

CHAPTER

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DOORS



**737-600/700/800/900
AIRCRAFT MAINTENANCE MANUAL**

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			O 38	Jun 15/2009		205	Feb 15/2009	
52-CONTENTS			O 39	Jun 15/2009		206	Feb 15/2009	
1	Feb 15/2008		O 40	Jun 15/2009		207	Feb 15/2009	
2	Feb 15/2009		O 41	Jun 15/2009		208	Feb 15/2009	
3	Feb 15/2009		42	BLANK		209	Feb 15/2009	
4	Feb 15/2009		52-00-00			210	Feb 15/2009	
5	Feb 15/2009		901	Feb 15/2009		211	Jun 10/2007	
6	Feb 15/2009		902	Feb 10/2006		212	Jun 10/2007	
7	Feb 15/2009		903	Feb 15/2009		213	Jun 10/2007	
8	Feb 15/2008		904	Feb 15/2008		214	Jun 10/2007	
9	Jun 15/2008		905	Feb 15/2009		215	Jun 10/2007	
O 10	Jun 15/2009		906	Feb 15/2008		216	Jun 10/2007	
O 11	Jun 15/2009		907	Feb 15/2008		217	Jun 10/2007	
O 12	Jun 15/2009		908	Feb 15/2008		218	Jun 10/2007	
O 13	Jun 15/2009		909	Feb 15/2008		219	Jun 10/2007	
O 14	Jun 15/2009		910	Feb 15/2008		220	Jun 10/2007	
O 15	Jun 15/2009		911	Jun 15/2008		221	Jun 10/2007	
O 16	Jun 15/2009		912	Feb 15/2008		222	Jun 10/2007	
O 17	Jun 15/2009		913	Feb 15/2008		223	Jun 10/2007	
O 18	Jun 15/2009		914	Feb 15/2008		224	Feb 15/2009	
O 19	Jun 15/2009		915	Feb 15/2008		225	Feb 15/2009	
O 20	Jun 15/2009		916	Feb 15/2008		226	Feb 15/2009	
O 21	Jun 15/2009		917	Feb 15/2008		227	Feb 15/2009	
O 22	Jun 15/2009		918	Feb 15/2009		228	Feb 15/2009	
O 23	Jun 15/2009		919	Feb 15/2009		229	Feb 15/2009	
O 24	Jun 15/2009		920	Feb 15/2008		230	Feb 15/2009	
O 25	Jun 15/2009		921	Feb 15/2008		231	Feb 15/2009	
O 26	Jun 15/2009		922	Feb 15/2008		232	Feb 15/2009	
O 27	Jun 15/2009		923	Feb 15/2008		233	Feb 15/2009	
O 28	Jun 15/2009		924	Feb 15/2009		234	Feb 15/2009	
O 29	Jun 15/2009		925	Feb 15/2009		235	Feb 15/2009	
O 30	Jun 15/2009		926	Feb 15/2009		236	Feb 15/2009	
O 31	Jun 15/2009		927	Feb 15/2009		237	Feb 15/2009	
O 32	Jun 15/2009		928	Feb 15/2009		238	Feb 15/2009	
O 33	Jun 15/2009		52-05-03			239	Feb 15/2009	
O 34	Jun 15/2009		201	Jun 10/2007		240	Feb 15/2009	
O 35	Jun 15/2009		202	Jun 10/2007		241	Feb 15/2009	
O 36	Jun 15/2009		203	Feb 15/2009		242	Feb 15/2009	

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52-05-03 (cont)			52-09-10			52-09-15		
243	Feb 15/2009		R 801	Jun 15/2009		401	Jun 10/2006	
244	Feb 15/2009		802	Feb 15/2008		402	Feb 15/2009	
245	Feb 15/2009		R 803	Jun 15/2009		403	Jun 10/2006	
246	Feb 15/2009		804	Feb 15/2008		404	Oct 10/2003	
247	Feb 15/2009		805	Feb 15/2008		405	Oct 10/2003	
248	Feb 15/2009		806	Feb 15/2008		406	BLANK	
249	Feb 15/2009		807	Feb 15/2008		52-09-16		
250	Feb 15/2009		808	Oct 10/2003		401	Feb 15/2008	
251	Feb 15/2009		809	Oct 10/2003		402	Feb 15/2008	
252	Feb 15/2009		810	Oct 10/2003		403	Feb 15/2008	
253	Feb 15/2009		52-09-11			404	Feb 15/2008	
254	Feb 15/2009		401	Feb 15/2009		405	Oct 10/2003	
255	Feb 15/2009		402	Feb 15/2009		406	Oct 10/2003	
256	Feb 15/2009		403	Feb 15/2008		52-09-17		
257	Feb 15/2009		404	Feb 15/2009		401	Oct 10/2003	
258	Feb 15/2009		405	Feb 10/2007		402	Oct 15/2008	
259	Feb 15/2009		406	BLANK		403	Oct 10/2004	
260	Feb 15/2009		52-09-12			404	Oct 10/2003	
261	Feb 15/2009		401	Oct 10/2003		405	Oct 10/2003	
262	Feb 15/2009		402	Oct 10/2003		406	BLANK	
263	Feb 15/2009		403	Jun 15/2008		52-11-00		
264	Feb 15/2009		404	Feb 15/2008		201	Oct 15/2008	
265	Feb 15/2009		405	Jun 10/2005		202	Oct 15/2008	
266	Feb 15/2009		406	Oct 10/2003		R 203	Jun 15/2009	
267	Feb 15/2009		407	Oct 10/2003		R 204	Jun 15/2009	
268	Feb 15/2009		408	Oct 10/2003		R 205	Jun 15/2009	
269	Feb 15/2009		409	Oct 10/2003		206	Feb 10/2004	
270	Feb 15/2009		410	BLANK		207	Feb 10/2004	
271	Feb 15/2009		52-09-14			208	Oct 10/2005	
272	Feb 15/2009		401	Oct 10/2003		209	Oct 10/2005	
273	Feb 15/2009		402	Oct 10/2003		210	BLANK	
274	Feb 15/2009		403	Jun 15/2008		52-11-00		
275	Feb 15/2009		404	Oct 10/2003		401	Feb 15/2008	
276	Feb 15/2009		405	Oct 10/2003		402	Oct 10/2007	
277	Feb 15/2009		406	Feb 15/2008		403	Jun 15/2008	
278	Feb 15/2009		407	Oct 10/2003		404	Oct 10/2007	
279	Feb 15/2009		408	Oct 10/2003		405	Jun 15/2008	
280	BLANK		409	Oct 10/2003		406	Jun 15/2008	
			410	Oct 10/2003		407	Jun 15/2008	

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52-11-00 (cont)			52-11-00 (cont)			52-11-11 (cont)		
408	Oct 10/2003		532	Jun 10/2004		405	Jun 10/2004	
409	Jun 15/2008		533	Jun 10/2004		406	Jun 10/2004	
410	Oct 10/2003		534	Jun 10/2004		407	Jun 10/2004	
411	Oct 10/2003		535	Jun 10/2004		408	Oct 10/2003	
412	Oct 10/2003		536	Jun 10/2004		409	Oct 10/2003	
413	Oct 10/2003		537	Jun 10/2004		410	Oct 10/2003	
414	BLANK		538	Jun 10/2004		411	Oct 10/2003	
52-11-00			539	Jun 10/2004		412	Oct 10/2003	
501	Oct 15/2008		540	Jun 10/2004		52-11-21		
502	Jun 15/2008		541	Jun 10/2004		401	Feb 15/2008	
503	Oct 10/2007		542	BLANK		402	Jun 10/2004	
504	Oct 10/2007		52-11-00			403	Feb 15/2008	
505	Oct 10/2007		601	Feb 15/2009		404	Jun 10/2004	
506	Oct 10/2007		602	Feb 10/2006		405	Jun 10/2004	
507	Oct 10/2006		603	Jun 10/2004		406	Oct 10/2003	
508	Oct 10/2006		604	Feb 10/2005		407	Oct 10/2003	
509	Oct 10/2006		605	Feb 15/2009		408	Oct 10/2003	
510	Feb 10/2007		606	Feb 15/2009		409	Oct 10/2003	
511	Oct 10/2006		607	Feb 15/2009		410	BLANK	
R 512	Jun 15/2009		608	Feb 15/2009		52-11-31		
513	Feb 15/2009		609	Jun 10/2005		401	Feb 15/2008	
514	Feb 15/2009		610	Jun 15/2008		402	Feb 15/2008	
R 515	Jun 15/2009		611	Jun 10/2005		403	Feb 15/2008	
R 516	Jun 15/2009		612	Jun 10/2005		404	Feb 15/2008	
O 517	Jun 15/2009		52-11-00			405	Oct 10/2003	
O 518	Jun 15/2009		801	Oct 10/2003		406	Oct 10/2003	
519	Jun 10/2004		802	Oct 10/2003		407	Oct 10/2003	
520	Jun 10/2004		803	Oct 10/2003		408	BLANK	
521	Jun 10/2004		804	BLANK		52-11-41		
522	Jun 10/2004		52-11-01			401	Oct 10/2003	
523	Jun 10/2004		A 401	Jun 15/2009		402	Feb 15/2009	
524	Jun 10/2004		A 402	Jun 15/2009		403	Oct 10/2003	
525	Jun 10/2004		A 403	Jun 15/2009		404	Oct 10/2003	
526	Jun 10/2004		A 404	Jun 15/2009		405	Oct 10/2003	
527	Jun 10/2004		52-11-11			406	Oct 10/2003	
528	Jun 10/2004		401	Feb 15/2008		407	Oct 10/2003	
529	Jun 10/2004		402	Jun 10/2004		408	Oct 10/2003	
530	Jun 10/2004		403	Jun 10/2004		409	Oct 10/2003	
531	Jun 10/2004		404	Feb 15/2009		410	BLANK	

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52-11-51			52-13-00 (cont)			52-13-11		
401	Feb 15/2009		O 517	Jun 15/2009		401	Feb 15/2008	
R 402	Jun 15/2009		518	Jun 15/2008		402	Feb 10/2007	
R 403	Jun 15/2009		519	Jun 15/2008		403	Feb 10/2007	
404	Feb 15/2008		520	Jun 15/2008		404	Feb 10/2007	
52-13-00			521	Jun 15/2008		405	Feb 15/2009	
201	Feb 15/2008		522	Jun 15/2008		406	Jun 15/2008	
202	Feb 15/2008		523	Jun 15/2008		407	Jun 15/2008	
203	Feb 15/2008		524	Jun 15/2008		408	Feb 10/2007	
204	Feb 15/2008		525	Jun 15/2008		409	Feb 10/2007	
205	Oct 10/2003		526	Jun 15/2008		410	Feb 10/2007	
206	Oct 10/2003		527	Jun 15/2008		411	Feb 10/2007	
207	Oct 10/2005		528	Jun 15/2008		412	Feb 10/2007	
208	Oct 10/2005		529	Jun 15/2008		413	Feb 10/2007	
52-13-00			530	Jun 15/2008		414	BLANK	
401	Feb 15/2008		531	Jun 15/2008		52-13-21		
402	Feb 15/2008		532	Jun 15/2008		401	Oct 10/2003	
403	Jun 15/2008		533	Jun 15/2008		402	Jun 15/2008	
404	Oct 10/2007		534	Jun 15/2008		403	Oct 10/2003	
405	Oct 10/2007		535	Jun 15/2008		404	Oct 10/2003	
406	Oct 10/2007		536	Jun 15/2008		405	Oct 10/2003	
407	Oct 10/2007		537	Jun 15/2008		406	Oct 10/2003	
408	BLANK		538	Jun 15/2008		407	Oct 10/2003	
52-13-00			539	Jun 15/2008		408	BLANK	
501	Oct 15/2008		540	Jun 15/2008		52-13-31		
502	Jun 15/2008		541	Jun 15/2008		401	Feb 15/2008	
R 503	Jun 15/2009		542	Jun 15/2008		402	Feb 15/2008	
O 504	Jun 15/2009		543	Jun 15/2008		403	Feb 15/2008	
505	Feb 15/2009		544	BLANK		404	Feb 15/2008	
506	Feb 15/2009		52-13-00			405	Oct 10/2003	
507	Feb 15/2009		601	Feb 15/2009		406	Oct 10/2003	
508	Feb 15/2009		602	Jun 10/2004		407	Oct 10/2003	
509	Feb 15/2009		603	Jun 10/2004		408	BLANK	
510	Feb 15/2009		604	Jun 10/2005		52-13-41		
511	Feb 15/2009		605	Feb 15/2009		401	Feb 15/2008	
512	Feb 15/2009		606	Feb 15/2009		402	Jun 10/2007	
513	Feb 15/2009		607	Feb 15/2009		403	Jun 15/2008	
R 514	Jun 15/2009		608	Jun 10/2004		404	Jun 15/2008	
R 515	Jun 15/2009		609	Feb 10/2005		405	Jun 10/2007	
O 516	Jun 15/2009		610	Jun 10/2004		406	Oct 10/2003	

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408	Jun 10/2007		508	Feb 15/2009		404	Feb 15/2008	
52-13-51			509	Feb 15/2009		405	Feb 15/2008	
401	Feb 15/2009		510	Feb 15/2009		406	Feb 15/2008	
402	Oct 10/2007		511	Feb 15/2009		52-22-41		
R 403	Jun 15/2009		512	Feb 15/2009		401	Feb 15/2009	
R 404	Jun 15/2009		513	Feb 15/2009		402	Feb 15/2009	
405	Feb 15/2008		514	Feb 15/2009		403	Feb 15/2009	
406	BLANK		515	Feb 15/2009		404	Feb 15/2008	
52-13-61			516	Feb 15/2009		405	Feb 15/2009	
401	Feb 15/2008		517	Feb 15/2009		406	Feb 15/2008	
402	Jun 15/2008		518	Feb 15/2009		407	Feb 15/2008	
403	Jun 10/2004		519	Feb 15/2009		408	Feb 15/2008	
404	Oct 10/2003		520	Feb 15/2009		409	Feb 15/2008	
405	Oct 10/2003		521	Feb 15/2009		410	BLANK	
406	BLANK		522	Feb 15/2009		52-22-51		
52-22-00			523	Feb 15/2009		401	Feb 15/2009	
201	Feb 15/2009		524	Feb 15/2009		402	Feb 15/2009	
202	Feb 15/2009		525	Feb 15/2009		403	Feb 15/2008	
R 203	Jun 15/2009		526	Feb 15/2009		404	Feb 15/2008	
204	Feb 15/2008		527	Feb 15/2009		52-31-00		
205	Feb 15/2008		528	Feb 15/2009		201	Oct 10/2005	
206	Feb 15/2008		52-22-00			202	Jun 15/2008	
207	Feb 15/2008		601	Feb 15/2009		203	Oct 10/2003	
208	Feb 15/2008		602	Feb 15/2009		204	Jun 15/2008	
52-22-00			603	Feb 15/2009		205	Jun 15/2008	
401	Feb 15/2009		604	Feb 15/2009		206	Jun 15/2008	
402	Feb 15/2009		605	Feb 15/2009		52-31-00		
403	Feb 15/2009		606	BLANK		401	Oct 10/2003	
404	Feb 15/2008		52-22-21			402	Jun 15/2008	
405	Feb 15/2008		401	Feb 15/2009		403	Oct 10/2003	
406	Feb 15/2008		402	Feb 15/2009		404	Oct 10/2003	
52-22-00			403	Feb 15/2009		405	Oct 10/2003	
501	Feb 15/2009		404	Oct 10/2003		406	Oct 10/2003	
502	Feb 15/2009		405	Oct 10/2003		407	Oct 10/2003	
R 503	Jun 15/2009		406	Oct 10/2003		408	Oct 10/2003	
O 504	Jun 15/2009		52-22-31			52-31-00		
505	Feb 15/2009		401	Feb 15/2009		501	Oct 15/2008	
506	Feb 15/2009		402	Feb 15/2009		502	Jun 15/2008	

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503	Jun 15/2008		803	Oct 10/2003		407	Oct 10/2003	
504	Jun 15/2008		804	BLANK		408	Oct 10/2003	
505	Jun 15/2008		52-31-13			52-41-00		
506	Jun 15/2008		401	Oct 10/2003		501	Oct 15/2008	
507	Jun 15/2008		402	Oct 10/2003		502	Jun 15/2008	
508	Jun 15/2008		403	Oct 10/2003		503	Jun 15/2008	
509	Jun 15/2008		404	BLANK		R 504	Jun 15/2009	
510	Jun 15/2008		52-31-13			O 505	Jun 15/2009	
511	Jun 15/2008		501	Feb 15/2009		506	Feb 15/2009	
512	Jun 15/2008		502	Jun 15/2008		507	Feb 15/2009	
513	Jun 10/2004		503	Jun 15/2008		508	Feb 15/2009	
514	Jun 10/2004		504	Jun 15/2008		509	Jun 15/2008	
515	Jun 10/2004		505	Oct 10/2003		510	Jun 15/2008	
516	Jun 10/2004		506	BLANK		511	Jun 15/2008	
517	Jun 10/2004		52-31-14			512	Jun 15/2008	
518	Jun 10/2004		401	Oct 10/2003		513	Jun 15/2008	
519	Jun 10/2004		402	Feb 15/2009		R 514	Jun 15/2009	
520	Jun 10/2004		403	Feb 15/2009		R 515	Jun 15/2009	
521	Jun 10/2004		404	Feb 15/2009		R 516	Jun 15/2009	
522	Jun 10/2004		405	Jun 10/2007		O 517	Jun 15/2009	
523	Jun 10/2004		406	Feb 15/2009		518	Oct 10/2006	
524	Jun 10/2004		407	Feb 15/2009		519	Oct 10/2006	
525	Jun 10/2004		408	BLANK		520	Oct 10/2006	
526	BLANK		52-41-00			521	Oct 10/2006	
52-31-00			201	Feb 15/2008		522	Oct 10/2006	
601	Feb 15/2009		202	Feb 15/2008		523	Oct 10/2006	
602	Feb 15/2009		203	Feb 15/2008		524	Oct 10/2006	
603	Feb 15/2009		204	Feb 15/2008		525	Oct 10/2006	
604	Feb 15/2009		205	Oct 10/2003		526	Oct 10/2006	
52-31-12			206	Oct 10/2003		527	Oct 10/2006	
401	Oct 10/2003		207	Oct 10/2005		528	Oct 10/2006	
402	Jun 15/2008		208	Oct 10/2005		529	Oct 10/2006	
403	Oct 10/2003		52-41-00			530	Oct 10/2006	
404	Oct 10/2003		401	Feb 15/2008		531	Oct 10/2006	
405	Oct 10/2003		402	Feb 15/2008		532	Oct 10/2006	
406	Oct 10/2003		403	Jun 15/2008		533	Oct 10/2006	
52-31-12			404	Feb 15/2008		534	Oct 10/2006	
801	Oct 10/2003		405	Feb 15/2008		535	Oct 10/2006	
802	Oct 10/2003		406	Oct 10/2003		536	Oct 10/2006	

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537	Oct 10/2006		401	Feb 15/2008		404	Oct 10/2003	
538	Oct 10/2006		402	Jun 15/2008		405	Oct 10/2003	
539	Oct 10/2006		403	Oct 10/2003		406	Oct 10/2003	
540	Oct 10/2006		404	Oct 10/2003		52-48-31		
541	Oct 10/2006		405	Oct 10/2003		201	Oct 10/2005	
542	Oct 10/2006		406	Oct 10/2003		202	Oct 10/2005	
543	Oct 10/2006		407	Oct 10/2003		52-48-31		
544	BLANK		408	BLANK		401	Feb 10/2006	
52-41-00			52-41-31			402	Feb 15/2009	
601	Feb 15/2009		401	Feb 15/2008		403	Feb 10/2005	
602	Oct 10/2003		402	Oct 10/2006		404	Oct 10/2006	
603	Oct 10/2003		403	Feb 15/2008		405	Oct 10/2006	
604	Feb 10/2005		404	Oct 10/2006		406	Oct 10/2006	
605	Feb 10/2005		405	Jun 10/2004		407	Feb 10/2005	
606	Feb 15/2009		406	Jun 10/2004		408	Feb 10/2005	
607	Feb 15/2009		407	Jun 10/2004		409	Oct 10/2003	
608	Feb 15/2009		408	BLANK		410	Oct 10/2003	
609	Feb 10/2005		52-41-41			411	Oct 10/2003	
610	Feb 10/2005		401	Feb 15/2008		412	Oct 10/2003	
611	Feb 10/2005		402	Jun 10/2007		52-48-31		
612	BLANK		403	Jun 15/2008		601	Feb 15/2009	
52-41-01			404	Jun 15/2008		602	Feb 15/2009	
A 401	Jun 15/2009		405	Jun 15/2008		603	Feb 15/2009	
A 402	Jun 15/2009		406	Jun 15/2008		604	BLANK	
A 403	Jun 15/2009		407	Jun 15/2008		52-48-41		
A 404	Jun 15/2009		408	Jun 15/2008		R 201	Jun 15/2009	
52-41-11			409	Jun 15/2008		R 202	Jun 15/2009	
401	Feb 15/2008		410	BLANK		A 203	Jun 15/2009	
402	Jun 10/2004		52-41-51			A 204	Jun 15/2009	
403	Jun 10/2004		401	Feb 15/2009		52-48-41		
404	Feb 15/2009		402	Oct 10/2007		401	Oct 10/2003	
405	Jun 15/2008		R 403	Jun 15/2009		402	Jun 15/2008	
406	Jun 15/2008		404	Feb 15/2009		403	Oct 10/2003	
407	Jun 15/2008		405	Feb 15/2008		404	Jun 15/2008	
408	Oct 10/2003		406	BLANK		405	Oct 10/2003	
409	Oct 10/2003		52-48-21			406	Feb 10/2005	
410	Oct 10/2003		401	Oct 10/2003		407	Oct 10/2006	
411	Oct 10/2003		402	Oct 10/2003		408	Oct 10/2006	
412	BLANK		403	Oct 10/2003		409	Feb 10/2005	

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410	Feb 10/2005		403	Feb 15/2009		601	Feb 15/2009	
411	Oct 10/2003		404	Oct 10/2003		602	BLANK	
412	Oct 10/2003		405	Oct 10/2003		52-51-02		
413	Oct 10/2003		406	Oct 10/2003		401	Feb 15/2009	
414	Oct 10/2003		407	Oct 10/2003		402	Feb 15/2009	
415	Oct 10/2003		408	BLANK		403	Feb 15/2009	
416	Oct 10/2003		52-51-00			404	Feb 15/2009	
52-48-41			201	Feb 15/2009		52-51-03		
601	Feb 15/2009		202	Feb 15/2009		401	Feb 15/2009	
602	Feb 15/2009		203	Feb 15/2009		402	Feb 15/2009	
603	Feb 15/2009		204	Feb 15/2009		403	Feb 15/2009	
604	BLANK		52-51-00			404	BLANK	
52-49-07			401	Oct 15/2008		52-51-04		
401	Jun 15/2008		402	Oct 15/2008		401	Feb 15/2009	
402	Oct 10/2003		403	Jun 10/2007		402	Feb 15/2009	
403	Oct 10/2003		404	Jun 10/2007		403	Feb 15/2009	
404	BLANK		52-51-00			404	Feb 15/2009	
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401	Jun 15/2008		502	Feb 15/2009		401	Feb 15/2009	
402	Oct 10/2003		503	Feb 15/2009		402	Feb 15/2009	
403	Oct 10/2003		504	Feb 15/2009		403	Feb 15/2009	
404	BLANK		505	Feb 15/2009		404	BLANK	
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404	Oct 10/2003		O 510	Jun 15/2009		404	BLANK	
405	Oct 10/2003		511	Feb 15/2009		52-51-06		
406	Oct 10/2003		512	Feb 15/2009		701	Feb 15/2009	
407	Oct 10/2003		513	Feb 15/2009		702	BLANK	
408	BLANK		514	Feb 15/2009		52-51-07		
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501	Oct 10/2003		601	Feb 15/2009		R 402	Jun 15/2009	
502	Oct 10/2003		602	Feb 15/2009		403	Feb 15/2009	
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401	Oct 10/2003		403	Feb 15/2009		402	Feb 15/2009	
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502	Jun 10/2007		R 229	Jun 15/2009		602	Feb 15/2009	
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402	Jun 10/2007		232	Oct 10/2006		R 402	Jun 15/2009	
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506	Jun 10/2007		404	Feb 15/2009		210	Jun 10/2007	
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406	Feb 15/2008		504	BLANK		406	BLANK	
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601	Feb 15/2009		502	Feb 15/2008		406	Jun 10/2007	
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401	Feb 15/2008		505	Jun 10/2007		402	Jun 10/2007	
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403	Feb 15/2008		403	Feb 15/2008		501	Oct 10/2003	
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405	Jun 10/2007		405	Jun 10/2007		503	Feb 10/2007	
406	Jun 10/2007		406	Jun 10/2007		504	Feb 15/2009	
407	Jun 10/2007		52-61-58			505	Feb 10/2007	
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411	Jun 10/2007		403	Feb 15/2009		211	Feb 10/2007	
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DOORS - DDG MAINTENANCE PROCEDURES

1. General

- A. This procedure has the maintenance tasks for the Master Minimum Equipment List (MMEL) maintenance requirements as shown in the Dispatch Deviations Procedures Guide (DDPG). These tasks prepare the airplane for flight with systems/components that are inoperative.
- B. This procedure also has the tasks that put the airplane back to its usual condition.
- C. These are the tasks for the components in the doors:
 - (1) MMEL 52-3-1 (DDPG) Preparation - Door Warning Light System Inoperative (ENTRY/SERVICE/CARGO/EQUIP/AIRSTAIRS Lights)
 - (2) MMEL 52-3-1 (DDPG) Restoration - Door Warning Light System Inoperative (ENTRY/SERVICE/CARGO/EQUIP/AIRSTAIRS Lights)
 - (3) MMEL 52-3-1a (DDPG) Preparation - Door Warning Light System Inoperative (OVERWING Lights)
 - (4) MMEL 52-3-1a (DDPG) Restoration - Door Warning Light System Inoperative (OVERWING Lights)
 - (5) MMEL 52-5 (DDPG) Preparation - Left Main Cabin Door Pressure Stop Fittings Broken or Missing (Forward and Aft Entry Doors)
 - (6) MMEL 52-5 (DDPG) Restoration - Left Main Cabin Door Pressure Stop Fittings Broken or Missing (Forward and Aft Entry Doors)
 - (7) MMEL 52-6 (DDPG) Preparation - Lower Cargo Doors Pressure Stop Fittings Missing
 - (8) MMEL 52-6 (DDPG) Restoration - Lower Cargo Doors Pressure Stop Fittings Missing

HAP 023, 026 PRE SB 737-25-1496

- (9) MMEL 52-8 (DDPG) Preparation - Flight Deck Door Lock Solenoid Inoperative
- (10) MMEL 52-8 (DDPG) Restoration - Flight Deck Door Lock Solenoid Inoperative

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- (11) MMEL 52-9 (DDPG) Preparation - Lower Cargo Doors Door Balance Mechanism Inoperative
- (12) MMEL 52-9 (DDPG) Restoration - Lower Cargo Doors Door Balance Mechanism Inoperative
- (13) MMEL 52-15 (DDPG) Preparation - Overwing Exit Flight Lock System Inoperative
- (14) MMEL 52-15 (DDPG) Restoration - Overwing Exit Flight Lock System Inoperative

HAP 001-013, 015-022, 024, 025, 028-054, 101-999; HAP 023, 026 POST SB 737-25-1496

- (15) MMEL 52-17 (DDPG) Preparation - Boeing/C&D Aerospace Enhanced Flight Deck Security Door Automatic Locking System (FAR 25.795 Compliant) Inoperative
- (16) MMEL 52-17 (DDPG) Restoration - Boeing/C&D Aerospace Enhanced Flight Deck Security Door Automatic Locking System (FAR 25.795 Compliant) Inoperative

HAP ALL

TASK 52-00-00-210-801

2. MMEL 52-3-1 (DDPG) Preparation - Door Warning Light System Inoperative, ENTRY/SERVICE/CARGO/EQUIP/AIRSTAIR Lights

- A. General
 - (1) This task gives the maintenance steps which prepare the airplane for flight with the Door Warning Light System inoperative.

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B. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left
821	Forward Cargo Door
822	Aft Cargo Door
831	Forward Entry Door
834	Left Aft Entry Door
841	Forward Galley Service Door
844	Aft Galley Service Door

C. Procedure

SUBTASK 52-00-00-210-030

- (1) Do a visual inspection of the applicable door to make sure that the door is closed and locked.
 - (a) Open and close the applicable door.
 - 1) Make sure that the door operates correctly.
 - (b) Make sure that the door is closed and latched.
 - 1) Make sure that the outside skin of the door is flush with the fuselage skin.
 - 2) Make sure the that the vent panel(s) are closed and faired.
 - 3) Make sure that the liner of the door is faired with the passenger cabin wall.
 - 4) Make sure that the inside door handle(s) rotated to the latched position.
 - 5) Make sure that you install the handle covers.

SUBTASK 52-00-00-200-001

- (2) Install the INOP placard on the applicable door warning light.

END OF TASK

TASK 52-00-00-440-804

3. MMEL 52-3-1 (DDPG) Restoration - Door Warning Light System Inoperative, ENTRY/SERVICE/CARGO/EQUIP/AIRSTAIR Lights

A. General

- (1) This task puts the airplane back to its usual condition after operation with the door warning light system inoperative.

B. References

Reference	Title
32-09-10-740-801	Proximity Switch Electronics Unit (PSEU) BITE Test - Ground Test (P/B 501)

C. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left
821	Forward Cargo Door
822	Aft Cargo Door
831	Forward Entry Door
834	Left Aft Entry Door
841	Forward Galley Service Door

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(Continued)

Zone	Area
844	Aft Galley Service Door

D. Procedure

SUBTASK 52-00-00-440-004

- (1) Do these steps to correct the PSEU fault (Figure 901):
 - (a) Proximity Switch Electronics Unit (PSEU) BITE Test - Ground Test, TASK 32-09-10-740-801
 - 1) Do the corrective action for the problems that you find.

SUBTASK 52-00-00-810-004

- (2) Remove the INOP placard from the door warning light.

————— END OF TASK —————

TASK 52-00-00-210-829

4. M MEL 52-3-1a (DDPG) Preparation - OVERWING Door Warning Light System Inoperative

A. General

- (1) This task gives the maintenance steps which prepare the airplane for flight with the OVERWING door warning light system inoperative.

B. References

Reference	Title
32-09-10-740-801	Proximity Switch Electronics Unit (PSEU) BITE Test - Ground Test (P/B 501)

C. Location Zones

Zone	Area
HAP 001-013, 015-026, 028-054	
832	Left Forward Emergency Exit
833	Left Emergency Exit (STA 627.5)
842	Right Forward Emergency Exit
843	Right Emergency Exit (STA 627.5)

HAP ALL

D. Procedure

SUBTASK 52-00-00-210-026

- (1) Look for the fault(s) associated with the Overwing Exit on the PSEU BITE display: Figure 901
 - (a) Proximity Switch Electronics Unit (PSEU) BITE Test - Ground Test, TASK 32-09-10-740-801
 - 1) If you find displayed faults for the Overwing Exit Flight Lock, then do this task: MMEL 52-15 (DDPG) Preparation - Emergency Exit (Overwing Exit) Flight Lock System Inoperative, TASK 52-00-00-210-831.
 - a) If it is necessary, use the PSEU BITE procedure to reset the latched faults.

SUBTASK 52-00-00-410-001

- (2) Install an INOP placard on the applicable OVERWING warning light.

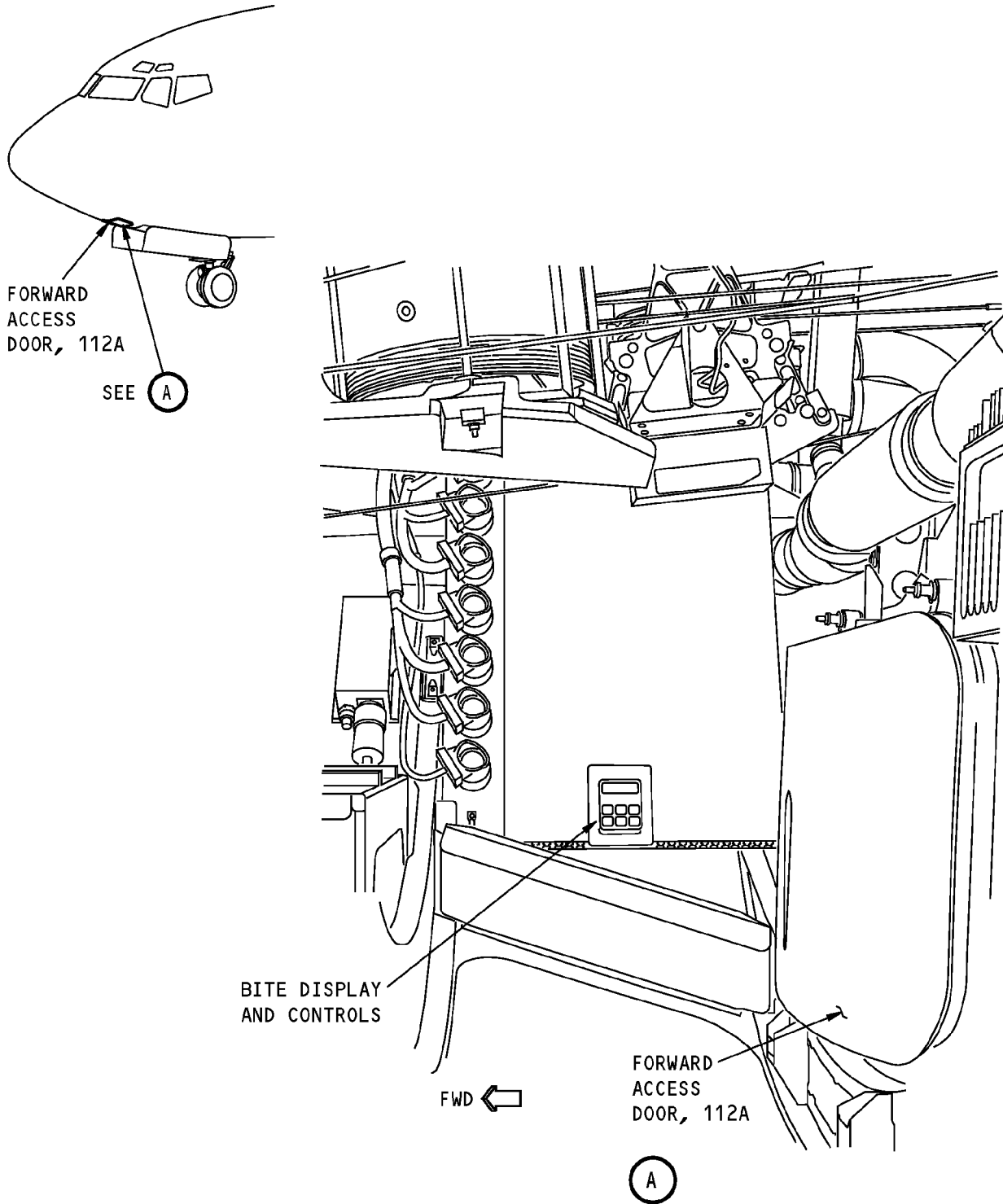
————— END OF TASK —————

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**Proximity Switch Electronics Unit (PSEU) BITE
Figure 901/52-00-00-990-810**

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TASK 52-00-00-440-805

5. M MEL 52-3-1a (DDPG) Restoration - OVERWING Door Warning Light System Inoperative

A. General

- (1) This task puts the airplane back to its usual condition after operation with the Overwing door warning light system inoperative.

B. References

Reference	Title
32-09-10-740-801	Proximity Switch Electronics Unit (PSEU) BITE Test - Ground Test (P/B 501)

C. Location Zones

Zone	Area
HAP 001-013, 015-026, 028-054	
832	Left Forward Emergency Exit
833	Left Emergency Exit (STA 627.5)
842	Right Forward Emergency Exit
843	Right Emergency Exit (STA 627.5)

HAP ALL

D. Procedure

SUBTASK 52-00-00-440-005

- (1) Correct the fault(s) associated with the Overwing Exit:
 - (a) Do the corrective action for applicable Observed Faults that you find.
 - (b) Proximity Switch Electronics Unit (PSEU) BITE Test - Ground Test, TASK 32-09-10-740-801(Figure 901)
 - 1) Do the corrective action for the applicable PSEU faults that you find.

SUBTASK 52-00-00-810-005

- (2) Remove the INOP placard from the door warning light.

————— **END OF TASK** —————

TASK 52-00-00-210-803

6. M MEL 52-5 (DDPG) Preparation - Left Main Cabin Door Pressure Stop Fittings Broken or Missing (Forward and Aft Entry Doors)

(Figure 902)

A. General

- (1) This task gives the maintenance steps which prepare the airplane for flight with one stop fitting broken or missing.
- (2) In this procedure the pressure stop fittings will include the door stop fittings, stop pins, and the fuselage stop fittings.

B. Location Zones

Zone	Area
831	Forward Entry Door
834	Left Aft Entry Door

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C. Procedure

SUBTASK 52-00-00-210-002

- (1) Do a visual inspection of the remaining fuselage stop fittings, door stop fittings, and stop pins as follows:
 - (a) Examine the door stop fittings.
 - 1) Look for cracks and corrosion.
 - (b) Examine the stop pins.
 - 1) Look for cracks and corrosion.
 - 2) Look for unwanted particles on the stop pins.
 - 3) Make sure the retaining springs are installed.

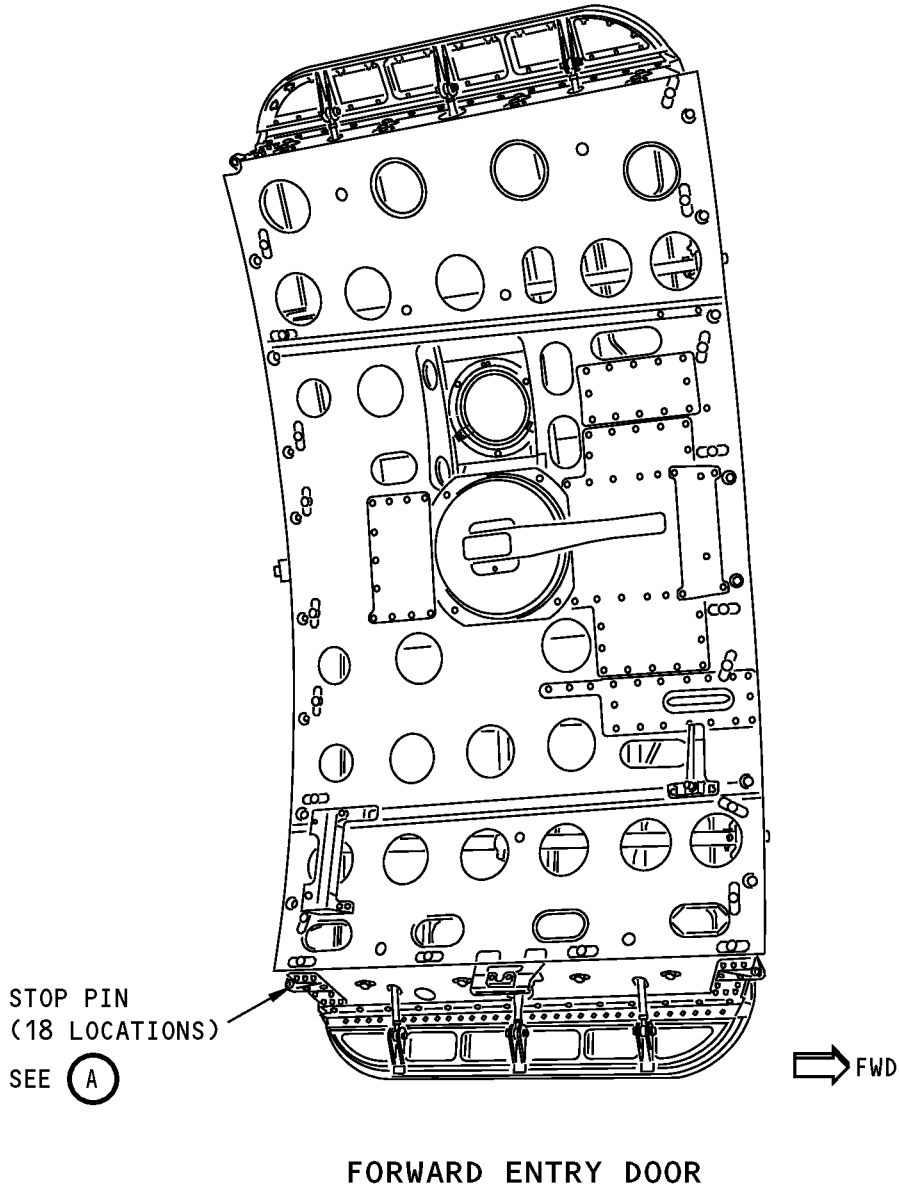
————— **END OF TASK** —————

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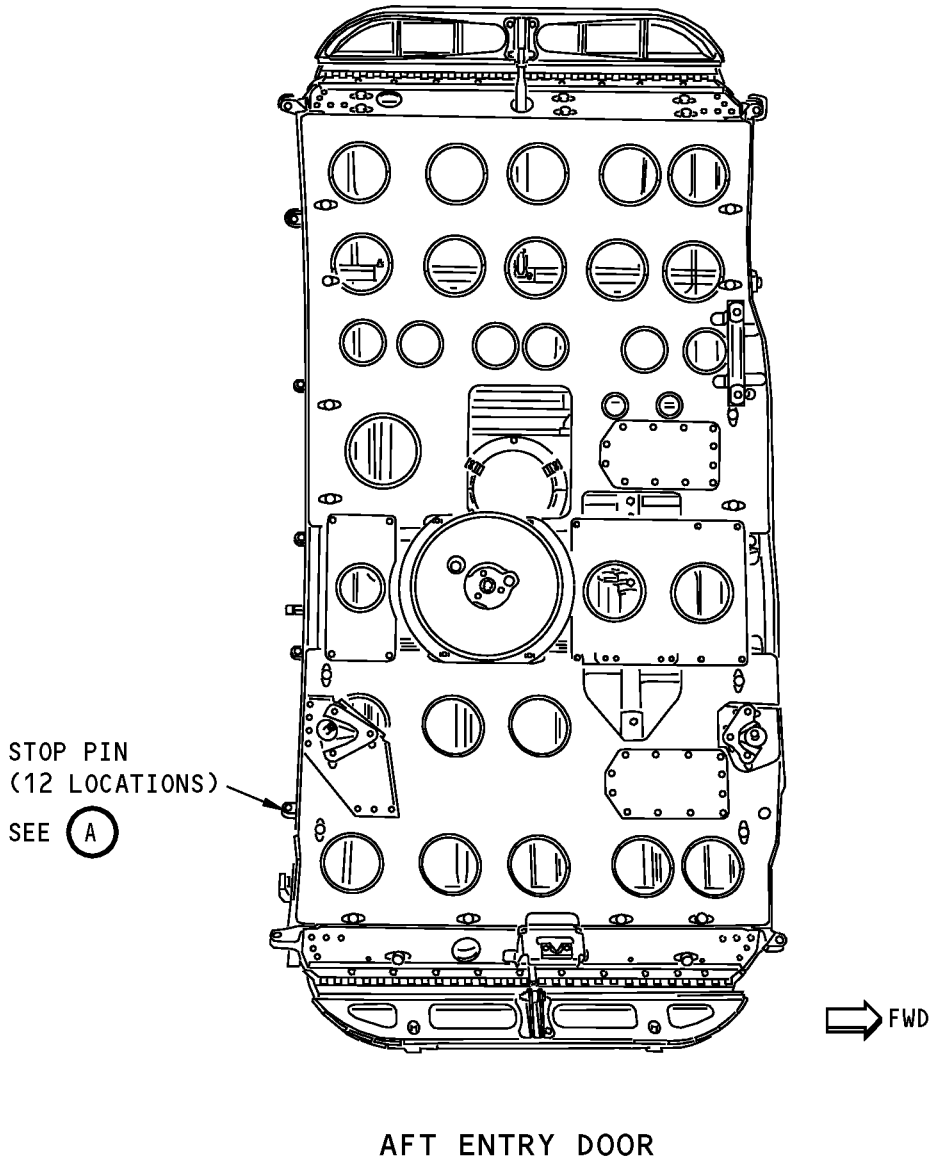
**Left Main Cabin Door Pressure Fitting
Figure 902 (Sheet 1 of 3)/52-00-00-990-811**

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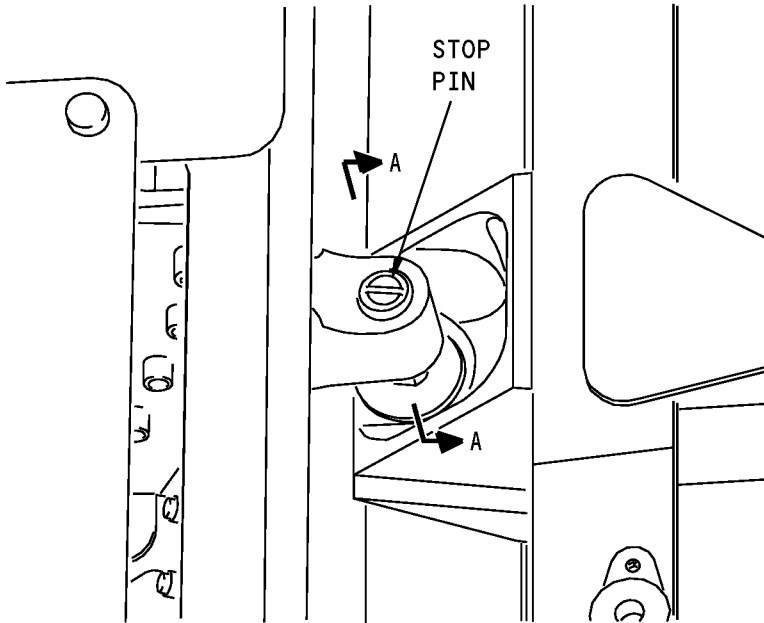
**Left Main Cabin Door Pressure Fitting
Figure 902 (Sheet 2 of 3)/52-00-00-990-811**

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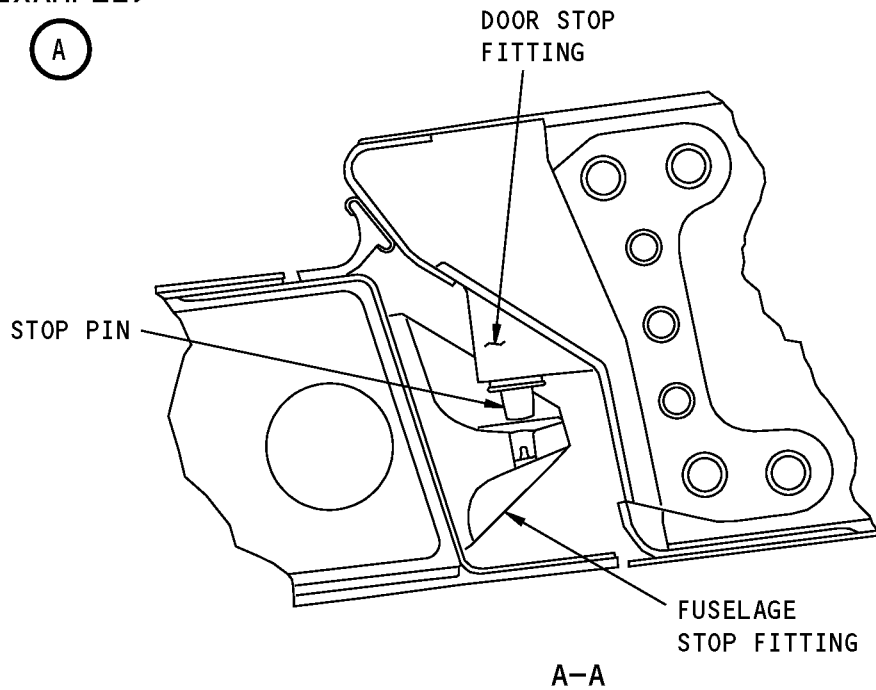
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STOP PIN
(EXAMPLE)



**Left Main Cabin Door Pressure Fitting
Figure 902 (Sheet 3 of 3)/52-00-00-990-811**

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TASK 52-00-00-210-804

7. M MEL 52-5 (DDPG) Restoration - Left Main Cabin Door Pressure Stop Fittings Broken or Missing (Forward and Aft Entry Doors)

(Figure 902)

A. General

- (1) This task puts the airplane back to its usual condition after operation with one stop fitting broken or missing.
- (2) The stop pin is on the door stop fitting.

B. References

Reference	Title
52-11-00-820-801	Forward Entry Door Adjustment (P/B 501)
52-13-00-820-801	Aft Entry Door Adjustment (P/B 501)

C. Location Zones

Zone	Area
831	Forward Entry Door
834	Left Aft Entry Door

D. Procedure

SUBTASK 52-00-00-210-003

- (1) Replace the broken or missing stop pin with a new one.

SUBTASK 52-00-00-820-001

- (2) To adjust the stop pin, do the task for the applicable entry door:
 - (a) Do this task: Forward Entry Door Adjustment, TASK 52-11-00-820-801.
 - (b) Do this task: Aft Entry Door Adjustment, TASK 52-13-00-820-801.

END OF TASK

TASK 52-00-00-210-807

8. M MEL 52-6 (DDPG) Preparation - Lower Cargo Doors Pressure Stop Fittings Missing

(Figure 903)

A. General

- (1) This task gives the maintenance steps which prepare the airplane for flight with one or two stop fittings broken or missing on the lower cargo doors.

B. References

Reference	Title
21-00-00-040-803	M MEL 21-1 (DDPG) Preparation - Air Conditioning Pack(s) Inoperative (P/B 901)

C. Location Zones

Zone	Area
821	Forward Cargo Door
822	Aft Cargo Door

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D. Procedure

SUBTASK 52-00-00-210-006

- (1) Do a visual inspection of the remaining door stop fittings and stop pins as follows:
 - (a) Examine the door stop fittings.
 - 1) Look for cracks and corrosion.
 - (b) Examine the stop pins.
 - 1) Look for cracks and corrosion.
 - 2) Look for unwanted particles on the stop pins.
 - 3) Make sure the retaining springs are installed.

SUBTASK 52-00-00-210-031

- (2) If one stop fitting is missing on each door or frame, do a visual inspection to make sure that the cabin pressure controller AUTO mode operates normally.

SUBTASK 52-00-00-930-001

- (3) If two stop fittings are missing on each door or frame, do these steps for unpressurized flight:
 - (a) Install the placard on the pressure control panel - UNPRESSURIZED FLIGHT ONLY.
 - (b) For additional limitations and/or procedures, do this task: MMEL 21-1 (DDPG) Preparation - Air Conditioning Pack(s) Inoperative, TASK 21-00-00-040-803.

————— END OF TASK —————

TASK 52-00-00-210-808

9. MMEL 52-6 (DDPG) Restoration - Lower Cargo Doors Pressure Stop Fittings Missing

(Figure 903)

A. General

- (1) This task puts the airplane back to its usual condition after operation with one or two door stop fittings broken or missing on the lower cargo doors.

B. References

Reference	Title
52-31-00-820-801	Cargo Door Adjustment (P/B 501)

C. Location Zones

Zone	Area
821	Forward Cargo Door
822	Aft Cargo Door

D. Procedure

SUBTASK 52-00-00-210-007

- (1) Replace the broken or missing pin with a new one.

SUBTASK 52-00-00-400-002

- (2) To adjust the stop pin, do this task: Cargo Door Adjustment, TASK 52-31-00-820-801

SUBTASK 52-00-00-000-003

- (3) Remove the placard on the pressure control panel (forward overhead panel) - UNPRESSURIZED FLIGHT ONLY.

————— END OF TASK —————

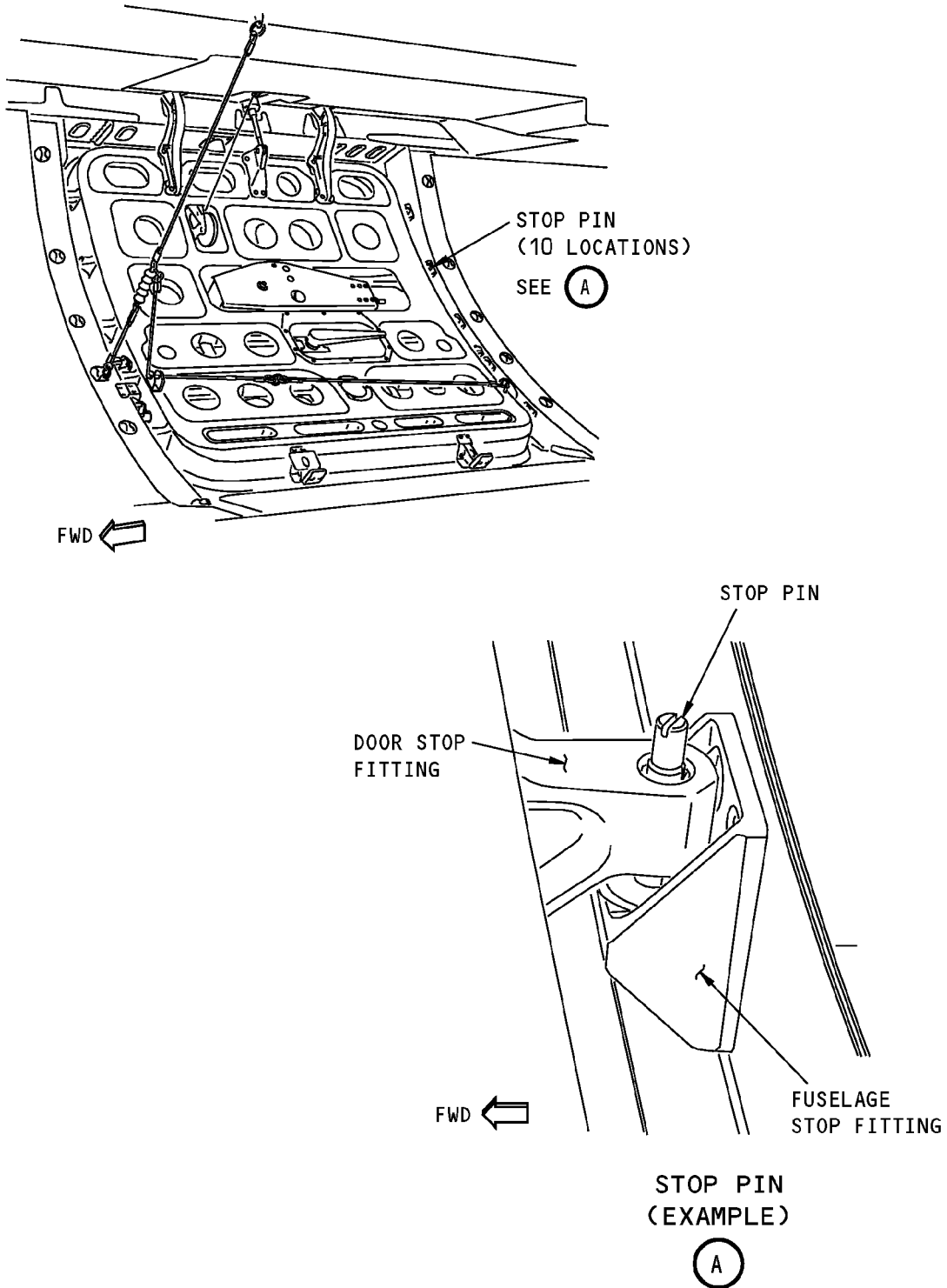
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**Lower Cargo Doors Pressure Stop Fitting
Figure 903/52-00-00-990-812**

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TASK 52-00-00-210-830

10. MMEL 52-8 (DDPG) Preparation - Crew Door (Flight Deck Door) Lock Solenoid Inoperative

(Figure 904)

A. General

- (1) This task gives the maintenance steps which prepare the airplane for flight with the crew door lock solenoid inoperative.
- (2) The crew door is also called the flight deck door.

B. References

Reference	Title
52-51-21-000-801	Crew Door Lock Removal (P/B 401)
52-51-21-400-801	Crew Door Lock Installation (P/B 401)

C. Location Zones

Zone	Area
211	Flight Compartment - Left
212	Flight Compartment - Right

D. Procedure

SUBTASK 52-00-00-210-028

- (1) Install an INOP placard on the door lock switch.

SUBTASK 52-00-00-410-002

- (2) Install an INOP placard on the flight deck door lock solenoid.

SUBTASK 52-00-00-410-003

- (3) Open this circuit breaker and install safety tag:

F/O Electrical System Panel, P6-3

Row	Col	Number	Name
E	1	C00137	DOOR LOCK

SUBTASK 52-00-00-000-001

- (4) Deactivate the door lock solenoid:
 - (a) Crew Door Lock Removal, TASK 52-51-21-000-801
 - (b) Do these steps if the solenoid is inoperative:
 - 1) Raise the solenoid pin [11] as far as possible to engage the roller [12].
 - 2) Install a strap or lockwire to hold the solenoid pin [11] engaged with the roller [12].
 - (c) Do these steps if the solenoid pin [11] or the roller [12] is inoperative:
 - 1) Remove the nut [14] from the spring retainer [13].
 - 2) Install a solid spacer or washers under spring [16] to fully compress the coil of the spring.

NOTE: The spacer or washers will prevent the door strike from moving.

 - 3) Install the nut [14].
 - (d) Crew Door Lock Installation, TASK 52-51-21-400-801

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HAP 023, 026 PRE SB 737-25-1496 (Continued)

SUBTASK 52-00-00-410-009

(5) Remove safety tag and close this circuit breaker:

F/O Electrical System Panel, P6-3

Row	Col	Number	Name
E	1	C00137	DOOR LOCK

SUBTASK 52-00-00-410-008

CAUTION: BEFORE YOU CLOSE THE FLIGHT DECK DOOR, MAKE SURE THAT A KEY FOR THE DOOR LOCK IS AVAILABLE OR THAT A PERSON IS IN THE COCKPIT SO THAT THE DOOR CAN BE OPENED.

(6) Close the flight deck door from inside the cockpit.

SUBTASK 52-00-00-800-001

(7) Make sure that the door will not open when the door handle is pulled from outside.

NOTE: Do not turn the handle.

END OF TASK

TASK 52-00-00-210-810

11. MMEL 52-8 (DDPG) Restoration - Crew Door (Flight Deck Door) Lock Solenoid Inoperative

(Figure 904)

A. General

- (1) This task puts the airplane back to its usual condition after operation with the crew door lock solenoid inoperative.
- (2) The crew door is also called the flight deck door.

B. References

Reference	Title
52-51-21-000-801	Crew Door Lock Removal (P/B 401)
52-51-21-400-801	Crew Door Lock Installation (P/B 401)

C. Location Zones

Zone	Area
211	Flight Compartment - Left
212	Flight Compartment - Right

D. Procedure

SUBTASK 52-00-00-210-009

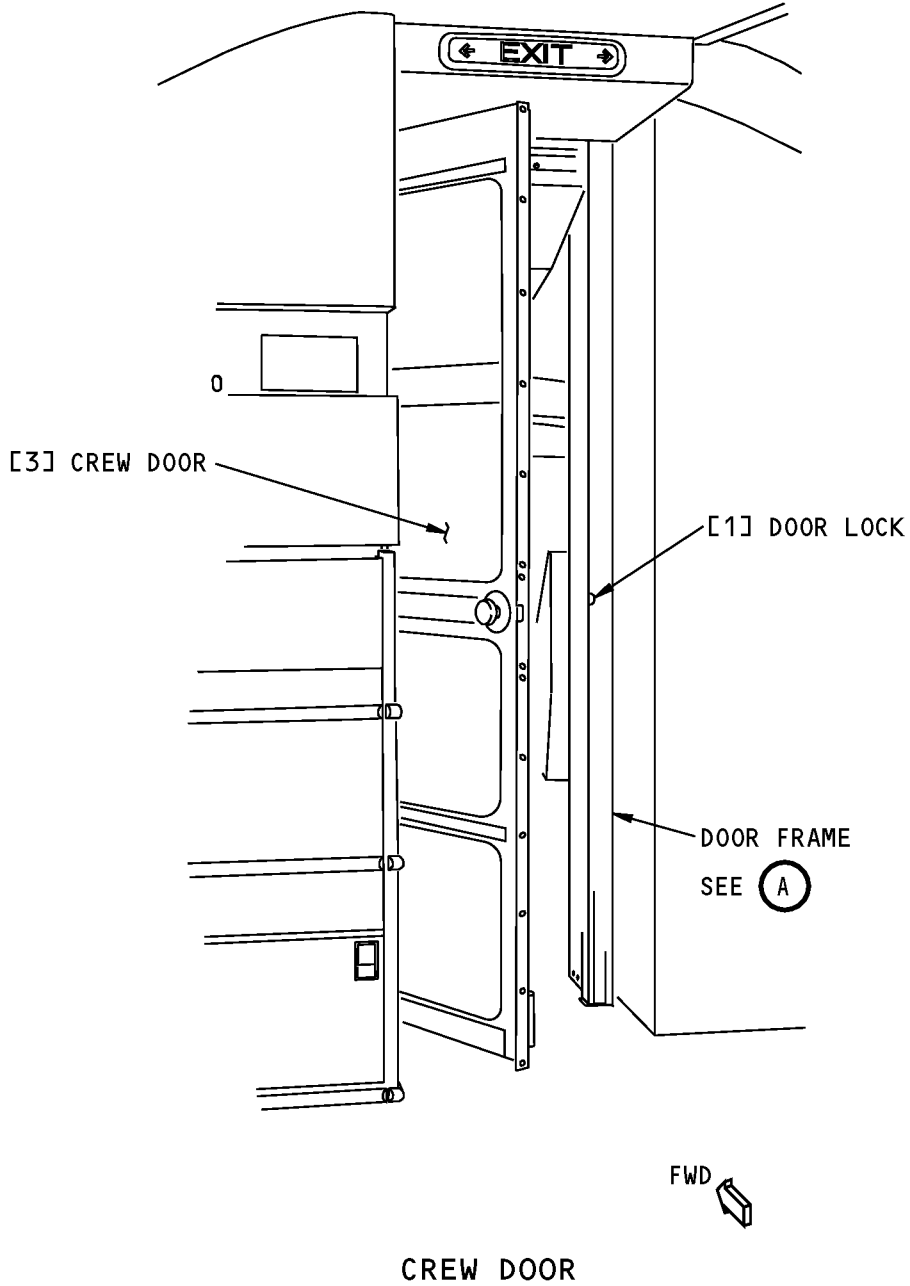
- (1) Replace the flight deck door lock assembly.
 - (a) These are the tasks: Crew Door Lock Removal, TASK 52-51-21-000-801, Crew Door Lock Installation, TASK 52-51-21-400-801.

END OF TASK

EFFECTIVITY

HAP ALL

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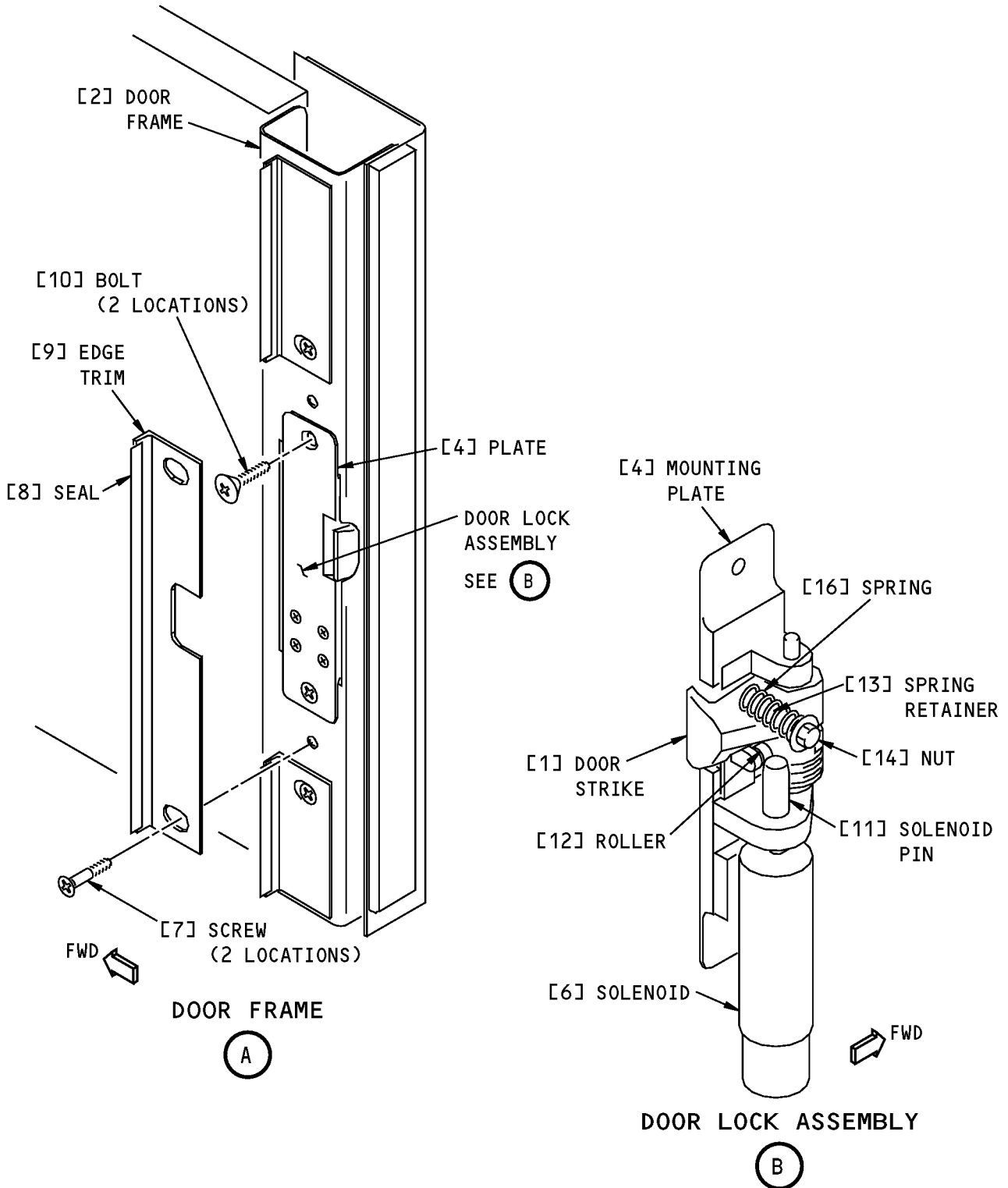
**Crew Door Lock Installation
Figure 904 (Sheet 1 of 2)/52-00-00-990-813**

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**Crew Door Lock Installation
Figure 904 (Sheet 2 of 2)/52-00-00-990-813**

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TASK 52-00-00-210-811

12. M MEL 52-9 (DDPG) Preparation - Lower Cargo Doors Door Balance Mechanism Inoperative

A. General

- (1) This task gives the maintenance steps which prepare the airplane for flight with the lower cargo door balance mechanism inoperative.

B. Location Zones

Zone	Area
821	Forward Cargo Door
822	Aft Cargo Door

C. Procedure

SUBTASK 52-00-00-210-010

- (1) The operator provides a suitable safety device or equipment to hold the door open when the door is in open position.

————— END OF TASK —————

TASK 52-00-00-210-812

13. M MEL 52-9 (DDPG) Restoration - Lower Cargo Doors Door Balance Mechanism Inoperative

A. General

- (1) This task puts the airplane back to its usual condition after operation with the lower cargo door balance mechanism inoperative.

B. References

Reference	Title
52-31-12-000-801	Cargo Door Counterbalance Removal (P/B 401)
52-31-12-400-801	Cargo Door Counterbalance Installation (P/B 401)

C. Location Zones

Zone	Area
821	Forward Cargo Door
822	Aft Cargo Door

D. Procedure

SUBTASK 52-00-00-020-002

- (1) Replace the counter balance mechanism.

These are the tasks:

Cargo Door Counterbalance Removal, TASK 52-31-12-000-801,

Cargo Door Counterbalance Installation, TASK 52-31-12-400-801.

————— END OF TASK —————

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TASK 52-00-00-210-831

14. M MEL 52-15 (DDPG) Preparation - Emergency Exit (Overwing Exit) Flight Lock System Inoperative

(Figure 905)

A. General

- (1) This task gives the maintenance steps which prepare the airplane for flight with the emergency exit flight lock system inoperative.
- (2) The emergency exit is also called the overwing exit.
- (3) In this procedure, the Emergency Exit Door will be called the door.
- (4) For more information see, SSM 52-71-13 and WDM 52-71-13 for the left side emergency exit doors and SSM 52-71-14 and WDM 52-71-14 for the right side emergency exit doors.

B. References

Reference	Title
24-22-00-860-811	Supply Electrical Power (P/B 201)
36-00-00-860-806	Remove Pressure from the Pneumatic System (P/B 201)
52-22-00-710-801	Emergency Exit Door Operational Test (P/B 501)
71-00-00-700-819-F00	Stop the Engine Procedure (Usual Engine Stop) (P/B 201)
SSM 52-71-13	System Schematics Manual
SSM 52-71-14	System Schematics Manual
SWPM 20-30-12	Assembly of Splices
WDM 52-71-13	Wiring Diagram Manual
WDM 52-71-14	Wiring Diagram Manual

C. Location Zones

Zone	Area
HAP 001-013, 015-026, 028-054	
832	Left Forward Emergency Exit
833	Left Emergency Exit (STA 627.5)
842	Right Forward Emergency Exit
843	Right Emergency Exit (STA 627.5)

HAP ALL

D. Procedure

SUBTASK 52-00-00-710-002

- (1) Make sure that the applicable door operates correctly:
 - (a) Emergency Exit Door Operational Test, TASK 52-22-00-710-801
 - 1) If the door operates correctly, then continue with the preparation procedure.

SUBTASK 52-00-00-760-002

- (2) To deactivate the flight lock and Master Caution System, do these steps:
 - (a) Open these circuit breakers and install safety tags:

F/O Electrical System Panel, P6-3

Row	Col	Number	Name
D	1	C01399	PSEU PRI
D	2	C01400	PSEU ALTN

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(b) Get access to the PSEU through this panel:

Table 901

Number	Name/Location	Provides Access To	Dimensions	Drawing
112A	Forward Access Door			141A6801

(c) Disconnect the wire from the applicable pin, (Table 901).

NOTE: The pin numbers are listed in the Disconnected Wire - Pin Number column.

Table 902/52-00-00-993-810 FLIGHT LOCK DEACTIVATION

Door Location	Electrical Connector	Disconnected Wire - Pin Number	Pin Numbers - Jumpered
Left or Left Aft ^{*[1]}	D10986	Pin 20	Pin 20 to Pin 40
Right or Right Aft ^{*[1]}	D10988	Pin 2	Pin 2 to Pin 53
HAP 001-013, 015-026, 028-054			
Left Forward ^{*[1]}	D10986	Pin 53	Pin 53 to Pin 40
Right Forward ^{*[1]}	D10988	Pin 52	Pin 52 to Pin 53
HAP ALL			

*[1] 737-800 AND 737-900

1) Cap and stow the wire Figure 905.

(d) Install a jumper wire (20 AGW wire) between the applicable pins to deactivate the system. (Table 901)

NOTE: The pin numbers are listed in the Pin Numbers - Jumpered column.

1) If it is necessary, use a moisture proof splice as shown in (SWPM 20-30-12).

(e) Remove the safety tags and close these circuit breakers:

F/O Electrical System Panel, P6-3

Row	Col	Number	Name
D	1	C01399	PSEU PRI
D	2	C01400	PSEU ALTN

(f) Make sure that the light and annunciator for the applicable door is OFF.

SUBTASK 52-00-00-730-001

(3) Do these steps to test the deactivation:

(a) Make sure all of the Emergency Exit Doors are closed.

(b) Make sure that 3 of the 4 Entry and Service doors are closed.

(c) Make sure both engine start switches are in the OFF position.

1) If it is necessary, Stop the Engine Procedure (Usual Engine Stop), TASK 71-00-00-700-819-F00.

(d) Make sure that the airplane has electrical power.

1) If it is necessary, Supply Electrical Power, TASK 24-22-00-860-811

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(e) Open these circuit breakers and install safety tags:

F/O Electrical System Panel, P6-2

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
D	1	C01515	OVERWING FLIGHT LOCK RIGHT
D	2	C01514	OVERWING FLIGHT LOCK LEFT

(f) Do these steps to simulate the engine operations:

1) Make sure that the pneumatic power is OFF to the engine starters.

a) If it is necessary, do this task: Remove Pressure from the Pneumatic System, TASK 36-00-00-860-806.

2) Open these circuit breakers and install safety tags:

CAPT Electrical System Panel, P18-2

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	1	C00458	ENGINE 1 IGNITION RIGHT
A	3	C00153	ENGINE 1 IGNITION LEFT

F/O Electrical System Panel, P6-1

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
D	13	C00120	WEATHER RADAR RT

F/O Electrical System Panel, P6-2

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
D	4	C00459	ENGINE 2 IGNITION RIGHT
D	6	C00151	ENGINE 2 IGNITION LEFT

F/O Electrical System Panel, P6-3

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	3	C00360	FUEL SPAR VALVE ENG 2
B	4	C00359	FUEL SPAR VALVE ENG 1

3) Set the two engine start levers to the IDLE position.

a) Stop for a minimum of 5 minutes.

4) Make sure that the light in the Master Caution Switch is OFF.

a) If the light is ON, push the Master Caution Switch to reset the system.

WARNING: OPEN THE CIRCUIT BREAKER FOR THE WEATHER RADAR SYSTEM. WHEN YOU MOVE THE THRUST LEVER FORWARD, THE WEATHER RADAR SYSTEM COMES ON AUTOMATICALLY WHILE THE CIRCUIT BREAKER IS CLOSED. MAKE SURE THAT ALL PERSONNEL ARE MORE THAN 15 FT (5 M) FROM THE ANTENNA WHEN IT TRANSMITS RF ENERGY. RF ENERGY CAN KILL OR CAUSE INJURIES TO PERSONS, AND CAUSE DAMAGE TO EQUIPMENT.

5) Move the two engine thrust levers fully forward.

6) Make sure that the applicable Overwing light in the Exterior Door Annunciator Panel on the Forward Overhead Panel (P5) is OFF.

7) Move the two engine thrust levers to the idle position.

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8) Remove the safety tags and close these circuit breakers:

F/O Electrical System Panel, P6-2

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
D	1	C01515	OVERWING FLIGHT LOCK RIGHT
D	2	C01514	OVERWING FLIGHT LOCK LEFT

- 9) Move the two engine thrust levers fully forward.
- 10) Make sure that the applicable Overwing light in the Exterior Door Annunciator Panel on the Forward Overhead Panel (P5) is OFF.
- 11) Make sure that the PSEU Light is OFF.
 - a) If it is necessary, push the Master Caution on the Glareshield to set the PSEU light to OFF.
- 12) Move the two engine thrust levers to the Idle position.
- 13) Set the two engine start levers to the OFF position.
- 14) Remove the safety tags and close these circuit breakers:

CAPT Electrical System Panel, P18-2

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	1	C00458	ENGINE 1 IGNITION RIGHT
A	3	C00153	ENGINE 1 IGNITION LEFT

F/O Electrical System Panel, P6-1

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
D	13	C00120	WEATHER RADAR RT

F/O Electrical System Panel, P6-2

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
D	4	C00459	ENGINE 2 IGNITION RIGHT
D	6	C00151	ENGINE 2 IGNITION LEFT

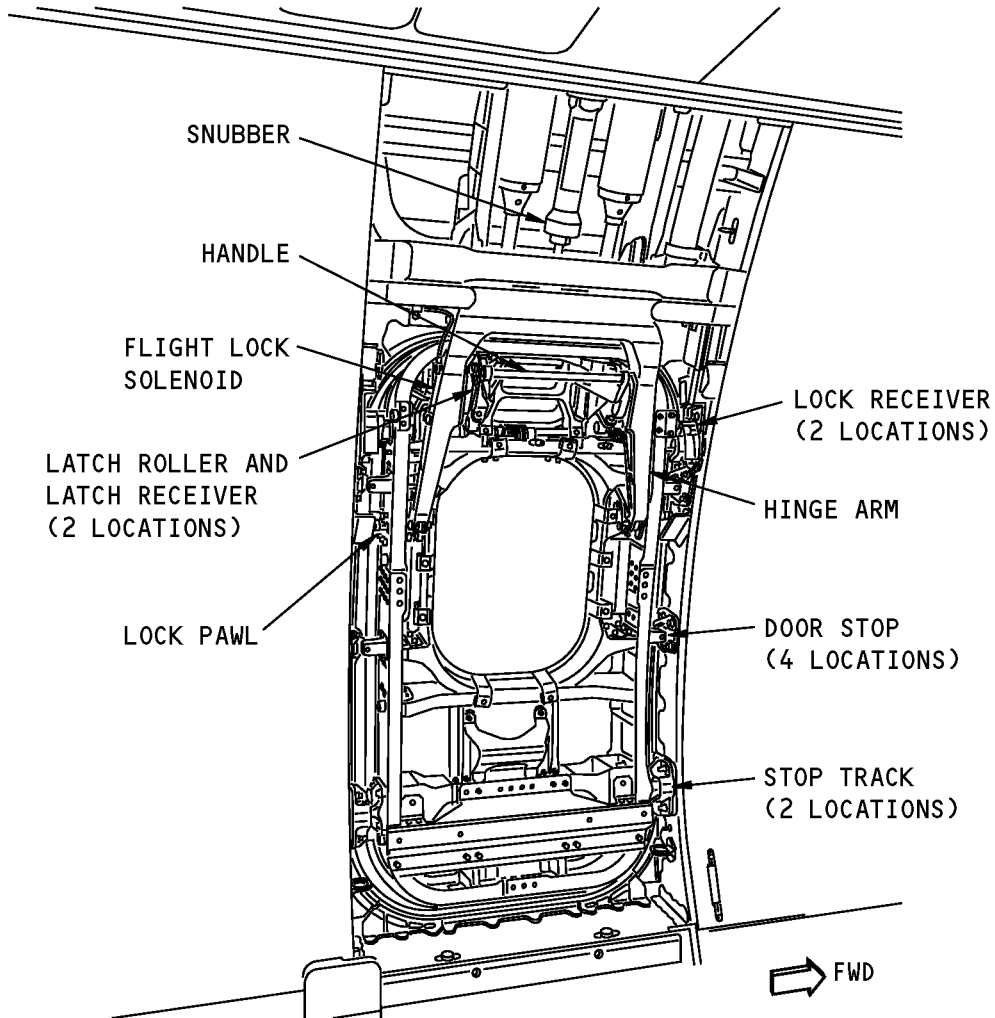
F/O Electrical System Panel, P6-3

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	3	C00360	FUEL SPAR VALVE ENG 2
B	4	C00359	FUEL SPAR VALVE ENG 1

END OF TASK

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**EMERGENCY EXIT DOOR
(DOOR IN THE CLOSED POSITION
WITH DOOR LINING REMOVED)
(EXAMPLE)**

**Emergency Exit Flight Lock System
Figure 905 (Sheet 1 of 2)/52-00-00-990-814**

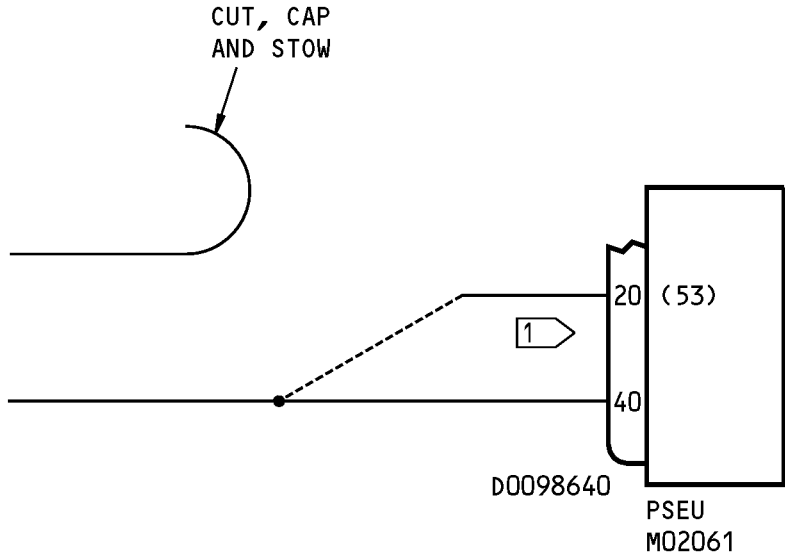
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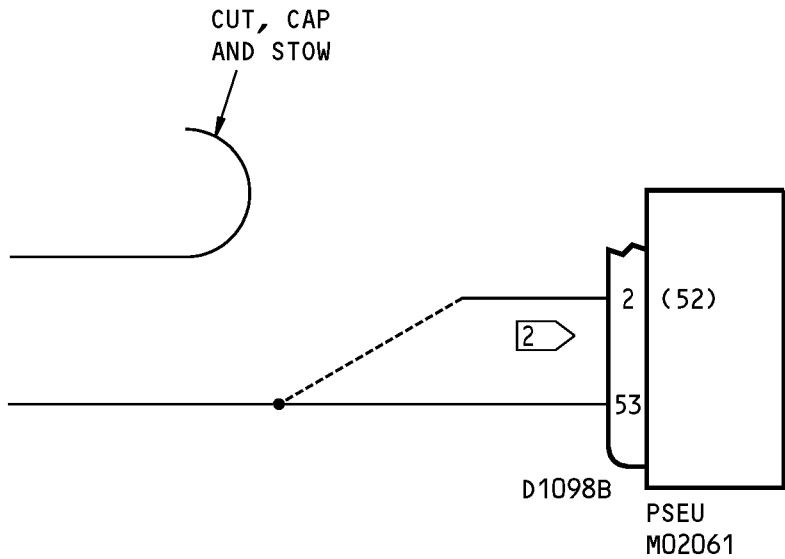
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1 LEFT OR AFT LEFT DOOR CONNECTION IS SHOWN. FOR THE FORWARD LEFT DOOR, JUMPER PIN 53 TO PIN 40.

LEFT EMERGENCY EXIT DOOR



2 RIGHT OR AFT RIGHT DOOR CONNECTION IS SHOWN. FOR THE FORWARD RIGHT DOOR, JUMPER PIN 52 TO PIN 53.

RIGHT EMERGENCY EXIT DOOR

**Emergency Exit Flight Lock System
Figure 905 (Sheet 2 of 2)/52-00-00-990-814**

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TASK 52-00-00-210-814

15. MMEL 52-15 (DDPG) Restoration - Emergency Exit (Overwing Exit) Flight Lock System Inoperative

(Figure 905)

A. General

- (1) This task puts the airplane back to its usual condition after operation with the emergency exit flight lock system inoperative.
(2) The emergency exit is also called the overwing exit.

B. References

Table with 2 columns: Reference, Title. Rows include 52-22-41-020-802 Flight Lock Switch Removal (P/B 401) and 52-22-41-420-802 Flight Lock Switch Installation (P/B 401)

C. Location Zones

Table with 2 columns: Zone, Area. Rows include HAP 001-013, 015-026, 028-054 and zones 832-843 with corresponding area descriptions.

HAP ALL

D. Procedure

SUBTASK 52-00-00-440-006

- (1) To restore the airplane to its usual condition, do these steps : Figure 905
(a) Open these circuit breakers and install safety tags:

F/O Electrical System Panel, P6-3

Table with 4 columns: Row, Col, Number, Name. Rows include D 1 C01399 PSEU PRI and D 2 C01400 PSEU ALTN

- (b) Get access to the PSEU through this panel:

Table 903

Table with 5 columns: Number, Name/Location, Provides Access To, Dimensions, Drawing. Row 112A Forward Access Door 141A6801

- (c) Remove the jumper wire from the applicable electrical connector. (Table 902) (Figure 905)
(d) Reconnect the applicable pin connection to its original wire. (Table 902)

Table 904/52-00-00-993-811 JUMPER CONNECTIONS

Table with 4 columns: Door Location, Electrical Connector, Pin Numbers - Jumpered, Reconnect Wire - Pin Number. Rows for Left or Left Aft and Right or Right Aft

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(Continued)

Door Location	Electrical Connector	Pin Numbers - Jumpered	Reconnect Wire - Pin Number
HAP 001-013, 015-026, 028-054			
Left Forward ^{*[1]}	D10988	Pin 53 to Pin 40	Pin 53
Right Forward ^{*[1]}	D10988	Pin 52 to Pin 53	Pin 52
HAP ALL			

*[1] 737-800 AND 737-900

SUBTASK 52-00-00-960-001

(2) If it is necessary, replace the flight lock switch.

These are the tasks:

Flight Lock Switch Removal, TASK 52-22-41-020-802,

Flight Lock Switch Installation, TASK 52-22-41-420-802.

END OF TASK

HAP 001-013, 015-022, 024, 025, 028-054, 101-999; HAP 023, 026 POST SB 737-25-1496

TASK 52-00-00-210-833

16. M MEL 52-17 (DDPG) Preparation - Boeing/C and D Aerospace Enhanced Flight Deck Security Door Automatic Locking System (FAR 25.795 Compliant) Inoperative.

A. General

(1) This task gives the maintenance steps which prepare the airplane for flight with the flight deck security door automatic locking system inoperative.

B. References

Reference	Title
24-22-00-860-811	Supply Electrical Power (P/B 201)

C. Location Zones

Zone	Area
211	Flight Compartment - Left
212	Flight Compartment - Right

D. Procedure

SUBTASK 52-00-00-040-005

(1) Do these steps to deactivate the automatic locking system:

(a) Put the Flight Deck Access System switch on the Chime Module to the OFF position (guard extended).

NOTE: The LOCK FAIL light will stay on when the Flight Deck Access System switch is in the OFF position (guard extended).

(b) Install the placard on the FLT DK DOOR switch - INOP.

SUBTASK 52-00-00-040-006

(2) Do these steps to deactivate the keypad:

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HAP 001-013, 015-022, 024, 025, 028-054, 101-999; HAP 023, 026 POST SB 737-25-1496 (Continued)

- (a) Open this circuit breaker and install safety tag:

F/O Electrical System Panel, P6-3

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
E	1	C00137	DOOR LOCK

- (b) Remove the screw covers at the top and bottom of the keypad.
- (c) Remove the screws that attach the keypad to the doorpost.
- (d) Disconnect the electrical connector from the keypad and stow the electrical connector.
- (e) Put the keypad in its position.
- (f) Install the screws that attach the keypad to the doorpost.
- (g) Install the screw covers.
- (h) Remove safety tag and close this circuit breaker:

F/O Electrical System Panel, P6-3

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
E	1	C00137	DOOR LOCK

NOTE: Make sure the Flight Deck Access System switch is in the OFF position (guard extended) when the flight deck door is closed and the flight deck is not occupied.

SUBTASK 52-00-00-710-003

- (3) Do these steps to make sure the automatic lock controls operate normally:
 - (a) Open the flight deck door.
 - (b) Supply electrical power. To supply electrical power, do this task: Supply Electrical Power, TASK 24-22-00-860-811
 - (c) Make sure the Flight Deck Access System switch on the chime module is in the NORM (guard closed) position.
 - (d) Make sure the FLT DK DOOR rotary switch on the Cockpit Control panel Switch/Light Module is in the AUTO position.
 - (e) Make sure the electric strike is in the locked position.

NOTE: The Solenoid pin in the electric strike will be extended up such that you can not rotate the strike.

- (f) Enter the access code in the keypad and press the ENT key.
- (g) Make sure the chime module sounds.
- (h) Put and momentarily hold the FLT DK DOOR switch in the DENY position.
- (i) Do these steps before the DENY Time Delay has expired:
 - 1) Enter the access code in the keypad and press the ENT key.
 - 2) Make sure the chime module does not sound.
- (j) Put and hold the FLT DK DOOR switch to the UNLKD position.
- (k) Make sure the electric strike is in the unlocked position.

NOTE: The Solenoid pin in the electric strike will retract down such that you can rotate the strike.

- (l) Put the FLT DK DOOR switch back to the AUTO position.

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HAP 001-013, 015-022, 024, 025, 028-054, 101-999; HAP 023, 026 POST SB 737-25-1496 (Continued)

(m) Make sure the electric strike is in the locked position.

NOTE: The solenoid pin in the electric strike will be extended up such that you can not rotate the strike.

SUBTASK 52-00-00-710-004

(4) Do these steps to make sure the automatic lock operates normally:

- (a) Open the flight deck door.
(b) Supply electrical power. To supply electrical power, do this task: Supply Electrical Power, TASK 24-22-00-860-811
(c) Make sure the Flight Deck Access System switch on the chime module is in the NORM (guard closed) position.
(d) Make sure the electric strike is in the locked position.

NOTE: The solenoid pin in the electric strike will be extended up such that you can not rotate the strike.

- (e) Put the Flight Deck Access System switch on the Chime Module to the OFF position (guard extended).
(f) Make sure the electric strike is in the unlocked position.

NOTE: The Solenoid pin in the electric strike will retract down such that you can rotate the strike.

- (g) Put the Flight Deck Access System switch on the chime module in the NORM (guard closed) position.
(h) Make sure the electric strike is in the locked position.

NOTE: The solenoid pin in the electric strike will be extended up such that you can not rotate the strike.

END OF TASK

TASK 52-00-00-210-834

17. MMEL 52-17 (DDPG) Restoration - Boeing/C and D Aerospace Enhanced Flight Deck Security Door Automatic Locking System (FAR 25.795 Compliant) Inoperative.

A. General

- (1) This task puts the airplane back to its usual condition after flight with the flight deck security door automatic locking system inoperative.

B. References

Table with 2 columns: Reference, Title. Row 1: 52-51-00-700-801, Flight Compartment Security Door Access System Test (P/B 501)

C. Location Zones

Table with 2 columns: Zone, Area. Row 1: 211, Flight Compartment - Left. Row 2: 212, Flight Compartment - Right

D. Procedure

SUBTASK 52-00-00-440-007

- (1) Do these steps to activate the automatic locking system:

EFFECTIVITY table with HAP ALL and D633A101-HAP

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HAP 001-013, 015-022, 024, 025, 028-054, 101-999; HAP 023, 026 POST SB 737-25-1496 (Continued)

- (a) Put the Flight Deck Access System switch on the Chime Module to the NORM position (guard closed).
- (b) Remove the placard on the FLT DK DOOR switch - INOP.

SUBTASK 52-00-00-440-008

(2) Do these steps to activate the keypad:

- (a) Open this circuit breaker and install safety tag:

F/O Electrical System Panel, P6-3

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
E	1	C00137	DOOR LOCK

- (b) Remove the screw covers at the top and bottom of the keypad.
- (c) Remove the screws that attach the keypad to the doorpost.
- (d) Connect the electrical connector to the keypad.
- (e) Put the keypad in its position.
- (f) Install the screws that attach the keypad to the doorpost.
- (g) Install the screw covers.
- (h) Remove safety tag and close this circuit breaker:

F/O Electrical System Panel, P6-3

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
E	1	C00137	DOOR LOCK

- (i) Do the system test of the flight deck security door access system. To do the test, do this task: Flight Compartment Security Door Access System Test, TASK 52-51-00-700-801.

————— END OF TASK —————

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DOORS - STRUCTURAL INSPECTIONS - MAINTENANCE PRACTICES

TASK 52-05-03-211-801

1. EXTERNAL - DETAILED: FLIGHT DECK SECURITY DOOR PANEL ASSEMBLY

A. General

(1) This procedure is a scheduled maintenance task.

B. Inspection

SUBTASK 52-05-03-211-001

(1) Do the inspection.

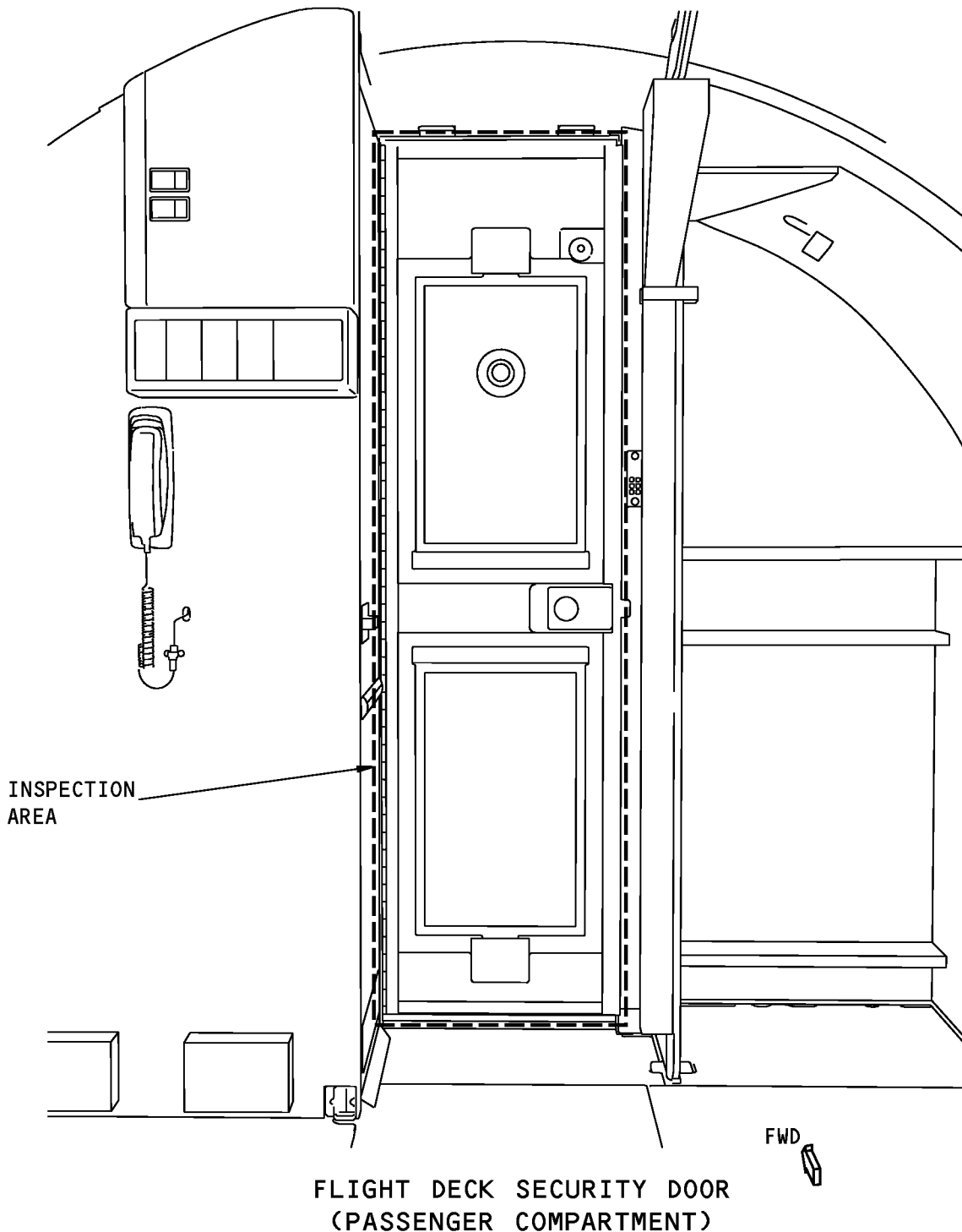
————— **END OF TASK** —————

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**Flight Deck Security Door Panel Assembly
Figure 201/52-05-03-990-848**

EFFECTIVITY
HAP ALL

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HAP 001-013, 015-022, 024, 025, 028-054, 101-999; HAP 023, 026 POST SB 737-25-1496

TASK 52-05-03-211-802

2. INTERNAL - DETAILED: FLIGHT DECK SECURITY DOOR PANEL ASSEMBLY

A. General

(1) This procedure is a scheduled maintenance task.

B. Inspection

SUBTASK 52-05-03-211-002

(1) Do the inspection.

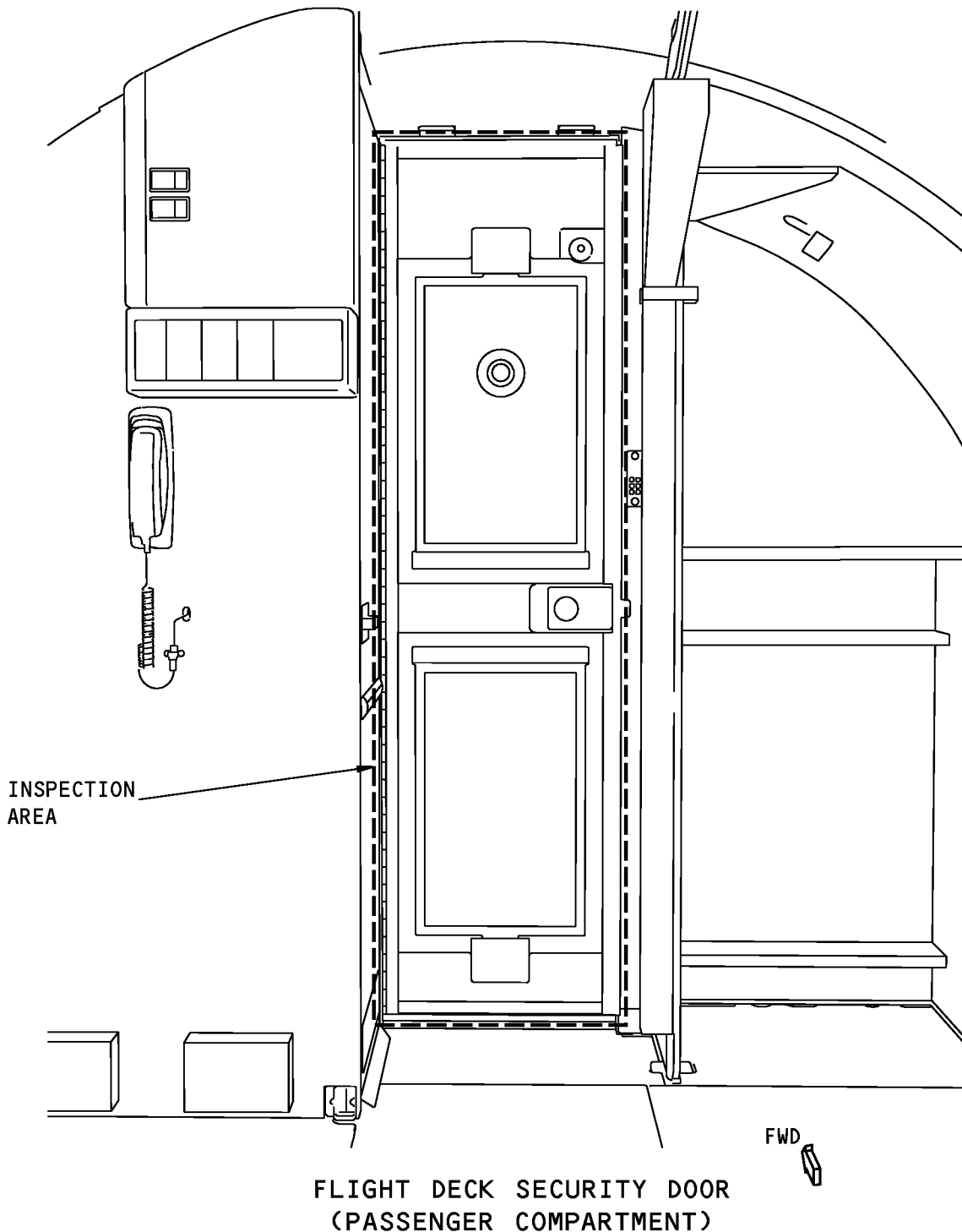
————— **END OF TASK** —————

EFFECTIVITY
HAP ALL

D633A101-HAP

52-05-03

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**Flight Deck Security Door Panel Assembly
Figure 202/52-05-03-990-849**

EFFECTIVITY
HAP 001-013, 015-022, 024, 025, 028-054, 101-999; HAP 023,
026 POST SB 737-25-1496

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737-600/700/800/900

AIRCRAFT MAINTENANCE MANUAL

HAP 001-013, 015-022, 024, 025, 028-054, 101-999; HAP 023, 026 POST SB 737-25-1496 (Continued)

TASK 52-05-03-210-803

3. EXTERNAL - GENERAL VISUAL: FLIGHT DECK SECURITY DOOR SURROUND ASSEMBLY

A. General

(1) This procedure is a scheduled maintenance task.

B. Inspection

SUBTASK 52-05-03-210-003

(1) Do the inspection.

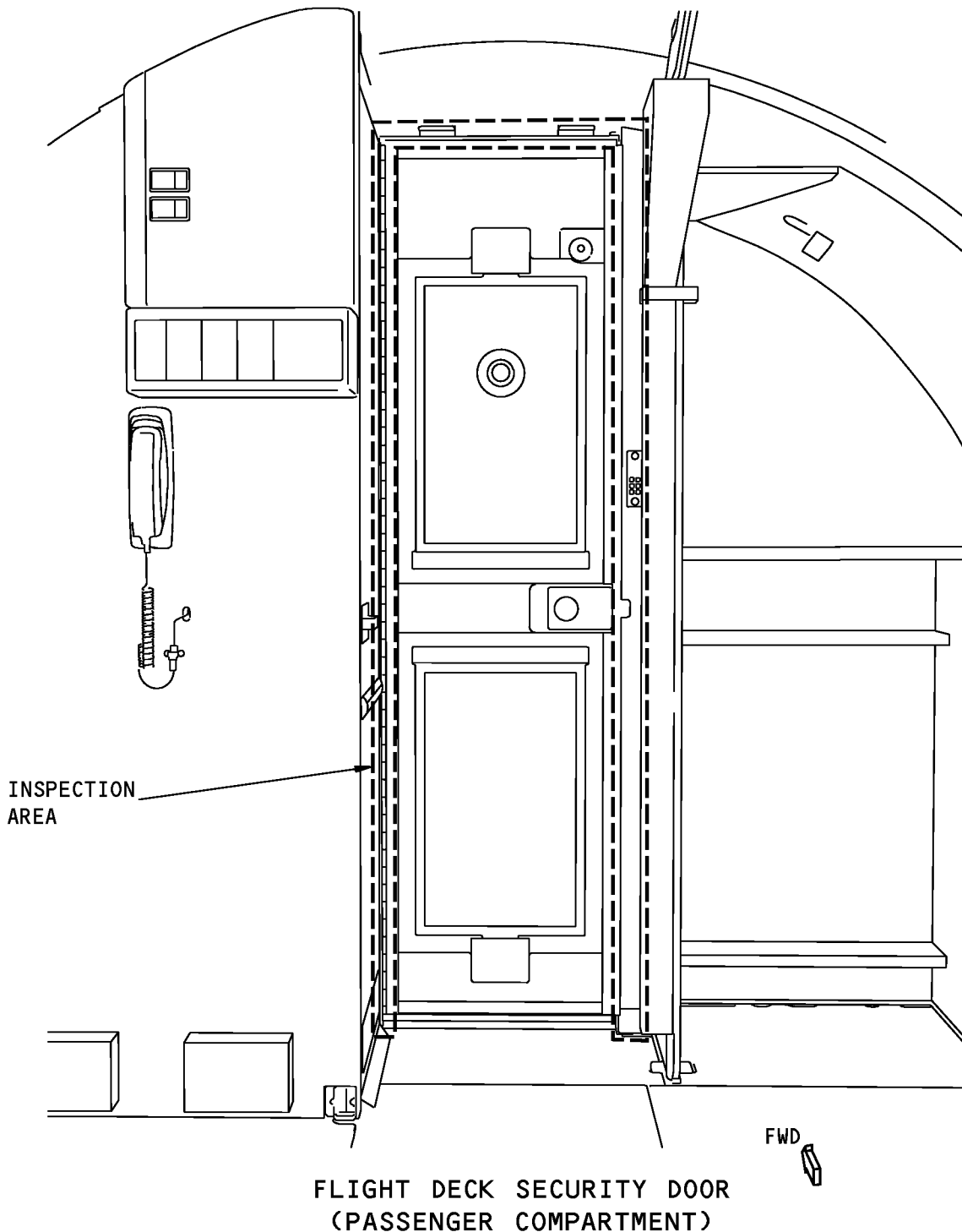
————— **END OF TASK** —————

EFFECTIVITY
HAP ALL

D633A101-HAP

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**Flight Deck Security Door Surround Assembly
Figure 203/52-05-03-990-851**

EFFECTIVITY
HAP 001-013, 015-022, 024, 025, 028-054, 101-999; HAP 023,
026 POST SB 737-25-1496

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HAP 001-013, 015-022, 024, 025, 028-054, 101-999; HAP 023, 026 POST SB 737-25-1496 (Continued)

TASK 52-05-03-211-803

4. INTERNAL - DETAILED: FLIGHT DECK SECURITY DOOR SURROUND ASSEMBLY

A. General

(1) This procedure is a scheduled maintenance task.

B. Inspection

SUBTASK 52-05-03-211-003

(1) Do the inspection.

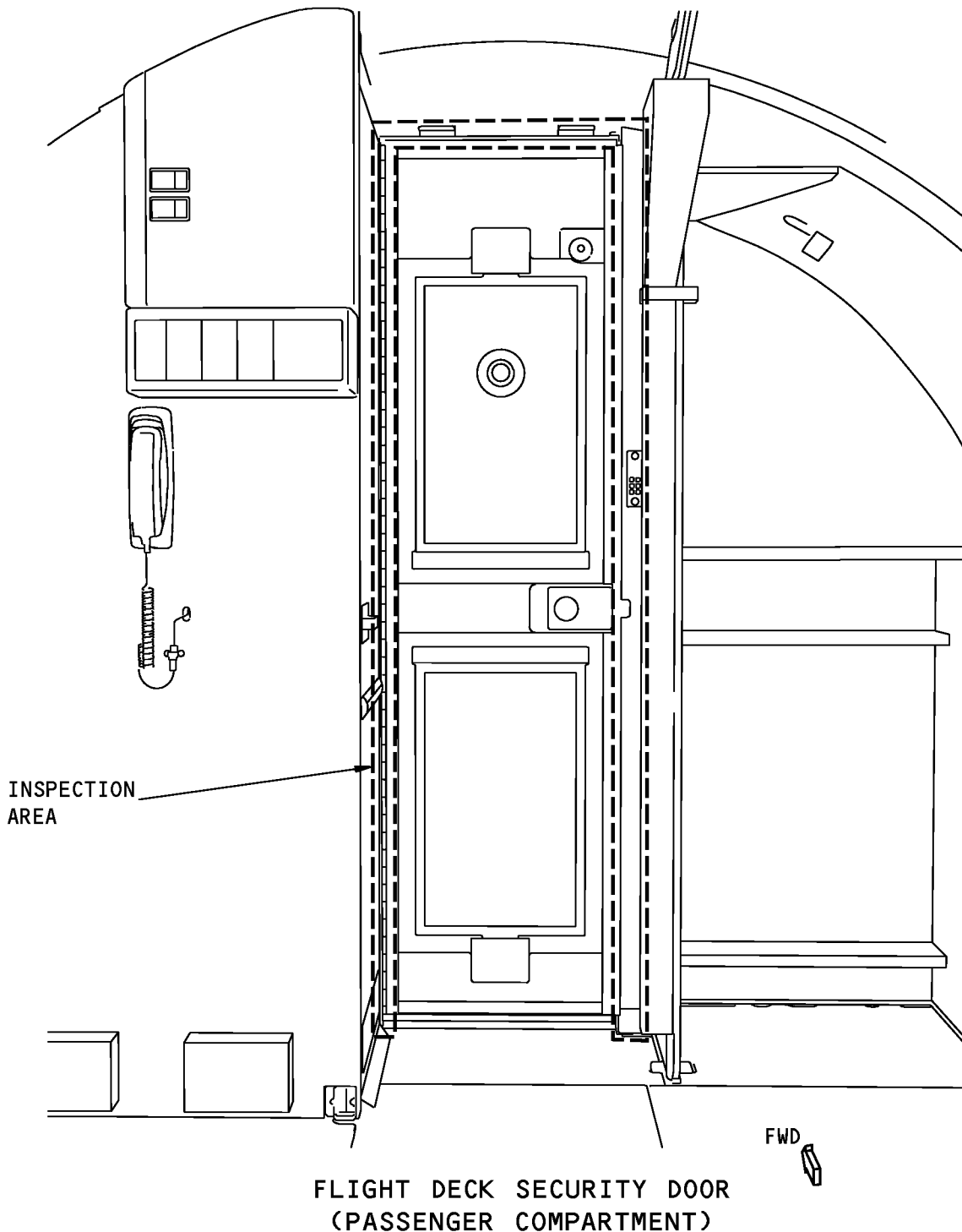
————— **END OF TASK** —————

EFFECTIVITY
HAP ALL

D633A101-HAP

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**Flight Deck Security Door Surround Assembly
Figure 204/52-05-03-990-850**

EFFECTIVITY
HAP 001-013, 015-022, 024, 025, 028-054, 101-999; HAP 023,
026 POST SB 737-25-1496

52-05-03



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AIRCRAFT MAINTENANCE MANUAL

HAP 001-013, 015-022, 024, 025, 028-054, 101-999; HAP 023, 026 POST SB 737-25-1496 (Continued)

TASK 52-05-03-211-827

5. INTERNAL - DTAILED: FLIGHT DECK SECURITY DOOR LATCH AND HINGE SUPPORT

A. General

(1) This procedure is a scheduled maintenance task.

B. Inspection

SUBTASK 52-05-03-211-035

(1) Do the inspection.

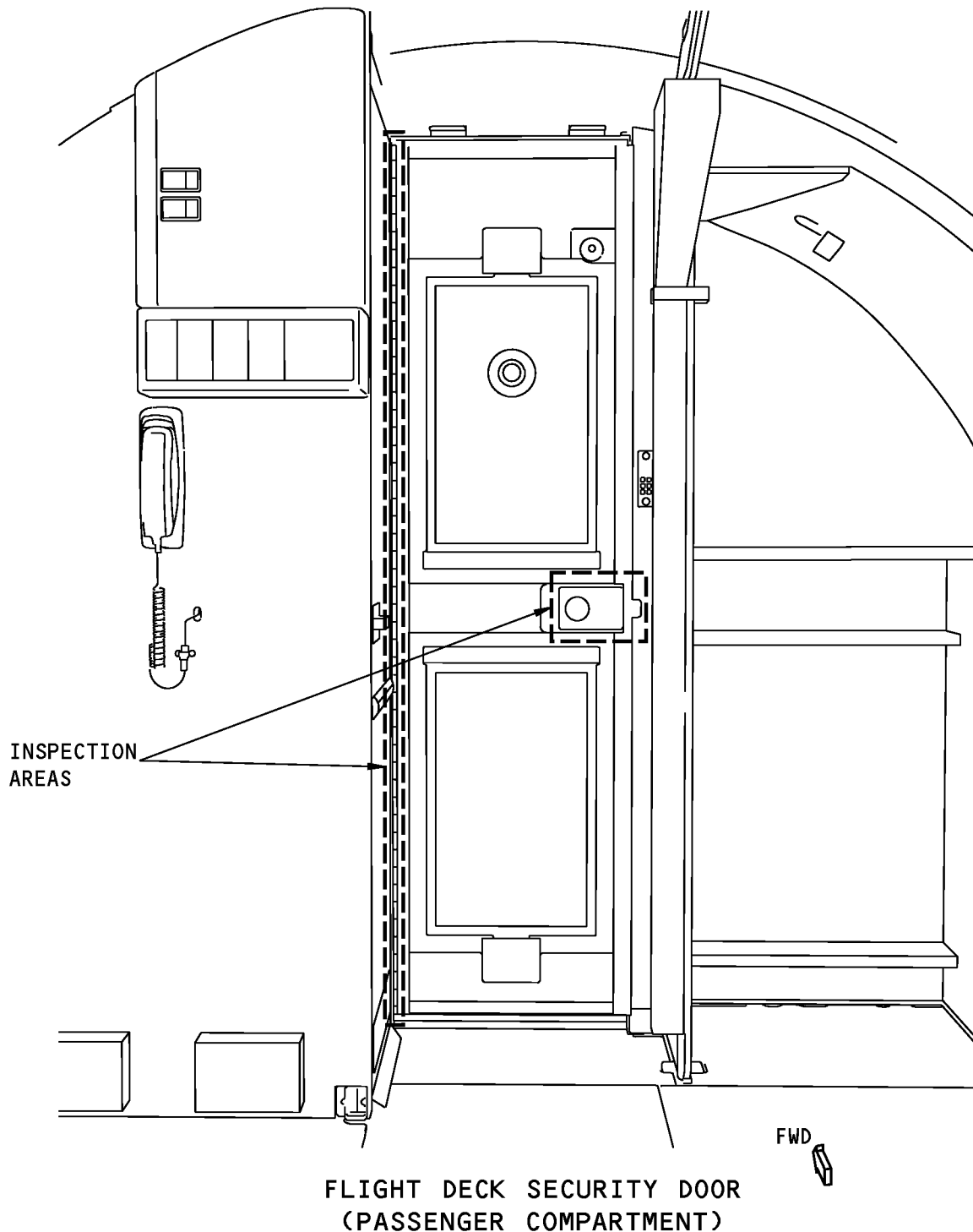
————— **END OF TASK** —————

EFFECTIVITY
HAP ALL

D633A101-HAP

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**Flight Deck Security Door Latch and Hinge Support
Figure 205/52-05-03-990-852**

EFFECTIVITY
HAP 001-013, 015-022, 024, 025, 028-054, 101-999; HAP 023,
026 POST SB 737-25-1496

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AIRCRAFT MAINTENANCE MANUAL

TASK 52-05-03-211-805

6. EXTERNAL - DETAILED: EXTERNAL - FORWARD ACCESS DOOR STOP FITTINGS AND PINS

(Figure 206)

A. General

(1) This procedure is a scheduled maintenance task.

B. Inspection

SUBTASK 52-05-03-211-005

(1) Do the inspection.

————— **END OF TASK** —————

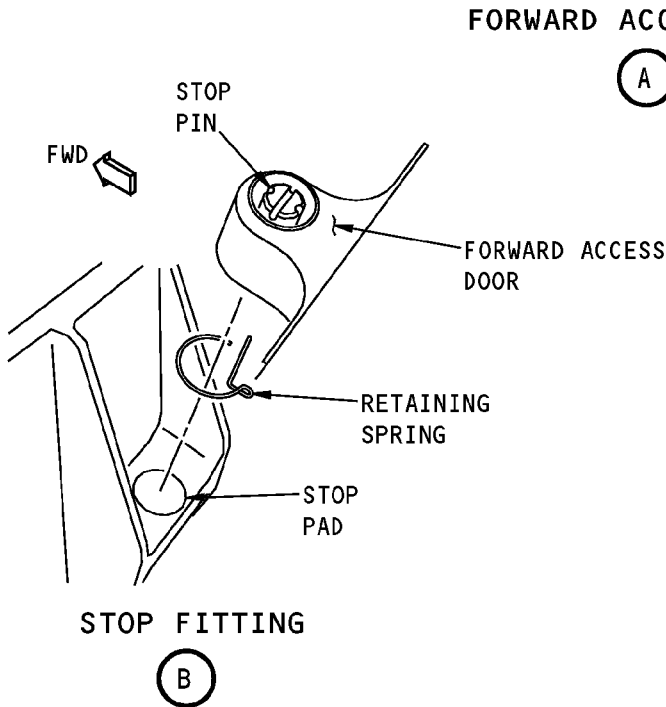
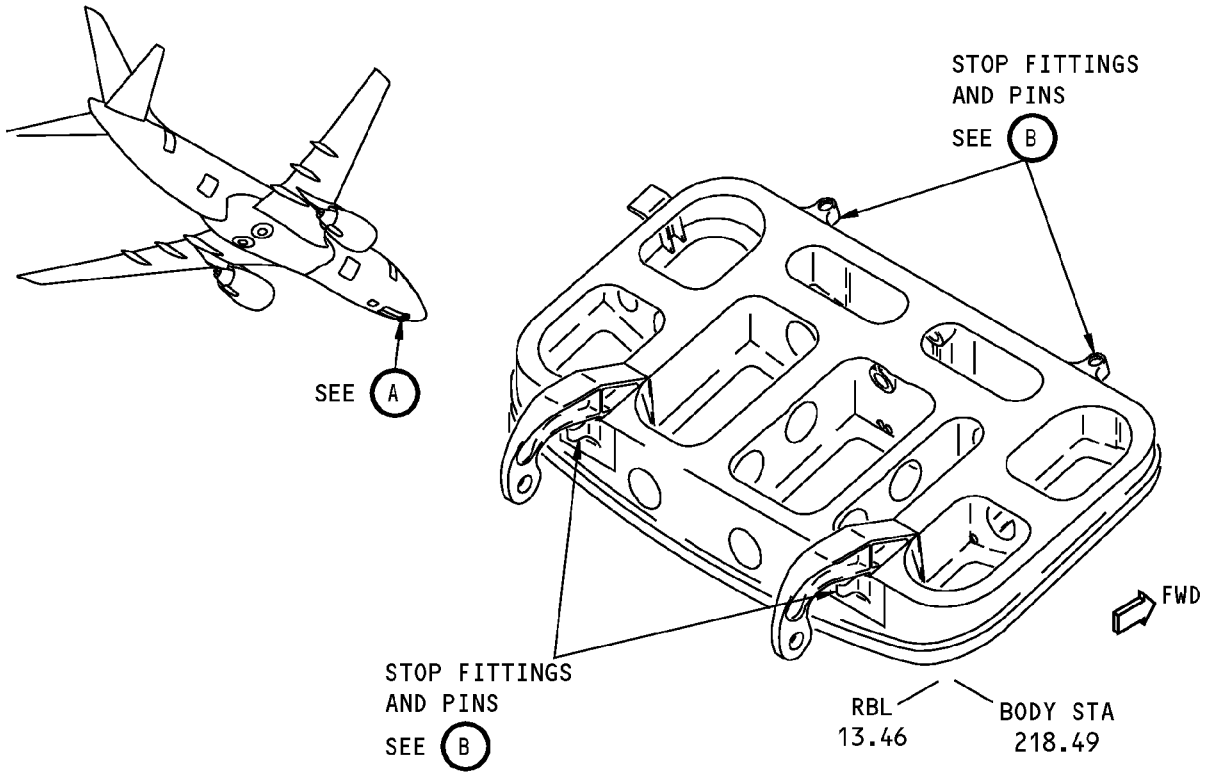
EFFECTIVITY
HAP ALL

D633A101-HAP

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**External - Forward Access Door
Figure 206/52-05-03-990-801**

EFFECTIVITY
HAP ALL

D633A101-HAP

52-05-03



737-600/700/800/900

AIRCRAFT MAINTENANCE MANUAL

TASK 52-05-03-210-806

7. INTERNAL - GENERAL VISUAL: INTERNAL - FORWARD ACCESS DOOR

A. General

(1) This procedure is a scheduled maintenance task.

B. Inspection

SUBTASK 52-05-03-210-006

(1) Do the inspection.

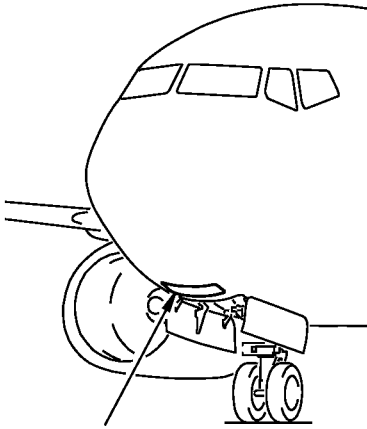
————— **END OF TASK** —————

EFFECTIVITY
HAP ALL

D633A101-HAP

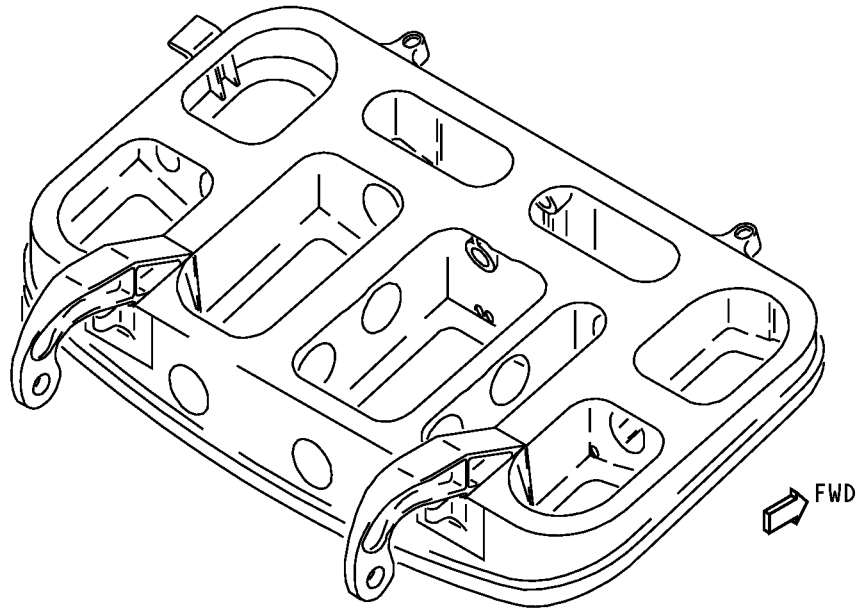
52-05-03

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FORWARD ACCESS
DOOR, 112A

SEE (A)



FORWARD ACCESS DOOR, 112A

(A)

Forward Access Door General Visual (Internal)
Figure 207/52-05-03-990-837

EFFECTIVITY
HAP ALL

D633A101-HAP

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AIRCRAFT MAINTENANCE MANUAL

TASK 52-05-03-211-806

8. EXTERNAL - DETAILED: EXTERNAL - E/E EQUIPMENT COMPARTMENT ACCESS DOOR STOP FITTINGS AND PINS

(Figure 208)

A. General

- (1) This procedure is a scheduled maintenance task.

B. Inspection

SUBTASK 52-05-03-211-006

- (1) Do the inspection.

————— **END OF TASK** —————

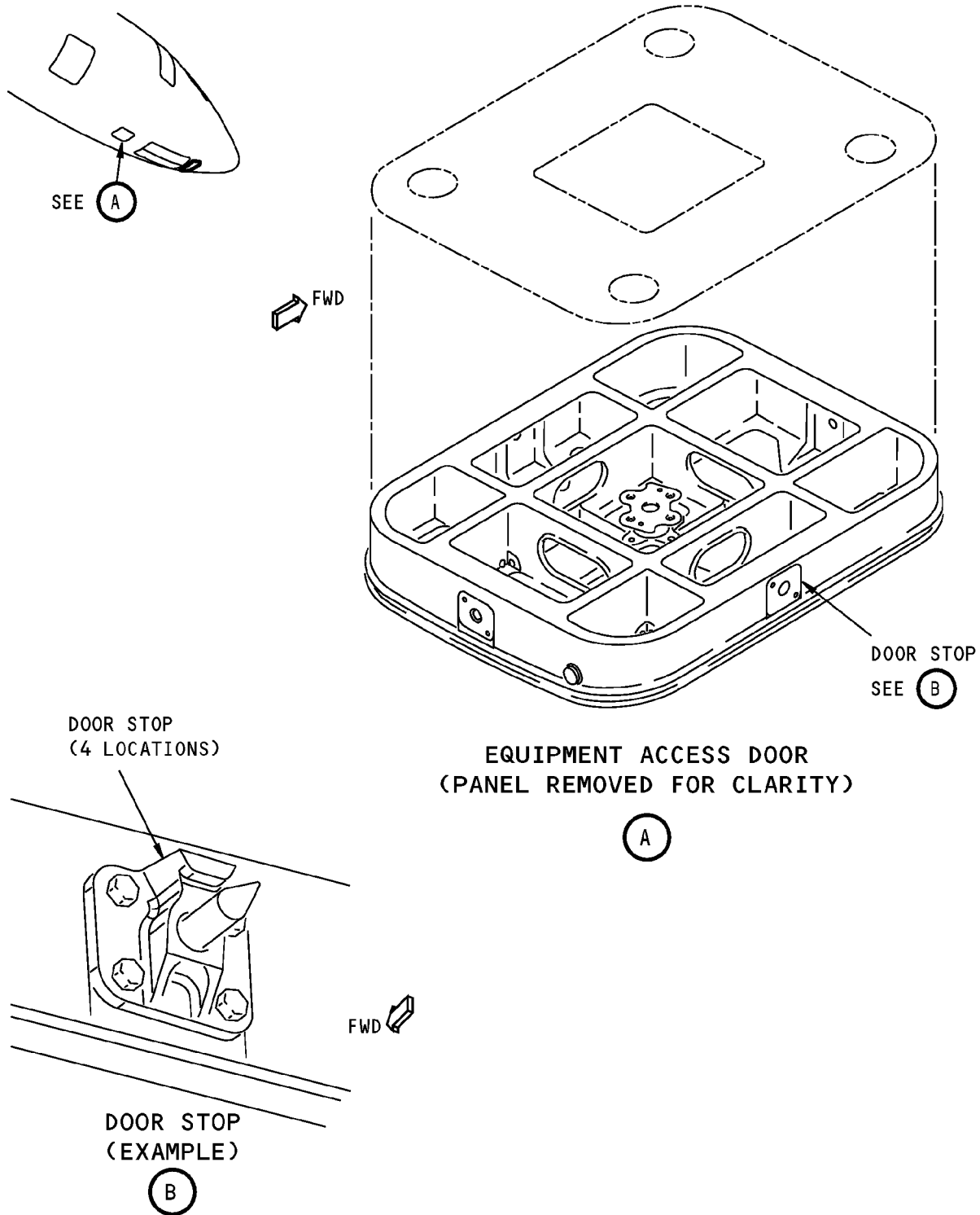
EFFECTIVITY
HAP ALL

D633A101-HAP

52-05-03

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AIRCRAFT MAINTENANCE MANUAL**



**External - Equipment Compartment Access Door
Figure 208/52-05-03-990-802**

EFFECTIVITY
HAP ALL

D633A101-HAP

52-05-03



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AIRCRAFT MAINTENANCE MANUAL

TASK 52-05-03-211-807

9. INTERNAL - DETAILED: INTERNAL - E/E EQUIPMENT COMPARTMENT ACCESS DOOR

A. General

(1) This procedure is a scheduled maintenance task.

B. Inspection

SUBTASK 52-05-03-211-007

(1) Do the inspection.

————— **END OF TASK** —————

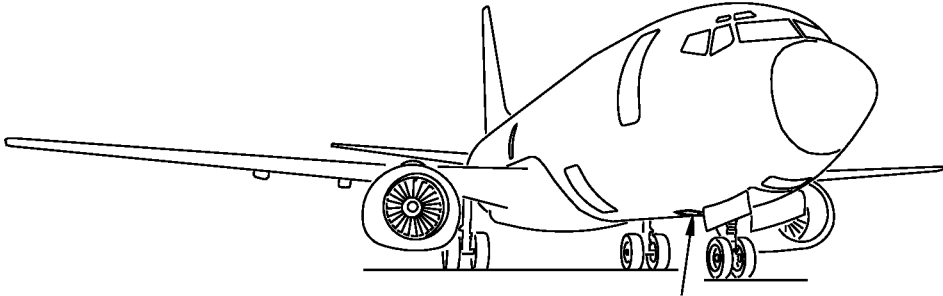
EFFECTIVITY
HAP ALL

D633A101-HAP

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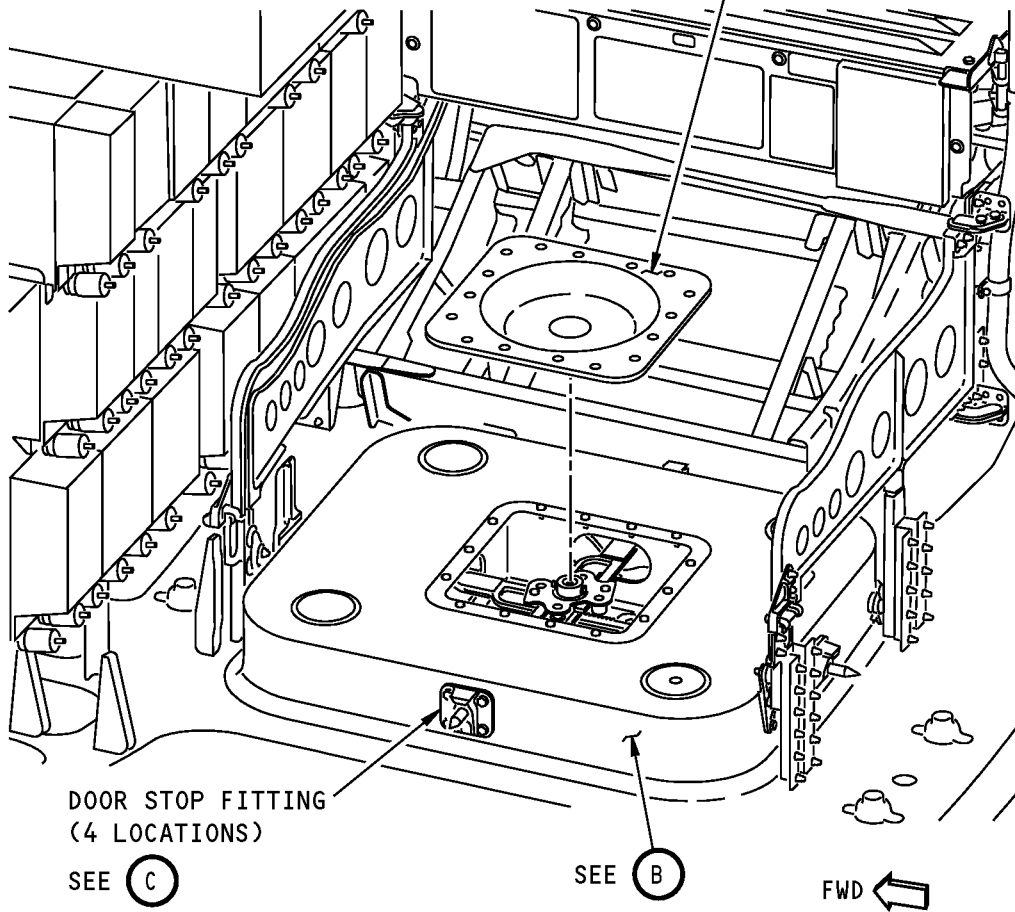
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AIRCRAFT MAINTENANCE MANUAL**



ELECTRONIC EQUIPMENT
ACCESS DOOR, 117A

SEE (A)

ACCESS
PANEL,
117AW



ELECTRICAL EQUIPMENT ACCESS DOOR, 117A

(A)

**Electrical Equipment Access Door Detailed (Internal)
Figure 209 (Sheet 1 of 2)/52-05-03-990-835**

EFFECTIVITY
HAP ALL

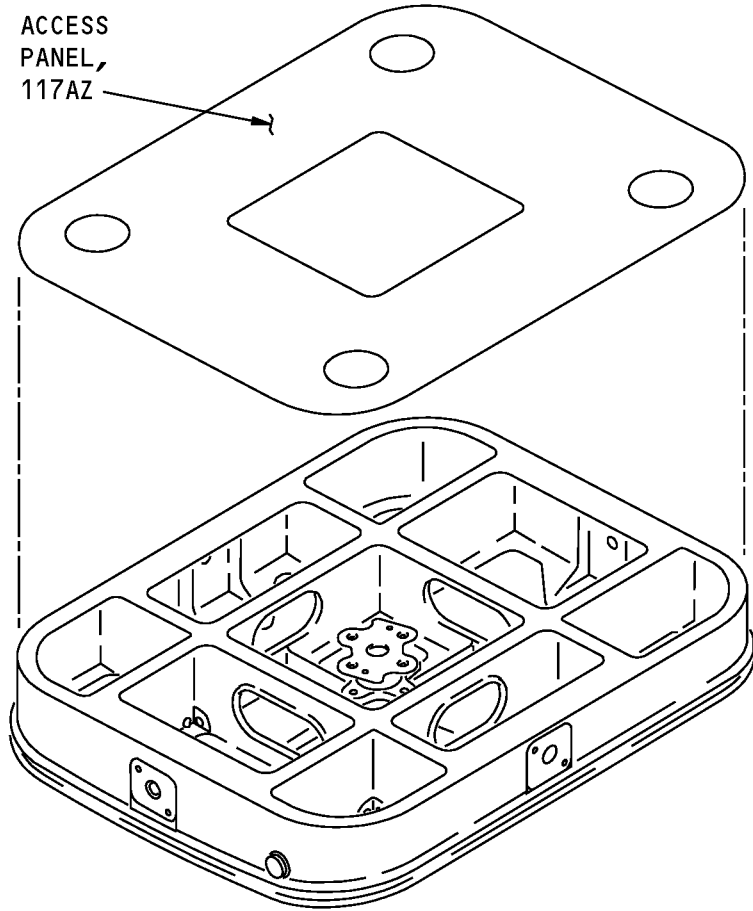
52-05-03

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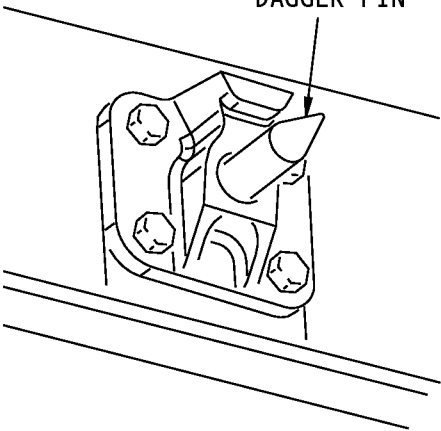
D633A101-HAP

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ACCESS
PANEL,
117AZ



DAGGER PIN



**EQUIPMENT ACCESS DOOR
(PANELS REMOVED)**

(B)

**DOOR STOP FITTING
(EXAMPLE)**

(B)

**Electrical Equipment Access Door Detailed (Internal)
Figure 209 (Sheet 2 of 2)/52-05-03-990-835**

EFFECTIVITY
HAP ALL

D633A101-HAP

52-05-03

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AIRCRAFT MAINTENANCE MANUAL

TASK 52-05-03-210-807

10. INTERNAL - GENERAL VISUAL: INTERNAL - E/E EQUIPMENT COMPARTMENT ACCESS DOOR

A. General

(1) This procedure is a scheduled maintenance task.

B. Inspection

SUBTASK 52-05-03-210-007

(1) Do the inspection.

————— **END OF TASK** —————

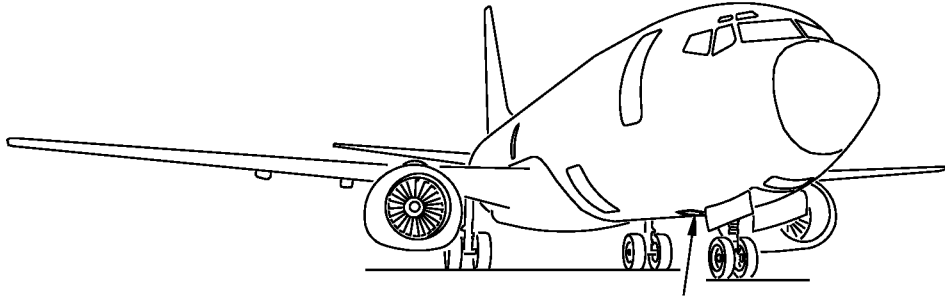
EFFECTIVITY
HAP ALL

D633A101-HAP

52-05-03

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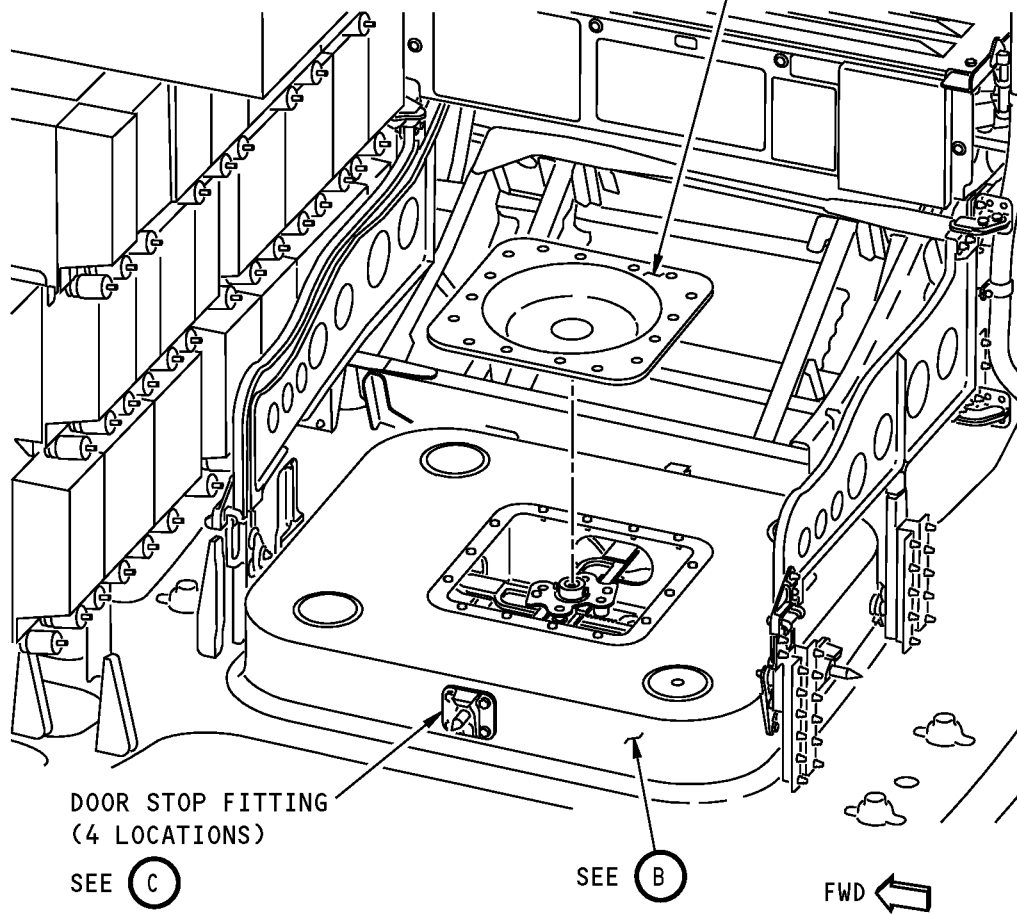
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AIRCRAFT MAINTENANCE MANUAL**



ELECTRONIC EQUIPMENT
ACCESS DOOR, 117A

SEE (A)

ACCESS
PANEL,
117AW



ELECTRICAL EQUIPMENT ACCESS DOOR, 117A

(A)

Electrical Equipment Access Door General Visual (Internal)
Figure 210 (Sheet 1 of 2)/52-05-03-990-834

EFFECTIVITY
HAP ALL

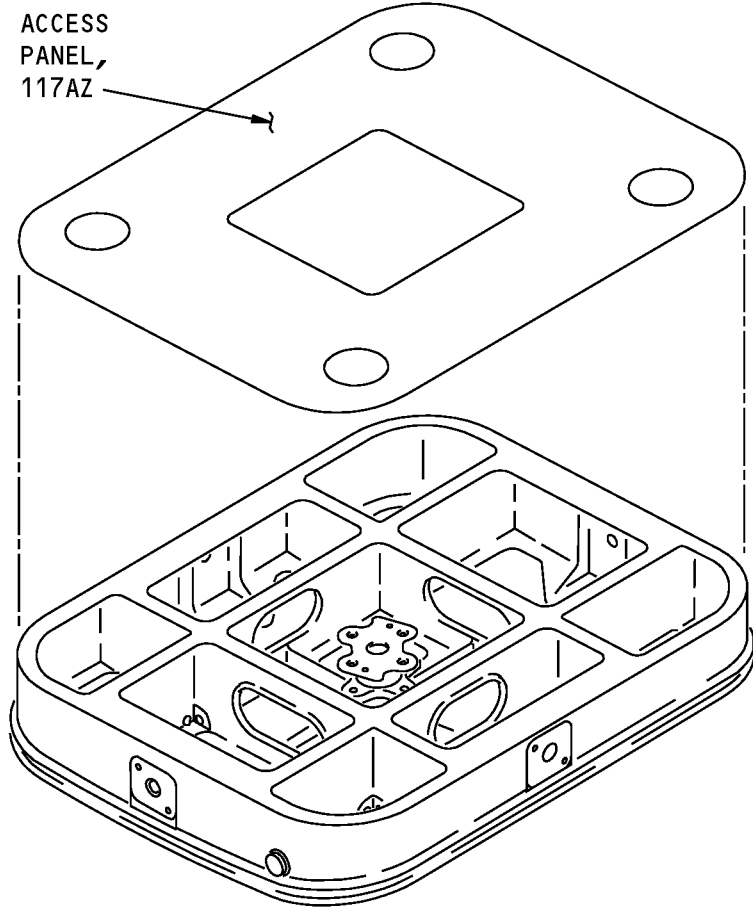
52-05-03

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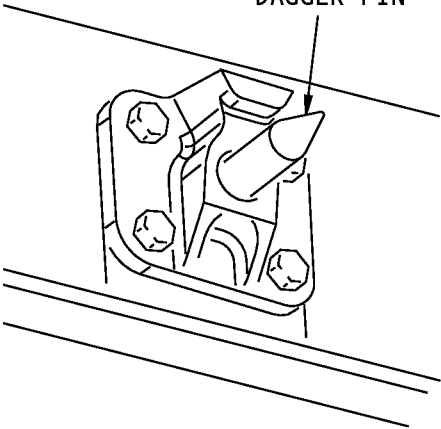
D633A101-HAP

**737-600/700/800/900
AIRCRAFT MAINTENANCE MANUAL**

ACCESS
PANEL,
117AZ



DAGGER PIN



**EQUIPMENT ACCESS DOOR
(PANELS REMOVED)**

(B)

**DOOR STOP FITTING
(EXAMPLE)**

(B)

**Electrical Equipment Access Door General Visual (Internal)
Figure 210 (Sheet 2 of 2)/52-05-03-990-834**

EFFECTIVITY
HAP ALL

D633A101-HAP



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AIRCRAFT MAINTENANCE MANUAL**

HAP 006-010

TASK 52-05-03-211-808

11. EXTERNAL - DETAILED: EXTERNAL - FORWARD AIRSTAIRS DOOR STOP FITTINGS AND PINS

(Figure 211)

A. General

(1) This procedure is a scheduled maintenance task.

B. Inspection

SUBTASK 52-05-03-211-008

(1) Do the inspection.

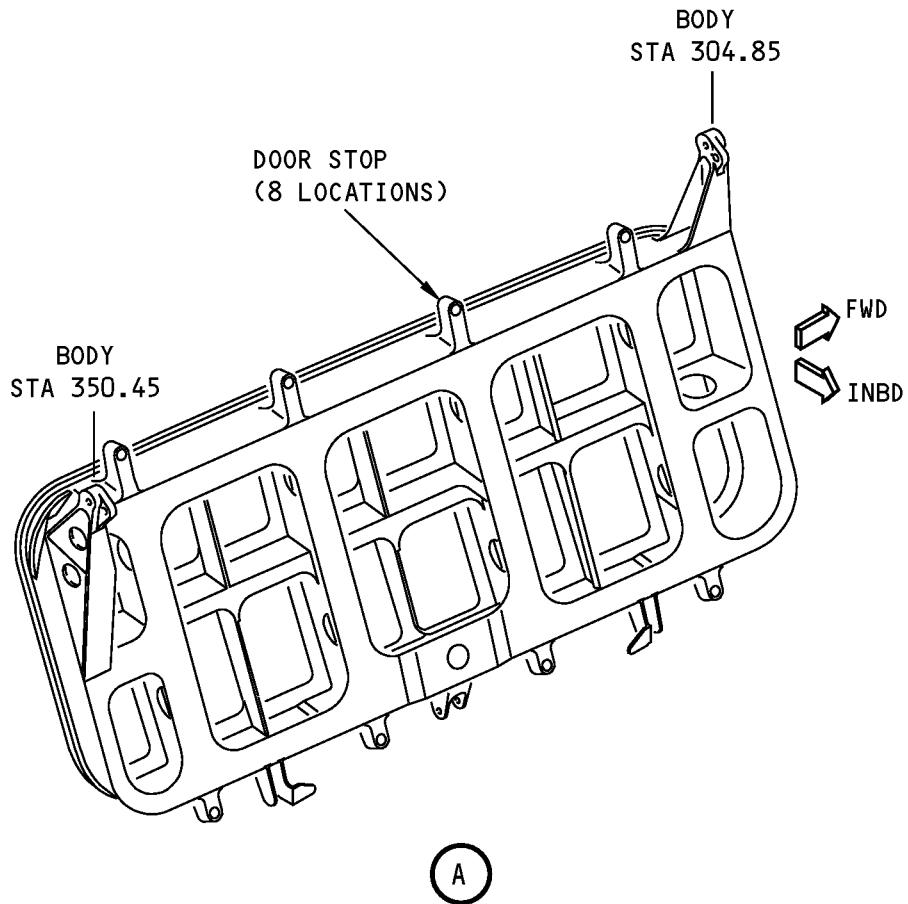
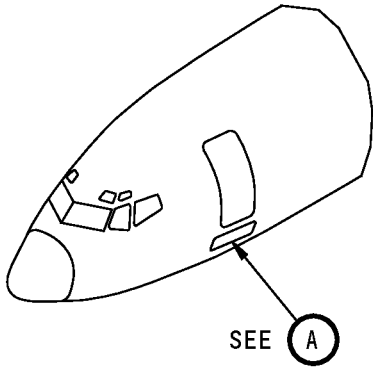
————— **END OF TASK** —————

EFFECTIVITY
HAP ALL

D633A101-HAP

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**External - Forward Airstairs Door
Figure 211/52-05-03-990-803**

EFFECTIVITY
HAP 006-010

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AIRCRAFT MAINTENANCE MANUAL

HAP 006-010 (Continued)

TASK 52-05-03-210-808

12. EXTERNAL - GENERAL VISUAL: EXTERNAL - FORWARD AIRSTAIRS DOOR

(Figure 212)

A. General

(1) This procedure is a scheduled maintenance task.

B. Inspection

SUBTASK 52-05-03-210-008

(1) Do the inspection.

————— **END OF TASK** —————

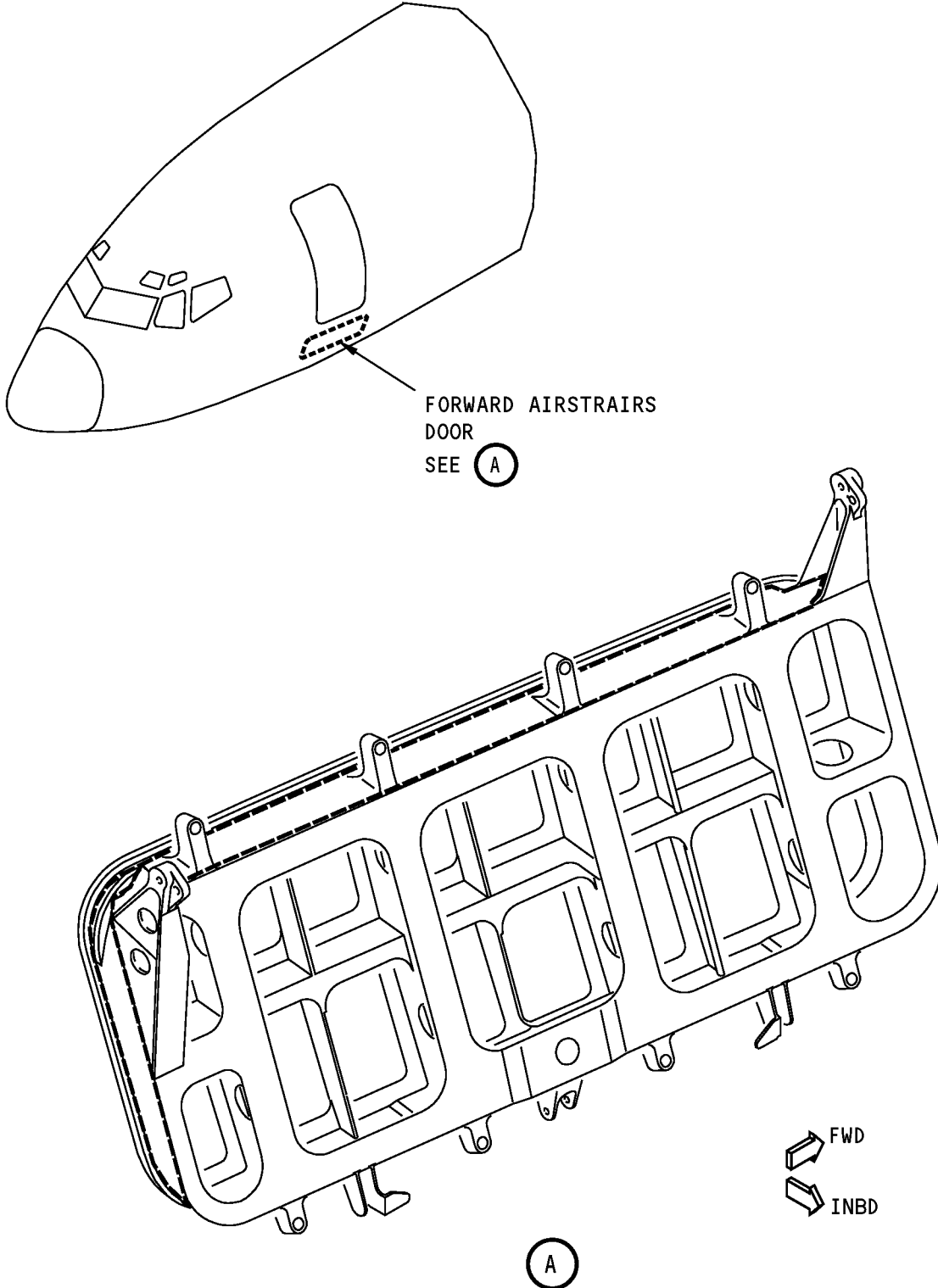
EFFECTIVITY
HAP ALL

D633A101-HAP

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**External - Forward Airstairs Door
Figure 212/52-05-03-990-804**

EFFECTIVITY
HAP 006-010

52-05-03

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HAP 006-010 (Continued)

TASK 52-05-03-210-809

13. INTERNAL - GENERAL VISUAL: INTERNAL - FORWARD AIRSTAIRS DOOR

A. General

(1) This procedure is a scheduled maintenance task.

B. Inspection

SUBTASK 52-05-03-210-009

(1) Do the inspection.

————— **END OF TASK** —————

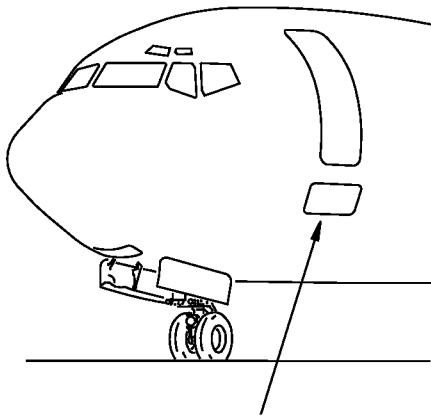
EFFECTIVITY
HAP ALL

D633A101-HAP

52-05-03

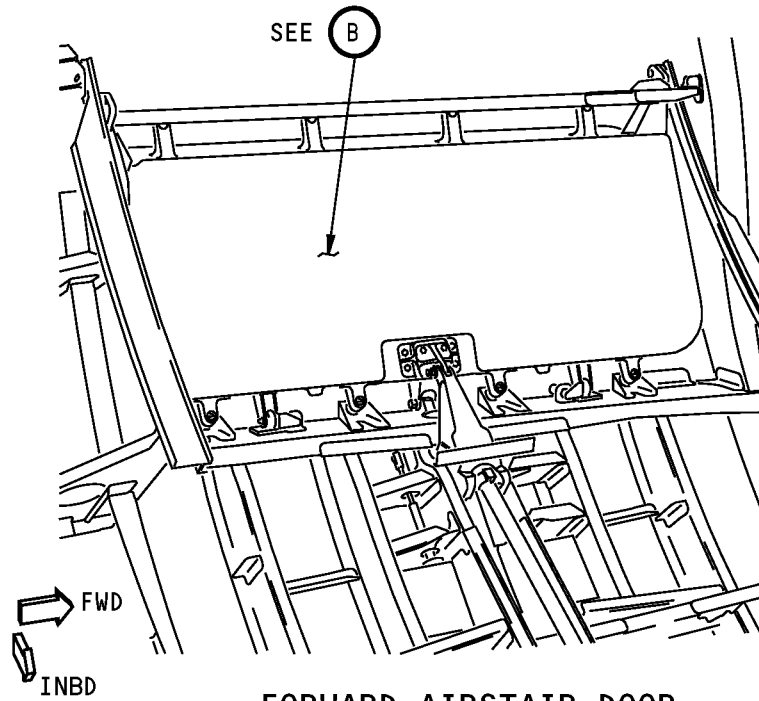
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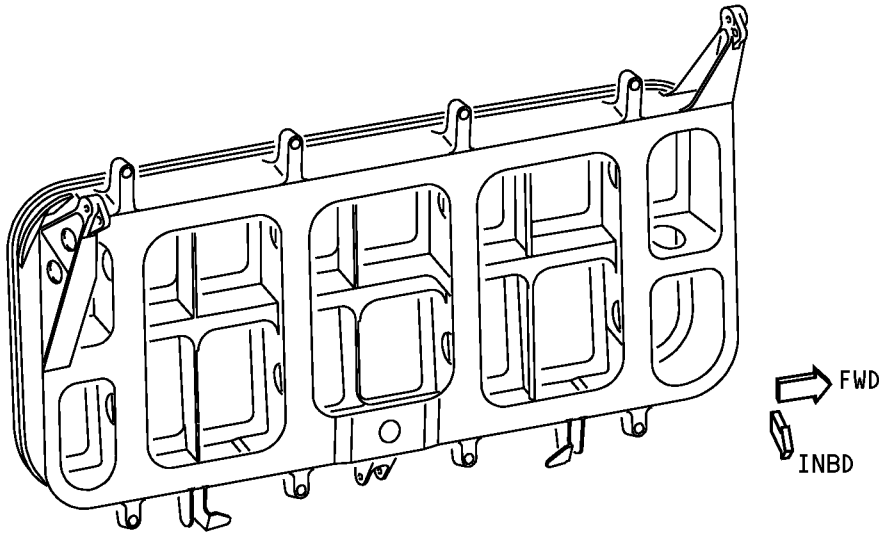
**FORWARD AIRSTAIR
DOOR, 117BL**

SEE (A)



FORWARD AIRSTAIR DOOR

(A)



(ACCESS PANEL REMOVED)

(B)

**Forward Airstairs Door General Visual (Internal)
Figure 213/52-05-03-990-828**

EFFECTIVITY
HAP 006-010

52-05-03



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AIRCRAFT MAINTENANCE MANUAL

TASK 52-05-03-211-809

14. EXTERNAL - DETAILED: EXTERNAL - FORWARD ENTRY DOOR STOP FITTINGS AND PINS

(Figure 214)

A. General

(1) This procedure is a scheduled maintenance task.

B. Inspection

SUBTASK 52-05-03-211-009

(1) Do the inspection.

————— **END OF TASK** —————

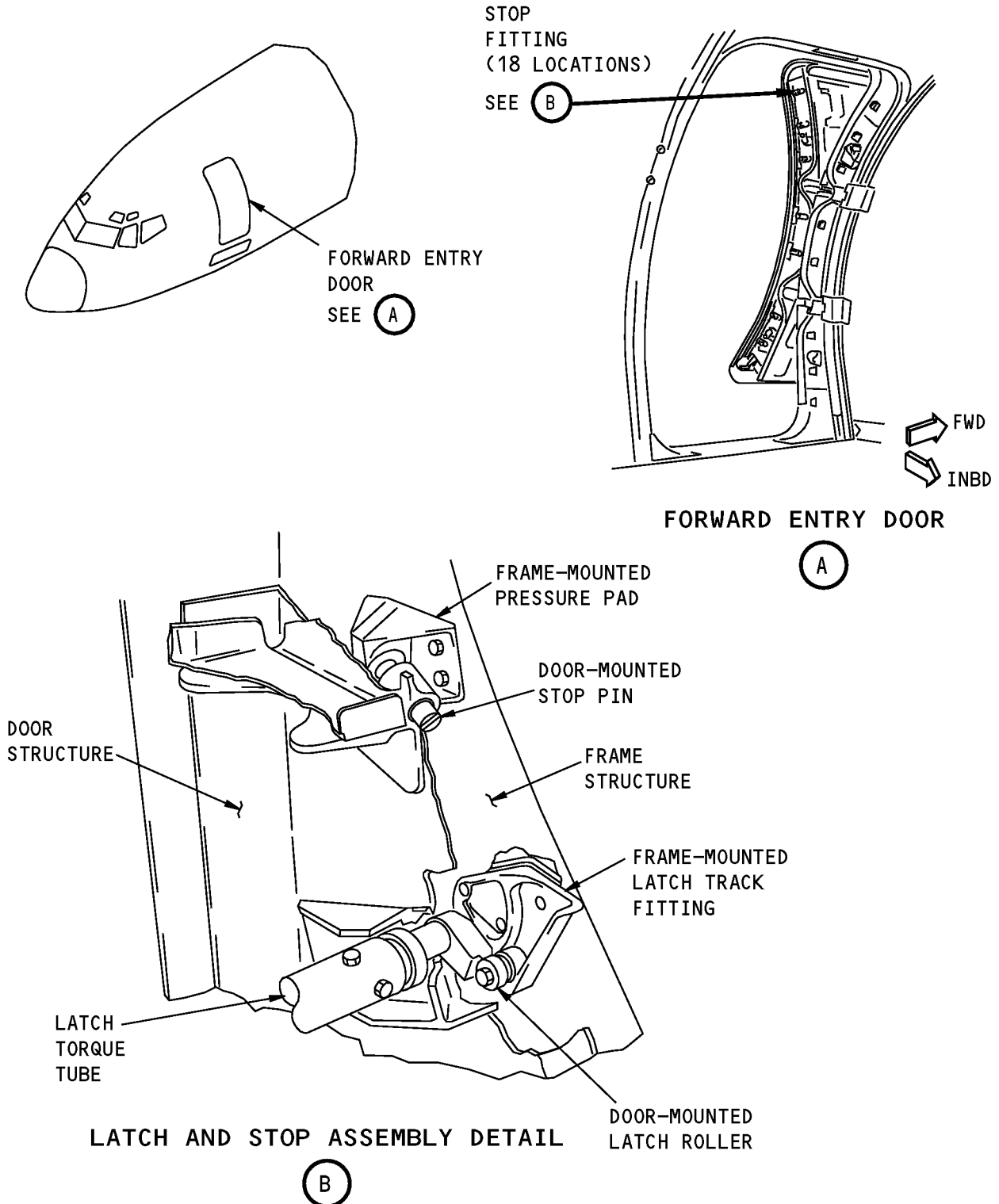
EFFECTIVITY
HAP ALL

D633A101-HAP

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**External - Forward Entry Door
Figure 214/52-05-03-990-805**

EFFECTIVITY
HAP ALL

52-05-03

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AIRCRAFT MAINTENANCE MANUAL

TASK 52-05-03-211-810

15. EXTERNAL - DETAILED: EXTERNAL - FORWARD GALLEY SERVICE DOOR STOP FITTINGS AND PINS

(Figure 215)

A. General

(1) This procedure is a scheduled maintenance task.

B. Inspection

SUBTASK 52-05-03-211-010

(1) Do the inspection.

————— **END OF TASK** —————

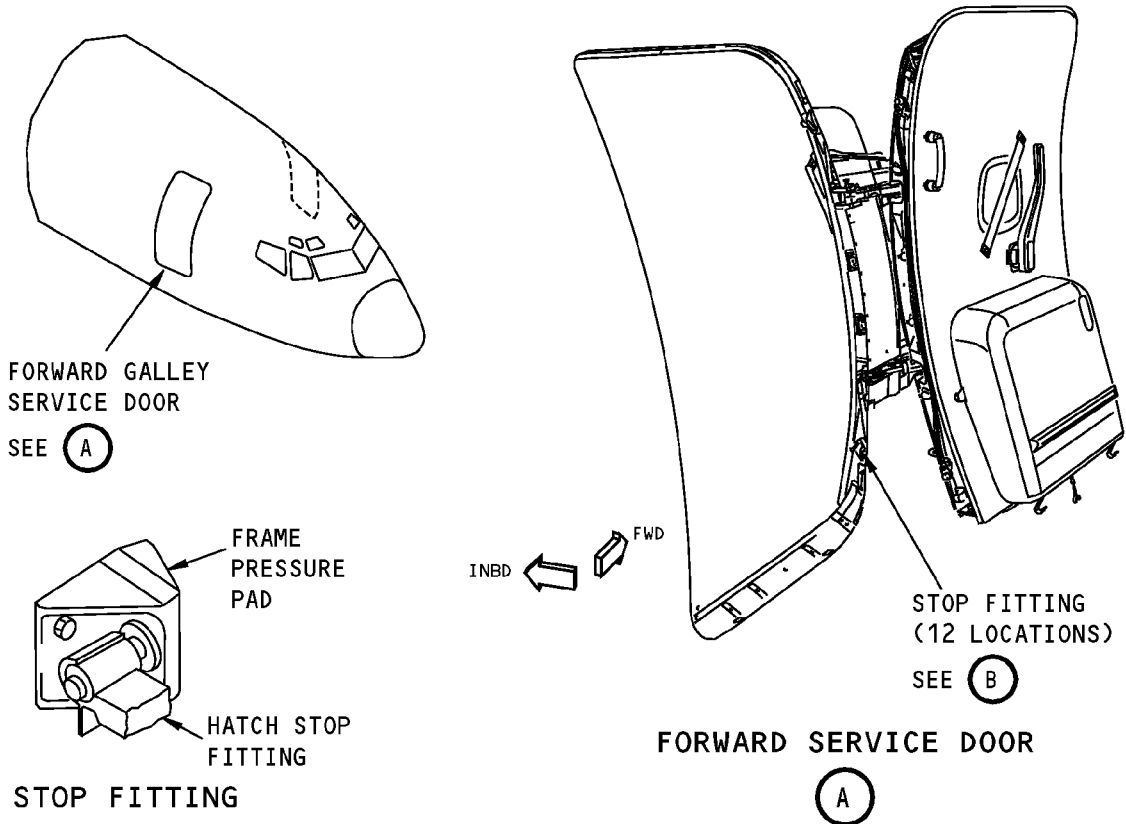
EFFECTIVITY
HAP ALL

D633A101-HAP

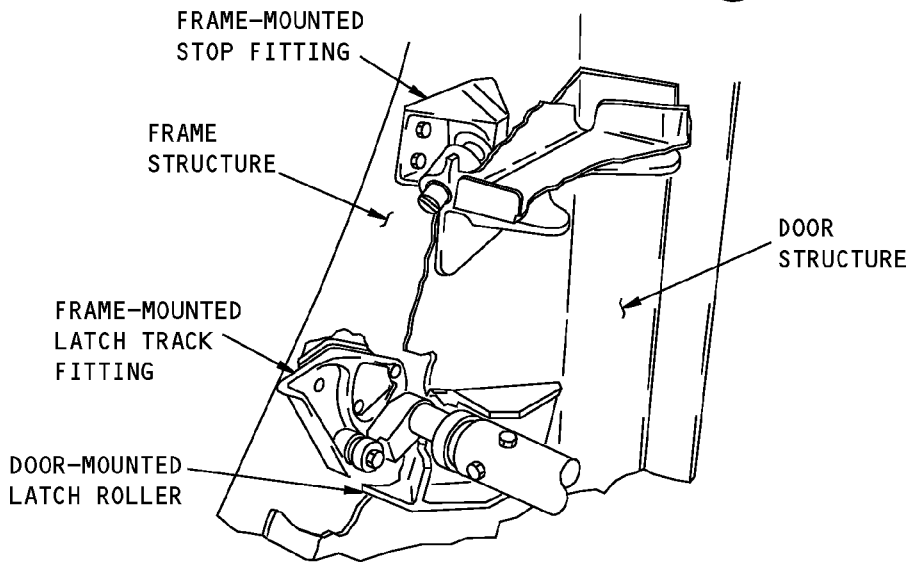
52-05-03

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AIRCRAFT MAINTENANCE MANUAL**



STOP FITTING



LATCH AND STOP ASSEMBLY DETAIL

(B)

**External - Forward Galley Service Door
Figure 215/52-05-03-990-806**

EFFECTIVITY
HAP ALL

52-05-03



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AIRCRAFT MAINTENANCE MANUAL

TASK 52-05-03-211-811

16. EXTERNAL - DETAILED: EXTERNAL - AFT ENTRY DOOR STOP FITTINGS AND PINS

(Figure 216)

A. General

(1) This procedure is a scheduled maintenance task.

B. Inspection

SUBTASK 52-05-03-211-011

(1) Do the inspection.

————— **END OF TASK** —————

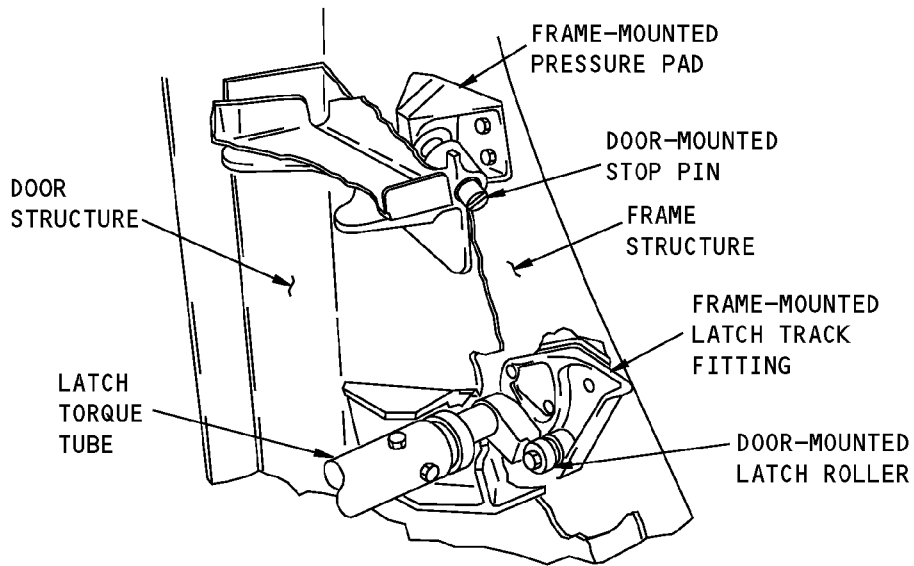
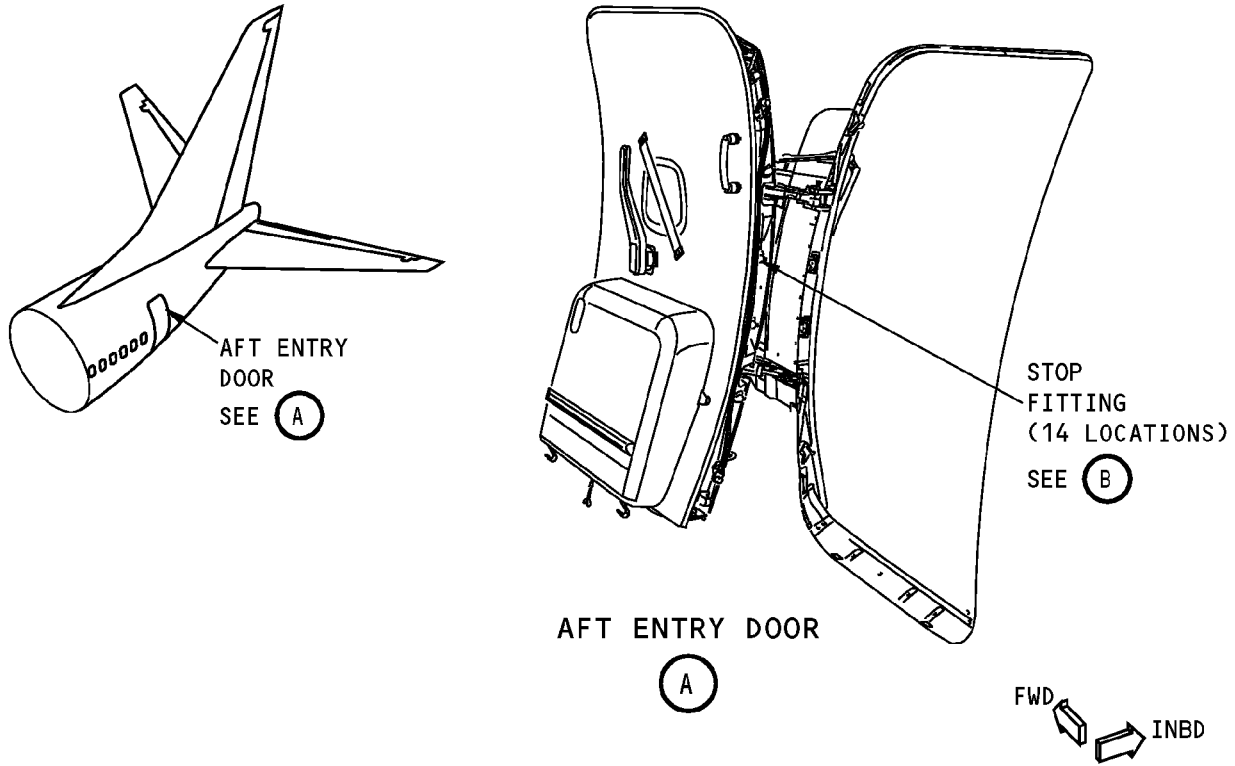
EFFECTIVITY
HAP ALL

D633A101-HAP

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LATCH AND STOP ASSEMBLY DETAIL

(B)

**External - Aft Entry Door
Figure 216/52-05-03-990-807**

EFFECTIVITY
HAP ALL

52-05-03



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AIRCRAFT MAINTENANCE MANUAL

TASK 52-05-03-211-812

17. EXTERNAL - DETAILED: EXTERNAL - AFT GALLEY SERVICE DOOR STOP FITTINGS AND PINS

(Figure 217)

A. General

(1) This procedure is a scheduled maintenance task.

B. Inspection

SUBTASK 52-05-03-211-012

(1) Do the inspection.

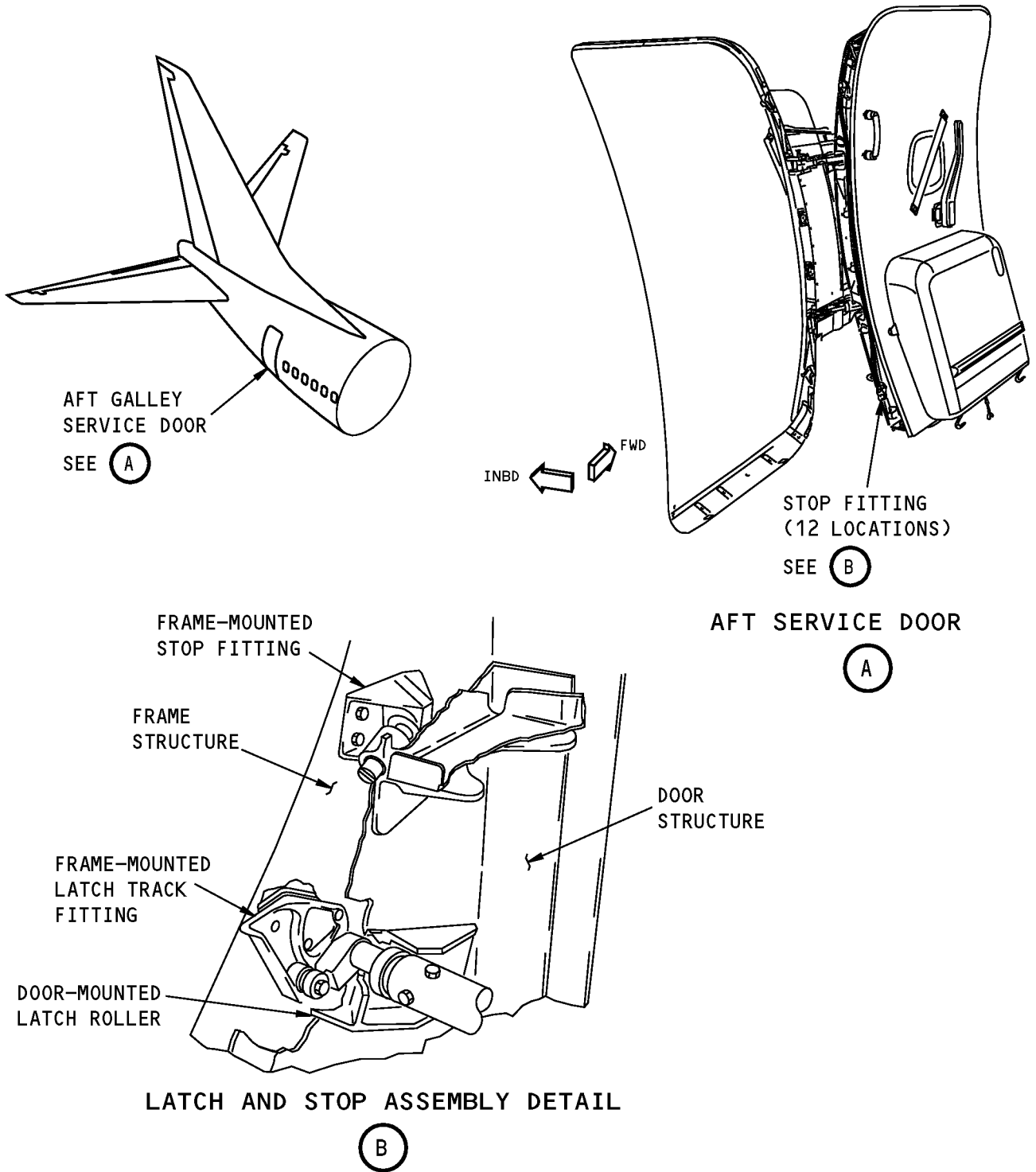
————— **END OF TASK** —————

EFFECTIVITY
HAP ALL

D633A101-HAP

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**External - Aft Galley Service Door
Figure 217/52-05-03-990-808**

EFFECTIVITY
HAP ALL

D633A101-HAP

52-05-03



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AIRCRAFT MAINTENANCE MANUAL

TASK 52-05-03-211-813

18. INTERNAL - DETAILED: INTERNAL - FORWARD ENTRY DOOR

A. General

(1) This procedure is a scheduled maintenance task.

B. Inspection

SUBTASK 52-05-03-211-013

(1) Do the inspection.

————— **END OF TASK** —————

EFFECTIVITY
HAP ALL

D633A101-HAP

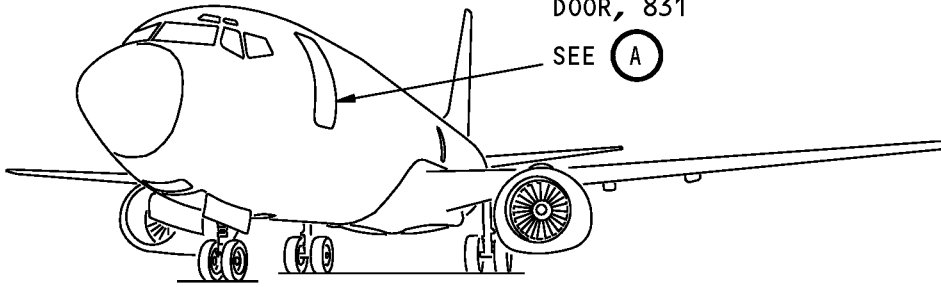
52-05-03

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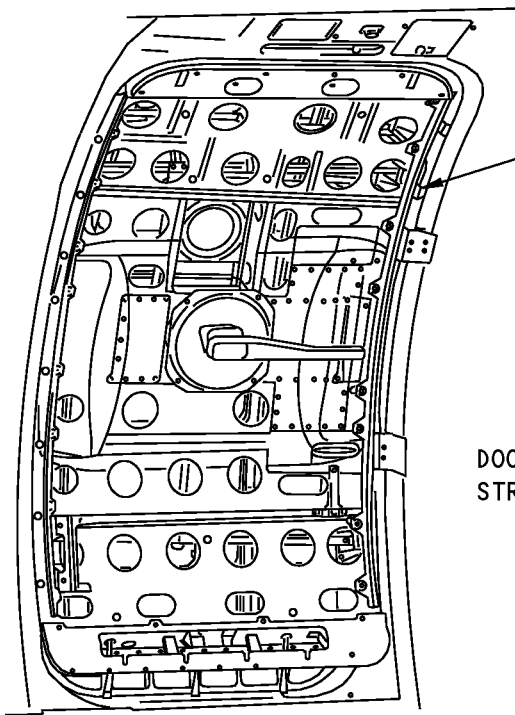
FORWARD ENTRY
DOOR, 831

SEE (A)



DOOR STOP
FITTING
(18 LOCATIONS)

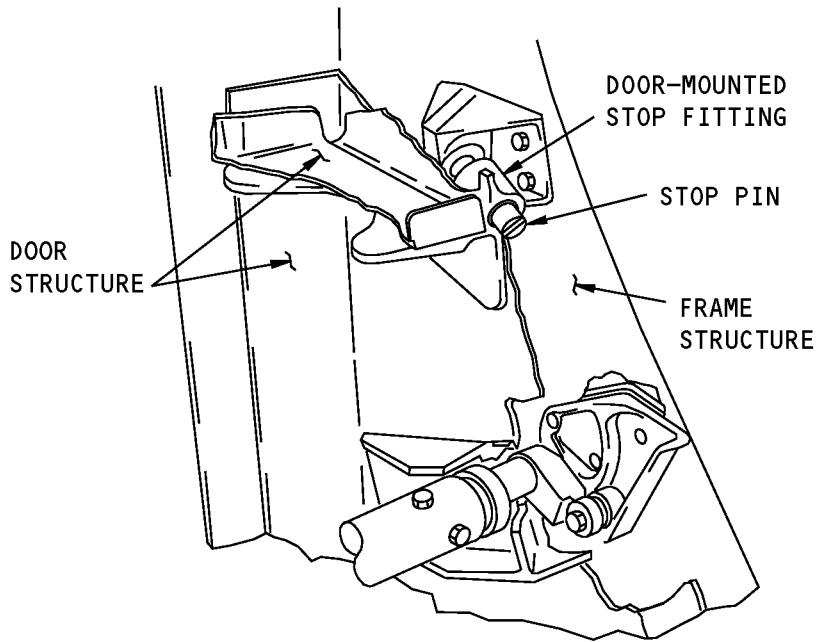
SEE (B)



FWD

FORWARD ENTRY DOOR
(LINING REMOVED)

(A)



DOOR STOP FITTING
(EXAMPLE)

(B)

**Forward Entry Door Detailed (Internal)
Figure 218/52-05-03-990-830**

EFFECTIVITY
HAP ALL

52-05-03



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AIRCRAFT MAINTENANCE MANUAL

TASK 52-05-03-211-814

19. INTERNAL - DETAILED: INTERNAL - FORWARD GALLEY SERVICE DOOR

A. General

(1) This procedure is a scheduled maintenance task.

B. Inspection

SUBTASK 52-05-03-211-014

(1) Do the inspection.

————— **END OF TASK** —————

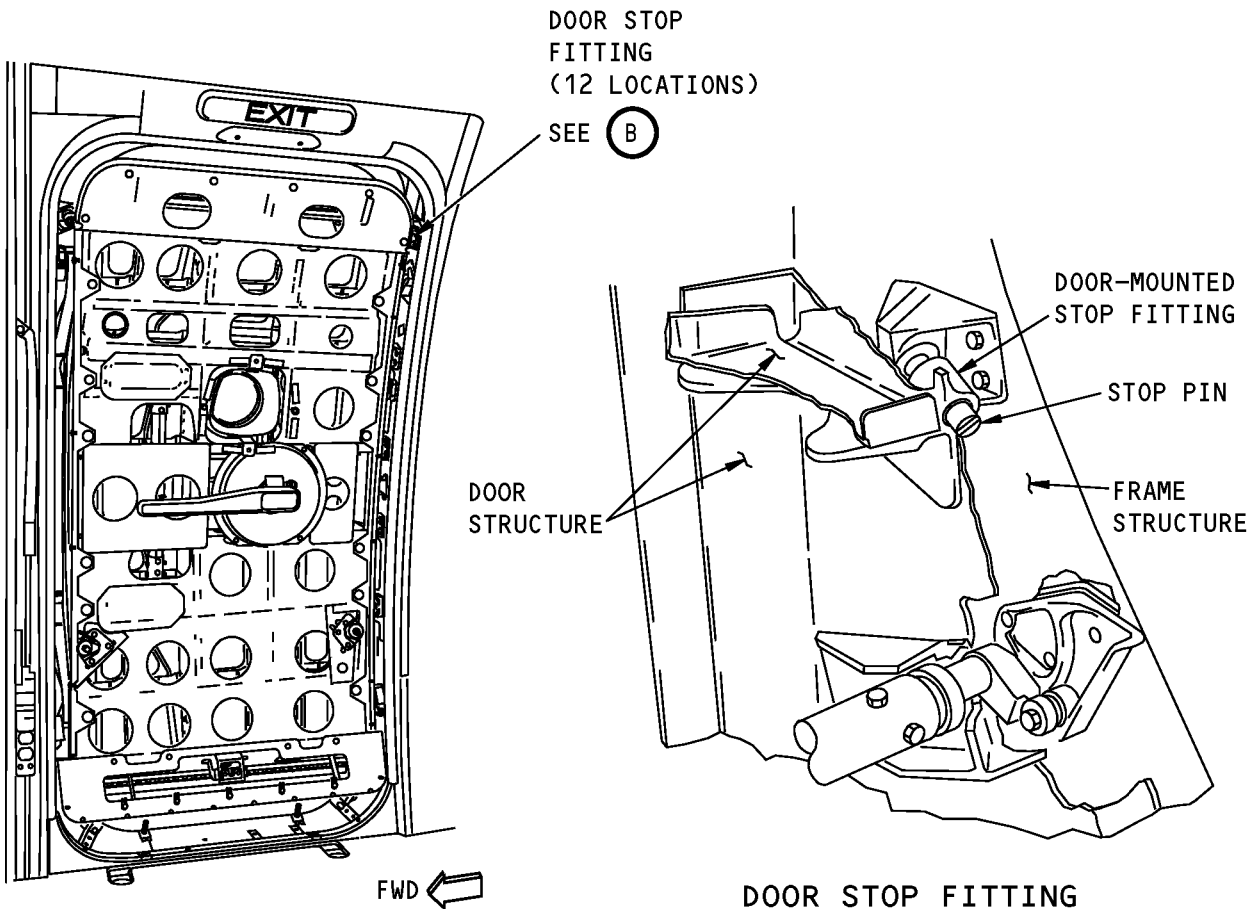
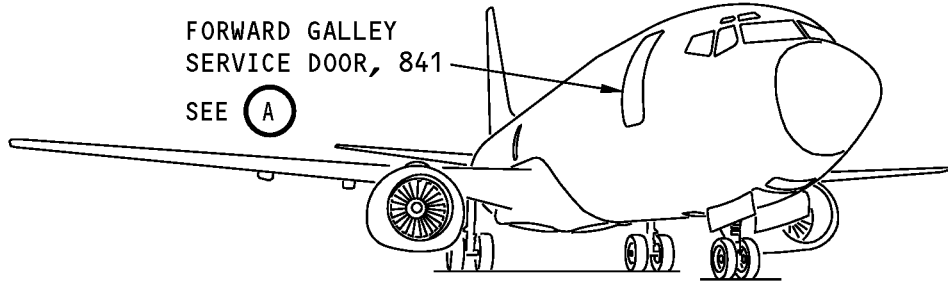
EFFECTIVITY
HAP ALL

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**FORWARD GALLEY SERVICE DOOR
(LINING REMOVED)**

(A)

**DOOR STOP FITTING
(EXAMPLE)**

(B)

**Forward Galley Service Door Detailed (Internal)
Figure 219/52-05-03-990-831**

EFFECTIVITY
HAP ALL

52-05-03



737-600/700/800/900

AIRCRAFT MAINTENANCE MANUAL

TASK 52-05-03-211-815

20. INTERNAL - DETAILED: INTERNAL - AFT ENTRY DOOR

A. General

(1) This procedure is a scheduled maintenance task.

B. Inspection

SUBTASK 52-05-03-211-015

(1) Do the inspection.

————— **END OF TASK** —————

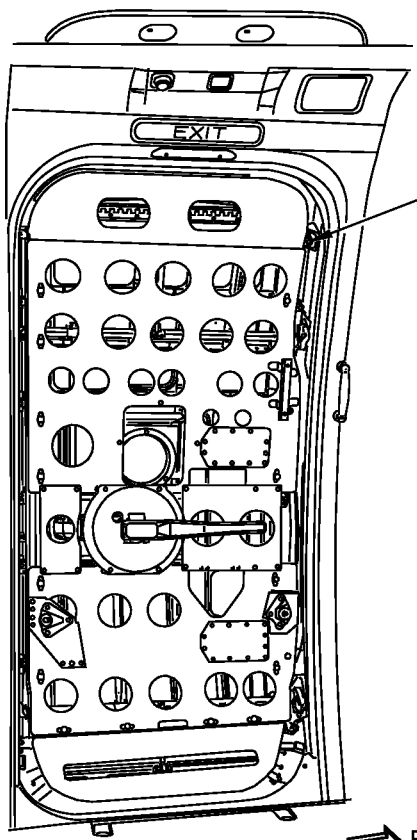
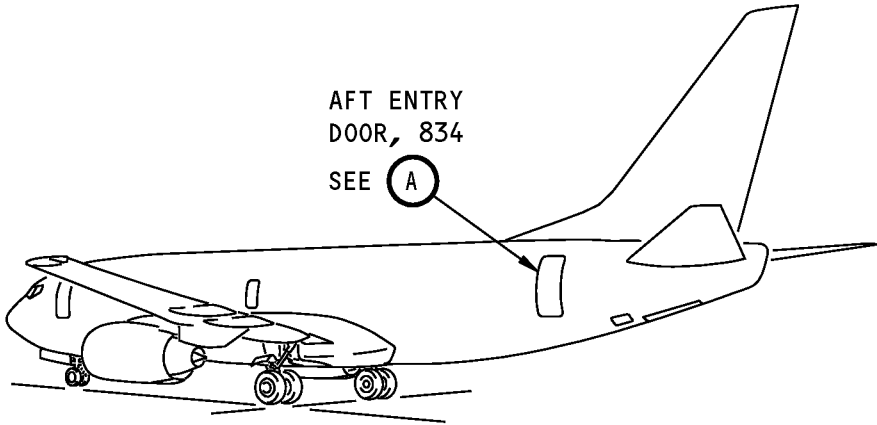
EFFECTIVITY
HAP ALL

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DOOR STOP
FITTING
(12 LOCATIONS)
SEE (B)

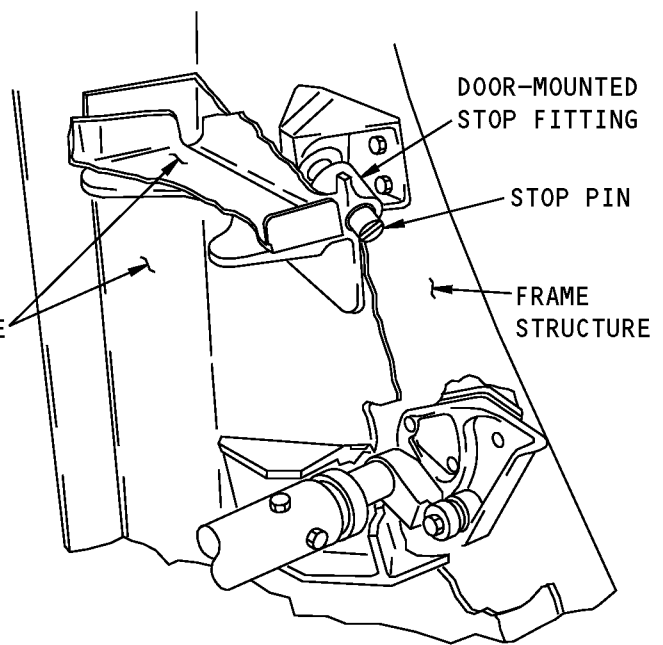
SEE (B)

DOOR
STRUCTURE

FWD

AFT ENTRY DOOR
(LINING REMOVED)

(A)



DOOR STOP FITTING
(EXAMPLE)

(B)

**Aft Entry Door Detailed (Internal)
Figure 220/52-05-03-990-833**

EFFECTIVITY
HAP ALL

52-05-03



737-600/700/800/900

AIRCRAFT MAINTENANCE MANUAL

TASK 52-05-03-211-816

21. INTERNAL - DETAILED: INTERNAL - AFT GALLEY SERVICE DOOR

A. General

(1) This procedure is a scheduled maintenance task.

B. Inspection

SUBTASK 52-05-03-211-016

(1) Do the inspection.

————— **END OF TASK** —————

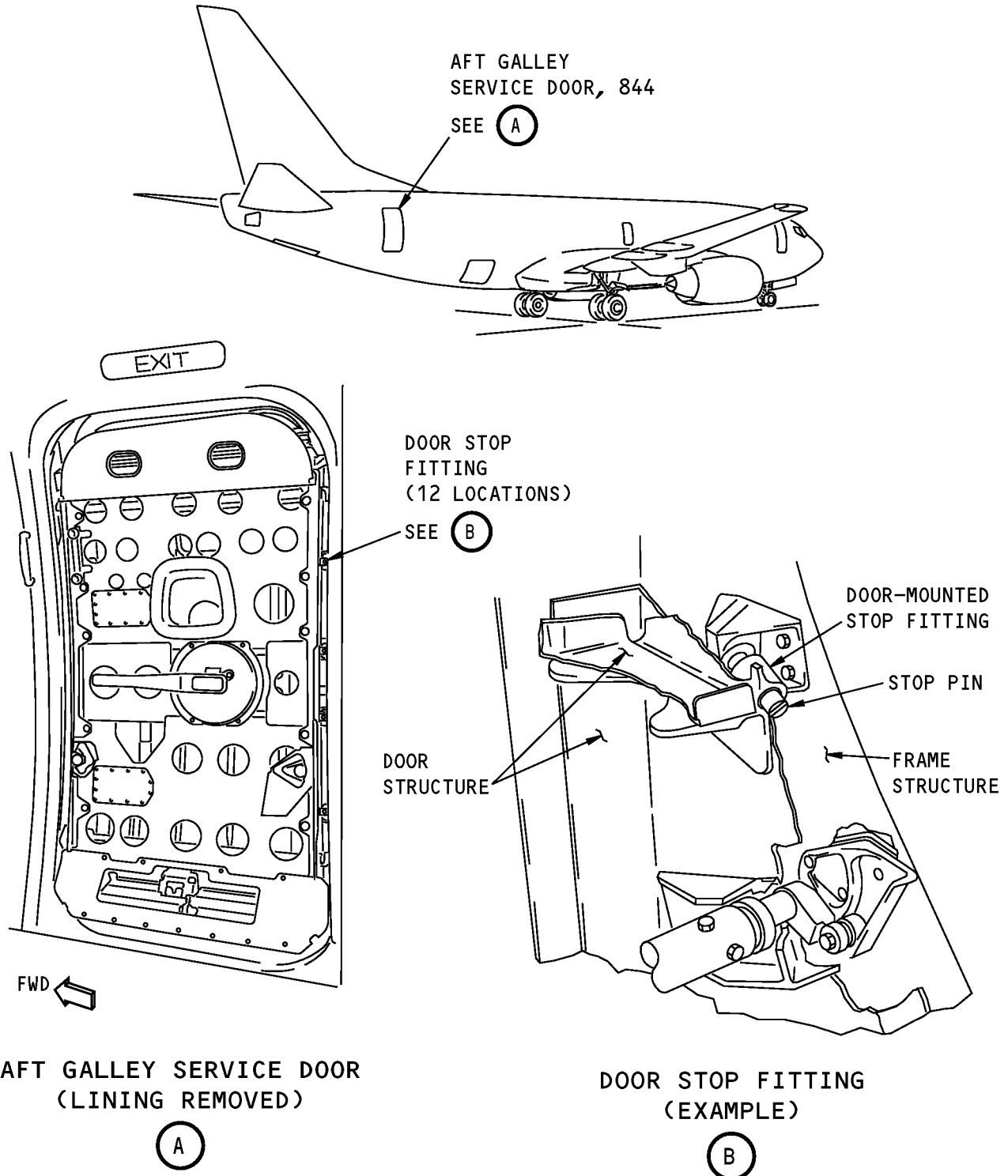
EFFECTIVITY
HAP ALL

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52-05-03

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**737-600/700/800/900
AIRCRAFT MAINTENANCE MANUAL**



**Aft Galley Service Door Detailed (Internal)
Figure 221/52-05-03-990-829**

EFFECTIVITY
HAP ALL

52-05-03



737-600/700/800/900

AIRCRAFT MAINTENANCE MANUAL

TASK 52-05-03-210-810

22. INTERNAL - GENERAL VISUAL: INTERNAL - FORWARD ENTRY DOOR

A. General

(1) This procedure is a scheduled maintenance task.

B. Inspection

SUBTASK 52-05-03-210-010

(1) Do the inspection.

————— **END OF TASK** —————

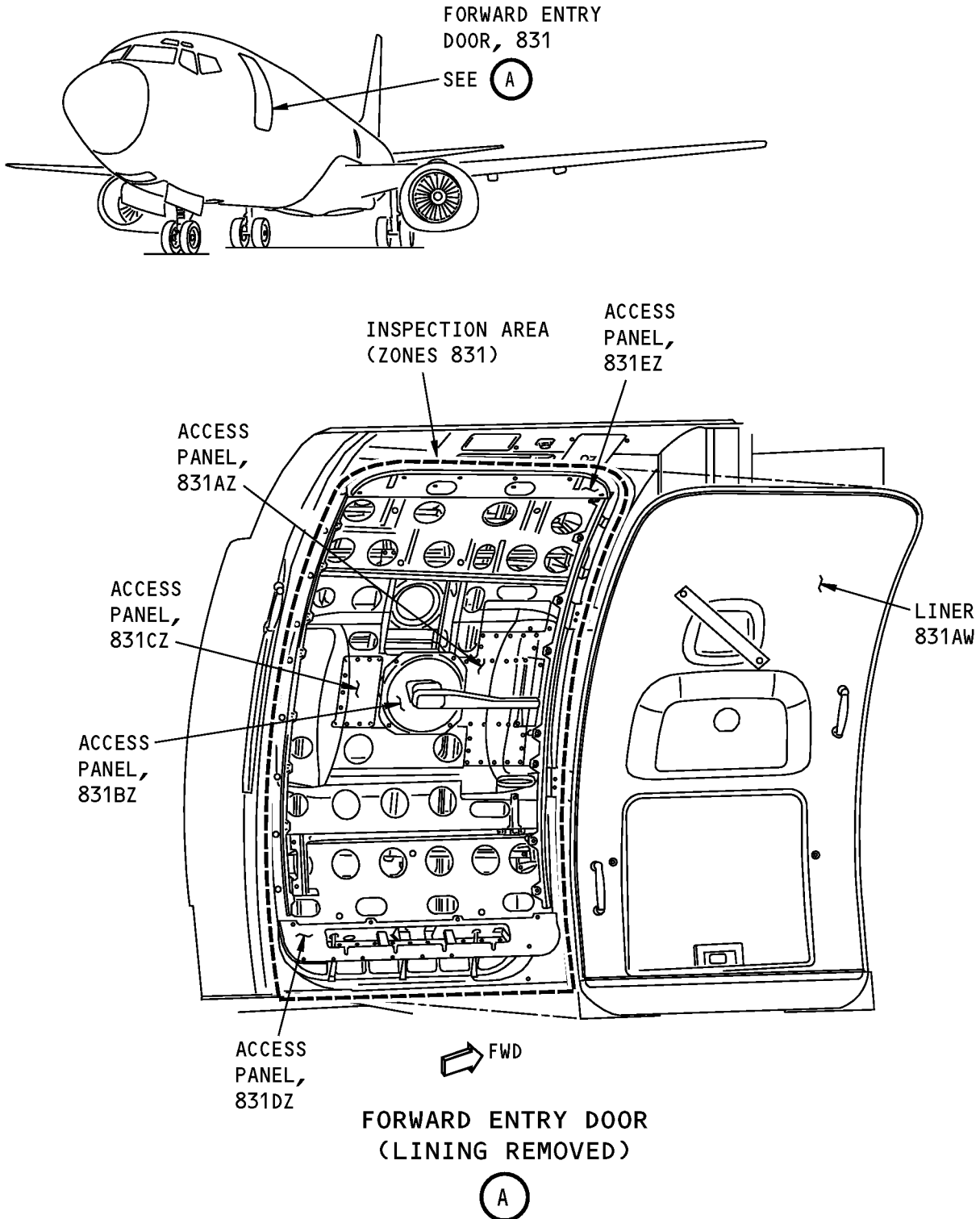
EFFECTIVITY
HAP ALL

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AIRCRAFT MAINTENANCE MANUAL**



Forward Entry Door General Visual (Internal)
Figure 222/52-05-03-990-825

EFFECTIVITY
HAP ALL

52-05-03



737-600/700/800/900

AIRCRAFT MAINTENANCE MANUAL

TASK 52-05-03-210-811

23. INTERNAL - GENERAL VISUAL: INTERNAL - FORWARD GALLEY SERVICE DOOR

A. General

(1) This procedure is a scheduled maintenance task.

B. Inspection

SUBTASK 52-05-03-210-011

(1) Do the inspection.

————— **END OF TASK** —————

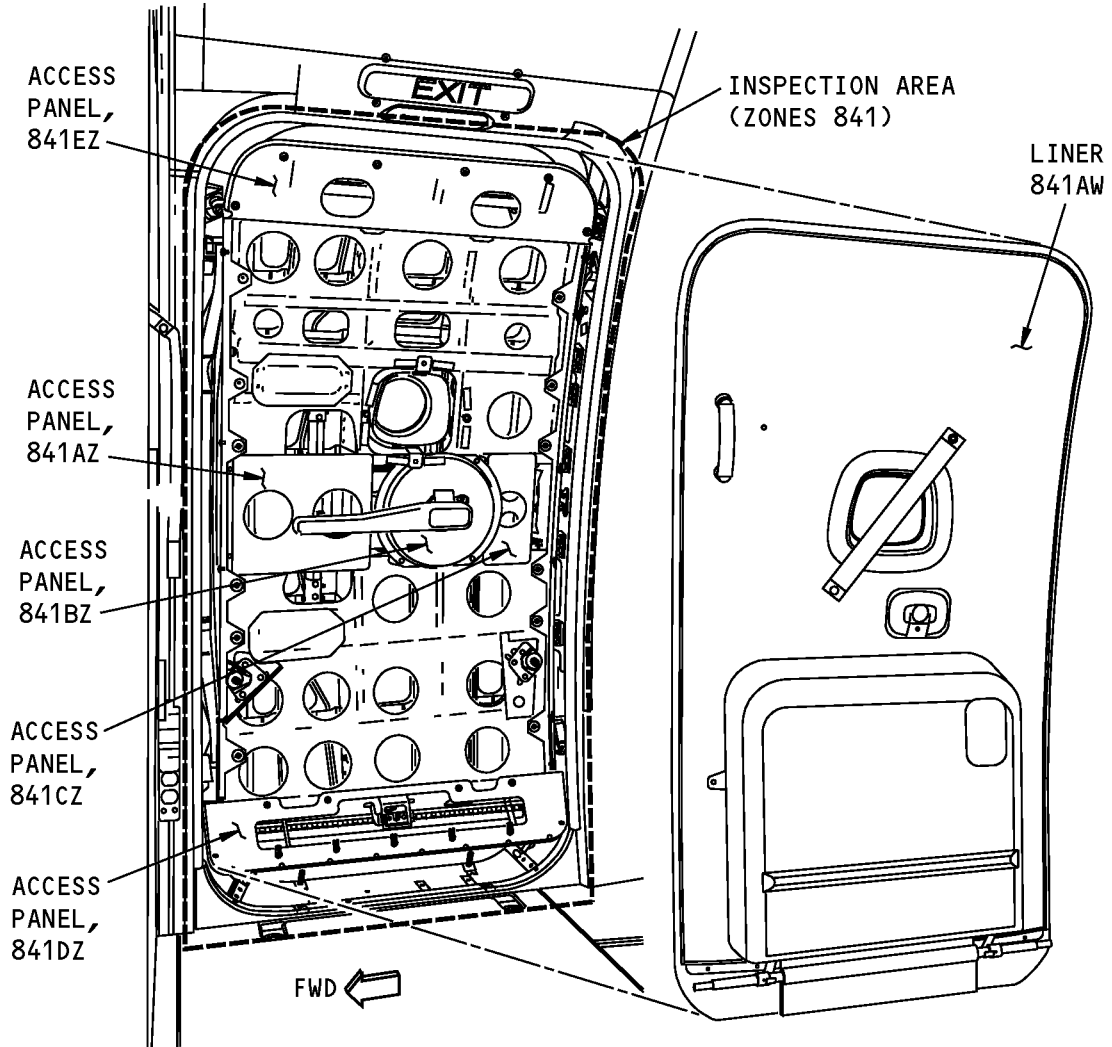
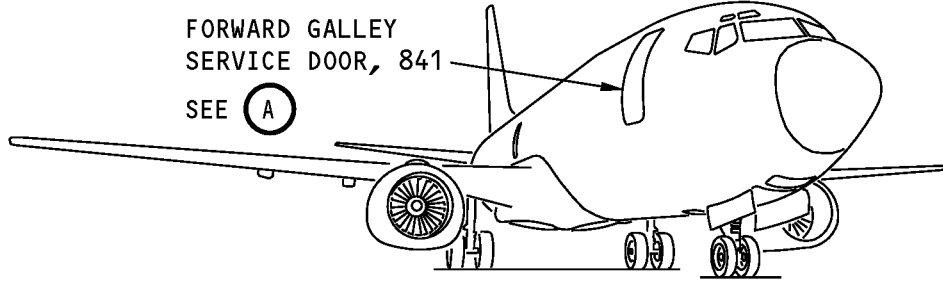
EFFECTIVITY
HAP ALL

D633A101-HAP

52-05-03

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AIRCRAFT MAINTENANCE MANUAL



**FORWARD GALLEY SERVICE DOOR
(LINING REMOVED)**

(A)

**Forward Galley Service Door General Visual (Internal)
Figure 223/52-05-03-990-824**

EFFECTIVITY
HAP ALL

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AIRCRAFT MAINTENANCE MANUAL

TASK 52-05-03-210-812

24. INTERNAL - GENERAL VISUAL: INTERNAL - AFT ENTRY DOOR

A. General

(1) This procedure is a scheduled maintenance task.

B. Inspection

SUBTASK 52-05-03-210-012

(1) Do the inspection.

————— **END OF TASK** —————

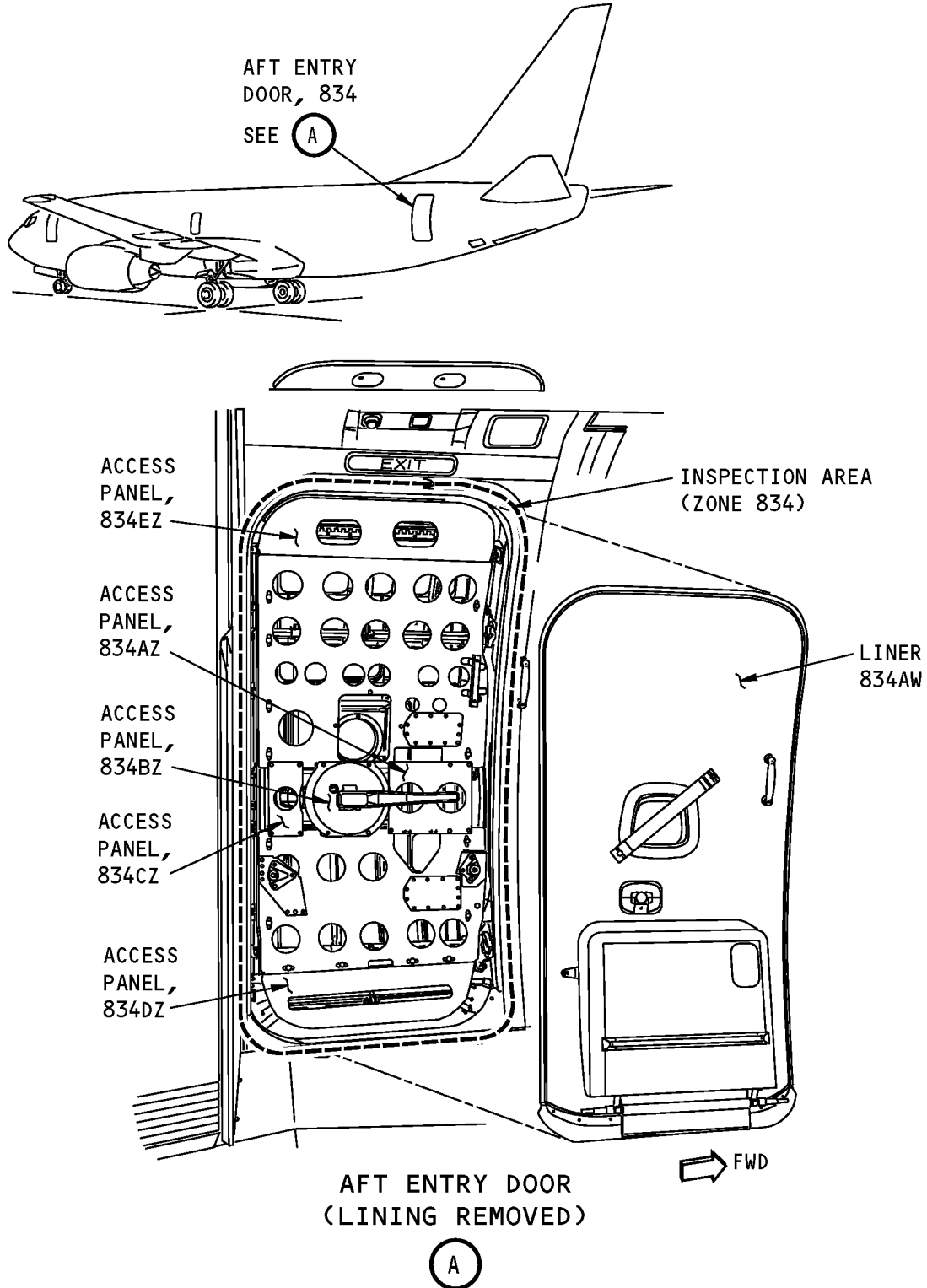
EFFECTIVITY
HAP ALL

D633A101-HAP

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AIRCRAFT MAINTENANCE MANUAL**



**Aft Entry Door General Visual (Internal)
Figure 224/52-05-03-990-836**

EFFECTIVITY
HAP ALL

52-05-03

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737-600/700/800/900

AIRCRAFT MAINTENANCE MANUAL

TASK 52-05-03-210-813

25. INTERNAL - GENERAL VISUAL: INTERNAL - AFT GALLEY SERVICE DOOR

A. General

(1) This procedure is a scheduled maintenance task.

B. Inspection

SUBTASK 52-05-03-210-013

(1) Do the inspection.

————— **END OF TASK** —————

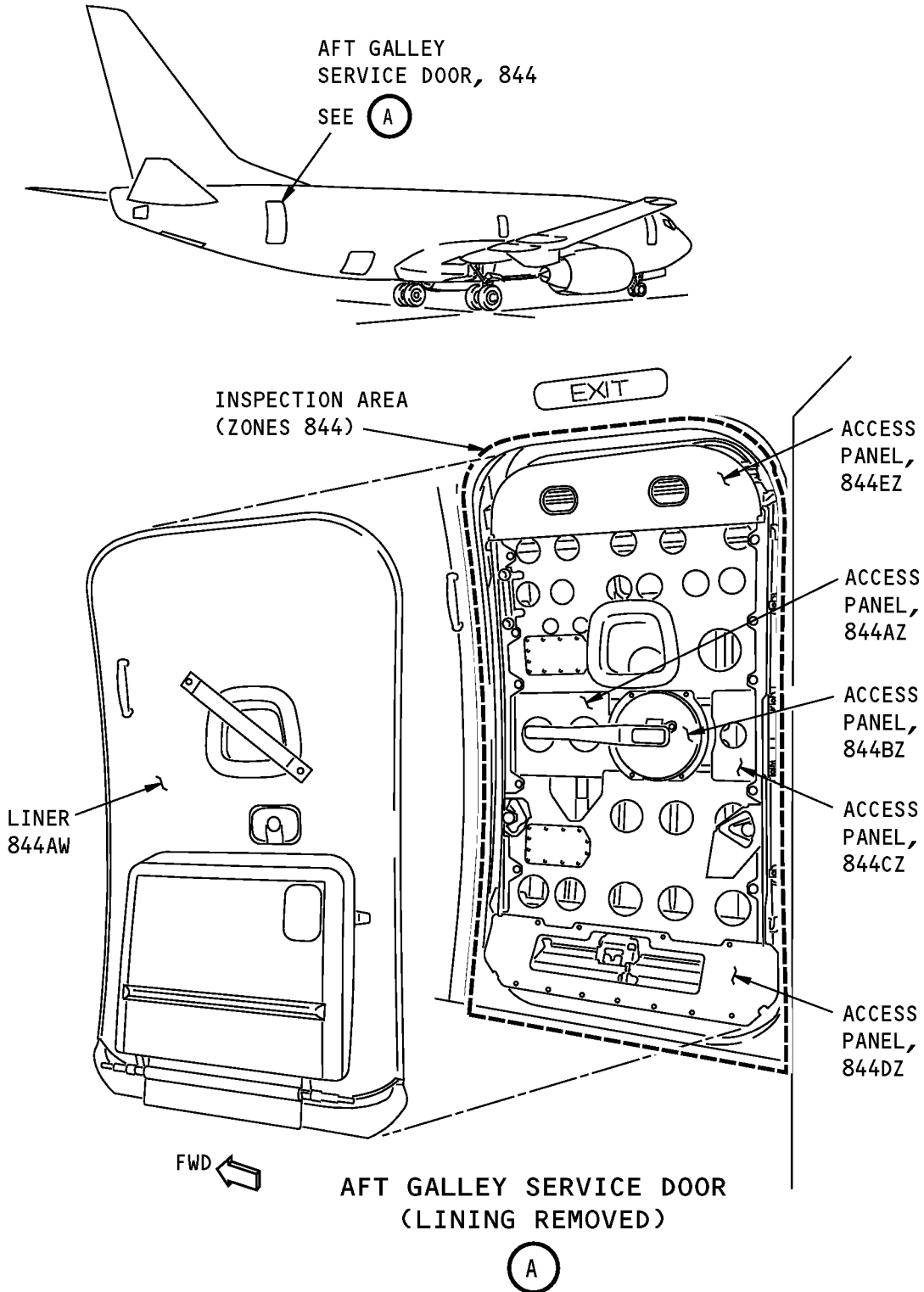
EFFECTIVITY
HAP ALL

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**737-600/700/800/900
AIRCRAFT MAINTENANCE MANUAL**



**Aft Galley Service Door General Visual (Internal)
Figure 225/52-05-03-990-826**

EFFECTIVITY
HAP ALL

52-05-03

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737-600/700/800/900

AIRCRAFT MAINTENANCE MANUAL

TASK 52-05-03-211-817

26. EXTERNAL - DETAILED: EXTERNAL - FORWARD CARGO DOOR STOP FITTINGS AND PINS

(Figure 226)

A. General

(1) This procedure is a scheduled maintenance task.

B. Inspection

SUBTASK 52-05-03-211-017

(1) Do the inspection.

————— **END OF TASK** —————

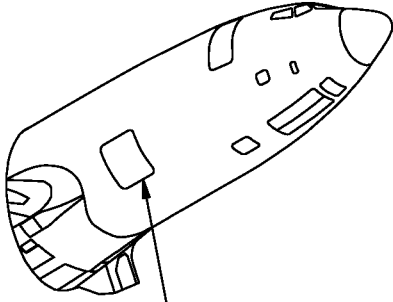
EFFECTIVITY
HAP ALL

D633A101-HAP

52-05-03

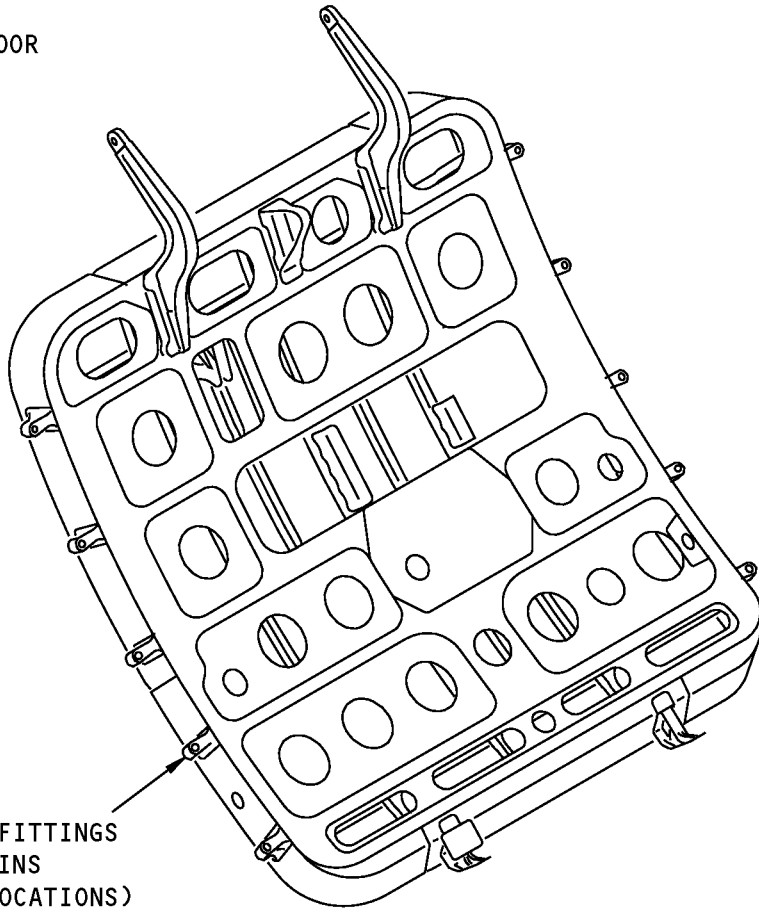
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**737-600/700/800/900
AIRCRAFT MAINTENANCE MANUAL**





FORWARD CARGO
COMPARTMENT DOOR

SEE (A)



STOP FITTINGS
AND PINS
(12 LOCATIONS)

FWD  INBD 

**FORWARD CARGO DOOR
VIEW FROM INSIDE**

(A)

**External - Forward Cargo Door
Figure 226/52-05-03-990-811**

EFFECTIVITY
HAP ALL

D633A101-HAP



737-600/700/800/900

AIRCRAFT MAINTENANCE MANUAL

TASK 52-05-03-211-818

27. EXTERNAL - DETAILED: EXTERNAL - AFT CARGO DOOR STOP FITTINGS AND PINS

(Figure 227)

A. General

(1) This procedure is a scheduled maintenance task.

B. Inspection

SUBTASK 52-05-03-211-018

(1) Do the inspection.

————— **END OF TASK** —————

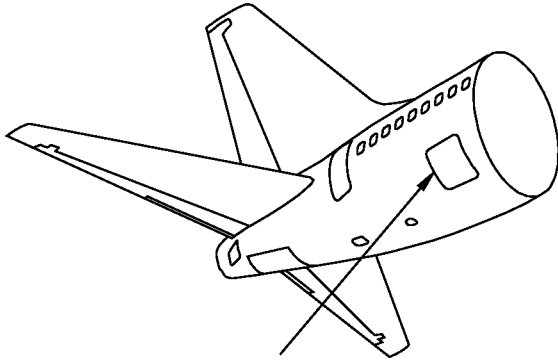
EFFECTIVITY
HAP ALL

D633A101-HAP

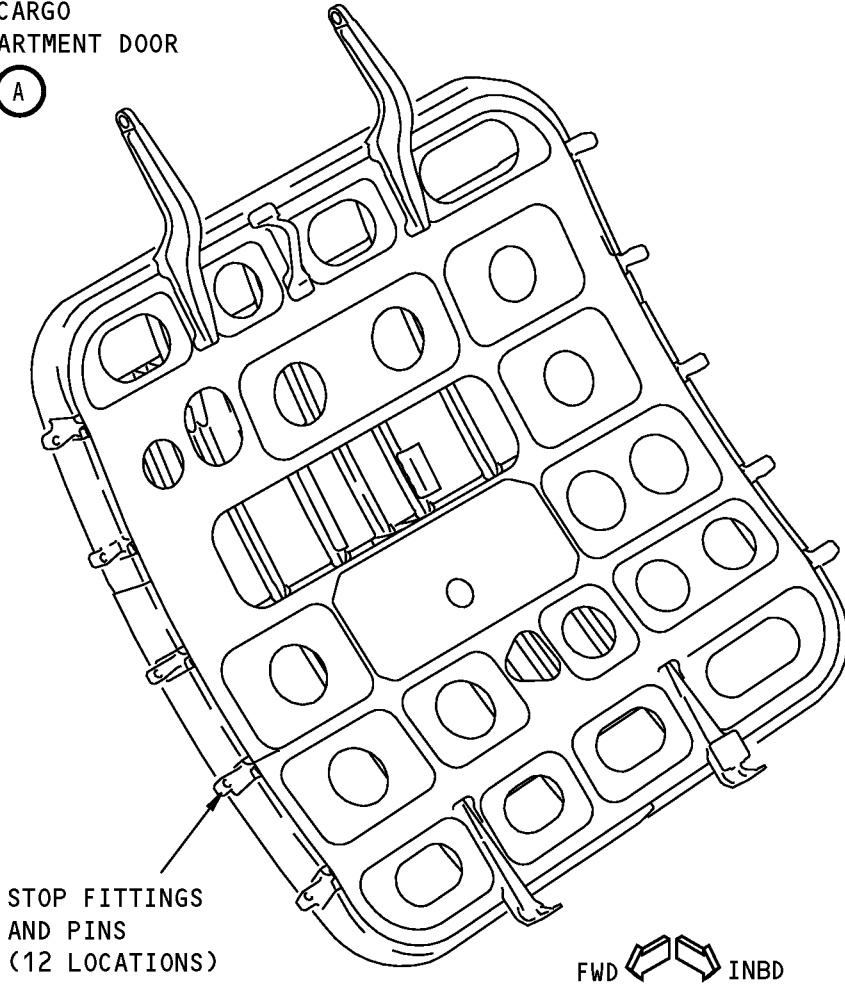
52-05-03

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AIRCRAFT MAINTENANCE MANUAL**



AFT CARGO
COMPARTMENT DOOR
SEE (A)



STOP FITTINGS
AND PINS
(12 LOCATIONS)

AFT CARGO DOOR
VIEW FROM INSIDE

(A)

**External - Aft Cargo Door
Figure 227/52-05-03-990-812**

EFFECTIVITY
HAP ALL

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737-600/700/800/900

AIRCRAFT MAINTENANCE MANUAL

TASK 52-05-03-211-819

28. INTERNAL - DETAILED: INTERNAL - FORWARD CARGO DOOR

A. General

(1) This procedure is a scheduled maintenance task.

B. Inspection

SUBTASK 52-05-03-211-019

(1) Do the inspection.

————— **END OF TASK** —————

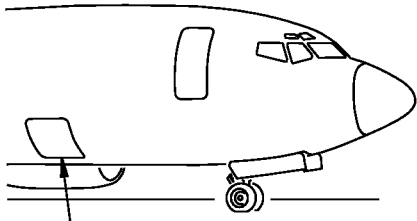
EFFECTIVITY
HAP ALL

D633A101-HAP

52-05-03

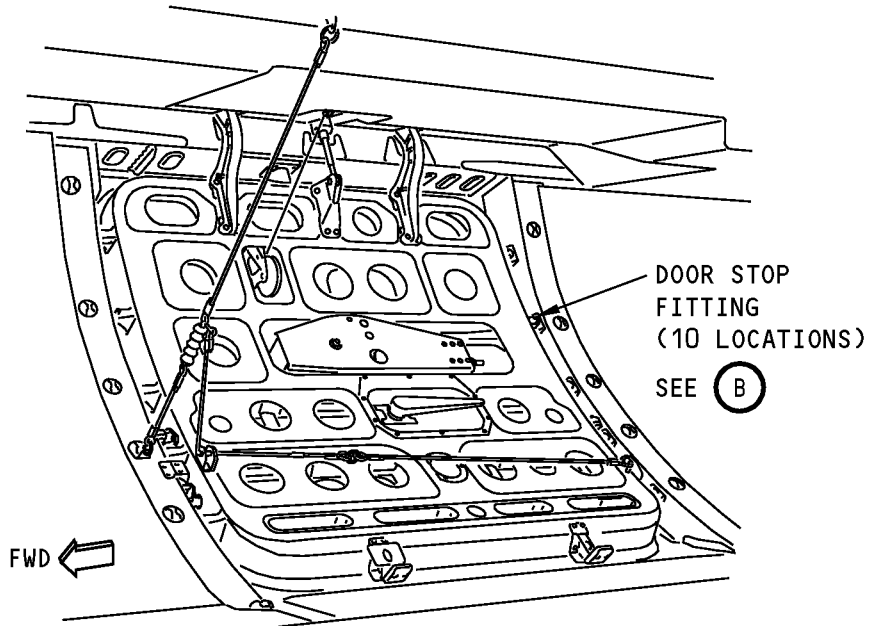
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AIRCRAFT MAINTENANCE MANUAL**



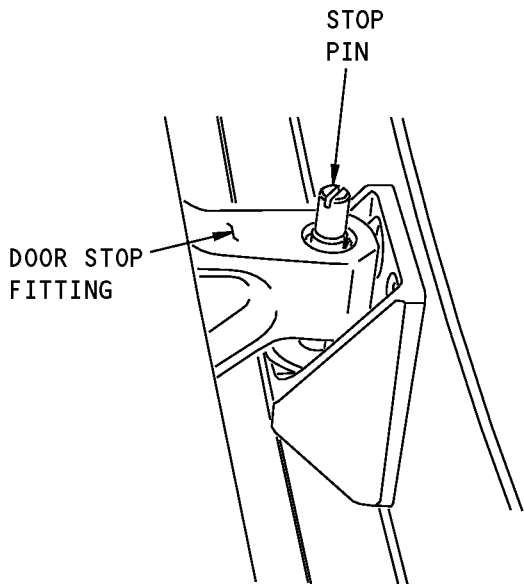
FORWARD CARGO
DOOR, 821

SEE (A)



FORWARD CARGO DOOR
(LINER REMOVED)

(A)



DOOR STOP FITTING
(EXAMPLED)

(A)

**Forward Cargo Door
Figure 228/52-05-03-990-823**

EFFECTIVITY
HAP ALL

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AIRCRAFT MAINTENANCE MANUAL

TASK 52-05-03-211-820

29. INTERNAL - DETAILED: INTERNAL - AFT CARGO DOOR

A. General

(1) This procedure is a scheduled maintenance task.

B. Inspection

SUBTASK 52-05-03-211-020

(1) Do the inspection.

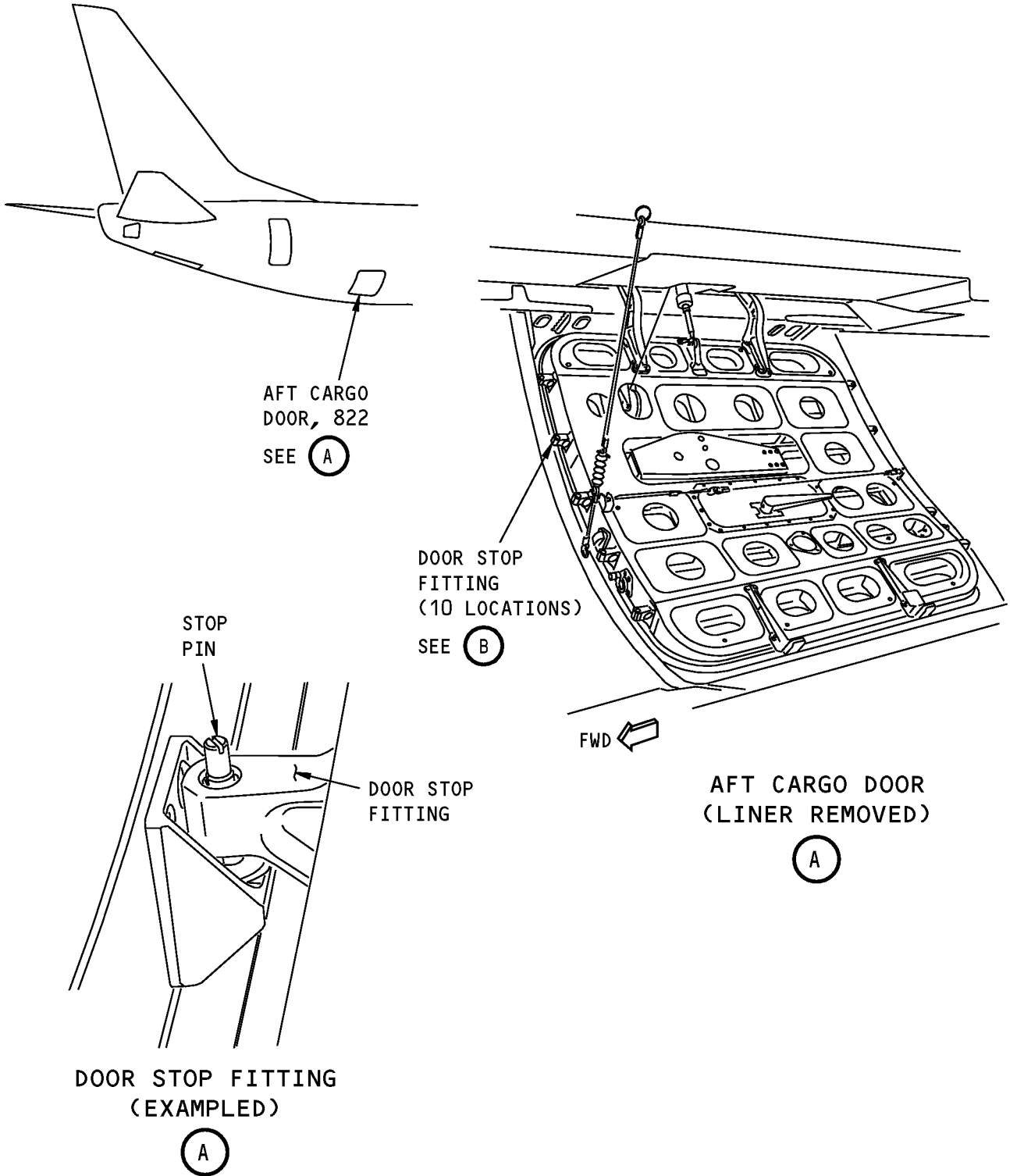
————— **END OF TASK** —————

EFFECTIVITY
HAP ALL

D633A101-HAP

52-05-03

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**Aft Cargo Door Detailed (Internal)
Figure 229/52-05-03-990-832**

EFFECTIVITY
HAP ALL

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AIRCRAFT MAINTENANCE MANUAL

TASK 52-05-03-210-814

30. INTERNAL - GENERAL VISUAL: INTERNAL - FORWARD CARGO DOOR

A. General

(1) This procedure is a scheduled maintenance task.

B. Inspection

SUBTASK 52-05-03-210-014

(1) Do the inspection.

————— **END OF TASK** —————

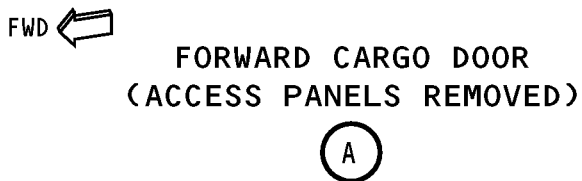
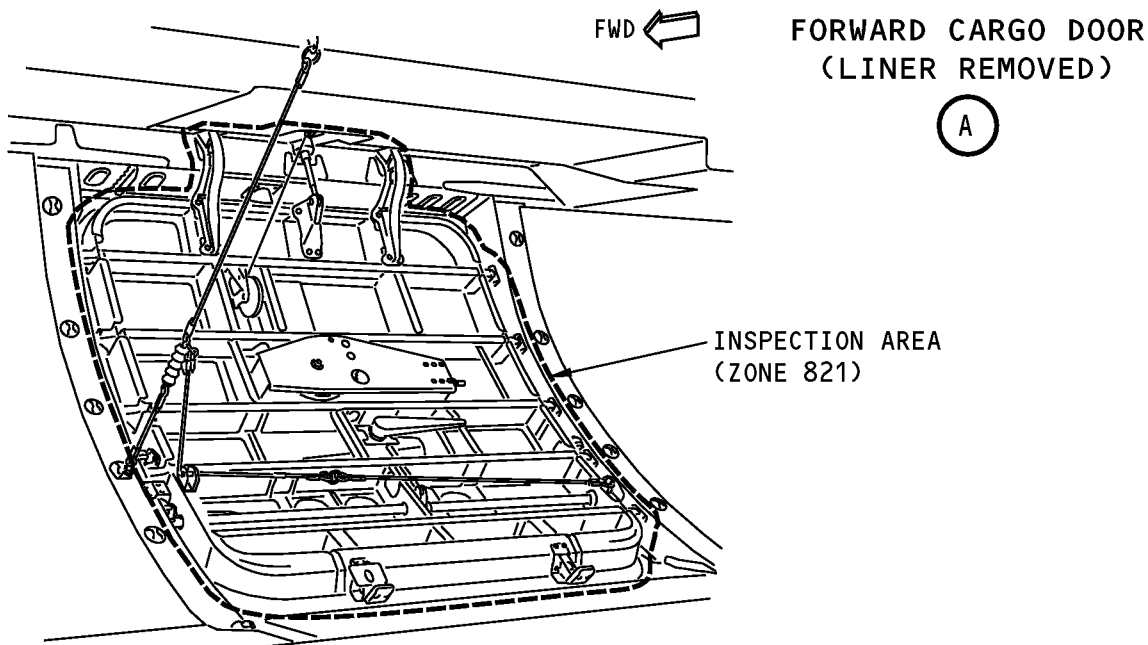
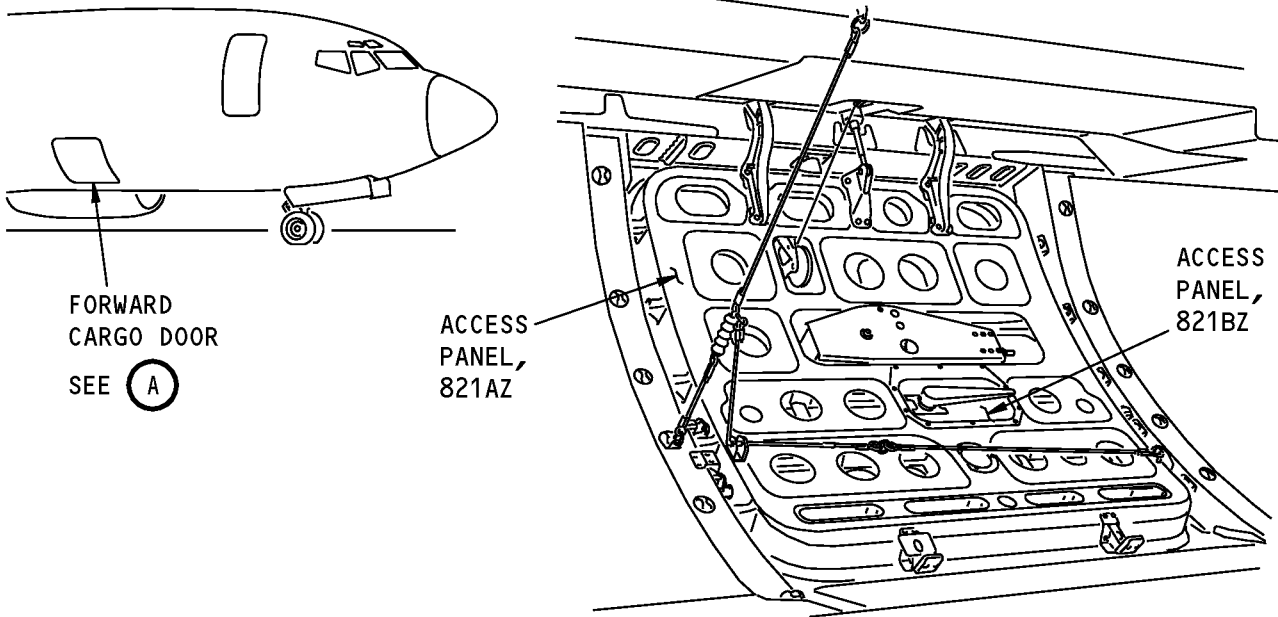
EFFECTIVITY
HAP ALL

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**737-600/700/800/900
AIRCRAFT MAINTENANCE MANUAL**



**Forward Cargo Door General Visual (Internal)
Figure 230/52-05-03-990-822**

EFFECTIVITY
HAP ALL

52-05-03

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737-600/700/800/900

AIRCRAFT MAINTENANCE MANUAL

TASK 52-05-03-210-815

31. INTERNAL - GENERAL VISUAL: INTERNAL - AFT CARGO DOOR

A. General

(1) This procedure is a scheduled maintenance task.

B. Inspection

SUBTASK 52-05-03-210-015

(1) Do the inspection.

————— **END OF TASK** —————

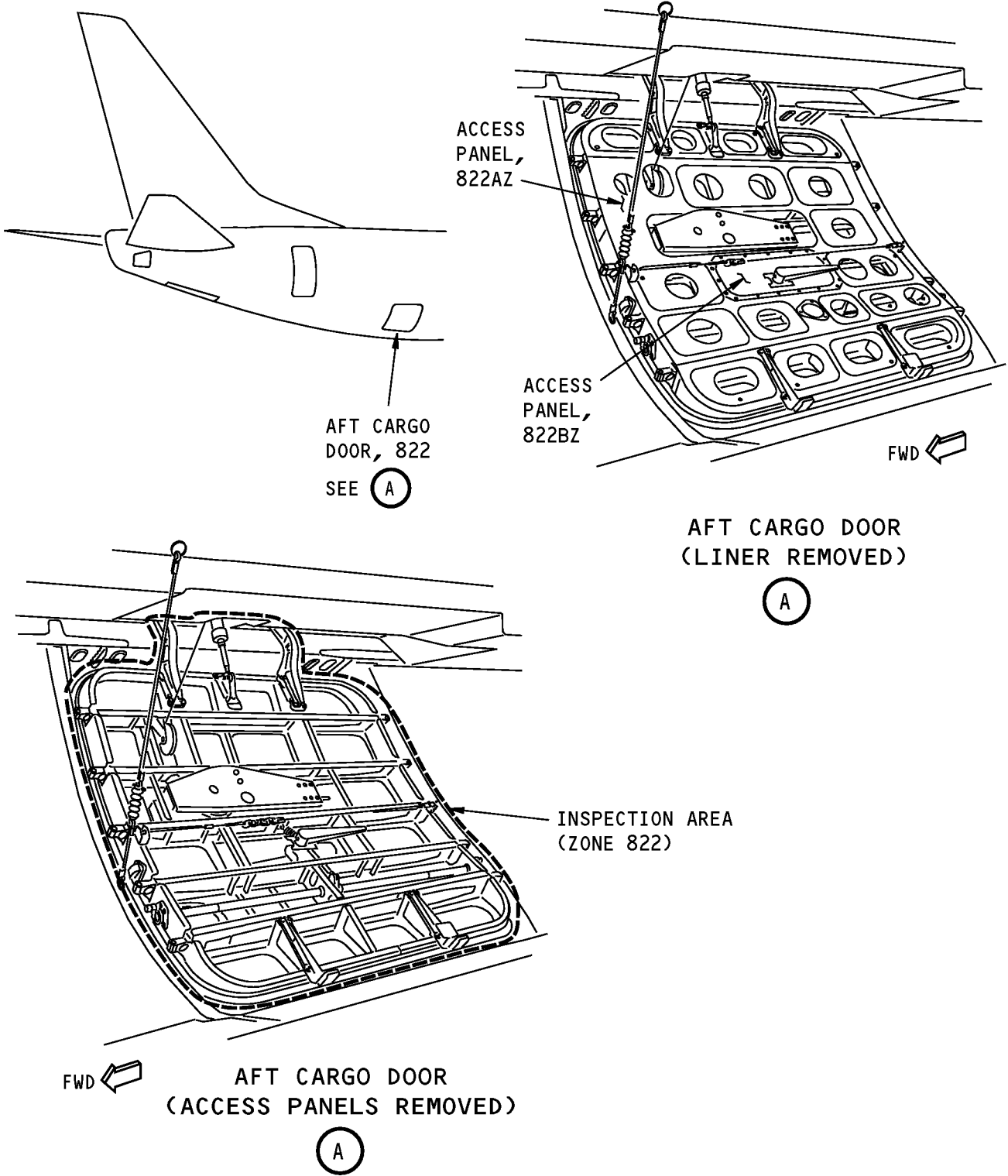
EFFECTIVITY
HAP ALL

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**737-600/700/800/900
AIRCRAFT MAINTENANCE MANUAL**



**Aft Cargo Door General Visual (Internal)
Figure 231/52-05-03-990-827**

EFFECTIVITY
HAP ALL

52-05-03



737-600/700/800/900

AIRCRAFT MAINTENANCE MANUAL

TASK 52-05-03-211-821

32. EXTERNAL - DETAILED: EXTERNAL - LEFT OVERWING EMERGENCY EXIT DOOR STOP FITTINGS AND PINS

(Figure 232)

A. General

- (1) This procedure is a scheduled maintenance task.

B. Inspection

SUBTASK 52-05-03-211-021

- (1) Do the inspection.

————— **END OF TASK** —————

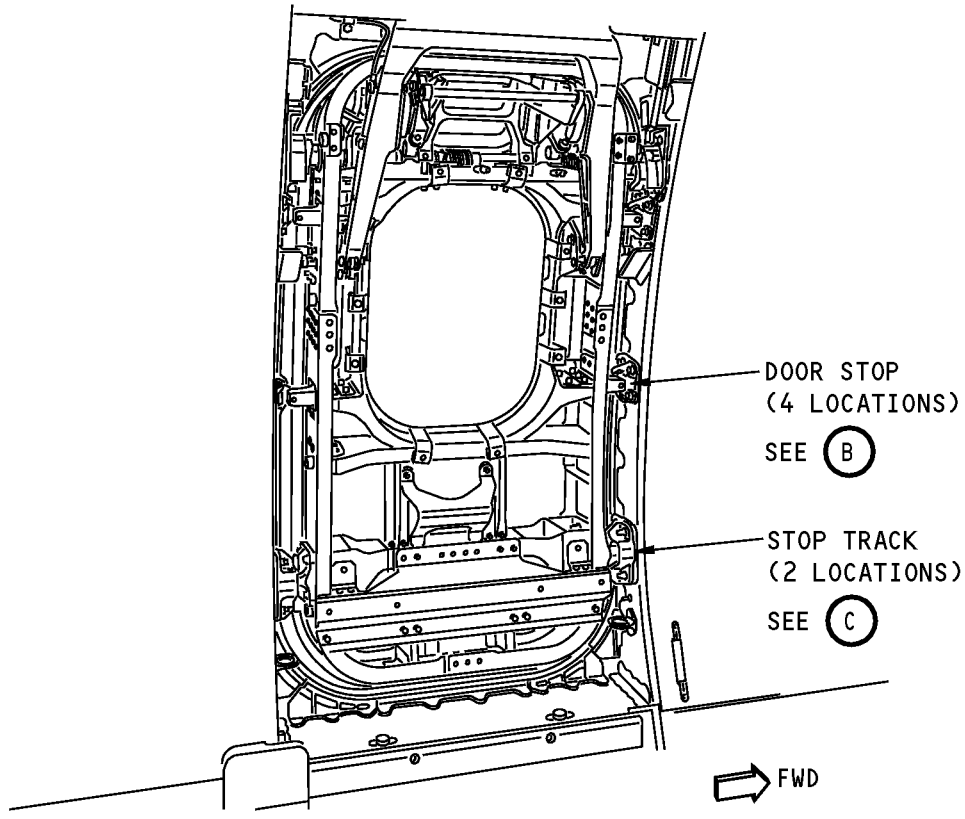
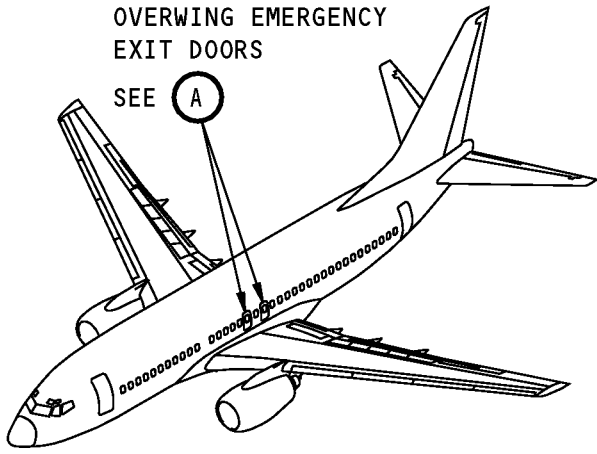
EFFECTIVITY
HAP ALL

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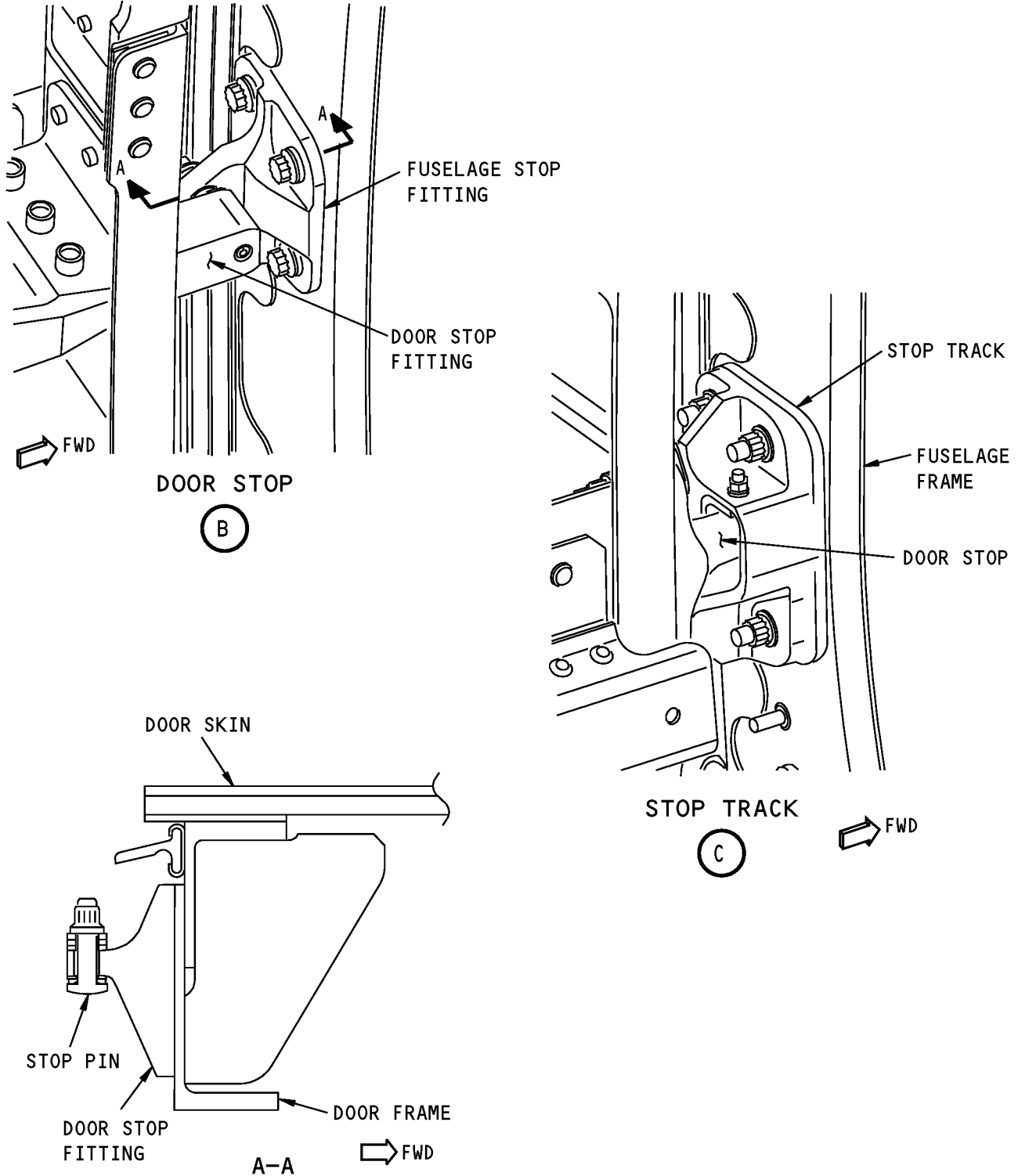
**EMERGENCY EXIT DOOR
(DOOR IN THE CLOSED POSITION
WITH DOOR LINING REMOVED)
(EXAMPLE)**

(A)

**External - Left Overwing Emergency Exit Hatches
Figure 232 (Sheet 1 of 2)/52-05-03-990-813**

EFFECTIVITY
HAP ALL

52-05-03



External - Left Overwing Emergency Exit Hatches
Figure 232 (Sheet 2 of 2)/52-05-03-990-813

EFFECTIVITY
HAP ALL

52-05-03

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AIRCRAFT MAINTENANCE MANUAL

TASK 52-05-03-211-822

33. EXTERNAL - DETAILED: EXTERNAL - RIGHT OVERWING EMERGENCY EXIT DOOR STOP FITTINGS AND PINS

(Figure 233)

A. General

- (1) This procedure is a scheduled maintenance task.

B. Inspection

SUBTASK 52-05-03-211-022

- (1) Do the inspection.

————— **END OF TASK** —————

EFFECTIVITY
HAP ALL

D633A101-HAP

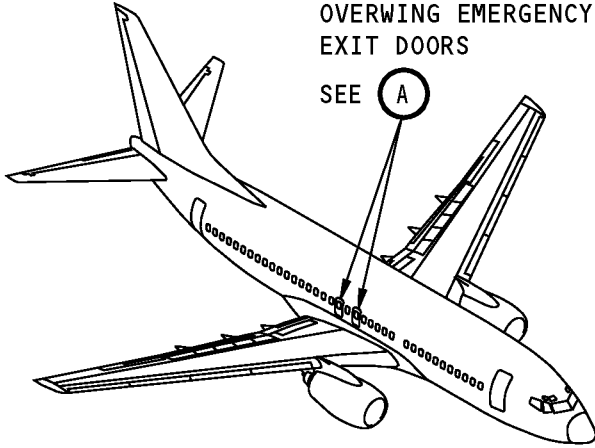
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AIRCRAFT MAINTENANCE MANUAL

OVERWING EMERGENCY
EXIT DOORS

SEE (A)



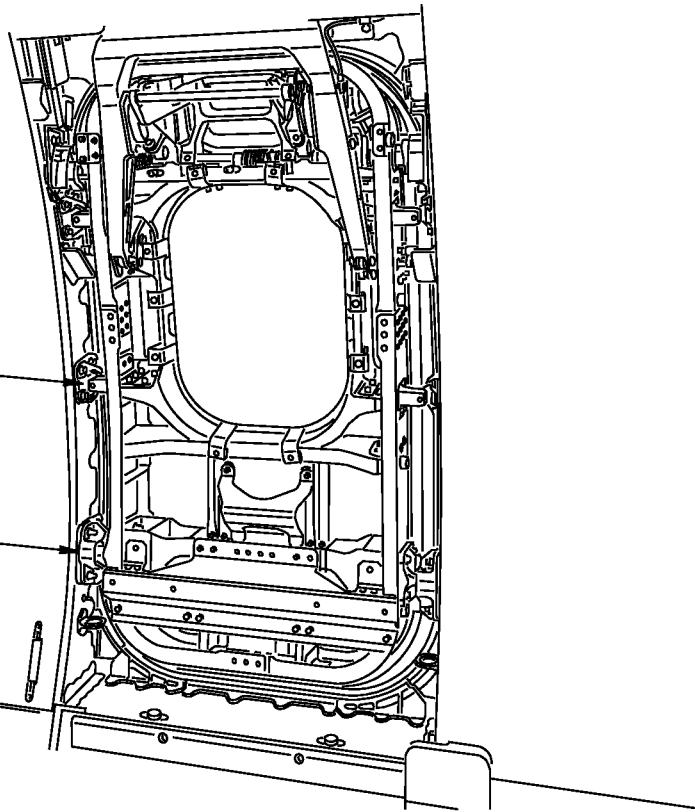
DOOR STOP
(4 LOCATIONS)

SEE (B)

STOP TRACK
(2 LOCATIONS)

SEE (C)

FWD ←



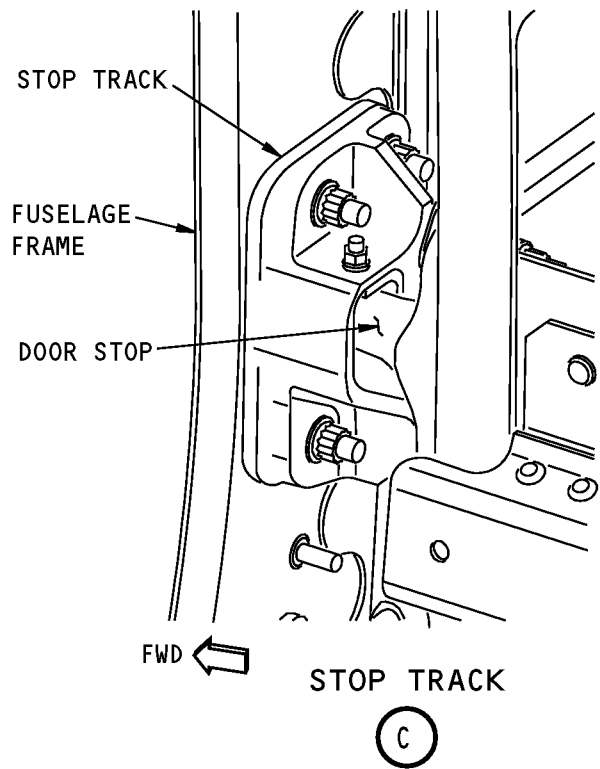
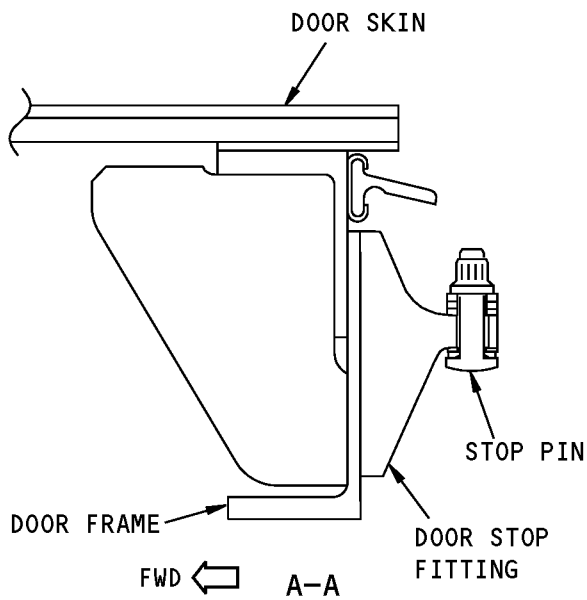
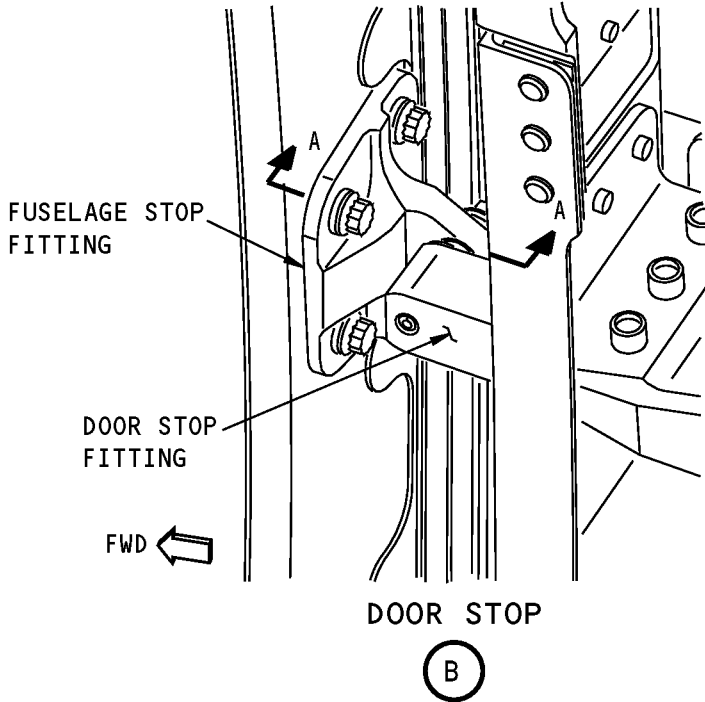
**EMERGENCY EXIT DOOR
(DOOR IN THE CLOSED POSITION
WITH DOOR LINING REMOVED)
(EXAMPLE)**

(A)

**External - Right Overwing Emergency Exit Hatches
Figure 233 (Sheet 1 of 2)/52-05-03-990-814**

EFFECTIVITY
HAP ALL

52-05-03



External - Right Overwing Emergency Exit Hatches
Figure 233 (Sheet 2 of 2)/52-05-03-990-814

EFFECTIVITY
HAP ALL

D633A101-HAP

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AIRCRAFT MAINTENANCE MANUAL

TASK 52-05-03-211-823

34. INTERNAL - DETAILED: INTERNAL - LEFT OVERWING EMERGENCY EXIT HATCH/AUTOMATIC OVERWING EXIT

A. General

(1) This procedure is a scheduled maintenance task.

B. Inspection

SUBTASK 52-05-03-211-023

(1) Do the inspection.

————— END OF TASK —————

EFFECTIVITY
HAP ALL

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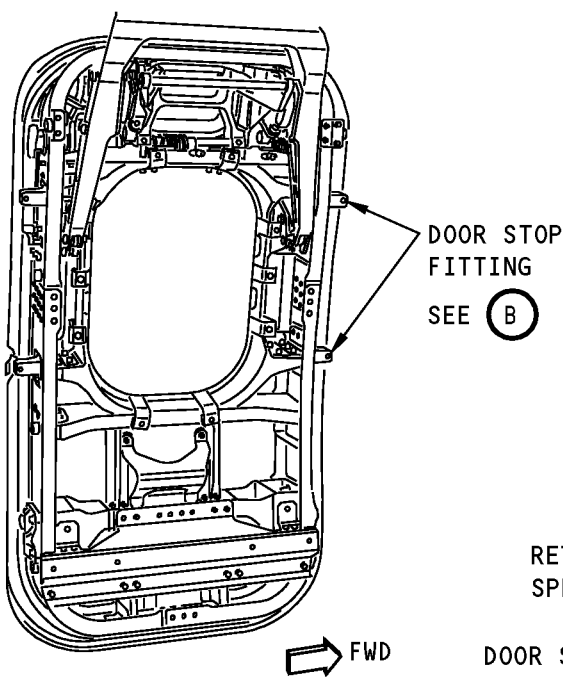
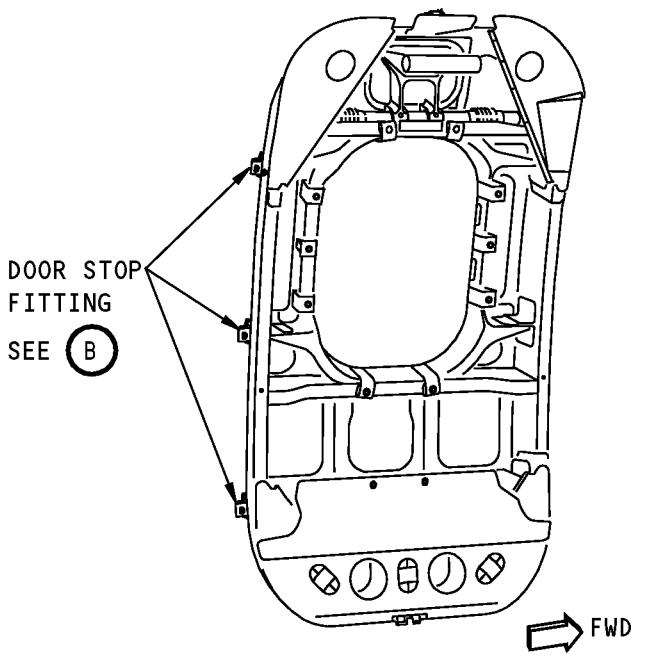
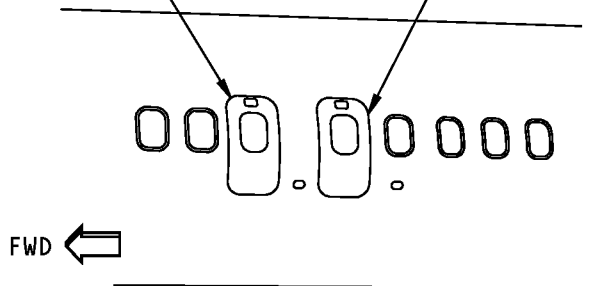
AIRCRAFT MAINTENANCE MANUAL

LEFT OVERWING
EMERGENCY EXIT, 832

LEFT OVERWING
EMERGENCY EXIT, 833

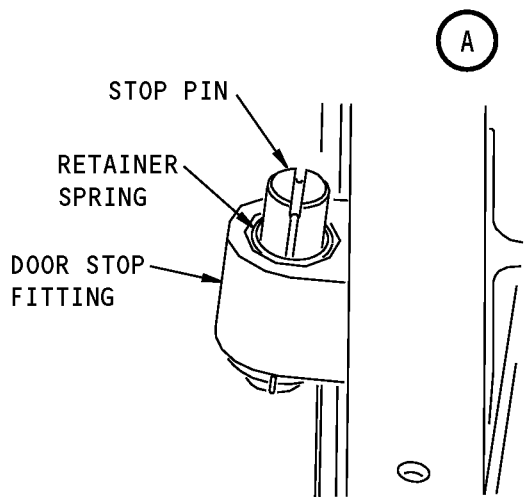
SEE (A) 1

SEE (A)



OVERWING EMERGENCY EXIT HATCH
(LINING REMOVED)

AUTOMATIC OVERWING EXIT
(LINING REMOVED)



DOOR STOP FITTING
(EXAMPLE)

1 ZONE 832 IS APPLICABLE
TO 737-800 AND -900 ONLY

Internal - Left Overwing Emergency Exit Hatch/Automatic Overwing Exit
Figure 234/52-05-03-990-820

EFFECTIVITY
HAP ALL

52-05-03



737-600/700/800/900

AIRCRAFT MAINTENANCE MANUAL

TASK 52-05-03-211-824

35. INTERNAL - DETAILED: INTERNAL - RIGHT OVERWING EMERGENCY EXIT HATCH/AUTOMATIC OVERWING EXIT

A. General

(1) This procedure is a scheduled maintenance task.

B. Inspection

SUBTASK 52-05-03-211-024

(1) Do the inspection.

————— **END OF TASK** —————

EFFECTIVITY
HAP ALL

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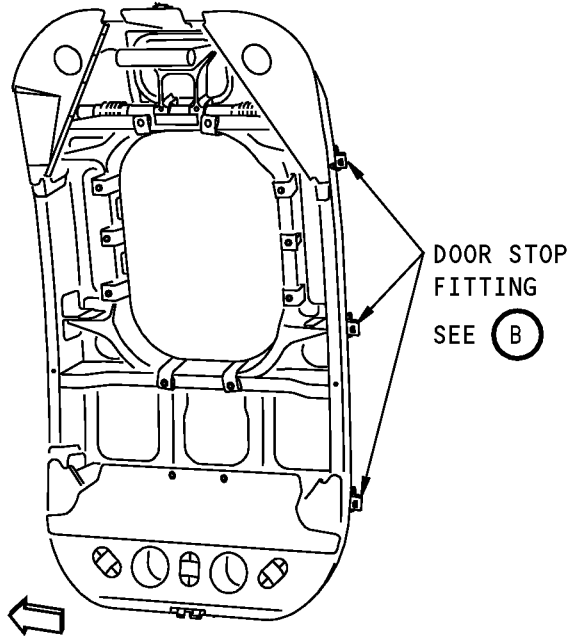
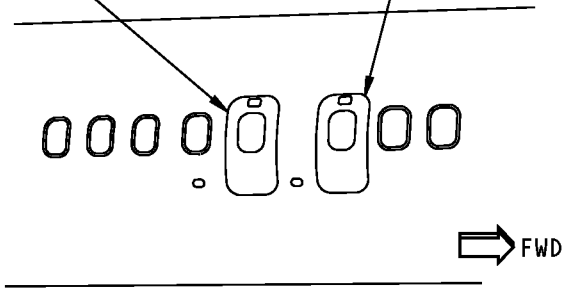
AIRCRAFT MAINTENANCE MANUAL

RIGHT OVERWING
EMERGENCY EXIT, 842

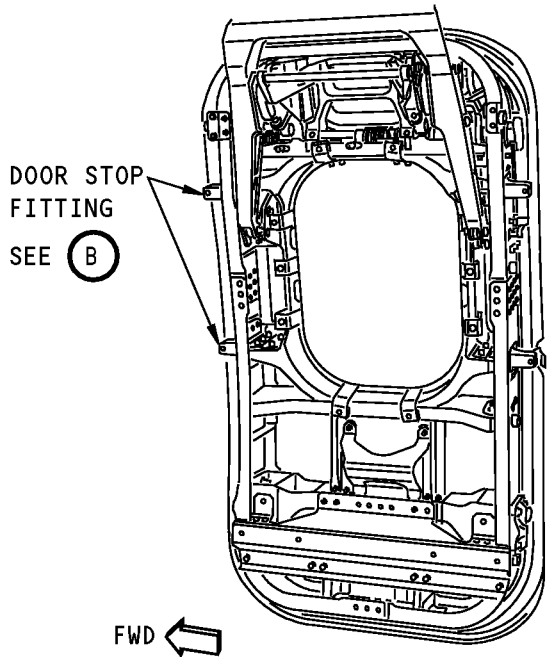
RIGHT OVERWING
EMERGENCY EXIT, 843

SEE (A) 1

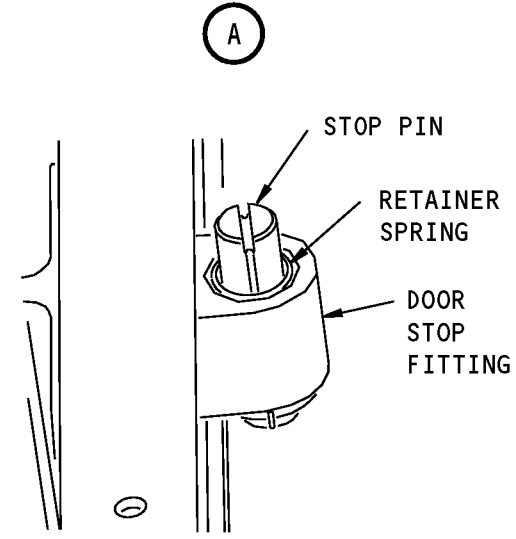
SEE (A)



OVERWING EMERGENCY EXIT HATCH
(LINING REMOVED)



AUTOMATIC OVERWING EXIT
(LINING REMOVED)



DOOR STOP FITTING
(EXAMPLE)

1 ZONE 842 IS APPLICABLE
TO 737-800 AND -900 ONLY

Internal - Right Overwing Emergency Exit Hatch/Automatic Overwing Exit
Figure 235/52-05-03-990-821

EFFECTIVITY
HAP ALL

52-05-03



737-600/700/800/900

AIRCRAFT MAINTENANCE MANUAL

TASK 52-05-03-210-816

36. INTERNAL - GENERAL VISUAL: INTERNAL - LEFT OVERWING EMERGENCY EXIT HATCH/AUTOMATIC OVERWING EXIT

A. General

(1) This procedure is a scheduled maintenance task.

B. Inspection

SUBTASK 52-05-03-210-016

(1) Do the inspection.

————— **END OF TASK** —————

EFFECTIVITY
HAP ALL

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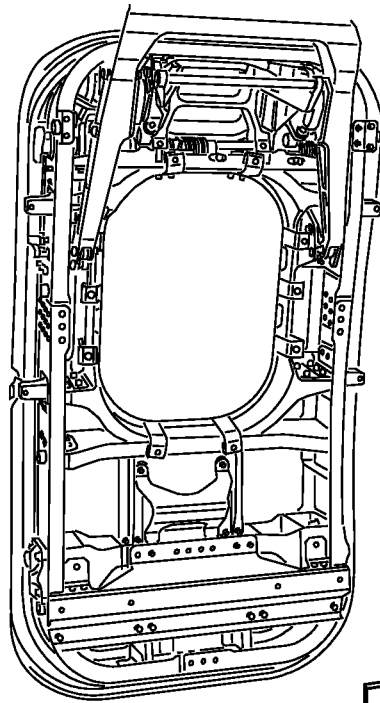
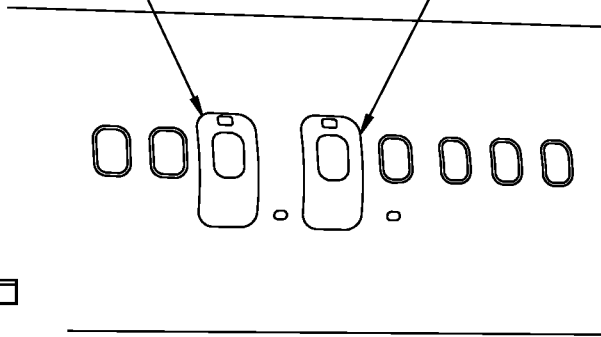
AIRCRAFT MAINTENANCE MANUAL

LEFT OVERWING
EMERGENCY EXIT, 832

LEFT OVERWING
EMERGENCY EXIT, 833

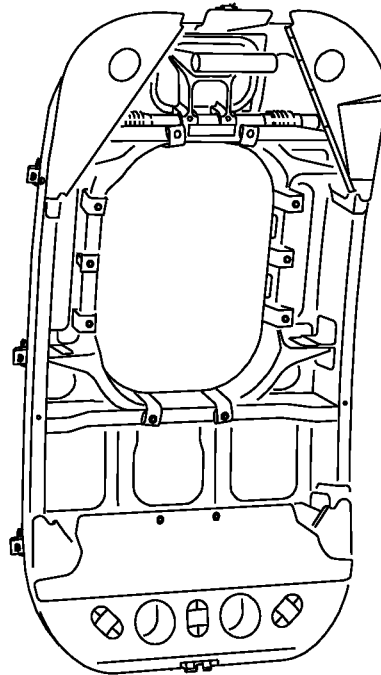
SEE (A) 1

SEE (A)



**AUTOMATIC OVERWING EXIT
(LINING REMOVED)**

(A)



**OVERWING EMERGENCY EXIT HATCH
(LINING REMOVED)**

(A)

1 ZONE 832 IS APPLICABLE
TO 737-800 AND -900 ONLY

**Left Overwing Emergency Exit Hatch/Automatic Overwing Exit
Figure 236/52-05-03-990-818**

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AIRCRAFT MAINTENANCE MANUAL

TASK 52-05-03-210-817

**37. INTERNAL - GENERAL VISUAL: INTERNAL - RIGHT OVERWING EMERGENCY EXIT HATCH/
AUTOMATIC OVERWING EXIT**

A. General

(1) This procedure is a scheduled maintenance task.

B. Inspection

SUBTASK 52-05-03-210-017

(1) Do the inspection.

————— **END OF TASK** —————

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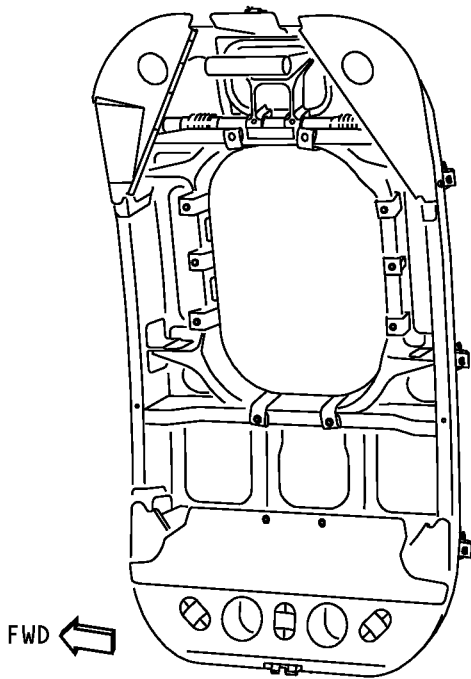
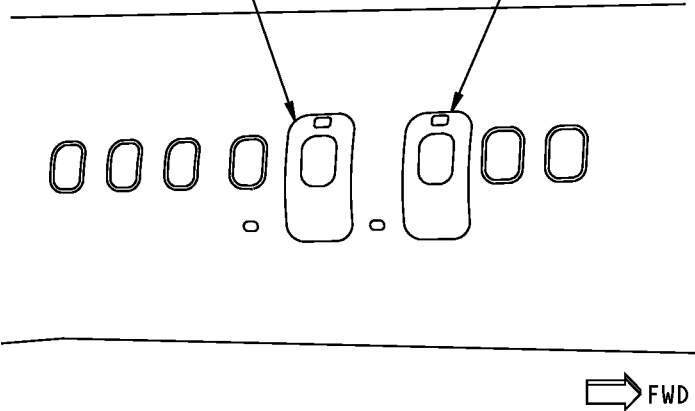
AIRCRAFT MAINTENANCE MANUAL

RIGHT OVERWING
EMERGENCY EXIT, 843

RIGHT OVERWING
EMERGENCY EXIT, 842

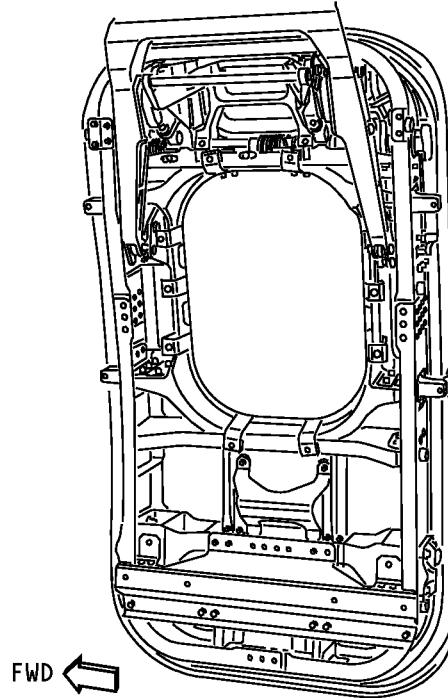
SEE (A)

SEE (A) 1



**OVERWING EMERGENCY EXIT HATCH
(LINING REMOVED)**

(A)



**AUTOMATIC OVERWING EXIT
(LINING REMOVED)**

(A)

1 ZONE 842 IS APPLICABLE TO
737-800 AND -900 ONLY

**Right Overwing Emergency Exit Hatch/Automatic Overwing Exit
Figure 237/52-05-03-990-819**

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AIRCRAFT MAINTENANCE MANUAL

TASK 52-05-03-211-828

38. INTERNAL - DETAILED: FLIGHT DECK SECURITY DOOR SURROUND ASSEMBLY

A. General

(1) This procedure is a scheduled maintenance task.

B. Inspection

SUBTASK 52-05-03-211-036

(1) Do the inspection.

————— **END OF TASK** —————

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AIRCRAFT MAINTENANCE MANUAL

DOOR SEALS - REPAIRS

1. General

- A. This procedure has a task to repair the door seals.
- B. Seals prevent loss of cabin pressure at entry doors, galley service doors, cargo doors, the forward access door, electronic equipment access door, and emergency exit doors. Seals also keep water from entering the airplane at these door locations. Types of seals include:
 - (1) Blade seals
 - (2) Bulb seals
 - (3) Diaphragm seals

TASK 52-09-10-390-801

2. Door Seals Repair

(Figure 801)

A. Tools/Equipment

Reference	Description
STD-123	Brush - Soft Bristle
STD-1415	Knife - Utility

B. Consumable Materials

Reference	Description	Specification
A00027	Adhesive - Silicone Rubber, 1 Part, RTV	BAC5010, Type 60
A00335	Adhesive - Silicone Rubber, 2 Part, RTV	BAC5010, Type 68
A00336	Adhesive - Silicone Pressure Sensitive, Momentive Performance Materials Silgrip PSA529 Base (Formerly GE Silicones)	BAC 5010 Type 77
A00508	Adhesive - Silicone Rubber RTV Paste, One-part, Translucent - Q3-7063	
A00562	Adhesive - High Strength Silicone Rubber, One-Part - RTV157	
A00635	Adhesive - Silicone Rubber RTV Paste, One-part - RTV 108 (Translucent)	MIL-A-46106
B00062	Solvent - Acetone (99.5% Grade)	ASTM D 329 (Supersedes O-A-51)
B00068	Alcohol - Ethyl (Denatured)	AMS 3002F (MIL-E-51454, Type II)
B00130	Alcohol - Isopropyl	TT-I-735
B00137	Abrasive - Garnet Coated Paper	ANSI B74.18
B00148	Solvent - Methyl Ethyl Ketone (MEK)	ASTM D740
G00028	Fabric - Dacron, 70/34 Mesh (Mohawk Dacron Fabrics - D117 Fabric)	
G00029	Fabric - Polyester, 30/17 Mesh (Mohawk Polyester Fabrics - P118 Fabric, Formerly Mohawk Dacron D118 Fabric)	
G00034	Cotton Wiper - Process Cleaning Absorbent Wiper (Cheesecloth, Gauze)	BMS15-5

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C. Location Zones

Zone	Area
821	Forward Cargo Door
822	Aft Cargo Door
830	Subzone - Passenger Compartment Doors, Left
840	Subzone - Passenger Compartment Doors, Right

D. General

SUBTASK 52-09-10-390-012

- (1) These types of damage can occur on a seal:

NOTE: Replace all seals that have too much damage.

- Delamination of a seal or joint.
- Cuts or splits in a seal joint or in the blade or bulb section of a seal.
- Damage to seal flanges or seal splices.
- Separation of splice bonds.

SUBTASK 52-09-10-390-013

- (2) Three types of adhesive are used for the repair of seals:

- Type I is a two-part, air-cured adhesive.
 - Use Type I adhesive for repairs to blade seals, but only on those parts where it is not necessary to have a flexible bond. Do not use Type I on the lip of a blade seal, diaphragm seal, or on a bulb seal.
 - You can touch the seal repair after Type I adhesive has cured for 8 hours, but it is necessary to let the adhesive cure 24 hours before you put a load on it.
- Type II is a clear, one-part, air-cured adhesive which is flexible at low temperatures.
 - Use Type II adhesive for repairs to the lip of blade seals where it is necessary that the adhesive be sufficiently flexible to make an air-tight seal.
 - You can touch the repair on a seal after Type II adhesive has cured for 24 hours, but it is necessary to let the adhesive cure 48 hours before you put a load on it.
- Type III is a two-part adhesive. Type III adhesive is air cured or cured under polyethylene and has high flexibility.
 - It is necessary to cure Type III adhesive for 24 hours before you put a load on it.
 - You can use it in all seal locations.
 - To get an accelerated cure times with a Type III adhesive, you may use contact pressure.

NOTE: Cure under contact pressure at approximately 180°F (82°C) for 4 hours minimum or at approximately 200°F (93°C) for 2 hours minimum before you handle parts.

NOTE: For small areas, a heat lamp is recommended to accelerate adhesive cure times.

- The cure times given for Types I, II and III adhesives are based on an ambient temperature of $75 \pm 5^\circ\text{F}$ ($23.9 \pm 2.8^\circ\text{C}$) and $50 \pm 5\%$ relative humidity. If the temperature is lower or the humidity is lower, the cure times will be longer.

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SUBTASK 52-09-10-390-014

- (3) Make all of the seal repairs with the seal in a position for easy access and when the load on the seal is as small as possible. For seals that are installed, it may be necessary to remove parts of the seal retainer to do work on the damaged area.
 - (a) Use a seal shim to help the bulb seal in closing small air gaps over a short distance. The shim pushes the movable bulb seal away from the seal base retainer on the door. Use only one shim for a seal length that is between two screw spaces (seal retainer screws). If more than one shim is used, damage to the seal can occur. Use adhesive, A00027 or RTV157 adhesive, A00562 to bond the shim in place.

E. Prepare for the Repair

SUBTASK 52-09-10-940-001

- (1) Make sure there is access to the seal.
 - (a) If it is necessary, remove one or more sections of seal retainer to get access to a damaged section of seal.

SUBTASK 52-09-10-940-002

- (2) Make sure there is no tension on the seal.
 - (a) If it is necessary, disconnect a gate to release tension on a seal.

SUBTASK 52-09-10-940-003

- (3) Determine the type of repair that is necessary and the procedure to be used.
 - (a) Use fabric when a stronger bond is necessary.
 - (b) Replace the seal if the damage is extensive.

SUBTASK 52-09-10-110-001

- (4) Clean the area to be repaired and approximately 2.0 inches (50.8 mm) more on all sides of the area with a clean cotton wiper, G00034 that is wet with solvent, B00148, solvent, B00062, alcohol, B00130, or alcohol, B00068.

NOTE: Clean surfaces are necessary to make a good bond.

SUBTASK 52-09-10-120-001

- (5) Lightly rub the surface to be repaired with the abrasive, B00137 (180 grit minimum).

SUBTASK 52-09-10-390-015

- (6) Remove the particles with the dry cotton wiper, G00034.

F. Prepare the Adhesives

SUBTASK 52-09-10-390-001

- (1) Prepare the adhesive types as follows:

NOTE: A plug of cured adhesive can cause a blockage in the nozzle or the tube end of adhesives. Make sure you remove this blockage of cured adhesive before use. Keep adhesives sealed when not in use.

- (a) Type I:

- 1) Mix 100 parts (by weight) of adhesive with 4.5 parts catalyst (Silgrip PSA529 adhesive base, A00336).

NOTE: The pot life of Silgrip PSA529 adhesive base, A00336 is 8 hours at 70°F (21.1°C). Mix only as much as necessary.

- (b) Type II:

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1) Type II adhesives have only one part, and are not mixed. The Q3-7063 adhesive, A00508 or RTV 108 adhesive, A00635 are type II adhesives.

(c) Type III:

1) Mix 100 parts (by weight) of adhesive, A00335 base with 10 parts of catalyst.

NOTE: The pot life of adhesive, A00335 is 7 minutes maximum. Mix only as much as necessary and use it as quickly as possible after mixing.

G. General Procedures to Repair Door Seals

SUBTASK 52-09-10-390-002

(1) Use one of these general procedures for door seal repair:

(a) Procedure A (uses only adhesive).

1) Apply the adhesive to all areas to be bonded.

2) Put a load on the seal to make sure it fully touches the adhesive.

3) Let the adhesive cure for the minimum time necessary before a load is applied to the seal.

(b) Procedure B (uses adhesive and open mesh Dacron fabric patches).

1) Cut the Dacron fabric to have the correct fit for the repair area.

2) Apply the adhesive to the repair area on the seal.

3) Push the fabric patch into the wet adhesive and apply more adhesive on top of the patch.

4) Remove unwanted adhesive and apply a load to make sure the patch fully touches the seal.

5) Let the adhesive cure the minimum time necessary before a load is applied to the seal.

(c) Procedure C (replaces the damaged part of the seal with an equivalent piece of replacement seal).

1) Cut a piece of replacement seal that will have the correct fit for the repair area.

2) Miter the seal and the replacement seal to get the correct fit.

3) Do Procedure A to bond the seal with adhesive only.

4) If necessary, do Procedure B to bond the replacement seal with adhesive and open mesh Dacron fabric.

H. Repair Procedures for Specified Types of Seal Damage

SUBTASK 52-09-10-390-003

(1) Repair a delaminated seal as follows:

NOTE: If the delaminated area is not repaired, leaks can occur when the area increases in size.

(a) If the delamination is on the seal edge, do these steps:

1) Do Procedure A or B to bond the delaminated seal with Type II or Type III adhesive.

2) Push the surfaces tightly together to make sure the adhesive fully touches the repair area.

3) Make sure the adhesive cures the minimum time necessary.

(b) If the delamination is away from the seal edge, do these steps:

1) Do Procedure A or B to bond the delaminated seal with Type I, Type II, or Type III adhesive.

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- 2) Push the surfaces tightly together to make sure the adhesive fully touches the repair area.
- 3) Make sure the adhesive cures the minimum time necessary.

SUBTASK 52-09-10-390-004

(2) Repair a delaminated seal joint as follows:

- (a) If the delamination is small (0.5 square inch (12.7 square mm) maximum), do these steps:
 - 1) Do Procedure A to bond the delaminated seal with the Type I adhesive.
 - 2) Push the surfaces tightly together to make sure the adhesive fully touches the repair area.
 - 3) Make sure the adhesive cures the minimum time necessary.
- (b) If the delamination is at the edge of the splice and the seal does not seal satisfactorily, do these steps:
 - 1) Cut and remove the delaminated piece with a sharp knife, STD-1415.
 - 2) Apply a light layer of Type II or Type III adhesive.

SUBTASK 52-09-10-390-005

(3) Repair a cut or split in the rubber in the joint area of a seal as follows:

- (a) Do Procedure B to bond the damaged seal with Dacron fabric and Type II or Type III adhesive.
- (b) Push the surfaces tightly together to make sure the adhesive fully touches the repair area.
- (c) Make sure the adhesive cures the minimum time necessary.

SUBTASK 52-09-10-390-006

(4) Repair a cut or split in the blade or bulb section of a seal as follows:

- (a) If the damage is a small cut or split (0.2 inch (5.08 mm) maximum length), do these steps:
 - 1) Do Procedure A to bond the damaged seal with Type I, Type II or Type III adhesive.
 - 2) Push the surfaces tightly together to make sure the adhesive fully touches the repair area.
 - 3) Make sure the adhesive cures the minimum time necessary.
- (b) If the damage is a large cut or split (1.0 inch (25.4 mm) maximum length), do these steps:
 - 1) Push on the seal to open the cut.
 - 2) Carefully drill a hole in each end of the cut.

NOTE: A sharpened metal tube can be used as a drill bit to cut the holes.
 - 3) Make the holes smooth and miter the edges.
 - 4) Do Procedure A to bond the damaged seal with Type II or Type III adhesive.
 - 5) Push the surfaces tightly together to make sure the adhesive fully touches the repair area.
 - 6) Make sure the adhesive cures the minimum time necessary.
- (c) If the damage to the seal is a large split (2.0 inch (50.8 mm) maximum length), do these steps:
 - 1) Push on the seal to open the cut.
 - 2) Carefully drill a hole in each end of the cut.

NOTE: A sharpened metal tube can be used as a drill bit to cut the holes.

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- 3) Make the holes smooth and miter the edges.
- 4) Do Procedure B to bond the damaged seal with the Dacron fabric and Type I, Type II or Type III adhesive.
- 5) Cut the Dacron fabric to make an overlap of 0.5 inch (12.7 mm) on the sides and ends of the split.
- 6) Push the surfaces tightly together to make sure the adhesive fully touches the repair area.
- 7) Make sure the adhesive cures the minimum time necessary.

SUBTASK 52-09-10-390-007

- (5) Repair a damaged seal flange as follows:

NOTE: Use this procedure for 3.0 inch (76.2 mm) maximum patch length.

- (a) If it is not necessary to replace the flange, do these steps:

- 1) Do Procedure B to bond the damaged seal with Dacron fabric and Type II or Type III adhesive.

NOTE: Cut the Dacron fabric to make an overlap of 0.5 inch (12.7 mm) on the sides and ends of the damage. The patch must not extend more than 0.25 inch (6.35 mm) up from the base of the seal.

- 2) Push the surfaces tightly together to make sure the adhesive fully touches the repair area.
- 3) Make sure the adhesive cures the minimum time necessary.

- (b) If a part of the flange is missing, do these steps:

- 1) Trim the seal edge adjacent to the missing part of the flange.
- 2) Cut a piece of replacement flange that is a correct fit for the missing part.
- 3) Do Procedure C to bond the replacement seal patch to the seal with Type II or Type III adhesive.

NOTE: If Dacron fabric is used, make an overlap of 0.5 inch (12.7 mm) on the sides and ends of the damage. The patch must not extend more than 0.25 inch (6.35 mm) up from the base of the seal.

- 4) Push the surfaces tightly together to make sure the adhesive fully touches the repair area.
- 5) Make sure the adhesive cures the minimum time necessary.

SUBTASK 52-09-10-390-008

- (6) Repair a damaged seal lip or flat side of a seal blade as follows:

NOTE: Use this procedure for 3.0 inch (76.2 mm) maximum patch length.

- (a) If it is not necessary to replace the seal blade piece, do these steps:

- 1) Do Procedure B or C to bond the damaged seal with Dacron fabric and Type II or Type III adhesive.

NOTE: Cut the Dacron fabric to make an overlap of 0.5 inch (12.7 mm) on the sides and ends of the damage. The patch must be 0.25 inch (6.35 mm) from the flange on both sides of the seal. The patch must not stop on the flat area of the blade.

- 2) Push the surfaces tightly together to make sure the adhesive fully touches the repair area.

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- 3) Make sure the adhesive cures the minimum time necessary.
- (b) If a part of the seal is missing, do these steps:
 - 1) Trim the seal edge adjacent to the missing part of the seal.
 - 2) Cut a piece of replacement seal that is a correct fit for the missing part.
 - 3) Do Procedure C to bond the replacement seal patch to the seal with D117 Dacron Fabric, G00028 or P118 polyester fabric, G00029 and Type II or Type III adhesive.

NOTE: Cut the D117 Dacron Fabric, G00028 or P118 polyester fabric, G00029 to make an overlap of 0.5 inch (12.7 mm) on the sides and ends of the damage. The patch must be 0.25 inch (6.35 mm) from the flange on both sides of the seal. The patch must not stop on the flat area of the blade.
 - 4) Push the surfaces tightly together to make sure the adhesive fully touches the repair area.
 - 5) Make sure the adhesive cures the minimum time necessary.

SUBTASK 52-09-10-390-009

- (7) Repair splice damage on entry door and galley service door seals as follows:
 - (a) Do Procedure A or B with Type II or Type III adhesive.
 - (b) Push the surfaces tightly together to make sure the adhesive fully touches the repair area. Make sure the adhesive cures the minimum time necessary.

SUBTASK 52-09-10-390-010

- (8) Repair separation of splice bonds on cargo door and escape exit seals as follows:
 - (a) Do Procedure B.
 - (b) Use a soft bristle brush, STD-123 to apply Type II or Type III adhesive on the clean surfaces of the seal.
 - (c) Cut the Dacron fabric 2.0 inches (50.8 mm) in width, and sufficiently long to put fully around the seal.
 - (d) Push the surfaces tightly together to make sure the adhesive fully touches the repair area.
 - (e) Make sure the adhesive cures the minimum time necessary.
 - (f) Apply more light layers of adhesive with the brush.
 - (g) Make the edges of the patch smooth to make sure the seal lip is flat.
 - (h) To prevent a rigid area on the seal lip, do not apply too much adhesive.

SUBTASK 52-09-10-390-011

- (9) Repair large damage to seal parts as follows:
 - (a) Find the seal splices in the straight parts of the seal.
 - (b) Remove the full damaged area.
 - (c) Replace the damaged area with a piece of replacement seal that has the same dimensions.
 - (d) Make mitered cuts on the seal surfaces that touch.
 - (e) Fill them with Type II or Type III adhesive.
 - (f) Do Procedure B and Procedure C to bond the seal splices.
 - (g) Push the surfaces tightly together to make sure the adhesive fully touches the repair area.
 - (h) Make sure the adhesive cures the minimum time necessary.

————— END OF TASK —————

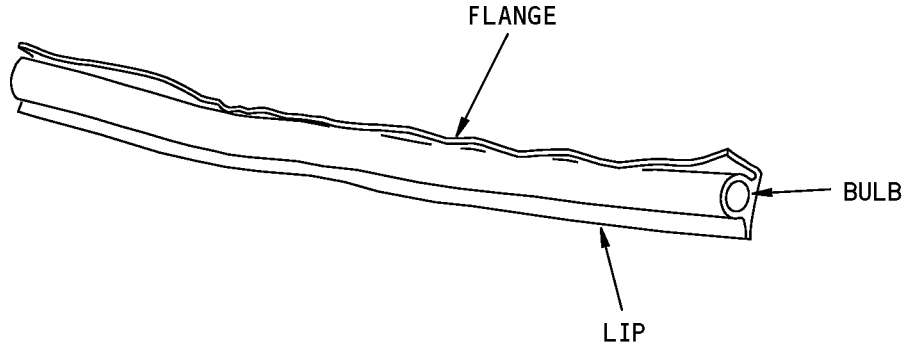
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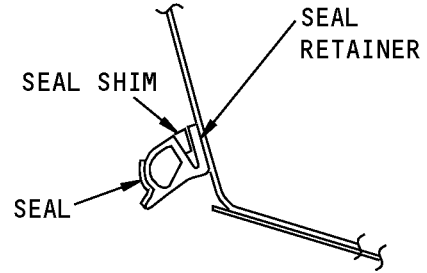
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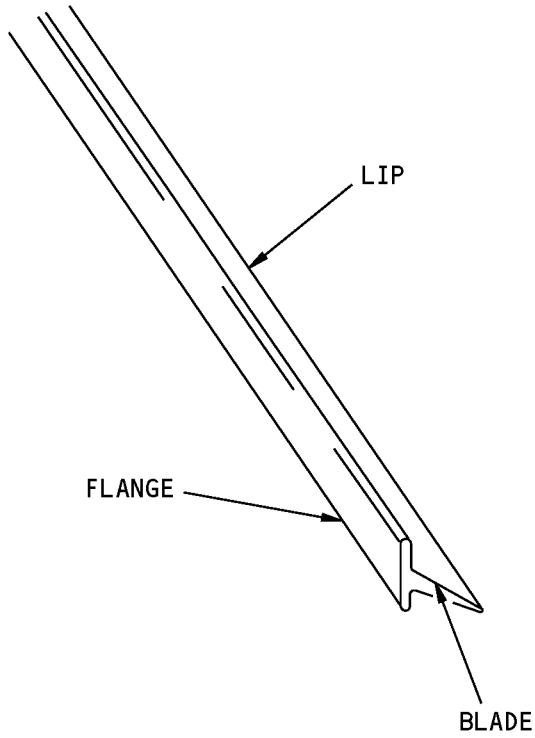
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BULB SEAL



SEAL SHIM



BLADE SEAL

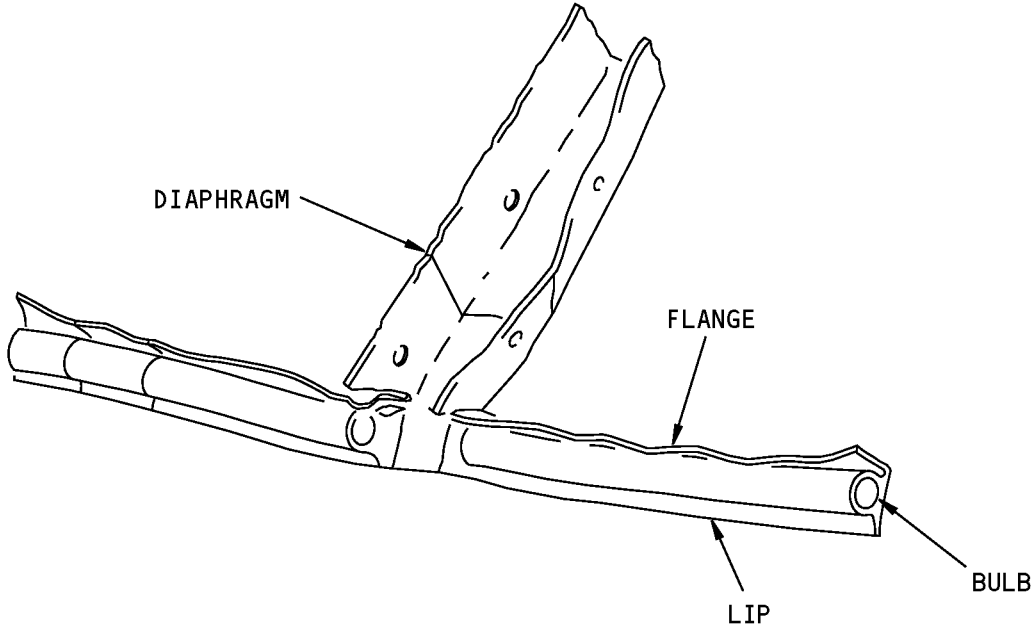
**Door Seals - Approved Repairs
Figure 801 (Sheet 1 of 3)/52-09-10-990-801**

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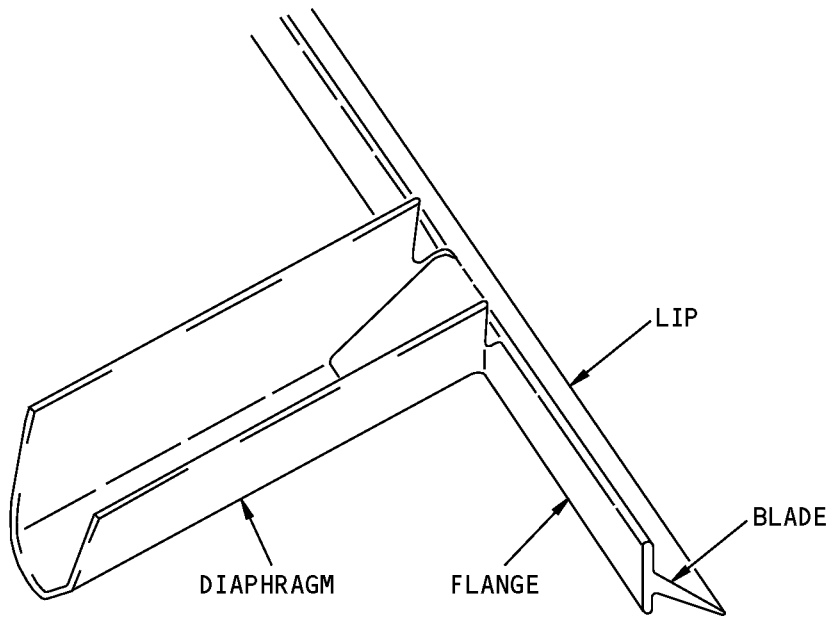
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BULB AND DIAPHRAGM COMBINATION SEAL



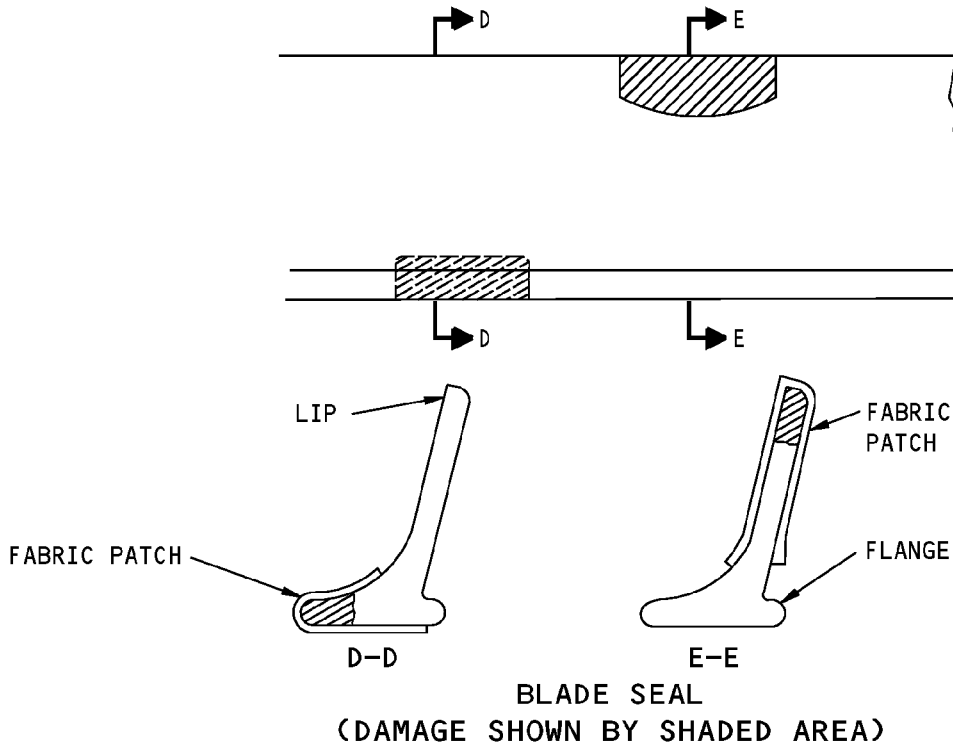
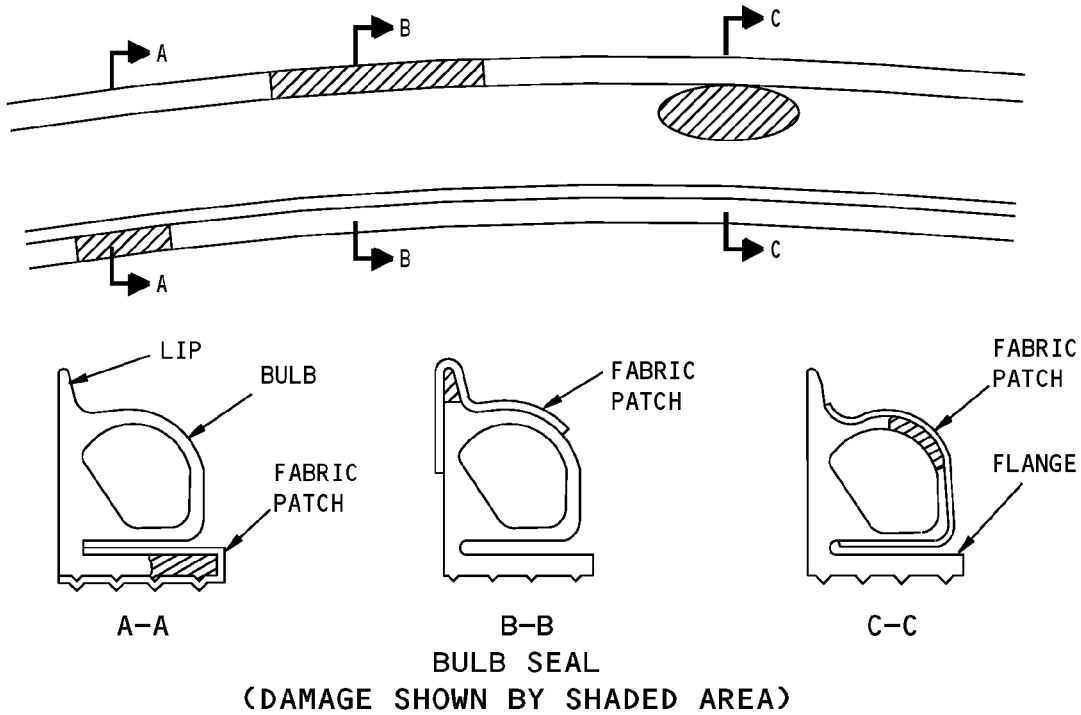
BLADE AND DIAPHRAGM SEALS

**Door Seals - Approved Repairs
Figure 801 (Sheet 2 of 3)/52-09-10-990-801**

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**Door Seals - Approved Repairs
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BLADE SEALS - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

- (1) A removal of a blade seal from a door.
- (2) An installation of a blade seal on a door.

B. Blade seals are one-piece seals used to maintain cabin pressurization and are installed around the edges.

C. This procedure is the same for each door.

TASK 52-09-11-000-801

2. Blade Seals Removal

(Figure 401)

A. Location Zones

Zone	Area
HAP 001-013, 015-026, 028-054	
112	Area Forward of Nose Landing Gear Wheel Well
117	Electrical and Electronics Compartment - Left
821	Forward Cargo Door
822	Aft Cargo Door
832	Left Forward Emergency Exit
833	Left Emergency Exit (STA 627.5)
842	Right Forward Emergency Exit
843	Right Emergency Exit (STA 627.5)

HAP ALL

B. Access Panels

Number	Name/Location
112A	Forward Access Door
117A	Electronic Equipment Access Door
821	Forward Cargo Door
822	Aft Cargo Door
832	Emergency Exit
833	Emergency Exit
842	Emergency Exit
843	Emergency Exit

C. Prepare for the Removal

SUBTASK 52-09-11-010-001

(1) Open the applicable access doors to get access to the blade seal [1]:

<u>Number</u>	<u>Name/Location</u>
112A	Forward Access Door
117A	Electronic Equipment Access Door
821	Forward Cargo Door
822	Aft Cargo Door

HAP 001-013, 015-026, 028-054

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HAP 001-013, 015-026, 028-054 (Continued)

(Continued)

Number	Name/Location
832	Emergency Exit

HAP ALL

833	Emergency Exit
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HAP 001-013, 015-026, 028-054

842	Emergency Exit
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HAP ALL

843	Emergency Exit
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D. Removal of the Blade Seals

SUBTASK 52-09-11-020-001

- (1) Remove the blade seal [1] from the edge of the door:
 - (a) Pull and push the blade seal [1] to disengage it from the seal retainer [2].
 - (b) Remove the blade seal [1].

END OF TASK

TASK 52-09-11-400-801

3. Blade Seals Installation

(Figure 401)

A. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1981	Tool - Installation, Door Seal (Part #: B52004-1, Supplier: 81205, A/P Effectivity: 737-ALL)

B. Consumable Materials

Reference	Description	Specification
B00052	Soap - Liquid - Turco 1526	BAC5507

C. Location Zones

Zone	Area
HAP 001-013, 015-026, 028-054	
112	Area Forward of Nose Landing Gear Wheel Well
117	Electrical and Electronics Compartment - Left
821	Forward Cargo Door
822	Aft Cargo Door
832	Left Forward Emergency Exit
833	Left Emergency Exit (STA 627.5)
842	Right Forward Emergency Exit
843	Right Emergency Exit (STA 627.5)

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(Continued)

Zone	Area
------	------

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D. Access Panels

Number	Name/Location
112A	Forward Access Door
117A	Electronic Equipment Access Door
821	Forward Cargo Door
822	Aft Cargo Door
832	Emergency Exit
833	Emergency Exit
842	Emergency Exit
843	Emergency Exit

E. Prepare for the Installation

SUBTASK 52-09-11-110-001

- (1) Make sure the surfaces the blade seal [1] will touch are clean.

F. Installation of the Blade Seals

SUBTASK 52-09-11-420-001

- (1) Install the blade seal [1]:

- (a) Put the blade seal [1] in its correct position on the door.

NOTE: The tip of the seal [1] goes in the outboard direction.

- (b) Move the blade seal [1] onto the door over the seal retainer [2] and keep it aligned correctly.

CAUTION: BE CAREFUL WHEN YOU INSTALL THE SEAL. DO NOT CUT OR MAKE TEARS OR HOLES IN THE SEAL. DAMAGE TO THE SEAL CAN EASILY OCCUR.

- (c) At each corner of the door, put 1-2 inches (25-51 mm) of the inboard edge of the blade seal [1] into the seal retainer [2].
- (d) Use the door seal installation tool, SPL-1981 to push the outboard edge of the blade seal [1] into the seal retainer [2].
 - 1) You can use Turco 1526 soap, B00052 to lubricate the blade seal [1] and make it easier to install.
- (e) At the center of each side of the door, install 2-3 inches (51-76 mm) of the blade seal [1] into the seal retainer [2].
- (f) Install the remaining part of the blade seal [1] in the seal retainer [2] along the edges of the door.
- (g) Pull and push the blade seal [1] in the seal retainer [2] to make it equal around the door.

NOTE: Wrinkles in the blade seal [1] are not permitted.

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G. Put the Airplane Back to Its Usual Condition

SUBTASK 52-09-11-410-001

(1) Close these access panels:

<u>Number</u>	<u>Name/Location</u>
112A	Forward Access Door
117A	Electronic Equipment Access Door
821	Forward Cargo Door
822	Aft Cargo Door

HAP 001-013, 015-026, 028-054

832 Emergency Exit

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833 Emergency Exit

HAP 001-013, 015-026, 028-054

842 Emergency Exit

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843 Emergency Exit

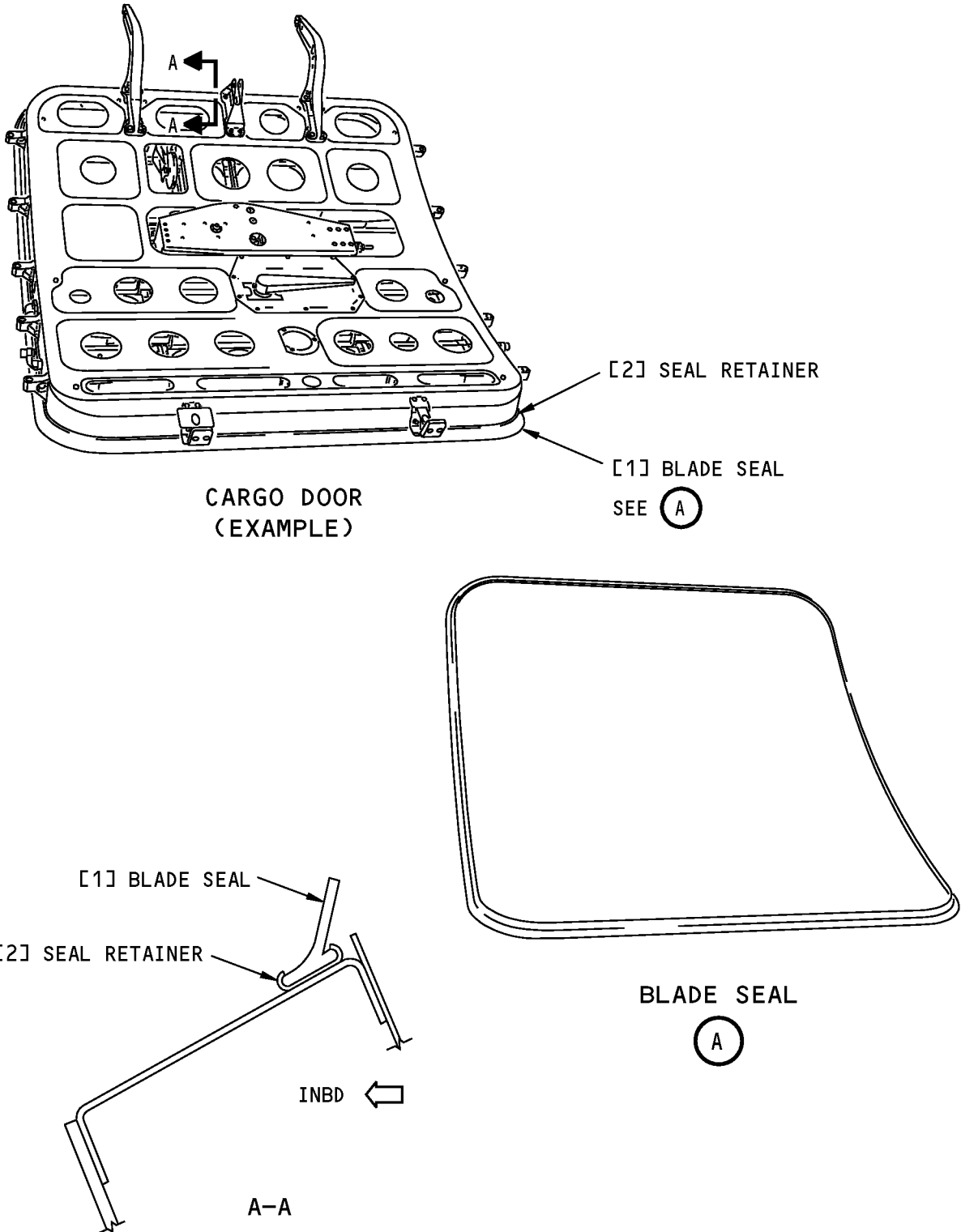
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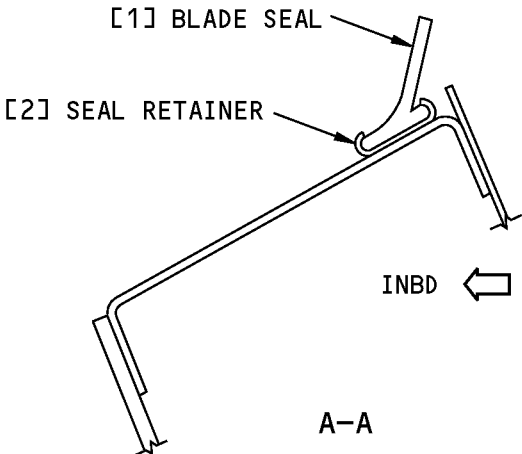


CARGO DOOR
(EXAMPLE)

[2] SEAL RETAINER

[1] BLADE SEAL

SEE (A)



**Blade Seal Installation
Figure 401/52-09-11-990-801**

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BLADE AND DIAPHRAGM SEALS - REMOVAL/INSTALLATION

1. General

- A. This procedure has these tasks:
 - (1) A removal of a blade and diaphragm seal from a door.
 - (2) An installation of a blade and diaphragm seal on a door.
- B. Blade and diaphragm seals are installed at the aft entry door and the forward and aft galley service doors. The seals keep fuselage pressurization and prevent water from going into the passenger compartment.
- C. The blade part of the seal is installed around the edge of the door. The diaphragm part of the seal is installed in two locations along the gate hinges at the upper and lower gates.

TASK 52-09-12-000-801

2. Blade and Diaphragm Seals Removal

(Figure 401)

A. References

Reference	Title
52-13-31-000-802	Aft Entry Door Lining Removal (P/B 401)
52-41-31-000-802	Galley Service Door Lining Removal (P/B 401)

B. Tools/Equipment

Reference	Description
STD-1160	Stand - Cabin and General Access Stand, Adjustable Height, Max. Height 18 Feet, Platform 5 Feet by 10 Feet

C. Location Zones

Zone	Area
834	Left Aft Entry Door
841	Forward Galley Service Door
844	Aft Galley Service Door

D. Access Panels

Number	Name/Location
834	Aft Entry Door
841	Forward Galley Service Door
844	Aft Galley Service Door

E. Prepare for the Removal

SUBTASK 52-09-12-940-001

- (1) Make sure the adjustable height cabin and general access stand, STD-1160 is installed outboard of the door.

SUBTASK 52-09-12-010-001

- (2) Open the applicable access doors to get access to the seal [2]:

<u>Number</u>	<u>Name/Location</u>
834	Aft Entry Door
841	Forward Galley Service Door
844	Aft Galley Service Door

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SUBTASK 52-09-12-010-002

- (3) Remove the door lining and insulation for the applicable door:
 - (a) Do this task: Aft Entry Door Lining Removal, TASK 52-13-31-000-802.
 - (b) Do this task: Galley Service Door Lining Removal, TASK 52-41-31-000-802.

F. Blade and Diaphragm Seals Removal

SUBTASK 52-09-12-020-001

- (1) Remove the blade [4] from the gate [1]:
 - (a) Remove the blade [4] from the seal retainer [14].
 - (b) Remove the blade [4] from the gate [1].

SUBTASK 52-09-12-020-002

- (2) Remove the blade [4] from the edge of the door:
 - (a) Remove the blade [4] from the seal retainer [14].
 - (b) Remove the blade [4] from the edge of the door.

SUBTASK 52-09-12-020-003

- (3) Disconnect the gate control rod [5] from the gate [1]:
 - (a) Hold the gate control rod [5] and do not let them fall back into the door frame when the bolt [10] is removed.

NOTE: You can turn the door handle to extend or retract the gate control rod [5].
 - (b) Remove the bolt [10], washer [9], bushing [8], washer [7], and nut [6] that attach the gate control rod [5] to the gate [1].
 - (c) Safety the end of the rod [5] to the door frame to hold them in position.

SUBTASK 52-09-12-020-004

- (4) Remove the diaphragm [3] from the door and the gate [1]:
 - (a) Hold the gate [1] and move it to the vertical position.
 - (b) Remove the nylon rods [11] from the ends of the seal retainers [12] on the hinges [13] and the seal retainers [12] on the gate [1].
 - (c) Remove the diaphragm [3] from the door and the gate [1].

————— END OF TASK —————

TASK 52-09-12-400-801

3. Blade and Diaphragm Seals Installation

(Figure 401)

A. References

Reference	Title
52-13-31-400-802	Aft Entry Door Lining Installation (P/B 401)
52-41-31-400-802	Galley Service Door Lining Installation (P/B 401)

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B. Consumable Materials

Reference	Description	Specification
A00027	Adhesive - Silicone Rubber, 1 Part, RTV	BAC5010, Type 60
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS 5-95
A01026	Compound - Self-Leveling, Flexible, Fire-Retarded, For Fluid Drainage	BMS5-125, Type III
B00052	Soap - Liquid - Turco 1526	BAC5507
G50063	Lubricant - PTFE Release Agent - Miller-Stephenson MS-122XD (Replaces MS-122DF)	BAC 5000

C. Location Zones

Zone	Area
834	Left Aft Entry Door
841	Forward Galley Service Door
844	Aft Galley Service Door

D. Access Panels

Number	Name/Location
834	Aft Entry Door
841	Forward Galley Service Door
844	Aft Galley Service Door

E. Prepare for the Installation

SUBTASK 52-09-12-110-001

- (1) Make sure the surfaces of the blade [4] or diaphragm [3] will touch on the door are clean.

F. Blade and Diaphragm Seals Installation

SUBTASK 52-09-12-020-005

- (1) Install the diaphragm [3] on the door and gate [1]:
 - (a) Lift the diaphragm [3] and put the sealant, A00247 on the mating surfaces between the diaphragm [3], door, and gate [1].
 - (b) Push the edges of the diaphragm [3] into the seal retainer [12] on the hinges [13] and the seal retainer [12] on the gate [1].
 - (c) Use liquid Turco 1526 soap, B00052 to help push the nylon rods [11] into the seal retainer [12] on the hinge [13] and the seal retainer [12] on the gate [1].

NOTE: Push the nylon rod [11] into the seal retainer [12] on the hinge [13] from both ends.
 - (d) Cut the edges of the diaphragm [3] and the ends of the nylon rods [11] if it is necessary.
 - (e) Apply silicon adhesive, A00027 to the ends of the retainer (12), nylon rod (11), and diaphragm seal (3).
 - (f) Apply silicon adhesive, A00027 into bead gap (15).
 - (g) Allow adhesive to dry before operating door.

SUBTASK 52-09-12-420-001

- (2) Connect the gate control rod [5] to the gate [1]:
 - (a) Fold the gate [1].

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- (b) Hold the gate control rod [5] to make sure it does not fall back into the door frame when the bolt [10] is installed.
- (c) Align the gate control rod [5] with the gate [1].
- (d) Install the bolt [10], washer [9], bushing [8], washer [7], and nut [6] to attach the gate control rod [5] to the gate [1].

SUBTASK 52-09-12-420-002

- (3) Install the blade [4] around the edge of the door in the sequence shown, View C-C (Figure 401) as follows:
 - (a) Put the blade [4] around the edge of the door.

NOTE: The flat surface of the blade [4] must point outboard.
 - (b) Put 1-2 inches of the inboard edge of the blade [4] into the seal retainer [14].
 - (c) Push the outboard edge of the blade [4] into the seal retainers [14].
 - (d) Install the remaining part of the blade [4] along the door edge.

SUBTASK 52-09-12-420-003

- (4) Install the blade [4] around the edge of the gate [1] in the sequence shown, View D-D (Figure 401) as follows:
 - (a) Align the notches in the blade [4] with the opening between the door and the gate [1].
 - (b) Put 1-2 inches of the inboard edge of the blade [4] into the seal retainer [14].
 - (c) Push the outboard edge of the blade [4] into the seal retainer [14].
 - (d) Install the remaining parts of the blade [4] along the edge of the gate [1].

SUBTASK 52-09-12-390-001

- (5) Make a weather seal (16) at the interior of the gate hinge (13).
 - (a) Make sure that the area is clean and free of debris.

CAUTION: DO NOT FILL DRAIN HOLES. DRAIN HOLES THAT ARE BLOCKED COULD CAUSE DAMAGE TO THE EQUIPMENT.
 - (b) If required pour leveling compound, A01026 into the lower door area above the hinge (13) and the lower gate (1).
 - (c) Apply parting MS-122XD release agent, G50063 to the exposed end of the gate hinge (13) and the edge of the gate for the entire width of door.
 - (d) Close and lock the door.
 - (e) Inject the cavity with sealant, A00247 and smooth flush with door surface ± 0.0300 inch (± 0.762 mm).
 - (f) Allow sealant to dry before operating door.

G. Put the Airplane Back to Its Usual Condition

SUBTASK 52-09-12-840-001

- (1) Install the door lining and insulation for the applicable door:
 - (a) Do this task: Aft Entry Door Lining Installation, TASK 52-13-31-400-802.
 - (b) Do this task: Galley Service Door Lining Installation, TASK 52-41-31-400-802.

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SUBTASK 52-09-12-410-001

(2) Close the applicable access doors:

<u>Number</u>	<u>Name/Location</u>
834	Aft Entry Door
841	Forward Galley Service Door
844	Aft Galley Service Door

————— **END OF TASK** —————

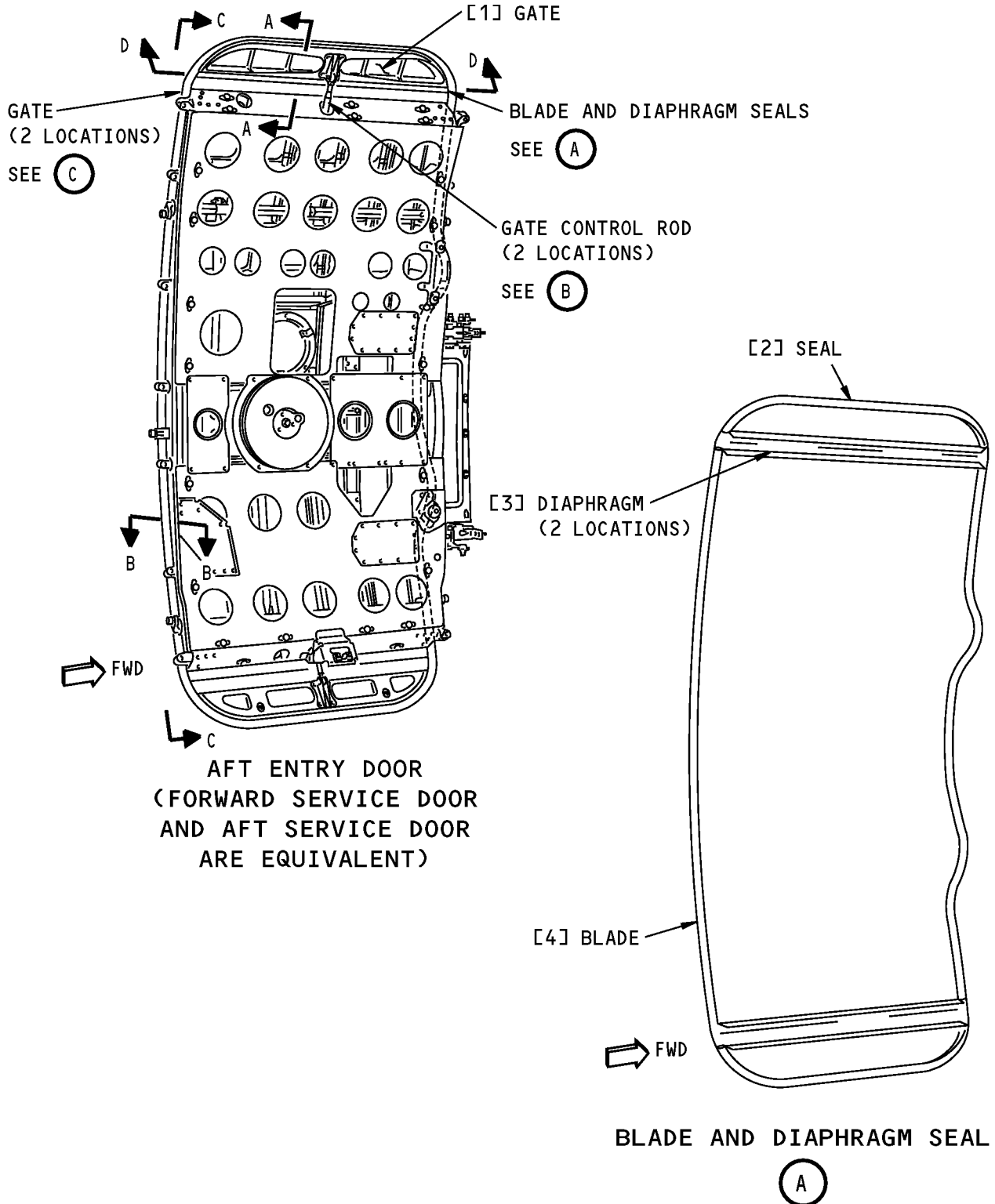
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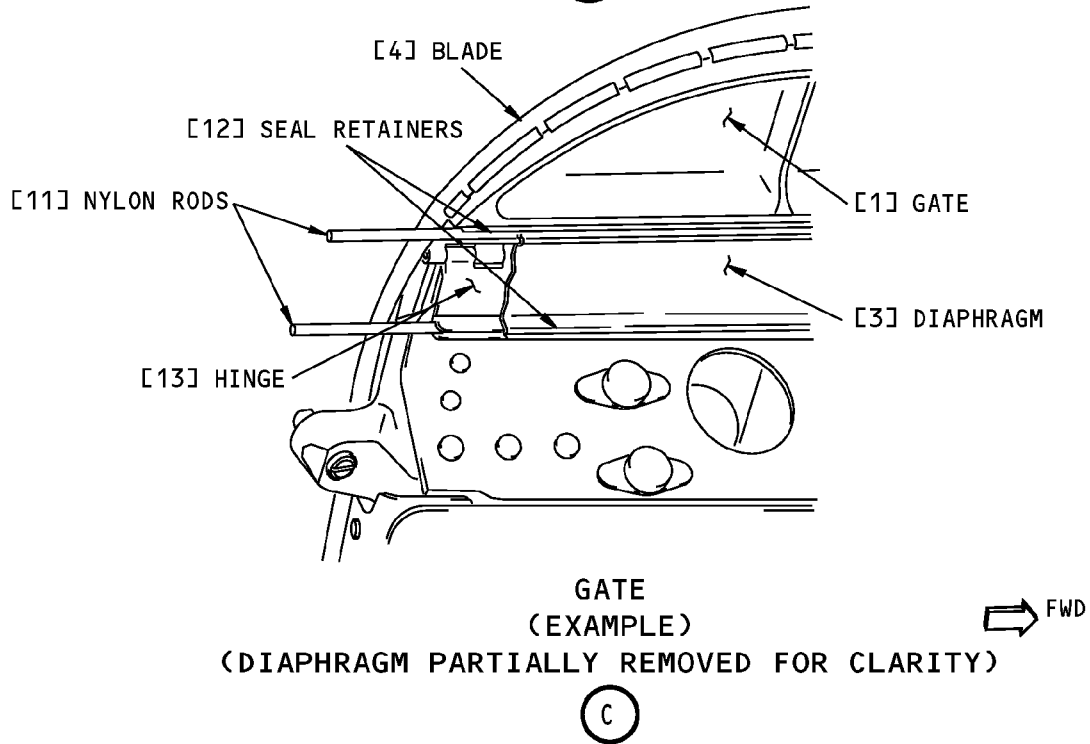
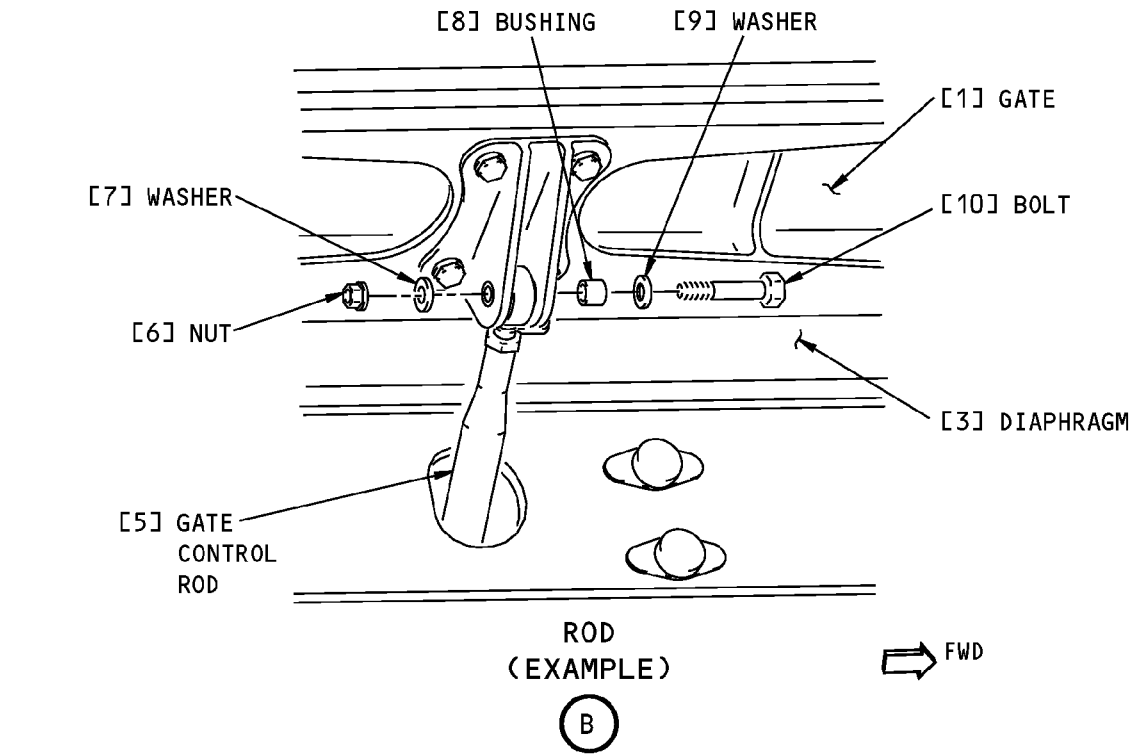


Blade and Diaphragm Seals Installation
Figure 401 (Sheet 1 of 4)/52-09-12-990-801

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**Blade and Diaphragm Seals Installation
Figure 401 (Sheet 2 of 4)/52-09-12-990-801**

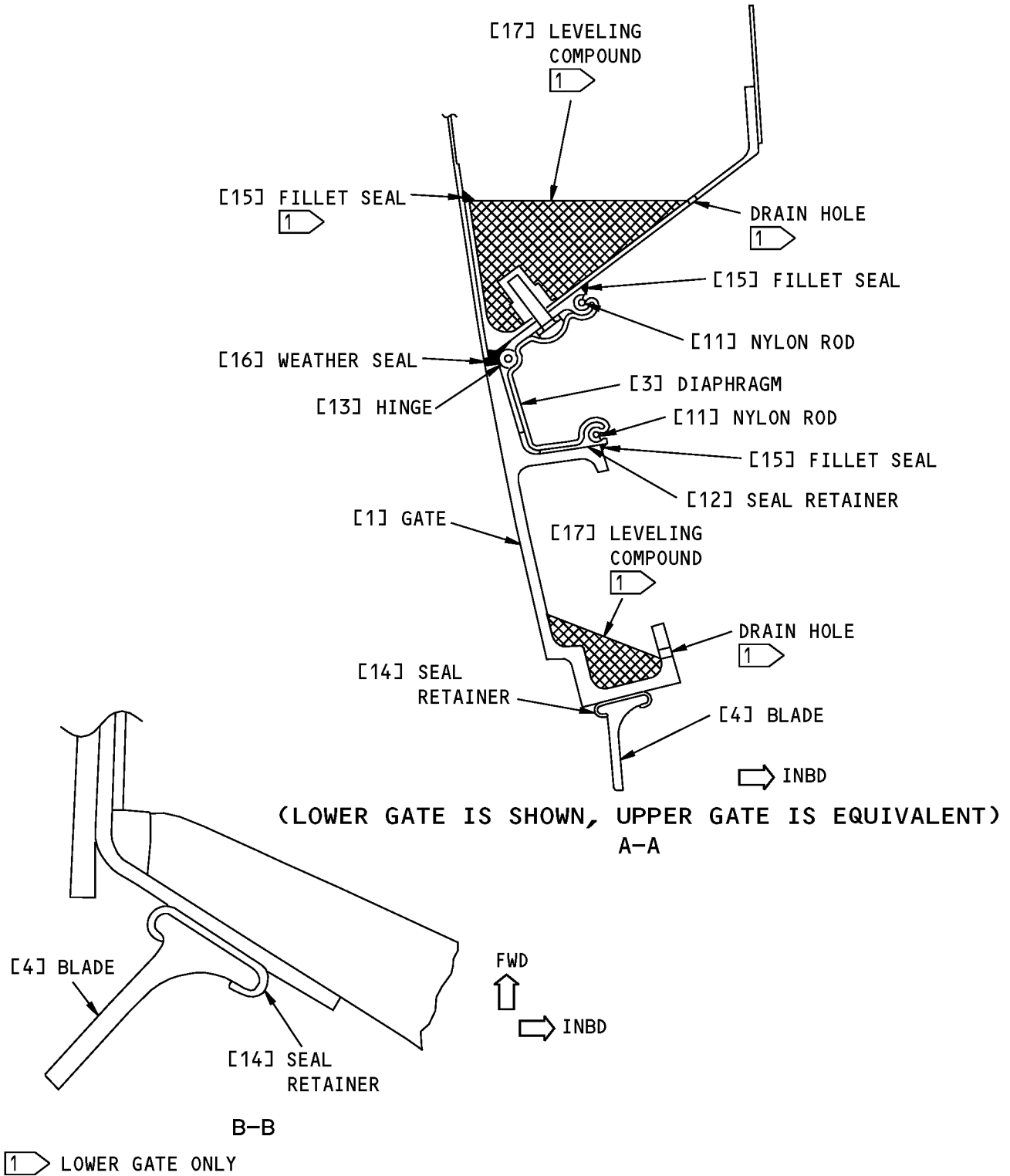
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**Blade and Diaphragm Seals Installation
Figure 401 (Sheet 3 of 4)/52-09-12-990-801**

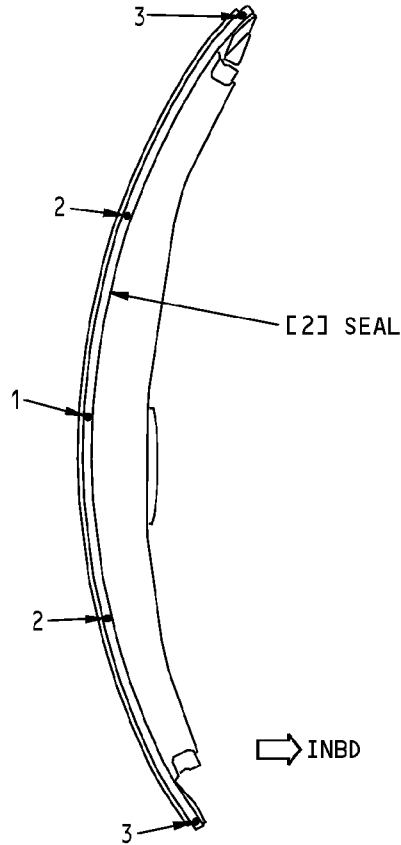
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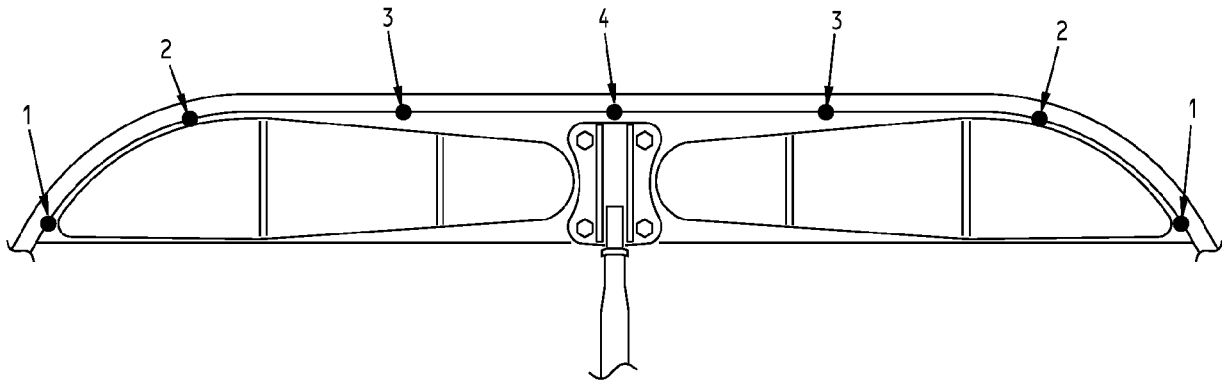
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**(BLADE INSTALLATION SEQUENCE ON DOOR)
C-C**



**(BLADE INSTALLATION SEQUENCE ON GATE)
D-D**

**Blade and Diaphragm Seals Installation
Figure 401 (Sheet 4 of 4)/52-09-12-990-801**

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BULB AND DIAPHRAGM SEAL - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

- (1) A removal of the bulb and diaphragm seal from the forward entry door.
- (2) An installation of the bulb and diaphragm seal on the forward entry door.

B. The bulb and diaphragm seal is installed at the forward entry door to maintain fuselage pressurization and prevent the entry of water into the passenger compartment.

C. The bulb part of the seal is installed around the edge of the door. The diaphragm part of the seal is installed in two locations along the hinges at the upper and lower gates.

D. In this procedure, the bulb seal will be referred to as the bulb.

E. In this procedure, the diaphragm seal will be referred to as the diaphragm.

TASK 52-09-14-000-801

2. Bulb and Diaphragm Seal Removal

(Figure 401)

A. References

Reference	Title
52-11-31-000-802	Forward Entry Door Lining Removal (P/B 401)

B. Tools/Equipment

Reference	Description
STD-1160	Stand - Cabin and General Access Stand, Adjustable Height, Max. Height 18 Feet, Platform 5 Feet by 10 Feet

C. Location Zones

Zone	Area
831	Forward Entry Door

D. Access Panels

Number	Name/Location
831	Forward Entry Door

E. Prepare for the Removal

SUBTASK 52-09-14-480-001

- (1) Install the adjustable height cabin and general access stand, STD-1160 outboard of the Forward Entry Door.

SUBTASK 52-09-14-010-001

- (2) To get access to the bulb [1] and diaphragm [2],

Open this access panel:

Number	Name/Location
831	Forward Entry Door

SUBTASK 52-09-14-010-002

- (3) Do this task: Forward Entry Door Lining Removal, TASK 52-11-31-000-802.

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F. Removal of the Bulb and Diaphragm Seal

SUBTASK 52-09-14-020-001

- (1) Remove the upper or lower gates [4] from the door:
 - (a) Hold the rods [11] and do not let them fall back into the door frame when the bolts [9] are removed.

NOTE: You can turn the door handle to extend or retract the rods [11].
 - (b) Remove the cotter pins [6], bolts [9], washers [8], bushings [7], washers [12], and nuts [5] that attach the rods [11] to the gate [4].
 - (c) Safety the ends of the rods [11] to the door frame to hold them in position.
 - (d) Remove the screws [13] from the end of the hinge [10].
 - (e) Remove the hinge pin [14] from the hinge [10].
 - (f) Fold the gate [4] in the outboard direction.
 - (g) Remove the bolts [16] and washers [17] that attach the seal retainers [19] and diaphragm [2] to the door.
 - (h) Remove the seal retainers [19] from the diaphragm [2].
 - (i) Remove the diaphragm [2] from the door.
 - (j) Cut the bulb [1] to remove the gate [4] from the door.
 - (k) Remove the gate [4] from the door.

SUBTASK 52-09-14-020-002

- (2) To remove the bulb [1], insert [24], and diaphragm [2] from the upper or lower gate [4], do these steps:

NOTE: It is permissible to remove only the bulb and insert or only the diaphragm.

NOTE: The insert is inside the bulb.

 - (a) Lift the bulb [1] to get access to the screws [21].
 - (b) Remove the screws [21] and washers [22] that attach the seal retainers [20] and the bulb [1] to the gates [4].
 - (c) Remove the seal retainers [20] from the bulb [1].
 - (d) Remove the bolts [16], washers [17], clamps [18], springs [15], seal retainers [19], and diaphragm [2] from the gate [4].
 - (e) Remove the seal retainers [19] from the diaphragm [2].
 - (f) Remove the bulb [1], insert [24], and diaphragm [2] from the gate [4].

SUBTASK 52-09-14-020-003

- (3) Remove the bulb [1] and insert [24] from the edge of the door:

NOTE: The insert is inside the bulb.

 - (a) Lift the bulb [1] to get access to the screws [21].
 - (b) Remove the screws [21] and washers [22] that attach the seal retainers [20] and bulb [1] to the door.
 - (c) Remove the seal retainers [20] from the bulb [1].
 - (d) Remove the bulb [1] and insert [24] from the edge of the door.

————— **END OF TASK** —————

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TASK 52-09-14-400-801

3. Bulb and Diaphragm Seal Installation

(Figure 401)

A. References

Reference	Title
52-11-31-400-802	Forward Entry Door Lining Installation (P/B 401)

B. Consumable Materials

Reference	Description	Specification
A00027	Adhesive - Silicone Rubber, 1 Part, RTV	BAC5010, Type 60
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS 5-95
A01026	Compound - Self-Leveling, Flexible, Fire-Retarded, For Fluid Drainage	BMS5-125, Type III
G50063	Lubricant - PTFE Release Agent - Miller-Stephenson MS-122XD (Replaces MS-122DF)	BAC 5000

C. Location Zones

Zone	Area
831	Forward Entry Door

D. Access Panels

Number	Name/Location
831	Forward Entry Door

E. Prepare for the Installation

SUBTASK 52-09-14-110-001

- (1) Make sure that the surfaces of the bulb [1] that touch the door are clean.

F. Installation of the Bulb and Diaphragm Seal

SUBTASK 52-09-14-820-001

- (1) Put the bulb [1] in its correct position on the applicable gate [4]:

NOTE: Make sure the long part of the bulb [1] between the upper and lower gates [4] is forward.

- (a) Put the bulb [1] around the edge of the gates [4].

NOTE: The flat surface of the bulb [1] must point outboard.

- (b) Align the notches in the bulb [1] with the hinges [10].
- (c) Put the diaphragm [2] along the hinges [10].

SUBTASK 52-09-14-420-001

- (2) Install the bulb [1] on the gates [4]:

- (a) Push the seal retainers [20] between the bulb [1] and flange.

NOTE: Make sure the holes in the seal retainers [20] align with the holes in the gates [4].

- (b) Attach the bulb [1] to the gates [4] in the sequence shown, (Figure 401), as follows:

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- 1) lift the bulb [1] and make holes in the flange that align with the holes in the seal retainers [20].
- 2) Install the screws [21] and washers [22] to attach the seal retainers [20] and bulb [1] to the gates [4].
- (c) Install the remaining screws [21] and washers [22] to attach the seal retainers [20] and bulb [1] to the gates [4].
- (d) Lift the diaphragm [2] and apply the sealant, A00247 on the mating surfaces between the diaphragm [2] and gates [4].
- (e) Put the seal retainers [19] over the diaphragm [2].
- (f) Make sure the holes in the seal retainers [19] align with the holes on the gates [4].
- (g) Start at the ends of the gates [4] and work toward the center, attach the diaphragm [2] to the gates [4]:
 - 1) Make holes in the diaphragm [2] that align with the holes in the seal retainers [19].
 - 2) Install the bolts [16] and washers [17] to attach the clamps [18], springs [15], seal retainers [19], and diaphragm [2] to the gates [4].
 - 3) Make sure the distance between the edges of the springs [15] and bulb [1] is as shown.

CAUTION: DO NOT FILL DRAIN HOLES. DRAIN HOLES THAT ARE BLOCKED COULD CAUSE DAMAGE TO THE EQUIPMENT.

- 4) Apply silicon adhesive, A00027 to the ends of the seal retainer (19) and the diaphragm seal (2).
 - a) Make sure the adhesive overlaps the ends of the seal retainer (19) .2500 inch min (6.35 mm).
 - b) Smooth the adhesive out equally over the ends of the seal retainer (19) and diaphragm seal (2).
- 5) Apply the silicon adhesive, A00027 into a bead gap along the edge of the diaphragm seal (25).
- 6) Make sure the adhesive is dry before you operate the door.

SUBTASK 52-09-14-420-002

- (3) Connect the upper or lower gates [4] to the door:
 - (a) Connect the diaphragm [2] to the door:
 - 1) Hold the gates [4] in position along the top and bottom of the door.
 - 2) Apply the sealant, A00247 on the mating surfaces between the diaphragm [2] and the door.
 - 3) Put the seal retainers [19] over the diaphragm [2].
 - 4) Make sure the holes in the seal retainers [19] align with the holes on the door.
 - 5) Start at the ends of the hinges [10] on the door and work toward the center, attach the diaphragm [2] to the doors:
 - a) Make holes in the diaphragm [2] that align with the holes in the seal retainers [19].
 - b) Install the bolts [16] and washers [17] to attach the seal retainers [19] and diaphragm [2] to the door.
 - (b) Connect the hinges [10] on the gates [4] to the hinges [10] on the door:
 - 1) Align the hinges [10] on the gates [4] with the hinges [10] on the door.
 - 2) Push the hinge pins [14] into the hinges [10].

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- 3) Install the screws [13] in the ends of the hinges [10].
- (c) Connect the rods [11] to the gates [4]:
 - 1) Fold the gates [4].
 - 2) Put the rods [11] in their correct position on the gates [4] and hold.

NOTE: Do not let the rods [11] fall back into the door frame when the bolts [9] are installed.

NOTE: You can turn the door handle to extend or retract the rods [4].
 - 3) Install the bolts [9], washers [8], bushings [7], washers [12], nuts [5], and pins [6] to attach the rods [11] to the gates [4].

SUBTASK 52-09-14-420-003

- (4) Install the bulb [1] around the edge of the door:
 - (a) Put the flange of the bulb [1] in position along the seal locators [23].
 - (b) Attach the bulb [1] to the forward edge of the door in the sequence shown:
 - 1) Push the seal retainers [20] between the bulb [1] and flange.

NOTE: Make sure the holes in the seal retainers [20] align with the holes in the seal locators [23].
 - 2) Make holes in the flange of the bulb [1] that align with the holes in the seal retainers [20].
 - 3) Install the screws [21] and washers [22] to attach the seal retainers [20] and bulb [1] to the door.
 - 4) Make sure there is tension on the bulb [1] between points 3 and 4.
 - 5) Make sure the bulb [1] is compressed between points 1 and 4.
 - 6) Make sure the bulb [1] is compressed between points 2 and 3.
 - 7) Install the remaining screws [21] and washers [22] to attach the seal retainers [20] and bulb [1] to the door.
 - (c) Attach the bulb [1] along the aft edge of the door as follows:

NOTE: Attach the bulb [1] first in the middle of the door, then at the top and bottom corners of the door, then along the remaining part of the door edge.

 - 1) Push the seal retainers [20] between the bulb [1] and flange.

NOTE: Make sure the holes in the seal retainers [20] align with the holes in the seal locators [3].
 - 2) Make holes in the flange of the bulb [1] that align with the holes in the seal retainers [20].
 - 3) Install the screws [21] and washers [22] to attach the bulb [1] to the door.

SUBTASK 52-09-14-420-004

- (5) Install the insert [24] in the bulb [1] on the lower gate [4]:
 - (a) Use the liquid soap to lubricate the inner surface of the open end of the bulb [1] at the lower gate [4].
 - (b) Twist the end of the insert [24] and put it in the open end of the bulb [1] at the lower gate [4].
 - (c) Blow compressed air into the open end of the bulb [1] adjacent to the insert [24] to inflate the bulb [1].
 - (d) Push the full length of the insert [24] into the bulb [1].

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- (e) Use compressed air to push the insert [24] into the straight section of the bulb [1].
- (f) Make sure you can see the insert [24] through the three vent holes in the straight section of the bulb [1].

SUBTASK 52-09-14-390-001

- (6) Make a weather seal (26) at the interior of the gate hinge (10).
 - (a) Make sure area is clean and free of debris.

CAUTION: DO NOT FILL DRAIN HOLES. DRAIN HOLES THAT ARE BLOCKED COULD CAUSE DAMAGE TO THE EQUIPMENT.

- (b) If required pour leveling compound, A01026 (27) into lower door area above hinge (10) and lower gate (4).
- (c) Apply parting MS-122XD release agent, G50063 to the exposed end of gate hinge (10) and edge of gate for the entire width of door.
- (d) Close and lock the door.
- (e) Inject the cavity with sealant, A00247 and smooth flush with door surface.
- (f) Allow sealant to cure before operating door.

G. Put the Airplane Back to Its Usual Condition

SUBTASK 52-09-14-840-001

- (1) Do this task: Forward Entry Door Lining Installation, TASK 52-11-31-400-802.

SUBTASK 52-09-14-010-003

- (2) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
831	Forward Entry Door

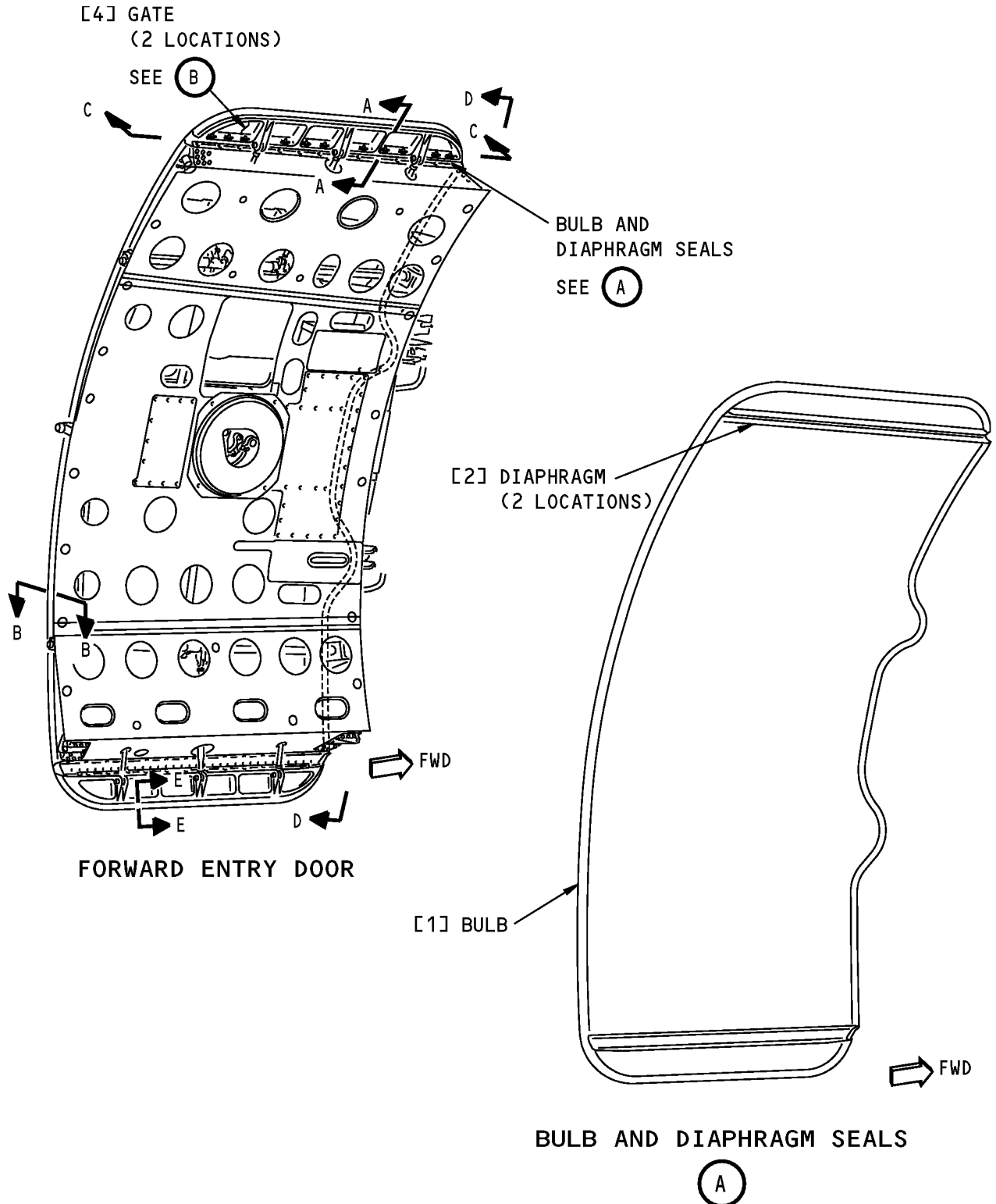
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Bulb and Diaphragm Seals Installation
Figure 401 (Sheet 1 of 4)/52-09-14-990-801

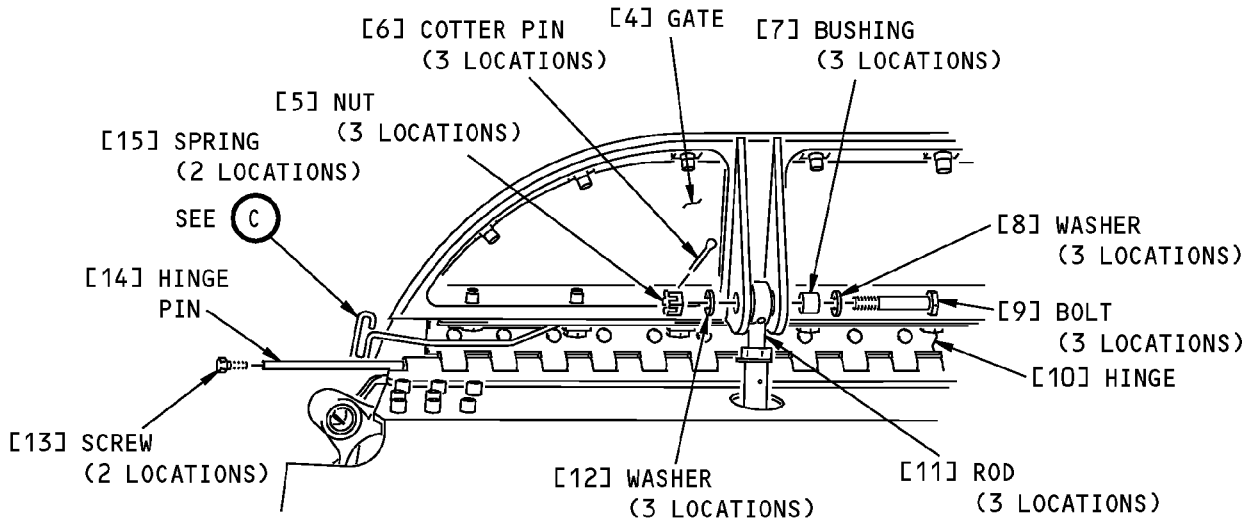
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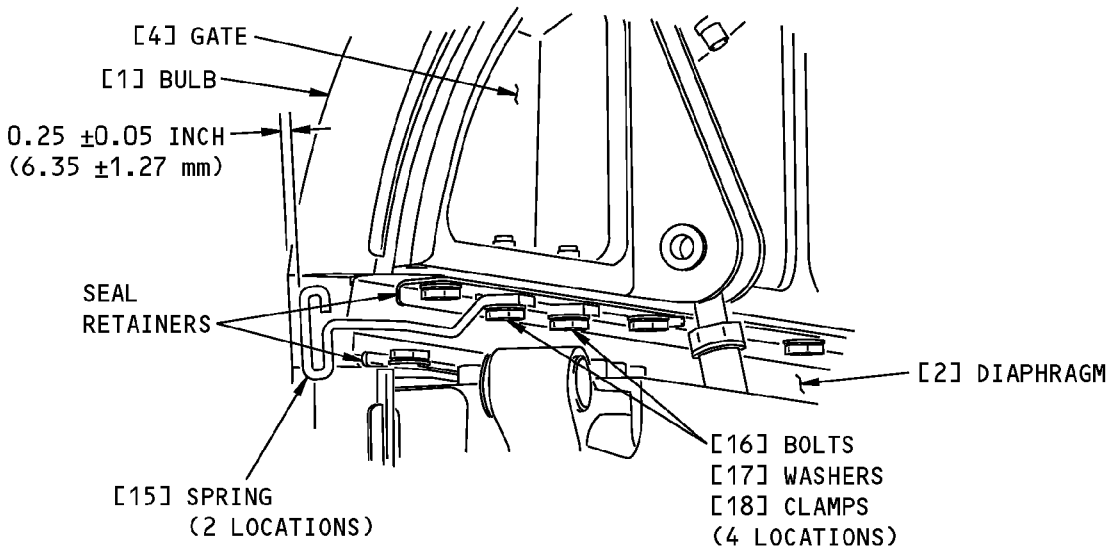
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⇒ FWD

GATE
 (UPPER GATE IS SHOWN,
 LOWER GATE IS EQUIVALENT)
 (SEAL REMOVED FOR CLARITY)

(B)



SPRING
 (EXAMPLE)

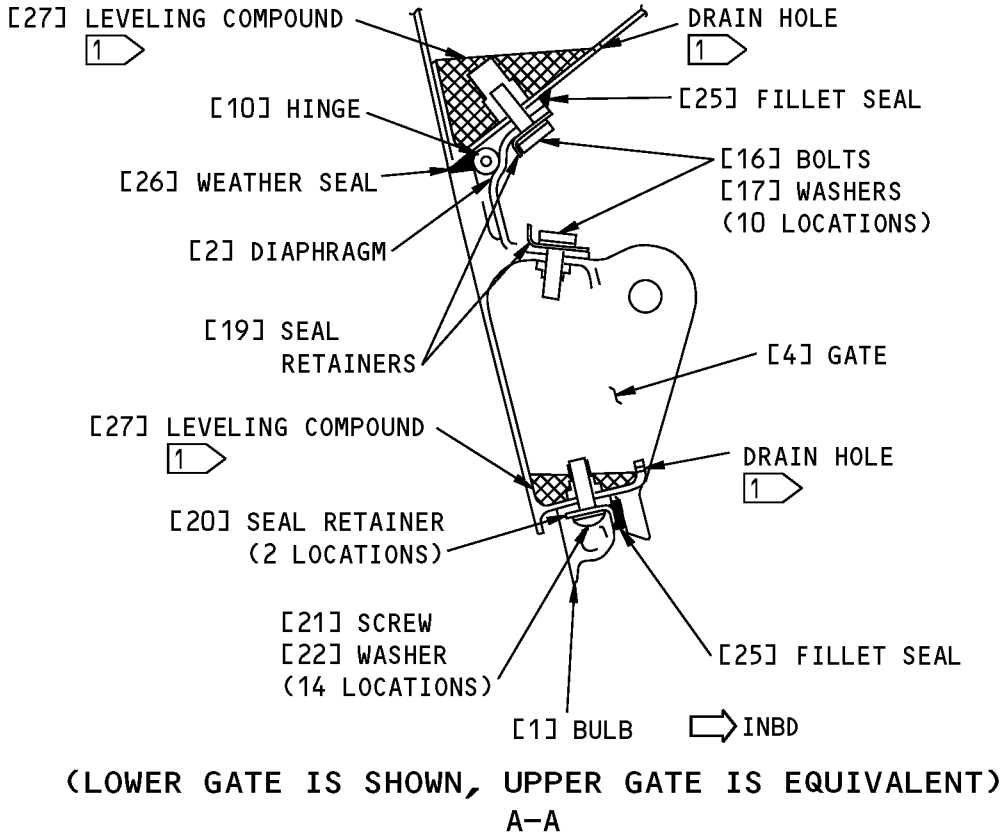
(C)

Bulb and Diaphragm Seals Installation
 Figure 401 (Sheet 2 of 4)/52-09-14-990-801

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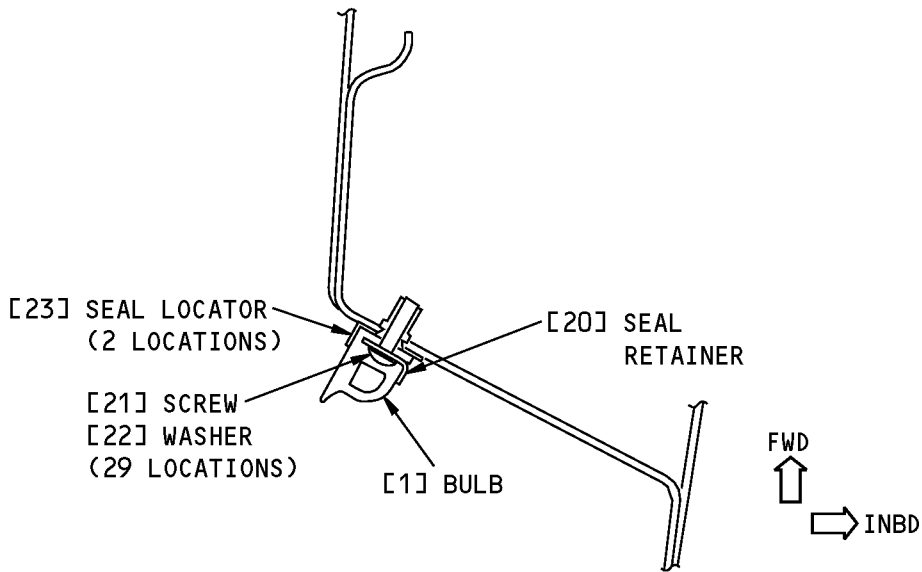
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(LOWER GATE IS SHOWN, UPPER GATE IS EQUIVALENT)

A-A



(AFT EDGE OF DOOR)

B-B

1 LOWER GATE ONLY

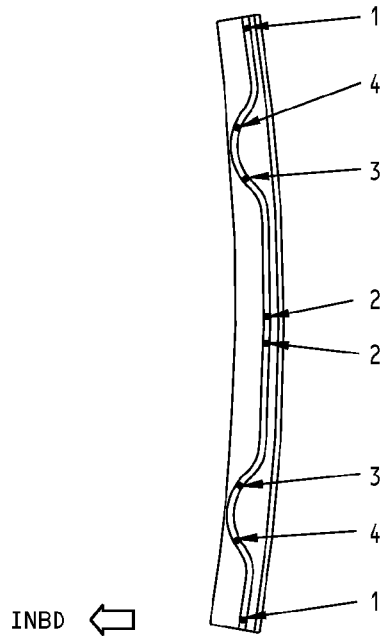
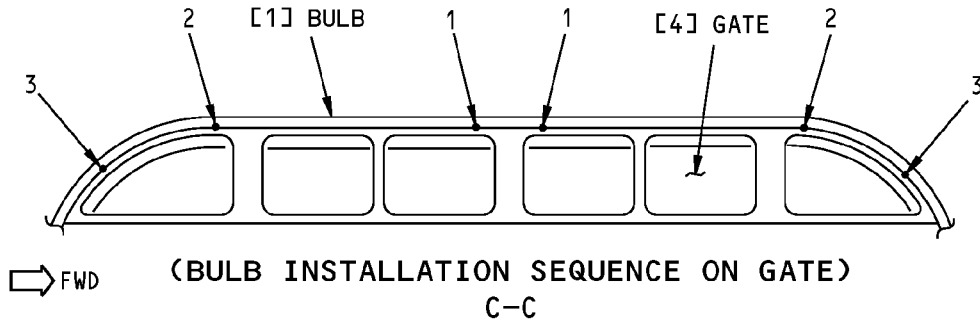
**Bulb and Diaphragm Seals Installation
Figure 401 (Sheet 3 of 4)/52-09-14-990-801**

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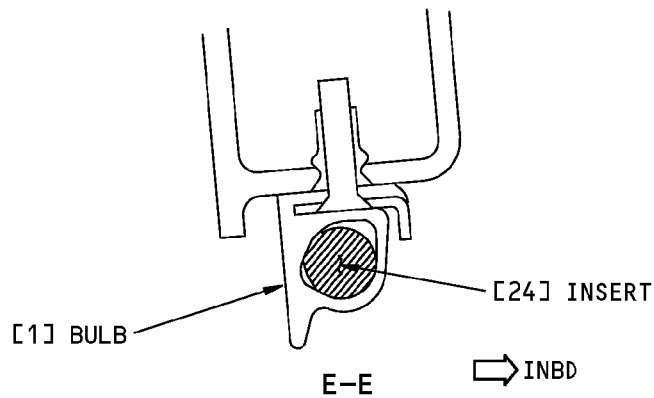
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(BULB INSTALLATION SEQUENCE ON DOOR FORWARD EDGE)
D-D



Bulb and Diaphragm Seals Installation
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AIRCRAFT MAINTENANCE MANUAL

AERODYNAMIC SEALS - REMOVAL/INSTALLATION

1. General

- A. This procedure has these tasks:
 - (1) A removal of an aerodynamic seal from a door or adjacent structure.
 - (2) An installation of an aerodynamic seal on a door or adjacent structure.
- B. Aerodynamic seals are installed around access panels to decrease aerodynamic drag.
- C. There are two methods of attaching aerodynamic seals:
 - (1) The flange of the seal is held in a seal retainer.
 - (2) The seal is mechanically attached to the structure.

TASK 52-09-15-000-801

2. Aerodynamic Seals Removal

(Figure 401)

A. Location Zones

<u>Zone</u>	<u>Area</u>
192	Lower Wing-To-Body Fairing - Under Wing Box

B. Access Panels

<u>Number</u>	<u>Name/Location</u>
192CL	Air Conditioning Access Door
192CR	Air Conditioning Access Door
192DR	ECS High Pressure Access Door

C. Prepare for the Removal

SUBTASK 52-09-15-010-001

CAUTION: DO NOT OPEN THE ECS ACCESS DOOR, 192CR UNTIL YOU OPEN THE ECS HIGH PRESSURE ACCESS DOOR, 192DR. DAMAGE TO THE ECS HIGH PRESSURE ACCESS DOOR, 192DR WILL OCCUR.

- (1) Open the following access panels in the order listed:

<u>Number</u>	<u>Name/Location</u>
192CR	Air Conditioning Access Door
192DR	ECS High Pressure Access Door

SUBTASK 52-09-15-010-002

- (2) To get access to the aerodynamic seals [1] and [2],

Open the applicable access panels:

<u>Number</u>	<u>Name/Location</u>
192CL	Air Conditioning Access Door
192CR	Air Conditioning Access Door

D. Removal

SUBTASK 52-09-15-020-001

- (1) Remove an aerodynamic seal [1] installed in a seal retainer [3] as follows (Figure 401):
 - (a) Remove the lockwire [4] that attaches the seal [1] to the seal retainer [3].
 - (b) Pull the seal [1] out of the seal retainer [3].

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SUBTASK 52-09-15-020-002

- (2) Remove an aerodynamic seal [2] that is mechanically attached to the structure as follows (Figure 401):
 - (a) Remove the bolts [7] that attach the seal retainer [6], aerodynamic seal [2], and deflector [5] to the structure.
 - (b) Remove the seal retainer [6] from the aerodynamic seal [2].
 - (c) Remove the aerodynamic seal [2] from the deflector [5].

————— END OF TASK —————

TASK 52-09-15-400-801

3. Aerodynamic Seals Installation

(Figure 401)

A. Consumable Materials

Reference	Description	Specification
C00528	Compound - Corrosion Preventive, Petroleum Hot Application (Soft Film)	MIL-C-11796, Class III
G01048	Lockwire - Corrosion Resistant Steel (0.032 In. Dia.)	NASM20995~C32

B. Location Zones

Zone	Area
192	Lower Wing-To-Body Fairing - Under Wing Box

C. Access Panels

Number	Name/Location
192CL	Air Conditioning Access Door
192CR	Air Conditioning Access Door
192DR	ECS High Pressure Access Door

D. Prepare for the Installation

SUBTASK 52-09-15-100-001

- (1) Make sure that the seals [1] and [2] and the surfaces they will touch are clean.

E. Installation

SUBTASK 52-09-15-420-001

- (1) Install an aerodynamic seal [1] in a seal retainer [3] as follows (Figure 401):
 - (a) Put one edge of the flange of the aero seal [1] in the seal retainer [3].
 - (b) Push the other edge of the flange of the seal [1] into the seal retainer [3].
 - (c) Install the lockwire, G01048 to attach the aero seal [1] to the seal retainer [3].

SUBTASK 52-09-15-420-002

- (2) Install an aerodynamic seal [2] that is mechanically attached to the structure as follows (Figure 401):
 - (a) Apply corrosion preventive compound, C00528 in the holes in the structure for the bolts [7].

NOTE: You must install the bolts [7] while the corrosion preventive compound, C00528 is wet.

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- (b) Put the deflector [5] in position along the structure.
- (c) Put the aero seal [2] in position along the deflector [5].
- (d) Put the seal retainer [6] over the aero seal [2].
- (e) Align the holes in the aero seal [2] with the seal retainer [6], deflector [5], and the structure.
- (f) Install the bolts [7] to attach the seal retainer [6], aero seal [2], and deflector [5] to the structure.

F. Put the Airplane Back to Its Usual Condition

SUBTASK 52-09-15-840-002

- (1) Close the applicable access panels:

<u>Number</u>	<u>Name/Location</u>
192CL	Air Conditioning Access Door
192CR	Air Conditioning Access Door

SUBTASK 52-09-15-840-001

- (2) If you opened it, close this access panel:

<u>Number</u>	<u>Name/Location</u>
192DR	ECS High Pressure Access Door

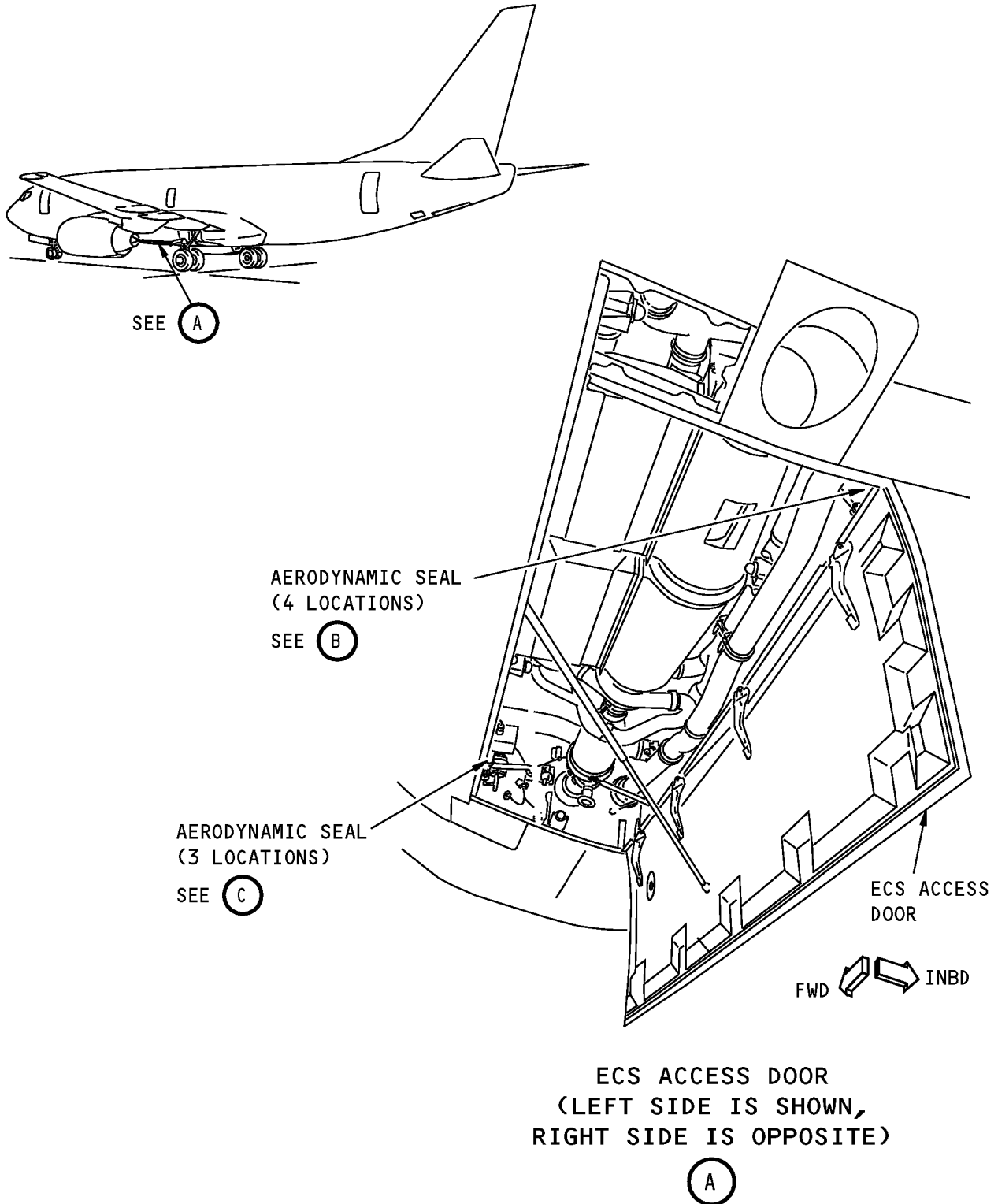
————— **END OF TASK** —————

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**Aerodynamic Seal Installation
Figure 401 (Sheet 1 of 2)/52-09-15-990-801**

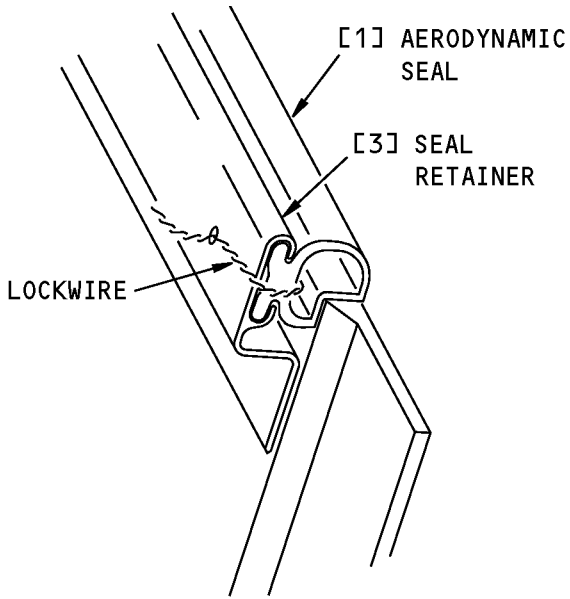
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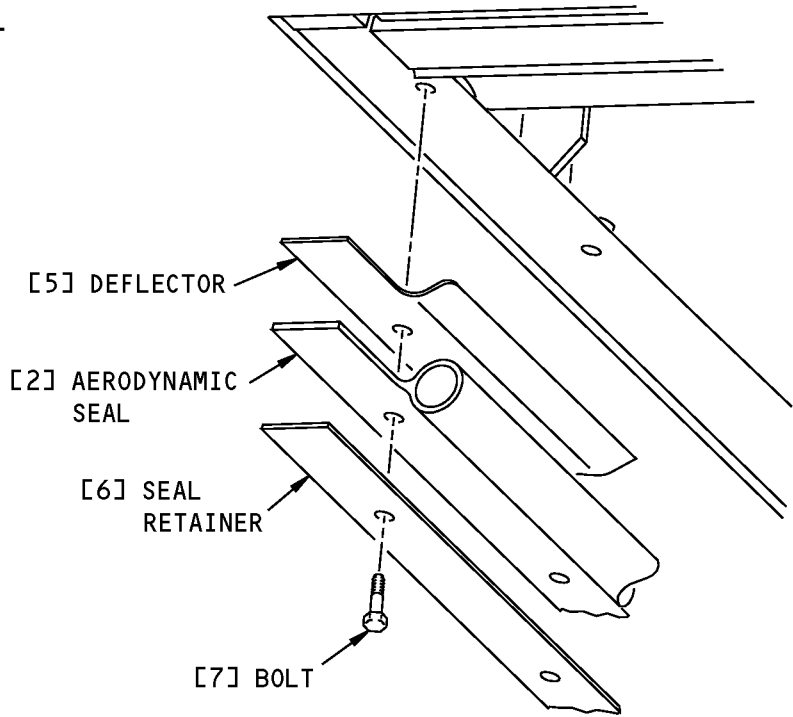
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**AERODYNAMIC SEAL
(EXAMPLE)**

(B)



**AERODYNAMIC SEAL
(EXAMPLE)**

(C)

**Aerodynamic Seal Installation
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ACOUSTIC AND THERMO SEALS - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

- (1) A removal of the acoustic seals (bulb seals) on the passenger compartment door liners.
- (2) A removal of the thermo seals (door lining seals) around the passenger compartment doorways.
- (3) An installation of the acoustic seals (bulb seals) on the passenger compartment door liners.
- (4) An installation of the thermo seals (door lining seals) around the passenger compartment doorways.

B. Acoustic and thermo seals are installed at the interface of passenger compartment doorways and interior panels to decrease cabin noise and prevent heat loss from the passenger compartment.

TASK 52-09-16-000-801

2. Acoustic Seal Removal

(Figure 401)

A. References

Reference	Title
25-66-01-000-801	Escape Slide Pack and Cover Removal (P/B 401)

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1523	Stand - Work, (B9) General Purpose, Working Height 4-21 Feet (Part #: B-9, Supplier: 05060, A/P Effectivity: 737-ALL)

C. Location Zones

Zone	Area
831	Forward Entry Door
834	Left Aft Entry Door
841	Forward Galley Service Door
844	Aft Galley Service Door

D. Prepare for the Removal

SUBTASK 52-09-16-860-001

(1) Make sure the door is safe as follows:

- (a) Make sure the door is closed and latched.

WARNING: MAKE SURE THE GIRT BAR IS NOT ENGAGED IN THE FLOOR-MOUNTED ESCAPE SLIDE BRACKETS. IF THE GIRT BAR IS ENGAGED IN THE BRACKETS, THE ESCAPE SYSTEM CAN DEPLOY WHEN YOU OPEN THE DOOR AND INJURIES OR DAMAGE CAN OCCUR.

- (b) Make sure the girt bar is not engaged in the floor-mounted escape slide brackets.
- (c) Install the stand, COM-1523 outboard of the door.

SUBTASK 52-09-16-010-001

(2) Get access to the door as follows:

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- (a) Make sure the door is closed and latched.
(b) Do this task: Escape Slide Pack and Cover Removal, TASK 25-66-01-000-801.
(c) Fully open the door.

E. Acoustic Seal Removal

SUBTASK 52-09-16-020-001

- (1) Remove the bulb seal [2] that is on the door liner [1] (Figure 401):
(a) Remove the nuts [6] that hold the seal retainers [5] onto the door liner [1]
(b) Remove the seal retainers [5].
(c) Remove the bulb seal [2].

END OF TASK

TASK 52-09-16-400-802

3. Acoustic Seal Installation

(Figure 401)

A. References

Table with 2 columns: Reference, Title. Row 1: 25-66-01-400-803, Escape Slide Pack and Cover Installation (P/B 401)

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Table with 2 columns: Reference, Description. Row 1: COM-1523, Stand - Work, (B9) General Purpose, Working Height 4-21 Feet (Part #: B-9, Supplier: 05060, A/P Effectivity: 737-ALL)

C. Location Zones

Table with 2 columns: Zone, Area. Rows: 831 Forward Entry Door, 834 Left Aft Entry Door, 841 Forward Galley Service Door, 844 Aft Galley Service Door

D. Acoustic Seal Installation

SUBTASK 52-09-16-420-003

- (1) Install the bulb seal [2] that is on the door liner [1] (Figure 401):
(a) Install the bulb seal [2].
(b) Install the seal retainers [5].
(c) Install the nuts [6] that hold the seal retainers [5] to on the door liner [1]

E. Put the Airplane Back to Its Usual Condition

SUBTASK 52-09-16-080-001

- (1) Remove the stand, COM-1523 from outboard of the door.

SUBTASK 52-09-16-840-001

- (2) Close and latch the door.

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SUBTASK 52-09-16-420-004

(3) Do this task: Escape Slide Pack and Cover Installation, TASK 25-66-01-400-803.

END OF TASK

TASK 52-09-16-000-802

4. Thermo Bulb Seal Removal

(Figure 401)

A. References

Reference	Title
25-66-01-000-801	Escape Slide Pack and Cover Removal (P/B 401)

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1523	Stand - Work, (B9) General Purpose, Working Height 4-21 Feet (Part #: B-9, Supplier: 05060, A/P Effectivity: 737-ALL)

C. Location Zones

Zone	Area
831	Forward Entry Door
834	Left Aft Entry Door
841	Forward Galley Service Door
844	Aft Galley Service Door

D. Prepare for the Removal

SUBTASK 52-09-16-860-002

- (1) Make sure the door is safe as follows:
 - (a) Make sure the door is closed and latched.

WARNING: MAKE SURE THE GIRT BAR IS NOT ENGAGED IN THE FLOOR-MOUNTED ESCAPE SLIDE BRACKETS. IF THE GIRT BAR IS ENGAGED IN THE BRACKETS, THE ESCAPE SYSTEM CAN DEPLOY WHEN YOU OPEN THE DOOR AND INJURIES OR DAMAGE CAN OCCUR.

- (b) Make sure the girt bar is not engaged in the floor-mounted escape slide brackets.
- (c) Install the stand, COM-1523 outboard of the door.

SUBTASK 52-09-16-010-002

- (2) Get access to the door as follows:
 - (a) Make sure the door is closed and latched.
 - (b) Do this task: Escape Slide Pack and Cover Removal, TASK 25-66-01-000-801.
 - (c) Fully open the door.

E. Thermo Bulb Seal Removal

SUBTASK 52-09-16-020-003

- (1) Remove the door lining seal [3] that is on the lining of the doorway (Figure 401):

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- (a) Remove the bolts [4] that hold the seal retainers [7] on the lining of the doorway.
(b) Remove the seal retainers [7].
(c) Remove the door lining seal [3].

END OF TASK

TASK 52-09-16-400-803

5. Thermo Bulb Seal Installation

A. References

Table with 2 columns: Reference, Title. Row 1: 25-66-01-400-803, Escape Slide Pack and Cover Installation (P/B 401)

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Table with 2 columns: Reference, Description. Row 1: COM-1523, Stand - Work, (B9) General Purpose, Working Height 4-21 Feet (Part #: B-9, Supplier: 05060, A/P Effectivity: 737-ALL)

C. Location Zones

Table with 2 columns: Zone, Area. Rows: 831 Forward Entry Door, 834 Left Aft Entry Door, 841 Forward Galley Service Door, 844 Aft Galley Service Door

D. Thermo Bulb Seal Installation

SUBTASK 52-09-16-420-005

- (1) Install the door lining seal [3] that is on the lining of the doorway (Figure 401):
(a) Install the door lining seal [3].
(b) Install the seal retainers [7].
(c) Install the bolts [4] that hold the seal retainers [7] to on the lining of the doorway

E. Put the Airplane Back to Its Usual Condition

SUBTASK 52-09-16-080-002

- (1) Remove the stand, COM-1523 from outboard of the door.

SUBTASK 52-09-16-840-002

- (2) Close and latch the door.

SUBTASK 52-09-16-410-001

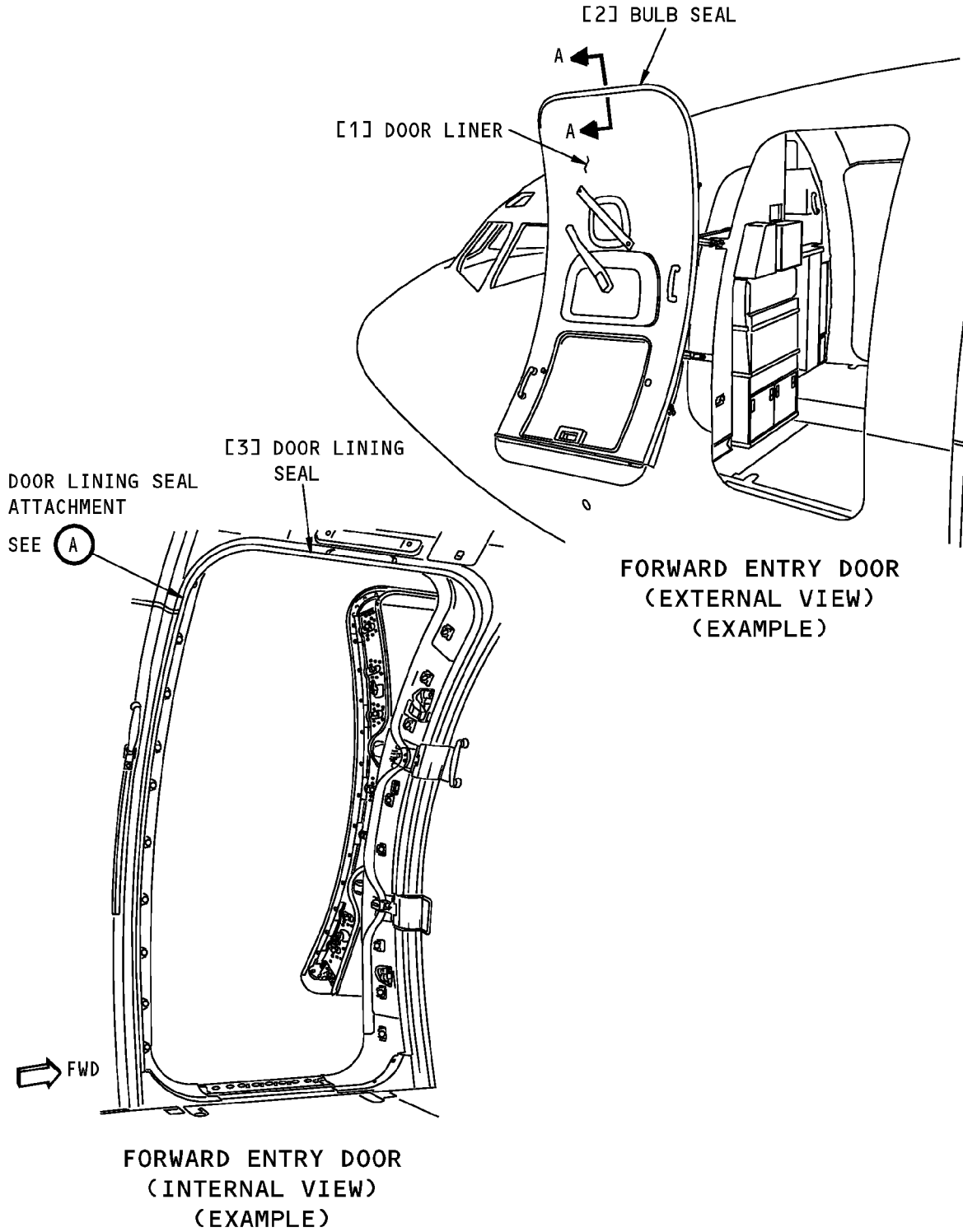
- (3) Do this task: Escape Slide Pack and Cover Installation, TASK 25-66-01-400-803.

END OF TASK

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**Acoustic and Thermo Seals Installation
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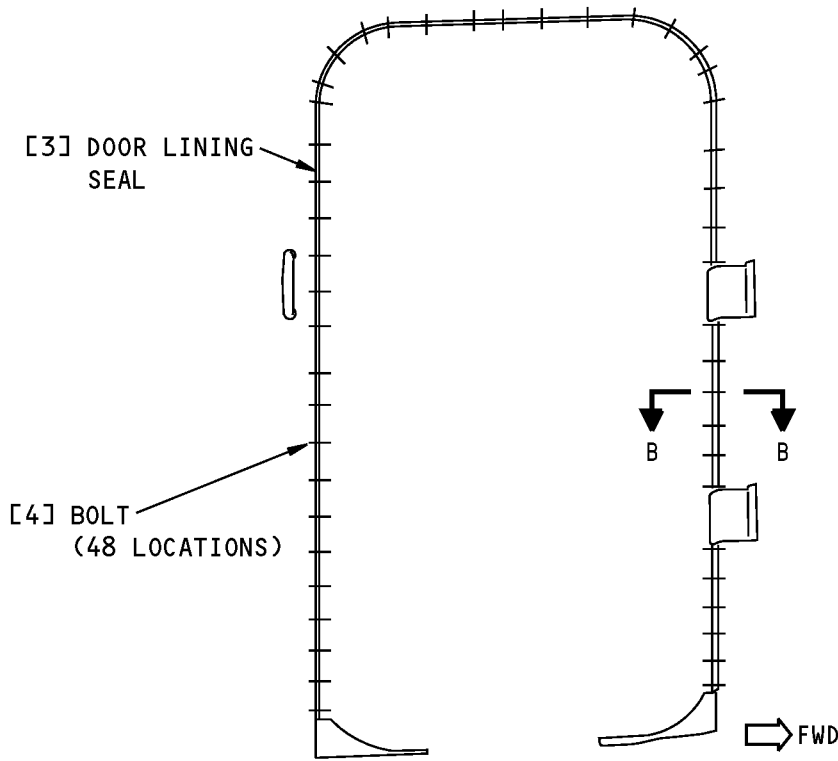
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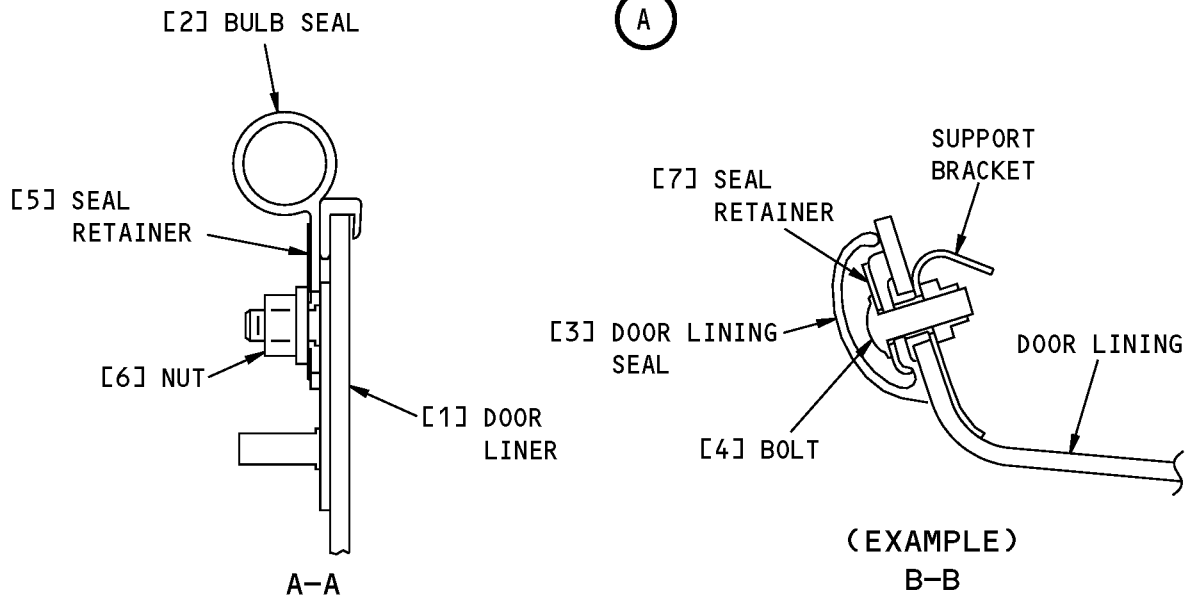
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DOOR LINING SEAL ATTACHMENT (EXAMPLE)

(A)



Acoustic and Thermo Seals Installation
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LIGHT SEALS - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

- (1) A removal of the light seals around the crew door.
- (2) An installation of the light seals around the crew door.

B. Light seals are installed around the crew door to keep light out of the flight compartment. There are three light seals around the crew door:

- (1) A door seal that is attached to the top of the crew door by a backing plate.
- (2) A hinge seal that is bonded to the crew door hinge.
- (3) A door post seal that is bonded to the crew door post.

TASK 52-09-17-000-801

2. Light Seals Removal

(Figure 401)

A. General

- (1) Use this procedure to remove the light seals from around the crew door. If you want to remove only one seal, do the steps to remove that seal only.

B. Location Zones

Zone	Area
211	Flight Compartment - Left
212	Flight Compartment - Right
220	Subzone - Passenger Compartment - Body Station 259.50 to 360.00
221	Passenger Compartment - Aft of Control Compartment to Forward Entry Door - Left

C. Prepare for the Removal

SUBTASK 52-09-17-010-001

- (1) Open the crew door [1] to get access to the door seal [2], hinge seal [3], and door post seal [5].

D. Removal

SUBTASK 52-09-17-020-001

- (1) Remove the door seal [2] that is attached to the top of the crew door [1]:
 - (a) Remove the screws [7] that hold the backing plate [8] to the door [1].
 - (b) Remove the backing plate [8] and door seal [2].
 - (c) Pull the door seal [2] away from the backing plate [8].

NOTE: The adhesive bond will break when you pull the door seal [2].

SUBTASK 52-09-17-020-002

- (2) Remove the hinge seal [3] that is bonded to the crew door hinge [11]:
 - (a) Remove the screws [6] that attach the hinge [11] to the wall.
 - (b) Remove the door [1] from the wall.
 - (c) Remove the screws [4] that attach the hinge [11] to the door [1].
 - (d) Remove the hinge [11] from the door [1].

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- (e) Pull the hinge seal [3] away from the hinge [11].

NOTE: The adhesive bond will break when you pull the hinge seal [3].

SUBTASK 52-09-17-020-003

- (3) Remove the door post seal [5] that is bonded to the trim angle [9] on the door post [10]:
(a) Pull the door post seal [5] away from the trim angle [9].

NOTE: The adhesive bond will break when you pull the door post seal [5].

END OF TASK

TASK 52-09-17-400-801

3. Light Seal Installation

(Figure 401)

A. General

- (1) Use this procedure to install the light seals around the crew door. If you want to install only one seal, do the steps to install that seal only.

B. Consumable Materials

Table with 3 columns: Reference, Description, Specification. Rows include A00153 (Adhesive), B00083 (Solvent), and G00034 (Cotton Wiper).

C. Location Zones

Table with 2 columns: Zone, Area. Rows list zones 211, 212, 220, and 221 with their corresponding areas.

D. Installation

SUBTASK 52-09-17-420-001

- (1) Install the door seal [2] attached to the top of the crew door [1]:
(a) Clean the surface of the backing plate [8] with a clean cotton wiper, G00034 that is moist with solvent, B00083.
(b) Bond the door seal [2] to the backing plate [8] with adhesive, A00153.
(c) Hold the backing plate [8] against the forward side of the top of the crew door [1].
(d) Install the screws [7] that hold the backing plate [8] to the crew door [1].

SUBTASK 52-09-17-420-002

- (2) Install the hinge seal [3] bonded to the crew door hinge [11]:
(a) Clean the surface of the hinge [11] with a clean cotton wiper, G00034 that is moist with solvent, B00083.
(b) Put the hinge [11] in the closed position.
(c) Bond the hinge seal [3] tightly around the hinge [11] with adhesive, A00153.

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- (d) Make holes in the hinge seal [3] that align with the holes in the hinge [11].
- (e) Hold the hinge [11] against the edge of the door [1].
- (f) Install the screws [4] that attach the hinge [11] to the door [1].
- (g) Hold the door [1] against the wall [5].
- (h) Install the screws [6] that attach the door [1] to the wall.

SUBTASK 52-09-17-420-003

- (3) Install the door post seal [5] bonded to the trim angle [9] on the door post [10]:
 - (a) Clean the surface of the trim angle [9] with a clean cotton wiper, G00034 that is moist with solvent, B00083.
 - (b) Install the door post seal [5] on the trim angle [9].

NOTE: The seal has a layer of pressure-sensitive adhesive.

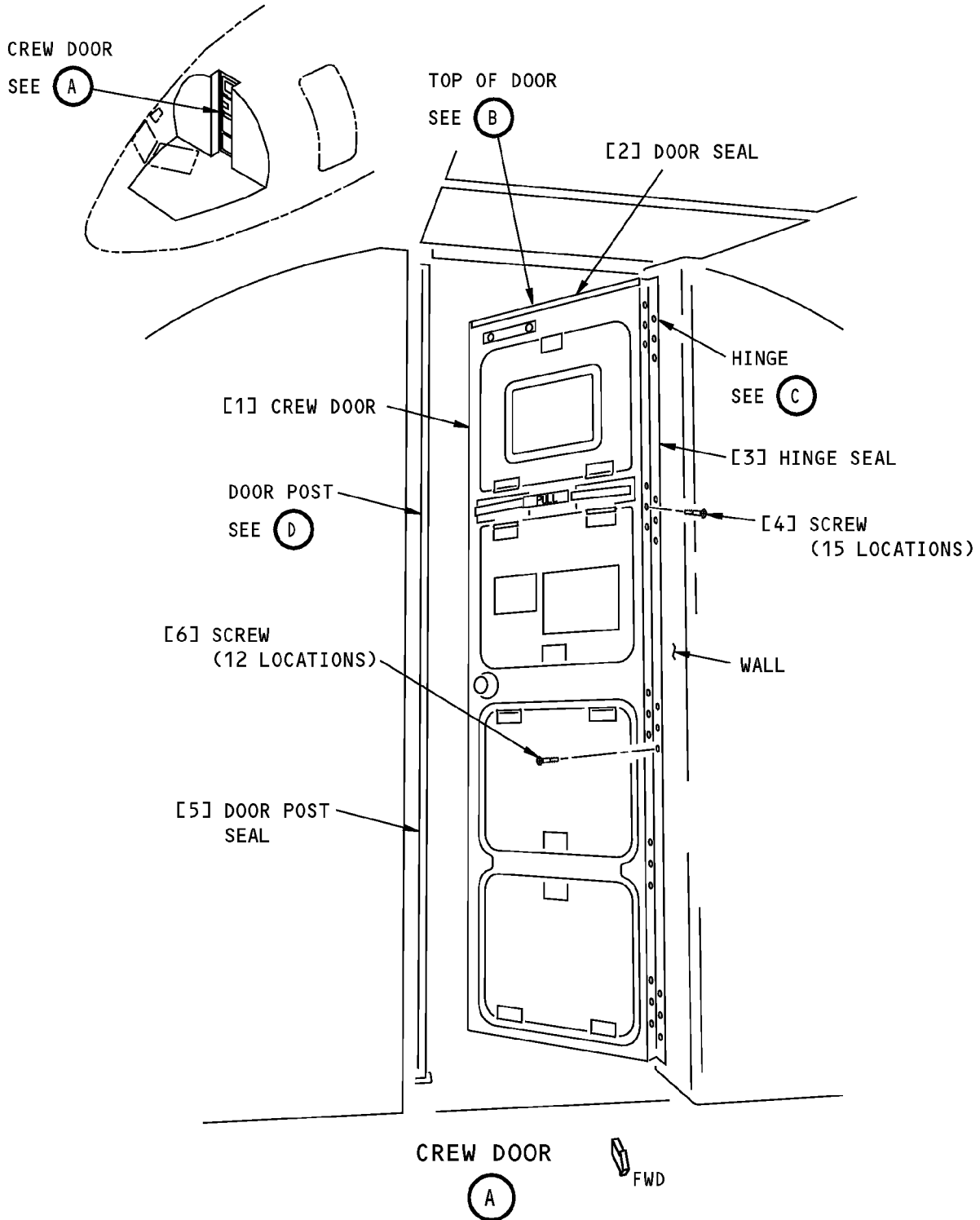
————— **END OF TASK** —————

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**Light Seals Installation
Figure 401 (Sheet 1 of 2)/52-09-17-990-801**

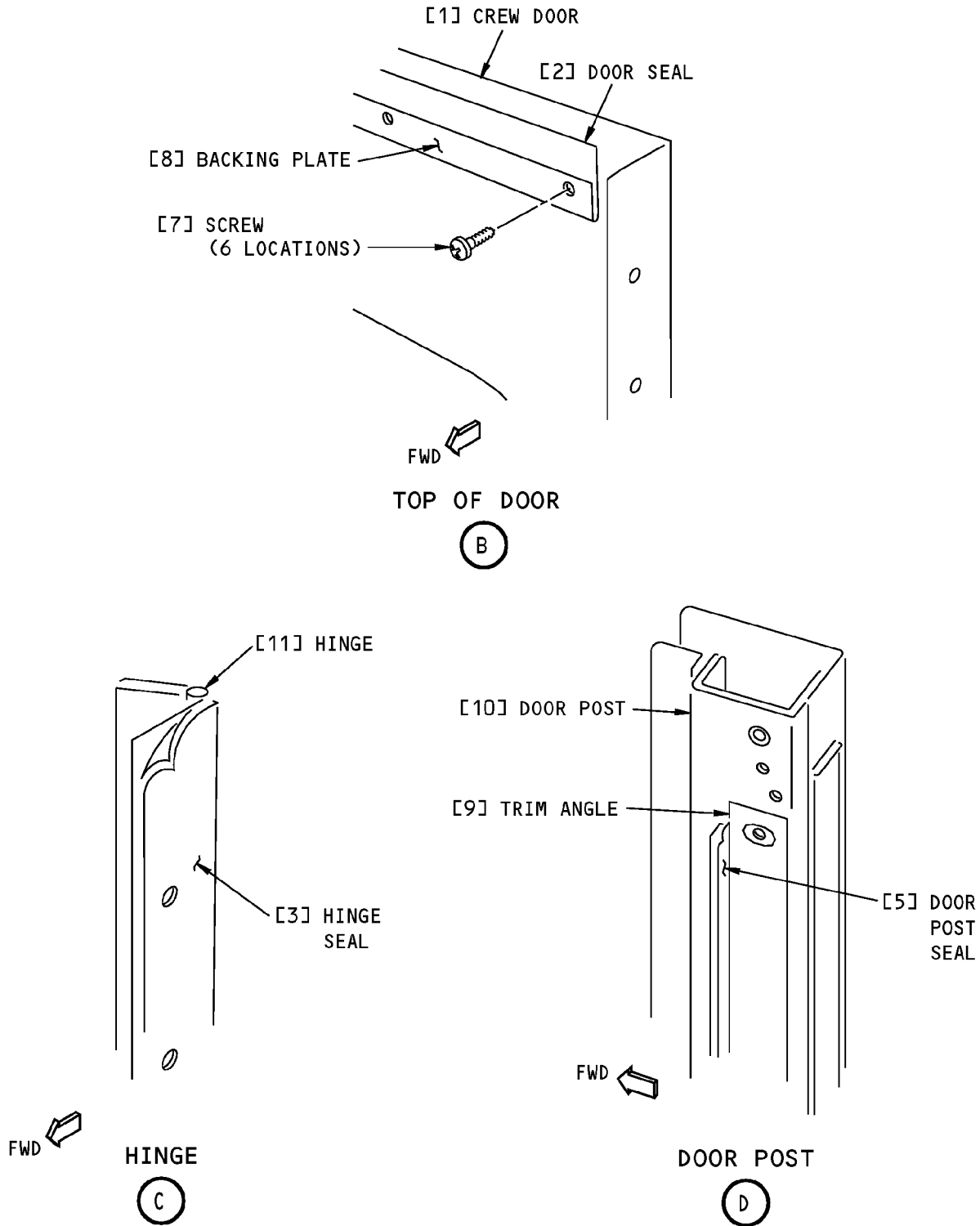
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**Light Seals Installation
Figure 401 (Sheet 2 of 2)/52-09-17-990-801**

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FORWARD ENTRY DOOR - MAINTENANCE PRACTICES

1. General

A. This procedure has these tasks:

- (1) Open the forward entry door with the exterior handle.
- (2) Close the forward entry door with the exterior handle.
- (3) Open the forward entry door with the interior handle.
- (4) Close the forward entry door with the interior handle.
- (5) Forward Entry Door Corrosion Prevention.

TASK 52-11-00-860-801

2. Open the Door with the Exterior Handle

(Figure 201)

A. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1523	Stand - Work, (B9) General Purpose, Working Height 4-21 Feet (Part #: B-9, Supplier: 05060, A/P Effectivity: 737-ALL)

B. Location Zones

Zone	Area
831	Forward Entry Door

C. Procedure

SUBTASK 52-11-00-860-038

CAUTION: DO NOT OPERATE THE DOOR IN WINDS MORE THAN 40 KNOTS. DO NOT LET THE DOOR STAY OPEN IN WINDS MORE THAN 65 KNOTS. STRONG WINDS CAN CAUSE DAMAGE TO THE STRUCTURE OF THE AIRPLANE.

- (1) Put the stand, COM-1523 in front of the door.

SUBTASK 52-11-00-860-013

- (2) As required, make sure the door is safe as follows:

WARNING: MAKE SURE THE GIRT BAR IS NOT ENGAGED IN THE FLOOR-MOUNTED ESCAPE SLIDE BRACKETS. IF THE GIRT BAR IS ENGAGED IN THE BRACKETS, THE ESCAPE SYSTEM CAN DEPLOY WHEN YOU OPEN THE DOOR. THIS CAN CAUSE INJURIES TO PERSONS AND DAMAGE TO EQUIPMENT.

- (a) Make sure the girt bar is not engaged in the floor-mounted escape slide brackets.

SUBTASK 52-11-00-860-014

WARNING: BE CAREFUL WHEN YOU OPERATE THE DOOR FROM A MAINTENANCE STAND. IT IS NOT EASY TO OPERATE THE DOOR FROM THE SMALL PLATFORM AREA AND DURING BAD WEATHER CONDITIONS. INJURIES TO PERSONNEL AND DAMAGE TO EQUIPMENT CAN OCCUR.

- (3) Pull the exterior handle outboard from the recess in the door to engage the door drive mechanism.

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SUBTASK 52-11-00-860-015

(4) Turn the exterior handle 180 degrees clockwise to unlatch the door.

NOTE: When you turn the handle 180 degrees clockwise, the latch rollers disengage with the latch fittings.

NOTE: The initial movement of the door is inward.

SUBTASK 52-11-00-860-016

(5) Return the exterior handle into the recess of the door.

SUBTASK 52-11-00-860-017

(6) Use the door assist handle to pull the door outboard and forward until the latch mechanism in the upper hinge engages and the door is held in the fully open position.

NOTE: The door will be parallel to the fuselage when fully open.

SUBTASK 52-11-00-860-018

(7) Put the warning strap across the door opening.

END OF TASK

TASK 52-11-00-860-802

3. Close the Door with the Exterior Handle

(Figure 201)

A. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1523	Stand - Work, (B9) General Purpose, Working Height 4-21 Feet (Part #: B-9, Supplier: 05060, A/P Effectivity: 737-ALL)

B. Location Zones

Zone	Area
831	Forward Entry Door

C. Procedure

SUBTASK 52-11-00-860-019

CAUTION: DO NOT OPERATE THE DOOR IN WINDS MORE THAN 40 KNOTS. DO NOT LET THE DOOR STAY OPEN IN WINDS MORE THAN 65 KNOTS. STRONG WINDS CAN CAUSE DAMAGE TO THE STRUCTURE OF THE AIRPLANE.

(1) Make sure the stand, COM-1523 is installed in front of the door.

SUBTASK 52-11-00-860-020

(2) Remove the warning strap from across the door opening if it is installed.

SUBTASK 52-11-00-860-021

WARNING: BE CAREFUL WHEN YOU OPERATE THE DOOR FROM A MAINTENANCE STAND. IT IS NOT EASY TO OPERATE THE DOOR FROM THE SMALL PLATFORM AREA AND DURING BAD WEATHER CONDITIONS. INJURIES TO PERSONNEL AND DAMAGE TO EQUIPMENT CAN OCCUR.

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(WARNING PRECEDES)

- (3) Release the door hold open lock from the locked position by using either the "Up to release" lever on the body torque tube, or the "Down to release" button on the guide arm.

SUBTASK 52-11-00-860-022

- (4) Use the assist handle to swing the door into the door opening.

SUBTASK 52-11-00-860-023

- (5) Pull the exterior handle outward to clear the handle recess.

SUBTASK 52-11-00-860-024

- (6) Turn the exterior handle 180 degrees counterclockwise to close the door.

NOTE: When you turn the handle 180 degrees counterclockwise, the latch rollers engage with the latch fittings.

SUBTASK 52-11-00-860-025

- (7) Release the exterior handle into the recess in the door.

SUBTASK 52-11-00-080-005

- (8) Remove the stand, stand, COM-1523 from the door.

END OF TASK

TASK 52-11-00-860-803

4. Open the Door with the Interior Handle

(Figure 202)

A. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1523	Stand - Work, (B9) General Purpose, Working Height 4-21 Feet (Part #: B-9, Supplier: 05060, A/P Effectivity: 737-ALL)
SPL-2005	Barrier, Frame Equipment - Passenger Entry Door (Part #: C52012-1, Supplier: 81205, A/P Effectivity: 737-100, -200, -200C, -300, -400, -500, -600, -700, -700C, -700ER, -700QC, -800, -900, -900ER, -BBJ) (Opt Part #: 4PRE50-7945, Supplier: 81205, A/P Effectivity: 737-100, -200, -200C, -300, -400, -500, -600, -700, -700C, -700ER, -700QC, -800, -900, -900ER, -BBJ)

B. Location Zones

Zone	Area
831	Forward Entry Door

C. Procedure

SUBTASK 52-11-00-860-026

CAUTION: DO NOT OPERATE THE DOOR IN WINDS MORE THAN 40 KNOTS. DO NOT LET THE DOOR STAY OPEN IN WINDS MORE THAN 65 KNOTS. STRONG WINDS CAN CAUSE DAMAGE TO THE STRUCTURE OF THE AIRPLANE.

- (1) As required, put the stand, COM-1523 in front of the door.

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SUBTASK 52-11-00-860-027

(2) Make sure the door is safe as follows:

WARNING: MAKE SURE THE GIRT BAR IS NOT ENGAGED IN THE FLOOR-MOUNTED ESCAPE SLIDE BRACKETS. IF THE GIRT BAR IS ENGAGED IN THE BRACKETS, THE ESCAPE SYSTEM CAN DEPLOY WHEN YOU OPEN THE DOOR. THIS CAN CAUSE INJURIES TO PERSONS AND DAMAGE TO EQUIPMENT.

(a) Make sure the girt bar is not engaged in the floor-mounted escape slide brackets.

SUBTASK 52-11-00-860-028

WARNING: BE CAREFUL WHEN YOU OPERATE THE DOOR FROM A MAINTENANCE STAND. IT IS NOT EASY TO OPERATE THE DOOR FROM THE SMALL PLATFORM AREA AND DURING BAD WEATHER CONDITIONS. INJURIES TO PERSONNEL AND DAMAGE TO EQUIPMENT CAN OCCUR.

(3) Turn the interior handle counterclockwise 180 degrees to unlatch the door.

NOTE: When you turn the handle 180 degrees in the open direction, the latch rollers disengage from the latch fittings and the initial movement of the door is inward.

SUBTASK 52-11-00-860-029

(4) Use the door assist handle to push the door outboard and forward until the latch mechanism in the upper hinge engages and the door is held in the fully open position.

NOTE: The door will be parallel to the fuselage when fully open.

SUBTASK 52-11-00-860-030

(5) As required, put the barrier frame, SPL-2005 across the door opening.

END OF TASK

TASK 52-11-00-860-804

5. Close the Door with the Interior Handle

(Figure 202)

A. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1523	Stand - Work, (B9) General Purpose, Working Height 4-21 Feet (Part #: B-9, Supplier: 05060, A/P Effectivity: 737-ALL)
SPL-2005	Barrier, Frame Equipment - Passenger Entry Door (Part #: C52012-1, Supplier: 81205, A/P Effectivity: 737-100, -200, -200C, -300, -400, -500, -600, -700, -700C, -700ER, -700QC, -800, -900, -900ER, -BBJ) (Opt Part #: 4PRE50-7945, Supplier: 81205, A/P Effectivity: 737-100, -200, -200C, -300, -400, -500, -600, -700, -700C, -700ER, -700QC, -800, -900, -900ER, -BBJ)

B. Location Zones

Zone	Area
831	Forward Entry Door

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C. Procedure

SUBTASK 52-11-00-860-031

CAUTION: DO NOT OPERATE THE DOOR IN WINDS MORE THAN 40 KNOTS. DO NOT LET THE DOOR STAY OPEN IN WINDS MORE THAN 65 KNOTS. STRONG WINDS CAN CAUSE DAMAGE TO THE STRUCTURE OF THE AIRPLANE.

(1) As required, make sure the stand, COM-1523 is installed in front of the door.

SUBTASK 52-11-00-020-019

(2) Remove the barrier frame, SPL-2005 from across the door opening if it is installed.

SUBTASK 52-11-00-860-033

WARNING: BE CAREFUL WHEN YOU OPERATE THE DOOR FROM A MAINTENANCE STAND. IT IS NOT EASY TO OPERATE THE DOOR FROM THE SMALL PLATFORM AREA AND DURING BAD WEATHER CONDITIONS. INJURIES TO PERSONNEL AND DAMAGE TO EQUIPMENT CAN OCCUR.

(3) Release the door hold open lock from the locked position by using either the "Up to release" lever on the body torque tube, or the "Down to release" button on the guide arm.

SUBTASK 52-11-00-860-034

(4) Use the assist handle to swing the door into the door opening.

SUBTASK 52-11-00-860-035

(5) Turn the interior handle 180 degrees clockwise to fully close the door.

NOTE: When you turn the handle 180 degrees clockwise, the latch rollers engage with the latch fittings.

SUBTASK 52-11-00-080-006

(6) As required, remove the stand, COM-1523 from the door.

————— **END OF TASK** —————

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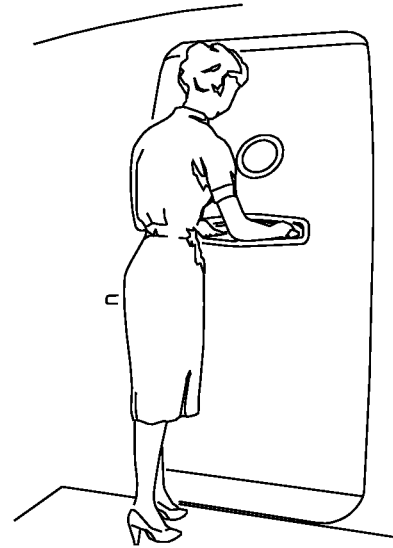
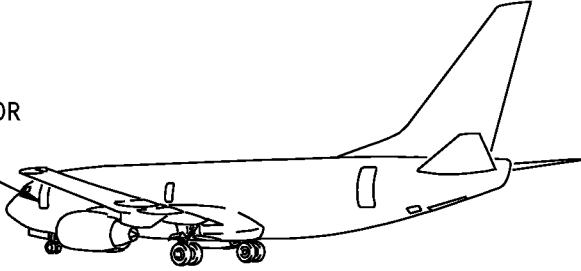
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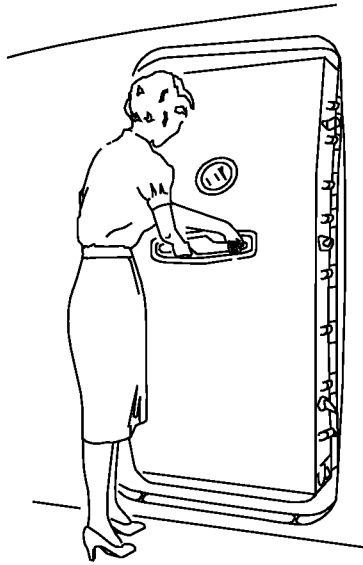
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FORWARD
ENTRY DOOR

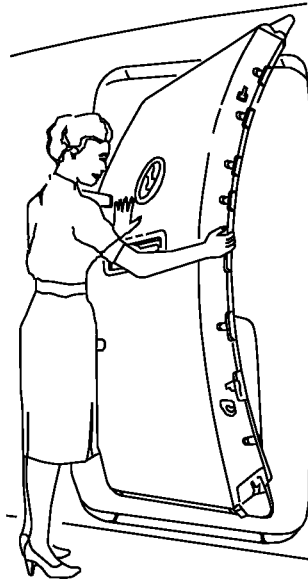
SEE (A)



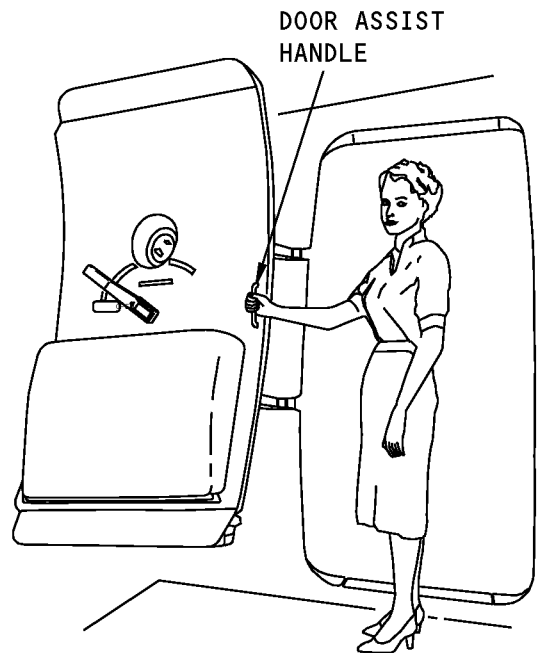
**STEP 1
PULL HANDLE**



**STEP 2
ROTATE HANDLE
CLOCKWISE**



STEP 3



STEP 4

**FORWARD ENTRY DOOR
(EXAMPLE)**

(A)

**Forward Entry Door Operation from Outside Airplane
Figure 201/52-11-00-990-827**

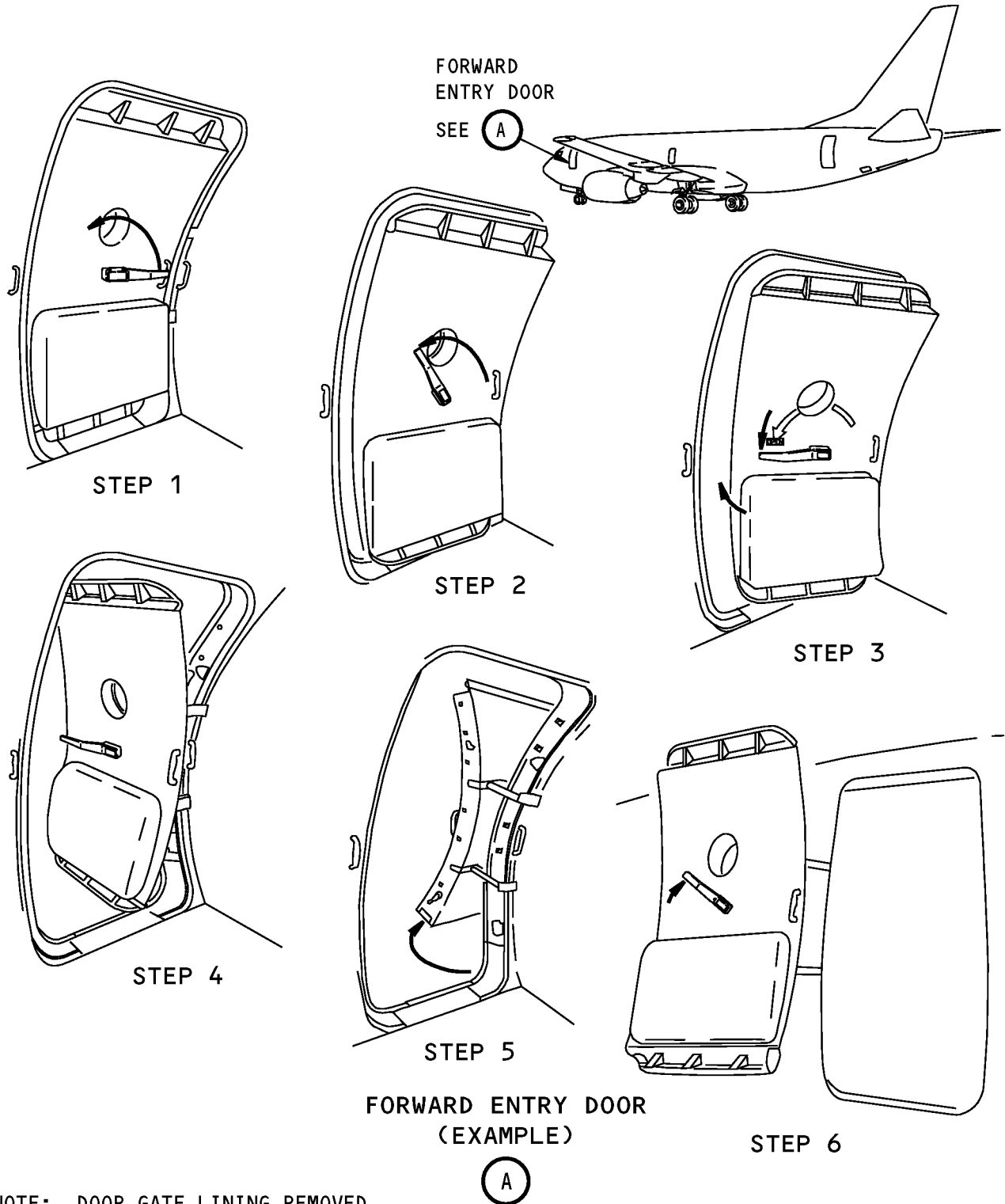
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NOTE: DOOR GATE LINING REMOVED.

**Forward Entry Door Operation from Inside Airplane
Figure 202/52-11-00-990-828**

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TASK 52-11-00-600-801

6. Forward Entry Door Corrosion Prevention

A. References

Reference	Title
12-25-11 P/B 301	FORWARD ENTRY DOOR - SERVICING
52-11-00-200-801	Forward Entry Door Check (P/B 601)
52-11-31-000-802	Forward Entry Door Lining Removal (P/B 401)
52-11-31-400-802	Forward Entry Door Lining Installation (P/B 401)

B. Consumable Materials

Reference	Description	Specification
G00009	Compound - Organic Corrosion Inhibiting	BMS3-23

C. Location Zones

Zone	Area
831	Forward Entry Door

D. General

SUBTASK 52-11-00-800-001

- (1) Corrosion may occur on the internal and external surfaces of the door structure, especially the inside lower corners, the connection points, and the door mechanism.
- (2) Corrosion has been found on the door torque tube, that is found adjacent to the door in the airplane body. The torque tube for the aft service door, in particular, has been found to contain large amounts of water.
- (3) If a door is not opened often from the outside, corrosion has been found on the exterior door handle. The corrosion causes the handle to seize in the recess and prevents the handle from moving outward to unlock the door. Corrosion can also be found in the upper and lower bearings.
 - (a) If the door handle operates in a stiff or restricted manner, then increase the frequency of the lubrication.
- (4) If applicable, stress corrosion cracks have been found on the aft upper stop fitting at the aft airstair door.
- (5) Corrosion has been found on the rivets between the web and the intercostal at the aft galley door on some airplanes.
- (6) Some items in this section maybe subject to the mandatory requirements for corrosion prevention and control programs for aging airplanes.
- (7) Corrosion Prevention
 - (a) Do these tasks, Forward Entry Door Check, TASK 52-11-00-200-801 to detect the early stages of corrosion.
 - (b) Look for missing fasteners, white powdery deposits, and discolorations, as signs of corrosion.
 - 1) If signs of corrosion are found, then a corrosion prevention program should be started to prevent the build up of corrosion products.
 - 2) If corrosion products are allowed to build up, then they will cause further corrosion.
 - 3) If corrosion is found, the refer to the Structural Repair Manual for detail instructions for the removal of corrosion.

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- (c) After the corrosion products are cleaned, make sure that the protective finishes are serviceable.
 - 1) If only minor corrosion is found, then make sure that the area is clean.
 - 2) Apply corrosion inhibiting compound on the affected area.
 - 3) Make sure that the protective finish is restored at the first opportunity that is consistent with the airplanes maintenance schedule.
- (8) Frequency of Application
 - (a) Periodic inspection is required to areas identified as prone to corrosion and should be scheduled to your Maintenance Planning Document.
 - (b) Periodic application of BMS 3-23 compounds are necessary to areas identified as prone to corrosion and should be scheduled to your Maintenance Planning Document.
 - 1) Do the prevention treatment to the door at the same recommended interval as the door frame.
 - 2) Do the prevention treatment to the exterior surface of the door at the same recommended interval as the exterior surface of the fuselage.

E. Corrosion Prevention

SUBTASK 52-11-00-620-002

(1) Prevention Treatment

- (a) Remove the door liner to get access to the interior surfaces of the door.
 - 1) Forward Entry Door Lining Removal, TASK 52-11-31-000-802
- (b) Clean the drains and drain paths.
- (c) Forward Entry Door Check, TASK 52-11-00-200-801
 - 1) Remove or repair any corrosion that you find.
- (d) Apply corrosion inhibiting compound, G00009 to the interior surfaces of the door.
 - 1) Make sure that the corrosion inhibiting compound, G00009 completely covers the surfaces, with special attention given to the lower corners and the handle mechanism housing.
- (e) If it is necessary, apply corrosion inhibiting compound, G00009 to the exterior surfaces of the door.
- (f) Lubricate the door. FORWARD ENTRY DOOR - SERVICING, PAGEBLOCK 12-25-11/301
- (g) Install the door lining.
 - 1) Forward Entry Door Lining Installation, TASK 52-11-31-400-802

————— **END OF TASK** —————

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FORWARD ENTRY DOOR - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

- (1) A removal of the forward entry door.
- (2) An installation of the forward entry door.
- (3) A removal of the flapper door seal.
- (4) An installation of the flapper door seal.

TASK 52-11-00-000-802

2. Forward Entry Door Removal

(Figure 401)

A. References

Reference	Title
52-11-31-000-802	Forward Entry Door Lining Removal (P/B 401)
52-11-41-000-802	Forward Entry Door Assist Springs Removal (P/B 401)
52-11-51-000-801	Forward Entry Door Snubber Removal (P/B 401)

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1523	Stand - Work, (B9) General Purpose, Working Height 4-21 Feet (Part #: B-9, Supplier: 05060, A/P Effectivity: 737-ALL)

C. Location Zones

Zone	Area
831	Forward Entry Door

D. Access Panels

Number	Name/Location
831AZ	Forward Entry Door - Torque Tube Access

E. Prepare for the Removal

SUBTASK 52-11-00-860-012

(1) Make sure the door is safe as follows:

- (a) Make sure the door is closed and latched.

WARNING: MAKE SURE THE GIRT BAR IS NOT ENGAGED IN THE FLOOR-MOUNTED ESCAPE SLIDE BRACKETS. IF THE GIRT BAR IS ENGAGED IN THE BRACKETS, THE ESCAPE SYSTEM CAN DEPLOY WHEN YOU OPEN THE DOOR AND INJURIES OR DAMAGE CAN OCCUR.

- (b) Make sure the girt bar is not engaged in the floor-mounted escape slide brackets.

- (c) Install the stand, COM-1523 outboard of the door.

SUBTASK 52-11-00-010-016

(2) Do this task: Forward Entry Door Lining Removal, TASK 52-11-31-000-802.

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SUBTASK 52-11-00-010-015

- (3) Remove this access panel:

<u>Number</u>	<u>Name/Location</u>
831AZ	Forward Entry Door - Torque Tube Access

F. Removal of the Forward Entry Door

SUBTASK 52-11-00-010-017

- (1) Make sure the door is open.

SUBTASK 52-11-00-480-004

- (2) Support the door [1] as follows:

- (a) Install straps through two lightning holes of the door [1] to hold the weight of the door [1] from a position above the door [1].

NOTE: The lightning holes are above the handle of the door on the interior side. They can be seen after you remove the lining of the door.

NOTE: The door weight is 140 pounds without the liner and slide installed.

SUBTASK 52-11-00-020-008

CAUTION: REMOVE THE SNUBBER BEFORE YOU REMOVE THE DOOR. IF THE SNUBBER IS NOT REMOVED BEFORE THE DOOR IS REMOVED, DAMAGE TO THE SNUBBER CAN OCCUR.

- (3) Do this task: Forward Entry Door Snubber Removal, TASK 52-11-51-000-801, View B (Figure 401):

SUBTASK 52-11-00-020-009

- (4) Disconnect the guide arm [15] from the door [1], View A (Figure 401):

- (a) Remove the filler [20] to get access to the fasteners that attach the guide arm [15] to the door [1].
- (b) Remove the bolt [11], washers [12], cotter pin [14] and nut [13] that attach the guide arm [15] to the door [1].

NOTE: The guide arm [15] will stay with the fuselage.

SUBTASK 52-11-00-020-010

- (5) Disconnect the torque tube from the upper hinge spigot [43] and lower hinge spigot [44]. To do this, do this task: Forward Entry Door Assist Springs Removal, TASK 52-11-41-000-802.

SUBTASK 52-11-00-020-011

- (6) Disconnect the upper hinge arm [16] at the upper hinge spigot [43], Views A and D (Figure 401):

- (a) Remove the bolt [17], washers [18], and nut [19] that attach the upper hinge arm [16] to the upper hinge spigot [43] on the fuselage structure.
- (b) Remove the upper hinge spigot [43], compression spring [42], washer [41], packing [40], and thrust washers [46], from the hinge arm [16].

NOTE: The hinge arm will stay with the door.

SUBTASK 52-11-00-020-012

- (7) Disconnect the lower hinge arm [22] at the lower hinge spigot [44], View E (Figure 401):

- (a) Remove the bolt [37], washers [38], and nut [39] that attach the lower hinge arm [22] to the lower hinge spigot [44].

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- (b) Remove the spigot [44], compression spring [42], washer [41], packing [40], and thrust washers [46] from the lower hinge arm [22].

NOTE: The hinge arm will stay with the door.

SUBTASK 52-11-00-020-013

- (8) Remove the door [1] from the airplane as follows:

WARNING: BE CAREFUL WHEN YOU REMOVE THE DOOR FROM THE AIRPLANE. THE DOOR WEIGHS APPROXIMATELY 140 POUNDS. INJURY OR DAMAGE CAN OCCUR.

- (a) Carefully move the door [1] from the fuselage and remove from the airplane.

SUBTASK 52-11-00-860-042

- (9) If it is necessary, put the warning strap across the door opening.

END OF TASK

TASK 52-11-00-400-802

3. Forward Entry Door Installation

(Figure 401)

A. References

Table with 2 columns: Reference, Title. Lists various maintenance tasks and their references.

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series.

Table with 2 columns: Reference, Description. Lists tool part numbers and their descriptions.

C. Consumable Materials

Table with 3 columns: Reference, Description, Specification. Lists consumable materials and their specifications.

D. Location Zones

Table with 2 columns: Zone, Area. Lists location zones and their corresponding areas.

E. Access Panels

Table with 2 columns: Number, Name/Location. Lists access panels and their locations.

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F. Installation

SUBTASK 52-11-00-860-043

- (1) If it is necessary, remove the warning strap across the door opening.

SUBTASK 52-11-00-420-008

WARNING: BE CAREFUL WHEN YOU MOVE THE DOOR INTO THE AIRPLANE. THE DOOR WEIGHS APPROXIMATELY 140 POUNDS. INJURY OR DAMAGE CAN OCCUR.

- (2) Carefully move the door [1] near the fuselage and align the upper and lower hinge arms with the fuselage.
 - (a) Inspect the pressure seal of the door prior to installation per, do this task: Galley Service Door Pressure Seal Check, TASK 52-41-00-200-802.

NOTE: If a follow-on pressurization test will be done, follow the procedure in (TASK 05-51-91-790-801).

SUBTASK 52-11-00-420-009

- (3) Connect the lower hinge arm [22] at the lower hinge spigot as follows, View E (Figure 401):
 - (a) Put the lower hinge arm [22] in its correct position in the hinge fitting.
 - (b) Apply a light layer of grease, D00633 to the compression spring [42] and packing [40].
 - (c) Install the lower hinge spigot [44], compression spring [42], washer [41], packing [40], and thrust washers [46] in the lower hinge fitting.
 - (d) Install the bolt [37], washers [38], and nut [39] that attach the lower hinge arm [22] to the lower hinge spigot [44].

SUBTASK 52-11-00-020-014

- (4) Connect the upper hinge arm of the door [1] at the upper hinge spigot [43] as follows, View D (Figure 401):
 - (a) Put the upper hinge arm [16] in its correct position in the hinge fitting.
 - (b) Apply a light layer of grease, D00633 to the compression spring [42] and packing [40].
 - (c) Install the upper hinge spigot [43], compression spring [42], washers [41], packing [40], and thrust washer [46] in the upper hinge fitting.
 - (d) Install the bolt [17], washers [18], and nut [19] that attach the upper hinge arm [16] to the upper hinge spigot [43].

SUBTASK 52-11-00-420-014

- (5) Connect the fuselage hinge torque tube to the upper hinge spigot [43] and lower hinge spigot [44]. To do this, do this task: Forward Entry Door Assist Springs Installation, TASK 52-11-41-400-802.

SUBTASK 52-11-00-420-010

- (6) Make sure the distance from the rod end [33] center line to the adjuster nut [34] and guide arm [15] is as shown, View C (Figure 401).

NOTE: This is an initial adjustment for a new guide arm or door.

SUBTASK 52-11-00-820-031

- (7) If necessary, use the adjuster nut [34] to change the length of the guide arm [15] as follows:
 - (a) Remove the bolt [47], washers [48], [49], and nut [50] on the lock channel [35].
 - (b) Remove the lock channel [35].
 - (c) Loosen the jamnut [36].

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- (d) Change the length of the guide arm rod end [15] with the adjuster nut [34] to get the correct dimension.
- (e) Make sure the adjuster nut [34] will align with the lock channel [35].
- (f) Tighten the jamnut [36].
- (g) Put the lock channel [35] in its correct position on the guide arm [15]. Install the bolt [47], washers [48], [49], and nut [50] to hold the lock channel [35].

SUBTASK 52-11-00-420-011

(8) Install the guide arm [15] on the upper hinge as follows, View A (Figure 401):

- (a) Put the guide arm [15] in its correct position.

SUBTASK 52-11-00-420-015

(9) Make sure the lubrication fitting on the rod end [33] faces inboard.

- (a) Install the bolt [11], washers [12], nut [13], and new cotter pin [14] to attach the guide arm [15] to the door [1].
- (b) Make sure the lock channel [35] is installed over the adjuster nut [34].
- (c) Install the filler [20] with sealant, A00247.

SUBTASK 52-11-00-410-010

(10) Install this access panel:

<u>Number</u>	<u>Name/Location</u>
831AZ	Forward Entry Door - Torque Tube Access

SUBTASK 52-11-00-420-016

(11) Do this task: Forward Entry Door Snubber Installation, TASK 52-11-51-400-801.

SUBTASK 52-11-00-080-003

(12) Remove the straps holding the door [1].

SUBTASK 52-11-00-820-028

(13) Do this task: Forward Entry Door Adjustment, TASK 52-11-00-820-801.

SUBTASK 52-11-00-410-009

(14) Make sure that the door lining is installed: Forward Entry Door Lining Installation, TASK 52-11-31-400-802.

SUBTASK 52-11-00-710-006

(15) Do this task: Forward Entry Door System Test, TASK 52-11-00-700-804.

SUBTASK 52-11-00-940-007

(16) Close the door.

SUBTASK 52-11-00-940-008

(17) Remove the stand, COM-1523.

————— END OF TASK —————

TASK 52-11-00-020-801

4. Forward Entry Door Flapper Seal Removal

(Figure 402)

A. References

<u>Reference</u>	<u>Title</u>
52-11-00-860-801	Open the Door with the Exterior Handle (P/B 201)

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B. Location Zones

Zone	Area
831	Forward Entry Door

C. Prepare to Remove the Flapper Door Seal

SUBTASK 52-11-00-860-036

- (1) Open the forward entry door. To open the forward entry door, do this task: Open the Door with the Exterior Handle, TASK 52-11-00-860-801

D. Remove the Flapper Door Seal

SUBTASK 52-11-00-020-017

- (1) Do these steps to remove the flapper door seal:
 - (a) Push and hold the flapper door assembly to the open position.
 - (b) Remove the two aft screws (73), washers (74), and nuts (75) from the flapper door seal (71).
 - (c) Remove the two forward screws (73), from the flapper door seal (71).
NOTE: The forward flapper door screws use nut plates attached to the trim panel.
 - (d) Remove the flapper door seal (71) and trim panel (76) from the hinge cover (72).
 - (e) If the flapper door seal is to be re-installed, the old sealant must be removed and the area cleaned.

————— END OF TASK —————

TASK 52-11-00-420-801

5. Forward Entry Door Flapper Seal Installation

(Figure 402)

A. References

Reference	Title
52-11-00-860-802	Close the Door with the Exterior Handle (P/B 201)

B. Consumable Materials

Reference	Description	Specification
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS 5-95

C. Location Zones

Zone	Area
831	Forward Entry Door

D. Install the Flapper Door Seal

SUBTASK 52-11-00-020-018

- (1) Do these steps to install the flapper door seal:
 - (a) Push and hold the hinge cover (72) to the open position.
 - (b) Put sealant, A00247 under the four screw heads.
NOTE: The BMS5-95 Sealant replaces the plastic washers.
 - (c) Put the flapper door seal assembly (71) on the outboard side of the hinge cover (72) and install the two aft screws (73), washers (74), and nuts (75).

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- (d) Put the trim panel (76) on the inboard side of the hinge cover (72) and install the two forward screws (73).
- (e) Make sure that the seal makes contact with the cutout mating surface.
- (f) Tighten the screws (73) to 20 pound-inches (2.26 newton-meters).
- (g) Remove the unwanted sealant from the area.

SUBTASK 52-11-00-860-037

- (2) Close the forward entry door. To close the forward entry door, do this task: Close the Door with the Exterior Handle, TASK 52-11-00-860-802

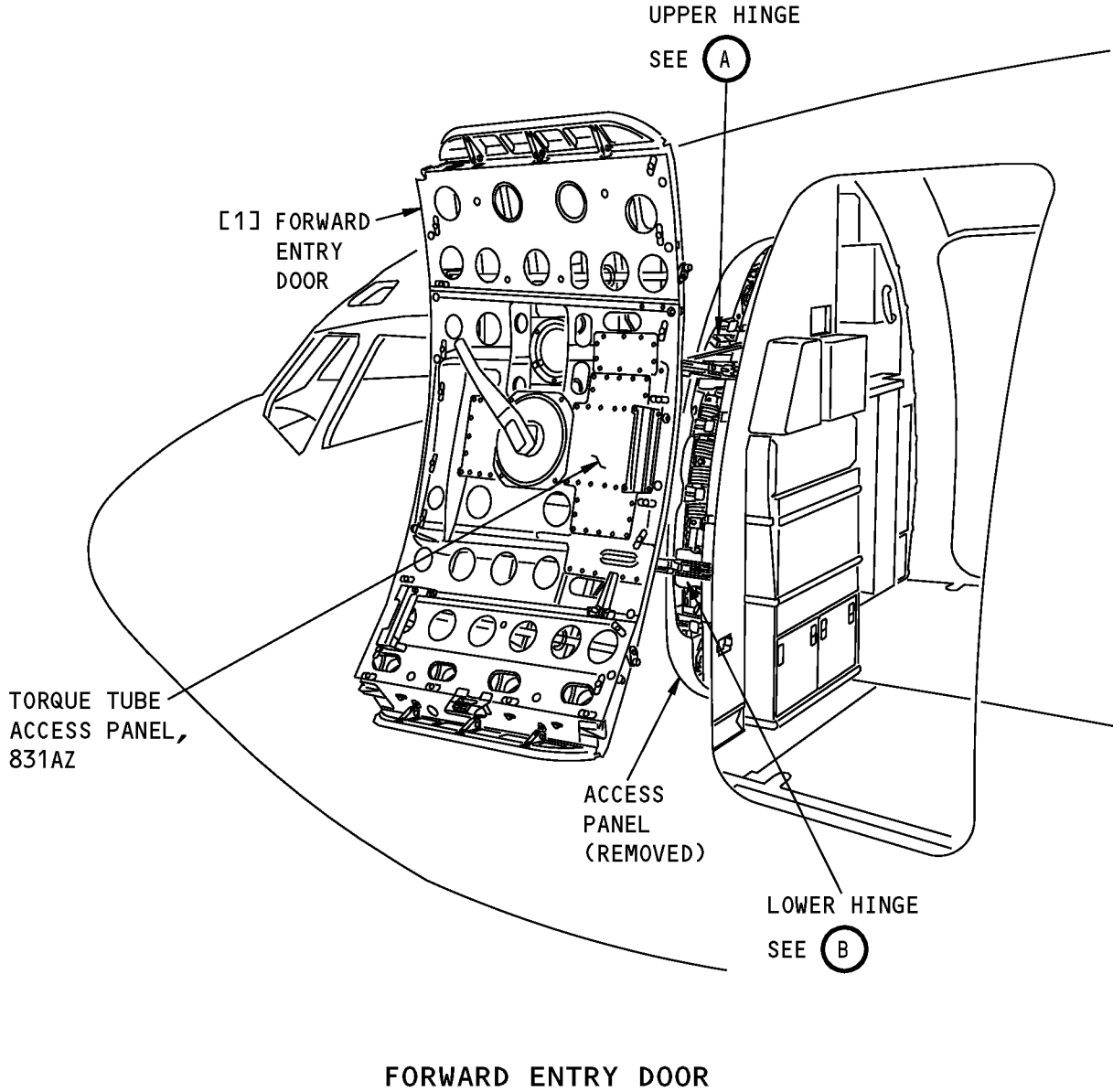
————— **END OF TASK** —————

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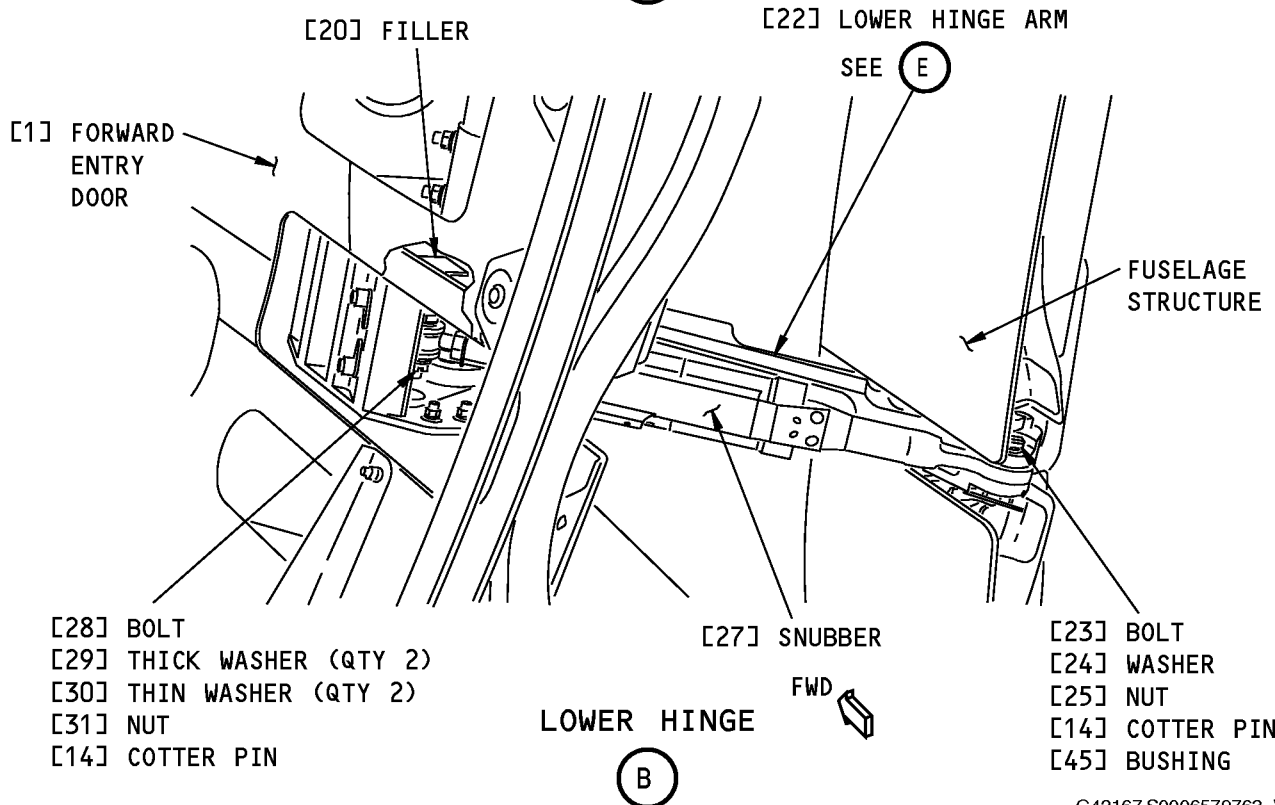
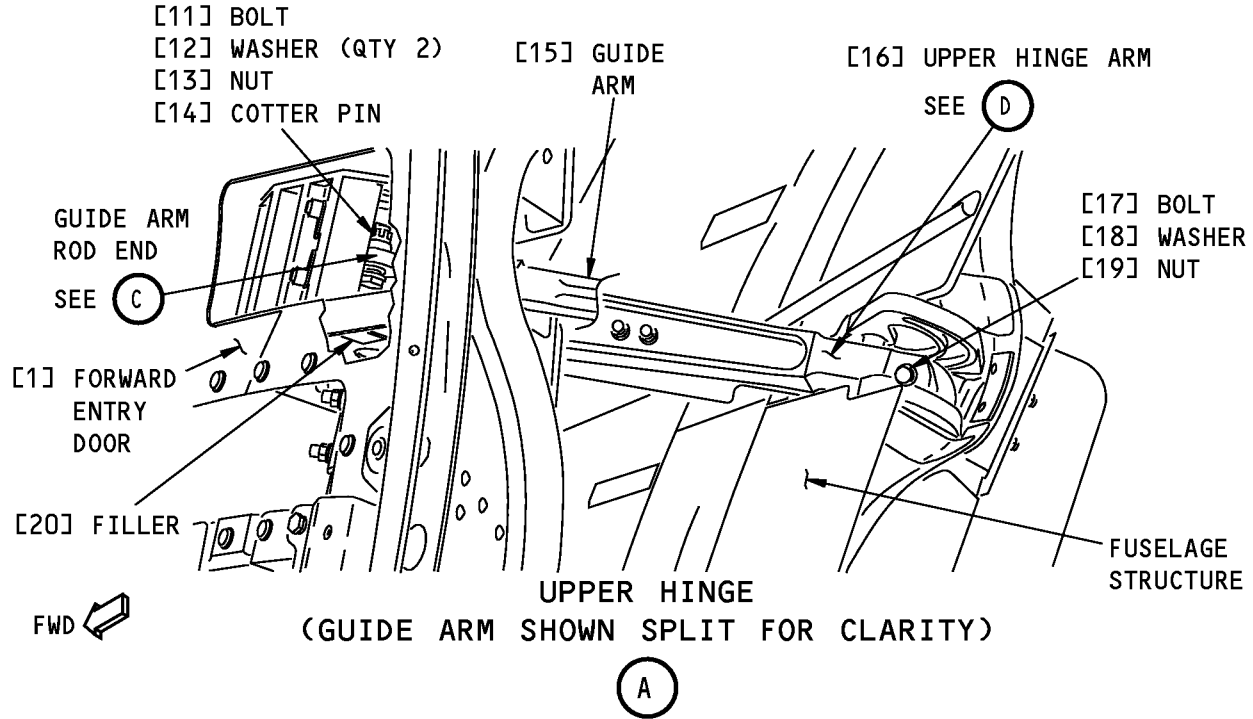


**Forward Entry Door Installation
Figure 401 (Sheet 1 of 5)/52-11-00-990-817**

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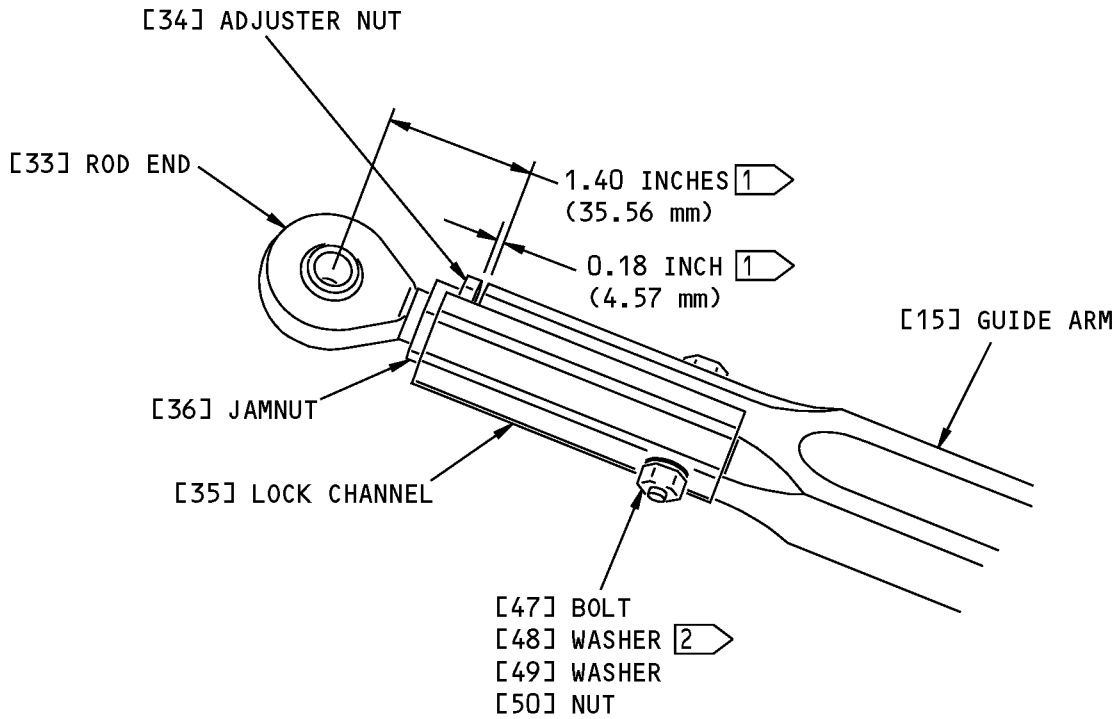


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Forward Entry Door Installation
Figure 401 (Sheet 2 of 5)/52-11-00-990-817

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GUIDE ARM ROD END

(C)

1 INITIAL ADJUSTMENT

2 WASHER USED WITH HEX HEAD BOLT

**Forward Entry Door Installation
Figure 401 (Sheet 3 of 5)/52-11-00-990-817**

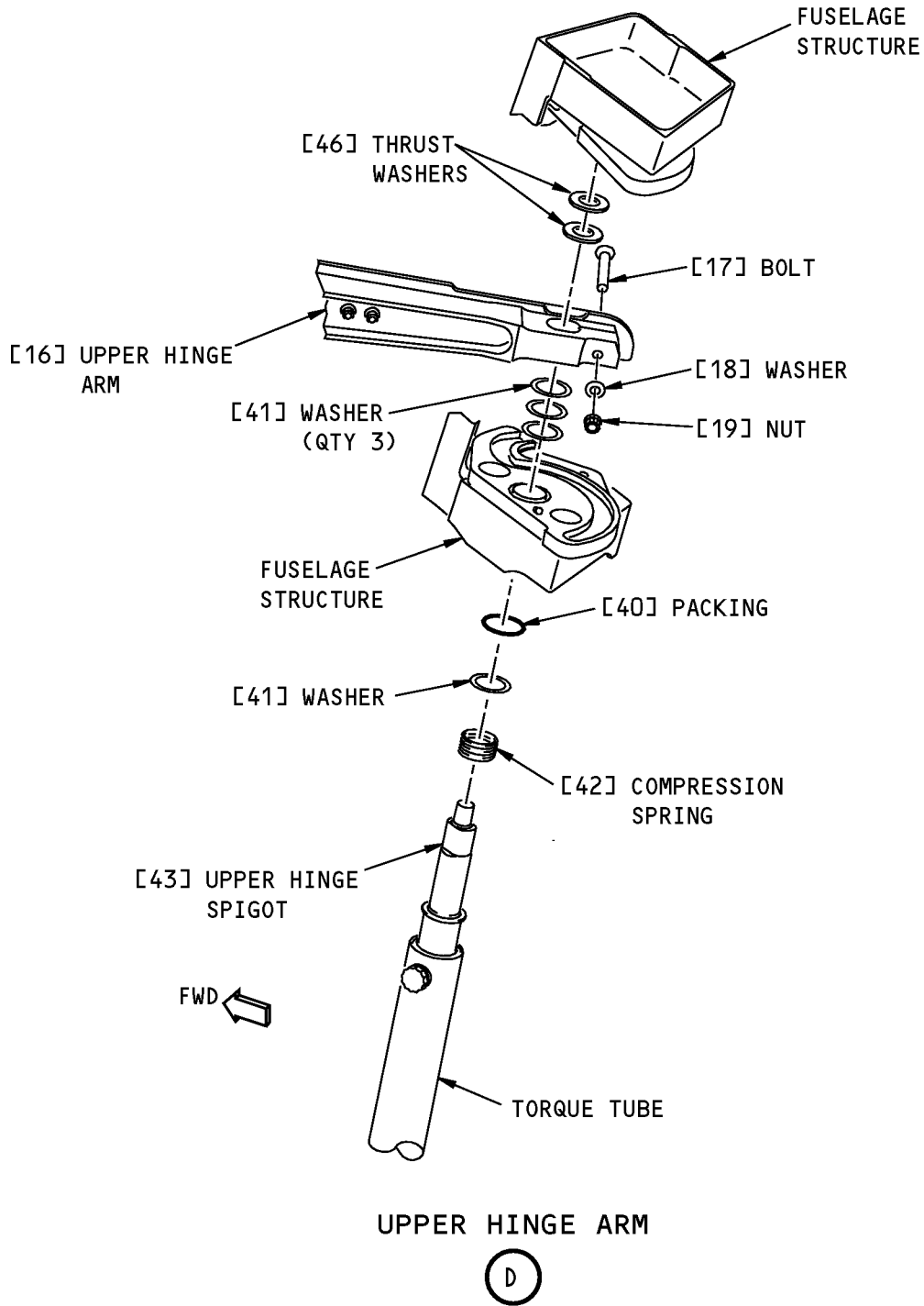
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**Forward Entry Door Installation
Figure 401 (Sheet 4 of 5)/52-11-00-990-817**

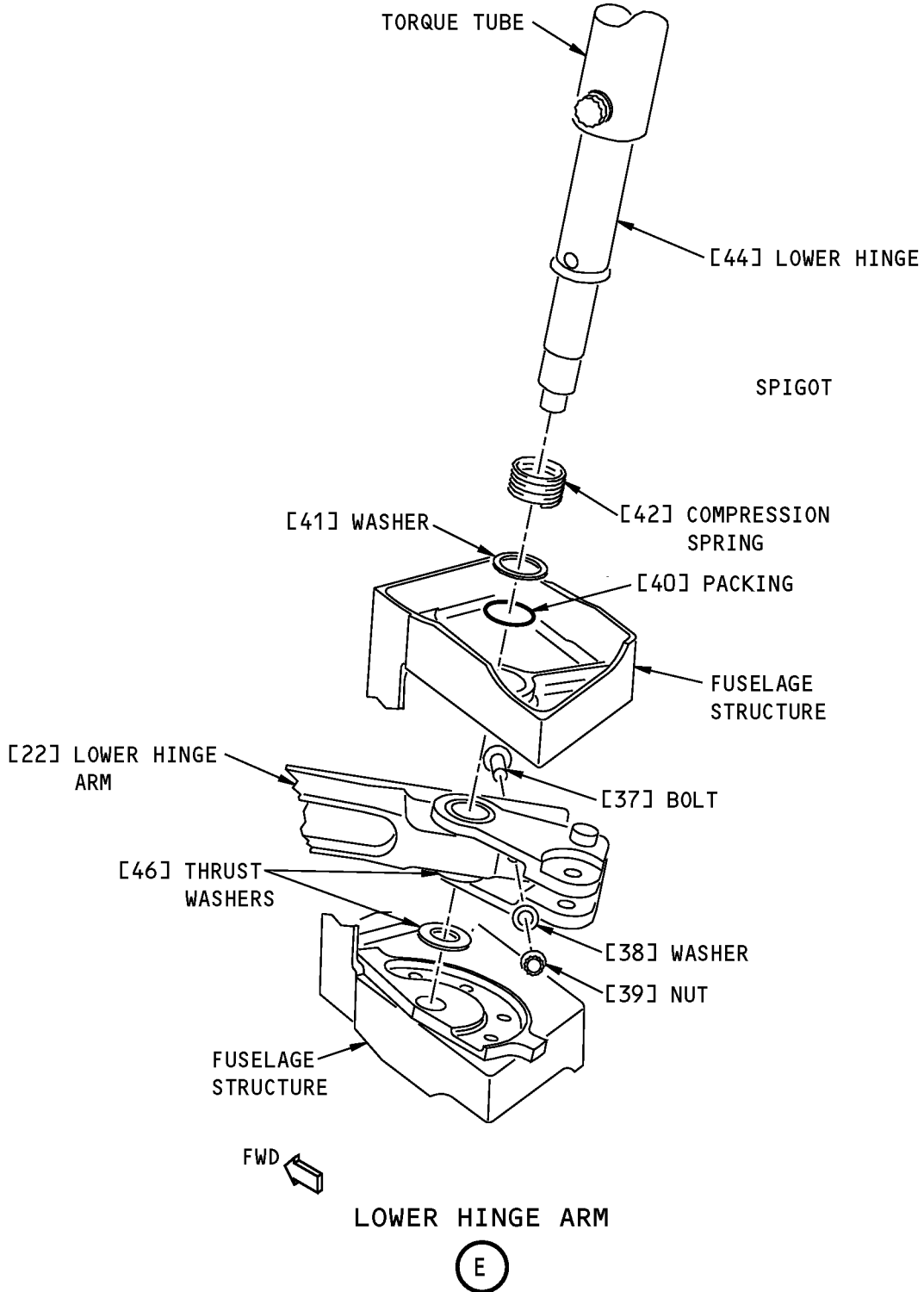
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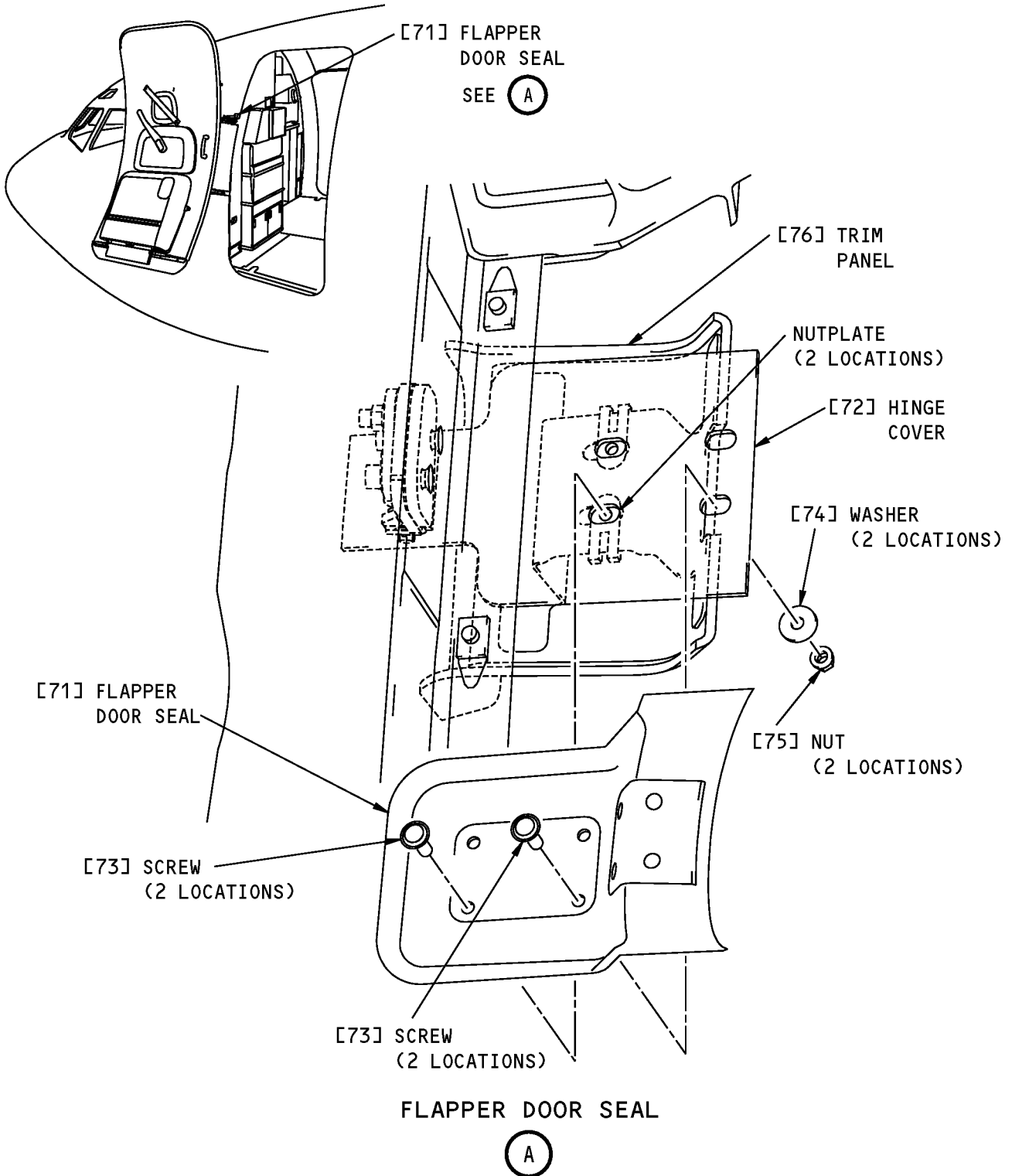


**Forward Entry Door Installation
Figure 401 (Sheet 5 of 5)/52-11-00-990-817**

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**Flapper Door Seal Installation
Figure 402/52-11-00-990-829**

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FORWARD ENTRY DOOR - ADJUSTMENT/TEST

1. General

A. This procedure has these tasks:

- (1) An adjustment of the forward entry door.
- (2) A special adjustment to correct "soft unlatching".
- (3) A system test of the forward entry door.

TASK 52-11-00-820-801

2. Forward Entry Door Adjustment

A. General

- (1) Do the procedure with the airplane operating weight empty and the airplane supported on its landing gear.
- (2) After the adjustment is completed, make sure that all adjustment points are locked and sealed.

B. References

Reference	Title
20-50-11-910-801	Standard Torque Values (P/B 201)
52-11-31-000-802	Forward Entry Door Lining Removal (P/B 401)
52-11-31-400-802	Forward Entry Door Lining Installation (P/B 401)
52-11-51-400-801	Forward Entry Door Snubber Installation (P/B 401)
52-71-11-820-801	Entry and Galley Service Door Indication Sensor Adjustment (S194, S195, S199, or S200) (P/B 201)

C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1523	Stand - Work, (B9) General Purpose, Working Height 4-21 Feet (Part #: B-9, Supplier: 05060, A/P Effectivity: 737-ALL)
COM-1557	Gauge - Force (Part #: DG-200, Supplier: 92456, A/P Effectivity: 737-ALL) (Part #: DPP-500G, Supplier: 92456, A/P Effectivity: 737-ALL) (Part #: DPPH-150, Supplier: 92456, A/P Effectivity: 737-ALL) (Part #: DPPH-200, Supplier: 92456, A/P Effectivity: 737-ALL) (Part #: DPPH-50, Supplier: 92456, A/P Effectivity: 737-ALL) (Part #: FDIX 100, Supplier: 0BFD9, A/P Effectivity: 737-ALL) (Part #: FDIX 50, Supplier: 0BFD9, A/P Effectivity: 737-ALL) (Part #: FDV 50, Supplier: 0BFD9, A/P Effectivity: 737-ALL) (Part #: LG-050, Supplier: 92456, A/P Effectivity: 737-ALL) (Opt Part #: FDI 100, Supplier: 0BFD9, A/P Effectivity: 737-ALL)

D. Consumable Materials

Reference	Description	Specification
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS 5-95
G01912	Lockwire - Monel (0.032 In. Dia.)	NASM20995N~ C32 (QQ-N-281)

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E. Location Zones

Zone	Area
831	Forward Entry Door

F. Access Panels

Number	Name/Location
831AZ	Forward Entry Door - Torque Tube Access

G. Prepare for the Adjustment

SUBTASK 52-11-00-860-004

- (1) If a new door has been installed:
 - (a) Make sure the centering guide is not installed on the door.
 - (b) Make sure the stop pins are retracted into the stop fittings or removed.

SUBTASK 52-11-00-860-005

- (2) Make sure the door is safe as follows:
 - (a) Make sure the door is closed and latched.

WARNING: MAKE SURE THE GIRT BAR IS NOT ENGAGED IN THE FLOOR-MOUNTED ESCAPE SLIDE BRACKETS. IF THE GIRT BAR IS ENGAGED IN THE BRACKETS, THE ESCAPE SYSTEM CAN DEPLOY WHEN YOU OPEN THE DOOR AND INJURIES OR DAMAGE CAN OCCUR.

- (b) Make sure the girt bar is not engaged in the floor-mounted escape slide brackets.
- (c) Install a stand, COM-1523 outboard of the door.

SUBTASK 52-11-00-010-011

- (3) Get access to the door as follows (Figure 501):
 - (a) Make sure the door is closed and latched.
 - (b) Do this task: Forward Entry Door Lining Removal, TASK 52-11-31-000-802.
 - (c) Make sure a weight equivalent to the escape slide and door lining that equals 90 pounds (40.8 kilograms) is installed on the door.

H. Guide Arm Adjustment

SUBTASK 52-11-00-820-029

- (1) Adjust the guide arm (Figure 502):
 - (a) Open the door and move it until it is parallel to the contour of the fuselage near the closed position.
 - (b) To make sure the door is parallel, two conditions must be verified:
 - 1) The forward edge of the door next to the latch receiver should be positioned 0.50 +/- .10 inch (12.7 +/- 2.54mm) inboard of the fuselage skin.
 - 2) While maintaining the position and dimension on the forward edge of the door, the distance between the aft edge of the door next to the aft latch receiver should be within +/- .20 inch (5.08mm) of the forward edge dimension.
 - (c) If the door is not parallel to the contour of the fuselage after taking the above dimensions, adjust as follows:
 - 1) Move the door to the fully open position.
 - 2) Remove the nut and washer on the lock channel.

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- 3) Remove the lock channel.
- 4) Loosen the jamnut.
- 5) Turn the adjuster nut to change the length of the guide arm rod end and get the correct position of the door.

NOTE: If you shorten the guide arm it will turn the aft edge of the door inboard.

- 6) Make sure the adjuster nut will align with the lock channel.
- 7) Tighten the jamnut.
- 8) Put the lock channel in its correct position on the guide arm.
- 9) Install the nut and washer to hold the lock channel in position.
- 10) Repeat these steps for the lower latch receiver pair.

I. Door Vertical Adjustment

SUBTASK 52-11-00-820-038

(1) Adjust the door vertical adjustment:

- (a) Close and latch the door.
- (b) Make sure the stop pins align with the stop pads as shown (Figure 505).

NOTE: This is an alignment of the stop pads with the stop pins. Do not set the stop pin and pad clearance.

- (c) Make sure the forward and aft, upper and lower latch rollers are centered in the latch receivers.
- (d) Measure the skin clearance between the upper and lower gates and the fuselage skin along the top and bottom of the door at the locations that follow:

NOTE: Make additional measurements if it is necessary.

- 1) Three locations evenly spaced along the horizontal edge of the upper and lower gates.
- (e) If necessary, adjust the door vertically as follows (Figure 504):
 - 1) Make sure this access panel is open:

<u>Number</u>	<u>Name/Location</u>
831AZ	Forward Entry Door - Torque Tube Access

- 2) Remove the cotter pins on the upper and lower adjuster nuts.
- 3) Loosen the upper adjuster nut and turn the lower adjuster nut to get the correct door vertical position.
- 4) Make sure the lower adjuster nut is aligned with a cotter pin hole.
- (f) Make sure the clearances are as shown (Figure 503).
 - 1) If necessary, adjust the door vertically to get the clearances.
- (g) Make sure the stop pins continue to align with the stop pads.
- (h) Make sure the door is bottomed out on the lower adjuster nut.
- (i) Tighten the upper adjuster nut hand tight and turn back to align with the nearest cotter pin hole.

NOTE: Do not tighten the nuts too much. If the nuts are tightened too much it can put high end loads on the bearings in the handle mechanism.

- (j) Install the new cotter pins in the upper and lower adjuster nuts.

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J. Skin Clearance Adjustment

SUBTASK 52-11-00-820-032

- (1) Two measurement methods are provided to adjust the door.
 - (a) Method 1 is the Standard measurement method for skin clearance adjustment.
 - (b) Method 2 is Aero-Averaging measurement for skin clearance adjustment.

SUBTASK 52-11-00-820-033

- (2) Adjust the skin clearance with Method 1 (Figure 503):
 - (a) Make sure the clearances between the door skin and fuselage skin are as shown (Table 501).

Table 501/52-11-00-993-824 Aer smoothness Limits - Forward Entry Door (Method 1) (Key to Figure 503)

ZONE	CLEARANCE		FLUSHNESS	
	NOMINAL inch (mm)	TOLERANCE inch (mm)	NOMINAL inch (mm)	TOLERANCE inch (mm)
A	0.12 (3.05)	0.06 to 0.18 (1.52 to 4.57)	--	NOT APPLICABLE
B	0.12 (3.05)	0.06 to 0.15 (1.52 to 3.81)	-0.25 (-6.35)	-0.30 to -0.20 (-7.62 to -5.08)
C	0.12 (3.05)	0.06 to 0.18 (1.52 to 4.57)	--	NOT APPLICABLE
D	0.09 (2.29)	0.06 to 0.18 (1.52 to 4.57)	-0.06 (-1.52)	-0.12 to 0.06 (-3.05 to 1.52)
E	0.15 (3.81)	0.06 to 0.20 (1.52 to 5.08)	--	NOT APPLICABLE
F	0.15 (3.81)	0.09 to 0.20 (2.29 to 5.08)	-0.25 (-6.35)	-0.30 to -0.20 (-7.62 to -5.08)
G	0.15 (3.81)	0.06 to 0.20 (1.52 to 5.08)	--	NOT APPLICABLE
H	0.09 (2.29)	0.06 to 0.18 (1.52 to 4.57)	-0.06 (-1.52)	-0.12 to -0.03 (-3.05 to -0.76)
I	--	NOT APPLICABLE	--	NOT APPLICABLE
J	--	0.06 MINIMUM (1.52)	--	NOT APPLICABLE

- (b) If necessary, adjust as follows:
 - 1) Open the door.
 - 2) Trim the edge of the door to get the correct skin clearances.
- (c) Make sure the minimum distance from the edge of the door outer skin to the door frame is as shown (Figure 503).

SUBTASK 52-11-00-820-034

- (3) Adjust the skin clearance with Method 2 (Aero-Averaging) (Table 503):
 - (a) Make sure the clearances between the door skin and fuselage skin are as shown (Table 502).

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Table 502/52-11-00-993-825 Aerosmoothness Limits - Forward Entry Door (Method 2) (Key to Figure 503)

ZONE	CLEARANCE		FLUSHNESS	
	NOMINAL inch (mm)	TOLERANCE inch (mm)	NOMINAL inch (mm)	TOLERANCE inch (mm)
A	0.12 (3.05)	0.06 to 0.21 (1.52 to 5.33)	--	NOT APPLICABLE
B	0.12 (3.05)	0.06 to 0.18 (1.52 to 4.57)	-0.25 (-6.35)	-0.33 to -0.17 (-8.38 to -4.31)
C	0.12 (3.05)	0.06 to 0.21 (1.52 to 5.33)	--	NOT APPLICABLE
D	0.09 (2.29)	0.06 to 0.18 (1.52 to 4.57)	-0.06 (-1.52)	-0.15 to 0.06 (-3.81 to 1.52)
E	0.15 (3.81)	0.06 to 0.23 (1.52 to 5.84)	--	NOT APPLICABLE
F	0.15 (3.81)	0.09 to 0.23 (2.29 to 5.84)	-0.25 (-6.35)	-0.33 to -0.17 (-8.38 to -4.31)
G	0.15 (3.81)	0.06 to 0.23 (1.52 to 5.84)	--	NOT APPLICABLE
H	0.09 (2.29)	0.06 to 0.21 (1.52 to 5.33)	-0.06 (-1.52)	-0.15 to 0.00 (-3.81 to 0.00)

- (b) If necessary, adjust as follows:
 - 1) Open the door.
 - 2) Trim the edge of the door to get the correct skin clearances.
- (c) Make sure the minimum distance from the edge of the door outer skin to the door frame is as shown (Aero-Averaging) (Figure 503).
- (d) Measure the clearance between the door skin and fuselage skin along the forward and aft edges of the door at the locations that follow:
 - 1) Within ± 1.0 inch (± 25.4 mm) of each stop fitting along the forward and aft edges of the door.
 - 2) Record the skin clearance for each stop fitting.
 - 3) Use the (Table 503) to change the clearance to a Drag value.

NOTE: A measurement of 0.10 inch (2.54mm) clearance is a Drag value of 0.63.
 - 4) Record the Drag value for each measurement from (Table 503).

Table 503/52-11-00-993-821 Drag Values for Forward Entry Door Skin Clearance (Method 2)

CLEARANCE Inch (mm)	DRAW VALUE
0.06 (1.52)	0.38
0.07 (1.78)	0.44
0.08 (2.03)	0.50
0.09 (2.29)	0.56
0.10 (2.54)	0.63
0.11 (2.79)	0.69
0.12 (3.05)	0.75
0.13 (3.30)	0.81

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CLEARANCE Inch (mm)	DRAG VALUE
0.14 (3.56)	0.88
0.15 (3.81)	0.94
0.16 (4.06)	1.00
0.17 (4.32)	1.06
0.18 (4.57)	1.12
0.19 (4.83)	1.19
0.20 (5.08)	1.25
0.21 (5.33)	1.31

- 5) Add all the Drag values together (sum).
 - a) Record the sum of the Drag Values as measurement A.
- 6) Divide measurement A by the total number of measurements that you made.

NOTE: If the measurement was made a each of the door stops, then divide Measurement A (the sum of the Drag Values) by 18.
- 7) Make sure that this average drag value is 1.00 or less.

K. Horizontal Control Rod Adjustment

SUBTASK 52-11-00-820-016

(1) Adjust the horizontal control rod:

- (a) Put the door parallel to the contour of the fuselage near the closed position.
- (b) Move the door handle in the closed direction until the latches begin to turn.
- (c) The exterior skin at the forward edge of the door should initially be 1.0 inch (25.4 mm) inboard of the body.

1) If necessary, adjust the horizontal control rod (Figure 504):

- a) Open the door.
- b) To get access to the door hinge torque tube,

Remove this access panel:

Number	Name/Location
831AZ	Forward Entry Door - Torque Tube Access

- c) Remove the bolt, washer, nut and cotter pin that attach the horizontal control rod to the torque tube.
- d) Loosen the checknut on the horizontal control rod.
- e) Turn the rod end to change the length of the horizontal control rod to get the correct dimension.

NOTE: If you make the horizontal control rod shorter, the door moves outboard. If you make the horizontal control rod longer, it will move the door inboard.

- f) Install the bolt, washer, nut and new cotter pin to attach the rod end to the torque tube.
- g) Do not tighten the checknut at this time.

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L. Latch Receivers Adjustment

SUBTASK 52-11-00-820-018

(1) Adjust the latch receivers (Figure 506):

- (a) Close and latch the door.
- (b) Measure the flushness between the door skin and fuselage skin along each edge of the door at the locations that follow:

NOTE: Make additional measurements if necessary.

- 1) Within ± 1.0 inch (± 25.4 mm) of each stop fitting along the forward and aft edges of the door.
- (c) Make sure the door flushness is as shown (Figure 503).
 - 1) If necessary, do the Skin Flushness Adjustment. (Figure 506):
 - a) Open the door.
 - b) Loosen the bolts and washers that attach the forward and aft, upper and lower latch receivers to the fuselage frame.
 - c) Move the latch receivers inboard or outboard on their serrated plates to get the correct door flushness.
 - d) Tighten the bolts and washers to attach the latch receivers to the fuselage frame.
 - (d) Close and latch the door.
 - (e) Make sure the clearance between the forward and aft, upper and lower latch rollers and latch receivers is as shown (Figure 506).

M. Skin Flushness Adjustment

SUBTASK 52-11-00-820-035

(1) Two measurement methods are provided to adjust the door.

- (a) Method 1 is the Standard measurement method for skin flushness adjustment.

NOTE: In one or more locations the tolerance can be increased by 0.03 inch (0.76mm), but the total length can not exceed 5 percent of the door's periphery (Method 1 only).

- (b) Method 2 is Aero-Averaging measurement for skin flushness adjustment.

SUBTASK 52-11-00-820-036

(2) Adjust the skin flushness using Method 1 (Figure 503):

- (a) Make sure the flushness between the door skin and fuselage skin are as shown (Figure 503).
- (b) As a minimum, measure the flushness between the door skin and fuselage skin along the forward and aft edges of the door at the locations that follow:

- 1) Within ± 1.0 inch (± 25.4 mm) of each stop fitting along the forward and aft edges of the door.

NOTE: Make additional measurements if necessary. Do not make measurements that are within 8 inches (203.2mm) of the body skin lap joint.

- 2) Three locations evenly spaced along the horizontal edge of the upper and lower gates.
- (c) If necessary, adjust as follows:
 - 1) Open the door.

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- 2) Loosen the bolts and washers that attach the forward and aft, upper and lower latch receivers to the fuselage frame.
- 3) Move the latch receivers inboard or outboard on their serrated plates to get the correct door flushness (Figure 506).
- 4) Tighten the bolts and washers to attach the latch receivers to the fuselage frame.

SUBTASK 52-11-00-820-037

(3) Adjust the skin flushness using Method 2 (Aero-Averaging) (Table 504):

- (a) Make sure the flushness between the door skin and fuselage skin are as shown (Figure 503).
- (b) As a minimum, measure the flushness between the door skin and fuselage skin at the locations that follow:
 - 1) Within ± 1.0 inch (± 25.4 mm) of each stop fitting along the forward and aft edges of the door.

NOTE: Make additional measurements if necessary. Do not take measurements that are within 8 inches (203.2mm) of the body skin lap joint.
 - 2) Three locations evenly spaced along the horizontal edge of the upper and lower gates.
 - 3) Record the skin flushness at each stop fitting.
 - 4) Use the (Table 504) to change the flushness to a Drag value.

NOTE: A measurement of -0.10 inch (-2.54mm) flushness at the door fwd edge is a Drag value of 0.56.
 - 5) Record the Drag value for each measurement from (Table 504).

Table 504/52-11-00-993-822 Drag Values for Forward Entry Door Skin Flushness (Method 2)

Door Flushness		
Fwd Edge Inch (mm)	Aft Edge Inch (mm)	Drag Value
	0.06 (1.52)	2.10
	0.05 (1.27)	1.89
	0.04 (1.02)	1.69
-0.15 (-3.81)	0.03 (0.76)	1.49
-0.14 (-3.56)	0.02 (0.51)	1.29
-0.13 (-3.30)	0.01 (0.25)	1.10
-0.12 (-3.05)	0.00	0.91
-0.11 (-2.79)	-0.01 (-0.25)	0.73
-0.10 (-2.54)	-0.02 (-0.51)	0.56
-0.09 (-2.29)	-0.03 (-0.76)	0.39
-0.08 (-2.03)	-0.04 (-1.02)	0.23
-0.07 (-1.78)	-0.05 (-1.27)	0.09
-0.06 (-1.52)	-0.06 (-1.52)	0
-0.05 (-1.27)	-0.07 (-1.78)	0.11

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Door Flushness		
Fwd Edge Inch (mm)	Aft Edge Inch (mm)	Drag Value
-0.04 (-1.02)	-0.08 (-2.03)	0.38
-0.03 (-0.76)	-0.09 (-2.29)	0.70
-0.02 (-0.51)	-0.10 (-2.54)	1.06
-0.01 (-0.25)	-0.11 (-2.79)	1.44
0.00	-0.12 (-3.05)	1.85
	-0.13 (-3.30)	2.23
	-0.14 (-3.56)	2.67
	-0.15 (-3.81)	3.12

6) Add all the Drag values together (sum).

a) Record the sum of the drag values as Measurement A.

7) Divide Measurement A by the number of measurements that you made.

NOTE: If the measurement was made at each of the door stops, then divide Measurement A (the sum of the Drag Values) by 18.

a) Make sure that this drag value is 1.00 or less.

(c) If the average drag value is greater than 1.00 then adjust the door as follows:

1) Open the door.

2) Loosen the bolts and washers that attach the forward and aft, upper and lower latch receivers to the fuselage frame.

3) Move the latch receivers inboard or outboard on their serrated plates to get the correct door flushness (Figure 506).

4) Tighten the bolts and washers to attach the latch receivers to the fuselage frame.

N. Gate Adjustment

SUBTASK 52-11-00-820-019

(1) Adjust the gate (Figure 507):

(a) Close and latch the door.

(b) Measure the flushness between the gate skin and fuselage skin at the locations that follow:

NOTE: Make additional measurements if necessary.

1) Three locations evenly spaced along the horizontal edges of the upper and lower gates.

(c) Make sure the flushness between the upper and lower gates and the fuselage skin is as shown (Figure 503).

1) If necessary, adjust the gate control rod (Figure 507):

a) Open the door.

b) Remove the bolt, washers, nut, and pin that attach the gate control rod to the gate.

c) Loosen the checknut.

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- d) Turn the rod end bearing to change the length of the gate control rod to get the correct flushness.
e) Install the bolt, washers, nut, and pin to attach the gate control rod to the gate.

NOTE: Make sure the lube fitting on the rod end points inboard.

- 2) Tighten the checknut.
(d) Set the gate stop rods as follows (Figure 507):
1) Remove the bolt, washers, nut, and pin that attach the gate stop rod to the gate.
2) Remove the lockwire and loosen the checknut.
3) Turn the rod end bearing into the stop rod until the shoulder of the rod touches the bearing, then turn back to the nearest locking notch.
4) If necessary, turn the rod and rod end bearing 1/2 turn to point the lube fitting and locking tang of the lock washer inboard.
5) Install the bolt, washers, nut, and pin to attach the gate control rod to the gate.
6) Tighten the checknut.
7) Install the lockwire, G01912.

O. Hinge Cover Adjustment

SUBTASK 52-11-00-820-020

- (1) Adjust the hinge cover (Figure 508):
(a) Make sure the door is closed and latched.
(b) Make sure the skin clearance and flushness between the hinge covers, fuselage skin, and door skin are as shown in (Table 505) and (Figure 508).

Table 505/52-11-00-993-823 Aerosmoothness Limits - Hinge Cover at Forward Edge of Forward Entry Door (Key to Figure 509)

Table with 5 columns: LOCATION, NOMINAL inch (mm), TOLERANCE inch (mm), NOMINAL inch (mm), TOLERANCE inch (mm). Rows A through H.

*[1] CLEARANCE AT THE AFT CORNERS OF THE HINGE COVER MUST BE A SMOOTH TRANSITION.

*[2] FLUSHNESS FROM THE FORWARD EDGE TO THE AFT EDGE OF THE HINGE COVER MUST BE A SMOOTH TRANSITION.

- (c) If you need to adjust the skin clearances or flushness, do these steps:

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- 1) Adjust the skin clearance as follows:
 - a) Trim the hinge covers to get the correct clearance.
- 2) Adjust the flushness as follows (Figure 508):

NOTE: Do the adjustment for each hinge cover as required.

 - a) Remove the bolts that attach the hinge cover to the hinge arm and clip.
 - b) Remove shim laminations or add a new shim at the forward end of the hinge arm to get the correct flushness at the forward edge of the hinge cover.
 - c) Loosen the bolts and washers that attach the clip to the aft end of the hinge arm.
 - d) Move the clip inboard or outboard to get the correct flushness at the aft edge of the hinge cover.
 - e) Tighten the bolts and washers that attach the clip to the aft end of the hinge arm.
 - f) Remove shim laminations or add a new shim at the middle of the hinge arm to get a smooth change in flushness between the forward and aft edges of the hinge cover.
 - g) Install the bolts to attach the hinge cover to the hinge arm and clip.

P. Latch Engagement Adjustment

SUBTASK 52-11-00-820-021

- (1) Adjust the latch engagement (Figure 506):
 - (a) Close and latch the door.
 - (b) Make sure the distance the forward and aft, upper and lower latch rollers engage in the latch receivers is as shown (Figure 506). If necessary, adjust as follows:
 - 1) Open the door.
 - 2) Move the spacers from one end of the latch torque tube to the other end to increase or decrease the distance the latch roller engages in the latch receiver at one end of the latch torque tube.
 - 3) If more adjustment is necessary, do the steps that follow:
 - a) Remove the nut that attaches the latch roller to the latch crank.
 - b) Put the washers on the roller side or the nut side of the latch crank to increase or decrease the distance the latch roller engages in the latch receiver.
 - c) Install the nut to attach the latch roller to the latch crank.
 - d) Operate the latch torque tube and make sure the shank of the latch roller is clear of the door frame by 0.02 inch (0.50mm) minimum after the adjustment.
 - (c) Make sure the door is open.
 - (d) Move the latch torque tube forward and aft to do a check for latch torque tube end play.
 - (e) Make sure the latch torque tube end play is 0.02 inch (0.50mm) maximum. If necessary, adjust as follows:
 - 1) Add adjustment spacers at one of the ends of the latch torque tube to decrease the end play.
 - 2) Operate the latch torque tube and make sure the shank of the latch roller is clear of the door frame by 0.02 inch (0.50mm) minimum after the adjustment.
 - 3) When the adjustment is complete, turn the spacers in a random direction.
- NOTE: The spacers slots should not be aligned.
- 4) Apply the sealant, A00247 to the adjustment spacers.

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- 5) Make sure the sealant, A00247 does not stop the latch torque tube support bearing from turning freely.
- 6) Do this task: Entry and Galley Service Door Indication Sensor Adjustment (S194, S195, S199, or S200), TASK 52-71-11-820-801.

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Q. Snubber Adjustment

SUBTASK 52-11-00-820-022

- (1) Do the Installation of the Forward Entry Door Snubber, if it is not already installed: Forward Entry Door Snubber Installation, TASK 52-11-51-400-801.
- (2) Adjust the snubber (Figure 509):
 - (a) With the door open and the hold open lock engaged, make sure that more extension of the snubber is available (Figure 509).
 - 1) If necessary, adjust the length of the snubber as follows:
 - a) Make sure the door is fully open.
 - b) Remove the bolt, washers, and nut that attach the snubber to the door.
 - c) Loosen the jamnut on the snubber rod end.
 - d) Turn the snubber rod end to change the length of the snubber.
 - e) Tighten the jamnut Standard Torque Values, TASK 20-50-11-910-801.
 - f) Install the lockwire, G01912 on the jam nut.
 - 2) Install the bolt, washers, and nut to attach the snubber to the door.
 - (b) Move the door to the closed position.
 - (c) Make sure that the snubber does not bottom out when the door is closed.

NOTE: You should be able to turn the snubber link a small amount.
 - (d) If necessary, install the cotter pins in the fasteners that attach the snubber to the door and fuselage frame.

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R. Latch Clearance Adjustment

SUBTASK 52-11-00-820-023

- (1) Do the latch clearance adjustment:
 - (a) Move the door to the cocked position.
 - (b) Turn the door handle until the latch rollers start to engage the latch receivers.
 - (c) Monitor each latch roller as it goes into its latch receiver.
 - (d) Make sure the latch rollers are clear of the entry lip on the latch receiver when the door handle is moved to the latched position.
 - (e) Do a check for drag caused by the door seal andre liner:

NOTE: Do the steps for each latch receiver.

 - 1) Apply a 10 ± 1 lb (5 ± 1 kg) spring load or equivalent to the door in an inboard direction at a stop fitting adjacent to a latch roller.
 - 2) Monitor the latch roller as it goes into its latch receiver.

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3) Make sure the latch rollers are clear of the entry lip on the latch receiver when the door handle is moved to the latched position. If necessary, adjust the clearance as follows (Figure 506):

- a) Open the door.
- b) Remove the bolt, washer, nut and pin that attach the horizontal control rod end to the door hinge torque tube.
- c) Turn the rod end to decrease the length of the horizontal control rod to get the correct clearance.

NOTE: Do not turn the rod end more than 1-1/2 turns.

- d) Install the bolt, washer, and nut to attach the horizontal control rod end to the door hinge torque tube.
- e) Tighten the check nut and lockwire.

4) Close and latch the door.

(f) Install this access panel:

<u>Number</u>	<u>Name/Location</u>
831AZ	Forward Entry Door - Torque Tube Access

S. Handle Retraction Adjustment

SUBTASK 52-11-00-820-024

(1) Do the handle retraction adjustment:

- (a) Make sure the door is closed and latched.
- (b) Pull the exterior handle to its extended position.
- (c) Use a force gauge, COM-1557 to measure the force necessary to move the exterior handle back to its retracted position.
- (d) Make sure the force necessary to move the handle to its retracted position is not more than 20 pounds (9.7 kilograms).
 - 1) If necessary, do the steps to adjust the horizontal control rod.

T. Centering Guide Adjustment

SUBTASK 52-11-00-820-025

(1) Do the centering guide adjustment (Figure 510):

- (a) Make sure the door is open.
- (b) Make sure that the centering guide body track thickness is not less than 0.070 inch (1.778 mm).
- (c) Hold the centering guide in position adjacent to the aft door frame.
- (d) Install the bolts and washers to attach the centering guide to the door frame.
- (e) Slowly close the door.
- (f) Make sure the centering guide goes into the body track and is clear of the track as the door closes.
- (g) Make sure the clearance between the centering guide roller and track is as shown (Figure 510).
- (h) If necessary, adjust as follows:
 - 1) Loosen the bolts and washers that attach the centering guide to the door frame.

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2) Move the centering guide on the serrated plate to get the correct clearance.

NOTE: The centering guide has slots for the bolts to permit adjustment.

3) Tighten the bolts.

U. Stop Pin Adjustment

SUBTASK 52-11-00-820-026

(1) Do the stop pin adjustment (Figure 505).

(a) Install the stop pins in the door if they are removed.

(b) Close and latch the door.

(c) Make sure the clearance between the stop pins and stop pads on the forward and aft edges of the door is as shown (Figure 505).

1) If necessary, adjust as follows:

a) Turn the stop pin fully outboard until it just touches the stop pad.

b) Turn the stop pin back 1/2 turn and then to the nearest lock groove for the lock spring.

c) Install the lock spring.

(d) Make sure the stop pins align with the stop pads on the forward and aft edges of the door as shown (Figure 505).

SUBTASK 52-11-00-820-027

(2) Adjust the forward entry door warning sensor. To do this, do this task: Entry and Galley Service Door Indication Sensor Adjustment (S194, S195, S199, or S200), TASK 52-71-11-820-801.

V. Put the Airplane Back to Its Usual Condition

SUBTASK 52-11-00-410-008

(1) Do this task: Forward Entry Door Lining Installation, TASK 52-11-31-400-802.

SUBTASK 52-11-00-940-009

(2) Remove the stand, COM-1523.

————— **END OF TASK** —————

TASK 52-11-00-820-802

3. Forward Entry Door (Soft Unlatching)

(Figure 511)

A. General

(1) If the latch torque tubes are not adjusted correctly, the door handle can move too easily. This can cause the door to open accidentally (soft unlatching). This task is a special procedure to adjust the door if it opens accidentally (soft unlatching).

(2) The soft unlatching adjustment and the vertical adjustment for the forward entry door are related. When you do the soft unlatching adjustment, it affects the vertical adjustment. Make sure these adjustments are within tolerance before you complete the soft unlatching adjustment procedure.

B. References

Reference	Title
25-66-01-000-801	Escape Slide Pack and Cover Removal (P/B 401)
25-66-01-400-803	Escape Slide Pack and Cover Installation (P/B 401)
52-11-31-000-802	Forward Entry Door Lining Removal (P/B 401)

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Reference	Title
52-11-31-400-802	Forward Entry Door Lining Installation (P/B 401)
52-71-11-820-801	Entry and Galley Service Door Indication Sensor Adjustment (S194, S195, S199, or S200) (P/B 201)

C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1980	Tool - Setting, Forward Entry Door Latch Roller (Part #: F80178-1, Supplier: 81205, A/P Effectivity: 737-100, -200, -200C, -300, -400, -500, -600, -700, -700C, -700ER, -700QC, -800, -900, -900ER, -BBJ)
SPL-2003	Simulator - Escape Slide, Passenger Door (Part #: C52006-34, Supplier: 81205, A/P Effectivity: 737-100, -200, -200C, -300, -400, -500, -600, -700, -700C, -700ER, -700QC, -800, -900, -900ER, -BBJ) (Opt Part #: C52006-1, Supplier: 81205, A/P Effectivity: 737-100, -200, -200C, -300, -400, -500, -600, -700, -700C, -700ER, -700QC, -800, -900, -900ER, -BBJ)

D. Consumable Materials

Reference	Description	Specification
D00504	Grease - Petrolatum	VV-P-236
G02020	Clay, Modeling	

E. Location Zones

Zone	Area
831	Forward Entry Door

F. Procedure

SUBTASK 52-11-00-010-018

(1) Do this task: Escape Slide Pack and Cover Removal, TASK 25-66-01-000-801.

SUBTASK 52-11-00-010-019

(2) Do this task: Forward Entry Door Lining Removal, TASK 52-11-31-000-802.

SUBTASK 52-11-00-480-005

(3) Attach a 90 pound weight to the door approximately in the middle of the bottom half of the door.

(a) You may use the escape slide simulator, SPL-2003.

SUBTASK 52-11-00-820-039

(4) Do a check of the clearance between the latch rollers and the latch fittings.

(a) Use clay, G02020 to measure the latch roller clearances.

- 1) Put the clay in the latch fitting.
- 2) Put a layer of grease, D00504 on the latch roller.
- 3) Close and latch the door.
- 4) Open the door.
- 5) Measure the depth of the clay to find the latch roller clearance.

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- (b) Make sure the clearance between the bottom of the latch roller and the latch fitting is between 0.03 - 0.15 inches, (0.76 - 3.81 mm) (Figure 511).
- (c) If the clearance is not correct, do these steps at the upper and lower latch torque tubes:
 - 1) If the tool, SPL-1980, is available, use it to set the latch roller overcenter.
 - a) Disconnect the control rods from the upper and lower latch torque tubes at the control rod cranks.
 - 2) If the tool, SPL-1980, is not available, set the latch roller overcenter by the steps below:

NOTE: A locally made tool may be used to get the straight line relationship.

 - a) Disconnect the control rods from the upper and lower latch torque tubes at the control rod cranks.
 - b) Align the latch torque tube, the gate control rod crank, and the gate control rod in a straight line relationship.
 - 3) While you have a straight line relationship, adjust the length of the upper and lower control rods as necessary to permit installation of the bolt through the control rod end and the control rod crank.

NOTE: Install the bolt through the control rod end and the control rod crank for the upper and lower latch torque tubes.

 - a) Connect the control rod to the latch torque tube.
 - b) With the mechanism in the closed position, make sure that the latch rollers engage the latch roller cam fittings.

SUBTASK 52-11-00-820-040

- (5) Adjust the forward entry door warning sensor.
 - (a) Do this task: Entry and Galley Service Door Indication Sensor Adjustment (S194, S195, S199, or S200), TASK 52-71-11-820-801.

SUBTASK 52-11-00-080-004

- (6) Remove the weight or the escape slide simulator, SPL-2003 from the door.

SUBTASK 52-11-00-410-012

- (7) Do this task: Forward Entry Door Lining Installation, TASK 52-11-31-400-802.

SUBTASK 52-11-00-410-013

- (8) Do this task: Escape Slide Pack and Cover Installation, TASK 25-66-01-400-803.

————— END OF TASK —————

TASK 52-11-00-700-804

4. Forward Entry Door System Test

A. General

- (1) The system test is a check that the door is installed and adjusted correctly and that the mechanical systems operate correctly.
- (2) Make sure the installation and adjustment of the door is done. Make sure the door seal and lining are installed.

B. References

Reference	Title
24-22-00-860-811	Supply Electrical Power (P/B 201)
52-11-00-860-803	Open the Door with the Interior Handle (P/B 201)

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Reference	Title
52-11-00-860-804	Close the Door with the Interior Handle (P/B 201)

C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-3898	Adapter - Torque Wrench, Galley and Entry Door (Part #: C52008-1, Supplier: 81205, A/P Effectivity: 737-300, -400, -500, -600, -700, -700C, -700ER, -700QC, -800, -900, -900ER, -BBJ)

D. Location Zones

Zone	Area
831	Forward Entry Door

E. System Test

SUBTASK 52-11-00-760-001

(1) Do this task: Supply Electrical Power, TASK 24-22-00-860-811.

SUBTASK 52-11-00-730-002

(2) Do the forward entry door system test:

- (a) Make sure the forward entry door is fully closed, latched and locked.
- (b) Make sure that the FWD ENTRY light does not show on the Forward Overhead Panel, P5, in the flight compartment.
- (c) Open the door. To open the door, do this task: Open the Door with the Interior Handle, TASK 52-11-00-860-803.
- (d) Make sure the FWD ENTRY light on the Forward Overhead Panel, P5, comes on for the door.
- (e) Close and latch the door. To close and latch the door, do this task: Close the Door with the Interior Handle, TASK 52-11-00-860-804.
- (f) Make sure the FWD ENTRY light goes off.

SUBTASK 52-11-00-730-004

(3) Do the door handle torque test:

- (a) Install the adapter, SPL-3898 on the interior door handle.
- (b) Open the door. To open the door, do this task: Open the Door with the Interior Handle, TASK 52-11-00-860-803.
- (c) Measure the torque on the interior handle perpendicular to the handle cam to close the door.
- (d) Make sure the maximum torque on the interior handle to close the door is 600 in-lb (68 N·m).
 - 1) If the maximum handle torque is more than 600 in-lb (68 N·m), do these steps:

NOTE: The most likely cause for the increase in door closing force is the door guide ball is binding in the track.

- a) Make sure the door guide ball is correctly adjusted.
- b) Make sure the stop pins are correctly adjusted.

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- c) Make sure the upper and lower gate adjustment is correct.
- d) Adjust the horizontal control rod. To adjust it, do this task: Forward Entry Door Adjustment, TASK 52-11-00-820-801.
NOTE: Do the horizontal control rod adjustment only.
- (e) Close and latch the door. To close and latch the door, do this task: Close the Door with the Interior Handle, TASK 52-11-00-860-804.
- (f) Measure the torque on the interior handle perpendicular to the handle cam to open the door.
- (g) Make sure the maximum torque on the interior handle to open the door is 420 in-lb (47 N·m).

NOTE: In this step, the door is only opened to the cocked position.

- 1) If the maximum handle torque is more than 420 in-lb (47 N·m), do these steps:
 - a) Make sure the door is correctly installed.
 - b) Adjust the horizontal control rod. To adjust it, do this task: Forward Entry Door Adjustment, TASK 52-11-00-820-801.

NOTE: Do the horizontal control rod adjustment only.

- (h) Remove the adapter, SPL-3898 from the internal door handle.

————— **END OF TASK** —————

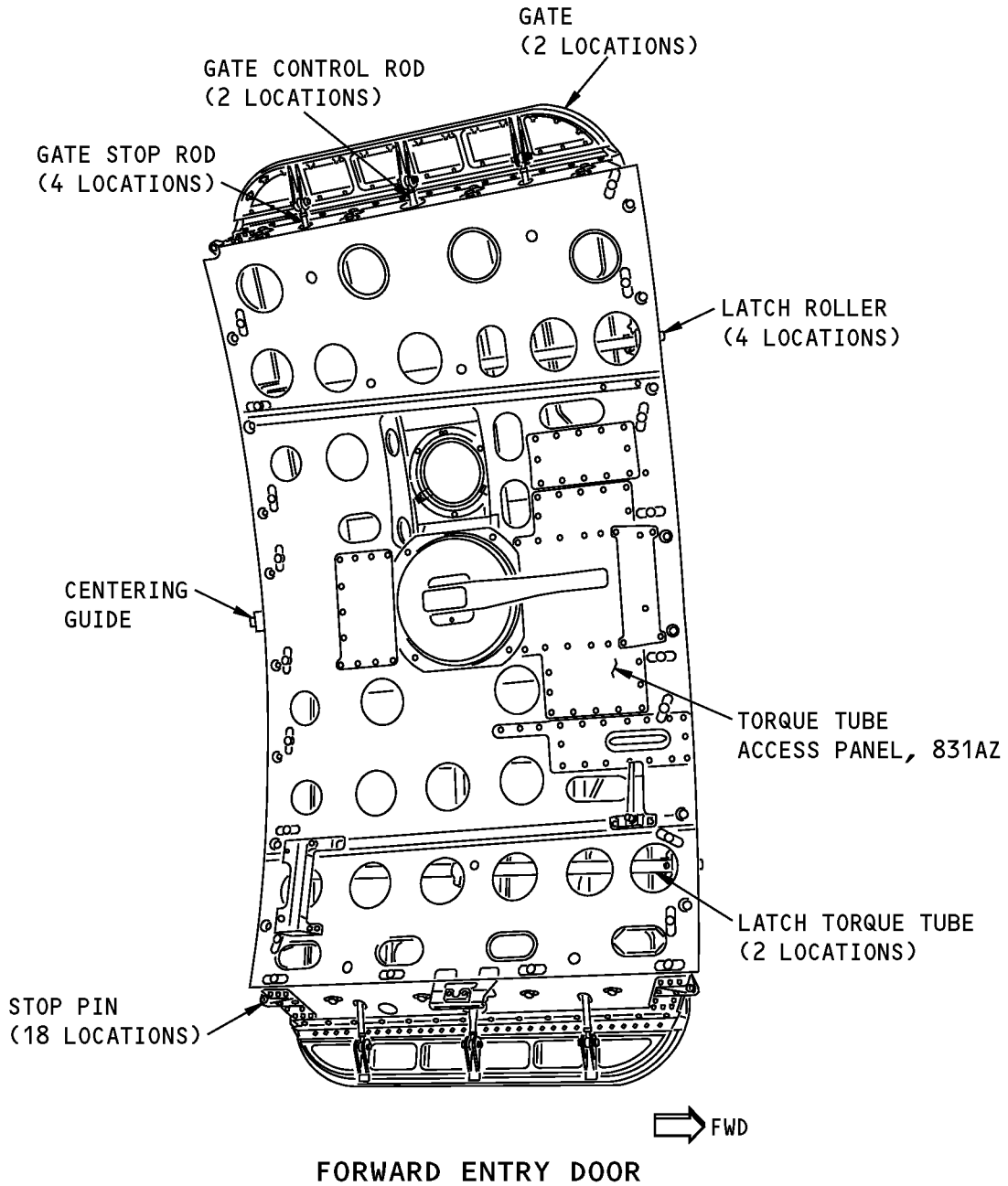
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**Forward Entry Door Adjustment
Figure 501/52-11-00-990-806**

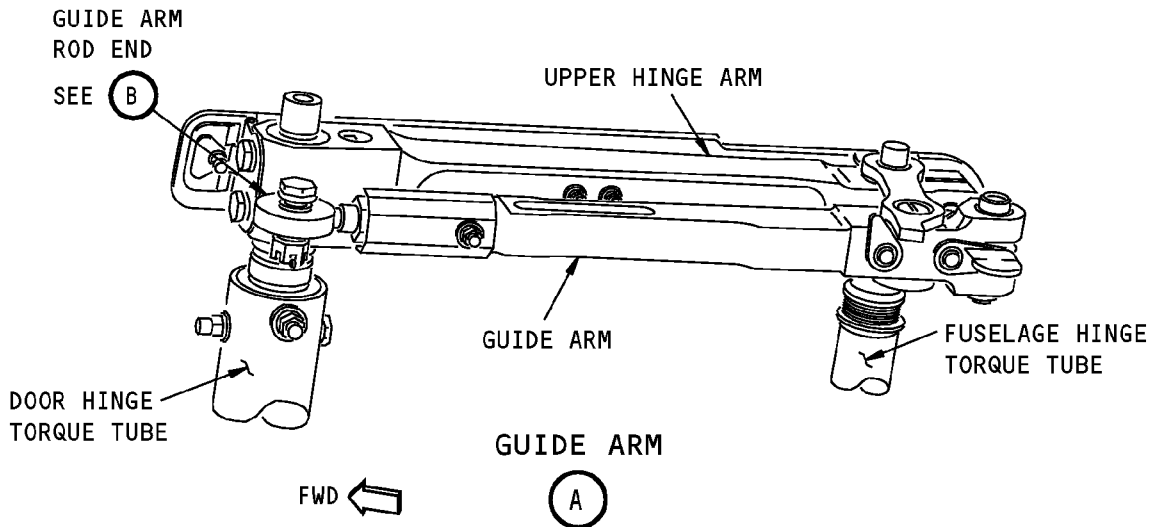
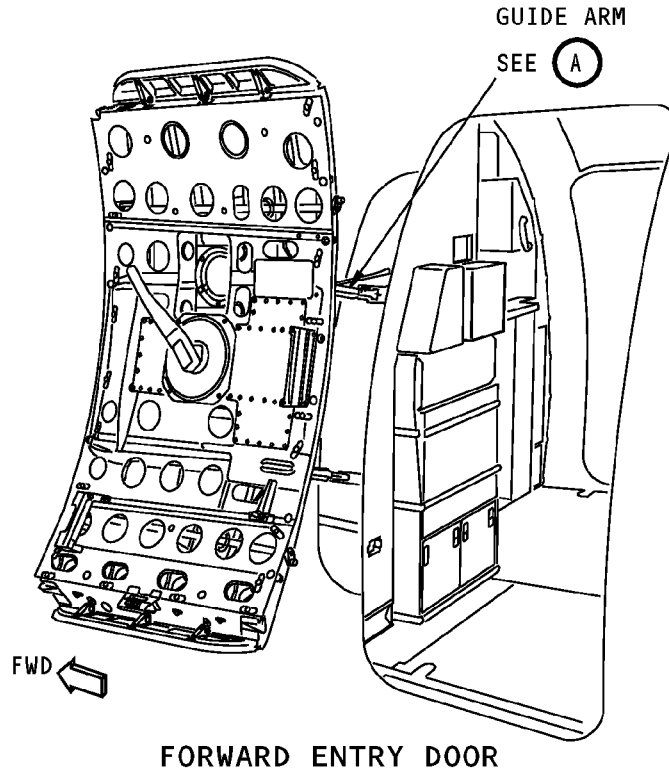
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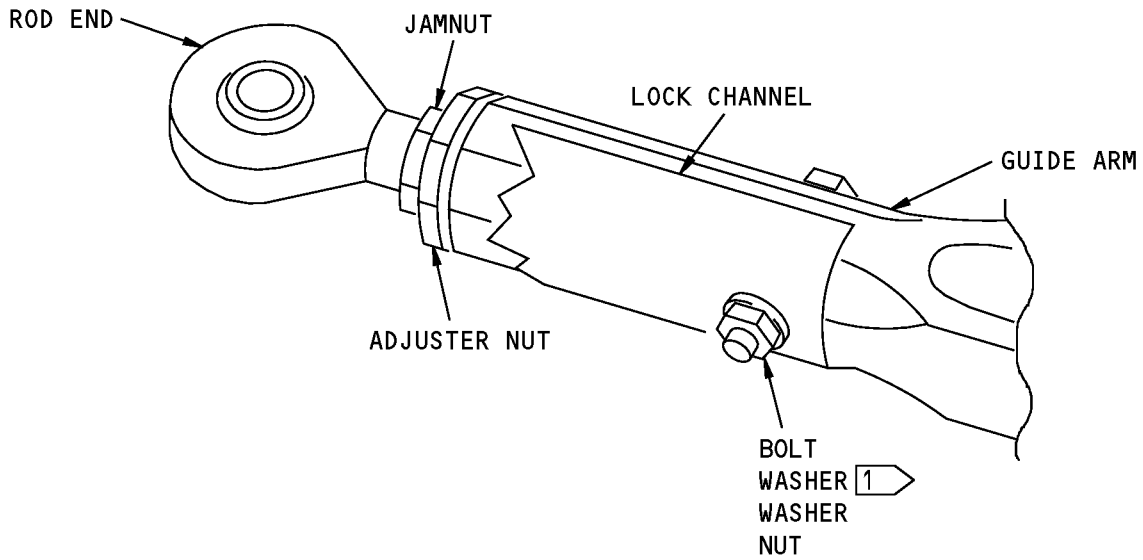
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**Guide Arm Adjustment
Figure 502 (Sheet 1 of 2)/52-11-00-990-807**


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GUIDE ARM ROD END

(B)

1  WASHER USED WITH HEX HEAD BOLT

**Guide Arm Adjustment
Figure 502 (Sheet 2 of 2)/52-11-00-990-807**

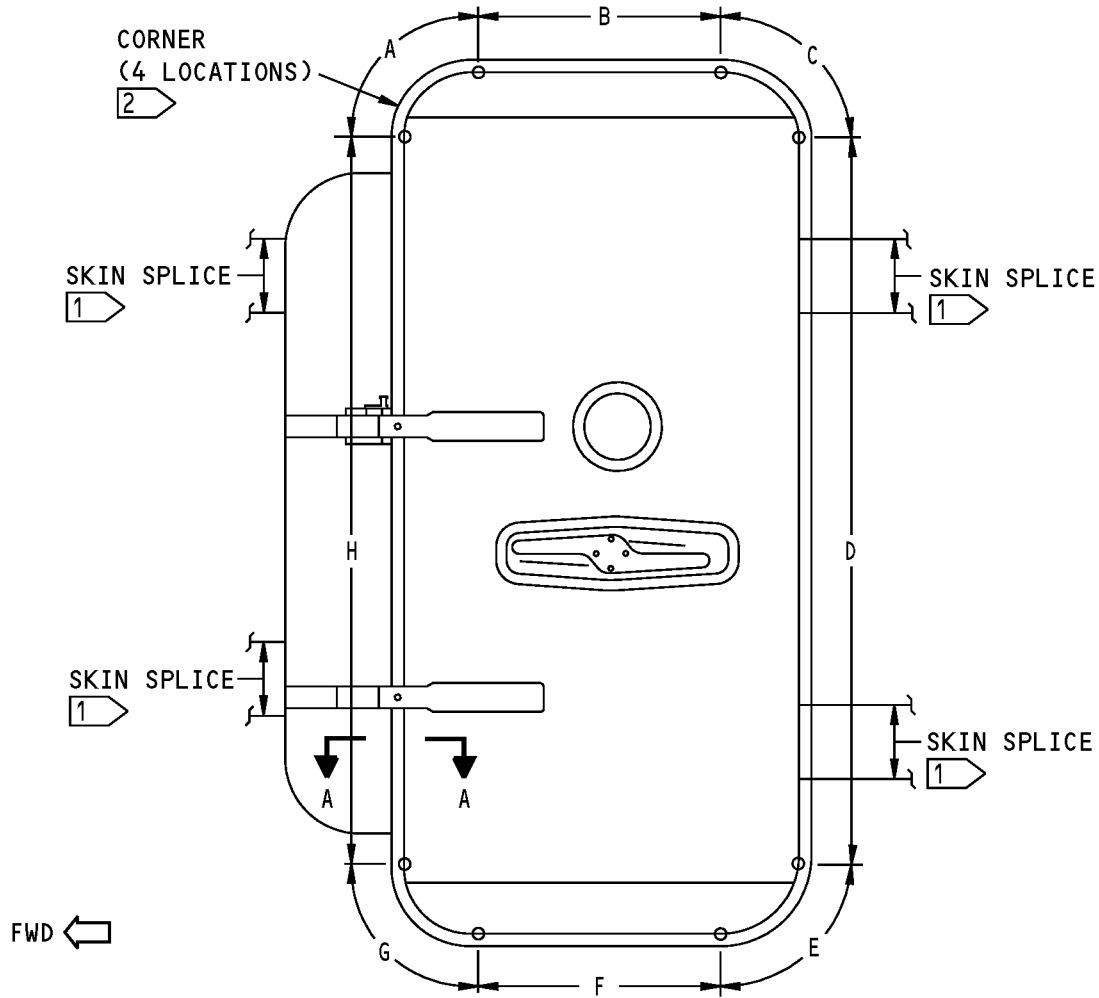
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SKIN CLEARANCE AND FLUSHNESS ZONES OF THE FORWARD ENTRY DOOR (METHOD 1 OR METHOD 2)

NOTE: DIMENSION STANDARD: NOMINAL UPPER LIMIT LOWER LIMIT

A NEGATIVE FLUSHNESS SHOWS THE DOOR IS INBOARD OF THE FUSELAGE CUTOUT. YOU CAN ADD ±0.03 INCH TO ANY MEASUREMENT PROVIDED THAT THE TOTAL LENGTH OF THE ADJUSTED MEASUREMENT DOES NOT EXCEED 5% OF THE DOOR PERIPHERY.

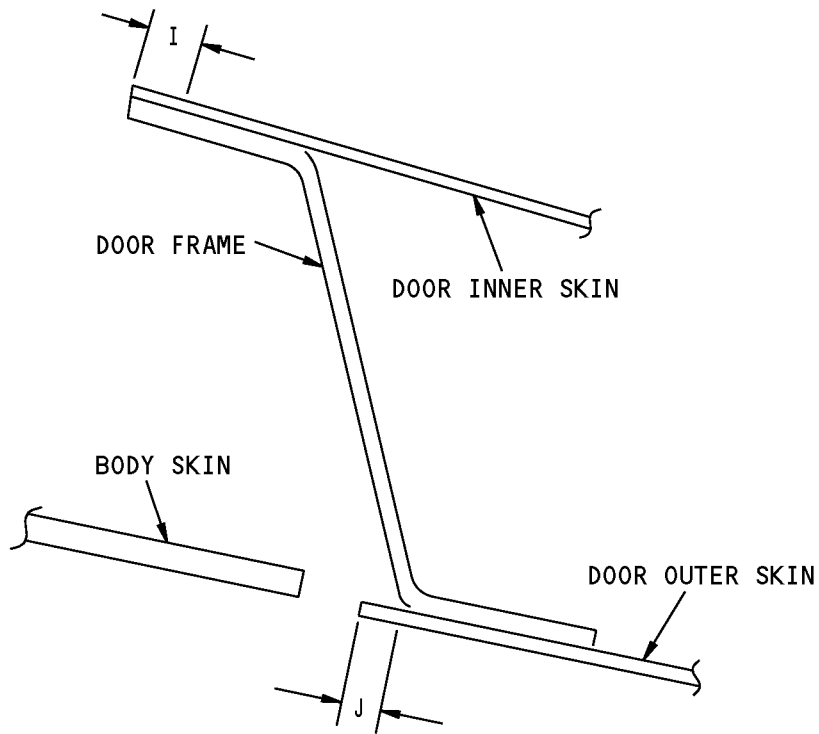
REFER TO THE METHOD 1 TABLE OR THE METHOD 2 TABLE FOR AEROSMOOTHNESS LIMITS.

- 1 THE FLUSHNESS AT SKIN SPLICES WILL BE MORE THAN THE FLUSHNESS SHOWN BY THE ADDITIONAL SKIN AND BONDING THICKNESS.
- 2 FLUSHNESS IS NOT APPLICABLE AT CORNERS.

Forward Entry Door Skin Clearance and Flushness Figure 503 (Sheet 1 of 2)/52-11-00-990-808

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**SKIN CLEARANCES
A-A**

NOTE: REFER TO THE METHOD 1 TABLE FOR AEROSMOOTHNESS LIMITS.

**Forward Entry Door Skin Clearance and Flushness
Figure 503 (Sheet 2 of 2)/52-11-00-990-808**

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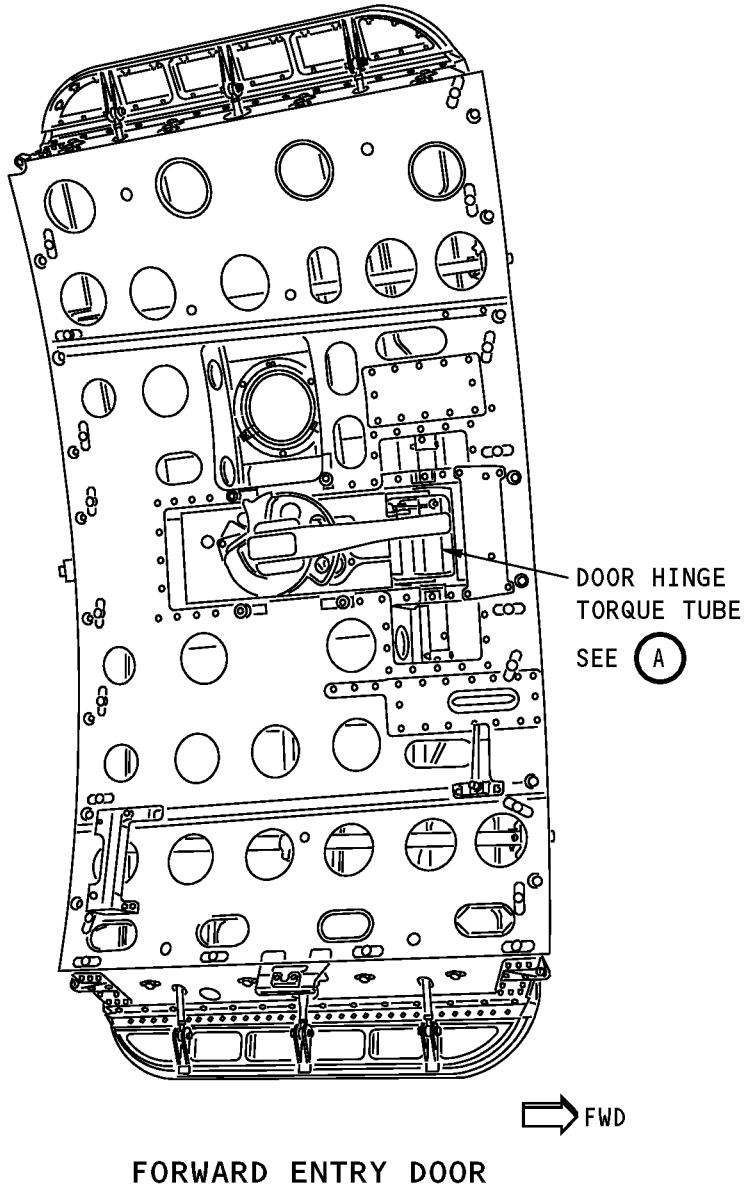
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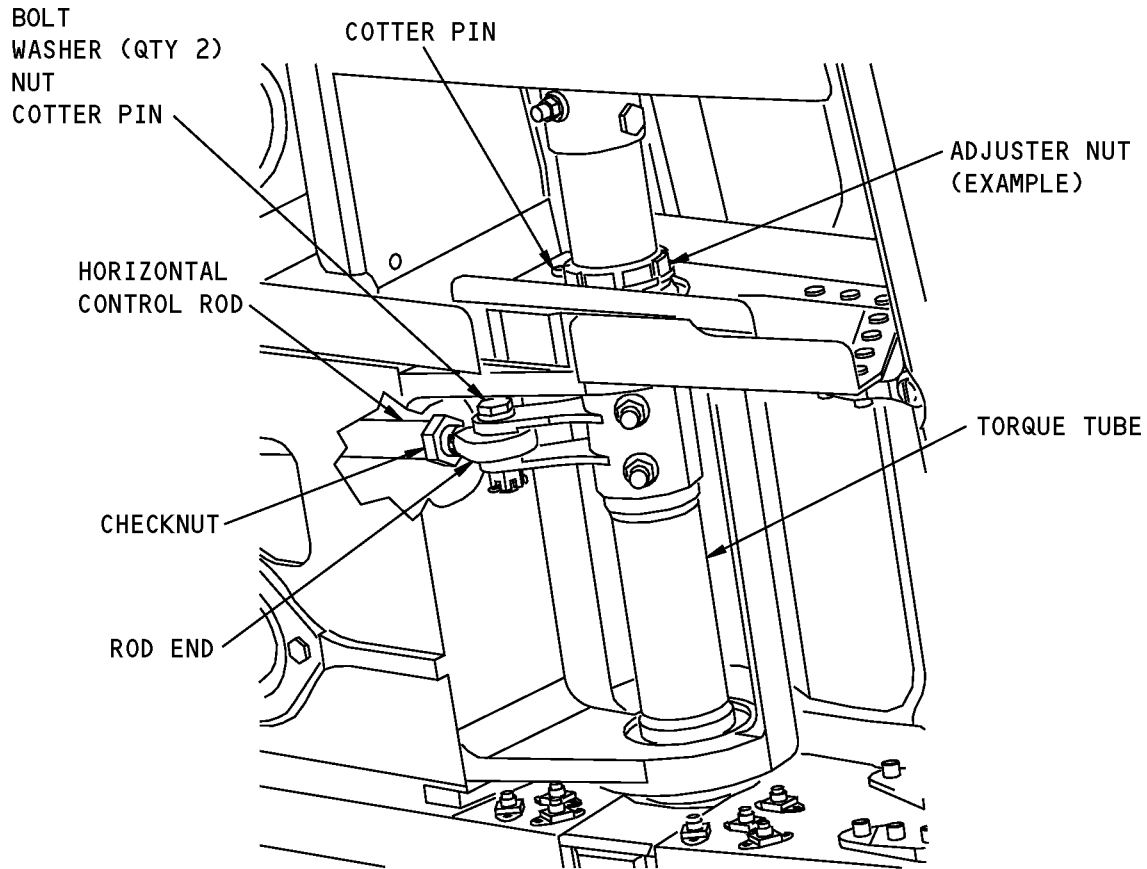
Door Hinge Torque Tube Adjustment
Figure 504 (Sheet 1 of 2)/52-11-00-990-809

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DOOR HINGE TORQUE TUBE



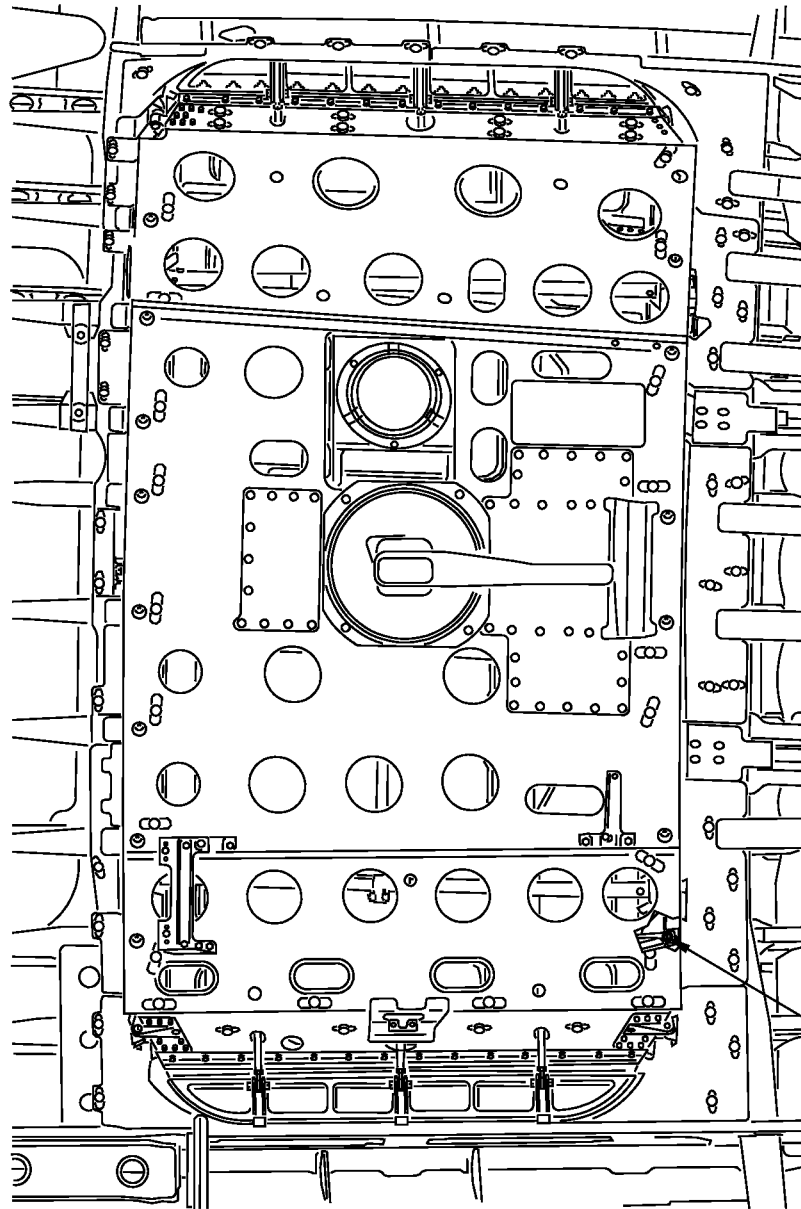
**Door Hinge Torque Tube Adjustment
Figure 504 (Sheet 2 of 2)/52-11-00-990-809**

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STOP PIN AND
STOP PAD
(18 LOCATIONS)
SEE (A)



FORWARD ENTRY DOOR

**Stop Pin Adjustment
Figure 505 (Sheet 1 of 3)/52-11-00-990-810**

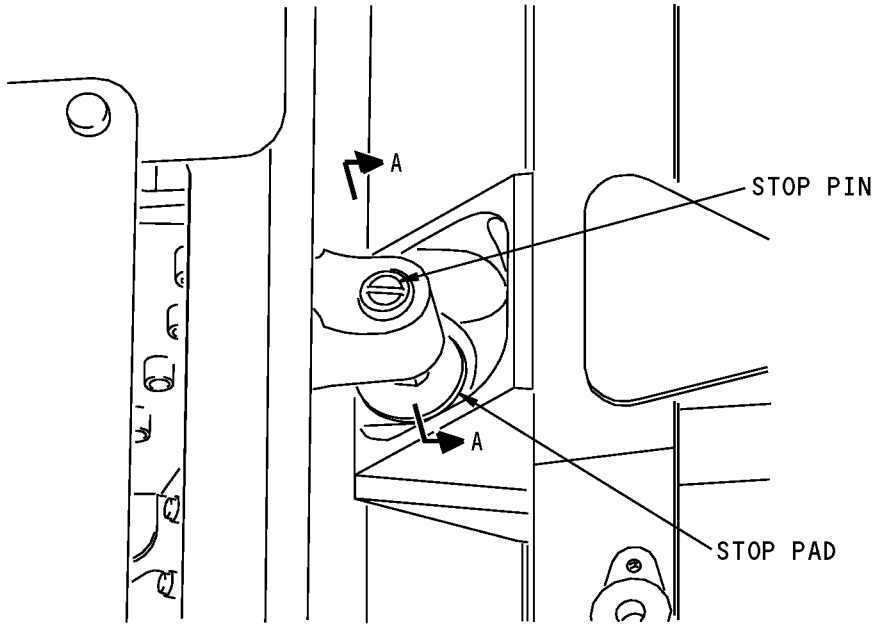
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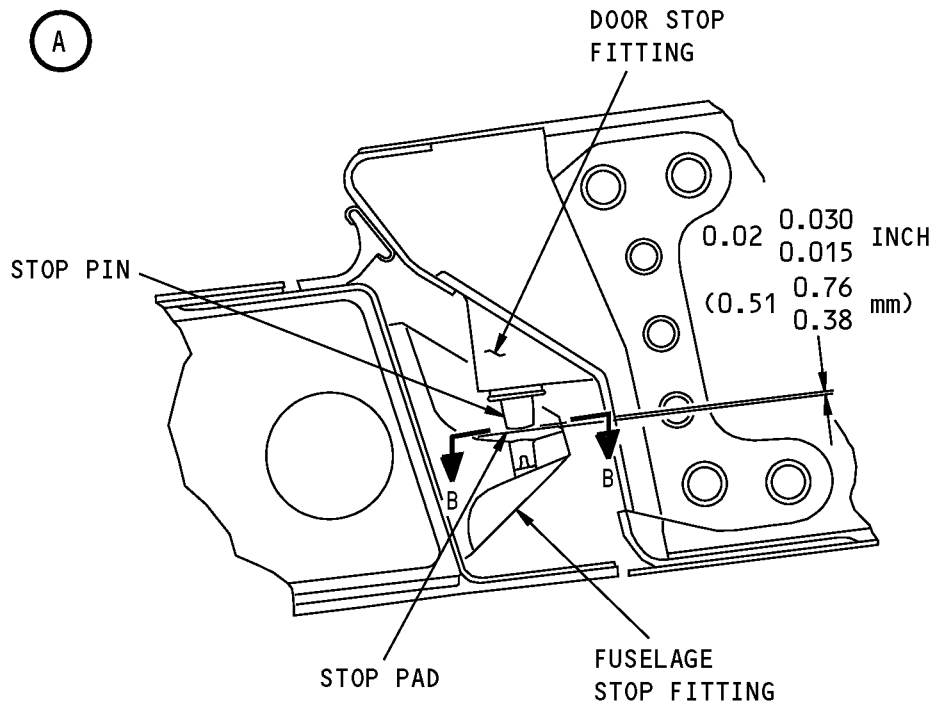
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**STOP PIN AND STOP PAD
(EXAMPLE)**

A



A-A

NOTE: DIMENSION STANDARD: NOMINAL
UPPER LIMIT
LOWER LIMIT

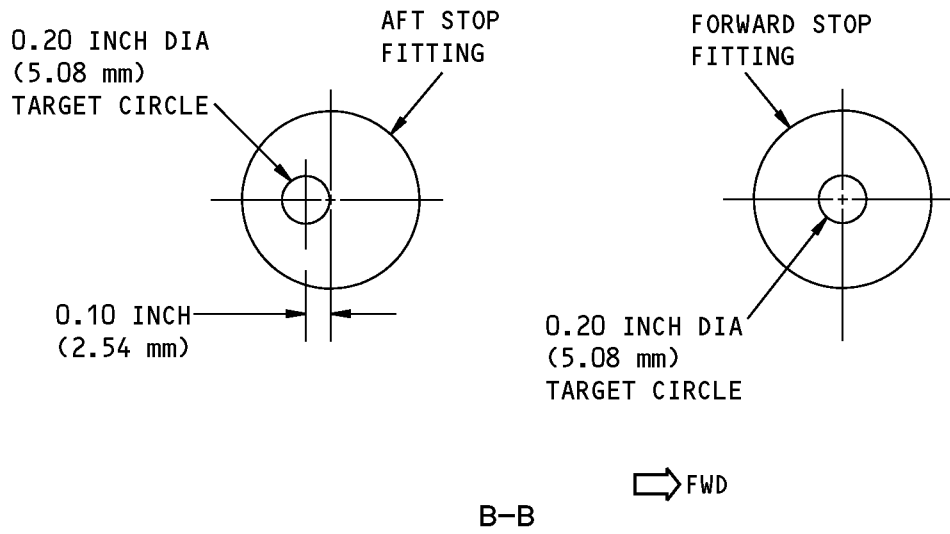
**Stop Pin Adjustment
Figure 505 (Sheet 2 of 3)/52-11-00-990-810**

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**Stop Pin Adjustment
Figure 505 (Sheet 3 of 3)/52-11-00-990-810**

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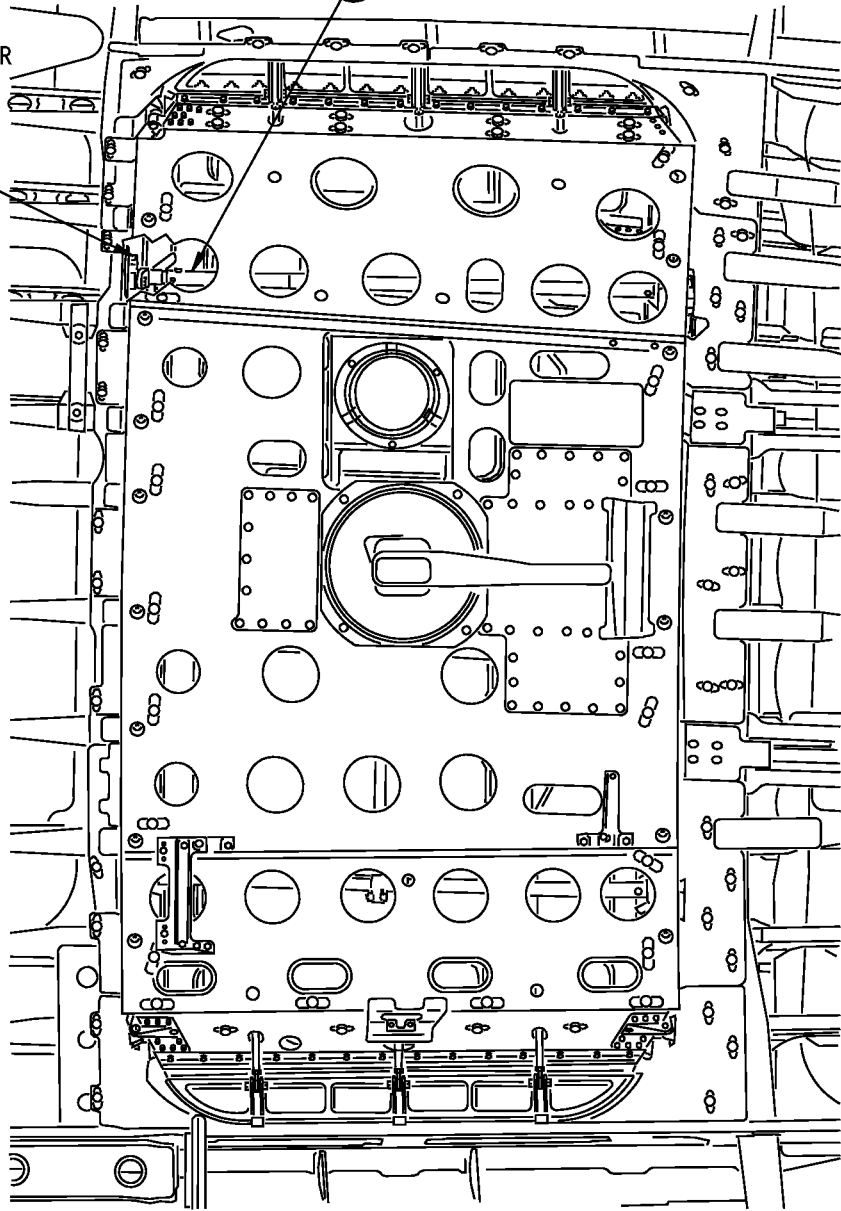
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LATCH TORQUE TUBE
(2 LOCATIONS)

SEE (A)

LATCH RECEIVER
(4 LOCATIONS)

SEE (B)



➔ FWD

FORWARD ENTRY DOOR

Latch Adjustment

Figure 506 (Sheet 1 of 3)/52-11-00-990-811

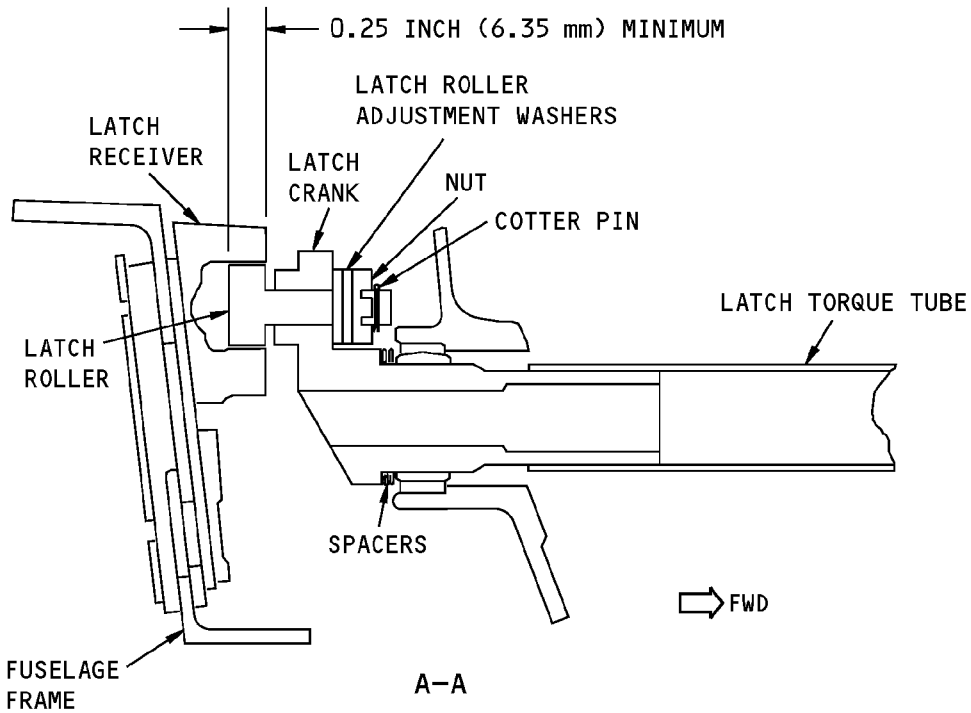
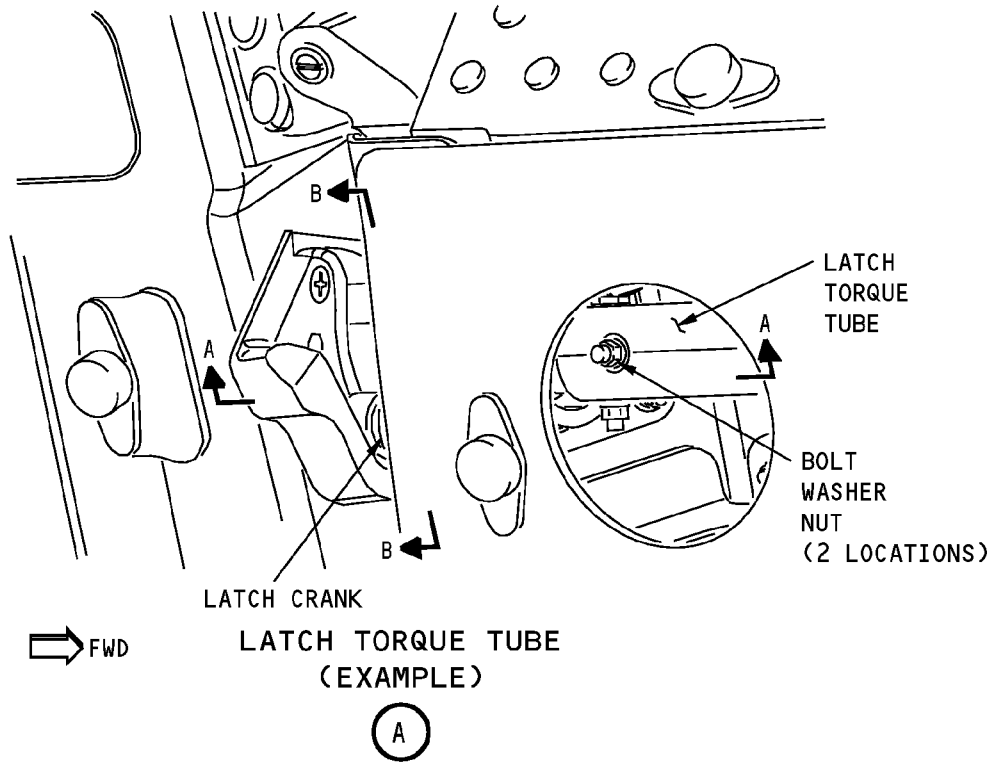
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**Latch Adjustment
Figure 506 (Sheet 2 of 3)/52-11-00-990-811**

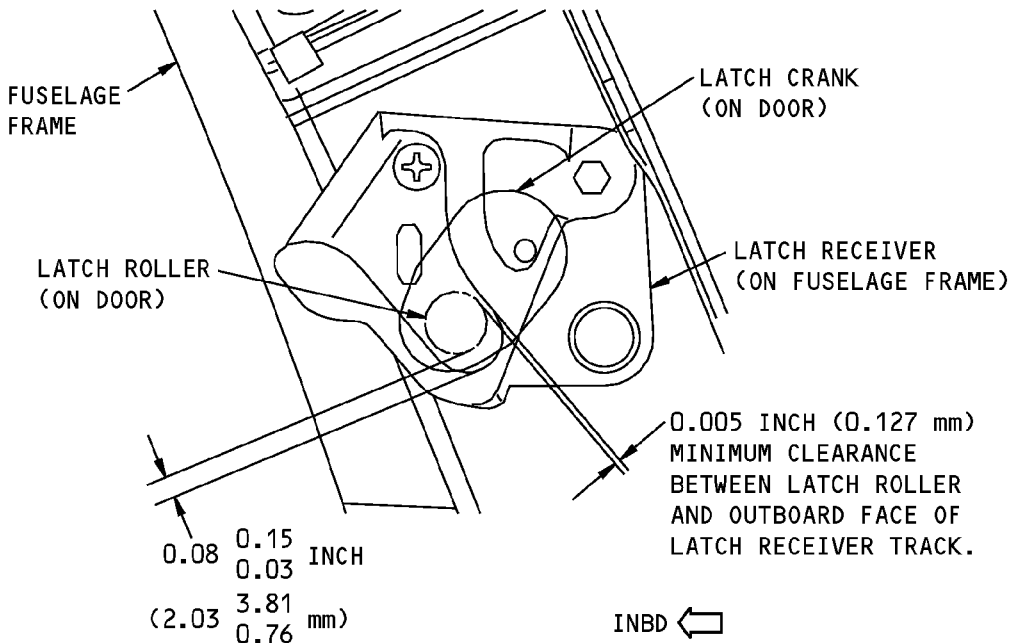
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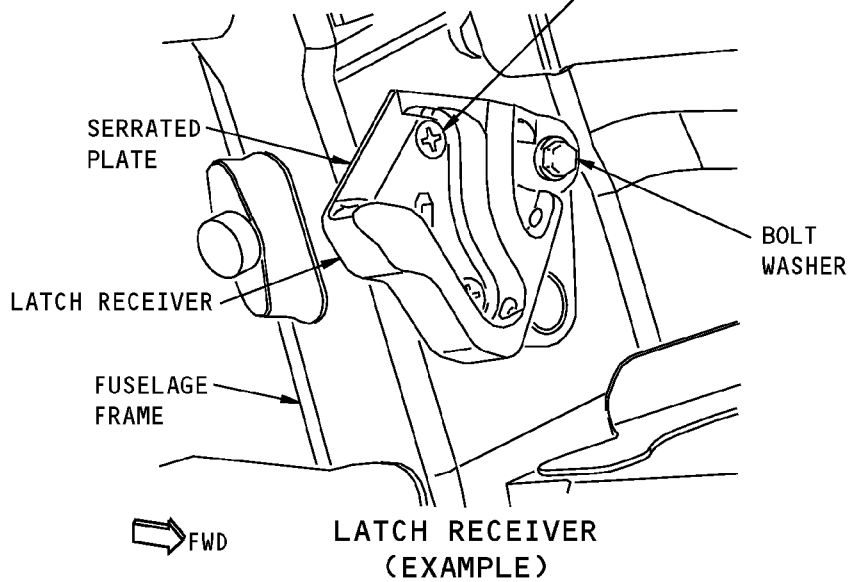


0.08 INCH
(2.03 mm)
0.15 INCH
(3.81 mm)

CLEARANCE BETWEEN
LATCH ROLLER AND
END OF LATCH
RECEIVER TRACK

B-B

BOLT
(2 LOCATIONS)



LATCH RECEIVER
(EXAMPLE)

B

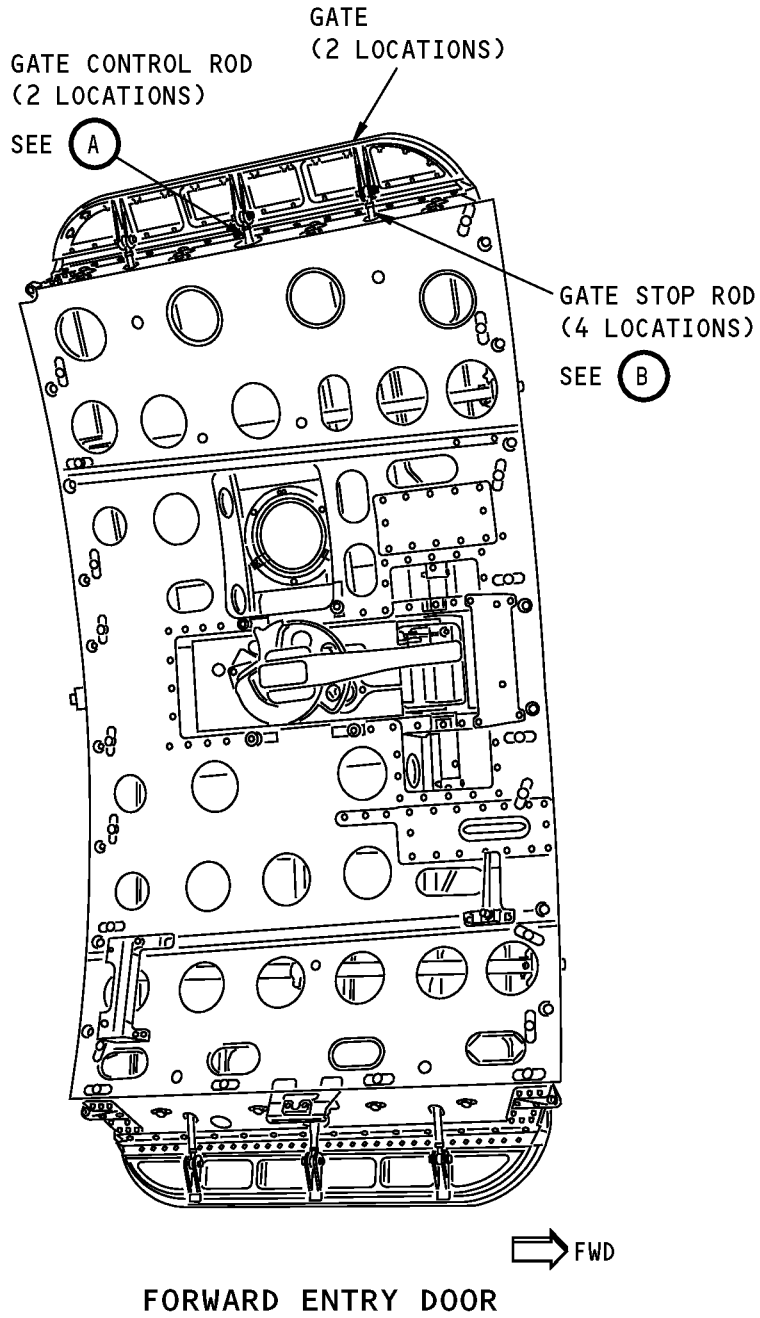
NOTE: DIMENSION STANDARD: NOMINAL UPPER LIMIT LOWER LIMIT

Latch Adjustment
Figure 506 (Sheet 3 of 3)/52-11-00-990-811

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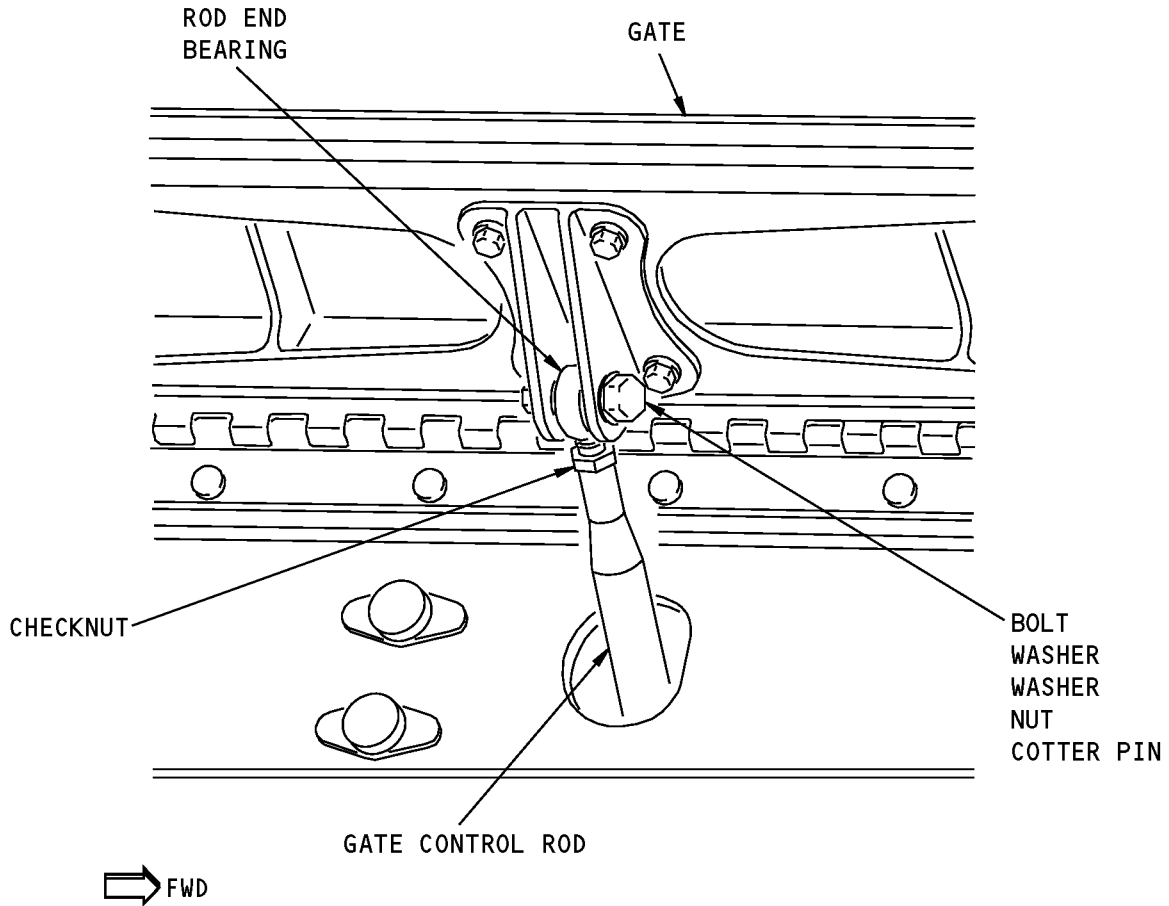
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**Gate Adjustment
Figure 507 (Sheet 1 of 3)/52-11-00-990-812**

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**GATE CONTROL ROD
(EXAMPLE)**

A

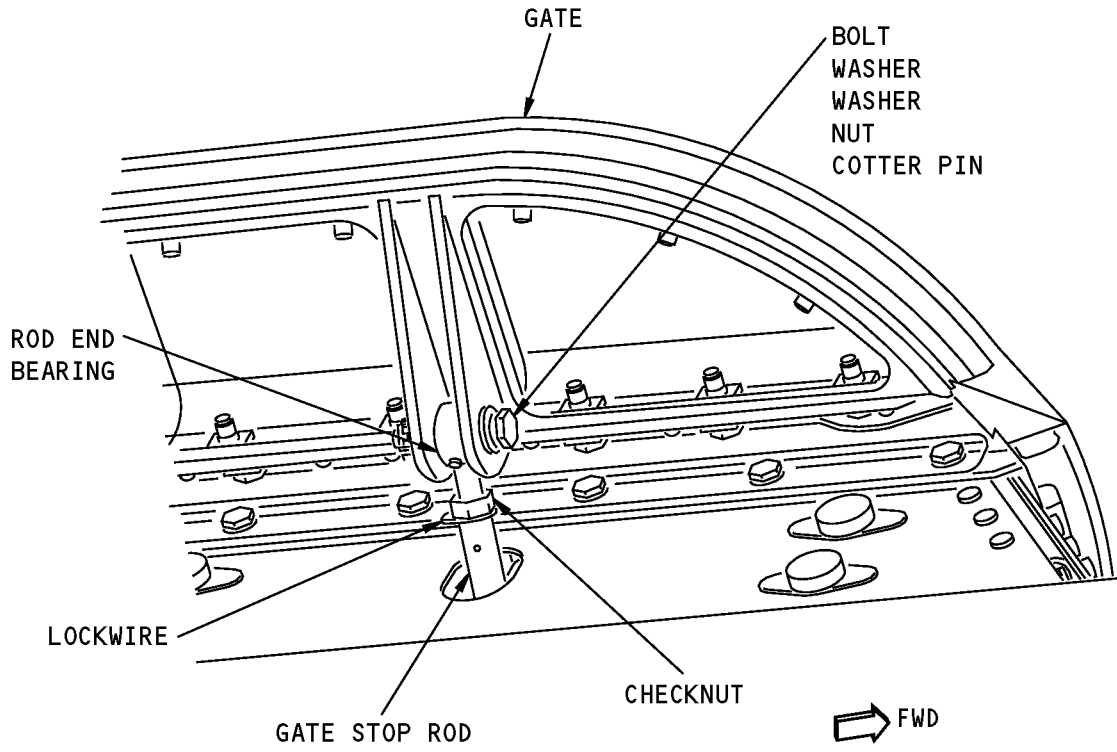
**Gate Adjustment
Figure 507 (Sheet 2 of 3)/52-11-00-990-812**

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**GATE STOP ROD
(EXAMPLE)**

B

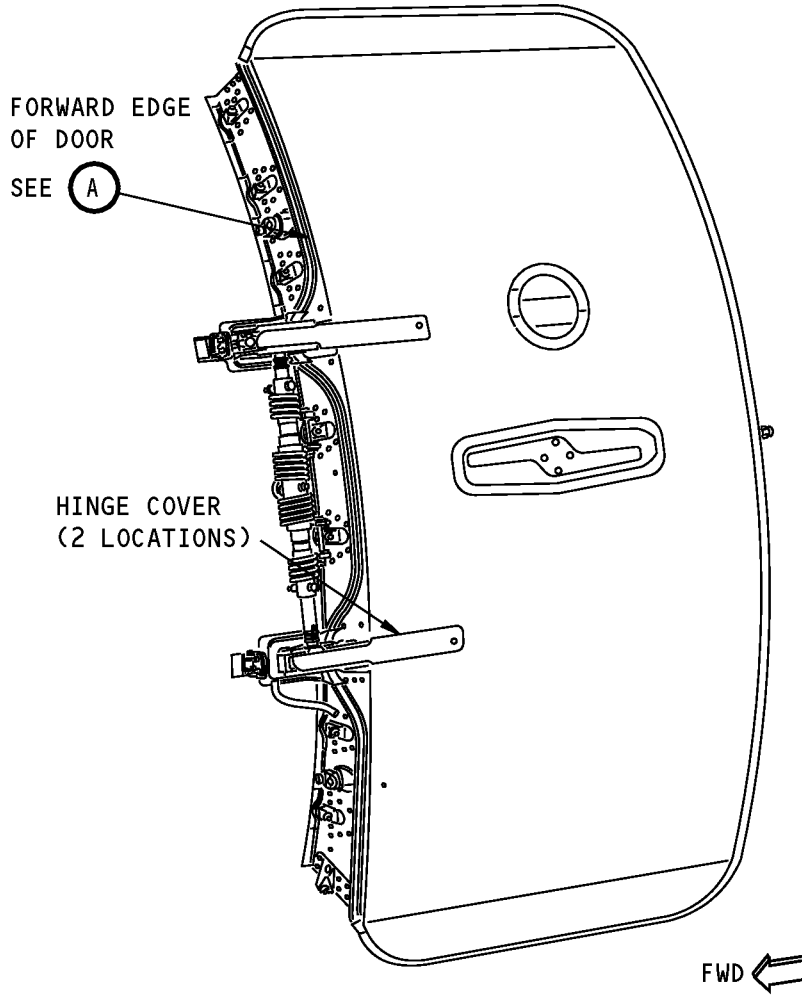
**Gate Adjustment
Figure 507 (Sheet 3 of 3)/52-11-00-990-812**

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FORWARD ENTRY DOOR

**Hinge Cover Adjustment
Figure 508 (Sheet 1 of 3)/52-11-00-990-813**

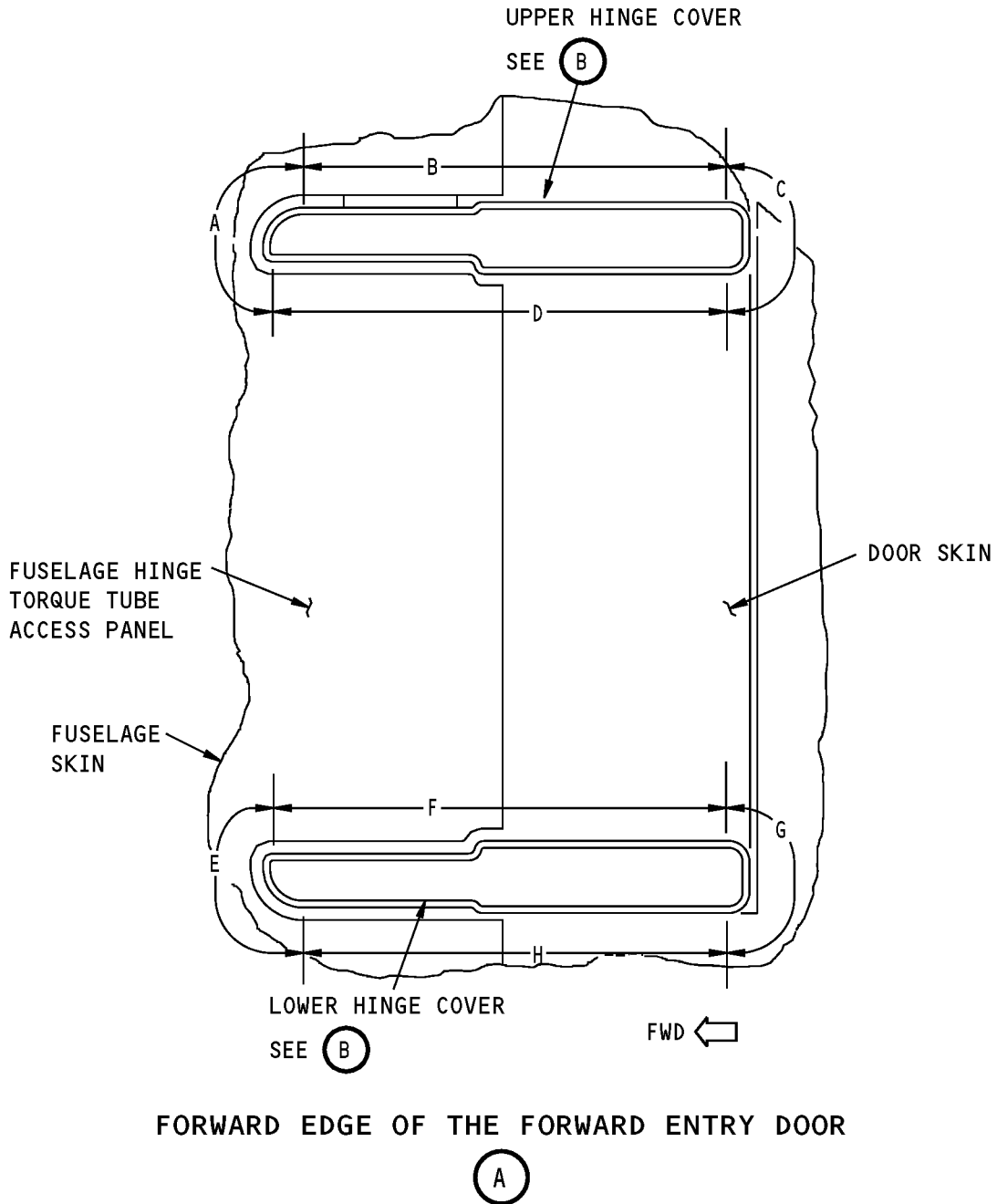
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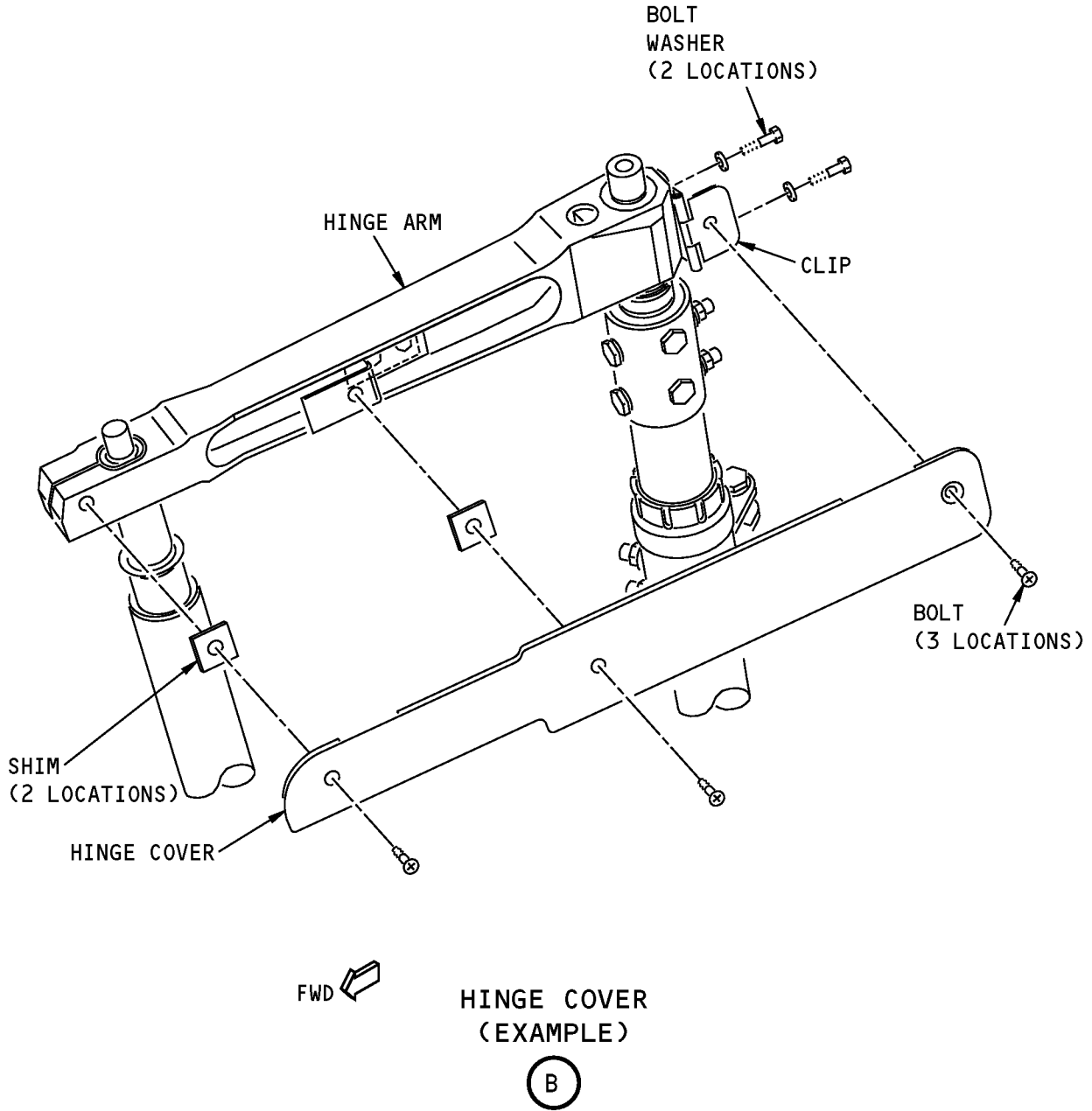
NOTE: REFER TO AERO-SMOOTHNESS LIMITS TABLE FOR THE HINGE COVER OF THE FORWARD ENTRY DOOR.

**Hinge Cover Adjustment
Figure 508 (Sheet 2 of 3)/52-11-00-990-813**

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**Hinge Cover Adjustment
Figure 508 (Sheet 3 of 3)/52-11-00-990-813**

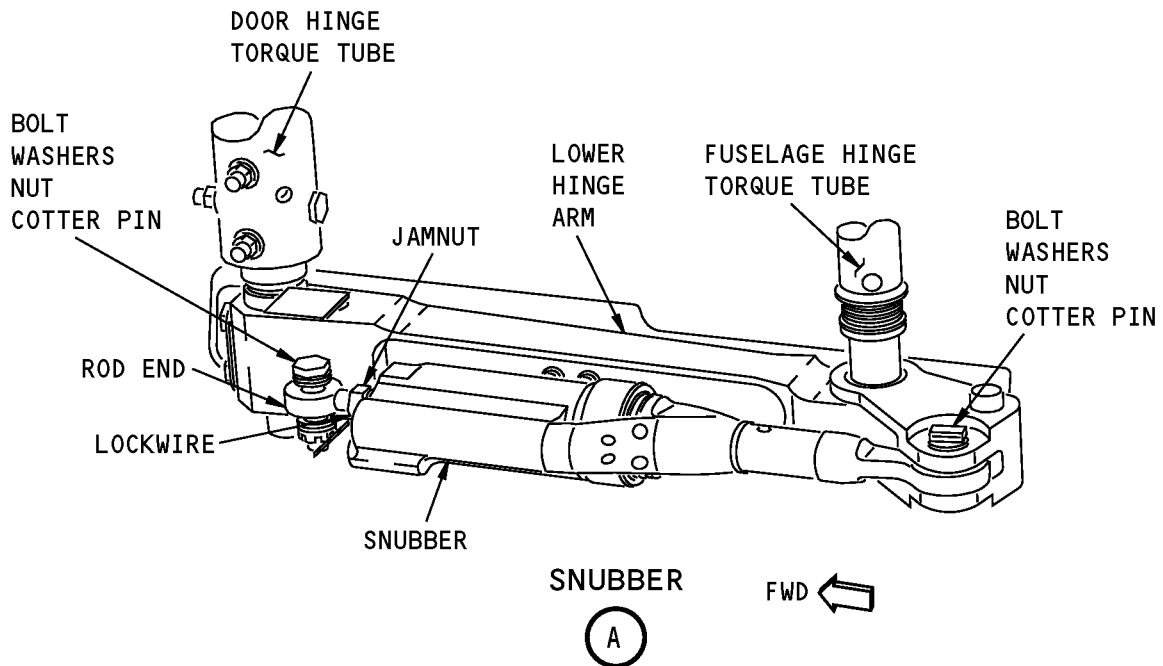
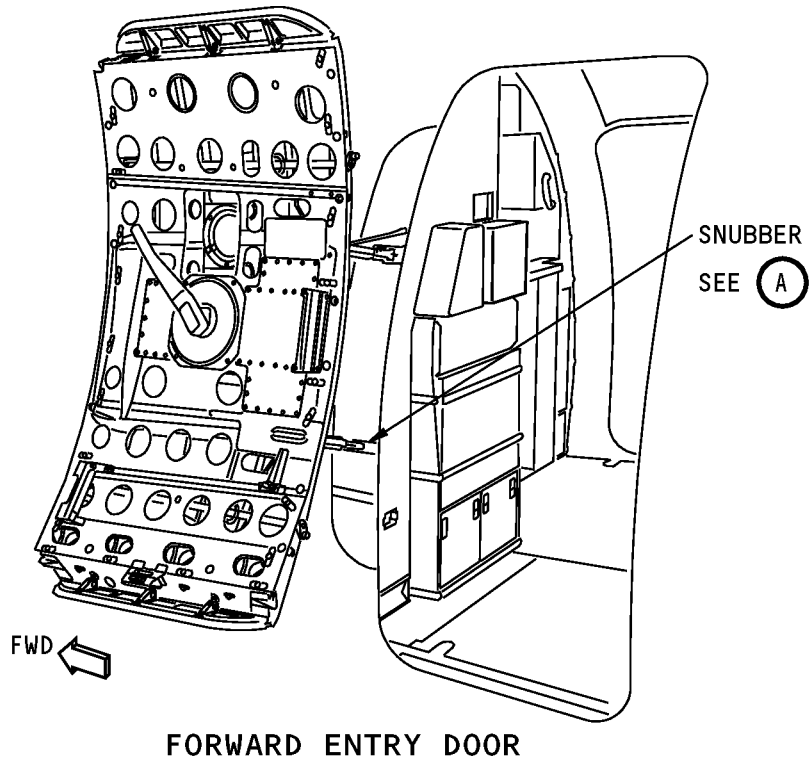
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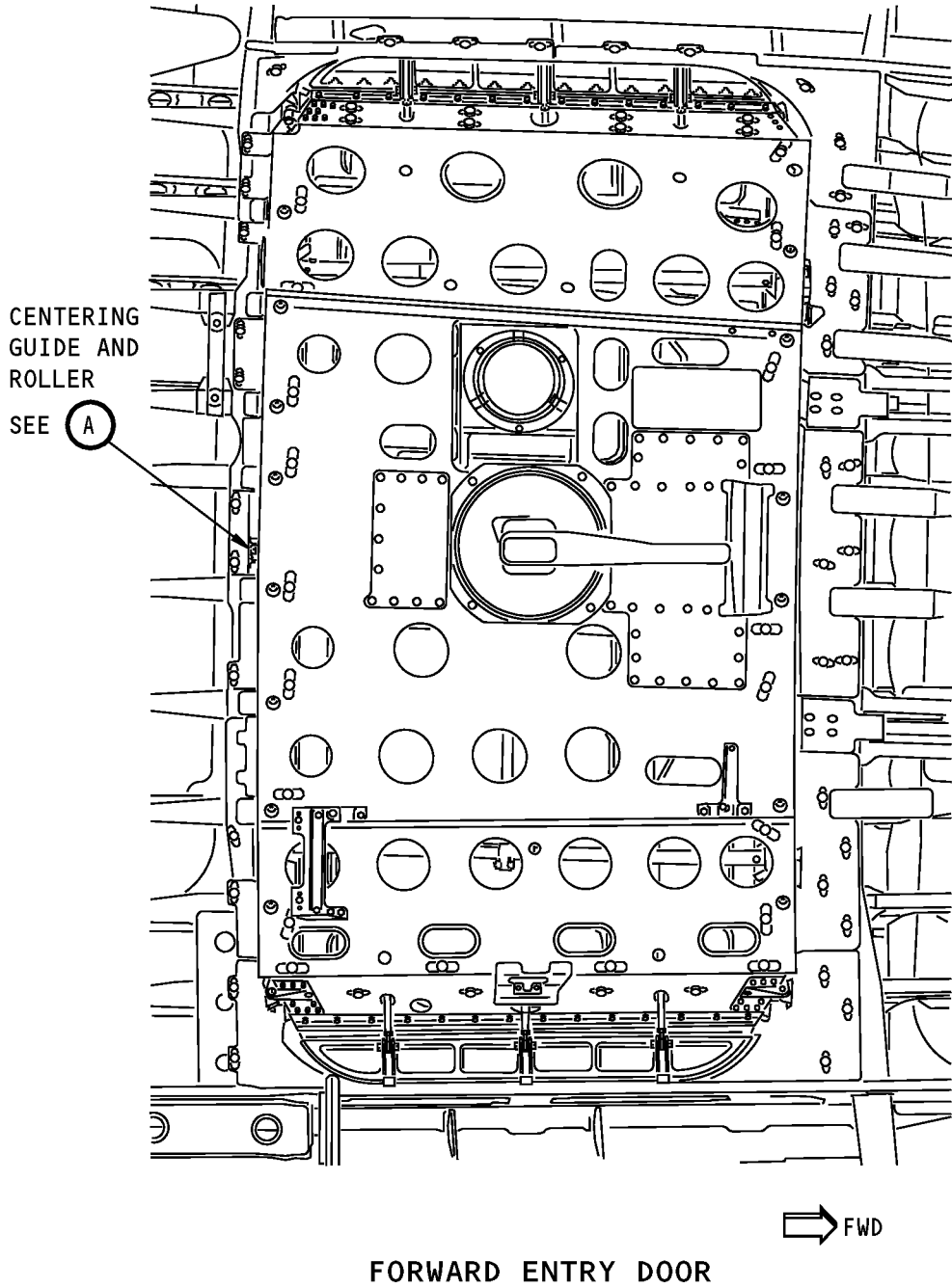
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**Snubber Adjustment
Figure 509/52-11-00-990-814**

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Centering Guide Adjustment
Figure 510 (Sheet 1 of 2)/52-11-00-990-815

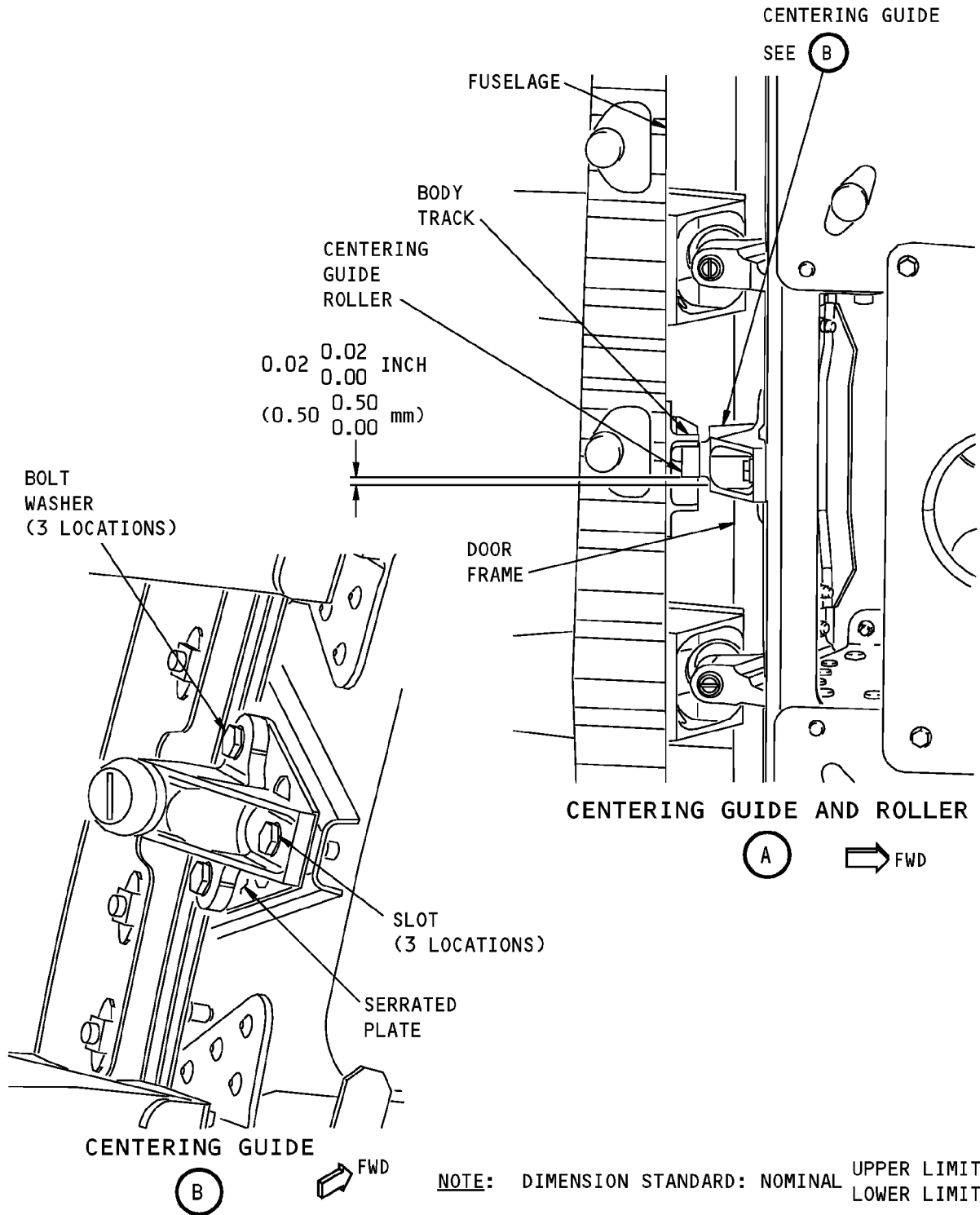
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**Centering Guide Adjustment
Figure 510 (Sheet 2 of 2)/52-11-00-990-815**

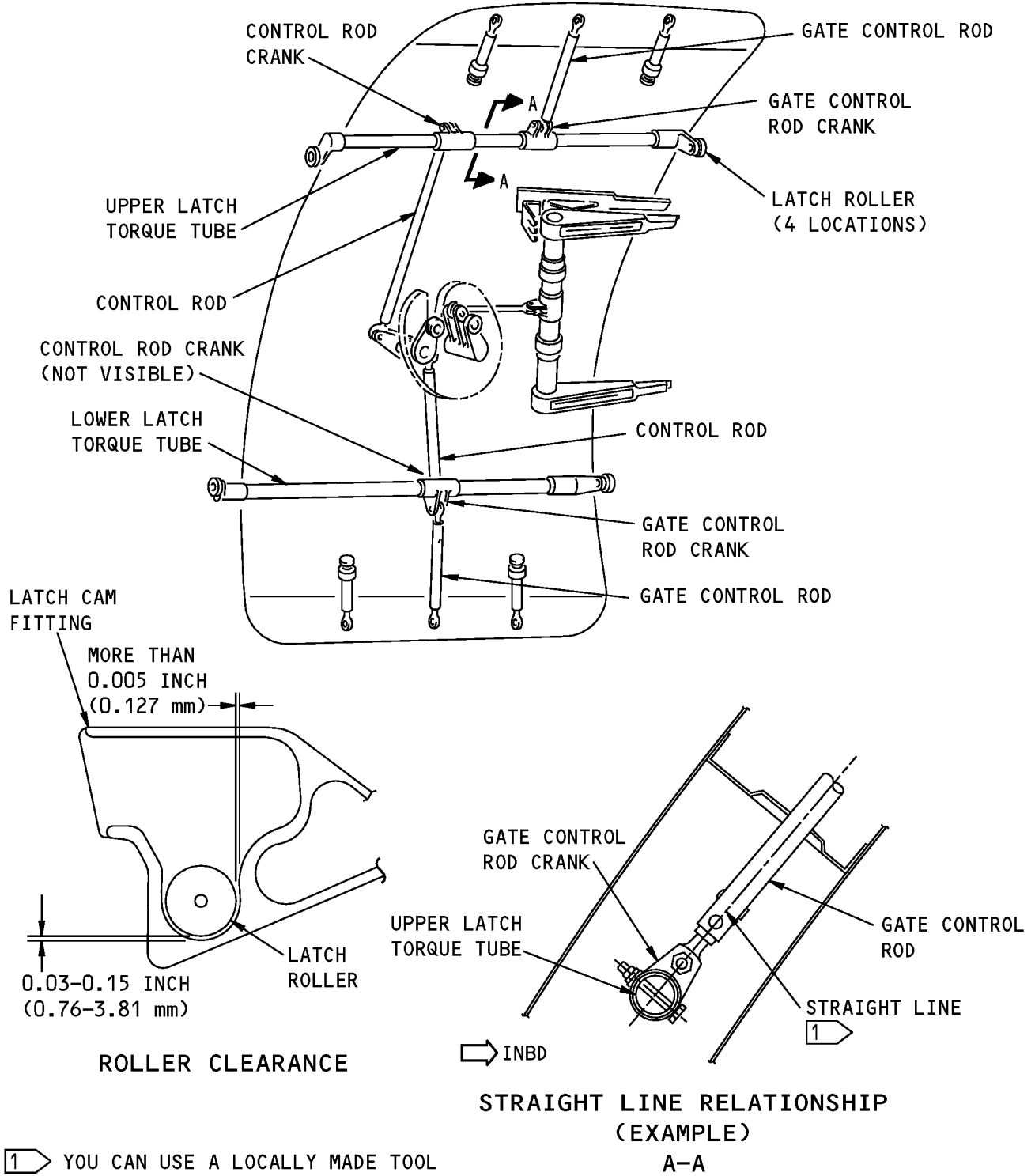
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Forward Entry Door Mechanism
Figure 511/52-11-00-990-816

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FORWARD ENTRY DOOR - INSPECTION/CHECK

1. General

- A. This procedure contains scheduled maintenance task data.
- B. This procedure has these tasks:
 - (1) A check of the forward entry door.
 - (2) A check of the forward entry door centering guide.
 - (3) A check of the forward entry door pressure seal.
 - (4) A check of the forward entry door flapper seal.

TASK 52-11-00-200-801

2. Forward Entry Door Check

A. References

Reference	Title
52-11-31-000-802	Forward Entry Door Lining Removal (P/B 401)
52-11-31-400-802	Forward Entry Door Lining Installation (P/B 401)

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1523	Stand - Work, (B9) General Purpose, Working Height 4-21 Feet (Part #: B-9, Supplier: 05060, A/P Effectivity: 737-ALL)

C. Location Zones

Zone	Area
831	Forward Entry Door

D. Access Panels

Number	Name/Location
831AZ	Forward Entry Door - Torque Tube Access
831BZ	Forward Entry Door - Handle Box and Cam for Handle Box Access
831CZ	Forward Entry Door - Handle Box Access
831DZ	Forward Entry Door - Gate Hinge Pin Access
831EZ	Forward Entry Door - Gate Hinge Pin Access

E. Prepare for the Inspection

SUBTASK 52-11-00-860-002

- (1) Make sure the door is safe as follows:
 - (a) Make sure the door is closed and latched.

WARNING: MAKE SURE THE GIRT BAR IS NOT ENGAGED IN THE FLOOR-MOUNTED ESCAPE SLIDE BRACKETS. IF THE GIRT BAR IS ENGAGED IN THE BRACKETS, THE ESCAPE SYSTEM CAN DEPLOY WHEN YOU OPEN THE DOOR. THIS CAN CAUSE INJURIES TO PERSONS AND DAMAGE TO EQUIPMENT.

- (b) Make sure the girt bar is not engaged in the floor-mounted escape slide brackets.
- (c) Make sure a stand, COM-1523 is installed outboard of the door.

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SUBTASK 52-11-00-010-008

(2) Do this task: Forward Entry Door Lining Removal, TASK 52-11-31-000-802.

SUBTASK 52-11-00-010-009

(3) Remove the access panels as necessary to get access to the door components:

<u>Number</u>	<u>Name/Location</u>
831AZ	Forward Entry Door - Torque Tube Access
831BZ	Forward Entry Door - Handle Box and Cam for Handle Box Access
831CZ	Forward Entry Door - Handle Box Access
831DZ	Forward Entry Door - Gate Hinge Pin Access
831EZ	Forward Entry Door - Gate Hinge Pin Access

SUBTASK 52-11-00-010-010

(4) Open and close the door as necessary to inspect the door components.

F. Inspection

SUBTASK 52-11-00-210-001

(1) Do a visual inspection of the external door structure and handle as follows:

- (a) Examine the external skin.
 - 1) Look for cracks and corrosion.
 - 2) Look for burrs.
 - 3) Look for loose and missing fasteners.
- (b) Examine the window.
 - 1) Look for cracks.
 - 2) Look for crazing.
- (c) Examine the window frame.
 - 1) Look for cracks and corrosion.
- (d) Examine the external handle.
 - 1) Look for cracks and corrosion.
 - 2) Look for too much wear.
- (e) Examine the handle pan.
 - 1) Look for cracks and corrosion.
 - 2) Look for loose and missing fasteners.

SUBTASK 52-11-00-210-002

(2) Do a visual inspection of the door internal structure and handle mechanism as follows:

- (a) Examine the internal skin.
 - 1) Look for cracks and corrosion.
 - 2) Look for burrs.
 - 3) Look for loose and missing fasteners.
- (b) Examine the internal frames and brackets.
 - 1) Look for cracks and corrosion.
 - 2) Look for loose and missing fasteners.
- (c) Examine the drain holes.

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- 1) Look for blockage.
- (d) Examine the handle box.
 - 1) Look for cracks and corrosion.
 - 2) Look for too much wear.
- (e) Examine the handle housing.
 - 1) Look for cracks and corrosion.
 - 2) Look for too much wear.
- (f) Examine the internal handle.
 - 1) Look for cracks and corrosion.
 - 2) Look for too much wear.

SUBTASK 52-11-00-210-003

(3) Do a visual inspection of the latch mechanism as follows:

- (a) Examine the latch control rods.
 - 1) Look for cracks and corrosion.
 - 2) Look for too much wear.
- (b) Examine the latch torque tubes.
 - 1) Look for cracks and corrosion.
 - 2) Look for too much wear.
- (c) Examine the latch cranks and latch rollers.
 - 1) Look for cracks and corrosion.
 - 2) Look for too much wear.
 - 3) Look for unwanted particles on the latch rollers.
- (d) Examine the gate control rods.
 - 1) Look for cracks and corrosion.
 - 2) Look for too much wear.
- (e) Examine the gate stop rods.
 - 1) Look for cracks and corrosion.
 - 2) Look for too much wear.

SUBTASK 52-11-00-210-004

(4) Do a visual inspection of the door stop fittings and stop pins as follows:

- (a) Examine the door stop fittings.
 - 1) Look for cracks and corrosion.
- (b) Examine the stop pins.
 - 1) Look for cracks and corrosion.
 - 2) Look for unwanted particles on the stop pins.
 - 3) Make sure the retaining springs are installed.

SUBTASK 52-11-00-210-005

(5) Do a visual inspection of the attach structure and hinge mechanism as follows:

- (a) Examine the fuselage hinge torque tube.
 - 1) Look for cracks and corrosion.

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- 2) Look for too much wear.
- (b) Examine the hinge arms.
 - 1) Look for cracks and corrosion.
 - 2) Look for too much wear.
- (c) Examine the hinge arm fasteners.
 - 1) Make sure the bolts fully engage the nuts.
 - 2) Make sure the bolt threads are not damaged.
- (d) Examine the hinge pins.
 - 1) Look for cracks and corrosion.
 - 2) Look for too much wear.
- (e) Examine the door hinge torque tube.
 - 1) Look for cracks and corrosion.
 - 2) Look for too much wear.

NOTE: The nuts and bolts that connect the sleeves to the torque tube may appear loose, because they are not tightened to a clamp up pressure. A small gap between the washer and the sleeve is acceptable.

- (f) Examine the guide arm and roller.
 - 1) Look for cracks and corrosion.
 - 2) Look for too much wear.
- (g) Examine the guide plates.
 - 1) Look for cracks and corrosion.
 - 2) Look for too much wear.
- (h) Examine the guide plate drain holes.
 - 1) Look for blockage.
- (i) Examine the snubber.
 - 1) Look for leakage.
 - 2) Look for too much wear.

SUBTASK 52-11-00-210-006

- (6) Do a visual inspection of the structure around the door opening as follows:
 - (a) Examine the fuselage stop fittings and stop pads.
 - 1) Look for cracks and corrosion.
 - 2) Look for unwanted particles on the stop fittings.
 - (b) Examine the latch receivers.
 - 1) Look for cracks and corrosion.
 - 2) Look for too much wear.
 - 3) Look for unwanted particles in the latch receivers.
 - (c) Examine the fuselage frame.
 - 1) Look for cracks and corrosion.
 - 2) Look for loose and missing fasteners.

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G. Put the Airplane Back to Its Usual Condition

SUBTASK 52-11-00-410-011

(1) Install these access panels as necessary:

Number	Name/Location
831AZ	Forward Entry Door - Torque Tube Access
831BZ	Forward Entry Door - Handle Box and Cam for Handle Box Access
831CZ	Forward Entry Door - Handle Box Access
831DZ	Forward Entry Door - Gate Hinge Pin Access
831EZ	Forward Entry Door - Gate Hinge Pin Access

SUBTASK 52-11-00-210-008

(2) Do this task: Forward Entry Door Lining Installation, TASK 52-11-31-400-802.

SUBTASK 52-11-00-860-003

(3) Close and latch the door.

SUBTASK 52-11-00-940-003

(4) Remove the stand, COM-1523.

————— END OF TASK —————

TASK 52-11-00-200-802

3. Forward Entry Door Centering Guide Check

A. General

(1) This procedure is a scheduled maintenance task.

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1523	Stand - Work, (B9) General Purpose, Working Height 4-21 Feet (Part #: B-9, Supplier: 05060, A/P Effectivity: 737-ALL)

C. Location Zones

Zone	Area
831	Forward Entry Door

D. Prepare for the Inspection

SUBTASK 52-11-00-860-006

(1) Make sure the door is safe as follows:

(a) Make sure the door is closed and latched.

WARNING: MAKE SURE THE GIRT BAR IS NOT ENGAGED IN THE FLOOR-MOUNTED ESCAPE SLIDE BRACKETS. IF THE GIRT BAR IS ENGAGED IN THE BRACKETS, THE ESCAPE SYSTEM CAN DEPLOY WHEN YOU OPEN THE DOOR. THIS CAN CAUSE INJURIES TO PERSONS AND DAMAGE TO EQUIPMENT.

(b) Make sure the girt bar is not engaged in the floor-mounted escape slide brackets.

(c) Make sure a stand, COM-1523 is installed outboard of the door.

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SUBTASK 52-11-00-010-012

- (2) Open the door.

E. Inspection

SUBTASK 52-11-00-210-009

- (1) Do a visual inspection of the centering guide as follows (Figure 601):
 - (a) Examine the guide track.
 - 1) Look for cracks and corrosion.
 - 2) Make sure the nylon track pads are not worn.
 - 3) Look for loose and missing fasteners.
 - (b) Examine the guide ball.
 - 1) Make sure the guide ball is round and symmetrical.
 - 2) Make sure the ball is not loose.

F. Put the Airplane Back to Its Usual Condition

SUBTASK 52-11-00-860-007

- (1) Close and latch the door.

SUBTASK 52-11-00-940-004

- (2) Remove the stand, COM-1523.

————— **END OF TASK** —————

TASK 52-11-00-200-803

4. Forward Entry Door Pressure Seal Check

A. General

- (1) This procedure is a scheduled maintenance task.

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1523	Stand - Work, (B9) General Purpose, Working Height 4-21 Feet (Part #: B-9, Supplier: 05060, A/P Effectivity: 737-ALL)

C. Location Zones

Zone	Area
831	Forward Entry Door

D. Prepare for the Inspection

SUBTASK 52-11-00-860-008

- (1) Make sure the door is safe as follows:
 - (a) Make sure the door is closed and latched.

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WARNING: MAKE SURE THE GIRT BAR IS NOT ENGAGED IN THE FLOOR-MOUNTED ESCAPE SLIDE BRACKETS. IF THE GIRT BAR IS ENGAGED IN THE BRACKETS, THE ESCAPE SYSTEM CAN DEPLOY WHEN YOU OPEN THE DOOR. THIS CAN CAUSE INJURIES TO PERSONS AND DAMAGE TO EQUIPMENT.

- (b) Make sure the girt bar is not engaged in the floor-mounted escape slide brackets.
- (c) Make sure a stand, COM-1523 is installed outboard of the door.

SUBTASK 52-11-00-010-013

- (2) Open the door.

E. Inspection

SUBTASK 52-11-00-210-010

- (1) Do a visual inspection of the door pressure seal as follows (Figure 603):
 - (a) Examine the seal.
 - 1) Look for cracks, holes, and tears.
 - 2) Look for indications of seal deterioration.
 - 3) Make sure the seal is installed in the seal retainer.

F. Put the Airplane Back to Its Usual Condition

SUBTASK 52-11-00-860-009

- (1) Close and latch the door.

SUBTASK 52-11-00-940-005

- (2) Remove the stand, COM-1523.

————— END OF TASK —————

TASK 52-11-00-200-804

5. Forward Entry Door Flapper Seal Check

(Figure 602)

A. General

- (1) This procedure is a scheduled maintenance task.

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1523	Stand - Work, (B9) General Purpose, Working Height 4-21 Feet (Part #: B-9, Supplier: 05060, A/P Effectivity: 737-ALL)

C. Location Zones

Zone	Area
831	Forward Entry Door

D. Prepare for the Inspection

SUBTASK 52-11-00-860-010

- (1) Make sure the door is safe as follows:
 - (a) Make sure the door is closed and latched.

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WARNING: MAKE SURE THE GIRT BAR IS NOT ENGAGED IN THE FLOOR-MOUNTED ESCAPE SLIDE BRACKETS. IF THE GIRT BAR IS ENGAGED IN THE BRACKETS, THE ESCAPE SYSTEM CAN DEPLOY WHEN YOU OPEN THE DOOR. THIS CAN CAUSE INJURIES TO PERSONS AND DAMAGE TO EQUIPMENT.

- (b) Make sure the girt bar is not engaged in the floor-mounted escape slide brackets.
- (c) Make sure a stand, COM-1523 is installed outboard of the door.

SUBTASK 52-11-00-010-014

- (2) Open the door.

E. Inspection

SUBTASK 52-11-00-210-011

- (1) Do a visual inspection of the door flapper seal as follows:
 - (a) Examine the seals.
 - 1) Look for cracks, holes, and tears.
 - 2) Look for indications of seal deterioration.

F. Put the Airplane Back to Its Usual Condition

SUBTASK 52-11-00-860-011

- (1) Close and latch the door.

SUBTASK 52-11-00-940-006

- (2) Remove the stand, COM-1523.

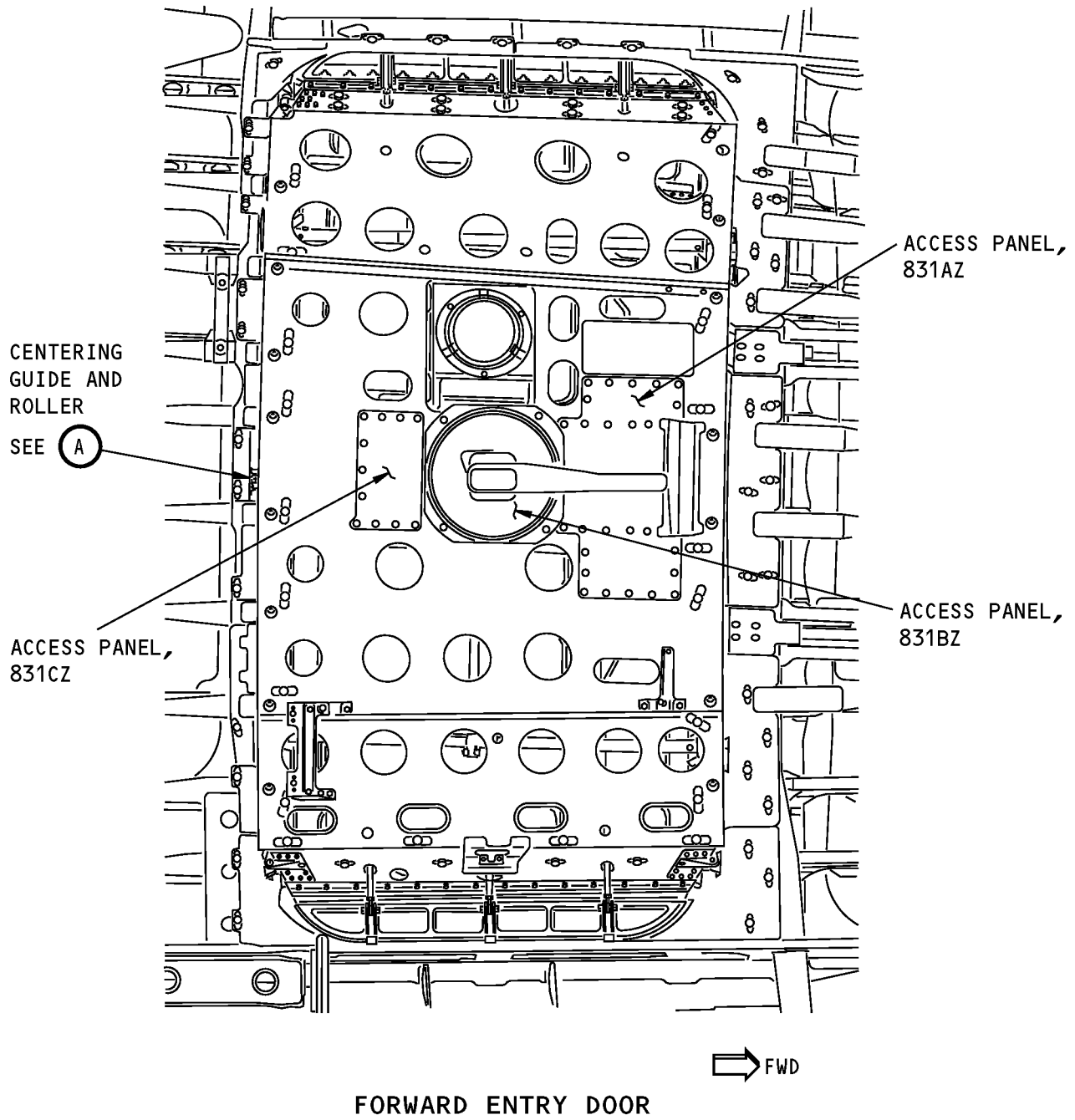
————— END OF TASK —————

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**Guide Ball Inspection/Check
Figure 601 (Sheet 1 of 2)/52-11-00-990-831**

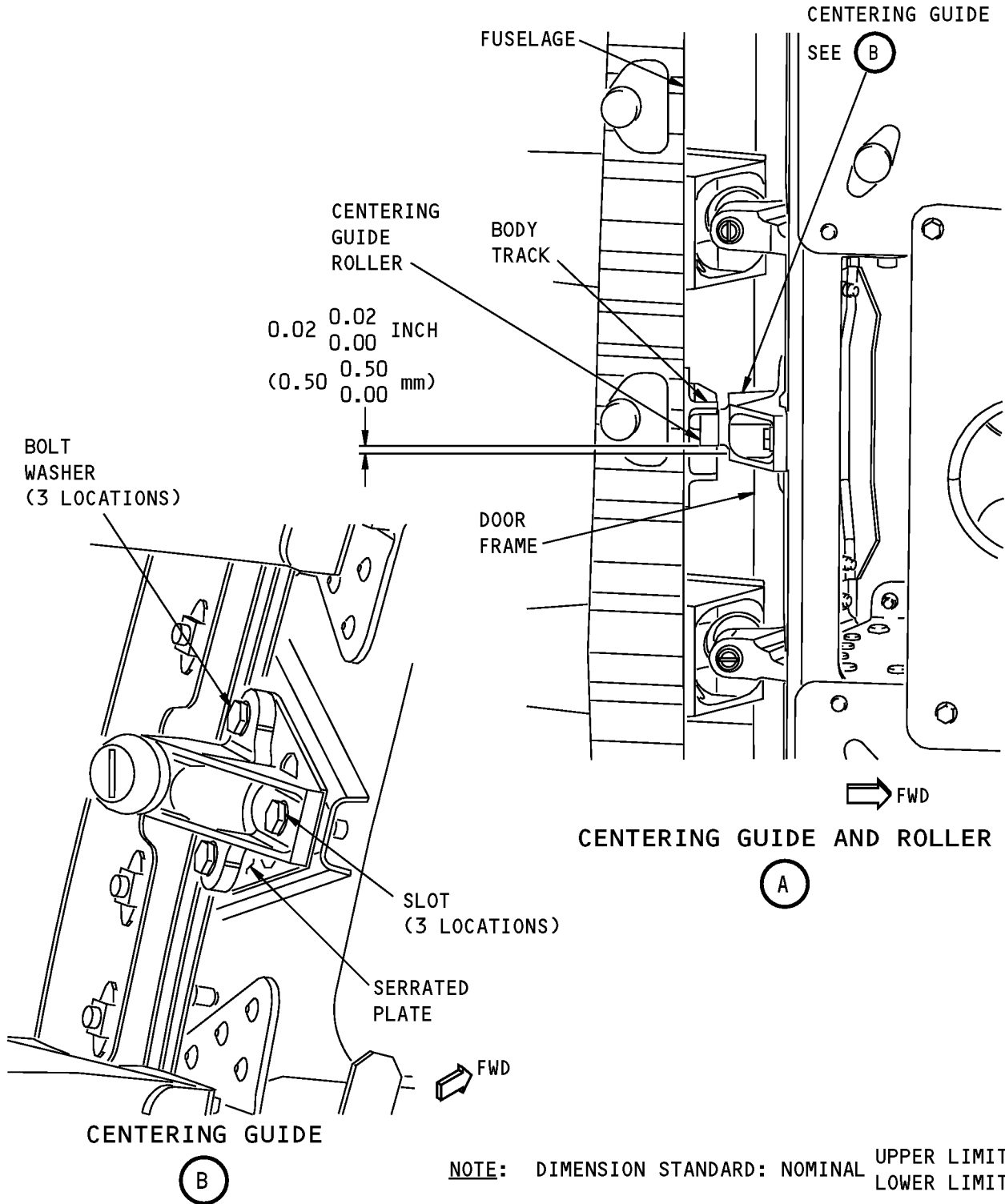
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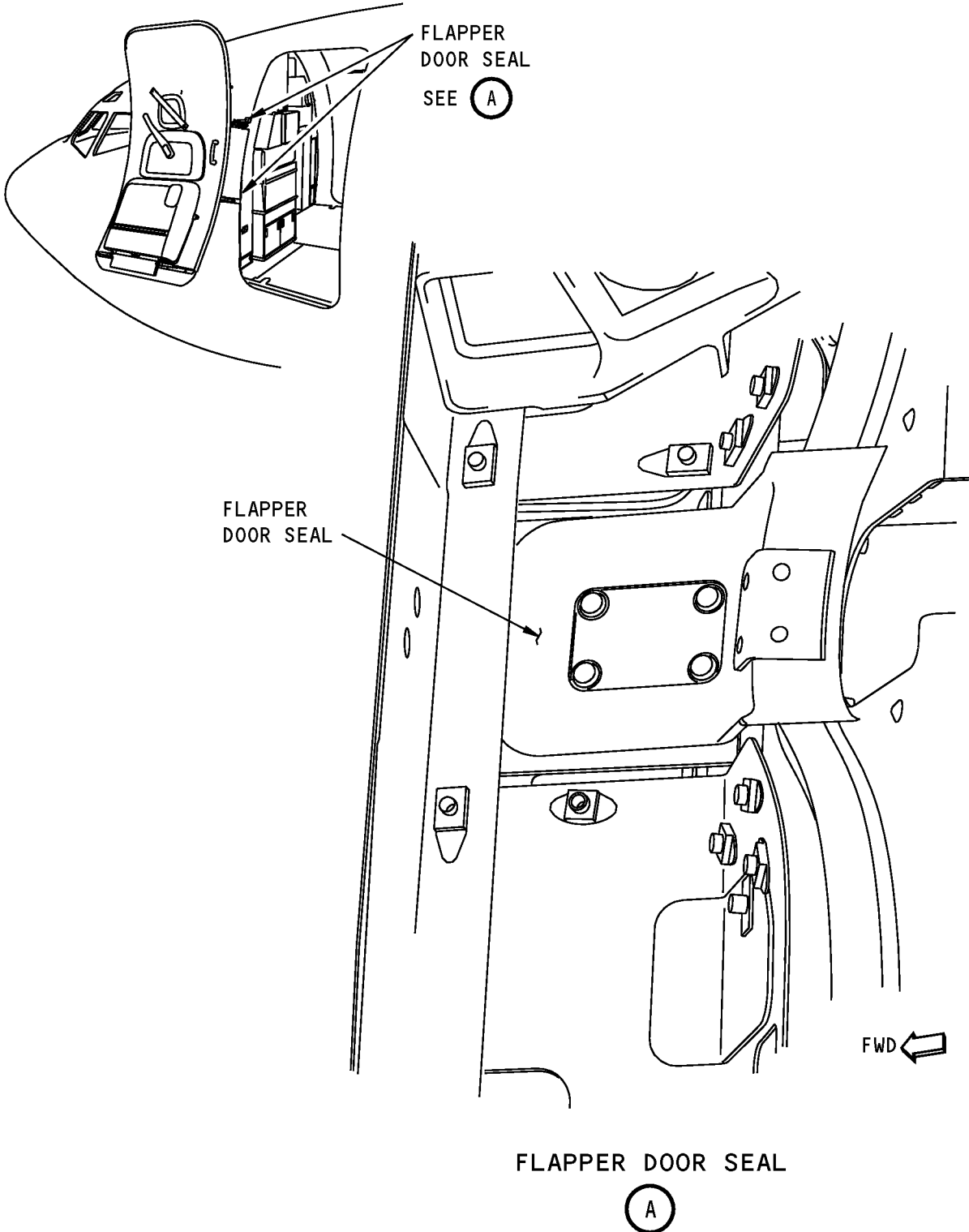
**Guide Ball Inspection/Check
Figure 601 (Sheet 2 of 2)/52-11-00-990-831**

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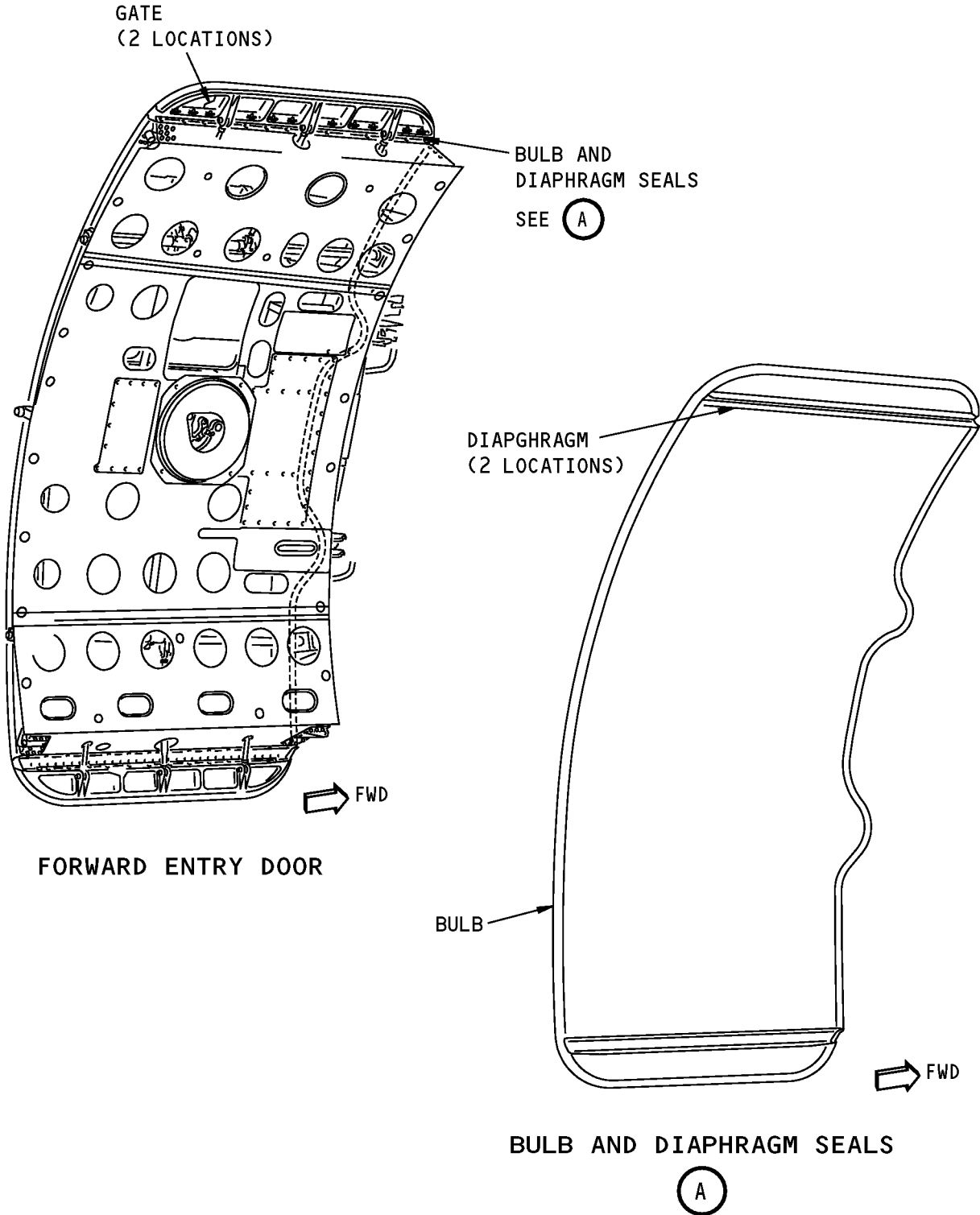
Flapper Door Seal Inspection
Figure 602/52-11-00-990-833

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Forward Entry Door Inspection/Check
Figure 603/52-11-00-990-832

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FORWARD ENTRY DOOR - REPAIRS

1. General

A. This procedure has this task:

- (1) A repair of an unsatisfactory hole for the latch pin in the top guide plate.
- (2) The repair installs a stainless steel bushing to make the hole the correct dimension.

TASK 52-11-00-350-801

2. Top Guide Plate Latch Pin Hole Repair

(Figure 801)

A. References

Reference	Title
51-21-99-300-802	Decorative Exterior Paint System Repair (P/B 701)

B. Consumable Materials

Reference	Description	Specification
G50005	Sheet - Stainless Steel	

C. Location Zones

Zone	Area
831	Forward Entry Door

D. Procedure

SUBTASK 52-11-00-020-016

- (1) Get access to the latch pin hole in the top guide plate:
 - (a) Remove the bolts that hold the top guide plate.
 - (b) Move the top guide plate to get access to the hole for the latch pin.

SUBTASK 52-11-00-220-002

- (2) Measure the latch pin hole.
 - (a) The latch pin hole is satisfactory if the diameter is less than 0.4078 inch (10.358 mm).
NOTE: If the latch pin hole is satisfactory, do not do the remaining steps in this task.
 - (b) Repair the latch pin hole if the diameter is more than 0.4078 inch (10.358mm).

SUBTASK 52-11-00-350-001

- (3) Make a spot face at the latch pin hole:
 - (a) Use a tool to make a spot face with a diameter of 0.593 inch (15.0622 mm).
 - (b) Make the depth of the spotface 0.20 inch (5.0 mm).

SUBTASK 52-11-00-350-002

- (4) Make a bushing:
 - (a) Use the piece of stainless steel sheet, G50005 to make a bushing that is approximately 0.20 inch (5.0 mm) thick with diameter of approximately 0.60 inch (15.24 mm).
 - (b) Make the thickness of the bushing the same as the depth of the spotface.
 - (c) Make the inner diameter of the bushing 0.3438-0.3478 inch (8.732-8.834 mm).
 - (d) Make the outer diameter of the bushing is larger than the outer diameter of the spot face by 0.0010-0.0015 inch (0.025-0.038 mm).

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- (e) Heat treat the bushing.
 - 1) Increase the temperature of the bushing to 900 degrees F° (482 degrees C°) for one hour.
 - 2) Let the temperature of the bushing decrease in the air.

SUBTASK 52-11-00-420-012

- (5) Install the bushing in the top guide plate.
 - (a) Put the bushing in the spot face.
 - (b) Apply paint to the area of the repair, do this task: Decorative Exterior Paint System Repair, TASK 51-21-99-300-802.

SUBTASK 52-11-00-420-013

- (6) Install the top guide plate.
 - (a) Move the top guide plate to align the holes for the bolts.
 - (b) Install the bolts in the top guide plate.

————— **END OF TASK** —————

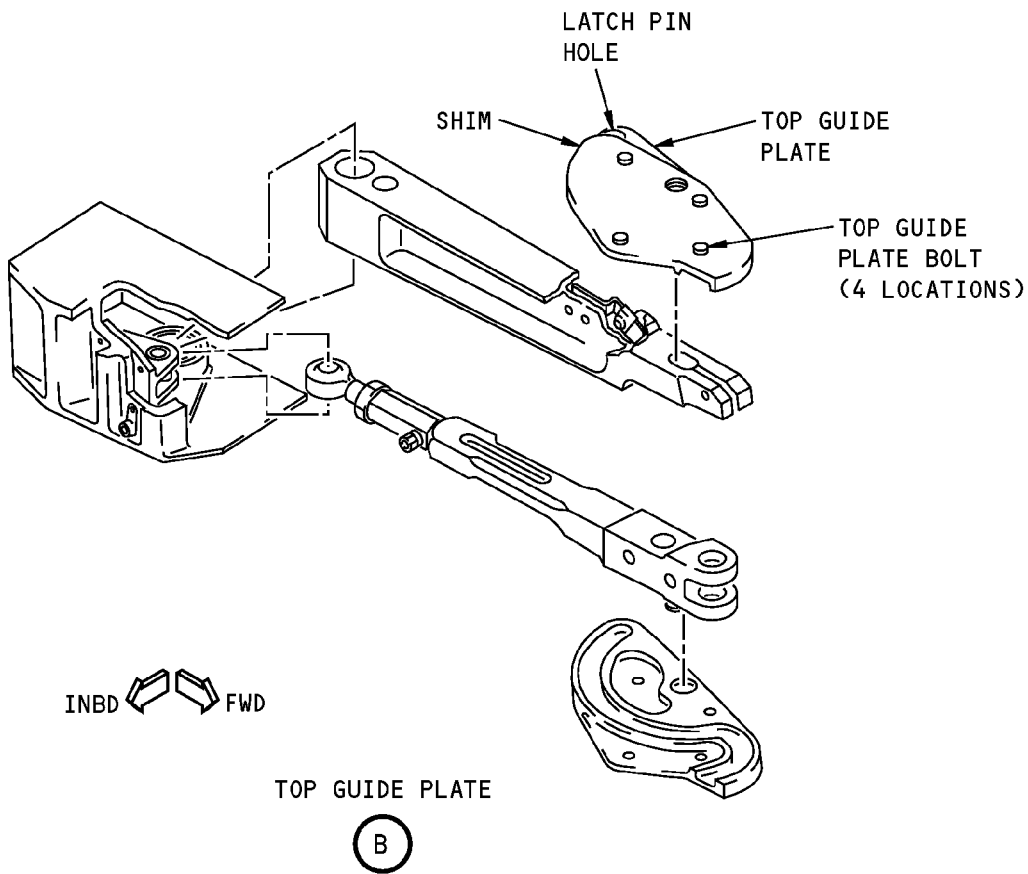
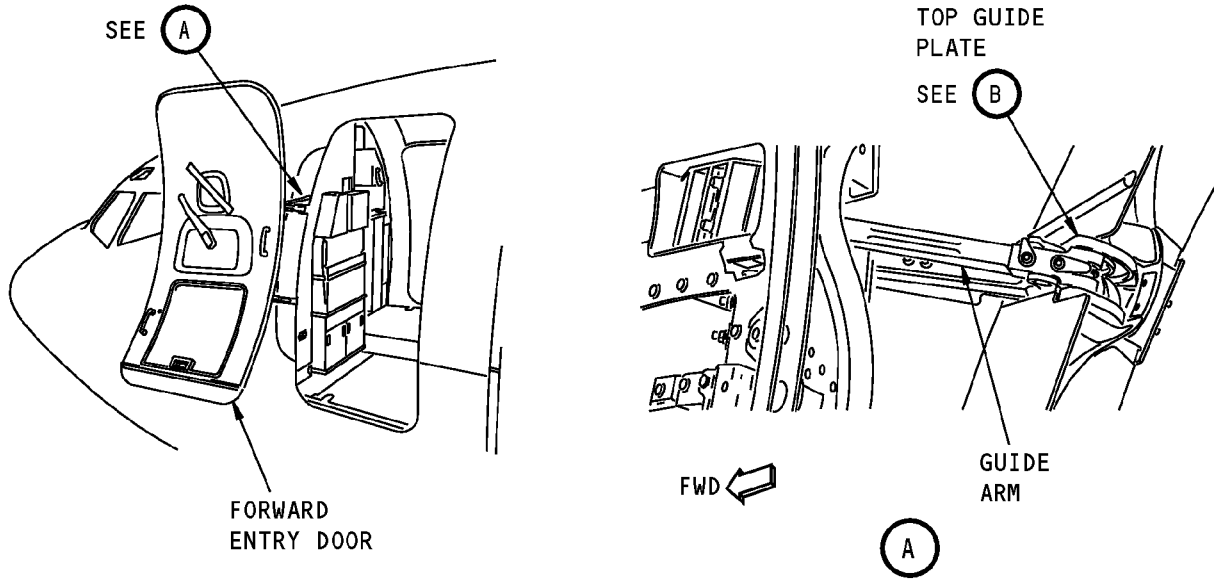
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**Repair of the Latch Pin Hole In the Top Guide Plate
Figure 801/52-11-00-990-818**

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FORWARD ENTRY DOOR STOP BEARING PLATES - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

- (1) Stop Bearing Plate - Removal.
- (2) Stop Bearing Plate - Installation.

TASK 52-11-01-000-801

2. Stop Bearing Plate - Removal

A. References

Reference	Title
52-11-00 P/B 201	FORWARD ENTRY DOOR - MAINTENANCE PRACTICES

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1523	Stand - Work, (B9) General Purpose, Working Height 4-21 Feet (Part #: B-9, Supplier: 05060, A/P Effectivity: 737-ALL)
STD-291	Drift - Light Weight, Metal or Plastic
STD-1242	Hammer - Standard

C. Consumable Materials

Reference	Description	Specification
B00083	Solvent - Aliphatic Naphtha (For Acrylic Plastics)	TT-N-95 Type II, ASTM D-3735 Type III
G00034	Cotton Wiper - Process Cleaning Absorbent Wiper (Cheesecloth, Gauze)	BMS15-5

D. Location Zones

Zone	Area
831	Forward Entry Door

E. Prepare for the Removal

SUBTASK 52-11-01-860-001

- (1) Install the stand, COM-1523 outboard of the door.
- (2) Open the forward entry door FORWARD ENTRY DOOR - MAINTENANCE PRACTICES, PAGEBLOCK 52-11-00/201

F. Procedure

SUBTASK 52-11-01-020-001

- (1) A. If necessary, use a standard hammer, STD-1242 and a non-metallic light weight, metal or plastic drift, STD-291 to remove the stop bearing plate.
- (2) Clean the mounting hole with a clean cotton wiper, G00034 that is moist with solvent, B00083.

NOTE: Clean surfaces are necessary to make a good bond.

END OF TASK

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TASK 52-11-01-400-801

3. Stop Bearing Plate - Installation

A. References

Reference	Title
52-11-00 P/B 201	FORWARD ENTRY DOOR - MAINTENANCE PRACTICES

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1523	Stand - Work, (B9) General Purpose, Working Height 4-21 Feet (Part #: B-9, Supplier: 05060, A/P Effectivity: 737-ALL)
STD-1242	Hammer - Standard

C. Consumable Materials

Reference	Description	Specification
A00551	Sealant - Fuel Tank	BAC5010, Type 44 (BMS5-44, BMS5-45)
B00083	Solvent - Aliphatic Naphtha (For Acrylic Plastics)	TT-N-95 Type II, ASTM D-3735 Type III
G00034	Cotton Wiper - Process Cleaning Absorbent Wiper (Cheesecloth, Gauze)	BMS15-5

D. Location Zones

Zone	Area
831	Forward Entry Door

E. Prepare for the installation

SUBTASK 52-11-01-420-001

- (1) Do a test of the fit of the stop bearing plate before the installation.
 - (a) Install the stop bearing plate into the mounting hole with hand pressure.
 - (b) Hand pressure installation is not permitted.
 - (c) Discard the stop bearing plate and get a new stop bearing plate.

NOTE: When hand pressure is not sufficient to install the stop bearing plate, a new stop bearing plate is not necessary.

F. Procedure

SUBTASK 52-11-01-420-002

- (1) Install the stop bearing plate.
 - (a) Apply a layer of adhesive sealant, A00551 to the stop bearing plate and to the mounting hole.
 - (b) Install the stop bearing plate with a pneumatic rivet gun with a brass set.

NOTE: If the pneumatic rivet gun is not available, use a standard hammer, STD-1242 and a non-metallic drift to install the stop bearing plate.

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- (c) Use a clean cotton wiper, G00034 that is moist with solvent, B00083 to remove the unwanted adhesive sealant, A00551 from the stop bearing plate before it dries.

G. Put the airplane back to its usual condition

SUBTASK 52-11-01-940-001

- (1) Close the forward entry door FORWARD ENTRY DOOR - MAINTENANCE PRACTICES, PAGEBLOCK 52-11-00/201.
- (2) Remove the stand, COM-1523.

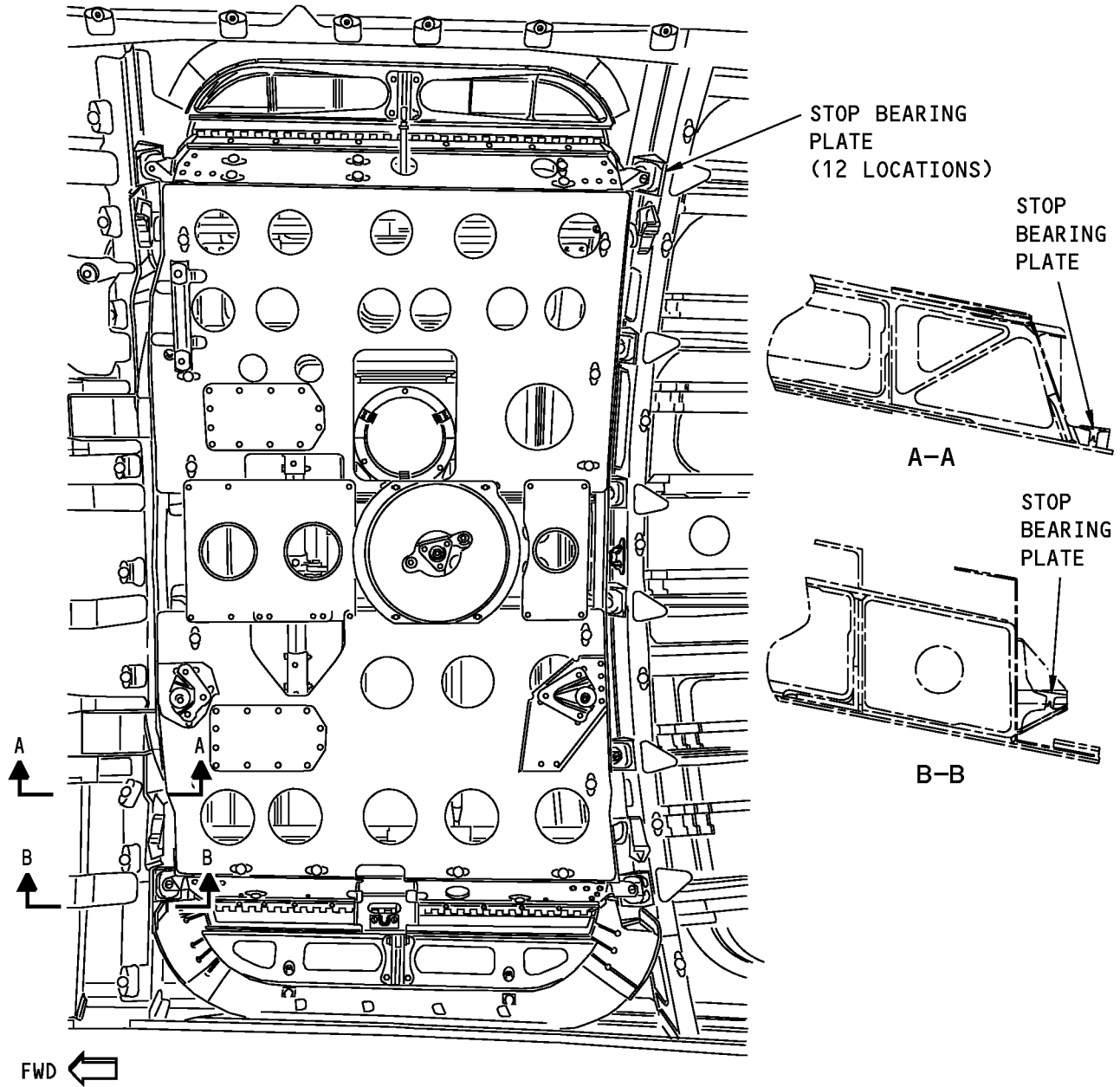
————— END OF TASK —————

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FORWARD ENTRY DOOR STOP BEARING PLATE-REMOVAL/INSTALLATION

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DOOR STOP BEARING PLATE - REMOVAL/INSTALLATION
Figure 401/52-11-01-990-801

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FORWARD ENTRY DOOR HINGE ARM - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

- (1) A removal of the forward entry door hinge arm.
- (2) An installation of the forward entry door hinge arm.

TASK 52-11-11-000-802

2. Forward Entry Door Hinge Arm Removal

(Figure 401)

A. References

Reference	Title
52-11-00-000-802	Forward Entry Door Removal (P/B 401)

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1523	Stand - Work, (B9) General Purpose, Working Height 4-21 Feet (Part #: B-9, Supplier: 05060, A/P Effectivity: 737-ALL)

C. Location Zones

Zone	Area
831	Forward Entry Door

D. Access Panels

Number	Name/Location
831AZ	Forward Entry Door - Torque Tube Access
831CZ	Forward Entry Door - Handle Box Access

E. Prepare for the Removal

SUBTASK 52-11-11-860-001

- (1) Make sure the door is safe as follows:
 - (a) Make sure the door is closed and latched.

WARNING: MAKE SURE THE GIRT BAR IS NOT ENGAGED IN THE FLOOR-MOUNTED ESCAPE SLIDE BRACKETS. IF THE GIRT BAR IS ENGAGED IN THE BRACKETS, THE ESCAPE SYSTEM CAN DEPLOY WHEN YOU OPEN THE DOOR. THIS CAN CAUSE INJURIES TO PERSONS OR DAMAGE TO EQUIPMENT.

- (b) Make sure the girt bar is not engaged in the floor-mounted escape slide brackets.
- (c) Install the stand, COM-1523 outboard of the door.

SUBTASK 52-11-11-010-004

- (2) Do this task: Forward Entry Door Removal, TASK 52-11-00-000-802.

SUBTASK 52-11-11-410-003

- (3) Get access to the door [1]:
 - (a) Remove the assist handle bracket [3] to the door [1].

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- (b) Remove this access panel:

<u>Number</u>	<u>Name/Location</u>
831AZ	Forward Entry Door - Torque Tube Access

- (c) Remove this access panel:

<u>Number</u>	<u>Name/Location</u>
831CZ	Forward Entry Door - Handle Box Access

F. Forward Entry Door Hinge Arm Removal

SUBTASK 52-11-11-020-008

- (1) Remove the handle mechanism:

- (a) Remove the cover [35] on the interior handle [32] to get access to the fasteners that attach the interior handle [32] to the handle mechanism.
- (b) Remove the cotter pins [36], nuts [34], and washers [33] that attach the interior handle [32] to the hub [38].
- (c) Remove the interior handle [32].
- (d) Remove the bolts [37] from the hub [38] if they are loose.

NOTE: The bolts [37] are bonded to the hub [38] and it is not necessary to remove them if the bond is tight.

- (e) Remove the bolts [40] and washers [27] that attach the cam cover [28] to the handle box [7].
- (f) Remove the cam cover [28].
- (g) Remove the lockwire, bolts [30], and washers [29] that attach the hub [38] and shim [39] to the handle cam [26].
- (h) Remove the hub [38] and the shim [39].
- (i) Remove the cotter pin [42] from the nut [41] that holds the handle cam [26] to the handle shaft [49].
- (j) Hold the exterior handle [13] and remove the nut [41] and washer [43] that hold the handle cam [26] to the handle shaft [49].

NOTE: When you remove the nut [41], the exterior handle [13] and part of the handle mechanism will be loose on the outer side of the door.

- (k) Remove the handle cam [26].
- (l) From the outer side of the door, remove the exterior handle [13], sleeve [47], handle shaft [49], and centering cam [46] as an assembly.
- (m) If it is necessary, disassemble these parts further as follows:
 - 1) Remove the bolts [12], washers [48], and nuts [45] that attach the exterior handle [13] to the centering cam [46] through the sleeve [47].
 - 2) Remove the exterior handle [13].
 - 3) Remove the centering cam [46].
 - 4) Remove the handle shaft [49] from the sleeve [47].
 - 5) Remove the spring pin [11] from the washer [14] and pin [52].
 - 6) Remove the washer [14] from the end of the pin [52].
 - 7) Remove the lock ring [50] from the handle shaft [49].
 - 8) Remove the nut [53] from the end of the handle shaft [49].

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- 9) Remove the spring [51] and pin [52] from the handle shaft [49].
- (n) Remove the bolts [17] and washers [15] that attach the handle pan [16], seal plate [19], and handle housing [23] to the handle box [7].
- (o) Remove the handle pan [16] and seal plate [19] from the external side of the door [1].
- (p) Remove the the seal plate [19] from the handle pan [16] and the packing [21] from the seal plate [19].
- (q) Remove the handle housing [23] from the handle box [7] and the packing [20] from the handle housing [23].
- (r) If it is necessary, remove the bearing [24] from the handle box [7]:
 - 1) Remove the retaining ring [25] that holds the bearing [24] in the handle box [7].
 - 2) Remove the bearing [24] from the handle box [7].

SUBTASK 52-11-11-020-009

- (2) Remove the upper and lower latch control rods [18]:
 - (a) Remove the bolts [60] and washers [61] that connect the latch control rods [18] to the handle mechanism in the handle box [7].
 - (b) Remove the bolts [54], washers [55], nuts [56], and cotter pins [57] that connect the latch control rods [18] to the upper and lower latch torque tubes [58].
 - (c) Remove the latch control rods [18] from the handle box [7] and door [1] to make clearance for the handle box [7] removal.

SUBTASK 52-11-11-020-010

- (3) Disconnect the door hinge torque tube [59]:
 - (a) Remove the bolts [72], washers [70], and nuts [69] that go through the upper and lower sleeves [71] on the door hinge torque tube [59].
 - (b) Move the sleeves [71] toward the center of the door hinge torque tube [59] to make clearance to remove the the door hinge torque tube [59] and handle box [7] at the same time.

SUBTASK 52-11-11-020-011

- (4) Remove the handle box [7] and door hinge torque tube [59]:
 - (a) Remove the bolts [68] and washers [67] that attach the upper and lower splice angles [66] to the beams.
 - (b) Remove the upper and lower splice angles [66] from the beams to get access to the door hinge torque tube [59].
 - (c) Remove the bolts [63], washers [64], bolts [65], and washers [64] that attach the top and bottom of the handle box [7] to the beam.
 - (d) Carefully remove the handle box [7] and door hinge torque tube [59] from the door structure.
 - (e) If the laminated shims [62] between the top of the handle box [7] and beam are loose, remove them.

SUBTASK 52-11-11-020-012

- (5) Remove the hinge arm [2] from the hinge support:

NOTE: Do this step for each hinge arm.

- (a) Loosen the bolts [74] and washers [75] that hold the hinge pin [76] in the hinge arm [2].
- (b) Remove hinge clip [78].

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- (c) Remove the hinge pin [76] from the hinge arm [2].
- (d) Remove the packing [73] from the hinge pin [76].
- (e) Remove the hinge arm [2].

————— END OF TASK —————

TASK 52-11-11-400-802

3. Forward Entry Door Hinge Arm Installation

(Figure 401)

A. References

Reference	Title
52-11-00-400-802	Forward Entry Door Installation (P/B 401)

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1523	Stand - Work, (B9) General Purpose, Working Height 4-21 Feet (Part #: B-9, Supplier: 05060, A/P Effectivity: 737-ALL)

C. Consumable Materials

Reference	Description	Specification
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS 5-95
C00528	Compound - Corrosion Preventive, Petroleum Hot Application (Soft Film)	MIL-C-11796, Class III
D00633	Grease - Aircraft General Purpose	BMS3-33
G00440	Lockwire - Corrosion Resistant Steel (0.041 inch Dia.)	NASM20995~ C41

D. Location Zones

Zone	Area
831	Forward Entry Door

E. Access Panels

Number	Name/Location
831AZ	Forward Entry Door - Torque Tube Access
831CZ	Forward Entry Door - Handle Box Access

F. Forward Entry Door Hinge Arm Installation

SUBTASK 52-11-11-420-010

- (1) Install the hinge arm [2] in the hinge support:

NOTE: Do this step for each hinge arm.

- (a) Put the hinge arm [2] in its correct position in the hinge support.
- (b) Do a check of the packing [73] for damage or wear and replace it if necessary.
- (c) Apply grease, D00633 to the packing [73] before installation.

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- (d) Install the packing [73] on the hinge pin [76].
- (e) Apply grease, D00633 to the hinge pin [76] and the bolt [74] before installation.
- (f) Install the hinge pin [76] in the hinge arm [2].
- (g) Install the hinge clip [78], bolt [74] and washer [75] to hold the hinge pin [76] in the hinge arm [2].
- (h) Apply grease, D00633 in the opening between the hinge arm [2] and hinge pin [76] and to any openings between the hinge support and the hinge pin [76].

SUBTASK 52-11-11-420-011

- (2) Install the handle box [7] and the door hinge torque tube [59]:
 - (a) Apply sealant, A00247 to the mating surfaces between the bottom of the handle box [7] and the beam before installation.
 - (b) Carefully put the handle box [7] and the door hinge torque tube [59] in their correct position in the door structure.
 - (c) If the laminated shims [62] between the top of the handle box [7] and the beam were removed, do these steps:
 - 1) Make sure the maximum clearance between the top of the handle box [7] and the beam is 0.01 inch (0.25 mm).
 - 2) Apply sealant, A00247 to the mating surfaces between the handle box [7], laminated shims [62], and beam before installation.
 - 3) Install the laminated shims [62] between the handle box [7] and the beam.
 - (d) Apply sealant, A00247 to the mating surfaces of the bolts [63], washers [64], bolts [65], washers [64], handle box [7], and beam before installation.
 - (e) Install the bolts [63], washers [64], bolts [65], and washers [64] to attach the top and bottom of the handle box [7] to the beams.
 - (f) Put the upper and lower splice angles [66] in their correct position on the beams.
 - (g) Apply compound, C00528 to the holes for the bolts [68] before installation.
 - (h) Install the bolts [68] and washers [67] to attach the upper and lower splice angles [66] to the beams.

SUBTASK 52-11-11-420-012

- (3) Connect the door hinge torque tube [59]:
 - (a) Apply grease, D00633 to the mating surfaces of the sleeves [71], hinge pins [76], and door hinge torque tube [59] before installation.
 - (b) Put the sleeves [71] over the hinge pins [76].
 - (c) Apply compound, C00528 to the holes for the bolts [72] before installation.
 - (d) Install the bolts [72], washers [70], and nuts [69] that go through the upper and lower sleeves [71] on the door hinge torque tube [59].

SUBTASK 52-11-11-420-013

- (4) Install the upper and lower latch control rods [18]:
 - (a) Put the latch control rods [18] in their correct positions in the handle box [7] and door.
 - (b) Apply compound, C00528 to the holes for the bolts [54] [60] before installation.
 - (c) Install the bolts [54], washers [55], nuts [56], and cotter pins [57], to connect the latch control rods [18] to the upper and lower latch torque tubes [58].

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- (d) Install the bolts [60] and nuts [61] to connect the latch control rods [18] to the handle mechanism in the handle box [7].

SUBTASK 52-11-11-420-014

(5) Install the handle mechanism:

- (a) Do a check of the packings [20] [21] for damage or wear and replace them if it is necessary.
- (b) Apply grease, D00633 to the packings [20] [21] before installation.
- (c) Install the packing [21] in the seal plate [19] and the packing [20] in the handle housing [23].
- (d) Put the handle housing [23] in its correct position against the handle box [7].
- (e) Put the seal plate [19] in its correct position against the handle pan [16].
- (f) Put the handle pan [16] and seal plate [19] in position on the external side of the door [1].
- (g) Install the bolts [17], washers [15] to attach the handle pan [16], seal plate [19], and handle housing [23] to the handle box [7].
- (h) Install the exterior handle [13], handle shaft [49], sleeve [47], and centering cam [46] as an assembly.
- (i) Make sure the lubrication fitting on the sleeve [47] is in its correct position.
- (j) If it is necessary, assemble these parts before installation:
 - 1) Install the pin [52] and spring [51] in the handle shaft [49].
 - 2) Install the nut [53] in the end of the handle shaft [49].
 - 3) Install the lock ring [50] on the handle shaft [49].
 - 4) Install the washer [14] on the end of the pin [52].
 - 5) Install the spring pin [11] through the washer [14] and pin [52].
 - 6) Apply grease, D00633 to the mating surfaces of the handle shaft [49] and sleeve [47] before installation.
 - 7) Install the handle shaft [49] in the sleeve [47].
 - 8) Install the bolts [12], washers [48], and nuts [45] to attach the exterior handle [13] and sleeve [47] to the centering cam [46].
- (k) If it is necessary, install the bearing [24] and retaining ring [25] in the handle box [7]:
 - 1) Put the bearing [24] in position in the handle box [7].
 - 2) Install the retaining ring [25] to hold the bearing [24] in the handle box [7].
- (l) Apply grease, D00633 to the mating surfaces of the handle shaft [49] and the handle cam [26] before installation in the handle box [7].
- (m) Hold the exterior handle [13] in position on the exterior side of the door [1].
- (n) Install the handle shaft [49] through the handle box [7].
- (o) Install the handle cam [26] on the end of the handle shaft [49].
- (p) Install the washer [43], nut [41], and cotter pin [42] to hold the handle cam [26] to the handle shaft [49].
- (q) Put the hub [38] and shim [39] in their correct position against the handle cam [26].
- (r) Install the bolts [30] and washers [29] to attach the hub [38] and shim [39] to the handle cam [26].
- (s) Install lockwire, G00440 on the bolt [30].
- (t) Put the cam cover [28] in its correct position against the handle box [7].

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- (u) Install the bolts [40] and washers [27] to attach the cam cover [28] to the handle box [7].
- (v) Put the bolts [37] through the hub [38].
- (w) Put the interior handle [32] in its correct position against the hub [38].
- (x) Install the washers [33], nuts [34], and cotter pins [36] to attach the interior handle [32] to the hub [38].
- (y) Install the cover [35] on the interior handle [32].

SUBTASK 52-11-11-420-015

- (6) Do this task: Forward Entry Door Installation, TASK 52-11-00-400-802.

G. Put the Airplane Back to Its Usual Condition

SUBTASK 52-11-11-410-005

- (1) Install this access panel:

<u>Number</u>	<u>Name/Location</u>
831AZ	Forward Entry Door - Torque Tube Access

- (2) Install this access panel:

<u>Number</u>	<u>Name/Location</u>
831CZ	Forward Entry Door - Handle Box Access

SUBTASK 52-11-11-080-001

- (3) Remove the stand, COM-1523 from the door.

————— **END OF TASK** —————

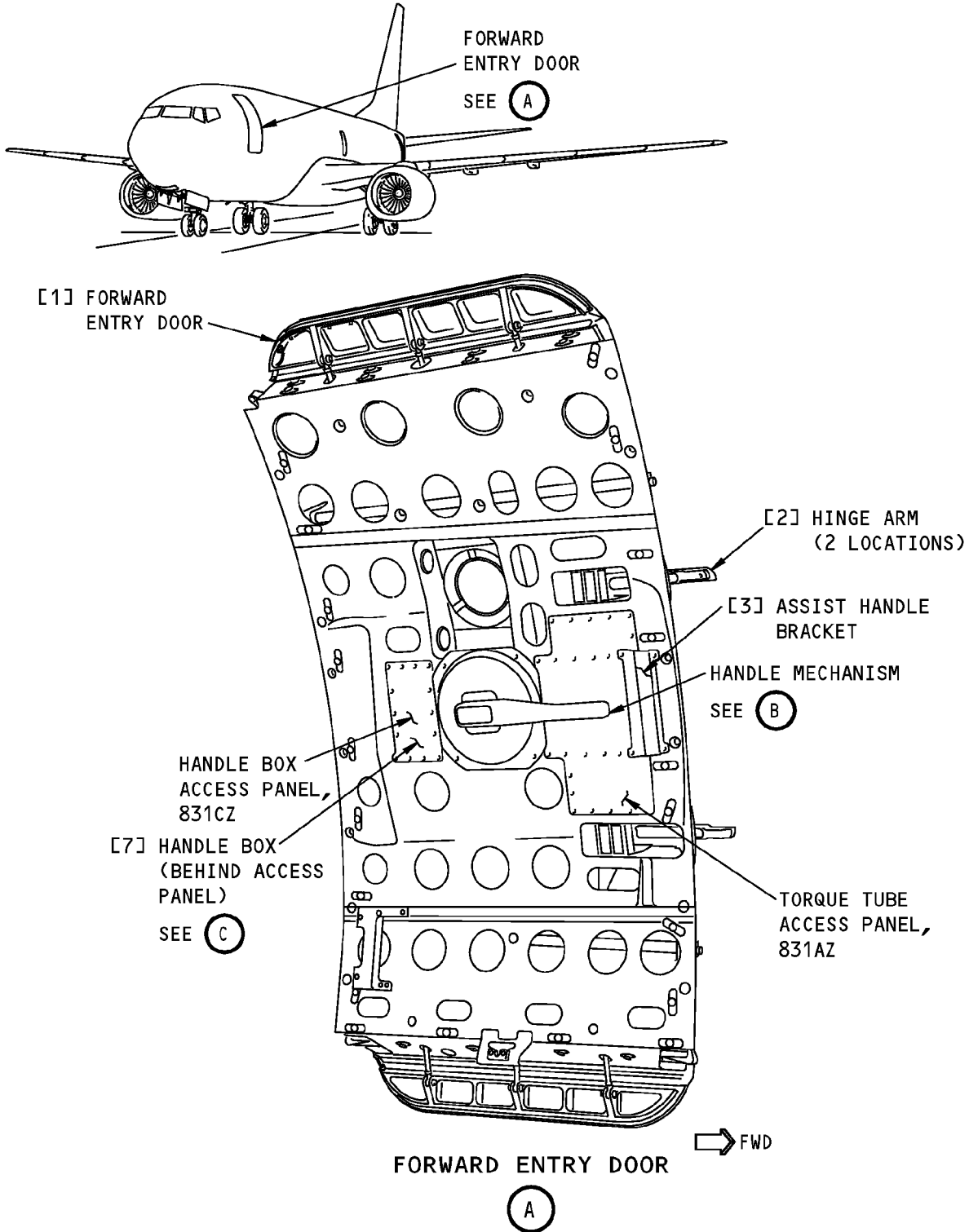
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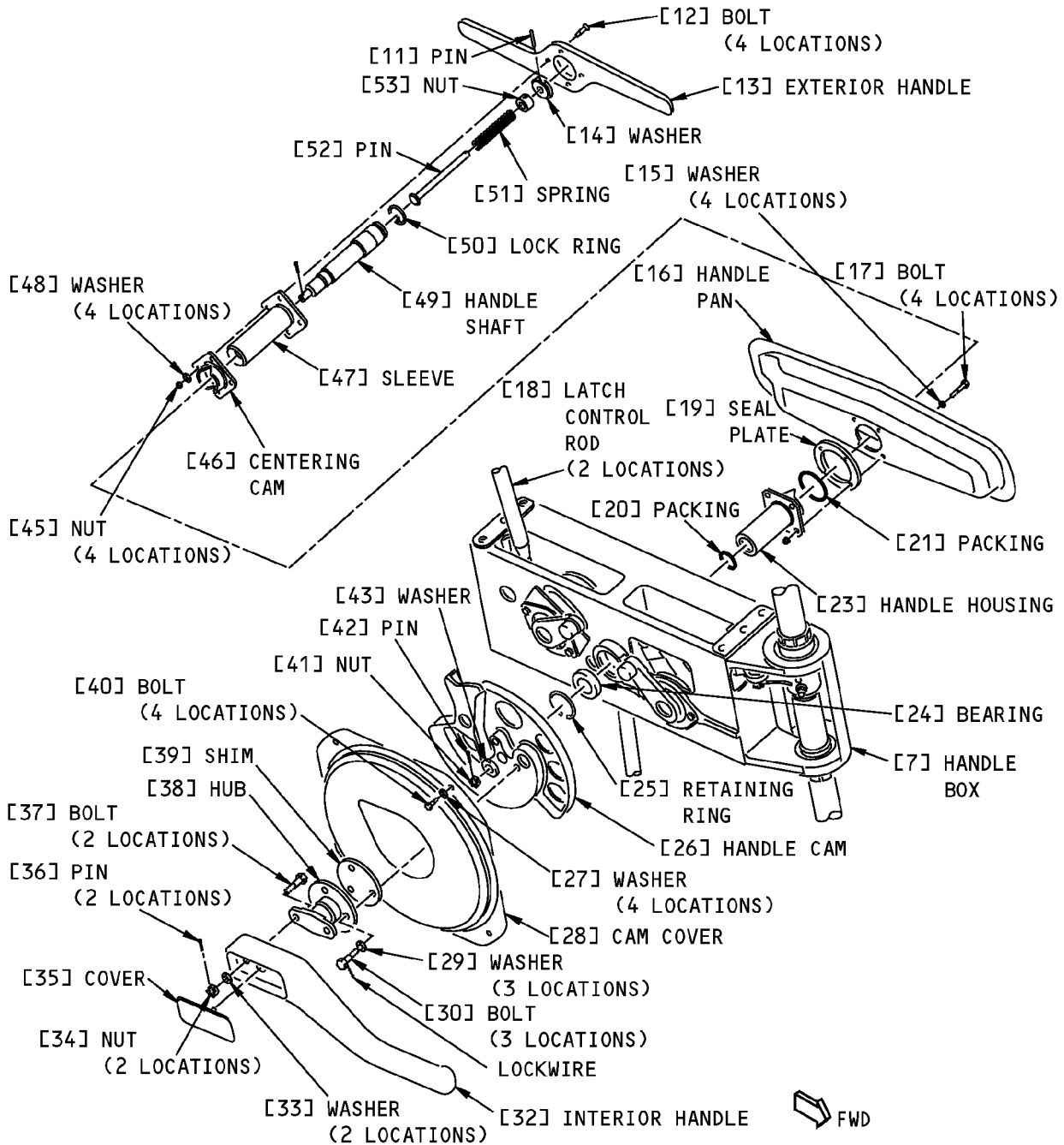


Forward Entry Door Hinge Arm Installation
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**HANDLE MECHANISM
(EXPLODED VIEW)**

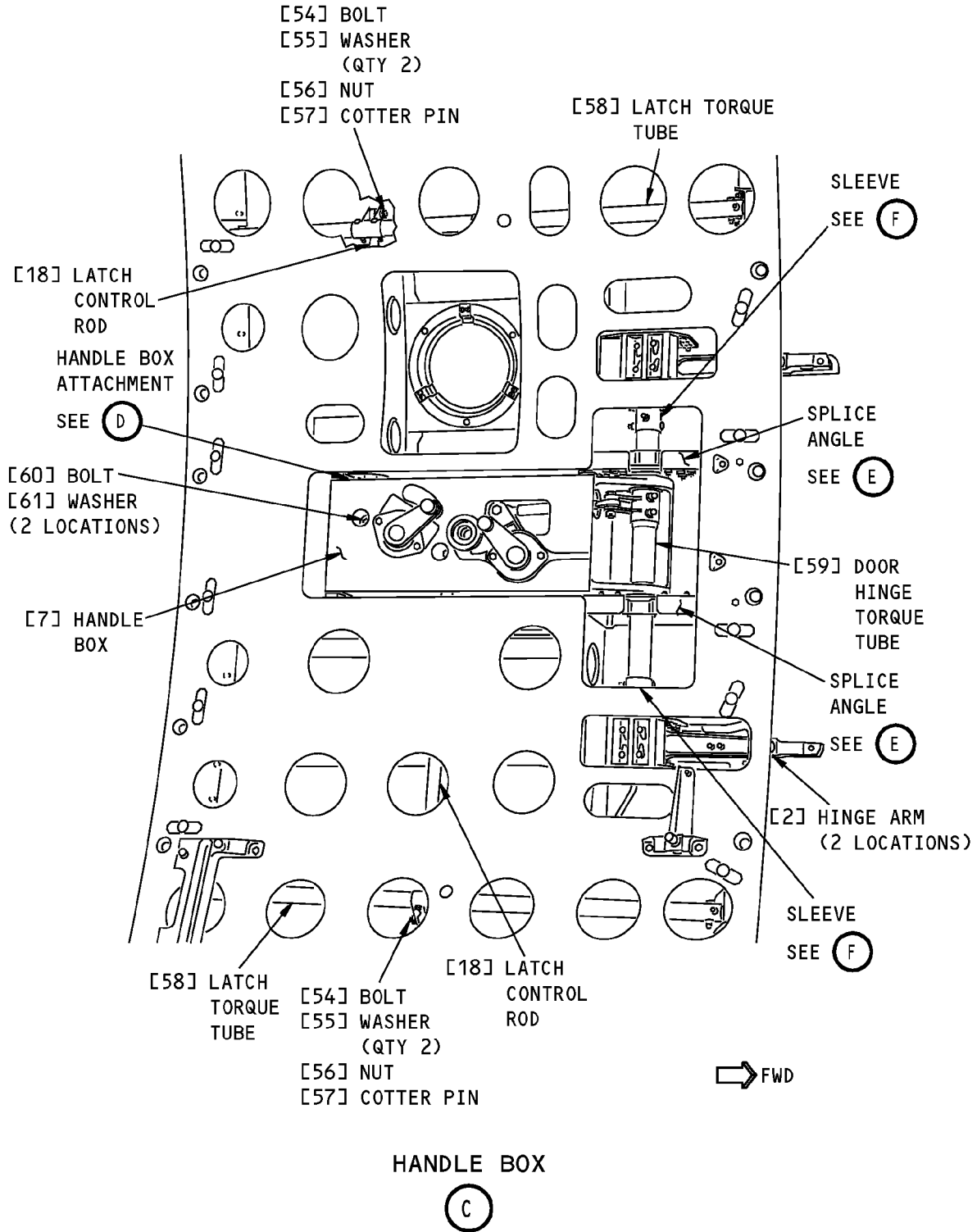
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**Forward Entry Door Hinge Arm Installation
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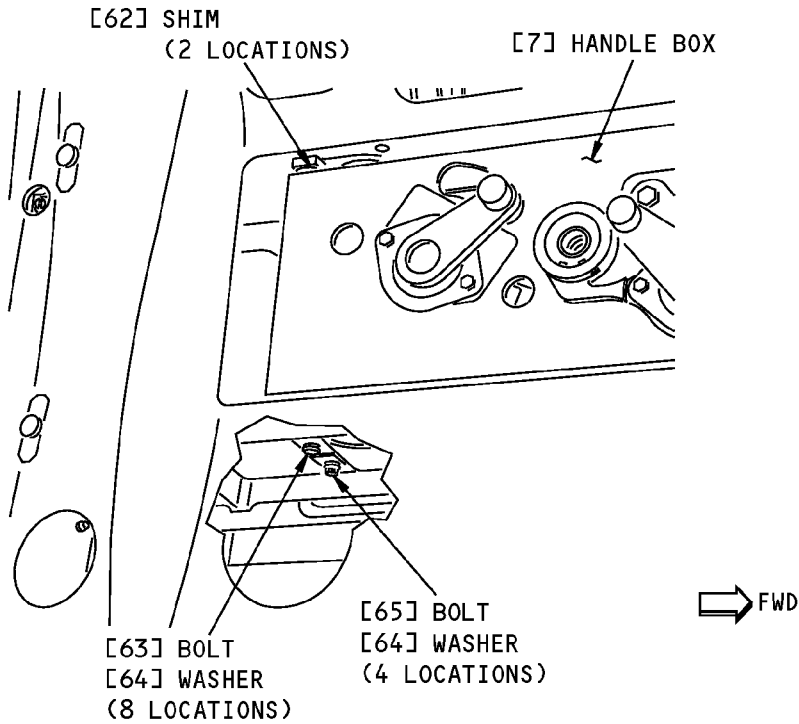
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**Forward Entry Door Hinge Arm Installation
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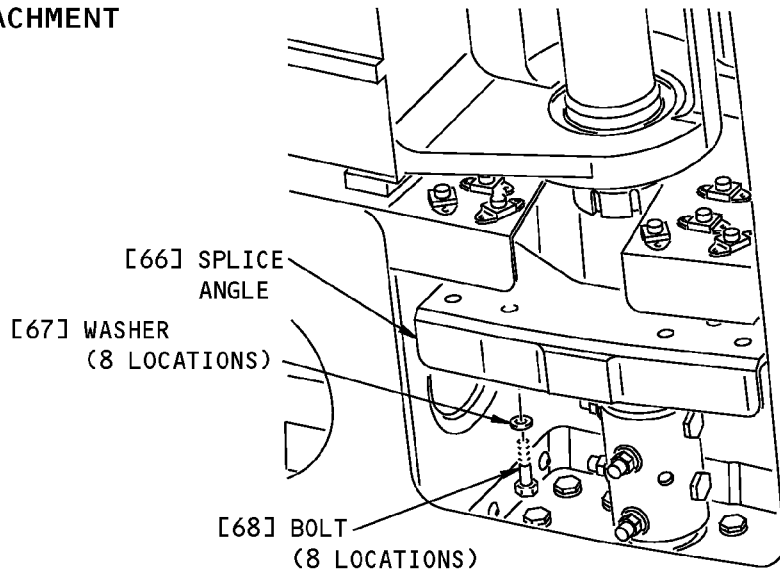
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HANDLE BOX ATTACHMENT

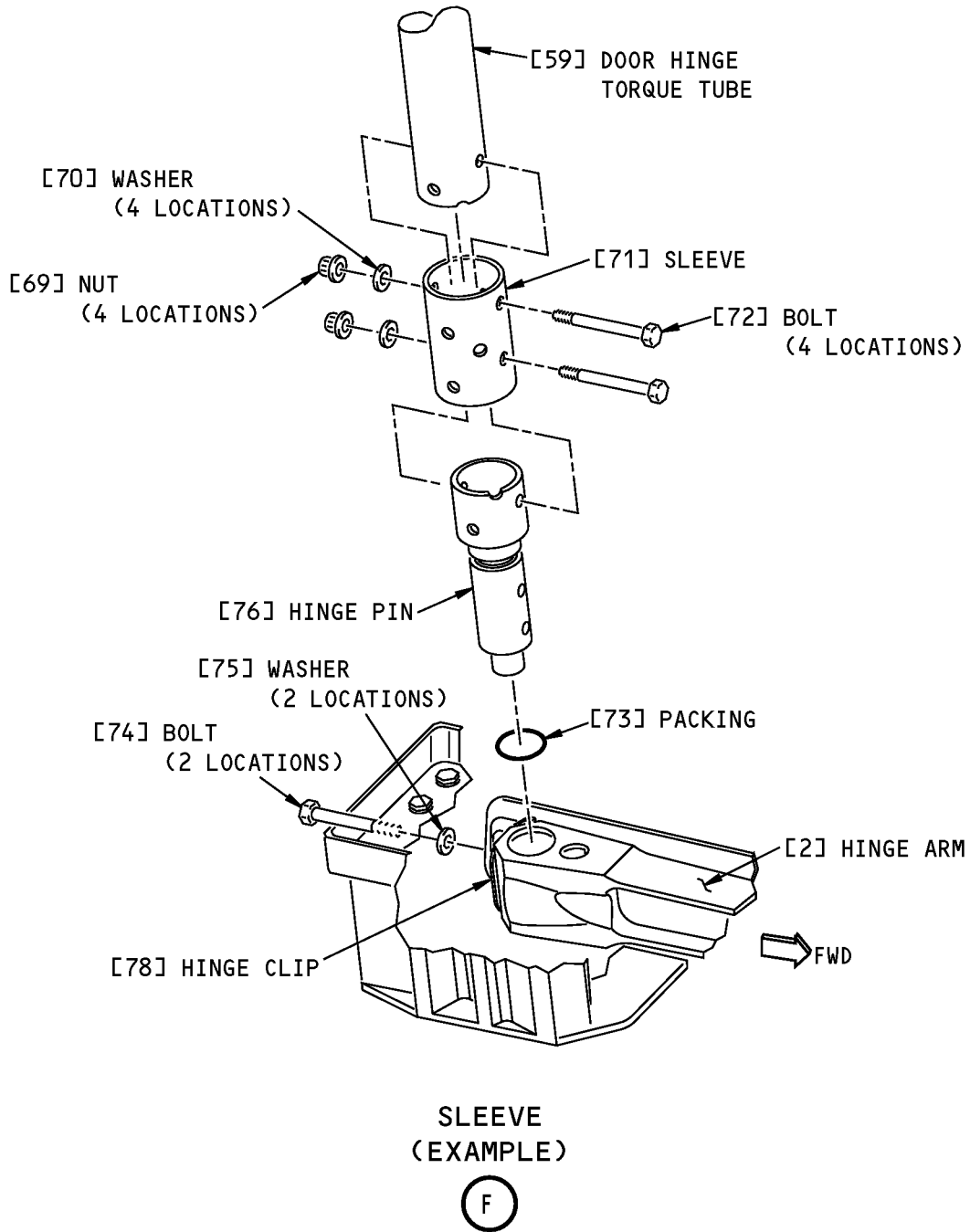
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**Forward Entry Door Hinge Arm Installation
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FORWARD ENTRY DOOR GUIDE ARM AND ROLLER - REMOVAL/INSTALLATION

1. General

- A. This procedure has these tasks:
 - (1) A removal of the forward entry door guide arm and roller.
 - (2) An installation of the forward entry door guide arm and roller.
- B. The forward entry door guide arm and roller is referred to as the guide arm and roller in this procedure.

TASK 52-11-21-000-802

2. Forward Entry Door Guide Arm and Roller Removal

(Figure 401)

A. References

Reference	Title
52-11-31-000-802	Forward Entry Door Lining Removal (P/B 401)

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1523	Stand - Work, (B9) General Purpose, Working Height 4-21 Feet (Part #: B-9, Supplier: 05060, A/P Effectivity: 737-ALL)

C. Location Zones

Zone	Area
831	Forward Entry Door

D. Access Panels

Number	Name/Location
831	Forward Entry Door

E. Prepare for the Removal

SUBTASK 52-11-21-860-001

- (1) Make sure the door is safe as follows:
 - (a) Make sure the door is closed and latched.

WARNING: MAKE SURE THE GIRT BAR IS NOT ENGAGED IN THE FLOOR-MOUNTED ESCAPE SLIDE BRACKETS. IF THE GIRT BAR IS ENGAGED IN THE BRACKETS, THE ESCAPE SYSTEM CAN DEPLOY WHEN YOU OPEN THE DOOR. THIS CAN CAUSE INJURIES TO PERSONS AND DAMAGE TO EQUIPMENT.

- (b) Make sure the girt bar is not engaged in the floor-mounted escape slide brackets.
- (c) Install the stand, COM-1523 outboard of the door.

SUBTASK 52-11-21-010-001

- (2) Get access to the door as follows:
 - (a) Make sure the door is closed and latched.
 - (b) Do this task: Forward Entry Door Lining Removal, TASK 52-11-31-000-802.

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(c) Open this access panel:

Number	Name/Location
831	Forward Entry Door

F. Removal of the Forward Entry Door Guide Arm and Roller

SUBTASK 52-11-21-020-006

- (1) Disconnect the guide arm [2] from the door [1]:
 - (a) Remove the bolt [3], washer [4], washer [6], nut [5], and pin [7] that attach the guide arm [2] to the door structure.
 - (b) Remove the guide arm [2] from the door [1].

SUBTASK 52-11-21-020-007

- (2) Disconnect the radius links [8] and [10] from the guide arm [2]:
 - (a) Remove the screw [12], key washer [11], washers [36], bushing [35] and pin [9] that attach the radius links [8] and [10] to the guide arm [2].
 - (b) Move the guide arm [2] away from the radius links [8] and [10].

SUBTASK 52-11-21-020-008

- (3) Remove the hold open mechanism from the guide arm [2]:
 - (a) Disconnect the ends of the spring [17] from the cam [15] and link [18].
 - (b) Remove the spacers [16] that attach the spring [17], cam [15], link [18], and washers [19] to the shafts [14].
 - (c) Remove the spring [17], cam [15], link [18], and washers [19] from the shafts [14].
 - (d) Remove the screw [22], lever [21], washer [13], and washer [19] from the shaft [14] nearest the roller end of the guide arm [2].
 - (e) Remove the screw [22], cam [23], washer [13], and washer [19] from the other shaft [14].

NOTE: The shafts [14] will be loose in the guide arm [2].

SUBTASK 52-11-21-020-009

- (4) Disconnect the guide arm [2] and roller [20] from the guide plates on the fuselage:
 - (a) Move the guide arm [2] away from the door until it is parallel to the fuselage.
 - (b) Move the guide arm [2] and roller [20] forward to the open end of the guide plate tracks until the roller [20] is clear of the guide plates.
 - (c) Remove the guide arm [2] and roller [20] from the airplane.

END OF TASK

TASK 52-11-21-400-802

3. Forward Entry Door Guide Arm and Roller Installation

(Figure 401)

A. References

Reference	Title
52-11-00-820-801	Forward Entry Door Adjustment (P/B 501)
52-11-31-400-802	Forward Entry Door Lining Installation (P/B 401)

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B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1523	Stand - Work, (B9) General Purpose, Working Height 4-21 Feet (Part #: B-9, Supplier: 05060, A/P Effectivity: 737-ALL)

C. Consumable Materials

Reference	Description	Specification
A50006	Compound - Sealing, Thread-Locking, Anaerobic, Single-Component (100-200 In-Lbs)	MIL-S-46163, Type II, Grade M
D00633	Grease - Aircraft General Purpose	BMS3-33

D. Location Zones

Zone	Area
831	Forward Entry Door

E. Access Panels

Number	Name/Location
831	Forward Entry Door

F. Installation of the Forward Entry Door Guide Arm and Roller

SUBTASK 52-11-21-820-001

(1) If a new guide arm [2] is being installed, make sure the length of the new guide arm [2] is the same as the guide arm [2] which was removed.

(a) If necessary, use the adjuster nut [31] to change the length of the guide arm [2]:

NOTE: This is an initial adjustment for a new guide arm [2].

- 1) Remove the bolt [27], washer [28], washer [29], and nut [30] that attach the lock channel [26] to the guide arm [2].
- 2) Remove the lock channel [26].
- 3) Loosen the jamnut [25].
- 4) Change the length of the guide arm rod end [24] with the adjuster nut [31].
- 5) Make sure the adjuster nut [31] will align with the lock channel [26].
- 6) Tighten the jamnut [25].
- 7) Put the lock channel [26] in its correct position on the guide arm [2].
- 8) Install the bolt [27], washer [28], washer [29], and nut [30] to hold the lock channel [26] for the adjuster nut [29] in position.

SUBTASK 52-11-21-420-005

(2) Connect the guide arm [2] and roller [20] to the fuselage at the guide plates:

- (a) Put the guide arm [2] in position parallel to the fuselage with the roller [20] forward and the lock channel [26] on the inboard side.
- (b) Put the roller [20] in the open end of the guide plate tracks at the forward edge of the guide plates.

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- (c) Move the guide arm [2] and roller [20] to the aft end of the guide plate tracks.

SUBTASK 52-11-21-420-006

- (3) Install the hold open mechanism on the guide arm [2]:

- (a) Turn the guide arm [2] until the face with the lock channel [26] is nearest you.
(b) If necessary, put the shafts [14] in the guide arm [2].
(c) Put the lever [21] and washer [19] over the shaft [14] nearest the roller end of the guide arm [2].

NOTE: Make sure the lever [21] is parallel to the axis of the guide arm [2] and points to the roller [20].

- (d) Install the screw [22] and washer [13] to attach the lever [21] and washer [19] to the shaft [14].
(e) Put the cam [23] and washer [19] over the other shaft.
(f) Install the screw [22] and washer [13] to attach the cam [23] and washer [19] to the shaft [14].
(g) Turn the guide arm [2] until the face with the lock channel [26] is away from you.
(h) Put the washers [19] over the ends of the shafts [14].
(i) Put the link [18] over the end of the shaft [14] nearest the roller end of the guide arm [2].

NOTE: Make sure the link [18] is parallel to the lever [21] and the slotted end points to the roller [20].

- (j) Put the cam [15] over the end of the other shaft [14].

NOTE: Make sure the cam [15] is parallel to the axis of the guide arm [2] and the lobe points away from the roller [20].

- (k) Put the spring [17] over the cam [15] and link [18].

NOTE: Make sure the ends of the spring [17] point down.

- (l) Install the spacers [16] to attach the spring [17], cam [15], link [18] and washers [19] to the shafts [14].
(m) Connect the ends of the spring [17] to the cam [15] and link [18].

SUBTASK 52-11-21-420-007

- (4) Connect the radius links [8] and [10] to the hinge arm [2]:

- (a) Put the guide arm [2] in position between the radius links [8] and [10].
(b) Put grease, D00633 on the pin [9].

NOTE: Do not get grease on screw threads.

- (c) Install the pin [9], bushing [35], washers [36] and the radius links [8] and [10] to the guide arm [2].
(d) Put the key of keywasher [11] into the keyway of pin [9].
(e) Make sure keywasher [11] is engaged in the keyway of pin [9].
(f) Put compound, A50006 on the threads of screw [12].
(g) Install the screw [12].

SUBTASK 52-11-21-020-010

- (5) Connect the guide arm [2] to the door [1]:

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- (a) Move the door [1] until the rod end of the guide arm [2] is in position in the door structure.
- (b) Install the bolt [3], washer [4], washer [6], nut [5], and pin [7] to attach the rod end of the guide arm [2] to the door structure.

SUBTASK 52-11-21-820-002

- (6) Do an adjustment of the guide arm [2]. To do this, do this task: Forward Entry Door Adjustment, TASK 52-11-00-820-801.

NOTE: Do only the guide arm adjustment.

SUBTASK 52-11-21-410-001

- (7) Do this task: Forward Entry Door Lining Installation, TASK 52-11-31-400-802.

SUBTASK 52-11-21-710-002

- (8) Do a test on the door [1] as follows:
 - (a) Close and open the door [1].
 - (b) Make sure the door operates easily and smoothly.

G. Put the Airplane Back to Its Usual Condition

SUBTASK 52-11-21-410-002

- (1) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
831	Forward Entry Door

SUBTASK 52-11-21-480-001

- (2) Remove the stand, COM-1523 from the door.

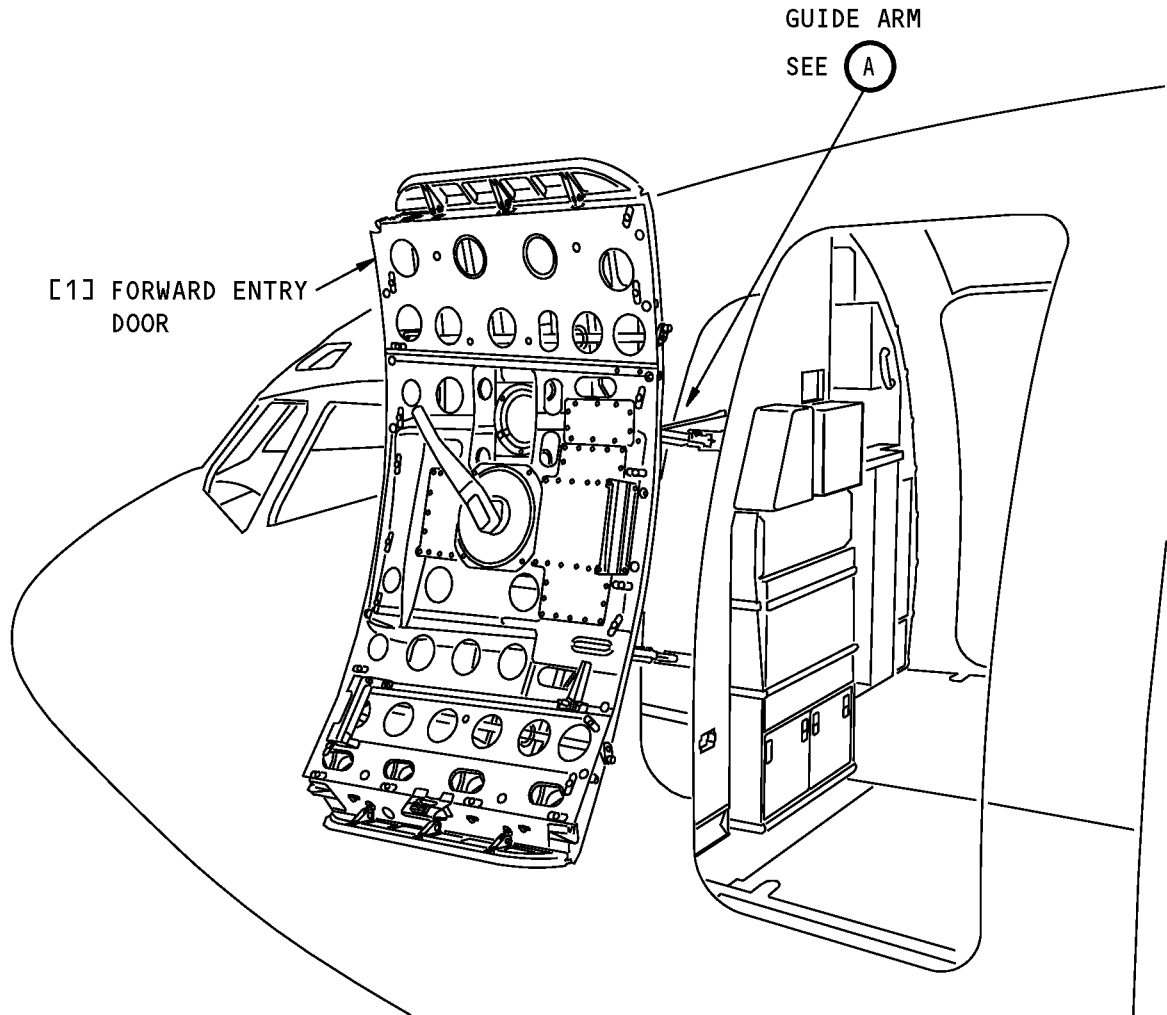
————— **END OF TASK** —————

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**Forward Entry Door Guide Arm and Roller
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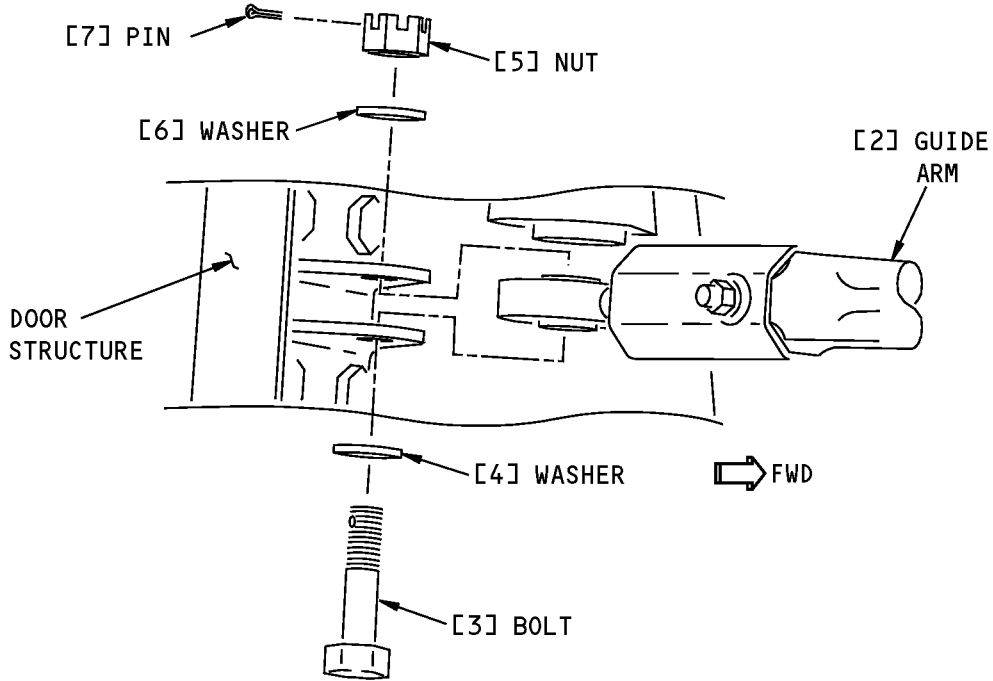
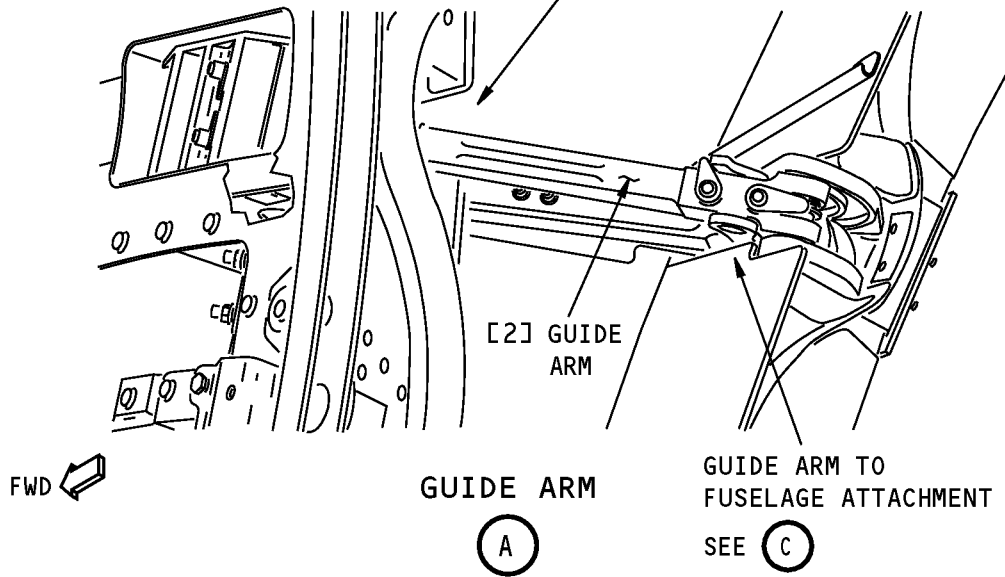
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GUIDE ARM TO
DOOR ATTACHMENT

SEE (B)



GUIDE ARM TO DOOR ATTACHMENT

(B)

**Forward Entry Door Guide Arm and Roller
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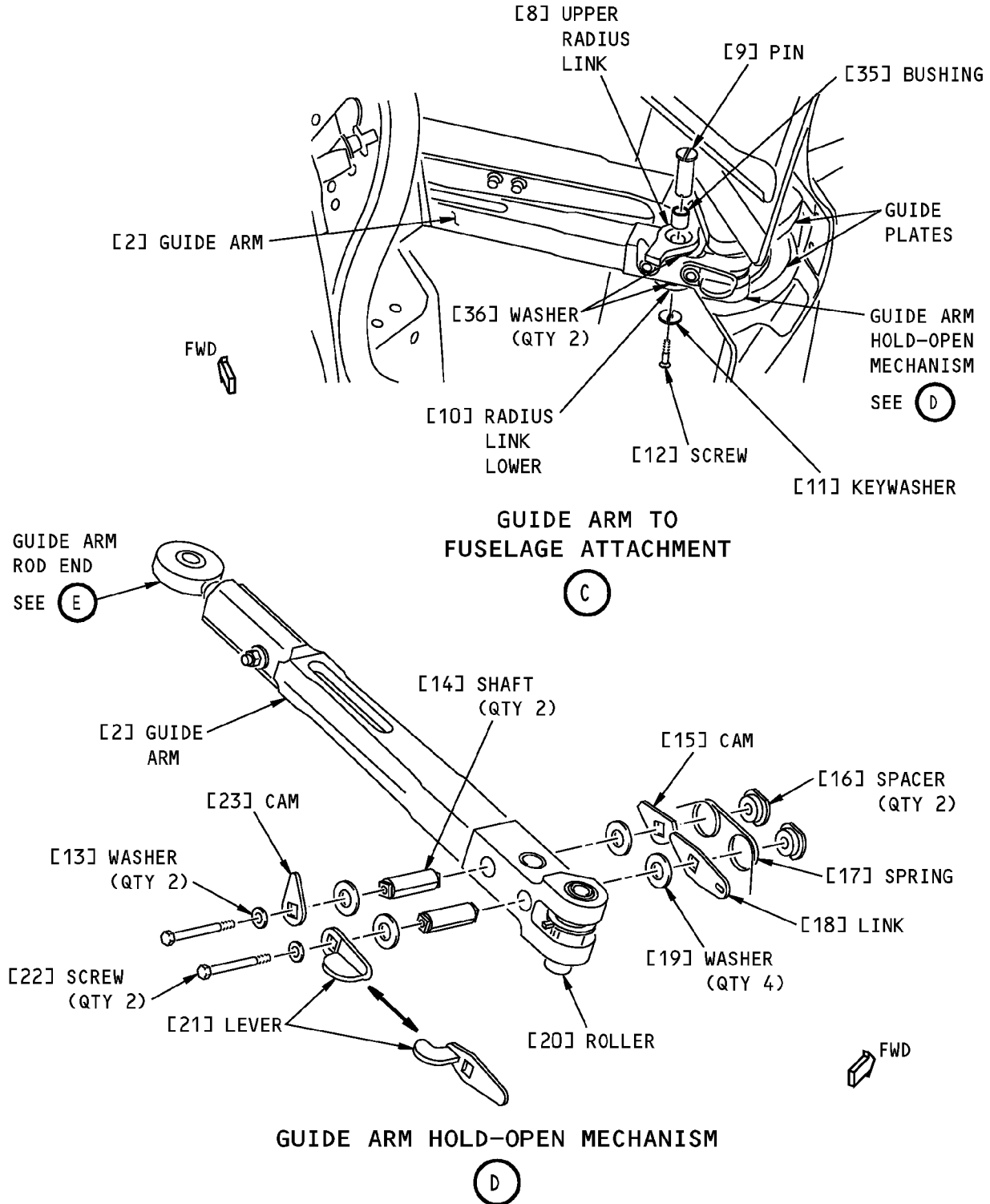
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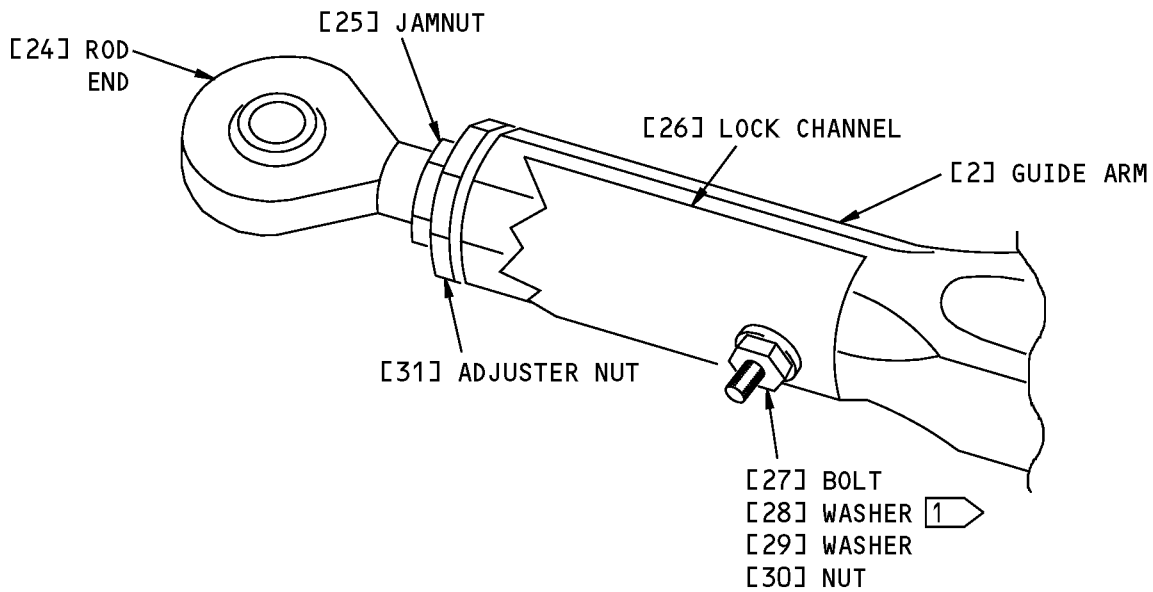
**Forward Entry Door Guide Arm and Roller
Figure 401 (Sheet 3 of 4)/52-11-21-990-802**

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GUIDE ARM ROD END

E

1 WASHER USED WITH HEX HEAD BOLT

**Forward Entry Door Guide Arm and Roller
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FORWARD ENTRY DOOR LINING - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

- (1) A removal of the forward entry door lining.
- (2) An installation of the forward entry door lining.

TASK 52-11-31-000-802

2. Forward Entry Door Lining Removal

(Figure 401)

A. References

Reference	Title
25-66-01-000-801	Escape Slide Pack and Cover Removal (P/B 401)

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1523	Stand - Work, (B9) General Purpose, Working Height 4-21 Feet (Part #: B-9, Supplier: 05060, A/P Effectivity: 737-ALL)
SPL-5216	Wrench - Spanner, Main Entry Door Assist Handle (Part #: F70336-1, Supplier: 81205, A/P Effectivity: 737-100, -200, -200C, -300, -400, -500, -600, -700, -700C, -700ER, -700QC, -800, -900, -900ER, -BBJ)

C. Location Zones

Zone	Area
831	Forward Entry Door

D. Access Panels

Number	Name/Location
831	Forward Entry Door

E. Prepare for the Removal

SUBTASK 52-11-31-860-003

- (1) Make sure the door is safe as follows:
 - (a) Make sure the door is closed and latched.

WARNING: MAKE SURE THE GIRT BAR IS NOT ENGAGED IN THE FLOOR-MOUNTED ESCAPE SLIDE BRACKETS. IF THE GIRT BAR IS ENGAGED IN THE BRACKETS, THE ESCAPE SYSTEM CAN DEPLOY WHEN YOU OPEN THE DOOR AND INJURIES OR DAMAGE CAN OCCUR.

- (b) Make sure the girt bar is not engaged in the floor-mounted escape slide brackets.
- (c) Install the stand, COM-1523 outboard of the door.

SUBTASK 52-11-31-010-001

- (2) Get access to the door as follows:
 - (a) Make sure the door is closed and latched.

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- (b) Do this task: Escape Slide Pack and Cover Removal, TASK 25-66-01-000-801.
- (c) Fully open this access panel:

<u>Number</u>	<u>Name/Location</u>
831	Forward Entry Door

F. Removal of the Forward Entry Door Lining

SUBTASK 52-11-31-020-007

- (1) Remove the interior handle [3] from the door:
 - (a) Remove the cover [8] on the interior handle [3] to get access to the fasteners that attach the interior handle [3] to the hub [4].
 - (b) Remove the cotter pins [10], nuts [9], and washers [11] that attach the interior handle [3] to the hub [4].
 - (c) Remove the interior handle [3].
 - (d) Remove the bolts [5] from the hub [4] if they are loose.

NOTE: The bolts [5] are bonded to the hub [4] and it is not necessary to remove them if the bond is tight.

SUBTASK 52-11-31-020-008

- (2) Remove the upper and lower cover plates [12] [6] from the door lining [1]:
 - (a) Remove the screw [7] that attaches the lower cover plate [6] to the door lining [1].
 - (b) Pull the lower cover plate [6] away from the upper cover plate [12].
 - (c) Pull the upper cover plate [12] down to disengage it from the cutout in the door lining [1] and remove from the door.

SUBTASK 52-11-31-020-009

- (3) Remove the assist handle [2] from the door:
 - (a) Loosen the handle nuts [16] with the entry door assist handle wrench, SPL-5216, that attach the assist handle [2] to the door.
 - (b) Remove the assist handle [2] from the door.
 - (c) Hold the handle nuts [16] and remove the bolts [14], collars [15], and washers [13] that attach the handle nuts [16] to the door.
 - (d) Remove the handle nuts [16] from the door.

SUBTASK 52-11-31-020-010

- (4) Disconnect the door lining [1] from the door:
 - (a) Remove the nuts [17] that attach the upper part of the door lining [1] to the door.
 - (b) Remove the nuts [20] that attach the lower part of the door lining [1] to the door.
 - (c) Remove the screws [19] that attach the lower part of the door lining [1] to the door.
 - (d) Hold the door lining [1].
 - (e) Remove the screws [18] that attach the forward and aft edges of the door lining [1] to the door.
 - (f) Carefully lift the door lining [1] and remove it from the door.

————— **END OF TASK** —————

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TASK 52-11-31-400-802

3. Forward Entry Door Lining Installation

(Figure 401)

A. References

Reference	Title
25-66-01-400-803	Escape Slide Pack and Cover Installation (P/B 401)

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1523	Stand - Work, (B9) General Purpose, Working Height 4-21 Feet (Part #: B-9, Supplier: 05060, A/P Effectivity: 737-ALL)
SPL-5216	Wrench - Spanner, Main Entry Door Assist Handle (Part #: F70336-1, Supplier: 81205, A/P Effectivity: 737-100, -200, -200C, -300, -400, -500, -600, -700, -700C, -700ER, -700QC, -800, -900, -900ER, -BBJ)

C. Location Zones

Zone	Area
831	Forward Entry Door

D. Access Panels

Number	Name/Location
831	Forward Entry Door

E. Installation of the Forward Entry Door Lining

SUBTASK 52-11-31-420-007

- (1) Install the door lining [1] on the door:
 - (a) Carefully hold the door lining [1] and put it in position on the door.
 - (b) Install the screws [18] that attach the forward and aft edges of the door lining [1] to the door.
 - (c) Install the nuts [17] to attach the upper part of the door lining [1] to the door.
 - (d) Install the nuts [20] to attach the lower part of the door lining [1] to the door.
 - (e) Install the screws [19] to attach the lower part of the door lining [1] to the door.

SUBTASK 52-11-31-020-011

- (2) Install the assist handle [2]:
 - (a) Put the handle nuts [16] in position on the door lining [1].
 - (b) Install the bolts [14], collars [15], and washers [13] to attach the handle nuts [16] to the door.
 - (c) Put the assist handle [2] in position against the handle nuts [16].
 - (d) Tighten the handle nuts [16] with the entry door assist handle wrench, SPL-5216, to attach the assist handle [2] to the door.

SUBTASK 52-11-31-020-012

- (3) Install the upper and lower cover plates [12] [6] on the door:

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- (a) Put the upper of the cover plate [12] into the cutout in the door lining [1].
- (b) Connect the lower cover plate [6] to the upper cover plate [12].
- (c) Install the screw [7] to attach the lower cover plate [6] to the door lining [1].

SUBTASK 52-11-31-020-013

- (4) Install the interior handle [3]:
 - (a) Install the bolts [5] in the hub [4] if they are loose.
 - (b) Put the interior handle [3] in its correct position over the bolts [5] in the hub [4].
 - (c) Install the washers [11], nuts [9], and new cotter pins [10], to attach the interior handle [3] to the hub [4].
 - (d) Install the cover [8] on the interior handle [3].

F. Put the Airplane Back to Its Usual Condition

SUBTASK 52-11-31-410-001

- (1) Do this task: Escape Slide Pack and Cover Installation, TASK 25-66-01-400-803.

SUBTASK 52-11-31-840-001

- (2) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
831	Forward Entry Door

SUBTASK 52-11-31-480-001

- (3) Remove the stand, COM-1523 from the door.

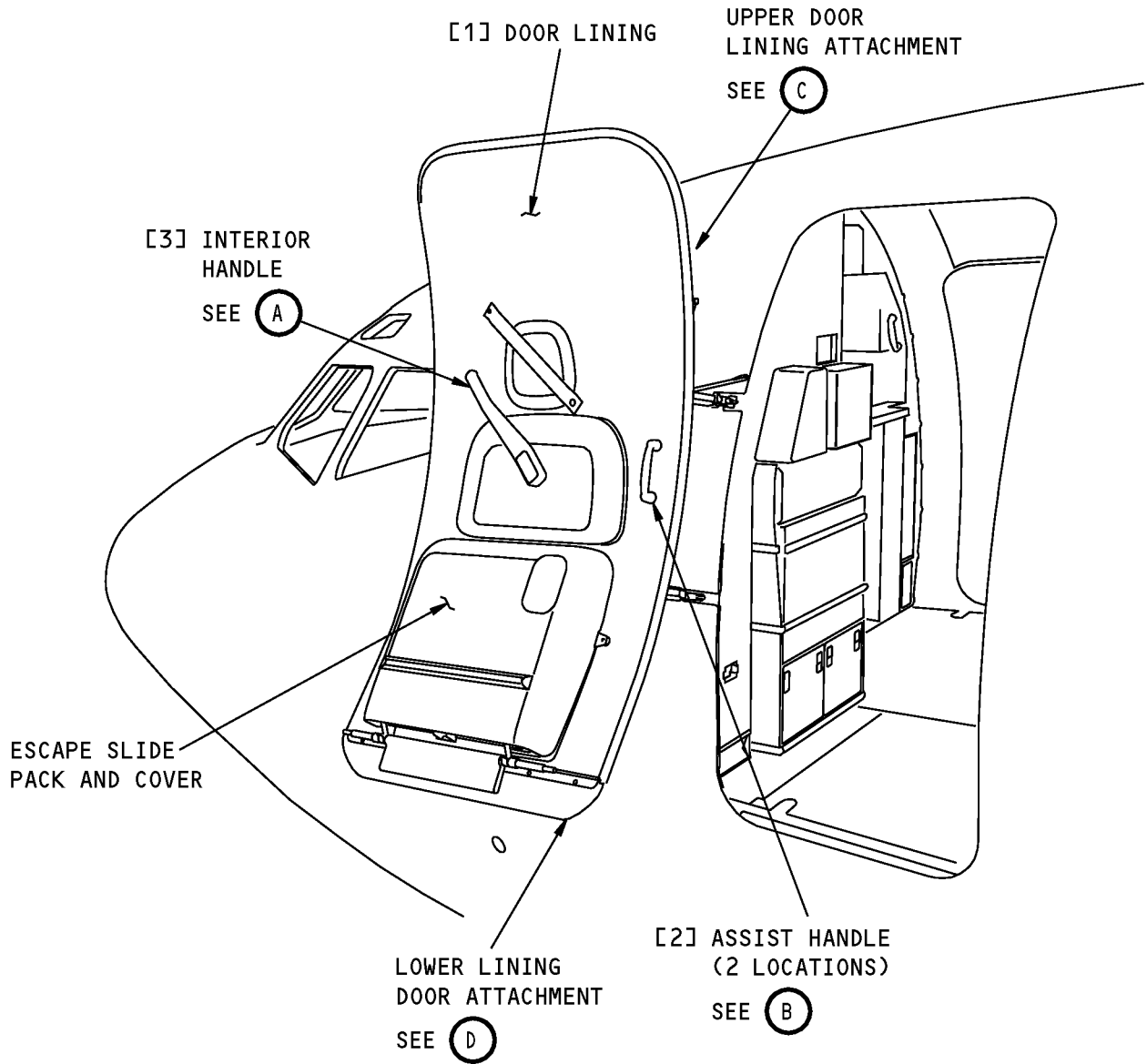
————— **END OF TASK** —————

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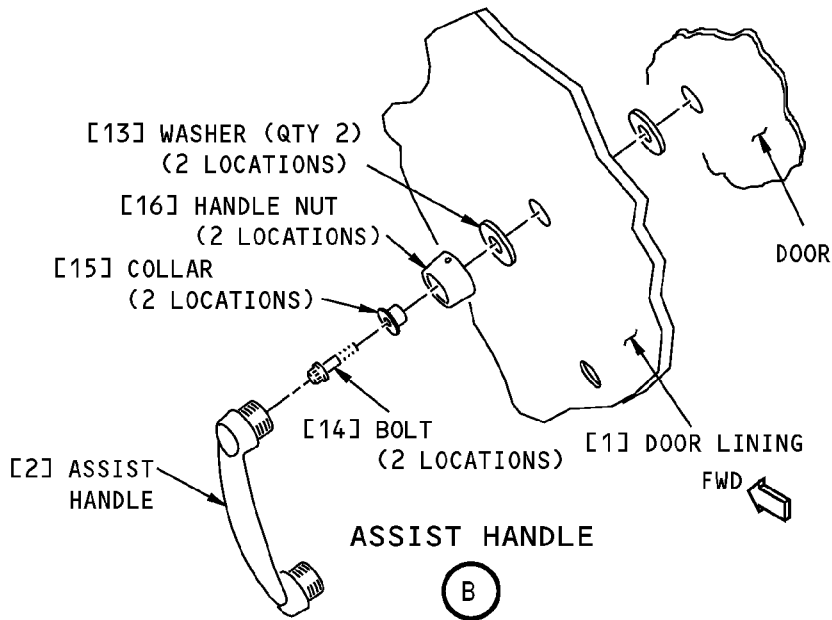
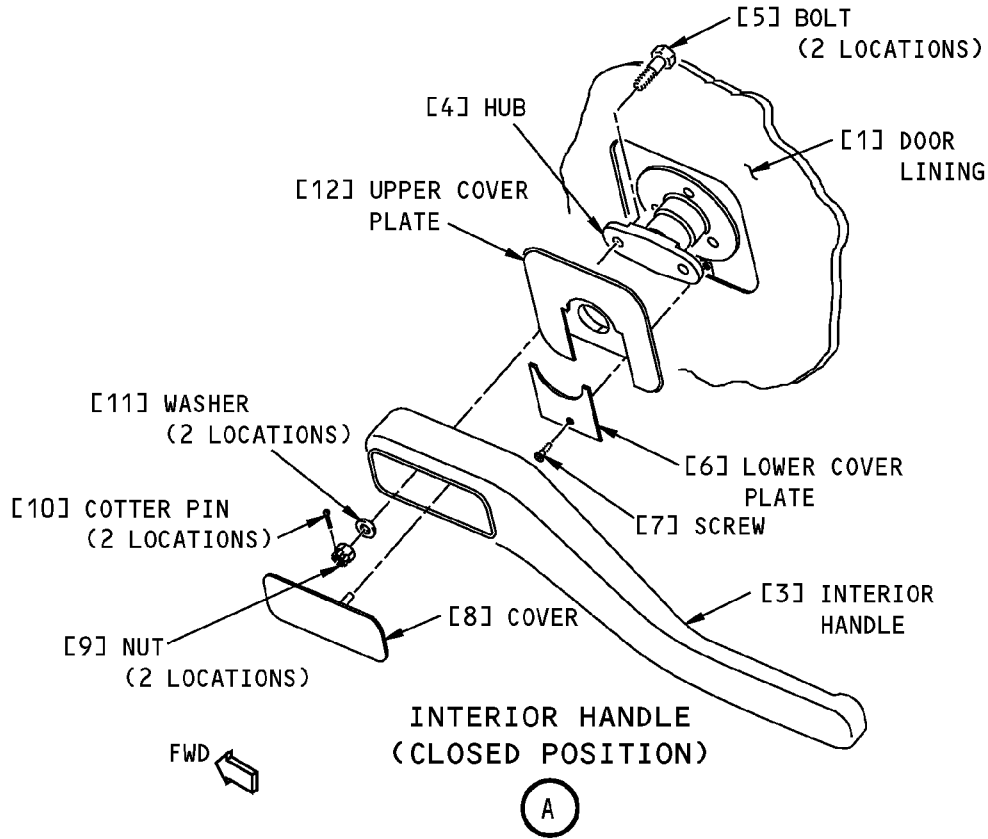


**Forward Entry Door Lining Installation
Figure 401 (Sheet 1 of 3)/52-11-31-990-802**

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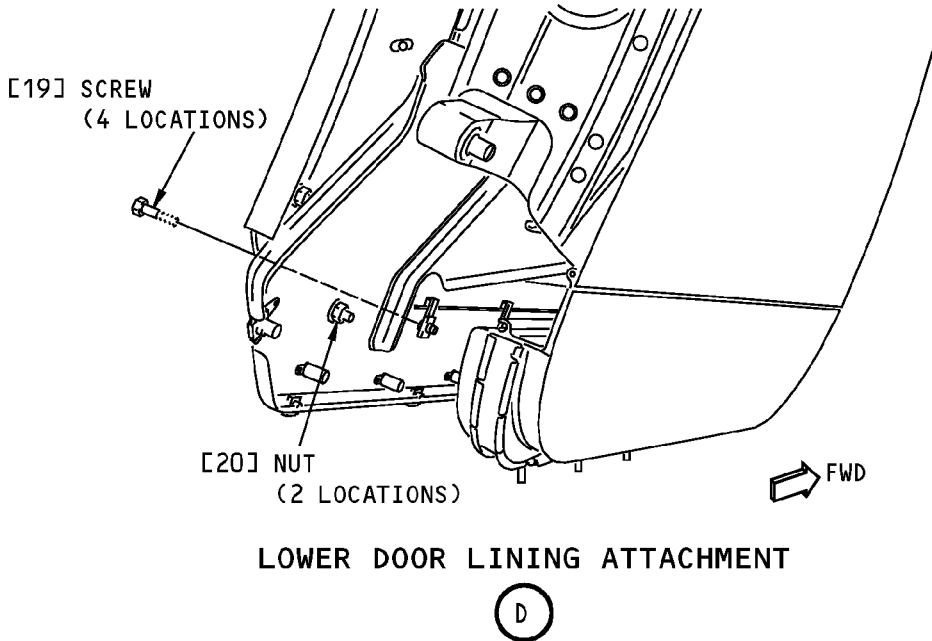
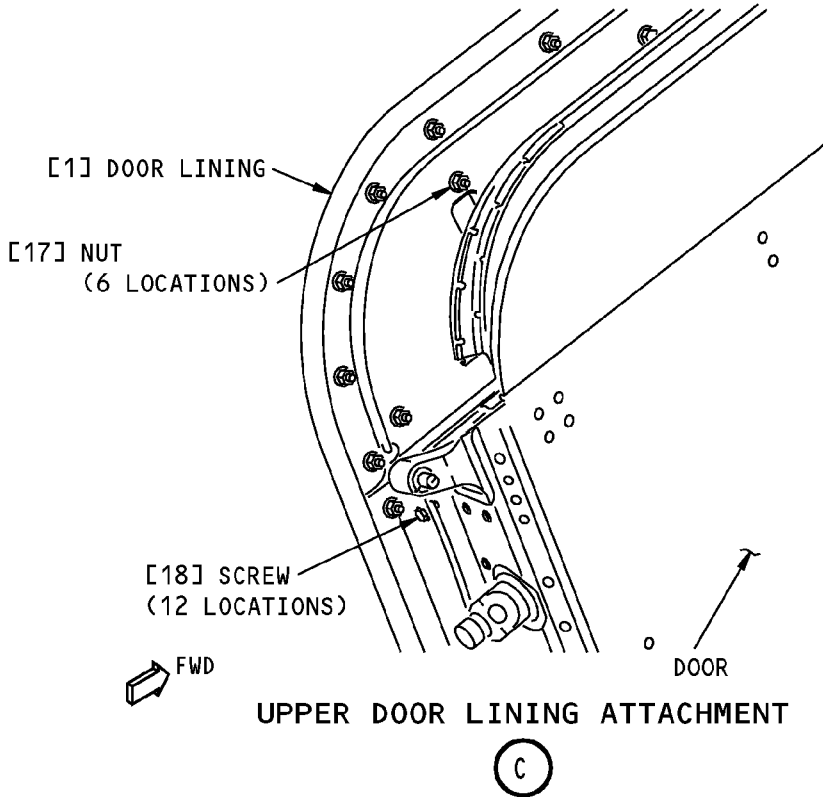
**Forward Entry Door Lining Installation
Figure 401 (Sheet 2 of 3)/52-11-31-990-802**

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**Forward Entry Door Lining Installation
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FORWARD ENTRY DOOR ASSIST SPRINGS - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

- (1) A removal of the forward entry door assist springs.
- (2) An installation of the forward entry door assist springs.

B. The forward entry door assist springs are referred to as the "assist springs" in this procedure.

TASK 52-11-41-000-802

2. Forward Entry Door Assist Springs Removal

(Figure 401)

A. Location Zones

<u>Zone</u>	<u>Area</u>
831	Forward Entry Door

B. Access Panels

<u>Number</u>	<u>Name/Location</u>
831	Forward Entry Door

C. Prepare for the Removal

SUBTASK 52-11-41-860-002

- (1) Make sure the door is safe as follows:
 - (a) Make sure the door is closed and latched.

WARNING: MAKE SURE THE GIRT BAR IS NOT ENGAGED IN THE FLOOR-MOUNTED ESCAPE SLIDE BRACKETS. IF THE GIRT BAR IS ENGAGED IN THE BRACKETS, THE ESCAPE SYSTEM CAN DEPLOY WHEN YOU OPEN THE DOOR AND INJURIES OR DAMAGE CAN OCCUR.

- (b) Make sure the girt bar is not engaged in the floor-mounted escape slide brackets.
- (c) Make sure a stand is installed outboard of the door.

SUBTASK 52-11-41-410-003

- (2) Get access to assist springs [5] [6] [7] as follows:

- (a) Open this access panel:

<u>Number</u>	<u>Name/Location</u>
831	Forward Entry Door

- (b) Make sure there is no load on the assist springs [5], [6] and [7]. To remove the load, do this task:

Move this access panel:

<u>Number</u>	<u>Name/Location</u>
831	Forward Entry Door

NOTE: There is no load on the assist springs when the door is approximately 60 degrees from the open position.

- (c) Remove the screws [2] that attach the panel reveal [3] to the fuselage.
- (d) Remove the panel reveal [3].

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D. Removal of the Forward Entry Door Assist Springs

SUBTASK 52-11-41-020-003

- (1) Disconnect the assist springs [5] [6] [7] from the torque tubes [22] [31] as follows:
 - (a) AIRPLANES WITH A HEX HEAD BOLT [30] (PRE-PRR 38060-33);
Remove the bolts [30], washers [29], spring retainers [24], bushings [28], bushings [25], and nuts [23] that attach the assist springs [5] and [7] to the assist spring [6].
 - (b) AIRPLANES WITHOUT A HEX HEAD BOLT [30] (POST-PRR 38060-33);
Remove the bolts [30], spring retainers [24], bushings [28], bushings [25], and nuts [23] that attach the assist springs [5] and [7] to the assist spring [6].
 - (c) Remove the bolt [17], washer [16], washer [15], bushing [14], washer [13], and nut [12] that attach the assist spring [6] to the torque tubes [22] [31] through the sleeve [10].

SUBTASK 52-11-41-020-004

- (2) Disconnect the S-12 stop fitting [35] from the fuselage frame:
 - (a) Remove the bolts [34], washers [33], and nuts [32] that attach the S-12 stop fitting [35] to the frame.
 - (b) Remove the S-12 stop fitting [35] from the fuselage frame.

SUBTASK 52-11-41-020-005

- (3) Remove the assist springs [5], [6] and [7] and torque tubes [22] and [31] from the fuselage:
 - (a) Put marks on the spigots and torque tube to show the alignment of the parts.
NOTE: These marks help the installation that will occur.
 - (b) Remove the bolt [26], washer [27], bushing [21], washer [18], washer [20], and nut [19] that attach the torque tube [22] and sleeve [8] to the hinge spigot [9].
 - (c) Remove the bolt [26], washer [27], bushing [21], washer [18], washer [20], and nut [19] that attach the torque tube [31] and sleeve [4] to the hinge spigot [11].
 - (d) Push the torque tubes [22] [31] together to make sufficient clearance to remove them from the fuselage structure.
 - (e) Remove the assist spring [7] and sleeve [8] from the torque tube [22].
 - (f) Remove the S-12 stop fitting [35] from the torque tube [22].
 - (g) Remove the torque tubes [22] [31], sleeves [4] [10], and assist spring [6] from the opening in the fuselage structure.
 - (h) Remove the assist spring [5] from the S-11 stop fitting.

————— END OF TASK —————

TASK 52-11-41-400-802

3. Forward Entry Door Assist Springs Installation

(Figure 401)

A. Consumable Materials

Reference	Description	Specification
C00528	Compound - Corrosion Preventive, Petroleum Hot Application (Soft Film)	MIL-C-11796, Class III
D00633	Grease - Aircraft General Purpose	BMS3-33

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B. Location Zones

Zone	Area
831	Forward Entry Door

C. Access Panels

Number	Name/Location
831	Forward Entry Door

D. Installation of the Forward Entry Door Assist Springs Installation.

SUBTASK 52-11-41-420-007

CAUTION: OBEY THE INSTALLATION PROCEDURE FOR THE ASSIST SPRINGS. THE DOOR WILL NOT OPERATE PROPERLY IF THE ASSIST SPRINGS ARE INCORRECTLY INSTALLED.

- (1) If necessary, assemble the torque tubes [22] [31] and assist spring [6]:
 - (a) Apply a light layer of grease, D00633 to the mating surfaces of the torque tubes [22] [31] before installation.
 - (b) Put the torque tube [22] into the torque tube [31].
 - (c) Put the sleeve [10] over the torque tubes [22] and [31].
 - (d) Put the assist spring [6] over the sleeve [10].

NOTE: Make sure the closed end of the coil in the middle of the spring [6] is facing forward.

- (e) Put the sleeve [4] over the torque tube [31].

SUBTASK 52-11-41-420-008

- (2) Install the torque tubes [22] and [31] and assist springs [5], [6] and [7] in the fuselage:
 - (a) Put the assist spring [5] in position above the S-11 stop fitting.

NOTE: Make sure the coil that holds the bolt [30] is in the down position and facing aft.
 - (b) Put the assembled torque tubes [22] and [31], sleeves [4] and [10], and assist spring [6] in position in the fuselage frame.
 - (c) Put the S-12 stop fitting [35] over the torque tube [22].
 - (d) Put the sleeve [8] and assist spring [7] over the torque tube [22].

NOTE: Make sure the coil that holds the bolt [30] is in the up position and facing aft.
 - (e) Pull the torque tubes [22] and [31] apart to move the ends of the torque tubes [22] and [31] fully over the hinge spigots [9] and [11].
 - (f) Align the bolt holes in the ends of the torque tubes [22] [31] with the bolt holes in the sleeves [4] [8] and hinge spigots [9] [11].
 - (g) Install the bolt [26], washer [27], bushing [21], washer [18], washer [20], and nut [19] to attach the torque tube [31] to the hinge spigot [11].
 - (h) Tighten the nut [19] to 70-90 lbs-in (7.9-10.2 Nm).
 - 1) Make sure the nut [19] touches the shank of the bolt [26].
 - 2) Make sure there is a minimum of 0.016 in (0.406 mm) gap between the washer [27] and the sleeve [4].
 - (i) Install the bolt [26], washer [27], bushing [21], washer [18], washer [20], and nut [19] to attach the torque tube [22] to the hinge spigot [9].
 - (j) Tighten the nut [19] to 70-90 lbs-in (7.9-10.2 Nm).

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- 1) Make sure the nut [19] touches the shank of the bolt [26].
- 2) Make sure there is a minimum of 0.016 in (0.406 mm) gap between the washer [27] and the sleeve [8].

SUBTASK 52-11-41-420-009

- (3) Connect the S-12 stop fitting [35] to the fuselage frame as follows:
 - (a) Put the S-12 stop fitting [35] in position against the fuselage frame.
 - (b) Install the bolts [34], washers [33], and nuts [32] to attach the S-12 stop fitting [35] to the fuselage frame.

SUBTASK 52-11-41-420-010

- (4) Connect the assist springs [5], [6] and [7] to the torque tubes [22] and [31]:
 - (a) Align the bolt holes in the sleeve [10] with the bolt holes in the torque tubes [22] [31].
 - (b) Install the bolt [17], washer [16], washer [15], bushing [14], washer [13] and nut [12] to connect the assist spring [6], sleeve [10], and torque tubes [22] and [31].
 - (c) Tighten the nut [12] to 70-90 lbs-in (7.9-10.2 Nm).
 - 1) Make sure the nut [12] touches the shank of the bolt [17].
 - 2) Make sure there is a minimum of 0.016 in (0.406 mm) gap between the washer [13] and the sleeve [10].
 - (d) Before you install them, apply compound, C00528 to the bolts [30] and the spring retainers [24].
 - (e) AIRPLANES WITH A HEX HEAD BOLT [30] (PRE-PRR 38060-33):
Install the bolts [30], washers [29], spring retainers [24], bushings [28], bushings [25], and nuts [23] to attach the assist springs [5] and [7] to the assist spring [6].
 - (f) AIRPLANES WITHOUT A HEX HEAD BOLT [30] (POST-PRR 38060-33):
Install the bolts [30], spring retainers [24], bushings [28], bushings [25], and nuts [23] to attach the assist springs [5] and [7] to the assist spring [6].

SUBTASK 52-11-41-840-001

- (5) Install the panel reveal [3]:
 - (a) Put the panel reveal [3] in position on the fuselage.
 - (b) Install the screws [2] to attach the panel reveal [3] to the fuselage.

SUBTASK 52-11-41-710-001

- (6) Do a test on this access panel:

<u>Number</u>	<u>Name/Location</u>
831	Forward Entry Door

- (a) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
831	Forward Entry Door

- (b) Open this access panel:

<u>Number</u>	<u>Name/Location</u>
831	Forward Entry Door

- (c) Make sure it opens easily and smoothly.

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SUBTASK 52-11-41-410-004

(7) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
831	Forward Entry Door

————— **END OF TASK** —————

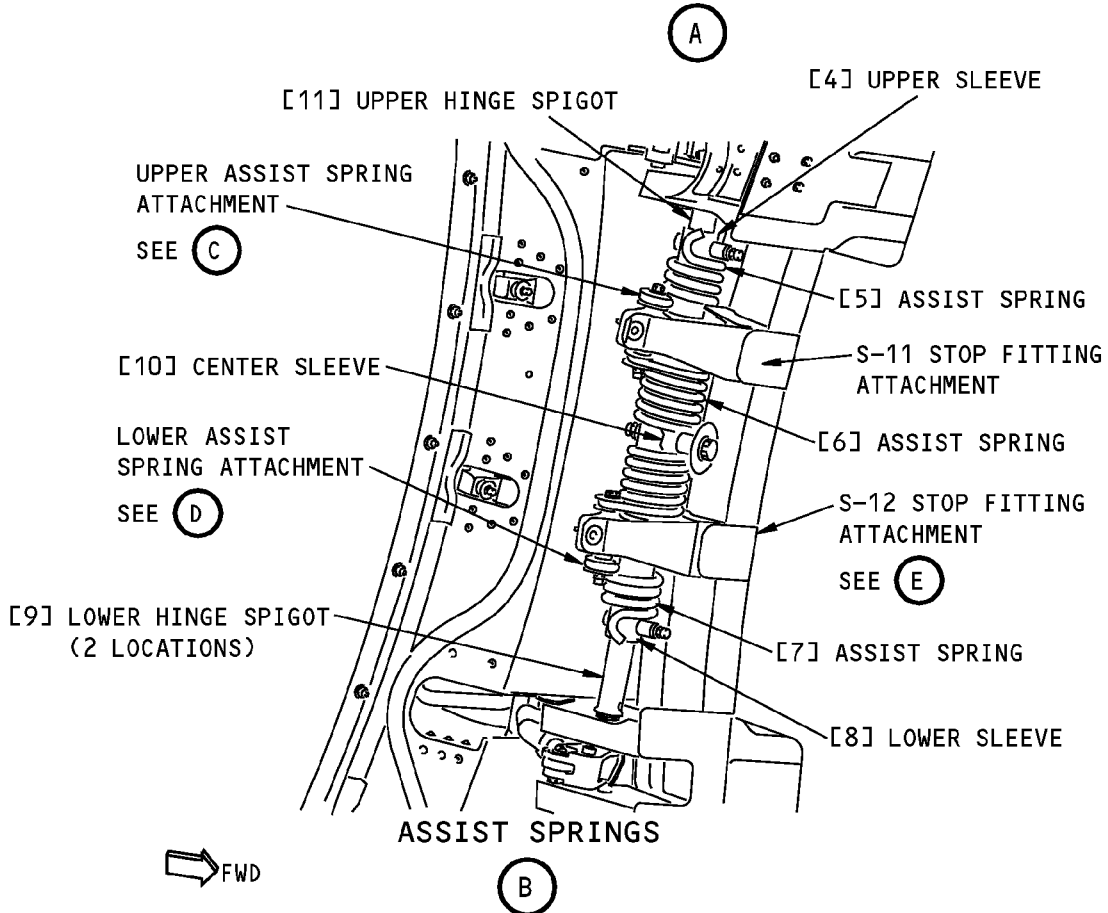
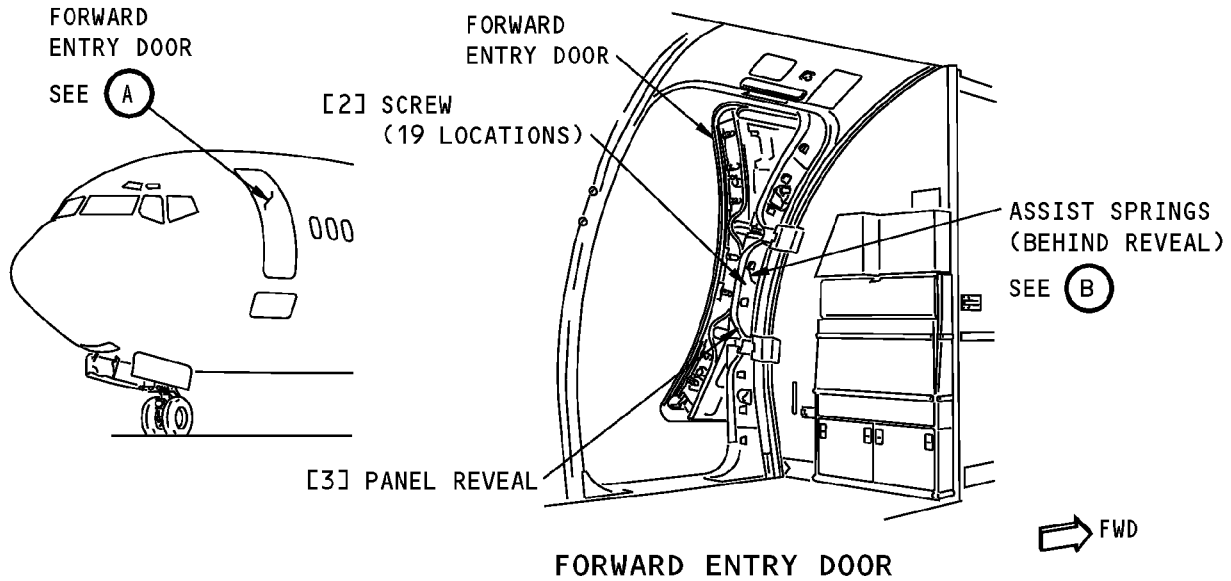
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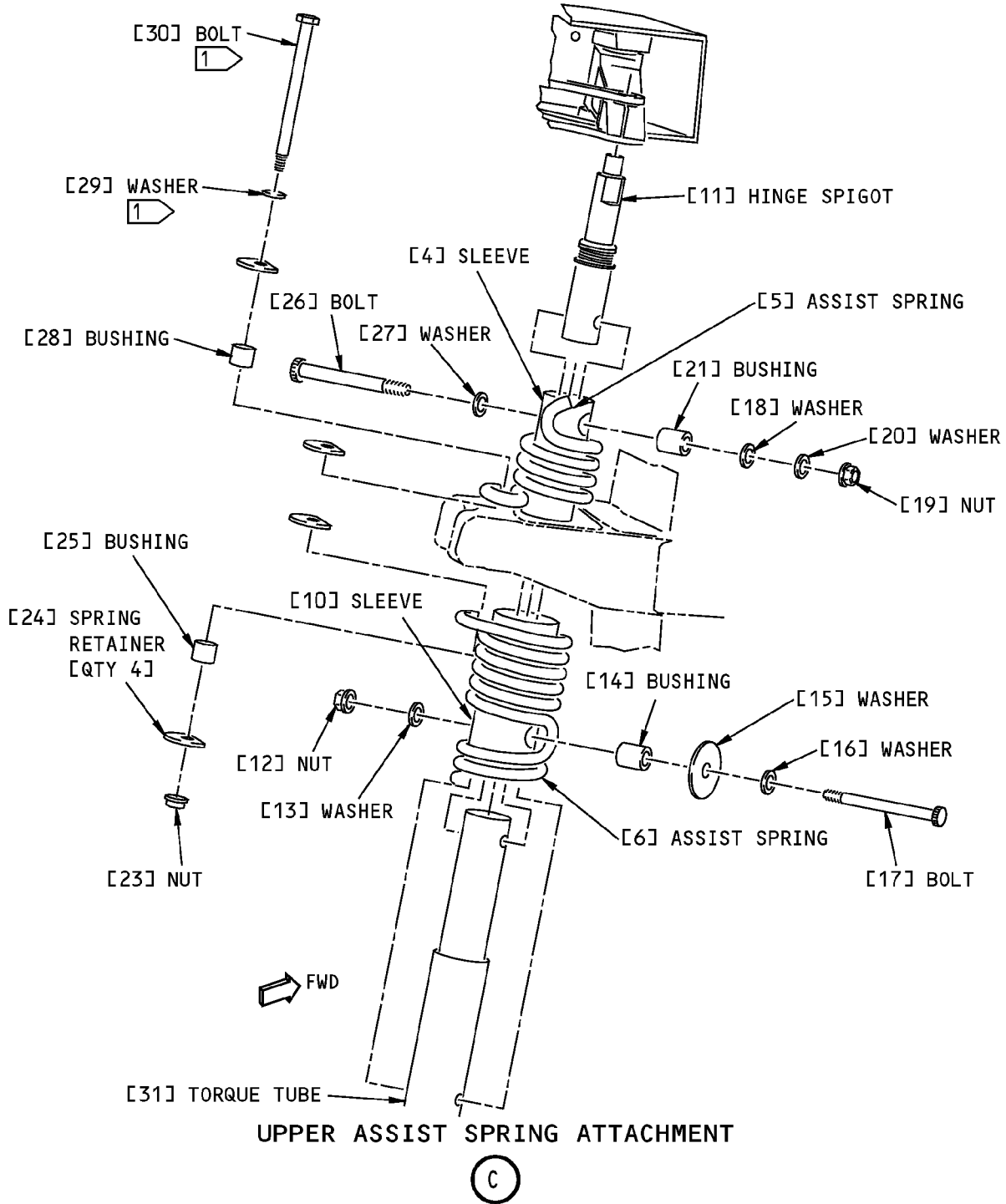


Forward Entry Door Assist Spring Installation
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1 AIRPLANES WITH A HEX HEAD BOLT [30] (PRE PRR 38060-33).

**Forward Entry Door Assist Spring Installation
Figure 401 (Sheet 2 of 4)/52-11-41-990-802**

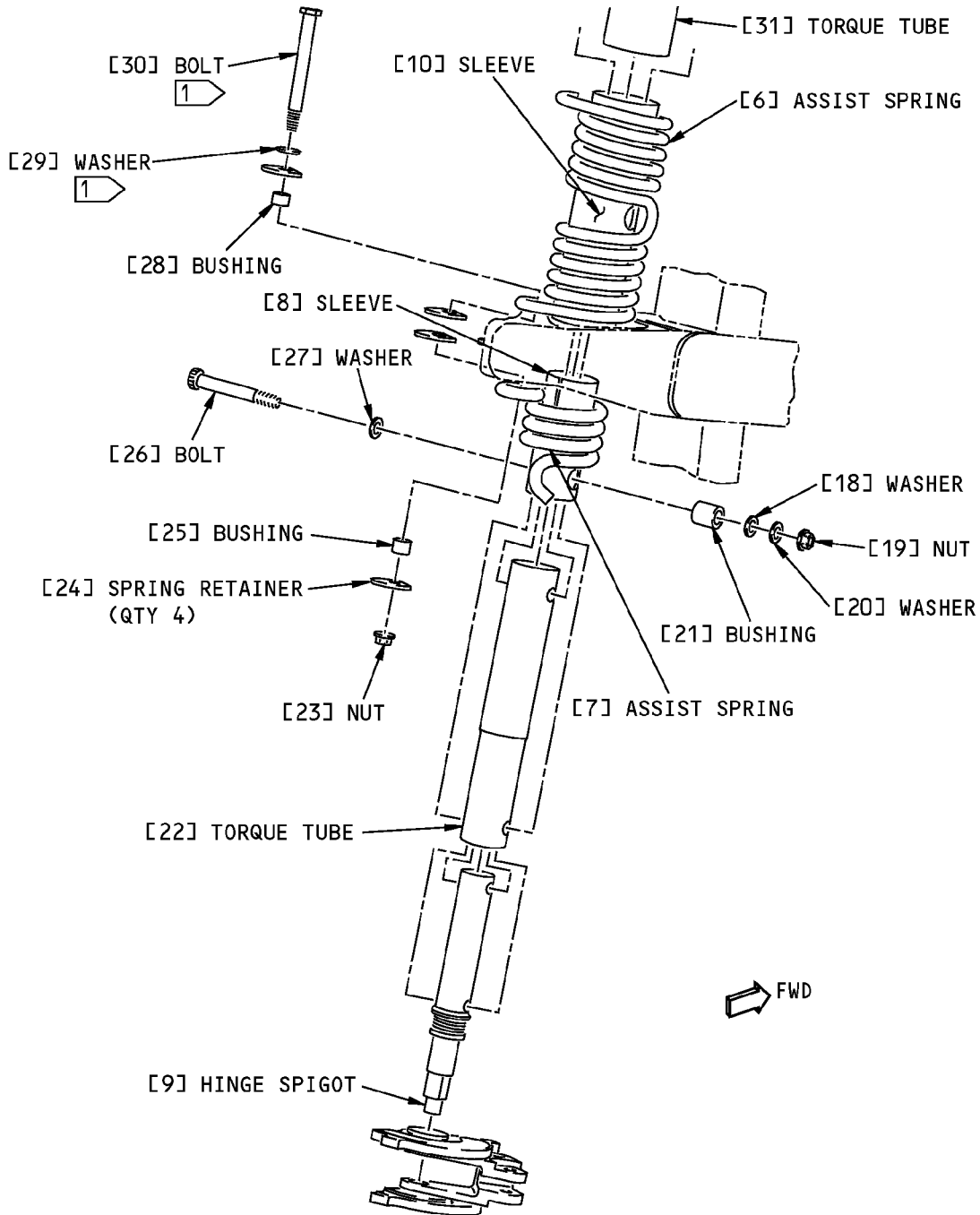
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LOWER ASSIST SPRING ATTACHMENT

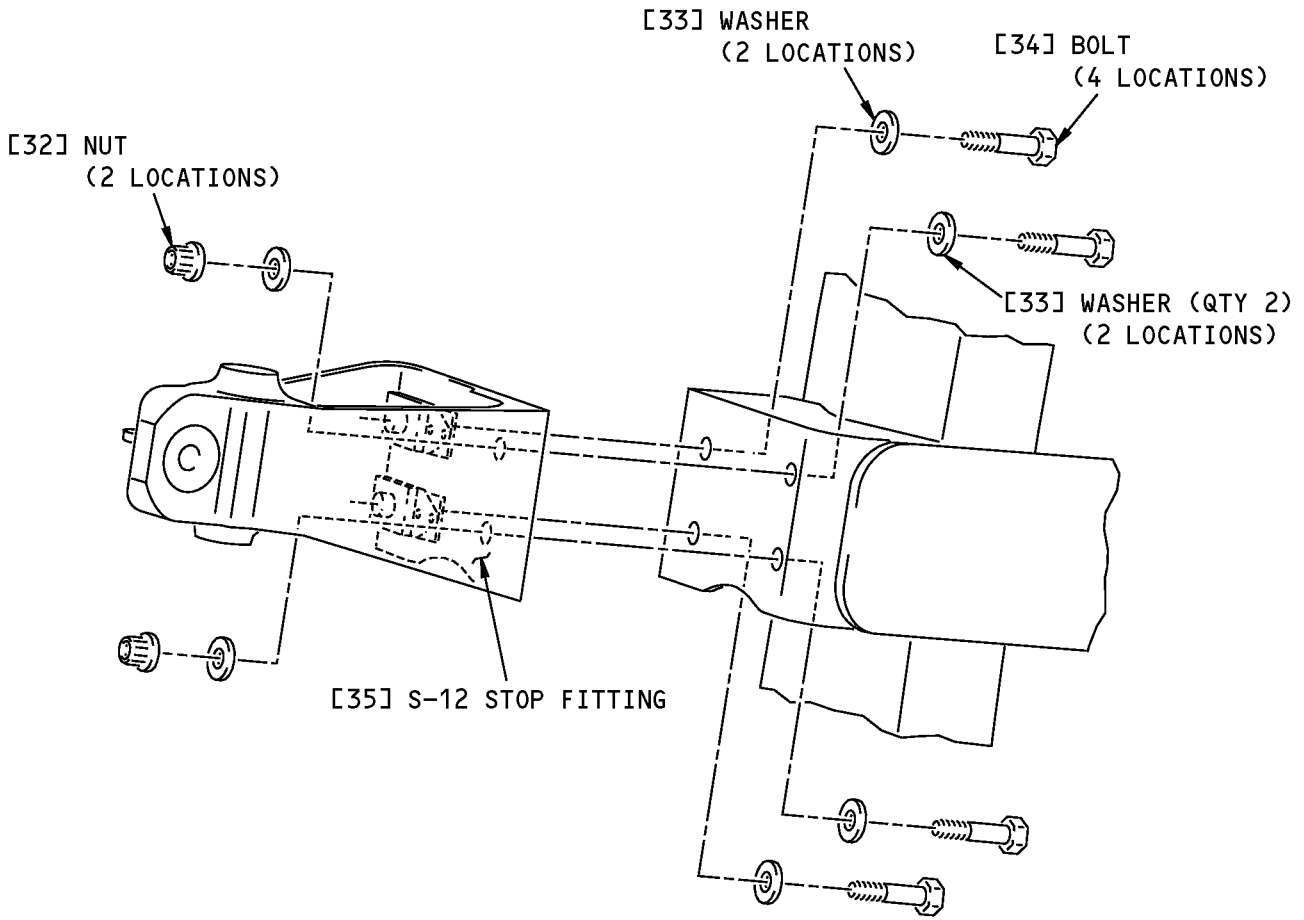
(D)

1 AIRPLANES WITH A HEX HEAD BOLT [30] (PRE PRR 38060-33).

**Forward Entry Door Assist Spring Installation
Figure 401 (Sheet 3 of 4)/52-11-41-990-802**

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STOP FITTING ATTACHMENT

(E)

FWD

**Forward Entry Door Assist Spring Installation
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FORWARD ENTRY DOOR SNUBBER - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

- (1) A removal of the forward entry door snubber.
- (2) An installation of the forward entry door snubber.
- (3) The forward entry door will be call the door in this procedure.

TASK 52-11-51-000-801

2. Forward Entry Door Snubber Removal

(Figure 401)

A. References

Reference	Title
52-11-31-000-802	Forward Entry Door Lining Removal (P/B 401)

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1523	Stand - Work, (B9) General Purpose, Working Height 4-21 Feet (Part #: B-9, Supplier: 05060, A/P Effectivity: 737-ALL)

C. Location Zones

Zone	Area
831	Forward Entry Door

D. Prepare for the Removal

SUBTASK 52-11-51-860-001

- (1) Make sure the door is safe as follows:
 - (a) Make sure the door is closed and latched.

WARNING: MAKE SURE THE GIRT BAR IS NOT ENGAGED IN THE FLOOR-MOUNTED ESCAPE SLIDE BRACKETS. IF THE GIRT BAR IS ENGAGED IN THE BRACKETS, THE ESCAPE SYSTEM CAN DEPLOY WHEN YOU OPEN THE DOOR AND INJURIES OR DAMAGE CAN OCCUR.

- (b) Make sure the girt bar is not engaged in the floor-mounted escape slide brackets.
- (c) Install the stand, COM-1523 outboard of the door.
- (d) Put the forward entry door in the full open position.

SUBTASK 52-11-51-010-001

- (2) If necessary, do this task: Forward Entry Door Lining Removal, TASK 52-11-31-000-802

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E. Removal of the Forward Entry Door Snubber

SUBTASK 52-11-51-020-001

CAUTION: DO NOT MOVE THE DOOR WITH THE SNUBBER REMOVED. THE DOOR MAY MOVE QUICKLY WITH THE SNUBBER REMOVED. IF THE DOOR MOVES QUICKLY TO THE OPEN OR CLOSED POSITION IT MAY CAUSE DAMAGE TO THE EQUIPMENT.

- (1) Do these steps to remove the snubber (5) from the door:
 - (a) Remove the bolt (1), washers (2), nut (3), and cotter pin (4) that attach the snubber (5) to the fuselage.
 - (b) Make a line to show the alignment of the snubber attachment fitting (7) to the door.
 - (c) Remove the four bolts (8) and nuts (10) from the snubber attachment fitting (7).
 - (d) Remove the snubber (5) and the attachment fitting (7) from the door.
 - (e) Remove the snubber (5) from the snubber attach fitting (7).

NOTE: Write down the location of the washers on the bolt.

————— **END OF TASK** —————

TASK 52-11-51-400-801

3. Forward Entry Door Snubber Installation

(Figure 401)

A. References

Reference	Title
20-50-11-910-801	Standard Torque Values (P/B 201)
52-11-31-400-802	Forward Entry Door Lining Installation (P/B 401)

B. Location Zones

Zone	Area
831	Forward Entry Door

C. Installation of the Forward Entry Door Snubber

SUBTASK 52-11-51-420-001

CAUTION: DO NOT MOVE THE DOOR WITH THE SNUBBER REMOVED. THE DOOR MAY MOVE QUICKLY WITH THE SNUBBER REMOVED. IF THE DOOR MOVES QUICKLY TO THE OPEN OR CLOSED POSITION IT MAY CAUSE DAMAGE TO THE EQUIPMENT.

- (1) Do these steps to install the snubber (5) on the door:

I HAP 001-013, 015-026, 028-043, 101

- (a) Set the initial length of the snubber as follows:
 - 1) Loosen the jam nut (9) on the snubber rod end (6).
 - 2) Turn the snubber rod end (6) to set the length of the rod to 0.26 inch (6.604 mm).

NOTE: Measure from the bottom of the rod end where the rod meets the rod end, to the top of the jam nut.

- 3) Tighten the jam nut (9).

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CAUTION: MAKE SURE TO INSTALL THE SNUBBER WITH THE RAMP SIDE OF THE SNUBBER INBOARD. IF THE SNUBBER IS NOT INSTALLED WITH THE RAMP INBOARD, THE SNUBBER WILL CONTACT THE HINGE ARM WHEN THE DOOR IS CLOSED. THIS WILL CAUSE DAMAGE TO THE EQUIPMENT.

- (b) Install the snubber (5) to the snubber attachment fitting (7). To install it, refer to (TASK 20-50-11-910-801).
- (c) Install the snubber attachment fitting (7) to the door.

I HAP 044-054, 102-999

- 1) Install the snubber attachment fitting with the snubber fluid fill plug recess pointed down.

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- 2) Tighten the four bolts (8) and nuts (10). To tighten them, refer to (TASK 20-50-11-910-801).
- (d) Install the bolt (1), washers (2), nut (3), and cotter pin (4) that attach the snubber (5) to the fuselage structure. See, do this task: Standard Torque Values, TASK 20-50-11-910-801.
- (e) Do an installation test on the snubber.

D. Snubber Installation Test

SUBTASK 52-11-51-710-001

- (1) Do an installation test on the snubber (5) as follows:
 - (a) Make sure that the door is fully open with the hold open lock engaged.
 - (b) Make sure that more extension is available on the snubber (5).

I HAP 001-013, 015-026, 028-043, 101

- (2) If necessary, do the steps to adjust the length of the snubber (5) SUBTASK 52-11-00-820-022.

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E. Put the Airplane Back to its Usual Condition

SUBTASK 52-11-51-410-001

- (1) If necessary, do this task: Forward Entry Door Lining Installation, TASK 52-11-31-400-802

————— END OF TASK —————

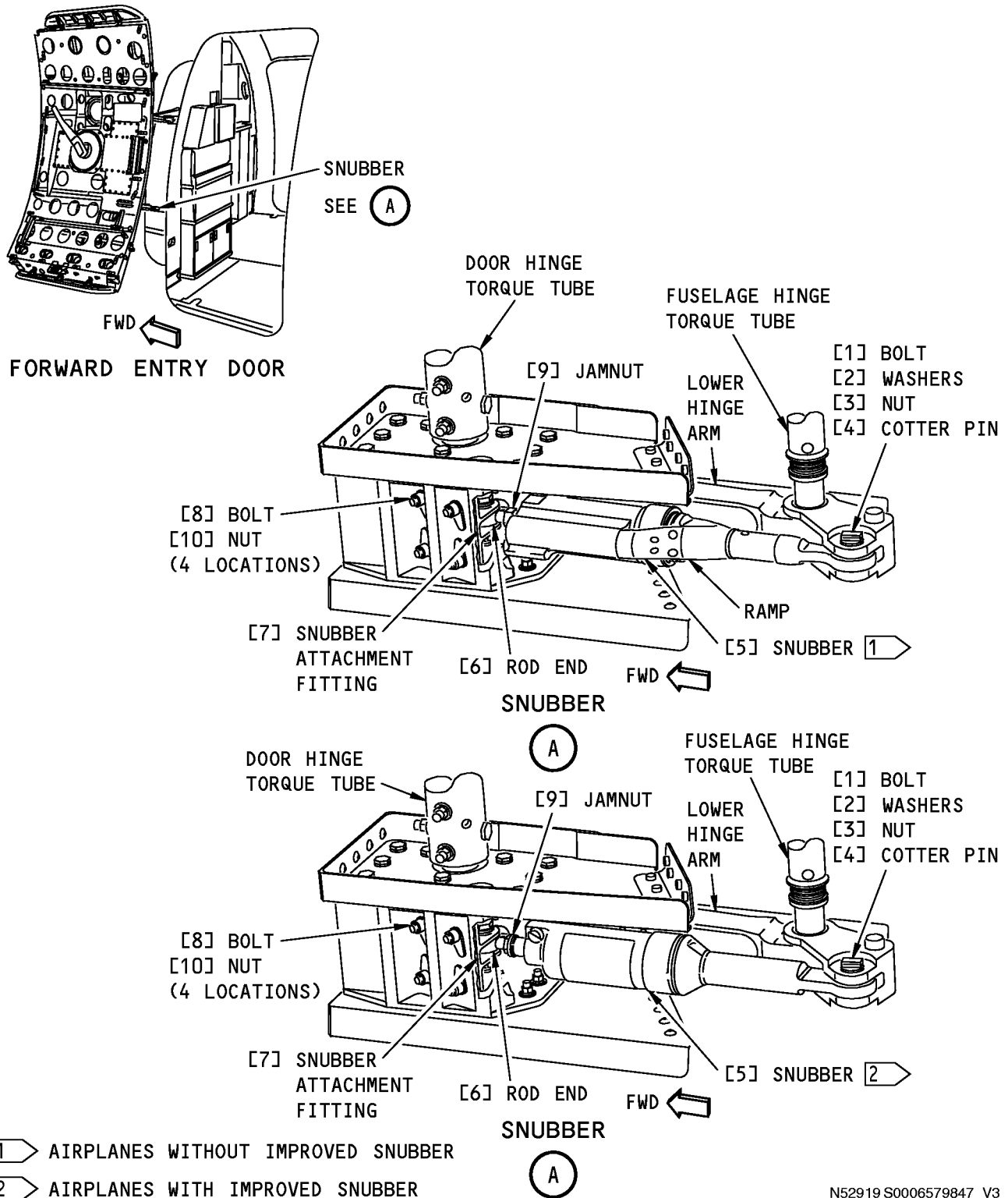
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**Snubber Installation
Figure 401/52-11-51-990-801**

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AFT ENTRY DOOR - MAINTENANCE PRACTICES

1. General

A. This procedure has these tasks:

- (1) Open the AFT Entry Door with the exterior handle.
- (2) Close the Aft Entry Door with the exterior handle.
- (3) Open the AFT Entry Door with the interior handle.
- (4) Close the AFT Entry Door with the interior handle.
- (5) Aft Entry Door Corrosion Prevention.

TASK 52-13-00-860-801

2. Open the AFT Door with the Exterior Handle

(Figure 201)

A. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1523	Stand - Work, (B9) General Purpose, Working Height 4-21 Feet (Part #: B-9, Supplier: 05060, A/P Effectivity: 737-ALL)

B. Location Zones

Zone	Area
834	Left Aft Entry Door

C. Procedure

SUBTASK 52-13-00-860-012

(1) Make sure the door is safe as follows:

WARNING: MAKE SURE THE GIRT BAR IS NOT ENGAGED IN THE FLOOR-MOUNTED ESCAPE SLIDE BRACKETS. IF THE GIRT BAR IS ENGAGED IN THE BRACKETS, THE ESCAPE SYSTEM CAN DEPLOY WHEN YOU OPEN THE DOOR. THIS CAN CAUSE INJURIES TO PERSONS AND DAMAGE TO EQUIPMENT.

- (a) Make sure the girt bar is not engaged in the floor-mounted escape slide brackets.
- (b) Install the stand, COM-1523 in front of the door.

SUBTASK 52-13-00-860-013

(2) Pull the exterior handle outboard from the recess in the door to engage the door drive mechanism.

SUBTASK 52-13-00-860-014

(3) Turn the exterior handle 180 degrees clockwise to unlatch the door.

NOTE: When you turn the handle 180 degrees clockwise, the latch rollers disengage with the latch fittings.

NOTE: The initial movement of the door is inward.

SUBTASK 52-13-00-860-015

(4) Return the exterior handle into the recess of the door.

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SUBTASK 52-13-00-860-016

- (5) Use the door assist handle to pull the door outboard and forward until the latch mechanism in the upper hinge engages and the door is held in the fully open position.

NOTE: The door will be parallel to the fuselage when fully open.

SUBTASK 52-13-00-860-017

- (6) Put the warning strap across the door opening.

————— **END OF TASK** —————

TASK 52-13-00-860-802

3. Close the AFT Door with the Exterior Handle

(Figure 201)

A. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1523	Stand - Work, (B9) General Purpose, Working Height 4-21 Feet (Part #: B-9, Supplier: 05060, A/P Effectivity: 737-ALL)

B. Location Zones

Zone	Area
834	Left Aft Entry Door

C. Procedure

SUBTASK 52-13-00-860-018

- (1) Make sure the stand, COM-1523 is installed in front of the door.

SUBTASK 52-13-00-860-019

- (2) Remove the warning strap from across the door if it is installed.

SUBTASK 52-13-00-860-020

- (3) Release the door from the locked position by using either the "Up to release" lever on the body torque tube, or the "Down to release" button on the guide arm.

SUBTASK 52-13-00-860-021

- (4) Use the assist handle to swing the door into the door opening.

SUBTASK 52-13-00-860-022

- (5) Pull the exterior handle outward to clear the handle recess.

SUBTASK 52-13-00-860-023

- (6) Turn the exterior handle 180 degrees counterclockwise to close the door.

NOTE: When you turn the handle 180 degrees counterclockwise, the latch rollers engage with the latch fittings.

SUBTASK 52-13-00-860-024

- (7) Release the exterior handle into the recess in the door.

————— **END OF TASK** —————

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TASK 52-13-00-860-803

4. Open the AFT Door with the Interior Handle

(Figure 202)

A. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1523	Stand - Work, (B9) General Purpose, Working Height 4-21 Feet (Part #: B-9, Supplier: 05060, A/P Effectivity: 737-ALL)

B. Location Zones

Zone	Area
834	Left Aft Entry Door

C. Procedure

SUBTASK 52-13-00-860-025

(1) Put the stand, COM-1523 in front of the door.

SUBTASK 52-13-00-860-026

(2) Make sure the door is safe as follows:

WARNING: MAKE SURE THE GIRT BAR IS NOT ENGAGED IN THE FLOOR-MOUNTED ESCAPE SLIDE BRACKETS. IF THE GIRT BAR IS ENGAGED IN THE BRACKETS, THE ESCAPE SYSTEM CAN DEPLOY WHEN YOU OPEN THE DOOR. THIS CAN CAUSE INJURIES TO PERSONS AND DAMAGE TO EQUIPMENT.

(a) Make sure the girt bar is not engaged in the floor-mounted escape slide brackets.

(b) Install the stand, COM-1523 in front of the door.

SUBTASK 52-13-00-860-027

(3) Turn the interior handle counterclockwise 180 degrees to unlatch the door.

NOTE: When you turn the handle 180 degrees in the open direction, the latch rollers desengage from the latch fittings and the initial movement of the door is inward.

SUBTASK 52-13-00-860-028

(4) Use the door assist handle to push the door outboard and forward until the latch mechanism in the upper hinge engages and the door is held in the fully open position.

NOTE: The door will be parallel to the fuselage when fully open.

SUBTASK 52-13-00-860-029

(5) Put the warning strap across the door opening.

————— **END OF TASK** —————

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TASK 52-13-00-860-804

5. Close the AFT Door with the Interior Handle

(Figure 202)

A. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1523	Stand - Work, (B9) General Purpose, Working Height 4-21 Feet (Part #: B-9, Supplier: 05060, A/P Effectivity: 737-ALL)

B. Location Zones

Zone	Area
834	Left Aft Entry Door

C. Procedure

SUBTASK 52-13-00-860-030

(1) Make sure the stand, COM-1523 is installed in front of the door.

SUBTASK 52-13-00-860-031

(2) Remove the warning strap from across the door opening if it is installed.

SUBTASK 52-13-00-860-032

(3) Release the door from the locked position by using either the "Up to release" lever on the body torque tube, or the "Down to release" button on the guide arm.

SUBTASK 52-13-00-860-033

(4) Use the assist handle to swing the door into the door opening.

SUBTASK 52-13-00-860-034

(5) Turn the interior handle 180 degrees clockwise to fully close the door.

NOTE: When you turn the handle 180 degrees clockwise, the latch rollers engage with the latch fittings.

————— **END OF TASK** —————

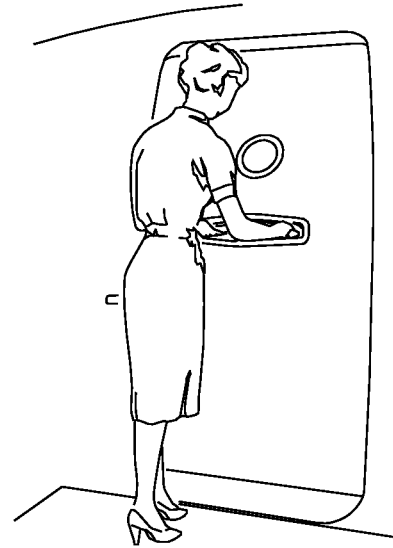
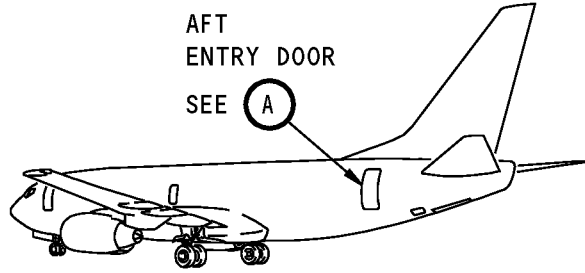
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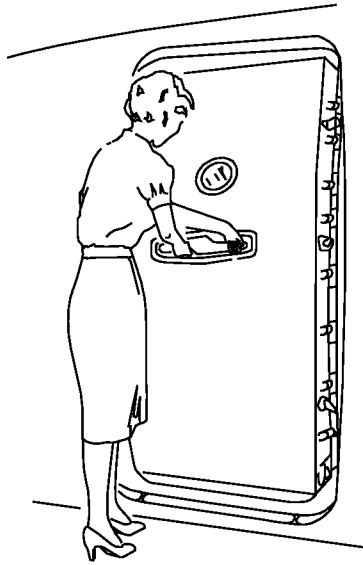
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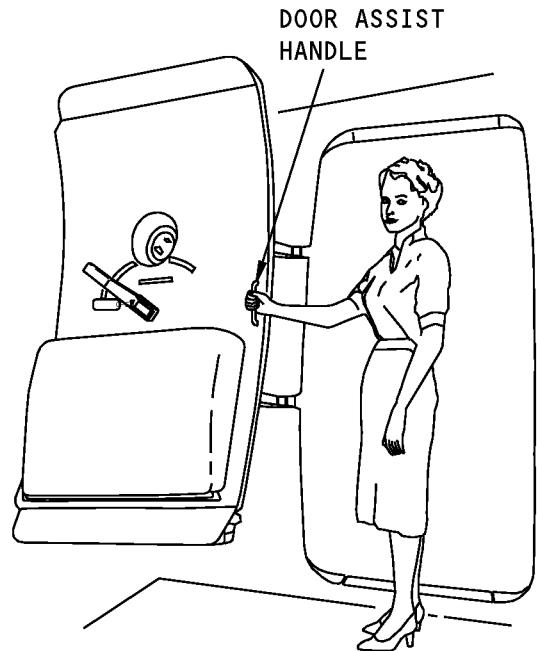
STEP 1
PULL HANDLE



STEP 2
ROTATE HANDLE
CLOCKWISE



STEP 3



STEP 4

**AFT ENTRY DOOR
(EXAMPLE)**



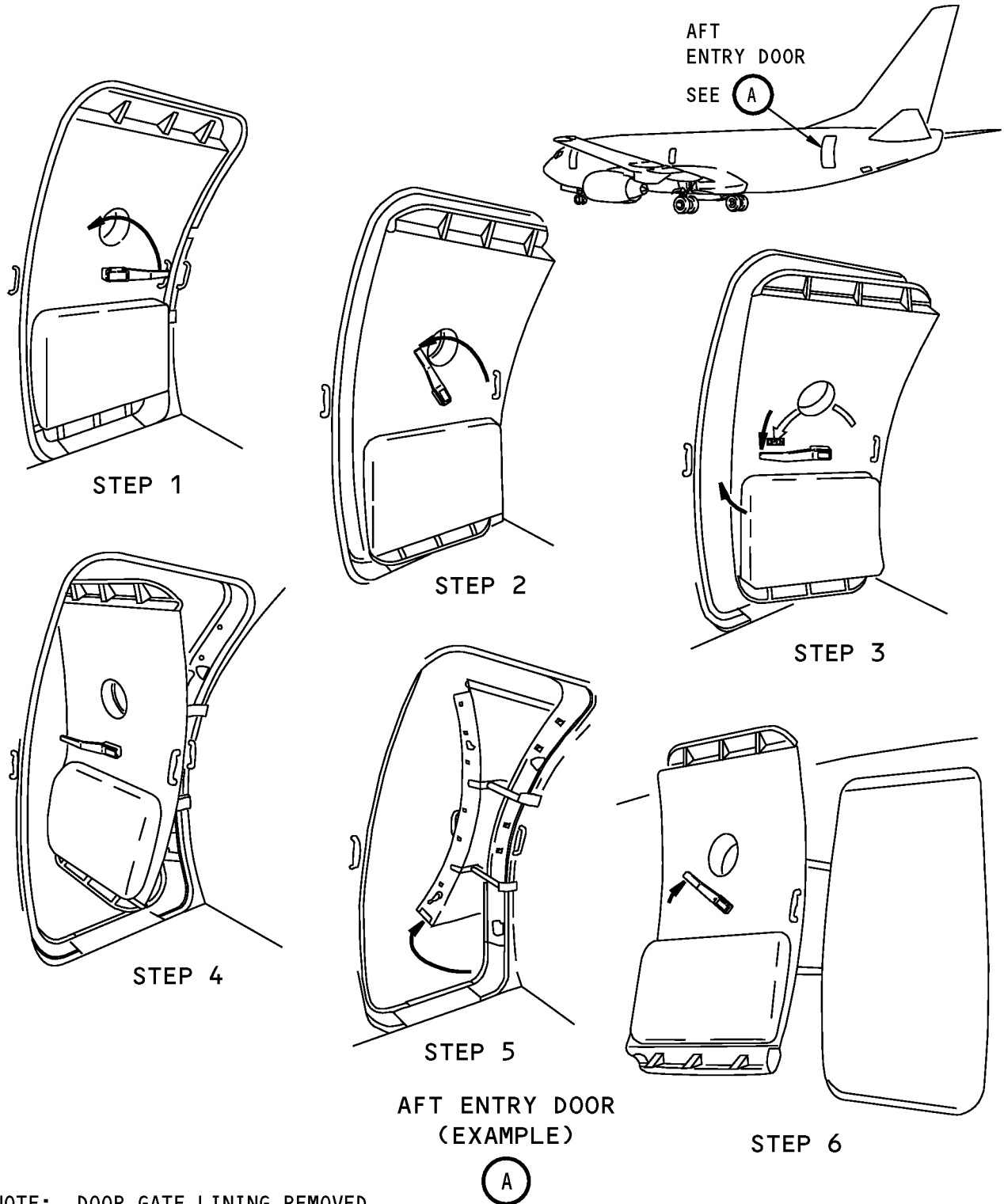
Aft Entry Door Operation from Outside Airplane
Figure 201/52-13-00-990-823

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NOTE: DOOR GATE LINING REMOVED.

Aft Entry Door Operation from Inside Airplane
Figure 202/52-13-00-990-824

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TASK 52-13-00-600-801

6. Aft Entry Door Corrosion Prevention

A. References

Reference	Title
12-25-12 P/B 301	AFT ENTRY DOOR - SERVICING
52-13-00-200-801	Aft Entry Door Check (P/B 601)
52-13-31-000-802	Aft Entry Door Lining Removal (P/B 401)
52-13-31-400-802	Aft Entry Door Lining Installation (P/B 401)

B. Consumable Materials

Reference	Description	Specification
G00009	Compound - Organic Corrosion Inhibiting	BMS3-23

C. Location Zones

Zone	Area
834	Left Aft Entry Door

D. General

SUBTASK 52-13-00-800-001

- (1) Corrosion may occur on the internal and external surfaces of the door structure. especially the inside lower corners, the connection points, and the door mechanism.
- (2) Corrosion has been found on the door torque tube, that is found adjacent to the door in the airplane body. The torque tube for the aft service door, in particular, has been found to contain large amounts of water.
- (3) If a door is not opened often from the outside, corrosion has been found on the exterior door handle. The corrosion causes the handle to seize in the recess and prevents the handle from moving outward to unlock the door. Corrosion can also be found in the upper and lower bearings.
 - (a) If the door handle operates in a stiff or restricted manner, then increase the frequency of the lubrication.
- (4) If applicable, stress corrosion cracks have been found on the aft upper stop fitting at the aft airstair door.
- (5) Corrosion has been found on the rivets between the web and the intercostal at the aft galley door on some airplanes.
- (6) Some items in this section maybe subject to the mandatory requirements for corrosion prevention and control programs for aging airplanes.
- (7) Corrosion Prevention
 - (a) Do this tasks, Aft Entry Door Check, TASK 52-13-00-200-801 to detect the early stages of corrosion.
 - (b) Look for missing fasteners, white powdery deposits, and discolorations, as signs of corrosion.
 - 1) If signs of corrosion are found, then a corrosion prevention program should be started to prevent the build up of corrosion products.
 - 2) If corrosion products are allowed to build up, then they will cause further corrosion.
 - 3) If corrosion is found, the refer to the Structural Repair Manual for detail instructions for the removal of corrosion.

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- (c) After the corrosion products are cleaned, make sure that the protective finishes are serviceable.
 - 1) If only minor corrosion is found, then make sure that the area is clean.
 - 2) Apply corrosion inhibiting compound on the affected area.
 - 3) Make sure that the protective finish is restored at the first opportunity that is consistent with the airplanes maintenance schedule.
- (8) Frequency of Application
 - (a) Periodic inspection is required to areas identified as prone to corrosion and should be scheduled to your Maintenance Planning Document.
 - (b) Periodic application of BMS 3-23 compounds are necessary to areas identified as prone to corrosion and should be scheduled to your Maintenance Planning Document.
 - 1) Do the prevention treatment to the door at the same recommended interval as the door frame.
 - 2) Do the prevention treatment to the exterior surface of the door at the same recommended interval as the exterior surface of the fuselage.

E. Corrosion Prevention

SUBTASK 52-13-00-620-001

(1) Prevention Treatment

- (a) Remove the door liner to get access to the interior surfaces of the door.
 - 1) Aft Entry Door Lining Removal, TASK 52-13-31-000-802
- (b) Clean the drains and drain paths.
- (c) Aft Entry Door Check, TASK 52-13-00-200-801
 - 1) Remove or repair any corrosion that you find.
- (d) Apply corrosion inhibiting compound, G00009 to the interior surfaces of the door.
 - 1) Make sure that the corrosion inhibiting compound, G00009 completely covers the surfaces, with special attention given to the lower corners and the handle mechanism housing.
- (e) If it is necessary, apply corrosion inhibiting compound, G00009 to the exterior surfaces of the door.
- (f) Lubricate the door. AFT ENTRY DOOR - SERVICING, PAGEBLOCK 12-25-12/301
- (g) Install the door lining.
 - 1) Aft Entry Door Lining Installation, TASK 52-13-31-400-802

————— **END OF TASK** —————

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AFT ENTRY DOOR - REMOVAL/INSTALLATION

1. General

- A. This procedure has these tasks:
 - (1) A removal of the aft entry door.
 - (2) An installation of the aft entry door.
- B. The aft entry door is referred to as the door in this procedure.

TASK 52-13-00-000-802

2. Aft Entry Door Removal

(Figure 401)

A. References

Reference	Title
52-13-31-000-802	Aft Entry Door Lining Removal (P/B 401)
52-13-51-000-801	Aft Entry Door Snubber Removal (P/B 401)

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1523	Stand - Work, (B9) General Purpose, Working Height 4-21 Feet (Part #: B-9, Supplier: 05060, A/P Effectivity: 737-ALL)

C. Location Zones

Zone	Area
834	Left Aft Entry Door

D. Access Panels

Number	Name/Location
834FZ	Aft Entry Door - Torque Tube Access

E. Prepare for the Removal

SUBTASK 52-13-00-860-007

- (1) Make sure the door is safe as follows:
 - (a) Make sure the door is closed and latched.

WARNING: MAKE SURE THE GIRT BAR IS NOT ENGAGED IN THE FLOOR-MOUNTED ESCAPE SLIDE BRACKETS. IF THE GIRT BAR IS ENGAGED IN THE BRACKETS, THE ESCAPE SYSTEM CAN DEPLOY WHEN YOU OPEN THE DOOR. THIS CAN CAUSE INJURIES TO PERSONS AND DAMAGE TO EQUIPMENT.

- (b) Make sure the girt bar is not engaged in the floor-mounted escape slide brackets.
- (c) Make sure the stand, COM-1523 is installed outboard of the door.

SUBTASK 52-13-00-010-013

- (2) Get access to the door as follows:
 - (a) Make sure the door is closed and latched.
 - (b) Do this task: Aft Entry Door Lining Removal, TASK 52-13-31-000-802.

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(c) Fully open the door.

F. Removal of the Aft Entry Door

SUBTASK 52-13-00-020-006

CAUTION: REMOVE THE SNUBBER BEFORE YOU REMOVE THE DOOR. IF YOU DO NOT REMOVE THE SNUBBER BEFORE YOU REMOVE THE DOOR, DAMAGE TO THE SNUBBER CAN OCCUR.

(1) Do this task: Aft Entry Door Snubber Removal, TASK 52-13-51-000-801

SUBTASK 52-13-00-480-005

(2) Install straps around the stop fittings on the door [1] to support the door [1].

SUBTASK 52-13-00-020-008

(3) Disconnect the upper hinge of the door [1]:

(a) Remove this access panel:

<u>Number</u>	<u>Name/Location</u>
834FZ	Aft Entry Door - Torque Tube Access

(b) Remove the filler [16] to get access to the fastener that attaches the guide arm [11] to the door [1].

(c) Remove the bolt [8], washers [9], and nut [10] that attach the guide arm [11] to the door [1].

NOTE: The guide arm [11] will stay with the fuselage.

(d) Remove the bolt [12], washers [13], and nut [14] that attach the upper hinge arm [15] to the fuselage.

NOTE: The hinge arm [15] will stay with the door [1].

SUBTASK 52-13-00-020-009

(4) Disconnect the lower hinge of the door [1]:

(a) Remove the bolt [19], washers [20], and nut [21] that attach the lower hinge arm [18] to the fuselage.

NOTE: The hinge arm [18] will stay with the door [1].

SUBTASK 52-13-00-020-010

WARNING: BE CAREFUL WHEN YOU REMOVE THE DOOR FROM THE AIRPLANE. THE DOOR WEIGHS APPROXIMATELY 140 POUNDS (63.5 KILOGRAMS). INJURY OR DAMAGE CAN OCCUR.

(5) Carefully move the door [1] from the fuselage and remove the door [1] from the airplane.

SUBTASK 52-13-00-860-035

(6) If it is necessary, put the warning strap across the door opening.

————— **END OF TASK** —————

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TASK 52-13-00-400-802

3. Aft Entry Door Installation

(Figure 401)

A. References

Reference	Title
05-51-91-790-801	Cabin Pressure Leak Test (P/B 201)
52-13-00-700-805	Aft Entry Door System Test (P/B 501)
52-13-00-820-801	Aft Entry Door Adjustment (P/B 501)
52-13-51-400-801	Aft Entry Door Snubber Installation (P/B 401)
52-41-00-200-802	Galley Service Door Pressure Seal Check (P/B 601)

B. Consumable Materials

Reference	Description	Specification
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS 5-95

C. Location Zones

Zone	Area
834	Left Aft Entry Door

D. Access Panels

Number	Name/Location
834FZ	Aft Entry Door - Torque Tube Access

E. Installation of the Aft Entry Door

SUBTASK 52-13-00-860-036

- (1) If it is necessary, remove the warning strap across the door opening.

SUBTASK 52-13-00-420-005

WARNING: BE CAREFUL WHEN YOU MOVE THE DOOR INTO THE AIRPLANE. THE DOOR WEIGHS APPROXIMATELY 140 POUNDS (63.5 KILOGRAMS). INJURY OR DAMAGE CAN OCCUR.

- (2) Carefully move the door [1] near the fuselage and align the upper and lower hinges with the fuselage.
 - (a) Inspect the pressure seal of the Door prior to installation per, do this task: Galley Service Door Pressure Seal Check, TASK 52-41-00-200-802.

NOTE: If a follow-on pressurization test will be done, follow the procedure in (TASK 05-51-91-790-801).

SUBTASK 52-13-00-420-006

- (3) Connect the lower hinge of the door [1] to the fuselage:
 - (a) Put the lower hinge arm [18] in its correct position.
 - (b) Install the bolt [19], washers [20], and nut [21] that attach the lower hinge arm [18] to the fuselage.

SUBTASK 52-13-00-020-011

- (4) Connect the upper hinge of the door [1] to the fuselage:

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- (a) Put the upper hinge arm [15] in its correct position.
- (b) Install the bolt [12], washers [13], and nut [14] to attach the upper hinge arm [15] to the fuselage.
- (c) Make sure the distance from the rod end [30] of the guide arm to the adjuster nut [34] is as specified.
- (d) If it is out of tolerance, adjust the guide arm [11]:

NOTE: This is an initial adjustment for a new guide arm [11] or door [1].

- 1) Remove the bolt [32] and washer [33] on the lock channel [31].
 - 2) Remove the lock channel [31].
 - 3) Loosen the jamnut [35].
 - 4) Change the length of the rod end [30] with the adjuster nut [31] to get the correct dimension.
 - 5) Make sure the adjuster nut [34] will align with the lock channel [31].
 - 6) Tighten the jamnut [35].
 - 7) Put the lock channel [31] in its correct position on the guide arm [11].
 - 8) Install the bolt [32] and washer [33] to hold the lock channel [31]
- (e) Put the guide arm [11] in its correct position.
 - 1) Make sure the lubrication fitting on the rod end [30] faces inboard.
 - (f) Install the bolt [8], washers [9], and nut [10] to attach the guide arm [11] to the door [1].
 - (g) Make sure the lock channel [31] is installed over the adjuster nut [34].
 - (h) Install the filler [16] with sealant, A00247 to cover the guide arm [11] attachment.
 - (i) Install this access panel:

<u>Number</u>	<u>Name/Location</u>
834FZ	Aft Entry Door - Torque Tube Access

SUBTASK 52-13-00-020-012

- (5) Do this task: Aft Entry Door Snubber Installation, TASK 52-13-51-400-801

SUBTASK 52-13-00-820-028

- (6) Do this task: Aft Entry Door Adjustment, TASK 52-13-00-820-801.

SUBTASK 52-13-00-710-009

- (7) Do this task: Aft Entry Door System Test, TASK 52-13-00-700-805.

————— **END OF TASK** —————

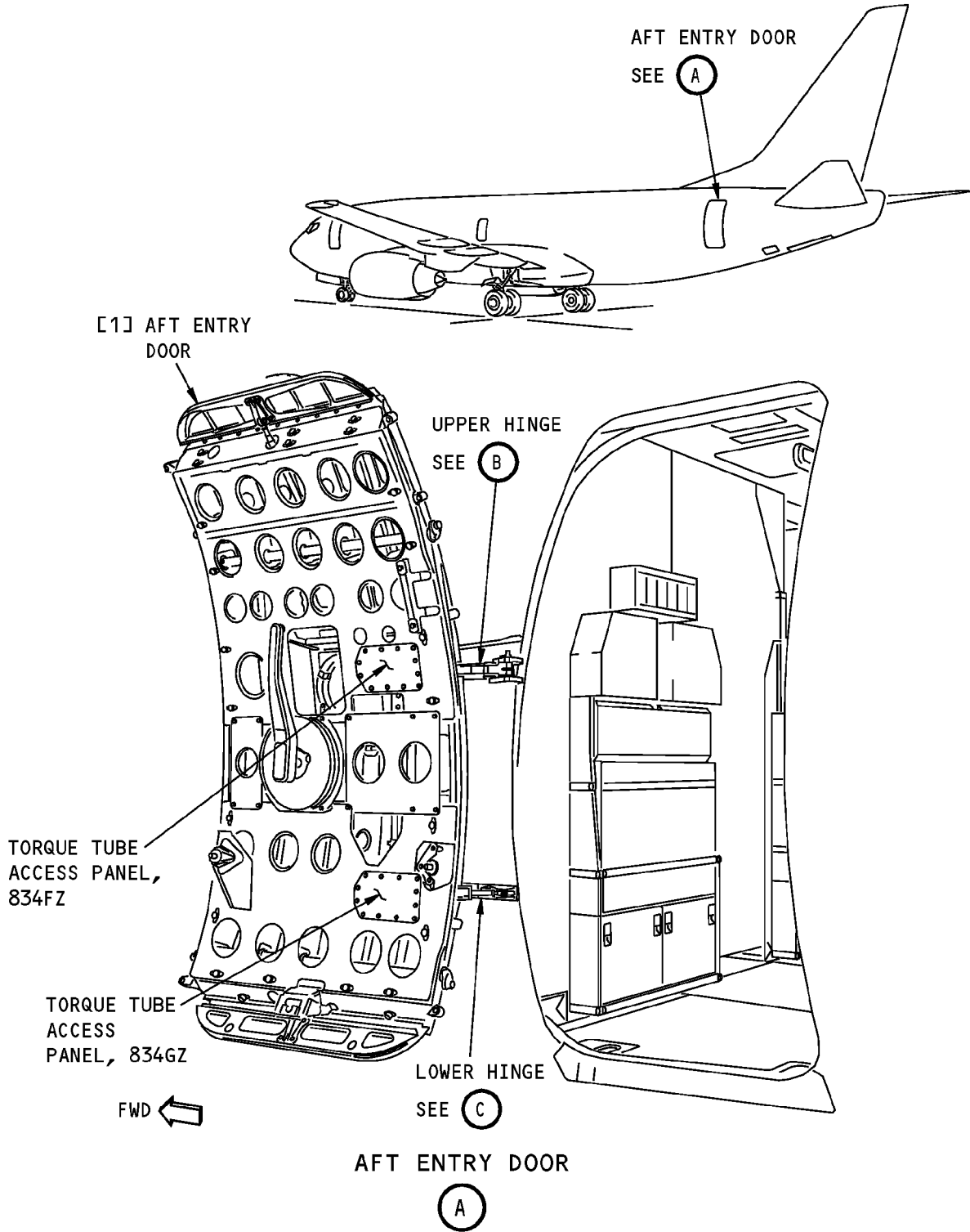
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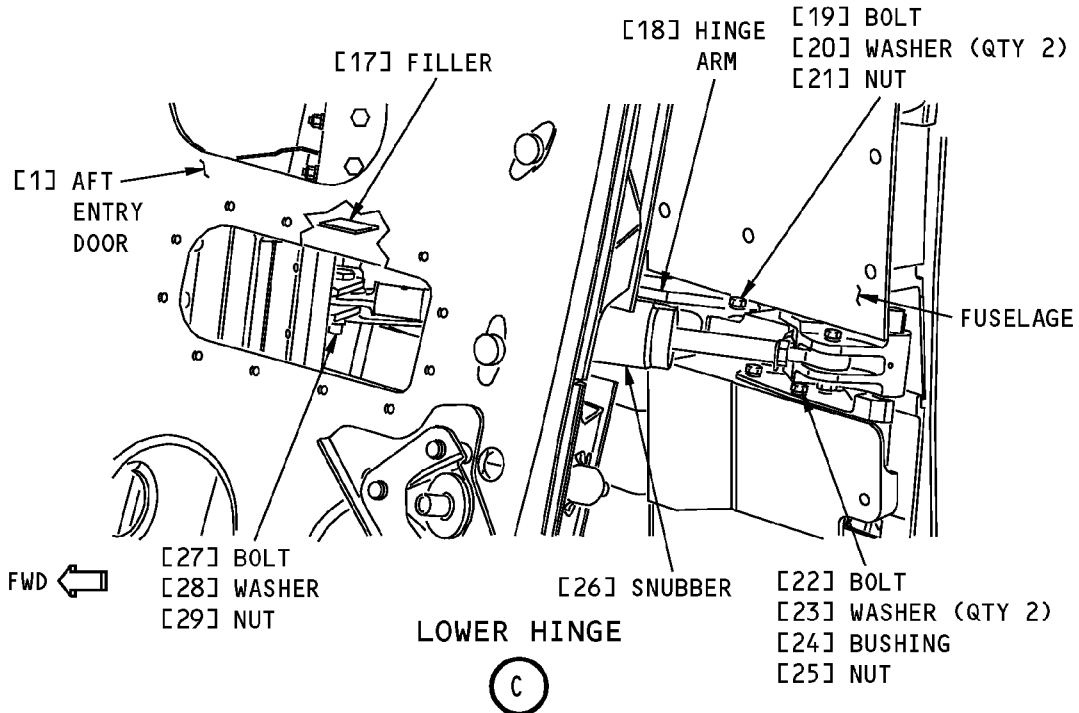
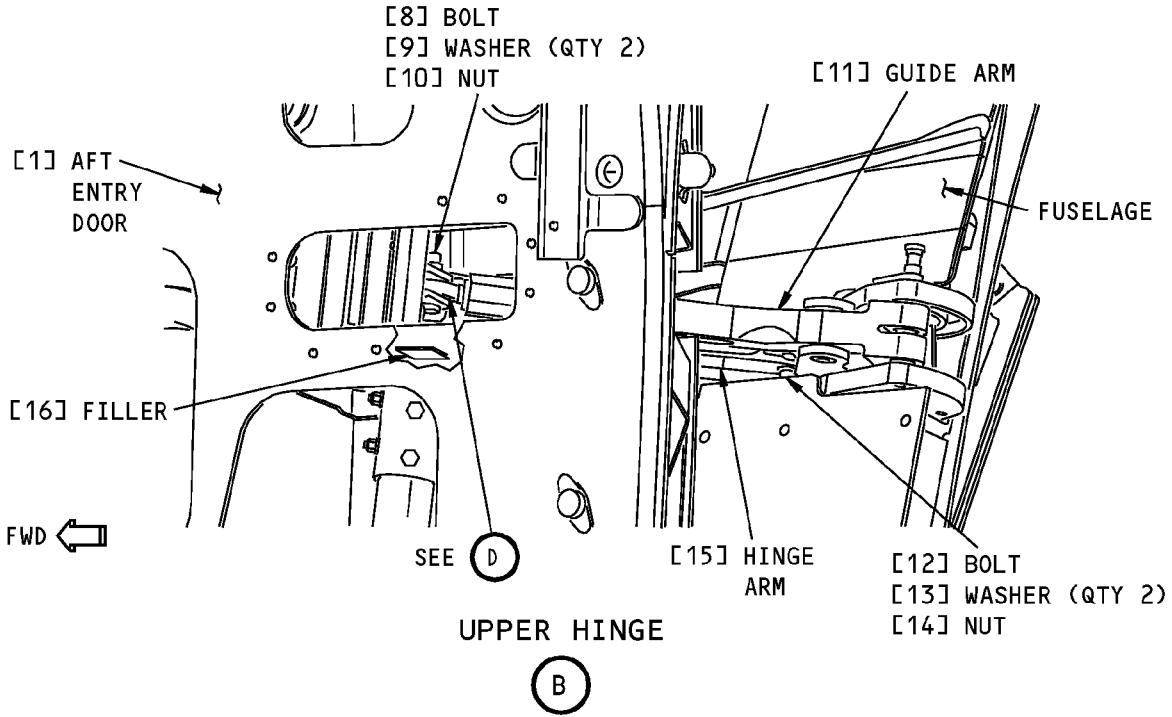


**Aft Entry Door Installation
Figure 401 (Sheet 1 of 3)/52-13-00-990-816**

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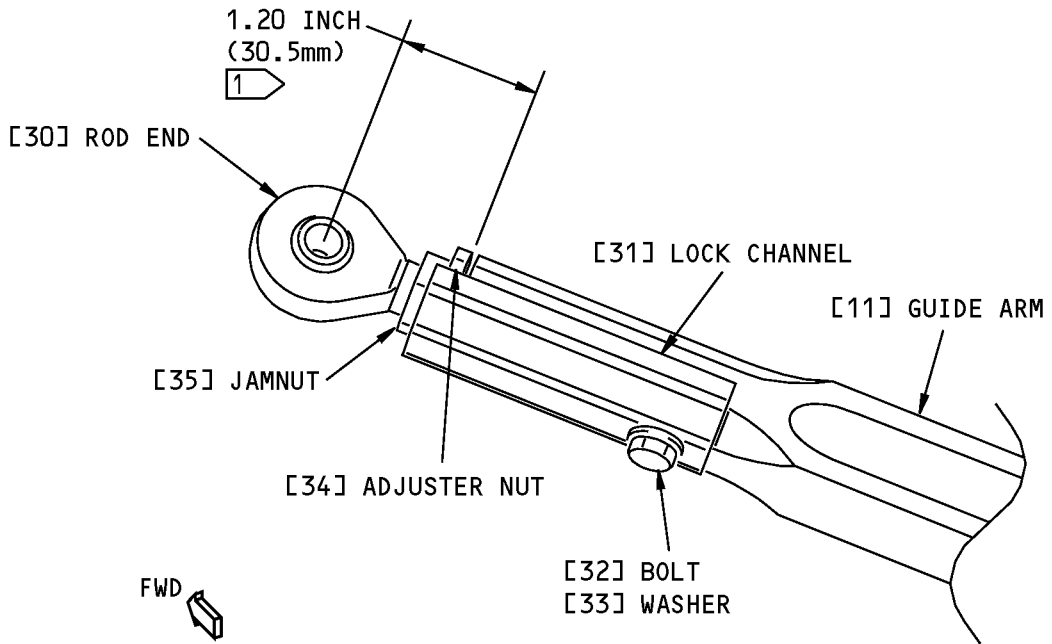


Aft Entry Door Installation
Figure 401 (Sheet 2 of 3)/52-13-00-990-816

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GUIDE ARM ADJUSTMENT

D

1 INITIAL ADJUSTMENT

**Aft Entry Door Installation
Figure 401 (Sheet 3 of 3)/52-13-00-990-816**

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AFT ENTRY DOOR - ADJUSTMENT/TEST

1. General

A. This procedure has these tasks:

- (1) An adjustment of the aft entry door
(2) A special adjustment to correct "soft unlatching" of the aft entry door
(3) A system test of the aft entry door.

TASK 52-13-00-820-801

2. Aft Entry Door Adjustment

(Figure 501, Figure 502, Figure 503, Figure 504, Figure 505, Figure 506, Figure 507, Figure 508, Figure 509, Figure 510, Figure 511)

A. General

- (1) Do the procedure with the airplane operating weight empty and the airplane supported on its landing gear.
(2) After the adjustment is completed, make sure that all adjustment points are locked and sealed.

B. References

Table with 2 columns: Reference, Title. Rows include 52-13-31-000-802, 52-13-31-400-802, 52-71-11-710-801, 52-71-11-820-801.

C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Table with 2 columns: Reference, Description. Rows include COM-1523, COM-1557.

D. Consumable Materials

Table with 3 columns: Reference, Description, Specification. Rows include A00247, C00259.

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Reference	Description	Specification
G01912	Lockwire - Monel (0.032 In. Dia.)	NASM20995N~ C32 (QQ-N-281)

E. Location Zones

Zone	Area
834	Left Aft Entry Door

F. Access Panels

Number	Name/Location
834AZ	Aft Entry Door - Torque Tube Access
834FZ	Aft Entry Door - Torque Tube Access

G. Prepare for the Adjustment

SUBTASK 52-13-00-860-037

(1) If a new door has been installed:

- (a) Make sure that the centering guide is not installed on the door.
- (b) Make sure that the stop pins are retracted into the stop fittings or removed.

SUBTASK 52-13-00-860-006

(2) Make sure the door is safe as follows:

- (a) Make sure the door is closed and latched.

WARNING: MAKE SURE THE GIRT BAR IS NOT ENGAGED IN THE FLOOR-MOUNTED ESCAPE SLIDE BRACKETS. IF THE GIRT BAR IS ENGAGED IN THE BRACKETS, THE ESCAPE SYSTEM CAN DEPLOY WHEN YOU OPEN THE DOOR AND INJURIES OR DAMAGE CAN OCCUR.

- (b) Make sure the girt bar is not engaged in the floor-mounted escape slide brackets.
- (c) Make sure a stand, COM-1523 is installed outboard of the door.

SUBTASK 52-13-00-010-012

(3) Get access to the door as follows:

- (a) Make sure the door is closed and latched.
- (b) Do this task: Aft Entry Door Lining Removal, TASK 52-13-31-000-802.
- (c) Make sure a weight equivalent to the escape slide and door lining that equals 77 pounds (34.9 kilograms) is installed on the door.

H. Hinge Flap Adjustment

SUBTASK 52-13-00-820-015

(1) Adjust the hinge flap (Figure 502):

- (a) Make sure the door is closed and latched.
- (b) Make sure the skin clearance and flushness between the upper and lower hinge flaps, fuselage skin, and access panel are as shown (Figure 502).
- (c) If necessary, adjust as follows:
 - 1) Adjust the skin clearance as follows (Figure 502):
 - a) Open the door.

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- b) Remove the bolts and washers that attach the hinge flap to the fuselage structure.
 - c) Install a new laminated shim or remove laminations from the shim under the hinge on the hinge flap.
 - d) Apply primer, C00259 to the bare laminations of the shim before installation.
 - e) Install the bolts and washers to attach the hinge flap to the fuselage structure.
- 2) Adjust the flushness as follows, View B (Figure 502):
- a) Loosen the bolts that attach the hinge flap to the fuselage structure.
 - b) Move the hinge flap inboard or outboard in the slots for the bolts.
 - c) Tighten the bolts that attach the hinge flap to the fuselage structure.

I. Guide Arm Adjustment

SUBTASK 52-13-00-820-016

(1) Adjust the guide arm (Figure 503):

- (a) Open the door and move it until it is parallel to the contour of the fuselage near the closed position.
- (b) If the door is not parallel to the contour of the fuselage at approximately one inch (25.4 mm) from the closed position, adjust as follows:
 - 1) Move the door to the fully open position.
 - 2) Remove this access panel:

<u>Number</u>	<u>Name/Location</u>
834FZ	Aft Entry Door - Torque Tube Access

- 3) Get access to the lock channel of the guide arm.
- 4) Remove the bolt and washer on the lock channel.
- 5) Remove the lock channel.
- 6) Loosen the jamnut.
- 7) Turn the adjuster nut to change the length of the rod end to get the correct position of the door.

NOTE: If you shorten the guide arm it will turn the aft edge of the door inboard.

- 8) Make sure the adjuster nut will align with the lock channel.
- 9) Tighten the jamnut.
- 10) Put the lock channel in its correct position on the guide arm.
- 11) Install the bolt and washer to hold the lock channel in position.
- 12) Install this access panel:

<u>Number</u>	<u>Name/Location</u>
834FZ	Aft Entry Door - Torque Tube Access

I HAP 001-013, 015-026, 028-043, 101

J. Snubber Adjustment

SUBTASK 52-13-00-820-017

(1) Adjust the snubber (Figure 504):

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HAP 001-013, 015-026, 028-043, 101 (Continued)

- (a) Move the door slowly from the cocked position to the closed position and back to the cocked position.
NOTE: The door is in the cocked position when it is the most inboard in its travel, near perpendicular to the fuselage cutout.
- (b) Make sure the snubber does not bottom out and cause the roller to bind in the guide arm at the upper hinge.
- (c) Move the door to the fully open position.
- (d) Make sure the snubber is not extended too much by a check that more movement of the stop link is possible.
- (e) If necessary, adjust as follows (Figure 504):
 - 1) Make sure the door is fully open.
 - 2) Remove the bolt, washers, bushing, and nut that attach the snubber to the fuselage frame.
 - 3) Remove the lockwire.
 - 4) Loosen the jamnut on the rod end.
 - 5) Turn the rod end to change the length of the snubber to get the correct snubber extension.
 - 6) Tighten the jamnut.
 - 7) Install the lockwire, G01912.
 - 8) Install the bolt, washers, bushing, and nut to attach the snubber to the fuselage frame.

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K. Door Vertical Adjustment

SUBTASK 52-13-00-820-029

- (1) Adjust the door vertical adjustment:
 - (a) Close and latch the door.
 - (b) Make sure the stop pins align with the stop pads as shown (Figure 510).
NOTE: This is an alignment of the stop pads with the stop pins. Do not set the stop pin and pad clearance.
 - (c) Make sure the forward and aft, upper and lower latch rollers are centered in the latch receivers.
 - (d) Measure the skin clearance between the upper and lower gates and the fuselage skin along the top and bottom of the door at the locations that follow.
NOTE: Make additional measurements if it is necessary.
 - 1) Three locations evenly spaced along the horizontal edge of the upper and lower gates.
 - (e) If necessary, adjust the door vertically as follows (Figure 505):
 - 1) Open this access panel:

<u>Number</u>	<u>Name/Location</u>
834AZ	Aft Entry Door - Torque Tube Access
 - 2) Remove the cotter pins on the upper and lower adjuster nuts.

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- 3) Loosen the upper adjuster nut and turn the lower adjuster nut to get the correct door vertical position.
- 4) Make sure the lower adjuster nut is aligned with a cotter pin hole.
- (f) Measure the skin clearance between the upper and lower gates and the fuselage skin along the top and bottom of the door at the locations that follow:

NOTE: Make additional measurements if necessary.

- 1) Three locations evenly spaced along the horizontal edge of the upper and lower gates.
- (g) Make sure the clearances are as shown (Figure 505).
 - 1) If necessary, adjust the door vertically to get the clearances.
- (h) Make sure the stop pins continue to align with the stop pads.
- (i) Make sure the door is bottomed out on the lower adjuster nut.
- (j) Tighten the upper adjuster nut hand tight and turn back to align with the nearest cotter pin hole.

NOTE: Do not tighten the nuts too much. If the nuts are tightened too much it can put high end loads on the bearings in the handle mechanism.

- (k) Install the new cotter pins in the upper and lower adjuster nuts.

L. Skin Clearance Adjustment

SUBTASK 52-13-00-820-030

- (1) Two measurement methods are provided to adjust the door.
 - (a) Method 1 is the Standard measurement method for skin clearance adjustment.
 - (b) Method 2 is Aero-Averaging measurement for skin clearance adjustment.

SUBTASK 52-13-00-820-031

- (2) Adjust the skin clearance with Method 1:
 - (a) Make sure the clearances between the door skin and fuselage skin as shown, (Table 501) and (Figure 505).

Table 501/52-13-00-993-821 Aerosmoothness Limits - Aft Entry Door (Method 1) (Key to Figure 505)

ZONE	CLEARANCE		FLUSHNESS ^{*[1]}	
	NOMINAL inch (mm)	TOLERANCE inch (mm)	NOMINAL inch (mm)	TOLERANCE inch (mm)
A	0.12 (3.04)	0.05 to 0.28 (1.27 to 7.11)	--	NOT APPLICABLE
B	0.19 (4.82)	0.13 to 0.28 (3.30 to 7.11)	0.00 (0.00)	-0.09 to 0.03 (-2.28 to 0.76)
C	0.12 (3.04)	0.05 to 0.28 (1.27 to 7.11)	--	NOT APPLICABLE
D	0.12 (3.04)	0.06 to 0.18 (1.52 to 4.57)	-0.06 (-1.52)	-0.12 to 0.06 (-3.04 to 1.52)
E	0.12 (3.04)	0.05 to 0.19 (1.27 to 4.82)	--	NOT APPLICABLE
F	0.12 (3.04)	0.06 to 0.18 (1.52 to 4.57)	-0.20 (-5.08)	-0.25 to -0.15 (-6.35 to -3.81)
G	0.12 (3.04)	0.05 to 0.19 (1.27 to 4.82)	--	NOT APPLICABLE
H	0.12 (3.04)	0.06 to 0.18 (1.52 to 4.57)	-0.06 (-1.52)	-0.12 to -0.03 (-3.04 to -0.76)

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	CLEARANCE		FLUSHNESS ^{*[1]}	
HAP 002				
EXCEPT: HAP 002	0.12 (3.04)	0.06 to 0.18 (1.52 to 4.57)	-0.06 (-1.52)	-0.13 to -0.03 (-3.30 to -0.76)
HAP ALL				

*[1] A NEGATIVE FLUSHNESS SHOWS THE DOOR IS INBOARD OF THE FUSELAGE CUTOUT.

- (b) If necessary, adjust as follows:
 - 1) Open the door.
 - 2) Trim the edge of the door to get the correct skin clearances.
- (c) Make sure the minimum distance from the edge of the door outer skin to the door frame is as shown (Figure 505).

SUBTASK 52-13-00-820-037

- (3) Adjust the skin clearance with Method 2 (Aero-Averaging).
 - (a) Make sure the clearances between the door skin and fuselage skin are as shown in Table 502.

Table 502/52-13-00-993-822 Aero-Averaging Limits - Aft Entry Door (Method 2)

ZONE	CLEARANCE		FLUSHNESS ^{*[1]}	
	NOMINAL inch (mm)	TOLERANCE inch (mm)	NOMINAL inch (mm)	TOLERANCE inch (mm)
A	0.12 (3.05)	0.05 to 0.31(1.27 to 7.87)	--	NOT APPLICABLE
B	0.19 (4.82)	0.13 to 0.31(3.30 to 7.87)	0.00 (0.00)	-0.12 to 0.06 (-3.05 to 1.52)
C	0.12 (3.05)	0.05 to 0.3 (1.27 to 7.87)	--	NOT APPLICABLE
D	0.12 (3.05)	0.06 to 0.21 (1.52 to 5.33)	-0.06 (-1.52)	-0.15 to 0.06 (-3.81 to 1.52)
E	0.12 (3.05)	0.05 to 0.22 (1.27 to 5.59)	--	NOT APPLICABLE
F	0.12 (3.05)	0.06 to 0.21 (1.52 to 5.33)	-0.20 (-50.8)	-0.28 to -0.12 (-7.11 to -3.05)
G	0.12 (3.05)	0.05 to 0.22 (1.27 to 5.59)	--	NOT APPLICABLE
H	0.12 (3.05)	0.06 to 0.21 (1.52 to 5.33)	-0.6 (-1.52)	-0.15 to 0.00(-3.81 to -0.00)

*[1] A NEGATIVE FLUSHNESS SHOWS THE DOOR IS INBOARD OF THE FUSELAGE CUTOUT.

SUBTASK 52-13-00-820-032

- (4) Adjust the skin clearance with Method 2 (Aero-Averaging) (Table 503):

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- (a) Make sure the clearances between the door skin and fuselage skin are as shown (Figure 505).
- (b) If necessary, adjust as follows:
 - 1) Open the door.
 - 2) Trim the edge of the door to get the correct skin clearances.
- (c) Make sure the minimum distance from the edge of the door outer skin to the door frame is as shown (Aero-Averaging).
- (d) Measure the clearance between the door skin and fuselage skin along the forward and aft edges of the door at the locations that follow:
 - 1) Within ± 1.0 inch (± 25.4mm) of each stop fitting along the forward and aft edges of the door.
 - 2) Record the skin clearance for each stop fitting.
 - 3) Use the (Table 503) to change the clearance to a Drag value.

NOTE: A measurement of 0.10 inch (2.54mm) clearance is a Drag value of 0.63.
 - 4) Record the Drag value for each measurement from (Table 503).

Table 503/52-13-00-993-819 Aft Entry Door Skin Clearance (Aero-averaging)

CLEARANCE Inch (mm)	DRAG VALUE
0.06 (1.52)	0.38
0.07 (1.78)	0.44
0.08 (2.03)	0.50
0.09 (2.29)	0.56
0.10 (2.59)	0.63
0.11 (2.79)	0.69
0.12 (3.05)	0.75
0.13 (3.30)	0.81
0.14 (3.56)	0.88
0.15 (3.81)	0.94
0.16 (4.06)	1.00
0.17 (4.32)	1.06
0.18 (4.57)	1.12
0.19 (4.83)	1.19
0.20 (5.08)	1.25
0.21 (5.33)	1.31

- 5) Add all the Drag values together (sum).
 - a) Record the sum of the Drag Values as measurement A.

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- 6) Divide measurement A by the number of measurements that you made.

NOTE: If the measurement was made at each of the stop fitting, then divide Measurement A (sum of the Drag Values) by 18 (the number of door stop fittings).

- 7) Make sure that this average drag value is 1.00 or less.

M. Skin Flushness Adjustment

SUBTASK 52-13-00-820-033

- (1) Two measurement methods are provided to adjust the door flushness.

- (a) Method 1 is the Standard measurement method for skin flushness adjustment.
- (b) Method 2 is Aero-Averaging measurement for skin flushness adjustment.

SUBTASK 52-13-00-820-034

- (2) Adjust the skin flushness with Method 1:

- (a) Make sure the flushness between the door skin and fuselage skin are as shown, (Table 501) and (Figure 505).
- (b) As a minimum, measure the flushness between the door skin and fuselage skin along the forward and aft edges of the door at the locations that follow:

- 1) Within ± 1.0 inch (± 25.4 mm) of each stop fitting along the forward and aft edges of the door.

NOTE: Make additional measurements if necessary. Do not make measurements that are within 8.0 inches (203.2mm) of the body skin lap joint.

- 2) Three locations evenly spaced along the horizontal edge of the upper and lower gates.

- (c) If necessary, adjust as follows:

- 1) Open the door.
- 2) Loosen the bolts and washers that attach the forward and aft, upper and lower latch receivers to the fuselage frame.
- 3) Move the latch receivers inboard or outboard on their serrated plates to get the correct door flushness (Figure 507).
- 4) Tighten the bolts and washers to attach the latch receivers to the fuselage frame.

SUBTASK 52-13-00-820-035

- (3) Adjust the skin flushness with Method 2 (Aero-Averaging) (Table 504):

- (a) Make sure the flushness between the door skin and fuselage skin are as shown (Figure 505).
- (b) As a minimum, measure the flushness between the door skin and fuselage skin along the forward and aft edges of the door at the locations that follow:

- 1) Within ± 1.0 inch (± 25.4 mm) of each stop fitting along the forward and aft edges of the door.

NOTE: Make additional measurements if necessary. Do not make measurements that are within 8.0 inches (203.2mm) of the body skin lap joint.

- 2) Three locations evenly spaced along the horizontal edge of the upper and lower gates.

- 3) Record the skin flushness for each stop fitting.

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4) Use the (Table 504) to change the flushness to a Drag value.

NOTE: A measurement of -0.10 inch (-2.54mm) flushness at the door fwd edge is a Drag value of 0.56.

5) Record the Drag value for each measurement from (Table 504).

Table 504/52-13-00-993-820 Aft Entry Door Skin Flushness (Method 2)

Door Flushness		
Fwd Edge Inch (mm)	Aft Edge Inch (mm)	Drag Value
	0.06 (1.52)	2.10
	0.05 (1.27)	1.89
	0.04 (1.02)	1.69
-0.15 (-3.81)	0.03 (0.76)	1.49
-0.14 (-3.56)	0.02 (0.51)	1.29
-0.13 (-3.30)	0.01 (0.25)	1.10
-0.12 (-3.05)	0.00	0.91
-0.11 (-2.79)	-0.01 (-0.25)	0.73
-0.10 (-2.54)	-0.02 (-0.51)	0.56
-0.09 (-2.29)	-0.03 (-0.76)	0.39
-0.08 (-2.03)	-0.04 (-1.02)	0.23
-0.07 (-1.78)	-0.05 (-1.27)	0.09
-0.06 (-1.52)	-0.06 (-1.52)	0
-0.05 (-1.27)	-0.07 (-1.78)	0.11
-0.04 (-1.02)	-0.08 (-2.03)	0.38
-0.03 (-0.76)	-0.09 (-2.29)	0.70
-0.02 (-0.51)	-0.10 (-2.54)	1.06
-0.01 (-0.25)	-0.11 (-2.79)	1.44
0.00	-0.12 (-3.05)	1.85
	-0.13 (-3.30)	2.23
	-0.14 (-3.56)	2.67
	-0.15 (-3.81)	3.12

6) Add all the Drag Values together (sum).

a) Record the sum of the Drag Values as Measurement A.

7) Divide measurement A by the number of measurements that you made.

NOTE: If the measurement was made at each of the stop fitting, then divide Measurement A (sum of the Drag Values) by 18 (the number of door stop fittings).

a) Make sure that this average Drag Value is 1.00 or less.

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- (c) If the average Drag Value is greater than 1.00, then adjust the door as follows:
 - 1) Open the door.
 - 2) Loosen the bolts and washers that attach the forward and aft, upper and lower latch receivers to the fuselage frame.
 - 3) Move the latch receivers inboard or outboard on their serrated plates to get the correct door flushness (Figure 507).
 - 4) Tighten the bolts and washers to attach the latch receivers to the fuselage frame.

N. Latch Adjustment

SUBTASK 52-13-00-820-021

- (1) Do the latch adjustment (Figure 507):
 - (a) Close and latch the door.
 - (b) Make sure the clearance between the forward and aft, upper and lower latch rollers and latch receivers is as shown (Figure 507).
 - 1) If necessary, adjust as follows (Figure 507):
 - 2) Open the door.
 - 3) Loosen the bolts and washers that attach the latch receivers to the fuselage frame.
 - 4) Move the latch receivers up or down on their serrated plates to get the correct clearance between the latch roller and the latch receiver.
 - 5) Tighten the bolts and washers to attach the latch receivers to the fuselage frame.
 - (c) Close and latch the door.
 - (d) Make sure the distance the forward and aft, upper and lower latch rollers engage in the latch receivers is as shown (Figure 507).
 - (e) If necessary, adjust as follows:
 - 1) Open the door.
 - 2) Remove the bolts, washers, and nuts that attach the forward and aft latch cranks to the latch torque tube.
 - 3) Move the adjustment shims from one end of the latch torque tube to the other end to increase or decrease the clearance between the latch crank and latch receiver on one end of the latch torque tube.
 - 4) Install the bolts, washers, and nuts to attach the latch cranks to the latch torque tube.
 - 5) If more adjustment is necessary, do the steps that follow:
 - a) Remove the nut and adjustment washers that attach the latch roller to the latch crank.
 - b) Put the adjustment washers on the roller side or the nut side of the latch crank to increase or decrease the distance the latch roller engages in the latch receiver.
 - c) Install the nut and adjustment washers to attach the latch roller to the latch crank.
 - d) Make sure the latch roller bearing shank is clear of the door frame by 0.02 inch (0.50mm) minimum after the adjustment.
 - (f) Make sure the door is open.
 - (g) Try to move the latch torque tube forward and aft to do a check for latch roller and latch torque tube end play.
 - (h) Make sure the latch roller and latch torque tube end play is 0.02 inch (0.50mm) maximum.

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- (i) If necessary, adjust as follows (Figure 507):
 - 1) Open the door.
 - 2) Add or remove the horseshoe washers from one of the ends of the latch torque tube to decrease the end play.
 - 3) After you have decreased the end play, do the steps that follow:
 - a) Turn the horseshoe washer ends until their positions are random.
 - b) Apply the sealant, A00247 in the spaces between the ends of the horseshoe washers.
 - c) Make sure the sealant, A00247 does not stop the latch torque tube support bearing from turning freely.
 - d) Do this task: Entry and Galley Service Door Indication Sensor Test (S194, S195, S199, or S200), TASK 52-71-11-710-801.

O. Horizontal Control Rod Adjustment

SUBTASK 52-13-00-820-022

- (1) Adjust the horizontal control rod (Figure 508):
 - (a) Unlatch and latch the door.
 - (b) Make sure the forward and aft, upper and lower latch rollers move into their latch receivers before the latch torque tubes start to turn.
 - (c) If necessary, adjust the horizontal control rod as follows (Figure 508):
 - 1) Open the door.
 - 2) Remove the bolt, washer, and nut that attach the horizontal control rod to the door hinge torque tube.
 - 3) Loosen the checknut.
 - 4) Turn the rod end to change the length of the horizontal control rod to get the correct latch sequence or exterior handle forces.

NOTE: If you shorten the horizontal control rod, it will move the door outboard and increase the handle retraction force.
 - 5) After the first adjustment, shorten the horizontal control rod an additional 1/2 to 1-1/2 turns necessary to move the door outboard and make sufficient latch roller clearance.
 - 6) Install the bolt, washer, and nut to attach the horizontal control rod end to the door hinge torque tube.
 - 7) Tighten the check nut.
 - (d) Close and latch the door.
 - (e) Pull the exterior handle to its extended position.
 - (f) Use a force gauge, COM-1557 to measure the force to move the exterior handle back to its retracted position.
 - (g) Make sure the force to move the external handle to its retracted position is not more than 20 pounds (9.07 kilograms).
 - 1) If necessary, adjust the horizontal control rod again.
 - (h) Do this adjustment to make sure the latch roller will clear the lip of the latch receiver.

NOTE: Use the 10 ± 1 pound (4.5 ± 0.45 kilograms) load to simulate the seal drag on the door liner.

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- 1) Apply a 10 ± 1 pound (4.5 ± 0.45 kilograms) spring load or equivalent to the door in an inboard direction at the corner stop fitting next to the latch roller.
 - 2) Unlatch and latch the door.
 - 3) Look at each latch roller as it goes into its latch receiver.
 - 4) Make sure the latch rollers are clear of the entry lip on the latch receiver when you move the exterior handle to the latched position.
- (i) If necessary, adjust the horizontal control rod again.
- (j) Install this access panel:

<u>Number</u>	<u>Name/Location</u>
834AZ	Aft Entry Door - Torque Tube Access

P. Gate Adjustment

SUBTASK 52-13-00-820-023

- (1) Do the gate adjustment:
- (a) Close and latch the door.
 - (b) Make sure the door flushness between the upper and lower gates and the fuselage skin is as shown, (Table 501) and (Figure 505).
 - (c) If necessary, adjust as follows (Figure 509):
 - 1) Open the door.
 - 2) Remove the bolt, washers, and nut that attach the gate control rod to the gate.
 - 3) Loosen the checknut.
 - 4) Turn the rod end to change the length of the gate control rod to get the correct flushness.
 - 5) Install the bolt, washers, and nut to attach the gate control rod to the gate.
 - 6) Tighten the checknut.

Q. Stop Pin Adjustment

SUBTASK 52-13-00-820-024

- (1) Do the stop pin adjustment (Figure 510):
- (a) Close and latch the door.
 - (b) Make sure the clearance between the stop pins and stop pads on the frame and threshold of the door is as shown, Views A-A and C-C (Figure 510).
 - (c) If necessary, adjust as follows:
 - 1) Turn the stop pin fully outboard until it just touches the stop pad.
 - 2) Turn the stop pin back 1/2 turn and then to the nearest lock groove for the lock spring.
 - 3) Install the lock spring.
 - (d) Make sure the stop pins align with the stop pads on the frame and threshold of the door as shown, Views B-B and D-D (Figure 510).

R. Centering Guide Adjustment

SUBTASK 52-13-00-820-025

- (1) Do the centering guide adjustment (Figure 511):
- (a) Open and close the door.

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- (b) Make sure that the centering guide body track thickness is not less than 0.070 inch (1.778 mm).
- (c) As the door closes, make sure the centering guide goes into the track and is clear of the track as the door closes.
- (d) Make sure the clearance between the centering guide roller and the track when the door is closed and latched is as shown, View A (Figure 511).
- (e) If necessary, adjust as follows (Figure 511):
 - 1) Loosen the bolts that attach the centering guide to the door frame.
 - 2) Move the centering guide on the serrated plate to get the correct clearance.

NOTE: The centering guide has slots for the bolts to permit adjustment.
 - 3) Tighten the bolts.

S. Hinge Arm Cover Adjustment

SUBTASK 52-13-00-820-026

- (1) Adjust the hinge arm cover (Figure 502):
 - (a) Make sure the door is closed and latched.
 - (b) Make sure the skin clearance and flushness between the upper and lower hinge arm covers and door skin are as shown (Figure 502).
 - 1) If necessary, adjust as follows:
 - 2) Adjust the skin clearance as follows:
 - a) Trim the hinge arm cover to get the correct clearance.
 - 3) Adjust the flushness as follows, View C (Figure 502):
 - a) The flushness limit is 0.00 +/- 0.03 inch (0.00 +/- 0.76 mm).
 - b) Remove the screws that attach the hinge arm cover to the hinge arm.
 - c) Remove the shims or add new shims between the hinge arm cover and hinge arm.
 - d) Install the screws to attach the hinge arm cover to the hinge arm.

SUBTASK 52-13-00-820-027

- (2) Adjust the aft entry door warning system. To do this, do this task: Entry and Galley Service Door Indication Sensor Adjustment (S194, S195, S199, or S200), TASK 52-71-11-820-801.

T. Put the Airplane Back to Its Usual Condition

SUBTASK 52-13-00-410-010

- (1) Do this task: Aft Entry Door Lining Installation, TASK 52-13-31-400-802.

————— END OF TASK —————

TASK 52-13-00-820-802

3. Aft Entry Door (Soft Unlatching)

(Figure 512)

A. General

- (1) If the latch torque tubes are not adjusted correctly, the door handle can move too easily. This can cause the door to open accidentally (soft unlatching). This task is a special procedure to adjust the door if it opens accidentally (soft unlatching).

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B. References

Reference	Title
25-66-01-000-801	Escape Slide Pack and Cover Removal (P/B 401)
25-66-01-400-803	Escape Slide Pack and Cover Installation (P/B 401)
52-13-31-000-802	Aft Entry Door Lining Removal (P/B 401)
52-13-31-400-802	Aft Entry Door Lining Installation (P/B 401)
52-71-11-820-801	Entry and Galley Service Door Indication Sensor Adjustment (S194, S195, S199, or S200) (P/B 201)

C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-2003	Simulator - Escape Slide, Passenger Door (Part #: C52006-34, Supplier: 81205, A/P Effectivity: 737-100, -200, -200C, -300, -400, -500, -600, -700, -700C, -700ER, -700QC, -800, -900, -900ER, -BBJ) (Opt Part #: C52006-1, Supplier: 81205, A/P Effectivity: 737-100, -200, -200C, -300, -400, -500, -600, -700, -700C, -700ER, -700QC, -800, -900, -900ER, -BBJ)

D. Consumable Materials

Reference	Description	Specification
D00672 [CP5070]	Grease - Petrolatum	VV-P-236
G02020	Clay, Modeling	

E. Location Zones

Zone	Area
834	Left Aft Entry Door

F. Procedure

SUBTASK 52-13-00-010-016

(1) Do this task: Escape Slide Pack and Cover Removal, TASK 25-66-01-000-801.

SUBTASK 52-13-00-010-017

(2) Do this task: Aft Entry Door Lining Removal, TASK 52-13-31-000-802.

SUBTASK 52-13-00-480-007

(3) Attach a 90 pound weight to the door approximately in the middle of the bottom half of the door.

(a) You may use the escape slide simulator, SPL-2003.

SUBTASK 52-13-00-820-036

(4) Do a check of the adjustment of the latch rollers:

(a) Disconnect the push rod from the torque tube.

(b) Move the handle mechanism to the closed position.

NOTE: A wrench can help to move the handle mechanism.

(c) See that the latch rollers align correctly with the latch fittings.

1) Make sure that a 3/32 inch (2.39 mm) rig pin can easily slide through the hole in the latch roller and into the latch fitting.

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- (d) If the rig pin cannot easily slide through the hole, adjust the control rods to make the latch roller align correctly with the latch fitting:
 - 1) Disconnect the control rods from the control rod cranks on the upper and lower latch torque tubes.
 - 2) Align the holes in the latch roller with the holes in the latch fitting.
 - a) Put the 3/32 inch (2.39 mm) rig pin through the hole in the latch roller and into the hole in the latch fitting.
 - 3) Change the length of the control rods until they align with the the control rod cranks.
 - 4) Connect the control rods to the control rod cranks.
- (e) Connect the push rod to the torque tube.
- (f) Make sure the latch rollers engage the latch fittings correctly:
 - 1) Put the clay, G02020 in the latch fitting.
 - 2) Put a layer of grease, D00672 [CP5070] on the latch roller.
 - 3) Close and latch the door.
 - 4) Open the door.
 - 5) Make sure the clearance between the bottom of the latch roller and the latch fitting is 0.04-0.28 inch (1.02-7.11 mm) (Figure 512).

NOTE: The clay in the latch fitting shows this clearance.

SUBTASK 52-13-00-820-038

- (5) Adjust the aft door warning sensors.
 - (a) Do this task: Entry and Galley Service Door Indication Sensor Adjustment (S194, S195, S199, or S200), TASK 52-71-11-820-801.

SUBTASK 52-13-00-080-006

- (6) Remove the weight or the escape slide simulator, SPL-2003 from the door.

SUBTASK 52-13-00-410-014

- (7) Do this task: Aft Entry Door Lining Installation, TASK 52-13-31-400-802.

SUBTASK 52-13-00-410-015

- (8) Do this task: Escape Slide Pack and Cover Installation, TASK 25-66-01-400-803.

————— END OF TASK —————

TASK 52-13-00-700-805

4. Aft Entry Door System Test

A. General

- (1) The system test is a check that the door is installed and adjusted correctly and that the mechanical systems operate correctly.
- (2) Make sure the installation and adjustment of the door is done. Make sure the door seal and lining are installed.

B. References

Reference	Title
24-22-00-860-811	Supply Electrical Power (P/B 201)
52-11-00-860-803	Open the Door with the Interior Handle (P/B 201)
52-11-00-860-804	Close the Door with the Interior Handle (P/B 201)

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C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-3898	Adapter - Torque Wrench, Galley and Entry Door (Part #: C52008-1, Supplier: 81205, A/P Effectivity: 737-300, -400, -500, -600, -700, -700C, -700ER, -700QC, -800, -900, -900ER, -BBJ)

D. Location Zones

Zone	Area
834	Left Aft Entry Door

E. System Test

SUBTASK 52-13-00-480-006

(1) Do this task: Supply Electrical Power, TASK 24-22-00-860-811.

SUBTASK 52-13-00-940-005

(2) Make sure the aft entry door is fully closed, latched and locked.

SUBTASK 52-13-00-730-001

(3) Do a test of the aft entry door:

- (a) Make sure that the AFT ENTRY light does not show on the Forward Overhead Panel, P5, in the flight compartment.
- (b) Open the door. To open the door, do this task: Open the Door with the Interior Handle, TASK 52-11-00-860-803.
- (c) Make sure the AFT ENTRY light on the Forward Overhead Panel, P5, comes on for the door.
- (d) Close and latch the door. To close and latch the door, do this task: Close the Door with the Interior Handle, TASK 52-11-00-860-804.
- (e) Make sure the AFT ENTRY light goes off.

SUBTASK 52-13-00-730-002

(4) Do a test of the door handle torque:

- (a) Install the adapter, SPL-3898 on the interior door handle.
- (b) Open the door. To open the door, do this task: Open the Door with the Interior Handle, TASK 52-11-00-860-803.
- (c) Measure the torque on the interior handle perpendicular to the handle cam to close the door.
- (d) Make sure the maximum torque on the interior handle to close the door is 600 in-lb (68 N·m).

NOTE: The maximum torque on the interior handle to close the door without the escape slide pack and door lining, but with 77 lb (35 kg) of weight and the door seal installed, is 500 in-lb (56 N·m).

1) If the maximum handle torque is more than 600 in-lb (68 N·m), do these steps:

NOTE: The most likely cause for the increase in door closing force is the door guide ball is binding in the track.

- a) Make sure the door guide ball is correctly adjusted.
- b) Make sure the stop pins are correctly adjusted.

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- c) Make sure the upper and lower gates are correctly adjusted.
- d) Adjust the horizontal control rod. To adjust it, do this task: Aft Entry Door Adjustment, TASK 52-13-00-820-801.

NOTE: Do the Horizontal Control Rod Adjustment only.

- (e) Close and latch the door. To close and latch the door, do this task: Close the Door with the Interior Handle, TASK 52-11-00-860-804.
- (f) Measure the torque on the interior handle perpendicular to the handle cam to open the door.
- (g) Make sure the maximum torque on the interior handle to open the door is 360 in-lb (41 N·m).

NOTE: In this step, the door is only opened to the cocked position.

- 1) If the maximum handle torque is more than 360 in-lb (41 N·m), do these steps:
 - a) Make sure the door is correctly installed.
 - b) Adjust the horizontal control rod. To adjust it, do this task: Aft Entry Door Adjustment, TASK 52-13-00-820-801.

NOTE: Do the Horizontal Control Rod Adjustment only.

- (h) Remove the adapter, SPL-3898 from the internal door handle.

————— **END OF TASK** —————

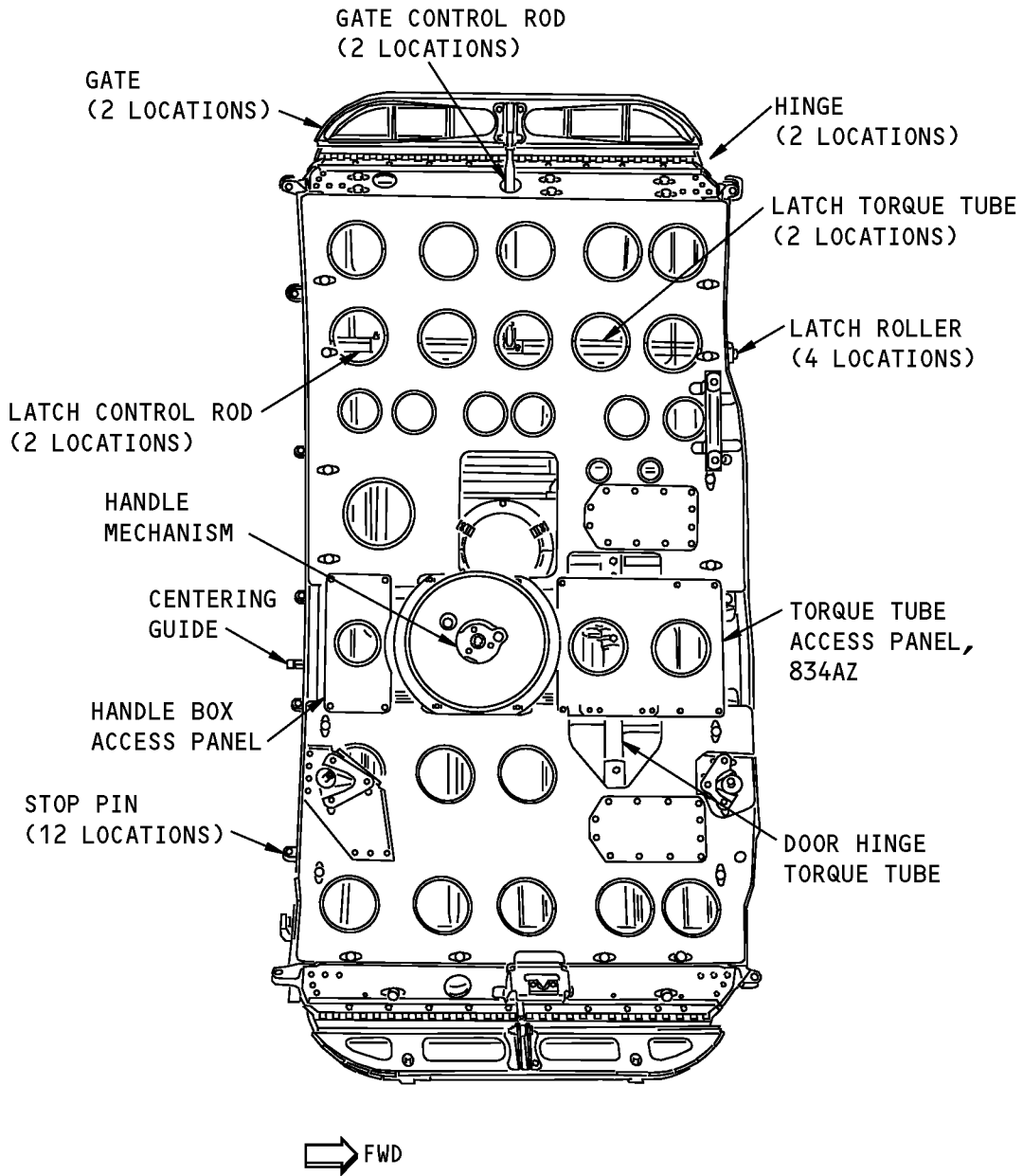
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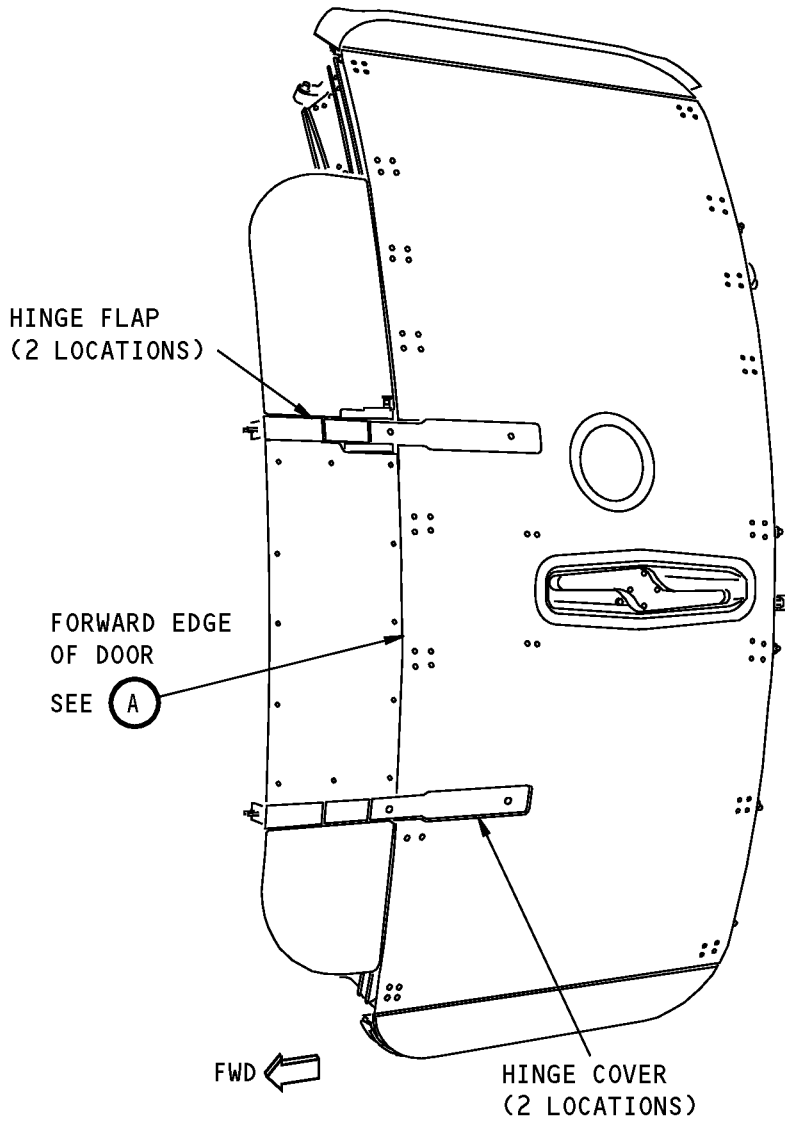
**Aft Entry Door Adjustment
Figure 501/52-13-00-990-804**

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AFT ENTRY DOOR

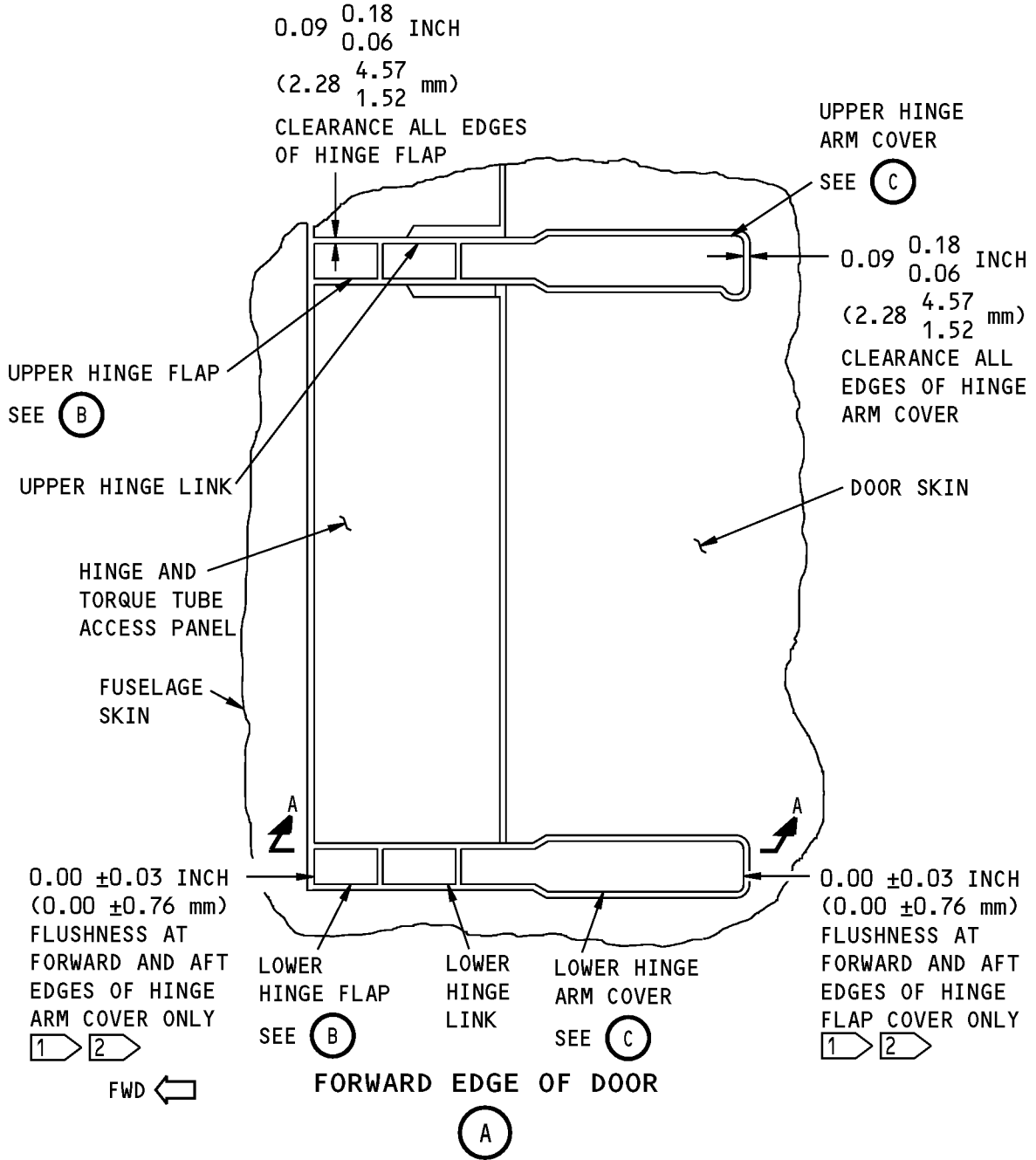
**Hinge Flap and Hinge Arm Cover Adjustment
Figure 502 (Sheet 1 of 3)/52-13-00-990-805**

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NOTE: DIMENSION STANDARD: NOMINAL
UPPER LIMIT
LOWER LIMIT

1 FLUSHNESS AT UPPER AND LOWER EDGES IS A TRANSITION FROM THE FORWARD TO THE AFT EDGE.

2 UNLESS SPECIFIED OTHERWISE IN THE PROCEDURE.

Hinge Flap and Hinge Arm Cover Adjustment
Figure 502 (Sheet 2 of 3)/52-13-00-990-805

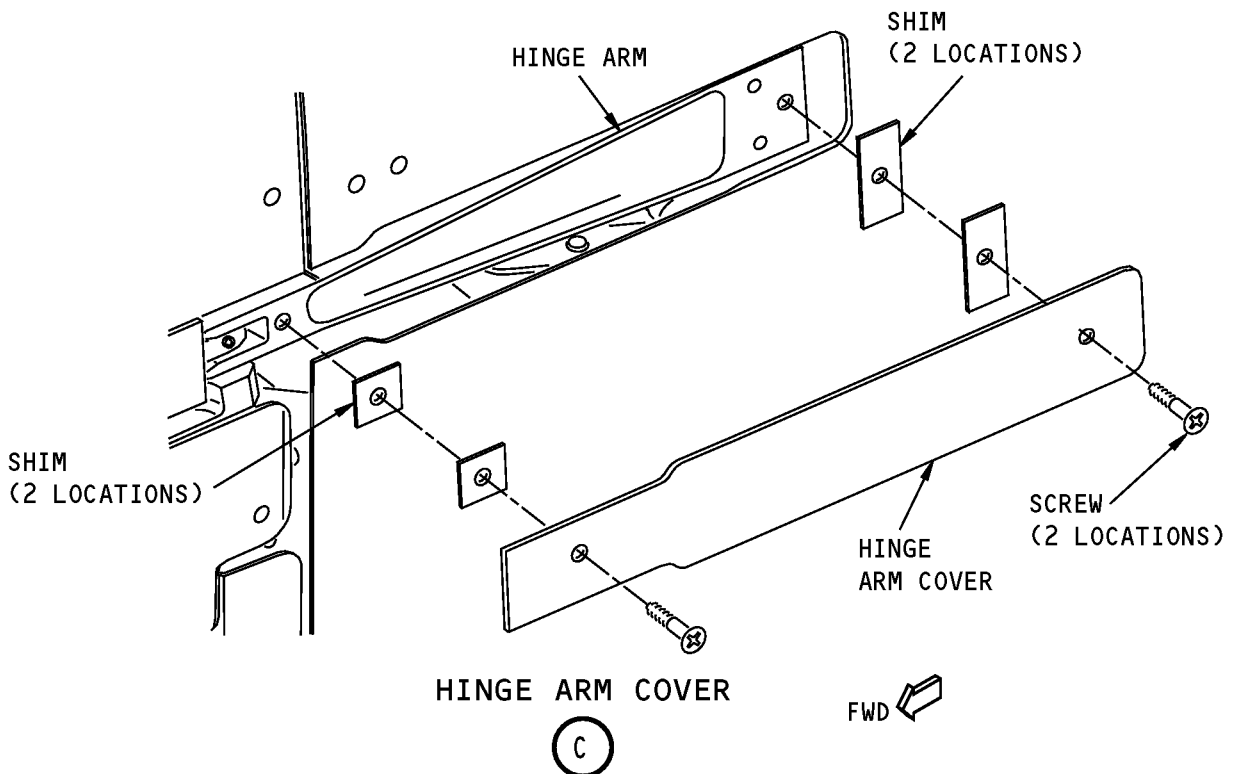
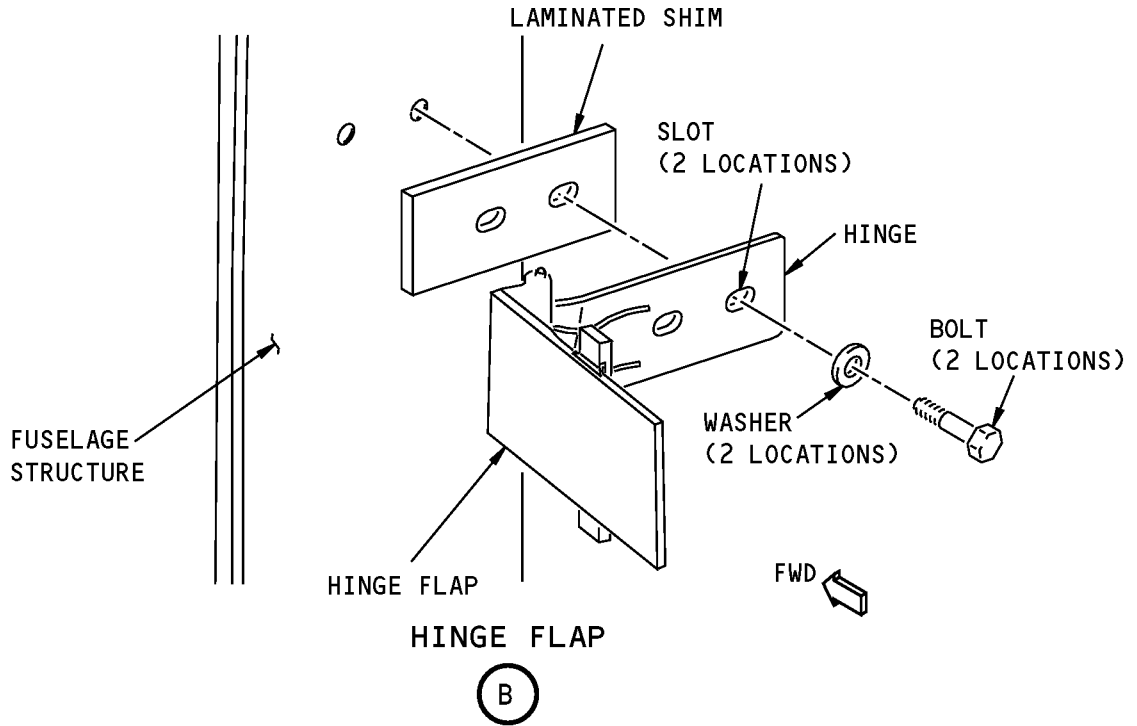
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Hinge Flap and Hinge Arm Cover Adjustment
Figure 502 (Sheet 3 of 3)/52-13-00-990-805

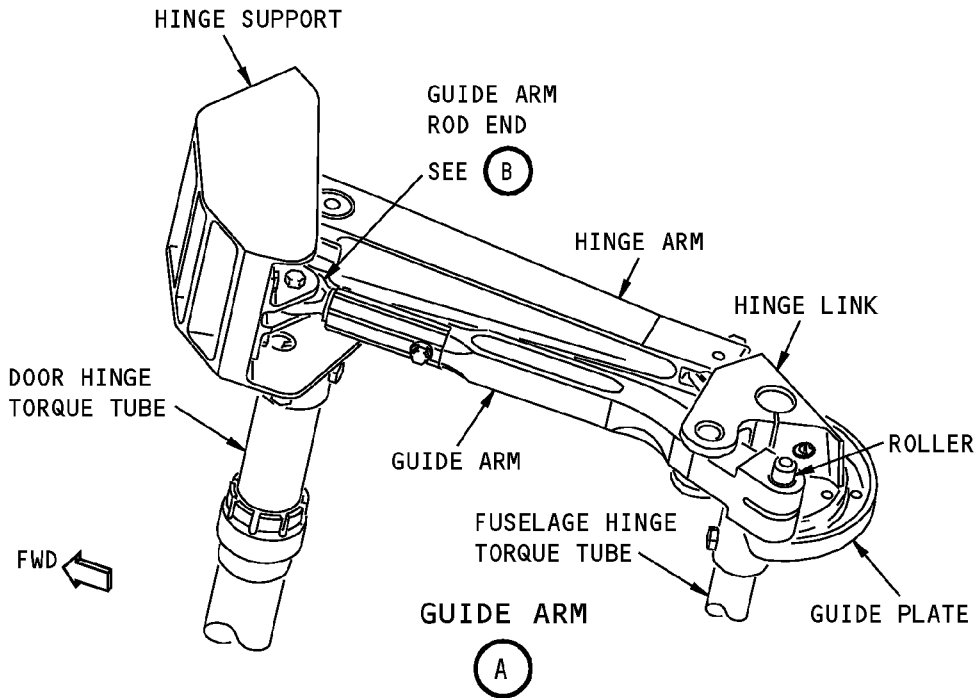
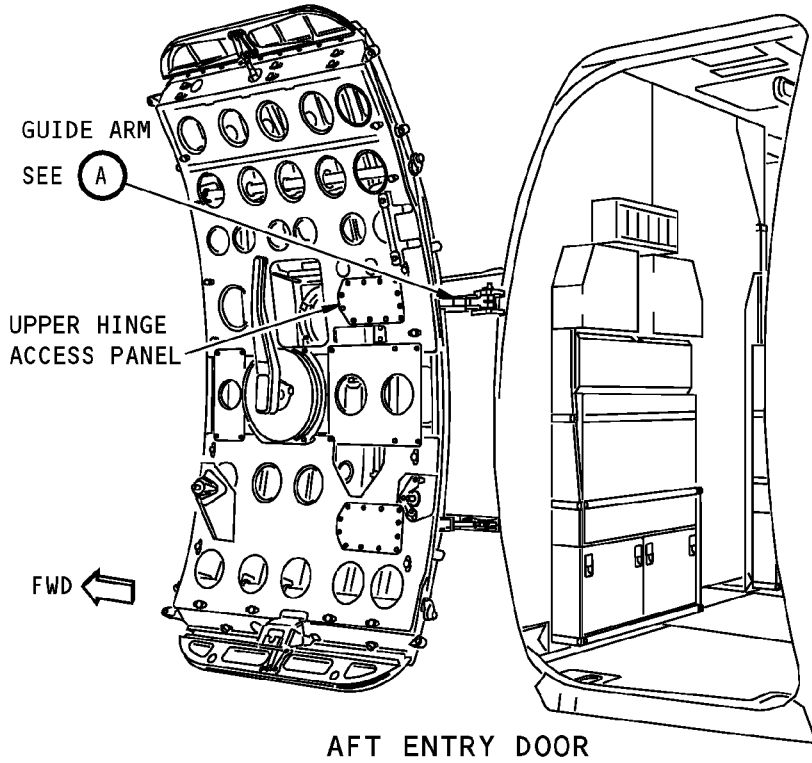
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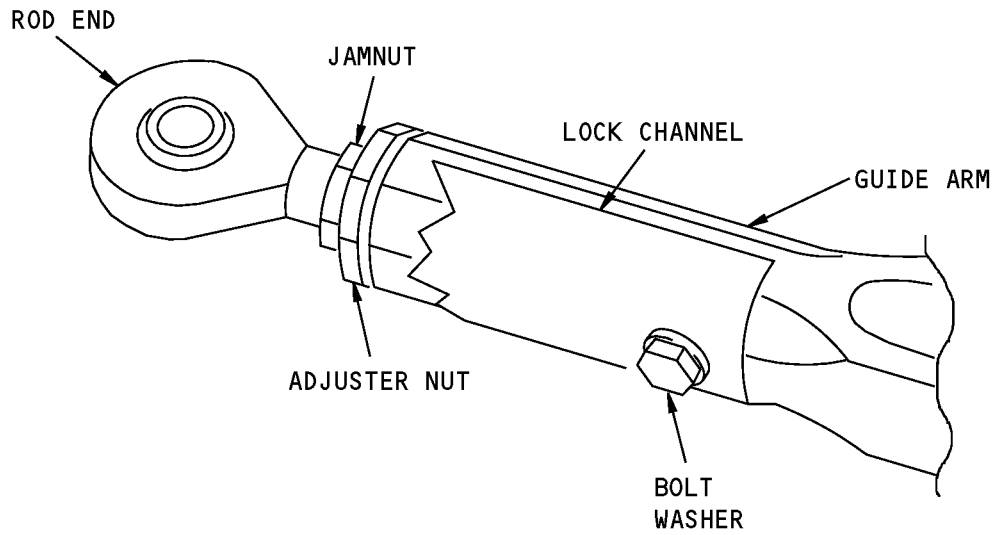
**Guide Arm Adjustment
Figure 503 (Sheet 1 of 2)/52-13-00-990-806**

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GUIDE ARM ROD END

B

**Guide Arm Adjustment
Figure 503 (Sheet 2 of 2)/52-13-00-990-806**

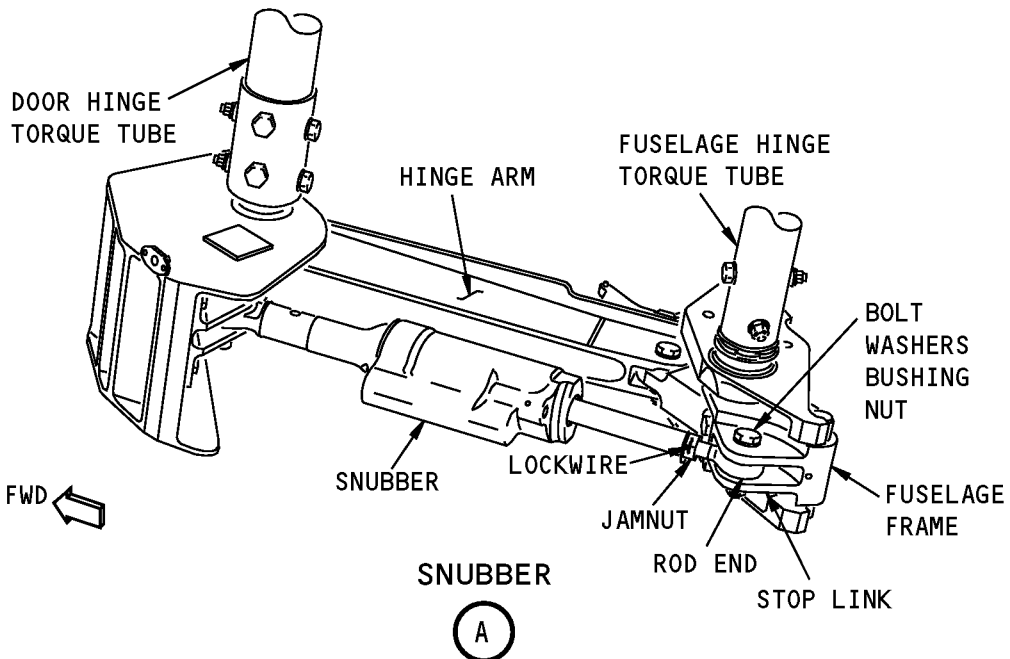
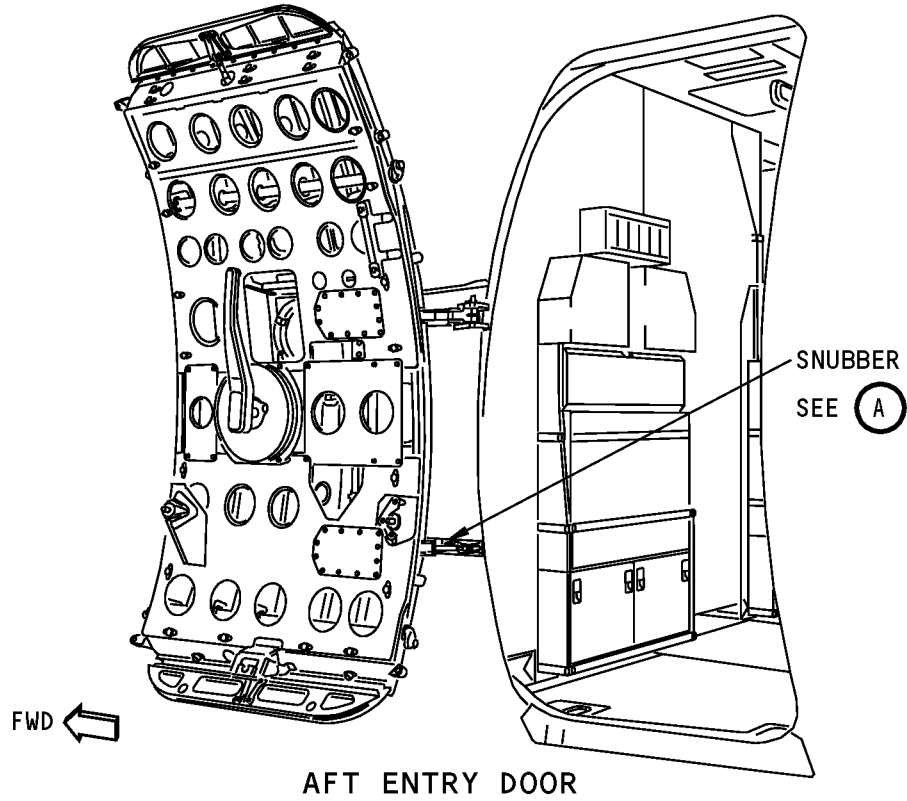
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**Snubber Adjustment
Figure 504/52-13-00-990-807**

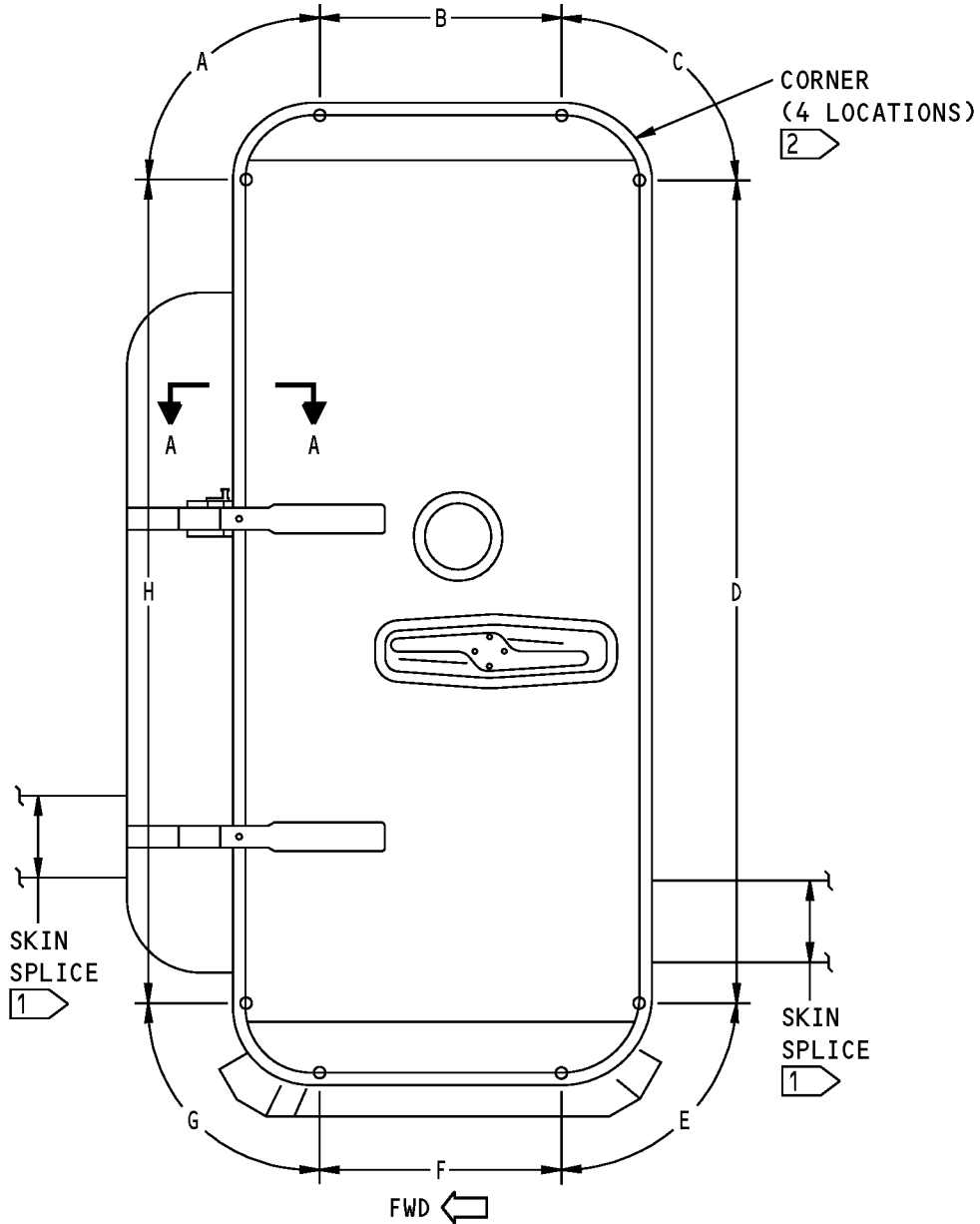
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NOTE: DIMENSION STANDARD: NOMINAL UPPER LIMIT LOWER LIMIT
REFER TO THE METHOD 1 TABLE OR THE METHOD 2 TABLE FOR AERODYNAMIC SMOOTHNESS LIMITS.

1 THE FLUSHNESS AT SKIN SPLICES WILL BE MORE THAN THE FLUSHNESS SHOWN BY ADDITIONAL SKIN AND BONDING THICKNESS.

2 FLUSHNESS IS NOT APPLICABLE AT CORNERS.

**Aft Entry Door Skin Clearance and Flushness
Figure 505 (Sheet 1 of 2)/52-13-00-990-808**

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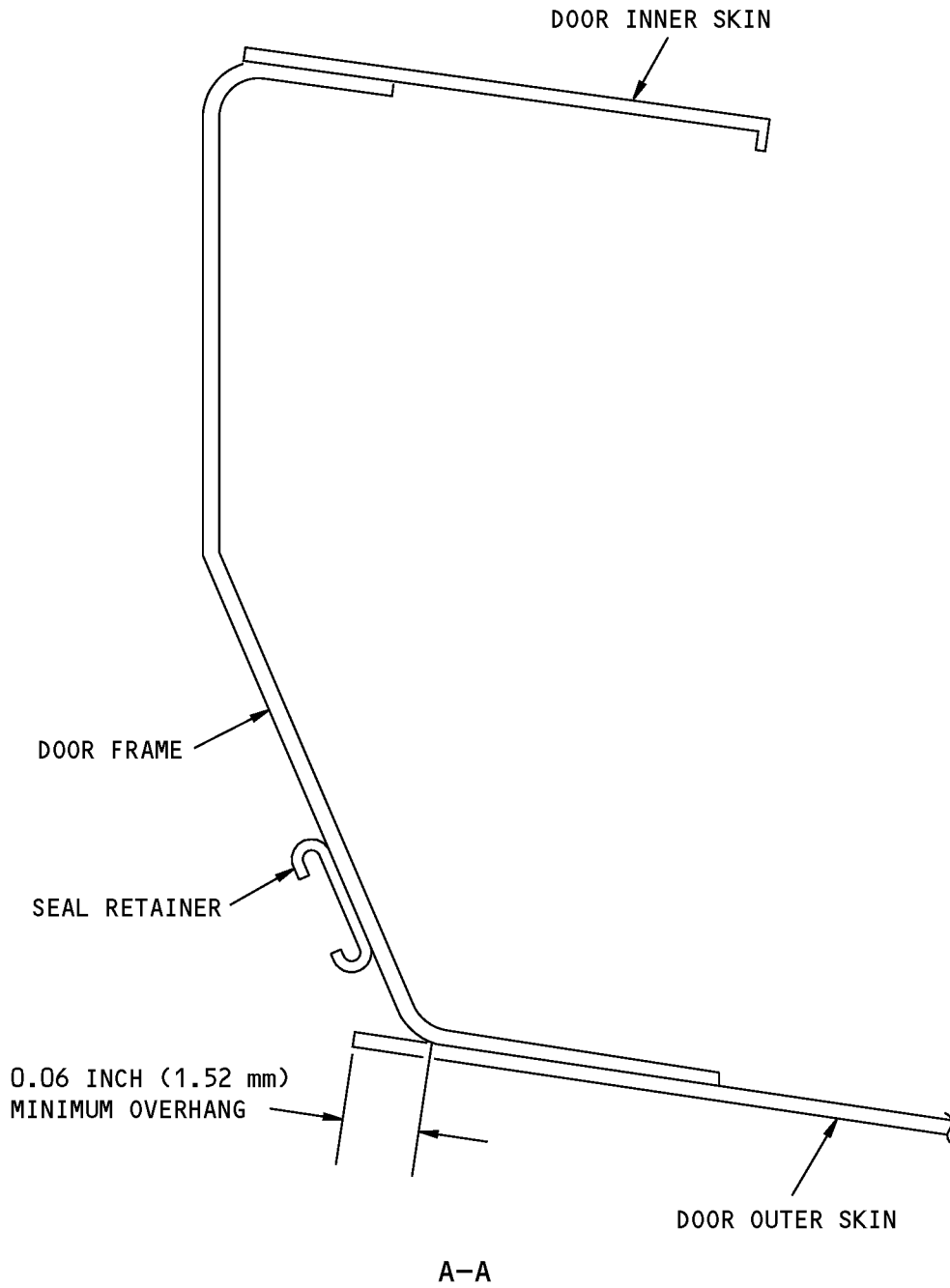
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NOTE: DIMENSION STANDARD: NOMINAL UPPER LIMIT
 LOWER LIMIT

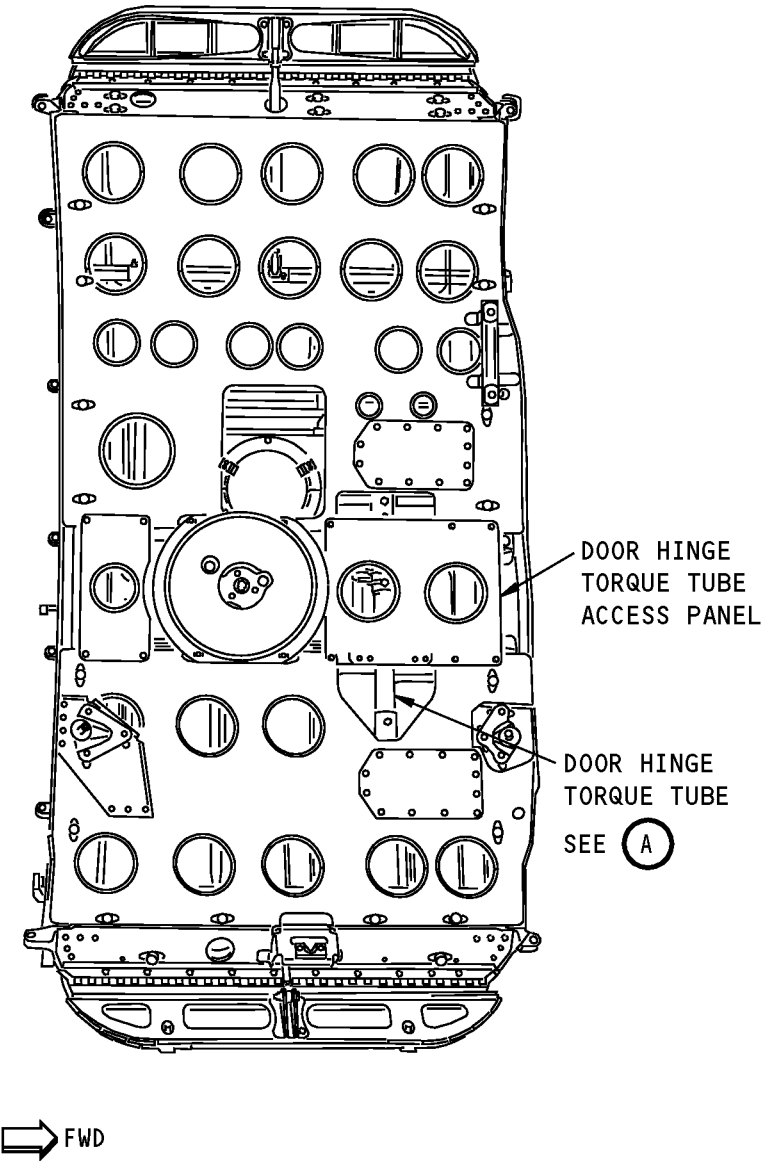
Aft Entry Door Skin Clearance and Flushness
Figure 505 (Sheet 2 of 2)/52-13-00-990-808

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AFT ENTRY DOOR

**Door Hinge Torque Tube Adjustment
Figure 506 (Sheet 1 of 2)/52-13-00-990-809**

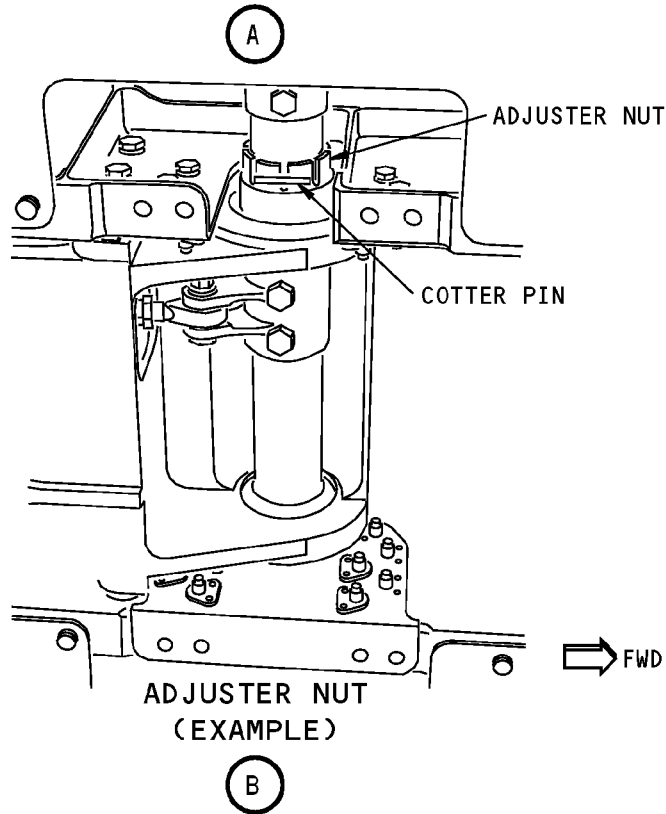
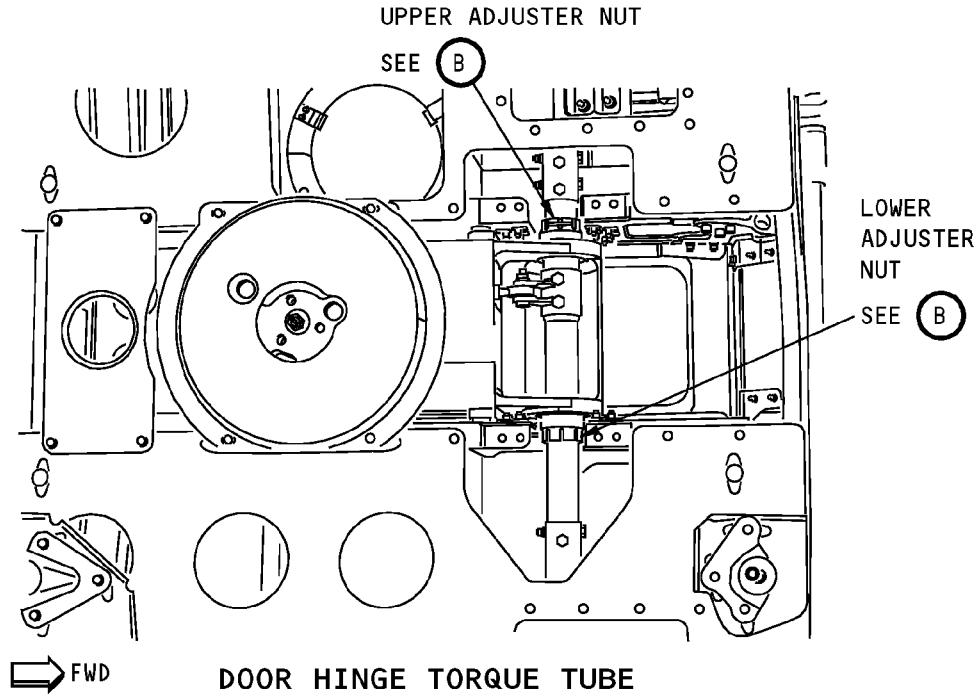
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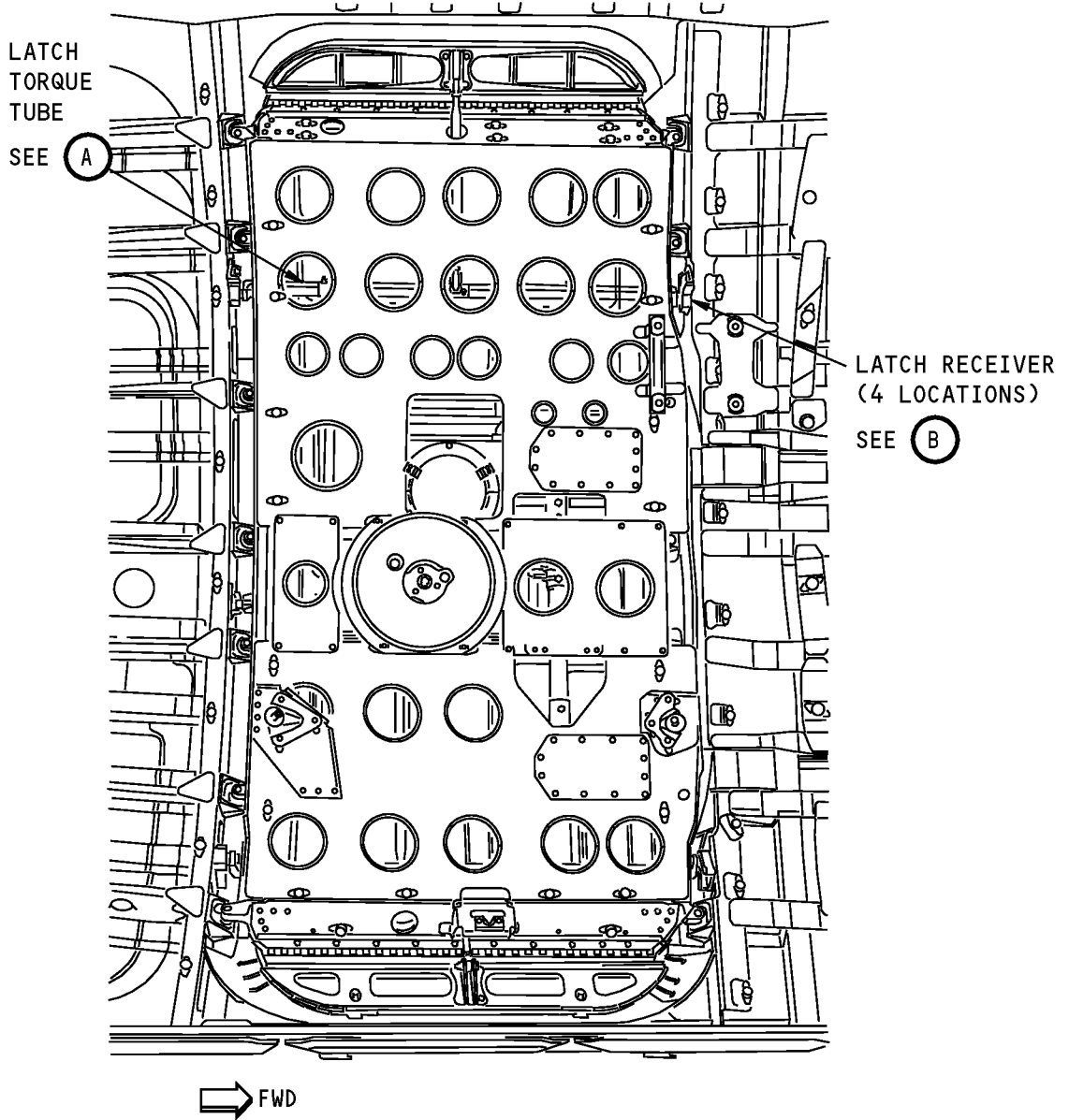
Door Hinge Torque Tube Adjustment
Figure 506 (Sheet 2 of 2)/52-13-00-990-809

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AFT ENTRY DOOR

**Latch Adjustment
Figure 507 (Sheet 1 of 3)/52-13-00-990-810**

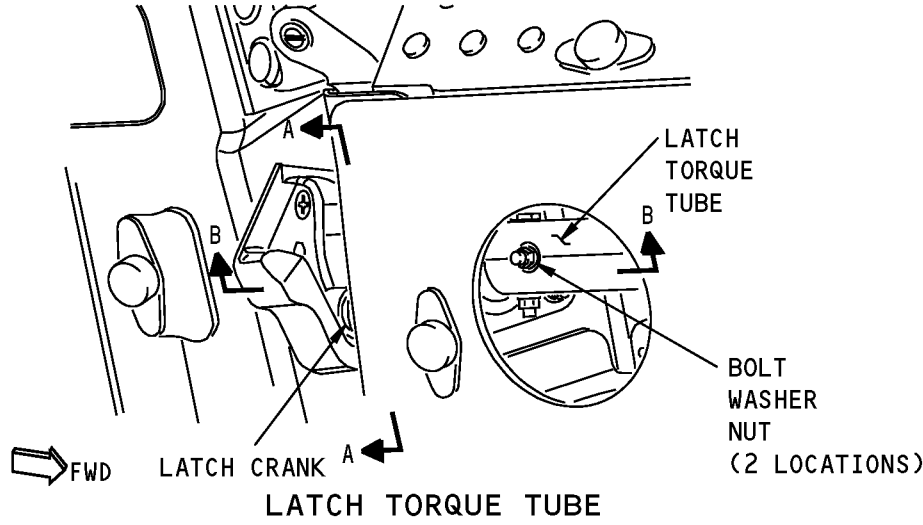
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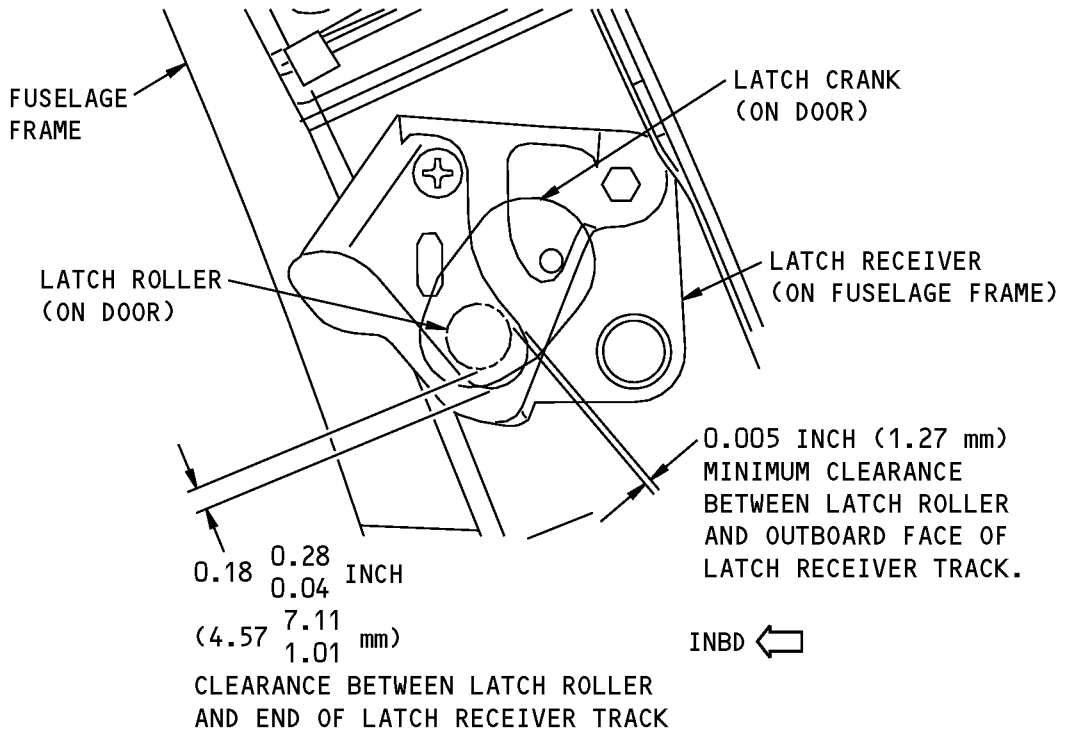
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(A)



**LATCH ROLLER AND LATCH RECEIVER CLEARANCE
A-A**

NOTE: DIMENSION STANDARD: NOMINAL UPPER LIMIT
LOWER LIMIT

**Latch Adjustment
Figure 507 (Sheet 2 of 3)/52-13-00-990-810**

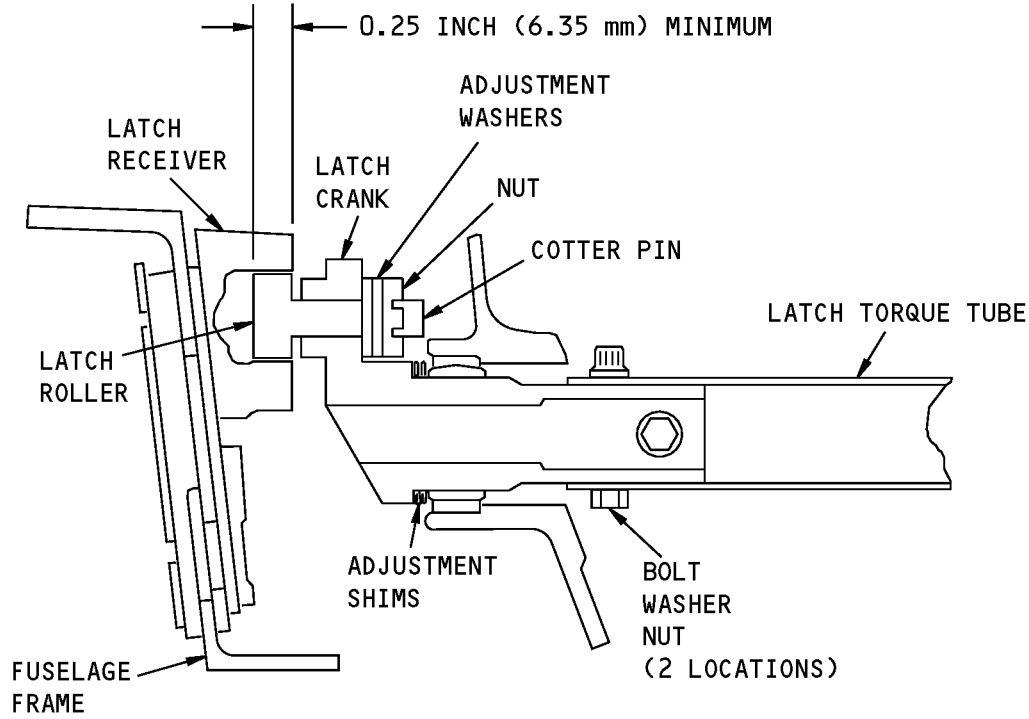
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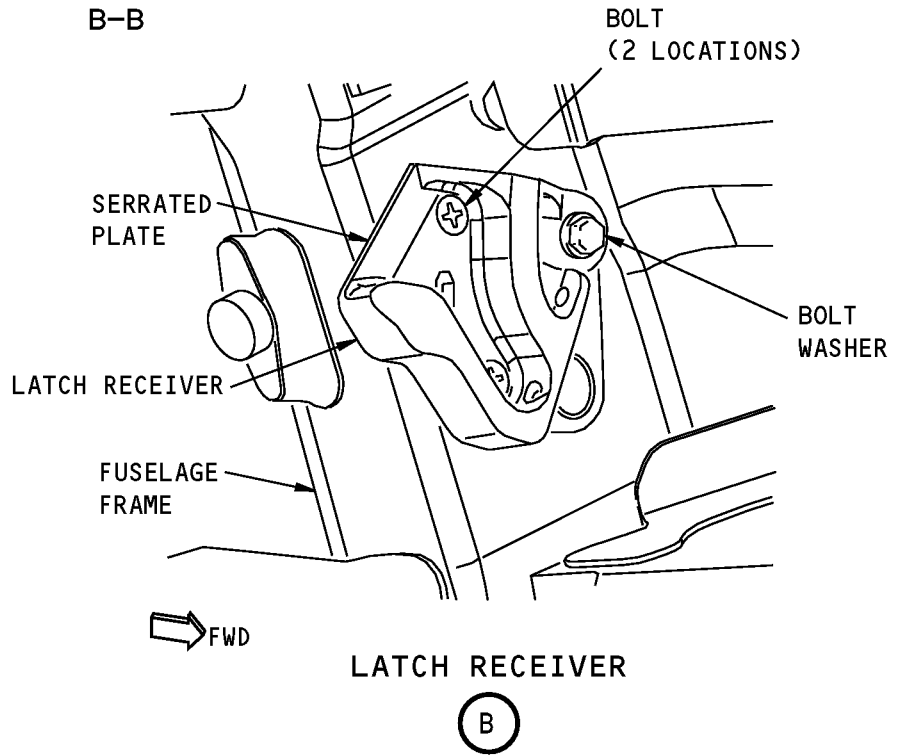
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LATCH ROLLER AND LATCH RECEIVER ENGAGEMENT

B-B



Latch Adjustment

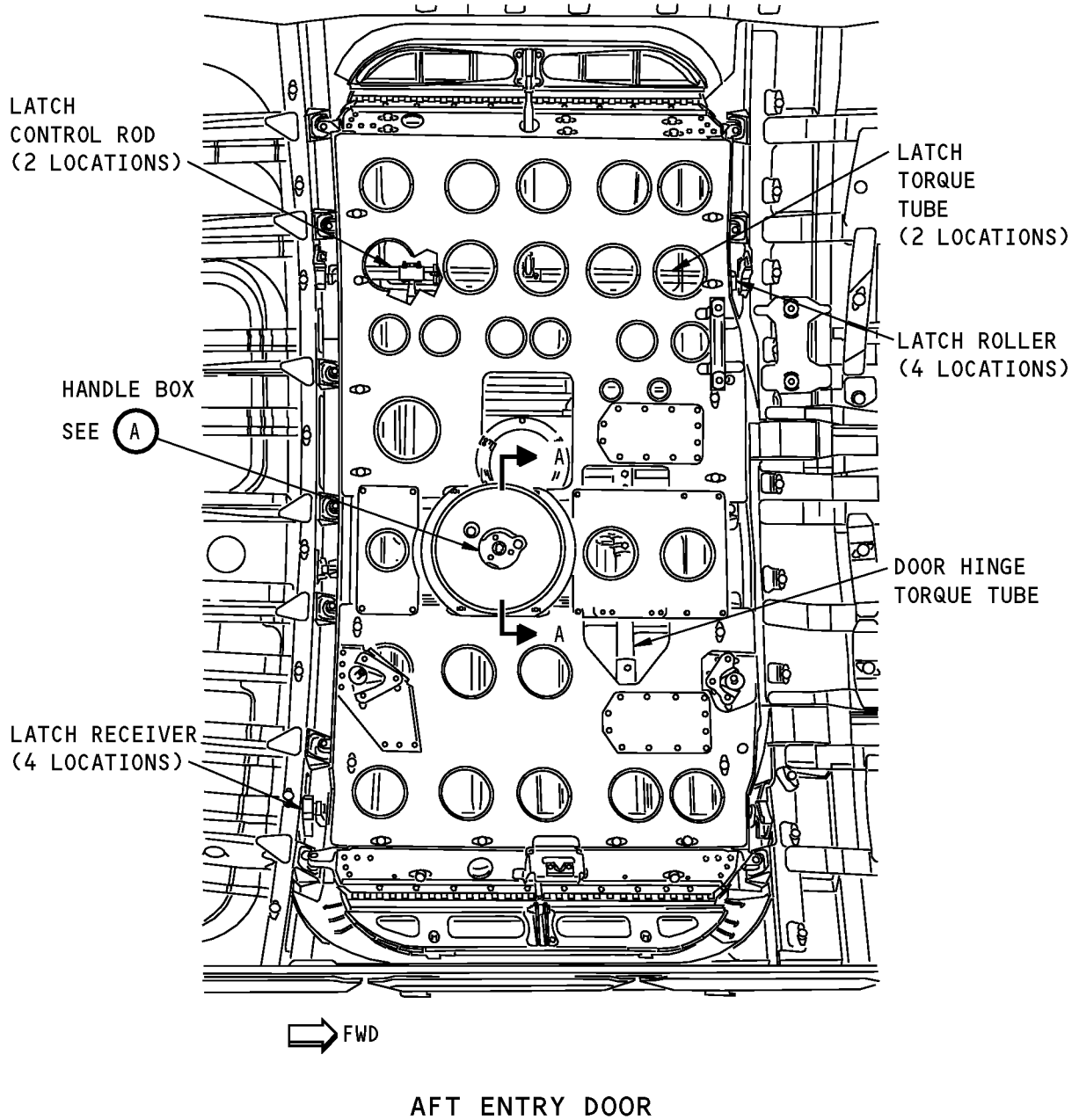
Figure 507 (Sheet 3 of 3)/52-13-00-990-810

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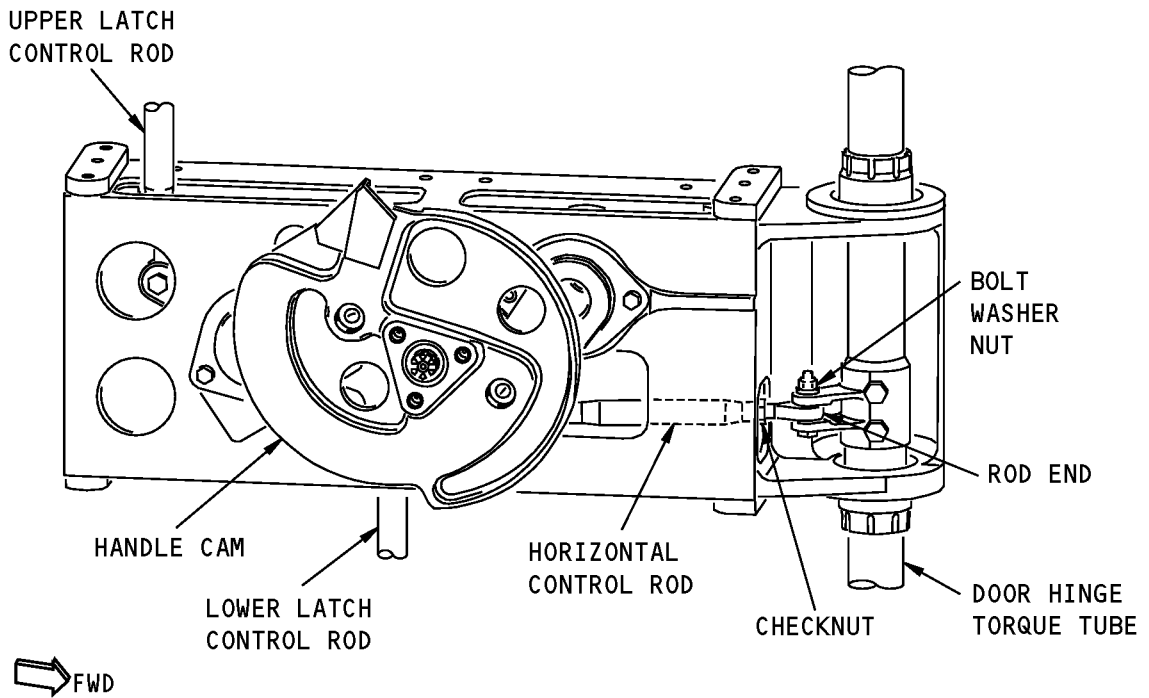
**Horizontal Control Rod Adjustment
Figure 508 (Sheet 1 of 3)/52-13-00-990-811**

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HANDLE BOX



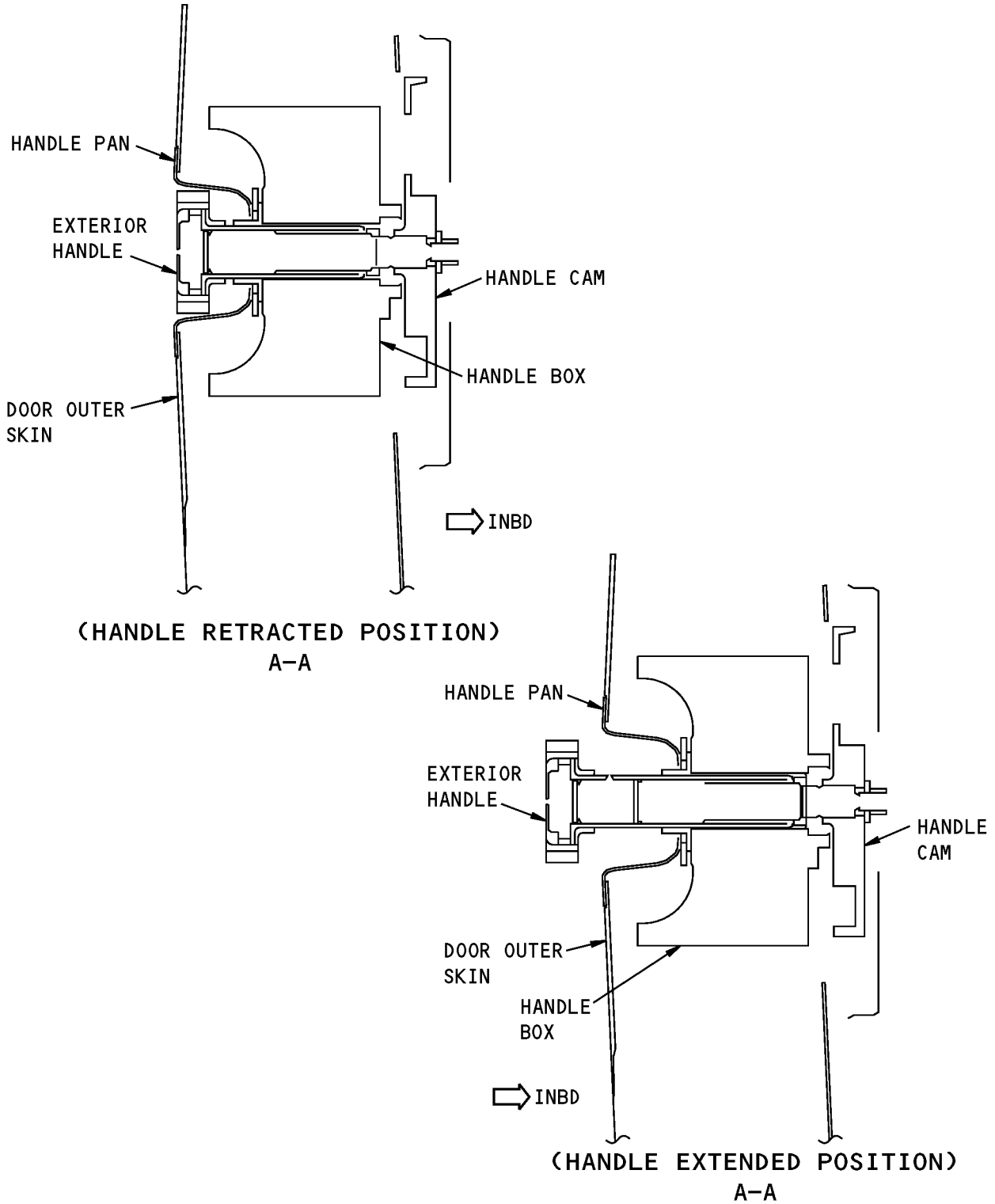
**Horizontal Control Rod Adjustment
Figure 508 (Sheet 2 of 3)/52-13-00-990-811**

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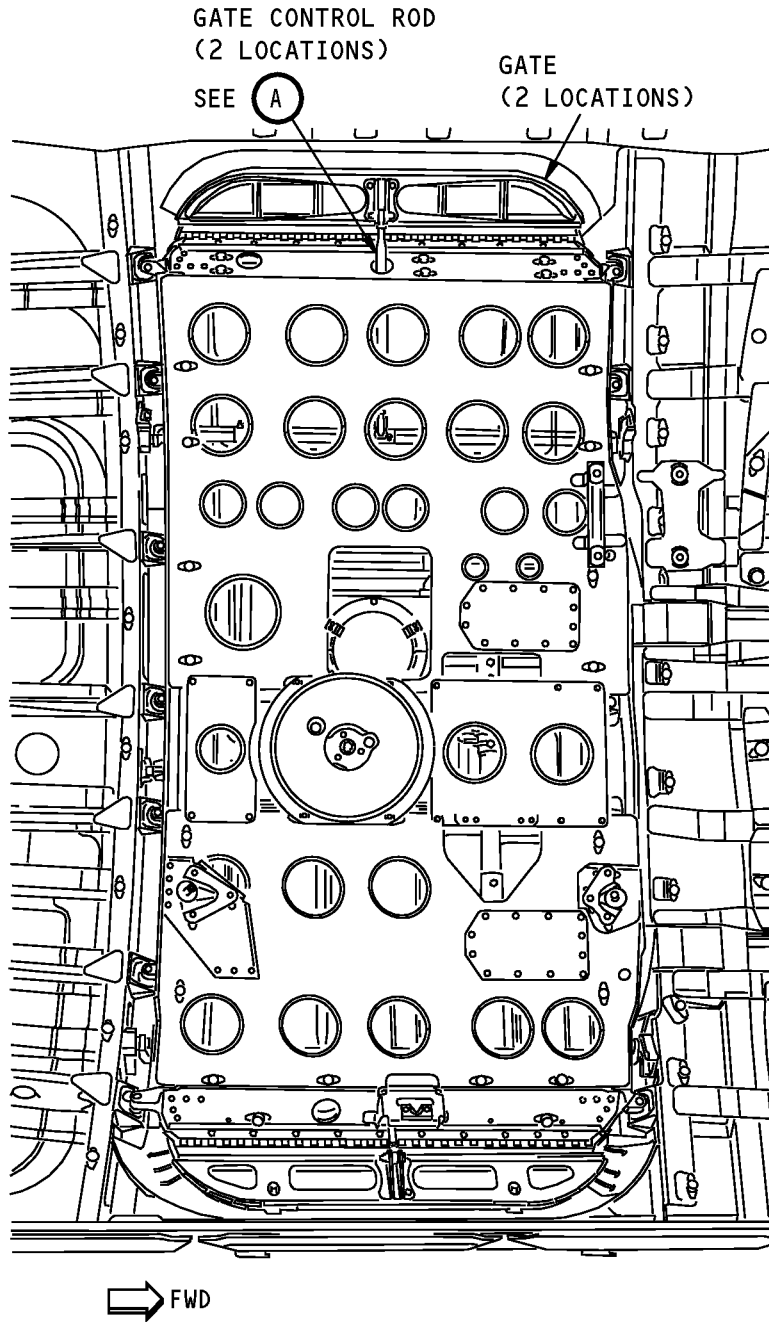


**Horizontal Control Rod Adjustment
Figure 508 (Sheet 3 of 3)/52-13-00-990-811**

EFFECTIVITY
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AIRCRAFT MAINTENANCE MANUAL**



AFT ENTRY DOOR

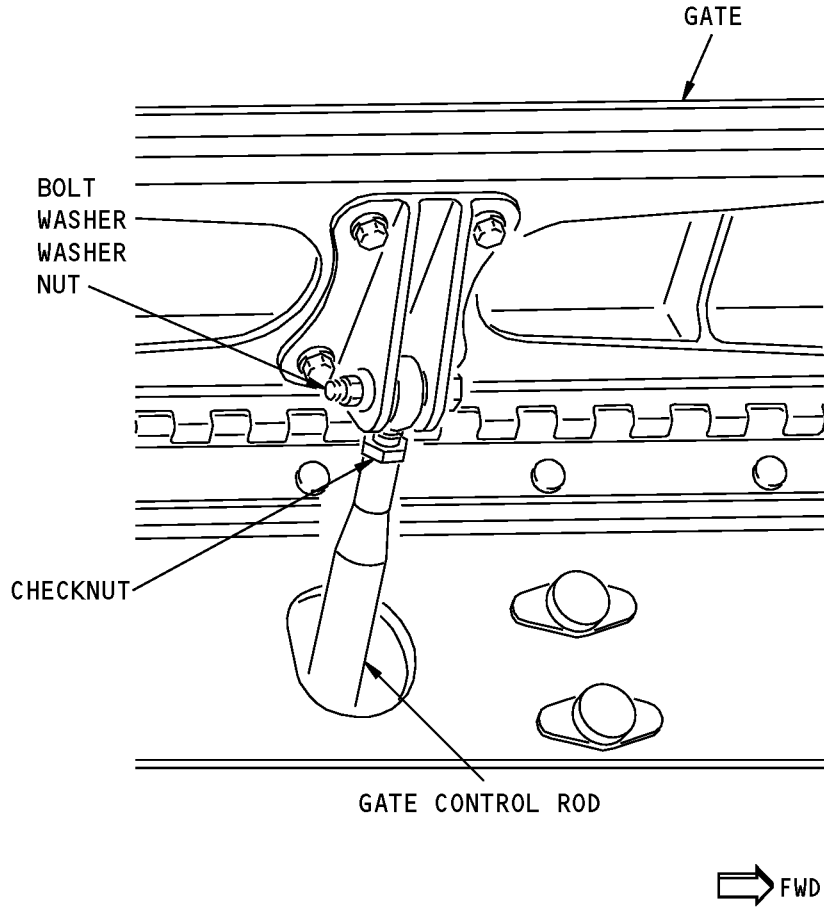
**Gate Adjustment
Figure 509 (Sheet 1 of 2)/52-13-00-990-812**

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**GATE CONTROL ROD
(EXAMPLE)**

(A)

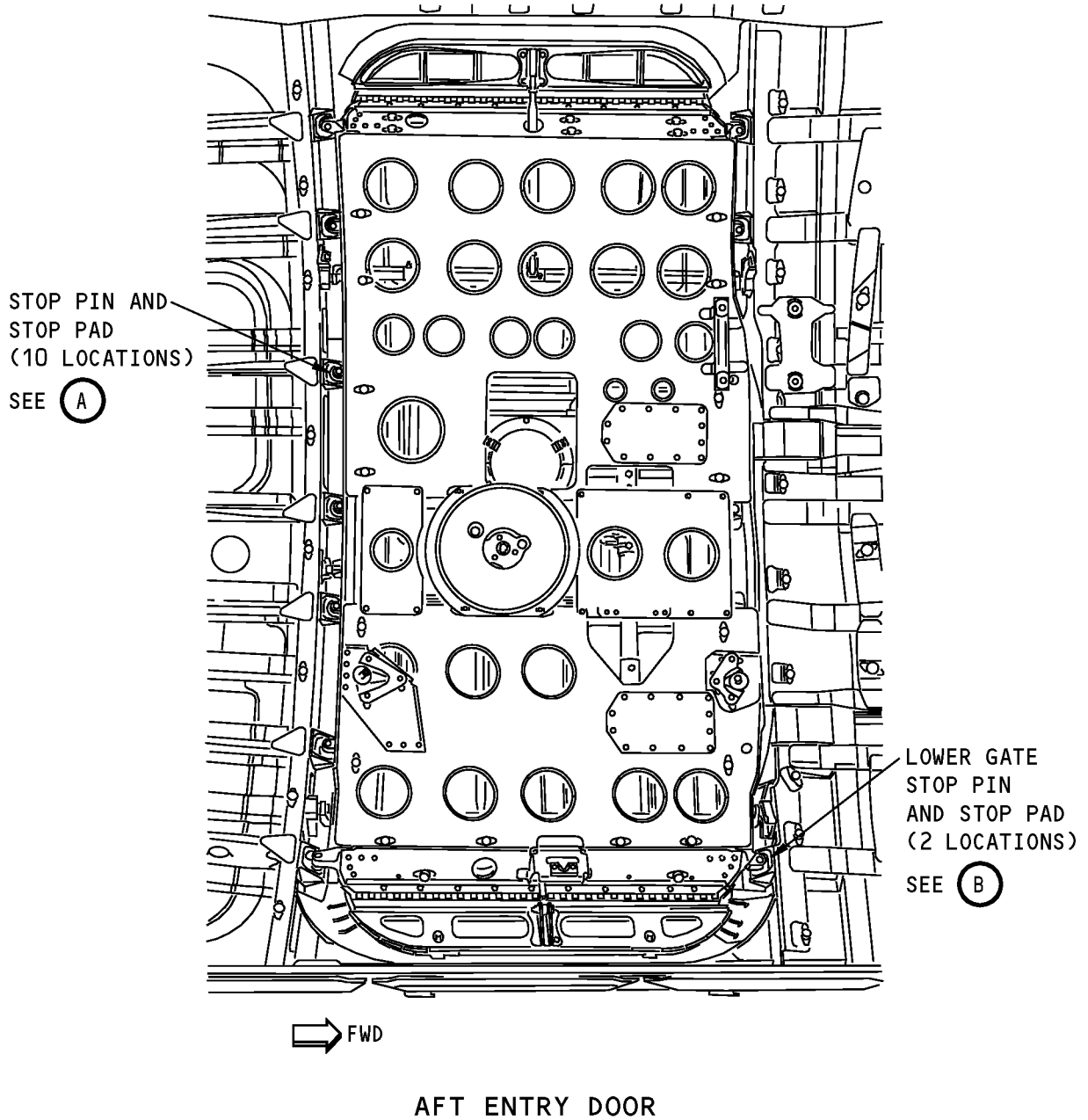
**Gate Adjustment
Figure 509 (Sheet 2 of 2)/52-13-00-990-812**

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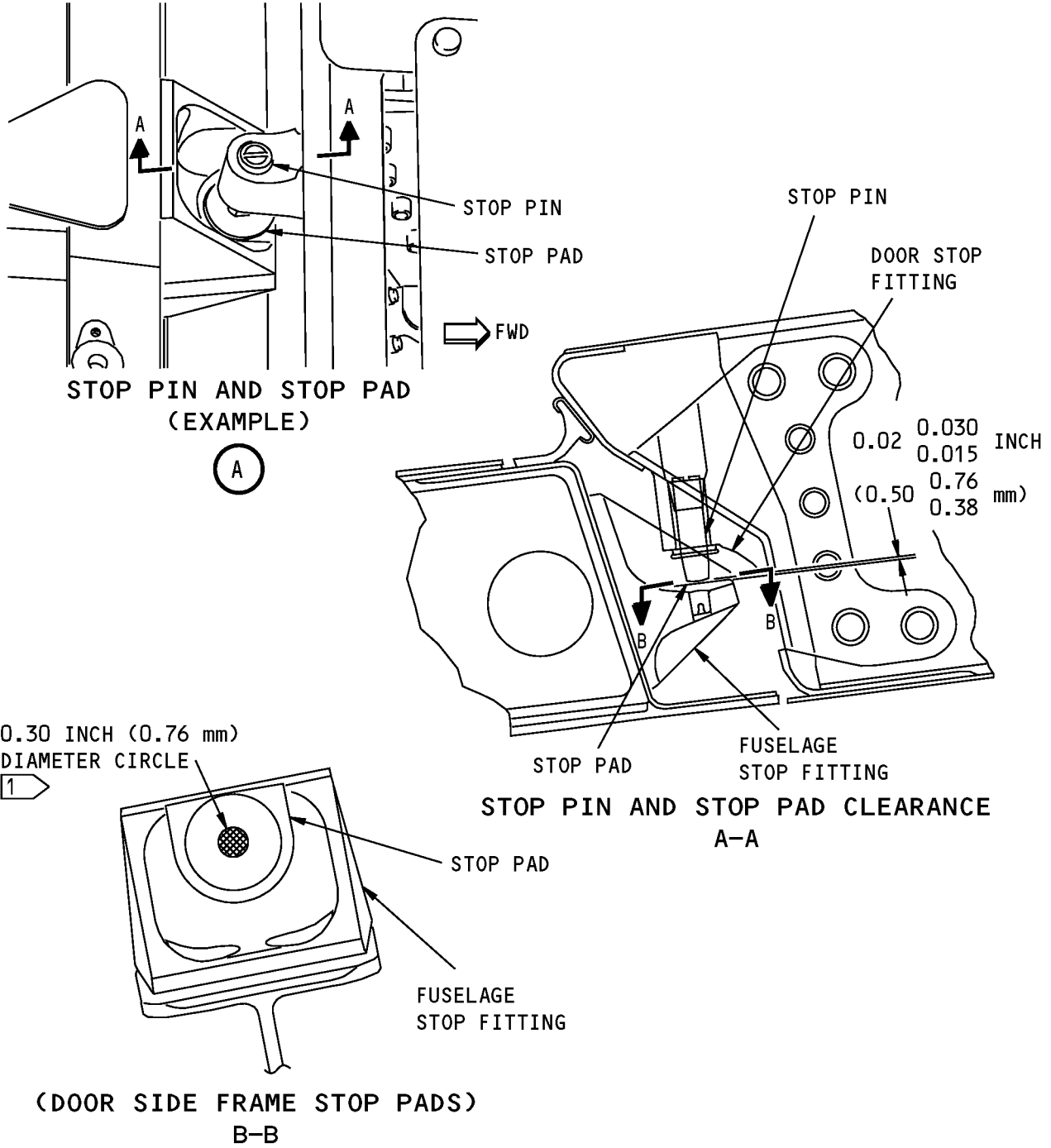
**Stop Pin Adjustment
Figure 510 (Sheet 1 of 3)/52-13-00-990-813**

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NOTE: DIMENSION STANDARD: NOMINAL UPPER LIMIT
LOWER LIMIT

1 STOP PIN CENTER MUST TOUCH STOP PAD CENTER WITHIN THE CIRCLE DIAMETER SHOWN.

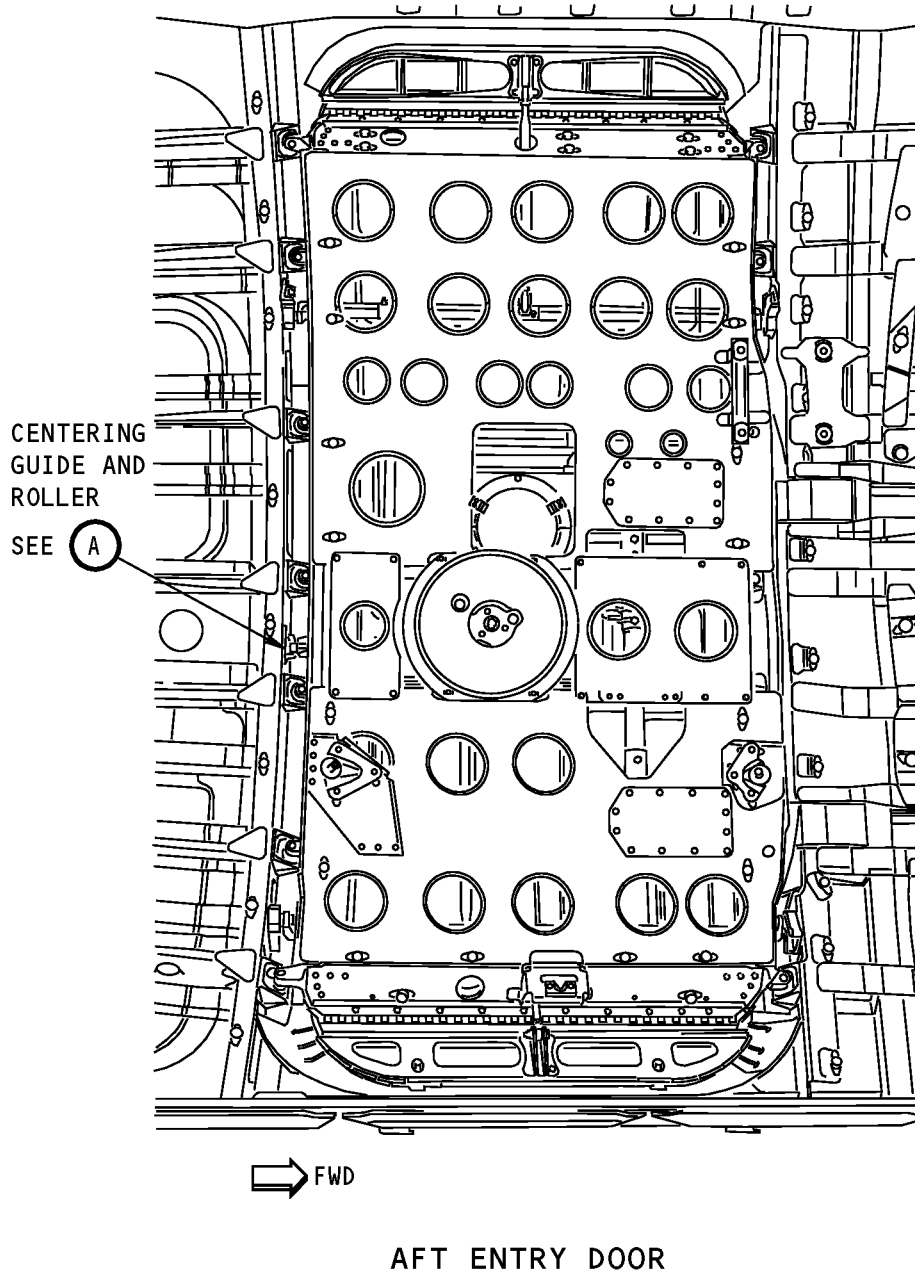
Stop Pin Adjustment
Figure 510 (Sheet 2 of 3)/52-13-00-990-813

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**Centering Guide Adjustment
Figure 511 (Sheet 1 of 2)/52-13-00-990-814**

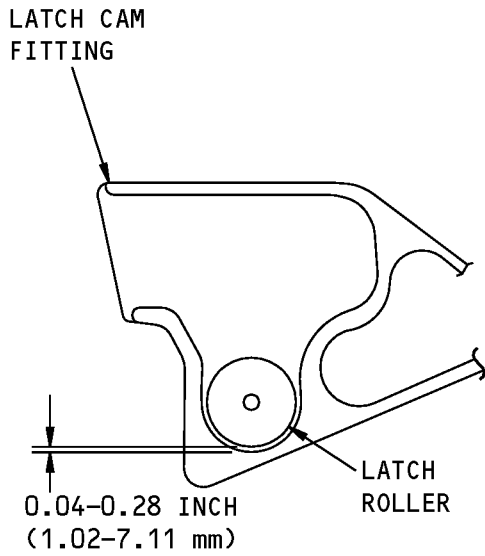
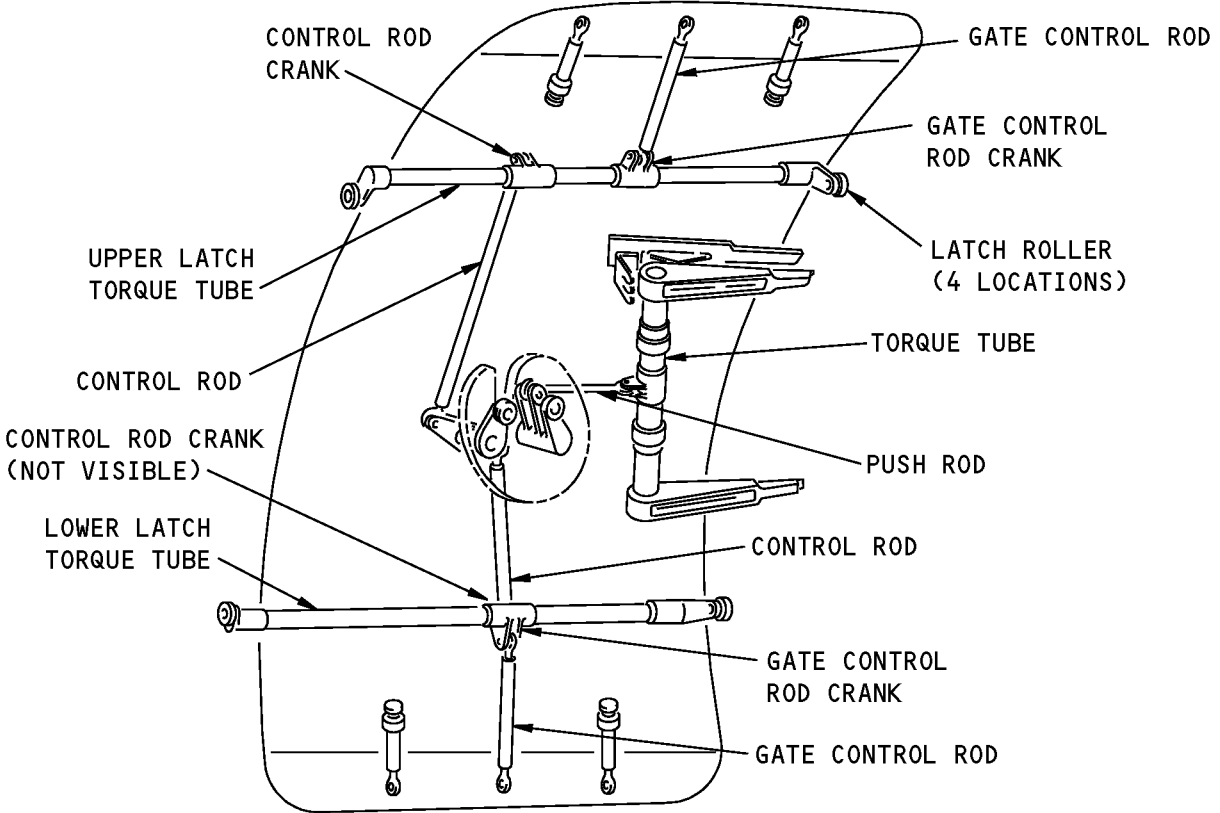
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ROLLER CLEARANCE

Aft Entry Door Mechanism
Figure 512 (Sheet 1 of 2)/52-13-00-990-815

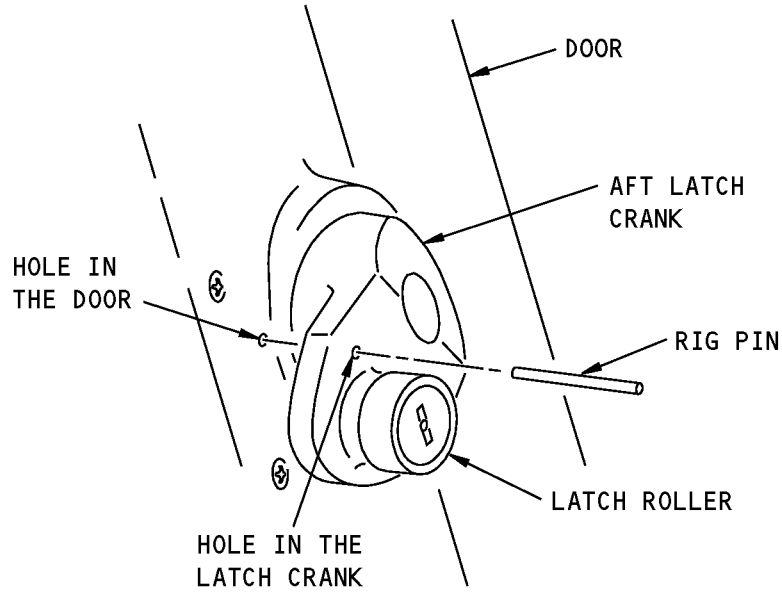
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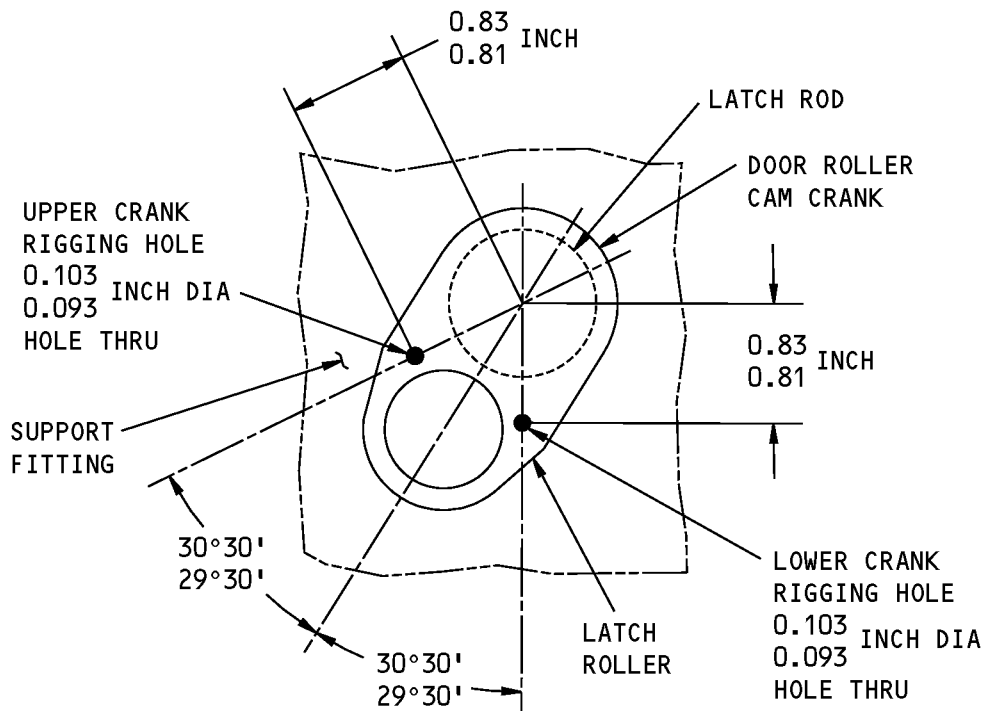
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THE HOLE IN THE LATCH CRANK MUST ALIGN WITH THE HOLE IN THE DOOR WHEN THE HANDLE IS IN THE LATCHED POSITION.



Aft Entry Door Mechanism
Figure 512 (Sheet 2 of 2)/52-13-00-990-815

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AIRCRAFT MAINTENANCE MANUAL

AFT ENTRY DOOR - INSPECTION/CHECK

1. General

- A. This procedure contains scheduled maintenance task data.
- B. This procedure has these tasks:
 - (1) A check of the aft entry door.
 - (2) A check of the aft entry door centering guide bearing.
 - (3) A check of the aft entry door pressure seal.

TASK 52-13-00-200-801

2. Aft Entry Door Check

A. References

Reference	Title
52-13-31-000-802	Aft Entry Door Lining Removal (P/B 401)

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1523	Stand - Work, (B9) General Purpose, Working Height 4-21 Feet (Part #: B-9, Supplier: 05060, A/P Effectivity: 737-ALL)

C. Location Zones

Zone	Area
834	Left Aft Entry Door

D. Access Panels

Number	Name/Location
834AZ	Aft Entry Door - Torque Tube Access
834BZ	Aft Entry Door - Handle Box and Cam for Handle Box Access
834CZ	Aft Entry Door - Handle Box Access
834DZ	Aft Entry Door - Lower Hinge Access
834EZ	Aft Entry Door - Upper Hinge Access
834FZ	Aft Entry Door - Torque Tube Access
834GZ	AFT Entry Door - Torque Tube Access

E. Prepare for the Inspection

SUBTASK 52-13-00-860-004

- (1) Make sure the door is safe as follows:
 - (a) Make sure the door is closed and latched.

WARNING: MAKE SURE THE GIRT BAR IS NOT ENGAGED IN THE FLOOR-MOUNTED ESCAPE SLIDE BRACKETS. IF THE GIRT BAR IS ENGAGED IN THE BRACKETS, THE ESCAPE SYSTEM CAN DEPLOY WHEN YOU OPEN THE DOOR. THIS CAN CAUSE INJURIES TO PERSONS AND DAMAGE TO EQUIPMENT.

- (b) Make sure the girt bar is not engaged in the floor-mounted escape slide brackets.
- (c) Make sure a stand, COM-1523 is installed outboard of the door.

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SUBTASK 52-13-00-010-009

(2) Do this task: Aft Entry Door Lining Removal, TASK 52-13-31-000-802.

SUBTASK 52-13-00-010-010

(3) Remove the access panels as necessary to get access to the door components:

<u>Number</u>	<u>Name/Location</u>
834AZ	Aft Entry Door - Torque Tube Access
834BZ	Aft Entry Door - Handle Box and Cam for Handle Box Access
834CZ	Aft Entry Door - Handle Box Access
834DZ	Aft Entry Door - Lower Hinge Access
834EZ	Aft Entry Door - Upper Hinge Access
834FZ	Aft Entry Door - Torque Tube Access
834GZ	AFT Entry Door - Torque Tube Access

SUBTASK 52-13-00-010-011

(4) Open and close the door as necessary to inspect the door components.

F. Inspection

SUBTASK 52-13-00-210-001

(1) Do a visual inspection of the external door structure and handle as follows:

- (a) Examine the external skin.
 - 1) Look for dents, cracks, and corrosion.
 - 2) Look for burrs.
 - 3) Look for loose and missing fasteners.
- (b) Examine the window.
 - 1) Look for cracks.
 - 2) Look for crazing.
- (c) Examine the window frame.
 - 1) Look for cracks and corrosion.
- (d) Examine the external handle.
 - 1) Look for cracks and corrosion.
 - 2) Look for too much wear.
- (e) Examine the handle pan.
 - 1) Look for cracks and corrosion.
 - 2) Look for loose and missing fasteners.

SUBTASK 52-13-00-210-002

(2) Do a visual inspection of the door internal structure and handle mechanism as follows:

- (a) Examine the internal skin.
 - 1) Look for dents, cracks, and corrosion.
 - 2) Look for burrs.
 - 3) Look for loose and missing fasteners.
- (b) Examine the internal frames and brackets.
 - 1) Look for cracks and corrosion.

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- 2) Look for loose and missing fasteners.
- (c) Examine the drain holes.
 - 1) Look for blockage.
- (d) Examine the handle box.
 - 1) Look for cracks and corrosion.
 - 2) Look for too much wear.
- (e) Examine the handle housing.
 - 1) Look for cracks and corrosion.
 - 2) Look for too much wear.
- (f) Examine the internal handle.
 - 1) Look for cracks and corrosion.
 - 2) Look for too much wear.
- (g) Examine the end gates.
 - 1) Look for cracks and corrosion.
 - 2) Look for loose and missing fasteners.

SUBTASK 52-13-00-210-003

- (3) Do a visual inspection of the latch mechanism as follows:
 - (a) Examine the latch control rods.
 - 1) Look for cracks and corrosion.
 - 2) Look for too much wear.
 - (b) Examine the latch torque tubes.
 - 1) Look for cracks and corrosion.
 - 2) Look for too much wear.
 - (c) Examine the latch cranks and latch rollers.
 - 1) Look for cracks and corrosion.
 - 2) Look for too much wear.
 - 3) Look for unwanted particles on the latch rollers.
 - (d) Examine the gate control rods.
 - 1) Look for cracks and corrosion.
 - 2) Look for too much wear.

SUBTASK 52-13-00-210-004

- (4) Do a visual inspection of the door stop fittings and stop pins as follows:
 - (a) Examine the door stop fittings.
 - 1) Look for cracks and corrosion.
 - (b) Examine the stop pins.
 - 1) Look for cracks and corrosion.
 - 2) Look for unwanted particles on the stop pins.
 - 3) Make sure the retaining springs are installed.

SUBTASK 52-13-00-210-005

- (5) Do a visual inspection of the attach structure and hinge mechanism as follows:

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- (a) Examine the fuselage hinge torque tube.
 - 1) Look for cracks and corrosion.
 - 2) Look for too much wear.
- (b) Examine the hinge arms.
 - 1) Look for cracks and corrosion.
 - 2) Look for too much wear.
- (c) Examine the hinge arm fasteners.
 - 1) Make sure the bolts fully engage the nuts.
 - 2) Make sure the bolt threads are not damaged.
- (d) Examine the door hinge torque tube.
 - 1) Look for cracks and corrosion.
 - 2) Look for too much wear.

NOTE: The nuts and bolts that connect the sleeves to the torque tube may appear loose, because they are not tightened to a clamp up pressure. A small gap between the washer and the sleeve is acceptable.

- (e) Examine the guide arm and roller.
 - 1) Look for cracks and corrosion.
 - 2) Look for too much wear.
- (f) Examine the guide plates.
 - 1) Look for cracks and corrosion.
 - 2) Look for too much wear.
- (g) Examine the guide plate drain holes.
 - 1) Look for blockage.

SUBTASK 52-13-00-210-006

- (6) Do a visual inspection of the structure around the door opening as follows:
 - (a) Examine the fuselage stop fittings and stop pads.
 - 1) Look for cracks and corrosion.
 - 2) Look for wear that is not in the center of the stop pads.
 - 3) Look for unwanted particles on the stop fittings.
 - (b) Examine the latch receivers.
 - 1) Look for cracks and corrosion.
 - 2) Look for too much wear.
 - 3) Look for unwanted particles in the latch receivers.
 - (c) Examine the fuselage frame.
 - 1) Look for cracks and corrosion.
 - 2) Look for loose and missing fasteners.

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G. Put the Airplane Back to Its Usual Condition

SUBTASK 52-13-00-410-013

(1) Install these access panels:

Number	Name/Location
834AZ	Aft Entry Door - Torque Tube Access
834BZ	Aft Entry Door - Handle Box and Cam for Handle Box Access
834CZ	Aft Entry Door - Handle Box Access
834DZ	Aft Entry Door - Lower Hinge Access
834EZ	Aft Entry Door - Upper Hinge Access
834FZ	Aft Entry Door - Torque Tube Access
834GZ	AFT Entry Door - Torque Tube Access

SUBTASK 52-13-00-210-008

(2) Do this task: Aft Entry Door Lining Removal, TASK 52-13-31-000-802.

SUBTASK 52-13-00-860-005

(3) Close and latch the door.

SUBTASK 52-13-00-940-002

(4) Remove the stand, COM-1523.

————— END OF TASK —————

TASK 52-13-00-200-803

3. Aft Entry Door Centering Guide Bearing Check

A. General

(1) This procedure is a scheduled maintenance task.

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1523	Stand - Work, (B9) General Purpose, Working Height 4-21 Feet (Part #: B-9, Supplier: 05060, A/P Effectivity: 737-ALL)

C. Location Zones

Zone	Area
834	Left Aft Entry Door

D. Prepare for the Inspection

SUBTASK 52-13-00-860-010

(1) Make sure the door is safe as follows:

(a) Make sure the door is closed and latched.

WARNING: MAKE SURE THE GIRT BAR IS NOT ENGAGED IN THE FLOOR-MOUNTED ESCAPE SLIDE BRACKETS. IF THE GIRT BAR IS ENGAGED IN THE BRACKETS, THE ESCAPE SYSTEM CAN DEPLOY WHEN YOU OPEN THE DOOR. THIS CAN CAUSE INJURIES TO PERSONS AND DAMAGE TO EQUIPMENT.

(b) Make sure the girt bar is not engaged in the floor-mounted escape slide brackets.

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(c) Make sure a stand, COM-1523 is installed outboard of the door.

SUBTASK 52-13-00-010-015

(2) Open the door.

E. Inspection

SUBTASK 52-13-00-210-010

(1) Do a visual inspection of the centering guide as follows (Figure 601):

(a) Examine the guide fitting.

- 1) Look for cracks and corrosion.
2) Look for loose and missing fasteners.

(b) Examine the guide bearing.

- 1) Look for too much wear.
2) Make sure the bearing is not loose.
3) Look for unwanted particles on the bearing surface.

F. Put the Airplane Back to Its Usual Condition

SUBTASK 52-13-00-860-011

(1) Close and latch the door.

SUBTASK 52-13-00-940-004

(2) Remove the stand, COM-1523.

END OF TASK

TASK 52-13-00-200-802

4. Aft Entry Door Pressure Seal Check

A. General

(1) This procedure is a scheduled maintenance task.

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Table with 2 columns: Reference, Description. Row 1: COM-1523, Stand - Work, (B9) General Purpose, Working Height 4-21 Feet (Part #: B-9, Supplier: 05060, A/P Effectivity: 737-ALL)

C. Location Zones

Table with 2 columns: Zone, Area. Row 1: 834, Left Aft Entry Door

D. Prepare for the Inspection

SUBTASK 52-13-00-860-008

(1) Make sure the door is safe as follows:

(a) Make sure the door is closed and latched.

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WARNING: MAKE SURE THE GIRT BAR IS NOT ENGAGED IN THE FLOOR-MOUNTED ESCAPE SLIDE BRACKETS. IF THE GIRT BAR IS ENGAGED IN THE BRACKETS, THE ESCAPE SYSTEM CAN DEPLOY WHEN YOU OPEN THE DOOR. THIS CAN CAUSE INJURIES TO PERSONS AND DAMAGE TO EQUIPMENT.

- (b) Make sure the girt bar is not engaged in the floor-mounted escape slide brackets.
- (c) Make sure a stand, COM-1523 is installed outboard of the door.

SUBTASK 52-13-00-010-014

- (2) Open the door.

E. Inspection

SUBTASK 52-13-00-210-009

- (1) Do a visual inspection of the door pressure seal as follows (Figure 602):
 - (a) Examine the seal.
 - 1) Look for cracks, holes, and tears.
 - 2) Look for indications of seal deterioration.
 - 3) Make sure the seal is installed in the seal retainer.

F. Put the Airplane Back to its Usual Condition

SUBTASK 52-13-00-860-009

- (1) Close and latch the door.

SUBTASK 52-13-00-940-003

- (2) Remove the stand, COM-1523.

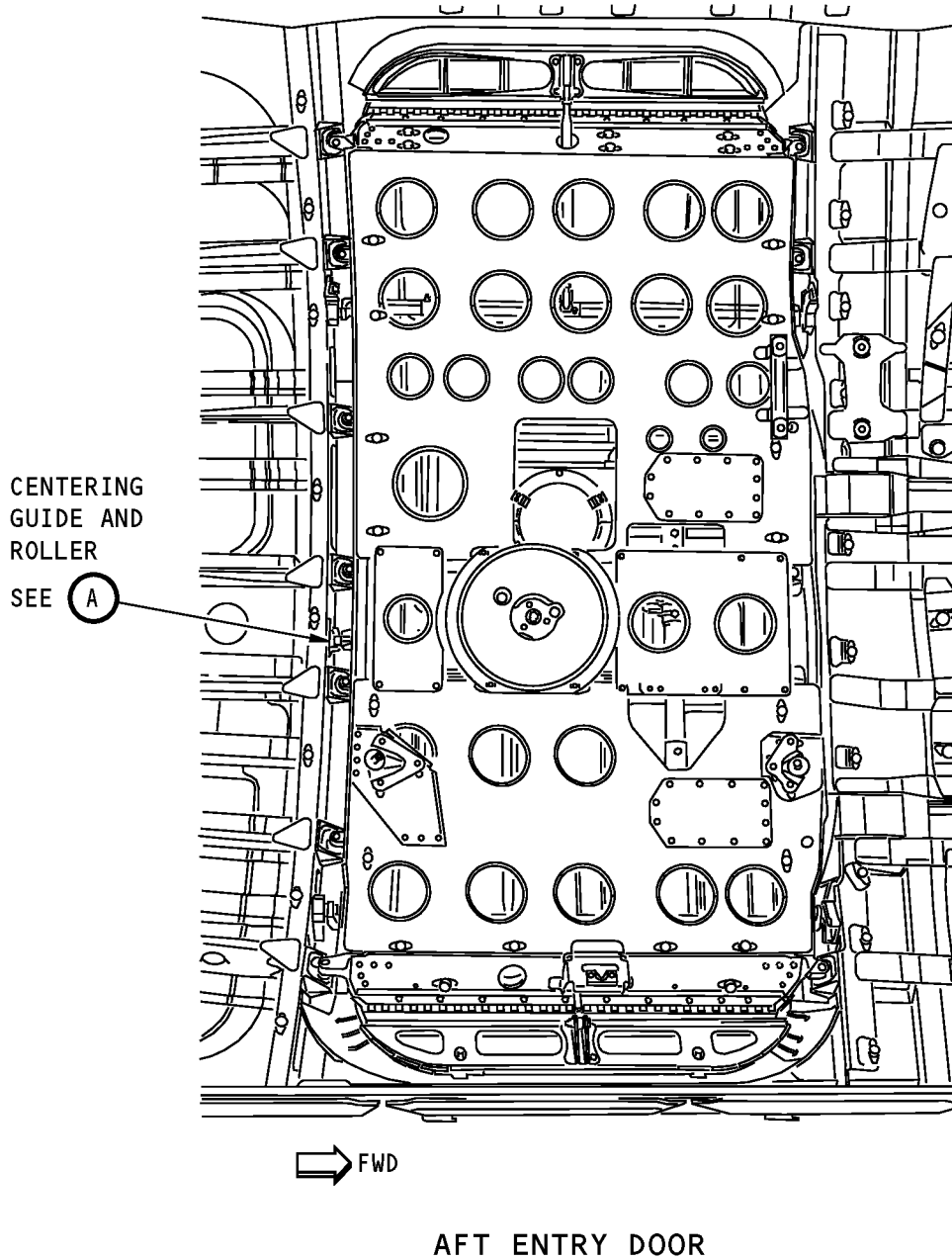
————— END OF TASK —————

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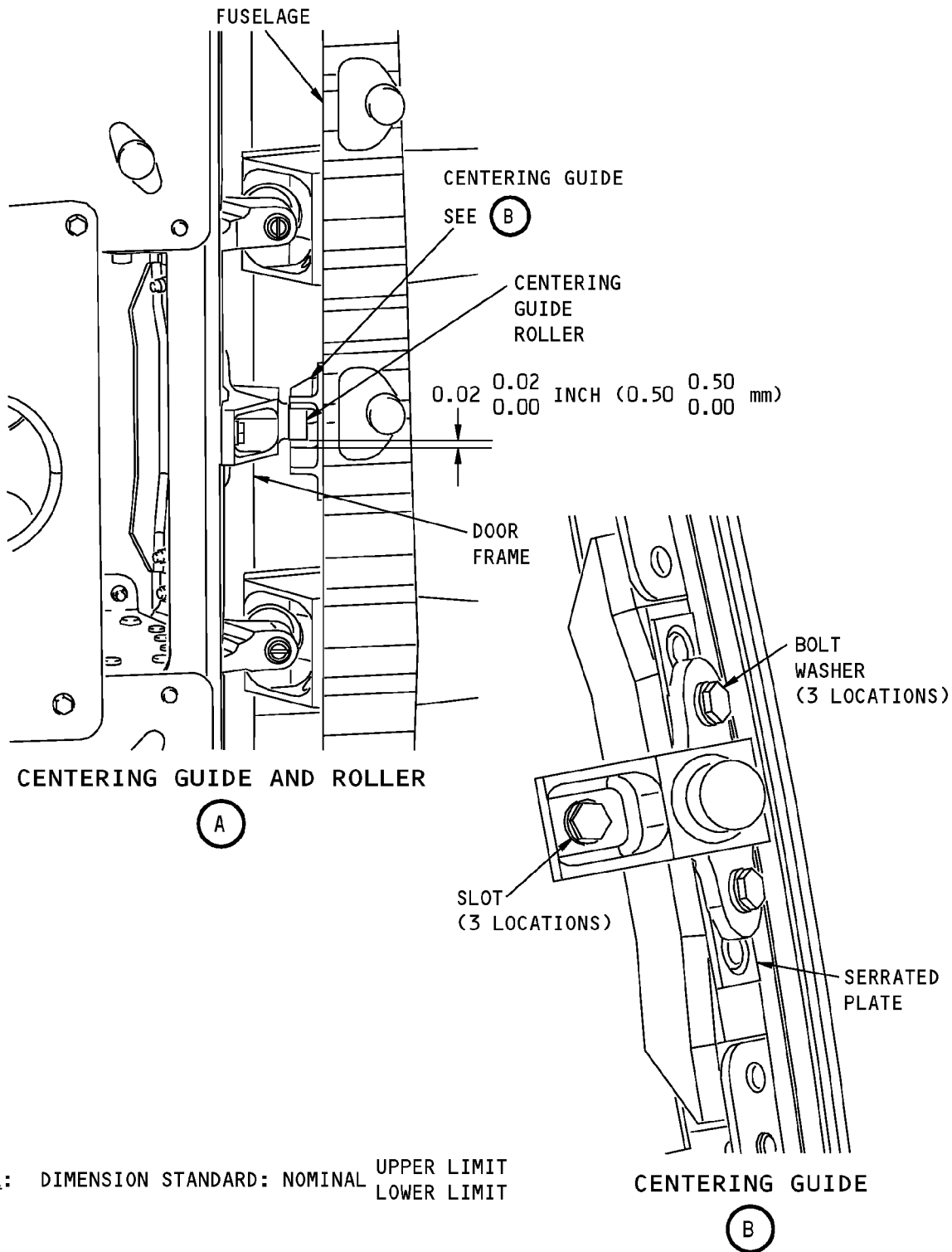
**Centering Guide Inspection/Check
Figure 601 (Sheet 1 of 2)/52-13-00-990-817**

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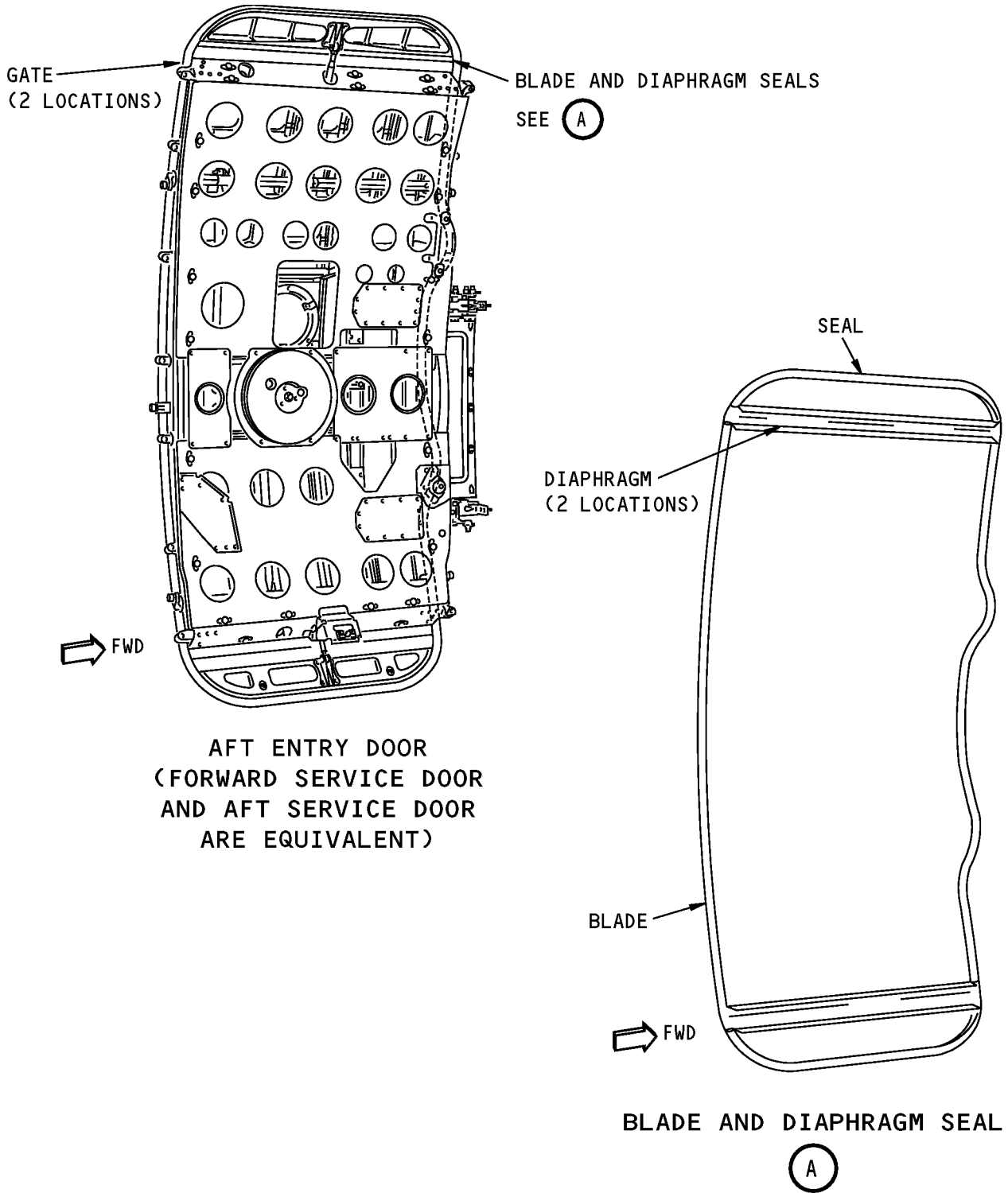
NOTE: DIMENSION STANDARD: NOMINAL UPPER LIMIT
 LOWER LIMIT

Centering Guide Inspection/Check
Figure 601 (Sheet 2 of 2)/52-13-00-990-817

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Blade and Diaphragm Seals Inspection
Figure 602/52-13-00-990-818

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AIRCRAFT MAINTENANCE MANUAL

AFT ENTRY DOOR HINGE ARM - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

- (1) A removal of the aft entry door hinge arm.
- (2) An installation of the aft entry door hinge arm.

TASK 52-13-11-000-802

2. Aft Entry Door Hinge Arm Removal

(Figure 401)

A. References

Reference	Title
52-13-00-000-802	Aft Entry Door Removal (P/B 401)

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1523	Stand - Work, (B9) General Purpose, Working Height 4-21 Feet (Part #: B-9, Supplier: 05060, A/P Effectivity: 737-ALL)

C. Location Zones

Zone	Area
834	Left Aft Entry Door

D. Access Panels

Number	Name/Location
834AZ	Aft Entry Door - Torque Tube Access
834CZ	Aft Entry Door - Handle Box Access

E. Prepare for the Removal

SUBTASK 52-13-11-860-001

- (1) Make sure the door is safe as follows:
 - (a) Make sure the door is closed and latched.

WARNING: MAKE SURE THE GIRT BAR IS NOT ENGAGED IN THE FLOOR-MOUNTED ESCAPE SLIDE BRACKETS. IF THE GIRT BAR IS ENGAGED IN THE BRACKETS, THE ESCAPE SYSTEM CAN DEPLOY WHEN YOU OPEN THE DOOR AND INJURIES OR DAMAGE CAN OCCUR.

- (b) Make sure the girt bar is not engaged in the floor-mounted escape slide brackets.
- (c) Install a stand, COM-1523 outboard of the door.

SUBTASK 52-13-11-010-004

- (2) Do this task: Aft Entry Door Removal, TASK 52-13-00-000-802.

SUBTASK 52-13-11-410-006

- (3) Get access to the door [1]:

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Remove this access panel:

<u>Number</u>	<u>Name/Location</u>
834AZ	Aft Entry Door - Torque Tube Access

Remove this access panel:

<u>Number</u>	<u>Name/Location</u>
834CZ	Aft Entry Door - Handle Box Access

F. Removal of the Aft Entry Door Hinge Arm (Preferred Procedure)

(Figure 401)

SUBTASK 52-13-11-020-010

(1) Remove the handle mechanism:

- (a) Remove the cover [31] on the interior handle [28] to get access to the fasteners that attach the interior handle [28] to the handle mechanism.
- (b) Remove the cotter pins [32], nuts [30], and washers [29] that attach the interior handle [28] to the hub [34].
- (c) Remove the interior handle [28] and the bolts [33].
- (d) Remove the bolts [36] and washers [23] that attach the cam cover [24] to the handle box [6].
- (e) Remove the cam cover [24].
- (f) Remove the lockwire, bolts [26], and washers [25] that attach the hub [34] and shim [35] to the handle cam [40].
- (g) Remove the hub [34] and shim [35].
- (h) Remove the cotter pin [38] on the nut [37] that holds the handle cam [40] to the handle shaft [47].
- (i) Hold the exterior handle [10] and remove the nut [37] and washer [39] that hold the handle cam [40] to the handle shaft [47].

NOTE: When you remove the nut [37], the exterior handle [10] and part of the handle mechanism will be loose on the outer side of the door [1].

- (j) Remove the handle cam [40].
- (k) From the outer side of the door, remove the exterior handle [10], shims [46], sleeve [44], handle shaft [47], and centering cam [43] as an assembly.
- (l) If necessary, disassemble these parts further as follows:
 - 1) Remove the bolts [9], washers [45], and nuts [42] that attach the exterior handle [10] to the centering cam [43] through the shims [46] and sleeve [44].
 - 2) Remove the exterior handle [10].
 - 3) Remove the shims [46] between the exterior handle [10] and the sleeve [44].
 - 4) Remove the centering cam [43].
 - 5) Remove the handle shaft [47] from the sleeve [44].
 - 6) Remove the spring pin [8] from the washer [11] and pin [50].
 - 7) Remove the washer [11] from the end of the pin [50].
 - 8) Remove the lock ring [48] from the handle shaft [47].
 - 9) Remove the nut [51] from the end of the handle shaft [47].

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- 10) Remove the pin [50], and spring [49] from the handle shaft [47].
- (m) Remove the bolts [14], washers [12], and nuts [19] that attach the handle pan [13], seal plate [16], and handle housing [20] to the handle box [6].
- (n) Remove the handle pan [13] and seal plate [16] from the external side of the door [1].
- (o) Remove the the seal plate [16] from the handle pan [13] and the packing [18] from the seal plate [16].
- (p) Remove the handle housing [20] from the handle box [6] and the packing [17] from the handle housing [20].
- (q) If necessary, remove the bearing [21] from the handle box [6] as follows:
 - 1) Remove the retaining ring [22] that holds the bearing [21] in the handle box [6].
 - 2) Remove the bearing [21] from the handle box [6].

SUBTASK 52-13-11-020-011

- (2) Remove the upper and lower latch control rods [15]:
 - (a) Remove the bolts [62] and washers [63] that connect the latch control rods [15] to the handle mechanism in the handle box [6].
 - (b) Remove the bolts [52], washers [53], nuts [54], and pins [55] that connect the latch control rods [15] to the upper and lower latch torque tubes [56].
 - (c) Remove the latch control rods [15] from the handle box [6] and door [1] to make clearance for the handle box [6] removal.

SUBTASK 52-13-11-020-012

- (3) Disconnect the door hinge torque tube [59]:
 - (a) Remove the bolts [70], washers [69], and nuts [75] that go through the upper and lower sleeves [57] on the door hinge torque tube [59].
 - (b) Move the sleeves [57] toward the center of the door hinge torque tube [59] to make clearance to remove the the door hinge torque tube [59] and handle box [6] as an assembly.

SUBTASK 52-13-11-020-013

- (4) Remove the handle box [6] and door hinge torque tube [59]:
 - (a) Remove the bolts [65], fillers [66], washers [67], and nuts [68] that attach the front of the upper and lower splice angles [58] to the beams.
 - (b) Remove the bolts [76] and washers [77] that attach the upper and lower splice angles [58] to the beams.
 - (c) Remove the upper and lower splice angles [58] from the beams to get access to the door hinge torque tube [59].
 - (d) Remove the bolts [60] and washers [61] that attach the top and bottom of the handle box [6] to the beams.
 - (e) Carefully remove the handle box [6] and door hinge torque tube [59] from the door structure.
 - (f) If the laminated shims [64] between the top of the handle box [6] and the beam are loose, remove them.

SUBTASK 52-13-11-020-014

- (5) Remove the hinge arm [2] from the hinge support:

NOTE: Do this step for each hinge arm.

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- (a) Loosen the bolts [72] and washers [73] that hold the hinge pin [74] in the hinge arm [2].
- (b) Remove the hinge pin [74] from the hinge arm [2].
- (c) Remove the packing [71], washer [78] from the hinge pin [74].
- (d) Remove the hinge arm [2].

G. Removal of the Aft Entry Door Hinge Arm (Alternate Procedure)

(Figure 401)

SUBTASK 52-13-11-030-001

- (1) Disconnect the hinge torque tube [59] to remove the splice angle [58]:
 - (a) Remove the bolts [70], the washers [69], and the nuts [75] that go through the upper and lower sleeves [57] on the hinge torque tube [59].
 - (b) Remove the bolts [65], the fillers [66], the washers [67], and the nuts [68] that attach the upper and lower splice angles [58] to the beams.
 - (c) Remove the bolts [76] and the washers [77] that attach the upper and lower splice angles [58] to the beams.
 - (d) Remove the upper and lower splice angles [58] from the beams to get access to the hinge torque tube.

SUBTASK 52-13-11-010-005

- (2) Disconnect the upper and lower latch control rods [15] from the torque tubes [56]:
 - (a) Remove the bolts [52], the washers [53], the nuts [54] and the pin [55] that connect the latch control rods [15] to the upper and lower latch torque tubes [56].

SUBTASK 52-13-11-010-006

- (3) Loosen one of these two nuts on the door hinge torque tube:
 - (a) For the upper hinge arm [2], loosen the nut [85].
 - 1) Do not loosen the lower nut [86].
 - (b) For the lower hinge arm [2], loosen the lower nut [86].
 - 1) Do not loosen the nut [85].

SUBTASK 52-13-11-020-015

- (4) Remove the hinge arm [2] from the hinge support:
 - (a) Loosen the bolts [72] and the washers [73] that hold the hinge pin [74] in the hinge arm [2].
 - (b) Remove the hinge pin [74] from the hinge arm [2].
 - 1) Remove the packing [71], the washer [78] from the hinge pin [74].
 - (c) Remove the hinge arm [2].

————— END OF TASK —————

TASK 52-13-11-400-802

3. Aft Entry Door Hinge Arm Installation

(Figure 401)

A. References

Reference	Title
52-13-00-400-802	Aft Entry Door Installation (P/B 401)

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B. Consumable Materials

Reference	Description	Specification
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS 5-95
C00528	Compound - Corrosion Preventive, Petroleum Hot Application (Soft Film)	MIL-C-11796, Class III
D00015	Grease - Aircraft Bearing (Use BMS 3-24 until existing stocks are depleted, BMS 3-33 supersedes BMS 3-24)	BMS3-24 (Superseded by BMS 3-33)
G00440	Lockwire - Corrosion Resistant Steel (0.041 inch Dia.)	NASM20995~ C41

C. Location Zones

Zone	Area
834	Left Aft Entry Door

D. Access Panels

Number	Name/Location
834AZ	Aft Entry Door - Torque Tube Access
834CZ	Aft Entry Door - Handle Box Access

E. Installation of the Aft Entry Door Hinge Arm (Preferred Procedure)

SUBTASK 52-13-11-420-007

(1) Install the hinge arm [2] in the hinge support:

NOTE: Do this step for each hinge arm.

- (a) Put the hinge arm [2] in its correct position in the hinge support.
- (b) Do a check of the packing [71] for damage or wear and replace it if necessary.
- (c) Apply grease, D00015 to the packing [71] before installation.
- (d) Install the washer [78] and packing [71] on the hinge pin [74].
- (e) Apply grease, D00015 to the hinge pin [74] and the bolt [72] before installation.
- (f) Install the hinge pin [74] in the hinge arm [2].
- (g) Install the bolt [72] and washer [73] to hold the hinge pin [74] in the hinge arm [2].
- (h) Apply grease, D00015 in the opening between the hinge arm [2] and hinge pin [74] and to any openings between the hinge support and the hinge pin [74].

SUBTASK 52-13-11-420-008

(2) Install the handle box [6] and the door hinge torque tube [59]:

- (a) Apply sealant, A00247 to the mating surfaces between the bottom of the handle box [6] and the beam before installation.
- (b) Carefully put the handle box [6] and the door hinge torque tube [59] in their correct position in the door structure.
- (c) If the laminated shims [64] between the top of the handle box [6] and the beam were removed, do these steps:
 - 1) Make sure the maximum clearance between the top of the handle box [6] and the beam is 0.01 inch (0.25 mm).
 - 2) Apply sealant, A00247 to the mating surfaces between the handle box [6], laminated shims [64], and beam before installation.

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- 3) Install the laminated shims [64] between the handle box [6] and the beam.
- (d) Apply sealant, A00247 to the mating surfaces of the bolts [60], washers [61], handle box [6], and beam before installation.
- (e) Install the bolts [60] and washers [61] to attach the top and bottom of the handle box [6] to the beams.
- (f) Put the upper and lower splice angles [58] in their correct position on the beams.
- (g) Apply compound, C00528 to the holes for the bolts [76] before installation.
- (h) Install the bolts [76] and washers [77] to attach the upper and lower splice angles [58] to the beams.
- (i) Install the bolts [65], fillers [66], washers [67], and nuts [68] to attach the front of the upper and lower splice angles [58] to the beams.

SUBTASK 52-13-11-420-009

- (3) Connect the door hinge torque tube [59]:
 - (a) Apply grease, D00015 to the mating surfaces of the sleeves [57], hinge pins [74], and door hinge torque tube [59] before installation.
 - (b) Put the sleeves [57] over the hinge pins [74].
 - (c) Apply compound, C00528 to the holes for the bolts [70] before installation.
 - (d) Install the bolts [70], washers [69], and nuts [75] that go through the upper and lower sleeves [57] on the door hinge torque tube [59].

SUBTASK 52-13-11-420-010

- (4) Install the upper and lower latch control rods [15]:
 - (a) Put the latch control rods [15] in their correct positions in the handle box [6] and door.
 - (b) Apply compound, C00528 to the holes for the bolts [52] [62] before installation.
 - (c) Install the bolts [52], washers [53], nuts [54], and pins [55] to connect the latch control rods [15] to the upper and lower latch torque tubes [56].
 - (d) Install the bolts [62] and washers [63] to connect the latch control rods [15] to the handle mechanism in the handle box [6].

SUBTASK 52-13-11-420-011

- (5) Install the handle mechanism:
 - (a) Do a check of the packings [17] [18] for damage or wear and replace them if necessary.
 - (b) Apply grease, D00015 to the packings [17] [18] before installation.
 - (c) Install the packing [18] in the seal plate [16] and the packing [17] in the handle housing [20].
 - (d) Put the handle housing [20] in its correct position against the handle box [6].
 - (e) Put the seal plate [16] in its correct position against the handle pan [13].
 - (f) Put the handle pan [13] and seal plate [16] in position on the external side of the door [1].
 - (g) Install the bolts [14], washers [12], and nuts [19] to attach the handle pan [13], seal plate [16], and handle housing [20] to the handle box [6].
 - (h) Install the exterior handle [10], handle shaft [47], shims [46], sleeve [44], and centering cam [43] as an assembly.
 - 1) Make sure the lubrication fitting on the sleeve [44] is in its correct position.
 - 2) If necessary, assemble these parts before installation as follows:
 - a) Install the pin [50] and spring [49] in the handle shaft [47].

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- b) Install the nut [51] in the end of the handle shaft [47].
 - c) Install the lock ring [48] on the handle shaft [47].
 - d) Install the washer [11] on the end of the pin [50].
 - e) Install the spring pin [8] through the washer [11] and pin [50].
- 3) Apply grease, D00015 to the mating surfaces of the handle shaft [47] and sleeve [44] before installation.
- 4) Install the handle shaft [47] in the sleeve [44].
- 5) Install the shims [46] between the exterior handle [10] and the sleeve [44].
- 6) Install the bolts [9], washers [45], and nuts [42] to attach the exterior handle [10] to the centering cam [43] through the shims [46] and sleeve [44].
- (i) If necessary, install the bearing [21] and retaining ring [22] in the handle box [6].
 - 1) Put the bearing [21] in position in the handle box [6].
 - 2) Install the retaining ring [22] to hold the bearing [21] in the handle box [6].
 - (j) Apply grease, D00015 to the mating surfaces of the handle shaft [47] and the handle cam [40] before installation in the handle box [6].
 - (k) Hold the exterior handle [10] in position on the exterior side of the door [1].
 - (l) Install the handle shaft [47] through the handle box [6].
 - (m) Install the handle cam [40] on the end of the handle shaft [47].
 - (n) Install the washer [39], nut [37], and new cotter pin [38] to hold the handle cam [40] to the handle shaft [47].
 - (o) Put the hub [34] and shim [35] in their correct position against the handle cam [40].
 - (p) Install the bolts [26], washers [25], and lockwire, G00440 to attach the hub [34] and shim [35] to the handle cam [40].
 - (q) Put the cam cover [24] in its correct position against the handle box [6].
 - (r) Install the bolts [36] and washers [23] to attach the cam cover [24] to the handle box [6].
 - (s) Put the bolts [33] through the hub [34].
 - (t) Put the interior handle [28] in its correct position against the hub [34].
 - (u) Install the washers [29], nuts [30], and new cotter pins [32] to attach the interior handle [28] to the hub [34].
 - (v) Install the cover [31] on the interior handle [28].
- F. Installation of the Aft Entry Door Hinge Arm (Alternate Procedure)

SUBTASK 52-13-11-420-013

- (1) Install the hinge arm [2] on the hinge support:
- (a) Examine the packing [71] to make sure that the packing is serviceable.
 - 1) If it is necessary, replace the packing [71] .
 - (b) Apply grease, D00015 to the packing [71] before installation.
 - (c) Install the washer [78] and packing [71] on the hinge pin [74].
 - (d) Apply grease, D00015 to the hinge pin [74] and the bolt [72] before installation.
 - (e) Put the hinge arm [2] in its correct location
 - (f) Install the hinge pin [74] in the hinge arm [2].
 - (g) Tighten the bolts [72] and the washers [73] that hold the hinge pin [74] in the hinge arm [2]

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SUBTASK 52-13-11-410-008

- (2) Tighten the door hinge torque tube:
- (a) Move the torque tube into its correct position.
 - (b) Tighten the applicable nut [85 or 86] on the door hinge torque tube
 - 1) For the upper hinge arm [2], tighten the nut [85].
 - 2) For the lower hinge arm [2], tighten the lower nut [86].

SUBTASK 52-13-11-410-009

- (3) Connect the upper and lower latch control rods [15] to the torque tubes [56]:
- (a) Install the bolts [52], the washers [53], the nuts [54] and the pin [55] that connect the latch control rods [15] to the upper and lower latch torque tubes [56].

SUBTASK 52-13-11-410-010

- (4) Connect the splice angles [58]:
- (a) Use the bolts [76] and the washers [77] that attach the upper and lower splice angles [58] to the beams.
 - 1) Tighten the bolts [76].
 - (b) Install the bolts [65], the fillers [66], the washers [67], and the nuts [68] that attach the upper and lower splice angles [58] to the beams.
 - 1) Tighten the nuts [68].

SUBTASK 52-13-11-410-011

- (5) Connect the hinge torque tube [59]:
- (a) Install the bolts [70], the washers [69], and the nuts [75] that go through the upper and lower sleeves [57] on the hinge torque tube [59].
 - 1) Tighten the nuts [75].

G. Put the Airplane in its Usual Condition

SUBTASK 52-13-11-410-012

- (1) Close access to the door:

Install this access panel:

<u>Number</u>	<u>Name/Location</u>
834CZ	Aft Entry Door - Handle Box Access

Install this access panel:

<u>Number</u>	<u>Name/Location</u>
834AZ	Aft Entry Door - Torque Tube Access

SUBTASK 52-13-11-420-012

- (2) Do this task: Aft Entry Door Installation, TASK 52-13-00-400-802.

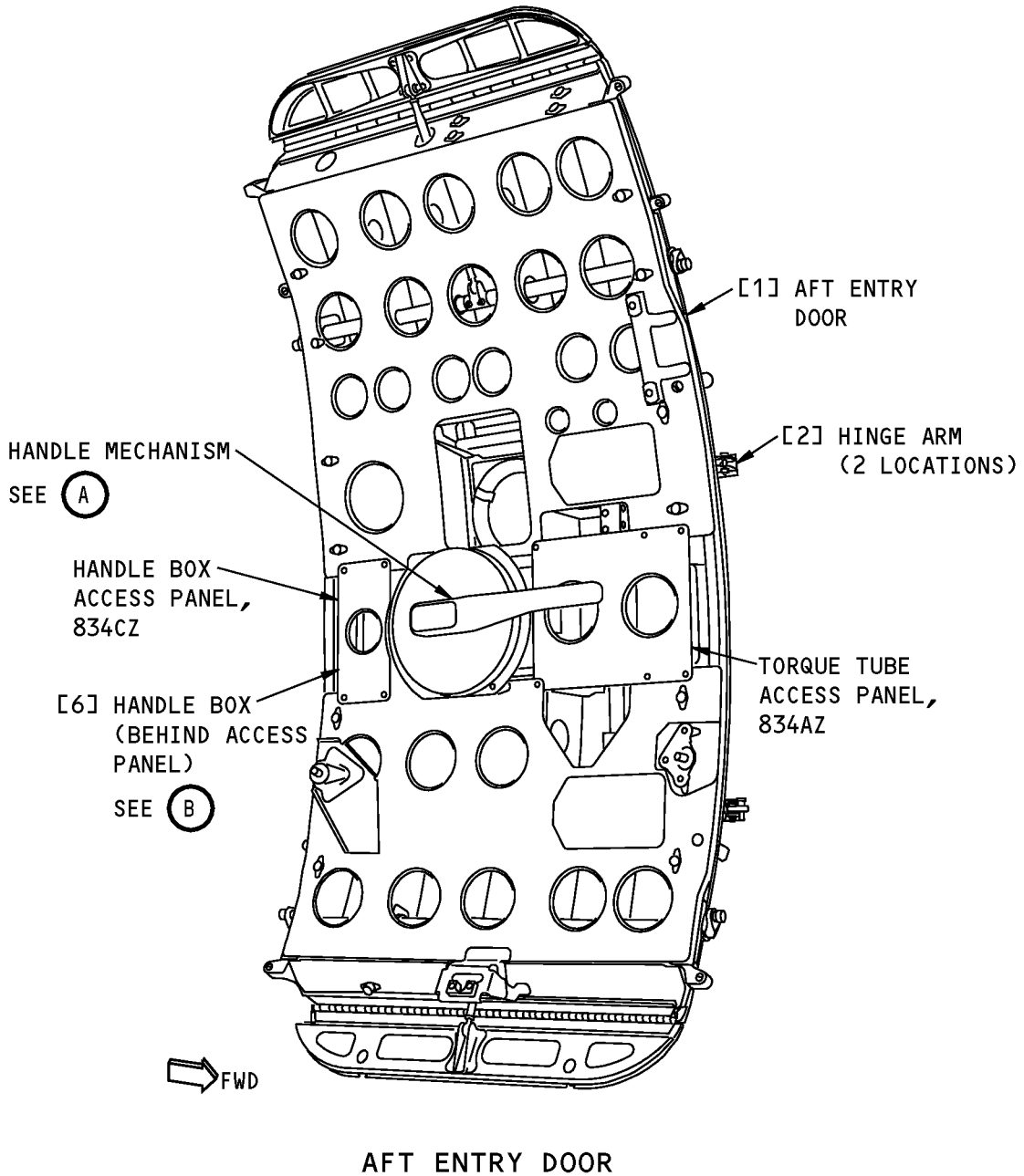
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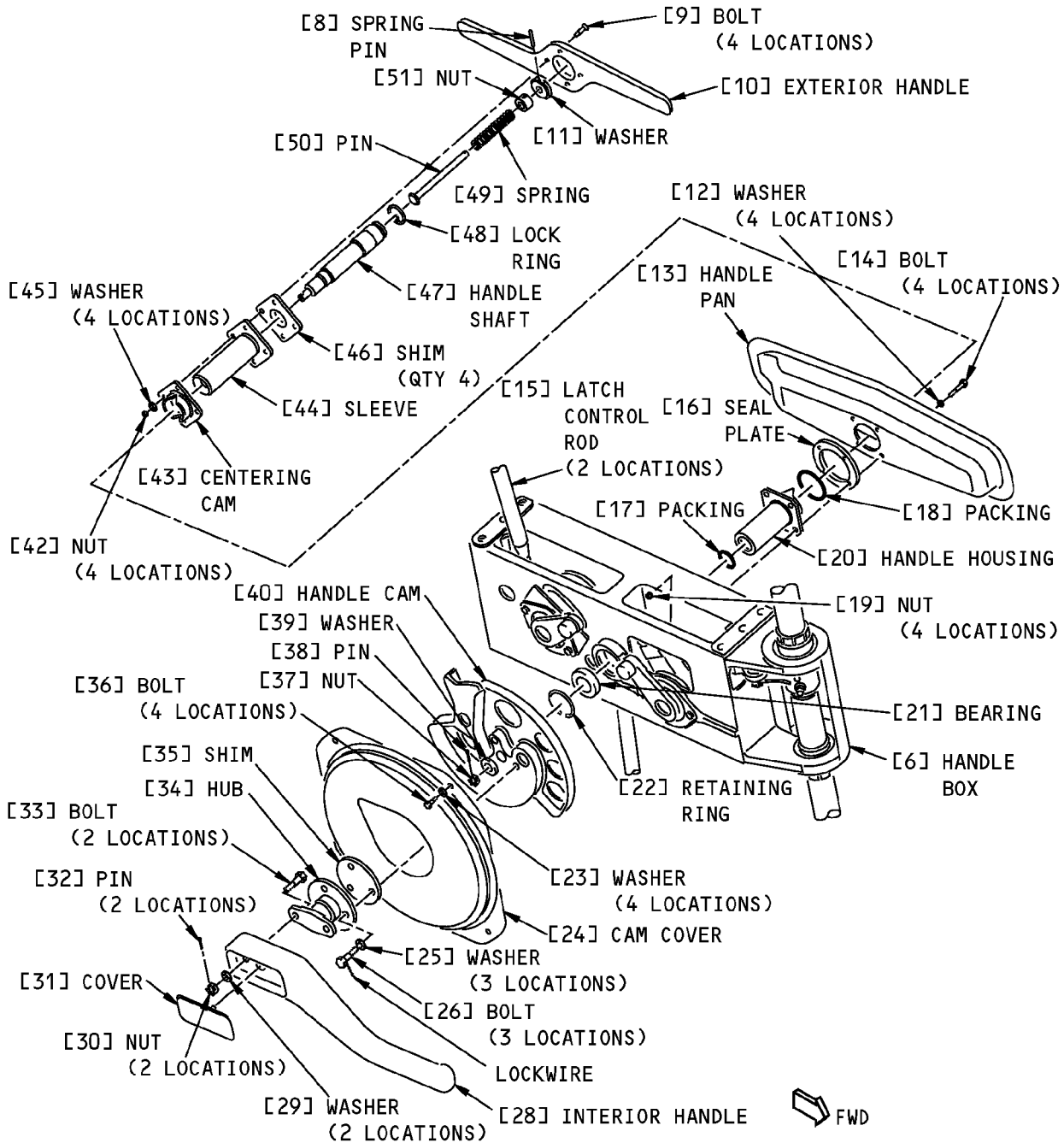
**Aft Entry Door Hinge Arm Installation
Figure 401 (Sheet 1 of 5)/52-13-11-990-803**

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**HANDLE MECHANISM
(EXPLODED VIEW)**

A

**Aft Entry Door Hinge Arm Installation
Figure 401 (Sheet 2 of 5)/52-13-11-990-803**

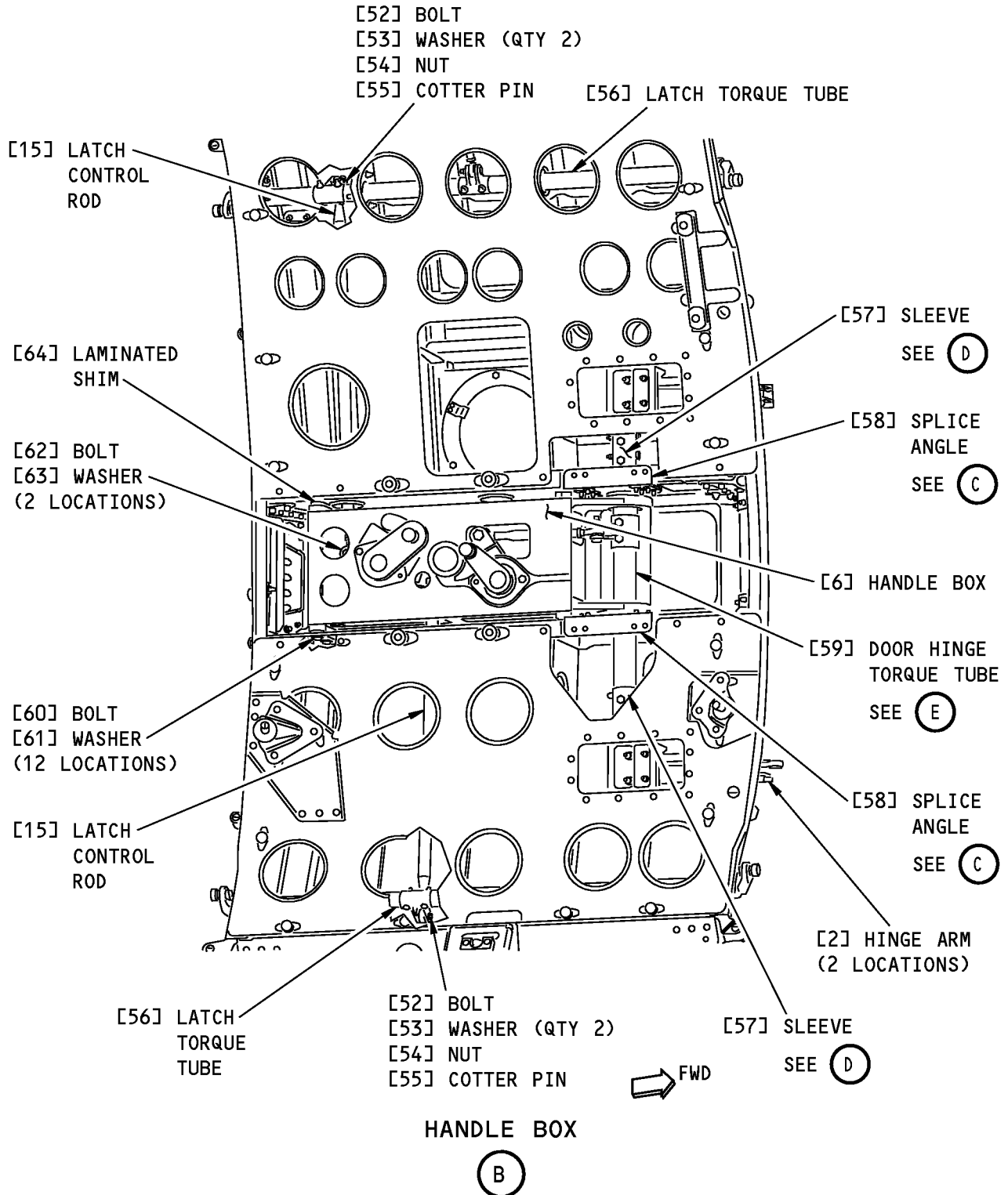
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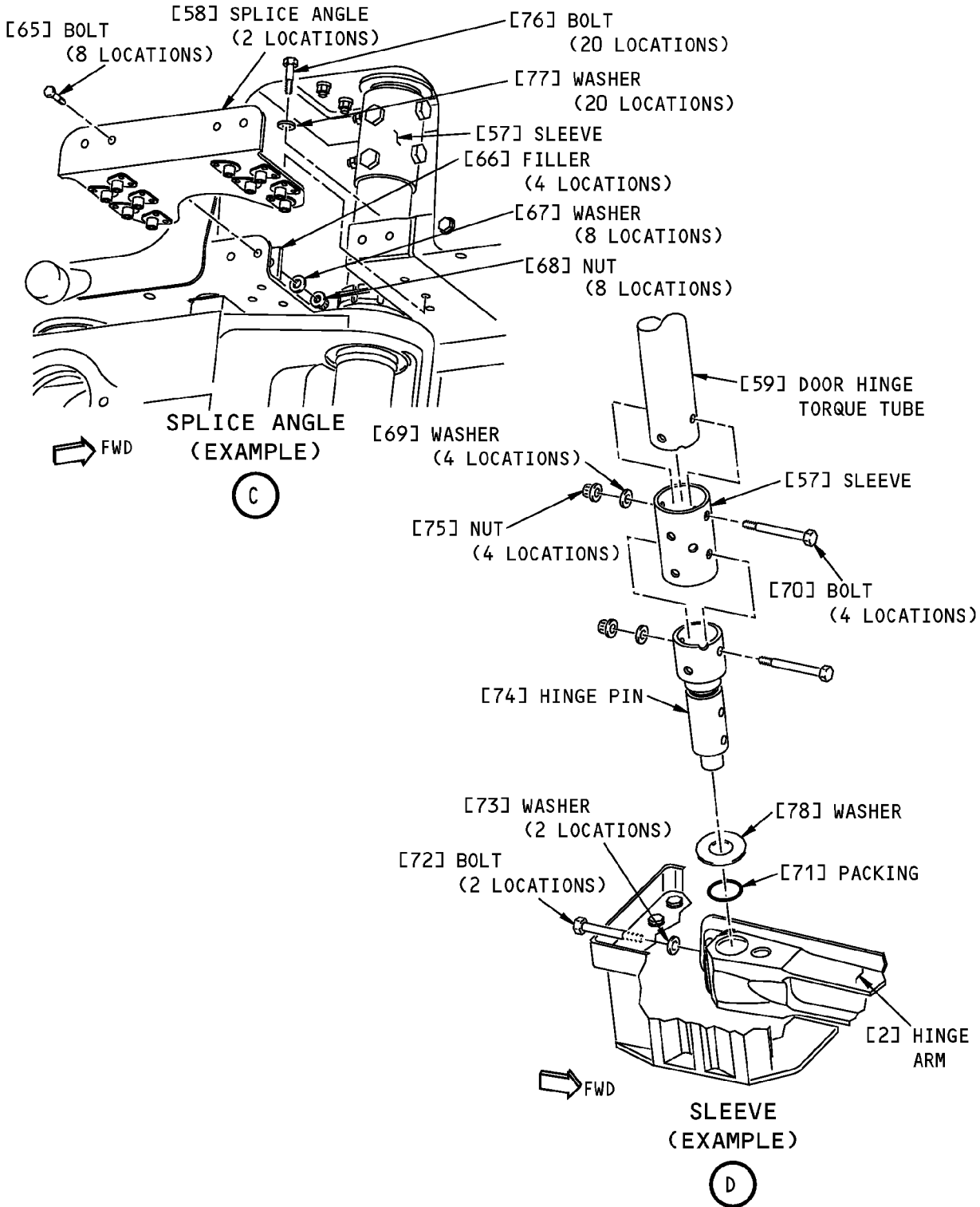


Aft Entry Door Hinge Arm Installation
Figure 401 (Sheet 3 of 5)/52-13-11-990-803

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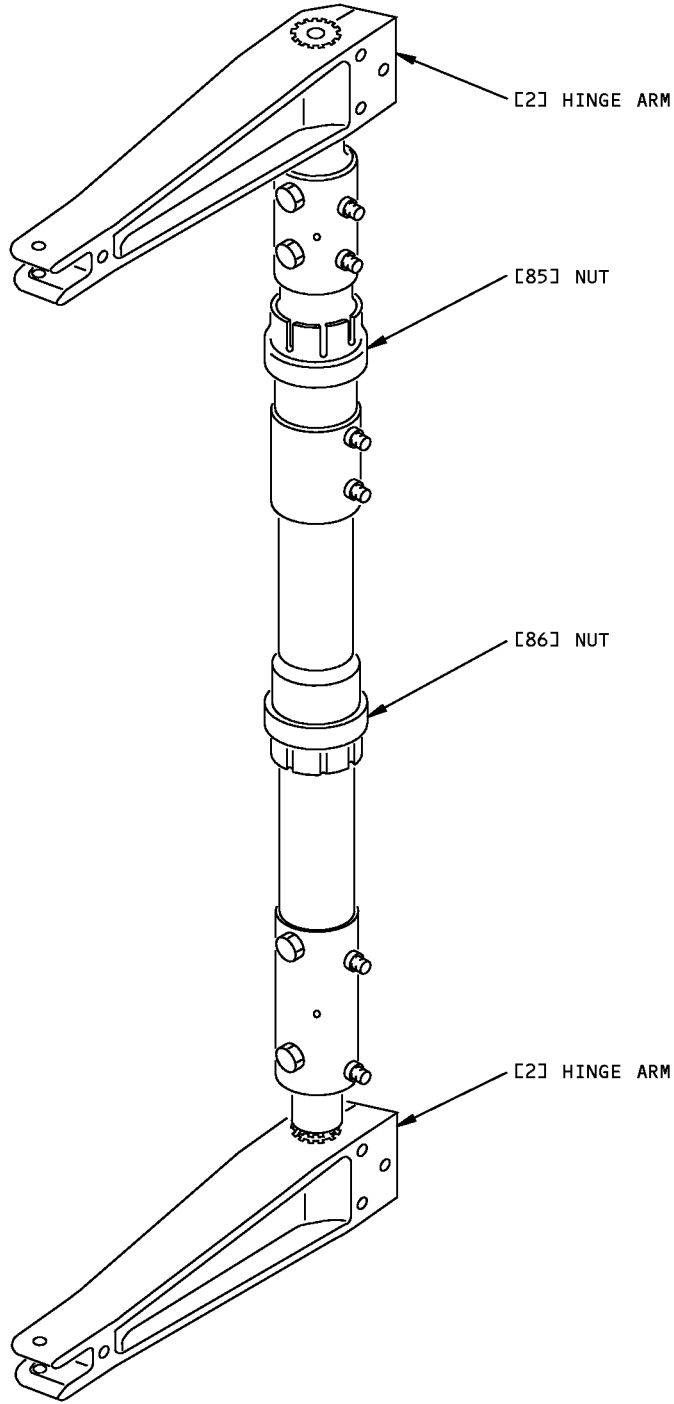
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Aft Entry Door Hinge Arm Installation
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DOOR HINGE TORQUE TUBE

E

**Aft Entry Door Hinge Arm Installation
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AFT ENTRY DOOR GUIDE ARM AND ROLLER - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

- (1) A removal of the aft entry door guide arm and roller.
- (2) An installation of the aft entry door guide arm and roller.

TASK 52-13-21-000-802

2. Aft Entry Door Guide Arm and Roller Removal

(Figure 401)

A. References

Reference	Title
52-13-31-000-802	Aft Entry Door Lining Removal (P/B 401)

B. Location Zones

Zone	Area
834	Left Aft Entry Door

C. Access Panels

Number	Name/Location
834	Aft Entry Door
834FZ	Aft Entry Door - Torque Tube Access

D. Prepare for the Removal

SUBTASK 52-13-21-860-003

- (1) Make sure the door is safe as follows:
 - (a) Make sure the door is closed and latched.

WARNING: MAKE SURE THE GIRT BAR IS NOT ENGAGED IN THE FLOOR-MOUNTED ESCAPE SLIDE BRACKETS. IF THE GIRT BAR IS ENGAGED IN THE BRACKETS, THE ESCAPE SYSTEM CAN DEPLOY WHEN YOU OPEN THE DOOR AND INJURIES OR DAMAGE CAN OCCUR.

- (b) Make sure the girt bar is not engaged in the floor-mounted escape slide brackets.
- (c) Make sure a stand is installed outboard of the door.

SUBTASK 52-13-21-010-002

- (2) Get access to the door as follows:
 - (a) Do this task: Aft Entry Door Lining Removal, TASK 52-13-31-000-802.
 - (b) Open this access panel:

Number	Name/Location
834	Aft Entry Door

E. Removal of the Aft Entry Door Guide Arm and Roller

SUBTASK 52-13-21-020-004

- (1) Disconnect the guide arm [2] and roller [10] from the guide plates [11] [12]:
 - (a) AIRPLANES WITH LOCKING GUIDE ARM;
 - Remove the bolts [7], washers [13], and nuts [14] that attach the release button [8] to the guide plate [11].

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- 1) Remove the release button [8] from the guide plate [11].
- (b) Remove the bushing [9] from the guide plate [11].
- (c) Insert a tool in the drain hole in the lower guide plate [12] and push the roller [10] through the guide arm [2] and out the hole in the guide plate [11].

SUBTASK 52-13-21-020-005

- (2) Disconnect the guide arm [2] from the link [16]:
 - (a) Remove the clip [15] from the pin [6] that attaches the guide arm [2] to the link [16].
 - (b) Push the pin [6] up through the guide arm [2] and the link [16].
 - (c) Remove the guide arm [2] from the link [16].

SUBTASK 52-13-21-020-006

- (3) Disconnect the guide arm [2] from the door [1]:
 - (a) Remove this access panel:

<u>Number</u>	<u>Name/Location</u>
834FZ	Aft Entry Door - Torque Tube Access
 - (b) Remove the filler [21] to get access to the fastener that attaches the guide arm [2] to the fitting [19].
 - (c) Remove the bolt [20], washer [17], and nut [18] that attach the guide arm [2] to the fitting [19].
 - (d) Remove the guide arm [2] from the door [1].

————— END OF TASK —————

TASK 52-13-21-400-802

3. Aft Entry Door Guide Arm and Roller Installation

(Figure 401)

A. References

Reference	Title
52-13-00-820-801	Aft Entry Door Adjustment (P/B 501)
52-13-31-400-802	Aft Entry Door Lining Installation (P/B 401)

B. Consumable Materials

Reference	Description	Specification
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS 5-95

C. Location Zones

Zone	Area
834	Left Aft Entry Door

D. Access Panels

Number	Name/Location
834	Aft Entry Door
834FZ	Aft Entry Door - Torque Tube Access

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E. Installation of the Aft Entry Door Guide Arm and Roller

SUBTASK 52-13-21-820-001

- (1) Do a preliminary adjustment of the guide arm [2]:
 - (a) Make sure the distance along the guide arm [2] from the centerline of the rod end [27] to the adjuster nut [22] is as shown (Figure 401).
 - (b) If necessary, use the adjuster nut [22] to change the length of the guide arm [2] as follows:

NOTE: This is an initial adjustment for a new guide arm [2].

 - 1) Remove the bolt [24] and washer [25] on the lock channel [23].
 - 2) Remove the lock channel [23].
 - 3) Loosen the jamnut [26].
 - 4) Change the length of the guide arm rod end [27] with the adjuster nut [22].
 - 5) Make sure the adjuster nut [22] will align with the lock channel [23].
 - 6) Tighten the jamnut [26].
 - 7) Put the lock channel [23] in its correct position on the guide arm [2].
 - 8) Install the bolt [24] and washer [25] to hold the lock channel [23] in position.

SUBTASK 52-13-21-020-007

- (2) Connect the guide arm [2] to the door [1]:
 - (a) Put the rod end [27] of the guide arm [2] in position in the fitting [19].
 - (b) Install the bolt [20], washer [17], and nut [18] to attach the rod end [27] of the guide arm [2] to the fitting [19].
 - (c) Install the filler [21] with sealant, A00247 to cover the guide arm [2] attachment.
 - (d) Install this access panel:

<u>Number</u>	<u>Name/Location</u>
834FZ	Aft Entry Door - Torque Tube Access

SUBTASK 52-13-21-420-004

- (3) Connect the guide arm [2] to the link [16]:
 - (a) Put the guide arm [2] in position in the link [16].
 - (b) Install the pin [6] to attach the guide arm [2] to the link [16].
 - (c) Install the clip [15] on the end of the pin [6].

SUBTASK 52-13-21-420-005

- (4) Connect the guide arm [2] and roller [10] to the guide plates [11] and [12]:
 - (a) Align the hole in the end of the guide arm [2] with the hole in the upper guide plate [11].
 - (b) Put the roller [10] through the hole in the guide plate [11] and into the end of the guide arm [2].

NOTE: Make sure the spring-loaded pin in the roller [10] points up.
 - (c) Install the bushing [9] in the upper guide plate [11].
 - (d) AIRPLANES WITH LOCKING GUIDE ARM;
Put the release button [8] in position on the upper guide plate [11].
 - 1) Install the bolts [7], washers [13], and nuts [14] to attach the release button [8] to the guide plate [11].

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SUBTASK 52-13-21-820-002

- (5) Adjust the guide arm [2]. To do this, do this task: Aft Entry Door Adjustment, TASK 52-13-00-820-801

NOTE: Do only the guide arm adjustment.

SUBTASK 52-13-21-410-001

- (6) Do this task: Aft Entry Door Lining Installation, TASK 52-13-31-400-802.

SUBTASK 52-13-21-710-002

- (7) Do a test on the door as follows:

- (a) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
834	Aft Entry Door

- (b) Make sure the door operates easily and smoothly.

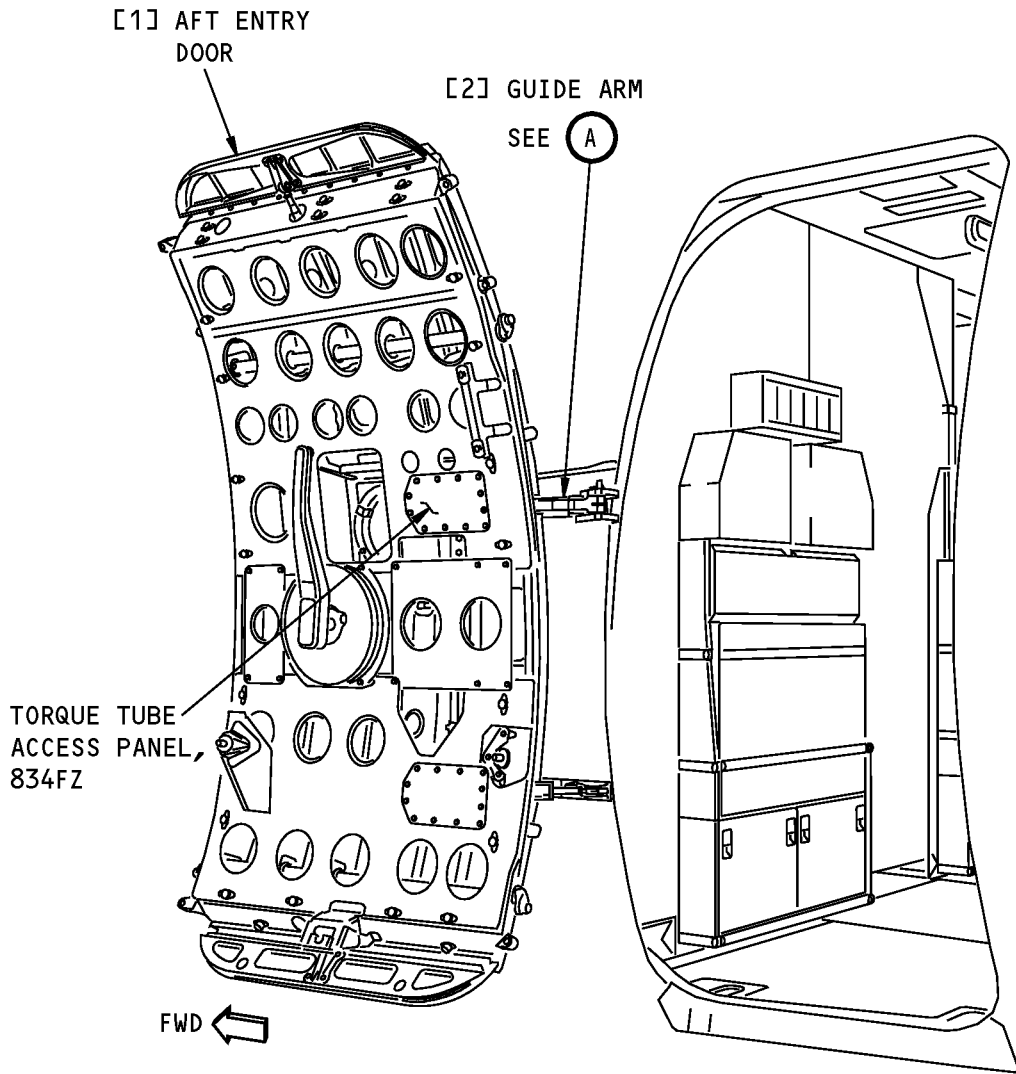
————— **END OF TASK** —————

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AFT ENTRY DOOR

**Aft Entry Door Guide Arm and Roller Installation
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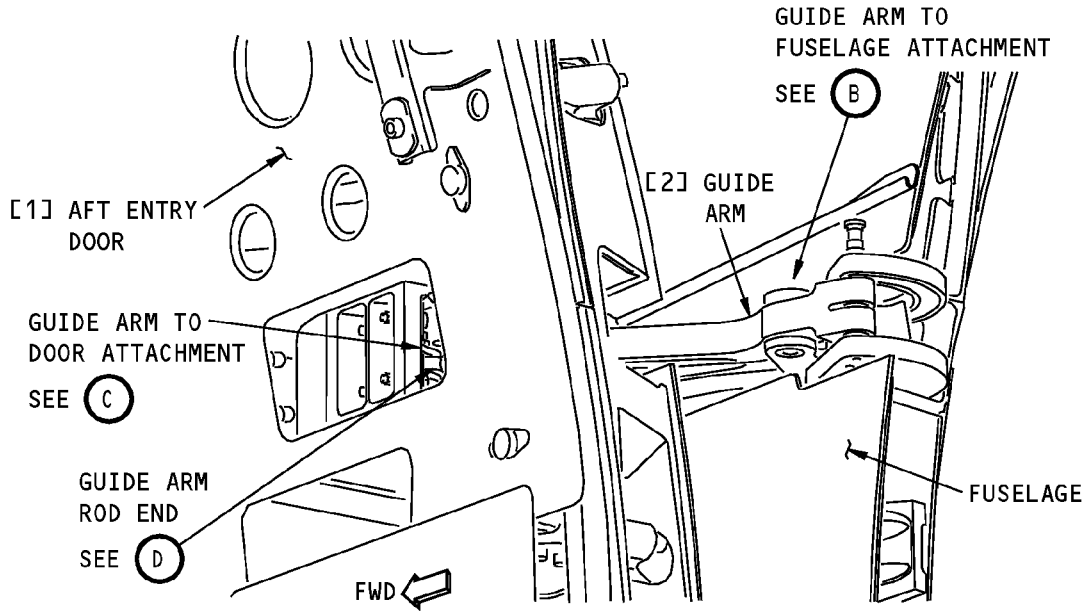
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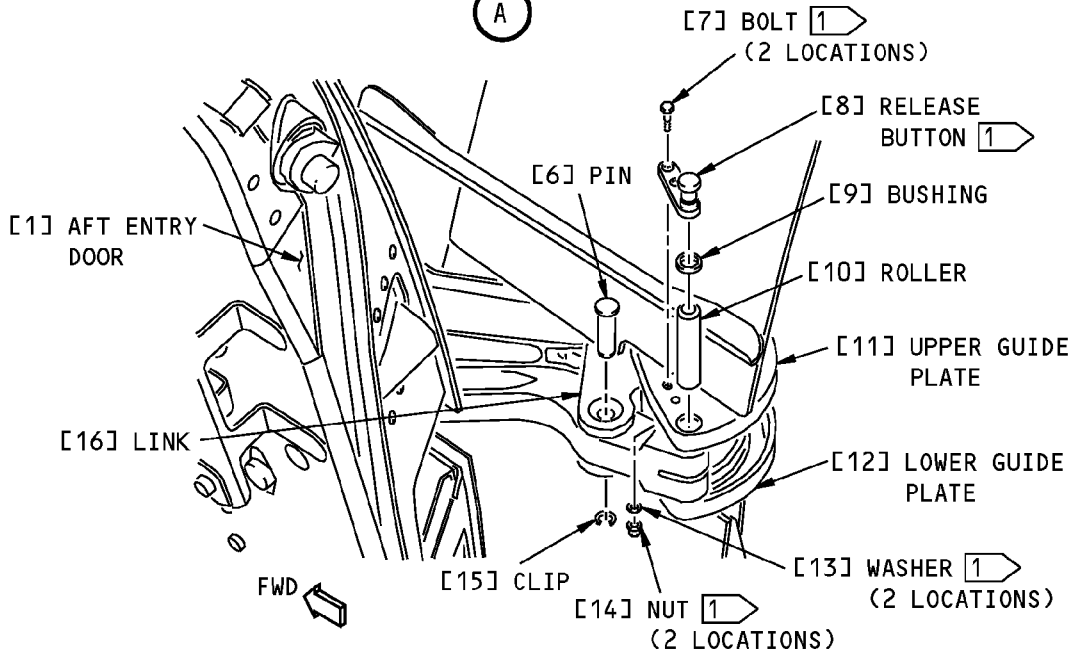
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GUIDE ARM

(A)



GUIDE ARM TO FUSELAGE ATTACHMENT

(B)

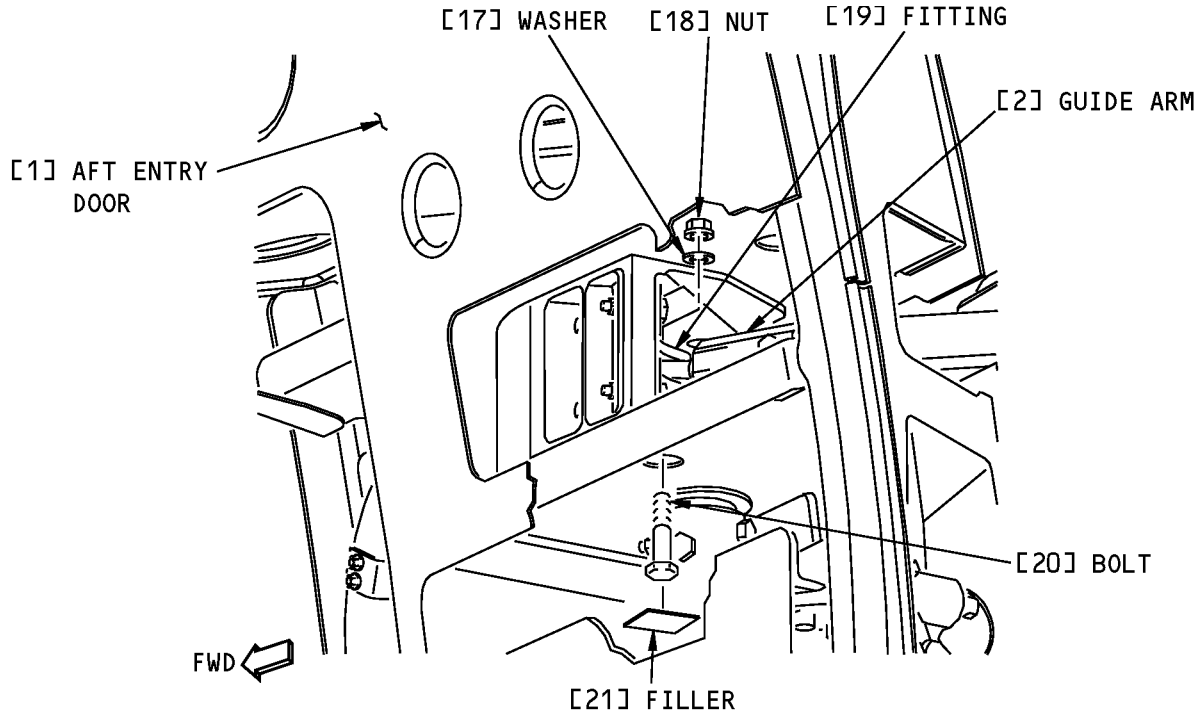
1 AIRPLANES WITH LOCKING GUIDE ARM

Aft Entry Door Guide Arm and Roller Installation
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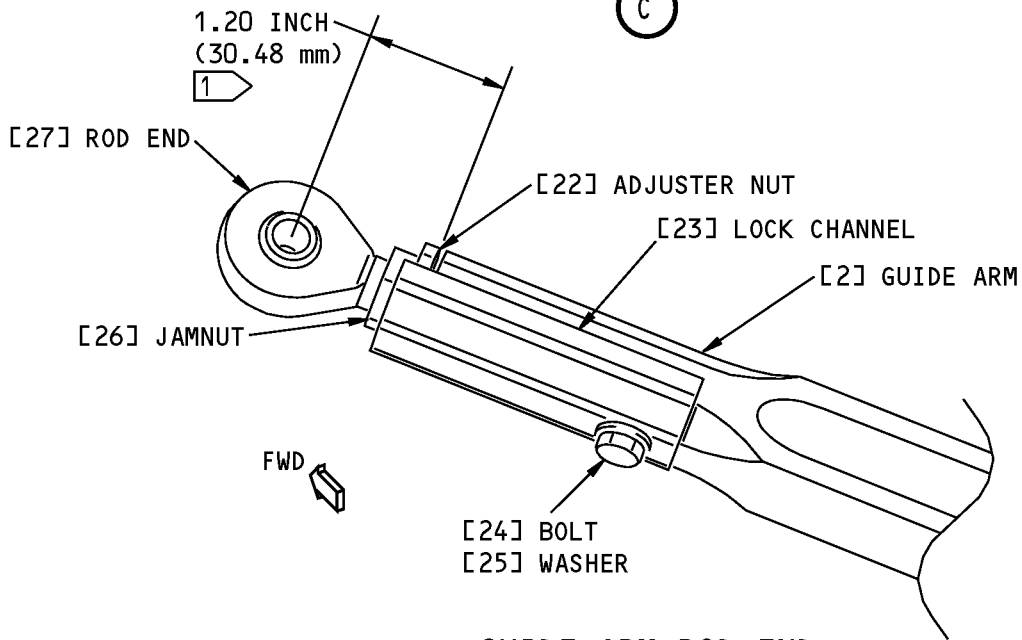
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GUIDE ARM TO DOOR ATTACHMENT

(C)



GUIDE ARM ROD END

1 INITIAL ADJUSTMENT

(D)

**Aft Entry Door Guide Arm and Roller Installation
Figure 401 (Sheet 3 of 3)/52-13-21-990-802**

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AIRCRAFT MAINTENANCE MANUAL

AFT ENTRY DOOR LINING - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

- (1) A removal of the aft entry door lining.
- (2) An installation of the aft entry door lining.

TASK 52-13-31-000-802

2. Aft Entry Door Lining Removal

(Figure 401)

A. References

Reference	Title
25-66-01-000-801	Escape Slide Pack and Cover Removal (P/B 401)

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1523	Stand - Work, (B9) General Purpose, Working Height 4-21 Feet (Part #: B-9, Supplier: 05060, A/P Effectivity: 737-ALL)
SPL-5216	Wrench - Spanner, Main Entry Door Assist Handle (Part #: F70336-1, Supplier: 81205, A/P Effectivity: 737-100, -200, -200C, -300, -400, -500, -600, -700, -700C, -700ER, -700QC, -800, -900, -900ER, -BBJ)

C. Location Zones

Zone	Area
834	Left Aft Entry Door

D. Access Panels

Number	Name/Location
834	Aft Entry Door

E. Prepare for the Removal

SUBTASK 52-13-31-860-001

- (1) Make sure the door is safe:
 - (a) Make sure the door is closed and latched.

WARNING: MAKE SURE THE GIRT BAR IS NOT ENGAGED IN THE FLOOR-MOUNTED ESCAPE SLIDE BRACKETS. IF THE GIRT BAR IS ENGAGED IN THE BRACKETS, THE ESCAPE SYSTEM CAN DEPLOY WHEN YOU OPEN THE DOOR AND INJURIES OR DAMAGE CAN OCCUR.

- (b) Make sure the girt bar is not engaged in the floor-mounted escape slide brackets.
- (c) Make sure the stand, COM-1523 is installed outboard of the door.

SUBTASK 52-13-31-010-001

- (2) Get access to the door:
 - (a) Make sure the door is closed and latched.

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- (b) Do this task: Escape Slide Pack and Cover Removal, TASK 25-66-01-000-801.
- (c) Fully open this access panel:

<u>Number</u>	<u>Name/Location</u>
834	Aft Entry Door

F. Removal of the Aft Entry Door Lining

SUBTASK 52-13-31-020-004

- (1) Remove the interior handle [3] from the door:
 - (a) Remove the cover [9] on the interior handle [3] to get access to the fasteners that attach the interior handle [3] to the hub [4].
 - (b) Remove the cotter pins [11], nuts [10], and washers [8] that attach the interior handle [3] to the hub [4].
 - (c) Remove the interior handle [3].
 - (d) Remove the bolts [5] from the hub [4] if they are loose.

NOTE: The bolts [5] are bonded to the hub [4] and it is not necessary to remove them if the bond is tight.

SUBTASK 52-13-31-020-005

- (2) Remove the upper and lower cover plates [12] [6] from the door lining [1]:
 - (a) Remove the screw [7] that attaches the lower cover plate [6] to the door lining [1].
 - (b) Pull the lower cover plate [6] away from the upper cover plate [12].
 - (c) Pull the upper cover plate [12] down to disengage it from the cutout in the door lining [1] and remove from the door.

SUBTASK 52-13-31-020-006

- (3) Remove the assist handle [2] from the door:
 - (a) Loosen the handle nuts [16] with the entry door assist handle wrench, SPL-5216, that attach the assist handle [2] to the door.
 - (b) Remove the assist handle [2] from the door.
 - (c) Hold the handle nuts [16] and remove the bolts [14], collars [15], and washers [13] that attach the handle nuts [16] to the door.
 - (d) Remove the handle nuts [16] from the door.

SUBTASK 52-13-31-020-007

- (4) Disconnect the door lining [1] from the door:
 - (a) Remove the nuts [17] that attach the upper part of the door lining [1] to the door.
 - (b) Remove the nuts [20] that attach the lower part of the door lining [1] to the door.
 - (c) Remove the screws [19] that attach the lower part of the door lining [1] to the door.
 - (d) Hold the door lining [1].
 - (e) Remove the screws [18] that attach the forward and aft edges of the door lining [1] to the door.
 - (f) Carefully lift the door lining [1] and remove it from the door.

————— **END OF TASK** —————

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TASK 52-13-31-400-802

3. Aft Entry Door Lining Installation

(Figure 401)

A. References

Reference	Title
25-66-01-400-803	Escape Slide Pack and Cover Installation (P/B 401)

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-5216	Wrench - Spanner, Main Entry Door Assist Handle (Part #: F70336-1, Supplier: 81205, A/P Effectivity: 737-100, -200, -200C, -300, -400, -500, -600, -700, -700C, -700ER, -700QC, -800, -900, -900ER, -BBJ)

C. Consumable Materials

Reference	Description	Specification
A00555	Adhesive - For Bonding Decorative Laminate, 2 Part, Sprayable	BMS5-127, Type II

D. Location Zones

Zone	Area
834	Left Aft Entry Door

E. Access Panels

Number	Name/Location
834	Aft Entry Door

F. Installation of the Aft Entry Door Lining

SUBTASK 52-13-31-420-005

(1) Install the door lining [1] on the door:

- (a) Carefully hold the door lining [1] and put it in position on the door.
- (b) Install the screws [18] that attach the forward and aft edges of the door lining [1] to the door.
- (c) Install the nuts [17] to attach the upper part of the door lining [1] to the door.
- (d) Install the nuts [20] to attach the lower part of the door lining [1] to the door.
- (e) Install the screws [19] to attach the lower part of the door lining [1] to the door.

SUBTASK 52-13-31-020-008

(2) Install the assist handle [2]:

- (a) Put the handle nuts [16] in position on the door lining [1].
- (b) Install the bolts [14], collars [15], and washers [13] to attach the handle nuts [16] to the door.
- (c) Put the assist handle [2] in position against the handle nuts [16].
- (d) Tighten the handle nuts [16] with the entry door assist handle wrench, SPL-5216, to attach the assist handle [2] to the door.

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SUBTASK 52-13-31-020-009

- (3) Install the upper and lower cover plates [12] [6] on the door:
 - (a) Put the upper cover plate [12] into the cutout in the door lining [1].
 - (b) Connect the lower cover plate [6] to the upper cover plate [12].
 - (c) Install the screw [7] to attach the lower cover plate [6] to the door lining [1].

SUBTASK 52-13-31-020-010

- (4) Install the interior handle [3]:
 - (a) Install the bolts [5] in the hub [4] with adhesive, A00555 if they are loose.
 - (b) Put the interior handle [3] in its correct position over the bolts [5] in the hub [4].
 - (c) Install the washers [8], nuts [10], and new cotter pins [11], to attach the interior handle [3] to the hub [4].
 - (d) Install the cover [9] on the interior handle [3].

G. Put the Airplane Back to Its Usual Condition

SUBTASK 52-13-31-410-001

- (1) Do this task: Escape Slide Pack and Cover Installation, TASK 25-66-01-400-803.

SUBTASK 52-13-31-410-002

- (2) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
834	Aft Entry Door

————— **END OF TASK** —————

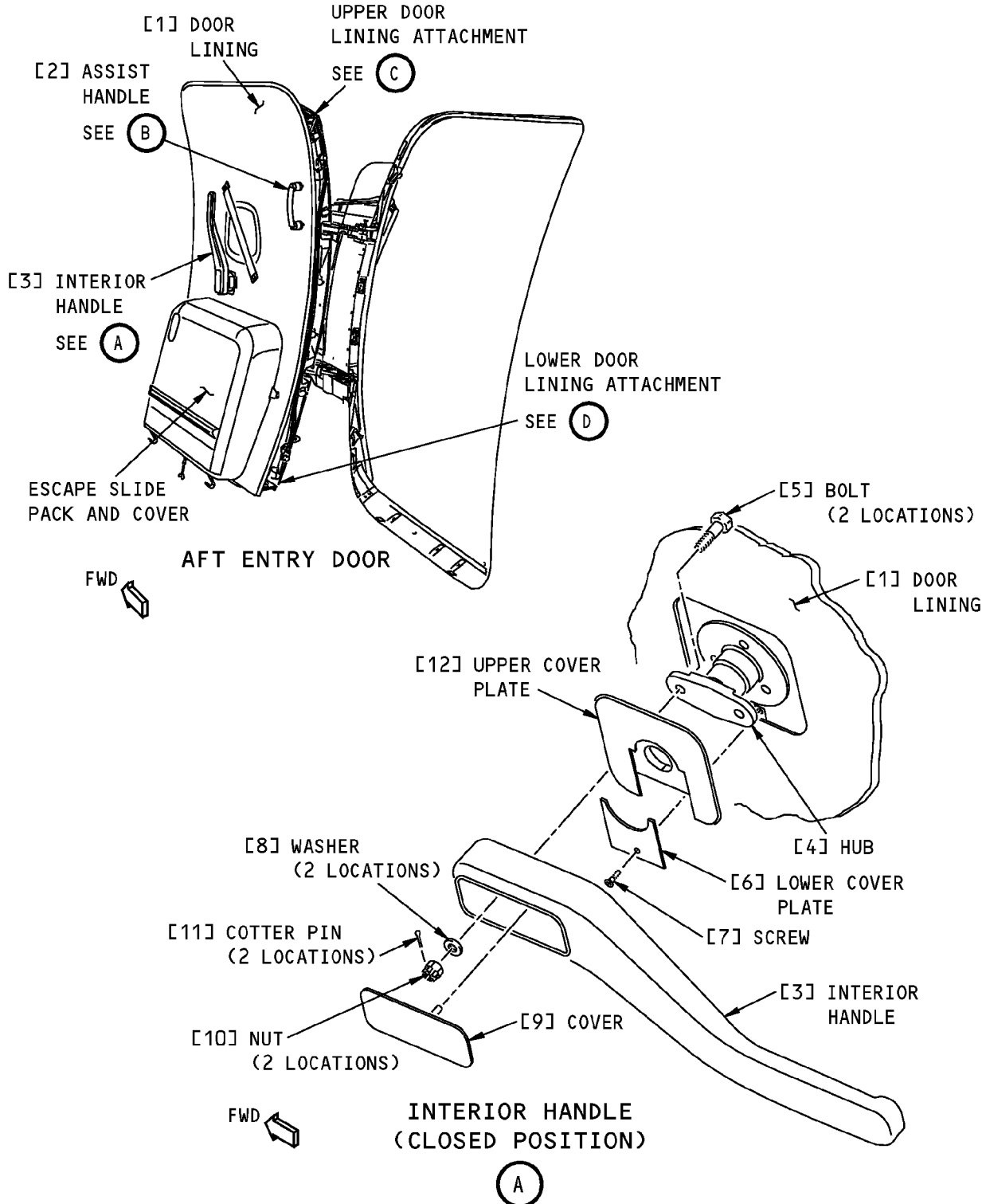
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Aft Entry Door Lining Installation
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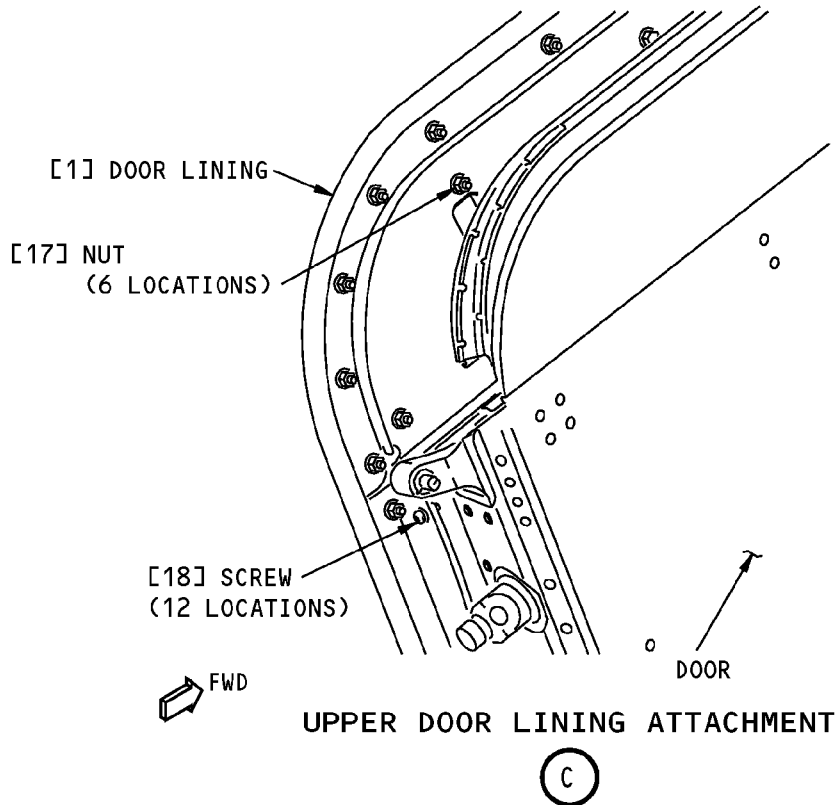
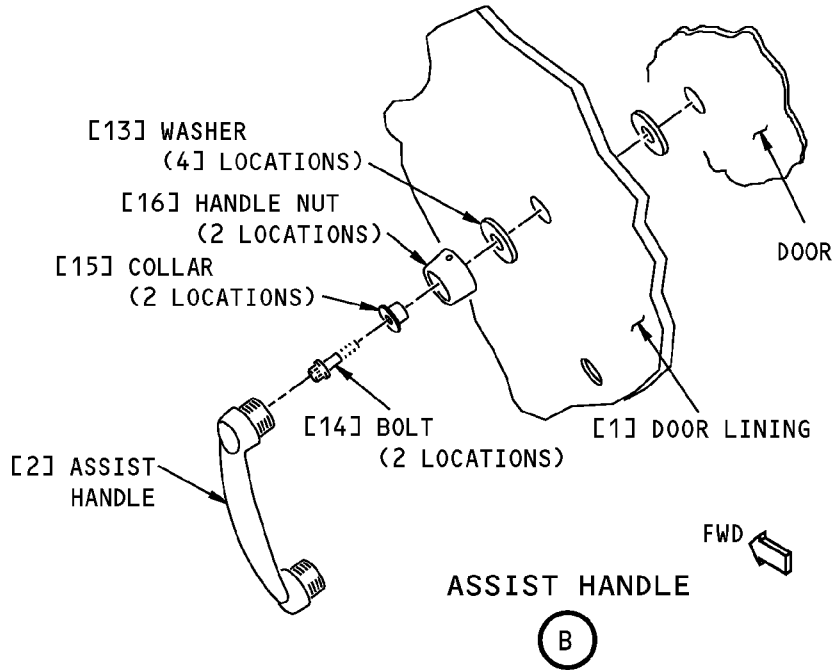
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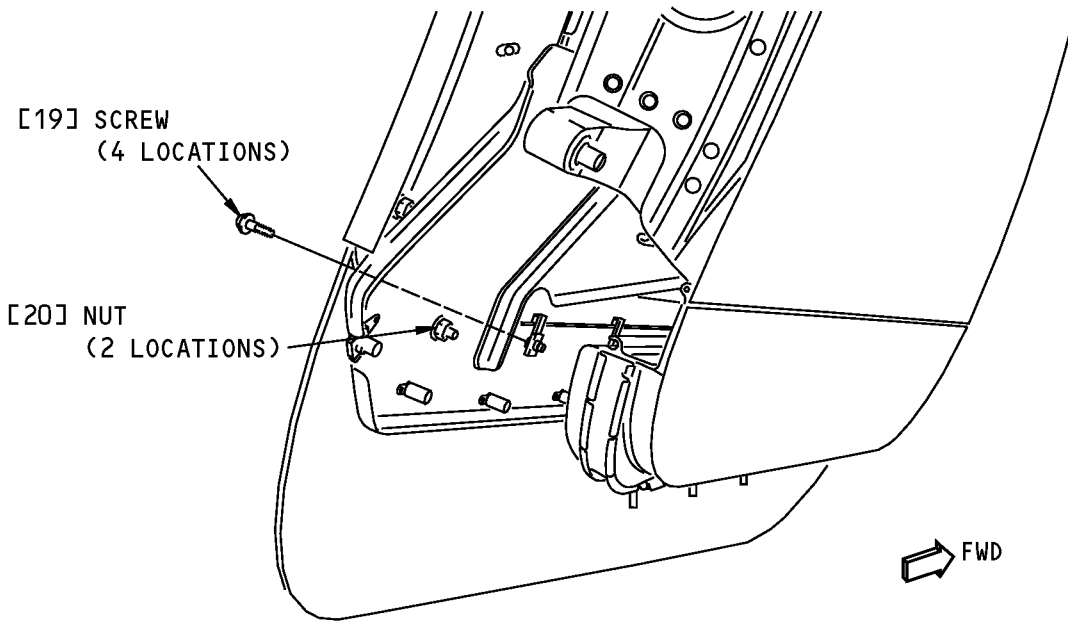
**Aft Entry Door Lining Installation
Figure 401 (Sheet 2 of 3)/52-13-31-990-802**

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LOWER DOOR LINING ATTACHMENT

D

**Aft Entry Door Lining Installation
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AIRCRAFT MAINTENANCE MANUAL

AFT ENTRY DOOR FUSELAGE HINGE TORQUE TUBE - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

- (1) A removal of the aft entry door upper and lower fuselage hinge torque tubes.
- (2) An installation of the aft entry door upper and lower fuselage hinge torque tubes.
- (3) The aft entry door fuselage hinge torque tube is referred to as the torque tube in this procedure.

TASK 52-13-41-000-801

2. Aft Entry Door Fuselage Hinge Torque Tube Removal

(Figure 401)

A. References

Reference	Title
52-13-00-000-802	Aft Entry Door Removal (P/B 401)

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1523	Stand - Work, (B9) General Purpose, Working Height 4-21 Feet (Part #: B-9, Supplier: 05060, A/P Effectivity: 737-ALL)

C. Location Zones

Zone	Area
834	Left Aft Entry Door

D. Access Panels

Number	Name/Location
241AL	Aft Entry Door Hinge and Torque Tube Access Panel

E. Prepare for the Removal

SUBTASK 52-13-41-860-001

- (1) Make sure the door is safe as follows:
 - (a) Make sure the door is closed and latched.

WARNING: MAKE SURE THE GIRT BAR IS NOT ENGAGED IN THE FLOOR-MOUNTED ESCAPE SLIDE BRACKETS. IF THE GIRT BAR IS ENGAGED IN THE BRACKETS, THE ESCAPE SYSTEM CAN DEPLOY WHEN YOU OPEN THE DOOR AND INJURIES OR DAMAGE CAN OCCUR.

- (b) Make sure the girt bar is not engaged in the floor-mounted escape slide brackets.
- (c) Install the stand, COM-1523 outboard of the door.

SUBTASK 52-13-41-010-001

- (2) Do this task: Aft Entry Door Removal, TASK 52-13-00-000-802.

SUBTASK 52-13-41-010-002

- (3) To get access to the torque tubes [5] and [6], do this step:

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Remove this access panel:

<u>Number</u>	<u>Name/Location</u>
241AL	Aft Entry Door Hinge and Torque Tube Access Panel

F. Removal of the Aft Entry Door Fuselage Hinge Torque Tube

SUBTASK 52-13-41-020-001

- (1) Disconnect the torque tubes [5] and [6] from the upper and lower hinge pins [10] and [11]:

NOTE: You can make index marks across the joints to help make the installation easier.

- (a) Remove the bolts [7], washers [8] and nuts [9] that attach the torque tube [5] to the hinge pin [10].
- (b) Remove the bolts [7], washers [8] and nuts [9] that attach the torque tube [6] to the hinge pin [11].
- (c) If it is necessary, remove the lower hinge pin [11].

HAP 001-013, 015-026, 028-030

SUBTASK 52-13-41-020-003

- (2) Remove the torque tubes [5] and [6] from the fuselage:

- (a) Remove the bolt [23], washer [22] and handle [24].
- (b) Remove the bolts [7], washers [8], and nuts [9], that connect the torque tubes [5] and [6] together.
- (c) Remove the flat spring [21] and retainer [20].
- (d) Move the collar [19] to the bottom of the torque tube.
- (e) Remove the bolts [12], washers [13] and [14], and nut [16] that hold fitting [25].
- (f) Push the torque tubes [5] and [6], together to make sufficient clearance to remove them from the fuselage structure.
- (g) Remove the torque tubes [5] and [6], spring [17], shaft [18], fitting [25], and collar [19] from the airplane.

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————— END OF TASK —————

TASK 52-13-41-400-801

3. Aft Entry Door Fuselage Hinge Torque Tube Installation

(Figure 401)

A. References

<u>Reference</u>	<u>Title</u>
52-13-00-400-802	Aft Entry Door Installation (P/B 401)

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

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Reference	Description
COM-1523	Stand - Work, (B9) General Purpose, Working Height 4-21 Feet (Part #: B-9, Supplier: 05060, A/P Effectivity: 737-ALL)

C. Consumable Materials

Reference	Description	Specification
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS 5-95
D00015	Grease - Aircraft Bearing (Use BMS 3-24 until existing stocks are depleted, BMS 3-33 supersedes BMS 3-24)	BMS3-24 (Superseded by BMS 3-33)

D. Location Zones

Zone	Area
834	Left Aft Entry Door

E. Access Panels

Number	Name/Location
241AL	Aft Entry Door Hinge and Torque Tube Access Panel

F. Installation

SUBTASK 52-13-41-420-001

- (1) Connect the torque tubes [5] and [6]:
 - (a) Apply grease, D00015 to the mating surfaces of the torque tubes [5] and [6].
 - (b) Put the upper torque tube [5] into the lower torque tube [6].
 - (c) Push the torque tubes [5] and [6] together a sufficient distance to fit into the fuselage frame.

SUBTASK 52-13-41-420-007

- (2) If the lower hinge pin [11] was removed do the following:
 - (a) Apply grease, D00015 to the mating surfaces of the hinge pin [11] and stop link [31].
 - (b) Put the stop link [31] is in its correct position.
 - (c) Put the washer [30] on the top of the stop link [31].
 - (d) Install the washer [29] over the small end of the hinge pin.
 - (e) Put the lower hinge pin through the fuselage frame and stop link.
 - (f) Install a new packing [28], nylon washer [27], and spring washer [26] over the hinge pin.

HAP 001-013, 015-026, 028-030

SUBTASK 52-13-41-420-005

- (3) Install the torque tubes [5] and [6] in the fuselage as follows, View D (Figure 401):
 - (a) Apply grease, D00015 to the mating surfaces of the torque tubes [5] and [6] and hinge pins [10] and [11].
 - (b) Put the fitting [25], spring [17], and shaft [18] on the upper torque tube [5].
 - (c) Put the collar [19] on the lower torque tube [6].
 - (d) Put the torque tubes [5] and [6] and fitting [25] in the fuselage frame.
 - (e) Install the fitting [25] with bolts [12], washers [13] and [14] and nuts [16].
 - (f) Pull the torque tubes [5] and [6] apart to move the ends of the torque tubes fully over upper hinge [10], and lower hinge [11].

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HAP 001-013, 015-026, 028-030 (Continued)

- (g) Align the bolt holes in the mating ends of the torque tubes [5] and [6].
- (h) Align the collar [19] with mating holes in the torque tubes [5] and [6].
- (i) Install flat spring [21] and retainer [20] to collar [19] with bolts [7], washers [8] and nuts [9].

NOTE: Make sure the heads of the bolts [7] are facing inboard.

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SUBTASK 52-13-41-420-003

- (4) Connect the torque tubes [5] and [6] to the upper and lower hinge pins [10] and [11]:
 - (a) Align the bolt holes in the ends of the torque tubes [5] and [6] with the bolt holes in the hinge pins [10] and [11].
 - (b) Install the bolts [7], washers [8] and nuts [9] to attach the torque tube [5] to the upper hinge pin [10].
 - (c) Install the bolts [7], washers [8] and nuts [9] to attach the torque tube [6] to the lower hinge pin [11].
 - (d) If it is necessary, add washers [29] to get the correct clearance.

HAP 001-013, 015-026, 028-030

SUBTASK 52-13-41-420-006

- (5) Install the handle [24]:
 - (a) Apply sealant, A00247 between shaft [18] and handle [24].
 - (b) Install the handle [24] with the bolt [23] and washer [22].

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G. Put the Airplane Back to Its Usual Condition

SUBTASK 52-13-41-410-003

- (1) Install this access panel:

<u>Number</u>	<u>Name/Location</u>
241AL	Aft Entry Door Hinge and Torque Tube Access Panel

SUBTASK 52-13-41-420-004

- (2) Do this task: Aft Entry Door Installation, TASK 52-13-00-400-802.

SUBTASK 52-13-41-080-001

- (3) Remove the stand, COM-1523.

————— **END OF TASK** —————

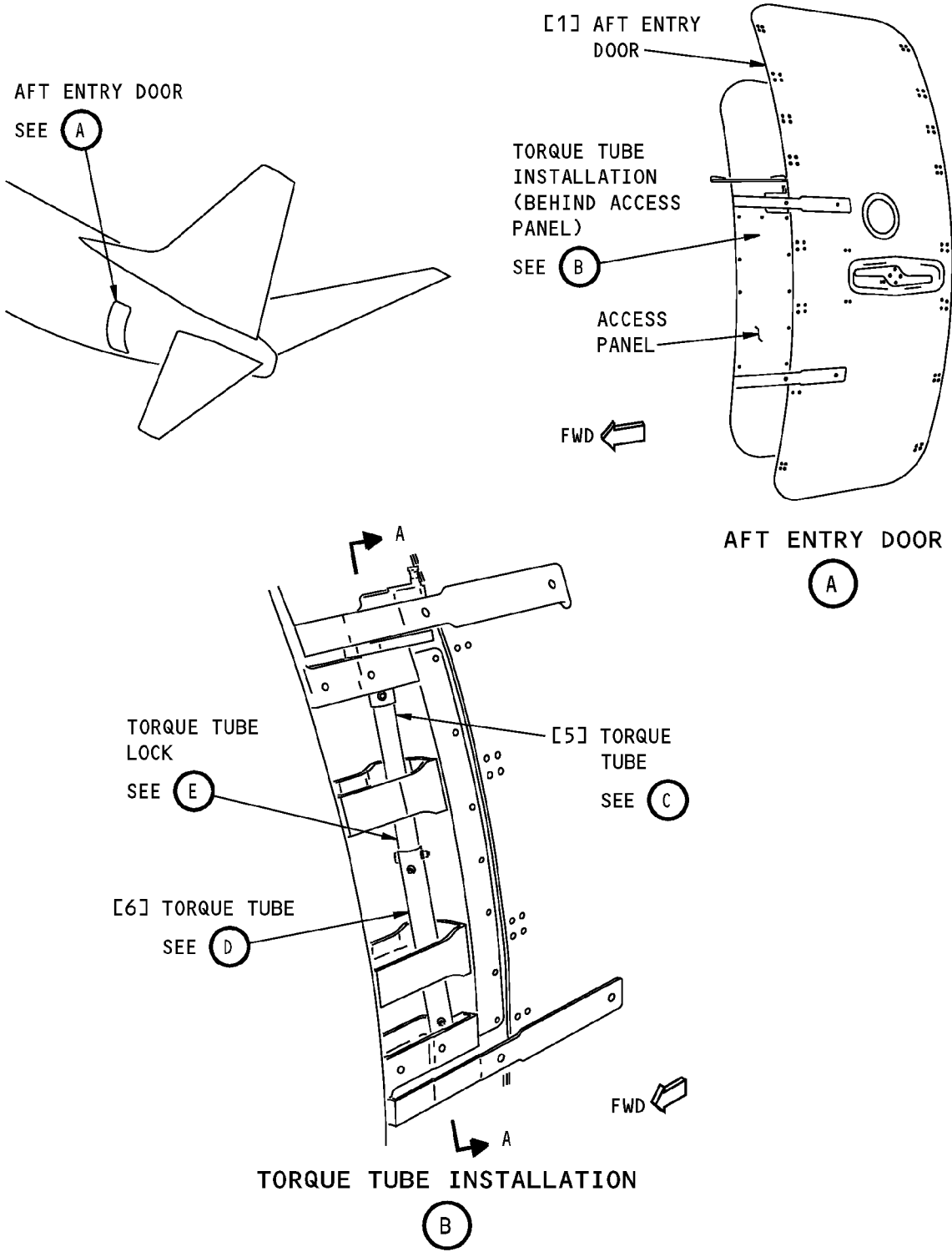
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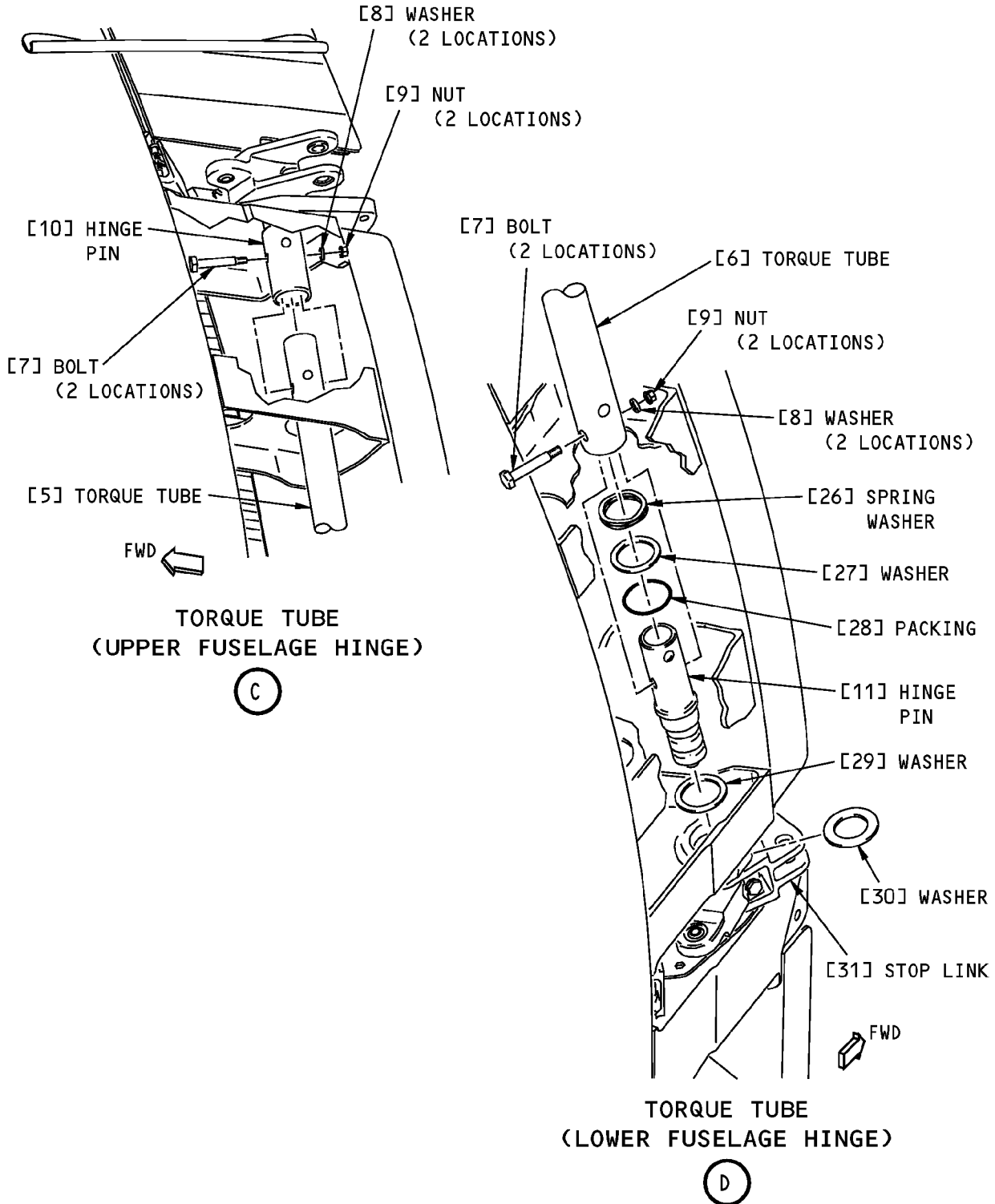


**Aft Entry Door Fuselage Hinge Torque Tube Installation
Figure 401 (Sheet 1 of 4)/52-13-41-990-801**

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HAP 001-013, 015-026, 028-030

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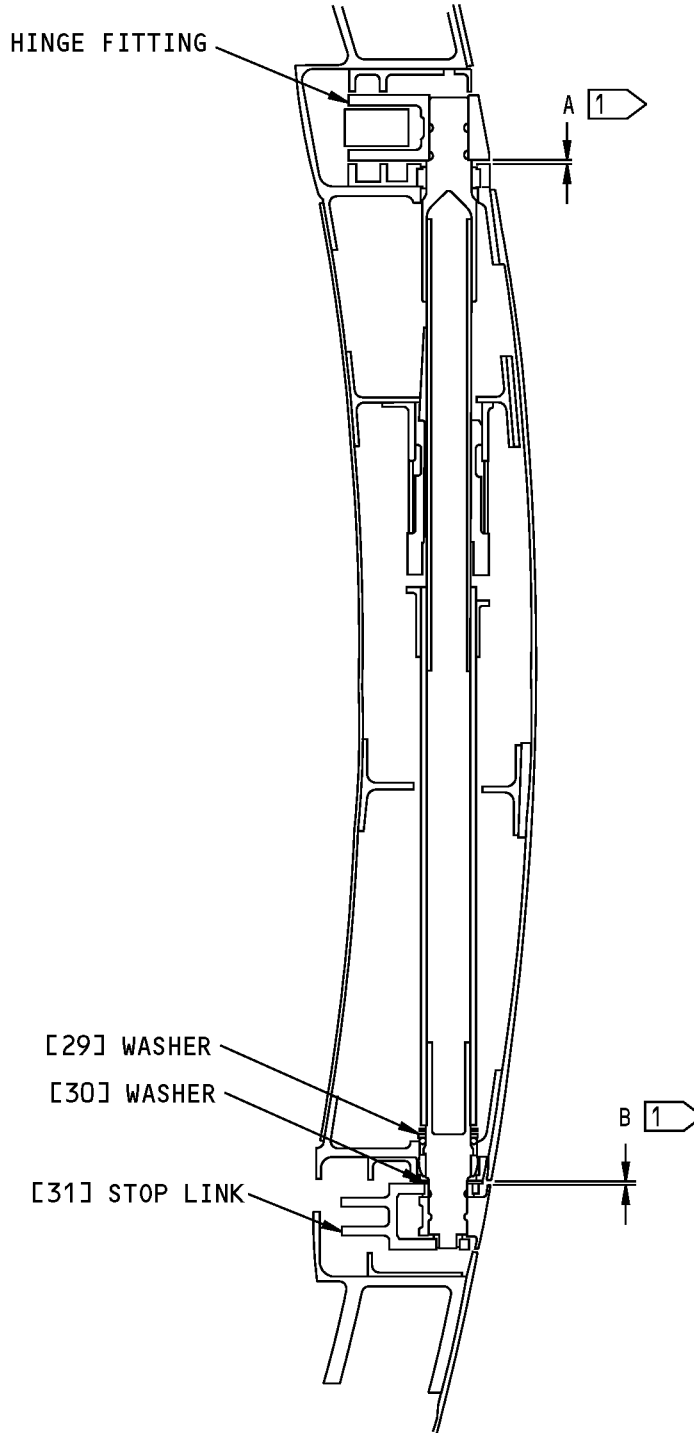
Aft Entry Door Fuselage Hinge Torque Tube Installation
Figure 401 (Sheet 2 of 4)/52-13-41-990-801

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1 CLEARANCES A AND B MUST BE
EQUAL TO ± 0.03 INCH (± 0.762 mm)

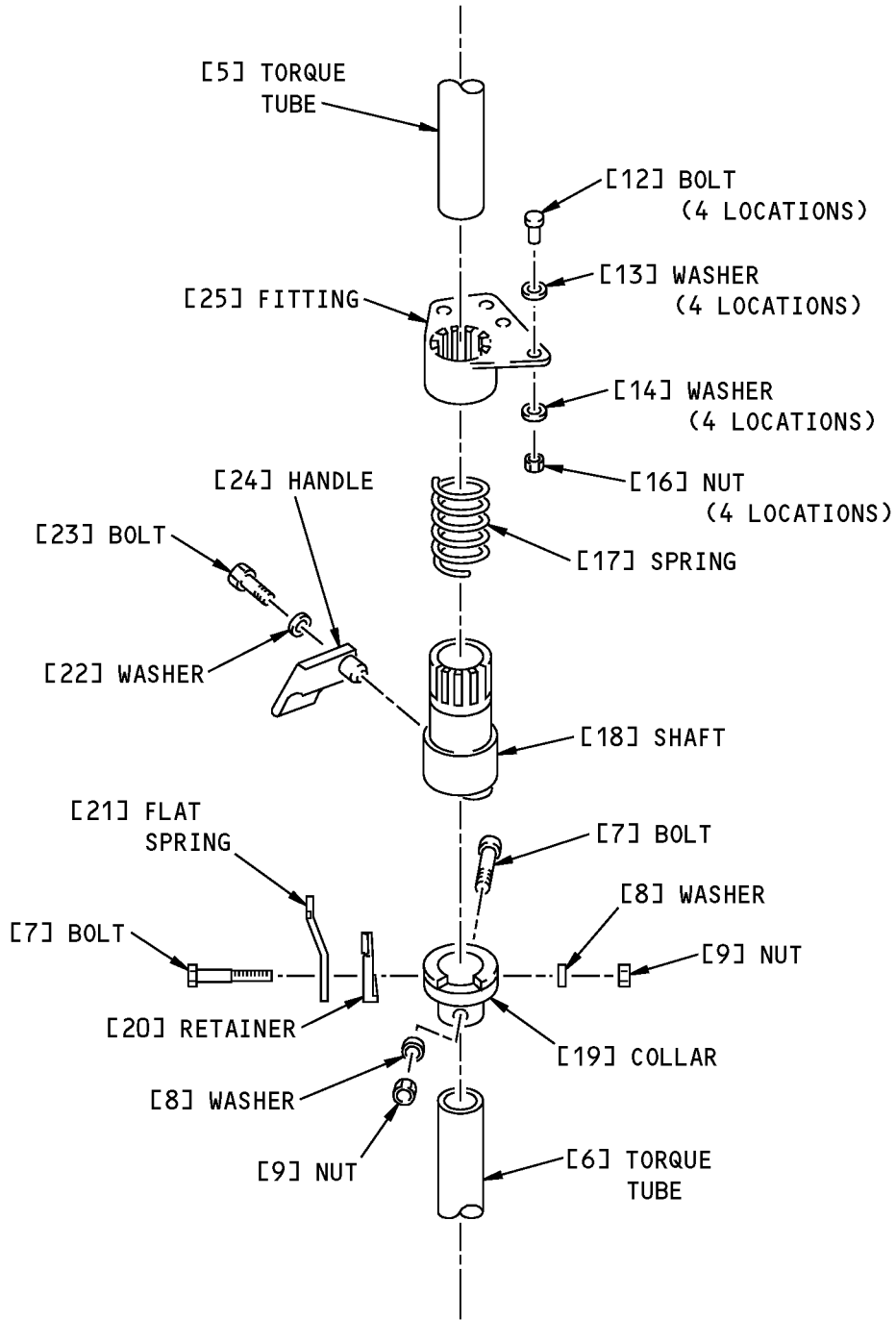
**Aft Entry Door Fuselage Hinge Torque Tube Installation
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TORQUE TUBE LOCK

(E)

**Aft Entry Door Fuselage Hinge Torque Tube Installation
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AFT ENTRY DOOR SNUBBER - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

- (1) A removal of the aft entry door snubber.
- (2) An installation of the aft entry door snubber.
- (3) The aft entry door will be call the door in this procedure.

TASK 52-13-51-000-801

2. Aft Entry Door Snubber Removal

(Figure 401)

A. References

Reference	Title
52-13-31-000-802	Aft Entry Door Lining Removal (P/B 401)

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1523	Stand - Work, (B9) General Purpose, Working Height 4-21 Feet (Part #: B-9, Supplier: 05060, A/P Effectivity: 737-ALL)

C. Location Zones

Zone	Area
834	Left Aft Entry Door

D. Access Panels

Number	Name/Location
834GZ	AFT Entry Door - Torque Tube Access

E. Prepare for the Removal

SUBTASK 52-13-51-860-001

- (1) Make sure the door is safe as follows:
 - (a) Make sure the door is closed and latched.

WARNING: MAKE SURE THE GIRT BAR IS NOT ENGAGED IN THE FLOOR-MOUNTED ESCAPE SLIDE BRACKETS. IF THE GIRT BAR IS ENGAGED IN THE BRACKETS, THE ESCAPE SYSTEM CAN DEPLOY WHEN YOU OPEN THE DOOR AND INJURIES OR DAMAGE CAN OCCUR.

- (b) Make sure the girt bar is not engaged in the floor-mounted escape slide brackets.
- (c) Install the stand, COM-1523 outboard of the door.
- (d) Put the aft entry door in the full open position.

SUBTASK 52-13-51-010-001

- (2) If necessary, do this task: Aft Entry Door Lining Removal, TASK 52-13-31-000-802

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SUBTASK 52-13-51-010-002

(3) Remove this access panel:

Number	Name/Location
834GZ	AFT Entry Door - Torque Tube Access

F. Removal of the Forward Entry Door Snubber

SUBTASK 52-13-51-020-001

CAUTION: DO NOT MOVE THE DOOR WITH THE SNUBBER REMOVED. THE DOOR MAY MOVE QUICKLY WITH THE SNUBBER REMOVED. IF THE DOOR MOVES QUICKLY TO THE OPEN OR CLOSED POSITION IT MAY CAUSE DAMAGE TO THE EQUIPMENT.

- (1) Do these steps to remove the snubber (7) from the door:
 - (a) Remove the bolt (1), washers (2), nut (3), and cotter pin (4) that attach the snubber (7) to the fuselage.
 - NOTE: Write down the location of the washers on the bolt.
 - (b) Make a line to show the alignment of the snubber attachment fitting (8) to the door.
 - (c) Remove the bolts (9) and nuts (10) from the snubber attachment fitting (8).
 - (d) Remove the snubber (7) and the attachment fitting (8) from the door.
 - (e) Remove the snubber (7) from the snubber attach fitting (8).

NOTE: Write down the location of the washers on the bolt.

————— **END OF TASK** —————

TASK 52-13-51-400-801

3. Aft Entry Door Snubber Installation

(Figure 401)

A. References

Reference	Title
20-50-11-910-801	Standard Torque Values (P/B 201)
52-13-31-400-802	Aft Entry Door Lining Installation (P/B 401)

B. Consumable Materials

Reference	Description	Specification
G01912	Lockwire - Monel (0.032 In. Dia.)	NASM20995N~ C32 (QQ-N-281)

C. Location Zones

Zone	Area
834	Left Aft Entry Door

D. Access Panels

Number	Name/Location
834GZ	AFT Entry Door - Torque Tube Access

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E. Installation of the Aft Entry Door Snubber

SUBTASK 52-13-51-420-001

CAUTION: DO NOT MOVE THE DOOR WITH THE SNUBBER REMOVED. THE DOOR MAY MOVE QUICKLY WITH THE SNUBBER REMOVED. IF THE DOOR MOVES QUICKLY TO THE OPEN OR CLOSED POSITION IT MAY CAUSE DAMAGE TO THE EQUIPMENT.

(1) Do these steps to install the snubber (7) on the door:

I HAP 001-013, 015-026, 028-043, 101

(a) Set the initial length of the snubber as follows:

- 1) Loosen the jam nut (6) on the snubber rod end (5).
- 2) Turn the snubber rod end (5) to set the length of the rod to 0.26 inch (0.661 mm).

NOTE: Measure from the bottom of the rod end where it meets the rod, to the top of the jam nut. This is the part of the rod that extends from the jamnut but does not include the circular rod end at all. It is necessary to measure the straight part of the rod shaft only.

3) Tighten the jam nut (6).

HAP ALL

CAUTION: MAKE SURE TO INSTALL THE SNUBBER WITH THE WIDE SIDE OF THE SNUBBER INBOARD. IF THE SNUBBER IS NOT INSTALLED WITH THE WIDE SIDE INBOARD, THE SNUBBER WILL CONTACT THE HINGE ARM WHEN THE DOOR IS CLOSED. THIS WILL CAUSE DAMAGE TO THE EQUIPMENT.

(b) Connect the snubber (7) to the snubber attachment fitting (8).

- 1) Install the bolt, washers, nut, and cotter pin. See, do this task: Standard Torque Values, TASK 20-50-11-910-801.

(c) Install the snubber attachment fitting (8) to the door.

I HAP 044-054, 102-999

- 1) Install the snubber attachment fitting with the snubber fluid fill plug recess pointed down.

HAP ALL

2) Tighten the four bolts (9) and nuts (10). See, do this task: Standard Torque Values, TASK 20-50-11-910-801.

(d) Install the bolt (1), washers (2), nut (3), and cotter pin (4) that attach the snubber (7) to the fuselage structure. See, do this task: Standard Torque Values, TASK 20-50-11-910-801.

(e) Do an installation test on the snubber.

F. Snubber Installation Test

SUBTASK 52-13-51-710-001

(1) Do an installation test on the snubber as follows:

- (a) Make sure that the door is fully open with the hold open lock engaged.
- (b) Make sure that more extension is available on the snubber (7).
- (c) Move the door to the closed position.
- (d) Make sure that the snubber (7) does not bottom out with the door in the closed position.

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I HAP 001-013, 015-026, 028-043, 101

(e) If required, adjust the length of the snubber (7).

HAP ALL

(f) Make sure that the jam nut (6) is tight.

(g) Install the lockwire on the jam nut, lockwire, G01912.

G. Put the Airplane Back to its Usual Condition

SUBTASK 52-13-51-410-001

(1) Install this access panel:

<u>Number</u>	<u>Name/Location</u>
834GZ	AFT Entry Door - Torque Tube Access

SUBTASK 52-13-51-410-002

(2) If necessary, do this task: Aft Entry Door Lining Installation, TASK 52-13-31-400-802

————— **END OF TASK** —————

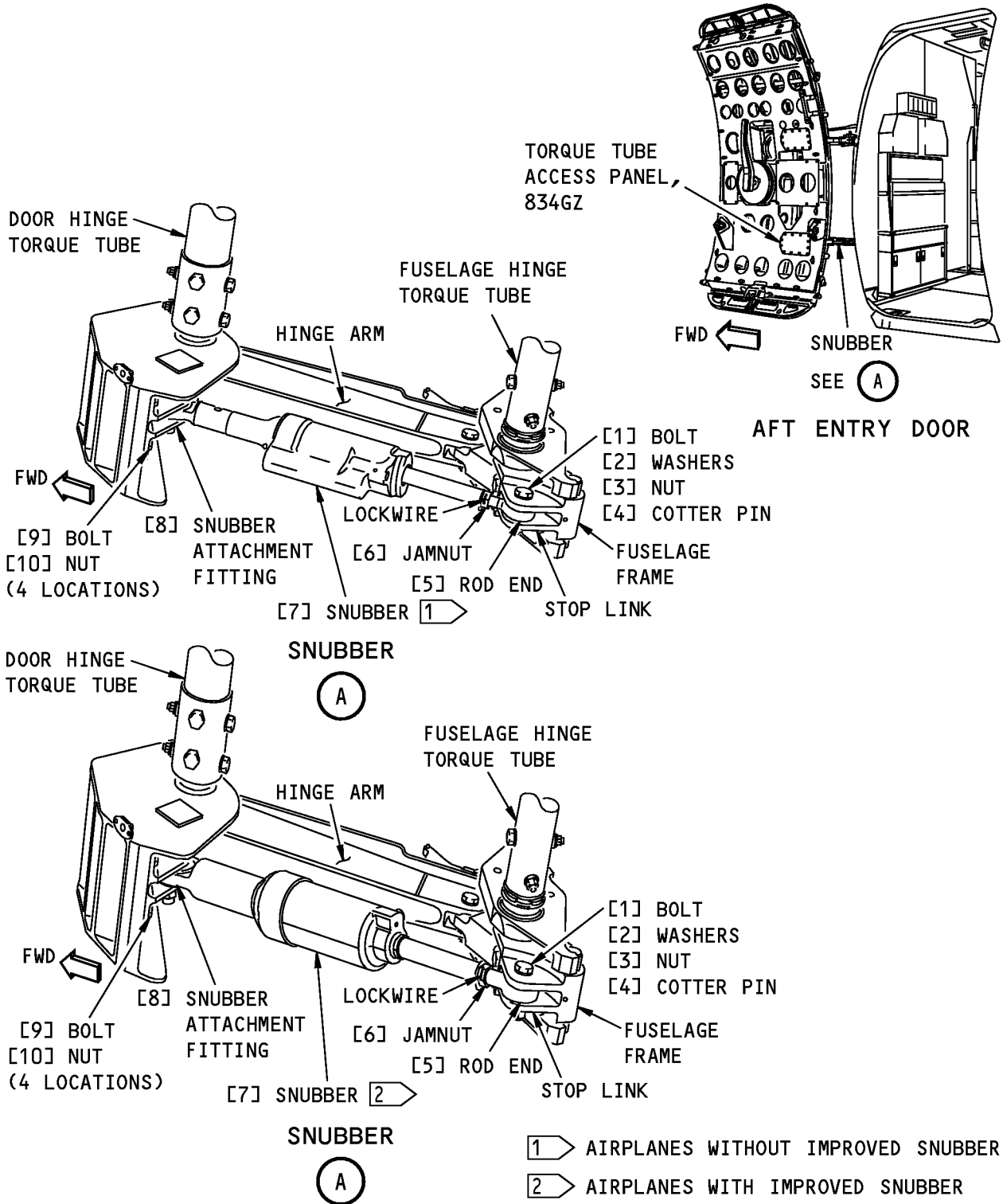
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**Snubber Installation
Figure 401/52-13-51-990-801**

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AFT ENTRY DOOR GATE - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

- (1) A removal of the gate from the aft entry door.
- (2) An installation of the gate on the aft entry door.

B. There are two gates on the door. This procedure is the same for the top and bottom gates.

TASK 52-13-61-000-801

2. Aft Entry Door Gate Removal

(Figure 401)

A. References

Reference	Title
52-09-12-000-801	Blade and Diaphragm Seals Removal (P/B 401)
52-13-31-000-802	Aft Entry Door Lining Removal (P/B 401)

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1523	Stand - Work, (B9) General Purpose, Working Height 4-21 Feet (Part #: B-9, Supplier: 05060, A/P Effectivity: 737-ALL)

C. Location Zones

Zone	Area
834	Left Aft Entry Door

D. Prepare for the Removal

SUBTASK 52-13-61-860-001

- (1) Make sure the door is safe as follows:
 - (a) Make sure the door is closed and latched.

WARNING: MAKE SURE THE GIRT BAR IS NOT ENGAGED IN THE FLOOR-MOUNTED ESCAPE SLIDE BRACKETS. IF THE GIRT BAR IS ENGAGED IN THE BRACKETS, THE ESCAPE SYSTEM CAN DEPLOY WHEN YOU OPEN THE DOOR AND INJURIES OR DAMAGE CAN OCCUR.

- (b) Make sure the girt bar is not engaged in the floor-mounted escape slide brackets.
- (c) Make sure the stand, COM-1523 is installed outboard of the door.

SUBTASK 52-13-61-010-001

- (2) Get access to the door:
 - (a) Make sure the door is closed and latched.
 - (b) Do this task: Aft Entry Door Lining Removal, TASK 52-13-31-000-802.

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E. Removal of the Aft Entry Door Gate

SUBTASK 52-13-61-020-001

- (1) To remove the blade seal from the gate [3], do this task: Blade and Diaphragm Seals Removal, TASK 52-09-12-000-801.

NOTE: Only do the blade seal removal from the gate [3].

SUBTASK 52-13-61-020-002

- (2) Disconnect the rod [2] from the upper or lower gate [3]:
 - (a) Hold the rod [2] and do not let it fall back into the door frame when the bolt [7] is removed.

NOTE: You can turn the door handle to extend or retract the rod [2].

- (b) Remove the bolt [7], washer [6], bushing [8], washer [5], and nut [9] that attach the rod [2] to the gate [3].
- (c) Safety the end of the rod [2] to the door frame to hold it in position.

SUBTASK 52-13-61-020-003

- (3) To remove the diaphragm seal between the door [1] and gate [3], do this task: Blade and Diaphragm Seals Removal, TASK 52-09-12-000-801.

NOTE: Only do the diaphragm seal removal.

SUBTASK 52-13-61-020-004

- (4) Remove the upper or lower gate [3] from the door [1]:
 - (a) Fold the gate [3] in the outboard direction.
 - (b) Remove the bolts [10] and washers [11] that attach the hinge [4] to the door [1].
 - (c) Remove the gate [3] from the door [1].

————— END OF TASK —————

TASK 52-13-61-400-801

3. Aft Entry Door Gate Installation

(Figure 401)

A. References

Reference	Title
52-09-12-400-801	Blade and Diaphragm Seals Installation (P/B 401)
52-13-00-820-801	Aft Entry Door Adjustment (P/B 501)
52-13-31-400-802	Aft Entry Door Lining Installation (P/B 401)

B. Consumable Materials

Reference	Description	Specification
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS 5-95

C. Location Zones

Zone	Area
834	Left Aft Entry Door

D. Installation of the Aft Entry Door Gate

SUBTASK 52-13-61-420-001

- (1) Connect the upper or lower gate [3] to the door [1] at the hinge [4]:

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- (a) Apply sealant, A00247 to the mating surfaces between the hinge [4] and door [1].
- (b) Put the gate [3] in position on the door [1].
- (c) Install the bolts [10] and washers [11] to attach the hinge [4] to the door [1].

SUBTASK 52-13-61-420-002

- (2) Install the diaphragm seal between the door [1] and upper or lower gate [3]:
 - (a) Fold the gate [3] outboard.
 - (b) To install the diaphragm seal between the door [1] and gate [3], do this task: Blade and Diaphragm Seals Installation, TASK 52-09-12-400-801.

NOTE: Only do the diaphragm seal installation.

SUBTASK 52-13-61-420-003

- (3) Connect the rod [2] to the upper or lower gate [3]:
 - (a) Fold the gate [3] inboard.
 - (b) Put the rod [2] in its correct position on the gate [3] and hold.
 - 1) Do not let the rod [2] fall back into the door frame when the bolt [7] is installed.
 - NOTE: You can turn the door handle to extend or retract the rod [2].
 - (c) Install the bolt [7], washer [6], bushing [8], washer [5], and nut [9] to attach the rod [2] to the gate [3].

SUBTASK 52-13-61-420-004

- (4) To install the blade seal on the upper or lower gate [3], do this task: Blade and Diaphragm Seals Installation, TASK 52-09-12-400-801.

NOTE: Only do the blade seal installation on the gate [3].

SUBTASK 52-13-61-820-001

- (5) Adjust the gate [3]. To adjust it, do this task: Aft Entry Door Adjustment, TASK 52-13-00-820-801.

NOTE: Only do the gate [3] adjustment.

E. Put the Airplane Back to Its Usual Condition

SUBTASK 52-13-61-410-001

- (1) Do this task: Aft Entry Door Lining Installation, TASK 52-13-31-400-802.

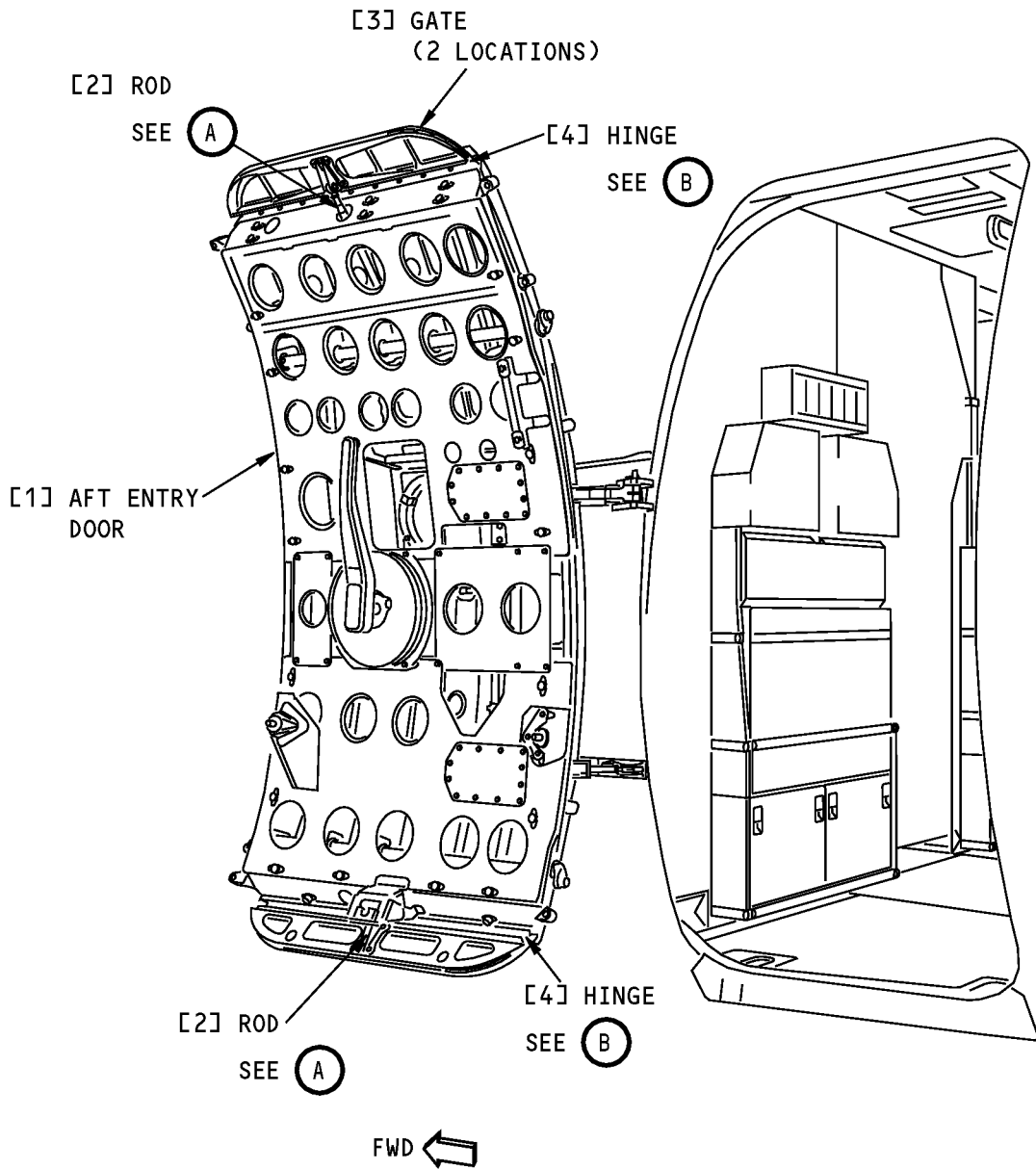
————— **END OF TASK** —————

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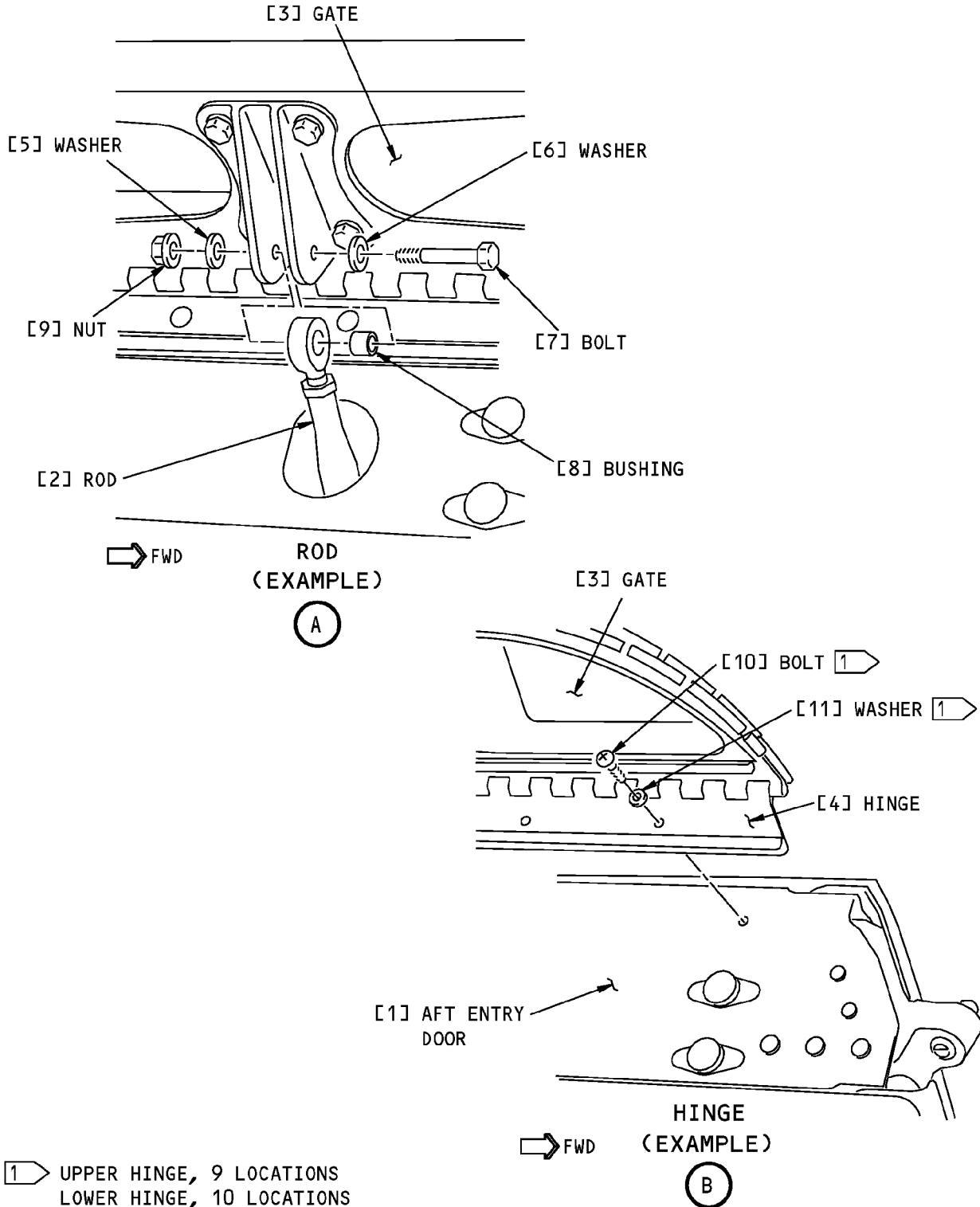


**AFT ENTRY DOOR
(LINING REMOVED)**

**Aft Entry Door Gate Installation
Figure 401 (Sheet 1 of 2)/52-13-61-990-801**

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Aft Entry Door Gate Installation
Figure 401 (Sheet 2 of 2)/52-13-61-990-801

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EMERGENCY EXIT DOOR - MAINTENANCE PRACTICES

1. General

A. This procedure has these tasks:

- (1) Open the Emergency Exit Door from inside the airplane
- (2) Open the Emergency Exit Door from outside the airplane
- (3) Close the Emergency Exit Door.
- (4) Emergency Exit Door Corrosion Prevention.

B. The opening and closing procedure is the same for each emergency exit door.

TASK 52-22-00-580-801

2. Open the Emergency Exit Door

(Figure 201)

A. Location Zones

Zone	Area
HAP 001-013, 015-026, 028-054	
832	Left Forward Emergency Exit
833	Left Emergency Exit (STA 627.5)
842	Right Forward Emergency Exit
843	Right Emergency Exit (STA 627.5)

HAP ALL

B. Procedure

SUBTASK 52-22-00-860-013

- (1) Open the emergency exit door from inside the airplane:
 - (a) Remove the clear handle cover from the door.

WARNING: IF THE SIDEWALL LINING ABOVE THE DOOR IS REMOVED, KEEP PERSONS AND EQUIPMENT CLEAR OF THE UPPER CUTOUT SILL. THE DOOR COMPONENTS MOVE QUICKLY WHEN THE DOOR HANDLE IS PULLED. THIS CAN CAUSE INJURY TO PERSONS AND DAMAGE TO EQUIPMENT.

WARNING: MAKE SURE THE DOOR OPENING PATH IS CLEAR BEFORE YOU RELEASE THE DOOR HANDLE. THE DOOR IS SPRING LOADED TO OPEN AUTOMATICALLY AND INJURIES COULD OCCUR.

WARNING: DO NOT HOLD ON TO THE RELEASE HANDLE ONCE YOU HAVE PULLED IT DOWN TO OPEN THE DOOR. THE DOOR IS AUTOMATIC AFTER THE INITIAL PULL ON THE HANDLE AND CAN CAUSE PERSONAL INJURY IF YOU HOLD IT THROUGH THE ENTIRE OPENING OF THE DOOR.

- (b) Pull down on the door handle to open the emergency exit door.

NOTE: When the release handle is pulled, the door will initially travel inboard and downward to clear the stop fittings.

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(c) Let the emergency exit door travel outboard and open fully outside the airplane.

NOTE: When the door is fully open it is locked in place by the hinge arm lock pawl at 125 degrees around the fixed hinge line.

END OF TASK

TASK 52-22-00-580-802

3. Open the Emergency Exit Door from the Outside

(Figure 201)

A. General

(1) For normal operation of the emergency exit door it is recommended that opening of the door be accomplished from the inside only. If for some reason it is necessary to open the door from the outside, use this procedure to open the door.

B. Location Zones

Zone	Area
HAP 001-013, 015-026, 028-054	
832	Left Forward Emergency Exit
833	Left Emergency Exit (STA 627.5)
842	Right Forward Emergency Exit
843	Right Emergency Exit (STA 627.5)

HAP ALL

C. Procedure

SUBTASK 52-22-00-860-014

(1) Open the emergency exit door from outside the airplane:

WARNING: IF THE SIDEWALL LINING ABOVE THE DOOR IS REMOVED FROM THE INSIDE OF THE AIRPLANE, KEEP PERSONS AND EQUIPMENT CLEAR OF THE UPPER CUTOUT SILL. THE DOOR COMPONENTS MOVE WHEN THE VENT HANDLE IS PUSHED AND CAN CAUSE INJURY TO PERSONS AND DAMAGE TO EQUIPMENT.

(a) Make sure the upper cutout sill on the inside of the door is clear of personnel and equipment before opening the door.

WARNING: GET ASSISTANCE FROM ANOTHER MECHANIC TO HELP BRACE THE DOOR WITH YOUR KNEES BEFORE PUSHING THE VENT PANEL INWARD. THE DOOR OPENS WITH A POWERFUL FORCE AND CAN CAUSE INJURY IF NOT BRACED BEFORE OPENING.

(b) While bracing the door with your knees, push the vent panel inward on the outside of the door to start the opening sequence.

NOTE: When the vent handle is pushed, the door will initially travel inboard and downward to clear the stop fittings.

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WARNING: LET THE DOOR OPEN SLOWLY BY RELIEVING THE BRACING PRESSURE APPLIED TO THE DOOR PRIOR TO OPENING. IF ALL OF THE PRESSURE IS RELIEVED AT ONCE THE DOOR CAN OPEN RAPIDLY AND CAUSE INJURY.

- (c) Slowly relieve the bracing pressure applied to the door with your knees and let the emergency exit door travel outboard and open fully outside the airplane.

NOTE: When the door is fully open it is locked in place by the hinge arm lock pawl at 125 degrees around the fixed hinge line.

————— **END OF TASK** —————

TASK 52-22-00-580-803

4. Close the Emergency Exit Door

(Figure 201)

A. Location Zones

Zone	Area
HAP 001-013, 015-026, 028-054	
832	Left Forward Emergency Exit
833	Left Emergency Exit (STA 627.5)
842	Right Forward Emergency Exit
843	Right Emergency Exit (STA 627.5)

HAP ALL

B. Procedure

SUBTASK 52-22-00-860-015

(1) Do these steps to close the door:

- (a) Lift the outboard edge of the Lower Closeout Panel for the applicable door.
 - 1) Make sure that the Hold-Open Latch engages in the Hold-Open Spring.
- (b) Remove the strap cover from the lower door lining.
- (c) Pull down and inboard on the strap to close the door.
- (d) While the door starts into the door cutout, pull the interior handle down.

NOTE: When the interior handle moves down, it will align the latch rollers with the latch receivers.

NOTE: When the door contacts the cutout, the interior handle will stay in the down position.

WARNING: ON THE FINAL PULL TO CLOSE THE DOOR, KEEP YOUR FACE AWAY FROM THE INTERIOR HANDLE. THE INTERIOR HANDLE CLOSSES RAPIDLY AND CAN CAUSE INJURY.

- (e) Pull the strap inward and upward for the final movement to close the door.

NOTE: Both hands on the strap will be necessary for the final movement of the door. On the final movement of the door, the door handle will latch close.

- (f) Reinstall the clear handle cover over the handle on the door.
- (g) Check that the flight station indication light has gone out.

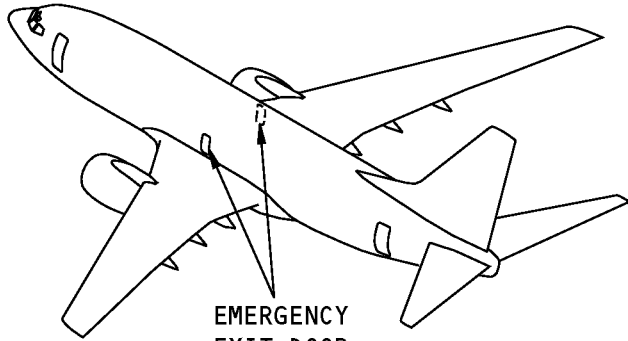
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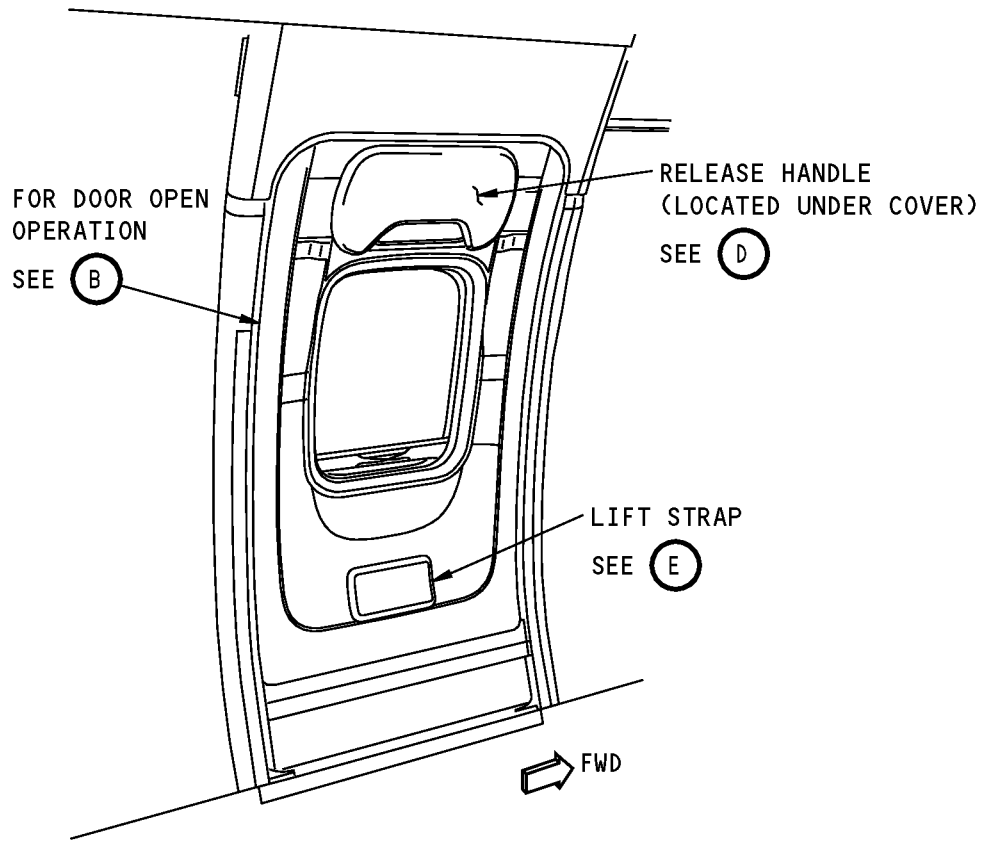
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EMERGENCY
EXIT DOOR

SEE (A)



EMERGENCY EXIT DOOR
(EXAMPLE)

(A)

Emergency Exit Door Operation
Figure 201 (Sheet 1 of 3)/52-22-00-990-805

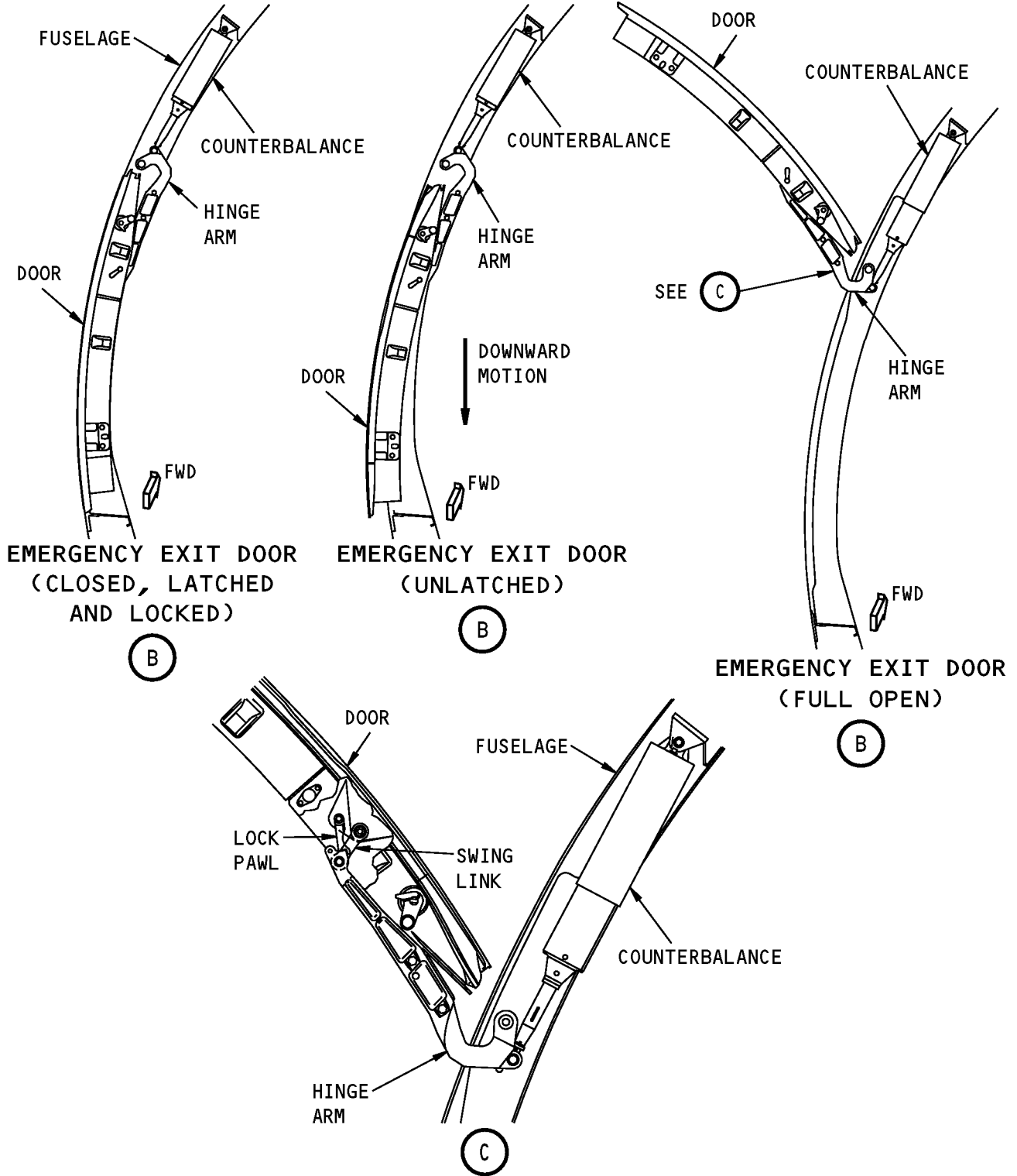
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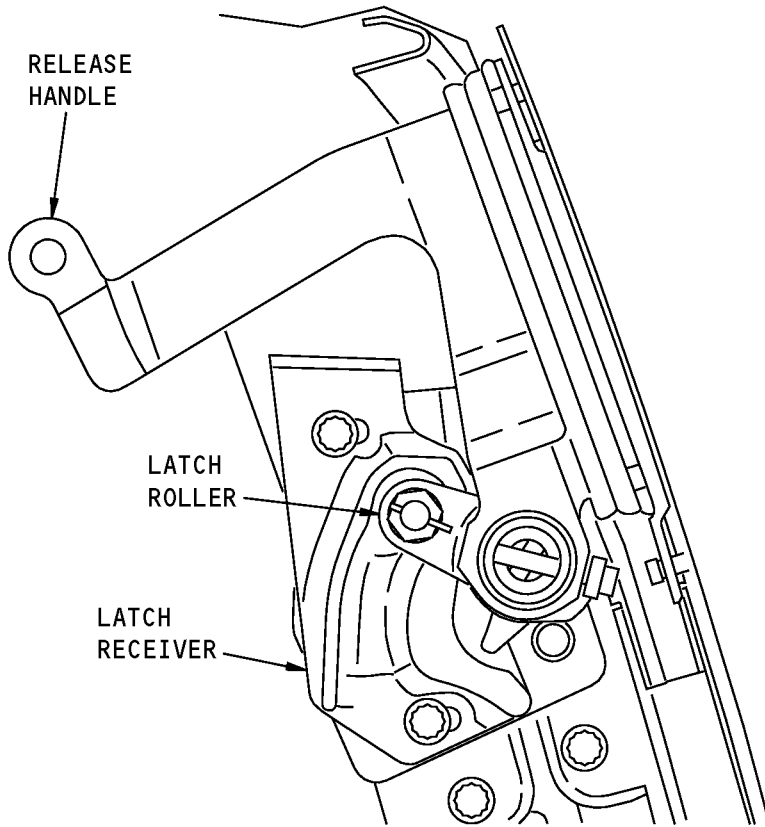
Emergency Exit Door Operation
Figure 201 (Sheet 2 of 3)/52-22-00-990-805

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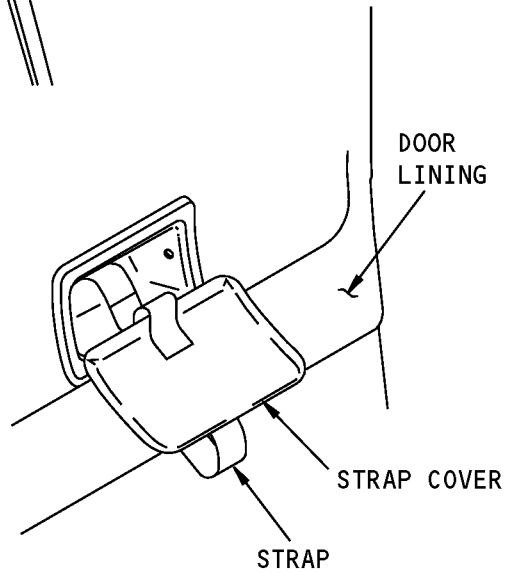
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RELEASE HANDLE

D



LIFT STRAP

E

**Emergency Exit Door Operation
Figure 201 (Sheet 3 of 3)/52-22-00-990-805**

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TASK 52-22-00-600-801

5. Emergency Exit Door Corrosion Protection

A. References

Reference	Title
12-25-22 P/B 301	EMERGENCY EXIT DOOR - SERVICING
52-22-00-200-801	Emergency Exit Door Inspection/Check (P/B 601)
52-22-51-000-801	Emergency Exit Door Lining Removal (P/B 401)
52-22-51-400-801	Emergency Exit Door Lining Installation (P/B 401)

B. Consumable Materials

Reference	Description	Specification
G00009	Compound - Organic Corrosion Inhibiting	BMS3-23

C. Location Zones

Zone	Area
833	Left Emergency Exit (STA 627.5)
843	Right Emergency Exit (STA 627.5)

D. General

SUBTASK 52-22-00-800-001

- (1) Corrosion may occur on the internal and external surfaces of the door structure. especially the inside lower corners, the connection points, and the door mechanism.
- (2) Corrosion has been found on the door handle, especially adjacent to the torque tube.
- (3) Corrosion has been found on the door frames. Corrosion has been found in the area of the torsion springs.

NOTE: Severe corrosion has been found in the lower lugs of the door frame. In one instance that corrosion had penetrated the frame

- (4) Some items in this section maybe subject to the mandatory requirements for corrosion prevention and control programs for aging airplanes.
- (5) Corrosion Prevention
 - (a) Do these tasks, Emergency Exit Door Inspection/Check, TASK 52-22-00-200-801 to detect the early stages of corrosion.
 - (b) Look for missing fasteners, white powdery deposits, and discolorations, as signs of corrosion.
 - 1) If signs of corrosion are found, then a corrosion prevention program should be started to prevent the build up of corrosion products.
 - 2) If corrosion products are allowed to build up, then they will cause further corrosion.
 - 3) If corrosion is found, the refer to the Structural Repair Manual for detail instructions for the removal of corrosion.
 - (c) After the corrosion products are cleaned, make sure that the protective finishes are serviceable.
 - 1) If only minor corrosion is found, then make sure that the area is clean.
 - 2) Apply corrosion inhibiting compound on the affected area.
 - 3) Make sure that the protective finish is restored at the first opportunity that is consistent with the airplanes maintenance schedule.

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(6) Frequency of Application

- (a) Periodic inspection is required to areas identified as prone to corrosion and should be scheduled to your Maintenance Planning Document.
- (b) Periodic application of BMS 3-23 compounds are necessary to areas identified as prone to corrosion and should be scheduled to your Maintenance Planning Document.
 - 1) Do the prevention treatment to the exterior surface of the door at the same recommended interval as the exterior surface of the fuselage.

E. Corrosion Prevention

SUBTASK 52-22-00-620-001

(1) Prevention Treatment

- (a) Remove the door liner to get access to the interior surfaces of the door.
 - 1) Emergency Exit Door Lining Removal, TASK 52-22-51-000-801
- (b) Clean the drains and drain paths.
- (c) Emergency Exit Door Inspection/Check, TASK 52-22-00-200-801
 - 1) Remove or repair any corrosion that you find.
- (d) Apply corrosion inhibiting compound, G00009 to the interior surfaces of the door.
 - 1) Make sure that the corrosion inhibiting compound, G00009 completely covers the surfaces, with special attention given to the lower corners and the mechanism.
- (e) If it is necessary, apply corrosion inhibiting compound, G00009 to the exterior surfaces of the door.
- (f) Lubricate the door. EMERGENCY EXIT DOOR - SERVICING, PAGEBLOCK 12-25-22/301
- (g) Install the door lining.
 - 1) Emergency Exit Door Lining Installation, TASK 52-22-51-400-801

————— **END OF TASK** —————

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EMERGENCY EXIT DOOR - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

- (1) A removal of an emergency exit door.
- (2) An installation of an emergency exit door.

B. The removal and installation procedure is the same for each emergency exit door.

TASK 52-22-00-000-801

2. Emergency Exit Door Removal

(Figure 401)

A. References

Reference	Title
25-21-20-000-801	Emergency Exit Doorway Lining Removal (P/B 401)

B. Location Zones

Zone	Area
HAP 001-013, 015-026, 028-054	
832	Left Forward Emergency Exit
833	Left Emergency Exit (STA 627.5)
842	Right Forward Emergency Exit
843	Right Emergency Exit (STA 627.5)

HAP ALL

C. Removal of the Emergency Exit Door

SUBTASK 52-22-00-010-010

- (1) Do this task: Emergency Exit Doorway Lining Removal, TASK 25-21-20-000-801.

SUBTASK 52-22-00-000-004

- (2) Remove the emergency exit door [1] from outside the airplane:

WARNING: IF THE SIDEWALL LINING ABOVE THE DOOR IS REMOVED, KEEP PERSONS AND EQUIPMENT CLEAR OF THE UPPER CUTOFF SILL. THE DOOR COMPONENTS MOVE QUICKLY WHEN THE DOOR HANDLE IS PULLED. THIS CAN CAUSE INJURY TO PERSONS AND DAMAGE TO EQUIPMENT.

WARNING: MAKE SURE THE DOOR OPENING PATH IS CLEAR BEFORE YOU RELEASE THE DOOR HANDLE. THE DOOR IS SPRING LOADED TO OPEN AUTOMATICALLY AND INJURIES COULD OCCUR.

- (a) Pull down on the door handle to open the emergency exit door [1].
- (b) Let the emergency exit door [1] open fully.

HAP 012, 013, 015-026, 028-054, 101-999; HAP 001-011 POST SB 737-52-1136

- (c) Remove the mechanism guard [1] from the fuselage structure:
 - 1) Remove bolts [40] and washers [39] that hold the mechanism guard [41] in place.

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- (d) Remove the bonding jumper [15], bolt [13], washer [12], washer [16] and nut [17].

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- (e) Disconnect the electrical connector.
(f) Remove the snubber [3] from the door:
1) Remove cotter pin [24], nut [25], washer [26], bushing [22], washer [20] and bolt [21] from the door hinge [11].
(g) Hold the door while you prepare to remove it at the hinge [11].
(h) Remove the cotter-pins [10].
(i) Remove the bolts [5], washers [6], bushings [7], washers [8], nuts [9], and bracket [14].
(j) Remove the counterbalances from the door:

WARNING: THE COUNTERBALANCES ARE SPRING LOADED. REMOVE THE DOOR FROM THE FUSELAGE BEFORE DISCONNECTING THE COUNTERBALANCES FROM THE DOOR HINGE. IF YOU DO NOT OBEY THIS WARNING, DAMAGE TO EQUIPMENT OR INJURY TO PERSONS CAN OCCUR.

- 1) Remove cotter pins [30], nuts [32], washers [33], bushings [34], washers [35], and bolts [36].
(k) Remove the emergency exit door [1] from the opening.
(l) Move the emergency exit door [1] away from the structure.

END OF TASK

TASK 52-22-00-400-802

3. Emergency Exit Door Installation

(Figure 401)

A. References

Table with 2 columns: Reference, Title. Rows include Cabin Pressure Leak Test (P/B 201), Emergency Exit Doorway Lining Installation (P/B 401), Emergency Exit Door System Test (P/B 501), Emergency Exit Door Adjustment (P/B 501), Galley Service Door Pressure Seal Check (P/B 601).

B. Consumable Materials

Table with 3 columns: Reference, Description, Specification. Row: C00913, Compound - Corrosion Inhibiting Material, Nondrying Resin Mix, BMS 3-27.

C. Location Zones

Table with 2 columns: Zone, Area. Rows include HAP 001-013, 015-026, 028-054, 832, 833, 842, 843 with corresponding area descriptions.

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D. Installation of the Emergency Exit Door

SUBTASK 52-22-00-420-001

- (1) Inspect the pressure seal of the Door prior to installation per, do this task: Galley Service Door Pressure Seal Check, TASK 52-41-00-200-802.

NOTE: If a follow-on pressurization test will be done, follow the procedure in (TASK 05-51-91-790-801).

- (a) Install the emergency exit door [1] in the opening:
- (b) Hold the door horizontal and put it in the opening.
- (c) Attach the counterbalance actuators to the emergency exit door [1]:

WARNING: THE COUNTERBALANCES ARE SPRING LOADED. CONNECT THE COUNTERBALANCES TO THE DOOR HINGE BEFORE INSTALLING THE DOOR. IF YOU DO NOT OBEY THIS WARNING, DAMAGE TO EQUIPMENT OR INJURY TO PERSONS CAN OCCUR.

- 1) Install bolts [36], washers [35], bushings [34], washers [33] and nuts [32].
- 2) Tighten the nuts [32] to 30-50 pound-inches (3.39-5.64 newton-meters).
- 3) Install the new cotter pins [30].
- (d) Attach the snubber [3] to the emergency exit door [1]:
 - 1) Install bolt [21], washer [20], bushing [22], washer [26] and nut [25].
 - 2) Tighten the nut [25] to 30-50 pound-inches (3.39-5.64 newton-meters).
 - 3) Install the new cotter pin [24].
- (e) Fit the door hinge [11] to the fuselage with the bolts [5], washers [6], bushings [7], bracket [14], washers [8], and nuts [9].

NOTE: Use a maximum of 4 washers [8] to get the cotter pin, nut alignment.

- 1) Make sure the bracket [14] is on the aft door hinge.
- (f) Tighten the nuts [9] to 160-240 pound inches (18-27 newton-meters).
- (g) Install the new cotter pins [10].
- (h) Put compound, C00913 on bolt [13].
- (i) Install the bonding jumper [15], bolt [13], washer [12] washer [16], and nut [17].
- (j) Connect the electrical connectors.

HAP 012, 013, 015-026, 028-054, 101-999; HAP 001-011 POST SB 737-52-1136

- (k) Install the mechanism guard [1] to the fuselage structure:
 - 1) Install the bolts [40] and washers [39] that hold the mechanism guard [41] in place.

HAP ALL

SUBTASK 52-22-00-420-002

- (2) Do this task: Emergency Exit Doorway Lining Installation, TASK 25-21-20-400-801.

SUBTASK 52-22-00-710-006

- (3) Do this task: Emergency Exit Door Adjustment, TASK 52-22-00-820-801.

SUBTASK 52-22-00-820-012

- (4) Do this task: Emergency Exit Door System Test, TASK 52-22-00-400-801.

————— **END OF TASK** —————

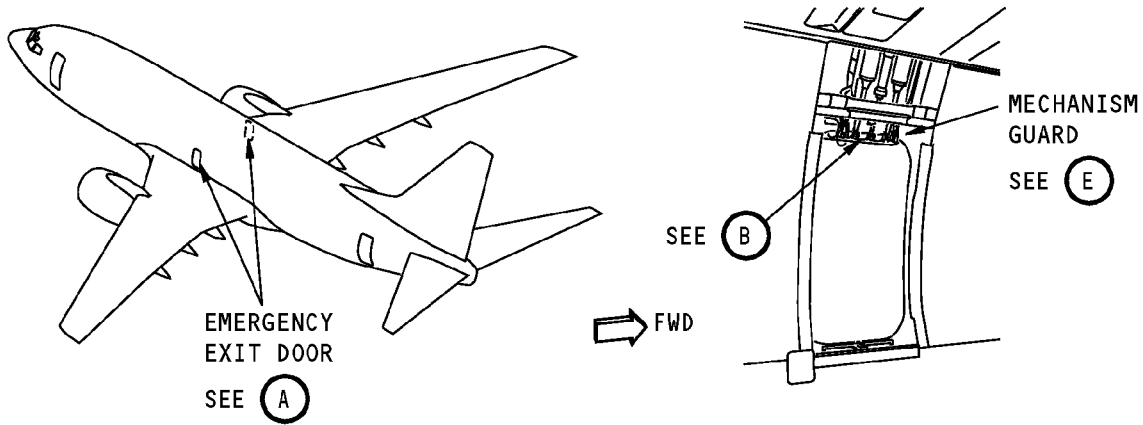
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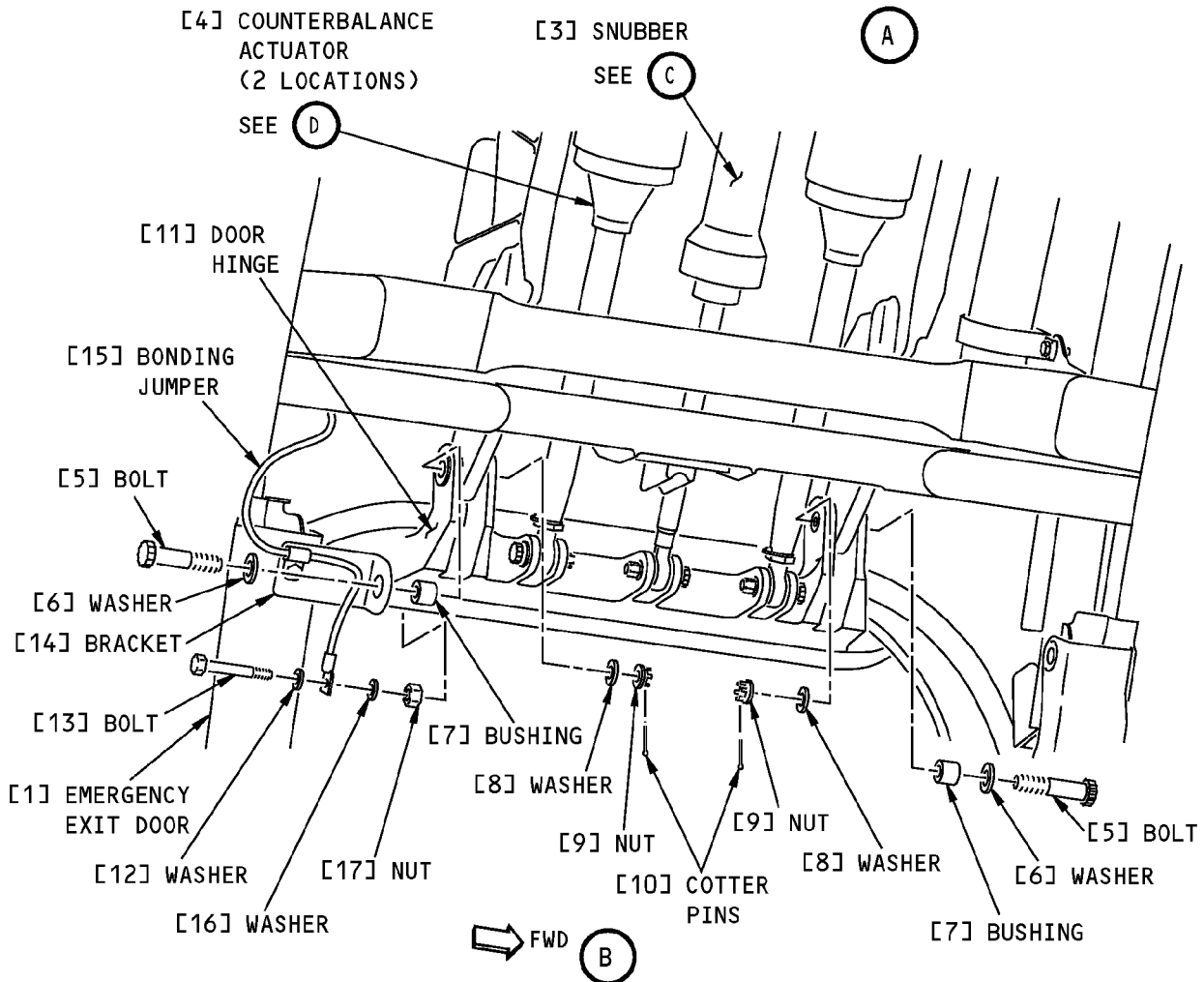
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**EMERGENCY EXIT DOOR
(EXAMPLE)**



**Emergency Exit Door Installation
Figure 401 (Sheet 1 of 3)/52-22-00-990-804**

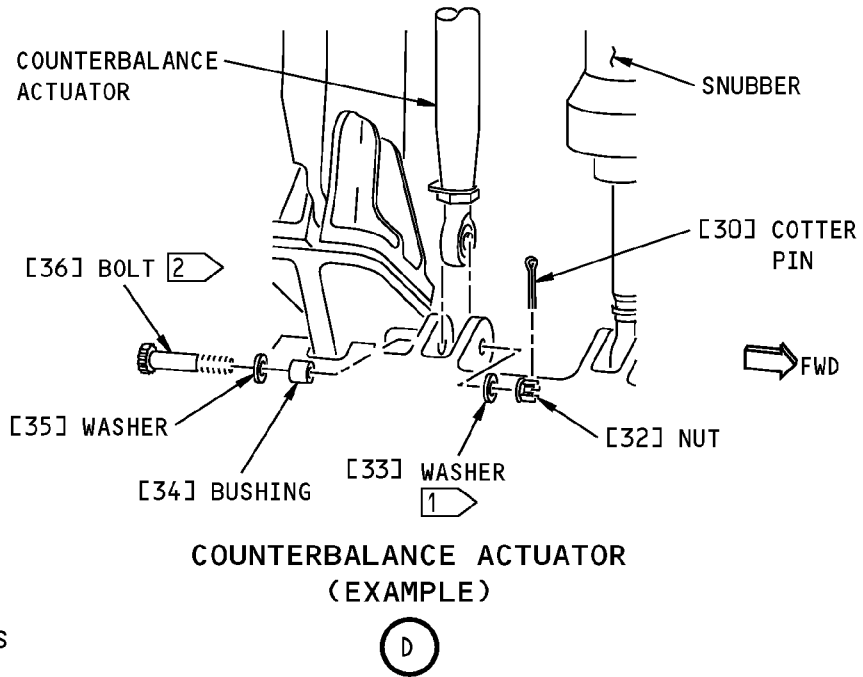
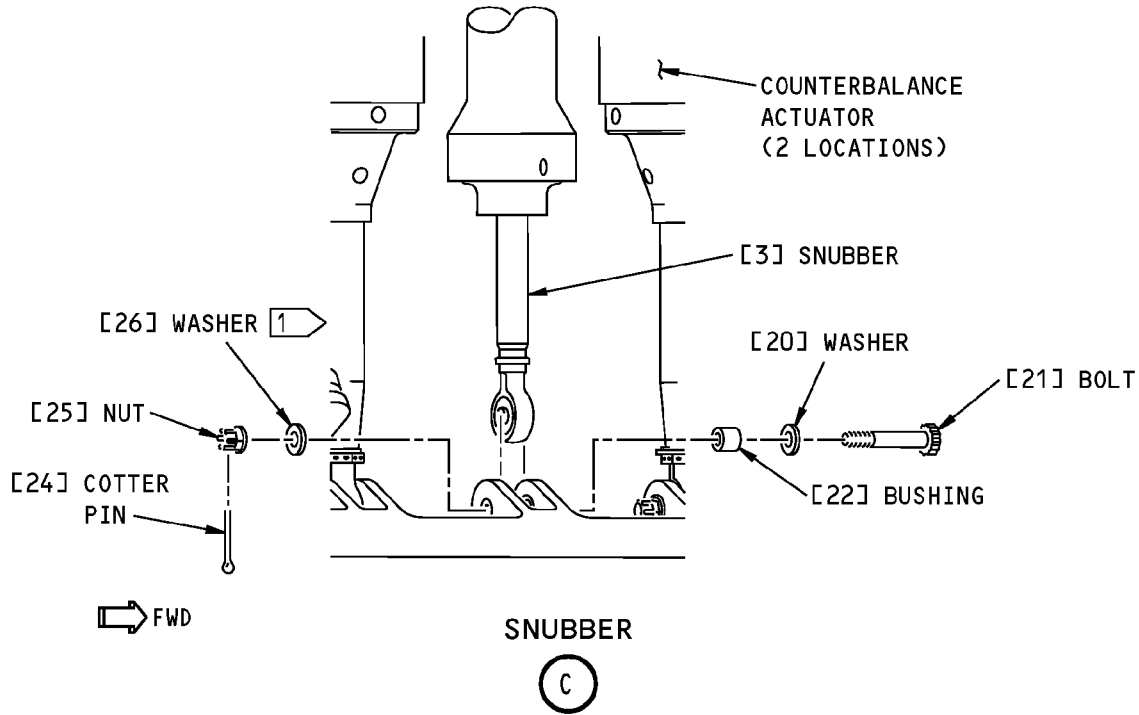
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- 1 MAXIMUM OF 4 WASHERS
- 2 BOLT HEAD AND BUSHING ARE ON SAME SIDE

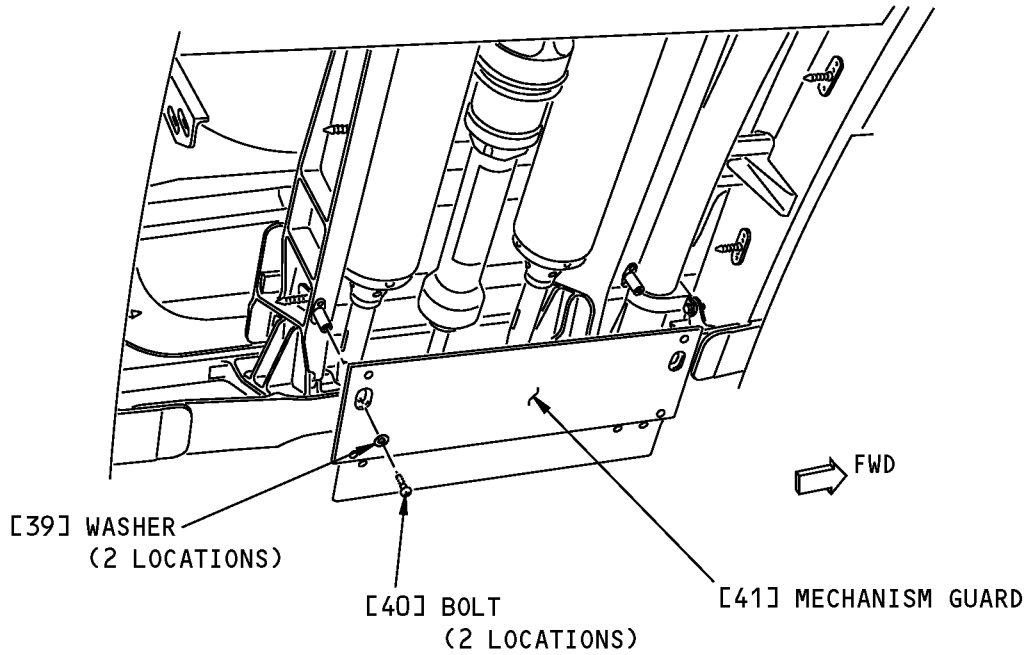
**Emergency Exit Door Installation
Figure 401 (Sheet 2 of 3)/52-22-00-990-804**

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**MECHANISM GUARD
(EXAMPLE)**

E

**Emergency Exit Door Installation
Figure 401 (Sheet 3 of 3)/52-22-00-990-804**

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EMERGENCY EXIT DOOR - ADJUSTMENT/TEST

1. General

- A. This procedure contains scheduled maintenance task data.
- B. This procedure has these tasks:
 - (1) An operational test of an emergency exit door.
 - (2) An operational test of the flight lock mechanical switch for the emergency exit door.
 - (3) An operational test of the flight lock engagement for the emergency exit door.
 - (4) An adjustment of an emergency exit door.
 - (5) A system test of an emergency exit door.
- C. The procedure is the same for each emergency exit door.

TASK 52-22-00-710-801

2. Emergency Exit Door Operational Test

- A. General
 - (1) This procedure is a scheduled maintenance task.
- B. Location Zones

Zone	Area
HAP 001-013, 015-026, 028-054	
832	Left Forward Emergency Exit
833	Left Emergency Exit (STA 627.5)
842	Right Forward Emergency Exit
843	Right Emergency Exit (STA 627.5)

HAP ALL

- C. Operational Test

SUBTASK 52-22-00-710-001

- (1) Do the operational test of the emergency exit door:

WARNING: MAKE SURE THE DOOR OPENING PATH IS CLEAR BEFORE YOU RELEASE THE DOOR HANDLE. THE DOOR IS SPRING-LOADED TO OPEN AUTOMATICALLY AND INJURIES COULD OCCUR.

- (a) Pull down on the door handle to open the door.
 - 1) Make sure the door opens smoothly.
 - 2) Make sure the door smoothly moves out and up from the door opening.
 - 3) Make sure that the snubber controls the speed of the door through the full open sequence.
 - 4) Make sure the door hinge arm latch is in the extended position.
 - 5) Make sure the door hinge arm lock pawl is locked.
- (b) Make sure the door handle freely moves to the open position.
- (c) Move the door into the fuselage opening.
 - 1) Make sure the handle is held in the open position.
 - 2) Pull the door into the opening with the lifting strap.

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- 3) Make sure the door hinge lock pawl engages the lock pawl depressor and releases the door hinge.
4) Make sure the door does not hit the rub strips on the lower stop tracks.
5) Make sure the lock rollers smoothly engage the lock receivers.
(d) Release the door handle.
1) Make sure the handle moves automatically to the closed position.

END OF TASK

TASK 52-22-00-710-802

3. Emergency Exit Door Flight Lock Mechanical Switch Operational Test

A. General

(1) This procedure is a scheduled maintenance task.

B. References

Table with 2 columns: Reference, Title. Rows include 24-22-00-860-811 (Supply Electrical Power) and 36-00-00-860-806 (Remove Pressure from the Pneumatic System).

C. Location Zones

Table with 2 columns: Zone, Area. Rows include HAP 001-013, 015-026, 028-054 and specific zone numbers (832-843) with their corresponding areas.

HAP ALL

D. Prepare for the Operational Test

SUBTASK 52-22-00-860-001

(1) Do this task: Supply Electrical Power, TASK 24-22-00-860-811.

SUBTASK 52-22-00-860-002

(2) Make sure that these circuit breakers are closed:

F/O Electrical System Panel, P6-2

Table with 4 columns: Row, Col, Number, Name. Lists circuit breakers D1 and D2 for Overwing Flight Lock Right and Left.

SUBTASK 52-22-00-860-003

(3) Do these steps to simulate that the engines are in operation:

NOTE: These steps change the condition of the engine running relays to the engine in operation mode.

- (a) Make sure that there is no pneumatic power to the engine starters.
1) If it is necessary, do this task: Remove Pressure from the Pneumatic System, TASK 36-00-00-860-806.
(b) Make sure that the two thrust levers, found on the Control Stand P8, are in the Idle position.

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(c) Open these circuit breakers and install safety tags:

CAPT Electrical System Panel, P18-2

Row	Col	Number	Name
A	1	C00458	ENGINE 1 IGNITION RIGHT
A	3	C00153	ENGINE 1 IGNITION LEFT

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
D	13	C00120	WEATHER RADAR RT

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
D	4	C00459	ENGINE 2 IGNITION RIGHT
D	6	C00151	ENGINE 2 IGNITION LEFT

F/O Electrical System Panel, P6-3

Row	Col	Number	Name
B	3	C00360	FUEL SPAR VALVE ENG 2
B	4	C00359	FUEL SPAR VALVE ENG 1

(d) Make sure that the two engine start switches are in the OFF position.

(e) Put the two engine Start Levers to the IDLE position for a minimum of 5 minutes.

WARNING: MAKE SURE THE ENGINES ARE NOT RUNNING. INJURIES TO PERSONS AND DAMAGE TO EQUIPMENT CAN OCCUR.

(f) Make sure that 3 of the 4 entry/service doors are closed.

WARNING: MAKE SURE THE CIRCUIT BREAKER FOR THE WEATHER RADAR SYSTEM ARE OPEN BEFORE YOU MOVE THE THRUST LEVERS. THE FORWARD MOVEMENT OF A THRUST LEVER CAN CAUSE THE AUTOMATIC OPERATION OF THE WEATHER RADAR SYSTEM. THE OPERATION OF THIS SYSTEM CAN CAUSE SERIOUS INJURY TO PERSONS AND DAMAGE TO EQUIPMENT IN THE AREA OF THE NOSE RADOME.

(g) Push the two engine thrust levers fully forward.

E. Operational Test of the Flight Lock Mechanical Switch for the Emergency Exit Door

SUBTASK 52-22-00-710-004

(1) Do the operational test of the flight lock mechanical switch for each emergency exit door:

WARNING: MAKE SURE THE DOOR OPENING PATH IS CLEAR BEFORE YOU RELEASE THE DOOR HANDLE. THE DOOR IS SPRING-LOADED TO OPEN AUTOMATICALLY. INJURIES TO PERSONS OR DAMAGE TO EQUIPMENT CAN OCCUR.

(a) Remove the emergency exit door handle cover.

(b) Pull down on the door handle.

NOTE: The emergency exit door handle rotation is limited to approximately 15 degrees when the emergency exit is locked.

(c) Make sure that the emergency exit is locked.

(d) Examine the door warning lights on the P-5 panel:

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- 1) Make sure that the emergency exit light on the P-5 panel goes ON when you pull the emergency exit door handle.
- 2) Move the door handle to the closed and locked position.
- 3) Make sure that the emergency exit light on the P-5 overhead panel is OFF.

(e) Examine the operation of the Engine Run Relays:

- 1) Open this circuit breaker:

CAPT Electrical System Panel, P18-2

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	3	C01312	ENGINE 1 RUN/PWR

- 2) Make sure that the emergency exit lights on the P-5 overhead panel do not come ON.
- 3) Pull down on the door handle.

NOTE: The emergency exit door handle rotation is limited to approximately 15 degrees when the emergency exit is locked.

- 4) Make sure that the emergency exit is locked.
 - a) Move the door handle to the closed and locked position.

- 5) Close this circuit breaker:

CAPT Electrical System Panel, P18-2

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	3	C01312	ENGINE 1 RUN/PWR

- 6) Make sure that the emergency exit lights on the P-5 overhead panel are OFF.
- 7) Open this circuit breaker:

F/O Electrical System Panel, P6-2

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	5	C01313	ENGINE 2 RUN/PWR

- 8) Make sure that the emergency exit lights on the P-5 overhead panel do not come ON.
- 9) Pull down on the door handle.

NOTE: The emergency exit door handle rotation is limited to approximately 15 degrees when the emergency exit is locked.

- 10) Make sure that the emergency exit is locked.
- 11) Close this circuit breaker:

F/O Electrical System Panel, P6-2

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	5	C01313	ENGINE 2 RUN/PWR

- (f) Make sure that the emergency exit door handle cover is correctly installed.

F. Put the Airplane Back to Its Usual Condition

SUBTASK 52-22-00-860-004

- (1) Pull the two engine thrust levers back to the Idle position.

SUBTASK 52-22-00-860-005

- (2) Put the two engine Start Levers to the CUTOFF position.

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SUBTASK 52-22-00-860-006

(3) Close these circuit breakers:

CAPT Electrical System Panel, P18-2

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	1	C00458	ENGINE 1 IGNITION RIGHT
A	3	C00153	ENGINE 1 IGNITION LEFT

F/O Electrical System Panel, P6-1

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
D	13	C00120	WEATHER RADAR RT

F/O Electrical System Panel, P6-2

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
D	4	C00459	ENGINE 2 IGNITION RIGHT
D	6	C00151	ENGINE 2 IGNITION LEFT

F/O Electrical System Panel, P6-3

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	3	C00360	FUEL SPAR VALVE ENG 2
B	4	C00359	FUEL SPAR VALVE ENG 1

END OF TASK

TASK 52-22-00-710-803

4. Emergency Exit Door Flight Lock Engagement Operational Test

A. General

(1) This procedure is a scheduled maintenance task.

B. References

<u>Reference</u>	<u>Title</u>
24-22-00-860-811	Supply Electrical Power (P/B 201)
52-22-51-000-801	Emergency Exit Door Lining Removal (P/B 401)
52-22-51-400-801	Emergency Exit Door Lining Installation (P/B 401)

C. Location Zones

<u>Zone</u>	<u>Area</u>
HAP 001-013, 015-026, 028-054	
832	Left Forward Emergency Exit
833	Left Emergency Exit (STA 627.5)
842	Right Forward Emergency Exit
843	Right Emergency Exit (STA 627.5)

HAP ALL

D. Prepare for the Operational Test

SUBTASK 52-22-00-860-007

(1) Do this task: Supply Electrical Power, TASK 24-22-00-860-811.

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SUBTASK 52-22-00-860-008

(2) Open these circuit breakers and install safety tags:

CAPT Electrical System Panel, P18-2

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	1	C00458	ENGINE 1 IGNITION RIGHT
A	3	C00153	ENGINE 1 IGNITION LEFT

F/O Electrical System Panel, P6-1

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
D	13	C00120	WEATHER RADAR RT

F/O Electrical System Panel, P6-2

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
D	4	C00459	ENGINE 2 IGNITION RIGHT
D	6	C00151	ENGINE 2 IGNITION LEFT

F/O Electrical System Panel, P6-3

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	3	C00360	FUEL SPAR VALVE ENG 2
B	4	C00359	FUEL SPAR VALVE ENG 1

SUBTASK 52-22-00-860-009

(3) Make sure the two engine start switches are in the OFF position.

SUBTASK 52-22-00-860-010

(4) Make sure that 3 of the 4 entry/service doors are closed.

SUBTASK 52-22-00-860-011

(5) Make sure all of the emergency exit door lights, on P-5 Overhead panel, are off.

SUBTASK 52-22-00-010-009

(6) Do this task: Emergency Exit Door Lining Removal, TASK 52-22-51-000-801.

E. Operational test of the Emergency Exit Door Flight Lock

SUBTASK 52-22-00-710-005

(1) Do an operational test of the flight lock for the emergency exit door:

(a) Make sure the emergency exit doors are closed, latched and locked.

(b) Do these steps to energize the flight lock solenoid:

1) Put the two engine start levers to the IDLE position for a minimum of 5 minutes.

WARNING: MAKE SURE THE CIRCUIT BREAKER FOR THE WEATHER RADAR SYSTEM ARE OPEN BEFORE YOU MOVE THE THRUST LEVERS. THE FORWARD MOVEMENT OF A THRUST LEVER CAN CAUSE THE AUTOMATIC OPERATION OF THE WEATHER RADAR SYSTEM. THE OPERATION OF THIS SYSTEM CAN CAUSE SERIOUS INJURY TO PERSONS AND DAMAGE TO EQUIPMENT IN THE AREA OF THE NOSE RADOME.

2) Push the two engine thrust levers fully forward.

3) Make sure the flight lock pawl is fully engaged with the torque tube.

4) Make sure the emergency exit door lights, on P-5 Overhead panel, are OFF.

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- (c) Do these steps to de-energize the flight lock solenoid:
 - 1) Pull the two engine thrust lever to idle position.
 - 2) Pull the two engine start levers back to CUT-OFF position.
 - 3) Make sure the flight lock pawl is not engaged with the torque tube.
 - 4) Make sure the emergency exit door lights, on the P5 Overhead panel, are OFF.

F. Put the Airplane Back to Its Usual Condition

SUBTASK 52-22-00-860-012

- (1) Remove the safety tags and close these circuit breakers:

CAPT Electrical System Panel, P18-2

Row	Col	Number	Name
A	1	C00458	ENGINE 1 IGNITION RIGHT
A	3	C00153	ENGINE 1 IGNITION LEFT

F/O Electrical System Panel, P6-1

Row	Col	Number	Name
D	13	C00120	WEATHER RADAR RT

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
D	4	C00459	ENGINE 2 IGNITION RIGHT
D	6	C00151	ENGINE 2 IGNITION LEFT

F/O Electrical System Panel, P6-3

Row	Col	Number	Name
B	3	C00360	FUEL SPAR VALVE ENG 2
B	4	C00359	FUEL SPAR VALVE ENG 1

SUBTASK 52-22-00-410-008

- (2) Do this task: Emergency Exit Door Lining Installation, TASK 52-22-51-400-801.

————— **END OF TASK** —————

TASK 52-22-00-820-801

5. Emergency Exit Door Adjustment

(Figure 501, Figure 502, Figure 503)

A. General

- (1) Do the procedure with the airplane on its landing gear.
- (2) The Emergency Exit Door System Test must be completed after any adjustment is made to the door.

B. References

Reference	Title
52-22-51-000-801	Emergency Exit Door Lining Removal (P/B 401)
52-22-51-400-801	Emergency Exit Door Lining Installation (P/B 401)
52-71-22-820-805	Emergency Exit Door Indication Switch Adjustment (P/B 201)

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C. Consumable Materials

Reference	Description	Specification
C00913	Compound - Corrosion Inhibiting Material, Nondrying Resin Mix	BMS 3-27
G01912	Lockwire - Monel (0.032 In. Dia.)	NASM20995N~ C32 (QQ-N-281)
G02020	Clay, Modeling	

D. Location Zones

Zone	Area
HAP 001-013, 015-026, 028-054	
832	Left Forward Emergency Exit
833	Left Emergency Exit (STA 627.5)
842	Right Forward Emergency Exit
843	Right Emergency Exit (STA 627.5)

HAP ALL

E. Prepare for the Initial Adjustment

SUBTASK 52-22-00-020-001

CAUTION: DO NOT OPERATE THE DOOR WITHOUT THE SNUBBER CORRECTLY INSTALLED. IF THE SNUBBER IS NOT INSTALLED, THE DOOR CAN OPEN TOO FAST AND CAUSE DAMAGE TO THE DOOR HINGE.

- (1) Disconnect the snubber rod end from the door as follows:
 - (a) Remove cotter pin, nut, washer, bushing, washer and bolt from the door hinge.

SUBTASK 52-22-00-000-002

WARNING: THE COUNTERBALANCES ARE SPRING LOADED. REMOVE THE DOOR FROM THE FUSELAGE BEFORE DISCONNECTING THE COUNTERBALANCES FROM THE DOOR HINGE. IF YOU DO NOT OBEY THIS WARNING, DAMAGE TO EQUIPMENT OR INJURY TO PERSONS CAN OCCUR.

- (2) Disconnect the counterbalance actuators from the door.
 - (a) Remove cotter pins, nuts, washers, bushings, washers, and bolts.

SUBTASK 52-22-00-010-001

- (3) Do this task: Emergency Exit Door Lining Removal, TASK 52-22-51-000-801.

F. Initial Adjustment

SUBTASK 52-22-00-820-001

- (1) Do the stop pins adjustment (Figure 501):
 - (a) Make sure the door is closed, locked, and has the correct flushness.
 - (b) Measure the clearance between the stop pins and the stop pads on the forward and aft sides of the door.
 - (c) If it is necessary, adjust the clearance as follows:
 - 1) Open the door.
 - 2) Remove the nuts on the stop pins.
 - 3) Put one countersunk washer under each stop pin head, (Figure 501).

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- 4) Close and lock the door.
- 5) Push the stop pins into the fuselage stop fittings.
- 6) Measure and record the clearances between the heads of the stop pins and the countersunk washers you installed.
- 7) Open the door.
- 8) Install washers with a thickness equal to the clearance you recorded under the heads of the stop pins.
- 9) Install and the nuts and washers to hold the stop pins.
- 10) Tighten the nuts to 50-80 pound-inches.

SUBTASK 52-22-00-820-002

(2) Do the initial lock receiver adjustment:

- (a) Close the door.
- (b) Make sure the door is flush with the fuselage.
- (c) Make sure the clearance between the lock roller and the lock receiver is as shown, (Figure 501).
- (d) If it is necessary, adjust as follows:
 - 1) Do the initial adjustment as follows:
 - a) Open the door.
 - b) Loosen the bolts and washers that attach the lock receivers to the fuselage frame, (Figure 501).
 - c) Close the door.
 - d) Push the door against the stop fittings.
 - e) Move the lock receivers inboard on their serrated plates until they touch the lock rollers.
 - f) Move the lock receivers back to the nearest serration.
 - g) Open the door.
 - h) Tighten the bolts and washers to attach the lock receivers to the fuselage frame.
 - i) Close the door.
 - j) Move the door handle from the lock to unlock position.
 - k) Make sure the lock roller moves freely.

SUBTASK 52-22-00-820-003

(3) Do the flushness adjustment:

- (a) Close and lock the door.
- (b) As a minimum, measure the flushness between the door skin and the fuselage skin, along the edge of the door at the locations that follow:

NOTE: Make additional measurements as required.

- 1) Within 1.0 inch of each stop fitting along the forward and aft edges of the door.
 - 2) Along the upper and lower edges of the door adjacent to the tangent points at the door corners.
- (c) Make sure the flushness is as shown, (Figure 503).
 - (d) If it is necessary, adjust as follows:

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- 1) Adjust the flushness of the door in the sequence specified:

NOTE: It may be necessary to do the Lock Receiver Adjustment to get the door flushness.

- 2) Adjust the door flushness at the bottom edge as follows, (Figure 503):

- a) Open the door.
- b) Loosen the nuts and washers that attach the lower stop track fitting.
- c) Close the door.
- d) Move the lower stop fitting inboard or outboard to get the correct door flushness at bottom.
- e) Open the door.
- f) Tighten the bolts and washers that attach the lower stop fitting.

- 3) Adjust the door flushness at the top edge as follows:

- a) Close the door.
- b) Make sure the bottom door edge has correct adjustment.
- c) Measure the top edge of door misfair at the upper door stop fittings.
- d) Open the door.
- e) Adjust the washers under the stop pin heads to get the correct alignment.

- 4) Adjust the door flushness at the center edges as follows:

- a) Close the door.
- b) Measure the center edges of door misfair at the forward and aft center door stop fittings.
- c) Open the door.
- d) Adjust washers under stop pin heads to get the correct fair. The correct clearance between the stop pin and fuselage stop is 0.000-0.016 inch (0-0.406 mm).

NOTE: Look at the top and bottom door edges for correct fair.

SUBTASK 52-22-00-820-004

- (4) Do the lock roller adjustment:

- (a) Close and lock the door.
- (b) Make sure the distance the lock rollers engage in the lock receivers is as shown, (Figure 501).
- (c) If it is necessary, adjust as follows:
 - 1) Open the door.
 - 2) Remove the nuts, adjustment washers and cotter pins from the lock roller.
 - 3) Add or remove adjustment washers under the lock roller to increase or decrease the roller depth in the lock receiver.
 - 4) Install the nuts, adjustment washers, and cotter pins.
 - 5) If more adjustment is necessary, adjust as follows:

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CAUTION: THE LOCK TORQUE TUBE IS A SPRING LOADED ASSEMBLY. IF YOU DO NOT HOLD THE TORQUE TUBE, THE FORCE IN THE SPRINGS WILL CAUSE THEM TO MOVE OUT OF POSITION. DAMAGE TO THE EQUIPMENT MAY OCCUR.

- a) Remove the bolts, washers and nuts that attach the lock crank to the lock torque tube, (Figure 501).
- b) Remove the lock crank from the torque tube.
- c) Move adjustment spacers from one end of the lock torque tube to the opposite end to change the distance the lock roller engages in the lock receiver on one end of the lock torque tube.
- d) Make sure the lock roller and lock torque tube end play is 0.02 inch maximum.
- e) Install the lock crank in the lock torque tube.
- f) Install the bolts, washers and nuts to attach the lock crank to the lock torque tube, (Figure 501).

SUBTASK 52-22-00-820-005

(5) Do the door vertical stop pin alignment adjustment:

- (a) Measure the up and down stop pin alignment as follows:
 - 1) Open the door.
 - 2) Put a small quantity of clay, G02020 on the stop pads.
 - 3) Close the door.
- (b) Make sure the stop pins align with the stop pads as shown, (Figure 501).
- (c) If it is necessary, adjust as follows:
 - 1) Close and lock the door.
 - 2) Remove the lockwire from the adjustment screws located on the forward and aft door intercostal.
 - 3) Loosen the latch roller plate bolts.
 - 4) Make sure the bottom of the latch roller is contacting the latch track.
 - 5) Use the two adjustment screws to move the door up or down.

NOTE: Each turn of adjustment screw is 0.02 inch (0.51 mm).

 - a) To raise the door, turn both adjustment screws counterclockwise.
 - b) To lower the door, turn both adjustment screws clockwise.
 - c) To tilt the door forward or aft, turn one adjustment screw clockwise and the opposite adjustment screw counterclockwise.
 - 6) Tighten the latch roller plate bolts.
 - 7) Install the lockwire, G01912.
 - 8) Remove the clay, G02020 from the door stops and pins.

SUBTASK 52-22-00-820-006

(6) Do the door horizontal stop pin alignment adjustment:

- (a) Measure the forward and aft stop pin alignment as follows: plate.
 - 1) Open the door.
 - 2) Put a small quantity of clay, G02020 on the stop pads.
 - 3) Close the door.

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- 4) Open the door.
- 5) Make sure the stop pins align with the stop pads, (Figure 501).
- 6) If it is necessary adjust as follows:
 - a) Remove the bolts, washers, and nuts that attach the latch receiver to the hinge arm.
 - b) Install a new laminated shim or remove laminations from the shim under the latch receiver to get the correct clearance.
 - c) Apply compound, C00913 to bare laminations.
 - d) Install bolts, washers, and nuts that attach the latch receiver.
- 7) Remove the clay, G02020 from the stop pads and pins.

SUBTASK 52-22-00-000-003

(7) Do the lower rub pad adjustment:

- (a) Close the door.
- (b) Measure the clearance between the rub pad and the centering block as shown, (Figure 501).
- (c) Make sure that the clearance is as specified.
- (d) If it is necessary, adjust as follows:
 - 1) Open the door.
 - 2) Remove the bolts, nuts, and washers that attach the rub pad to the door.
 - 3) Remove the screws that attach the rub pad and laminated shims to the bracket.
 - 4) Install a new laminated shim or remove laminations from the shims under the rub pad to get correct clearance.
 - 5) Apply compound, C00913 to bare laminations.
 - 6) Install the screws that attach the rub pad and laminated shim to the bracket.
 - 7) Install the bolts, nuts, and washers that attach the rub pad to the door.

G. Prepare for the Final Adjustment

SUBTASK 52-22-00-410-001

CAUTION: DO NOT OPERATE THE DOOR WITHOUT THE SNUBBER CORRECTLY INSTALLED. IF THE SNUBBER IS NOT INSTALLED, THE DOOR CAN OPEN TOO FAST AND CAUSE DAMAGE TO THE DOOR HINGE.

- (1) Connect the snubber rod end to the door:
 - (a) Install bolt, washer, bushing, washer, nut and new cotter pin.
 - (b) Tighten the nut to 30-50 pound-inches (3.4-5.6 Nm).

SUBTASK 52-22-00-410-002

WARNING: THE COUNTERBALANCES ARE SPRING LOADED. CONNECT THE COUNTERBALANCES TO THE DOOR HINGE BEFORE INSTALLING THE DOOR. IF YOU DO NOT OBEY THIS WARNING, DAMAGE TO EQUIPMENT OR INJURY TO PERSONS CAN OCCUR.

- (2) Connect the counterbalance actuators to the door:
 - (a) Install bolts, washers, bushings, washers, nuts and install new cotter pins.
 - (b) Tighten the nut to 30-50 pound-inches (3.4-5.6 Nm).

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H. Final Adjustment

SUBTASK 52-22-00-010-002

WARNING: MAKE SURE THE DOOR OPENING PATH IS CLEAR BEFORE YOU RELEASE THE DOOR HANDLE. THE DOOR IS SPRING-LOADED TO OPEN AUTOMATICALLY AND INJURIES COULD OCCUR.

(1) Fully open the door.

SUBTASK 52-22-00-220-001

(2) Measure the distance from the top edge of the door to the fuselage as shown, (Figure 501).

SUBTASK 52-22-00-220-002

(3) Make sure that the limits are as specified.

SUBTASK 52-22-00-820-007

(4) If it is necessary, adjust the counterbalance actuator as follows:

- (a) Disconnect the snubber.
- (b) Remove the lockwire on the jamnuts.
- (c) Loosen the jamnut.
- (d) Adjust rodend to get correct clearance.
- (e) Tighten jamnut.
- (f) Install the lockwire, G01912.

SUBTASK 52-22-00-820-008

(5) Skin Clearance Adjustment (Figure 502)

WARNING: MAKE SURE THE DOOR OPENING PATH IS CLEAR BEFORE YOU RELEASE THE DOOR HANDLE. THE DOOR IS SPRING-LOADED TO OPEN AUTOMATICALLY AND INJURIES COULD OCCUR.

- (a) Open the door.
- (b) Put a small quantity of clay, G02020 on the stop pads.
- (c) Close the door.
- (d) Make sure the stop pins are centered on the stop pads in the target area as shown, (Figure 501).
- (e) If it is necessary, adjust as follows:
 - 1) Do the door vertical stop pin alignment adjustment to get the correct skin clearance.
 - 2) Do the door horizontal stop pin alignment adjustment to get the correct skin clearance.

SUBTASK 52-22-00-820-009

(6) Do the final lock receiver adjustment, (Figure 501):

- (a) Make sure the door is closed and locked.
- (b) Push on the door handle until the handle seal is compressed.
- (c) Make sure handle touches the door pressure stop contact surface, (Figure 501).
- (d) Measure the clearance between the lock rollers and lock receivers are as shown, (Figure 501).
- (e) If it is necessary, adjust as follows:

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WARNING: MAKE SURE THE DOOR OPENING PATH IS CLEAR BEFORE YOU RELEASE THE DOOR HANDLE. THE DOOR IS SPRING-LOADED TO OPEN AUTOMATICALLY AND INJURIES COULD OCCUR.

- 1) Open the door.
- 2) Loosen the bolts that attach the lock receivers to the fuselage frame.
- 3) Move the lock receivers on their serrated plates to get the correct clearance.
- 4) Tighten the bolts that attach lock receivers to the fuselage frame.
- 5) Close the door.
- 6) Move the door handle from the lock to unlock position.
- 7) Make sure the lock rollers move freely.

SUBTASK 52-22-00-820-010

(7) Do this task: Emergency Exit Door Indication Switch Adjustment, TASK 52-71-22-820-805.

I. Put the Airplane Back to its Usual Condition

SUBTASK 52-22-00-410-003

(1) Do this task: Emergency Exit Door Lining Installation, TASK 52-22-51-400-801.

————— **END OF TASK** —————

TASK 52-22-00-400-801

6. Emergency Exit Door System Test

A. General

- (1) The system test is a check that the door is installed and adjusted correctly, and that the mechanical systems operate correctly.
- (2) The door seal and lining are installed for the system test.
- (3) If the door does not pass the system test, do this task: Emergency Exit Door Adjustment, TASK 52-22-00-820-801.

B. References

Reference	Title
24-22-00-860-811	Supply Electrical Power (P/B 201)
36-00-00-860-806	Remove Pressure from the Pneumatic System (P/B 201)
52-22-51-000-801	Emergency Exit Door Lining Removal (P/B 401)
52-22-51-400-801	Emergency Exit Door Lining Installation (P/B 401)

C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

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Reference	Description
COM-1557	Gauge - Force (Part #: DG-200, Supplier: 92456, A/P Effectivity: 737-ALL) (Part #: DPP-500G, Supplier: 92456, A/P Effectivity: 737-ALL) (Part #: DPPH-150, Supplier: 92456, A/P Effectivity: 737-ALL) (Part #: DPPH-200, Supplier: 92456, A/P Effectivity: 737-ALL) (Part #: DPPH-50, Supplier: 92456, A/P Effectivity: 737-ALL) (Part #: FDIX 100, Supplier: 0BFD9, A/P Effectivity: 737-ALL) (Part #: FDIX 50, Supplier: 0BFD9, A/P Effectivity: 737-ALL) (Part #: FDV 50, Supplier: 0BFD9, A/P Effectivity: 737-ALL) (Part #: LG-050, Supplier: 92456, A/P Effectivity: 737-ALL) (Opt Part #: FDI 100, Supplier: 0BFD9, A/P Effectivity: 737-ALL)

D. Location Zones

Zone	Area
HAP 001-013, 015-026, 028-054	
832	Left Forward Emergency Exit
833	Left Emergency Exit (STA 627.5)
842	Right Forward Emergency Exit
843	Right Emergency Exit (STA 627.5)

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E. Prepare for the System Test

SUBTASK 52-22-00-840-002

(1) Do this task: Supply Electrical Power, TASK 24-22-00-860-811.

SUBTASK 52-22-00-840-003

(2) Open these circuit breakers and install safety tags:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
D	1	C01515	OVERWING FLIGHT LOCK RIGHT
D	2	C01514	OVERWING FLIGHT LOCK LEFT

F. System Test of the Emergency Exit Door

SUBTASK 52-22-00-730-001

(1) Do the system test for the emergency exit door:

(a) Use one of these methods to change the condition of the engine running relays:

- 1) Either start or stop the engine.
- 2) Or, do these steps to simulate the engine running:
 - a) Make sure there is no pneumatic power to the engine starters.
 - b) If it is necessary, do this task: Remove Pressure from the Pneumatic System, TASK 36-00-00-860-806.
 - c) Open these circuit breakers and install safety tags:

CAPT Electrical System Panel, P18-2

Row	Col	Number	Name
A	1	C00458	ENGINE 1 IGNITION RIGHT
A	3	C00153	ENGINE 1 IGNITION LEFT

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F/O Electrical System Panel, P6-1

Row	Col	Number	Name
D	13	C00120	WEATHER RADAR RT

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
D	4	C00459	ENGINE 2 IGNITION RIGHT
D	6	C00151	ENGINE 2 IGNITION LEFT

F/O Electrical System Panel, P6-3

Row	Col	Number	Name
B	3	C00360	FUEL SPAR VALVE ENG 2
B	4	C00359	FUEL SPAR VALVE ENG 1

- d) Make sure both engine start switches are in the OFF position.
- e) Put both engine start levers to the IDLE position for a minimum of 5 minutes.

WARNING: MAKE SURE THE ENGINES ARE NOT RUNNING. IF YOU DO NOT OBEY THIS WARNING, INJURY TO PERSONS OR DAMAGE TO THE EQUIPMENT MAY OCCUR.

- (b) Make sure that 3 of the 4 Entry/Service doors are closed.
- (c) Make sure all of the Emergency Exit Doors are closed.

WARNING: MAKE SURE THE CIRCUIT BREAKER FOR THE WEATHER RADAR SYSTEM ARE OPEN BEFORE YOU MOVE THE THRUST LEVERS. THE FORWARD MOVEMENT OF A THRUST LEVER CAN CAUSE THE AUTOMATIC OPERATION OF THE WEATHER RADAR SYSTEM. THE OPERATION OF THIS SYSTEM CAN CAUSE SERIOUS INJURY TO PERSONS AND DAMAGE TO EQUIPMENT IN THE AREA OF THE NOSE RADOME.

- (d) Push both engine thrust levers fully forward.
- (e) Press the Master Caution switch to deactivate the light and turn off the Doors indication lights (P-7).
- (f) If the Master Caution switch light is activated, the emergency Exit lights (P-5) should be on.
- (g) Pull both engine thrust levers back to idle.
- (h) Remove the safety tags and close these circuit breakers:

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
D	1	C01515	OVERWING FLIGHT LOCK RIGHT
D	2	C01514	OVERWING FLIGHT LOCK LEFT

- (i) Push both engine thrust levers fully forward.
- (j) All of the Emergency Exit Door lights should be off.
- (k) Press Master Caution recall.
- (l) Make sure the PSEU light is off.
- (m) If it is necessary, do these steps to check the flight lock solenoid:
 - 1) Make sure the Master Caution light, PSEU light and all door warning lights on the P-5 panel are off.

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2) Remove the emergency exit door handle cover.

WARNING: MAKE SURE THE DOOR OPENING PATH IS CLEAR BEFORE YOU RELEASE THE DOOR HANDLE. THE DOOR IS SPRING-LOADED TO OPEN AUTOMATICALLY. THIS CAN CAUSE INJURIES TO PERSONS OR DAMAGE TO EQUIPMENT.

3) Pull down on the emergency exit door handle and make sure the door is locked.

NOTE: Handle movement is only 15 degrees with the flight lock solenoid engaged.

4) Make sure the emergency light on the P-5 panel is on.

5) Stow the emergency exit door handle.

6) Make sure the emergency light on the P-5 panel is off.

(n) Pull both engine thrust levers back to idle.

SUBTASK 52-22-00-840-001

(2) If it is necessary, do these steps to return the engine running relays back to the not running condition:

(a) Put both engine start levers to the CUTOFF position.

(b) Remove the safety tags and close these circuit breakers:

CAPT Electrical System Panel, P18-2

Table with 4 columns: Row, Col, Number, Name. Rows: A 1 C00458 ENGINE 1 IGNITION RIGHT, A 3 C00153 ENGINE 1 IGNITION LEFT

F/O Electrical System Panel, P6-1

Table with 4 columns: Row, Col, Number, Name. Row: D 13 C00120 WEATHER RADAR RT

F/O Electrical System Panel, P6-2

Table with 4 columns: Row, Col, Number, Name. Rows: D 4 C00459 ENGINE 2 IGNITION RIGHT, D 6 C00151 ENGINE 2 IGNITION LEFT

F/O Electrical System Panel, P6-3

Table with 4 columns: Row, Col, Number, Name. Rows: B 3 C00360 FUEL SPAR VALVE ENG 2, B 4 C00359 FUEL SPAR VALVE ENG 1

SUBTASK 52-22-00-730-002

(3) If the door does not pass the system test, do this task: Emergency Exit Door Adjustment, TASK 52-22-00-820-801.

SUBTASK 52-22-00-820-011

(4) Do a test of the door handle:

(a) Close and lock the door.

(b) Do this task: Emergency Exit Door Lining Removal, TASK 52-22-51-000-801.

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WARNING: YOU MUST HAVE THE AID OF ONE MORE PERSON TO KEEP THE DOOR IN THE CLOSED POSITION. IF YOU DO NOT OBEY THIS INSTRUCTION, THE DOOR CAN OPEN QUICKLY AND INJURY TO PERSONS CAN OCCUR.

- (c) Use the force gauge, COM-1557 to move the handle to the open position.
- (d) Make sure the force is 18 to 28 pounds (80-125 newtons) without a door lining installed.
- (e) To adjust the door handle force, do the Emergency Exit Door Flushness Adjustment.

NOTE: Adjustment of the door inboard will correct high handle force at the end of handle travel.

- (f) Close and lock door.
- (g) Do this task: Emergency Exit Door Lining Installation, TASK 52-22-51-400-801.

————— **END OF TASK** —————

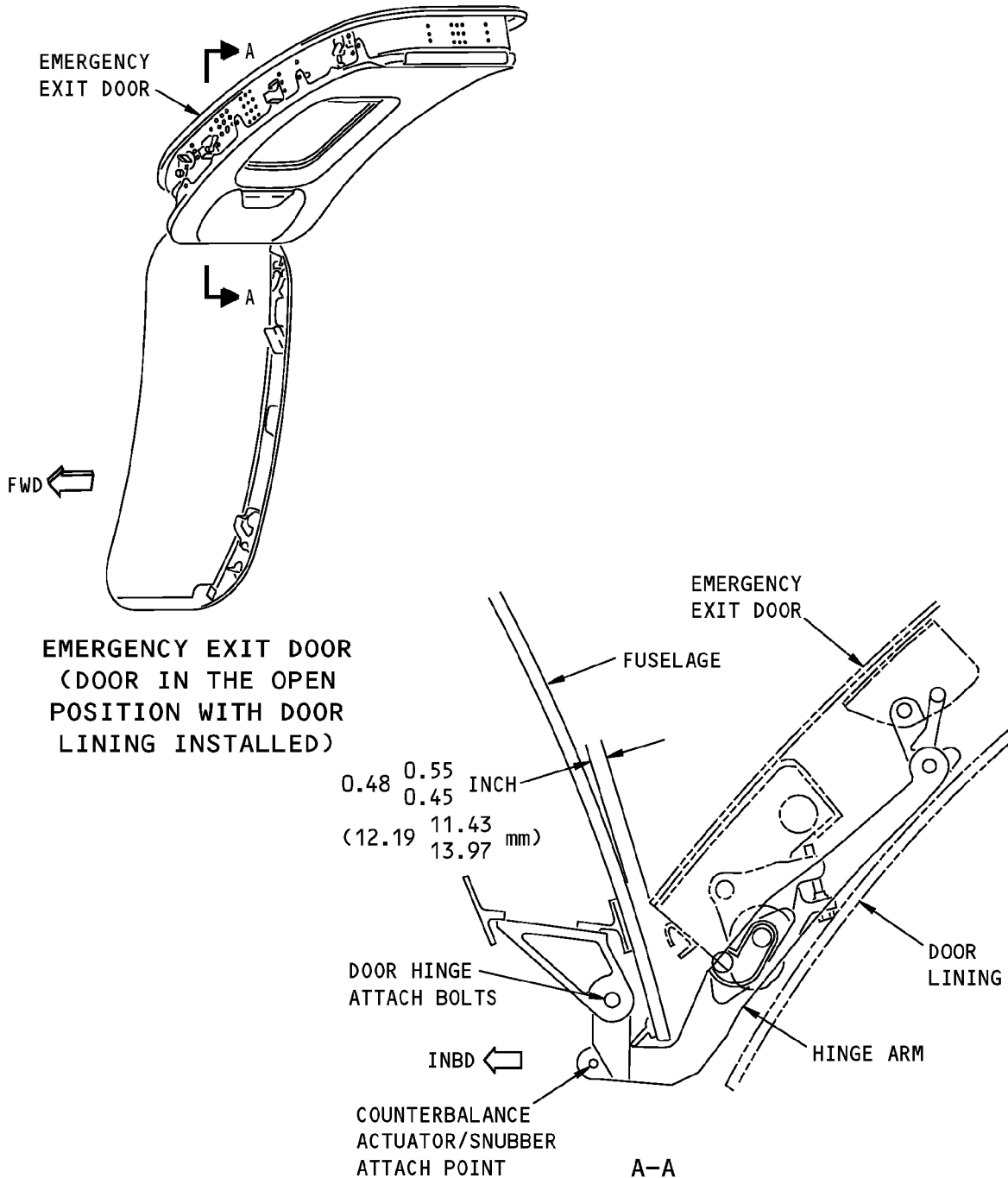
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NOTE: DIMENSION STANDARD: NOMINAL UPPER LIMIT
 LOWER LIMIT

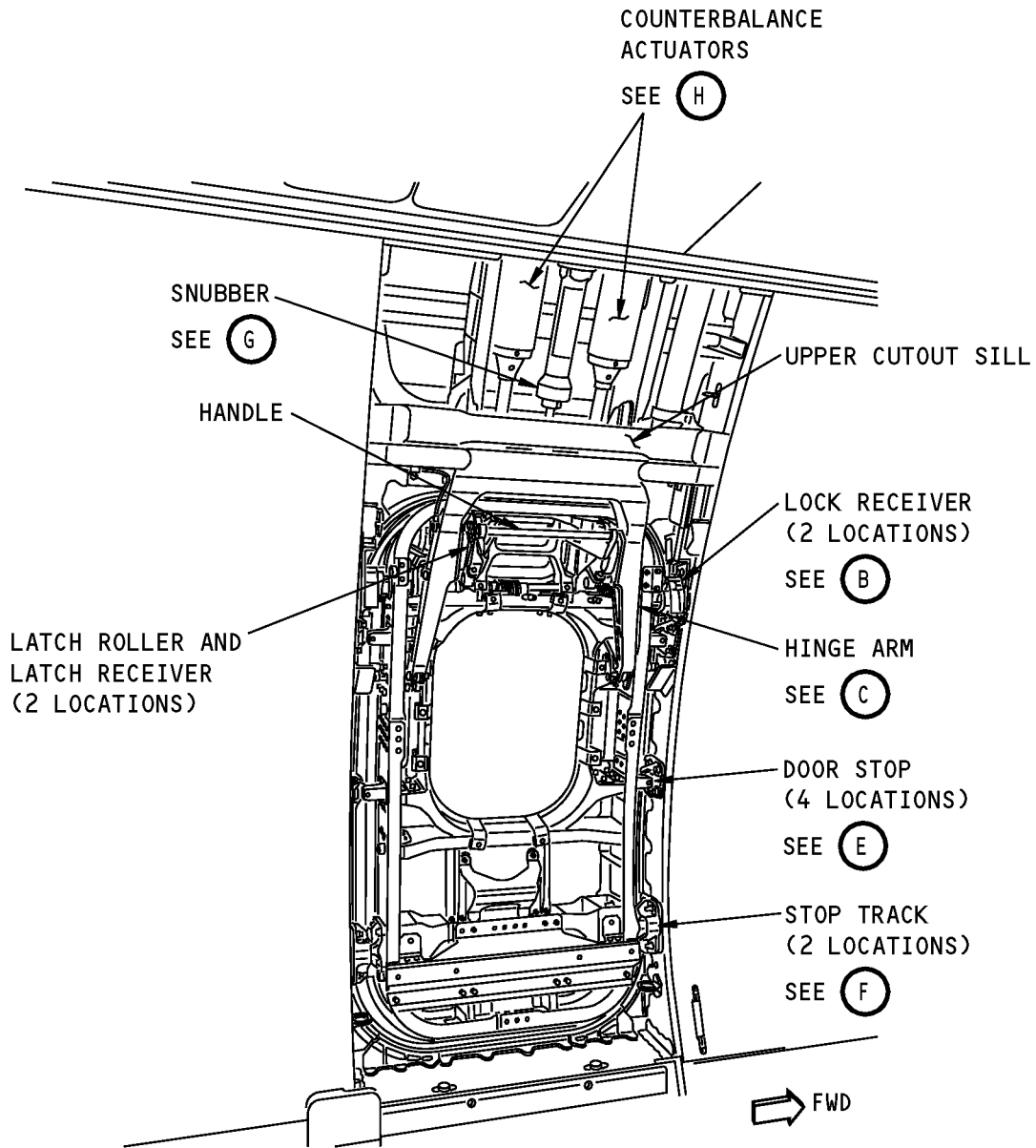
Emergency Exit Door Adjustment
Figure 501 (Sheet 1 of 8)/52-22-00-990-801

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**EMERGENCY EXIT DOOR
(DOOR IN THE CLOSED POSITION
WITH DOOR LINING REMOVED)
(EXAMPLE)**

**Emergency Exit Door Adjustment
Figure 501 (Sheet 2 of 8)/52-22-00-990-801**

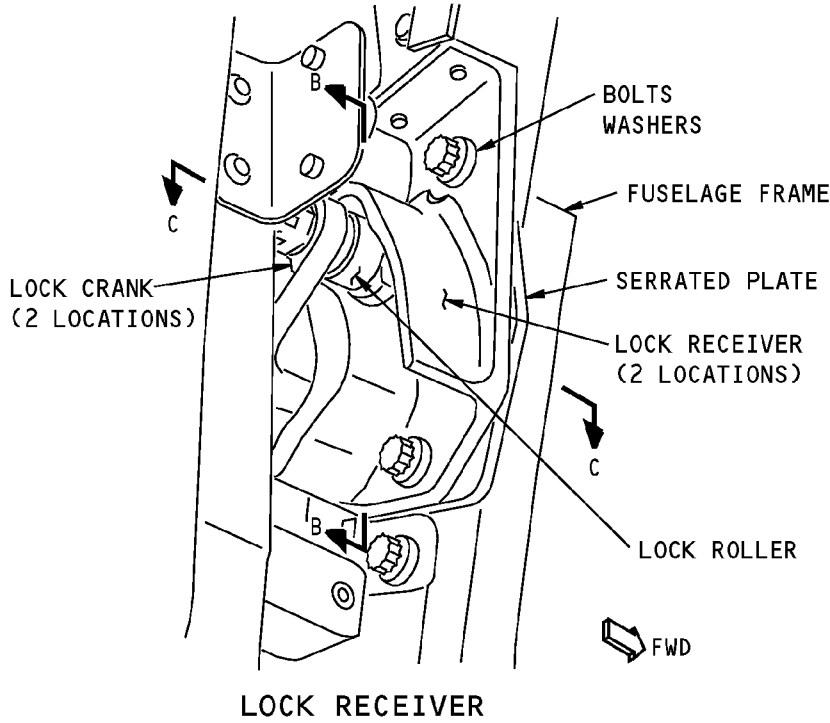
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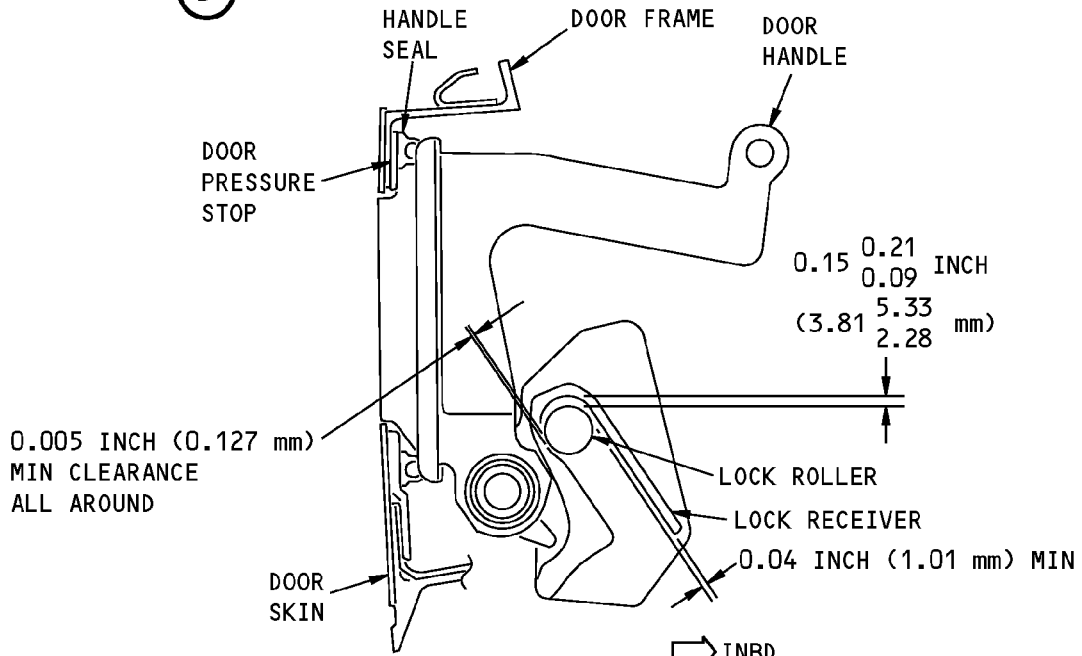
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LOCK RECEIVER

(B)

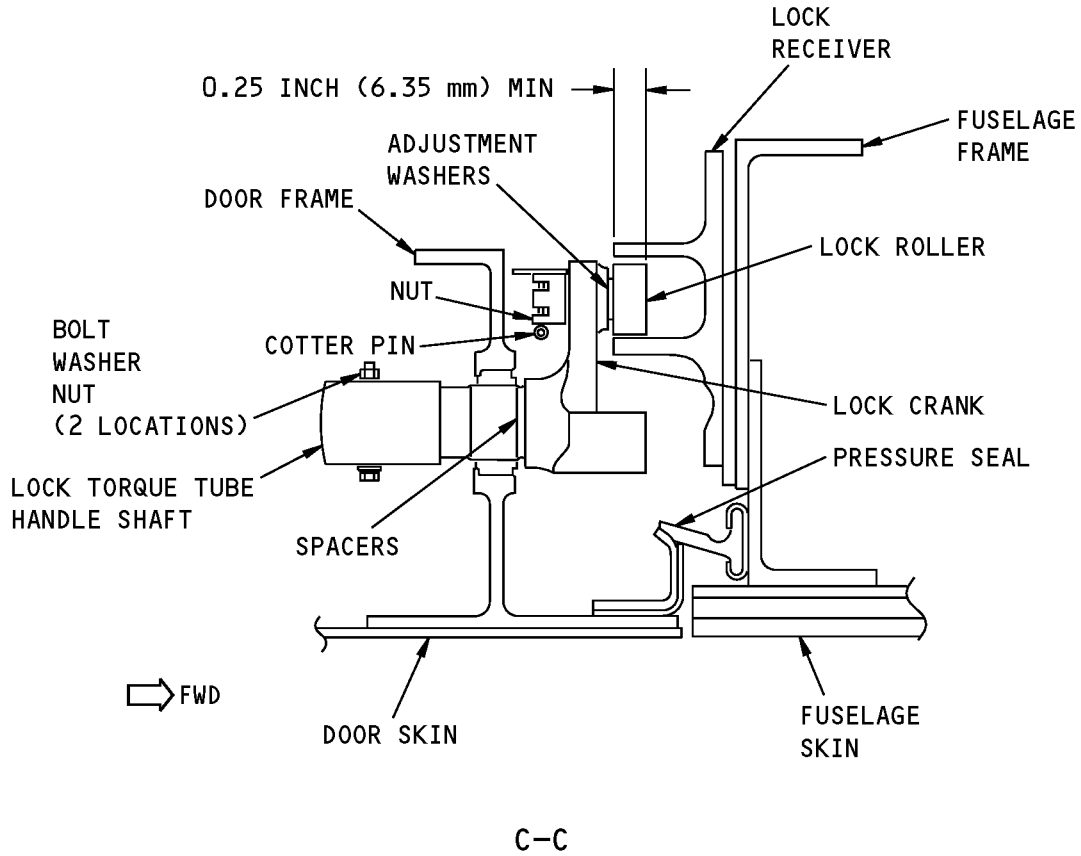


NOTE: DIMENSION STANDARDS: NOMINAL UPPER LIMIT LOWER LIMIT

**Emergency Exit Door Adjustment
Figure 501 (Sheet 3 of 8)/52-22-00-990-801**

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**Emergency Exit Door Adjustment
Figure 501 (Sheet 4 of 8)/52-22-00-990-801**

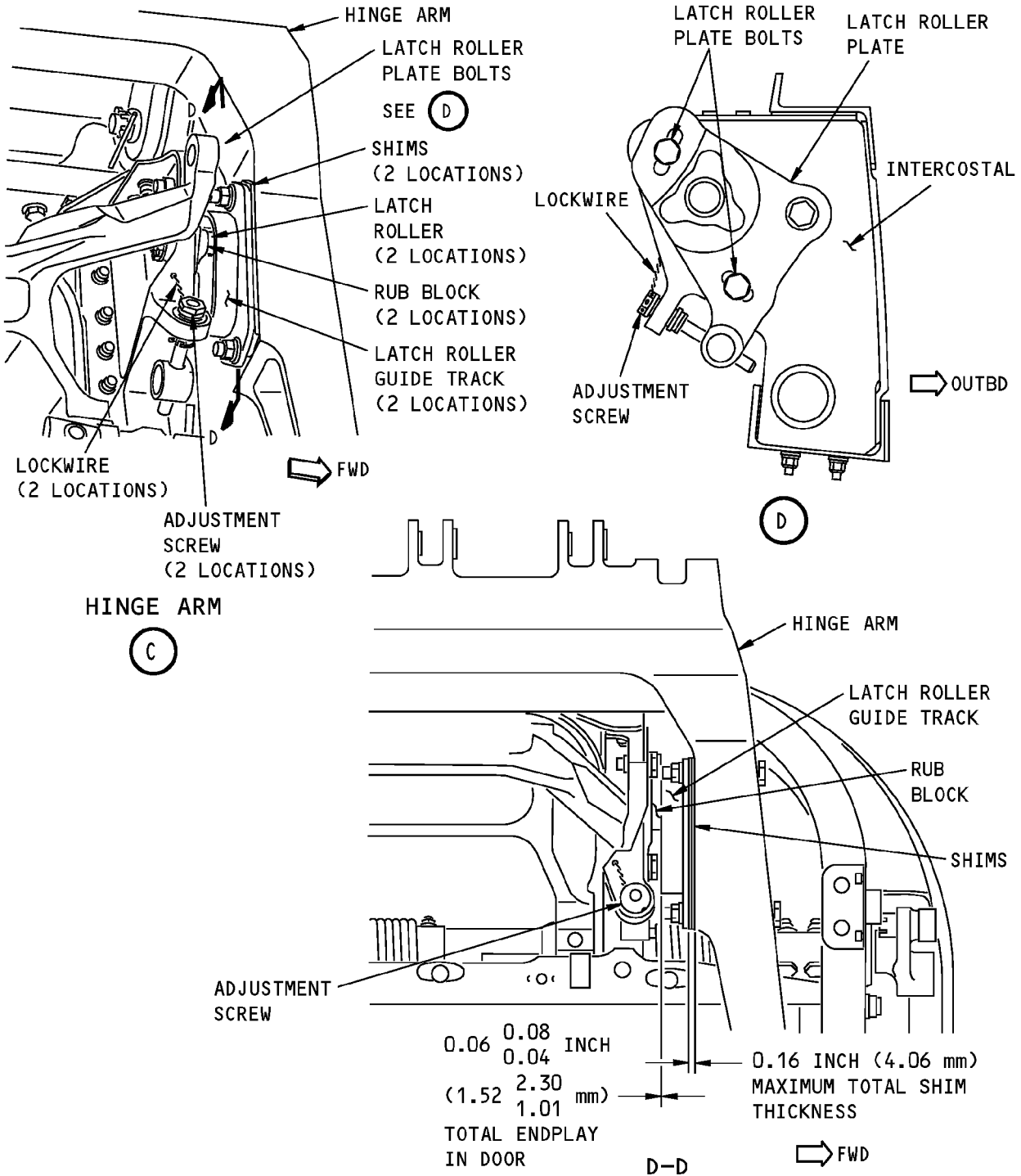
EFFECTIVITY
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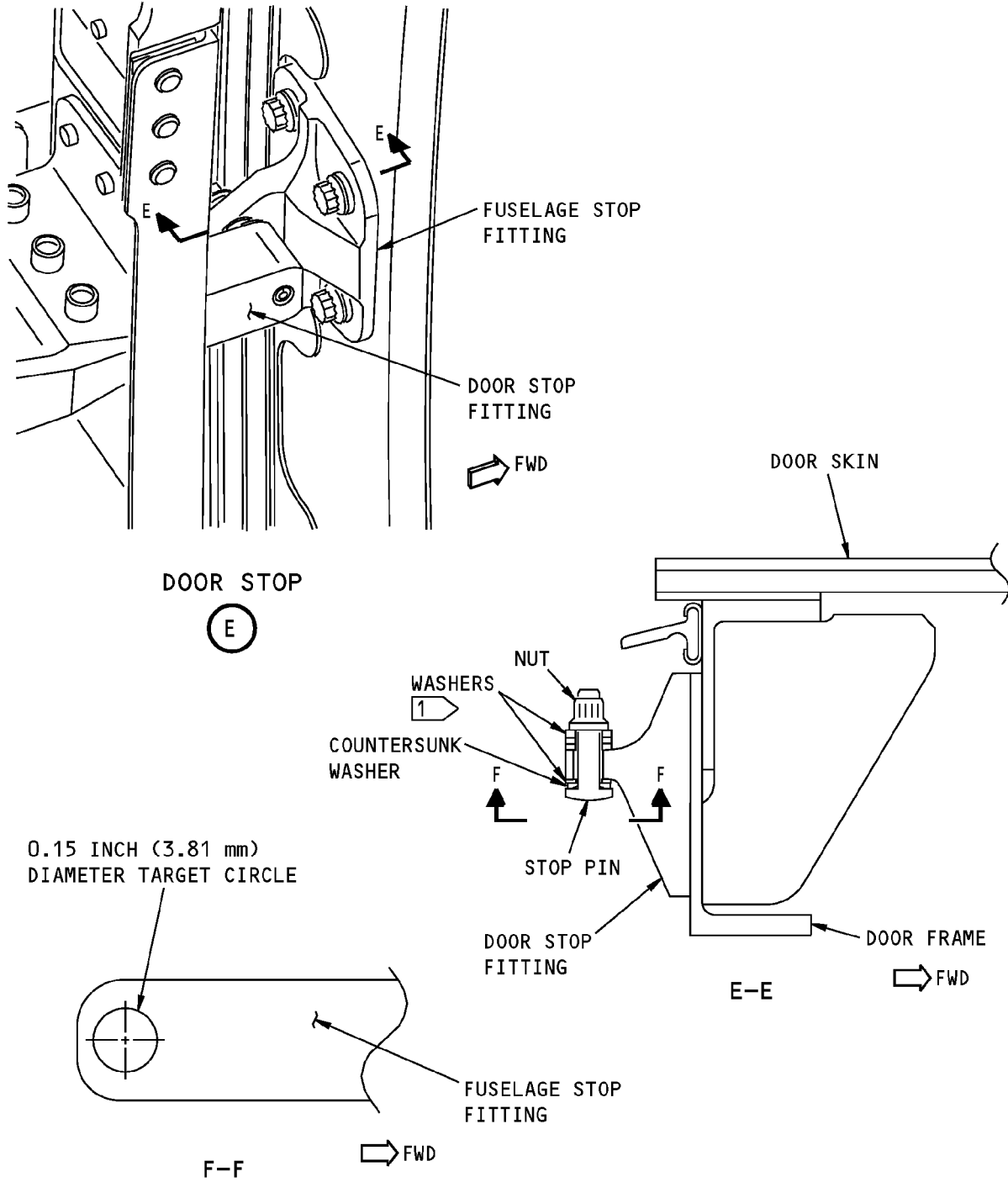


NOTE: DIMENSION STANDARD: NOMINAL
 UPPER LIMIT
 LOWER LIMIT

**Emergency Exit Door Adjustment
 Figure 501 (Sheet 5 of 8)/52-22-00-990-801**

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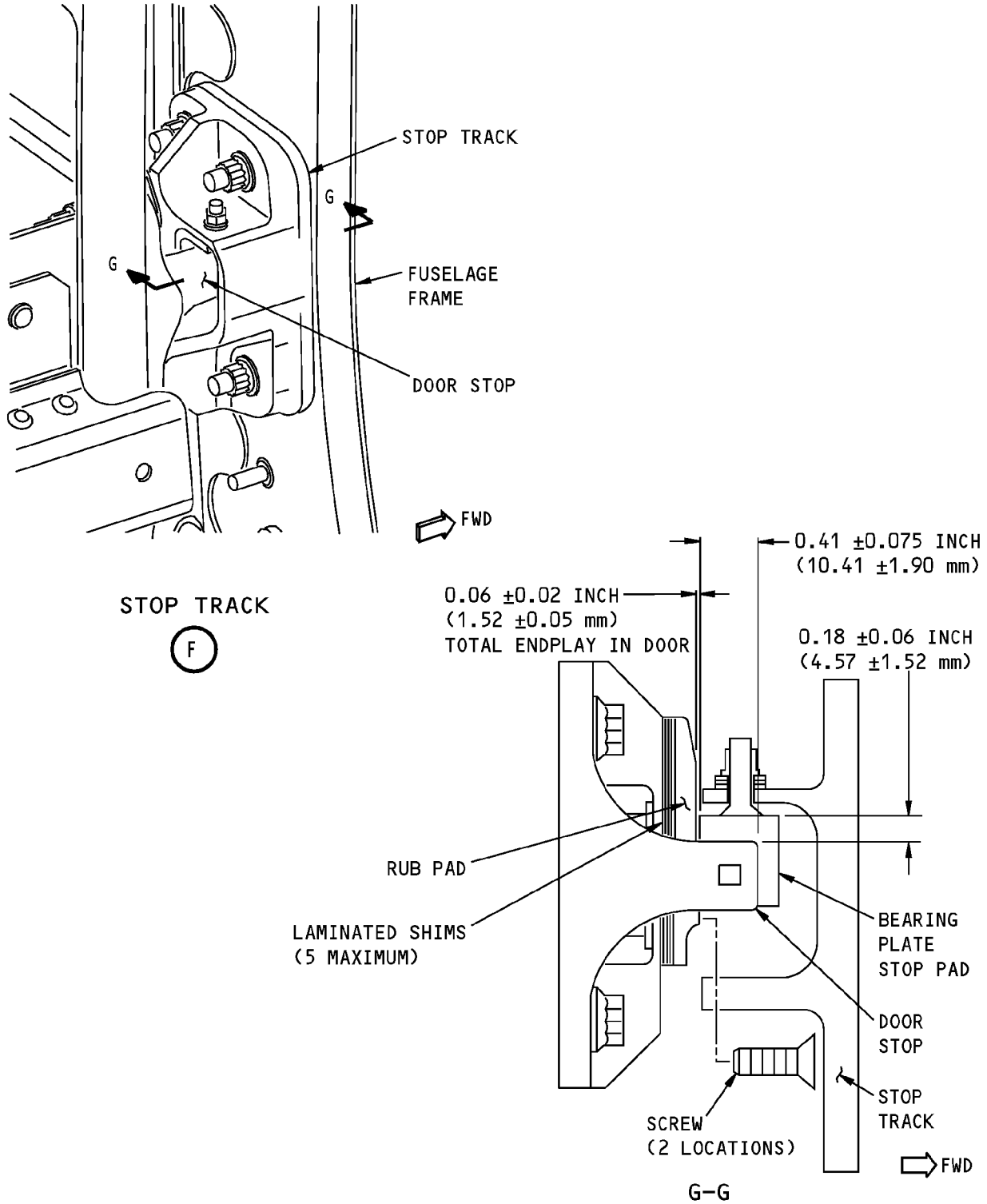
1 ADD WASHER AS NECESSARY TO GET THE CORRECT CLEARANCE BETWEEN THE STOP PIN AND FUSELAGE STOP FITTING

Emergency Exit Door Adjustment
Figure 501 (Sheet 6 of 8)/52-22-00-990-801

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**Emergency Exit Door Adjustment
Figure 501 (Sheet 7 of 8)/52-22-00-990-801**

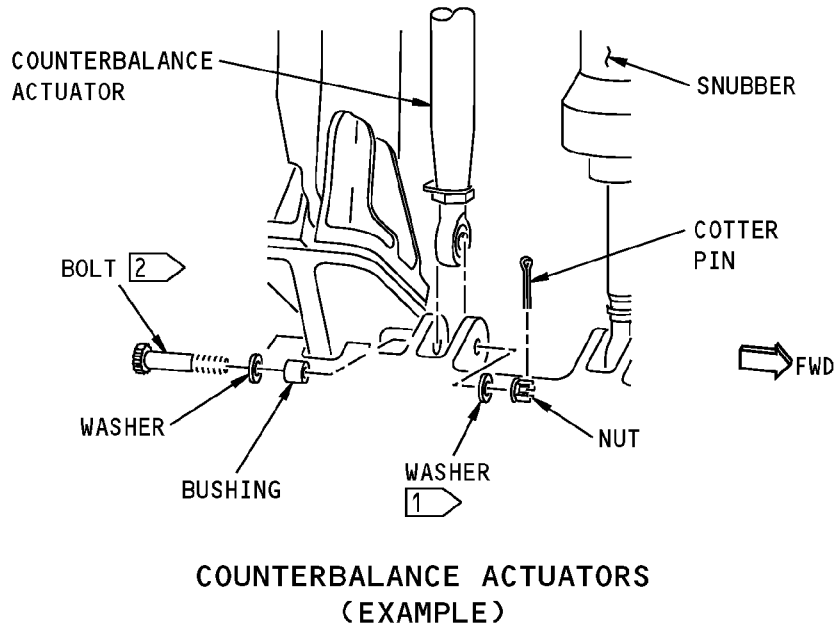
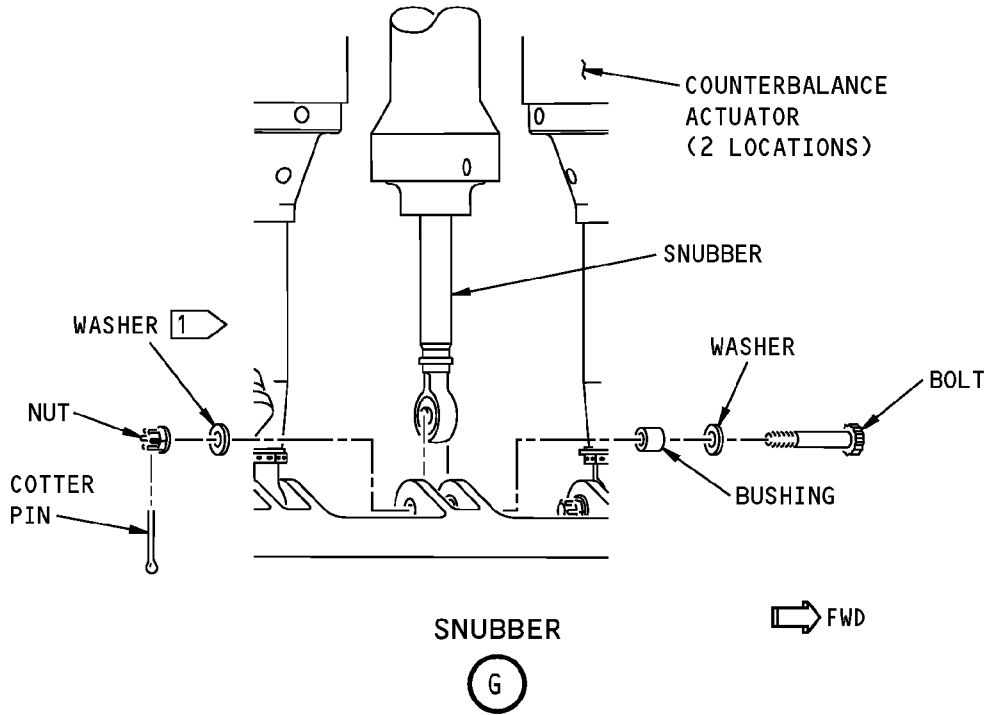
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- 1 MAXIMUM OF 4 WASHERS
- 2 BOLT HEAD AND BUSHING ARE ON SAME SIDE

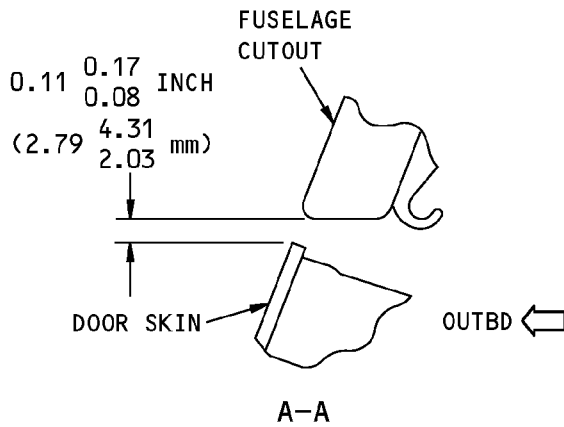
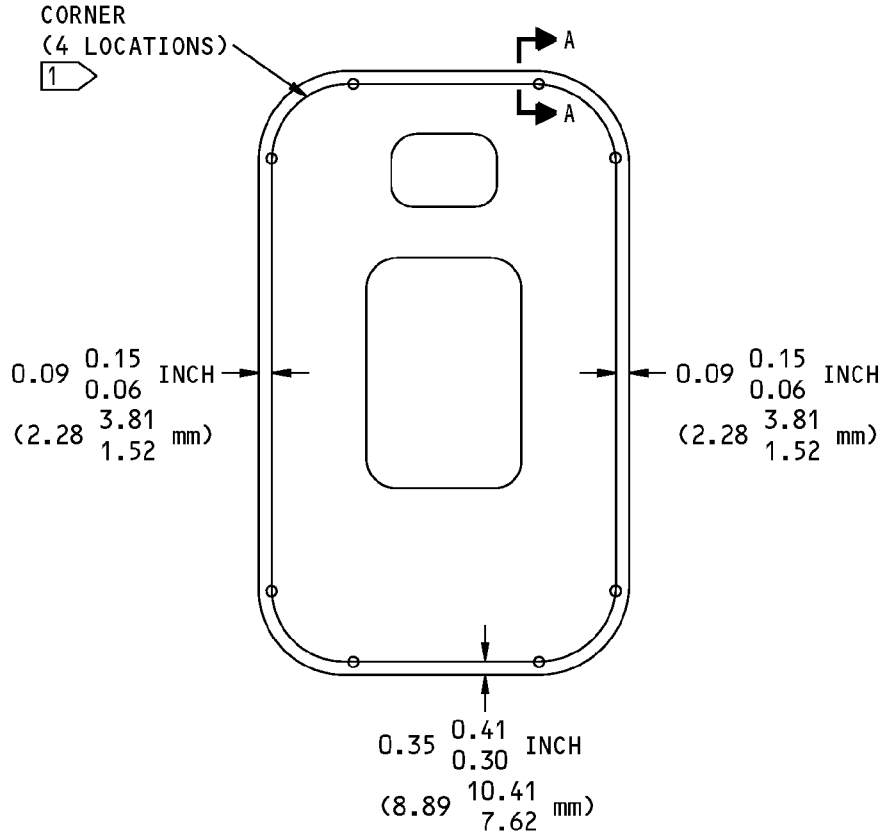
**Emergency Exit Door Adjustment
Figure 501 (Sheet 8 of 8)/52-22-00-990-801**

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NOTE: DIMENSION STANDARD: NOMINAL UPPER LIMIT
LOWER LIMIT

1 THE SKIN CLEARANCE GRADUALLY CHANGES AROUND THE CORNER FROM THE LOWER TO THE HIGHER SKIN CLEARANCE

**Emergency Exit Door Skin Clearances
Figure 502/52-22-00-990-802**

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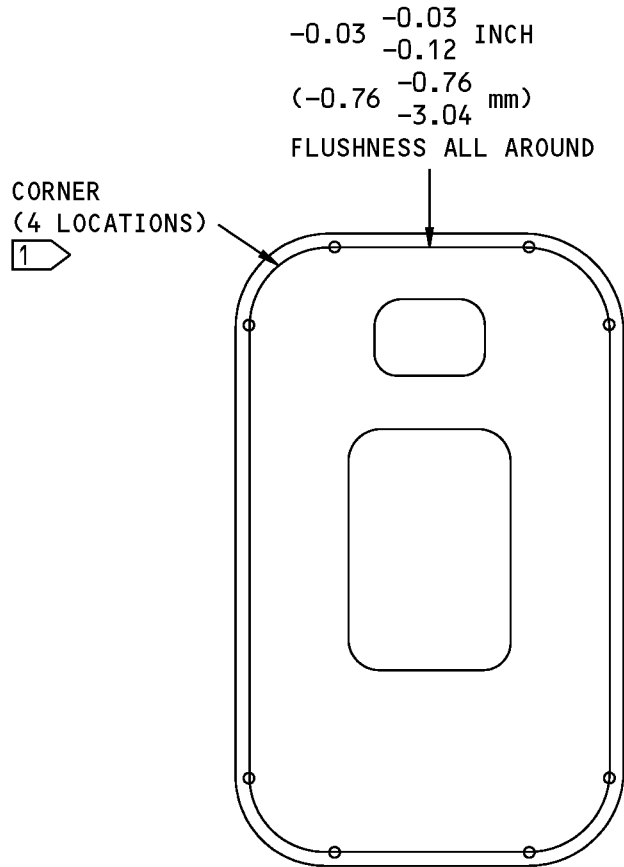
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NOTE: DIMENSION STANDARD: NOMINAL UPPER LIMIT
LOWER LIMIT

NOTE: A NEGATIVE FLUSHNESS SHOWS THE DOOR IS INBOARD OF THE FUSELAGE CUTOUT.

1 FLUSHNESS IS NOT APPLICABLE AT CORNERS.

Emergency Exit Door Flushness
Figure 503/52-22-00-990-803

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EMERGENCY EXIT DOOR - INSPECTION/CHECK

1. General

- A. This procedure contains scheduled maintenance task data.
- B. This procedure has these tasks:
 - (1) A check of the emergency exit door
 - (2) A check of the emergency exit door pressure seal
 - (3) A visual inspection of the emergency exit door latch components
 - (4) A visual inspection of the emergency exit door flight locks.
- C. This procedure is the same for each emergency exit door.

TASK 52-22-00-200-801

2. Emergency Exit Door Inspection/Check

A. References

Reference	Title
52-22-51-000-801	Emergency Exit Door Lining Removal (P/B 401)
52-22-51-400-801	Emergency Exit Door Lining Installation (P/B 401)

B. Location Zones

Zone	Area
HAP 001-013, 015-026, 028-054	
832	Left Forward Emergency Exit
833	Left Emergency Exit (STA 627.5)
842	Right Forward Emergency Exit
843	Right Emergency Exit (STA 627.5)

HAP ALL

C. Prepare for the Inspection

SUBTASK 52-22-00-010-003

- (1) Do this task: Emergency Exit Door Lining Removal, TASK 52-22-51-000-801.

SUBTASK 52-22-00-010-004

- (2) Open and close the door as necessary to get access to the door components.

D. Inspection

SUBTASK 52-22-00-210-001

- (1) Do a visual inspection of the door external structure and handle mechanism as follows:

- (a) Examine the external skin.
 - 1) Look for cracks and corrosion.
 - 2) Look for burrs.
 - 3) Look for loose and missing fasteners.
- (b) Examine the external handle.
 - 1) Look for cracks and corrosion.
 - 2) Look for too much wear.

SUBTASK 52-22-00-210-002

- (2) Do a visual inspection of the attach structure as follows:

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- (a) Examine the hinge arm.
 - 1) Look for cracks and corrosion.
 - 2) Look for too much wear.
- (b) Examine the door hinge lock pawl.
 - 1) Look for cracks and corrosion
 - 2) Make sure the bolts fully engage the nuts.
- (c) Examine the hinge arm fasteners.
 - 1) Make sure the bolts fully engage the nuts.
 - 2) Make sure the bolt threads are not damaged.

SUBTASK 52-22-00-210-003

- (3) Do a visual inspection of the door internal structure and door handle as follows:
 - (a) Examine the internal frames.
 - 1) Look for cracks and corrosion.
 - 2) Look for loose and missing fasteners.
 - (b) Examine the internal skin.
 - 1) Look for cracks and corrosion.
 - 2) Look for burrs.
 - 3) Look for loose and missing fasteners.
 - (c) Examine the window.
 - 1) Look for cracks.
 - (d) Examine the window frame.
 - 1) Look for cracks and corrosion.
 - (e) Examine the door handle.
 - 1) Look for cracks and corrosion.
 - 2) Look for too much wear.
 - (f) Examine the handle housing.
 - 1) Look for cracks and corrosion
 - (g) Examine the lock shaft torque tube.
 - 1) Make sure the bolts fully engage the nuts.
 - 2) Make sure the shaft torque tube is not binding.
 - 3) Look for cracks and corrosion.
 - (h) Examine the latch cranks and latch rollers.
 - 1) Look for cracks and corrosion.
 - 2) Look for too much wear.
 - 3) Look for unwanted particles on the latch rollers.
 - (i) Examine the lock cranks and lock rollers.
 - 1) Look for cracks and corrosion.
 - 2) Look for too much wear.
 - 3) Look for unwanted particles on the lock rollers.

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SUBTASK 52-22-00-210-004

- (4) Do a visual inspection of the counterbalance and snubber as follows:
 - (a) Examine the counterbalance.
 - 1) Make sure the counterbalance actuators are correctly attached.
 - 2) Look for cracks or corrosion.
 - (b) Examine the snubber
 - 1) Make sure the snubber is correctly attached.
 - 2) Make sure the snubber is not leaking fluid.
 - 3) Look for cracks or corrosion.

SUBTASK 52-22-00-210-005

- (5) Do a visual inspection of the fuselage frame as follows:
 - (a) Examine the fuselage stop fittings and stop pads.
 - 1) Look for cracks and corrosion.
 - 2) Look for wear that is not in the center of the stop pads.
 - 3) Look for unwanted particles on the stop fittings.
 - (b) Examine the latch receivers.
 - 1) Look for cracks, corrosion, and too much wear.
 - 2) Look for unwanted particles in the latch receivers.
 - (c) Examine the stop track.
 - 1) Look for cracks and corrosion.
 - 2) Look for unwanted particles on the stop track.
 - (d) Examine the structure around the door opening.
 - 1) Look for cracks and corrosion.
 - 2) Look for loose and missing fasteners.

E. Put the Airplane Back to Its Usual Condition

SUBTASK 52-22-00-210-006

- (1) Do this task: Emergency Exit Door Lining Installation, TASK 52-22-51-400-801.

————— END OF TASK —————

TASK 52-22-00-200-802

3. Emergency Exit Door Pressure Seal Check

A. General

- (1) This procedure is a scheduled maintenance task.

B. Location Zones

Zone	Area
HAP 001-013, 015-026, 028-054	
832	Left Forward Emergency Exit
833	Left Emergency Exit (STA 627.5)
842	Right Forward Emergency Exit
843	Right Emergency Exit (STA 627.5)

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(Continued)

Zone Area

HAP ALL

C. Prepare for the Inspection

SUBTASK 52-22-00-010-005

- (1) Open the door.

D. Inspection

SUBTASK 52-22-00-210-007

- (1) Do a visual inspection of the door pressure seal as follows:

- (a) Examine the seal.

- 1) Look for cracks, holes, and tears.
- 2) Look for indications of seal deterioration.
- 3) Make sure the seal is installed in the seal retainer.

E. Put the Airplane Back to Its Usual Condition

SUBTASK 52-22-00-410-004

- (1) Close the door.

————— END OF TASK —————

TASK 52-22-00-210-801

4. Emergency Exit Door Latch Components Visual Inspection

A. General

- (1) This procedure is a scheduled maintenance task.

B. References

Reference	Title
52-22-51-000-801	Emergency Exit Door Lining Removal (P/B 401)
52-22-51-400-801	Emergency Exit Door Lining Installation (P/B 401)

C. Location Zones

Zone	Area
HAP 001-013, 015-026, 028-054	
832	Left Forward Emergency Exit
833	Left Emergency Exit (STA 627.5)
842	Right Forward Emergency Exit
843	Right Emergency Exit (STA 627.5)

HAP ALL

D. Procedure

SUBTASK 52-22-00-010-006

- (1) Do this task: Emergency Exit Door Lining Removal, TASK 52-22-51-000-801.

SUBTASK 52-22-00-010-007

- (2) Open and close the door as necessary to get access to the door components.

SUBTASK 52-22-00-210-008

- (3) Do a visual inspection of the latch rollers, links and pivot fittings for the emergency exit door:

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- (a) Look for cracks and corrosion.
- (b) Look for too much wear.
- (c) Look for unwanted particles.

SUBTASK 52-22-00-410-006

- (4) Do this task: Emergency Exit Door Lining Installation, TASK 52-22-51-400-801.

————— END OF TASK —————

TASK 52-22-00-210-802

5. Emergency Exit Door Flight Locks Visual Inspection

A. General

- (1) This procedure is a scheduled maintenance task.

B. References

Reference	Title
52-22-51-000-801	Emergency Exit Door Lining Removal (P/B 401)
52-22-51-400-801	Emergency Exit Door Lining Installation (P/B 401)

C. Location Zones

Zone	Area
HAP 001-013, 015-026, 028-054	
832	Left Forward Emergency Exit
833	Left Emergency Exit (STA 627.5)
842	Right Forward Emergency Exit
843	Right Emergency Exit (STA 627.5)

HAP ALL

D. Procedure

SUBTASK 52-22-00-010-008

- (1) Do this task: Emergency Exit Door Lining Removal, TASK 52-22-51-000-801.

SUBTASK 52-22-00-210-009

- (2) Do a visual inspection of the flight locks on the emergency exit door:
 - (a) Look for cracks and corrosion.
 - (b) Look for too much wear.
 - (c) Look for unwanted particles.

SUBTASK 52-22-00-410-007

- (3) Do this task: Emergency Exit Door Lining Installation, TASK 52-22-51-400-801.

————— END OF TASK —————

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EMERGENCY EXIT DOOR COUNTERBALANCE ACTUATOR - REMOVAL/INSTALLATION

1. General

- A. This procedure has these tasks:
 - (1) A removal of the emergency exit door counterbalance actuator.
 - (2) An installation of the emergency exit door counterbalance actuator.
- B. This procedure is the same for each emergency exit door counterbalance actuator.
- C. The emergency exit door counterbalance actuator is referred to as the counterbalance actuator in this procedure.

TASK 52-22-21-000-801

2. Emergency Exit Door Counterbalance Actuator Removal

(Figure 401)

A. References

Reference	Title
25-21-20-000-801	Emergency Exit Doorway Lining Removal (P/B 401)
25-24-31-020-801	Overhead Stowage Bin Removal (P/B 401)
52-22-00-000-801	Emergency Exit Door Removal (P/B 401)
52-22-51-000-801	Emergency Exit Door Lining Removal (P/B 401)

B. Location Zones

Zone	Area
HAP 001-013, 015-026, 028-054	
832	Left Forward Emergency Exit
833	Left Emergency Exit (STA 627.5)
842	Right Forward Emergency Exit
843	Right Emergency Exit (STA 627.5)

HAP ALL

C. Prepare for the Removal

SUBTASK 52-22-21-010-001

- (1) Do this task: Emergency Exit Doorway Lining Removal, TASK 25-21-20-000-801.

SUBTASK 52-22-21-020-003

- (2) Do this task: Overhead Stowage Bin Removal, TASK 25-24-31-020-801.

SUBTASK 52-22-21-020-004

- (3) Do this task: Emergency Exit Door Lining Removal, TASK 52-22-51-000-801.

D. Removal of the Emergency Exit Door Counterbalance Actuator

SUBTASK 52-22-21-000-001

WARNING: MAKE SURE THE DOOR PATH IS CLEAR BEFORE YOU RELEASE THE DOOR HANDLE. THE DOOR IS SPRING-LOADED TO OPEN AUTOMATICALLY. THIS CAN CAUSE INJURIES TO PERSONS AND DAMAGE TO EQUIPMENT.

- (1) Pull down on the door handle and open the door.

SUBTASK 52-22-21-000-002

- (2) Do this task: Emergency Exit Door Removal, TASK 52-22-00-000-801.

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HAP 012, 013, 015-026, 028-054, 101-999; HAP 001-011 POST SB 737-52-1136

SUBTASK 52-22-21-020-001

- (3) Remove the mechanism guard [1] from the fuselage structure.
 - (a) Remove bolts [2] and washers [3] that hold the mechanism guard [1] in place.

HAP ALL

SUBTASK 52-22-21-020-006

- (4) Disconnect the counterbalance actuator [15] from the fuselage structure:
 - (a) Remove the cotter pin [16].
 - (b) Remove the bolt [6], washer [7], bushing [5], washers [4], and nut [17] that attach the counterbalance actuator [15] to the fuselage structure.

————— **END OF TASK** —————

TASK 52-22-21-400-801

3. Emergency Exit Door Counterbalance Actuator Installation

(Figure 401)

A. References

Reference	Title
25-21-20-400-801	Emergency Exit Doorway Lining Installation (P/B 401)
25-24-31-400-801	Overhead Stowage Bin Installation (P/B 401)
52-22-00-400-802	Emergency Exit Door Installation (P/B 401)
52-22-00-820-801	Emergency Exit Door Adjustment (P/B 501)
52-22-51-400-801	Emergency Exit Door Lining Installation (P/B 401)

B. Location Zones

Zone	Area
HAP 001-013, 015-026, 028-054	
832	Left Forward Emergency Exit
833	Left Emergency Exit (STA 627.5)
842	Right Forward Emergency Exit
843	Right Emergency Exit (STA 627.5)

HAP ALL

C. Installation of the Emergency Exit Door Counterbalance Actuator

SUBTASK 52-22-21-420-001

- (1) Connect the counterbalance actuator [15] to the fuselage structure:
 - (a) Put the counterbalance actuator [15] in its correct position.
 - (b) Install the bolt [6], washer [7], bushing [5], washers [4], and nut [17] to attach the counterbalance actuator [15] to the fuselage structure.
 - (c) Tighten the nut [17] to 60-95 pound-inches (6.77-10.73 newton meters).
 - (d) Install a new cotter pin [16].

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HAP 012, 013, 015-026, 028-054, 101-999; HAP 001-011 POST SB 737-52-1136

SUBTASK 52-22-21-400-002

(2) Do this task: Emergency Exit Door Installation, TASK 52-22-00-400-802.

HAP ALL

SUBTASK 52-22-21-420-004

(3) Install the mechanism guard to the fuselage structure.

(a) Install bolts [2] and washers [3] that hold the mechanism guard [1] in place.

SUBTASK 52-22-21-400-003

(4) Adjust the counterbalance. To do this, do this task: Emergency Exit Door Adjustment, TASK 52-22-00-820-801.

NOTE: Only do the Counterbalance Adjustment procedure.

SUBTASK 52-22-21-710-001

(5) Do a test on the counterbalance actuator [13]:

(a) Open and close the door.

(b) Make sure the door opens automatically.

(c) Make sure the door closes smoothly.

D. Put the Airplane Back to Its Usual Condition

SUBTASK 52-22-21-080-001

(1) Do this task: Emergency Exit Door Lining Installation, TASK 52-22-51-400-801.

SUBTASK 52-22-21-420-002

(2) Do this task: Emergency Exit Doorway Lining Installation, TASK 25-21-20-400-801.

SUBTASK 52-22-21-420-003

(3) Do this task: Overhead Stowage Bin Installation, TASK 25-24-31-400-801.

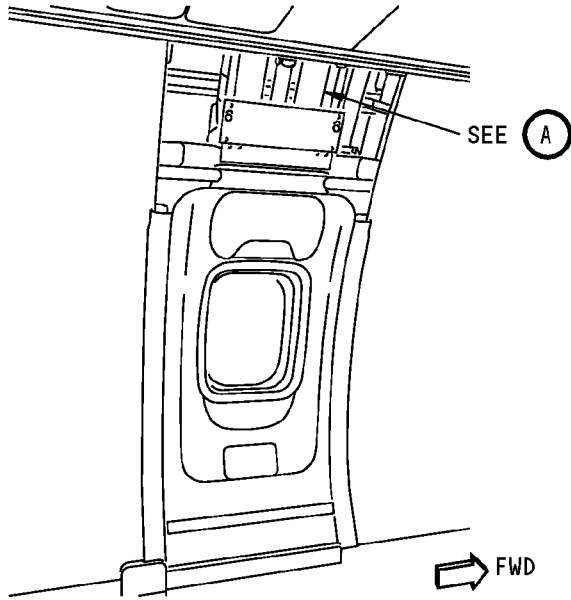
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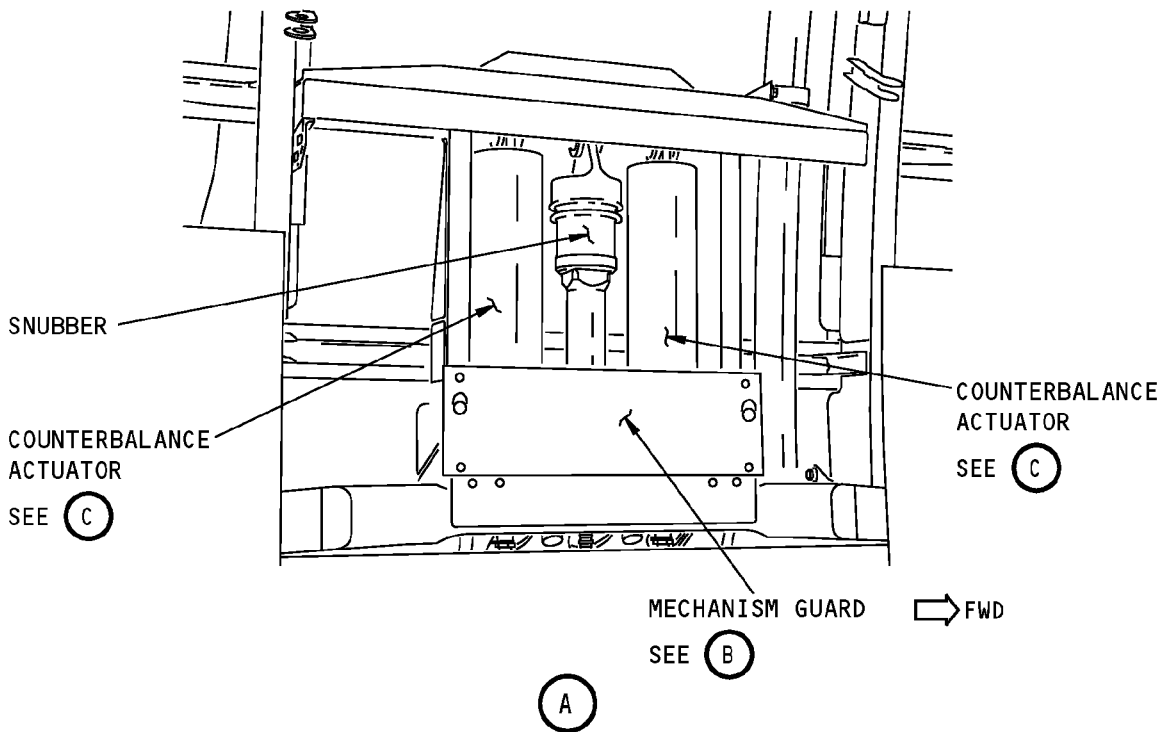
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**EMERGENCY EXIT DOOR
(EXAMPLE)**



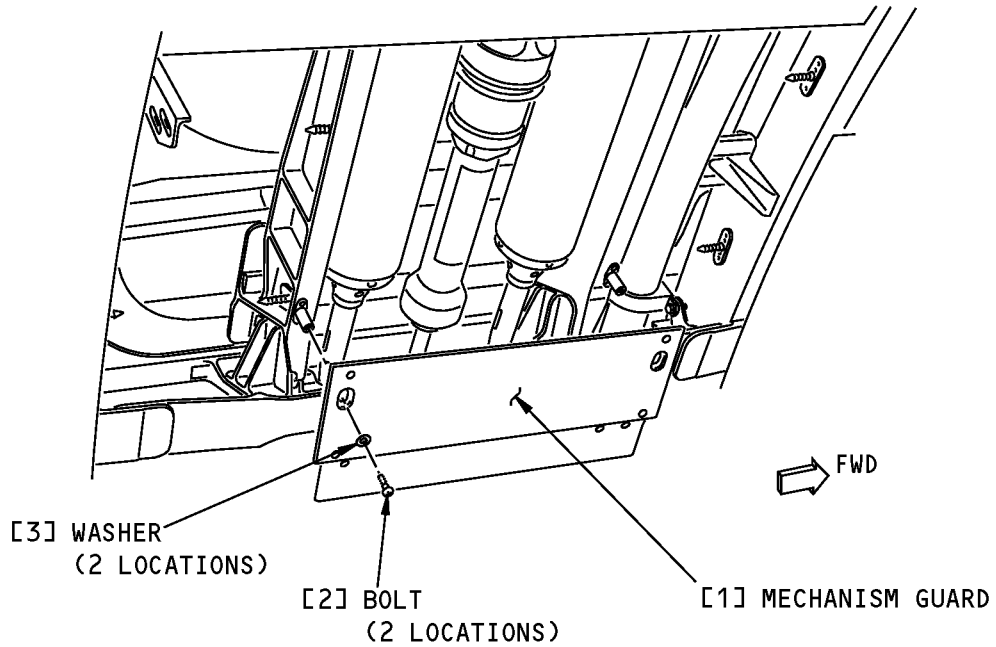
**Emergency Exit Door Counterbalance Actuator Installation
Figure 401 (Sheet 1 of 3)/52-22-21-990-801**

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(EXAMPLE)**

B

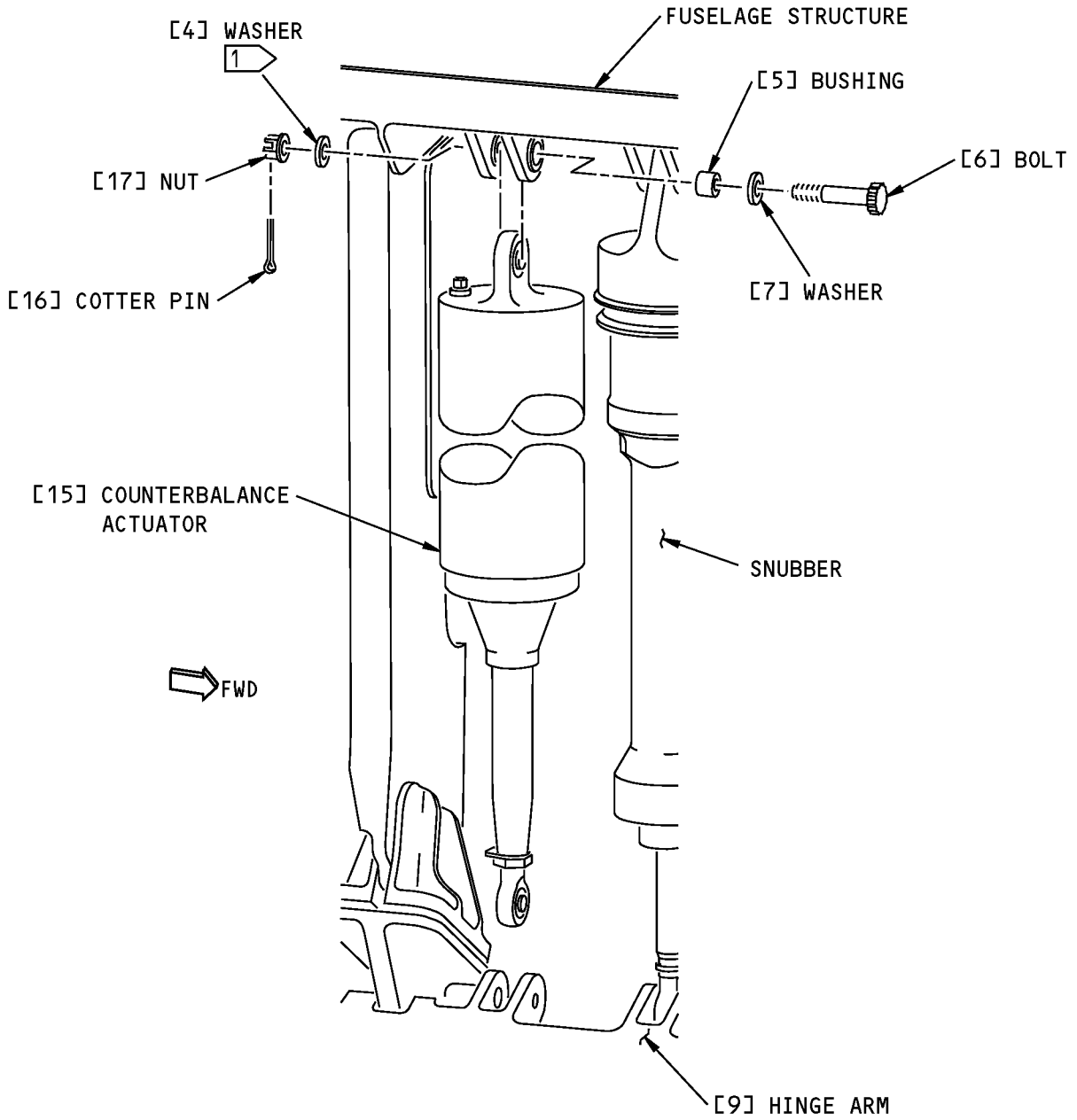
**Emergency Exit Door Counterbalance Actuator Installation
Figure 401 (Sheet 2 of 3)/52-22-21-990-801**

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**COUNTERBALANCE ACTUATOR
(EXPLODED VIEW)
(EXAMPLE)**

C

1 MAXIMUM OF 4 WASHERS

**Emergency Exit Door Counterbalance Actuator Installation
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AIRCRAFT MAINTENANCE MANUAL

EMERGENCY EXIT DOOR SNUBBER - REMOVAL/INSTALLATION

1. General

- A. This procedure has these tasks:
 - (1) A removal of the emergency exit door snubber.
 - (2) An installation of the emergency exit door snubber.
- B. The emergency exit door snubber is referred to as the snubber in this procedure.
- C. This procedure is the same for each emergency exit door.

TASK 52-22-31-000-801

2. Emergency Exit Door Snubber Removal

(Figure 401)

A. References

Reference	Title
25-21-20-000-801	Emergency Exit Doorway Lining Removal (P/B 401)
25-24-31-020-801	Overhead Stowage Bin Removal (P/B 401)

B. Location Zones

Zone	Area
HAP 001-013, 015-026, 028-054	
832	Left Forward Emergency Exit
833	Left Emergency Exit (STA 627.5)
842	Right Forward Emergency Exit
843	Right Emergency Exit (STA 627.5)

HAP ALL

C. Prepare for the Removal

SUBTASK 52-22-31-010-001

- (1) Get access to the snubber [6] as follows:
 - (a) Do this task: Overhead Stowage Bin Removal, TASK 25-24-31-020-801.
 - (b) Do this task: Emergency Exit Doorway Lining Removal, TASK 25-21-20-000-801.

D. Removal of the Emergency Exit Door Snubber

SUBTASK 52-22-31-020-001

WARNING: KEEP PERSONS AND EQUIPMENT CLEAR OF THE UPPER SILL CUTOUT ABOVE THE DOOR. THE DOOR COMPONENTS MOVE QUICKLY WHEN THE DOOR HANDLE IS PULLED. IF YOU DO NOT OBEY THIS WARNING, INJURIES TO PERSONS AND DAMAGE TO EQUIPMENT CAN OCCUR.

WARNING: MAKE SURE THE DOOR OPENING PATH IS CLEAR BEFORE YOU RELEASE THE DOOR HANDLE. THE DOOR IS SPRING-LOADED TO OPEN AUTOMATICALLY AND INJURIES COULD OCCUR.

CAUTION: IF THE SNUBBER IS FAULTY, HOLD THE DOOR WITH SUFFICIENT WEIGHT. WHEN YOU OPEN THE DOOR, IF THE SNUBBER DOES NOT OPERATE CORRECTLY, DAMAGE TO THE DOOR HINGE CAN OCCUR.

- (1) Pull down on the door handle to open the door.

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HAP ALL	

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SUBTASK 52-22-31-020-002

(2) Open the door.

HAP 012, 013, 015-026, 028-054, 101-999; HAP 001-011 POST SB 737-52-1136

SUBTASK 52-22-31-020-006

- (3) Remove the mechanism guard from the fuselage structure:
- (a) Remove bolts [2] and washers [3] from the mechanism guard [1].
 - (b) Remove the mechanism guard [1].

HAP ALL

SUBTASK 52-22-31-020-003

- (4) Disconnect the snubber [8] from the door hinge arm [12]:
- (a) Remove the cotter pin [13].
 - (b) Remove the bolt [10], washer [9], bushing [11], washer [15], and nut [14] that attach the snubber [8] to the hinge arm [12].

SUBTASK 52-22-31-020-004

- (5) Disconnect the snubber [8] from the fuselage structure:
- (a) Remove the cotter pin [4].
 - (b) Remove the bolt [5], washer [6], bushing [7], washer [16], and nut [17] that attach the snubber [8] to the fuselage structure.

SUBTASK 52-22-31-020-005

- (6) Remove the snubber [8] from the fuselage structure.

————— **END OF TASK** —————

TASK 52-22-31-400-801

3. Emergency Exit Door Snubber Installation

(Figure 401)

A. References

Reference	Title
25-21-20-400-801	Emergency Exit Doorway Lining Installation (P/B 401)
25-24-31-400-801	Overhead Stowage Bin Installation (P/B 401)
52-22-51-400-801	Emergency Exit Door Lining Installation (P/B 401)

B. Location Zones

Zone	Area
HAP 001-013, 015-026, 028-054	
832	Left Forward Emergency Exit
833	Left Emergency Exit (STA 627.5)
842	Right Forward Emergency Exit
843	Right Emergency Exit (STA 627.5)

HAP ALL

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C. Installation of the Emergency Exit Door Snubber

SUBTASK 52-22-31-400-001

(1) Connect the snubber [8] to the fuselage structure:

- (a) Hold the snubber [8] in its correct position.
- (b) Install the bolt [5], washer [6], bushing [7], washer [16], and nut [17] that attach the snubber [8] to the fuselage structure.

NOTE: Use a maximum of 4 washers for cotter-pin, nut alignment.

- (c) Tighten the nut [17] to 60-95 pound-inches (6.8-10.7 newton-meters).
- (d) Install the new cotter pin [4].

SUBTASK 52-22-31-420-001

(2) Connect the snubber [8] to the door hinge arm [12] as follows:

- (a) Install the bolt [10], washer [9], bushing [11], washer [15], and nut [14] that attach the snubber [8] to the door structure.

NOTE: Use a maximum of 4 washers for cotter-pin, nut alignment.

- (b) Tighten the nut [14] to 30-50 pound-inches (3.4-5.6 newton-meters).
- (c) Install the new cotter pin [13].

HAP 012, 013, 015-026, 028-054, 101-999; HAP 001-011 POST SB 737-52-1136

SUBTASK 52-22-31-420-002

(3) Install the mechanism guard [1] to the fuselage structure:

- (a) Put the mechanism guard [1] in its position.
- (b) Install bolts [2] and washers [3] to hold the mechanism guard [1] in place.

HAP ALL

D. Installation Test

SUBTASK 52-22-31-710-001

(1) Do a test on the snubber [8]:

- (a) Open and close the door.
- (b) Make sure the door opens and closes smoothly.

E. Put the Airplane Back to Its Usual Condition

SUBTASK 52-22-31-080-001

(1) Close access to the snubber [8]:

- (a) Do this task: Emergency Exit Door Lining Installation, TASK 52-22-51-400-801.
- (b) Do this task: Emergency Exit Doorway Lining Installation, TASK 25-21-20-400-801.
- (c) Do this task: Overhead Stowage Bin Installation, TASK 25-24-31-400-801.

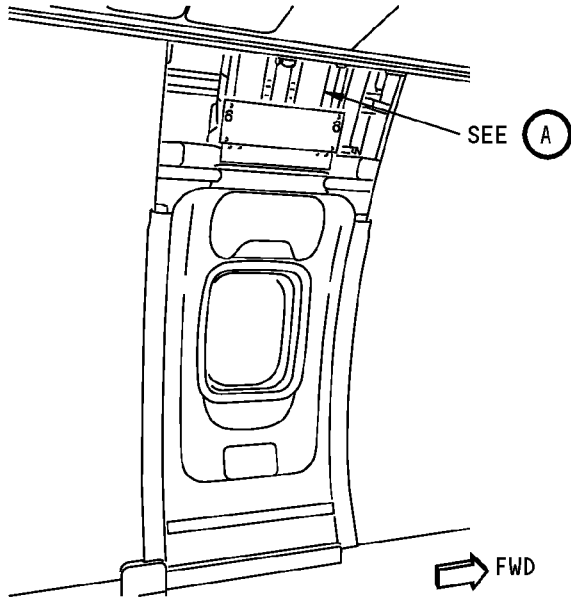
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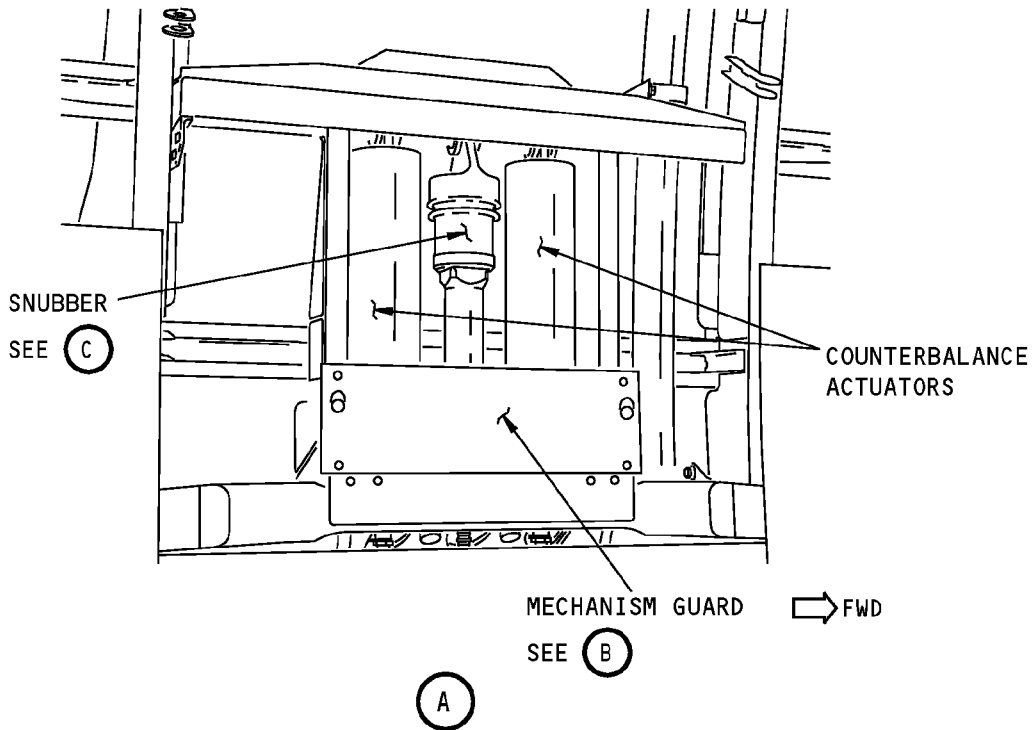
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**EMERGENCY EXIT DOOR
(EXAMPLE)**

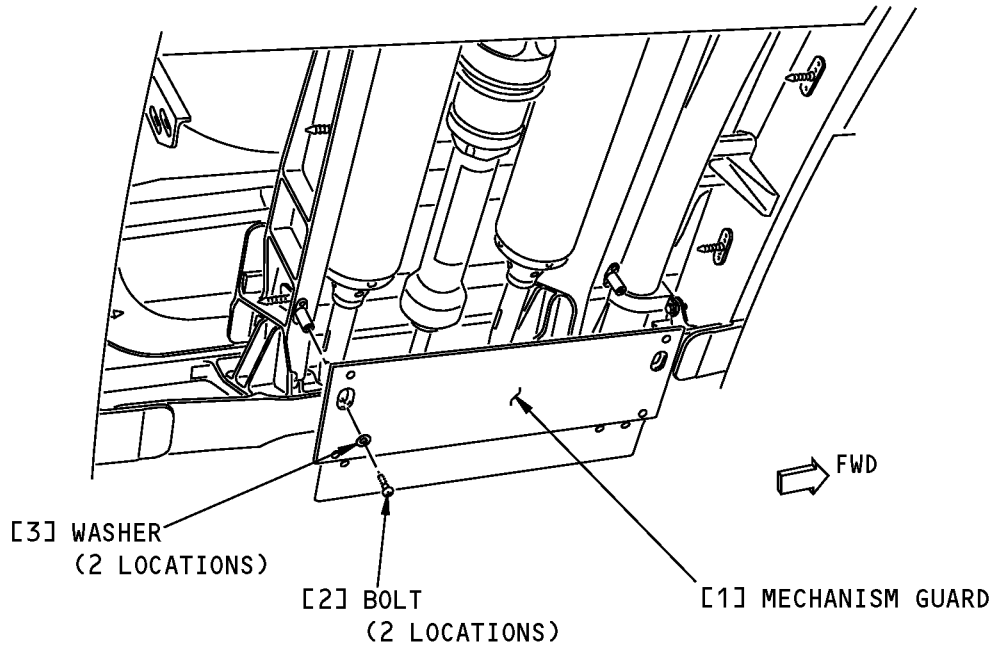


**Emergency Exit Door Snubber Installation
Figure 401 (Sheet 1 of 3)/52-22-31-990-801**

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**MECHANISM GUARD
(EXAMPLE)**

B

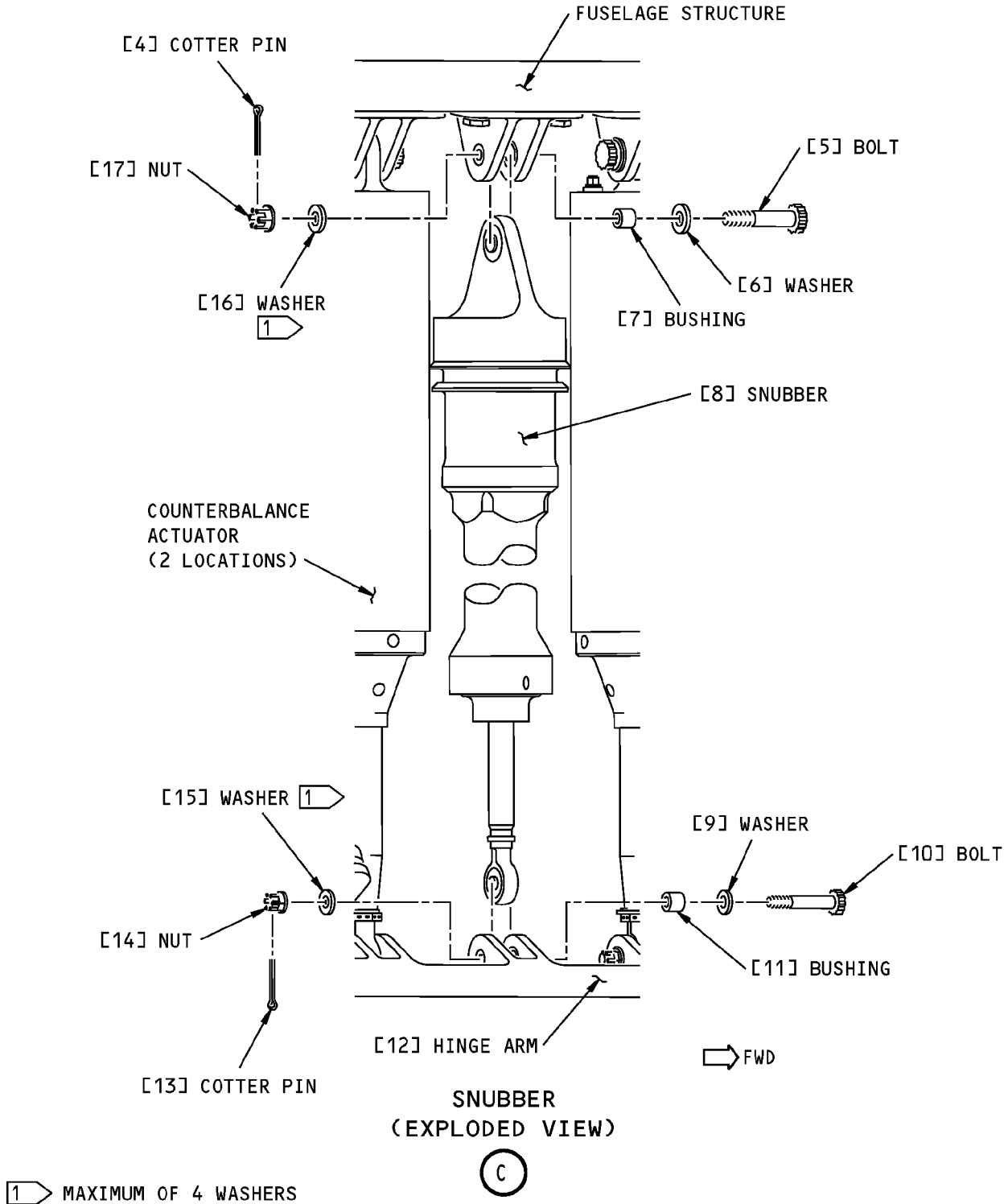
**Emergency Exit Door Snubber Installation
Figure 401 (Sheet 2 of 3)/52-22-31-990-801**

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**Emergency Exit Door Snubber Installation
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EMERGENCY EXIT DOOR FLIGHT LOCK SOLENOID ASSEMBLY - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

- (1) A removal of the emergency exit door flight lock solenoid.
- (2) An installation of the emergency exit door flight lock solenoid.
- (3) A removal of the emergency exit door flight lock switch.
- (4) An installation of the emergency exit door flight lock switch.

B. The emergency exit door flight lock solenoid, indication switch and the switch plate are referred to as the flight lock solenoid assembly in this procedure.

C. This procedure is the same for each emergency exit door.

TASK 52-22-41-000-802

2. Emergency Exit Door Flight Lock Solenoid Removal

(Figure 401)

A. References

Reference	Title
52-22-00-000-801	Emergency Exit Door Removal (P/B 401)

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-2002	Adapter - Torque Wrench, Automatic Overwing Exit Hatch (Part #: C52007-1, Supplier: 81205, A/P Effectivity: 737-600, -700, -700C, -700ER, -700QC, -800, -900, -900ER, -BBJ)

C. Location Zones

Zone	Area
HAP 001-013, 015-026, 028-054	
832	Left Forward Emergency Exit
833	Left Emergency Exit (STA 627.5)
842	Right Forward Emergency Exit
843	Right Emergency Exit (STA 627.5)

HAP ALL

D. Prepare for the Removal

SUBTASK 52-22-41-020-006

- (1) If it is necessary, remove the emergency exit door to get access to the flight lock solenoid. To do this, do this task: Emergency Exit Door Removal, TASK 52-22-00-000-801.

NOTE: It can be easier to remove the door from the airplane, than work with the door in place.

SUBTASK 52-22-41-020-007

- (2) Make sure the lock pawls [2] engage both legs of the hinge arm.

SUBTASK 52-22-41-020-008

- (3) Push the door hinge arm [1] towards the bottom of the door.

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SUBTASK 52-22-41-010-002

- (4) Remove the latch roller [6]:
 - (a) Pull the hinge arm latch receivers away from the latch rollers.
 - (b) Remove the cotter pin [8], nut [9], washers [7] and latch roller [6] from the door.

E. Removal of the Emergency Exit Door Flight Lock Solenoid

SUBTASK 52-22-41-020-010

- (1) Remove the flight lock solenoid [5]:
 - (a) Remove the bolts [3] and washers [4] from the torque link.
 - (b) Move the torque link to the side.
 - (c) Remove the cotter pin [11] and washer [12] from the flight lock solenoid [5].
 - (d) Remove the spring [13] and pin [14] from the flight lock solenoid [5].
 - (e) Move the flight lock solenoid [5] out of the door to get access to the solenoid nut [15].
 - (f) Disconnect the wires from the indication switch [10] to the flight lock solenoid [5].
 - (g) Use torque wrench adapter, SPL-2002 to remove the nut [15].
 - (h) Remove the solenoid washer [16] and nut [15].
 - (i) Remove the flight lock solenoid [5].

————— **END OF TASK** —————

TASK 52-22-41-400-802

3. Emergency Exit Door Flight Lock Solenoid Installation

(Figure 401)

A. References

Reference	Title
52-22-00-400-801	Emergency Exit Door System Test (P/B 501)
52-22-00-400-802	Emergency Exit Door Installation (P/B 401)

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-2002	Adapter - Torque Wrench, Automatic Overwing Exit Hatch (Part #: C52007-1, Supplier: 81205, A/P Effectivity: 737-600, -700, -700C, -700ER, -700QC, -800, -900, -900ER, -BBJ)

C. Location Zones

Zone	Area
HAP 001-013, 015-026, 028-054	
832	Left Forward Emergency Exit
833	Left Emergency Exit (STA 627.5)
842	Right Forward Emergency Exit
843	Right Emergency Exit (STA 627.5)

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D. Installation of the Emergency Exit Door Flight Lock Solenoid

SUBTASK 52-22-41-420-004

- (1) Install the flight lock solenoid [5]:
 - (a) Remove and discard the packing rubber stop, washer, and C clip from the solenoid packing before assembly.
 - (b) Put the flight lock solenoid [5] in its position.
 - (c) Install the solenoid washer [16] and nut [15].
 - (d) Use torque wrench adapter, SPL-2002 to tighten the nut [15] to 125-150 pound-inches (14.12-16.94 newton-meters).
 - (e) Connect the wires from the indication switch [10] to the flight lock solenoid [5].
 - (f) Install the pin [14] and spring [13].
 - (g) Install the washer [12] and new cotter-pin [11].
 - (h) Install the bolts [3] and washers [4] in the solenoid torque link.

SUBTASK 52-22-41-400-004

- (2) Install the latch roller [6] with the washers [7], nut [9] and new cotter pin [8].

SUBTASK 52-22-41-400-005

- (3) Push the hinge arm [1] latch receiver into the latch roller [6].

SUBTASK 52-22-41-210-002

- (4) Make sure the lock pawls [2] are disengaged on both legs of the hinge arm.

SUBTASK 52-22-41-420-007

- (5) Push the door hinge arm towards the top of the door.

SUBTASK 52-22-41-420-005

- (6) If it is necessary, do this task: Emergency Exit Door Installation, TASK 52-22-00-400-802.

SUBTASK 52-22-41-420-006

- (7) Do this task: Emergency Exit Door System Test, TASK 52-22-00-400-801.

————— **END OF TASK** —————

TASK 52-22-41-020-802

4. Flight Lock Switch Removal

(Figure 401)

A. References

Reference	Title
52-22-00-000-801	Emergency Exit Door Removal (P/B 401)

B. Location Zones

Zone	Area
HAP 001-013, 015-026, 028-054	
832	Left Forward Emergency Exit
833	Left Emergency Exit (STA 627.5)
842	Right Forward Emergency Exit
843	Right Emergency Exit (STA 627.5)

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C. Prepare for the Removal

SUBTASK 52-22-41-020-016

- (1) If it is necessary, remove the emergency exit door to get access to the flight lock solenoid assembly. To do this, do this task: Emergency Exit Door Removal, TASK 52-22-00-000-801.

NOTE: It can be easier to remove the door from the airplane, than work with the door in place.

SUBTASK 52-22-41-210-004

- (2) Make sure the lock pawls [2] engage both legs of the hinge arm.

SUBTASK 52-22-41-860-004

- (3) Push the door hinge arm [1] towards the bottom of the door.

SUBTASK 52-22-41-020-017

- (4) Remove the latch roller [6]:
 - (a) Pull the hinge arm latch receivers away from the latch rollers [6].
 - (b) Remove the cotter pin [8], nut [9], washers [7] and latch roller [6] from the door.

D. Removal of the Flight Lock Switch

SUBTASK 52-22-41-020-018

- (1) Get access to the switch plate [17]:
 - (a) Remove the bolts [3] and washers [4] from the torque link.
 - (b) Move the torque link to the side.
 - (c) Move the flight lock solenoid assembly away from the door to get to the switch plate [17].

SUBTASK 52-22-41-020-019

- (2) Remove the switch plate [17]:

NOTE: The indication switch and switch plate are preset. Replace the switch and switch plate as a unit.

 - (a) Disconnect the connectors.
 - (b) Remove the screws [18], washers [19], and nuts [20] that hold the switch plate [17] in position.
 - (c) Remove the switch plate [17] from the flight lock solenoid assembly.

————— **END OF TASK** —————

TASK 52-22-41-420-802

5. Flight Lock Switch Installation

(Figure 401)

A. References

Reference	Title
52-22-00-400-801	Emergency Exit Door System Test (P/B 501)
52-22-00-400-802	Emergency Exit Door Installation (P/B 401)

B. Tools/Equipment

Reference	Description
STD-1107	Gauge - Feeler, 0.0 - 0.5 Inch, Readable to 1/1000th

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C. Location Zones

Zone	Area
HAP 001-013, 015-026, 028-054	
832	Left Forward Emergency Exit
833	Left Emergency Exit (STA 627.5)
842	Right Forward Emergency Exit
843	Right Emergency Exit (STA 627.5)
HAP ALL	

D. Installation of the Flight Lock Switch

SUBTASK 52-22-41-420-011

(1) Install the switch plate [17]:

NOTE: The indication switch and switch plate are preset. Replace the switch and switch plate as a unit.

- Replace the connectors splices.
- Put the switch plate [17] in its correct position.

WARNING: DO NOT ATTEMPT TO MOVE THE NUTS THAT HOLD THE INDICATION SWITCH TO THE SWITCH PLATE. TO MAKE AN ADJUSTMENT, MOVE THE SWITCH PLATE. IF YOU DO NOT OBEY THIS WARNING, DAMAGE TO EQUIPMENT OR INJURIES TO PERSONS CAN OCCUR.

- Install the screws [18], washers [19], and nuts [20] that hold the switch plate [17] in its correct position.

NOTE: Install the nuts [20] sufficiently to hold the switch plate in position.

SUBTASK 52-22-41-820-001

(2) Adjust the switch plate [17]:

- Push and hold the pawl [21] against the pawl stop [22].
- Adjust the clearance between the pawl [21] and the rigging edge of the switch plate [17].

NOTE: The switch roller [23] will be compressed by the pawl [21].

- Move the 0.0 - 0.5 Inch feeler gauge, STD-1107 gently between the switch roller [23] and the pawl [21].
- Push the 0.0 - 0.5 Inch feeler gauge, STD-1107 to the rigging edge of the switch plate [17].

NOTE: The pawl [21] must not touch the switch plate [17].

- Make sure the clearance is 0.016 inch (0.406 mm) between the rigging edge of the switch plate [17] and the pawl [21].

NOTE: Do not measure the clearance at the radius of the pawl [21].

- Tighten the two screws [18] evenly.
- Do these steps to make sure the minimum clearance is correct:
 - Use a 0.0 - 0.5 Inch feeler gauge, STD-1107 to measure the clearance between the pawl [21] and the rigging edge of the switch plate [17].

NOTE: The switch roller [23] will be compressed by the pawl [21].

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- 2) Move the 0.0 - 0.5 Inch feeler gauge, STD-1107 gently between the switch roller [23] and the pawl [21].
- 3) Push the 0.0 - 0.5 Inch feeler gauge, STD-1107 to the rigging edge of the switch plate [17].
- 4) Make sure a 0.011 inch (0.279 mm) 0.0 - 0.5 Inch feeler gauge, STD-1107 will move between the rigging edge of the switch plate [17] and the pawl [21].

NOTE: Do not measure the clearance at the radius of the pawl.

- a) Do the clearance adjustment of 0.016 inch (0.406mm) again if the 0.0 - 0.5 Inch feeler gauge, STD-1107 does not move between the pawl [21] and switch plate [17].
- (d) Do these steps to make sure the maximum clearance is correct:
- 1) Use a 0.0 - 0.5 Inch feeler gauge, STD-1107 to measure the clearance between the pawl [21] and the rigging edge of the switch plate [17].

NOTE: The switch roller [23] will be compressed by the pawl [21].

- 2) Move the 0.0 - 0.5 Inch feeler gauge, STD-1107 gently between the switch roller [23] and the pawl [21].
- 3) Push the 0.0 - 0.5 Inch feeler gauge, STD-1107 to the rigging edge of the switch plate [17].
- 4) Make sure a 0.021 inch (0.533 mm) 0.0 - 0.5 Inch feeler gauge, STD-1107 will not move between the rigging edge of the switch plate [17] and the pawl [21].

NOTE: Do not measure the clearance at the radius of the pawl [21].

- a) Do the clearance adjustment of 0.016 inch (0.406mm) again if the 0.0 - 0.5 Inch feeler gauge, STD-1107 moves between the pawl [21] and switch plate [17].

- (e) Connect the connectors.

SUBTASK 52-22-41-420-012

- (3) Install the latch roller [6] with the washers [7], nut [9] and new cotter pin [8].

SUBTASK 52-22-41-420-013

- (4) Push the hinge arm [1] latch receiver into the latch roller [6].

SUBTASK 52-22-41-210-005

- (5) Make sure the lock pawls [2] are disengaged on both legs of the hinge arm.

SUBTASK 52-22-41-860-005

- (6) Push the door hinge arm towards the top of the door.

E. Put the Airplane Back to Its Usual Condition.

SUBTASK 52-22-41-420-014

- (1) If it is necessary, do this task: Emergency Exit Door Installation, TASK 52-22-00-400-802.

SUBTASK 52-22-41-710-002

- (2) Do this task: Emergency Exit Door System Test, TASK 52-22-00-400-801.

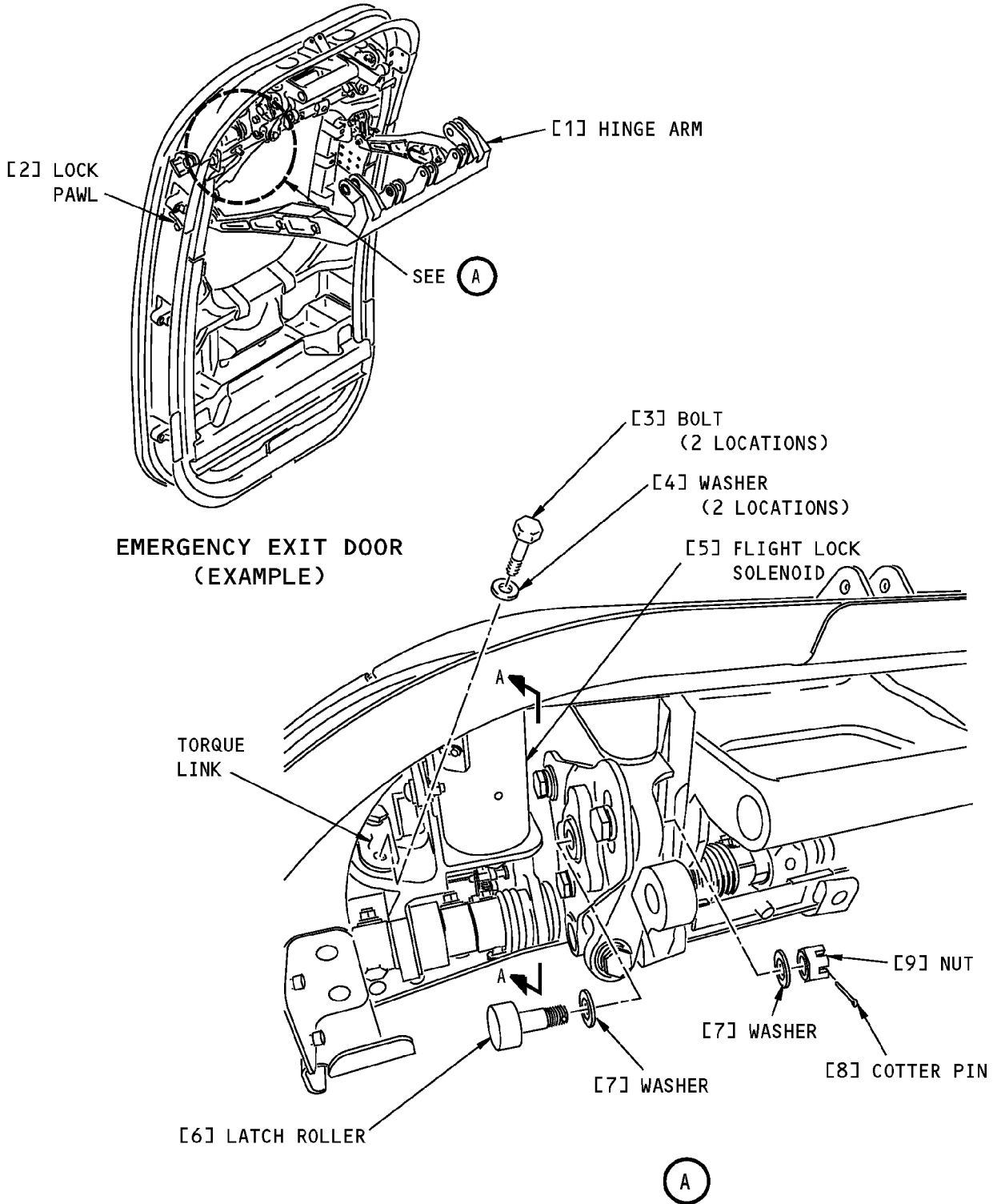
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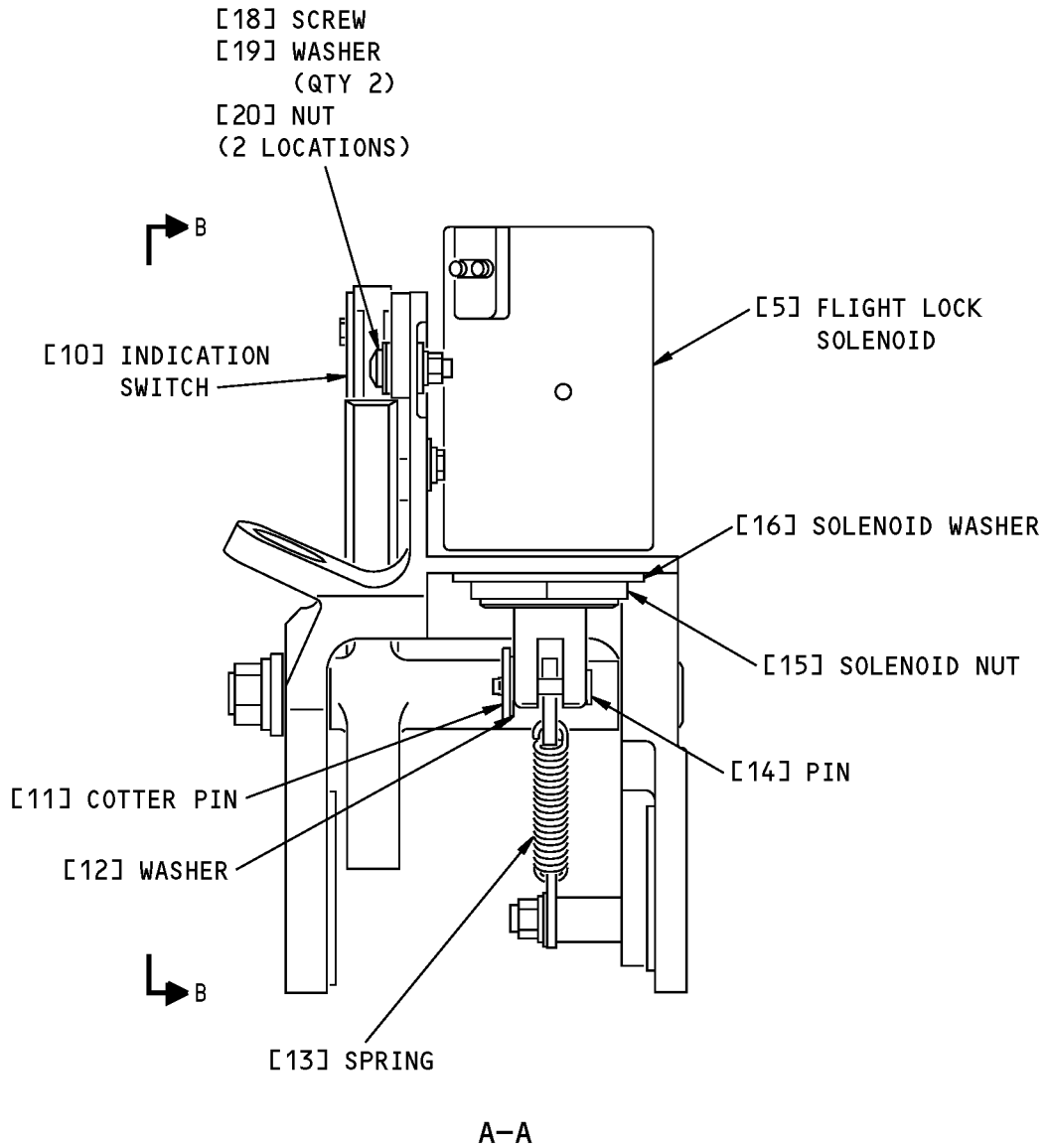


**Emergency Exit Door Flight Lock Solenoid Assembly
Figure 401 (Sheet 1 of 3)/52-22-41-990-802**

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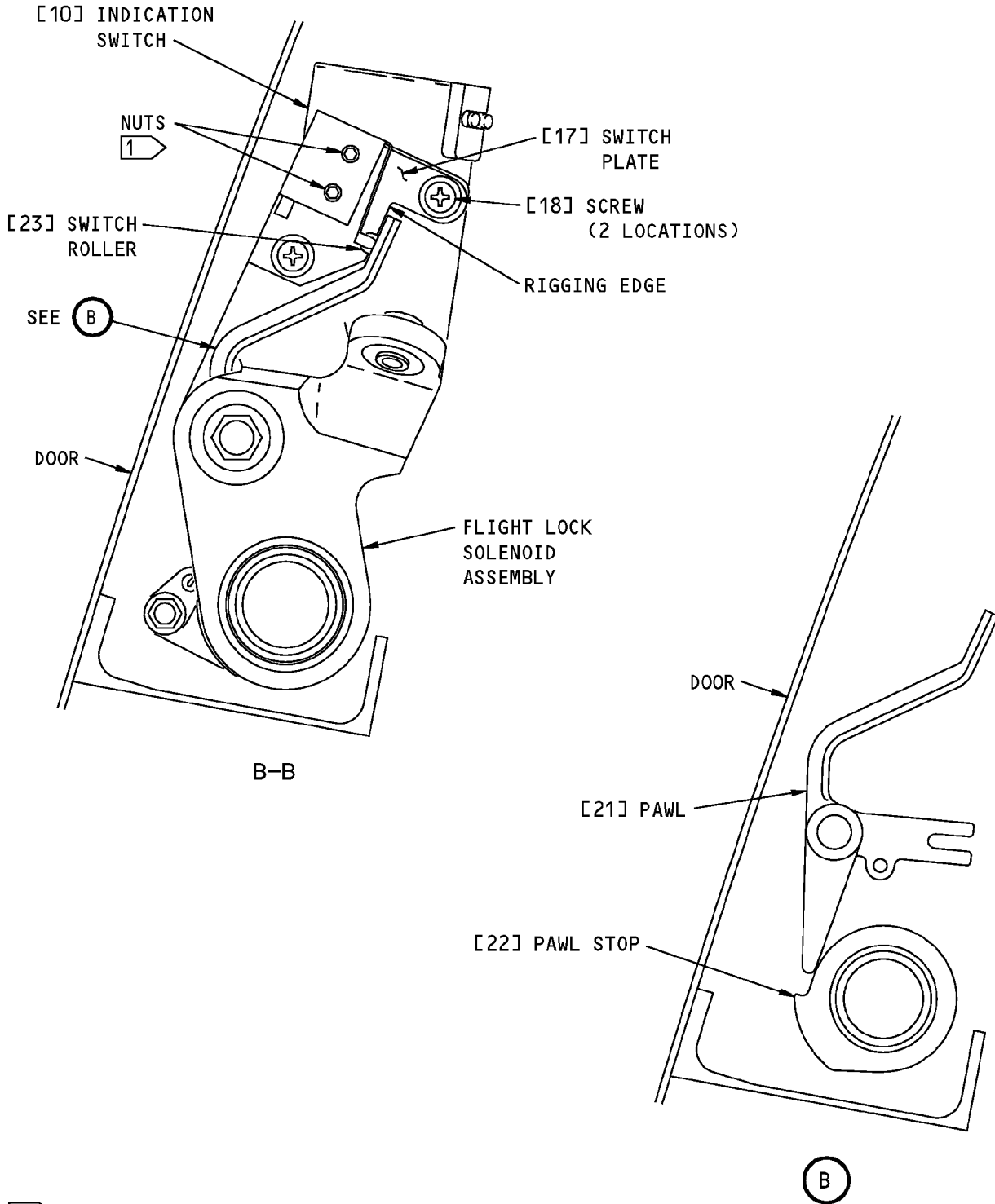
**Emergency Exit Door Flight Lock Solenoid Assembly
Figure 401 (Sheet 2 of 3)/52-22-41-990-802**

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1 DO NOT MOVE THE NUTS

Emergency Exit Door Flight Lock Solenoid Assembly
Figure 401 (Sheet 3 of 3)/52-22-41-990-802

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EMERGENCY EXIT DOOR LINING - REMOVAL/INSTALLATION

1. General

- A. This procedure has these tasks:
 - (1) A removal of the emergency exit door lining.
 - (2) An installation of the emergency exit door lining.
- B. The emergency exit door lining is referred to as the door lining in this procedure.
- C. This procedure is the same for each emergency exit door.

TASK 52-22-51-000-801

2. Emergency Exit Door Lining Removal

A. Location Zones

Zone	Area
HAP 001-013, 015-026, 028-054	
832	Left Forward Emergency Exit
833	Left Emergency Exit (STA 627.5)
842	Right Forward Emergency Exit
843	Right Emergency Exit (STA 627.5)

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B. Procedure

SUBTASK 52-22-51-000-001

- (1) Remove the door lining [8] (Figure 401):
 - (a) If it is necessary, remove the armrest pad, armrest cover and bracket.
 - (b) Remove the screws [3] that hold the lift handle [2] to the nutplates [1].
 - (c) Remove the lift handle [2].
 - (d) Remove the cover [10] from the door to get access to the release handle.

WARNING: KEEP PERSONS AND EQUIPMENT CLEAR OF UPPER CUTOUT SILL ABOVE THE DOOR. THE DOOR COMPONENTS MOVE QUICKLY WHEN THE DOOR HANDLE IS PULLED. IF YOU DO NOT OBEY THIS WARNING, INJURIES TO PERSONS AND DAMAGE TO EQUIPMENT CAN OCCUR.

WARNING: MAKE SURE THE DOOR OPENING PATH IS CLEAR BEFORE YOU RELEASE THE DOOR HANDLE. THE DOOR IS SPRING-LOADED TO OPEN AUTOMATICALLY AND INJURIES CAN OCCUR.

- (e) Open the door.
- (f) Remove the screw [11], washers [6,12] and nut [7] that hold the release handle to the door structure.

NOTE: Pull down on the release handle to get access to the screw [11].

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WARNING: IF THE DOOR MUST BE CLOSED WITHOUT THE DOOR LINING INSTALLED, MAKE SURE THE DOOR RELEASE HANDLE AND LIFT HANDLE ARE INSTALLED BEFORE CLOSING DOOR. USE THE DOOR RELEASE HANDLE TO OPEN THE DOOR. DO NOT USE HANDS OR TOOLS TO RELEASE THE DOOR LOCKING MECHANISM. KEEP HANDS CLEAR OF THE DOOR COUNTERBALANCES, SNUBBER AND LOCKING MECHANISM. THE DOOR IS SPRING LOADED TO AUTOMATICALLY OPEN ONCE THE DOOR LOCKING MECHANISM IS RELEASED. INJURY TO PERSONS AND DAMAGE TO EQUIPMENT CAN OCCUR.

- (g) Remove the release handle pan [9].
- (h) Remove the screws [5] and washers [4] that hold the door lining [8] to the door structure.
- (i) Remove the door lining [8].
- (j) Disconnect the door lining electric heater.
- (k) Remove the door lining from the door frame.

SUBTASK 52-22-51-020-003

- (2) If it is necessary, remove the door insulation.

————— **END OF TASK** —————

TASK 52-22-51-400-801

3. Emergency Exit Door Lining Installation

A. Location Zones

Zone	Area
HAP 001-013, 015-026, 028-054	
832	Left Forward Emergency Exit
833	Left Emergency Exit (STA 627.5)
842	Right Forward Emergency Exit
843	Right Emergency Exit (STA 627.5)

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B. Procedure

SUBTASK 52-22-51-400-001

- (1) If it is removed, install the door insulation in the door frame.

SUBTASK 52-22-51-410-001

- (2) Install the emergency exit door lining (Figure 401):
 - (a) Put the door lining [8] in its position.
 - (b) Connect the door lining electric heater.
 - (c) Install the washers [4] and screws [5] that hold the door lining [8] to the door structure.
 - (d) Install the screws [3] that hold the lift handle [2] to the nutplates [1].
 - (e) Install the release handle pan [9].
 - (f) Install the screw [11], washers [6,12] and nut [7] that hold the release handle to the door structure.
 - (g) Install the cover [10] over the door release handle.
 - (h) If it is necessary, install the bracket, armrest cover and armrest pad.

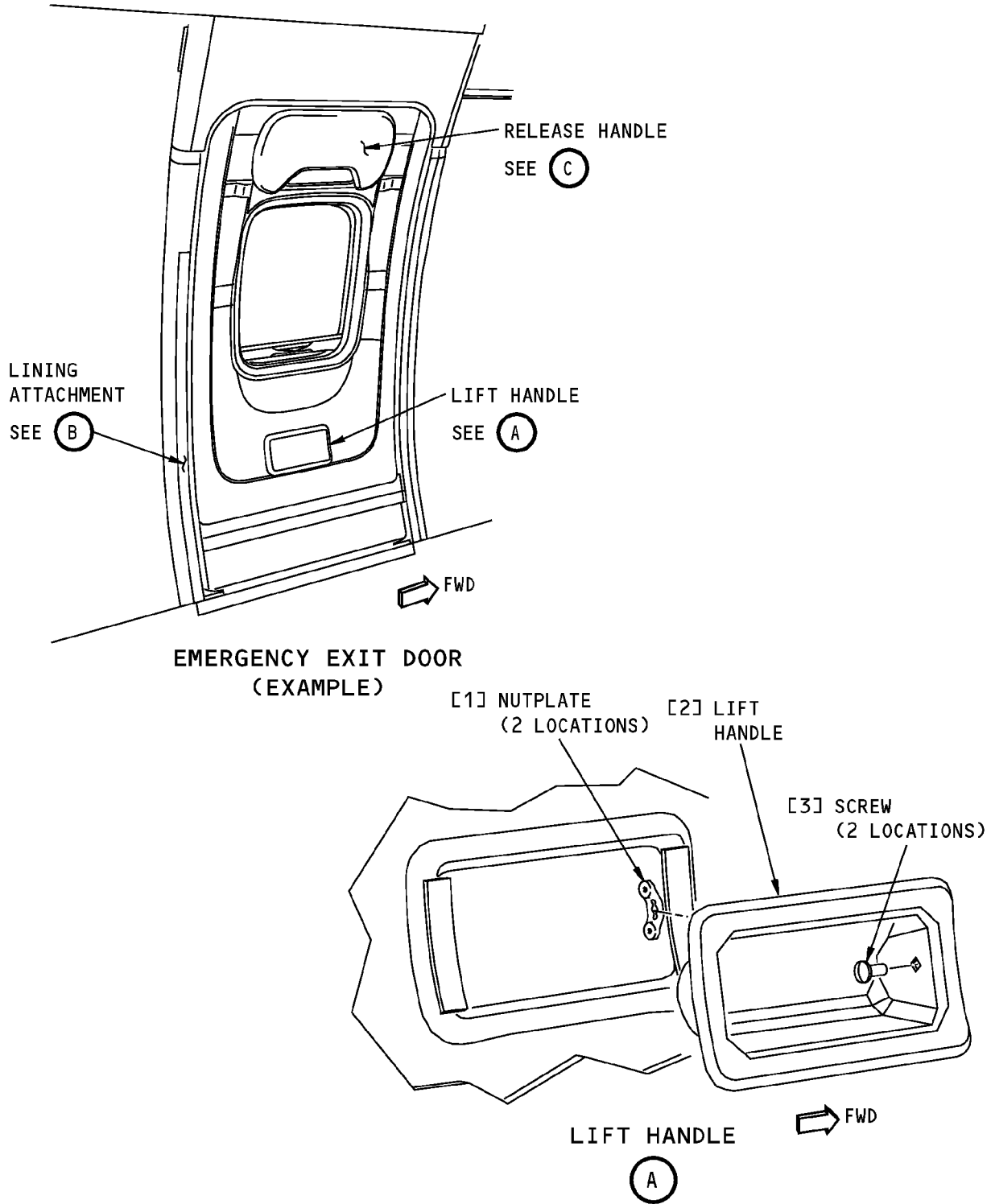
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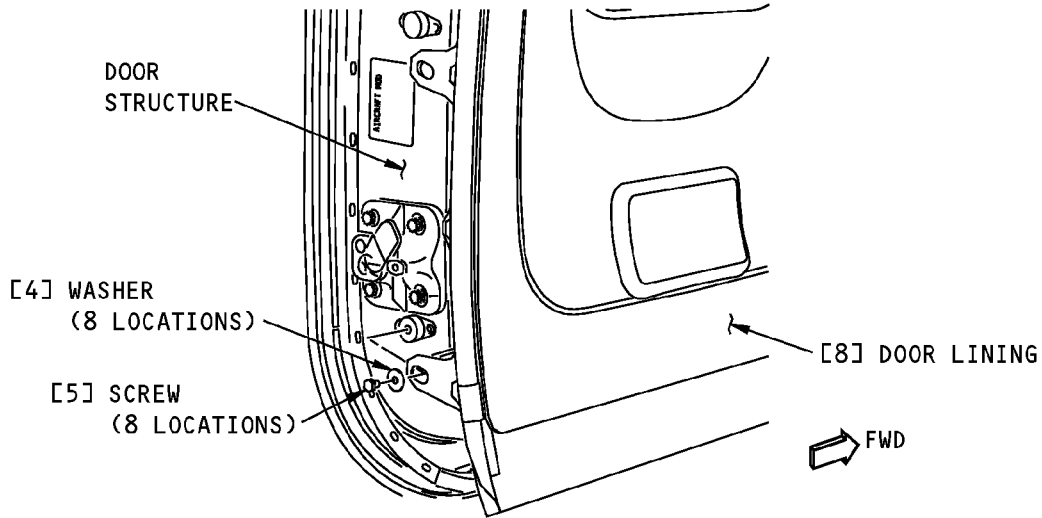


**Emergency Exit Door Lining Installation
Figure 401 (Sheet 1 of 2)/52-22-51-990-801**

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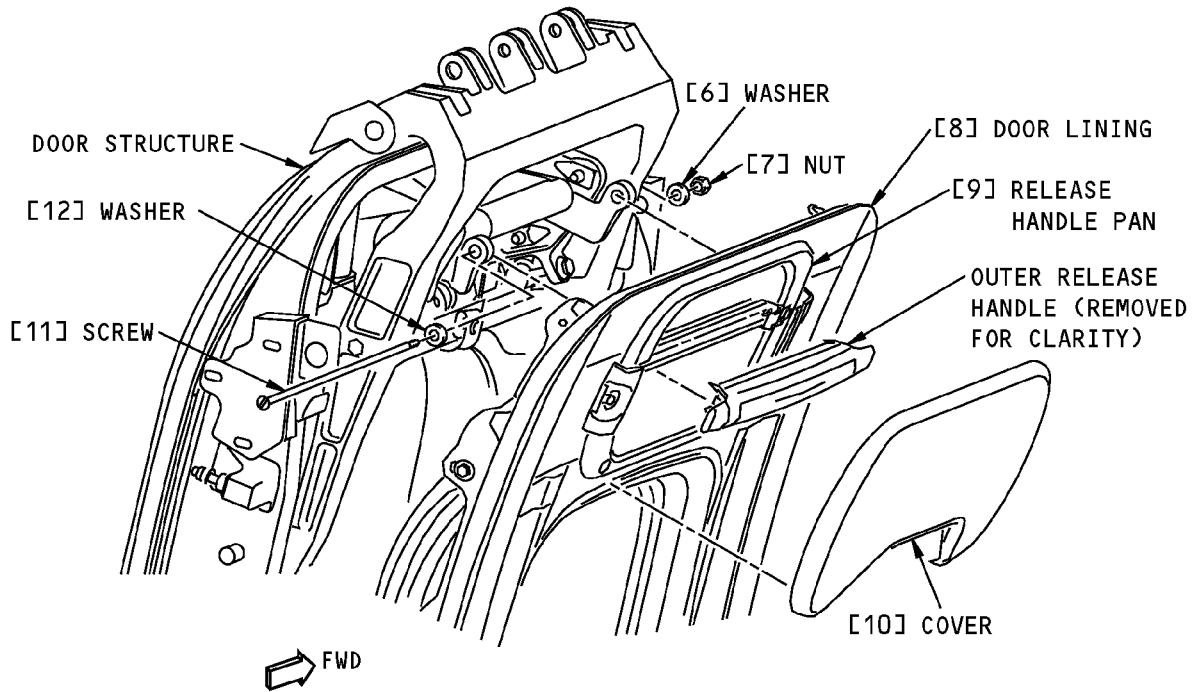
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**LINING ATTACHMENT
(EXAMPLE)**

B



RELEASE HANDLE

C

**Emergency Exit Door Lining Installation
Figure 401 (Sheet 2 of 2)/52-22-51-990-801**

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CARGO DOOR - MAINTENANCE PRACTICES

1. General

A. This procedure has these tasks:

- (1) Open the cargo door
- (2) Close the cargo door.
- (3) Cargo Door Corrosion Prevention.

B. This procedure is the same for the forward and aft cargo door.

TASK 52-31-00-580-801

2. Open the Cargo Door

(Figure 201)

A. Location Zones

Zone	Area
821	Forward Cargo Door
822	Aft Cargo Door

B. Procedure

SUBTASK 52-31-00-580-001

(1) Open the cargo door:

- (a) Pull the door handle out of its recess.
- (b) Rotate the handle counterclockwise to unlatch the door.

NOTE: Rotating the handle counterclockwise disengages the door latch mechanisms.

NOTE: The door will now begin to move inboard by the action of the counterbalance mechanism.

- (c) Return the handle to its recess in the door.
- (d) Push the door inboard to open it.

NOTE: When you begin to push the door inboard, the door counterbalance will lift the door to the fully open position and hold it there.

————— **END OF TASK** —————

TASK 52-31-00-580-802

3. Close the Cargo Door

(Figure 201)

A. Location Zones

Zone	Area
821	Forward Cargo Door
822	Aft Cargo Door

B. Prepare to Close the Cargo Door

SUBTASK 52-31-00-860-005

(1) Before you close the door from the outside, examine these things:

- (a) To prevent cargo from contacting the door components, secure all cargo nets.
- (b) Make sure the door frame is clear of any obstructions, dirt and debris.

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C. Close the Cargo Door

SUBTASK 52-31-00-580-002

(1) Close the cargo door:

- (a) Pull the soft-grip bungee lanyard at the forward edge of the door.

NOTE: This will pull the door out of the uplock and lower the door until you can reach the handle.

- (b) When you can reach the door handle, release the lanyard and the bungee will retract the lanyard back into the cargo compartment.

- (c) Pull the door handle out of the recess and rotate the handle counterclockwise.

NOTE: When you rotate the handle counterclockwise, the latch rollers are aligned to enter the latch receivers.

- (d) Pull the door to the closed position with the handle.

- (e) Turn the handle clockwise to fully close and latch the door.

- (f) Return the handle to its recess.

————— **END OF TASK** —————

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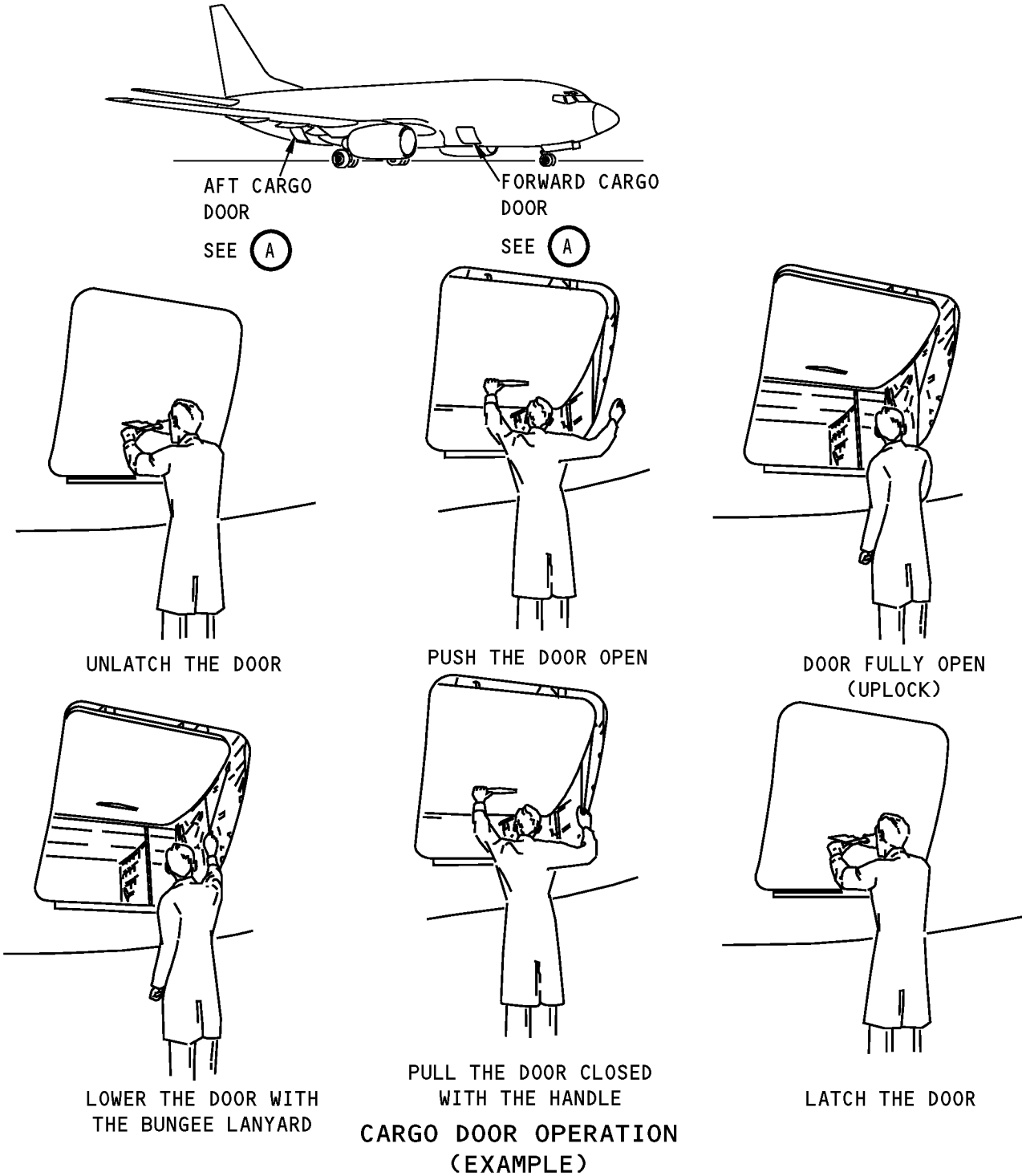
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(A)

**Cargo Doors Operation Maintenance Practice
Figure 201/52-31-00-990-815**

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TASK 52-31-00-600-801

4. Cargo Door Corrosion Prevention

A. References

Reference	Title
12-25-31-640-801	Cargo Door Servicing (P/B 301)
52-31-00-200-801	Cargo Door Check (P/B 601)

B. Consumable Materials

Reference	Description	Specification
D00015	Grease - Aircraft Bearing (Use BMS 3-24 until existing stocks are depleted, BMS 3-33 supersedes BMS 3-24)	BMS3-24 (Superseded by BMS 3-33)
D00633	Grease - Aircraft General Purpose	BMS3-33
G00009	Compound - Organic Corrosion Inhibiting	BMS3-23
G00834	Cloth - Lint-free Cotton	

C. Location Zones

Zone	Area
821	Forward Cargo Door
822	Aft Cargo Door

D. General

SUBTASK 52-31-00-800-001

- (1) Corrosion may occur on the internal and external surfaces of the door structure. especially the inside lower corners, the connection points, and the door mechanism.
- (2) Corrosion and cracks have been found on the stop fittings that are mounted on the door.
- (3) Corrosion and cracks have been found on the door balance springs.
- (4) Corrosion and cracks have been found on the door balance mechanism cables. Cables with corrosion were found without lubrication.
 - (a) Make sure to lubricate these cables.
- (5) Corrosion, cracks, and weak handle latch springs have been found.
- (6) Some items in this section maybe subject to the mandatory requirements for corrosion prevention and control programs for aging airplanes.
- (7) Corrosion Prevention
 - (a) Do these tasks, Cargo Door Check, TASK 52-31-00-200-801 to detect the early stages of corrosion.
 - (b) Look for missing fasteners, white powdery deposits, and discolorations, as signs of corrosion.
 - 1) If signs of corrosion are found, then a corrosion prevention program should be started to prevent the build up of corrosion products.
 - 2) If corrosion products are allowed to build up, then they will cause further corrosion.
 - 3) If corrosion is found, the refer to the Structural Repair Manual for detail instructions for the removal of corrosion.
 - (c) After the corrosion products are cleaned, make sure that the protective finishes are serviceable.

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- 1) If only minor corrosion is found, then make sure that the area is clean.
- 2) Apply corrosion inhibiting compound on the affected area.
- 3) Make sure that the protective finish is restored at the first opportunity that is consistent with the airplanes maintenance schedule.

(8) Frequency of Application

- (a) Periodic inspection is required to areas identified as prone to corrosion and should be scheduled to your Maintenance Planning Document.
- (b) Periodic application of BMS 3-23 compounds are necessary to areas identified as prone to corrosion and should be scheduled to your Maintenance Planning Document.
 - 1) Do the prevention treatment to the exterior surface of the door at the same recommended interval as the exterior surface of the fuselage.

E. Corrosion Prevention

SUBTASK 52-31-00-620-001

(1) Prevention Treatment

- (a) Remove the door liner to get access to the interior surfaces of the door.
- (b) Clean the drains and drain paths.
- (c) Cargo Door Check, TASK 52-31-00-200-801
 - 1) Remove or repair any corrosion that you find.
- (d) Apply corrosion inhibiting compound, G00009 to the interior surfaces of the door.
 - 1) Make sure that the corrosion inhibiting compound, G00009 completely covers the surfaces, with special attention given to the lower corners and the mechanism.
- (e) Apply corrosion inhibiting compound, G00009 to the door frame and the upper and lower web.
- (f) If it is necessary, apply corrosion inhibiting compound, G00009 to the exterior surfaces of the door.
- (g) Lubricate the door. Cargo Door Servicing, TASK 12-25-31-640-801
- (h) If the door has cables, then do these steps:
 - 1) Use a clean lint-free cloth, G00834 to remove grease and corrosion inhibiting compound, G00009 from the cable.
 - 2) Examine the cables to make sure that it is serviceable.
 - 3) Use a clean lint-free cloth, G00834 to apply a thin layer of grease, D00633 (preferred) or grease, D00015 (alternate) to the cables.
- (i) Install the door lining.
- (j) Cargo doors with drain valves, do these steps:
 - 1) Clean the drain hole.
 - 2) Examine the drain seal or plunger for alignment and freedom of movement.
 - a) If it is necessary, remove the drain valve from the door and clean the debris.
< 1 > If it is necessary, replace the drain valve.
 - b) Install the drain valve.

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CAUTION: DO NOT APPLY MORE THAN THE MAXIMUM SPECIFIED TORQUE WHEN YOU TIGHTEN THE PARTS. DAMAGE TO THE PARTS CAN OCCUR IF YOU APPLY TOO MUCH TORQUE.

< 1 > Tighten the fasteners to 10 to 15 pound inches (1.1-1.7 Nm).

————— **END OF TASK** —————

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CARGO DOOR - REMOVAL/INSTALLATION

1. General

- A. This procedure has these tasks:
 - (1) A removal of the cargo door.
 - (2) An installation of the cargo door.
- B. This procedure is the same for the forward and aft cargo door.

TASK 52-31-00-000-801

2. Cargo Door Removal

(Figure 401)

A. Location Zones

Zone	Area
821	Forward Cargo Door
822	Aft Cargo Door

B. Prepare for the Removal

SUBTASK 52-31-00-010-004

- (1) Get access to the door as follows:
 - (a) Close and latch the door.
 - (b) Remove the door lining.

SUBTASK 52-31-00-860-002

- (2) Safety the counterbalance [4] as follows:
 - (a) Make sure the door is closed and latched.
 - (b) Remove the screw [11], washer [12], and sleeve [10] from the guide pin [5].
 - (c) Install a washer and nut on the guide pin [5] against the adjustment nut [13].

NOTE: Install the nut loosely. This will hold the spring in the counterbalance [4] and stop its operation.

C. Removal of the Cargo Door

SUBTASK 52-31-00-020-001

- (1) Disconnect the lanyard [9] from the fuselage structure:
 - (a) Disengage the split rings [8] that connect the lanyard [9] to the cargo compartment ceiling and the forward fuselage structure.
 - (b) Safety the lanyard [9] to the door [1].

SUBTASK 52-31-00-020-002

- (2) Disconnect the cable [21] and sheave [20] from the cargo compartment ceiling as follows:
 - (a) Unlatch and open the cargo door [1] 1-2 inches (25.4-50.8mm).
 - (b) Install a block under the lower stops to hold the cargo door [1] up.
 - (c) Make sure the cable [21] is loose.
 - (d) Remove the lockwire [15] from the alignment bolt [16].
 - (e) Remove the alignment bolt [16] and retainer ring [18].
 - (f) Remove the cotter pin [22], pin [14], and washer [19].
 - (g) Safety the cable [21] and sheave [20] to the cargo door.

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(h) Remove the block.

SUBTASK 52-31-00-020-003

(3) Disconnect the snubber [2] from the door structure:

- (a) Close and latch the door.
- (b) Remove the bolt [23], washers [24], and nut [25] that attach the snubber [2] to the door structure.
- (c) Remove the spacer [26].
- (d) Remove the snubber [2] from the cargo door [1] and safety it away from the cargo door [1].

SUBTASK 52-31-00-020-004

(4) Disconnect the hinge arms [3] from the door structure:

- (a) Remove the bolts [27], [30], washers [28], [31], and shims [29] that attach the hinge arms [3] to the door structure.
- (b) Disconnect the hinge arms [3] from the cargo door [1] and safety them away from the cargo door [1].

SUBTASK 52-31-00-020-005

WARNING: BE CAREFUL WHEN YOU REMOVE THE DOOR FROM THE AIRPLANE. THE DOOR WEIGHS APPROXIMATELY 140 POUNDS. INJURY OR DAMAGE CAN OCCUR.

(5) Carefully lift the cargo door [1] from the fuselage frame and remove from the airplane.

————— **END OF TASK** —————

TASK 52-31-00-400-801

3. Cargo Door Installation

(Figure 401)

A. References

Reference	Title
05-51-91-790-801	Cabin Pressure Leak Test (P/B 201)
52-31-00-200-802	Cargo Door Pressure Seal Check (P/B 601)
52-31-00-700-801	Cargo Door System Test (P/B 501)
52-31-00-820-801	Cargo Door Adjustment (P/B 501)

B. Consumable Materials

Reference	Description	Specification
D00015	Grease - Aircraft Bearing (Use BMS 3-24 until existing stocks are depleted, BMS 3-33 supersedes BMS 3-24)	BMS3-24 (Superseded by BMS 3-33)
G01048	Lockwire - Corrosion Resistant Steel (0.032 In. Dia.)	NASM20995~ C32

C. Location Zones

Zone	Area
821	Forward Cargo Door
822	Aft Cargo Door

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D. Prepare for the Installation

SUBTASK 52-31-00-010-005

- (1) Prepare the cargo door [1] and the fuselage frame for installation and adjustment:

NOTE: These steps are for a new or repaired cargo door [1] and will make it easier to put the cargo door [1] in the fuselage frame and to connect and adjust the mechanisms.

- (a) Remove the bolts [32], and washers [33] that attach the forward and aft centering guides [7] to the cargo door [1].
- (b) Remove the centering guides [7], and the laminated shim [34] from the door [1].
- (c) Loosen the bolts [35], [37], [39], and washers [36], [38] that attach the forward and aft latch receivers [6] to the fuselage frame so the latch receivers [6].
- (d) Remove the lock springs.
- (e) Turn the stop pins inboard on the forward and aft edges of the cargo door [1].

E. Installation of the Cargo Door

SUBTASK 52-31-00-420-001

WARNING: BE CAREFUL WHEN YOU MOVE THE CARGO DOOR INTO THE AIRPLANE. THE CARGO DOOR WEIGHS APPROXIMATELY 140 POUNDS. INJURY OR DAMAGE CAN OCCUR.

- (1) Carefully move the cargo door [1] into the fuselage frame and into the door closed position.
- (a) Inspect the pressure seal of the Door prior to installation, do this task: Cargo Door Pressure Seal Check, TASK 52-31-00-200-802.

NOTE: If a follow-on pressurization test will be done, follow the procedure in (TASK 05-51-91-790-801).

SUBTASK 52-31-00-420-002

- (2) Connect the hinge arms [3] to the door structure:
- (a) Put the hinge arms [3] in their correct position on the door structure.
 - (b) Do a check on the length of the bolts [27], [30] with the new laminated shim [29] thickness. If necessary, install new bolts [27], [30] of a different length.
 - (c) Install the bolts [27], [30], washers [28], [31], and shims [29] to attach the hinge arms [3] to the door structure.

SUBTASK 52-31-00-410-002

- (3) Install the door [1] and fuselage frame components as follows:
- (a) Put the forward and aft centering guides [7] and laminated shim [34] in their correct position on the door [1].
 - (b) Install the bolts [32], and washers [33] to attach the forward and aft centering guides [7] to the cargo door [1].
 - (c) If more adjustment is not necessary, tighten the bolts [35], [37], [39], and washers [36], [38] that attach the forward and aft latch receivers [6] to the fuselage frame.

SUBTASK 52-31-00-420-003

- (4) Connect the snubber [2] to the door structure:
- (a) Install the spacer [26].
 - (b) Install the bolt [23], washers [24], and nut [25] to attach the snubber [2] to the door structure.

SUBTASK 52-31-00-420-004

- (5) Connect the cable [21] and sheave [20] to the cargo compartment ceiling:

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WARNING: MAKE SURE THE COUNTERBALANCE IS SAFETIED BEFORE YOU CONNECT THE COUNTERBALANCE OR CABLE. THERE IS A VERY STRONG SPRING IN THE COUNTERBALANCE AND CABLE THAT CAN CAUSE INJURY TO PERSONS.

- (a) Make sure the washer nut are installed on the guide pin [5] against the adjustment nut [15] on the end of the counterbalance [4].

NOTE: This will hold the spring in the counterbalance [4] and stop its operation.

- (b) Make sure the cable [21] is installed through the pulley [41] on the cargo door [1].
- (c) Apply a light coat of grease, D00015 to the pin [14] and alignment bolt [16] and the mating surfaces.
- (d) Install the pin [14], washer [19], and new cotter pin [22] to attach the cable [21] and sheave [20] to the cargo compartment ceiling.
- (e) Install the alignment bolt [16] and retainer ring [18] to attach the cable [21] and sheave [20] to the cargo compartment ceiling.
- (f) Install the lockwire, G01048 between the alignment bolt [16] and the adjustment screw [17].
- (g) Connect the lanyard [9] to the fuselage structure:
- 1) Engage the split rings [8] to connect the lanyard [9] to the cargo compartment ceiling and the forward fuselage structure.

SUBTASK 52-31-00-820-009

- (6) Do this task: Cargo Door Adjustment, TASK 52-31-00-820-801.

SUBTASK 52-31-00-730-004

- (7) Do this task: Cargo Door System Test, TASK 52-31-00-700-801.

F. Put the Airplane Back to Its Usual Condition

SUBTASK 52-31-00-410-003

- (1) If removed, install the door lining.

————— **END OF TASK** —————

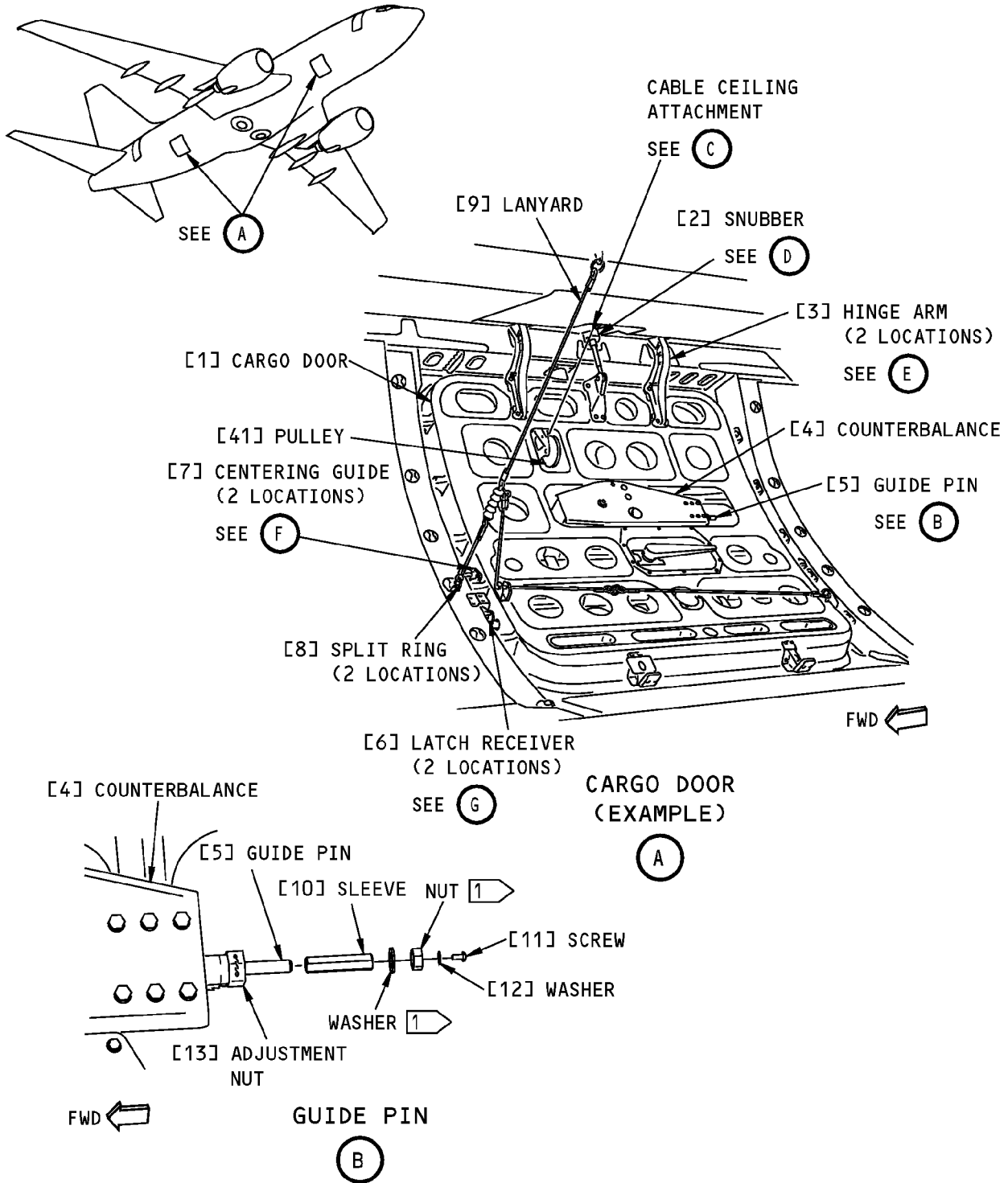
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1 → INSTALL THE WASHER AND NUT TO SAFETY THE COUNTERBALANCE.

**Cargo Door Installation
Figure 401 (Sheet 1 of 4)/52-31-00-990-809**

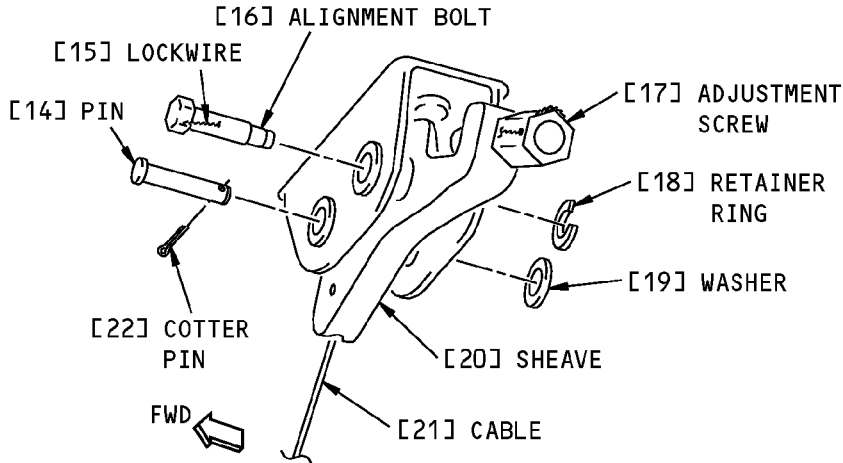
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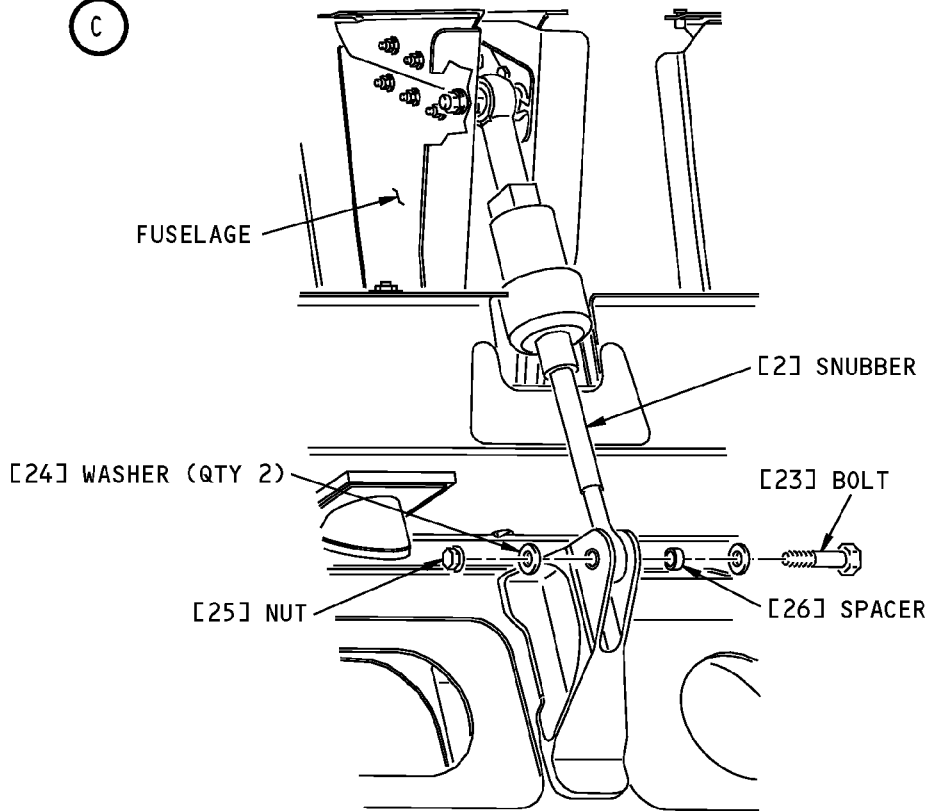
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CABLE CEILING ATTACHMENT

(C)



FWD ←

SNUBBER

(D)

Cargo Door Installation
Figure 401 (Sheet 2 of 4)/52-31-00-990-809

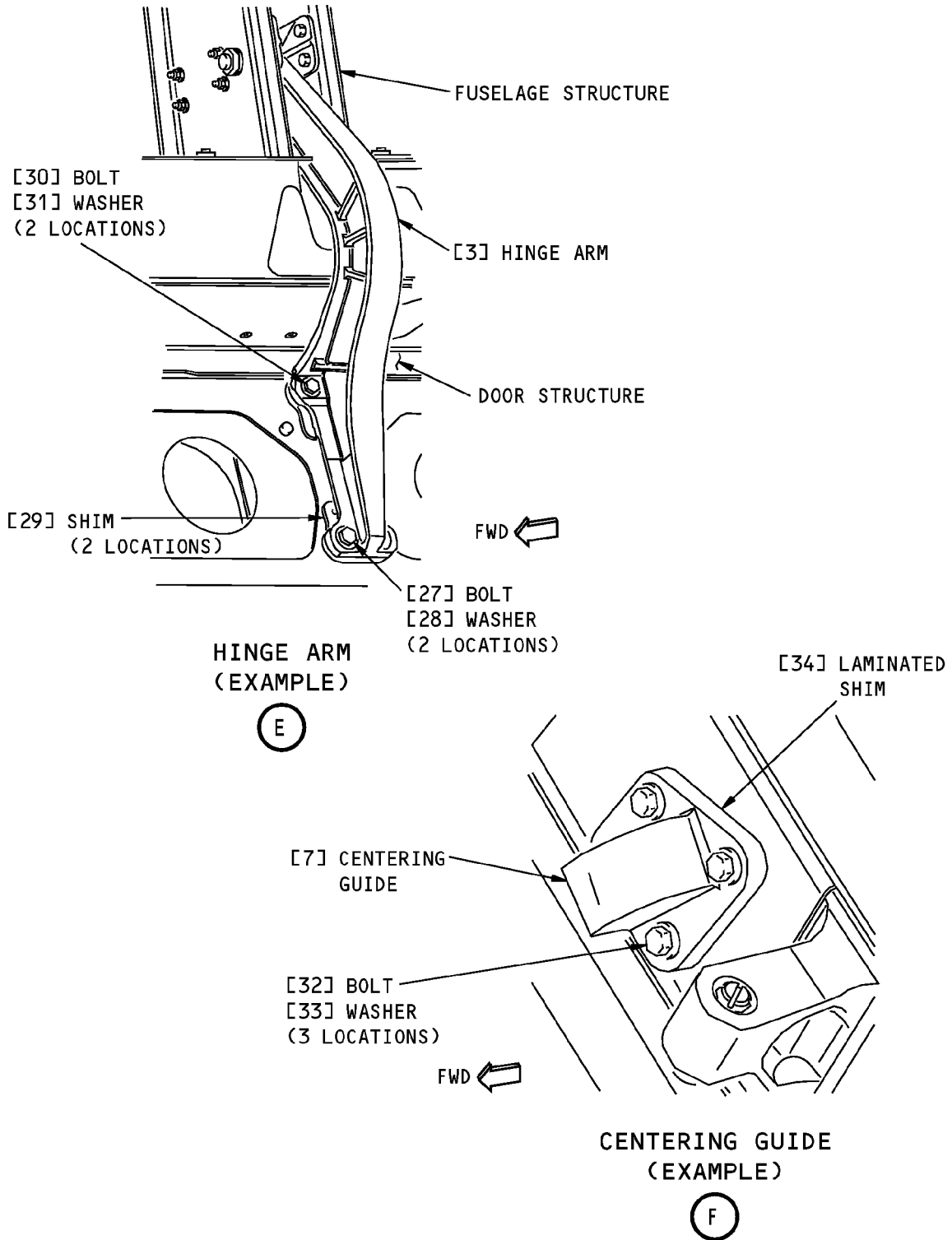
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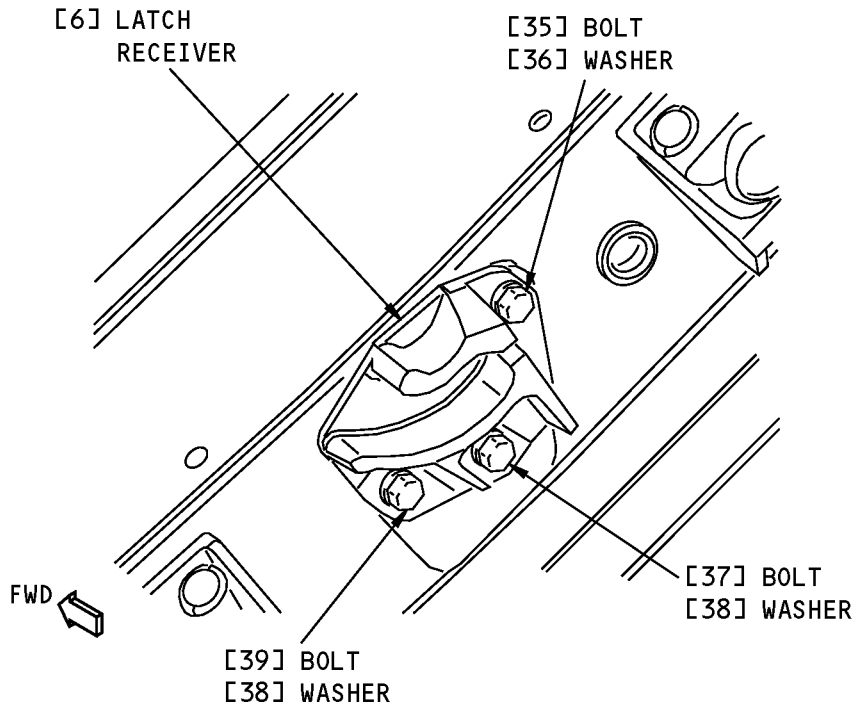
**Cargo Door Installation
Figure 401 (Sheet 3 of 4)/52-31-00-990-809**

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LATCH RECEIVER
(EXAMPLE)

G

Cargo Door Installation
Figure 401 (Sheet 4 of 4)/52-31-00-990-809

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CARGO DOOR - ADJUSTMENT/TEST

1. General

A. This procedure has these tasks:

- (1) An adjustment of the cargo door.
- (2) A system test of the cargo door.

B. This procedure is the same for the forward or aft cargo door.

TASK 52-31-00-820-801

2. Cargo Door Adjustment

(Figure 501, Figure 502, Figure 503, Figure 504, Figure 505, Figure 506, Figure 507)

A. General

- (1) Do the adjustment procedure with no load on the cargo door or the fuselage frame. Do the procedure with the airplane operating weight empty and the airplane supported on its landing gear.
- (2) After the adjustment is completed, make sure that all adjustment points are locked and sealed.

B. References

Reference	Title
52-71-31-820-801	Cargo Door Indication Switch Adjustment (P/B 201)

C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1557	Gauge - Force (Part #: DG-200, Supplier: 92456, A/P Effectivity: 737-ALL) (Part #: DPP-500G, Supplier: 92456, A/P Effectivity: 737-ALL) (Part #: DPPH-150, Supplier: 92456, A/P Effectivity: 737-ALL) (Part #: DPPH-200, Supplier: 92456, A/P Effectivity: 737-ALL) (Part #: DPPH-50, Supplier: 92456, A/P Effectivity: 737-ALL) (Part #: FDIX 100, Supplier: 0BFD9, A/P Effectivity: 737-ALL) (Part #: FDIX 50, Supplier: 0BFD9, A/P Effectivity: 737-ALL) (Part #: FDV 50, Supplier: 0BFD9, A/P Effectivity: 737-ALL) (Part #: LG-050, Supplier: 92456, A/P Effectivity: 737-ALL) (Opt Part #: FDI 100, Supplier: 0BFD9, A/P Effectivity: 737-ALL)

D. Consumable Materials

Reference	Description	Specification
A00159	Compound - Sealing, Thread-Locking, Anaerobic, Single-Component (100-200 In-Lbs)	MIL-S-46163, Type II, Grade N
C00259	Primer - Chemical And Solvent Resistant Finish, Epoxy Resin	BMS10-11, Type I
D00015	Grease - Aircraft Bearing (Use BMS 3-24 until existing stocks are depleted, BMS 3-33 supersedes BMS 3-24)	BMS3-24 (Superseded by BMS 3-33)

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E. Location Zones

Zone	Area
821	Forward Cargo Door
822	Aft Cargo Door

F. Prepare for the Adjustment

SUBTASK 52-31-00-010-003

- (1) Remove the cargo door lining.

SUBTASK 52-31-00-860-001

- (2) Safety the counterbalance (Figure 504):
- Make sure the cargo door is closed and latched.
 - Remove the screw, washer, and sleeve from the guide pin.
 - Install a washer and nut on the guide pin against the adjustment nut.

NOTE: Install the nut finger tight only. This will hold the spring in the counterbalance and stop its operation.

G. Hinge Arm Adjustment

SUBTASK 52-31-00-820-001

- (1) Adjust the hinge arm:
- Make sure the cargo door is closed and latched.
 - Make sure the clearance between the fuselage skin and the forward cargo door skin is as shown, (Table 501)/ (Table 505) and (Figure 502).
 - Make sure the clearance between the fuselage skin and the aft cargo door skin is as shown, (Table 502)/ (Table 506) and (Figure 502).

Table 501/52-31-00-993-810 Aerosmoothness Limits - Forward Cargo Door (Key to Fig. 502)

ZONE	CLEARANCE		FLUSHNESS	
	NOMINAL inch (mm)	TOLERANCE inch (mm)	NOMINAL inch (mm)	TOLERANCE inch (mm)
A	0.10 (2.54)	0.06 to 0.15 (1.52 to 3.81)	- -	NOT APPLICABLE
B	0.10 (2.54)	0.06 to 0.15 (1.52 to 3.81)	-0.10 (-2.54)	-0.15 to -0.05 (-3.80 to -1.27)
C	0.10 (2.54)	0.06 to 0.15 (1.52 to 3.81)	- -	NOT APPLICABLE
D	0.10 (2.54)	0.06 to 0.15 (1.52 to 3.81)	-0.10 (-2.54)	-0.15 to -0.05 (-3.80 to -1.27)
E	- -	NOT APPLICABLE	- -	NOT APPLICABLE
F	0.25 (6.35)	0.22 to 0.28 (5.58 to 7.11)	-0.14 (-3.55)	-0.20 to -0.08 (-5.08 to -2.03)
G	- -	NOT APPLICABLE	- -	NOT APPLICABLE
H	0.10 (2.54)	0.06 to 0.15 (1.52 to 3.81)	-0.10 (-2.54)	-0.15 to -0.05 (-3.80 to -1.27)

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Table 502/52-31-00-993-811 Aerosmoothness Limits - Aft Cargo Door (Key to Fig. 502)

ZONE	CLEARANCE		FLUSHNESS	
	NOMINAL inch (mm)	TOLERANCE inch (mm)	NOMINAL inch (mm)	TOLERANCE inch (mm)
A	0.10 (2.54)	NOT APPLICABLE	--	NOT APPLICABLE
B	0.10 (2.54)	0.06 to 0.15 (1.52 to 3.81)	-0.10 (-2.54)	-0.15 to -0.05 (-3.81 to -1.27)
C	0.10 (2.54)	0.06 to 0.15 (1.52 to 3.81)	--	NOT APPLICABLE
D	0.10 (2.54)	0.06 to 0.15 (1.52 to 3.81)	-0.10 (-2.54)	-0.15 to -0.05 (-3.81 to -1.27)
E	--	NOT APPLICABLE	--	NOT APPLICABLE
F	0.25 (6.35)	0.22 to 0.28 (5.58 to 7.11)	-0.14 (-3.55)	-0.20 to -0.08 (-5.08 to -2.03)
G	--	NOT APPLICABLE	--	NOT APPLICABLE
H	0.18 (4.57)	0.15 to 0.21 (3.81 to 5.33)	-0.10 (-2.54)	-0.15 to -0.05 (-3.81 to -1.27)

Table 503/52-31-00-993-817 Aero-Averaging Limits - Forward Cargo Door (Method 2)

ZONE	CLEARANCE		FLUSHNESS	
	NOMINAL inch (mm)	TOLERANCE inch (mm)	NOMINAL inch (mm)	TOLERANCE inch (mm)
A	0.10 (2.54)	0.06 to 0.18 (1.52 to 4.57)	--	NOT APPLICABLE
B	0.10 (2.54)	0.06 to 0.18 (1.52 to 4.57)	-0.10 (-2.54)	-0.18 to -0.02 (-4.57 to -0.51)
C	0.10 (2.54)	0.06 to 0.18 (1.52 to 4.57)	--	NOT APPLICABLE
D	0.10 (2.54)	0.06 to 0.18 (1.52 to 4.57)	-0.10 (-2.54)	-0.18 to -0.02 (-4.57 to -0.51)
E	--	NOT APPLICABLE	--	NOT APPLICABLE
F	0.25 (6.35)	0.22 to 0.31 (5.59 to 7.87)	-0.14 (-3.56)	-0.23 to -0.05 (-5.84 to -1.27)
G	--	NOT APPLICABLE	--	NOT APPLICABLE
H	0.10 (2.54)	0.06 to 0.18 (1.52 to 4.57)	-0.10 (-2.54)	-0.18 to -0.02 (-4.57 to -0.51)

Table 504/52-31-00-993-816 Aero-Averaging Limits - Aft Cargo Door (Method 2)

ZONE	CLEARANCE		FLUSHNESS	
	NOMINAL inch (mm)	TOLERANCE inch (mm)	NOMINAL inch (mm)	TOLERANCE inch (mm)
A	--	NOT APPLICABLE	--	NOT APPLICABLE
B	0.10 (2.54)	0.06 to 0.18 (1.52 to 4.57)	-0.10 (-2.54)	-0.18 to -0.02 (-4.57 to -0.51)
C	0.10 (2.54)	0.06 to 0.18 (1.52 to 4.57)	--	NOT APPLICABLE
D	0.10 (2.54)	0.06 to 0.18 (1.52 to 4.57)	-0.10 (-2.54)	-0.18 to -0.02 (-4.57 to -0.51)
E	--	NOT APPLICABLE	--	NOT APPLICABLE
F	0.25 (6.35)	0.22 to 0.31 (5.59 to 7.87)	-0.14 (-3.56)	-0.23 to -0.05 (-5.84 to -1.27)

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	CLEARANCE		FLUSHNESS	
G	--	NOT APPLICABLE	--	NOT APPLICABLE
H	0.18 (4.57)	0.15 to 0.24 (3.81 to 6.10)	-0.10 (-2.54)	-0.18 to -0.02 (-4.57 to -0.51)

- (d) Make sure the clearance between the forward and aft latch rollers and latch receivers is as specified (Figure 503).
- (e) If necessary, adjust as follows:
 - 1) Loosen the bolts, washers, and shims that attach the forward and aft hinge arms to the cargo door.
 - 2) Move the hinge arms on their serrated plates forward, aft, up or down to get the correct skin clearance.
 - 3) Move the hinge arms on their serrated plates up or down to get the correct clearance between the latch roller and the latch receiver.
 - 4) Tighten the bolts, washers, and shims to attach the forward and aft hinge arms to the cargo door.

H. Skin Clearance Adjustment

SUBTASK 52-31-00-820-010

- (1) Two measurement methods are provided to adjust the door:
 - (a) Method 1 is the Standard measurement method for skin clearance adjustment.
 - (b) Method 2 is Aero-Averaging measurement for skin clearance adjustment.

SUBTASK 52-31-00-820-011

- (2) Adjust the skin clearance with Method 1 (Figure 502):
 - (a) Make sure the clearances between the door skin and fuselage skin are as shown (Table 502, Table 501).
 - (b) As a minimum, measure the clearance between the cargo door skin and fuselage skin along each edge of the cargo door at the locations that follow:
 - 1) Within ± 1.0 inch (± 25.4 mm) of each stop fitting along the forward and aft edges of the door.
 - 2) Within ± 1.0 inch (± 25.4 mm) of the hinge arm and snubber centerlines on the top edge of the door.
 - 3) Within ± 1.0 inch (± 25.4 mm) of the lower stop and intercostal centerlines on the bottom edge of the cargo door. along the forward and aft edges of the door.
 - (c) If necessary, adjust as follows:
 - 1) Open the door.
 - 2) Trim the edge of the door to get the correct skin clearances.
 - (d) Make sure the minimum distance from the edge of the door outer skin to the door frame is as shown (Figure 502).

SUBTASK 52-31-00-820-012

- (3) Adjust the skin clearance with Method 2 (Aero-Averaging) (Figure 502):
 - (a) Make sure the clearances between the door skin and fuselage skin are as shown (Table 504, Table 503).
 - (b) If necessary, adjust as follows:

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- 1) Open the door.
- 2) Trim the edge of the door to get the correct skin clearances.
- (c) Make sure the minimum distance from the edge of the door outer skin to the door frame is as shown (Table 504, Table 503).
- (d) Measure the clearance between the door skin and fuselage skin along the forward and aft edges of the door at the locations that follow:

NOTE: Do not take additional measurements.

- 1) Within ± 1.0 inch (± 25.4 mm) of each stop fitting along the forward and aft edges of the door.
- 2) Record the skin clearance for each stop fitting.
- 3) Use the applicable (Table 506, Table 505) to change the clearance to a Drag value.

NOTE: A forward cargo door measurement of 0.10 inch (2.54mm) clearance is a Drag value of 0.77.

- 4) Record the Drag value for each measurement from the applicable (Table 506, Table 505).

NOTE: There are two tables. Use the correct door table for the measurement that is recorded.

Table 505/52-31-00-993-812 Forward Cargo Door Skin Clearance (Aero-averaging)

CLEARANCE Inch (mm)	DRAG VALUE
0.06 (1.52)	0.46
0.07 (1.78)	0.54
0.08 (2.03)	0.62
0.09 (2.29)	0.69
0.10 (2.54)	0.77
0.11 (2.79)	0.85
0.12 (3.05)	0.92
0.13 (3.30)	1.00
0.14 (3.56)	1.08
0.15 (3.81)	1.15
0.16 (4.06)	1.23
0.17 (4.32)	1.31
0.18 (4.57)	1.39

Table 506/52-31-00-993-813 Aft Cargo Door Skin Clearance (Aero-averaging)

DOOR FORWARD EDGE		DOOR AFT EDGE	
CLEARANCE Inch (mm)	DRAG VALUE	CLEARANCE Inch (mm)	DRAG VALUE
0.06 (1.52)	0.46	0.15 (3.81)	0.75

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(Continued)

DOOR FORWARD EDGE		DOOR AFT EDGE	
0.07 (1.78)	0.54	0.16 (4.06)	0.80
0.08 (2.03)	0.62	0.17 (4.32)	0.85
0.09 (2.29)	0.69	0.18 (4.57)	0.90
0.10 (2.54)	0.77	0.19 (4.83)	0.95
0.11 (2.79)	0.85	0.20 (5.08)	1.00
0.12 (3.05)	0.92	0.21 (5.33)	1.05
0.13 (3.30)	1.00	0.22 (5.58)	1.10
0.14 (3.56)	1.08	0.23 (5.84)	1.15
0.15 (3.81)	1.15	0.24 (6.09)	1.20
0.16 (4.06)	1.23	-	-
0.17 (4.32)	1.31	-	-
0.18 (4.57)	1.39	-	-

- 5) Add all the Drag Values together (sum) and record this as measurement A.
 - a) Record the sum of the Drag Values as Measurement A.
- 6) Divide Measurement A by the number of measurements that you made.

NOTE: If the measurement was made at each of the stop fitting, then divide Measurement A (sum of the Drag Values) by 10 (the number of door stop fittings).

- 7) Make sure that this average drag value is 1.00 or less.

I. Counterbalance Adjustment

SUBTASK 52-31-00-820-002

- (1) Adjust the counterbalance (Figure 504):

- (a) Adjust the cable length as follows:

- 1) Make sure the cargo door is closed and latched.
- 2) For the forward cargo door, make sure the groove on the cam axle shaft is aligned with the FWD mark on the counterbalance 5 degrees clockwise and 0 degrees counterclockwise.
- 3) For the aft cargo door, make sure the groove on the cam axle shaft is aligned with the AFT mark on the counterbalance 5 degrees clockwise and 0 degrees counterclockwise.
- 4) If necessary, adjust as follows:
 - a) Remove the lockwire between the adjustment screw and the alignment bolt at the cable and cargo compartment ceiling attachment.
 - b) Remove the lockwire between the adjustment screw and the sheave.
 - c) Turn the adjustment screw to change the length of the cable and the alignment of the groove on the cam axle shaft with the applicable mark on the counterbalance.
 - d) When cable length adjustments are made, open the cargo door 1-2 inches (25.4 to 50.8mm) to put a load on the safety nut and let the cable untwist while loose.

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- (b) Make the counterbalance operable as follows:
- 1) Make sure the cargo door is closed and latched.
 - 2) Remove the washer and nut from the guide pin.
NOTE: Do not remove the adjustment nut.
 - 3) Apply a light coat of grease, D00015 to the outer surface of the sleeve.
 - 4) Apply the compound, A00159 to the screw.
 - 5) Install the screw, washer, and sleeve on the guide pin.
- (c) Adjust the cable alignment as follows:
- 1) Open the cargo door.
 - 2) Make sure the clearance between the cable and the two sides of the pulley is as shown (Figure 504).
 - 3) If necessary, adjust as follows:
 - a) Turn the alignment bolt to move the sheave forward or aft to get the correct clearance.
 - 4) Install the lockwire between the alignment bolt and the adjustment screw.
 - 5) Install the lockwire between the adjustment screw and the sheave.
- (d) Adjust the force to open and close the cargo door:
- 1) Open the cargo door.
 - 2) Make sure the cargo door is held against the bumper on the cargo compartment ceiling.
 - 3) Measure the force to lift the cargo door into the open position.
NOTE: Measure the force at the external handle perpendicular to the cargo door skin using the force gauge, COM-1557.
 - 4) Make sure the maximum force to lift the cargo door is 25 pounds (11.3 kilograms).
 - 5) Measure the force to lower the cargo door until the latch rollers touch the latch receivers.
NOTE: Measure the force at the external handle perpendicular to the cargo door skin using the force gauge, COM-1557.
 - 6) Make sure the maximum force to lower the cargo door is 35 pounds (15.8 kilograms).
 - 7) If necessary, adjust as follows:
 - a) Turn the adjustment nut on the counterbalance to change the compression of the spring and get the correct forces.
 - 8) Install the lockwire on the adjustment nut.

J. Flushness Adjustment

SUBTASK 52-31-00-820-013

- (1) Two measurement methods are provided to adjust the door.
- (a) Method 1 is the Standard measurement method for skin flushness adjustment.
 - (b) Method 2 is Aero-Averaging measurement for skin flushness adjustment.

SUBTASK 52-31-00-820-014

- (2) Adjust the skin flushness using Method 1 (Figure 502):
- (a) Close and latch the cargo door.

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- (b) As a minimum, measure the flushness between the cargo door skin and fuselage skin along each edge of the cargo door at the locations that follow:

NOTE: Make additional measurements if necessary.

- 1) Within ± 1.0 inch (± 25.4mm) of each stop fitting along the forward and aft edges of the cargo door.
2) Within ± 1.0 inch (± 25.4mm) of the hinge arm and snubber centerlines on the top edge of the cargo door.
3) Within ± 1.0 inch (± 25.4mm) of the lower stop and intercostal centerlines on the bottom edge of the cargo door.
(c) Make sure the flushness between the fuselage skin and the forward cargo door skin is as shown, (Table 501) and (Figure 502).
(d) Make sure the flushness between the fuselage skin and the aft cargo door skin is as shown, (Table 502) and (Figure 502).
(e) If necessary, adjust as follows (Figure 505):
1) Open the cargo door.
2) Do the latch adjustment to get the correct skin flushness.

SUBTASK 52-31-00-820-015

- (3) Adjust the skin flushness using Method 2 (Aero-Averaging) (Figure 502):
(a) Make sure the flushness between the door skin and fuselage skin along the forward and aft edges of the door are as shown (Table 504, Table 503) and (Figure 502).
(b) As a minimum, measure the flushness between the door skin and fuselage skin along the forward and aft edges of the door at the locations that follow:
1) Within ± 1.0 inch (± 25.4mm) of each stop fitting along the forward and aft edges of the door.
NOTE: Do not take additional measurements.
2) Record the skin flushness for each stop fitting.
3) Use the (Table 507) to change the flushness to a Drag value.
NOTE: A measurement of -0.10 inch (-2.54mm) flushness at the door fwd edge is a Drag value of 0.00.
4) Record the Drag value for each measurement from (Table 507).

Table 507/52-31-00-993-814 Forward and Aft Cargo Door Skin Flushness (Aero-Averaging)

Table with 3 columns: Door Flushness, Fwd Edge Inch (mm), Aft Edge Inch (mm), Drag Value. Rows show flushness values from -0.18 to -0.12 inches and corresponding drag values from 1.59 to 0.29.

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(Continued)

Door Flushness		
Fwd Edge Inch (mm)	Aft Edge Inch (mm)	Drag Value
-0.11 (-2.79)	-0.09 (-2.29)	0.12
-0.10 (-2.54)	-0.10 (-2.54)	0.00
-0.09 (-2.29)	-0.11 (-2.79)	0.13
-0.08 (-2.03)	-0.12 (-3.05)	0.46
-0.07 (-1.78)	-0.13 (-3.30)	0.86
-0.06 (-1.52)	-0.14 (-3.56)	1.30
-0.05 (-1.27)	-0.15 (-3.81)	1.78
-0.04 (-1.02)	-0.16 (-4.06)	2.29
-0.03 (-0.76)	-0.17 (-4.31)	2.82
-0.02 (-0.51)	-0.18 (-4.57)	3.38

- 5) Add all of the Drag Values together (sum).
 - a) Record the sum of the Drag Values as Measurement A.
- 6) Divide measurement A by number of measurements that you made.

NOTE: If the measurement was made at each of the stop fitting, then divide Measurement A (sum of the Drag Values) by 10 (the number of door stop fittings).

- a) Make sure that this average Drag Value is 1.00 or less.
- (c) If this average Drag Value is greater than 1.00, then adjust the door as follows:
 - 1) Open the door.
 - 2) Do the latch adjustment to get the correct skin flushness.

K. Latch Adjustment

SUBTASK 52-31-00-820-004

- (1) Do the latch adjustment (Figure 505):
 - (a) Close and latch the cargo door.
 - (b) Make sure the clearance between the forward and aft latch crank and latch receiver is as shown (Figure 505).
 - (c) If necessary, adjust as follows:
 - 1) Open the cargo door.
 - 2) Remove the bolts, washers, and nuts that attach the latch crank to the latch torque tube.
 - 3) Move the adjustment washers from one end of the latch torque tube to the other end to increase or decrease the clearance between the latch crank and latch receiver.
 - 4) Install the bolts, washers, and nuts to attach the latch crank to the latch torque tube.
 - 5) Make sure that when the clearance at one end of the cargo door is 0.00 inch (0.00mm), the clearance at the other end is 0.04-0.08 inch (1.01-2.03mm).

NOTE: The cargo door can move forward and aft during normal operation.

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- 6) If more adjustment is necessary, do the steps that follow:
 - a) Remove the bolts, washers, and serrated plates that attach the forward and aft latch receivers to the fuselage frame.
 - b) Install a new laminated shim or remove laminations from the shim under the latch receivers to get the correct adjustment.
 - c) Apply the primer, C00259 to the bare laminations of the shim before installation.
 - d) Install the bolts, washers, and serrated plates to attach the latch receivers to the fuselage frame.
- (d) Make sure the cargo door is closed and latched.
- (e) Try to move the latch torque tube forward and aft to do a check for latch roller and latch torque tube end-play.
- (f) Make sure the latch roller and latch torque tube end play is 0.015 inch (0.38mm) maximum.
- (g) If necessary, adjust as follows:
 - 1) Remove the bolts, washers, and nuts that attach the latch crank to the latch torque tube.
 - 2) Add or remove the adjustment washers from one of the ends of the latch torque to decrease the end play.
 - 3) Install the bolts, washers, and nuts to attach the latch crank to the latch torque tube.

L. Centering Guide Adjustment

SUBTASK 52-31-00-820-005

- (1) Do the centering guide adjustment (Figure 506):
 - (a) Open and close the cargo door.
 - (b) As the cargo door closes and the latch rollers go into the latch receivers, measure the clearance between the forward and aft centering guides and guide rollers.
 - (c) Make sure the clearance between the centering guide and guide roller is as shown.
 - (d) When the cargo door is closed, make sure the forward and aft guide rollers do not touch the centering guides.
 - (e) If necessary, adjust as follows:
 - 1) Open the cargo door.
 - 2) Remove the bolts and washers that attach the forward and aft centering guides to the cargo door.
 - 3) Install a new laminated shim or remove laminations from the shim under the centering guides to get the correct clearance.
 - 4) Apply the primer, C00259 to the bare laminations of the shim before installation.
 - 5) Install the bolts and washers to attach the centering guides to the cargo door.

M. Stop Pin Adjustment

SUBTASK 52-31-00-820-006

- (1) Do the stop pin adjustment (Figure 507):
 - (a) Close and latch the cargo door.
 - (b) Make sure the clearance between the stop pins and the stop pads on the cargo door is as shown (View A-A).
 - (c) If necessary, adjust as follows:

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- 1) Position the door in the opening with the latch rollers at the latch receivers' overcenter high point (Top Dead Center, View B).
- 2) Turn the stop pins fully outboard until they just touch the stop pads.
- 3) Open the door to a position to provide access.
- 4) Turn the stop pins back to the nearest lock groove.
- 5) Install the lock spring.
- 6) Close and lock the cargo door.
- 7) Measure the stop pin and stop pad clearance (View A-A).

NOTE: Stop pin gaps at beams D, E, and Threshold must be within 0.030 inch (0.762 mm) of the adjacent stop pin gap. The gap at beam D must be within .030 inch of the gap at beam C. The gap at beam E must be within .030 inch of the gap at beam D. The gap at the Threshold must be within .030 inch of the gap at beam E.

- (d) Make sure the stop pins align with the stop pads on the forward and aft edges of the cargo door as shown (View B-B).

SUBTASK 52-31-00-820-007

- (2) Do this task: Cargo Door Indication Switch Adjustment, TASK 52-71-31-820-801.

N. Put the Airplane Back to Its Usual Condition

SUBTASK 52-31-00-410-001

- (1) Install the cargo door lining.

————— **END OF TASK** —————

TASK 52-31-00-700-801

3. Cargo Door System Test

A. General

- (1) The system test is a check that the cargo door is installed and adjusted correctly and that the mechanical systems operate correctly.
- (2) Make sure the installation and adjustment of the cargo door is done. Make sure the cargo door seal and lining are installed.

B. References

Reference	Title
24-22-00-860-813	Supply External Power (P/B 201)

C. Location Zones

Zone	Area
821	Forward Cargo Door
822	Aft Cargo Door

D. Cargo Door System Test

SUBTASK 52-31-00-860-004

- (1) Do this task: Supply External Power, TASK 24-22-00-860-813.

SUBTASK 52-31-00-730-001

- (2) Do the system test for the cargo door warning:
 - (a) Make sure the forward and aft cargo doors are fully closed, latched, and locked.

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- (b) Make sure that the FWD CARGO or AFT CARGO light does not show on the Forward Overhead Panel, P5, in the flight compartment.
- (c) Open the cargo door.
- (d) Make sure the FWD CARGO or AFT CARGO light on the Forward Overhead Panel, P5, comes on for the cargo door.
- (e) Close the cargo door.
- (f) Make sure the FWD CARGO or AFT CARGO light goes off.

SUBTASK 52-31-00-730-002

- (3) Do the cargo door handle torque test:
 - (a) Open the cargo door.
 - (b) Measure the torque on the interior handle to close the cargo door.
 - (c) Make sure the maximum torque on the interior handle to close the cargo door is 300 pound-inches (33.89 newton-meters).
 - (d) Measure the torque on the exterior handle to close the cargo door.
 - (e) Make sure the maximum torque on the exterior handle to close the cargo door is 400 pound-inches (45.19 newton-meters).
 - (f) Close and latch the cargo door.
 - (g) Measure the torque on the interior handle to open the cargo door.
 - (h) Make sure the maximum torque on the interior handle to open the cargo door is 270 pound-inches (30.5 newton-meters).
 - (i) Measure the torque on the exterior handle to open the cargo door.
 - (j) Make sure the maximum torque on the exterior handle to open the cargo door is 360 pound-inches (40.67 newton-meters).
 - 1) If the maximum torque is more than specified, do these steps:
 - a) Make sure the clearance between the fuselage skin and door skin is correct.
 - b) Make sure the flushness adjustment is correct.
 - c) Make sure the stop pin adjustment is correct.
 - d) Make sure the latch adjustment is correct.

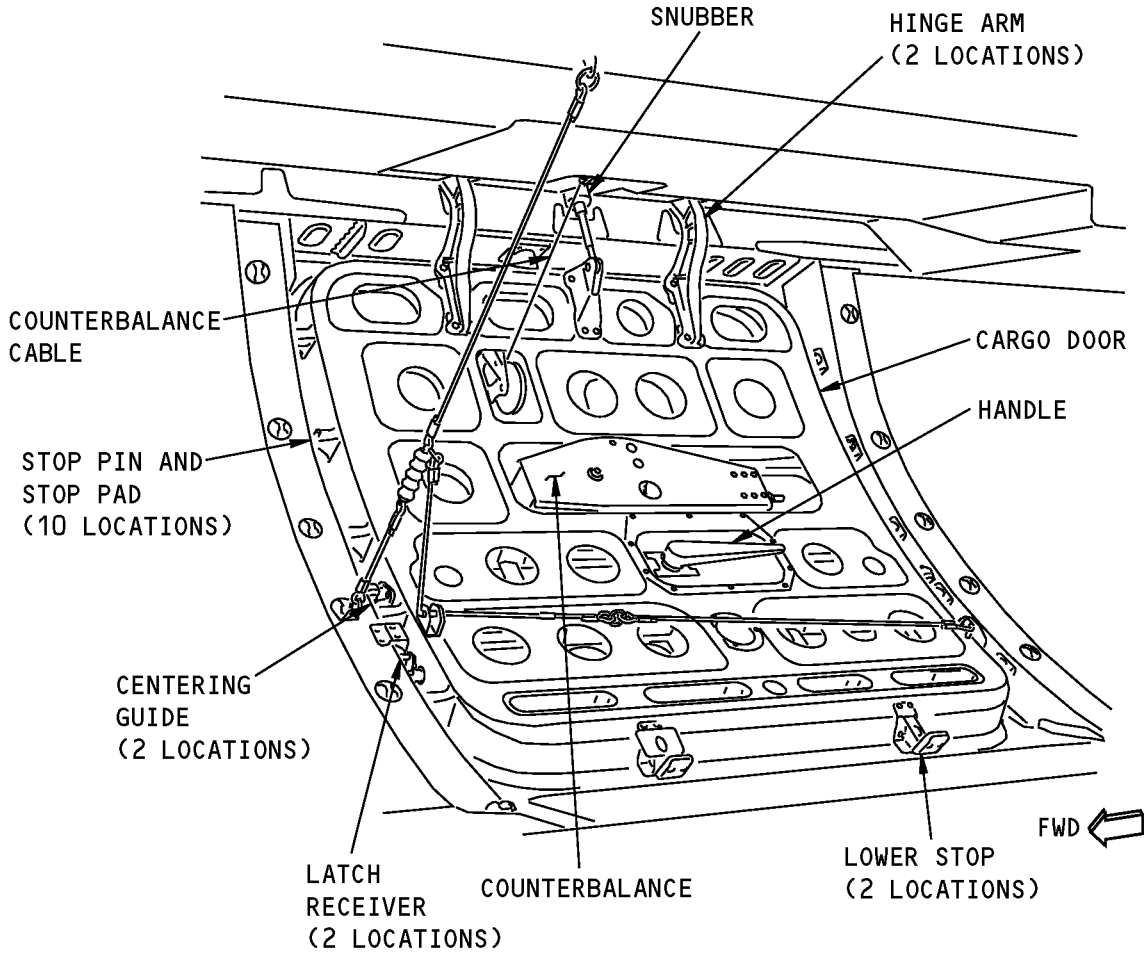
————— **END OF TASK** —————

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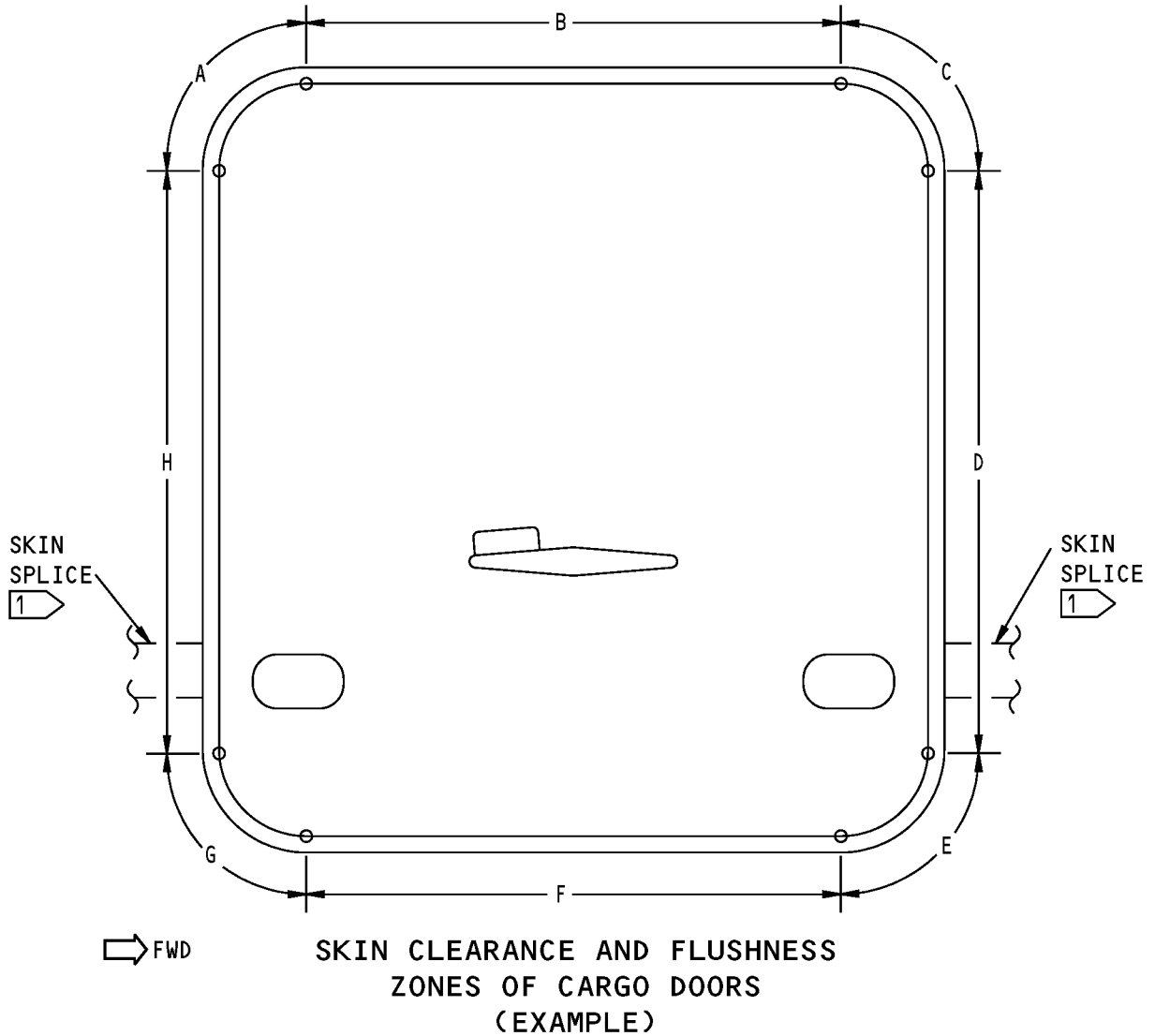
**CARGO DOOR
(LINING REMOVED, EXAMPLE)**

**Cargo Door Adjustment
Figure 501/52-31-00-990-801**

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NOTE: REFER TO AEROSMOOTHNESS LIMITS TABLES.

1 THE FLUSHNESS AT SKIN SPLICES WILL BE MORE THAN THE FLUSHNESS SHOWN BY THE ADDITIONAL SKIN AND BONDING THICKNESS

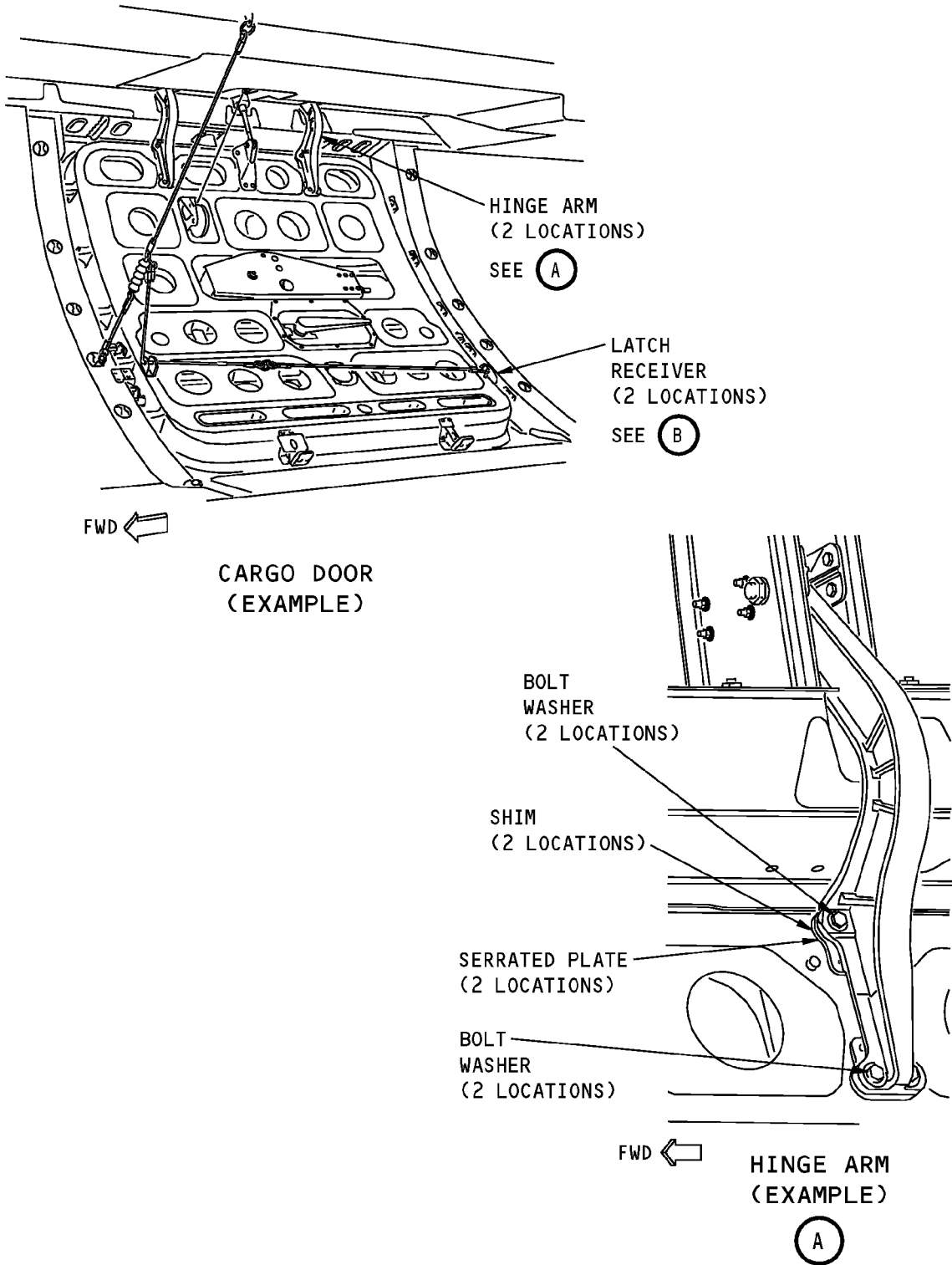
**Cargo Door Skin Clearances
Figure 502/52-31-00-990-802**

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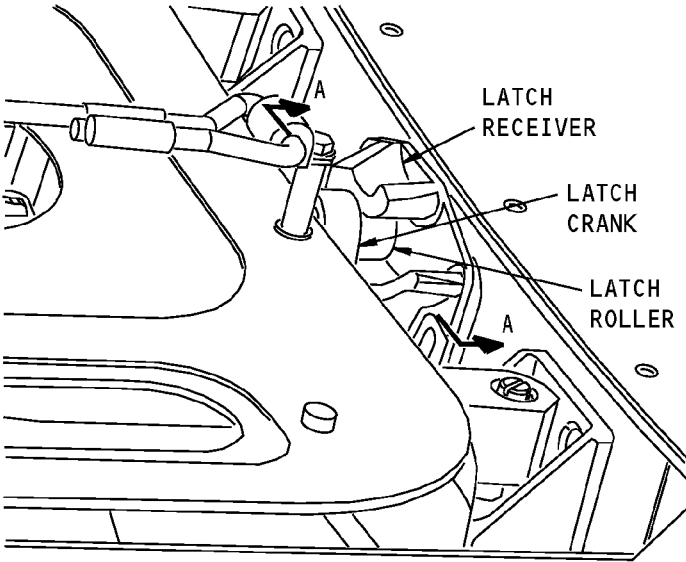


**Hinge Arm Adjustment
Figure 503 (Sheet 1 of 2)/52-31-00-990-803**

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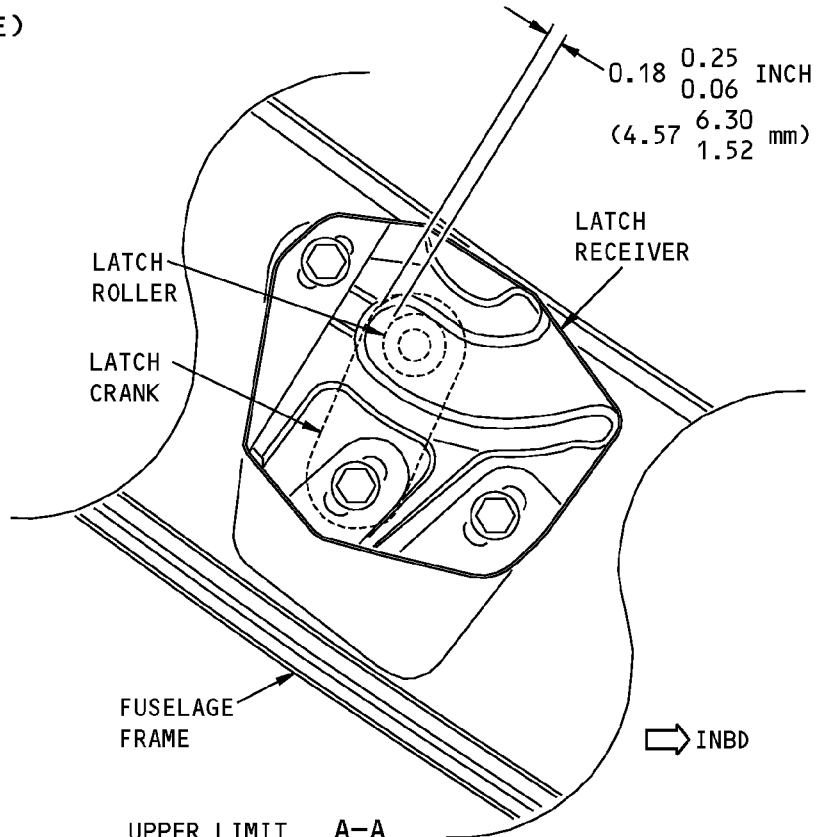
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FWD ← LATCH RECEIVER (EXAMPLE)

(B)



NOTE: DIMENSION STANDARD: NOMINAL
UPPER LIMIT A-A
LOWER LIMIT

**Hinge Arm Adjustment
Figure 503 (Sheet 2 of 2)/52-31-00-990-803**

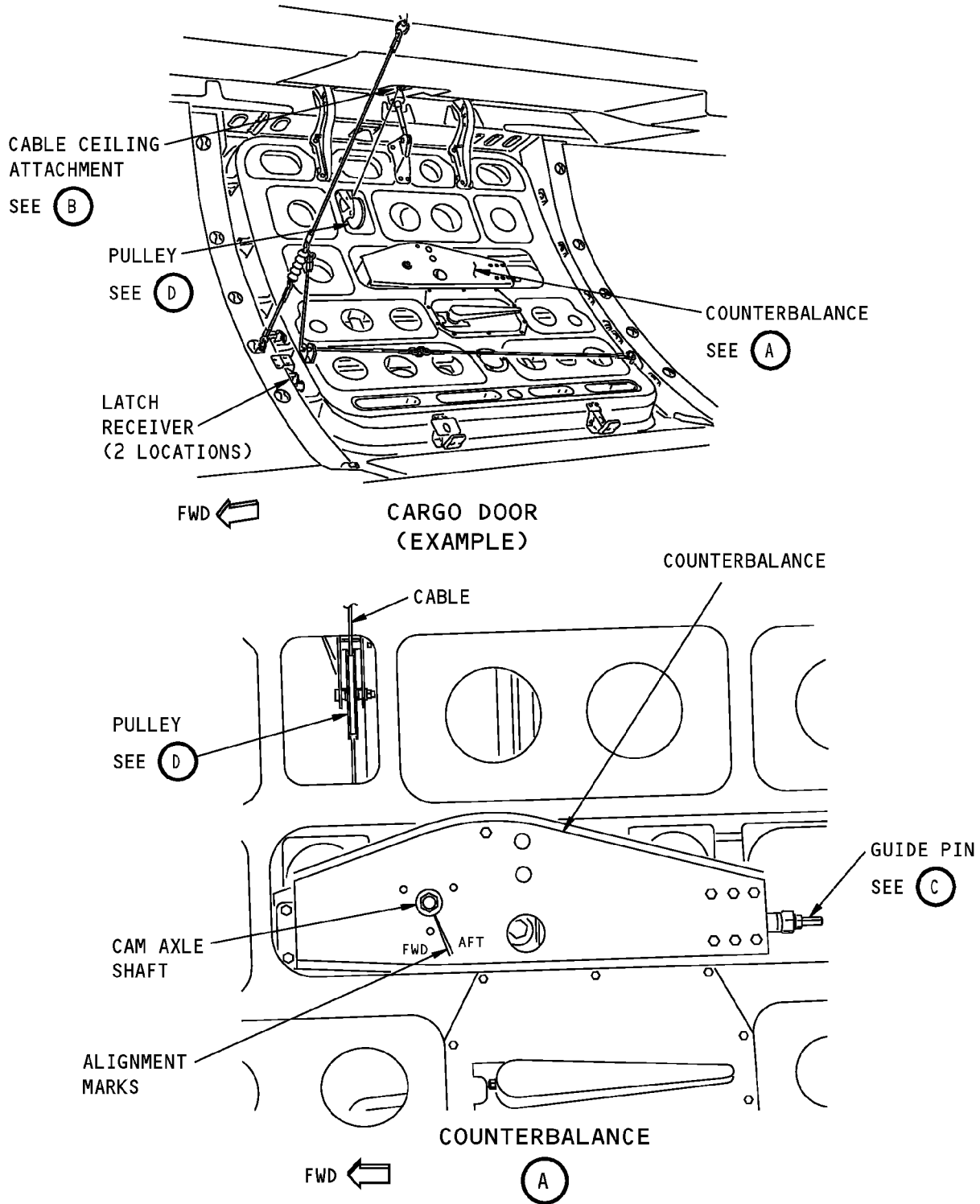
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**Counterbalance Mechanism Adjustment
Figure 504 (Sheet 1 of 3)/52-31-00-990-804**

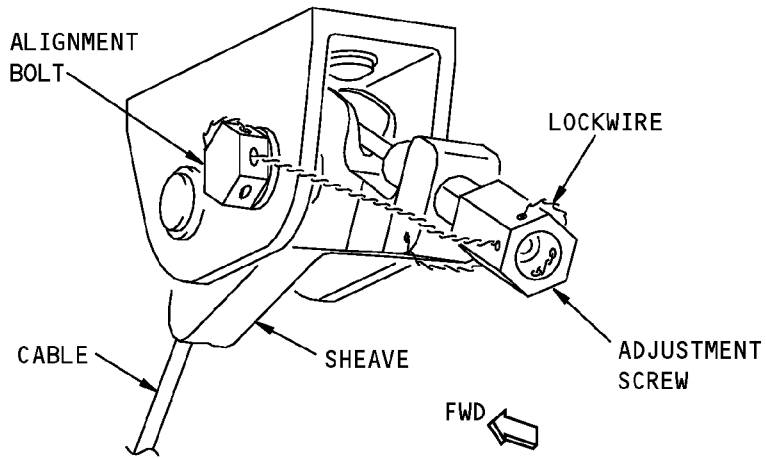
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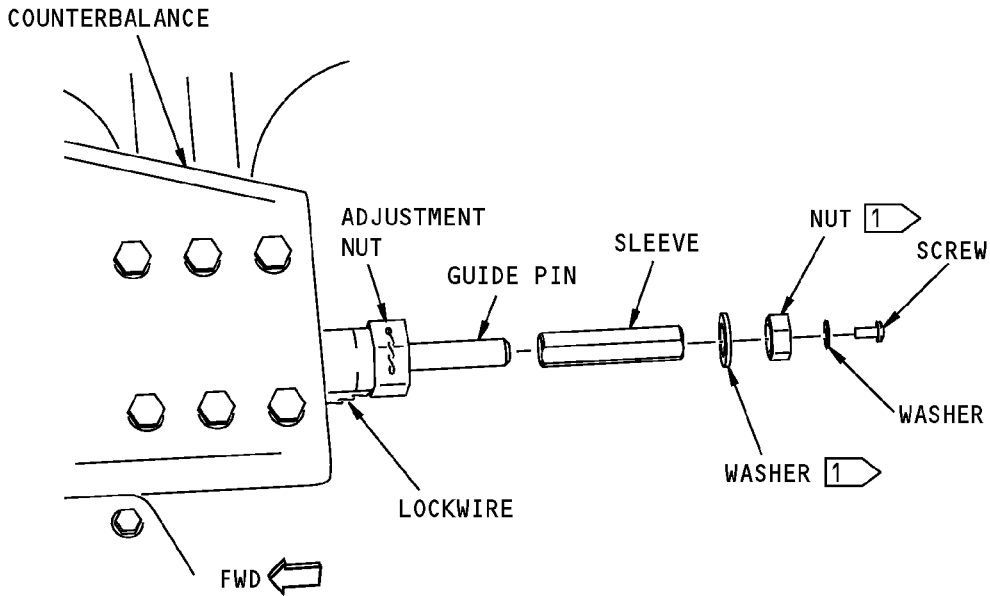
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CABLE CEILING ATTACHMENT

(B)



GUIDE PIN

(C)

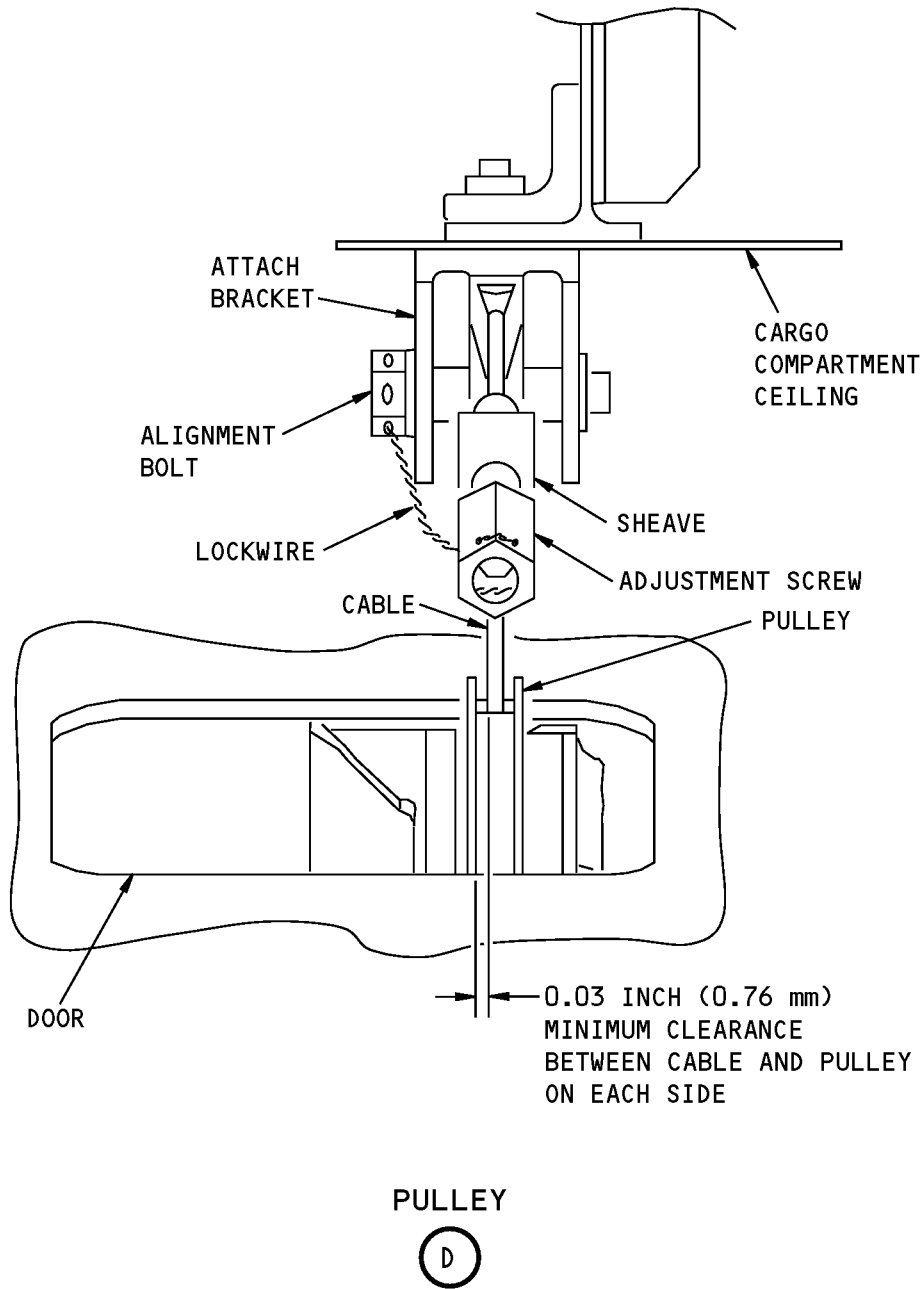
1 → INSTALL THE WASHER AND NUT TO SAFETY THE COUNTERBALANCE.

**Counterbalance Mechanism Adjustment
Figure 504 (Sheet 2 of 3)/52-31-00-990-804**

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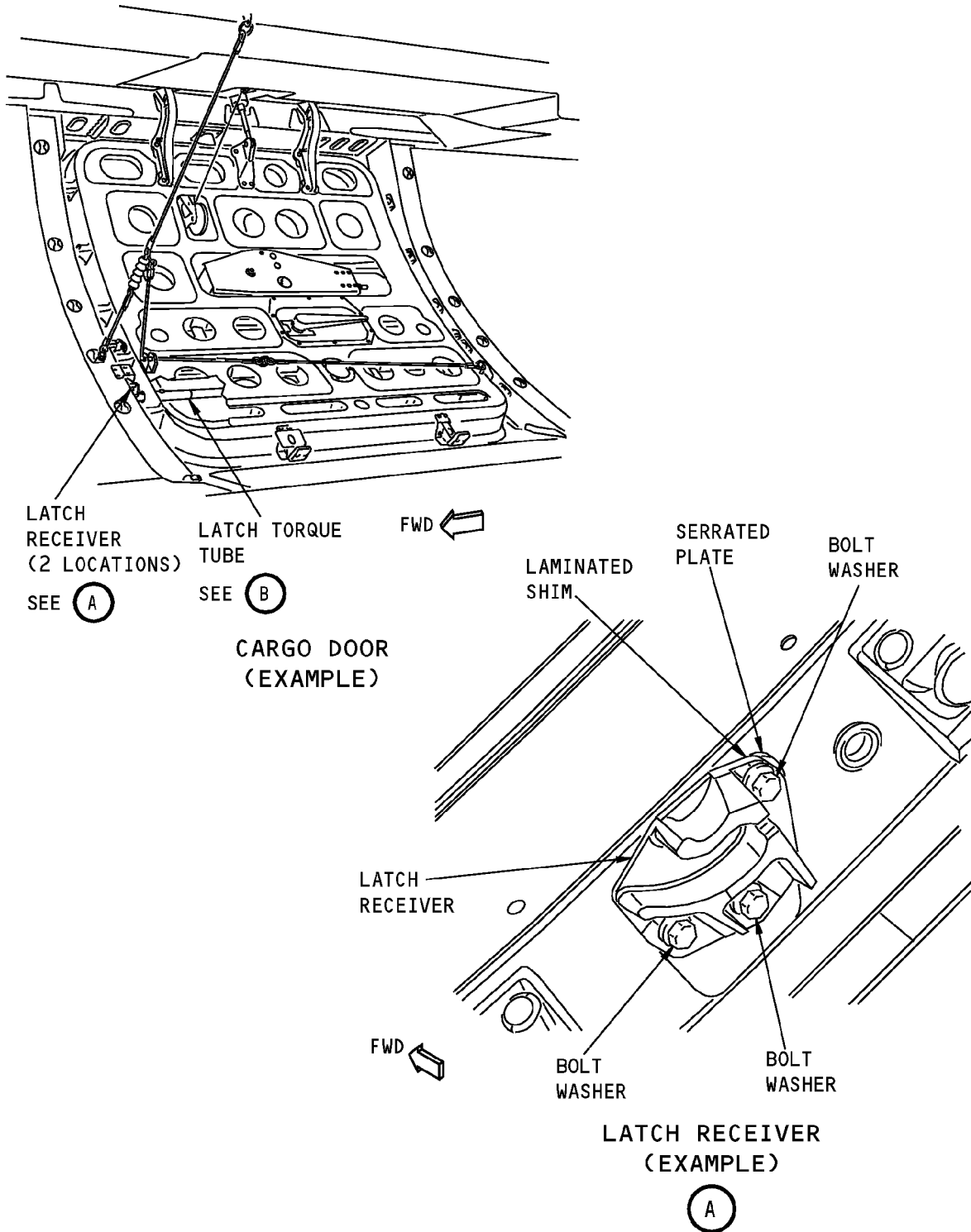
**Counterbalance Mechanism Adjustment
Figure 504 (Sheet 3 of 3)/52-31-00-990-804**

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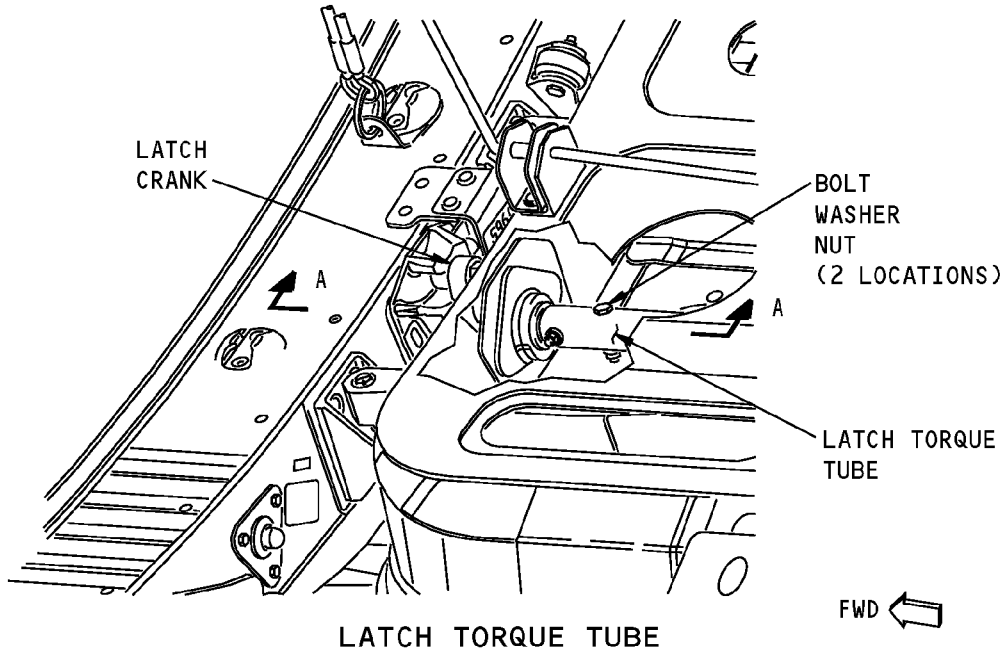


**Flushness and Latch Adjustment
Figure 505 (Sheet 1 of 2)/52-31-00-990-805**

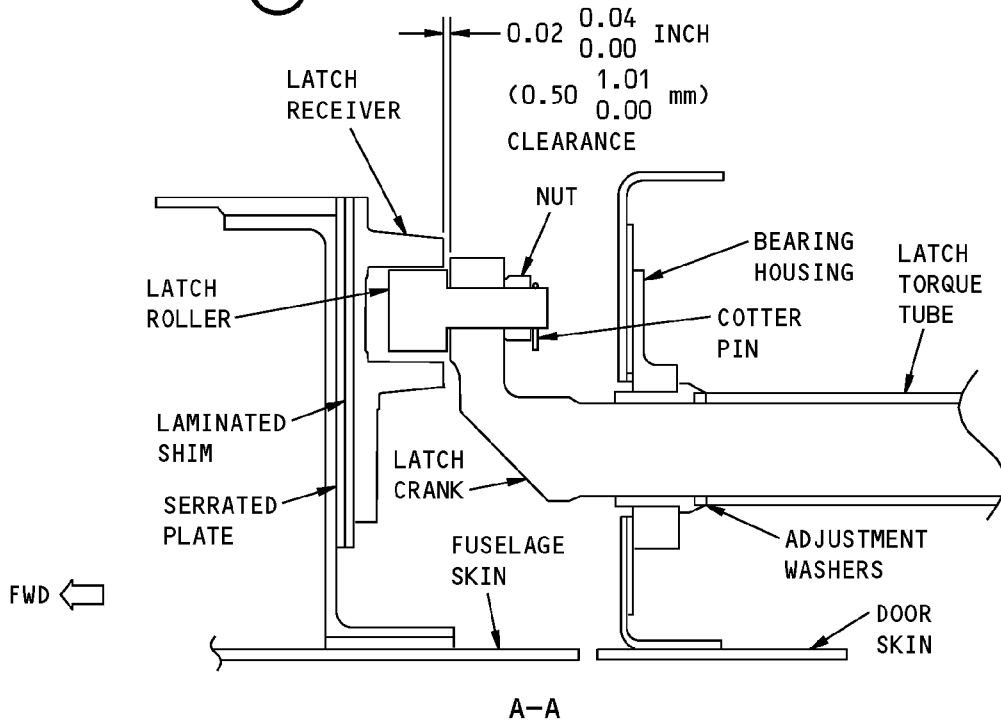
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(B)



NOTE: DIMENSION STANDARD: NOMINAL UPPER LIMIT
LOWER LIMIT

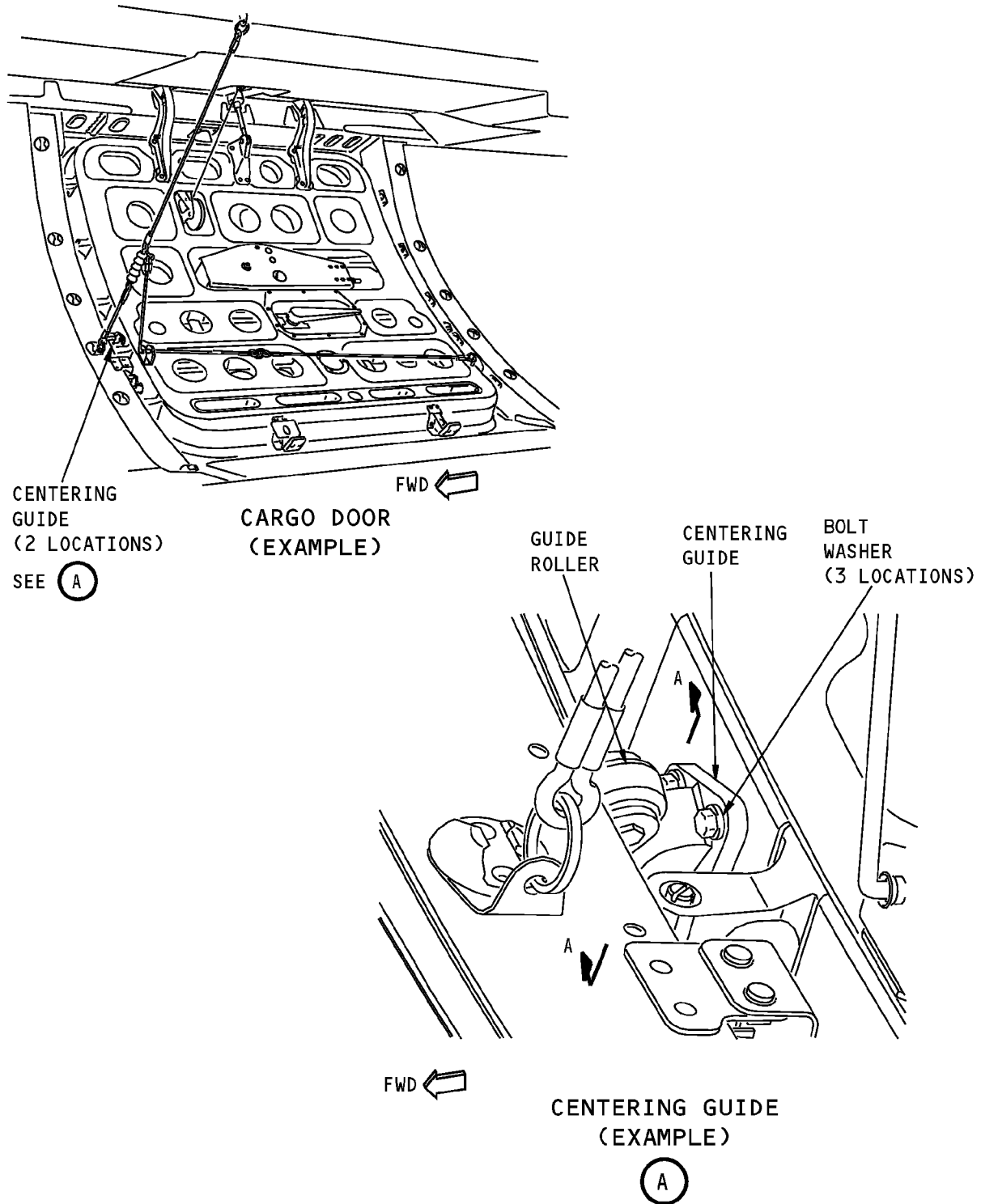
**Flushness and Latch Adjustment
Figure 505 (Sheet 2 of 2)/52-31-00-990-805**

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Centering Guide Adjustment
Figure 506 (Sheet 1 of 2)/52-31-00-990-806

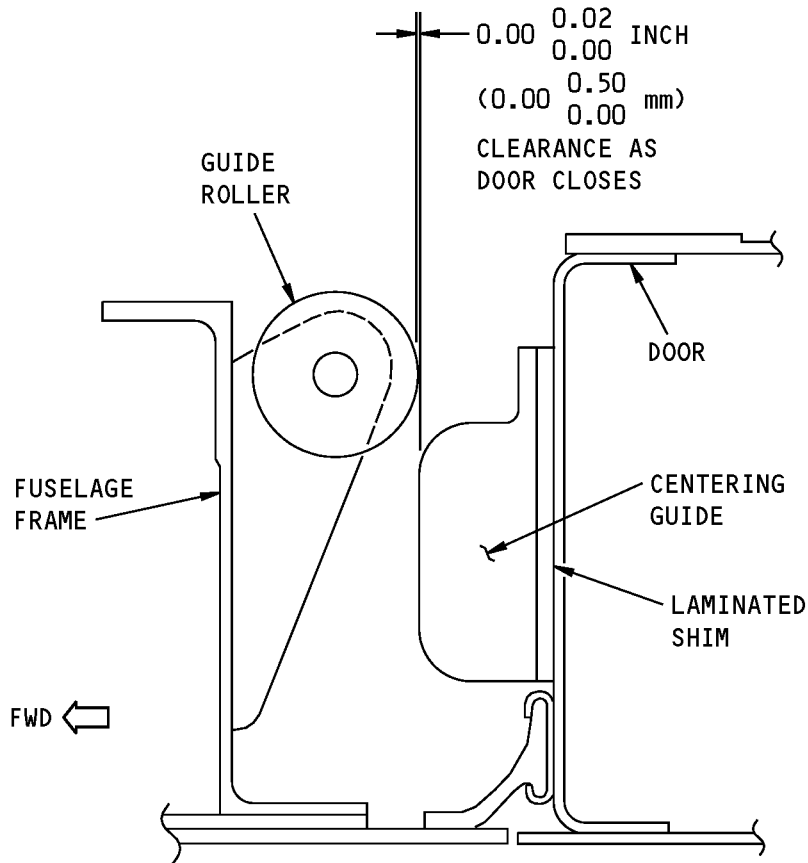
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A-A

NOTE: DIMENSION STANDARD: NOMINAL UPPER LIMIT
 LOWER LIMIT

Centering Guide Adjustment
Figure 506 (Sheet 2 of 2)/52-31-00-990-806

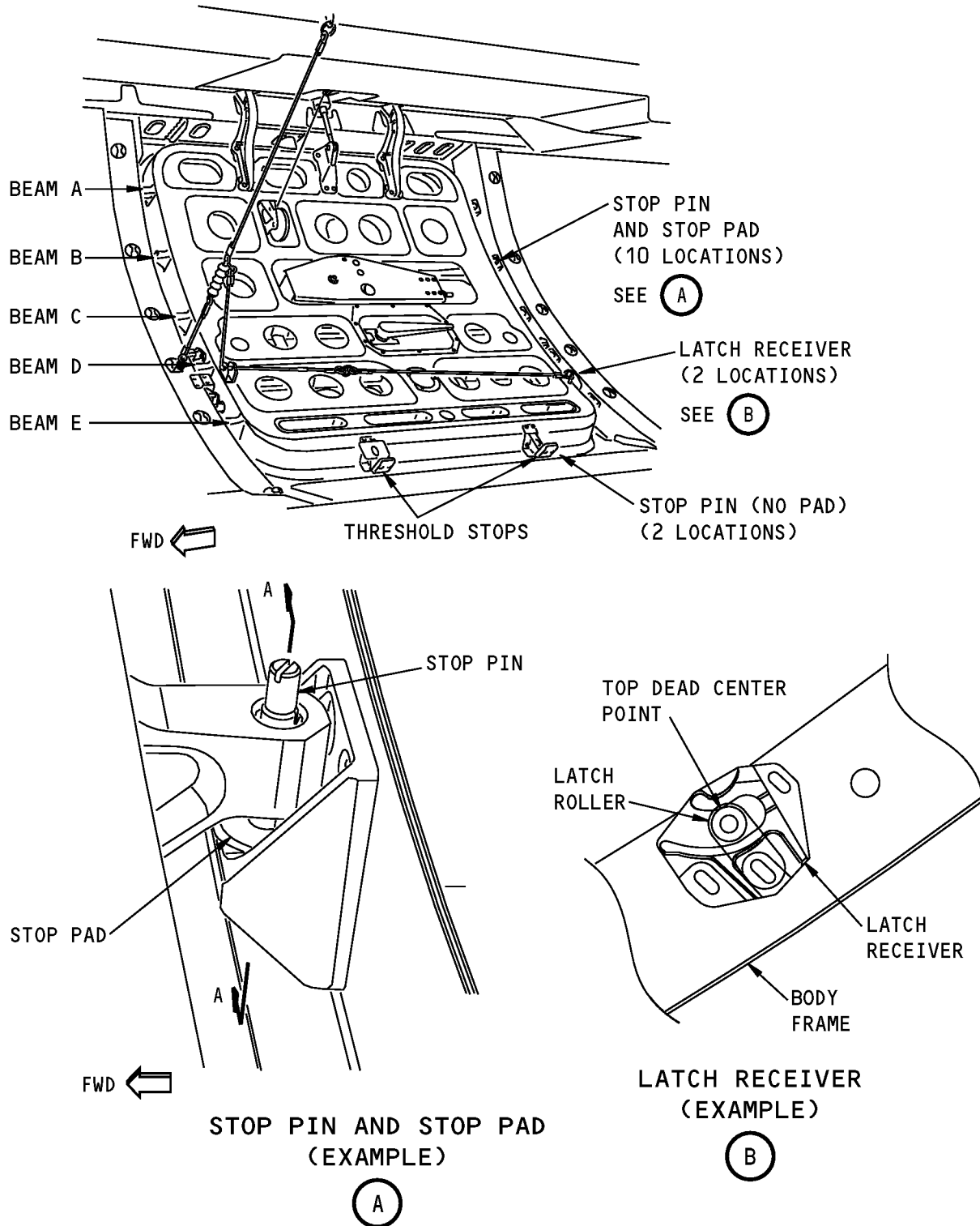
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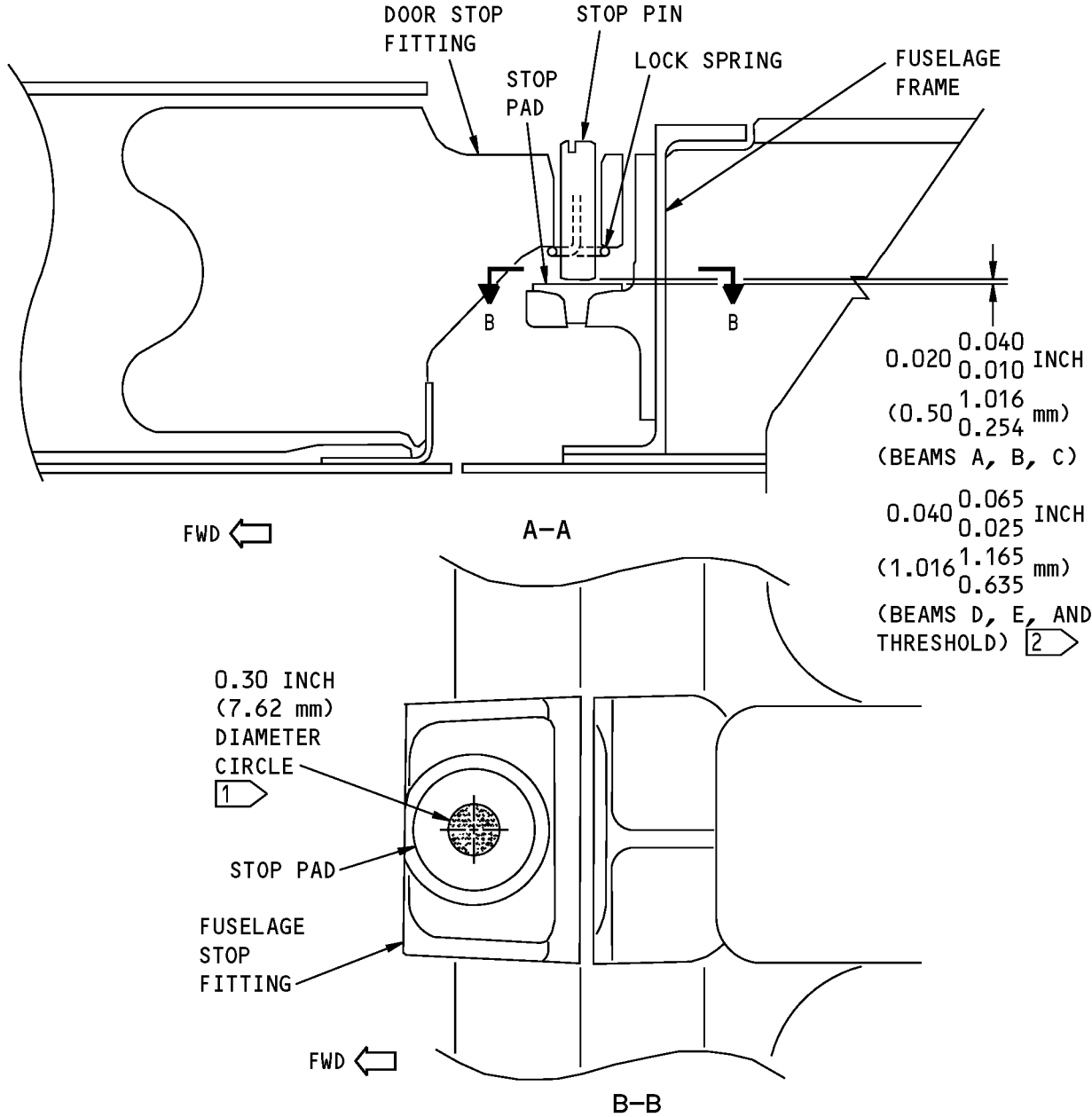
**Stop Pin Adjustment
Figure 507 (Sheet 1 of 2)/52-31-00-990-807**

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NOTE: DIMENSION STANDARD: NOMINAL UPPER LIMIT
 LOWER LIMIT

- 1** STOP PIN CENTER MUST TOUCH STOP PAD CENTER WITHIN A 0.30 INCH (7.62 mm) DIAMETER CIRCLE.
- 2** STOP PIN GAPS AT BEAMS D, E, AND THRESHOLD MUST BE WITHIN 0.030 INCH (0.762 mm) OF THE ADJACENT STOP PIN GAP.

Stop Pin Adjustment
Figure 507 (Sheet 2 of 2)/52-31-00-990-807

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CARGO DOOR - INSPECTION/CHECK

1. General

- A. This procedure contains scheduled maintenance task data.
- B. This procedure has these tasks:
 - (1) A check of the forward or aft cargo door.
 - (2) A check of the forward or aft cargo door pressure seal.
- C. This procedure is the same for each cargo door.

TASK 52-31-00-200-801

2. Cargo Door Check

A. Location Zones

Zone	Area
821	Forward Cargo Door
822	Aft Cargo Door

B. Prepare for the Inspection

SUBTASK 52-31-00-010-001

- (1) Remove the door lining.

SUBTASK 52-31-00-010-002

- (2) Open and close the door as necessary to get access to the door components.

C. Inspection

SUBTASK 52-31-00-210-001

- (1) Do a visual inspection of the door external structure and handle mechanism as follows:

- (a) Examine the external skin.
 - 1) Look for cracks and corrosion.
 - 2) Look for burrs.
 - 3) Look for loose and missing fasteners.
- (b) Examine the external handle.
 - 1) Look for cracks and corrosion.
 - 2) Look for too much wear.

SUBTASK 52-31-00-210-002

- (2) Do a visual inspection of the latch mechanism and centering guides as follows:

- (a) Examine the latch cranks and latch rollers.
 - 1) Look for cracks and corrosion.
 - 2) Look for too much wear.
 - 3) Look for unwanted particles on the latch rollers.
- (b) Examine the centering guides.
 - 1) Look for cracks and corrosion.
 - 2) Look for too much wear.

SUBTASK 52-31-00-210-003

- (3) Do a visual inspection of the door stop fittings and stop pins as follows:

- (a) Examine the door stop fittings.

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- 1) Look for cracks and corrosion.
- (b) Examine the stop pins.
 - 1) Look for cracks and corrosion.
 - 2) Look for unwanted particles on the stop pins.
 - 3) Make sure the spring locks are installed.

SUBTASK 52-31-00-210-005

- (4) Do a visual inspection of the attach structure as follows:
 - (a) Examine the hinge arms.
 - 1) Look for cracks and corrosion.
 - 2) Look for too much wear.
 - (b) Examine the hinge arm fasteners.
 - 1) Make sure the bolts fully engage the nuts.
 - 2) Make sure the bolt threads are not damaged.

SUBTASK 52-31-00-210-006

- (5) Do a visual inspection of the door internal structure and handle mechanism as follows:
 - (a) Examine the internal frames.
 - 1) Look for cracks and corrosion.
 - 2) Look for loose and missing fasteners.
 - (b) Examine the internal skin.
 - 1) Look for cracks and corrosion.
 - 2) Look for burrs.
 - 3) Look for loose and missing fasteners.
 - (c) Examine the internal handle.
 - 1) Look for cracks and corrosion.
 - 2) Look for too much wear.
 - (d) Examine the handle housing.
 - 1) Look for cracks and corrosion.

SUBTASK 52-31-00-210-007

- (6) Do a visual inspection of the cargo door counterbalance mechanism as follows:
 - (a) Examine the cable assembly.
 - 1) Look for broken wires in the cable.

NOTE: Replace the cable if there is more than one broken wire for each 10 inches of cable length.
 - 2) Make sure the ends of the cable are attached correctly.
 - 3) Make sure the cable is correctly aligned.
 - (b) Examine the pulley.
 - 1) Look for cracks and corrosion.
 - 2) Look for uneven wear caused by the cable.
 - 3) Look for loose and missing fasteners.
 - (c) Examine the counterbalance.

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- 1) Make sure the counterbalance is correctly attached.
- 2) Look at the cam and the roller bearing for too much wear and plating that has flakes.
- 3) Look for cracks or corrosion.

SUBTASK 52-31-00-210-008

- (7) Do a visual inspection of the lanyard assembly.
 - (a) Examine the lanyard assembly.
 - 1) Make sure the cables are in good condition.
 - 2) Make sure the cables are attached correctly.

SUBTASK 52-31-00-210-009

- (8) Do a visual inspection of the fuselage frame as follows:
 - (a) Examine the fuselage stop fittings and stop pads.
 - 1) Look for cracks and corrosion.
 - 2) Look for wear that is not in the center of the stop pads.
 - 3) Look for unwanted particles on the stop fittings.
 - (b) Examine the latch receivers.
 - 1) Look for cracks, corrosion, and too much wear.
 - 2) Look for unwanted particles in the latch receivers.
 - (c) Examine the centering guides.
 - 1) Look for cracks and corrosion.
 - 2) Look for unwanted particles on the centering guide rollers.
 - (d) Examine the structure around the door opening.
 - 1) Look for cracks and corrosion.
 - 2) Look for loose and missing fasteners.

D. Put the Airplane Back to Its Usual Condition

SUBTASK 52-31-00-210-010

- (1) Install the door lining.

————— END OF TASK —————

TASK 52-31-00-200-802

3. Cargo Door Pressure Seal Check

A. General

- (1) This procedure is a scheduled maintenance task.

B. Location Zones

Zone	Area
821	Forward Cargo Door
822	Aft Cargo Door

C. Prepare for the Inspection

SUBTASK 52-31-00-010-006

- (1) Open the door.

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D. Inspection

SUBTASK 52-31-00-210-011

(1) Do a visual inspection of the door pressure seal as follows:

(a) Examine the seal.

- 1) Look for cracks, holes, and tears.
- 2) Look for indications of seal deterioration.
- 3) Make sure the seal is installed in the seal retainer.

E. Put the Airplane Back to Its Usual Condition

SUBTASK 52-31-00-410-004

(1) Close the door.

————— **END OF TASK** —————

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CARGO DOOR COUNTERBALANCE MECHANISM - REMOVAL/INSTALLATION

1. General

- A. This procedure has these tasks:
 - (1) A removal of the cargo door counterbalance.
 - (2) An installation of the cargo door counterbalance.
- B. This procedure is the same for the forward and aft cargo door.
- C. The cargo door counterbalance is referred to as the counterbalance in this procedure.

TASK 52-31-12-000-801

2. Cargo Door Counterbalance Removal

(Figure 401)

A. Location Zones

Zone	Area
821	Forward Cargo Door
822	Aft Cargo Door

B. Prepare for the Removal

SUBTASK 52-31-12-010-001

- (1) Get access to the counterbalance [2]:
 - (a) Attach a DO-NOT-OPERATE tag to the exterior handle of the door.
 - (b) Open the door and go into the cargo compartment.
 - (c) Close and latch the door.
 - (d) Remove the door lining over the counterbalance [2].

SUBTASK 52-31-12-860-001

- (2) Safety the counterbalance [2]:
 - (a) Make sure the door is closed and latched.
 - (b) Remove the screw [17], washer [18], and sleeve [15] from the guide pin [3].
 - (c) Install a washer [27] and nut [11] on the guide pin [3] against the adjustment nut [20].

NOTE: Install the nut finger tight only. This will hold the spring in the counterbalance [2] and stop its operation.

C. Removal of the Cargo Door Counterbalance

SUBTASK 52-31-12-020-001

WARNING: MAKE SURE THE COUNTERBALANCE IS SAFETIED BEFORE YOU DISCONNECT THE COUNTERBALANCE OR CABLE. THERE IS A VERY STRONG SPRING IN THE COUNTERBALANCE AND CABLE THAT CAN CAUSE INJURY TO PERSONS.

- (1) Disconnect the counterbalance [2] from the door:
 - (a) Unlatch and open the door 1-2 inches.
 - (b) Install a block under the lower stops to hold the door up.
 - (c) Make sure the cable [1] is loose.
 - (d) Remove the bolts [7] and washers [6] that attach the forward end of the counterbalance [2] to the door.

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- (e) Hold the counterbalance [2] and remove the bolts [5] and washers [4] that attach the middle of the counterbalance [2] to the door.

SUBTASK 52-31-12-020-002

- (2) Disconnect the cable [1] from the counterbalance [2]:
 - (a) Pull the counterbalance [2] away from the door to get access to the back of the counterbalance [2] where the cable [1] is attached.
 - (b) Loosen the screws [16] that attach the cable guides [19] to the counterbalance [2].

NOTE: Only loosen the two screws [16] that are adjacent to the end of the cable [1].
 - (c) Remove the screw [21] and washer [22] on the retainer [23] that keeps the end of the cable [1] around the drum [24] of the counterbalance [2].
 - (d) Disengage the cable [1] from the drum [24].
 - (e) Remove the counterbalance [2] from the door.

SUBTASK 52-31-12-020-003

- (3) Disconnect the cable [1] and sheave [25] from the cargo compartment ceiling and remove from the door:

NOTE: Only do these steps if it is necessary to remove the cable [1].

 - (a) Remove the lockwire from the alignment bolt [10].
 - (b) Remove the alignment bolt [10] and retainer ring [12] that attach the cable [1] and sheave [25] to the cargo compartment ceiling.
 - (c) Remove the cotter pin [14], pin [9], and washer [13] that attach the cable [1] and sheave [25] to the ceiling.
 - (d) Remove the cable [1] from the pulley [8] and door.

————— **END OF TASK** —————

TASK 52-31-12-400-801

3. Cargo Door Counterbalance Installation

(Figure 401)

A. References

Reference	Title
52-31-00-820-801	Cargo Door Adjustment (P/B 501)

B. Consumable Materials

Reference	Description	Specification
D00015	Grease - Aircraft Bearing (Use BMS 3-24 until existing stocks are depleted, BMS 3-33 supersedes BMS 3-24)	BMS3-24 (Superseded by BMS 3-33)
G01048	Lockwire - Corrosion Resistant Steel (0.032 In. Dia.)	NASM20995~ C32

C. Location Zones

Zone	Area
821	Forward Cargo Door
822	Aft Cargo Door

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D. Prepare for the Installation

SUBTASK 52-31-12-860-002

WARNING: MAKE SURE THE COUNTERBALANCE IS SAFETIED BEFORE YOU CONNECT THE COUNTERBALANCE OR CABLE. THERE IS A VERY STRONG SPRING IN THE COUNTERBALANCE AND CABLE THAT CAN CAUSE INJURY TO PERSONS.

- (1) Make sure the washer [27] and the nut [11] are installed on the guide pin [3] against the adjustment nut [20] on the end of the counterbalance [2].

NOTE: This will hold the spring in the counterbalance [2] and stop its operation.

E. Installation of the Cargo Door Counterbalance.

SUBTASK 52-31-12-420-001

- (1) Connect the cable [1] and sheave [25] to the cargo compartment ceiling and install on the door:

NOTE: Only do these steps if it is necessary to install the cable [1].

- (a) Install the cable [1] through the pulley [8] and the door.
- (b) Apply a light coat of the grease, D00015 to the pin [9] and bolt [10] and mating surfaces.
- (c) Install the pin [9], washer [13], and new cotter pin [14] to attach the cable [1] and sheave [25] to the cargo compartment ceiling.
- (d) Install the alignment bolt [10] and retainer ring [12] to attach the cable [1] and sheave [25] to the ceiling.
- (e) Install the lockwire, G01048 between the alignment bolt [10] and the cable adjustment screw [26].

SUBTASK 52-31-12-420-002

- (2) Connect the cable [1] to the counterbalance [2]:

- (a) Make sure the door is open 1-2 inches and a block is installed under the lower door stops.
- (b) Hold the counterbalance [2] near its correct position and make sure you can get access to the back of the counterbalance [2] where the cable [1] is attached.
- (c) Make sure the cable [1] is attached to the cargo compartment ceiling and installed correctly through the pulley [8].
- (d) Engage the cable [1] with the drum [24] in the counterbalance [2].
- (e) Install the screw [21] and washer [22] on the retainer [23] to keep the end of the cable [1] around the drum [24] on the counterbalance [2].
- (f) Tighten the screws [16] that attach the cable guides [19] to the counterbalance [2].

SUBTASK 52-31-12-420-003

- (3) Connect the counterbalance [2] to the door:

- (a) Put the counterbalance [2] in its correct position on the door and hold.
- (b) Install the bolts [5] and washers [4] to attach the middle of the counterbalance [2] to the door.
- (c) Install the bolts [7] and washers [6] to attach the forward end of the counterbalance [2] to the door.

SUBTASK 52-31-12-820-007

- (4) Do this task: Cargo Door Adjustment, TASK 52-31-00-820-801.

SUBTASK 52-31-12-410-002

- (5) Close access to the counterbalance [2] as follows:

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- (a) Install the door lining.
- (b) Remove the DO-NOT-OPERATE tag from the exterior handle.

SUBTASK 52-31-12-710-002

- (6) Do a test on the counterbalance [2] as follows:
 - (a) Open and close the door.
 - (b) Make sure the door opens easily and smoothly.

————— **END OF TASK** —————

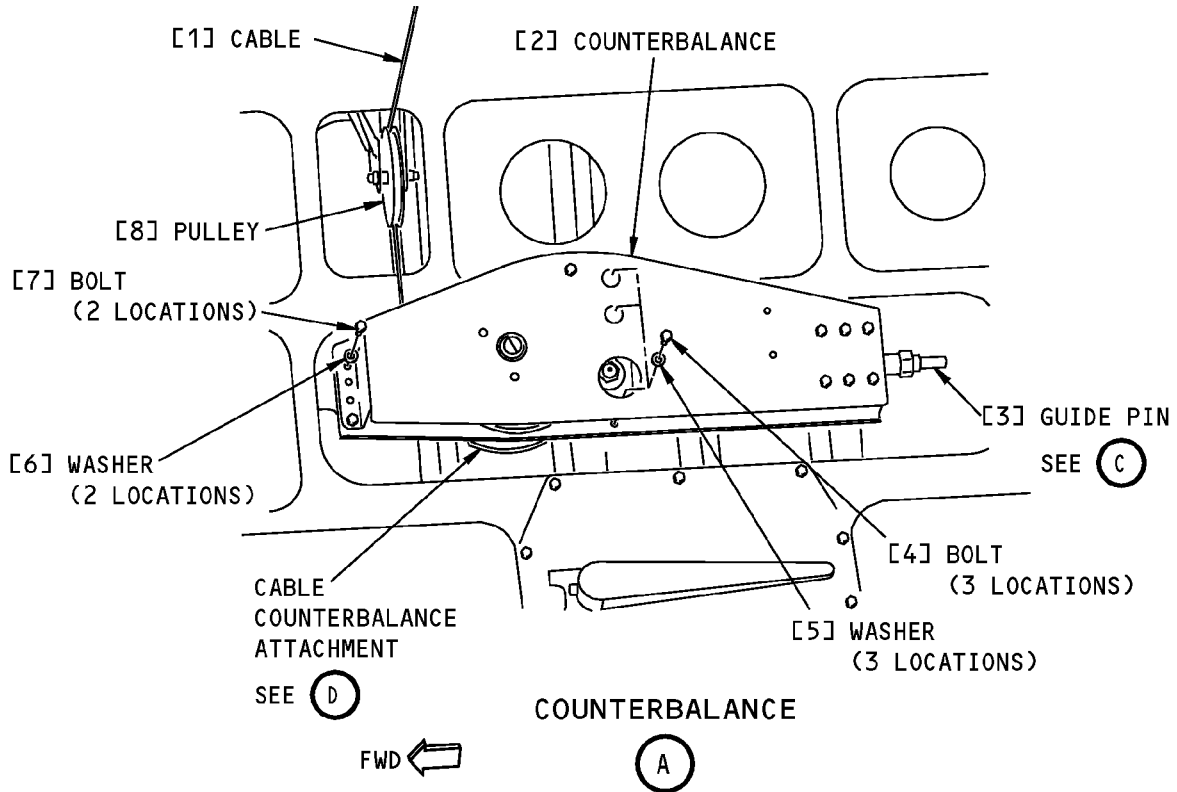
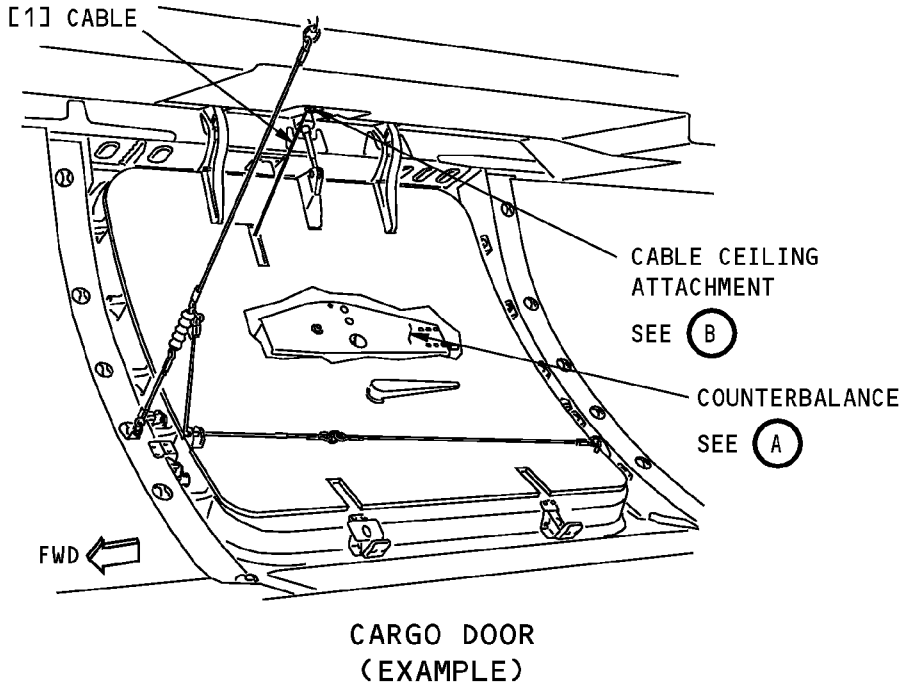
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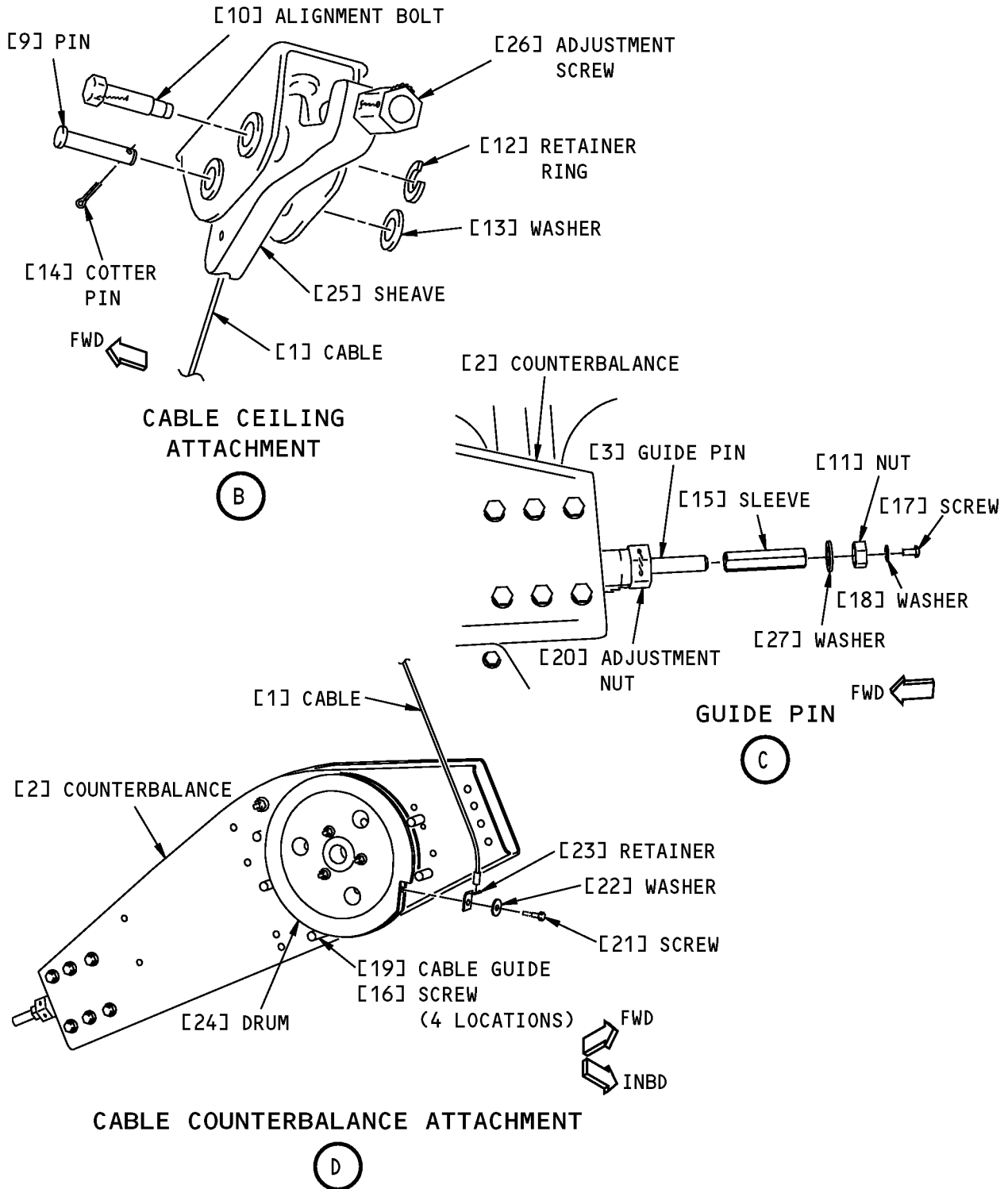


Cargo Door Counterbalance Installation
Figure 401 (Sheet 1 of 2)/52-31-12-990-801

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**Cargo Door Counterbalance Installation
Figure 401 (Sheet 2 of 2)/52-31-12-990-801**

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CARGO DOOR COUNTERBALANCE MECHANISM - REPAIRS

1. General

A. This procedure has these tasks:

(1) A replacement of a broken forward or aft cargo door counterbalance cable.

B. The counterbalance mechanism on each cargo door is the same, but the length of the counterbalance cables is different.

TASK 52-31-12-000-802

2. Broken Cargo Door Counterbalance Cable Replacement

(Figure 801)

A. References

Reference	Title
52-31-12-000-801	Cargo Door Counterbalance Removal (P/B 401)
52-31-12-400-801	Cargo Door Counterbalance Installation (P/B 401)

B. Location Zones

Zone	Area
821	Forward Cargo Door
822	Aft Cargo Door

C. Replacement of the Broken Cargo Door Counterbalance Cable

SUBTASK 52-31-12-010-004

(1) Get access to the counterbalance mechanism as follows:

- (a) Attach a DO-NOT-OPERATE tag to the exterior handle of the door.
- (b) Open the door and go into the cargo compartment.
- (c) Close and latch the door.
- (d) Remove the door lining over the counterbalance [5].

SUBTASK 52-31-12-860-005

(2) Safety the counterbalance [5] (Figure 801):

NOTE: Two persons are necessary to do this procedure: one person to hold the counterbalance drum [1] and one person to safety the spring [18] in the counterbalance [5].

- (a) Make sure the door is closed and latched.
- (b) Remove the screw [7] and washer [6] from the guide pin [11].
- (c) Reach behind the counterbalance [5] and hold the drum [1] on the back side of the counterbalance [5] with your hand.

WARNING: HOLD THE DRUM AND THE WRENCH ON THE CAM AXLE SHAFT NUT TIGHTLY. THERE IS A VERY STRONG SPRING IN THE COUNTERBALANCE THAT CAN CAUSE INJURY TO PERSONS.

- (d) Remove the nut [23] on the cam axle shaft [2] and replace it with a non-locking nut.
- (e) Release the drum [1] and remove your hand from behind the counterbalance [5].
- (f) Hold a wrench tightly and turn the cam axle shaft [2] clockwise 90 degrees.

NOTE: When the cam axle shaft [2] is turned, the spring [18] is compressed and the guide pin [11] will come out of the aft side of the counterbalance [5].

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- (g) Remove the sleeve [10] from the guide pin [11].
- (h) Install a washer [3] and a nut [4] on the guide pin [11] against the adjustment nut [12].
NOTE: Install the nut finger tight only. This will hold the spring [18] in the counterbalance [5] and stop its operation.
- (i) If necessary, continue to turn the cam axle shaft [2] clockwise until you can install the washer [3] and the nut [4] on the guide pin [11] against the adjustment nut [12].
- (j) Release the cam axle shaft [2] and drum [1].
- (k) Remove the nut from the cam axle shaft [2] and replace it with the correct self-locking nut [23].
- (l) Tighten the nut [23] to 290-510 pound-inches (32.77-57.62 newton-meters).

SUBTASK 52-31-12-020-004

- (3) Remove the broken cable from the cargo door counterbalance. To do this, do this task: Cargo Door Counterbalance Removal, TASK 52-31-12-000-801.

SUBTASK 52-31-12-960-001

- (4) Replace the bearing [19] installed on the idler crank [20] (Figure 801):

NOTE: You must replace the bearing [19] because damage can occur to the bearing when the cable breaks.

- (a) Remove the bolts [13], washers [14], nuts [15], bolts [16], and washers [17] that hold the top and bottom sides of the counterbalance [5] to the block [25].
- (b) Remove the bolt [9], washer [8], washer [26], and nut [27] that attach the idler crank [20] to the counterbalance [5].
- (c) Remove the idler crank [20] and the block [25] from the counterbalance [5] at the same time.
- (d) Remove the bolt [24], bearing [19], washer [22], and nut [21] from the idler crank [20].
- (e) Install a new bearing [19].
- (f) Install the bolt [24], washer [22], and nut [21] through the idler crank [20].
- (g) Put the block [25] and the idler crank [20] in their correct position in the counterbalance [5] at the same time.
- (h) Install the bolt [9], washer [8], washer [26], and nut [27] to attach the idler crank [20] to the counterbalance [5].
- (i) Install the bolts [13], washers [14], nuts [15], bolts [16], and washers [17] to attach the block [25] to the counterbalance [5].

SUBTASK 52-31-12-820-006

- (5) Install a new cable to the cargo door counterbalance. To do this, do this task: Cargo Door Counterbalance Installation, TASK 52-31-12-400-801.

————— **END OF TASK** —————

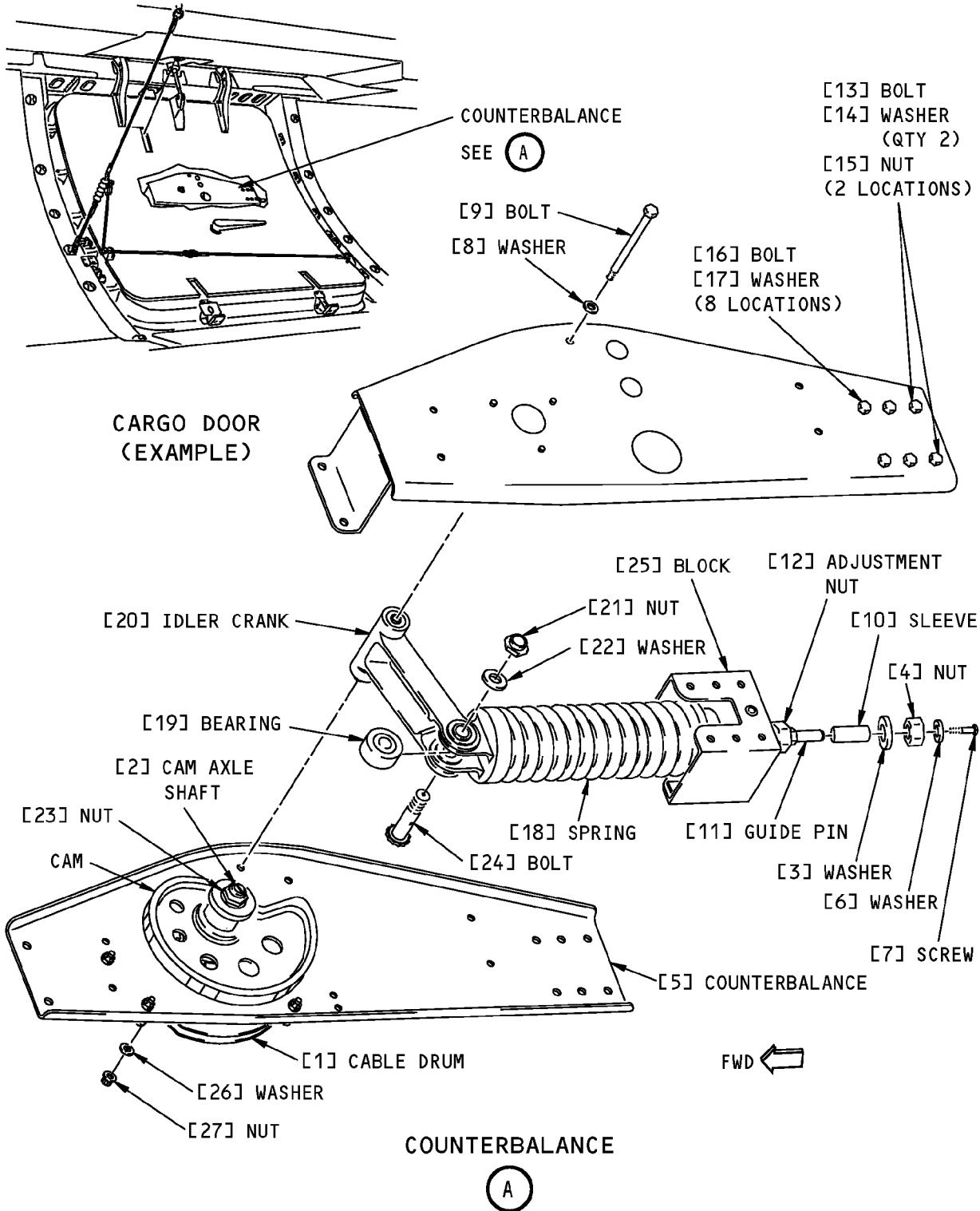
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**Broken Cargo Door Counterbalance Cable Replacement
Figure 801/52-31-12-990-803**

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CARGO DOOR SNUBBER - REMOVAL/INSTALLATION

1. General

- A. This procedure has these tasks:
(1) A removal of the forward or aft cargo door snubber.
(2) An installation of the forward or aft cargo door snubber.
B. This procedure is the same for each cargo door.
C. The cargo door snubber is referred to as the snubber in this procedure.

TASK 52-31-13-000-801

2. Cargo Door Snubber Removal

(Figure 401)

A. Location Zones

Table with 2 columns: Zone, Area. Rows: 821 Forward Cargo Door, 822 Aft Cargo Door

B. Prepare for the Removal

SUBTASK 52-31-13-010-001

- (1) Get access to the snubber [1] as follows:
(a) Attach a DO-NOT-OPERATE tag to the exterior handle.
(b) Open the door and go into the cargo compartment.
(c) Close and latch the door.

C. Removal of the Cargo Door Snubber

SUBTASK 52-31-13-020-001

- (1) Disconnect the snubber [1] from the door structure:
(a) Remove the bolt [6], washers [7], and nut [8] that attach the snubber [1] to the door structure.
(b) If it is necessary, remove the bushing [9] from the fitting [10].

SUBTASK 52-31-13-020-002

- (2) Disconnect the snubber [1] from the fuselage structure:
(a) Remove the bolt [5], washer [4], washer [3], and nut [2] that attach the snubber [1] to the fuselage structure.

SUBTASK 52-31-13-020-003

- (3) Remove the snubber [1] from the door.

END OF TASK

TASK 52-31-13-400-801

3. Cargo Door Snubber Installation

(Figure 401)

A. References

Table with 2 columns: Reference, Title. Row: 52-31-13-710-802 Cargo Door Snubber Operational Test (P/B 501)

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B. Location Zones

Zone	Area
821	Forward Cargo Door
822	Aft Cargo Door

C. Installation of the Cargo Door Snubber

SUBTASK 52-31-13-420-001

(1) Connect the snubber [1] to the fuselage structure:

- (a) Hold the snubber [1] in its correct position.
- (b) Install the bolt [5], washer [4], washer [3], and nut [2] to attach the snubber [1] to the fuselage structure.

SUBTASK 52-31-13-420-002

(2) Connect the snubber [1] to the door structure:

- (a) If you removed it, install the bushing [9] in the fitting [10].
- (b) Install the bolt [6], washer [7], and nut [8] to attach the snubber [1] to the door structure.

SUBTASK 52-31-13-080-001

(3) Remove the DO-NOT-OPERATE tag from the exterior handle.

SUBTASK 52-31-13-710-001

(4) Do this task: Cargo Door Snubber Operational Test, TASK 52-31-13-710-802.

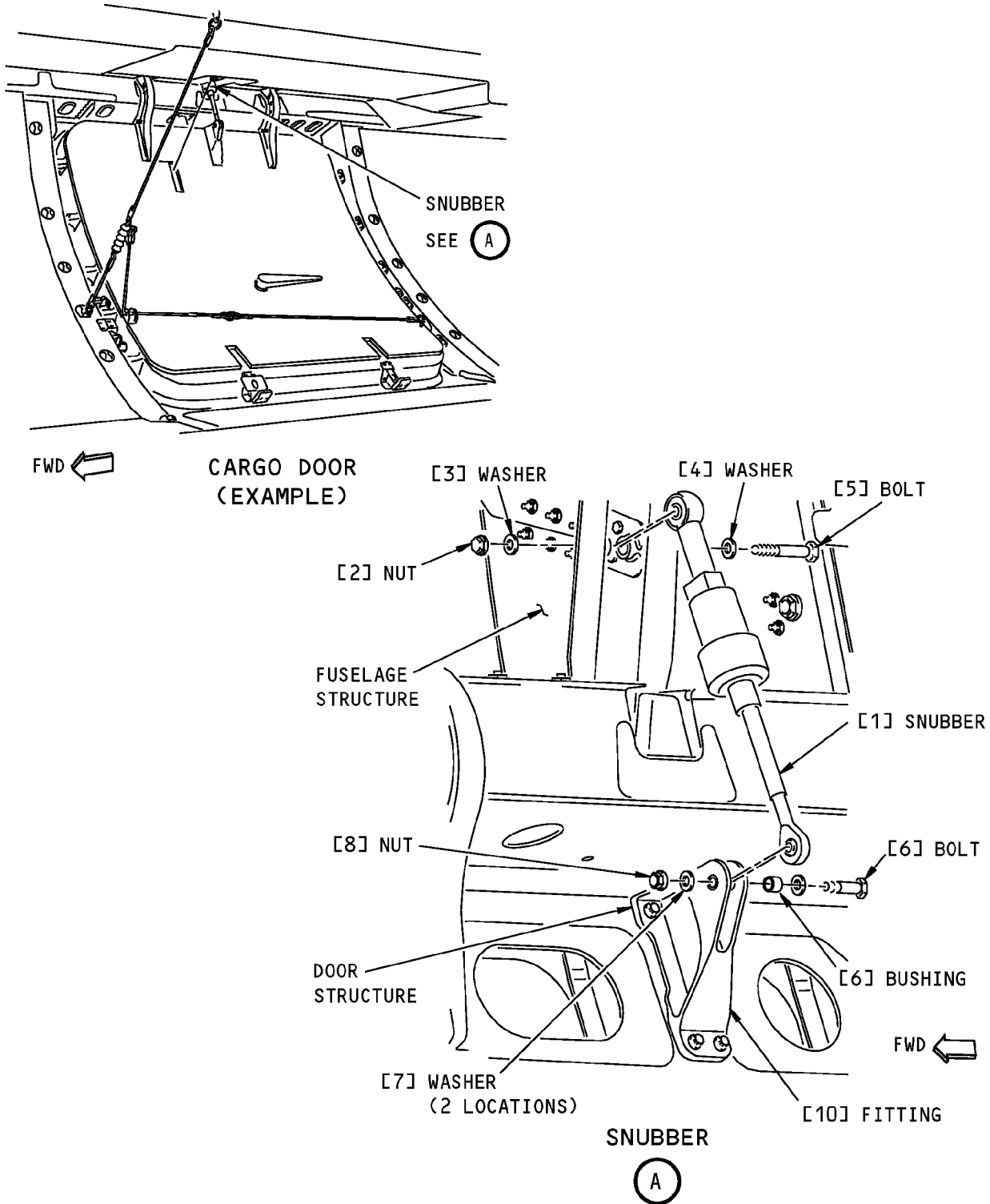
————— **END OF TASK** —————

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Cargo Door Snubber Installation
Figure 401/52-31-13-990-801

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CARGO DOOR SNUBBER - ADJUSTMENT/TEST

1. General

- A. This procedure contains scheduled maintenance task data.
- B. This procedure has these tasks:
 - (1) An operational test of the forward or aft cargo door snubber
 - (2) A functional test of the forward or aft cargo door snubber.
- C. This procedure is the same for each cargo door.

TASK 52-31-13-710-802

2. Cargo Door Snubber Operational Test

- A. General
 - (1) This procedure is a scheduled maintenance task.
- B. References

Reference	Title
52-31-13-000-801	Cargo Door Snubber Removal (P/B 401)
52-31-13-400-801	Cargo Door Snubber Installation (P/B 401)

C. Location Zones

Zone	Area
821	Forward Cargo Door
822	Aft Cargo Door

D. Procedure

SUBTASK 52-31-13-710-004

- (1) Do an operational test on the usual operation of the snubber [1]:
 - (a) Open the cargo door.
 - (b) Go into the cargo compartment.
 - (c) Make sure the door closes and opens easily and smoothly.
 - (d) Examine the snubber [1] carefully and make sure it has no leaks.
 - (e) If the snubber [1] has leaks, replace it.

These are the tasks:

Cargo Door Snubber Removal, TASK 52-31-13-000-801,
 Cargo Door Snubber Installation, TASK 52-31-13-400-801.

END OF TASK

TASK 52-31-13-710-801

3. Cargo Door Snubber Functional Test

(Figure 501)

A. References

Reference	Title
52-31-13-000-801	Cargo Door Snubber Removal (P/B 401)
52-31-13-400-801	Cargo Door Snubber Installation (P/B 401)

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B. Consumable Materials

Reference	Description	Specification
A00159	Compound - Sealing, Thread-Locking, Anaerobic, Single-Component (100-200 In-Lbs)	MIL-S-46163, Type II, Grade N
D00015	Grease - Aircraft Bearing (Use BMS 3-24 until existing stocks are depleted, BMS 3-33 supersedes BMS 3-24)	BMS3-24 (Superseded by BMS 3-33)
G01048	Lockwire - Corrosion Resistant Steel (0.032 In. Dia.)	NASM20995~C32

C. Location Zones

Zone	Area
821	Forward Cargo Door
822	Aft Cargo Door

D. Procedure

SUBTASK 52-31-13-020-004

(1) Disconnect the counterbalance assembly [2]:

- (a) Close and latch the door.
- (b) Remove the door lining over the counterbalance assembly [2].
- (c) Safety the counterbalance assembly [2] as follows:
 - 1) Remove the screw [9], washer [8], and sleeve [5] from the guide pin [3] on the aft end of the counterbalance assembly [2].
 - 2) Install an NAS1149C0763R (or equivalent) washer [7] and an AN315-6R (or equivalent) nut [6] on the guide pin [3] against the adjustment nut [4].

NOTE: Install the nut [6] finger tight only. This will hold the spring in the counterbalance assembly [2] and stop its operation.

- (d) Disconnect the cable [17] and sheave [16] from the cargo compartment ceiling as follows:
 - 1) Unlatch and open the door 1-2 inches (25.4-50.8 mm).
 - 2) Install a block, approximately 2 inches (50.8 mm) thick and 4 inches (101.6 mm) wide, under the lower stops to hold the door up.
 - 3) Make sure the cable [17] is loose.
 - 4) Remove the lockwire and remove the alignment bolt [12] and retainer ring [14] that attach the cable [17] and sheave [16] to the cargo compartment ceiling.
 - 5) Remove the cotter pin [11], pin [10], and washer [15] that attach the cable [17] and sheave [16] to the ceiling.
 - 6) Safety the cable [17] and sheave [16] to the door.
 - 7) Remove the block from under the lower stops.

SUBTASK 52-31-13-710-003

(2) Do a test on the snubber [1]:

- (a) Lift the door to the fully open position and attach the strap to the lower stop to hold the door open.

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- (b) Install a foam pad across the door opening.

NOTE: The foam pad will prevent damage to the door opening if the snubber [1] is defective and the door falls too quickly.

WARNING: STAND AWAY FROM THE DOOR AND DOOR OPENING WHEN YOU RELEASE THE DOOR FROM THE STRAP. IF THE SNUBBER IS DEFECTIVE, THE DOOR CAN FALL QUICKLY AND CAUSE INJURY OR DAMAGE.

- (c) Release the door from the strap and let the door fall.
- (d) Measure the time it takes for the door to close at the bottom edge of the door.
- (e) If the door closes in less than 1.2 seconds, replace the snubber [1].
These are the tasks:
Cargo Door Snubber Removal, TASK 52-31-13-000-801,
Cargo Door Snubber Installation, TASK 52-31-13-400-801.
- (f) If the movement of the door was not smooth and at a constant speed, replace the snubber [1].
These are the tasks:
Cargo Door Snubber Removal, TASK 52-31-13-000-801,
Cargo Door Snubber Installation, TASK 52-31-13-400-801.
- (g) Carefully examine the snubber [1] for leaks.
- (h) If the snubber [1] has leaks, replace it.
These are the tasks:
Cargo Door Snubber Removal, TASK 52-31-13-000-801,
Cargo Door Snubber Installation, TASK 52-31-13-400-801.
- (i) Remove the foam pad.

SUBTASK 52-31-13-420-003

WARNING: MAKE SURE THAT YOU SAFETY THE COUNTERBALANCE ASSEMBLY BEFORE YOU CONNECT THE COUNTERBALANCE OR CABLE. THERE IS A VERY STRONG SPRING IN THE COUNTERBALANCE ASSEMBLY AND CABLE THAT CAN CAUSE INJURY TO PERSONS.

- (3) Connect the counterbalance assembly [2]:
- (a) Connect the cable [17] and sheave [16] to the cargo compartment ceiling as follows:
- 1) Unlatch and open the door 1-2 inches (25.4-50.8 mm).
 - 2) Install a block, approximately 2 inches (50.8 mm) thick and 4 inches (101.6 mm) wide, under the lower stops to hold the door up.
 - 3) Apply a light coat of the grease, D00015 to the pin [10] and the alignment bolt [12] and mating surfaces.
 - 4) Install the pin [10], washer [15], and new cotter pin [11] to attach the cable [17] and sheave [16] to the cargo compartment ceiling.
 - 5) Install the alignment bolt [12] and retainer ring [14] to attach the cable [17] and sheave [16] to the cargo compartment ceiling.
 - 6) Install the new lockwire, G01048 between the alignment bolt [12] and the adjustment screw [13].
- (b) Make the counterbalance assembly [2] operable as follows:

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- 1) Close and latch the door.
 - 2) Remove the NAS1149C0763R washer [7] and the AN315-6R nut [6] on the guide pin [3] against the adjustment nut [4].
 - 3) Apply a light coat of the grease, D00015 to the outer surface of the sleeve [5].
 - 4) Apply the compound, A00159 to the screw [9].
 - 5) Install the screw [9], washer [8], and sleeve [5] on the guide pin [3].
- (c) Install the door lining over the counterbalance assembly [2].

————— **END OF TASK** —————

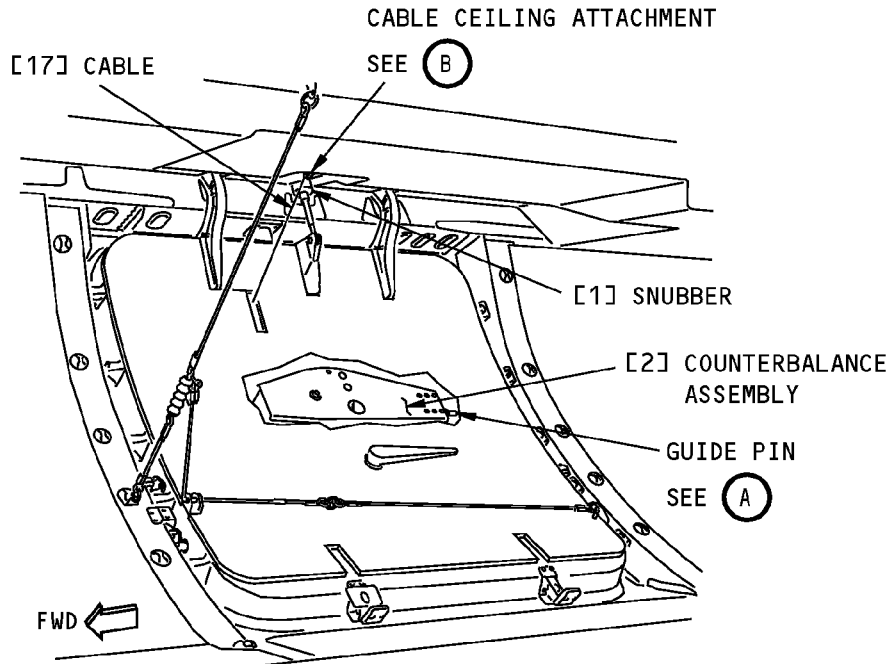
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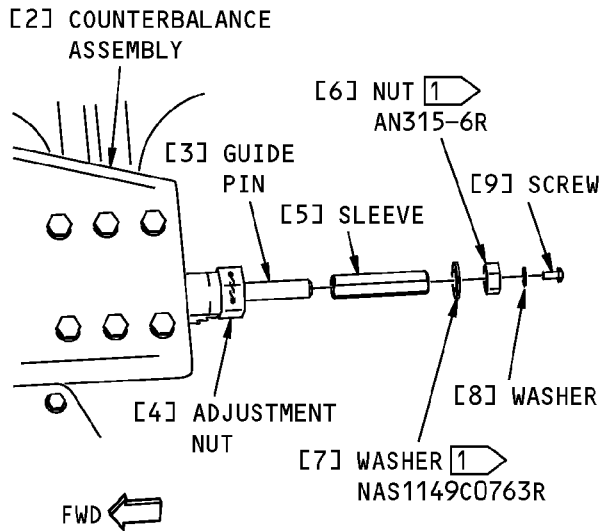
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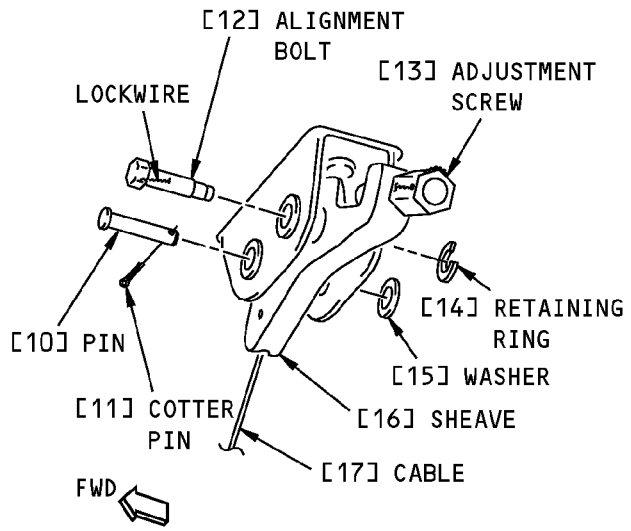


**CARGO DOOR
(EXAMPLE)**



GUIDE PIN

(A)



CABLE CEILING ATTACHMENT

(B)

1 INSTALL THE WASHER AND NUT TO SAFETY THE COUNTERBALANCE ASSEMBLY.

**Cargo Door Snubber Test
Figure 501/52-31-13-990-802**

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CARGO DOOR HANDLE MECHANISM - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

- (1) A removal of the cargo door handle mechanism.
- (2) An installation of the cargo door handle mechanism.

B. This procedure is the same for the forward or aft cargo door.

TASK 52-31-14-000-801

2. Cargo Door Handle Mechanism Removal

(Figure 401)

A. Location Zones

<u>Zone</u>	<u>Area</u>
821	Forward Cargo Door
822	Aft Cargo Door

B. Prepare for the removal

SUBTASK 52-31-14-010-001

- (1) Get access to the handle mechanism as follows:
 - (a) Open the door and go into the cargo compartment.
 - (b) Close the door, but do not latch it.
 - (c) Remove the door lining over the handle mechanism.

C. Removal of the Cargo Door Handle Mechanism

SUBTASK 52-31-14-020-001

- (1) Remove the interior handle [1]:
 - (a) Remove the locknut [29], washer [30], and bolt [2] that attach the interior handle [1] to the actuator [27].
 - (b) Remove the interior handle [1] from the actuator [27].
 - (c) Remove the screws [3] and washers [4] that attach the panel [5] to the door structure.
 - (d) Remove the panel [5] and collar [28] from the door structure.
 - (e) Disconnect the spring [7] from the actuator [27].
 - (f) Remove the lockwire and screws [24] that attach the fitting [23] to the actuator [27].
 - (g) Remove the fitting [23] from the actuator [27].
 - (h) Remove the bolt [6], washers [8], [22], castellated nut [9], and cotter pin [10] that attach the rod [21] to the actuator [27].
 - (i) Remove the actuator [27], quad ring [20], and inserts [26] as an assembly from the housing [19].
 - 1) Do not remove the inserts [26] from the actuator [27] unless they are damaged and replacement is necessary.
 - (j) Remove and discard the quad ring [20] from the actuator [27].
 - (k) Move the spring [16] away from the spring keeper [17] and remove the spring keeper [17] from the housing [19].
 - 1) Let the spring [16] retract into the sleeve [15].

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SUBTASK 52-31-14-020-002

(2) Remove the exterior handle [14]:

- (a) Open the door and go to the exterior of the airplane.
- (b) Close the door, but do not latch it.
- (c) Remove the exterior handle [14] from the housing [19].
- (d) Remove and discard the bearing stud [13] from the external handle [14].
 - 1) If necessary, use a drill to remove any material that remains in the stud boss of the handle assembly [14].
- (e) Remove and discard the wedge [31] from the exterior handle.
- (f) Keep the sleeve [15] and the exterior handle [14] as an assembly.

NOTE: The sleeve [15] and the exterior handle [14] are aligned and secured by a pin. It is not necessary to disassemble them. If replacement of either component is necessary, replace the exterior handle assembly.

- (g) Do not remove the rivets [11] or hinge assembly [12] unless they are damaged and replacement is necessary.
- (h) Do not disassemble the hinge assembly [12] unless it is damaged and replacement is necessary.

————— **END OF TASK** —————

TASK 52-31-14-400-801

3. Cargo Door Handle Mechanism Installation

(Figure 401)

A. References

Reference	Title
52-31-00-700-801	Cargo Door System Test (P/B 501)

B. Consumable Materials

Reference	Description	Specification
C00057	Primer - Zinc Chromate	TT-P-1757B, SAE AMS 3110H
C00528	Compound - Corrosion Preventive, Petroleum Hot Application (Soft Film)	MIL-C-11796, Class III
D00013	Grease - Aircraft And Instrument Grease	MIL-PRF-23827 (NATO G-354) (Supersedes MIL-G-23827)
D00091	Oil - General Purpose, Low Temperature, Lubricating	MIL-PRF-7870 (NATO O-142)
G01048	Lockwire - Corrosion Resistant Steel (0.032 In. Dia.)	NASM20995~ C32

C. Location Zones

Zone	Area
821	Forward Cargo Door
822	Aft Cargo Door

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D. Prepare for the installation

SUBTASK 52-31-14-410-001

- (1) Get access to the handle mechanism as follows:
 - (a) Go to the exterior of the airplane.
 - (b) Close the cargo door but do not latch it.

E. Installation of the Cargo Door Handle Mechanism

SUBTASK 52-31-14-420-001

- (1) Install the exterior handle [14]:
 - (a) Press the new bearing stud [13] and new wedge [31] into the boss in the handle [14].
 - (b) Make sure there is no clearance between the top of the boss and the shoulder of the bearing stud [13].
 - (c) If the hinge assembly [12] is not installed, install new rivets [11] to attach the hinge assembly [12] to the housing [19].
 - (d) Apply a light layer of oil, D00091 to the outer surface of the sleeve [15].
 - (e) Install the exterior handle [14] in the housing [19].

SUBTASK 52-31-14-420-002

- (2) Install the interior handle [1]:
 - (a) Open the door and go to the interior of the airplane.
 - (b) Close the door, but do not latch it.
 - (c) Extend the spring [16] and install the spring keeper [17] on the housing [19] and under the spring [16].
 - (d) If the inserts [26] are not installed, install new inserts [26] in the actuator [27] one-half to three-quarter turns below the surface and remove the tang.
 - (e) Install a new quad ring [20] on the actuator [27].
 - (f) Lubricate the mating surfaces of the actuator [27] and the housing [19] with grease, D00013.
 - (g) Install the actuator [27], quad ring [20], and two inserts [26] over the shaft of the housing [19].
 - (h) Align the hole in the actuator [27] with the slot in the housing [19] and the sleeve [15].
 - (i) Install the fitting [23] on the actuator [27].
 - (j) Apply primer, C00057 or compound, C00528 to the threads of the screws [24].
 - (k) Install the screws [24] and lockwire, G01048 to attach the fitting [23] to the actuator [27].
 - (l) Connect the spring [7] to the hole in the actuator [27].
 - (m) Install the bolt [6], washers [8], [22], castellated nut [9], and cotter pin [10] through the actuator [27] and the rod [21] to attach the rod [21] to the actuator [27].
 - (n) Install the collar [28] and the panel [5] on the door structure.
 - (o) Install the screws [3] and washers [4] to attach the panel [5] to the door structure.
 - (p) Install the interior handle [1] in its correct position on the actuator [27].
 - (q) Install the bolt [2], washer [30], and locknut [29] to attach the interior handle [1] to the actuator [27].

SUBTASK 52-31-14-840-001

- (3) Install the door lining over the handle mechanism.

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SUBTASK 52-31-14-730-001

(4) Do this task: Cargo Door System Test, TASK 52-31-00-700-801.

————— **END OF TASK** —————

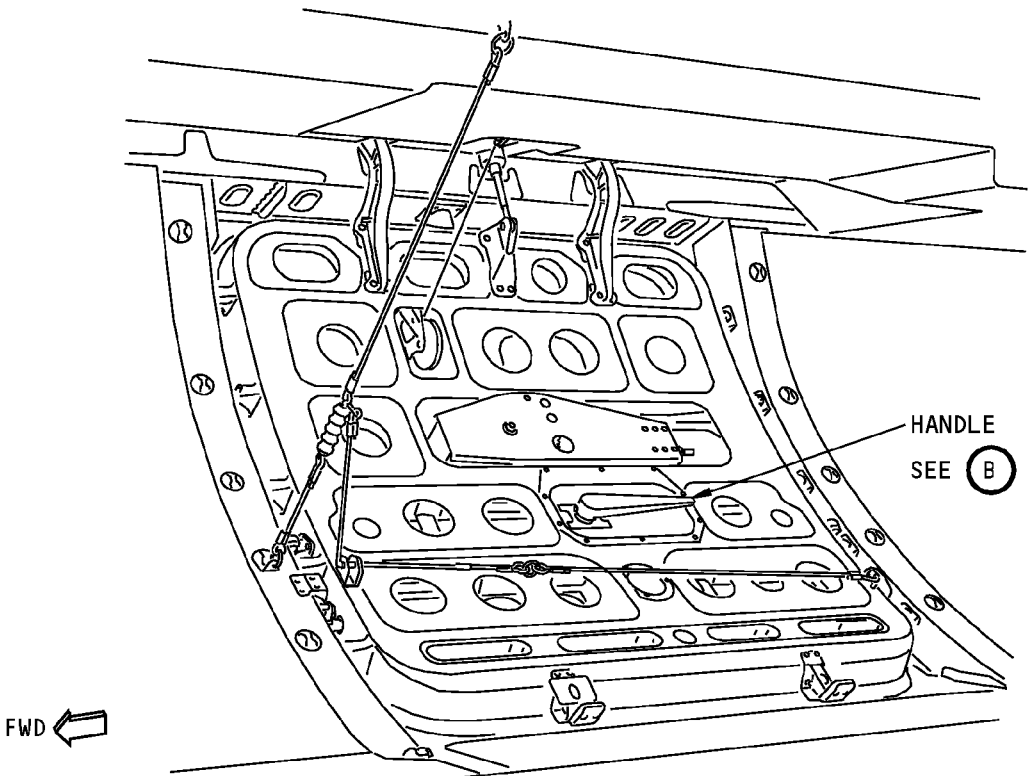
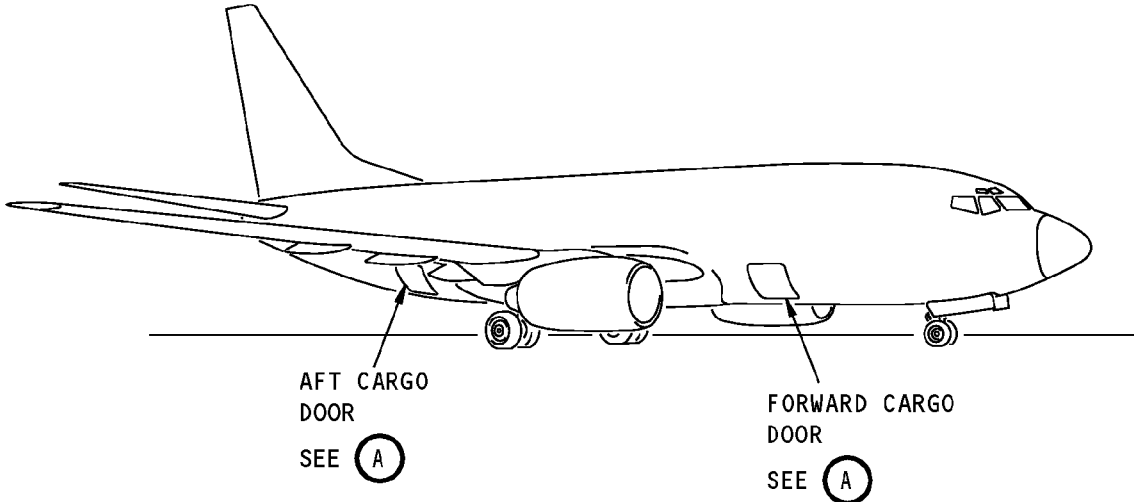
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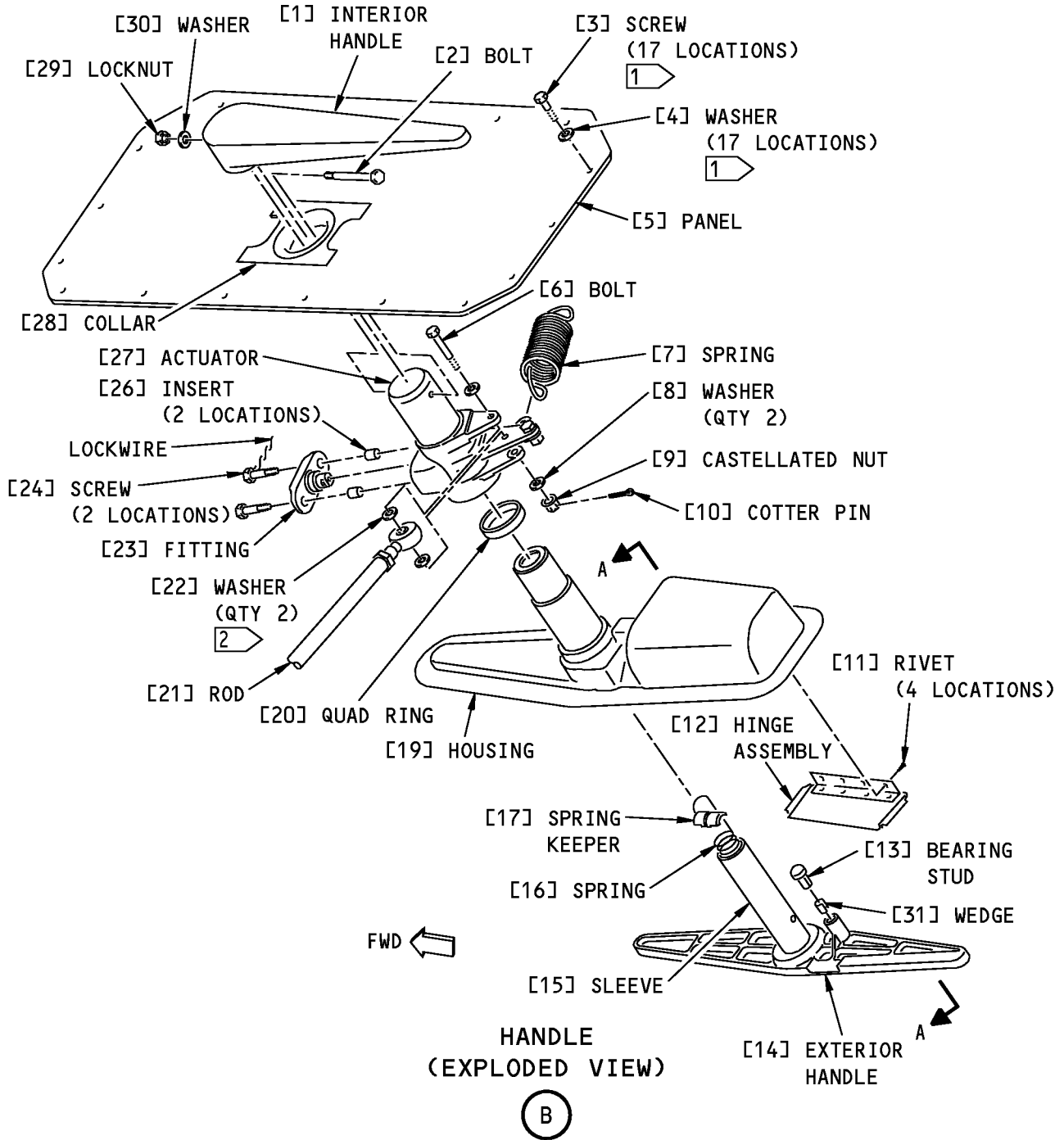
**CARGO DOOR
(EXAMPLE)**
(A)

**Cargo Door Handle Mechanism Installation
Figure 401 (Sheet 1 of 3)/52-31-14-990-801**

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1 AFT CARGO DOOR PANEL IS SHOWN. FORWARD CARGO DOOR PANEL IS SIMILAR BUT HAS ONLY 10 SCREWS [3] AND 10 WASHERS [4].

2 FORWARD CARGO DOOR ONLY.

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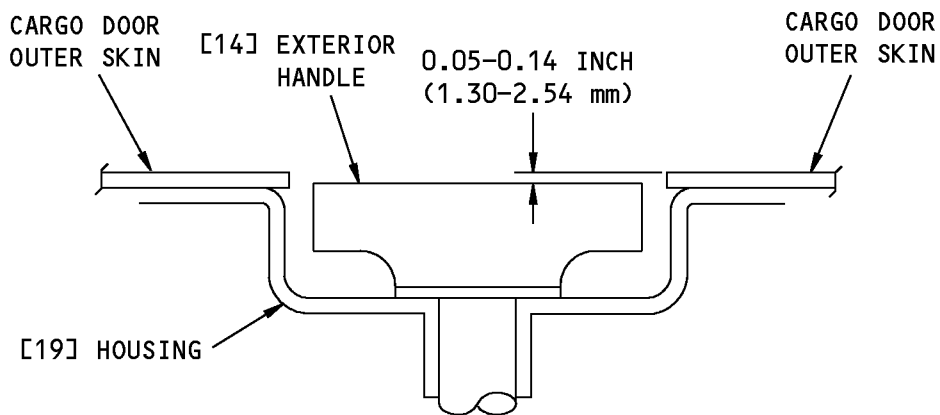
**Cargo Door Handle Mechanism Installation
Figure 401 (Sheet 2 of 3)/52-31-14-990-801**

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A-A

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**Cargo Door Handle Mechanism Installation
Figure 401 (Sheet 3 of 3)/52-31-14-990-801**

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GALLEY SERVICE DOORS - MAINTENANCE PRACTICES

1. General

A. This procedure has these tasks:

- (1) Open the Galley Service Door with the exterior handle.
- (2) Close the Galley Service Door with the exterior handle.
- (3) Open the Galley Service Door with the interior handle.
- (4) Close the Galley Service Door with the interior handle.
- (5) Galley Service Door Corrosion Prevention.

TASK 52-41-00-860-801

2. Open the Galley Service Door with the Exterior Handle

(Figure 201)

A. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1523	Stand - Work, (B9) General Purpose, Working Height 4-21 Feet (Part #: B-9, Supplier: 05060, A/P Effectivity: 737-ALL)

B. Location Zones

Zone	Area
844	Aft Galley Service Door

C. Procedure

SUBTASK 52-41-00-860-010

(1) Make sure the door is safe as follows:

WARNING: MAKE SURE THE GIRT BAR IS NOT ENGAGED IN THE FLOOR-MOUNTED ESCAPE SLIDE BRACKETS. IF THE GIRT BAR IS ENGAGED IN THE BRACKETS, THE ESCAPE SYSTEM CAN DEPLOY WHEN YOU OPEN THE DOOR. THIS CAN CAUSE INJURIES TO PERSONS AND DAMAGE TO EQUIPMENT.

- (a) Make sure the girt bar is not engaged in the floor-mounted escape slide brackets.
- (b) Install the stand, COM-1523 in front of the door.

SUBTASK 52-41-00-860-011

(2) Pull the exterior handle outboard from the recess in the door to engage the door drive mechanism.

SUBTASK 52-41-00-860-012

(3) Turn the exterior handle 180 degrees counterclockwise to unlatch the door.

NOTE: When you turn the handle 180 degrees counterclockwise, the latch rollers disengage with the latch fittings.

NOTE: The initial movement of the door is inward.

SUBTASK 52-41-00-860-013

(4) Return the exterior handle into the recess of the door.

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SUBTASK 52-41-00-860-014

- (5) Use the door assist handle to pull the door outboard and forward until the latch mechanism in the upper hinge engages and the door is held in the fully open position.

NOTE: The door will be parallel to the fuselage when fully open.

SUBTASK 52-41-00-860-015

- (6) Put the warning strap across the door opening.

————— **END OF TASK** —————

TASK 52-41-00-860-802

3. Close the Galley Service Door with the Exterior Handle

(Figure 201)

A. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1523	Stand - Work, (B9) General Purpose, Working Height 4-21 Feet (Part #: B-9, Supplier: 05060, A/P Effectivity: 737-ALL)

B. Location Zones

Zone	Area
844	Aft Galley Service Door

C. Procedure

SUBTASK 52-41-00-860-016

- (1) Make sure the stand, COM-1523 is installed in front of the door.

SUBTASK 52-41-00-860-017

- (2) Remove the warning strap from across the door if it is installed.

SUBTASK 52-41-00-860-018

- (3) Release the door from the locked position by using either the "Up to release" lever on the body torque tube, or the "Down to release" button on the guide arm.

SUBTASK 52-41-00-860-019

- (4) Use the assist handle to swing the door into the door opening.

SUBTASK 52-41-00-860-020

- (5) Pull the exterior handle outward to clear the handle recess.

SUBTASK 52-41-00-860-021

- (6) Turn the exterior handle 180 degrees clockwise to close the door.

NOTE: When you turn the handle 180 degrees clockwise, the latch rollers engage with the latch fittings.

SUBTASK 52-41-00-860-022

- (7) Release the exterior handle into the recess in the door.

————— **END OF TASK** —————

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TASK 52-41-00-860-803

4. Open the Galley Service Door with the Interior Handle

(Figure 202)

A. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1523	Stand - Work, (B9) General Purpose, Working Height 4-21 Feet (Part #: B-9, Supplier: 05060, A/P Effectivity: 737-ALL)

B. Location Zones

Zone	Area
844	Aft Galley Service Door

C. Procedure

SUBTASK 52-41-00-860-023

(1) Put the stand, COM-1523 in front of the door.

SUBTASK 52-41-00-860-024

(2) Make sure the door is safe as follows:

WARNING: MAKE SURE THE GIRT BAR IS NOT ENGAGED IN THE FLOOR-MOUNTED ESCAPE SLIDE BRACKETS. IF THE GIRT BAR IS ENGAGED IN THE BRACKETS, THE ESCAPE SYSTEM CAN DEPLOY WHEN YOU OPEN THE DOOR. THIS CAN CAUSE INJURIES TO PERSONS AND DAMAGE TO EQUIPMENT.

(a) Make sure the girt bar is not engaged in the floor-mounted escape slide brackets.

(b) Install the stand, COM-1523 in front of the door.

SUBTASK 52-41-00-860-025

(3) Turn the interior handle clockwise 180 degrees to unlatch the door.

NOTE: When you turn the handle 180 degrees clockwise, the latch rollers desengage from the latch fittings and the initial movement of the door is inward.

SUBTASK 52-41-00-860-026

(4) Use the door assist handle to push the door outboard and forward until the latch mechanism in the upper hinge engages and the door is held in the fully open position.

NOTE: The door will be parallel to the fuselage when fully open.

SUBTASK 52-41-00-860-027

(5) Put the warning strap across the door opening.

————— **END OF TASK** —————

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TASK 52-41-00-860-804

5. Close the Galley Service Door with the Interior Handle

(Figure 202)

A. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1523	Stand - Work, (B9) General Purpose, Working Height 4-21 Feet (Part #: B-9, Supplier: 05060, A/P Effectivity: 737-ALL)

B. Location Zones

Zone	Area
844	Aft Galley Service Door

C. Procedure

SUBTASK 52-41-00-860-028

(1) Make sure the stand, COM-1523 is installed in front of the door.

SUBTASK 52-41-00-860-029

(2) Remove the warning strap from across the door opening if it is installed.

SUBTASK 52-41-00-860-030

(3) Release the door from the locked position by using either the "Up to release" lever on the body torque tube, or the "Down to release" button on the guide arm.

SUBTASK 52-41-00-860-031

(4) Use the assist handle to swing the door into the door opening.

SUBTASK 52-41-00-860-032

(5) Turn the interior handle 180 degrees counterclockwise to fully close the door.

NOTE: When you turn the handle 180 degrees counterclockwise, the latch rollers engage with the latch fittings.

————— **END OF TASK** —————

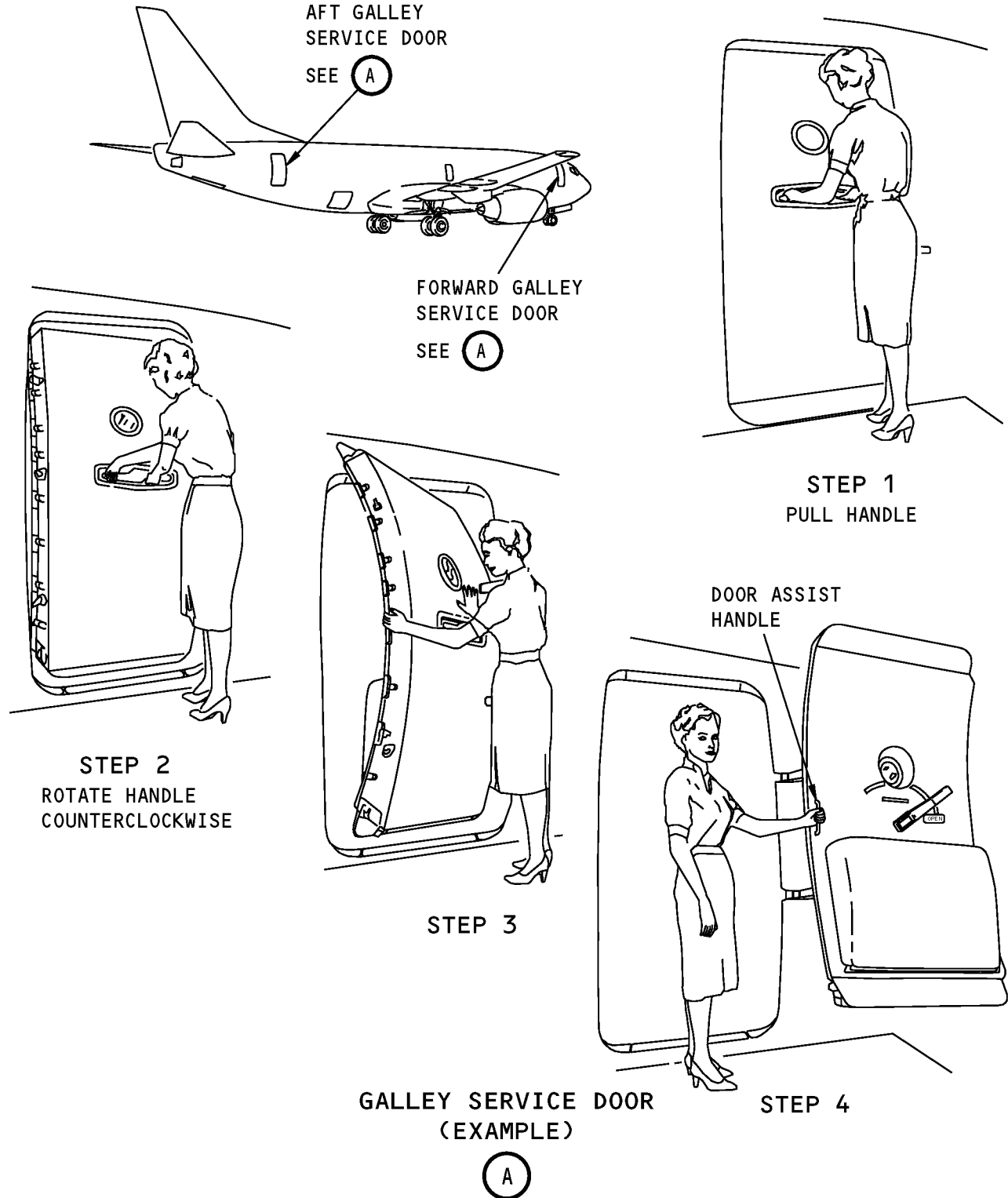
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Galley Service Door Operation from Outside Airplane
Figure 201/52-41-00-990-821

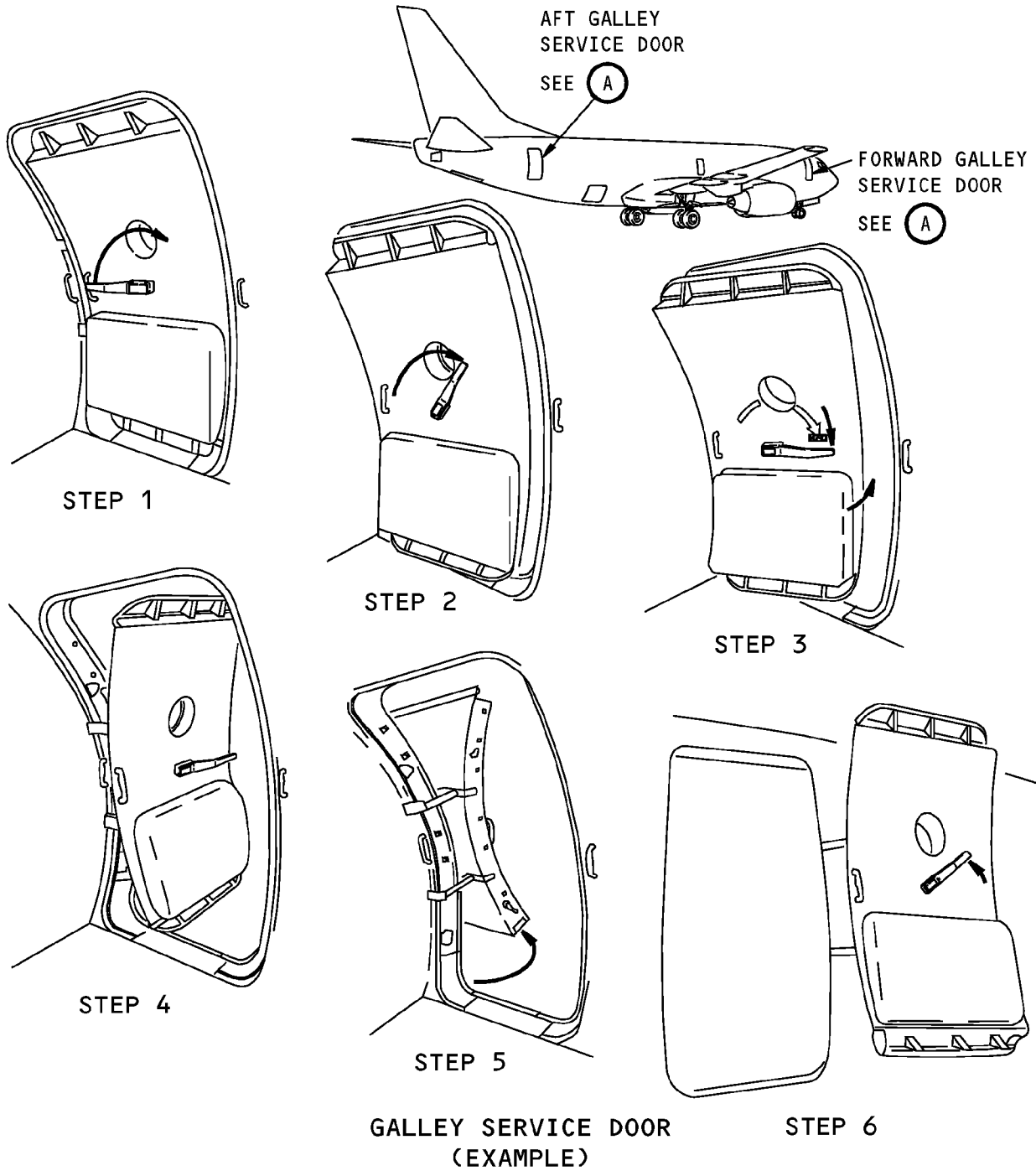
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(A)

NOTE: DOOR GATE LINING REMOVED.

**Galley Service Door Operation from Inside Airplane
Figure 202/52-41-00-990-822**

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TASK 52-41-00-600-801

6. Galley Service Doors Corrosion Prevention

A. References

Reference	Title
12-25-13 P/B 301	GALLEY SERVICE DOORS - SERVICING
52-41-00-200-801	Galley Service Door Check (P/B 601)
52-41-31-000-802	Galley Service Door Lining Removal (P/B 401)
52-41-31-400-802	Galley Service Door Lining Installation (P/B 401)

B. Consumable Materials

Reference	Description	Specification
G00009	Compound - Organic Corrosion Inhibiting	BMS3-23

C. Location Zones

Zone	Area
841	Forward Galley Service Door
844	Aft Galley Service Door

D. General

SUBTASK 52-41-00-800-001

- (1) Corrosion may occur on the internal and external surfaces of the door structure. especially the inside lower corners, the connection points, and the door mechanism.
- (2) Corrosion has been found on the door torque tube, that is found adjacent to the door in the airplane body. The torque tube for the aft service door, in particular, has been found to contain large amounts of water.
- (3) If a door is not opened often from the outside, corrosion has been found on the exterior door handle. The corrosion causes the handle to seize in the recess and prevents the handle from moving outward to unlock the door. Corrosion can also be found in the upper and lower bearings.
 - (a) If the door handle operates in a stiff or restricted manner, then increase the frequency of the lubrication.
- (4) If applicable, stress corrosion cracks have been found on the aft upper stop fitting at the aft airstair door.
- (5) Corrosion has been found on the rivets between the web and the intercostal at the aft galley door on some airplanes.
- (6) Some items in this section maybe subject to the mandatory requirements for corrosion prevention and control programs for aging airplanes.
- (7) Corrosion Prevention
 - (a) Do these tasks, Galley Service Door Check, TASK 52-41-00-200-801 to detect the early stages of corrosion.
 - (b) Look for missing fasteners, white powdery deposits, and discolorations, as signs of corrosion.
 - 1) If signs of corrosion are found, then a corrosion prevention program should be started to prevent the build up of corrosion products.
 - 2) If corrosion products are allowed to build up, then they will cause further corrosion.

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- 3) If corrosion is found, the refer to the Structural Repair Manual for detail instructions for the removal of corrosion.
 - (c) After the corrosion products are cleaned, make sure that the protective finishes are serviceable.
 - 1) If only minor corrosion is found, then make sure that the area is clean.
 - 2) Apply corrosion inhibiting compound on the affected area.
 - 3) Make sure that the protective finish is restored at the first opportunity that is consistent with the airplanes maintenance schedule.
 - (8) Frequency of Application
 - (a) Periodic inspection is required to areas identified as prone to corrosion and should be scheduled to your Maintenance Planning Document.
 - (b) Periodic application of BMS 3-23 compounds are necessary to areas identified as prone to corrosion and should be scheduled to your Maintenance Planning Document.
 - 1) Do the prevention treatment to the door at the same recommended interval as the door frame.
 - 2) Do the prevention treatment to the exterior surface of the door at the same recommended interval as the exterior surface of the fuselage.
- E. Corrosion Prevention
- SUBTASK 52-41-00-620-001
- (1) Prevention Treatment
 - (a) Remove the door liner to get access to the interior surfaces of the door.
 - 1) Galley Service Door Lining Removal, TASK 52-41-31-000-802
 - (b) Clean the drains and drain paths.
 - (c) Galley Service Door Check, TASK 52-41-00-200-801
 - 1) Remove or repair any corrosion that you find.
 - (d) Apply corrosion inhibiting compound, G00009 to the interior surfaces of the door.
 - 1) Make sure that the corrosion inhibiting compound, G00009 completely covers the surfaces, with special attention given to the lower corners and the handle mechanism housing.
 - (e) If it is necessary, apply corrosion inhibiting compound, G00009 to the exterior surfaces of the door.
 - (f) Lubricate the door. GALLEY SERVICE DOORS - SERVICING, PAGEBLOCK 12-25-13/301
 - (g) Install the door lining.
 - 1) Galley Service Door Lining Installation, TASK 52-41-31-400-802

————— END OF TASK —————

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GALLEY SERVICE DOOR - REMOVAL/INSTALLATION

1. General

- A. This procedure has these tasks:
 - (1) A removal of the galley service door.
 - (2) An installation of the galley service door.
- B. This procedure is the same for the forward or aft galley service door.
- C. The galley service door is referred to as the door in this procedure.

TASK 52-41-00-000-801

2. Galley Service Door Removal

(Figure 401)

A. References

Reference	Title
52-41-31-000-802	Galley Service Door Lining Removal (P/B 401)
52-41-51-000-801	Galley Service Door Snubber Removal (P/B 401)

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1523	Stand - Work, (B9) General Purpose, Working Height 4-21 Feet (Part #: B-9, Supplier: 05060, A/P Effectivity: 737-ALL)

C. Location Zones

Zone	Area
841	Forward Galley Service Door
844	Aft Galley Service Door

D. Access Panels

Number	Name/Location
841FZ	Forward Galley Service Door - Torque Tube Access
844FZ	Aft Galley Service Door - Torque Tube Access

E. Prepare for the Removal

SUBTASK 52-41-00-860-003

- (1) Make sure the door [1] is safe as follows:
 - (a) Make sure the door [1] is closed and latched.

WARNING: MAKE SURE THE GIRT BAR IS NOT ENGAGED IN THE FLOOR-MOUNTED ESCAPE SLIDE BRACKETS. IF THE GIRT BAR IS ENGAGED IN THE BRACKETS, THE ESCAPE SYSTEM CAN DEPLOY WHEN YOU OPEN THE DOOR AND INJURIES OR DAMAGE CAN OCCUR.

- (b) Make sure the girt bar is not engaged in the floor-mounted escape slide brackets.
- (c) Install the stand, COM-1523 outboard of the door [1].

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SUBTASK 52-41-00-010-004

- (2) Get access to the door [1] as follows:
 - (a) Make sure the door [1] is closed and latched.
 - (b) Do this task: Galley Service Door Lining Removal, TASK 52-41-31-000-802.
 - (c) Fully open the door [1].

F. Removal of the Galley Service Door

SUBTASK 52-41-00-020-008

CAUTION: REMOVE THE SNUBBER BEFORE YOU REMOVE THE DOOR. IF YOU DO NOT REMOVE THE SNUBBER BEFORE YOU REMOVE THE DOOR, DAMAGE TO THE SNUBBER CAN OCCUR.

- (1) Do this task: Galley Service Door Snubber Removal, TASK 52-41-51-000-801

SUBTASK 52-41-00-480-001

- (2) Support the door [1] as follows:
 - (a) Install straps around the stop fittings on the door [1] to hold the weight of the door [1] from a position above the door [1].

SUBTASK 52-41-00-020-003

- (3) Disconnect the upper hinge of the door [1]:
 - (a) Remove the applicable upper access panels:

<u>Number</u>	<u>Name/Location</u>
841FZ	Forward Galley Service Door - Torque Tube Access
844FZ	Aft Galley Service Door - Torque Tube Access
 - (b) Remove the filler [12] to get access to the fastener that attaches the guide arm [8] to the door [1].
 - (c) Remove the bolt [9], washers [10], and nut [11] that attach the guide arm [8] to the door [1].

NOTE: The guide arm [8] will stay with the fuselage.
 - (d) Remove the bolt [14], washers [15], and nut [16] that attach the upper hinge arm [13] to the fuselage.

NOTE: The hinge arm [13] will stay with the door [1].

SUBTASK 52-41-00-020-004

- (4) Disconnect the lower hinge of the door [1]:
 - (a) Remove the bolt [17], washers [18], and nut [19] that attach the lower hinge arm [20] to the fuselage.

NOTE: The hinge arm [20] will stay with the door [1].

SUBTASK 52-41-00-020-005

- (5) Remove the door [1] from the airplane as follows:

WARNING: BE CAREFUL WHEN YOU REMOVE THE DOOR FROM THE AIRPLANE. THE DOOR WEIGHS APPROXIMATELY 140 POUNDS. INJURY OR DAMAGE CAN OCCUR.

 - (a) Carefully move the door [1] from the fuselage and remove from the airplane.

SUBTASK 52-41-00-860-033

- (6) If it is necessary, put the warning strap across the door opening.

————— **END OF TASK** —————

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TASK 52-41-00-400-801

3. Galley Service Door Installation

(Figure 401)

A. References

Reference	Title
05-51-91-790-801	Cabin Pressure Leak Test (P/B 201)
52-41-00-200-802	Galley Service Door Pressure Seal Check (P/B 601)
52-41-00-700-801	Galley Service Door System Test (P/B 501)
52-41-00-820-801	Galley Service Door Adjustment (P/B 501)
52-41-31-400-802	Galley Service Door Lining Installation (P/B 401)
52-41-51-400-801	Galley Service Door Snubber Installation (P/B 401)

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1523	Stand - Work, (B9) General Purpose, Working Height 4-21 Feet (Part #: B-9, Supplier: 05060, A/P Effectivity: 737-ALL)

C. Consumable Materials

Reference	Description	Specification
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS 5-95

D. Location Zones

Zone	Area
841	Forward Galley Service Door
844	Aft Galley Service Door

E. Access Panels

Number	Name/Location
841FZ	Forward Galley Service Door - Torque Tube Access
844FZ	Aft Galley Service Door - Torque Tube Access

F. Installation of the Galley Service Door

SUBTASK 52-41-00-860-034

(1) If it is necessary, remove the warning strap across the door opening.

SUBTASK 52-41-00-420-001

WARNING: BE CAREFUL WHEN YOU MOVE THE DOOR INTO THE AIRPLANE. THE DOOR WEIGHS APPROXIMATELY 140 POUNDS. INJURY OR DAMAGE CAN OCCUR.

(2) Carefully move the door [1] near the fuselage and align the upper and lower hinges with the fuselage.

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- (a) Inspect the pressure seal of the Door prior to installation per, do this task: Galley Service Door Pressure Seal Check, TASK 52-41-00-200-802.

NOTE: If a follow-on pressurization test will be done, follow the procedure in (TASK 05-51-91-790-801).

SUBTASK 52-41-00-420-002

- (3) Connect the lower hinge of the door [1]:
 - (a) Put the lower hinge arm [20] in its correct position.
 - (b) Install the bolt [17], washers [18], and nut [19] that attach the lower hinge arm [20] to the fuselage.

SUBTASK 52-41-00-020-006

- (4) Connect the upper hinge of the door [1]:
 - (a) Put the upper hinge arm [13] in its correct position.
 - (b) Install the bolt [14], washers [15], and nut [16] to attach the upper hinge arm [13] to the fuselage.
 - (c) Make sure the distance from the centerline of the rod end [33] to the adjuster nut [31] is as specified.
 - (d) If it is out of tolerance, adjust the guide arm [8]:

NOTE: This is an initial adjustment for a new guide arm [8] or door [1].

- 1) Remove the bolt [34] and washer [35] on the lock channel [30].
 - 2) Remove the lock channel [30].
 - 3) Loosen the jamnut [32].
 - 4) Change the length of the guide arm rod end [33] with the adjuster nut [31] to get the correct position of the door [1].
 - 5) Make sure the adjuster nut [31] will align with the lock channel [30].
 - 6) Tighten the jamnut [32].
 - 7) Put the lock channel [30] in its correct position on the guide arm [8].
 - 8) Install the bolt [34] and washer [35] to hold the lock channel [30].
- (e) Put the guide arm [8] in its correct position.
 - 1) Make sure the lubrication fitting on the rod end [33] points inboard.
 - (f) Install the bolt [9], washer [10], and nut [11] to attach the guide arm [8] to the door [1].
 - (g) Make sure the lock channel [30] is installed over the adjuster nut [31].
 - (h) Install the filler [12] with sealant, A00247 to cover the guide arm [8] attachment.
 - (i) Install the applicable upper access panels:

<u>Number</u>	<u>Name/Location</u>
841FZ	Forward Galley Service Door - Torque Tube Access
844FZ	Aft Galley Service Door - Torque Tube Access

SUBTASK 52-41-00-020-007

- (5) Do this task: Galley Service Door Snubber Installation, TASK 52-41-51-400-801

G. Put the Airplane Back to Its Usual Condition

SUBTASK 52-41-00-410-002

- (1) Do this task: Galley Service Door Lining Installation, TASK 52-41-31-400-802.

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SUBTASK 52-41-00-820-015

(2) Do this task: Galley Service Door Adjustment, TASK 52-41-00-820-801.

SUBTASK 52-41-00-730-003

(3) Do this task: Galley Service Door System Test, TASK 52-41-00-700-801.

SUBTASK 52-41-00-080-001

(4) Remove the stand, COM-1523 from the door [1].

————— **END OF TASK** —————

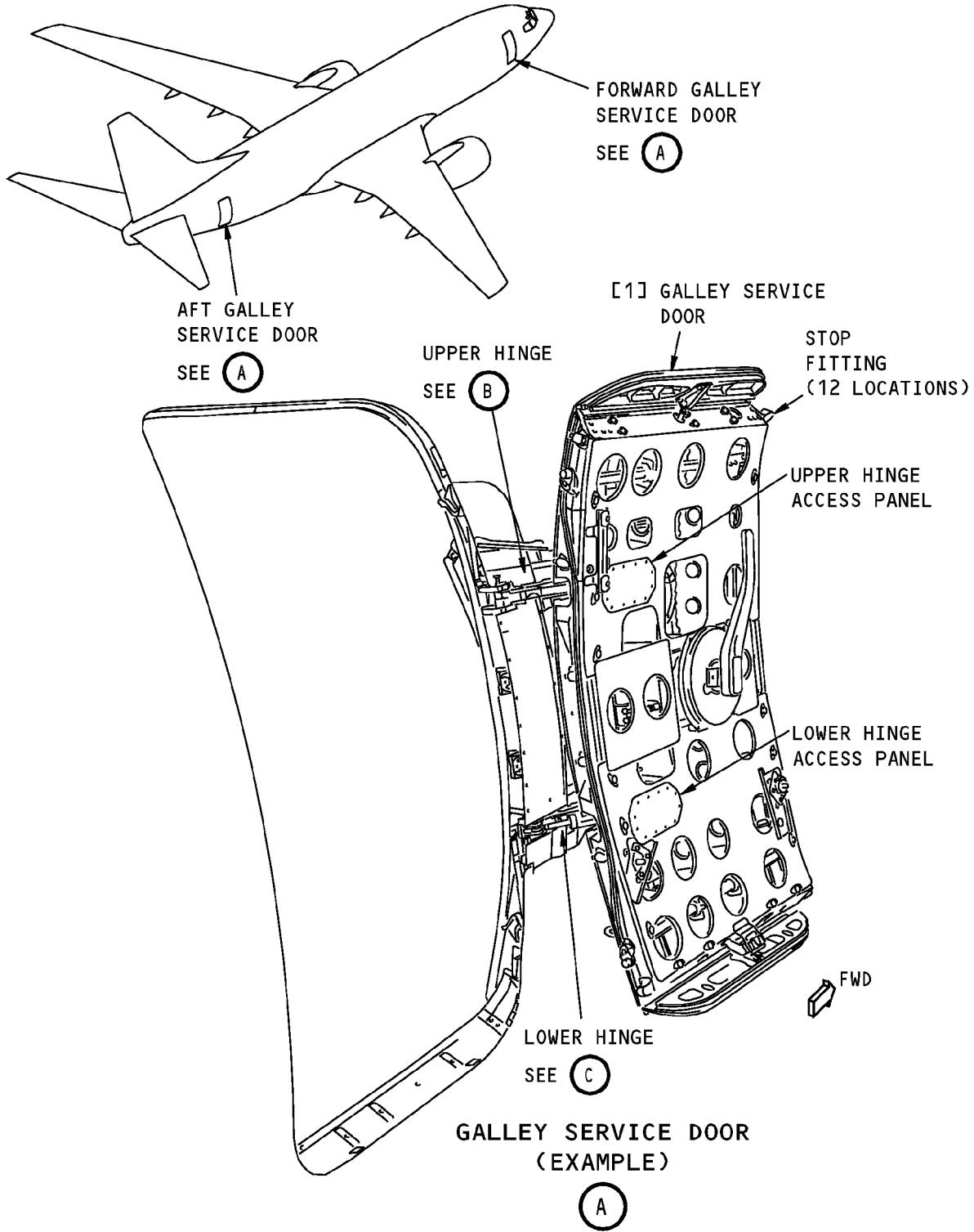
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**Galley Service Door Installation
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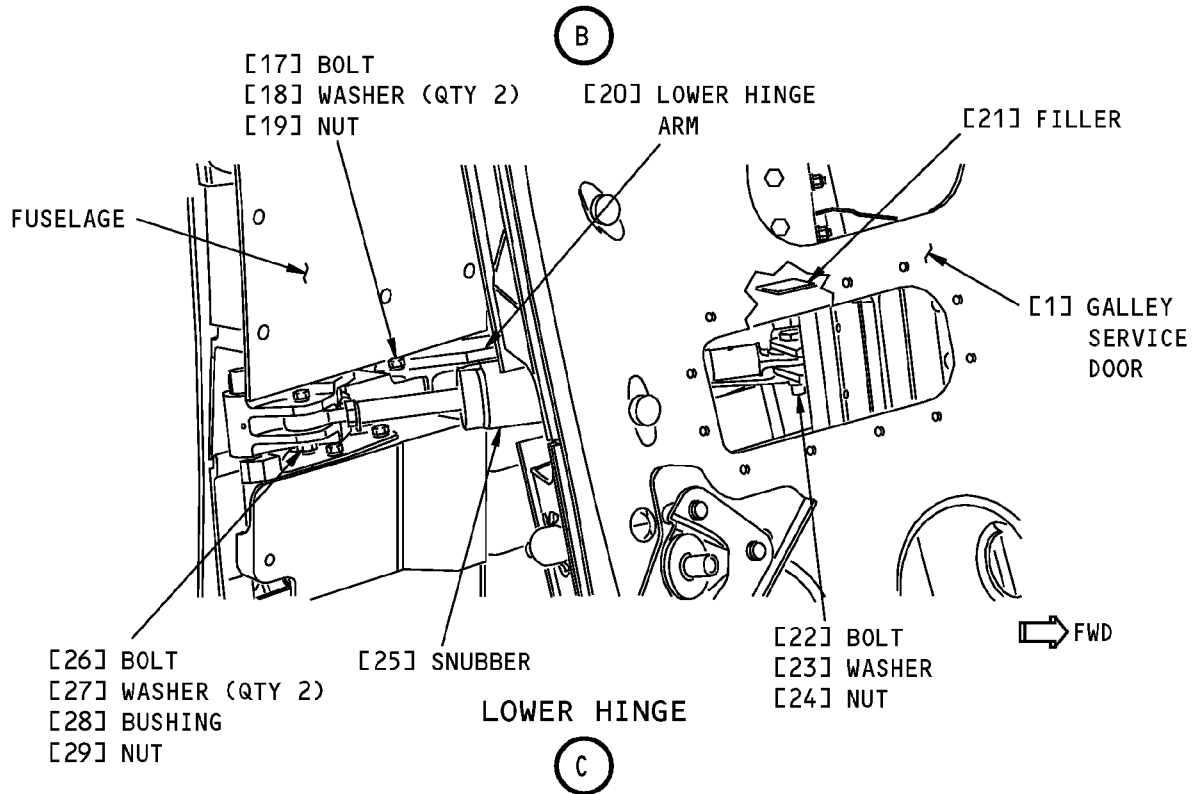
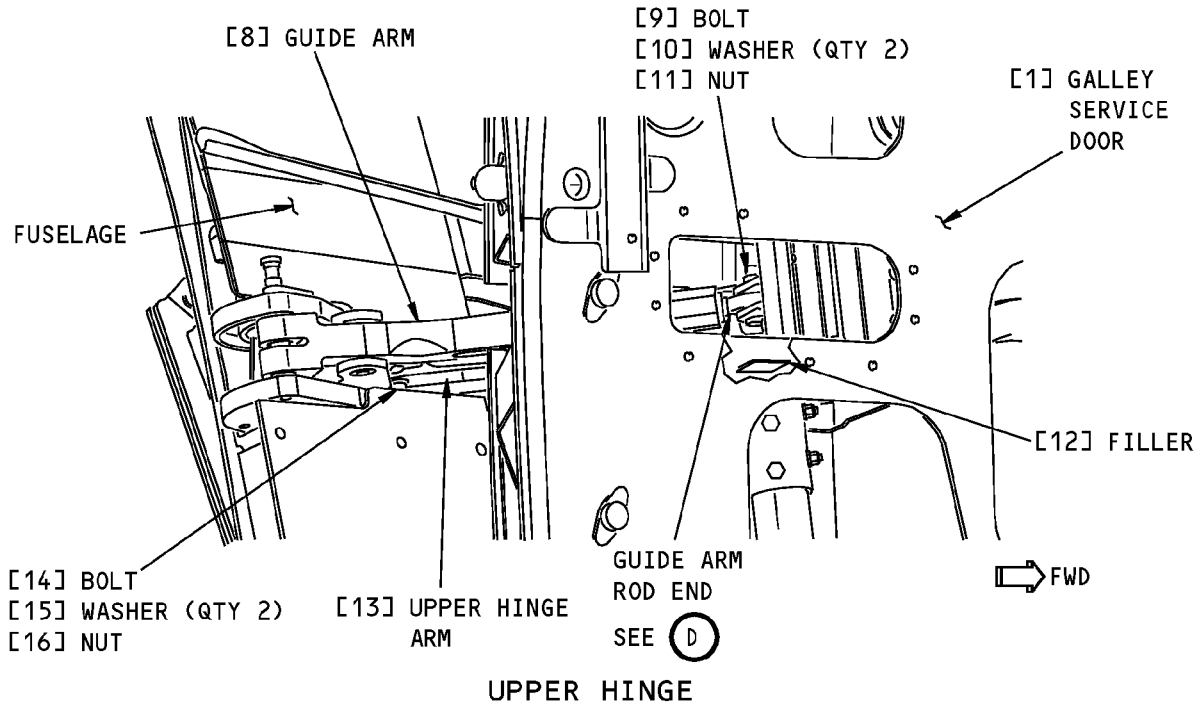
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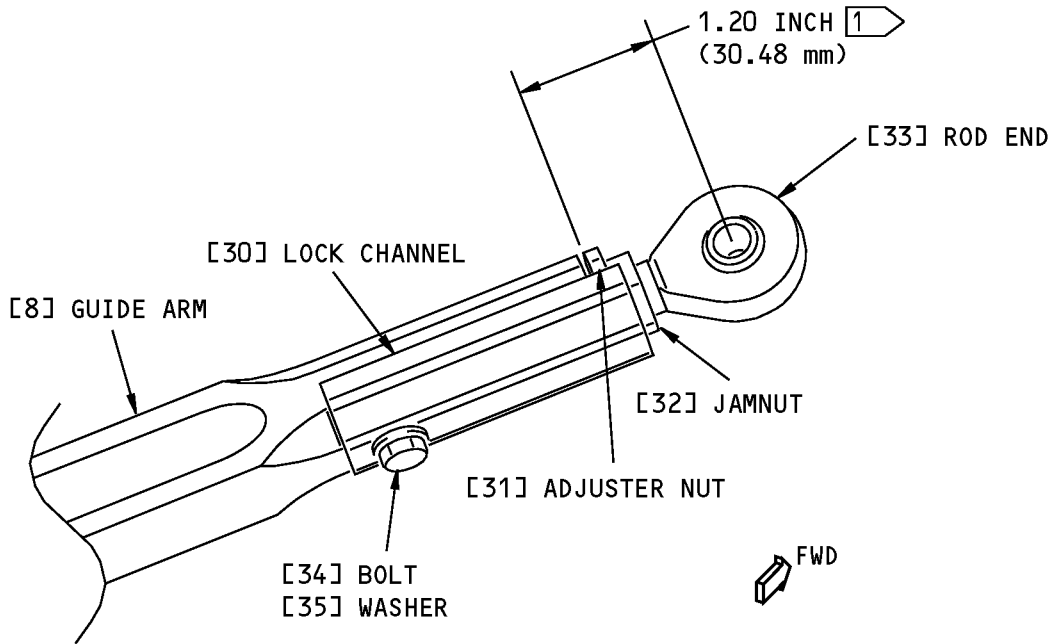
Galley Service Door Installation
Figure 401 (Sheet 2 of 3)/52-41-00-990-801

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**GUIDE ARM ROD END
ADJUSTMENT**

D

[1] INITIAL ADJUSTMENT

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GALLEY SERVICE DOOR - ADJUSTMENT/TEST

1. General

A. This procedure has these tasks:

- (1) An adjustment of the galley service door.
- (2) An adjustment for "Soft unlatching".
- (3) A system test of the galley service door.

B. This procedure is the same for the forward or aft galley service door.

TASK 52-41-00-820-801

2. Galley Service Door Adjustment

(Figure 501, Figure 502, Figure 503, Figure 504, Figure 505, Figure 506, Figure 507, Figure 508, Figure 509, Figure 510, Figure 511)

A. General

- (1) Do the procedure with the airplane operating weight empty and the airplane supported on its landing gear.
- (2) After the adjustment is completed, make sure that all adjustment points are locked and sealed.

B. References

Reference	Title
52-41-31-000-802	Galley Service Door Lining Removal (P/B 401)
52-41-31-400-802	Galley Service Door Lining Installation (P/B 401)
52-71-11-710-801	Entry and Galley Service Door Indication Sensor Test (S194, S195, S199, or S200) (P/B 201)
52-71-11-820-801	Entry and Galley Service Door Indication Sensor Adjustment (S194, S195, S199, or S200) (P/B 201)

C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1557	Gauge - Force (Part #: DG-200, Supplier: 92456, A/P Effectivity: 737-ALL) (Part #: DPP-500G, Supplier: 92456, A/P Effectivity: 737-ALL) (Part #: DPPH-150, Supplier: 92456, A/P Effectivity: 737-ALL) (Part #: DPPH-200, Supplier: 92456, A/P Effectivity: 737-ALL) (Part #: DPPH-50, Supplier: 92456, A/P Effectivity: 737-ALL) (Part #: FDIX 100, Supplier: 0BFD9, A/P Effectivity: 737-ALL) (Part #: FDIX 50, Supplier: 0BFD9, A/P Effectivity: 737-ALL) (Part #: FDV 50, Supplier: 0BFD9, A/P Effectivity: 737-ALL) (Part #: LG-050, Supplier: 92456, A/P Effectivity: 737-ALL) (Opt Part #: FDI 100, Supplier: 0BFD9, A/P Effectivity: 737-ALL)

D. Consumable Materials

Reference	Description	Specification
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS 5-95
C00259	Primer - Chemical And Solvent Resistant Finish, Epoxy Resin	BMS10-11, Type I

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(Continued)

Reference	Description	Specification
G01912	Lockwire - Monel (0.032 In. Dia.)	NASM20995N~ C32 (QQ-N-281)

E. Location Zones

Zone	Area
841	Forward Galley Service Door
844	Aft Galley Service Door

F. Access Panels

Number	Name/Location
841AZ	Forward Galley Service Door - Torque Tube Access
841FZ	Forward Galley Service Door - Torque Tube Access
844AZ	Aft Galley Service Door - Torque Tube Access
844FZ	Aft Galley Service Door - Torque Tube Access

G. Prepare for the Adjustment

SUBTASK 52-41-00-860-035

(1) If a new door has been installed:

- (a) Make sure that the centering guide is not installed on the door.
- (b) Make sure that the stop pins are retracted into the stop fittings or removed.

SUBTASK 52-41-00-860-004

(2) Make sure the door is safe as follows:

- (a) Make sure the door is closed and latched.

WARNING: MAKE SURE THE GIRT BAR IS NOT ENGAGED IN THE FLOOR-MOUNTED ESCAPE SLIDE BRACKETS. IF THE GIRT BAR IS ENGAGED IN THE BRACKETS, THE ESCAPE SYSTEM CAN DEPLOY WHEN YOU OPEN THE DOOR AND INJURIES OR DAMAGE CAN OCCUR.

- (b) Make sure the girt bar is not engaged in the floor-mounted escape slide brackets.
- (c) Make sure a stand is installed outboard of the door.

SUBTASK 52-41-00-010-005

(3) Get access to the door as follows:

- (a) Make sure the door is closed and latched.
- (b) Do this task: Galley Service Door Lining Removal, TASK 52-41-31-000-802.
- (c) Make sure a weight equivalent to the escape slide and door lining that equals 77 pounds (34.9 kilograms) is installed on the door.

H. Hinge Flap Adjustment

SUBTASK 52-41-00-820-002

(1) Do the hinge flap adjustment:

- (a) Make sure the door is closed and latched.
- (b) Make sure the skin clearance and flushness between the upper and lower hinge flaps, fuselage skin, and access panel are as shown, (Table 501) and (Figure 502).

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Table 501/52-41-00-993-818 Aerosmoothness Limits - Hinge Covers at Forward Edge of Galley Service Door
(Key to Figure 502)

ZONE	CLEARANCE		FLUSHNESS ^{*[1]}	
	NOMINAL inch (mm)	TOLERANCE inch (mm)	NOMINAL inch (mm)	TOLERANCE inch (mm)
A	0.09 (2.28)	0.06 to 0.18 (1.52 to 4.57)	0.00 (0.00)	-0.03 to 0.03 (-0.76 to 0.76)
B	0.09 (2.28)	0.06 to 0.18 (1.52 to 4.57)	0.00 (0.00)	-0.03 to 0.03 (-0.76 to 0.76)
C	0.09 (2.28)	0.06 to 0.18 (1.52 to 4.57)	0.00 (0.00)	-0.03 to 0.03 (-0.76 to 0.76)
D	0.09 (2.28)	0.06 to 0.18 (1.52 to 4.57)	0.00 (0.00)	-0.03 to 0.03 (-0.76 to 0.76)
E	0.09 (2.28)	0.06 to 0.18 (1.52 to 4.57)	0.00 (0.00)	-0.03 to 0.03 (-0.76 to 0.76)
F	0.09 (2.28)	0.06 to 0.18 (1.52 to 4.57)	0.00 (0.00)	-0.03 to 0.03 (-0.76 to 0.76)
G	0.09 (2.28)	0.06 to 0.18 (1.52 to 4.57)	0.00 (0.00)	-0.03 to 0.03 (-0.76 to 0.76)
H	0.09 (2.28)	0.06 to 0.18 (1.52 to 4.57)	0.00 (0.00)	-0.03 to 0.03 (-0.76 to 0.76)

^{*[1]} FLUSHNESS FROM THE FORWARD EDGE TO THE AFT EDGE OF THE HINGE COVER MUST BE A SMOOTH TRANSITION.

- (c) If necessary, adjust as follows:
 - 1) Adjust the skin clearance as follows:
 - a) Open the door.
 - b) Remove the bolts and washers that attach the hinge flap to the fuselage structure.
 - c) Install a new laminated shim or remove laminations from the shim under the hinge on the hinge flap.
 - d) Apply primer, C00259 to the bare laminations of the shim before installation.
 - e) Install the bolts and washers to attach the hinge flap to the fuselage structure.
 - 2) Adjust the flushness as follows:
 - a) Loosen the bolts that attach the hinge flap to the fuselage structure.
 - b) Move the hinge flap inboard or outboard in the slots for the bolts.
 - c) Tighten the bolts that attach the hinge flap to the fuselage structure.

I. Guide Arm Adjustment

SUBTASK 52-41-00-820-003

- (1) Do the guide arm adjustment (Figure 503):
 - (a) Open the door and move it until it is parallel to the contour of the fuselage near the closed position.
 - (b) If the door is not parallel to the contour of the fuselage at approximately one inch from the closed position, adjust as follows:
 - 1) Move the door to the fully open position.

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2) Remove the applicable upper access panels:

<u>Number</u>	<u>Name/Location</u>
841FZ	Forward Galley Service Door - Torque Tube Access
844FZ	Aft Galley Service Door - Torque Tube Access

3) Get access to the guide arm door lock channel.

4) Remove the bolt and washer on the lock channel.

5) Remove the lock channel.

6) Loosen the jamnut.

7) Turn the adjuster nut to change the length of the guide arm rod end and get the correct position of the door.

NOTE: If you shorten the guide arm it will turn the aft edge of the door inboard.

8) Make sure the adjuster nut will align with the lock channel.

9) Tighten the jamnut.

10) Put the lock channel in its correct position on the guide arm.

11) Install the bolt and washer to hold the lock channel in position.

12) Install the applicable upper access panels:

<u>Number</u>	<u>Name/Location</u>
841FZ	Forward Galley Service Door - Torque Tube Access
844FZ	Aft Galley Service Door - Torque Tube Access

I HAP 001-013, 015-026, 028-043, 101

J. Snubber Adjustment

SUBTASK 52-41-00-820-004

(1) Adjust the snubber:

(a) Move the door slowly from the cocked position to the closed position and back to the cocked position.

NOTE: The door is in the cocked position when it is the most inboard in its travel, near perpendicular to the fuselage cutout.

(b) Make sure the snubber does not bottom out and interfere with the roller in the guide arm at the upper hinge (Figure 503).

(c) Do a check to make sure the snubber is not extended too much:

1) With the door fully open, make sure the stop link can be moved.

NOTE: If the stop link cannot be moved, the snubber has been extended too much.

(d) If necessary, adjust as follows:

1) Make sure the door is fully open.

2) Remove the bolt, washers, bushing, and nut that attach the snubber to the fuselage frame.

3) Remove the lockwire and loosen the jamnut on the snubber rod end.

4) Turn the snubber rod end to change the length of the snubber and get the correct movement of the door.

5) Tighten the jamnut.

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- 6) Install the lockwire, G01912.
- 7) Install the bolt, washers, bushing, and nut to attach the snubber to the fuselage frame.

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K. Door Vertical Adjustment

SUBTASK 52-41-00-820-016

(1) Adjust the door vertical adjustment:

- (a) Close and latch the door.
- (b) Make sure the stop pins align with the stop pads as shown (Figure 510).

NOTE: This is an alignment of the stop pads with the stop pins. Do not set the stop pin and pad clearance.

(c) If necessary, adjust the door vertically as follows, (Table 502) and (Figure 505):

1) Make sure the applicable access panels are removed:

<u>Number</u>	<u>Name/Location</u>
841AZ	Forward Galley Service Door - Torque Tube Access
844AZ	Aft Galley Service Door - Torque Tube Access

- 2) Remove the cotter pins on the upper and lower adjuster nuts.
- 3) Loosen the upper adjuster nut and turn the lower adjuster nut to get the correct door vertical position.
- 4) Make sure the lower adjuster nut is aligned with a cotter pin hole.
- (d) Measure the skin clearance between the upper and lower gates and the fuselage skin along the top and bottom of the door at the locations that follow:
NOTE: Make additional measurements if necessary.
 - 1) Three locations evenly spaced along the horizontal edge of the upper and lower gates.
- (e) Make sure the clearances are as shown, (Table 502) and (Figure 505).
 - 1) If necessary, adjust the door vertically to get the clearances.
- (f) Make sure the stop pins continue to align with the stop pads.
- (g) Make sure the door is bottomed out on the lower adjuster nut.
- (h) Tighten the upper adjuster nut hand tight and turn back to align with the nearest cotter pin hole.

NOTE: Do not tighten the nuts too much. If the nuts are tightened too much it can put high end loads on the bearings in the handle mechanism.

- (i) Install the new cotter pins in the upper and lower adjuster nuts.

L. Skin Clearance Adjustment

SUBTASK 52-41-00-820-017

(1) Adjust the door with one of these methods:

- (a) Method 1 is the Standard measurement method for skin clearance adjustment.
- (b) Method 2 is Aero-Averaging measurement for skin clearance adjustment.

SUBTASK 52-41-00-820-018

(2) Adjust the skin clearance with Method 1:

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- (a) Make sure the clearances between the door skin and fuselage skin as shown, (Table 502) and (Figure 505).

Table 502/52-41-00-993-819 Aerosmoothness Limits - Galley Service Door (Method 1) (Key to Figure 505)

ZONE	CLEARANCE		FLUSHNESS	
	NOMINAL inch (mm)	TOLERANCE inch (mm)	NOMINAL inch (mm)	TOLERANCE inch (mm)
A	0.12 (3.05)	0.05 to 0.28 (1.27 to 7.11)	--	NOT APPLICABLE
B	0.19 (4.82)	0.13 to 0.28 (3.30 to 7.11)	0.00 (0.00)	-0.09 to 0.03 (-2.18 to 0.76)
C	0.12 (3.05)	0.05 to 0.28 (1.27 to 7.11)	--	NOT APPLICABLE
D	0.12 (3.05)	0.06 to 0.18 (1.52 to 4.57)	-0.06 (-1.52)	-0.12 to -0.03 (-3.05 to -0.76)
E	0.12 (3.05)	0.05 to 0.19 (1.27 to 4.82)	--	NOT APPLICABLE
F (FORWARD DOOR)	0.12 (3.05)	0.06 to 0.18 (1.52 to 4.57)	-0.25 (-6.35)	-0.30 to -0.20 (-7.62 to -5.08)
F (AFT DOOR)	0.12 (3.05)	0.06 to 0.18 (1.52 to 4.57)	-0.20 (-5.08)	-0.25 to -0.15 (-6.35 to -3.81)
G	0.12 (3.05)	0.05 to 0.19 (1.27 to 4.82)	--	NOT APPLICABLE
H	0.12 (3.05)	0.06 to 0.18 (1.52 to 4.57)	-0.06 (-1.52)	-0.12 to 0.06 (-3.05 to 1.52)

- (b) If necessary, adjust as follows:
 - 1) Open the door.
 - 2) Trim the edge of the door to get the correct skin clearances.
- (c) Make sure the minimum distance from the edge of the door outer skin to the door frame is as shown, (Table 502) and (Figure 505).

SUBTASK 52-41-00-820-025

- (3) Adjust the skin clearance with Method 2 (Aero-Averaging).
 - (a) Make sure the clearance between the door skin and fuselage skin are as shown in Table 503.

Table 503/52-41-00-993-820 Aero-Averaging Limits - Galley Service Door (Method 2)

ZONE	CLEARANCE		FLUSHNESS	
	NOMINAL inch (mm)	TOLERANCE inch (mm)	NOMINAL inch (mm)	TOLERANCE inch (mm)
A	0.12 (3.05)	0.05 to 0.31 (1.27 to 7.87)	--	NOT APPLICABLE
B	0.19 (4.82)	0.13 to 0.31 (3.30 to 7.87)	0.00 (0.00)	-0.12 to 0.06 (-3.05 to 1.52)
C	0.12 (3.05)	0.05 to 0.31 (3.30 to 7.87)	--	NOT APPLICABLE
D	0.12 (3.05)	0.06 to 0.21 (1.52 to 5.33)	-0.06 (-1.52)	-0.15 to 0.00 (-3.81 to 0.00)

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	CLEARANCE		FLUSHNESS	
E	0.12 (3.05)	0.05 to 0.22 (1.27 to 5.59)	--	NOT APPLICABLE
F (FORWARD DOOR)	0.12 (3.05)	0.06 to 0.21 (3.05 to 5.33)	-0.25 (-6.35)	-0.33 to -0.17 (-8.38 to -4.32)
F (AFT DOOR)	0.12 (3.05)	0.06 to 0.21 (3.05 to 5.33)	-0.20 (-5.08)	-0.28 to -0.12 (-7.11 to -3.05)
G	0.12 (3.05)	0.05 to 0.31 (1.27 to 7.87)	--	NOT APPLICABLE
H	0.12 (3.05)	0.06 to 0.21 (3.05 to 5.33)	-0.06 (-1.52)	-0.15 to 0.06 (-3.81 to 1.52)

SUBTASK 52-41-00-820-019

(4) Adjust the skin clearance with Method 2 (Aero-Averaging):

- (a) Make sure the clearances between the door skin and fuselage skin are as shown, (Table 504) and (Figure 505).
- (b) If necessary, adjust as follows:
 - 1) Open the door.
 - 2) Trim the edge of the door to get the correct skin clearances.
- (c) Make sure the minimum distance from the edge of the door outer skin to the door frame is as shown for Method 2 (Aero-Averaging), (Table 504) and (Figure 505).
- (d) Measure the clearance between the door skin and fuselage skin along the forward and aft edges of the door at the locations that follow:
 - 1) Within ± 1.0 inch (± 25.4 mm) of each stop fitting along the forward and aft edges of the door.
 - 2) Record the skin clearance for each stop fitting.
 - 3) Use the (Table 504) to change the clearance to a Drag value.

NOTE: A measurement of 0.10 inch (2.54mm) clearance is a Drag value of 0.63.

 - 4) Record the Drag value for each measurement from (Table 504).

Table 504/52-41-00-993-816 Galley Service Door Skin Clearance (Aero-averaging)

CLEARANCE Inch (mm)	DRAG VALUE
0.06 (1.52)	0.38
0.07 (1.78)	0.44
0.08 (2.03)	0.50
0.09 (2.29)	0.56
0.10 (2.54)	0.63
0.11 (2.79)	0.69
0.12 (3.05)	0.75
0.13 (3.30)	0.81

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CLEARANCE Inch (mm)	DRAG VALUE
0.14 (3.56)	0.88
0.15 (3.81)	0.94
0.16 (4.06)	1.00
0.17 (4.32)	1.06
0.18 (4.57)	1.12
0.19 (4.83)	1.19
0.20 (5.08)	1.25
0.21 (5.33)	1.31

- 5) Add all the Drag Values together (sum).
 - a) Record the sum of the Drag Values as Measurement A.
- 6) Divide measurement A by the number of measurements that you made.

NOTE: If the measurement was made at each of the stop fittings, then divide Measurement A (sum of the Drag Values) by 18 (the number of door stop fittings).
- 7) Make sure that the average drag value is 1.00 or less.

M. Skin Flushness Adjustment

SUBTASK 52-41-00-820-020

- (1) Adjust the door with one of these methods:
 - (a) Method 1 is the Standard measurement method for skin flushness adjustment.
 - (b) Method 2 is Aero-Averaging measurement for skin flushness adjustment.

SUBTASK 52-41-00-820-021

- (2) Adjust the skin flushness using Method 1:
 - (a) Make sure the flushness between the door skin and fuselage skin along the forward and aft edges of the door are as shown, (Table 502) and (Figure 505).
 - (b) As a minimum, measure the flushness between the door skin and fuselage skin along the forward and aft edges of the door at the locations that follow:
 - 1) Within ± 1.0 inch (± 25.4 mm) of each stop fitting along the forward and aft edges of the door.

NOTE: Make additional measurements if necessary. Do not make measurements that are within 8.0 inches (203.2mm) of the body skin lap joint.
 - 2) Three locations evenly spaced along the horizontal edge of the upper and lower gates.
 - (c) If necessary, adjust as follows:
 - 1) Open the door.
 - 2) Loosen the bolts and washers that attach the forward and aft, upper and lower latch receivers to the fuselage frame.
 - 3) Move the latch receivers inboard or outboard on their serrated plates to get the correct door flushness (Figure 507).
 - 4) Tighten the bolts and washers to attach the latch receivers to the fuselage frame.

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SUBTASK 52-41-00-820-022

(3) Adjust the skin flushness using Method 2 (Aero-Averaging):

- (a) Make sure the flushness between the door skin and fuselage skin along the forward and aft edges of the door are within tolerance, (Table 505) and (Figure 505).
- (b) As a minimum, measure the flushness between the door skin and fuselage skin along the forward and aft edges of the door at the locations that follow:
 - 1) Within ± 1.0 inch (± 25.4 mm) of each stop fitting along the forward and aft edges of the door.

NOTE: Make additional measurements if necessary. Do not make measurements that are within 8.0 inches (203.2mm) of the body skin lap joint.

- 2) Three locations evenly spaced along the horizontal edge of the upper and lower gates.
- 3) Record the skin flushness for each stop fitting.
- 4) Use the (Table 505) to change the flushness to a Drag value.

NOTE: A measurement of -0.10 inch (-2.54mm) flushness at the door fwd edge is a Drag value of 0.56.

- 5) Record the Drag value for each measurement from (Table 505).

Table 505/52-41-00-993-817 Galley Service Door Skin Flushness (Aero-Averaging)

Door Flushness		
Fwd Edge Inch (mm)	Aft Edge Inch (mm)	Drag Value
	0.06 (1.52)	2.10
	0.05 (1.27)	1.89
	0.04 (1.02)	1.69
-0.15 (-3.81)	0.03 (0.76)	1.49
-0.14 (-3.56)	0.02 (0.51)	1.29
-0.13 (-3.30)	0.01 (0.25)	1.10
-0.12 (-3.05)	0.00	0.91
-0.11 (-2.79)	-0.01 (-0.25)	0.73
-0.10 (-2.54)	-0.02 (-0.51)	0.56
-0.09 (-2.29)	-0.03 (-0.76)	0.39
-0.08 (-2.03)	-0.04 (-1.02)	0.23
-0.07 (-1.78)	-0.05 (-1.27)	0.09
-0.06 (-1.52)	-0.06 (-1.52)	0
-0.05 (-1.27)	-0.07 (-1.78)	0.11
-0.04 (-1.02)	-0.08 (-2.03)	0.38
-0.03 (-0.76)	-0.09 (-2.29)	0.70
-0.02 (-0.51)	-0.10 (-2.54)	1.06
-0.01 (-0.25)	-0.11 (-2.79)	1.44

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Door Flushness		
Fwd Edge Inch (mm)	Aft Edge Inch (mm)	Drag Value
0.00	-0.12 (-3.05)	1.85
	-0.13 (-3.30)	2.23
	-0.14 (-3.56)	2.67
	-0.15 (-3.81)	3.12

- 6) Add all the Drag Values together (sum).
 - a) Record the sum of the Drag Values as Measurement A.
- 7) Divide measurement A by the number of measurements that you made.

NOTE: If the measurement was made at each of the stop fitting, then divide Measurement A (sum of the Drag Values) by 18 (the number of door stop fittings).

- a) Make sure that the Average Drag Value is 1.00 or less.
- (c) If the average Drag Value is greater than 1.00, then adjust the door as follows:
 - 1) Open the door.
 - 2) Loosen the bolts and washers that attach the forward and aft, upper and lower latch receivers to the fuselage frame.
 - 3) Move the latch receivers inboard or outboard on their serrated plates to get the correct door flushness (Figure 507).
 - 4) Adjust the door to get the correct skin flushness.

N. Latch Adjustment

SUBTASK 52-41-00-820-008

- (1) Do the latch adjustment (Figure 507):
 - (a) Close and latch the door.
 - (b) Make sure the clearance between the forward and aft, upper and lower latch rollers and latch receivers is as shown.
 - (c) If necessary, adjust as follows:
 - 1) Open the door.
 - 2) Loosen the bolts and washers that attach the latch receivers to the fuselage frame.
 - 3) Move the latch receivers up or down on their serrated plates to get the correct clearance between the latch roller and the latch receiver.

NOTE: Turn the stop pins inboard if it is necessary.

 - 4) Tighten the bolts and washers to attach the latch receivers to the fuselage frame.
- (d) Close and latch the door.
- (e) Make sure the distance the forward and aft, upper and lower latch rollers engage in the latch receivers is as shown.
- (f) If necessary, adjust as follows:
 - 1) Open the door.

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- 2) Remove the bolts, washers, and nuts that attach the forward and aft latch cranks to the latch torque tube.
 - 3) Move the adjustment shims from one end of the latch torque tube to the other end to increase or decrease the clearance between the latch crank and latch receiver.
 - 4) Install the bolts, washers, and nuts to attach the latch cranks to the latch torque tube.
 - 5) If more adjustment is necessary, do the steps that follow:
 - a) Remove the bolt, adjustment washers, and nut that attach the latch roller to the latch crank.
 - b) Move the adjustment washers from the roller side to the nut side.
 - c) Install the bolt, adjustment washers, and nut to attach the latch roller to the latch crank.
 - d) Make sure the latch roller bearing shank is clear of the door frame by 0.02 inch (0.50mm) minimum after the adjustment.
 - (g) Make sure the door is open.
 - (h) Try to move the latch torque tube forward and aft to do a check for latch roller and latch torque tube end play.
 - (i) Make sure the latch roller and latch torque tube end play is 0.02 inch (0.50mm) maximum. If necessary, adjust as follows:
 - 1) Open the door.
 - 2) Add or remove the horseshoe washers from one of the ends of the latch torque tube to decrease the end play.
 - 3) After you have decreased the end play, do the steps that follow:
 - a) Turn the horseshoe washer ends until their positions are random.
 - b) Apply the sealant, A00247 in the spaces between the ends of the horseshoe washers.
 - c) Make sure the sealant, A00247 does not prevent the latch torque tube support bearing from turning freely.
 - d) Do this task: Entry and Galley Service Door Indication Sensor Test (S194, S195, S199, or S200), TASK 52-71-11-710-801.
- O. Horizontal Control Rod Adjustment

SUBTASK 52-41-00-820-009

- (1) Adjust the horizontal control rod (Figure 508):
 - (a) Unlatch and latch the door.
 - (b) Make sure the forward and aft, upper and lower latch rollers move into their latch receivers before the latch torque tubes start to turn.
 - (c) If necessary, adjust the horizontal control rod as follows:
 - 1) Open the door.
 - 2) Remove the bolt, washer, and nut that attach the horizontal control rod end to the door hinge torque tube.
 - 3) Loosen the checknut.

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- 4) Turn the rod end to change the length of the horizontal control rod to get the correct latch sequence or exterior handle forces.

NOTE: If you shorten the horizontal control rod, it will move the door outboard and increase the handle retraction force.

- 5) After the first adjustment, shorten the horizontal control rod an additional 1/2 to 1-1/2 turns if it is necessary to move the door outboard and make sufficient latch roller clearance.
 - 6) Install the bolt, washer, and nut to attach the horizontal control rod end to the door hinge torque tube.
 - 7) Tighten the check nut when the horizontal control rod adjustments are done.
- (d) Close and latch the door.
 - (e) Pull the exterior handle to its extended position.
 - (f) Use a force gauge, COM-1557 to measure the force to move the exterior handle back to its retracted position.
 - (g) Make sure the force to move the handle to its retracted position is not more than 20 pounds (9 kilograms)
 - (h) If necessary, adjust the horizontal control rod again.
 - (i) Do this adjustment to make sure the latch roller will clear the lip of the latch receiver:
NOTE: Use the 10 ± 1 pound (4.5 ± 0.45 kilograms) load to simulate the seal drag of the door liner.
 - 1) Apply a 10 ± 1 pound (4.5 ± 0.45 kilograms) spring load or equivalent to the door in an inboard direction at the corner stop fitting next to the latch roller.
 - 2) Unlatch and latch the door.
 - 3) Look at each latch roller as it goes into its latch receiver.
 - 4) Make sure the latch rollers are clear of the entry lip on the latch receiver when you move the exterior handle to the latched position.
 - (j) If necessary, adjust the horizontal control rod again.
 - (k) Install the applicable access panels:

<u>Number</u>	<u>Name/Location</u>
841AZ	Forward Galley Service Door - Torque Tube Access
844AZ	Aft Galley Service Door - Torque Tube Access

P. Gate Adjustment

SUBTASK 52-41-00-820-010

- (1) Do the gate adjustment:
 - (a) Close and latch the door.
 - (b) Make sure the door flushness between the upper and lower gates and the fuselage skin is as shown.
 - (c) If necessary, adjust as follows (Figure 509):
 - 1) Open the door.
 - 2) Remove the bolt, washers, and nut that attach the gate control rod to the gate.
 - 3) Loosen the checknut.

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- 4) Turn the rod end to change the length of the gate control rod to get the correct flushness.

NOTE: The lubrication fitting must point inboard after the adjustment.

- 5) Install the bolt, washers, and nut to attach the gate control rod to the gate.
- 6) Tighten the checknut.

Q. Stop Pin Adjustment

SUBTASK 52-41-00-820-011

- (1) Adjust the stop pin (Figure 510):

- (a) Close and latch the door.
- (b) Make sure the clearance between the stop pins and stop pads on the forward and aft edges of the door is as shown.
- (c) If necessary, adjust as follows:
 - 1) Turn the stop pin fully outboard until it just touches the stop pad.
 - 2) Turn the stop pin back 1/2 turn and then to the nearest lock groove for the lock spring.
 - 3) Install the lock spring.
- (d) Make sure the stop pins align with the stop pads on the forward and aft edges of the door as shown.

R. Centering Guide Adjustment

SUBTASK 52-41-00-820-012

- (1) Do the centering guide adjustment (Figure 511):

- (a) Open and close the door.
- (b) As the door closes, make sure the centering guide goes into the track and is clear of the track as the door closes.
- (c) Make sure the clearance between the centering guide roller and track is as shown.
- (d) Make sure that the centering guide body track thickness is not less than 0.070 inch (1.778 mm).
- (e) If necessary, adjust as follows:
 - 1) Loosen the bolts that attach the centering guide to the door frame.
 - 2) Move the centering guide on the serrated plate to get the correct clearance.

NOTE: The centering guide has slots for the bolts to permit adjustment.

 - 3) Tighten the bolts.

S. Hinge Arm Cover Adjustment

SUBTASK 52-41-00-820-013

- (1) Adjust the hinge arm cover (Figure 502):

- (a) Make sure the door is closed and latched.
- (b) Make sure the skin clearance and flushness between the upper and lower hinge arm covers and door skin are as shown, View A (Figure 502). If necessary, adjust as follows:
 - 1) Adjust the skin clearance as follows:
 - a) Trim the hinge arm cover to get the correct clearance.
 - 2) Adjust the flushness as follows:
 - a) Remove the screws that attach the hinge arm cover to the hinge arm.

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- b) Remove the shims or add new shims between the hinge arm cover and hinge arm.
c) Install the screws to attach the hinge arm cover to the hinge arm.

SUBTASK 52-41-00-820-014

- (2) Adjust the galley service door warning system. To adjust it, do this task: Entry and Galley Service Door Indication Sensor Adjustment (S194, S195, S199, or S200), TASK 52-71-11-820-801.

T. Put the Airplane Back to Its Usual Condition

SUBTASK 52-41-00-410-003

- (1) Do this task: Galley Service Door Lining Installation, TASK 52-41-31-400-802.

END OF TASK

TASK 52-41-00-820-802

3. Galley Service Door (Soft Unlatching)

(Figure 512)

A. General

- (1) If the latch torque tubes are not adjusted correctly, the door handle can move too easily. This can cause the door to open accidentally (soft unlatching). This task is a special procedure to adjust the door if it opens accidentally (soft unlatching).

B. References

Table with 2 columns: Reference, Title. Lists tasks such as Escape Slide Pack and Cover Removal, Galley Service Door Lining Removal, and Entry and Galley Service Door Indication Sensor Adjustment.

C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Table with 2 columns: Reference, Description. Lists simulator for escape slide, passenger door with various part numbers and supplier information.

D. Consumable Materials

Table with 3 columns: Reference, Description, Specification. Lists grease and clay materials.

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E. Location Zones

Zone	Area
841	Forward Galley Service Door
844	Aft Galley Service Door

F. Procedure

SUBTASK 52-41-00-010-010

(1) Do this task: Escape Slide Pack and Cover Removal, TASK 25-66-01-000-801.

SUBTASK 52-41-00-010-011

(2) Do this task: Galley Service Door Lining Removal, TASK 52-41-31-000-802.

SUBTASK 52-41-00-480-002

(3) Attach a 90 pound weight to the door approximately in the middle of the bottom half of the door.

(a) You may use the escape slide simulator, SPL-2003.

SUBTASK 52-41-00-820-024

(4) Do a check of the adjustment of the latch rollers:

(a) Disconnect the push rod from the torque tube.

(b) Move the handle mechanism to the closed position.

NOTE: A wrench can help to move the handle mechanism.

(c) See that the latch rollers align correctly with the latch fittings.

1) Make sure that a 3/32 inch (2.39 mm) rig pin can easily slide through the hole in the latch roller and into the latch fitting.

(d) If the rig pin cannot easily slide through the hole, adjust the control rods to make the latch roller align correctly with the latch fitting:

1) Disconnect the control rods from the control rod cranks on the upper and lower latch torque tubes.

2) Align the holes in the latch roller with the holes in the latch fitting.

a) Put the 3/32 inch (2.39 mm) rig pin through the hole in the latch roller and into the hole in the latch fitting.

3) Change the length of the control rods until they align with the the control rod cranks.

4) Connect the control rods to the control rod cranks.

(e) Connect the push rod to the torque tube.

(f) Make sure the latch rollers engage the latch fittings correctly:

1) Put the clay, G02020 in the latch fitting.

2) Put a layer of grease, D00672 [CP5070] on the latch roller.

3) Close and latch the door.

4) Open the door.

5) Make sure the clearance between the bottom of the latch roller and the latch fitting is 0.04-0.28 inch (1.02-7.11 mm) (Figure 512).

NOTE: The clay in the latch fitting shows this clearance.

SUBTASK 52-41-00-820-026

(5) Adjust the galley service door sensors.

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- (a) Do this task: Entry and Galley Service Door Indication Sensor Adjustment (S194, S195, S199, or S200), TASK 52-71-11-820-801.

SUBTASK 52-41-00-080-002

- (6) Remove the weight or the escape slide simulator, SPL-2003 from the door.

SUBTASK 52-41-00-410-004

- (7) Do this task: Galley Service Door Lining Installation, TASK 52-41-31-400-802.

SUBTASK 52-41-00-410-005

- (8) Do this task: Escape Slide Pack and Cover Installation, TASK 25-66-01-400-803.

END OF TASK

TASK 52-41-00-700-801

4. Galley Service Door System Test

A. General

- (1) The system test is a check that the door is installed and adjusted correctly and that the mechanical systems operate correctly.
(2) Make sure the installation and adjustment of the door is done. Make sure the door seal and lining are installed.

B. References

Table with 2 columns: Reference, Title. Rows include 24-22-00-860-811 (Supply Electrical Power), 52-11-00-860-803 (Open the Door), and 52-11-00-860-804 (Close the Door).

C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Table with 2 columns: Reference, Description. Row: SPL-3898 Adapter - Torque Wrench, Galley and Entry Door (Part #: C52008-1, Supplier: 81205, A/P Effectivity: 737-300, -400, -500, -600, -700, -700C, -700ER, -700QC, -800, -900, -900ER, -BBJ)

D. Location Zones

Table with 2 columns: Zone, Area. Rows: 841 Forward Galley Service Door, 844 Aft Galley Service Door

E. Galley Service Door System Test

SUBTASK 52-41-00-860-009

- (1) Do this task: Supply Electrical Power, TASK 24-22-00-860-811.

SUBTASK 52-41-00-730-001

- (2) Do the warning system test for the galley service door:
(a) Make sure the forward and aft galley service doors are fully closed, latched and locked.
(b) Make sure that the FWD SERVICE or AFT SERVICE light does not show on the Forward Overhead Panel, P5, in the flight compartment.

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- (c) Open the door. To open the door, do this task: Open the Door with the Interior Handle, TASK 52-11-00-860-803.
- (d) Make sure the FWD SERVICE or AFT SERVICE light on the Forward Overhead Panel, P5, comes on for the door.
- (e) Close and latch the door. To close and latch the door, do this task: Close the Door with the Interior Handle, TASK 52-11-00-860-804.
- (f) Make sure the FWD SERVICE or AFT SERVICE light goes off.

SUBTASK 52-41-00-730-002

(3) Do the door handle torque test:

- (a) Install the adapter, SPL-3898 on the interior door handle.
- (b) Open the door. To open the door, do this task: Open the Door with the Interior Handle, TASK 52-11-00-860-803.
- (c) Measure the torque on the interior handle perpendicular to the handle cam to close the door.
- (d) Make sure the maximum torque on the interior handle to close the door is 600 in-lb (68 N·m).
 - 1) If the maximum handle torque is more than 600 in-lb (68 N·m), do these steps:

NOTE: The most likely cause for the increase in door closing force is the door guide ball is binding in the track.

- a) Make sure the door guide ball is correctly adjusted.
- b) Make sure the stop pins are correctly adjusted.
- c) Make sure the upper and lower gate adjustment is correct.
- d) Adjust the horizontal control rod. To adjust it, do this task: Galley Service Door Adjustment, TASK 52-41-00-820-801.

NOTE: Do the horizontal control rod adjustment only.

- (e) Close and latch the door. To close and latch the door, do this task: Close the Door with the Interior Handle, TASK 52-11-00-860-804.
- (f) Measure the torque on the interior handle perpendicular to the handle cam to open the door.
- (g) Make sure the maximum torque on the interior handle to open the door is 360 in-lb (41 N·m).
 - 1) If the maximum handle torque is more than 360 in-lb (41 N·m):
 - a) Make sure the door is correctly installed.
 - b) Adjust the horizontal control rod. To adjust it, do this task: Galley Service Door Adjustment, TASK 52-41-00-820-801.

NOTE: Do the horizontal control rod adjustment only.

- (h) Remove the adapter, SPL-3898 from the internal door handle.

————— **END OF TASK** —————

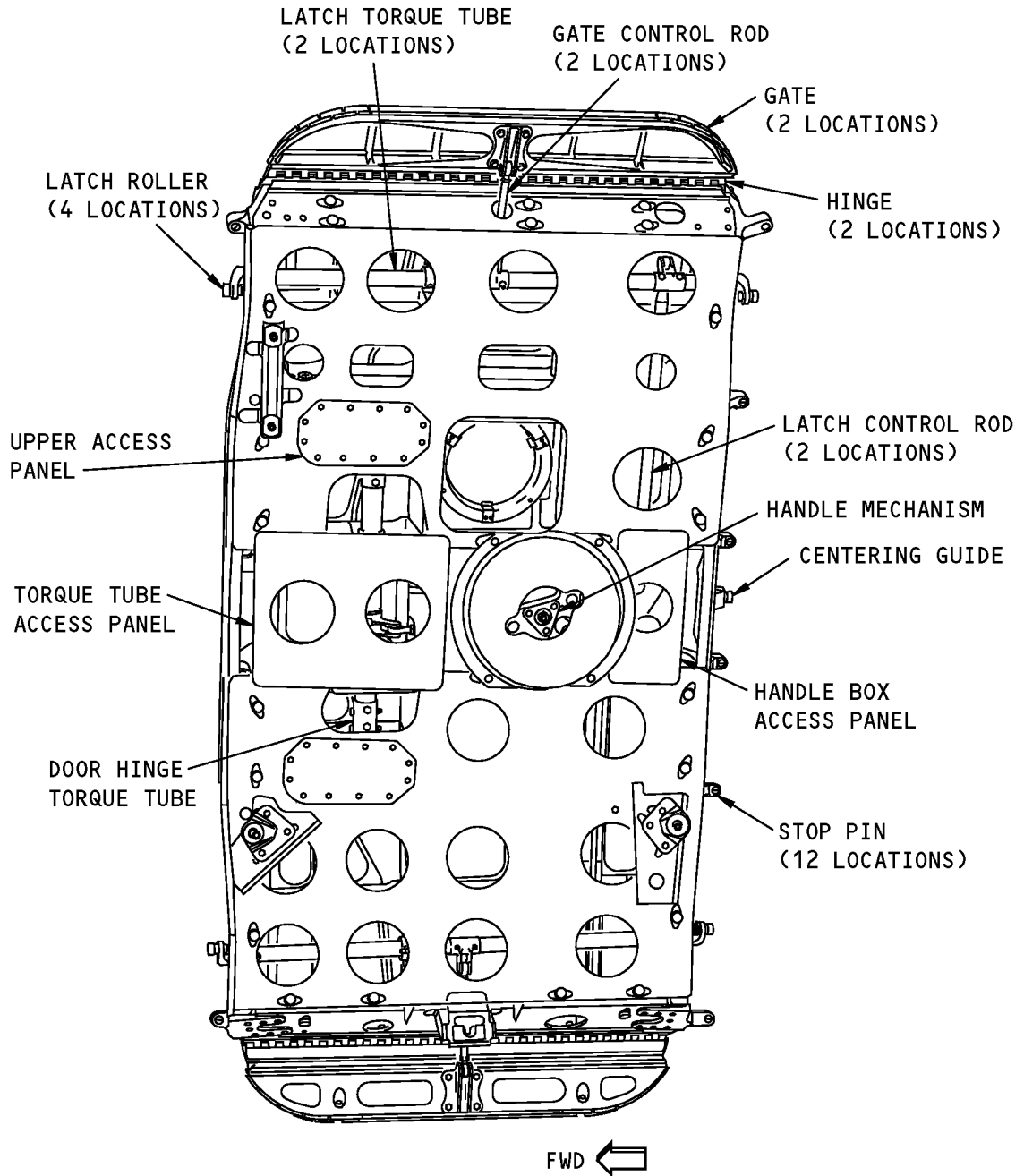
EFFECTIVITY
HAP ALL

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**737-600/700/800/900
AIRCRAFT MAINTENANCE MANUAL**



**GALLEY SERVICE DOOR
(EXAMPLE)**

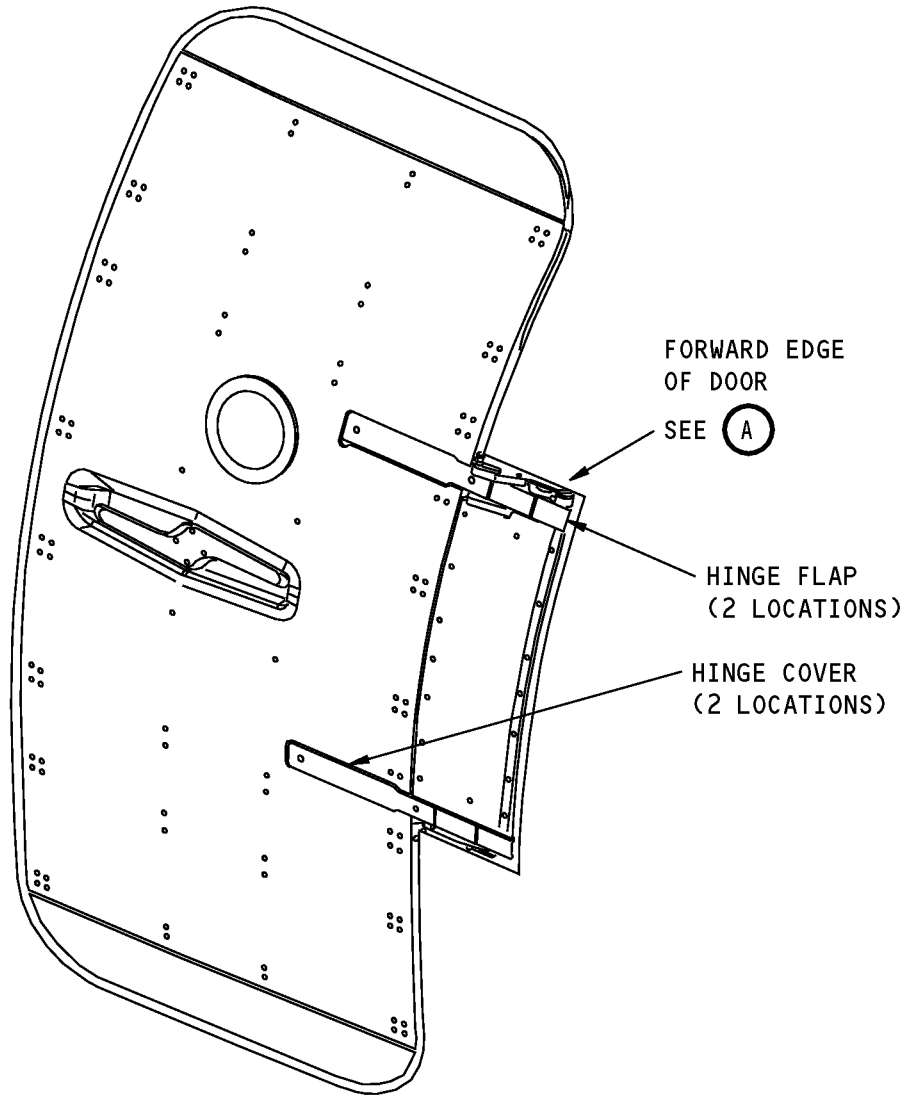
**Galley Service Door Adjustment
Figure 501/52-41-00-990-802**

EFFECTIVITY
HAP ALL

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**GALLEY SERVICE DOOR
(EXAMPLE)**



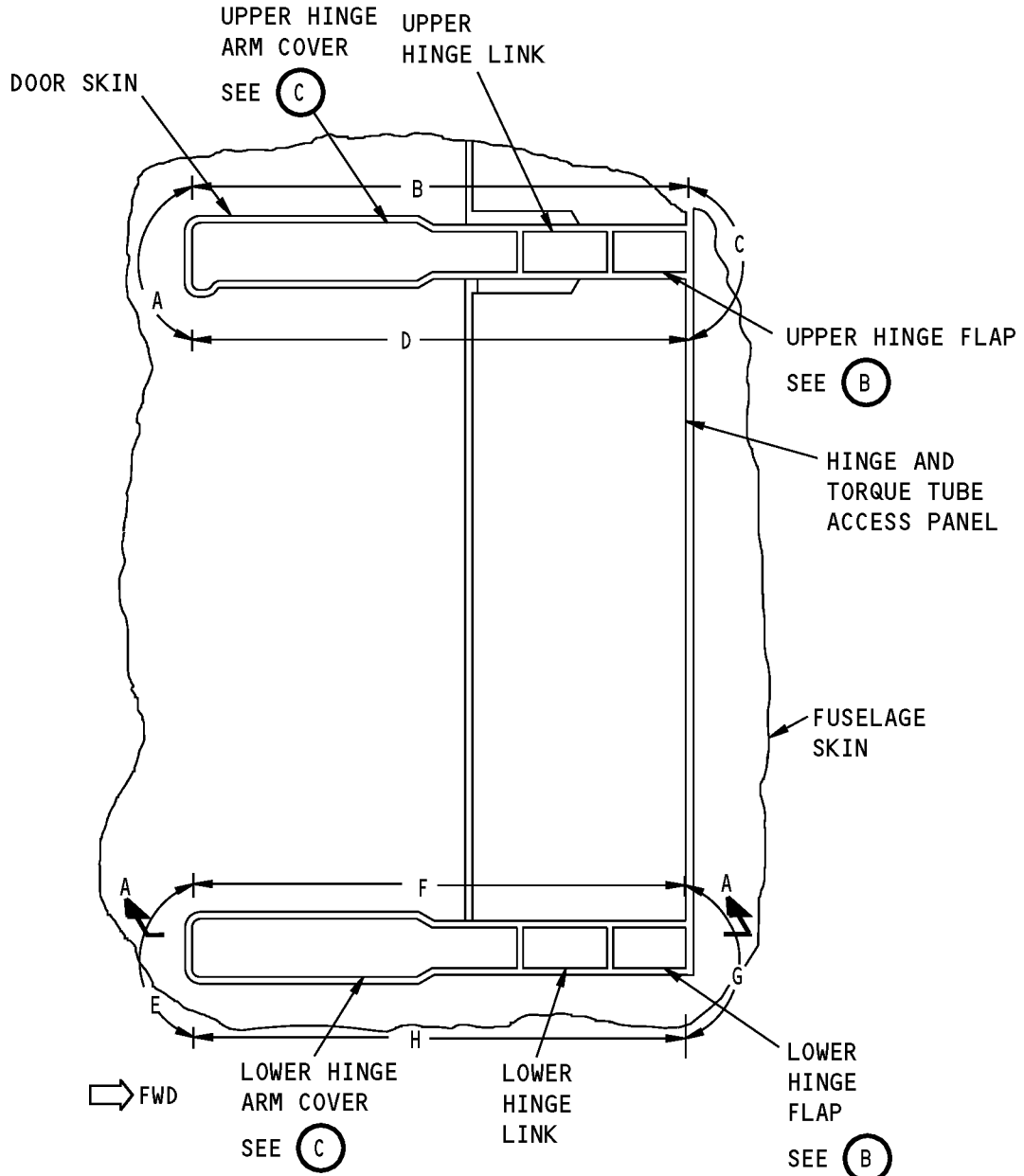
**Hinge Flap and Hinge Arm Cover Adjustment
Figure 502 (Sheet 1 of 3)/52-41-00-990-803**

EFFECTIVITY
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**FORWARD EDGE OF THE GALLEY SERVICE DOOR
(EXAMPLE)**

(A)

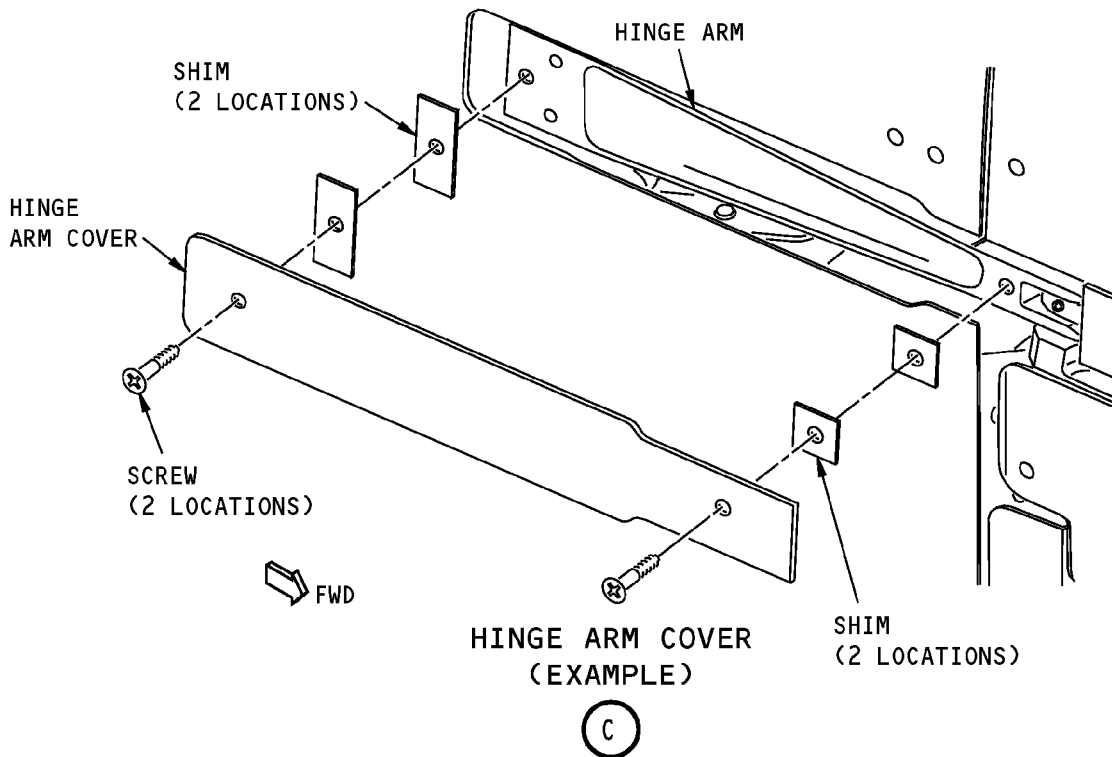
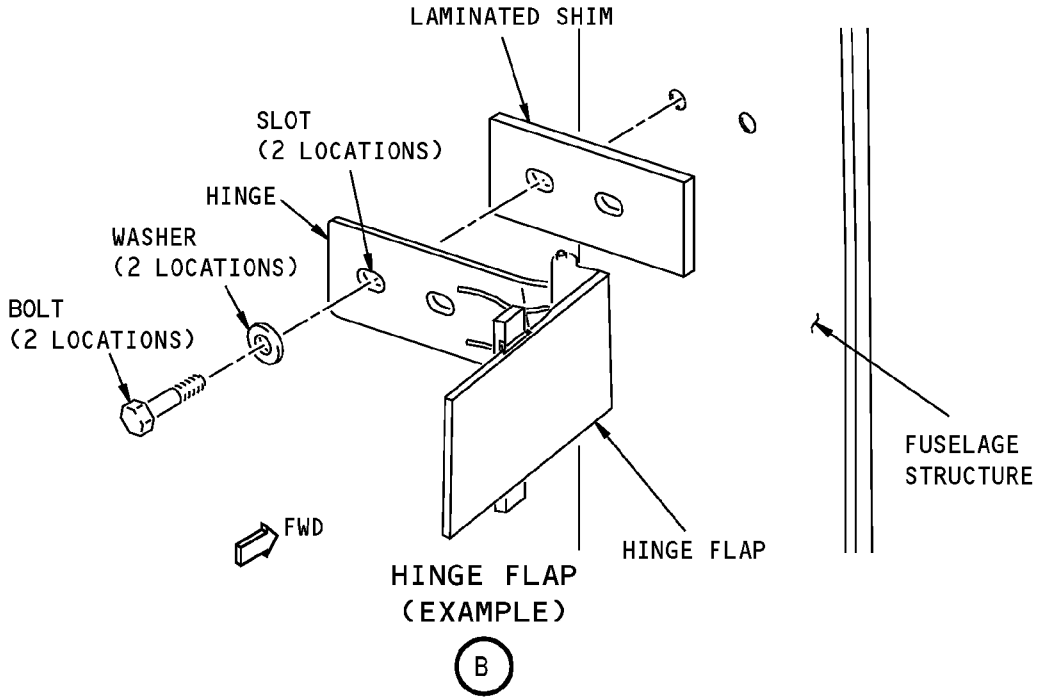
NOTE: DIMENSION STANDARD: NOMINAL
 UPPER LIMIT
 LOWER LIMIT
 FLUSHNESS AT UPPER AND LOWER EDGES IS A TRANSITION FROM THE FORWARD TO THE AFT EDGE.

**Hinge Flap and Hinge Arm Cover Adjustment
 Figure 502 (Sheet 2 of 3)/52-41-00-990-803**

EFFECTIVITY
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**Hinge Flap and Hinge Arm Cover Adjustment
Figure 502 (Sheet 3 of 3)/52-41-00-990-803**

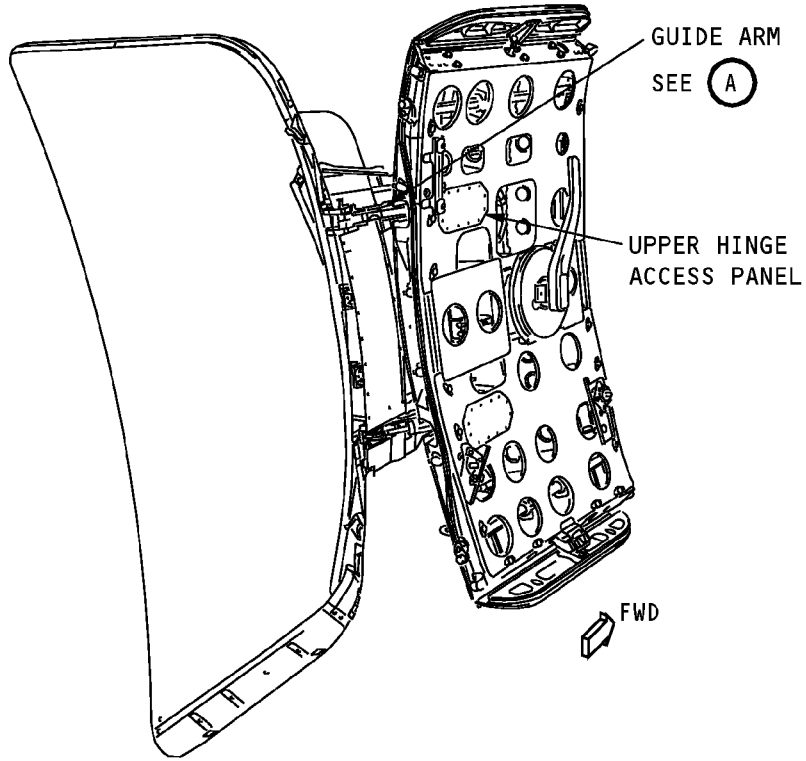
EFFECTIVITY
HAP ALL

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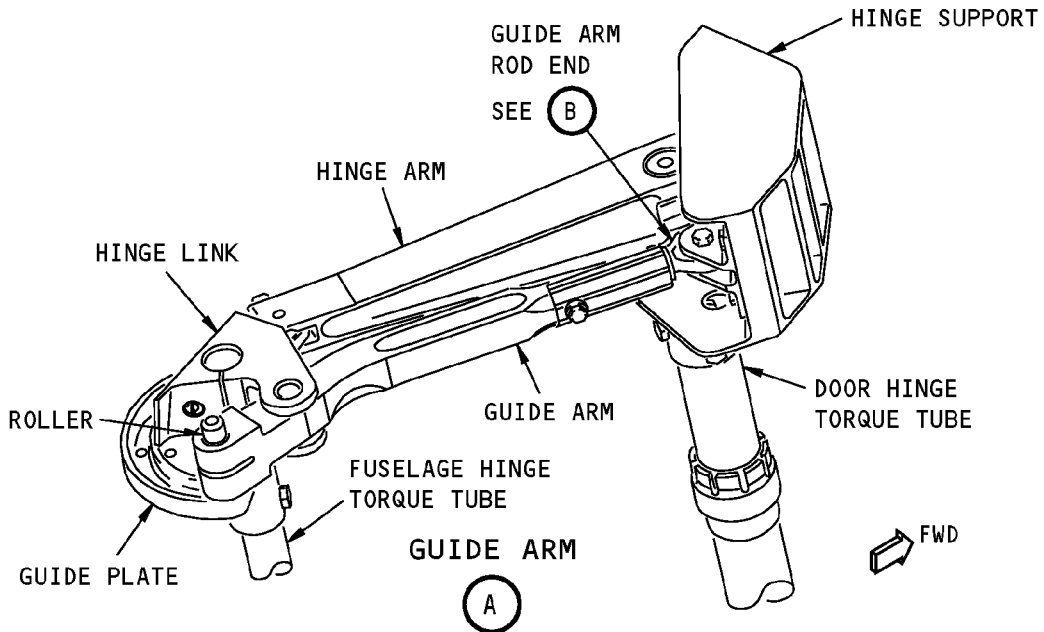
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**GALLEY SERVICE DOOR
(EXAMPLE)**



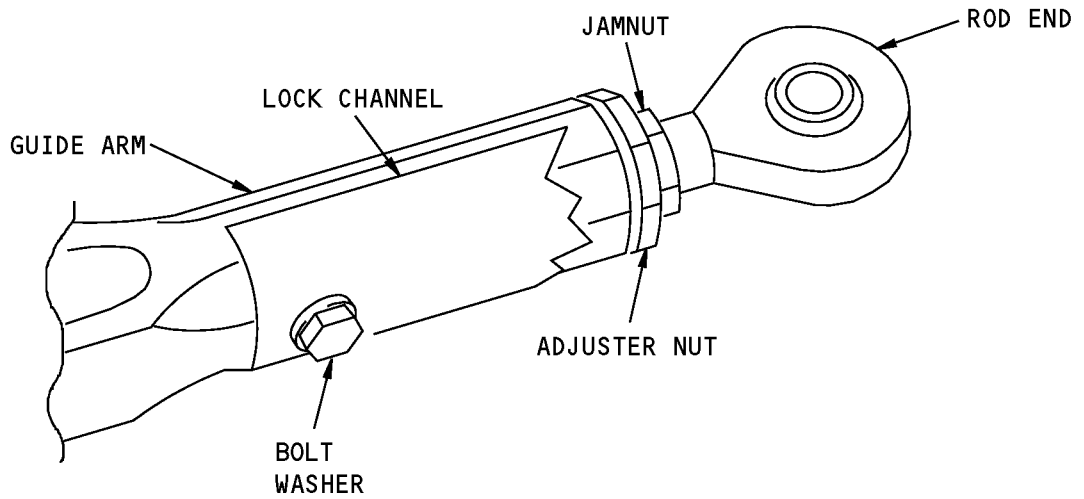
**Guide Arm Adjustment
Figure 503 (Sheet 1 of 2)/52-41-00-990-804**

EFFECTIVITY
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GUIDE ARM ROD END

B

**Guide Arm Adjustment
Figure 503 (Sheet 2 of 2)/52-41-00-990-804**

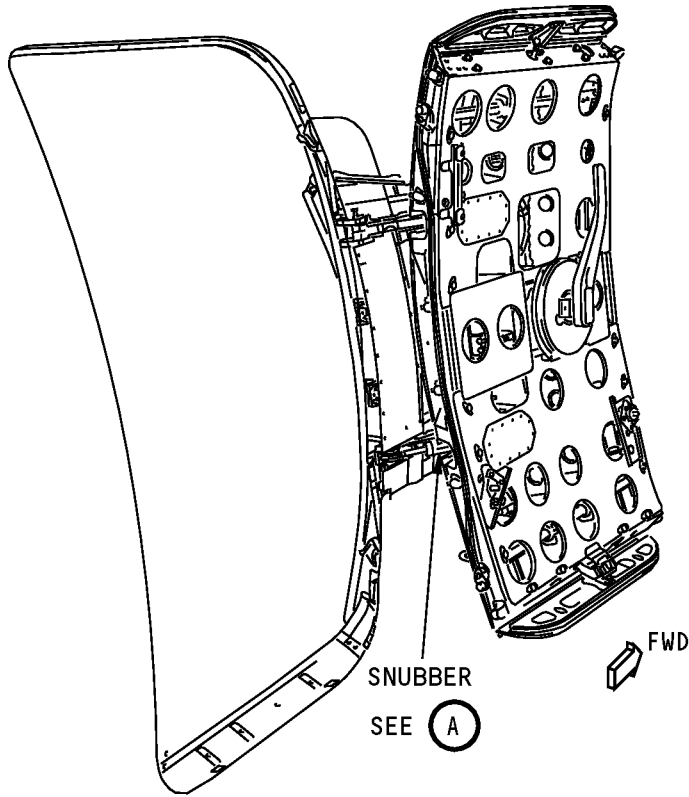
EFFECTIVITY
HAP ALL

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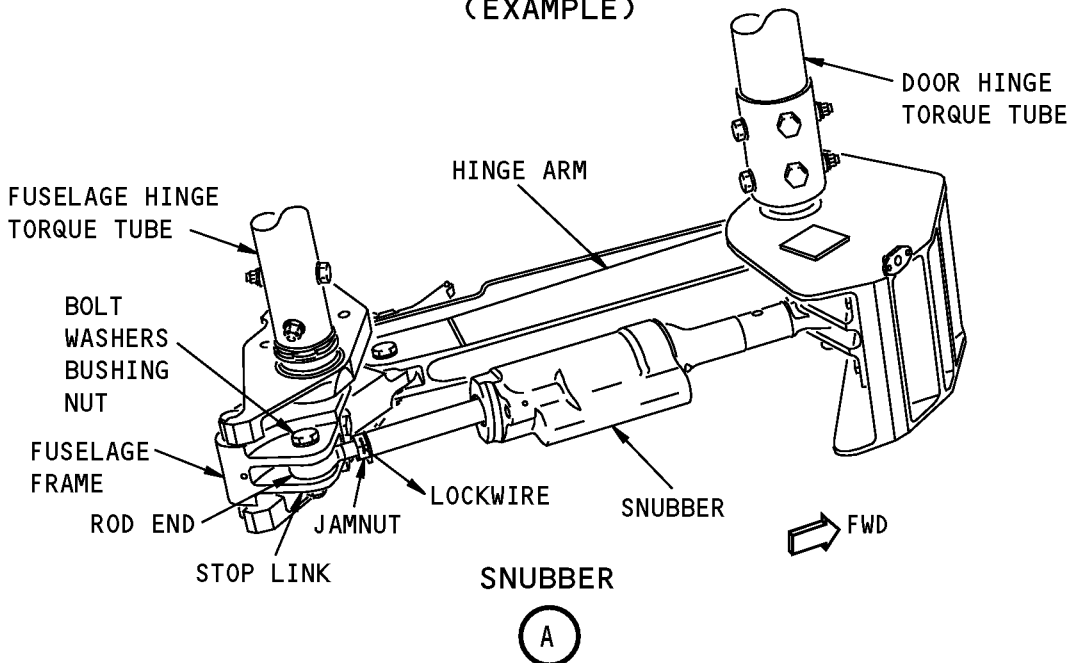
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**GALLEY SERVICE DOOR
(EXAMPLE)**



**Snubber Adjustment
Figure 504/52-41-00-990-805**

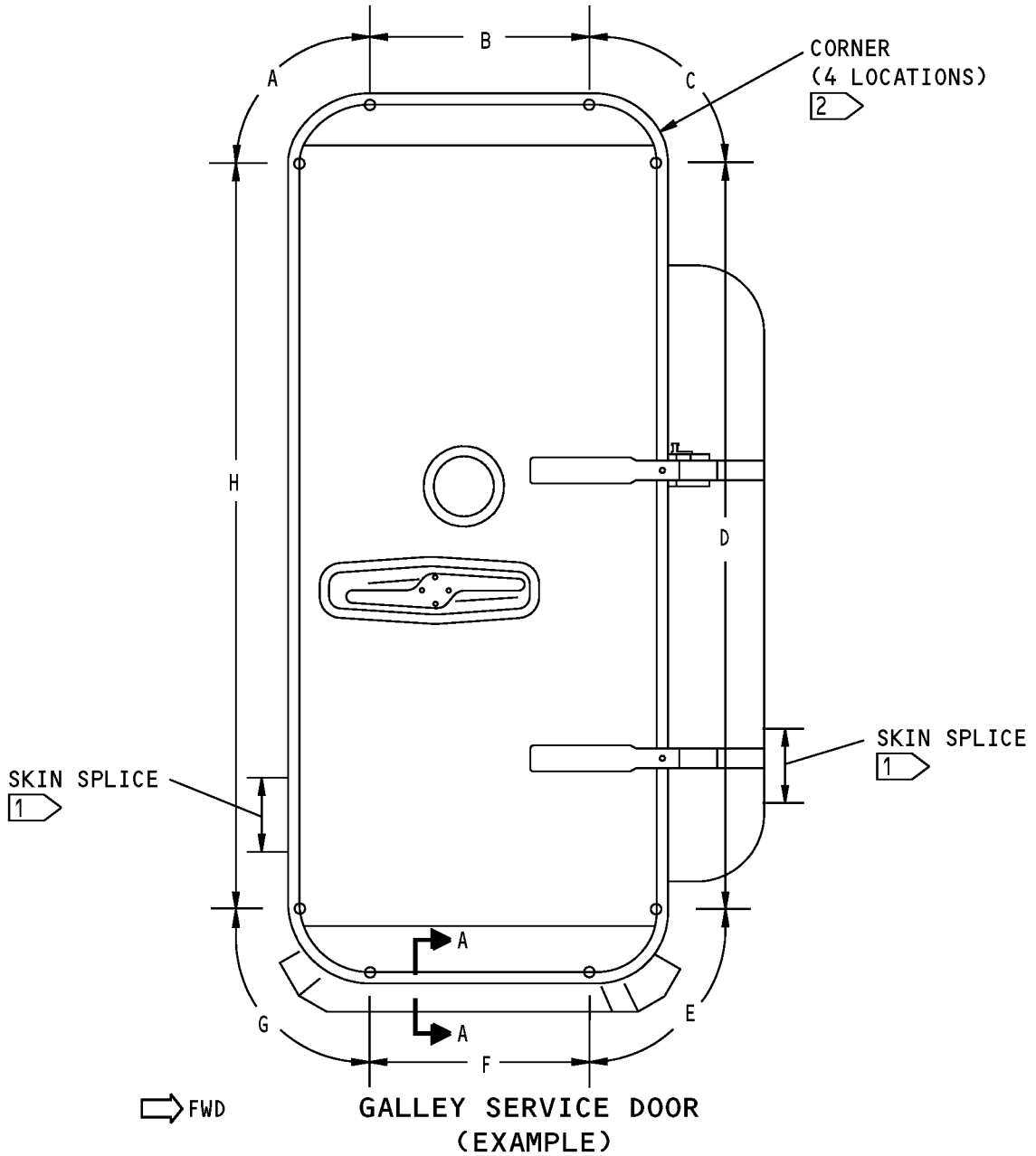
EFFECTIVITY
HAP ALL

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NOTE: DIMENSION STANDARD: NOMINAL UPPER LIMIT
 LOWER LIMIT

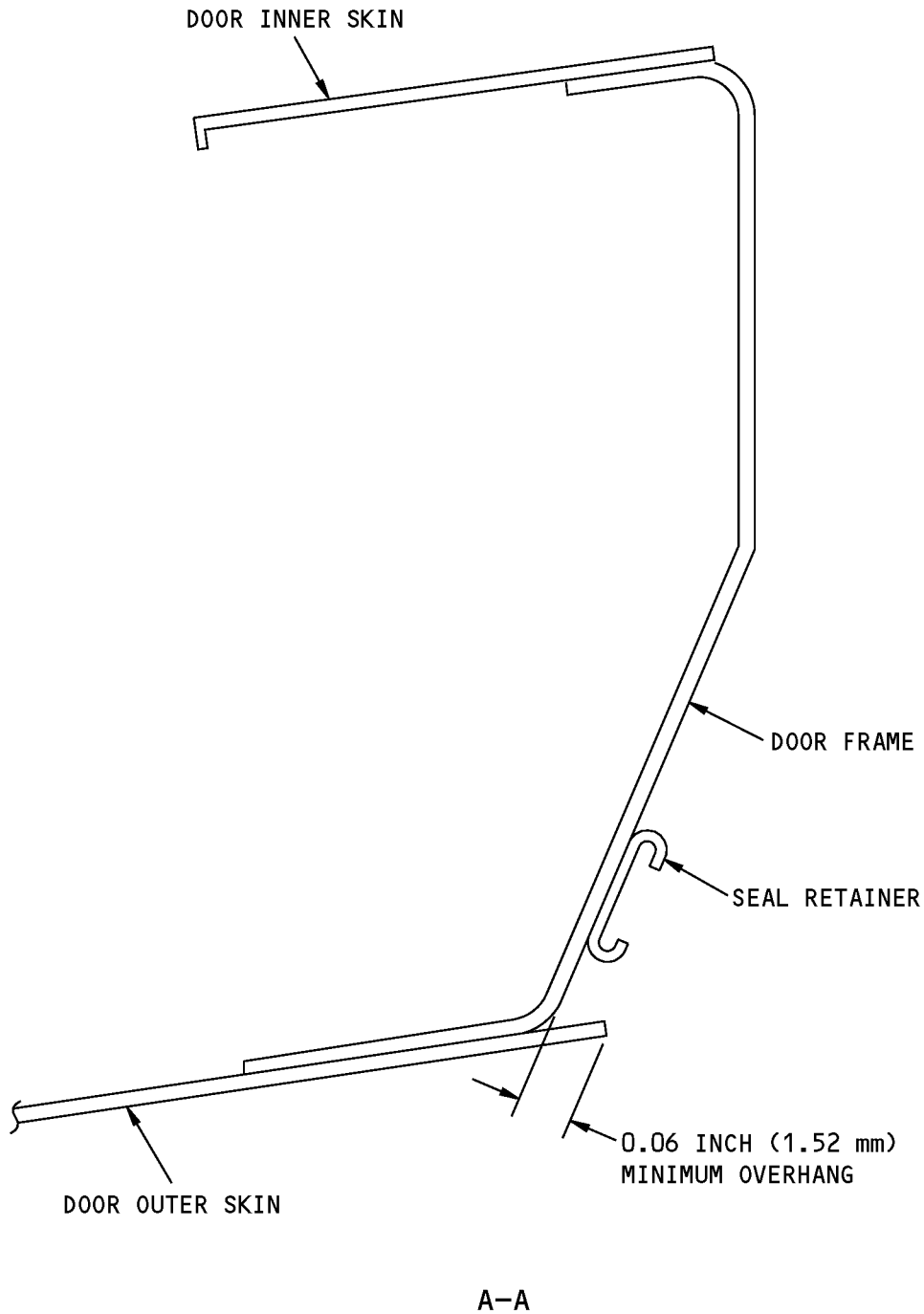
A NEGATIVE FLUSHNESS SHOWS THE DOOR IS INBOARD OF THE FUSELAGE CUTOUT.

- 1** THE FLUSHNESS AT SKIN SPLICES WILL BE MORE THAN THE FLUSHNESS SHOWN BY THE ADDITIONAL SKIN AND BONDING THICKNESS.
- 2** FLUSHNESS IS NOT APPLICABLE AT CORNERS.

**Galley Service Door Skin Clearance and Flushness
Figure 505 (Sheet 1 of 2)/52-41-00-990-806**

EFFECTIVITY
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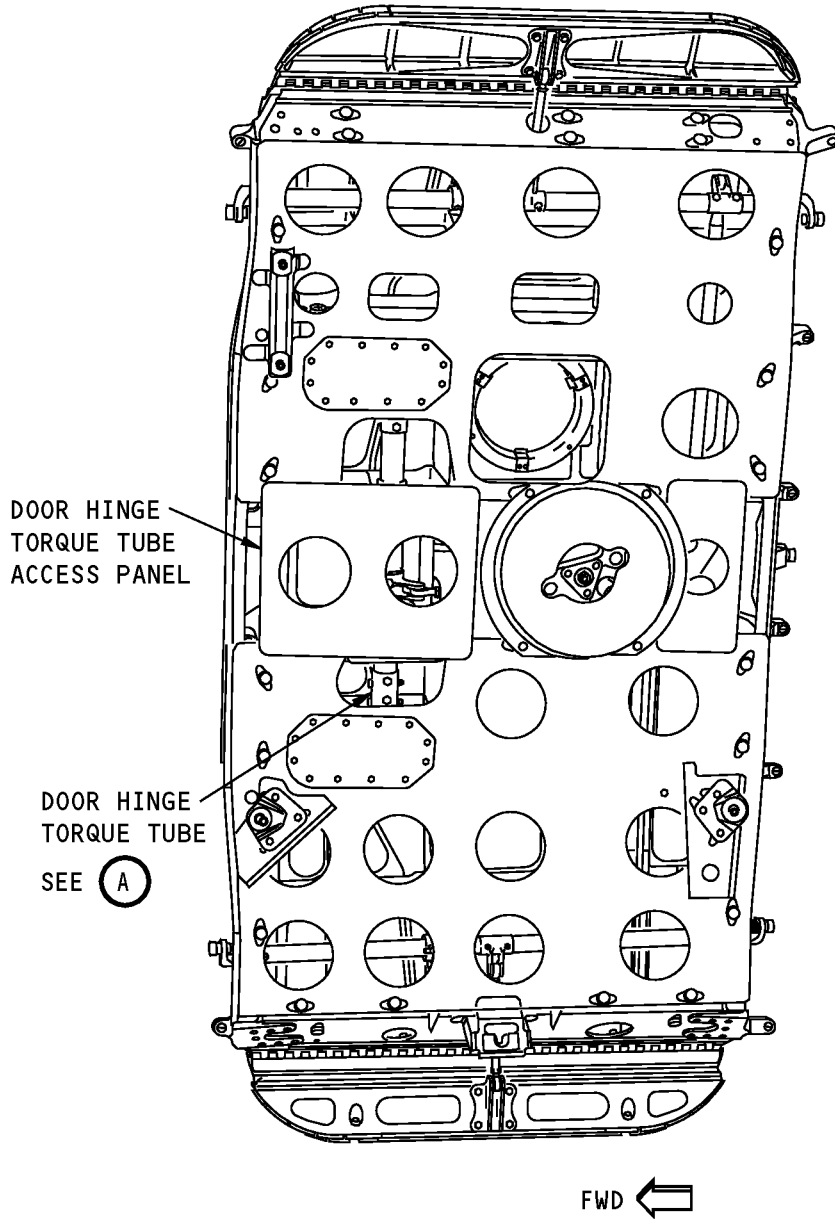


**Galley Service Door Skin Clearance and Flushness
Figure 505 (Sheet 2 of 2)/52-41-00-990-806**

EFFECTIVITY
HAP ALL

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**GALLEY SERVICE DOOR
(EXAMPLE)**

**Door Hinge Torque Tube Adjustment
Figure 506 (Sheet 1 of 2)/52-41-00-990-807**

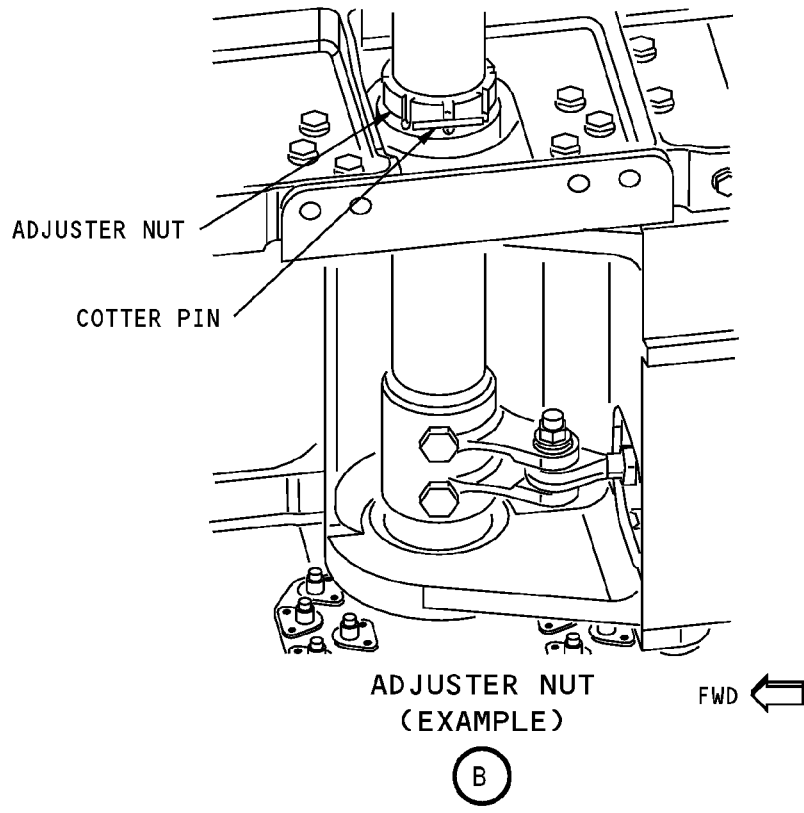
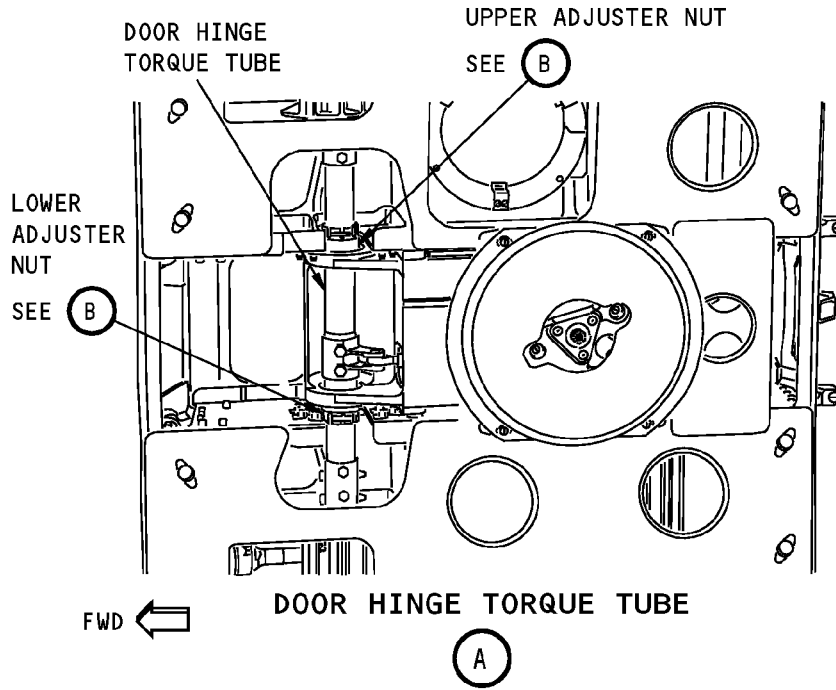
EFFECTIVITY
HAP ALL

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Door Hinge Torque Tube Adjustment
Figure 506 (Sheet 2 of 2)/52-41-00-990-807

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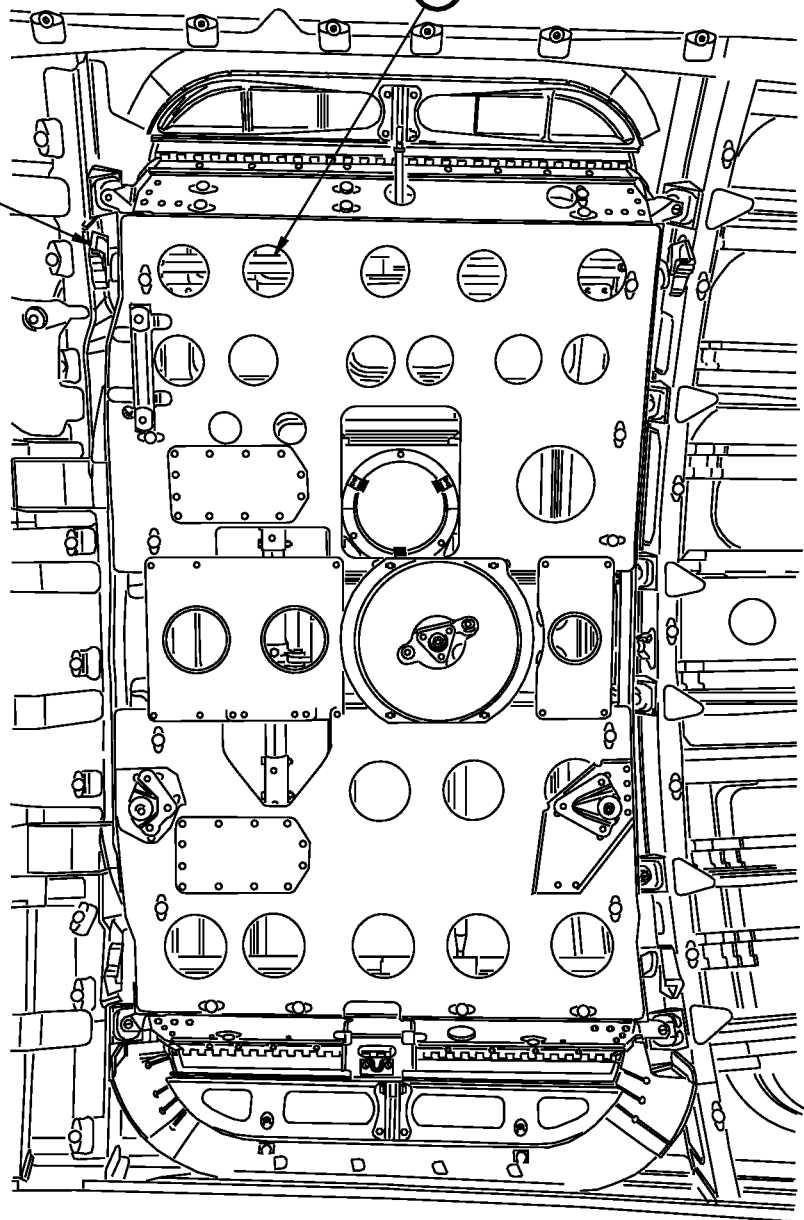
AIRCRAFT MAINTENANCE MANUAL

LATCH TORQUE TUBE
(2 LOCATIONS)

SEE (A)

LATCH RECEIVER
(4 LOCATIONS)

SEE (B)



FWD ←

**GALLEY SERVICE DOOR
(EXAMPLE)**

Latch Adjustment

Figure 507 (Sheet 1 of 3)/52-41-00-990-808

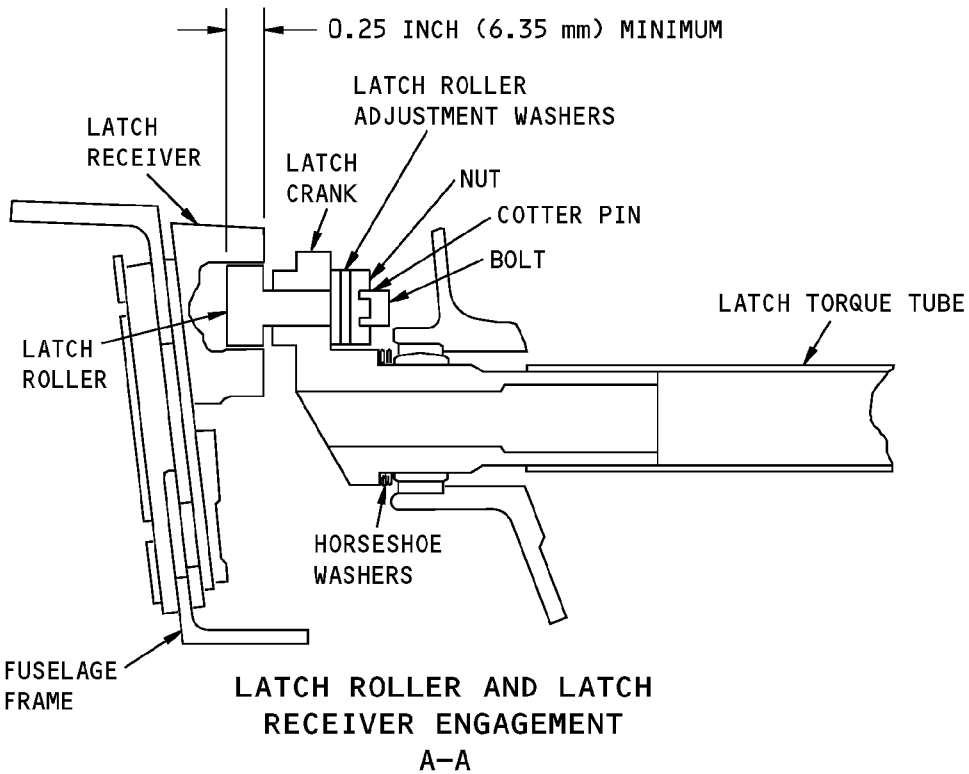
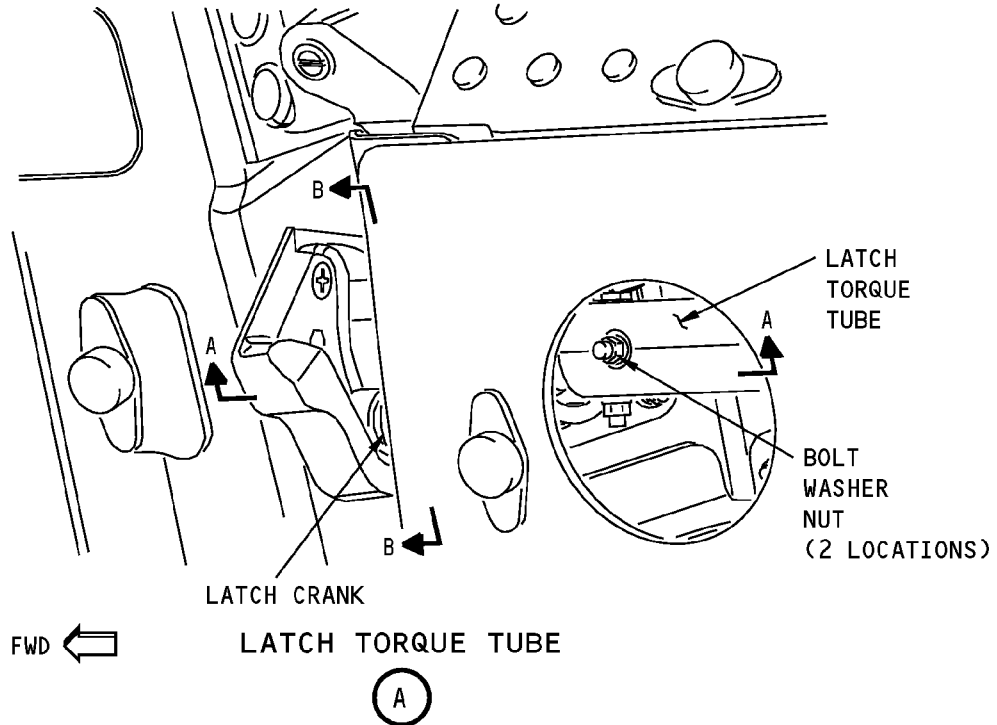
EFFECTIVITY
HAP ALL

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**Latch Adjustment
Figure 507 (Sheet 2 of 3)/52-41-00-990-808**

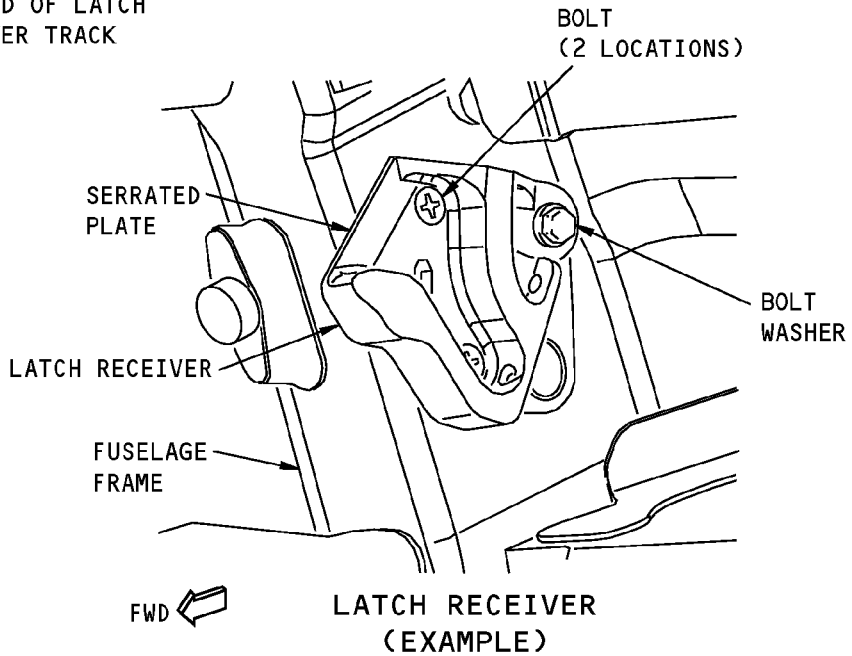
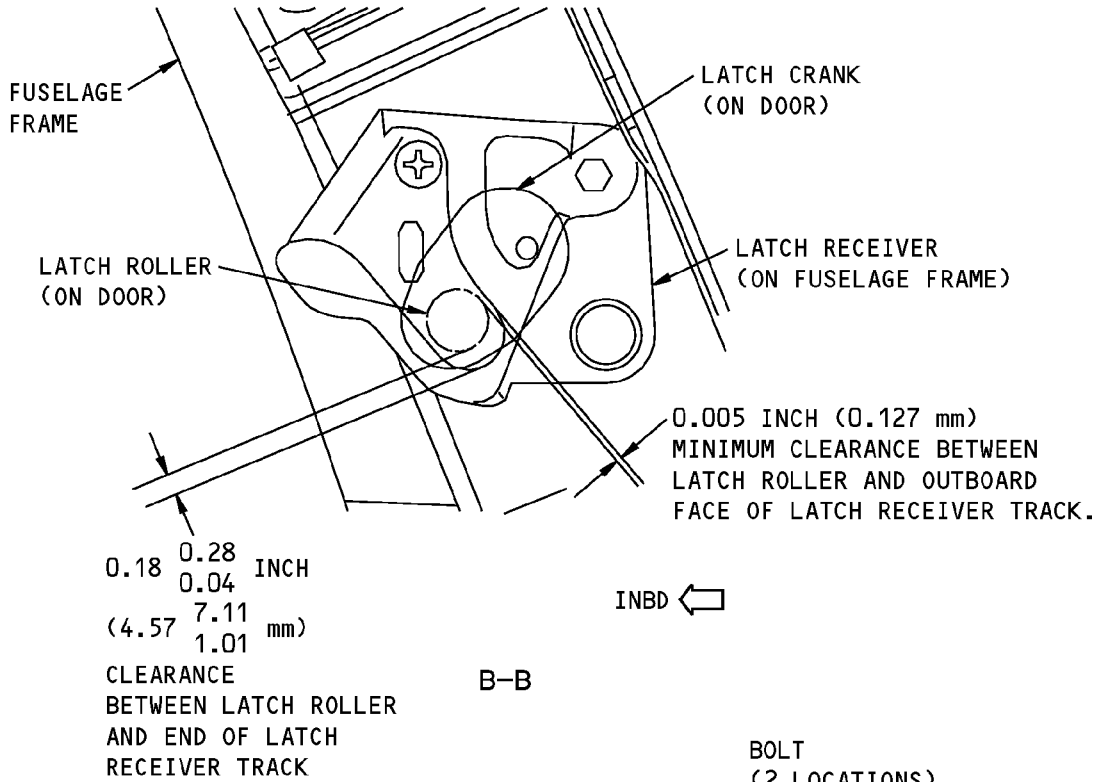
EFFECTIVITY
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(B)

NOTE: DIMENSION STANDARD: NOMINAL UPPER LIMIT LOWER LIMIT

**Latch Adjustment
Figure 507 (Sheet 3 of 3)/52-41-00-990-808**

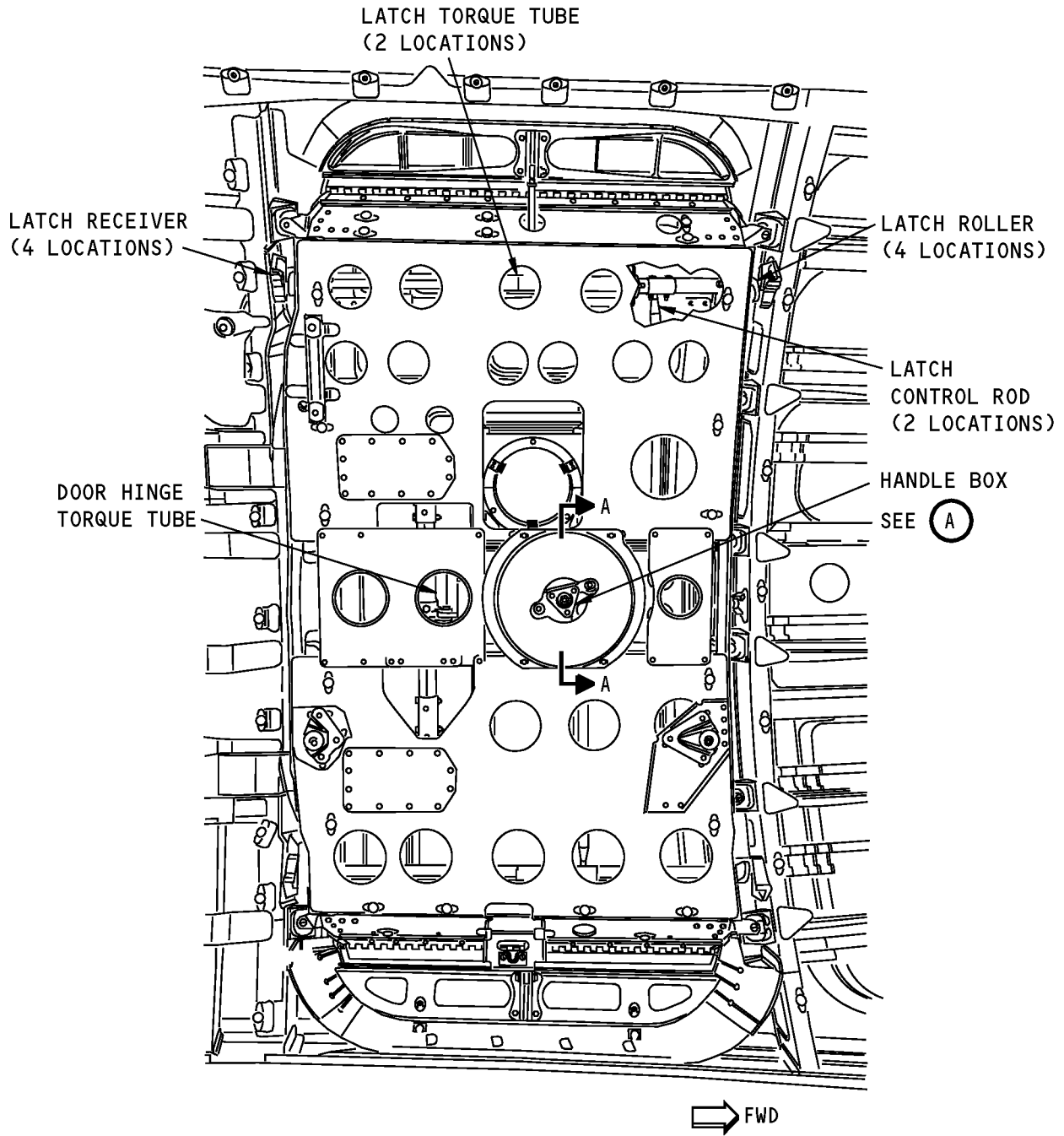
EFFECTIVITY
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**GALLEY SERVICE DOOR
(EXAMPLE)**

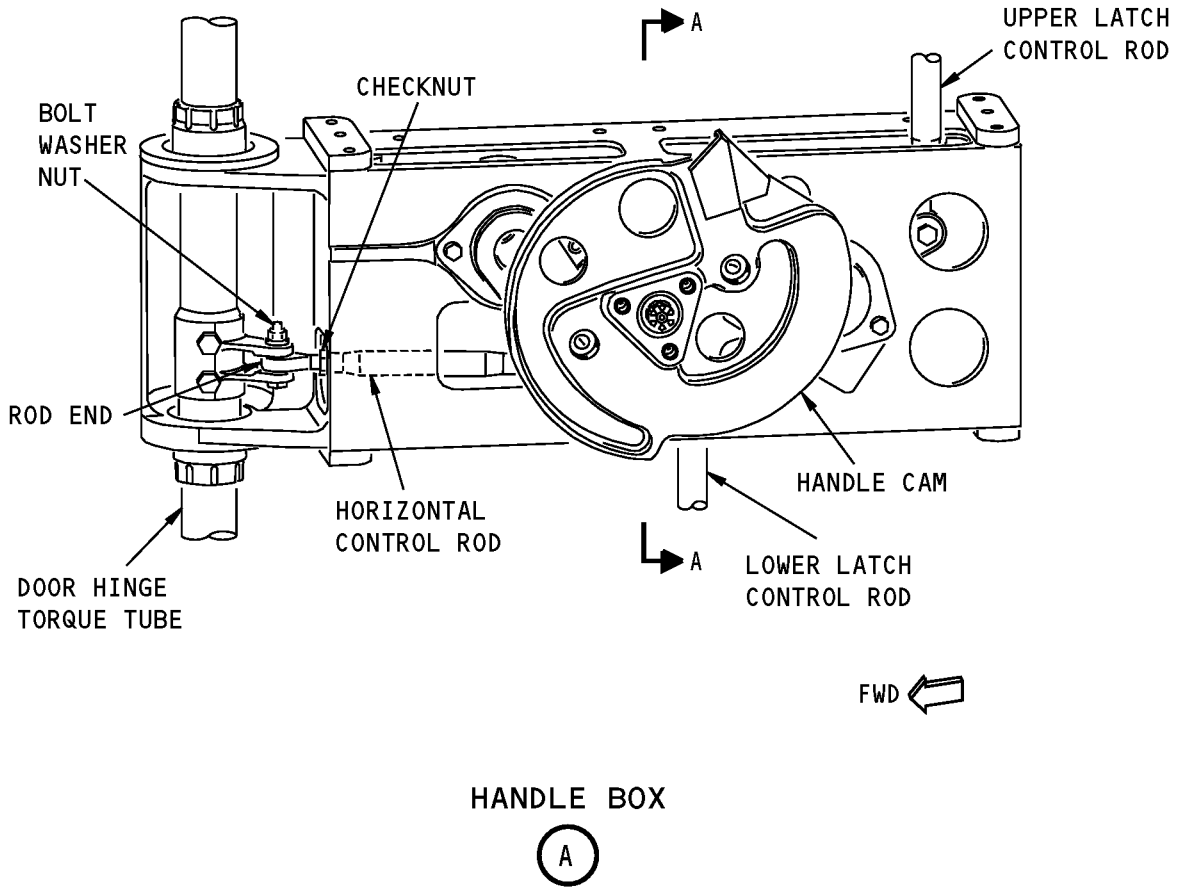
**Horizontal Control Rod Adjustment
Figure 508 (Sheet 1 of 3)/52-41-00-990-809**

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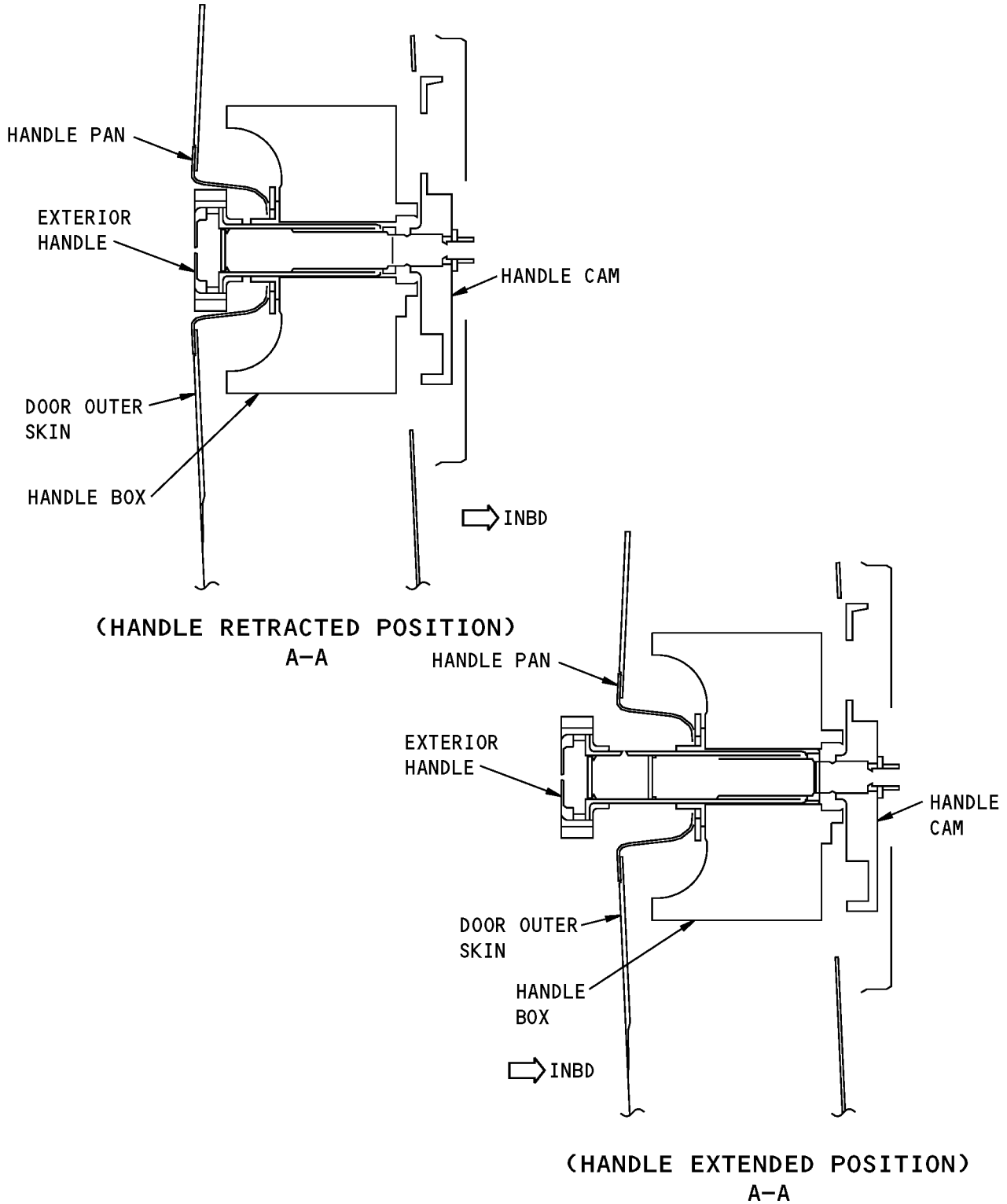
**Horizontal Control Rod Adjustment
Figure 508 (Sheet 2 of 3)/52-41-00-990-809**

EFFECTIVITY
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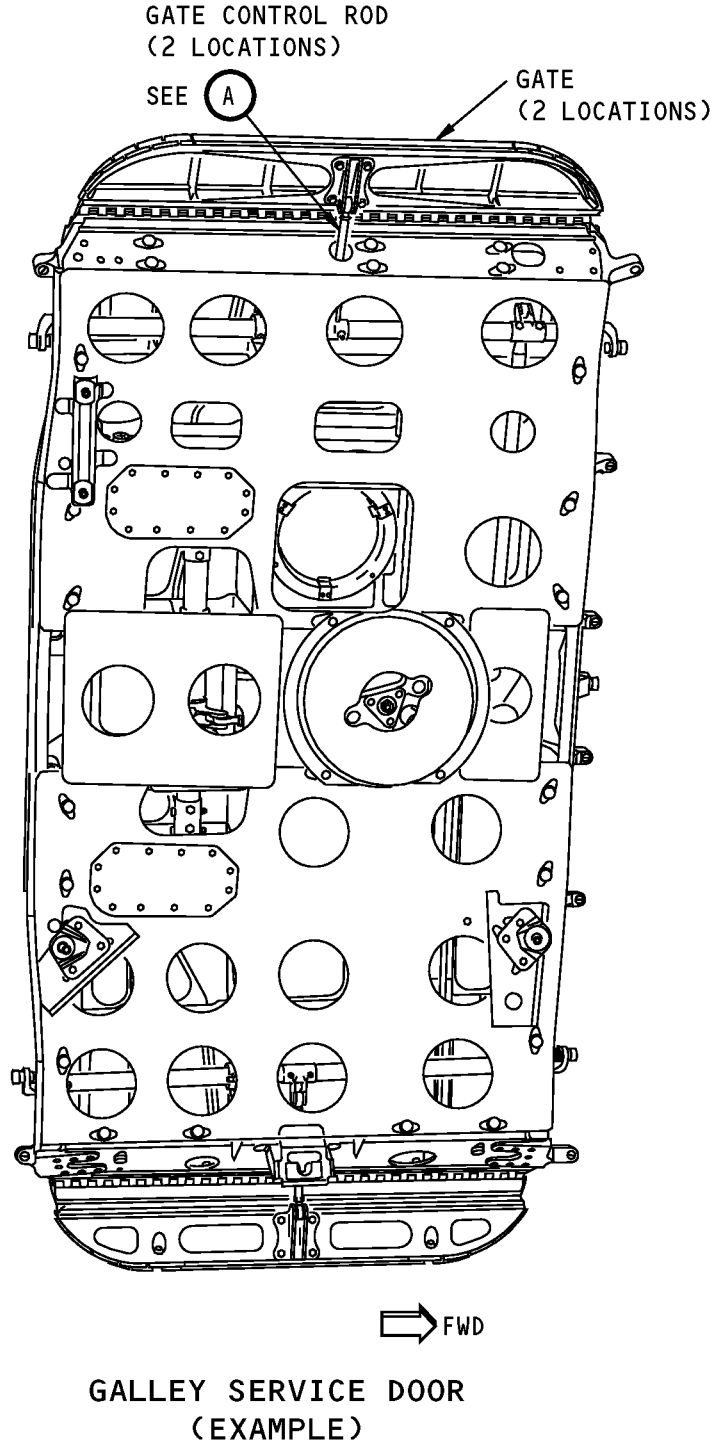


**Horizontal Control Rod Adjustment
Figure 508 (Sheet 3 of 3)/52-41-00-990-809**

EFFECTIVITY
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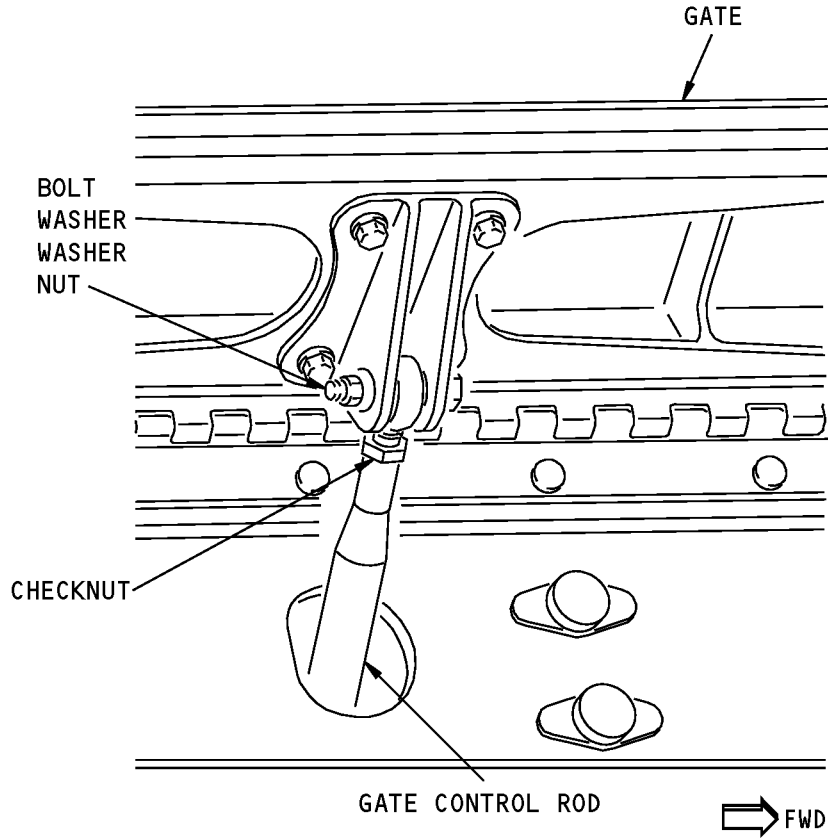
**Gate Adjustment
Figure 509 (Sheet 1 of 2)/52-41-00-990-810**

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**GATE CONTROL ROD
(EXAMPLE)**

(A)

**Gate Adjustment
Figure 509 (Sheet 2 of 2)/52-41-00-990-810**

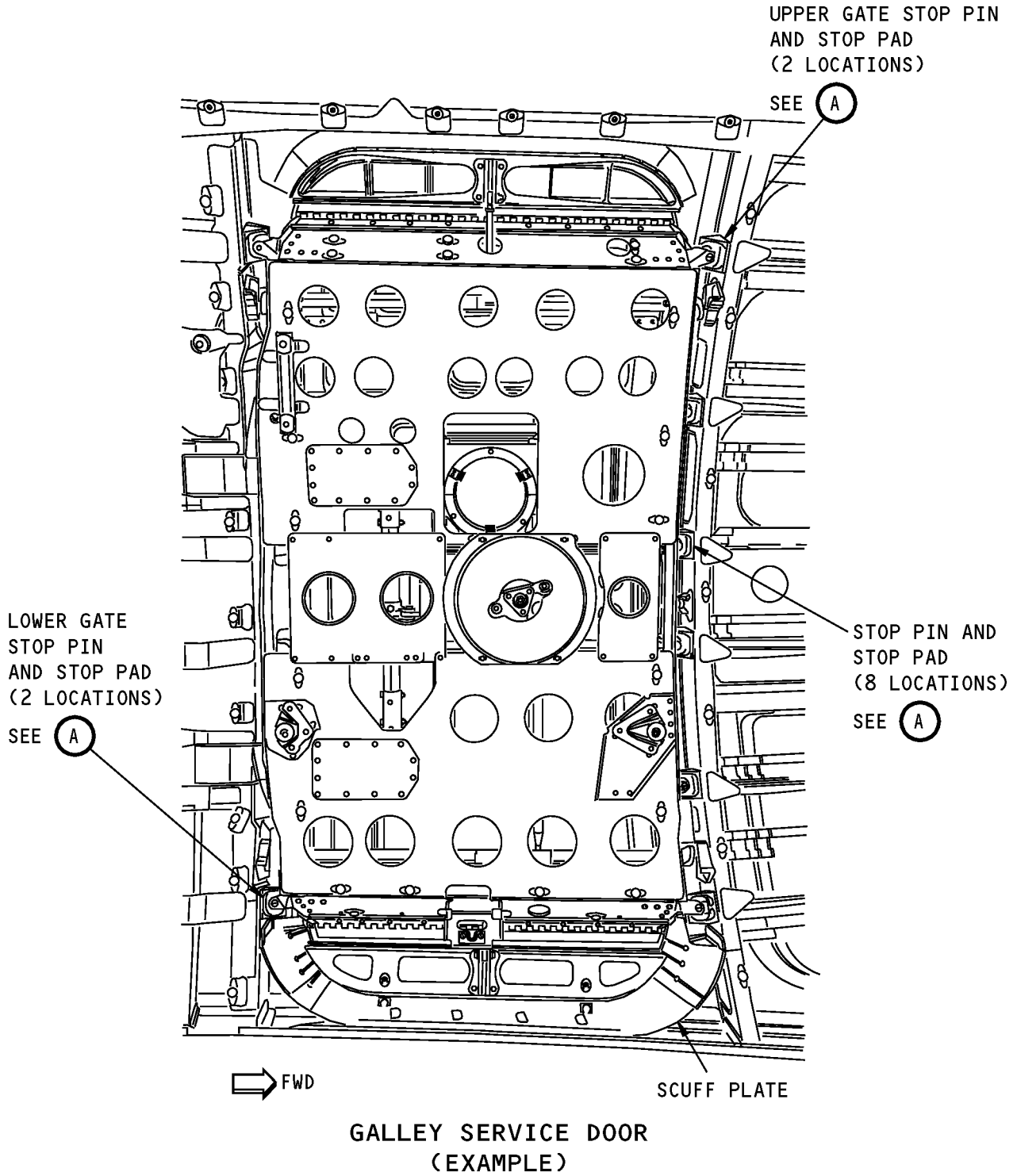
EFFECTIVITY
HAP ALL

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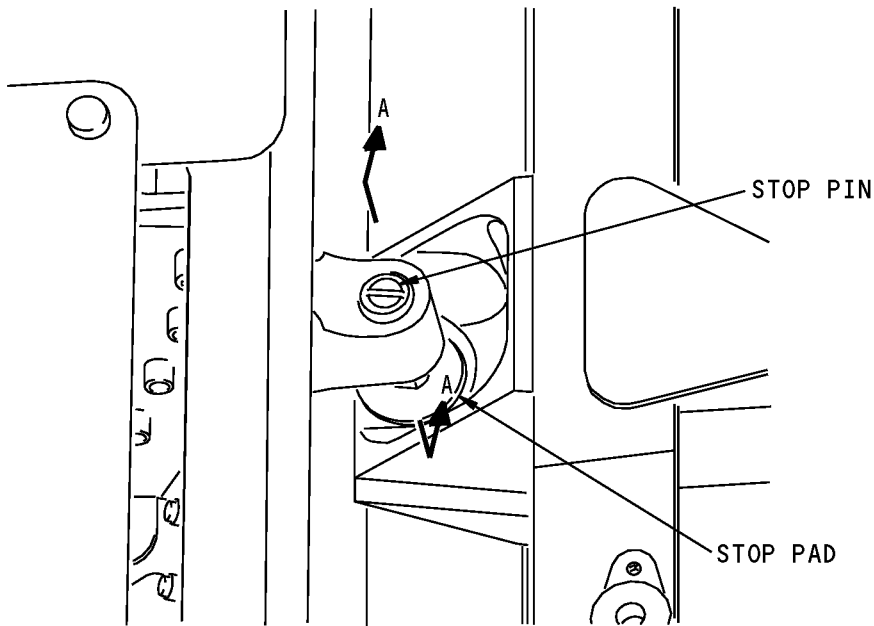
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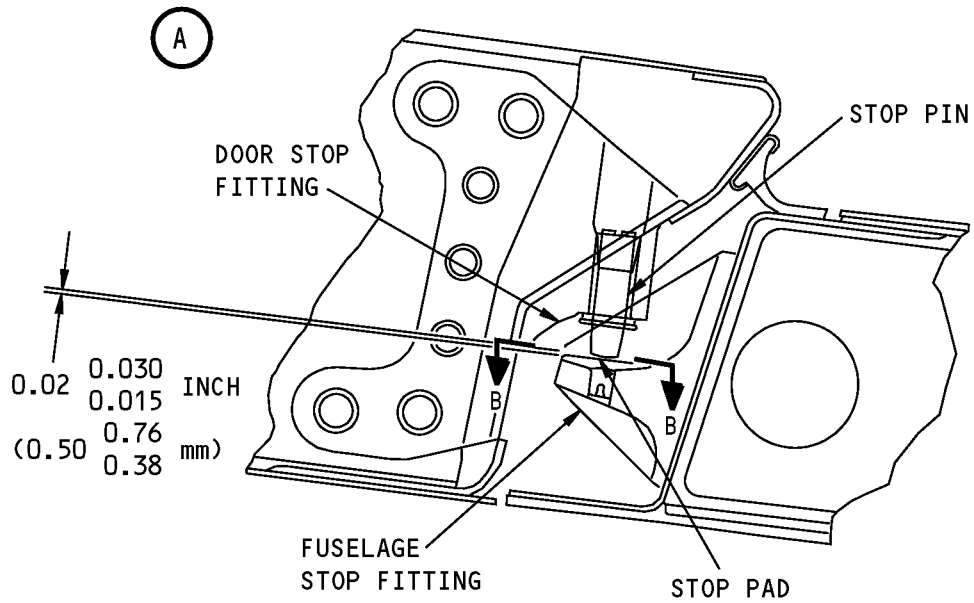
**Stop Pin Adjustment
Figure 510 (Sheet 1 of 3)/52-41-00-990-811**

EFFECTIVITY
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**STOP PIN AND STOP PAD
(EXAMPLE)**



**STOP PIN AND PAD CLEARANCE
A-A**

NOTE: DIMENSION STANDARD: NOMINAL UPPER LIMIT
LOWER LIMIT

**Stop Pin Adjustment
Figure 510 (Sheet 2 of 3)/52-41-00-990-811**

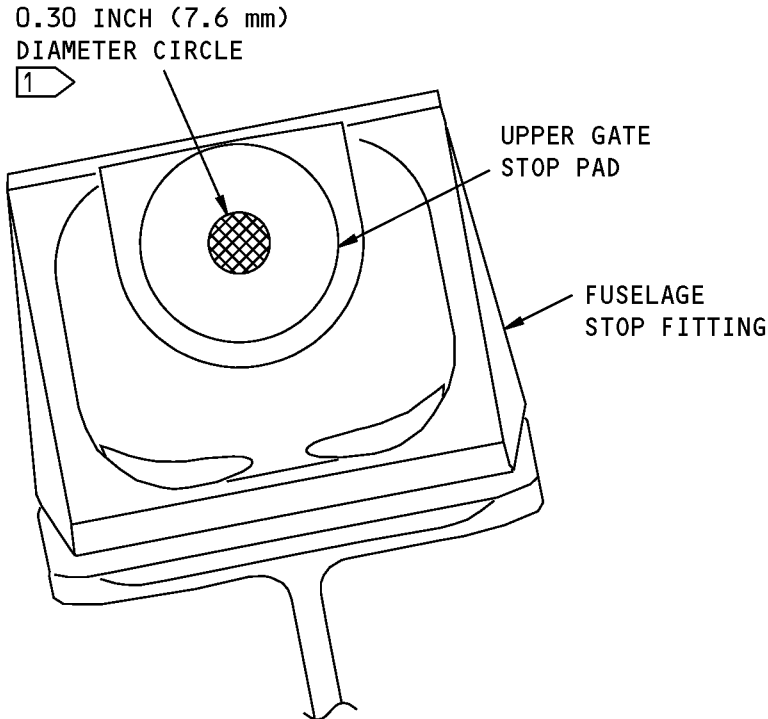
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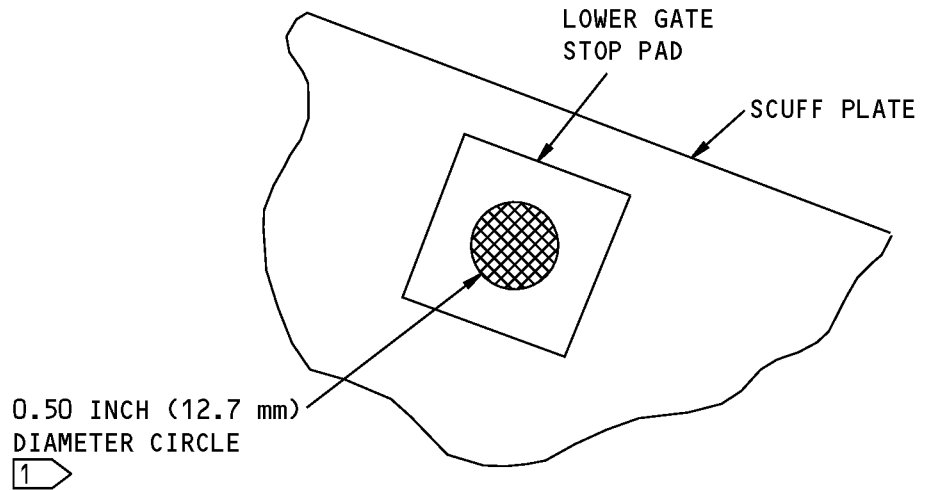
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**STOP PIN AND STOP PAD ALIGNMENT
(UPPER GATE AND DOOR STOP PADS)
B-B**



**STOP PIN AND STOP PAD ALIGNMENT
(LOWER GATE STOP PADS)
B-B**

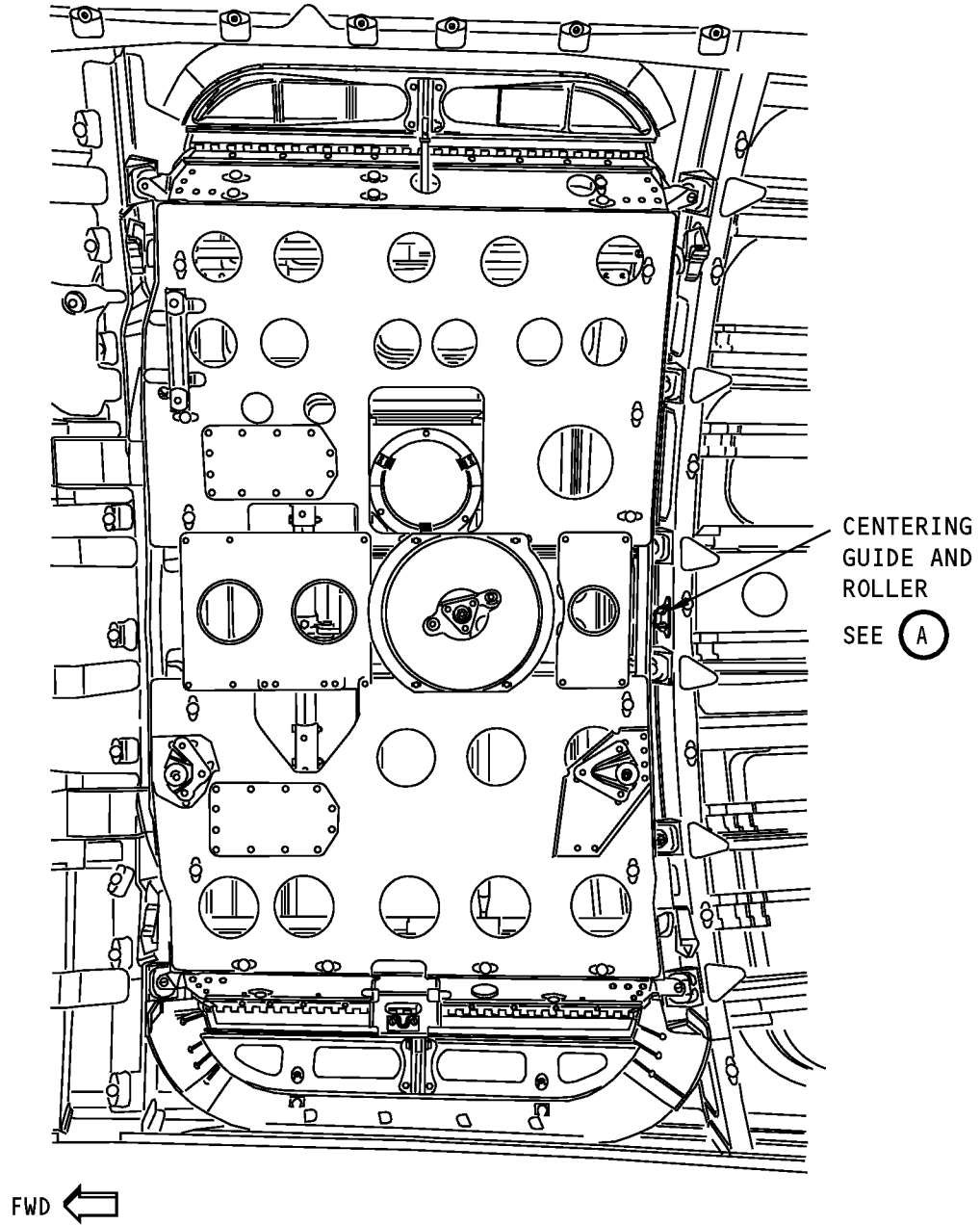
1 STOP PIN CENTER MUST TOUCH STOP PAD CENTER WITHIN THE CIRCLE DIAMETER SHOWN.

**Stop Pin Adjustment
Figure 510 (Sheet 3 of 3)/52-41-00-990-811**

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**GALLEY SERVICE DOOR
(EXAMPLE)**

**Centering Guide Adjustment
Figure 511 (Sheet 1 of 2)/52-41-00-990-812**

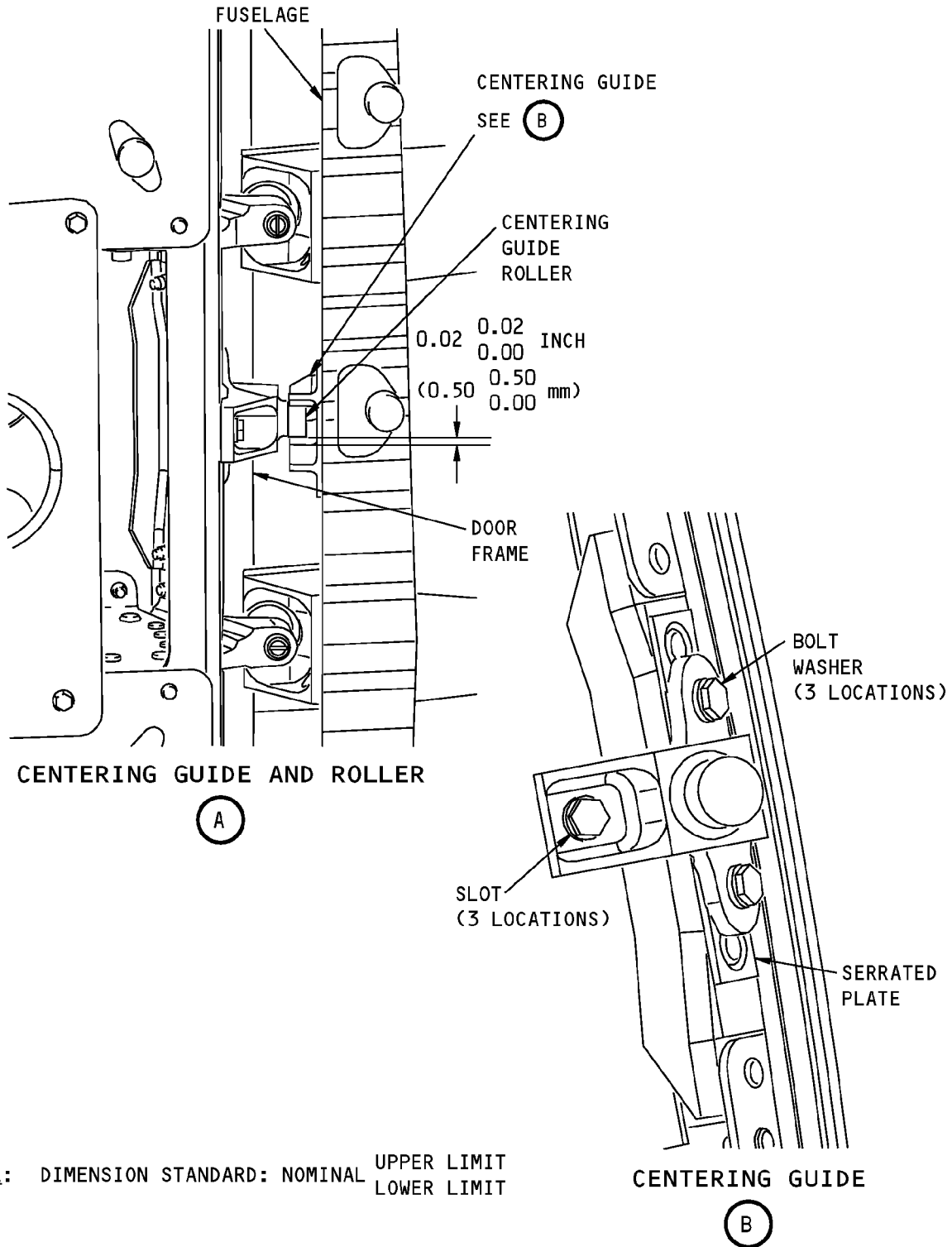
EFFECTIVITY
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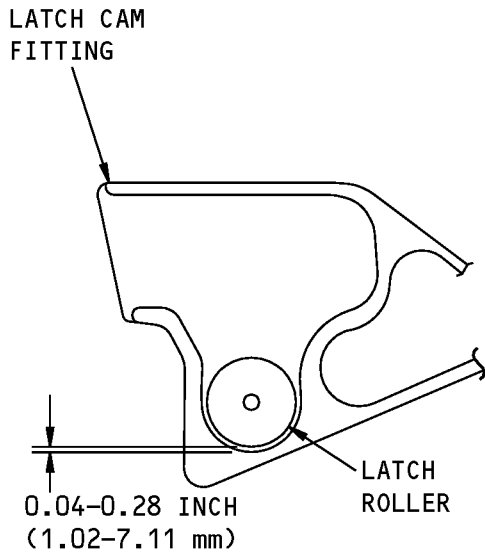
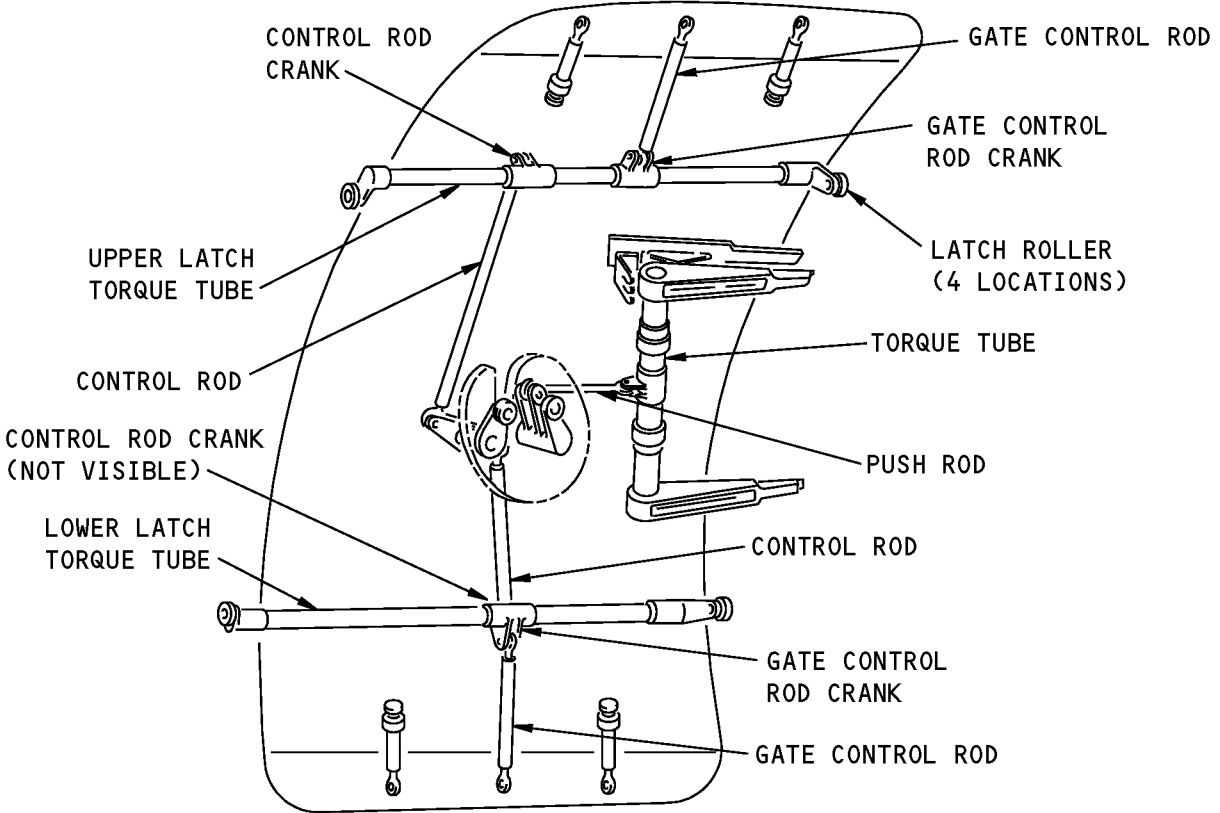
NOTE: DIMENSION STANDARD: NOMINAL UPPER LIMIT
LOWER LIMIT

**Centering Guide Adjustment
Figure 511 (Sheet 2 of 2)/52-41-00-990-812**

EFFECTIVITY
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ROLLER CLEARANCE

**Galley Service Door Mechanism
Figure 512 (Sheet 1 of 2)/52-41-00-990-813**

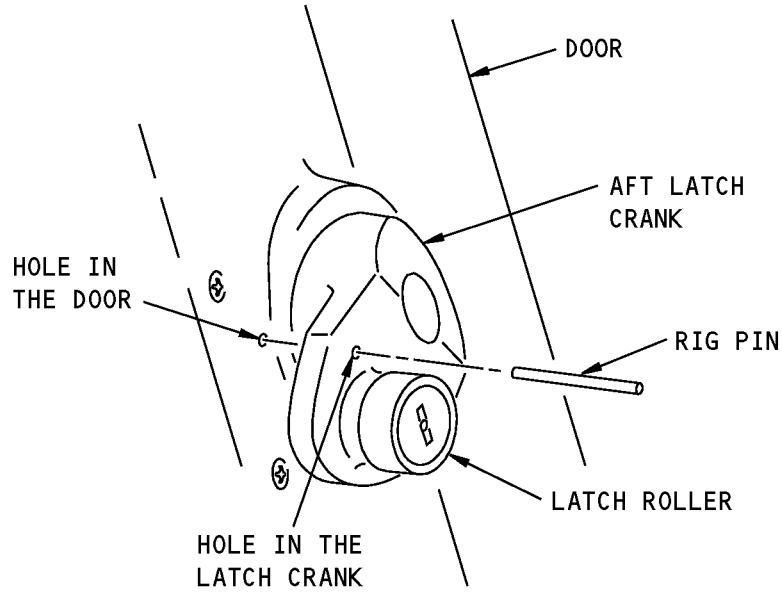
EFFECTIVITY
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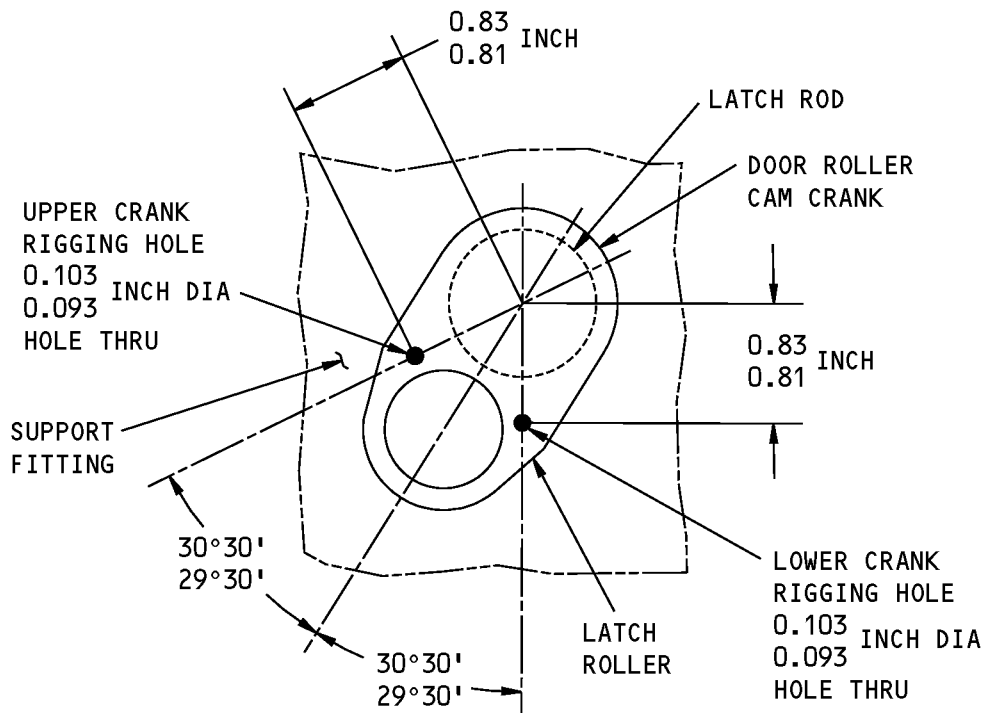
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THE HOLE IN THE LATCH CRANK MUST ALIGN WITH THE HOLE IN THE DOOR WHEN THE HANDLE IS IN THE LATCHED POSITION.



Galley Service Door Mechanism
Figure 512 (Sheet 2 of 2)/52-41-00-990-813

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GALLEY SERVICE DOOR - INSPECTION/CHECK

1. General

- A. This procedure contains scheduled maintenance task data.
- B. This procedure has these tasks:
 - (1) A check of the galley service door.
 - (2) A check of the galley service door centering guide bearing.
 - (3) A check of the galley service door pressure seal.
- C. This procedure is the same for the forward and aft galley service door.

TASK 52-41-00-200-801

2. Galley Service Door Check

A. References

Reference	Title
52-41-31-000-802	Galley Service Door Lining Removal (P/B 401)
52-41-31-400-802	Galley Service Door Lining Installation (P/B 401)

B. Location Zones

Zone	Area
841	Forward Galley Service Door
844	Aft Galley Service Door

C. Access Panels

Number	Name/Location
841AZ	Forward Galley Service Door - Torque Tube Access
841BZ	Forward Galley Service Door - Handle Box and Cam for Handle Box Access
841CZ	Forward Galley Service Door - Handle Box Access
841DZ	Forward Galley Service Door - Lower Hinge Access
841EZ	Forward Galley Service Door - Upper Hinge Access
841FZ	Forward Galley Service Door - Torque Tube Access
841GZ	Forward Galley Service Door - Torque Tube Access
844AZ	Aft Galley Service Door - Torque Tube Access
844BZ	Aft Galley Service Door - Handle Box and Cam for Handle Box Access
844CZ	Aft Galley Service Door - Handle Box Access
844DZ	Aft Galley Service Door - Lower Hinge Access
844EZ	Aft Galley Service Door - Upper Hinge Access
844FZ	Aft Galley Service Door - Torque Tube Access
844GZ	Aft Galley Service Door - Torque Tube Access

D. Prepare for the Inspection

SUBTASK 52-41-00-860-001

- (1) Make sure the door is safe as follows:
 - (a) Make sure the door is closed and latched.

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WARNING: MAKE SURE THE GIRT BAR IS NOT ENGAGED IN THE FLOOR-MOUNTED ESCAPE SLIDE BRACKETS. IF THE GIRT BAR IS ENGAGED IN THE BRACKETS, THE ESCAPE SYSTEM CAN DEPLOY WHEN YOU OPEN THE DOOR. THIS CAN CAUSE INJURIES TO PERSONS AND DAMAGE TO EQUIPMENT.

- (b) Make sure the girt bar is not engaged in the floor-mounted escape slide brackets.
- (c) Make sure a stand is installed outboard of the door.

SUBTASK 52-41-00-010-001

- (2) Do this task: Galley Service Door Lining Removal, TASK 52-41-31-000-802.

SUBTASK 52-41-00-010-002

- (3) Remove the applicable access panels to get access to the door components:

- (a) For the forward galley service door, open these access panels:

<u>Number</u>	<u>Name/Location</u>
841AZ	Forward Galley Service Door - Torque Tube Access
841BZ	Forward Galley Service Door - Handle Box and Cam for Handle Box Access
841CZ	Forward Galley Service Door - Handle Box Access
841DZ	Forward Galley Service Door - Lower Hinge Access
841EZ	Forward Galley Service Door - Upper Hinge Access
841FZ	Forward Galley Service Door - Torque Tube Access
841GZ	Forward Galley Service Door - Torque Tube Access

- (b) For the aft galley service door, open these access panels:

<u>Number</u>	<u>Name/Location</u>
844AZ	Aft Galley Service Door - Torque Tube Access
844BZ	Aft Galley Service Door - Handle Box and Cam for Handle Box Access
844CZ	Aft Galley Service Door - Handle Box Access
844DZ	Aft Galley Service Door - Lower Hinge Access
844EZ	Aft Galley Service Door - Upper Hinge Access
844FZ	Aft Galley Service Door - Torque Tube Access
844GZ	Aft Galley Service Door - Torque Tube Access

SUBTASK 52-41-00-010-008

- (4) For the aft galley service door, remove these access panels as necessary to get access to the door components.

SUBTASK 52-41-00-010-003

- (5) Open and close the galley service door as necessary to inspect the door components.

E. Inspection

SUBTASK 52-41-00-210-001

- (1) Do a visual inspection of the external door structure and handle as follows:

- (a) Examine the external skin.
 - 1) Look for dents, cracks, and corrosion.
 - 2) Look for burrs.
 - 3) Look for loose and missing fasteners.
- (b) Examine the window.

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- 1) Look for cracks.
- 2) Look for crazing.
- (c) Examine the window frame.
 - 1) Look for cracks and corrosion.
- (d) Examine the external handle.
 - 1) Look for cracks and corrosion.
 - 2) Look for too much wear.
- (e) Examine the handle pan.
 - 1) Look for cracks and corrosion.
 - 2) Look for loose and missing fasteners.

SUBTASK 52-41-00-210-002

(2) Do a visual inspection of the door internal structure and handle mechanism as follows:

- (a) Examine the internal skin.
 - 1) Look for dents, cracks, and corrosion.
 - 2) Look for burrs.
 - 3) Look for loose and missing fasteners.
- (b) Examine the internal frames and brackets.
 - 1) Look for cracks and corrosion.
 - 2) Look for loose and missing fasteners.
- (c) Examine the drain holes.
 - 1) Look for blockage.
- (d) Examine the handle box.
 - 1) Look for cracks and corrosion.
 - 2) Look for too much wear.
- (e) Examine the handle housing.
 - 1) Look for cracks and corrosion.
 - 2) Look for too much wear.
- (f) Examine the internal handle.
 - 1) Look for cracks and corrosion.
 - 2) Look for too much wear.
- (g) Examine the end gates.
 - 1) Look for cracks and corrosion.
 - 2) Look for loose and missing fasteners.

SUBTASK 52-41-00-210-003

(3) Do a visual inspection of the latch mechanism as follows:

- (a) Examine the latch control rods.
 - 1) Look for cracks and corrosion.
 - 2) Look for too much wear.
- (b) Examine the latch torque tubes.
 - 1) Look for cracks and corrosion.

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- 2) Look for too much wear.
- (c) Examine the latch cranks and latch rollers.
 - 1) Look for cracks and corrosion.
 - 2) Look for too much wear.
 - 3) Look for unwanted particles on the latch rollers.
- (d) Examine the gate control rods.
 - 1) Look for cracks and corrosion.
 - 2) Look for too much wear.

SUBTASK 52-41-00-210-004

- (4) Do a visual inspection of the door stop fittings and stop pins as follows:
 - (a) Examine the door stop fittings.
 - 1) Look for cracks and corrosion.
 - (b) Examine the stop pins.
 - 1) Look for cracks and corrosion.
 - 2) Look for unwanted particles on the stop pins.
 - 3) Make sure the retaining springs are installed.

SUBTASK 52-41-00-210-005

- (5) Do a visual inspection of the attach structure and hinge mechanism as follows:
 - (a) Examine the fuselage hinge torque tube.
 - 1) Look for cracks and corrosion.
 - 2) Look for too much wear.
 - (b) Examine the hinge arms.
 - 1) Look for cracks and corrosion.
 - 2) Look for too much wear.
 - (c) Examine the hinge arm fasteners.
 - 1) Make sure the bolts fully engage the nuts.
 - 2) Make sure the bolt threads are not damaged.
 - (d) Examine the door hinge torque tube.
 - 1) Look for cracks and corrosion.
 - 2) Look for too much wear.

NOTE: The nuts and bolts that connect the sleeves to the torque tube may appear loose, because they are not tightened to a clamp up pressure. A small gap between the washer and the sleeve is acceptable.
 - (e) Examine the guide arm and roller.
 - 1) Look for cracks and corrosion.
 - 2) Look for too much wear.
 - (f) Examine the guide plates.
 - 1) Look for cracks and corrosion.
 - 2) Look for too much wear.
 - (g) Examine the guide plate drain holes.

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- 1) Look for blockage.

SUBTASK 52-41-00-210-006

- (6) Do a visual inspection of the structure around the door opening as follows:

- (a) Examine the fuselage stop fittings and stop pads.
 - 1) Look for cracks and corrosion.
 - 2) Look for wear that is not in the center of the stop pads.
 - 3) Look for unwanted particles on the stop fittings.
- (b) Examine the latch receivers.
 - 1) Look for cracks and corrosion.
 - 2) Look for too much wear.
 - 3) Look for unwanted particles in the latch receivers.
- (c) Examine the fuselage frame.
 - 1) Look for cracks and corrosion.
 - 2) Look for loose and missing fasteners.

F. Put the Airplane Back to Its Usual Condition

SUBTASK 52-41-00-010-009

- (1) Install the applicable access panels if they are removed:

- (a) For the forward galley service door, close these access panels:

<u>Number</u>	<u>Name/Location</u>
841AZ	Forward Galley Service Door - Torque Tube Access
841BZ	Forward Galley Service Door - Handle Box and Cam for Handle Box Access
841CZ	Forward Galley Service Door - Handle Box Access
841DZ	Forward Galley Service Door - Lower Hinge Access
841EZ	Forward Galley Service Door - Upper Hinge Access
841FZ	Forward Galley Service Door - Torque Tube Access
841GZ	Forward Galley Service Door - Torque Tube Access

- (b) For the aft galley service door, close these access panels:

<u>Number</u>	<u>Name/Location</u>
844AZ	Aft Galley Service Door - Torque Tube Access
844BZ	Aft Galley Service Door - Handle Box and Cam for Handle Box Access
844CZ	Aft Galley Service Door - Handle Box Access
844DZ	Aft Galley Service Door - Lower Hinge Access
844EZ	Aft Galley Service Door - Upper Hinge Access
844FZ	Aft Galley Service Door - Torque Tube Access
844GZ	Aft Galley Service Door - Torque Tube Access

SUBTASK 52-41-00-210-008

- (2) Do this task: Galley Service Door Lining Installation, TASK 52-41-31-400-802.

SUBTASK 52-41-00-860-002

- (3) Close and latch the door.

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SUBTASK 52-41-00-940-001

- (4) Remove the stand.

END OF TASK

TASK 52-41-00-200-803

3. Galley Service Door Centering Guide Bearing Check

A. General

- (1) This procedure is a scheduled maintenance task.

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1523	Stand - Work, (B9) General Purpose, Working Height 4-21 Feet (Part #: B-9, Supplier: 05060, A/P Effectivity: 737-ALL)

C. Location Zones

Zone	Area
834	Left Aft Entry Door

D. Prepare for the Inspection

SUBTASK 52-41-00-860-007

- (1) Make sure the door is safe as follows:
 - (a) Make sure the door is closed and latched.

WARNING: MAKE SURE THE GIRT BAR IS NOT ENGAGED IN THE FLOOR-MOUNTED ESCAPE SLIDE BRACKETS. IF THE GIRT BAR IS ENGAGED IN THE BRACKETS, THE ESCAPE SYSTEM CAN DEPLOY WHEN YOU OPEN THE DOOR. THIS CAN CAUSE INJURY TO PERSONS AND DAMAGE TO EQUIPMENT.

- (b) Make sure the girt bar is not engaged in the floor-mounted escape slide brackets.
- (c) Make sure a stand, COM-1523 is installed outboard of the door.

SUBTASK 52-41-00-010-007

- (2) Open the door.

E. Inspection

SUBTASK 52-41-00-210-010

- (1) Do a visual inspection of the centering guide as follows (Figure 601):
 - (a) Examine the guide fitting.
 - 1) Look for cracks and corrosion.
 - 2) Look for loose and missing fasteners.
 - (b) Examine the guide bearing.
 - 1) Look for too much wear.
 - 2) Make sure the bearing is not loose.
 - 3) Look for unwanted particles on the bearing surface.

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F. Put the Airplane Back to Its Usual Condition

SUBTASK 52-41-00-860-008

- (1) Close and latch the door.

SUBTASK 52-41-00-940-003

- (2) Remove the stand, COM-1523.

END OF TASK

TASK 52-41-00-200-802

4. Galley Service Door Pressure Seal Check

A. General

- (1) This procedure is a scheduled maintenance task.

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1523	Stand - Work, (B9) General Purpose, Working Height 4-21 Feet (Part #: B-9, Supplier: 05060, A/P Effectivity: 737-ALL)

C. Location Zones

Zone	Area
841	Forward Galley Service Door
844	Aft Galley Service Door

D. Prepare for the Inspection

SUBTASK 52-41-00-860-005

- (1) Make sure the door is safe as follows:
 - (a) Make sure the door is closed and latched.

WARNING: MAKE SURE THE GIRT BAR IS NOT ENGAGED IN THE FLOOR-MOUNTED ESCAPE SLIDE BRACKETS. IF THE GIRT BAR IS ENGAGED IN THE BRACKETS, THE ESCAPE SYSTEM CAN DEPLOY WHEN YOU OPEN THE DOOR. THIS CAN CAUSE INJURY TO PERSONS AND DAMAGE TO EQUIPMENT.

- (b) Make sure the girt bar is not engaged in the floor-mounted escape slide brackets.
- (c) Make sure a stand, COM-1523 is installed outboard of the door.

SUBTASK 52-41-00-010-006

- (2) Open the door.

E. Inspection

SUBTASK 52-41-00-210-009

- (1) Do a visual inspection of the door pressure seal as follows (Figure 602):
 - (a) Examine the seal.
 - 1) Look for cracks, holes, and tears.
 - 2) Look for indications of seal deterioration.
 - 3) Make sure the seal is correctly installed in the seal retainer.

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F. Put the Airplane Back to Its Usual Condition

SUBTASK 52-41-00-860-006

(1) Close and latch the door.

SUBTASK 52-41-00-940-002

(2) Remove the stand, COM-1523.

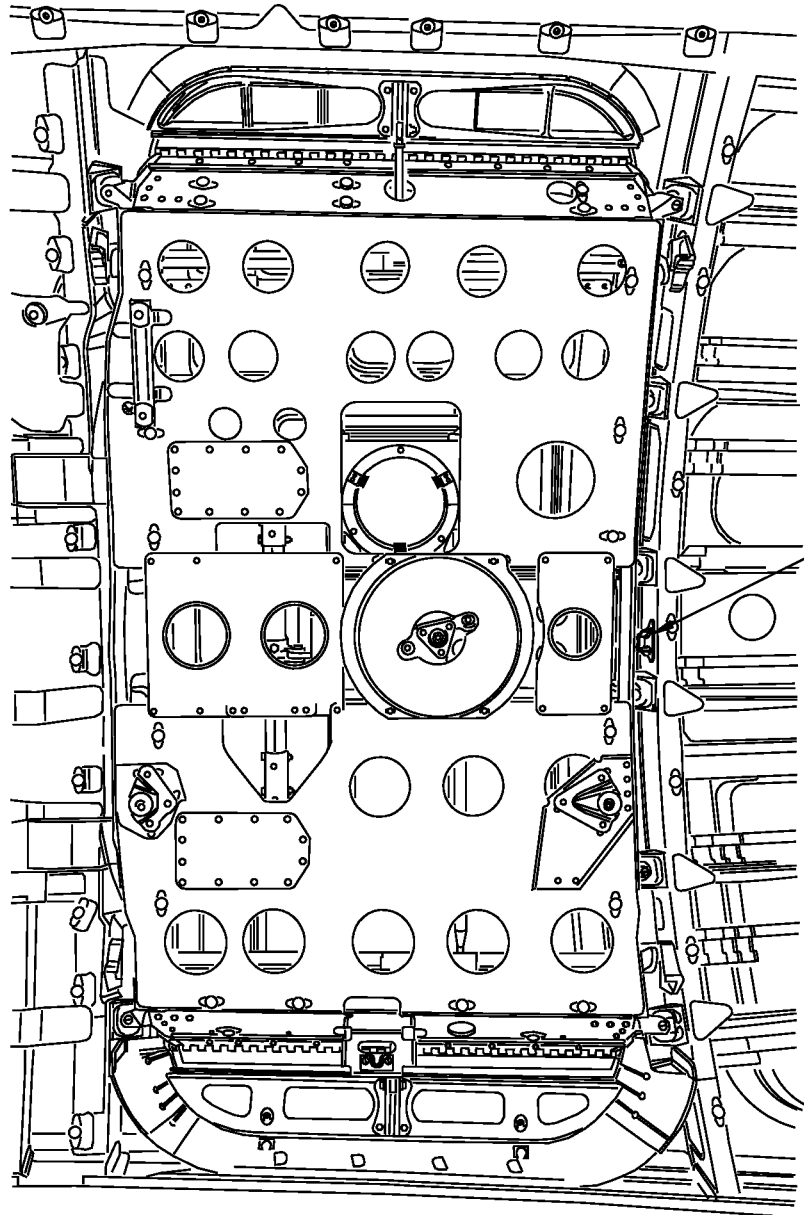
————— END OF TASK —————

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CENTERING
GUIDE AND
ROLLER
SEE (A)

FWD ←

**GALLEY SERVICE DOOR
(EXAMPLE)**

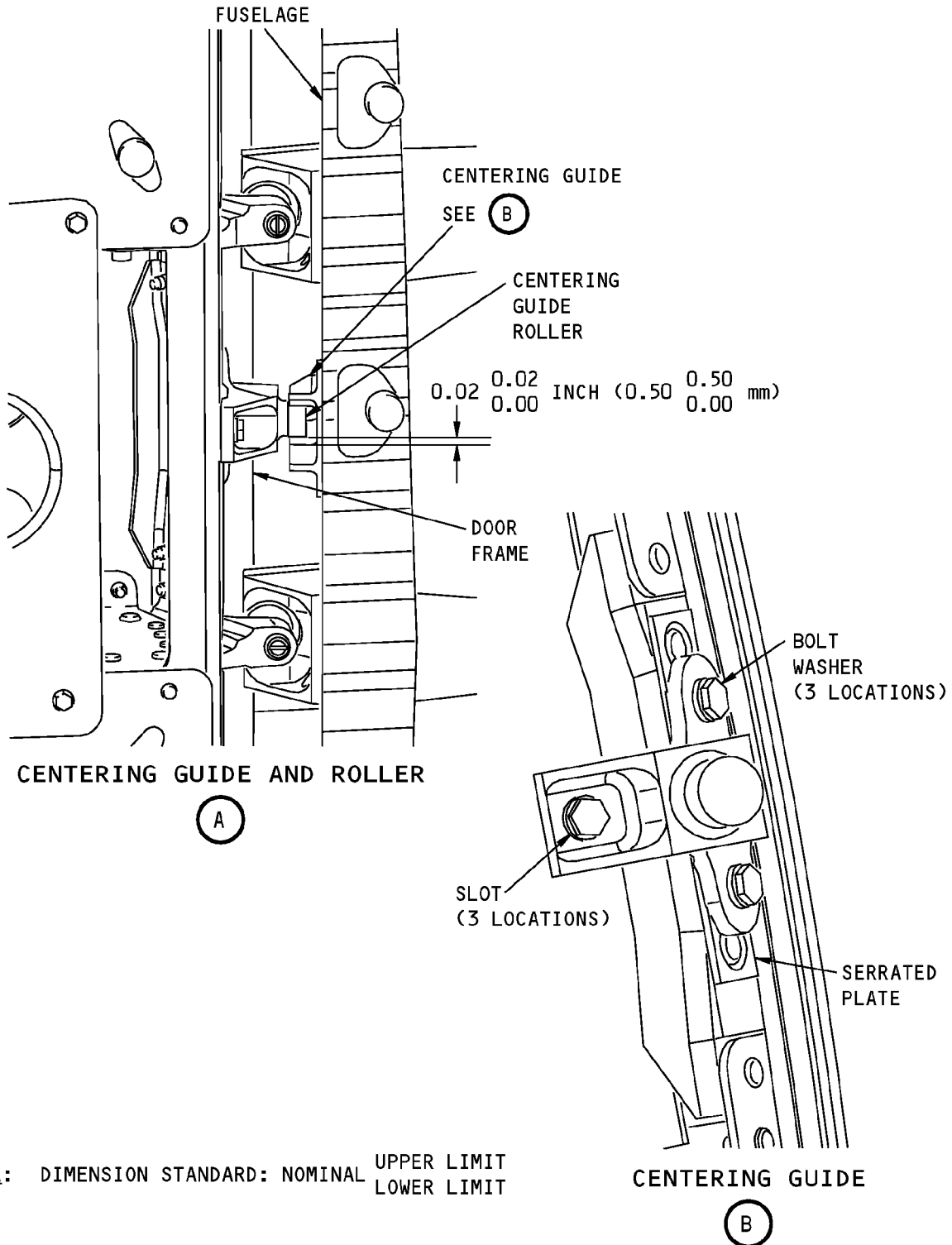
**Galley Service Door Inspection/Check
Figure 601 (Sheet 1 of 2)/52-41-00-990-814**

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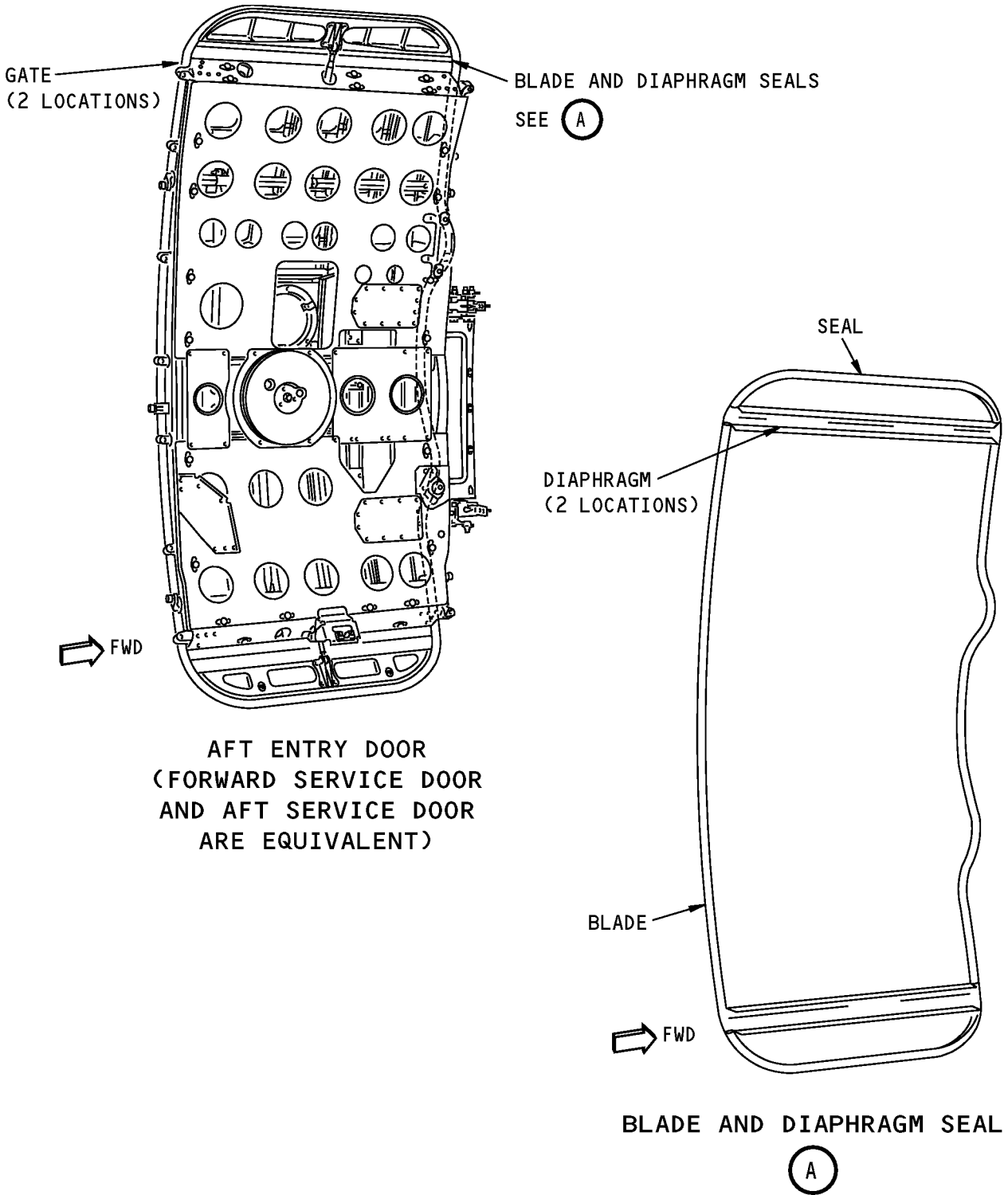
NOTE: DIMENSION STANDARD: NOMINAL
 UPPER LIMIT
 LOWER LIMIT

**Galley Service Door Inspection/Check
 Figure 601 (Sheet 2 of 2)/52-41-00-990-814**

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Blade and Diaphragm Seals Inspection
Figure 602/52-41-00-990-815

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GALLEY SERVICE DOORS STOP BEARING PLATES - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

- (1) Stop Bearing Plate - Removal.
- (2) Stop Bearing Plate - Installation.

TASK 52-41-01-000-801

2. Stop Bearing Plate - Removal

A. References

Reference	Title
52-41-00 P/B 201	GALLEY SERVICE DOORS - MAINTENANCE PRACTICES

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1523	Stand - Work, (B9) General Purpose, Working Height 4-21 Feet (Part #: B-9, Supplier: 05060, A/P Effectivity: 737-ALL)
STD-291	Drift - Light Weight, Metal or Plastic
STD-1242	Hammer - Standard

C. Consumable Materials

Reference	Description	Specification
B00083	Solvent - Aliphatic Naphtha (For Acrylic Plastics)	TT-N-95 Type II, ASTM D-3735 Type III
G00034	Cotton Wiper - Process Cleaning Absorbent Wiper (Cheesecloth, Gauze)	BMS15-5

D. Location Zones

Zone	Area
841	Forward Galley Service Door
844	Aft Galley Service Door

E. Prepare for the Removal

SUBTASK 52-41-01-860-001

- (1) Install the stand, COM-1523 outboard of the door.
- (2) Open the galley service door GALLEY SERVICE DOORS - MAINTENANCE PRACTICES, PAGEBLOCK 52-41-00/201

F. Procedure

SUBTASK 52-41-01-020-001

- (1) If necessary, use a standard hammer, STD-1242 and a non-metallic light weight, metal or plastic drift, STD-291 to remove the stop bearing plate.

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(2) Clean the mounting hole with a clean cotton wiper, G00034 that is moist with solvent, B00083

NOTE: Clean surfaces are necessary to make a good bond.

————— **END OF TASK** —————

TASK 52-41-01-400-801

3. Stop Bearing Plate - Installation

A. References

Reference	Title
52-41-00 P/B 201	GALLEY SERVICE DOORS - MAINTENANCE PRACTICES

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1523	Stand - Work, (B9) General Purpose, Working Height 4-21 Feet (Part #: B-9, Supplier: 05060, A/P Effectivity: 737-ALL)
STD-1242	Hammer - Standard

C. Consumable Materials

Reference	Description	Specification
A00551	Sealant - Fuel Tank	BAC5010, Type 44 (BMS5-44, BMS5-45)
B00083	Solvent - Aliphatic Naphtha (For Acrylic Plastics)	TT-N-95 Type II, ASTM D-3735 Type III
G00034	Cotton Wiper - Process Cleaning Absorbent Wiper (Cheesecloth, Gauze)	BMS15-5

D. Location Zones

Zone	Area
841	Forward Galley Service Door
844	Aft Galley Service Door

E. Prepare for the installation

SUBTASK 52-41-01-420-001

- (1) Do a test of the fit of the stop bearing plate before the installation.
 - (a) Install the stop bearing plate into the mounting hole with hand pressure.
 - (b) Hand pressure installation is not permitted.
 - (c) Discard the stop bearing plate and get a new stop bearing plate.

NOTE: When hand pressure is not sufficient to install the stop bearing plate, a new stop bearing plate is not necessary.

F. Procedure

SUBTASK 52-41-01-420-002

- (1) Install the stop bearing plate.

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- (a) Apply a layer of adhesive sealant, A00551 to the stop bearing plate and to the mounting hole.
- (b) Install the stop bearing plate with a pneumatic rivet gun with a brass set.

NOTE: If the pneumatic rivet gun is not available, use a standard hammer, STD-1242 and a non-metallic drift to install the stop bearing plate.

- (c) Use a clean cotton wiper, G00034 that is moist with solvent, B00083 to remove the unwanted adhesive sealant, A00551 from the stop bearing plate before it dries.

G. Put the airplane back to its usual condition

SUBTASK 52-41-01-940-001

- (1) Close the galley service door GALLEY SERVICE DOORS - MAINTENANCE PRACTICES, PAGEBLOCK 52-41-00/201.
- (2) Remove the stand, COM-1523.

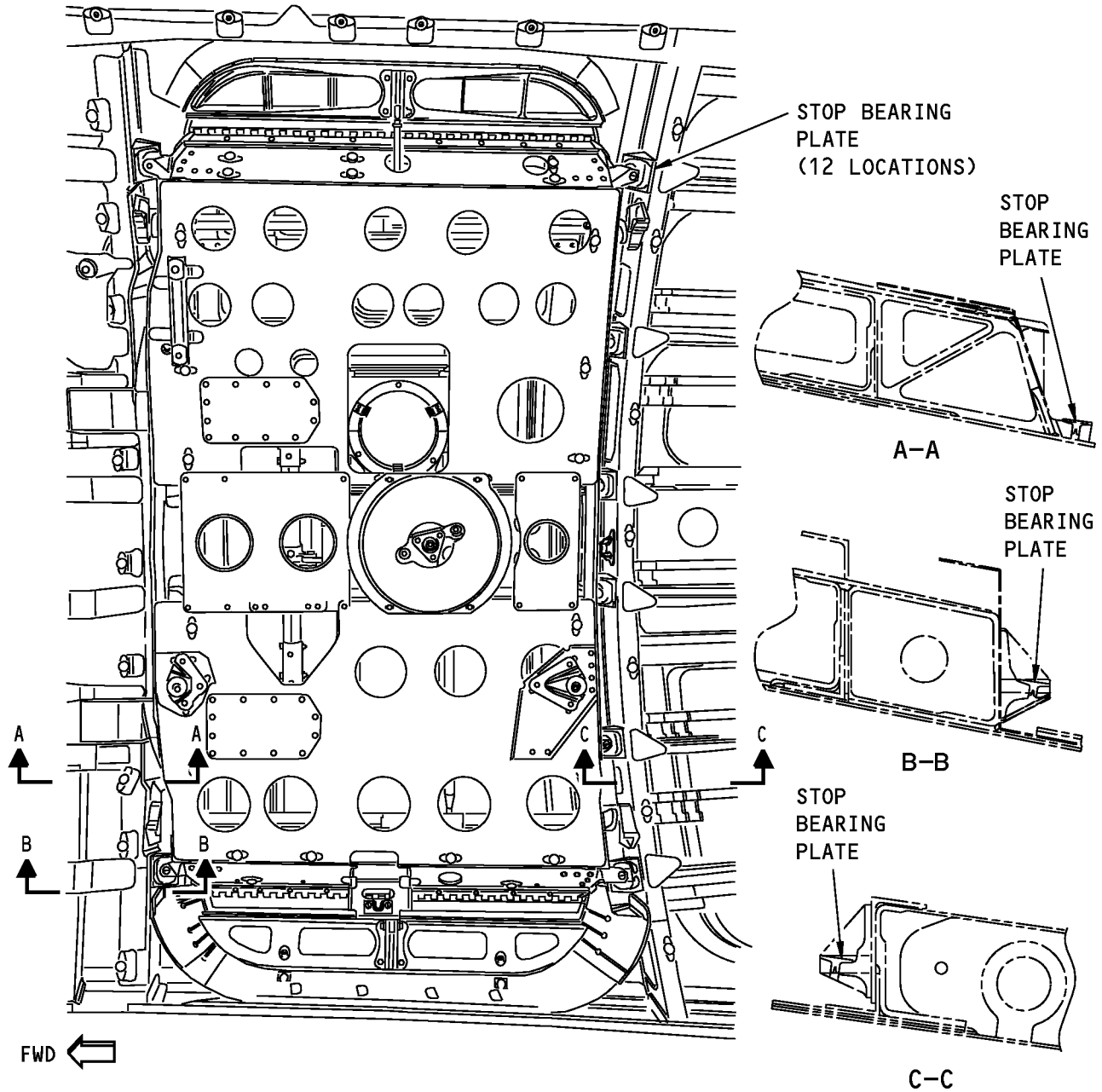
————— END OF TASK —————

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FORWARD ENTRY DOOR STOP BEARING PLATE-REMOVAL/INSTALLATION

1760455 S0000317539_V1

GALLEY DOORS STOP BEARING PLATE - REMOVAL/INSTALLATION

Figure 401/52-41-01-990-801

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GALLEY SERVICE DOOR HINGE ARM - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

- (1) A removal of the galley service door hinge arm.
- (2) An installation of the galley service door hinge arm.

B. This procedure is the same for the forward or aft galley service door.

TASK 52-41-11-000-801

2. Galley Service Door Hinge Arm Removal

(Figure 401)

A. References

Reference	Title
52-41-00-000-801	Galley Service Door Removal (P/B 401)

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1523	Stand - Work, (B9) General Purpose, Working Height 4-21 Feet (Part #: B-9, Supplier: 05060, A/P Effectivity: 737-ALL)

C. Location Zones

Zone	Area
841	Forward Galley Service Door
844	Aft Galley Service Door

D. Access Panels

Number	Name/Location
841AZ	Forward Galley Service Door - Torque Tube Access
841CZ	Forward Galley Service Door - Handle Box Access
844AZ	Aft Galley Service Door - Torque Tube Access
844CZ	Aft Galley Service Door - Handle Box Access

E. Prepare for the Removal

SUBTASK 52-41-11-860-001

- (1) Make sure the door is safe as follows:
 - (a) Make sure the door is closed and latched.

WARNING: MAKE SURE THE GIRT BAR IS NOT ENGAGED IN THE FLOOR-MOUNTED ESCAPE SLIDE BRACKETS. IF THE GIRT BAR IS ENGAGED IN THE BRACKETS, THE ESCAPE SYSTEM CAN DEPLOY WHEN YOU OPEN THE DOOR AND INJURIES OR DAMAGE CAN OCCUR.

- (b) Make sure the girt bar is not engaged in the floor-mounted escape slide brackets.
- (c) Install the stand, COM-1523 outboard of the door.

SUBTASK 52-41-11-010-001

- (2) Do this task: Galley Service Door Removal, TASK 52-41-00-000-801.

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SUBTASK 52-41-11-410-001

(3) Get access to the door [1] as follows (Figure 401):

(a) Remove the applicable torque tube access panels:

<u>Number</u>	<u>Name/Location</u>
841AZ	Forward Galley Service Door - Torque Tube Access
844AZ	Aft Galley Service Door - Torque Tube Access

(b) Remove the applicable handle box access panels:

<u>Number</u>	<u>Name/Location</u>
841CZ	Forward Galley Service Door - Handle Box Access
844CZ	Aft Galley Service Door - Handle Box Access

F. Removal of the Galley Service Door Hinge Arm

SUBTASK 52-41-11-020-001

(1) Remove the handle mechanism:

(a) If necessary, remove the interior handle [27] as follows:

- 1) Remove the cover [23] on the interior handle [27] to get access to the fasteners that attach the interior handle [27] to the handle mechanism.
- 2) Remove the cotter pins [25], nuts [24], and washers [26] that attach the interior handle [27] to the hub [28].
- 3) Remove the interior handle [27].
- 4) Remove the bolts [31] from the hub [28] if they are loose.

NOTE: The bolts [31] are bonded to the hub [28] and it is not necessary to remove them if the bond is tight.

- (b) Remove the bolts [29] and washers [30] that attach the cam cover [32] to the handle box [4].
- (c) Remove the cam cover [32].
- (d) Remove the lockwire, bolts [21], and washers [20] that attach the hub [28] to the handle cam [19].
- (e) Remove the hub [28].
- (f) Remove the cotter pin [33] on the nut [34] that holds the handle shaft [41].
- (g) Hold the exterior handle [9] and remove the nut [34] and washer [35] that hold the handle shaft [41] to the handle cam [19].

NOTE: When you remove the nut [34], the exterior handle [9] and part of the handle mechanism will be loose on the outer side of the door [1].

- (h) Remove the handle cam [19] and washer [17].
- (i) From the outer side of the door, remove the exterior handle [9], shims [10], sleeve [11], handle shaft [41], and centering cam [40] as an assembly.
- (j) If necessary, disassemble the exterior handle [9] and its components:
 - 1) Remove the bolts [8], washers [12], and nuts [39] that attach the exterior handle [9] to the centering cam [40] through the shims [10] and sleeve [11].
 - 2) Remove the exterior handle [9].
 - 3) Remove the shims [10] between the exterior handle [9] and the sleeve [11].
 - 4) Remove the centering cam [40].

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- 5) Remove the handle shaft [41] from the sleeve [11].
- (k) Remove the bolts [13] and washers [14] that go through the handle pan [38], seal plate [15], and handle housing [36].

SUBTASK 52-41-11-020-002

- (2) Remove the upper and lower latch control rods [18]:
 - (a) Remove the bolts [58] and nuts [59] that connect the latch control rods [18] to the handle mechanism in the handle box [4].
 - (b) Remove the bolts [54], washers [55], and nuts [56] that connect the latch control rods [18] to the upper and lower latch torque tubes [57].
 - (c) Remove the latch control rods [18] from the handle box [4] and door [1] to make clearance for the handle box [4] removal.

SUBTASK 52-41-11-020-003

- (3) Disconnect the door hinge torque tube [46]:

NOTE: You can make index marks across the joints to help make the installation easier.

 - (a) Remove the bolts [66], washers [68], and nuts [67] that go through the upper and lower sleeves [42] on the door hinge torque tube [46].
 - (b) Move the sleeves [42] toward the center of the door hinge torque tube [46] to make clearance to remove the the door hinge torque tube [46] and handle box [4] at the same time.

SUBTASK 52-41-11-020-004

- (4) Remove the handle box [4] and door hinge torque tube [46]:
 - (a) Remove the bolts [50], fillers [51], washers [53], and nuts [52] that attach the front of the upper and lower splice angles [47] to the beams.
 - (b) Remove the bolts [48] and washers [49] that attach the upper and lower splice angles [47] to the beams.
 - (c) Remove the upper and lower splice angles [47] from the beams to get access to the door hinge torque tube [46].
 - (d) Remove the bolts [44] and washers [45] that attach the top and bottom of the handle box [4] to the beams.
 - (e) Carefully remove the handle box [4] and door hinge torque tube [46] from the door structure.
 - (f) If the laminated shims [43] between the top of the handle box [4] and the beam are loose, remove them.
 - (g) Remove the handle housing [36] from the handle box [4] and the packing [16] in the handle housing [36].
 - (h) Remove the the seal plate [15] from the handle pan [38] and the packing [37] in the seal plate [15].

SUBTASK 52-41-11-020-005

- (5) Remove the hinge arm [60] from the hinge support [63]:

NOTE: Do this step for each hinge arm.

 - (a) Loosen the bolts [62] and washers [61] that hold the hinge pin [65] in the hinge arm [60].
 - (b) Remove the hinge pin [65] from the hinge arm [60].
 - (c) Remove the packing [64], washer [70], and compression spring [69] from the hinge pin [65].

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(d) Remove the hinge arm [60].

————— END OF TASK —————

TASK 52-41-11-400-801

3. Galley Service Door Hinge Arm Installation

(Figure 401)

A. References

Reference	Title
52-41-00-400-801	Galley Service Door Installation (P/B 401)

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1523	Stand - Work, (B9) General Purpose, Working Height 4-21 Feet (Part #: B-9, Supplier: 05060, A/P Effectivity: 737-ALL)

C. Consumable Materials

Reference	Description	Specification
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS 5-95
A00555	Adhesive - For Bonding Decorative Laminate, 2 Part, Sprayable	BMS5-127, Type II
C00528	Compound - Corrosion Preventive, Petroleum Hot Application (Soft Film)	MIL-C-11796, Class III
D00015	Grease - Aircraft Bearing (Use BMS 3-24 until existing stocks are depleted, BMS 3-33 supersedes BMS 3-24)	BMS3-24 (Superseded by BMS 3-33)
G00440	Lockwire - Corrosion Resistant Steel (0.041 inch Dia.)	NASM20995~ C41

D. Location Zones

Zone	Area
841	Forward Galley Service Door
844	Aft Galley Service Door

E. Access Panels

Number	Name/Location
841AZ	Forward Galley Service Door - Torque Tube Access
841CZ	Forward Galley Service Door - Handle Box Access
844AZ	Aft Galley Service Door - Torque Tube Access
844CZ	Aft Galley Service Door - Handle Box Access

F. Installation of the Galley Service Door Hinge Arm

SUBTASK 52-41-11-420-001

(1) Install the hinge arm [60] in the hinge support [63]:

NOTE: Do this step for each hinge arm.

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- (a) Put the hinge arm [60] in its correct position in the hinge support [63].
- (b) Do a check of the packing [64] for damage or wear and replace if necessary.
- (c) Apply grease, D00015 to the packings [64] before installation.
- (d) Install the compression spring [69], washer [70], and packing [64] on the hinge pin [65].
- (e) Apply grease, D00015 to the hinge pin [65] and bolts [62] before installation.
- (f) Install the hinge pin [65] in the hinge arm [60].
- (g) Tighten the bolts [62] and washers [61] to hold the hinge pin [65] in the hinge arm [60].
- (h) Apply grease, D00015 in the opening between the hinge arm [60] and hinge pin [65] and to any openings between the hinge support [63] and the hinge pin [65].

SUBTASK 52-41-11-420-002

- (2) Install the handle box [4] and door hinge torque tube [46]:
 - (a) Do a check of the packings [16] [37] for damage or wear and replace if necessary.
 - (b) Apply grease, D00015 to the packings [16] [37] before installation.
 - (c) Install the packing [37] in the seal plate [15] and the packing [16] in the handle housing [36].
 - (d) Put the seal plate [15] in its correct position against the handle pan [38].
 - (e) Put the handle housing [36] in its correct position against the seal plate [15].
 - (f) Apply sealant, A00247 to the mating surfaces between the bottom of the handle box [4] and beam before installation.
 - (g) Carefully put the handle box [4] and door hinge torque tube [46] in their correct position in the door structure.
 - (h) If the laminated shims [43] between the top of the handle box [4] and the beam were removed, do these steps:
 - 1) Make sure the maximum clearance between the top of the handle box [4] and the beam is 0.01 inch (0.25 mm).
 - 2) Apply sealant, A00247 to the mating surfaces between the handle box [4], laminated shims [43], and beam before installation.
 - 3) Install the laminated shims [43] between the handle box [4] and the beam.
 - (i) Apply sealant, A00247 to the mating surfaces of the bolts [44], washers [45], handle box [4], and beam before installation.
 - (j) Install the bolts [44] and washers [45] to attach the top and bottom of the handle box [4] to the beams.
 - (k) Put the upper and lower splice angles [47] in their correct position on the beams.
 - (l) Apply compound, C00528 to the holes for the bolts [48] before installation.
 - (m) Install the bolts [48] and washers [49] to attach the upper and lower splice angles [47] to the beams.
 - (n) Install the bolts [50], fillers [51], washers [53], and nuts [52] to attach the front of the upper and lower splice angles [47] to the beams.

SUBTASK 52-41-11-420-003

- (3) Connect the door hinge torque tube [46]:
 - (a) Apply grease, D00015 to the mating surfaces of the sleeves [42], hinge pins [65], and door hinge torque tube [46] before installation.
 - (b) Align the splines and move the sleeves [42] over the hinge pins [65].

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- (c) Apply compound, C00528 to the holes for the bolts [66] before installation.
- (d) Install the bolts [66], washers [68], and nuts [67] that go through the upper and lower sleeves [42] on the door hinge torque tube [46].
- (e) Tighten the nuts [67] to 30-40 pound-inches (3.38-4.50 newton-meters).
 - 1) Make sure the nuts [67] bottom out on the threads of the bolt [66].
 - 2) Make sure the maximum gap is 0.016 inch (0.40 mm) between the sleeves [42] and washers [68].
 - 3) Install more washers [68] if necessary.

SUBTASK 52-41-11-420-004

- (4) Install the upper and lower latch control rods [18]:
 - (a) Put the latch control rods [18] in their correct positions in the handle box [4] and door.
 - (b) Apply compound, C00528 to the holes for the bolts [54] [58] before installation.
 - (c) Install the bolts [54], washers [55], and nuts [56] to connect the latch control rods [18] to the upper and lower latch torque tubes [57].
 - (d) Install the bolts [58] and nuts [59] to connect the latch control rods [18] to the handle mechanism in the handle box [4].

SUBTASK 52-41-11-420-005

- (5) Install the handle mechanism:
 - (a) Install the bolts [13] and washers [14] through the handle pan [38], seal plate [15], and handle housing [36].
 - (b) Install the exterior handle [9], shims [10], sleeve [11], handle shaft [41], and centering cam [40] as an assembly. Make sure the lubrication fitting on the sleeve [11] is in its correct position. If necessary, assemble these parts before installation as follows:
 - 1) Apply grease, D00015 to the mating surfaces of the handle shaft [41] and sleeve [11] before installation.
 - 2) Install the handle shaft [41] in the sleeve [11].
 - 3) Install the shims [10] between the exterior handle [9] and the sleeve [11].
 - 4) Install the bolts [8], washers [12], and nuts [39] to attach the exterior handle [9] to the centering cam [40] through the shims [10] and sleeve [11].
 - (c) Hold the exterior handle [9] in its position.
 - (d) From the inner side of the door, apply grease, D00015 to the mating surfaces of the handle shaft [41] and handle cam [19] before installation.
 - (e) Install the handle cam [19].
 - (f) Install the washer [35], nut [34], and new cotter pin [33] to hold the handle shaft [41] to the handle cam [19].
 - (g) Put the hub [28] in its correct position against the handle cam [19].
 - (h) Install the bolts [21], washers [20], and lockwire, G00440 to attach the hub [28] to the handle cam [19].
 - (i) Put the cam cover [32] in its correct position against the handle box [4].
 - (j) Install the bolts [29] and washers [30] to attach the cam cover [32] to the handle box [4].
 - (k) If necessary, install the interior handle [27] as follows:

NOTE: The interior handle [27] must be removed to install the door lining.

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- 1) Install the bolts [31] in the hub [28] with adhesive, A00555 if they are loose.
- 2) Put the interior handle [27] in its correct position over the bolts [31] in the hub [28].
- 3) Install the washers [26], nuts [24], and new cotter pins [25] to attach the interior handle [27] to the hub [28].
- 4) Install the cover [23] on the interior handle [27].

G. Put the Airplane Back to Its Usual Condition

SUBTASK 52-41-11-410-003

- (1) Install the applicable handle box access panels:

<u>Number</u>	<u>Name/Location</u>
841CZ	Forward Galley Service Door - Handle Box Access
844CZ	Aft Galley Service Door - Handle Box Access

SUBTASK 52-41-11-410-004

- (2) Install the applicable torque tube access panels:

<u>Number</u>	<u>Name/Location</u>
841AZ	Forward Galley Service Door - Torque Tube Access
844AZ	Aft Galley Service Door - Torque Tube Access

SUBTASK 52-41-11-420-007

- (3) Do this task: Galley Service Door Installation, TASK 52-41-00-400-801.

SUBTASK 52-41-11-480-001

- (4) Remove the stand, COM-1523 from the door.

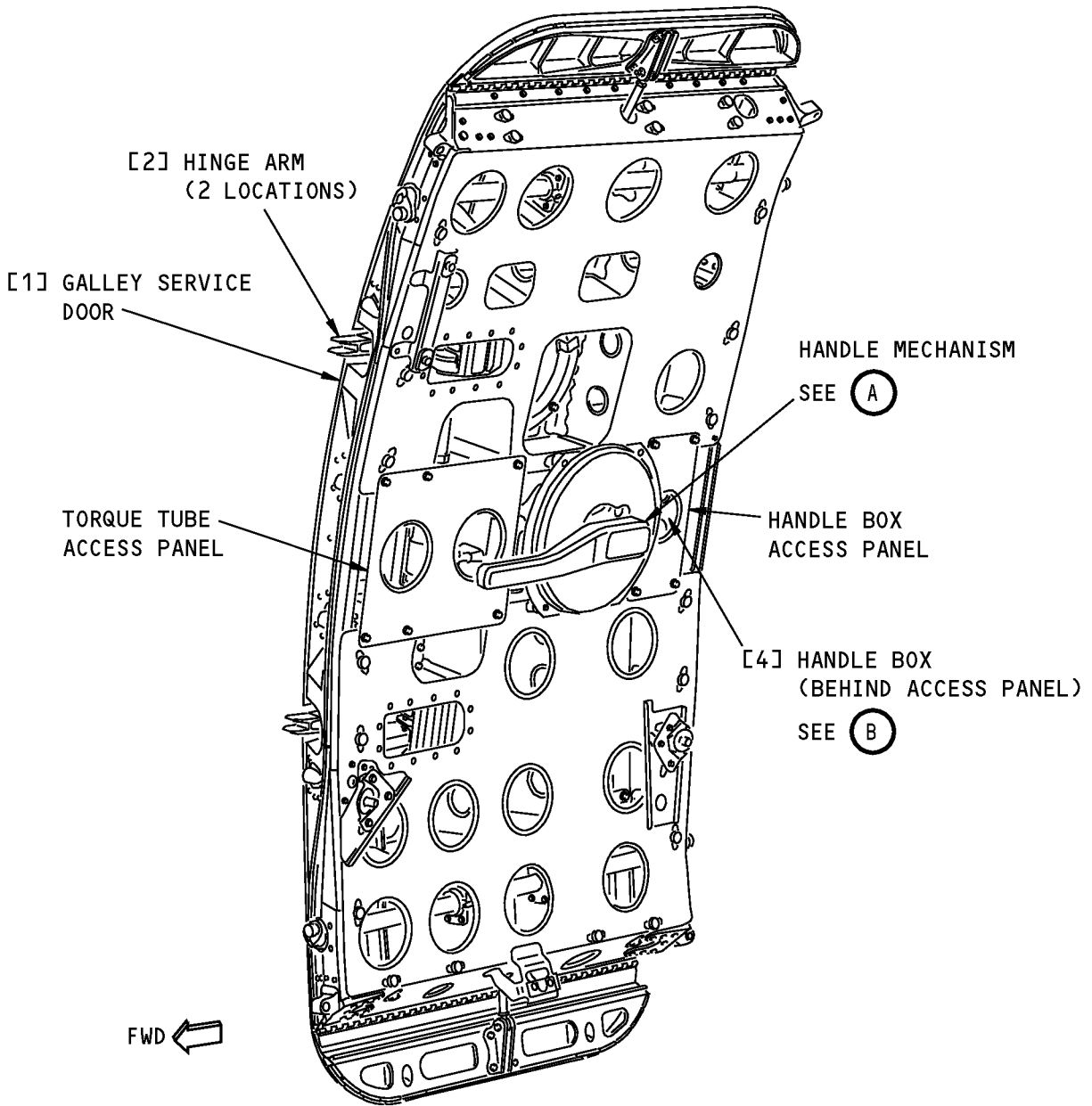
————— **END OF TASK** —————

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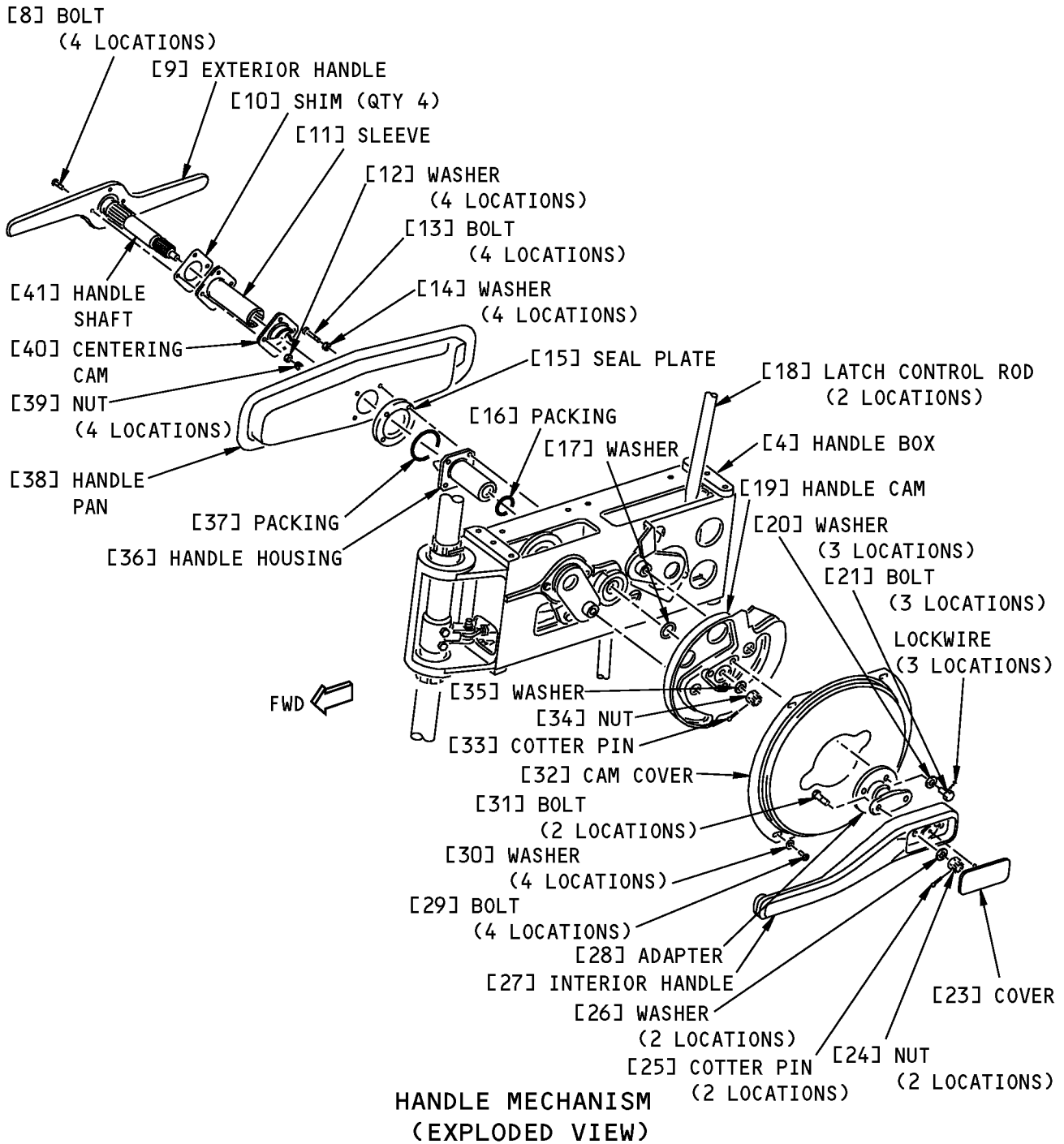
**GALLEY SERVICE DOOR
(EXAMPLE)**

**Galley Service Door Hinge Arm Installation
Figure 401 (Sheet 1 of 4)/52-41-11-990-801**

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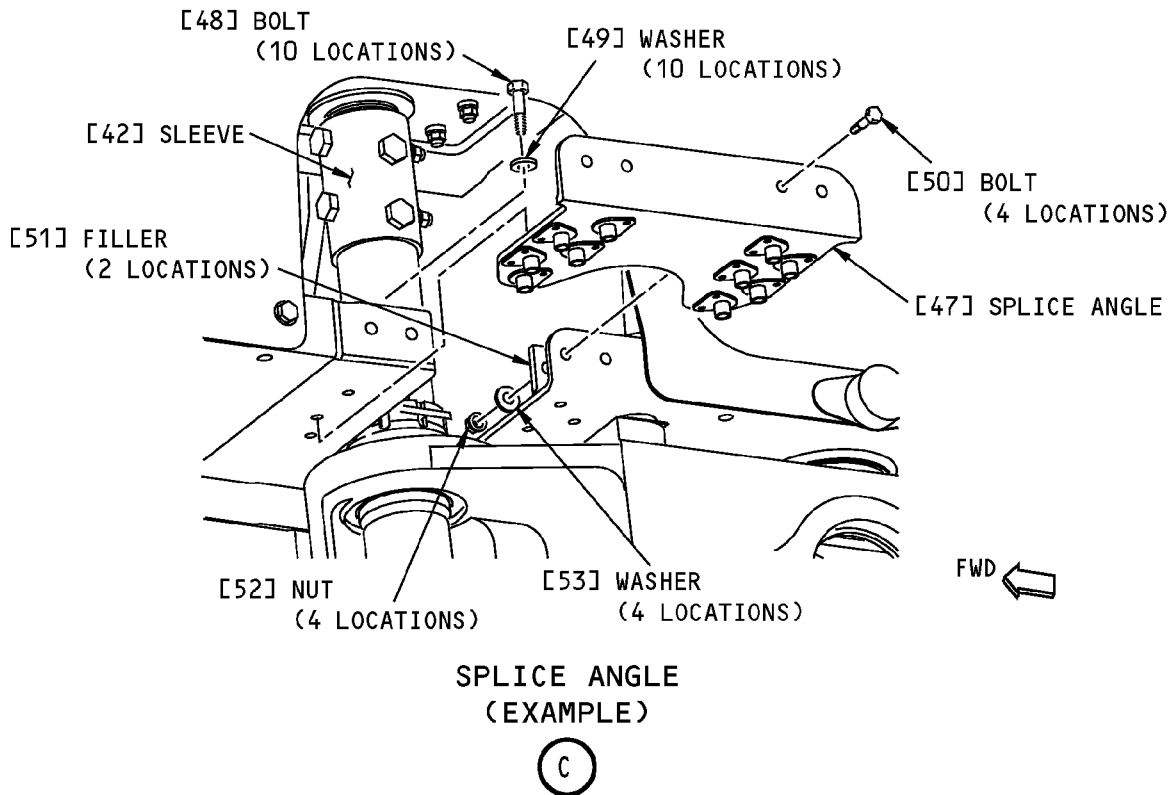
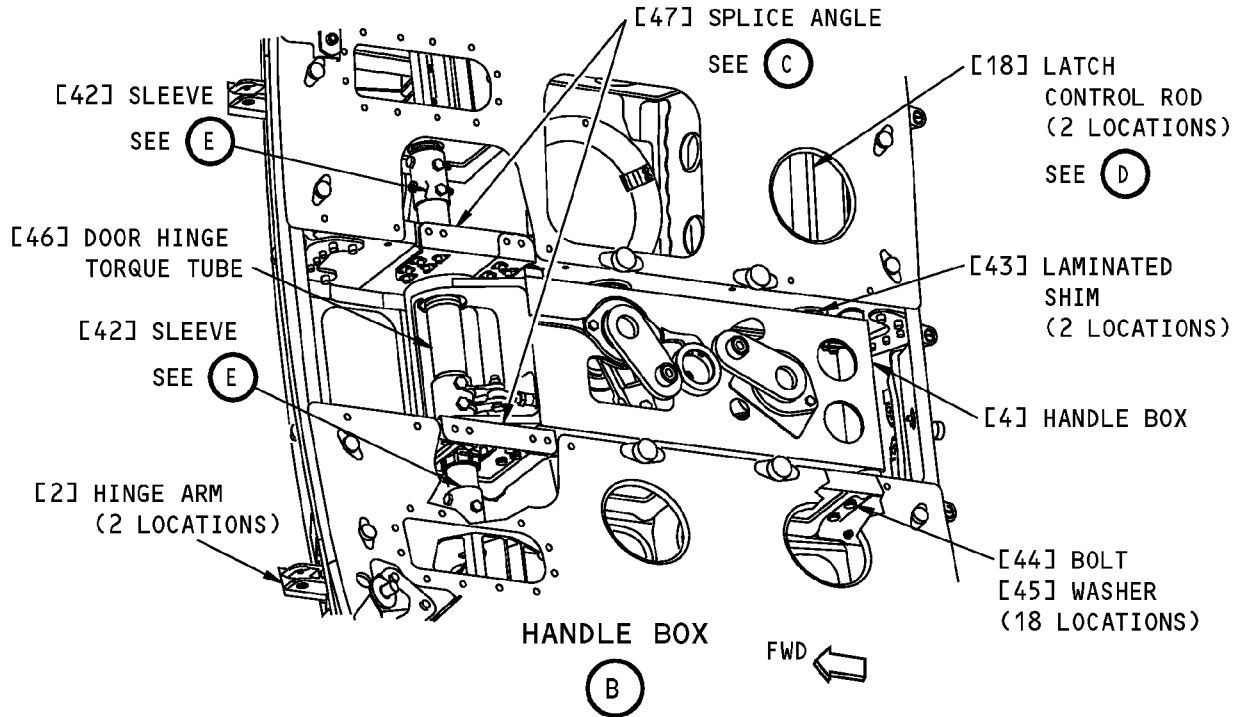
(A)

**Galley Service Door Hinge Arm Installation
Figure 401 (Sheet 2 of 4)/52-41-11-990-801**

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**Galley Service Door Hinge Arm Installation
Figure 401 (Sheet 3 of 4)/52-41-11-990-801**

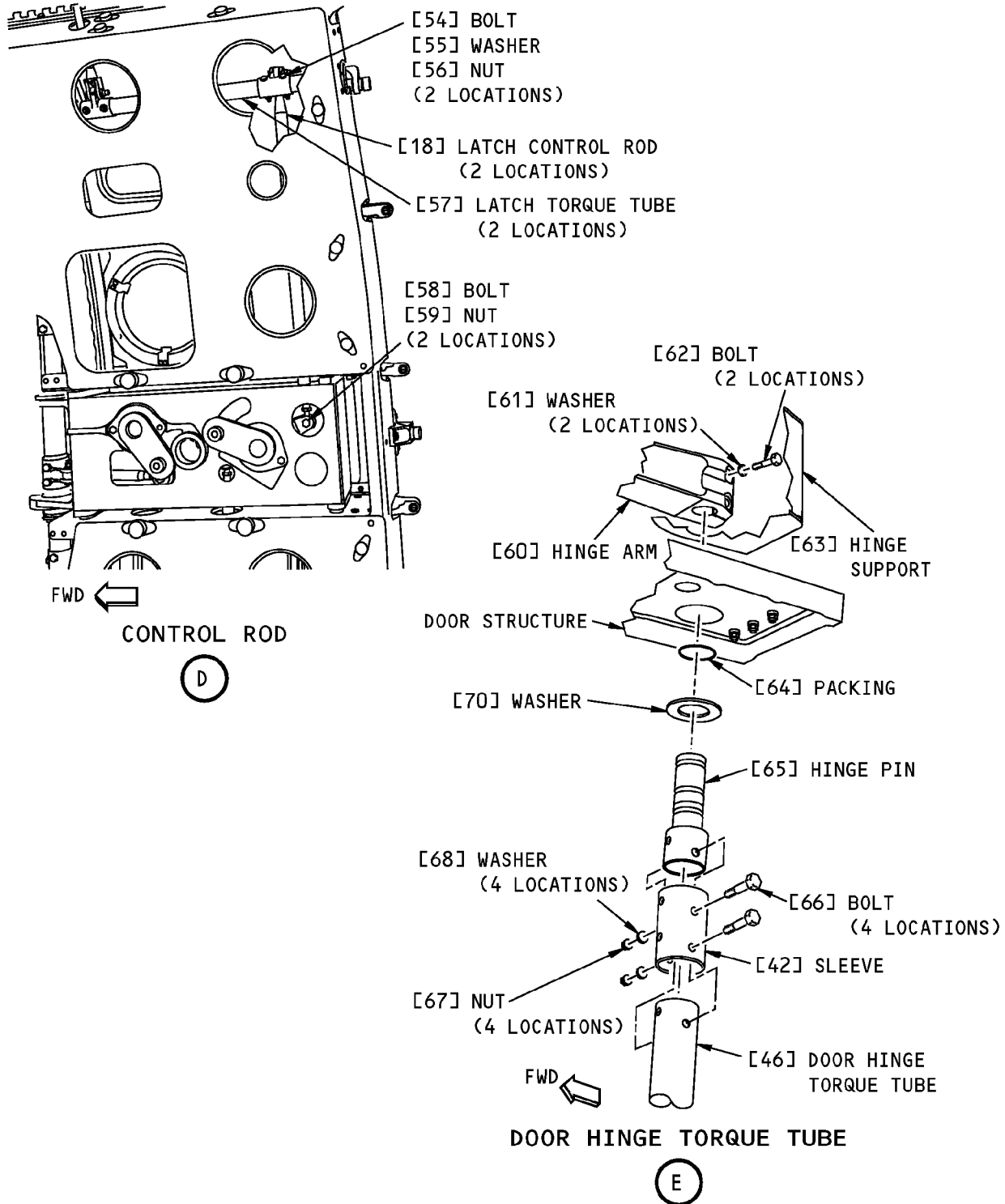
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Galley Service Door Hinge Arm Installation
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GALLEY SERVICE DOOR GUIDE ARM AND ROLLER - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

- (1) A removal of the galley service door guide arm and roller.
- (2) An installation of the galley service door guide arm and roller.

B. This procedure is the same for the forward or aft galley service door.

TASK 52-41-21-000-801

2. Galley Service Door Guide Arm and Roller Removal

(Figure 401)

A. References

Reference	Title
52-41-31-000-802	Galley Service Door Lining Removal (P/B 401)

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1523	Stand - Work, (B9) General Purpose, Working Height 4-21 Feet (Part #: B-9, Supplier: 05060, A/P Effectivity: 737-ALL)

C. Location Zones

Zone	Area
841	Forward Galley Service Door
844	Aft Galley Service Door

D. Access Panels

Number	Name/Location
841FZ	Forward Galley Service Door - Torque Tube Access
844FZ	Aft Galley Service Door - Torque Tube Access

E. Prepare for the Removal

SUBTASK 52-41-21-860-001

- (1) Make sure the door [2] is safe as follows:
 - (a) Make sure the door [2] is closed and latched.

WARNING: MAKE SURE THE GIRT BAR IS NOT ENGAGED IN THE FLOOR-MOUNTED ESCAPE SLIDE BRACKETS. IF THE GIRT BAR IS ENGAGED IN THE BRACKETS, THE ESCAPE SYSTEM CAN DEPLOY WHEN YOU OPEN THE DOOR AND INJURIES OR DAMAGE CAN OCCUR.

- (b) Make sure the girt bar is not engaged in the floor-mounted escape slide brackets.
- (c) Make sure the stand, COM-1523 is installed outboard of the door [2].

SUBTASK 52-41-21-010-001

- (2) Get access to the door [2] as follows:
 - (a) Do this task: Galley Service Door Lining Removal, TASK 52-41-31-000-802.

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(b) Make sure the door [2] is fully open.

F. Removal of the Galley Service Door Guide Arm and Roller

SUBTASK 52-41-21-020-001

(1) Disconnect the guide arm [1] and roller [14] from the guide plates [12] [13]:

(a) AIRPLANES WITH LOCKING GUIDE ARM;

Remove the release button [16]:

1) Remove the bolts [6], washers [11], and nuts [10] that attach the release button [16] to the upper guide plate [13].

2) Remove the release button [16] from the upper guide plate [13].

(b) Remove the bushing [15] from the upper guide plate [13].

(c) Insert a tool in the drain hole in the lower guide plate [12] and push the roller [14] through the guide arm [1] and out the hole in the upper guide plate [13].

SUBTASK 52-41-21-020-002

(2) Disconnect the guide arm [1] from the torque tube upper link [8]:

(a) Remove the clip [9] from the pin [7] that attaches the guide arm [1] to the torque tube upper link [8].

(b) Push the pin [7] up through the guide arm [1] and fuselage hinge torque tube upper link [8].

(c) Disconnect the guide arm [1] from the torque tube upper link [8].

SUBTASK 52-41-21-020-003

(3) Disconnect the guide arm [1] from the galley service door [2]:

(a) Remove the applicable upper access panels:

Number	Name/Location
841FZ	Forward Galley Service Door - Torque Tube Access
844FZ	Aft Galley Service Door - Torque Tube Access

(b) Remove the filler [19] to get access to the fastener that attaches the guide arm [1] to the fitting [18].

(c) Remove the bolt [20], washer [21], and nut [17] that attach the guide arm [1] to the fitting [18].

(d) Remove the guide arm [1] from the galley service door [2].

————— END OF TASK —————

TASK 52-41-21-400-801

3. Galley Service Door Guide Arm and Roller Installation

(Figure 401)

A. References

Reference	Title
52-41-00-820-801	Galley Service Door Adjustment (P/B 501)
52-41-31-400-802	Galley Service Door Lining Installation (P/B 401)

B. Consumable Materials

Reference	Description	Specification
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS 5-95

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C. Location Zones

Zone	Area
841	Forward Galley Service Door
844	Aft Galley Service Door

D. Access Panels

Number	Name/Location
841FZ	Forward Galley Service Door - Torque Tube Access
844FZ	Aft Galley Service Door - Torque Tube Access

E. Installation of the Galley Service Door Guide Arm and Roller

SUBTASK 52-41-21-820-001

- (1) Do a preliminary adjustment of the guide arm [1] as follows (Figure 401):
 - (a) Make sure the distance along the guide arm [1] from the rod end [23] centerline to the adjuster nut [25] is as shown.
 - (b) If necessary, use the adjuster nut [25] to change the length of the guide arm [1] as follows:

NOTE: This is an initial adjustment for a new guide arm [1].

 - 1) Remove the bolt [26] and washer [27] on the lock channel [22].
 - 2) Remove the lock channel [22].
 - 3) Loosen the jamnut [24].
 - 4) Change the length of the guide arm rod end [23] with the adjuster nut [25].
 - 5) Make sure the adjuster nut [25] will align with the lock channel [22].
 - 6) Tighten the jamnut [24].
 - 7) Put the lock channel [22] in its correct position on the guide arm [1].
 - 8) Install the bolt [26] and washer [27] to hold the lock channel [22] in position.

SUBTASK 52-41-21-020-004

- (2) Connect the guide arm [1] to the door [2]:
 - (a) Put the rod end [23] of the guide arm [1] in position in the fitting [18].
 - 1) Make sure the lubrication fitting on the rod end [23] points inboard.
 - (b) Install the bolt [20], washer [21], and nut [17] to attach the rod end [23] of the guide arm [1] to the fitting [18].
 - (c) Install the filler [19] with sealant, A00247 to cover the guide arm [1] attachment.
 - (d) Install the applicable upper access panels:

Number	Name/Location
841FZ	Forward Galley Service Door - Torque Tube Access
844FZ	Aft Galley Service Door - Torque Tube Access

SUBTASK 52-41-21-420-001

- (3) Connect the guide arm [1] to the fuselage hinge torque tube upper link [8]:
 - (a) Put the guide arm [1] in position in the fuselage hinge torque tube upper link [8].
 - (b) Install the pin [7] to attach the guide arm [1] to the torque tube upper link [8].
 - (c) Install the clip [9] on the end of the pin [7].

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SUBTASK 52-41-21-420-002

- (4) Connect the guide arm [1] and roller [14] to the guide plates [12] and [13]:
- Align the hole in the end of the guide arm [1] with the hole in the upper guide plate [13].
 - Put the roller [14] through the hole in the upper guide plate [13] and into the end of the guide arm [1].

NOTE: Make sure the spring loaded pin in the roller [14] is pointing up.

- Install the bushing [15] in the upper guide plate [13].
- AIRPLANES WITH LOCKING GUIDE ARM;
Install the release button [16]:
 - Put the release button [16] in position on the upper guide plate [13].
 - Install the bolts [6], washers [11], and nuts [10] to attach the release button [16] to the upper guide plate [13].

SUBTASK 52-41-21-820-002

- (5) Adjust the guide arm [1]. To do this, do this task: Galley Service Door Adjustment, TASK 52-41-00-820-801.

NOTE: Do only the guide arm adjustment.

SUBTASK 52-41-21-410-001

- (6) Do this task: Galley Service Door Lining Installation, TASK 52-41-31-400-802.

SUBTASK 52-41-21-710-001

- (7) Do a test on the door [2] as follows:
- Open and close the door.
 - Make sure the door opens easily and smoothly.

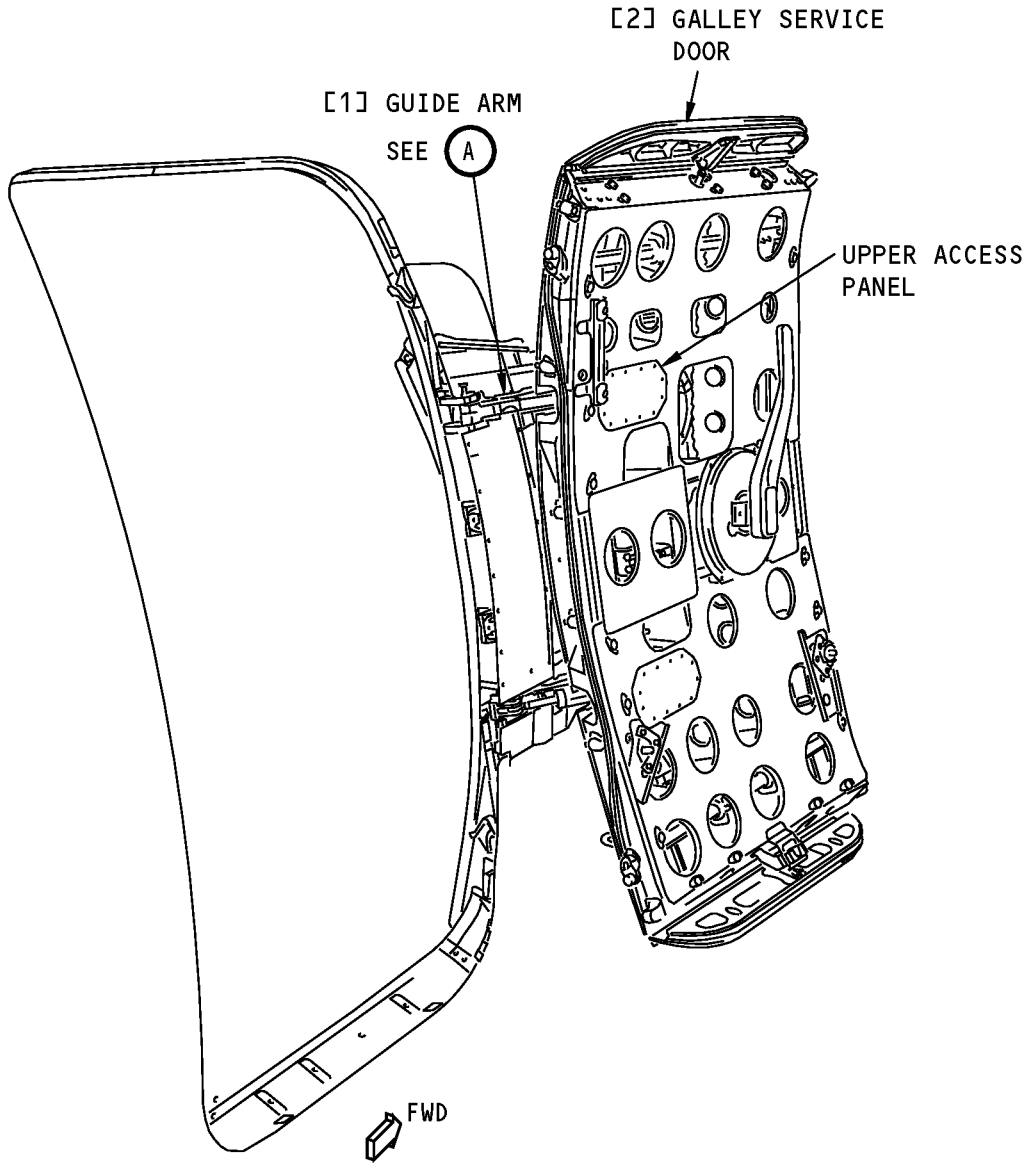
————— **END OF TASK** —————

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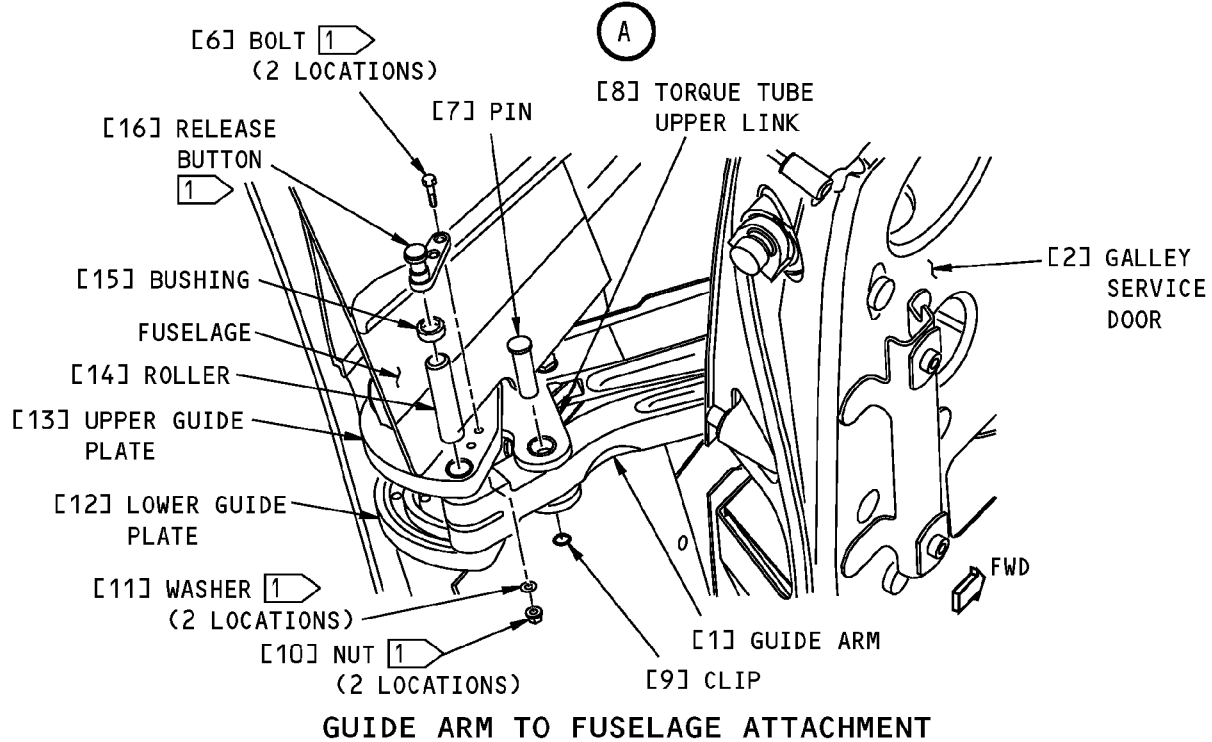
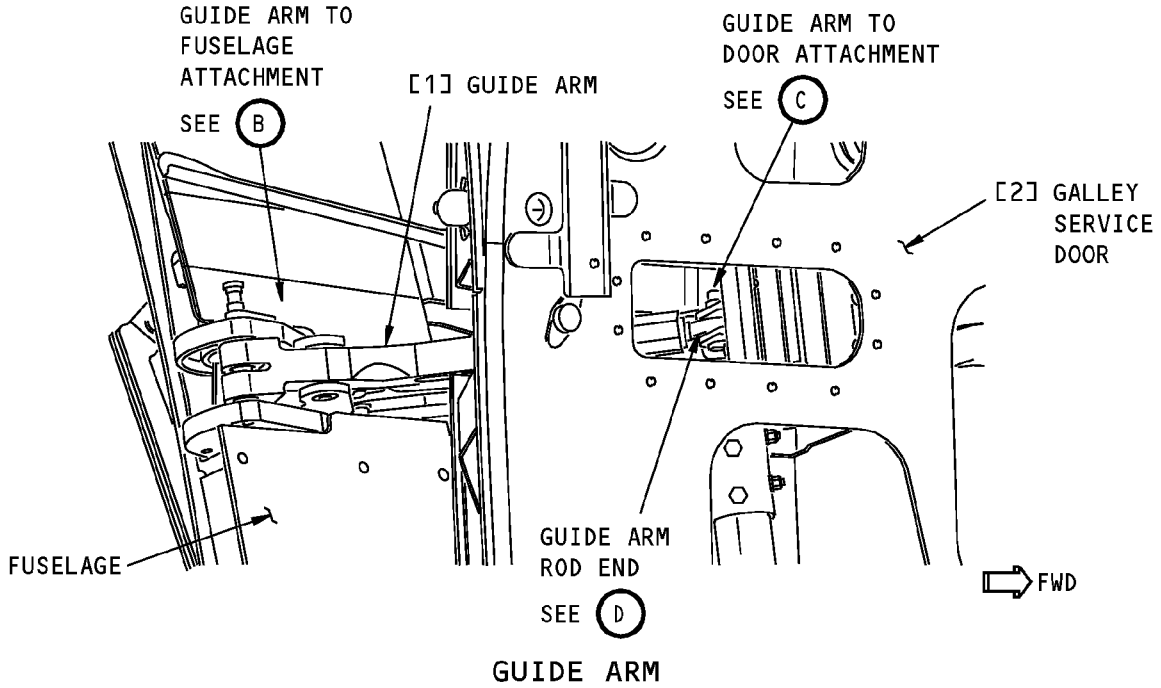
**GALLEY SERVICE DOOR
(EXAMPLE)**

**Galley Service Door Guide Arm and Roller Installation
Figure 401 (Sheet 1 of 3)/52-41-21-990-801**

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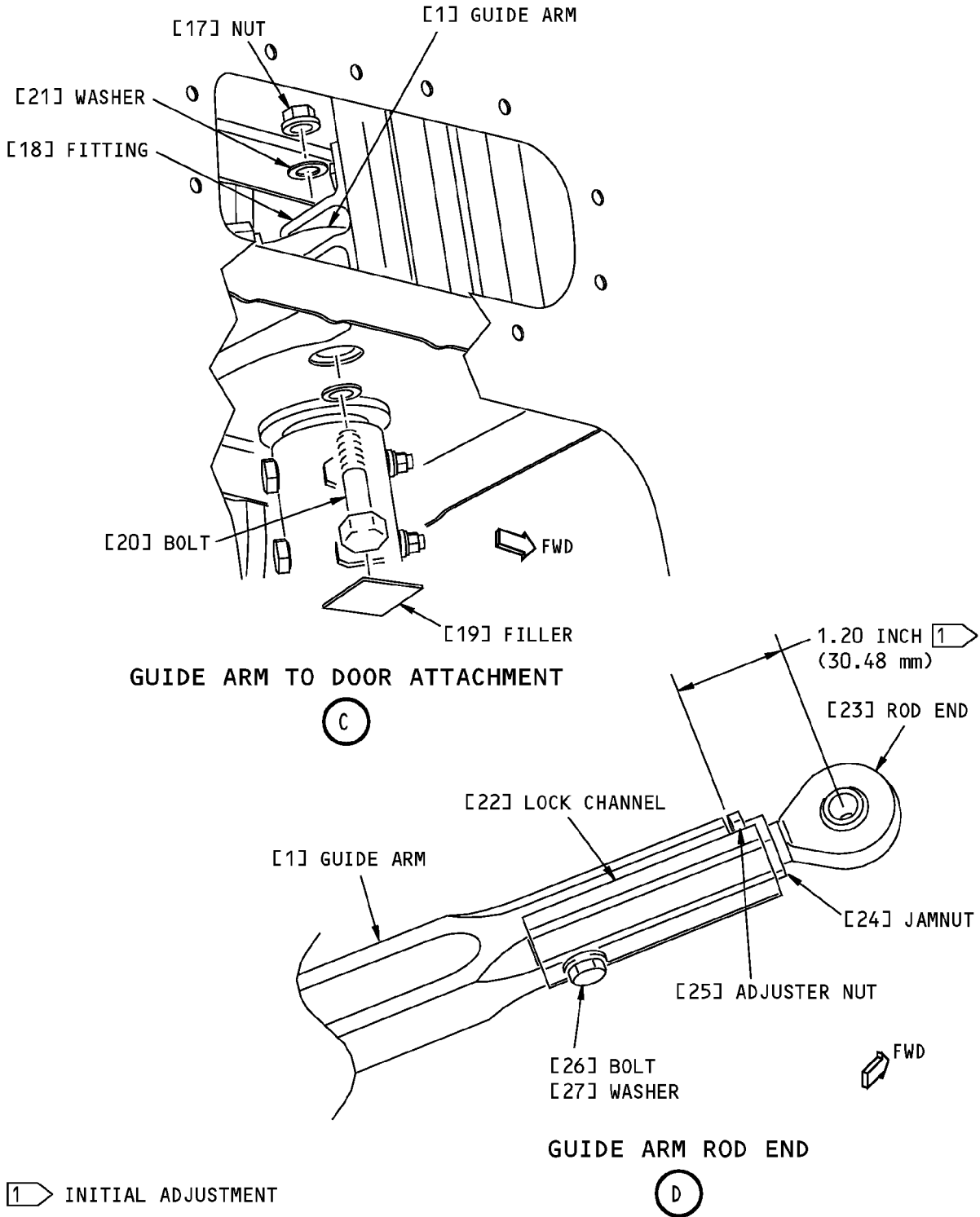
1 AIRPLANES WITH LOCKING GUIDE ARM **B**

Galley Service Door Guide Arm and Roller Installation
Figure 401 (Sheet 2 of 3)/52-41-21-990-801

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**Galley Service Door Guide Arm and Roller Installation
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GALLEY SERVICE DOOR LINING - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

- (1) A removal of the galley service door lining.
- (2) An installation of the galley service door lining.

B. This procedure is the same for each galley service door.

TASK 52-41-31-000-802

2. Galley Service Door Lining Removal

(Figure 401)

A. References

Reference	Title
25-66-01-000-801	Escape Slide Pack and Cover Removal (P/B 401)

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1523	Stand - Work, (B9) General Purpose, Working Height 4-21 Feet (Part #: B-9, Supplier: 05060, A/P Effectivity: 737-ALL)
SPL-5216	Wrench - Spanner, Main Entry Door Assist Handle (Part #: F70336-1, Supplier: 81205, A/P Effectivity: 737-100, -200, -200C, -300, -400, -500, -600, -700, -700C, -700ER, -700QC, -800, -900, -900ER, -BBJ)

C. Location Zones

Zone	Area
841	Forward Galley Service Door
844	Aft Galley Service Door

D. Prepare for the Removal

SUBTASK 52-41-31-860-003

- (1) Make sure the door is safe as follows:
 - (a) Make sure the door is closed and latched.

WARNING: MAKE SURE THE GIRT BAR IS NOT ENGAGED IN THE FLOOR-MOUNTED ESCAPE SLIDE BRACKETS. IF THE GIRT BAR IS ENGAGED IN THE BRACKETS, THE ESCAPE SYSTEM CAN DEPLOY WHEN YOU OPEN THE DOOR AND INJURIES OR DAMAGE CAN OCCUR.

- (b) Make sure the girt bar is not engaged in the floor-mounted escape slide brackets.
- (c) Make sure the stand, COM-1523 is installed outboard of the door.

SUBTASK 52-41-31-010-002

- (2) Get access to the door as follows:
 - (a) Make sure the door is closed and latched.
 - (b) Do this task: Escape Slide Pack and Cover Removal, TASK 25-66-01-000-801.
 - (c) Fully open the door.

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E. Removal

SUBTASK 52-41-31-020-004

- (1) Remove the interior handle [3] from the door:
 - (a) Remove the cover [11] on the interior handle [3] to get access to the fasteners that attach the interior handle [3] to the hub [5].
 - (b) Remove the cotter pins [9], nuts [10], and washers [8] that attach the interior handle [3] to the hub [5].
 - (c) Remove the interior handle [3].
 - (d) Remove the bolts [4] from the hub [5] if they are loose.

NOTE: The bolts [4] are bonded to the hub [5] and it is not necessary to remove them if the bond is tight.

SUBTASK 52-41-31-020-005

- (2) Remove the upper and lower cover plates [12] [6] from the door lining [1]:
 - (a) Remove the screw [7] that attaches the lower cover plate [6] to the door lining [1].
 - (b) Pull the lower cover plate [6] away from the upper cover plate [12].
 - (c) Pull the upper cover plate [12] down to disengage it from the cutout in the door lining [1] and remove from the door.

SUBTASK 52-41-31-020-006

- (3) Remove the assist handle [2] from the door (detail B).
 - (a) Loosen the handle nuts [14] with the entry door assist handle wrench, SPL-5216 that attach the assist handle [2] to the door.
 - (b) Remove the assist handle [2] from the door.
 - (c) Hold the handle nuts [14] and remove the bolts [16], collars [15], and washers [13] that attach the handle nuts [14] to the door.
 - (d) Remove the handle nuts [14] from the door.

SUBTASK 52-41-31-020-007

- (4) Disconnect the door lining [1] from the door:
 - (a) Remove the nuts [17] that attach the upper part of the door lining [1] to the door.
 - (b) Remove the nuts [20] that attach the lower part of the door lining [1] to the door.
 - (c) Remove the screws [19] that attach the lower part of the door lining [1] to the door.
 - (d) Hold the door lining [1].
 - (e) Remove the screws [18] that attach the forward and aft edges of the door lining [1] to the door.
 - (f) Carefully lift the door lining [1] and remove it from the door.

————— **END OF TASK** —————

TASK 52-41-31-400-802

3. Galley Service Door Lining Installation

(Figure 401)

A. References

Reference	Title
25-66-01-400-803	Escape Slide Pack and Cover Installation (P/B 401)

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B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1523	Stand - Work, (B9) General Purpose, Working Height 4-21 Feet (Part #: B-9, Supplier: 05060, A/P Effectivity: 737-ALL)
SPL-5216	Wrench - Spanner, Main Entry Door Assist Handle (Part #: F70336-1, Supplier: 81205, A/P Effectivity: 737-100, -200, -200C, -300, -400, -500, -600, -700, -700C, -700ER, -700QC, -800, -900, -900ER, -BBJ)

C. Consumable Materials

Reference	Description	Specification
A00555	Adhesive - For Bonding Decorative Laminate, 2 Part, Sprayable	BMS5-127, Type II

D. Location Zones

Zone	Area
841	Forward Galley Service Door
844	Aft Galley Service Door

E. Installation

SUBTASK 52-41-31-420-004

- (1) Install the door lining [1] on the door:
 - (a) Carefully hold the door lining [1] and put it in position on the door.
 - (b) Install the screws [18] that attach the forward and aft edges of the door lining [1] to the door.
 - (c) Install the nuts [17] to attach the upper part of the door lining [1] to the door.
 - (d) Install the nuts [20] to attach the lower part of the door lining [1] to the door.
 - (e) Install the screws [19] to attach the lower part of the door lining [1] to the door.

SUBTASK 52-41-31-020-008

- (2) Install the assist handle [2] (detail B).
 - (a) Put the handle nuts [14] in position on the door lining [1].
 - (b) Install the bolts [16], collars [15], and washers [13] to attach the handle nuts [14] to the door.
 - (c) Put the assist handle [2] in position against the handle nuts [14].
 - (d) Tighten the handle nuts [14] with the entry door assist handle wrench, SPL-5216 to attach the assist handle [2] to the door.

SUBTASK 52-41-31-020-009

- (3) Install the upper and lower cover plates [12] [6] on the door:
 - (a) Put the upper cover plate [12] into the cutout in the door lining [1].
 - (b) Connect the lower cover plate [6] to the upper cover plate [12].
 - (c) Install the screw [7] to attach the lower cover plate [6] to the door lining [1].

SUBTASK 52-41-31-020-010

- (4) Install the interior handle [3]:
 - (a) Install the bolts [4] in the hub [5] with adhesive, A00555 if they are loose.

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- (b) Put the interior handle [3] in position over the bolts [4] in the hub [5].
- (c) Install the washers [8], nuts [10], and new cotter pins [9], to attach the interior handle [3] to the hub [5].
- (d) Install the cover [11] on the interior handle [3].

F. Put the Airplane Back to Its Usual Condition

SUBTASK 52-41-31-410-001

- (1) Do this task: Escape Slide Pack and Cover Installation, TASK 25-66-01-400-803.

SUBTASK 52-41-31-080-001

- (2) Remove the stand, COM-1523.

————— **END OF TASK** —————

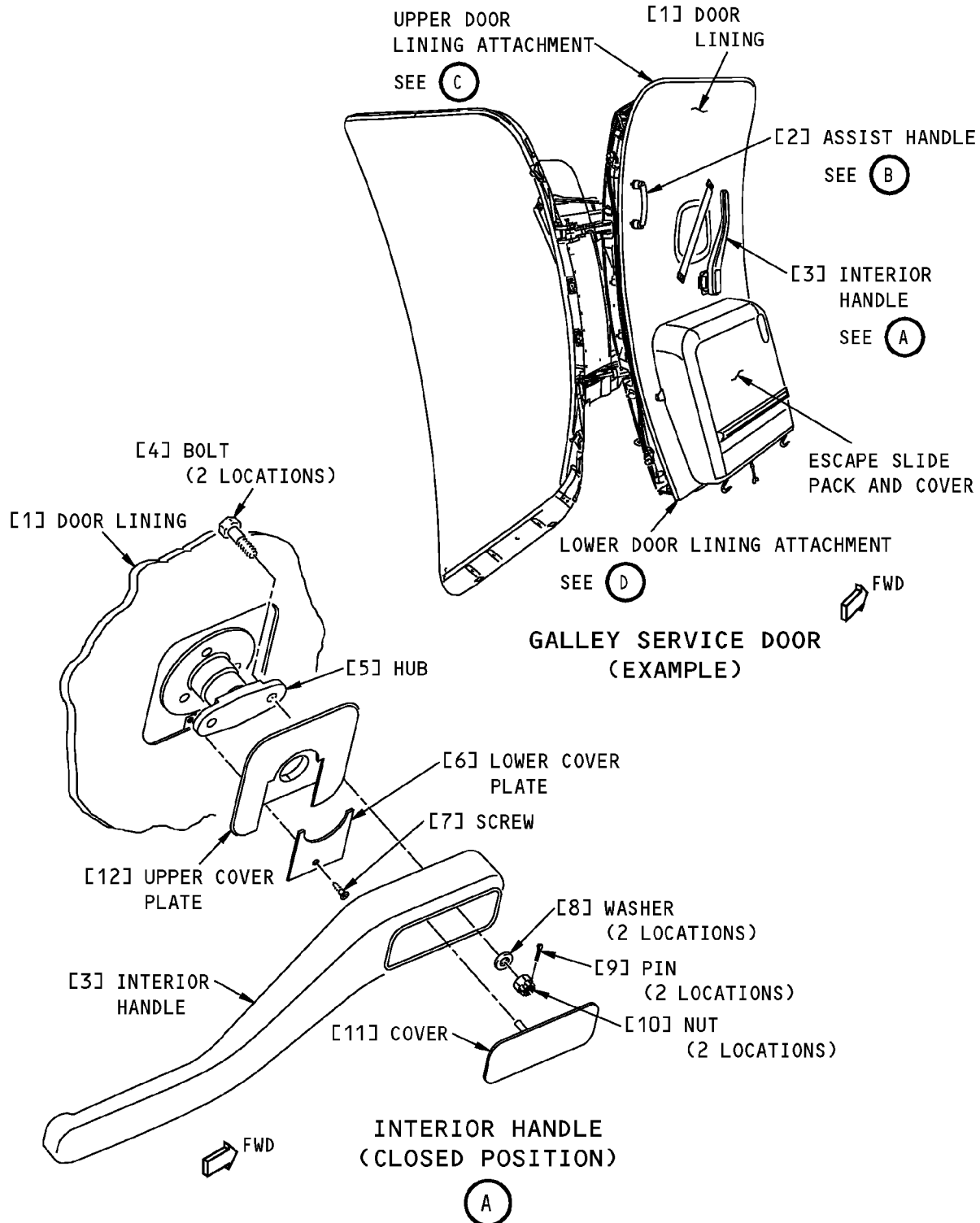
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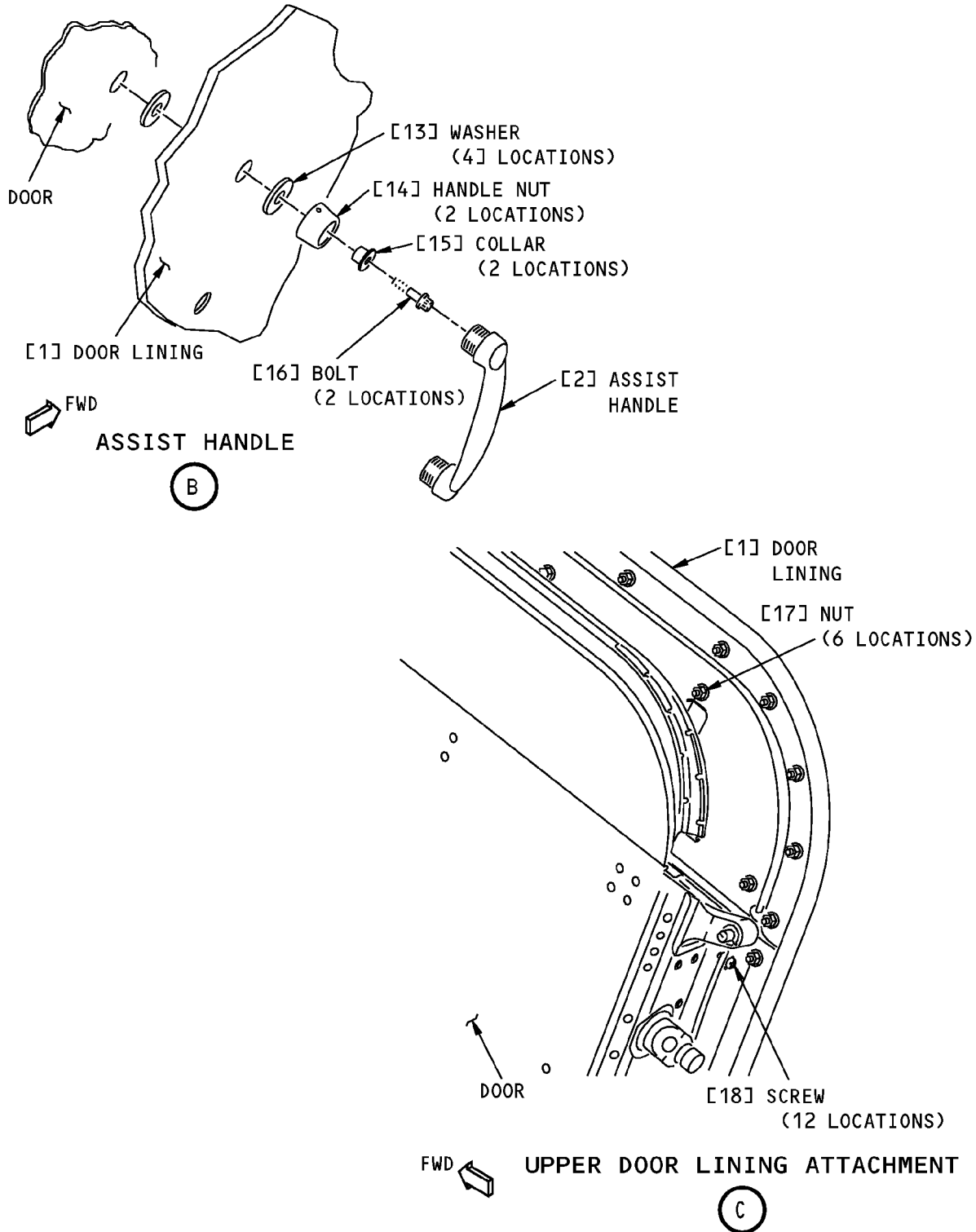


Galley Service Door Lining Installation
Figure 401 (Sheet 1 of 3)/52-41-31-990-802

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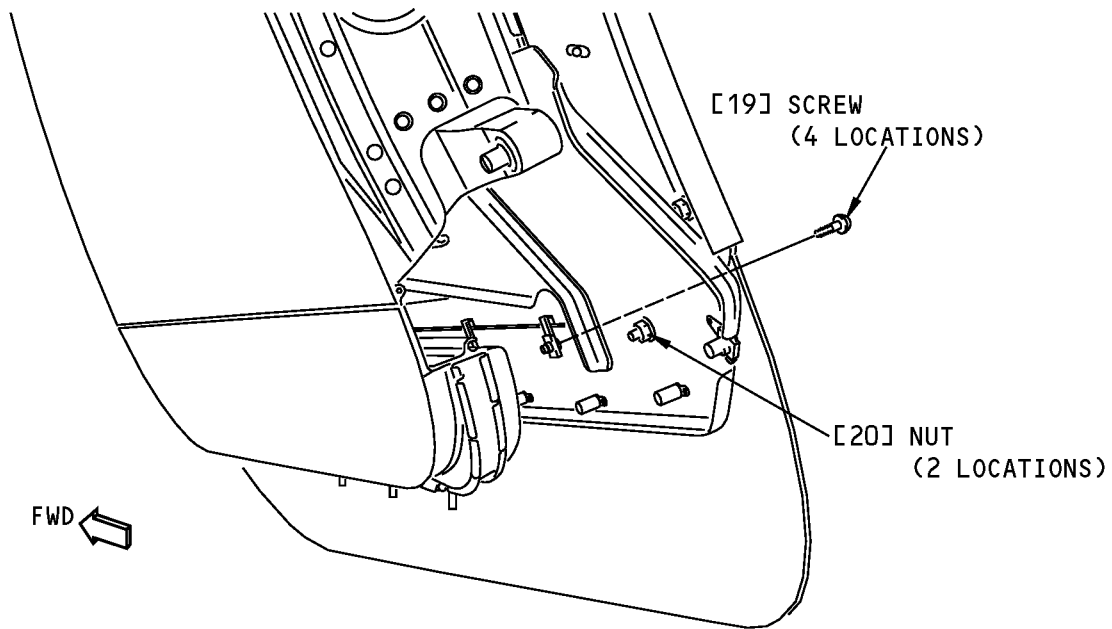


**Galley Service Door Lining Installation
Figure 401 (Sheet 2 of 3)/52-41-31-990-802**

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LOWER DOOR LINING ATTACHMENT

D

**Galley Service Door Lining Installation
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GALLEY SERVICE DOOR FUSELAGE HINGE TORQUE TUBE - REMOVAL/INSTALLATION

1. General

- A. This procedure has these tasks:
 - (1) A removal of the galley service door fuselage hinge torque tubes
 - (2) An installation of the galley service door fuselage hinge torque tubes.
- B. This procedure is the same for the forward or aft galley service door.
- C. The galley service door fuselage hinge torque tube is referred to as the torque tube in this procedure.

TASK 52-41-41-000-801

2. Galley Service Door Fuselage Hinge Torque Tube Removal

(Figure 401)

A. References

Reference	Title
52-41-00-000-801	Galley Service Door Removal (P/B 401)

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1523	Stand - Work, (B9) General Purpose, Working Height 4-21 Feet (Part #: B-9, Supplier: 05060, A/P Effectivity: 737-ALL)

C. Location Zones

Zone	Area
841	Forward Galley Service Door
844	Aft Galley Service Door

D. Access Panels

Number	Name/Location
222AR	Forward Galley Service Door Hinge and Torque Tube Access Panel
242AR	Aft Galley Service Door Hinge and Torque Tube Access Panel

E. Prepare for the Removal

SUBTASK 52-41-41-860-001

- (1) Make sure the door is safe as follows:
 - (a) Make sure the door is closed and latched.

WARNING: MAKE SURE THE GIRT BAR IS NOT ENGAGED IN THE FLOOR-MOUNTED ESCAPE SLIDE BRACKETS. IF THE GIRT BAR IS ENGAGED IN THE BRACKETS, THE ESCAPE SYSTEM CAN DEPLOY WHEN YOU OPEN THE DOOR AND INJURIES OR DAMAGE CAN OCCUR.

- (b) Make sure the girt bar is not engaged in the floor-mounted escape slide brackets.
- (c) Install the stand, COM-1523 outboard of the door.

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SUBTASK 52-41-41-010-001

(2) Do this task: Galley Service Door Removal, TASK 52-41-00-000-801.

SUBTASK 52-41-41-010-002

(3) Remove the applicable access panels to get access to the torque tubes [5] and [6]:

<u>Number</u>	<u>Name/Location</u>
222AR	Forward Galley Service Door Hinge and Torque Tube Access Panel
242AR	Aft Galley Service Door Hinge and Torque Tube Access Panel

F. Removal of the Galley Service Door Fuselage Hinge Torque Tube

SUBTASK 52-41-41-020-001

(1) Disconnect the torque tubes [5] and [6] from the upper and lower hinge pins [10] and [11]:

NOTE: You can make index marks across the joints to help make the installation easier.

- (a) Remove the bolts [7], washers [8], and nuts [9] that attach the torque tube [5] to the upper hinge pin [10].
- (b) Remove the bolts [7], washers [8], and nuts [9] that attach the torque tube [6] to the lower hinge pin [11].
- (c) If it is necessary, remove the lower hinge pin [11].

HAP 001-013, 015-026, 028-030

SUBTASK 52-41-41-020-003

(2) Remove the torque tubes [5] and [6] from the fuselage:

- (a) Remove the bolt [23], washer [22] and handle [24].
- (b) Remove the bolts [7], washers [8], and nuts [9] that connect the torque tubes [5] and [6] together.
- (c) Remove the flat spring [21] and retainer [20].
- (d) Move the collar [19] to the bottom of the torque tube.
- (e) Remove the bolts [12], washers [13] and [14] and nut [16] that hold fitting [25].
- (f) Push the torque tubes [5] and [6] together to make sufficient clearance to remove them from the fuselage structure.
- (g) Remove the torque tubes [5] and [6], spring [17], shaft [18], fitting [25], and collar [19] from the airplane.

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————— END OF TASK —————

TASK 52-41-41-400-801

3. Galley Service Door Fuselage Hinge Torque Tube Installation

(Figure 401)

A. References

Reference	Title
52-41-00-400-801	Galley Service Door Installation (P/B 401)

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B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1523	Stand - Work, (B9) General Purpose, Working Height 4-21 Feet (Part #: B-9, Supplier: 05060, A/P Effectivity: 737-ALL)

C. Consumable Materials

Reference	Description	Specification
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS 5-95
D00015	Grease - Aircraft Bearing (Use BMS 3-24 until existing stocks are depleted, BMS 3-33 supersedes BMS 3-24)	BMS3-24 (Superseded by BMS 3-33)

D. Location Zones

Zone	Area
841	Forward Galley Service Door
844	Aft Galley Service Door

E. Access Panels

Number	Name/Location
222AR	Forward Galley Service Door Hinge and Torque Tube Access Panel
242AR	Aft Galley Service Door Hinge and Torque Tube Access Panel

F. Installation of the Galley Service Door Fuselage Hinge Torque Tube

SUBTASK 52-41-41-420-001

- (1) Connect the torque tubes [5] and [6]:
 - (a) Apply grease, D00015 to the mating surfaces of the torque tubes [5] and [6].
 - (b) Put the upper torque tube [5] into the lower torque tube [6].
 - (c) Push the torque tubes [5] and [6] together a sufficient distance to fit into the fuselage frame.

SUBTASK 52-41-41-420-007

- (2) If the lower hinge pin [11] was removed, do these steps:
 - (a) Apply grease, D00015 to the mating surfaces of the hinge pin [11] and stop link [27].
 - (b) Put the stop link [27] is in its correct position.
 - (c) Put the washer [28] on the top of the stop link [27].
 - (d) Install the washer [26] over the small end of the hinge pin [11].
 - (e) Put the lower hinge pin [11] through the fuselage frame and stop link [27].
 - (f) Install a new packing [25], nylon washer [24], and spring washer [23] over the hinge pin [11].

HAP 001-013, 015-026, 028-030

SUBTASK 52-41-41-420-005

- (3) Install the torque tubes [5] and [6] in the fuselage:

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HAP 001-013, 015-026, 028-030 (Continued)

- (a) Apply grease, D00015 to the mating surfaces of the torque tubes [5] and [6], and hinges [10] and [11].
- (b) Put the fitting [25], spring [17], and shaft [18] on the upper torque tube [5].
- (c) Put the collar [19] on the lower torque tube [6].
- (d) Put the torque tubes [5] and [6], and fitting [25] in the fuselage frame.
- (e) Install the bolts [12], washers [13] and [14] and nut [16] that hold the fitting [25] to the fuselage.
- (f) Pull the torque tubes [5] and [6] apart to move the ends of the torque tubes fully over the hinges [10] and [11].
- (g) Align the bolt holes in the mating ends of the torque tubes [5] and [6].
- (h) Align the collar [19] with the mating holes in the torque tubes [5] and [6].
- (i) Install the flat spring [21], retainer [20] and collar [19] with the bolts [7], washers [8] and nuts [9].

NOTE: Make sure the heads of the bolts [7] point inboard.

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SUBTASK 52-41-41-420-003

- (4) Connect the torque tubes [5] and [6] to the hinge pins [10] and [11]:
 - (a) Align the bolt holes in the ends of the torque tubes [5] and [6] with the bolt holes in the hinge pins [10] and [11].
 - (b) Install the bolts [7], washers [8], and nuts [9] to attach the torque tube [5] to the upper hinge pin [10].
 - (c) Install the bolts [7], washers [8], and nuts [9] to attach the torque tube [6] to the lower hinge pin [11].
 - (d) If it is necessary, add washers [26] to get the correct clearance.

HAP 001-013, 015-026, 028-030

SUBTASK 52-41-41-420-006

- (5) Install the handle [24]:
 - (a) Apply sealant, A00247 between the shaft [18] and handle [24].
 - (b) Install the handle [24], bolt [23] and washer [22].

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G. Put the Airplane Back to Its Usual Condition

SUBTASK 52-41-41-410-003

- (1) Install the applicable access panels:

<u>Number</u>	<u>Name/Location</u>
222AR	Forward Galley Service Door Hinge and Torque Tube Access Panel
242AR	Aft Galley Service Door Hinge and Torque Tube Access Panel

SUBTASK 52-41-41-420-004

- (2) Do this task: Galley Service Door Installation, TASK 52-41-00-400-801.

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SUBTASK 52-41-41-080-001

(3) Remove the stand, COM-1523.

————— **END OF TASK** —————

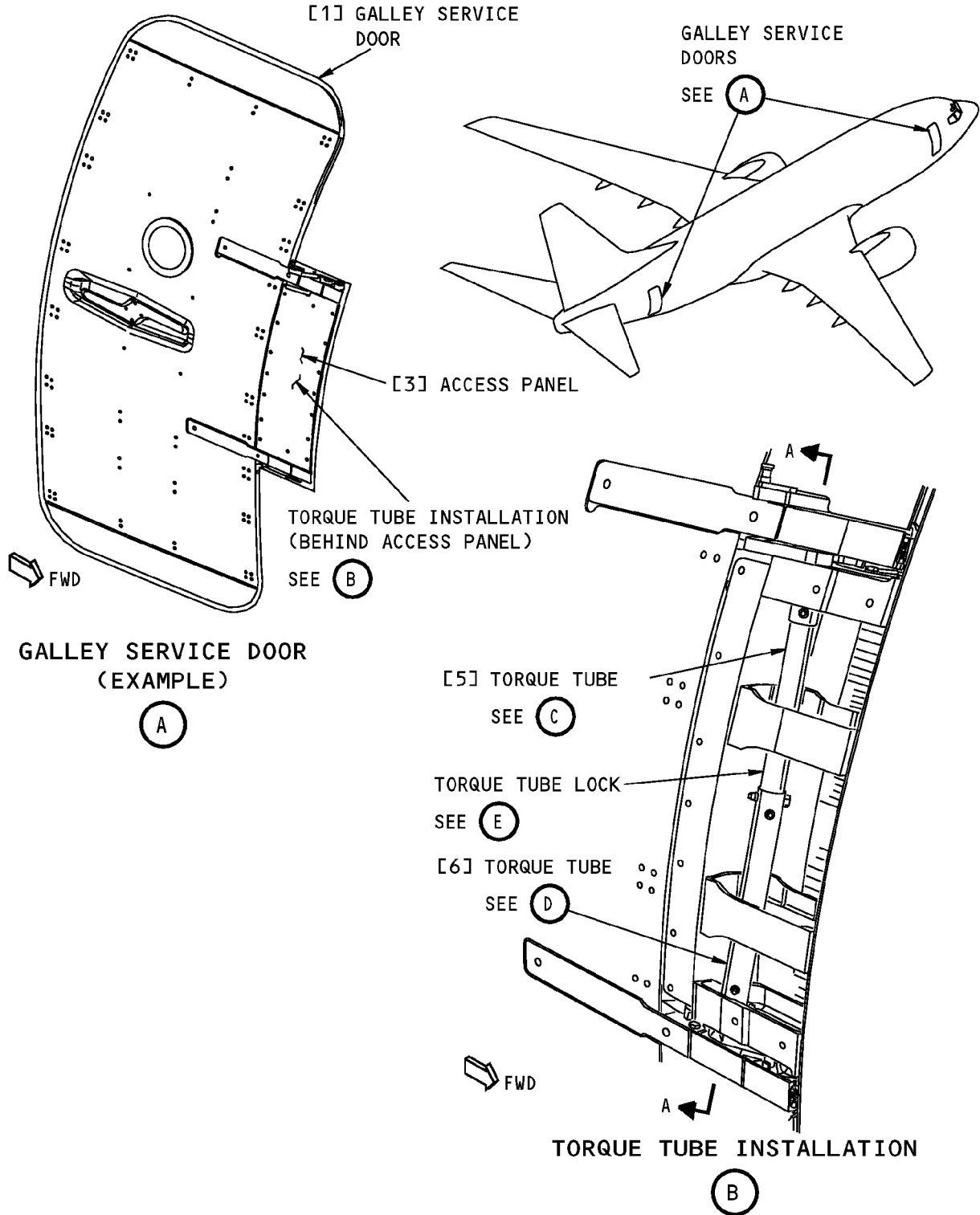
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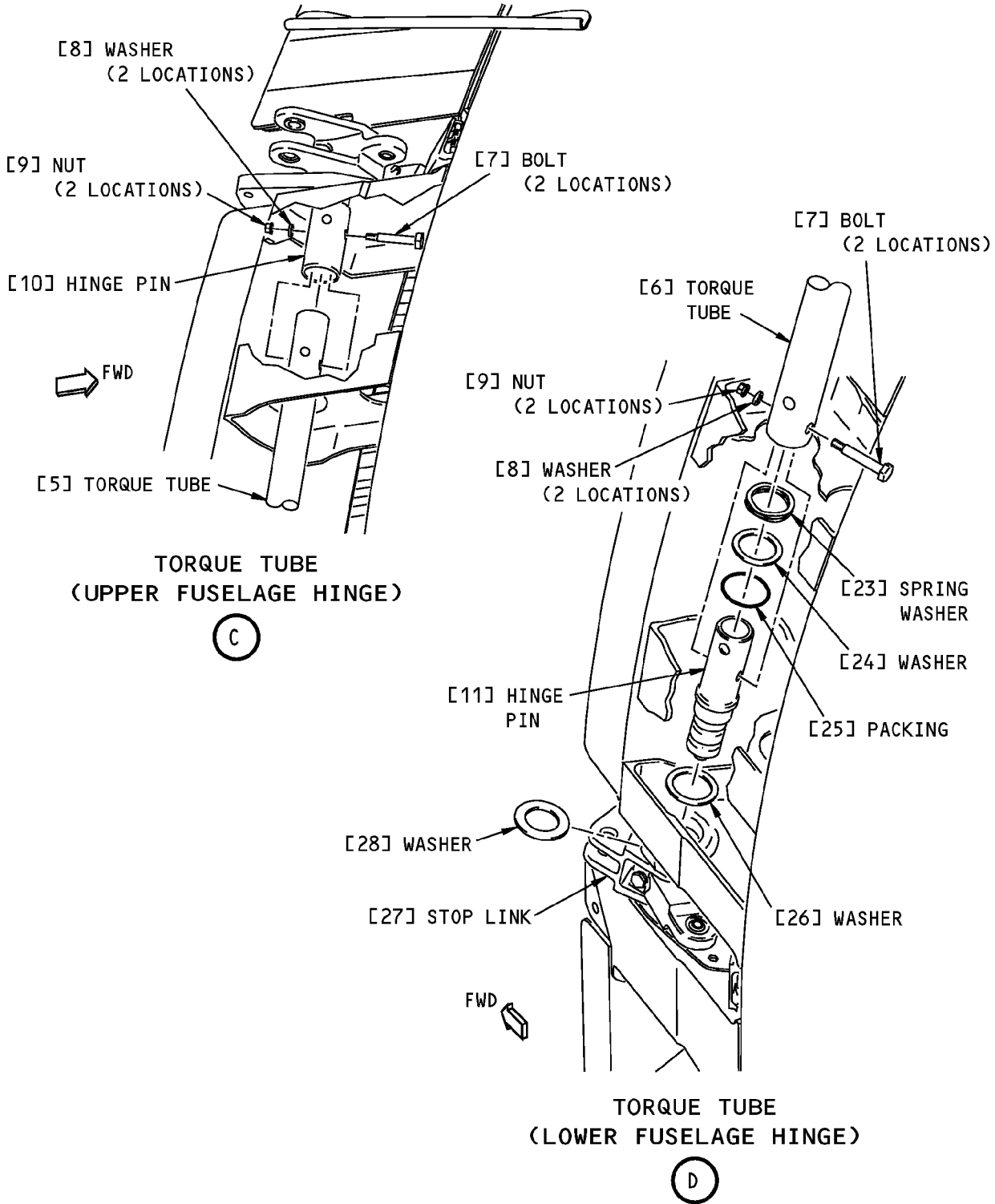
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**Galley Service Door Fuselage Hinge Torque Tube Installation
Figure 401 (Sheet 1 of 4)/52-41-41-990-801**

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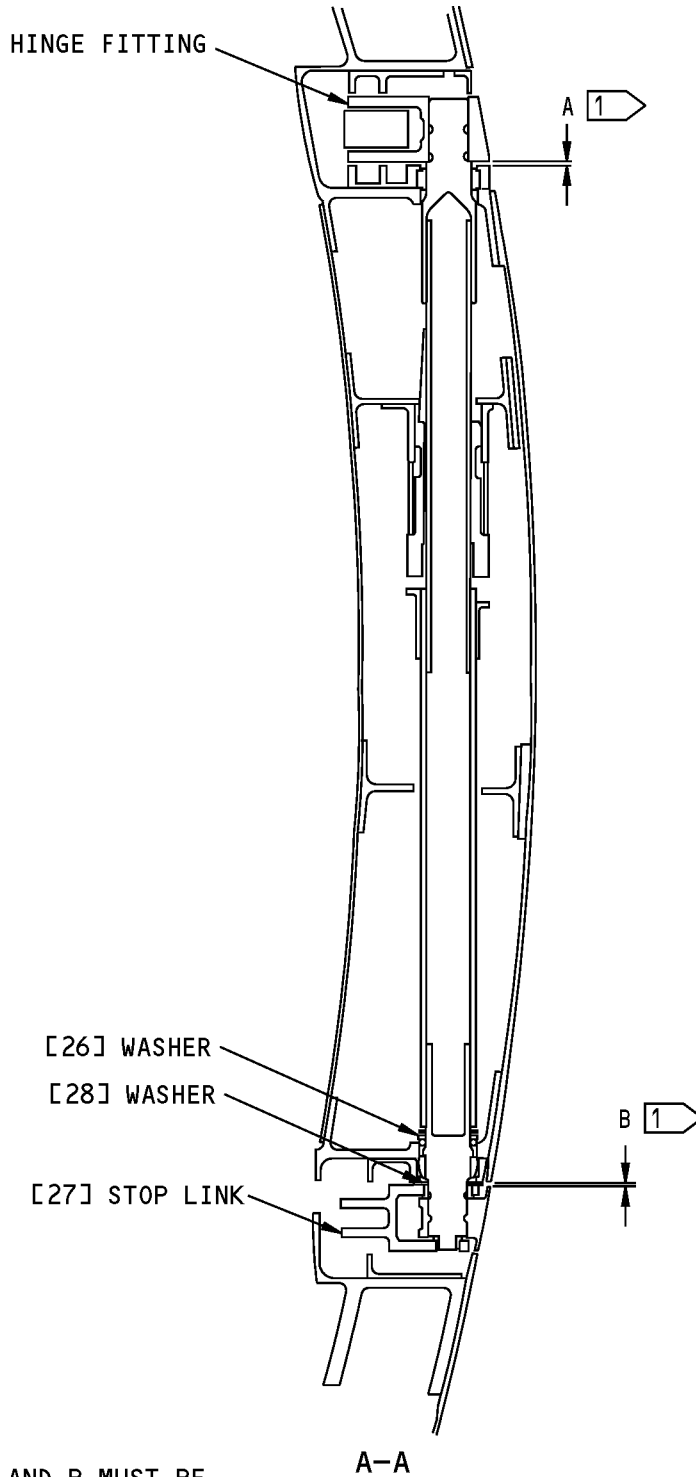


**Galley Service Door Fuselage Hinge Torque Tube Installation
Figure 401 (Sheet 2 of 4)/52-41-41-990-801**

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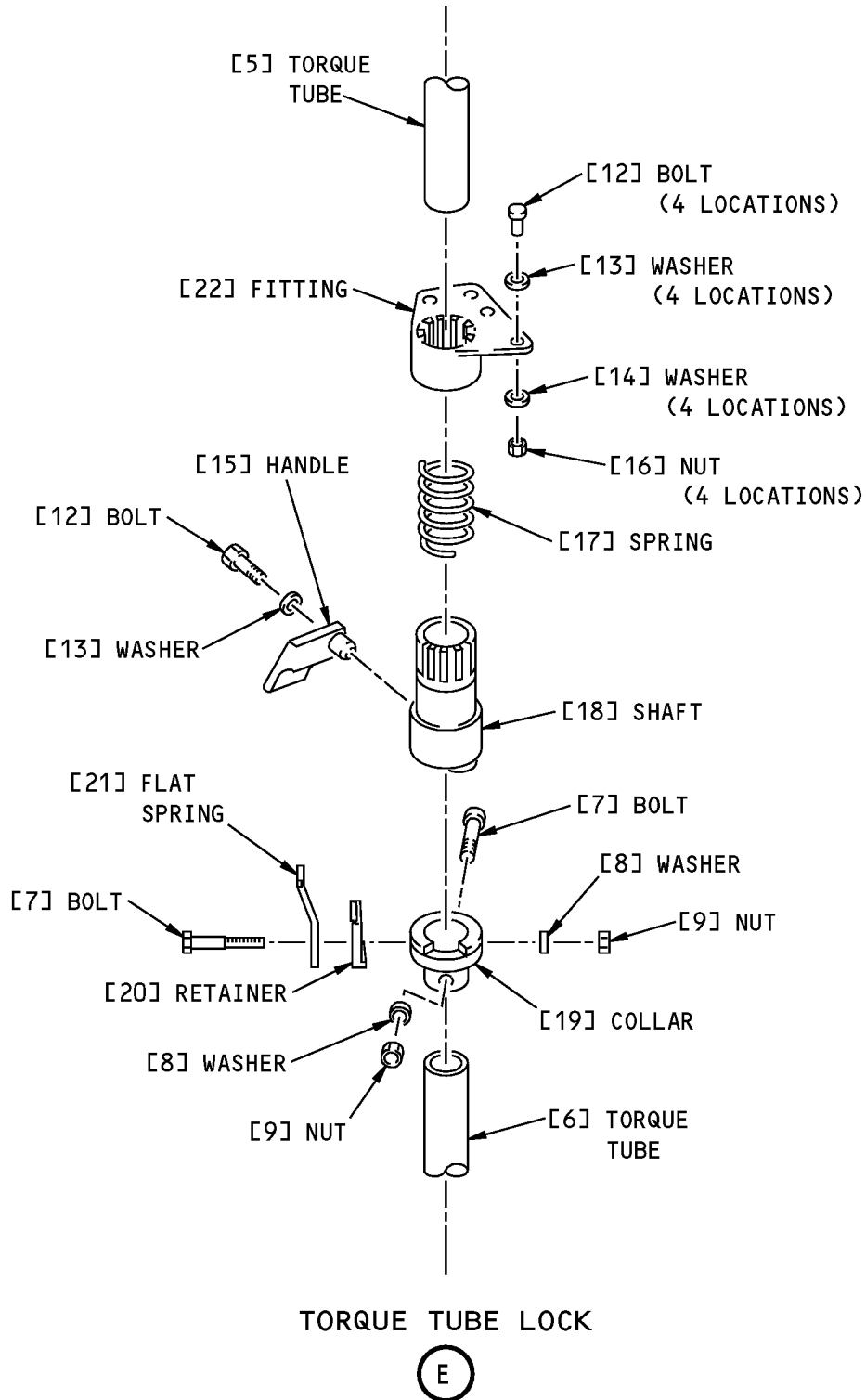
1 CLEARANCES A AND B MUST BE
EQUAL TO ± 0.03 INCH (± 0.762 mm)

**Galley Service Door Fuselage Hinge Torque Tube Installation
Figure 401 (Sheet 3 of 4)/52-41-41-990-801**

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**Galley Service Door Fuselage Hinge Torque Tube Installation
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GALLEY SERVICE DOOR SNUBBER - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

- (1) A removal of the galley service door snubber.
- (2) An installation of the galley service door snubber.
- (3) The forward entry door will be call the door in this procedure.

TASK 52-41-51-000-801

2. Galley Service Door Snubber Removal

(Figure 401)

A. References

Reference	Title
52-41-31-000-802	Galley Service Door Lining Removal (P/B 401)

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1523	Stand - Work, (B9) General Purpose, Working Height 4-21 Feet (Part #: B-9, Supplier: 05060, A/P Effectivity: 737-ALL)

C. Location Zones

Zone	Area
841	Forward Galley Service Door
844	Aft Galley Service Door

D. Access Panels

Number	Name/Location
841GZ	Forward Galley Service Door - Torque Tube Access
844GZ	Aft Galley Service Door - Torque Tube Access

E. Prepare for the Removal

SUBTASK 52-41-51-860-001

- (1) Make sure the door is safe as follows:
 - (a) Make sure the door is closed and latched.

WARNING: MAKE SURE THE GIRT BAR IS NOT ENGAGED IN THE FLOOR-MOUNTED ESCAPE SLIDE BRACKETS. IF THE GIRT BAR IS ENGAGED IN THE BRACKETS, THE ESCAPE SYSTEM CAN DEPLOY WHEN YOU OPEN THE DOOR AND INJURIES OR DAMAGE CAN OCCUR.

- (b) Make sure the girt bar is not engaged in the floor-mounted escape slide brackets.
- (c) Install the stand, COM-1523 outboard of the door.
- (d) Put the galley service door in the full open position.

SUBTASK 52-41-51-010-001

- (2) If necessary, do this task: Galley Service Door Lining Removal, TASK 52-41-31-000-802.

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SUBTASK 52-41-51-010-002

(3) Remove the access panels:

<u>Number</u>	<u>Name/Location</u>
841GZ	Forward Galley Service Door - Torque Tube Access
844GZ	Aft Galley Service Door - Torque Tube Access

F. Removal of the Galley Service Door Snubber

SUBTASK 52-41-51-020-001

CAUTION: DO NOT MOVE THE DOOR WITH THE SNUBBER REMOVED. THE DOOR MAY MOVE QUICKLY WITH THE SNUBBER REMOVED. IF THE DOOR MOVES QUICKLY TO THE OPEN OR CLOSED POSITION IT MAY CAUSE DAMAGE TO THE EQUIPMENT.

- (1) Do these steps to remove the snubber (7) from the door:
 - (a) Remove the bolt (1), washers (2), nut (3), and cotter pin (4) that attach the snubber (7) to the fuselage.

NOTE: Write down the location of the washers on the bolt.

- (b) Make a line to show the alignment of the snubber attachment fitting (8) to the door.
- (c) Remove the nuts (10) and bolts (9) from the snubber attachment fitting (7).
- (d) Remove the snubber (2) and the attachment fitting (7) from the door (1).
- (e) Remove the snubber (7) from the snubber attach fitting (8).

NOTE: Write down the location of the washers on the bolt.

————— **END OF TASK** —————

TASK 52-41-51-400-801

3. Galley Service Door Snubber Installation

(Figure 401)

A. References

<u>Reference</u>	<u>Title</u>
20-50-11-910-801	Standard Torque Values (P/B 201)
52-41-31-400-802	Galley Service Door Lining Installation (P/B 401)

B. Consumable Materials

<u>Reference</u>	<u>Description</u>	<u>Specification</u>
G01912	Lockwire - Monel (0.032 In. Dia.)	NASM20995N~ C32 (QQ-N-281)

C. Location Zones

<u>Zone</u>	<u>Area</u>
841	Forward Galley Service Door
844	Aft Galley Service Door

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D. Access Panels

Number	Name/Location
841GZ	Forward Galley Service Door - Torque Tube Access
844GZ	Aft Galley Service Door - Torque Tube Access

E. Installation of the Galley Service Door Snubber

SUBTASK 52-41-51-420-001

CAUTION: DO NOT MOVE THE DOOR WITH THE SNUBBER REMOVED. THE DOOR MAY MOVE QUICKLY WITH THE SNUBBER REMOVED. IF THE DOOR MOVES QUICKLY TO THE OPEN OR CLOSED POSITION IT MAY CAUSE DAMAGE TO THE EQUIPMENT.

(1) Do these steps to install the snubber (7) on the door:

I HAP 001-013, 015-026, 028-043, 101

(a) Set the initial length of the snubber as follows:

- 1) Loosen the jam nut (6) on the snubber rod end (5).
- 2) Turn the snubber rod end (5) to set the length of the rod to 0.26 inch (0.661 mm).

NOTE: Measure from the bottom of the rod end to the top of the jam nut.

- 3) Tighten the jam nut (6).

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CAUTION: MAKE SURE TO INSTALL THE SNUBBER WITH THE WIDE SIDE OF THE SNUBBER INBOARD. IF THE SNUBBER IS NOT INSTALLED WITH THE WIDE SIDE INBOARD, THE SNUBBER WILL CONTACT THE HINGE ARM WHEN THE DOOR IS CLOSED. THIS WILL CAUSE DAMAGE TO THE EQUIPMENT.

- (b) Install the snubber (7) to the snubber attachment fitting (8). To install it, refer to (TASK 20-50-11-910-801).
- (c) Install the snubber attachment fitting (8) to the door.

I HAP 044-054, 102-999

- 1) Install the snubber attachment fitting with the snubber fluid fill plug recess pointed down.

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- 2) Tighten the bolts (9) and nuts (10). Refer to (TASK 20-50-11-910-801).
- (d) Install the bolt (1), washers (2), nut (3), and cotter pin (4) that attach the snubber (7) to the fuselage structure, do this task: Standard Torque Values, TASK 20-50-11-910-801.
- (e) Do an installation test on the snubber.

F. Snubber Installation Test

SUBTASK 52-41-51-710-001

- (1) Do an installation test on the snubber as follows:
 - (a) Make sure that the door is fully open with the hold open lock engaged.
 - (b) Make sure that more extension is available on the snubber (7).
 - (c) Move the door to the closed position.
 - (d) Make sure that the snubber (7) does not bottom out with the door in the closed position.
 - (e) If required, adjust the length of the snubber (7).

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- (f) Make sure that the jam nut (6) is tight. Refer to (TASK 20-50-11-910-801).
- (g) Install the lockwire, G01912 on the jam nut (6).

G. Put the Airplane Back to its Usual Condition

SUBTASK 52-41-51-410-001

- (1) Install these access panels:

<u>Number</u>	<u>Name/Location</u>
841GZ	Forward Galley Service Door - Torque Tube Access
844GZ	Aft Galley Service Door - Torque Tube Access

SUBTASK 52-41-51-410-002

- (2) If necessary, do this task: Galley Service Door Lining Installation, TASK 52-41-31-400-802

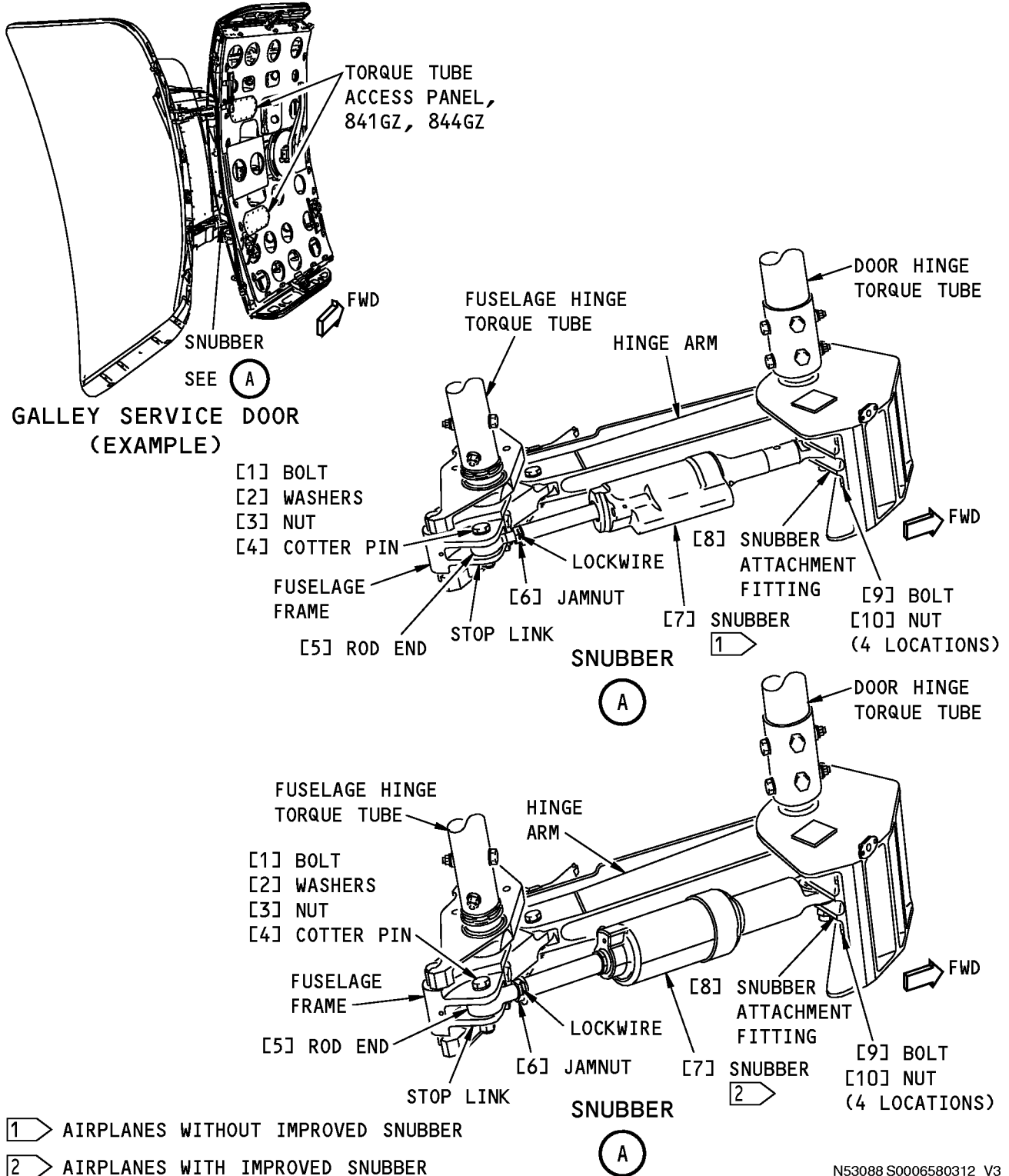
————— **END OF TASK** —————

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Snubber Adjustment
Figure 401/52-41-51-990-801

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AUXILIARY POWER UNIT (APU) COWL DOOR - REMOVAL/INSTALLATION

1. General

- A. This procedure has these tasks:
 - (1) A removal of the auxiliary power unit (APU) cowl door.
 - (2) An installation of the auxiliary power unit (APU) cowl door.
- B. The APU cowl door is referred to as the door in this procedure.

TASK 52-48-21-000-801

2. Auxiliary Power Unit (APU) Cowl Door Removal

(Figure 401)

A. References

Reference	Title
26-15-01-000-801	APU Overheat Detector Element Removal (P/B 401)

B. Location Zones

Zone	Area
315	APU Compartment - Left

C. Prepare for the Removal

SUBTASK 52-48-21-010-001

- (1) Open the door [1]:
 - (a) Hold the door [1] and release the latches [2].
 - (b) Slowly let the door [1] open.
 - (c) Make sure the ends of the hold-open rods [5] are safely held to the door [1] by the spring clips [4] and retention cables [3].

D. Removal of the door

SUBTASK 52-48-21-020-001

- (1) Disconnect the APU fire detection electrical connector [6] from the APU door [1], do this task: APU Overheat Detector Element Removal, TASK 26-15-01-000-801.

SUBTASK 52-48-21-020-002

- (2) Disconnect the door [1] at the hinges [7]:
 - (a) Remove the bolts [12], washers [14], and washers [13] that connect the bonding jumpers [11] to the door [1].

CAUTION: HOLD THE DOOR FIRMLY. THE LEVER ARM HOLDS THE HINGE TO THE HINGE PIVOT BOLT WHEN THE DOOR IS OPEN. IF YOU DO NOT OBEY THIS PRECAUTION, DAMAGE TO THE DOOR CAN OCCUR.

- (b) Hold the door [1] in the open position.
- (c) Remove the bolts [15] and nuts [21] that attach the lower end of the lever arms to the hinges [7].
- (d) Move the door [1] horizontally inboard until the hinges [7] are clear of the hinge fittings [10].
- (e) Remove the door [1] from the airplane.

————— **END OF TASK** —————

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TASK 52-48-21-400-801

3. Auxiliary Power Unit (APU) Cowl Door Installation

(Figure 401)

A. References

Reference	Title
26-15-01-400-801	APU Overheat Detector Element Installation (P/B 401)

B. Consumable Materials

Reference	Description	Specification
C00259	Primer - Chemical And Solvent Resistant Finish, Epoxy Resin	BMS10-11, Type I

C. Location Zones

Zone	Area
315	APU Compartment - Left
316	APU Compartment - Right

D. Installation of the APU Cowl Door

SUBTASK 52-48-21-410-001

- (1) Connect the door [1] at the hinges [7]:
 - (a) Hold the door [1] in the open position.
 - (b) Align the hinges [7] on the door [1] with the hinge fittings [10] on the empennage structure.
 - (c) Lower the door [1] until the hinges [7] touch the bolts [8] in the hinge fittings [11].
 - (d) Move the door [1] horizontally outboard until the hinges [7] touch the bolts [8].
 - (e) Make sure the door [1] is correctly in place.
 - (f) Attach the lower end of the lever arms [9] to the hinges [7] with bolts [15] and nuts [21].
 - (g) Install the bolts [12], washers [14], and washers [13] to connect the bonding jumpers [11] to the door [1].

SUBTASK 52-48-21-420-001

- (2) Connect the APU fire detection electrical connector [6] to the door [1], do this task: APU Overheat Detector Element Installation, TASK 26-15-01-400-801.

SUBTASK 52-48-21-860-001

- (3) Close and latch the door [1].

SUBTASK 52-48-21-280-001

- (4) Do a check of the door [1]:

CAUTION: ONLY USE HAND PRESSURE TO CLOSE THE LATCHES AND DO NOT USE TOOLS. IF TOOLS ARE USED, DAMAGE TO THE LATCHES CAN OCCUR.

- (a) Make sure the force to close each latch [2] is 20 ± 5 pounds (89 ± 22 newtons) with the other latches [2] closed.
- (b) If the force is out of tolerance, do one of these adjustments:
 - 1) Adjust the stop bolt [19] to get the correct force.

NOTE: The head of the stop bolt [19] may be reversed to get the maximum clearance to the door structure.

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- 2) Adjust the laminated shim [17] under the latch fitting [18]:
 - a) Remove the bolts [20], bolts [21], washers [16], and washers [15] to get access to the laminated shim [17] between the latch fitting [18] and the empennage structure.
 - b) Install a new laminated shim [17] or remove laminations from the laminated shim [17] to get the correct force.
 - c) Apply primer, C00259 to the bare laminations of the laminated shim [17] before installation.
 - d) Install the bolts [20], bolts [21], washers [16], and washers [15] to hold the laminated shim [17] between the latch fitting [18] and the empennage structure.

SUBTASK 52-48-21-710-001

- (5) Do a test on the door [1] as follows:
 - (a) Close and latch the door [1].
 - (b) Make sure the latches [2] operate correctly.
 - (c) Make sure the door [1] opens and closes smoothly.
 - (d) Make sure the hold-open rods [5] operate correctly.

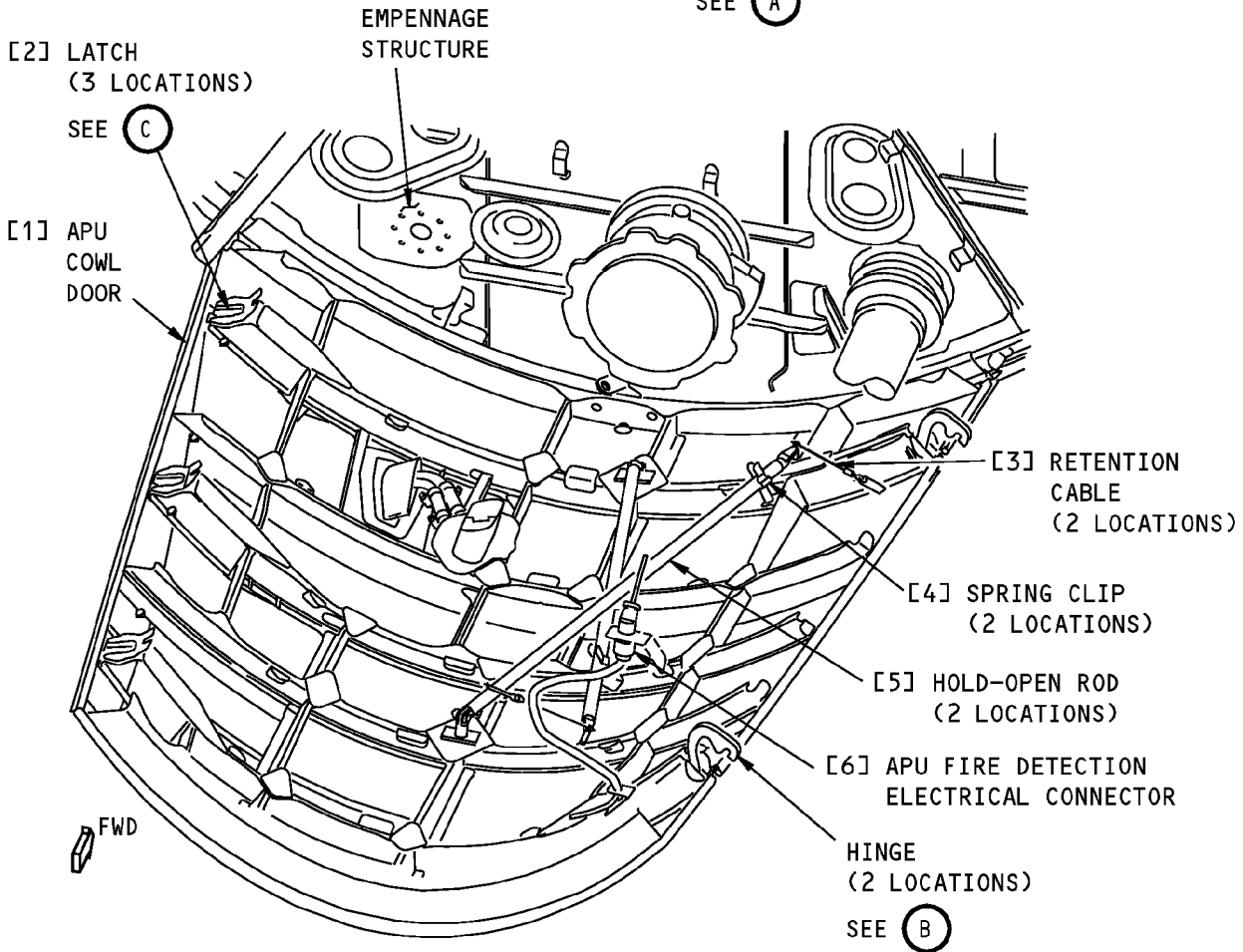
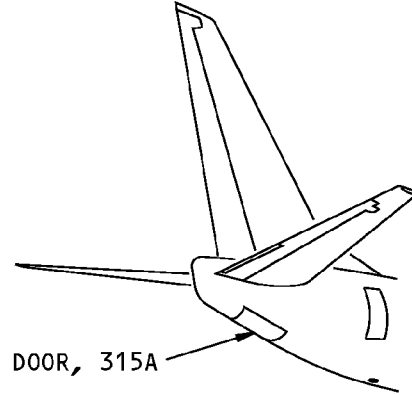
————— **END OF TASK** —————

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**APU COWL DOOR
(INTERNAL SIDE, CLOSED POSITION)**

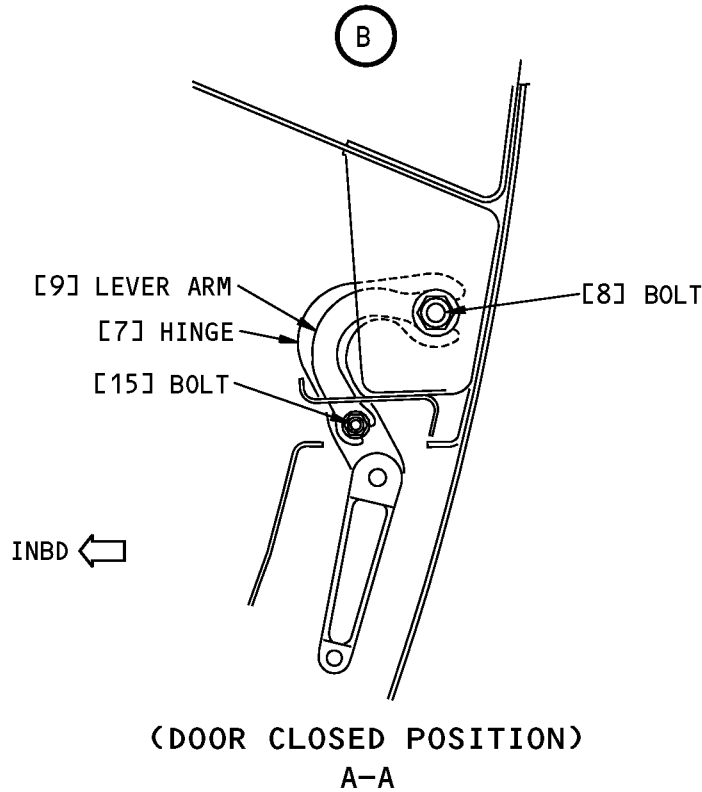
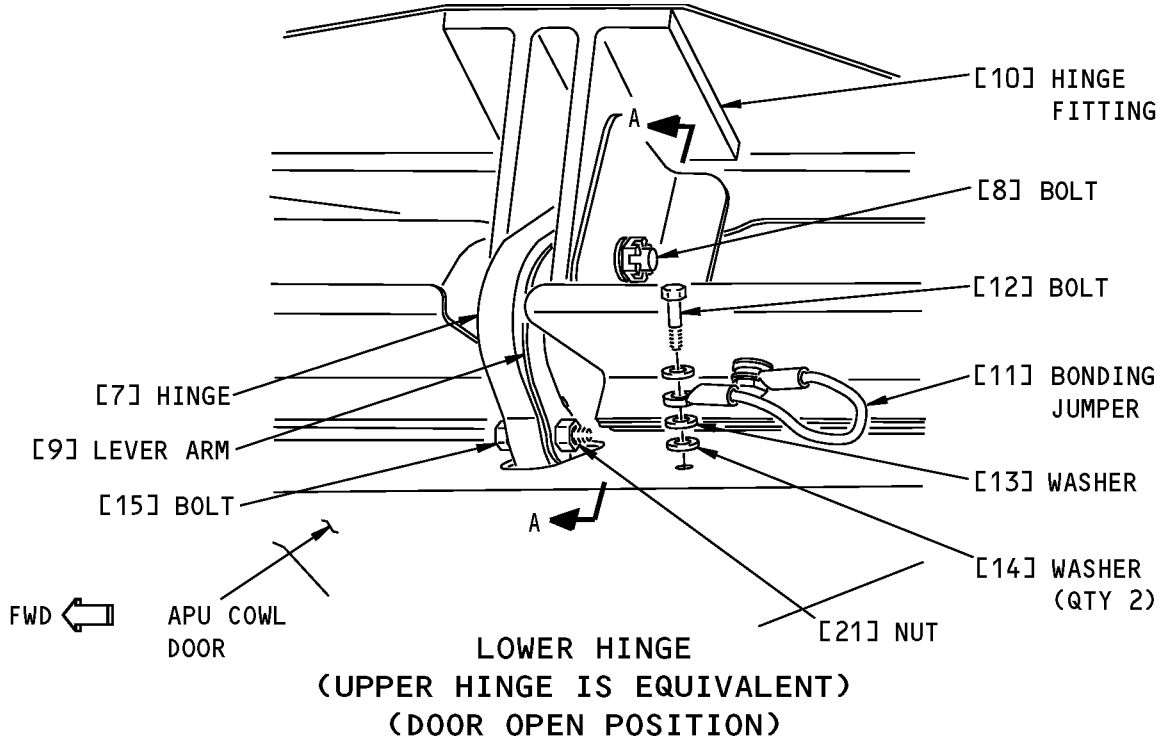
(A)

**Auxiliary Power Unit (APU) Cowl Door Installation
Figure 401 (Sheet 1 of 3)/52-48-21-990-801**

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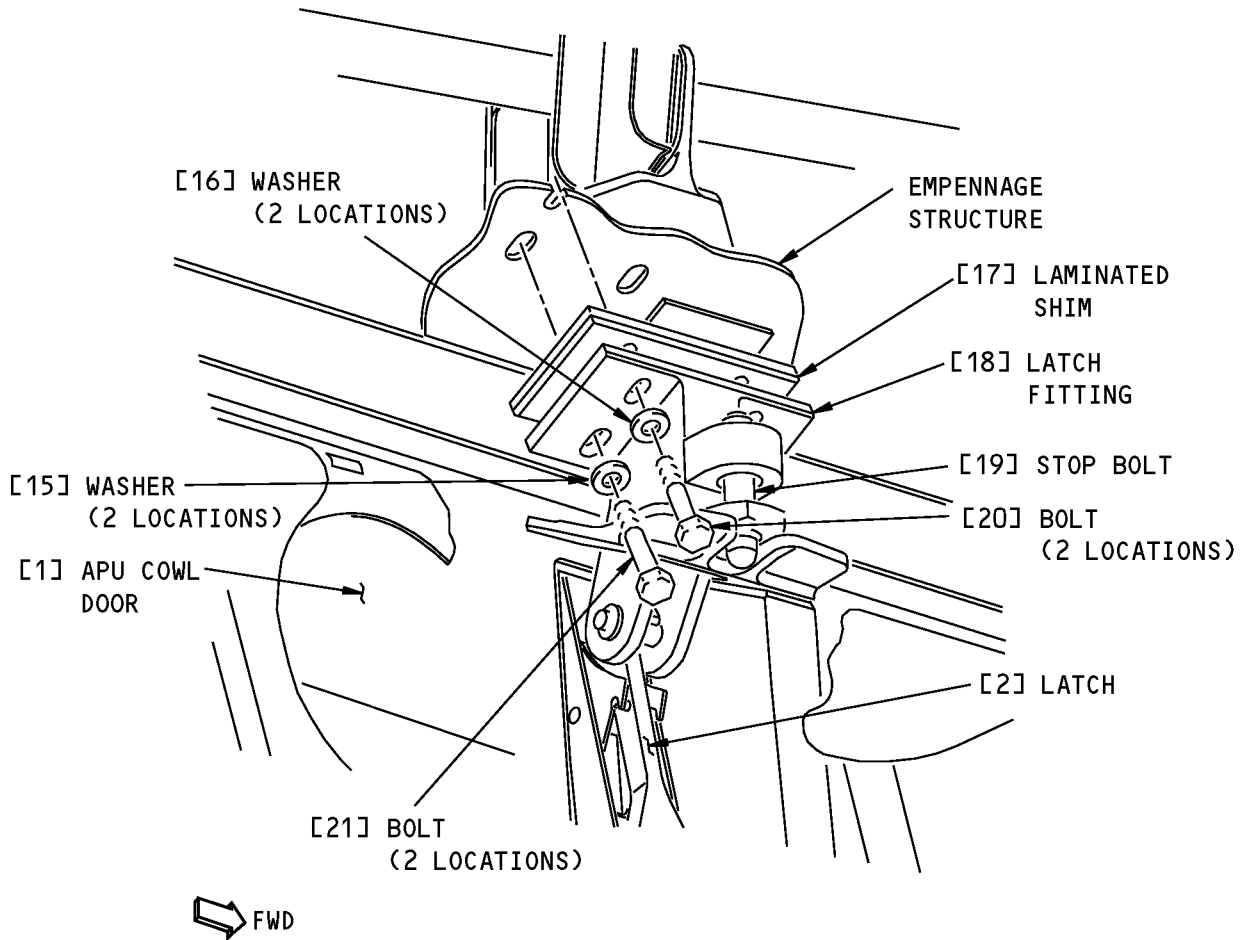
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Auxiliary Power Unit (APU) Cowl Door Installation
Figure 401 (Sheet 2 of 3)/52-48-21-990-801

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**UPPER LATCH
(MIDDLE AND LOWER LATCHES ARE EQUIVALENT)
(DOOR CLOSED POSITION)**

C

**Auxiliary Power Unit (APU) Cowl Door Installation
Figure 401 (Sheet 3 of 3)/52-48-21-990-801**

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FORWARD ACCESS DOOR - MAINTENANCE PRACTICES

1. General

A. This procedure contains one task, Forward Access Door Corrosion Prevention.

TASK 52-48-31-600-801

2. Forward Access Door Corrosion Prevention

A. References

Reference	Title
12-25-41-640-802	Forward Access Door Servicing (P/B 301)

B. Consumable Materials

Reference	Description	Specification
G00009	Compound - Organic Corrosion Inhibiting	BMS3-23

C. Location Zones

Zone	Area
112	Area Forward of Nose Landing Gear Wheel Well

D. General

SUBTASK 52-48-31-800-001

- (1) Corrosion may occur on the internal and external surfaces of the door structure. Especially the connection points and the door mechanism.
- (2) The door and the door frame should be treated at the same time.
- (3) Some items in this section maybe subject to the mandatory requirements for corrosion prevention and control programs for aging airplanes.
- (4) Corrosion Prevention
 - (a) Inspect the door.
 - (b) Look for missing fasteners, white powdery deposits, and discolorations, as signs of corrosion.
 - 1) If signs of corrosion are found, then a corrosion prevention program should be started to prevent the build up of corrosion products.
 - 2) If corrosion products are allowed to build up, then they will cause further corrosion.
 - (c) After the corrosion products are cleaned, make sure that the protective finishes are serviceable.
 - 1) If only minor corrosion is found, then make sure that the area is clean.
 - 2) Apply corrosion inhibiting compound on the affected area.
 - 3) Make sure that the protective finish is restored at the first opportunity that is consistent with the airplanes maintenance schedule.
- (5) Frequency of Application
 - (a) Periodic inspection is required to areas identified as prone to corrosion and should be scheduled to your Maintenance Planning Document.
 - (b) Periodic application of BMS 3-23 compounds are necessary to areas identified as prone to corrosion and should be scheduled to your Maintenance Planning Document.
 - 1) Do the prevention treatment to the exterior surface of the door at the same recommended interval as the exterior surface of the fuselage.

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E. Corrosion Prevention

SUBTASK 52-48-31-620-001

(1) Prevention Treatment

- (a) Clean the drains and drain paths.
- (b) Examine the door to find corrosion and damage to the protective finish.
 - 1) Remove or repair any corrosion that you find.
- (c) Apply corrosion inhibiting compound, G00009 to the interior surfaces of the door.
 - 1) Make sure that the corrosion inhibiting compound, G00009 completely covers the surfaces.
- (d) Apply corrosion inhibiting compound, G00009 to the door frame and the upper and lower web.
- (e) If it is necessary, apply corrosion inhibiting compound, G00009 to the exterior surfaces of the door.
- (f) Lubricate the door. Forward Access Door Servicing, TASK 12-25-41-640-802
- (g) Doors with drain valves, do these steps:
 - 1) Clean the drain hole.
 - 2) Examine the drain seal or plunger for alignment and freedom of movement.
 - a) If it is necessary, remove the drain valve from the door and clean the debris.
< 1 > If it is necessary, replace the drain valve.
 - b) Install the drain valve.

CAUTION: DO NOT APPLY MORE THAN THE MAXIMUM SPECIFIED TORQUE WHEN YOU TIGHTEN THE PARTS. DAMAGE TO THE PARTS CAN OCCUR IF YOU APPLY TOO MUCH TORQUE.

< 1 > Tighten the fasteners to 10 to 15 pound inches (1.1-1.7 Nm).

————— **END OF TASK** —————

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FORWARD ACCESS DOOR - REMOVAL/INSTALLATION

1. General

- A. This procedure has these tasks:
 - (1) A removal of the forward access door.
 - (2) An installation of the forward access door.
- B. The forward access door is referred to as the door in this procedure.

TASK 52-48-31-000-801

2. Forward Access Door Removal

(Figure 401)

A. Location Zones

Zone	Area
112	Area Forward of Nose Landing Gear Wheel Well

B. Prepare for the Removal

SUBTASK 52-48-31-010-001

- (1) Open the forward access door [1] and engage the hold-open lock [3].

C. Removal of the Forward Access Door

SUBTASK 52-48-31-020-001

- (1) Remove the door [1]:
 - (a) Hold the door [1].
 - (b) Remove the bolts [20], washers [21], bushings [23], washers [24], washers [25], washers [26], washers [27], nuts [28], and pins [29] that attach the hinges [2] to the hinge support fittings [22].
 - (c) Remove the door [1] from the airplane.

————— **END OF TASK** —————

TASK 52-48-31-400-801

3. Forward Access Door Installation

(Figure 401)

A. General

- (1) Make sure the airplane fuselage is supported by its landing gear.

B. References

Reference	Title
52-71-41-710-801	Forward Access Door Indication Switch Test (P/B 201)

C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-754	Scale - Spring, 0-150 Pounds, With Hook and Pad Adapter Kit (Part #: DG-200, Supplier: 92456, A/P Effectivity: 737-ALL) (Part #: DPPH-150, Supplier: 92456, A/P Effectivity: 737-ALL)

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D. Consumable Materials

Reference	Description	Specification
D00504	Grease - Petrolatum	VV-P-236
G02020	Clay, Modeling	

E. Location Zones

Zone	Area
112	Area Forward of Nose Landing Gear Wheel Well

F. Installation of the Forward Access Door

SUBTASK 52-48-31-820-001

(1) Adjust the latch pin [6] (Figure 401):

- (a) Measure the travel of the latch pin [6] from the fully retracted to the fully extended position.
- (b) Make sure the travel is 1.57 ± 0.03 inch (39.88 ± 0.76 mm).
- (c) Measure the distance the latch pin [6] extends from the latch pin boss on the door frame (in the extended position).
- (d) Make sure the distance is 2.10 ± 0.03 inch (53.34 ± 0.76 mm).
- (e) If necessary, adjust the travel as follows:
 - 1) Remove the bolts [10] and washers [11] that attach the support plate [8] to the door [1].
 - 2) Remove the support plate [8] from the door [1].
 - 3) Remove the support ring [12] from the shaft of the handle [18].
 - 4) Remove the bolts [17], washers [15], nuts [14], and cotter pins [13] that attach the latch links [9] to the rod end bearings [19].
 - 5) Loosen the jamnuts [16] on the rod end bearings [19].
 - 6) Adjust the length of the rod end bearing [19] on the shaft of the handle [18] to get the correct travel of the latch pin [6].

NOTE: Lengthen the rod end bearing [19] will increase the travel of the latch pin [6].
 - 7) Adjust the length of the rod end bearing [19] on the latch pin [6] to get the correct extension of the latch pin [6].
 - 8) Tighten and safety the jamnuts [16] on the rod end bearings [19].
 - 9) Install the bolts [17], washers [15], nuts [14], and new cotter pins [13] to attach the latch links [9] to the rod end bearings [19].
 - 10) Install the support ring [12] on the shaft of the handle [18].
 - 11) Install the support plate [8] on the door [1].
 - 12) Install the bolts [10] and washers [11] that attach the support plate [8] to the door [1].

SUBTASK 52-48-31-420-001

(2) Attach the forward access door [1] at the hinges [2] (Figure 401):

- (a) Hold the door [1].
- (b) Put the door [1] in its correct position in the fuselage frame.
- (c) Make sure the stop pins [5] extend from the stop fittings approximately 0.40 inch (10.16 mm).

NOTE: The two aft stop pins [5] are in the fuselage stop fittings.

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- (d) Align the hinges [2] with the hinge support fittings [22].
- (e) Loosely install the bolts [20], washers [21], bushings [23], washers [24], washers [25], washers [26], washers [27], and nuts [28] to attach the hinges [2] to the hinge support fittings [22].

SUBTASK 52-48-31-400-001

- (3) You can make sure that the door is sufficiently adjusted for skin clearance by these methods:
 - (a) Method 1
 - (b) Method 2 (Aero-Averaging)

SUBTASK 52-48-31-400-002

- (4) To make sure that the door is sufficiently adjusted by Method 1, do these steps:
 - (a) Close the door [1].
 - (b) Measure the distance from the door skin to the fuselage skin.
 - (c) Make sure the skin clearance is within tolerance, (Table 401).

Table 401/52-48-31-993-805 Aerosmoothness Limits - Forward Access Door, Method 1

	CLEARANCE ^{*[1]}		FLUSHNESS ^{*[2]}	
	NOMINAL inch (mm)	TOLERANCE inch (mm)	NOMINAL inch (mm)	TOLERANCE inch (mm)
FORWARD ACCESS DOOR	0.12 (3.05)	0.06 to 0.18 (1.52 to 4.57)	0.00 (0.00)	-0.03 to 0.03 (-0.76 to 0.76)
HAP 004				
EXCEPT: HAP 004	0.12 (3.05)	0.06 to 0.22 (1.52 to 5.58)	0.00 (0.00)	-0.03 to 0.03 (-0.76 to 0.76)
HAP ALL				

*[1] SKIN CLEARANCE ALL AROUND THE FORWARD ACCESS DOOR.

*[2] FLUSHNESS ALL AROUND THE FORWARD ACCESS DOOR.

SUBTASK 52-48-31-820-012

- (5) To make sure that the door is sufficiently adjusted by Method 2 Aero-Averaging do these steps:
 - (a) Close the door [1].
 - (b) Measure the distance from the door skin to the fuselage skin.
 - (c) Make sure the skin clearance is within tolerance Table 402.

Table 402/52-48-31-993-808 Aero-Averaging Limits - Forward Access Door (Method 2)

	CLEARANCE ^{*[1]}		FLUSHNESS ^{*[2]}	
	NOMINAL inch (mm)	TOLERANCE inch (mm)	NOMINAL inch (mm)	TOLERANCE inch (mm)
FORWARD ACCESS DOOR	0.12 (3.05)	0.06 to 0.21 (1.52 to 5.33)	0.00 (0.00)	-0.06 to 0.06 (-1.52 to 1.52)

*[1] SKIN CLEARANCE ALL AROUND THE FORWARD ACCESS DOOR.

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*[2] FLUSHNESS ALL AROUND THE FORWARD ACCESS DOOR.

SUBTASK 52-48-31-820-003

- (6) To make sure that the door is sufficiently adjusted by Method 2, do these steps:
 - (a) Close the door [1].
 - (b) Measure the clearance between the door skin and fuselage skin along the forward and aft edges of the door at the locations that follow:
 - 1) Make five marks that are spaced equally along the forward edge of the door.
NOTE: Include the door corner target points.
 - 2) Make five marks that are spaced equally along the aft edge of the door.
NOTE: Include the door corner target points.
 - 3) Measure the skin clearance within ± 1.0 inch (± 25.4 mm) of each mark along the forward and aft edges of the door.
 - 4) Record the skin clearance for each measurement.
 - 5) Use the (Table 403) to change the clearance to a Drag value.
NOTE: A measurement of 0.10 inch (2.54mm) clearance is a Drag value of 0.63.
 - 6) Record the Drag value for each measurement from (Table 403).

Table 403/52-48-31-993-803 Forward Access Door Skin Clearance (Method 2)

CLEARANCE Inch (mm)	DRAG VALUE
0.06 (1.52)	0.38
0.07 (1.78)	0.44
0.08 (2.03)	0.50
0.09 (2.29)	0.56
0.10 (2.54)	0.63
0.11 (2.79)	0.69
0.12 (3.05)	0.75
0.13 (3.30)	0.81
0.14 (3.56)	0.88
0.15 (3.81)	0.94
0.16 (4.06)	1.00
0.17 (4.32)	1.06
0.18 (4.57)	1.12
0.19 (4.83)	1.19
0.20 (5.08)	1.25
0.21 (5.33)	1.31

- 7) Add all the Drag Values together (sum).
 - a) Record the sum of the Drag Values as measurement A.

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- 8) Divide measurement A by the number of measurements that you made.
- 9) Make sure that the average Drag Value is 1.00 or less.

SUBTASK 52-48-31-820-011

- (7) If the average Drag Value is greater than 1.00, then adjust the skin clearance as follows:
 - (a) Remove the nuts [28].
 - (b) Add or remove washers [24], [25] and [26] on the bolts [20] until you get the correct clearance.
 - (c) Install the nuts [28].
 - 1) After you tighten the nuts [28], make sure you can turn the washers [24], [25] and [26].
 - (d) Install the new cotter pins [29].
 - (e) Carefully cut the forward or aft edge of the door skin only if it is necessary.

SUBTASK 52-48-31-820-004

- (8) Adjust the flushness of the door [1] and the alignment of the stop pins [5]:

NOTE: Handle torque will change with stop pin and stop pad clearances. A smaller clearance will increase the door handle torque.

- (a) Close, but do not latch, the door [1].
- (b) Use the spring scale (0-150 Pounds, With Hook and Pad Adapter Kit, COM-754 to pull down on the door handle [18] with approximately enough force, 150 pounds (68.03 kilograms) maximum, to compress the seal.
- (c) Make sure the stops pins touch the stop pads.
- (d) If you will use Method 1 to check the flushness, make sure your measurements are within tolerance, (Table 401).
- (e) If you will use Method 2 to check the flushness, measure the flushness between the door skin and fuselage skin along the forward and aft edges of the door at the locations that follow:

- 1) Make five marks that are spaced equally along the forward edge of the door.

NOTE: Include the door corner target points.

- 2) Make five marks that are spaced equally along the aft edge of the door.

NOTE: Include the door corner target points.

- 3) Measure the skin flushness within ±1.0 inch (±25.4mm) of each mark along the forward and aft edges of the door.
- 4) Record the skin flushness for each measurement.
- 5) Use the (Table 404) to change the flushness to a Drag value.

NOTE: A measurement of 0.01 inch (0.25mm) flushness is a Drag value of 0.19.

- 6) Record the Drag value for each measurement from (Table 404).

Table 404/52-48-31-993-804 Forward Access Door Skin Flushness (Method 2)

Door Flushness		
Fwd Edge Inch (mm)	Aft Edge Inch (mm)	Drag Value
-0.06 (-1.52)	0.06 (1.52)	1.67
-0.05 (-1.27)	0.05 (1.27)	1.33

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(Continued)

Door Flushness		
Fwd Edge Inch (mm)	Aft Edge Inch (mm)	Drag Value
-0.04 (-1.02)	0.04 (1.02)	1
-0.03 (-0.76)	0.03 (0.76)	0.71
-0.02 (-0.51)	0.02 (0.51)	0.43
-0.01 (-0.25)	0.01 (0.25)	0.19
0.00	0.00	0.00
0.01 (0.25)	-0.01 (-0.25)	0.19
0.02 (0.51)	-0.02 (-0.51)	0.67
0.03 (0.76)	-0.03 (-0.76)	1.24
0.04 (1.02)	-0.04 (-1.02)	1.90
0.05 (1.27)	-0.05 (-1.27)	2.57
0.06 (1.52)	-0.06 (-1.52)	3.33

- 7) Add all of the Drag Values together (sum).
 - a) Record the sum of the Drag Values as Measurement A.
- 8) Divide measurement A by the number of measurements that you made.
- 9) Make sure that the average Drag Value is 1.00 or less.
- (f) If the average Drag Value is greater than 1.00, then adjust the door as follows:
 - 1) Open the door.
 - 2) Adjust the door to get the correct skin flushness.
- (g) Remove the spring scale (0-150 Pounds, With Hook and Pad Adapter Kit, COM-754.
- (h) If it is out of tolerance, adjust the the flushness:
 - 1) Remove the retainer springs [31] from the stop pins [5].
 - 2) Turn the stop pins [5] to get the correct flushness.
 - 3) Install the retainer springs [31] in the stop pins [5].
- (i) Do a check of the clearance between the stop pins [5] and the stop pads [30]:
 - 1) Open the door [1].
 - 2) Put a small amount of clay, G02020 on the stop pads [30].

NOTE: A small amount of grease, D00504 on the stop pins [5] will prevent the clay, G02020 from pulling off the stop pads [30].
 - 3) Close, but do not latch, the door [1].
 - 4) Use the spring scale (0-150 Pounds, With Hook and Pad Adapter Kit, COM-754 to pull down on the door handle [18] with approximately enough force, 150 pounds (68.03 kilograms) maximum, to compress the seal.
 - 5) Open the door [1].
 - 6) Measure the thickness of the clay, G02020 remaining on the stop pad [30].
 - 7) Make sure the thickness is 0.00-0.03 inch (0.00-0.76 mm).

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- 8) If it is out of tolerance, do these steps:
 - a) Remove the retainer spring [31] from the stop pin [5].
 - b) Turn the stop pin [5] to get the correct clearance.
 - c) Install the retainer spring [31] in the stop pin [5].
- (j) Make sure the stop pins [5] touch the stop pads [30] in a 0.30 inch (7.6 mm) diameter circle at the center of the stop pads [30].
- (k) If it is necessary, align the stop pins [5] with the stop pads [30]:
 - 1) Remove the nuts [28].
 - 2) Add or remove washers [24], [25] and [26] on the bolts [20] until the stop pins [5] align with the stop pads [30].

NOTE: Do not make the skin clearance incorrect.

NOTE: Adjust the two hinges [2] equally to prevent preload in the hinge arms.

 - 3) Install the nuts [28].
 - a) After you tighten the nuts [28], make sure you can turn the washers [24], [25] and [26].
 - 4) Install the new cotter pins [29].

SUBTASK 52-48-31-820-005

- (9) Measure the hinge pin clearance:
 - (a) Close and latch the door [1].
 - (b) Use the spring scale (0-150 Pounds, With Hook and Pad Adapter Kit, COM-754 to pull the door [1] down at the handle [18] with enough force, 150 pounds (68.03 kilograms) maximum, to compress the seal.
 - (c) Measure the flushness at the aft edge of the door [1].
 - (d) Release the handle [18].
 - (e) Measure the flushness at the aft edge of the door [1] again.
 - (f) Remove the spring scale (0-150 Pounds, With Hook and Pad Adapter Kit, COM-754
 - (g) Make sure the difference between the two flushness dimensions is 0.10 ± 0.07 inch (2.54 \pm 1.78 mm).

SUBTASK 52-48-31-820-006

- (10) Measure the latch pin [6] and the receptacle [7] clearance (Figure 401):
 - (a) Close the door and latch the door.
 - 1) Use the spring scale (0-150 Pounds, With Hook and Pad Adapter Kit, COM-754 to pull down on the door handle [18] with approximately enough force, 150 pounds (68.03 kilograms) maximum, to compress the door seal.
 - (b) Make sure the stops pins [5] touch the stop pads [30].
 - (c) Make sure the latch pin [6] does not have a load on it.

NOTE: The latch pin extends freely.

 - (d) Remove the spring scale (0-150 Pounds, With Hook and Pad Adapter Kit, COM-754 from the door.
 - (e) If it is necessary, adjust the receptacle [7]:
 - 1) Open the door [1].

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- 2) Make sure the stops pins [5] and the stop pads [30] are correctly adjusted.
- 3) Loosen the bolts [32] and washers [33] that attach the bracket [34] and adjustable plate [35] to the web [36] of the fuselage frame.
- 4) Move the adjustable plates [35].
- 5) Make sure the latch pin [6] does not have a load on it.

NOTE: The latch pin moves freely.

- 6) Make sure the door flushness is correct.
- 7) Tighten the bolts [32] and washers [33] that attach the bracket [34] and adjustable plate [35] to the web [36] of the fuselage frame.
- 8) Close the door [1].

- (f) Measure and record the door fair at forward edge of the door with the weight, 150 pounds (68.03 kilograms) maximum, on the latched door.

NOTE: The door latch pin must extend freely.

- (g) Remove the weight from the door.
- (h) Push up on the forward edge of the latched door.
- (i) Measure and record the door fair at the forward edge of the door.
- (j) Make sure there is a 0.02-0.05 inch (0.51-1.27 mm) difference between the measurements with the weight on the latched door and the weight removed from the latched door.

SUBTASK 52-48-31-820-007

- (11) Adjust the hold-open lock (Figure 401):

- (a) Open the door [1].
- (b) Move the door [1] in the direction of the fully open position until the uplock tang [39] on the door [1] begins to touch the uplock catch [38] on the hold-open lock [3].
- (c) Make sure the uplock tang [39] first touches the uplock catch [38] in a 0.30 inch (7.62 mm) wide zone starting 0.10 inch (2.54 mm) from the tip of the uplock catch [38].
- (d) If necessary, turn the adjusting bolt [37] to get the correct measurement.

NOTE: Make sure at least two threads are showing at the end of the adjusting bolt [37].

SUBTASK 52-48-31-820-008

- (12) Do this task: Forward Access Door Indication Switch Test, TASK 52-71-41-710-801.

SUBTASK 52-48-31-820-010

- (13) Do a test on the door [1] as follows:

- (a) Unlatch, open, close and latch the door [1].
- (b) Make sure the handle and latch pins operate correctly and the door opens and closes smoothly.
- (c) Make sure the seal [4] is installed correctly.

————— END OF TASK —————

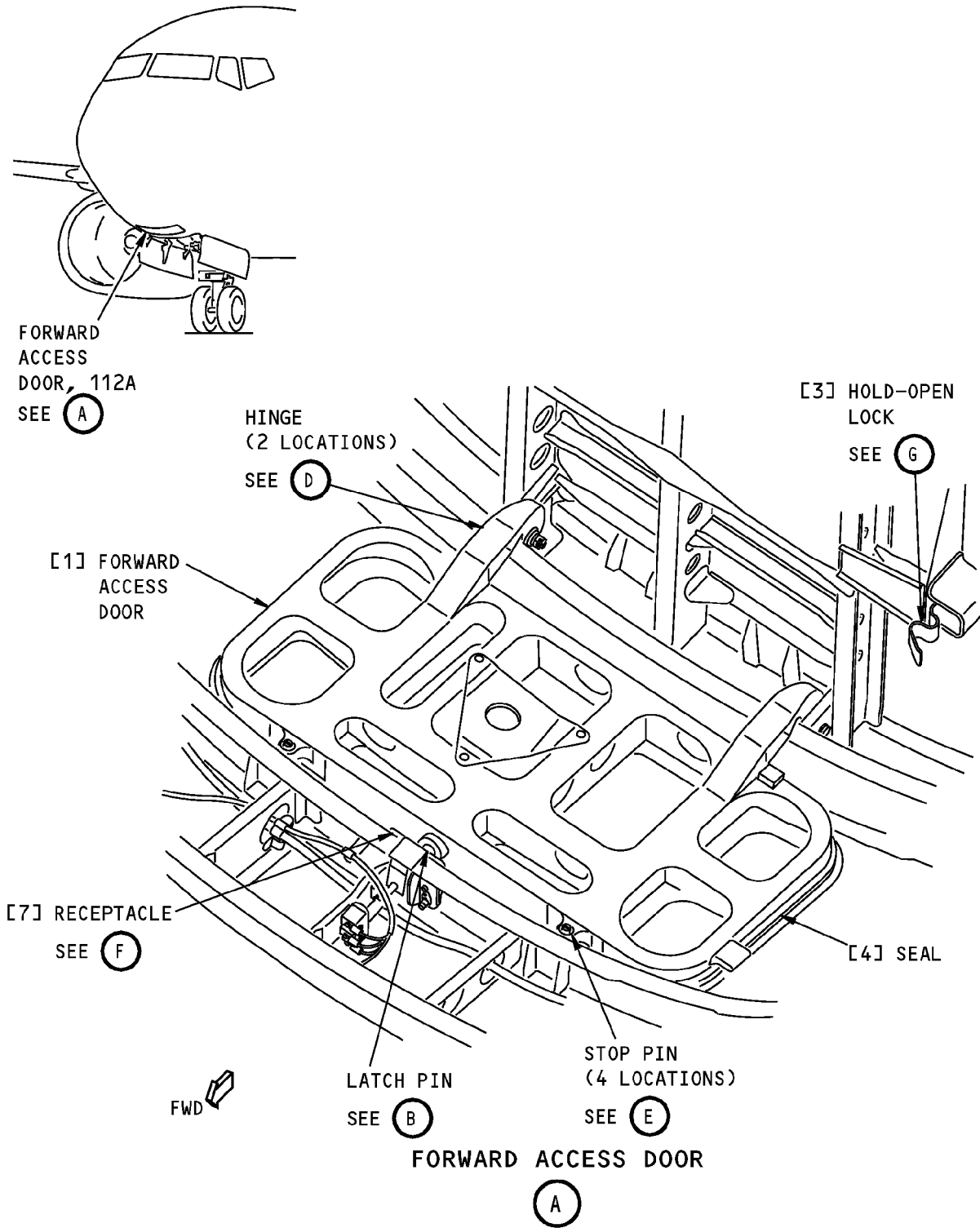
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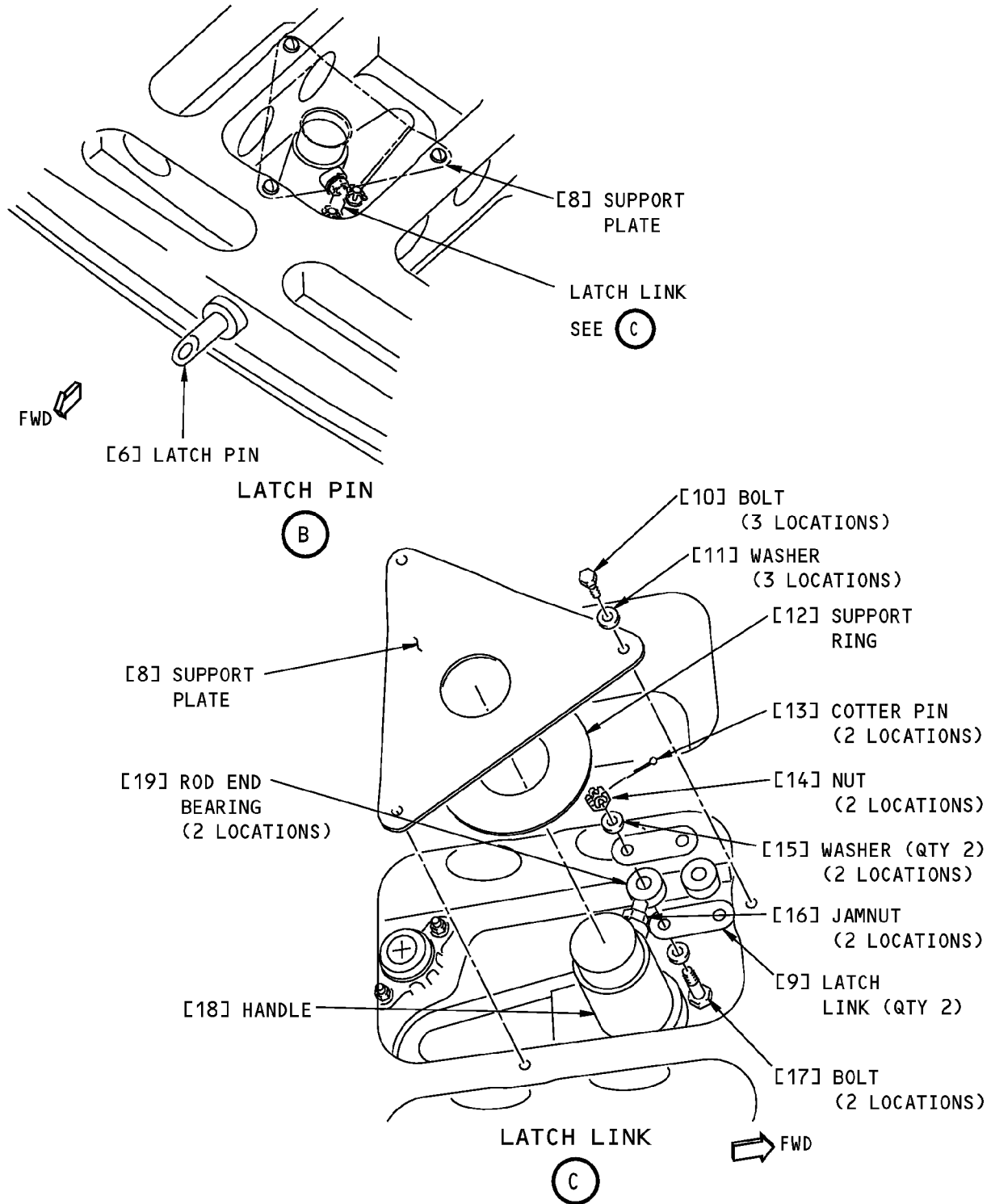
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**Forward Access Door Installation
Figure 401 (Sheet 1 of 4)/52-48-31-990-801**

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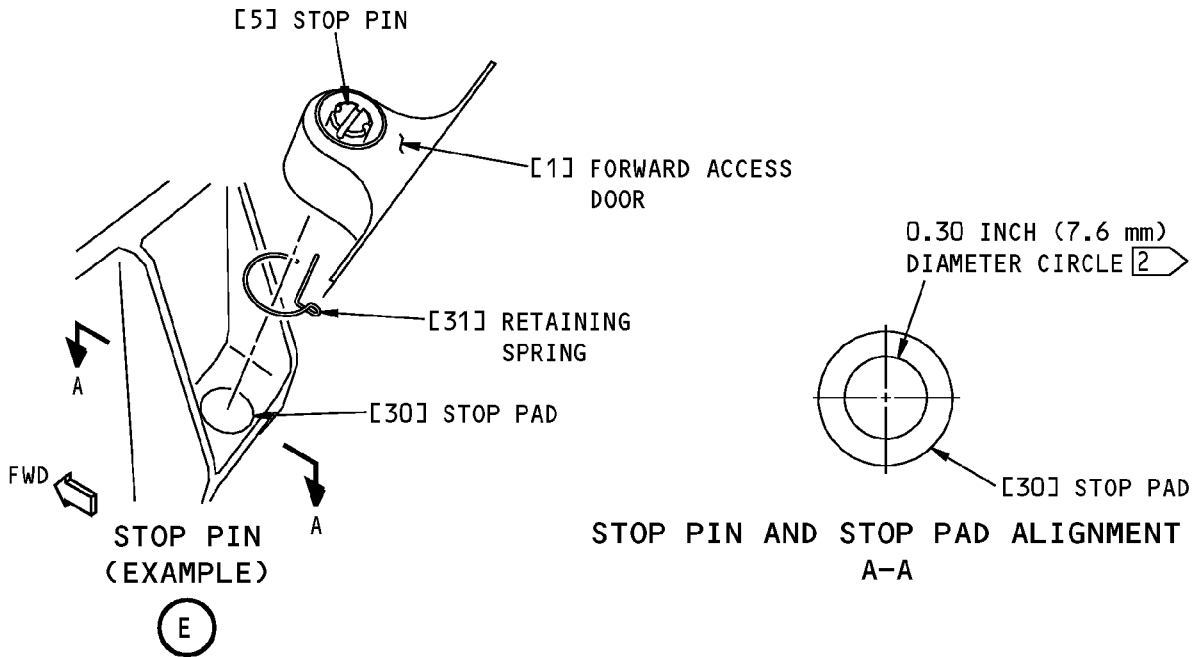
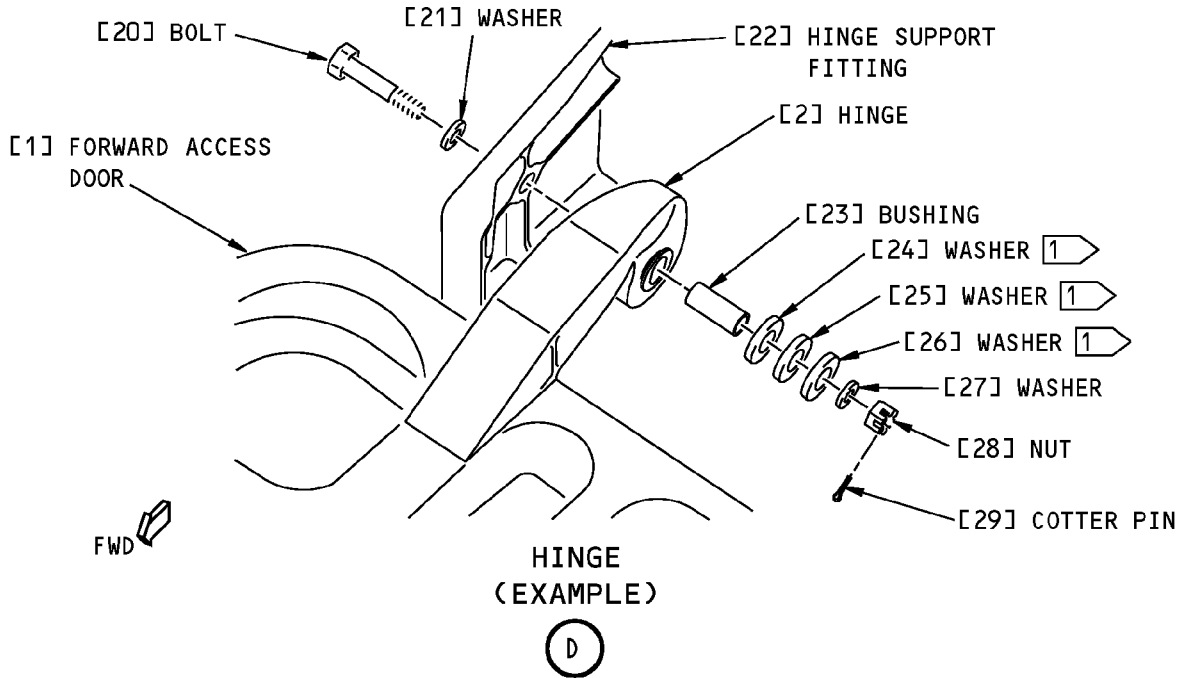
**Forward Access Door Installation
Figure 401 (Sheet 2 of 4)/52-48-31-990-801**

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[1] USE THESE WASHERS AS SPACERS TO PUT THE DOOR IN THE CENTER OF THE CUTOUT.

[2] THE CENTER OF THE STOP PIN MUST TOUCH THE CENTER OF THE STOP PAD IN THE CIRCLE SHOWN.

Forward Access Door Installation
Figure 401 (Sheet 3 of 4)/52-48-31-990-801

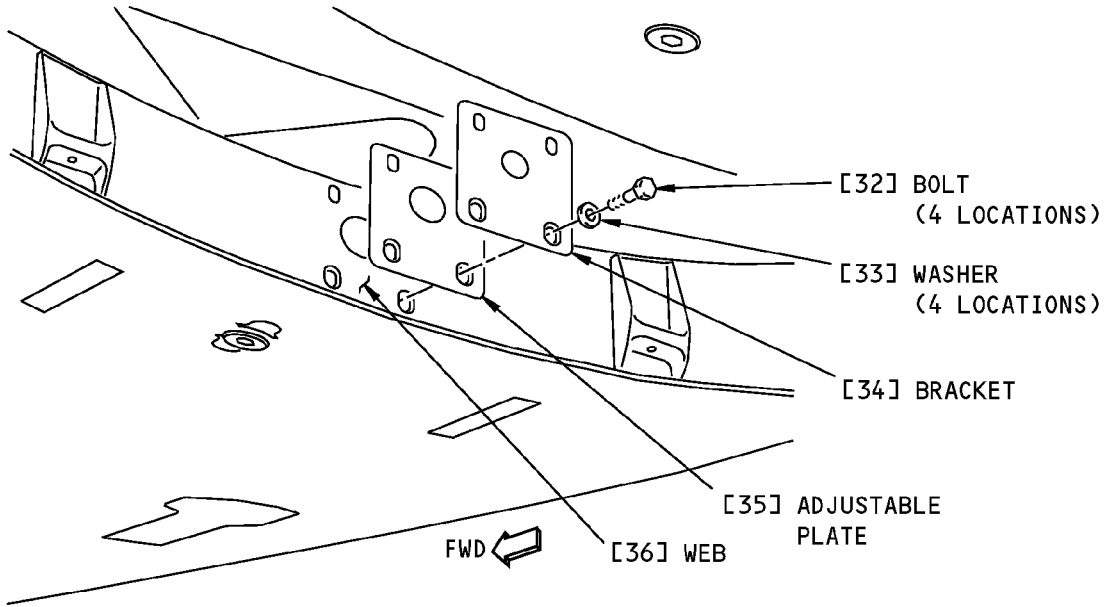
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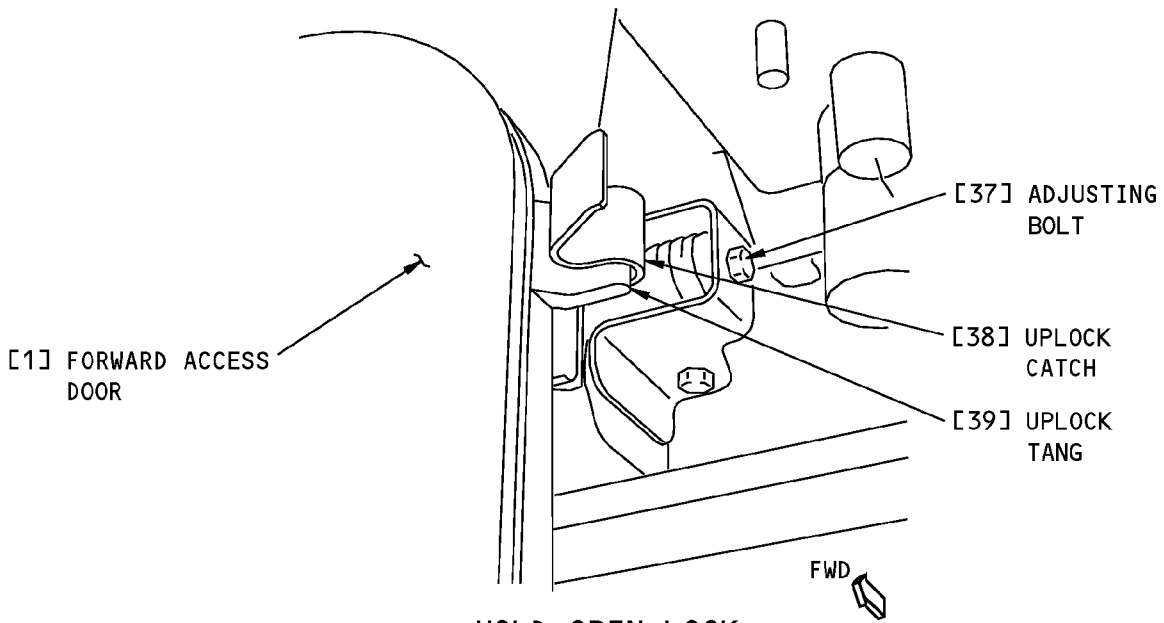
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**LATCH PIN RECEPTACLE
(DOOR SHOWN IN OPEN POSITION)**

F



**HOLD-OPEN LOCK
(DOOR SHOWN IN OPEN POSITION)**

G

**Forward Access Door Installation
Figure 401 (Sheet 4 of 4)/52-48-31-990-801**

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FORWARD ACCESS DOOR - INSPECTION/CHECK

1. General

- A. This procedure contains scheduled maintenance task data.
- B. This procedure has these tasks:
 - (1) An inspection of the forward access door.
 - (2) An inspection of the forward access door pressure seal.

TASK 52-48-31-200-801

2. Forward Access Door Check

A. Location Zones

<u>Zone</u>	<u>Area</u>
112	Area Forward of Nose Landing Gear Wheel Well

B. Access Panels

<u>Number</u>	<u>Name/Location</u>
112A	Forward Access Door

C. Prepare for the Inspection

SUBTASK 52-48-31-840-002

- (1) Open this access panel:

<u>Number</u>	<u>Name/Location</u>
112A	Forward Access Door

- (a) Engage the hold-open lock.

NOTE: It may be necessary to disengage the hold-open lock to do part of the inspection.

D. Inspection

SUBTASK 52-48-31-210-001

- (1) Do a visual inspection of the external door structure and handle as follows:

- (a) Examine the external skin.
 - 1) Look for dents, cracks, and corrosion.
 - 2) Look for burrs.
 - 3) Look for loose and missing fasteners.
- (b) Examine the external handle.
 - 1) Look for cracks and corrosion.
 - 2) Look for too much wear.

SUBTASK 52-48-31-210-002

- (2) Do a visual inspection of the door internal structure as follows:

- (a) Examine the internal skin.
 - 1) Look for dents, cracks, and corrosion.
 - 2) Look for burrs.
 - 3) Look for loose and missing fasteners.
- (b) Examine the internal frames and brackets.
 - 1) Look for cracks and corrosion.

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- 2) Look for loose and missing fasteners.

SUBTASK 52-48-31-210-003

- (3) Do a visual inspection of the latch mechanism as follows:

- (a) Examine the latch pin.
 - 1) Look for cracks and corrosion.
 - 2) Look for too much wear.
 - 3) Look for unwanted particles on the latch pin.

SUBTASK 52-48-31-210-004

- (4) Do a visual inspection of the stop fittings and stop pins as follows:

- (a) Examine the stop fittings.
 - 1) Look for cracks and corrosion.
 - 2) Look for loose and missing fasteners.
- (b) Examine the stop pins.
 - 1) Look for cracks and corrosion.
 - 2) Look for unwanted particles on the stop pins.
 - 3) Make sure the retaining springs are installed.

SUBTASK 52-48-31-210-005

- (5) Do a visual inspection of the attach structure and hinge mechanism as follows:

- (a) Examine the hinge arms.
 - 1) Look for cracks and corrosion.
 - 2) Look for too much wear.
- (b) Examine the hinge arm fasteners.
 - 1) Make sure the bolts fully engage the nuts.
 - 2) Make sure the bolt threads are not damaged.

SUBTASK 52-48-31-210-006

- (6) Do a visual inspection of the structure around the door opening as follows:

- (a) Examine the latch receptacle.
 - 1) Look for cracks and corrosion.
 - 2) Look for too much wear.
- (b) Examine the fuselage frame.
 - 1) Look for cracks and corrosion.
 - 2) Look for loose and missing fasteners.

E. Put the Airplane Back to Its Usual Condition

SUBTASK 52-48-31-840-003

- (1) Close and latch this access panel:

<u>Number</u>	<u>Name/Location</u>
112A	Forward Access Door

————— END OF TASK —————

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TASK 52-48-31-200-802

3. Forward Access Door Pressure Seal Check

A. General

(1) This procedure is a scheduled maintenance task.

B. Location Zones

Zone	Area
112	Area Forward of Nose Landing Gear Wheel Well

C. Access Panels

Number	Name/Location
112A	Forward Access Door

D. Prepare for the Inspection

SUBTASK 52-48-31-010-002

(1) Open this access panel:

Number	Name/Location
112A	Forward Access Door

(a) Engage the hold-open lock.

E. Inspection

SUBTASK 52-48-31-210-007

(1) Do a visual inspection of the door pressure seal as follows:

- (a) Examine the seal.
 - 1) Look for cracks, holes, and tears.
 - 2) Look for indications of seal deterioration.
 - 3) Make sure the seal is installed in the seal retainer.

F. Put the Airplane Back to Its Usual Condition

SUBTASK 52-48-31-840-004

(1) Close and latch this access panel:

Number	Name/Location
112A	Forward Access Door

————— **END OF TASK** —————

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ELECTRONIC EQUIPMENT ACCESS DOOR - MAINTENANCE PRACTICES

1. General

- A. This procedure has two tasks. The first task is to Open the Electronic Equipment Door When The Door Latch Will Not Operate. The second task is the Electronic Equipment Door Corrosion Prevention.

TASK 52-48-41-010-801

2. Open the Electronic Equipment Door when the Door Handle will not Move

A. General

- (1) It is recommended, but not necessary, that two persons do this task. One person will go into the electronic equipment bay compartment through the steps given in this task. One person will open the electronic equipment access door from outside the airplane.

B. References

Table with 2 columns: Reference, Title. Rows include 24-22-00-860-811, 24-22-00-860-812, 24-31-11-000-802-002, 24-31-11-400-802-002, 25-52-16-000-801, 25-52-16-400-801.

C. Tools/Equipment

Table with 2 columns: Reference, Description. Row: STD-10670, Pliers.

D. Location Zones

Table with 2 columns: Zone, Area. Rows: 117, 118, 121, 122.

E. Gain Access to the Electronic Equipment Bay Compartment

SUBTASK 52-48-41-010-003

- (1) Remove the lower panel assembly: Forward Cargo Compartment Forward Bulkhead Liner Removal, TASK 25-52-16-000-801.
(2) Make sure the electrical power is off: Remove Electrical Power, TASK 24-22-00-860-812.
(3) Do this task: Battery Removal, TASK 24-31-11-000-802-002.

F. Prepare to enter the Electronic Equipment Bay Compartment

SUBTASK 52-48-41-943-001

CAUTION: REMOVE ALL OBJECTS FROM YOUR POCKETS AND FROM YOUR BODY. LOOSE OBJECTS CAN FALL INTO THE ELECTRONIC EQUIPMENT COMPARTMENT. THIS CAN CAUSE DAMAGE TO THE AIRPLANE.

- (1) Remove all items from your pockets.

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(2) Remove all rings, earrings, watch, and other items that can separate from the body.

CAUTION: USE TAPE TO SEAL ALL OPENINGS AND FLAPS ON YOUR CLOTHING. OPEN EDGES OF CLOTHING CAN CATCH ON WIRE BUNDLES. THIS CAN PULL WIRES LOOSE. THIS CAN CAUSE DAMAGE TO THE AIRPLANE.

(3) Use masking tape to seal all open cuffs, collars, fabric flaps, pockets, buttons, and zippers.

G. Access the Electronic Equipment Bay Compartment Door

SUBTASK 52-48-41-800-002

CAUTION: DO NOT PUT PRESSURE ON THE WIRE BUNDLES, ELECTRONIC SYSTEMS, OR STRUCTURES IN THE COMPARTMENT. PRESSURE CAN CAUSE DAMAGE TO WIRE BUNDLES AND ELECTRICAL CONNECTIONS.

(1) Carefully go into the electronic equipment bay compartment through the space that was made when you removed the airplane batteries.

(2) Use pliers, STD-10670 to turn the shaft of the door handle counterclockwise until the bolt head and nut points forward and aft.

(3) Use the external handle to open the electronic equipment access door.

(4) Check the door for damage.

(5) Make sure that the door closes and opens smoothly.

H. Put the Airplane Back to its Usual Condition

SUBTASK 52-48-41-410-004

(1) Do this task: Battery Installation, TASK 24-31-11-400-802-002.

SUBTASK 52-48-41-861-002

(2) Do this task: Supply Electrical Power, TASK 24-22-00-860-811.

SUBTASK 52-48-41-410-005

(3) Replace the lower panel assembly: Forward Cargo Compartment Forward Bulkhead Liner Installation, TASK 25-52-16-400-801.

————— END OF TASK —————

TASK 52-48-41-600-801

3. Electronic Equipment Door Corrosion Prevention

A. References

Reference	Title
12-25-41-640-801	Electronic Equipment Access Door Servicing (P/B 301)

B. Consumable Materials

Reference	Description	Specification
G00009	Compound - Organic Corrosion Inhibiting	BMS3-23

C. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left
118	Electrical and Electronics Compartment - Right

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D. General

SUBTASK 52-48-41-800-001

- (1) Corrosion may occur on the internal and external surfaces of the door structure. Especially the connection points and the door mechanism.
- (2) The door and the door frame should be treated at the same time.
- (3) Some items in this section maybe subject to the mandatory requirements for corrosion prevention and control programs for aging airplanes.
- (4) Corrosion Prevention
 - (a) Inspect the door.
 - (b) Look for missing fasteners, white powdery deposits, and discolorations, as signs of corrosion.
 - 1) If signs of corrosion are found, then a corrosion prevention program should be started to prevent the build up of corrosion products.
 - 2) If corrosion products are allowed to build up, then they will cause further corrosion.
 - (c) After the corrosion products are cleaned, make sure that the protective finishes are serviceable.
 - 1) If only minor corrosion is found, then make sure that the area is clean.
 - 2) Apply corrosion inhibiting compound on the affected area.
 - 3) Make sure that the protective finish is restored at the first opportunity that is consistent with the airplanes maintenance schedule.
- (5) Frequency of Application
 - (a) Periodic inspection is required to areas identified as prone to corrosion and should be scheduled to your Maintenance Planning Document.
 - (b) Periodic application of BMS 3-23 compounds are necessary to areas identified as prone to corrosion and should be scheduled to your Maintenance Planning Document.
 - 1) Do the prevention treatment to the exterior surface of the door at the same recommended interval as the exterior surface of the fuselage.

E. Corrosion Prevention

SUBTASK 52-48-41-620-001

- (1) Prevention Treatment
 - (a) Clean the drains and drain paths.
 - (b) Examine the door to find corrosion and damage to the protective finish.
 - 1) Remove or repair any corrosion that you find.
 - (c) Apply corrosion inhibiting compound, G00009 to the interior surfaces of the door.
 - 1) Make sure that the corrosion inhibiting compound, G00009 completely covers the surfaces.
 - (d) Apply corrosion inhibiting compound, G00009 to the door frame and the upper and lower web.
 - (e) If it is necessary, apply corrosion inhibiting compound, G00009 to the exterior surfaces of the door.
 - (f) Lubricate the door. Electronic Equipment Access Door Servicing, TASK 12-25-41-640-801
 - (g) Doors with drain valves, do these steps:
 - 1) Clean the drain hole.

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- 2) Examine the drain seal or plunger for alignment and freedom of movement.
 - a) If it is necessary, remove the drain valve from the door and clean the debris.
< 1 > If it is necessary, replace the drain valve.
 - b) Install the drain valve.

CAUTION: DO NOT APPLY MORE THAN THE MAXIMUM SPECIFIED TORQUE WHEN YOU TIGHTEN THE PARTS. DAMAGE TO THE PARTS CAN OCCUR IF YOU APPLY TOO MUCH TORQUE.

< 1 > Tighten the fasteners to 10 to 15 pound inches (1.1-1.7 Nm).

————— **END OF TASK** —————

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ELECTRONIC EQUIPMENT ACCESS DOOR - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

- (1) A removal of the electronic equipment access door.
- (2) An installation of the original electronic equipment access door.
- (3) An installation of a new electronic equipment access door.

B. The electronic equipment access door is referred to as the "door" in this procedure.

TASK 52-48-41-000-801

2. Electronic Equipment Access Door Removal

(Figure 401)

A. General

- (1) This task has two procedures for the removal of the Electronic Equipment (E/E) Access Door. Procedure number 1 requires one person working from inside the E/E bay. Procedure number 2 requires two people. One person works from inside the E/E bay and the other person outside the E/E bay door to assist.

B. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left
118	Electrical and Electronics Compartment - Right

C. Prepare for the Removal

SUBTASK 52-48-41-010-001

- (1) Open the door [7]:
 - (a) Push the release trigger [2] to release the handle [1].
 - (b) Turn the handle [1] to unlatch the door [7].

CAUTION: TO PREVENT THE DOOR FROM BINDING IN THE TRACKS, DO NOT LIFT THE DOOR AROUND THE EDGES. USE BOTH HANDS WITH A LIGHT FORCE AND EQUAL PRESSURE TO LIFT THE DOOR. LET THE DOOR FOLLOW THE ROLLER TRACKS UP AND OUTBOARD. TOO MUCH FORCE CAN DAMAGE THE DOOR ROLLERS. THIS CAN CAUSE DAMAGE TO THE EQUIPMENT.

- (c) Move the door [7] to the fully open position.

D. Electronic Equipment Access Door Removal (Procedure 1)

SUBTASK 52-48-41-020-001

- (1) Remove the forward and aft folding track assemblies [3] from the electrical and electronics compartment:
 - (a) Release the latches [8] that hold the folding track assemblies [3] in the extended position.
 - (b) Remove the bolts [13], washers [14], washers [17], and nuts [18] that attach the springs [15] and upper hinge lugs [16] to the attach stanchions.
 - (c) Lift the folding track assemblies [3] out of the lower hinge lugs [5].

SUBTASK 52-48-41-020-002

- (2) Remove the door [7] from the fixed tracks [4]:
 - (a) Hold the door [7] and move it towards the closed position until the roller trucks [19] and the right aft roller truck [24] disengage from the fixed tracks [4].

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(b) Remove the door [7] from the airplane.

E. Electronic Equipment Access Door Removal (Procedure 2)

SUBTASK 52-48-41-020-003

(1) Remove the door [7] from the fixed tracks [4]:

CAUTION: TO PREVENT THE DOOR FROM BINDING IN THE TRACKS, DO NOT LIFT THE DOOR AROUND THE EDGES. USE BOTH HANDS WITH A LIGHT FORCE AND EQUAL PRESSURE TO LIFT THE DOOR. LET THE DOOR FOLLOW THE ROLLER TRACKS UP AND OUTBOARD. TOO MUCH FORCE CAN DAMAGE THE DOOR ROLLERS. THIS CAN CAUSE DAMAGE TO THE EQUIPMENT.

(a) Open the door (7) and enter the electronic equipment bay.

WARNING: DO NOT LOCK THE DOOR FROM THE OUTSIDE. THE ELECTRONIC EQUIPMENT ACCESS DOOR DOES NOT HAVE A HANDLE ON THE INSIDE TO UNLOCK THE DOOR. IF THE DOOR IS LOCKED, INJURIES TO PERSONS OR DAMAGE TO EQUIPMENT CAN OCCUR.

(b) Put the door in the close position.

(c) Release the latches (8) that hold the folding track assemblies (3) in the extended position.

(d) Fold the forward and aft track.

(e) Lift and pull the door (7) until the rollers disengage from the fixed tracks.

(f) Remove the door (7) from the airplane.

————— **END OF TASK** —————

TASK 52-48-41-400-801

3. Electronic Equipment Access Door Installation - Original Door

(Figure 401)

A. General

(1) Make sure the airplane is supported by its landing gear.

(2) This task has two procedures for the installation of the Electronic Equipment (E/E) Access Door. Procedure number 1 requires one person working inside the E/E bay. Procedure number 2 requires two people. One person works from inside the E/E bay and the other person outside the E/E bay door to assist.

B. Consumable Materials

Reference	Description	Specification
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS 5-95

C. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left
118	Electrical and Electronics Compartment - Right

D. Prepare for the Installation

SUBTASK 52-48-41-840-002

(1) Move the handle [1] to the unlatched position.

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E. Electronic Equipment Access Door Installation (Original Door- Procedure 1)

SUBTASK 52-48-41-420-004

- (1) Install the door [7] in the fixed tracks [4]:
 - (a) Hold the door [7].
 - (b) Put the door [7] through the opening in the fuselage frame.
 - (c) Align the rollers [34] with the ends of the fixed tracks [4].
 - (d) Put the rollers [34] into the fixed tracks [4].
 - (e) Move the door [7] outboard to the open position to fully engage the rollers [34] in the fixed tracks [4].

SUBTASK 52-48-41-410-001

- (2) Install the folding track assemblies [3] in the electrical and electronic equipment compartment:
 - (a) Put the folding track assemblies [3] into the lower hinge lugs [5].
 - (b) Put the upper hinge lugs [16] and springs [15] in position above the folding track assemblies [3].
 - (c) Apply the sealant, A00247 to the bolts [13], washers [14], washers [17], and nuts [18] that attach the springs [15] and the upper hinge lugs [16] to the attach stanchions.
 - (d) Install the bolts [13], washers [14], washers [17], and nuts [18] to attach the springs [15] and upper hinge lugs [16] to the attach stanchions.
 - (e) Engage the latches [8] to hold the folding track assemblies [3] in the extended position.

F. Electronic Equipment Access Door Installation (Original Door- Procedure 2)

SUBTASK 52-48-41-420-008

- (1) Install the door [7] in the fixed tracks [4]:
 - (a) Put the door (7) through the opening in the Electronic Equipment bay.
 - (b) Align the rollers [34] with the ends of the fixed tracks [4].

WARNING: DO NOT LOCK THE DOOR FROM THE OUTSIDE. THE EE ACCESS DOOR DOES NOT HAVE A HANDLE ON THE INSIDE TO UNLOCK THE DOOR. IF THE DOOR IS LOCKED, INJURIES TO PERSONS OR DAMAGE TO EQUIPMENT CAN OCCUR.

- (c) Put the door (7) in the closed position.
- (d) Fold out the forward and aft folding track assembly (3).
- (e) Lock the latches (8) to hold the fold track assembly in the extended position.

CAUTION: TO PREVENT THE DOOR FROM BINDING IN THE TRACKS, DO NOT LIFT THE DOOR AROUND THE EDGES. USE BOTH HANDS WITH A LIGHT FORCE AND EQUAL PRESSURE TO LIFT THE DOOR. LET THE DOOR FOLLOW THE ROLLER TRACKS UP AND OUTBOARD. TOO MUCH FORCE CAN DAMAGE THE DOOR ROLLERS. THIS CAN CAUSE DAMAGE TO THE EQUIPMENT.

- (f) Move the door (7) to the full open position.

G. Put the Airplane Back to Its Usual Condition

SUBTASK 52-48-41-820-005

- (1) Do a test on the door [7]:

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CAUTION: TO PREVENT THE DOOR FROM BINDING IN THE TRACKS, DO NOT LIFT THE DOOR AROUND THE EDGES. USE BOTH HANDS WITH A LIGHT FORCE AND EQUAL PRESSURE TO LIFT THE DOOR. LET THE DOOR FOLLOW THE ROLLER TRACKS UP AND OUTBOARD. TOO MUCH FORCE CAN DAMAGE THE DOOR ROLLERS. THIS CAN CAUSE DAMAGE TO THE EQUIPMENT.

- (a) Close and latch the door [7].
(b) Make sure the handle [1] and latch pins [12] operate correctly and the door [7] opens and closes smoothly.
(c) Make sure the seal [35] is installed correctly.

END OF TASK

TASK 52-48-41-400-802

4. Electronic Equipment Access Door Installation - New Door

(Figure 401, Figure 402)

A. General

- (1) Make sure the airplane is supported by its landing gear.

B. References

Table with 2 columns: Reference, Title. Row 1: 52-71-42-710-801, Electronic Equipment Access Door Indication Switch Test (P/B 201)

C. Consumable Materials

Table with 3 columns: Reference, Description, Specification. Row 1: A00247, Sealant - Pressure And Environmental - Chromate Type, BMS 5-95

D. Location Zones

Table with 2 columns: Zone, Area. Row 1: 117, Electrical and Electronics Compartment - Left. Row 2: 118, Electrical and Electronics Compartment - Right

E. Prepare for the Installation

SUBTASK 52-48-41-840-004

- (1) Remove the forward and aft roller truck attach brackets [23] and the right aft roller truck [24] from the door [7] (Figure 401):
(a) Remove the bolts [21] and washers [22] that attach the roller truck attach brackets [23] and the laminated shims [20] to the door [7].
(b) Remove the roller truck attach brackets [23] and the laminated shims [20] from the door [7].
(c) Remove the bolt [25] and the bearing [26] that attach the right aft roller truck [24] and the laminated shim [27] to the door [7].
(d) Remove the right aft roller truck [24] and the laminated shim [27] from the door [7].

SUBTASK 52-48-41-840-005

- (2) Move the handle [1] to the unlatched position.

F. Installation of the Electronic Equipment Access Door (New Door)

SUBTASK 52-48-41-420-005

- (1) Install the door [7] in the fuselage frame as follows:

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- (a) Hold the door [7].
- (b) Put the door [7] in its correct position in the fuselage frame.
- (c) Latch the door [7].
- (d) Make sure the latch pins [12] are engaged in the latch fittings [11].
- (e) If necessary, adjust the latch fittings [11] (Figure 401):
 - 1) For the forward and aft latch fittings [11], loosen the bolts [28], washers [29], and nuts [30] that attach the latch fittings [11] to the latch supports on the fuselage frame.
 - 2) For the left and right latch fittings [11], loosen the bolts [28], washers [29], and nuts [30] that attach the latch fittings [11] and serrated plates [33] to the fuselage frame.
 - 3) Move the latch fittings [11] on the serrated plates [33] or serrated latch supports until the latch pins [12] engage the latch fittings [11].
 - 4) Tighten the bolts [28], washers [29], and nuts [30] that attach the latch fittings [11] to the fuselage frame.

SUBTASK 52-48-41-820-006

- (2) Adjust the door stops [10].

NOTE: Do these steps for each door stop [10].

- (a) Close and latch the door [7].
- (b) Measure the clearance between the door stop [10] and the latch fitting [11].
- (c) Make sure the clearance is as shown, (Figure 401). If necessary, adjust as follows:
 - 1) Remove the bolts [31] and washers [32] that attach the door stop [10] and the laminated shim [9] to the door [7].
 - 2) Remove laminations from the laminated shim [9] or install a new laminated shim [20] to get the correct clearance.
 - 3) Apply the sealant, A00247 to both sides of the laminated shim [9].
 - 4) Install the bolts [31] and washers [32] to attach the door stop [10] and the laminated shim [9] to the door [7].

SUBTASK 52-48-41-820-011

- (3) Two measurement methods are provided to adjust the door.
 - (a) Method 1 is the Standard measurement method for skin clearance and flushness adjustment.
 - (b) Method 2 is Aero-Averaging measurement for skin clearance adjustment.

SUBTASK 52-48-41-820-007

- (4) Adjust the skin clearance and the flushness of the door [7] with Method 1:
 - (a) Close and latch the door [7].
 - (b) As a minimum, measure the clearance and flushness between the door skin and the fuselage skin along each edge of the door [7] at the locations that follow:

NOTE: Make additional measurements if necessary.

 - 1) Within ± 1.0 inch of the door stops [10].
 - 2) Within ± 1.0 inch of the tangent point of the door corners.
 - (c) Make sure the skin clearance is as shown (Table 401) and (Figure 402).
 - (d) Make sure the flushness of the door and fuselage cutout is as shown (Table 401) and (Figure 402).

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Table 401/52-48-41-993-803 Aerosmoothness Limits - Electronic Equipment Access Door (Key to Figure 402)

ZONE	CLEARANCE		FLUSHNESS	
	NOMINAL inch (mm)	TOLERANCE inch (mm)	NOMINAL inch (mm)	TOLERANCE inch (mm)
A THRU H	0.09 (2.29)	0.06 to 0.12 (1.52 to 3.04)	-0.06 (-1.52)	-0.09 to -0.03 (-2.29 to -0.76)

- 1) If it is necessary, adjust as follows (Figure 401):
 - a) For the forward and aft latch fittings [11], loosen the bolts [28], washers [29], and nuts [30] that attach the latch fittings [11] to the latch supports on the fuselage frame.
 - b) For the left and right latch fittings [11], loosen the bolts [28], washers [29], and nuts [30] that attach the latch fittings [11] and serrated plates [33] to the fuselage frame.
 - c) Move the latch fittings [11] on the serrated plates [33] or the serrated latch supports to get the correct flushness.
 - d) Tighten the bolts [28], washers [29], and nuts [30] that attach the latch fittings [11] to the fuselage frame.
- 2) If it is necessary, carefully cut the door skin to get the correct skin clearance.

SUBTASK 52-48-41-820-014

(5) Adjust the skin clearance with Method 2 (Aero-Averaging).

(a) Make sure that the skin clearance is as shown in Table 402.

Table 402/52-48-41-993-806 Aero-Averaging Limits - Electronic Equipment Access Door (Method 2)

ZONE	CLEARANCE		FLUSHNESS	
	NOMINAL inch (mm)	TOLERANCE inch (mm)	NOMINAL inch (mm)	TOLERANCE inch (mm)
A THRU H	0.09 (2.29)	0.06 to 0.15 (1.52 to 3.81)	-0.06 (-1.52)	-0.12 to 0.00 (-3.05 to 0.00)

SUBTASK 52-48-41-820-012

(6) Adjust the skin clearances with Method 2 (Aero-Averaging) (Table 403).

- (a) Measure the clearance between the door skin and fuselage skin along the forward and aft edges of the door at the locations that follow:
 - 1) Make five marks that are spaced equally along the forward edge of the door.
NOTE: Include the door corner target points.
 - 2) Make five marks that are spaced equally along the aft edge of the door.
NOTE: Include the door corner target points.
 - 3) Measure the skin clearance within ± 1.0 inch (± 25.4 mm) of each mark along the forward and aft edges of the door.
 - 4) Record the skin clearance for each measurement.
 - 5) Use the (Table 403) to change the clearance to a Drag value.
NOTE: A measurement of 0.10 inch (2.54mm) clearance is a Drag value of 0.92.
 - 6) Record the Drag value for each measurement from (Table 403).

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Table 403/52-48-41-993-804 Electronic Equipment Access Door Skin Clearance (Aero-averaging)

CLEARANCE Inch (mm)	DRAG VALUE
0.06 (1.52)	0.59
0.07 (1.78)	0.67
0.08 (2.03)	0.75
0.09 (2.29)	0.84
0.10 (2.54)	0.92
0.11 (2.79)	1.00
0.12 (3.05)	1.08
0.13 (3.30)	1.17
0.14 (3.56)	1.25
0.15 (3.81)	1.33

- 7) Add all the Drag Values together (sum).
 - a) Record the sum of the Drag Value as Measurement A.
- 8) Divide Measurement A by the number of measurements that you made.
- 9) Make sure that the average Drag Value is 1.00 or less.
- (b) Make sure the minimum clearance is as shown (Table 401) and (Figure 402).
 - 1) If it is necessary, adjust as follows, (Figure 401):
 - a) For the forward and aft latch fittings [11], loosen the bolts [28], washers [29], and nuts [30] that attach the latch fittings [11] to the latch supports on the fuselage frame.
 - b) For the left and right latch fittings [11], loosen the bolts [28], washers [29], and nuts [30] that attach the latch fittings [11] and serrated plates [33] to the fuselage frame.
 - c) Move the latch fittings [11] on the serrated plates [33] or the serrated latch supports to get the correct flushness.
 - d) Tighten the bolts [28], washers [29], and nuts [30] that attach the latch fittings [11] to the fuselage frame.
 - 2) If it is necessary, carefully cut the door skin to get the correct skin clearance.

SUBTASK 52-48-41-820-013

- (7) Adjust the skin flushness using Method 2 (Aero-Averaging) (Table 404):
 - (a) Make sure the flushness between the door skin and fuselage skin along the forward and aft edges of the door are as shown (Table 401) and (Figure 402).
 - (b) As a minimum, measure the flushness between the door skin and fuselage skin along the forward and aft edges of the door at the locations that follow:
 - 1) Make five marks that are spaced equally along the forward edge of the door.

NOTE: Include the door corner target points.
 - 2) Make five marks that are spaced equally along the aft edge of the door.

NOTE: Include the door corner target points.

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- 3) Measure the skin flushness within ± 1.0 inch (± 25.4 mm) of each mark along the forward and aft edges of the door.
- 4) Record the skin flushness for each measurement.
- 5) Use the (Table 404) to change the flushness to a Drag value.

NOTE: A measurement of -0.06 inch (-1.52mm) flushness is a Drag value of 0.

- 6) Record the Drag value for each measurement from (Table 404).

Table 404/52-48-41-993-805 Electronic Equipment Access Door Skin Flushness (Aero-Averaging)

Door Flushness		
Fwd Edge Inch (mm)	Aft Edge Inch (mm)	Drag Value
-0.12 (-3.05)	0.00	1.68
-0.11 (-2.79)	-0.01 (-0.25)	1.36
-0.10 (-2.54)	-0.02 (-0.51)	1.04
-0.09 (-2.29)	-0.03 (-0.76)	0.71
-0.08 (-2.03)	-0.04 (-1.02)	0.43
-0.07 (-1.78)	-0.05 (-1.27)	0.18
-0.06 (-1.52)	-0.06 (-1.52)	0
-0.05 (-1.27)	-0.07 (-1.78)	0.18
-0.04 (-1.02)	-0.08 (-2.03)	0.68
-0.03 (-0.76)	-0.09 (-2.29)	1.25
-0.02 (-0.51)	-0.10 (-2.54)	1.89
-0.01 (-0.25)	-0.11 (-2.79)	2.61
0.00	-0.12 (-3.05)	3.36

- 7) Add all the Drag Values together (sum).
 - a) Record the sum of the Drag Values as Measurement A.
- 8) Divide Measurement A by the number of measurements that you made.
 - a) Make sure that the average Drag Value is 1.00 or less.
- (c) If the average Drag Value is greater than 1.00, then adjust the door as follows:
 - 1) Open the door.
 - 2) Adjust the door to get the correct skin flushness.

SUBTASK 52-48-41-820-008

- (8) Do a test of the door warning sensor [6] as follows:
 - (a) Do this task: Electronic Equipment Access Door Indication Switch Test, TASK 52-71-42-710-801.

SUBTASK 52-48-41-420-006

- (9) Install the forward and aft roller truck attach brackets [23] and the right aft roller truck [24] on the door [7] (Figure 401):
 - (a) Remove the door [7] from the fuselage frame.

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- (b) Install the bolts [21] and washers [22] to attach the roller truck attach brackets [23] and the laminated shims [20] to the door [7].
- (c) Install the bolt [25] and the bearing [26] to attach the right aft roller truck [24] and the laminated shim [27] to the door [7].

SUBTASK 52-48-41-420-007

- (10) Install the door [7] in the fixed tracks [4]:
 - (a) Hold the door [7].
 - (b) Put the door [7] through the opening in the fuselage frame.
 - (c) Align the rollers [34] with the ends of the fixed tracks [4].
 - (d) Put the rollers [34] into the fixed tracks [4].
 - (e) Move the door [7] outboard to the open position to fully engage the rollers [34] in the fixed tracks [4].

SUBTASK 52-48-41-410-002

- (11) Install the folding track assemblies [3] in the electrical and electronic equipment compartment (Figure 401):
 - (a) Put the folding track assemblies [3] into the lower hinge lugs [5].
 - (b) Put the upper hinge lugs [16] and springs [15] in position above the folding track assemblies [3].
 - (c) Apply the sealant, A00247 to the bolts [13], washers [14], washers [17], and nuts [18] that attach the springs [15] and the upper hinge lugs [16] to the attach stanchions.
 - (d) Install the bolts [13], washers [14], washers [17], and nuts [18] to attach the springs [15] and upper hinge lugs [16] to the attach stanchions.
 - (e) Engage the latches [8] to hold the folding track assemblies [3] in the extended position.

SUBTASK 52-48-41-820-009

- (12) Adjust the roller trucks [19] (Figure 401):
 - (a) Close and latch the door [7].
 - (b) Make sure the roller trucks [19] are centered in the folding track assemblies [3]. If necessary, adjust as follows:
 - 1) Remove the bolts [21] and washers [22] that attach the roller truck attach brackets [23] and the laminated shims [20] to the door [7].
 - 2) Remove the bolt [25] and the bearing [26] that attach the right aft roller truck [24] and the laminated shim [27] to the door [7].
 - 3) Remove laminations from the laminated shims [20] and laminated shim [27] or install new laminated shims [20] and laminated shim [27] to get the correct clearance.
 - 4) Apply sealant, A00247 to both sides of the laminated shims [20] and laminated shim [27].
 - 5) Install the bolts [21] and washers [22] to attach the roller truck attach brackets [23] and the laminated shims [20] to the door [7].
 - 6) Install the bolt [25] and bearing [26] to attach the right aft roller truck [24] and the laminated shim [27] to the door [7].

SUBTASK 52-48-41-820-010

- (13) Do a test on the door [7] as follows:

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WARNING: TO PREVENT THE DOOR FROM BINDING IN THE TRACKS, DO NOT LIFT THE DOOR AROUND THE EDGES. USE BOTH HANDS WITH A LIGHT FORCE AND EQUAL PRESSURE TO LIFT THE DOOR. LET THE DOOR FOLLOW THE ROLLER TRACKS UP AND OUTBOARD. TOO MUCH FORCE CAN DAMAGE THE DOOR ROLLERS. IF YOU DO NOT OBEY THIS WARNING, INJURIES TO PERSONS OR DAMAGE TO EQUIPMENT CAN OCCUR.

- (a) Close and latch the door [7].
- (b) Make sure the handle [1] and latch pins [12] operate correctly and the door [7] opens and closes smoothly.
- (c) Make sure the seal [35] is installed correctly.

————— **END OF TASK** —————

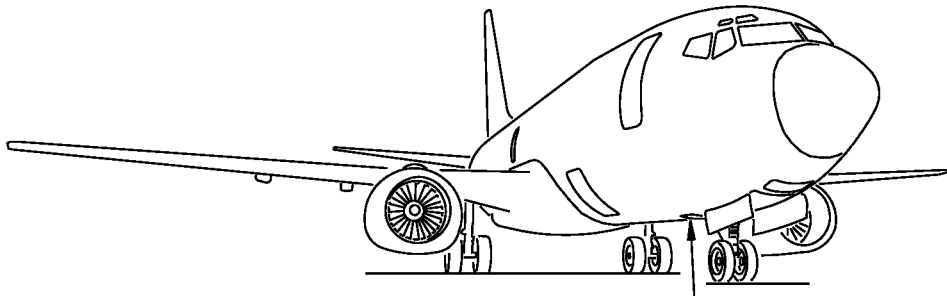
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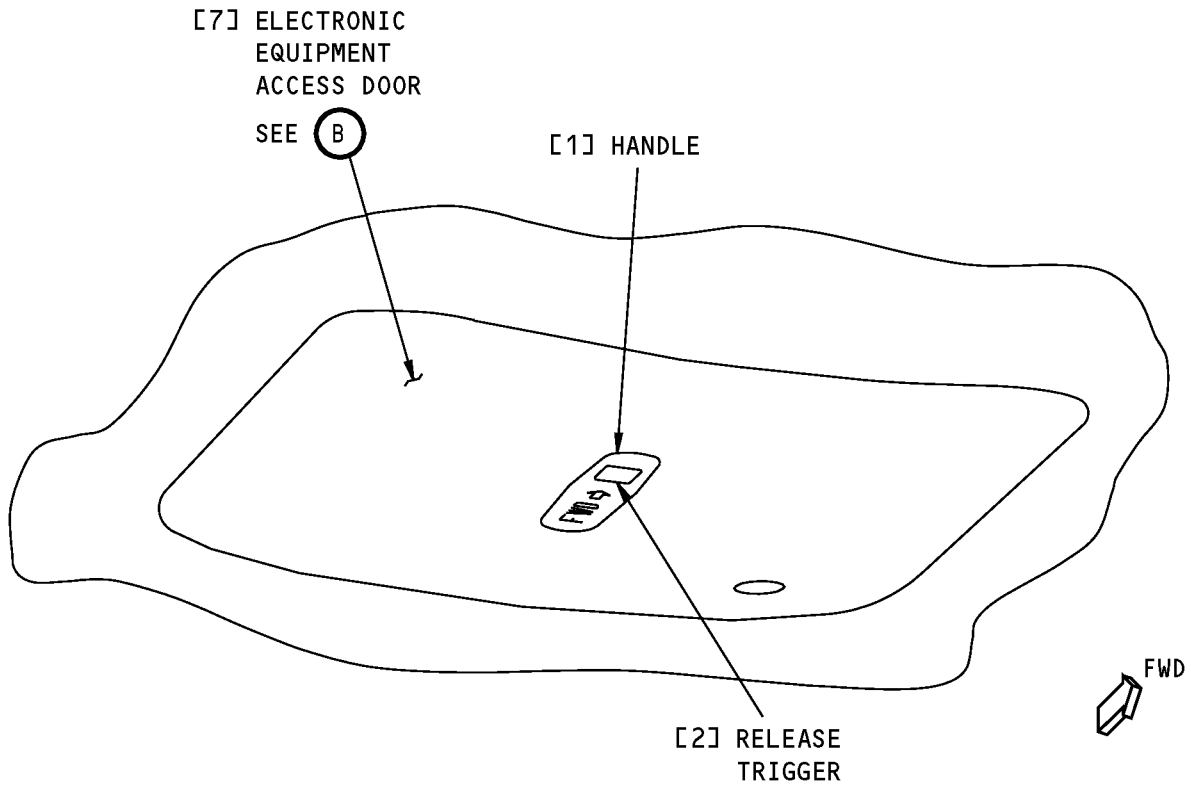
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ELECTRONIC
EQUIPMENT
ACCESS DOOR, 117A
SEE (A)



ELECTRONIC EQUIPMENT ACCESS DOOR, 117A

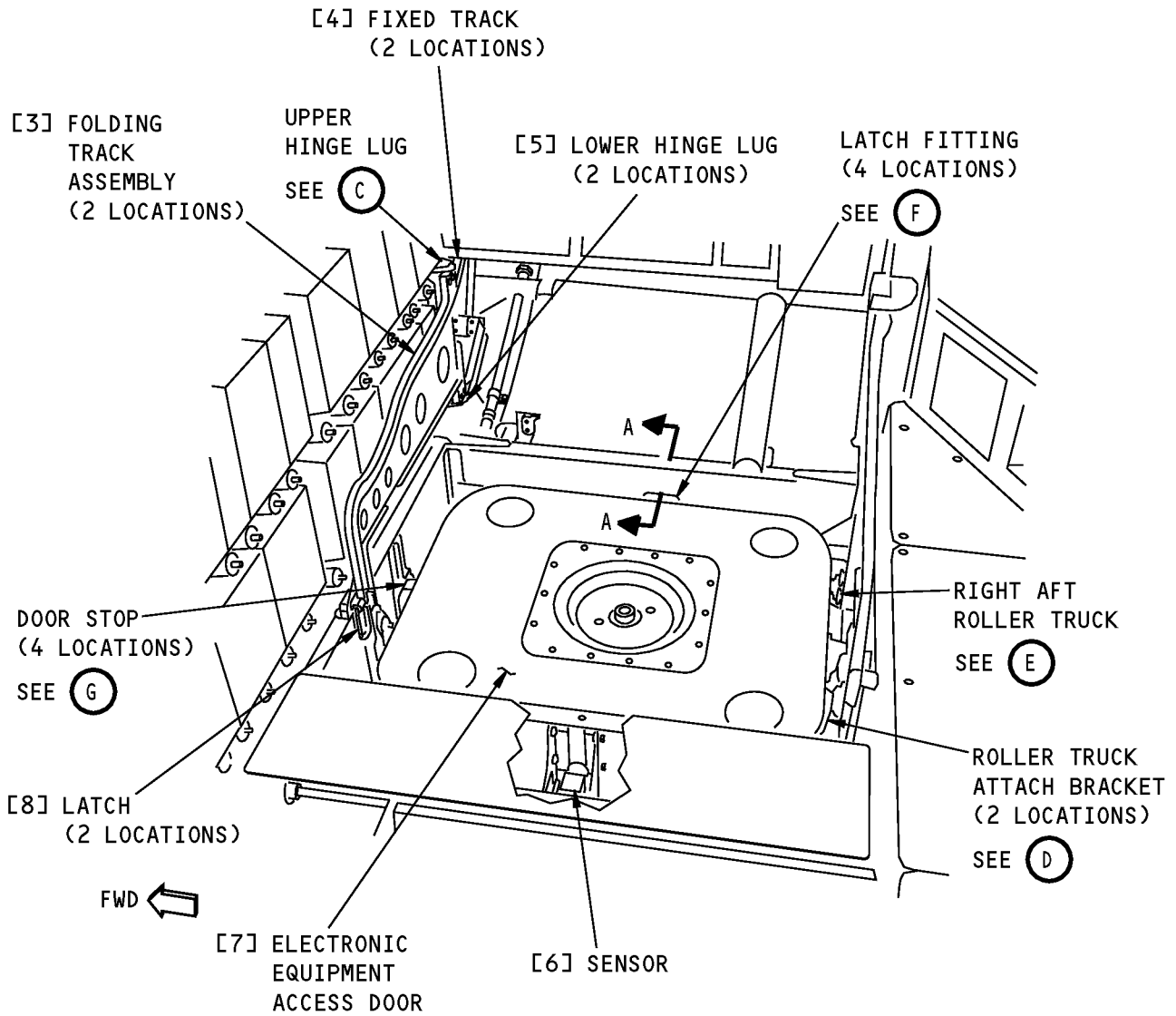
(A)

**Electronic Equipment Access Door Installation
Figure 401 (Sheet 1 of 5)/52-48-41-990-801**

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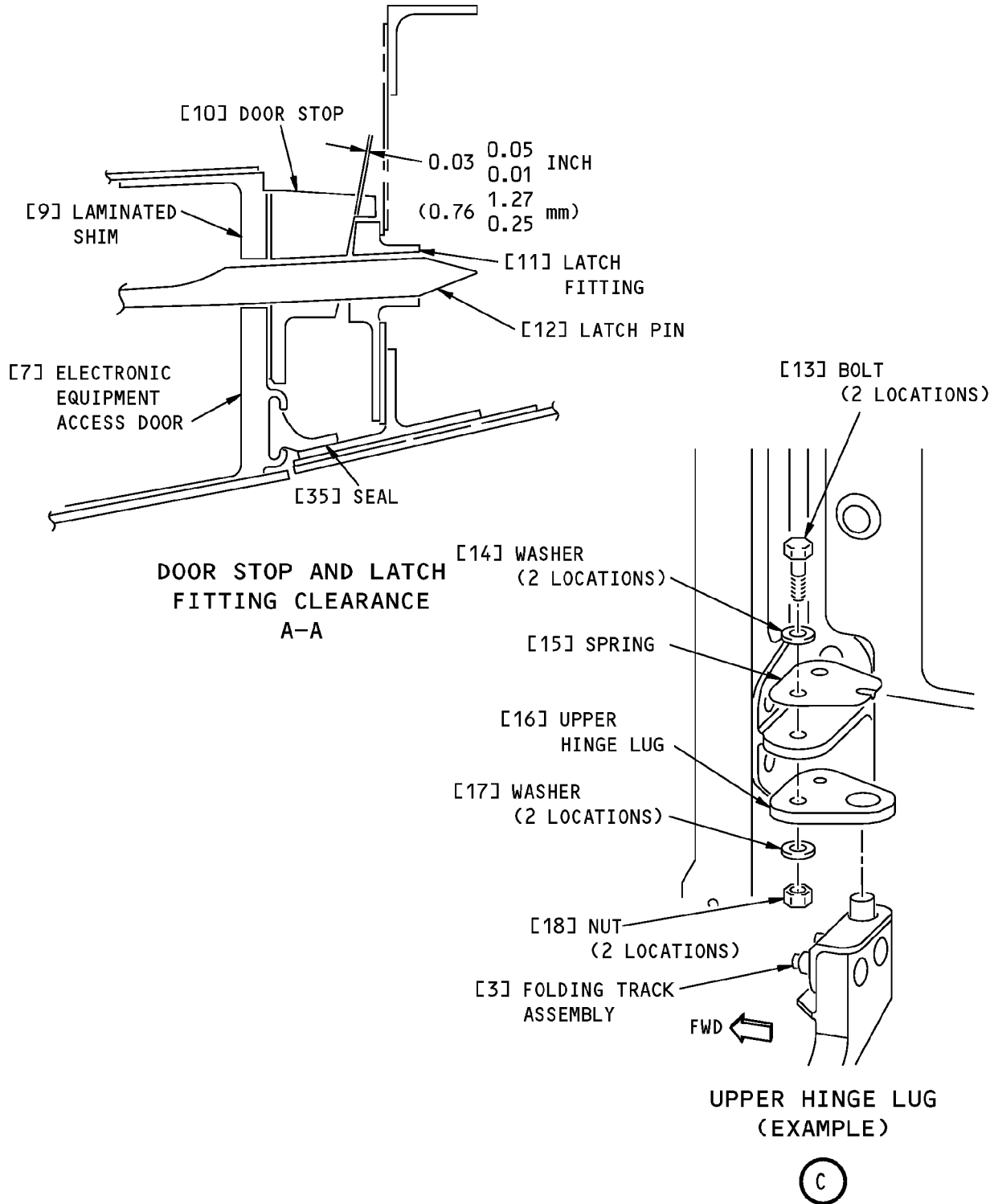
**ELECTRONIC EQUIPMENT ACCESS DOOR
(INTERNAL VIEW, DOOR CLOSED POSITION)**

(B)

**Electronic Equipment Access Door Installation
Figure 401 (Sheet 2 of 5)/52-48-41-990-801**

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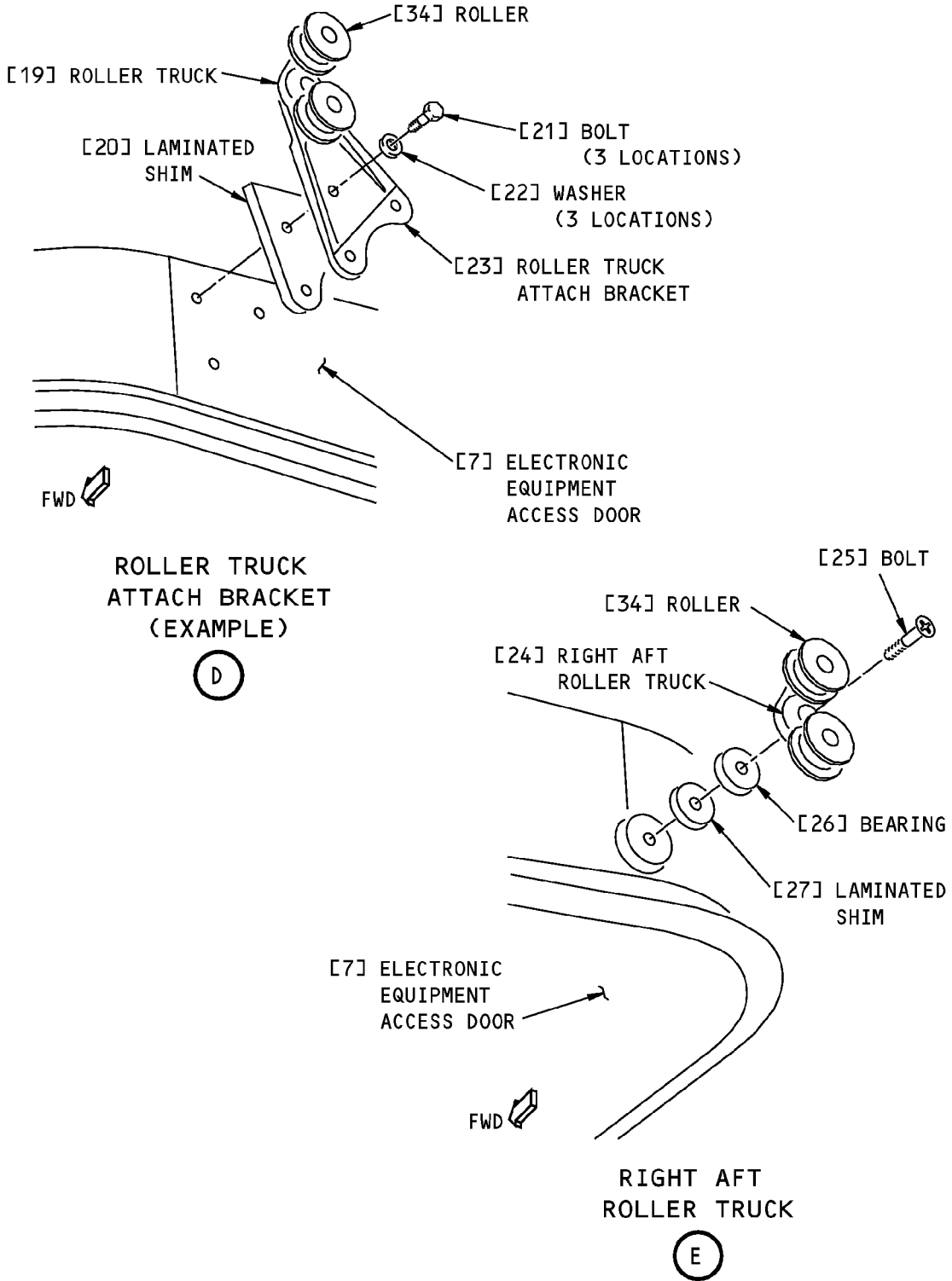


**Electronic Equipment Access Door Installation
Figure 401 (Sheet 3 of 5)/52-48-41-990-801**

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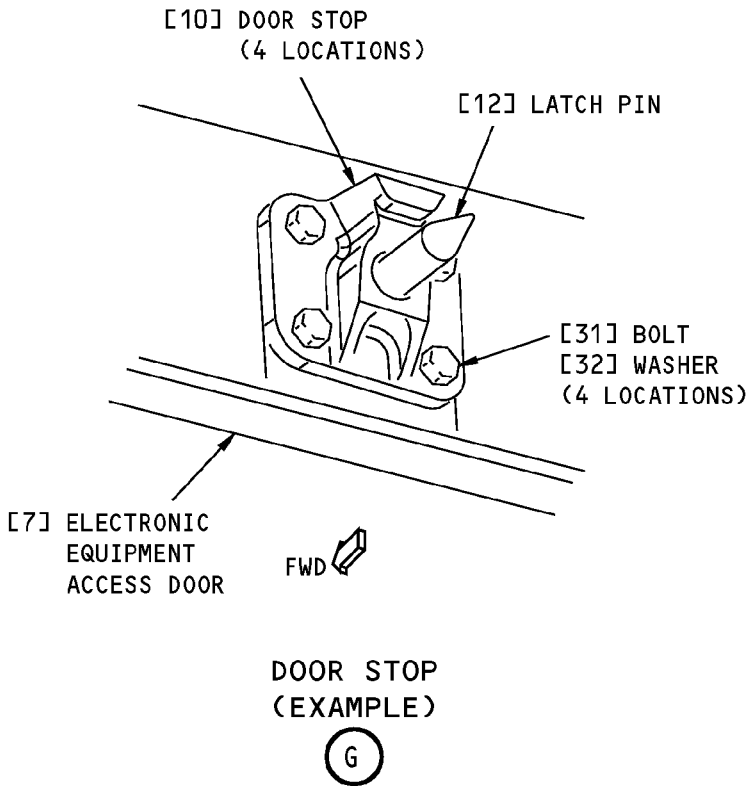
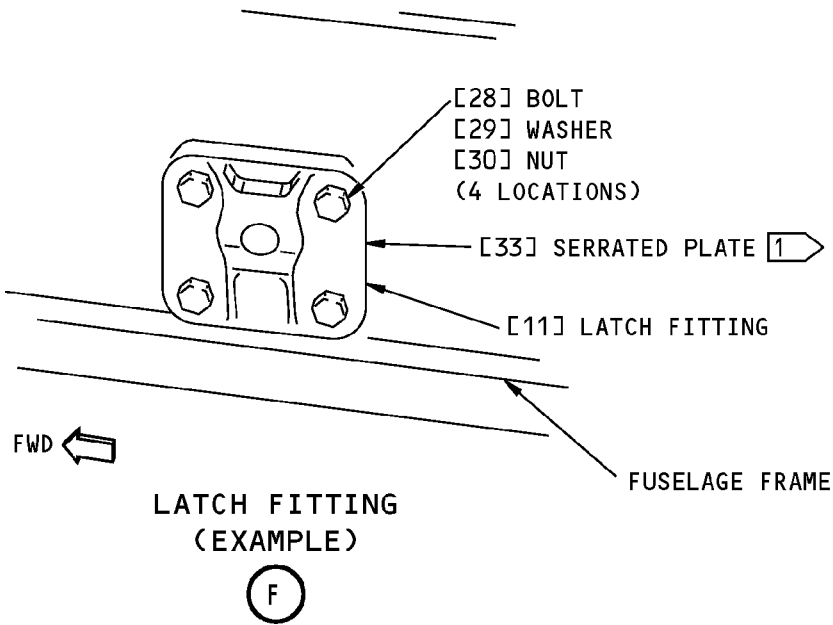
**Electronic Equipment Access Door Installation
Figure 401 (Sheet 4 of 5)/52-48-41-990-801**

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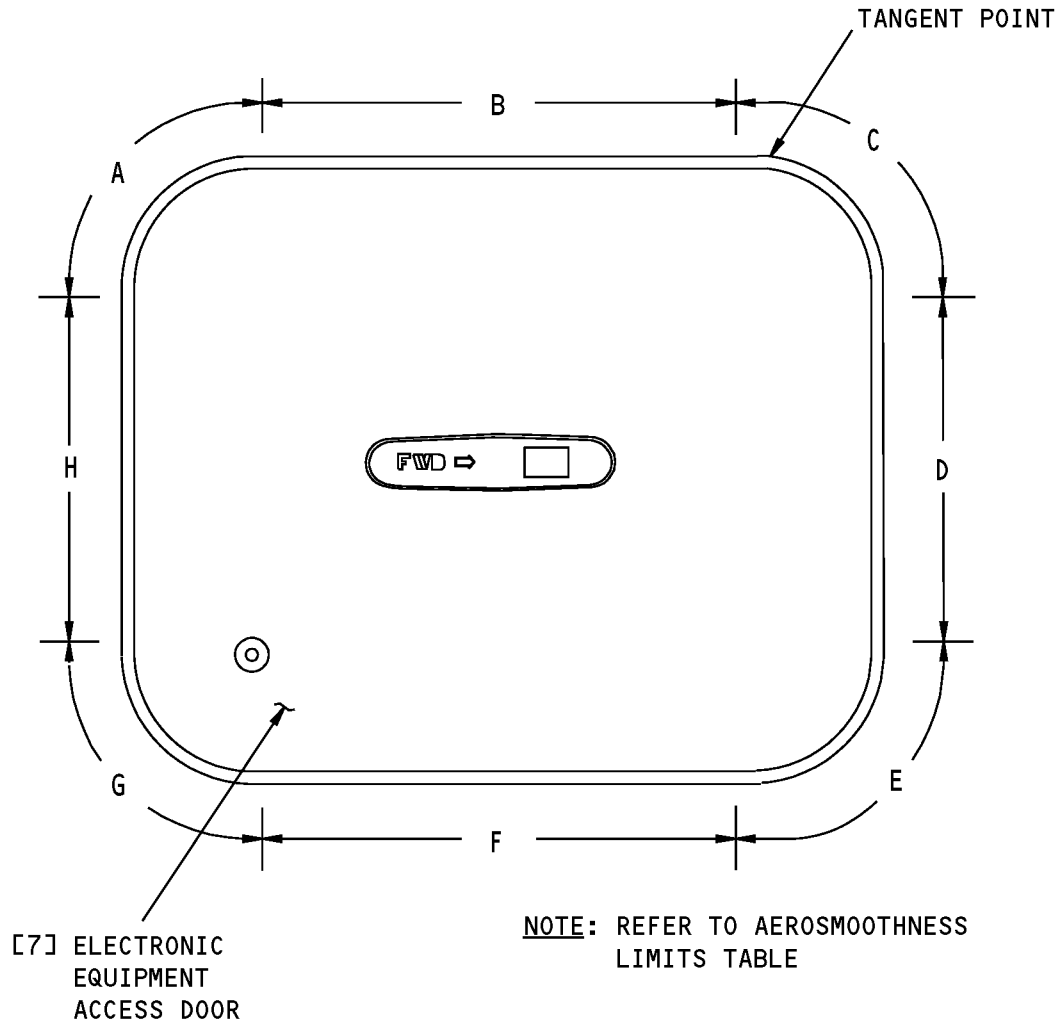
1 LEFT AND RIGHT LATCH FITTINGS ONLY

**Electronic Equipment Access Door Installation
Figure 401 (Sheet 5 of 5)/52-48-41-990-801**

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SKIN CLEARANCE AND FLUSHNESS ZONES

**Electronic Equipment Access Door Skin Clearance and Flushness
Figure 402/52-48-41-990-802**

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ELECTRONIC EQUIPMENT ACCESS DOOR - INSPECTION/CHECK

1. General

- A. This procedure contains scheduled maintenance task data.
- B. This procedure has these tasks:
 - (1) An inspection of the electronic equipment access door.
 - (2) An inspection of the electronic equipment access door pressure seal.

TASK 52-48-41-200-801

2. Electronic Equipment Access Door Check

A. References

Reference	Title
52-48-41-000-801	Electronic Equipment Access Door Removal (P/B 401)
52-48-41-400-801	Electronic Equipment Access Door Installation - Original Door (P/B 401)

B. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left
118	Electrical and Electronics Compartment - Right

C. Prepare for the Inspection

SUBTASK 52-48-41-840-007

- (1) Do this task: Electronic Equipment Access Door Removal, TASK 52-48-41-000-801.

D. Inspection

SUBTASK 52-48-41-210-001

- (1) Do a visual inspection of the external door structure and handle as follows:

- (a) Examine the external skin.
 - 1) Look for dents, cracks, and corrosion.
 - 2) Look for burrs.
 - 3) Look for loose and missing fasteners.
- (b) Examine the external handle.
 - 1) Look for cracks and corrosion.
 - 2) Look for too much wear.

SUBTASK 52-48-41-210-002

- (2) Do a visual inspection of the door internal structure as follows:

- (a) Examine the internal skin.
 - 1) Look for dents, cracks, and corrosion.
 - 2) Look for burrs.
 - 3) Look for loose and missing fasteners.
- (b) Examine the internal frames and brackets.
 - 1) Look for cracks and corrosion.
 - 2) Look for loose and missing fasteners.

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SUBTASK 52-48-41-210-003

- (3) Do a visual inspection of the latch mechanism as follows:
- (a) Examine the latch pins.
 - 1) Look for cracks and corrosion.
 - 2) Look for too much wear.
 - 3) Look for unwanted particles on the latch pins.

SUBTASK 52-48-41-210-004

- (4) Do a visual inspection of the stop fittings as follows:
- (a) Examine the stop fittings.
 - 1) Look for cracks and corrosion.

SUBTASK 52-48-41-210-005

- (5) Do a visual inspection of the roller trucks and track assembly as follows:
- (a) Examine the roller truck attach brackets.
 - 1) Look for cracks and corrosion.
 - 2) Look for loose and missing fasteners.
 - (b) Examine the roller trucks.
 - 1) Look for cracks and corrosion.
 - 2) Look for too much wear on the rollers.
 - 3) Make sure there are no unwanted particles on the rollers.
 - (c) Examine the tracks.
 - 1) Look for cracks and corrosion.
 - 2) Look for loose and missing fasteners.
 - 3) Make sure there are no unwanted particles on the tracks.
 - (d) Examine the folding portion of the tracks.
 - 1) Look for cracks and corrosion.
 - 2) Look for loose and missing fasteners.

SUBTASK 52-48-41-210-006

- (6) Do a visual inspection of the structure around the door opening as follows:
- (a) Examine the latch receptacles.
 - 1) Look for cracks and corrosion.
 - 2) Look for too much wear.
 - (b) Examine the fuselage frame.
 - 1) Look for cracks and corrosion.
 - 2) Look for loose and missing fasteners.

E. Put the Airplane Back to Its Usual Condition

SUBTASK 52-48-41-860-001

- (1) Do this task: Electronic Equipment Access Door Installation - Original Door, TASK 52-48-41-400-801.

————— END OF TASK —————

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TASK 52-48-41-200-802

3. Electronic Equipment Access Door Pressure Seal Check

A. General

(1) This procedure is a scheduled maintenance task.

B. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left
118	Electrical and Electronics Compartment - Right

C. Access Panels

Number	Name/Location
117A	Electronic Equipment Access Door

D. Prepare for the Inspection

SUBTASK 52-48-41-010-002

(1) Open this access panel:

Number	Name/Location
117A	Electronic Equipment Access Door

E. Inspection

SUBTASK 52-48-41-210-007

(1) Do a visual inspection of the door pressure seal as follows:

- (a) Examine the seal.
 - 1) Look for cracks, holes, and tears.
 - 2) Look for indications of seal deterioration.
 - 3) Make sure the seal is installed in the seal retainer.

F. Put the Airplane Back to Its Usual Condition

SUBTASK 52-48-41-410-003

(1) Close this access panel:

Number	Name/Location
117A	Electronic Equipment Access Door

————— **END OF TASK** —————

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WASTE TANK SERVICE PANEL - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

- (1) Waste Tank Service Panel Removal
(2) Waste Tank Service Panel Installation
(3) Waste Tank Service Panel Fit Check.

B. The waste tank service panel is referred to as the "panel" in this procedure.

TASK 52-49-07-000-801

2. Waste Tank Service Panel Removal

(Figure 401)

A. Location Zones

Table with 2 columns: Zone, Area. Row 1: 143, Area Below Aft Cargo Compartment - Left

B. Access Panels

Table with 2 columns: Number, Name/Location. Row 1: 145AL, Waste Service Door

C. Procedure

SUBTASK 52-49-07-010-001

(1) Open this access panel:

Table with 2 columns: Number, Name/Location. Row 1: 145AL, Waste Service Door

SUBTASK 52-49-07-020-001

(2) Remove the panel [1]:

- (a) Disconnect the bonding jumper [4] from the panel.
(b) Remove the bolts [2] and washers [3] that attach the panel [1] to the fuselage
(c) Remove the panel [1].

END OF TASK

TASK 52-49-07-400-801

3. Waste Tank Service Panel Installation

A. Consumable Materials

Table with 3 columns: Reference, Description, Specification. Row 1: A00247, Sealant - Pressure And Environmental - Chromate Type, BMS 5-95

B. Location Zones

Table with 2 columns: Zone, Area. Row 1: 143, Area Below Aft Cargo Compartment - Left

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C. Procedure

SUBTASK 52-49-07-420-001

(1) Install the panel [1]:

- (a) Apply sealant, A00247 to the surface of the hinge assemblies that attach the panel [1] to the fuselage.
- (b) Apply between the applicable surfaces
- (c) Attach the panel to the fuselage with the bolts [2] and washers [3].

NOTE: Install the bolts wet, with sealant, A00247.

- (d) Tighten the bolts [2].
- (e) Connect the bonding jumper [4] to the panel.
- (f) Close and latch the panel.

————— **END OF TASK** —————

TASK 52-49-07-000-802

4. Waste Tank Service Panel Fit Check

A. Location Zones

Zone	Area
143	Area Below Aft Cargo Compartment - Left

B. Procedure

SUBTASK 52-49-07-200-001

(1) Do a check on the panel for correct flushness and clearance.

- (a) With the latch open, the panel must rotate freely to contour within +0.010 or -0.02 inch (+0.254 or -0.508mm) at the latch location.
- (b) With the panel closed and faired with the fuselage at the latch location, the latch should rotate freely.
- (c) Adjust shims as required to maintain a maximum of 0.01 inch (0.254mm) between the rub block and latch bolt.

NOTE: Maximum shim thickness is 0.063 inch (1.60mm). Remove 0.003 inch (.076mm) laminations as required to fill gap.

- (d) The latch bolt should overlap the rub block by a minimum of 0.25 inch (6.35mm).
- (e) Make sure the latch buttons and outer perimeter of the panel is flush within ± 0.02 inch (0.508mm) when closed.

NOTE: If you install a new door, it may be necessary to trim the panel edges to fit the cutout.

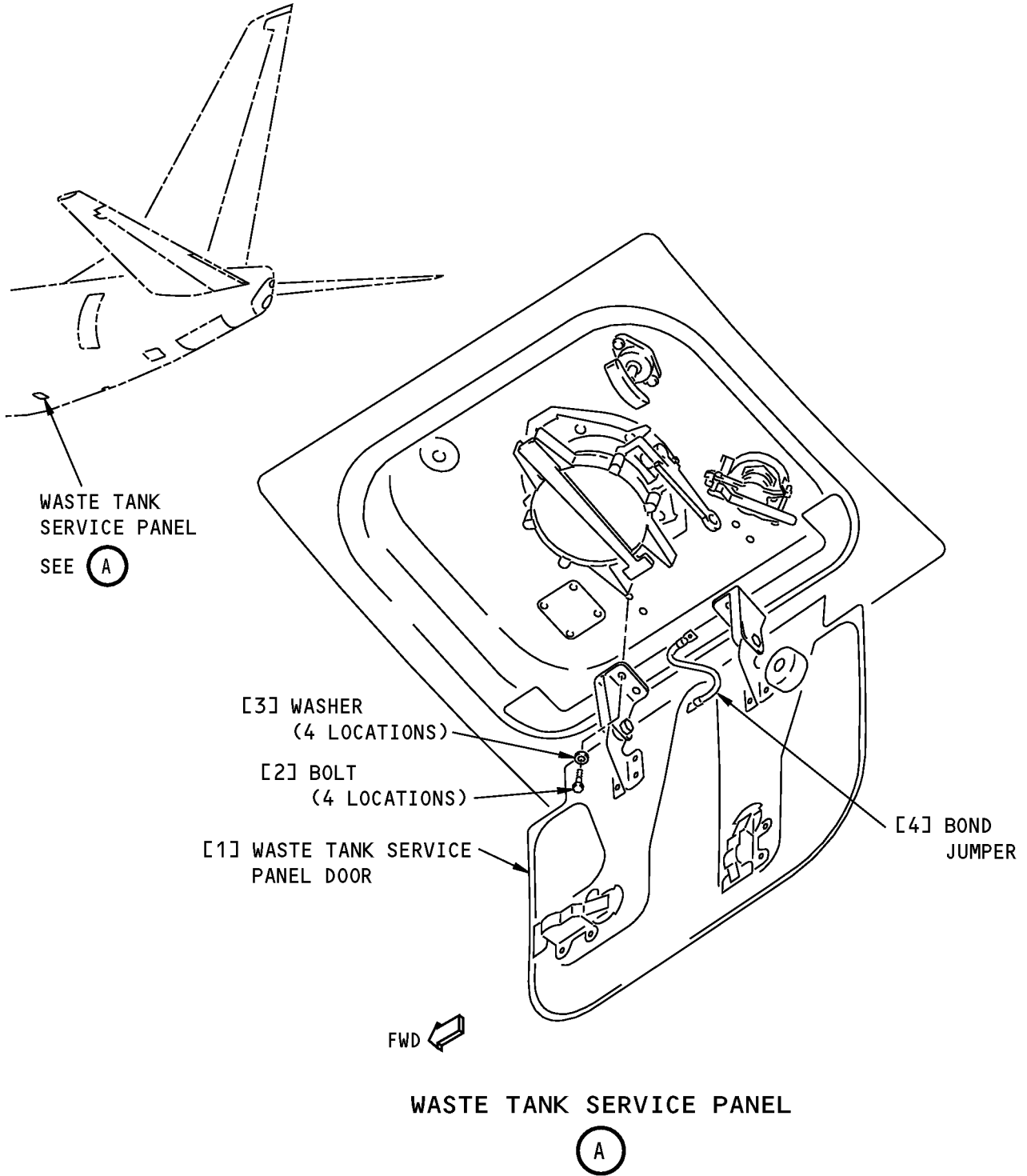
————— **END OF TASK** —————

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**Waste Tank Service Panel Installation
Figure 401/52-49-07-990-801**

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WATER SERVICE PANEL - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

- (1) Water Service Panel Removal
- (2) Water Service Panel Installation
- (3) Water Service Panel Fit Check.

B. The water service panel is referred to as the "panel" in this procedure.

TASK 52-49-09-000-801

2. Water Service Panel Removal

(Figure 401)

A. Location Zones

Zone	Area
143	Area Below Aft Cargo Compartment - Left

B. Access Panels

Number	Name/Location
146AR	Water Service Door

C. Procedure

SUBTASK 52-49-09-010-001

(1) Open this access panel:

Number	Name/Location
146AR	Water Service Door

SUBTASK 52-49-09-020-001

(2) Remove the panel [1]:

- (a) Disconnect the bonding jumper from the panel.
- (b) Remove the screws [4], washers [2], and nuts [3] that attach the panel to the fuselage
- (c) Remove the panel [1].

————— **END OF TASK** —————

TASK 52-49-09-400-801

3. Water Service Panel Installation

A. Consumable Materials

Reference	Description	Specification
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS 5-95

B. Location Zones

Zone	Area
143	Area Below Aft Cargo Compartment - Left

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C. Procedure

SUBTASK 52-49-09-420-001

(1) Install the panel [1]:

- (a) Apply sealant, A00247 to the surface of the hinge assemblies that attach the panel to the fuselage.
- (b) Apply between the applicable surfaces
- (c) Attach the panel to the fuselage with the screws [4], washers [2], and nuts [3].

NOTE: Install the screws wet, with sealant, A00247.

- (d) Tighten the nuts [3].
- (e) Connect the bonding jumper to the panel [1].
- (f) Close and latch the panel.

NOTE: You may need to adjust the brackets on the door so they don't make contact with the water tank fill handle or the drain handle.

————— **END OF TASK** —————

TASK 52-49-09-000-802

4. Water Service Panel Fit Check

A. Location Zones

Zone	Area
143	Area Below Aft Cargo Compartment - Left

B. Procedure

SUBTASK 52-49-09-200-001

(1) Do a check on the panel for correct flushness and clearance.

- (a) Adjust the latch screw and jamnut on the latch until the panel skin is tight against the panel stop doubler.
- (b) Latch buttons must open with moderate thumb pressure.
- (c) The latches must open and close freely with the latches open.
- (d) Make sure the latch buttons and outer perimeter of the panel is flush within ± 0.02 inch (.508mm) when closed.

NOTE: If you install a new door, it may be necessary to trim the panel edges to fit the cutout.

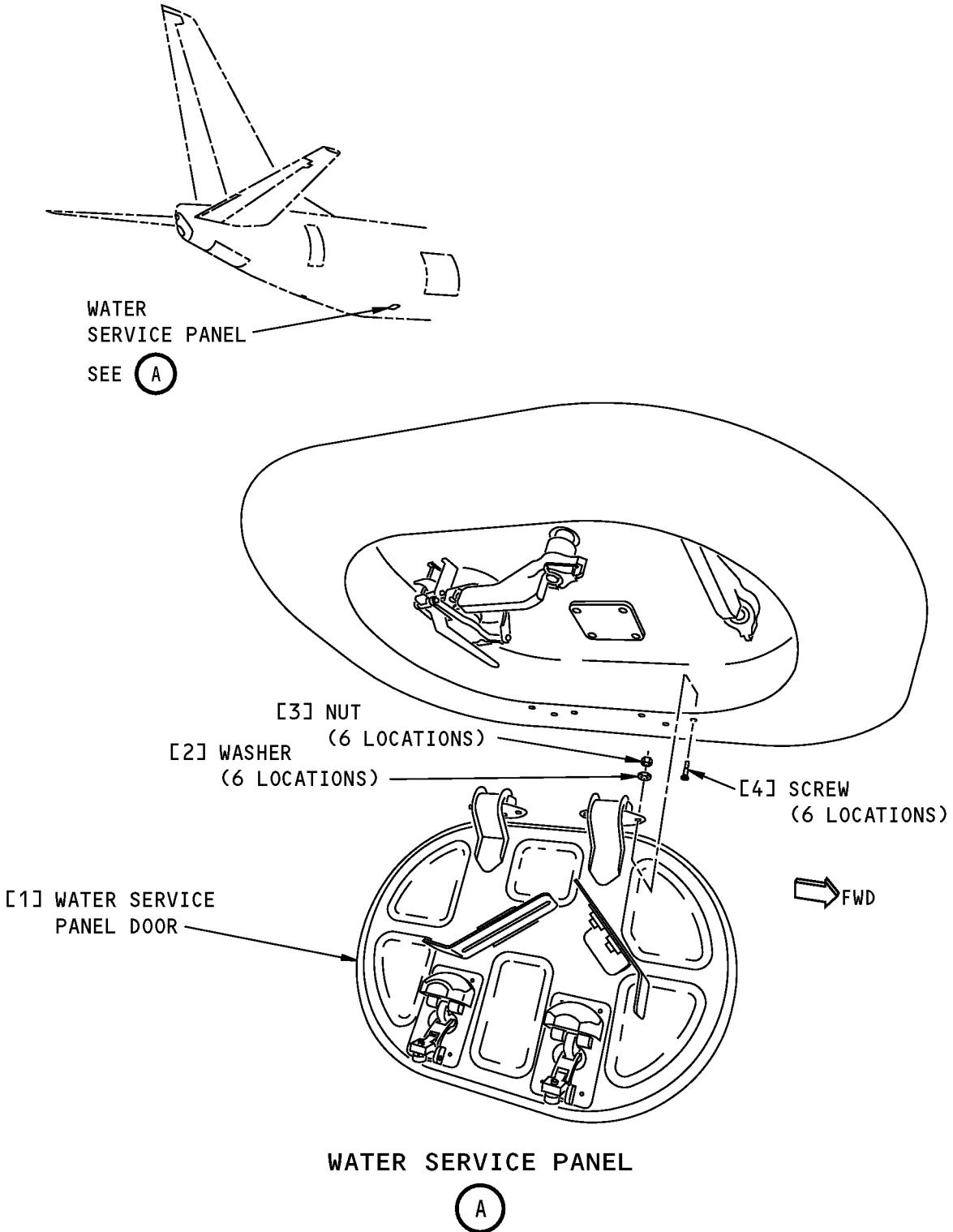
————— **END OF TASK** —————

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**Water Service Panel Installation
Figure 401/52-49-09-990-801**

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SECTION 48 ACCESS AND BLOWOUT DOOR - REMOVAL/INSTALLATION

1. General

A. This procedure contains these tasks:

- (1) A removal of the section 48 access and blowout door.
(2) An installation of the section 48 access and blowout door.

B. The section 48 access and blowout door is referred to as the "door" in this procedure.

TASK 52-49-11-000-802

2. Section 48 Access and Blowout Door Removal

(Figure 401)

A. Location Zones

Table with 2 columns: Zone, Area. Row 1: 311, Area Aft of Pressure Bulkhead - Left

B. Prepare for the Removal

SUBTASK 52-49-11-010-002

- (1) Open the door [1].

SUBTASK 52-49-11-480-002

- (2) Install straps to support the door [1].

C. Section 48 Access and Blowout Door Removal

SUBTASK 52-49-11-020-006

- (1) Remove the door [1]:

- (a) Remove the bolt [2] that attaches the strut [3] to the strut support [13].

NOTE: Do not remove the lockwire or rod ends from the strut.

- (b) Remove the bolt [7], washer [8], and nut [6] that attach the bonding jumper [5] to the empennage structure.

- (c) Remove the bolts [11], washers [10], nylon washers [4], and nuts [9] that attach the hinges [12] to the empennage structure.

- (d) Remove the door [1] from the airplane.

END OF TASK

TASK 52-49-11-400-802

3. Section 48 Access and Blowout Door Installation

(Figure 401)

A. References

Table with 2 columns: Reference, Title. Row 1: 52-49-11-720-801, Section 48 Access and Blowout Door Test (P/B 501)

B. Tools/Equipment

Table with 2 columns: Reference, Description. Row 1: STD-1107, Gauge - Feeler, 0.0 - 0.5 Inch, Readable to 1/1000th

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C. Consumable Materials

Reference	Description	Specification
G01912	Lockwire - Monel (0.032 In. Dia.)	NASM20995N~ C32 (QQ-N-281)

D. Location Zones

Zone	Area
311	Area Aft of Pressure Bulkhead - Left

E. Section 48 Access and Blowout Door Installation

SUBTASK 52-49-11-420-004

(1) Install the door [1]:

- (a) Install the bolts [11], washers [10], nylon washers [4], and nuts [9] to attach the hinges [12] to the empennage structure.
- (b) Install the bolt [7], washer [8] and nut [6] that attach the bonding jumper [5] to the empennage structure.

SUBTASK 52-49-11-820-003

(2) Adjust the door [1]:

WARNING: STAY OFF THE DOOR. YOUR WEIGHT CAN RELEASE THE SPRING-LOADED LATCHES. IF YOU FALL THROUGH THE DOOR, INJURIES WILL OCCUR.

- (a) Close the door [1].
- (b) Align the door [1] in the empennage structure.
- (c) Adjust the latch roller [14] and the top edge of the latch stop [15]:
 - 1) Make sure the outboard and inboard latch rollers [14] share equal door load.
 - 2) For the inboard latch assembly, insert a 0.020 in (0.508 mm) 0.0 - 0.5 Inch feeler gauge, STD-1107 between the latch roller [14] and latch stop [15].

NOTE: This will preload the inboard door latch.

- 3) For the outboard latch assembly, insert a 0.0 - 0.5 Inch feeler gauge, STD-1107.
- 4) Measure a clearance of 0.002-0.020 in (0.051-0.508 mm) between the outboard latch roller [14] and latch stop [15].
- 5) If it is necessary, adjust the clearance on the outboard latch assembly:
 - a) Loosen the bolts [17], washers [18] and nuts [19] that attach the serrated plate [16] to the fuselage.
 - b) Insert a 0.020 in (0.508 mm) 0.0 - 0.5 Inch feeler gauge, STD-1107 on the inboard latch assembly between the latch roller [14] and latch stop [15].

NOTE: This will preload the inboard door latch.

- c) Move the serrated plate [16] to get a clearance of 0.002-0.020 in (0.051-0.508 mm) between the outboard latch roller [14] and latch stop [15].
- d) Tighten the bolts [17], washers [18] and nuts [19] that attach the serrated plate [16] to the fuselage.
- (d) Close the door [1].
- (e) Make sure the skin clearance between the door and empennage is as shown.
- (f) Adjust the door [1] again if it is necessary.

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SUBTASK 52-49-11-420-005

(3) Connect the strut [3] to the empennage structure:

- (a) Install the bolt [2] that attaches the strut [3] to the strut support [13].
- (b) Do a check of the strut [3]:
 - 1) Close the door [1].
 - 2) Make sure the strut [3] does not strike the fuselage opening.
 - 3) Make sure the hinge [12] does not strike the fuselage.
 - 4) Open the door [1].
 - 5) Extend the strut [3] to fully compress the inside spring.
 - 6) Make sure there is sufficient clearance between the forward edge of the door [1] and the fuselage when the strut [3] is in its maximum open position.
- (c) If it is necessary, adjust the strut [3] length as follows:
 - 1) Make sure the door skin clearance is correct, (Figure 401).
 - 2) Remove the bolt [2] that attaches the strut [3] to the strut support .
 - 3) Remove the strut [3].
 - 4) Remove the lockwire from rod end lock nut [20].
 - 5) Loosen the lock nut [20].
 - 6) Put the retaining pin into the holes on the top side of the strut [3] to fix the strut [3] tube length, (Figure 401).
 - 7) Adjust rod end to get sufficient clearance between the forward edge of the door [1] and the fuselage.
 - 8) Tighten the lock nut [20] at end of strut to 60-85 lb-in (6.8-9.6 Nm).
 - 9) Install the lockwire, G01912.
 - 10) Install the bolt [2] that attaches the strut [3] to the strut support [13].
- (d) Tighten the bolt [2] to 20-30 lb-in (2.3-3.4 Nm).

SUBTASK 52-49-11-710-002

(4) Do this task: Section 48 Access and Blowout Door Test, TASK 52-49-11-720-801.

F. Put the Airplane Back to Its Usual Condition

SUBTASK 52-49-11-080-001

(1) Remove the strap from the door.

SUBTASK 52-49-11-010-003

(2) Close the door [1].

————— END OF TASK —————

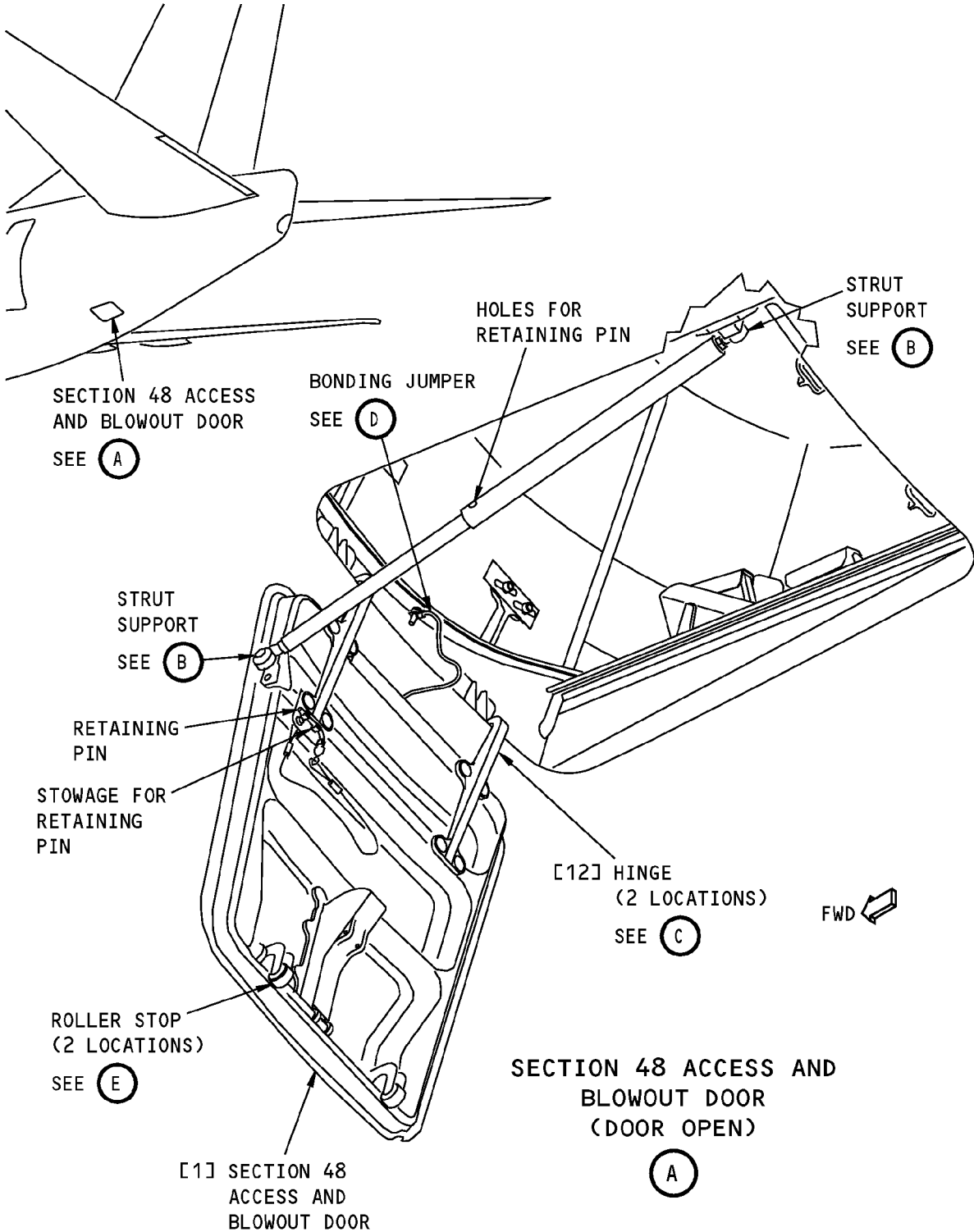
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**Section 48 Access and Blowout Door Installation
Figure 401 (Sheet 1 of 4)/52-49-11-990-803**

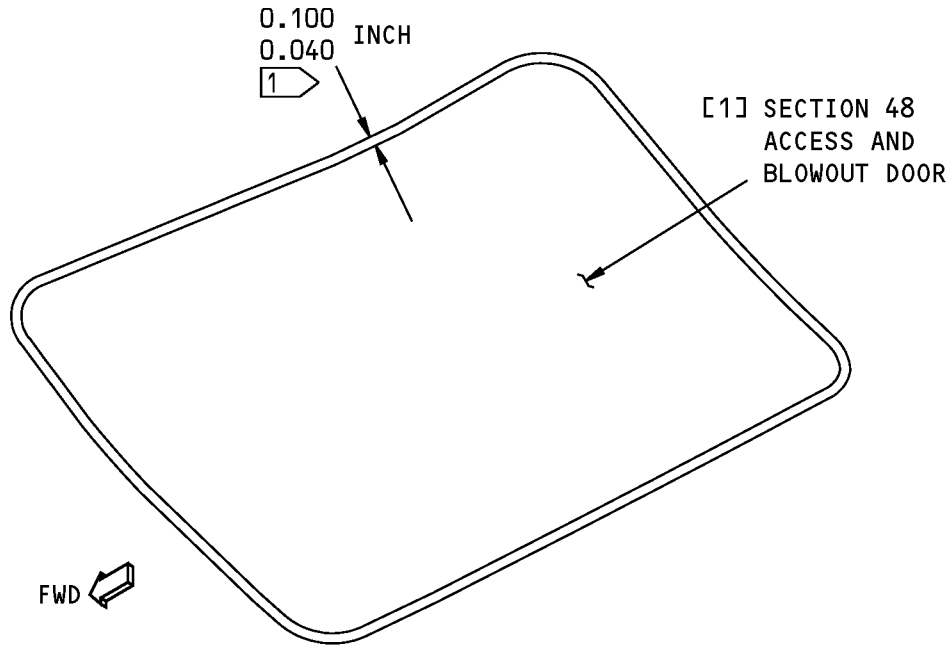
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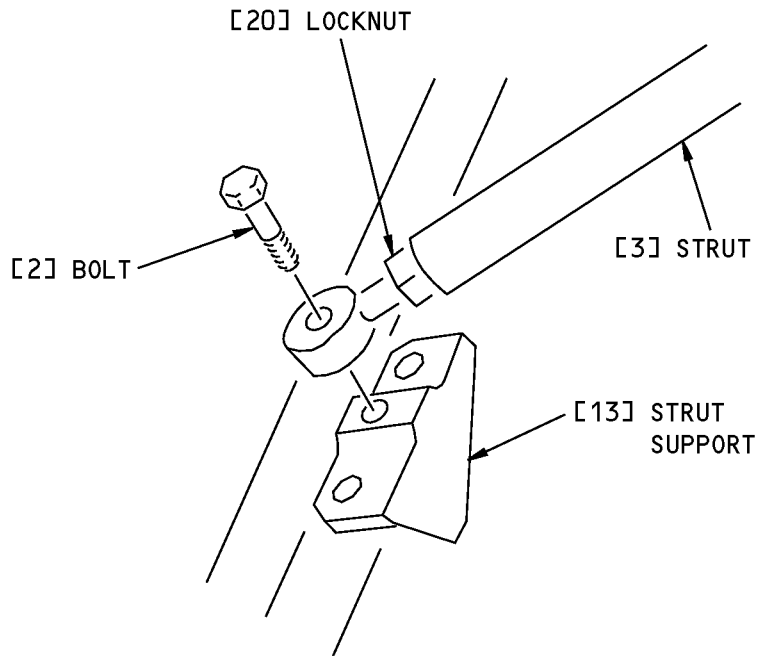
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**SECTION 48 ACCESS AND
BLOWOUT DOOR
(DOOR CLOSED)**

(A)



**STRUT SUPPORT
(EXAMPLE)**

(B)

1 **CAUTION:** THE SKIN CLEARANCE MUST BE EQUAL WITHIN 0.030 INCH ON BOTH SIDES OF THE DOOR.

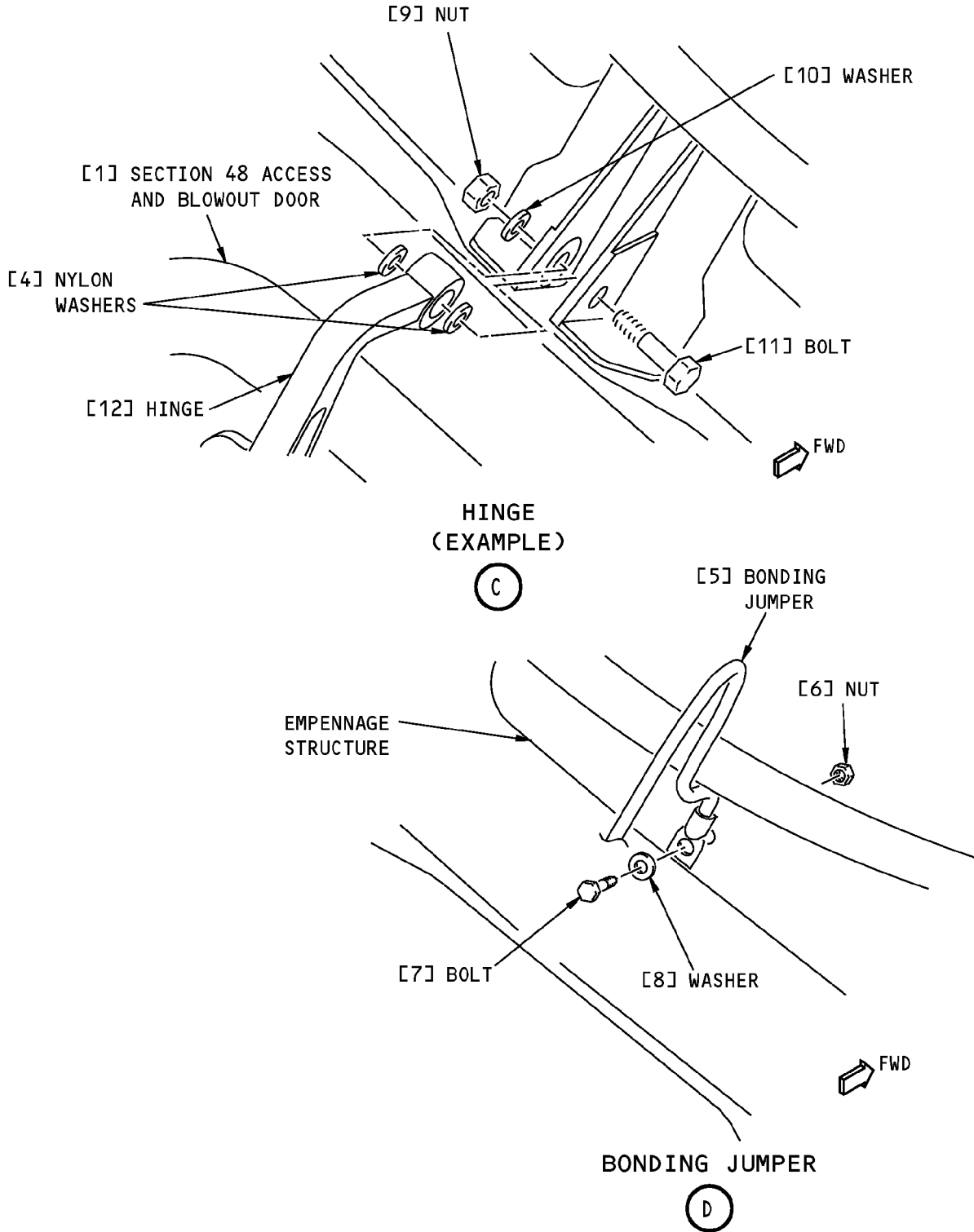
**Section 48 Access and Blowout Door Installation
Figure 401 (Sheet 2 of 4)/52-49-11-990-803**

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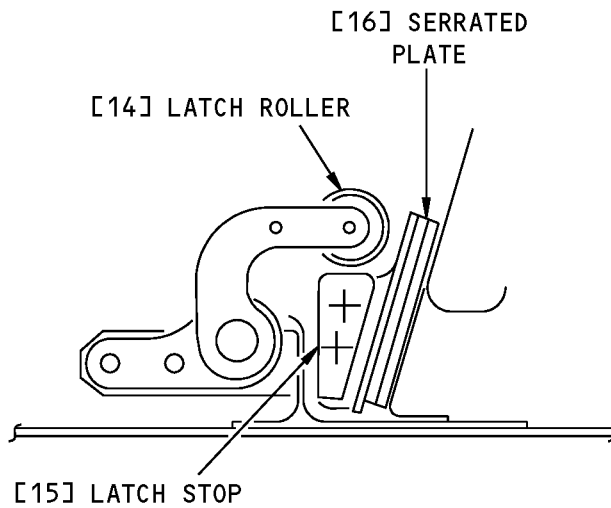
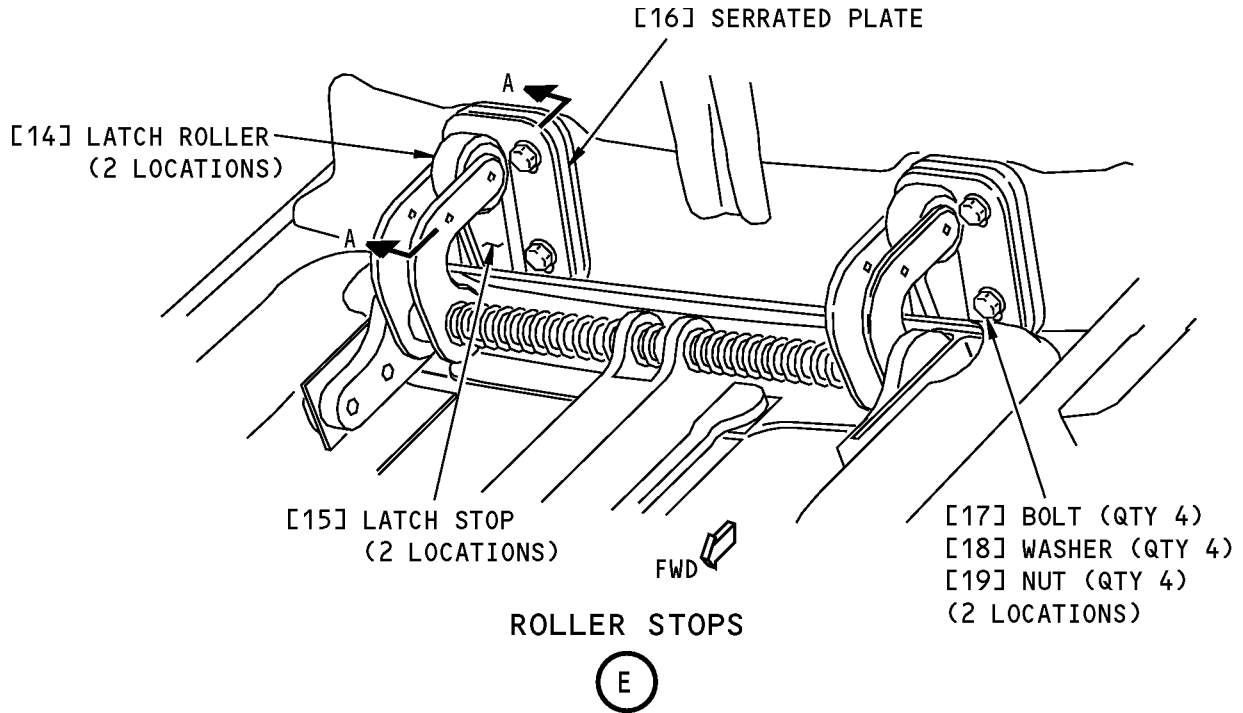


**Section 48 Access and Blowout Door Installation
Figure 401 (Sheet 3 of 4)/52-49-11-990-803**

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LATCH ROLLER AND STOP
A-A

Section 48 Access and Blowout Door Installation
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SECTION 48 ACCESS AND BLOWOUT DOOR - ADJUSTMENT/TEST

1. General

A. This procedure has this task:

- (1) A test of the section 48 access and blowout door.

TASK 52-49-11-720-801

2. Section 48 Access and Blowout Door Test

(Figure 501)

A. Location Zones

Zone	Area
311	Area Aft of Pressure Bulkhead - Left

B. Access Panels

Number	Name/Location
311BL	Stabilizer Trim Access Door

C. Prepare for the Test

SUBTASK 52-49-11-010-004

- (1) Open this access panel:

Number	Name/Location
311BL	Stabilizer Trim Access Door

SUBTASK 52-49-11-010-005

WARNING: STAY OFF THE DOOR. YOUR WEIGHT CAN RELEASE THE SPRING-LOADED LATCHES. IF YOU FALL THROUGH THE DOOR, INJURIES WILL OCCUR.

- (2) Go into the compartment and close the door.

D. Procedure

SUBTASK 52-49-11-480-001

- (1) Do a blowout test on the door:

- (a) Apply a device that weighs between 52-68 pounds (23.6-30.8 kilograms) on the door frame near the latch torque shaft.
- (b) Make sure the latches release.
- (c) If it is necessary, adjust the door latch release pressure as follows:
 - 1) Loosen bolts [3], washers [4], and nuts [5].
 - 2) Move the serrated plates [2] up or down to change the door opening pressure.
 - a) Move the inboard and outboard serrated plates [2] the same number of serrations and in the same direction.
 - 3) Install the bolts [3], washers [4], and nuts [5].

SUBTASK 52-49-11-710-003

- (2) Do a test on the usual operation of the door as follows:

- (a) Open and close the door.
- (b) Make sure the door opens and closes smoothly.
- (c) Make sure the hinges, latches, and strut operate correctly.

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E. Put the Airplane Back to Its Usual Condition.

SUBTASK 52-49-11-410-001

(1) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
311BL	Stabilizer Trim Access Door

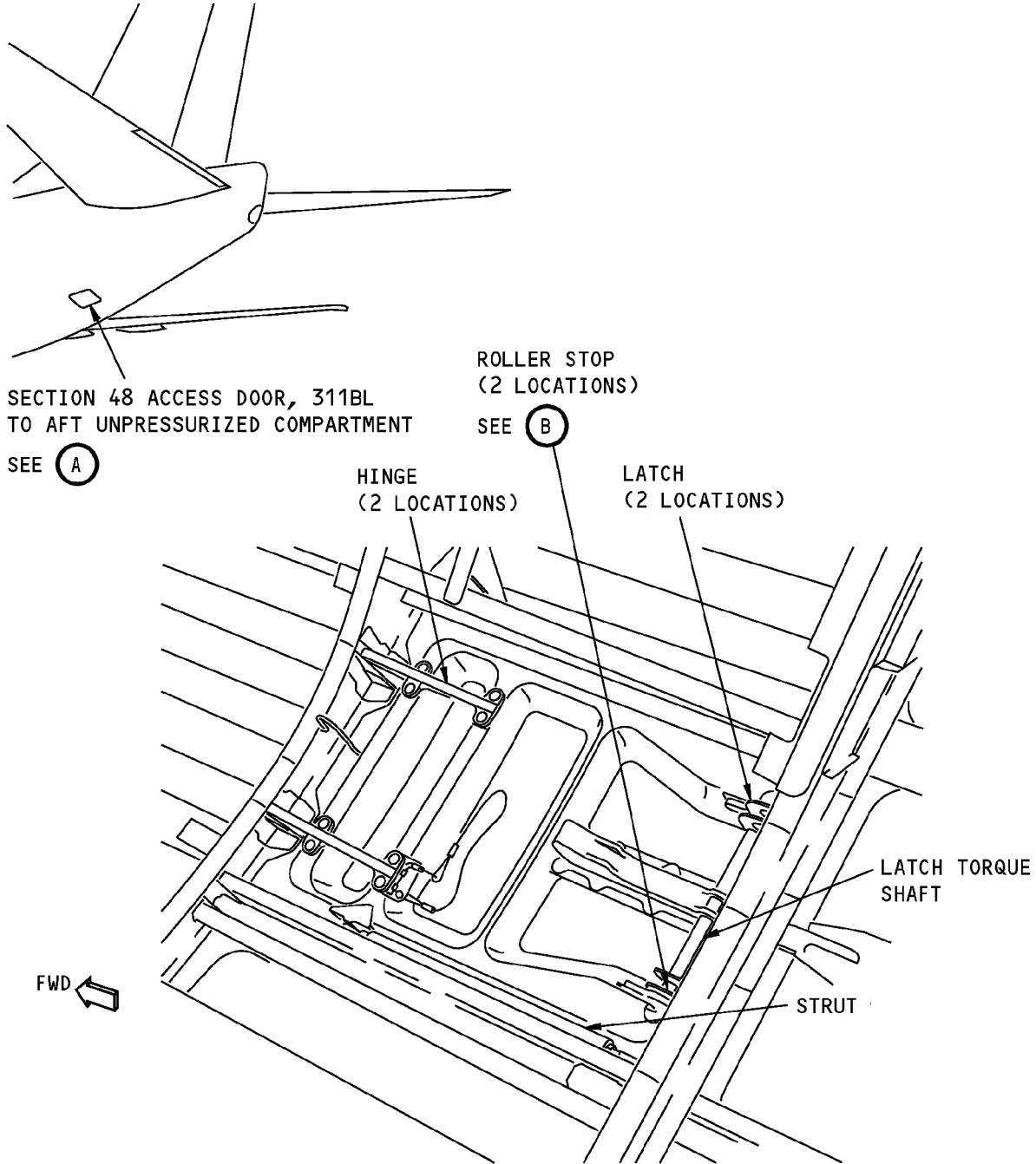
————— **END OF TASK** —————

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**SECTION 48 ACCESS DOOR, 311BL
TO AFT UNPRESSURIZED COMPARTMENT**

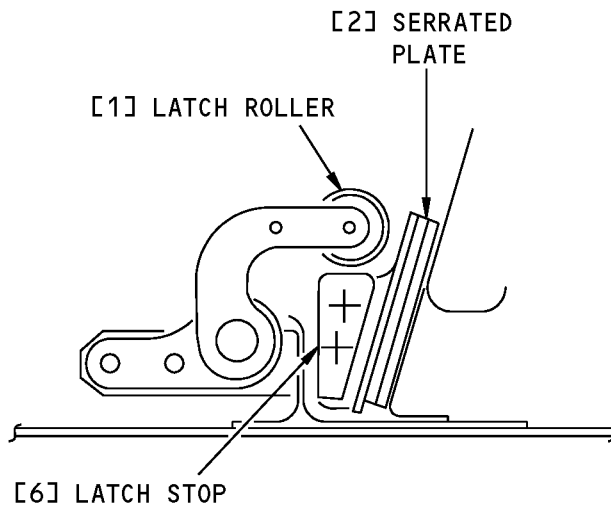
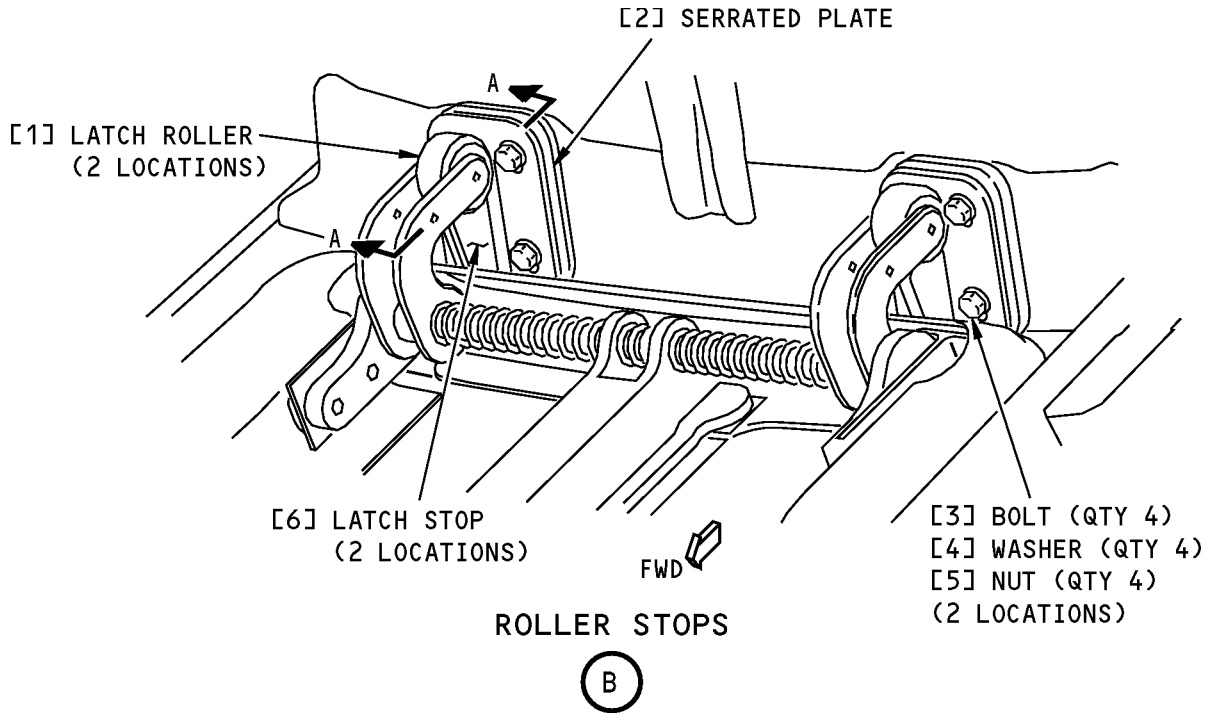
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**Section 48 Access and Blowout Door Test
Figure 501 (Sheet 1 of 2)/52-49-11-990-804**

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LATCH ROLLER AND STOP
A-A

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REFUELING STATION DOOR - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

- (1) A removal of the refueling station door.
- (2) An installation of the refueling station door.

TASK 52-49-21-000-801

2. Refueling Station Door Removal

(Figure 401)

A. Consumable Materials

Reference	Description	Specification
G02438	Wrap - Tie - TY24M (TY-RAP)	

B. Location Zones

Zone	Area
621	Right Wing - Leading Edge to Front Spar

C. Prepare for the Removal

SUBTASK 52-49-21-010-001

- (1) Open the refueling station door [1].

D. Refueling Station Door Removal

SUBTASK 52-49-21-020-001

- (1) Disconnect the hold-open strut [5] from the wing structure:
 - (a) Remove the cotter pin [3], pin [4], and washers [7] and [6].
 - (b) Remove the hold-open strut [5] from the fitting [2] on the wing.

SUBTASK 52-49-21-020-008

- (2) Disconnect the interphone service at the hinge half [11] of the refueling station door [1].
 - (a) Remove the nuts [9], washers [10], and bolts [8].
 - (b) Use TY24M (TY-RAP) tie wrap, G02438 to hold the interphone service to the airplane.

SUBTASK 52-49-21-020-009

- (3) Disconnect the inboard and outboard lights from the refueling station door [1]:
 - (a) Remove the light hoods [21], jamnuts [20], clips [17], and washers [16].
 - (b) Remove the bolts [19], nuts [22], and clamps [18] from bracket [24] and bracket [25].
 - (c) Pull the connectors from the brackets [23].
 - (d) Use TY24M (TY-RAP) tie wrap, G02438 to hold the light power cable to the airplane.

SUBTASK 52-49-21-020-010

- (4) Remove the forward end of the three bonding jumpers at the hinge half [11] of the refueling station door [1]:
 - (a) To disconnect the bonding jumpers, remove the bolts [12], washers [13], and nuts [9].

SUBTASK 52-49-21-000-001

- (5) To remove the refueling station door [1] from the airplane, remove the bolts [14], nuts [9], and washers [15] at the hinge half [11].

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SUBTASK 52-49-21-020-005

- (6) If it is necessary, remove the latches [28]:
 - (a) Remove the bolts [29], washers [30] and nuts [27].
 - (b) Remove the latches [28].

————— END OF TASK —————

TASK 52-49-21-400-801

3. Refueling Station Door Installation

(Figure 401)

A. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1550	Meter - Bonding (Approved Explosion Proof & Intrinsically Safe) (Part #: C15292 (MODEL T477W), Supplier: 01014, A/P Effectivity: 737-ALL) (Part #: M1, Supplier: 3AD17, A/P Effectivity: 737-ALL) (Part #: M1B, Supplier: 3AD17, A/P Effectivity: 737-ALL)

B. Consumable Materials

Reference	Description	Specification
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS 5-95

C. Location Zones

Zone	Area
621	Right Wing - Leading Edge to Front Spar

D. Refueling Station Door Installation

SUBTASK 52-49-21-400-001

- (1) If the latches [28] have been removed, do these steps:
 - (a) Put the latch [28] on the refueling station door [1].
 - (b) Install the bolts [29], washers [30], and nuts [27].

SUBTASK 52-49-21-000-002

- (2) To install the refueling station door [1] on the airplane, install the bolts [14], nuts [9], and washers [15] to the hinge half [11].

SUBTASK 52-49-21-020-011

- (3) Install the forward end of the three bonding jumpers at hinge half [11] of the refueling station door [1]:
 - (a) To connect the bonding jumpers, remove the bolts [12], washers [13], and nuts [9].
 - (b) Use an bonding meter, COM-1550 to make sure that the resistance between the bolt [12] and the refueling station door [1] is not more than 0.001 ohm.
 - (c) Apply a fillet seal of sealant, A00247 on the bonding jumper fasteners.

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SUBTASK 52-49-21-420-007

- (4) Install the inboard light and the outboard light:
- (a) Make sure the washer [16] and jamnut [20] is on the connector.
 - (b) Push the connectors through the hole in the brackets [23].
 - (c) Put the clamps [18] on the light power cables.
 - (d) Install the bolts [19], nuts [22], and clamps [18] in bracket [24] and bracket [25].
 - (e) Install the clip [17], jamnut [20], and light hood [21].
 - (f) Tighten the jamnuts [20].

SUBTASK 52-49-21-020-012

- (5) Connect the interphone service to the hinge half [11] of the refueling station door [1].
- (a) Disconnect the interphone service from where you temporarily tied it to the airplane.
 - (b) To connect the interphone service, install the nuts [9], washers [10], and bolts [8].

SUBTASK 52-49-21-420-004

- (6) Connect the hold-open strut [5] to the wing structure:
- (a) Install the pin [4], washers [6] and [7], and cotter pin [3] that attach the hold-open strut [5] to the wing structure.

SUBTASK 52-49-21-420-005

- (7) If it is necessary, check the latches [28]:
- (a) Close the refueling station door [1].
 - (b) Make sure the latches [28] will lock with finger pressure.
 - (c) Make sure the refueling station door [1] is satisfactorily held against the airplane structure by the closed latches.

WARNING: BE CAREFUL WHEN YOU RELEASE THE REFUEL LATCHES. THE REFUEL DOOR WILL OPEN FREELY. THIS CAN CAUSE INJURY TO PERSONS AND DAMAGE TO EQUIPMENT.

- (d) Make sure that finger pressure will open the latches [28].
 - 1) If it is necessary, adjust the striker bolt [31] to get the correct latch pressure.

E. Installation Test

SUBTASK 52-49-21-710-001

- (1) Do a test on the refueling station door [1]:
- (a) Open and close the refueling station door [1].
 - (b) Make sure the refueling station door [1] operate smoothly.
 - (c) Make sure the latches [28] operate correctly.

————— **END OF TASK** —————

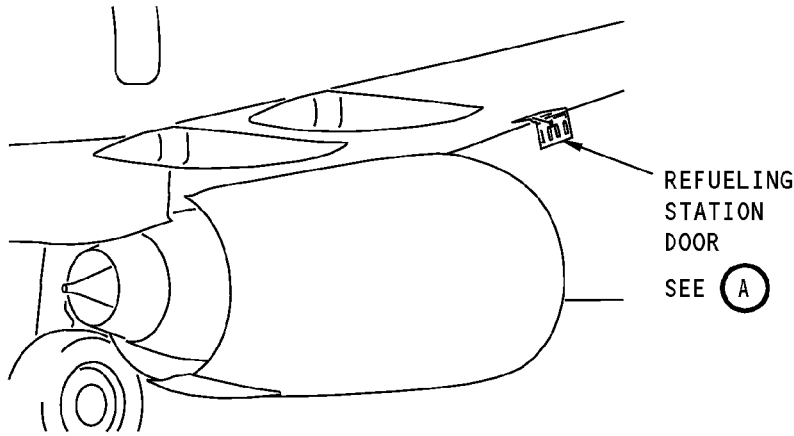
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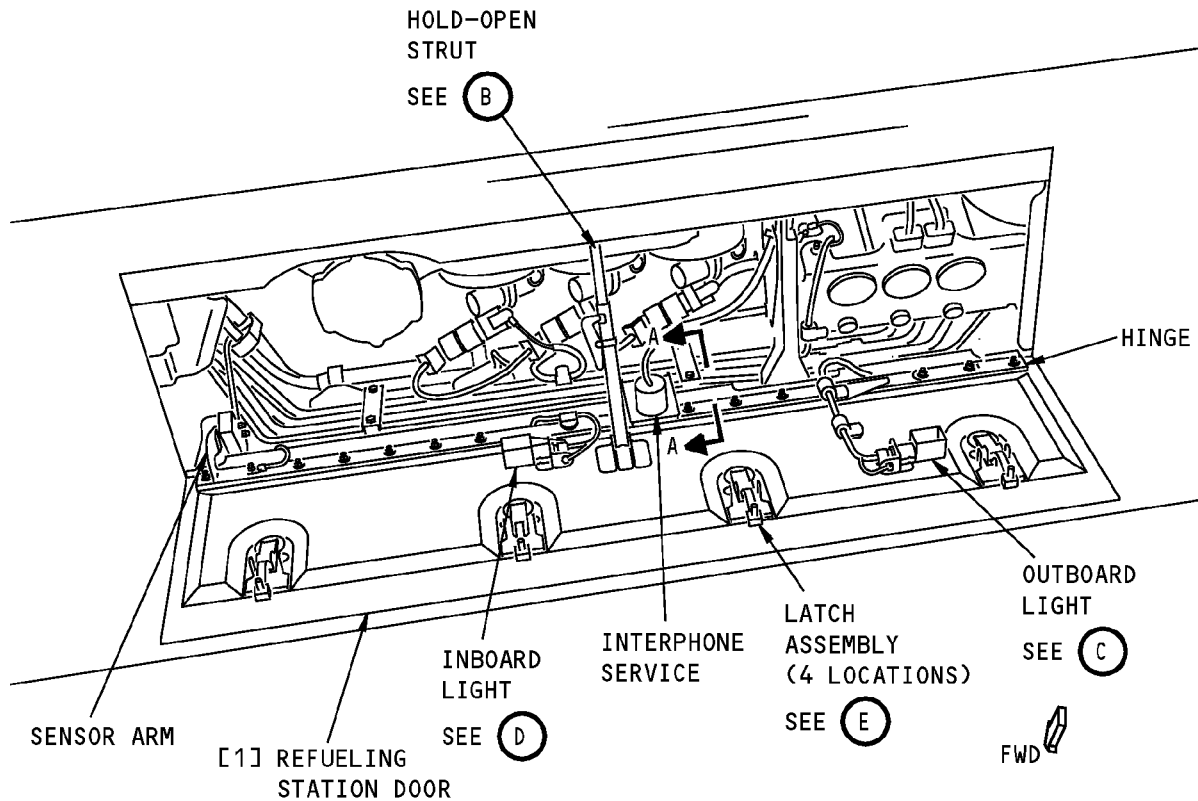
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RIGHT WING



REFUELING STATION DOOR

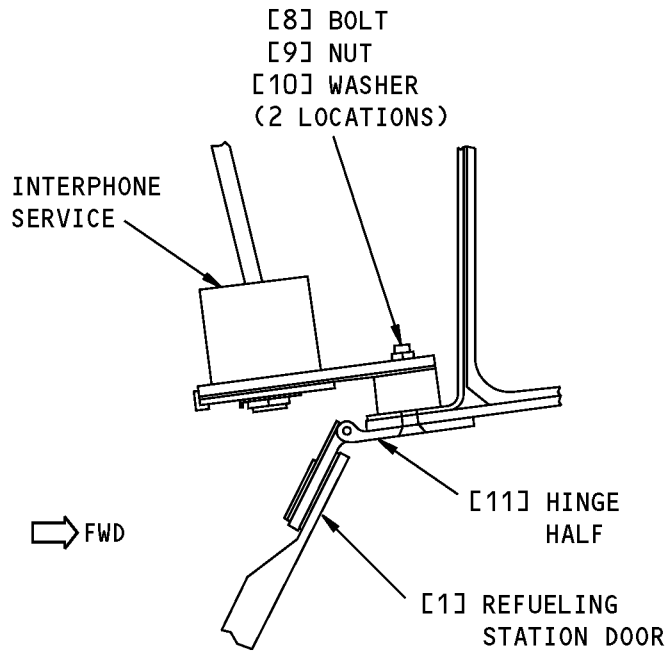
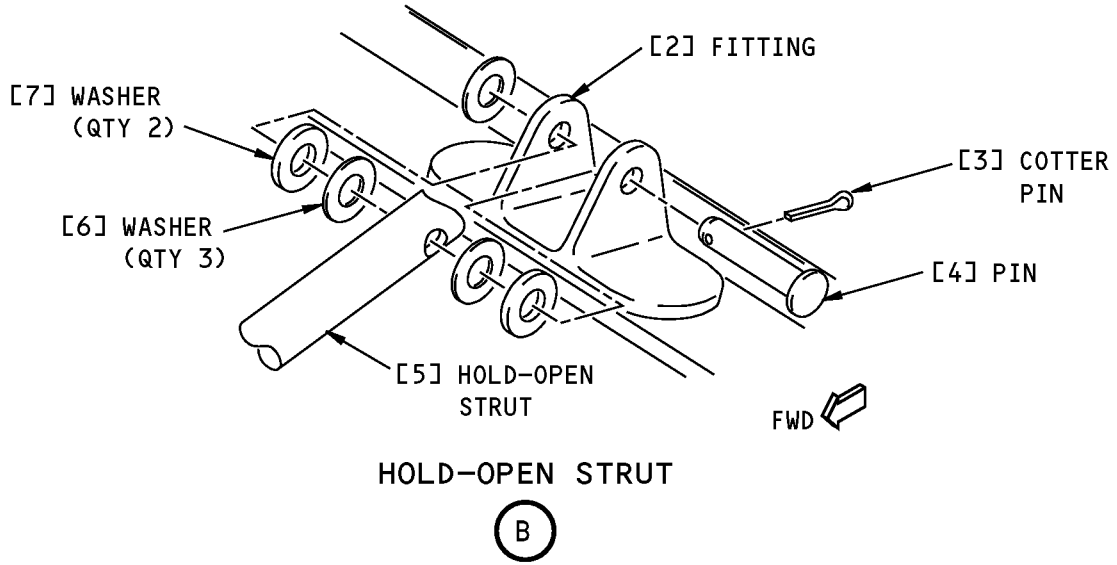
(A)

**Refueling Station Door Installation
Figure 401 (Sheet 1 of 4)/52-49-21-990-802**

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**(DOOR IN THE OPEN POSITION)
A-A**

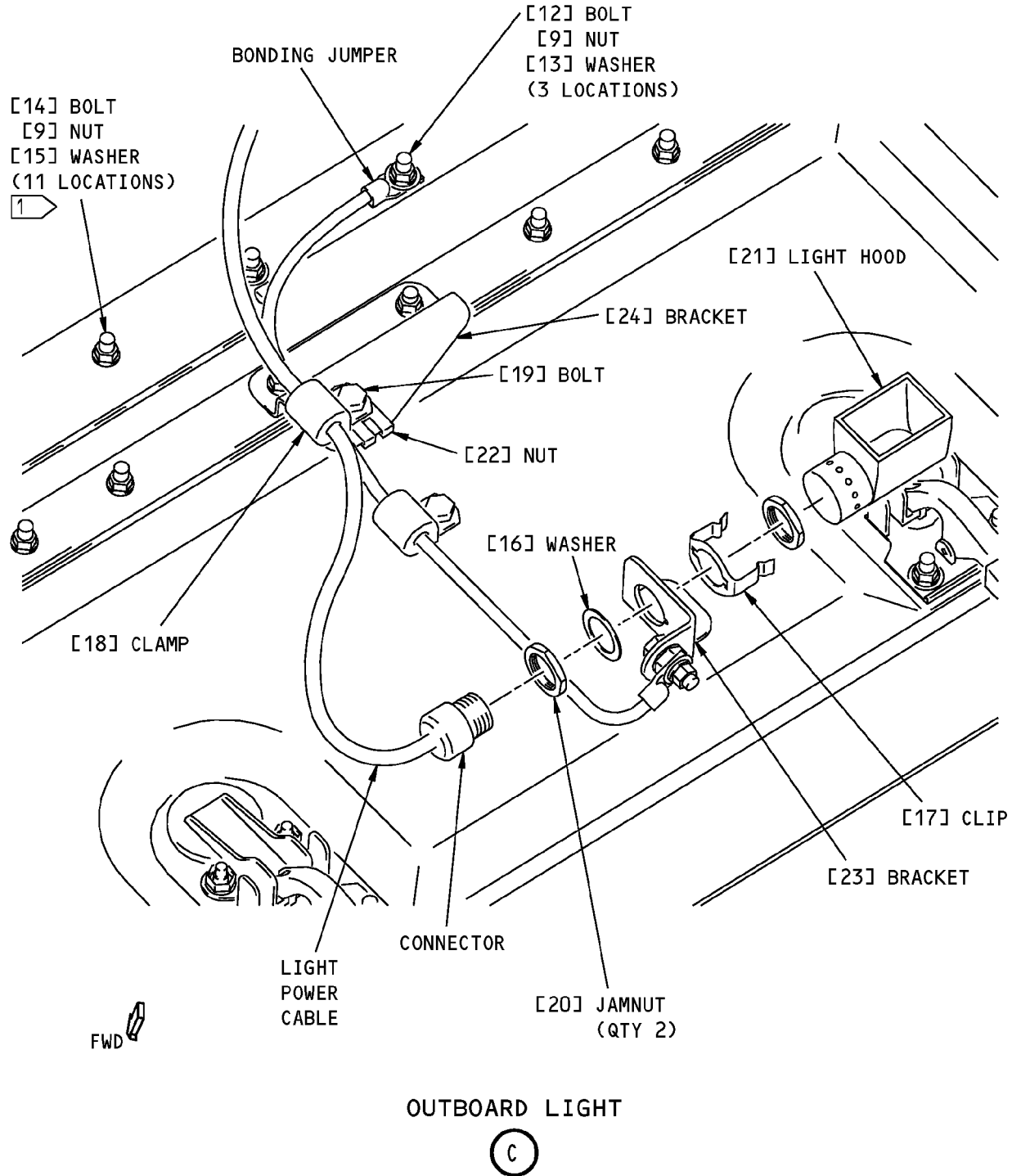
**Refueling Station Door Installation
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1 → ONLY REMOVE OR INSTALL FASTENERS ON HINGE HALF [11]

**Refueling Station Door Installation
Figure 401 (Sheet 3 of 4)/52-49-21-990-802**

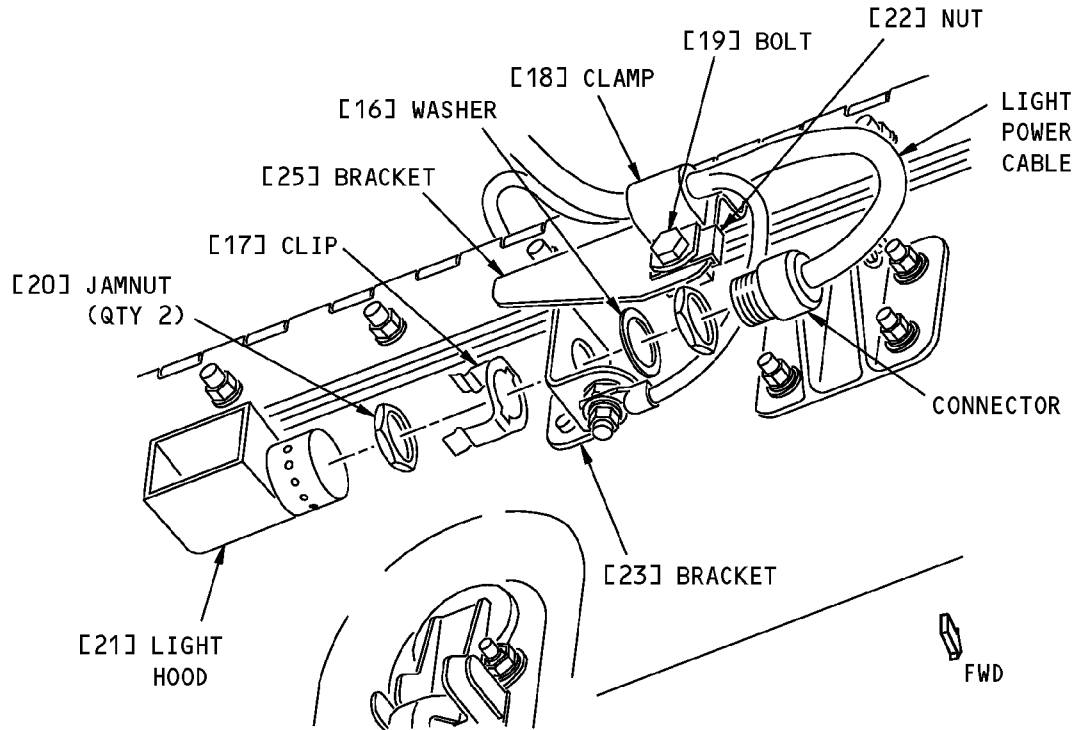
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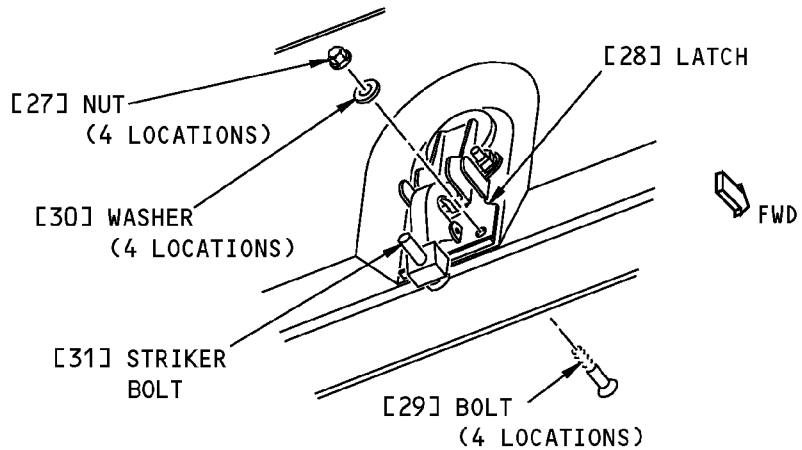
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INBOARD LIGHT

(D)



**LATCH ASSEMBLY
(EXAMPLE)**

(E)

**Refueling Station Door Installation
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AIRCRAFT MAINTENANCE MANUAL

FLIGHT COMPARTMENT DOOR - MAINTENANCE PRACTICES

1. General

- A. This procedure contains scheduled maintenance task data.
- B. This procedure contains these tasks:
 - (1) Program the Access Code
 - (2) Program Time Delays and DOOR BELL Enable
- C. In the program mode, if the time gap between two of the inputs, including the ENT key, is more than 30 seconds the system will:
 - (1) Ignore keypad inputs made before the program button was pushed.
 - (2) Retain the access, time delay and doorbell enable codes before the program button was pushed.
 - (3) Exit the program mode.
- D. If the system is in the program mode for more than 3 minutes, it will exit the program mode.
- E. The door is unlocked while the system is in the program mode.

TASK 52-51-00-900-801

2. Program the Access Code

- A. General
 - (1) The access code must be 3 to 8 characters long.
 - (2) The amber LED on the keypad will blink continuously while the system is in the program mode.
 - (3) The access code is set to 12345 at the factory.

B. Location Zones

Zone	Area
211	Flight Compartment - Left
212	Flight Compartment - Right

C. Procedure

SUBTASK 52-51-00-850-001

- (1) Do these procedures to program the access code:
 - (a) Remove the access cover from the chime module.
 - (b) Press and release the ACCESS switch on the chime module.
 - (c) Make sure that the amber light on the keypad FLASHES.
 - (d) Enter the new 3 to 8 digit access code on the keypad.
 - NOTE:** Make sure the access code number is consistent with airline operational requirements.
 - (e) Press the ENT button on the keypad.
 - (f) Make sure that the amber light on the keypad is OFF.
 - (g) Make sure that the red light on the keypad is ON.
 - (h) Use the new access code to make sure the door will unlock.
 - (i) Install the access cover on the chime module.

————— **END OF TASK** —————

<p>EFFECTIVITY</p> <p>HAP 001-013, 015-022, 024, 025, 028-054, 101-999; HAP 023, 026 POST SB 737-25-1496</p>
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TASK 52-51-00-900-802

3. Program Time Delays and Door Bell Enable

A. General

- (1) Programming steps for the DENY and AUTO UNLOCK time delays are all the same.
- (2) The green LED on the keypad will blink continuously while the system is in the program mode.
- (3) The DOOR BELL ENABLE code will toggle the door bell enable.
- (4) To program more than one time delay or door bell enable, the program mode must be re-entered each time.
- (5) The keypad code to sound the door bell is 1, ENT.
- (6) The access time delay is set to 30 seconds at the factory.
- (7) The deny time delay set to 5 minutes at the factory.
- (8) The door bell function is set to DISABLE at the factory.

B. Location Zones

Zone	Area
211	Flight Compartment - Left
212	Flight Compartment - Right

C. Procedure

SUBTASK 52-51-00-850-002

(1) Do these steps to program the time delays and door bell enable:

- (a) Remove the access cover from the chime module.
- (b) Press and release the TIMERS switch on the chime module.
- (c) Enter the 3 digit time delay or doorbell enable code on the keypad. (Table 201)

NOTE: The Access Time Delay must only be set to 30, 45, or 60 seconds. If the door bell mode is enabled then the Continuous Chime Time Delay must be set to 0 seconds (code 311).

- (d) Press the ENT button on the keypad.
- (e) Enter the 3 digit time delay or doorbell enable code a second time on the keypad. (Table 201)
- (f) Press the ENT button on the keypad.

NOTE: The green LED will come on for five seconds when the new code has been accepted by the chime module. The green LED will then go off and the red LED will come on. If the two codes that you entered do not match the chime module will exit the programming mode.

- (g) Use the access code to unlock the door in the AUTO mode.
- (h) Make sure the time delays for the CONTINUOUS CHIME, AUTO UNLOCK or DENY are correct.
- (i) Enter 1 and ENT on the keypad to make sure the DOOR BELL ENABLE mode operates, if the DOOR BELL mode has been enabled.
- (j) Install the access cover on the chime module.

EFFECTIVITY
HAP 001-013, 015-022, 024, 025, 028-054, 101-999; HAP 023, 026 POST SB 737-25-1496

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Table 201/52-51-00-993-804 TIME DELAY AND DOOR BELL ENABLE CODES

CODE	TIME	NOMENCLATURE
112	30 Seconds	Access Time Delay *(1)
113	45 Seconds	Access Time Delay *(2)
114	60 Seconds	Access Time Delay *(2)
211	5 Minutes	Deny Access Time Delay
212	10 Minutes	Deny Access Time Delay
213	15 Minutes	Deny Access Time Delay
214	20 Minutes	Deny Access Time Delay
215	25 Minutes	Deny Access Time Delay
221	30 Minutes	Deny Access Time Delay
311	0 Seconds	Continuous Chime Time Delay
312	5 Seconds	Continuous Chime Time Delay
313	10 Seconds	Continuous Chime Time Delay
314	15 Seconds	Continuous Chime Time Delay
315	20 Seconds	Continuous Chime Time Delay
321	25 Seconds	Continuous Chime Time Delay *(2)
322	30 Seconds	Continuous Chime Time Delay *(2)
323	35 Seconds	Continuous Chime Time Delay *(2)
324	40 Seconds	Continuous Chime Time Delay *(2)
325	45 Seconds	Continuous Chime Time Delay *(2)
331	50 seconds	Continuous Chime Time Delay *(2)
555	N/A	Toggles Door Bell Mode ON or OFF *(3) *(1) 30 second Access Time Delay is required for airplanes that are registered in a JAA Member country *(2) Not a valid code for airplanes that are registered in a JAA member country *(3) If Door Bell Mode is enabled then the Continuous Chime Time Delay must be set to 0 seconds (Code 311)

————— END OF TASK —————

<p>EFFECTIVITY</p> <p>HAP 001-013, 015-022, 024, 025, 028-054, 101-999; HAP 023, 026 POST SB 737-25-1496</p>
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TASK 52-51-00-710-803

4. Decompression Panel Hinge Operation

A. General

- (1) This procedure is a scheduled maintenance task.
- (2) This procedure contains task to do a check of the decompression panel hinge operation to make sure that the decompression panel hinges operate smoothly without binding or interference.

B. Location Zones

Zone	Area
211	Flight Compartment - Left
212	Flight Compartment - Right

C. Procedure

SUBTASK 52-51-00-010-005

- (1) Gain access to the forward side of the flight deck door.

SUBTASK 52-51-00-010-006

- (2) Do these steps to do a check of the decompression panel:
 - (a) Do these steps to remove the decompression panel:
 - 1) Disconnect the strap that attaches the upper decompression panel to the flight compartment door by pulling up on the strap at the door connection.
 - 2) Push in on the two retractable bolts on the hinge assembly at the top or bottom of the decompression panel to remove it.
 - (b) Make sure that the bolts retract smoothly and completely clear the panel doorframe.
 - (c) Install the decompression panel.

————— **END OF TASK** —————

<p>EFFECTIVITY HAP 001-013, 015-022, 024, 025, 028-054, 101-999; HAP 023, 026 POST SB 737-25-1496</p>
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CREW DOOR - REMOVAL/INSTALLATION

1. General

- A. This procedure has these tasks:
 - (1) A removal of the crew door.
 - (2) An installation of the crew door.
- B. The crew door is referred to as the door in this procedure.

TASK 52-51-00-000-801

2. Crew Door Removal

(Figure 401)

A. Location Zones

Zone	Area
220	Subzone - Passenger Compartment - Body Station 259.50 to 360.00

B. Removal of the Crew Door

SUBTASK 52-51-00-020-001

- (1) Remove the door [5]:
 - (a) Remove the screws [6] that attach the hinge [2] to the wall [3].
 - (b) Remove the door [5] from the wall [3].

————— **END OF TASK** —————

TASK 52-51-00-400-801

3. Crew Door Installation

(Figure 401)

A. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1557	Gauge - Force (Part #: DG-200, Supplier: 92456, A/P Effectivity: 737-ALL) (Part #: DPP-500G, Supplier: 92456, A/P Effectivity: 737-ALL) (Part #: DPPH-150, Supplier: 92456, A/P Effectivity: 737-ALL) (Part #: DPPH-200, Supplier: 92456, A/P Effectivity: 737-ALL) (Part #: DPPH-50, Supplier: 92456, A/P Effectivity: 737-ALL) (Part #: FDIX 100, Supplier: 0BFD9, A/P Effectivity: 737-ALL) (Part #: FDIX 50, Supplier: 0BFD9, A/P Effectivity: 737-ALL) (Part #: FDV 50, Supplier: 0BFD9, A/P Effectivity: 737-ALL) (Part #: LG-050, Supplier: 92456, A/P Effectivity: 737-ALL) (Opt Part #: FDI 100, Supplier: 0BFD9, A/P Effectivity: 737-ALL)

B. Location Zones

Zone	Area
220	Subzone - Passenger Compartment - Body Station 259.50 to 360.00

EFFECTIVITY HAP 023, 026 PRE SB 737-25-1496
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C. Installation of the Crew Door

SUBTASK 52-51-00-420-001

(1) Install the door [5]:

- (a) Put the door [5] in its correct position and hold.
- (b) Install the screws [6] to attach the door [5] to the wall [3].

SUBTASK 52-51-00-820-001

(2) Adjust the door [5]:

- (a) Make sure the clearance between the door [5] and header [1] along the top of the door [5] is as shown. If necessary, adjust as follows:
 - 1) If the clearance is out of tolerance, loosen screws to adjust the header [1] to get the correct clearance.
- (b) Make sure the clearance between the door [5] and the trim angle [7] along the post [4] is as shown.
 - 1) If the clearance is out of tolerance, loosen screws to adjust the post [4] to get the correct clearance.
- (c) Do these steps to make sure the trim angle [7] is adjusted correctly:
 - 1) Open the door [5].
 - 2) From the control compartment, lock the door [5].
 - 3) Use the force gauge, COM-1557 to apply a force to the door knob.
 - a) Make sure that the locked door [5] closes with a force of 15 pounds (66.7 newtons) or less.
 - 4) Make sure that the clearance (forward/aft) between the door [5] and the trim angle [7] is as shown.

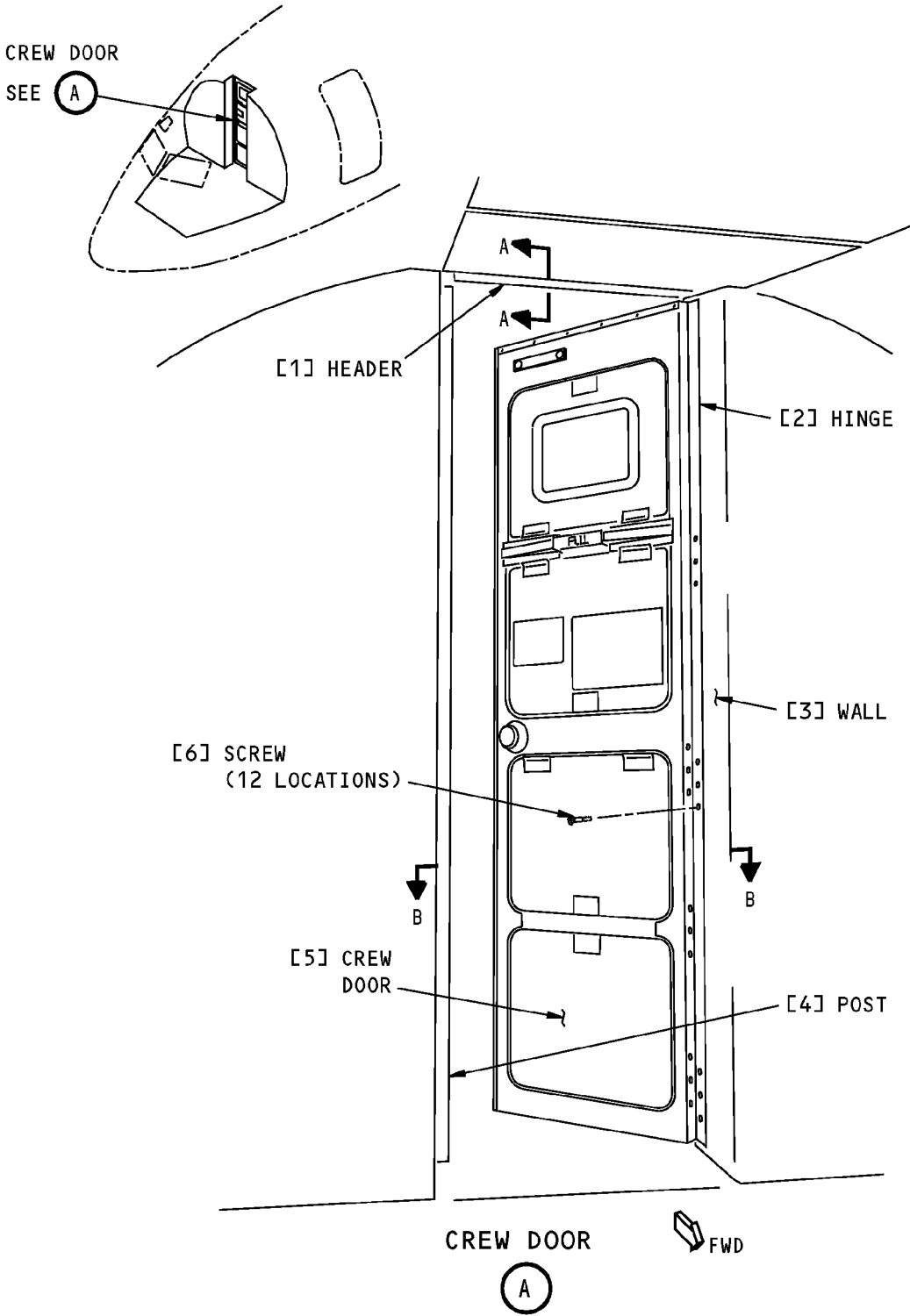
————— END OF TASK —————

EFFECTIVITY
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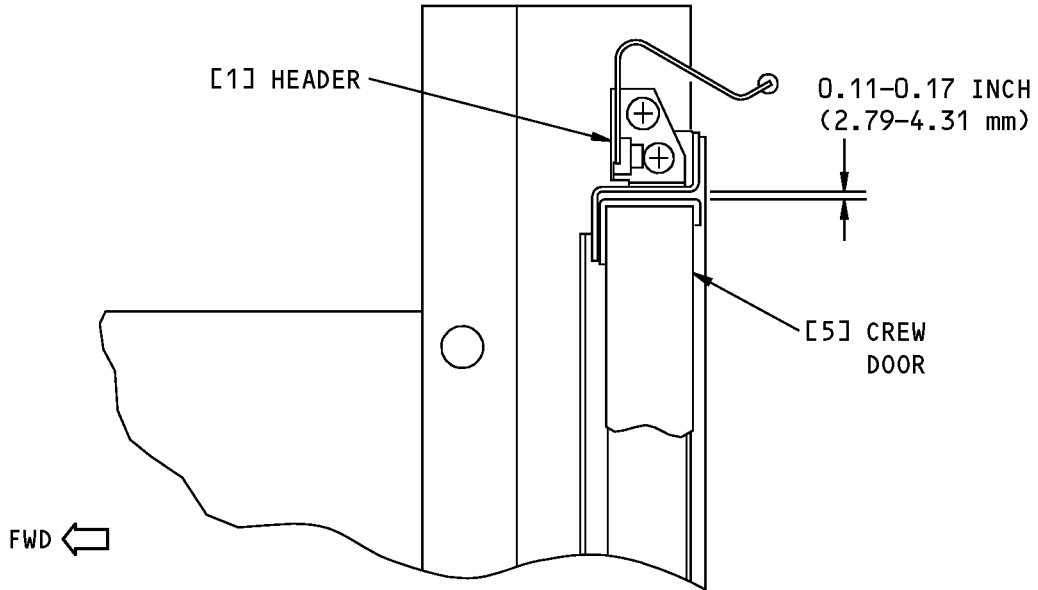


**Crew Door Installation
Figure 401 (Sheet 1 of 2)/52-51-00-990-801**

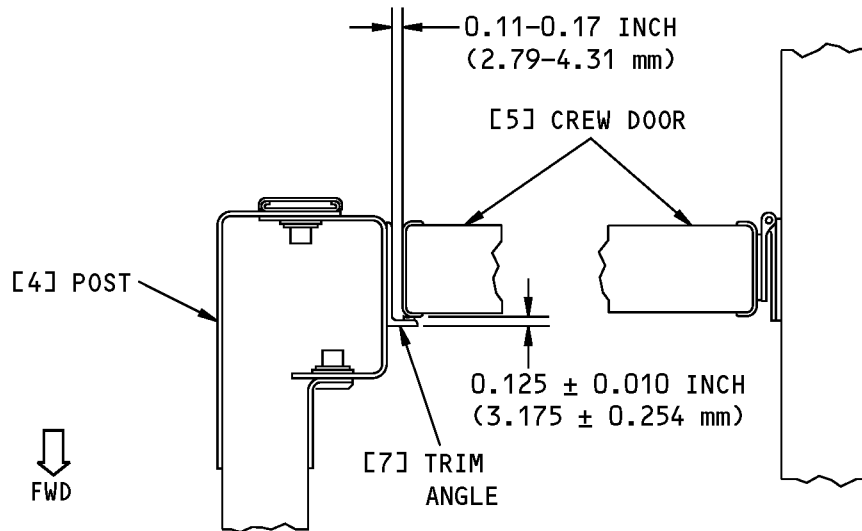
EFFECTIVITY
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**CREW DOOR AND HEADER CLEARANCE
(DOOR IN CLOSED POSITION)
A-A**



**CREW DOOR AND TRIM ANGLE CLEARANCE
(DOOR IN CLOSED POSITION)
B-B**

**Crew Door Installation
Figure 401 (Sheet 2 of 2)/52-51-00-990-801**

EFFECTIVITY
HAP 023, 026 PRE SB 737-25-1496

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FLIGHT COMPARTMENT DOOR - ADJUSTMENT/TEST

1. General

- A. This procedure contains scheduled maintenance task data.
- B. This procedure has these tasks:
 - (1) Operational Check of the Flight Compartment Access System.
 - (2) Flight Compartment Security Door Access System Test.
 - (3) Functional Check of the DENY Function of the Flight Compartment Security Access System (Scheduled Maintenance Task).
 - (4) Pressure Release Latch Functional Test.

TASK 52-51-00-710-801

2. Operational Check of the Flight Compartment Access System

(Figure 501)

A. General

- (1) This task does a test of the chime module speaker to make sure you can hear the chime and that other parts of the access system operate.

B. References

Reference	Title
24-22-00-860-811	Supply Electrical Power (P/B 201)
24-22-00-860-812	Remove Electrical Power (P/B 201)

C. Location Zones

Zone	Area
211	Flight Compartment - Left
212	Flight Compartment - Right

D. Prepare for the Test

SUBTASK 52-51-00-860-001

- (1) Obtain the access code for the flight deck door.

NOTE: The access code is programmable. You need to obtain the access code currently in use by the flight crew.

SUBTASK 52-51-00-860-002

- (2) Supply electrical power. To supply electrical power, do this task: Supply Electrical Power, TASK 24-22-00-860-811

SUBTASK 52-51-00-860-003

- (3) Make sure that this circuit breaker is closed:

F/O Electrical System Panel, P6-3

Row	Col	Number	Name
E	1	C00137	DOOR LOCK

SUBTASK 52-51-00-860-004

- (4) Make sure the Flight Deck Access System switch on the Chime Module is in the NORM position (guard closed).

EFFECTIVITY
HAP 001-013, 015-022, 024, 025, 028-054, 101-999; HAP 023, 026 POST SB 737-25-1496

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SUBTASK 52-51-00-860-005

- (5) Make sure the flight compartment door is open.

E. Procedure

SUBTASK 52-51-00-710-001

- (1) Do these steps to make sure the chime module speaker operates:
 - (a) Make sure the FLT DK DOOR switch is in the AUTO position.
 - (b) Enter the access code in the keypad and press the ENT key.
 - (c) Make sure the chime module sounds.
 - (d) Make sure the AUTO UNLK light comes on.
 - (e) Put the FLT DK DOOR switch to the DENY position.
 - (f) Make sure the AUTO UNLK light goes off.
 - (g) Put the FLT DK DOOR switch to the UNLKD position.
 - (h) Put the Flight Deck Access System switch on the chime module to the OFF position.
 - (i) Make sure the LOCK FAIL Light comes on.
 - (j) Put the Flight Deck Access System switch to the NORM position.

F. Put the Airplane Back to its Usual Condition

SUBTASK 52-51-00-860-006

- (1) Remove the electrical power if it is not necessary. To remove electrical power, do this task:
Remove Electrical Power, TASK 24-22-00-860-812

————— **END OF TASK** —————

TASK 52-51-00-700-801

3. Flight Compartment Security Door Access System Test

(Figure 501)

A. General

- (1) This task is performed with the door in the open position. With the door in the open position, one mechanic can turn the FLT DK DOOR rotary switch, enter keypad numbers and see the position of the strike at the same time. This allows the test to be performed with one mechanic.
- (2) This task does a test of the following functions of the flight compartment security door access system:
 - (a) AUTO Mode
 - (b) UNLOCK Mode
 - (c) DENY Mode
 - (d) Power on Solenoid Deactivation
 - (e) Doorbell Function

B. References

Reference	Title
24-22-00-860-811	Supply Electrical Power (P/B 201)

EFFECTIVITY
HAP 001-013, 015-022, 024, 025, 028-054, 101-999; HAP 023, 026 POST SB 737-25-1496

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C. Location Zones

Zone	Area
211	Flight Compartment - Left
212	Flight Compartment - Right

D. Prepare for the Test

SUBTASK 52-51-00-750-001

- (1) Obtain the following information:

NOTE: These items are programmable. You need to obtain the access code and times currently in use by the flight crew.

- (a) Access Code
- (b) Access Time Delay
- (c) Deny Time Delay
- (d) Time of Continuous Chime

SUBTASK 52-51-00-860-007

- (2) Supply electrical power. To supply electrical power, do this task: Supply Electrical Power, TASK 24-22-00-860-811

SUBTASK 52-51-00-860-008

- (3) Make sure that this circuit breaker is closed:

F/O Electrical System Panel, P6-3

Row	Col	Number	Name
E	1	C00137	DOOR LOCK

SUBTASK 52-51-00-860-009

- (4) Make sure the Flight Deck Access System switch on the Chime Module is in the NORM position (guard closed).

SUBTASK 52-51-00-860-010

- (5) Make sure the flight compartment door is open.

E. AUTO Mode Test

SUBTASK 52-51-00-710-002

- (1) Do these steps to make sure the AUTO Mode operates:

- (a) Make sure the FLT DK DOOR rotary switch on the Cockpit Control panel Switch/Light Module is in the AUTO position.
- (b) Make sure the red LED on the keypad is on.
- (c) Make sure the electric strike is in the locked position.

NOTE: The Solenoid pin in the electric strike will be extended up such that you can not rotate the strike.

- (d) Enter the access code in the keypad and press the ENT key.

NOTE: You must keep track of the time elapsed from when you press the ENT key.

- (e) Do these steps immediately after the correct access code is entered:
 - 1) Make sure that the amber LED on the keypad comes on and the red LED goes off.
 - 2) Make sure the chime module sounds two one-half second tones.

EFFECTIVITY
HAP 001-013, 015-022, 024, 025, 028-054, 101-999; HAP 023, 026 POST SB 737-25-1496

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3) Make sure the AUTO UNLK light comes on.

(f) Do this step when one third of the Access Time Delay has elapsed:

NOTE: If the Time of Continuous Chime is programmed to occur at one third or less of the Access Time Delay, then the two half second tones in the step below will not sound.

1) Make sure the chime sounds two half second tones again.

(g) Do these steps when the Time of Continuous Chime has elapsed:

NOTE: If the Time of Continuous Chime is set to occur 5 seconds or less before the Access Time Delay, the Time of Continuous Chime will occur 10 seconds before the Access Time Delay.

1) Make sure the AUTO UNLK light flashes.

2) Make sure the chime module sounds continuously.

(h) Do these steps when the Access Time Delay has expired:

1) Make sure the electric strike is in the unlocked position.

NOTE: The Solenoid pin in the electric strike will retract down such that you can rotate the strike.

2) Make sure the green LED on the keypad comes on and the amber LED goes off.

3) Make sure the chime module does not sound.

4) Make sure the AUTO UNLK light goes off.

(i) Do these steps five seconds after the electric strike goes to the unlocked position:

1) Make sure the electric strike is in the locked position.

2) Make sure the green LED goes off and the red LED comes on.

F. UNLOCK Mode Test

SUBTASK 52-51-00-710-003

(1) Do these steps to make sure the UNLOCK Mode operates:

(a) Make sure the FLT DK DOOR rotary switch on the Cockpit Control Panel Switch/Light module is in the AUTO position.

(b) Make sure the red LED on the keypad is on.

(c) Make sure the electric strike is in the locked position.

NOTE: The Solenoid pin in the electric strike will be extended up such that you can not rotate the strike.

(d) Put and hold the FLT DK DOOR switch to the UNLKD position.

1) Make sure that the green LED on the keypad comes on and the amber LED goes off.

2) Make sure the electric strike is in the unlocked position.

NOTE: The Solenoid pin in the electric strike will retract down such that you can rotate the strike.

(e) Put the FLT DK DOOR switch back to the AUTO position.

G. DENY Mode Test

SUBTASK 52-51-00-710-004

(1) Do these steps to make sure the DENY Mode operates:

(a) Make sure the red LED on the keypad is on.

EFFECTIVITY
HAP 001-013, 015-022, 024, 025, 028-054, 101-999; HAP 023,
026 POST SB 737-25-1496

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- (b) Make sure the electric strike is in the locked position.

NOTE: The Solenoid pin in the electric strike will be extended up such that you can not rotate the strike.

- (c) AIRPLANES WITH THE DOOR BELL DISABLED;

Enter the access code in the keypad and press the ENT key.

- 1) Make sure that the amber LED on the keypad comes on and the red LED goes off.
- 2) Make sure the chime module sounds two one-half second tones.
- 3) Make sure the AUTO UNLK light on the lighting control panel comes on.

- (d) AIRPLANES WITH THE DOOR BELL ENABLED;

Enter the access code in the keypad and press the ENT key.

- 1) Make sure that the amber LED on the keypad comes on and the red LED goes off.
- 2) Make sure the chime module sounds continuously.
- 3) Make sure the AUTO UNLK light on the lighting control panel flashes.

- (e) Put and momentarily hold the FLT DK DOOR switch in the DENY position.

NOTE: You must keep track of the time elapsed from when you put the switch in the DENY position.

- 1) Make sure the electric strike is in the locked position.

NOTE: The Solenoid pin in the electric strike will be extended up such that you can not rotate the strike.

- 2) Make sure that the amber LED on the keypad goes off and the red LED comes on.
- 3) Make sure the AUTO UNLK light on the cockpit control panel goes off.
- 4) Make sure the chime module does not sound.

- (f) Do these steps before the DENY Time Delay has expired:

- 1) Enter the access code in the keypad and press the ENT key.
 - a) Make sure that the red LED on the keypad stays on.
 - b) Make sure the chime module does not sound.
 - c) Make sure the AUTO UNLK light on the cockpit control panel stays off.

- (g) Do these steps after the Deny Time Delay has expired:

- 1) Enter the access code on the keypad and press the ENT key.
 - a) Make sure that the amber LED on the keypad comes on and the red LED goes off.
 - b) Make sure the chime module sounds two one-half second tones.
 - c) Make sure the AUTO UNLK light on the cockpit control panel comes on.

- (h) Put and hold the FLT DK DOOR switch to the UNLKD position.

- 1) Make sure that the green LED on the keypad comes on and the amber LED goes off.
- 2) Make sure the electric strike is in the unlocked position.

NOTE: The Solenoid pin in the electric strike will retract down such that you can rotate the strike.

- (i) Put the FLT DK DOOR switch back to the AUTO position.

- 1) Make sure the red LED on the keypad comes on and the green LED goes off.

EFFECTIVITY

HAP 001-013, 015-022, 024, 025, 028-054, 101-999; HAP 023,
026 POST SB 737-25-1496

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- 2) Make sure the electric strike is in the locked position.

NOTE: The solenoid pin in the electric strike will be extended up such that you can not rotate the strike.

H. Power On Solenoid Deactivation Test

SUBTASK 52-51-00-710-005

- (1) Do these steps to make sure the Flight Deck Access System switch operates:
 - (a) Open the switch guard on the bottom of the chime module and put the toggle switch to the OFF position.
 - (b) Make sure the electric strike is in the unlocked position.

NOTE: The Solenoid pin in the electric strike will retract down such that you can rotate the strike.

- (c) Make sure the LOCK FAIL light on the cockpit control module comes ON.
- (d) Put the toggle switch back to the NORM position and close the guard.
- (e) Make sure the electric strike is in the locked position.

NOTE: The Solenoid pin in the electric strike will extend such that you can not rotate the strike.

- (f) Make sure the LOCK FAIL light goes off.

I. Doorbell Function Test

SUBTASK 52-51-00-710-006

- (1) Do these steps to make sure the Doorbell Function operates:

NOTE: The Doorbell function must be enabled.

- (a) Enter 1 in the keypad and then ENT.
- (b) Make sure the chime module sounds two tones.
- (c) Make sure the red LED stays on.

————— END OF TASK —————

TASK 52-51-00-700-802

4. Functional Check of the DENY Function of the Flight Deck Access System

(Figure 501)

A. General

- (1) This procedure is a scheduled maintenance task.
- (2) This task does a test of the Deny function of the flight compartment security door access system.

B. References

Reference	Title
24-22-00-860-811	Supply Electrical Power (P/B 201)
24-22-00-860-812	Remove Electrical Power (P/B 201)

C. Location Zones

Zone	Area
211	Flight Compartment - Left
212	Flight Compartment - Right

EFFECTIVITY

HAP 001-013, 015-022, 024, 025, 028-054, 101-999; HAP 023, 026 POST SB 737-25-1496

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D. Procedure

SUBTASK 52-51-00-750-002

(1) Obtain the following information:

NOTE: These items are programable. You need to obtain the access code and times currently in use by the flight crew.

- (a) Access Code
- (b) Deny Time Delay

SUBTASK 52-51-00-860-011

(2) Supply electrical power. To supply electrical power, do this task: Supply Electrical Power, TASK 24-22-00-860-811

SUBTASK 52-51-00-860-012

(3) Make sure that this circuit breaker is closed:

F/O Electrical System Panel, P6-3

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
E	1	C00137	DOOR LOCK

SUBTASK 52-51-00-860-013

(4) Make sure the Flight Deck Access System switch on the Chime Module is in the NORM position (guard closed).

SUBTASK 52-51-00-860-014

(5) Make sure the flight compartment door is open.

E. DENY Mode Test

SUBTASK 52-51-00-710-007

(1) Do these steps to make sure the DENY Mode operates:

- (a) Make sure the red LED on the keypad is on.
- (b) Make sure the electric strike is in the locked position.

NOTE: The Solenoid pin in the electric strike will be extended up such that you can not rotate the strike.

(c) AIRPLANES WITH THE DOOR BELL DISABLED;

Enter the access code in the keypad and press the ENT key.

- 1) Make sure that the amber LED on the keypad comes on and the red LED goes off.
- 2) Make sure the chime module sounds two one-half second tones.
- 3) Make sure the AUTO UNLK light on the lighting control panel comes on.

(d) AIRPLANES WITH THE DOOR BELL ENABLED;

Enter the access code in the keypad and press the ENT key.

- 1) Make sure that the amber LED on the keypad comes on and the red LED goes off.
- 2) Make sure the chime module sounds continuously.
- 3) Make sure the AUTO UNLK light on the lighting control panel flashes.

(e) Put and momentarily hold the FLT DK DOOR switch in the DENY position.

NOTE: You must keep track of the time elapsed from when you put the switch in the DENY position.

<p>EFFECTIVITY</p> <p>HAP 001-013, 015-022, 024, 025, 028-054, 101-999; HAP 023, 026 POST SB 737-25-1496</p>
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- 1) Make sure the electric strike is in the locked position.

NOTE: The Solenoid pin in the electric strike will be extended up such that you can not rotate the strike.

- 2) Make sure that the amber LED on the keypad goes off and the red LED comes on.
- 3) Make sure the AUTO UNLK light on the cockpit control panel goes off.
- 4) Make sure the chime module does not sound.

- (f) Do these steps before the DENY Time Delay has expired:

- 1) Enter the access code in the keypad and press the ENT key.
 - a) Make sure that the red LED on the keypad stays on.
 - b) Make sure the chime module does not sound.
 - c) Make sure the AUTO UNLK light on the cockpit control panel stays off.

- (g) Do these steps once the Deny Time Delay has expired:

- 1) Enter the access code on the keypad and press the ENT key.
 - a) Make sure that the amber LED on the keypad comes on and the red LED goes off.
 - b) Make sure the chime module sounds two one-half second tones.
 - c) Make sure the AUTO UNLK light on the cockpit control panel comes on.

- (h) Put and hold the FLT DK DOOR switch to the UNLKD position.

- 1) Make sure that the green LED on the keypad comes on and the amber LED goes off.
- 2) Make sure the electric strike is in the unlocked position.

NOTE: The Solenoid pin in the electric strike will retract down such that you can rotate the strike.

- (i) Put the FLT DK DOOR switch back to the AUTO position.

- 1) Make sure the red LED on the keypad comes on and the green LED goes off.
- 2) Make sure the electric strike is in the locked position.

NOTE: The solenoid pin in the electric strike will be extended up such that you can not rotate the strike.

F. Put the Airplane Back to its Usual Condition

SUBTASK 52-51-00-860-015

- (1) Remove the electrical power if it is not necessary. To remove electrical power, do this task: Remove Electrical Power, TASK 24-22-00-860-812.

————— **END OF TASK** —————

TASK 52-51-00-710-802

5. Pressure Release Latch Functional Test

(Figure 502)

A. General

- (1) This procedure is a scheduled maintenance task.
- (2) This task does a functional test of the pressure release latches.
- (3) The tests for the upper and lower pressure release latches is the same.

EFFECTIVITY

HAP 001-013, 015-022, 024, 025, 028-054, 101-999; HAP 023, 026 POST SB 737-25-1496

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B. References

Reference	Title
24-22-00-860-812	Remove Electrical Power (P/B 201)
52-51-08-000-801	Decompression Panel and Pressure Release Latch Removal (P/B 401)
52-51-08-400-801	Decompression Panel and Pressure Release Latch Installation (P/B 401)

C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-4400	Flight Deck Door Test Kit (includes HSK6263-11, -13, -15) (Part #: HSK6263-1, Supplier: 4U783, A/P Effectivity: 737-ALL)

D. Location Zones

Zone	Area
211	Flight Compartment - Left
212	Flight Compartment - Right

E. Prepare for the Test

SUBTASK 52-51-00-010-001

- (1) Do these steps to get access to the latches:
 - (a) Do the steps to remove the latch strap and the decompression latch cover. To remove the latch strap and decompression latch cover, do this task: Decompression Panel and Pressure Release Latch Removal, TASK 52-51-08-000-801.

SUBTASK 52-51-00-840-001

- (2) Do these steps to prepare the Test Kit, SPL-4400 (P/N: HSK6263-1, Test Kit consists of HSK6263-11, Vacuum Generator and HSK6263-13/-15, Bolt Rotation Tool):
 - (a) Make sure vent of the HSK6263-11 Vacuum Generator manometer does not have unwanted material or blockage.
 - (b) Make sure the hose is securely connected between the fitting on the squeeze bulb and the manometer.
 - (c) Push the power control switch to turn on the display.
 - (d) Turn the display selection control if necessary to show metric (kPa) unit.

F. Procedure

SUBTASK 52-51-00-710-008

- (1) Do these steps to make sure the pressure release latch functions correctly:
 - (a) Use the HSK6263-11 Vacuum Generator do these steps:
 - 1) Put the vacuum cup over the air cylinder filter on the front of the pressure release latch.
 - 2) Make sure that the vacuum cup is in full contact with the air cylinder filter and covers the air cylinder filter fully.

NOTE: You must hold the vacuum cup in full contact with the face of the pressure relief latch at the air cylinder filter during the entire test.

EFFECTIVITY
HAP 001-013, 015-022, 024, 025, 028-054, 101-999; HAP 023, 026 POST SB 737-25-1496

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- 3) Actuate the squeeze bulb as necessary to get a 0.5 psi (3.4 kPa) pressure drop at the air cylinder filter.

NOTE: The pressure drop will show on the display of the manometer.

- 4) Insert the HSK6263-13/-15 Bolt Rotation Tool into the hole in the bolt (latch).
- 5) Make sure you can rotate the bolt 90 degrees from the closed position to the open position.

NOTE: The latch release load is 99 lb (45 kg) \pm 5 lb (2 kg) when the air cylinder is in the open position.

- 6) Remove the vacuum cup from the air cylinder filter.
- 7) Rotate the bolt back to the closed position.

NOTE: Make sure you rotate the bolt until you can feel a hard stop.

G. Put the Airplane Back to its Usual Condition

SUBTASK 52-51-00-410-001

- (1) Do the steps to install the latch strap and the decompression latch cover. To install the latch strap and decompression latch cover, do this task: Decompression Panel and Pressure Release Latch Installation, TASK 52-51-08-400-801.

SUBTASK 52-51-00-860-016

- (2) Remove the electrical power if it is not necessary. To remove electrical power, do this task: Remove Electrical Power, TASK 24-22-00-860-812

————— **END OF TASK** —————

EFFECTIVITY

HAP 001-013, 015-022, 024, 025, 028-054, 101-999; HAP 023, 026 POST SB 737-25-1496

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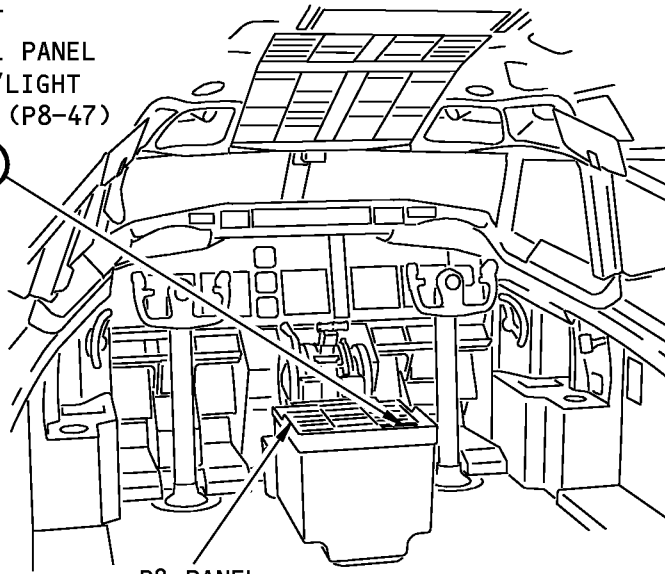
52-51-00

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COCKPIT
CONTROL PANEL
SWITCH/LIGHT
MODULE (P8-47)

SEE (A)

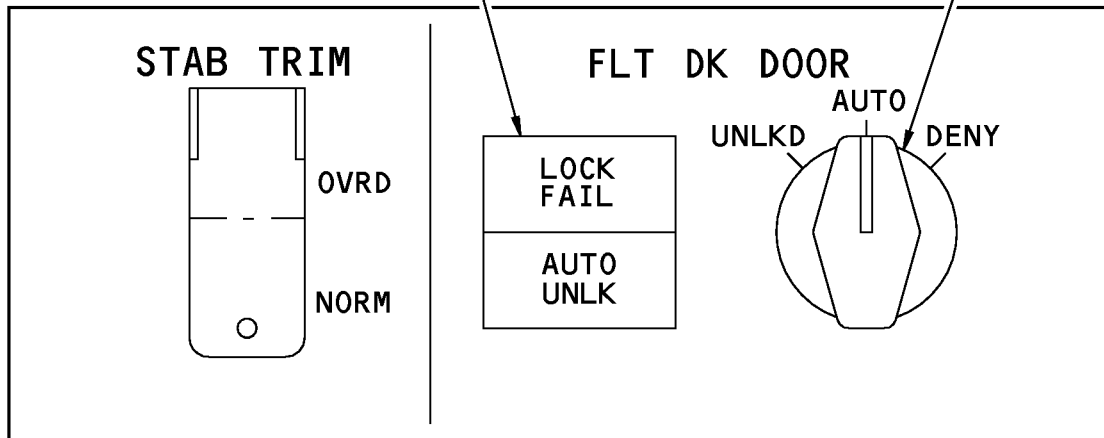


P8 PANEL

FLIGHT COMPARTMENT

FLIGHT COMPARTMENT DOOR
INDICATION LIGHTS

FLIGHT COMPARTMENT
DOOR LOCK SWITCH



COCKPIT CONTROL PANEL SWITCH/LIGHT MODULE



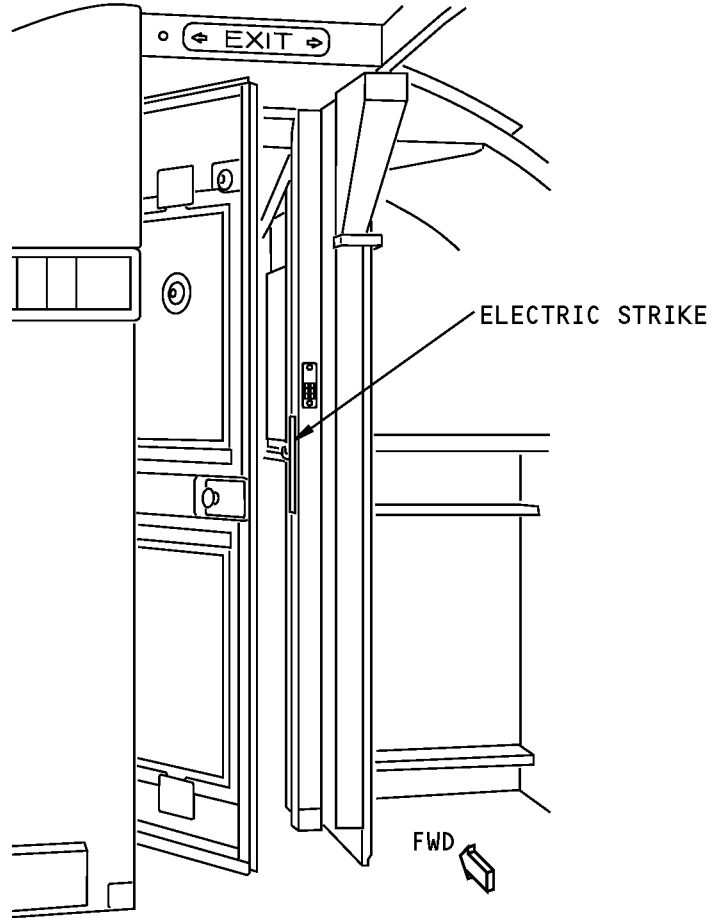
Flight Compartment Door - Adjustment/Test
Figure 501 (Sheet 1 of 2)/52-51-00-990-803

EFFECTIVITY
HAP 001-013, 015-022, 024, 025, 028-054, 101-999; HAP 023,
026 POST SB 737-25-1496

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AIRCRAFT MAINTENANCE MANUAL



FLIGHT COMPARTMENT DOOR

Flight Compartment Door - Adjustment/Test
Figure 501 (Sheet 2 of 2)/52-51-00-990-803

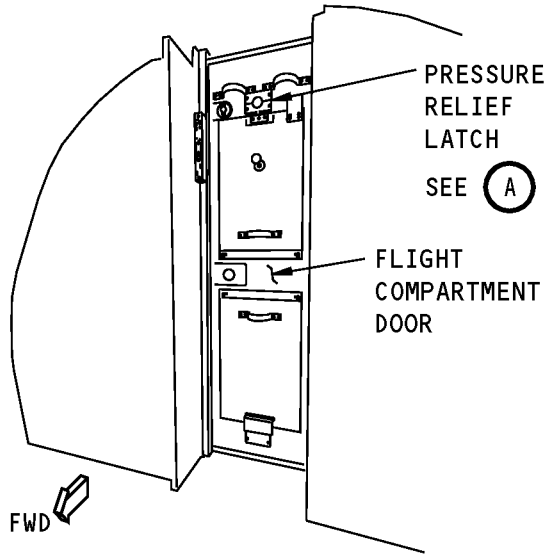
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026 POST SB 737-25-1496

D633A101-HAP

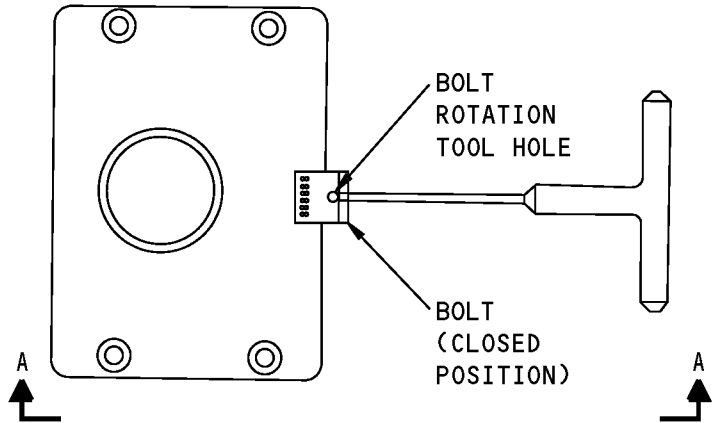
BOEING PROPRIETARY - Copyright © Unpublished Work - See title page for details

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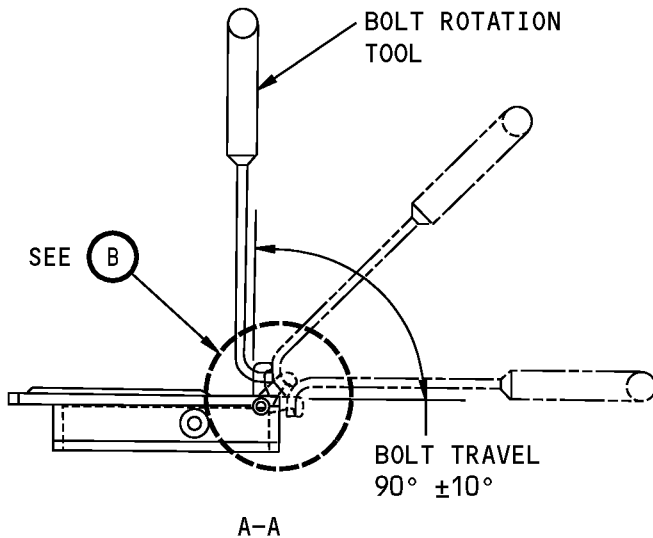


FLIGHT COMPARTMENT

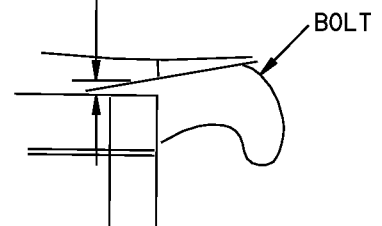


**PRESSURE RELIEF LATCH
(DECOMPRESSION LATCH
STRAP AND COVER REMOVED)**

(A)



0.036 INCH
(0.945 mm)
MAXIMUM AS
INSTALLED



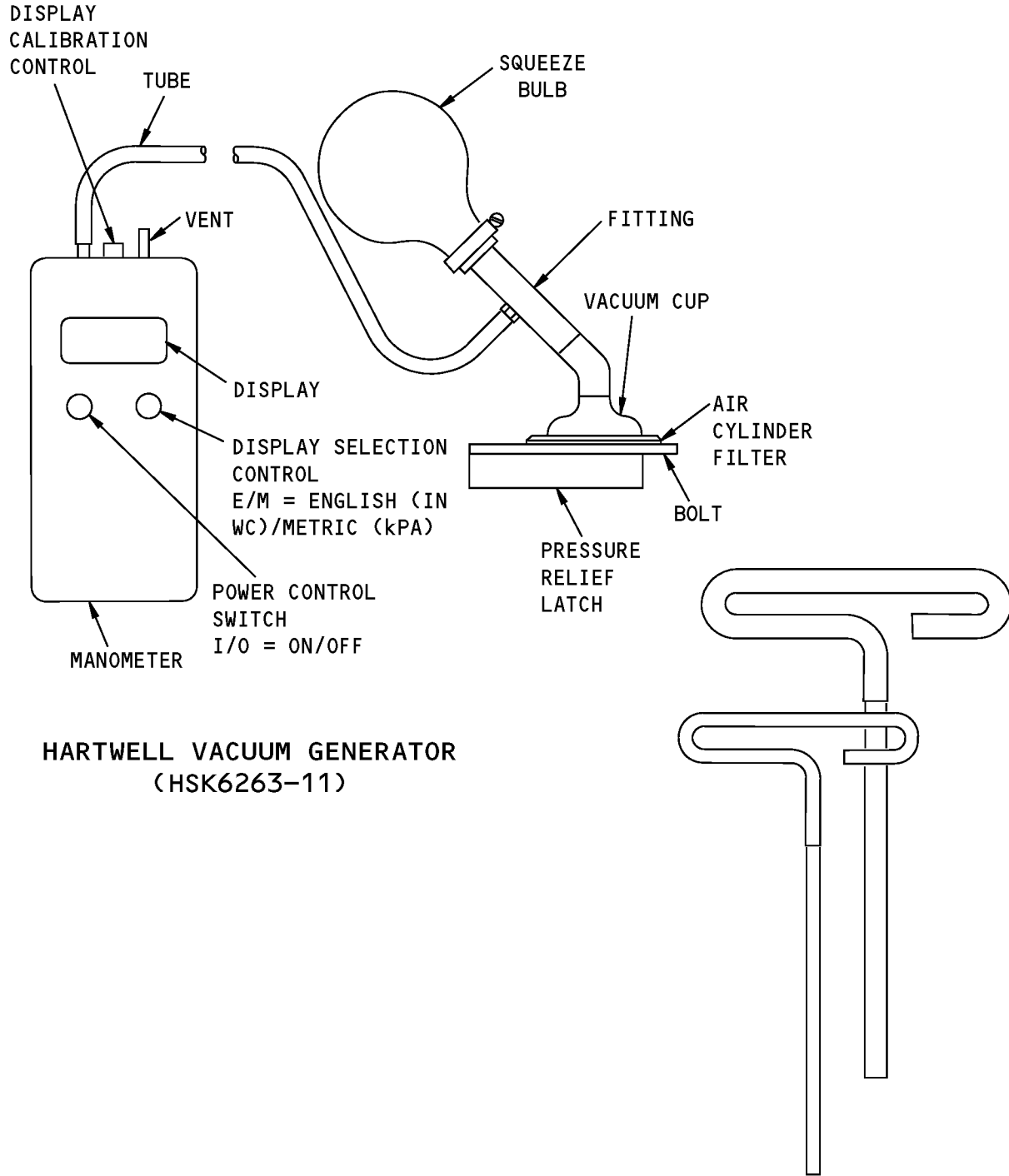
(B)

Pressure Release Latch Test
Figure 502 (Sheet 1 of 2)/52-51-00-990-805

EFFECTIVITY
HAP 001-013, 015-022, 024, 025, 028-054, 101-999; HAP 023,
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**HARTWELL VACUUM GENERATOR
(HSK6263-11)**

**HARTWELL BOLT ROTATIONAL TOOL
(HSK6263-13/-15)**

**Pressure Release Latch Test
Figure 502 (Sheet 2 of 2)/52-51-00-990-805**

EFFECTIVITY
HAP 001-013, 015-022, 024, 025, 028-054, 101-999; HAP 023,
026 POST SB 737-25-1496

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FLIGHT COMPARTMENT DOOR - INSPECTION/CHECK

1. General

- A. This procedure contains scheduled maintenance task data.
- B. This procedure contains these tasks.
 - (1) An inspection of the decompression panel hinges.
 - (2) An inspection of the decompression panel seals.
 - (3) There are two decompression panels in the door. The removal and installation steps are almost the same for both panels.

TASK 52-51-00-210-801

2. Decompression Panel Hinge Inspection

- A. General
 - (1) This procedure is a scheduled maintenance task.
- B. Location Zones

Zone	Area
211	Flight Compartment - Left
212	Flight Compartment - Right

- C. Procedure
 - SUBTASK 52-51-00-010-002
 - (1) Gain access to the forward side of the flight deck door.
 - SUBTASK 52-51-00-210-001
 - (2) Inspect the decompression panel hinges for condition and security.

————— **END OF TASK** —————

TASK 52-51-00-210-802

3. Decompression Panel Seal Inspection

- A. General
 - (1) This procedure is a scheduled maintenance task.
- B. Location Zones

Zone	Area
211	Flight Compartment - Left
212	Flight Compartment - Right

- C. Procedure
 - SUBTASK 52-51-00-010-003
 - (1) Gain access to the forward side of the flight deck door.
 - SUBTASK 52-51-00-010-004
 - (2) Do these steps to remove the decompression panel:
 - (a) Disconnect the strap that attaches the upper decompression panel to the flight compartment door by pulling up on the strap at the door connection.
 - (b) Push in the two retractable bolts at the top or bottom of the decompression panel.
 - (c) Remove the decompression panel.

<p>EFFECTIVITY</p> <p>HAP 001-013, 015-022, 024, 025, 028-054, 101-999; HAP 023, 026 POST SB 737-25-1496</p>
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SUBTASK 52-51-00-210-002

- (3) Check the door seals on the top, bottom, and sides of the panel frame for these abnormal conditions:
- (a) Cracks
 - (b) Notches
 - (c) Unusual wear
 - (d) Tears
 - (e) Splits
 - (f) Dents

SUBTASK 52-51-00-410-002

- (4) Install the decompression panel.

————— **END OF TASK** —————

EFFECTIVITY

**HAP 001-013, 015-022, 024, 025, 028-054, 101-999; HAP 023,
026 POST SB 737-25-1496**

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FLIGHT COMPARTMENT DOOR - REMOVAL/INSTALLATION

1. General

A. This Procedure has these tasks:

- (1) A removal of the flight compartment door.
- (2) An installation of the flight compartment door.

TASK 52-51-01-000-801

2. Flight Compartment Door Removal

(Figure 401)

A. Location Zones

Zone	Area
211	Flight Compartment - Left
212	Flight Compartment - Right

B. Flight Compartment Door Removal

SUBTASK 52-51-01-020-001

- (1) Do these steps to remove the flight compartment door (1):
 - (a) Open the flight compartment door.
 - (b) Remove the screws (6) and the washers (5) that attach the hinge (3) to the door post.
 - (c) Remove the shims (8).
 - (d) Remove the angle (4).
 - (e) Remove the flight compartment door.

————— END OF TASK —————

TASK 52-51-01-400-801

3. Flight Compartment Door Installation

(Figure 401)

A. Consumable Materials

Reference	Description	Specification
G50162	Tape - Adhesive Transfer Tape, 5.0 mil Clear Acrylic Adhesive - 3M F9469PC	

B. Location Zones

Zone	Area
211	Flight Compartment - Left
212	Flight Compartment - Right

C. Flight Compartment Door Installation

SUBTASK 52-51-01-420-001

- (1) Do these steps to install the flight compartment door (1):
 - (a) Install the shims (8).
 - (b) Put the flight compartment door (1) in its position.
 - (c) Install the screws (6) and the washers (5).

EFFECTIVITY

HAP 001-013, 015-022, 024, 025, 028-054, 101-999; HAP 023, 026 POST SB 737-25-1496

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- (d) Install the seal (7) as necessary with the 3M F9469PC tape, G50162 to close the gap between the hinge and the lavatory wall.

SUBTASK 52-51-01-820-001

- (2) Do these steps to adjust the door:

- (a) Measure the gap at the post.
- (b) Make sure the gap is 0.10 to 0.23 inches (2.54 to 5.84 mm).
- (c) If the gap is not correct, do these steps:
 - 1) Remove the screws (6) and the washers (5).
 - 2) Add or remove shims (8) as necessary to obtain the correct gap.
 - 3) Install the screws (6) and the washers (5).
- (d) Make sure the gap between the top of the door and the header is 0.0550 to 0.1550 inches (1.40 to 3.94 mm).
- (e) If necessary, adjust the header to maintain a consistent gap.

————— **END OF TASK** —————

EFFECTIVITY

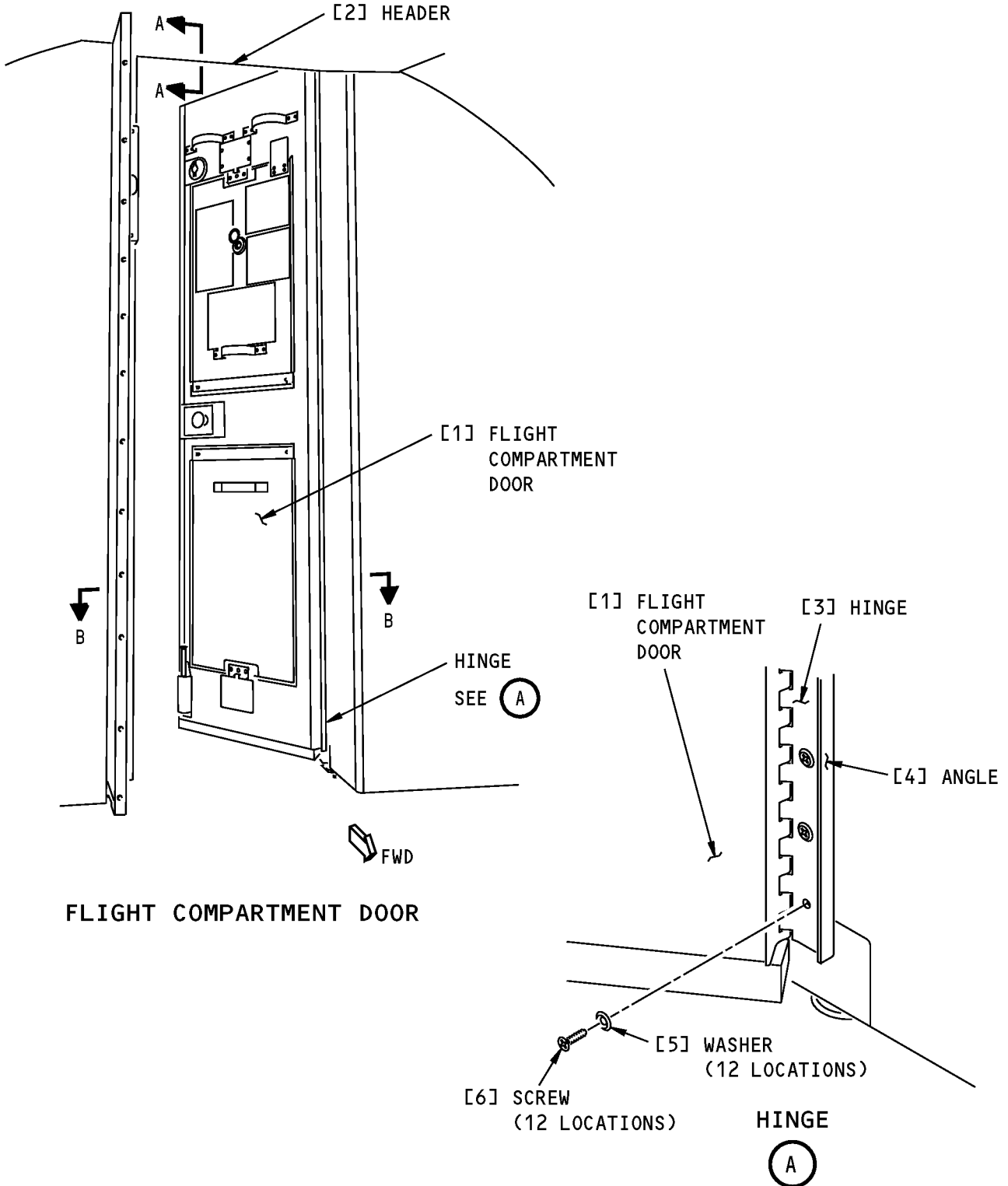
HAP 001-013, 015-022, 024, 025, 028-054, 101-999; HAP 023, 026 POST SB 737-25-1496

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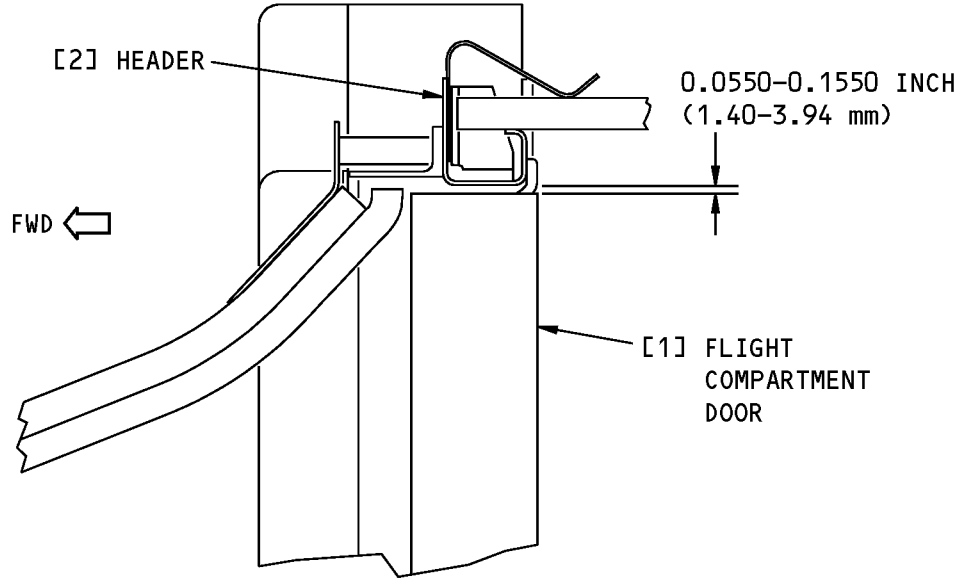


Flight Compartment Door Installation
Figure 401 (Sheet 1 of 2)/52-51-01-990-801

EFFECTIVITY
HAP 001-013, 015-022, 024, 025, 028-054, 101-999; HAP 023,
026 POST SB 737-25-1496

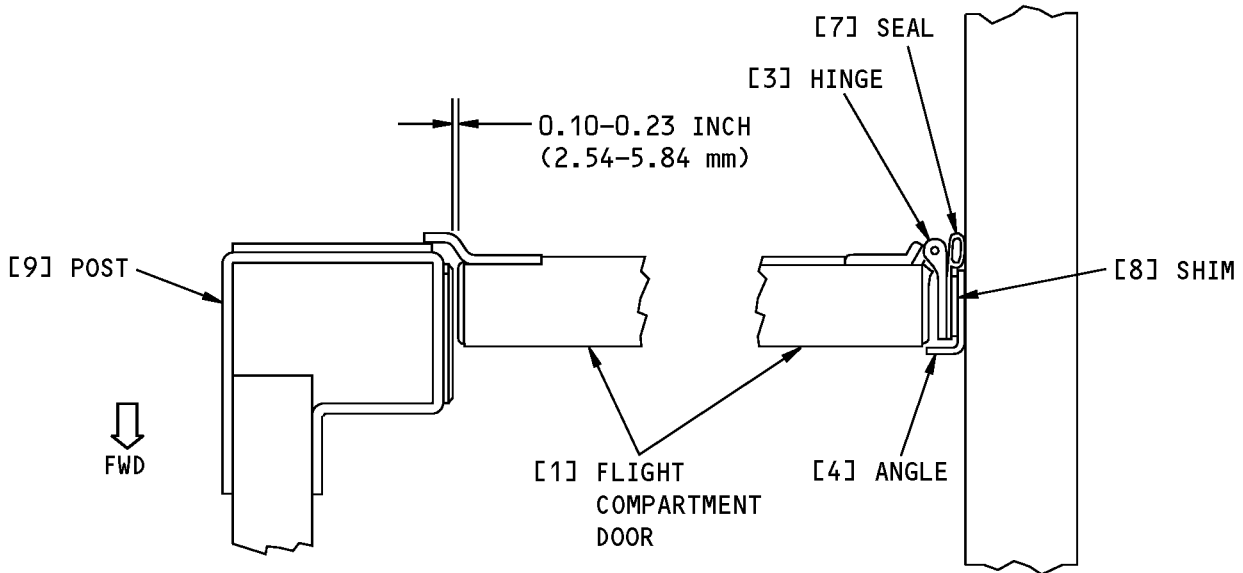
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**CREW DOOR AND HEADER CLEARANCE
(DOOR IN CLOSED POSITION)**

A-A



**CREW DOOR AND TRIM ANGLE CLEARANCE
(DOOR IN CLOSED POSITION)**

B-B

**Flight Compartment Door Installation
Figure 401 (Sheet 2 of 2)/52-51-01-990-801**

EFFECTIVITY
HAP 001-013, 015-022, 024, 025, 028-054, 101-999; HAP 023,
026 POST SB 737-25-1496

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FLIGHT COMPARTMENT DOOR -INSPECTION/CHECK

1. General

- A. This procedure contains scheduled maintenance task data.
- B. This procedure has this task:
 - (1) Flight Compartment Door Seal Inspection

TASK 52-51-01-200-801

2. Flight Compartment Door Seal Inspection

- A. General
 - (1) This procedure is a scheduled maintenance task.
 - (2) This procedure is a visual inspection of the condition and security of the flight compartment door seals for condition and security.
- B. Location Zones

Zone	Area
211	Flight Compartment - Left
212	Flight Compartment - Right

C. Procedure

SUBTASK 52-51-01-210-001

- (1) Do these steps to inspect the door seals:
 - (a) Open the flight compartment door.
 - (b) Check the door seals on the top, bottom, and sides of the door frame for these abnormal conditions:
 - 1) Cracks
 - 2) Notches
 - 3) Unusual wear
 - 4) Tears
 - 5) Splits
 - 6) Dents

————— **END OF TASK** —————

<p>EFFECTIVITY</p> <p>HAP 001-013, 015-022, 024, 025, 028-054, 101-999; HAP 023, 026 POST SB 737-25-1496</p>
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FLIGHT COMPARTMENT DOOR LATCH - REMOVAL/INSTALLATION

1. General

A. This Procedure has these tasks:

- (1) A removal of the flight compartment door latch.
- (2) An installation of the flight compartment door latch.

TASK 52-51-02-000-801

2. Flight Compartment Door latch Removal

(Figure 401)

A. Location Zones

Zone	Area
211	Flight Compartment - Left
212	Flight Compartment - Right

B. Flight Compartment Door Latch Removal

SUBTASK 52-51-02-020-001

- (1) Do these steps to remove the door latch assembly (5):
 - (a) Remove the screws (2) that attach the front cover (3) to the back cover (7).
 - (b) Remove the front cover (3).
 - (c) Remove the plate (4).
 - (d) Remove the backcover (7).
 - (e) Remove the plate (6).
 - (f) Remove the screws (1) that attach the latch assembly (5) to the flight compartment door.
 - (g) Remove the latch assembly (5) from the flight compartment door.

————— **END OF TASK** —————

TASK 52-51-02-400-801

3. Flight Compartment Door Latch Installation

(Figure 401)

A. Location Zones

Zone	Area
211	Flight Compartment - Left
212	Flight Compartment - Right

B. Flight Compartment Door Latch Installation

SUBTASK 52-51-02-420-001

- (1) Do these steps to install the door latch assembly (5):
 - (a) Put the latch assembly (5) in its position in the flight compartment door.
 - (b) Install the screws (1).
 - (c) Put the plate (6) and plate (4) in their positions.
 - (d) Install the back cover (7) and the front cover (3).
 - (e) Install the screws (2) that attach the front cover (3) to the back cover (7).

EFFECTIVITY

HAP 001-013, 015-022, 024, 025, 028-054, 101-999; HAP 023, 026 POST SB 737-25-1496

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C. Do a Post Installation Test of the Flight Compartment Door Latch

SUBTASK 52-51-02-710-001

(1) Do these steps to do a test of the door latch:

- (a) Make sure the deadbolt is not engaged.
- (b) Turn the door knob clockwise and make sure the latch tongue retracts.
- (c) Close the door.
- (d) Make sure the latch tongue engages the strike plate and you can not open the door.
- (e) Turn the door knob clockwise and make sure you can open the door.

END OF TASK

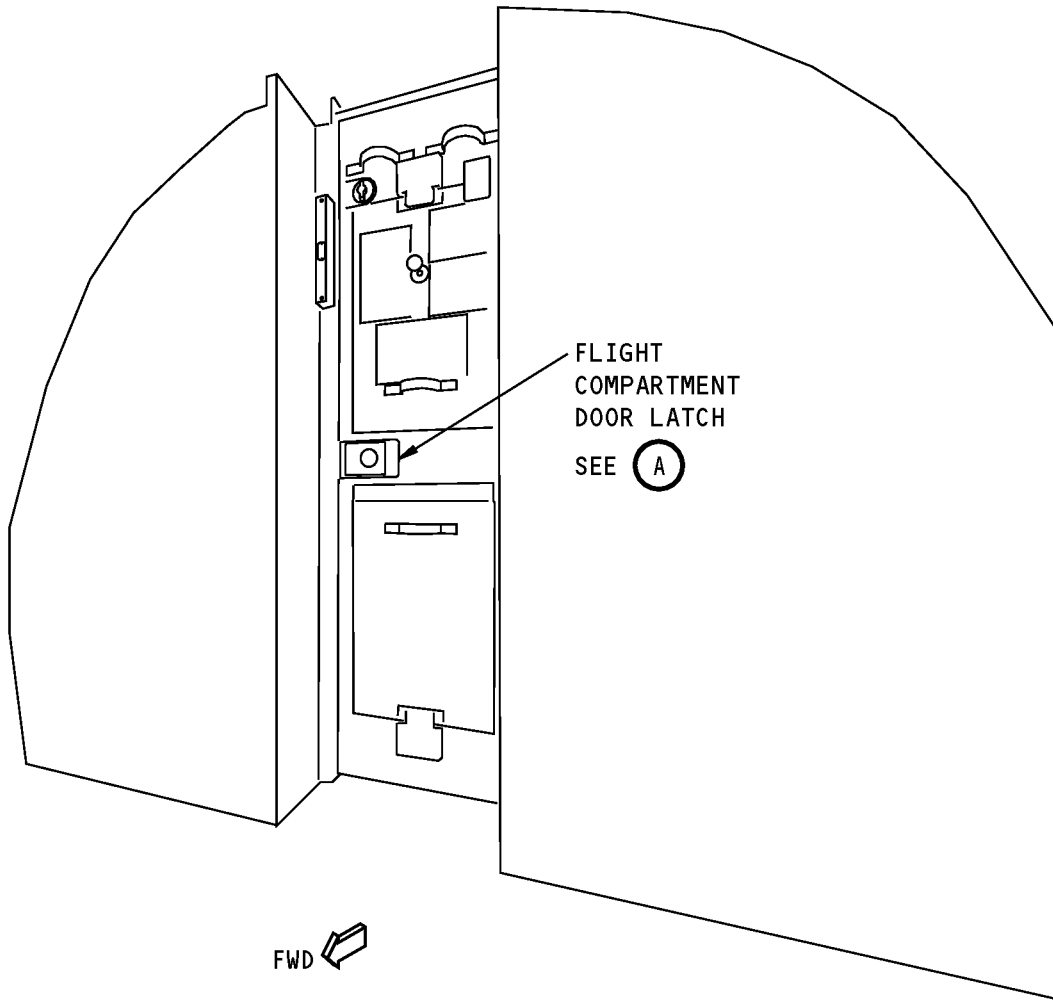
EFFECTIVITY

HAP 001-013, 015-022, 024, 025, 028-054, 101-999; HAP 023,
026 POST SB 737-25-1496

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FLIGHT COMPARTMENT DOOR

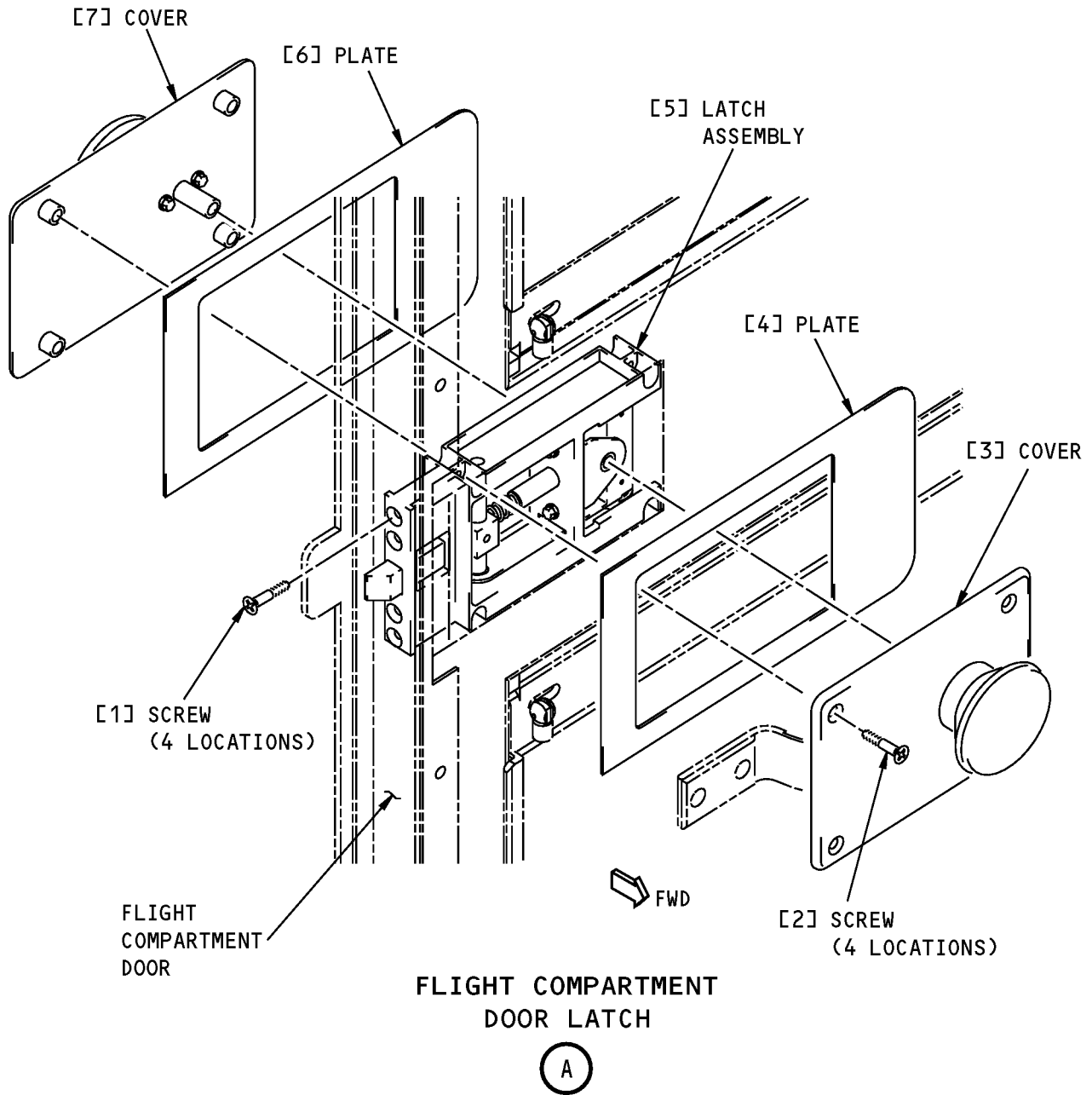
**Flight Compartment Door Latch Installation
Figure 401 (Sheet 1 of 2)/52-51-02-990-801**

EFFECTIVITY
**HAP 001-013, 015-022, 024, 025, 028-054, 101-999; HAP 023,
026 POST SB 737-25-1496**

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**Flight Compartment Door Latch Installation
Figure 401 (Sheet 2 of 2)/52-51-02-990-801**

EFFECTIVITY
HAP 001-013, 015-022, 024, 025, 028-054, 101-999; HAP 023,
026 POST SB 737-25-1496

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AIRCRAFT MAINTENANCE MANUAL

ELECTRIC STRIKE - REMOVAL/INSTALLATION

1. General

A. This Procedure has these tasks:

- (1) A removal of the electric strike.
- (2) An installation of the electric strike.

TASK 52-51-03-000-801

2. Electric Strike Removal

A. Location Zones

Zone	Area
211	Flight Compartment - Left
212	Flight Compartment - Right

B. Prepare for the Removal

SUBTASK 52-51-03-860-001

- (1) Open this circuit breaker and install safety tag:

F/O Electrical System Panel, P6-3

Row	Col	Number	Name
E	1	C00137	DOOR LOCK

SUBTASK 52-51-03-010-001

- (2) Open the flight compartment door.

C. Electric Strike Removal

SUBTASK 52-51-03-020-001

- (1) Remove the screws (2) that attach the electric strike assembly (1) to the door post.

SUBTASK 52-51-03-020-002

- (2) Carefully pull the electric strike assembly (1) out of the door post.

SUBTASK 52-51-03-020-003

- (3) Disconnect the electrical connector (3) from the electric strike.

SUBTASK 52-51-03-020-004

- (4) Remove the electric strike assembly (1).

————— **END OF TASK** —————

TASK 52-51-03-400-801

3. Electric Strike Installation

(Figure 401)

A. References

Reference	Title
24-22-00-860-811	Supply Electrical Power (P/B 201)
24-22-00-860-812	Remove Electrical Power (P/B 201)

EFFECTIVITY

HAP 001-013, 015-022, 024, 025, 028-054, 101-999; HAP 023, 026 POST SB 737-25-1496

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B. Location Zones

Zone	Area
211	Flight Compartment - Left
212	Flight Compartment - Right

C. Electric Strike Installation

SUBTASK 52-51-03-420-001

- (1) Connect the electrical connector (3) to the electric strike (1).

SUBTASK 52-51-03-420-002

- (2) Carefully insert the electric strike assembly (1) into the door post opening and put it in its position.

SUBTASK 52-51-03-420-003

- (3) Install the screws (2) that attach the strike assembly (1) to the door post.

D. Do a Post Installation Test of the Electric Strike

SUBTASK 52-51-03-860-002

- (1) Supply electrical power. To supply electrical power, do this task: Supply Electrical Power, TASK 24-22-00-860-811

SUBTASK 52-51-03-710-001

- (2) Make sure the electric strike solenoid is in the de-energized position.

NOTE: The solenoid is de-energized when the pin is retracted such that the strike can rotate.

SUBTASK 52-51-03-710-002

- (3) Close the door.

SUBTASK 52-51-03-710-003

- (4) Make sure you can open the door from the passenger side by pushing on the door handle.

SUBTASK 52-51-03-710-004

- (5) Remove the safety tag and close this circuit breaker:

F/O Electrical System Panel, P6-3

Row	Col	Number	Name
E	1	C00137	DOOR LOCK

SUBTASK 52-51-03-710-005

- (6) Make sure the FLT DK DOOR three position switch on the P8-47 Control Panel Switch/Light module is in the AUTO position.

SUBTASK 52-51-03-710-006

- (7) Make sure the electric strike solenoid energizes.

NOTE: The pin will extend preventing the strike from rotating.

E. Put the Airplane Back to its Usual Condition

SUBTASK 52-51-03-860-003

- (1) Remove the electrical power if it is not necessary. To remove electrical power, do this task: Remove Electrical Power, TASK 24-22-00-860-812

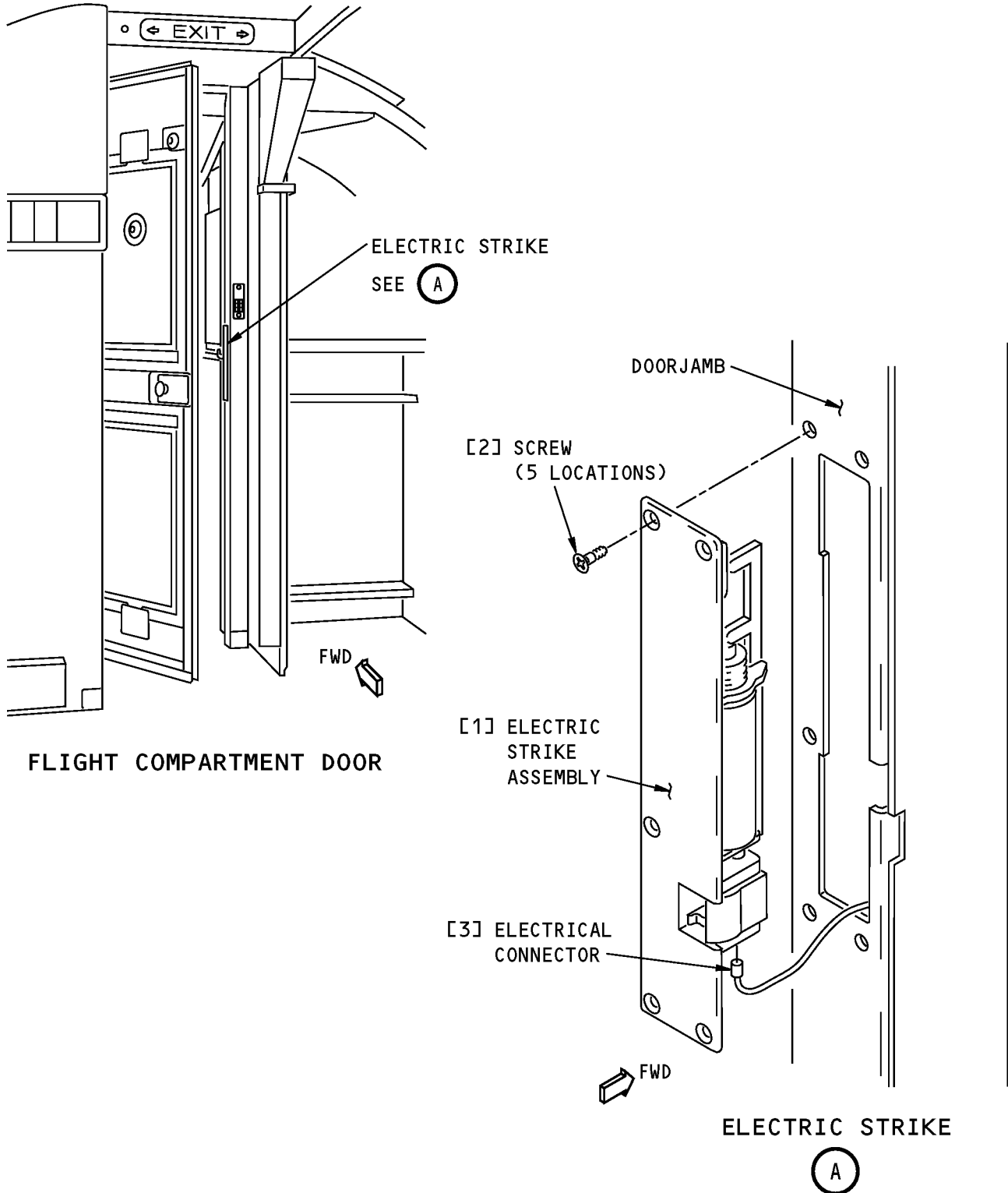
————— **END OF TASK** —————

<p>EFFECTIVITY HAP 001-013, 015-022, 024, 025, 028-054, 101-999; HAP 023, 026 POST SB 737-25-1496</p>
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Electric Strike Installation
Figure 401/52-51-03-990-801

EFFECTIVITY
HAP 001-013, 015-022, 024, 025, 028-054, 101-999; HAP 023,
026 POST SB 737-25-1496

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FLIGHT COMPARTMENT DOOR DEADBOLT - REMOVAL/INSTALLATION

1. General

A. This Procedure has these tasks:

- (1) A removal of the flight compartment door deadbolt.
- (2) An installation of the flight compartment door deadbolt.
- (3) An installation test of the flight compartment door deadbolt.

TASK 52-51-04-000-801

2. Flight Compartment Door Deadbolt Removal

(Figure 401)

A. Location Zones

Zone	Area
211	Flight Compartment - Left
212	Flight Compartment - Right

B. Flight Compartment Door Deadbolt Removal

SUBTASK 52-51-04-020-001

- (1) Do these steps to remove the deadbolt lock assembly:
 - (a) Extend the deadbolt assembly (4).
 - (b) Remove the screws (3) that hold the cover assembly (2) to the housing assembly (1).
 - (c) Retract the bolt assembly (4).
 - (d) Remove the cover assembly (2).
 - (e) Remove the two retaining screws (5).
 - (f) Remove the bolt assembly (4) from the housing assembly (1).
 - (g) Remove the housing assembly (1) from the door.

————— **END OF TASK** —————

TASK 52-51-04-400-801

3. Flight Compartment Door Deadbolt Installation

(Figure 401)

A. Consumable Materials

Reference	Description	Specification
A50011	Sealant - Silicone, Aluminum Color - RTV109	

B. Location Zones

Zone	Area
211	Flight Compartment - Left
212	Flight Compartment - Right

C. Flight Compartment Door Deadbolt Installation

SUBTASK 52-51-04-420-001

- (1) Do these steps to install the deadbolt lock assembly:
 - (a) Install the housing assembly (1) to the cabin side of the door.

EFFECTIVITY

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- (b) Put the bolt assembly (4) into the housing assembly (1).
 - 1) Make sure that the bolt assembly (4) is in full contact with the housing assembly (1).
 - 2) Make sure that the bolt assembly (4) engages the lock cylinder in the housing assembly (1).
- (c) Install the retaining screws (5).
 - 1) Make sure that the retaining screws (5) extend 0.125 inch (3.175 mm) above the housing assembly (1) surface.
- (d) Move the bolt assembly (4) to the full retract position.
- (e) Install the cover assembly (2) to the housing assembly (1).
- (f) Turn the handle on the cover assembly (2) to extend the bolt assembly (4).
- (g) Install the screws (3) in the cover assembly (2).

D. Flight Compartment Door Deadbolt Installation Test

SUBTASK 52-51-04-710-001

- (1) Do these steps to do an installation test of the deadbolt:

NOTE: When the deadbolt is fully retracted red dots can be seen

on the cover plate. When the deadbolt is fully extended green dots can be seen on the cover plate.

- (a) Extend the deadbolt and make sure that it engages in the lock position.
- (b) Retract the deadbolt and make sure that it engages in the unlock position.
- (c) Make sure that the handle on the cover assembly is secure.
- (d) Close the flight compartment door.
- (e) Turn the handle and make sure that the deadbolt fully locks in the latch receptical.
 - 1) Make sure that you can fully see the GREEN DOTS on the cover assembly.
- (f) Make sure that the deadbolt extends and retracts with the keylock.
- (g) If necessary turn the center adjustment screw on the cover assembly to adjust the keylock.
- (h) Put RTV109 sealant, A50011 or equivalent on the center screw head and make flush with the handle.

————— **END OF TASK** —————

EFFECTIVITY

HAP 001-013, 015-022, 024, 025, 028-054, 101-999; HAP 023, 026 POST SB 737-25-1496

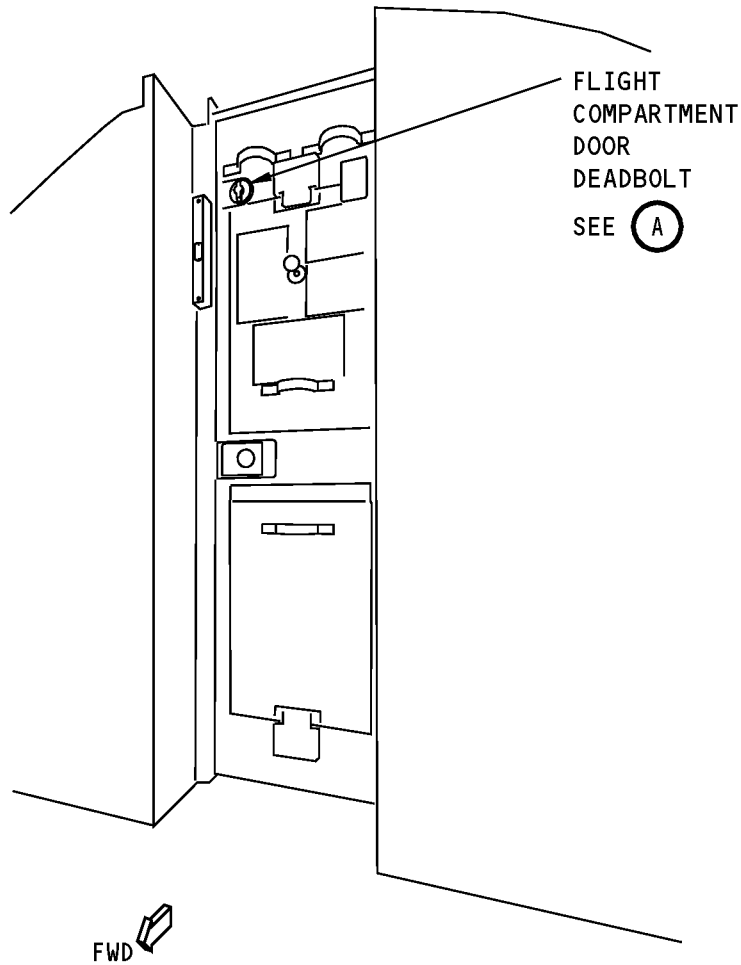
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FLIGHT COMPARTMENT DOOR

Flight Compartment Door Deadbolt - Installation
Figure 401 (Sheet 1 of 2)/52-51-04-990-801

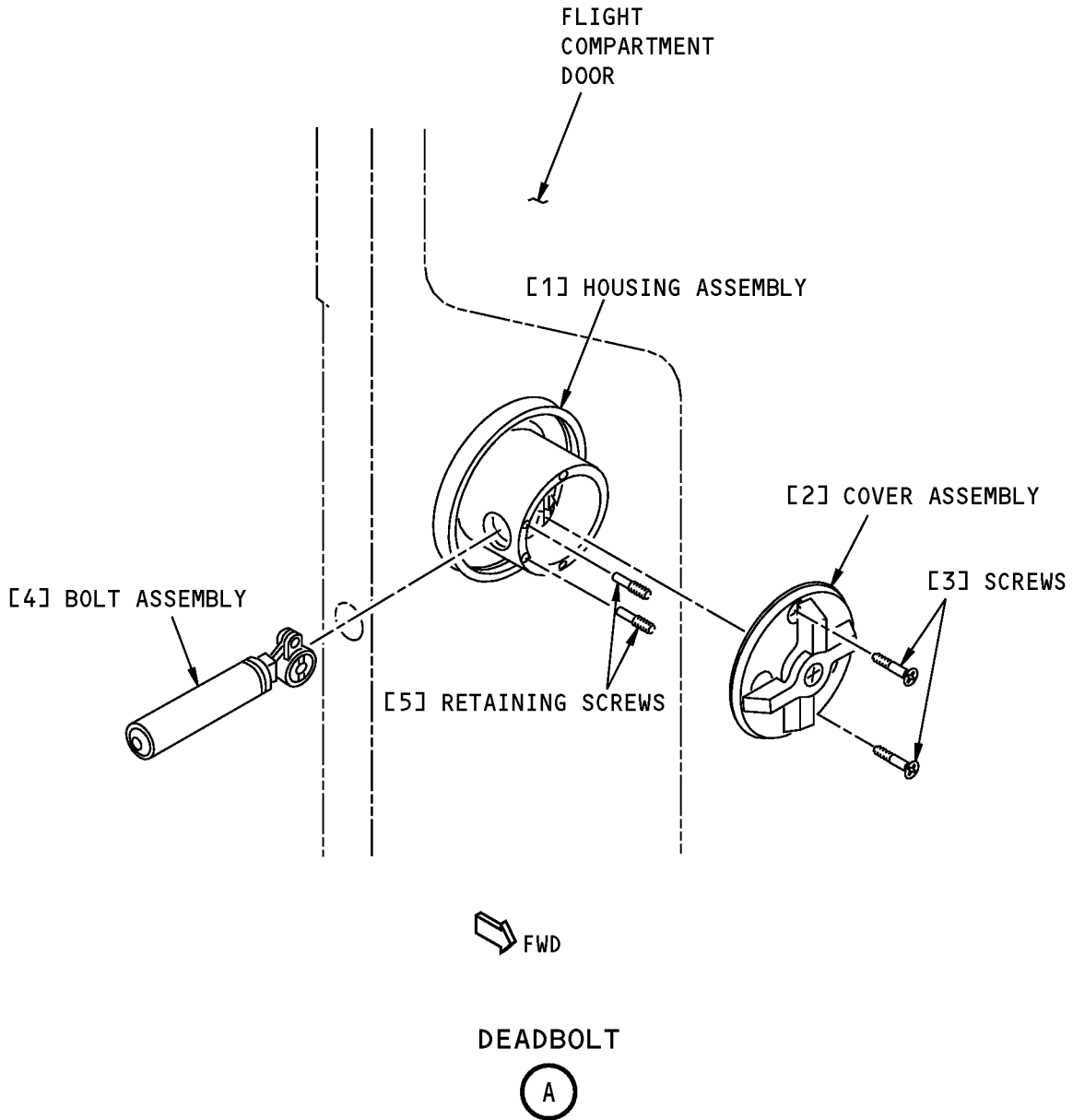
EFFECTIVITY
HAP 001-013, 015-022, 024, 025, 028-054, 101-999; HAP 023,
026 POST SB 737-25-1496

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**Flight Compartment Door Deadbolt - Installation
Figure 401 (Sheet 2 of 2)/52-51-04-990-801**

EFFECTIVITY
HAP 001-013, 015-022, 024, 025, 028-054, 101-999; HAP 023,
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KEYPAD - REMOVAL/INSTALLATION

1. General

A. This Procedure has these tasks:

- (1) A removal of the keypad.
- (2) An installation of the keypad.

TASK 52-51-05-000-801

2. Keypad Removal

(Figure 401)

A. Location Zones

Zone	Area
211	Flight Compartment - Left
212	Flight Compartment - Right

B. Prepare for the Removal

SUBTASK 52-51-05-860-001

- (1) Open this circuit breaker and install safety tag:

F/O Electrical System Panel, P6-3

Row	Col	Number	Name
E	1	C00137	DOOR LOCK

C. Keypad Removal

SUBTASK 52-51-05-020-001

- (1) Remove the screw covers (3) on the top and the bottom of the keypad (1).

SUBTASK 52-51-05-020-002

- (2) Remove the screws (2) that attach the keypad (1) to the door post.

SUBTASK 52-51-05-020-003

- (3) Disconnect the electrical connector.

SUBTASK 52-51-05-020-004

- (4) Remove the keypad (1).

————— END OF TASK —————

TASK 52-51-05-400-801

3. Keypad Installation

(Figure 401)

A. References

Reference	Title
52-51-00-700-801	Flight Compartment Security Door Access System Test (P/B 501)

B. Location Zones

Zone	Area
211	Flight Compartment - Left
212	Flight Compartment - Right

EFFECTIVITY

HAP 001-013, 015-022, 024, 025, 028-054, 101-999; HAP 023, 026 POST SB 737-25-1496

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C. Keypad Installation

SUBTASK 52-51-05-420-001

(1) Put the keypad (1) in its position.

SUBTASK 52-51-05-420-002

(2) Install the electrical connector.

SUBTASK 52-51-05-420-003

(3) Install the screws (2).

SUBTASK 52-51-05-420-004

(4) Install the screw covers (3).

SUBTASK 52-51-05-860-002

(5) Remove the safety tag and close this circuit breaker:

F/O Electrical System Panel, P6-3

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
E	1	C00137	DOOR LOCK

D. Do a Post Installation Test of the Keypad

SUBTASK 52-51-05-730-001

(1) Do the system test of the flight compartment security door access system. To do a test of the flight compartment security door access system, do this task: Flight Compartment Security Door Access System Test, TASK 52-51-00-700-801

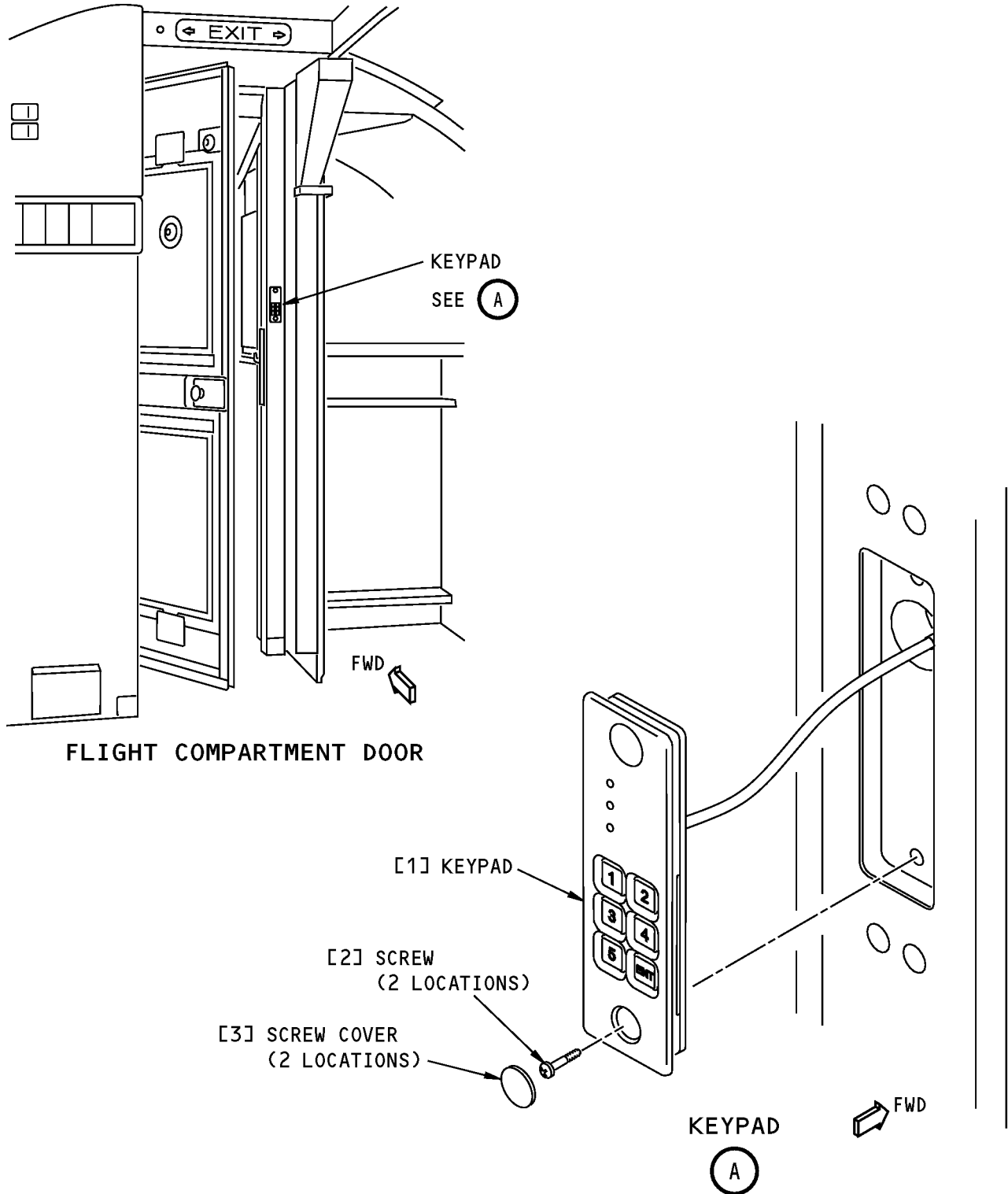
————— END OF TASK —————

<p>EFFECTIVITY</p> <p>HAP 001-013, 015-022, 024, 025, 028-054, 101-999; HAP 023, 026 POST SB 737-25-1496</p>
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**Keypad Installation
Figure 401/52-51-05-990-801**

EFFECTIVITY
HAP 001-013, 015-022, 024, 025, 028-054, 101-999; HAP 023,
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CHIME MODULE - REMOVAL/INSTALLATION

1. General

A. This Procedure has these tasks:

- (1) A removal of the chime module.
- (2) An installation of the chime module.

TASK 52-51-06-000-801

2. Chime Module Removal

(Figure 401)

A. Location Zones

Zone	Area
211	Flight Compartment - Left
212	Flight Compartment - Right

B. Prepare for the Removal

SUBTASK 52-51-06-860-001

- (1) Open this circuit breaker and install safety tag:

F/O Electrical System Panel, P6-3

Row	Col	Number	Name
E	1	C00137	DOOR LOCK

C. Chime Module Removal

SUBTASK 52-51-06-020-001

- (1) Remove the screws (2) that attach the chime module (1) to the door post.

SUBTASK 52-51-06-020-002

- (2) Disconnect the electrical connectors.

SUBTASK 52-51-06-020-003

- (3) Remove the chime module (1).

————— **END OF TASK** —————

TASK 52-51-06-400-801

3. Chime Module Installation

(Figure 401)

A. References

Reference	Title
52-51-00-700-801	Flight Compartment Security Door Access System Test (P/B 501)

B. Location Zones

Zone	Area
211	Flight Compartment - Left
212	Flight Compartment - Right

C. Chime Module Installation

SUBTASK 52-51-06-420-001

- (1) Put the chime module (1) in it's position.

EFFECTIVITY

HAP 001-013, 015-022, 024, 025, 028-054, 101-999; HAP 023, 026 POST SB 737-25-1496

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SUBTASK 52-51-06-420-002

(2) Install the electrical connectors.

SUBTASK 52-51-06-420-003

(3) Install the screws (2).

SUBTASK 52-51-06-860-002

(4) Remove the safety tag and close this circuit breaker:

F/O Electrical System Panel, P6-3

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
E	1	C00137	DOOR LOCK

D. Do a Post Installation Test of the Chime Module

SUBTASK 52-51-06-730-001

(1) Do the system test of the flight compartment security door access system. To do a test of the flight compartment security door access system, do this task: Flight Compartment Security Door Access System Test, TASK 52-51-00-700-801

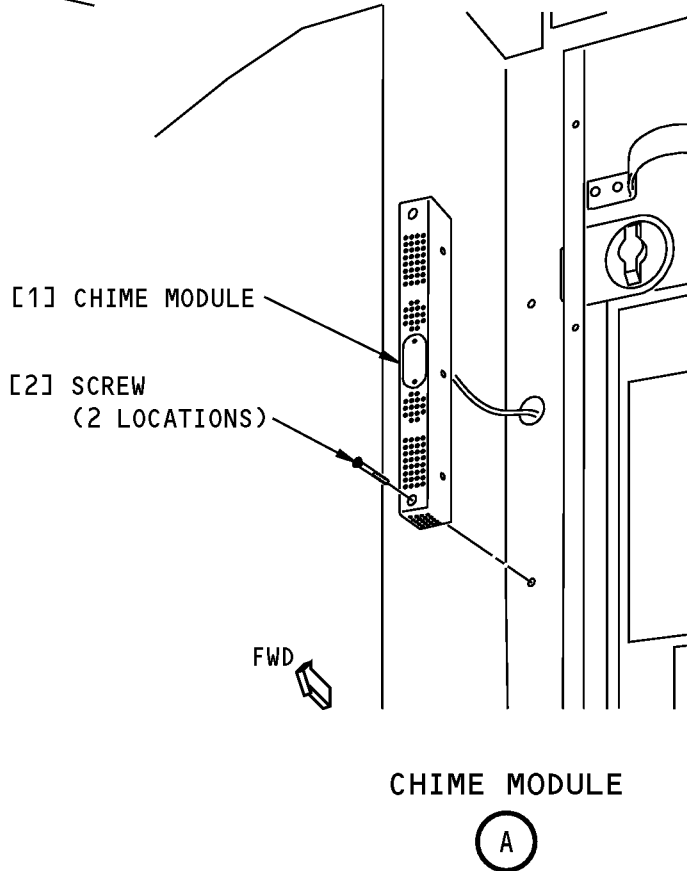
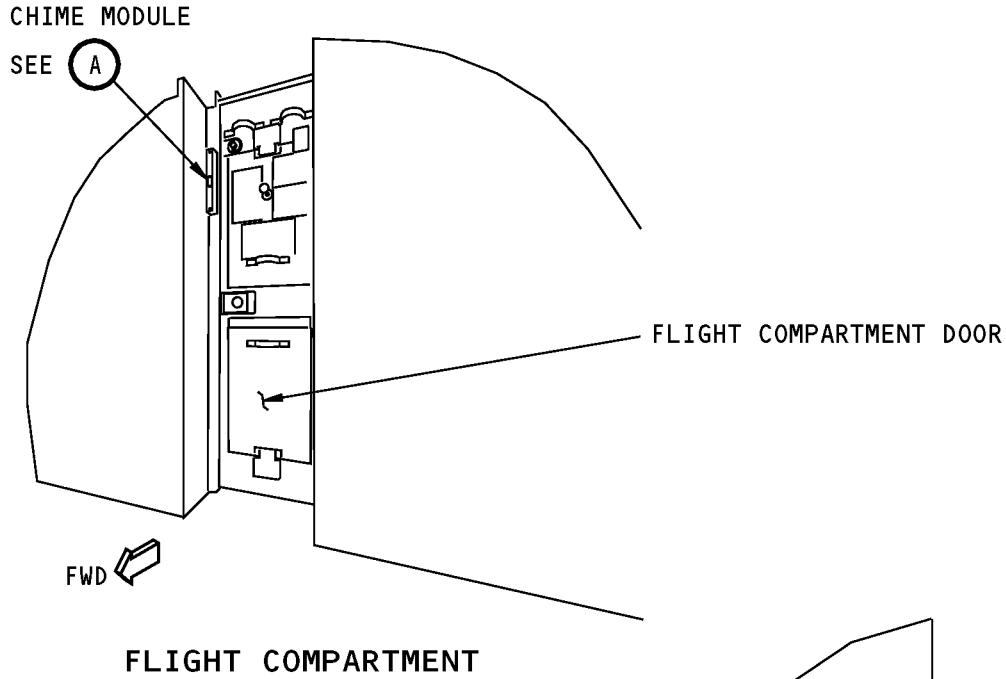
————— END OF TASK —————

<p>EFFECTIVITY HAP 001-013, 015-022, 024, 025, 028-054, 101-999; HAP 023, 026 POST SB 737-25-1496</p>
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**Chime Module Installation
Figure 401/52-51-06-990-801**

EFFECTIVITY
HAP 001-013, 015-022, 024, 025, 028-054, 101-999; HAP 023,
026 POST SB 737-25-1496

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CHIME MODULE - CLEANING

1. General

A. This Procedure has a task to clean the chime module.

TASK 52-51-06-000-802

2. Chime Module Cleaning

A. Consumable Materials

Reference	Description	Specification
B01001	Solvent - General Cleaning Of All Organic Coatings (AMM 20-30-81/201) - Series 81	

B. Location Zones

Zone	Area
211	Flight Compartment - Left
212	Flight Compartment - Right

C. Chime Module Cleaning

SUBTASK 52-51-06-160-001

WARNING: DO NOT GET SOLVENTS IN YOUR MOUTH, OR YOUR EYES, OR ON YOUR SKIN. DO NOT BREATHE THE FUMES FROM SOLVENTS. SOLVENTS ARE HAZARDOUS MATERIALS. SOLVENTS MAY BE FLAMMABLE OR HARMFUL TO THE ENVIRONMENT. REFER TO PRODUCT MATERIAL SAFETY DATA SHEETS (MSDS) AND LOCAL REQUIREMENTS FOR PROPER HANDLING PROCEDURES.

CAUTION: MAKE SURE YOU DO NOT SPRAY THE CHIME MODULE DIRECTLY WITH THE CLEANING SOLUTION. IF YOU SPRAY THE CHIME MODULE DIRECTLY WITH THE CLEANING SOLUTION, DAMAGE TO THE CHIME MODULE CAN OCCUR.

(1) Do these steps to clean the chime module:

- (a) Moisten the cloth with the solvent, Series 81 solvent, B01001
- (b) Use the cloth to clean the exterior surface of the chime module.
- (c) Dry the chime module with a clean cloth.

————— **END OF TASK** —————

EFFECTIVITY

HAP 001-013, 015-022, 024, 025, 028-054, 101-999; HAP 023, 026 POST SB 737-25-1496

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COCKPIT CONTROL PANEL SWITCH/LIGHT (P8-47) - REMOVAL/INSTALLATION

1. General

A. This Procedure has these tasks:

- (1) A removal of the cockpit control panel switch/light.
- (2) An installation of the cockpit control panel switch/light.
- (3) The cockpit control panel switch/light will be called control panel in this procedure.

TASK 52-51-07-020-801

2. Cockpit Control Panel Switch/Light (P8-47) Removal

(Figure 401)

A. Location Zones

<u>Zone</u>	<u>Area</u>
211	Flight Compartment - Left
212	Flight Compartment - Right

B. Cockpit Control Panel Switch/Light (P8-47) Removal

SUBTASK 52-51-07-020-001

(1) Do these steps to remove the Cockpit Control Panel Switch/Light (P8-47) from the Aft Electronic Panel:

(a) Open these circuit breakers and install safety tags:

Circuit Breaker Panel 5, P8

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
--	--	C01097	ELEX PANEL LIGHTS AFT F/O

F/O Electrical System Panel, P6-2

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	10	C00207	FLIGHT CONTROL STAB TRIM CONT

F/O Electrical System Panel, P6-3

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
E	1	C00137	DOOR LOCK

(b) Turn the four quarter turn fasteners (2) which hold the Control Panel (1) to the Aft Electronic Panel.

1) The typical location of the P8-47 panel [1] is in the Right Aft corner of the P8 panel.

(c) Carefully remove the Control Panel (1) out of the Aft Electronic Panel.

(d) Disconnect the electrical connectors (3).

(e) Remove the Control Panel (1).

————— **END OF TASK** —————

EFFECTIVITY

HAP 001-013, 015-022, 024, 025, 028-054, 101-999; HAP 023, 026 POST SB 737-25-1496

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TASK 52-51-07-420-801

3. Cockpit Control Panel Switch/Light (P8-47) Installation

(Figure 401)

A. References

Reference	Title
24-22-00-860-812	Remove Electrical Power (P/B 201)
27-41-00-700-807	Column Actuated Stabilizer Trim Cutout Switch Override Test (P/B 501)
52-51-00-700-801	Flight Compartment Security Door Access System Test (P/B 501)

B. Location Zones

Zone	Area
211	Flight Compartment - Left
212	Flight Compartment - Right

C. Cockpit Control Panel Switch/Light (P8-47) Installation

SUBTASK 52-51-07-420-001

- (1) Do these steps to install the Cockpit Control Panel Switch/Light (P8-47) into the Aft Electronic Panel:
 - (a) Reconnect the electrical connectors (3).
 - (b) Carefully put the Control Panel (1) into the Aft Electronic Panel.
 - (c) Turn the four quarter turn fasteners (2).
 - (d) Remove the safety tags and close these circuit breakers:

Circuit Breaker Panel 5, P8

Row	Col	Number	Name
---	---	C01097	ELEX PANEL LIGHTS AFT F/O

F/O Electrical System Panel, P6-2

Row	Col	Number	Name
B	10	C00207	FLIGHT CONTROL STAB TRIM CONT

F/O Electrical System Panel, P6-3

Row	Col	Number	Name
E	1	C00137	DOOR LOCK

SUBTASK 52-51-07-710-001

- (2) Do the flight compartment security door access system test. To do the flight compartment security door access system test, do this task: Flight Compartment Security Door Access System Test, TASK 52-51-00-700-801
 - (3) Do the Column Actuated Stabilizer Trim Cutout Switch Override Test, TASK 27-41-00-700-807
- D. Put the Airplane Back to Its Usual Condition.

SUBTASK 52-51-07-860-001

- (1) Remove the electrical power if it is not necessary. To remove electrical power, do this task: Remove Electrical Power, TASK 24-22-00-860-812

————— **END OF TASK** —————

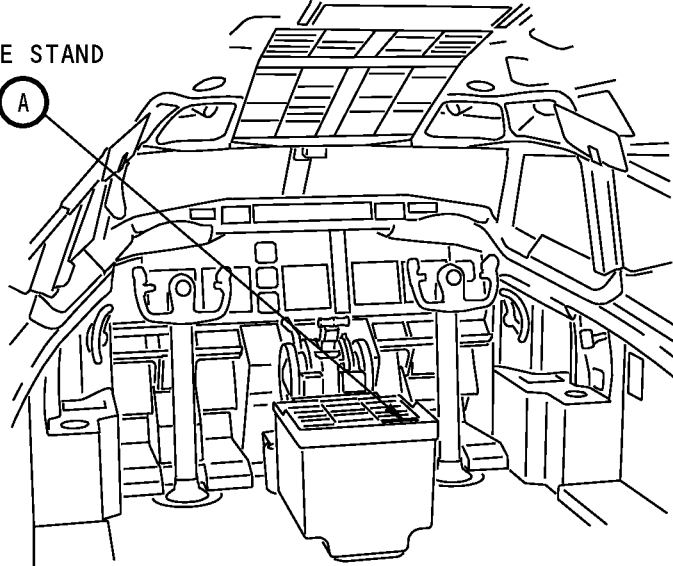
<p>EFFECTIVITY HAP 001-013, 015-022, 024, 025, 028-054, 101-999; HAP 023, 026 POST SB 737-25-1496</p>
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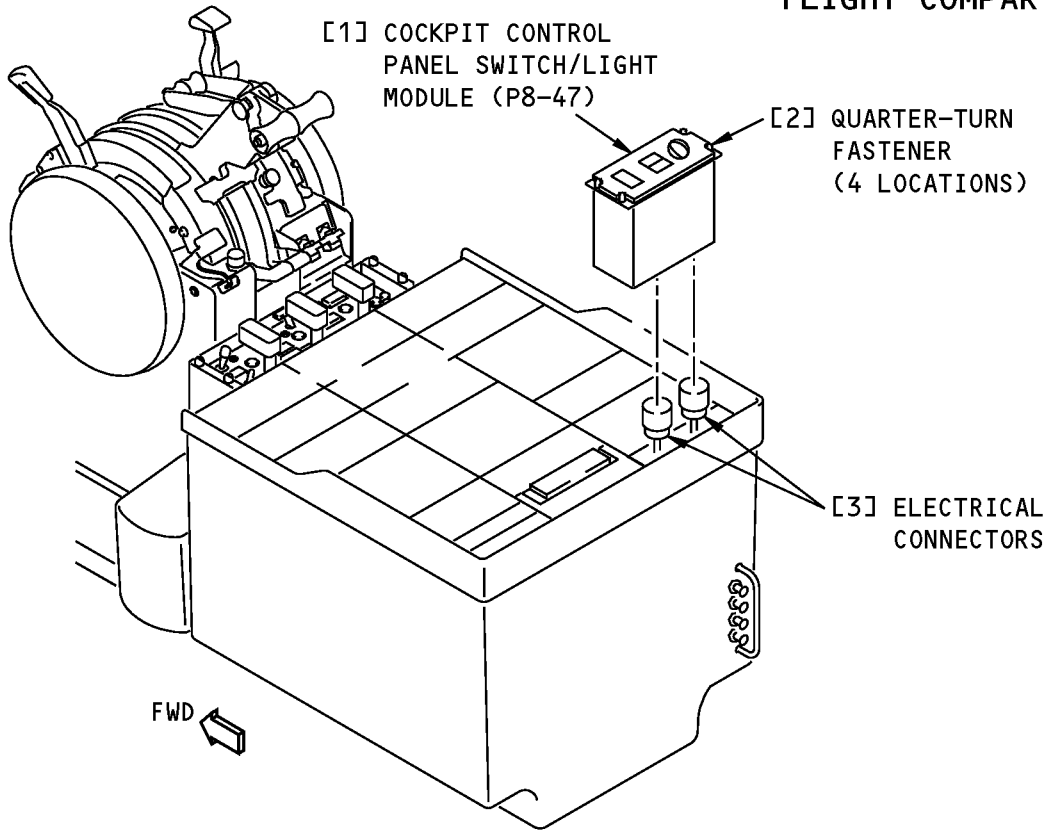
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AISLE STAND

SEE (A)



FLIGHT COMPARTMENT



AISLE STAND

(A)

Control Panel Switch/Light Installation
Figure 401/52-51-07-990-801

EFFECTIVITY
HAP 001-013, 015-022, 024, 025, 028-054, 101-999; HAP 023,
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DECOMPRESSION PANEL AND PRESSURE RELEASE LATCH - REMOVAL/INSTALLATION

1. General

A. This Procedure has these tasks:

- (1) A removal of the decompression panels and pressure release latches.
- (2) An installation of the decompression panels and pressure release latches.
- (3) There are two decompression panels and pressure release latches in the door. The removal and installation steps are almost the same for both panels and latches.

TASK 52-51-08-000-801

2. Decompression Panel and Pressure Release Latch Removal

(Figure 401)

A. Location Zones

Zone	Area
211	Flight Compartment - Left
212	Flight Compartment - Right

B. Decompression Panel and Pressure Release Latch Removal

SUBTASK 52-51-08-020-001

- (1) Do these steps to remove the pressure release latch (2):
 - (a) Remove the screws (8) and washers (7) that attach the decompression latch cover (9) to the lower decompression panel (1).
 - (b) Remove the decompression latch cover (9).
 - (c) Remove the screws (5) and washers (4) that attach the decompression latch strap (6) to the pressure release latch (2).
 - (d) Remove the decompression latch strap (6).
 - (e) Remove the screws (3) that attach the pressure release latch (2) to the flight compartment door.
 - (f) Remove the pressure release latch (2).

SUBTASK 52-51-08-020-002

- (2) Do these steps to remove the decompression panel (1):
 - (a) Disconnect the strap that attaches the upper decompression panel (1) to the flight compartment door by pulling up on the strap at the door connection.
 - (b) Push in on the two retractable bolts at the top or bottom of the decompression panel (1).
 - (c) Remove the decompression panel (1).

————— **END OF TASK** —————

TASK 52-51-08-400-801

3. Decompression Panel and Pressure Release Latch Installation

(Figure 401)

A. Location Zones

Zone	Area
211	Flight Compartment - Left
212	Flight Compartment - Right

EFFECTIVITY

HAP 001-013, 015-022, 024, 025, 028-054, 101-999; HAP 023, 026 POST SB 737-25-1496

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B. Decompression Panel and Pressure Release Latch Installation

SUBTASK 52-51-08-420-001

(1) Do these steps to install the decompression panel (1):

- (a) Push in on the two retractable bolts on the decompression panel (1).
- (b) Put the decompression panel (1) in its position.
- (c) Release the retractable bolts.
- (d) Connect the strap on the flight compartment door for the upper decompression panel (1).
- (e) Make sure the decompression panel (1) can swing freely.

SUBTASK 52-51-08-420-002

(2) Do these steps to install the pressure release latch (2):

- (a) Put the pressure release latch (2) in its position with the decompression panel (1) in the closed position.
- (b) Install the screws (3) that attach the pressure release latch (2) to the flight compartment door.
- (c) Put the decompression latch strap (6) in its position on the pressure release latch (2).
- (d) Install the screws (5) and washers (4).
- (e) Put the decompression latch cover (9) in its position on the lower decompression panel (1).
- (f) Install the screws (8) and washers (7).

————— **END OF TASK** —————

EFFECTIVITY

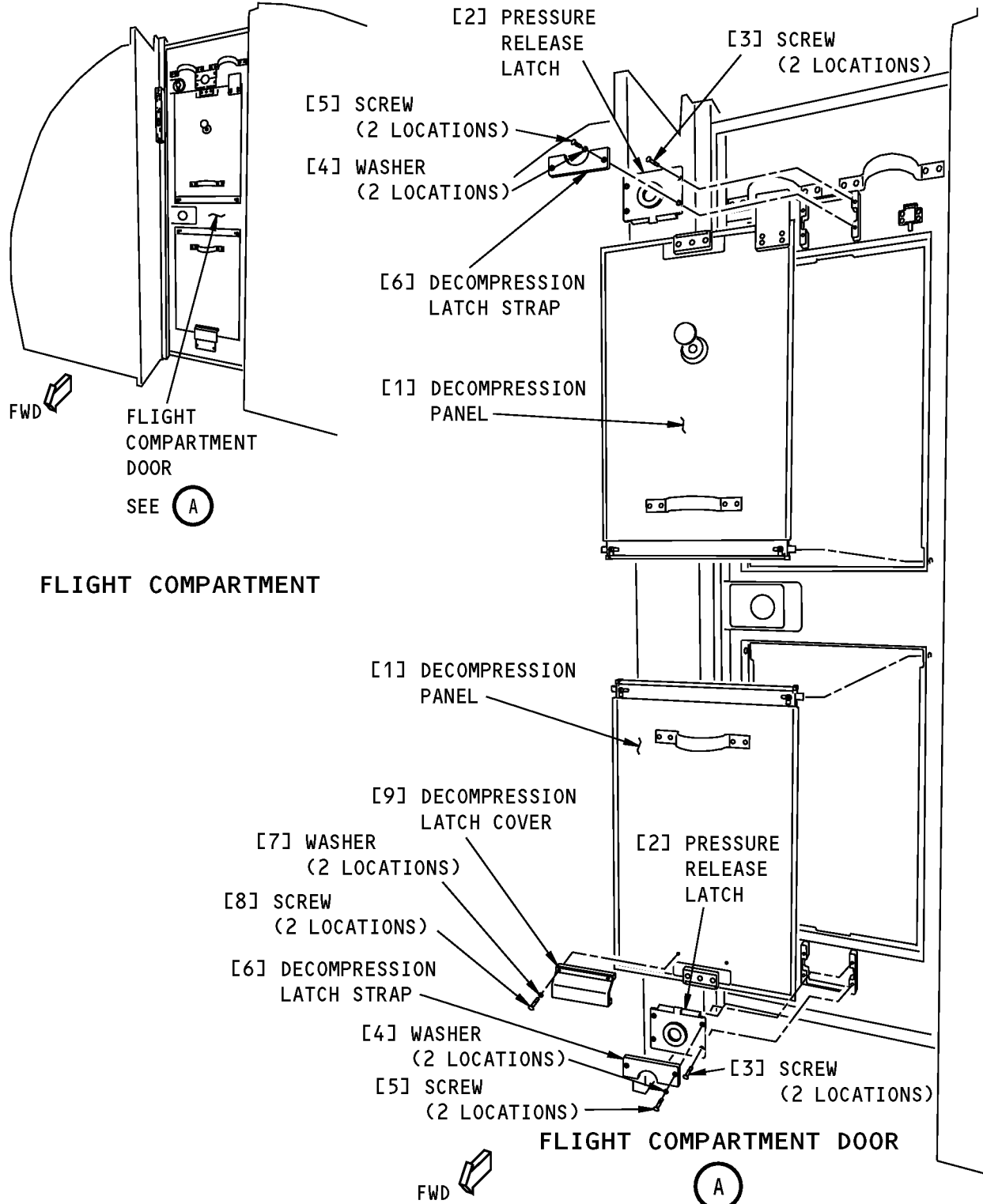
HAP 001-013, 015-022, 024, 025, 028-054, 101-999; HAP 023,
026 POST SB 737-25-1496

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FLIGHT COMPARTMENT

FLIGHT COMPARTMENT DOOR

Decompression Panel and Pressure Release Latch Installation
Figure 401/52-51-08-990-801

EFFECTIVITY
 HAP 001-013, 015-022, 024, 025, 028-054, 101-999; HAP 023,
 026 POST SB 737-25-1496

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AIRCRAFT MAINTENANCE MANUAL

CREW DOOR LOCK - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

- (1) A removal of the crew door lock.
- (2) An installation of the crew door lock.

B. The crew door lock is found in the door frame of the crew door.

TASK 52-51-21-000-801

2. Crew Door Lock Removal

(Figure 401)

A. Location Zones

<u>Zone</u>	<u>Area</u>
211	Flight Compartment - Left
212	Flight Compartment - Right
221	Passenger Compartment - Aft of Control Compartment to Forward Entry Door - Left
222	Passenger Compartment - Aft of Control Compartment to Forward Entry Door - Right

B. Prepare for the Removal

SUBTASK 52-51-21-860-003

(1) Open this circuit breaker and install safety tag:

F/O Electrical System Panel, P6-3

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
E	1	C00137	DOOR LOCK

SUBTASK 52-51-21-010-001

(2) Open the crew door [3] to get access to the door frame [2].

C. Procedure

SUBTASK 52-51-21-020-001

(1) Remove the trim angle [9] that covers the mounting plate [4] on the door frame [2]:

- (a) Cut the seal [8] at the top and bottom of the trim angle [9] adjacent to the door lock assembly [1].
- (b) Remove the screws [7] that attach the trim angle [9] to the door frame [2].
- (c) Remove the trim angle [9] and seal [8] from the door frame [2].

SUBTASK 52-51-21-020-002

(2) Remove the door lock assembly [1] from the door frame [2]:

- (a) Remove the bolts [10] that attach the mounting plate [4] to the door frame [2].
- (b) Carefully pull the mounting plate [4] and door lock assembly [1] from the door frame [2] until you can see the wires [5] connected to the solenoid [6].
- (c) Identify and disconnect the wires [5] connected to the solenoid [6].
- (d) Remove the mounting plate [4] and the door lock assembly [1] from the door frame [2].

————— **END OF TASK** —————

EFFECTIVITY

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AIRCRAFT MAINTENANCE MANUAL**

TASK 52-51-21-400-801

3. Crew Door Lock Installation

(Figure 401)

A. References

Reference	Title
52-51-21-700-801	Crew Door Lock Test (P/B 501)

B. Location Zones

Zone	Area
211	Flight Compartment - Left
212	Flight Compartment - Right
221	Passenger Compartment - Aft of Control Compartment to Forward Entry Door - Left
222	Passenger Compartment - Aft of Control Compartment to Forward Entry Door - Right

C. Installation

SUBTASK 52-51-21-420-001

- (1) Install the door lock assembly [1] in the door frame [2]:
 - (a) Move the door lock assembly [1] near the door frame [2] and hold in this position.
 - (b) Connect the wires [5] to the solenoid [6].
 - (c) Put the mounting plate [4] and the door lock assembly [1] in their correct position in the door frame [2].
 - (d) Install the bolts [10] to attach the mounting plate [4] to the door frame [2].

SUBTASK 52-51-21-420-002

- (2) Install the trim angle [9] that covers the mounting plate [4] on the door frame [2]:
 - (a) Put the trim angle [9] and the seal [8] in their correct position on the door frame [2].
 - (b) Install the screws [7] to attach the trim angle [9] and the seal [8] to the door frame [2].

SUBTASK 52-51-21-860-004

- (3) Remove the safety tag and close this circuit breaker:

F/O Electrical System Panel, P6-3

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
E	1	C00137	DOOR LOCK

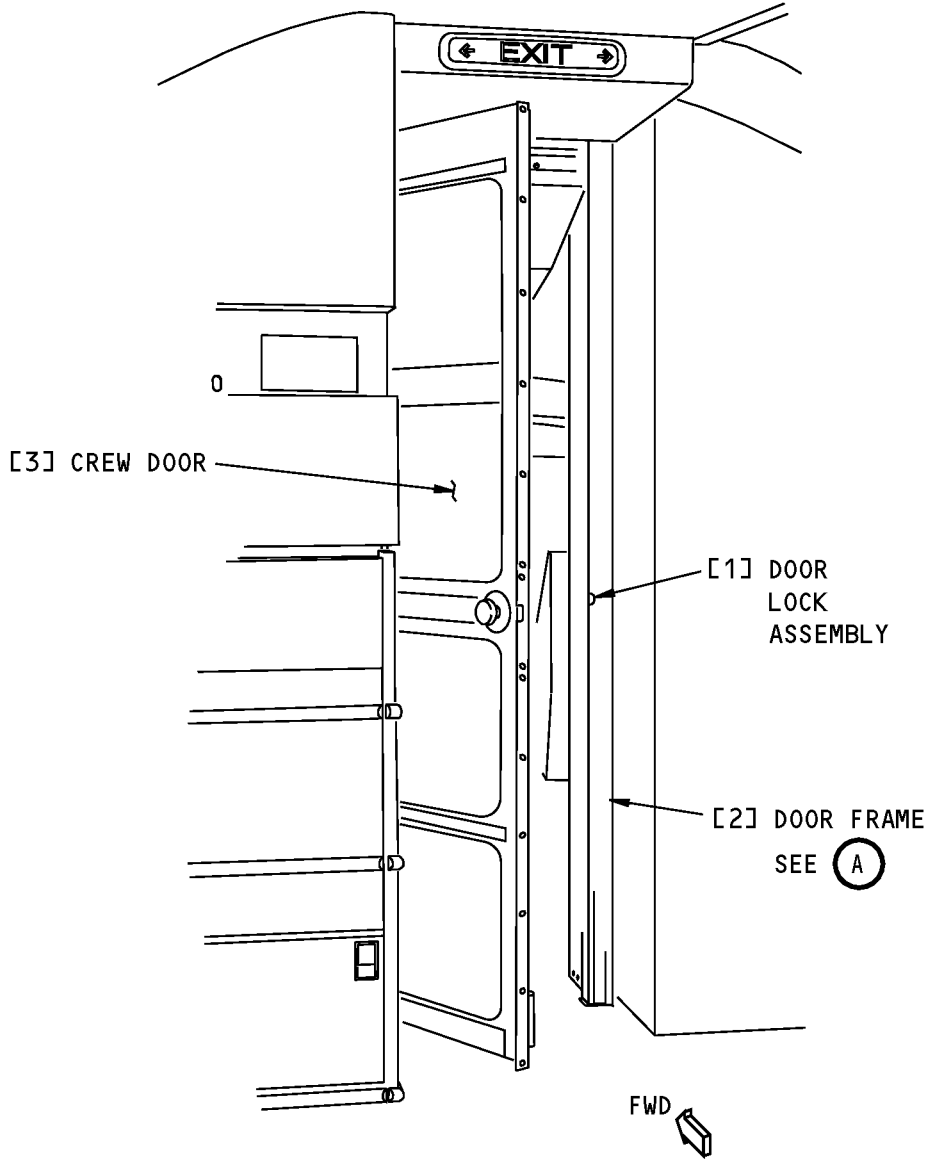
SUBTASK 52-51-21-710-001

- (4) Do this task: Crew Door Lock Test, TASK 52-51-21-700-801.

————— **END OF TASK** —————

<p>EFFECTIVITY</p> <p>HAP 023, 026 PRE SB 737-25-1496</p>
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CREW DOOR

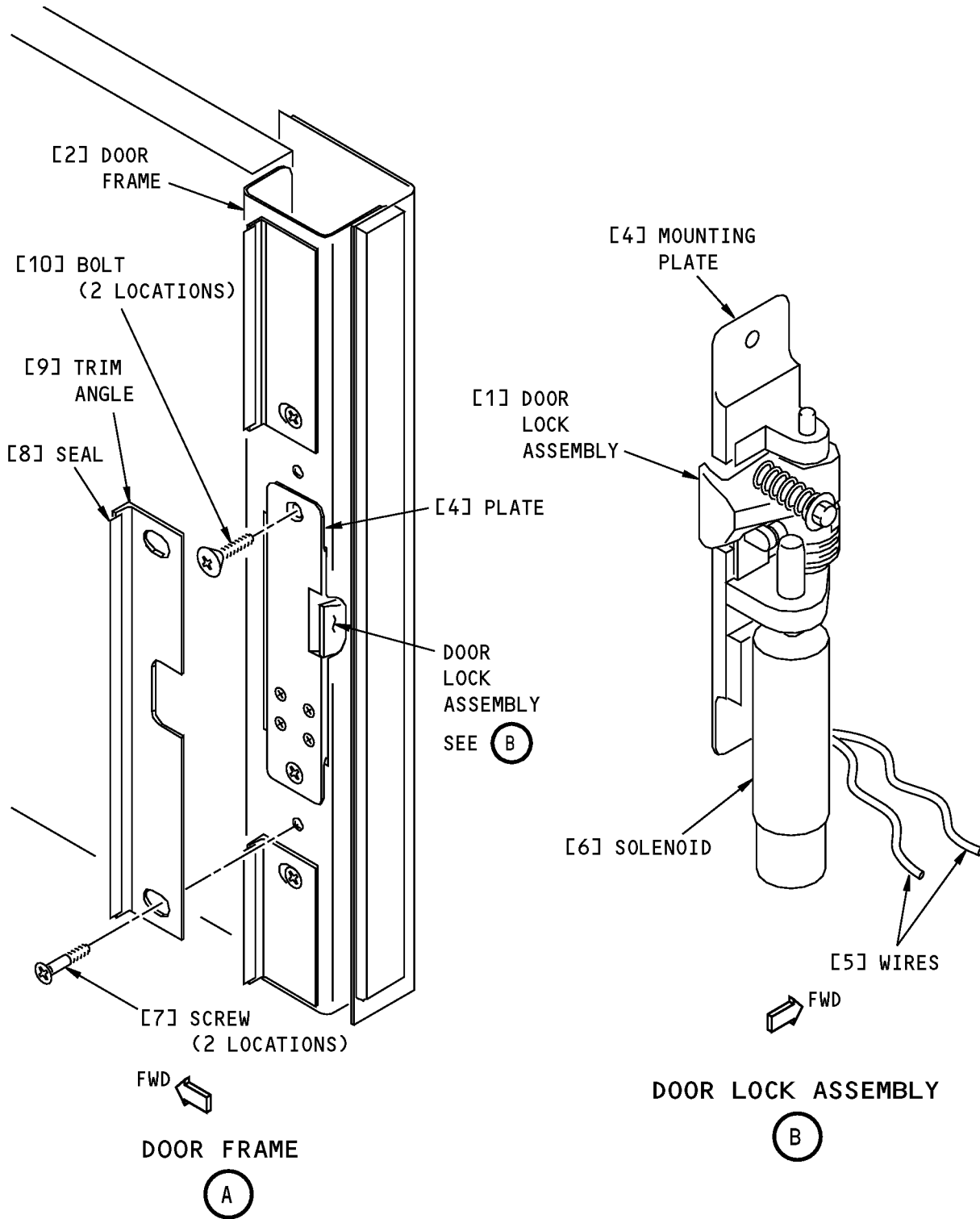
**Crew Door Lock Installation
Figure 401 (Sheet 1 of 2)/52-51-21-990-801**

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**Crew Door Lock Installation
Figure 401 (Sheet 2 of 2)/52-51-21-990-801**

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AIRCRAFT MAINTENANCE MANUAL

CREW DOOR LOCK - ADJUSTMENT/TEST

1. General

- A. This procedure has these tasks:
 - (1) A test of the crew door lock.

TASK 52-51-21-700-801

2. Crew Door Lock Test

A. General

- (1) The crew door lock switch is found on the P8 control stand.

B. References

Reference	Title
24-22-00-860-813	Supply External Power (P/B 201)

C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1557	Gauge - Force (Part #: DG-200, Supplier: 92456, A/P Effectivity: 737-ALL) (Part #: DPP-500G, Supplier: 92456, A/P Effectivity: 737-ALL) (Part #: DPPH-150, Supplier: 92456, A/P Effectivity: 737-ALL) (Part #: DPPH-200, Supplier: 92456, A/P Effectivity: 737-ALL) (Part #: DPPH-50, Supplier: 92456, A/P Effectivity: 737-ALL) (Part #: FDIX 100, Supplier: 0BFD9, A/P Effectivity: 737-ALL) (Part #: FDIX 50, Supplier: 0BFD9, A/P Effectivity: 737-ALL) (Part #: FDV 50, Supplier: 0BFD9, A/P Effectivity: 737-ALL) (Part #: LG-050, Supplier: 92456, A/P Effectivity: 737-ALL) (Opt Part #: FDI 100, Supplier: 0BFD9, A/P Effectivity: 737-ALL)

D. Location Zones

Zone	Area
211	Flight Compartment - Left
212	Flight Compartment - Right
221	Passenger Compartment - Aft of Control Compartment to Forward Entry Door - Left
222	Passenger Compartment - Aft of Control Compartment to Forward Entry Door - Right

E. Prepare for the Test

SUBTASK 52-51-21-860-001

- (1) Prepare for the test as follows:
 - (a) Do this task: Supply External Power, TASK 24-22-00-860-813.
 - (b) Make sure that this circuit breaker is closed:

F/O Electrical System Panel, P6-3

Row	Col	Number	Name
E	1	C00137	DOOR LOCK

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F. Test

SUBTASK 52-51-21-720-001

(1) Do a test on the crew door lock as follows:

NOTE: Two persons are necessary to do parts of this task: one person in the control compartment and one person in the passenger compartment.

- (a) Make sure the crew door is open.
- (b) Push the door lock switch and make sure the light in the switch comes on.
- (c) Close the door.
- (d) Make sure the door is not locked from the passenger compartment.
- (e) Open the door.
- (f) Push the door lock switch, found on the P-8 panel, and make sure the light in the switch goes off.
- (g) Use the force gauge, COM-1557 to apply a force to the door knob and do this check:
 - 1) Make sure the locked door closes with a force of 15 pounds (67 newtons) or less.
- (h) Release the force.
- (i) Make sure the door is locked from the passenger compartment.
- (j) Make sure you can use the key to open the door from the passenger compartment.
- (k) Close the door.
- (l) Make sure you can open the door from the control compartment by turning the knob.
- (m) Close the door.
- (n) Use the force gauge, COM-1557 to apply a minimum force of 5 pounds (22 newtons) to the door knob in the aft direction and do this check:
 - 1) Push the door lock switch, found on the P-8 panel, and make sure the door unlocks.
- (o) Release the force.
- (p) Open this circuit breaker and install safety tag:

F/O Electrical System Panel, P6-3

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
E	1	C00137	DOOR LOCK

(q) Make sure the door is not locked from the passenger compartment.

G. Put the Airplane Back to Its Usual Condition

SUBTASK 52-51-21-860-002

(1) Remove safety tag and close this circuit breaker:

F/O Electrical System Panel, P6-3

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
E	1	C00137	DOOR LOCK

————— **END OF TASK** —————

<p>EFFECTIVITY</p> <p>HAP 023, 026 PRE SB 737-25-1496</p>

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AIRCRAFT MAINTENANCE MANUAL

CREW DOOR EMERGENCY EXIT PANELS - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

- (1) A removal of the crew door emergency exit panels.
- (2) An installation of the crew door emergency exit panels.

B. There are two crew door emergency exit panels on the crew door connected to the release assembly at the hinges. In this procedure, the crew door emergency exit panels are called: the upper emergency exit panel and the lower emergency exit panel.

TASK 52-51-31-000-801

2. Crew Door Emergency Exit Panels Removal

(Figure 401)

A. Location Zones

Zone	Area
211	Flight Compartment - Left
212	Flight Compartment - Right
221	Passenger Compartment - Aft of Control Compartment to Forward Entry Door - Left
222	Passenger Compartment - Aft of Control Compartment to Forward Entry Door - Right

B. Prepare for the Removal

SUBTASK 52-51-31-840-001

- (1) Go into the control compartment and close the crew door.

C. Removal

SUBTASK 52-51-31-020-001

- (1) Remove the upper emergency exit panel [1] and the lower emergency exit panel [2] from the crew door:
 - (a) Pull the handle [8] forward to disengage the pins [7] from the door frame [4].
 - (b) Pull the release assembly [3], the upper emergency exit panel [1], and the lower emergency exit panel [2] away from the door frame [4] until you can see the cables [2].
 - (c) Remove the cables [2] from the slots [11] on the upper panel [1].
 - (d) Remove the release assembly [3] and the upper emergency exit panel [1] and the lower emergency exit panel [2] from the crew door.

————— **END OF TASK** —————

TASK 52-51-31-400-801

3. Crew Door Emergency Exit Panels Installation

(Figure 401)

A. Location Zones

Zone	Area
211	Flight Compartment - Left
212	Flight Compartment - Right
221	Passenger Compartment - Aft of Control Compartment to Forward Entry Door - Left

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(Continued)

Zone	Area
222	Passenger Compartment - Aft of Control Compartment to Forward Entry Door - Right

B. Prepare for the Installation

SUBTASK 52-51-31-820-001

- (1) Make sure the dimension between the end of the pin [7] and the bracket [6] at each end of the release assembly [3] is as specified.
 - (a) If it is necessary, adjust the release assembly [3]:
 - 1) Loosen the jamnut [9] on the cable assembly [10].
 - 2) Adjust the cable assembly [10] to get the correct dimension between the end of the pin [7] and the bracket [6].
 - 3) Tighten the jamnut [9] on the cable assembly [10].

C. Installation of the Crew Door Emergency Exit Panels

SUBTASK 52-51-31-420-001

- (1) Install the upper emergency exit panel [1] and the lower emergency exit panel [2] in the crew door:

NOTE: Two persons may be necessary to do this procedure: one person to hold the release assembly [3] and one person to put the upper emergency exit panel [1] and the lower emergency exit panel [2] into position.

WARNING: YOU MUST REMOVE THE LATCH FROM THE UPPER EMERGENCY PANEL. IF YOU DO NOT REMOVE THE LATCH, THE PINS OF THE RELEASE ASSEMBLY MAY NOT ENGAGE PROPERLY. THIS CAN LET THE EMERGENCY EXIT PANELS OPEN ACCIDENTALLY AND CAUSE INJURY TO PERSONS.

- (a) Remove the latch [5] of the upper emergency exit panel [1].

NOTE: This is necessary due to the preload on the seals around the opening for the emergency exit panels.

- 1) Remove the screws [15] and washers [16] for the latch [5].
- (b) Hold the release assembly [3] and the upper emergency exit panel [1] and the lower emergency exit panel [2] in the extended position adjacent to the forward side of the crew door.
- (c) Allow the upper emergency exit panel [1] to hang freely and place the lower emergency exit panel [2] into the opening in the crew door.
- (d) Hold the release assembly [3] and pull forward on the handle [8] to retract the pins [7].
- (e) Push the release assembly [3] aft to extend the lower emergency exit panel [2] until the latch [5] engages in the door frame [4].
- (f) Release the handle [8] to engage the pins [7] in the door frame [4].
 - 1) Verify both latch pins [7] are engaged in the door frame [4] by listening for audible clicks as the pins snap into place and/or by looking down on the top of the release assembly at the edge of the door frame to see that the pins are properly engaged.

NOTE: Small horizontal or vertical movements of the release assembly may be necessary in order to engage the latch pins.

- (g) Put the ends of the cables [12] into the slots [11] on the upper emergency exit panel [1].
- (h) Push the upper emergency exit panel [1] up and aft until it is flush with the door frame.

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- (i) Install the latch [5] in its position with the screws [15] and the washers [16].

D. Installation Test

SUBTASK 52-51-31-720-001

- (1) Do these steps to make sure the upper emergency exit panel [1] and the lower emergency exit panel [2] are correctly installed:

- (a) Hold the handle [8] with one hand.

NOTE: This test does not remove the upper emergency exit panel [1] or the lower emergency exit panel [2]. Use sufficient force to get 0.100 inch (2.54 mm) movement of the handle [8].

- (b) Apply equal force on the handle [8].

- (c) Lightly pull on the handle [8].

- (d) Make sure handle [8] movement at the two ends is 0.100 inch (2.54 mm).

- (e) Make sure the pins [7] disengage.

- (f) Push the handle [8], the upper emergency exit panel [1], and the lower emergency exit panel [2] back to their flush position.

- 1) Listen for audible clicks to be sure both latch pins [7] are engaged in the door frame [4].

NOTE: Small horizontal or vertical movements of the emergency exit panels may be necessary in order to engage the latch pins.

- (g) Make sure the upper and lower latches [5] are engaged.

- (h) If the handle [8] movement is out of tolerance, adjust the decorative channel [13].

NOTE: The decorative channel [13] is opposite the handle [8] on the aft facing side of the door.

- 1) Lift the decorative channel [13] away from the upper emergency exit panel [1] and the lower emergency exit panel [2].

- 2) Release the decorative channel [13] slowly.

- 3) Make sure the decorative channel [13] flange sets flat on the surface of the upper emergency exit panel [1] and the lower emergency exit panel [2].

- 4) Make sure the decorative channel [13] overlaps the upper emergency exit panel [1] by a minimum of 0.05 in (1.27 mm) (Figure 401).

- 5) If it is necessary, adjust the clearance between the upper emergency exit panel [1] and the lower emergency exit panel [2]:

- a) Loosen the screws [13] that attach the hinge halves [14] of the upper emergency exit panel [1] to the handle [8].

- b) Move the upper emergency exit panel [1] near the handle [8].

- c) Tighten the screws [13] on the hinge halves [14].

- d) Make sure the decorative channel [13] is not on the edges of the upper emergency exit panel [1] or the lower emergency exit panel [2].

- e) Make sure the decorative channel [13] flange sets flat on the upper emergency exit panel [1] and the lower emergency exit panel [2] surfaces.

————— END OF TASK —————

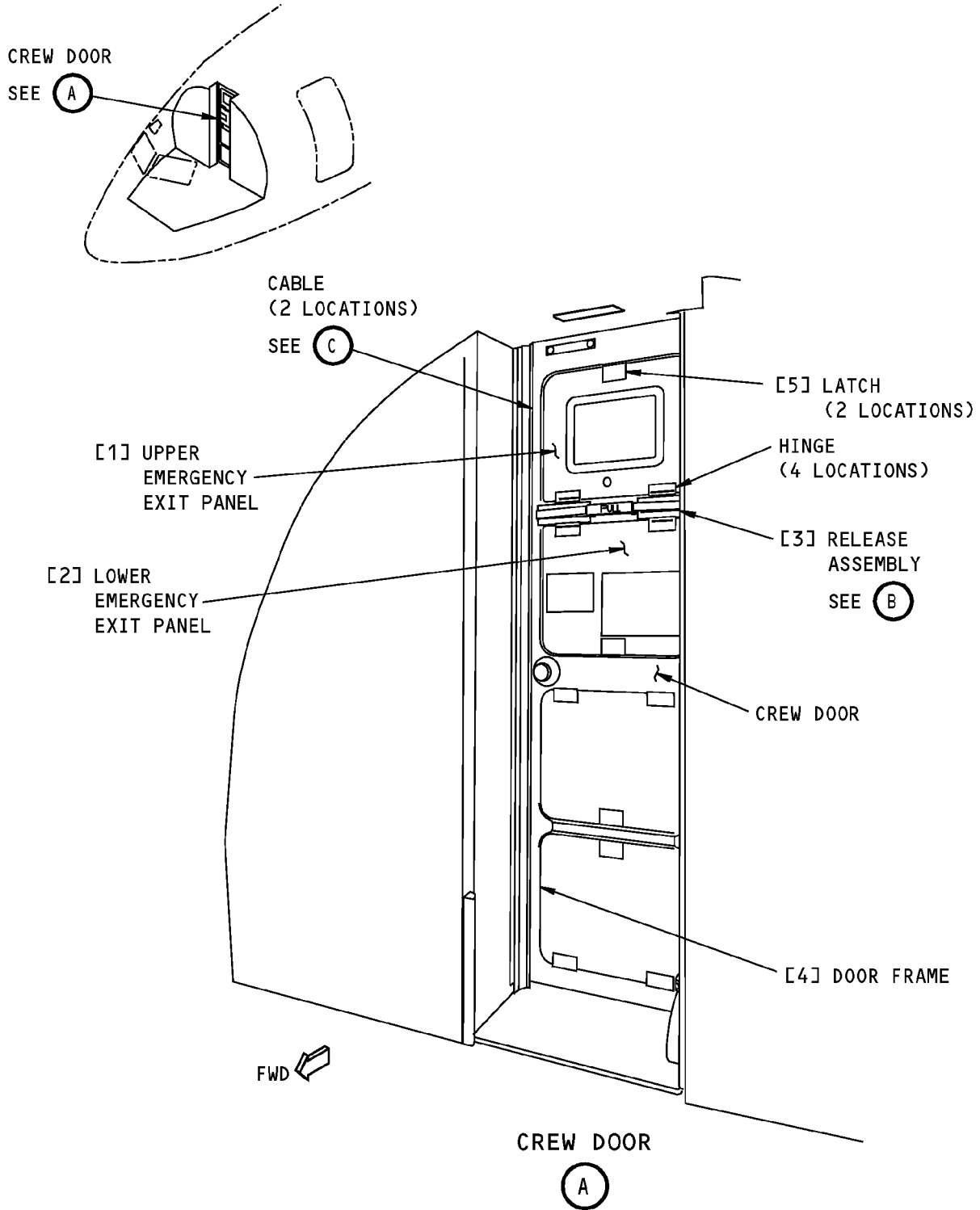
EFFECTIVITY

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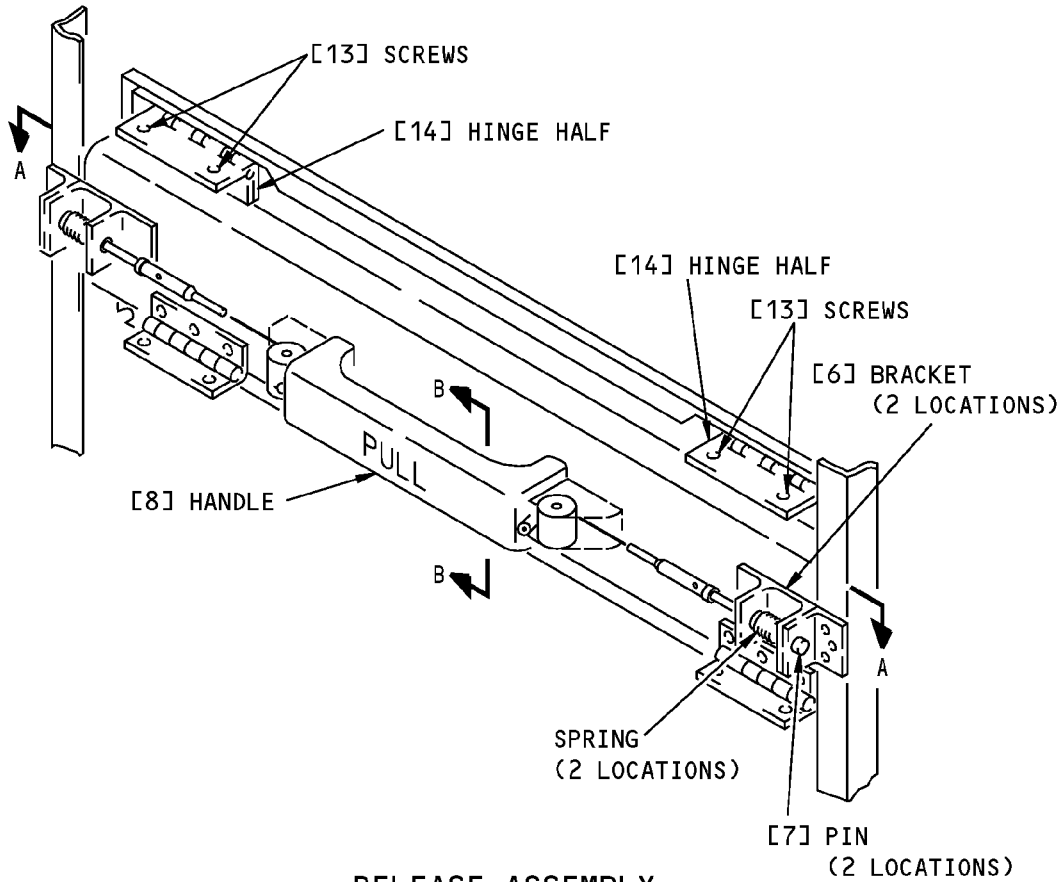


**Crew Door Emergency Exit Panel Installation
Figure 401 (Sheet 1 of 4)/52-51-31-990-801**

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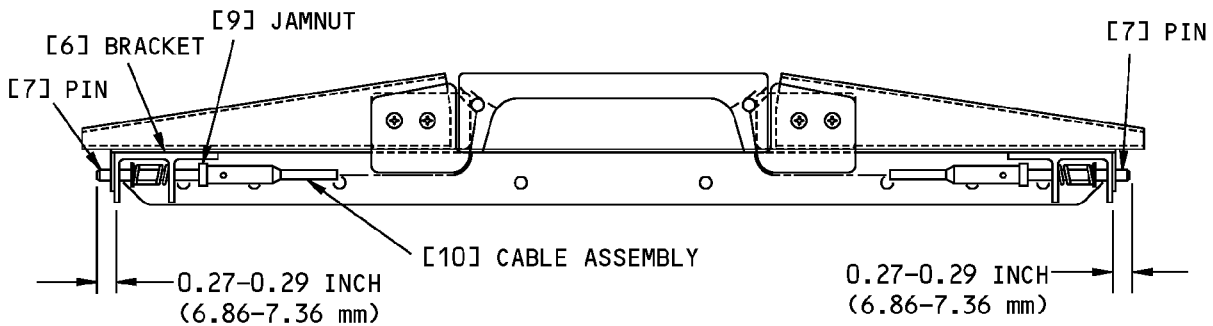
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**RELEASE ASSEMBLY
(HANDLE SHROUD REMOVED FOR CLARITY)**

(B)

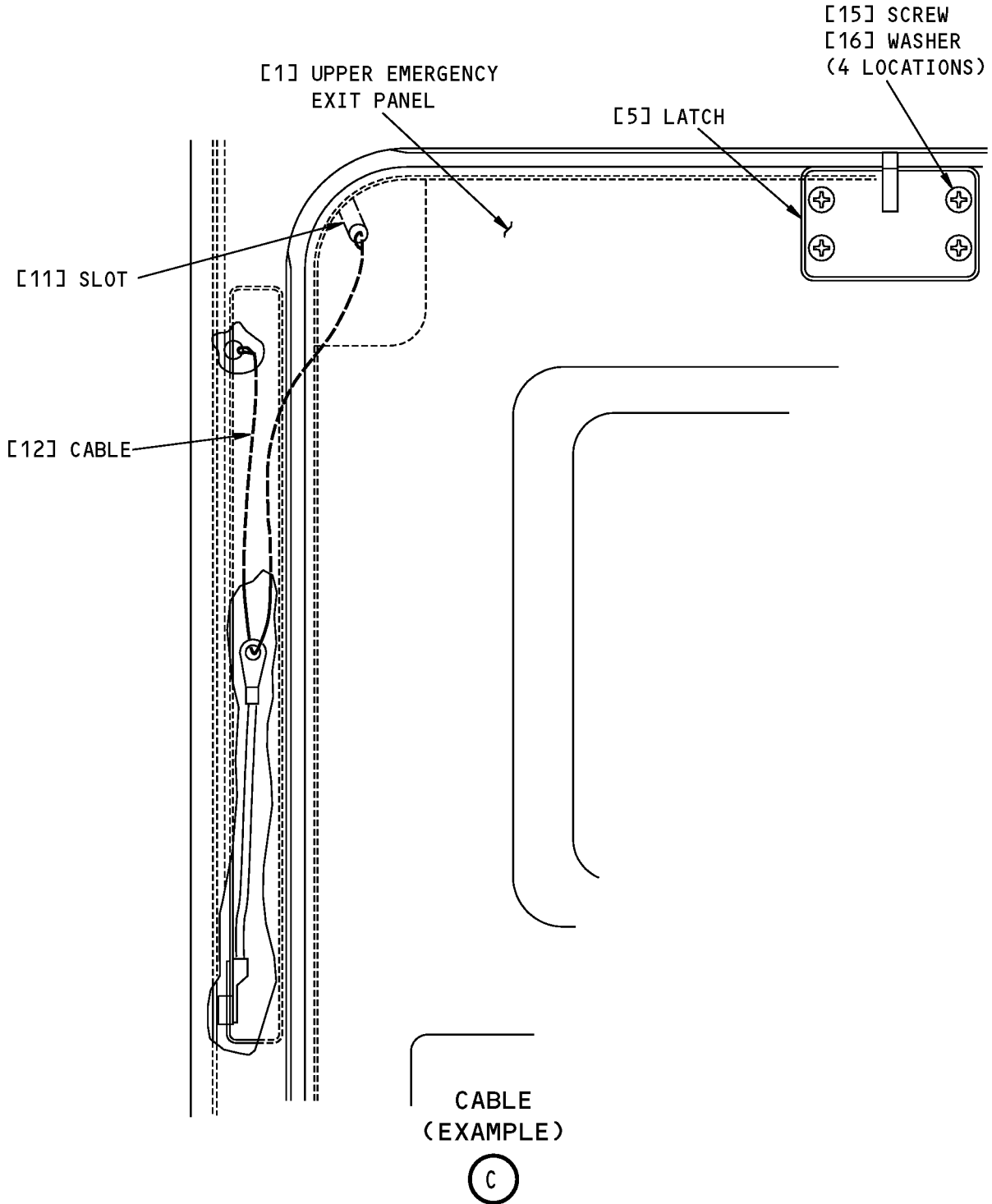


A-A

**Crew Door Emergency Exit Panel Installation
Figure 401 (Sheet 2 of 4)/52-51-31-990-801**

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NOTE: LEFT CABLE IS SHOWN, RIGHT CABLE IS OPPOSITE.

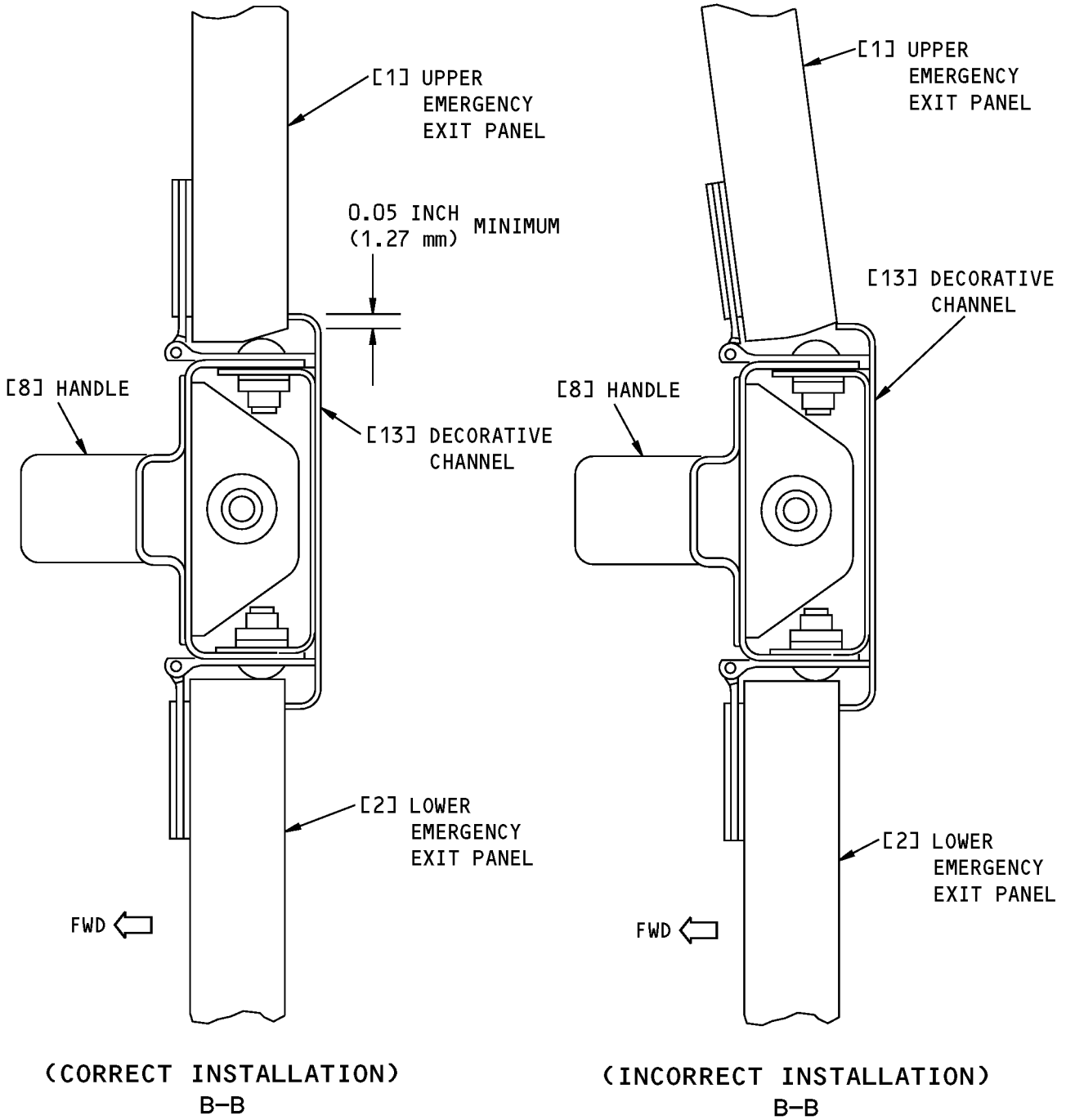
**Crew Door Emergency Exit Panel Installation
Figure 401 (Sheet 3 of 4)/52-51-31-990-801**

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**Crew Door Emergency Exit Panel Installation
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AIRCRAFT MAINTENANCE MANUAL

FORWARD AIRSTAIR - MAINTENANCE PRACTICES

1. General

A. This procedure contains these tasks:

- (1) The extension of the forward airstair
- (2) The retraction of the forward airstair
- (3) The extension of the forward airstair in normal mode
- (4) The extension of the handrail
- (5) The retraction of the handrail
- (6) The retraction of the forward airstair in normal mode
- (7) The extension of the forward airstair in standby mode
- (8) The retraction of the forward airstair in standby mode
- (9) The manual extension of the forward airstair
- (10) The manual retraction of the forward airstair
- (11) A special adjustment to make the forward airstair operate in the correct sequence after manual extension or retraction
- (12) The removal of the airstair drain pan
- (13) The installation of the airstair drain pan
- (14) Airstair door operation without airstairs installed
- (15) Forward Airstair Corrosion Prevention.

B. If you manually extend the airstair, you must also manually retract the airstair and do the special adjustment. This will make sure the airstair operates in the correct sequence again.

TASK 52-61-00-860-801

2. Forward Airstair Extension

A. General

- (1) You can extend the forward airstair in the normal mode or the standby mode. The normal mode of operation will extend the airstair in the shortest time.

B. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left

C. Forward Airstair Extension

SUBTASK 52-61-00-860-023

- (1) To extend the forward airstair in the normal mode, do this task: Forward Airstair Extension in Normal Mode, TASK 52-61-00-860-803.

SUBTASK 52-61-00-860-024

- (2) To extend the forward airstair in the standby mode, do this task: Forward Airstair Extension in Standby Mode, TASK 52-61-00-860-807.

————— **END OF TASK** —————

<p>EFFECTIVITY</p> <p>HAP 006-010</p>
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TASK 52-61-00-860-802

3. Forward Airstair Retraction

A. General

- (1) You can retract the forward airstair in the normal mode or the standby mode. The normal mode of operation will retract the forward airstair in the shortest time.

B. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left

C. Forward Airstair Retraction

SUBTASK 52-61-00-860-025

- (1) To retract the forward airstair in the normal mode, do this task: Forward Airstair Retraction in Normal Mode, TASK 52-61-00-860-806.

SUBTASK 52-61-00-860-026

- (2) To retract the forward airstair in the standby mode, do this task: Forward Airstair Retraction in Standby Mode, TASK 52-61-00-860-808.

————— **END OF TASK** —————

TASK 52-61-00-860-803

4. Forward Airstair Extension in Normal Mode

(Figure 201)

A. References

Reference	Title
24-22-00-860-811	Supply Electrical Power (P/B 201)

B. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left

C. Forward Airstair Extension in Normal Mode

SUBTASK 52-61-00-860-027

- (1) Do this task: Supply Electrical Power, TASK 24-22-00-860-811.

SUBTASK 52-61-00-860-028

WARNING: MAKE SURE THERE ARE NO PERSONS OR EQUIPMENT IN THE AREA OF THE FORWARD AIRSTAIR BEFORE IT OPERATES. THE FORWARD AIRSTAIR CAN HIT PERSONS OR EQUIPMENT WHEN IT EXTENDS. THIS CAN CAUSE INJURY TO PERSONS OR DAMAGE TO EQUIPMENT.

EFFECTIVITY
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(WARNING PRECEDES)

CAUTION: DO NOT OPERATE THE FORWARD AIRSTAIR AFTER 3 FULL CYCLES IN LESS THAN 20 MINUTES. DO NOT OPERATE THE FORWARD AIRSTAIR WHEN THE WIND IS MORE THAN 40 KNOTS. DO NOT OPERATE THE FORWARD AIRSTAIR WHEN THE FORWARD ENTRY DOOR IS BETWEEN THE COCKED AND FULLY OPEN POSITIONS. DO NOT OPERATE THE FORWARD AIRSTAIR WHEN THERE IS NO SUPPORT UNDER THE FORWARD AIRSTAIR (AIRPLANE IS ON JACKS). IF YOU OPERATE THE FORWARD AIRSTAIR WITH ONE OR MORE OF THESE CONDITIONS, DAMAGE TO EQUIPMENT CAN OCCUR.

CAUTION: DO NOT RELEASE THE EXTEND SWITCH OR HANDLE JUST AS THE AIRSTAIR DOOR STARTS TO OPEN. IF THE EXTEND SWITCH OR HANDLE IS RELEASED AS THE DOOR STARTS TO OPEN, THE LOCK PIN MAY EXTEND AND COME IN CONTACT WITH THE TARGET BRACKET. THIS MAY CAUSE DAMAGE TO THE EQUIPMENT.

(2) Extend the airstair in the normal mode with exterior control:

(a) Make sure the left engine is off.

HAP 006, 007

(b) Use exterior control handle to extend the airstair:

- 1) Press the PUSH button on the external control handle to release the external control handle from its recess.
- 2) With the power selector switch at NORMAL, turn and hold the external control handle to the EXTEND position until the forward airstair is fully extended.
- 3) Release the power selector switch.
- 4) Push the external control handle to the recess position.

HAP 008-010

(c) Use the exterior control switches to extend the airstair:

- 1) Open the airstair exterior control access door.
- 2) With the POWER switch at NORMAL, hold the AIRSTAIRS switch in the EXTEND position until the forward airstair is fully extended.
- 3) Release the AIRSTAIRS switch.
- 4) Close the airstair exterior control access door.

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SUBTASK 52-61-00-860-029

WARNING: MAKE SURE THERE ARE NO PERSONS OR EQUIPMENT IN THE AREA OF THE FORWARD AIRSTAIR BEFORE IT OPERATES. THE FORWARD AIRSTAIR CAN HIT PERSONS OR EQUIPMENT WHEN IT EXTENDS. THIS CAN CAUSE INJURY TO PERSONS OR DAMAGE TO EQUIPMENT.

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(WARNING PRECEDES)

CAUTION: DO NOT OPERATE THE FORWARD AIRSTAIR AFTER 3 FULL CYCLES IN LESS THAN 20 MINUTES. DO NOT OPERATE THE FORWARD AIRSTAIR WHEN THE WIND IS MORE THAN 40 KNOTS. DO NOT OPERATE THE FORWARD AIRSTAIR WHEN THE FORWARD ENTRY DOOR IS BETWEEN THE COCKED AND FULLY OPEN POSITIONS. DO NOT OPERATE THE FORWARD AIRSTAIR WHEN THERE IS NO SUPPORT UNDER THE FORWARD AIRSTAIR (AIRPLANE IS ON JACKS). IF YOU OPERATE THE FORWARD AIRSTAIR WITH ONE OR MORE OF THESE CONDITIONS, DAMAGE TO EQUIPMENT CAN OCCUR.

CAUTION: DO NOT RELEASE THE EXTEND SWITCH JUST AS THE AIRSTAIR DOOR STARTS TO OPEN. IF THE EXTEND SWITCH IS RELEASED AS THE DOOR STARTS TO OPEN, THE LOCK PIN MAY EXTEND AND COME IN CONTACT WITH THE TARGET BRACKET. THIS MAY CAUSE DAMAGE TO THE EQUIPMENT.

- (3) Extend the airstair in the normal mode with interior control:
 - (a) Make sure the forward entry door is cocked open or fully open.
 - (b) Push and hold the EXTEND switch, on the P13 panel, until the forward airstair is fully extended.

SUBTASK 52-61-00-860-030

- (4) Do this task: Forward Airstair Handrail Extension, TASK 52-61-00-860-804.

————— **END OF TASK** —————

TASK 52-61-00-860-804

5. Forward Airstair Handrail Extension

(Figure 201)

A. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left

B. Access Panels

Number	Name/Location
831	Forward Entry Door

C. Forward Airstair Handrail Extension

SUBTASK 52-61-00-860-031

- (1) Extend the handrail extensions:
 - (a) Fully open this access panel:

Number	Name/Location
831	Forward Entry Door
 - (b) Disengage the aft handrail latch release and move the handrail extension inboard.
 - (c) Slide aft inner tube fully inboard.
 - (d) Move the stow release lever up to release the aft support bracket.
 - (e) Rotate the aft support bracket down.
 - (f) Connect the aft support bracket to the aft inner tube.

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- (g) Disengage the forward handrail latch release and move the handrail extension inboard.
- (h) Slide the forward inner tube inboard.
- (i) Rotate the forward support bracket down.
- (j) Connect the forward support bracket to the forward inner tube.
- (k) If it is necessary, connect the safety straps between the handrail and the door opening.

————— **END OF TASK** —————

TASK 52-61-00-860-805

6. Forward Airstair Handrail Retraction

(Figure 201)

A. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left

B. Forward Airstair Handrail Retraction

SUBTASK 52-61-00-860-032

(1) Retract the handrail extensions:

- (a) If it is necessary, disconnect the safety straps between the handrail and the door opening.
- (b) Press the release button on the aft support bracket and disconnect it from the aft inner tube.
- (c) Rotate the aft support bracket up to its stowed position.
- (d) Make sure the stow release lever is latched to the aft support bracket.
- (e) Press the aft inner tube extend latch and fully slide the inner tube into the handrail extension.
- (f) Move the aft handrail extension outboard and engage handrail extension latch pin with the handrail latch release.
- (g) Press the release button on the forward support bracket and disconnect it from the forward inner tube.
- (h) Rotate the forward support bracket up to its stowed position.
- (i) Press the forward inner tube extend latch and fully slide the inner tube into the handrail extension.
- (j) Move the forward handrail extension outboard and engage handrail extension latch pin with the handrail latch release.

————— **END OF TASK** —————

TASK 52-61-00-860-806

7. Forward Airstair Retraction in Normal Mode

(Figure 201)

A. References

Reference	Title
24-22-00-860-811	Supply Electrical Power (P/B 201)

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B. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left

C. Access Panels

Number	Name/Location
831	Forward Entry Door

D. Forward Airstair Retraction in Normal Mode

SUBTASK 52-61-00-860-033

(1) Do this task: Supply Electrical Power, TASK 24-22-00-860-811.

SUBTASK 52-61-00-860-034

(2) Do this task: Forward Airstair Handrail Retraction, TASK 52-61-00-860-805.

SUBTASK 52-61-00-840-001

(3) Close this access panel:

Number	Name/Location
831	Forward Entry Door

SUBTASK 52-61-00-860-035

WARNING: MAKE SURE THERE ARE NO PERSONS OR EQUIPMENT IN THE AREA OF THE FORWARD AIRSTAIR BEFORE IT OPERATES. THE FORWARD AIRSTAIR CAN HIT PERSONS OR EQUIPMENT WHEN IT RETRACTS. THIS CAN CAUSE INJURY TO PERSONS OR DAMAGE TO EQUIPMENT.

CAUTION: DO NOT OPERATE THE FORWARD AIRSTAIR AFTER 3 FULL CYCLES IN LESS THAN 20 MINUTES. DO NOT OPERATE THE FORWARD AIRSTAIR WHEN THE WIND IS MORE THAN 40 KNOTS. DO NOT OPERATE THE FORWARD AIRSTAIR WHEN THE FORWARD ENTRY DOOR IS BETWEEN THE COCKED AND FULLY OPEN POSITIONS. DO NOT OPERATE THE FORWARD AIRSTAIR WHEN THERE IS NO SUPPORT UNDER THE FORWARD AIRSTAIR (AIRPLANE IS ON JACKS). IF YOU OPERATE THE FORWARD AIRSTAIR WITH ONE OR MORE OF THESE CONDITIONS, DAMAGE TO EQUIPMENT CAN OCCUR.

(4) Retract the forward airstair in the normal mode with exterior control:

(a) Make sure the left engine is off.

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(b) Use the exterior control handle to retract the airstair:

- 1) Press the PUSH button on the external control handle to release the external control handle from its recess.
- 2) With the power selector switch at NORMAL, turn and hold the external control handle to the RETRACT position until the forward airstair is fully retracted and the airstair door is closed.
- 3) Release the external control handle.
- 4) Push the external control handle in to the recess position.

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(c) Use the exterior control switches to retract the airstair:

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- 1) Open the airstair exterior control access door.
- 2) With the POWER switch at NORMAL, hold the AIRSTAIRS switch in the RETRACT position until the forward airstair is fully retracted and the airstair door is closed.
- 3) Release the AIRSTAIRS switch.
- 4) Close the airstair exterior control access door.

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SUBTASK 52-61-00-860-036

WARNING: MAKE SURE THERE ARE NO PERSONS OR EQUIPMENT IN THE AREA OF THE FORWARD AIRSTAIR BEFORE IT OPERATES. THE FORWARD AIRSTAIR CAN HIT PERSONS OR EQUIPMENT WHEN IT RETRACTS. THIS CAN CAUSE INJURY TO PERSONS OR DAMAGE TO EQUIPMENT.

CAUTION: DO NOT OPERATE THE FORWARD AIRSTAIR AFTER 3 FULL CYCLES IN LESS THAN 20 MINUTES. DO NOT OPERATE THE FORWARD AIRSTAIR WHEN THE WIND IS MORE THAN 40 KNOTS. DO NOT OPERATE THE FORWARD AIRSTAIR WHEN THE FORWARD ENTRY DOOR IS BETWEEN THE COCKED AND FULLY OPEN POSITIONS. DO NOT OPERATE THE FORWARD AIRSTAIR WHEN THERE IS NO SUPPORT UNDER THE FORWARD AIRSTAIR (AIRPLANE IS ON JACKS). IF YOU OPERATE THE FORWARD AIRSTAIR WITH ONE OR MORE OF THESE CONDITIONS, DAMAGE TO EQUIPMENT CAN OCCUR.

- (5) Retract the airstair in the normal mode with interior control:
 - (a) Make sure the forward entry door is cocked open or fully open.
 - (b) Push and hold the RETRACT switch, on the P13 panel, until the forward airstair is fully retracted and the airstair door is closed.

————— **END OF TASK** —————

TASK 52-61-00-860-807

8. Forward Airstair Extension in Standby Mode

(Figure 201)

A. References

Reference	Title
24-22-00-860-811	Supply Electrical Power (P/B 201)

B. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left

C. Forward Airstair Extension in Standby Mode

SUBTASK 52-61-00-860-037

- (1) Do this task: Supply Electrical Power, TASK 24-22-00-860-811.

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SUBTASK 52-61-00-860-038

WARNING: MAKE SURE THERE ARE NO PERSONS OR EQUIPMENT IN THE AREA OF THE FORWARD AIRSTAIR BEFORE IT OPERATES. THE FORWARD AIRSTAIR CAN HIT PERSONS OR EQUIPMENT WHEN IT EXTENDS. THIS CAN CAUSE INJURY TO PERSONS OR DAMAGE TO EQUIPMENT.

CAUTION: DO NOT OPERATE THE FORWARD AIRSTAIR AFTER 3 FULL CYCLES IN LESS THAN 20 MINUTES. DO NOT OPERATE THE FORWARD AIRSTAIR WHEN THE WIND IS MORE THAN 40 KNOTS. DO NOT OPERATE THE FORWARD AIRSTAIR WHEN THE FORWARD ENTRY DOOR IS BETWEEN THE COCKED AND FULLY OPEN POSITIONS. DO NOT OPERATE THE FORWARD AIRSTAIR WHEN THERE IS NO SUPPORT UNDER THE FORWARD AIRSTAIR (AIRPLANE IS ON JACKS). IF YOU OPERATE THE FORWARD AIRSTAIR WITH ONE OR MORE OF THESE CONDITIONS, DAMAGE TO EQUIPMENT CAN OCCUR.

CAUTION: DO NOT RELEASE THE EXTEND SWITCH OR HANDLE JUST AS THE AIRSTAIR DOOR STARTS TO OPEN. IF THE EXTEND SWITCH OR HANDLE IS RELEASED AS THE DOOR STARTS TO OPEN, THE LOCK PIN MAY EXTEND AND COME IN CONTACT WITH THE TARGET BRACKET. THIS MAY CAUSE DAMAGE TO THE EQUIPMENT.

(2) Extend the forward airstair in the standby mode with exterior control:

(a) Make sure the left engine is off.

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(b) Use the exterior control handle to extend the airstair:

- 1) Press the PUSH button on the external control handle to release the external control handle from its recess.
- 2) Push and hold the power selector switch to STANDBY.
- 3) Turn and hold the external control handle to the EXTEND position until the forward airstair is fully extended.
- 4) Release the selector switch and the external control handle.
- 5) Push the external control handle to the recess position.

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(c) Use the exterior control switches to extend the airstair:

- 1) Open the airstair exterior control access door.
- 2) Move hold the POWER switch to STANDBY.
- 3) With the POWER switch at STANDBY, hold the AIRSTAIRS switch in the EXTEND position until the forward airstair is fully extended.
- 4) Close the airstair exterior control access door.

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SUBTASK 52-61-00-860-039

(3) Extend the airstair in the standby mode with interior control:

- (a) Make sure the forward entry door is cocked open or fully open.
- (b) Push and hold the STANDBY switch, on the P13 panel.
- (c) Push and hold the EXTEND switch, on the P13 panel, until the forward airstair is fully extended.

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(d) Release the STANDBY and EXTEND switches.

SUBTASK 52-61-00-860-040

(4) Do this task: Forward Airstair Handrail Extension, TASK 52-61-00-860-804.

END OF TASK

TASK 52-61-00-860-808

9. Forward Airstair Retraction in Standby Mode

(Figure 201)

A. References

Reference	Title
24-22-00-860-811	Supply Electrical Power (P/B 201)

B. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left

C. Access Panels

Number	Name/Location
831	Forward Entry Door

D. Forward Airstair Retraction in Standby Mode

SUBTASK 52-61-00-860-041

(1) Do this task: Supply Electrical Power, TASK 24-22-00-860-811.

SUBTASK 52-61-00-860-042

(2) Do this task: Forward Airstair Handrail Retraction, TASK 52-61-00-860-805.

SUBTASK 52-61-00-840-002

(3) Close this access panel:

Number	Name/Location
831	Forward Entry Door

SUBTASK 52-61-00-860-043

WARNING: MAKE SURE THERE ARE NO PERSONS OR EQUIPMENT IN THE AREA OF THE FORWARD AIRSTAIR BEFORE IT OPERATES. THE FORWARD AIRSTAIR CAN HIT PERSONS OR EQUIPMENT WHEN IT RETRACTS. THIS CAN CAUSE INJURY TO PERSONS OR DAMAGE TO EQUIPMENT.

CAUTION: DO NOT OPERATE THE FORWARD AIRSTAIR AFTER 3 FULL CYCLES IN LESS THAN 20 MINUTES. DO NOT OPERATE THE FORWARD AIRSTAIR WHEN THE WIND IS MORE THAN 40 KNOTS. DO NOT OPERATE THE FORWARD AIRSTAIR WHEN THE FORWARD ENTRY DOOR IS BETWEEN THE COCKED AND FULLY OPEN POSITIONS. DO NOT OPERATE THE FORWARD AIRSTAIR WHEN THERE IS NO SUPPORT UNDER THE FORWARD AIRSTAIR (AIRPLANE IS ON JACKS). IF YOU OPERATE THE FORWARD AIRSTAIR WITH ONE OR MORE OF THESE CONDITIONS, DAMAGE TO EQUIPMENT CAN OCCUR.

(4) Retract the forward airstair in the standby mode with exterior control:

(a) Make sure the left engine is off.

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- (b) Use the exterior control handle to retract the airstair:
 - 1) Press the PUSH button on the external control handle to release the external control handle from its recess.
 - 2) Move the power selector switch to STANDBY.
 - 3) With the power selector switch at STANDBY, turn and hold the external control handle to the RETRACT position until the forward airstair is fully retracted and the airstair door is closed.
 - 4) Push the external control handle to the recess position.

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- (c) Use the exterior control switches to retract the airstair:
 - 1) Open the airstair exterior control access door.
 - 2) Move and hold the POWER switch to STANDBY.
 - 3) With the POWER switch at STANDBY, hold the AIRSTAIRS switch in the RETRACT position until the forward airstair is fully retracted and the airstair door is closed.
 - 4) Close the airstair exterior control access door.

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SUBTASK 52-61-00-860-044

- (5) Retract the airstair in the standby mode with interior control:
 - (a) Make sure the forward entry door is cocked open or fully open.
 - (b) Push and hold the STANDBY switch, on the P13 panel.
 - (c) Push and hold the RETRACT switch, on the P13 panel, until the forward airstair is fully retracted and the airstair door is closed.
 - (d) Release the STANDBY and RETRACT switches.

————— END OF TASK —————

TASK 52-61-00-980-801

10. Forward Airstair Manual Extension

(Figure 202)

A. References

Reference	Title
52-61-59-000-801	Forward Airstair Door Actuator Standby System Motor Removal (P/B 401)

B. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left

C. Access Panels

Number	Name/Location
117A	Electronic Equipment Access Door

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D. Prepare for the Airstair Manual Extension

SUBTASK 52-61-00-010-002

- (1) If the forward airstair door will operate with electrical power, open it, but do not extend the airstair.

SUBTASK 52-61-00-860-045

- (2) Open these circuit breakers and install safety tags:

F/O Electrical System Panel, P6-4

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

SUBTASK 52-61-00-010-003

- (3) If the forward airstair door will not operate with electrical power, open it manually:
 - (a) Get access to the airstair door actuator motor through this access panel:

<u>Number</u>	<u>Name/Location</u>
117A	Electronic Equipment Access Door

- (b) Do this task: Forward Airstair Door Actuator Standby System Motor Removal, TASK 52-61-59-000-801.
- (c) Turn the actuator manual drive until the forward airstair door is fully open.

SUBTASK 52-61-00-020-009

- (4) Disconnect the airstair P1 electrical connector [1].

SUBTASK 52-61-00-930-001

- (5) Tag the P1 electrical connector [1] to prevent operation of the airstair before it is in the correct sequence.

E. Forward Airstair Manual Extension

SUBTASK 52-61-00-980-001

- (1) Extend the airstair carriage:
 - (a) Remove the lockwire from the pinion disconnect lever [5].
 - (b) Move the pinion disconnect lever [5] to the unlocked position.
 - (c) Pull the airstair carriage outboard:
 - 1) Align the inboard edge of the carriage step [6] with the top edge of the airstair door opening.

NOTE: Do not pull the airstair after the carriage step starts to move up.
 - (d) Move the pinion disconnect lever [5] to the locked position.

SUBTASK 52-61-00-980-002

- (2) Extend the ladders:

CAUTION: BE CAREFUL WHEN YOU MOVE THE SWING ARM. DO NOT HANG FROM THE SWING ARM. IT IS EASY TO CAUSE DAMAGE TO THE SWING ARM [3].

- (a) Disconnect the coupling [10] on the actuator drive shaft [11].

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WARNING: STAY AWAY FROM THE BOTTOM LADDER WHEN IT MOVES. THE BOTTOM LADDER EXTENDS. THIS CAN CAUSE INJURY TO PERSONS.

CAUTION: DO NOT LET THE AIRSTAIR MECHANISM FALL FREELY. THIS CAN CAUSE DAMAGE TO EQUIPMENT.

(b) Pull the ladders horizontally out of the carriage:

NOTE: At least three persons are necessary to do these steps.

1) Pull the top ladder horizontally out of the carriage.

2) Carefully lower the top ladder and unfold the bottom ladder until it touches the ground.

SUBTASK 52-61-00-980-003

(3) Fully extend the airstair carriage:

(a) Move the pinion disconnect lever [5] to the unlocked position.

(b) Pull the airstair carriage outboard until it touches the carriage extend stops [4].

NOTE: During this step the bottom ladder will move along the ground.

(c) Move the pinion disconnect lever [5] to the locked position.

SUBTASK 52-61-00-860-046

(4) Do this task: Forward Airstair Handrail Extension, TASK 52-61-00-860-804.

SUBTASK 52-61-00-980-004

CAUTION: RETRACT THE AIRSTAIRS MANUALLY. IF YOU OPERATE THE AIRSTAIRS ELECTRICALLY, YOU CAN CAUSE DAMAGE TO EQUIPMENT.

(5) If it is necessary to retract the airstair, do this task: Forward Airstair Manual Retraction, TASK 52-61-00-980-802.

END OF TASK

TASK 52-61-00-980-802

11. Forward Airstair Manual Retraction

(Figure 202)

A. References

Table with 2 columns: Reference, Title. Rows include 52-61-59-000-801 and 52-61-59-400-801.

B. Consumable Materials

Table with 3 columns: Reference, Description, Specification. Row includes G01048 Lockwire - Corrosion Resistant Steel.

C. Location Zones

Table with 2 columns: Zone, Area. Row includes 117 Electrical and Electronics Compartment - Left.

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D. Prepare for the Manual Retraction of the Airstair

SUBTASK 52-61-00-860-047

- (1) Make sure that these circuit breakers are open and have safety tags:

F/O Electrical System Panel, P6-4

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

SUBTASK 52-61-00-040-001

- (2) Make sure the airstair cannot operate until it is in the correct sequence:

NOTE: It is not necessary to do these steps if you manually extended the airstair.

- (a) Disconnect the P1 electrical connector [1].
- (b) Tag the P1 electrical connector [1] to prevent the operation of the airstair before it is in the correct sequence.

E. Forward Airstair Manual Retraction

SUBTASK 52-61-00-860-048

- (1) Do this task: Forward Airstair Handrail Retraction, TASK 52-61-00-860-805.

SUBTASK 52-61-00-980-005

- (2) Retract the airstair carriage:

- (a) If installed, remove the lockwire from the pinion disconnect lever [5].
- (b) Move the pinion disconnect lever [5] to the unlocked position.
- (c) Push the carriage inboard until the carriage step [6] is down and the top of the carriage step is aligned with the top of the carriage beams.

NOTE: During this step, the bottom ladder will move along the ground.

- (d) Move the pinion disconnect lever [5] to the locked position.

SUBTASK 52-61-00-980-006

- (3) Lift the ladders into the carriage:

CAUTION: MAKE SURE THE AIRSTAIR TOUCHES THE GROUND. WHEN YOU DISCONNECT THE COUPLING, THE AIRSTAIR CAN FALL. THIS CAN CAUSE DAMAGE TO THE AIRSTAIR.

- (a) If connected, disconnect the coupling [10] on the actuator drive shaft [11].
- (b) Put the ladders into the carriage:

NOTE: Three persons are necessary to do these steps.

WARNING: HOLD THE TOP LADDER INBOARD OF THE MECHANISM THAT LOCKS THE BOTTOM LADDER. WHEN THE BOTTOM LADDER FOLDS, IT CAN CAUSE INJURY TO YOUR HANDS.

- 1) Lift the top ladder until it is horizontal.
- 2) While you lift the ladders, make sure the bottom ladder folds and the handrails retract.

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- 3) Push the ladders about one half way into the carriage.
- (c) Pull the ladders outboard until the ballscrews [8] start to turn.
- (d) Push the ladders until they are fully in the carriage.
- (e) Connect the coupling [10] on the actuator shaft.

NOTE: The ballscrews [8] should turn before you move the ladders 10 inches outboard.

SUBTASK 52-61-00-980-007

- (4) Fully retract the airstair carriage:
 - (a) Move the pinion disconnect lever [5] to the unlocked position.
 - (b) Push the airstair carriage fully inboard until it stops.
 - (c) Move the pinion disconnect lever [5] to the locked position.
 - (d) Install the lockwire, G01048 on the pinion disconnect lever [5].

SUBTASK 52-61-00-820-010

CAUTION: MAKE SURE THAT YOU DO THE FORWARD AIRSTAIR SPECIAL ADJUSTMENT AFTER YOU MANUALLY RETRACT THE AIRSTAIR. IF YOU DO NOT DO THE FORWARD AIRSTAIR SPECIAL ADJUSTMENT, DAMAGE TO EQUIPMENT CAN OCCUR.

- (5) To operate the airstair electrically, do this task: Forward Airstair Special Adjustment After Manual Extension or Retraction, TASK 52-61-00-820-802

SUBTASK 52-61-00-410-002

- (6) If the forward airstair door actuator standby system motor is not installed, close the door manually.

SUBTASK 52-61-00-410-001

- (7) If the airstair door will close electrically, close it electrically:
 - (a) Connect the P1 electrical connector [5].
 - (b) Remove the safety tag and close this circuit breaker:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	16	C00409	FWD AIRSTAIR DOOR

- (b) Remove the safety tag and close this circuit breaker:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
C	16	C01254	FWD AIRSTAIR CONT STBY

- (c) Use the external control handle to close the airstair door.
- (d) Disconnect the P1 electrical connector [5].

Open this circuit breaker and install safety tag:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	16	C00409	FWD AIRSTAIR DOOR

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(d) Open this circuit breaker and install safety tag:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
C	16	C01254	FWD AIRSTAIR CONT STBY

(e) Make sure there is a tag on the P1 electrical connector [1] to prevent operation of the airstair before it is in the correct sequence.

SUBTASK 52-61-00-860-049

(8) If the forward airstair door will not close electrically, close it manually:

- (a) If the forward airstair door actuator standby system motor is installed, do this task: Forward Airstair Door Actuator Standby System Motor Removal, TASK 52-61-59-000-801
- (b) Turn the actuator manual drive until the airstair door is fully closed.
- (c) Do this task: Forward Airstair Door Actuator Standby System Motor Installation, TASK 52-61-59-400-801.

————— END OF TASK —————

TASK 52-61-00-820-802

12. Forward Airstair Special Adjustment After Manual Extension or Retraction

(Figure 202)

A. General

(1) This task makes sure the airstair operates in the correct sequence. You must do this task after you manually extend or retract the airstair.

B. References

Reference	Title
52-61-00-710-801	Forward Airstair Operational Test (P/B 501)
52-61-59-000-801	Forward Airstair Door Actuator Standby System Motor Removal (P/B 401)
52-61-59-400-801	Forward Airstair Door Actuator Standby System Motor Installation (P/B 401)

C. Tools/Equipment

Reference	Description
STD-1323	Pin - Rig, No. 1, Airstair, Wood, 0.49 Inch Diameter by 4.00 Inches
STD-1324	Pin - Rig, No. 2, Airstair, Wood, 0.24 Inch Diameter by 2.50 Inches

D. Consumable Materials

Reference	Description	Specification
G01048	Lockwire - Corrosion Resistant Steel (0.032 In. Dia.)	NASM20995~ C32

E. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left

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F. Access Panels

<u>Number</u>	<u>Name/Location</u>
117A	Electronic Equipment Access Door

G. Prepare for the Adjustment

SUBTASK 52-61-00-010-004

(1) If the forward airstair door is closed and it can be opened electrically, open it electrically:

- (a) Connect the P1 electrical connector [5].
- (b) Make sure that this circuit breaker is closed:

F/O Electrical System Panel, P6-4

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	16	C00409	FWD AIRSTAIR DOOR

- (b) Close this circuit breaker:

F/O Electrical System Panel, P6-4

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
C	16	C01254	FWD AIRSTAIR CONT STBY

- (c) Use the exterior control to open the forward airstair door using the standby system.
- (d) Open this circuit breaker and install safety tag:

F/O Electrical System Panel, P6-4

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	16	C00409	FWD AIRSTAIR DOOR

- (d) Open this circuit breaker and install safety tag:

F/O Electrical System Panel, P6-4

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
C	16	C01254	FWD AIRSTAIR CONT STBY

- (e) Disconnect the P1 electrical connector [5].

SUBTASK 52-61-00-860-050

(2) Make sure that these circuit breakers are open and have safety tags:

F/O Electrical System Panel, P6-4

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

SUBTASK 52-61-00-010-006

(3) If the forward airstair door is closed and it could not be opened electrically, open it manually:

- (a) Get access to the airstair door actuator through this access panel:

<u>Number</u>	<u>Name/Location</u>
117A	Electronic Equipment Access Door

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- (b) If the forward airstair door actuator standby system motor is installed, do this task: Forward Airstair Door Actuator Standby System Motor Removal, TASK 52-61-59-000-801
- (c) Turn the actuator manual drive until the forward airstair door is fully open.
- (d) Do this task: Forward Airstair Door Actuator Standby System Motor Installation, TASK 52-61-59-400-801.

SUBTASK 52-61-00-860-051

- (4) Put the pinion disconnect lever [5] in the unlocked position.

SUBTASK 52-61-00-980-008

- (5) Pull the airstair outboard until the airstair actuator [9] is above the access door to the electronic compartment.

SUBTASK 52-61-00-860-052

- (6) Put the pinion disconnect lever [5] in the locked position.

H. Forward Airstair Special Adjustment After Manual Extension or Retraction

SUBTASK 52-61-00-820-011

- (1) Adjust the ladders to the carriage:
 - (a) Disconnect the coupling [10] on the actuator drive shaft [11].
 - (b) Move the ladders to align the index slot [13] in the carriage to the ladder truck index hole [14] in the ladder truck [12].
 - (c) Put the no. 1 rig pin, STD-1323 through the index slot [13] in the carriage and through ladder truck index hole [14] in the ladder truck [12].
 - (d) Connect the coupling [10] on the actuator drive shaft [11].
 - (e) Remove the no. 1 rig pin, STD-1323.

SUBTASK 52-61-00-820-012

- (2) Adjust the carriage to the aft rail:
 - (a) Move the pinion disconnect lever [5] to the unlocked position.
 - (b) Push the carriage in until the retract index hole [7] in the carriage aligns with the retract index slot [2] in the S5 switch bracket.
 - (c) Put the No. 2 no. 2 rig pin, STD-1324 through the retract index slot [2] and retract index hole [7].
 - (d) Move the pinion disconnect lever [5] to the locked position.
 - (e) Install the lockwire, G01048 on the pinion disconnect lever [5].
 - (f) Remove the No. 2 no. 2 rig pin, STD-1324 from the retract index slot [2] and retract index hole [7].

SUBTASK 52-61-00-020-010

- (3) Remove the tag from the airstair P1 electrical connector [1].

SUBTASK 52-61-00-860-053

- (4) Connect the P1 electrical connector.

SUBTASK 52-61-00-860-054

- (5) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
117A	Electronic Equipment Access Door

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SUBTASK 52-61-00-860-055

(6) Close these circuit breakers:

F/O Electrical System Panel, P6-4

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

SUBTASK 52-61-00-710-005

(7) Do this task: Forward Airstair Operational Test, TASK 52-61-00-710-801.

END OF TASK

TASK 52-61-00-820-803

13. Forward Airstair Drain Pan Removal

(Figure 203)

A. Location Zones

<u>Zone</u>	<u>Area</u>
117	Electrical and Electronics Compartment - Left

B. Access Panels

<u>Number</u>	<u>Name/Location</u>
117A	Electronic Equipment Access Door

C. Prepare for the Removal

SUBTASK 52-61-00-860-061

WARNING: MAKE SURE THERE ARE NO PERSONS OR EQUIPMENT IN THE AREA OF THE FORWARD AIRSTAIR BEFORE IT OPERATES. THE FORWARD AIRSTAIR CAN HIT PERSONS OR EQUIPMENT WHEN IT IS OPERATED. THIS CAN CAUSE INJURY TO PERSONS OR DAMAGE TO EQUIPMENT CAN OCCUR.

CAUTION: DO NOT OPERATE THE FORWARD AIRSTAIR AFTER 3 FULL CYCLES IN LESS THAN 20 MINUTES. DO NOT OPERATE THE FORWARD AIRSTAIR WHEN THE WIND IS MORE THAN 40 KNOTS. DO NOT OPERATE THE FORWARD AIRSTAIR WHEN THE FORWARD ENTRY DOOR IS BETWEEN THE COCKED AND FULLY OPEN POSITIONS. DO NOT OPERATE THE FORWARD AIRSTAIR WHEN THERE IS NO SUPPORT UNDER THE FORWARD AIRSTAIR (AIRPLANE IS ON JACKS). IF YOU OPERATE THE FORWARD AIRSTAIR WITH ONE OR MORE OF THESE CONDITIONS, DAMAGE TO EQUIPMENT CAN OCCUR.

(1) Fully extend the forward airstair with NORMAL power.

D. Removal of the Forward Airstair Drain Pan

SUBTASK 52-61-00-020-011

(1) Remove the drain pan:

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CAUTION: DO NOT MOVE THE SWING ARM OR PUT WEIGHT ON IT. THE SWING ARM IS EASILY DAMAGED.

- (a) Get access to the drain pan [1] through this access panel:

Number	Name/Location
117A	Electronic Equipment Access Door
- (b) Loosen the hose clamp.
- (c) Put a drip pan under the drain hose connection to the drain pan [1].
- (d) Disconnect the drain hose from the access panel [2].
- (e) Drain the drain hose and access panel [2] into the drip pan.
- (f) Disengage the 1/4 turn fasteners [4] that attach the access panel [2] to the drain pan [1].
- (g) Remove the access panel [2].
- (h) Get access to the screws [3] and washers [4] through the access panel [2] opening.
- (i) Remove the screws [3] and washers [4] that attach the drain pan [1] to structure.
- (j) Retract the airstair into the airplane but release the control handle before the airstair door starts to close.
- (k) Remove the drain pan [1] through the airstair door opening.

————— **END OF TASK** —————

TASK 52-61-00-820-804

14. Forward Airstair Drain Pan Installation

(Figure 203)

A. Consumable Materials

Reference	Description	Specification
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS 5-95

B. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left

C. Access Panels

Number	Name/Location
117A	Electronic Equipment Access Door

D. Prepare for the Installation

SUBTASK 52-61-00-860-062

WARNING: MAKE SURE THERE ARE NO PERSONS OR EQUIPMENT IN THE AREA OF THE FORWARD AIRSTAIR BEFORE IT OPERATES. THE FORWARD AIRSTAIR CAN HIT PERSONS OR EQUIPMENT WHEN IT IS OPERATED. THIS CAN CAUSE INJURY TO PERSONS OR DAMAGE TO EQUIPMENT CAN OCCUR.

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(WARNING PRECEDES)

CAUTION: DO NOT OPERATE THE FORWARD AIRSTAIR AFTER 3 FULL CYCLES IN LESS THAN 20 MINUTES. DO NOT OPERATE THE FORWARD AIRSTAIR WHEN THE WIND IS MORE THAN 40 KNOTS. DO NOT OPERATE THE FORWARD AIRSTAIR WHEN THE FORWARD ENTRY DOOR IS BETWEEN THE COCKED AND FULLY OPEN POSITIONS. DO NOT OPERATE THE FORWARD AIRSTAIR WHEN THERE IS NO SUPPORT UNDER THE FORWARD AIRSTAIR (AIRPLANE IS ON JACKS). IF YOU OPERATE THE FORWARD AIRSTAIR WITH ONE OR MORE OF THESE CONDITIONS, DAMAGE TO EQUIPMENT CAN OCCUR.

(1) Make sure the airstair is fully retracted and the airstair door is fully open.

E. Installation of the Forward Airstair Drain Pan

SUBTASK 52-61-00-420-004

(1) Install the drain pan [1]:

- (a) Install the drain pan [1] through the forward airstair door opening.
- (b) Extend the airstair.
- (c) Get access to the drain pan [1] through the electronic equipment access door.
- (d) Get access to install the screws [3] and washers [4] through the access panel [2] opening.
- (e) Install the screws [3] and washers [4] to attach the drain pan [1] to structure.
- (f) Use sealant, A00247 to apply a fillet seal around and over the screws [3] and washers [4].
- (g) Install the access panel [2].
- (h) Engage the 1/4 turn fasteners [4] that attach the access panel [2] to the drain pan [1].
- (i) Connect the drain hose to the access panel [2].
- (j) Tighten the clamp that attaches the drain hose to the access panel [2].
- (k) Exit the EE bay and close this access panel:

<u>Number</u>	<u>Name/Location</u>
117A	Electronic Equipment Access Door

————— END OF TASK —————

TASK 52-61-00-710-802

15. Airstair Door Operation Without Airstairs Installed

A. General

(1) To operate the airstair door without the airstairs installed, it is necessary to deviate from the normal operating procedure for the airstairs.

B. Prepare to open the airstair door:

SUBTASK 52-61-00-860-063

(1) Close these circuit breakers:

F/O Electrical System Panel, P6-4

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL

NOTE: These circuit breakers will have safety collars on them. It will be necessary to re-collar the breakers after closing the airstair door.

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SUBTASK 52-61-00-860-064

- (2) To open the airstair door, do this task: Forward Airstair Extension in Normal Mode, TASK 52-61-00-860-803

SUBTASK 52-61-00-860-065

- (3) To close the airstair door, it will be necessary to install a jumper wire on the D934 connector from pin 9 to pin 10.

NOTE: The D934 connector is located at STA 362, WL 201, LBL 12.

- (a) Operate the exterior control switch/handle to the "UP RETRACT" position. This will close the airstair door.
- (b) Remove the jumper wire from pins 9 and 10 of the D934 connector.
- (c) Open these circuit breakers.
 - 1) Open these circuit breakers and install safety locks:

F/O Electrical System Panel, P6-4

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

NOTE: The safety collars must be re-installed on the circuit breakers.

- (d) Make sure that the Airstair Door Warning light on the Forward Overhead Panel, P5 is OFF.

————— **END OF TASK** —————

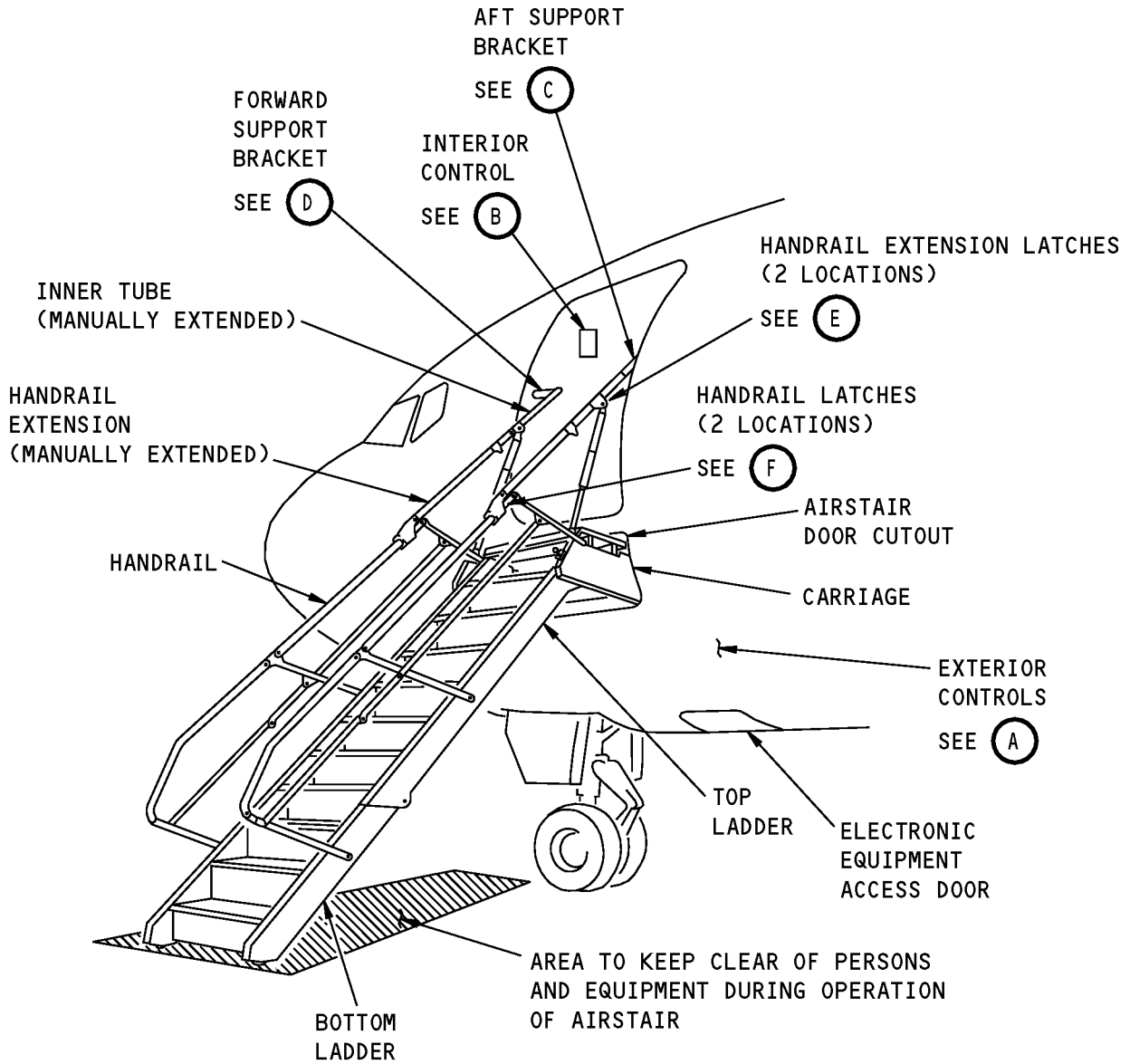
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AIRSTAIR

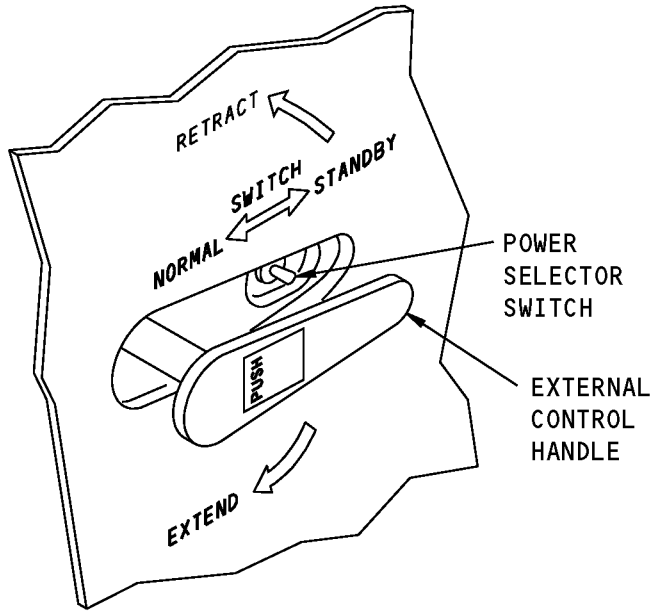
**Forward Airstair Electrical Operation
Figure 201 (Sheet 1 of 5)/52-61-00-990-804**

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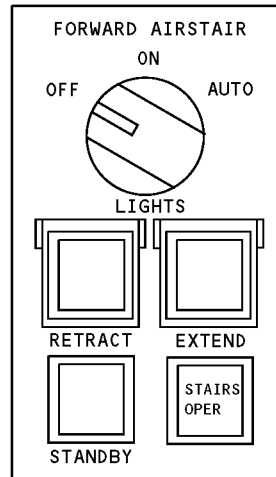
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EXTERIOR CONTROL

(A)



**INTERIOR CONTROL PANEL
(FORWARD ATTENDANT'S PANEL, P13)**

(B)

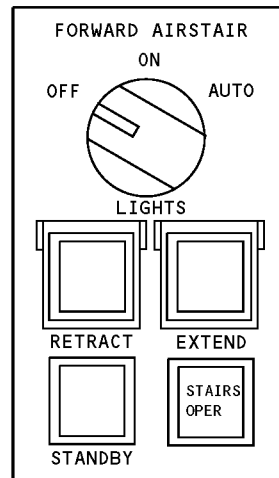
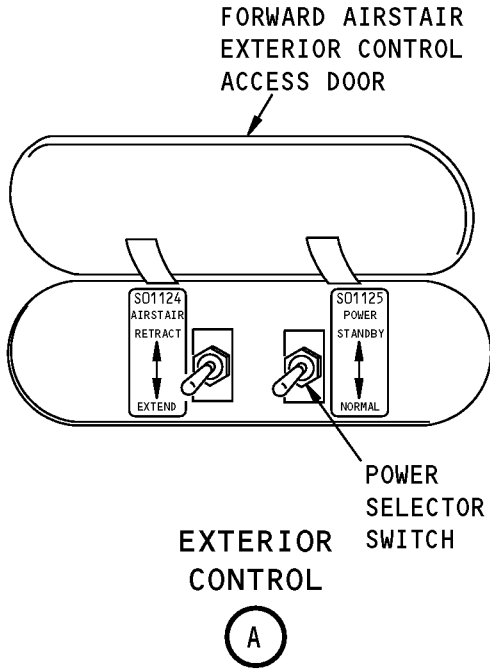
**Forward Airstair Electrical Operation
Figure 201 (Sheet 2 of 5)/52-61-00-990-804**

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**INTERIOR CONTROL PANEL
(FORWARD ATTENDANT'S PANEL, P13)**

(B)

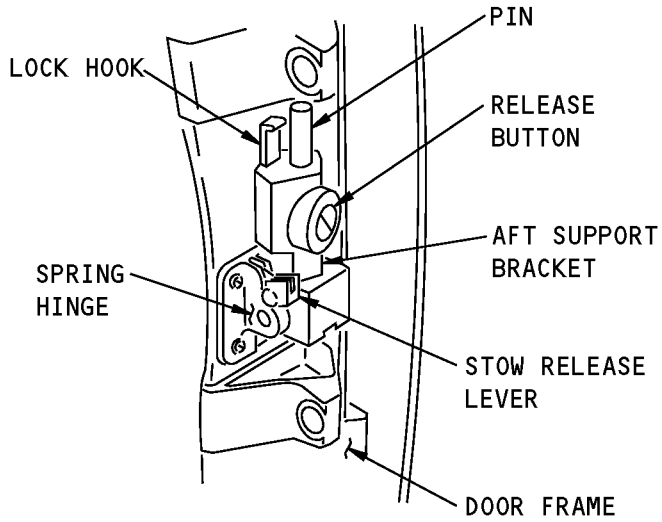
**Forward Airstair Electrical Operation
Figure 201 (Sheet 3 of 5)/52-61-00-990-804**

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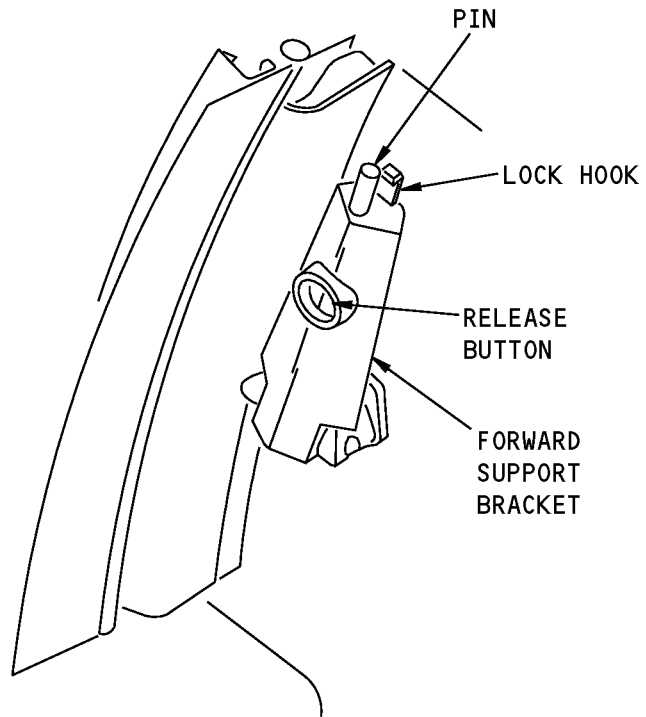
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**AFT SUPPORT BRACKET
(STOWED POSITION)**

(C)



**FORWARD SUPPORT BRACKET
(STOWED POSITION)**

(D)

**Forward Airstair Electrical Operation
Figure 201 (Sheet 4 of 5)/52-61-00-990-804**

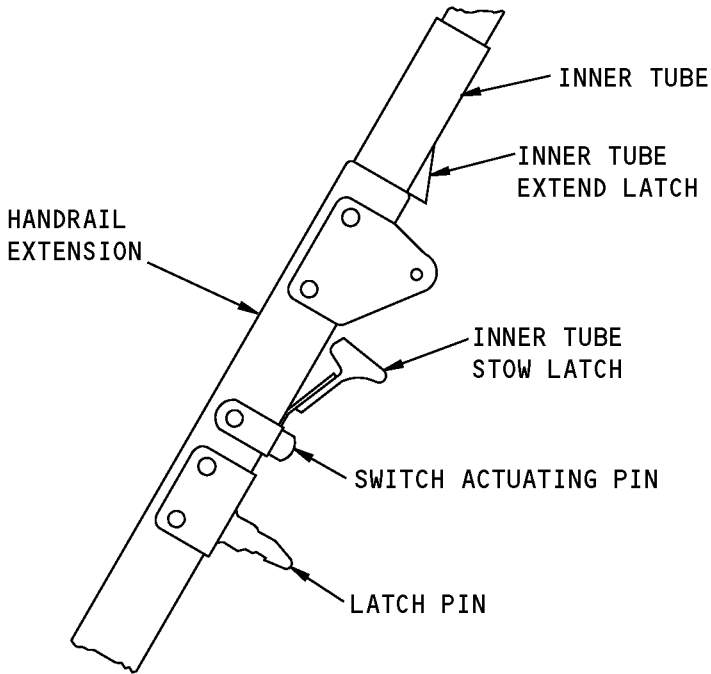
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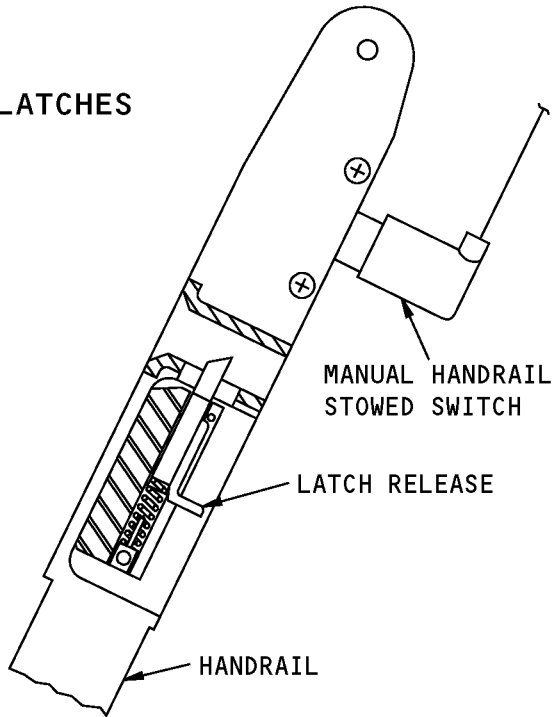
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HANDRAIL EXTENSION LATCHES

E



HANDRAIL LATCHES

F

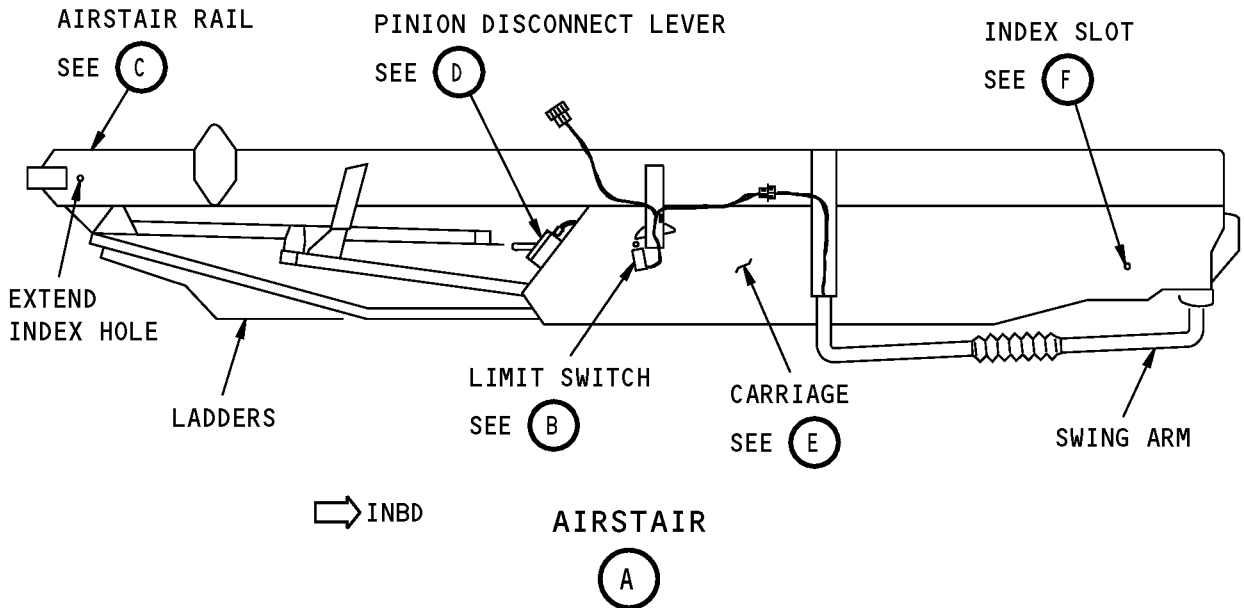
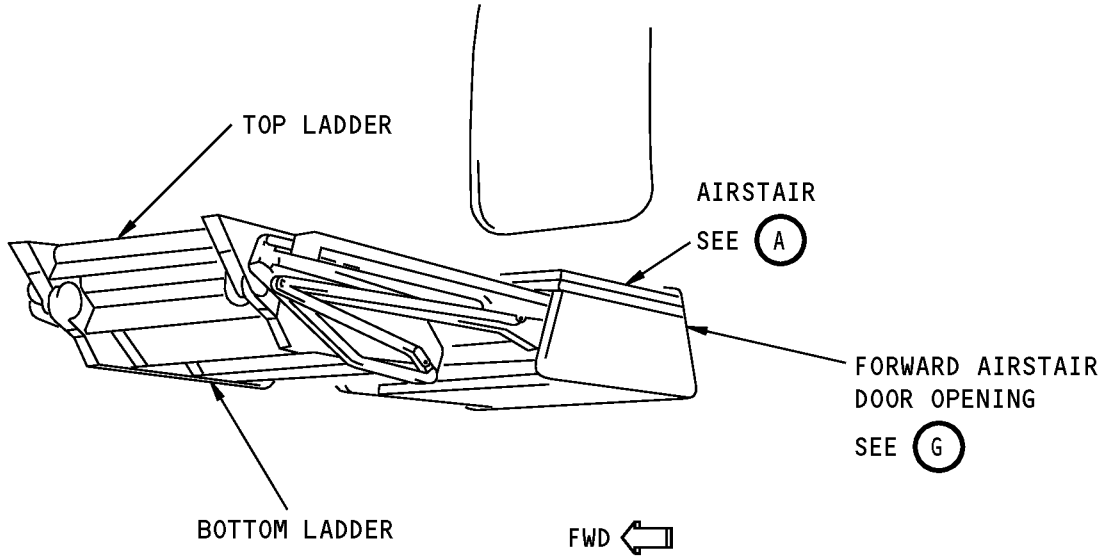
**Forward Airstair Electrical Operation
Figure 201 (Sheet 5 of 5)/52-61-00-990-804**

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**Forward Airstair Manual Operation and Resequence
Figure 202 (Sheet 1 of 4)/52-61-00-990-805**

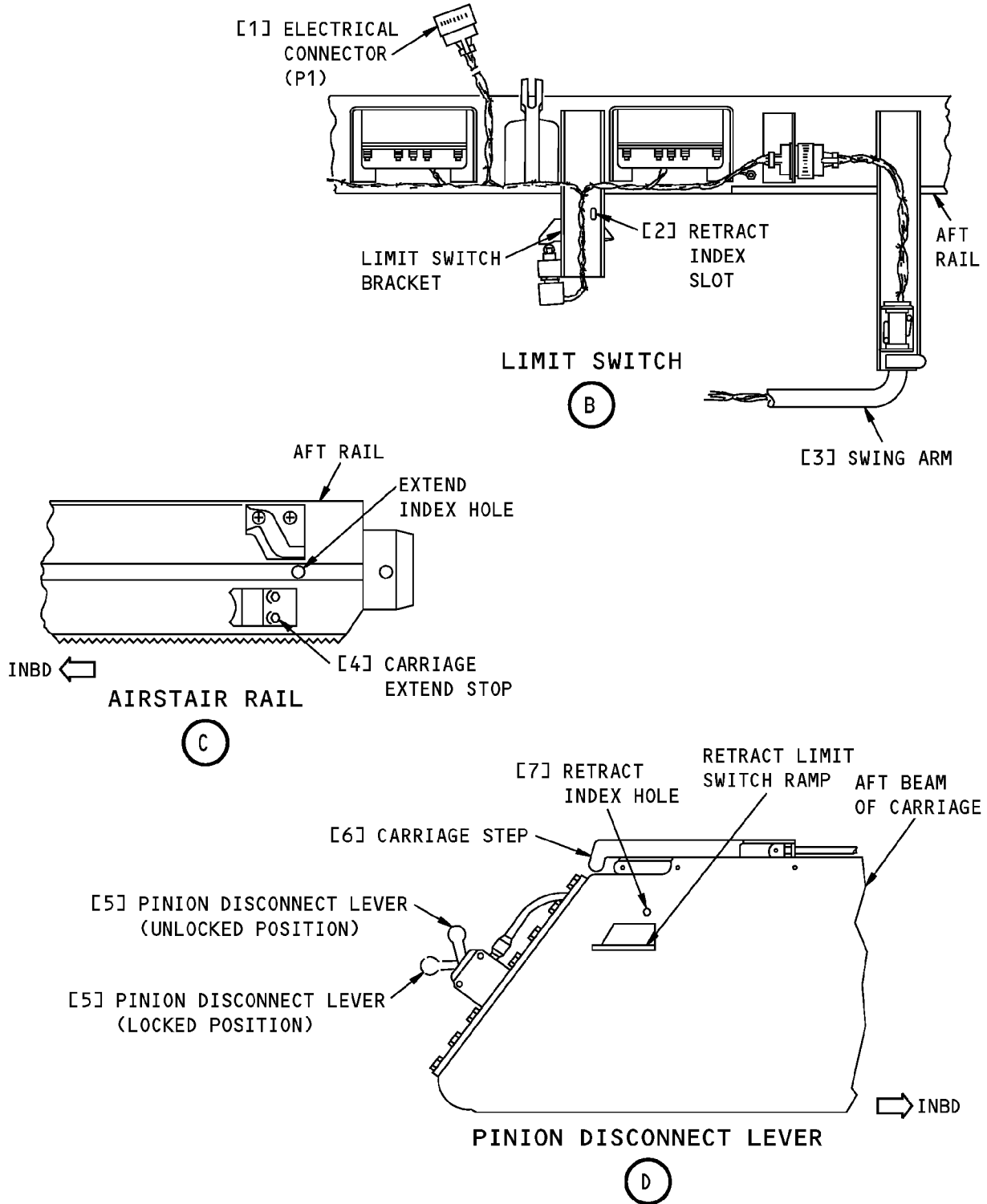
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**Forward Airstair Manual Operation and Resequence
Figure 202 (Sheet 2 of 4)/52-61-00-990-805**

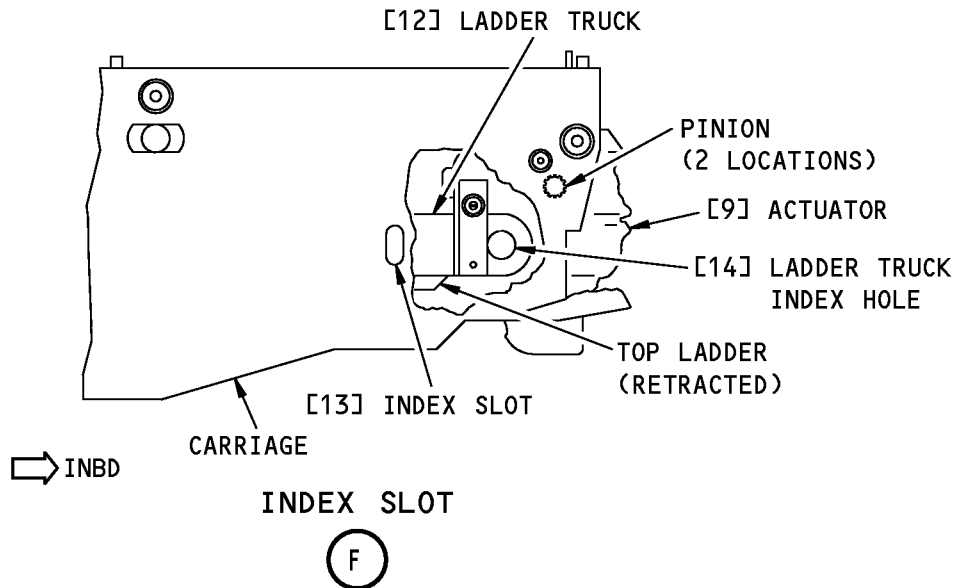
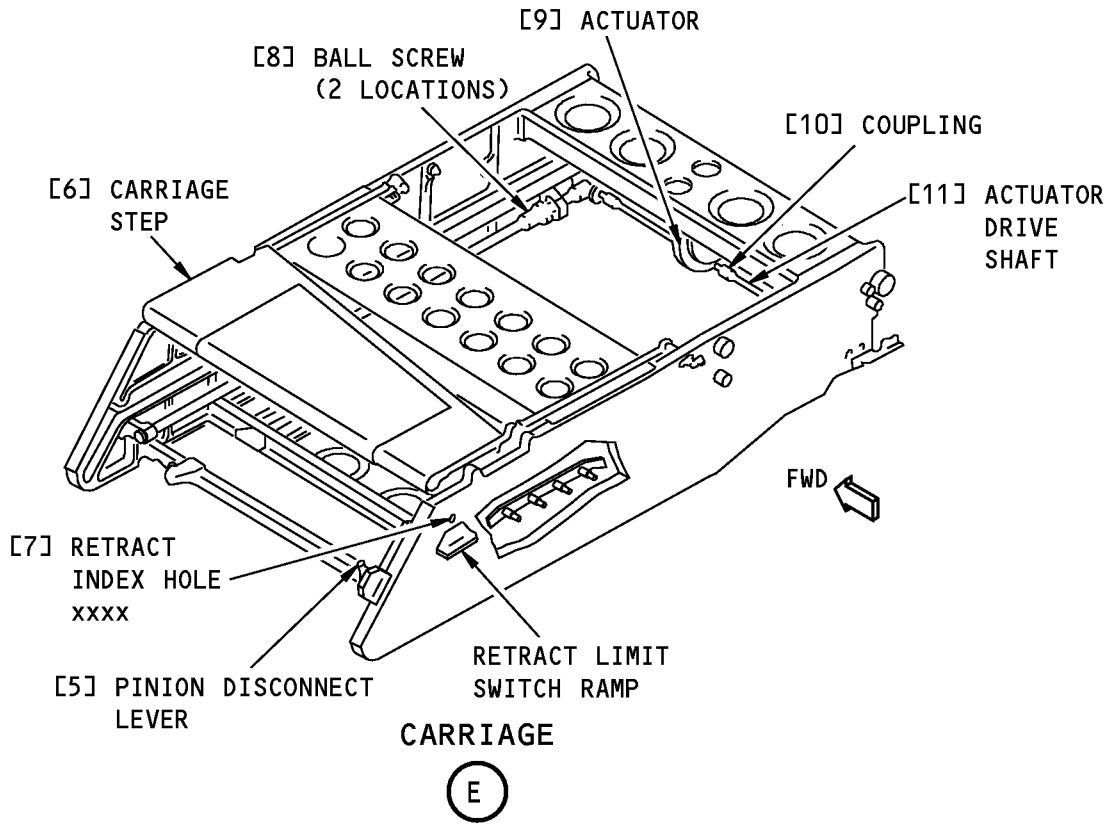
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**Forward Airstair Manual Operation and Resequence
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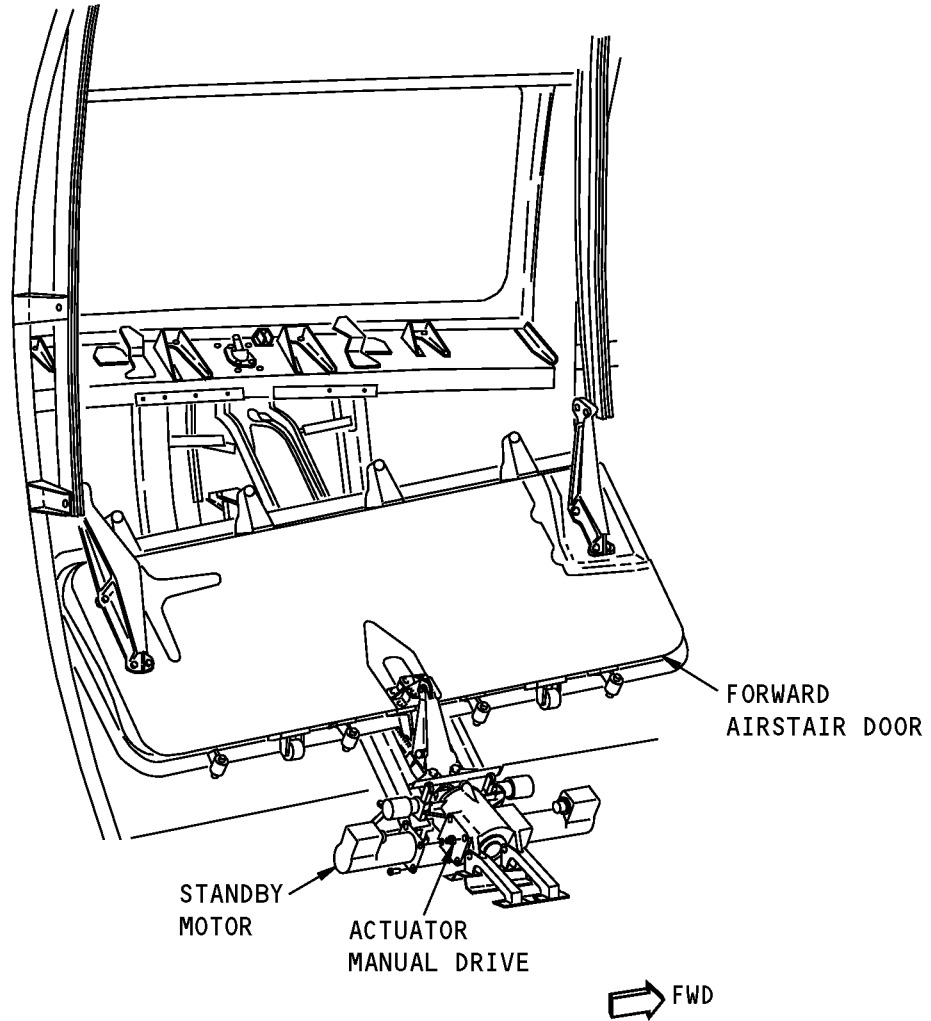
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FORWARD AIRSTAIR DOOR OPENING
(INTERIOR VIEW)

G

Forward Airstair Manual Operation and Resequence
Figure 202 (Sheet 4 of 4)/52-61-00-990-805

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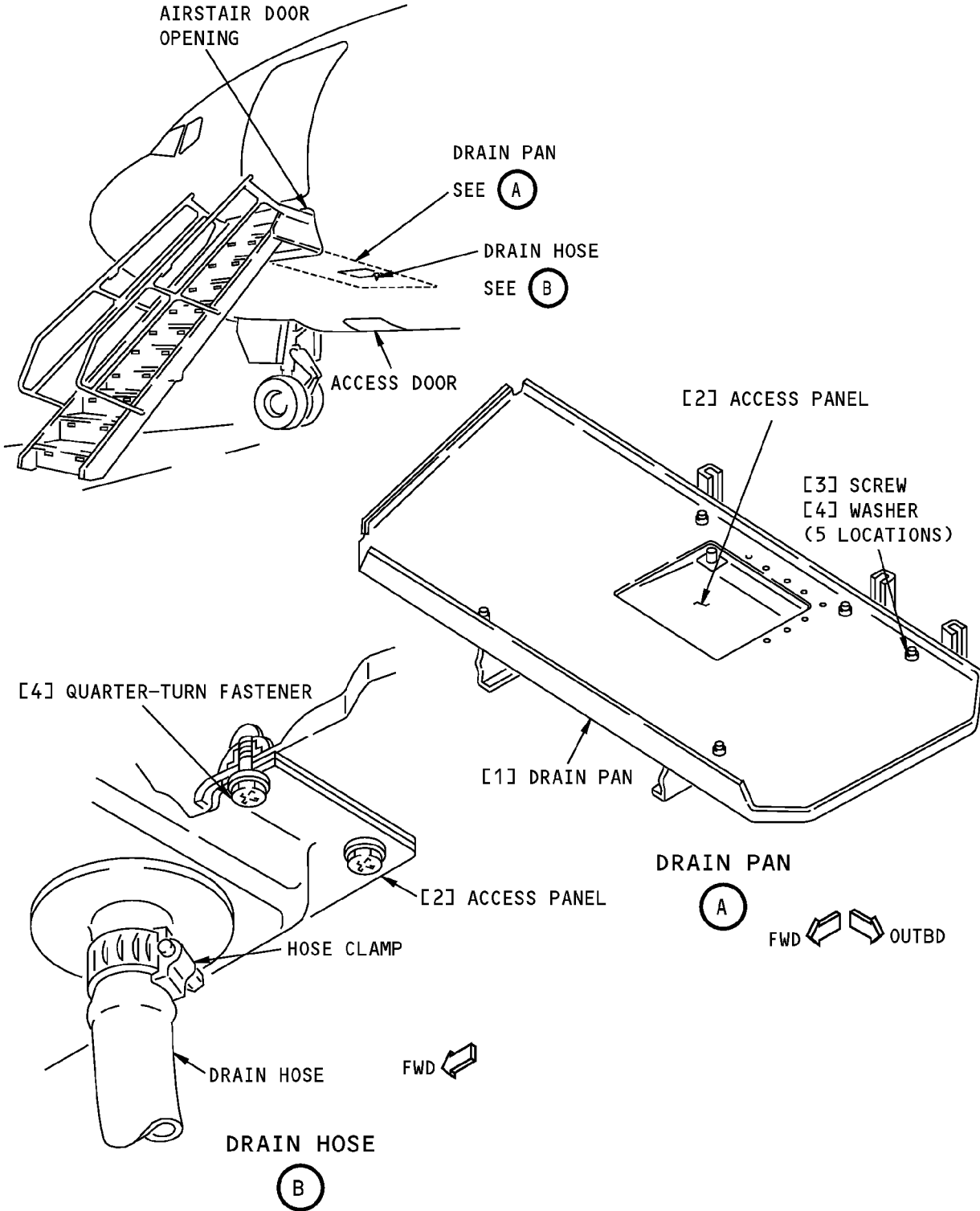
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**Forward Airstair Drain Pan
Figure 203/52-61-00-990-809**

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TASK 52-61-00-600-803

16. Forward Airstair Corrosion Prevention

A. References

Reference	Title
52-61-00-210-801	Forward Airstair - Inspection (P/B 601)

B. Consumable Materials

Reference	Description	Specification
G00009	Compound - Organic Corrosion Inhibiting	BMS3-23

C. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left

D. General

SUBTASK 52-61-00-800-001

- (1) The forward airstair retracts into the fuselage below the forward entry door. When the airstair is extended, it is exposed to the weather. When the airstair is retracted, it exposes the airstair drip pan to the weather conditions. The airstair and the airstair drain pan are likely to corrode.
- (2) Corrosion has been reported on the tread plates where they meet the tread risers.
- (3) Corrosion has been reported on the lower 6 inches of the airstair, where it touches the ground.
- (4) Corrosion has been reported in the airstair drip pan.
- (5) Corrosion Prevention
 - (a) Inspect the airstair drip pan and the airstair. Forward Airstair - Inspection, TASK 52-61-00-210-801
 - (b) Look for missing fasteners, white powdery deposits, and discolorations, as signs of corrosion.
 - 1) If signs of corrosion are found, then a corrosion prevention program should be started to prevent the build up of corrosion products.
 - 2) If corrosion products are allowed to build up, then they will cause further corrosion.
 - (c) After the corrosion products are cleaned, make sure that the protective finishes are serviceable.
 - 1) If only minor corrosion is found, then make sure that the area is clean.
 - 2) Apply corrosion inhibiting compound on the affected area.
 - 3) Make sure that the protective finish is restored at the first opportunity that is consistent with the airplanes maintenance schedule.
 - (d) Periodic removal of the airstair treads to renew the corrosion prevenative compound and paint can decrease the possibility of corrosion.

E. Corrosion Prevention

SUBTASK 52-61-00-620-001

- (1) Prevention Treatment
 - (a) Inspect the airstair drip pan and the airstair. Forward Airstair - Inspection, TASK 52-61-00-210-801
 - 1) Repair or replace the corrosion that you find.

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- (b) Apply corrosion inhibiting compound, G00009 to the surfaces of the airstair and the drip pan.
 - 1) Make sure that applicable surfaces are completely coated with the corrosion inhibiting compound, G00009.
 - 2) Give special attention to the coating in these areas:
 - a) Where the tread plates meet the tread risers.
 - b) The corrugations of the treads and risers.
 - c) The lower 6 inches of the airstair, where it touches the ground.
- (c) Apply three coats of Automobile Wax to the hand rails.

————— **END OF TASK** —————

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FORWARD AIRSTAIR - ADJUSTMENT/TEST

1. General

A. This procedure contains these tasks:

- (1) An operational test of the forward airstair
- (2) An adjustment of the forward airstair
- (3) An functional test of the forward airstair

TASK 52-61-00-710-801

2. Forward Airstair Operational Test

A. General

- (1) This task is a test of the forward airstair and door. The test makes sure the forward airstair and door operate correctly.

NOTE: If it is necessary, the complete instructions to extend and retract the airstair can be found in FORWARD AIRSTAIR - MAINTENANCE PRACTICES, PAGEBLOCK 52-61-00/201.

B. References

Reference	Title
24-22-00-860-811	Supply Electrical Power (P/B 201)
52-61-00 P/B 201	FORWARD AIRSTAIR - MAINTENANCE PRACTICES

C. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left

D. Access Panels

Number	Name/Location
831	Forward Entry Door

E. Prepare for the Operational Test

SUBTASK 52-61-00-860-001

- (1) Do this task: Supply Electrical Power, TASK 24-22-00-860-811.

SUBTASK 52-61-00-860-002

- (2) Make sure that these circuit breakers are closed:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

SUBTASK 52-61-00-860-003

- (3) Make sure the BATTERY switch on the P5-13 module is in the ON position.

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F. Operational Test

SUBTASK 52-61-00-710-002

- (1) Check the extension of the airstair in the NORMAL mode with the exterior controls:

WARNING: MAKE SURE THERE ARE NO PERSONS OR EQUIPMENT IN THE AREA OF THE FORWARD AIRSTAIR BEFORE IT OPERATES. THE AIRSTAIR CAN HIT PERSONS OR EQUIPMENT WHEN IT IS OPERATED. IF THE AIRSTAIR HITS PERSONS OR EQUIPMENT, INJURY TO PERSONS OR DAMAGE TO EQUIPMENT CAN OCCUR.

CAUTION: DO NOT OPERATE THE FORWARD AIRSTAIR AFTER 3 FULL CYCLES IN LESS THAN 20 MINUTES. DO NOT OPERATE THE FORWARD AIRSTAIR WHEN THE WIND IS MORE THAN 40 KNOTS. DO NOT OPERATE THE FORWARD AIRSTAIR WHEN THE FORWARD ENTRY DOOR IS BETWEEN THE COCKED AND FULLY OPEN POSITIONS. DO NOT OPERATE THE FORWARD AIRSTAIR WHEN THERE IS NO SUPPORT UNDER THE FORWARD AIRSTAIR (AS EXAMPLE, WHEN THE AIRPLANE IS ON JACKS). IF YOU OPERATE THE FORWARD AIRSTAIR WITH ANY OF THESE CONDITIONS, DAMAGE TO EQUIPMENT CAN OCCUR.

- (a) Put the exterior controls in the NORMAL EXTEND position.
- (b) Make sure the airstair door opens smoothly.
- (c) Make sure the airstair extends smoothly.
- (d) Make sure the lower ladder extends smoothly.
- (e) Make sure the top step extends fully.
- (f) Release the controls when the airstair is fully extended.

SUBTASK 52-61-00-710-008

- (2) Check the airstair lights:

- (a) Put the FORWARD AIRSTAIR LIGHT switch on the interior control panel in the AUTO position.
 - 1) Make sure the lights on the steps of the airstair are on.

SUBTASK 52-61-00-710-004

- (3) Check the retraction of the airstair in STANDBY mode with the interior controls:

- (a) Put the interior controls in the STANDBY RETRACT position.
- (b) Make sure that the STAIRS OPER light on the interior control panel comes on.
- (c) Make sure the lower ladder folds smoothly.
- (d) Make sure the airstair moves smoothly into the airplane.
- (e) Make sure the airstair door closes smoothly.
- (f) Release the controls when the airstair door is fully closed.
- (g) Make sure the AIRSTAIR light on the P5 panel in the flight deck is off.

SUBTASK 52-61-00-710-006

- (4) Check the extension of the airstair in the NORMAL mode with the interior controls:

- (a) Make sure the airstair door opens smoothly.
- (b) Make sure the airstair extends smoothly.
- (c) Make sure the lower ladder extends smoothly.
- (d) Make sure the step extends fully.
- (e) Release the controls when the airstair is fully extended.

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(f) Close this access panel:

Number	Name/Location
831	Forward Entry Door

SUBTASK 52-61-00-710-007

(5) Check the retraction of the airstair in the STANDBY mode with the exterior controls:

- (a) Put the exterior controls in the STANDBY RETRACT position.
- (b) Make sure the lower ladder folds smoothly.
- (c) Make sure the airstair moves smoothly into the airplane.
- (d) Make sure the airstair door closes smoothly.
- (e) Release the controls when the airstair door is fully closed.

END OF TASK

TASK 52-61-00-820-801

3. Forward Airstair Adjustment

(Figure 501, Figure 502, Figure 503)

A. References

Reference	Title
52-61-00-820-803	Forward Airstair Drain Pan Removal (P/B 201)
52-61-00-820-804	Forward Airstair Drain Pan Installation (P/B 201)
52-61-00-860-801	Forward Airstair Extension (P/B 201)
52-61-00-860-802	Forward Airstair Retraction (P/B 201)

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-591	Multimeter - Digital, Handheld (volt dc/vac, ampere & resistance measurements or equivalent Multimeter) (Part #: 187, Supplier: 89536, A/P Effectivity: 737-ALL) (Part #: 189, Supplier: 89536, A/P Effectivity: 737-ALL) (Part #: 87V, Supplier: 89536, A/P Effectivity: 737-ALL) (Part #: FLUKE 117, Supplier: 89536, A/P Effectivity: 737-ALL) (Part #: MODEL 27, Supplier: 89536, A/P Effectivity: 737-ALL)
STD-1324	Pin - Rig, No. 2, Airstair, Wood, 0.24 Inch Diameter by 2.50 Inches

C. Consumable Materials

Reference	Description	Specification
G01048	Lockwire - Corrosion Resistant Steel (0.032 In. Dia.)	NASM20995~ C32

D. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left

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E. Prepare for the Adjustment

SUBTASK 52-61-00-860-005

- (1) Do this task: Forward Airstair Drain Pan Removal, TASK 52-61-00-820-803.

SUBTASK 52-61-00-860-006

- (2) Open these circuit breakers and install safety tags:

F/O Electrical System Panel, P6-4

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

SUBTASK 52-61-00-020-002

- (3) Disconnect the airstair P1 electrical connector on the aft rail.

SUBTASK 52-61-00-020-003

- (4) Move the pinion disconnect lever to the unlocked position.

SUBTASK 52-61-00-020-004

- (5) Move the carriage so that the carriage retract index hole and aft rail retract index slot are aligned.

SUBTASK 52-61-00-020-006

- (6) Put the no. 2 rig pin, STD-1324 through the carriage retract index hole and aft rail retract index slot.

F. S5 Switch Adjustment

SUBTASK 52-61-00-820-001

- (1) Adjust the S5 switch:

- (a) Make sure the no. 2 rig pin, STD-1324 is installed through the carriage retract index hole and aft rail retract index slot.
- (b) Connect the handheld digital multimeter, COM-591 across terminal X1 on relay K1 and pin 10 of the airstair electrical connector P1.
- (c) Make sure the handheld digital multimeter, COM-591 indicates no continuity. If there is continuity, turn the locknuts to lower the S5 switch until the handheld digital multimeter, COM-591 indicates no continuity.
- (d) Turn the locknuts until handheld digital multimeter, COM-591 indicates continuity.

NOTE: You may be able to hear the switch click when it makes continuity.

- (e) Tighten the locknuts.
- (f) Make sure the no. 2 rig pin, STD-1324 is not installed.
- (g) Slowly move the airstair carriage outboard, then inboard.
- (h) Use the handheld digital multimeter, COM-591 to make sure the S5 switch operates when the retract index slot and carriage index slot align.

NOTE: You can use the no. 2 rig pin, STD-1324 to make sure that the slots align.

- (i) Make sure the S5 switch operates in the correct area on the switch ramp as shown in (Figure 502).

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- (j) Use lockwire, G01048 to lock the S5 switch locknuts.
- (k) Disconnect handheld digital multimeter, COM-591.

G. Prepare for the S3 and S4 Switch Adjustment

SUBTASK 52-61-00-860-007

- (1) Make sure that these circuit breakers are open:

F/O Electrical System Panel, P6-4

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

SUBTASK 52-61-00-860-008

- (2) Make sure the airstair is fully retracted.
 - (a) If it is necessary, do this task: Forward Airstair Retraction, TASK 52-61-00-860-802.

SUBTASK 52-61-00-010-001

- (3) Fully open the airstair door but do not extend the airstair.

SUBTASK 52-61-00-020-007

- (4) Disconnect the outboard end of the actuator rods from the carriage step at the end of the forward and the aft rails.

NOTE: This will make the carriage move more easily for the adjustment of extend limit switches.

SUBTASK 52-61-00-820-002

- (5) Align the carriage and aft rail extend index holes:
 - (a) Make sure the pinion disconnect lever is in the unlocked position.
 - (b) Move the carriage to align the aft rail extend index hole and carriage extend index hole.
 - (c) Put the no. 2 rig pin, STD-1324 through the aft rail extend index hole and the carriage extend index hole.

H. S3 and S4 Switch Adjustment

SUBTASK 52-61-00-820-003

- (1) Adjust the S3 switch:
 - (a) Connect the handheld digital multimeter, COM-591 between terminal Y1 on the K1 relay and pin 5 of the airstair P1 electrical connector.
 - (b) Make sure that the multimeter indicates continuity. If the multimeter indicates no continuity, turn the adjustment nuts for the S3 switch until the indication is continuity.
 - (c) Turn the adjustment nuts until handheld digital multimeter, COM-591 indicates no continuity.
 - (d) Tighten the adjustment nuts.
 - (e) Make sure the no. 2 rig pin, STD-1324 is not installed.
 - (f) Slowly move the airstair carriage inboard, then outboard.

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- (g) Use the handheld digital multimeter, COM-591 to make sure the S3 switch operates when the extend index slot and carriage extend index slot align.

NOTE: You can use the no. 2 rig pin, STD-1324 to make sure that the slots align.

- (h) Make sure the S3 switch operates in the correct area on the switch ramp as shown in (Figure 503).
- (i) Make sure the no. 2 rig pin, STD-1324 is not installed.
- (j) Put lockwire, G01048 on the retract S3 switch adjustment nuts.
- (k) Disconnect the multimeter.

SUBTASK 52-61-00-820-013

(2) Adjust the S4 switch:

- (a) Connect the handheld digital multimeter, COM-591 between terminal Y1 on the K2 relay and pin 17 of the airstair P1 electrical connector.
- (b) Make sure that the multimeter indicates continuity. If the multimeter does not indicate continuity, turn the adjustment nuts for the S4 switch until the indication is continuity.
- (c) Turn the adjustment nuts until handheld digital multimeter, COM-591 indicates no continuity.
- (d) Tighten the adjustment nuts.
- (e) Make sure the no. 2 rig pin, STD-1324 is not installed.
- (f) Slowly move the airstair carriage inboard, then outboard.
- (g) Use the handheld digital multimeter, COM-591 to make sure the S4 switch operates when the extend index slot and carriage extend index slot align.

NOTE: You can use the no. 2 rig pin, STD-1324 to make sure that the slots align.

- (h) Make sure the S4 switch operates in the correct area on the switch ramp as shown in (Figure 503).
- (i) Make sure the no. 2 rig pin, STD-1324 is not installed.
- (j) Put lockwire, G01048 on the retract S4 switch adjustment nuts.
- (k) Disconnect the handheld digital multimeter, COM-591.

SUBTASK 52-61-00-420-003

(3) Connect the outboard end of the actuator rods to the carriage step.

I. S12 Switch Adjustment

SUBTASK 52-61-00-820-004

(1) Adjust the Slow-Down Operating switch (S12):

- (a) Manually move the carriage until the switch touches the flat part of the switch ramp.
- (b) Turn the locknuts on the S12 switch until the plunger lightly touches the switch ramp.
- (c) Use the handheld digital multimeter, COM-591 to make sure there is no continuity between contacts 1 and 2 of the S12 switch.
- (d) Turn the locknuts on the S12 switch until the plunger moves into the switch from 0.14 to 0.18 inch (3.56-4.57 mm).
- (e) Tighten the locknuts.
- (f) Manually move the carriage inboard and outboard.
- (g) Make sure the S12 switch stays adjusted correctly.
- (h) Use lockwire, G01048 to lock the switch locknuts.

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J. S13 Switch Adjustment

SUBTASK 52-61-00-820-005

- (1) Adjust the Speed-Up switch (S13):
 - (a) Manually move the carriage so the S13 switch touches the flat part of the switch ramp.
 - (b) Turn the locknuts on the S13 switch until the plunger lightly touches the switch ramp.
 - (c) Use the handheld digital multimeter, COM-591 to make sure there is no continuity between contacts 1 and 2 of the S13 switch.
 - (d) Turn the locknuts on the S13 switch until the plunger moves into the switch from 0.14 to 0.18 inch (3.56-4.57 mm).
 - (e) Tighten the locknuts.
 - (f) Make sure that there is continuity between contacts 1 and 2 of the S12 switch.
 - (g) Manually move the carriage inboard and outboard.
 - (h) Make sure the S13 switch stays adjusted correctly.
 - (i) Use lockwire, G01048 to lock the switch locknuts.

K. Prepare for the S15 Switch Adjustment

SUBTASK 52-61-00-420-001

- (1) Connect the actuator rods:
 - (a) Connect the outboard end of the actuator rods to the carriage step at the end of the forward and the aft rails.
 - (b) Make sure the carriage step moves up when the carriage moves to the extended position.

SUBTASK 52-61-00-820-006

- (2) Align the carriage to the rails and lock the pinion disconnect lever:
 - (a) Move the carriage so the carriage retract index hole and aft rail retract index slot align.
 - (b) Put the no. 2 rig pin, STD-1324 through the carriage retract index hole and aft rail index slot.
 - (c) Move the pinion disconnect lever to the locked position.
 - (d) Use lockwire, G01048 to lock the pinion disconnect lever.
 - (e) Remove the no. 2 rig pin, STD-1324.

SUBTASK 52-61-00-020-008

- (3) Connect the airstair P1 electrical connector.

SUBTASK 52-61-00-860-009

- (4) Remove the safety tags and close these circuit breakers:

F/O Electrical System Panel, P6-4

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

SUBTASK 52-61-00-820-007

- (5) Retract the airstair (TASK 52-61-00-860-802).

L. S15 Switch Adjustment

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SUBTASK 52-61-00-820-008

- (1) Adjust the lower ladder slowdown switch (S15):
(a) Electrically extend and retract the airstair (TASK 52-61-00-860-801 and TASK 52-61-00-860-802).
(b) If the lower ladder stalls, move the S15 switch actuator up one half turn of the locknut.
(c) If the lower ladder slams, move the S15 switch actuator down one half turn of the locknut.
(d) Repeat this procedure until the lower ladder neither stalls nor slams when retracted.

M. Put the Airplane Back to its Usual Condition

SUBTASK 52-61-00-820-009

- (1) Do this task: Forward Airstair Functional Test, TASK 52-61-00-700-802.

SUBTASK 52-61-00-420-002

- (2) Do this task: Forward Airstair Drain Pan Installation, TASK 52-61-00-820-804.

SUBTASK 52-61-00-860-011

- (3) Fully retract the airstair and close the airstair door (TASK 52-61-00-860-802).

END OF TASK

TASK 52-61-00-700-802

4. Forward Airstair Functional Test

(Figure 504, Figure 505, Figure 506)

A. General

- (1) This task is a functional test of the forward airstair and door. It makes sure that the normal system and the standby system operate correctly. It also makes sure the airstair and door are adjusted correctly.

B. References

Table with 2 columns: Reference, Title. Rows include: 24-22-00-860-811 Supply Electrical Power (P/B 201), 52-61-00-860-803 Forward Airstair Extension in Normal Mode (P/B 201), 52-61-00-860-806 Forward Airstair Retraction in Normal Mode (P/B 201), 52-61-22-420-801 Forward Airstair Gearbox Installation (P/B 401), 52-61-62-400-801 Forward and Aft Rail Installation (P/B 401)

C. Location Zones

Table with 2 columns: Zone, Area. Row: 117 Electrical and Electronics Compartment - Left

D. Access Panels

Table with 2 columns: Number, Name/Location. Row: 831 Forward Entry Door

E. Prepare To Do a Functional Test of the Forward Airstair

SUBTASK 52-61-00-860-056

- (1) Do this task: Supply Electrical Power, TASK 24-22-00-860-811.

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SUBTASK 52-61-00-860-057

(2) Make sure that these circuit breakers are closed:

F/O Electrical System Panel, P6-4

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

Power Distribution Panel Number 2, P92

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	2	C03072	DC BUS 2 SECT 2
F	5	C03012	XFR BUS 2 SECT 2

Standby Power Control Unit, M01720

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	4	C00169	SW HOT BAT BUS

SUBTASK 52-61-00-860-058

(3) Do a check of the position of this equipment:

- (a) Make sure the BATTERY switch on the P5-13 module is in the ON position.
- (b) Make sure the AIRSTAIR LIGHT switch on the interior control panel is in the AUTO position.
- (c) Make sure the LIGHTS switch on the P1 panel is in the BRT position.
- (d) Make sure the airstair is retracted and the airstair door is fully closed.
- (e) Make sure the forward entry door is fully closed and latched.

F. Do the Functional Test of the Forward Airstair

SUBTASK 52-61-00-720-010

WARNING: MAKE SURE THERE ARE NO PERSONS OR EQUIPMENT IN THE AREA OF THE FORWARD AIRSTAIR BEFORE IT OPERATES. THE AIRSTAIR CAN HIT PERSONS OR EQUIPMENT WHEN IT IS OPERATED. IF THE AIRSTAIR HITS PERSONS OR EQUIPMENT, INJURY TO PERSONS OR DAMAGE TO EQUIPMENT CAN OCCUR.

CAUTION: DO NOT OPERATE THE FORWARD AIRSTAIR AFTER 3 FULL CYCLES IN LESS THAN 20 MINUTES. DO NOT OPERATE THE FORWARD AIRSTAIR WHEN THE WIND IS MORE THAN 40 KNOTS. DO NOT OPERATE THE FORWARD AIRSTAIR WHEN THE FORWARD ENTRY DOOR IS BETWEEN THE COCKED AND FULLY OPEN POSITIONS. DO NOT OPERATE THE FORWARD AIRSTAIR WHEN THERE IS NO SUPPORT UNDER THE FORWARD AIRSTAIR (AS EXAMPLE, WHEN THE AIRPLANE IS ON JACKS). IF YOU OPERATE THE FORWARD AIRSTAIR WITH ANY OF THESE CONDITIONS, DAMAGE TO EQUIPMENT CAN OCCUR.

CAUTION: DO NOT OPERATE THE AIRSTAIR IF THERE IS LESS THEN 0.25 INCH CLEARANCE BETWEEN THE AIRSTAIR AND CUTOUT IN THE FUSELAGE. IF THERE IS LESS THAN 0.25 INCH CLEARANCE BETWEEN THE AIRSTAIR AND CUTOUT IN THE FUSELAGE, DAMAGE TO THE AIRPLANE CAN OCCUR.

(1) Do a test of the airstair NORMAL system and exterior controls:

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- (a) Put the exterior controls in the NORMAL EXTEND position.
 - 1) See that the airstair door moves smoothly.
 - 2) See that the airstair moves smoothly.
 - 3) See that the airstair slows down before the lower ladder unfolds.
 - 4) See that the carriage step fully extends.
- (b) When the airstair is full extended, release the exterior controls.
- (c) Open this access panel:

<u>Number</u>	<u>Name/Location</u>
831	Forward Entry Door

SUBTASK 52-61-00-720-024

- (2) Do a test of the forward and aft top step roller and actuator block engagement (Figure 501):
 - (a) Locate the forward and aft top step rollers and the actuator blocks on the forward and aft airstair rails.
 - (b) Make sure that there is a fifty percent engagement between the top step rollers and the actuator blocks.
 - (c) If there is not fifty percent engagement then do these steps:
 - 1) Measure the distance needed to get the fifty percent engagement between the roller and actuator block.
 - 2) Retract the airstair. To retract the airstair, do this task: Forward Airstair Retraction in Normal Mode, TASK 52-61-00-860-806.
 - 3) Make sure that the distance between the forward and aft airstair rails is 35.564-35.684 inches (903.326-906.374 mm).

NOTE: The distance is measured from the top inner flanges of each rail.

- a) If necessary, adjust the rail on the side where the engagement is less than fifty percent to get the proper distance, do this task: Forward Airstair Gearbox Installation, TASK 52-61-22-420-801 or Forward and Aft Rail Installation, TASK 52-61-62-400-801.
- b) Extend the airstair. To extend the airstair, do this task: Forward Airstair Extension in Normal Mode, TASK 52-61-00-860-803.
- c) Check for fifty percent engagement between the roller and actuator block.
- 4) If there is not fifty percent engagement between the roller and actuator block, do these steps:
 - a) Retract the airstair. To retract the airstair, do this task: Forward Airstair Retraction in Normal Mode, TASK 52-61-00-860-806.
 - b) Remove the actuator block on the side where the engagement is less than fifty percent.
 - c) Add shims as necessary to get the fifty percent engagement between the rollers and actuator block.
- 5) Do these steps to check the airstop roller:
 - a) Retract and Extend the airstair. To retract and extend the airstair, These are the tasks:
Forward Airstair Retraction in Normal Mode, TASK 52-61-00-860-806,

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Forward Airstair Extension in Normal Mode, TASK 52-61-00-860-803.

- b) Make sure that the airstair stop roller is no more than 0.1875 inch (0.4763 mm) from the carriage as it moves inboard and outboard.
- c) Add or remove shims from the stops as necessary to get the proper measurement.

SUBTASK 52-61-00-720-011

(3) Do a test of the airstair handrail switches:

- (a) Fully extend the forward handrail extension but do not attach it to the bracket in the airplane.

CAUTION: IF YOU SEE THE AIRSTAIR MOVE OR HEAR THE AIRSTAIR MOTOR OPERATE, IMMEDIATELY RELEASE THE EXTERIOR CONTROLS. YOU CAN CAUSE DAMAGE TO THE AIRPLANE IF THE MOTOR CONTINUES TO OPERATE.

- (b) Put the exterior controls to the NORMAL RETRACT position.
 - 1) Make sure the airstair motor does not operate.
- (c) Release the exterior controls.
- (d) Fully extend the aft handrail extension but do not attach it to the bracket in the airplane.
- (e) Move the forward handrail to its stowed position.

CAUTION: IF YOU SEE THE AIRSTAIR MOVE OR HEAR THE AIRSTAIR MOTOR OPERATE, IMMEDIATELY RELEASE THE EXTERIOR CONTROLS. YOU CAN CAUSE DAMAGE TO THE AIRSTAIR MECHANISM IF THE MOTOR CONTINUES TO OPERATE.

- (f) Put the exterior controls to the NORMAL RETRACT position.
 - 1) Make sure the airstair motor does not operate.
- (g) Fully extend the forward handrail extension but do not attach it to the bracket in the airplane.
 - 1) See that all the tread lights on the steps of the airstair are on.
 - 2) See that the STAIRS OPERATING light on the interior control panel is off.
- (h) Push the STAIRS OPER switch on the interior control panel.
 - 1) See that the STAIR OPERATING light on the interior control panel goes on.
 - 2) See that the AIRSTAIR door warning light on the P5 panel is on.
- (i) Move the forward and aft handrails to their stowed positions.

SUBTASK 52-61-00-720-023

(4) Do a test of the airstair maintenance switch, S14:

- (a) Disconnect the P15 and P16 electrical connectors from the S1 and S2 handrail switches.

CAUTION: MAKE SURE THE P15 AND P16 ELECTRICAL CONNECTORS ARE PROPERLY SAFETY WIRED TO THE HANDRAILS. IF THE CONNECTORS ARE NOT PROPERLY SAFETY WIRED, THEY CAN HIT THE AIRSTAIR AND CAUSE DAMAGE WHEN THE AIRSTAIR OPERATES.

- (b) Safety the P15 and P16 electrical connectors to the handrails.
 - 1) Make sure the P15 and P16 connectors will not hit the airstair structure when the airstair retracts.
- (c) Put the interior controls to the STANDBY RETRACT position.
 - 1) Make sure the airstair motor does not operate.
- (d) Release the controls.

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- (e) Push and release the S14 switch.
- (f) Put the interior controls to the STANDBY RETRACT position.
 - 1) Make sure the airstair motor operates.
 - 2) Make sure the airstairs fully retract.
- (g) Release the controls.
- (h) Put the interior controls to the STANDBY EXTEND position.
 - 1) Make sure the airstair motor operates.
 - 2) Make sure the airstairs fully extend.
- (i) Release the controls.
- (j) Reconnect the P15 and P16 electrical connectors to the S1 and S2 handrail switches.
- (k) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
831	Forward Entry Door

SUBTASK 52-61-00-720-012

- (5) Do a test of the forward airstair NORMAL mode and exterior controls:
 - (a) Put the exterior controls to the NORMAL RETRACT position.
 - 1) See that the airstair moves smoothly.
 - 2) See that the airstair door moves smoothly.
 - (b) When the airstair is retracted and the airstair door is fully closed, release the exterior controls.
 - 1) See that the AIRSTAIR door warning light on the P5 panel goes off when the exterior controls are released.
 - (c) Put the exterior controls in the NORMAL EXTEND position.
 - 1) Measure the time to extend the airstair from when the airstair door is fully open and the airstair is fully retracted to when the airstair fully extended. is between 25 and 30 seconds.
 - 2) Make sure the time is between 25 and 30 seconds.
 - (d) Release the exterior controls.

SUBTASK 52-61-00-720-013

- (6) Do a test of the airstair STANDBY system and exterior controls:
 - (a) Put the exterior controls in the STANDBY RETRACT position.
 - 1) Make sure the airstair moves smoothly.
 - 2) Make sure the airstair door moves smoothly.
 - 3) Make sure the airstair retracts and the airstair door fully closes.
 - (b) Release the exterior controls.
 - 1) See that the AIRSTAIR light on the P5 panel goes off after the airstair door is closed and latched.
 - (c) Put the exterior controls in the NORMAL EXTEND position until the airstair is fully extended.
 - 1) Make sure the airstair moves smoothly.
 - 2) Make sure the airstair door moves smoothly.

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- 3) See that the carriage step fully extends.
- 4) See that the AIRSTAIR light on the P5 panel is on.
- 5) See that the tread lights on the steps of the airstair are on.
- 6) See that the STAIRS OPERATING warning light on the interior control panel is off.
- (d) Push the STAIRS OPER switch on the interior control panel.
 - 1) See that the STAIRS OPER light comes on.
- (e) Release the STAIRS OPER switch on the interior control panel.

SUBTASK 52-61-00-720-014

(7) Do a test of the airstair NORMAL system and interior controls:

- (a) Open this access panel:

<u>Number</u>	<u>Name/Location</u>
831	Forward Entry Door
- (b) Make sure the airstair is extended, and the handrails are not connected.
 - 1) See that the AIRSTAIR door warning light on the P5 panel is on.
- (c) Push and hold the RETRACT switch on the interior control.
 - 1) See that the RETRACT switch light on the interior control panel is on.
 - 2) See that the STAIRS OPER light is on until the airstair retracts and the door fully closes.
- (d) When the airstair door is fully closed, release the RETRACT switch on the interior control panel.
 - 1) See that the RETRACT switch light on the interior control panel goes off when the RETRACT switch is released.
- (e) Push and hold the EXTEND switch on the interior control panel.
 - 1) See that the EXTEND switch light on the interior control panel goes on.
 - 2) See that the STAIRS OPER light is on until the airstair fully extends.
- (f) When the airstair is fully extended, release the EXTEND switch on the interior control panel.
 - 1) See that the EXTEND light on the interior control panel goes off when the switch is released.
 - 2) See that the tread lights on the forward airstair are on.
- (g) Set the AIRSTAIR LIGHTS switch on the interior control panel to OFF.
 - 1) See that the tread lights on the forward airstair go off.
- (h) Set the AIRSTAIR LIGHTS switch on the interior control panel to ON.
 - 1) See that the tread lights on the forward airstair go on.

SUBTASK 52-61-00-720-015

(8) Do a test of the airstair STANDBY system and interior controls:

- (a) Open this circuit breaker and install safety tag:

F/O Electrical System Panel, P6-3			
<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
D	1	C01399	PSEU PRI
- (b) Push and hold the STANDBY switch on the interior control panel.
 - 1) See that the STANDBY switch light on the interior control panel goes on.

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- (c) Push and hold the RETRACT switch on the interior control panel.
 - 1) See that the STANDBY switch light on the interior control panel is on until the airstair is retracted and the airstair door is fully closed.
- (d) When the airstair is fully retracted, release the RETRACT and STANDBY switches on the interior control panel.
 - 1) See that the STANDBY switch light on the interior control panel goes off when it is released.
- (e) Push and hold the STANDBY and EXTEND switches on the interior control panel.
- (f) When the airstair is fully extended, release the EXTEND and STANDBY switches on the interior control panel.
- (g) Close this circuit breaker:

F/O Electrical System Panel, P6-3

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
D	1	C01399	PSEU PRI

SUBTASK 52-61-00-720-016

- (9) Do a test of the airstair NORMAL system stop and start operation:
 - (a) Push and hold the RETRACT switch on the interior control panel.
 - (b) After the lower ladder has folded and when the upper ladder is level to the ground, release the RETRACT switch.
 - (c) Push and hold the EXTEND switch on the interior control panel.
 - (d) Before the airstair is fully extended, release the EXTEND switch.
 - 1) See that the airstair stops and does not move.
 - (e) Set the AIRSTAIR LIGHTS switch on the interior control panel to ON.
 - 1) See that the tread lights on the forward airstair go on.
 - (f) Set the AIRSTAIR LIGHTS switch on the interior control panel to AUTO.
 - 1) See that the tread lights on the forward airstair go off.
 - (g) Push and hold the RETRACT switch on the interior control panel.
 - 1) See that the airstair retracts into the airplane and the airstair door fully closes.
 - (h) Release the RETRACT switch on the interior control panel.
 - 1) See that the AIRSTAIR DOOR light on the P5 panel is off.

SUBTASK 52-61-00-720-017

- (10) Do a test of the airstair STANDBY system start and stop operation:
 - (a) Open this circuit breaker and install safety tag:
 - F/O Electrical System Panel, P6-3

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
D	1	C01399	PSEU PRI
 - (b) Push and hold the STANDBY and EXTEND switches on the interior control panel.
 - (c) When the airstair is just short of fully extended, release the EXTEND and STANDBY switches on the interior control panel.
 - 1) See that the airstair stops and does not move.

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- (d) Push and hold the STANDBY and RETRACT switches on the interior control panel.
 - 1) See that the airstair goes into the airplane.
- (e) When the airstair is fully retracted and the airstair door is open, release the STANDBY and RETRACT switches on the interior control panel.
 - 1) See that the AIRSTAIR door light on the P5 panel is on.
- (f) Remove the safety tag and close this circuit breaker:

F/O Electrical System Panel, P6-3

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
D	1	C01399	PSEU PRI

- (g) Push and hold the STANDBY and RETRACT switches on the interior control panel until the airstair door is fully closed.

SUBTASK 52-61-00-720-018

- (11) Do a test of the airstair warning lights:
 - (a) Make sure the airstair is retracted and the airstair door is closed.
 - (b) Push and release the MASTER CAUTION switch in the control cabin.
 - (c) Push and hold the EXTEND switch on the interior control panel.
 - (d) After the airstair door is open and before the airstair extends, release the EXTEND switch on the interior control panel.
 - 1) See that the AIRSTAIR light on the P5 panel is on.
 - 2) See that the two MASTER CAUTION lights on the P7 panel are on.
 - 3) See that the two DOORS lights in the Master Caution Annunciator on the P7 panel are on.
 - (e) Set the LIGHTS switch on the P1 panel to DIM.
 - 1) See that the AIRSTAIR light on the P5 panel is dim.
 - (f) Set the LIGHTS switch on the P1 panel to BRT.
 - 1) See that the AIRSTAIR light on the P5 panel returns to its original intensity.
 - (g) Push and release one of the two MASTER CAUTION switches.
 - 1) See that the two MASTER CAUTION lights and the DOORS lights go off.
 - 2) See that the AIRSTAIR light on the P5 panel is on.
 - (h) Push and hold one of the two Master Caution Annunciation Assemblies.
 - 1) See that the MASTER CAUTION and Master Caution Annunciation lights stay on.
 - (i) Release the Master caution Annunciation Assembly.
 - 1) See that the two MASTER CAUTION lights on the P7 panel are on.
 - 2) See that the two DOORS lights in the Master Caution Annunciator on the P7 panel are on.
 - (j) Press and hold the RETRACT switch on the interior control panel.
 - (k) Release the RETRACT switch when the forward airstair door is fully closed.
 - 1) See that the AIRSTAIR light on the P5 panel is off.

SUBTASK 52-61-00-720-019

- (12) Do a test of the airstair door latch system:

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- (a) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
831	Forward Entry Door

- (b) Push and hold for five seconds, the EXTEND switch on the interior control panel.
- 1) Make sure the airstair motor does not operate.
- (c) Release the EXTEND switch.
- (d) Push and hold the RETRACT switch on the interior control panel until the airstair door is fully closed.
- (e) Push and hold for 5 seconds the STANDBY and EXTEND switches on the interior control panel.
- 1) Make sure the airstair motor does not operate.
- (f) Release the EXTEND and STANDBY switches.
- (g) Push and hold the RETRACT switch on the interior control panel until the airstair door is fully closed.

SUBTASK 52-61-00-720-020

- (13) Do a test of the airstair battery system and the exterior controls:

- (a) Set the ground power switch on the P5-4 to OFF.
- (b) Set the battery switch on the P5-13 panel to OFF.

CAUTION: DO NOT COMPLETELY DISCHARGE THE BATTERIES. IF THE BATTERIES ARE COMPLETELY DISCHARGED THEY MUST BE REPLACED.

- (c) Put the exterior controls in the STANDBY EXTEND position until the airstair is fully extended.
- 1) See that the tread lights on the forward airstair do not go on.
- (d) Put the exterior controls in the STANDBY RETRACT position until the airstair door is fully closed.

SUBTASK 52-61-00-720-021

- (14) Do a test of the airstair hot battery system and the interior controls:

- (a) Open this access panel:

<u>Number</u>	<u>Name/Location</u>
831	Forward Entry Door

- (b) Set the battery switch on the P5-13 panel to ON.
- (c) Push and hold the STANDBY and EXTEND switches on the interior control panel.
- 1) See that the STAIRS OPER light does not go on.
- (d) When the airstair is fully extended, release the STANDBY and EXTEND switches.
- (e) Push and hold the STANDBY and RETRACT switches on the interior control panel until the airstair is retracted and the airstair door is fully closed.
- (f) Set the battery switch on the P5-13 panel to OFF.

SUBTASK 52-61-00-720-022

- (15) Do a test of the PSEU inflight disable of the airstair system:

- (a) Set the ground power switch on the P5-4 to ON.
- (b) Set the battery switch on the P5-13 panel to ON.

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- (c) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
831	Forward Entry Door

- (d) Push ON on the PSEU.

NOTE: The display message EXISTING FAULTS? should appear on the PSEU.

- (e) Push the ARROW DOWN button 3 times.

NOTE: The display message AIR/GND OVRD? should appear on the PSEU.

- (f) Make sure the areas near the control surfaces, landing gears and landing gear doors are clear of equipment and personnel.

WARNING: WHEN THE AIRPLANE IS PUT IN THE AIR MODE, THE CONTROL SURFACES, LANDING GEAR, AND LANDING GEAR DOORS CAN MOVE. IF THE CONTROL SURFACES, LANDING GEARS AND LANDING GEAR DOORS MOVE, DAMAGE TO EQUIPMENT OR INJURY TO PERSONNEL CAN OCCUR.

- (g) Push YES on the PSEU.

NOTE: The display message SET SYS1 IN AIR? should appear on the PSEU.

- (h) Push NO on the PSEU.

NOTE: The display message SET SYS2 IN AIR? should appear for 2 to 3 seconds on the PSEU.

- (i) Push YES on the PSEU.

NOTE: The display message ARE YOU SURE? should appear on the PSEU.

- (j) Push YES on the PSEU.

NOTE: The display message SYS2 IS IN AIR should appear for 2 to 3 seconds on the PSEU. The PSEU should now be in AIRMODE.

- (k) Put the exterior controls in the NORMAL EXTEND position.

- 1) Make sure that the airstair motor does not run.

NOTE: The display message SET SYS2 ON GND? should appear on the PSEU.

- (l) Push YES on the PSEU.

NOTE: The display message SYS2 IS ON GND should appear for 2 to 3 seconds on the PSEU. The PSEU should now be in GROUNDMODE.

- (m) When the display message shows SET SYS2 IN AIR?, push NO on the PSEU until the display reads END OF LIST.

- (n) Push OFF on the PSEU.

- (o) Set the ground power switch on the P5-4 to OFF.

- (p) Set the battery switch on the P5-13 panel to OFF.

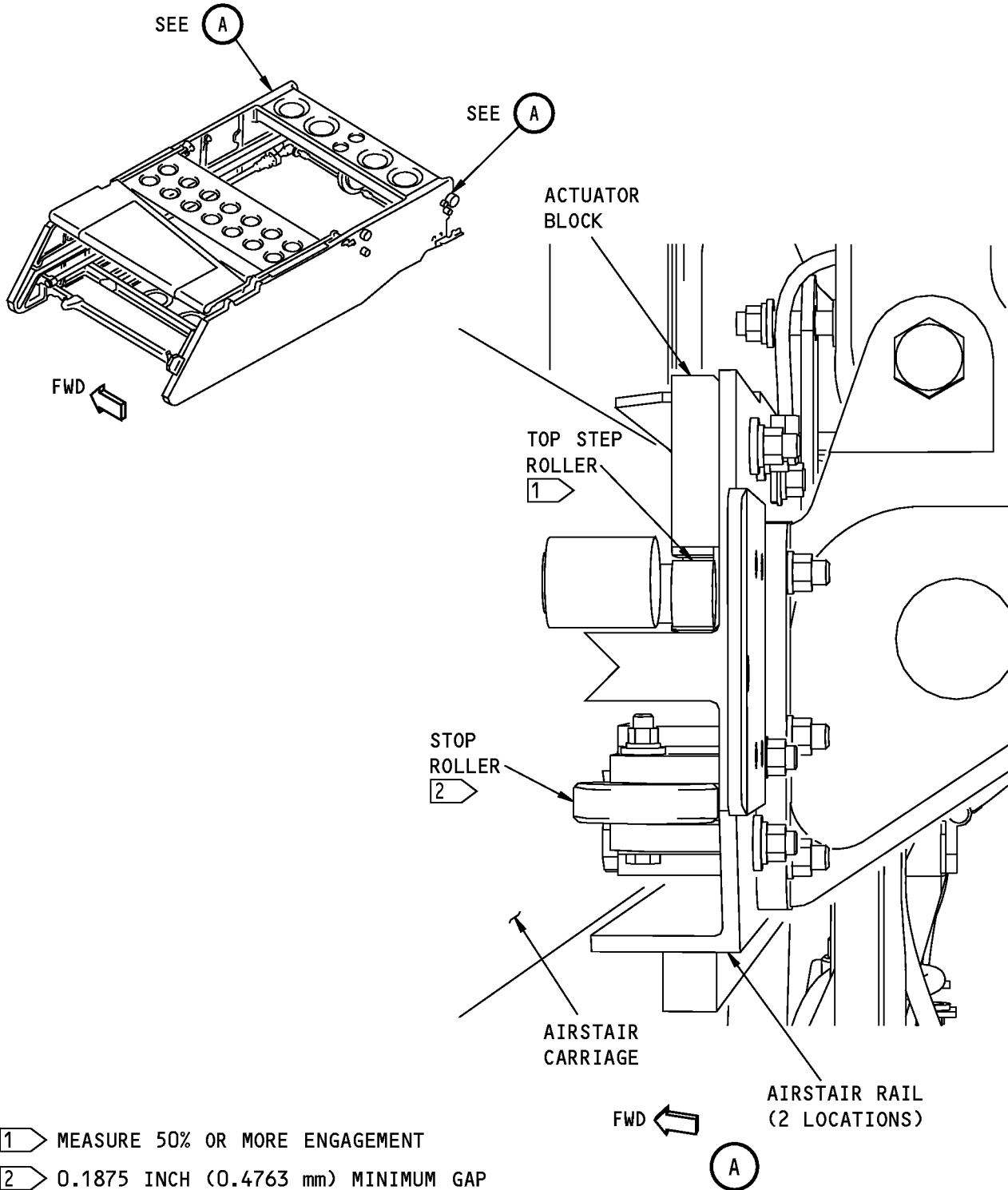
————— **END OF TASK** —————

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- 1 MEASURE 50% OR MORE ENGAGEMENT
- 2 0.1875 INCH (0.4763 mm) MINIMUM GAP BETWEEN ROLLER AND AIRSTAIR CARRIAGE

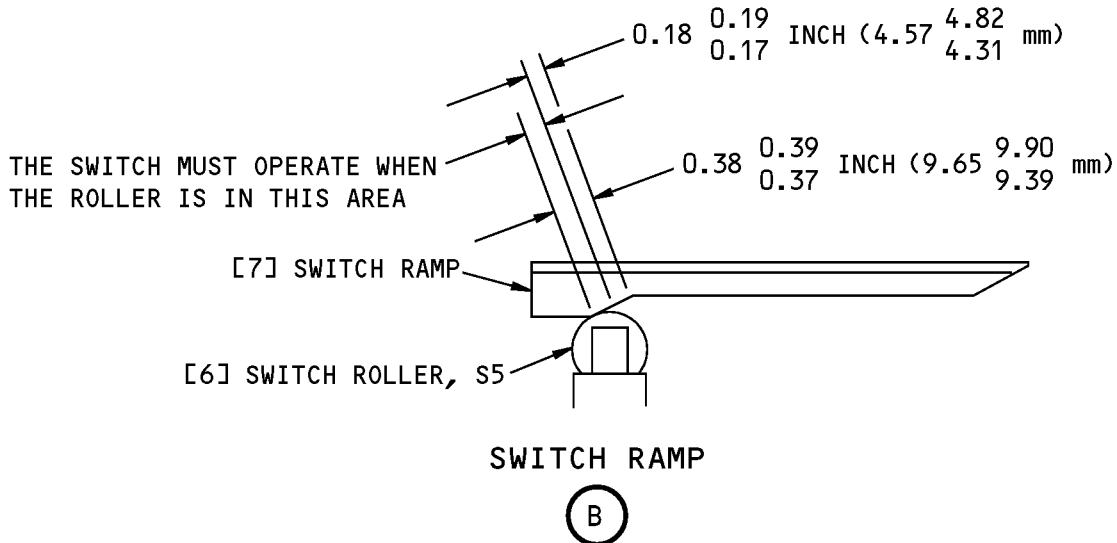
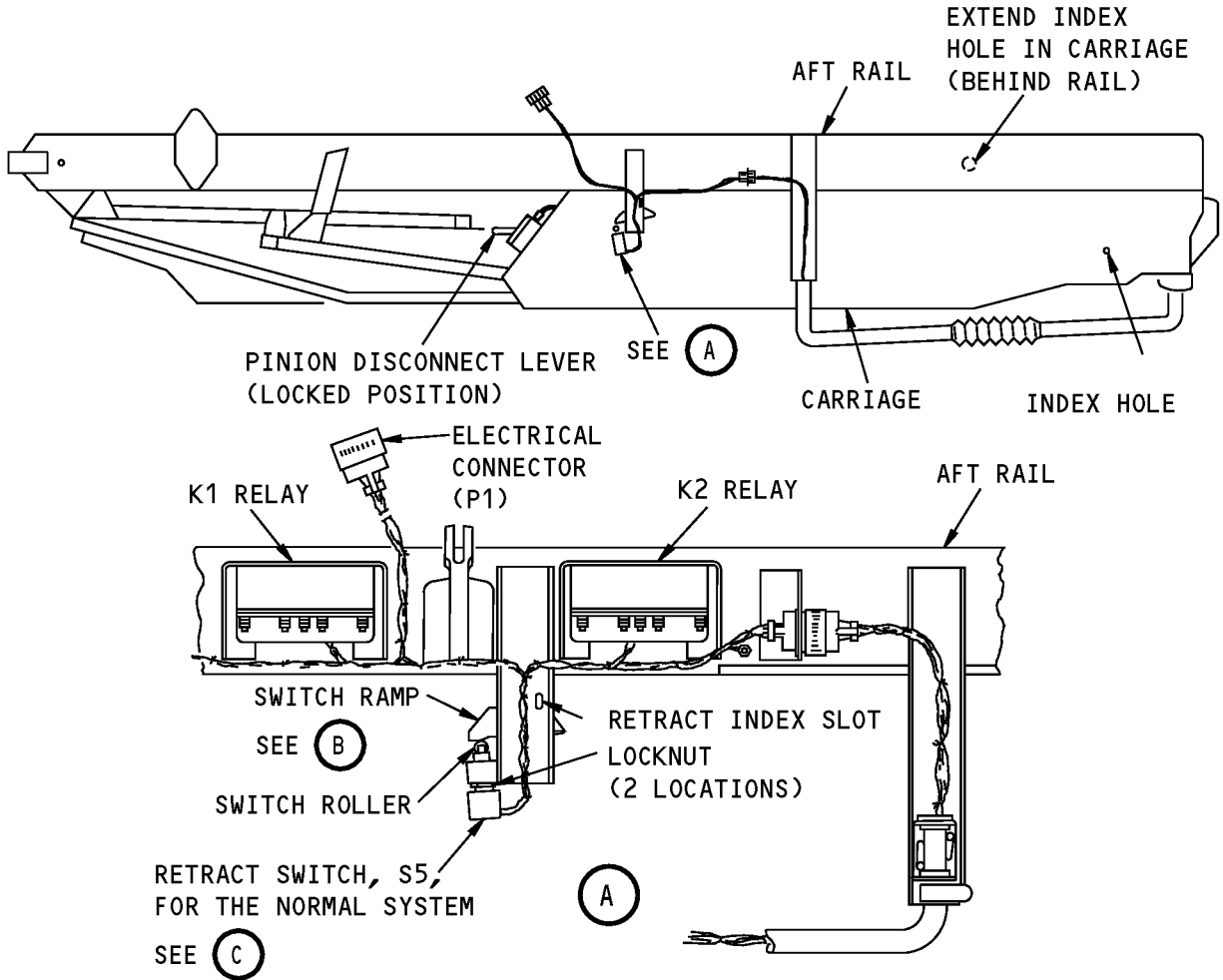
G73683 S0006580499_V2

**Airstair Top Step Actuator Block Roller Adjustment
Figure 501/52-61-00-990-801**

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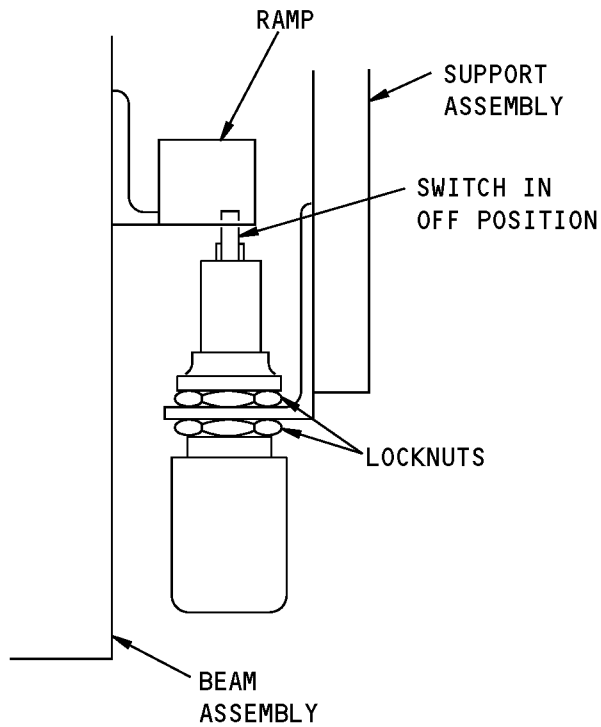
**Forward Airstair Retract Limit Switch Adjustment
Figure 502 (Sheet 1 of 2)/52-61-00-990-802**

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**RETRACT SWITCH, S5,
FOR THE NORMAL SYSTEM**

C

**Forward Airstair Retract Limit Switch Adjustment
Figure 502 (Sheet 2 of 2)/52-61-00-990-802**

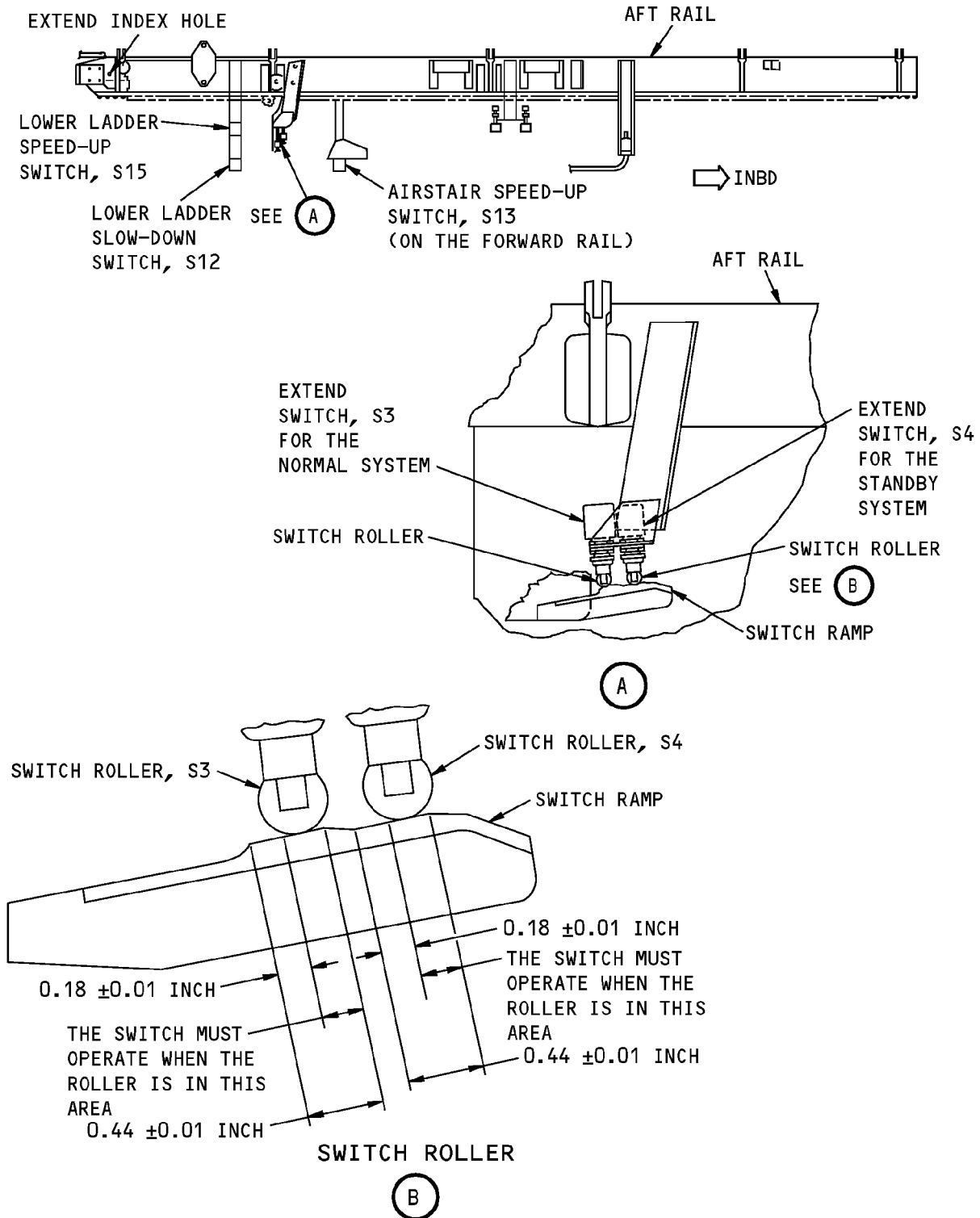
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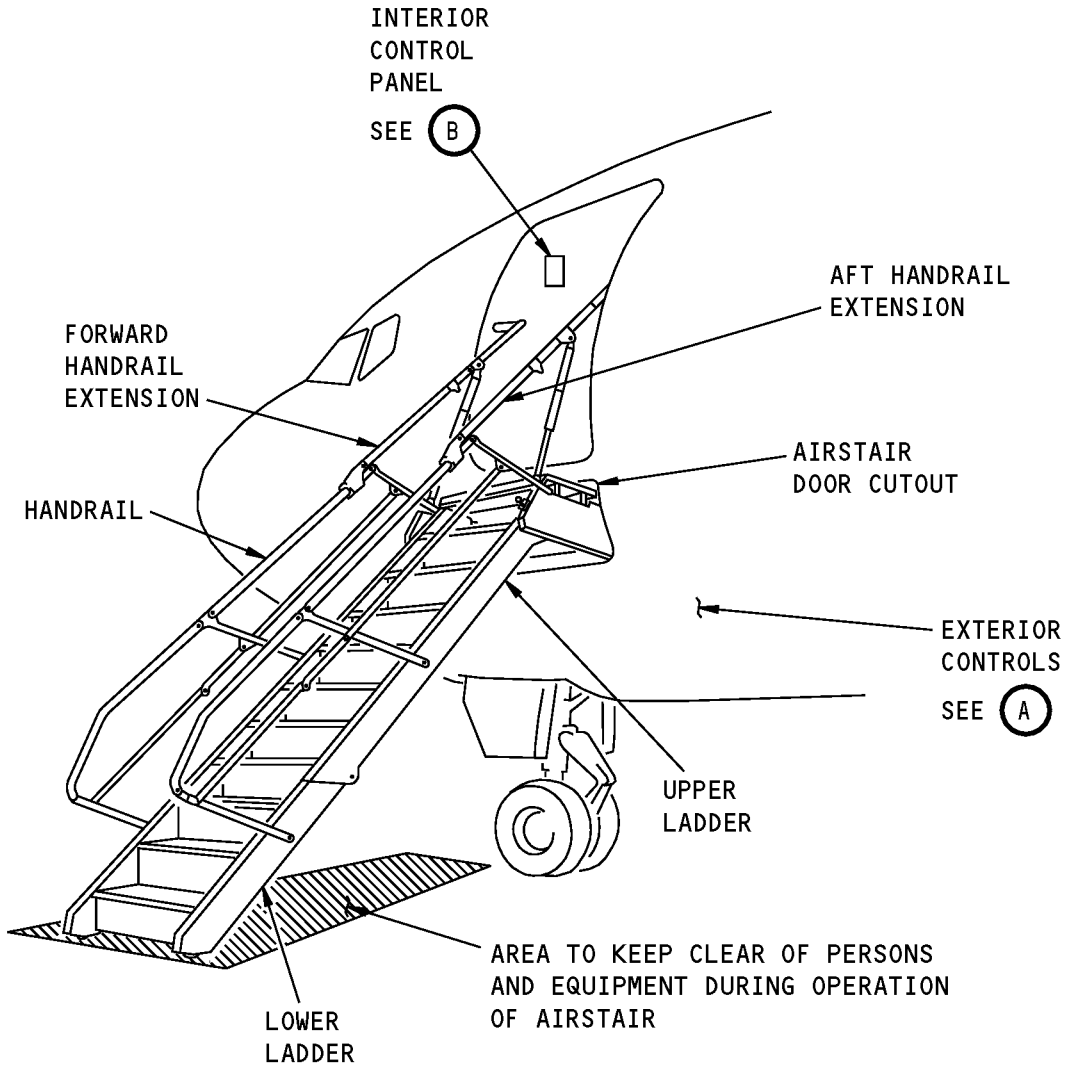
**Forward Airstair Extend Limit Switch Adjustment
Figure 503/52-61-00-990-803**

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AIRSTAIR

**Forward Airstair Electrical Operation
Figure 504 (Sheet 1 of 3)/52-61-00-990-806**

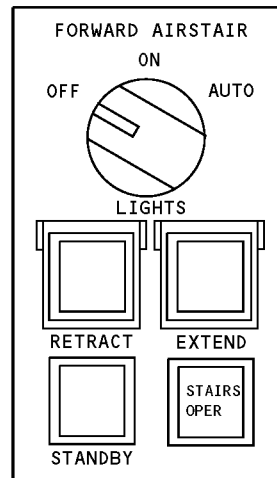
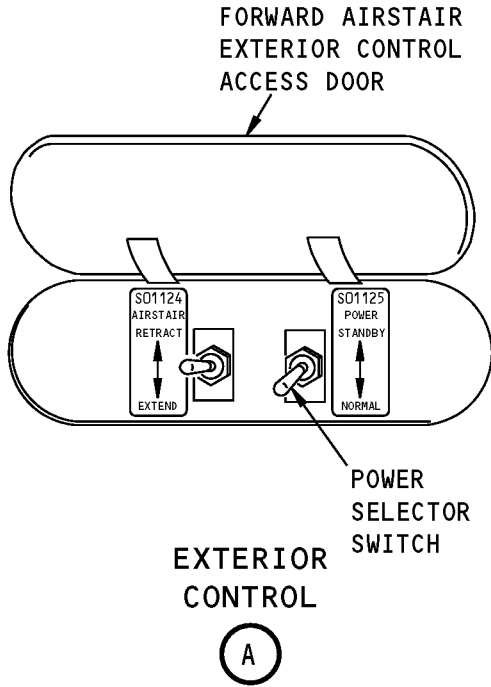
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**INTERIOR CONTROL PANEL
(FORWARD ATTENDANT'S PANEL, P13)**

B

**Forward Airstair Electrical Operation
Figure 504 (Sheet 2 of 3)/52-61-00-990-806**

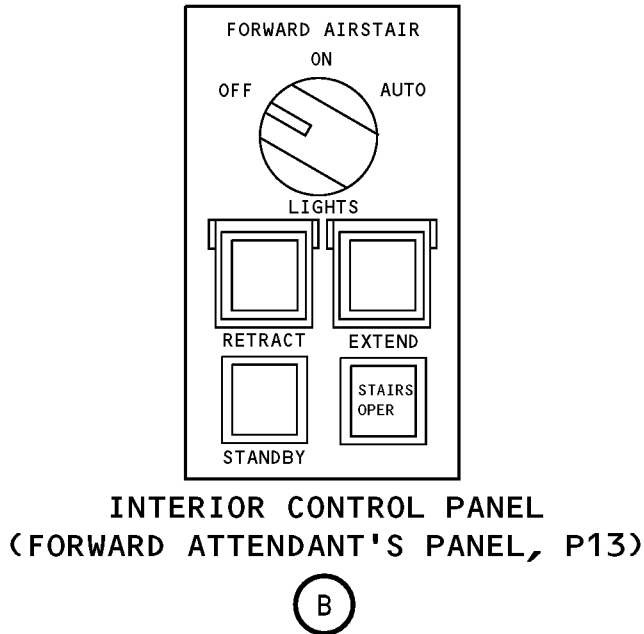
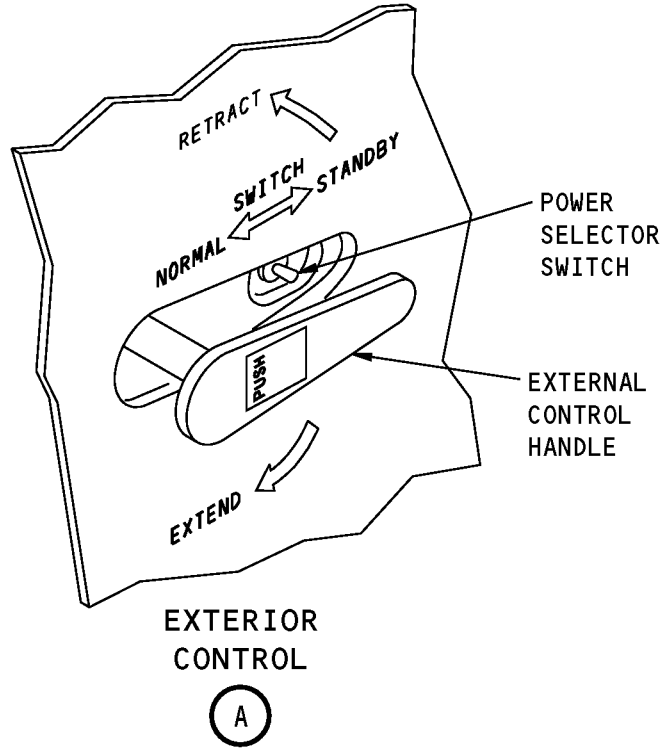
EFFECTIVITY
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**Forward Airstair Electrical Operation
Figure 504 (Sheet 3 of 3)/52-61-00-990-806**

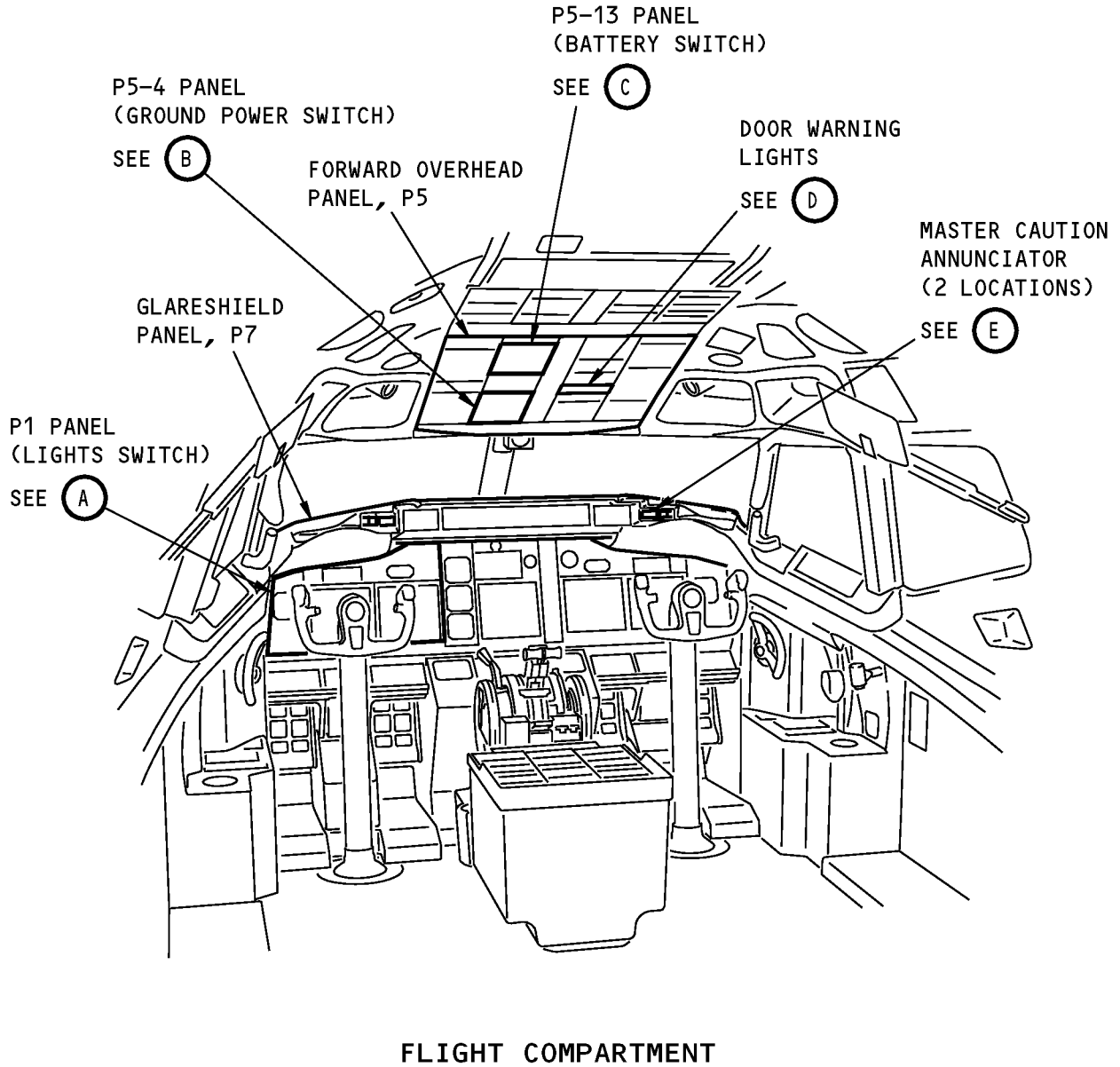
EFFECTIVITY
HAP 006, 007

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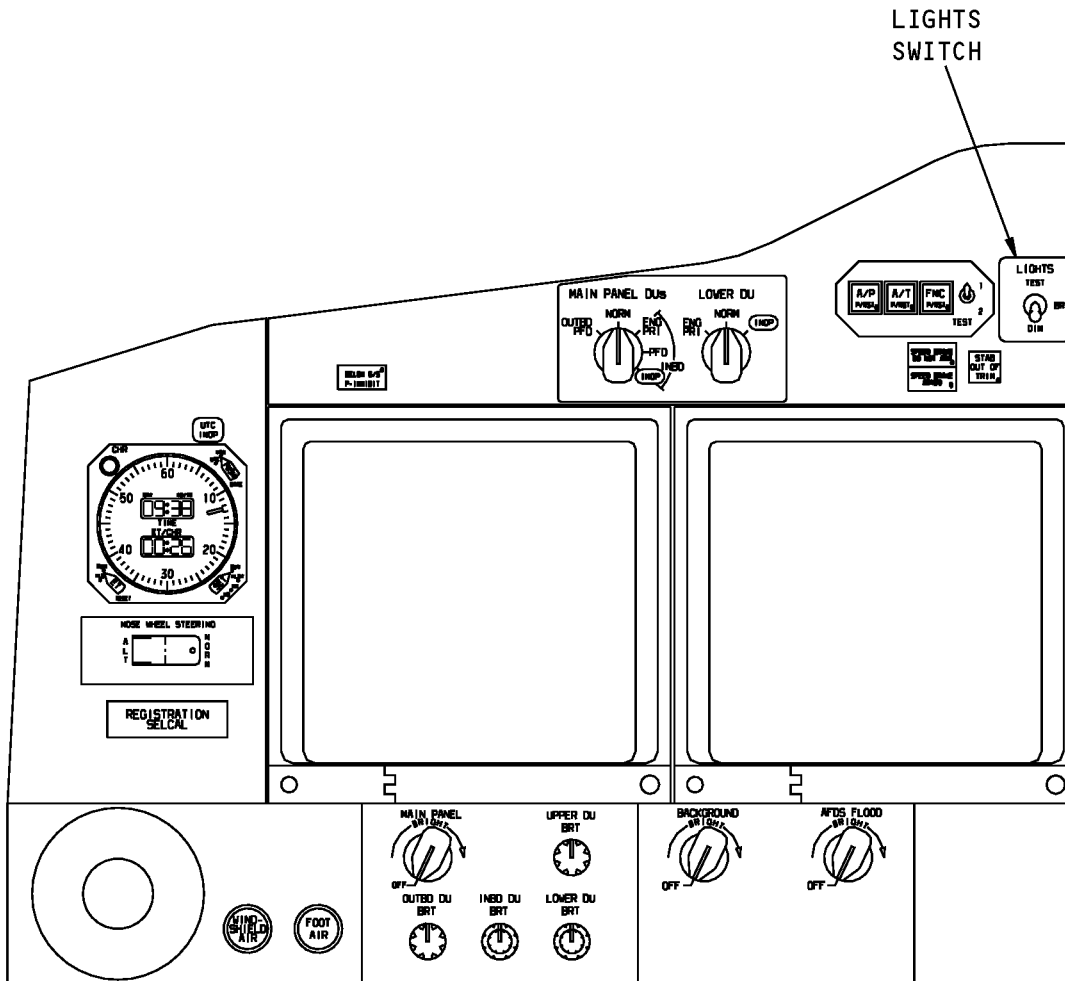
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Airstair System Test
Figure 505 (Sheet 1 of 4)/52-61-00-990-807

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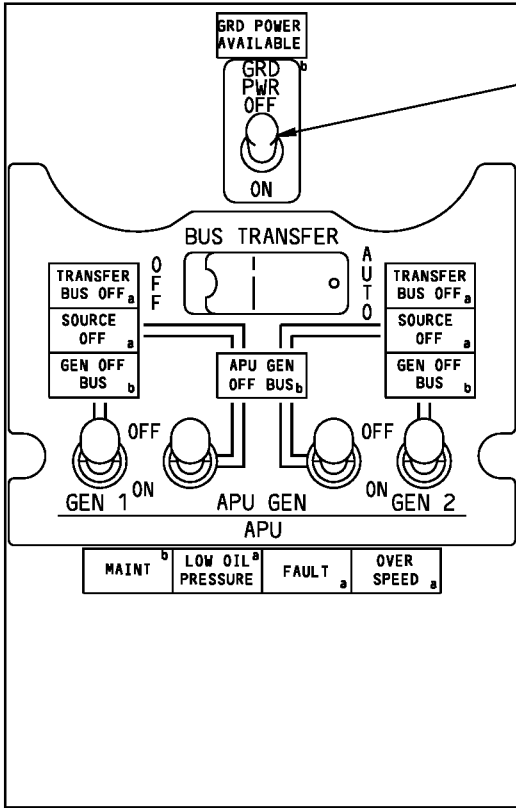
P1 PANEL



**Airstair System Test
Figure 505 (Sheet 2 of 4)/52-61-00-990-807**

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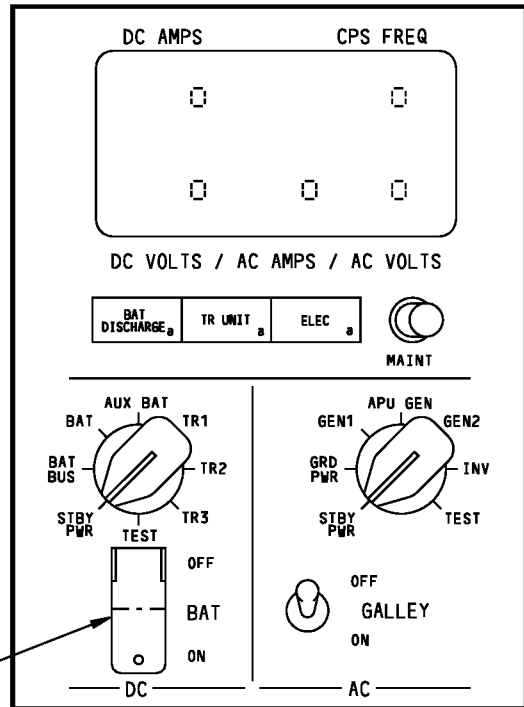
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GROUND
POWER
SWITCH

P5-4 PANEL

(B)



BATTERY SWITCH
(BEHIND COVER)

P5-13 PANEL

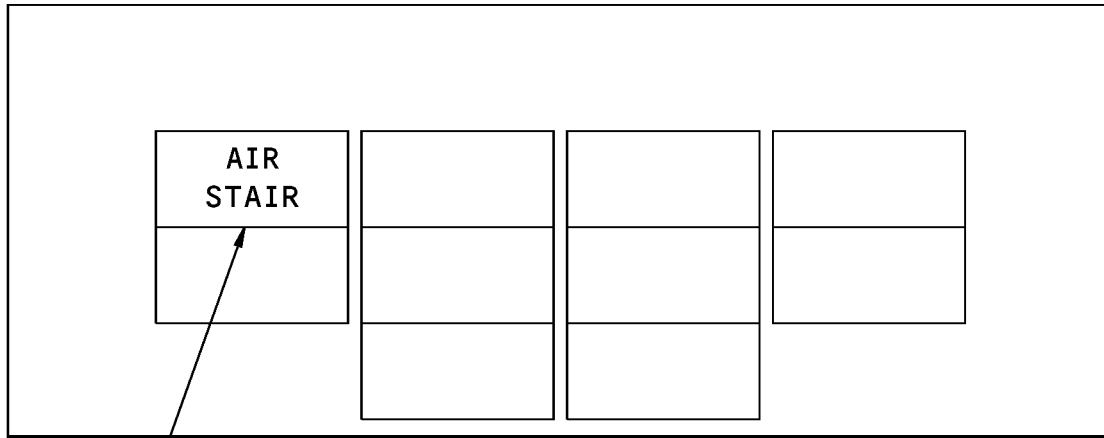
(C)

Airstair System Test
Figure 505 (Sheet 3 of 4)/52-61-00-990-807

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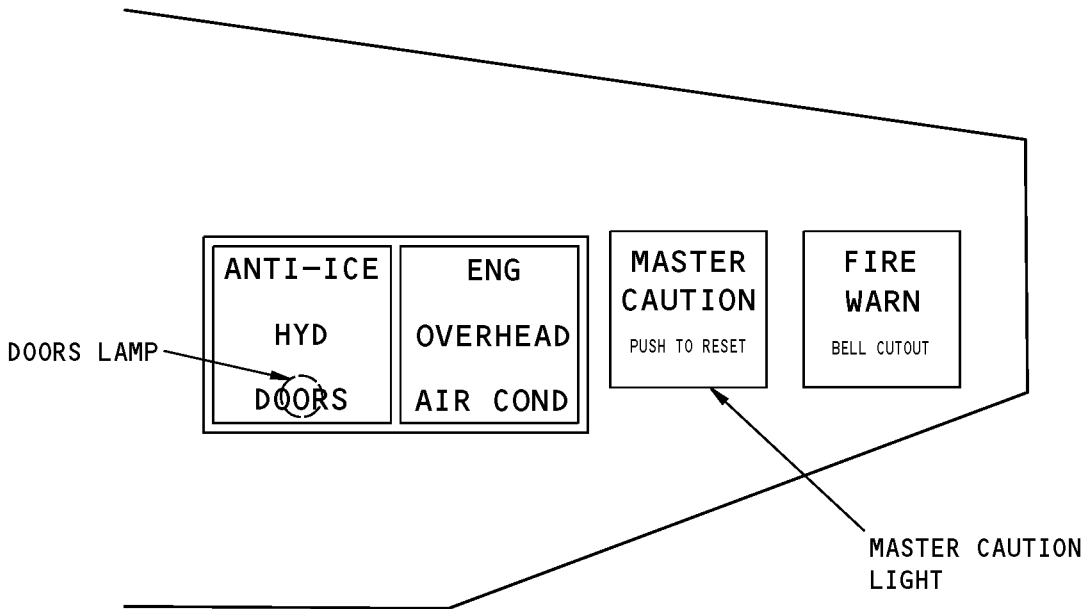
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AIRSTAIR
DOOR
WARNING
LIGHT

DOOR WARNING LIGHT



DOORS LAMP

MASTER CAUTION
LIGHT

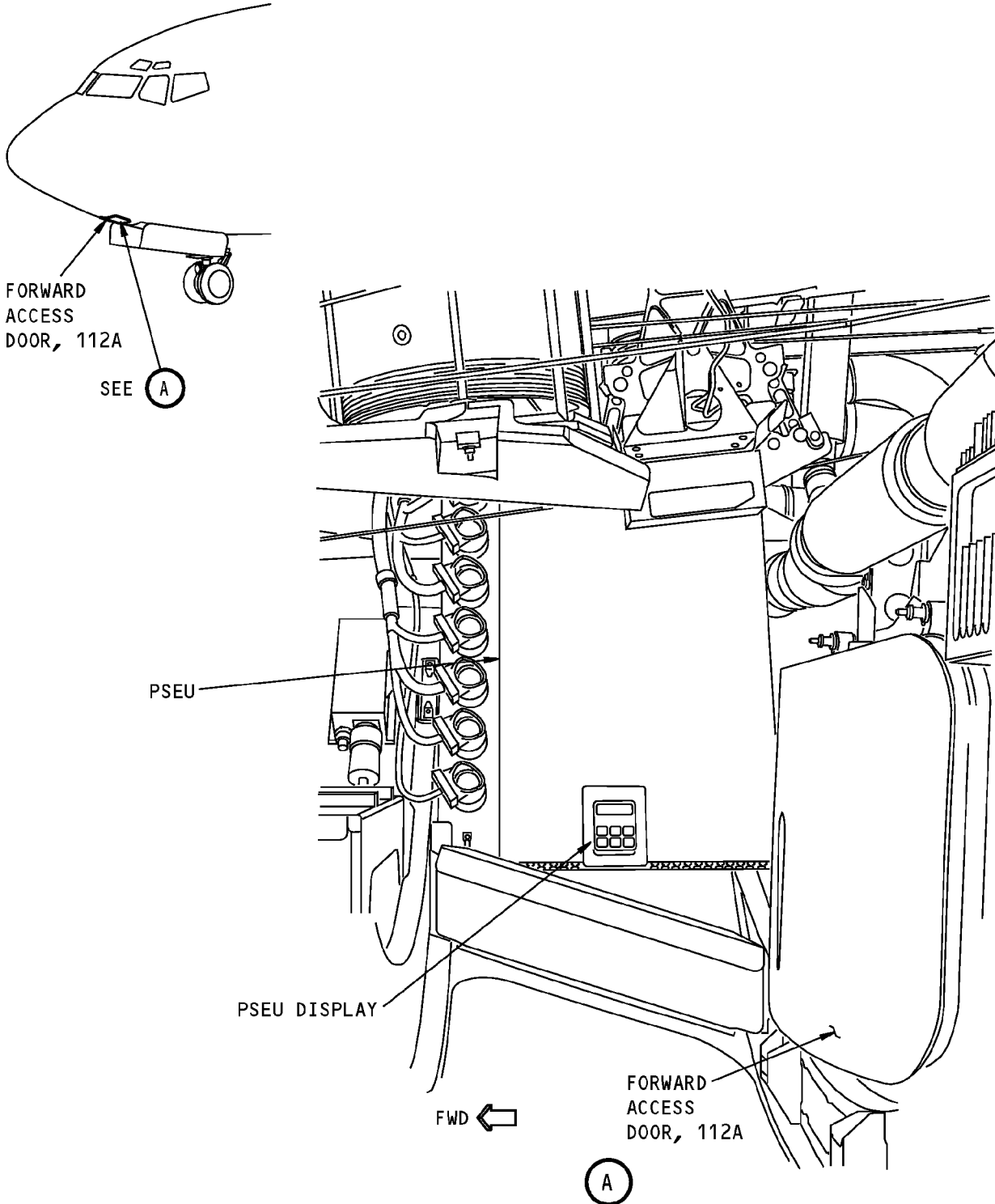
MASTER CAUTION ANNUNCIATOR
(EXAMPLE)



Airstair System Test
Figure 505 (Sheet 4 of 4)/52-61-00-990-807

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**Proximity Switch Electronics Unit (PSEU)
Figure 506/52-61-00-990-808**

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FORWARD AIRSTAIR - INSPECTION/CHECK

1. General

- A. This procedure contains scheduled maintenance task data.
- B. This procedure contains this task:
 - (1) An inspection of the forward airstair.

TASK 52-61-00-210-801

2. Forward Airstair - Inspection

- A. General
 - (1) This procedure is a scheduled maintenance task.
- B. References

Reference	Title
52-61-00-860-801	Forward Airstair Extension (P/B 201)
52-61-00-860-802	Forward Airstair Retraction (P/B 201)

C. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left

D. Inspection of the Forward Airstair

SUBTASK 52-61-00-860-059

- (1) Do this task: Forward Airstair Extension, TASK 52-61-00-860-801.

NOTE: To aid in the inspection, you can extend or retract the airstair to get access to the necessary areas. When the airstairs are in motion, you can see if parts bind.

- (a) Make sure that airstair operates freely and smoothly.

SUBTASK 52-61-00-280-001

- (2) Examine the airstair:

- (a) Examine the airstair structure:
 - 1) Make sure that the nuts, bolts, and screws are tight.
 - 2) Examine the ladder structure and treads for bends, cracks, broken welds, damaged rivets, and excessive wear.
 - 3) Examine the fitting and attachments of the structure for dents, bends, cracks, corrosion, damaged rivets, and excessive wear.
 - 4) Examine the torque tube for dents, bends, cracks, damaged rivets, damaged cam followers, and excessive wear.
 - 5) Examine the airstair rollers for flat spots and excessive wear.
 - 6) Examine the electrical system for loose wiring, damaged insulation, and damaged connectors.
 - 7) Examine the tread lights for broken lenses, discolored lenses, burned out bulbs, and corrosion.
- (b) Examine the handrail system:
 - 1) Make sure that the nuts, bolts, and screws are tight.
 - 2) Make sure that the handrail operates freely and smoothly.

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- 3) Make sure that the latch assembly operates freely and smoothly.
- 4) Look for cracks, dents, bends, corrosion, damaged rivets, and excessive wear.
- (c) Examine the actuation and drive system:
 - 1) Make sure that the nuts, bolts, and screws are tight.
 - 2) Examine the rods and rod ends for dents, bends, corrosion, and excessive wear.
 - 3) Examine the pivot gears for uneven wear and damaged or broken teeth.
 - 4) Examine the bellcranks for uneven wear, cracks, and corrosion.
 - 5) Examine the gearboxes for damage and correct attachment.
 - 6) Examine the actuator and motors for damage and correct attachment.
 - 7) Examine the shafts, the couplings, and collars for cracks, corrosion, and excessive wear.

SUBTASK 52-61-00-860-060

- (3) Do this task: Forward Airstair Retraction, TASK 52-61-00-860-802.

END OF TASK

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AIRCRAFT MAINTENANCE MANUAL

FORWARD AIRSTAIR - REMOVAL/INSTALLATION

1. General

A. This procedure contains these tasks:

- (1) A removal of the forward airstair
- (2) An installation of the forward airstair.

B. To remove or install the forward airstair it must be in the retracted position. The forward airstair door must be fully open. There must be no electrical power to the airstair.

TASK 52-61-10-000-801

2. Forward Airstair Removal

(Figure 401, Figure 402, Figure 403)

A. References

Reference	Title
52-61-00-710-802	Airstair Door Operation Without Airstairs Installed (P/B 201)
52-61-00-820-803	Forward Airstair Drain Pan Removal (P/B 201)

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-1563	Hoist - Fishpole (cable), 500 lb capacity (Part #: 10/3641, Supplier: K1425, A/P Effectivity: 737-600, -700, -700C, -700ER, -700QC, -800, -900, -900ER, -ALL, -BBJ) (Part #: PF51-003-1, Supplier: 06714, A/P Effectivity: 737-ALL) (Opt Part #: MINILIFT, Supplier: K1425, A/P Effectivity: 737-600, -700, -700C, -700ER, -700QC, -800, -900, -900ER, -ALL, -BBJ)
SPL-1978	Sling - Transportation, Forward Airstairs (Part #: C52013-1, Supplier: 81205, A/P Effectivity: 737-ALL) (Part #: OHME65-45888, Supplier: 81205, A/P Effectivity: 737-100, -200, -200C, -300, -400, -500, -600, -700, -700C, -700ER, -700QC, -800, -900, -900ER, -BBJ)

C. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left

D. Prepare for Removal

SUBTASK 52-61-10-020-004

- (1) Do this task: Forward Airstair Drain Pan Removal, TASK 52-61-00-820-803.

SUBTASK 52-61-10-860-020

- (2) Open these circuit breakers and install safety tags:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR

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<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

E. Removal

SUBTASK 52-61-10-020-005

- (1) Disconnect the airstair P1 electrical connector.

SUBTASK 52-61-10-860-021

- (2) Move the pinion disconnect lever to the not locked position.

SUBTASK 52-61-10-980-010

- (3) Move the airstair outboard until the airstair actuator is above the access door in the electronic compartment.

SUBTASK 52-61-10-860-022

- (4) Put the pinion disconnect lever in the locked position.

SUBTASK 52-61-10-020-006

CAUTION: BE CAREFUL WHEN YOU MOVE THE SWING ARM. DO NOT HANG FROM THE SWING ARM. IT IS EASY TO CAUSE DAMAGE TO THE SWING ARM.

- (5) Disconnect the airstair P6 connector.

NOTE: This connector is near the end of the swing arm that is at the airstair actuator.

SUBTASK 52-61-10-020-007

- (6) Disconnect the swing arm from the bracket on the airstair actuator.

SUBTASK 52-61-10-940-001

- (7) Make sure the airstair will not hit the swing arm or the connectors when it moves as follows:

- (a) Temporarily hold the swing arm clear of the airstair.
- (b) Temporarily hold the electrical connectors clear of the airstair.

SUBTASK 52-61-10-020-008

- (8) Remove the S3/S4 Switch Ramp located on the airstair carriage.

SUBTASK 52-61-10-020-009

- (9) Remove parts from the rails as follows:

- (a) Remove the step actuator blocks from the outboard end of the two rails.

NOTE: Make sure to keep the shims for re-installation.

- 1) Replace step actuator blocks that show excessive wear.

- (b) Remove the outboard stops from the two rails.

SUBTASK 52-61-10-480-003

CAUTION: DO NOT USE THE HANDRAILS TO LIFT THE AIRSTAIR. USE THE CORRECT TOOL TO LIFT THE AIRSTAIR. YOU CAN CAUSE DAMAGE TO THE AIRSTAIR OR THE AIRPLANE IF YOU DO NOT USE THE CORRECT TOOL.

- (10) Prepare to lift the airstair as follows:

- (a) Attach the sling, SPL-1978 to the airstair.
- (b) Attach the cable fishpole hoist, COM-1563 to the sling, SPL-1978.

SUBTASK 52-61-10-860-023

- (11) Move the pinion disconnect lever to the not locked position.

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SUBTASK 52-61-10-980-011

(12) Lift the cable fishpole hoist, COM-1563 until it holds the weight of the airstair.

SUBTASK 52-61-10-020-010

(13) Pull the airstair outboard until it is clear of the airplane.

- (a) Put the airstair in a safe location.
- (b) Disconnect the sling, SPL-1978 from the cable fishpole hoist, COM-1563.
- (c) Install the S3/S4 switch ramp onto the air stair carriage.

SUBTASK 52-61-10-860-034

(14) Do these steps to make sure the airplane will operate with the airstair removed:

- (a) Make sure that the wires are safely secured to the structure of the airplane and will not be damaged.
- (b) Close the airstair door (Airstair Door Operation Without Airstairs Installed, TASK 52-61-00-710-802).
- (c) Make sure that these circuit breakers are open and have safety locks:

F/O Electrical System Panel, P6-4

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

END OF TASK

TASK 52-61-10-400-801

3. Forward Airstair Installation

(Figure 401, Figure 402, Figure 403)

A. References

<u>Reference</u>	<u>Title</u>
12-25-71-600-801	Forward Airstair Lubrication (P/B 301)
52-61-00-700-802	Forward Airstair Functional Test (P/B 501)
52-61-00-820-801	Forward Airstair Adjustment (P/B 501)
52-61-00-820-804	Forward Airstair Drain Pan Installation (P/B 201)

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

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Reference	Description
COM-1563	Hoist - Fishpole (cable), 500 lb capacity (Part #: 10/3641, Supplier: K1425, A/P Effectivity: 737-600, -700, -700C, -700ER, -700QC, -800, -900, -900ER, -ALL, -BBJ) (Part #: PF51-003-1, Supplier: 06714, A/P Effectivity: 737-ALL) (Opt Part #: MINILIFT, Supplier: K1425, A/P Effectivity: 737-600, -700, -700C, -700ER, -700QC, -800, -900, -900ER, -ALL, -BBJ)
SPL-1978	Sling - Transportation, Forward Airstairs (Part #: C52013-1, Supplier: 81205, A/P Effectivity: 737-ALL) (Part #: OHME65-45888, Supplier: 81205, A/P Effectivity: 737-100, -200, -200C, -300, -400, -500, -600, -700, -700C, -700ER, -700QC, -800, -900, -900ER, -BBJ)
STD-1323	Pin - Rig, No. 1, Airstair, Wood, 0.49 Inch Diameter by 4.00 Inches
STD-1324	Pin - Rig, No. 2, Airstair, Wood, 0.24 Inch Diameter by 2.50 Inches

C. Consumable Materials

Reference	Description	Specification
G01048	Lockwire - Corrosion Resistant Steel (0.032 In. Dia.)	NASM20995~ C32

D. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left

E. Access Panels

Number	Name/Location
117BL	Forward Airstair Door

F. Prepare to Install the Airstair

SUBTASK 52-61-10-860-024

- (1) Make sure that these circuit breakers are open and have safety tags:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

SUBTASK 52-61-10-980-012

- (2) Make sure the swing arm will be clear of the airstair as follows:
 - (a) Temporarily hold the swing arm clear of the airstair.

SUBTASK 52-61-10-220-005

- (3) Make sure that the distance between the forward and aft rails is to 35.64 ±0.01 in. (905.26 ±0.26 mm).

NOTE: Measure from the top inner flanges of each rail.

SUBTASK 52-61-10-980-013

- (4) Make sure the electrical connectors on the rails will be clear of the airstair as follows:

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- (a) Temporarily hold the electrical connectors clear of the airstair.

SUBTASK 52-61-10-020-011

- (5) Remove the S3/S4 SWITCH RAMP located on the airstair carriage.

SUBTASK 52-61-10-820-005

- (6) Align the carriage and ladders as follows:

- (a) Move the ladders to align the carriage/ladder index hole in the carriage and the carriage/ladder index hole in the ladder truck.
- (b) Put the No. 1 no. 1 rig pin, STD-1323 through the carriage/ladder index holes in the carriage and ladder truck.

SUBTASK 52-61-10-860-025

- (7) Make sure the carriage step is down.

SUBTASK 52-61-10-860-026

- (8) Put the pinion disconnect lever in the not locked position.

G. Installation

SUBTASK 52-61-10-480-004

CAUTION: DO NOT USE THE HANDRAILS TO LIFT THE AIRSTAIR. USE THE CORRECT TOOL TO LIFT THE AIRSTAIR. YOU CAN CAUSE DAMAGE TO THE AIRSTAIR OR THE AIRPLANE IF YOU DO NOT USE THE CORRECT TOOL.

- (1) Attach the sling, SPL-1978 to the airstair.

SUBTASK 52-61-10-480-005

- (2) Connect the cable fishpole hoist, COM-1563 to the sling, SPL-1978.

SUBTASK 52-61-10-980-014

CAUTION: MAKE SURE THE LOWER LADDER STAYS IN POSITION WHILE YOU MOVE THE AIRSTAIR. THE LOWER LADDER WILL OPERATE OUT OF SEQUENCE IF IT MOVES. THIS CAN CAUSE DAMAGE TO EQUIPMENT IF YOU OPERATE THE AIRSTAIR.

- (3) Use the cable fishpole hoist, COM-1563 to lift the airstair.

SUBTASK 52-61-10-980-015

CAUTION: BE CAREFUL WHEN YOU MOVE THE AIRSTAIR. MAKE SURE THE AIRSTAIR IS HELD CORRECTLY. IT IS EASY TO CAUSE DAMAGE TO THE AIRSTAIR AND THE STRUCTURE.

- (4) Carefully move the airstair adjacent to the airstair door opening.

SUBTASK 52-61-10-980-016

- (5) Align the airstair with the rails.

SUBTASK 52-61-10-980-017

CAUTION: MAKE SURE THE CARRIAGE PINIONS ENGAGE THE FORWARD AND AFT RAILS AT THE SAME TIME. THE AIRSTAIR WILL NOT MOVE FREELY IF THE PINIONS DO NOT ENGAGE THE RAILS AT THE SAME TIME.

- (6) Move the airstair until the carriage fully engages the rails.

SUBTASK 52-61-10-080-002

- (7) Lower the cable fishpole hoist, COM-1563 until it does not hold the airstair.

SUBTASK 52-61-10-080-003

- (8) Disconnect the cable fishpole hoist, COM-1563 from the sling, SPL-1978.

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SUBTASK 52-61-10-080-004

(9) Remove the sling, SPL-1978 from the airstair.

SUBTASK 52-61-10-980-018

(10) Move the airstair until it is against the inboard stops.

SUBTASK 52-61-10-860-027

(11) Move the pinion disconnect lever to the locked position.

SUBTASK 52-61-10-220-002

(12) Manually operate the airstair door to do a check of the clearance between the door and the airstair as follows:

- (a) Remove the standby system motor from the airstair door actuator.
- (b) Turn the door actuator to manually close the airstair door.
- (c) Make sure the clearance between the airstair and the airstair door is more than 0.50 inch.
- (d) Turn the door actuator to manually open the airstair door.
- (e) Install the standby system motor on the airstair door actuator.

SUBTASK 52-61-10-420-002

(13) Do these steps to install the step actuator blocks on the outboard end of the forward and aft rails:

- (a) Put the shims and step actuator blocks in place.
- (b) Install the step actuator blocks to the rails.

SUBTASK 52-61-10-420-003

(14) Install the outboard carriage extend stops on the outboard end of the two rails (Figure 401).

- (a) Put the shims in between the outboard carriage extend stops and the rail.
- (b) Temporarily attach the outboard carriage extend stops to the rails.
- (c) Move the pinion disconnect lever to the not locked position.
- (d) Move the carriage outboard until it touches the outboard carriage extend stops.
- (e) Measure the clearance from the carriage to the roller on one of the outboard carriage extend stops as follows:
 - 1) Make the carriage touch the roller on one of the outboard stops.
 - 2) Make sure the clearance at the roller on the other outboard stop is from 0.005 to 0.040 inch.
 - 3) If necessary, change the thickness of the shims below the outboard stops to get the correct clearance.

NOTE: The shims below the two outboard stops must be the same thickness.

- (f) Move the carriage until it touches the inboard stops.
- (g) Attach the outboard stops to the rails permanently.

SUBTASK 52-61-10-980-019

(15) Pull the airstair outboard until the airstair actuator is above the access door in the electronic compartment.

SUBTASK 52-61-10-420-004

(16) Install the swing arm as follows (Figure 402):

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CAUTION: DO NOT INSTALL THE SWING ARM WITH THE ENDS DOWN. IF THE ENDS POINT DOWN, THE SWING ARM AND THE WIRE CAN BREAK. THIS CAN CAUSE SPARKS, FIRE AND DAMAGE TO EQUIPMENT.

- (a) Attach the swing arm to the bracket on the airstair actuator.

CAUTION: MAKE SURE THAT THE CONDUIT SWING ARM BETWEEN THE AIRSTAIR CARRIAGE AND THE LADDER IS IN ITS CORRECT POSITION. IF IT IS INCORRECTLY ALIGNED, IT CAN CAUSE DAMAGE TO EQUIPMENT.

- (b) Make sure both ends of the swing arm point up.
- (c) Connect the airstair P6 connector.

SUBTASK 52-61-10-220-003

- (17) Do a check of the support bracket adjustment as follows:

- (a) Measure the dimensions shown in (Figure 402).
- (b) Change the thickness of the shims if it is necessary to get the dimensions shown.

SUBTASK 52-61-10-220-004

- (18) Do a check of the airstair movement as follows:

NOTE: Manually move the airstair inboard and outboard to examine the airstair.

- (a) Make sure the clearance between the airstair and the door opening is more than 0.25 inches.
- (b) Make sure the step on the carriage moves up.
- (c) Make sure the airstair does not hit the structure.

H. Adjustment

SUBTASK 52-61-10-080-005

- (1) Adjust the S5 switch. Do only the steps in "S5 switch Adjustment" when you, do this task: Forward Airstair Adjustment, TASK 52-61-00-820-801.

SUBTASK 52-61-10-080-006

- (2) Adjust the S3 and S4 switches. Do only the steps in "Prepare for the S3 and S4 Switch Adjustment" and "S3 and S4 Switch Adjustment" when you, do this task: Forward Airstair Adjustment, TASK 52-61-00-820-801.

I. Put the airplane back to its usual condition

SUBTASK 52-61-10-420-005

- (1) Connect the actuator rods as follows:

- (a) Connect the outboard end of the actuator rods to the carriage step at the end of the forward and the aft rails.
- (b) Make sure the carriage step moves up when the carriage moves to the extended position.

SUBTASK 52-61-10-820-006

- (2) Align the carriage to the rails and lock the pinion disconnect lever as follows:

- (a) Push the carriage so the carriage retract index hole and aft rail retract index slot align. Do not close the forward airstair door.
- (b) Put the No. 2 no. 2 rig pin, STD-1324 through the carriage retract index hole and aft rail index slot.
- (c) Move the pinion disconnect lever to the locked position.
- (d) Use lockwire, G01048 to lock the pinion disconnect lever.

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(e) Remove the no. 2 rig pin, STD-1324.

SUBTASK 52-61-10-020-012

(3) Connect the airstair P1 electrical connector.

SUBTASK 52-61-10-860-028

(4) Remove the safety tags and close these circuit breakers:

F/O Electrical System Panel, P6-4

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

SUBTASK 52-61-10-860-032

(5) Do these steps:

(a) Remove the safety locks and close these circuit breakers:

F/O Electrical System Panel, P6-4

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

1) Remove the INOP placards from the circuit breakers.

(b) Remove the INOP placard from the Airstair Annunciator light on the P5 panel.

(c) Remove the INOP placard from the Airstair Interior Control panel (P13).

(d) Install the Airstair CAUTION placard on the forward compartment divider (AMM 11-32-03/201).

(e) Do this task: Forward Airstair Adjustment, TASK 52-61-00-820-801.

(f) Do this task: Forward Airstair Lubrication, TASK 12-25-71-600-801.

SUBTASK 52-61-10-820-007

(6) Do this task: Forward Airstair Functional Test, TASK 52-61-00-700-802.

SUBTASK 52-61-10-420-006

(7) Do this task: Forward Airstair Drain Pan Installation, TASK 52-61-00-820-804.

SUBTASK 52-61-10-860-030

(8) Fully retract the airstair and close this access panel:

<u>Number</u>	<u>Name/Location</u>
117BL	Forward Airstair Door

END OF TASK

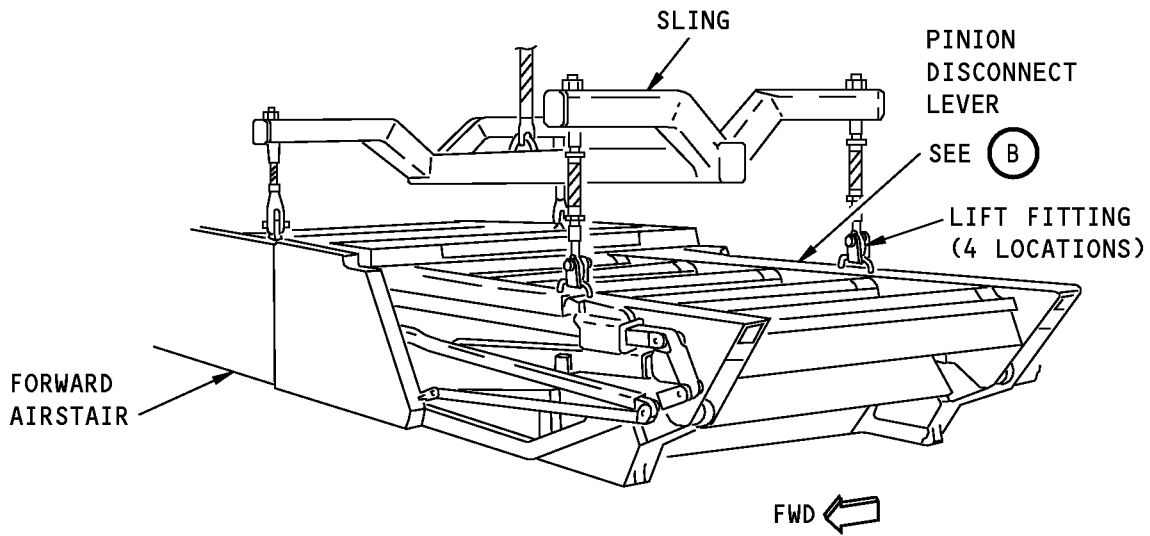
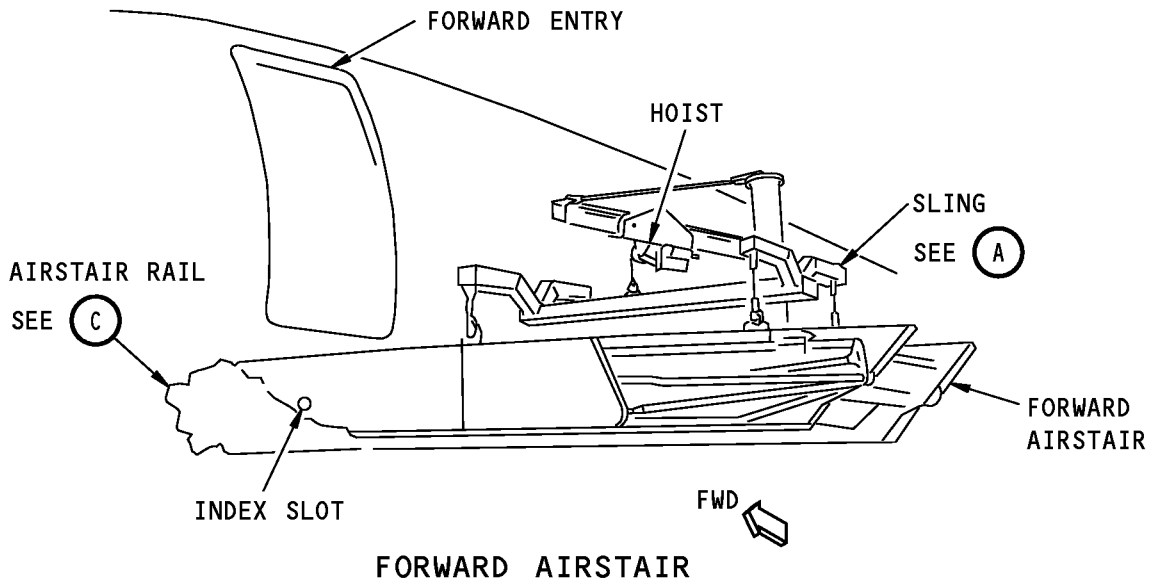
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SLING - WITHOUT STRAPS

(A)

G74100 S0006580518_V2

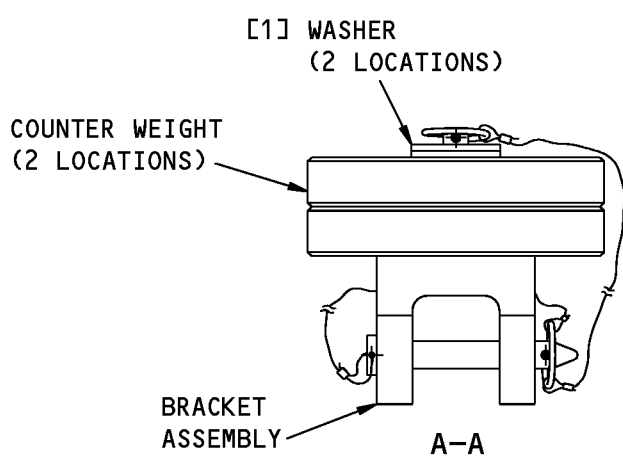
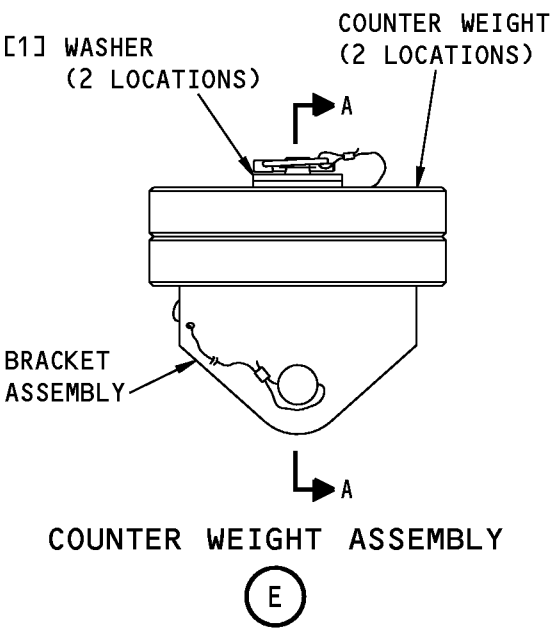
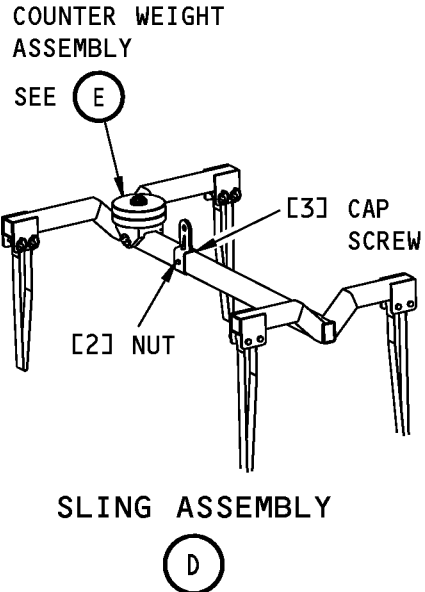
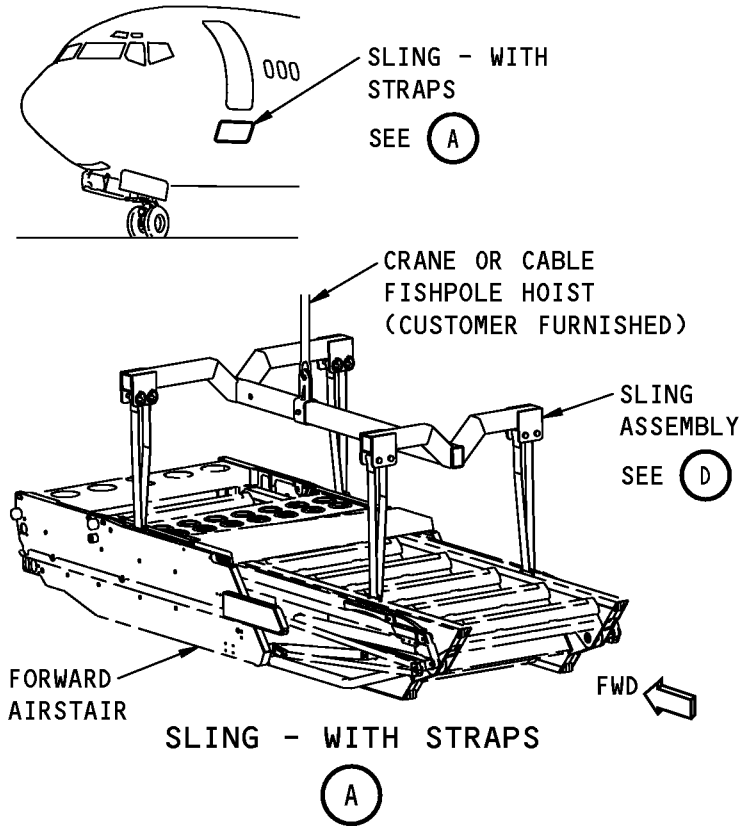
**Forward Airstair Installation
Figure 401 (Sheet 1 of 3)/52-61-10-990-804**

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1760417 S0000318251_V1

Forward Airstair Installation
Figure 401 (Sheet 2 of 3)/52-61-10-990-804

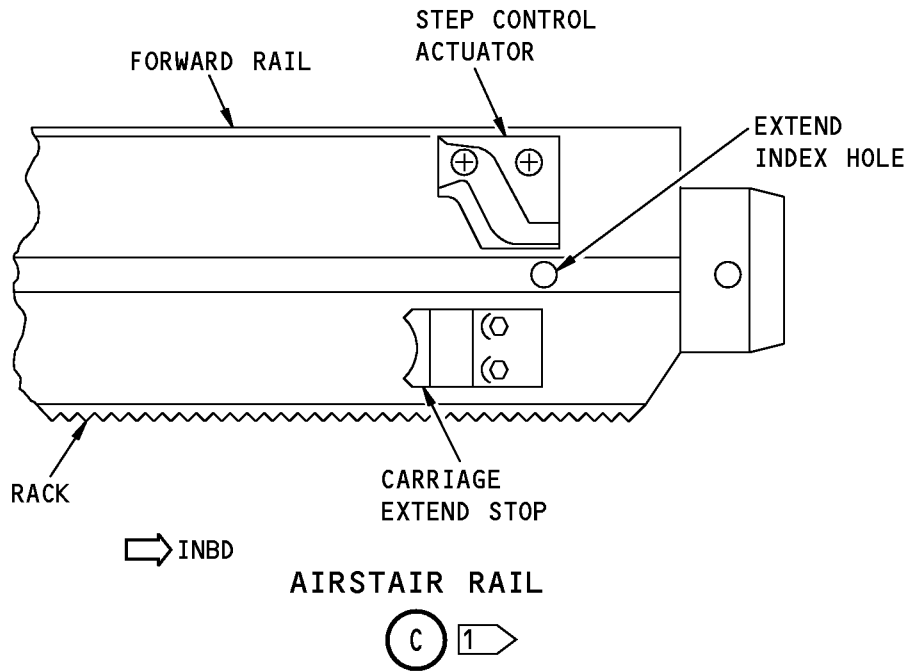
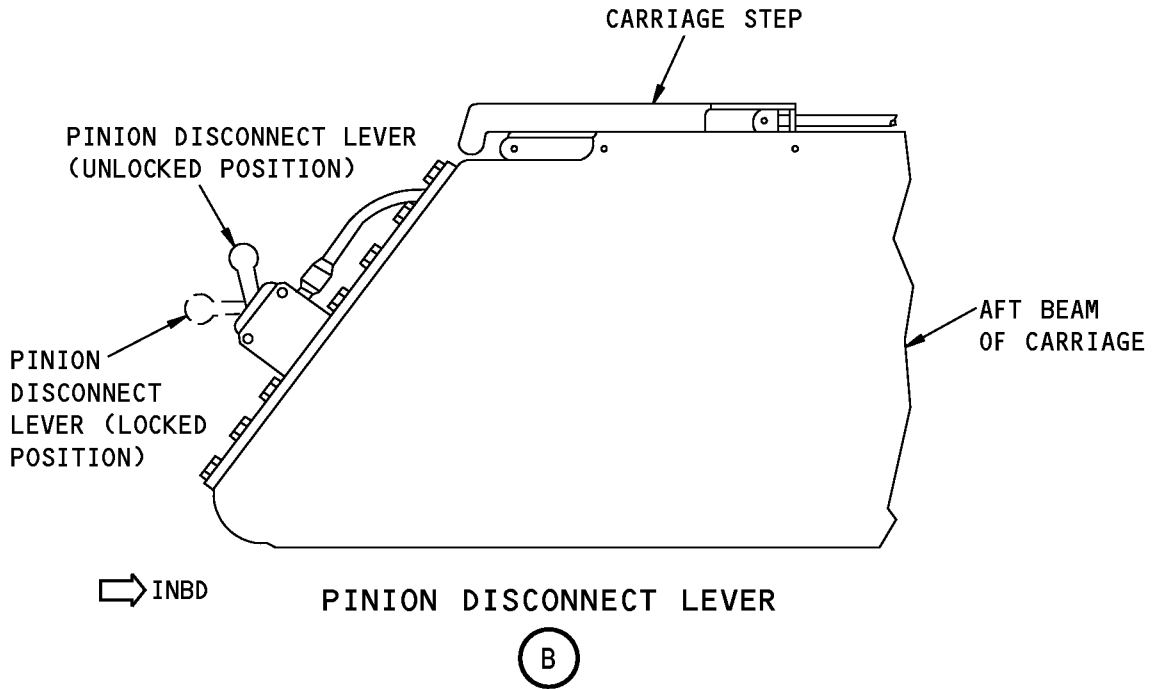
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1 THE AFT SIDE OF THE FORWARD RAIL IS SHOWN, THE FORWARD SIDE OF THE AFT RAIL IS EQUIVALENT.

G74104 S0006580519_V2

Forward Airstair Installation
Figure 401 (Sheet 3 of 3)/52-61-10-990-804

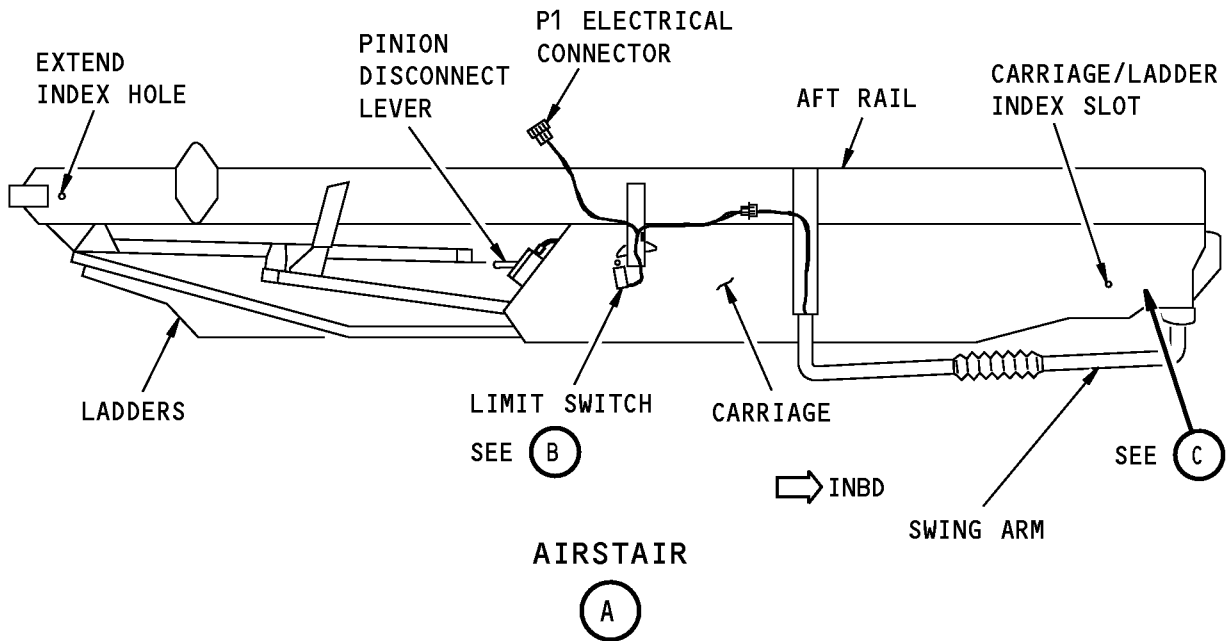
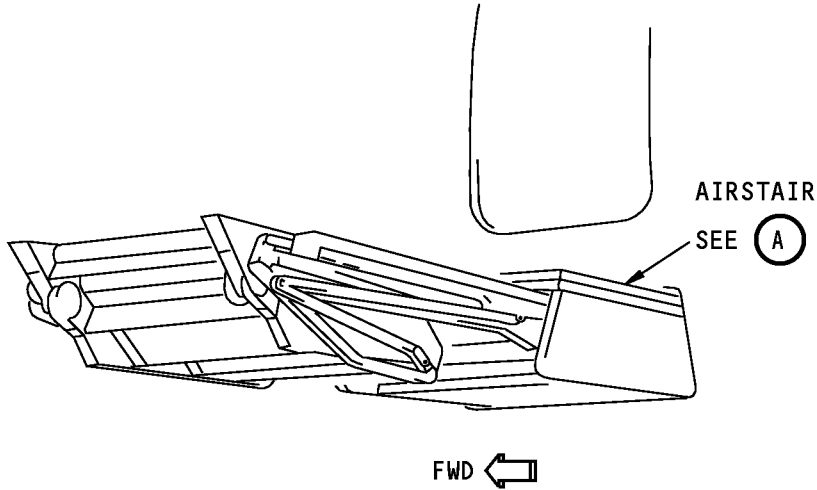
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G74130 S0006580520_V2

**Adjustment of the Ramp for the Retract Switches
Figure 402 (Sheet 1 of 2)/52-61-10-990-805**

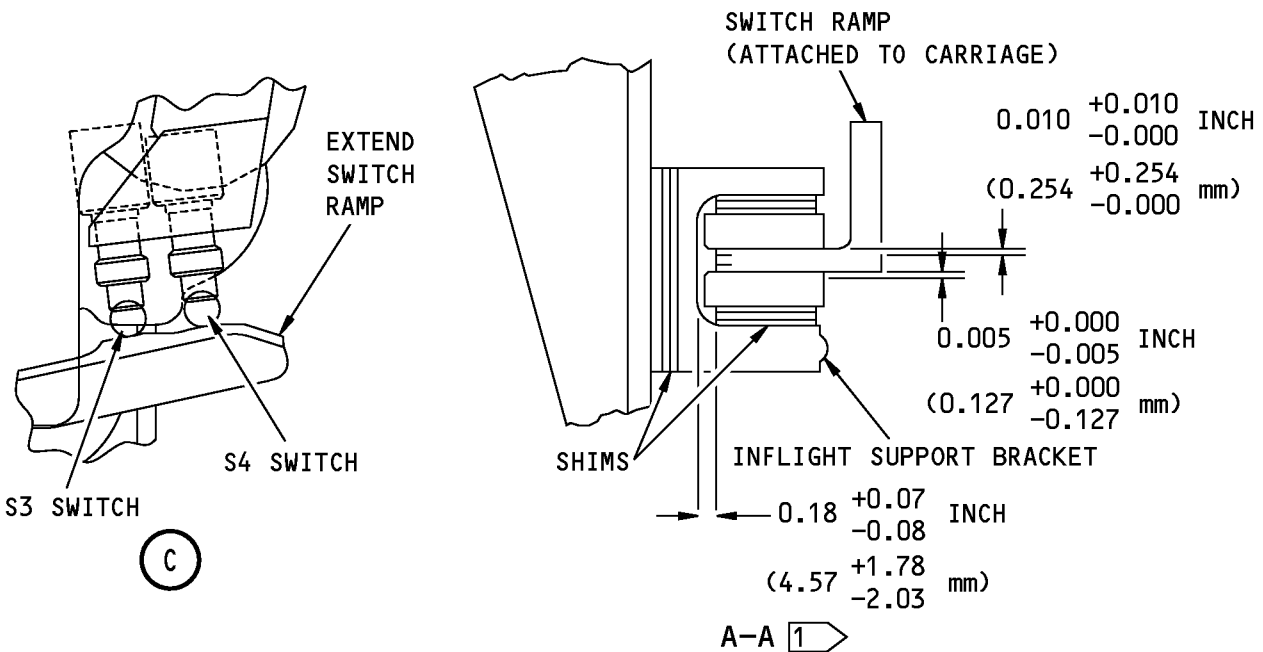
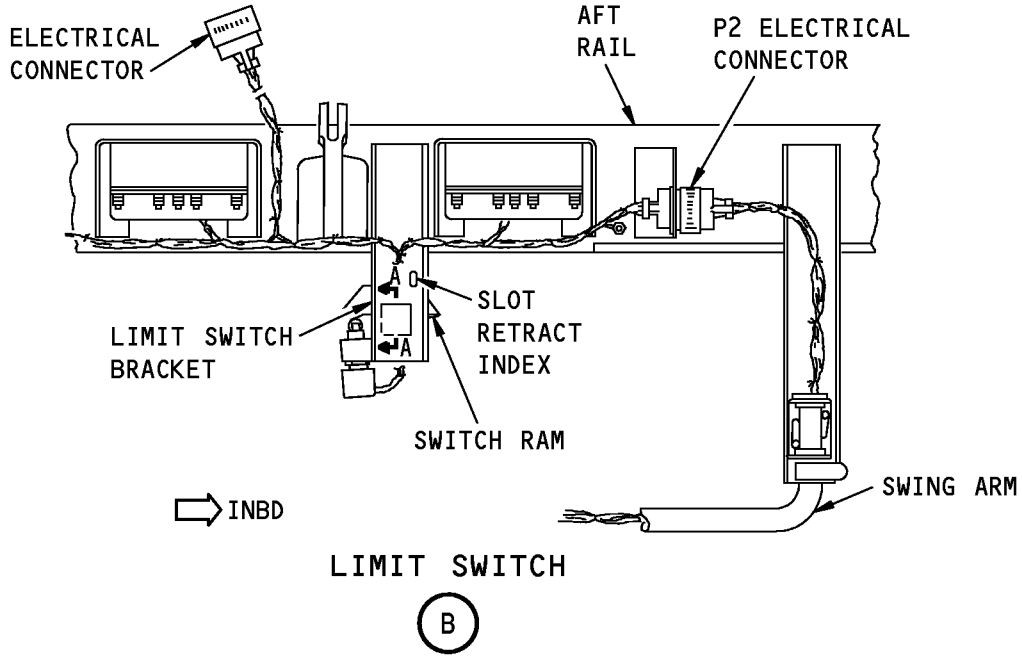
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1 THE AFT SUPPORT BRACKET IS SHOWN,
THE FORWARD SUPPORT BRACKET IS EQUIVALENT.

G74144 S0006580521_V3

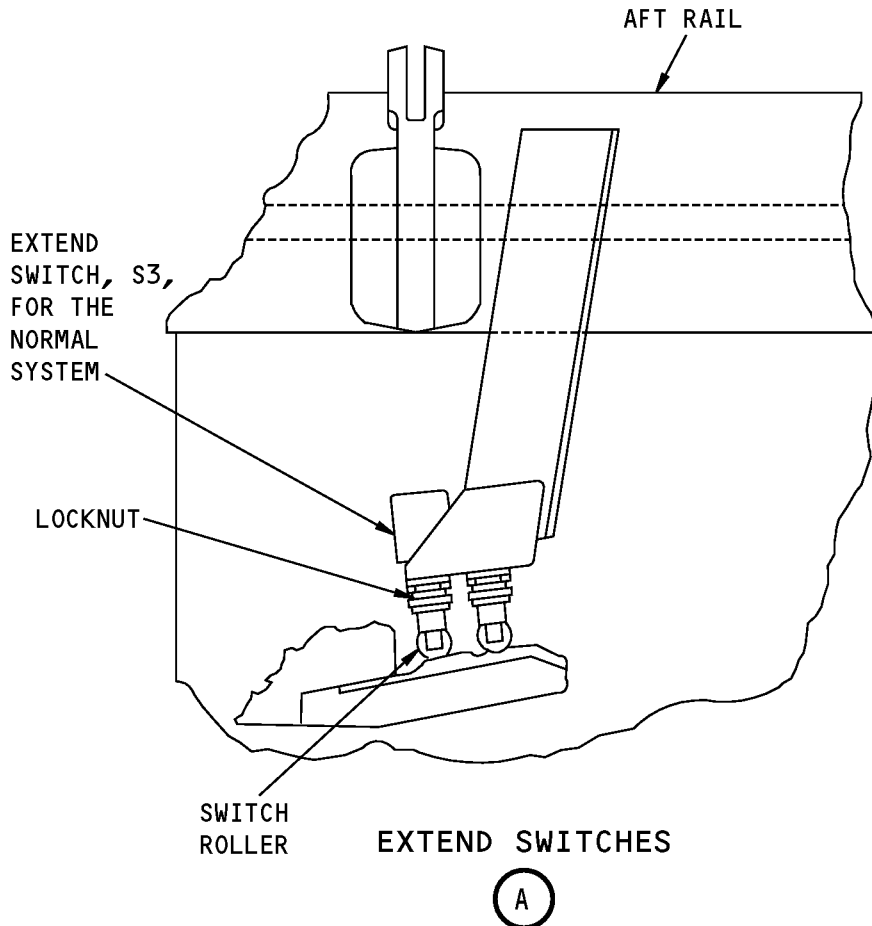
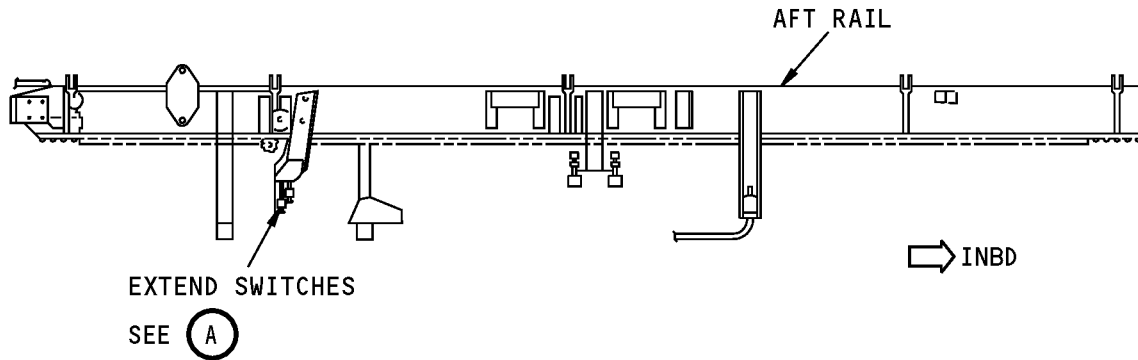
**Adjustment of the Ramp for the Retract Switches
Figure 402 (Sheet 2 of 2)/52-61-10-990-805**

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**Extend Switch for the Normal System
Figure 403/52-61-10-990-806**

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FORWARD AIRSTAIR - INSPECTION/CHECK

1. General

A. This procedure contains two tasks:

(1) The Forward Airstair Ballscrew Assembly End Play Check.

(a) It is not necessary to remove the ballscrew assembly to do this task.

(2) The Top Step Actuator Check.

(a) Do this check when the airstairs are replaced or if the top step is not stable when the airstairs are extended.

TASK 52-61-10-200-801

2. Forward Airstair Ballscrew Assembly End Play Check

(Figure 601, Figure 602)

A. References

Reference	Title
52-61-00-860-803	Forward Airstair Extension in Normal Mode (P/B 201)
52-61-00-860-806	Forward Airstair Retraction in Normal Mode (P/B 201)
52-61-23-820-801	Forward Airstair Ballscrew Endplay Adjustment (P/B 201)

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1999	Tool - Test, Forward Airstair Ballscrew End Play (Part #: MIT 807936-401, Supplier: 29780, A/P Effectivity: 737-ALL)
STD-1238	Indicator - Dial

C. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left

D. Prepare for Check

SUBTASK 52-61-10-860-015

WARNING: MAKE SURE THERE ARE NO PERSONS OR EQUIPMENT IN THE AREA OF THE FORWARD AIRSTAIR BEFORE IT OPERATES. THE FORWARD AIRSTAIR CAN HIT PERSONS OR EQUIPMENT WHEN IT IS OPERATED. THIS CAN CAUSE INJURY TO PERSONS OR DAMAGE TO EQUIPMENT CAN OCCUR.

CAUTION: DO NOT OPERATE THE FORWARD AIRSTAIR AFTER 3 FULL CYCLES IN LESS THAN 20 MINUTES. DO NOT OPERATE THE FORWARD AIRSTAIR WHEN THE WIND IS MORE THAN 40 KNOTS. DO NOT OPERATE THE FORWARD AIRSTAIR WHEN THE FORWARD ENTRY DOOR IS BETWEEN THE COCKED AND FULLY OPEN POSITIONS. DO NOT OPERATE THE FORWARD AIRSTAIR WHEN THERE IS NO SUPPORT UNDER THE FORWARD AIRSTAIR (AIRPLANE IS ON JACKS). IF YOU OPERATE THE FORWARD AIRSTAIR WITH ONE OR MORE OF THESE CONDITIONS, DAMAGE TO EQUIPMENT CAN OCCUR.

(1) Do this task: Forward Airstair Extension in Normal Mode, TASK 52-61-00-860-803.

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SUBTASK 52-61-10-860-016

- (2) Open these circuit breakers and install safety tags:

F/O Electrical System Panel, P6-4

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

SUBTASK 52-61-10-020-003

- (3) Disconnect the airstair P1 electrical connector (Figure 602).

E. Check

SUBTASK 52-61-10-480-001

- (1) Install the test tool, SPL-1999 on the carriage as follows:
- (a) Put the handle of the test tool, SPL-1999 on the ballscrew.
 - (b) Put the other part of the test tool, SPL-1999 in the carriage track.

SUBTASK 52-61-10-480-002

- (2) Install the dial dial indicator, STD-1238 on the outboard part of the test tool, SPL-1999.
- (a) Make sure the dial dial indicator, STD-1238 touches the nut in the outboard bearing block.

SUBTASK 52-61-10-980-009

- (3) Set the bearings in the correct position:
- (a) Pull outboard on the handle of the test tool, SPL-1999.
 - (b) Push on the handle of the test tool, SPL-1999.
 - (c) Pull outboard on the handle of the test tool, SPL-1999 again.
 - (d) Adjust the dial dial indicator, STD-1238 to be at zero.

SUBTASK 52-61-10-220-001

- (4) Measure the play in the end of the ballscrew assembly.
- (a) Push on the handle of the test tool, SPL-1999.
 - (b) Make sure the dial dial indicator, STD-1238 measures from 0.005 to 0.020 inch (0.127-0.508 mm).

SUBTASK 52-61-10-820-004

- (5) If it is necessary, adjust the play. To do this, do this task: Forward Airstair Ballscrew Endplay Adjustment, TASK 52-61-23-820-801.

SUBTASK 52-61-10-080-001

- (6) Remove the test tool, SPL-1999 from the carriage.
- (a) Remove the handle of the test tool, SPL-1999 from the ballscrew.
 - (b) Remove the other part of the test tool, SPL-1999 from the carriage track.

SUBTASK 52-61-10-420-001

- (7) Connect the airstair P1 electrical connector (Figure 602).

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SUBTASK 52-61-10-860-017

(8) Remove the safety tags and close these circuit breakers:

F/O Electrical System Panel, P6-4

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

SUBTASK 52-61-10-860-018

(9) Do this task: Forward Airstair Retraction in Normal Mode, TASK 52-61-00-860-806.

————— **END OF TASK** —————

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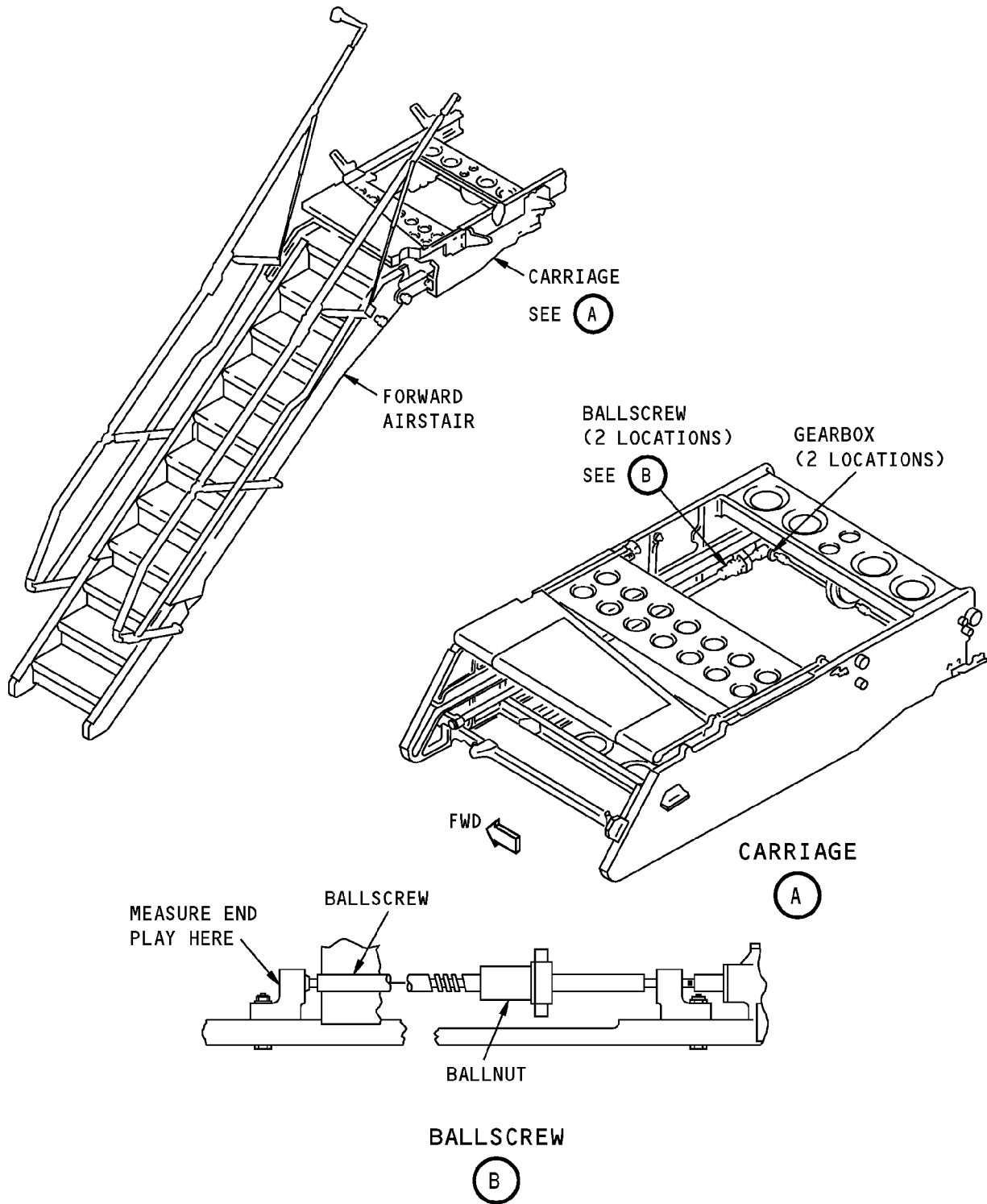
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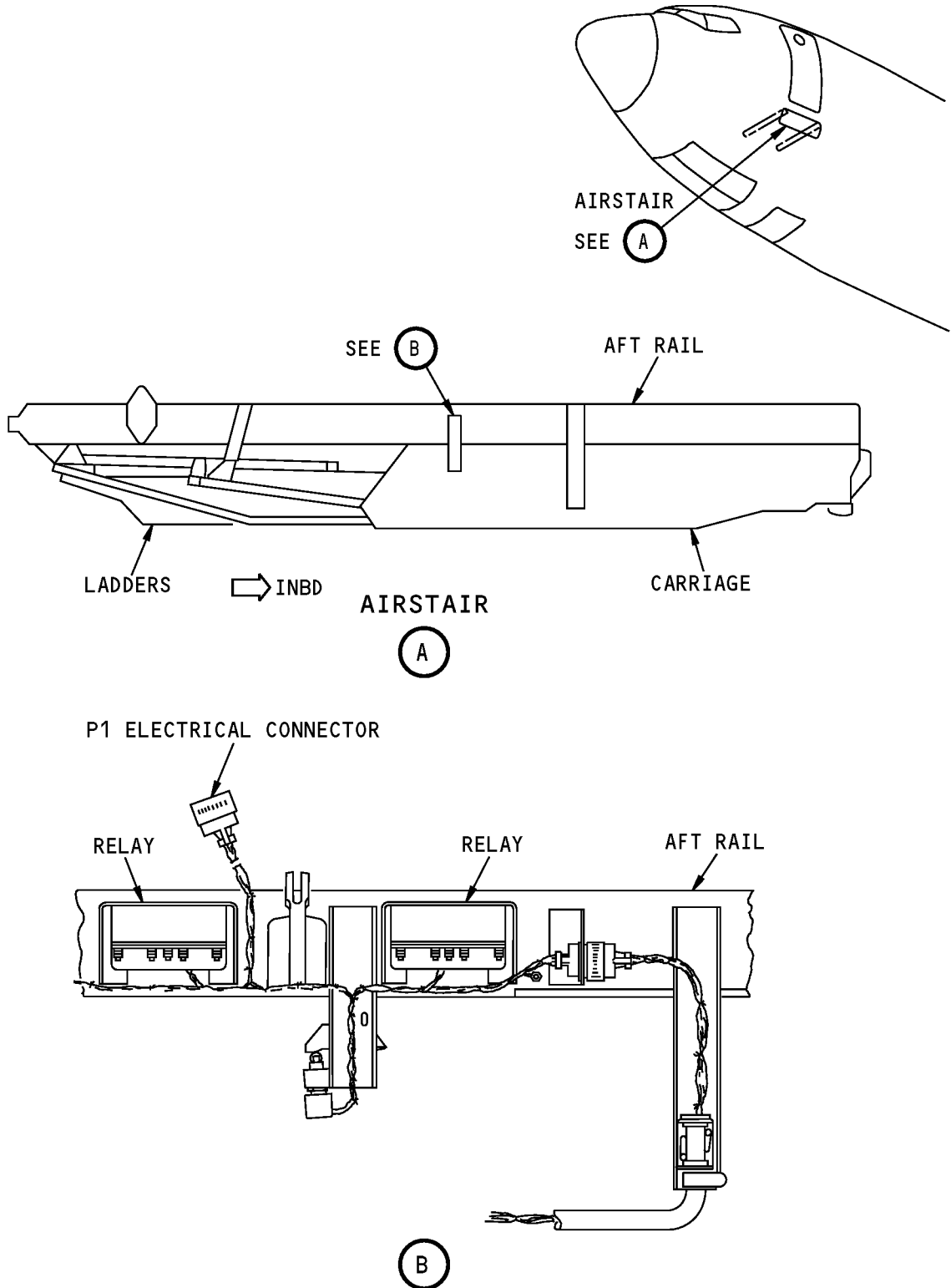


**End Play Check for the Ballscrew on the Forward Airstair
Figure 601/52-61-10-990-802**

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**Location of the Airstair Electrical Connector
Figure 602/52-61-10-990-803**

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TASK 52-61-10-211-801

3. Top Step Actuator Check

A. References

Reference	Title
52-61-00-860-801	Forward Airstair Extension (P/B 201)
52-61-00-860-802	Forward Airstair Retraction (P/B 201)

B. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left

C. Procedure

SUBTASK 52-61-10-860-033

(1) Prepare for the Check:

- (a) Forward Airstair Extension, TASK 52-61-00-860-801
- (b) Get access to the top step actuation rollers and actuator blocks.

SUBTASK 52-61-10-211-001

(2) Examine the top step actuation rollers and actuator blocks:

- (a) If a roller or an actuator block shows signs of damage or excessive wear, then replace it.
- (b) Make sure that a minimum of 50% of the two rollers engage with the two actuator blocks.
 - 1) If a minimum of 50% of the rollers engage with the actuator blocks, then the check is complete.
 - a) Forward Airstair Retraction, TASK 52-61-00-860-802
 - 2) If the rollers are not correctly engaged in the actuator blocks, then continue.
- (c) Make a record of the estimated distance needed so that the two rollers will correctly engage the actuator blocks.
- (d) Forward Airstair Retraction, TASK 52-61-00-860-802
- (e) Measure the distance between the forward and aft airstair rails:
 - 1) The distance between the top inner flange of the two rails must be 35.62 ± 0.06 in. (90.47 ± 0.16 cm).
 - a) If the distance between the rails is not in the limits, then adjust the rail on the side where the roller is not correctly engaged.
 - b) If the distance between the rails is in the limits, then continue.
- (f) Remove the actuator block from the side where the roller is not correctly engaged.
- (g) Get access to aluminum that has a thickness to match your estimated distance above.
- (h) Make a shim that is the shape of the actuator block.
- (i) Install the actuator block with the shim.
- (j) Forward Airstair Extension, TASK 52-61-00-860-801
- (k) Make sure that a minimum of 50% of the two rollers engage with the two actuator blocks.
- (l) Forward Airstair Retraction, TASK 52-61-00-860-802

————— **END OF TASK** —————

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FORWARD AIRSTAIR ACTUATOR - REMOVAL/INSTALLATION

1. General

A. This procedure contains these tasks:

- (1) A removal of the actuator from the forward airstair
- (2) An installation of the actuator on the forward airstair.

TASK 52-61-11-000-801

2. Forward Airstair Actuator Removal

(Figure 401)

A. References

Reference	Title
52-61-00-820-803	Forward Airstair Drain Pan Removal (P/B 201)

B. Tools/Equipment

Reference	Description
STD-1323	Pin - Rig, No. 1, Airstair, Wood, 0.49 Inch Diameter by 4.00 Inches
STD-1324	Pin - Rig, No. 2, Airstair, Wood, 0.24 Inch Diameter by 2.50 Inches

C. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left

D. Prepare for Removal

SUBTASK 52-61-11-860-001

- (1) Do this task: Forward Airstair Drain Pan Removal, TASK 52-61-00-820-803.

SUBTASK 52-61-11-860-002

- (2) Open these circuit breakers and install safety tags:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

SUBTASK 52-61-11-020-002

- (3) Disconnect the airstair P1 electrical connector.

SUBTASK 52-61-11-860-003

- (4) Move the pinion disconnect lever to the not locked position.

SUBTASK 52-61-11-980-001

- (5) Manually pull the carriage outboard until it touches the outboard stops.

SUBTASK 52-61-11-480-001

- (6) Align the carriage and aft rail extend index holes as follows:

- (a) Move the carriage so that the aft rail extend index hole and carriage extend index hole align.

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- (b) Put the No. 2 no. 2 rig pin, STD-1324 through the aft rail extend index hole and carriage extend index hole.

SUBTASK 52-61-11-860-004

- (7) Move the pinion disconnect lever to the locked position.

SUBTASK 52-61-11-480-002

- (8) Align the ladder to the carriage as follows:

- (a) Move the ladder to align the carriage/ladder index hole in the carriage and the carriage/ladder index hole in the ladder truck.
- (b) Put the No. 1 no. 1 rig pin, STD-1323 through the carriage/ladder index holes in the ladder truck and carriage.

E. Removal

SUBTASK 52-61-11-020-003

- (1) Remove the pin that holds the fork end [11] to the link [12].

SUBTASK 52-61-11-020-004

CAUTION: BE CAREFUL WHEN YOU MOVE THE SWING ARM. DO NOT HANG FROM THE SWING ARM. IT IS EASY TO CAUSE DAMAGE TO THE SWING ARM.

- (2) Remove the swing arm [7] from the bracket [18] on the actuator [6].

SUBTASK 52-61-11-020-005

- (3) Disconnect the P6 electrical connector.

SUBTASK 52-61-11-020-006

- (4) Disconnect the electrical connectors (P3 and P4) from the actuator [6].

SUBTASK 52-61-11-020-007

- (5) Remove the shafts [9] that go to the pinions as follows:

- (a) Disconnect the couplings from the forward shaft [9].
- (b) Remove the forward shaft [9].
- (c) Disconnect the couplings from the aft shaft [9].
- (d) Remove the aft shaft [9].

SUBTASK 52-61-11-020-008

- (6) Disconnect the shafts [17] that go to the gearboxes [15].

- (a) Disconnect the coupling from the forward shaft [17] at the forward gearbox.
- (b) Disconnect the coupling from the aft shaft [17] at the aft gearbox.

SUBTASK 52-61-11-020-009

- (7) Remove the four bolts [10] that attach the actuator [6] to the carriage [8].

SUBTASK 52-61-11-020-010

- (8) Pull the actuator [6] from the carriage [8].

SUBTASK 52-61-11-020-011

- (9) Remove the forward shaft [17] from the actuator.

SUBTASK 52-61-11-020-012

- (10) Remove the aft shaft [17] from the actuator.

————— END OF TASK —————

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TASK 52-61-11-400-801

3. Forward Airstair Actuator Installation

(Figure 401)

A. References

Reference	Title
52-61-00-710-801	Forward Airstair Operational Test (P/B 501)
52-61-00-820-804	Forward Airstair Drain Pan Installation (P/B 201)

B. Tools/Equipment

Reference	Description
STD-1323	Pin - Rig, No. 1, Airstair, Wood, 0.49 Inch Diameter by 4.00 Inches
STD-1324	Pin - Rig, No. 2, Airstair, Wood, 0.24 Inch Diameter by 2.50 Inches

C. Consumable Materials

Reference	Description	Specification
D00013	Grease - Aircraft And Instrument Grease	MIL-PRF-23827 (NATO G-354) (Supersedes MIL-G-23827)
G01048	Lockwire - Corrosion Resistant Steel (0.032 In. Dia.)	NASM20995~ C32

D. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left

E. Prepare for the installation

SUBTASK 52-61-11-640-001

- (1) Use your hand to put a thin layer of grease, D00013 on these parts:
 - (a) The splines of the shafts [17]
 - (b) The splines of the couplings [16]
 - (c) The threads of the bolts [10]

F. Installation

SUBTASK 52-61-11-420-001

- (1) Put the shafts [17] that go to the gearboxes [15] on the actuator [6] as follows:
 - (a) Connect the forward shaft [17] to the actuator [6].
 - (b) Connect the aft shaft [17] to the actuator [6].

SUBTASK 52-61-11-420-002

- (2) Put the actuator [6] in the correct position on the carriage [8].

SUBTASK 52-61-11-420-003

- (3) Install the four bolts [10] to hold the actuator [6] to the carriage [8].

SUBTASK 52-61-11-420-004

- (4) Connect the shafts [17] to the gearboxes [15].
 - (a) Connect the forward shaft to the forward gearbox.

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(b) Connect the aft shaft to the aft gearbox.

SUBTASK 52-61-11-420-005

(5) Install the shafts [9] that go from the actuator to the pinions [13].

SUBTASK 52-61-11-420-006

CAUTION: BE CAREFUL WHEN YOU MOVE THE SWING ARM. DO NOT HANG FROM THE SWING ARM. IT IS EASY TO CAUSE DAMAGE TO THE SWING ARM.

(6) Install the swing arm [7] .

(a) Attach the swing arm [7] to the bracket [18] on the airstair actuator [6].

CAUTION: MAKE SURE THE ENDS OF THE SWING ARM DO NOT POINT DOWN. IF THE ENDS POINT DOWN, THE SWING ARM AND THE WIRE CAN BREAK. THIS CAN CAUSE SPARKS, FIRE AND DAMAGE TO EQUIPMENT.

CAUTION: MAKE SURE THAT THE CONDUIT SWING ARM BETWEEN THE AIRSTAIR CARRIAGE AND THE LADDER IS IN ITS CORRECT POSITION. IF IT IS INCORRECTLY ALIGNED , IT CAN CAUSE DAMAGE TO EQUIPMENT.

(b) Make sure both ends of the swing arm point up.

(c) Connect the P6 electrical connector.

SUBTASK 52-61-11-420-007

(7) Connect the fork end [11] on the actuator [6] to the link [12] on the pinion mechanism.

SUBTASK 52-61-11-420-008

(8) Connect the electrical connectors (P3 and P4) to the actuator [6].

G. Put the Airplane Back to Its Usual Condition

SUBTASK 52-61-11-080-001

(1) Remove the No. 1 no. 1 rig pin, STD-1323 and No. 2 no. 2 rig pin, STD-1324.

SUBTASK 52-61-11-860-005

(2) Move the pinion disconnect lever to the not locked position.

SUBTASK 52-61-11-980-002

(3) Manually push the carriage until it touches the inboard stops.

SUBTASK 52-61-11-420-009

(4) Align the carriage to the rails and lock the pinion disconnect lever as follows:

(a) Move the carriage so the carriage retract index hole and aft rail retract index slot align.

(b) Put the No. 2 no. 2 rig pin, STD-1324 through the carriage retract index hole and aft rail retract index slot.

(c) Move the pinion disconnect lever to the locked position.

(d) Use lockwire, G01048 to lock the pinion disconnect lever.

(e) Remove the No. 2 no. 2 rig pin, STD-1324.

SUBTASK 52-61-11-420-010

(5) Connect the airstair P1 electrical connector.

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SUBTASK 52-61-11-860-006

(6) Remove the safety tags and close these circuit breakers:

F/O Electrical System Panel, P6-4

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

SUBTASK 52-61-11-420-011

(7) Do this task: Forward Airstair Drain Pan Installation, TASK 52-61-00-820-804.

SUBTASK 52-61-11-710-001

(8) Do this task: Forward Airstair Operational Test, TASK 52-61-00-710-801.

————— **END OF TASK** —————

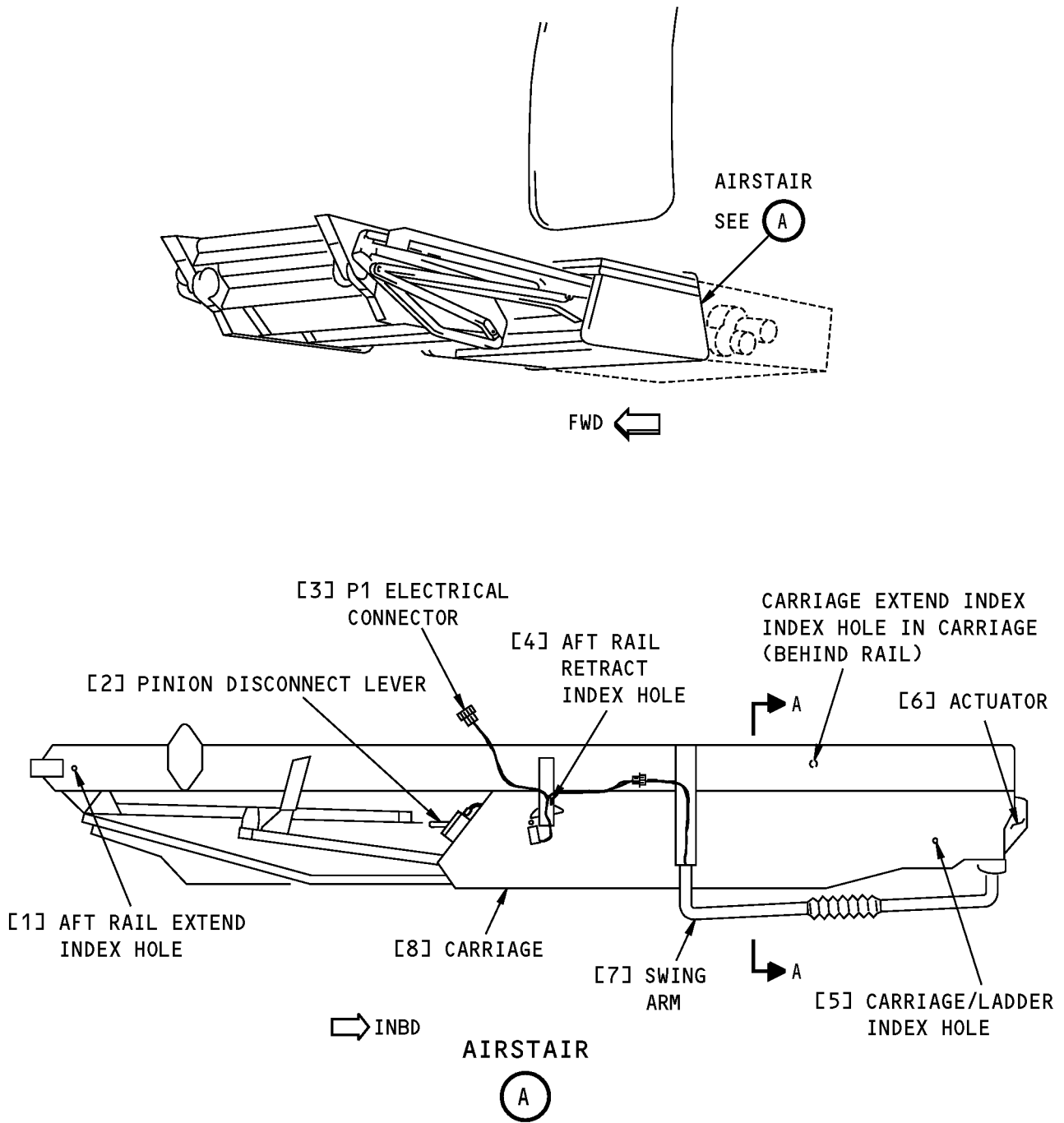
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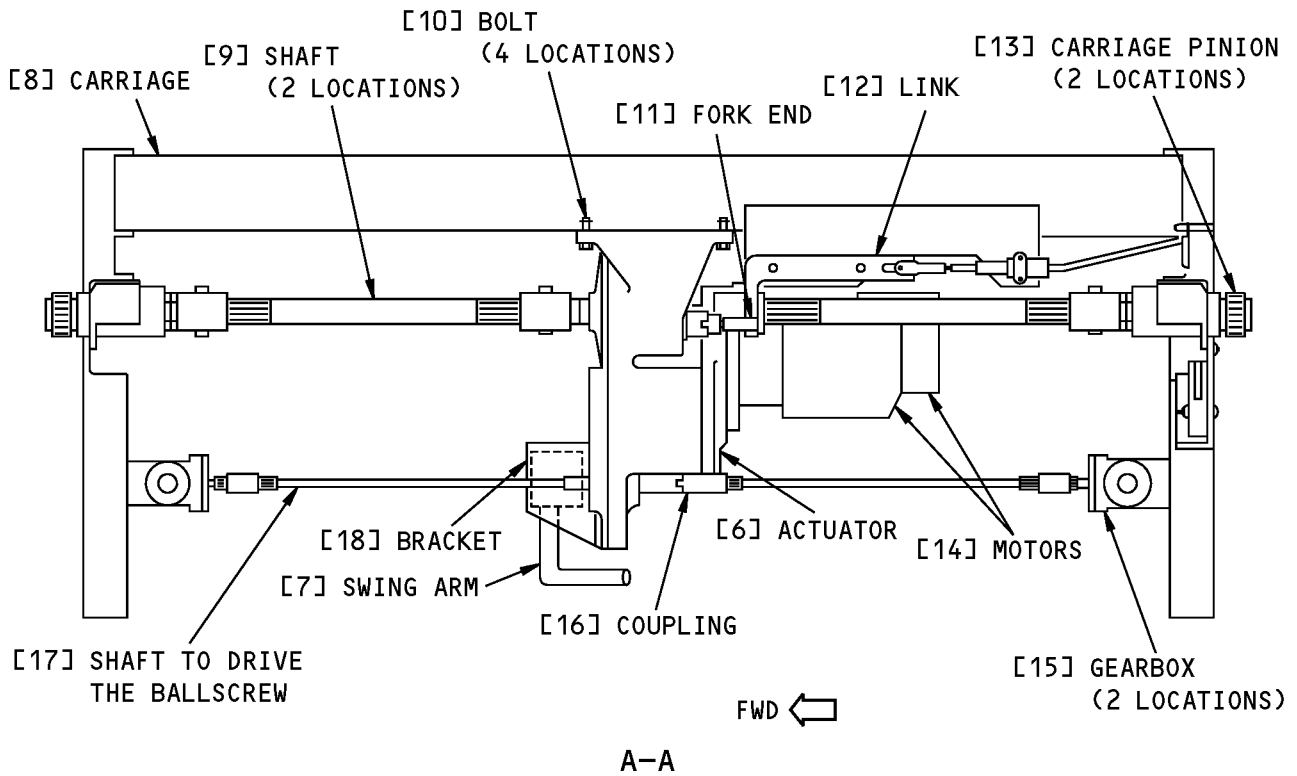
**Forward Airstair Actuator Installation
Figure 401 (Sheet 1 of 2)/52-61-11-990-801**

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**Forward Airstair Actuator Installation
Figure 401 (Sheet 2 of 2)/52-61-11-990-801**

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FORWARD AIRSTAIR MOTOR - REMOVAL/INSTALLATION

1. General

- A. This procedure contains these tasks:
 - (1) A removal of an actuator motor from the airstair.
 - (2) An installation of an actuator motor on the airstair.
- B. The forward airstair has two actuator motors. There is an actuator motor for the normal system. There is an actuator motor for the standby system. This procedure is used to remove or install the actuator motors.

TASK 52-61-12-000-801

2. Forward Airstair Actuator Motor Removal

(Figure 401)

A. References

Reference	Title
52-61-00-820-803	Forward Airstair Drain Pan Removal (P/B 201)

B. Tools/Equipment

Reference	Description
STD-1323	Pin - Rig, No. 1, Airstair, Wood, 0.49 Inch Diameter by 4.00 Inches

C. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left

D. Prepare for Removal

SUBTASK 52-61-12-020-001

- (1) Do this task: Forward Airstair Drain Pan Removal, TASK 52-61-00-820-803.

SUBTASK 52-61-12-860-002

- (2) Open these circuit breakers and install safety tags:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

SUBTASK 52-61-12-020-002

- (3) Disconnect the airstair P1 electrical connector [3].

SUBTASK 52-61-12-860-003

- (4) Move the pinion disconnect lever [2] to the not locked position.

SUBTASK 52-61-12-980-001

- (5) Manually pull the carriage outboard until it touches the outboard stops.

SUBTASK 52-61-12-860-004

- (6) Move the pinion disconnect lever [2] to the locked position.

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SUBTASK 52-61-12-480-002

- (7) Align the ladder to the carriage as follows:
 - (a) Move the ladder to align the carriage/ladder index hole in the carriage and the carriage/ladder index hole in the ladder truck.
 - (b) Put the No. 1 no. 1 rig pin, STD-1323 through the carriage/ladder index holes in the ladder truck and carriage.

E. Removal

SUBTASK 52-61-12-020-003

- (1) Disconnect the electrical connector (D914 or D912) from the actuator motor [8] or actuator motor [9].

SUBTASK 52-61-12-020-004

- (2) Remove the capscrews [7] and two locknuts [10] that attach the actuator motor [8] or actuator motor [9] to the actuator.

SUBTASK 52-61-12-020-005

- (3) Remove the actuator motor [8] or actuator motor [9] from the airstair.

————— END OF TASK —————

TASK 52-61-12-400-801

3. Forward Airstair Actuator Motor Installation

(Figure 401)

A. References

Reference	Title
52-61-00-710-801	Forward Airstair Operational Test (P/B 501)
52-61-00-820-804	Forward Airstair Drain Pan Installation (P/B 201)

B. Tools/Equipment

Reference	Description
STD-1323	Pin - Rig, No. 1, Airstair, Wood, 0.49 Inch Diameter by 4.00 Inches
STD-1324	Pin - Rig, No. 2, Airstair, Wood, 0.24 Inch Diameter by 2.50 Inches

C. Consumable Materials

Reference	Description	Specification
G01048	Lockwire - Corrosion Resistant Steel (0.032 In. Dia.)	NASM20995~ C32

D. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left

E. Installation

SUBTASK 52-61-12-420-001

- (1) Put the actuator motor [8] or actuator motor [9] on the aft side of the actuator.

SUBTASK 52-61-12-420-002

- (2) Attach the actuator motor to the actuator with the four capscrews [7] and two locknuts.

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SUBTASK 52-61-12-420-003

- (3) Install lockwire, G01048 on the two capscrews [7] that do not have locknuts [10].

SUBTASK 52-61-12-420-004

- (4) Connect the electrical connector (D914 or D912) to the actuator motor.

F. Put the Airplane Back to Its Usual Condition

SUBTASK 52-61-12-080-001

- (1) Remove the No. 1 no. 1 rig pin, STD-1323 and No. 2 no. 2 rig pin, STD-1324.

SUBTASK 52-61-12-860-005

- (2) Move the pinion disconnect lever [2] to the not locked position.
 - (a) Manually push the carriage inboard until the carriage ladder index hole [6] is in the middle of the electrical equipment (EE) bay.
 - (b) Align the carriage ladder index hole [6] in the carriage and the carriage/ladder index hole in the ladder truck as follows:
 - 1) Remove the pin [13] from the pinion coupling [11] and move the coupling aft.
 - 2) Rotate the drive shaft until the No. 1 no. 1 rig pin, STD-1323 can be placed through the carriage ladder index holes [6] in the ladder truck and carriage.
 - 3) Move the pinion coupling [11] forward and connect the coupling teeth with the teeth in the actuator output shaft. Install the pin [13] and a cotter pin [12].
 - 4) Remove the No. 1 no. 1 rig pin, STD-1323.

SUBTASK 52-61-12-980-002

- (3) Manually push the carriage until it touches the inboard stops.

SUBTASK 52-61-12-420-005

- (4) Align the carriage to the rails and lock the pinion disconnect lever as follows:
 - (a) Move the carriage so the carriage retract index hole [4] and aft rail retract index slot align.
 - (b) Put the No. 2 no. 2 rig pin, STD-1324 through the carriage retract index hole [4] and aft rail retract index slot.
 - (c) Move the pinion disconnect lever [2] to the locked position.
 - (d) Use lockwire, G01048 to lock the pinion disconnect lever.
 - (e) Remove the No. 2 no. 2 rig pin, STD-1324.

SUBTASK 52-61-12-420-006

- (5) Connect the airstair P1 electrical connector [3].

SUBTASK 52-61-12-860-006

- (6) Remove the safety tags and close these circuit breakers:

F/O Electrical System Panel, P6-4

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

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SUBTASK 52-61-12-420-007

(7) Do this task: Forward Airstair Drain Pan Installation, TASK 52-61-00-820-804.

SUBTASK 52-61-12-710-001

(8) Do this task: Forward Airstair Operational Test, TASK 52-61-00-710-801.

END OF TASK

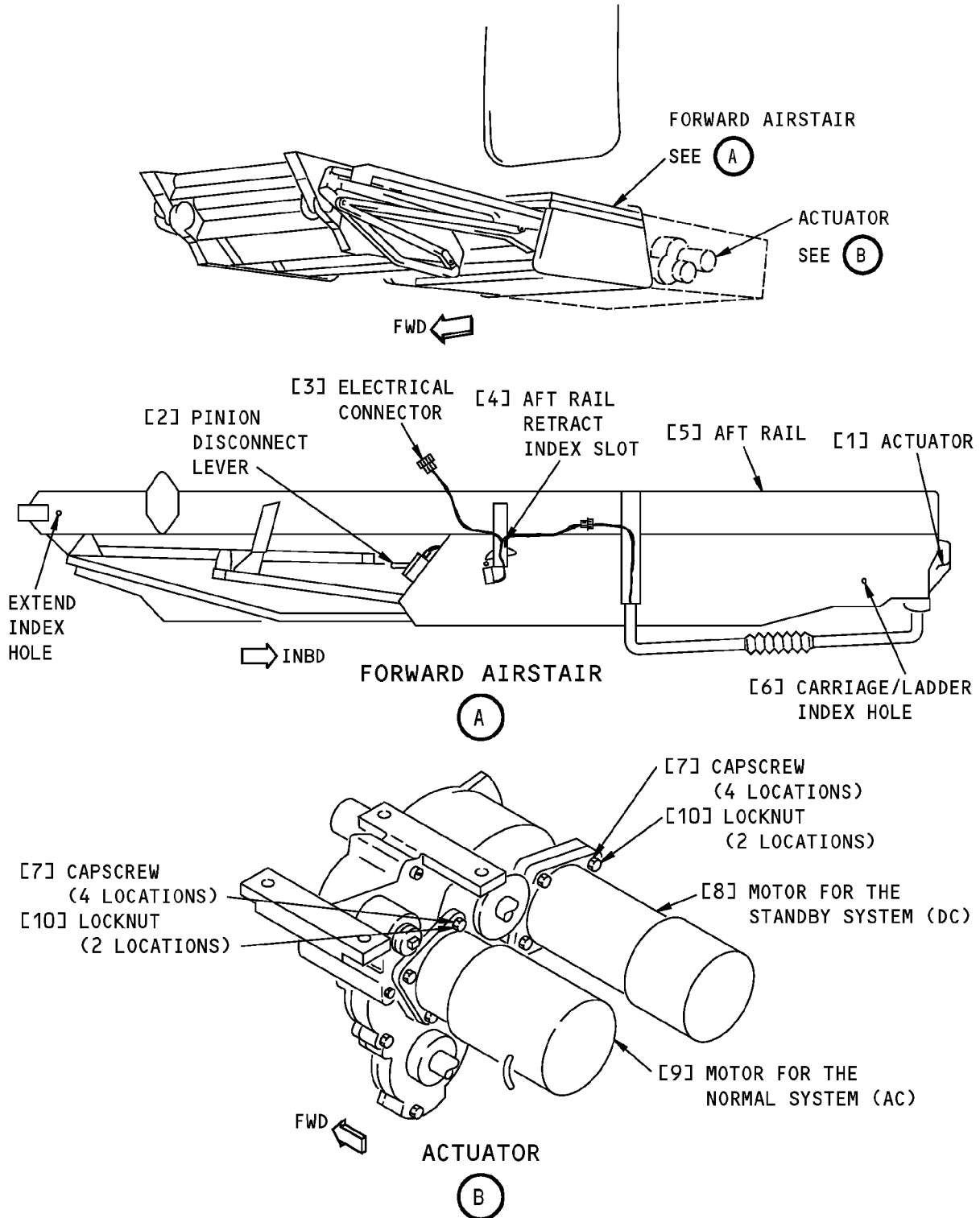
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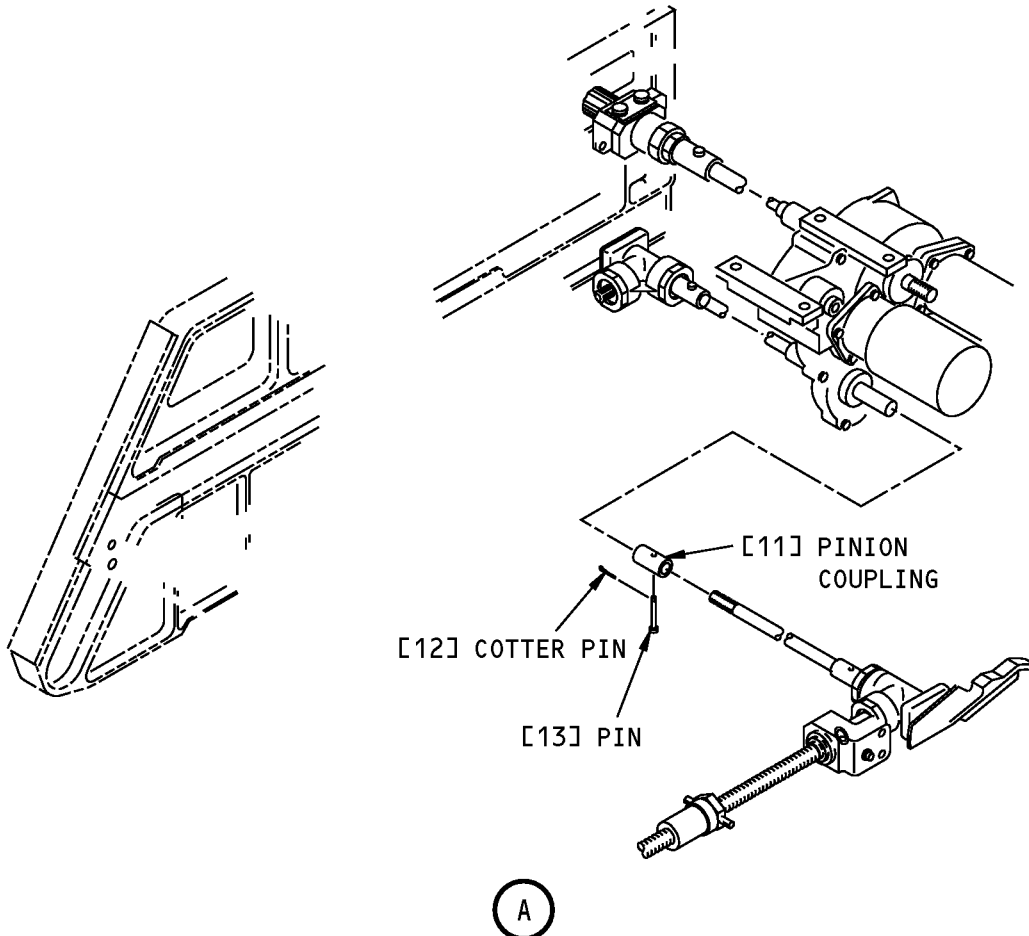
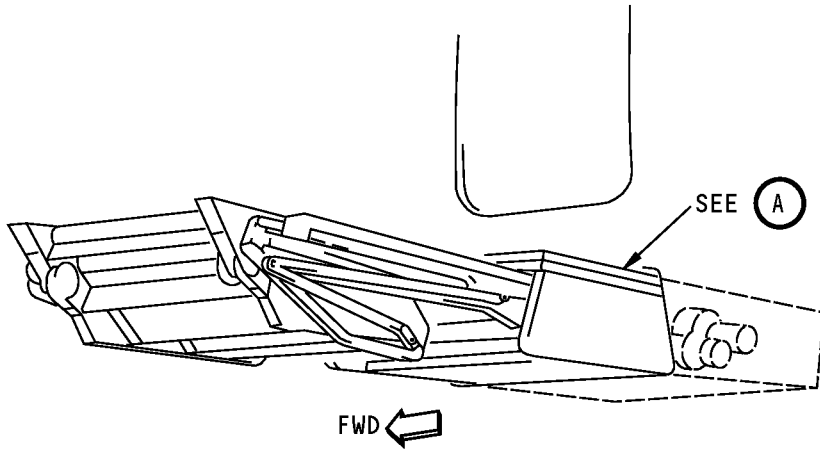
**Forward Airstair Motor Installation
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FORWARD AIRSTAIR CARRIAGE STEP ACTUATING MECHANISM - ADJUSTMENT/TEST

1. General

A. This procedure contains these tasks:

- (1) An adjustment of the actuating mechanism for the carriage step.
- (2) A test of the actuating mechanism for the carriage step.

TASK 52-61-13-820-801

2. Forward Airstair Carriage Step Actuating Mechanism Adjustment

(Figure 501)

A. References

Reference	Title
52-61-00-820-803	Forward Airstair Drain Pan Removal (P/B 201)

B. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left

C. Prepare for Adjustment

SUBTASK 52-61-13-020-001

- (1) Do this task: Forward Airstair Drain Pan Removal, TASK 52-61-00-820-803.

SUBTASK 52-61-13-860-001

- (2) Open these circuit breakers and install safety tags:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

SUBTASK 52-61-13-020-002

- (3) Disconnect the airstair P1 electrical connector [3] (Figure 501).

SUBTASK 52-61-13-860-002

- (4) Move the pinion disconnect lever [2] to the unlocked position to disengage the carriage drive pinions.

SUBTASK 52-61-13-980-001

- (5) Manually move the carriage outboard to the fully extended position against the stop [13].

SUBTASK 52-61-13-020-003

- (6) Loosen the jamnuts [14] from the forward and aft stops [13] and turn both stops [13] until they do not touch the fitting [8].

D. Adjust the Actuating Mechanism

SUBTASK 52-61-13-820-001

- (1) Adjust the actuator rods as follows:

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- (a) Turn the jamnuts on the forward and aft rods [9] until the fittings are 0.0 to 0.1 inch inboard of the stop.

NOTE: The length of the actuator rods must be as shown in (Figure 501) between the centers of the bolt holes in the rod ends.

- (b) Tighten the jamnuts [11].
(c) Bend the tabs of the washers [12] over the flat parts of the jamnuts to lock them.

SUBTASK 52-61-13-820-002

- (2) Adjust the forward and aft stops [13] until their top surface touches the lower surface of the fittings [8].

SUBTASK 52-61-13-420-001

- (3) Tighten the jamnuts [14].

SUBTASK 52-61-13-710-001

- (4) Do this task: Forward Airstair Carriage Step Actuating Mechanism Test, TASK 52-61-13-710-801.

END OF TASK

TASK 52-61-13-710-801

3. Forward Airstair Carriage Step Actuating Mechanism Test

(Figure 501)

A. References

Table with 2 columns: Reference, Title. Rows include 52-61-00-820-804 and 52-61-00-860-802.

B. Tools/Equipment

Table with 2 columns: Reference, Description. Row includes STD-1324 Pin - Rig, No. 2, Airstair, Wood, 0.24 Inch Diameter by 2.50 Inches.

C. Consumable Materials

Table with 3 columns: Reference, Description, Specification. Row includes G01048 Lockwire - Corrosion Resistant Steel (0.032 In. Dia.) NASM20995~C32.

D. Location Zones

Table with 2 columns: Zone, Area. Row includes 117 Electrical and Electronics Compartment - Left.

E. Prepare for the Test

SUBTASK 52-61-13-020-004

- (1) Make sure the drain pan is removed.

SUBTASK 52-61-13-860-003

- (2) Make sure that these circuit breakers are open:

F/O Electrical System Panel, P6-4

Table with 4 columns: Row, Col, Number, Name. Row includes A, 16, C00409, FWD AIRSTAIR DOOR.

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<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

SUBTASK 52-61-13-020-005

- (3) Make sure the airstair P1 electrical connector [3] is disconnected.

SUBTASK 52-61-13-860-004

- (4) Make sure the pinion disconnect lever [2] is in the unlocked position.

F. Test

SUBTASK 52-61-13-210-001

- (1) With the carriage in the retracted position, make sure the carriage step [7] is aligned with the top of the carriage beams.

SUBTASK 52-61-13-980-002

- (2) Manually move the carriage outboard to the fully extended position.

SUBTASK 52-61-13-480-001

- (3) Insert the no. 2 rig pin, STD-1324 through the rail extend index hole [1] and the carriage extend index hole.

SUBTASK 52-61-13-210-002

- (4) Make sure the carriage step is fully up as follows:

- (a) Make sure the forward and aft fittings [8] are perpendicular to the carriage beams with the tolerance shown in (Figure 501).
- (b) Make sure the forward and aft stops [13] touch the lower surface of the fittings [8].

SUBTASK 52-61-13-080-001

- (5) Remove the no. 2 rig pin, STD-1324.

SUBTASK 52-61-13-980-003

- (6) Manually move the carriage inboard until the actuating mechanism moves the carriage step down.

SUBTASK 52-61-13-210-003

- (7) Make sure the carriage step aligns with the top of the forward and aft carriage beams.

G. Put the Airplane Back to Its Usual Condition

SUBTASK 52-61-13-420-002

- (1) Align the carriage to the rails and lock the pinion disconnect lever as follows:

- (a) Move the carriage so the carriage retract index hole and aft rail retract index slot align.
- (b) Put the no. 2 rig pin, STD-1324 through the carriage retract index hole and aft rail retract index slot.
- (c) Move the pinion disconnect lever to the locked position.
- (d) Put lockwire, G01048 on the pinion disconnect lever.
- (e) Remove the no. 2 rig pin, STD-1324.

SUBTASK 52-61-13-420-003

- (2) Connect the airstair P1 electrical connector [3] to the receptacle.

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SUBTASK 52-61-13-860-005

(3) Remove the safety tags and close these circuit breakers:

F/O Electrical System Panel, P6-4

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

SUBTASK 52-61-13-420-005

(4) Do this task: Forward Airstair Drain Pan Installation, TASK 52-61-00-820-804.

SUBTASK 52-61-13-020-006

(5) Fully retract the airstair.

(a) If it is necessary, do this task: Forward Airstair Retraction, TASK 52-61-00-860-802.

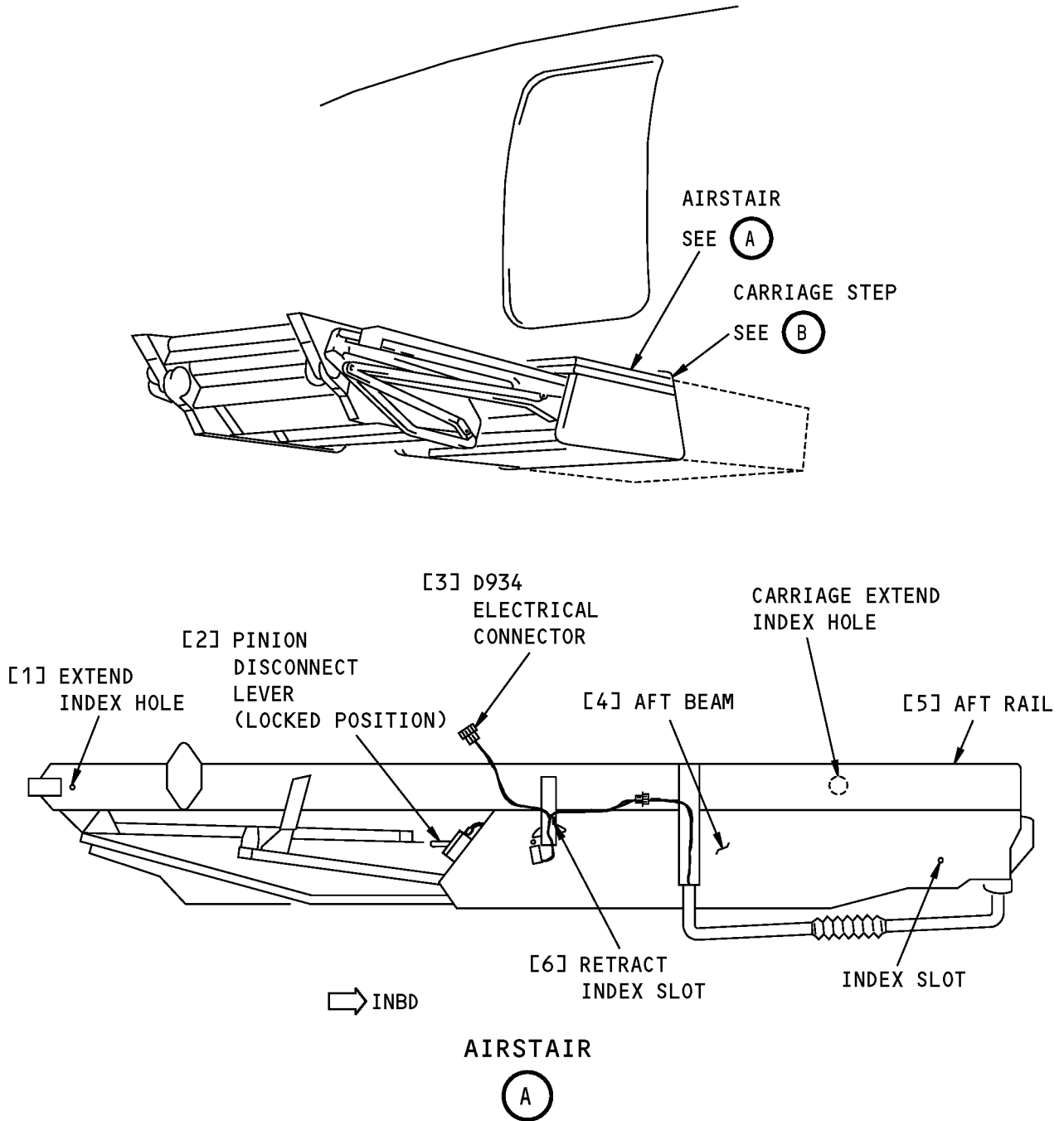
END OF TASK

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**Forward Airstair Carriage Step Actuating Mechanism Adjustment
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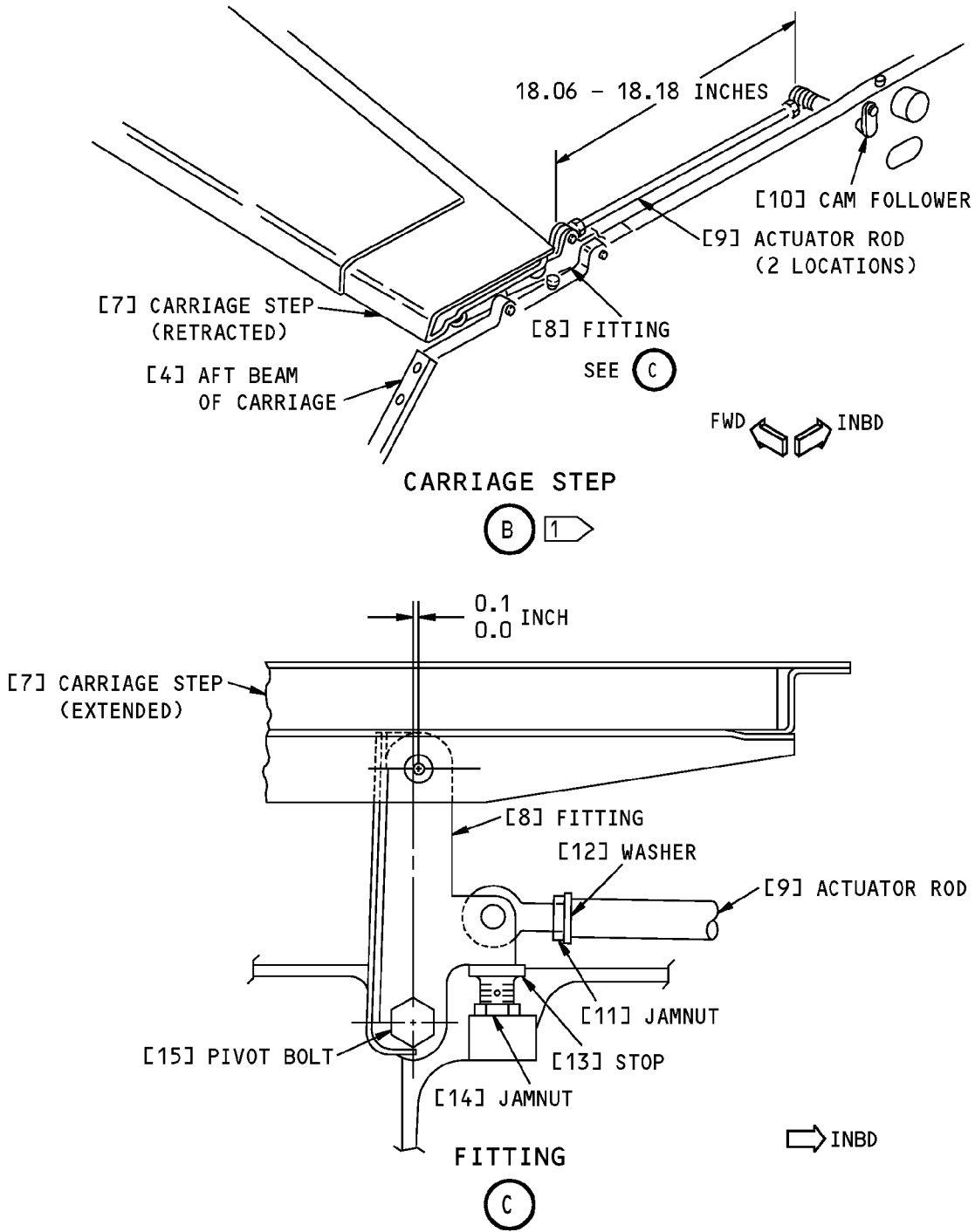
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1 THE AFT SIDE OF THE STEP IS SHOWN, THE FORWARD SIDE IS THE SAME.

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FORWARD AIRSTAIR RETRACT LIMIT SWITCH (S5) - REMOVAL/INSTALLATION

1. General

- A. This procedure contains these tasks:
(1) A removal of the S5 retract limit
(2) An installation of the S5 retract limit switch.
(3) An adjustment of the S5 retract limit switch.

TASK 52-61-14-000-801

2. Forward Airstair Retract Limit Switch (S5) Removal

(Figure 401)

A. References

Table with 2 columns: Reference, Title. Row: 52-61-00-860-802, Forward Airstair Retraction (P/B 201)

B. Location Zones

Table with 2 columns: Zone, Area. Row: 117, Electrical and Electronics Compartment - Left

C. Access Panels

Table with 2 columns: Number, Name/Location. Row: 117A, Electronic Equipment Access Door

D. Prepare for the Removal

SUBTASK 52-61-14-860-001

- (1) Prepare for the removal as follows:
(a) Make sure the airstair is fully retracted.
1) If it is necessary, do this task: Forward Airstair Retraction, TASK 52-61-00-860-802.
(b) Open these circuit breakers and install safety tags:

F/O Electrical System Panel, P6-4

Table with 4 columns: Row, Col, Number, Name. Lists circuit breakers like FWD AIRSTAIR DOOR, FWD AIRSTAIR CONT NORMAL, etc.

- (c) Get access to the work area through this access panel:

Table with 2 columns: Number, Name/Location. Row: 117A, Electronic Equipment Access Door

- (d) Disconnect the airstair P1 electrical connector.

E. Removal

SUBTASK 52-61-14-020-001

- (1) Remove the S5 switch as follows:

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CAUTION: DO NOT MOVE THE SWING ARM OR PUT YOUR HAND ON IT. DAMAGE TO THE SWING ARM CAN OCCUR.

- (a) Disconnect the electrical wires from the S5 switch.
- (b) Remove the locknut that attaches the S5 switch to the bracket.
- (c) Remove the S5 switch from the bracket.

END OF TASK

TASK 52-61-14-400-801

3. Forward Airstair Retract Limit Switch (S5) Installation

(Figure 401)

A. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left

B. Prepare for the Installation.

SUBTASK 52-61-14-010-001

- (1) Prepare for the installation as follows:
 - (a) Make sure the airstair is fully retracted.
 - (b) Make sure that these circuit breakers are open and have safety tags:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

C. Installation

SUBTASK 52-61-14-420-001

- (1) Install the S5 switch as follows:
 - (a) Put the switch on the bracket with the switch roller in the up position.
 - (b) Turn the locknuts to lower the switch away from the switch ramp as far as the threads permit.

NOTE: Do not tighten the locknuts.
 - (c) Connect the electrical wires to the switch.
 - (d) Do this task: Forward Airstair Retract Limit Switch (S5) Adjustment, TASK 52-61-14-400-802.

END OF TASK

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TASK 52-61-14-400-802

4. Forward Airstair Retract Limit Switch (S5) Adjustment

(Figure 401)

A. References

Reference	Title
52-61-00-860-801	Forward Airstair Extension (P/B 201)
52-61-00-860-802	Forward Airstair Retraction (P/B 201)

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-591	Multimeter - Digital, Handheld (volt dc/vac, ampere & resistance measurements or equivalent Multimeter) (Part #: 187, Supplier: 89536, A/P Effectivity: 737-ALL) (Part #: 189, Supplier: 89536, A/P Effectivity: 737-ALL) (Part #: 87V, Supplier: 89536, A/P Effectivity: 737-ALL) (Part #: FLUKE 117, Supplier: 89536, A/P Effectivity: 737-ALL) (Part #: MODEL 27, Supplier: 89536, A/P Effectivity: 737-ALL)
STD-1324	Pin - Rig, No. 2, Airstair, Wood, 0.24 Inch Diameter by 2.50 Inches

C. Consumable Materials

Reference	Description	Specification
G01048	Lockwire - Corrosion Resistant Steel (0.032 In. Dia.)	NASM20995~ C32

D. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left

E. Access Panels

Number	Name/Location
117A	Electronic Equipment Access Door

F. Prepare for the adjustment.

SUBTASK 52-61-14-420-002

(1) Prepare for the adjustment as follows:

- (a) Make sure that the airstair is fully retracted.
 - 1) If it is necessary, do this task: Forward Airstair Retraction, TASK 52-61-00-860-802.
- (b) Make sure the airstair P1 electrical connector is disconnected.
- (c) Make sure that these circuit breakers are open:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL

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<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

- (d) Make sure the carriage and aft rail are aligned as follows:

NOTE: If the airstair was retracted electrically, stopped automatically, and the carriage and aft rail are correctly aligned, the S5 switch is correctly adjusted.

- 1) Put the no. 2 rig pin, STD-1324 through the aft rail retract index slot and the carriage retract index hole.

- (e) If it is necessary, align the carriage and aft rail as follows:

- 1) Remove the lockwire from the pinion disconnect lever.
- 2) Move the disconnect lever to the not locked position.
- 3) Move the carriage to align the aft rail retract index slot and carriage retract index hole.
- 4) Put the no. 2 rig pin, STD-1324 through the aft rail retract index slot and the carriage retract index hole.

G. Adjustment

SUBTASK 52-61-14-820-001

- (1) Adjust the S5 switch as follows:

- (a) Make sure the no. 2 rig pin, STD-1324 is through the carriage retract index hole and aft rail retract index slot.
- (b) Connect the handheld digital multimeter, COM-591 across terminal X1 on relay K1 and pin 10 of the airstair electrical connector airstair P1.
- (c) Make sure that the indication is no continuity. If it is necessary, turn the locknuts to lower the S5 switch until the indication shows no continuity.
- (d) Turn the locknuts until indication shows continuity.

NOTE: You can hear the switch click when it makes continuity.

- (e) Tighten the locknuts.
- (f) Make sure the no. 2 rig pin, STD-1324 is not installed.
- (g) Slowly move the airstair carriage outboard, then inboard.
- (h) Use the handheld digital multimeter, COM-591 to make sure the S5 switch operates when the retract index slot and carriage index slot align.

NOTE: You can use the no. 2 rig pin, STD-1324 to make sure that the slots align.

- (i) Make sure the S5 switch operates in the correct area on the switch ramp as shown in (Figure 401).
- (j) Remove the no. 2 rig pin, STD-1324.
- (k) Use lockwire, G01048 to lock the S5 switch locknuts.
- (l) Disconnect the handheld digital multimeter, COM-591.

CAUTION: MAKE SURE THAT THE CONDUIT SWING ARM BETWEEN THE AIRSTAIR CARRIAGE AND THE LADDER IS IN ITS CORRECT POSITION. IF IT IS INCORRECTLY ALIGNED , IT CAN CAUSE DAMAGE TO EQUIPMENT.

- (m) Make sure that the swing arm conduit is correctly aligned.

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H. Put the Airplane Back to its Usual Condition.

SUBTASK 52-61-14-420-003

- (1) Align the carriage to the rails and lock the pinion disconnect lever as follows:
 - (a) Move the carriage until the carriage retract index hole and aft rail retract index slot align.
 - (b) Put the no. 2 rig pin, STD-1324 through the carriage retract index hole and aft rail retract index slot.
 - (c) Move the pinion disconnect lever to the locked position.
 - (d) Use lockwire, G01048 to lock the pinion disconnect lever.
 - (e) Remove the no. 2 rig pin, STD-1324.

SUBTASK 52-61-14-420-004

- (2) Connect the airstair P1 electrical connector.

SUBTASK 52-61-14-410-001

- (3) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
117A	Electronic Equipment Access Door

SUBTASK 52-61-14-860-002

- (4) Remove the safety tags and close these circuit breakers:

F/O Electrical System Panel, P6-4

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

SUBTASK 52-61-14-860-003

- (5) Do a test of the S5 switch as follows:

WARNING: MAKE SURE THERE ARE NO PERSONS OR EQUIPMENT IN THE AREA OF THE FORWARD AIRSTAIR BEFORE IT OPERATES. THE FORWARD AIRSTAIR CAN HIT PERSONS OR EQUIPMENT WHEN IT OPERATES. THIS CAN CAUSE INJURY TO PERSONS OR DAMAGE TO EQUIPMENT CAN OCCUR.

CAUTION: DO NOT OPERATE THE FORWARD AIRSTAIR AFTER 3 FULL CYCLES IN LESS THAN 20 MINUTES. DO NOT OPERATE THE FORWARD AIRSTAIR WHEN THE WIND IS MORE THAN 40 KNOTS. DO NOT OPERATE THE FORWARD AIRSTAIR WHEN THE FORWARD ENTRY DOOR IS BETWEEN THE COCKED AND FULLY OPEN POSITIONS. DO NOT OPERATE THE FORWARD AIRSTAIR WHEN THERE IS NO SUPPORT UNDER THE FORWARD AIRSTAIR (AIRPLANE IS ON JACKS). IF YOU OPERATE THE FORWARD AIRSTAIR WITH ONE OR MORE OF THESE CONDITIONS, DAMAGE TO EQUIPMENT CAN OCCUR.

- (a) Fully extend the forward airstair with NORMAL power (TASK 52-61-00-860-801).
- (b) Fully retract the forward airstair with NORMAL power (TASK 52-61-00-860-802).
- (c) Make sure the carriage and aft rail are aligned as follows:

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- 1) Put the no. 2 rig pin, STD-1324 through the carriage retract index hole and aft rail retract index slot.

————— **END OF TASK** —————

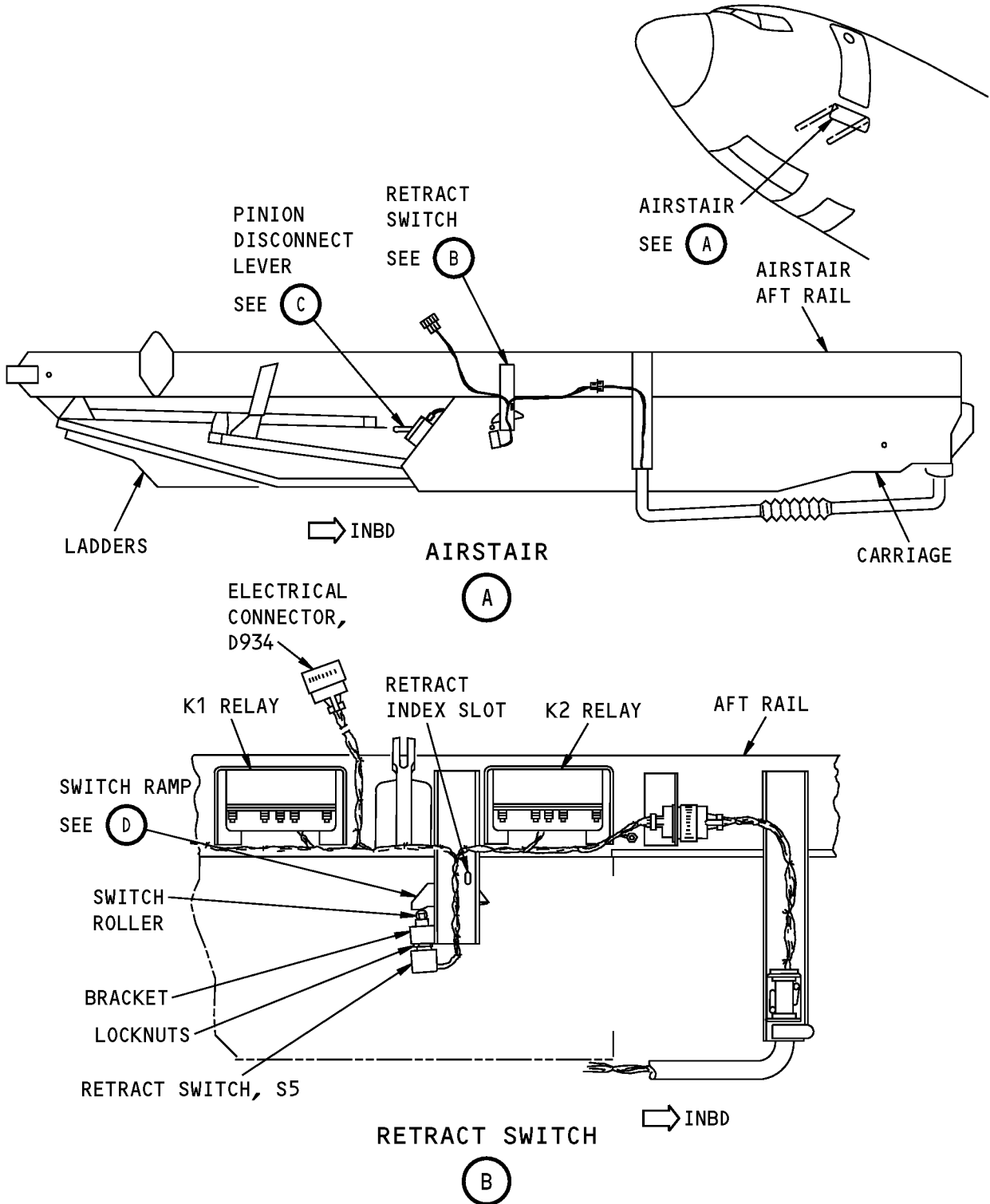
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**Forward Airstair Retract Limit Switch Installation
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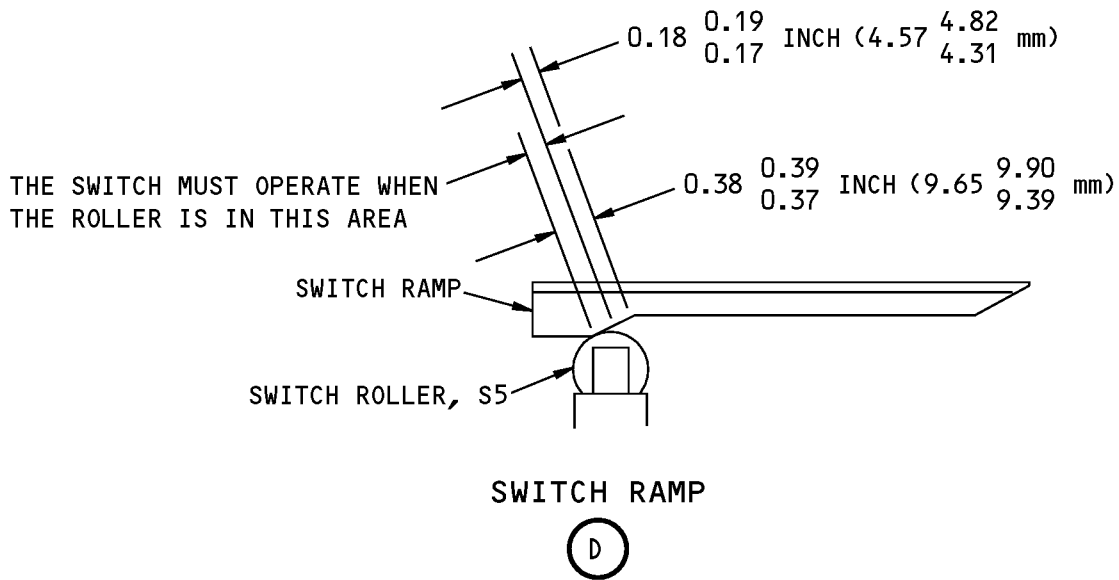
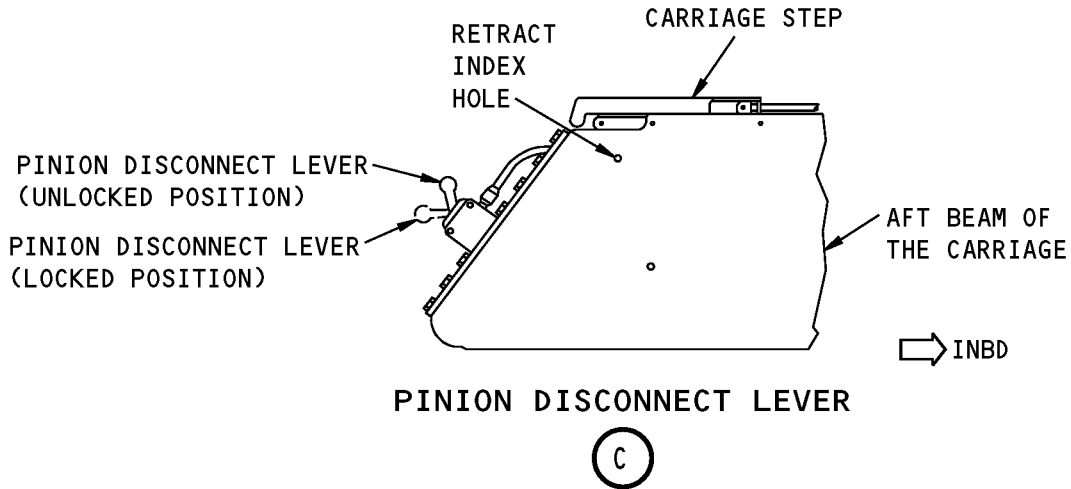
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FORWARD AIRSTAIR EXTEND LIMIT SWITCHES (S3 and S4) - REMOVAL/INSTALLATION

1. General

- A. The extend limit switch for the normal system (S3) and the extend limit switch for the standby system (S4) are almost the same.
- B. This procedure has these tasks:
 - (1) A removal of the S3 and S4 switches.
 - (2) An installation of the S3 and S4 switches.
 - (3) An adjustment of the S3 and S4 switches.

TASK 52-61-15-000-801

2. Extend Limit Switches (S3 and S4) Removal

(Figure 401)

A. References

Reference	Title
52-61-00-860-802	Forward Airstair Retraction (P/B 201)

B. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left

C. Access Panels

Number	Name/Location
117A	Electronic Equipment Access Door

D. Prepare for the Removal

SUBTASK 52-61-15-860-001

- (1) Prepare for the removal as follows:
 - (a) Make sure the airstair is fully retracted.
 - 1) If it is necessary, do this task: Forward Airstair Retraction, TASK 52-61-00-860-802.
 - (b) Open these circuit breakers and install safety tags:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

- (c) Get access to the work area through this access panel:

Number	Name/Location
117A	Electronic Equipment Access Door

- (d) Disconnect the airstair P1 electrical connector.

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E. Removal

SUBTASK 52-61-15-020-001

(1) Remove the (S3 or S4) extend limit switch as follows:

CAUTION: DO NOT MOVE THE SWING ARM TO GET ACCESS TO THE SWITCH. DO NOT USE THE SWING ARM AS A HANDHOLD. YOU CAN CAUSE DAMAGE TO THE SWING ARM IF YOU MOVE IT OR USE IT AS A HANDHOLD.

- (a) Disconnect the electrical wires from the extend limit switch.
- (b) Remove locknut that attaches the (S3 or S4) switch to the mounting bracket.
- (c) Remove the (S3 or S4) switch from the mounting bracket.

————— **END OF TASK** —————

TASK 52-61-15-400-801

3. Extend Limit Switches (S3 and S4) Installation

(Figure 401)

A. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left

B. Access Panels

Number	Name/Location
117A	Electronic Equipment Access Door

C. Prepare for the Installation

SUBTASK 52-61-15-860-002

(1) Prepare for the installation as follows:

- (a) Make sure the airstair is fully retracted.
- (b) Make sure that these circuit breakers are open:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

(c) Get access to the work area through this access panel:

Number	Name/Location
117A	Electronic Equipment Access Door

(d) Make sure the airstair P1 electrical connector is disconnected.

D. Installation

SUBTASK 52-61-15-420-001

(1) Install the S3 or S4 switch as follows:

- (a) Put the switch on the mounting bracket with the switch roller down.

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- (b) Adjust the locknuts to make the switch roller as far from the actuating ramp as possible. Do not tighten the locknuts.
- (c) Do this task: Extend Limit Switches (S3 and S4) Adjustment, TASK 52-61-15-820-801.

————— END OF TASK —————

TASK 52-61-15-820-801

4. Extend Limit Switches (S3 and S4) Adjustment

A. References

Reference	Title
52-61-00-860-801	Forward Airstair Extension (P/B 201)
52-61-00-860-802	Forward Airstair Retraction (P/B 201)

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-591	Multimeter - Digital, Handheld (volt dc/vac, ampere & resistance measurements or equivalent Multimeter) (Part #: 187, Supplier: 89536, A/P Effectivity: 737-ALL) (Part #: 189, Supplier: 89536, A/P Effectivity: 737-ALL) (Part #: 87V, Supplier: 89536, A/P Effectivity: 737-ALL) (Part #: FLUKE 117, Supplier: 89536, A/P Effectivity: 737-ALL) (Part #: MODEL 27, Supplier: 89536, A/P Effectivity: 737-ALL)
STD-1231	Multimeter - Standard
STD-1324	Pin - Rig, No. 2, Airstair, Wood, 0.24 Inch Diameter by 2.50 Inches

C. Consumable Materials

Reference	Description	Specification
G01048	Lockwire - Corrosion Resistant Steel (0.032 In. Dia.)	NASM20995~ C32

D. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left

E. Access Panels

Number	Name/Location
117A	Electronic Equipment Access Door
117BL	Forward Airstair Door

F. Prepare for the Adjustment

SUBTASK 52-61-15-860-003

- (1) Make sure that these circuit breakers are open:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL

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<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

SUBTASK 52-61-15-860-004

- (2) Make sure the airstair is fully retracted.
 - (a) If it is necessary, do this task: Forward Airstair Retraction, TASK 52-61-00-860-802.

SUBTASK 52-61-15-010-001

- (3) Fully open this access panel but do not extend the airstair:

<u>Number</u>	<u>Name/Location</u>
117BL	Forward Airstair Door

SUBTASK 52-61-15-020-002

- (4) Disconnect the outboard end of the actuator rods from the carriage step at the end of the forward and the aft rails.

NOTE: This will make the carriage move more easily for the adjustment of extend limit switches.

SUBTASK 52-61-15-820-001

- (5) Align the carriage and aft rail as follows:
 - (a) Remove the lockwire from the pinion disconnect lever.
 - (b) Move the disconnect lever to the unlocked position.
 - (c) Move the carriage to align the aft rail extend index hole and carriage extend index hole.
 - (d) Put the no. 2 rig pin, STD-1324 through the aft rail extend index hole and the carriage extend index hole.

G. Adjustment

SUBTASK 52-61-15-820-002

- (1) Adjust the S3 switch:
 - (a) To adjust the S3 extend limit switch for the normal system, connect the multimeter, STD-1231 between terminal Y1 on the K1 relay and pin 5 on the airstair P1 electrical connector.
 - (b) Make sure that the multimeter indicates continuity. If the multimeter indicates no continuity, turn the adjustment nuts for the S3 switch until the indication is continuity.
 - (c) Turn the adjustment nuts until handheld digital multimeter, COM-591 indicates no continuity.
 - (d) Tighten adjustment nuts.
 - (e) Make sure the no. 2 rig pin, STD-1324 is not installed.
 - (f) Slowly move the airstair carriage inboard, then outboard.
 - (g) Use the handheld digital multimeter, COM-591 to make sure the S3 switch operates when the extend index slot and carriage extend index slot align.

NOTE: You can use the no. 2 rig pin, STD-1324 to make sure that the slots align.

- (h) Make sure the S3 switch operates when the switch roller is in the correct position on the switch ramp as shown in (Figure 401)

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- (i) Make sure the no. 2 rig pin, STD-1324 is not installed.
- (j) Put lockwire, G01048 on the retract S3 switch adjustment nuts.
- (k) Disconnect the multimeter.

SUBTASK 52-61-15-820-004

(2) Adjust the S4 switch:

- (a) To adjust the S4 extend limit switch is for the standby system, connect the handheld digital multimeter, COM-591 between terminal Y1 on the K2 relay and pin 17 on the airstair P1 electrical connector .
- (b) Make sure that the multimeter indicates continuity. If the multimeter does not indicate continuity, turn the adjustment nuts for the S4 switch until the indication is continuity.
- (c) Turn the adjustment nuts until handheld digital multimeter, COM-591 indicates no continuity.
- (d) Tighten the adjustment nuts.
- (e) Make sure the no. 2 rig pin, STD-1324 is not installed.
- (f) Slowly move the airstair carriage inboard, then outboard.
- (g) Use the handheld digital multimeter, COM-591 to make sure the S4 switch operates when the extend index slot and carriage extend slot align.

NOTE: You can use the no. 2 rig pin, STD-1324 to make sure that the slots align.

- (h) Make sure the S4 switch operates when the switch roller is in the correct position on the switch ramp as shown in (Figure 401)
- (i) Make sure the no. 2 rig pin, STD-1324 is not installed.
- (j) Put lockwire, G01048 on the retract S4 switch adjustment nuts.
- (k) Disconnect the multimeter.

H. Put the Airplane Back to its Usual Condition

SUBTASK 52-61-15-420-002

(1) Connect the actuator rods as follows:

- (a) Connect the outboard end of the actuator rods to the carriage step at the end of the forward and the aft rails.
- (b) Make sure the carriage step moves up when the carriage moves to the extended position.

SUBTASK 52-61-15-820-003

(2) Align the carriage to the rails and lock the pinion disconnect lever as follows:

- (a) Push the carriage until the carriage retract index hole and aft rail retract index slot align. Do not close the forward airstair door.
- (b) Put the no. 2 rig pin, STD-1324 through the carriage retract index hole and aft rail index slot.
- (c) Move the pinion disconnect lever to the locked position.
- (d) Use lockwire, G01048 to lock the pinion disconnect lever.
- (e) Remove the no. 2 rig pin, STD-1324.

SUBTASK 52-61-15-420-003

(3) Connect airstair P1 electrical connector.

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SUBTASK 52-61-15-410-001

(4) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
117A	Electronic Equipment Access Door

SUBTASK 52-61-15-860-005

(5) Remove the safety tags and close these circuit breakers:

F/O Electrical System Panel, P6-4

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

SUBTASK 52-61-15-720-001

(6) Do an installation test of the S3 or S4 switch as follows:

WARNING: MAKE SURE THERE ARE NO PERSONS OR EQUIPMENT IN THE AREA OF THE FORWARD AIRSTAIR BEFORE IT OPERATES. THE FORWARD AIRSTAIR CAN HIT PERSONS OR EQUIPMENT WHEN IT EXTENDS. THIS CAN CAUSE INJURY TO PERSONS OR DAMAGE TO EQUIPMENT.

CAUTION: DO NOT OPERATE THE FORWARD AIRSTAIR AFTER 3 FULL CYCLES IN LESS THAN 20 MINUTES. DO NOT OPERATE THE FORWARD AIRSTAIR WHEN THE WIND IS MORE THAN 40 KNOTS. DO NOT OPERATE THE FORWARD AIRSTAIR WHEN THE FORWARD ENTRY DOOR IS BETWEEN THE COCKED AND FULLY OPEN POSITIONS. DO NOT OPERATE THE FORWARD AIRSTAIR WHEN THERE IS NO SUPPORT UNDER THE FORWARD AIRSTAIR (AIRPLANE IS ON JACKS). IF YOU OPERATE THE FORWARD AIRSTAIR WITH ONE OR MORE OF THESE CONDITIONS, DAMAGE TO EQUIPMENT CAN OCCUR.

CAUTION: BE CAREFUL WHEN YOU ELECTRICALLY EXTEND THE AIRSTAIR. IF THE EXTEND SWITCH IS OUT OF ADJUSTMENT, THE AIRSTAIR WILL NOT STOP IN THE CORRECT AREA. DAMAGE TO EQUIPMENT CAN OCCUR.

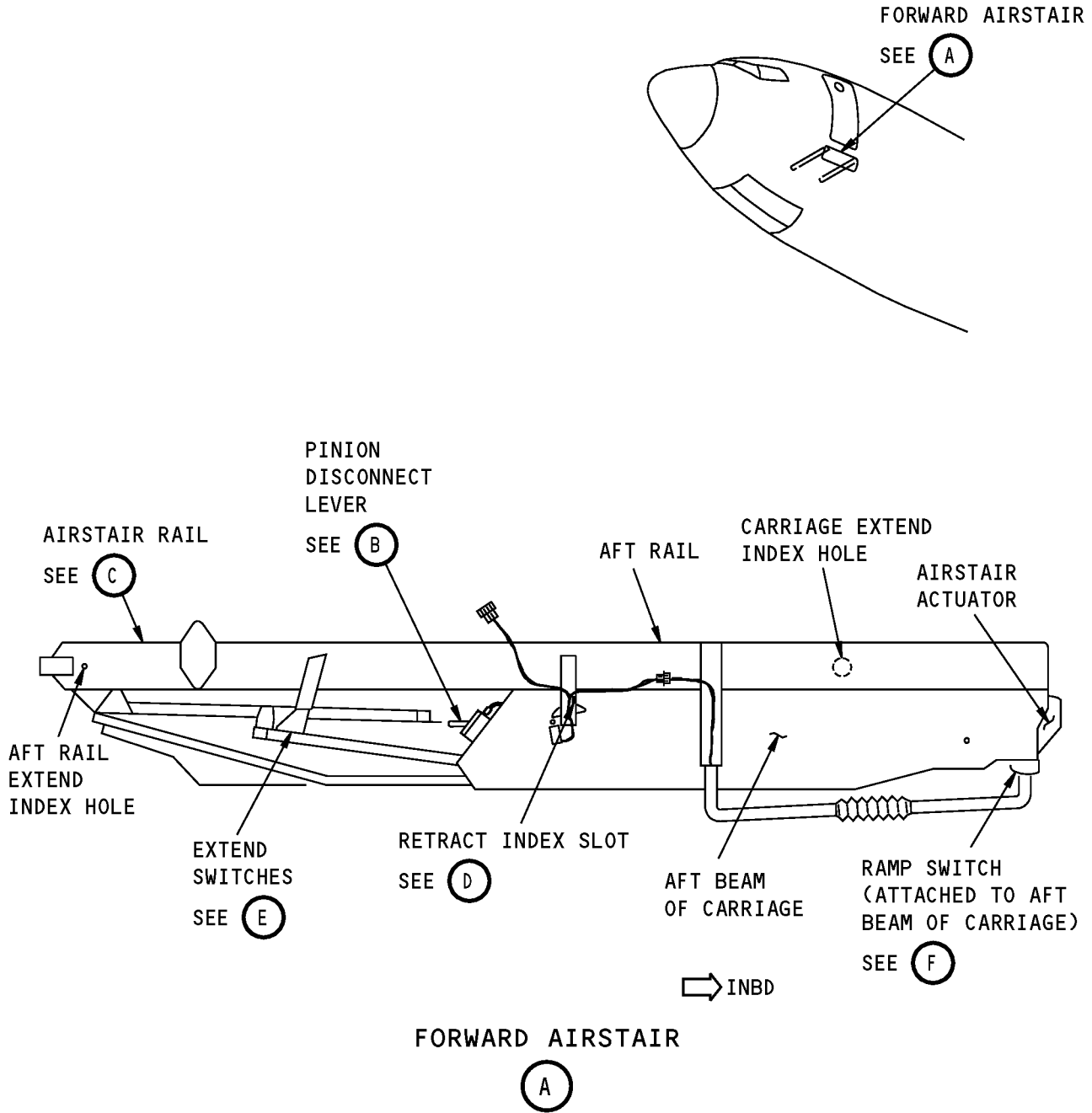
- (a) For the S3 switch, fully extend the forward airstair with NORMAL power and let it stop automatically. For the S4 switch, fully extend the forward airstair with STANDBY power and let it stop automatically.
 - 1) If it is necessary, refer to Forward Airstair Extension, TASK 52-61-00-860-801.
 - 2) Make sure that you can put a no. 2 rig pin, STD-1324 through the aft rail extend index hole and carriage extend index hole.
- (b) Retract the forward airstair (TASK 52-61-00-860-802).
- (c) Retract the forward airstair and close this access panel:

<u>Number</u>	<u>Name/Location</u>
117BL	Forward Airstair Door

————— END OF TASK —————

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Forward Airstair Extend Limit Switches Installation
Figure 401 (Sheet 1 of 3)/52-61-15-990-801

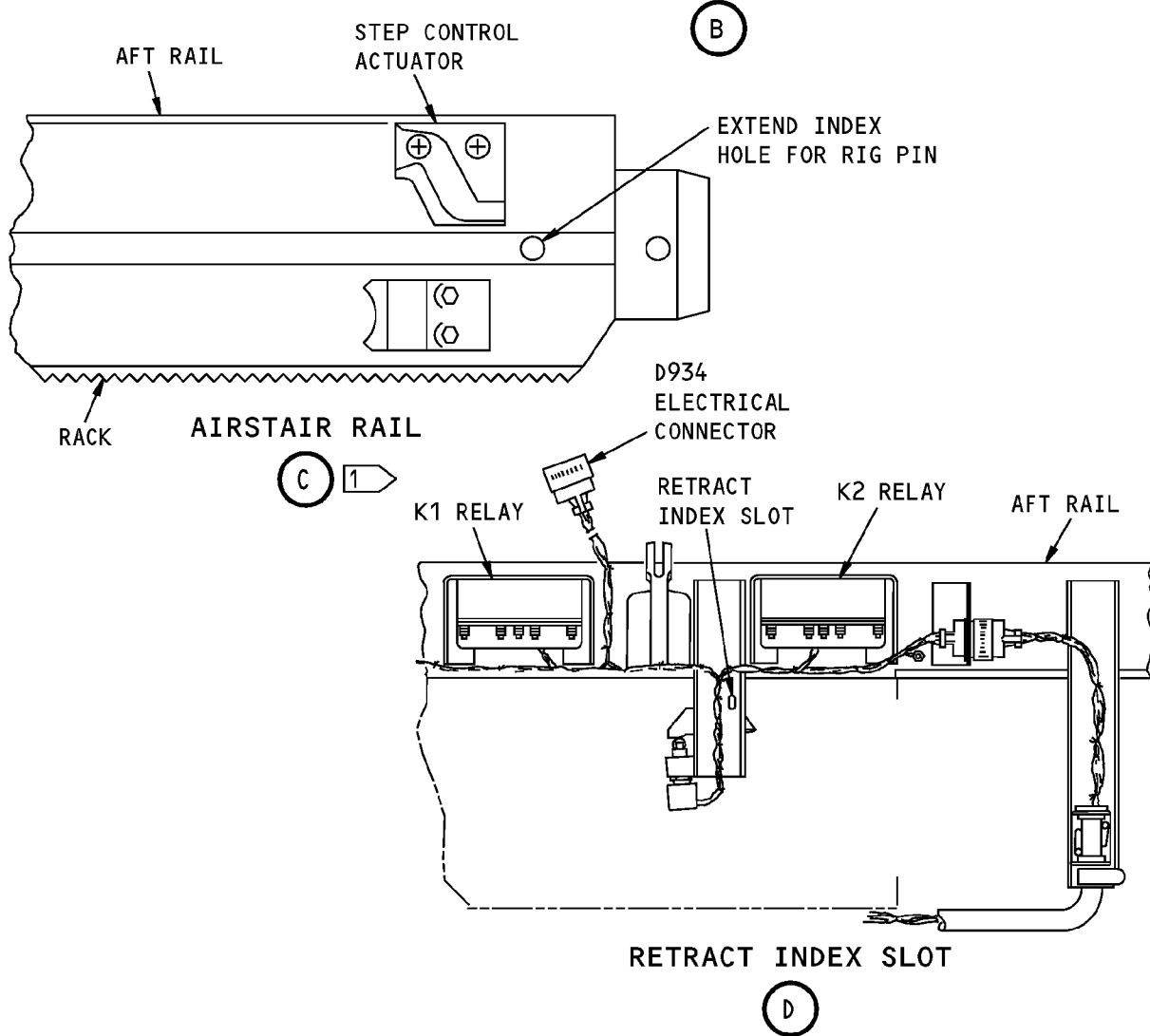
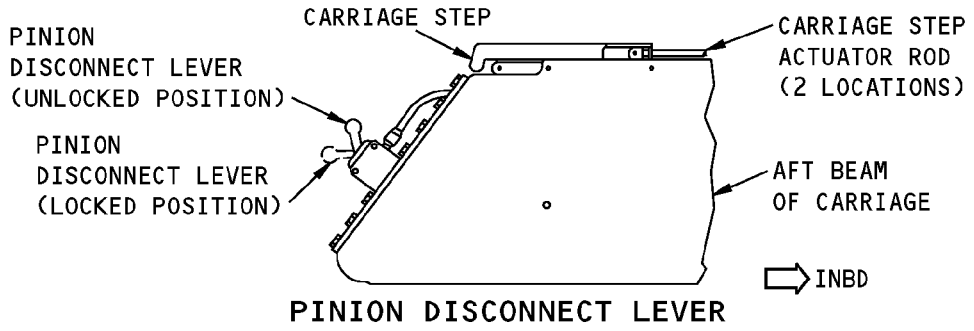
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1 THE FORWARD SIDE OF THE AFT RAIL IS SHOWN, THE AFT SIDE OF THE FORWARD RAIL IS EQUIVALENT.

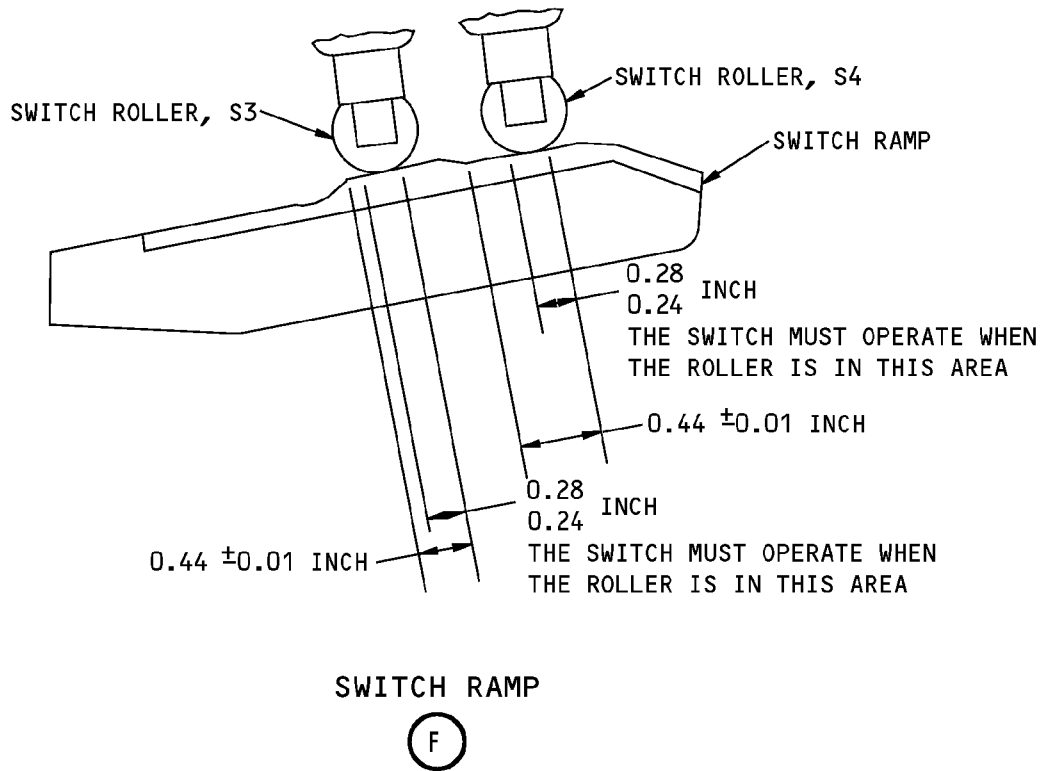
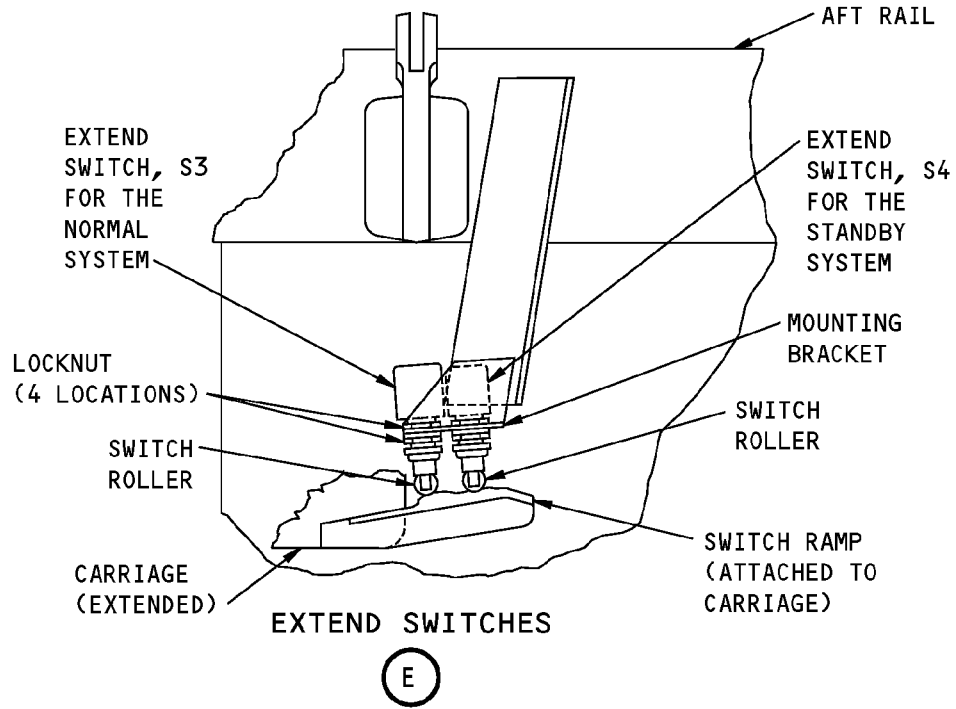
Forward Airstair Extend Limit Switches Installation
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**Forward Airstair Extend Limit Switches Installation
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FORWARD AIRSTAIR LOWER LADDER OPERATING SWITCH (S10) - REMOVAL/INSTALLATION

1. General

- A. In this procedure the forward airstair lower ladder operating switch is referred to as the S10 switch.
- B. This procedure contains these tasks:
 - (1) A removal of the S10 switch.
 - (2) An installation of the S10 switch.
 - (3) An adjustment of the S10 switch.

TASK 52-61-16-000-801

2. Forward Airstair Lower Ladder Operating Switch (S10) Removal

A. References

Reference	Title
52-61-00-860-803	Forward Airstair Extension in Normal Mode (P/B 201)

B. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left

C. Prepare for the Removal

SUBTASK 52-61-16-860-001

WARNING: MAKE SURE THERE ARE NO PERSONS OR EQUIPMENT IN THE AREA OF THE FORWARD AIRSTAIR BEFORE IT OPERATES. THE AIRSTAIR CAN HIT PERSONS OR EQUIPMENT WHEN IT OPERATES. IF THE AIRSTAIR HITS PERSONS OR EQUIPMENT, INJURY TO PERSONS OR DAMAGE TO EQUIPMENT CAN OCCUR.

CAUTION: DO NOT OPERATE THE AIRSTAIR AFTER 3 FULL CYCLES IN LESS THAN 20 MINUTES. DO NOT OPERATE THE AIRSTAIR WHEN THE WIND IS MORE THAN 40 KNOTS. DO NOT OPERATE THE AIRSTAIR WHEN THE DOOR IS BETWEEN THE COCKED AND FULLY OPEN POSITIONS. DO NOT OPERATE THE AIRSTAIR WHEN THERE IS NO SUPPORT BELOW THE EXTENDED AIRSTAIR. DO NOT OPERATE THE AIRSTAIR WHEN THE AIRPLANE IS ON JACKS. IF THE AIRSTAIR OPERATES IN ONE OR MORE OF THE ABOVE CONDITIONS, DAMAGE TO EQUIPMENT CAN OCCUR.

- (1) Use NORMAL to fully extend the airstair, Forward Airstair Extension in Normal Mode, TASK 52-61-00-860-803.

SUBTASK 52-61-16-860-002

- (2) Open these circuit breakers and install safety tags:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

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D. Removal

SUBTASK 52-61-16-020-001

- (1) Remove the S10 switch as follows:
 - (a) Disconnect the electrical wires from the S10 switch.
 - (b) Remove the lockwire on the jamnuts.
 - (c) Remove the jamnut that attaches the switch to the mounting angle.
 - (d) Remove the switch from the mounting angle.

————— **END OF TASK** —————

TASK 52-61-16-400-801

3. Forward Airstair Lower Ladder Operating Switch (S10) Installation

(Figure 401)

A. References

Reference	Title
52-61-00 P/B 201	FORWARD AIRSTAIR - MAINTENANCE PRACTICES

B. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left

C. Prepare for the installation

SUBTASK 52-61-16-720-001

- (1) Prepare for the installation as follows:
 - (a) Make sure the airstair is fully extended.

NOTE: If it is necessary, the instructions to retract the airstair are found in FORWARD AIRSTAIR - MAINTENANCE PRACTICES, PAGEBLOCK 52-61-00/201
 - (b) Make sure that these circuit breakers are open and have safety tags:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

- (c) Make sure the D934 electrical connector is disconnected.

D. Installation

SUBTASK 52-61-16-420-001

- (1) Install the S10 switch as follows:
 - (a) Put the switch in the mounting angle.
 - (b) Turn the jamnuts until the switch is fully forward.

NOTE: Do not tighten the jamnuts.

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- (c) Connect the electrical wires to the switch.
- (d) Do this task: Forward Airstair Lower Ladder Operating Switch (S10) Adjustment, TASK 52-61-16-820-801.

END OF TASK

TASK 52-61-16-820-801

4. Forward Airstair Lower Ladder Operating Switch (S10) Adjustment

A. References

Reference	Title
52-61-00-860-801	Forward Airstair Extension (P/B 201)
52-61-00-860-806	Forward Airstair Retraction in Normal Mode (P/B 201)

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-591	Multimeter - Digital, Handheld (volt dc/vac, ampere & resistance measurements or equivalent Multimeter) (Part #: 187, Supplier: 89536, A/P Effectivity: 737-ALL) (Part #: 189, Supplier: 89536, A/P Effectivity: 737-ALL) (Part #: 87V, Supplier: 89536, A/P Effectivity: 737-ALL) (Part #: FLUKE 117, Supplier: 89536, A/P Effectivity: 737-ALL) (Part #: MODEL 27, Supplier: 89536, A/P Effectivity: 737-ALL)

C. Consumable Materials

Reference	Description	Specification
G01048	Lockwire - Corrosion Resistant Steel (0.032 In. Dia.)	NASM20995~ C32

D. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left

E. Prepare for the Adjustment

SUBTASK 52-61-16-720-002

- (1) Make sure the airstair is fully extended.
 - (a) If it is necessary, refer to Forward Airstair Extension, TASK 52-61-00-860-801.

SUBTASK 52-61-16-860-003

- (2) Make sure that these circuit breakers are open:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

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F. Adjustment

SUBTASK 52-61-16-720-003

(1) Adjust the S10 switch as follows:

- (a) Turn the jamnuts until the switch roller lightly touches the ramp.
- (b) Connect the handheld digital multimeter, COM-591 between pins 1 and 3 of the S10 switch at the P13 electrical connector.
 - 1) The P13 electrical connector is found forward and below the S10 switch.
- (c) Make sure that the S10 switch is open.
- (d) Turn the jamnuts until the plunger moves into the switch to the dimension shown in (Figure 401).
- (e) Make sure that the switch is closed.
- (f) Tighten the jamnuts.
- (g) Remove the handheld digital multimeter, COM-591.

G. Put the Airplane Back to its Usual Condition

SUBTASK 52-61-16-420-002

(1) Install lockwire, G01048 on the jamnuts.

SUBTASK 52-61-16-420-003

(2) Connect the P13 electrical connector.

SUBTASK 52-61-16-860-004

(3) Remove the safety tags and close these circuit breakers:

F/O Electrical System Panel, P6-4

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

SUBTASK 52-61-16-860-005

(4) Do an installation test of the S10 switch as follows:

WARNING: MAKE SURE THERE ARE NO PERSONS OR EQUIPMENT IN THE AREA OF THE FORWARD AIRSTAIR BEFORE IT OPERATES. THE AIRSTAIR CAN HIT PERSONS OR EQUIPMENT WHEN IT OPERATES. IF THE AIRSTAIR HITS PERSONS OR EQUIPMENT, INJURY TO PERSONS OR DAMAGE TO EQUIPMENT CAN OCCUR.

CAUTION: DO NOT OPERATE THE AIRSTAIR AFTER 3 FULL CYCLES IN LESS THAN 20 MINUTES. DO NOT OPERATE THE AIRSTAIR WHEN THE WIND IS MORE THAN 40 KNOTS. DO NOT OPERATE THE AIRSTAIR WHEN THE DOOR IS BETWEEN THE COCKED AND FULLY OPEN POSITIONS. DO NOT OPERATE THE AIRSTAIR WHEN THERE IS NO SUPPORT UNDER THE AIRSTAIR. DO NOT OPERATE THE AIRSTAIR WHEN THE AIRPLANE IS ON JACKS. IF YOU OPERATE THE AIRSTAIR IN ONE OR MORE OF THE ABOVE CONDITIONS, DAMAGE TO EQUIPMENT CAN OCCUR.

- (a) Fully retract the forward airstair with NORMAL power.

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- 1) If it is necessary, refer to Forward Airstair Retraction in Normal Mode, TASK 52-61-00-860-806.

————— **END OF TASK** —————

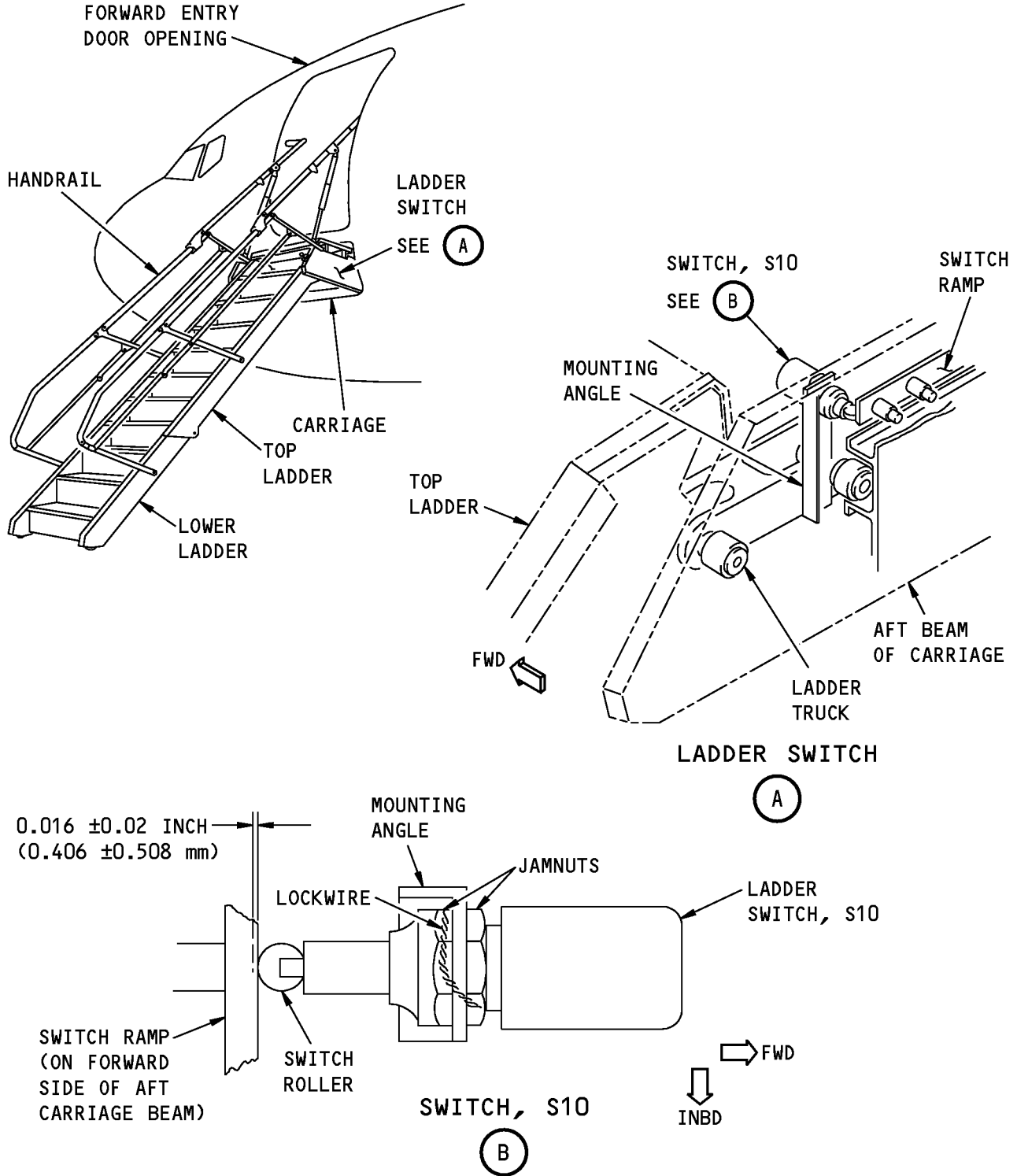
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Forward Airstair Lower Ladder Operating Switch, S10 Installation
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AIRCRAFT MAINTENANCE MANUAL

FORWARD AIRSTAIR LOWER LADDER CLOSED SWITCH (S11) - REMOVAL/INSTALLATION

1. General

- A. In this procedure the forward airstair lower ladder closed switch will be called the S11 switch.
- B. This procedure contains these tasks:
 - (1) A removal of the S11 switch.
 - (2) An installation of the S11 switch.
 - (3) An adjustment of the S11 switch.

TASK 52-61-17-000-801

2. Forward Airstair Lower Ladder Closed Switch (S11) Removal

(Figure 401)

A. References

Reference	Title
52-61-00-860-803	Forward Airstair Extension in Normal Mode (P/B 201)

B. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left

C. Access Panels

Number	Name/Location
117A	Electronic Equipment Access Door

D. Prepare for the Removal

SUBTASK 52-61-17-860-001

- (1) Prepare for the removal as follows:

WARNING: MAKE SURE THERE ARE NO PERSONS OR EQUIPMENT IN THE AREA OF THE FORWARD AIRSTAIR BEFORE IT OPERATES. THE FORWARD AIRSTAIR CAN HIT PERSONS OR EQUIPMENT WHEN IT OPERATES. THIS CAN CAUSE INJURY TO PERSONS OR DAMAGE TO EQUIPMENT CAN OCCUR.

CAUTION: DO NOT OPERATE THE FORWARD AIRSTAIR AFTER 3 FULL CYCLES IN LESS THAN 20 MINUTES. DO NOT OPERATE THE FORWARD AIRSTAIR WHEN THE WIND IS MORE THAN 40 KNOTS. DO NOT OPERATE THE FORWARD AIRSTAIR WHEN THE FORWARD ENTRY DOOR IS BETWEEN THE COCKED AND FULLY OPEN POSITIONS. DO NOT OPERATE THE FORWARD AIRSTAIR WHEN THERE IS NO SUPPORT UNDER THE FORWARD AIRSTAIR (AIRPLANE IS ON JACKS). IF YOU OPERATE THE FORWARD AIRSTAIR WITH ONE OR MORE OF THESE CONDITIONS, DAMAGE TO EQUIPMENT CAN OCCUR.

- (a) Do this task: Forward Airstair Extension in Normal Mode, TASK 52-61-00-860-803.
- (b) Open these circuit breakers and install safety tags:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT

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Row	Col	Number	Name
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

(c) Get access to the work area through this access panel:

Number	Name/Location
117A	Electronic Equipment Access Door

(d) Disconnect the airstair P1 electrical connector.

E. Removal

SUBTASK 52-61-17-020-001

(1) Remove the S11 switch as follows:

- (a) Disconnect the airstair P14 electrical connector from the receptacle.
- (b) Disconnect the switch wires from the airstair P14 electrical connector.

NOTE: Use this connector when you install the switch.

- (c) Remove the jamnuts that attach the switch to the bracket.
- (d) Remove the switch from the bracket.

————— END OF TASK —————

TASK 52-61-17-400-801

3. Forward Airstair Lower Ladder Closed Switch (S11) Installation

(Figure 401)

A. References

Reference	Title
52-61-00 P/B 201	FORWARD AIRSTAIR - MAINTENANCE PRACTICES

B. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left

C. Prepare for the installation.

SUBTASK 52-61-17-720-001

(1) Prepare for the installation as follows:

- (a) Make sure the airstair is fully extended.

NOTE: If it is necessary, the instructions to extend the airstair are found in FORWARD AIRSTAIR - MAINTENANCE PRACTICES, PAGEBLOCK 52-61-00/201

- (b) Make sure that these circuit breakers are open and have safety tags:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY

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Row	Col	Number	Name
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

(c) Make sure the airstair P1 electrical connector is disconnected.

D. Installation

SUBTASK 52-61-17-420-001

(1) Install the S11 switch as follows:

- (a) Connect the switch wires to the airstair P14 electrical connector.
- (b) Make sure one of the jamnuts is installed on the switch.
- (c) Install the switch in the bracket.
- (d) Connect the airstair P14 electrical connector to the receptacle.
- (e) Install the remaining jamnut on the switch.

NOTE: Do not tighten the jamnuts.

(f) Do this task: Forward Airstair Lower Ladder Closed Switch (S11) Adjustment, TASK 52-61-17-820-801.

————— END OF TASK —————

TASK 52-61-17-820-801

4. Forward Airstair Lower Ladder Closed Switch (S11) Adjustment

(Figure 401)

A. References

Reference	Title
52-61-00-860-803	Forward Airstair Extension in Normal Mode (P/B 201)
52-61-00-860-806	Forward Airstair Retraction in Normal Mode (P/B 201)

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-591	Multimeter - Digital, Handheld (volt dc/vac, ampere & resistance measurements or equivalent Multimeter) (Part #: 187, Supplier: 89536, A/P Effectivity: 737-ALL) (Part #: 189, Supplier: 89536, A/P Effectivity: 737-ALL) (Part #: 87V, Supplier: 89536, A/P Effectivity: 737-ALL) (Part #: FLUKE 117, Supplier: 89536, A/P Effectivity: 737-ALL) (Part #: MODEL 27, Supplier: 89536, A/P Effectivity: 737-ALL)

C. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left

D. Access Panels

Number	Name/Location
117A	Electronic Equipment Access Door

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E. Prepare for the Adjustment

SUBTASK 52-61-17-720-002

(1) Prepare for the adjustment as follows:

(a) Make sure the airstair is sufficiently extended to get access to the S11 switch.

NOTE: Do not let the bottom ladder release from the top ladder.

(b) Make sure that these circuit breakers are open and have safety tags:

F/O Electrical System Panel, P6-4

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

(c) Make sure the airstair P1 electrical connector is disconnected.

F. Adjustment

SUBTASK 52-61-17-820-001

(1) Adjust the S11 switch as follows:

(a) Loosen the jamnuts that hold the switch to the bracket.

(b) Turn the jamnuts until the switch roller lightly touches the bottom beam.

(c) Connect the handheld digital multimeter, COM-591 between pins 1 and 3 of the airstair P14 electrical connector.

(d) Make sure that there is no continuity across the switch.

(e) Turn the jamnuts until the plunger moves into the switch to the dimension shown in (Figure 401).

(f) Make sure that there is continuity across the switch.

(g) Remove the handheld digital multimeter, COM-591.

(h) Tighten the jamnuts.

(i) Connect the airstair P14 electrical connector.

G. Put the Airplane Back to its Usual Condition

SUBTASK 52-61-17-420-002

(1) Put the airplane back to it usual condition as follows:

(a) Connect the airstair P1 electrical connector.

(b) Exit the EE bay and close this access panel:

<u>Number</u>	<u>Name/Location</u>
117A	Electronic Equipment Access Door

(c) Remove the safety tags and close these circuit breakers:

F/O Electrical System Panel, P6-4

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT

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<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

SUBTASK 52-61-17-860-002

(2) Do an installation test of the S11 switch as follows:

WARNING: MAKE SURE THERE ARE NO PERSONS OR EQUIPMENT IN THE AREA OF THE FORWARD AIRSTAIR BEFORE IT OPERATES. THE FORWARD AIRSTAIR CAN HIT PERSONS OR EQUIPMENT WHEN IT IS OPERATES. THIS CAN CAUSE INJURY TO PERSONS OR DAMAGE TO EQUIPMENT CAN OCCUR.

CAUTION: DO NOT OPERATE THE FORWARD AIRSTAIR AFTER 3 FULL CYCLES IN LESS THAN 20 MINUTES. DO NOT OPERATE THE FORWARD AIRSTAIR WHEN THE WIND IS MORE THAN 40 KNOTS. DO NOT OPERATE THE FORWARD AIRSTAIR WHEN THE FORWARD ENTRY DOOR IS BETWEEN THE COCKED AND FULLY OPEN POSITIONS. DO NOT OPERATE THE FORWARD AIRSTAIR WHEN THERE IS NO SUPPORT UNDER THE FORWARD AIRSTAIR (AIRPLANE IS ON JACKS). IF YOU OPERATE THE FORWARD AIRSTAIR WITH ONE OR MORE OF THESE CONDITIONS, DAMAGE TO EQUIPMENT CAN OCCUR.

(a) Fully extend and retract the forward airstair with NORMAL power(TASK 52-61-00-860-803 and TASK 52-61-00-860-806).

1) Make sure that the airstair operates correctly during the extend and retract procedures.

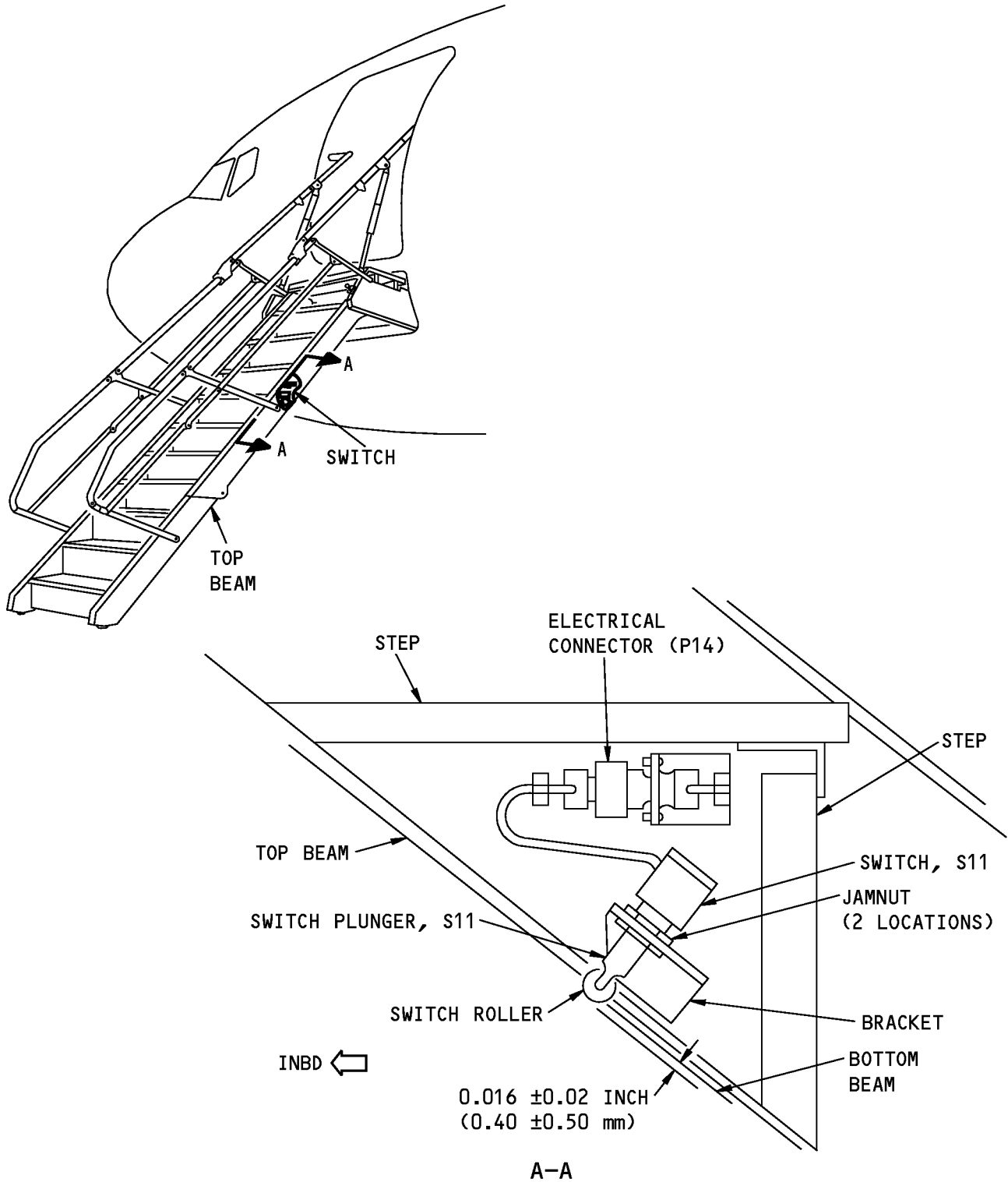
————— **END OF TASK** —————

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**Forward Airstair Lower Ladder Closed Switch Installation
Figure 401/52-61-17-990-801**

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AIRCRAFT MAINTENANCE MANUAL

FORWARD AIRSTAIR MANUAL HANDRAIL STOWED SWITCHES (S1 AND S2) - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

- (1) A removal of the S1 and S2 switches.
- (2) An installation of the S1 and S2 switches.

TASK 52-61-18-000-801

2. Forward Airstair Handrail Switch (S1 or S2) Removal

(Figure 401)

A. References

Reference	Title
52-61-00-860-803	Forward Airstair Extension in Normal Mode (P/B 201)

B. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left

C. Access Panels

Number	Name/Location
117A	Electronic Equipment Access Door

D. Prepare for the removal

SUBTASK 52-61-18-860-001

- (1) Prepare for the removal as follows:

WARNING: MAKE SURE THERE ARE NO PERSONS OR EQUIPMENT IN THE AREA OF THE FORWARD AIRSTAIR BEFORE IT OPERATES. THE AIRSTAIR CAN HIT PERSONS OR EQUIPMENT WHEN IT IS OPERATED. IF THE AIRSTAIR HITS PERSONS OR EQUIPMENT, INJURY TO PERSONS OR DAMAGE TO EQUIPMENT CAN OCCUR.

CAUTION: DO NOT OPERATE THE AIRSTAIR AFTER 3 FULL CYCLES IN LESS THAN 20 MINUTES. DO NOT OPERATE THE AIRSTAIR WHEN THE WIND IS MORE THAN 40 KNOTS. DO NOT OPERATE THE AIRSTAIR WHEN THE DOOR IS BETWEEN THE COCKED AND FULLY OPEN. DO NOT OPERATE THE AIRSTAIR WHEN THERE IS NO SUPPORT UNDER THE AIRSTAIR. DO NOT OPERATE THE AIRSTAIR WHEN THE AIRPLANE IS ON JACKS. IF THE AIRSTAIR OPERATES IN ONE OR MORE OF THE ABOVE CONDITIONS, DAMAGE TO EQUIPMENT CAN OCCUR.

- (a) Use NORMAL power to fully extend the airstair (TASK 52-61-00-860-803).
 - 1) Do not extend the handrails.
- (b) Open these circuit breakers and install safety tags:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY

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Row	Col	Number	Name
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

(c) Get access to the work area through this access panel:

Number	Name/Location
117A	Electronic Equipment Access Door

(d) Disconnect the airstair P1 electrical connector.

E. Removal

SUBTASK 52-61-18-020-001

(1) Disconnect the wires from the appropriate electrical connector.

NOTE: Connector P15 for the forward switch (S1) and P16 for the aft switch (S2).

SUBTASK 52-61-18-940-001

(2) Safety the S1 or S2 switch wires as follows:

- (a) Get a length of string that is approximately one foot longer than the distance from the electrical connector to the switch.
- (b) Tie the string to the end of the wires near the switch.

NOTE: The string helps to install the wires correctly.

SUBTASK 52-61-18-020-002

(3) Remove the S1 or S2 switch from the handrail as follows:

- (a) Remove the screws that attach the switch cover to the handrail.
- (b) Remove the jamnut that holds the switch to the cover.
- (c) Pull the wires up through the stanchion.

NOTE: The string extends out of the stanchion to show the location of the wires.

(d) Disconnect the string from the wires.

END OF TASK

TASK 52-61-18-400-801

3. Forward Airstair Handrail Switch (S1 or S2) Installation

(Figure 401)

A. References

Reference	Title
52-61-00 P/B 201	FORWARD AIRSTAIR - MAINTENANCE PRACTICES
52-61-00-860-802	Forward Airstair Retraction (P/B 201)

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

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Reference	Description
COM-591	Multimeter - Digital, Handheld (volt dc/vac, ampere & resistance measurements or equivalent Multimeter) (Part #: 187, Supplier: 89536, A/P Effectivity: 737-ALL) (Part #: 189, Supplier: 89536, A/P Effectivity: 737-ALL) (Part #: 87V, Supplier: 89536, A/P Effectivity: 737-ALL) (Part #: FLUKE 117, Supplier: 89536, A/P Effectivity: 737-ALL) (Part #: MODEL 27, Supplier: 89536, A/P Effectivity: 737-ALL)

C. Consumable Materials

Reference	Description	Specification
G01048	Lockwire - Corrosion Resistant Steel (0.032 In. Dia.)	NASM20995~ C32

D. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left

E. Access Panels

Number	Name/Location
117A	Electronic Equipment Access Door

F. Prepare for the installation

SUBTASK 52-61-18-720-001

(1) Prepare for the installation as follows:

(a) Make sure the airstair is fully extended.

NOTE: If it is necessary, the instructions to extend the airstair are found in FORWARD AIRSTAIR - MAINTENANCE PRACTICES, PAGEBLOCK 52-61-00/201

(b) Make sure that these circuit breakers are open and have safety tags:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

(c) Make sure the airstair P1 electrical connector is disconnected.

G. Installation

SUBTASK 52-61-18-940-002

(1) Pull the S1 or S2 switch wires through the stanchion as follows:

(a) Tie the string to the end of the wires on the switch.

(b) Pull the string until the wires go through the stanchion to the electrical connector.

SUBTASK 52-61-18-420-001

(2) Connect the wires to the appropriate electrical connector (P15 for the forward connector, P16 for the aft connector).

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SUBTASK 52-61-18-420-002

(3) Install the switch into the cover.

SUBTASK 52-61-18-420-003

(4) Turn the jamnut until the plunger extends to the dimension shown in (Figure 401).

SUBTASK 52-61-18-420-004

(5) Tighten the jamnut.

SUBTASK 52-61-18-420-005

(6) Install lockwire, G01048 on the jamnut.

SUBTASK 52-61-18-760-001

(7) Do a test of the S1 or S2 switch.

- (a) Make sure the manual handrail extension is not latched to the appropriate handrail.
- (b) Connect the handheld digital multimeter, COM-591 between pins 1 and 3 of the appropriate electrical connector.
- (c) Make sure that there is continuity between pins 1 and 3.
- (d) Latch the handrail extension to the handrail.
- (e) Make sure that there is no continuity between pins 1 and 3.
- (f) Remove the handheld digital multimeter, COM-591.

SUBTASK 52-61-18-420-006

(8) Connect the P15 or P16 electrical connectors.

H. Put the Airplane Back to its Usual Condition.

SUBTASK 52-61-18-420-007

(1) Connect airstair P1 electrical connector.

SUBTASK 52-61-18-410-001

(2) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
117A	Electronic Equipment Access Door

SUBTASK 52-61-18-860-002

(3) Remove the safety tags and close these circuit breakers:

F/O Electrical System Panel, P6-4

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

SUBTASK 52-61-18-410-002

(4) Retract the forward airstair (TASK 52-61-00-860-802).

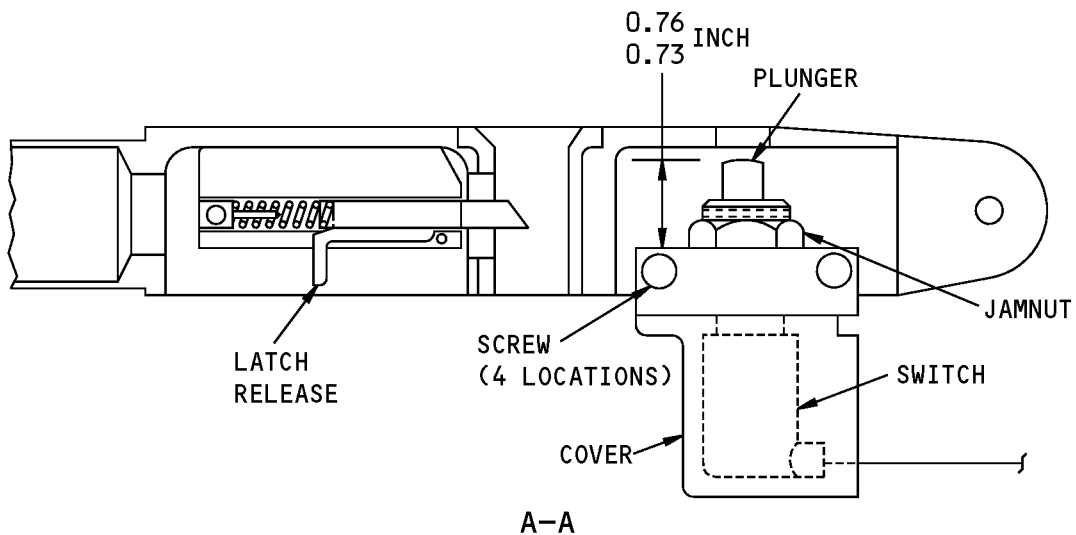
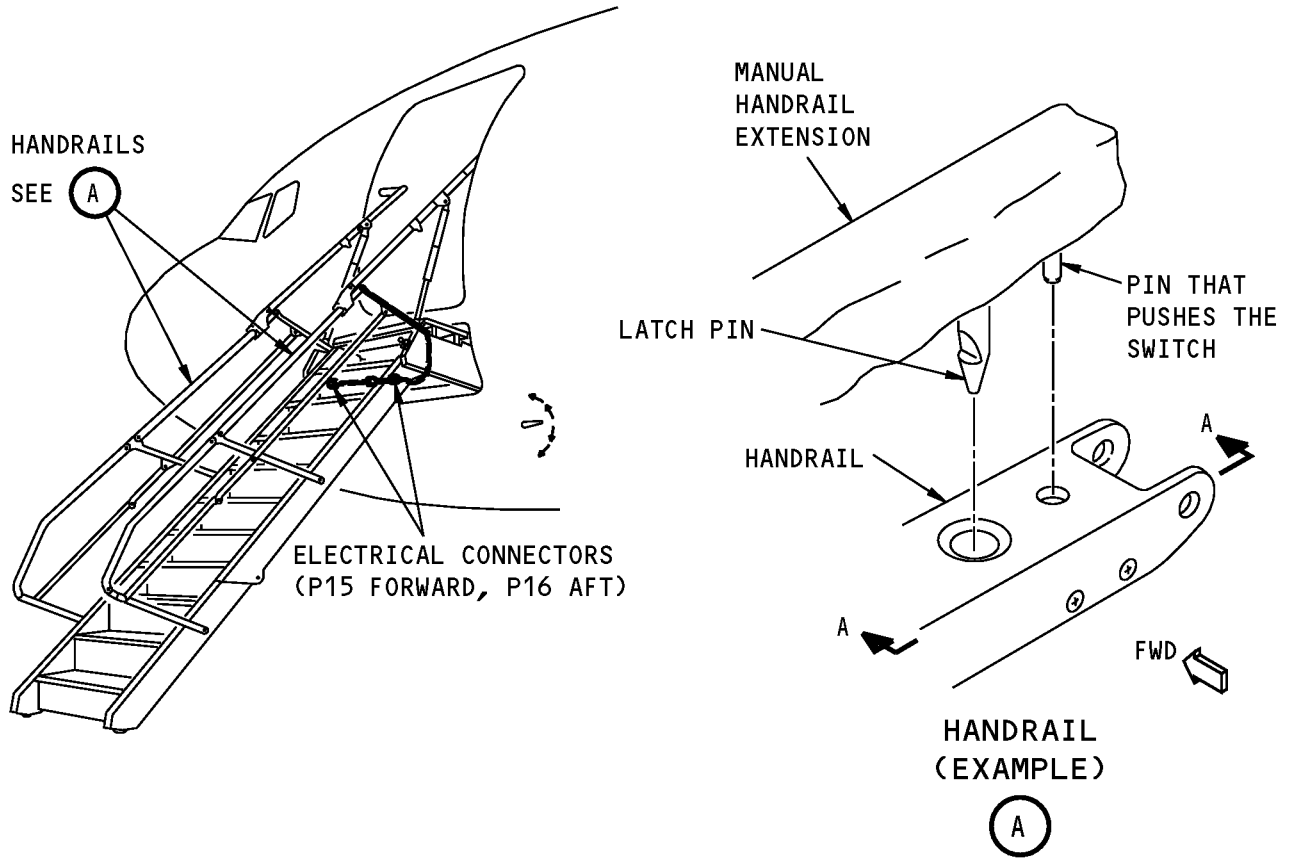
END OF TASK

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Forward Airstairs Manual Handrail Stowed Switches, S1 & S2 Installation
Figure 401/52-61-18-990-801

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AIRCRAFT MAINTENANCE MANUAL

FORWARD AIRSTAIR LOWER LADDER LOCK - ADJUSTMENT/TEST

TASK 52-61-19-820-801

1. Forward Airstair Lower Ladder Lock Mechanism Adjustment

(Figure 501)

A. References

Reference	Title
52-61-00-860-801	Forward Airstair Extension (P/B 201)
52-61-00-860-802	Forward Airstair Retraction (P/B 201)

B. Consumable Materials

Reference	Description	Specification
G01048	Lockwire - Corrosion Resistant Steel (0.032 In. Dia.)	NASM20995~ C32

C. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left

D. Prepare for the Adjustment

SUBTASK 52-61-19-860-001

WARNING: MAKE SURE THERE ARE NO PERSONS OR EQUIPMENT IN THE AREA OF THE FORWARD AIRSTAIR BEFORE IT OPERATES. THE AIRSTAIR CAN HIT PERSONS OR EQUIPMENT WHEN IT EXTENDS. THIS CAN CAUSE INJURY TO PERSONS OR DAMAGE TO EQUIPMENT CAN OCCUR.

CAUTION: DO NOT OPERATE THE FORWARD AIRSTAIR AFTER 3 FULL CYCLES IN LESS THAN 20 MINUTES. DO NOT OPERATE THE FORWARD AIRSTAIR WHEN THE WIND IS MORE THAN 40 KNOTS. DO NOT OPERATE THE FORWARD AIRSTAIR WHEN THE FORWARD ENTRY DOOR IS BETWEEN THE COCKED AND FULLY OPEN POSITIONS. DO NOT OPERATE THE FORWARD AIRSTAIR WHEN THERE IS NO SUPPORT UNDER THE FORWARD AIRSTAIR (AIRPLANE IS ON JACKS). IF YOU OPERATE THE FORWARD AIRSTAIR WITH ONE OR MORE OF THESE CONDITIONS, DAMAGE TO EQUIPMENT CAN OCCUR.

- (1) Fully extend the forward airstair, but do not extend the handrails. To do this, do this task: Forward Airstair Extension, TASK 52-61-00-860-801.

SUBTASK 52-61-19-860-002

- (2) Open these circuit breakers and install safety tags:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

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E. Adjustment

SUBTASK 52-61-19-820-001

- (1) Adjust the ladder lock mechanism as follows:
 - (a) Disconnect the control rod from the ladder hook.
 - (b) Disconnect the control rod from the ladder lock.
 - (c) Loosen the jamnut at each end of the control rod.
 - (d) Adjust the control rod until there is 42.88 +0.06/-0.06 inches (1.089 m +/- 1.52 mm) between the center of the bolt holes in the rod ends.
 - (e) Tighten the jamnuts at each end of the control rod.
 - (f) Install a lockwire, G01048 on the jamnuts.
 - (g) Connect one end of the control rod to the ladder lock trigger.
 - (h) Connect the other end of the control rod to the ladder hook.

SUBTASK 52-61-19-860-003

- (2) Remove the safety tags and close these circuit breakers:

F/O Electrical System Panel, P6-4

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

SUBTASK 52-61-19-710-001

- (3) Do a test of the ladder lock mechanism.
 - (a) Retract the airstair until the bottom ladder locks to the top ladder.
 - (b) Make sure the bottom ladder is tight against the top ladder.

SUBTASK 52-61-19-410-001

- (4) Do this task: Forward Airstair Retraction, TASK 52-61-00-860-802.

END OF TASK

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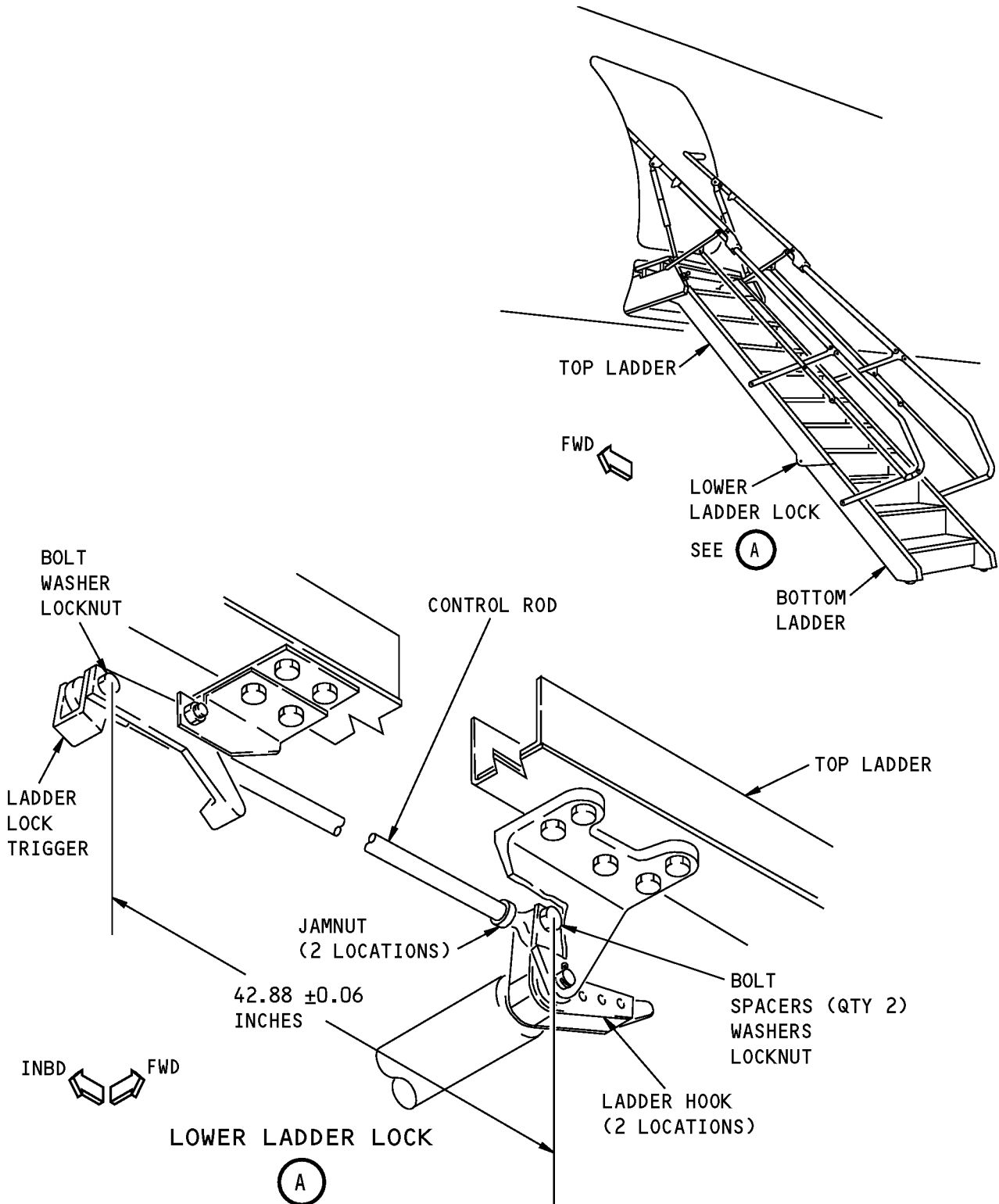
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**Forward Airstair Lower Ladder Lock Adjustment
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FORWARD AIRSTAIR LADDER SLOW-DOWN EXTEND SWITCH (S12) - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

- (1) A removal of the S12 switch.
- (2) An installation of the S12 switch.
- (3) An adjustment of the S12 switch.

TASK 52-61-20-000-801

2. Forward Airstair Ladder Slow-Down Extend Switch (S12) Removal

(Figure 401)

A. References

Reference	Title
52-61-00-860-803	Forward Airstair Extension in Normal Mode (P/B 201)

B. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left

C. Prepare for the Removal

SUBTASK 52-61-20-860-001

WARNING: MAKE SURE THERE ARE NO PERSONS OR EQUIPMENT IN THE AREA OF THE FORWARD AIRSTAIR BEFORE IT OPERATES. THE FORWARD AIRSTAIR CAN HIT PERSONS OR EQUIPMENT WHEN IT EXTENDS. THIS CAN CAUSE INJURY TO PERSONS OR DAMAGE TO EQUIPMENT CAN OCCUR.

CAUTION: DO NOT OPERATE THE FORWARD AIRSTAIR AFTER 3 FULL CYCLES IN LESS THAN 20 MINUTES. DO NOT OPERATE THE FORWARD AIRSTAIR WHEN THE WIND IS MORE THAN 40 KNOTS. DO NOT OPERATE THE FORWARD AIRSTAIR WHEN THE FORWARD ENTRY DOOR IS BETWEEN THE COCKED AND FULLY OPEN POSITIONS. DO NOT OPERATE THE FORWARD AIRSTAIR WHEN THERE IS NO SUPPORT UNDER THE FORWARD AIRSTAIR (AIRPLANE IS ON JACKS). IF YOU OPERATE THE FORWARD AIRSTAIR WITH ONE OR MORE OF THESE CONDITIONS, DAMAGE TO EQUIPMENT CAN OCCUR.

- (1) Extend the forward airstair fully with NORMAL power.
 - (a) If it is necessary, refer to Forward Airstair Extension in Normal Mode, TASK 52-61-00-860-803.

SUBTASK 52-61-20-860-002

- (2) Open these circuit breakers and install safety tags:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

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SUBTASK 52-61-20-020-002

- (3) Disconnect the airstair P1 electrical connector.

D. Removal

SUBTASK 52-61-20-020-003

- (1) Remove the S12 switch as follows:
(a) Disconnect the electrical wires from the S12 switch.
(b) Remove the top locknut that attaches the S12 switch to the bracket.
(c) Remove the S12 switch from the bracket.

END OF TASK

TASK 52-61-20-400-801

3. Forward Airstair Ladder Slow-Down Extend Switch (S12) Installation

(Figure 401)

A. Location Zones

Table with 2 columns: Zone, Area. Row 1: 117, Electrical and Electronics Compartment - Left

B. Prepare for the Installation

SUBTASK 52-61-20-860-003

- (1) Make sure that these circuit breakers are open and have safety tags:

F/O Electrical System Panel, P6-4

Table with 4 columns: Row, Col, Number, Name. Lists circuit breakers like FWD AIRSTAIR DOOR, FWD AIRSTAIR CONT NORMAL, etc.

SUBTASK 52-61-20-420-002

- (2) Make sure the airstair P1 connector is not connected.

C. Installation

SUBTASK 52-61-20-420-003

- (1) Install the slow-down switch S12 as follows:
(a) Put the S12 switch on bracket with the switch roller in the up position.
(b) Turn the locknuts on the S12 switch until the switch is as low as possible.
(c) Do this task: Forward Airstair Ladder Slow-Down Extend Switch (S12) Adjustment, TASK 52-61-20-820-801.

END OF TASK

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TASK 52-61-20-820-801

4. Forward Airstair Ladder Slow-Down Extend Switch (S12) Adjustment

(Figure 401)

A. References

Reference	Title
52-61-00-860-802	Forward Airstair Retraction (P/B 201)
52-61-00-860-803	Forward Airstair Extension in Normal Mode (P/B 201)

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-591	Multimeter - Digital, Handheld (volt dc/vac, ampere & resistance measurements or equivalent Multimeter) (Part #: 187, Supplier: 89536, A/P Effectivity: 737-ALL) (Part #: 189, Supplier: 89536, A/P Effectivity: 737-ALL) (Part #: 87V, Supplier: 89536, A/P Effectivity: 737-ALL) (Part #: FLUKE 117, Supplier: 89536, A/P Effectivity: 737-ALL) (Part #: MODEL 27, Supplier: 89536, A/P Effectivity: 737-ALL)
STD-1324	Pin - Rig, No. 2, Airstair, Wood, 0.24 Inch Diameter by 2.50 Inches

C. Consumable Materials

Reference	Description	Specification
G01048	Lockwire - Corrosion Resistant Steel (0.032 In. Dia.)	NASM20995~ C32

D. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left

E. Access Panels

Number	Name/Location
117A	Electronic Equipment Access Door

F. Prepare for the Adjustment

SUBTASK 52-61-20-860-004

- (1) Make sure that these circuit breakers are open and have safety tags:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

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SUBTASK 52-61-20-420-005

- (2) Make sure the airstair P1 connector is not connected.

SUBTASK 52-61-20-020-004

- (3) Prepare for the S12 switch adjustment as follows:
 - (a) Move the pinion disconnect lever to the not locked position.
 - (b) Disconnect the actuator rods from each side of the top step.

NOTE: This lets the carriage move freely. Do not adjust the actuator rods.

G. Adjustment

SUBTASK 52-61-20-420-006

- (1) Adjust the S12 switch as follows:
 - (a) Turn the locknuts on the switch so that the distance between extended and fully pushed positions of the roller are as shown in (Figure 401).
 - (b) Manually move the carriage inboard and outboard.
 - (c) Use the handheld digital multimeter, COM-591 to make sure there is no continuity between the Y2 terminal on airstair relay K1 and X2 terminal on airstair relay K1 when the ramp does not touch the S12 switch.
 - (d) Make sure that there is continuity between the Y2 terminal on airstair relay K1 and X2 terminal on airstair relay K1 when the flat part of the ramp pushes the S12 switch.
 - (e) Remove the handheld digital multimeter, COM-591.
 - (f) Install a lockwire, G01048 on the locknuts.

H. Put the Airplane Back to its Usual Condition

SUBTASK 52-61-20-420-007

- (1) Connect the actuator rods to each side of the top step.

SUBTASK 52-61-20-420-008

- (2) Align the carriage to the rails and lock the pinion disconnect lever as follows:
 - (a) Move the carriage so the carriage retract index hole and aft rail retract index slot align.
 - (b) Put the no. 2 rig pin, STD-1324 through the carriage retract index hole and aft rail retract index slot.
 - (c) Move the pinion disconnect lever to the locked position.
 - (d) Use lockwire, G01048 to lock the pinion disconnect lever.
 - (e) Remove the no. 2 rig pin, STD-1324.

SUBTASK 52-61-20-420-009

- (3) Connect airstair P1 electrical connector.

SUBTASK 52-61-20-410-001

- (4) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
117A	Electronic Equipment Access Door

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SUBTASK 52-61-20-860-005

(5) Remove the safety tags and close these circuit breakers:

F/O Electrical System Panel, P6-4

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

SUBTASK 52-61-20-860-006

(6) Do an installation test of the S12 switch as follows:

WARNING: MAKE SURE THERE ARE NO PERSONS OR EQUIPMENT IN THE AREA OF THE FORWARD AIRSTAIR BEFORE IT OPERATES. THE FORWARD AIRSTAIR CAN HIT PERSONS OR EQUIPMENT WHEN IT EXTENDS. THIS CAN CAUSE INJURY TO PERSONS OR DAMAGE TO EQUIPMENT CAN OCCUR.

CAUTION: DO NOT OPERATE THE FORWARD AIRSTAIR AFTER 3 FULL CYCLES IN LESS THAN 20 MINUTES. DO NOT OPERATE THE FORWARD AIRSTAIR WHEN THE WIND IS MORE THAN 40 KNOTS. DO NOT OPERATE THE FORWARD AIRSTAIR WHEN THE FORWARD ENTRY DOOR IS BETWEEN THE COCKED AND FULLY OPEN POSITIONS. DO NOT OPERATE THE FORWARD AIRSTAIR WHEN THERE IS NO SUPPORT UNDER THE FORWARD AIRSTAIR (AIRPLANE IS ON JACKS). IF YOU OPERATE THE FORWARD AIRSTAIR WITH ONE OR MORE OF THESE CONDITIONS, DAMAGE TO EQUIPMENT CAN OCCUR.

- (a) Fully extend the forward airstair with NORMAL power.
 - 1) If it is necessary, refer to Forward Airstair Extension in Normal Mode, TASK 52-61-00-860-803.
- (b) Make sure the extension speed of the airstair decreases to approximately half when the S12 switch operates.

SUBTASK 52-61-20-420-011

(7) Fully retract the airstair.

- (a) If it is necessary, refer to Forward Airstair Retraction, TASK 52-61-00-860-802.

————— **END OF TASK** —————

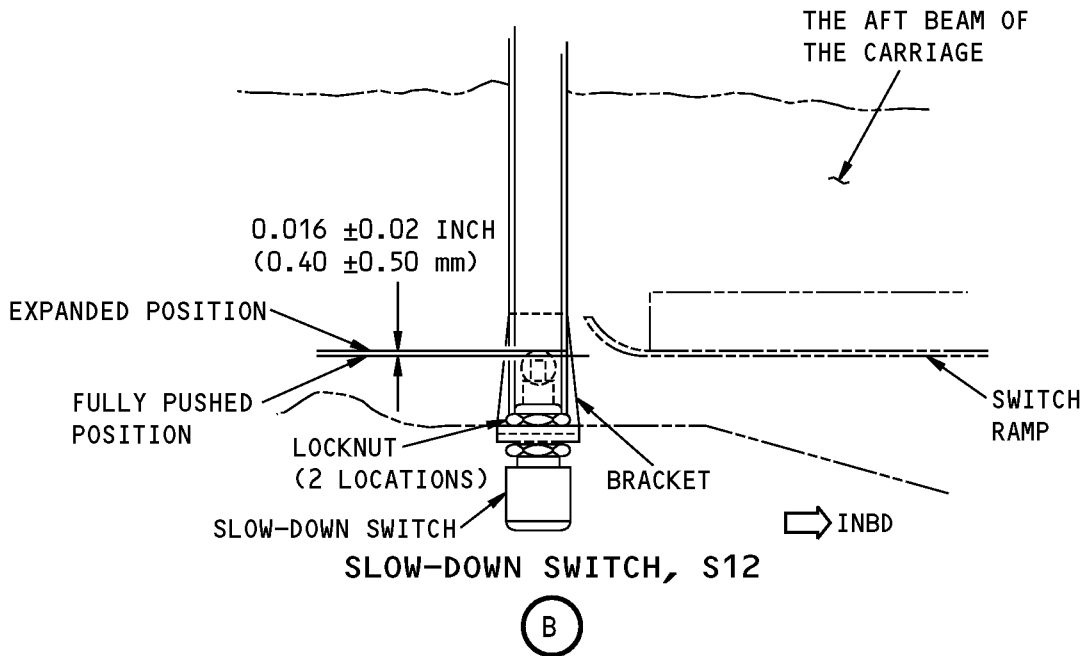
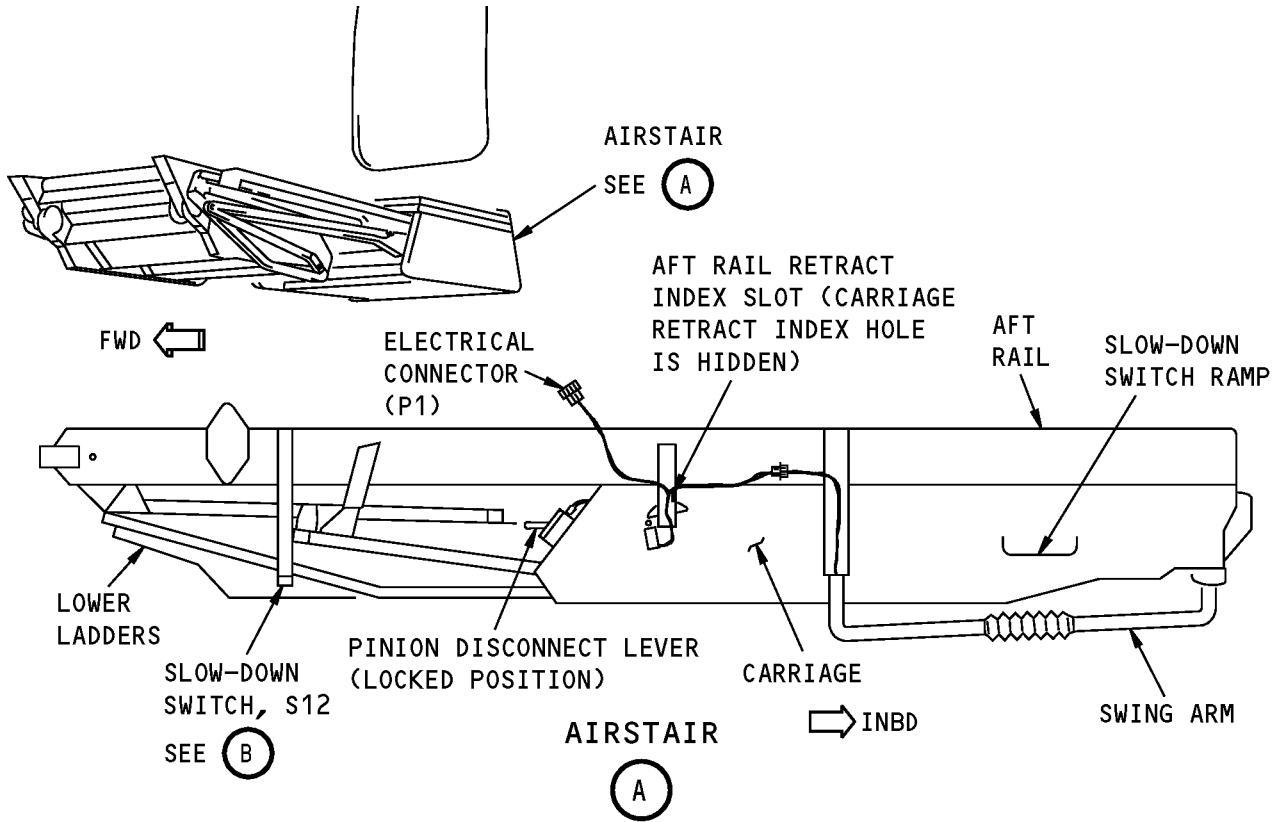
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Forward Airstairs Ladder Slow-Down Extend Switch, S12 Installation
Figure 401/52-61-20-990-801

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FORWARD AIRSTAIR LADDER SPEED-UP OPERATING SWITCH (S13) - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

- (1) A removal of the speed-up limit switch.
- (2) An installation of the speed-up limit switch.
- (3) An adjustment of the speed-up limit switch.

TASK 52-61-21-020-801

2. Forward Airstair Ladder Speed-up Operating Switch (S13) Removal

(Figure 401)

A. References

Reference	Title
52-61-00-860-803	Forward Airstair Extension in Normal Mode (P/B 201)

B. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left

C. Access Panels

Number	Name/Location
117A	Electronic Equipment Access Door

D. Prepare for the Removal

SUBTASK 52-61-21-860-001

WARNING: MAKE SURE THERE ARE NO PERSONS OR EQUIPMENT IN THE AREA OF THE FORWARD AIRSTAIR BEFORE IT OPERATES. THE FORWARD AIRSTAIR CAN HIT PERSONS OR EQUIPMENT WHEN IT EXTENDS. THIS CAN CAUSE INJURY TO PERSONS OR DAMAGE TO EQUIPMENT CAN OCCUR.

CAUTION: DO NOT OPERATE THE FORWARD AIRSTAIR AFTER 3 FULL CYCLES IN LESS THAN 20 MINUTES. DO NOT OPERATE THE FORWARD AIRSTAIR WHEN THE WIND IS MORE THAN 40 KNOTS. DO NOT OPERATE THE FORWARD AIRSTAIR WHEN THE FORWARD ENTRY DOOR IS BETWEEN THE COCKED AND FULLY OPEN POSITIONS. DO NOT OPERATE THE FORWARD AIRSTAIR WHEN THERE IS NO SUPPORT UNDER THE FORWARD AIRSTAIR (AIRPLANE IS ON JACKS). IF YOU OPERATE THE FORWARD AIRSTAIR WITH ONE OR MORE OF THESE CONDITIONS, DAMAGE TO EQUIPMENT CAN OCCUR.

- (1) Fully extend the forward airstair with NORMAL power.
 - (a) If it is necessary, refer to Forward Airstair Extension in Normal Mode, TASK 52-61-00-860-803.

SUBTASK 52-61-21-020-001

- (2) Remove the drain pan access panel:

CAUTION: DO NOT MOVE THE SWING ARM OR PUT WEIGHT ON IT. THE SWING ARM IS EASILY DAMAGED.

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(CAUTION PRECEDES)

- (a) Get access to the drain pan access panel through this access panel:

<u>Number</u>	<u>Name/Location</u>
117A	Electronic Equipment Access Door

- (b) Remove the hose clamp.
- (c) Drain the hose from the access panel into a drip pan.
- (d) Disengage the 1/4 turn fasteners that attach the access panel to the drain pan.
- (e) Remove the access panel.

SUBTASK 52-61-21-860-002

- (3) Open these circuit breakers and install safety tags:

F/O Electrical System Panel, P6-4

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

SUBTASK 52-61-21-020-002

- (4) Disconnect the airstair P1 electrical connector.

E. Removal

SUBTASK 52-61-21-020-003

- (1) Remove the S13 switch:
 - (a) Disconnect the electrical wires to the switch.
 - (b) Remove the locknuts.
 - (c) Remove the switch.

————— END OF TASK —————

TASK 52-61-21-420-801

3. Forward Airstair Ladder Speed-up Operating Switch (S13) Installation

(Figure 401)

A. Location Zones

<u>Zone</u>	<u>Area</u>
117	Electrical and Electronics Compartment - Left

B. Prepare for the installation

SUBTASK 52-61-21-860-003

- (1) Make sure that these circuit breakers are open and have safety tags:

F/O Electrical System Panel, P6-4

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL

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Row	Col	Number	Name
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

SUBTASK 52-61-21-020-004

(2) Make sure the airstair P1 electrical connector is disconnected.

SUBTASK 52-61-21-840-001

(3) Make sure the drain pan access panel is not installed.

C. Installation

SUBTASK 52-61-21-420-001

(1) Install the S13 switch:

- (a) Put the switch on the mounting bracket with the switch plunger in the up position.
- (b) Turn the locknuts until the switch plunger is at its lowest possible position on the threads.
- (c) Connect the electrical wires to the switch.

SUBTASK 52-61-21-820-002

(2) Do this task: Forward Airstair Ladder Speed-up Operating Switch (S13) Adjustment, TASK 52-61-21-420-802.

————— END OF TASK —————

TASK 52-61-21-420-802

4. Forward Airstair Ladder Speed-up Operating Switch (S13) Adjustment

(Figure 401)

A. References

Reference	Title
52-61-00-860-802	Forward Airstair Retraction (P/B 201)
52-61-00-860-803	Forward Airstair Extension in Normal Mode (P/B 201)
52-61-00-860-806	Forward Airstair Retraction in Normal Mode (P/B 201)

B. Tools/Equipment

Reference	Description
STD-1231	Multimeter - Standard

C. Consumable Materials

Reference	Description	Specification
G01048	Lockwire - Corrosion Resistant Steel (0.032 In. Dia.)	NASM20995~ C32

D. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left

E. Access Panels

Number	Name/Location
117A	Electronic Equipment Access Door

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F. Prepare for the Adjustment

SUBTASK 52-61-21-860-005

- (1) Make sure that these circuit breakers are open and have safety tags:

F/O Electrical System Panel, P6-4

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

SUBTASK 52-61-21-020-008

- (2) Make sure the airstair P1 electrical connector is disconnected.

SUBTASK 52-61-21-840-003

- (3) Make sure the drain pan access panel is not installed.

G. Adjustment of the Forward Airstair Ladder Speed-up Operating Switch (S13)

SUBTASK 52-61-21-820-003

- (1) Adjust the S13 switch:

- (a) Make sure the switch actuator roller touches the flat part of the ramp.
- (b) Turn the locknuts until the switch plunger lightly touches the actuator.
- (c) Connect the multimeter, STD-1231 across the switch:
 - 1) Disconnect the airstair P20 electrical connector.
 - 2) Attach one test lead to pin 10 of the P1 connector.
 - 3) Attach the other test lead to terminal 4 of airstair terminal block TB2.
- (d) Make sure there is no continuity across the switch.
- (e) Turn the locknuts until the plunger goes into the switch to the dimension shown in (Figure 401).
- (f) Make sure that there is continuity across the switch when the ramp pushes the plunger.
- (g) Tighten the locknuts.
- (h) Disconnect the multimeter, STD-1231.
- (i) Connect the airstair P20 electrical connector.

CAUTION: MAKE SURE THAT THE CONDUIT SWING ARM BETWEEN THE AIRSTAIR CARRIAGE AND THE LADDER IS IN ITS CORRECT POSITION. IF IT IS INCORRECTLY ALIGNED , IT CAN CAUSE DAMAGE TO EQUIPMENT.

- (j) Make sure that the swing arm conduit is correctly aligned.

SUBTASK 52-61-21-020-009

- (2) Connect the airstair P1 electrical connector.

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SUBTASK 52-61-21-860-006

(3) Remove the safety tags and close these circuit breakers:

F/O Electrical System Panel, P6-4

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

SUBTASK 52-61-21-710-001

(4) Do an installation test of the S13 switch:

- (a) Extend and retract the airstair with NORMAL POWER (TASK 52-61-00-860-803 and TASK 52-61-00-860-806).
- (b) Make sure the airstair extends and retracts at the usual speed.
- (c) Use lockwire, G01048 to lock the locknuts on the S13 switch.

H. Put the Airplane Back to its Usual Condition

SUBTASK 52-61-21-420-003

(1) Install the drain pan access panel:

- (a) Install the drain pan access panel.
- (b) Engage the 1/4 turn fasteners that attach the drain pan access panel to the drain pan.
- (c) Connect the drain hose to the drain pan access panel.
- (d) Install the clamp that attaches the hose to the drain pan access panel.

SUBTASK 52-61-21-020-010

(2) Exit the EE bay and close this access panel:

<u>Number</u>	<u>Name/Location</u>
117A	Electronic Equipment Access Door

SUBTASK 52-61-21-020-011

(3) Fully retract the airstair (TASK 52-61-00-860-802).

END OF TASK

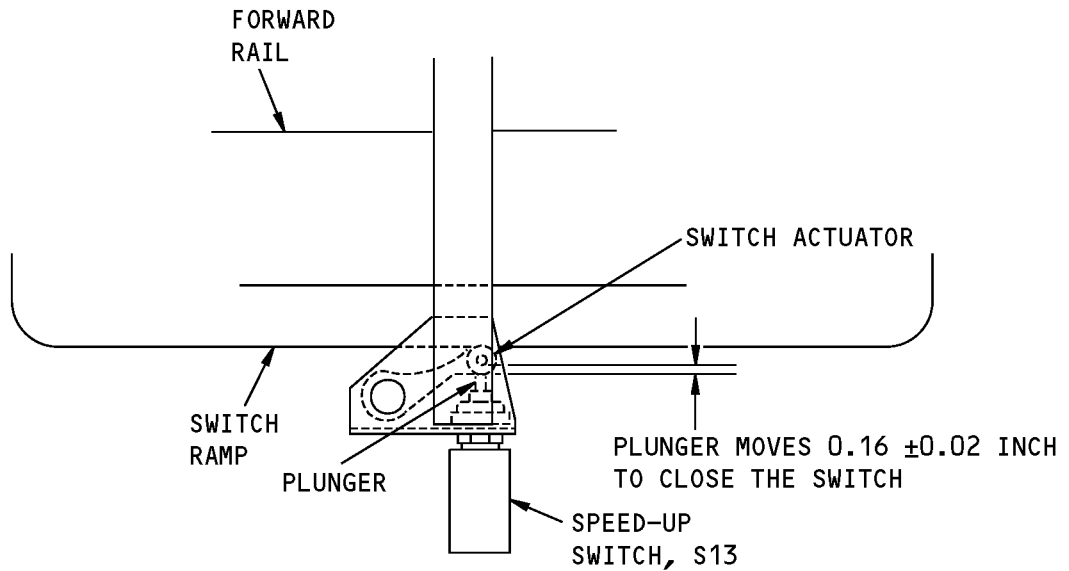
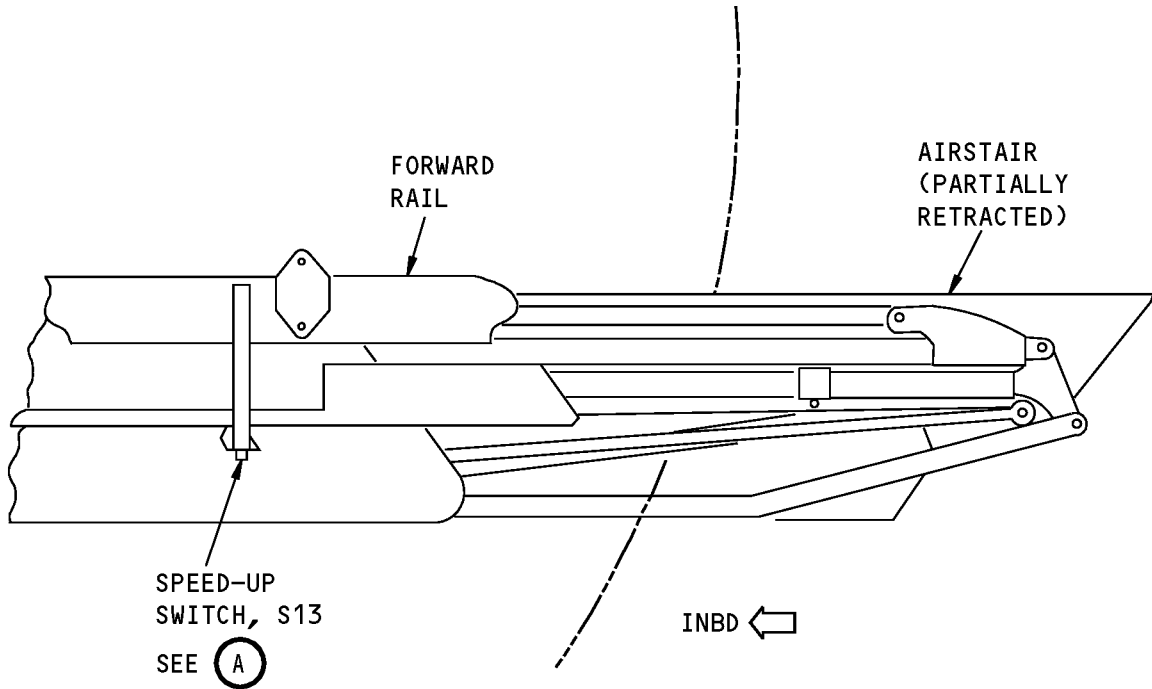
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SPEED-UP SWITCH, S13

(A)

**Forward Airstair Speed-Up Switch, S13 Installation
Figure 401/52-61-21-990-801**

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FORWARD AIRSTAIR GEARBOX - REMOVAL/INSTALLATION

1. General

- A. This procedure has these tasks:
- (1) A removal of the airstair gearbox.
 - (2) An installation of the airstair gearbox.

TASK 52-61-22-020-801

2. Forward Airstair Gearbox Removal

(Figure 401)

A. References

Reference	Title
52-61-00-820-803	Forward Airstair Drain Pan Removal (P/B 201)

B. Tools/Equipment

Reference	Description
STD-1323	Pin - Rig, No. 1, Airstair, Wood, 0.49 Inch Diameter by 4.00 Inches
STD-1324	Pin - Rig, No. 2, Airstair, Wood, 0.24 Inch Diameter by 2.50 Inches

C. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left

D. Prepare for Removal

SUBTASK 52-61-22-860-001

- (1) Do this task: Forward Airstair Drain Pan Removal, TASK 52-61-00-820-803.

SUBTASK 52-61-22-860-002

- (2) Open these circuit breakers and install safety tags:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

SUBTASK 52-61-22-020-002

- (3) Disconnect the airstair P1 electrical connector.

SUBTASK 52-61-22-860-003

- (4) Move the pinion disconnect lever to the not locked position.

SUBTASK 52-61-22-980-001

- (5) Manually pull the carriage outboard until it touches the outboard stops.

SUBTASK 52-61-22-480-001

- (6) Align the carriage and aft rail extend index holes as follows:
 - (a) Move the carriage so the aft rail extend index hole and carriage extend index hole align.

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- (b) Put the No. 2 no. 2 rig pin, STD-1324 through the aft rail extend index hole and carriage extend index hole.

SUBTASK 52-61-22-860-004

- (7) Move the pinion disconnect lever to the locked position.

SUBTASK 52-61-22-480-002

- (8) Align the ladder to the carriage as follows:
 - (a) Move the ladder to align the carriage/ladder index hole in the carriage and the carriage/ladder index hole in the ladder truck.
 - (b) Put the No. 1 no. 1 rig pin, STD-1323 through the carriage/ladder index holes in the ladder truck and carriage.

E. Removal

SUBTASK 52-61-22-020-003

- (1) Remove the forward airstair gearbox as follows:
 - (a) Remove the cotter pins and the pins from the splined couplings.
 - (b) Disconnect the ballscrew drive shaft and the ball screw from the gearbox.
 - (c) Remove the four bolts that attach the gearbox to the carriage.
 - (d) Remove the gearbox.

————— END OF TASK —————

TASK 52-61-22-420-801

3. Forward Airstair Gearbox Installation

(Figure 401)

A. References

Reference	Title
52-61-00-820-804	Forward Airstair Drain Pan Installation (P/B 201)
52-61-00-860-802	Forward Airstair Retraction (P/B 201)

B. Tools/Equipment

Reference	Description
STD-1323	Pin - Rig, No. 1, Airstair, Wood, 0.49 Inch Diameter by 4.00 Inches
STD-1324	Pin - Rig, No. 2, Airstair, Wood, 0.24 Inch Diameter by 2.50 Inches

C. Consumable Materials

Reference	Description	Specification
G01048	Lockwire - Corrosion Resistant Steel (0.032 In. Dia.)	NASM20995~ C32

D. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left

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E. Prepare for the Installation

SUBTASK 52-61-22-860-005

- (1) Make sure that these circuit breakers are open and have safety tags:

F/O Electrical System Panel, P6-4

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

F. Installation

SUBTASK 52-61-22-840-001

- (1) Install the forward airstair gearbox as follows:

CAUTION: MAKE SURE YOU INSTALL THE CORRECT GEARBOX IN ITS CORRECT POSITION.

- (a) Make sure the gearbox turns in the correct direction.
 - 1) A clockwise input to a forward gearbox gives a counterclockwise output.
 - 2) A clockwise input to an aft gearbox gives a clockwise output.
- (b) Apply a layer of grease to the splines, bores, shanks, and threads of the gearbox assembly.
- (c) Put the gearbox in its correct position and install 4 bolts.
- (d) Connect the couplings and install the pins and cotter pins.

G. Put the Airplane Back to Its Usual Condition

SUBTASK 52-61-22-840-002

- (1) Put the airstair back to its initial condition as follows:

- (a) Move the carriage drive disconnect lever to its unlocked position to disengage the carriage drive pinions.
- (b) Move the carriage outboard.
- (c) Make sure you can put the No. 1 no. 1 rig pin, STD-1323 through the carriage/ladder index hole.
- (d) Remove the No. 1 no. 1 rig pin, STD-1323.
- (e) Manually move the carriage inboard to its fully retracted position.

SUBTASK 52-61-22-420-001

- (2) Align the carriage to the rails and lock the pinion disconnect lever as follows:

- (a) Move the carriage so the carriage retract index hole and aft rail retract index slot align.
- (b) Put the No. 2 no. 2 rig pin, STD-1324 through the carriage retract index hole and aft rail retract index slot.
- (c) Move the pinion disconnect lever to the locked position.
- (d) Use lockwire, G01048 to lock the pinion disconnect lever.
- (e) Remove the No. 2 no. 2 rig pin, STD-1324.

SUBTASK 52-61-22-420-002

- (3) Connect the airstair P1 electrical connector.

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SUBTASK 52-61-22-860-006

(4) Remove the safety tags and close these circuit breakers:

F/O Electrical System Panel, P6-4

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

SUBTASK 52-61-22-420-003

(5) Do this task: Forward Airstair Drain Pan Installation, TASK 52-61-00-820-804.

SUBTASK 52-61-22-410-002

(6) Fully retract the airstair (TASK 52-61-00-860-802).

————— **END OF TASK** —————

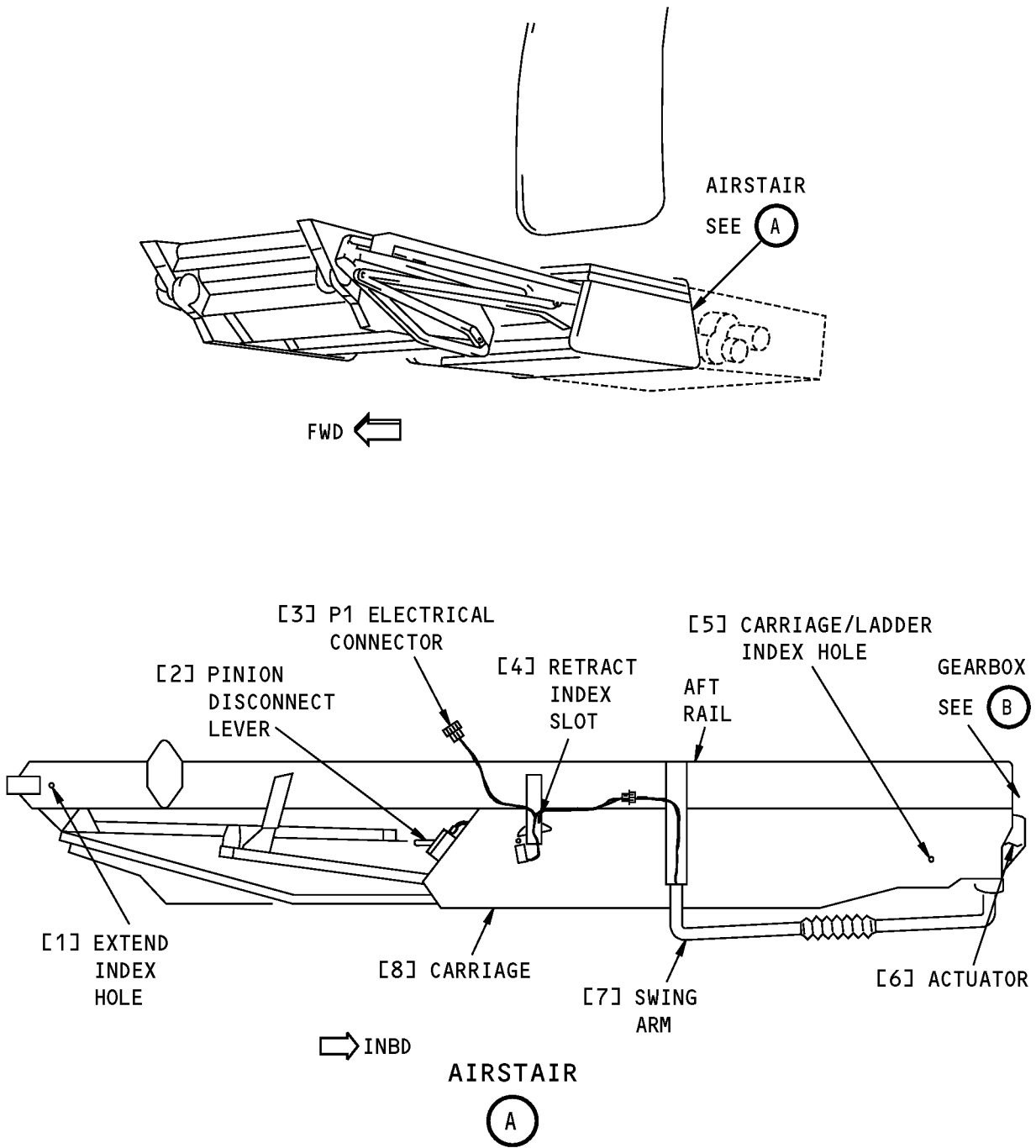
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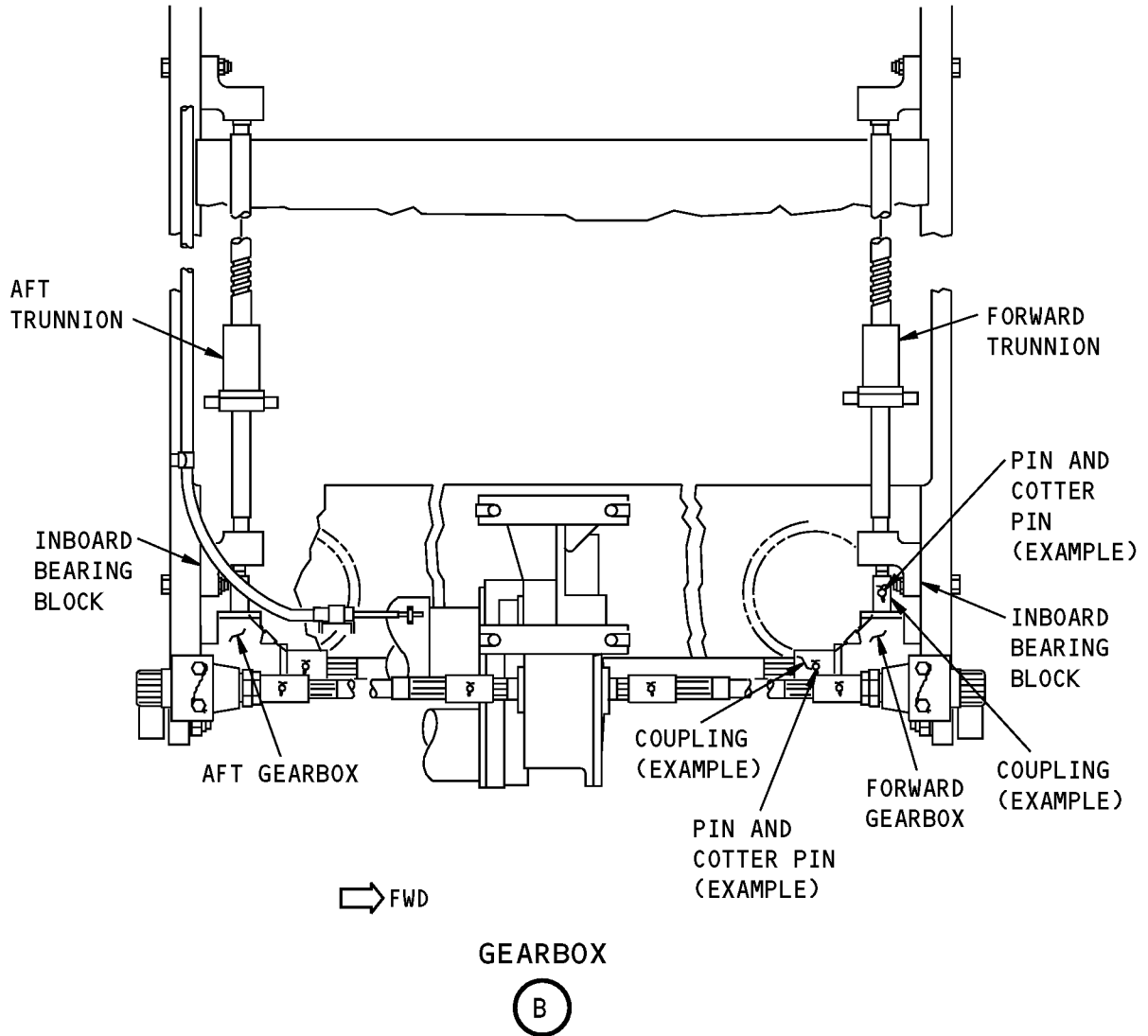
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**Forward Airstair Gearbox Installation
Figure 401 (Sheet 1 of 2)/52-61-22-990-802**

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**Forward Airstair Gearbox Installation
Figure 401 (Sheet 2 of 2)/52-61-22-990-802**

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FORWARD AIRSTAIR BALLSCREW - MAINTENANCE PRACTICES

1. General

A. This procedure contains these tasks:

- (1) The removal of the ballscrew assembly from the forward airstair.
- (2) The installation of the ballscrew assembly on the forward airstair.
- (3) The adjustment of the ballscrew endplay.
- (4) The alignment of the ballscrew ballnuts.

B. It is not necessary to remove the airstair when you do this procedure.

TASK 52-61-23-000-802

2. Forward Airstair Ballscrew Removal

(Figure 201)

A. References

Reference	Title
52-61-00-820-803	Forward Airstair Drain Pan Removal (P/B 201)

B. Tools/Equipment

Reference	Description
STD-1323	Pin - Rig, No. 1, Airstair, Wood, 0.49 Inch Diameter by 4.00 Inches
STD-1324	Pin - Rig, No. 2, Airstair, Wood, 0.24 Inch Diameter by 2.50 Inches

C. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left

D. Prepare for Removal

SUBTASK 52-61-23-860-007

- (1) Do this task: Forward Airstair Drain Pan Removal, TASK 52-61-00-820-803.

SUBTASK 52-61-23-040-001

- (2) Open these circuit breakers and install safety tags:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

SUBTASK 52-61-23-020-013

- (3) Disconnect the electrical connector, P1.

SUBTASK 52-61-23-860-008

- (4) Move the pinion disconnect lever to the not locked position.

SUBTASK 52-61-23-980-004

- (5) Manually pull the carriage outboard until it touches the outboard stops.

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SUBTASK 52-61-23-820-003

- (6) Align the carriage and aft rail:
 - (a) Move the carriage so that the aft rail extend index hole and carriage extend index hole align.
 - (b) Put the No. 2 no. 2 rig pin, STD-1324 through the aft rail extend index hole and carriage extend index hole.
 - (c) Move the pinion disconnect lever to the locked position.

SUBTASK 52-61-23-820-004

- (7) Align the ladder to the carriage:
 - (a) Move the ladder to align the carriage/ladder index hole in the carriage and the carriage/ladder index hole in the ladder truck.
 - (b) Put the No. 1 no. 1 rig pin, STD-1323 through the carriage/ladder index holes.

E. Removal

SUBTASK 52-61-23-020-014

- (1) Disconnect the ballnut [2] from the carriage:
 - (a) Remove the bolts [25], washers [24] and brackets [23] that attach the ballnut [2] to the truck [22].
 - (b) Put tape around the ballscrew [1] at the ends of the ballnut [2].

NOTE: This is to keep the ballnut [2] on the ballscrew [1].

SUBTASK 52-61-23-020-015

- (2) Remove the ballscrew [1]:
 - (a) Remove the cotter pin [30] and pin [28] from the shaft coupling [29] at the inboard bearing block.
 - (b) Remove the nuts [31] and bolts [27] that attach the inboard bearing block [26] to the carriage.
 - (c) Remove the nuts [32] and bolts [33] that attach the outboard bearing block [41] to the carriage.
 - (d) Remove the ballscrew [1] from the airplane.

————— **END OF TASK** —————

TASK 52-61-23-400-802

3. Forward Airstair Ballscrew Installation

(Figure 201, Figure 202)

A. References

Reference	Title
52-61-00-710-801	Forward Airstair Operational Test (P/B 501)
52-61-00-820-804	Forward Airstair Drain Pan Installation (P/B 201)
52-61-10-200-801	Forward Airstair Ballscrew Assembly End Play Check (P/B 601)

B. Tools/Equipment

Reference	Description
STD-1323	Pin - Rig, No. 1, Airstair, Wood, 0.49 Inch Diameter by 4.00 Inches
STD-1324	Pin - Rig, No. 2, Airstair, Wood, 0.24 Inch Diameter by 2.50 Inches

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C. Consumable Materials

Reference	Description	Specification
D00013	Grease - Aircraft And Instrument Grease	MIL-PRF-23827 (NATO G-354) (Supersedes MIL-G-23827)
G01048	Lockwire - Corrosion Resistant Steel (0.032 In. Dia.)	NASM20995~ C32

D. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left

E. Installation

SUBTASK 52-61-23-640-003

(1) Put a layer of grease, D00013 on these parts:

- (a) The splines on the ballscrew [1].
- (b) The splines on the gearbox.
- (c) The splines on the shaft coupling [29].

SUBTASK 52-61-23-420-011

(2) Install the bolts [33] and nuts [32] to attach the outboard bearing block [41] to the carriage.

SUBTASK 52-61-23-420-012

(3) Install the bolts [27] and nuts [31] to attach the inboard bearing block [26] to the carriage.

SUBTASK 52-61-23-420-013

(4) Connect the ballscrew [1] to the gearbox:

- (a) Put the shaft coupling [29] on the gearbox.
- (b) Engage the splines on the ballscrew [1] with the shaft coupling [29].

SUBTASK 52-61-23-220-002

(5) Do this task: Forward Airstair Ballscrew Assembly End Play Check, TASK 52-61-10-200-801.

SUBTASK 52-61-23-820-005

(6) If the ballscrew endplay is not correct, do this task: Forward Airstair Ballscrew Endplay Adjustment, TASK 52-61-23-820-801.

SUBTASK 52-61-23-820-006

(7) Do this task: Forward Airstair Ballscrew Ballnut Adjustment, TASK 52-61-23-820-802.

SUBTASK 52-61-23-020-016

(8) Remove the tape from the ballscrew [1] near the ballnut [2].

SUBTASK 52-61-23-420-014

(9) Install the bolts [25] and washers [24] to attach the ballnut [2] to the truck [22].

- (a) Install the lockwire, G01048.

SUBTASK 52-61-23-640-004

(10) Lubricate the ballscrew with grease, D00013.

F. Put the Airplane Back to Its Usual Condition

SUBTASK 52-61-23-080-002

(1) Remove the No. 1 no. 1 rig pin, STD-1323 and No. 2 no. 2 rig pin, STD-1324.

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SUBTASK 52-61-23-860-009

(2) Move the pinion disconnect lever to the not locked position.

SUBTASK 52-61-23-980-005

(3) Manually push the carriage until it touches the inboard stops.

SUBTASK 52-61-23-820-007

(4) Align the carriage to the aft rail and lock the pinion disconnect lever:

- (a) Move the carriage so the carriage retract index hole and aft rail retract index slot align.
- (b) Put the No. 2 no. 2 rig pin, STD-1324 through the carriage retract index hole and aft rail retract index slot.
- (c) Move the pinion disconnect lever to the locked position.
- (d) Use lockwire, G01048 to lock the pinion disconnect lever.
- (e) Remove the No. 2 no. 2 rig pin, STD-1324.

SUBTASK 52-61-23-420-015

(5) Connect the electrical connector, P1.

SUBTASK 52-61-23-440-001

(6) Remove the safety tags and close these circuit breakers:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

SUBTASK 52-61-23-410-002

(7) Do this task: Forward Airstair Drain Pan Installation, TASK 52-61-00-820-804.

SUBTASK 52-61-23-710-002

(8) Do this task: Forward Airstair Operational Test, TASK 52-61-00-710-801.

END OF TASK

TASK 52-61-23-820-801

4. Forward Airstair Ballscrew Endplay Adjustment

(Figure 202, Figure 203)

A. References

Reference	Title
52-61-10-200-801	Forward Airstair Ballscrew Assembly End Play Check (P/B 601)

B. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left

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C. Prepare for the Adjustment

SUBTASK 52-61-23-010-001

- (1) Remove the outboard bearing block [41]:
 - (a) Remove the nuts [32] and bolts [33] that attach the outboard bearing block [41] to the carriage.
 - (b) Remove the nut [46] and the washer [45] from the end of the ballscrew [1].
 - (c) Remove the outboard bearing block [41] from the ballscrew [1].

D. Adjustment

SUBTASK 52-61-23-820-008

- (1) Adjust the ballscrew [1] endplay:
 - (a) Change the thickness of the shims [42], [48] on the ballscrew [1] to adjust the endplay:
 - 1) Remove laminations from the shims [42], [48] to decrease the play in the end of the ballscrew [1].

SUBTASK 52-61-23-420-016

- (2) Install the outboard bearing block [41] on the ballscrew [1]:
 - (a) Put the shims [42], [48] and the spacer [44] on the end of the ballscrew [1].
 - (b) Put the key [42] on the ballscrew [41].
 - (c) Turn the bearing in the outboard bearing block [41] until the key [42] aligns with the slot in the bearing.
 - (d) Push the outboard bearing block [41] until the bearing touches the spacer [44].
 - (e) Put the washer [45] on the ballscrew [1].
 - (f) Put the nut [46] on the ballscrew [1].
 - (g) Tighten the nut [46] from 70 to 100 pound-inches (7.9-11.3 newton-meters).
 - (h) Install the bolts [33] and nuts [32] to attach the outboard bearing block [41] to the carriage.

SUBTASK 52-61-23-720-001

- (3) Do this task: Forward Airstair Ballscrew Assembly End Play Check, TASK 52-61-10-200-801.

SUBTASK 52-61-23-820-009

- (4) If the endplay is not correct, adjust it.

SUBTASK 52-61-23-840-001

- (5) If the endplay is correct, bend the tang of the washer until it touches the nut.

————— **END OF TASK** —————

TASK 52-61-23-820-802

5. Forward Airstair Ballscrew Ballnut Adjustment

(Figure 203)

A. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left

B. Adjustment

SUBTASK 52-61-23-820-010

- (1) Adjust the position of the ballnut [2]:

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- (a) Move the shaft coupling [29] until it does not engage the splines on the ballscrew [1].
- (b) Turn the ballscrew [1] until the ballnut [2] aligns with the ballnut [2] on the other ballscrew [1] as shown in (Figure 203).
- (c) Engage the shaft coupling [29] with the splines on the ballscrew [1].
- (d) Put the pin [28] through the shaft coupling [29].
- (e) Install a cotter pin [30].

————— **END OF TASK** —————

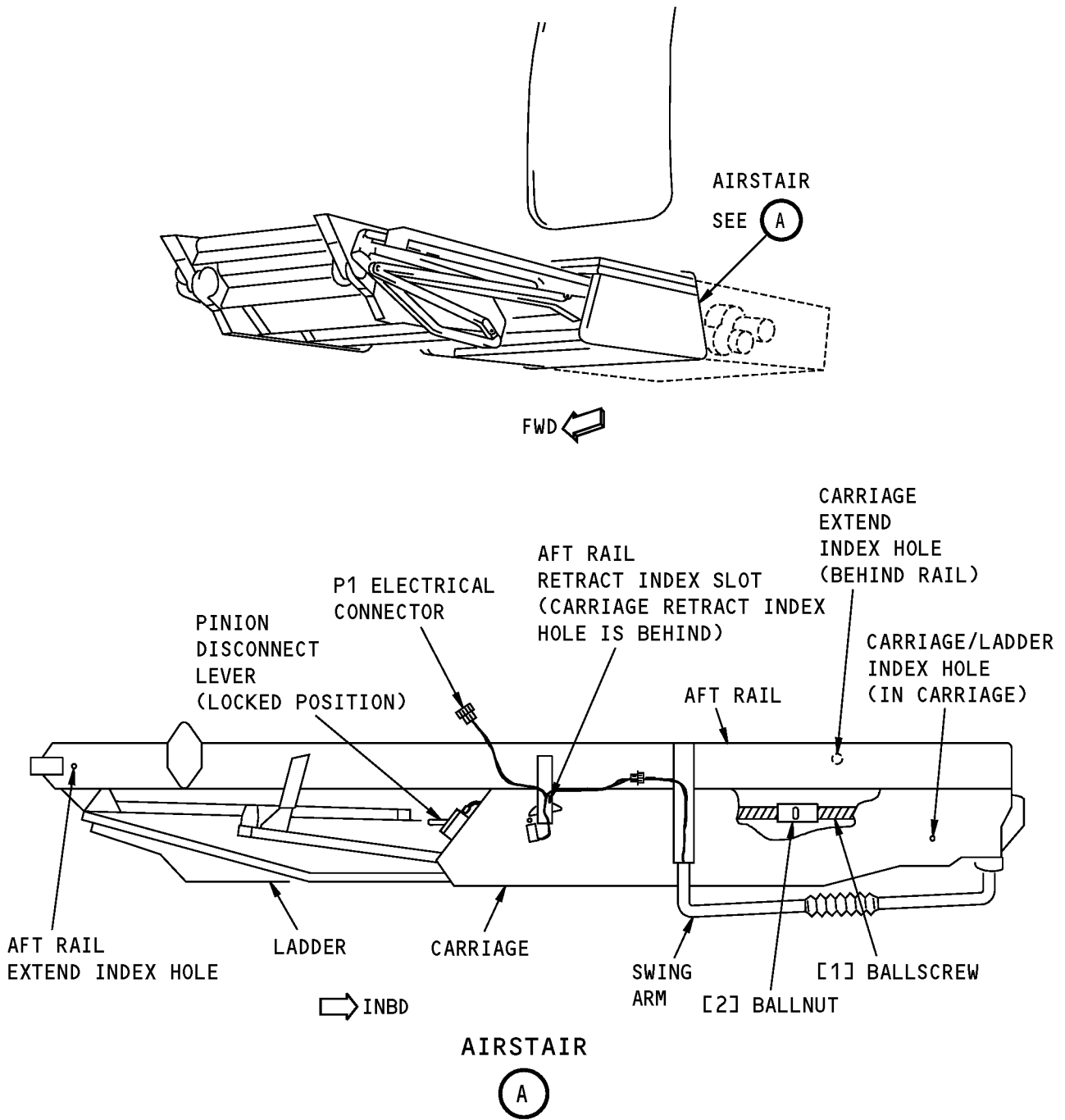
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**Forward Airstair Ballscrew Installation
Figure 201/52-61-23-990-804**

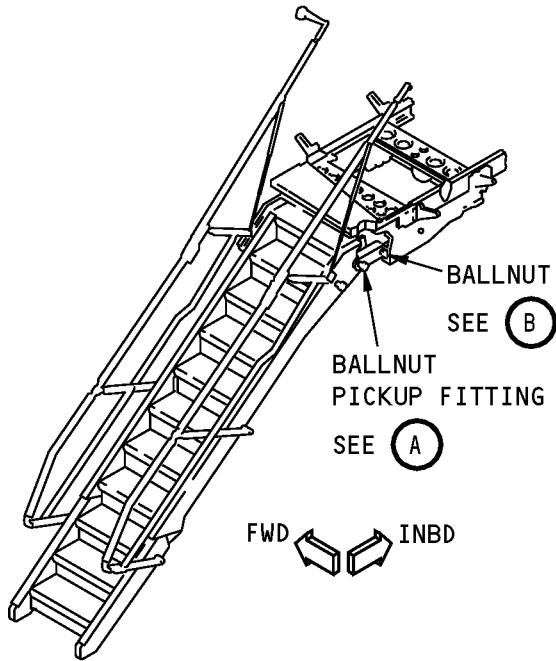
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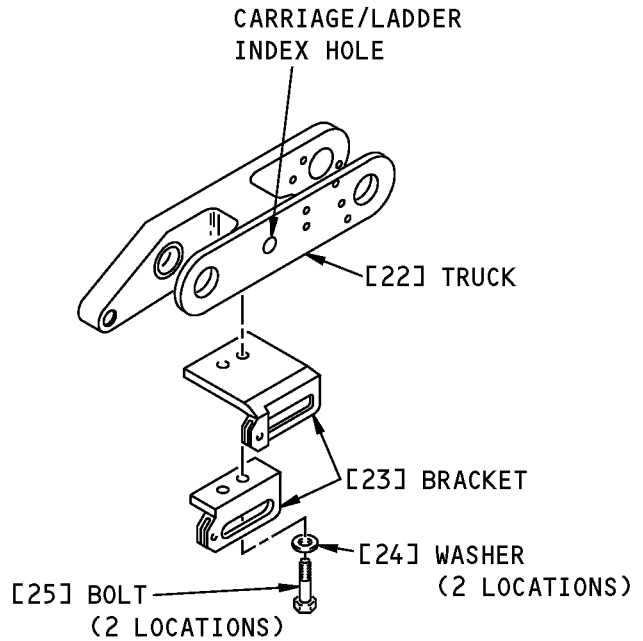
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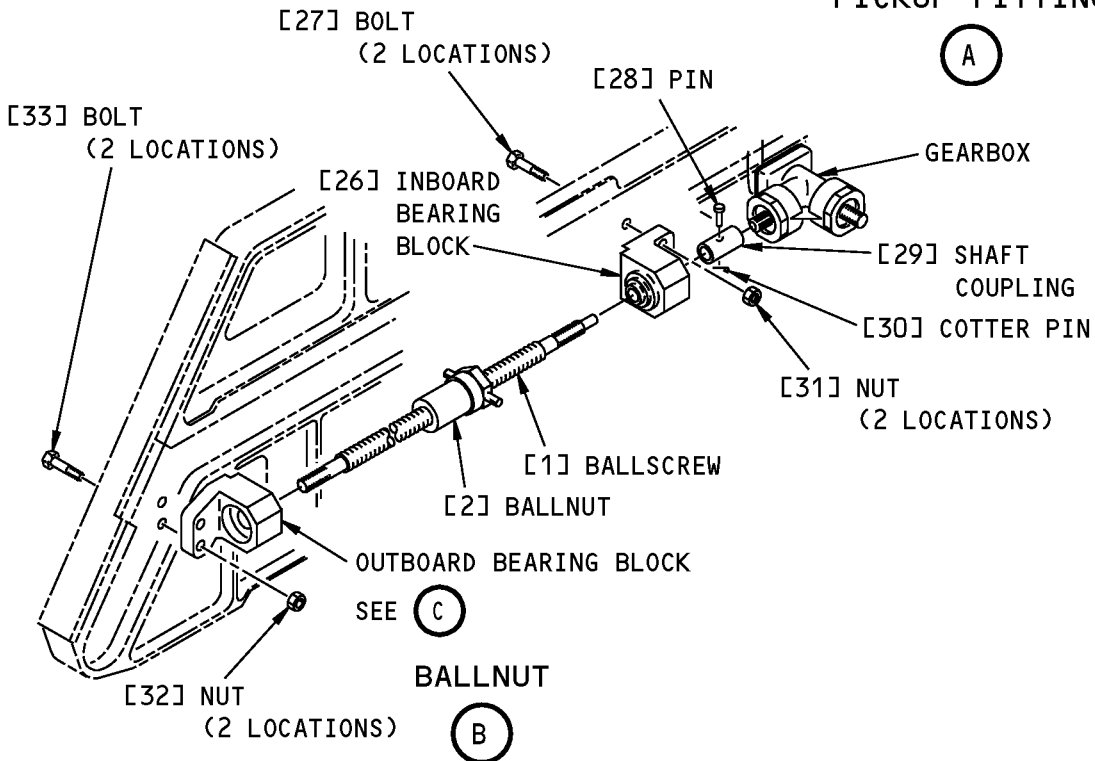
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FORWARD AIRSTAIR



BALLNUT PICKUP FITTING



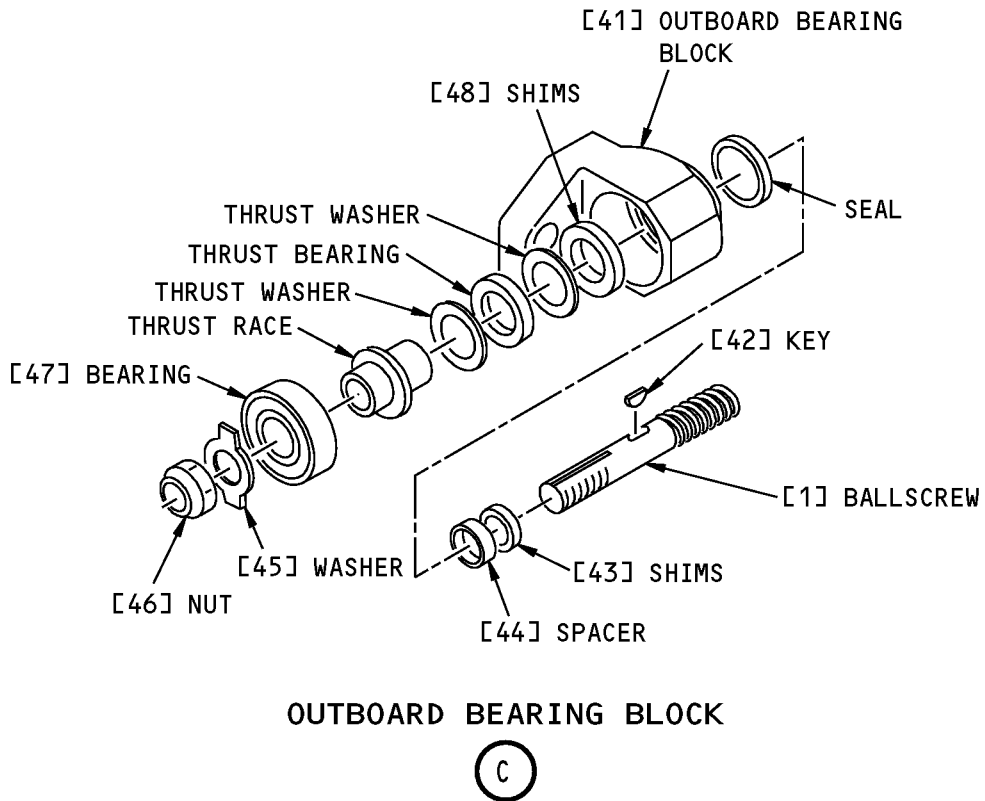
**Ballscrew and Bearing Block Installation
Figure 202 (Sheet 1 of 2)/52-61-23-990-805**

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Ballscrew and Bearing Block Installation
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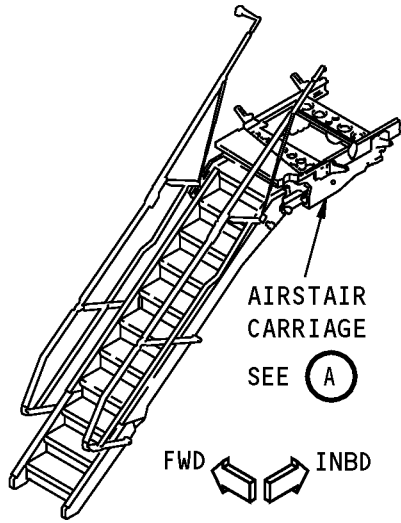
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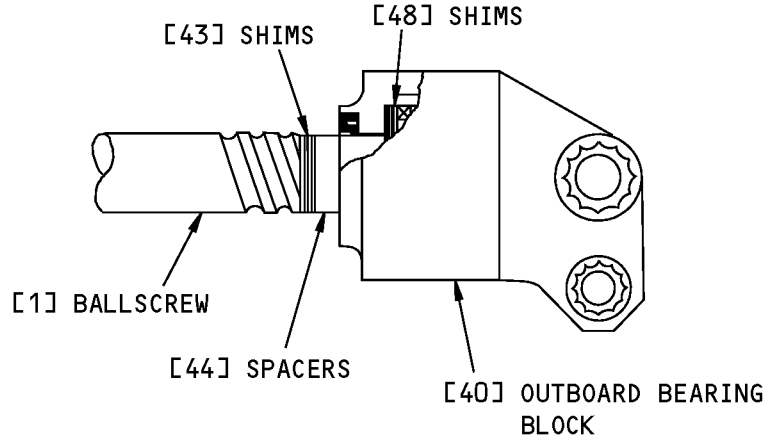
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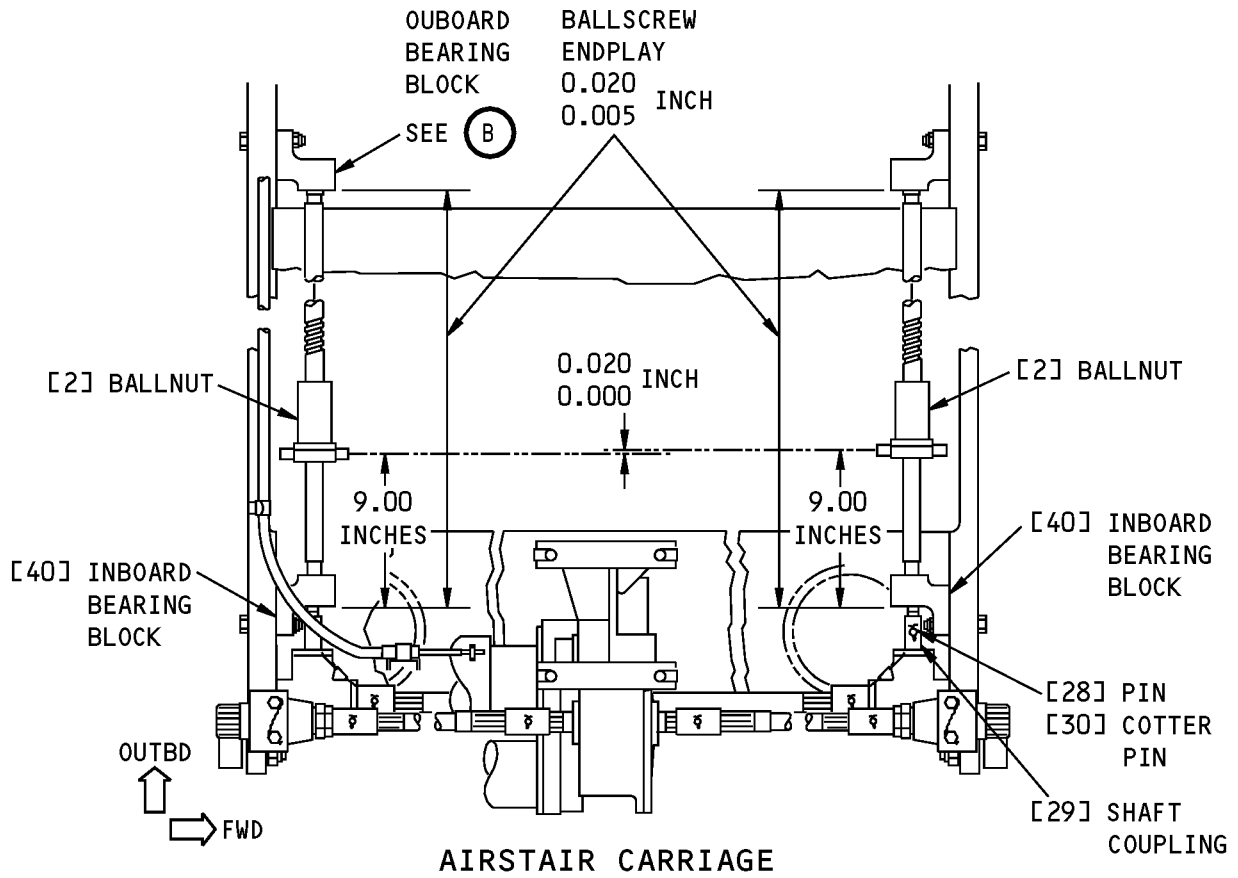


FORWARD AIRSTAIR



OUTBOARD BEARING BLOCK

(B)



AIRSTAIR CARRIAGE

(A)

Ballnut Alignment and Ballscrew Endplay Adjustment
Figure 203/52-61-23-990-806

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FORWARD AIRSTAIR LOWER LADDER SLOW-DOWN RETRACT SWITCH (S15) - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

- (1) A removal of the S15 switch.
- (2) An installation of the S15 switch.
- (3) An adjustment of the S15 switch.

TASK 52-61-24-000-801

2. Forward Airstair Lower Ladder Slow-Down Retract Switch (S15) Removal

(Figure 401)

A. References

Reference	Title
52-61-00-860-803	Forward Airstair Extension in Normal Mode (P/B 201)

B. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left

C. Prepare for the Removal

SUBTASK 52-61-24-860-001

WARNING: MAKE SURE THERE ARE NO PERSONS OR EQUIPMENT IN THE AREA OF THE FORWARD AIRSTAIR BEFORE IT OPERATES. THE FORWARD AIRSTAIR CAN HIT PERSONS OR EQUIPMENT WHEN IT EXTENDS. THIS CAN CAUSE INJURY TO PERSONS OR DAMAGE TO EQUIPMENT CAN OCCUR.

CAUTION: DO NOT OPERATE THE FORWARD AIRSTAIR AFTER 3 FULL CYCLES IN LESS THAN 20 MINUTES. DO NOT OPERATE THE FORWARD AIRSTAIR WHEN THE WIND IS MORE THAN 40 KNOTS. DO NOT OPERATE THE FORWARD AIRSTAIR WHEN THE FORWARD ENTRY DOOR IS BETWEEN THE COCKED AND FULLY OPEN POSITIONS. DO NOT OPERATE THE FORWARD AIRSTAIR WHEN THERE IS NO SUPPORT UNDER THE FORWARD AIRSTAIR (AIRPLANE IS ON JACKS). IF YOU OPERATE THE FORWARD AIRSTAIR WITH ONE OR MORE OF THESE CONDITIONS, DAMAGE TO EQUIPMENT CAN OCCUR.

- (1) Extend the forward airstair fully with NORMAL power (TASK 52-61-00-860-803).

SUBTASK 52-61-24-860-002

- (2) Open these circuit breakers and install safety tags:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

SUBTASK 52-61-24-020-002

- (3) Disconnect the airstair P1 electrical connector on the airstair.

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D. Removal

SUBTASK 52-61-24-020-003

- (1) Remove the S15 switch as follows:
(a) Disconnect the electrical wires from the S15 switch.
(b) Remove the bottom locknut that attaches the S15 switch to the bracket.
(c) Remove the S15 switch from the bracket.

END OF TASK

TASK 52-61-24-400-801

3. Forward Airstair Lower Ladder Slow-Down Retract Switch (S15) Installation

(Figure 401)

A. Location Zones

Table with 2 columns: Zone, Area. Row 1: 117, Electrical and Electronics Compartment - Left

B. Prepare for the Installation

SUBTASK 52-61-24-860-003

- (1) Make sure that these circuit breakers are open and have safety tags:

F/O Electrical System Panel, P6-4

Table with 4 columns: Row, Col, Number, Name. Lists circuit breakers for FWD AIRSTAIR DOOR, CONT NORMAL, TREAD LIGHT, ACTUATOR, CONT STBY, and STBY DOOR ACTR.

SUBTASK 52-61-24-420-002

- (2) Make sure the airstair P1 connector on the airstair is not connected.

C. Installation

SUBTASK 52-61-24-420-003

- (1) Install the S15 switch as follows:
(a) Put the S15 switch on bracket with the switch roller in the down position.
(b) Turn the locknuts on the S15 switch until the switch expanded position is below the level of the switch ramp to the dimension shown in (Figure 401).
(c) Do this task: Forward Airstair Lower Ladder Slow-Down Retract Switch (S15) Adjustment, TASK 52-61-24-820-801.

END OF TASK

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TASK 52-61-24-820-801

4. Forward Airstair Lower Ladder Slow-Down Retract Switch (S15) Adjustment

(Figure 401)

A. References

Reference	Title
52-61-00-860-801	Forward Airstair Extension (P/B 201)
52-61-00-860-802	Forward Airstair Retraction (P/B 201)

B. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left

C. Access Panels

Number	Name/Location
117A	Electronic Equipment Access Door

D. Prepare for the Adjustment

SUBTASK 52-61-24-860-004

- (1) Remove the safety tags and close these circuit breakers:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

SUBTASK 52-61-24-420-005

- (2) Make sure the airstair P1 electrical connector on the airstair is connected.

SUBTASK 52-61-24-820-001

- (3) Adjust the lower ladder slowdown switch (S15) as follows:

- (a) Electrically extend and retract the airstair.

- 1) If it is necessary, refer to Forward Airstair Extension, TASK 52-61-00-860-801 and Forward Airstair Retraction, TASK 52-61-00-860-802.

- (b) If the lower ladder stalls, move the S15 switch actuator up one half turn of the locknut.

- (c) If the lower ladder slams, move the S15 switch actuator down one half turn of the locknut.

- (d) Repeat this procedure until the lower ladder neither stalls nor slams when retracted.

E. Put the Airplane back to its Usual Condition

SUBTASK 52-61-24-410-001

- (1) Close this access panel:

Number	Name/Location

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(Continued)

<u>Number</u>	<u>Name/Location</u>
117A	Electronic Equipment Access Door

————— **END OF TASK** —————

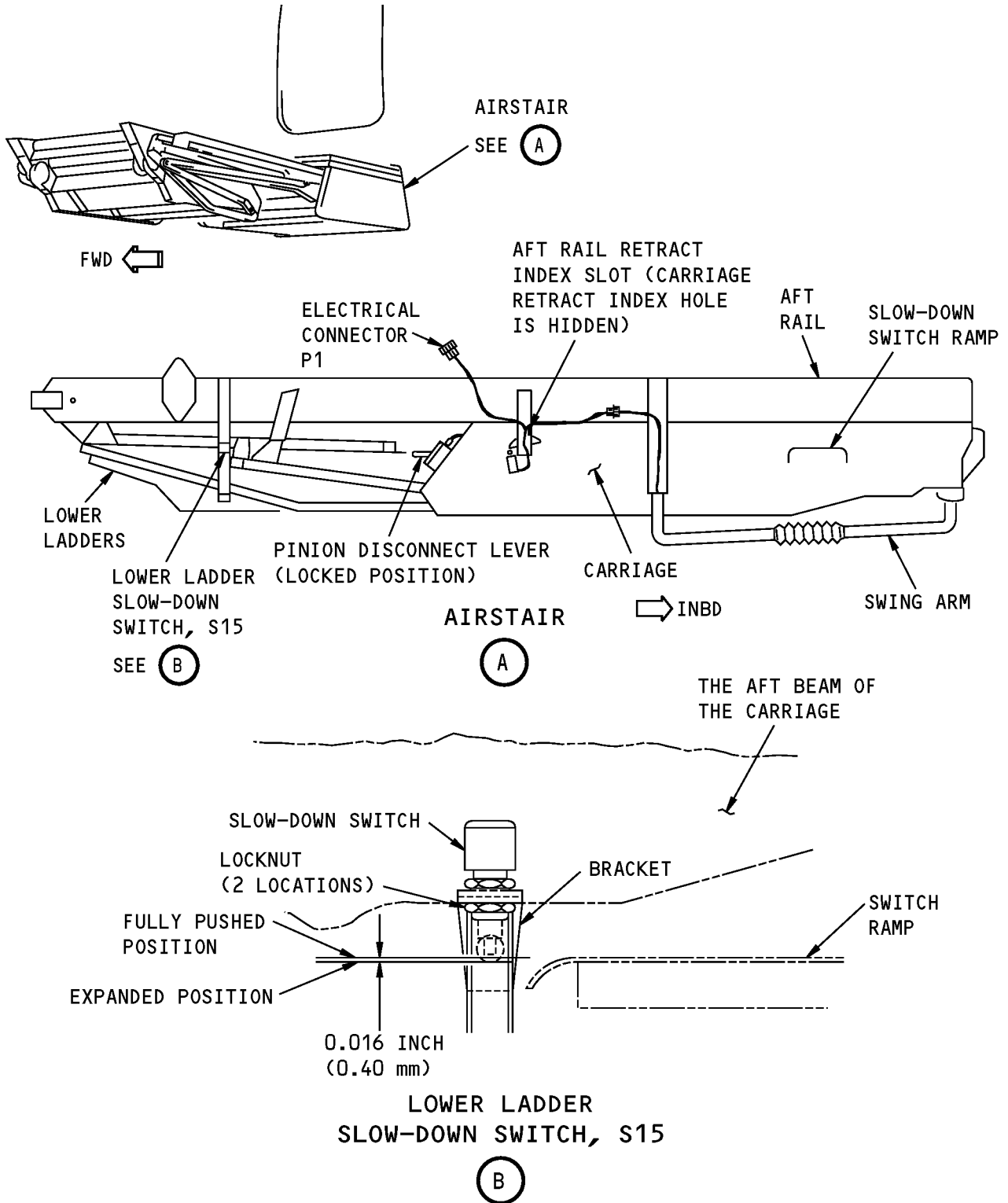
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Forward Airstairs Lower Ladder Slow-Down Switch, S15 Installation
Figure 401/52-61-24-990-801

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FORWARD AIRSTAIR DOOR - REMOVAL/INSTALLATION

1. General

- A. This procedure contains these tasks:
 - (1) A removal of the door.
 - (2) An installation of the same door that was removed.
 - (3) An installation of a new door.
 - (4) An adjustment of the door.
- B. This procedure refers to the forward airstair door as the door.
- C. Do the task to install the SAME door when you remove and install the door on the SAME airplane. Do this task only if you make no change to the adjustments of the door.
- D. Do the task to install a NEW door when you install a NEW door or one from a DIFFERENT airplane.

TASK 52-61-50-000-802

2. Forward Airstair Door Removal

(Figure 401)

A. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left

B. Prepare for the Removal

SUBTASK 52-61-50-010-001

- (1) Fully open the door but do not extend the airstair.

SUBTASK 52-61-50-860-002

- (2) Open these circuit breakers and install safety tags:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

C. Forward Airstair Door Removal

SUBTASK 52-61-50-020-001

- (1) Remove the door:
 - (a) Remove the bolt, washers and locknut that attach the lower guide fitting to the carriage.
 - (b) Lift the door away from the carriage.
 - (c) Turn the door to disengage the upper guide rollers from the door tracks.
 - (d) Turn the door to remove it from the fuselage opening.
 - (e) Remove the door from the airplane.

————— **END OF TASK** —————

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TASK 52-61-50-400-801

3. Forward Airstair Door Installation (Same Door)

(Figure 401)

A. General

- (1) Do this task to replace a door that came from the same airplane. Only do this task if the door adjustments did not change.

B. References

Reference	Title
52-09-10-390-801	Door Seals Repair (P/B 801)
SRM 51-20-01	Structural Repair Manual

C. Consumable Materials

Reference	Description	Specification
G00009	Compound - Organic Corrosion Inhibiting	BMS3-23

D. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left

E. Prepare for the Installation

SUBTASK 52-61-50-860-018

- (1) Make sure that these circuit breakers are open and have safety tags:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

SUBTASK 52-61-50-210-002

- (2) Do a check of the door seals:
 - (a) Look at the condition of the door seals.
 - (b) Make sure the door seals are in good condition.
 - (c) If it is necessary, do this task: Door Seals Repair, TASK 52-09-10-390-801.

SUBTASK 52-61-50-620-001

- (3) Do a check of the door for corrosion protection:
 - (a) Remove the inner insulation panel from the door.
 - (b) Examine the door for areas that do not have corrosion protection.
 - (c) If it is necessary, apply corrosion inhibiting compound, G00009 to the areas of the internal structure of the door that do not have corrosion protection (SRM 51-20-01).
 - (d) Install the inner insulation panel on the door.

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SUBTASK 52-61-50-210-003

(4) Make sure the door carriage is in the open position.

F. Forward Airstair Door Installation

SUBTASK 52-61-50-860-004

(1) Put the door through its opening in the fuselage.

SUBTASK 52-61-50-420-001

(2) Turn the door to engage the upper guide rollers in the door tracks.

SUBTASK 52-61-50-420-002

(3) Install the bolt, washers, and locknut to connect the door carriage to the lower guide fitting.

G. Put the Airplane Back to it Usual Condition

SUBTASK 52-61-50-860-005

(1) Remove the safety tags and close these circuit breakers:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

SUBTASK 52-61-50-410-002

(2) Use electrical power to close the door.

————— END OF TASK —————

TASK 52-61-50-400-802

4. Forward Airstair Door Installation (New Door)

(Figure 401)

A. General

(1) This task installs a new door or one from a different airplane.

B. References

Reference	Title
52-09-10-390-801	Door Seals Repair (P/B 801)
52-61-53-000-802	Forward Airstair Door Lockpin and Lockpin Actuator Removal (P/B 401)
52-61-59-000-801	Forward Airstair Door Actuator Standby System Motor Removal (P/B 401)

C. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left

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D. Prepare for the Installation

SUBTASK 52-61-50-860-019

- (1) Make sure that these circuit breakers are open and have safety tags:

F/O Electrical System Panel, P6-4

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

SUBTASK 52-61-50-020-005

- (2) Move the actuator drive carriage to its inboard position:
 - (a) Do this task: Forward Airstair Door Actuator Standby System Motor Removal, TASK 52-61-59-000-801.
 - (b) Turn the actuator manual drive to move the door carriage to the inboard end of the carriage tracks.

SUBTASK 52-61-50-210-006

- (3) Do a check of the door seals:
 - (a) Look at the condition of the door seals.
 - (b) Make sure the door seals are in good condition.
 - (c) If it is necessary, do this task: Door Seals Repair, TASK 52-09-10-390-801.

SUBTASK 52-61-50-020-014

- (4) Make sure the lock springs are removed from the stop pins and guide pins.

SUBTASK 52-61-50-020-015

- (5) Make sure the stop pins and guide pins are installed and fully retracted.

SUBTASK 52-61-50-020-016

- (6) Make sure the lockpin is retracted. If necessary, retract the lockpin:
 - (a) Do this task: Forward Airstair Door Lockpin and Lockpin Actuator Removal, TASK 52-61-53-000-802.
NOTE: Do only the steps to remove one extension rod from the rocker arm.
 - (b) Secure the lockpin actuator to structure to prevent accidental motion and damage to the lockpin actuator.

SUBTASK 52-61-50-020-017

- (7) Loosen the bolts that attach the center guide fitting to the structure (Figure 401).

E. Forward Airstair Door Installation

SUBTASK 52-61-50-420-007

- (1) Install the door:
 - (a) Put the door through the its opening in the fuselage.
 - (b) Turn the door to engage the top guide rollers in the door tracks.
 - (c) Install the bolt, washers, and locknut to connect the door carriage to the lower guide fitting.
 - (d) Turn each of the guide pins away from the center of the door, two full turns (Figure 405).

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(e) Do this task: Forward Airstair Door Adjustment, TASK 52-61-50-400-803.

————— END OF TASK —————

TASK 52-61-50-400-803

5. Forward Airstair Door Adjustment

(Figure 403)

A. General

- (1) The door is adjustable for flushness and edge gap clearance. These adjustments are somewhat inter-related. Changing one adjustment may affect other adjustments.
- (2) This task makes adjustments on the door to get these three conditions:
 - (a) The outer door skin must be in permitted flushness tolerances with relation to the outer fuselage skin.
 - (b) The relation of the door and carriage mechanism must be correct for the door to move smoothly to and from the open position.
 - (c) The horizontal and vertical adjustments of the door in the door opening have these two conditions:
 - 1) The eight stop pins on the door touch near the center of the stop pads on the door opening.
 - 2) The clearance between the door skin outer edge and the fuselage outer skin is in the permitted tolerances.

NOTE: The horizontal adjustment is in a forward or aft direction in the door opening. The vertical adjustment is in a vertical direction in a relation to the plane of the door opening.

B. References

Reference	Title
52-61-53-000-802	Forward Airstair Door Lockpin and Lockpin Actuator Removal (P/B 401)
52-61-53-820-801	Forward Airstair Door Lock Mechanism Adjustment (P/B 501)
52-61-59-000-801	Forward Airstair Door Actuator Standby System Motor Removal (P/B 401)
52-61-59-400-801	Forward Airstair Door Actuator Standby System Motor Installation (P/B 401)
52-61-60-820-801	Forward Airstair Door Closed Switch Adjustment (P/B 401)
52-61-61-820-801	Forward Airstair Door Open Limit Switches (S201 and S205) Adjustment (P/B 401)
SRM 51-20-01	Structural Repair Manual

C. Consumable Materials

Reference	Description	Specification
G00009	Compound - Organic Corrosion Inhibiting	BMS3-23

D. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left

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E. Prepare for the Adjustment

SUBTASK 52-61-50-420-008

(1) Prepare the door for the adjustment:

- (a) Make sure lock springs are removed from the stop pins and guide pins.
- (b) Make sure the door stop pins and guide pins are fully retracted.
- (c) Turn the guide pins away from the center of the door two full turns.
- (d) Loosen the eight bolts that attach the lower guide fitting to the door until the lower guide fitting is free to move horizontally and vertically.

SUBTASK 52-61-50-420-009

(2) Prepare the airplane for the door adjustment:

- (a) Make sure the airplane is not on jacks.
- (b) Make sure the door is open and the airstair is retracted.
- (c) Make sure the standby door actuator motor is not installed. If necessary, do this task: Forward Airstair Door Actuator Standby System Motor Removal, TASK 52-61-59-000-801.
- (d) Make sure the bolts that attach the center guide fitting to structure are loose.
- (e) Make sure the lockpin is retracted. If it is necessary, retract the lockpin:
 - 1) Do this task: Forward Airstair Door Lockpin and Lockpin Actuator Removal, TASK 52-61-53-000-802.

NOTE: Do only the steps to remove one extension rod from the rocker arm.

- 2) Secure the lockpin actuator to structure to prevent accidental motion and damage.

SUBTASK 52-61-50-860-020

(3) Make sure that these circuit breakers are open:

F/O Electrical System Panel, P6-4

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

F. Initial Adjustment

SUBTASK 52-61-50-420-010

(1) Turn the actuator manual drive to move the door to the closed position.

SUBTASK 52-61-50-420-011

(2) Do the initial adjustment of the door:

- (a) Move the door so that the stop pins are near the center of the stop pads (Figure 402).
- (b) Turn the forward and aft lower stop pins outboard until they touch the stop pads.
- (c) Move the lower guide fitting on the door, until the stop pins touch near the center of the stop pads.

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CAUTION: DO NOT REMOVE MATERIAL FROM THE DOOR OPENING. IF MATERIAL IS REMOVED FROM THE DOOR OPENING THE DOOR WILL NOT FIT.

- (d) If it is necessary, trim the door edge.
- (e) Apply corrosion inhibiting compound, G00009 to the areas of the door that do not have corrosion protection (SRM 51-20-01).
- (f) If it is necessary, install the door.

G. Adjustment

SUBTASK 52-61-50-210-007

- (1) Adjust the flushness of the door upper edge (Figure 404):
 - (a) Loosen the screws that attach the upper ends of the door tracks to structure.
 - (b) Move the door tracks inboard or outboard to get the flushness dimension shown in (Figure 403)
 - (c) Tighten the screws that attach the upper end of the door tracks to structure.

SUBTASK 52-61-50-210-008

- (2) Adjust the flushness of the door lower edge (Figure 404):
 - (a) Turn the lower forward and aft stop pins inboard or outboard to get the flushness shown in (Figure 403).

NOTE: If necessary, turn the actuator manual drive to allow the door to move inboard or outboard.
 - (b) Turn the lower forward and aft stop pins inboard until the nearest stop pin and bushing grooves align.
 - (c) Install lock springs on the lower forward and aft stop pins.

NOTE: The flushness adjustment of the lower edge of the door can affect the door lockpin clearance.

SUBTASK 52-61-50-210-009

- (3) Adjust the stop pins to the center of the stop pads (Figure 402):
 - (a) Move the door horizontally and vertically to get the stop pins correctly positioned on the stop pad centers (Figure 402).

SUBTASK 52-61-50-210-010

- (4) Adjust the vertical clearance of the door (Figure 401):
 - (a) Add and remove shims under the two vertical alignment rollers to get the door top and bottom clearance dimensions shown in (Figure 403).

NOTE: The final thickness of the forward shim pack may differ from the final thickness of the aft shim pack.

SUBTASK 52-61-50-210-011

- (5) Adjust the horizontal clearance of the door (Figure 401):
 - (a) Move the door horizontally to get the correct forward and aft gap clearance as shown in (Figure 403).
 - (b) Tighten the bolts that attach the center guide fitting to structure.

SUBTASK 52-61-50-210-012

- (6) Align the door in the door track (Figure 405):
 - (a) Make sure the door is in the closed position.

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- (b) Turn the guide pins to get the clearance shown in (Figure 405).
- (c) Install the locksprings in the guide pins.
- (d) Move adjustment washers between the door track side of the guide arm and door side of the guide arm to get the guide roller to engage the door track to the dimension shown in (Figure 405).
- (e) Make sure at least one guide roller washer is on each side of the guide arm.
- (f) Install a new MS27111-2 locking key washer.
NOTE: Key washer may be reused if alternate unused key-tabs are available and previously used key-tabs are removed. Discard key washers with cracks.
- (g) Tighten the nut that attaches the guide roller to the guide arm.
- (h) Bend the tabs of the MS27111-2 locking key washer as shown in (Figure 405) to safety it.
- (i) Make sure two keys of the MS27111-2 locking key washer are flat against the edges of the nut.
- (j) Manually move the door to the fully open position.
- (k) Manually move the door to the fully closed position.
- (l) Make sure there is no binding or interference between the guide pins and door tracks.
- (m) Turn the guide pins in the direction of the center of the door until the nearest lockpin grooves in the guide pin and guide pin bushing align.
- (n) Install lock springs in the guide pins.

SUBTASK 52-61-50-210-013

- (7) Adjust the stop pins without locksprings as follows (Figure 402):

NOTE: The lower forward and aft stop pins are the only ones that should have locksprings installed.

- (a) Make sure the lower forward and aft stop pins touch the stop pads.
- (b) Turn the stop pins outboard until they touch the stop pads.
- (c) Turn the stop pins inboard until the nearest lock spring grooves in the stop pin and bushing align.
- (d) Install the locksprings in the stop pins.
- (e) Make sure that the stop pins touch the stop pads in the location shown in (Figure 402).

SUBTASK 52-61-50-210-014

- (8) Make sure the door flushness and clearance are within permitted specifications (Figure 403).

SUBTASK 52-61-50-210-015

- (9) Tighten the bolts that attach the lower guide fitting to the door.

SUBTASK 52-61-50-210-016

- (10) Connect the lockpin:

- (a) Do this task: Forward Airstair Door Actuator Standby System Motor Installation, TASK 52-61-59-400-801.

NOTE: Do only the steps to connect the extension rod to the rocker arm.

- (b) Do this task: Forward Airstair Door Lock Mechanism Adjustment, TASK 52-61-53-820-801.

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SUBTASK 52-61-50-210-017

- (11) If the door closed limit switches require adjustment, do this task: Forward Airstair Door Closed Switch Adjustment, TASK 52-61-60-820-801.

NOTE: Do only the steps to adjust the door closed limit switches.

SUBTASK 52-61-50-210-018

- (12) If the door open limit switches require adjustment, do this task: Forward Airstair Door Open Limit Switches (S201 and S205) Adjustment, TASK 52-61-61-820-801.

NOTE: Do only the steps to adjust the door open limit switches.

H. Put the Airplane Back to its Usual Condition

SUBTASK 52-61-50-210-019

- (1) Do this task: Forward Airstair Door Actuator Standby System Motor Installation, TASK 52-61-59-400-801.

SUBTASK 52-61-50-860-021

- (2) Close these circuit breakers:

F/O Electrical System Panel, P6-4

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

SUBTASK 52-61-50-410-005

- (3) Use electrical power to close the door.

END OF TASK

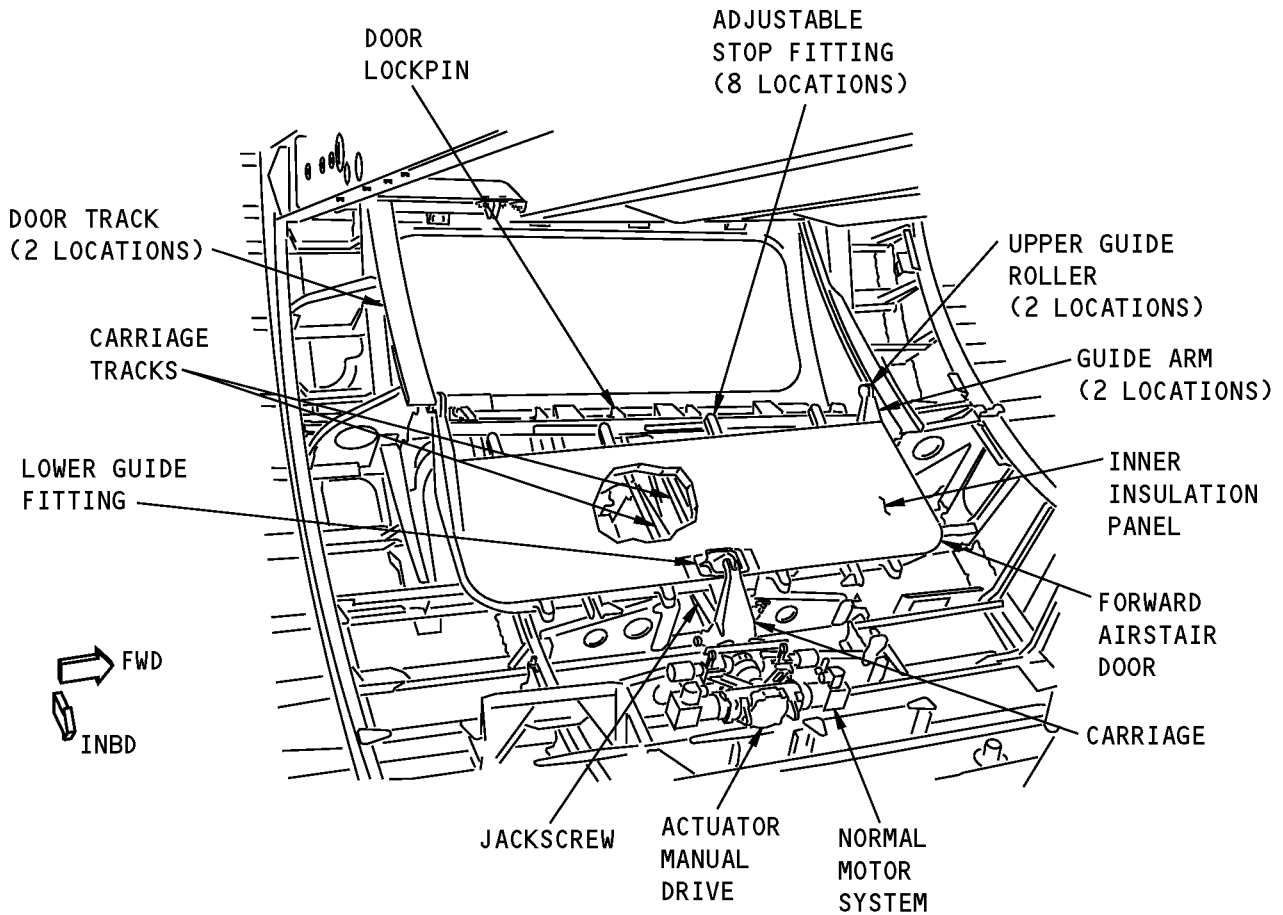
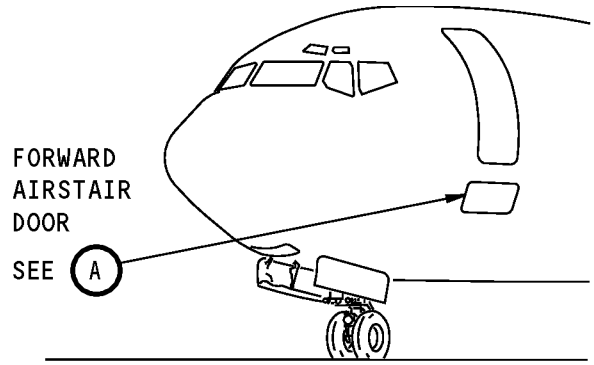
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**FORWARD AIRSTAIR DOOR
(OPEN POSITION)**

(A)

**Forward Airstair Door Installation
Figure 401 (Sheet 1 of 3)/52-61-50-990-801**

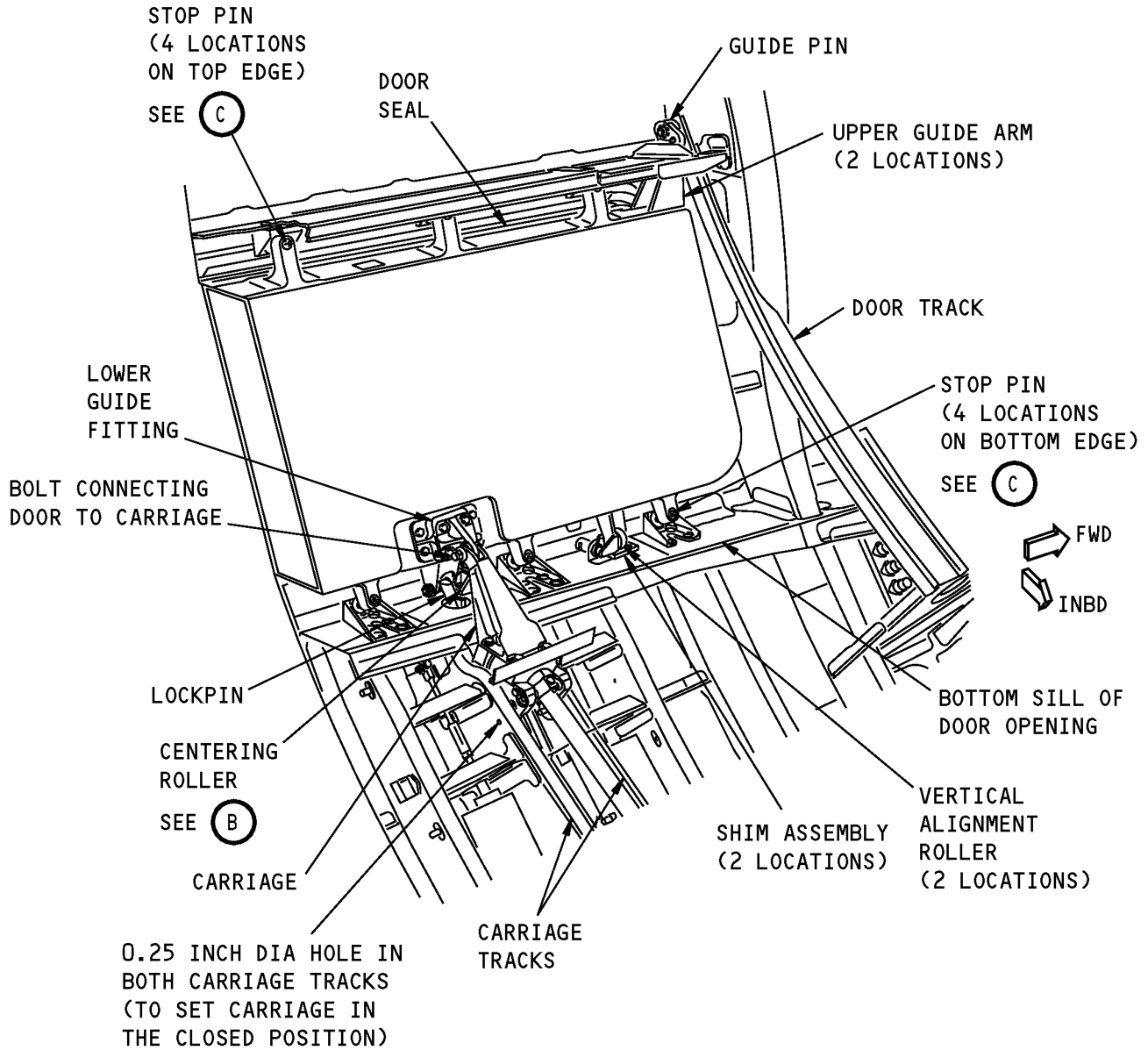
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**FORWARD AIRSTAIR DOOR
(CLOSED POSITION)**

(A)

**Forward Airstair Door Installation
Figure 401 (Sheet 2 of 3)/52-61-50-990-801**

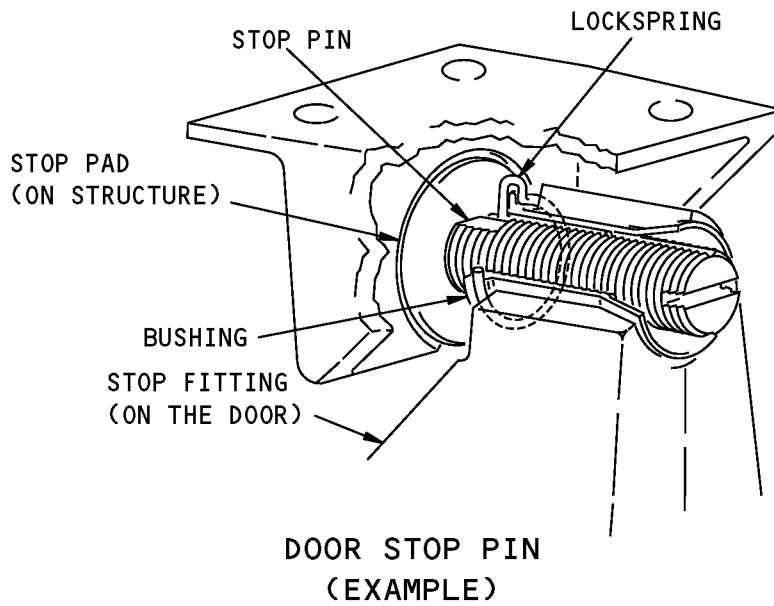
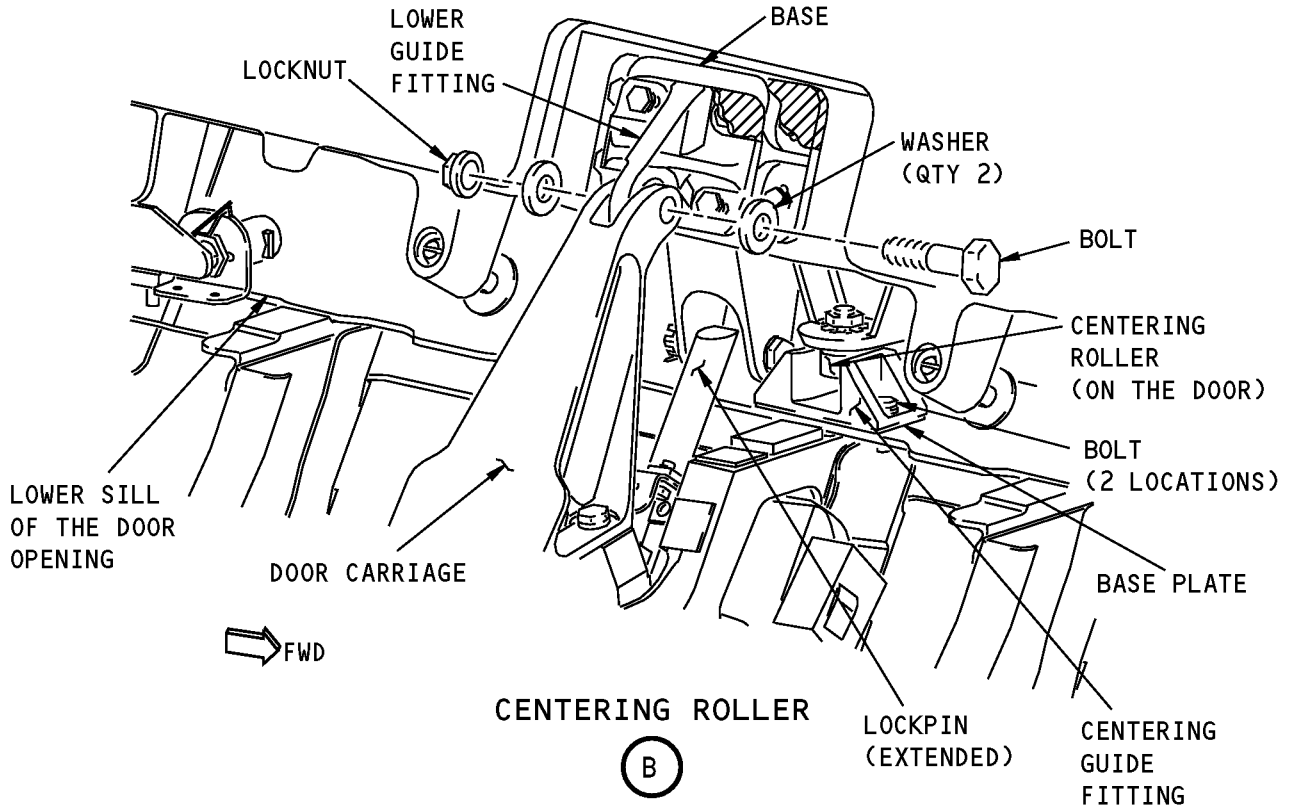
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Forward Airstair Door Installation
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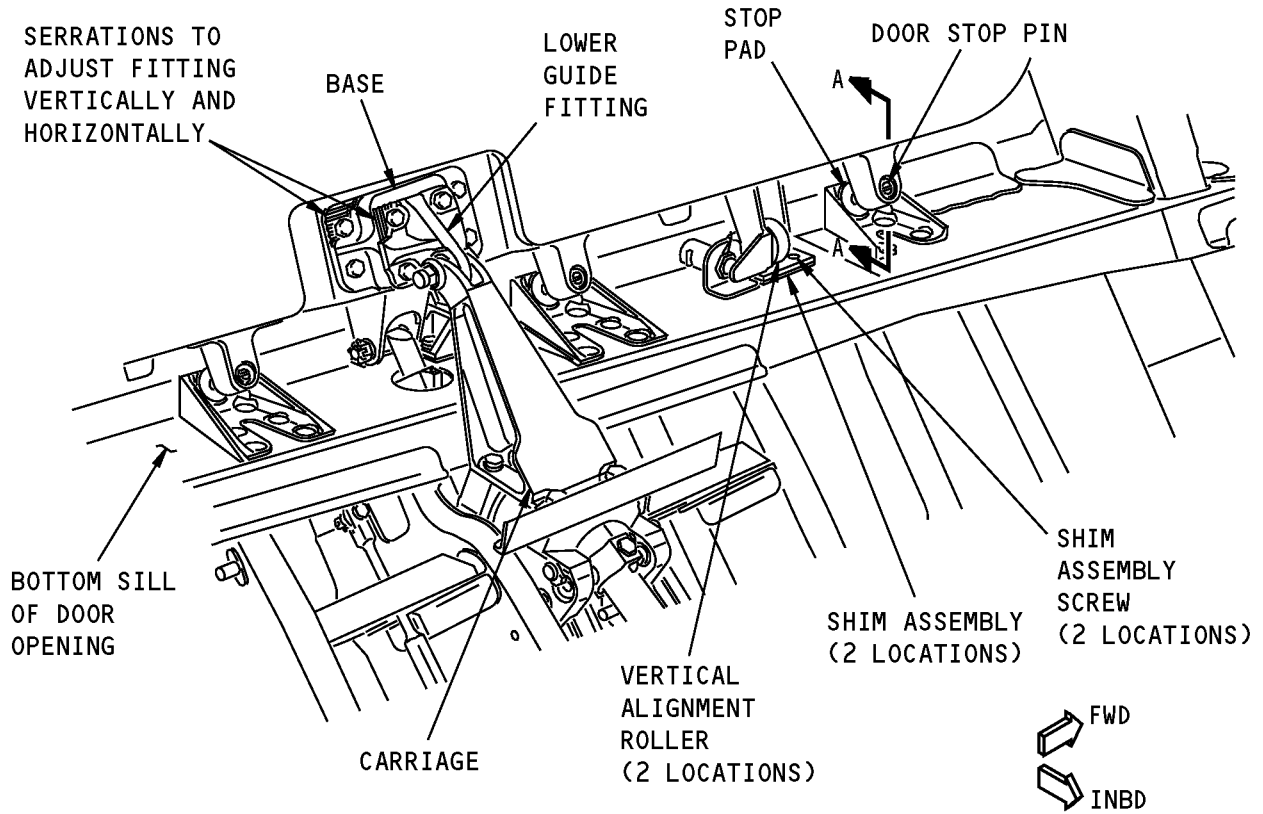
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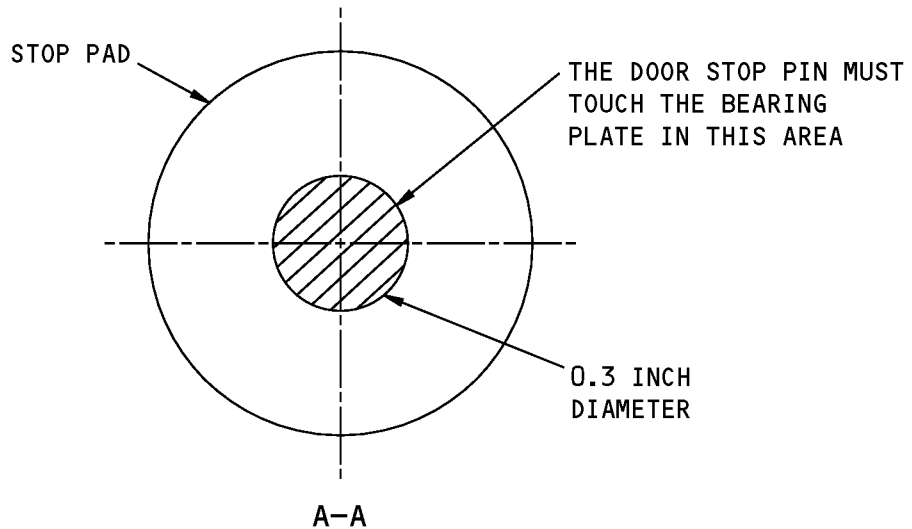
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FORWARD AIRSTAIR DOOR

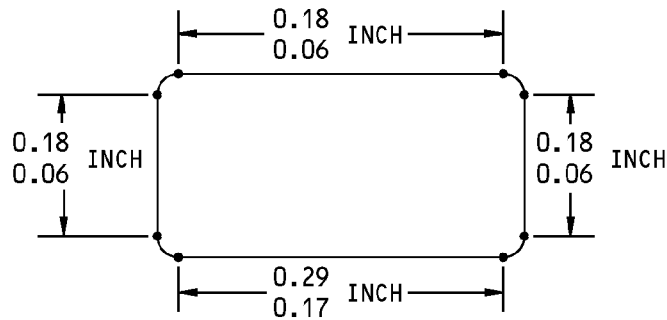
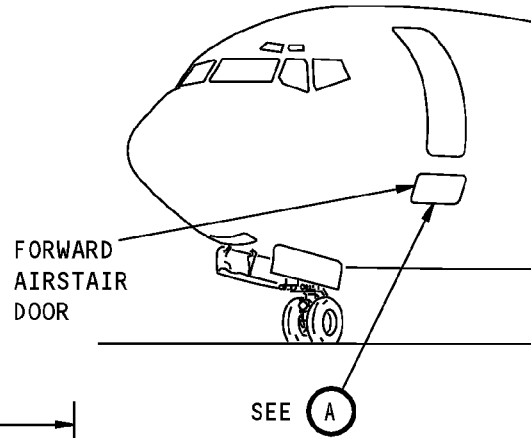


Forward Airstair Door Stop Pin Installation
Figure 402/52-61-50-990-802

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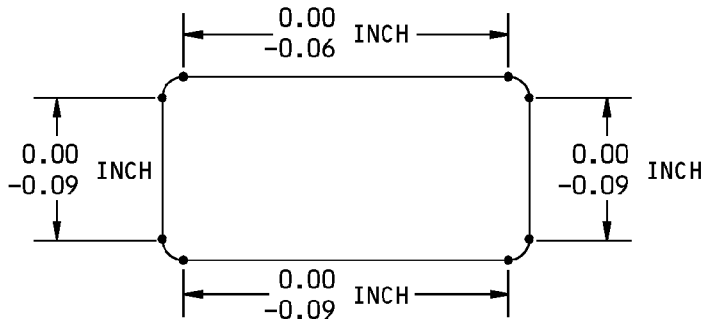
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FORWARD AIRSTAIR DOOR CLEARANCE

(A)



FORWARD AIRSTAIR DOOR FLUSHNESS 1 2

(A)

- 1 A NEGATIVE FLUSHNESS SHOWS THE DOOR IS INBOARD OF THE FUSELAGE CONTOUR. A POSITIVE FLUSHNESS SHOWS THE DOOR IS OUTBOARD OF THE FUSELAGE CONTOUR.
- 2 YOU CAN CHANGE THE FLUSHNESS BY ± 0.03 INCH IN ONE OR MORE LOCATIONS FOR NOT MORE THAN 6.0 INCHES.

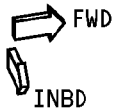
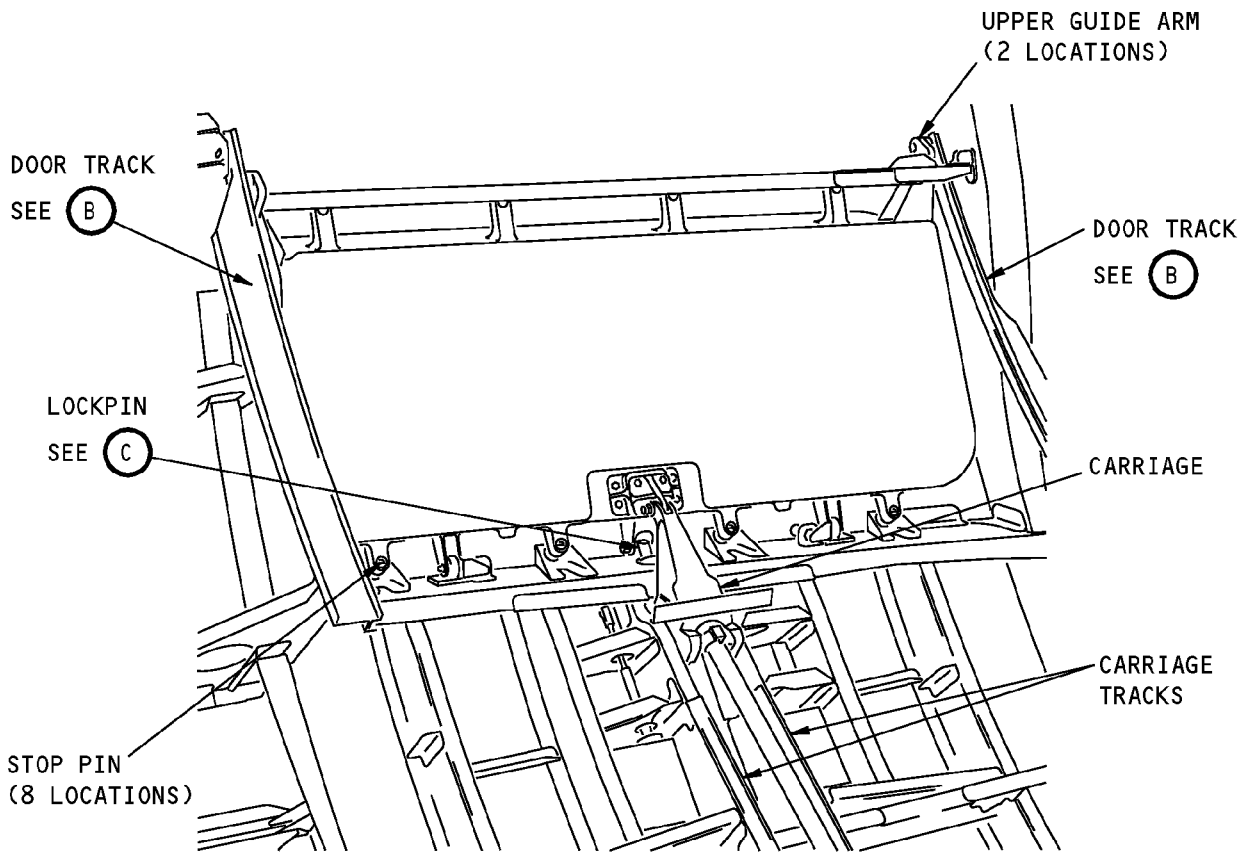
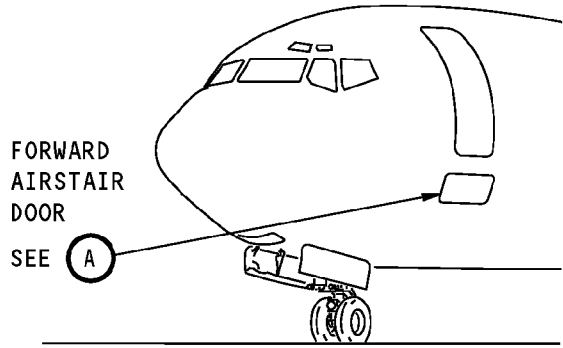
**Forward Airstair Door Flushness Installation
Figure 403/52-61-50-990-803**

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**FORWARD AIRSTAIR DOOR
(DOOR CLOSED)**

(A)

**Forward Airstair Door Contour Installation
Figure 404 (Sheet 1 of 2)/52-61-50-990-804**

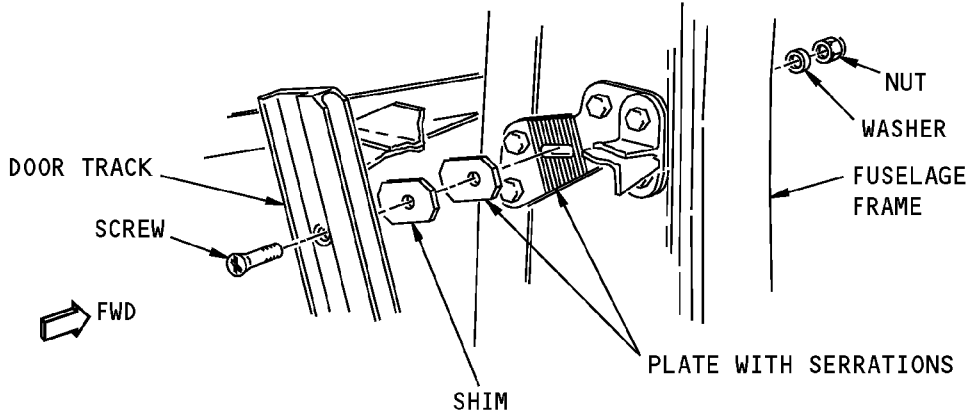
EFFECTIVITY
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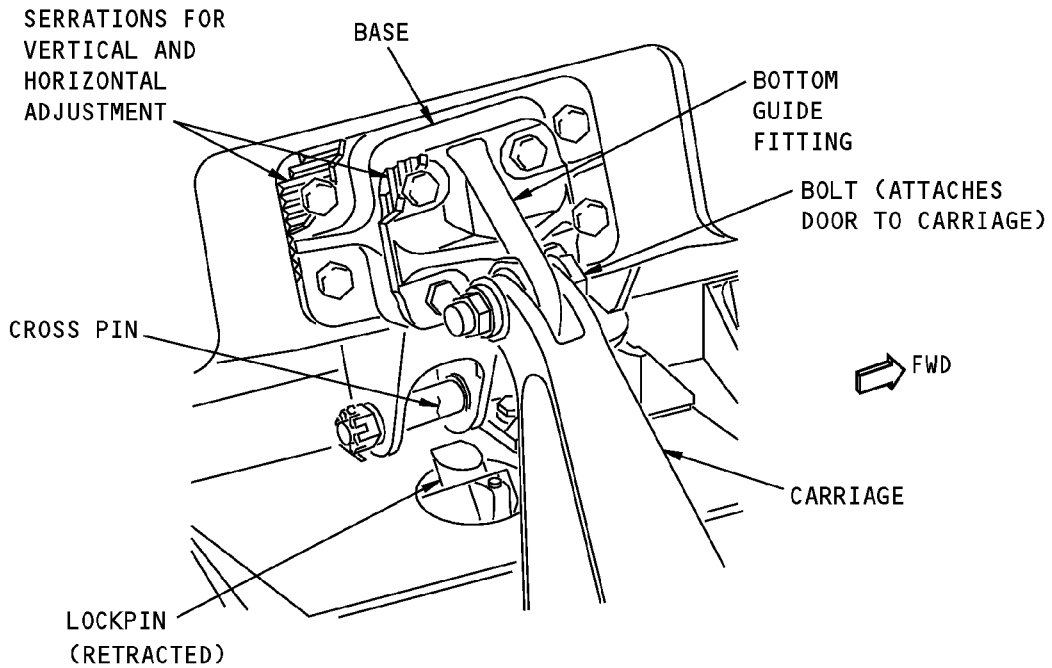
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**DOOR TRACK
(FORWARD IS SHOWN, AFT IS OPPOSITE)**

(B)



LOCKPIN

(C)

**Forward Airstair Door Contour Installation
Figure 404 (Sheet 2 of 2)/52-61-50-990-804**

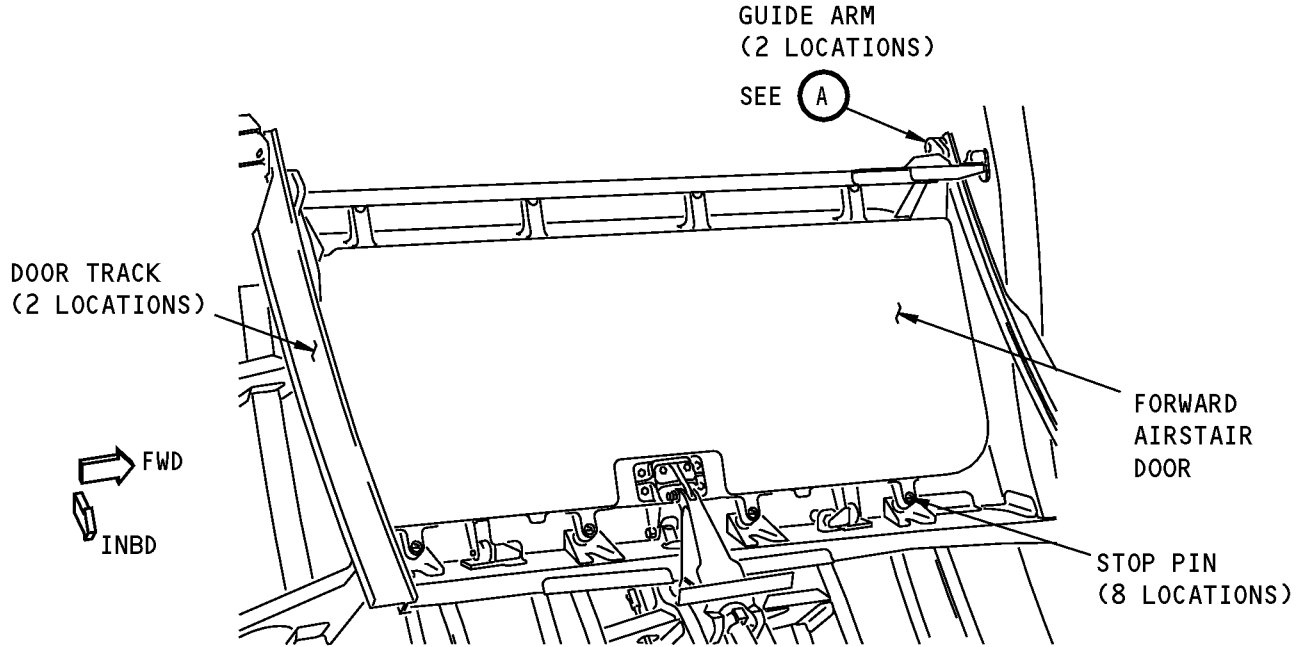
EFFECTIVITY
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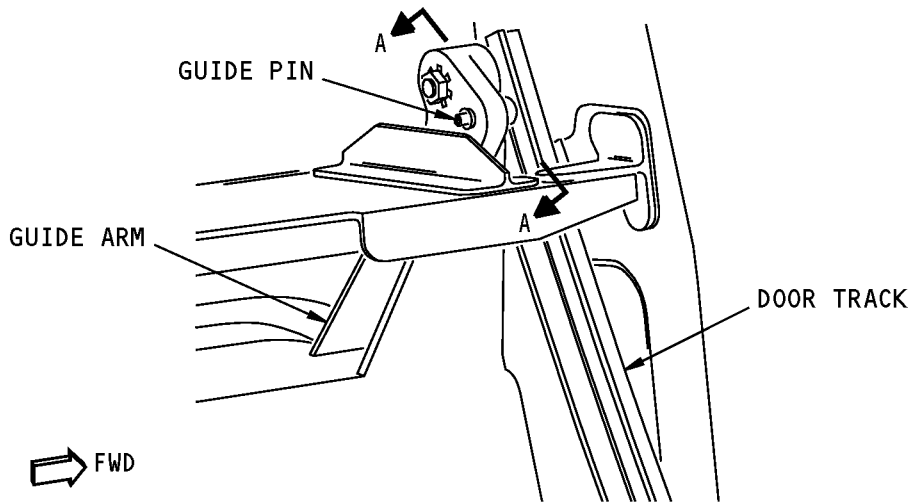
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FORWARD AIRSTAIR DOOR



**GUIDE ARM
(FORWARD IS SHOWN,
AFT IS OPPOSITE)**

(A)

**Forward Airstair Door Upper Guide Installation
Figure 405 (Sheet 1 of 2)/52-61-50-990-805**

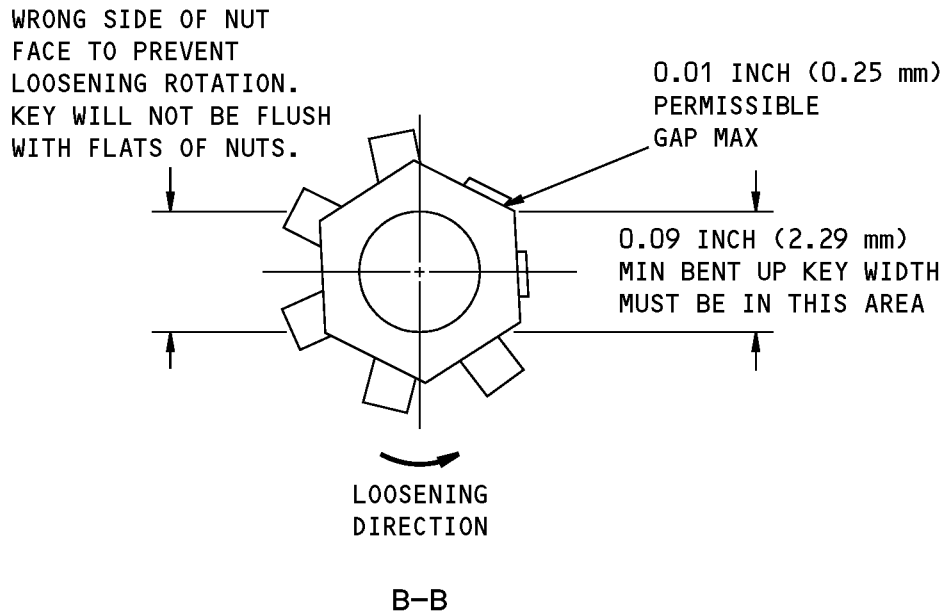
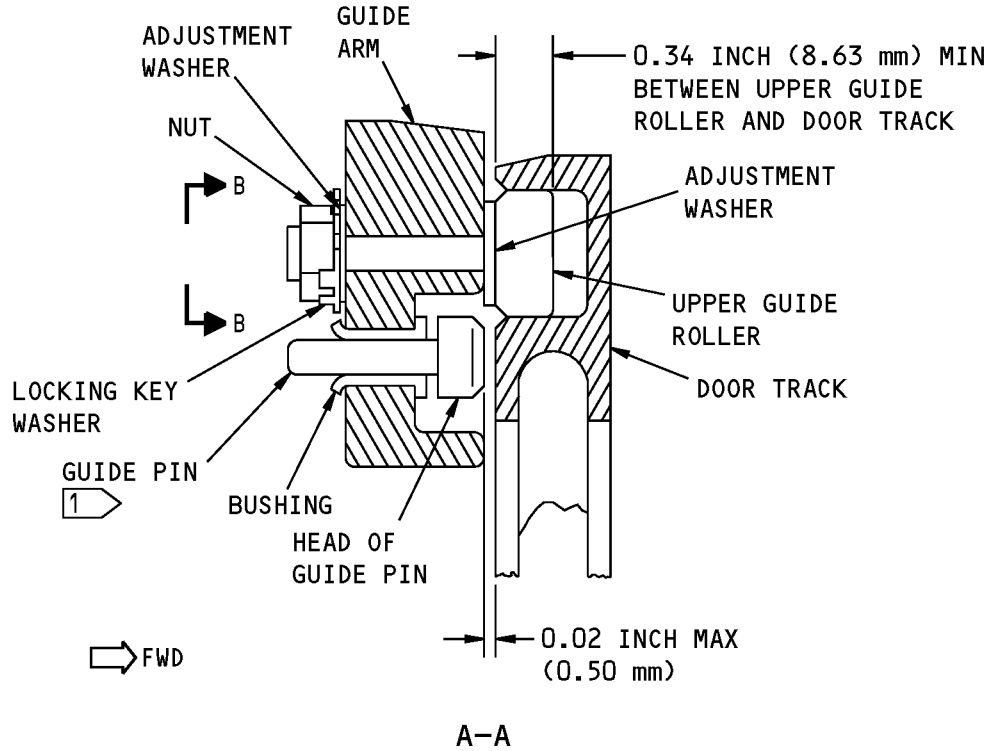
EFFECTIVITY
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1 THE ADJUSTMENT OF THE GUIDE PINS IS SIMILAR TO THE ADJUSTMENT OF THE STOP PINS

Forward Airstair Door Upper Guide Installation
Figure 405 (Sheet 2 of 2)/52-61-50-990-805

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FORWARD AIRSTAIR DOOR - INSPECTION/CHECK

1. General

- A. This procedure contains scheduled maintenance task data.
- B. This procedure has this task:
 - (1) An inspection of the airstair door seal.

TASK 52-61-50-210-801

2. Forward Airstair Door Seal Inspection

- A. General
 - (1) This procedure is a scheduled maintenance task.
- B. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left

C. Inspection

SUBTASK 52-61-50-210-001

- (1) Do a visual inspection of the door pressure seal as follows:
 - (a) Open the airstair door but do not extend the airstair.
 - (b) Examine the seal.
 - 1) Look for cracks, holes, and tears.
 - 2) Look for indications of seal deterioration.
 - 3) Make sure the seal is correctly installed in the seal retainer.
 - (c) Close the airstair door.

————— **END OF TASK** —————

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FORWARD AIRSTAIR DOOR CARRIAGE - REMOVAL/INSTALLATION

1. General

A. This procedure contains these tasks:

- (1) A removal of the carriage for the forward airstair door.
- (2) An installation of the carriage for the forward airstair door.

TASK 52-61-51-000-801

2. Forward Airstair Door Carriage Removal

(Figure 401)

A. Location Zones

<u>Zone</u>	<u>Area</u>
117	Electrical and Electronics Compartment - Left

B. Access Panels

<u>Number</u>	<u>Name/Location</u>
117BL	Forward Airstair Door
831	Forward Entry Door

C. Prepare for the Removal

SUBTASK 52-61-51-860-001

(1) Open this access panel:

<u>Number</u>	<u>Name/Location</u>
831	Forward Entry Door

SUBTASK 52-61-51-010-001

(2) Fully open this access panel but do not extend the airstair:

<u>Number</u>	<u>Name/Location</u>
117BL	Forward Airstair Door

SUBTASK 52-61-51-860-002

(3) Open these circuit breakers and install safety tags:

F/O Electrical System Panel, P6-4

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

SUBTASK 52-61-51-020-001

(4) Remove the two bushings from the jackscrew nut and carriage.

SUBTASK 52-61-51-020-002

(5) Disengage the jackscrew nut from the carriage.

SUBTASK 52-61-51-860-003

(6) Manually move the forward airstair door to the closed position.

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SUBTASK 52-61-51-480-001

(7) Install a temporary support to hold the door in this position.

SUBTASK 52-61-51-020-003

(8) Remove the self-locking nut and the washer from the inboard end of the jackscrew.

SUBTASK 52-61-51-020-004

(9) Remove the jackscrew from the actuator.

SUBTASK 52-61-51-020-005

(10) Remove the bolt and other fasteners that attach the bottom guide fitting on the door to the carriage.

SUBTASK 52-61-51-020-006

(11) Disengage the rollers at the bottom end of the carriage guide rails to remove the carriage.

NOTE: You can lift the actuator up and inboard on its support to help remove the carriage from the carriage guide rails.

SUBTASK 52-61-51-020-007

(12) Remove the carriage.

————— END OF TASK —————

TASK 52-61-51-400-801

3. Forward Airstair Door Carriage Installation

(Figure 401)

A. References

Reference	Title
52-61-59-000-801	Forward Airstair Door Actuator Standby System Motor Removal (P/B 401)
52-61-60-820-801	Forward Airstair Door Closed Switch Adjustment (P/B 401)

B. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left

C. Access Panels

Number	Name/Location
117BL	Forward Airstair Door
831	Forward Entry Door

D. Procedure

SUBTASK 52-61-51-020-008

(1) Do this task: Forward Airstair Door Actuator Standby System Motor Removal, TASK 52-61-59-000-801.

SUBTASK 52-61-51-860-004

(2) Put the jackscrew and the jackscrew nut between the carriage guide rails.

NOTE: Do not put the jackscrew into the actuator at this time.

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SUBTASK 52-61-51-860-005

- (3) Install the rollers of the carriage in the bottom end of the carriage guide rails.

NOTE: Lift the actuator up and inboard on the support to help get the rollers in the carriage guide rails.

SUBTASK 52-61-51-220-001

- (4) Make sure the clearance between each guide pin and the guide rail adjacent to it is 0.02 inch.

- (a) If it is necessary, adjust the guide pins.

SUBTASK 52-61-51-980-001

- (5) Move the carriage up and down the carriage guide rails.

- (a) Make sure the carriage moves smoothly and freely.

SUBTASK 52-61-51-860-006

- (6) Temporarily hold the carriage in a position on the guide rails away from the actuator.

SUBTASK 52-61-51-420-001

- (7) Install the jackscrew in the actuator as follows:

- (a) Make sure the snubber is installed on the splines on the end of the jackscrew shaft so that the snubber face is away from the ballnut.

- (b) Put the jackscrew in the actuator.

- (c) Install the washer and self-locking nut.

SUBTASK 52-61-51-860-007

- (8) Release the carriage from the temporary position.

SUBTASK 52-61-51-420-002

- (9) Connect the jackscrew nut to the carriage with the two bushings.

SUBTASK 52-61-51-980-002

- (10) Turn the manual drive for the actuator to operate the carriage along the guide rails.

- (a) Make sure the jackscrew moves the carriage smoothly and freely.

SUBTASK 52-61-51-210-001

- (11) Make sure the airstair door is held in the closed position.

SUBTASK 52-61-51-980-003

- (12) Continue the manual operation of the carriage until the two outboard rollers align with the 0.25-inch diameter holes in the guide rails.

NOTE: When the rollers are in this position, the carriage must engage the bottom guide fitting on the door.

SUBTASK 52-61-51-980-004

- (13) When the rollers and 0.25 inch diameter holes align, make sure the carriage engages the bottom guide fitting.

SUBTASK 52-61-51-820-001

- (14) If the carriage and bottom guide fitting do not engage when the rollers and the 0.25 inch diameter holes align, adjust the bottom guide fitting.

NOTE: You can adjust the bottom guide fitting vertically and horizontally by the serrations on the base. You can add or remove shims to adjust in the inboard and outboard direction.

SUBTASK 52-61-51-420-003

- (15) Install and tighten the fasteners that attach the forward airstair door to the carriage.

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SUBTASK 52-61-51-080-001

(16) Remove the temporary support that holds the door closed.

SUBTASK 52-61-51-860-008

(17) Remove the safety tags and close these circuit breakers:

F/O Electrical System Panel, P6-4

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

SUBTASK 52-61-51-820-002

(18) If the door closed limit switches for the forward airstair door require adjustment, do this task:
Forward Airstair Door Closed Switch Adjustment, TASK 52-61-60-820-801

Do only the steps to adjust the door closed limit switches.

SUBTASK 52-61-51-820-003

(19) If the door open limit switches for the forward airstair door require adjustment, do this task:
Forward Airstair Door Closed Switch Adjustment, TASK 52-61-60-820-801

Do only the steps to adjust the door open limit switches.

SUBTASK 52-61-51-710-001

(20) Operate the forward airstair door electrically.

SUBTASK 52-61-51-410-001

(21) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
117BL	Forward Airstair Door

SUBTASK 52-61-51-860-009

(22) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
831	Forward Entry Door

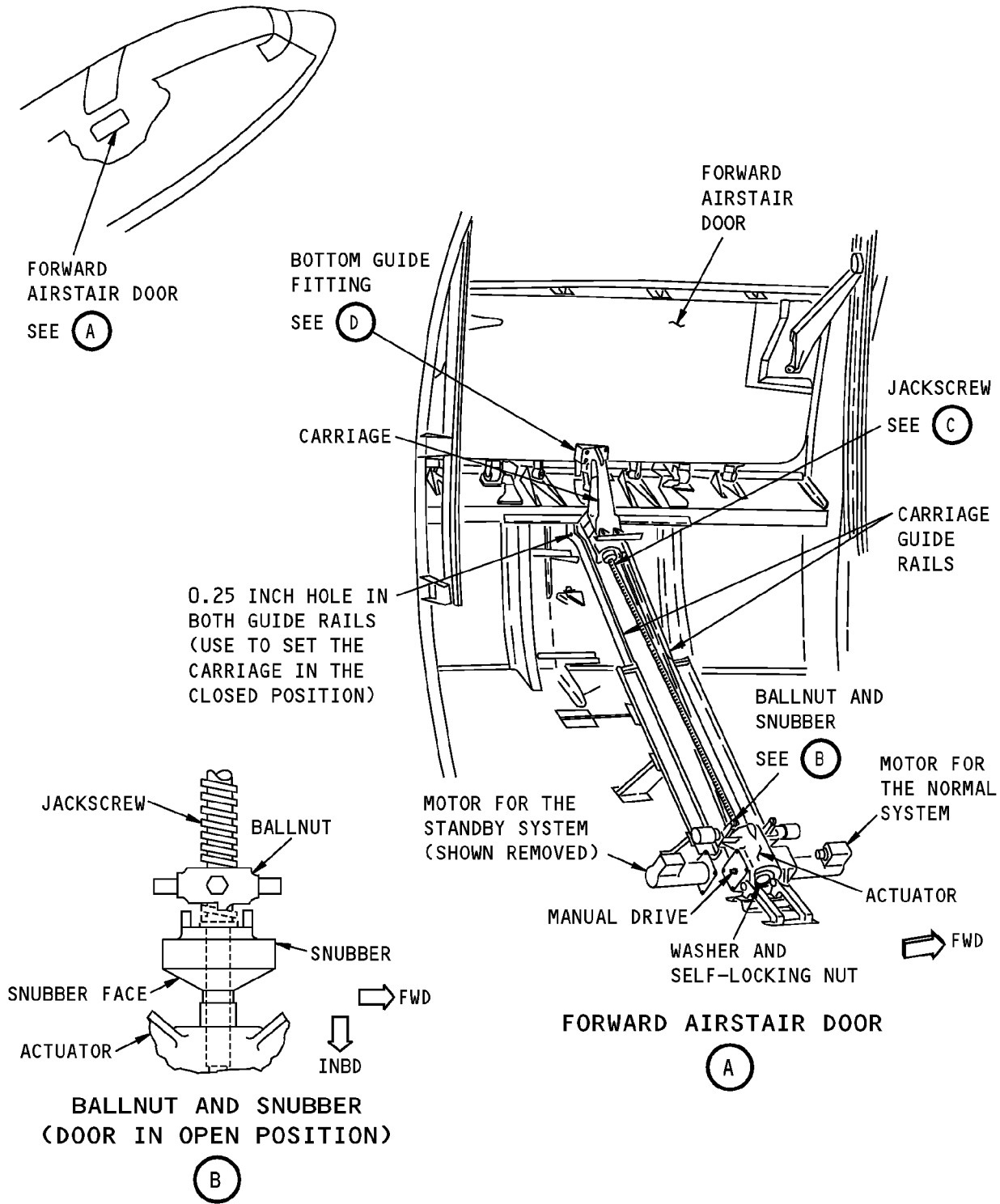
————— **END OF TASK** —————

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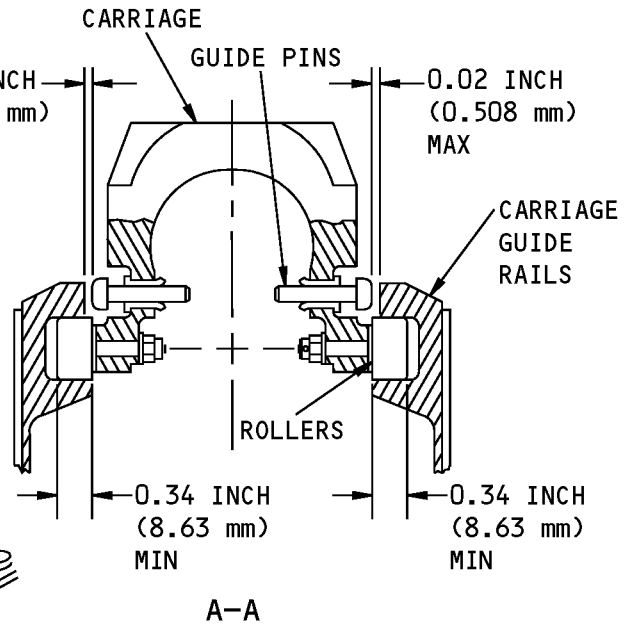
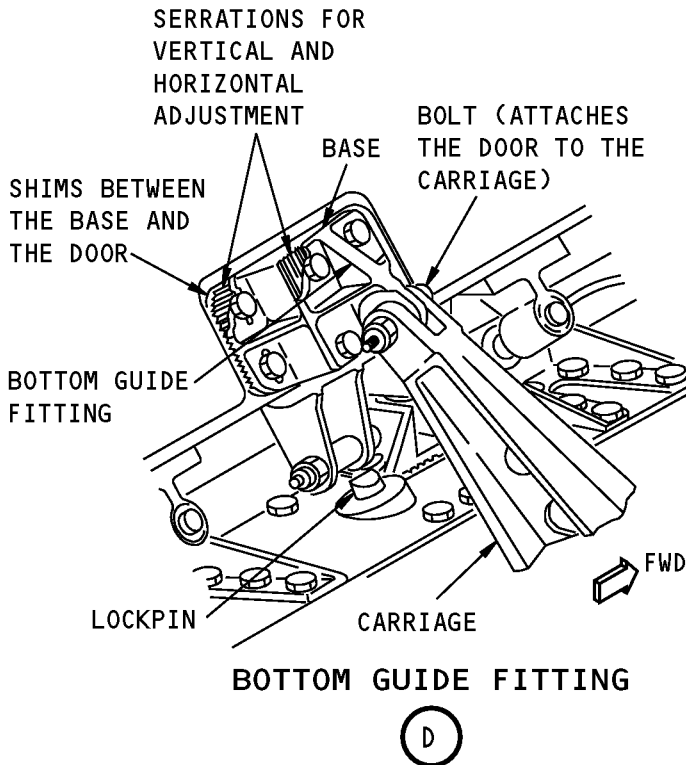
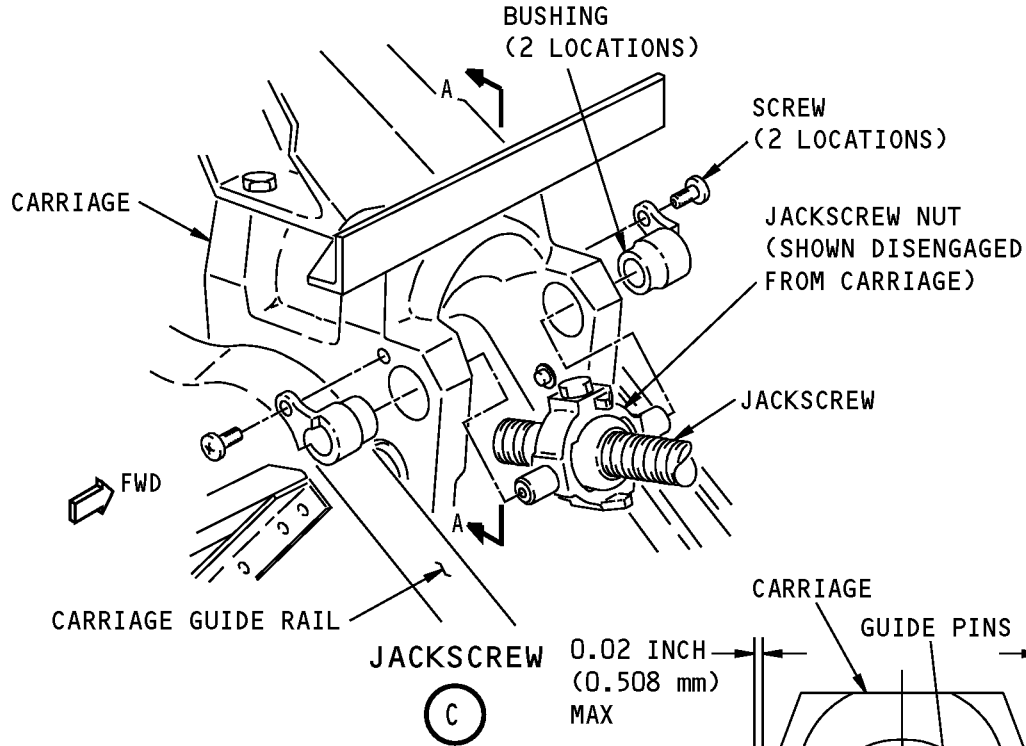


**Forward Airstair Door Carriage Installation
Figure 401 (Sheet 1 of 2)/52-61-51-990-801**

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Forward Airstair Door Carriage Installation
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FORWARD AIRSTAIR DOOR ACTUATOR - REMOVAL/INSTALLATION

1. General

A. This procedure contains these tasks:

- (1) A removal of the forward airstair door actuator.
- (2) An installation of the forward airstair door actuator.

TASK 52-61-52-000-801

2. Forward Airstair Door Actuator Removal

(Figure 401)

A. Location Zones

<u>Zone</u>	<u>Area</u>
117	Electrical and Electronics Compartment - Left

B. Access Panels

<u>Number</u>	<u>Name/Location</u>
117A	Electronic Equipment Access Door
117BL	Forward Airstair Door

C. Prepare for the Removal

SUBTASK 52-61-52-010-001

- (1) Fully open this access panel but do not extend the airstair:

<u>Number</u>	<u>Name/Location</u>
117BL	Forward Airstair Door

SUBTASK 52-61-52-860-002

- (2) Open these circuit breakers and install safety tags:

F/O Electrical System Panel, P6-4

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

SUBTASK 52-61-52-480-002

- (3) Install a temporary support to hold the forward airstair door in the open position.

SUBTASK 52-61-52-010-002

- (4) Get access to the actuator [4] through this access panel:

<u>Number</u>	<u>Name/Location</u>
117A	Electronic Equipment Access Door

D. Forward Airstair Door Actuator Removal

SUBTASK 52-61-52-020-001

- (1) Remove the actuator [4]:
 - (a) Disconnect the electrical connector D912 [8] from the normal system motor [7].

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- (b) Disconnect the electrical connector D914 [13] from the standby system motor [12].
- (c) Remove the screws [22], [25], locknuts [20], washers [21], support brackets [23], and bonding jumper [14] that attach the aft switch bracket [1] and forward switch bracket [5] to the actuator [4].
- (d) Let the switches [6], [15] and brackets [1], [5] hang by the wires.
- (e) Remove the self-locking nut [10] and washer [11] from the inboard end of the jackscrew [2].
- (f) Loosen the ballnut [16] and snubber [3] on the inboard end of the jackscrew [2].
- (g) Remove the bolts [32], washers [30], [33], [35], self-locking nuts [34], and bushings [31] that attach the actuator [4] to the actuator support [9].
- (h) Lift the actuator [4] inboard to remove it from the jackscrew [2].
- (i) Remove the actuator [4] from the airplane.

————— END OF TASK —————

TASK 52-61-52-400-801

3. Forward Airstair Door Actuator Installation

(Figure 401)

A. References

Reference	Title
52-61-61-820-801	Forward Airstair Door Open Limit Switches (S201 and S205) Adjustment (P/B 401)

B. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left

C. Access Panels

Number	Name/Location
117A	Electronic Equipment Access Door
117BL	Forward Airstair Door

D. Forward Airstair Door Installation

SUBTASK 52-61-52-860-004

(1) Install the actuator [4]:

- (a) Make sure the snubber face [17] points inboard as shown in (Figure 401).
- (b) Install the actuator [4] on the jackscrew [2] and actuator supports [9].
- (c) Install the bushings [31], bolts [32], washers [30], [33], [35], and self-locking nuts [34] to attach the actuator [4] to the actuator support [9] (Figure 401).
- (d) Make sure the actuator [4] and jackscrew [2] are in the center of the actuator support [9].
- (e) If it is necessary, install more washers [30] to keep the movement of the actuator [4] less than 0.05 inch in the forward/aft direction.
- (f) Compress the snubber [3] approximately 0.27 inch until the jackscrew [2] touches the bottom of the actuator [4].
- (g) Install the washer [11] and self-locking nut [10] on the inboard end of the jackscrew [2].
- (h) Tighten the snubber [3] and ballnut [16] on the inboard end of the jackscrew [2].

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- (i) Remove the temporary support from the forward airstair door.
- (j) Install the screws [22], [25], locknuts [20], washers [21], support brackets [23], and bonding jumper [14] to attach the aft switch bracket [1] and forward switch bracket [5] to the actuator [4].
- (k) Connect the electrical connector D912 [8] to the normal system motor [7].
- (l) Connect the electrical connector D914 [13] to the standby system motor [12].

SUBTASK 52-61-52-820-001

- (2) Do this task: Forward Airstair Door Open Limit Switches (S201 and S205) Adjustment, TASK 52-61-61-820-801.

SUBTASK 52-61-52-860-008

- (3) Remove the safety tags and close these circuit breakers:

F/O Electrical System Panel, P6-4

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

SUBTASK 52-61-52-010-004

- (4) Do an installation test of the actuator.
 - (a) Use the normal system to open and close the forward airstair door.
 - (b) Make sure the door operates normally.
 - (c) Use the standby system to close this access panel:

<u>Number</u>	<u>Name/Location</u>
117BL	Forward Airstair Door

- (d) Make sure the door operates normally.

E. Put the Airplane Back to Its Usual Condition

SUBTASK 52-61-52-010-005

- (1) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
117A	Electronic Equipment Access Door

————— END OF TASK —————

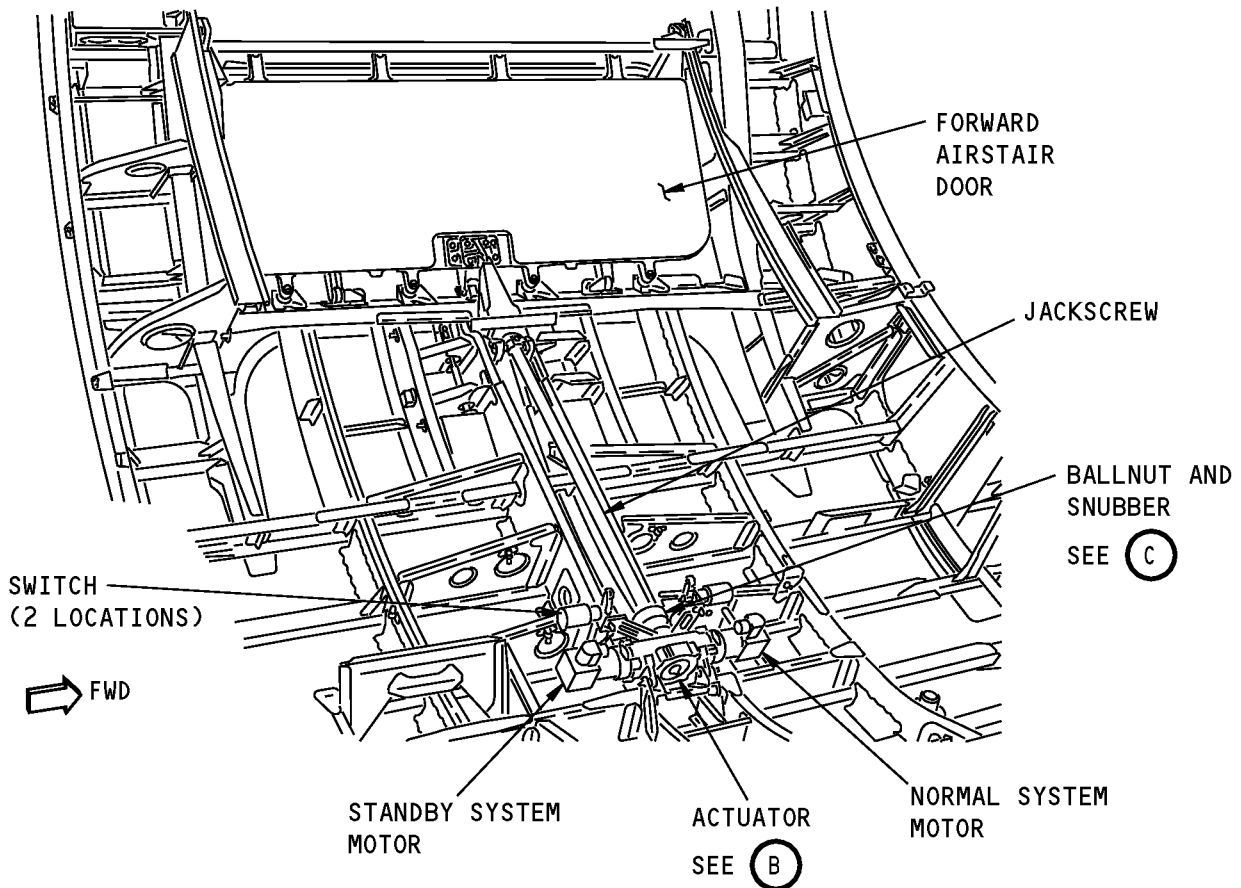
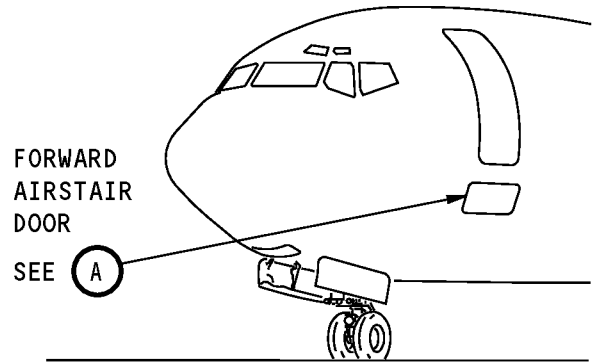
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FORWARD AIRSTAIR DOOR

(A)

**Forward Airstair Door Actuator Installation
Figure 401 (Sheet 1 of 4)/52-61-52-990-801**

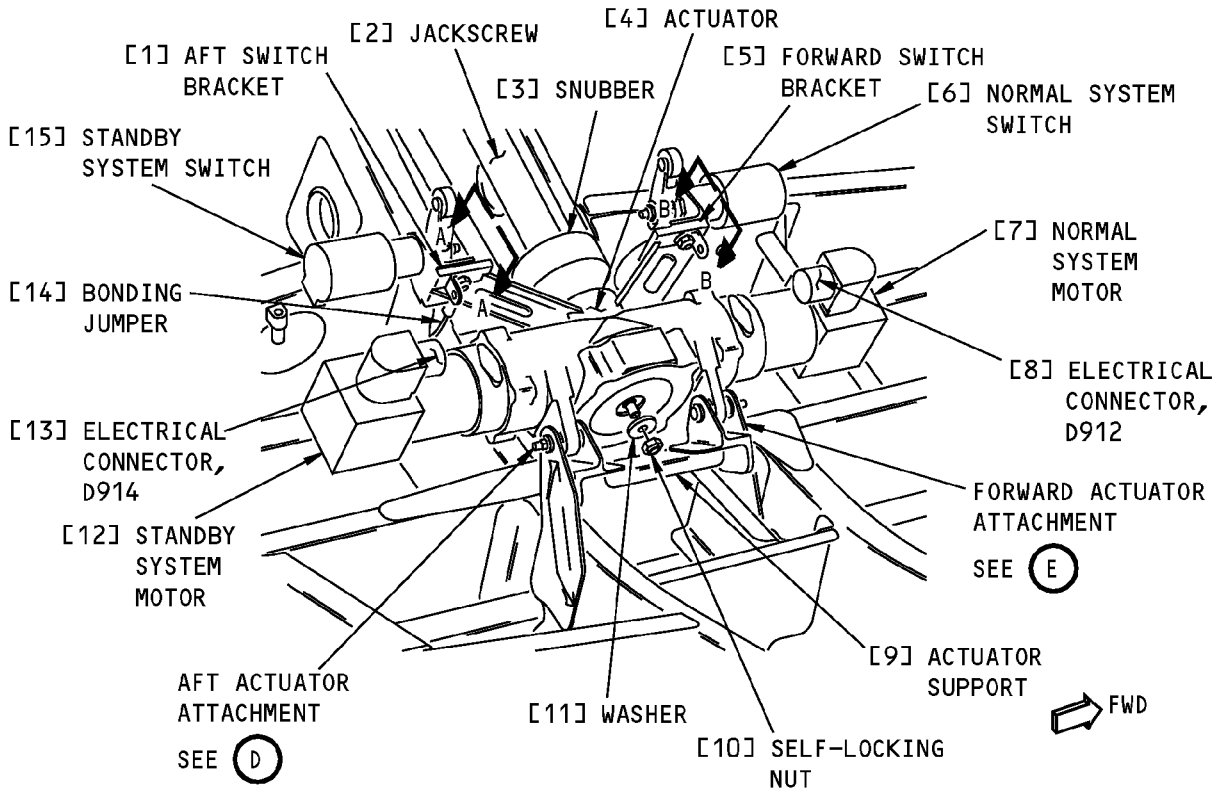
EFFECTIVITY
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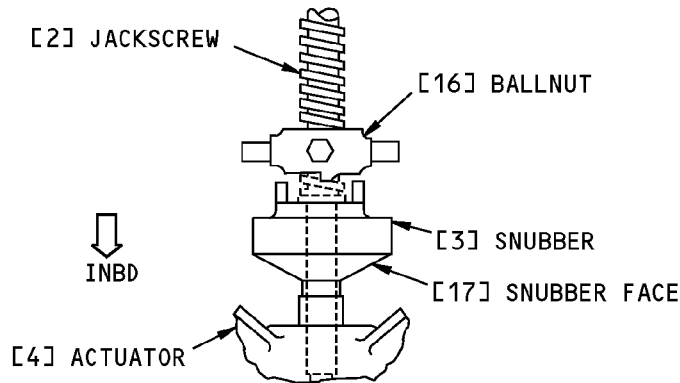
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ACTUATOR



BALLNUT AND SNUBBER



**Forward Airstair Door Actuator Installation
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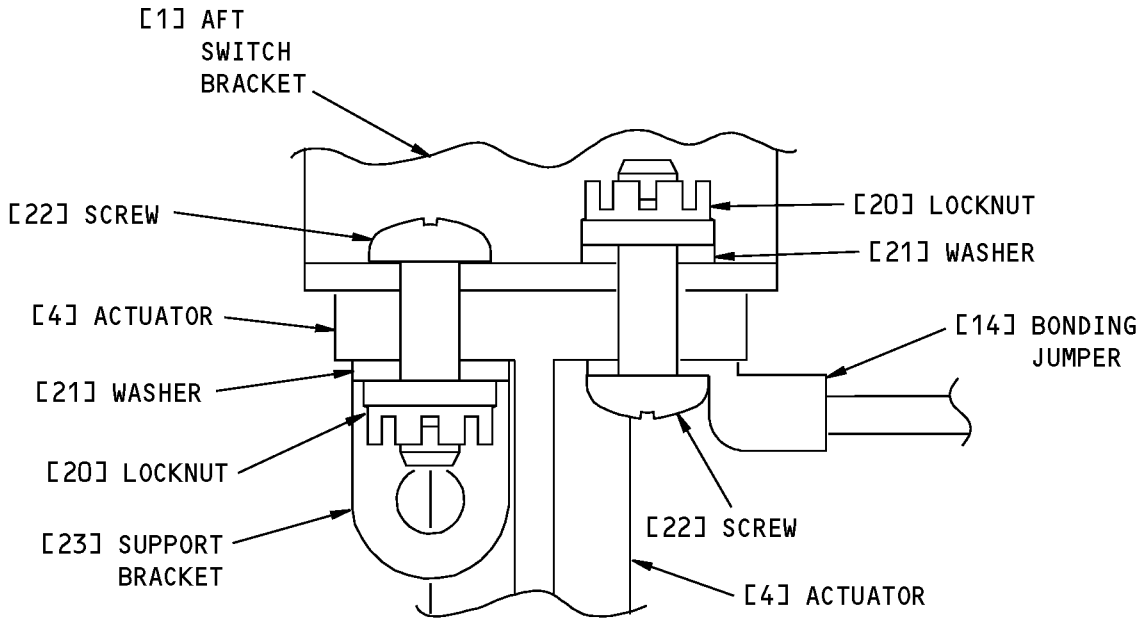
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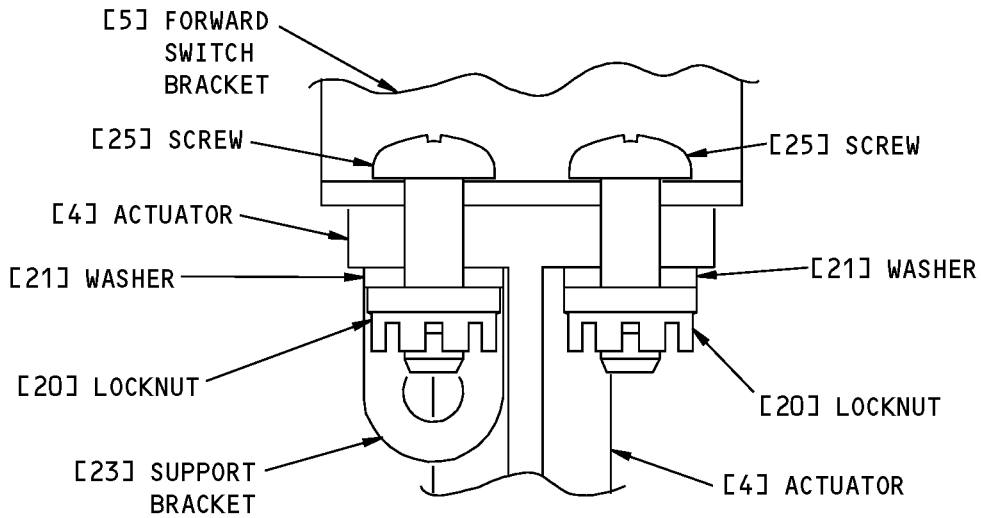
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A-A



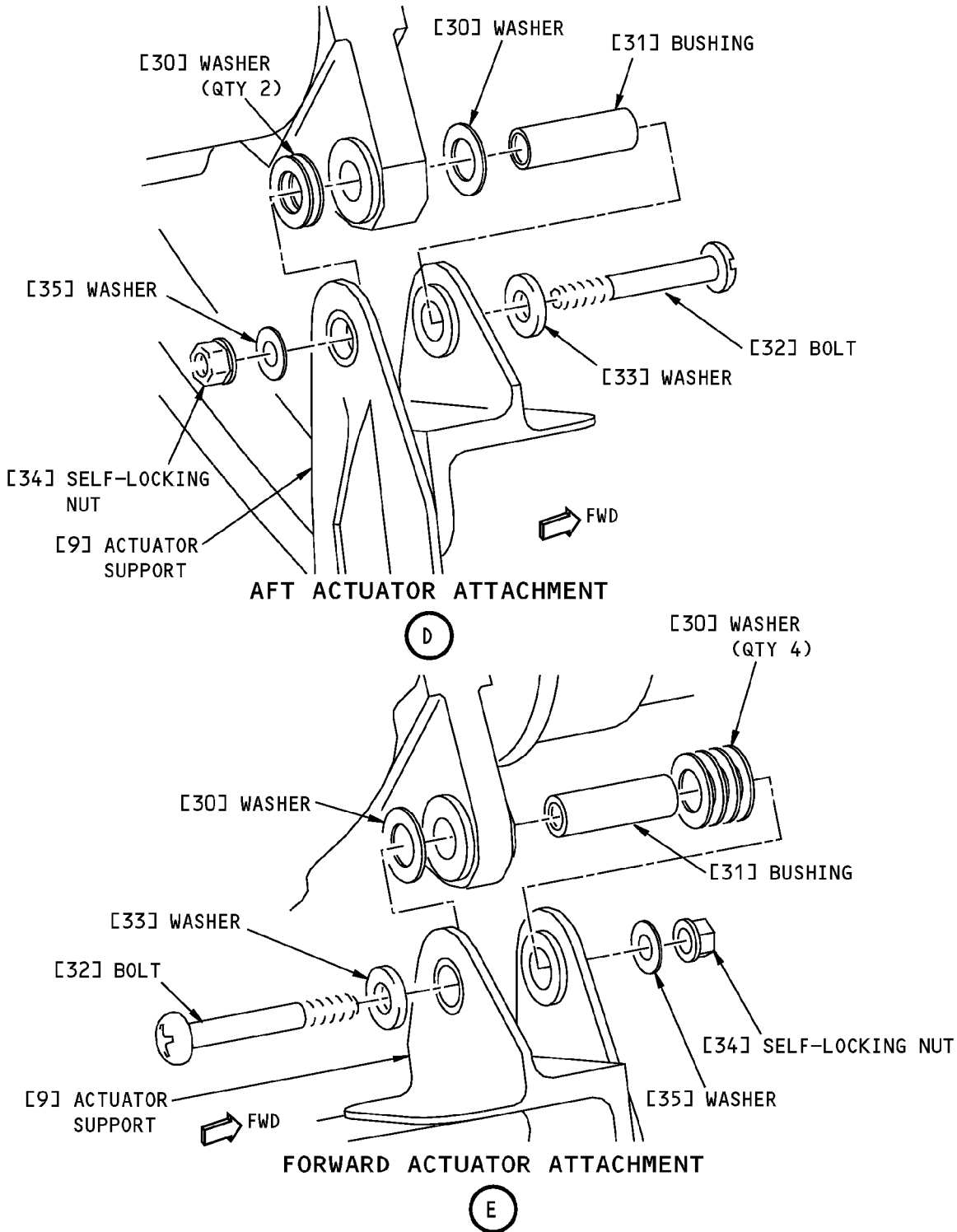
B-B

**Forward Airstair Door Actuator Installation
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**Forward Airstair Door Actuator Installation
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FORWARD AIRSTAIR DOOR LOCK SYSTEM - REMOVAL/INSTALLATION

1. General

A. This procedure contains these tasks:

HAP 006, 007

- (1) PEFFAIRPLANES WITH AIRSTAIR EXTERIOR CONTROL HANDLE;
The removal of the exterior control handle
- (2) AIRPLANES WITH AIRSTAIR EXTERIOR CONTROL HANDLE
The installation of the exterior control handle

HAP 008-010

- (3) PEFFNOTE: AIRPLANES WITH AIRSTAIR EXTERIOR CONTROL SWITCHES;
The removal of the exterior control switches
- (4) AIRPLANES WITH AIRSTAIR EXTERIOR CONTROL SWITCHES;
The installation of the exterior control switches
- (5) AIRPLANES WITH AIRSTAIR EXTERIOR CONTROL SWITCHES;
The installation of the exterior control switches is for the two of them

HAP 006-010

- (6) The removal of the lockpin and actuator assemblies
 - (7) The installation of the lockpin and actuator assemblies
- B. The lock mechanism for the forward airstair door has exterior controls, a lock pin, and an actuator assembly. You can remove and install each assembly independently.

HAP 006, 007

TASK 52-61-53-000-801

2. Forward Airstair Exterior Control Handle Removal

(Figure 401)

A. Consumable Materials

Reference	Description	Specification
B00184	Solvent - Presealing, Cleaning Solvent	BMS11-7

B. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left

C. Access Panels

Number	Name/Location
117A	Electronic Equipment Access Door

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HAP 006, 007 (Continued)

D. Prepare for the Removal

SUBTASK 52-61-53-860-001

- (1) Open these circuit breakers and install safety tags:

F/O Electrical System Panel, P6-4

Table with 4 columns: Row, Col, Number, Name. Lists circuit breaker details for F/O Electrical System Panel.

E. Forward Airstair Exterior Control Handle Removal

SUBTASK 52-61-53-020-006

- (1) Remove the exterior control handle [1]:
(a) Remove the bolts [2] that attach the exterior control handle [1] to the airplane structure.
(b) Get access to the exterior control handle through this access panel:
(c) Disconnect the electrical connector D1130 [3] from the exterior control handle [1].
(d) Remove the exterior control handle [1] from the airplane.
(e) Use solvent, B00184 to clean the surfaces between the exterior control handle [1] and structure.
(f) Use solvent, B00184 to clean the bolts [2] and the exterior control handle [1].

END OF TASK

HAP 008-010

TASK 52-61-53-000-804

3. Forward Airstair Exterior Control Switches (S1124 and S1125) Removal

(Figure 401)

A. Consumable Materials

Table with 3 columns: Reference, Description, Specification. Lists consumable materials for task.

B. Location Zones

Table with 2 columns: Zone, Area. Lists location zones for task.

C. Access Panels

Table with 2 columns: Number, Name/Location. Lists access panels for task.

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HAP 008-010 (Continued)

D. Prepare for the Removal

SUBTASK 52-61-53-860-023

- (1) Open these circuit breakers and install safety tags:

F/O Electrical System Panel, P6-4

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

E. Forward Airstair Exterior Control Switches Removal

SUBTASK 52-61-53-020-007

- (1) Remove the switch [24]:

- (a) Open the control access door.
- (b) Remove the external jamnut [20] and star washer [21] from the switch [24].
- (c) Get access to the switch [24] through this access panel:

<u>Number</u>	<u>Name/Location</u>
117A	Electronic Equipment Access Door

- (d) Disconnect the wire bundle [25] from the switch [24].
- (e) Remove the switch [24], internal jamnut [23], and lock ring [22] from the airplane.
- (f) Use solvent, B00184 to clean the surfaces between the switch [24] and structure.
- (g) Use solvent, B00184 to clean the lock ring [22], star washer [21], and switch [24].

————— END OF TASK —————

HAP 006, 007

TASK 52-61-53-000-805

4. Forward Airstair Exterior Control Handle Installation

(Figure 401)

A. Consumable Materials

<u>Reference</u>	<u>Description</u>	<u>Specification</u>
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS 5-95

B. Location Zones

<u>Zone</u>	<u>Area</u>
117	Electrical and Electronics Compartment - Left

C. Access Panels

<u>Number</u>	<u>Name/Location</u>
117A	Electronic Equipment Access Door
117BL	Forward Airstair Door

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HAP 006, 007 (Continued)

D. Forward Airstair Exterior Control Handle Installation

SUBTASK 52-61-53-420-003

(1) Install the exterior control handle [1]:

- (a) Apply the sealant, A00247 around the flange of the exterior control assembly [1] housing.
- (b) Install the exterior control handle [1] on the airplane.
- (c) Connect the electrical connector D1130 [3] to the exterior control handle [1].
- (d) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
117A	Electronic Equipment Access Door

- (e) Apply the sealant, A00247 to the bolts [2].
- (f) Install the bolts [2] to attach the exterior control handle [1] to the structure.

SUBTASK 52-61-53-860-024

(2) Remove the safety tags and close these circuit breakers:

F/O Electrical System Panel, P6-4

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

SUBTASK 52-61-53-710-004

(3) Do an installation test of the exterior control handle [1]:

- (a) Use the exterior control handle [1] to open this access panel:

<u>Number</u>	<u>Name/Location</u>
117BL	Forward Airstair Door

- (b) Use the exterior control handle [1] to close this access panel:

<u>Number</u>	<u>Name/Location</u>
117BL	Forward Airstair Door

- (c) Make sure the forward airstair door operates correctly.
- (d) Push the exterior control handle into its recess in the airplane.

————— END OF TASK —————

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TASK 52-61-53-000-803

5. Forward Airstair Exterior Control Switches (S1124 and S1125) Installation

(Figure 401)

A. Consumable Materials

Reference	Description	Specification
A02315	Sealant - Low Density, Synthetic Rubber. 2 Part	BMS5-142

B. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left

C. Access Panels

Number	Name/Location
117A	Electronic Equipment Access Door
117BL	Forward Airstair Door

D. Forward Airstair Exterior Control Switches Installation

SUBTASK 52-61-53-420-001

(1) Install the switch [24]:

- (a) Make sure the internal jamnut [23] is installed on the switch [3].
- (b) Connect the wire bundle [25] to the switch [24].
- (c) Apply the sealant, A02315 to the inner edge of the switch hole.
- (d) Apply the sealant, A02315 to the 0.13 inch diameter hole above the switch hole.
- (e) Apply the sealant, A02315 to the threads of the switch [24] and outboard surface of the internal jamnut [23].
- (f) Install the switch [24], internal jamnut [23], and lock ring [22] in the airplane.
- (g) Close this access panel:

Number	Name/Location
117A	Electronic Equipment Access Door
- (h) If it is closed, open the control access door.
- (i) Install the star washer [21] and external jamnut [20] to attach the switch [24] to the airplane.

SUBTASK 52-61-53-860-002

(2) Remove the safety tags and close these circuit breakers:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

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SUBTASK 52-61-53-710-001

- (3) Do an installation test of the switch [24]:
 - (a) Use the switch [24] to open this access panel:

<u>Number</u>	<u>Name/Location</u>
117BL	Forward Airstair Door
 - (b) Use the switch [24] to close this access panel:

<u>Number</u>	<u>Name/Location</u>
117BL	Forward Airstair Door
 - (c) Make sure the forward airstair door operates correctly.
 - (d) Close the control access door.

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END OF TASK

TASK 52-61-53-000-802

6. Forward Airstair Door Lockpin and Lockpin Actuator Removal

(Figure 401)

A. Location Zones

<u>Zone</u>	<u>Area</u>
117	Electrical and Electronics Compartment - Left

B. Access Panels

<u>Number</u>	<u>Name/Location</u>
117A	Electronic Equipment Access Door
117BL	Forward Airstair Door

C. Prepare for the Removal

SUBTASK 52-61-53-010-003

- (1) Make sure this access panel is closed:

<u>Number</u>	<u>Name/Location</u>
117BL	Forward Airstair Door

SUBTASK 52-61-53-860-004

- (2) Open these circuit breakers and install safety tags:

F/O Electrical System Panel, P6-4

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

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D. Forward Airstair Door Lockpin and Lockpin Actuator Removal

SUBTASK 52-61-53-010-004

(1) Remove the extension rods [5]:

(a) Get access to the lockpin [4] and actuators [6] through this access panel:

Number	Name/Location
117A	Electronic Equipment Access Door

(b) Remove the cotter pins [11], castellated nuts [7], washers [9] and bolts [10].

(c) Remove the lockwire on the jamnuts [13].

(d) Loosen the jamnuts [13] on the extension rods [5].

(e) Remove the extension rods [5], washers [12], and jamnuts [13] from the actuators [6].

SUBTASK 52-61-53-020-002

(2) Remove the rocker arm [8] and lockpin [4]:

(a) Remove the cotter pin [11], nut [7], washers [9] and bolt [10] that attach the rocker arm [8] to the lockpin [4].

(b) Remove the rocker arm [8].

(c) Remove the lockpin [4].

SUBTASK 52-61-53-020-003

(3) Remove the actuators [6]:

(a) Disconnect the electrical wires to the actuators [6].

1) Make sure that the wire lead attached to the actuator is a minimum of 13.0 inch (330.2 mm) long.

NOTE: The minimum length is necessary for the tests that are performed on units that are returned for repair.

(b) Remove the nuts [15], washers [17], bushings [18] and bolts [16] that attach the actuators [6] to the structure.

(c) Remove the actuators [6].

————— END OF TASK —————

TASK 52-61-53-400-802

7. Forward Airstair Door Lockpin and Lockpin Actuator Installation

(Figure 401)

A. References

Reference	Title
52-61-53-820-801	Forward Airstair Door Lock Mechanism Adjustment (P/B 501)

B. Consumable Materials

Reference	Description	Specification
D00633	Grease - Aircraft General Purpose	BMS3-33

C. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left

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D. Access Panels

Number	Name/Location
117A	Electronic Equipment Access Door
117BL	Forward Airstair Door

E. Prepare for the Installation

SUBTASK 52-61-53-010-005

(1) Make sure this access panel is closed:

Number	Name/Location
117BL	Forward Airstair Door

SUBTASK 52-61-53-020-004

(2) Apply a thin layer of grease, D00633 to the lockpin [4] and bolts [10], [16].

F. Forward Airstair Door Lockpin and Lockpin Actuator Installation

SUBTASK 52-61-53-010-012

(1) Install the actuators [6]:

- (a) Install the bolts [16], washers [17], bushings [18] and nuts [15] that attach the actuators [6] to the structure.
- (b) Connect the electrical wires that go to the actuators [6].
 - 1) Make sure that the length of the wires between the actuator and the wire splice is 13 inch (330.2 mm) or more.
 - 2) Make sure that the total length of the wires between the actuator and the wire harness is 18 inch (457.2 mm) or more.
 - a) Make a loop with the wires and attach them to the structure with the clamp.

NOTE: Refer to Figure 401.

SUBTASK 52-61-53-020-005

(2) Install the rocker arm [8] and lockpin [4]:

- (a) Install the lockpin [4] with the top surface of the lockpin level.
- (b) Install the rocker arm [8].
- (c) Install the bolt [10], washers [9], castellated nut [7], and cotter pin [11] that attach the rocker arm [8] to the lockpin [4].

SUBTASK 52-61-53-010-008

(3) Install the extension rods [5]:

- (a) Install the jamnuts [13], washers [12], and extension rods [5] on the actuators [6].

SUBTASK 52-61-53-860-022

(4) Remove the safety tags and close these circuit breakers:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

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SUBTASK 52-61-53-010-009

(5) Do this task: Forward Airstair Door Lock Mechanism Adjustment, TASK 52-61-53-820-801.

SUBTASK 52-61-53-010-011

(6) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
117A	Electronic Equipment Access Door

————— **END OF TASK** —————

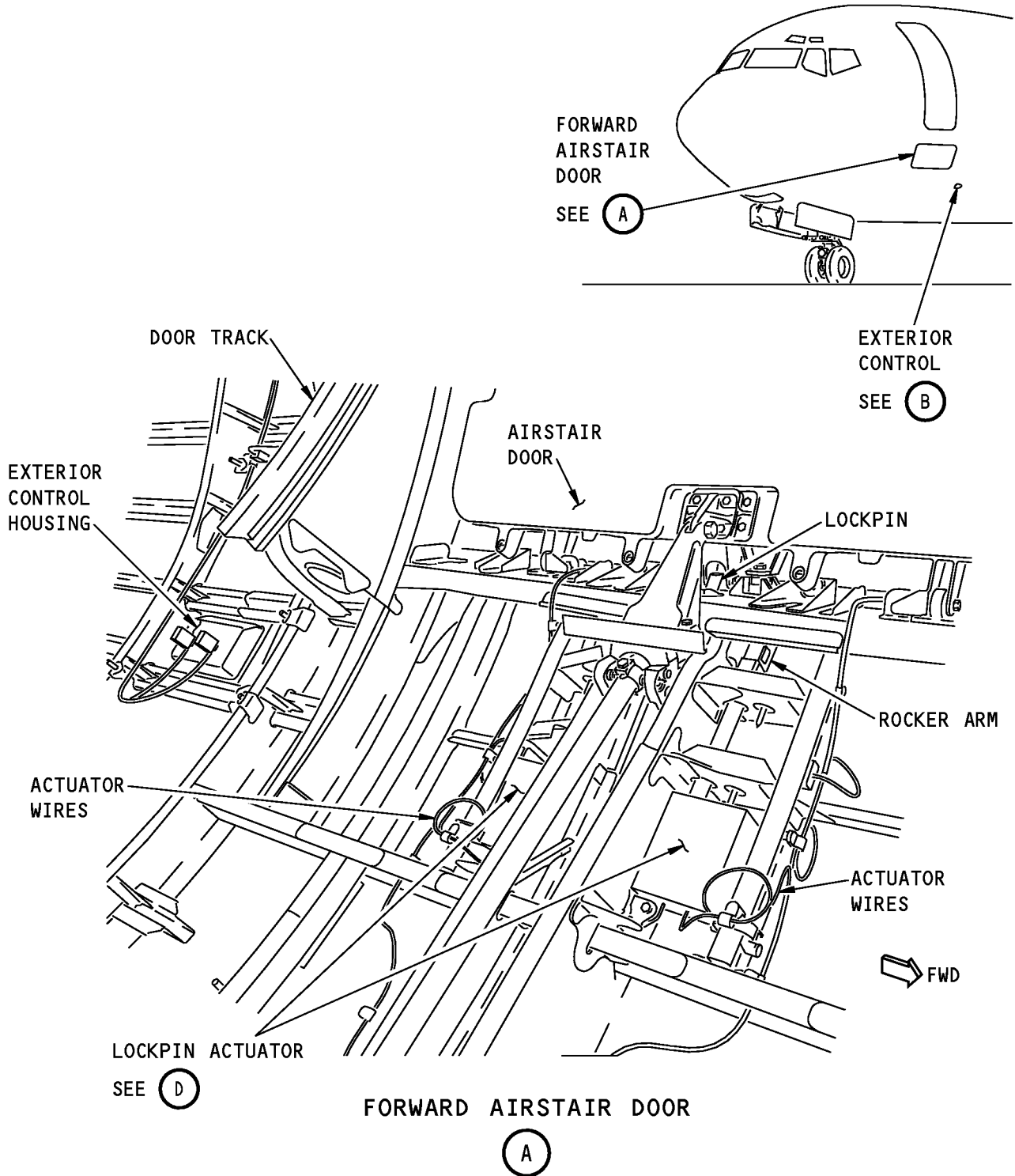
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**Forward Airstair Door Lock Mechanism Installation
Figure 401 (Sheet 1 of 8)/52-61-53-990-801**

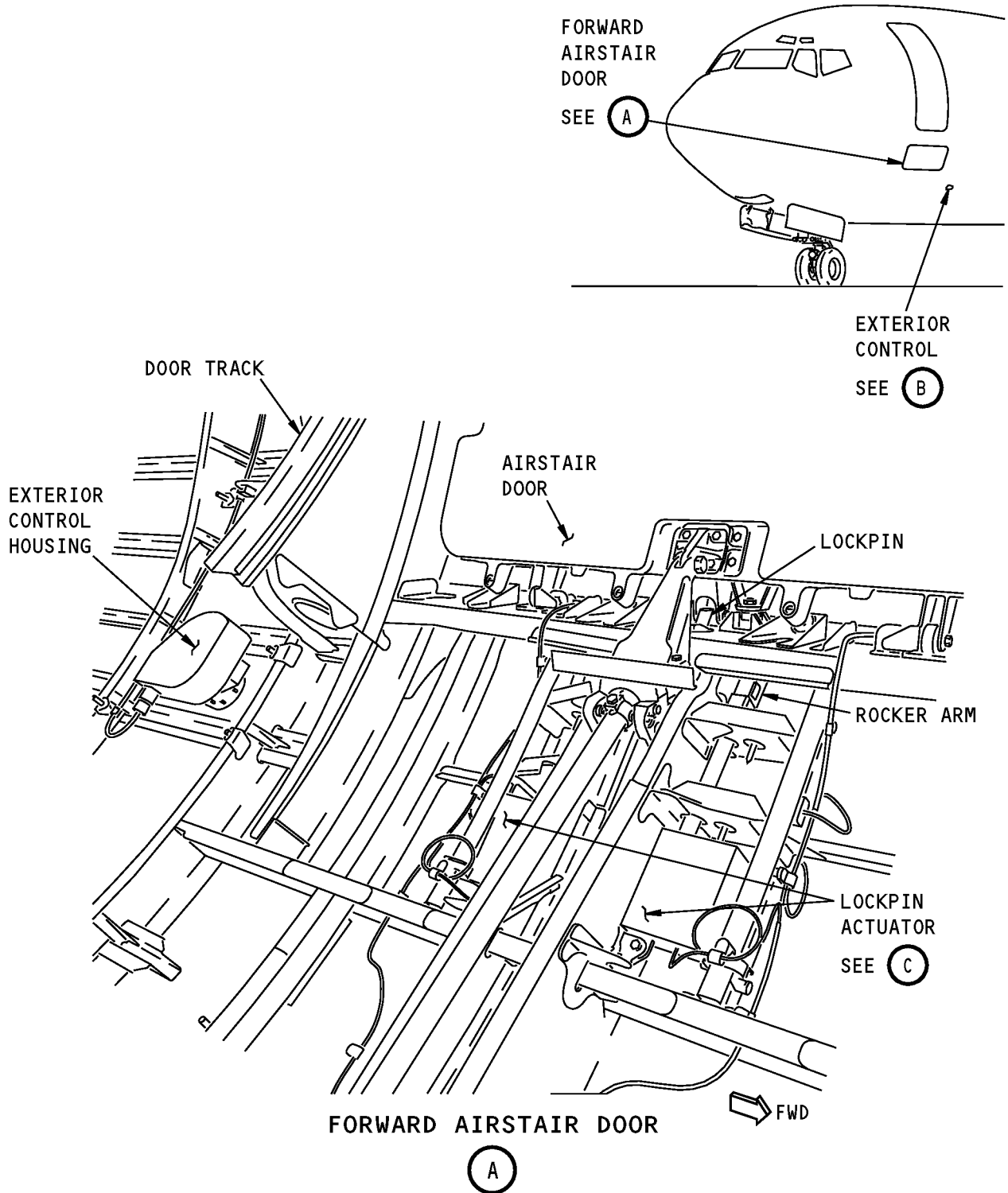
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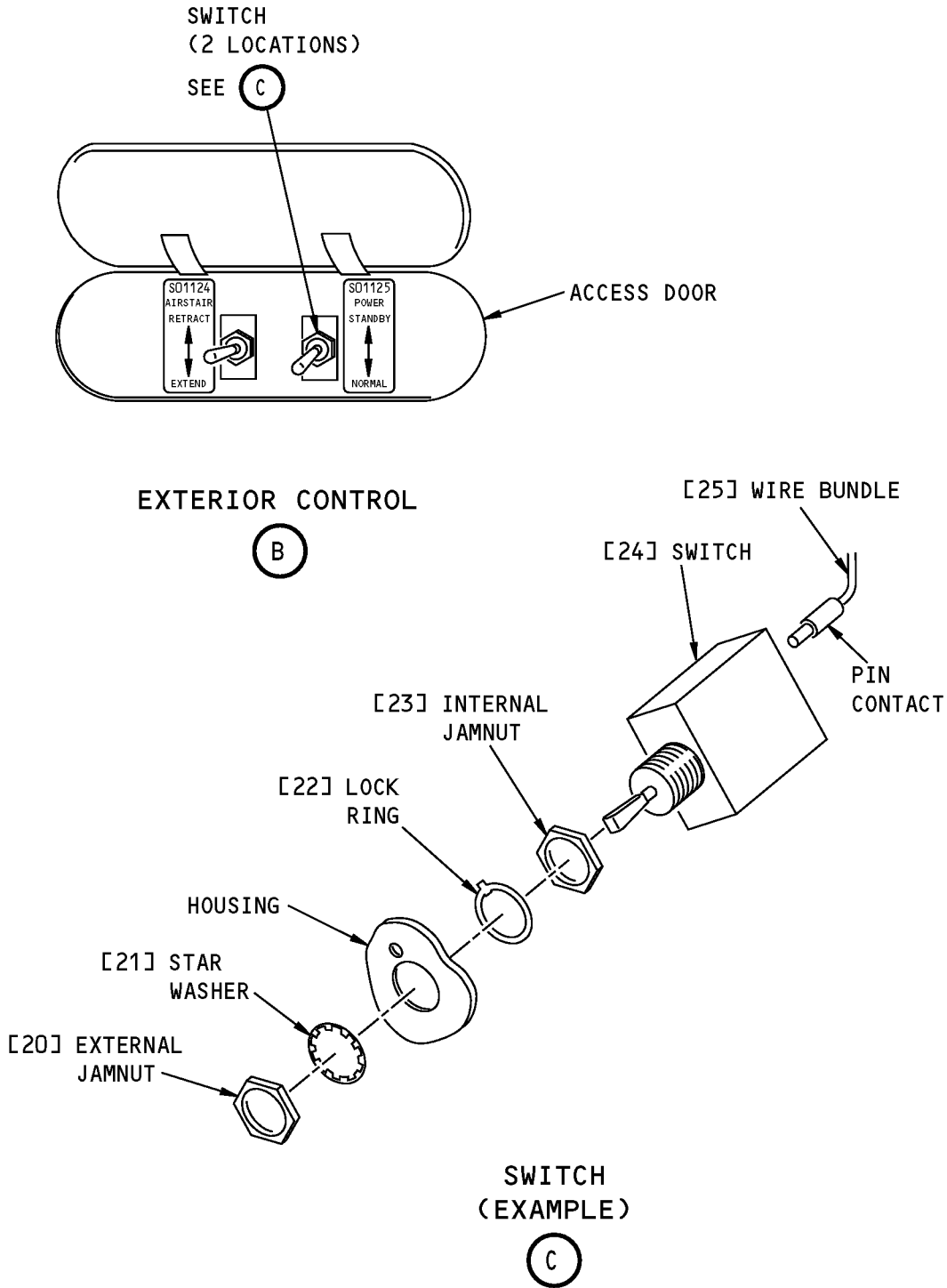


**Forward Airstair Door Lock Mechanism Installation
Figure 401 (Sheet 2 of 8)/52-61-53-990-801**

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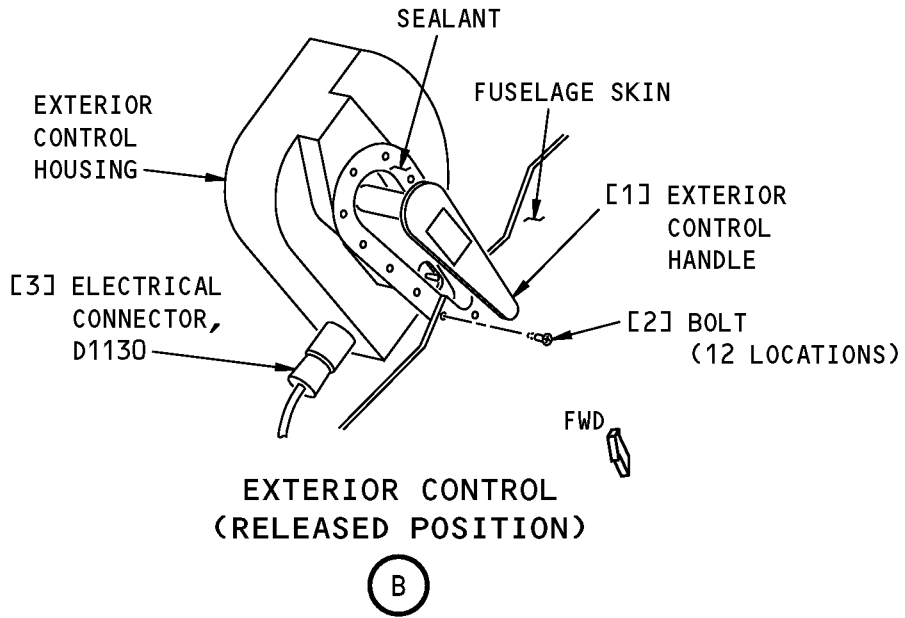
Forward Airstair Door Lock Mechanism Installation
Figure 401 (Sheet 3 of 8)/52-61-53-990-801

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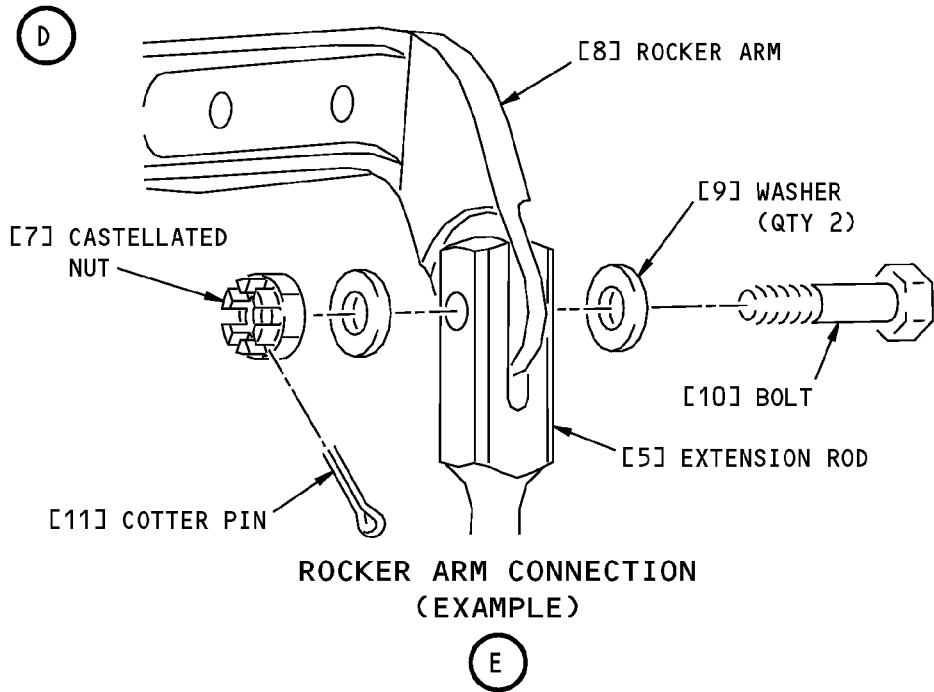
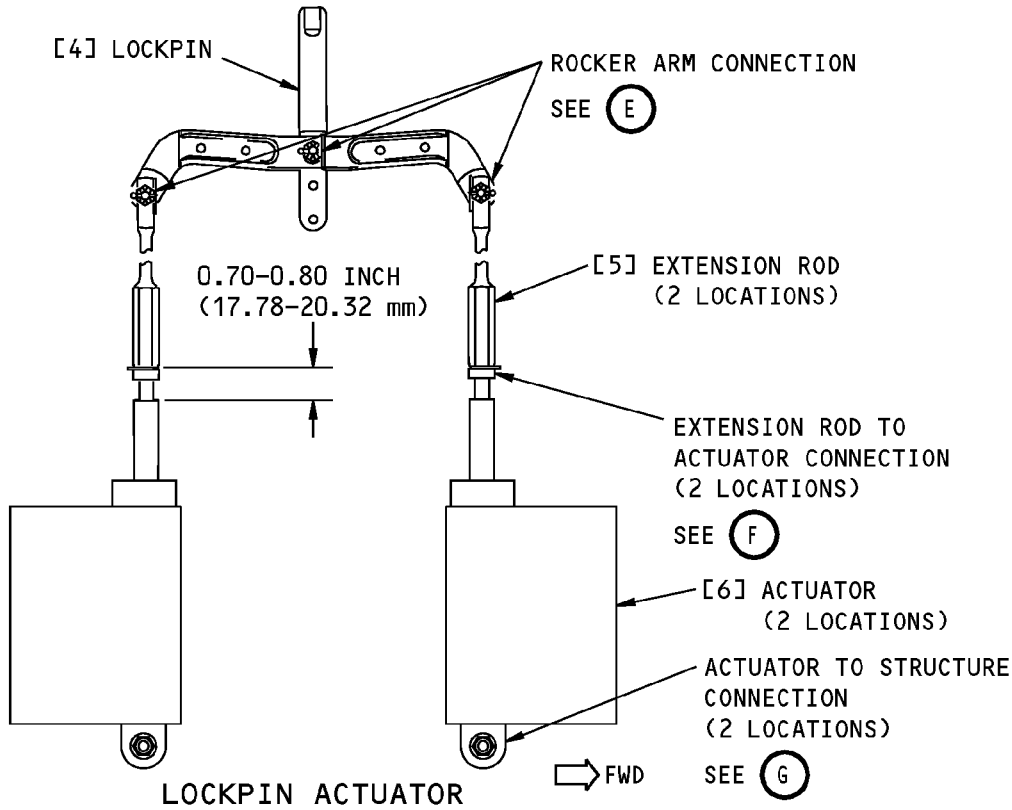
**Forward Airstair Door Lock Mechanism Installation
Figure 401 (Sheet 4 of 8)/52-61-53-990-801**

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**Forward Airstair Door Lock Mechanism Installation
Figure 401 (Sheet 5 of 8)/52-61-53-990-801**

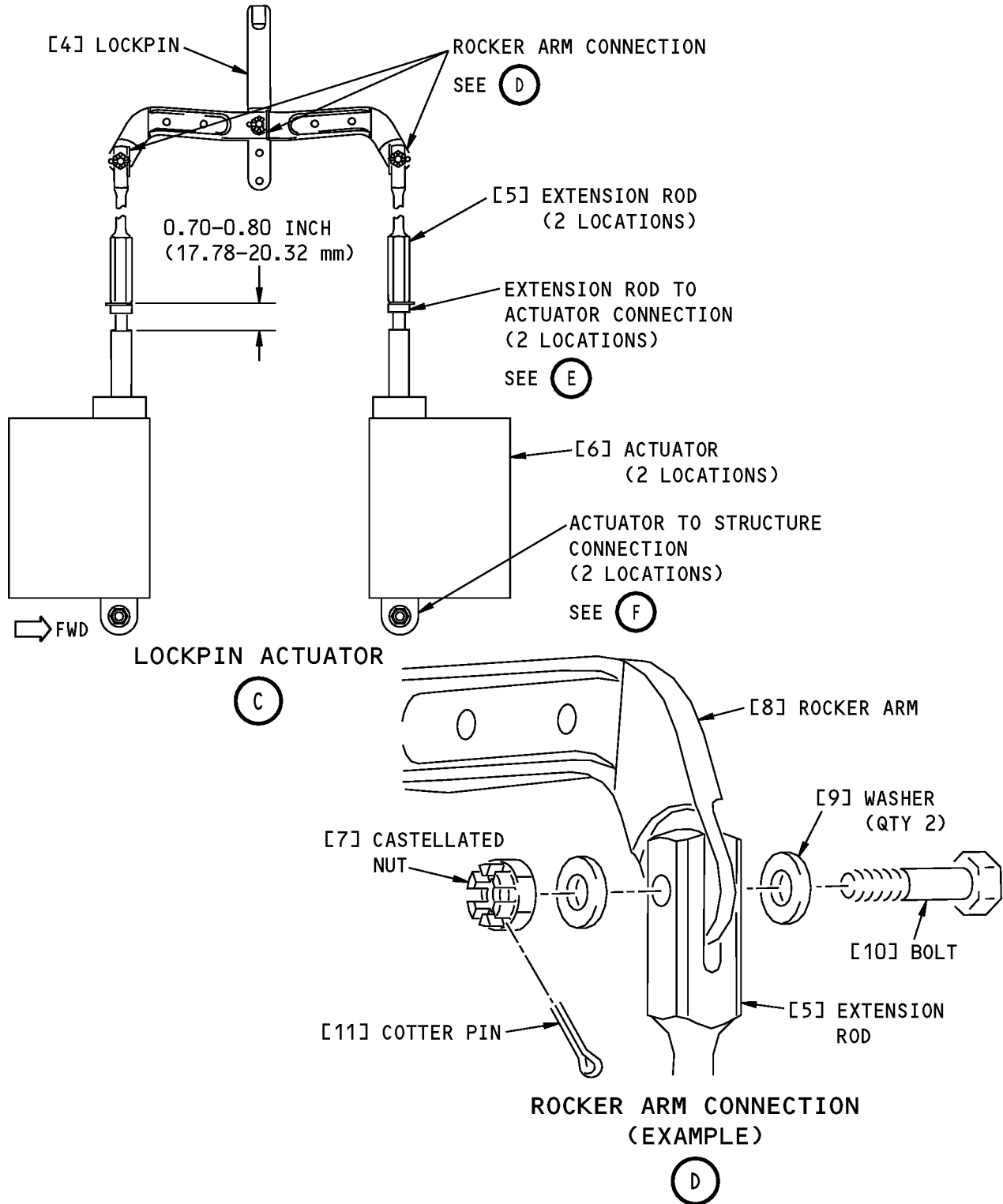
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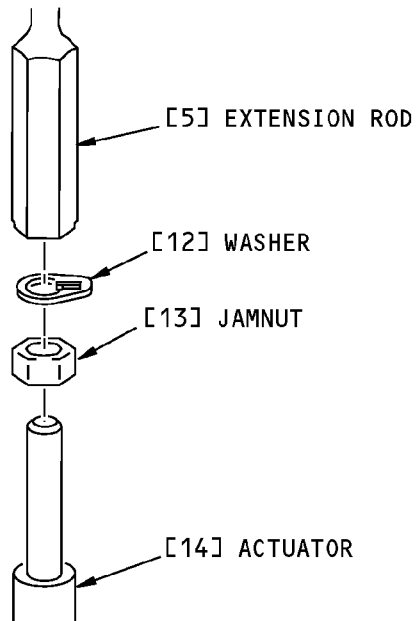
Forward Airstair Door Lock Mechanism Installation
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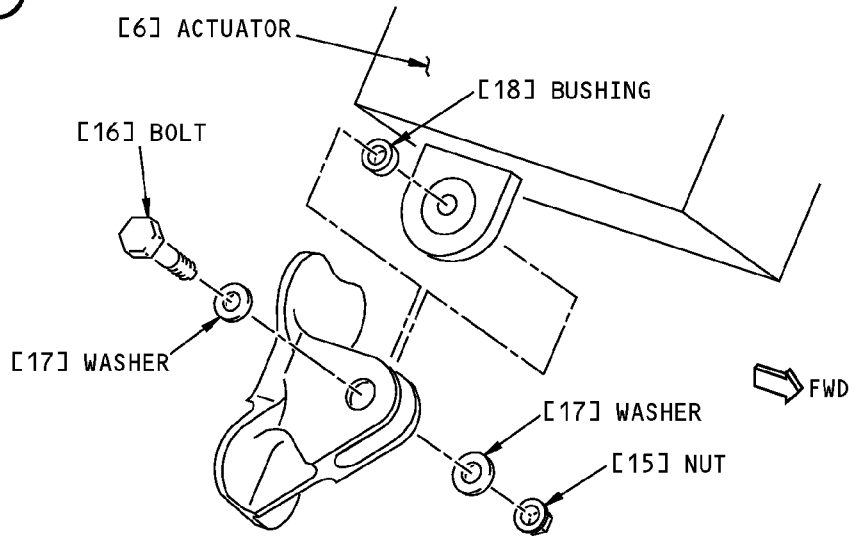
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**EXTENSION ROD TO ACTUATOR CONNECTION
(EXAMPLE)**

(F)



**ACTUATOR TO STRUCTURE CONNECTION
(EXAMPLE)**

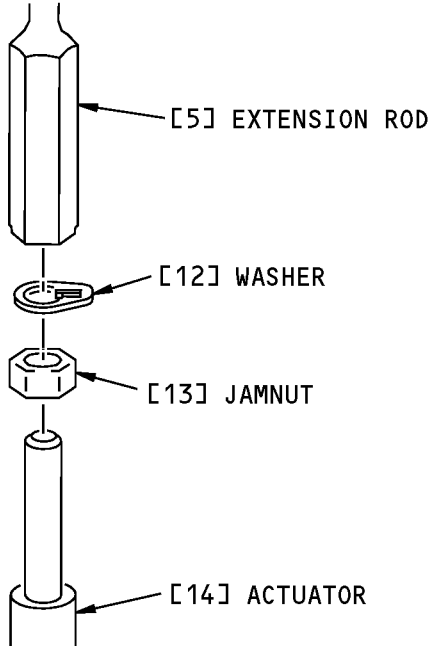
(G)

**Forward Airstair Door Lock Mechanism Installation
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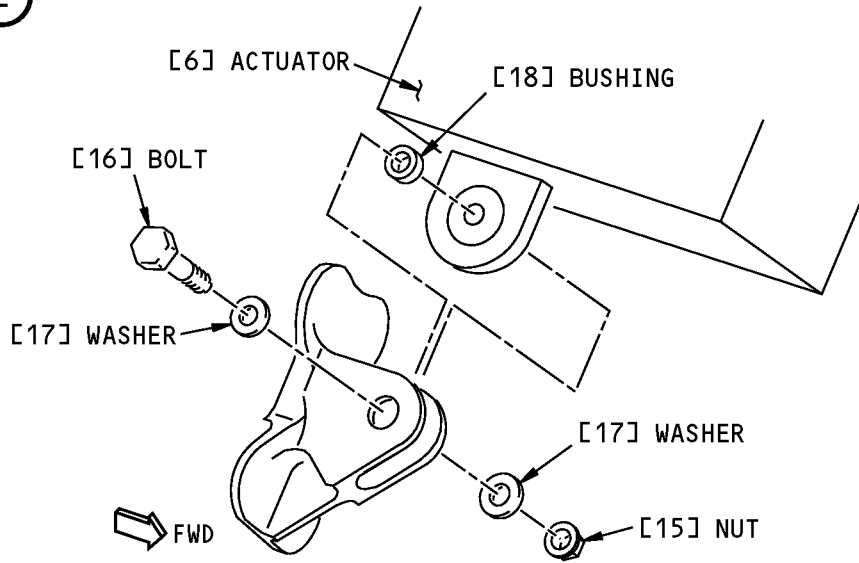
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**EXTENSION ROD TO ACTUATOR CONNECTION
(EXAMPLE)**

(E)



**ACTUATOR TO STRUCTURE CONNECTION
(EXAMPLE)**

(F)

**Forward Airstair Door Lock Mechanism Installation
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FORWARD AIRSTAIR DOOR LOCK MECHANISM - ADJUSTMENT/TEST

1. General

A. This procedure has this task:

- (1) The adjustment of the door lockpin mechanism.

TASK 52-61-53-820-801

2. Forward Airstair Door Lock Mechanism Adjustment

(Figure 501)

A. General

(1) For the correct adjustment of the lockpin [1], it is necessary to get these clearances:

- (a) When the lockpin [1] is extended, the vertical clearance between the top of the lockpin [1] and the crossbolt [6] is as shown (Figure 501).
- (b) When the lockpin [1] is retracted in the NORMAL and STANDBY modes, vertical clearance between the lockpin [1] and the crossbolt [6] is as shown (Figure 501).

B. References

Reference	Title
52-71-61-820-801	Forward Airstair Door Lockpin Sensor S282 Adjustment (P/B 201)

C. Consumable Materials

Reference	Description	Specification
G01048	Lockwire - Corrosion Resistant Steel (0.032 In. Dia.)	NASM20995~ C32

D. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left

E. Access Panels

Number	Name/Location
117A	Electronic Equipment Access Door
117BL	Forward Airstair Door

F. Prepare for the Adjustment

SUBTASK 52-61-53-860-025

- (1) Open these circuit breakers and install safety tags:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

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SUBTASK 52-61-53-860-006

(2) Make sure this access panel is closed:

<u>Number</u>	<u>Name/Location</u>
117BL	Forward Airstair Door

is closed.

SUBTASK 52-61-53-860-007

(3) Get access to the lockpin actuators [3] through this access panel:

<u>Number</u>	<u>Name/Location</u>
117A	Electronic Equipment Access Door

G. Forward Airstair Door Lock Mechanism Adjustment

SUBTASK 52-61-53-820-001

(1) Adjust the lockpin [1] extended position:

- If they are installed, remove the castellated nut [7], cotter pin [10], washers [8], and bolt [9] that attach the extension rods [2], [4] to the rocker arm [5].
- Turn the extension rods [2], [4] until you get these conditions:
 - The vertical clearance between the top of the lockpin [1] and the crossbolt [6] is as shown (Figure 501)

NOTE: You must temporarily install the bolts [9] through the extension rods [2], [4] and rocker arm [5] to measure the vertical clearance.

- The dimension between the bottom of the extension rods [2], [4] and the top of the actuators [3] is as shown (Figure 501).
- Loosely install the washers [8], bolt [9], and castellated nut [7] that connect the extension rods [2], [4] to the rocker arm [5].
- Make sure that the horizontal clearance between the lockpin [1] and the crossbolt [6] is as shown (Figure 501).
- Make sure the lockpin [1] height above the sill web is 0.085-1.150 inches (2.16-29.21 mm).

NOTE: This is an approximate dimension and can change if the forward airstair door height changes.

SUBTASK 52-61-53-860-026

(2) Remove the safety tags and close these circuit breakers:

F/O Electrical System Panel, P6-4

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

SUBTASK 52-61-53-820-002

(3) Adjust the lockpin [1] retracted position:

- Move the crossbolt [6] above the lockpin [1]:

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- 1) AIRPLANES WITH AIRSTAIR EXTERIOR CONTROL HANDLE;
Push the button on the control handle to release it from its recess.

HAP 008-010

- 2) Open the access door to get to the exterior control switches.

HAP 006-010

- 3) Move the exterior control to the NORMAL EXTEND position until the clearance between the outboard bottom edge of the airstair door and the outboard bottom edge of the door opening is 0.550-0.750 inch (13.97-19.05 mm).
- 4) Look through the door opening to make sure the crossbolt [6] is above the lockpin [1].

WARNING: MAKE SURE THERE IS NO POWER TO THE DOOR ACTUATOR MOTORS. THE DOOR ACTUATOR MOTORS CAN OPERATE IF THE POWER IS ON. IF THE DOOR ACTUATOR MOTORS OPERATE, INJURY TO PERSONS OR DAMAGE TO EQUIPMENT CAN OCCUR.

- (b) Remove power from the door actuator motors:
 - 1) Disconnect the D912 and D914 electrical connectors from the door actuator motors.
- (c) Make sure the retracted lockpin [1] is in the correct position:

NOTE: Two persons are necessary to do this task.

CAUTION: DO NOT APPLY POWER TO THE ACTUATORS FOR MORE THAN 120 SECONDS. IF POWER IS APPLIED TO THE ACTUATORS FOR MORE THAN 120 SECONDS, DAMAGE TO THE ACTUATORS CAN OCCUR.

CAUTION: DO NOT APPLY POWER TO THE ACTUATORS FOR MORE THAN 5 CYCLES, ONE AFTER THE OTHER ONE. A CYCLE IS SPECIFIED BY A TIME OF POWER APPLIED TO THE ACTUATOR FOLLOWED BY AN EQUAL QUANTITY OF TIME WITH THE POWER OFF. IF POWER IS APPLIED TO THE ACTUATORS FOR MORE THAN 5 CYCLES, ONE AFTER THE OTHER ONE, DAMAGE TO THE ACTUATORS CAN OCCUR.

- 1) Move the exterior controls to the NORMAL EXTEND position to retract the lockpin [1].
 - a) While the lockpin [1] is retracted, make sure the vertical clearance between the lockpin [1] and crossbolt [6] is as shown (Figure 501).
 - b) Release the exterior control.
- 2) If it is necessary, turn the extension rod [2] to get the correct clearance between the lockpin [1] and the crossbolt [6].
- 3) Move the exterior controls to the STANDBY EXTEND position to retract the lockpin [1].
 - a) While the lockpin [1] is retracted, make sure the vertical clearance between the lockpin [1] and crossbolt [6] is as shown (Figure 501).
 - b) Release the exterior control.
- 4) If it is necessary, turn the extension rod [4] to get the correct clearance between the lockpin [1] and the crossbolt [6].
- 5) When the lockpin [1] is retracted with NORMAL power, make sure the clearance between the lockpin [1] and crossbolt [6] is correct.

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- 6) Connect the D912 and D914 electrical connectors to the actuators [3].
 - 7) Use the exterior controls to open and close the forward airstair door.
 - 8) Make sure the clearance between the top of the lockpin [1] and the crossbolt [6] is as shown (Figure 501).
- (d) Install lockwire, G01048 between the washers [11] and jamnuts [12] on the actuators [3].
 - (e) Install the cotter pins [10] in the nuts [7] that connect the extension rods [2], [4] to the rocker arm [5].

SUBTASK 52-61-53-410-003

- (4) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
117A	Electronic Equipment Access Door

SUBTASK 52-61-53-820-004

- (5) Do this task: Forward Airstair Door Lockpin Sensor S282 Adjustment, TASK 52-71-61-820-801.

SUBTASK 52-61-53-710-003

- (6) Do a test of the forward airstair lockpin mechanism:
 - (a) Put the airstair controls in the NORMAL EXTEND position.
 - 1) Make sure the airstair door opens.
 - 2) Release the controls when the airstair door is fully open.
 - (b) Put the airstair controls in the NORMAL RETRACT position until the airstair door is fully closed.
 - (c) Put the airstair controls in the STANDBY EXTEND position.
 - 1) Make sure the airstair door opens.
 - 2) Release the controls when the airstair door is fully open.
 - (d) Put the airstair controls in the STANDBY RETRACT position until the airstair door is fully closed.

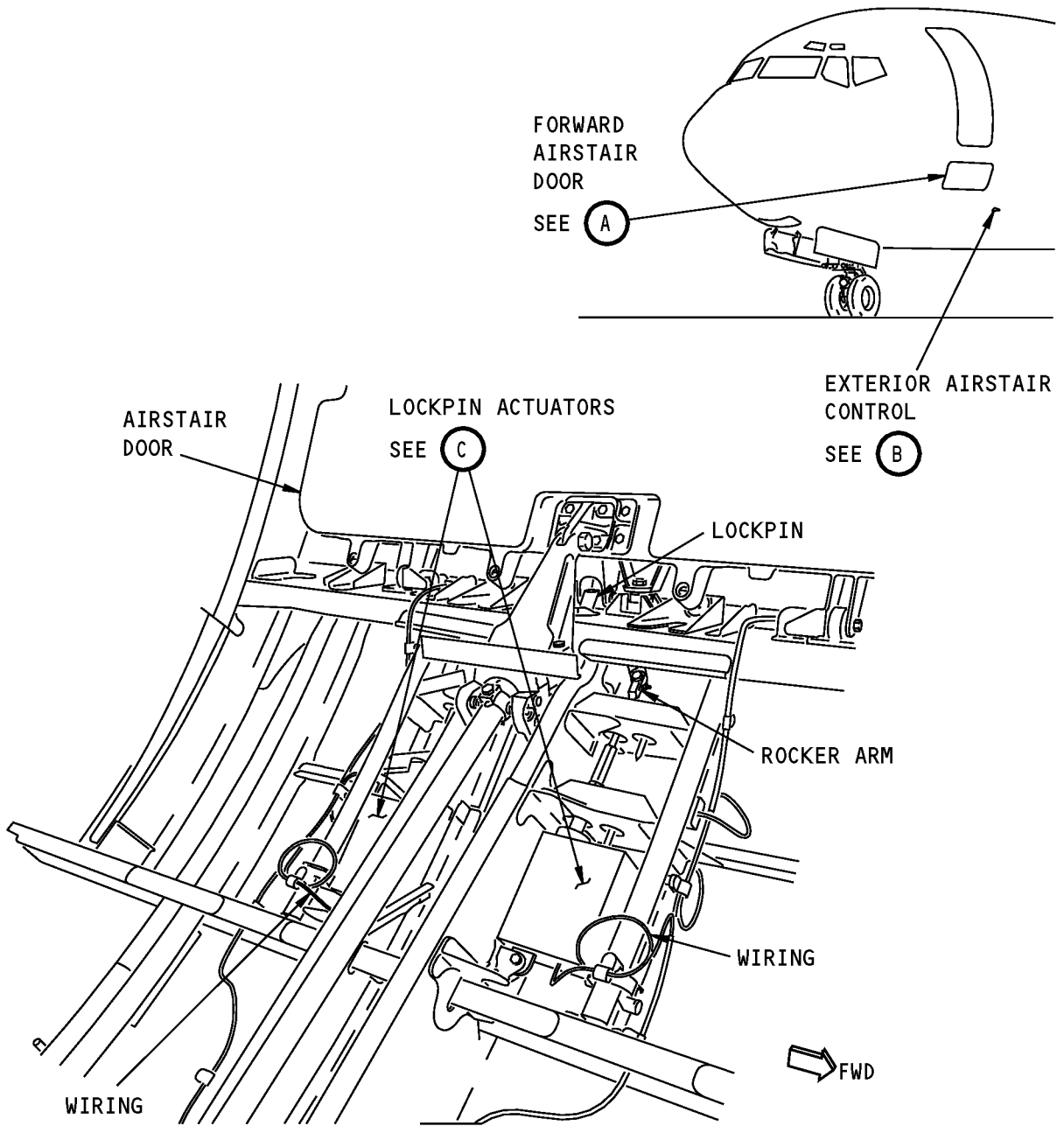
————— **END OF TASK** —————

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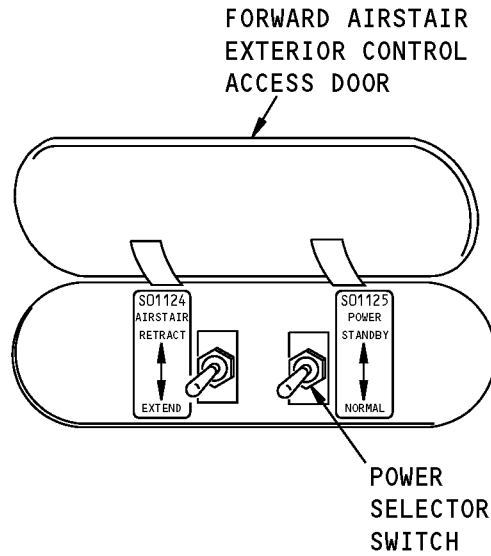
FORWARD AIRSTAIR DOOR

(A)

**Forward Airstair Door Lock Mechanism Adjustment
Figure 501 (Sheet 1 of 6)/52-61-53-990-802**

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**EXTERIOR AIRSTAIR
CONTROL**

B

**Forward Airstair Door Lock Mechanism Adjustment
Figure 501 (Sheet 2 of 6)/52-61-53-990-802**

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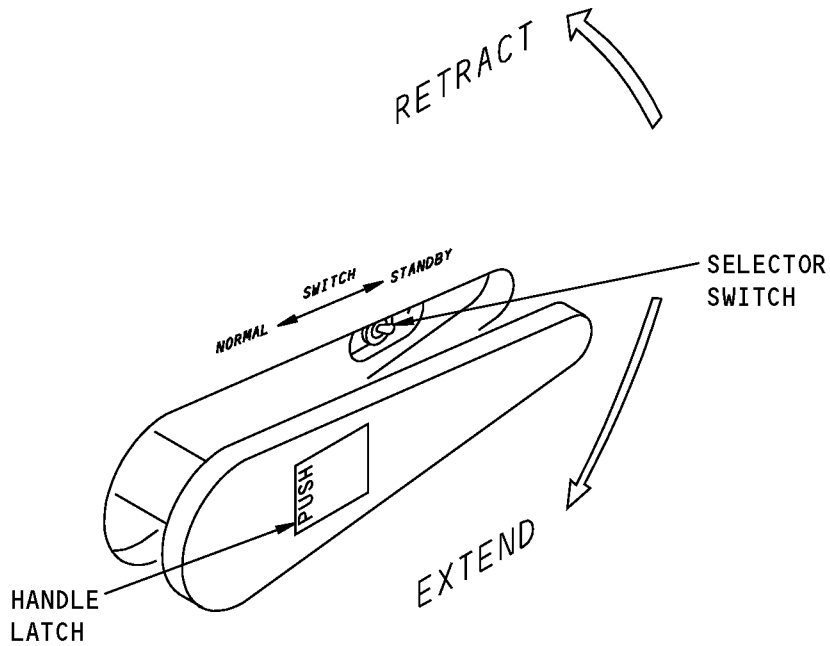
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EXTERIOR AIRSTAIR
CONTROL

(B)

Forward Airstair Door Lock Mechanism Adjustment
Figure 501 (Sheet 3 of 6)/52-61-53-990-802

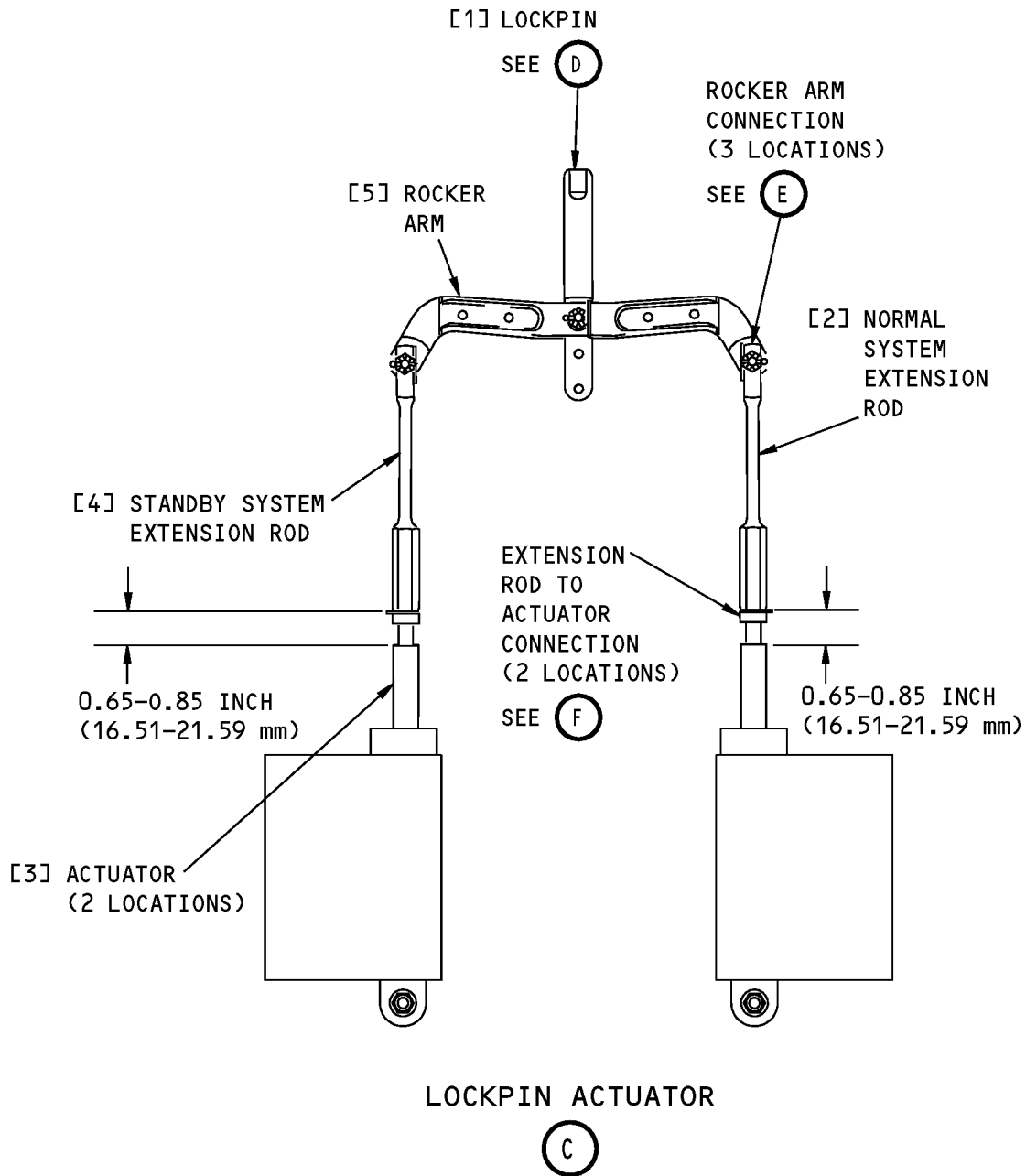
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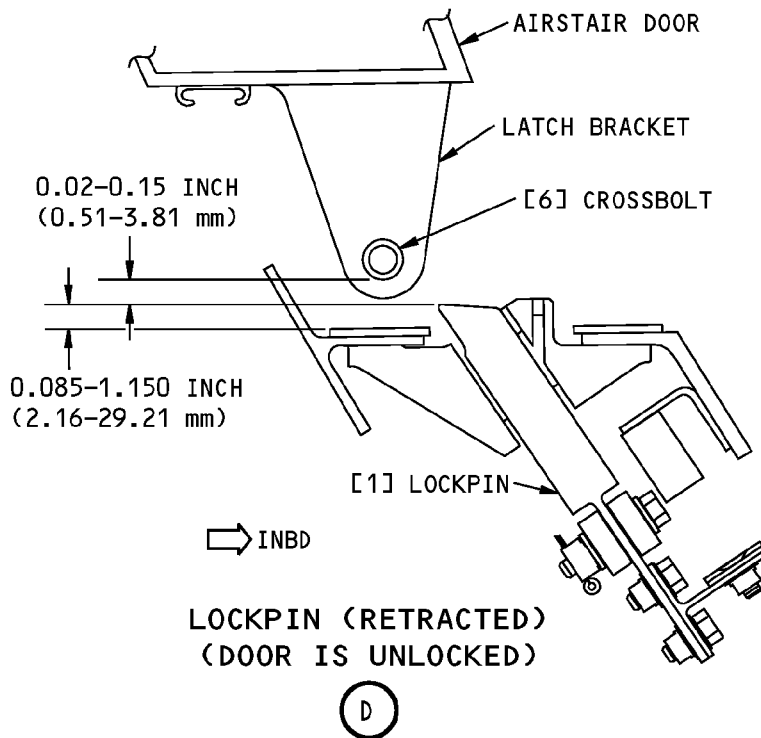
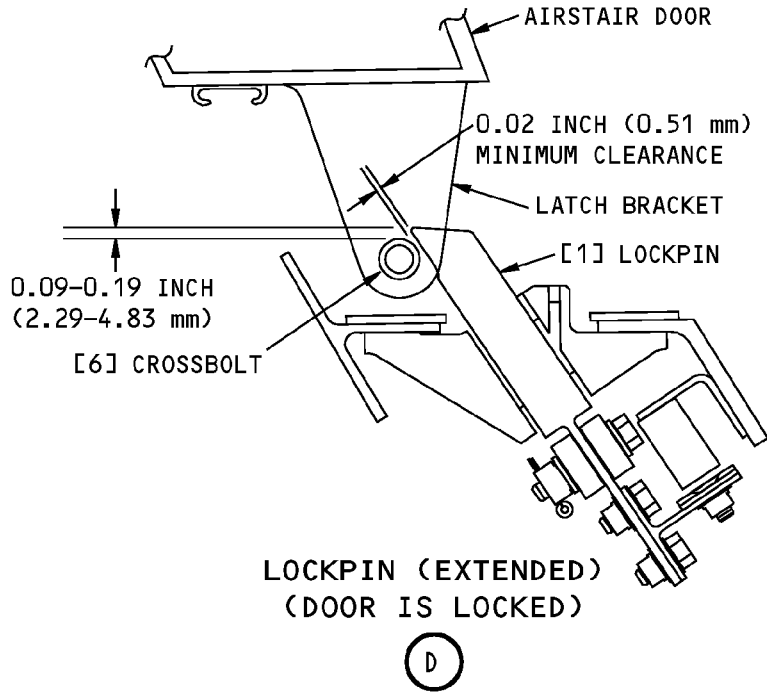


**Forward Airstair Door Lock Mechanism Adjustment
Figure 501 (Sheet 4 of 6)/52-61-53-990-802**

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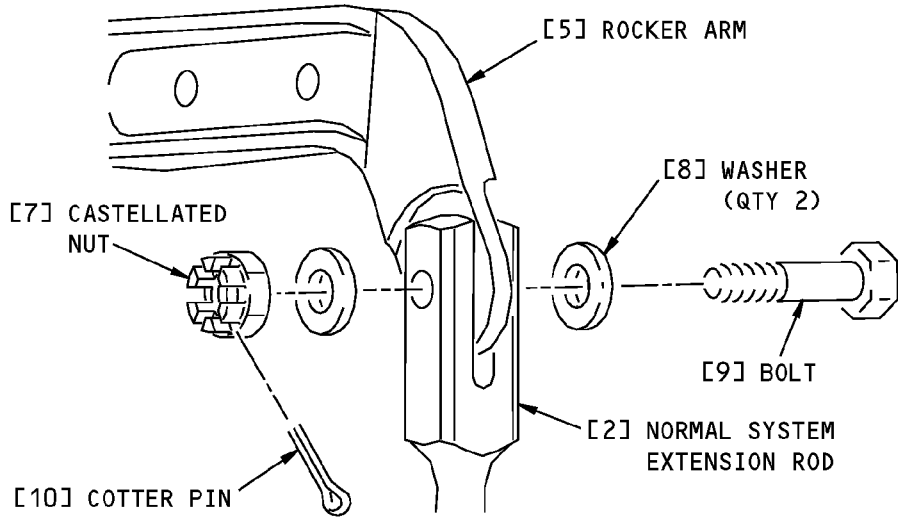


**Forward Airstair Door Lock Mechanism Adjustment
Figure 501 (Sheet 5 of 6)/52-61-53-990-802**

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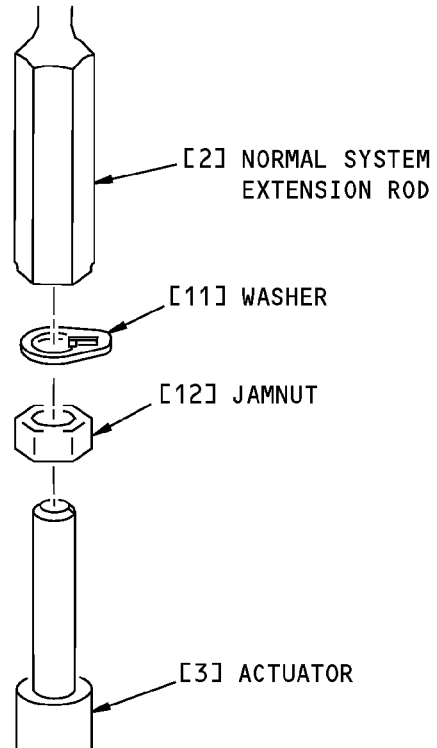
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**ROCKER ARM EXTENSION ROD
(EXAMPLE)**

E



**NORMAL EXTENSION ROD TO ACTUATOR CONNECTION
(STANDBY SYSTEM EXTENSION ROD TO ACTUATOR
CONNECTION IS EQUIVALENT)**

F

**Forward Airstair Door Lock Mechanism Adjustment
Figure 501 (Sheet 6 of 6)/52-61-53-990-802**

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FORWARD AIRSTAIR DOOR ACTUATOR SNUBBER - REMOVAL/INSTALLATION

1. General

A. This procedure contains these tasks:

- (1) A removal of the snubber from the forward airstair door actuator.
- (2) An installation of the snubber.

TASK 52-61-54-000-801

2. Forward Airstair Door Actuator Snubber Removal

(Figure 401)

A. Location Zones

Zone	Area
121	Forward Cargo Compartment - Left

B. Access Panels

Number	Name/Location
117A	Electronic Equipment Access Door
117BL	Forward Airstair Door

C. Prepare for the Removal

SUBTASK 52-61-54-860-001

(1) Open this access panel but do not extend the airstair:

Number	Name/Location
117BL	Forward Airstair Door

SUBTASK 52-61-54-860-002

(2) Open these circuit breakers and install safety tags:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

SUBTASK 52-61-54-010-001

(3) Get access to the snubber through this access panel:

Number	Name/Location
117A	Electronic Equipment Access Door

SUBTASK 52-61-54-010-002

(4) Disconnect the forward airstair door and manually move it to the closed position as follows:

- (a) Remove the two bushings from the jackscrew nut and carriage.
- (b) Disengage the jackscrew nut from the carriage.
- (c) Push the forward airstair door to the closed position.
- (d) Install a temporary support to hold the airstair door in the closed position.

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D. Removal

SUBTASK 52-61-54-020-001

- (1) Remove the snubber as follows:
 - (a) Remove the locknut and washer from the inboard end of the jackscrew.
 - (b) Pull the jackscrew away from the actuator.
 - (c) Remove the snubber from the end of the jackscrew.

————— END OF TASK —————

TASK 52-61-54-400-801

3. Forward Airstair Door Actuator Snubber Installation

(Figure 401)

A. References

Reference	Title
52-61-59-000-801	Forward Airstair Door Actuator Standby System Motor Removal (P/B 401)
52-61-59-400-801	Forward Airstair Door Actuator Standby System Motor Installation (P/B 401)
52-61-60-820-801	Forward Airstair Door Closed Switch Adjustment (P/B 401)
52-61-61-820-801	Forward Airstair Door Open Limit Switches (S201 and S205) Adjustment (P/B 401)

B. Location Zones

Zone	Area
121	Forward Cargo Compartment - Left

C. Access Panels

Number	Name/Location
117A	Electronic Equipment Access Door
117BL	Forward Airstair Door

D. Prepare for the Installation

SUBTASK 52-61-54-860-003

- (1) Make sure the forward airstair door is closed and the airstair is retracted.

SUBTASK 52-61-54-860-004

- (2) Make sure that these circuit breakers are open and have safety tags:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

E. Installation

SUBTASK 52-61-54-420-001

- (1) Install the snubber as follows:

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- (a) Put the snubber on the splines at the end of the jackscrew shaft. Make sure the snubber face is away from the ball nut.
- (b) Put the jackscrew into the actuator.
- (c) Compress the snubber approximately 0.27 inch until the jackscrew gets to the bottom in the actuator.
- (d) Install the washer and locknut on the inboard end of the jackscrew.

SUBTASK 52-61-54-860-005

- (2) Release the forward airstair door from the closed position.

SUBTASK 52-61-54-860-006

- (3) Put the ballnut in position on the carriage.

SUBTASK 52-61-54-420-002

- (4) Install the two bushings to connect the ballnut to the carriage.

SUBTASK 52-61-54-220-001

- (5) Make sure the jackscrew turns freely as follows:
 - (a) Do this task: Forward Airstair Door Actuator Standby System Motor Removal, TASK 52-61-59-000-801.
 - (b) Turn the actuator manual drive to move the carriage along the rails.
 - (c) Make sure the jackscrew turns freely.
 - (d) If it is necessary, adjust the bottom guide fitting to correctly align the carriage with the guide rails.
 - (e) Do this task: Forward Airstair Door Actuator Standby System Motor Installation, TASK 52-61-59-400-801.

F. Put the Airplane Back to its Usual Condition

SUBTASK 52-61-54-860-007

- (1) Remove the safety tags and close these circuit breakers:

F/O Electrical System Panel, P6-4

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

SUBTASK 52-61-54-220-002

- (2) Do this task: Forward Airstair Door Closed Switch Adjustment, TASK 52-61-60-820-801.
Do only the steps to do an adjustment check of the forward door closed limit switches.

SUBTASK 52-61-54-220-003

- (3) Do this task: Forward Airstair Door Open Limit Switches (S201 and S205) Adjustment, TASK 52-61-61-820-801.

Do only the steps to do an adjustment check of the forward door open limit switches.

SUBTASK 52-61-54-710-001

- (4) Operate the forward airstair door electrically.

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SUBTASK 52-61-54-210-001

(5) Make sure the snubber operates correctly.

G. Put the Airplane Back to its Usual Condition

SUBTASK 52-61-54-860-008

(1) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
117BL	Forward Airstair Door

SUBTASK 52-61-54-410-001

(2) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
117A	Electronic Equipment Access Door

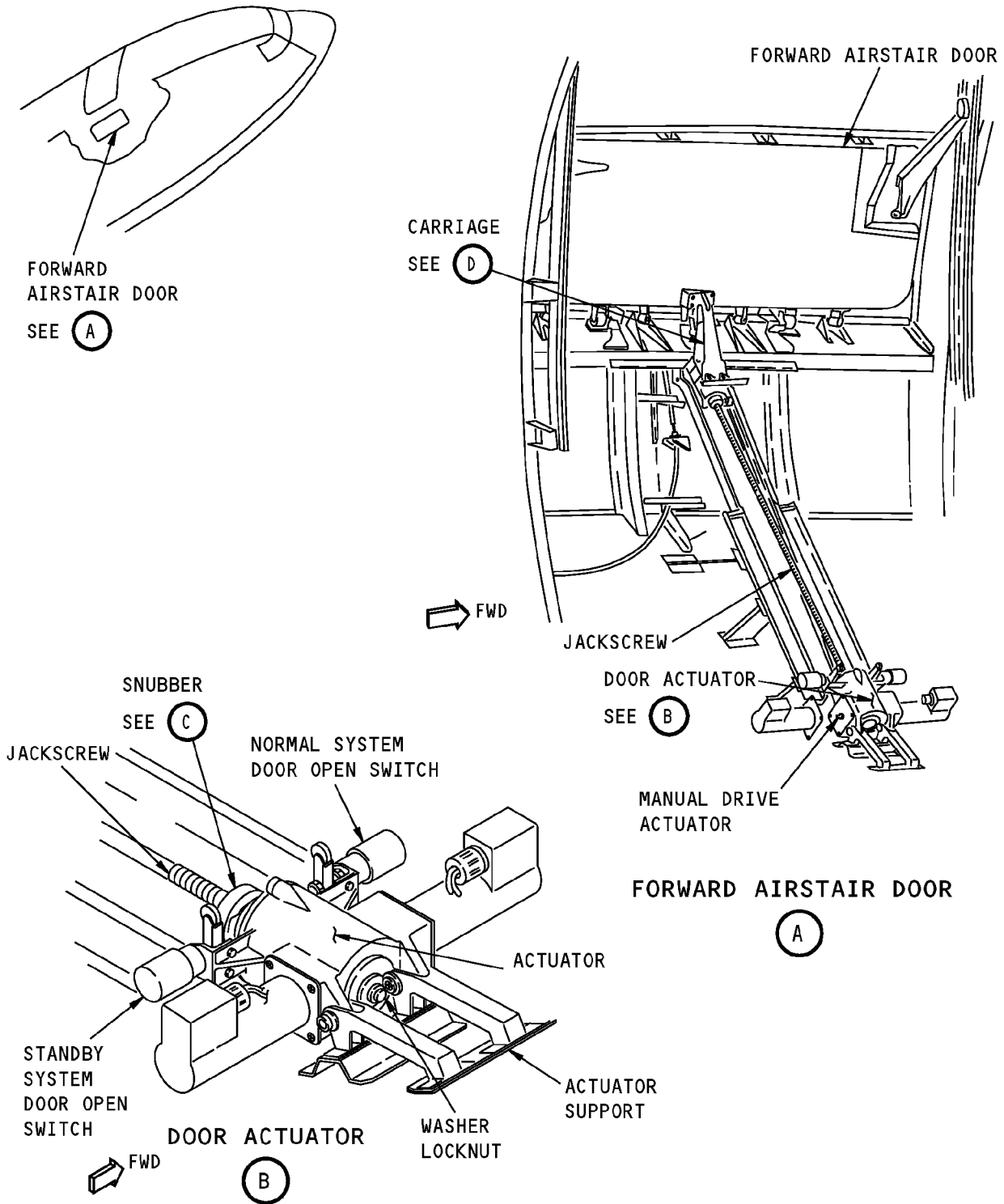
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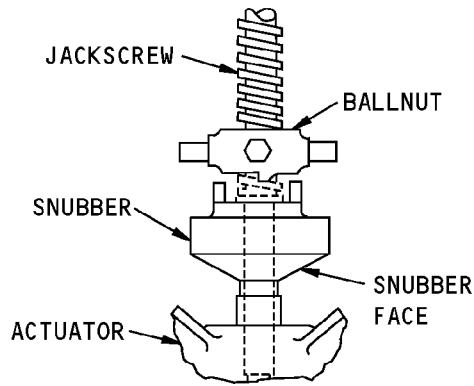


**Forward Airstair Door Actuator Snubber Installation
Figure 401 (Sheet 1 of 2)/52-61-54-990-801**

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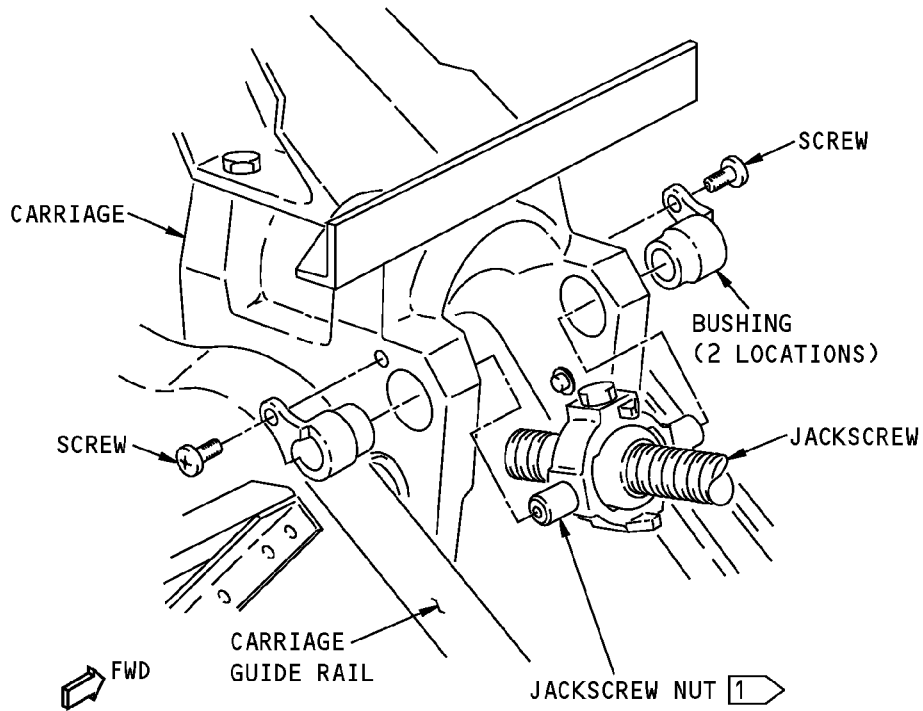
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SNUBBER

(C)



CARRIAGE

(D)

1 SHOWN DISENGAGED FROM CARRIAGE

**Forward Airstair Door Actuator Snubber Installation
Figure 401 (Sheet 2 of 2)/52-61-54-990-801**

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FORWARD AIRSTAIR DOOR ACTUATOR NORMAL SYSTEM MOTOR - REMOVAL/INSTALLATION

1. General

A. This procedure contains these tasks:

- (1) A removal of the forward airstair door NORMAL system motor.
- (2) An installation of the NORMAL system motor.

TASK 52-61-58-000-801

2. Forward Airstair Door Actuator Normal System Motor Removal

(Figure 401)

A. Location Zones

<u>Zone</u>	<u>Area</u>
121	Forward Cargo Compartment - Left

B. Access Panels

<u>Number</u>	<u>Name/Location</u>
117A	Electronic Equipment Access Door

C. Prepare for the Removal

SUBTASK 52-61-58-860-001

- (1) Open these circuit breakers and install safety tags:

F/O Electrical System Panel, P6-4

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

SUBTASK 52-61-58-010-001

- (2) Get access to the NORMAL system motor through this access panel:

<u>Number</u>	<u>Name/Location</u>
117A	Electronic Equipment Access Door

D. Removal

SUBTASK 52-61-58-020-001

- (1) Disconnect the D921 electrical connector from the motor.

SUBTASK 52-61-58-020-002

- (2) Remove the lockwire from the bolts on the forward side of the actuator.

SUBTASK 52-61-58-020-003

- (3) Remove the four bolts that attach the motor to the forward side of the actuator.

SUBTASK 52-61-58-020-004

- (4) Remove the motor and the shim.

————— **END OF TASK** —————

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TASK 52-61-58-400-801

3. Forward Airstair Door Actuator Normal System Motor Installation

(Figure 401)

A. Consumable Materials

Reference	Description	Specification
G01048	Lockwire - Corrosion Resistant Steel (0.032 In. Dia.)	NASM20995~ C32

B. Location Zones

Zone	Area
121	Forward Cargo Compartment - Left

C. Access Panels

Number	Name/Location
117A	Electronic Equipment Access Door

D. Installation

SUBTASK 52-61-58-220-001

- (1) Find the thickness of the shim for the motor as follows:
 - (a) Use a micrometer to measure the depth between the outer face of the bearing and the face of the actuator assembly.
 - (b) Write the dimension.
 - (c) Measure the depth of the slot in the motor.
 - (d) The thickness of the shims must be the difference between the two dimensions.

SUBTASK 52-61-58-420-001

- (2) Install the shims.

SUBTASK 52-61-58-860-002

- (3) Put the motor on the forward side of the actuator.

NOTE: The electrical connector must align with the identification tag.

SUBTASK 52-61-58-420-002

- (4) Install the four bolts.

SUBTASK 52-61-58-420-003

- (5) Install the lockwire, G01048 on the four bolts.

SUBTASK 52-61-58-420-004

- (6) Attach the D912 electrical connector the NORMAL system motor.

SUBTASK 52-61-58-010-002

- (7) Exit the electronic equipment compartment and close this access panel:

Number	Name/Location
117A	Electronic Equipment Access Door

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SUBTASK 52-61-58-860-003

(8) Remove the safety tags and close these circuit breakers:

F/O Electrical System Panel, P6-4

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

SUBTASK 52-61-58-710-001

(9) Do an installation test of the NORMAL as follows:

- (a) Use the normal system to operate the airstair through a full cycle.
- (b) Make sure the airstair and door operate correctly.

————— **END OF TASK** —————

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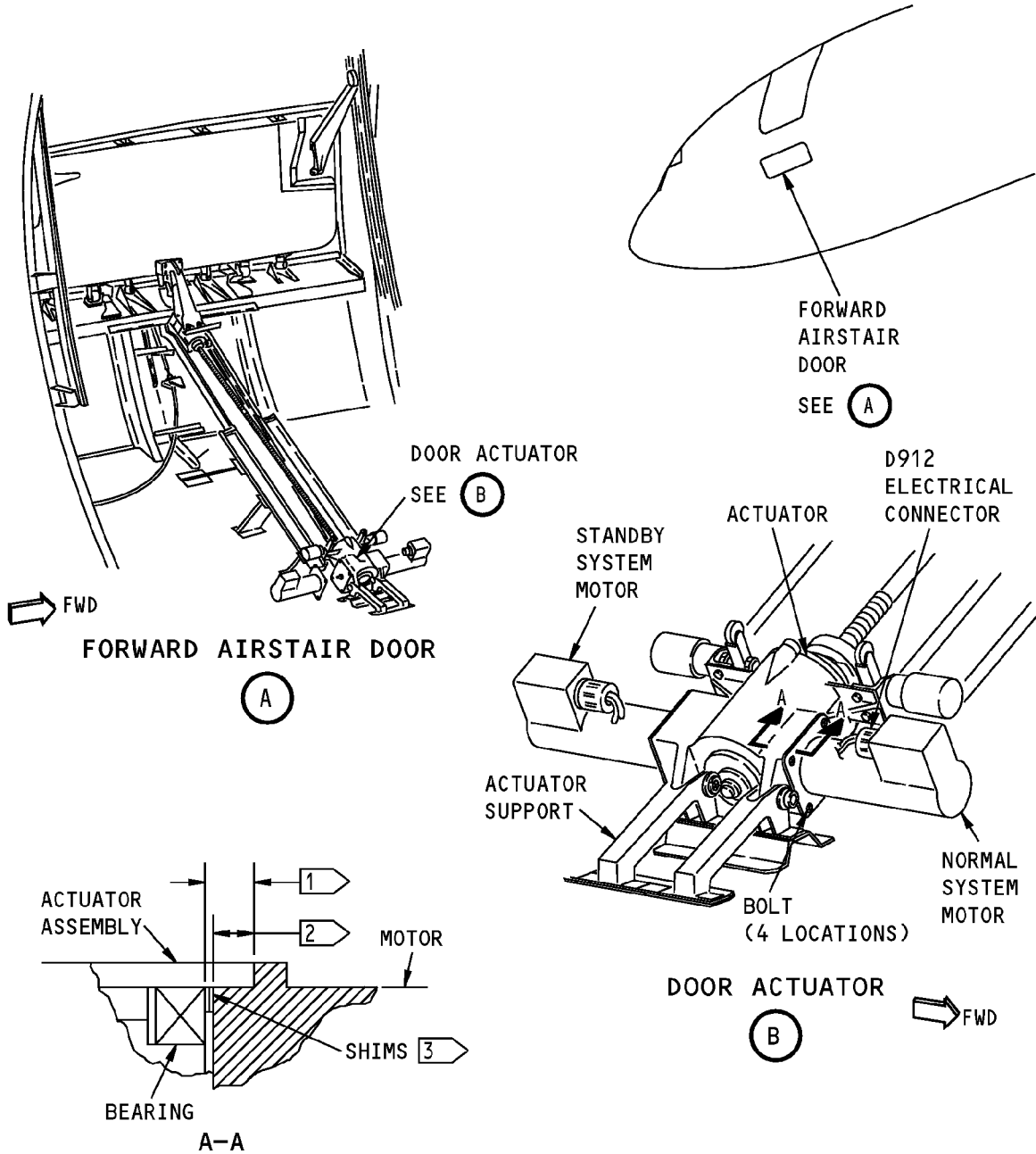
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- 1 THE DISTANCE BETWEEN THE FACE OF THE BEARING AND THE FACE OF THE ACTUATOR ASSEMBLY.
- 2 THE DEPTH OF THE SLOT IN THE MOTOR.
- 3 SHIMS THAT ARE AS THICK AS THE DIFFERENCE BETWEEN 1 AND 2 .

**Forward Airstair Door Normal System Motor Installation
Figure 401/52-61-58-990-801**

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FORWARD AIRSTAIR DOOR STANDBY SYSTEM MOTOR - REMOVAL/INSTALLATION

1. General

A. This procedure contains these two tasks:

- (1) A removal of the forward airstair door standby system motor.
- (2) An installation of the standby system motor.

TASK 52-61-59-000-801

2. Forward Airstair Door Actuator Standby System Motor Removal

(Figure 401)

A. Location Zones

<u>Zone</u>	<u>Area</u>
121	Forward Cargo Compartment - Left

B. Access Panels

<u>Number</u>	<u>Name/Location</u>
117A	Electronic Equipment Access Door

C. Prepare for the Removal

SUBTASK 52-61-59-860-001

- (1) Open these circuit breakers and install safety tags:

F/O Electrical System Panel, P6-4

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

SUBTASK 52-61-59-010-001

- (2) Get access to the standby system motor through this access panel:

<u>Number</u>	<u>Name/Location</u>
117A	Electronic Equipment Access Door

D. Removal

SUBTASK 52-61-59-020-001

- (1) Disconnect the D914 electrical connector from the motor.

SUBTASK 52-61-59-020-002

- (2) Remove the lockwire from the bolts on the aft side of the actuator.

SUBTASK 52-61-59-020-003

- (3) Remove the four bolts that attach the motor to the aft side of the actuator.

SUBTASK 52-61-59-020-004

- (4) Remove the motor.

————— **END OF TASK** —————

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TASK 52-61-59-400-801

3. Forward Airstair Door Actuator Standby System Motor Installation

(Figure 401)

A. Consumable Materials

Reference	Description	Specification
G01048	Lockwire - Corrosion Resistant Steel (0.032 In. Dia.)	NASM20995~ C32

B. Location Zones

Zone	Area
121	Forward Cargo Compartment - Left

C. Access Panels

Number	Name/Location
117A	Electronic Equipment Access Door
117BL	Forward Airstair Door

D. Prepare for the Removal

SUBTASK 52-61-59-860-002

- (1) Make sure that these circuit breakers are open and have safety tags:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

SUBTASK 52-61-59-010-002

- (2) Get access to the standby system motor through this access panel:

Number	Name/Location
117A	Electronic Equipment Access Door

E. Installation

SUBTASK 52-61-59-860-003

- (1) Put the motor on the aft side of the actuator.

SUBTASK 52-61-59-420-001

- (2) Install the four bolts.

SUBTASK 52-61-59-420-002

- (3) Install lockwire, G01048 on the four bolts.

SUBTASK 52-61-59-420-003

- (4) Attach the D914 electrical connector to the standby system motor.

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SUBTASK 52-61-59-860-004

(5) Remove the safety tags and close these circuit breakers:

F/O Electrical System Panel, P6-4

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

SUBTASK 52-61-59-710-001

(6) Do an operational test of the motor as follows:

- (a) Operate the airstair through a full cycle.
- (b) Make sure the airstair and door operate correctly.

F. Put the Airplane back to its Usual Condition

SUBTASK 52-61-59-710-002

(1) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
117A	Electronic Equipment Access Door

SUBTASK 52-61-59-710-003

(2) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
117BL	Forward Airstair Door

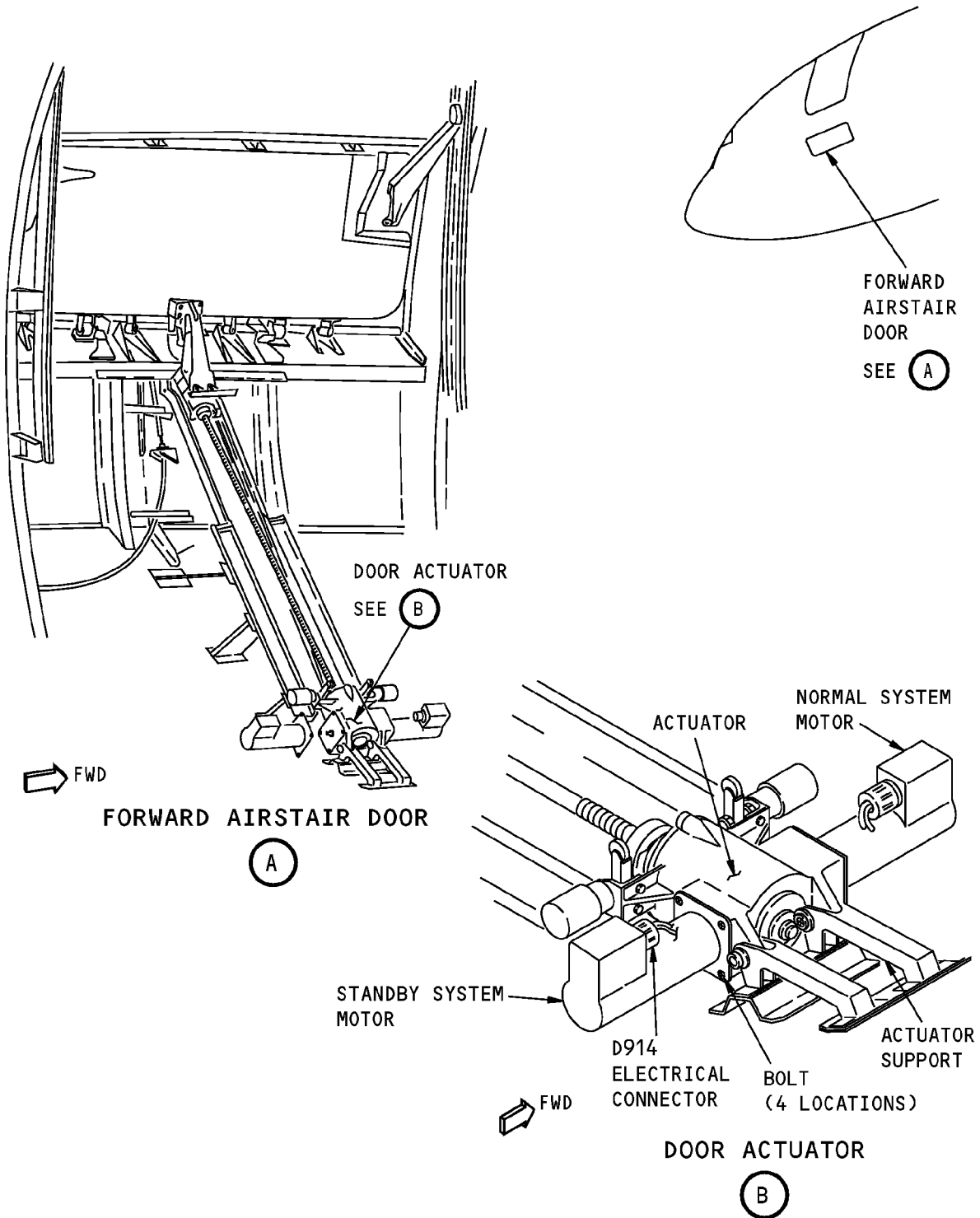
————— **END OF TASK** —————

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**Forward Airstair Door Standby System Motor Installation
Figure 401/52-61-59-990-801**

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FORWARD AIRSTAIR DOOR CLOSED SWITCHES (S207 AND S208) - REMOVAL/INSTALLATION

1. General

- A. The normal system door closed switch (S207) and standby system door closed switch (S208) are equivalent switches.
- B. Use this procedure for the two switches.

TASK 52-61-60-020-801

2. Forward Airstair Door Closed Switch Removal

(Figure 401)

A. Location Zones

Zone	Area
121	Forward Cargo Compartment - Left

B. Access Panels

Number	Name/Location
117BL	Forward Airstair Door

C. Prepare for the Removal

SUBTASK 52-61-60-010-001

- (1) Open this access panel but do not extend the airstair:

Number	Name/Location
117BL	Forward Airstair Door

SUBTASK 52-61-60-860-001

- (2) Open these circuit breakers and install safety tags:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

D. Removal

SUBTASK 52-61-60-020-001

- (1) Disconnect the electrical wires for the switch at the splices.

SUBTASK 52-61-60-020-002

- (2) Remove the inboard locknut from the switch.

SUBTASK 52-61-60-020-003

- (3) Remove the switch from the switch bracket.

————— **END OF TASK** —————

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TASK 52-61-60-420-801

3. Forward Airstair Door Closed Switch Installation

(Figure 401)

A. Location Zones

<u>Zone</u>	<u>Area</u>
121	Forward Cargo Compartment - Left

B. Prepare for the Installation

SUBTASK 52-61-60-860-002

- (1) Make sure that these circuit breakers are open and have safety tags:

F/O Electrical System Panel, P6-4

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

C. Installation

SUBTASK 52-61-60-420-001

- (1) Install the switch as follows:
- Remove the outer locknut from the switch.
 - Put the switch in the switch bracket.
 - Install the locknut to attach the switch.
 - Connect the electrical wires to the switch at the splices.

SUBTASK 52-61-60-860-003

- (2) Do this task: Forward Airstair Door Closed Switch Adjustment, TASK 52-61-60-820-801.

END OF TASK

TASK 52-61-60-820-801

4. Forward Airstair Door Closed Switch Adjustment

(Figure 401)

A. References

<u>Reference</u>	<u>Title</u>
52-61-59-000-801	Forward Airstair Door Actuator Standby System Motor Removal (P/B 401)
52-61-59-400-801	Forward Airstair Door Actuator Standby System Motor Installation (P/B 401)

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B. Consumable Materials

Reference	Description	Specification
G01048	Lockwire - Corrosion Resistant Steel (0.032 In. Dia.)	NASM20995~ C32
G02020	Clay, Modeling	

C. Location Zones

Zone	Area
121	Forward Cargo Compartment - Left

D. Access Panels

Number	Name/Location
117BL	Forward Airstair Door

E. Prepare for the Adjustment

SUBTASK 52-61-60-860-004

- (1) Make sure that these circuit breakers are open and have safety tags:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

SUBTASK 52-61-60-860-005

- (2) Make sure the forward airstair door is open:
 - (a) Do this task: Forward Airstair Door Actuator Standby System Motor Removal, TASK 52-61-59-000-801.
 - (b) Turn the actuator manual drive to open the forward airstair door.

F. Adjustment

SUBTASK 52-61-60-820-001

- (1) Adjust the switch as follows:
 - (a) Loosen the locknuts on the door closed switch.
 - (b) Move the switch outboard as far as the threads permit and tighten the locknuts.
 - (c) Apply clay, G02020 to the outboard face of the switch plate.

NOTE: The clay, G02020 is used to make a mark to measure the clearance between the switch plunger and the switch plate.

- (d) Manually close this access panel as follows:

Number	Name/Location
117BL	Forward Airstair Door

- 1) Turn the manual drive until the crosspin moves outboard of the latch pin or a person outside signals that the exterior of the door makes a continuous surface with the fuselage.

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- (e) Make sure the stop pins touch the bearing plates.
- (f) Manually open the forward airstair door.
- (g) Find the clearance between the end of the switch plunger and the switch plate (door closed) as follows:
 - 1) Measure the thickness of the clay, G02020 at the center of the mark in the clay.
- (h) Adjust the position of switch as follows:
 - 1) Move the switch inboard by the amount of clearance measured from the mark in the clay, G02020 plus 0.07 to 0.11 inch (1.78-2.79 mm).
- (i) Clean the clay, G02020 from the switch plate.
- (j) Do this task: Forward Airstair Door Actuator Standby System Motor Installation, TASK 52-61-59-400-801.

SUBTASK 52-61-60-860-006

- (2) Remove the safety tags and close these circuit breakers:

F/O Electrical System Panel, P6-4

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

SUBTASK 52-61-60-210-001

- (3) Do a test of the switch:

- (a) Operate the forward airstair door:
 - 1) If you replaced the S207 switch, make sure you use STANDBY mode to operate the door. If you replaced the S208 switch, make sure you use the NORMAL mode to operate the door.
 - 2) Make sure the switch operates correctly to stop the actuator.
 - 3) Make sure the STAIRS IN OPERATION light at the internal control panel goes off when the door is closed.
 - 4) Make sure the AIRSTAIR light at the Forward Overhead Panel, P5, is off when the door is closed.
- (b) Do a check of the forward airstair door:
 - 1) With the door closed and the latch pin fully extended, make sure the inboard face of crosspin does not touch the outboard face of latch pin.

- 2) Open this access panel:

<u>Number</u>	<u>Name/Location</u>
117BL	Forward Airstair Door

- 3) Apply clay, G02020 to all eight bearing plates around the door opening.

- 4) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
117BL	Forward Airstair Door

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electrically.

- 5) When the actuator stops, open the door and make sure all the stop pins touched the bearing plates.
- (c) If the airstair door does not fully close, do the steps as follows:
- 1) Adjust the position of the door closed switch outboard as necessary to get the forward airstair door to fully close.
 - 2) Do a check of the forward airstair door again.
- (d) If the door is adjusted correctly, do the steps as follows:
- 1) Install lockwire, G01048 on the locknuts which attach the switch to the switch bracket.
 - 2) Clean the clay, G02020 from the bearing plates.
 - 3) Fully close this access panel:

<u>Number</u>	<u>Name/Location</u>
117BL	Forward Airstair Door

————— **END OF TASK** —————

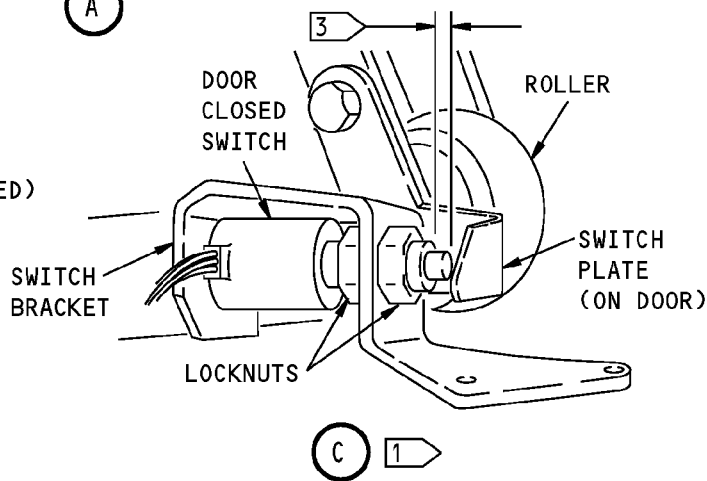
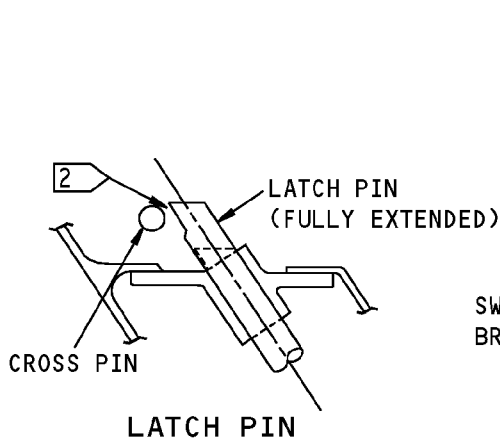
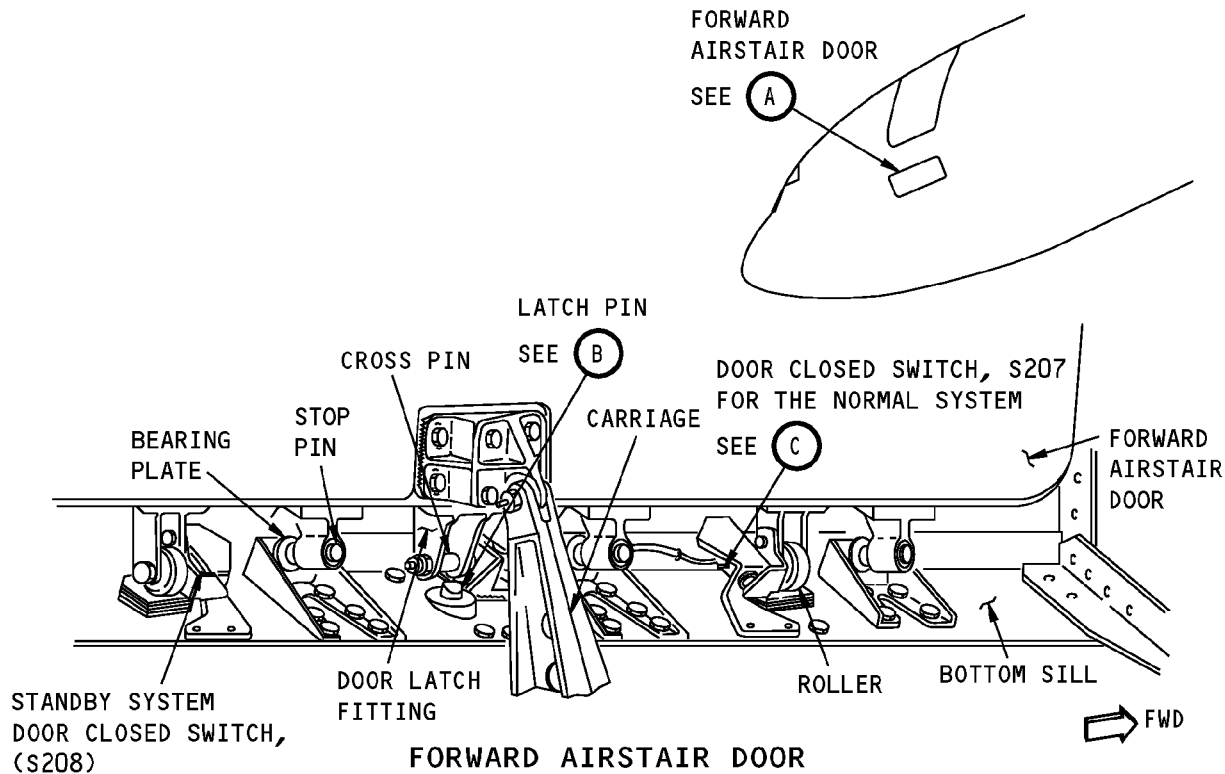
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- ➔ 1 THE NORMAL SYSTEM SWITCH IS SHOWN. THE STANDBY SYSTEM SWITCH IS THE SAME.
- ➔ 2 MAKE SURE THERE IS CLEARANCE BETWEEN THE CROSS PIN AND THE LATCH PIN (DOOR CLOSED).
- ➔ 3 THE SWITCH PLUNGER SHOULD MOVE BETWEEN 0.07 INCH AND 0.11 INCH WHEN THE DOOR IS CLOSED.

Forward Airstair Door Closed Limit Switches Installation
Figure 401/52-61-60-990-801

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FORWARD AIRSTAIR DOOR OPEN LIMIT SWITCHES (S201 and S205) - REMOVAL/INSTALLATION

1. General

- A. This procedure is applicable to the two door open switches for the forward airstair. One switch is for the NORMAL system and the other is for the STANDBY system. These two switches are not the same and are not interchangeable. The NORMAL system switch will operate when the switch arm on the switch shaft turns clockwise. The STANDBY system switch will operate when the switch arm on the switch shaft turns counterclockwise.

TASK 52-61-61-020-801

2. Forward Airstair Door Open Limit Switches (S201 and S205) Removal

(Figure 401)

A. Location Zones

<u>Zone</u>	<u>Area</u>
121	Forward Cargo Compartment - Left

B. Access Panels

<u>Number</u>	<u>Name/Location</u>
117A	Electronic Equipment Access Door

C. Prepare for the Removal

SUBTASK 52-61-61-860-001

- (1) Open these circuit breakers and install safety tags:

F/O Electrical System Panel, P6-4

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

SUBTASK 52-61-61-010-001

- (2) Get access to the work area through this access panel:

<u>Number</u>	<u>Name/Location</u>
117A	Electronic Equipment Access Door

D. Removal

SUBTASK 52-61-61-020-001

- (1) Disconnect the switch electrical wire at the splices.

SUBTASK 52-61-61-020-002

- (2) Remove the switch as follows:

- (a) Loosen the lockscrew on the switch arm.
- (b) Remove the locknut from the end of the switch shaft and remove the switch arm from the switch.
- (c) Remove the nut that attaches the switch to the bracket.

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(d) Remove the switch.

END OF TASK

TASK 52-61-61-400-801

3. Forward Airstair Door Open Limit Switches (S201 and S205) Installation

(Figure 401)

A. Consumable Materials

Reference	Description	Specification
G01048	Lockwire - Corrosion Resistant Steel (0.032 In. Dia.)	NASM20995~ C32

B. Location Zones

Zone	Area
121	Forward Cargo Compartment - Left

C. Prepare for the Installation

SUBTASK 52-61-61-860-002

(1) Make sure that these circuit breakers are open and have safety tags:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

D. Installation

SUBTASK 52-61-61-020-003

(1) Install the switch as follows:

- (a) Install the switch on the mounting bracket with the nut.
- (b) Install the lockwire, G01048 on the nut.
- (c) Install the switch arm on the switch shaft with the locknut.

SUBTASK 52-61-61-420-001

(2) Connect the switch electrical wire at the splices.

SUBTASK 52-61-61-820-001

(3) Do this task: Forward Airstair Door Open Limit Switches (S201 and S205) Adjustment, TASK 52-61-61-820-801.

SUBTASK 52-61-61-710-001

(4) Do an operational check for the switch as follows:

- (a) Open and close the door electrically with the normal system and the standby system.
- (b) Make sure the switch operates to stop the door actuator.
- (c) Make sure the stops on the ballnut do not touch the snubber when door is in the fully open position.

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- (d) If necessary, do this task: Forward Airstair Door Open Limit Switches (S201 and S205) Adjustment, TASK 52-61-61-820-801.

SUBTASK 52-61-61-860-003

- (5) Put the airplane back to its usual condition.

————— **END OF TASK** —————

TASK 52-61-61-820-801

4. Forward Airstair Door Open Limit Switches (S201 and S205) Adjustment

(Figure 401)

A. Consumable Materials

Reference	Description	Specification
G01048	Lockwire - Corrosion Resistant Steel (0.032 In. Dia.)	NASM20995~ C32

B. Location Zones

Zone	Area
121	Forward Cargo Compartment - Left

C. Access Panels

Number	Name/Location
117A	Electronic Equipment Access Door
117BL	Forward Airstair Door

D. Adjustment

SUBTASK 52-61-61-860-004

- (1) Remove the safety tags and close these circuit breakers:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	16	C00409	FWD AIRSTAIR DOOR
A	17	C00246	FWD AIRSTAIR CONT NORMAL
A	18	C00270	FWD AIRSTAIR TREAD LIGHT
B	17	C00850	FWD AIRSTAIR ACTUATOR
C	16	C01254	FWD AIRSTAIR CONT STBY
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

SUBTASK 52-61-61-820-002

- (2) Adjust the switch as follows:

- (a) Manually open the door until you get an 0.35 to 0.50 inch dimension between the jackscrew and the jackscrew nut (Figure 401) View A-A.
- (b) Loosen the lockscrew on the switch arm.
- (c) Turn the worm gear (on the switch arm) to move the switch arm against the switch bar on the door carriage until the switch operates

NOTE: You will hear a click when the switch operates.

- (d) Tighten the lockscrew on the switch arm and install the lockwire, G01048.

SUBTASK 52-61-61-710-002

- (3) Do an operational check for the switch as follows:

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- (a) Open and close the door electrically with the normal system and the standby system.
- (b) Make sure the switch operates to stop the door actuator.
- (c) Make sure the stops on the ballnut do not touch the snubber when door is in the fully open position.
- (d) Adjust the switch, if it is necessary.

SUBTASK 52-61-61-860-006

- (4) Put the airplane back to its usual conditions follows:

Close this access panel:

<u>Number</u>	<u>Name/Location</u>
117A	Electronic Equipment Access Door

Close this access panel:

<u>Number</u>	<u>Name/Location</u>
117BL	Forward Airstair Door

————— END OF TASK —————

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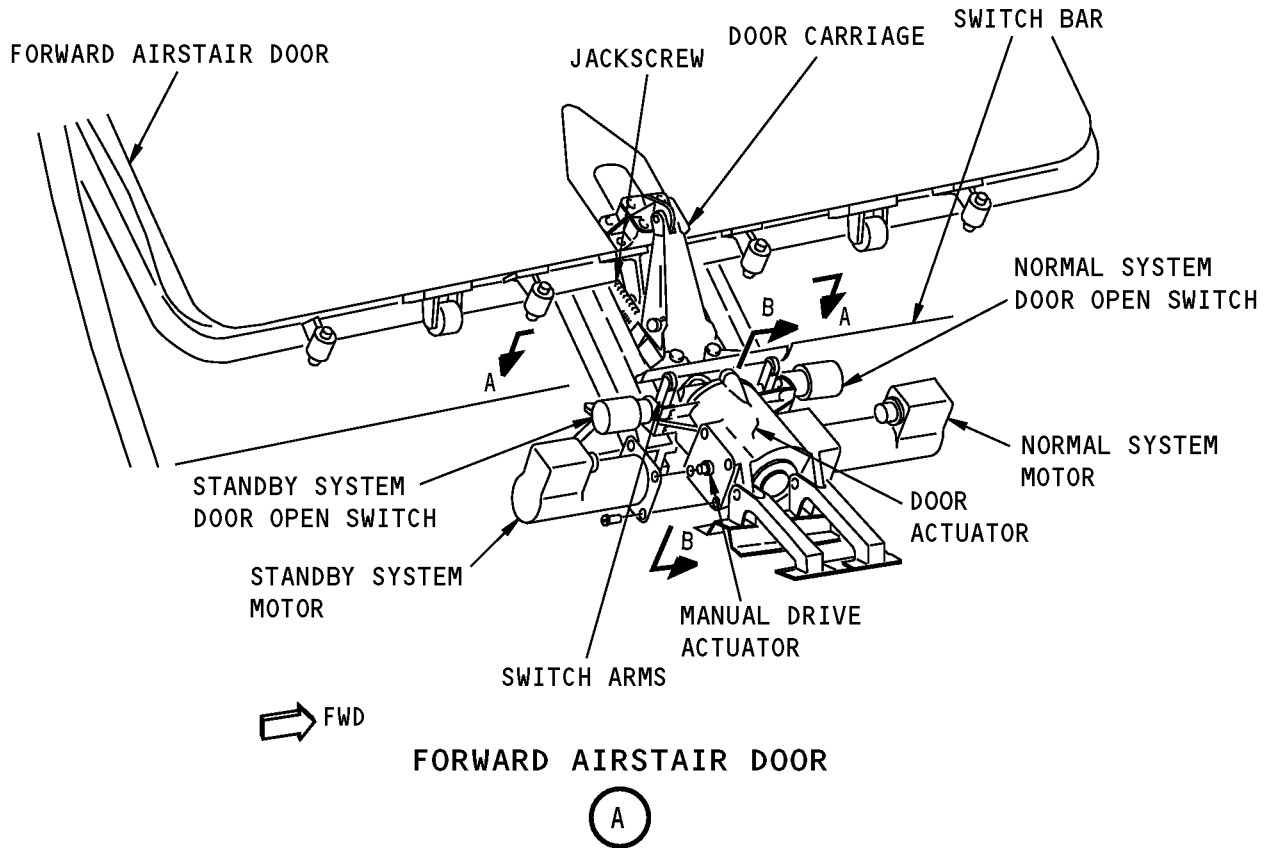
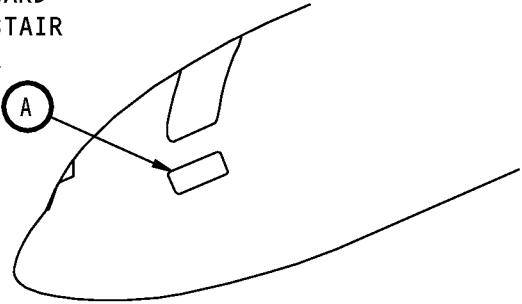
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FORWARD
AIRSTAIR
DOOR
SEE (A)

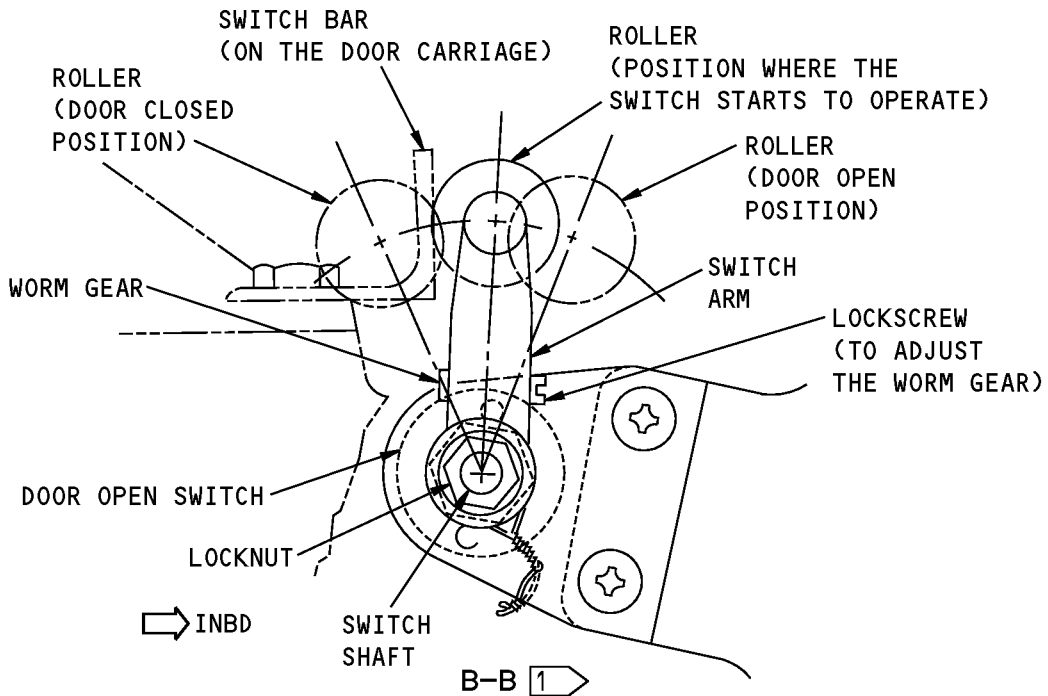
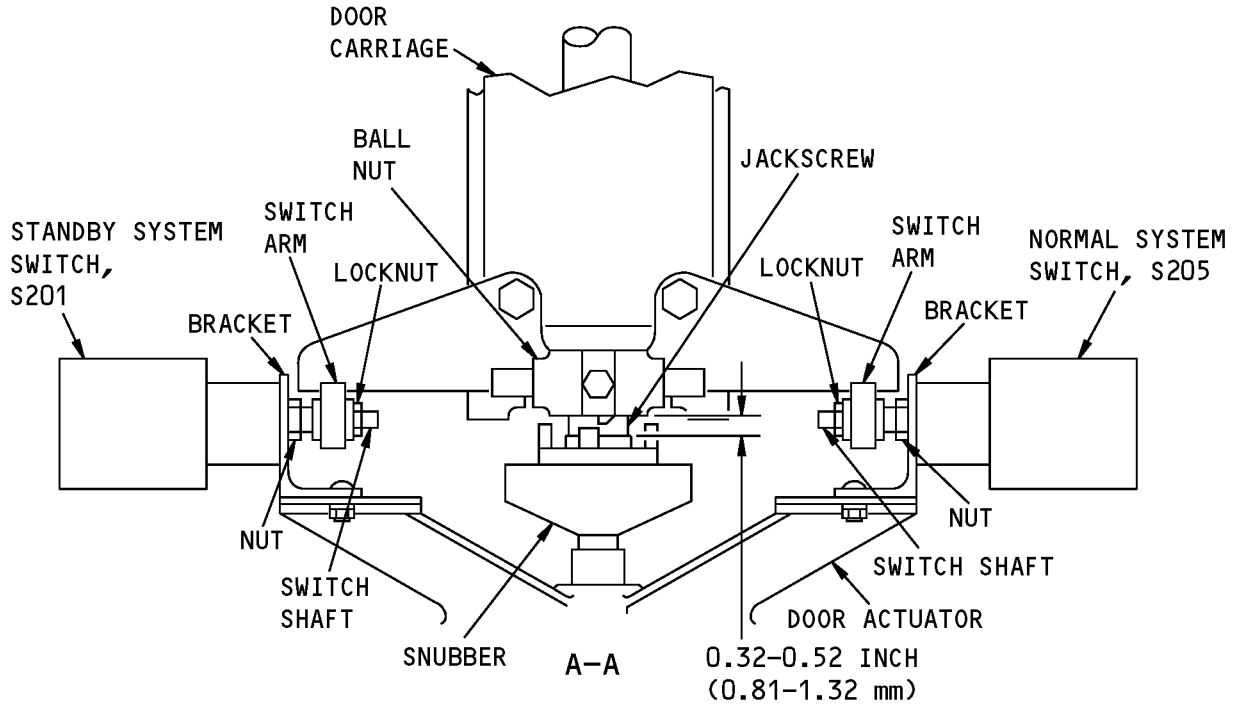


**Forward Airstair Door Open Limit Switches Installation
Figure 401 (Sheet 1 of 2)/52-61-61-990-801**

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1 THE SWITCH FOR THE NORMAL SYSTEM IS SHOWN. THE SWITCH FOR THE STANDBY SYSTEM IS EQUIVALENT

**Forward Airstair Door Open Limit Switches Installation
Figure 401 (Sheet 2 of 2)/52-61-61-990-801**

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FORWARD AND AFT RAIL ASSEMBLIES - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

- (1) The removal of the forward and aft rail assemblies.
(2) The installation of the forward and aft rail assemblies.

TASK 52-61-62-020-801

2. Forward and Aft Rail Removal

(Figure 401)

A. References

Table with 2 columns: Reference, Title. Row 1: 52-61-00-860-801, Forward Airstair Extension (P/B 201)

B. Location Zones

Table with 2 columns: Zone, Area. Row 1: 117, Electrical and Electronics Compartment - Left

C. Prepare for the Removal

SUBTASK 52-61-62-020-001

- (1) Do this task: Forward Airstair Extension, TASK 52-61-00-860-801 to get access to the rail assembly.

D. Procedure

SUBTASK 52-61-62-010-001

- (1) Open the airstair door to get access to the forward and aft airstair rail assemblies (1) and (2).

SUBTASK 52-61-62-020-002

- (2) Remove the wire harness.
(a) Disconnect the airstair P1 electrical connector (15).
(b) Remove the speed-up limit switch S13, (16) from the forward rail (1).
(c) Remove screws attaching the wire harness to the forward (1) rail.
(d) Remove the channel (17) between the forward (1) and aft (2) rail.
(e) Attach the loose wire bundle and the channel (17) to the aft (2) rail.

SUBTASK 52-61-62-020-003

- (3) Remove the forward and aft rail bonding jumper wires (3).
(a) Remove the bolts (4), washers (5), and nuts (6) from the bonding jumper wires (3) on the forward and aft rails (1 and 2).
(b) Keep the bonding jumper wires (3) attached to the floor structure. Move the wires out of the way.

SUBTASK 52-61-62-020-004

- (4) Remove the sway brace fittings (7) that are between the first and second rail attach fittings (14) from the floor structure.
(a) Remove the bolts (8), washers (12), and nuts (13) from the rail attach fittings (14).

SUBTASK 52-61-62-020-005

- (5) Remove the forward rail (1) from the floor structure.

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- (a) Install
- (b) Remove the shoulder bolts (11), washers (12), and nuts (13) from the rail attach fittings (14).
- (c) Remove the forward rail (1) from the airstair opening.

SUBTASK 52-61-62-020-006

- (6) Remove the aft rail (2) from the floor structure.
 - (a) Make sure that the swing arm assembly (18) is tied to the aft rail (2).
 - (b) Remove the shoulder bolts (11), washers (12), and nuts (13) from the rail attach fittings (14).
 - (c) Remove the aft rail (2) from the airstair opening.

————— END OF TASK —————

TASK 52-61-62-400-801

3. Forward and Aft Rail Installation

(Figure 401)

A. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-3937	Pin - Alignment, Bolt Installation (Part #: ST9501B, Supplier: 81205, A/P Effectivity: 737-ALL)

B. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left

C. Procedure

SUBTASK 52-61-62-420-001

- (1) Install the forward and aft rail assemblies (1) and (2) to the airplane floor structure inside the airstair door opening.
 - (a) Install the alignment pins bolt installation alignment pin, SPL-3937 (19) on the shoulder bolts (11).
 - (b) Install the shoulder bolts (11) through the rail attach fittings (14).
 - (c) Remove the alignment pins bolt installation alignment pin, SPL-3937 (19) and install the washers (12) and nuts (13).
 - (d) Tighten the nuts to 100-150 in-lbs (11.299-16.948 newton-meters).

SUBTASK 52-61-62-420-002

- (2) Install the sway brace fittings (7) to the forward and aft rail assemblies (1) and (2) that are between the first and second rail attach fittings (14).
 - (a) Install the bolts (8), washers (9), and nuts (10) at two locations.

SUBTASK 52-61-62-420-003

- (3) Do a check of the spacing between the forward and aft rails (1 and 2).
 - (a) Measure the spacing between the forward (1) and aft (2) rails at the first, third, and fifth attach fittings (14).

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- (b) If the measured dimension is more than the limits, the floor installation rail attach points must be rechecked.

SUBTASK 52-61-62-420-004

- (4) Install the bonding wires (3) between the floor structure and forward aft rails (1) and (2).

- (a) Install the jumper wires (3) adjacent to the outboard rail attach fittings (14).
- (b) Install the bolt (4), two washers (5), and nut (6) through the jumper wire (3) lug into the forward or aft rail (1) and (2).
- (c) Install the bolt (4), three washers (5), and nut (6) through the jumper wire (3) lug into the floor structure, if removed.

SUBTASK 52-61-62-420-005

- (5) Install the wire harness.

- (a) Install the channel (17) to the forward (1) and aft (2) rail.
- (b) Attach the wire bundle to the forward (1) rail.
- (c) Install the speed-up limit switch S13 (16) to the forward (1) rail.
- (d) Connect the airstair P1 electrical connector (15).

CAUTION: MAKE SURE THAT THE CONDUIT SWING ARM BETWEEN THE AIRSTAIR CARRIAGE AND THE LADDER IS IN ITS CORRECT POSITION. IF IT IS INCORRECTLY ALIGNED , IT CAN CAUSE DAMAGE TO EQUIPMENT.

- (e) Make sure that the swing arm conduit is correctly aligned.

————— **END OF TASK** —————

EFFECTIVITY
HAP 006-010

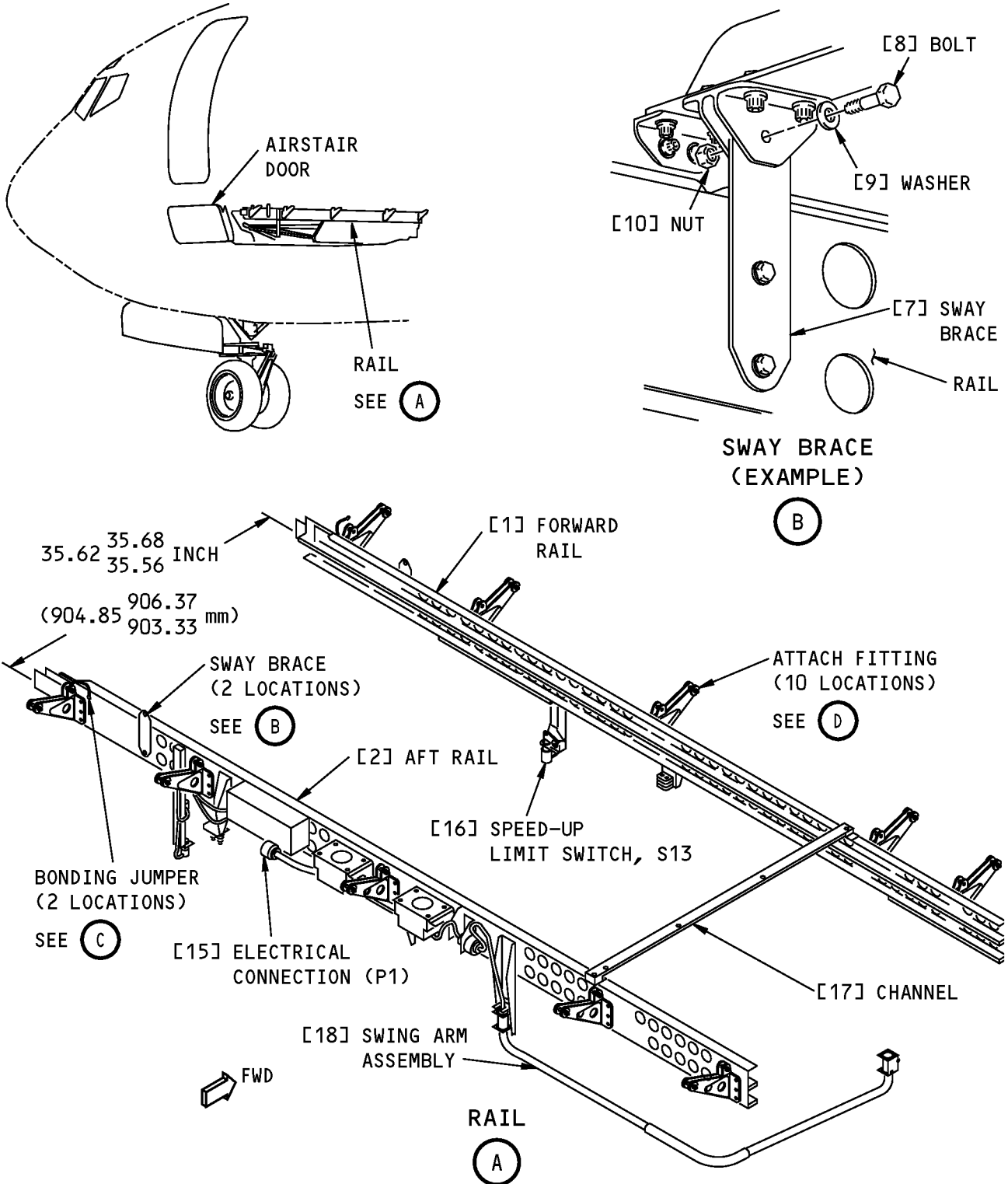
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**Location of Airstair Forward and Aft Rail Assemblies
Figure 401 (Sheet 1 of 2)/52-61-62-990-801**

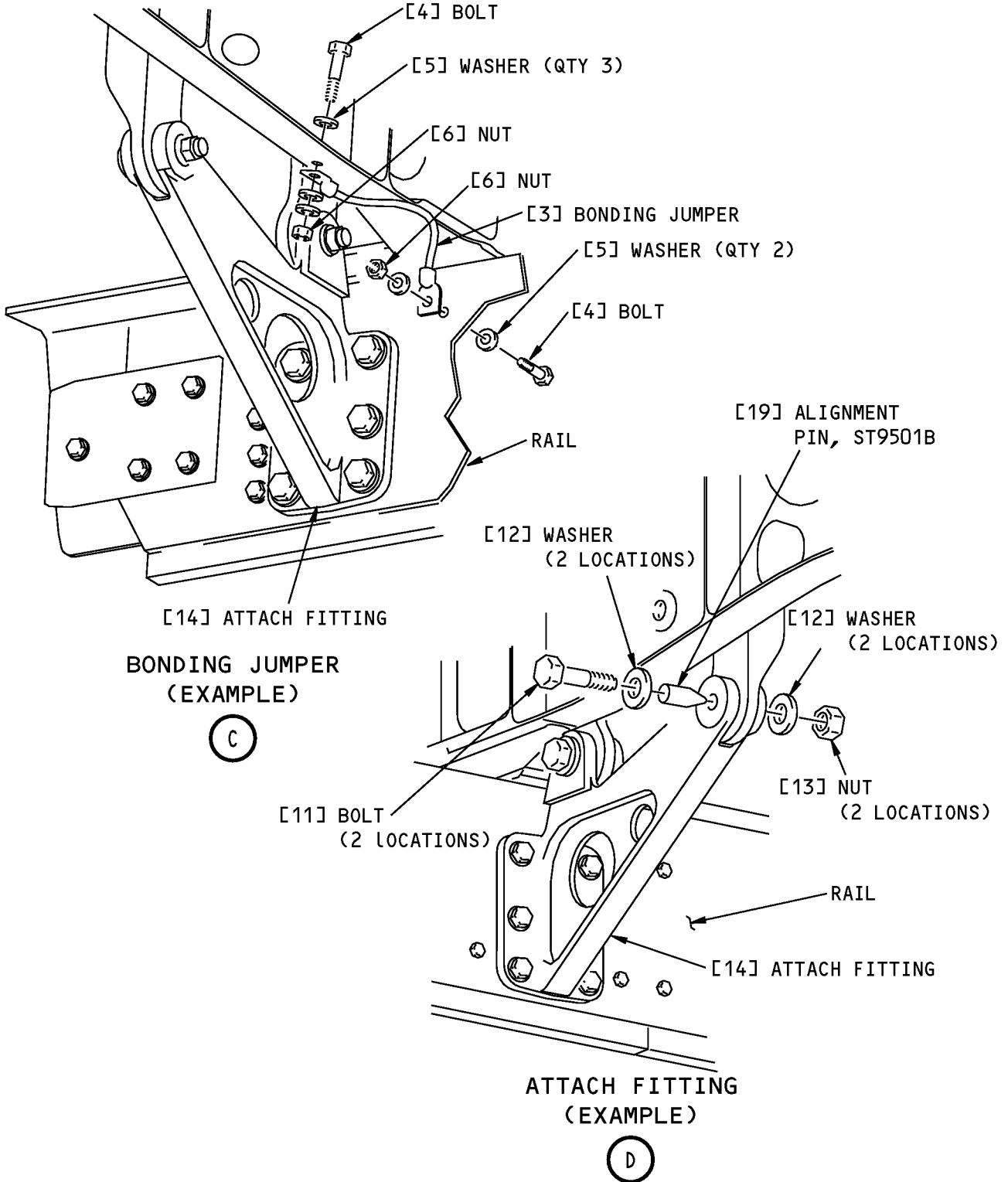
EFFECTIVITY
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**Location of Airstair Forward and Aft Rail Assemblies
Figure 401 (Sheet 2 of 2)/52-61-62-990-801**

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DOOR WARNING SYSTEM - MAINTENANCE PRACTICES

1. General

A. This procedure has these tasks:

- (1) Removal of the Door Warning Annunciator Panel
- (2) Installation of the Door Warning Annunciator Panel

TASK 52-71-00-000-801

2. Door Warning Annunciator Panel Removal

A. References

Reference	Title
24-22-00-860-812	Remove Electrical Power (P/B 201)

B. Location Zones

Zone	Area
211	Flight Compartment - Left
212	Flight Compartment - Right

C. Remove the panel

SUBTASK 52-71-00-862-001

- (1) Do this task: Remove Electrical Power, TASK 24-22-00-860-812.

SUBTASK 52-71-00-865-001

- (2) Open these circuit breakers and install safety tags:

F/O Electrical System Panel, P6-3

Row	Col	Number	Name
B	13	C00131	MASTER CAUTION ANNUNCIATOR BAT
C	12	C01276	MASTER CAUTION ANNUNCIATOR CONT 2
F	14	C01180	INDICATOR MASTER DIM SECT 8

SUBTASK 52-71-00-030-001

- (3) Disconnect the fasteners that hold the Door Warning Annunciator Module, P5-20, to the Forward Overhead Panel, P5.

SUBTASK 52-71-00-020-001

- (4) Pull out the Door Warning Annunciator Module, P5-20.

SUBTASK 52-71-00-030-002

- (5) Remove the plugs.

SUBTASK 52-71-00-020-002

- (6) Remove the Door Warning Annunciator Module, P5-20.

END OF TASK

TASK 52-71-00-400-801

3. Installation of the Door Warning Annunciator Panel

A. References

Reference	Title
24-22-00-860-811	Supply Electrical Power (P/B 201)
24-22-00-860-812	Remove Electrical Power (P/B 201)

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(Continued)

Reference	Title
52-71-00-730-801	Door Warning System Test (P/B 501)

B. Location Zones

Zone	Area
211	Flight Compartment - Left
212	Flight Compartment - Right

C. Install the panel.

SUBTASK 52-71-00-862-002

(1) Make sure that the electrical power is off: Remove Electrical Power, TASK 24-22-00-860-812.

SUBTASK 52-71-00-865-002

(2) Open these circuit breakers and install safety tags:

F/O Electrical System Panel, P6-3

Row	Col	Number	Name
B	12	C00132	MASTER CAUTION ANNUNCIATOR BUS 1
B	13	C00131	MASTER CAUTION ANNUNCIATOR BAT
C	12	C01276	MASTER CAUTION ANNUNCIATOR CONT 2
F	14	C01180	INDICATOR MASTER DIM SECT 8

SUBTASK 52-71-00-430-001

(3) Connect the plugs to the back of the Door Warning Annunciator Module, P5-20.

SUBTASK 52-71-00-420-001

(4) Insert the Door Warning Annunciator Module, P5-20, into the Forward Overhead Panel, P5.

SUBTASK 52-71-00-430-002

(5) Connect the fasteners.

SUBTASK 52-71-00-865-003

(6) Remove the safety tags and close these circuit breakers:

F/O Electrical System Panel, P6-3

Row	Col	Number	Name
B	12	C00132	MASTER CAUTION ANNUNCIATOR BUS 1
B	13	C00131	MASTER CAUTION ANNUNCIATOR BAT
C	12	C01276	MASTER CAUTION ANNUNCIATOR CONT 2
F	14	C01180	INDICATOR MASTER DIM SECT 8

SUBTASK 52-71-00-861-001

(7) Do this task: Supply Electrical Power, TASK 24-22-00-860-811.

SUBTASK 52-71-00-730-003

(8) Do this task: Door Warning System Test, TASK 52-71-00-730-801.

————— **END OF TASK** —————

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DOOR WARNING SYSTEM - ADJUSTMENT/TEST

1. General

A. This procedure has these tasks:

- (1) A test of the door warning system.

TASK 52-71-00-730-801

2. Door Warning System Test

(Figure 501)

A. References

Reference	Title
24-22-00-860-811	Supply Electrical Power (P/B 201)

B. Location Zones

Zone	Area
211	Flight Compartment - Left
212	Flight Compartment - Right
821	Forward Cargo Door
822	Aft Cargo Door
830	Subzone - Passenger Compartment Doors, Left
840	Subzone - Passenger Compartment Doors, Right

C. Prepare for the Test

SUBTASK 52-71-00-860-001

- (1) Do this task: Supply Electrical Power, TASK 24-22-00-860-811.

SUBTASK 52-71-00-860-002

- (2) Make sure that this circuit breaker is closed:

F/O Electrical System Panel, P6-3

Row	Col	Number	Name
B	13	C00131	MASTER CAUTION ANNUNCIATOR BAT

D. Test

SUBTASK 52-71-00-860-003

- (1) Make sure the door to be tested is fully closed, latched and locked.

SUBTASK 52-71-00-860-004

WARNING: FOR THE ENTRY AND GALLEY SERVICE DOORS, MAKE SURE THE ESCAPE SLIDE GIRT BARS ARE NOT ENGAGED IN THE FLOOR FITTINGS BEFORE YOU START THE TEST. IF THE GIRT BARS ARE ENGAGED IN THE FLOOR FITTINGS, THE ESCAPE SYSTEM CAN DEPLOY WHEN YOU OPEN THE DOOR AND CAN CAUSE INJURIES TO PERSONS OR DAMAGE TO EQUIPMENT.

- (2) For the entry and galley service doors, make sure the escape slide girt bars are not engaged in the floor fittings.

SUBTASK 52-71-00-210-001

- (3) Make sure that the applicable door warning light on the Forward Overhead Panel, P5, is off.
 - (a) Make sure that the two MASTER CAUTION lights in the master caution annunciators on the Glareshield Panel, P7, are off. If the lights are on, push the MASTER CAUTION reset.

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- (b) Make sure that the DOORS lamp in the master caution annunciator on the right hand side of the Glareshield Panel, P7, is off. If the lamp is on, push the MASTER CAUTION reset.

SUBTASK 52-71-00-730-001

- (4) Do a test on each door in the system (Figure 501):

- (a) Open the door.
- (b) Make sure the two MASTER CAUTION lights in the master caution annunciators on the Glareshield Panel, P7, come on.
- (c) Make sure the DOORS lamp in the master caution annunciator on the right hand side of the Glareshield Panel, P7, comes on.
- (d) Make sure the applicable door warning light on the Forward Overhead Panel, P5, comes on.
- (e) Close the door.
- (f) Make sure the applicable door warning light on the Forward Overhead Panel, P5, goes off (Figure 501).
- (g) Push the MASTER CAUTION reset.
- (h) Make sure the two MASTER CAUTION lights in the master caution annunciators on the Glareshield Panel, P7, go off.
- (i) Make sure the DOORS lamp in the master caution annunciator on the right hand side of the Glareshield Panel, P7, goes off.

NOTE: Make sure that no other doors in the system get opened or closed during the test.

- (j) Do these steps again for each door in the system.

————— **END OF TASK** —————

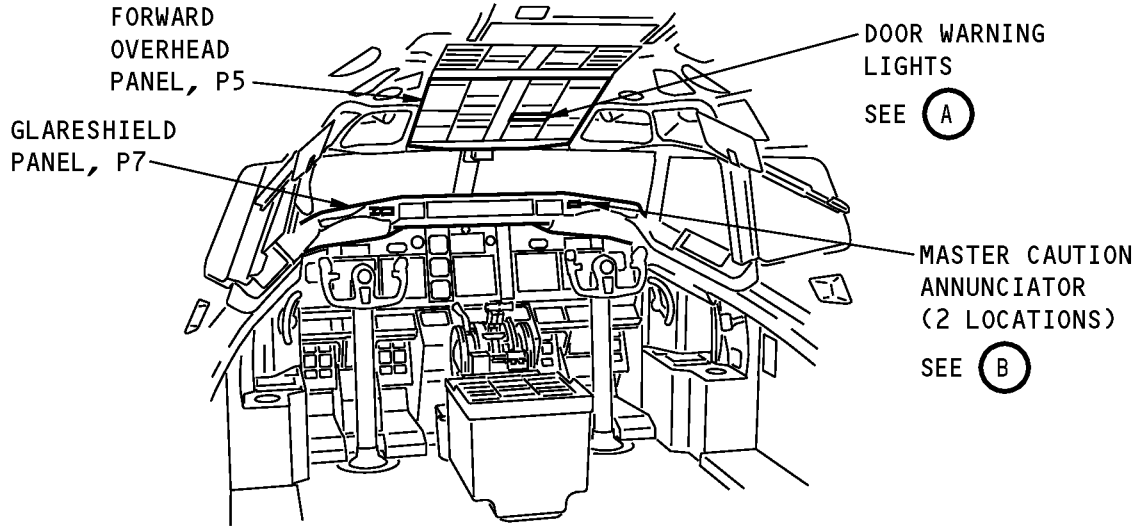
EFFECTIVITY
HAP ALL

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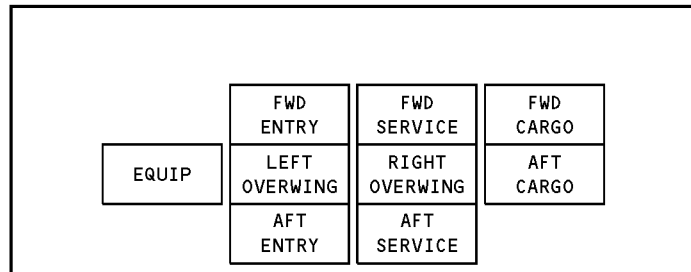
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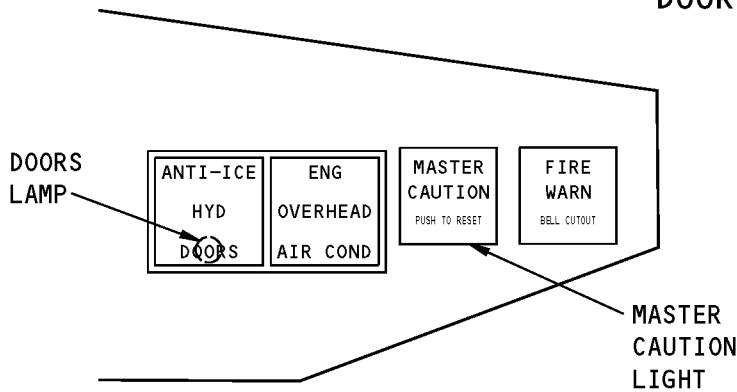


FLIGHT COMPARTMENT



DOOR WARNING LIGHTS

(A)



MASTER CAUTION ANNUNCIATOR (EXAMPLE)

(B)

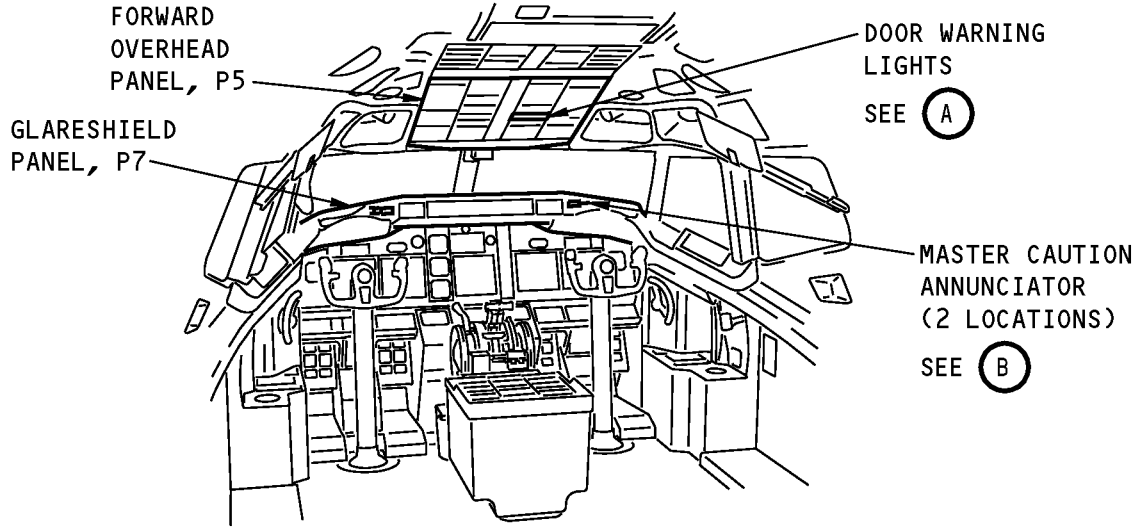
**Door Warning System Test
Figure 501 (Sheet 1 of 3)/52-71-00-990-801**

EFFECTIVITY
HAP 101-999

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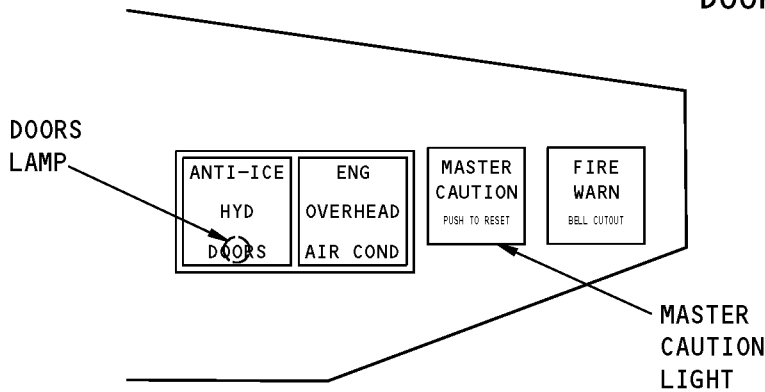


FLIGHT COMPARTMENT

	FWD ENTRY	FWD SERVICE	
	LEFT FWD OVERWING	RIGHT FWD OVERWING	FWD CARGO
EQUIP	LEFT AFT OVERWING	RIGHT AFT OVERWING	AFT CARGO
	AFT ENTRY	AFT SERVICE	

DOOR WARNING LIGHTS

(A)



MASTER CAUTION ANNUNCIATOR (EXAMPLE)

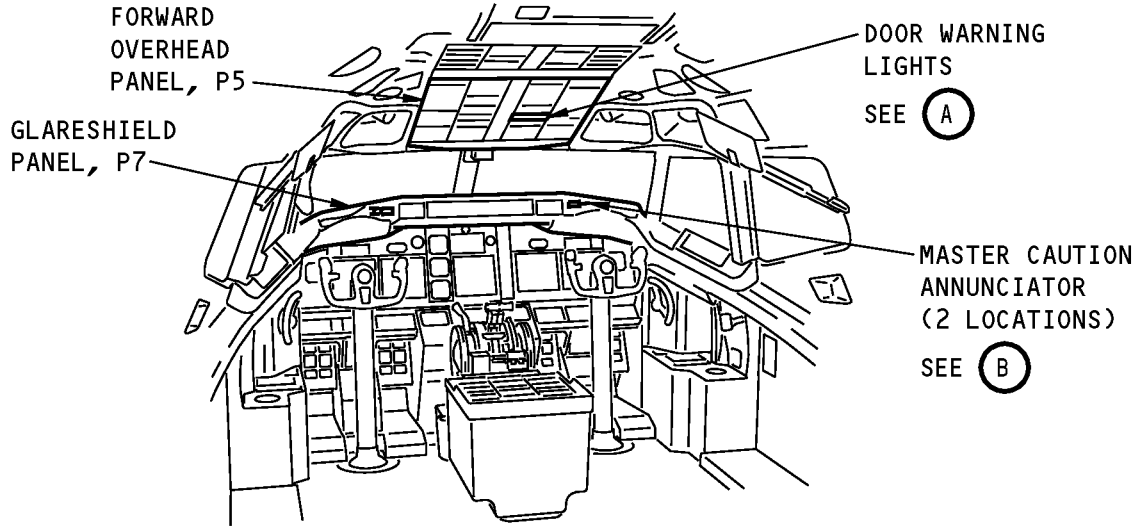
(B)

**Door Warning System Test
Figure 501 (Sheet 2 of 3)/52-71-00-990-801**

EFFECTIVITY
HAP 001-005, 011-013, 015-026, 028-054

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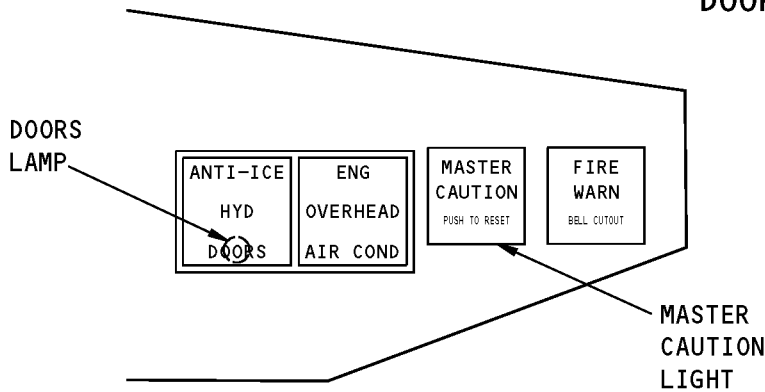


FLIGHT COMPARTMENT

	FWD ENTRY	FWD SERVICE	
AIR STAIR	LEFT FWD OVERWING	RIGHT FWD OVERWING	FWD CARGO
EQUIP	LEFT AFT OVERWING	RIGHT AFT OVERWING	AFT CARGO
	AFT ENTRY	AFT SERVICE	

DOOR WARNING LIGHTS

(A)



MASTER CAUTION ANNUNCIATOR (EXAMPLE)

(B)

**Door Warning System Test
Figure 501 (Sheet 3 of 3)/52-71-00-990-801**

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HAP 006-010

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AIRCRAFT MAINTENANCE MANUAL

ENTRY AND GALLEY SERVICE DOOR WARNING SYSTEM - MAINTENANCE PRACTICES

1. General

- A. This procedure contains scheduled maintenance task data.
- B. This procedure has these tasks:
 - (1) The removal of the indication sensors (S194, S195, S199, or S200) from the entry or galley service doors
 - (2) The installation of the indication sensors (S194, S195, S199, or S200) on the entry or galley service doors
 - (3) Adjustment of the indication sensors (S194, S195, S199, or S200) on the entry or galley service doors
 - (4) A test of the indication sensors (S194, S195, S199, or S200) on the entry or galley service doors

HAP 037-054, 101-999; HAP 001-013, 015-026, 028-036 POST SB 737-52-1159

- (5) The removal of the indication switch (S1147) from the forward entry door
- (6) The installation of the indication switch (S1147) on the forward entry door
- (7) Adjustment of the indication switch (S1147) on the forward entry door
- (8) The test of the indication switch (S1147) on the forward entry door.

HAP ALL

- C. This procedure is applicable for the indication sensor (S194, S195, S199, or S200) on the entry or galley service doors.

HAP 037-054, 101-999; HAP 001-013, 015-026, 028-036 POST SB 737-52-1159

- D. This procedure is applicable for the switch (S1147) on the forward entry door.

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- E. For the forward entry door;
 - (1) The indication sensor (S199) is found on the forward side of the fuselage frame on the top latch receiver.

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- (2) The switch (S1147) is found on the aft side of the fuselage frame on the top latch receiver.

HAP ALL

- F. For the aft entry door;
 - (1) The indication sensor (S200) is found on the aft side of the fuselage frame on the latch receiver.
- G. For the galley service doors;
 - (1) the indication sensors (S194, forward galley or S195, aft galley) are found on the aft side of the fuselage frame on the latch receiver.
- H. When the latch roller on the door goes into the latch receiver on the fuselage frame, it pushes an actuator to operate the indication sensor or switch.
- I. The indication sensor and switch detects that the door is fully closed, latched and locked.

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TASK 52-71-11-000-801

2. Entry and Galley Service Door Sensor Removal (S194, S195, S199, or S200)

(Figure 201, Figure 202)

A. General

- (1) This procedure is applicable for the indication sensor (S194, S195, S199, or S200) on the entry or galley service doors.

I **HAP 037-054, 101-999; HAP 001-013, 015-026, 028-036 POST SB 737-52-1159**

- (2) For the S1147 indication switch on the forward entry door, refer to Forward Entry Door Switch Removal (S1147), TASK 52-71-11-000-802.

HAP ALL

B. Location Zones

Zone	Area
831	Forward Entry Door
834	Left Aft Entry Door
841	Forward Galley Service Door
844	Aft Galley Service Door

C. Access Panels

Number	Name/Location
831	Forward Entry Door
834	Aft Entry Door
841	Forward Galley Service Door
844	Aft Galley Service Door

D. Prepare for the Removal

SUBTASK 52-71-11-010-001

- (1) Open the applicable access doors for access to the indication sensor [1]:

Number	Name/Location
831	Forward Entry Door
834	Aft Entry Door
841	Forward Galley Service Door
844	Aft Galley Service Door

E. Removal of the Entry and Galley Service Door Indication

SUBTASK 52-71-11-020-001

- (1) Remove the indication sensor [1]:
 - (a) Remove the screws [4], washers [5], and cover [6] from the indication sensor [1].
 - (b) Remove the bolts [2] and washers [3] that attach the indication sensor [1] to the latch receiver [7].
 - (c) For the aft entry or galley service door, remove the bolt [8] and washer [9] that attach the indication sensor [1] to the fuselage frame.
 - (d) Remove the indication sensor [1] from the latch receiver [7].
 - (e) Cut the wires that attach the indication sensor [1] to the airplane wiring as near as possible to the indication sensor [1].

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- (f) Remove the indication sensor [1].

————— END OF TASK —————

TASK 52-71-11-400-801

3. Entry and Galley Service Door Indication Sensor Installation (S194, S195, S199, or S200)

(Figure 201, Figure 202)

A. General

- (1) This procedure is applicable for the indication sensor (S194, S195, S199, or S200) on the entry or galley service doors.

I HAP 037-054, 101-999; HAP 001-013, 015-026, 028-036 POST SB 737-52-1159

- (2) For the S1147 indication switch on the forward entry door, refer to Forward Entry Door Switch Installation (S1147), TASK 52-71-11-400-802.

HAP ALL

B. References

Reference	Title
SWPM 20-30-12	Assembly of Splices
WDM 52-71-11	Wiring Diagram Manual

C. Location Zones

Zone	Area
831	Forward Entry Door
834	Left Aft Entry Door
841	Forward Galley Service Door
844	Aft Galley Service Door

D. Access Panels

Number	Name/Location
831	Forward Entry Door
834	Aft Entry Door
841	Forward Galley Service Door
844	Aft Galley Service Door

E. Installation of the Entry and Galley Service Door Indication Sensor

SUBTASK 52-71-11-420-001

- (1) Install the indication sensor [1]:
 - (a) Identify the correct connections between the sensor wiring and airplane wiring (WDM 52-71-11).
 - NOTE:** Make sure the sensor wires are connected to the correct airplane wires. If the wires are not correctly connected the sensor will not operate.
 - (b) Connect the airplane wiring to the sensor wiring (SWPM 20-30-12).
 - (c) Put the indication sensor [1] on the latch receiver [7].
 - (d) For the aft entry or galley service door, install the bolt [8] and washer [9] to attach the indication sensor [1] to the fuselage frame.

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- (e) Install the bolts [3] and washers [2] to attach the indication sensor [1] to the latch receiver [7].

SUBTASK 52-71-11-820-002

- (2) Do this task: Entry and Galley Service Door Indication Sensor Adjustment (S194, S195, S199, or S200), TASK 52-71-11-820-801.

SUBTASK 52-71-11-420-002

- (3) Install the cover [6] on the indication sensor [1]:
(a) Put the cover [6] on the indication sensor [1].
(b) Install the screws [4] and washers [5] that attach the cover [6] to the indication sensor [1].

SUBTASK 52-71-11-710-001

- (4) Do this task: Entry and Galley Service Door Indication Sensor Test (S194, S195, S199, or S200), TASK 52-71-11-710-801.

F. Put the Airplane Back to Its Usual Condition

SUBTASK 52-71-11-410-001

- (1) Close the applicable access doors:

Table with 2 columns: Number, Name/Location. Rows: 831 Forward Entry Door, 834 Aft Entry Door, 841 Forward Galley Service Door, 844 Aft Galley Service Door

END OF TASK

TASK 52-71-11-820-801

4. Entry and Galley Service Door Indication Sensor Adjustment (S194, S195, S199, or S200)

(Figure 201, Figure 202)

A. General

- (1) This procedure is applicable for the indication sensor (S194, S195, S199, or S200) on the entry or galley service doors.

I HAP 037-054, 101-999; HAP 001-013, 015-026, 028-036 POST SB 737-52-1159

- (2) For the S1147 indication switch on the forward entry door, refer to Forward Entry Door Switch Adjustment (S1147), TASK 52-71-11-820-802.

HAP ALL

B. Consumable Materials

Table with 3 columns: Reference, Description, Specification. Row: G01048 Lockwire - Corrosion Resistant Steel (0.032 In. Dia.) NASM20995~ C32

C. Location Zones

Table with 2 columns: Zone, Area. Rows: 831 Forward Entry Door, 834 Left Aft Entry Door, 841 Forward Galley Service Door, 844 Aft Galley Service Door

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D. Access Panels

<u>Number</u>	<u>Name/Location</u>
831	Forward Entry Door
834	Aft Entry Door
841	Forward Galley Service Door
844	Aft Galley Service Door

E. Prepare for the Adjustment

SUBTASK 52-71-11-010-003

(1) AIRPLANES WITH THE 285A1600-1 OR -2 PSEU, do these steps:

- (a) Make sure that the applicable access doors are in the open position for access to the indication sensor [1]:

<u>Number</u>	<u>Name/Location</u>
831	Forward Entry Door
834	Aft Entry Door
841	Forward Galley Service Door
844	Aft Galley Service Door

- (b) If the cover [6] is installed on the indication sensor [1], remove the cover [6]:

- 1) Remove the screws [4] and washers [5] that attach the cover [6] to the indication sensor [1].
- 2) Remove the cover [6] from the indication sensor [1].

SUBTASK 52-71-11-010-004

(2) AIRPLANES WITH THE 285A1600-3, -4 OR -5 PSEU, do these steps:

- (a) Close and lock the applicable access doors:

<u>Number</u>	<u>Name/Location</u>
831	Forward Entry Door
834	Aft Entry Door
841	Forward Galley Service Door
844	Aft Galley Service Door

F. Adjustment of the Entry and Galley Service Door Indication Sensor

SUBTASK 52-71-11-210-001

(1) AIRPLANES WITH THE 285A1600-1 OR -2 PSEU, do these steps:

- (a) For the forward entry door, push the end of the actuator [10] flush with the surface of the latch receiver [7].
- (b) For the aft entry or galley service door, push the round end of the actuator [10] flush with the surface of the latch receiver [7].
- (c) Measure the clearance between the latch receiver and the indication sensor [1].
- 1) Make sure the clearance is as specified.
- (d) If the clearance is out of tolerance for the forward entry door, adjust the indication sensor [1]:
- 1) Remove the lockwire, G01048 [12] from the locknuts [11].
 - 2) Loosen the locknuts [11].
 - 3) Turn the locknuts [11] on the actuator [10] to make the clearance as shown (Figure 201).

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- 4) Tighten the locknuts [11].
- 5) Install the lockwire, G01048 on the locknuts.
- (e) If the clearance is out of tolerance for the aft entry or galley service door, adjust the indication sensor [1]:
 - 1) Turn the slotted end of the actuator [10] to make the clearance as shown (Figure 202).

SUBTASK 52-71-11-820-005

(2) AIRPLANES WITH THE 285A1600-3, -4 OR -5 PSEU, do these steps:

- (a) Get access to the PSEU.
- (b) Push the ON switch.
- (c) Push the MENU switch until the display shows SENSOR RIGGING.
- (d) Push the YES switch.

NOTE: The display will show, "L DN LKD A".

- (e) Push the UP or DOWN switch to select the applicable door indication sensor.
- (f) Make sure that the correct code is displayed for the applicable door:
 - S199 is FWD ENTR LKD
 - S194 is FWD SERV LKD
 - S200 is AFT ENTER LK
 - S195 is AFT SERV LK
- (g) Push the YES switch.
- (h) Push the MENU switch until the display shows GAP MOVE VALUE.
- (i) Push the YES switch.
- (j) View the display to get the door indication sensors dimensions.

NOTE: The display will show the sensor code and +/- MILS that the target and sensor gap needs to be adjusted to be rigged exactly. A "+" means to increase the gap. A "-" means to decrease the gap.

- (k) If the clearance is out of tolerance for the door, do these steps:
 - 1) Open the applicable door.
 - 2) If the cover [6] is installed on the indication sensor [1], remove the cover [6]:
 - a) Remove the screws [4] and washers [5] that attach the cover [6] to the indication sensor [1].
 - b) Remove the cover [6] from the indication sensor [1].
 - 3) If the clearance is out of tolerance for the forward entry door, do these steps:
 - a) Remove the lockwire, G01048 [12] from the locknuts [11].
 - b) Loosen the locknuts [11].
 - c) Turn the locknuts [11] on the actuator [10] to make the clearance as required (Figure 201).
 - d) Tighten the locknuts [11].
 - e) Install the lockwire, G01048 on the locknuts.
 - 4) If the clearance is out of tolerance for the aft entry or galley service door, do this step:
 - a) Turn the slotted end of the actuator [10] to make the clearance as required (Figure 202).

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G. Put the Airplane Back to Its Usual Condition

SUBTASK 52-71-11-710-004

- (1) If you removed for adjustment, install the cover [6]:
(a) Put the cover [6] on the indication sensor [1].
(b) Install the screws [4] and washers [5] that attach the cover [6] to the sensor [1].

SUBTASK 52-71-11-410-002

- (2) If open for adjustment, close the applicable access doors:

Table with 2 columns: Number, Name/Location. Rows: 831 Forward Entry Door, 834 Aft Entry Door, 841 Forward Galley Service Door, 844 Aft Galley Service Door

END OF TASK

TASK 52-71-11-710-801

5. Entry and Galley Service Door Indication Sensor Test (S194, S195, S199, or S200)

A. General

- (1) This procedure is a scheduled maintenance task.
(2) This procedure is applicable for the indication sensor (S194, S195, S199, or S200) on the entry or galley service doors.

HAP 037-054, 101-999; HAP 001-013, 015-026, 028-036 POST SB 737-52-1159

- (3) For the S1147 indication switch on the forward entry door, refer to Forward Entry Door Switch Test (S1147), TASK 52-71-11-710-802.

HAP ALL

B. References

Table with 2 columns: Reference, Title. Row: 24-22-00-860-811 Supply Electrical Power (P/B 201)

C. Location Zones

Table with 2 columns: Zone, Area. Rows: 831 Forward Entry Door, 834 Left Aft Entry Door, 841 Forward Galley Service Door, 844 Aft Galley Service Door

D. Prepare for the Test

SUBTASK 52-71-11-860-001

- (1) Do this task: Supply Electrical Power, TASK 24-22-00-860-811.

E. Do a Test of the Entry and Galley Service Door Indication Sensor

SUBTASK 52-71-11-710-002

- (1) Do a test on the entry or galley service door indication sensor [1]:
(a) Make sure the entry and galley service doors are fully closed, latched and locked.

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- (b) Make sure the FWD ENTRY, AFT ENTRY, FWD SERVICE, and AFT SERVICE lights do not show on the Forward Overhead Panel, P5, in the flight compartment.
- (c) Open the applicable door.
- (d) Make sure the FWD ENTRY, AFT ENTRY, FWD SERVICE, or AFT SERVICE light shows on the Forward Overhead Panel, P5, for the applicable door.
- (e) Close the door.
- (f) Make sure the FWD ENTRY, AFT ENTRY, FWD SERVICE, or AFT SERVICE light goes off.

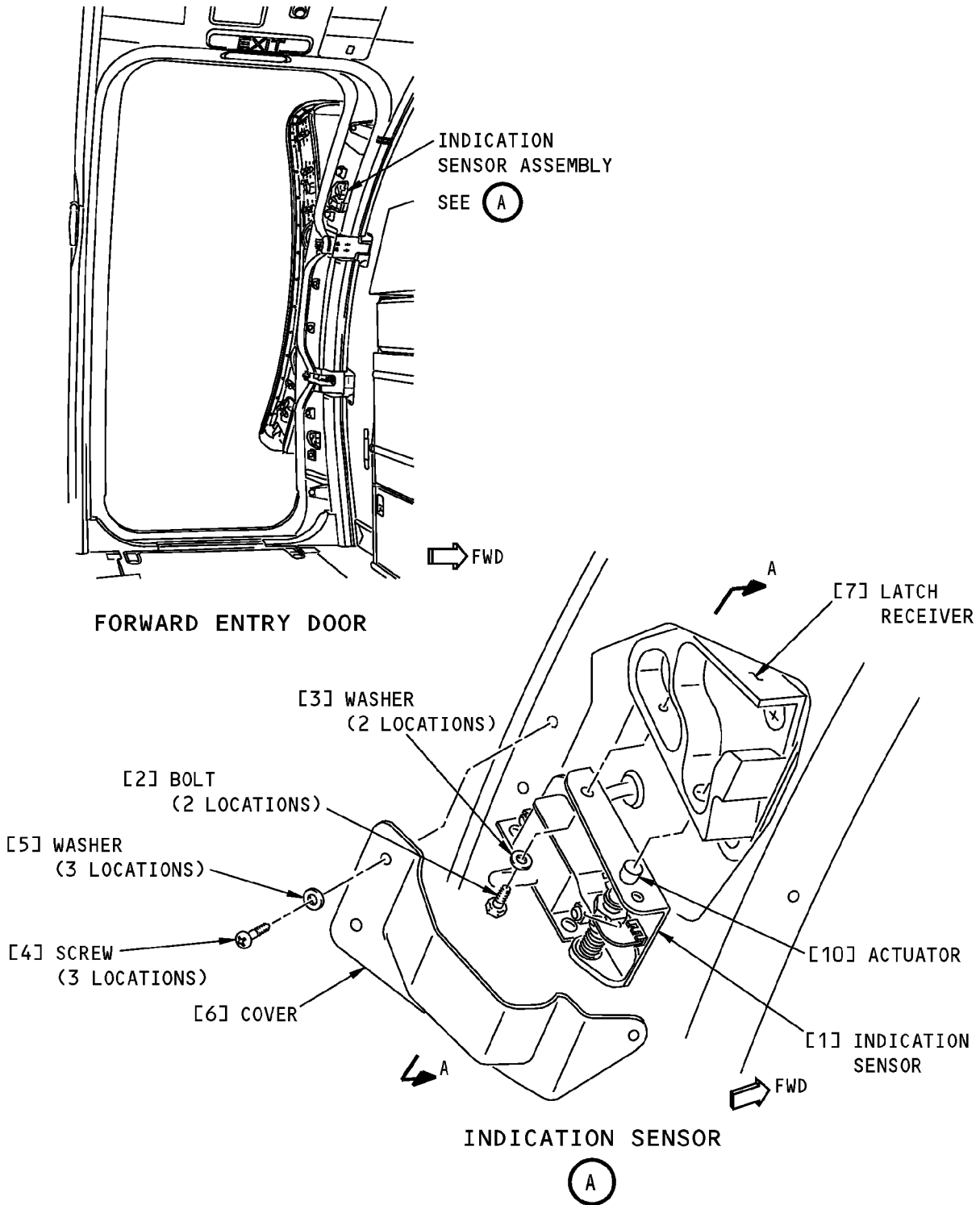
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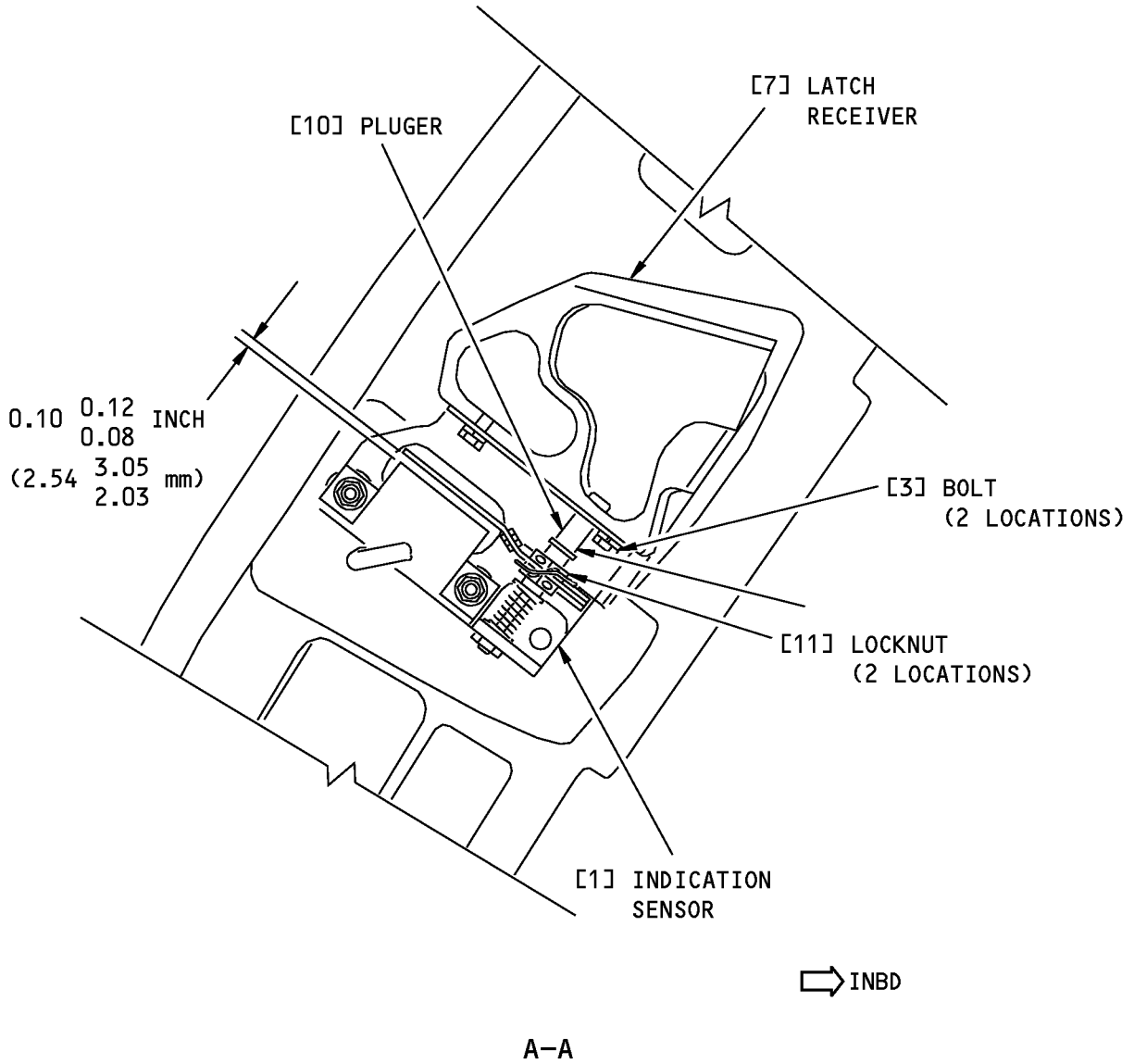
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**Forward Entry Door Warning System
Figure 201 (Sheet 1 of 2)/52-71-11-990-801**

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**Forward Entry Door Warning System
Figure 201 (Sheet 2 of 2)/52-71-11-990-801**

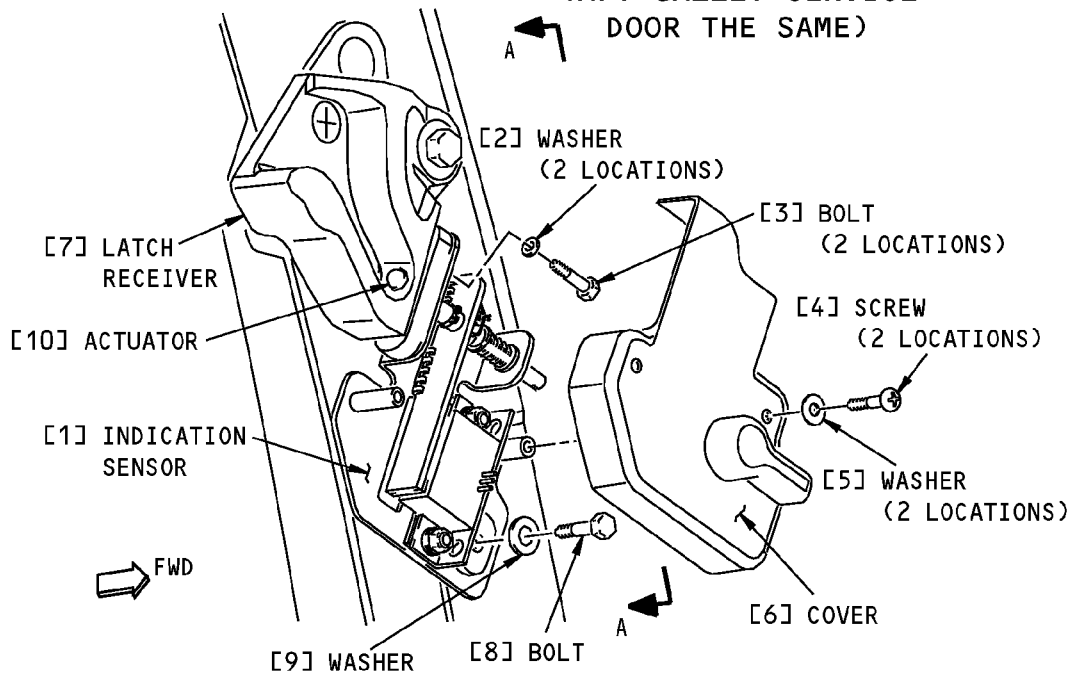
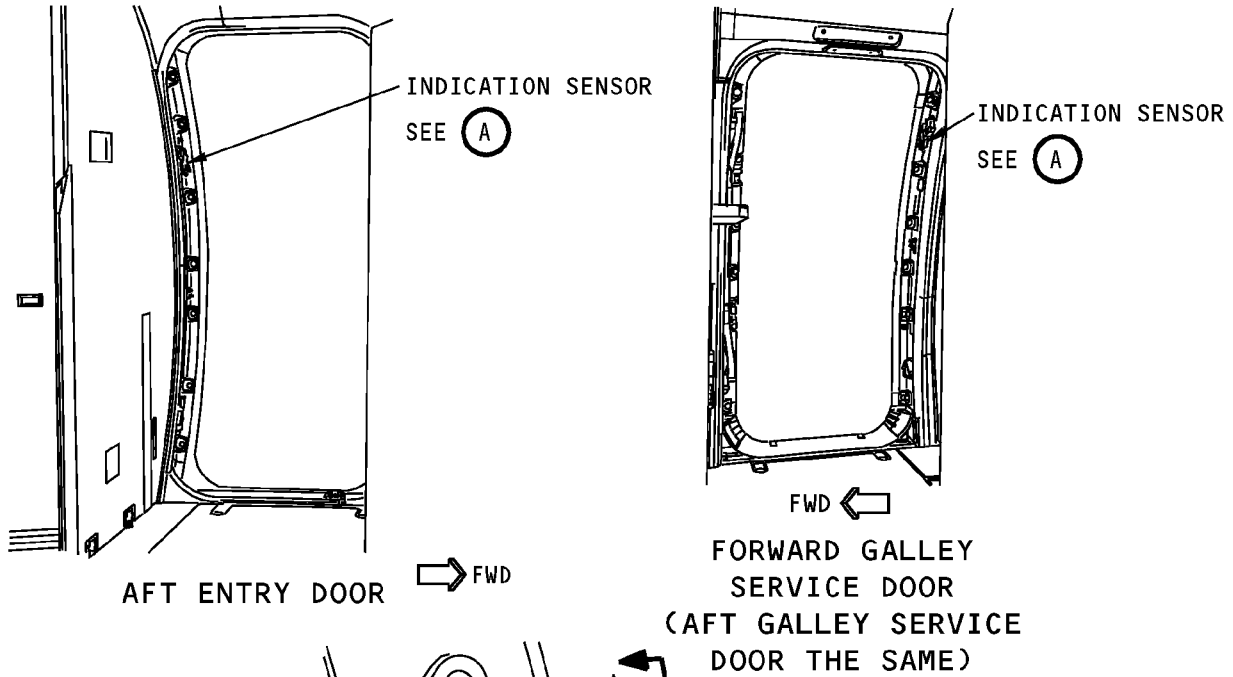
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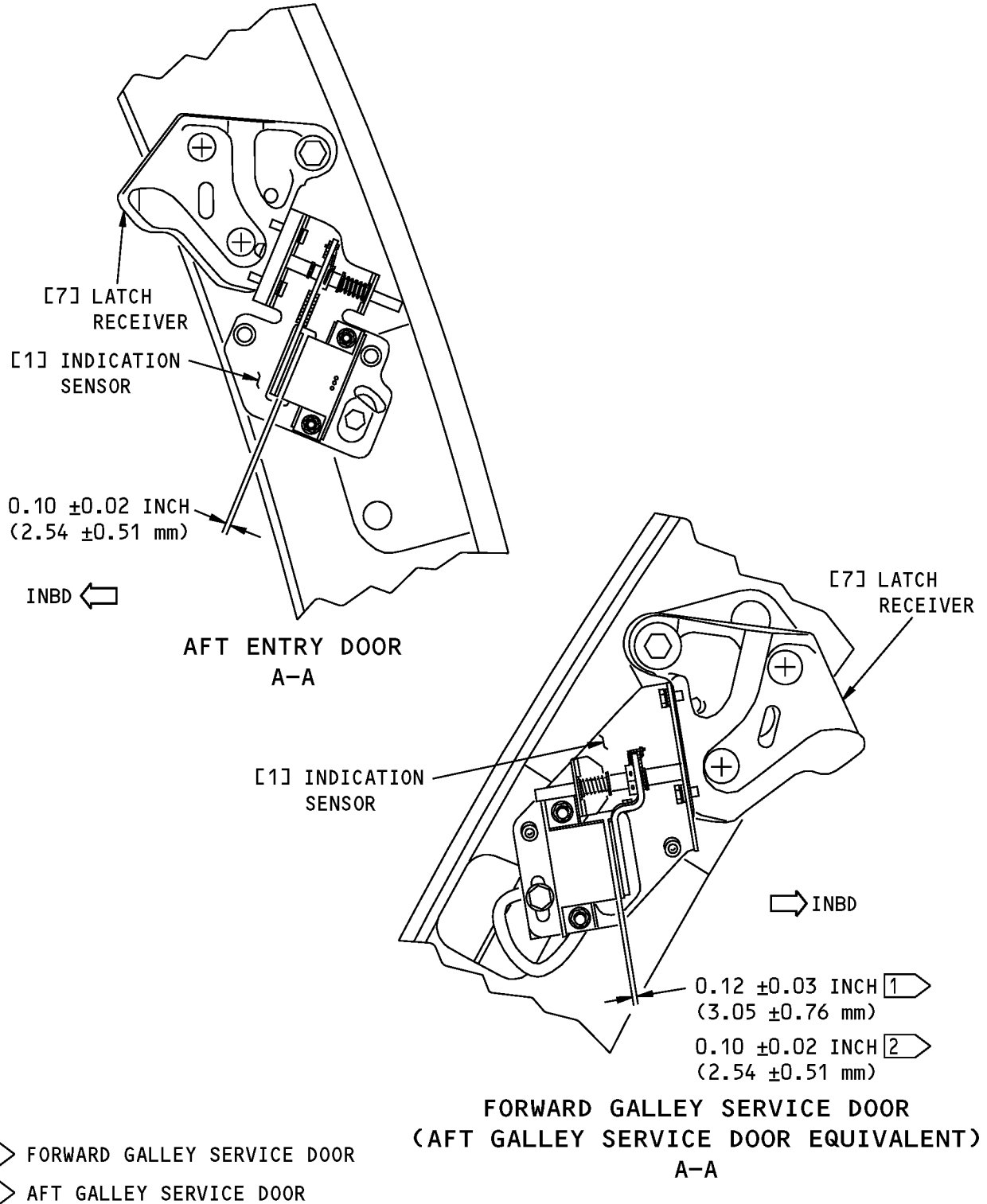
**ART ENTRY DOOR INDICATION SENSOR
(FORWARD AND AFT GALLEY SERVICE DOORS SENSORS ARE OPPOSITE)**

(A)

**Aft Entry Door and Galley Service Doors Warning System
Figure 202 (Sheet 1 of 2)/52-71-11-990-802**

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**Aft Entry Door and Galley Service Doors Warning System
Figure 202 (Sheet 2 of 2)/52-71-11-990-802**

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TASK 52-71-11-820-803

6. Forward Entry Door Indication Sensor Plunger Adjustment (S199)

A. General

(1) This procedure is applicable for the indication sensor (S199) on the forward entry door.

B. Location Zones

Zone	Area
831	Forward Entry Door

C. Access Panels

Number	Name/Location
831	Forward Entry Door

D. Prepare for the Adjustment

SUBTASK 52-71-11-860-004

(1) Make sure that this access panel is open:

Number	Name/Location
831	Forward Entry Door

(2) If the cover [6] is installed on the indication sensor [1] , remove the cover [6]:

- (a) Remove the screws [4] and washers [5] that attach the cover [6] to the indication sensor [1].
- (b) Remove the cover[6] from the indication sensor [1].

E. Adjustment

SUBTASK 52-71-11-820-007

(1) Do an adjustment of the forward entry door indication sensor plunger [10] as follows:

- (a) Examine the plunger [10].
 - 1) Make sure that the plunger [10] moves freely when you push it with your finger.
 - 2) If the plunger [10] does not move freely, adjust as follows:
 - a) Look for burrs on the indication sensor [1], which can stop the free movement of the plunger [10].
 - b) Make sure that the plunger [10] does not touch the bolt [3].
 - < 1 > If the plunger [10] touches the bolt [3], turn the bolt head slightly.
 - c) If the plunger [10] still does not move freely, then do the step that follows:
 - < 1 > Move the plunger [10] in and out with your finger several times until it moves freely.

(2) If you removed for adjustment, install the cover [6]:

- (a) Put the cover [6] on the indication sensor [1].
- (b) Install the screws [4] and washers [5] that attach the cover [6] to the sensor [1].

(3) Do this task: Entry and Galley Service Door Indication Sensor Test (S194, S195, S199, or S200), TASK 52-71-11-710-801

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F. Put the Airplane Back to Its Usual Condition

SUBTASK 52-71-11-410-003

- (1) Make sure that this access panel is closed:

Table with 2 columns: Number, Name/Location. Row 1: 831, Forward Entry Door

END OF TASK

I HAP 037-054, 101-999; HAP 001-013, 015-026, 028-036 POST SB 737-52-1159

TASK 52-71-11-000-802

7. Forward Entry Door Switch Removal (S1147)

Figure 203

A. General

- (1) This procedure is applicable for the indication switch (S1147) on the forward entry.
(2) For the indication sensor (S194, S195, S199, or S200), refer to Entry and Galley Service Door Sensor Removal (S194, S195, S199, or S200), TASK 52-71-11-000-801.

B. Consumable Materials

Table with 3 columns: Reference, Description, Specification. Row 1: G02421, Lockwire, NASM20995~ C40

C. Location Zones

Table with 2 columns: Zone, Area. Row 1: 831, Forward Entry Door

D. Access Panels

Table with 2 columns: Number, Name/Location. Row 1: 831, Forward Entry Door

E. Remove the Switch

SUBTASK 52-71-11-840-001

- (1) Prepare for the procedure:

- (a) Open this access panel:

Table with 2 columns: Number, Name/Location. Row 1: 831, Forward Entry Door

SUBTASK 52-71-11-020-002

- (2) Remove the switch:

- (a) Remove the lockwire, G02421 that holds the jamnuts [2].
(b) Remove the jamnut [2].
(c) Move the switch [1] out of the bracket on the latch receiver.
1) Carefully move the switch [1] away from the aft door frame.
(d) Disconnect the wires from the switch [1].
1) Make sure that you have sufficient airplane wires for the subsequent installation.

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HAP 037-054, 101-999; HAP 001-013, 015-026, 028-036 POST SB 737-52-1159 (Continued)

- (e) Remove the switch [1].

————— **END OF TASK** —————

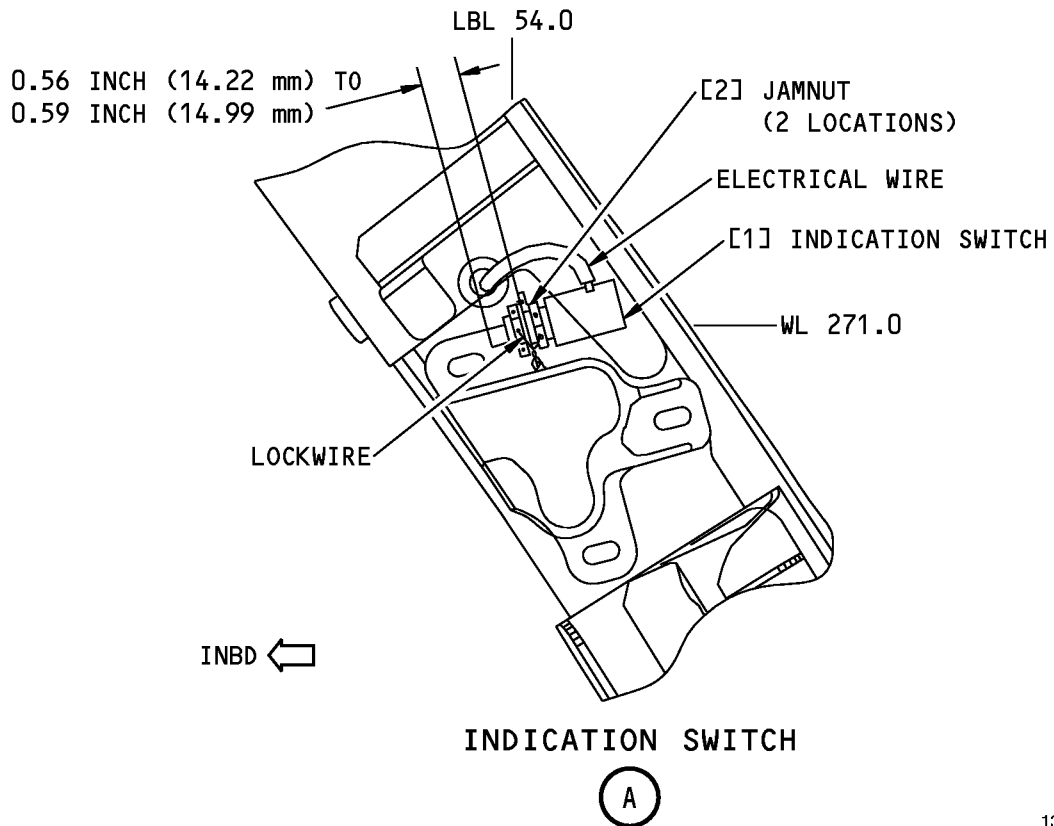
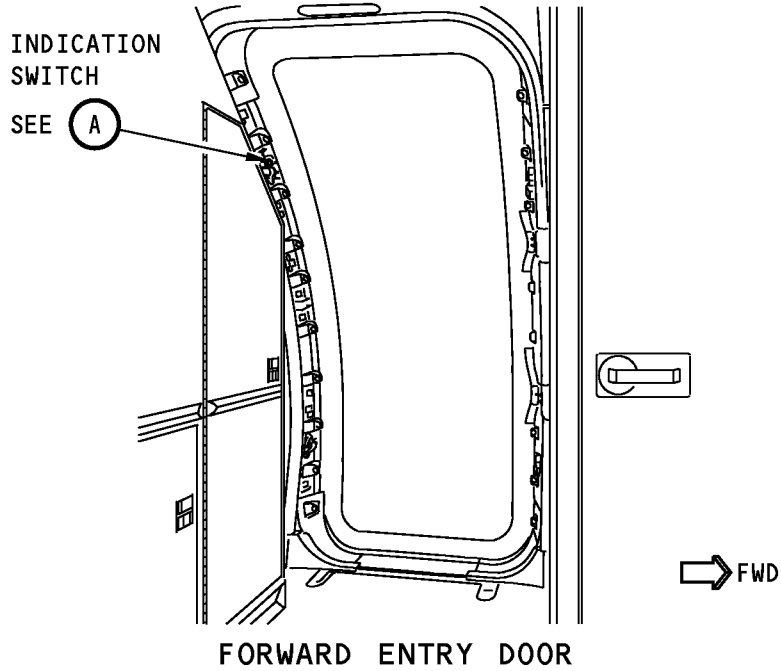
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Indication Switch Installation
Figure 203/52-71-11-990-803

EFFECTIVITY
HAP 037-054, 101-999; HAP 001-013, 015-026, 028-036 POST
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HAP 037-054, 101-999; HAP 001-013, 015-026, 028-036 POST SB 737-52-1159 (Continued)

TASK 52-71-11-400-802

8. Forward Entry Door Switch Installation (S1147)

Figure 203

A. General

- (1) This procedure is applicable for the indication switch (S1147) on the forward entry.
- (2) For the indication sensor (S194, S195, S199, or S200), refer to Entry and Galley Service Door Indication Sensor Installation (S194, S195, S199, or S200), TASK 52-71-11-400-801.

B. References

Reference	Title
20-10-44 P/B 401	LOCKWIRE - REMOVAL/INSTALLATION
20-50-11 P/B 201	STANDARD TORQUE VALUES - MAINTENANCE PRACTICES
SWPM 20-30-12	Assembly of Splices
WDM 52-71-11	Wiring Diagram Manual

C. Consumable Materials

Reference	Description	Specification
G02421	Lockwire	NASM20995~ C40

D. Location Zones

Zone	Area
831	Forward Entry Door

E. Access Panels

Number	Name/Location
831	Forward Entry Door

F. Install the Switch

SUBTASK 52-71-11-860-002

- (1) Make sure that this access panel is open:

Number	Name/Location
831	Forward Entry Door

SUBTASK 52-71-11-420-003

- (2) Install the switch:
 - (a) Connect the switch [1] to the airplanes wires:
 - 1) To identify the correct connections between the sensor wires and airplane wires (WDM 52-71-11).
 - 2) Connect the airplane wires to the sensor wires (SWPM 20-30-12).
 - (b) Make sure that one of the jamnuts [2] is on the shaft of the switch [1].
 - (c) Put the switch [1] in its correct position on the aft latch receiver.
 - (d) Use the second jamnut [2] to connect the switch [1] to the aft latch receiver
 - (e) Do this task, Forward Entry Door Switch Adjustment (S1147), TASK 52-71-11-820-802.

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HAP 037-054, 101-999; HAP 001-013, 015-026, 028-036 POST SB 737-52-1159 (Continued)

(f) Make sure that the jamnuts [2] are correctly torqued.

NOTE: If it is necessary, refer to STANDARD TORQUE VALUES - MAINTENANCE PRACTICES, PAGEBLOCK 20-50-11/201.

1) Make sure that the lockwire, G02421 is on the jamnuts [2].

NOTE: If it is necessary, refer to LOCKWIRE - REMOVAL/INSTALLATION, PAGEBLOCK 20-10-44/401.

SUBTASK 52-71-11-720-001

(3) Do this task, Forward Entry Door Switch Test (S1147), TASK 52-71-11-710-802.

SUBTASK 52-71-11-860-003

(4) If it is not necessary, close the forward entry door.

END OF TASK

TASK 52-71-11-820-802

9. Forward Entry Door Switch Adjustment (S1147)

Figure 203

A. General

- (1) This procedure is applicable for the S1147 indication switch on the forward entry door.
(2) For the indication sensors (S194, S195, S199, or S200) on the entry or galley service doors, refer to Entry and Galley Service Door Indication Sensor Adjustment (S194, S195, S199, or S200), TASK 52-71-11-820-801.

B. Consumable Materials

Table with 3 columns: Reference, Description, Specification. Row 1: G02421, Lockwire, NASM20995~ C40

C. Location Zones

Table with 2 columns: Zone, Area. Row 1: 831, Forward Entry Door

D. Procedure

SUBTASK 52-71-11-820-006

- (1) Adjust the switch (S1147):
(a) Measure the distance between the inboard face of the bracket that holds the switch, and the end of the switch plunger.
1) Make sure that the measurement is between 0.56 in. (14.22 mm) to 0.59 in. (14.99 mm).
a) If it is necessary, adjust the jamnuts [2] until it is in the limits.
2) Tighten the jamnuts [2].
a) Make sure that the switch stays in the limits while you tighten the jamnuts.
(b) Forward Entry Door Switch Test (S1147), TASK 52-71-11-710-802
1) If the test is not in the limits, adjust the switch again.
a) If the test continues not in the limits, adjust the actuator bracket that is attached on the door.

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HAP 037-054, 101-999; HAP 001-013, 015-026, 028-036 POST SB 737-52-1159 (Continued)

- (c) Install lockwire, G02421 between the two jamnuts [2].

————— END OF TASK —————

TASK 52-71-11-710-802

10. Forward Entry Door Switch Test (S1147)

A. General

- (1) This procedure is applicable for the S1147 indication switch on the forward entry door.
- (2) Two mechanics can be necessary to complete this procedure. One mechanic to manually operate the switches and the second mechanic to operate the lights in the flight compartment.
- (3) For the indication sensors (S194, S195, S199, or S200) on the entry or galley service doors, refer to Entry and Galley Service Door Indication Sensor Test (S194, S195, S199, or S200), TASK 52-71-11-710-801.

B. References

Reference	Title
24-22-00-860-811	Supply Electrical Power (P/B 201)
52-11-00-860-803	Open the Door with the Interior Handle (P/B 201)

C. Prepare for the Procedure

SUBTASK 52-71-11-840-002

- (1) Prepare for the test:
 - (a) Make sure that the airplane has electrical power.
 - 1) If it is necessary, Supply Electrical Power, TASK 24-22-00-860-811.
 - (b) Make sure that all of the doors that show on the Door Warning Panel (P5) are closed and latched.

SUBTASK 52-71-11-720-002

- (2) The system test:
 - (a) Push the MASTER CAUTION light on the Glareshield (P7).
 - 1) Make sure that the MASTER CAUTION light and the DOORS light go OFF.
 - (b) Open the Main Entry Door.

NOTE: If it is necessary, Open the Door with the Interior Handle, TASK 52-11-00-860-803.

 - 1) Make sure that the MASTER CAUTION light and DOORS light on the P7 panel come ON.
 - 2) Make sure that the FWD ENTRY light on the P5 panel comes ON.
 - (c) Use your finger to push and hold the plunger on these switches:
 - 1) S199

NOTE: You will find S199 on the forward latch receiver.
 - 2) S1147

NOTE: You will find S1147 on the aft latch receiver.
 - (d) Make sure that the FWD ENTRY light on the P5 panel goes OFF.
 - (e) While you hold S199 and S1147, push and release the MASTER CAUTION light on the P7 panel.

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HAP 037-054, 101-999; HAP 001-013, 015-026, 028-036 POST SB 737-52-1159 (Continued)

- 1) Make sure that the MASTER CAUTION light and DOORS light on the P7 panel go OFF.
 - (f) Release the S1147 switch.
 - 1) Make sure that the MASTER CAUTION light and DOORS light on the P7 panel come ON.
 - 2) Make sure that the FWD ENTRY light on the P5 panel comes ON.
 - (g) Close and latch the forward entry door.
 - 1) Make sure that the FWD ENTRY light on the P5 panel goes OFF.
 - 2) Push and release the MASTER CAUTION light on the P7 panel.
 - a) Make sure that the MASTER CAUTION light and DOORS light on the P7 panel go OFF.
 - (h) If the test is not in the limits then do these steps:
 - 1) Make sure that the switch [1] is in the limits of the adjustment procedure.

NOTE: You will find the adjustment procedure in Forward Entry Door Switch Adjustment (S1147), TASK 52-71-11-820-802.
 - 2) Adjust the bracket that actuates the switch [1] until the test is in the limits.

NOTE: You will find the bracket that actuates the switch on the frame of the door.
- SUBTASK 52-71-11-840-003
- (3) Put the airplane in its usual condition:
 - (a) If it is not necessary, remove the electrical power.

————— **END OF TASK** —————

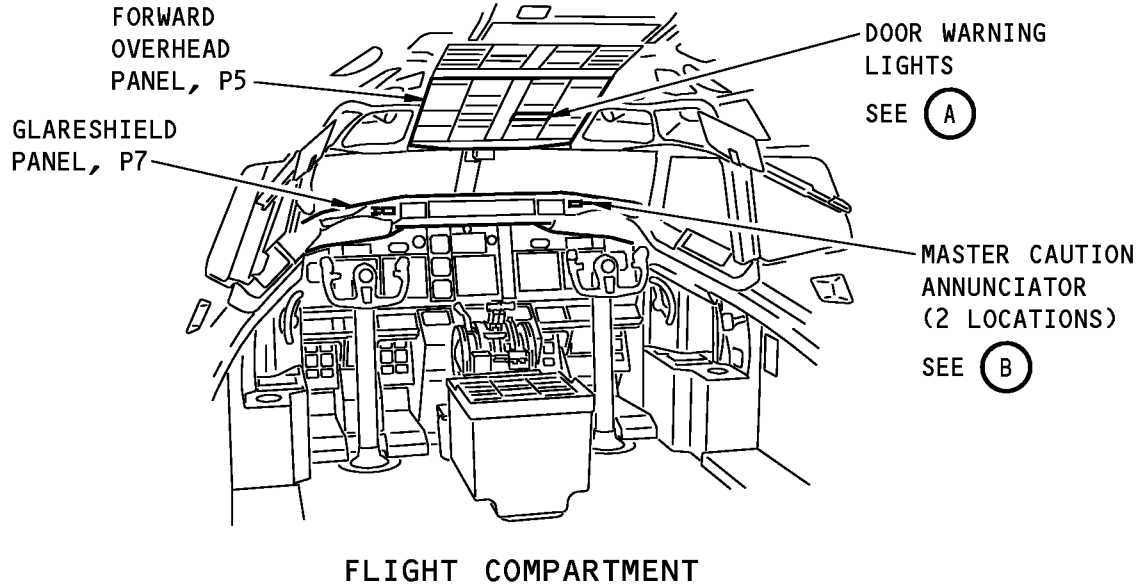
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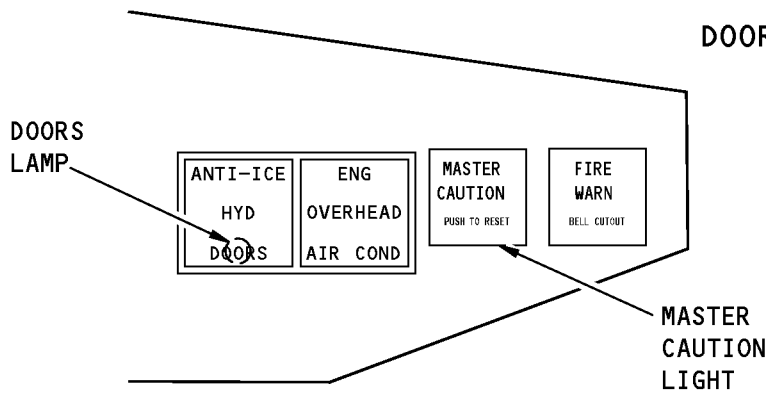
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	FWD ENTRY	FWD SERVICE	
1	AIR STAIR	LEFT FWD OVERWING	RIGHT FWD OVERWING
	EQUIP	LEFT AFT OVERWING	RIGHT AFT OVERWING
	MID CABIN	AFT ENTRY	AFT SERVICE
			FWD CARGO
			AFT CARGO
			MID CABIN

DOOR WARNING LIGHTS

(A)



MASTER CAUTION ANNUNCIATOR (EXAMPLE)

(B)

1 AIRPLANES WITH FORWARD AIRSTAIR

**Forward Entry Door Warning System Test
Figure 204/52-71-11-990-804**

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EMERGENCY EXIT DOOR INDICATION SWITCH - MAINTENANCE PRACTICES

1. General

- A. This procedure contains scheduled maintenance task data.
- B. This procedure has these tasks:
 - (1) A removal of the emergency exit door indication switch
 - (2) An installation of the emergency exit door indication switch
 - (3) An adjustment of the emergency exit door indication switch
 - (4) And a test of the emergency exit door indication switch.
- C. The emergency exit door indication switch is referred to as the indication switch in this procedure.
- D. There are two indication switches for each emergency exit door, they are found on the door forward and aft lock receivers. This procedure is the same for the two indication switches.
- E. When the lock roller on the door goes into the lock receiver on the fuselage frame, it pushes an actuator to operate the indication switch.
- F. The indication switch detects that the door is fully closed, latched and locked.

TASK 52-71-22-000-803

2. Emergency Exit Door Indication Switch Removal

(Figure 201)

A. Location Zones

Zone	Area
HAP 001-013, 015-026, 028-054	
832	Left Forward Emergency Exit
833	Left Emergency Exit (STA 627.5)
842	Right Forward Emergency Exit
843	Right Emergency Exit (STA 627.5)

HAP ALL

B. Prepare for the Removal

SUBTASK 52-71-22-010-005

WARNING: MAKE SURE THE DOOR OPENING PATH IS CLEAR BEFORE YOU RELEASE THE DOOR HANDLE. THE DOOR IS SPRING-LOADED TO OPEN AUTOMATICALLY. THIS CAN CAUSE INJURIES TO PERSONS AND DAMAGE TO EQUIPMENT.

- (1) Pull down on the release handle to open the door.

C. Removal of the Emergency Exit Door Indication Switch

SUBTASK 52-71-22-020-003

- (1) Remove the indication switch [2]:
 - (a) Remove the screws [10] and washers [1] that attach the cover [9] to the indication switch [2].
 - (b) Remove the cover [9] from the indication switch [2].
 - (c) Remove the bolts [4] and washers [5] that attach the indication switch [2] to the lock receiver [6].
 - (d) Pull the wiring [3] attached to the indication switch [2] through the fuselage frame to get access to the wiring splices.

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- (e) Cut the wires that attach the indication switch [3] to the airplane wiring as near as possible to the indication switch [2].
- (f) Remove the indication switch [2].

————— END OF TASK —————

TASK 52-71-22-420-801

3. Emergency Exit Door Indication Switch Installation

(Figure 201)

A. Location Zones

Zone	Area
HAP 001-013, 015-026, 028-054	
832	Left Forward Emergency Exit
833	Left Emergency Exit (STA 627.5)
842	Right Forward Emergency Exit
843	Right Emergency Exit (STA 627.5)

HAP ALL

B. Prepare to install the Emergency Exit Door Indication Switch

SUBTASK 52-71-22-820-010

- (1) Do this task: Emergency Exit Door Indication Switch Adjustment, TASK 52-71-22-820-805.

SUBTASK 52-71-22-420-005

- (2) Install the indication switch [2]:
 - (a) Connect the wiring [3] to the indication switch [2].
 - (b) Put the indication switch [2] in its correct position on the lock receiver [6].
 - (c) Make sure the actuator [7] extends through the lock receiver [6].
 - (d) Install the bolts [4] and washers [5] to attach the indication switch [2] to the lock receiver [6].
 - (e) Install the screws [10] and washers [1] that attach the cover [9] to the indication switch [2].
 - (f) Make sure that the actuator moves freely.

C. Installation Test

SUBTASK 52-71-22-710-001

- (1) Do this task: Emergency Exit Door Indication Switch Test, TASK 52-71-22-710-803.

SUBTASK 52-71-22-410-002

- (2) Close the door.

————— END OF TASK —————

TASK 52-71-22-820-805

4. Emergency Exit Door Indication Switch Adjustment

A. Location Zones

Zone	Area
HAP 001-013, 015-026, 028-054	
832	Left Forward Emergency Exit
833	Left Emergency Exit (STA 627.5)

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HAP 001-013, 015-026, 028-054 (Continued)

(Continued)

Zone	Area
842	Right Forward Emergency Exit
843	Right Emergency Exit (STA 627.5)

HAP ALL

B. Adjustment of the Emergency Exit Door Indication Switch

SUBTASK 52-71-22-820-009

- (1) Adjust the actuator [7] on the indication switch [2] (Figure 201):
 - (a) Loosen the actuator setscrew [8] with a 0.218 inch hex.
 - (b) Adjust the actuator length to the specified dimension before it is installed on the lock receiver (6) (View A-A).
 - (c) Tighten the actuator setscrew [8].

END OF TASK

TASK 52-71-22-710-803

5. Emergency Exit Door Indication Switch Test

A. General

- (1) This procedure is a scheduled maintenance task.
- (2) Do this test for the applicable emergency exit door.

B. References

Reference	Title
24-22-00-860-811	Supply Electrical Power (P/B 201)

C. Location Zones

Zone	Area
211	Flight Compartment - Left
212	Flight Compartment - Right

HAP 001-013, 015-026, 028-054

832	Left Forward Emergency Exit
833	Left Emergency Exit (STA 627.5)
842	Right Forward Emergency Exit
843	Right Emergency Exit (STA 627.5)

HAP ALL

D. Prepare for the Test

SUBTASK 52-71-22-860-003

- (1) Do this task: Supply Electrical Power, TASK 24-22-00-860-811.

E. Do the Test of the Emergency Exit Door Indication Switch

SUBTASK 52-71-22-730-006

- (1) Do a test on the applicable indication switch [2]:
 - (a) Make sure all emergency exit doors are fully closed, latched and locked.

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- (b) Make sure that the OVERWING EXIT light does not show on the Forward Overhead Panel, P5, in the flight compartment.

WARNING: MAKE SURE THE DOOR OPENING PATH IS CLEAR BEFORE YOU RELEASE THE DOOR HANDLE. THE DOOR IS SPRING-LOADED TO OPEN AUTOMATICALLY. THIS CAN CAUSE INJURIES TO PERSONS AND DAMAGE TO EQUIPMENT.

- (c) Open the applicable emergency exit door.
- (d) Make sure the OVERWING EXIT light shows on the Forward Overhead Panel, P5.
- (e) Close the emergency exit door.
- (f) Make sure the OVERWING EXIT light goes off on the Forward Overhead Panel, P5.
- (g) If necessary adjust the actuator as required.

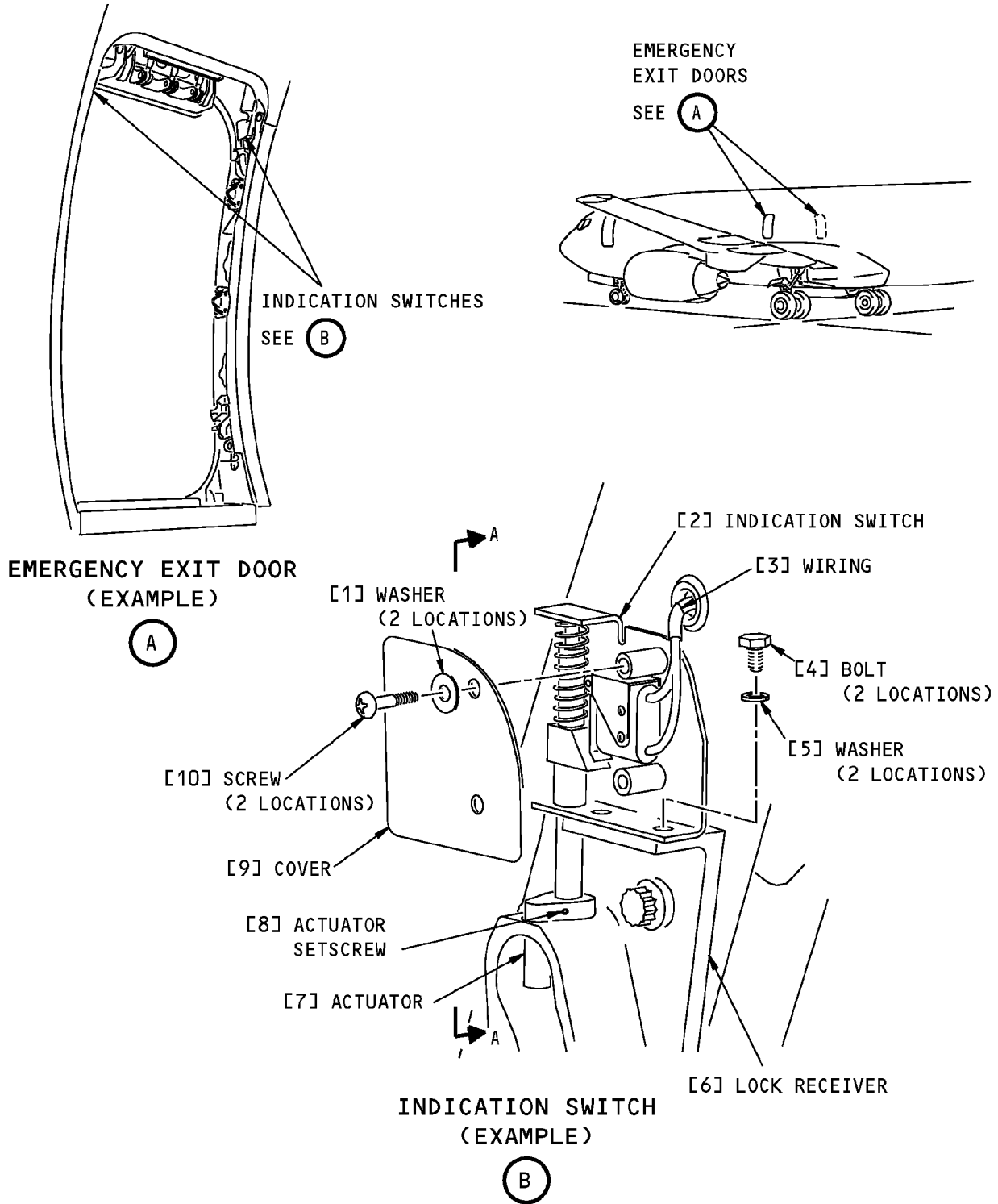
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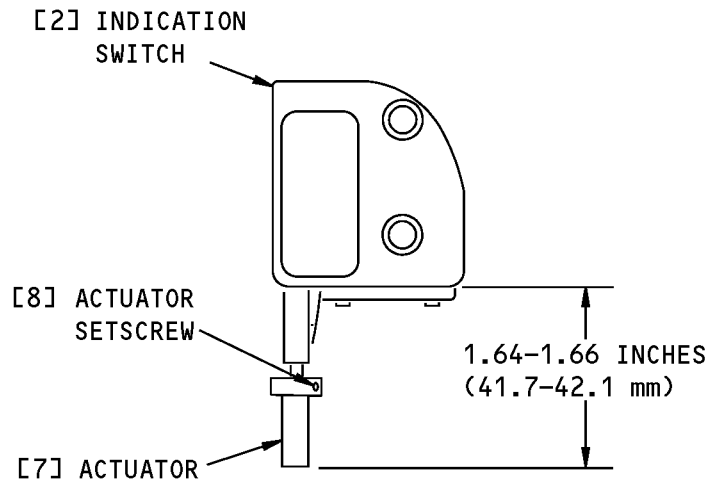
**Emergency Exit Door Warning System
Figure 201 (Sheet 1 of 2)/52-71-22-990-803**

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A-A

**Emergency Exit Door Warning System
Figure 201 (Sheet 2 of 2)/52-71-22-990-803**

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CARGO DOOR WARNING SYSTEM - MAINTENANCE PRACTICES

1. General

- A. This procedure contains scheduled maintenance task data.
- B. This procedure has these tasks:
 - (1) A removal of the forward or aft cargo door indication switch.
 - (2) An installation of the forward or aft cargo door indication switch.
 - (3) An adjustment of the forward or aft cargo door indication switch.
 - (4) A test of the forward or aft cargo door indication switch.
- C. This procedure is the same for each cargo door.
- D. The indication switch is found on the forward side of the fuselage frame on the latch receiver. When the latch roller on the door goes into the latch receiver on the fuselage frame, it pushes a plunger to operate the switch.
- E. The indication switch detects that the door is fully closed, latched and locked.

TASK 52-71-31-000-801

2. Cargo Door Indication Switch Removal

(Figure 201)

A. Location Zones

Zone	Area
821	Forward Cargo Door
822	Aft Cargo Door

B. Prepare for the Removal

SUBTASK 52-71-31-010-001

- (1) Open the cargo door, attach the strap to the lower stop to hold the cargo door open.

C. Removal

SUBTASK 52-71-31-020-001

- (1) Remove the indication switch [1] as follows:
 - (a) Remove the screws [3], washers [4], and screws [7] that attach the cover [5] to the fuselage frame.
 - (b) Remove the cover [5].
 - (c) Remove the screws [8] and washers [9] that attach the wiring [6] to the indication switch [1].
 - (d) Remove the screws [2] and washers [11] that attach the indication switch [1] to the latch receiver [10].
 - (e) Remove the inciation switch [1].

————— **END OF TASK** —————

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TASK 52-71-31-400-801

3. Cargo Door Indication Switch Installation

(Figure 201)

A. Location Zones

Zone	Area
821	Forward Cargo Door
822	Aft Cargo Door

B. Installation

SUBTASK 52-71-31-420-001

- (1) Install the indication switch [1] as follows:
 - (a) Put the indication switch [1] in its correct position through the latch receiver [10].
 - (b) Install the screws [2] and washers [11] to attach the indication switch [1] to the latch receiver [10].
 - (c) Install the screws [8] and washers [9] to attach the wiring [6] to the indication switch [1].
 - (d) Put the cover [5] in its correct position over the indication switch [1].
 - (e) Install the screws [3], washers [4], and screws [7] to attach the cover [5] to the fuselage frame.

SUBTASK 52-71-31-820-001

- (2) Do this task: Cargo Door Indication Switch Adjustment, TASK 52-71-31-820-801.

SUBTASK 52-71-31-840-001

- (3) Close the cargo door.

SUBTASK 52-71-31-730-001

- (4) Do this task: Cargo Door Indication Switch Test, TASK 52-71-31-710-801.

————— **END OF TASK** —————

TASK 52-71-31-820-801

4. Cargo Door Indication Switch Adjustment

(Figure 201)

A. Location Zones

Zone	Area
821	Forward Cargo Door
822	Aft Cargo Door

B. Prepare for the Adjustment

SUBTASK 52-71-31-010-002

- (1) If it is necessary, open the cargo door and attach the strap to the lower stop to hold the door open.

C. Adjustment

SUBTASK 52-71-31-820-003

- (1) Make sure the indication switch [1] extends through the latch receiver [10] as shown.

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SUBTASK 52-71-31-820-002

- (2) If necessary, adjust the indication switch [1] as follows:
 - (a) Put a screwdriver in the slot of the indication switch [1].
 - (b) Turn until the extension is correct.

————— END OF TASK —————

TASK 52-71-31-710-801

5. Cargo Door Indication Switch Test

A. General

- (1) This procedure is a scheduled maintenance task.
- (2) Do this test for the applicable cargo door.

B. References

Reference	Title
24-22-00-860-811	Supply Electrical Power (P/B 201)

C. Location Zones

Zone	Area
211	Flight Compartment - Left
212	Flight Compartment - Right
821	Forward Cargo Door
822	Aft Cargo Door

D. Prepare for the Test

SUBTASK 52-71-31-860-002

- (1) Do this task: Supply Electrical Power, TASK 24-22-00-860-811.

E. Test

SUBTASK 52-71-31-730-002

- (1) Do a test on the forward or aft cargo door indication switch [1] as follows:
 - (a) Make sure the applicable cargo doors [1] are fully closed, latched and locked.
 - (b) Make sure that the FWD CARGO or AFT CARGO light does not show on the Forward Overhead Panel, P5, in the flight compartment.
 - (c) Open the applicable cargo door.
 - (d) Make sure the FWD CARGO or AFT CARGO light on the Forward Overhead Panel, P5, comes on for the forward or aft cargo door.
 - (e) Close the applicable cargo door.
 - (f) Make sure the FWD CARGO or AFT CARGO light goes off.

————— END OF TASK —————

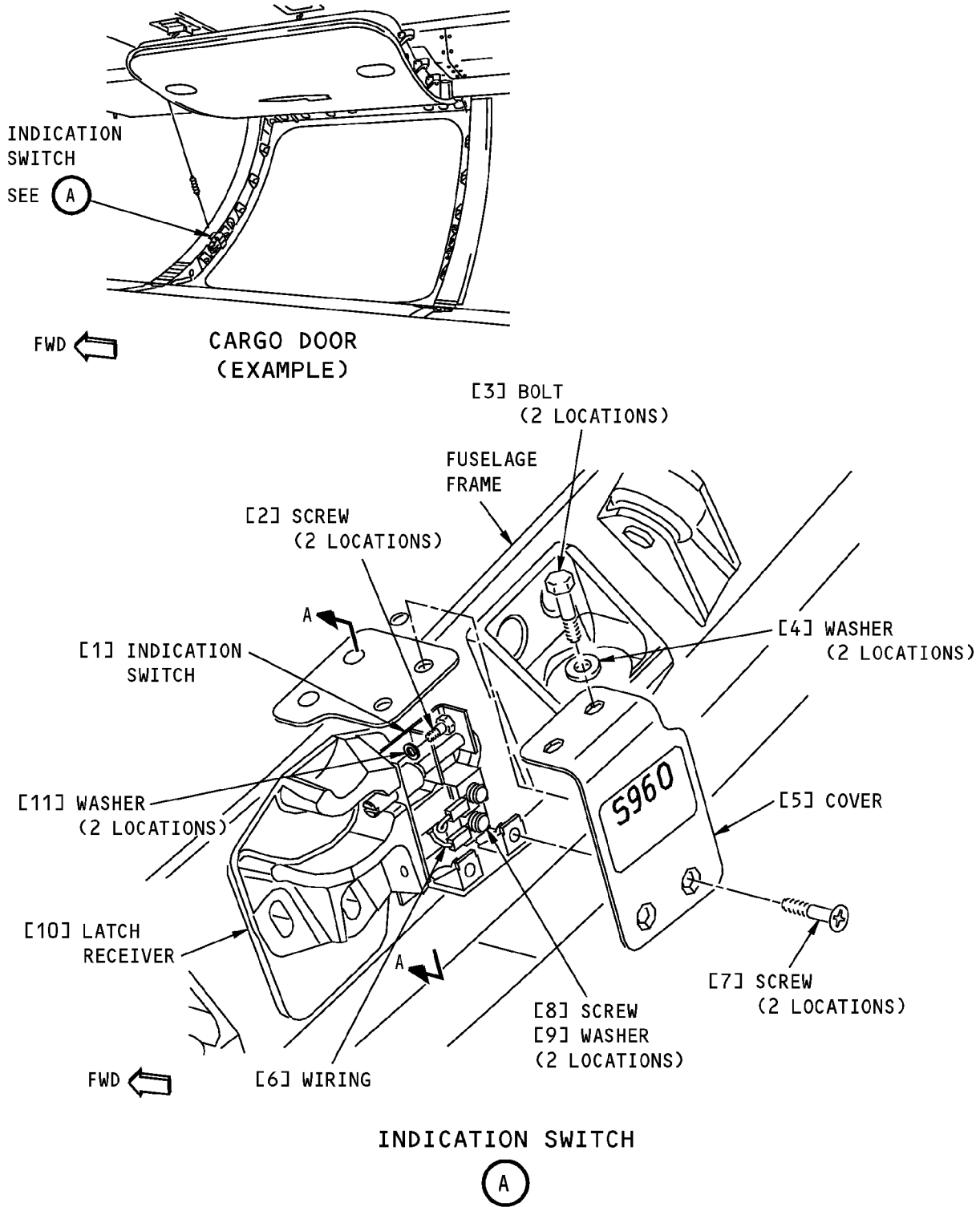
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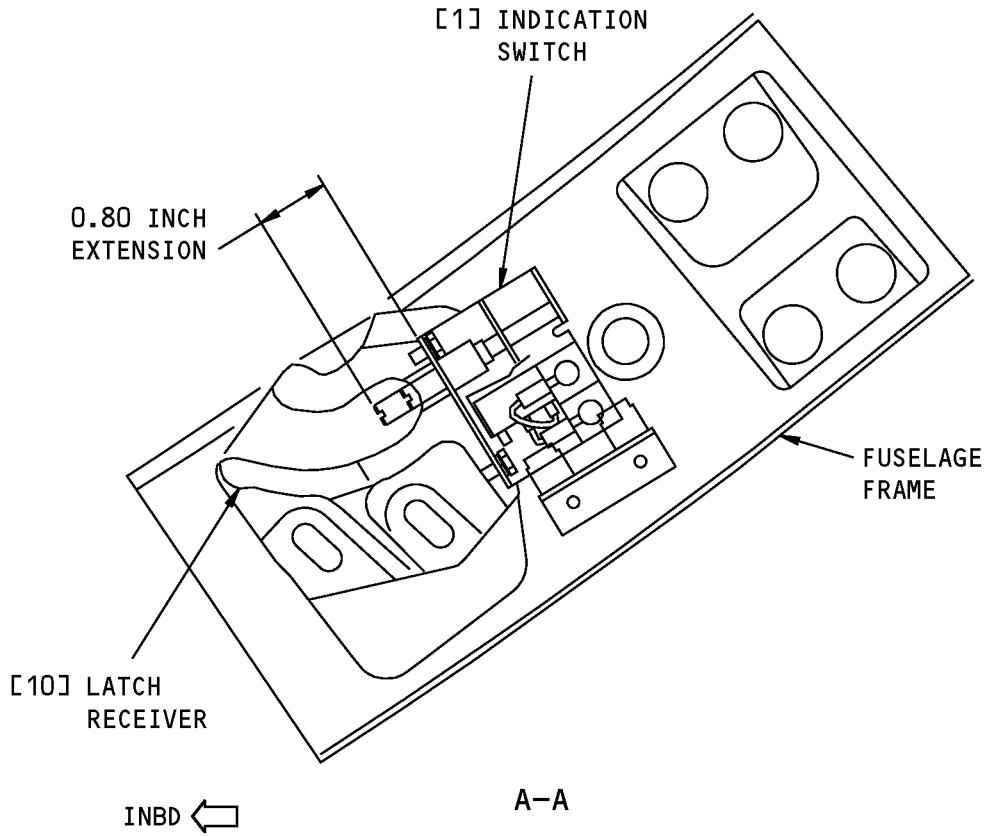
**Cargo Door Warning System
Figure 201 (Sheet 1 of 2)/52-71-31-990-801**

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**Cargo Door Warning System
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FORWARD ACCESS DOOR WARNING SYSTEM - MAINTENANCE PRACTICES

1. General

- A. This procedure contains scheduled maintenance task data.
- B. This procedure has these tasks:
 - (1) A removal of the indication switch on the forward access door
 - (2) An installation of the indication switch on the forward access door
 - (3) And a test of the indication switch on the forward access door.
- C. The forward access door indication switch, S196, is referred to as the indication switch in this procedure.
- D. The indication switch is found on the fuselage frame near the latch pin receptacle. The latch pin on the door pushes a hinged striker plate which pushes a plunger to operate the indication switch.
- E. The indication switch detects that the door is fully closed, latched and locked.

TASK 52-71-41-000-801

2. Forward Access Door Indication Switch Removal

(Figure 201)

A. Location Zones

Zone	Area
112	Area Forward of Nose Landing Gear Wheel Well

B. Access Panels

Number	Name/Location
112A	Forward Access Door

C. Prepare for the Removal

SUBTASK 52-71-41-010-001

- (1) Open this access panel and engage the hold-open lock:

Number	Name/Location
112A	Forward Access Door

D. Removal of the Forward Access Door Indication Switch

SUBTASK 52-71-41-020-001

- (1) Remove the indication switch [3]:
 - (a) Remove the bolts [12] to disconnect the wiring [2] from the indication switch [3].
 - (b) Remove the nuts [9] and washers [6] from the plunger [11].
 - (c) Remove the screws [4] and nuts [5] that attach the indication switch [3] to the bracket [8].
 - (d) Remove the indication switch [3].

————— **END OF TASK** —————

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TASK 52-71-41-400-801

3. Forward Access Door Indication Switch Installation

(Figure 201)

A. Location Zones

Zone	Area
112	Area Forward of Nose Landing Gear Wheel Well

B. Access Panels

Number	Name/Location
112A	Forward Access Door

C. Installation of the Forward Access Door Indication Switch

SUBTASK 52-71-41-420-001

- (1) Install the indication switch [3]:
 - (a) Install two nuts [9] and a washer [6] on the forward end of the plunger [11].
 - (b) Put the aft end of the plunger [11] through the support bracket [7].
 - (c) Put the indication switch [3] in its correct position on the bracket [8].
 - (d) Install the screws [4] and nuts [5] to attach the indication switch [3] to the bracket [8].
 - (e) Install two nuts [9] and a washer [6] on the aft end of the plunger [11].
 - (f) Tighten the nuts [9].
 - (g) Connect the wiring [2] to the indication switch [3] with bolts [12].

SUBTASK 52-71-41-860-001

- (2) Close this access panel:

Number	Name/Location
112A	Forward Access Door

SUBTASK 52-71-41-730-001

- (3) Do this task: Forward Access Door Indication Switch Test, TASK 52-71-41-710-801.

END OF TASK

TASK 52-71-41-710-801

4. Forward Access Door Indication Switch Test

A. General

- (1) This procedure is a scheduled maintenance task.

B. References

Reference	Title
24-22-00-860-811	Supply Electrical Power (P/B 201)

C. Location Zones

Zone	Area
112	Area Forward of Nose Landing Gear Wheel Well

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D. Prepare for the Test

SUBTASK 52-71-41-860-002

(1) Do this task: Supply Electrical Power, TASK 24-22-00-860-811.

E. Do a Test of the Forward Access Door Indication Switch

SUBTASK 52-71-41-730-002

(1) Do a test on the indication switch [3]:

- (a) Make sure the forward access door [1] and the electronic equipment access door are fully closed, latched and locked.
- (b) Make sure that the EQUIP light does not show on the Forward Overhead Panel, P5, in the flight compartment.
- (c) Open the forward access door [1].
- (d) Make sure the EQUIP light on the Forward Overhead Panel, P5, comes on for the forward access door.

NOTE: If either the forward access door [1] or the electronic equipment access door is not closed, latched and locked the EQUIP light will show.

- (e) Close the forward access door [1].
- (f) Make sure the EQUIP light does not show.

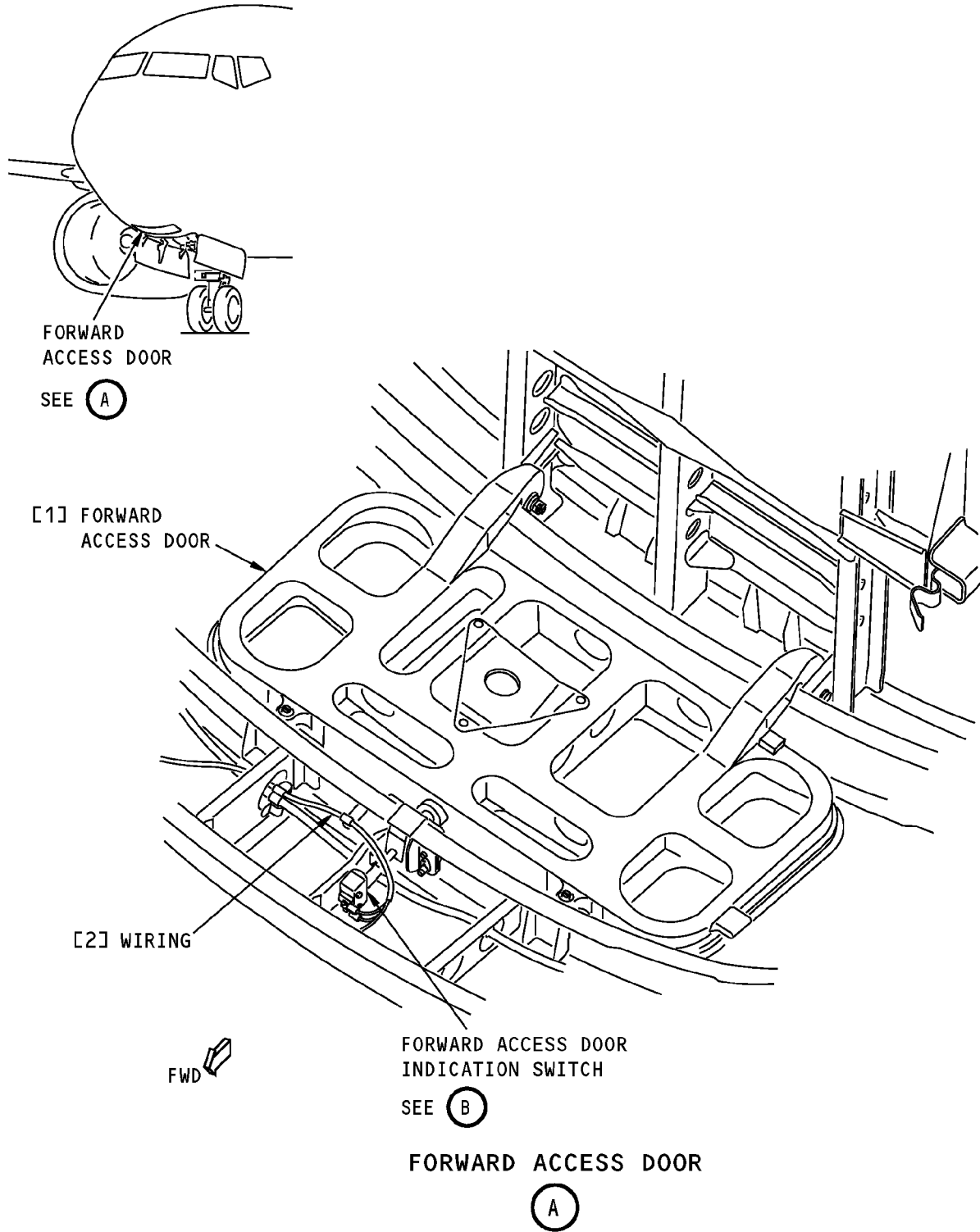
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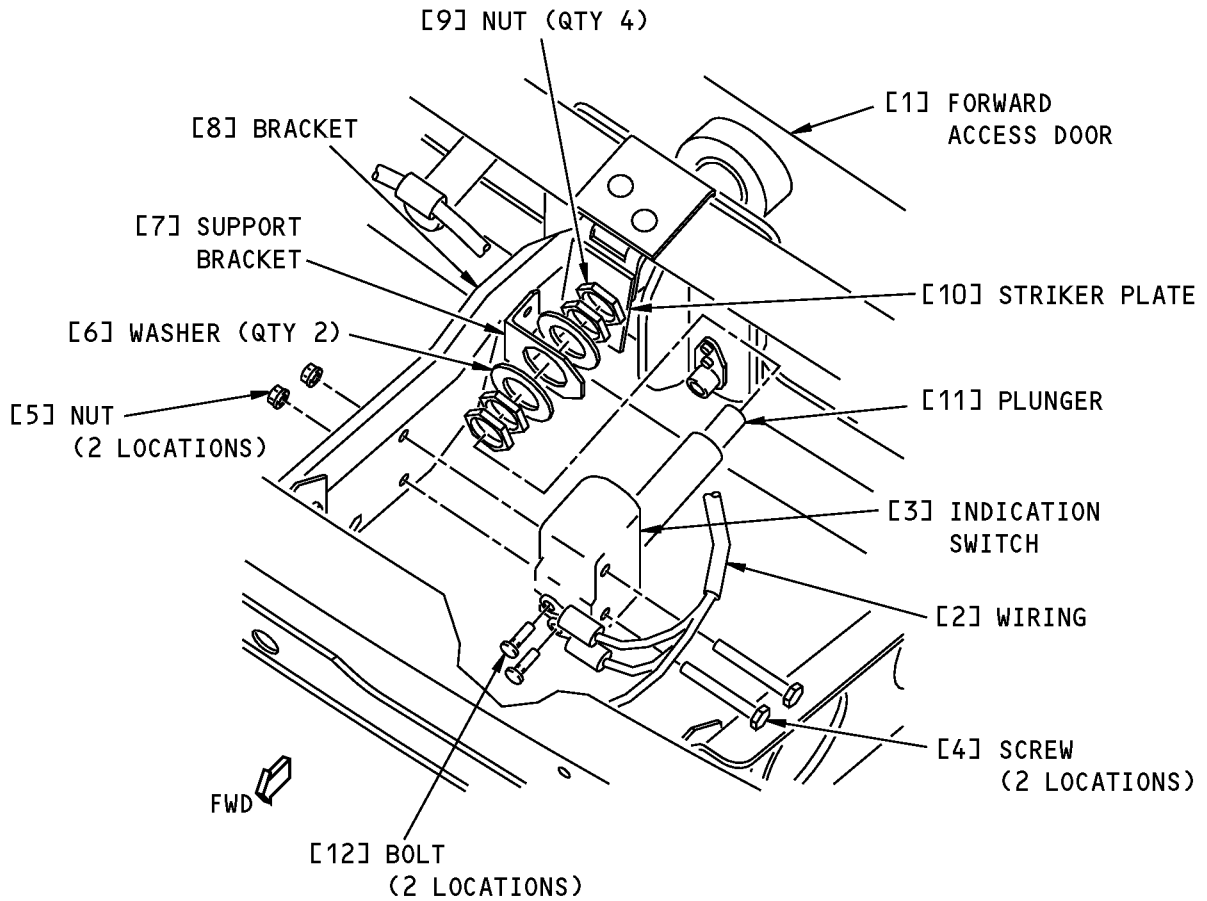
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**Forward Access Door Warning System
Figure 201 (Sheet 1 of 2)/52-71-41-990-801**

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FORWARD ACCESS DOOR INDICATION SWITCH

B

**Forward Access Door Warning System
Figure 201 (Sheet 2 of 2)/52-71-41-990-801**

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AIRCRAFT MAINTENANCE MANUAL

ELECTRONIC EQUIPMENT ACCESS DOOR WARNING SYSTEM - MAINTENANCE PRACTICES

1. General

- A. This procedure contains scheduled maintenance task data.
- B. This procedure has these tasks:
 - (1) A removal of the indication switch on the electronic equipment access door
 - (2) An installation of the indication switch on the electronic equipment access door
 - (3) And a test of the indication switch on the electronic equipment access door.
- C. The electronic equipment access door indication switch is referred to as the indication switch in this procedure.
- D. The indication switch, S197, is found on the fuselage frame near the latch pin receptacle. The latch pin on the door pushes a hinged striker plate, and the striker plate pushes an actuator to operate the indication switch.
- E. The indication switch detects that the door is fully closed, latched and locked.

TASK 52-71-42-000-801

2. Electronic Equipment Access Door Indication Switch Removal

(Figure 201)

A. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left
118	Electrical and Electronics Compartment - Right

B. Access Panels

Number	Name/Location
117A	Electronic Equipment Access Door

C. Prepare for the Removal

SUBTASK 52-71-42-010-001

- (1) Fully open this access panel:

Number	Name/Location
117A	Electronic Equipment Access Door

SUBTASK 52-71-42-010-002

- (2) Remove the panel [2] to get access to the indication switch [12]:
 - (a) Remove the screws [1] that attach the panel [2] to structure.
 - (b) Remove the panel [2].

D. Removal of the Electronic Equipment Access Door Indication Switch

SUBTASK 52-71-42-020-001

- (1) Remove the indication switch [12]:
 - (a) Remove the bolts [15] and washers [16] to disconnect the wiring [11] from the indication switch [12].
 - (b) Remove the self-locking nuts [13], screws [8] and spacers [10] that attach the indication switch [12] and the actuator [9] to the support bracket [14].
 - (c) Remove the indication switch [12] from the actuator [9].

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SUBTASK 52-71-42-020-002

- (2) Remove the actuator [9]:
 - (a) Remove the locknuts [6] and nuts [7] from the switch actuator [9].
 - (b) Pull the actuator [9] through the hole in the striker plate bracket [5] to remove it.

————— END OF TASK —————

TASK 52-71-42-400-801

3. Electronic Equipment Access Door Indication Switch Installation

(Figure 201)

A. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left
118	Electrical and Electronics Compartment - Right

B. Access Panels

Number	Name/Location
117A	Electronic Equipment Access Door

C. Installation of the Electronic Equipment Access Door Indication Switch

SUBTASK 52-71-42-420-001

- (1) Install the actuator [9]:
 - (a) Install a locknut [6] and nut [7] on the actuator [9].
 - (b) Put the actuator [9] through the hole in the striker plate bracket [5].
 - (c) Loosely install the locknut [6] and the nut [7] on the actuator [9] closest to the electronic equipment access door.

SUBTASK 52-71-42-420-002

- (2) Install the indication switch [12]:
 - (a) Put the indication switch [12] into the actuator [9].
 - (b) Install the self-locking nuts [13], screws [8] and spacers [10] to attach the indication switch [12] and the actuator [9] to the support bracket [14].
 - (c) Connect the wiring [11] to the indication switch [12] with bolts [15] and washers [16].
 - (d) Tighten the nuts [7] and the locknuts [6] on the striker plate bracket [5].

SUBTASK 52-71-42-710-001

- (3) Do this task: Electronic Equipment Access Door Indication Switch Test, TASK 52-71-42-710-801.

D. Put the Airplane Back to Its Usual Condition

SUBTASK 52-71-42-410-001

- (1) Install the panel [2]:
 - (a) Put the panel [2] on the structure over the indication switch [12].
 - (b) Install the screws [1] that attach the panel [2] to the structure.

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SUBTASK 52-71-42-410-002

(2) Close this access panel:

Number	Name/Location
117A	Electronic Equipment Access Door

————— END OF TASK —————

TASK 52-71-42-710-801

4. Electronic Equipment Access Door Indication Switch Test

A. General

(1) This procedure is a scheduled maintenance task.

B. References

Reference	Title
24-22-00-860-811	Supply Electrical Power (P/B 201)

C. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left
118	Electrical and Electronics Compartment - Right

D. Prepare for the Test

SUBTASK 52-71-42-860-001

(1) Do this task: Supply Electrical Power, TASK 24-22-00-860-811.

E. Do a Test of the Electronic Equipment Access Door Indication Switch

SUBTASK 52-71-42-860-002

(1) Make sure the forward access door and the electronic equipment access door are fully closed, latched and locked.

SUBTASK 52-71-42-210-001

(2) Make sure that the EQUIP light does not show on the Forward Overhead Panel, P5, in the flight compartment.

SUBTASK 52-71-42-710-002

(3) Do a test on the indication switch [12]:

- (a) Open the electronic equipment access door.
- (b) Make sure the EQUIP light shows on the Forward Overhead Panel, P5.

NOTE: If the forward access door or electronic equipment access door is not closed, latched and locked, the EQUIP light will show.

- (c) Close the electronic equipment access door.
- (d) Make sure the EQUIP light on the Forward Overhead Panel, P5, does not show.

————— END OF TASK —————

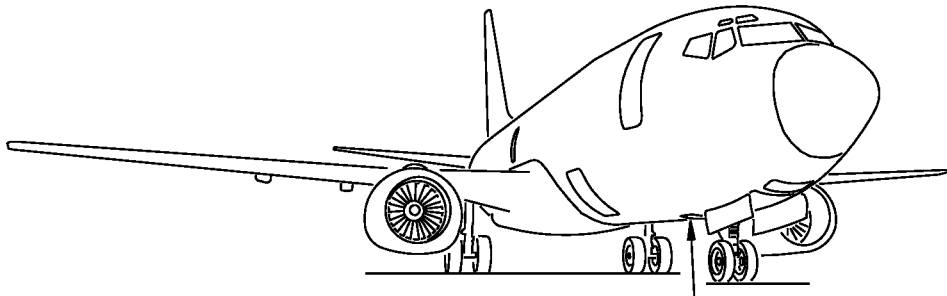
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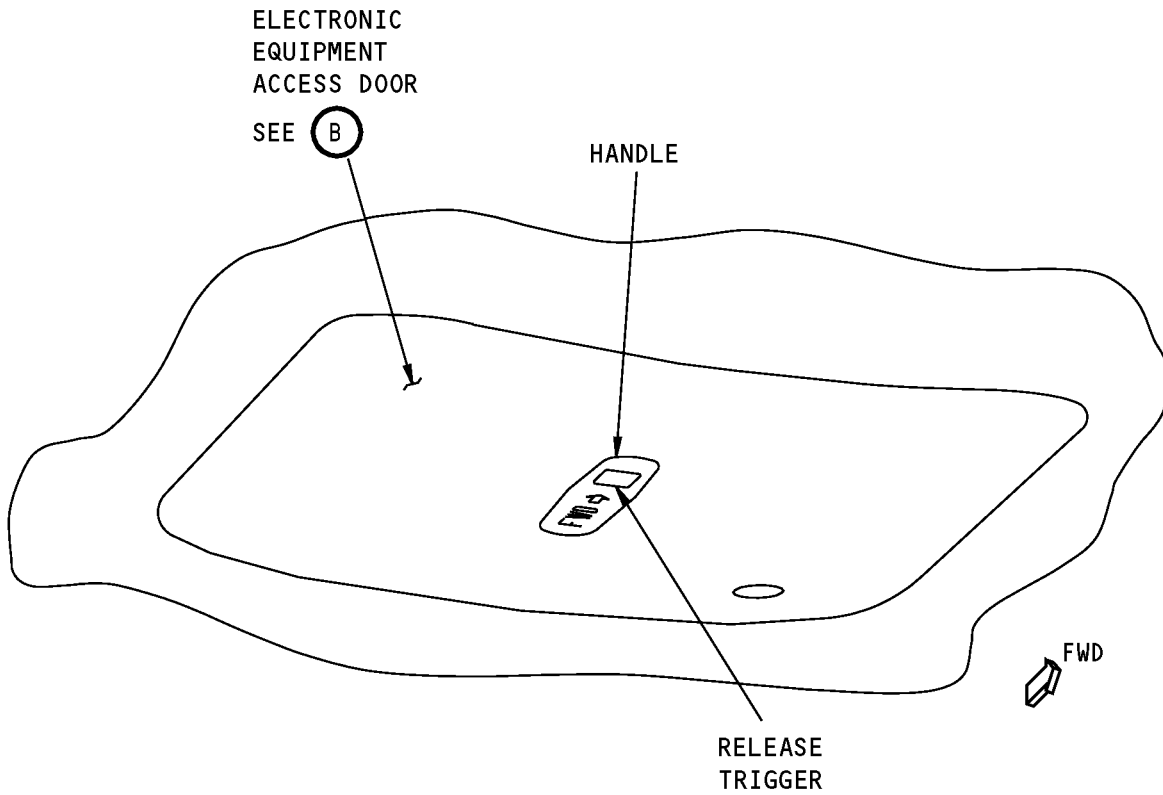
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ELECTRONIC
EQUIPMENT
ACCESS DOOR, 117A
SEE (A)



ELECTRONIC EQUIPMENT ACCESS DOOR, 117A

(A)

**Electronic Equipment Access Door Warning System
Figure 201 (Sheet 1 of 2)/52-71-42-990-801**

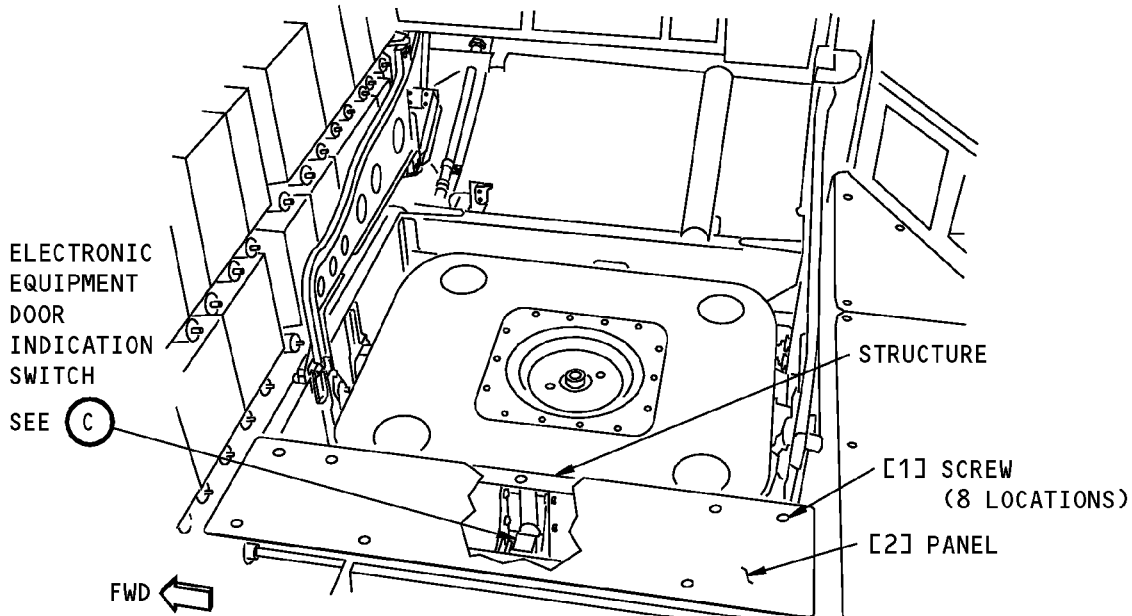
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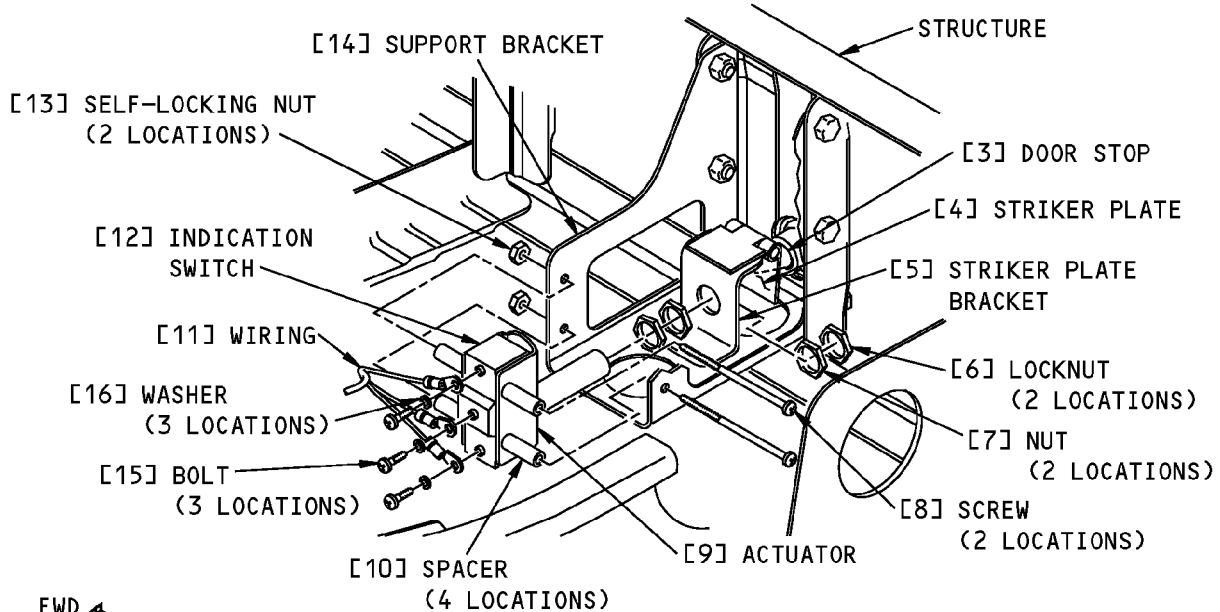
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**ELECTRONIC EQUIPMENT ACCESS DOOR
(INTERNAL VIEW, DOOR CLOSED POSITION)**

(B)



ELECTRONIC EQUIPMENT DOOR INDICATION SWITCH

(C)

**Electronic Equipment Access Door Warning System
Figure 201 (Sheet 2 of 2)/52-71-42-990-801**

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FORWARD AIRSTAIR DOOR LOCK WARNING SYSTEM - MAINTENANCE PRACTICES

1. General

- A. This procedure contains scheduled maintenance task data.
B. This procedure has these tasks:
(1) A removal of the forward airstair door lockpin Sensor, S282.
(2) An installation of the forward airstair door lockpin sensor, S282.
(3) A test of the forward airstair door lockpin sensor, S282.
C. In this procedure the forward airstair door is referred to as the door.
D. In this procedure the forward airstair door lockpin sensor, S282 is referred to as the sensor.
E. The sensor is on the lower door opening frame inboard of the lockpin. The sensor operates when the lockpin is extended.

TASK 52-71-61-000-801

2. Forward Airstair Door Lockpin Sensor S282 Removal

(Figure 201)

A. Location Zones

Table with 2 columns: Zone, Area. Row 1: 117, Electrical and Electronics Compartment - Left

B. Access Panels

Table with 2 columns: Number, Name/Location. Row 1: 117BL, Forward Airstair Door

C. Prepare for the Removal

SUBTASK 52-71-61-010-001

- (1) Open this access panel but do not extend the forward airstair:

Table with 2 columns: Number, Name/Location. Row 1: 117BL, Forward Airstair Door

SUBTASK 52-71-61-010-002

- (2) Get access to the sensor [1] through the door opening.

D. Forward Airstair Door Lockpin Sensor S282 Removal

SUBTASK 52-71-61-020-001

- (1) Remove the sensor [1]:
(a) Disconnect the wire bundle [2] from the sensor [1].
(b) Remove the screws [4] that attach the sensor [1] to the sensor bracket [3].
(c) Remove the sensor [1] from the airplane.

END OF TASK

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TASK 52-71-61-400-801

3. Forward Airstair Door Lockpin Sensor S282 Installation

(Figure 201)

A. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left

B. Forward Airstair Door Lockpin Sensor S282 Installation

SUBTASK 52-71-61-420-003

(1) Install the sensor [1]:

- (a) Install the sensor [1] on the sensor bracket [3].
- (b) Install the screws [4] to attach the sensor [1] to the sensor bracket [3].
- (c) Connect the wire bundle [2] to the sensor [1].

SUBTASK 52-71-61-720-002

(2) Do this task: Forward Airstair Door Lockpin Sensor S282 Adjustment, TASK 52-71-61-820-801.

SUBTASK 52-71-61-720-001

(3) Do this task: Forward Airstair Door Lockpin Sensor S282 Test, TASK 52-71-61-710-801.

END OF TASK

TASK 52-71-61-820-801

4. Forward Airstair Door Lockpin Sensor S282 Adjustment

A. Consumable Materials

Reference	Description	Specification
C00259	Primer - Chemical And Solvent Resistant Finish, Epoxy Resin	BMS10-11, Type I

B. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left

C. Forward Airstair Door Lockpin Sensor S282 Adjustment

SUBTASK 52-71-61-220-001

(1) Do a check of the clearance between the sensor [1] and target [10] to make sure it is as shown (Figure 201).

SUBTASK 52-71-61-960-001

(2) If the clearance between the sensor [1] and target [10] is more than that shown (Figure 201), replace the shim [6].

SUBTASK 52-71-61-820-001

(3) If the clearance between the sensor [1] and target [10] is less than that shown (Figure 201), remove laminations from the shim [6]:

- (a) Remove the nuts [9], washers [8], screws [5] and target [10] to get access to the shim [6].
- (b) Remove laminations from the shim [6] to get the clearance between the sensor [1] and target [10] as shown in (Figure 201).

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- (c) Apply a coat of primer, C00259 to the shim [5] surface.
(d) Install the nuts [9], washers [8], screws [5] and target [10].
(e) Do a check of the clearance between the sensor [1] and target [10] to make sure it is as shown (Figure 201).

END OF TASK

TASK 52-71-61-710-801

5. Forward Airstair Door Lockpin Sensor S282 Test

A. General

- (1) This procedure is a scheduled maintenance task.

B. References

Table with 2 columns: Reference, Title. Row 1: 24-22-00-860-811, Supply Electrical Power (P/B 201)

C. Location Zones

Table with 2 columns: Zone, Area. Row 1: 117, Electrical and Electronics Compartment - Left

D. Prepare for the Test

SUBTASK 52-71-61-860-001

- (1) Do this task: Supply Electrical Power, TASK 24-22-00-860-811.

E. Forward Airstair Door Lockpin Sensor S282 Test

SUBTASK 52-71-61-730-002

- (1) Do this test of the sensor [1]:
(a) Make sure the airstair door is closed.
(b) Open these circuit breakers and install safety tags:

F/O Electrical System Panel, P6-4

Table with 4 columns: Row, Col, Number, Name. Rows: A, 16, C00409, FWD AIRSTAIR DOOR; C, 17, C00411, FWD AIRSTAIR STBY DOOR ACTR

CAUTION: DO NOT HOLD THE AIRSTAIR CONTROLS IN THE NORMAL EXTEND POSITION FOR MORE THAN 120 SECONDS. IF THE CONTROLS ARE HELD IN THE NORMAL EXTEND POSITION FOR MORE THAN 120 SECONDS, DAMAGE TO THE LOCKPIN ACTUATORS CAN OCCUR.

CAUTION: DO NOT APPLY POWER TO THE CONTROLS FOR MORE THAN 5 CYCLES, ONE AFTER THE OTHER ONE. A CYCLE IS SPECIFIED BY A TIME OF POWER APPLIED TO THE ACTUATOR FOLLOWED BY AN EQUAL QUANTITY OF TIME WITH THE POWER OFF. IF POWER IS APPLIED TO THE ACTUATORS FOR MORE THAN 5 CYCLES, ONE AFTER THE OTHER ONE, DAMAGE TO THE LOCKPIN ACTUATORS CAN OCCUR.

- (c) Put interior airstair controls in the EXTEND position.
(d) Make sure the AIRSTAIR door warning light on the Forward Overhead Panel, P5, comes on.
(e) Release the airstair controls.

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- (f) Make sure the airstair door warning light on the Forward Overhead Panel, P5, goes off.
- (g) Remove the safety tags and close these circuit breakers:

F/O Electrical System Panel, P6-4

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	16	C00409	FWD AIRSTAIR DOOR
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR

————— **END OF TASK** —————

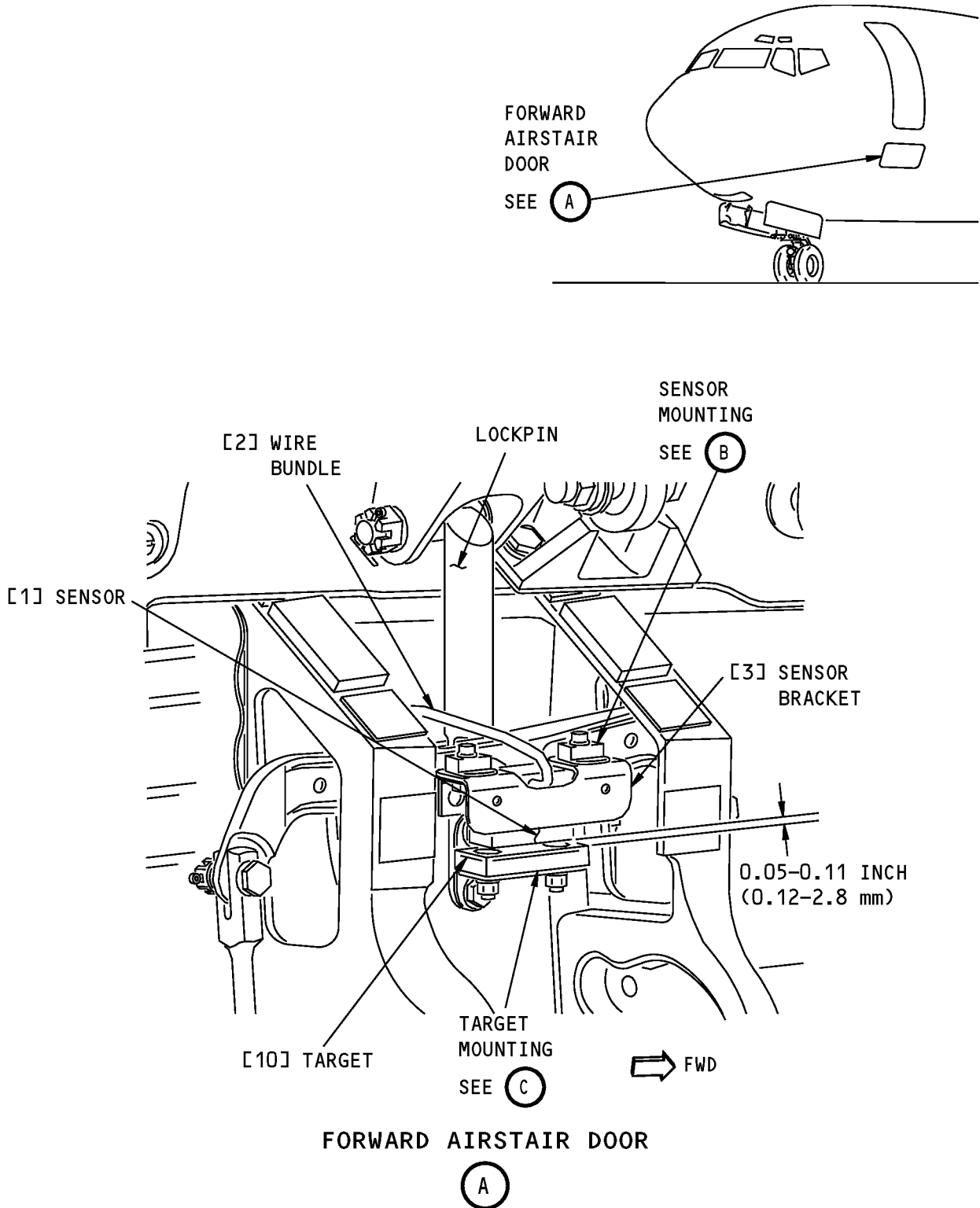
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**Forward Airstair Door Lockpin Sensor
Figure 201 (Sheet 1 of 2)/52-71-61-990-801**

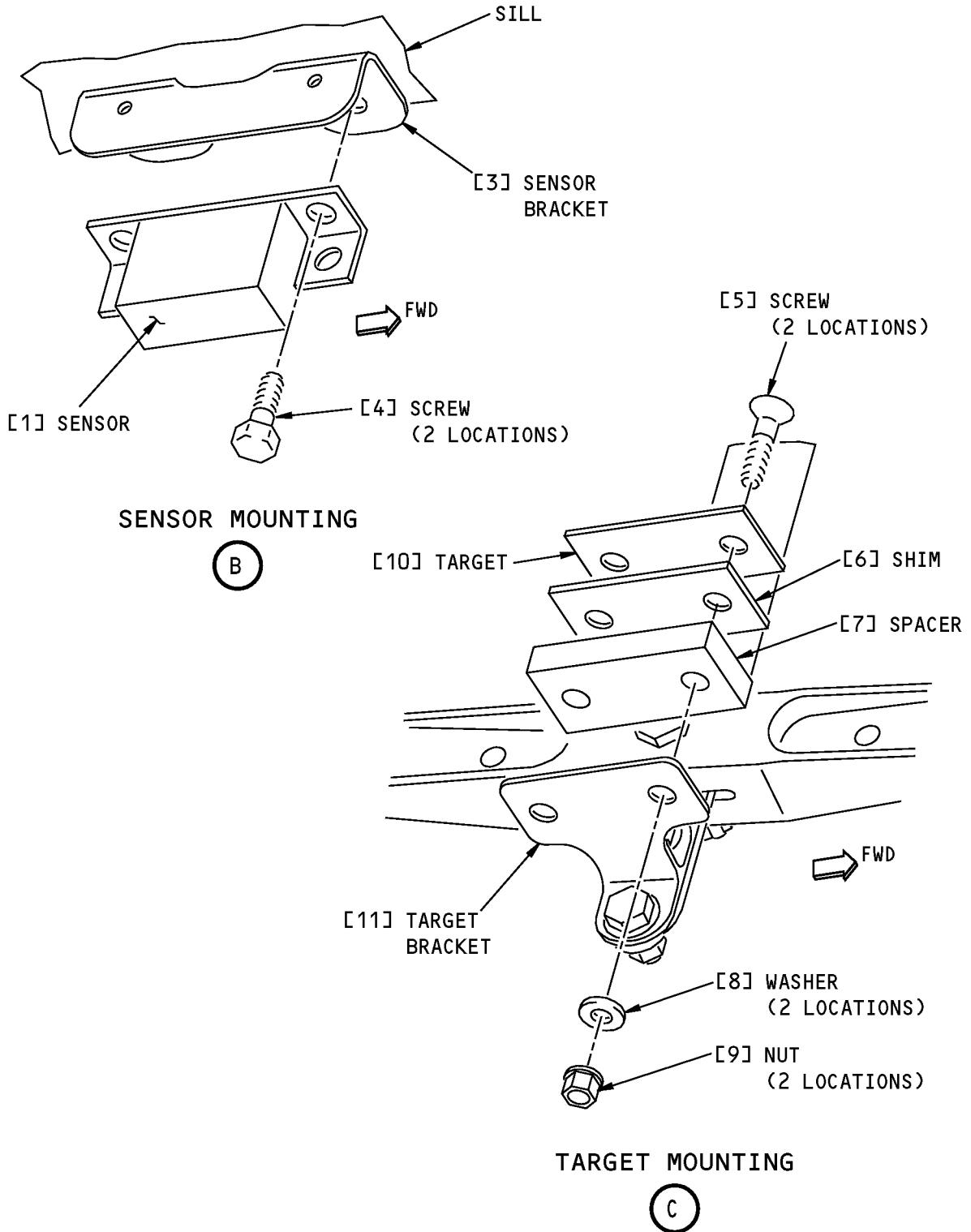
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**Forward Airstair Door Lockpin Sensor
Figure 201 (Sheet 2 of 2)/52-71-61-990-801**

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