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6 R 7 R 8 9 10 R 11	APR 22/08 AUG 22/09 AUG 22/09 AUG 22/08 AUG 22/08 AUG 22/09	SAS SAS.1 SAS.1 SAS SAS SAS.1	816 817 818 819 820 821	DEC 22/06 AUG 22/06 AUG 22/06 APR 22/06 AUG 22/06 AUG 22/06	03 02 02 02 02 02 02 02	25-11-00 101 102 103 104	AUG 22/01 FEB 10/96 FEB 10/96 BLANK	13 05 10
R 12 13 14 R 15 R 16 R 17	AUG 22/09 AUG 22/08 AUG 22/08 AUG 22/09 AUG 22/09 AUG 22/09	SAS.1 SAS SAS SAS.1 SAS.1 SAS.1 SAS.1	822 823 824 825 826 826 827	APR 22/06 APR 22/06 APR 22/06 APR 22/06 APR 22/06 AUG 22/07	02 02 02 02 02 02 02 02	25-11-00 601 602 603 604	AUG 22/05 DEC 22/00 APR 22/02 BLANK	01 01 01
R 18 R 19 R 20 21 22	AUG 22/09 AUG 22/09 AUG 22/09 AUG 22/06 BLANK	SAS.1 SAS.1 SAS.1 SAS	828 829 830 831 832 833	DEC 22/06 APR 22/06 APR 22/06 AUG 22/05 DEC 22/08 DEC 22/08	02 02 02 01 05 05	25-11-00 701 702 703 704 705	AUG 22/06 AUG 22/99 AUG 22/99 AUG 22/99 AUG 22/99	02 01 01 01 01
25-00-00 1 2 25-00-00	FEB 10/96 FEB 10/95	01 01	834 835 836 837 838	DEC 22/05 DEC 22/08 DEC 22/08 DEC 22/08	02 02 02 02 02	706 707 708 709 710	AUG 22/06 AUG 22/99 AUG 22/99 AUG 22/99 AUG 22/99	01 01 01 01 01
701 702 703 704 705 706 707 708 709 710 711 712 713 714 715	AUG 22/00 DEC 22/06 DEC 22/06	01 02 02 02 02 02 02 02 02 02 02 02 02 03 03 04 04 04	0.50 839 840 841 842 843 844 845 844 845 846 847 848 847 848 849 850 851 852 853	DEC 22/08 DEC 22/08 APR 22/06 DEC 22/08 DEC 22/08 APR 22/06 APR 22/06 APR 22/06 APR 22/06 DEC 22/05 DEC 22/05 DEC 22/05 DEC 22/05 DEC 22/05 DEC 22/05 DEC 22/05	02 02 02 02 02 02 02 02 02 02 02 02 02 0	25-11-01 201 202 203 204 205 206 207 208 207 208 209 210 211 212	AUG 22/03 DEC 22/99 AUG 22/06 AUG 22/03 AUG 22/03 AUG 22/03 AUG 22/08 AUG 22/08 AUG 22/08 AUG 22/08 AUG 22/08 AUG 22/08 AUG 22/08 AUG 22/08	14A 04A 01A 06A 19A 14A 22A 20A 15A 14A 08A 07A
716 717 718	DEC 22/06 AUG 10/96 AUG 10/90	02 01 01	854 855 856	DEC 22/05 DEC 22/05 DEC 22/05 DEC 22/05	01 01 01 01	25-11-01 601 602 603 604	APR 22/04 MAY 10/95 DEC 10/98 NOV 10/95	04 01 01 01

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25-14-02 R 401 402	AUG 22/09 APR 22/03	02.101 01	401 402 403 404	APR 22/01 MAY 10/90 APR 22/01 BLANK	01 01 01	403 404 405 406	APR 22/04 APR 22/04 APR 22/04 BLANK	04 04 03
403 404 405 406 407 408 409 410	APR 22/03 APR 22/03 APR 22/03 APR 22/03 APR 22/03 AUG 22/05 APR 22/03 APR 22/03	01 01 01 01 01 01 01 01	25-21-05 401 402 403 404 405 406	AUG 22/05 MAY 10/90 MAY 10/90 MAY 10/90 AUG 22/05 DEC 22/05	01 01 01 01 01 02	25-22-07 401 402 403 404 405 406	DEC 22/05 MAY 10/90 MAY 10/90 DEC 22/05 MAY 10/90 APR 22/04	03 02 02 04 01 01
411 412 413 414 (15	APR 22/03 APR 22/03 APR 22/03 APR 22/03	01 01 01 01	407 408 409 410	APR 22/06 APR 22/06 APR 22/06 BLANK	02 02 03	25-22-08 401 402	MAY 10/96 BLANK	01
415 416 417 R 418 R 419	APR 22/03 APR 22/03 APR 22/03 AUG 22/09 AUG 22/09	01 01 02.1 02.1	25-21-05 801 802	NOV 10/90 BLANK	01	25–23–00 1 2	DEC 22/01 BLANK	04
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4 25-24-00 101 102 103 104	AUG 10/89 AUG 10/89 AUG 10/89 FEB 10/95	07 05 02 02	25-25-00 1 2 25-25-01 201	APR 22/00 AUG 10/89	03 04 03	1 2 3 4 5 6 7	AUG 22/01 AUG 22/01 AUG 22/01 AUG 22/01 AUG 22/01 AUG 22/01 AUG 22/01	SAS SAS SAS SAS SAS SAS SAS
25-24-03 401 402 25-24-04	MAY 10/96 MAY 10/90	03 18	202 203 204 205 206	AUG 10/98 AUG 10/98 AUG 10/98 AUG 10/98 AUG 10/98	01 01 01 01 01	8 9 10 11 12	AUG 22/01 AUG 22/01 AUG 22/01 AUG 22/01 AUG 22/01	SAS SAS SAS SAS SAS
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25-24-06 401 402 403 404 405 406	DEC 22/04 DEC 22/04 DEC 22/04 DEC 22/04 DEC 22/04 DEC 22/04 BLANK	01 01 01 01 01	218 25-25-01 401 402 403 404 405	BLANK NOV 10/95 FEB 10/93 FEB 10/93 FEB 10/93 MAY 10/92	SAS 01 01 01 01 01	404 25-27-02 401 402 403 404 405	BLANK APR 22/06 DEC 22/01 FEB 10/93 DEC 22/08 AUG 22/06	02 01 01 02 02
25-24-10 401 402 403 404	DEC 22/01 DEC 22/01 DEC 22/01 DEC 22/01	01 01 01 01	406 407 408 409 410	FEB 10/93 FEB 10/93 AUG 10/95 AUG 10/95 BLANK	01 01 SAS SAS	406 407 408 25-27-09	DEC 22/08 APR 22/06 BLANK	02 05
405 406 407 408 409 410 411 412	DEC 22/01 DEC 22/01 APR 22/99 APR 22/99 APR 22/99 APR 22/99 APR 22/99 MAY 10/90	01 01 01 01 01 01 01 01	25-25-02 401 402 403 404 25-25-03	MAY 10/90 MAY 10/90 MAY 10/90 BLANK	01 01 01	401 402 403 404 405 406 407 408	AUG 22/01 AUG 10/94 AUG 10/94 AUG 10/94 NOV 10/95 APR 22/99 AUG 22/01 BI ANK	01 01 01 01 01 01 02
413 414	MAY 10/90 BLANK	01	401 402 403 404	DEC 22/04 DEC 22/04 DEC 22/04 DEC 22/04	01 01 01 01	25–28–00 1 2	MAY 10/96 NOV 01/82	01 01

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206 207 208 209 210	MAY 10/93 AUG 22/01 DEC 22/99 DEC 22/99 BLANK	03 04 02 04	25-31-01 401 402 403 404 405	CONFIG 1 AUG 22/05 NOV 10/91 NOV 10/91 FEB 10/90 FEB 10/90	01A 01A 01A 01A	25-31-10 701 702 703 704	DEC 22/01 DEC 22/01 AUG 22/00 BLANK	01 03 04
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404 25–28–03 201 202	DEC 22/06 DEC 22/01	01 02	410 411 412 413 414	AUG 22/01 AUG 22/01 APR 22/04 AUG 22/01 DEC 10/98	01A 01A 01A 01A 01A	101 102 103 104	FEB 10/95 FEB 10/95 FEB 10/95 BLANK	15 01 05
203 204 205 206 207	NOV 10/92 MAY 10/93 APR 22/05 DEC 22/01 DEC 22/01	01 01 01 02 02	415 416 417 418	APR 22/04 DEC 10/98 AUG 22/01 BLANK	01A 01A 01A	25-33-00 601 602	DEC 22/08 BLANK	05
208 25-28-03 401 402 403 404	DEC 22/01 AUG 22/04 MAY 10/95 MAY 10/95 NOV 10/95	02 04 01 01 02	25-31-01 401 402 403 404 405 406	CONFIG 2 DEC 22/03 DEC 22/03 DEC 22/03 DEC 22/03 DEC 22/03 DEC 22/03	01A 01A 01A 01A 01A 01A	25-33-01 401 402 403 404 R 405 R 406	APR 22/01 APR 22/02 AUG 22/99 APR 22/00 AUG 22/09 AUG 22/09	01 01 01 02.1 03.1
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R 2 D 3 D 4	BLANK DELETED DELETED	01	412 25-31-03 401	APR 22/04	01A 02	25-33-02 401 402 403 404	AUG 22/00 APR 22/02 AUG 22/01	08 04 05
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701 702 25-31-00	AUG 10/95 AUG 10/95	SAS SAS	25-31-04 401 402	AUG 22/05 NOV 10/91	05B 06B	25-40-00 1 2	FEB 10/90 NOV 10/91	07A 07A
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101 102 103 104	NOV 10/89 NOV 10/91 NOV 10/89 BLANK	14 15 12	407 408 409 410	AUG 22/09 DEC 22/05 DEC 10/98 DEC 10/98	068 068 078 018	603 604 605 606	AUG 22/06 DEC 22/08 BLANK	04 01

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25-41-02 401 402 403 404 25-41-03 401 402	APR 22/04 FEB 10/90 FEB 10/90 FEB 10/90 APR 22/01 AUG 10/90	01 01 01 01 03B 04B	25-52-02 401 402 403 404 405 406	AUG 22/99 FEB 10/90 DEC 22/06 DEC 22/00 DEC 22/04 BLANK	01 01 02 01 01	1 2 3 4 5 6 7 8	AUG 22/06 NOV 10/90 NOV 10/92 FEB 10/91 NOV 10/92 NOV 10/92 DEC 22/00 NOV 10/90	05 01 09 13 14 09 07 03
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25-50-00 1 2 3 4	DEC 22/00 DEC 10/98 DEC 22/01 BLANK	12 01 09	802 803 804 805 806 806 807	AUG 22/06 AUG 22/06 DEC 22/08 AUG 22/06 AUG 22/06 AUG 22/06	05 05 05 05 05 05 05	104 105 106 107 108 109	AUG 10/90 AUG 10/90 AUG 10/90 AUG 10/90 AUG 10/90 AUG 10/90 AUG 10/90	06 06 02 03 13 02
25–52–00 601 602	APR 22/08 BLANK	02	808 809 810 R 811	AUG 22/06 AUG 22/06 AUG 22/06 AUG 22/09	05 04 SAS 03.1	110 111 112 113	AUG 10/90 AUG 10/90 AUG 10/90 AUG 10/90 AUG 10/90	01 01 01 02
25-52-00 701 702 703 704	DEC 22/08 AUG 22/01 DEC 22/01 NOV 10/95	01 01 01 01	R 812 813 814	AUG 22/09 AUG 22/06 BLANK	03.1 03	114 115 116	AUG 10/90 AUG 10/90 BLANK	02 02

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110 111 112 25–53–00	AUG 10/91 AUG 10/91 BLANK CONFIG 5	01 01	506 507 508 509 510	DEC 22/00 DEC 22/00 FEB 10/90 DEC 22/05 DEC 22/05	03 12 11 07 06	604 25-53-02 401 402	BLANK AUG 22/99 AUG 22/99	02 01
101 102 103 104	APR 10/98 MAY 10/91 MAY 10/91 MAY 10/91	04 01 01 01	25-53-00 501 502	CONFIG 5 DEC 22/00 APR 10/98	01 02	403 404 25-53-03	AUG 22/01 BLANK	19
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111 112 113 114 25–53–00 101	MAY 10/91 MAY 10/91 MAY 10/91 MAY 10/91 CONFIG 6 MAY 10/91	01 01 01 01	509 510 511 512 513 514 515	DEC 22/00 DEC 22/00 DEC 22/00 DEC 22/00 DEC 22/00 DEC 22/00 DEC 22/00	03 03 03 02 02 02 02	25-53-04 401 402 403 404	DEC 22/00 MAY 10/95 AUG 22/01 BLANK	02 01 02
102 103 104 105 106 107	MAY 10/91 MAY 10/91 MAY 10/91 MAY 10/91 MAY 10/91 AUG 10/92	06 01 05 03 01 12	516 25-53-00 501 502 503	BLANK CONFIG 6 DEC 22/00 AUG 10/89 FEB 10/91	03 03 01	25-53-05 401 402 403 404	DEC 22/07 FEB 10/90 DEC 22/07 BLANK	02 01 01
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25-53-00 501 502 503 504	CONFIG 2 DEC 22/05 FEB 10/90 FEB 10/91 DEC 22/05	02 01 01 07	510 511 512 25-53-01	DEC 22/00 DEC 22/00 BLANK	06 03	25-53-08 401 402 403 404	AUG 22/07 AUG 22/99 AUG 22/07 BLANK	02 01 03
505 506 507 508 509 510 511 512 513 514	DEC 22/05 DEC 22/00 DEC 22/00 DEC 22/00 DEC 22/00 DEC 22/00 DEC 22/00 DEC 22/00 DEC 22/00 DEC 22/00 DEC 22/00	07 03 04 05 07 07 07 07 06 05	R 401 402 403 404 405 406 407 R 408 409 410	AUG 22/09 NOV 10/90 APR 22/08 AUG 22/04 APR 22/08 APR 22/08 APR 22/08 AUG 22/09 APR 22/08 APR 22/08	03.1 01 05 05 02 01 03.1 04 06	25-53-09 401 402 403 404 405 406 407 408	DEC 22/07 MAY 10/95 DEC 22/01 DEC 22/07 DEC 22/07 DEC 22/07 DEC 22/07 DEC 22/07	08 07 09 07 04 09 10

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404 25-53-12 401 402 403	BLANK AUG 22/99 MAY 10/95 AUG 22/01	01 01 01	25-53-16 501 502 503 504 505	DEC 22/08 MAY 10/90 MAY 10/90 MAY 10/90 MAY 10/90	05 03 03 03 03 03	402 25-55-02 401 402	BLANK AUG 22/04 BLANK	01
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601 602 603 604	DEC 22/00 FEB 10/90 MAY 10/89 FEB 10/90	01 03 02 03	402 403 404	AUG 22/07 BLANK	03	204 25-61-02 201 202	APR 22/05	01 01
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403 404 25-53-15	BLANK	UT	405 406 25-53-24	BLANK	UT	25-62-00 1 2	DEC 22/05 BLANK	09
401 402 403 404	AUG 22/01 MAY 10/95 AUG 22/01 BLANK	02 01 02	401 402 403 404	AUG 22/99 AUG 22/99 AUG 22/99 BLANK	02 02 02	25-63-00 1 2	AUG 22/04 NOV 10/92	19 01
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EQUIPMENT/FURNISHINGS - DESCRIPTION AND OPERATION

- 1. <u>General</u>
 - A. Equipment/Furnishings includes items for providing comfort and convenience for passengers and crew members, for handling and stowing cargo, and for ensuring passenger and crew safety in an emergency.
 - B. Procedures and information for Equipment/Furnishings are contained in these major sections in this chapter.
 - (1) Flight Compartment, AMM 25-10-00: procedures for seats, linings, insulation, and other removable items.
 - (2) Passenger Compartment, AMM 25-20-00: procedures for seats, linings insulation, passenger service units, closets, partitions, floor coverings, and stowage compartments.
 - (3) Buffet/Galley AMM 25-31-00: procedures for galleys and related equipment.
 - (4) Lavatories, AMM 25-40-00: procedures for lavatories, except toilet units, which are covered in Chapter 38, Water/Waste.
 - (5) Cargo Compartments, AMM 25-50-00: procedures for lining and insulation, and handling and restraining of cargo in the cargo compartment.
 - (6) Emergency, AMM 25-60-00: procedures for escape, emergency, and life saving equipment.
- 2. Flight Compartment

3.

A. Seats for the flight crew and observers are in the flight compartment.

- Flight compartment accommodations provide crew comfort and safety. Passenger Compartment
- A. Insulation and decorative panels line the walls and ceiling of the passenger compartment. Service units are in the ceiling over the seats, and in the lavatories. Closets are used to store coats and garment bags. Overhead storage compartments are in the ceiling, and are used to store carry-on luggage, coats, and garment bags. Partitions divide the first class and tourist seating areas. Galleys have facilities for storing and preparing food and beverages. Lavatories provide toilet facilities.
- 4. Cargo Compartment
 - A. Forward, aft, and bulk cargo compartments are in the lower lobe. Containerized cargo is stored in the forward and aft cargo compartments. Loose baggage is stored in the bulk cargo compartment.

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5. <u>Emergency</u>

A. Escape ropes in the flight compartment provide means of escape through flight compartment windows. Miscellaneous emergency equipment is throughout the interior. The escape slides provide means of escape from the airplane using the entry/service doors or the emergency escape hatches. The off-wing escape slides store in the aft wing/body fairing. The door-mounted escape slides store in the entry service doors.

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EQUIPMENT/FURNISHINGS - CLEANING AND PAINTING

- 1. <u>General</u>
 - A. This procedure contains two tasks:
 - (1) The first task gives the instructions to clean the different types of materials in the airplane.
 - (2) The second task gives the instructions to paint the equipment that is in the airplane.
 - B. The decorative surfaces in the airplane are made of different materials. Some of the materials are:
 - (1) Tedlar
 - (2) Polycarbonate (Lexan)
 - (3) Fabrics
 - (4) Silicon
 - (5) Rubber
 - (6) Metal Trim
 - (7) ULTEM
 - (8) Declar.
 - C. It is necessary to paint the equipment when the surface finish is damaged. Apply the paint with a paint sprayer, a hand brush, or an air brush.
 - <u>NOTE</u>: Make sure the area you want to paint is smaller than 100 square inches. If the area is larger than 100 square inches, you must replace the part.
 - D. Make sure the area you want to paint is smaller than 100 square inches. If the area is larger than 100 square inches, you must replace the part.
 - E. You must apply a surface finish that is equivalent to the initial surface finish.
 - F. There must be no visual difference between the initial surface finish and the new surface finish.

TASK 25-00-00-107-001

- 2. <u>Clean the Airplane Equipment and Furnishings</u>
 - A. General
 - (1) Make sure you do not get the clean surfaces dirty when you clean the adjacent surfaces.
 - (2) The procedures are in groups as follows:
 - <u>NOTE</u>: Each group contains equivalent types of materials that you clean with the same detergents and procedures.
 - (a) Plastic and painted surfaces
 - (b) Tedlar-covered surfaces
 - (c) Mirrors
 - (d) Fabrics
 - (e) Leather and naugahyde
 - (f) Floor coverings

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- (g) Silicon seals
- (h) Bare metal surfaces.
- (3) Obey all WARNINGS and CAUTIONS during this task.
- (4) Use polyethylene bottles, or a spray gun for the water and for the mixed detergents.
- (5) Use polyethylene bottles with nozzles for the solvents.
- (6) Attach metal tags to all the bottles and spray guns to identify their contents.
- B. Equipment
 - (1) MIT65B50274 Vacuum Cleaner Attach Kit, Air Grille Panel
 - (2) Bottles polyethylene, with nozzles and spray equipment
 - (3) Brushes stiff fiber, 1/2-inch long bristles, 1/4 to two inches wide (glue brushes or paint brushes with bristles cut to length)
 - (4) Brushes medium fiber bristles, four-inches wide
 - (5) Brushes hand, solvent-resistant (Commercially Available)
 - (6) Scraper bone
 - (7) Spatula
 - (8) Vacuum cleaner wet pickup
 - (9) Paper towels white, reinforced
 - (10) Sponges cellulose
 - (11) Wipers cheesecloth, gauze, cotton cloth,
 - rymple cloth or cotton flannel
- C. Consumable Materials
 - <u>NOTE</u>: Use the materials from this list. If you touch the polycarbonate components with an incorrect cleaning agent, cracks will occur in the components.
 - (1) Detergents

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- (a) BOOOOO Winsol APX-120WX
- (b) B00015 Calla 301A Lemon or Standard
- (c) BOO157 Spraywhite E
- (d) BO0159 Glo Do-All Formual 3B
- (e) BOO161 Orvus WA Paste
- (f) B00294 Glo Do-All Formula 1D
- (g) B00705 SE-700

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- (2) Cleaners
 - (a) B00032 Glyst Concentrated Glass Cleaner
 - (b) BOOO33 Glasswax
 - (c) B00334 Bicarbonate of Soda
 - (d) B00702 Dustless
 - (e) B00703 Cleaning Compounds P-P-560
 - (f) B00710 Meguiar's Mirror Glaze
- (3) Solvents
 - (a) BOOO37 Freon TF
 - (b) B00067 Ethyl Alchol 0-E-760
 - (c) B00069 Methyl Chloroform (1-1-1 Trichloroethane), Inhibisol
 - (d) B00070 Methyl Chloroform (1-1-1 Trichloroethane) -Chlorothene NU
 - (e) BOO083 Alphatic Naptha TT-N-95, Type II
 - (f) B00093 Tetrachloroethylene (Perchloroethylene), Technical Grade - 0-T-236
- (4) Metal Polishes
 - (a) BOO7OO Met-All
- D. References
 - (1) AMM 12-16-03/301, Passenger Compartment Windows
 - (2) AMM 25-00-00/801, Equipment/Furnishings
- E. Access
 - (1) Location Zones
 - 200 Upper Half of the Fuselage
- F. Prepare to Clean

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S 847-058

- WARNING: OBEY THE INSTRUCTIONS FROM INDUSTRIAL HYGIENE, FIRE, AND SAFETY ORGANIZATIONS FOR THE FACILITIES, EQUIPMENT, VENTILATION, AND PROCEDURES NECESSARY FOR SAFE OPERATIONS WHEN YOU CLEAN THE AIRPLANE. THE MATERIALS YOU USE ARE POISONOUS AND FLAMMABLE. IF THE CORRECT PROCEDURES ARE NOT USED, INJURY OR DAMAGE WILL OCCUR.
- WARNING: DO NOT GET THE PAINT MATERIALS, SOLVENTS, DETERGENTS, AND CLEANERS IN YOUR MOUTH OR EYES, OR ON YOUR SKIN. DO NOT BREATHE THE FUMES. PUT ON PROTECTIVE SPLASH GOGGLES AND GLOVES WHEN YOU USE THESE MATERIALS. MAKE SURE THE AIR FLOWS FREELY THROUGH THE WORK AREA. USE THE NECESSARY RESPIRATORY PROTECTION. KEEP THESE MATERIALS AWAY FROM SPARKS, FLAME, AND HEAT. THESE MATERIALS ARE POISONOUS AND FLAMMABLE AND WILL CAUSE INJURY OR DAMAGE.
- <u>CAUTION</u>: DO NOT USE SOLVENTS, DETERGENTS, AND CLEANERS OTHER THAN THOSE SPECIFIED. IF YOU USE MATERIALS THAT ARE NOT SPECIFIED, DAMAGE TO THE AIRPLANE WILL OCCUR.
- (1) Unless you are told differently, mix the detergent that you will use as follows:
 - (a) Mix one part Spraywhite E to ten parts water (by volume).
 - (b) Mix one part Orvus WA Paste to 30 parts water (by volume).
 - (c) Mix one part Glo Do-All Formula (1D or 3B) to 30 parts water (by volume).
 - (d) Mix one part SE-700 to 20 parts water (by volume).
 - (e) Mix one part Winsol APX-120WX to 32 parts water (by volume).
 - (f) Mix one part Calla 301A Lemon or Standard to three parts water (by volume).
- G. Clean the Opaque Plastic and Painted Surfaces
 - <u>NOTE</u>: Use foam and a vacuum cleaner to remove the unwanted materials from perforated or acoustic surfaces. If you cannot use foam and a vacuum cleaner, use moist cloths or sponges. If the cloths are soaked, too much fluid will go through the perforations and openings.

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s 117-041

- <u>CAUTION</u>: DO NOT RUB SOLID-COLORED TEDLAR SURFACES WHEN THEY ARE DRY. PARTICLES CAN GET PUSHED INTO THE SURFACE OF THE MATERIAL, AND IT IS DIFFICULT TO GET THE SURFACES CLEAN IF THAT OCCURS.
- (1) To clean a small area on the surface, do these steps:(a) Lift the loose unwanted material with a wiper.

<u>NOTE</u>: Do not rub, spread, or push the unwanted material into textured or perforated surfaces, joints or seams.

- (b) Apply a mixed detergent to the dirty area with a spray bottle or a moist sponge.
- (c) Lightly rub the area with a wiper.
 - <u>NOTE</u>: For textured surfaces, remove the unwanted materials from the recesses with a soft fiber brush.
- (d) Remove the mixed detergent with a sponge that is moist with water.
- (e) Dry the area with a clean wiper. Rub the area in a straight line movement.

If the area stays dirty, do these steps:

- WARNING: DO NOT GET THE 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.
- <u>CAUTION</u>: DO NOT USE MORE SOLVENT THAN IS NECESSARY. MAKE SURE YOU PREVENT THE CONTAMINATION OF THE ADJACENT CLEAN AREAS BY THE SOLVENT. THE USE OF TOO MUCH SOLVENT WILL CAUSE DAMAGE TO THE SURFACE.

USE ONLY FREON OR ALIPHATIC NAPTHA TYPE II TO CLEAN PLASTICS. HOWEVER, DO NOT USE FREON IF THE PART IS PAINTED WITH A WATER-BASED PAINT. THE FREON WILL CAUSE DAMAGE TO THE PAINT. YOU CAN USE ALIPHATIC NAPTHA FOR PAINTED SURFACES, BUT FIRST YOU MUST REMOVE THE PART FROM THE AIRPLANE.

 Carefully rub the dirty area with a wiper that is moist with Aliphatic Naptha, Type II , ethyl alcohol, or isopropyl alcohol.

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- 2) Do the above steps again to remove the solvent with a mixed detergent.
- s 117-004
- (2) To clean all of the surface, do these steps:
 - (a) Apply a mixed detergent to the surface with a sponge or a spray bottle. Let the mixed detergent stay on the surface for 1/2 to two minutes.
 - (b) Rub the surface with a cloth that is moist with water.
 - (c) Remove the mixed detergent with a clean wiper that is soaked with water.
 - (d) Dry the surface with a clean, dry cloth.
- H. Clean the Tedlar-Covered Surfaces

s 117-005

- (1) To clean the tedlar-covered surface of a part while it is installed in the airplane, do these steps:
 - (a) Mix one part of the Spraywhite E with five-to-ten parts water (by volume).
 - <u>CAUTION</u>: DO NOT LET THE ETHYL ALCOHOL TOUCH THE PLASTIC PARTS. THE ETHYL ALCOHOL WILL CAUSE DAMAGE TO THE PLASTIC PARTS.
 - (b) Apply the mixture with a brush that has soft-to-medium bristles. Rub the surface in all directions with the brush.
 - NOTE: Add up to 30% ethyl alcohol 0-E-760 (by volume) to help you remove the nicotine.
 - (c) Remove the mixed detergent with a sponge that is moist with water.
 - (d) Dry the area with a clean wiper.

s 117-006

- (2) To clean the tedlar-covered surface of a part that is out of the airplane, do these steps:
 - (a) Repair all the damaged parts (AMM 25-00-00/801).
 - (b) You can use the same method to clean the parts you would use if the parts were installed, or you can use the method that follows:
 - 1) Remove or cover with masking tape all the plastic and painted parts that are not resistant to solvent damage.
 - <u>NOTE</u>: These solvents will also remove the paint from the edge of the parts.

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- WARNING: DO NOT GET THE SOLVENTS IN YOUR MOUTH OR EYES, OR ON YOUR SKIN. DO NOT BREATHE THE FUMES. PUT ON A PROTECTIVE SPLASH GOGGLE AND GLOVES WHEN YOU USE SOLVENTS. KEEP SOLVENTS AWAY FROM SPARKS, FLAME, AND HEAT. SOLVENTS ARE POISONOUS AND FLAMMABLE AND WILL CAUSE INJURY TO PERSONS.
- 2) Clean the parts with a wiper or cloth and solvent, Series 98 (AMM 20-30-98/201).
- 3) If you accidentally removed paint from the part when you used the solvent, apply primer and paint to those areas.

NOTE: Refer to the Paint the Airplane Equipment and Furnishings task for the instructions.

I. Clean the Translucent and Transparent Plastic Surfaces

s 117-042

- 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 AND PROPER HANDLING PROCEDURES.
- CAUTION: DO NOT RUB THE PLASTIC SURFACES WITH A DRY CLOTH. THIS WILL CAUSE SCRATCHES AND AN ELECTROSTATIC CHARGE.
- Rub the surface lightly with a cloth that is soaked with the (1) isopropyl alcohol, ethyl alcohol, Freon TF or a mixed detergent.
 - Refer to AMM 12-16-03/301 for instructions to clean the NOTE: windows.

s 117-043

(2) Remove the mixed detergent with a cotton flannel cloth that is moist with water.

s 117-051

- (3) Remove a thin dust layer or an electrostatic charge with a cloth that is moist with water.
- Clean the Mirrors J.

s 117-044

(1) To clean the glass mirrors, do these steps:

> (a) Use a razor blade to remove dry paint and other unwanted materials that are not easy to rub off.

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(b) Use the Glyst Concentrated Glass Cleaner or Glasswax to clean the glass.

NOTE: Obey the manufacturer's CAUTIONS and instructions.

s 117-007

- <u>CAUTION</u>: DO NOT RUB PLASTIC SURFACES WITH A DRY CLOTH. THIS WILL CAUSE SCRATCHES AND AN ELECTROSTATIC CHARGE.
- (2) To clean the plastic mirrors, do these steps:(a) Remove the loose unwanted materials with a clean cloth.
 - 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.
 - (b) Rub the stains with a cloth that is moist with Freon TF, isopropyl alcohol, or ethyl alcohol.
 - (c) Remove the solvent with a cotton flannel cloth that is moist with water.
 - (d) Rub all of the surface very lightly with a cloth that is moist with water to remove the sharp particles.
 - (e) Apply a solution of ORVUS WA Paste to the mirror.
 - (f) Rub the surface with a clean cloth that is moist with water.
 - (g) Apply the solution of ORVUS WA Paste one more time.
 - (h) Polish the plastic with a cotton flannel cloth that is moist with water.
- K. Clean the Fabrics

S 117-008

- (1) To clean the carpets, the seat upholstery, and equivalent equipment, do these steps:
 - (a) To clean a small area on the surface, do these steps:
 - <u>NOTE</u>: Remove all the stains as soon as possible. It is not possible to remove some materials from the fabric if you do not remove them immediately.
 - To remove tea, coffee, fruit juices, wines, fruit, catsup, soft or mixed drinks, chocolate, syrups, perfumes, vomit, and urine, do these steps:
 - a) Soak the dirty area with warm water.

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- <u>CAUTION</u>: DO NOT USE TOO MUCH HAND PRESSURE WHEN YOU RUB THE FABRIC WITH THE BONE SCRAPER. IF YOU USE TOO MUCH HAND PRESSURE, THE BONE SCRAPER CAN CAUSE DAMAGE TO THE FABRICS.
- b) Carefully rub the area with a bone scraper to loosen the unwanted material from the fabric.
- c) Apply a mixed detergent the dirty area.
- d) Rub the area with a bone scraper one more time.
- e) Use the vacuum cleaner to remove the detergent and the unwanted materials.

<u>NOTE</u>: Use a soft cloth to remove remaining moisture if it is necessary.

- 2) If there is an odor, do these steps:
 - a) Mix one teaspoon of sodium bicarbonate in six ounces of water.
 - b) Apply the mixture on the area.
 - c) Rub the area with a bone scraper.
 - d) Remove the moisture with a wiper.
- 3) To remove fresh paints, greases, lipsticks, permanent inks, oils, jet fuel, hydraulic fluid, powdered graphite, and powdered aluminum, do these steps:
 - a) Remove the loose unwanted material as soon as possible with a wiper.
 - b) Apply a mixed detergent to the area. Let it soak for 30 seconds.
 - c) Apply an additional quanity of the mixed detergent to the area.
 - Carefully rub the area with the blunt end of the bone scraper to lift the unwanted material into the detergent.
 - e) Use a vacuum cleaner to remove the mixed detergent and the unwanted material.
 - f) Use a wiper to remove all the remaining moisture, if it is necessary.
 - g) If the area is not fully clean, do the above steps again until the area is fully clean.
 - h) Use a soft fiber brush to to straighten and lift the fabric pile.
- 4) To remove adhesives, sealants, paints, asphalt, and gum, do these steps:
 - a) Use a vacuum cleaner to remove all the loose unwanted material from the fabric.



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<u>CAUTION</u>: PUT A COVER ON THE PLASTIC AND PAINTED SURFACES ADJACENT TO THE DIRTY AREA. CHLORINATED SOLVENTS WILL CAUSE DAMAGE TO THE PLASTIC AND PAINTED PARTS.

> USE ONLY THE MINIMUM QUANITY OF CHLORINATED SOLVENTS NECESSARY TO REMOVE THE UNWANTED MATERIAL. CHLORINATED SOLVENTS WILL MOVE THE UNWANTED MATERIALS AND MAKE A NEW STAIN.

- b) Use a wash bottle with a nozzle to apply a chlorinated solvent (Inhibisol-West safe or Chlorothene NU) to the dirty area. Let the solvent soak for 30 seconds.
- c) Carefully rub the fabric with a bone scraper to loosen the unwanted materials.
- d) Remove the unwanted materials with a wiper.
- e) Do the above steps again until the area is fully clean.
- f) Immediately after the area looks fully clean, clean the area one more time with a mixed detergent to remove the solvent.

<u>NOTE</u>: Refer to the instructions given before you use the detergents on small areas.

- (b) To do regular cleaning, do these steps:
 - Use a vacuum cleaner to remove the loose particles from the fabric.
 - 2) Mix two ounces of Orvus WA Paste in one gallon of water.
 - <u>NOTE</u>: You can also use Do-All, Calla 301A Lemon or Calla 301A Standard. Refer to the Prepare to Clean steps for the instructions to mix the detergents.
 - <u>CAUTION</u>: IF YOU REMOVE THE FABRIC TO CLEAN IT, YOU MUST DRY CLEAN THE FABRIC TO PREVENT DAMAGE. IF YOU DO NOT REMOVE THE FABRIC, APPLY ONLY THE FOAM FROM THE MIXTURE. THE LIQUID WILL SOAK INTO THE FABRIC AND WILL CAUSE DAMAGE.
 - 3) Carefully rub the foam from the mixture into the fabric with sponge or medium-fiber bristle brush. Use a circular motion and make an overlap with each motion.
 - <u>NOTE</u>: Clean only a small area at a time until you are done.





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- 4) Use a brush to lift the fabric pile.
 - <u>NOTE</u>: Carefully rub the fabric in one direction only or the fabric will not look satisfactory.
- 5) When the area is fully dry, use a vacuum cleaner to remove the remaining unwanted materials.
- (c) To clean seat covers and drapes, do these steps:
 - <u>NOTE</u>: The fabrics are treated with a fire retardant. If you do the instructions that follow, the fire retardant will stay satisfactory. If these instructions do not agree with the fabric manufacturer or supplier, obey their instructions.
 - 1) Attach the velcro tape together to prevent contamination or damage to the hook and pile.
 - 2) To remove tea, coffee, liqueurs, fruit juice, chocolate, syrup, perfume, vomit, and urine, do these steps:
 - a) Make the unwanted material soft with a mixed detergent and steam.
 - b) Remove the moisture and the unwanted material with a wiper or a soft cloth.
 - 3) Turn the seat covers inside out (turn the inner surface to the outer side).
 - <u>CAUTION</u>: YOU MUST USE COLD WATER. DO NOT USE MORE THAN 8% WATER IN THE MIXTURE. THE FABRIC WILL BECOME SMALLER IF YOU ADD TOO MUCH WATER OR THE WATER IS NOT COLD.
 - 4) Mix the Tetrachloroethylene solvent, a mixed detergent and cold water as follows:
 - a) Obey the proportion information given by the manufacturer or the supplier of the detergent and solvent.
 - b) Add the cold water, up to 8%, to the mixture.
 - c) Use a cleaning drum temperature that is not hotter than 72 degrees F (22 degrees C).
 - 5) Dry the fabric at a maximum temperature (air into the drum) of 130 degrees F (55 degrees C).
 - 6) Remove the remaining stains with a mixed detergent and steam.
 - 7) Remove the velcro tape, if it is necessary.





- L. Clean the Leather or Naugahyde
 - s 117-039
 - (1) To clean a small area on the surface, do these steps:
 - (a) Remove the water-based stains with a mixed detergent.
 - <u>NOTE</u>: Refer to the Regular Cleaning paragraph below for the instructions to mix the detergent.
 - WARNING: DO NOT GET THE 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.
 - <u>CAUTION</u>: DO NOT USE MORE FREON THAN IS NECESSARY. MAKE SURE YOU PREVENT THE CONTAMINATION OF THE ADJACENT AREAS BY THE FREON. IF YOU USE TOO MUCH FREON, DAMAGE TO THE PARTS WILL OCCUR.
 - (b) Rub the oil-based stains with a wiper that is moist with Freon TF, Naphtha, isopropyl alcohol, or ethyl alcohol..
 - (c) Clean the area with a mixed detergent.
 - <u>NOTE</u>: Refer to the paragraph that follows to clean by the usual method.
 - s 117-040
 - (2) To clean by the usual method, do these steps:
 - (a) Mix two ounces of Orvus WA Paste in one gallon of water.
 - <u>NOTE</u>: You can also use Do-All, Calla 301A Lemon or Calla 301A Standard. Refer to the Prepare to Clean steps for the instructions to mix the detergents.
 - (b) Apply only the foam to the leather or Naugahyde with a soft cloth.
 - (c) Rub it carefully in a circular movement.
 - (d) Remove the mixed detergent with a clean cloth that is moist with water.
 - (e) Rub the surface with a dry soft cloth.
- M. Clean the Plastic or Rubber Floor Coverings
 - s 147-035

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(1) Use a vacuum cleaner to remove the loose unwanted materials.

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s 117-036

(2) Apply a mixed detergent to the floor covering.

s 117-047

(3) Rub the surface with a brush that has medium-fiber bristles, if it is necessary.

s 117-037

(4) Flush the surface with clean water.

S 117-048

(5) Remove the loose unwanted materials with the paper towels or wipers.

s 117-038

(6) Do the steps again until the surface is fully clean.

N. Clean the Floor Coverings that are Painted with Polyurethane Paint

S 147-031

(1) Use a vacuum cleaner to remove the loose unwanted materials.

s 117-032

(2) Apply a mixed detergent to the floor covering.

S 117-049

(3) Rub the area with a brush that has medium-fiber bristles, if it is necessary.

s 117-033

(4) Flush the surface with clean water.

s 117-050

(5) Remove the loose unwanted materials with the paper towels or wipers.

s 117-034

- (6) Do the steps again until the surface is fully clean.
- 0. Clean the Silicone Seals

s 117-027

(1) Apply a mixed detergent on the seal with a spray bottle or sponge. Let it soak for 1/2 to two minutes.

S 117-028

(2) Rub the surface of the seal with a moist cloth.

s 117-029

(3) Remove the mixed detergent from the seal with a clean wiper that is soaked with water.

s 117-030

(4) Dry the seal with a clean, dry cloth.

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- P. Clean the Bare Metal Surfaces
 - s 117-045
 - <u>CAUTION</u>: USE ONLY CLEAN OR CHLORINATED WATER YOU CLEAN THE FRONT COVERS OF THE OVENS. DETERGENTS WILL CAUSE DETERIORATION OF THE SURFACE FINISH. DO NOT USE POLISHES ON DECORATIVE ALUMINUM. THE POLISHES WILL CAUSE DAMAGE TO THE DECORATIVE SURFACES.
 - (1) To clean a small area of an aluminum surface, do these steps:(a) Remove the loose unwanted material with a wiper.
 - (b) Apply a mixed detergent to the dirty area with a spray bottle or a moist sponge.
 - (c) Carefully rub the area with a clean wiper to remove the unwanted material.
 - (d) Remove the mixed detergent with a sponge that is moist with water.
 - (e) Dry the surface with a clean wiper. Rub the surface in a straight line movement. If the area is still dirty, do these steps:
 - WARNING: DO NOT GET THE 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.
 - <u>CAUTION</u>: DO NOT USE MORE FREON TF THAN IS NECESSARY. MAKE SURE YOU PREVENT THE CONTAMINATION OF THE ADJACENT CLEAN AREAS BY THE FREON TF. IF YOU USE OF TOO MUCH FREON TF, DAMAGE TO THE SURFACE WILL OCCUR.
 - 1) Rub the area with a wiper that is moist with solvent, Series 80 (AMM 20-30-80/201).
 - 2) After the surface looks fully clean, remove the solvent with a mixed detergent.
 - <u>NOTE</u>: Refer to the instructions given before for the use of detergents.
 - s 117-025
 - (2) To clean the aluminum by the usual method, do these steps:
 - (a) Apply a mixed detergent to the surface with a sponge or a spray bottle. Let it soak on the surface for 1/2 to two minutes.
 - (b) Rub the surface with a clean cloth that is moist with water.
 - (c) Remove the detergent with a wiper that is soaked with water.
 - (d) Dry the surfaces with a clean, dry cloth.

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- s 117-024
- (3) To clean stainless steel, do these steps:
 - (a) Clean the stainless steel with the procedure given for opaque plastic or painted surfaces; then, polish the stainless steel as follows:
 - 1) Apply a polish with a wiper to a small area.
 - <u>NOTE</u>: Use Met-All for highly polished surfaces and satin finishes.
 - 2) Rub the area until the polish becomes black.
 - 3) Rub the surface with clean, dry wiper until the rubbed area looks bright, and continuous.
 - 4) Remove the remaining polish with a mixed detergent.
 - <u>NOTE</u>: Use the procedure given to clean opaque plastic and painted surfaces to clean the stainless steel.
- Q. Clean the Air Grille Panels
 - s 147-023
 - (1) Use a vacuum cleaner to clean the air grille panels.

TASK 25-00-00-377-009

- 3. Paint the Airplane Equipment and Furnishings
 - A. General
 - The procedures that follow are in groups in relation to the type of decorative surface to be painted: Tedlar, polycarbonate (Lexan), ULTEM, and Declar.
 - (2) Fully mix the paint before you use it. A mechanical mixer is recommended. Do not shake the water emulsion paint too much or air bubbles in the paint will occur.
 - (3) Mix the paint to the correct consistency before you spray it. Do not mix thinners from different vendors.
 - (4) Keep the air clean. Dirt or lint can contaminate the paint before it is dry.
 - (5) The color of the new paint must be the same as the old paint or you will see an outline. Use a paint with high-grade commercial standards when you apply paint with a brush, spray, or an aerosol container.
 - B. Consumable Materials
 - (1) Miscellaneous Materials
 - (a) B00129 Solvent Isopropyl Alchol TT-I-735
 - (b) B00148 Solvent Methyl Ethyl Ketone (MEK) TT-M-261
 - (c) COOOOO Primer E61WC40, Polane Primer
 - (d) COO039 Primer BMS 10-83 Type I
 - (e) COOO40 Paint Polyurethane, BMS 10-83 Type II
 - (f) CO2O21 Glazing putty, dual purpose No. 4
 - (g) GO0147 Masking Tape Permacel No. 718

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- (h) GOO381 Paper Abrasive, 180-Grit (minimum grit number)
- (2) Detergents
 - (a) BO0157 Spraywhite E
 - (b) BO0159 Glo Do-All Formual 3B
 - (c) BOO161 Orvus WA Paste
 - (d) BO0294 Glo Do-All Formula 1D
- C. Access
 - (1) Location Zones
 - 200 Upper Half of the Fuslage
- D. Paint the Tedlar Surfaces

s 117-052

- 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.
- <u>CAUTION</u>: DO NOT LET SOLVENTS STAY ON PLASTICS FOR TOO LONG. IF YOU LET THE SOLVENTS STAY ON THE PLASTICS TOO LONG, DAMAGE TO THE PLASTICS WILL OCCUR.
- Fully rub the surface with a cheesecloth that is moist with solvent, Series 98 (AMM 20-30-98/201).

s 147-016

(2) Dry the surface with a clean dry wiper before the solvent, Series 98 (AMM 20-30-98/201) dries.

s 957-017

(3) Apply masking tape to the adjacent surfaces.

s 377-018

(4) Apply the BMS 10-83, Type I primer to the area that you will paint.

s 377-019

(5) Mix the polyurethane paint. Obey the manufacturer's instructions.

s 377-020

(6) Apply several cross-layers of paint to get the correct color match with the adjacent areas for the base coat.

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s 957-021

(7) Remove the masking tape.

<u>NOTE</u>: Let the first layer cure for two hours at 70 to 80°F before you touch it or one hour before you apply a texture layer.

s 377-022

- (8) If it is necessary, apply a texture layer of the same paint that is not thin. Let it dry for three hours before you touch it.
- E. Paint the Polycarbonate (Lexan) Surfaces

s 117-010

(1) Clean the surface with a cheesecloth that is moist with a mixed detergent.

s 147-011

(2) Rub the surface lightly with 180-grit abrasive paper (minumum grit number) to remove the gloss.

s 117-012

(3) Clean the surface with a clean cheesecloth that is moist with a mixed detergent.

s 357-013

- (4) Examine the surface for porosity and voids. If you find surface porosity or voids, do these steps:
 - (a) Put the putty on a clean cheesecloth at package consistency.
 - (b) Rub the surface with the cheesecloth to push the putty into the surface defects.
 - (c) Let the putty dry for 3/4 to one hour.
 - (d) Remove the unwanted putty with the abrasive paper.
 - (e) Clean the surface with a cheesecloth that is moist with detergent.

s 377-014

- <u>CAUTION</u>: YOU MUST USE BMS 10-83 TYPE I PRIMER BEFORE YOU PAINT THE POLYCARBONATE SURFACES. THE SOLVENTS IN THE PAINT CAN DAMAGE THE POLYCARBONATE IF YOU DO NOT USE THE SPECIFIED PRIMER.
- (5) Apply the polyurethane paint. Refer to the steps given before for the use of polyurethane paints.

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F. Paint the Ultem and Declar Surfaces

s 377-046

- (1) To paint the ULTEM and Declar surfaces, do these steps:
 - (a) Clean the surface you will paint with a cheesecloth that is moist with a mixed detergent or with the isopropyl alchol.
 - (b) Dry the surface with a clean dry wiper.
 - <u>NOTE</u>: If you use isopropyl alcohol, dry the surface before the alcohol dries.
 - (c) Examine the surface for porosity or voids. If you find surface porosity or voids, refer to the steps given before to repair the surface.
 - (d) Clean the surface again with a cheesecloth that is moist with a mixed detergent or isopropyl ahcohol.
 - (e) Dry the surface with a clean dry wiper.
 - <u>NOTE</u>: If you use isopropyl alcohol, dry the surface before the alcohol dries.
 - (f) Apply the E61WC40 Polane primer to the surface.
 - (g) Apply the polyurethane paint. Refer to the steps given before for the use of the polyurethane paint.





MAINTENANCE MANUAL

<u>EQUIPMENT/FURNISHINGS - APPROVED REPAIRS</u>

1. <u>General</u>

- A. This procedure has these tasks:
 - (1) Repair Crushed-Core and Sandwich Panels.
 - (2) Repair Decorative Surfaces.
 - (3) Decorative Tedlar Removal/Installation.
 - (4) Repair Nomex Honeycomb Sandwich Panels that have a Decorative Tedlar Cover.
 - (5) Repair Tedlar Covers of Aluminum Laminates.
 - (6) Repair Perforated Panels.
 - (7) Repair Polycarbonate (Lexan), ULTEM, and Declar plastics.
 - (8) Repair Urethane Foam.
 - (9) Repair Aluminum Trim.
 - (10) Repair Insulation Blanket and Cover.
 - (11) Insulation Blanket Manufacturing.

TASK 25-00-00-308-015

- 2. Repair Crushed-Core and Sandwich Panels
 - A. General
 - (1) This procedure gives instructions to repair crushed-core and sandwich panels that have these types of damage:
 - (a) Small scratches and dents
 - (b) Large dents in thin crushed-core panels
 - (c) Small holes and gouges
 - (d) Damage that is more than 0.5-square inch but has no core damage
 - (e) Damage that is more than 0.5 square inch with core damage
 - (2) Make sure the area you want to repair is smaller than 100 square inches. If the area is larger than 100 square inches, you must replace the part.
 - B. Equipment
 - (1) Heat Gun 1200 to 1500 watts
 - (2) Saw Hole
 - C. Consumable Materials
 - (1) Adhesives
 - (a) A00000 Filler BMS 5-136, Ad Tech 15-3
 - (b) A01021 BMS 5-28, Type 18

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- (c) A50042 BMS 5-28, Type 19
- (d) A00292 BMS 5-105, Type II, Class I, EC 3532A/B
- (e) G50399 BMS 8-201, Type III
- (f) G50400 BMS 8-201, Type IV
- (2) B00083 Solvent Aliphatic Naphtha, TT-N-95
- (3) B00168 Paper Abrasive, 400-600 grit
- (4) GOOO34 Cheescloth Lint-free
- (5) G00077 Foam BMS 8-133
- (6) GOO129 Fabric Woven prepreg glass, BMS 9-3
- (7) G02480 Tape Mylar, Permacel No. P-255
- D. References
- (1) AMM 20-10-26/201, Heat Guns, Soldering Guns, and/or Soldering Irons
- E. Access
 - (1) Location Zone
 - 200 Upper Half of the Fuselage
- F. Repair Small Scratches and Dents
 - <u>NOTE</u>: Use this procedure to repair panels that have damage that does not go into the fiberglass or carbon skins.

For panels that are 0.25-inch thick or more, use this procedure to repair scratches and small surface dents that are not more 0.01-inch deep. For panels that are less than 0.25-inch thick, use this procedure to repair scratches and small surface dents that are not more than 0.005-inch deep.

s 348-016

(1) Fill the damaged area with BMS 5–136 filler to make a crown above the adjacent area.

S 348-017

(2) After the filler is hard, rub it with abrasive paper to the same level as the surface of the panel.

s 348-018

- (3) If this is a decorative panel, do the procedure to repair the decorative surface.
- G. Repair Large Dents in Crushed-Core Panels
 - <u>NOTE</u>: This procedure is for panels less than 0.25 inch thick with dents that are more than 0.005-inch deep.

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s 888-019

- <u>CAUTION</u>: BE CAREFUL WHEN YOU APPLY HEAT NEAR MATERIALS THAT CAN BURN. THE TEMPERATURE OF THE TEDLAR MUST NEVER BE MORE THAN 200°F OR THE TEMPERATURE AT WHICH THE TEDLAR DISTORTS, WHICHEVER IS LOWER. TOO MUCH HEAT CAN CAUSE DAMAGE TO THE TEDLAR.
- (1) On the side that does not have dents, increase the temperature of the panel. Use a standard 1200- to 1500-watt heat gun, until the panel is approximately 200°F.
 - <u>NOTE</u>: The area of the panel will get more flexible, and very hot. Refer to AMM 20–10–26/201 for CAUTIONS to obey when you use a heat gun.

s 348-020

(2) Push the backside of the panel forward with the round surface of a tool to remove as much of the dent as you can.

s 348-021

- (3) After the panel is cool, do the procedure to repair small scratches and dents, if it is necessary.
- H. Repair Small Holes and Gouges
 - <u>NOTE</u>: Use this procedure for damage that is less than 0.5 square inch and goes through the face sheets, but not into the fiberglass.

s 348-022

 Remove loose and broken pieces, contamination, and other unwanted material from the hole.

s 118-023

(2) Clean the area with a cheesecloth that is soaked with naphtha.

S 118-024

(3) Dry the area with a clean cheesecloth.

s 348-025

(4) Prepare BMS 5-28, Type 18 or Type 19 potting compound as specified in the manufacturer's instructions.

s 348-026

(5) Fill the hole with the adhesive mixture.

s 348-027

(6) Let the compound cure for 7 days at 75 to 79 degrees F, or 5 hours at 120 to 130 degrees F.

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s 348-028

(7) Rub the area with the abrasive paper until the compound is at the same level as the adjacent surface.

S 348-029

- (8) If it is a decorative panel, do the procedure to repair the decorative surface.
- I. Repair Panels that do not have Core Damage
 - <u>NOTE</u>: Use this procedure to repair panels that have more than 0.5 inch of damage but no core damage.

s 348-030

(1) Remove the damaged part of the panel skin.

s 348-031

(2) Rub the area and 2 inches more on all the sides of the area with abrasive paper until the area is not glossy.

s 118-032

(3) Clean the area with a cheesecloth that is soaked with naphtha.

S 118-033

(4) Dry the area with a clean cheesecloth.

S 348-034

(5) Follow the manufacturer's instructions to mix the BMS 8–201 resin and hardener.

s 348-035

(6) Apply glass fabric that is soaked with the mixed adhesive and make an overlap of approximately 1/2-inch.

NOTE: Use 50 percent more glass fabric than the initial skin.

S 348-036

(7) Let the glass fabric and adhesive cure for 24 to 36 hours at 75 to 90° F, or for 3 to 4 hours at 140 to 160° F.

S 348-037

(8) If this is a decorative panel, do the procedure to repair the decorative surface.

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- J. Repair Panels that have Core Damage
 - <u>NOTE</u>: Use this procedure to repair panels that have more than 0.5 inch of damage and damaged core.

There are two procedures for this repair.

s 348-038

(1) Remove the damaged skin until you can see at least 0.5-inch of core that does not have damage.

S 348-039

(2) Remove the damaged part of the core.

<u>NOTE</u>: Make sure 0.5 inch of core without damage is shown on all sides of the damaged area.

S 118-040

(3) Clean the area with a cheesecloth that is soaked with naphtha.

s 118-041

(4) Dry the area with a clean cheesecloth.

S 348-042

- (5) Repair Procedure I
 - (a) Mix (by weight) 109 parts of EC 3532A/B resin part A to 100 parts of part B.
 - (b) Bond a piece of foam with the adhesive mixture to the area where the damaged core was removed.

<u>NOTE</u>: The foam thickness must be the same thickness as the honeycomb core that was removed from the damaged area.

- (c) Let the repair cure for 2 hours at 75°F, or for 45 minutes at 160°F.
- (d) Repair the skin with the steps given before for panels that do not have core damage.
- s 348-043
- (6) Repair Procedure II
 - (a) Prepare BMS 5-28, Type 18 or Type 19 potting compound as specified in the manufacturer's instructions.
 - (b) Fill the damaged area with the adhesive mixture.
 - (c) Let the repair cure for 3 hours at 75°F.
 - (d) Repair the skin with the steps given before for panels that do not have core damage.

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K. Repair Potted Inserts

S 348-044

(1) Remove the damaged skin and approximately 1/2-inch more on all sides of the damage.

S 118-045

(2) Clean the area with a cheesecloth that is soaked with naphtha.

S 118-046

(3) Dry the area with a clean cheesecloth.

S 348-047

(4) Cut around the insert from the back side of the panel with a hole saw or an equivalent tool.

NOTE: Be careful not to cut the front side of the panel.

s 348-048

- <u>CAUTION</u>: BE CAREFUL WHEN YOU APPLY HEAT NEAR MATERIALS THAT CAN BURN. THE TEMPERATURE OF THE TEDLAR MUST NEVER BE MORE THAN 200°F OR THE TEMPERATURE AT WHICH THE TEDLAR DISTORTS, WHICHEVER IS LOWER. TOO MUCH HEAT CAN CAUSE DAMAGE TO THE TEDLAR.
- (5) Carefully increase the temperature of the insert until you can remove the insert from the panel.
 - <u>NOTE</u>: If you do not use heat during the removal of the insert, damage to the front panel can occur. Refer to AMM 20-10-26/201 for CAUTIONS to obey when you use a heat gun.

S 348-049

(6) Prepare BMS 5-28, Type 18 or Type 19 potting compound as specified in the manufacturer's instructions.

s 348-050

(7) Fill the hole with the adhesive mixture.

S 348-051

(8) Push a new insert slowly into the mixture. Let the mixture flow around the insert and completely fill the hole.

s 348-052

(9) Let the adhesive mixture cure for 3 hours at $75^{\circ}F$.

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s 348-053

- (10) Repair the skin with the procedure given before for panels that do not have core damage.
- L. Repair Bassinet Fittings

S 348-054

(1) Fully remove the old epoxy material.

S 348-055

(2) Remove some material from under the top skin.

S 348-056

(3) Prepare BMS 5-28, Type 18 or Type 19 potting compound as specified in the manufacturer's instructions.

s 348-057

(4) Fill the hole with the adhesive mixture.

s 348-058

(5) Apply mylar tape to make a cover on the end of the hole in the bassinet fitting.

S 348-059

(6) Slowly push the fitting in the hole.

S 348-060

(7) Remove the unwanted adhesive that comes out when you push the insert in the hole.

s 348-061

(8) Let the adhesive cure for 3 hours minimum.

TASK 25-00-00-308-062

3. <u>Repair Decorative Surfaces</u>

- A. General
 - (1) This task contains instructions to repair decorative tedlar surfaces that have small scratches, small holes, and gouges.
 - <u>NOTE</u>: Make sure the area you want to repair is smaller than 100 square inches. If the area is larger than 100 square inches, you must replace the full decorative tedlar using the Decorative Tedlar Removal/Installation procedure or replace the part.

The repair depth cannot be larger than 0.10-inch in a tedlar-covered crushed-core panel that is 0.25-inch thick or more, or 0.005-inch deep in a panel that is less than 0.25-inch thick.

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B. Equipment (1) Heat Gun - 1200 to 1500 watts (2) Spray Gun - Paint C. Consumable Materials (1) Adhesives (a) A00000 Filler - BMS 5-136, Ad Tech 15-3 (b) A00016 Adhesive - BMS 5-91, Pressure Sensitive Film A00032 BMS 5-127, Type II, Bostik 7132 (c) with Boscodur 24 (2) Solvents (a) BO0083 Aliphatic Naphtha, TT-N-95 (b) B00148 Methyl Ethyl Ketone (MEK), TT-N-261 (3) B00026 Buffing Compound - Learock S-30, B00027 Optional to Learock S-30 : Learock 888 (4) B00710 Cleaner – Meguiars Mirror Glaze, Clear Plastic, MGH-17 (5) B00168 Paper - Abrasive, 400-600 grit (6) B00380 Paper - Abrasive, 240-320 grit (7) Silk Screen Ink - BMS 10-73 (a) COO367 Type I (b) COO368 Type II COO801 Paint - Acrylic, clear - tartan (8) (9) B00711 Polish – Meguiars Mirror Glaze, Clear Plastic, MGH-10 (10) GOOOOO Laminate - Decorative Tedlar (11) GOOOOO Laminate - Flexible Decorative Tedlar (12) G00034 Cheesecloth - Lint-free (13) GOO123 Tape - Masking, 1 or 2 inches wide, Permacel No. 94 (14) GO2O22 Rubber - Silicone, Dow Corning Silastic RTV B (15) GO2O23 Wheel - Buffing, cotton flannel (16) GO2O24 Rubber - Silicone, Sylgard 186, clear References D. (1) AMM 20-10-26/201, Heat Guns, Soldering Guns and/or Soldering Irons Ε. Access (1) Location Zone 200 Upper Half of the Fuselage F. Repair Small Scratches and Unwanted Marks not on High Gloss Laminates S 348-063 CAUTION: DO NOT RUB THROUGH THE TEDLAR WHEN YOU REPAIR THE SMALL SCRATCHES OR UNWANTED MARKS. YOU WILL CAUSE MORE EXPENSIVE REPAIRS TO BE NECESSARY IF YOU RUB THROUGH THE TEDLAR.

(1) Rub the surface lightly with the abrasive paper until the area is not rough.

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S 348-064

- (2) Polish the damaged area with the buffing wheel and buffing compound until the area is as glossy as the adjacent areas.
- G. Repair Glossy Areas

s 348-065

- <u>CAUTION</u>: DO NOT RUB THE TEDLAR LAYER OFF THE SURFACE. IF YOU REMOVE THE TEDLAR LAYER, YOU MUST DO REPAIR WORK TO REPLACE THE TEDLAR.
- (1) Use the buffing wheel until the area is glossy like the adjacent areas.
- H. Repair Small Scratches on High Gloss Laminates

s 358-287

- (1) Limit the repair to scratches in high gloss laminates only.
 - (a) Total area of repair should be less than 9 square inches (58 square cm).

s 358-291

(2) Clean the repair area with Meguiars clear plastic cleaner, B00710.(a) Follow the recommended instructions on the product label.

s 358-289

(3) Apply Meguiars clear plastic polish, B00711, on the repair area.(a) Follow the recommended instructions on the product label to polish away scratches.

s 358-292

- (4) Buff to remove unwanted polish.
- I. Repair the Pattern of the Tedlar

S 378-066

(1) Apply silk screen ink of the correct color.

s 378-067

(2) Let the ink air-dry for 15 minutes.

S 378-068

(3) To reduce the gloss of the silk screen ink, lightly apply the tartan clear acrylic with a spray gun.

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J. Repair Small Holes and Gouges

S 348-069

- (1) Apply BMS 5-136 filler to the area with damage.
 - <u>NOTE</u>: Apply more filler than is necessary to make sure the gouge is fully filled. The unwanted filler is removed in the subsequent steps.

s 348-070

- <u>CAUTION</u>: DO NOT RUB THROUGH THE TEDLAR THAT IS NOT DAMAGED. IF YOU REMOVE TEDLAR THAT DOES NOT HAVE DAMAGE, MORE REPAIR WORK IS NECESSARY.
- (2) When the filler is hard, rub the area with abrasive paper until the filler is level with the adjacent surfaces.

s 348-071

- (3) Use these steps to make a silicone embossing pad of the surface that is adjacent to the area you will repair.
 - (a) Clean the surface with a clean cheesecloth that is soaked with aliphatic naphtha.
 - (b) Dry the surface with a clean cheesecloth.
 - (c) Make a frame, approximately 3/8-inch wide by 1/2-inch high, around the clean surface.
 - <u>NOTE</u>: Use wood, clay, or high temperature vacuum sealant tape for the frame.
 - (d) Apply a thin layer of prepared silicone rubber on the textured surface in the frame with a brush. Continue to use the brush until you cannot see air bubbles.
 - <u>NOTE</u>: Almost all brands, types, or colors of castable silicone rubber are satisfactory, but not the dark red types which contain finely divided iron oxide. Dow Corning Silastic RTV "B", "E", 587, or 93072, and General Electric RTV41 or RTV61 are preferred. Prepare the silicone rubber with the manufacturer's instructions.
 - (e) Pour the remaining silicone rubber on the brushed surface until it is 1/4-inch thick. Let it cure at room temperature for 48 hours.
 - <u>NOTE</u>: One pound of prepared silicone rubber will make a 10-inch-by-10-inch-by-1/4-inch replica.
 - (f) When the silicone is dry, remove the embossing pad from the surface.

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s 348-072

(4) Apply the silk screen inks of the correct color to the repair surface.

s 348-073

(5) Let it dry for 15 minutes.

S 348-074

(6) Apply the silicone embossing pad to the repaired surface.

s 348-075

(7) Apply a vacuum of approximately 10 inches of mercury at 160 degrees F.

S 348-076

- (8) If the above procedure is not satisfactory, replace the full decorative tedlar using the Decorative Tedlar Removal/Installation procedure.
- K. Apply Flexible Decorative Tedlar (Non-acoustical)

NOTE: If it is necessary, repair the panel before you apply the tedlar.

S 038-077

(1) Remove the trim strips from the panel.

s 348-078

(2) Rub the area where you will apply the adhesive with abrasive paper until the area is not glossy.

s 118-079

(3) Clean the area with a cheesecloth that is moist with naphtha.

s 118-080

(4) Dry the area with a clean cheesecloth.

s 348-081

(5) Mix 16 parts (by volume) of BMS 5–127 adhesive with one part Boscodur 24.

s 348-082

(6) Let the mixture set for two minutes.

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- S 118-083
- WARNING: DO NOT GET METHYL ETHYL KETONE (MEK) IN YOUR MOUTH OR EYES, OR ON YOUR SKIN. DO NOT BREATHE THE FUMES FROM MEK. PUT ON A PROTECTIVE SPLASH GOGGLE AND GLOVES WHEN YOU USE MEK. KEEP MEK AWAY FROM SPARKS, FLAME, AND HEAT. MEK IS A POISONOUS AND FLAMMABLE SOLVENT WHICH CAN CAUSE INJURY OR DAMAGE.
- (7) If you want to spray the adhesive mixture, mix (by volume) one part adhesive mixture with one part MEK.

S 348-084

(8) Carefully spray the mixture or apply the mixture to the surface with a brush.

s 378-085

- <u>CAUTION</u>: THE SURFACE MUST BE FULLY DRY BEFORE YOU INSTALL THE TEDLAR LAMINATE. IF YOU INSTALL THE TEDLAR LAMINATE TO A WET SURFACE, YOU WILL NOT GET A SATISFACTORY BOND.
- (9) Let the surface dry at room temperature for a minimum of 2 hours.

s 208-086

- <u>CAUTION</u>: MAKE SURE THE DECORATIVE TEDLAR LAMINATE HAS THE CORRECT COLOR AND PATTERN. THE REPAIR WILL NOT BE SATISFACTORY IF THE NEW TEDLAR LAMINATE IS NOT CORRECT.
- (10) Put the decorative tedlar laminate in position.
 - <u>NOTE</u>: Use masking tape to hold the decorative tedlar laminate in the correct position.
 - S 888-087
- CAUTION: BE CAREFUL WHEN YOU APPLY HEAT NEAR MATERIALS THAT CAN BURN.

THE TEMPERATURE OF THE TEDLAR MUST NEVER BE MORE THAN 200°F OR THE TEMPERATURE AT WHICH THE TEDLAR DISTORTS, WHICHEVER IS LOWER. TOO MUCH HEAT CAN CAUSE DAMAGE TO THE TEDLAR.

- (11) Use the heat gun to increase the temperature of the tedlar laminate.
 - <u>NOTE</u>: Be careful to make sure the temperature is constant across the surface of the laminate. Refer to AMM 20–10–26/201 for CAUTIONS to obey when you use a heat gun.

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S 348-088

- (12) Do these steps to use a vacuum to make sure the laminate touches all of the panel:
 - (a) Use the maximum vacuum possible that will not cause damage to the panel.
 - (b) Let the laminate cure for 24 hours at room temperature, for two hours at 120 degrees F, or for 30 minutes at 180 degrees F.
 - (c) Let the part cool to 90 degrees F before you remove the vacuum pressure.
- L. Apply Decorative Tedlar Laminate with Pressure Sensitive Adhesive
 - NOTE: Use this procedure to apply laminate to non acoustical (not perforated) panels with flat or simple contours. If it is necessary, repair the panel before you apply the tedlar.
 - NOTE: Use the BAC 5596 Type XXII (Duradec With PSA) procedure to apply this laminate to interior decorative surfaces, for example, the enhanced security flight deck doors.

S 038-089

(1) Remove the trim strips from the panel.

S 348-090

(2) Rub the area where you will apply the adhesive with abrasive paper to remove the surface contamination.

s 118-091

(3) Clean the area with a cheesecloth that is moist with naphtha.

S 118-092

(4) Dry the area with a clean cheesecloth.

S 018-093

(5) Remove the release paper from the laminate that you want to apply.

s 428-094

- <u>CAUTION</u>: MAKE SURE THE PATTERN IS IN THE CORRECT POSITION. IF THE PATTERNS ARE NOT ALIGNED, THE REPAIR WILL NOT LOOK SATISFACTORY.
- (6) Apply the laminate.
 - <u>NOTE</u>: Be careful to not get air below the laminate. Bubbles will result if you let air get below the laminate.

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S 888-095

- <u>CAUTION</u>: BE CAREFUL WHEN YOU APPLY HEAT NEAR MATERIALS THAT CAN BURN. THE TEMPERATURE OF THE TEDLAR MUST NEVER BE MORE THAN 200°F OR THE TEMPERATURE AT WHICH THE TEDLAR DISTORTS, WHICHEVER IS LOWER. TOO MUCH HEAT CAN CAUSE DAMAGE TO THE TEDLAR.
- (7) Use the heat gun to increase the temperature of the tedlar laminate.

<u>NOTE</u>: Be careful to make sure the temperature is constant across the surface of the laminate. Refer to AMM 20–10–26/201 for CAUTIONS to obey when you use a heat gun.

S 348-096

(8) Rub the tedlar laminate until the bond is satisfactory and you cannot see bubbles.

s 348-097

- (9) Do these steps to use a vacuum to make sure the laminate touches all of the panel:
 - (a) Use the maximum vacuum possible that will not cause damage to the panel.
 - (b) Let the laminate cure for 24 hours at room temperature, for two hours at 120 degrees F, or for 30 minutes at 180 degrees F.
 - (c) Let the part cool to 90 degrees F before you remove the vacuum pressure.

TASK 25-00-00-308-217

- 4. Decorative Tedlar Removal/Installation
 - A. General
 - (1) This task gives instructions to replace a damaged decorative tedlar laminate on the honeycomb sandwich panels.
 - B. Equipment
 - (1) Heat Gun 1200 to 1500 watts
 - C. Consumable Materials
 - (1) Heat protective gloves (commercially available)
 - (a) A00016 Adhesive BMS 5-91, Pressure Sensitive Film

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- (b) A00032 BMS 5-127, Type II, Bostik 7132 with Boscodur 24
- (2) A50010 Adhesive BMS 5-127 Type IV
- (3) B00083 Solvent, Aliphatic Naphtha, TT-N-95
- (4) GOOO34 Cheesecloth Lint-free
- (5) GOOOOO Laminate Decorative Tedlar
- D. References
- (1) AMM 20-10-26/201, Heat Guns, Soldering Guns, and/or Soldering Irons E. Access
 - (1) Location Zone

200 Upper Half of the Fuselage

F. Decorative Tedlar Removal

S 018-218

- (1) Do the following steps to remove the decorative tedlar laminate from the base panel.
 - <u>NOTE</u>: This repair procedure is best completed after the panel is removed from the airplane.
 - (a) Attach the panel safely with the decorative side in the up position.
 - (b) Put on the heat protective gloves.
 - (c) Apply heat to the corner of the panel (AMM 20-10-26/201).
 - <u>NOTE</u>: Do not let the heat collect in one spot for more than 20 seconds.
 - (d) Start removing the decorative laminate by prying at the corner of the panel.
 - (e) Slowly pull the laminate from the panel surface.
 - (f) Point the heat gun in front of the area where the decorative laminate continues to be attached to the panel.
 - 1) Keep a constant pressure on the laminate as you pull it from the panel.
 - 2) When the temperature gets to the correct level, the laminate will release from the panel.
 - (g) Continue this procedure until the decorative laminate is fully removed.
- G. Decorative Tedlar Installation

s 418-219

- (1) Do the following steps to install the decorative tedlar laminate to the base panel.
 - (a) Clean the panel surface with a clean cheesecloth that is soaked with aliphatic naphtha.
 - (b) Apply adhesive to the panel surface.
 - (c) Align the decorative laminate by the pattern location.
 - (d) Use a seal bag or tool to apply a vacuum to the panel.

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(e) Put the panel into an oven.

NOTE: Preheat the oven to a temperature of 250 degrees F.

- (f) Dry the adhesive in accordance to BAC 5319 method VI.
- (g) Remove the vacuum tool or the seal bag from the panel.
- (h) Remove the unwanted decorative laminate from the edge of the panel.

TASK 25-00-00-308-098

5. <u>Repair Nomex Honeycomb Sandwich Panels that have a Decorative Tedlar Cover</u>

- A. General
 - (1) This task gives instructions to repair damage that went through the decorative tedlar laminate into the honeycomb sandwich panels.
 - <u>NOTE</u>: Make sure the area you want to repair is smaller than 100 square inches. If the area is larger than 100 square inches, you must replace the full decorative tedlar using the Decorative Tedlar Removal/Installation procedure or replace the part.
- B. Consumable Materials
 - (1) A00273 Adhesive Epoxy Polyamide, 2-Part, Natural Colored, BMS5-126 Type II, Class 1
 - (2) G00034 Cheesecloth Lint-free
 - (3) B00083 Solvent Aliphatic Naphtha, TT-N-95
 - (4) Finish Silk Screen Ink, BMS 10-73, Applicable color as necessary(a) C00367 Type I
 - (b) COO368 Type II
 - (5) GOOO77 Foam HETROFOAM, BMS 8-133, Type I, Grade 20, Form A
 - (6) GOOOOO Laminate Decorative tedlar
 - (7) G00380 Paper Abrasive, 240-320 grit
 - (8) G50399 Resin Fiberglass Layup, Long Worklife, Non-Brominated, BMS 8-201, Type III
 - (9) G50400 Resin Fiberglass Layup, Short Worklife, Non-Brominated, BMS 8-201, Type IV
 - (10) GO2O22 Rubber Silicone, Dow Corning Silastic
 - RTV B(11) c02026 Bubbon Silicopo BTV 93-079 Close
 - (11) G02024 Rubber Silicone, RTV 93-079, Clear
 - (12) Tape
 - (a) GOO123 Doublebacked, 2 inches wide Permacel No. 94
 - (b) GOO147 Masking, 1 or 2 inches wide -Permacel No. 718
- C. Access
 - (1) Location Zone 200 Upper Half of the Fuselage

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D. Repair Flat Panels or Simple Contoured Panels with Large Radii

S 348-099

- (1) Use these steps to make a silicone embossing pad of the surface that is adjacent to the area you will repair:
 - (a) Clean the surface with aliphatic naphtha.
 - (b) Make a frame, approximately 3/8-inch wide by 1/2-inch high, around the clean surface.
 - NOTE: Use wood, clay, or high temperature vacuum sealant tape for the frame.
 - Apply a thin layer of prepared silicone rubber on the textured (c) surface in the frame with a brush.
 - NOTE: Almost all brands, types, or colors of castable silicone rubber are satisfactory, but not the dark red types which contain finely divided iron oxide. Dow Corning Silastic RTV "B", "E", 587, or 93072, and General Electric RTV41 or RTV61 are preferred. Prepare the silicone rubber with the manufacturer's instructions.

1) Continue to use the brush until you cannot see air bubbles.

- (d) Pour the remaining silicone rubber on the brushed surface until it is 1/4 inch thick.
 - NOTE: One pound of prepared silicone rubber will make a 10-inch-by-10-inch-by-1/4-inch replica.
 - 1) Let it cure at room temperature for 48 hours.
- (e) When the silicone is dry, remove the embossing pad from the surface.
- s 348-100
- Attach a template with the correct hole diameter on the damaged area (2) with the double-backed tape.
 - (a) Use the hole saw to remove the damaged area.
 - 1) Use a guard to make sure you do not cut the aft surface of the panel.

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s 348-101

- WARNING: DO NOT TOUCH THE ADHESIVES OR BREATHE THE VAPORS. THE ADHESIVE COMPOUND CONTAINS EPOXY RESINS. THE ADHESIVE CAN CAUSE INJURY TO PERSONS.
- (3) Make a 2-part epoxy polyamide adhesive (BMS5-126, Type II, Class 1).
 - (a) Mix equal parts (by weight) of components A and B to make the 2-part epoxy polyamide adhesive.
 - 1) If the adhesive mixture is a four-component system, do the steps that follow:
 - a) Mix 80 parts (by weight) of Epon 828 or DER 331 with 20 parts (by weight) Heloxy 68 to make component A.
 - b) Mix equal parts (by weight) of Versamid 115 and Versamid 125 to make component B.
 - c) Mix equal parts (by weight) of components A and B to make the 2-part epoxy polyamide adhesive.

s 348-102

- (4) Bond a piece of decorative laminate of proper color, design and texture to a piece of foam with the adhesive mixture. Let the adhesive cure.
 - <u>NOTE</u>: The foam thickness must be the same thickness as the honeycomb core from the damaged area.

s 498-109

- (5) Attach a template to a piece of foam with the double-backed tape.
 - <u>NOTE</u>: The hole diameter of the foam must equal the inner diameter of the cutter.

s 348-108

(6) Cut out a repair plug from the piece of foam.

S 348-107

(7) Rub the repair plug with abrasive paper if it is necessary to get a satisfactory fit.

s 348-106

(8) Bond the repair plug in the cutout with the adhesive mixture.

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<u>NOTE</u>: Use the minimum quantity necessary to get a satisfactory bond.



s 348-110

- <u>WARNING</u>: DO NOT GET THE EPOXY ADHESIVE IN YOUR MOUTH OR EYES, OR ON YOUR SKIN. DO NOT BREATHE THE FUMES. PUT ON A PROTECTIVE SPLASH GOGGLE AND GLOVES. THE EPOXY ADHESIVE HAS RESINS WHICH CAN CAUSE INJURY TO PERSONS.
- (9) Fill the clearance around the repair plug with the 2-part epoxy polyamide adhesive.
 - <u>NOTE</u>: Apply more than is necessary to make sure the clearance is fully filled. The unwanted material is removed in the subsequent step.

s 348–111

(10) Let the 2-part epoxy polyamide adhesive cure.

s 958–112

(11) Apply masking tape to the area around the repair.

s 348-113

(12) Rub the area with 240- to 320-grit abrasive paper until it is smooth and level with the adjacent surfaces.

s 378–114

(13) Apply silk screen ink of the correct color to match the adjacent area.

s 378–115

(14) Let the ink dry for 15 minutes.

S 498-116

- (15) Apply the silicone embossing pad to the surface you repaired and then apply vacuum pressure (approximately 10 inches of Hg).
 - (a) Keep this configuration until the surface is cured (15 minutes at 160°F).
- E. Repair Panels with Compound Curvature

S 348-129

(1) Attach a template with the correct hole diameter on the damaged area with the double-backed tape.

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S 348-117

- (2) Cut out the damaged area; go through the full thickness of the panel (the non-decorative skin too).
 - <u>NOTE</u>: In areas where you cannot use a template, do the steps that follow:
 - (a) Drill a 1/4-inch hole through the damaged area.
 - (b) Use a hole saw with a 1/4-inch pilot to remove the damaged area.

s 348-118

- (3) Do these steps to make a silicone embossing pad of the surface that is adjacent to the area you will repair:
 - (a) Clean the surface with aliphatic naphtha.
 - (b) Make a frame, approximately 3/8-inch wide by 1/2-inch high, around the clean surface.
 - <u>NOTE</u>: Use wood, clay, or high temperature vacuum sealant tape for the frame.
 - (c) Apply a thin layer of prepared silicone rubber on the textured surface in the frame with a brush.
 - <u>NOTE</u>: Almost all brands, types, or colors of castable silicone rubber are satisfactory, but not the dark red types which contain finely divided iron oxide. Dow Corning Silastic RTV "B", "E", 587, or 93072, and General Electric RTV41 or RTV61 are prefered. Obey the manufacturer's instructions when you prepare and use these materials.
 - 1) Continue to use the brush until you cannot see air bubbles.
 - (d) Pour the remaining silicone rubber on the brushed surface until it is 1/4 inch thick. Let it cure at room temperature for 48 hours.
 - <u>NOTE</u>: One pound of prepared silicone rubber will make a 10-inch-by-10-inch-by-1/4-inch replica.
 - (e) When the silicone embossing pad is dry, remove it from the surface.

s 498-119

(4) Put the silicone embossing pad over the hole on the decorative face of the panel.

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s 498-120

- (5) Hold the silicone embossing pad in position with weights or a vacuum bag.
 - <u>NOTE</u>: In areas where you cannot use a silicone embossing pad, seal the hole with masking tape.

s 348-121

- WARNING: DO NOT GET FIBERGLASS RESIN, BMS8-201 IN YOUR MOUTH OR EYES, OR ON YOUR SKIN. DO NOT BREATHE THE FUMES. PUT ON A PROTECTIVE SPLASH GOGGLE AND GLOVES. FIBERGLASS RESIN, BMS8-201 CONTAINS EPOXY RESINS WHICH CAN CAUSE INJURY TO PERSONS.
- (6) Fill the hole, from the non-decorative side of the panel, with fiberglass resin, BMS8-201, Type III (G50399) or Type IV (G50400).

s 348-122

(7) Let the fiberglass resin, BMS8-201 cure at room temperature for 24 hours, or at 140°F for 2 hours.

S 098-123

(8) Remove the silicone embossing pad or the tape.

s 378-124

(9) Apply silk screen ink of the correct color.

s 378-125

(10) Let the silk screen ink dry for 15 minutes.

s 498-126

(11) Apply the silicone embossing pad to the repaired surface, if it is possible. Then, apply vacuum pressure (approximately 10 inches of Hg).

S 098-127

(12) Let the surface cure for 15 minutes at 160°F before you remove the embossing pad.

TASK 25-00-00-308-128

- 6. <u>Repair Tedlar Covers of Aluminum Laminates</u>
 - A. General
 - (1) To repair scratches or small dents (not more than 0.050-inch depth), do the repair procedures given for crushed core panels.

EFFECTIVITY-

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TASK 25-00-00-308-130

- 7. <u>Repair Perforated Panels</u>
 - A. General
 - (1) These paragraphs give instructions to do the repairs (not more than 1.5 inches in diameter) that follow:
 - (a) A repair of acoustical panels that have damage through the decorative surface and fiberglass screen
 - (b) To apply tedlar laminate to the surface of the acoustical panels.
 - B. Equipment
 - (1) Brush Hand, to apply mixed adhesive
 - C. Consumable Materials
 - (1) Adhesives
 - (a) A00039 Epibond 126
 - (b) A00040 Furane Hardener 9812
 - (c) A00153 BMS 5-30
 - (2) G00034 Cheesecloth Lint-free
 - (3) Solvents
 - (a) B00083 Aliphatic Naphtha, TT-N-95
 - (b) B00148 Methyl Ethyl Ketone (MEK) TT-M-261
 - (c) BO0154 Toluene (Toluol) JAN-T-171, Grade A
 - (4) GOO450 Fabric Flow-Resistant, BMS 8-64
 - (5) GOOOOO Laminate Decorative Tedlar (perforated or non-perforated)
 - (6) Finish, Silk Screen Ink BMS 10-73,
 - (a) COO367 Type I
 - (b) COO368 Type II
 - (7) B00168 Paper Abrasive, 240-400 grit
 - (8) Plexiglass 1/4 thick (commercially available)
 - (9) Tape
 - (a) GO0123 Double-backed, 2 inches wide Permacel No. 94
 - (b) GOO147 Masking, 1 or 2 inches wide -Permacel No. 718
 - (c) GO2480 Mylar Permacel No. P-255
 - D. Access

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(1) Location Zone

200 Upper Half of the Fuselage

E. Repair Perforated Panels

s 498–131

(1) Put a routing template, with a hole diameter larger than the damaged area, over the area with damage.

<u>NOTE</u>: Hold the template in position with double-backed tape.

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s 348-132

- (2) Remove the damaged area with a router. Make sure the depth of the the router does not cause damage to the screen under the decorative layer.
 - <u>NOTE</u>: For panels with tedlar covers, put one or two layers of Mylar tape over the damaged area and the perforated decorative sheet. This will help prevent damage to the tedlar.

s 348-133

(3) Remove the flow-resistant fabric.

s 348-134

- (4) Mix the adhesive as follows:
 - (a) Mix (by weight) 60 to 65 parts of Furane Hardener 9812 with 100 parts of Epibond 126.
 - WARNING: DO NOT GET METHYL ETHYL KETONE (MEK) IN YOUR MOUTH OR EYES, OR ON YOUR SKIN. DO NOT BREATHE THE FUMES FROM MEK. PUT ON A PROTECTIVE SPLASH GOGGLE AND GLOVES WHEN YOU USE MEK. KEEP MEK AWAY FROM SPARKS, FLAME, AND HEAT. MEK IS A POISONOUS AND FLAMMABLE SOLVENT WHICH CAN CAUSE INJURY OR DAMAGE.
 - (b) Mix (by volume) one part of adhesive mixture with one part of MEK and one part of toluene.

s 348-135

(5) Cut a piece of flow-resistant fabric that is larger than the damaged area.

s 348-136

(6) Bond the flow-resistant fabric to a piece of perforated decorative sheet with the adhesive mixture.

s 348-137

(7) Use a routing template and route out a patch from the perforated sheet you made in the previous step.

s 348–138

- (8) Rub the patch with abrasive paper to make sure the patch fits correctly in the cutout.
 - <u>NOTE</u>: Make two marks on the patch and on the adjacent surface. This will help you install the patch in the position that it has the best fit.

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s 958-139

(9) Apply masking tape to the decorative side of the patch and around the cutout area.

s 348-140

(10) Clean the surfaces with a cheesecloth that is moist with aliphatic naphtha.

s 348-141

(11) Apply a heavy layer of the mixed adhesive on the surfaces of the patch and the cutout.

s 348-142

(12) Let the adhesive dry for 10 minutes.

s 348-143

(13) Remove the masking tape from the patch and panel.

s 348-144

(14) Apply the double-backed tape to the decorative side of the patch and to the area around the cutout.

NOTE: The patch marks you made must be shown.

s 348-145

- (15) Put the patch on a 6- by 6-inch-thick or a 8- by 8 1/4-inch-thick piece of plexiglass.
 - <u>NOTE</u>: Put the flow-resistant fabric between the patch and the fiberglass screen.

S 348-146

(16) Put the patch into the cutout.

NOTE: Look through the plexiglass to align the marks that you made.

S 348-147

(17) Apply pressure to the plexiglass, as necessary, to make sure the patch is level with the adjacent surfaces.

s 348-148

(18) Let the patch cure for 24 hours at room temperature, or for 3 hours at 120 (±5)°F.

s 348-149

(19) Put the filler in all the cracks that you can see.

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s 348-150 (20) Let the filler cure. S 348-151 (21) Apply masking tape to the area around the repair. s 348-152 (22) Rub the filler with 240-320 grit abrasive paper until it is smooth and level with the adjacent surfaces. s 378-153 (23) Apply silk screen ink of the correct color to match the adjacent area. s 378-154 (24) Let the ink dry. s 348-155 (25) Drill holes to make perforations if it is necessary. NOTE: Use a piece of perforated material for a template. F. Apply Decorative Tedlar to Acoustical (Perforated) Panels s 288-156 (1) Remove the trim strips from the panel. \$ 348-157 Rub the area where you will apply the adhesive with abrasive paper (2) until the area is not glossy. s 118-158 (3) Clean the area with a cheesecloth that is moist with naphtha. s 118-159 (4) Dry the area with a clean cheesecloth. s 118-160 DO NOT GET METHYL ETHYL KETONE (MEK) IN YOUR MOUTH OR EYES, OR WARNING: ON YOUR SKIN. DO NOT BREATHE THE FUMES FROM MEK. PUT ON A PROTECTIVE SPLASH GOGGLE AND GLOVES WHEN YOU USE MEK. KEEP MEK AWAY FROM SPARKS, FLAME, AND HEAT. MEK IS A POISONOUS AND FLAMMABLE SOLVENT WHICH CAN CAUSE INJURY OR DAMAGE. (5) Mix (by volume) one part BMS 5-30 adhesive with one part MEK. s 348-161

(6) Carefully apply the mixture to the surface with a brush.

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s 378-162

- <u>CAUTION</u>: THE SURFACE MUST BE FULLY DRY BEFORE YOU INSTALL THE TEDLAR LAMINATE. IF YOU INSTALL THE TEDLAR LAMINATE TO A WET SURFACE, YOU WILL NOT GET A SATISFACTORY BOND.
- (7) Let the surface dry at room temperature for a minimum of 2 hours.

s 208-163

- <u>CAUTION</u>: MAKE SURE THE DECORATIVE TEDLAR LAMINATE HAS THE CORRECT COLOR AND PATTERN. THE REPAIR WILL NOT BE SATISFACTORY IF THE NEW TEDLAR LAMINATE IS NOT CORRECT.
- (8) Put the decorative tedlar laminate in position.
 - <u>NOTE</u>: Use masking tape to hold the decorative tedlar laminate in the correct position. If you use perforated tedlar for the repair, align the holes in the tedlar with the holes in the panel you will cover.

S 888-164

- <u>CAUTION</u>: BE CAREFUL WHEN YOU APPLY HEAT NEAR MATERIALS THAT CAN BURN. THE TEMPERATURE OF THE TEDLAR MUST NEVER BE MORE THAN 200°F OR THE TEMPERATURE AT WHICH THE TEDLAR DISTORTS, WHICHEVER IS LOWER. TOO MUCH HEAT CAN CAUSE DAMAGE TO THE TEDLAR.
- (9) Use the heat gun to increase the temperature of the tedlar laminate.
 - <u>NOTE</u>: Be careful to make sure the temperature is constant across the surface of the laminate. Refer to AMM 20–10–26/201 for CAUTIONS to obey when you use a heat gun.
 - S 348-165
- (10) Do these steps to use a vacuum to make sure the laminate touches all of the panel:
 - (a) Use the maximum vacuum possible that will not cause damage to the panel.
 - (b) Cure the laminate for 24 hours at room temperature, for two hours at 120 degrees F, or for 30 minutes at 180 degrees F.
 - (c) Let the part cool to 90 degrees F before you remove the vacuum pressure.

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TASK 25-00-00-308-166

8. <u>Repair Polycarbonate (Lexan), ULTEM, and Declar Plastics</u>

- A. General
 - (1) The paragraphs that follow give instructions to repair cracks and gouges in decorative and nondecorative plastics.
 - <u>NOTE</u>: Make sure the area you want to repair is smaller than 100 square inches. If the area is larger than 100 square inches, you must replace the part.
- B. Consumable Materials
 - (1) Adhesives
 - (a) A00000 Hysol EE 1067 Resin
 - (b) A00112 Hysol No. 3561 Hardener
 - (2) GO2O22 Rubber Silicone, Dow Corning Silastic RTV B
 - (3) GO2O24 Rubber Silicone, RTV 93-079, Clear
 - (4) GOOO34 Cheesecloth Lint-free
 - (5) Solvents
 (a) B00083 Aliphatic Naphtha, TT-N-95
 (b) B00149 Methylene Chloride
 (6) G00321 Fabric Woven prepreg glass, BMS 9-3, Type H, H-2, H-3, Class 3 or 4
 - (7) Finish, Internal Decorative Water Emulsion, BMS 10-55
 - (a) COO375 Type I
 - (b) C00377 Type II
 (8) Finish, Silk Screen Ink BMS 10-73
 (a) C00367 Type I
 - (b) COO368 Type II
 - (9) COOO40 Paint Polyurethane, BMS 10-83 Type II
 - (10) B00168 Paper Abrasive, 400 grit
- C. References
 - (1) AMM 25-00-00/701, Equipment/Furnishings
- D. Access
 - (1) Location Zone
 - 200 Upper Half of the Fuselage
- E. Repair Cracked Areas

s 348-167

(1) Drill a 1/16-inch diameter hole at each end of the crack.

s 348-168

(2) Remove material from the crack until the width of the crack is approximately equal to the thickness of the part.

s 348-169

(3) Rub the surface with abrasive paper until the surface is not glossy.

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s 348-170

(4) Clean the surface with aliphatic naphtha and a clean cheesecloth.

s 348-171

- (5) Mix the repair resin as follows:
 - (a) Mix one hundred parts of the Hysol EE 1067 resin with 15 or 16 parts of the No. 3561 hardener.

s 348–172

(6) Fill the crack with the repair resin.

S 348–173

(7) Let the repair resin cure until it is hard.

S 348-174

- (8) Apply glass fabric that is soaked with the repair resin to make the repair stronger.
 - <u>NOTE</u>: If you will to repair a decorative part, put the fabric in the side that is not decorative.

The glass fabric layers must be at least as thick as the part where the crack was. Taper the glass fabric 1/2 inch for each layer at each side. If the crack is at or near an edge, the taper is not necessary.

S 348-175

(9) Remove all the unwanted resin.

s 348–176

(10) Let the repair cure until it is hard at a temperature between 70 and 130°F.

S 348-177

(11) Rub the area with abrasive paper until the repair is smooth.

s 378–178

- (12) Apply the water emulsion finish to the area.
 - <u>NOTE</u>: If you will paint the part out of the airplane, use BMS 10-83 paint (AMM 25-00-00/701).

F. Repair Gouged Areas

S 348-179

(1) If there is not a dent around the gouge, make the gouge smooth with abrasive paper.

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s 348-180

(2) If the appearance is not satisfactory after it is smooth, fill the gouge with repair resin. Finish the repair with the steps given in the Repair Cracked Areas procedure.

s 348-181

(3) If the surface has dents, remove the area with dents and do the procedure to repair the cracked areas.

TASK 25-00-00-308-182

- 9. <u>Repair Urethane Foam</u>
 - A. General

(1) The paragraphs that follow give instructions to repair urethane foam material with two procedures.

- B. Equipment
 - (1) Bore Cork
 - (2) Squeegee Commercially available
- C. Consumable Materials
 - (1) Adhesives
 - (a) A00028 EC 2216 A/B
 - (b) A00188 BMS 5-105, Type I or II
 - (c) A01021 BMS 5-28, Type 18
 - (d) A50042 BMS 5-28, Type 19
 - (2) GOO111 Film Mylar
 - (3) D00506 Lubricant Light Machine Oil
 - (4) GOO123 Tape Double-backed, 2-inches wide,
 - Permacel No. 94
- D. Access
 - (1) Location Zone 200 Upper Half of the Fuselage
- E. Repair the Foam with a Plug

S 358-183

(1) Remove the damage with a cork bore or an equivalent tool.

<u>NOTE</u>: The tool size must be equal to the size of the damaged area, or up to a 1/2-inch larger in diameter.

s 358-184

(2) Use the same tool to cut a repair plug from foam to fit in damaged area.

S 358-185

(3) Apply a layer of the BMS 5-105 adhesive to each surface of the repair plug and the damaged area.

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s 358-186

(4) Let the adhesive dry until it is tacky. Then push the repair plug into the damaged area with hand pressure.

NOTE: Do not stress the adhesive bond for 24 hours.

F. Repair the Foam with Adhesive Resin

S 358-187

(1) Remove the damage with a cork bore or an equivalent tool.

<u>NOTE</u>: The tool size must be equal to the size of the damaged area, or up to a 1/2-inch larger in diameter.

s 358–188

(2) Prepare BMS 5-28, Type 18 or Type 19 potting compound as specified in the manufacturer's instructions.

s 358–189

(3) Fill the area fully with the potting compound.

s 358–190

(4) Put a sheet of mylar film over the potting compound.

<u>NOTE</u>: The mylar film must go approximately 2 inches more than the outer edge of all sides of the filled area.

s 358–191

(5) Put a small amount of the lubricant on the top surface of the mylar film.

s 358–192

(6) Start at the center of the repair and rub the potting compound with a squeegee until you get the shape necessary.

s 358–193

(7) Apply double-backed tape to hold the mylar film in position.

s 358-194

(8) Let the compound cure for 1 hour at room temperature and then 5 hours at $115^{\circ}F$.

s 358-195

(9) Carefully remove the mylar film after the compound has cured.

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TASK 25-00-00-308-216 10. Repair Aluminum Trim General Α. (1) This procedure gives instructions to repair aluminum trim. Equipment Β. (1) Heat Gun - 1200 to 1500 watts C. Consumable Materials (1) Adhesives (a) A00028 Adhesive - BMS5-92, 3M 2216 (b) A00000 Adhesive - BMS5-123, Hysol 608 (c) DO0147 Filler - BMS5-136, Ad Tech 15-3 (2) B00168 Paper - Abrasive, 400-600 grit D. References (1) AMM 20-10-26/201, Heat Guns, Soldering Guns, and/or Soldering Irons Ε. Access (1) Location Zone 200 Upper Half of the Fuselage F. Repair aluminum trim s 018-222 (1)Remove any fasteners from the aluminum trim if they are installed. s 018-223 (2) Remove the aluminum trim from the panel. s 018-224 (3) If the trim is bonded, use a heat gun to help remove the trim (AMM 20-10-26/201). (a) Apply heat while pulling the trim away from the panel (b) Remove the trim progressively from one end to the other. s 328-225 (4) Restore the trim to its original straightness and contour. Use metalworking techniques to remove dents and straighten NOTE: the trim as much as possible.

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S 418-226

(5) Put the trim onto the panel and reattach any fasteners.

s 418-227

(6) If the trim is applied with fasteners and adhesive, apply epoxy adhesive to the edge of the panel and quickly reattach the trim with the fasteners.

S 828-228

- (7) If the trim is applied with adhesive only, apply an epoxy adhesive to the edge of the panel and quickly position the trim.
 - <u>NOTE</u>: Hysol 608 adhesive, BMS 5–123 has a very short working life. If more time is required for the repair, use an adhesive such as 3M 2216, BMS5–92. Use masking tape to hold the trim in the correct position until the adhesive is fully cured.

S 398-229

(8) Fill any dents, gouges, or imperfections with BMS 5-136 filler to make a crown above the adjacent area.

s 828-230

(9) After the filler is hard, rub it with abrasive paper to the same level as the surface of the panel.

s 378-231

(10) Apply aluminum spray paint to the repaired area. Any commercially available spray paint is acceptable.

TASK 25-00-00-308-233

- 11. <u>Repair Insulation Blanket and Cover</u> (Fig. 801)
 - A. General
 - (1) This procedure has these instructions to repair insulation blanket and cover that are damaged:
 - (a) ALL AIRPLANES PRE SEP 2, 2005 FAR STD; AIRPLANES WITHOUT FAR 25.856(a) COMPLIANT THERMAL/ACOUSTIC INSULATION MATERIALS:
 - 1) Repair the Insulation Blanket with BMS8-142 Cover Material.

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- Repair the Insulation Blanket with BMS8-115 Cover Material.
- (b) ALL AIRPLANES POST SEP 2, 2005 FAR STD; AIRPLANES WITH FAR
 - 25.856(a) COMPLIANT THERMAL/ACOUSTIC INSULATION MATERIALS:
 - 1) Repair the Insulation Blanket with BMS8-377 Cover Material.
 - 2) Repair the Insulation Blanket with BMS8-370 Cover Material.
- (2) If the amount of damage on the insulation blanket is more than 25 percent of the total area on either the front side or back side of an insulation blanket, replace the damaged insulation blanket.
- (3) The damaged insulation blanket can be used as a template to make a new insulation blanket.
- B. Consumable Materials
 - (1) A00153 Cement BMS 5-30, EC 1458
 - (2) GO0086 Insulation Thermal Acoustical Fiberglass Batting, BMS8-48 Type III
 - (3) GOOO87 Insulation Covering, BMS 8-142, Type I
 - (4) G50330 Fabric Insulation Covering, Flame Propagation Resistant, BMS8-377
 - (5) G50328 Fabric Advanced Polymer Coated, Flame Propagation Resistant BMS8-370
 - (6) GO2308 Fabric Flame Resistant, BMS8-115
 - (7) G50329 Fabric High Mass Coated, Flame Propagation Resistant, BMS8-374
 - (8) G50334 Felt Needled, Flame Propagation Resistant, BMS8-373
 - (9) GO2442 Paper Abrasive, 180-grit
 - (10) G02305 Tape Insulation Blanket, BMS5-149

 - (12) G02360 Tape Hook/Loop Fastener, (Polypropylene Hook & Nylon Loop) BMS8-285, Type IV
 - (13) G50333 Tape Hook/Loop Fastener, Flame Propagation Resistant, BMS8-372

C. References

- (1) AMM 25-21-05/401, Sidewall Insulation
- (2) AMM 25-52-03/401, Cargo Compartment Insulation
- D. Prepare to Repair the Insulation Blanket and Cover

s 218-232

- (1) Visually check the amount of damage to the insulation blanket.
 (a) If the amount of damage is more than 25 percent of the total area on either the front side or back side of the insulation blanket, replace the applicable insulation blanket.
 - For sidewall, ceiling, and aft pressure bulkhead insulation blankets and capstrips replacement, refer to Sidewall Insulation – Removal/Installation (AMM 25-21-05/401).

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- For cargo compartment insulation replacement, refer to Cargo Compartment Insulation – Removal/Installation (AMM 25-52-03/401).
- (b) If the amount of damage is less than 25 percent of the total area on either the front side or back side of the insulation blanket, continue.

s 118-234

- WARNING: DO NOT USE DETERGENTS OR SOLVENTS TO CLEAN THE INSULATION BLANKET. IT CAN REMOVE FLAME RETARDANTS AND CAUSE FLAMMABLE RESIDUES ON INSULATION BLANKET WHICH INCREASES THE RISK OF FIRE. THIS CAN CAUSE INJURIES TO PERSONNEL, AND DAMAGE TO EQUIPMENT.
- (2) If there is Corrosion-inhibiting Compounds (CIC) contamination, oily or waxy substances or other fluids (which typically changes the color and appearance of the insulation blanket cover), replace the applicable insulation blanket.
 - (a) For sidewall, ceiling, and aft pressure bulkhead insulation blankets and capstrips replacement, refer to Sidewall Insulation – Removal/Installation (AMM 25-21-05/401).
 - (b) For cargo compartment insulation replacement, refer to Cargo Compartment Insulation – Removal/Installation (AMM 25-52-03/401).
 - S 168-263
- (3) If there are dust, lint or other loose debris on the insulation blanket, use a vacuum cleaner or a non-metallic soft brush to remove the contamination.

S 168-264

(4) Make sure the repair area is clean and dry.

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- E. ALL AIRPLANES PRE SEP 2, 2005 FAR STD; AIRPLANES WITHOUT FAR 25.856(a) COMPLIANT THERMAL/ACOUSTIC INSULATION MATERIALS: Repair the Insulation Blanket with BMS8-142 Cover Material
 - <u>NOTE</u>: BMS8–142 cover material is a thin translucent plastic film with an open weave scrim on one side and has a grid-like appearance.

BMS8-142 is replaced by BMS8-377 to comply with the flame propagation requirements of FAR 25.856(a).

- S 348-276
- (1) To repair a grommet hole in the insulation blanket, do these steps:
 (a) Make two round tape patches from tape (BMS5-149) or tape (BMS5-157) with a minimum diameter of 1.5-2.0 inches (38-51 mm) larger than the grommet hole.

NOTE: Tape (BMS5-157) is FAR 25.856(a) compliant, and it is

\$07 the preferred alternative to tape (BMS5-149).

- (b) Make a fiberglass plug from fabric (BMS8-48) that is equivalent in type/class/grade as those used in the insulation blanket.
- (c) Put the fiberglass plug into the grommet hole.
- (d) Put the round tape patches over the grommet hole on both sides of the insulation blanket.
 - 1) Make sure the tape patch overlaps the edge of the grommet hole by a minimum of 0.75 inch (19 mm).
- (e) Push on the tape patch to make sure there is a good bond with the blanket cover.
- S 348-277
- (2) To repair a tear in the insulation blanket, do these steps:
 - (a) Make a fiberglass plug from fabric (BMS8-48) that is equivalent in type/class/grade as those used in the insulation blanket and put the fiberglass plug into the damaged area, if necessary.
 - (b) Use your fingers to close the tear.
 - (c) Make a tape patch from tape (BMS8-149) or tape (BMS5-157) that is 0.75-1.50 inches (19-38 mm) larger than the tear on all sides.
 - <u>NOTE</u>: Tape (BMS5-157) is FAR 25.856(a) compliant, and it is the preferred alternative to tape (BMS5-149).
 - 1) Make sure the corners on the tape patch are rounded.
 - (d) Put the tape patch over the tear.
 - Make sure the tape patch overlaps the damaged area by 0.75-1.50 inch (19-38 mm) on all sides.

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(e) Push on the tape patch to make sure there is a good bond with the insulation blanket cover.

S 348-278

- (3) To repair damage that is larger than a tear in the insulation blanket, do these steps:
 - (a) Cut a rectangle out of the damaged blanket cover which fully removes the damaged area.
 - Keep the rectangle cutout as a template to make a new replacement cover patch.
 - (b) Use the rectangle cutout template to make a rectangle cover patch that is similar in shape and size as the template from fabric (BMS8-142) or fabric (BMS8-377).

<u>NOTE</u>: Fabric (BMS8-377) is FAR 25.856(a) compliant, and it is \$07 the preferred alternative to fabric (BMS8-142).

- (c) If there is damage to the fiberglass batting (BMS8-48) inside the blanket cover, do these steps:
 - If the damaged area is only on the first layer of the fiberglass batting, do these steps:
 - a) Cut a rectangle out of the damaged fiberglass batting to fully remove the damaged area on the first layer of the fiberglass batting, and leave behind a rectangular void in the blanket.
 - b) Cut a ply of replacement fiberglass patch from fabric (BMS8-48) that extends a minimum of 2.0 inch (51 mm) past the edges of the rectangular void.
 - c) Put the replacement fiberglass patch over the center of the rectangular void and under the blanket cover.
 - 2) If the damaged area is on multiple layers of the fiberglass batting, do these steps:
 - a) Cut out the damaged fiberglass batting to fully remove the damaged area on the fiberglass batting.
 - b) Interleave new plies of fiberglass batting from fabric (BMS8-48) that is equivalent in type/class/grade as those used in the insulation blanket, as necessary.
- (d) Put the rectangle cover patch over the cutout on the insulation blanket cover.
- (e) Make a tape patch from tape (BMS5-149) or tape (BMS5-157) that is a minimum of 1.0 inch (25 mm) larger than all sides of the rectangle cutout.

<u>NOTE</u>: Tape (BMS5-157) is FAR 25.856(a) compliant, and it is \$07 the preferred alternative to tape (BMS5-149).

1) Make sure the corners on the tape patch are rounded.



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- (f) Put the tape patches over the joints to keep the rectangle cover patch in place on all sides.
 - Make sure the tape patch overlaps the joint by a minimum of 1.0 inch (25 mm) on all sides.
- (g) Push on the tape to make sure there is a good bond with the blanket cover.
- (h) Install external garment tags, spaced at 6.0 inches (152 mm) onto the overlapped fiberglass repair area to keep the fiberglass batting in position between the covers.
 - 1) Cut a 1.0 inch (25 mm) diameter circle of tape (BMS5-149) or tape (BMS5-157) for use as reinforcement tape.
 - Put the reinforcement tape over the area where the external garment tag is to be stapled through on both sides of the blanket.
 - 3) Staple the external garment tag through all layers of the insulation blanket, which includes the reinforcement tapes.
 - 4) Cut a 2.0 inches (51 mm) diameter circle of tape (BMS5-149) or tape (BMS5-157) for use as covering tape.
 - 5) Put the covering tape over the external garment tag and reinforcement tape onto the insulation cover on both sides of the insulation blanket.
 - 6) Push on the tape to make sure there is a good bond with the blanket cover.

s 348-279

- (4) To replace a damaged hook/loop tape on the insulation blanket cover, do these steps:
 - (a) Carefully remove the damaged part of the hook/loop tape from the insulation blanket cover.
 - (b) Clean and dry the adhesive surface left by the removal of the damaged hook/loop tape.
 - (c) Put a piece of tape (BMS5-149) or tape (BMS5-157) over the area left by the removal of the damaged hook/loop tape on both sides of the insulation blanket assembly, if necessary.
 - <u>NOTE</u>: Tape (BMS5-157) is FAR 25.856(a) compliant, and it is the preferred alternative to tape (BMS5-149).
 - Make sure the tape is larger than the damaged area on the insulation cover by a minimum of 1.0 inch (25 mm) on all sides.
 - (d) Install the replacement hook/loop tape (BMS8-285) or hook/loop tape (BMS8-372) at the correct location on the insulation blanket cover.
 - <u>NOTE</u>: Hook/loop tape (BMS8-372) is FAR 25.856(a) compliant, and it is the preferred alternative to hook/loop tape (BMS8-285).

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- F. ALL AIRPLANES PRE SEP 2, 2005 FAR STD; AIRPLANES WITHOUT FAR 25.856(a) COMPLIANT THERMAL/ACOUSTIC INSULATION MATERIALS: Repair the Insulation Blanket with BMS8-115 Cover Material
 - <u>NOTE</u>: BMS8-115 cover material has a smooth and silky surface, typically eggshell color in appearance (may also be in other colors). It is used in only a few areas of the airplane.

BMS8-115 is replaced by BMS8-370 to comply with the flame propagation requirements of FAR 25.856(a).

S 348-284

- (1) Do these steps if there are damages on the insulation blanket cover:
 (a) Identify the perimeter around the damaged area on the insulation blanket for a cover patch area that is larger than the damaged area by 1.0-1.5 inches (25-38 mm) on all sides.
 - (b) If the cover patch area that is identified on the damaged insulation blanket can fit into a 3.0 inches by 3.0 inches (76 mm by 76 mm) square, do these steps:
 - Make a cover patch from fabric (BMS8-115) or fabric (BMS8-370) that is larger than the damaged area by 1.0-1.5 inches (25-38 mm) on all sides.
 - <u>NOTE</u>: Fabric (BMS8-370) is FAR 25.856 compliant, and it is the preferred alternative to fabric (BMS8-115).

a) Make sure the corners on the cover patch are rounded.

- Lightly abrade the entire adhesive side of the cover patch and the area to be covered by the cover patch with 180-grit or finer paper to remove any gloss.
- 3) Apply adhesive (BMS5-30) on the bonding surface of the cover patch or insulation blanket cover.
- 4) Put the adhesive side of the cover patch over the damaged area of the insulation blanket cover.
- 5) Make sure there is an overlap of 1.0–1.5 inches (25–38 mm) between the damaged area and the edge of the cover patch on all sides.
- 6) Wipe off any adhesive (BMS5-30) that is not necessary.
- 7) Push on the cover patch to make sure there is a good bond with the insulation blanket cover.

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- (c) If the cover patch area that is identified on the damaged insulation blanket cannot fit into a 3.0 inches by 3.0 inches (76 mm by 76 mm) square, do these steps:
 - Make a cover patch with fabric (BMS8-115) or fabric (BMS8-370) that is larger than the damaged area by 1.0-1.5 inches (25-38 mm) on all sides.

<u>NOTE</u>: Fabric (BMS8-370) is FAR 25.856 compliant, and it is the preferred alternative to fabric (BMS8-115).

- a) Make sure the corners on the cover patch are rounded.
- Lightly abrade the periphery of the adhesive side of the cover patch with 180-grit or finer paper to remove any gloss.
- 3) Lightly abrade the area around the periphery of the damaged area to be covered by the cover patch with 180-grit or finer paper to remove any gloss.
- 4) Apply adhesive (BMS5-30) up to 1.0 inch (25 mm) wide on the abraded area.
- 5) Put the adhesive side of the cover patch over the damaged area of the insulation blanket cover.
- 6) Make sure there is an overlap of 1.0–1.5 inches (25–38 mm) between the damaged area and the edge of the cover patch on all sides.
- 7) Wipe off any adhesive (BMS5-30) that is not necessary.
- 8) Push on the cover patch to make sure there is a good bond with the insulation blanket cover.
- G. ALL AIRPLANES POST SEP 2, 2005 FAR STD; AIRPLANES WITH FAR 25.856(a) COMPLIANT THERMAL/ACOUSTIC INSULATION MATERIALS:

Repair the Insulation Blanket with BMS8-377 Cover Material

<u>NOTE</u>: BMS8-377 cover material is a thin opaque gray plastic film with an open weave scrim on one side and has a grid-like appearance.

s 348-280

(1) To repair a grommet hole in the insulation blanket, do these steps:
 (a) Make two round tape patches from tape (BMS5-157) with a minimum diameter of 1.5-2.0 inches (38-51 mm) larger than the grommet hole.

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- (b) Make a fiberglass plug from fabric (BMS8-48) that is equivalent in type/class/grade as those used in the insulation blanket.
- (c) Put the fiberglass plug into the grommet hole.
- (d) Put the round tape patches over the grommet hole on both sides of the insulation blanket.
 - 1) Make sure the tape patch overlaps the edge of the grommet hole by a minimum of 0.75 inch (19 mm).
- (e) Push on the tape patch to make sure there is a good bond with the blanket cover.

s 348-281

- (2) To repair a tear in the insulation blanket, do these steps:
 - (a) Make a fiberglass plug from fabric (BMS8-48) that is equivalent in type/class/grade as those used in the insulation blanket and put the fiberglass plug into the damaged area, if necessary.
 - (b) Use your fingers to close the tear.
 - (c) Make a tape patch from tape (BMS5-157) that is 0.75-1.50 inches (19-38 mm) larger than the tear on all sides.
 - 1) Make sure the corners on the tape patch are rounded.
 - (d) Put the tape patch over the tear.
 - Make sure the tape patch overlaps the damaged area by 0.75-1.50 inch (19-38 mm) on all sides.
 - (e) Push on the tape patch to make sure there is a good bond with the blanket cover.

S 348-282

- (3) To repair a damage that is larger than a tear in the insulation blanket, do these steps:
 - (a) Cut a rectangle out of the damaged blanket cover which fully removes the damaged area.
 - 1) Keep the rectangle cutout as a template to make a new replacement cover patch.
 - (b) Use the rectangle cutout template to make a rectangle cover patch that is similar in shape and size as the template from fabric (BMS8-377).

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- (c) If there are damages to the fiberglass batting (BMS8-48) inside the blanket cover, do these steps:
 - 1) If the damaged area is only on the first layer of the fiberglass batting, do these steps:
 - a) Cut a rectangle out of the damaged fiberglass batting to fully remove the damaged area on the first layer of the fiberglass batting, and leave behind a rectangular void in the blanket.
 - b) Cut a ply of replacement fiberglass patch from fabric (BMS8-48) that extends a minimum of 2.0 inch (51 mm) past the edges of the rectangular void.
 - c) Put the replacement fiberglass patch over the center of the rectangular void and under the blanket cover.
 - 2) If the damaged area is on multiple layers of the fiberglass batting, do these steps:
 - a) Cut out the damaged fiberglass batting to fully remove the damaged area on the fiberglass batting.
 - b) Interleave new plies of fiberglass batting from fabric (BMS8-48) that is equivalent in type/class/grade as those used in the insulation blanket, as necessary.
- (d) Put the rectangle cover patch over the cutout on the insulation blanket cover.
- (e) Make a tape patch from tape (BMS5-157) that is a minimum of 1.0 inch (25 mm) larger than all sides of the rectangle cutout.
 1) Make sure the corners on the tape patch are rounded.
- (f) Put the tape patches over the joints to keep the rectangle cover patch in place on all sides.
 - Make sure the tape patch overlaps the joint by a minimum of 1.0 inch (25 mm) on all sides.
- (g) Push on the tape to make sure there is a good bond with the insulation blanket cover.
- (h) Install external garment tags, spaced at 6.0 inches (152 mm) onto the overlapped fiberglass repair area to keep the fiberglass batting in position between the covers.
 - Cut a 1.0 inch (25 mm) diameter circle of tape (BMS5-157) for use as reinforcement tape.
 - Put the reinforcement tape over the area where the external garment tag is to be stapled through on both sides of the blanket.
 - Staple the external garment tag through all layers of the insulation blanket, which includes the reinforcement tapes.
 - 4) Cut a 2.0 inches (51 mm) diameter circle of tape (BMS5-157) for use as covering tape.
 - 5) Put the covering tape over the external garment tag and reinforcement tape, onto the insulation cover on both sides of the insulation blanket.
 - 6) Push on the tape to make sure there is a good bond with the insulation blanket cover.

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S 348-283

- (4) To replace a damaged hook/loop tape on the insulation blanket cover, do these steps:
 - (a) Carefully remove the damaged part of the hook/loop tape from the insulation blanket cover.
 - (b) Clean and dry the adhesive surface left by the removal of the damaged hook/loop tape.
 - (c) Put a piece of tape (BMS5-157) over the area left by the removal of the damaged hook/loop tape on both sides of the insulation blanket assembly, if necessary.
 - Make sure the tape is larger than the damaged area on the insulation cover by a minimum of 1.0 inch (25 mm) on all sides.
 - (d) Install the replacement hook/loop tape (BMS8-372) at the correct location on the insulation blanket cover.
- H. ALL AIRPLANES POST SEP 2, 2005 FAR STD; AIRPLANES WITH FAR 25.856(a) COMPLIANT THERMAL/ACOUSTIC INSULATION MATERIALS: Repair the Insulation Blanket with BMS8-370 Cover Material
 - <u>NOTE</u>: BMS8–370 cover material has a smooth and silky surface, typically white in appearance. It is used in only a few areas of the airplane.
 - S 348-285
 - (1) Do these steps if there are damages on the insulation blanket cover:
 (a) Identify the perimeter around the damaged area on the insulation blanket for a cover patch area that is larger than the damaged area by 1.0-1.5 inches (25-38 mm) on all sides.
 - (b) If the cover patch area that is identified on the damaged insulation blanket can fit into a 3.0 inches by 3.0 inches (76 mm by 76 mm) square, do these steps:
 - Make a cover patch from fabric (BMS8-370) that is larger than the damaged area by 1.0-1.5 inches (25-38 mm) on all sides.
 - a) Make sure the corners on the cover patch are rounded.
 - Lightly abrade the entire adhesive side of the cover patch and the area to be covered by the cover patch with 180-grit or finer paper to remove any gloss.
 - 3) Apply adhesive (BMS5-30) on the bonding surface of the cover patch or insulation blanket cover.
 - 4) Put the adhesive side of the cover patch over the damaged area of the insulation blanket cover.
 - 5) Make sure there is an overlap of 1.0–1.5 inches (25–38 mm) between the damaged area and the edge of the cover patch on all sides.
 - 6) Wipe off any adhesive (BMS5-30) that is not necessary.
 - 7) Push on the cover patch to make sure there is a good bond with the insulation blanket cover.

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(c) If the cover patch area that is identified on the damaged insulation blanket cannot fit into a 3.0 inches by 3.0 inches (76 mm by 76 mm) square, the insulation blanket cannot be repaired.

1) Replace the insulation blanket.

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- 12. Insulation Blanket Manufacturing (Fig. 802)
 - A. General
 - (1) This procedure has instructions to make new a insulation blanket from FAR 25.856(a) compliant thermal/acoustic insulation materials.
 - (2) The new insulation blanket can either be cut from the assembly of various component materials, or from a semi-finished insulation blanket strip, that is pre-assembled and built from equivalent component materials that are comparable in type/class/grade as those which are not pre-assembled.
 - (3) The damaged insulation blanket can be used as a template to make a new insulation blanket.
 - B. Consumable Materials
 - (1) GOO086 Insulation Thermal Acoustical Fiberglass Batting, BMS8-48, Type III
 - (2) G50330 Fabric Insulation Covering, Flame Propagation Resistant, BMS8-377
 - (3) G50328 Fabric Advanced Polymer Coated, Flame Propagation Resistant BMS8-370
 - (4) GOOO60 Fabric Coated, High Mass, Flexible, BMS8-47
 - (5) G50329 Fabric High Mass Coated, Flame Propagation Resistant, BMS8-374
 - (6) G50334 Felt Needled, Flame Propagation Resistant, BMS8-373
 - (7) G50327 Tape Advanced Insulation Blanket, BMS5-157, Class 1, Composition MPVF
 - (8) G50408 Foam Flexible Polyvinylidene Fluoride, Adhesive on One Side, BMS8-371
 - (9) G50333 Tape Hook/Loop Fastener, Flame Propagation Resistant, BMS8-372
 - (10) G50341 Thread Kevlar Sewing (T40), Strip Machine Thread (T60) A-A-55220 Bonded Tex 40, Tex 60

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- C. Make a New Insulation Blanket
 - <u>NOTE</u>: The new insulation blanket can either be cut from the assembly of various component materials, or from a semi-finished insulation blanket strip, that is pre-assembled and built from equivalent component materials that are comparable in type/class/grade as those which are not pre-assembled.
 - S 348-265
 - (1) To cut out a new insulation blanket from component materials, do these steps:
 - (a) Use the damaged insulation blanket as a template to outline its shape.
 - (b) Cut the applicable insulation cover (or combination of covers):
 - 1) Fabric (BMS8-377).
 - 2) Fabric (BMS8-370).
 - 3) Fabric (BMS8-374).
 - 4) Fabric (BMS8-47).
 - 5) Felt (BMS8-373).
 - (c) Cut the fiberglass insulation (BMS8-48).
 - 1) Make sure to use fiberglass insulation (BMS8-48) that are equivalent in type/class/grade as those in the template.
 - Interleave fiberglass insulation (BMS8-48) batting, if it is necessary.
 - (d) Put the fiberglass insulation (BMS8-48) in between the applicable inboard and outboard insulation covers.

S 348-286

- (2) To cut out a new insulation blanket from a semi-finished insulation blanket strip, do these steps:
 - (a) Make sure to use a semi-finished insulation blanket strip that is pre-assembled and built from equivalent component materials that are comparable in type/class/grade as those which are not pre-assembled.
 - (b) Use the damaged insulation blanket as a template to outline its shape on the semi-finished insulation blanket strip.
 - (c) Cut the semi-finished insulation blanket strip to the same shape as the template outline.
 - (d) Interleave fiberglass insulation (BMS8-48) batting, if it is necessary.

S 348-266

- (3) Do these steps to install external garment tag to connect the layers of blanket materials:
 - (a) Cut a 1.0 inch (25 mm) diameter circle of tape (BMS5-157) for use as reinforcement tape.
 - (b) Put the reinforcement tape over the area where the external garment tag is to be stapled through on both sides of the blanket.

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- (c) Staple the external garment tag through all layers of the insulation blanket, which includes the reinforcement tapes.
- (d) Cut a 2.0 inches (51 mm) diameter circle of tape (BMS5-157) for use as covering tape.
- (e) Put the covering tape over the external garment tag and reinforcement tape, onto the insulation cover on both sides of the blanket.
- (f) Push on the tape to make sure there is a good bond with the blanket cover.
- s 348-267
- (4) Do the applicable steps to close the edges and cutouts of the insulation blanket:
 - (a) Method 1: Sew the edges.
 - 1) Fold the cover fabric over the edge of the blanket or wrap a strip of cover fabric over the edge of the blanket as applicable to bind the edge on the blanket.
 - 2) Stitch the edge with kevlar sewing thread at 4 to 6 stitches per inch.
 - 3) Make sure the stitches go through the edge binding on both sides of the insulation blanket.
 - 4) Seal the stitching on the blanket with tape (BMS5-157).
 - (b) Method 2: Tape the edges.

NOTE: Applicable for BMS8-377 materials only.

- Use tape (BMS5-157) that is sufficiently wide to overlap the top and bottom a minimum of 0.75 inch (19 mm).
- 2) Make the edge the same height as the template.
- (c) Method 3: Heat-seal the edges.
 - <u>NOTE</u>: Not all types of fabric can be heat sealed. Fabric that can be heat sealed may be heavier than fabric that cannot be heat sealed. Make sure you use the correct type of fabric.
 - 1) Hold the top and bottom covers together and heat-seal the edges of the blanket.
 - The width of the heat seal must be 0.25 to 0.50 inch (6 to 13 mm).
- S 348-268
- (5) Install hook/loop tape (BMS8-372), where applicable.

S 348-269

(6) Install water diverter on the insulation blanket with foam tape (BMS8-371) or equivalent, where applicable.

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S 348-270

- (7) Do these steps to make a grommet through a hole in the insulation blanket:
 - (a) Use tape (BMS5-157) and/or fabric (BMS8-377) to make a grommet.
 - (b) If you use fabric (BMS8-377), then use tape (BMS5-157) to bond it to the insulation blanket.

s 348-271

- (8) Do these steps to install vents in the insulation blanket cover:
 - (a) Make sure you install the vent so that it opens in the same direction as on the template.
 - (b) Cut a hole approximately 1 inch (25 mm) in diameter in the cover fabric.
 - (c) Cut a 2 inches (51 mm) circle of tape (BMS5-157).
 - (d) Remove the release liner from a small part of the circle tape (BMS5-157).
 - (e) Attach the circle tape (BMS5-157) over the hole in the blanket.

s 348-272

- (9) Do these steps to quilt the blanket with kevlar sewing thread, where applicable:
 - (a) Quilt through all layers of the insulation blanket, from cover to cover with kevlar sewing thread at 4 to 6 stitches per inch.
 - (b) Make sure the grid size of the quilting is a minimum 1.0 inch by 1.0 inch (25 mm by 25 mm) square or larger.
 - (c) Apply strips of tapes (BMS5-157) over the quilting.
 - (d) Overlap the strips of tapes (BMS5-157) over both sides of the quilting at 0.75 inch (19 mm) intervals.

s 348–273

(10) To add drain holes to the insulation blanket, cut 0.50 inch (13 mm) diameter drain holes at the bottom edge of the blanket on the inboard side at 2.0 inches (51 mm) intervals, where applicable.

s 348-274

- (11) Add these part information on the inboard side of the completed insulation blanket cover:
 - (a) Part Number.
 - (b) Supplier Name.
 - (c) Date of Manufacture.

s 348-275

- <u>CAUTION</u>: DO NOT COMPRESS THE INSULATION BLANKET BY MORE THAN 50 PERCENT. THIS DECREASES THE THERMAL AND ACOUSTIC PROPERTIES. IF YOU COMPRESS IT TOO MUCH, DAMAGE TO THE INSULATION BLANKET WILL OCCUR.
- (12) Put the insulation blanket in a neat stack on a shelf or in a bag for shipping.

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1 USE DOUBLE BACK TAPE TO ATTACH INBOARD AND OUTBOARD COVER TOGETHER, THEN USE SINGLE BACK TAPE TO WRAP AROUND OUTSIDE OF KNIFE EDGE SEAM.



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J46089



HOOK/LOOP

(ON BLANKET)



BASIC STRUCTURE

F=

EXAMPLE PROCEDURE TO ATTACH THE BLANKET ASSEMBLIES TO THE AIRPLANE STRUCTURE OR TO OTHER BLANKET ASSEMBLIES WITH HOOK/LOOP TAPE



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Insulation Blanket Manufacturing Figure 802 (Sheet 5)







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PROCEDURE TO INTERLEAVE FIBERGLASS INSULATION BATTING





Insulation Blanket Manufacturing Figure 802 (Sheet 7)

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EQUIPMENT AND FURNISHINGS - DDG MAINTENANCE PROCEDURES

- 1. General
 - A. This procedure has these tasks:
 - (1) DDG 25-11-1 Preparation Flight Crew Seat Inoperative
 - (2) DDG 25-11-1 Restoration Procedure Flight Crew Seat Inoperative
 - (3) DDG 25-25-2 Preparation Passenger Seats Inoperative
 - (4) DDG 25-25-2 Restoration Procedure Passenger Seat Inoperative
 - (5) DDG 25-25-4 Preparation Underseat Baggage Restraining Bars Inoperative
 - (6) DDG 25-25-4 Restoration Procedure Underseat Baggage Restraining Bars
 - (7) DDG 25-54-1 Preparation Cargo Compartment Restraint Components Inoperative
 - TASK 25-00-00-509-001
- 2. DDG 25-11-1 Preparation Flight Crew Seat Inoperative
 - A. General
 - (1) Flight Crew Seat
 - B. Procedure

S 869-014

- (1) On crew seats that have an inoperative power adjustment system, do the steps that follow:
 - (a) Make sure the fordard/aft manual adjustment mode operates normally.
 - (b) Make sure the vertical manual adjustment mode operates normally.
 - S 869-016
- (2) On crew seats that have an inoperative armrest, do the steps that follow:
 - (a) Make sure inoperative arm rest is in the up position or removed.

S 869-015

- (3) On crew seats that have the recline adjustment inoperative, do the steps that follow:
 - (a) Make sure the affected seat is secured in the upright position and is acceptable to the affected crew member.
 - To make sure the seat is secured in the upright position, use the functional test in the seat suppliers component maintenance manual or airlines approved procedure.



- (b) Make sure the forward/aft adjutment manual adjustment mode operates normally.
- (c) Make sure the vertical manual adjustment mode operates normally.

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S 869-017
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(4) Crew seats can have the lumbar, thigh support and the headrest inoperataive if the seat is acceptable to the affected crew member.

TASK 25-00-00-849-023

- 3. DDG 25-11-1 Restoration Procedure Flight Crew Seat
 - A. General
 - (1) 25-11-1, Flight Crew Seat
 - B. Procedure

s 909-020

(1) Replace the Flight Crew Seat (AMM 25-11-01/2)

```
TASK 25-00-00-509-004
```

- 4. DDG 25-25-2 Preparation Passenger Seats Inoperative
 - A. General
 - (1) 25-25-2, Passenger Seats
 - B. Procedure

S 569-005

- (1) Secure Seat in upright position.
 - s 429-006
- (2) Placard Seat "SEAT UNABLE TO RECLINE"

NOTE: Seat may be occupied/used.

C. Procedure

s 569-007

(1) Secure Seat in the breakover position with a strap or rope such that it cannot move during flight. OR If Seat stuck in the reclined position, block off row of seats aft

of inoperative seat.

- s 429-008
- (2) Placard entire row "DO NOT OCCUPY".





TASK 25-00-00-849-024

- 5. DDG 25-25-2 Restoration Procedure Passenger Seats General Α.
 - (1) 25-25-2, Passenger Seats
 - B. Procedure

S 909-026

(1) Replace the Passenger Seat (AMM 25-25-01/2)

s 019-028

(2) Remove the Placard.

TASK 25-00-00-509-009

- 6. DDG 25-25-4 Preparation Underseat Baggage Restraining Bars Inoperative
 - A. General
 - (1) 25-25-4, Underseat Baggage Restraining Bars
 - (2) Placard Seat as indicated.
 - B. Procedure

s 429-010

(1) If an Underseat Baggage Restraint is unserviceable, the Seat shall be Placarded.

s 429-011

- (2) Placard associated Seat "DO NOT STOW BAGGAGE UNDER THIS SEAT".
 - NOTE: Make sure cabin crew is notified of the inoperative restraining bar and that baggage is not to be placed under the seat.

TASK 25-00-00-849-025

- 7. DDG 25-25-4 Restoration Procedure Underseat Baggage Restraining Bars
 - A. General
 - (1) 25-25-4, Underseat Baggage Restraining bars
 - B. Procedure

s 909-018

(1) Replace the Passenger Seat (AMM 25-25-01/2)

s 019-022

(2) Remove the Placard.

TASK 25-00-00-509-012

- 8. DDG 25-54-1 Preparation Cargo Compartment Restraint Components Inoperative A. General
 - - (1) 25-54-1, Cargo Compartment Restraint Components

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B. Procedure

s 049-013

(1) Deactivation procedures for most cargo restraint or cargo guiding equipment are either obvious (e.g. inoperative container stop needs to be released to retracted position or removed to prevent interference with cargo loading) or unnecessary (e.g., a damaged end stop can be left as is). Consequently, no procedures are listed in this document.





MAINTENANCE MANUAL

FLIGHT COMPARTMENT - DESCRIPTION AND OPERATION

- 1. <u>General</u>
 - A. Equipment/furnishings the flight compartment includes seats, crew accommodations, and ceiling, wall, and floor coverings.
- 2. <u>Component Details</u>
 - A. Flight Compartment Seats (AMM 25-11-00)
 - (1) Seats are in the flight compartment for the flight crew and observers.
 - B. Flight Compartment Accommodations
 - (1) Crew accommodations in the flight compartment include ash trays, sun visors, cup holders, spare light bulb holder, and eye position indicator. Stowage for suitcases, flight kits, hats and coats is provided.
 - C. Ceiling Lining and Insulation (AMM 25-14-01/401)
 - (1) The ceiling lining provides a decorative finish to the flight compartment while keeping wires and insulation out of the way of the flight crew. The ceiling insulation provides a noise and heat barrier to the outside of the flight compartment.
 - D. Sidewall Lining and Insulation (AMM 25-15-01/401 and AMM 25-15-02/401)
 - (1) The sidewall lining and insulation is similar to the ceiling lining and insulation.



MAINTENANCE MANUAL

FLIGHT COMPARTMENT SEATS - DESCRIPTION AND OPERATION

- 1. <u>General</u>
 - A. Seats are in the flight compartment for the captain, first officer, and two observers. All seats have lap belts and shoulder harnesses. Captain and first officer seats are manually adjustable vertically and horizontally. Seat backs recline, seat bottoms tilt, and armrests also adjust manually.
 - B. The captain seat and first officer seat are also electrically adjustable in the horizontal and vertical directions. The switches for the powered adjustment are on the inboard side of each seat.
- 2. <u>Component Details</u>
 - A. Captain and First Officer Seats (Fig. 1)
 - (1) The captain and first officer seats mount on curved tracks to permit forward and aft adjustment. The aft ends of the seat tracks are curved so that seats move outboard during the last inches of aft travel to ease ingress/egress. Seats are vertically adjustable. Backrests recline forward and aft. Seat bottoms and armrests are adjustable. Armrests pivot up to be parallel to the backrest, and slide to a stowed position, allowing additional clearance for ingress/egress. Lumbar support adjustment knobs on each side of the backrest adjust the lumbar support vertically and forward/aft. An interlock system prevents the first officer's seat from colliding with the right side console.
 - <u>NOTE</u>: The first officer's right hand armrest will not pivot to be parallel with the backrest unless the button under the rubber grommet located at the aft end of the armrest is lifted.
 - (2) The recline, horizontal and thigh tilt control handles are below the seat bottom, on the inboard side. Handles pull up to adjust seat. The vertical adjust handle is below the seat on the outboard side. Rotate handle to adjust. Handles are labeled; "T" for thigh adjustment (seat bottom tilt), "H" for horizontal adjustment, "R" for recline adjustment, and "V" for vertical adjustment. Armrest adjustment thumbscrew is on the armrest. Seats have sheepskin covering for comfort, air circulation, and support. Seat adjustment allows for variations in size of captain and first officer. Restraints in the seats are crotch straps, lap belts, and inertia shoulder harness. The seat back contains a flotation device.
 - (3) The captain and first officer seats also have electrically powered horizontal and vertical adjustments. The switches for the powered adjustment are on the inboard side of each seat.

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- B. First Observer's Seat (Fig. 1)
 - (1) The first observer's seat mounts on angled tracks allowing forward/aft adjustment (relative to airplane), and, at the same time, left/right adjustment. Seats are vertically adjustable. Backrest reclines forward and aft. Seat swivels from facing directly forward to facing directly outboard. Armrests are adjustable. Armrests pivot up to parallel to the backrest, and slide to a stowed position, allowing additional clearance for ingress/egress. Lumbar support adjustment knobs on each side of the backrest adjust the lumbar support vertically and forward/aft.
 - (2) Control handles for seat adjustment are below the seat bottom on both sides. Handles pull up to adjust seat. Handles on the left side are "T" for thigh adjustment, "V" for vertical adjustment, and "H" for horizontal adjustment. Handles on the right side are "S" for swivel adjustments, and "L" for lateral adjustments. Armrest adjustment thumbscrew is on the armrest. Seat has sheepskin covering for comfort, air circulation, and support. Seat adjustment allows for variations in size of personnel. Restraints in seat are crotch strap, lap belt, and inertial shoulder harness. The seat back contains a flotation device.
- C. Second Observer's Seat (Fig. 1)
 - (1) The second observer seat is attached to the rear bulkhead, on the left side of the flight compartment. A lap belt and shoulder harness (no inertia reel) are for restraint. A control handle for seat stowage (folding seat bottom up against bulkhead) is on the inboard side of the seat, and is labeled RELEASE.

3. <u>Operation</u>

- A. Functional Description
 - (1) When the vertical control switch is pressed (up or down), 115v ac is applied to the vertical actuator motor to move the seat. Limit switches automatically shut off the motor when the seat reaches fully up or fully down positions.
 - (2) When the horizontal control switch is pressed (fwd or aft), 115v ac is applied to the horizontal actuator motor to move the seat. Limit switches automatically shut off the motor when the seat reaches the fully forward or fully aft positions.
- B. Control.
 - (1) To move the seat forward, press the horizontal control switch forward. To move the seat aft, press the horizontal control switch aft. Release switch when desired position is reached.
 - (2) To move the seat down, press the vertical control switch down. To move the seat up, press the vertical control switch up. Release switch when desired position is reached.

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C. For more details on the Pilot's and the First Officer's seats refer to the System Schematics as applicable: SSM 25-11-01 SSM 25-11-02

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FLIGHT COMPARTMENT SEATS

COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	AMM Reference
CIRCUIT BREAKERS	1		FLIGHT COMPARTMENT, P6	
CAPTAIN'S SEAT, C354		1	6н15	*
FIRST OFFICER'S SEAT, C355		1	6J21	*
MANUAL ADJUSTMENT KNOB - LUMBAR IN/OUT	2	2	FLIGHT COMPARTMENT SEATS	25-11-00
MANUAL ADJUSTMENT KNOB - LUMBAR UP/DOWN	2	2	FLIGHT COMPARTMENT SEATS	25-11-00
MANUAL ADJUSTMENT KNOB - THIGH PAD	2	2	FLIGHT COMPARTMENT SEATS	25-11-00
MANUAL ADJUSTMENT LEVER - ARMREST	2	3	FLIGHT COMPARTMENT SEATS	25-11-00
MANUAL ADJUSTMENT LEVER - HORIZONTAL	2	3	FLIGHT COMPARTMENT SEATS	25-11-00
MANUAL ADJUSTMENT LEVER - RECLINE	2	3	FLIGHT COMPARTMENT SEATS	25-11-00
MANUAL ADJUSTMENT LEVER - VERTICAL	2	3	FLIGHT COMPARTMENT SEATS	25-11-00
RELAYS - CAPTAIN'S, FIRST OFFICER'S SEATS			CAPTAIN'S, FIRST OFFICER'S SEATS	
AFT TRAVEL, R2	2	1		*
DOWN TRAVEL, R5	2	1		*
FORWARD TRAVEL, R1	2	1		*
INPUT POWER, R3	2	1		*
UP TRAVEL, R4	2	1		*
SEAT - CAPTAIN'S, M1481	1	1	FLIGHT COMPARTMENT	25-11-01
SEAT - FIRST OBSERVER'S	1	1	FLIGHT COMPARTMENT	25-11-00
SEAT - FIRST OFFICER'S, M1482	1	1	FLIGHT COMPARTMENT	25-11-01
SEAT - SECOND OBSERVER'S	1	1	FLIGHT COMPARTMENT	25-11-00
SWITCHES - CAPTAIN'S, FIRST OFFICER'S SEATS			CAPTAIN'S, FIRST OFFICER'S SEATS	
AFT LIMIT, S4	2	1		*
DOWN LIMIT, S6	2	1		*
FORWARD LIMIT, S3	2	1		*
HORIZONTAL CONTROL, S1	2	1		*
UP LIMIT, S5	2	1		*
VERTICAL CONTROL, S2	2	1		*

* SEE THE WDM EQUIPMENT LIST

Flight Compartment Seats - Component Index Figure 101

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MAINTENANCE MANUAL

FLIGHT COMPARTMENT SEATS - INSPECTION/CHECK

1. <u>General</u>

- A. This procedure contains these tasks.
 - (1) Examine the inertia reel.
 - (2) Examine the crew seat adjustment/lock mechanism.
- B. The second observer seat (attached to the rear bulkhead) does not have an inertia reel. All other seats in the flight compartment have an inertia reel.

TASK 25-11-00-706-001

- 2. Examine the Inertia Reel
 - A. General
 - (1) This task gives the instructions to examine the inertia reel for all shoulder straps.
 - B. Access
 - (1) Location Zones

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C. Procedure

s 716-002

(1) On the captain and first officer seats, release the shoulder harness control which is on the seat back.

s 716-003

(2) Pull the shoulder strap in the forward direction, smoothly and symmetrically to extend the shoulder strap. Make sure the shoulder strap extends freely.

s 216-004

(3) Make sure the harness is free from the buckle fitting.

S 216-005

(4) Make sure the harness does not have too much wear.

(a) Check for damaged stitching, injurious marks, broken fabric threads, chafe marks and fusing.

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(b) Slight wearing, web roughening and surface fraying (without a visible cut in the webbing) are acceptable for continued use.

S 716-006

(5) Let the shoulder strap retract. Make sure the shoulder strap retracts fully.

S 716-007

(6) Quickly pull the shoulder strap in the forward direction.

s 216-008

(7) Make sure the inertia reel locks. Make sure the shoulder strap does not extend.

s 716-009

(8) Release the shoulder strap. Make sure the inertia reel releases the shoulder strap.

s 716-010

- (9) Do the subsequent steps for each shoulder strap on the captain and first officer seats:
 - (a) Pull the shoulder strap out as far as possible.
 - (b) Put the shoulder harness control in the locked position.

s 716-011

- (10) Do these steps until the shoulder strap is fully retracted:
 - (a) Let the shoulder strap retract a short distance.
 - (b) Pull the shoulder strap to make sure that the inertia reel locks.

s 716-012

(11) Put the shoulder harness control back to the released position.

TASK 25-11-00-706-013

3. Examine the Crew Seat Adjustment/Lock Mechanism

- A. Access

 - B. Procedure

s 716-014

(1) While you are on the seat, operate the seat through a full range of movement (horizontal travel, vertical travel, and seat back recline).

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s 716-015

(2) Operate the seat and release the adjustment lever.

s 716-016

- (3) Make sure the seat locks in position.
 - (a) Make sure the seat track lockpin is fully engaged in all seat track lock positions.
 - 1) Make sure seat track lock positions are engaged from the farthest forward position to the farthest aft position on the straight section.
 - Make sure seat track lock positions are engaged in the parked position.

S 716-017

(4) With the seat locks in position, try to move the seat in all directions to make sure the seat is held tightly.





FLIGHT DECK - CLEANING

1. <u>General</u>

- This procedure contains the following tasks: Α.
 - (1) Clean the sheepskin seatcovers and seats
 - (2) Clean the upholstery, carpet and drapery
 - (3) Clean the powered and manual seat controls
 - Clean the ceiling, sidewall, stowage bin, window reveal and shade, (4) seat track covers, aluminum, painted/non-painted metal structure and parts
 - Clean the flight deck vents (5)
 - (6) Clean the translucent and transparent plastic surfaces
 - (7) Clean glass (Not Windows), for windows see D6-49427.
- Β. When you clean all of the flight deck, you must clean each surface in an orderly manner. This will stop adjacent surfaces from becoming dirty when additional surfaces are cleaned. If necessary, cover all surfaces to prevent damage by other cleaning agents.
- It is necessary to identify the material surfaces for the proper cleaner. С. The cleaning procedures are classified by the type of surface to be cleaned.

TASK 25-11-00-107-001

- 2. Cleaning-Flight Deck
 - References Α.
 - (1) ASTM F 502, Effects of cleaning and chemical maintenance materials on painted aircraft surfaces, test method for painted surfaces.
 - BAC 5736, Application of Chemical and Solvent Resistant Finishes (2)
 - (3) BAC 5750, Solvent Cleaning
 - BAC 5755, Application of Interior Decorative Finishes (4)
 - BSS 7230, Flammability Properties of Aircraft Materials, (5) Determination of
 - D6-49427, Cleaning and Washing Flight Deck, Passenger Windows and (6) Dust Covers
 - Equipment Β.
 - (1) Vacuum cleaner
 - (2) Bottles, polyethylene, 8 to 10 oz. with spray applicator, any source
 - (3) Bottles, polyethylene, wash bottle type with nozzle, size as required

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- (4) BMS 10-11, TYPE I Epoxy Primer
- (5) BMS 5-95, Sealant
- (6) BMS 1-63, Rubber Seal
- (7) BMS 10-83, Interior Paint
- (8) Carding brush
- (9) Clean cloths
- (10) Fiber hand brush, 4 inch Medium Fiber
- (11) Glue brush, 1/4 to 2 inches wide, stiff fiber bristles 1/2 long Or Paint brush with bristles cut to 1/2 inches long.
- (12) Hand brush, solvent resistant, No.4926, Fuller Brush company, Great Bend, KS
- (13) Paper Towels, White, Reinforced
- (14) Plastic scaper, Heavens Supply company, Seattle, WA
- (15) Sponges, cellulose, L-S-626
- C. Consumable Materials
 - (1) solvents, general
 - (a) BOO083 naphtha; aliphatic, TT-N-95, TYPE II
 - (b) B00135 naphtha; aliphatic, TT-N-95, TYPE II
 - (c) BOO634 Citra Safe, Inland Technology, Tacoma, WA
 - (2) leather or naugahyde cleaners
 - (a) BOO454 Winsol NO. APC-120WX, Winsol Laboratories, Seattle WA
 - (b) B00460 Winsol NO. APC-120WX, Winsol Laboratories, Inc, Seattle, WA
 - (3) glass cleaners
 - (a) Mirror Glaze, H10, Open source
 - (b) 0-A-445 Ammonia, Water (Technical Grade)
 - (4) Metal polishes
 - (a) BOO7OO Met-All, The Anton Company, New York, NY
 - (5) detergents, general
 - (a) BOO116 Detergent Joy (or equivalent)
 - (b) B00048 Spraywhite E, Proctor and Gamble CO., Cincinnati, OH
 - (c) BO0159 GLO DO-ALL Formula, The Chemithon Corporation, Seattle
 WA
 - (d) B00160 GLO DO-ALL Formula 1b, The Chemithon Corporation, Seattle, WA
 - (e) B00294 GLO DO-ALL Formula 1d, The Chemithon Corporation, Seattle WA
 - (f) B00705 SE-700, Winsol Laboratories, Inc. Seattle WA
 - (g) BOO400 Winsol NO. AC-120WX, Winsol Laboratories, Inc., Seattle WA
 - (h) B00820 Turco 5948 DPM, 5 percent Turco Products, Inc. Westminster, CA
 - (i) B00821 Turco 5948 DPM, 5 percent Turco Products, Inc. Westminster, CA
 - (6) solvents, general sheepskin cover
 - (a) B00113 Solvent, Stoddard -Fed. Spec. PP-58-600

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- (b) B00090 Trichloroethane Fed. Spec. MIL-T-81533
- D. Access
 - (1) Location Zones

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Sheep Skin Seat Cover: Ε.

s 167-015

- (1) To clean small areas do the following:
 - (a) Remove the sheepskin seat cover from the flight compartment seat.
 - (b) For an area that has grease, apply Naphtha, isopropyl alcohol, or ethyl alcohol to remove the dirty area. Do not soak the leather parts too much.
 - For an area that does not have grease, apply a sponge with 2 (c) percent solution of the detergent and water to remove the dirty area.
 - (d) Use a sponge with clean water to clean the dirty area.
 - (e) Let the sheepskin seat cover dry.
 - (f) Install the sheepskin seat cover on the flight compartment seat.

s 167-016

- To dry clean the sheepskin cover do the following: (2)
 - DO NOT USE STODDARD SOLVENT ON THE AIRPLANE. KEEP THE WARNING: STODDARD SOLVENT AWAY FROM SPARKS, FLAME, AND HEAT. THE STODDARD SOLVENT IS A FLAMMABLE SOLVENT WHICH CAN CAUSE INJURY OR DAMAGE.
 - (a) Soak the sheepskin seat cover in the Stoddard solvent for 15 to 20 minutes.
 - (b) Apply spin drying to remove the Stoddard solvent.
 - Dry the sheepskin seat cover with hot air $(90^{\circ}-110^{\circ}F)$ for 20 to (c) 40 minutes.
 - (d) Comb the wool of the sheepskin seat cover with a carding brush.
- F. Upholstery, Carpet and Drapery:
 - s 167-032
 - For regular cleaning do the following: (1)
 - (a) Remove the seat, carpet or drapery from the airplane.

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- (b) Clean the seat, carpet or drapery according to manufacturers instructions.
- S 167-033
- (2) For spot cleaning do the following:
 - (a) Use detergent to remove soft or uncured material as follows:
 - <u>NOTE</u>: This includes: fresh paint, grease, lipstick, permanent ink, oil, jet fuel, hydraulic fluid, powdered graphite, and powdered aluminum.
 - 1) Where applicable, use a cloth, paper towels, or wipers to remove as much of the stain as possible.
 - a) Use a spray of the detergent solution on the dirty area. Let it soak for thirty seconds.
 - Add more of the detergent solution to the dirty area.
 Work the dirty fibers with the blunt end of a scraper.
 - c) Remove the detergent solution with a vacuum cleaner or with a scraper.
 - d) Remove the remaining moisture with a paper towel, cloth or wipers.
 - e) Repeat steps until the dirt is removed.
 - f) Brush the area in one direction.
 - (b) Use a solvent to remove hard-set or cured dirt as follows:
 - <u>NOTE</u>: Hard-set or cured soils includes the following: adhesives, sealants, paint, asphalt, and gum.
 - 1) Use a vacuum cleaner on the areas adjacent to the dirt.
 - 2) Cover the area adjacent to the dirt.
 - Make sure the solvent can be applied to the fabric see BAC 5736 and BAC 5750.
 - 4) Use a nozzle-type wash bottle to saturate the dirt with the solvent.
 - 5) Let the dirt soak for 30 seconds or until the dirt is soft.

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- 6) Carefully use the scraper to lift the dirt. If necessary, apply more solvent to the dirt.
- 7) Remove the loose dirt with a paper towel, cloth or wipers.
- 8) Repeat the above steps until the dirt is removed.
- (c) You must spray a detergent solution on the dirty area. Let the dirt soak for 30 seconds.
- (d) Add more detergent solution to the dirty area. Clean the fibers with the blunt end of a scraper.
- (e) Use a vacuum cleaner or scraper to remove the detergent solution.
- (f) Remove the remaining moisture with a paper towel, cloth or wipes.
- (g) Repeat steps until the dirt has been removed.
- (h) Brush the area in one direction.

s 167-040

- (3) To clean leather or Naugahyde do the following:
 - (a) Prepare a detergent solution.
 - (b) Apply the foam to the leather or Naugahyde using a soft cloth.
 - (c) You must use a circular motion to clean the leather or Naugahyde gently.
 - (d) Clean the surface with a moist clean cloth.

<u>NOTE</u>: Make sure to remove all of the detergent.

- (e) Remove the moisture on the surface with a clean dry cloth.
- (f) If the dirt is oil based, then clean the dirt with a wiper dampened with solvent, Then do the following:
- (g) If the stain is water based then do the following:
 - 1) Prepare a detergent solution.
 - Use a soft cloth to apply the foam to the leather or Naugahyde.
 - Carefully use a circular movement to clean the leather or Naugahyde
 - 4) Clean the surface with a moist clean cloth.

NOTE: Make sure to remove all of the detergent.

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G. Powered and Manual Seat Controls:

s 167-031

- (1) Clean controls with a damp cloth.
- H. Ceiling, sidewall panels, stowage bin, window reveal and shade, seat track covers, aluminum, painted/non-painted metal structure and or parts:

s 167-034

- <u>CAUTION</u>: TO CLEAN HIGH STRENGTH STRUCTURAL STEELS, REFER TO BAC 5750 FOR GENERAL DETERGENT OR SOLVENT REQUIREMENTS.
- (1) General Cleaning Detergent:
 - (a) Make sure the detergent can be applied to the surface material, see ASTM F 502, BAC 5755, BSS 7230.
 - (b) Apply a detergent solution by spray bottle or sponge.
 - (c) Allow the detergent solution to remain on the surface for 1/2 to 2 minutes.
 - (d) Clean the surface with a damp cloth.
 - (e) Rinse the surface with a clean wiper saturated with clean water.
 - (f) Clean the surface try with a clean dry cloth.

s 167-038

- <u>CAUTION</u>: THIS PROCEDURE CAN DAMAGE THE FOLLOWING SURFACES: ABS, ACRYLIC, ULTEM, POLYCARBONATE, POLYCARBONATE LAMINATES OR POLYSULFONE PLASTICS. THESE SURFACES ARE SOLVENT SENSITIVE PLASTICS.
- <u>CAUTION</u>: DO NOT USE THIS PROCEDURE TO CLEAN AREAS PAINTED WITH WATER BASE PAINT, OR DAMAGE WILL OCCUR. IF DETERGENTS WILL NOT REMOVE CURED OR SET DIRT FROM THE WATER BASE PAINTED SURFACE, THEN REPAINTING IS REQUIRED. CLEANING WITH NAPHTHA: ALIPHATIC CAN BE DONE IF THE PART IS REMOVED FROM THE PLANE.
- <u>CAUTION</u>: TO CLEAN HIGH STRENGTH STRUCTURAL STEELS, REFER TO BAC 5750 FOR GENERAL DETERGENT OR SOLVENT REQUIREMENTS.
- (2) Spot Cleaning Detergent

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- <u>CAUTION</u>: DO NOT SMEAR, SPREAD THE DIRT, OR FORCE IT INTO TEXTURED OR PERFORATED SURFACES, JOINTS, OR SEAMS. THE DIRT MAY BECOME DIFFICULT TO REMOVE. LONGTERM DAMAGE MAY RESULT FROM EXCESSIVE WEAR TO THE SURFACE.
- (a) Remove excess dirt with a dry wiper.
- (b) Apply a detergent solution by spray or sponge.
- (c) Clean the area. Use a soft fiber brush to clean soft textured fabrics.
- (d) Clean the dirty area lightly to remove dirt from recessed areas.
- (e) Rinse the area with a sponge dampened in clean water.
- (f) Use absorbent paper towels in a parallel movement to dry the area.
- (g) If the area remains dirty, then use the cured or set dirt procedure.

S 167-041

- <u>CAUTION</u>: THIS PROCEDURE CAN DAMAGE THE FOLLOWING SURFACES: ABS, ACRYLIC, ULTEM, POLYCARBONATE, POLYCARBONATE LAMINATES OR POLYSULFONE PLASTICS. THESE SURFACES ARE SOLVENT SENSITIVE PLASTICS.
- <u>CAUTION</u>: DO NOT USE THIS PROCEDURE TO CLEAN AREAS PAINTED WITH WATER BASE PAINT, OR DAMAGE WILL OCCUR. IF DETERGENTS WILL NOT REMOVE CURED OR SET DIRT FROM THE WATER BASE PAINTED SURFACE, THEN REPAINTING IS REQUIRED. CLEANING WITH NAPHTHA: ALIPHATIC CAN BE DONE IF THE PART IS REMOVED FROM THE PLANE.
- <u>CAUTION</u>: APPLY THE SOLVENT IN A SHORT QUANTITY OF TIME. SOLVENTS HAVE A TIME LIMIT FOR MAXIMUM EFFECTIVENESS. SURFACE DAMAGE CAN OCCUR IF YOU LET THE SOLVENT STAY.
- (3) Spot Cleaning for Cured or Set Dirt Solvent:

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- CAUTION: DO NOT USE MORE SOLVENT THAN IS NECESSARY. DAMAGE TO THE SURFACE CAN OCCUR IF THE CONCENTRATION OF THE SOLUTION TO THE AREA IS HIGH.
- (a) Make sure that the solvent can be applied to the surface material, see ASTM F 502, BAC 5736, BAC 5750, BAC 5755, BSS 7230.
- (b) Apply the solvent to a wiper.
- (c) Put the wiper on the dirt.
- (d) Carefully, clean the area, until it is loosened.
- (e) If necessary, apply more solvent to the wiper.
- (f) On textured surfaces:
 - 1) Apply the solvent to the dirty area.
 - 2) Use a soft fiber brush and carefully scrub the dirt.
- (g) If necessary, use detergent to remove the remaining dirt and solvent.

s 167-042

- (4) Solvent sensitive parts: ABS, acrylic, polycarbonate, and polysulfone
- DO NOT SPREAD THE DIRT TO OTHER AREAS. SPREADING THE DIRT TO CAUTION: NON-DIRTY AREAS WILL INCREASE THE STAINED AREA. THIS MAY RESULT IN THE REMOVAL OF THE SURFACE RATHER THAN A SPOT CLEANING OF THE SURFACE.
 - (a) Use wipers to remove extra dirt.

s 167-044

(5) To polish stainles steel: (a) Apply the polish with a wiper to a small area at a time.

NOTE: Make sure the surface is clean before you polish.

- (b) Rub the area until the polish is black.
- (c) Clean the area with a clean dry wiper until the area is clear and bright.
- I. Flight Deck Vents:

s 167-022

(1) Use a vacuum cleaner to remove dust and dirt.

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s 027-023

(2) If possible, remove the vent screen.

s 167-024

(3) Use a stiff brush to remove the dirt from the screen.

S 167-025

(4) Clean the vent with a detergent solution and a brush.

s 167-026

(5) Clean the vent with a dry paper towels, cloth, or wipers.

s 427-027

(6) If removed, replace the vent screen.

J. Translucent and Transparent Plastic Surfaces:

s 167-035

- <u>CAUTION</u>: DO NOT ALLOW OTHER SOLVENTS TO COME IN CONTACT WITH THE PLASTIC SURFACE. PERMANENT DAMAGE TO THE PLASTIC MAY OCCUR.
- <u>CAUTION</u>: DO NOT CLEAN THE WINDOWS USING THIS METHOD. DUSTCOVERS ARE CLEANED USING THE PROCEDURES OUTLINED BELOW.
- <u>CAUTION</u>: DO NOT CLEAN THE SURFACE WITH A DRY CLOTH. THIS WILL CAUSE SCRATCHES AND THE POTENTIAL FOR ELECTROSTATIC CHARGE. THIS WILL ATTRACT DUST. DO NOT USE ABRASIVE CLEANERS ON THE DUST COVERS.
- (1) Make sure the cleaning solution is applied correctly, see ASTM F 502, BAC 5736, BSS 7230, BAC 5755.

S 167-046

(2) Apply the cleaning solution to a cloth and carefully clean the surface.

S 027-019

(3) Remove the cleaning solution with a wet cotton cloth.

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s 167-020

(4) Clean the surface with clean water on a cotton cloth.

NOTE: Do not clean the surface when it is dry.

K. Glass (Not windows), For Windows See D6-49427.

S 167-036

CAUTION: DO NOT USE THIS PROCEDURE TO CLEAN FLIGHT DECK WINDOWS.

(1) Use a clean cloth with a glass cleaner to carefully clean the surface.

s 027-037

- <u>CAUTION</u>: ON GLASS INSTRUMENT FACES: DO NOT USE A SCRAPER OR ABRASIVE MATERIAL TO PREVENT SURFACE MOVEMENT. DO NOT APPLY TOO MUCH PRESSURE ON THE LENSES.
- (2) Carefully use a razor blade to remove solid unwanted materials.

S 167-047

(3) Wipe the surface clean.

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MAINTENANCE MANUAL

<u>CAPTAIN'S/FIRST OFFICER'S SEAT - MAINTENANCE PRACTICES</u>

- 1. <u>General</u>
 - A. This procedure contains these tasks:
 - (1) Captain and First Officer Seat Removal,
 - (2) Captain and First Officer Seat Installation,
 - (3) Microswitch Adjustment.
 - (4) Change 9G seat to 16G seat.
 - (5) Change the 16G Seat to a 9G Seat
 - (6) Swivel Roller Adjustment,
 - (7) Inertia Reel Substitution,
 - (8) Captain and First Officer Seat Track Installation and Adjustment.
 - B. The captain seat and the first officer seat are referred to as the seat in this procedure.

TASK 25-11-01-002-001

- 2. Captain and First Officer Seat Removal
 - A. Reference
 - (1) AMM 52-51-20/401, Flight Compartment Door Armor
 - B. Access
 - (1) Location Zones 211/212 Control Cabin - Section 41
 - C. Prepare for the removal

s 022-315

- Remove the flight compartment door armor if necessary (AMM 52-51-20/401).
- D. Procedure

s 862-005

- <u>WARNING</u>: REMOVE ELECTRICAL POWER FROM THE FLIGHT COMPARTMENT SEAT. THE ACCIDENTAL ELECTRICAL OPERATION OF THE FLIGHT COMPARTMENT SEAT CAN CAUSE INJURIES TO PERSONS OR DAMAGE TO EQUIPMENT.
- (1) Open these circuit breakers on the main power distribution panel, P6, and attach D0-NOT-CLOSE tags:
 - (a) 6H15 or 6J15, CAPT SEAT
 - (b) 6J21, F/O SEAT

s 022-303

- (2) To remove powered IPECO seats, do the steps that follow (Fig. 201):
 - (a) Disconnect the electrical connector from the forward console.
 - (b) Remove the stops at the forward end of the forward seat tracks.
 - (c) Push the horizontal movement manual override lever to disengage the pinion from the rack.

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- (d) Move the seat forward to release the seat trucks from the seat tracks.
- (e) Remove the seat.
- TASK 25-11-01-402-024
- 3. Captain and First Officer Seat Installation
 - A. Reference
 - (1) AMM 52-51-20/401, Flight Compartment Door Armor
 - B. Access
 - (1) Location Zones

211/212 Control Cabin - Section 41

C. Procedure

s 422-301

- (1) To install powered IPECO seats, do the steps that follow (Fig. 201):(a) Put the seat forward of the seat tracks .
 - (b) Make sure the underside of the seat does not come in contact with the seat tracks.
 - (c) Align the front and rear swivels so that the single angled face (tapered) roller is on the inboard side of the seat tracks.
 - <u>CAUTION</u>: MAKE SURE THE ROLLER ARM IS IN CONTACT WITH THE FLAT SIDE OF THE DRIVE RACK ON INSTALLATION OF THE SEATS. INCORRECT LOCATION OF THE ROLLER ARM CAN CAUSE DAMAGE TO THE LOWER SEAT BASE STRUCTURE.
 - (d) Make sure the roller arm is installed on the flat side of the drive rack.
 - (e) Move the seat aft until the pinion touches the track mounted rack.
 - <u>NOTE</u>: The pinion gear is below the actuator on the aft outboard side of the track. The pinion rack is on the aft seat track on the outboard side.
 - (f) Push the horizontal control handle (manual override) lever located on the forward inboard side of the seat to disengage the pinion.
 - <u>NOTE</u>: The pinion may be rotated by hand as necessary to mesh with the pinion rack on the seat track.
 - (g) Visually check that there is no damage to the seats fore and aft microswitches on the underside of the seat base.
 - (h) Roll the seat aft until pinion is meshed.

<u>NOTE</u>: Make sure the roller arm is on the outboard side of the track mounted rack.

(i) Release the manual control handle.

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- (j) Install the stop blocks on the seat tracks.
- (k) Connect the electrical connector to the forward console.
- (l) Adjust the swivel rollers (refer to the Swivel Roller Adjustment procedure).
- (m) Adjust the microswitch limits (refer to the Microswitch Adjustment Procedure).
 - 1) Make sure you do not bend the microswitch actuator arms.
- (n) Make sure the manual seat adjustment operates the seat fully forward and fully aft.

s 022-312

- (2) Remove the DO-NOT-CLOSE tags and close these circuit breakers on the P6 panel:
 - (a) 6H15 or 6J15, CAPT SEAT
 - (b) 6J21, F/O SEAT

s 712-325

(3) AIRPLANES WITH POWERED IPECO SEATS;

Do these steps for the electrical operation check of the seat:

- (a) Make sure the emergency power cutoff switch is in the ON position.
- (b) Use the power control switch to make sure the seat will move in the forward and aft direction.
- (c) Use the power control switch to move the seat to the fully forward position.
- (d) Release the power control switch.
- (e) Make sure the seat locks in the fully forward position.
- (f) Make sure the clearance between the stop-blocks and the forward bogie unit is 0.030-0.120 inches.
 - 1) If the clearance between the forward bogie unit and the stop-blocks is less than 0.030 inch, adjust the forward microswitch down.
 - 2) If the clearance between the forward bogie unit and the stop-blocks is greater than 0.120 inch, adjust the forward microswitch up.
- (g) Use the manual control lever to make sure the seat will move aft.
- (h) Use the power contol switch to move the seat to the fully aft position.
- (i) Release the power control switch
- (j) Make sure the seat locks in the fully aft position.
- (k) Make sure the clearance between the aft stop-blocks and the aft bogie unit is 0.030-0.120 inches.
 - If the clearance between the aft bogie unit and the aft stop-blocks is less than 0.030 inch, adjust the aft microswitch down.
 - If the clearance between the aft bogie unit and the aft stop-blocks is greater than 0.120 inch, adjust the aft microswitch up.
- (l) Use the manual control lever to make sure the seat will move forward.

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- (m) Use the power control switch to do these steps:
 - Make sure the seat moves from the fully aft to the fully forward position in 5 to 9 seconds.
 - 2) Make sure the seat moves from the fully forward to the fully aft position in 5 to 9 seconds.
 - 3) Do the procedure to adjust the bogie units if the seat movement is too tight or too loose.
- (n) Put the emergency power cutoff switch to the OFF position.
- (o) Use the power control switch to make sure the seat will not move in the forward or aft direction.
- (p) Put the emergency power cutoff switch to the ON position.
 - 1) Use the vertical power control switch to make sure the seat will move up and down.
- (q) Use the vertical power control switch to move the seat to the fully down position.
- (r) Release the switch.
- (s) Make sure the seat locks in the fully down position.
- (t) Use the vertical power control switch to make sure the seat moves from the fully down to the fully up position in 5 to 9 seconds.
- (u) Put the emergency power cutoff switch to the OFF position.
- (v) Use the vertical power control switch to make sure the seat will not move up or down.
- (w) Put the emergency power cutoff switch to the ON position.

s 712-251

- (4) Do this operation check for the movement of the seat:
 - (a) While you are on the seat, operate the control lever for manual forward and aft travel along the seat tracks.
 - (b) Make sure the seat moves freely forward and aft along the seat tracks through its full range of movement.
 - (c) Operate the seat and release the control lever.
 - (d) Make sure the seat locks in position.

TASK 25-11-01-862-321

- 4. Microswitch Adjustment
 - A. General
 - (1) This task gives the adjustment of the forward and aft microswitches on the captain and first officer's seats.

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- B. Access (1) Location Zones 211/212 Control Cabin - Section 41
- C. Prepare for the Microswitch Adjustment

s 862-327

- WARNING: REMOVE ELECTRICAL POWER FROM THE FLIGHT COMPARTMENT SEAT. THE ACCIDENTAL ELECTRICAL OPERATION OF THE FLIGHT COMPARTMENT SEAT CAN CAUSE INJURIES TO PERSONS OR DAMAGE TO EQUIPMENT.
- (1) Open these circuit breakers on the main power distribution panel, P6, and attach DO-NOT-CLOSE tags:
 - (a) 6H15 or 6J15, CAPT SEAT
 - (b) 6J21, F/0 SEAT

s 822-323

- (2) Do these steps to adjust the forward microswitch:
 - (a) Put the seat on the seat tracks so the forward bogie unit is approximately 0.10 inch from the forward stop-block.
 - (b) Loosen the adjustment bolts.
 - (c) Carefully lower the microswitch bracket on the forward stop-block until you hear a click from the microswitch.
 - <u>NOTE</u>: The click is an indication that the circuit is made in the microswitch.
 - (d) With the microswitch bracket held in this position, carefully tighten the adjustment bolts.
 - s 822-324
- (3) Do these steps to adjust the aft microswitch:
 - (a) Put the seat on the seat tracks so the microswitch actuator is directly above the forward inboard seat track.

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- (b) Loosen the adjustment bolts.
- (c) Carefully lower the bracket evenly until the clearance between the actuator roller and the top surface of the seat track is 0.035 inch.
 - NOTE: The 0.035 inch clearance is the minimum to get a clearance of 0.050 inch between the aft bogie unit and the aft stop-block. As the 0.035 inch clearance increases, the clearance between the aft bogie unit and the aft stop-block decreases.
- (d) With the bracket held in this position, carefully tighten the adjustment bolts.

TASK 25-11-01-862-319

- 5. Change the 9G Seat to a 16G Seat
 - Α. Access
 - (1) Location Zones

Control Cabin - Section 41 211/212

B. Procedure

s 982-318

- (1)To change the 9G seat to a 16G seat do the steps that follow:
 - (a) Remove the Captain and First Officer seat (refer to the seat removal procedure).
 - Remove the 9G seat tracks. (b)
 - (c) Install the 16G seat tracks to the universal adapter plate.

NOTE: Some of the bolts are attached from under the adapter plate.

- (d) Align the universal adapter plate over the existing holes in the floor.
- Install the bolts and tighten. (e)
- (f) Install the 16G Captain and First Officer seat (refer to the seat installation procedure).

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TASK 25-11-01-862-320

- 6. Change the 16G Seat to a 9G Seat
 - A. Access
 - (1) Location Zones 211/212 Control Cabin - Section 41
 - B. Procedure

s 422-311

- (1) To change the 16G seat to the 9G seat, do the steps that follow.
 - (a) Remove the Captain and First Officer seat (refer to the seat removal procedure).
 - (b) Remove the 16G seat tracks.
 - (c) Install the 9G seat tracks to the universal adapter plate.

<u>NOTE</u>: Some of the bolts are attached from under the adapter plate.

- (d) Align the universal adapter plate over the existing holes in the floor.
- (e) Install the bolts and tighten.
- (f) Install the 9G Captain and First Officer seat (refer to the seat installation procedure).
- C. Put the Airplane Back to Its Usual Condition

s 412-316

 Install the flight compartment door armor if necessary (AMM 52-51-20/401).

TASK 25-11-01-002-306

- 7. Swivel Roller Adjustment
 - A. Access
 - (1) Location Zones 211/212 Control Cabin - Section 41

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B. Procedure

s 822-064

- (1) To adjust the swivel rollers, do the steps that follow: POWERED SEATS
 - (a) Move the seat aft to adjust the inboard swivel rollers. Move the seat forward to adjust the outboard swivel roller.
 - (b) Tighten the adjustment bolts until the swivel rollers touch the seat track.
 - (c) Tighten the adjustment bolts 1/16 to 1/8 more turns. Install the lockwire in the adjustment bolts.
 - (d) Make sure the seat moves fully forward and fully aft.

TASK 25-11-01-902-286

- 8. Inertia Reel Substitution
 - A. General
 - (1) This procedure covers the removal of the 767 inertia reel for substitution of a 747/1011/727-231/727-231A inertia reel while the 767 inertia reel is repaired.
 - B. Remove Pilot's/First Officer's Inertia Reel

S 022-287

(1) Remove top seat back cover.

S 022-288

(2) Remove plastic shroud retaining shoulder harness to seat top.

S 022-289

(3) Disconnect manual lock control rod from the inertia reel.

s 422-291

(4) Install the connector pin back on manual lock control rod with cotter pin.

s 932-292

(5) Placard manual lock inoperative using placard SN 46-1333 and initiate appropriate log book entry.

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- C. Install Pilot's/First Officer's Inertia Reel
 - s 422-293
 - (1) Install inertia reel.

S 422-294

(2) Install plastic shroud.

s 422-295

(3) Install top seat back cover.

s 212-296

(4) Check inertia reel (AMM 25-11-00/601).

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MAINTENANCE MANUAL

FLIGHT COMPARTMENT SEAT TRACKS - INSPECTION/CHECK

- 1. <u>General</u>
 - A. This procedure contains this task:
 - (1) An examination of the seat tracks in the flight compartment.

TASK 25-11-01-206-001

- 2. Flight Compartment Seat Tracks Inspection/Check (Fig. 601)
 - A. General
 - (1) There are two conditions during which the seat track can become worn:
 - (a) Condition 1 Wear on the surface of the seat track.
 - (b) Condition 2 The lock hole becomes larger when the lock pin hits the edge of the lock hole too many times, when the seat is adjusted.
 - (2) The seat track is in good condition when:
 - (a) The maximum depth of a groove on the surface of the seat track is not more than 0.065 inch for the Condition 1.
 - (b) The lock hole is not larger than 0.30 inch in the diameter, and not thicker than 0.1 inch in depth for the Condition 2.
 - B. Equipment
 - (1) 3T900-0101 Seat Track Inspection Gage
 - C. Access
 - (1) Location Zones
 - 211/212 Control Cabin Section 41
 - D. Procedure

s 226-002

- (1) To do a check on the surface of the seat track, do the steps that follow:
 - (a) Put the point of the inspection gage in a groove that is on the surface of the seat track.
 - (b) If the protrusion touches the surface of the seat track, replace the seat track.

s 226-003

- (2) To do a check of the lock hole, do the steps that follow:
 - (a) Put the protrusion of the inspection gage in the lock hole.

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INSPECTION ON THE SURFACE OF THE SEAT TRACK



INSPECTION OF THE LOCK HOLE





- (b) If the bottom of the inspection gage touches the surface of the seat track, replace the seat track.
 - <u>NOTE</u>: Any equivalent procedure to the above steps, that verify the maximum depth of the groove and maximum size of the lock hole is acceptable.





MAINTENANCE MANUAL

OBSERVER SEAT - REMOVAL/INSTALLATION

1. <u>General</u>

- A. This procedure contains these tasks:
 - (1) The removal of the observer seat.
 - (2) The installation of the observer seat.
- B. The observer seat may be called the supernumerary seat, the flight engineer seat, the instructor seat, or other names. For this procedure, it will be referred to as the observer seat. The observer seat may be track mounted, wall mounted or floor mounted to the airplane.

TASK 25-11-02-004-004

- 2. <u>Remove the Observer Seat</u> (Track Mounted) (Fig. 401)
- A. Access
 - (1) Location Zones
 211/212 Control Cabin Section 41
 - B. Procedure
 - S 864-019
 - (1) AIRPLANES WITH ELECTRIC SEATS;
 - Do these steps:
 - (a) Open the circuit breaker for the observers seat on the main power distribution panel, P6, and attach a DO-NOT-CLOSE tag.
 - (b) Disconnect the electrical connector which is below the seat.

S 024-006

(2) Remove the stop from the forward end of the outboard seat track.

s 034-007

(3) Remove the seat removal inserts from the seat tracks.

S 024-008

(4) Move the seat forward until the trucks disengage from the seat tracks.

s 024-009

(5) Remove the seat.

TASK 25-11-02-404-010

- 3. <u>Install the Observer Seat</u> (Track Mounted) (Fig. 401)
 - A. Access
 - B. Procedure

s 424-011

(1) Put the seat in position with the trucks forward of the forward end of the seat tracks.

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A-A

AIRPLANES POST-SB 25A46 OPTION 1; INSTALL THE WASHERS ONLY ON THE FORWARD BOLTS

> Observer Seat Figure 401

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s 424-012

(2) Lower the aft rollers into position through the seat removal inserts.

s 824-013

(3) Align the trucks with the seat tracks.

S 824-014

(4) Pull the adjustment control handle and move the seat aft on the seat tracks.

s 824-015

(5) Move the seat aft until the trucks engage the teeth on the seat track.

s 434-016

(6) Install the seat removal inserts in the seat tracks.

S 424-017

(7) Install the stop at the forward end of the outboard seat track.

S 864-034

- (8) AIRPLANES WITH ELECTRIC SEATS;
 - Do these steps:
 - (a) Connect the electrical connector.
 - (b) Remove the DO-NOT-CLOSE tag and close the circuit breaker on the P6 panel.
 - S 824-002
- (9) Pull the adjustment control handles and move the seat through a full range of movement to make sure the seat operates correctly.

S 824-003

(10) Make sure the seat moves smoothly.

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TASK 25-11-02-004-018 4. <u>Remove the Observer Seat</u> (Wall Mounted) (Fig. 401) Α. Access (1) Location Zones 211/212 Control Cabin - Section 41 B. Procedure s 024-019 (1) Remove the bolts from the seat. s 024-020 (2) Remove the seat. TASK 25-11-02-404-021 5. Install the Observer Seat (Wall Mounted) (Fig. 401) A. Access (1) Location Zones 211/212 Control Cabin - Section 41 B. Procedure s 414-022 (1) Put the seat in its position. s 424-023 (2) Install the bolts to the seat. s 824-024 (3) Make sure the seat is stable. TASK 25-11-02-004-025 6. <u>Remove the Observer Seat</u> (Floor Mounted) (Fig 401) Α. Access (1) Location Zones 211/212 Control Cabin – Section 41 B. Procedure s 034-026 (1) Remove the bolts. s 024-027

(2) Remove the seat.

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TASK 25-11-02-404-028

- 7. Install the Observer Seat (Floor Mounted) (Fig. 401)
 - A. Access
 - (1) Location Zones
 - 211/212 Control Cabin Section 41
 - B. Procedure
 - s 424-029
 - (1) Align the seat with the holes in the floor.
 - s 434-030
 - (2) AIRPLANES WITH SB 25A46; Install the two forward bolts and washers (View A-A, Fig. 401).
 - s 434-031
 - (3) AIRPLANES WITHOUT SB 25A46; Install the two forward bolts. Do not install the washer.
 - s 434-032
 - (4) AIRPLANES WITH SB 25A46;
 - Do one of the two steps that follow to install the two aft bolts: (a) Install one 7/8-inch grip-length bolt and one washer at each leg.
 - (b) Install one 13/16-inch grip-length bolt at each leg. Do not install the washer.
 - s 434-033
 - (5) AIRPLANES WITHOUT SB 25A46; Install the two aft bolts. Do not install the washer.



PILOT/FIRST OFFICER INERTIA REEL - REMOVAL/INSTALLATION

- 1. <u>General</u>
 - Α. This procedure contains these tasks:
 - (1) Remove the inertia reel.
 - (2) Install the inertia reel.

TASK 25-11-04-004-001

- 2. <u>Remove the Inertia Reel</u> (Fig. 401)
 - A. Access
 - (1) Location Zones Control Cabin – Section 41 211/212
 - B. Procedure

s 024-002

(1) Remove the flotation cushion.

s 024-003

(2) Remove the seat cover on the seat back.

s 024-004

(3) Remove the belt guide shroud from the seat top.

S 024-005

Remove the inertia reel, cable clamps, cable and inertia reel manual (4) lock.

TASK 25-11-04-404-006

- 3. Install the Inertia Reel (Fig. 401)
 - A. References
 - (1) AMM 25-11-00/601, Flight Compartment Seats
 - в. Access
 - (1) Location Zones 211/212 Control Cabin – Section 41

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Pilot's/First Officer's Inertia Reel Figure 401





C. Procedure

s 424-007

 Install the inertia reel, cable, cable clamps, and inertia reel manual lock.

s 424-008

(2) Install the belt guide shroud on the seat top.

s 424-009

(3) Install the seat cover on the seat back.

s 424-010

(4) Install the flotation cushion.

s 704-011

(5) Make sure the inertia reel operates correctly (AMM 25-11-00/601).



FLIGHT DISPATCH KIT - MAINTENANCE PRACTICES

TASK 25-13-01-802-001

- 1. Flight Dispatch Kit (Fig. 201)
 - A. Access

- (1) Location Zones
 - 119/120 Main Equipment Center



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B. Procedure

s 802-002

- (1) The flight dispatch kit is in a box which is in the electrical/electronics bay. The kit contains these items:(a) Landing gear downlocks.
 - <u>NOTE</u>: The landing gear downlocks are used to prevent gear retraction while the airplane is on the ground.
 - (b) Thrust reverser isolation valve lock.
 - <u>NOTE</u>: The thrust reverser isolation valve lock prevents in-flight thrust reverser operation. The lock is also used on the ground to permit manual operation of the thrust reverser.
 - (c) Landing gear brake disconnect.
 - <u>NOTE</u>: The landing gear brake disconnect is used to seal a hydraulic brake that does not operate.

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MAINTENANCE MANUAL

SUNVISOR SLIDER - ADJUSTMENT/TEST

- 1. <u>General</u>
 - A. This procedure is a task to adjust the slider of the window sunvisor in the flight compartment.

TASK 25-13-02-825-002

- 2. Adjust the Sunvisor Slider (Fig. 501)
 - A. Equipment
 - (1) Roller adjuster A25017–1
 - B. Access
 - C. Procedure

s 025-003

(1) Remove the sunvisor from the slider.

S 025-004

(2) Remove the slider stop from the track.

s 025-005

(3) Remove the slider from the track.

s 825-001

- (4) Use the roller adjustment tool to lift or lower the rollers in the slider to get the clearance shown in Fig. 501.
 - <u>NOTE</u>: Failure to install the slider with the inboard side correctly positioned can cause interference when the No. 2 sliding window is opened.

s 425-006

(5) Install the slider on the track.

s 825-007

(6) Make sure the slider moves easily.

s 825-010

(7) NUMBER 3 WINDOW; Make sure the No. 3 window slider moves freely past the No. 2 window when it is open.

s 425-008

(8) Install the slider stop on the track.

s 425-009

(9) Install the sunvisor on the slider.

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TASK 25-13-02-825-012

- 3. Adjust the Carriage Block Brake Shoe (Fig. 502)
 - A. Equipment
 - (1) 9/64 Allen wrench
 - (2) Force gage
 - B. Access
 - C. Procedure

s 825-013

(1) Set the carriage lever to the lock position.

s 825-014

- (2) Use a 9/64 Allen wrench to adjust the screws equally in 1/4 turn increments.
 - (a) Turn clockwise to loosen.
 - (b) Turn counterclockwise to tighten.

s 825-015

- (3) Apply a force gage at right angles to the lower horizontal edge of the sunvisor plate.
 - (a) Make sure that the gage shows 0.8 to 1.2 pounds before the brake moves around the rod.



CEILING LINING - REMOVAL/INSTALLATION

- 1. <u>General</u>
 - A. This procedure has these tasks:
 - (1) Removal of the ceiling lining.
 - (2) Installation of the ceiling lining
 - B. There are several linings installed in the flight compartment. Do this procedure for one or all of the linings.

TASK 25-14-01-004-002

- 2. <u>Remove the Linings</u> (Fig. 401)
 - A. Access
 - (1) Location Zones
 - 211 Control Cabin, Left
 - 212 Control Cabin, Right
 - B. Prepare for Removal of the Lining
 - S 864-003
 - (1) Open these circuit breakers on the P11, panel and attach DO-NOT-CLOSE tags:
 - (a) 11B16, AURAL WARN L SPEAKER 11H35, AURAL WARN R SPEAKER

S 864-011

- (2) Open this circut breaker on the P33 fwd elec equip panel and attach DO-NOT-CLOSE tag:
 - (a) 33K7, FLT DK DOME LTS
- C. Procedure

S 014-004

- (1) Remove the overhead pads and molding common to the assemblies and adjacent support structure or parts.
 - <u>NOTE</u>: The overhead pads and molding are attached with hook-and-loop tape.

S 024-005

(2) Remove the screws that attach the linings to the support structure.

<u>NOTE</u>: Make sure the lining is supported while the screws are removed.

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s 024-006

(3) Pull the lining from the ceiling.

S 024-007

(4) Disconnect the electrical connectors and hoses from the lining, if necessary.

S 024-008

- (5) Remove the lining from the ceiling.
- TASK 25-14-01-404-010
- 3. Install the Linings (Fig. 401)

A. Access

- (1) Location Zones
 - 211 Control Cabin, Left

212 Control Cabin, Right

B. Procedure

s 414-009

(1) Connect the electrical connectors and the hoses, if necessary.

s 824-011

(2) Align the holes in the lining with the holes in the support structure.

s 424-010

(3) Install the screws through the lining into the support structure.

S 864-012

- (4) Close these circut breakers on the P11, panel and remove D0-NOT-CLOSE tags:(a) 11B16, AURAL WARN L SPEAKER
 - 11B35, AURAL WARN R SPEAKER

S 864-013

(5) Close this circut breaker on the P33, FWD ELEC EQUIP panel and remove DO-NOT-CLOSE tag:
(a) 33K7, FLT DK DOME LTS

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FLIGHT COMPARTMENT DRIPSHIELD - REMOVAL/INSTALLATION

1. <u>General</u>

Β.

- A. This procedure has these tasks:
 - (1) The removal of the dripshields
 - (2) The installation of fire blocking material
 - (3) The installation of the dripshields
- B. The dripshields are of different shapes and sizes. They are installed over the structure in the flight deck. The dripshields help drain condensation, which collects on the structure, away from the occupied area of the flight deck. The dripshields are attached to the structure with screws. It is necessary to remove the ceiling panels, the pilots' overhead electrical panels, and applicable flight deck furnishings in order to remove the dripshields.
- C. The fire blocking material is installed where the dripshield is exposed to potential ignition sources. The fire block uses fire resistant flexible cargo liner material as a primary barrier. It is held in place by a combination of fasteners, fire resistant sealant, and existing insulation blanket studs. For large gaps between the dripshield and structure, fire resistant foam and glass fabric is used.

TASK 25-14-02-004-001

- 2. Flight Compartment Dripshields Removal (Fig. 401)
 - A. Consumable Materials
 - (1) BOO148 Solvent Methyl Ethyl Ketone (MEK), TT-M-261
 - References
 - (1) AMM 20-30-98/201, Standard Practices Airframe
 - (2) AMM 24-22-00/201, Control (Supply Power)
 - (3) AMM 25-11-01/201, Pilots'/First Officer's Seat
 - (4) AMM 25-11-02/401, Observer Seat
 - (5) AMM 25-14-01/401, Ceiling Lining
 - (6) AMM 25-15-01/401, Side Console
 - (7) AMM 25-15-02/401, Sidewall Insulation
 - (8) AMM 25-21-01/401, Sidewall Panels
 - (9) AMM 25-22-02/401, Ceiling Panels

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A-A



Sidewall Dripshield Installation Figure 402 (Sheet 2)

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Sidewall Dripshield Installation Figure 402 (Sheet 3)

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WINDOW NO. 2 (LEFT SIDE IS SHOWN, RIGHT SIDE IS OPPOSITE)



Sidewall Dripshield Installation Figure 402 (Sheet 5)

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FLIGHT COMPARTMENT (VIEW IN THE FORWARD DIRECTION)

Aft Dripshield Installation Figure 403 (Sheet 1)

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Aft Dripshield Installation Figure 403 (Sheet 3)



Aft Dripshield Installation Figure 403 (Sheet 4)

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Aft Dripshield Installation Figure 403 (Sheet 6)

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(10) AMM 25-24-01/401, Closets (11) AMM 25-24-04/401, Partitions (12) AMM 25-31-04/401, Forward Galley (13) AMM 25-41-01/401, Forward Lavatory (14) AMM 31-12-11/001, Pilot's Overhead Panel Access C. (1) Location Zones 211 Control Cabin, Left 212 Control Cabin, Right Prepare for the Removal D. S 864-002 (1) Remove the electrical power (AMM 24-22-00/201). s 024-003 (2) Remove the captain's seat (AMM 25-11-01/201). s 024-140 (3) Remove the first officer's seat (AMM 25-11-01/201). s 024-004 (4) Remove the observer's seat (AMM 25-11-02/401). s 014-005 (5) Remove the side consoles from the flight compartment (AMM 25-15-01/401). S 014-006 Remove the closet (AMM 25-24-01/401). (6) s 024-007 (7) Remove the forward lavatory if it is necessary (AMM 25-41-01/401). s 024-141 (8) Remove the forward galley if it is necessary (AMM 25-31-01/401). S 014-008 Remove the pilot's overhead panel (AMM 31-12-11/001). (9) s 014-011 (10) Remove the closure and acoustic panels. s 024-142 (11) Remove the ceiling lining (AMM 25-14-01/401). S 024-143 (12) Remove the sidewall insulation (AMM 25-15-02/401).

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S 024-144

- (13) Remove the ceiling and sidewall panels to get access to the dripshields.
- E. Dripshield Removal
 - <u>NOTE</u>: Remove the dripshields in the following order: Overhead Forward, Pilot's Sidewall, Aft Right Sidewall, Aft Left Sidewall, Overhead Aft.

s 034-012

(1) Disconnect the plastic drain tubes installed in the dripshields.

S 034-013

(2) Remove the electrical wire bundles from the dripshields.

s 034-014

(3) Remove the support brackets for the ceiling linings from the dripshields.

S 024-196

(4) Remove the support brackets for the sidewall linings from the dripshields.

s 024-145

(5) Remove the screws which attach the dripshields to the structure.

s 154-016

(6) Remove the sealant around the edges of the dripshields.

s 114-017

- 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.
- (7) Apply solvent, Series 98 (AMM 20-30-98/201) to the joints of the dripshields to loosen the bond of the joint.

S 024-018

(8) Open the joints between the dripshields.

S 024-019

(9) Remove the dripshields from the structure.

NOTE: Note how each dripshield overlaps the others.

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TASK 25-14-02-424-020

- 3. Flight Compartment Fire Blocking Material Installation (Fig. 402, 403)
 - A. Consumable Materials
 - (1) A00160 Sealant BMS5-63, Type II, Class B-1/2
 - (2) GO2361 Sealing Tape BMS5-146, Type I, Grade A
 - (3) G02305 Insulation Blanket Tape BMS5-149, Type XI, Class 1 Grade C, Form 1
 - (4) G50088 Foam, Silicone, Grade A BMS1-68, Grade A, Form II
 - (5) G50018 Fabric Cargo Liner, BMS8-343 Type I
 - B. Access
 - (1) Location Zones
 - 211 Control Cabin, Left
 - 212 Control Cabin, Right
 - C. References
 - (1) AMM 20-30-98/201, Standard Practices Airframe
 - D. Prepare for the Installation
 - <u>NOTE</u>: The processes for the left side will be described. The process is the same for the right side.

s 024-021

(1) Remove the applicable flight compartment furnishings.

S 024-146

- (2) Loosen or remove the fasteners on the forward sidewall dripshield, the tubing, and the wire bundles attached to it.
- E. Fire Blocking Material Installation

s 424–189

- (1) Do these steps to install the fireblocking to the top and forward edge of the forward sidewall.
 - (a) Clean the dripshield.
 - (b) Cut the cargo liner material to the appropriate size.
 - (c) Wrap the cargo liner material around the dripshield and insulation so that it overlaps the dripshield at least 1 inch (25.4 mm).

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- (d) Apply sealant to bond the cargo liner fabric to the dripshield.
 - <u>NOTE</u>: Sealing tape, BMS 5–146, may be used to hold the fire fire blocking material in place while the sealant cures. It may be left in place permanently. It cannot be used instead of the sealant.
- (e) Cut a strip of silicone foam to approximately 1 inch (25.4 mm) square and long enough to fill the voids between the top of the dripshield and the sidewall.
- (f) Wrap glass fabric one and a half times around the foam strip.
 - <u>NOTE</u>: The end of the glass fabric should extend past the end of the foam strip approximately one inch (25.4mm) on each end. Use joint sealing tape on the sides and ends to secure the glass fabric.
- (g) Insert the foam roll between the cargo liner fabric on the top of the dripshield and the structure insulation.
- (h) Apply BMS5-63 sealant to tack the foam roll to the fire blocking material.
- (i) Attach the dripshield with the dripshield fasteners.

s 424-190

- (2) Do these steps to install the sidewall forward edge dripshield fire blocking:
 - (a) Clean the forward edge of the sidewall dripshield.
 - (b) Cut the cargo liner fabric to the appropriate size.
 - (c) Wrap the cargo liner fabric around the dripshield and insulation so that it overlaps the dripshield at least 1 inch (25.4 mm).
 - (d) Apply BMS5-63 sealant to bond the cargo liner fabric to the dripshield.
 - <u>NOTE</u>: Sealing tape, BMS 5–146, may be used to hold the cargo liner fabric in place while the sealant cures. It may be left in place permanently. It cannot be used instead of the sealant.
 - (e) Cut a strip of silicone foam to approximately 1 inch (25.4 mm) square and the length of the forward edge of the sidewall dripshield.

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- (f) Wrap glass fabric one and a half times around the foam strip.
 - <u>NOTE</u>: The end of the glass fabric should extend past the end of the foam strip approximately 1 inch (25.4mm) on each end. Use joint sealing tape on the sides and ends to secure the glass fabric.
- (g) Apply BMS5-146 tape in 2 inch (51 mm) strips to hold the glass fabric in place during installation.
- (h) Insert the foam roll between the cargo liner fabric on the forward edge of the sidewall dripshield and the structure insulation.
- (i) Apply a bead of BMS5-63 sealant to tack the foam roll and the cargo liner fabric.
- (j) Secure the dripshield, tube clamps, and wire bundle clamps with the fasteners that were removed from the dripshield.
- (k) Cut two blocks of foam 5.5 X 7.0 inches (139.7 X 177.8 mm) each 1 inch (25.4 mm) thick. Put the blocks together to make a 2 inch (51 mm) thick block.
- (l) Wrap glass fabric around the foam blocks one and a half times with the ends extending about 1 inch (25.4 mm) beyond the foam roll ends.
- (m) Secure the glass fabric wrap with 2 inch (51 mm) lengths of joint sealing tape.
- (n) Secure the foam block at the aft end of the sidewall dripshield with a continuous bead of sealant.

s 424–191

- (3) Do these steps to install the fireblocking under the windows at the top of the sidewall.
 - (a) Cut the cargo liner fabric to the appropriate size, (44 inches X 10 inches) (1117.6 mm X 254.0 mm).
 - (b) Wrap the cargo liner fabric around the dripshield and insulation so that it overlaps the dripshield approximately 1 inch (25.4 mm).
 - (c) Apply sealant to bond the cargo liner fabric to the dripshield.
 - <u>NOTE</u>: Sealing tape, BMS 5–146, may be used to hold the fire blocking material in place while the sealant cures. It may be left in place permanently. It cannot be used instead of the sealant.
 - (d) Cut a strip of silicone foam to 1 X 1 inch (25.4 X 25.4 mm) approximately 42 inches (1066.8 mm) long, the full length of the dripshield below the window.

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- (e) Wrap glass fabric one and a half times around the foam strip.
 - <u>NOTE</u>: The end of the glass fabric should extend past the end of the foam strip approximately 1 inch (25.4 mm) on each end. Use joint sealing tape on the sides and ends to secure the glass fabric.
- (f) Insert the foam roll between the cargo liner fabric on the top of the dripshield and the structure insulation.
- (g) Apply BMS5-63 sealant to tack the foam roll to the cargo liner fabric, apply a 0.25 inch (6.35 mm) bead, 1 inch (25.4 mm) long, every 5 inches (127 mm).

s 424-192

- (4) Do these steps to install the fireblocking on the aft edge of the aft dripshield, the cutouts and intercostals:
 - (a) Mask the dripshield area around the stanchion cutouts with joint sealing tape.
 - <u>NOTE</u>: Sealing tape, BMS 5–146, should extend 3 inches (76.2 mm) over the moisture barrier.
 - (b) Cut the silicone foam into a one inch (25.4 mm) square, long enough to fill the cutout in the dripshield.
 - (c) Wrap the glass fabric one and a half times around the silicone foam strip, cut the ends to extend 1 inch (25.4 mm) past the ends of the foam.
 - (d) Secure the glass fabric with 2 inch (51 mm) lengths of joint sealing tape.
 - (e) Install the roll to fill the gap in the dripshield cutouts.
 - (f) For the cutout edge use a 8 inch (203.2 mm) wide piece of cargo liner fabric the depth of the dripshield cutout.
 - (g) Wrap the cargo liner fabric around the dripshield and insulation so that it overlaps the dripshield at least 1 inch (25.4 mm).
 - (h) Apply BMS5-63 sealant to bond the cargo liner fabric to the dripshield.
 - <u>NOTE</u>: Sealing tape, BMS 5–146, may be used to hold the cargo liner fabric in place while the sealant cures. It may be left in place permanently. It cannot be used instead of the sealant.
 - (i) Cut a strip of silicone foam to approximately 1 inch (25.4 mm) square and of length to fill the cutout in the dripshield.

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- (j) Wrap glass fabric one and a half times around the foam strip.
 - <u>NOTE</u>: The end of the glass fabric should extend past the end of the foam strip approximately 1 inch (25.4 mm) on each end. Use joint sealing tape on the sides and ends to secure the glass fabric.
- (k) Apply BMS5-146 tape in 2 inch (51 mm) strips to hold the glass fabric in place during installation.
- (l) Insert the foam roll between the cargo liner fabric on the dripshield and the structure to fill the gap around the cutout.
- (m) Apply a bead of BMS5-63 sealant to tack the foam roll and the cargo liner fabric.
- (n) Mask the dripshield under the intercostal with joint sealing tape.
 - <u>NOTE</u>: Sealing tape, BMS 5–146, should extend 3 inches (76.2 mm) over the moisture barrier, and be 1 inch (25.4 mm) wide on each side of the intercostal
- (o) Cut the cargo liner fabric as needed to fit around the intercostal.
- (p) Seal the edges with joint sealing tape.

s 424-193

- (5) Do these steps to install fireblocking around the aft, side dripshields:
 - (a) Remove all fasteners from the aft edge of the dripshield, and detach all brackets and standoffs.
 - (b) Remove retainer caps from the insulation studs.
 - (c) Cut a piece of cargo liner fabric, 35 X 14 inches (889 X 355.6 mm).
 - (d) Slide the cargo liner fabric behind the insulation bat.
 - <u>NOTE</u>: The cargo liner fabric should extend at least 2 inches (51 mm) past the insulation stud, then wrap around the insulation.
 - (e) Punch holes in the cargo liner fabric to match the existing holes in the insulation.
 - (f) Put the cargo liner fabric and insulation on the insulation studs.
 - <u>NOTE</u>: The cargo liner sections must overlap at least 3 inches (76.2 mm) with the upper section outboard of lower section.
 - (g) Install the retainer caps on the insulation studs.

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- (h) Wrap the cargo liner fabric around the dripshield so that it extends at least 1 inch (25.4 mm) past the fasteners and trim off the excess.
- (i) Punch holes in the cargo liner fabric to match the existing fastener holes in the dripshield.
- (j) If there is more than 5 inches (127 mm) between fasteners, apply BMS5-63 sealant to bond the cargo liner fabric to the dripshield.
 - <u>NOTE</u>: Sealing tape, BMS 5-146, may be used to hold the cargo liner fabric in place while the sealant cures. It may be left in place permanently. It cannot be used instead of the sealant.
- (k) Install fasteners in the aft edge of the dripshield. Attach standoffs and brackets on top of the cargo liner fabric.

s 424–194

- (6) Do these steps to install fireblocking around the aft, center dripshield.
 - (a) Remove all fasteners from the aft edge of the dripshield, and detach all brackets and standoffs.
 - (b) Remove retainer caps from the insulation studs.
 - (c) Cut a piece of cargo liner fabric, 35 X 14 inches (889 X 355.6 mm).
 - (d) Slide the cargo liner fabric behind the insulation bat.
 - <u>NOTE</u>: The cargo liner fabric should extend at least two inches (51 mm) past the insulation stud.
 - (e) Punch holes in the cargo liner fabric to match the existing holes in the insulation.
 - (f) Put the cargo liner fabric and insulation on the insulation studs.
 - <u>NOTE</u>: The cargo liner sections must overlap at least 3 inches (76.2 mm) with the upper section outboard of lower section.
 - (g) Install the retainer caps on the insulation studs.
 - (h) Wrap the cargo liner fabric around the dripshield so that it extends at least 1 inch (25.4 mm) past the fasteners and trim off excess.
 - (i) Punch holes in the cargo liner fabric to match the existing fastener holes in the dripshield.

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- (j) If there is more than 5 inches (127 mm) between fasteners, apply BMS5-63 sealant to bond the cargo liner fabric to the dripshield.
 - NOTE: Sealing tape, BMS 5-146, may be used to hold the cargo liner fabric in place while the sealant cures. It may be left in place permanently. It cannot be used instead of the sealant.
- (k) Install fasteners in the aft edge of the aft center dripshield. Attach standoffs and brackets on top of the cargo liner fabric.
- (l) Check all the foam rolls and make sure that a bead of BMS5-63 sealant has been applied to tack the foam roll to the cargo liner fabric.

TASK 25-14-02-404-054

- 4. Dripshield Installation (Fig. 401)
 - A. Standard Tools and Equipment
 - (1) Sealant gun
 - (2) Spatula or scraper
 - (3) Brush, spray or roller applicator
 - (4) Sandpaper 180-grit or finer
 - B. Consumable Materials
 - (1) A00552 Adhesive BAC 5010 type 60
 - (2) B00083 Solvent Aliphatic Naphtha TT-N95
 - (3) BO0148 Solvent Methyl Ethyl Ketone (MEK), TT-M-261
 - (4) GOO216 Wipers
 - C. References
 - (1) AMM 20-30-98/201, Standard Practices Airframe
 - (2) AMM 24-22-00/201, Control (Supply Power)
 - (3) AMM 25-11-01/201, Captain's/First Officer's Seat
 - (4) AMM 25-11-02/401, Observer Seat
 - (5) AMM 25-14-01/401, Ceiling Lining
 - (6) AMM 25-15-01/401, Side Console
 - (7) AMM 25-15-02/401, Sidewall Insulation
 - (8) AMM 25-21-01/401, Sidewall Panels
 - (9) AMM 25-22-02/401, Ceiling Panels

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- (10) AMM 25-24-01/401, Closets
 - (11) AMM 25-24-04/401, Partitions
 - (12) AMM 25-31-04/401, Forward Galley
 - (13) AMM 25-41-01/401, Forward Lavatory
 - D. Access
 - (1) Location Zones
 - 211 Control Cabin, Left
 - 212 Control Cabin, Right
 - E. Dripshield Installation
 - NOTE: <u>Install</u> the dripshields in the following order: Overhead Aft, AFT Left Sidewall, Aft Right Sidewall, Pilot's Sidewall, Overhead Forward.

S 344-055

(1) If necessary, repair the damaged dripshields.

s 124-056

(2) Use sandpaper lightly to remove the unwanted materials from the mating surfaces of the dripshields.

s 114-057

- <u>WARNING</u>: 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 SAFEETY DATA SHEETS (MSDS) AND LOCAL REQUIREMENTS FOR PROPER HANDLING PROCEDURES.
- (3) Use solvent, series 98 (AMM 20-30-98/201) to clean the mating surfaces of the dripshields.

s 144-058

(4) Use clean cloth wipers to dry the mating surfaces.

s 344-059

(5) Apply the adhesive to the mating surfaces of the dripshields.

s 424-060

(6) Hold the dripshields in the correct position over the structure.

<u>NOTE</u>: Make sure the dripshields overlap each other correctly.

s 434-061

(7) Install the screws which attach the dripshields to the structure.

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s 424-062

(8) Push the mating surfaces of the dripshields together sufficiently to make sure the adhesive seals the joints.

s 394-063

- (9) Use the sealant gun to apply the adhesive along the dripshield joints and edges to make a continuous fillet seal.
 - <u>NOTE</u>: Use your finger and/or a spatula or scraper to make the fillet seal smooth. Make sure you remove the adhesive from the dripshields which did not get used to make the fillet seal.

s 114-064

- 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) AN LOCAL REQUIREMENTS FOR PROPER HANDLING PROCEDURES.
- (10) Use methyl ethyl ketone (MEK) or aliphatic naphtha to clean the dripshield surfaces adjacent to the fillet seal.

s 434-065

(11) Install the plastic drain tubes to the dripshields.

S 414-176

(12) Install the ceiling dripshield support brackets.

s 424-195

(13) Install the sidewall dripshield support brackets.

s 434-066

- (14) Attach the electrical wire bundles to the dripshields.
- F. Put the Airplane Back to Its Usual condition

s 014-135

(1) Install the closure and acoustic panels.

S 414-177

(2) Install the ceiling lining (AMM 25-14-01/401).

s 414-178

(3) Install the sidewall insulation (AMM 25-15-02/401).

s 414-179

(4) Install the ceiling and sidewall panels.

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s 414-181 (5) Install the flight compartment side consoles (AMM 25-15-01/401). s 414-182 (6) Install the captain's seat (AMM 25-11-01/201). s 414–183 (7) Install the first officer's seat (AMM 25-11-01/201). S 414-184 (8) Install the observer's seat (AMM 25-11-02/401). s 414-185 (9) Install the forward lavatory if it was removed (AMM 25-41-01/401). S 414-186 (10) Install the forward galley if it was removed (AMM 25-31-01/401). S 414-187 (11) Install the closet (AMM 25-24-01/401). s 724-188 (12) Perform functional tests on the systems that were disturbed.

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SIDE CONSOLE - REMOVAL/INSTALLATION

1. <u>General</u>

- A. This procedure contains these tasks.
 - (1) Removal of the crew side console from the flight compartment.
 - (2) Removal of the observer side console in the flight compartment.
 - (3) Installation of the crew side console in the flight compartment.
 - (4) Installation of the observer side console in the flight compartment.
- B. The crew side console on the left side of the flight compartment is the same as the console on the right side. The observer console is only on the left side of the flight compartment

TASK 25-15-01-004-001

- 2. <u>Remove the Crew Side Console</u> (Fig. 401)
 - A. References
 - (1) AMM 21-22-01/401, Flight Deck Air Conditioning Outlets
 - (2) AMM 23-51-01/401, Audio Selector Panel
 - (3) AMM 23-51-02/401, Interphone Speaker
 - (4) AMM 25-11-01/201, Captain/First Officers Seat
 - (5) AMM 32-51-01/401, Nose Wheel Steering Tiller and Gearbox
 - (6) AMM 35-11-51/401, Crew Oxygen Mask Stowage Box
 - B. Access
 - (1) Location Zones
 - 211/212 Control Cabin Section 41
 - C. Prepare for the Removal

s 864-003

- (1) Open these circuit breakers on the overhead circuit breaker panel, P11, and attach DO-NOT-CLOSE tags:
 - (a) 11C25, INTERPHONE CAPT/OBS
 - (b) 11C26, INTERPHONE F/O
 - (c) 11G29, INTERPHONE CAPT/OBS
 - (d) 11G30, INTERPHONE F/O

S 864-066

- (2) Open these circuit breakers and attach DO-NOT-CLOSE tags:
 - (a) Left Miscellaneous Electrical Equipment Panel, P36
 - 1) 36H1 or 36D7, HIGH CAPT AUX HEATERS

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2) 36H2 or 36D6, LOW CAPT AUX HEATERS (b) Right Miscellaneous Electrical Equipment Panel, P37 1) 37H1 or 37D5, HIGH F/O AUX HEATERS 2) 37H2 or 37D4, LOW F/O AUX HEATERS s 014-058 (3) Remove the flight compartment seats if it is necessary for access (AMM 25-11-01/201). Procedure s 024-004 (1) Open the access panel at the bottom of the crew side console. S 034-005 (2) Disconnect the interphone connectors. s 024-006 (3) Disconnect the air conditioning floor outlets (AMM 21-22-01/401). S 864-007 (4) Close the shutoff valve on the crew oxygen cylinder. S 024-008 (5) Remove the crew oxygen mask stowage box (AMM 35-11-51/401). s 024-009 (6) Disconnect the oxygen supply line and the microphone connection S 024-080 (7) Disconnect the heat control module connectors. S 024-081 (8) Remove the fasteners that attach the heat control module to the crew side console and remove the heat control module. s 014-059 (9) Remove the audio selector panel (AMM 23-51-01/401). s 024-011 (10) Remove the nose wheel steering tiller and gearbox (AMM 32-51-01/401). s 034-012 (11) Remove the fasteners to remove the crew side console. s 024-013 (12) Remove the crew side console.

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TASK 25-15-01-004-028 3. <u>Remove the Observer Side Console</u> (Fig. 401) Α. References (1) AIPC 25-13-76-03, Console Install (2) AIPC 25-13-79-02, Console Assembly (3) AMM 25-11-02/401, Observer Seat (4) AMM 35-11-51/401, Crew Oxygen Mask/Stowage Box Β. Access (1) Location Zones 211/212 Control Cabin - Section 41 C. Prepare for the Removal S 864-030 Open these circuit breakers on the overhead circuit breaker panel, (1) P11, and attach DO-NOT-CLOSE tags: (a) 11C25, INTERPHONE CAPT/OBS (b) 11C26, INTERPHONE F/O (c) 11G29, INTERPHONE CAPT/OBS (d) 11G30, INTERPHONE F/O D. Procedure S 024-069 (1) Remove the observer seat if it is necessary for access (AMM 25-11-02/401). s 014-051 (2) Remove the observer mask oxygen box (AMM 35-11-51/401). s 024-031 (3) Disconnect the interphone connectors. s 024-052 (4) Remove the fasteners that attach the observer side console to the floor mounted support assembly. s 024-033 (5) Remove the second observer side console (AIPC 25-13-76-03 and 25-13-79-02). TASK 25-15-01-424-011 4. Install the Crew Side Console (Fig. 401) References Α. (1) AMM 21-00-00/201, Air Conditioning (2) AMM 21-22-01/401, Flight Deck Air Conditioning Outlets (3) AMM 23-51-01/401, Audio Selector Panel (4) AMM 23-51-02/401, Interphone Speaker (5) AMM 25-11-01/201, Captain/First Officers Seat (6) AMM 32-51-01/401, Nose Wheel Steering Tiller and Gearbox (7) AMM 35-11-00/501, Crew Oxygen System EFFECTIVITY-25-15-01

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Β.	(8) Acces (1)	AMM 35-11-51/401, Crew Oxygen Mask Stowage Box ss			
		Location Zones 211/212 Control Cabin – Section 41			
с.	Procedure				
	(1)	S 424-014 Put the crew side console in its correct position.			
	(2)	S 434–015 Install the fasteners on the crew side console.			
	(3)	S 424–017 Install the nose wheel steering tiller and gearbox (AMM 32–51–01/401).			
	(4)	S 424–023 Install the crew oxygen mask stowage box (AMM 35–11–51/401).			
	(5)	S 424–060 Connect the oxygen supply line and the microphone connection.			
	(6)	S 424–020 Connect the air conditioning outlets (AMM 21–22–01/401).			
	(7)	S 424–063 Install the audio selector panel (AMM 23–51–01/401).			
	(8)	S 424–064 Install the interphone speaker (AMM 23–51–02/401).			
	(9)	S 434-019 Connect the interphone connectors.			
	(10)	S 424–067 Put the heat control module in its correct position and install the fasteners to the crew side console.			
	(11)	S 424–068 Connect the heat control module connectors.			

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S 864-065

(12) Close any open access panels.

S 864-077

- (13) Do the Return Airplane to Its Usual Condition procedure.
- D. Return the Airplane to its Usual Condition

S 864-071

- (1) Remove the DO-NOT-CLOSE tags and close these circuit breakers on the P11 panel:
 - (a) 11C25, INTERPHONE CAPT/OBS
 - (b) 11C26, INTERPHONE F/O
 - (c) 11G29, INTERPHONE CAPT/OBS
 - (d) 11G30, INTERPHONE F/O

S 864-078

- (2) Close these circuit breakers and remove the DO-NOT-CLOSE tags:
 - (a) Left Miscellaneous Electrical Equipment Panel, P36
 - 1) 36H1 or 36D7, HIGH CAPT AUX HEATERS
 - 2) 36H2 or 36D6, LOW CAPT AUX HEATERS
 - (b) Right Miscellaneous Electrical Equipment Panel, P37
 - 1) 37H1 or 37D5, HIGH F/O AUX HEATERS
 - 2) 37H2 or 37D4, LOW F/O AUX HEATERS

S 864-072

(3) Install the flight deck seats if they were removed (AMM 25-11-01/201).

s 424-073

(4) Install the observers seat if it was removed (AMM 25-11-02/401).

S 864-074

(5) Operate the air conditioning (AMM 21-00-00/201).(a) Make sure the air conditioning duct has no leaks.

s 704–075

(6) Do a test of the crew oxygen system (AMM 35-11-00/501).

s 704-076

(7) Do a test of the flight interphone system (AMM 23-51-00/501).

s 704-079

(8) Do a test of the supplemental heat system (AMM 21-45-10/501).

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TASK 25-15-01-404-053

- 5. <u>Install the Observer Side Console</u> (Fig. 401)
 - A. References
 - (1) AIPC 25-13-76-03, Console Install
 - (2) AIPC 25-13-79-02, Console Assembly
 - (3) AMM 35-11-51/401, Crew Oxygen Mask/Stowage Box
 - B. Access
 - C. Procedure

S 424-043

(1) Put the observer side console in its correct position on the support assembly.

S 424-054

(2) Install the fasteners on the observer side console.

s 414-056

(3) Install the second observer mask oxygen box (AMM 35-11-51/401).

s 424-057

- (4) Connect the interphone connectors.
- D. Return the Airplane to its Usual Condition

S 864-025

- (1) Remove the DO-NOT-CLOSE tags and close these circuit breakers on the P11 panel:
 - (a) 11C25, INTERPHONE CAPT/OBS
 - (b) 11C26, INTERPHONE F/O
 - (c) 11G29, INTERPHONE CAPT/OBS
 - (d) 11G30, INTERPHONE F/O

s 424-070

(2) Install the observers seat if it was removed (AMM 25-11-02/401).

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s 864-021

(3) Operate the air conditioning (AMM 21-00-00/201).(a) Make sure the air conditioning duct has no leaks.

s 704-024

(4) Do a test of the crew oxygen system (AMM 35-11-00/501).

s 704-061

(5) Do a test of the flight interphone system (AMM 23-51-00/501).

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SIDEWALL INSULATION - REMOVAL/INSTALLATION

- 1. <u>General</u>
 - A. The removal and installation procedures for the flight compartment sidewall insulation are the same as the passenger compartment sidewall insulation procedures.

TASK 25-15-02-804-001

- 2. <u>Sidewall Insulation</u>
 - A. General
 - (1) Refer to AMM 25-21-05/401 for the passenger compartment removal and installation procedures for the sidewall insulation which are also applicable to the flight compartment sidewall insulation.

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MAINTENANCE MANUAL

PASSENGER COMPARTMENT - DESCRIPTION AND OPERATION

- 1. <u>General</u>
 - A. The passenger compartment contains equipment/furnishings for passenger and attendant comfort. Seats, stowage areas, and service units provide passenger comfort and utility.
- 2. <u>Passenger Compartment</u>
 - A. Equipment/Furnishings are in the passenger compartment for passenger and attendant comfort. Sidewall panels line the sidewalls of the compartment. Lowered ceiling panels, movable ceiling panels, and sculptured ceiling panels line the ceiling. Service units are at all seats and attendant panels, and in all lavatories. Closets store coats during flight. Seats are provided for passengers and attendants. Partitions separate passenger seating areas. Full height stowage partitions store miscellaneous equipment. Center and outboard overhead stowage bins store luggage and miscellaneous equipment. Service outlets provide 115 Vac power and 28 Vdc power.



PASSENGER COMPARTMENT SIDEWALL LINING - DESCRIPTION AND OPERATION

1. <u>General</u>

- A. Sidewall panels line the walls of the passenger compartment. Riser panels and air grill panels are at the bottom of the sidewall panels. Insulation blankets are outboard of the sidewall lining to thermally and acoustically insulate the passenger compartment.
- 2. <u>Component Details</u>
 - A. Sidewall Panels (Fig. 1)
 - (1) The sidewall panels are crushed nomex honeycomb core panels, with fire-resistant fiberglass fabric covering on both sides. The inboard surface is covered with a decorative tedlar fabric that is scratch-resistant and washable. Sidewall wash lights fit through a cutout near the top of the panel. Passenger window reveal assemblies mount in cutouts near the middle of each panel. The sidewall panels attach to structure with screws, through support brackets on each vertical side. Decorative spline trim strips cover the screws.
 - B. Riser Panels (Fig. 2)
 - (1) The riser panel is a nomex honeycomb panel, with kevlar skin and fabric covering. Clip plates attach the riser panel to the isolator mount at the bottom of sidewall panel. A "zee" bracket attaches the riser panel to the air grill panel.







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- C. Air Grill Panel (Fig. 2)
 - (1) The air grill panel is aluminum with tedlar covering. The panel has holes (.203 in. dia) over the entire surface to allow air to freely pass through louvers behind the air grill. Air grill panels attach to support brackets below riser panels.
- D. Insulation
 - (1) Fiberglass insulation blankets with moisture impervious coverings are in the sidewall. The blankets thermally and acoustically insulate the compartment.



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SIDEWALL PANELS - REMOVAL/INSTALLATION

- 1. <u>General</u>
 - A. This procedure contains two tasks. The first task is the removal of the sidewall panels. The second task is the installation of the sidewall panels.

TASK 25-21-01-004-014

- 2. <u>Remove the Sidewall Panel</u> (Fig. 401)
 - A. References
 - (1) AMM 25-25-01/201, Passenger Seats
 - B. Access
 - (1) Location Zone 200 Upper Half of Fuselage
 - C. Procedure

s 024-001

 Remove the passenger seats to get access to the sidewall panels (AMM 25-25-01/201).

S 024-003

(2) Remove the splines from the two sides of the sidewall panel to be removed. Pull the splines down and out of the sidewall panel edge track.

s 034-004

(3) Remove the screws.

S 024-005

(4) Hold the lower edge of the sidewall panel. Turn the lower edge of the sidewall panel inboard to disengage upper edge of the sidewall panel from the passenger service unit support.

S 024-006

(5) Remove the sidewall panel.

TASK 25-21-01-404-007

- 3. <u>Install the Sidewall Panel</u> (Fig. 401)
 - A. References
 - (1) AMM 25-25-01/201, Passenger Seats

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B. Access

(1) Location Zone 200 Upper Half of Fuselage

C. Procedure

s 424-008

(1) Put the upper edge of the sidewall panel into the passenger service unit support.

s 424-009

(2) Turn the lower edge of the sidewall panel outboard to the support brackets.

s 434-010

(3) Install the screws.

s 424-011

(4) Install the splines on the two sides of the sidewall panel. Put the lower end of the spline into the panel edge track at the bottom of the sidewall panel. Pull the spline up into the sidewall panel upper edge support.

s 424-013

(5) Install the passenger seats (AMM 25-25-01/201).



SIDEWALL INSULATION - REMOVAL/INSTALLATION

- 1. <u>General</u>
 - A. This procedure has these tasks:
 - (1) Insulation Removal.
 - (2) Insulation Installation.
 - B. This procedure has instructions for the removal and installation of insulation blankets and capstrips for the sidewall, ceiling, and aft pressure bulkhead.

TASK 25-21-05-004-026

- 2. Insulation Removal (Fig. 401, 402)
 - <u>NOTE</u>: For the sidewall insulation, refer to Fig. 401. For the aft pressure bulkhead insulation, refer to Fig. 402.
 - A. References
 - (1) AMM 25-21-01/401, Sidewall Panels
 - (2) AMM 25-22-02/401, Lowered Ceiling Panels
 - (3) AMM 25-22-03/401, Movable Ceiling Panels
 - (4) AMM 25-31-04/401, Aft Galley
 - B. Access
 - (1) Location Zone 200 Upper Half of Fuselage
 - C. Remove the Insulation

s 024-019

 For the sidewall insulation, remove the sidewall panels (AMM 25-21-01/401).

s 024-020

(2) For the ceiling insulation, remove the lowered ceiling panels (AMM 25-22-02/401).

S 024-002

(3) For the ceiling insulation, remove the movable ceiling panels (AMM 25-22-03/401).

s 024-021

(4) For the aft pressure bulkhead insulation, remove the aft galley (AMM 25-31-04/401).

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s 024-001

(5) If you remove more than one blanket or capstrip, identify the blankets and capstrips with location tags for subsequent installation.

s 034-003

(6) Remove the disk fasteners from the stand-offs.

s 824-004

(7) Pull the blanket away from the hook and loop tape and fastener tape tape, where necessary.

s 024-005

- (8) Remove the blanket and capstrip.
 - (a) Make a mark on the insulation blanket or capstrip, if necessary to help make the subsequent installation easier.

TASK 25-21-05-404-006

- 3. <u>Insulation Installation</u> (Fig. 401, 402)
 - <u>NOTE</u>: For the sidewall insulation, refer to Fig. 401. For the aft pressure bulkhead insulation, refer to Fig. 402.

A. Consumable Materials

- (1) G02305 Tape Insulation Blanket BMS 5-149
- (2) G50327 Tape Advanced Insulation Blanket, BMS5-157
- (3) G02360 Tape Hook/Loop Fastener, (Polypropylene Hook & Nylon Loop) BMS8-285, Type IV
- (4) G50333 Tape Hook/Loop Fastener, Flame Propagation Resistant, BMS8-372
- B. References
 - (1) AMM 25-21-01/401, Sidewall Panels
 - (2) AMM 25-22-02/401, Lowered Ceiling Panels
 - (3) AMM 25-22-03/401, Movable Ceiling Panels
 - (4) AMM 25-31-04/401, Aft Galley
- C. Access
 - (1) Location Zone
 - 200 Upper Half of Fuselage

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D. Check for Insulation Blanket Contamination

s 394-030

- WARNING: LET THE CORROSION-INHIBITING COMPOUNDS (CIC) BECOME FULLY DRY. IF CIC GETS ON THE INSULATION BLANKET, THE INSULATION BLANKET WILL BECOME LESS FLAME-RESISTANT. THIS INCREASES THE RISK OF FIRE, WHICH CAN CAUSE INJURIES TO PERSONNEL, AND DAMAGE TO EQUIPMENT.
- (1) To prevent CIC contamination of insulation blankets, let the corrosion-inhibiting compounds fully dry before you install the insulation blankets.
 - (a) Let the corrosion-inhibiting compounds dry longer than the minimum times listed below if you have one of these conditions:1) Low temperature.
 - 2) High humidity.
 - 3) Thick layer of corrosion-inhibiting compounds.
 - (b) Ventilate areas, after application of CIC such as BMS 3-23, for a minimum of 1 hour.
 - (c) Ventilate areas treated with CIC such as BMS 3-26 or BMS 3-29, for a minimum of 4 hours.

s 164-031

- WARNING: DO NOT USE DETERGENTS OR SOLVENTS TO CLEAN THE INSULATION BLANKET. IT CAN REMOVE FLAME RETARDANTS AND CAUSE FLAMMABLE RESIDUES ON THE INSULATION BLANKET WHICH INCREASES THE RISK OF FIRE. THIS CAN CAUSE INJURIES TO PERSONNEL, AND DAMAGE TO EQUIPMENT.
- (2) If there is CIC contamination, oily or waxy substances, or other fluids (which typically changes the color and appearance of the insulation blanket cover), replace the insulation blanket.

s 164-043

(3) If there are dust, lint or other loose debris on the insulation blanket, use a vacuum cleaner or a non-metallic soft brush to remove the contamination.

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S 164-033

- (4) Make sure the area is clean before you install the insulation blanket.
- E. Install the Insulation

s 964-032

- (1) If you replace an insulation blanket or capstrip, you must install an insulation blanket or capstrip that complies with FAR 25.856.
 (a) Use tape (BMS5-157) or hook and loop tape (BMS8-372), where
 - necessary.
 - <u>NOTE</u>: Tape (BMS5-157) and hook and loop tape (BMS8-372) are FAR 25.856 compliant.
 - (b) Replace the part of the hook and loop tape that is installed on the airplane structure where the replacement insulation blanket attaches, with hook and loop tape (BMS8-372), as necessary.

s 424-040

(2) Install new stand-offs to the structure, if it is necessary.

s 424-041

(3) Align the holes in the insulation blanket with the stand-offs.

s 424-042

(4) Put the applicable insulation blanket or capstrip in its position.

s 824-010

(5) For the aft pressure bulkhead insulation, make sure the control cables have the correct clearance as shown in Fig. 402.

s 824-027

(6) Put the blankets around the edge of the aft pressure bulkhead and the inner ring. Use the fastener to attach the blankets to the aft pressure bulkhead.

s 424-022

- (7) When you install the firestop blankets in the sidewall, tighten the blanket to support the rail with the lining clips (Fig. 401).
 - <u>NOTE</u>: Make sure there is no clearance when you install the firestop blankets.

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s 214-023

(8) Make sure you can see the part number on the inboard surface of the blanket.

s 214-011

(9) Make sure the blanket or capstrip makes an overlap at the edges shown in Fig. 401.

s 824-024

(10) Push the blanket or capstrip on the stand-off.

s 434-025

(11) Install the disk fastener on the stand-off.

s 824-012

(12) Push the disk fastener down tightly on the inboard surface of the blanket or capstrip.

s 424-045

- (13) ALL AIRPLANES PRE SEP 2, 2003 FAR STD; AIRPLANES WITHOUT FAR 25.856 COMPLIANT THERMAL/ACOUSTIC INSULATION MATERIALS:
 - (a) For insulation blanket with BMS8-142 cover material: Use hook and loop tape (BMS8-285) or hook and loop tape (BMS8-372), where necessary to reduce any gaps between blankets, or between blanket and structure.
 - <u>NOTE</u>: Hook and loop tape (BMS8–372) is FAR 25.856 compliant, and it is the preferred alternative to hook and loop tape (BMS8–285).
 - (b) Push the insulation blanket onto the tape.

s 424-037

- (14) ALL AIRPLANES POST SEP 2, 2003 FAR STD; AIRPLANES WITH FAR 25.856 COMPLIANT THERMAL/ACOUSTIC INSULATION MATERIALS:
 - (a) For insulation blanket with BMS8-377 cover material: Use hook and loop tape hook and loop tape (BMS8-372), where necessary to reduce any gaps between blankets, or between blanket and structure.

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(b) Push the insulation blanket onto the tape.

S 364-038

- (15) Make sure moisture penetration through to the inboard side of the insulation blanket is minimized.
 - (a) Make sure all the insulation blankets are correctly overlapped to keep out any condensation that can flow between insulation blankets into the inboard side of the insulation blanket.

S 394-039

- (16) For replacement insulation blanket, push on the insulation blanket to remove the air that is inside the insulation blanket through the vent hole(s).
 - (a) Peel off the attach release liner on the circle tape and seal the vent hole(s).
- F. Put the Airplane Back to Its Usual Condition

s 424-016

 For the ceiling insulation, install the movable ceiling panels (AMM 25-22-03/401).

s 424-017

(2) For the ceiling insulation, install the lowered ceiling panels (AMM 25-22-02/401).

s 424-018

(3) For the sidewall insulation, install the sidewall panels (AMM 25-21-01/401).

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SIDEWALL INSULATION - APPROVED REPAIRS

TASK 25-21-05-308-003

- 1. <u>Sidewall Insulation Approved Repairs</u>
 - A. Procedure

s 308-004

(1) Refer to 25-00-00/801, Equipment/Furnishings - Approved Repairs, for the sidewall insulation.

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OVERWING ESCAPE HATCH WINDOW SHADE - MAINTENANCE PRACTICES

- 1. General
 - A. This procedure has the following tasks:
 - (1) Remove the window shades for the overwing escape hatch.
 - (2) Install the window shades for the overwing escape hatch.

- 2. <u>Remove the Overwing Escape Hatch Window Shade</u>
 - A. References
 - (1) AMM 25-65-00/201, Off-Wing Escape System
 - (2) AMM 52-21-01/201, Overwing Escape Hatch
 - (3) AMM 52-21-02/201, OverWing Escape Hatch Lining
 - B. Access

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- (1) Location Zones
 - 241/242 Passenger Cabin Section 45
- C. Procedure Remove the Overwing Escape Hatch Window Shade

s 042-023

- WARNING: REFER TO AMM 25-65-00/201 FOR THE PROCEDURE TO DISARM THE OFF-WING ESCAPE SYSTEM. IF YOU INCORRECTLY DISARM THE OFF-WING ESCAPE SYSTEM, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (1) Disarm the off-wing escape system (AMM 25-65-00/201).

s 022-083

(2) Remove the overwing escape hatch (AMM 52-21-01/201).

S 032-024

(3) Remove the overwing escape hatch lining (AMM 52-21-02/201).

S 022-025

(4) Remove the fasteners that hold the reveal and the trim to the lining panel.

S 022-026

(5) Remove the fasteners that hold the shade assembly to the lining panel.

S 022-027

(6) Remove the window shade assembly.

TASK 25-21-10-402-028

- 3. Install the Window Shade for the Overwing Escape Hatch
 - A. References
 - (1) AMM 52-21-01/201, Overwing Escape Hatch
 - (2) AMM 52-21-02/201, Overwing Escape Hatch Lining

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25-21-10

TASK 25-21-10-002-022



(3) AMM 25-65-00/201, Off-wing Escape Hatch Β. Access (1) Location Zones Passenger Cabin - Section 45 241/242 C. Procedure - Install the Overwing Escape Hatch Window Shade s 422-074 (1) Put the window shade assembly in position. s 422-075 (2) Install the fasteners. s 422-076 (3) Put the reveal and trim in position. s 422-077 (4) Install the fasteners s 422-078 (5) Install the overwing escape hatch lining (AMM 52-21-02/201). s 422-079 (6) Install the overwing escape hatch (AMM 52-21-01/201) s 712-080 (7) Make sure the overwing escape hatch operates correctly (AMM 52-21-01/201). s 442-081

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- WARNING: REFER TO AMM 25-65-00/201 FOR THE PROCEDURE TO ARM THE OFF-WING ESCAPE SYSTEM. IF YOU INCORRECTLY ARM THE OFF-WING ESCAPE SYSTEM, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY TO PERSONEL OR DAMAGE.
- (8) Arm the off-wing escape system (AMM 25-65-00/201).

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PASSENGER COMPARTMENT CEILING LINING - DESCRIPTION AND OPERATION

- 1. <u>General</u>
 - A. Lowered ceiling panels line the ceiling in all galley/lavatory areas. Movable ceiling panels are over each entry/service door. Sculptured ceiling panels line the ceiling over passenger compartment aisles. Insulation blankets are outboard of the ceiling panels to thermally and acoustically insulate the passenger compartment.
- 2. <u>Component Details</u>
 - A. Lowered Ceiling (Fig. 1)
 - (1) Lowered ceiling panels line the ceiling in all galley/lavatory areas. Several panels in the aft and forward galley/lavatory ceiling are hinged to access the area above the ceiling. The panels are nomex honeycomb core panels with washable, scratchresistant, tedlar fabric on inside surfaces.



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- (2) Speakers, oxygen modules, work lights, emergency lights, and No Smoking/Fasten Seat Belt (NSFSB) signs mount in cutouts in the lowered ceiling panels.
- B. Movable Ceiling Panels (Fig. 2)
 - (1) Movable ceiling panels are over each service or entry door. The panels are nomex honeycomb core panels with washable, scratch-resistant, tedlar fabric on inside surfaces. The panels fold up into the area above the lowered ceiling when the door opens. As the door opens, the pushrod rotates the panel and upper liner and and moves them on rollers up tracks into the ceiling. The ceiling panels and upper liner are hidden when the door is fully open.





- C. Sculptured Ceiling Panels
 - (1) Sculptured ceiling panels line the ceiling over the passenger compartment aisles. The panels are nomex honeycomb core panels with washable, scratch-resistant, tedlar fabric on inside surfaces. The panels pivot up along either the inboard or outboard edge to access area above ceiling. Hinge/latches on either edge release to allow the panels to raise upward or be removed.
- D. Insulation
 - (1) Fiberglass insulation blankets with moisture impervious coverings are installed above the ceiling and attach to stringers and frames. The blankets thermally and acoustically insulate the compartment.

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SCULPTURED CEILING PANEL - REMOVAL/INSTALLATION

- 1. <u>General</u>
 - A. This procedure contains these tasks:
 - (1) Sculptured Ceiling Panel Removal.
 - (2) Sculptured Ceiling Panel Installation.
 - B. This procedure applies to all sculptured ceiling panels in the main passenger cabin area.

TASK 25-22-01-004-001

- 2. <u>Sculptured Ceiling Panel Removal</u> (Fig. 401)
 - A. Access
 - B. Procedure

S 024-024

- (1) Do the steps that follow to remove the ceiling frames on the forward and aft end of the outboard stowage bin section to get access to the latch assemblies for the sculptured ceiling panel.
 - (a) Open the outboard stowage bin to get access to the ceiling panel screws located inside the stowage bin.
 - (b) Remove the screws (8 locations).
 - (c) Remove the two ceiling frames

S 014-021

- (2) If there is a ceiling panel joint on the sculptured ceiling panel, do the steps that follow:
 - (a) Remove the gap cover.
 - (b) Remove the screws and washers.
 - s 014-003
- (3) Push on the latch assembly levers at each corner of the sculptured ceiling panel to loosen the panel.

S 024-023

- (4) Do the steps that follow to remove the sculptured ceiling panel.
 - (a) Push and rotate the sculptured ceiling panel upward.
 - (b) Position the sculptured ceiling panel carefully at a downward angle to permit it to be lowered from the ceiling area.

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TASK 25-22-01-404-008

- 3. <u>Sculptured Ceiling Panel Installation</u> (Fig. 401)
 - A. Access
 - (1) Location Zone
 - 200 Upper Half of Fuselage
 - B. Procedure

s 414-025

- (1) Do the steps that follow to install the sculptured ceiling panel.
 - (a) Position the sculptured ceiling panel at an angle and push it up into the ceiling area.
 - (b) Move the sculptured ceiling panel and correctly position it in place on the latch assemblies.

s 424-022

- (2) If there is a ceiling panel joint on the sculptured ceiling panel, do the steps that follow:
 - (a) Connect the support brackets on the ceiling panels together and align the holes for the screws.
 - (b) Install the screw and washer (8 locations).
 - (c) Install the gap cover.

s 414-013

(3) Push on the latch assembly levers at each corner of the sculptured ceiling panel to lock the panel into place.

s 424-019

- (4) Do the steps that follow to install the ceiling frames.
 - (a) Open the outboard stowage bin to position the ceiling frames in place.
 - (b) Put the inboard and outboard ends of the ceiling frames on the support slots on the stowage bin frames.
 - (c) Install the screws (8 locations).

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MAINTENANCE MANUAL

LOWERED CEILING PANELS - REMOVAL/INSTALLATION

- 1. <u>General</u>
 - A. This procedure contains these tasks:
 - (1) Removal of the lowered ceiling panels.
 - (a) Forward lowered ceilings
 - (b) Aft lowered ceilings
 - (2) Installation of the lowered ceiling panels.
 - (a) Forward lowered ceilings
 - (b) Aft lowered ceilings
 - TASK 25-22-02-004-001
- 2. <u>Remove the Lowered Ceiling Panels</u>
 - A. References
 - (1) AMM 21-23-04/401, Aft Galley Conditioned Air Distribution Outlet
 - (2) AMM 25-41-01/401, Lavatory Module
 - B. Procedure

s 024-002

- (1) To remove the forward panel No. 1, do the steps that follow
 (Fig. 401):
 - (a) Release the latches at the forward edge of the forward panel No. 1.
 - (b) Remove the hinge pins from the hinges on the aft edge of the forward panel No. 1.
 - (c) Remove the forward panel No. 1.

S 024-003

- (2) To remove the forward panel No. 2, do the steps that follow
 (Fig. 401):
 - (a) Open these circuit breakers on the overhead circuit breaker panel, P11, and attach DO-NOT-CLOSE tags:
 - 1) 11C22, BATTERY POWER PASS ADRS
 - 2) 11P35, EMER LTS WING ESC L
 - 3) 11P36, EMER LTS WING ESC R
 - (b) Open this circuit breaker on the forward miscellaneous electrical equipment panel, P33, and attach a DO-NOT-CLOSE tag:
 1) 33K4, LIGHTS ENTRY/ATTENDANTS FWD
 - (c) Remove the lens, bezel and light box.
 - (d) Disconnect the electrical connectors.
 - (e) Remove the bolts from the forward panel No. 2.
 - (f) Remove the foam header.
 - <u>NOTE</u>: The forward panel No. 2 will lower down approximately 1.5 inches.
 - (g) Move the forward panel No. 2 forward approximately 1 inch.

NOTE: The aft end of the forward panel No. 2 will fall down.

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(h) Remove the forward panel No. 2.

S 024-004

- (3) To remove the forward panel No. 3, do the steps that follow $(5i\pi)$ (01):
 - (Fig. 401):
 - (a) Open the forward panel No. 2.
 - (b) Get access through the opening for the forward panel No. 2, and remove the bolts from the forward panel No. 3.
 - (c) Remove the forward panel No. 3.
 - s 024-005
- (4) To remove the forward panel No. 4, do the steps that follow (Fig. 401):
 - (a) Open these circuit breakers on the overhead circuit breaker panel, P11, and attach DO-NOT-CLOSE tags:
 - 1) 11C22, BATTERY POWER PASS ADRS
 - 2) 11P9, PASS SIGN CONT
 - 3) 11P35, EMER LTS WING ESC L
 - 4) 11P36, EMER LTS WING ESC R
 - (b) Remove the bolts from the forward panel No. 4.
 - (c) Disconnect the electrical connectors.
 - (d) Remove the foam header.
 - (e) Move the forward panel No. 4 aft.

NOTE: The aft end of the forward panel No. 4 will fall down.

(f) Remove the forward panel No. 4.

S 024-006

- (5) To remove the aft panel No. 1, do the steps that follow (Fig. 402):
 - (a) Open this circuit breaker on the overhead circuit breaker panel, P11, and attach a DO-NOT-CLOSE tag:
 - 1) 11C22, BATTERY POWER PASS ADRS
 - (b) Release the latches at the forward edge of the aft panel No. 1.
 - (c) Disconnect the electrical connector.
 - (d) Remove bolts that attach the hinge to the ceiling panel.
 - (e) Remove the aft panel No. 1.

s 024-007

- (6) To remove the aft panel No. 2, do the steps that follow (Fig. 402):
 - (a) Open these circuit breakers on the overhead circuit breaker panel, P11, and attach DO-NOT-CLOSE tags:
 - 1) 11P35, EMER LTS WING ESC L
 - 2) 11P36, EMER LTS WING ESC R
 - (b) Open the aft panel No. 1.

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(EXAMPLE)







- (c) Get access through the opening for the aft panel No. 1, and unlatch the latches.
- (d) Remove the bolts that attach the hinge to the ceiling panel.
- (e) Remove the aft panel No. 2.
- S 024-008
- (7) To remove the aft panel No. 3, do the steps that follow (Fig. 402):
 - (a) Open the aft panel No. 2.
 - (b) Remove the outlet of the air distribution duct in the aft galley (AMM 21-23-04/401).
 - 1) Remove the bolts from the aft panel No. 3.
 - 2) Remove the aft panel No. 3.

S 024-009

(8) To remove the aft panel No. 4, do the steps that follow (Fig. 402):

(a) Open these circuit breakers on the overhead circuit breaker

- panel, P11, and attach DO-NOT-CLOSE tags:
- 1) 11C22, BATTERY POWER PASS ADRS
- 2) 11P9, PASS SIGN CONT
- (b) Open this circuit breaker on the forward miscellaneous electrical equipment panel, P33, and attach a DO-NOT-CLOSE tag:
 1) 33K5, LIGHTS ENTRY/ATTENDANTS AFT
- (c) Open the aft panel No. 2.
- (d) Disconnect the electrical connectors.
 - <u>NOTE</u>: Do not disconnect the electrical connector from the speaker on the left side of the aft panel No. 4.
- (e) Close the aft panel No. 2.
- (f) Remove the screws from the floor attach fittings in the aft lavatory (AMM 25-41-01/401).
- (g) Remove the movable ceiling panels (AMM 25-22-03/401).
- (h) Get access through the movable ceiling panel.
- (i) Remove the bolts from the aft panel No. 4.
- (j) Remove the foam header.
- (k) Move the aft panel No. 4 forward.
 - <u>NOTE</u>: To move the aft panel No. 4 forward, move the aft lavatory forward.
- (l) Remove the aft panel No. 4.
- s 024-010
- (9) To remove the aft panel No. 5, do the steps that follow (Fig. 402):
 - (a) Open these circuit breakers on the overhead circuit breaker panel, P11, and attach DO-NOT-CLOSE tags:
 - 1) 11P9, PASS SIGN CONT
 - 2) 11P35, EMER LTS WING ESC L
 - 3) 11P36, EMER LTS WING ESC R
 - (b) Remove the lens, bezel, and light.
 - (c) Disconnect the electrical connectors.

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- (d) Remove the bolts from the aft panel No. 5.
- (e) Remove the aft panel No. 5.

TASK 25-22-02-404-017

- 3. Install the Lowered Ceiling Panels
 - A. References
 - (1) 23-31-00/501, Passenger Address System
 - (2) 25-41-01/401, Lavatory Module
 - (3) 33-22-00/501, Passenger Loading Lights
 - (4) 33-24-00/001, Passenger Signs
 - (5) 33-51-00/501, Emergency Lights
 - B. Access
 - (1) Location Zone
 - 200 Upper Half of Fuselage
 - C. Procedure

s 424-018

- (1) To install the forward panel No. 1, do the steps that follow
 (Fig. 401):
 - (a) Put the forward panel No. 1 in its position.
 - (b) Install the hinge pins to the hinges on the aft edge of the forward panel No. 1.
 - (c) Close and latch the forward panel No. 1.

s 424-019

- (2) To install the forward panel No. 2, do the steps that follow (Fig. 401):
 - <u>NOTE</u>: You must install the forward panel No. 3 before you can install the forward panel No. 2.
 - (a) Put the forward panel No. 2 in its position.
 - (b) Install the foam header.
 - (c) Install the bolts to the forward panel No. 2.
 - (d) Adjust the forward panel No. 2 to get 0.38 inch clearance between the forward panel No. 2 and the forward panel No. 3.
 - (e) Adjust the forward panel No. 2 to get 0.38 inch clearance between the forward panel No. 2 and the forward panel No. 4.
 - (f) Connect the electrical connectors.
 - (g) Install the light box, bezel, and lens.
 - (h) Remove the DO-NOT-CLOSE tags and close these circuit breakers on the P11 panel:
 - 1) 11C22, BATTERY POWER PASS ADRS
 - 2) 11P35, EMER LTS WING ESC L
 - 3) 11P36, EMER LTS WING ESC R
 - (i) Remove the DO-NOT-CLOSE tags and close these circuit breakers on the P33 panel:
 - 1) 33K4, LIGHTS ENTRY/ATTENDANTS FWD

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s 424-020

- (3) To install the forward panel No. 3, do the steps that follow (Fig. 401):
 - (a) Put the forward panel No. 3 in its position.
 - (b) Get access through the opening for the forward panel No. 2.
 - (c) Install the bolts to the forward panel No. 3.
 - (d) Adjust the forward panel No. 3 to get 0.38 inch clearance between the forward panel No. 3 and the forward panel No. 4.

s 424-021

- (4) To install the forward panel No. 4, do the steps that follow (Fig. 401):
 - (a) Put the forward panel No. 4 in its position.
 - (b) Install the foam header.
 - (c) Get access through the opening for the movable ceiling panel.
 - (d) Install the bolts to the forward panel No. 4.
 - (e) Adjust the forward panel No. 4 to get 0.38 inch clearance between the forward panel No. 4 and the forward panels No. 2 and No. 3.
 - (f) Adjust the forward panel No. 4 to get 0.38 inch clearance between the forward panel No. 4 and the end cap.
 - (g) Adjust the forward panel No. 4 to get 0.50 +/- 0.05 inch clearance between the forward panel No. 4 and the movable ceiling panel.
 - (h) Adjust the end cap to align with the exit sign ± 0.03 inch.
 - (i) Adjust the end cap to have 0.03 to 0.06 inch clearance between the end cap and the exit sign.
 - (j) Cut the forward or aft edge of the corner seal to have a minimum of 0.25 inch clearance from the entry/service door edge during the door operation.
 - (k) Connect the electrical connectors.
 - (l) Remove the DO-NOT-CLOSE tags and close these circuit breakers on the P11 panel:
 - 1) 11C22, BATTERY POWER PASS ADRS
 - 2) 11P9, MISC PASS SIGN CONT
 - 3) 11P35, EMER LTS WING ESC L
 - 4) 11P36, EMER LTS WING ESC R
 - (m) Remove the DO-NOT-CLOSE tag and close this circuit breaker on the P33 panel:
 - 1) 33K4, LIGHTS ENTRY/ATTENDANTS FWD
 - (n) Make sure the speakers operate correctly (AMM 23-31-00/501).
 - (o) Make sure the emergency lights operate correctly (AMM 33-51-00/501).
 - (p) Make sure the NSFSB sign operates correctly (AMM 33-22-00/501).

s 424-022

- (5) To install the aft panel No. 1, do the steps that follow (Fig. 402):(a) Put the aft panel No. 1 in its position.
 - (b) Install the bolts to attach the hinge to the ceiling panel.

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- (c) Close and latch the aft panel No. 1.
- (d) Adjust the aft panel No. 1 to get 0.38 inch clearance between the aft panel No. 1 and the galleys.
- (e) Adjust the aft panel No. 1 to get 0.38 inch clearance between the aft panel No. 1 and the aft panels No. 2 and No. 4.
- (f) Connect the electrical connector.
- (g) Remove the DO-NOT-CLOSE tag and close this circuit breaker on the P11 panel:
 1) 11C22, BATTERY POWER PASS ADRS
- (h) Make sure the speaker operates correctly (AMM 23-31-00/501).

s 424-023

- (6) To install the aft panel No. 2, do the steps that follow (Fig. 402):
 - <u>NOTE</u>: You must install the aft panel No. 3 before you can install the aft panel No. 2.
 - (a) Put the aft panel No. 2 in its position.
 - (b) Install the bolts to attach the hinge to the ceiling panel.
 - (c) Close and latch the aft panel No. 2.
 - (d) Adjust the aft panel No. 2 to get 0.38 inch clearance between the aft panel No. 2 and the aft panel No. 1.
 - (e) Adjust the aft panel No. 2 to get 0.38 inch clearance between the aft panel No. 2 and the aft panel No. 4.
 - (f) Connect the electrical connectors.
 - (g) Remove the DO-NOT-CLOSE tags and close these circuit breakers on the P11 panel:
 - 1) 11P35, EMER LTS WING ESC L
 - 2) 11P36, EMER LTS WING ESC R
 - (h) Make sure the emergency light operates correctly (AMM 33-51-00/501).

s 424-025

- (7) To install the aft panel No. 3, do the steps that follow (Fig. 402):(a) Open the aft panel No. 2.
 - (b) Get access through the opening for the aft panel No. 2.
 - (c) Install the bolts to the aft panel No. 3.

S 424-026

- (8) To install the aft panel No. 4, do the steps that follow (Fig. 402):
 - (a) Put the aft panel No. 4 in its position.
 - (b) Install the foam header.
 - (c) Get access through the movable ceiling panel.
 - (d) Install the bolts to the aft panel No. 4.
 - (e) Install the aft lavatory.
 - (f) Adjust the aft panel No. 4 and the aft lavatory to get 0.38 inch clearance between the aft panel No. 4 and the aft lavatory ceiling.
 - (g) Adjust the aft panel No. 4 to get 0.38 inch clearance between the aft panel No. 4 and the aft panel No. 1.

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- (h) Adjust the aft panel No. 4 to get 0.38 inch clearance between the aft panel No. 4 and the aft panel No. 2.
- (i) Adjust the aft panel No. 4 to get 0.38 inch clearance between the aft panel No. 4 and the aft panel No. 3.
- (j) Adjust the aft panel No. 4 to get 0.5 + -0.05 inch clearance between the aft panel No. 4 and the movable ceiling panels.
- (k) Cut the forward or aft edge of the corner seal as it is necessary to have a minimum of 0.25 inch clearance from the entry/service door edge during the door operation.
- (l) Connect the electrical connectors.
- (m) Remove the DO-NOT-CLOSE tags and close these circuit breakers on the P11 panel:
 - 1) 11C22, BATTERY POWER PASS ADRS
 - 2) 11P9, PASS SIGN CONT
- (n) Remove the DO-NOT-CLOSE tag and close this circuit breaker on the P33 panel:
 - 1) 33K5, LIGHTS ENTRY/ATTENDANTS AFT
- (o) Make sure the speakers operate correctly (AMM 23-31-00/501).
- (p) Make sure the attendant work lights operate correctly (AMM 33-22-00/501).
- S 424-027
- (9) To install the aft panel No. 5, do the steps that follow (Fig. 402):(a) Put the aft panel No.5 in its position.
 - (b) Get access through the opening for the aft panel No. 4.
 - (c) Install the bolts to the aft panel No. 5.
 - (d) Adjust the aft panel No. 5 to get 0.38 inch clearance between the aft panel No. 5 and the aft panel No. 4.
 - (e) Connect the electrical connectors.
 - (f) Install the lens, light, and bezel.
 - (g) Remove the DO-NOT-CLOSE tags and close these circuit breakers on the P11 panel:
 - 1) 11P9, PASS SIGN CONT
 - 2) 11P35, EMER LTS WING ESC L
 - 3) 11P36, EMER LTS WING ESC R
 - (h) Make sure the NSFSB sign operates correctly.
 - (i) Make sure the emergency lights operate correctly (AMM 33-51-00/501).

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MOVABLE CEILING PANELS - REMOVAL/INSTALLATION

- 1. <u>General</u>
 - A. This procedure contains these tasks:
 - (1) The removal of the movable ceiling panels.
 - (2) The installation of the movable ceiling panels.
 - B. This procedure applies to all movable ceiling panels in the passenger entry areas.

TASK 25-22-03-004-001

- 2. <u>Remove the Movable Ceiling Panel</u> (Fig. 401)
 - A. References
 - (1) AMM 52-11-13/201, Entry/Service Door Ground Lock
 - B. Access
 - (1) Location Zone
 - 200 Upper Half of Fuselage
 - C. Procedure

s 424-002

(1) Do the Install/Entry/Service Door Ground Lock procedure (AMM 52-11-13/201).

s 034-003

(2) Hold the panel. Remove the bolt, washer, bushing, nut, and cotter pin to disconnect the hinge arm from the hinge fitting.

NOTE: Do not disconnect the hinge fitting from the structure.

s 024-004

- (3) Remove the panel.
 - S 024-005
- (4) If access through entry/service door is necessary, remove the Entry/Service Door Ground Lock (AMM 52-11-13/201).

TASK 25-22-03-404-006

- 3. Install the Movable Ceiling Panel (Fig. 401)
 - A. References
 - (1) AMM 52-11-00/501, Entry/Service Doors
 - (2) AMM 52-11-13/201, Entry/Service Door Ground Lock
 - B. Access
 - (1) Location Zone
 - 200 Upper Half of Fuselage

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C. Procedure

s 424-007

(1) Do the Install the Entry/Service Door Ground Lock procedure (AMM 52-11-13/201) if it is not installed.

S 824-008

(2) Put the panel in position through the opening in the ceiling.

s 434-009

(3) Install the bolt, washer, bushing, and nut and cotter pin to attach the hinge arm to the hinge fitting.

s 424-010

(4) Do the Remove the Entry/Service Door Ground Lock procedure (AMM 52-11-13/201).

s 704-011

(5) Make sure the entry/service door operates correctly (AMM 52-11-00/201).





MOVABLE CEILING MECHANISM - REMOVAL/INSTALLATION

- 1. <u>General</u>
 - A. This procedure contains these tasks:
 - (1) The removal of the horizontal track and roller guide bracket.
 - (2) The installation of the horizontal track and roller guide bracket.
 - (3) The removal of the latch cam.
 - (4) The installation of the latch cam.

TASK 25-22-04-904-008

2. Horizontal Track and Roller Guide Bracket Removal (Fig. 401)

- A. References
 - (1) AMM 52-11-00/201, Entry/Service Doors
 - (2) AMM 52-11-13/201, Entry/Service Door Ground Lock
- B. Access
 - (1) Location Zone

200 Upper Half of Fuselage

C. Procedure

s 424-009

(1) Install the entry/service door ground lock (AMM 52-11-13/201).

s 034-010

- (2) Remove the nuts, washers, bolts, and shims from the horizontal track (3 locations).
 - <u>NOTE</u>: Make a written record of the location and thickness of the shims for subsequent installation.

s 024-011

(3) Remove the horizontal track and the roller guide bracket.

s 024-012

(4) If access through the entry/service door is necessary, remove the entry/service door ground lock (AMM 52-11-13/201).

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TASK 25-22-04-424-030

- 3. Horizontal Track and Roller Guide Bracket Installation (Fig. 401)
 - A. References
 - (1) AMM 52-11-00/201, Entry/Service Doors
 - (2) AMM 52-11-13/201, Entry/Service Door Ground Lock
 - B. Access
 - (1) Location Zone 200 Upper Half of Fuselage
 - C. Procedure

s 424-013

(1) Install the entry/service door ground lock (AMM 52-11-13/201).

s 424-001

(2) Put the horizontal track and the roller guide bracket in position.

s 434-004

- (3) Install the nuts, washers, bolts, and shims on the horizontal track(3 locations).
 - <u>NOTE</u>: Install the shims with the same thickness and same location as when they were removed.

S 024-014

(4) Remove the entry/service door ground lock (AMM 52-11-13/201).

s 824-015

- (5) Adjust the horizontal track to get the clearance of 0.50-inch minimum between the roller and the end of track upper flange (View C, Fig. 401), as the roller goes off the horizontal track.
 - s 704-016
- (6) Make sure the entry/service door operates correctly (AMM 52-11-00/201).

TASK 25-22-04-904-017

- 4. Latch Cam Removal (Fig. 401)
 - A. References
 - (1) AMM 52-11-00/201, Entry/Service Doors
 - B. Access
 - (1) Location Zone
 - 200 Upper Half of Fuselage
 - C. Procedure
 - s 424-018
 - (1) Install the entry/service door ground lock (AMM 52-11-13/201).

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s 034-019

(2) Remove the bolt, bushing, washer, nut, and cotter pin to disconnect the pushrod from the latch cam.

s 034-020

(3) Remove the bolt, bushing, washer, nut, and cotter pin to disconnect the latch cam from the latch cam support fitting.

s 024-021

(4) Remove the latch cam.

S 024-022

(5) If access through the entry/service door is necessary, remove the entry/service door ground lock (AMM 52-11-13/201).

TASK 25-22-04-424-031

- 5. Latch Cam Installation (Fig. 401)
 - A. References
 - (1) AMM 52-11-00/201, Entry/Service Doors
 - B. Access (1) Location Zone
 - 200 Upper Half of Fuselage
 - C. Procedure

s 424-023

(1) Install the entry/service door ground lock (AMM 52-11-13/201).

S 824-024

(2) Put the latch cam in the latch cam support fitting.

s 434-028

(3) Install the bolt, bushing, washer, nut, and cotter pin to connect the latch cam to the latch cam support fitting.

s 434-027

(4) Install the bolt, bushing, washer, nut, and cotter pin to connect the pushrod to the latch cam.

S 824-004

(5) Put the movable ceiling panels in the closed position.

s 824-005

(6) Adjust the length of the pushrod until the movable ceiling panel cannot move.

s 824-006

(7) Adjust the length of the pushrod until the cam roller support on the movable ceiling touches the adjacent fixed lowered ceiling.

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s 204-007

(8) Make sure the clearance between the latch cam and the movable ceiling panel is 0.00-0.20 inch (View B, Fig. 401).

s 704-025

(9) Make sure the entry/service door operates correctly (AMM 52-11-00/201).

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MAINTENANCE MANUAL

UPPER DOOR LINER TRACK - REMOVAL/INSTALLATION

- 1. <u>General</u>
 - A. This procedure contains these tasks.
 - (1) Removal of the upper door liner track.
 - (2) Installation of the upper door liner track.
 - B. The upper door liner track is referred to as the track in this procedure.

TASK 25-22-07-004-002

- 2. Upper Door Liner Track Removal (Fig. 401)
 - A. References
 - (1) AMM 52-11-13/201, Entry/Service Door Ground Lock
 - B. Access
 - (1) Location Zone 200 Upper Half of Fuselage
 - C. Procedure
 - s 424-016
 - (1) Install the entry/service door ground lock (AMM 52-11-13/201).
 - S 024-017
 - (2) Remove the escape slide cover (bustle) and the mid door liner.

s 024-018

(3) Remove the roller stops from the top end of the tracks.

S 824-019

- (4) Pull the upper door liner up and out of the tracks.
 - S 034-022
- (5) Remove the bolt, bushing, washers, nut, and cotter pin at the bottom of the track.
 - S 824-023
- (6) Lift the track up to release it from the upper bracket.
 - S 024-024
- (7) Remove the track.

TASK 25-22-07-404-025

- 3. <u>Upper Door Liner Track Installation</u> A. Equipment
 - (1) Rig Pins from Set A20004-78

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- B. References
 - (1) AMM 52-11-00/201, Entry/Service Doors
 - (2) AMM 52-11-13/201, Entry/Service Door Ground Lock
- C. Access
 - (1) Location Zone 200 Upper Half of Fuselage
- D. Procedure

s 424-026

(1) Put the track into position.

NOTE: You can put the track down through the upper bracket.

s 434-006

- <u>WARNING</u>: INSTALL THE BOLT WITH THE HEAD OF THE BOLT IN THE DIRECTION OF THE DOOR CENTERLINE. FAILURE TO OBEY THE CORRECT BOLT INSTALLATION INSTRUCTION CAN PREVENT SLIDE-RAFT DEPLOYMENT IN AN EMERGENCY.
- (2) Install the bolts, bushings, washers, nuts, and cotter pins, to connect the tracks to the lower brackets. Make sure the bolt heads are in the direction of the door centerline.

s 034-027

- (3) Loosen the upper adjustment screws and the lower adjustment screws on the forward and aft ends of the upper door liner to permit maximum movement of the lower arm.
 - <u>NOTE</u>: The upper adjustment screws and the lower adjustment screws have right-handed threads, but opposite turns are necessary.

s 424-028

(4) Lower the upper door liner to the bottom of the tracks.

s 434-029

(5) Install the roller stops at the top of the tracks.

s 434-056

(6) Install the rig pins D6, D7, D8, and D9 at the top end of tracks to hold the tracks in the inboard position.

S 024-031

(7) Remove the entry/service door ground lock (AMM 52-11-13/201).

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s 424-032

(8) Close and latch the entry/service door.

s 434-033

(9) Tighten the lower adjustment screws in the clockwise direction until the upper door liner touches the structure. Tighten the jamnut to lock the screw into position.

s 434-034

- (10) Tighten the upper adjustment screws in the counterclockwise direction until the upper door liner touches the structure. Tighten the jamnut to lock the screw into position.
 - <u>NOTE</u>: The upper adjustment screws and the lower adjustment screws have right-handed threads, but opposite turns are necessary.

S 034-035

(11) Remove the rig pins D6, D7, D8, and D9 at the top of tracks.

S 824-007

(12) Make sure the entry/service door operates smoothly when you unlatch and open it.

s 424-008

(13) Put the entry/service door in a not fully open position. Make sure the clearances are as shown in View E.

s 424-009

(14) Put the entry/service door in a fully open position. Make sure the clearance is as shown in View F.

s 204-036

(15) Make sure the top roller on the beam of the upper door liner is clear of the ramp on the inboard side of the track.

s 824-037

(16) Adjust the screws to get the correct clearance.

s 424-038

(17) Close the entry/service door but do not latch it.

NOTE: This gives easy access to the lower adjustment screws.

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<u>NOTE</u>: The door should be in an unlatched position but do not open it. This is to get access to the rig pins.



s 424-039

(18) Install lockwire in the jamnuts of the lower adjustment screws.

s 424-040

(19) Install the escape slide cover (bustle).

s 424-054

(20) Install the mid door liner.

s 824-010

(21) Adjust the mid door liner (View A, Fig. 401).

s 434-042

(22) Install the decorative plug on the lower adjustment screws.

s 704-043

(23) Make sure the entry/service door operates correctly (AMM 52-11-00/201).





CEILING INSULATION - REMOVAL/INSTALLATION

- 1. <u>General</u>
 - A. The removal and installation procedures for the passenger compartment ceiling insulation are the same as the passenger compartment sidewall insulation procedures.

TASK 25-22-08-804-001

- 2. <u>Ceiling Insulation</u>
 - A. General
 - (1) Refer to 25-21-05/401 for the removal and installation procedures for the passenger compartment sidewall insulation which are also applicable to the passenger compartment ceiling insulation.

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MAINTENANCE MANUAL

PASSENGER SERVICE UNITS - DESCRIPTION AND OPERATION

1. <u>General</u>

- A. Passenger service units (PSU) are above each passenger seat.
- B. Each PSU has emergency oxygen and reading lights.
- C. Attendant service units are at each attendant seat.
- D. Lavatory service units are in each lavatory.
- 2. <u>Service Units</u> (Fig. 1)
 - A. Passenger service units (PSU) are above each passenger seat. PSU's contain emergency oxygen equipment, attendant call lights, speakers reading units.
 - B. PSU's also have individual gasper air outlets. For further information on gasper air, refer to (AMM 21-24-00/001), Individual (Gasper) Air Distribution - Description and Operation.
 - C. Oxygen masks release by an automatic, pressure sensitive switch or by a crew-operated manual release lever.
 - D. Individual reading lights are controlled by switches on the passenger seat armrests. Reading lights adjust individually.
 - E. Attendant service units are at each attendant seat. Attendant service units contain emergency oxygen equipment and reading lights.
 - F. Lavatory service units are in each lavatory. Each unit has a light, a speaker, a conditioned air inlet, and an oxygen mask dispenser.





MAINTENANCE MANUAL

PASSENGER SERVICE UNITS - REMOVAL/INSTALLATION

- 1. <u>General</u>
 - Α. This procedure contains four tasks:
 - The first task is the removal of the PSU oxygen/light panel. (1)
 - The second task is the installation of the PSU oxygen/light panel. (2)
 - (3) The third task is the removal and installation of the PSU face panels.
 - (4) The fourth task is the removal and installation of the PSU latch.

TASK 25-23-01-004-001

- Remove the PSU Oxygen/Light Panel 2.
 - A. Equipment
 - (1) Latch Opening Tool 0.10-inch diameter X 3-inch long rod References
 - Β.
 - (1) AMM 21-24-00/501, Individual Gasper Air Distribution
 - (2) AMM 35-21-04/201, Oxygen Generator
 - C. Access
 - (1) Location Zone
 - 200 Upper Half of Fuselage
 - D. Procedure

S 864-002

- (1)Open these circuit breakers on the overhead circuit breaker panel, P11, and attach DO-NOT-CLOSE tags:
 - (a) 11A24, PASS OXY CONT
 - (b) 11A25, PASS OXY CONT MANUAL DEPLOY
 - (c) 11C22, PASS ADRS
 - (d) 11P9, PASS SIGN CONT
 - (e) 11T8, PASS ENTMT/SERVICE CONT
 - s 824-003
- Put the latch opening tool in the holes of the reading light face (2) panel (2 locations) to release the latches.

s 824-013

Hold the PSU oxygen/light panel. Push the spring clip through the (3) hole in frame, with your finger. Let the PSU open (Fig. 401).

s 704-004

- REFER TO AMM 35-21-04/201 FOR THE PROCEDURE TO DEACTIVATE WARNING: OXYGEN GENERATOR. IF YOU INCORRECTLY DEACTIVATE THE OXYGEN GENERATOR, THE OXYGEN GENERATOR CAN ACCIDENTALLY FIRE. THE SURFACE TEMPERATURE OF A FIRED OXYGEN GENERATOR CAN GET AS HOT AS 450°F AND CAUSE INJURY TO PERSONS.
- (4) Do the Deactivate Oxygen generator procedure (AMM 35-21-04/201).

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s 024-014

(5) If installed, disconnect the gasper air hose from PSU oxygen/light panel (AMM 21-24-00/501).

s 034-015

(6) Disconnect the electrical connector from the reading lights.

s 024-016

(7) Hold the PSU oxygen/light panel and disconnect the lanyard at the PSU rail.

s 034-020

(8) Hold the PSU oxygen/light panel and remove the hexagon head screws at the PSU tie bar.

S 024-021

(9) Remove the PSU oxygen/light panel.

TASK 25-23-01-404-005

- 3. Install the PSU Oxygen/Light Panel
 - A. References
 - (1) AMM 21-24-00/501, Individual Gasper Air Distribution
 - (2) AMM 23-31-02/401, PSU Speakers
 - (3) AMM 23-34-09/201, PSU Reading Lights
 - (4) AMM 33-24-00/201, Passenger Signs
 - (5) AMM 33-25-00/201, Passenger Call Lights
 - (6) AMM 35-21-00/501, Passenger Oxygen System
 - (7) AMM 35-21-04/201, Oxygen Generator
 - B. Access
 - (1) Location Zone

200 Upper Half of Fuselage

C. Procedure

S 434-025

(1) Put the PSU oxygen/light panel in position. Install the hexagon head screws at the PSU tie bar.

S 214-026

- (2) Make sure that the distance between the seat reference line and the oxygen mask drop is from 19.0 inches maximum to 10.5 inches minimum for the center seats (Fig. 403).
 - <u>NOTE</u>: The oxygen mask drop must not be forward of a fully reclined seat back.

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1 > THE SEAT REFERENCE LINE IS THE POINT WHERE THE SEAT BACK TOUCHES THE CENTERLINE OF THE SEAT CUSHION 2 > THE DISTANCE BETWEEN THE SEAT REFERENCE LINE AND THE OXYGEN MASK DROP MUST BE FROM 19.0 INCHES MAXIMUM TO 10.5 INCHES MINIMUM FOR THE CENTER SEATS AND FROM 22.8 INCHES MAXIMUM TO 10.3 INCHES MINIMUM FOR THE OUTBOARD SEATS 3 THE DISTANCE BETWEEN THE FORWARD END OF THE OXYGEN/LIGHT PANEL TO THE OXYGEN MASK DROP IS 2.6 INCHES FOR THE CENTER SEATS AND 1.8 INCHES FOR THE OUTBOARD SEATS |4> make sure the passenger can see the nsfsb sign panel at a maximum ANGLE OF 47.5 DEGREES FROM THE HORIZONTAL (FAA REQUIREMENT) PSU Location (Example) Figure 403 EFFECTIVITY-25-23-01

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s 214-027

- (3) Make sure that the distance between the seat reference line and the oxygen mask drop is from 22.8 inches maximum to 10.3 inches minimum for the outboard seats (Fig. 403).
 - <u>NOTE</u>: The oxygen mask drop must not be forward of a fully reclined seat back.

s 424-029

(4) Connect the lanyard at PSU rail.

s 434-030

(5) Connect the electrical connector to the reading lights.

s 424-058

(6) Connect the gasper air hose to the PSU oxygen/light panel (AMM 21-24-00/501).

s 704-006

- WARNING: REFER TO AMM 35-21-04/201 FOR THE PROCEDURE TO ACTIVATE OXYGEN GENERATOR. IF YOU INCORRECTLY ACTIVATE THE OXYGEN GENERATOR, THE OXYGEN GENERATOR CAN ACCIDENTALLY FIRE. THE SURFACE TEMPERATURE OF A FIRED OXYGEN GENERATOR CAN GET AS HOT AS 450°F AND CAUSE INJURY TO PERSONS. IF YOU INCORRECTLY ACTIVATE THE OXYGEN GENERATOR, THE OXYGEN GENERATOR WILL NOT OPERATE.
- (7) Do the Activate Oxygen Generator procedure (AMM 35-21-04/201).

s 424-032

(8) Set the latch in the closed position to close the PSU.

s 714-051

(9) Do these steps to put a mark on the latch opening tool you will use during the PSU latch check:(a) Open the PSU.

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- (b) Put a latch in the closed position.
- (c) Put the latch opening tool in the hole where the latch is closed.
- (d) Make a mark on the latch opening tool to show the distance the tool goes in the hole of a fully closed latch.
 - <u>NOTE</u>: You will use this mark to make sure the other latches are in the fully closed position.
- (e) Make sure that the latch is in the closed position.
- (f) Close the PSU.

s 204-069

(10) Pull down on the edge of the PSU to make sure that the latches are engaged.

s 714-052

(11) Use this latch opening tool to make sure the latches for the other PSUs are in the fully closed position.

S 864-007

- (12) Remove the DO-NOT-CLOSE tags and close these circuit breakers on the P11 panel:
 - (a) 11A24, PASS OXY CONT
 - (b) 11A25, PASS OXY CONT MANUAL DEPLOY
 - (c) 11C22, PASS ADRS
 - (d) 11P9, PASS SIGN CONT
 - (e) 11T8, PASS ENTMT/SERVICE CONT

S 714-053

(13) Make sure the reading lights operate correctly (AMM 23-34-09/201).

S 824-009

(14) Adjust the reading lights as necessary.

s 714-054

(15) Make sure the passenger oxygen system operates correctly (AMM 35-21-00/501).

s 714-055

(16) Make sure the passenger signs operate correctly (AMM 33-24-00/201).

S 714-056

(17) Make sure the PSU speakers operate correctly (AMM 23-31-02/401).

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s 714-057

(18) Make sure the passenger call lights operate correctly (AMM 33-25-00/201).

TASK 25-23-01-904-034

- 4. <u>PSU Face Panels Removal/Installation</u> (Fig. 402)
 - A. References
 - (1) AMM 23-31-00/501, Passenger Address System
 - (2) AMM 23-31-02/401, PSU Speaker
 - (3) AMM 33-24-00/201, Passenger Signs
 - B. Access
 - (1) Location Zone 200 Upper Half of Fuselage
 - C. Procedure Remove the PSU Face Panels

S 024-035

(1) Remove the PSU oxygen/light panels. Refer to the "Remove the PSU Oxygen/Light Panel" procedure.

s 024-036

(2) To remove the no smoking-fasten seat belt (NSFSB) sign face panel, remove the NSFSB sign (AMM 33-24-00/201).

s 024-037

(3) To remove the PSU speaker face panel, remove the PSU speaker (AMM 23-31-02/401).

S 024-038

- (4) Remove the nuts. Remove the PSU face panel.
- D. Procedure Install the PSU Face Panels

s 424-039

(1) Install the PSU face panel. Install the nuts.

s 424-040

(2) Install the NSFSB sign (AMM 33-24-00/201).

s 424-010

(3) Install the PSU speaker (AMM 23-31-02/401).

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s 704-041

(4) Make sure the Passenger Address System operate correctly (AMM 23-31-00/501).

s 704-042

(5) Make sure the Passenger Signs operate correctly (AMM 33-24-00/201).

s 424-043

- (6) Install the PSU oxygen/light panel. Refer to the "Install the PSU Oxygen/Light Panel" procedure.
- E. Procedure Adjust the PSU Face Panels

s 824-011

- (1) Adjust the nuts to lift or lower the PSU face panels. Make sure the PSU face panels are flush with each other.
 - s 824-050
- (2) Loosen the nuts. Adjust the PSU face panel to align it with the space panel. Tighten the nuts.

TASK 25-23-01-904-044

- 5. <u>PSU Latch Removal/Installation</u> (Fig. 401)
 - A. Access (1) Location Zone 200 Upper Half of Fuselage
 - B. Procedure Remove the PSU Latch

S 024-045

(1) Remove the oxygen/light face panel. Refer to the "Remove the PSU Face Panels" procedure.

S 024-046

- (2) Remove the screws. Remove the latch.
- C. Procedure Install the PSU Latch

s 424-047

(1) Install the latch with screws.

S 424-048

(2) Install the oxygen/light face panel. Refer to the "Install the PSU Face Panels" procedure.

S 424-049

(3) Adjust the oxygen/light face panel. Refer to the "Adjust the PSU Face Panels" procedure

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MAINTENANCE MANUAL

CLOSETS AND PARTITIONS - DESCRIPTION AND OPERATION

1. General

- Α. The closets and partitions are in the passenger compartment.
- B. SAS 150-161;
 - Closets are located forward of the forward entry/service door.
- C. The closet is located in the business class seating area.
- D. A class divider separates business class and tourist class seating areas.
- E. SAS 050-149, 162-999; The flight crew rest and the cabin crew rest are in the passenger compartment.
 - The forward cabin crew rest is aft of the forward galley G2A.

The two aft cabin crew rests are forward of the aft entry/service doors.

2. <u>Component</u> Details

A. Closets

- (1)The closets are track-mounted and are attached to the overhead structure with tie rods or blade fittings.
- **B.** Partitions
 - (1) The partitions are nomex honeycomb panels with decorative fabric covering on both sides.
 - (2) The partitions mount on seat tracks and attach to overhead structure.
 - (3) The curtain tracks attach to overhead structure.
- C. Crew Rest
 - (1) The crew rest area/business class dividers are curtains between the center crew rest cubicle and the purser's office, and between the center crew rest cubicle and the right side crew rest cubicle.
 - (2) There are two bunks in the flight crew rest with a sleep belt for each bunk (Fig. 1).
 - In each cabin crew rest, there is a business class type seat (3) (Fig. 2).

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OVERHEAD CLOSETS

COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	REFERENCE
CIRCUIT BREAKER -	2		119AL, MAIN EQUIP CTR, P36	
RETRACTABLE CLOSET, C357		1	36K2	*
CIRCUIT BREAKER -	2		FLT COMPT, P11	
RETRACTABLE CLOSET, C733		1	1105	*
CLOSET - OVERHEAD	1	2	MIDCABIN	25-24-05
RELAYS - (REF 31-01-25, FIG. 101)				
DOWN CONTROL, K386,K392				
UP CONTROL, K387,K393				
SWITCH - DOWN CONTROL				
S470	1	1	AFT RH OVHD CLOSET	*
S476	1	1	FWD LH OVHD CLOSET	*
SWITCH - UP CONTROL				
S469	1	1	FWD LH OVHD CLOSET	*
S475	1	1	AFT RH OVHD CLOSET	*
UNIT - RETRACTABLE COAT ROD				
M784	1	1	AFT RH OVHD CLOSET	25-24-05
M787	1	1	FWD LH OVHD CLOSET	*

* SEE WM EQUIPMENT LIST

Component Index Figure 101

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Component Location Figure 102 (Sheet 2)

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FAULT ISOLATION/MAINT MANUAL

RETRACTABLE CLOSET INOPERATIVE BOTH UP AND DOWN. OVERHEAT LIGHT EXTINGUISHED. MANUAL BRAKE RELEASE NORMAL.

PREQUISITES

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 36K2,11U5

MAKE SURE THE AIRPLANE IS IN THIS CONFIGURATION: ELECTRICAL POWER IS ON (AMM 24-22-00/201)

1 CHECK TRACKS. ARE THERE OBSTRUCTIONS OR DEBRIS BLOCKING TRACK?	YES	20 CLEAR OBSTRUCTIONS OR DEBRIS FROM TRACKS. REPAIR DAMAGED TRACKS AS NECESSARY.
ARE TRACKS DAMAGED?	J	21 INTERMITTENT FAULT RETRACTABLE CLOSET OK.

Retractable Closet Inoperative Both Up and Down. Overheat Light Extinguished. Manual Brake Release Normal. Figure 103

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STOWAGE UNITS - REMOVAL/INSTALLATION

- 1. <u>General</u>
 - A. This procedure contains two tasks:
 - (1) The first task is the removal of the stowage units.
 - (2) The second task is the installation of the stowage units.

TASK 25-24-03-004-014

- 2. <u>Remove Stowage Units</u> (Fig. 401)
 - A. Access
 - (1) Location Zone

200 Upper Half of Fuselage

B. Procedure

s 024-032

- (1) To remove the floor mounted stowage units, do the steps that follow:(a) Remove the bolts from the floor attachments.
 - (b) Disconnect the stowage unit from the floor attachments.
 - (c) Remove the stowage unit from the seat track.
 - (d) Remove the stowage unit.

TASK 25-24-03-404-021

- 3. Install Stowage Units (Fig. 401)
 - A. Access
 - (1) Location Zone 200 Upper Half of Fuselage
 - B. Procedure

s 424-035

- (1) To install the floor mounted stowage units, do the steps that follow:
 - (a) Put the stowage unit in the seat track.
 - (b) Install the bolts to connect the stowage unit to the floor attachments.

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FLOOR MOUNTED STOWAGE UNIT FLOOR ATTACHMENTS (EXAMPLE)





PARTITIONS - REMOVAL/INSTALLATION

- 1. <u>General</u>
 - A. This procedure contains two tasks:
 - (1) The first task is the removal of the class divider partition.
 - (2) The second task is the installation of the class divider partition.

TASK 25-24-04-004-003

- 2. <u>Remove the Partition</u> (Fig. 401)
 - A. Access
 - (1) Location Zone

200 Upper Half of Fuselage

B. Procedure

S 024-023

- (1) To remove the partition, do the steps that follow:
 - (a) Remove the cotter pins and the clevis pins from the floor attachments.
 - (b) Open the PSU to get access to the blade attach bolts.
 - (c) Hold the divider panel and remove the blade attach bolts.
 - (d) Remove the divider panel (with the blades attached).
 - (e) Loosen the screws on the inboard side of the curtain track.
 - (f) Open the stowage bin door to get access to the outboard side of the curtain track.
 - (g) Loosen the fasteners on the outboard side of the curtain track.
 - (h) Move the curtain track to the end of the light trough. Remove the curtain track.
 - (i) Remove the class divider at the curtain track.

TASK 25-24-04-404-015

- 3. <u>Install the Partition</u> (Fig. 401)
 - A. Access
 - (1) Location Zone
 - 200 Upper Half of Fuselage

EFFECTIVITY-



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B. Procedure

s 424-024

- (1) To install the partition, do the steps that follow:
 - (a) Put the divider panels in position on the floor attachments (with the blades attached to the divider panels).
 - (b) Get access to the blade through the PSU.
 - (c) Install the blade attach bolts.
 - (d) Install the clevis pins and the cotter pins to the floor attachments.
 - (e) Put the curtain track into position in the light trough.
 - (f) Tighten the screws on the inboard side of the curtain track.
 - (g) Tighten the bolts on the outboard side of the curtain track.

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COAT ROD RETRACTOR - REMOVAL/INSTALLATION

- 1. <u>General</u>
 - A. This procedure contains these tasks:
 - (1) The removal of the coat rod retractor.
 - (2) The installation of the coat rod retractor.

TASK 25-24-05-004-001

- 2. <u>Remove the Coat Rod Retractor</u> (Fig. 401)
 - A. Access
 - (1) Location Zone

200 Upper Half of Fuselage

B. Procedure

S 864-002

(1) Open this circuit breaker on the left miscellaneous electrical equipment panel, P36, and attach a DO-NOT-CLOSE tag:
 (a) 36K2, EQUIPMENT/FURNISHINGS RETRACT CLOSET

S 864-003

 (2) Open this circuit breaker on the overhead circuit breaker panel, P11, and attach a DO-NOT-CLOSE tag:

 (a) 11U5, MISC RETRACT CLOSET

S 024-004

(3) Open the overhead closet door.

S 014-006

(4) Open the sculptured ceiling panels for access.

s 034-005

(5) Disconnect the electrical connector from the motor.

S 034-007

(6) Remove the screws that attach the coat rod retractor and the motor to the closet wall.

s 024-008

(7) Remove the coat rod retractor and the motor.

TASK 25-24-05-404-009

- 3. <u>Install the Coat Rod Retractor</u> (Fig. 401)
 - A. References
 - (1) AMM 24-22-00/201, Electrical Power Control

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- B. Access
 - (1) Location Zone
 - 200 Upper Half of Fuselage
- C. Procedure
 - s 424-010
 - (1) Put the coat rod retractor and the motor in position.
 - s 434-011
 - (2) Install the screws to the coat rod retractor and the motor.





s 434-012

(3) Connect the electrical connector to the motor.

s 864-013

(4) Remove the DO-NOT-CLOSE tag and close this circuit breaker on the P36 panel:
 (a) 36K2, EQUIPMENT/FURNISHINGS RETRACT CLOSET

s 864-014

(5) Remove the DO-NOT-CLOSE tag and close this circuit breaker on the P11 panel:(a) 11U5, MISC RETRACT CLOSET

s 864-015

(6) Supply electrical power (AMM 24-22-00/201).

S 864-016

(7) Push the UP control switch in the overhead closet.

s 704-017

(8) To examine the coat rod retractor, do the steps that follow:

- (a) Make sure the light in the UP control switch is on.
- (b) Make sure the coat rod retractor moves up in the overhead closet.
- (c) Make sure the coat rod retractor stops when it is fully up.
- (d) Make sure the light in the UP control switch stays on after the coat rod retract is fully up.

S 864-018

(9) Push the DOWN control switch in the overhead closet.

s 704-019

(10) To examine the coat rod retractor, do the steps that follow:(a) Make sure the light in the DOWN control switch is on.

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- (b) Make sure the coat rod retractor moves down in the overhead closet.
- (c) Make sure the coat rod retractor stops when it is fully down.
- (d) Make sure the light in the DOWN control switch stays on after the coat rod retractor is fully down.

S 864-020

(11) Remove the electrical power (AMM 24-22-00/201).

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MAINTENANCE MANUAL

PURSER STATION - REMOVAL/INSTALLATION

- 1. <u>General</u>
 - A. This procedure contains these tasks:
 - (1) The removal of the purser station.
 - (2) The installation of the purser station.
 - TASK 25-24-06-004-001
- 2. <u>Remove the Purser Station</u> (Fig. 401)
 - A. References
 - (1) 25-28-03/401, Outboard Overhead Stowage Bin
 - (2) 25-22-02/401, Lower Ceiling Panels
 - (3) 25-25-01/201, Passenger Seats
 - B. Access
 - (1) Location Zone
 - 231 Passenger Cabin
 - C. Procedure

S 864-027

 (1) Open this circuit breaker on the overhead circuit breaker panel, P11, and attach a DO-NOT-CLOSE tag:
 (a) 11T34, VIDEO PROJECTOR

S 864-028

(2) Open this circuit breaker on the right miscellaneous electrical equipment panel, P37, and attach a DO-NOT-CLOSE tag:
 (a) 37K5, FWD VIDEO PROJECTOR

S 034-003

(3) Disconnect all the electrical connectors.

S 024-005

(4) Remove the video, the control distribution and all other equipment from the purser station.

s 024-006

(5) Remove the outboard overhead stowage bin to get access to the upper support fitting, if it is necessary (AMM 25-28-03/401).

S 024-007

(6) Remove the lower ceiling panels to get access to the upper support fitting, if it is necessary (AMM 25-22-02/401).

S 024-009

(7) Remove the passenger seats, if it is necessary (AMM 25-25-01/201).

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s 034-010

(8) Remove the bolt, washer, bushing and nut to disconnect the upper support fitting from the overhead tie-rod.

S 034-029

(9) Remove the coverplates from the floor track fittings.

s 034-012

(10) Loosen the nut on the floor track fitting.

s 034-013

(11) Loosen the screws on the floor track fittings.

S 024-014

(12) Remove the purser station from the floor track.

TASK 25-24-06-404-015

- 3. Install the Purser Station (Fig. 401)
 - A. References
 - (1) 25-22-02/401, Lower Ceiling Panels
 - (2) 25-28-03/401, Outboard Overhead Stowage Bin
 - (3) 25-25-01/201, Passenger Seats
 - B. Access
 - (1) Location Zone
 - 231 Passenger Cabin
 - C. Procedure

S 824-016

(1) Align the purser station such that the floor track fittings engage the circular cutouts in the floor tracks.

s 824-017

(2) Move the purser station forward or aft until the floor track fittings are between the circular cutouts in the floor track.

s 434-018

(3) Connect the upper support fitting to the overhead tie-rod. Install the bolt, washer, bushing and nut.

s 434-019

(4) Tighten the nut on the floor track fitting.

s 434-020

(5) Tighten the screws on the floor track fittings.

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25-24-06



s 434-030

(6) Install the coverplates on the floor track fittings.

s 424-022

(7) Install the lower ceiling panels, if it is applicable (AMM 25-22-02/401).

s 424-023

(8) Install the outboard overhead stowage bin, if it is applicable (AMM 25-28-03/401).

s 424-024

(9) Install the passenger seats, if it is applicable (AMM 25-25-01/201).

s 424-025

(10) Install the video, the control distribution and all other equipment into the purser station.

s 434-026

(11) Connect all the electrical connectors.

s 864-031

(12) Remove the DO-NOT-CLOSE tag and close this circuit breaker on the
P11 panel:
 (a) 11T34, VIDEO PROJECTOR

S 864-032

- (13) Remove the DO-NOT-CLOSE tag and close this circuit breaker on the P37 panel:
 - (a) 37K5, FWD VIDEO PROJECTOR

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MAINTENANCE MANUAL

CABIN CREW REST - REMOVAL/INSTALLATION

- 1. <u>General</u>
 - A. There are three locations at which you can install a cabin crew rest. The first location is aft of the forward galley G2A. The second location is forward of the aft service door. The third location is forward of the aft entry door.
 - B. This procedure contains four tasks.
 - (1) The first task is the removal procedure for the forward crew rest.
 - (2) The second task is the installation procedure for the forward crew rest.
 - (3) The third task is the removal procedure for the aft crew rest.
 - (4) The fourth task is the installation procedure for the aft crew rest.
 - C. Each cabin crew rest is made of one business class seat, one full height partition and one aisle panel. Each aisle panel has a 20-inch-wide door.
 - D. It is permitted that two crew members be in each cabin crew rest during takeoff and landing.
 - E. If you remove the cabin crew rest from the passenger compartment, then you can install more passenger seats.

TASK 25-24-10-004-001

- 2. <u>Remove the Forward Cabin Crew Rest</u>
 - A. References
 - (1) AMM 25-25-01/201, Passenger Seats
 - B. Access
 - C. Procedure

s 864-002

- (1) Open these circuit breakers on the right miscellaneous equipment panel, P37, and attach DO-NOT-CLOSE tags:
 - (a) 37B4, CREW REST HEAT FWD
 - (b) 37C4, CREW REST FAN FWD
 - (c) 37D6, CREW REST FAN CONT FWD
 - (d) 37H4, CREW REST CBN FWD TEMP

S 864-003

- (2) 767-200 AIRPLANES; Disconnect the electrical connector for the video monitor.
 - S 024-004
- (3) Loosen the 1/4-turn fasteners to disconnect the aft panel from the aisle panel.

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s 024-005

(4) Loosen the 1/4-turn fasteners to remove the PSU support blade from the aft panel (View C, Fig. 401).

s 024-006

(5) Loosen the seat track fittings and remove the aft panel from the seat track (View D, Fig. 401). Remove the aft panel from the airplane.

S 024-007

(6) Disengage the latch at the outboard side of the aisle panel.

S 024-008

(7) Lift the aisle panel up to disengage the pin on the inboard of the support beam assembly and move the bottom of the aisle panel inboard (View G, Fig. 401). Move the aisle panel down to disengage the ceiling support blades from the ceiling panel receptacles. Remove the aisle panel from the airplane.

S 024-009

(8) Remove the 44-inch wide seat (Fig. 401) (AMM 25-25-01/201).

s 034-010

(9) Remove the support beam assembly from the seat tracks (View B, Fig. 401).

s 024-011

(10) Remove the PSU face panel from the PSU rail (View C, Fig. 401).

s 424-012

(11) Install the business class seat with a 39-inch seat pitch (AMM 25-25-01/201).

S 864-013

- (12) Remove the DO-NOT-CLOSE tags and close these circuit breakers on the P37 panel:
 - (a) 37B4, CREW REST HEAT FWD
 - (b) 37C4, CREW REST FAN FWD
 - (c) 37D6, CREW REST FAN CONT FWD
 - (d) 37H4, CREW REST CBN FWD TEMP

TASK 25-24-10-404-014

- 3. Install the Forward Cabin Crew Rest
 - A. References
 - (1) AMM 25-25-01/201, Passenger Seats

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B. Access

(1) Location Zone

200 Upper Half of Fuselage

- C. Procedure
 - s 864-015
 - (1) Open these circuit breakers on the right miscellaneous equipment panel, P37, and attach DO-NOT-CLOSE tags:
 (a) 37B4, CREW REST HEAT FWD
 - (b) 37C4, CREW REST FAN FWD
 - (c) 37D6, CREW REST FAN CONT FWD
 - (d) 37H4, CREW REST CBN FWD TEMP

s 024-016

(2) Remove the forward right side business class seat (Fig. 401) (AMM 25-25-01/201).

s 424-017

(3) Install the PSU face panel in the PSU rail with the receptacle slot at Station 496.83 (View C, Fig. 401).

s 434-018

(4) Install the support beam assembly in the seat tracks at Station 457.45 (View A, Fig. 401). Do not tighten the bolts more than you can tighten with your hand.

s 424-019

(5) Install the 44-inch wide business class seat at Station 459.95 (Fig. 401) (AMM 25-25-01/201).

s 424-020

- (6) Do these steps to install the aisle panel:
 - (a) Put the lower edge of the aisle panel at an inboard angle. Put the ceiling support blades in the receptacles in the ceiling (View F, Fig. 401).
 - (b) Move the aisle panel forward until the ceiling support blades are fully forward in the receptacle slots. At the same time, move the lower edge of the aisle panel outboard to the vertical position.
 - (c) Lift the aisle panel up to let the pin on the inboard end of the support beam assembly engages in the hole in the bottom edge of the aisle panel (View G, Fig. 401).
 - (d) Connect the latch mechanisms at the outboard side of the aisle panel.

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s 424-021

- (7) Do these steps to install the aft panel:
 - (a) Turn the 1/4-turn fasteners and remove the PSU support blade from the aft panel (View C, Fig. 401).
 - (b) Put the aft panel in position at Station 498.00. Push the PSU support blade in the PSU face panel and attach the PSU support blade to the aft panel.
 - (c) Move the aft panel forward until it touches the aisle panel. Turn the 1/4-turn fasteners to lock the aft panel.
 - (d) 767-200 AIRPLANES; Connect the electrical connector for the video monitor.

S 824-022

(8) Move the panels forward or aft until the aisle panel tightly touches the galley (View E, Fig. 401). Tighten the bolts on the support beam fittings.

S 824-023

(9) Make sure the access door operates and latches smoothly.

S 864-024

- (10) Remove the DO-NOT-CLOSE tags and close these circuit breakers on the P37 panel:
 - (a) 37B4, CREW REST HEAT FWD
 - (b) 37C4, CREW REST FAN FWD
 - (c) 37D6, CREW REST FAN CONT FWD
 - (d) 37H4, CREW REST CBN FWD TEMP

TASK 25-24-10-004-025

- 4. <u>Remove the Aft Cabin Crew Rest</u>
 - A. References
 - (1) AMM 25-25-01/201, Passenger Seats
 - B. Access
 - (1) Location Zone

200 Upper Half of Fuselage

C. Procedure

S 864-026

- (1) For the left side, open these circuit breakers on the left miscellaneous equipment panel, P36, and attach DO-NOT-CLOSE tags:
 - (a) 36B2, CREW REST AFT LH FAN
 - (b) 36B4, CREW REST AFT LH HEAT
 - (c) 36D5, CREW REST AFT LH FAN CONT
 - (d) 36D6, CREW REST AFT LH TEMP CONT

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S 864-027

- (2) For the right side, open these circuit breakers on the right miscellaneous equipment panel, P37, and attach DO-NOT-CLOSE tags:
 - (a) 37B6, CREW REST HEAT AFT RH
 - (b) 37C6, CREW REST FAN AFT RH
 - (c) 37D7, CREW REST FAN CONT AFT RH
 - (d) 37H5, CREW REST CBN AFT RH CONT

S 024-028

(3) For the left side, remove the triangular panel from the top edge of the aft partition.

S 024-029

- (4) Do these steps to remove the aisle panel:
 - (a) Loosen the 1/4-turn fasteners to disconnect the aisle panel from the aft panel and from the forward panel.
 - (b) Disconnect the latch mechanisms from the outboard side of the aisle panel.
 - (c) Lift the aisle panel up to disengage the aisle panel from the pins on the outboard ends of the support beam assembly. Move the aisle panel inboard at the bottom. Move the aisle panel down to disengage the ceiling support blades from the ceiling receptacles. Remove the aisle panel from the airplane.
 - s 024-030
- (5) Do these steps to remove the forward panel:
 - (a) Loosen the seat track fittings (View H-H, Fig. 402).
 - (b) Loosen the 1/4-turn fasteners. Remove the PSU support blade from the forward panel and from the PSU face panel (View D, Fig. 402).
 - (c) Disengage the seat track fittings from the seat track and remove the forward panel from the airplane.

s 024-031

(6) Remove the 46-inch wide seat (Fig. 402) (AMM 25-25-01/201).

s 034-032

(7) Remove the support beam assemblies from the seat tracks (View A-A, Fig. 402).

s 024-033

(8) Remove the PSU face panel from the PSU rail (View G-G, Fig. 402).

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s 424-034

(9) For the left side, install the tourist class seats with a 32-inch seat pitch (AMM 25-25-01/201).

s 424-035

(10) For the right side, install the tourist class seats with a 32-inch seat pitch (AMM 25-25-01/201).

S 864-036

- (11) For the left side, remove the DO-NOT-CLOSE tags and close these circuit breakers on the P36 panel:
 - (a) 36B2, CREW REST AFT LH FAN
 - (b) 36B4, CREW REST AFT LH HEAT
 - (c) 36D5, CREW REST AFT LH FAN CONT
 - (d) 36D6, CREW REST AFT LH TEMP CONT
 - S 864-037
- (12) For the right side, remove the DO-NOT-CLOSE tags and close these circuit breakers on the P37 panel:
 - (a) 37B6, CREW REST HEAT AFT RH
 - (b) 37C6, CREW REST FAN AFT RH
 - (c) 37D7, CREW REST FAN CONT AFT RH
 - (d) 37H5, CREW REST CBN AFT RH CONT

TASK 25-24-10-404-038

- 5. Install the Aft Cabin Crew Rest
 - A. References
 - (1) AMM 25-25-01/201, Passenger Seats
 - B. Access
 - (1) Location Zone
 - 200 Upper Half of Fuselage
 - C. Procedure

S 864-039

- (1) For the left side, open these circuit breakers on the left miscellaneous equipment panel, P36, and attach D0-NOT-CLOSE tags:
 (a) 36B2, CREW REST AFT LH FAN
 - (b) 36B4, CREW REST AFT LH HEAT
 - (c) 36D5, CREW REST AFT LH FAN CONT
 - (d) 36D6, CREW REST AFT LH TEMP CONT

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S 864-040

(2) For the right side, open these circuit breakers on the right miscellaneous equipment panel, P37, and attach DO-NOT-CLOSE tags: (a) 37B6, CREW REST HEAT AFT RH (b) 37C6, CREW REST FAN AFT RH (c) 37D7, CREW REST FAN CONT AFT RH (d) 37H5, CREW REST CBN AFT RH CONT s 024-041 (3) Remove the tourist class passenger seats from the aft area of the airplane (Fig. 402) (AMM 25-25-01/201). s 424-042 (4) Install the MUX cables and the SEB units (AMM 25-25-01/201). s 424-043 (5) Install the PSU face panel in the PSU rail with the receptacle slot at Station 1417.21 (View D, Fig. 402). s 434-044 (6) Install the forward support beam assembly at Station 1435.45. Do not tighten the bolts more than you can tighten with your hand (View A-A, Fig. 402). s 434-045 (7) Install the aft support beam assembly at Station 1464.45. Do not tighten the bolts more than you can tighten with your hand (View A-A, Fig. 402). s 424-046 (8) For the left side, install the 46-inch wide double seat at Station 1437.95 (Fig. 402) (AMM 25-25-01/201). s 424-047 (9) For the right side, install the 46-inch wide double seat at Station 1438.95 (AMM 25-25-01/201). s 424-048 (10) Remove the PSU support blade from the forward panel (View C, Fig. 402).

s 824-049

(11) Put the forward panel against the back of the passenger seat 2 to 3 inches forward of the installation position.

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s 424-050

- (12) Do these steps to install the aisle panel:
 - (a) Put the lower edge of the aisle panel at an inboard angle. Put the ceiling support blades in the receptacles in the ceiling (View C-C, Fig. 402).
 - (b) Move the aisle panel forward until the ceiling support blades are fully forward in the receptacle slots. At the same time move the lower edge of the aisle panel outboard to the vertical position.
 - (c) Lift the aisle panel up to let the pins at the inboard ends of the support beam assemblies engage in the holes in the bottom edge of the aisle panel (View B-B, Fig. 402).
 - (d) Connect the latch mechanisms at the outboard side of the aisle panel.
 - (e) Move the aisle panel aft until it touches the aft partition. Turn the 1/4-turn fasteners to lock the aisle panel.

s 434-051

(13) Install the plate that holds the stub wall to the aft partition (View E-E, Fig. 402).

s 434-052

(14) Tighten the bolts on the support beam fitting (View A-A, Fig. 402).

s 424-053

- (15) Do these steps to install the forward panel:
 - (a) Lock the seat track fitting in the seat track at Station 1405.00 (View H-H, Fig. 402).
 - (b) Put the PSU support blade in the receptacles in the PSU face panel at Station 1417.21 (View C, Fig. 402).
 - (c) Hold the PSU support blade in position. Turn the 1/4-turn fasteners to lock the PSU support blade in position. Move the forward panel aft to help you engage the 1/4-turn fasteners.

S 424-054

(16) For the left side, install the triangular panel at the top edge of the aft partition. Put the triangular panel in position on the velcro tape. Turn the 1/4-turn fasteners to lock the triangular panel in position (View D-D, Fig. 402).

s 824-055

(17) Make sure the access door operates and latches smoothly.

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S 864-056

- (18) For the left side, remove the DO-NOT-CLOSE tags and close these circuit breakers on the P36 panel:
 - (a) 36B2, CREW REST AFT LH FAN
 - (b) 36B4, CREW REST AFT LH HEAT
 - (c) 36D5, CREW REST AFT LH FAN CONT
 - (d) 36D6, CREW REST AFT LH TEMP CONT

S 864-057

- - (a) 37B6, CREW REST HEAT AFT RH
 - (b) 37C6, CREW REST FAN AFT RH
 - (c) 37D7, CREW REST FAN CONT AFT RH
 - (d) 37H5, CREW REST CBN AFT RH CONT

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FLIGHT CREW REST - REMOVAL/INSTALLATION

- 1. <u>General</u>
 - A. This procedure contains two tasks. The first task is the removal of the flight crew rest. The second task is the installation of the flight crew rest.
 - TASK 25-24-19-004-001
- 2. <u>Remove the Flight Crew Rest</u>
 - A. Access
 - (1) Location Zone 200 Upper Half of Fuselage
 - B. Procedure

S 864-002

- (1) Open these circuit breakers on the left miscellaneous electrical equipment panel, P36, and attach DO-NOT-CLOSE tags:
 - (a) 36C4, FLT DK CREW REST HEAT
 - (b) 36C6, FLT DK CREW REST FAN
 - (c) 36D2, CREW REST FLT DK CONT VLV
 - (d) 36D3, CREW REST FLT DK CONT HEAT
 - (e) 36D4, CREW REST FLT DK CTRL FAN

s 024-003

(2) Remove the crew rest door (View D, Fig. 401).

s 024-004

- (3) Remove the tee fitting from between the ceiling panels (View C, Fig. 401).
 - s 024-006
- (4) Do these steps to remove the forward ceiling panel:
 - (a) Open the hinged access panel.
 - (b) Disconnect the electrical connectors from the smoke detector, the temperature sensor, the oxygen sensor and for the lights.
 - (c) Disconnect the air duct from the smoke evacuation valve.
 - (d) Disconnect the tubes from the smoke detector and from the temperature sensor.
 - (e) Remove the screws from the edges of the panel.
 - (f) Remove the ceiling panel from the airplane.
 - S 864-048
- (5) Disconnect the electrical connectors from the cable shroud assembly.

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Flight Crew Rest Figure 401 (Sheet 1)

EFFECTIVITY AIRPLANES WITH FLIGHT CREW REST

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s 024-005 (6) Remove the cable shroud assembly with the hinged access panel. s 024-007 (7) Remove the aft ceiling panel. S 024-008 (8) Remove the panel with the door header (View D, Fig. 401). s 024-009 (9) Remove the forward left panel. s 024-010 (10) Remove the lower bunk amenities module. s 024-011 (11) Do these steps to remove the amenities module (View A, Fig. 401). Disconnect the gasper air duct. (b) Disconnect the electrical connectors. (c) Remove the screws that hold the amenities module to the panels. (d) Remove the amenities module from the airplane. s 024-012 (12) Remove the upper bunk assembly (View A, Fig. 401). s 024-052 (13) Remove the decompression tunnel panels from below the lower bunk assembly (View C, Fig. 401). s 024-013 (14) Remove the lower bunk assembly. s 024-015 (15) Remove the drawer assembly (View A-A, Fig. 401). s 024-016 (16) Remove the closet door assembly and closet panels. S 024-017 (17) Remove the aft panel (View A, Fig. 401). s 024-018

(18) Remove the aft angled panel.

EFFECTIVITY AIRPLANES WITH FLIGHT CREW REST

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S 034-019

(19) Remove the bolts from the two tiedown fittings of the aft right side panel.

S 024-020

(20) Remove the two cup holders and the two literature pockets from the forward right side panel.

s 024-021

(21) Remove the forward right side panel and the aft right side together.

S 024-022

(22) Remove the front panel from the two tiedown fittings.

TASK 25-24-19-404-023

3. Install the Flight Crew Rest

A. General

- (1) You must install the flight crew rest in the correct sequence. The sequence starts at the front panel and continues clockwise.
- B. Access
 - (1) Location Zone 200 Upper Half of Fuselage
- C. Procedure

S 424-024

 Install the front panel on the two tiedown fittings (View A, Fig. 401).

s 434-020

(2) Install the screws to attach the aft right side panel to the forward right side panel.

s 434-025

(3) Install the screws to attach the forward right side panel to the front panel.

s 434-026

(4) Install the bolts to the two tiedown fittings of the aft right side panel.

s 424-027

(5) Install the aft angled panel. Install the screws to attach the aft angled panel to the aft right side panel.

EFFECTIVITY AIRPLANES WITH FLIGHT CREW REST



s 424-028 (6) Install the aft panel. Install the screws to attach the aft panel to the aft angled panel. s 424-030 (7) Install the drawer assembly (View A-A, Fig. 401). s 424-055 (8) Install the closet panels. s 424-056 (9) Do these steps to install the amenities module: (a) Put the amenities module in position (View A, Fig. 401). Install the screws to attach the amenities module to the front panel. (b) Connect the electrical connectors. (c) Connect the gasper air duct. s 424-033 (10) Install the forward left panel. Install the screws to attach the panel to the front panel (View D, Fig. 401). s 424-054 (11) Install the lower bunk assembly (View A, Fig. 401). s 424-034 (12) Install the upper bunk assembly (View B, Fig. 401). s 424-035 (13) Install the panel with the door header (View D, Fig. 401). s 424-036 (14) Install the aft ceiling panel. s 424-037 (15) Do these steps to install the forward ceiling panel: (a) Put the ceiling panel in position. (b) Install the screws at the edges of the panel. (c) Connect the electrical connectors to the smoke detector, the temperature sensor, the oxygen sensor, and the lights. (d) Connect the air duct to the smoke evacuation valve. (e) Connect the tubes to the smoke detector, and to the temperature sensor.

EFFECTIVITY AIRPLANES WITH FLIGHT CREW REST

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S 424-038

(16) Install the cable shroud assembly (View C, Fig. 401). Connect the electrical connectors.

S 424-039

(17) Close the hinged access panel.

s 824-049

(18) Make sure the clearance is equal around the edges of the hinged access panel.

s 424-040

(19) Install the lower bunk amenities module on the forward right side panel (View C, Fig. 401).

s 424-041

(20) Install the two cup holders and two literature pockets on the forward right side panel (View A, Fig. 401).

s 424-042

(21) Install the tee assembly between the ceiling panels
(View C, Fig. 401).

s 424-043

(22) Install the decompression tunnel panels under the lower bunk assembly.

S 424-044

(23) Install the closet door assembly (View D, Fig. 401).

s 424-050

(24) Install the panel with the door header.

S 424-051

(25) Install the threshold assembly.

s 424-045

- (26) Install the crew rest door assembly as follows:
 - (a) Install the screws to attach the door hinge to the panel with the door header.
 - (b) Close and latch the door. If the door does not easily latch, adjust the top or bottom striker.

s 424-046

(27) Install the two mirrors on the aft panel (View D, Fig. 401).

EFFECTIVITY AIRPLANES WITH FLIGHT CREW REST

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S 864-047

- (28) Remove the DO-NOT-CLOSE tags and close these P36 panel circuit breakers:
 - (a) 36C4, FLT DK CREW REST HEAT
 - (b) 36C6, FLT DK CREW REST FAN
 - (c) 36D2, CREW REST FLT DK CONT VLV
 - (d) 36D3, CREW REST FLT DK CONT HEAT
 - (e) 36D4, CREW REST FLT DK CTRL FAN

EFFECTIVITY AIRPLANES WITH FLIGHT CREW REST

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SEATS - DESCRIPTION AND OPERATION

- 1. <u>General</u>
 - A. Passenger seats mount on seat tracks in the passenger compartment. Attendant seats mount on galleys, lavatories, and the mid-cabin divider in the passenger compartment.
- 2. <u>Component Details</u>
 - A. Passenger Seats (Fig. 1)
 - (1) The passenger seats attach to seat tracks by means of seat track fittings at each leg.
 - (2) The passenger seat back can be reclined by pressing an actuating button located on the arm rest. The adjustable recline mechanism is located under the seat bottom cushion.
 - (3) Sleeper seats have a foot rest that can be raised.
 - (4) The seats are designed to break forward from the erect position. The force required to activate the breakover mechanism may be changed by tightening or loosening a friction adjustment bolt located near the seat back pivot point.
 - (5) Integral food trays are provided for each seat. The food trays are stowed within the seat when not needed.
 - (6) A passenger control unit (PCU) including a light switch and attendant call button is located on the armrest.
 - (7) Each armrest contains a removable ashtray.
 - B. Attendant Seats (Fig. 1)
 - Attendant seats are supported by and mount on lavatories, galleys, closets, and partitions.
 - (2) The seat bottom folds to vertical when stowed. Each attendant seat has a shoulder harness and a lap belt.

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MAINTENANCE MANUAL

PASSENGER SEATS - MAINTENANCE PRACTICES

- 1. <u>General</u>
 - A. This procedure contains these tasks:
 - (1) The removal of the passenger seats.
 - (2) The installation of the passenger seats.
 - (3) The removal of the recline and lock mechanism in the passenger seat.
 - (4) The installation of the recline and lock mechanism in the passenger seat.
 - (5) An adjustment of the passenger seat.
 - B. The reclined position of the passenger seat is when the seat back is in the aft most position.

TASK 25-25-01-002-001

- 2. Passenger Seat Removal (Fig. 202)
 - A. Reference
 - (1) AMM 23-34-04/401, Seat Electronics Box
 - B. Access
 - (1) Location Zone 200 Upper Half of Fuselage
 - C. Procedure

S 862-002

- (1) Open this circuit breaker on the overhead circuit breaker panel, P11, and attach a DO-NOT-CLOSE tag:
 (a) 11T8, PASS ENTMT/SERVICE CONT
 - s 032-006
- (2) Disconnect the electrical connectors from the seat.
 - S 032-007
- (3) Remove the cover from the front seat track.

S 032-009

(4) Remove the cover from the rear seat track.

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INCORRECT INSTALLATION



CORRECT INSTALLATION

Seat Track Fitting Installation Figure 203 (Sheet 1)

	Figu	ire 205 (Sheet 1)		
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INCORRECT INSTALLATION



CORRECT INSTALLATION

Seat Track Fitting Installation Figure 203 (Sheet 2)

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Seat Track Fitting Installation Figure 203 (Sheet 3)

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CORRECT INSTALLATION

Seat Track Fitting Installation Figure 203 (Sheet 5)

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INCORRECT INSTALLATION



CORRECT INSTALLATION

2>>	MAKE SURE THE SHEAR PIN IS ENGAGED
	IN THE SEAT TRACK. THE PIN WILL
	NOT BE FLAT WHEN YOU TIGHTEN THE
	SCREW ON THE SEAT TRACK FITTING.



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INCORRECT INSTALLATION



CORRECT INSTALLATION



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s 032-008 (5) Loosen the anti-rattle set screw behind the seat track. s 022-010 (6) Remove the seat track fitting from the seat track. s 022-011 (7) Lift the stud nuts on the front seat leg fully up. s 562-012 (8) Move the seat along the seat tracks to release the seat. S 032-086 (9) Remove the seat electronics box (AMM 23-34-04/401). s 022-013 (10) Remove the seat. TASK 25-25-01-402-015 3. Passenger Seat - Installation (Fig. 202) Α. References (1) AMM 23-34-00/501, Passenger Entertainment/Passenger Service System (2) AMM 23-34-04/401, Seat Electronics Box (3) AMM 24-22-00/201, Electrical Power - Control (4) AMM 25-25-02/401, Integral Table B. Access (1) Location Zone 200 Upper Half of Fuselage C. Procedure s 422-141 (1) Install the seat electronics box (AMM 23-34-04/401). s 202-017 (2) Make sure the stud nuts are fully up. s 422-018 (3) Put the passenger seat in the correct position in the seat tracks. s 422-087 (4) Install the seat track fittings to the seat tracks (Fig. 203). s 422-089 (5) Make sure the seat track fittings are correctly installed in the seat tracks. s 432-020 (6) Tighten the stud nuts.

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s 432-021 (7) Tighten the anti-rattle setscrew. s 432-022 (8) Install the cover to the rear seat track. s 432-023 (9) Install the cover to the front seat track. s 822-024 (10) Adjust the recline and lock mechanism, if it is necessary (refer to the Adjust the Passenger Seat procedure). s 822-025 (11) Adjust the integral table (AMM 25-25-02/401). s 432-026 (12) Connect the electrical connectors to the seat. s 862-027 (13) Remove the DO-NOT-CLOSE tag and close this circuit breaker on the P11 panel: (a) 11T8, PASS ENTMT/SERVICE CONT s 862-031 (14) Supply the electrical power (AMM 24-22-00/201). s 712-032 (15) Make sure the passenger entertainment/passenger service system operates correctly (AMM 23-34-00/501). s 862-033 (16) Remove the electrical power if it is not necessary. S 712-448 (17) If you installed seats that have emergency lights, then do these steps: (a) At the applicable attendant switch panel, set the test switch for the emergency lights to ON mode. NOTE: Do not use the attendant emergency light switch. 1) Quickly make sure the lights on the seats you installed come on.

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2) After one minute, make sure the lights go off automatically.

TASK 25-25-01-002-034

- 4. <u>Recline and Lock Mechanism Removal</u> (Fig. 201)
 - A. Access
 - (1) Location Zone
 - 200 Upper Half of Fuselage
 - B. Procedure

s 022-035

(1) Remove the seat bottom cushion.

s 032-043

(2) Remove the pin from the lock yoke which is below the seat bottom.

S 022-044

(3) Remove the recline control from the recline and lock mechanism.

s 032-045

(4) Remove the nuts and washers from the recline and lock mechanism.

s 022-046

(5) Remove the recline and lock mechanism.

s 032-047

(6) If you install a new recline and lock mechanism, remove the yoke.

TASK 25-25-01-402-048

- 5. <u>Recline and Lock Mechanism Installation</u> (Fig. 201)
 - A. Access (1) Location Zone 200 Upper Half of Fuselage
 - B. Procedure

s 432-056

(1) Install the yoke on the new recline and lock mechanism.

s 422-057

(2) Put the recline and lock mechanism in position.

s 422-058

(3) Install the nuts and washers on the recline and lock mechanism.

s 422-059

(4) Attach the recline control to the recline and lock mechanism.

s 822-061

(5) Adjust the setscrews.

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s 432-060

(6) Put the yoke in position and install the pin.

s 422-062

(7) Put the recline and lock mechanism in the correct position to get the seat back to the up position.

S 822-063

(8) Adjust the recline and lock mechanism (refer to the Adjust the Passenger Seat procedure).

s 422-064

(9) Install the seat bottom cushion.

TASK 25-25-01-822-065

- 6. Passenger Seat Adjustment (Fig. 201)
 - A. Access (1) Location Zone 200 Upper Half of Fuselage
 - B. Procedure Adjust the Recline and Lock Mechanism

s 822-082

(1) Adjust the stroke of the hydraulic lock to adjust the range of the seat back in the reclined position.

s 822-083

(2) Disengage the lock housing, and set the lock housing to the correct range of the reclined position.

s 822-084

- (3) Engage the lock housing again to set the range of the seat back in the reclined position.
- C. Procedure Adjust the Seat Back Breakover

s 822-085

- (1) Tighten or loosen the friction bolt to adjust the seat back breakover.
 - <u>NOTE</u>: The seat back breakover moves forward when 25-30 pounds is put on the top of the seat back.

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MAINTENANCE MANUAL

SAS			<u>SLEEPER SEAT - REMOVAL/INSTALLATION</u>
SAS	1	General	
242	••	Δ Fff	ectivity
SAS		(1)	Double sleeper seats K/N 477915, 477916, 477948,
SAS			
SAS		TASK 25	-25-01-004-026
SAS	2.	Remove	the Sleeper Seat
SAS		A. Rem	oval
SAS			
SAS			s 024–027
SAS		(1)	To be issued later.
SAS			
SAS		TASK 25	-25-01-404-001
SAS	3.	<u>Install</u>	the Sleeper Seat
SAS		A. Ins	tallation
SAS			
SAS			s 424–002
SAS		(1)	Bring seat to predesignated station (see applicable version drawing)
SAS			and place wooden block under each seat leg (Fig. 402). Locate
SAS			"pivot block" into seat track at position shown in Fig. 401 and 402.
SAS			
SAS		(2)	S 424-003
SAS		(2)	lighten foot study using a flat blade screwdriver and/or 1/4" A/F
SAS			spanner so that foot studs lock onto upper lip of seat track. Push
242			snear plunger hard down into track and tighten lock screw
242			(FIG. 405).
SHS			s /2/_00/
242		(3)	Remove wooden blocks and lower seat to engage front and rear foot
242		())	fittings in the seat track
SAS			
SAS			s 424-005
SAS		(4)	Make sure the shear plunger on rear foot fitting has fully engaged
SAS			in track.
SAS			
SAS			s 424–017
SAS			
SAS		WAR	NING: EXCEPTIONALLY IT MAY BE NECESSARY TO ADJUST THE STOP SCREWS TO
SAS			OBTAIN FULL ENGAGEMENT OF THE SHEAR PLUNGER.
SAS			
SAS		(5)	Install seat to seat cable (Fig. 404). Provide a minimum of 15
SAS			inches (380 mm) of free cable at each sleeper seat for installation
SAS			into the S.E.B. housing to permit movement of tracking device.
SAS			a (a) aa
SAS			
SAS		(6)	seat to seat caple to be thed as loom within the S.E.B. housing at
242			each steeper seat and secured using a tie wrap around the torque bar
542 242			at the tracking mechanism so as to pras the Cable away from the
SW2			tracking movement
5/10			

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SAS		
SAS		s 424–008
SAS	(7)	Fit protection cover over torque tube (Fig. 406) and secure to floor
SAS		using double-sided tape. This cover should not extend under the
SAS		S.E.B. housing cover as this will prevent tracking operation.
SAS		
SAS		s 424-009
SAS	(8)	Refit carpet between seat tracks and over protection cover ensuring
SAS		that the cutout for the operation handle is in accordance with
SAS		Fig. 402.
SAS		
SAS	TASK 25-	25-01-404-010
SAS 4.	<u>Change</u> t	o Sleeper/Sitting Configuration
SAS	A. Proc	edure
SAS		
SAS		s 424–011
SAS	(1)	Remove 11-inch long seat track covers.
SAS		
SAS		s 424-012
SAS	(2)	Carefully clean LH and RH seat tracks, using portable air bottle
SAS		set, aft of forward and aft seat foot fittings (seat attachments to
SAS		tracks).
SAS		
SAS		S 424–013
SAS	(3)	Loosening 5/32" Allen wrench.
SAS		
SAS		S 424-014
SAS	(4)	Release Ancra seat track locking plunger.
SAS		0 / 0/ 0/ 5
SAS		\$ 424-015
SAS	CAUT	TON. DO NOT OLAM CEAT ACAINCE CTOD AC CODUADD CEAT ATTACUMENT UTU
5A5	CAUT	IUN: DO NOT SLAM SEAT AGAINST STOP AS FORWARD SEAT ATTACHMENT WILL
5A5		DISENGAGE FROM TRACKS.
5A5	(5)	Duck cost to desired position (Cleaner(Citting position)
5A2 5A2	(5)	Push sear to desired position (steeper/sitting position).
SAS		s /2/-016
SAS	(6)	5 424-010 During openation accortain that Muxeable loop have connect longth
SAS	(0)	Adjust position of loop if required
SAS		Adjust position of toop if required.
545		\$ 424-018
545	(7)	lock the Ancra seat track locking plungers in seat track
545		Lock the Anera Stat track tocking plungers in Stat track.
SAS		s 424–019
SAS	(8)	lock the anti rattle device with screw. located aft below the aft
SAS		seat legs (Use 5/32 Allen wrench).
SAS		
SAS		NOTE: Torque screw lightly.
SAS		

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SAS		
SAS		S 864–020
SAS	(9)	Change reclining to desired position (Sleeper/Sitting position).
SAS		
SAS		s 214–021
SAS	(10)	Visually check that LH and RH locking plungers on aft seat legs are
SAS		fully engaged in seat track.
SAS		
SAS		s 434–022
SAS	(11)	Install seat track covers.
SAS		
SAS		s 224–023
SAS	(12)	Check that backrest can be moved to actual desired position, in
SAS		sleeper position backrest will be resting on next seat, and 11" in
SAS		sitting position.
SAS		
SAS		S 214–024
SAS	(13)	Release foot rest latch and check that foot rest in sleeper position
SAS		will move to full horizontal position, and in sitting position will
SAS		not move to full horizontal position. Stow foot rest.
SAS		
SAS		s 214–025
SAS	(14)	Check seat and floor for cleanliness.



INTEGRAL TABLES - REMOVAL/INSTALLATION

- 1. <u>General</u>
 - A. This procedure contains two tasks:
 - (1) The first task is the removal of the integral tables.
 - (2) The second task is the installation of the integral tables.

TASK 25-25-02-004-001

- 2. <u>Remove the Integral Table</u> (Fig. 401)
 - A. Access
 - (1) Location Zone
 - 200 Upper Half of Fuselage
 - B. Procedure

s 024-002

(1) Remove the seat bottom cushion.

S 864-003

(2) Hold the integral table in the stowed position.

S 034-004

(3) Remove the fasteners that attach the integral table legs to aft of the seat bottom.

S 024-005

(4) Remove the integral table.

TASK 25-25-02-404-006

- 3. Install the Integral Table (Fig. 401)
 - A. Access
 - (1) Location Zone 200 Upper Half of Fuselage
 - B. Procedure

S 024-007

(1) Remove the seat bottom cushion if it is necessary.

S 864-008

(2) Hold the integral table in the stowed position.

s 424-009

(3) Put the integral table legs in position. Install the fasteners to the integral table legs.

s 714-010

(4) Make sure to see that the integral table moves freely from the stowed position to the down position.

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s 824-011

(5) Adjust the integral table height with the height adjustment screw.

<u>NOTE</u>: Put the integral table in the down position when you adjust the integral table height.

s 034-012

(6) With the integral table in the down position, loosen the setscrews at the side of the integral table.

s 824-013

(7) Adjust the integral table until the integral table is level.

s 434-014

(8) Tighten the setscrews.

s 204-015

(9) Make sure the integral table does not make a noise when you put it in the stowed position.



ATTENDANT SEAT - REMOVAL/INSTALLATION

- 1. <u>General</u>
 - A. This procedure contains two tasks:
 - (1) The first task is the removal of the attendant seat.
 - (2) The second task is the installation of the attendant seat.

TASK 25-25-03-004-001

- 2. <u>Remove the Attendant Seat</u> (Fig. 401)
 - A. Access
 - (1) Location Zone
 - 200 Upper Half of Fuselage





B. Procedure

S 024-037

- (1) AIRPLANES WITH THE CABIN INTERPHONE CONNECTOR INSIDE THE SEAT; Do the steps that follow:
 - (a) Disconnect the cabin interphone (AMM 23-42-00/501).
 - (b) Disconnect the connector to the cabin interphone.

s 024-038

(2) Remove the seat back.

s 024-036

- (3) AIRPLANES WITH THE CABIN INTERPHONE CONNECTOR OUTSIDE THE SEAT; Do the steps that follow:
 - (a) Disconnect the cabin interphone (AMM 23-42-00/501).
 - (b) Disconnect the connector to the cabin interphone.

s 014-002

(4) Open the access door at the seat bottom.

S 024-003

(5) Remove the seat back.

s 024-046

(6) Detach the belt to belt tiedown.

S 024-047

(7) Remove the guide assembly.

S 024-048

(8) Remove the shoulder straps from the guide.

s 024-049

(9) Remove the restraint system from the clearance in the top of the seat back.

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s 024-050

- (10) Detach the inertia reel.
 - s 034-004
- (11) Remove the bolts that attach the attendant seat and the restraint system to the wall.
 - s 024-005
- (12) Remove the attendant seat.

TASK 25-25-03-404-006

- 3. <u>Install the Attendant Seat</u> (Fig. 401)
- A. Access
 - (1) Location Zone 200 Upper Half of Fuselage
 - B. Procedure

S 864-007

(1) Put the attendant seat in position and hold it against the wall.

s 434-008

(2) Install the bolts to the attendant seat and the restraint system.

S 864-040

(3) Attach the inertia reel.

S 864-041

(4) Put the restraint system through the clearance in the top of the seat back.

S 864-042

(5) Put the shoulder straps through the guide until they are on the base plate.

S 864-043

(6) Install the guide assembly.

S 864-044

(7) Attach the belt to belt tiedown.

S 714-045

(8) Make sure that the attendant seat inertia reel operates correctly (AMM 25-25-03/601).

S 024-034

- (9) AIRPLANES WITH THE CABIN INTERPHONE CONNECTOR INSIDE THE SEAT; Do the steps that follow:
 - (a) Connect the connector to the cabin interphone.
 - (b) Connect the cabin interphone (AMM 23-42-00/501).

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s 424-009

(10) Install the seat back.

S 024-035

- (11) AIRPLANES WITH THE CABIN INTERPHONE CONNECTOR OUTSIDE THE SEAT; Do the steps that follow:
 - (a) Connect the connector to the cabin interphone.
 - (b) Connect the cabin interphone (AMM 23-42-00/501).

s 414-009

(12) Close the access door at the seat bottom.

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MAINTENANCE MANUAL

ATTENDANT SEAT - INSPECTION/CHECK

- 1. <u>General</u>
 - A. This procedure contains one task. The task is a procedure to examine the seat belt, shoulder straps and inertia reel on the attendant seat.

TASK 25-25-03-206-001

- 2. <u>Do a Check of the Attendant Seat</u>
 - A. Access
 - (1) Location Zones

221/222Passenger Cabin - Section 41231/232Passenger Cabin - Section 43251/252Passenger Cabin - Section 46

B. Procedure

S 826-002

(1) Pull the seat belt at the fittings to make sure the seat belt is attached to the attendant seat correctly.

S 826-003

(2) Hold the shoulder strap buckle and pull forward smoothly. Make sure the shoulder straps fully wind off of the inertia reel.

S 826-004

- (3) Let the shoulder straps to retract. Make sure the shoulder straps fully retract.
 - <u>NOTE</u>: If the shoulder strap does not fully retract because of the headrest, put the headrest higher on the backrest until the strap retracts.

S 826-005

(4) Pull the shoulder strap buckle forward with a fast and sudden movement. Make sure the inertia reel locks, and the shoulder strap does not move.

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MAINTENANCE MANUAL

FLIGHT ATTENDANT SEAT ASSEMBLY - DDG MAINTENANCE PRACTICES

- 1. <u>General</u>
 - A. This procedure contains the maintenance task that is necessary to operate the airplane with an inoperative attendants seat as shown in the Minimum Equipment List (MEL).
 - (1) DDG 25-25-1 Flight Attendant Seat Assembly (Single or Dual position)

TASK 25-25-03-049-001

2. <u>Maintenance</u>

A. Procedure

S 869-002

(1) Put an 'INOPERATIVE' placard on the seat.

s 869-003

(2) Put a 'FOR FLIGHT ATTENDANT USE ONLY' placard on the passenger seat(s) to be used.

s 499-004

(3) Safety the specified seat in the stowed position.





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BOEING 767 MAINTENANCE MANUAL



BOEING 767 MAINTENANCE MANUAL





SAS		PRIMEX EMPOWER SYSTEM - DESCRIPTION/OPERATION
SAS	Conono	
		L neral System Description (Fig. 1)
545	A. UC (1) The Primey EmPower System is a low voltage DC electrical power
545	(1	system that will provide passengers the power to operate lanton
545		computers or other permitted passenger electronic devices (PED)
545	(2) The Master Control Unit (MCU) is a component of the PC Power System
545	(2	It provides electrical load management a BIT (Built In Test) and
242		nower distribution 115 VAC 3 Phase 400Hz electrical nower is
242		obtained from a connected aircraft utility bus. The MCU then
242		distributes 3 phase power to the four (4) passenger seat columns
SAS		At each seat assembly or group within a column, an In-Seat Power
SAS		Supply (ISPS) inputs 115 VAC, single phase power from a daisy chain
SAS		seat-to-seat cable configuration interconnecting each seat group and
SAS		associated ISPS. The seat to seat cabling within each seat group
SAS		connects to a seat J-Box which provides both the interface to the
SAS		ISPS and phase rotation for load balancing. The ISPS converts 115
SAS		VAC single phase, 400Hz power to dual 15 VDC outputs connected to
SAS		Outlet Units (OU) via the individual seat harnesses. The OU
SAS		consists of a unique receptacle which requires a special adapter
SAS		cable matched to the user's requirements. The indicator LED (Light
SAS		Emitting Diode) visible on the OU provides a low light condition
SAS		when power is available, bright light when the correct cable is
SAS		connected and power is being provided, and extinguished when power
SAS		is not available.
SAS	(3) The MCU provides control discretes for ON/OFF control and
SAS		decompression keyline. Flight Attendant Control Switches are
SAS		located in the Video Control Closet (VCC) and Flight Deck Panel to
SAS		provide system control. Bil (Built In Test) is automatically
SAS		performed at power up to the system or by instigation of a toggle
SAS		switch located on the MLU. LED indicators provide status for each
SAS	()	Seal Column.
SAS	(4	is designed to provide a maximum of 75 watts, with design margin
SAS		ner Output Unit The MCU can be configured with a maximum of 120
545		per output offic. The Mco can be configured with a maximum to 120
SAS		is limited by MCU power management and the selected Power Select
SAS		Module installed. The maximum MCU output that can be selected is
SAS		6900 watts. Ideally, the typical laptop computer requires
SAS		approximately 45 watts which is well within the design of the ISPS.
SAS		The ISPS consists of many safety features to include sense circuitry
SAS		required to enable the OU output, overcurrent, thermal, and short
SAS		protection. Expected passenger utilization, number of passenger
SAS		seats configured, PED requirement and the aircraft power budget are
SAS		all factors to consider for the selection of the Power Select
SAS		Module.

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SAS The Primex EmPower system installation consists of the following Β. sub-systems: SAS SAS (1) AC PowerInstallation: (a) The EmPower system uses 115 VAC, 3 phase, 400 Hz and converts SAS it to DC for operation. It is located on the P36 Misc. SAS SAS Electrical Equipment panel. Master Control Unit (MCU) and Switch Assy Installation (Fig. 3): SAS (2) (a) These are line replaceable units. They are installed in the SAS airplane cabin, in the overhead crown area, the purser VCC area SAS or in the E/E bay. SAS (3) In-Seat Power Supply (ISPS) Installation (Fig. 2): SAS (a) The ISPS component is installed or mounted in the armrest, SAS between passenger seats, or on the seat leg and can provide SAS SAS power to two seats. (4) Standard Outlet Unit (OU)Installation (Fig. 2): SAS The Standard Outlet Unit is connected to the In-Seat Power SAS (a) Supply output, and provides a power socket to operate a laptop SAS SAS computer and recharge its battery. Seat J-Box Installation (Fig. 2): (5) SAS SAS The Seat J-Box is connected to the In-Seat Power Supply (ISPS) (a) input, and provides both the interface to the ISPS and phase SAS rotation for load balancing. SAS SAS 2. Description A. In-Seat Power Supply (ISPS) (Fig. 2) SAS SAS (1) The EmPower In-Seat Power Supply is part of the EmPower system. The In-Seat Power Supply output connects via two outlet units, and SAS provides power to operate a laptop computer and recharge its SAS SAS battery. Each ISPS can provide power to two seats. Master Control Unit (MCU) (Fig. 3) SAS Β. (1) The Master Control Unit (MCU) is a component of the EmPower System. SAS It provides the following features: SAS SAS SAS - AC power distribution - AC power monitoring SAS - EMI filtering SAS - In-Seat Power Supply (ISPS) fault detection SAS - Column power fault detection SAS - Circuit protection and Built-In-Test (BIT) functionality SAS - Aircraft system interface that provides Master ON/OFF control of SAS SAS the EmPower System. - Indications of detected faults can be selected to be either SAS SAS latching or real-time.

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SAS	С.	Stand	ard Outlet Unit (OU) (Fig. 4)
SAS		(1)	The EmPower Standard Outlet Unit (OU)is an integral part of the
SAS			EmPower In-Seat Power Supply (ISPS) system. The Standard Outlet
SAS			Unit (OU) is connected via cable to the In-Seat Power Supply (ISPS)
SAS			Output, and provides a power socket to operate a laptop computer and
SAS			recharges its battery. If the mating cord becomes snagged, the
SAS			Outlet Unit (OU) socket provides a guick disconnect that can be used
SAS			without injury or damage. The EmPower Outlet Unit (OU) contains a
SAS			system available LED that illuminates when power is available for
SAS			use. Upon inserting a mating connector, the individual seat outlet
SAS			power is activated, which causes the system available LED to glow
SAS			from DIM to BRIGHT.
SAS 3	0per	ration	
SAS	A	Gener	al System Operation
SAS		(1)	The EmPower System is powered from the RH Utility bus and is
542			protected by a 20-Amp circuit breaker at the P36 Panel From the
542			circuit breaker system power flows to the Master Control Unit (MCU)
542			located at the top of Galley 3 The Master Control Unit (MCU)
545			distributes 115 VAC 3 phase power to the four (3) passenger seat
545			columns Column 1 nowers the PH R/C seats column 2 nowers the
545			center R/C seats and column 3 novers the LH R/C seats. Within a
545			Column sost-to-sost colling connects to a cost L-Pox which is
SAS			connected to to an In-Seat Poyen Supply (ISPS) The In-Seat Poyen
SAS			Sumply (ISPS) converte 115 VAC cingle phase (00 Up to a 15 VAC
5A2			supply (1985) converts 115 VAC single phase, 400 Hz to a 15 VDC
5A5			Soutput at the outlet unit (00).
5A5			Finght Attendant Control Switches, are located at the video control
SAS	_		tenter (VLC), allowing the flight crew to enable/disable the system.
SAS	в.	In-Se	at Power Supply (ISPS) (Fig. 5)
SAS		CD (Input EMI Filter:
SAS			(a) The EMI filter is divided into two functions as follows:
SAS			1) The Common-Mode (CM) filter
SAS			2) The Differential Mode (DM) filter
SAS			(b) The CM filter is a two-stage, four-pole filter with a roll off
SAS			frequency of 40 KHz. This filter shunts the high frequency
SAS			currents to chassis ground.
SAS			(c) The DM filter consists of a two-stage, four-pole filter with
SAS			roll off frequencies of approximately 8 KHz and 11KHz. The
SAS			purpose of the DM filter is to attenuate the high switching
SAS			currents into the converters. The input EMI filter provides
SAS			rectified 115-VAC power to the power factor conversion
SAS			circuitry.
SAS		(2)	Power Factor Conversion:
SAS			(a) The power factor conversion circuitry serves two purposes as
SAS			follows:
SAS			1) To draw a sinusoidal current from the input line with the
SAS			same waveshape as the input voltage.

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SAS		2) To boost the input voltage for a 200–VDC rail. The +200
SAS		VDC is nominally 205 \pm 5 VDC This rail provides the
SAS		power for the converter A, converter B, and the auxiliary
SAS		power supply.
SAS	(3)	Auxiliary Power Supply:
SAS		(a) The auxiliary power supply is the first converter to power up.
SAS		It supplies 5-VDC power to the other components in the ISPS.
SAS	(4)	External Interface and BIT:
SAS		(a) During the normal operation of systems that use a MCU, system
SAS		power is supplied by the MCU and is high at power-up. System
SAS		power goes low when too much power is being drawn from the
SAS		aircraft, so no new users can receive power. Users already
SAS		plugged in will see no effect. When the power goes high again.
SAS		new users can access system power. If new users have plugged
SAS		in during the time system power was low, they cannot power up
SAS		immediately. This prevents a power surge from being drawn from
SAS		the aircraft. In order to receive power, new users must first
SAS		unplug and then plug in again while the system power is high.
SAS		At start up, all of the ISPSs are temporarily turned on when
SAS		power is applied. If any fault signals are generated during
SAS		this time, the MCII can latch a fault indication. The ISPS also
242		monitors over/under voltage conditions The FAULT output goes
242		low whenever the fault is detected Either FAULT A or FAULT B
242		goes low of the same time to indicate which outlet unit has
SAS		failed.
SAS	(5)	Outputs A and B:
SAS		(a) The ISPS has two outputs: A and B. One output goes to each
SAS		seat. Output A is at ISPS connector 13, and output B is at
SAS		connector J2.
SAS	C. Mas	ster Control Unit (MCU) (Fig. 6)
SAS	(1)	The Master Control Unit has five modes of operation:
0/10		
SAS		- Power-on BIT
SAS		- Commanded BIT
SAS		- Standby
SAS		- Normal
SAS		– Power limit
SAS		(a) Power-on BIT Mode:
SAS		Power-on bit mode starts when power is first applied. The MCU
SAS		performs a power-on reset, then sets the ISPS's on each column
SAS		to the BIT mode and displays status on the MCU status LEDs.
SAS		(b) Commanded BIT Mode:
SAS		A BIT switch on the MCU can used to initiate a commanded BIT.
SAS		Operation in this mode is identical to the power-on BIT.
		•

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SAS	(c)	Standby Mode:
SAS		During critical flight phases or when commanded by the flight
SAS		crew or cabin crew, the system can be in the standby mode.
SAS		During standby mode the MCU removes power to each of the
SAS		columns, disabling all ISPSs. This isolates the laptop
SAS		computers from the power bus on command.
SAS	(d)	Normal Mode:
SAS		During normal operation mode, the MCU supplies power and enable
SAS		signals to ISPS units on each column. This allows passengers
SAS		to connect to the system and operate laptop computers.
SAS	(e)	Power Limit Mode:
SAS		The final mode is power limit. The MCU monitors power consumed
SAS		by ISPS units on each phase of each column. This information
SAS		is compared to maximum current-per-phase, maximum
SAS		power-per-column, and maximum power-per-system. Each column is
SAS		individually limited to a maximum of 805 watts (or lower power
SAS		depending on PSM level) on any one phase. When this maximum is
SAS		reached, the 'system available' control signal from the column
SAS		is removed from its ISPS's and unused power outlets are then
SAS		disabled. Outlet units already in use are not affected. When
SAS		power consumption falls below the maximum by 10%, the unused
SAS		outlet units are re-enabled. The power consumed by the system
SAS		as a whole is also monitored and compared to the maximum level
SAS		set by the Power Select Module. This operates in the same
SAS		manner as the individual phase limit described above except
SAS		that when the maximum power is reached, all three column
SAS		"system available" control signals are removed.

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SAS	(f)	Master Control Unit Safety Features:
SAS		Twelve active circuit breakers remove power from each phase of
SAS		each column during short circuit or over current fault
SAS		conditions. These circuit breakers are set to 7.5 A maximum to
SAS		protect the 20 AWG ISPS column wiring. If any of these circuit
SAS		breakers trip due to a system overload or fault condition, then
SAS		cycling system power, performing a commanded BIT, or cycling
SAS		the keyline inputs from enable to disable and back to enable
SAS		will reset them assuming the fault has been removed. The
SAS		circuit breaker system is a trip-free system (cannot be held on
SAS		against a short).
SAS		Master control keyline inputs are prioritized so that critical
SAS		flight systems have the highest priority (flight phase
SAS		decompression), followed by the flight crews then the flight
SAS		attendants. Flight phase keylines can be used to automatically
SAS		control the MCU during critical flight phases as well as
SAS		disabling the system during abnormal flight phases such as
SAS		decompression.
SAS		The MCU has fault detection and reporting capability. If an
SAS		ISPS fault orrurs on a given column, then the appropriate
SAS		column fault Light Emitting Diode (LED) changes from green to
SAS		amber in color. When the fault is cleared, the LED returns to
SAS		green if the fault latch switch (S1) is in the NOT LATCHED
SAS		position. The LED will remain amber until the MCU is reset if
SAS		the switch is in the LATCHED position. If a circuit breaker on
SAS		a column trips, the appropriate LED changes from green to red
SAS		and will remain red until the fault is removed and the MCU is
SAS		reset, regardless of the position of the fault latch switch.

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SAS		MASTI	<u>ER CONTROL UNIT (MCU) AND SWITCH ASSY - REMOVAL/INSTALLATION</u>			
SAS	•					
SAS 1.	Gene					
SAS	Α.	INIS	procedure contains these tasks:			
SAS		(1)	The removal of the Master Control Unit (MCU) and Switch Assy.			
SAS	_	(2)	The installation of the Master Control Unit (MCU) and Switch Assy.			
SAS	в.	Refe				
SAS		(1)	AMM 25-25-29/001, Primex EmPower Description/Operation			
SAS						
SAS	TASK	25-2	25-29-254-001			
SAS 2.	<u>Mast</u>	er Co	<u>ontrol Unit (MCU) and Switch Assembly Removal</u> (Fig. 401)			
SAS	Α.	Proc	edure			
SAS						
SAS			s 864–002			
SAS		(1)	Open the 115 VAC 3 Phase AC circuit breaker on the P36 Misc			
SAS			Electrical Equipment Panel and attach a "DO-NOT-CLOSE" tag.			
SAS						
SAS			s 024–003			
SAS		(2)	Remove all screws and washers securing the MCU cover from the top of			
SAS			Galley 3.			
SAS						
SAS			S 024-004			
SAS		(3)	Remove the Master Control Unit (MCU) assembly.			
SAS			······································			
SAS			S 024-047			
SAS		(4)	Remove all screws and washers securing switch cover from the inbd			
242		(1)	wall of the VCC			
242						
242			\$ 024-048			
242		(5)	Remove the switch assembly			
545			Kenove the switch assembly.			
SAS	TACK	25_	25_20_25/_005			
SAS CAC Z	Mact	-2	entrol Unit (MCU) and Suitch Accy - Installation (Fig. (01)			
SAS J.	<u>rias (</u>	Droo	oduno			
242	Α.	Proce	edure			
242			c 8// 00/			
5A5		(4)	5 004-000			
SAS		CD .	verity that the circuit breaker on the PS6 Misc Electrical Equipment			
5A2			Panel is open and tagged.			
SAS			0 / 0/ 007			
SAS		(2)				
SAS		(2)	Put the Master Control Unit (MCU) in place.			
SAS						
SAS		.	S 424–U53			
SAS		(3)	Install screws, washers and Master Control Unit (MCU).			

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SAS S 424-052 SAS (4) Put the Swi

SAS

(4) Put the Switch Assy in place.

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FLOOR COVERING - REMOVAL/INSTALLATION

- 1. <u>General</u>
 - A. This procedure contains these tasks:
 - (1) The removal of the floor covering.
 - (2) The installation of the floor covering.

TASK 25-27-01-004-018

- 2. <u>Floor Covering Removal</u> (Fig. 401)
 - A. References (1) AMM 25-25-01/201, Passenger Seats
 - B. Access (1) Location Zone 200 Upper Half of Fuselage
 - C. Remove the Carpet

s 024-019

(1) Remove the passenger seats if it is necessary (AMM 25-25-01/201).

s 034-001

(2) Remove the seat track covers to remove the carpet.

s 024-002

(3) Pull up on the carpet edges to release the carpet from the doubleback tape.

S 024-004

(4) Remove the carpet.

s 024-005

(5) If you remove more than one carpet, make a mark on the carpet to identify the initial position of the carpet.

TASK 25-27-01-404-022

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    <u>Floor Covering Installation</u> (Fig. 401)
    A. Consumable Materials
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(1) G01288 Tape - Carpet Double Backed BMS5-133

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- (2) G50036 Tape Carpet Double Backed BMS5-133
 (3) G50069 Tape Carpet Double Backed BMS5-133
 (4) G50119 Tape Carpet Double Backed BMS5-133
 (5) G50155 Tape Carpet Double Backed BMS5-133
 (6) G50156 Tape Carpet Double Backed BMS5-133
 (7) G03000 Antistatic Spray Certified Chemical And Equipment Co. 5266 St Clair Ave Cleveland OH 44103-1312 Vendor Code: 95576
 B. References
 (1) AMM 25-25-01/201, Passenger Seats
- C. Access (1) Location Zone 200 Upper Half of Fuselage
- D. Install the Carpet

S 824-007

(1) Cut the new carpet to the same dimensions as the carpet that you removed.

s 434-008

(2) Install the doubleback tape to the floor panel at 1.00 inch from the carpet edge.

s 424-023

(3) Install the passengers seats if it is necessary (AMM 25-25-01/201).

s 424-033

(4) Apply the antistatic spray to the carpet per the manufacturer's instructions as required.

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ENTRYWAY AND GALLEY FLOOR COVERING - REMOVAL/INSTALLATION

- 1. <u>General</u>
 - A. This procedure contains these tasks:
 - (1) The removal of the entryway floor covering.
 - (2) The installation of the entryway floor covering.
 - (3) The removal of the galley floor covering.
 - (4) The installation of the galley floor covering.

TASK 25-27-02-004-001

- 2. <u>Remove the Entryway Floor Covering</u> (Fig. 401)
 - A. Consumable Materials
 - (1) B00148 Solvent Methyl Ethyl Ketone (MEK), TT-M-261
 - (2) B00083 Solvent Aliphatic Naphtha, TT-N-95 Type II
 - (3) B00068 Alcohol Ethyl (Denatured) MIL-E-51454, Type II
 - (4) B00130 Alcohol Isopropyl, TT-I-735
 - B. Access
 - (1) Location Zone

200 Upper Half of Fuselage

C. Procedure - Remove the Entryway Floor Covering

s 024-002

(1) Remove the thresholds on the vinyl mat around the edge if they are installed.

s 114-033

- 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 LOCAL REQUIREMENTS FOR PROPER HANDLING PROCEDURES.
- (2) If the vinyl mat has the adhesive, use MEK, naphtha, isopropyl alcohol, or ethyl alcohol to loosen the adhesive from the vinyl mat.

s 024-004

(3) Pull up on the vinyl mat at the edges to release it from the floor.

s 024-005

(4) Remove the vinyl mat.

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A-A



Forward Left Entryway Threshold (Example) Figure 401







B51171



TASK 25-27-02-404-006

- 3. <u>Install the Entryway Floor Covering</u> (Fig. 401)
 - A. Consumable Materials
 - (1) GOOOOO Tape Doubleback, BMS 5-133 Type II Class I, Permacel P-55
 - (2) GOOOOO Tape Doubleback, BMS 5-133 Type II Class I, Polyken 108
 - (Preferred)
 - (3) A00247 Sealant BMS5-95
 - (4) A00027 Sealant Clear Silicone
 - (5) B00148 Solvent Methyl Ethyl Ketone (MEK), TT-M-261
 - (6) B00083 Solvent Aliphatic Naphtha, TT-N-95 Type II
 - (7) B00068 Alcohol Ethyl (Denatured) MIL-E-51454, Type II
 - (8) BOO130 Alcohol Isopropyl, TT-I-735
 - B. Reference
 - (1) BAC5351 Fabrication of Splicing Joints
 - C. Access
 - (1) Location Zone

200 Upper Half of Fuselage

D. Procedure

s 434-007

(1) Remove the dirt from the moisture barrier and the vinyl mat bottom.

s 114-034

- 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 LOCAL REQUIREMENTS FOR PROPER HANDLING PROCEDURES.
- (2) Clean the moisture barrier surface and the surface of the vinyl mat bottom with MEK, naphtha, isopropyl alcohol, or ethyl alcohol.

s 434-009

(3) Remove the dried adhesive from the moisture barrier surface and the surface of the vinyl mat bottom.

NOTE: Use rag, soft brush, or sponge to remove the dried adhesive.

s 434-010

(4) Dry the surfaces with clean cloth.

s 434-011

(5) Repair or install the moisture barrier if it is necessary.

NOTE: The necessary overlap at the splice locations is four inches.

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s 434-012

(6) Install the doubleback tape to the floor panel at 1.00 inch from the carpet edge.

s 434-013

(7) Install the vinyl mat to the entryway areas.

s 434-014

- (8) Install the thresholds if it is necessary.
 - <u>NOTE</u>: Apply the sealant below the joints and along the vinyl mat perimeter.

s 434-015

(9) Remove the unwanted sealant.

TASK 25-27-02-024-072

- 4. <u>Remove the Galley Floor Covering</u>
 - A. Consumable Materials
 - (1) B00148 Solvent Methyl Ethyl Ketone (MEK), TT-M-261
 - (2) B00083 Solvent Aliphatic Naphtha, TT-N-95 Type II
 - (3) B00068 Alcohol Ethyl (Denatured) MIL-E-51454, Type II
 - (4) B00130 Alcohol Isopropyl, TT-I-735
 - B. Access
 - C. Procedure Remove the Galley Floor Covering

s 034-017

(1) Remove the thresholds on the vinyl mat around the edge if they are installed.

s 114-018

- 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 LOCAL REQUIREMENTS FOR PROPER HANDLING PROCEDURES.
- (2) If the vinyl mat has the adhesive, use MEK, naphtha, isopropyl alcohol, or ethyl alcohol to loosen the adhesive from the vinyl mat.

S 034-020

(3) Pull up on the vinyl mat at the edges to release it from the floor.

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S 034-021

(4) Remove the vinyl mat.

TASK 25-27-02-404-022

5. Install the Galley Floor Covering

- A. Consumable Materials
 - (1) GO1356 Tape Doubleback, Orcon BMS 5-133
 - (2) A00247 Sealant BMS5-95
 - (3) A00027 Sealant Clear Silicone
 - (4) BOO148 Solvent Methyl Ethyl Ketone (MEK), TT-M-261
 - (5) B00083 Solvent Aliphatic Naphtha, TT-N-95 Type II
 - (6) B00068 Alcohol Ethyl (Denatured) MIL-E-51454, Type II
 - (7) B00130 Alcohol Isopropyl, TT-I-735
- B. Access
 - (1) Location Zone

200 Upper Half of Fuselage

C. Procedure

s 434-023

(1) Remove the dirt from the moisture barrier and the vinyl mat bottom.

s 114-024

- 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 LOCAL REQUIREMENTS FOR PROPER HANDLING PROCEDURES.
- (2) Clean the moisture barrier surface and the surface of the vinyl mat bottom with MEK, naphtha, isopropyl alcohol, or ethyl alcohol.

s 434-026

(3) Remove the dried adhesive from the moisture barrier surface and the surface of the vinyl mat bottom.

NOTE: Use rag, soft brush, or sponge to remove the dried adhesive.

s 434-027

(4) Dry the surfaces with clean cloth.

s 434-028

(5) Repair or install the moisture barrier if it is necessary.

NOTE: The necessary overlap at the splice locations is four inches.

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s 434-029

(6) Install the doubleback tape to the floor panel at 1.00 inch from the carpet edge.

s 434-030

(7) Install the vinyl mat to the galley areas.

s 434-031

- (8) Install the thresholds if it is necessary.
 - <u>NOTE</u>: Apply the sealant below the joints and along the vinyl mat perimeter.

s 434-032

(9) Remove the unwanted sealant.



MAINTENANCE MANUAL

PASSENGER SEAT RACEWAYS - REMOVAL/INSTALLATION

- 1. <u>General</u>
 - A. Wires are routed to the passenger seats through raceways. The raceways protect the wires from damage.
 - B. Wires go to the seats for the following electrical systems:
 - (1) On some airplanes, power for the seat adjustments.
 - (2) On some airplanes, Seat Electronic Box or SEB.
 - (3) On some airplanes, Individual Video Systems or IVS.
 - C. Power for the seat adjustments and IVS cannot be routed in the same raceway. This will cause interference.
 - D. When new seats are installed or when airplane seats are repitched the raceways and wires should be relocated.
 - E. Double back tape attaches the raceways to the airplane deck.

TASK 25-27-09-004-001

- 2. <u>Raceway Removal</u>
 - A. References
 - (1) AMM 23-34-04/401, Seat Electronics Box
 - (2) AMM 25-21-01/401, Sidewall Panels
 - (3) AMM 25-25-01/201, Passenger Seat
 - (4) AMM 25-25-03/401, Attendant Seat
 - B. Access
 - (1) Location Zone
 - 200 Upper Half of Fuselage
 - C. Procedure

s 864-002

(1) AIRPLANES WITH POWER SEATS; Open the circuit breakers for the applicable power seats and attach a DO-NOT-CLOSE tag.

S 864-043

(2) AIRPLANES WITH IVS EQUIPMENT; Open the circuit breakers for the applicable IVS and attach a DO-NOT-CLOSE tag.

S 864-036

(3) AIRPLANES WITH SEB EQUIPMENT; Open the circuit breakers for the applicable SEB and attach a DO-NOT-CLOSE tag.

s 034-005

(4) Remove the seat track covers between the seats.

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E19796



S 034-006

- (5) Open the SEB shroud and disconnect the cables from the SEB below each seat.
 - (a) Push the connector latch and disconnect the cable from J1 and J2 SEB connectors.
 - (b) Install a cap on the cable and SEB connectors.

s 034-007

(6) Disconnect power seat electrical connectors.

s 034-008

(7) Disconnect IVS electrical connectors.

s 034-009

(8) Remove the applicable passenger and attendant seats, if it is necessary (AMM 25-25-01/201 and AMM 25-25-03/401).

s 824-010

- (9) Determine the new raceway layout applicable for the new seat configuration.
 - (a) Length of the longitudinal raceways
 - The forward most edge of the raceway is determined by the forward most edge of the front leg fitting on the first seat.
 - <u>NOTE</u>: Exception to the above occurs when a transverse raceway is at the front of a raceway run.
 - The aft most edge is determined by the rear most edge of the rear leg fitting on the last seat.
 - <u>NOTE</u>: Exception to the above occurs when a transverse raceway is at the rear of a raceway run.
 - (b) Locating transverse raceways
 - 1) Transverse raceways are located .75 inches forward of the centerline of the front seat stud (measured to the aft edge of the raceway). See Figure 401.
 - 2) In some cases the transverse raceways run aft of the aft seat leg. These transverse raceways are usually located behind the last seat. The distance from the last seat leg to the raceway may vary.

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- (c) Locating longitudinal raceways next to the sidewall
 - From the transverse raceway, run forward or aft to the gap/break nearest to the sidewall disconnect to which the electrical cables will be connected.
- S 024-013
- (10) Remove the multiplex cables, raceways, and tape not applicable to the new seat configuration (AMM 23-34-03/201).

TASK 25-27-09-404-014

- 3. <u>Raceway Installation</u>
 - A. Consumable Materials

(1) Tape-Double Backed Permacel ED8117

- B. References
 - (1) AMM 23-34-04/401, Seat Electronics Box
 - (2) AMM 24-22-00/201, Control- Maintenance Practices
 - (3) AMM 25-21-01/401, Sidewall Panels
 - (4) AMM 25-25-01/201, Passenger Seat
 - (5) AMM 25-25-03/401, Attendant Seat
 - (6) AMM 25-27-01/401, Floor Covering
- C. Access
 - (1) Location Zone
 - 200 Upper Half of Fuselage
- D. Procedure

s 164-015

(1) Clean the floor in the area of the new raceway installation.

s 434-016

(2) Apply new tape.

S 424-017

(3) Put the new raceway sections on the tape.

S 824-018

- (4) Cut the raceway sections for the new seat configuration as follows:(a) Locating raceway notches
 - The first notch is located "DIM" inches from indicated station (Center line of the front seat stud). This distance is measured to the front of the notch. The notches are centered under the opening in the SEB shroud. See Figure 401.
 - Subsequent notches are measured aft to whatever seat pitch is being used (measured from front of notch to front of next notch).

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- A change in seat pitch could result in a change in the notch locations.
- 4) See Figure 401 for cutout views when raceways cross each other.
- 5) See Figure 401 for cutout view when transverse raceway meets longitudinal raceway, not at the end of a run.

S 414-019

- (5) Route the applicable cables in the raceways for the new seat configuration (AMM 23-34-03/201).
 - <u>NOTE</u>: Do not route power for seat adjustments and video in the same raceway. This will cause interference.

s 414-020

(6) Change the raceways for the floor proximity path lighting for the new seat configuration, if it is necessary.

s 414-023

(7) Change the floor covers for the new seat configuration (AMM 25-27-01/401).

s 414-024

(8) Recut new seat track covers if it is necessary.

s 414-025

(9) Install the applicable passenger and attendant seats for the new seat configuration if it is necessary (AMM 25-25-01/201 and AMM 25-25-03/401).

s 414-026

- (10) Connect the SEB cables to the SEB and close the SEB shroud.
 - (a) Connect the SEB cables to the SEB J1 and J2 connectors below each seat.
 - (b) Make sure you attach the seat control connectors tightly to the SEB (AMM 23-34-03/201).

s 414-027

(11) Connect the power seat electrical connectors.

s 414-028

(12) Connect the IVS electrical connectors.

s 414-029

(13) Install the seat track covers between the seats.

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s 414-030

(14) Install the life vests below the new passenger seats.

s 414-031

(15) Change the configuration of the identification placards for the passenger seats.

S 864-037

(16) AIRPLANES WITH POWER SEATS; Close these circuit breakers for the applicable power seats and remove the DO-NOT-CLOSE tags.

S 864-038

(17) AIRPLANES WITH IVS EQUIPMENT; Close these circuit breakers for the applicable IVS and remove the DO-NOT-CLOSE tags.

S 864-039

(18) AIRPLANES WITH SEB EQUIPMENT; Close these circuit breakers for the applicable SEB and remove the DO-NOT-CLOSE tags.

S 864-033

(19) Supply the electrical power (AMM 24-22-00/201).

S 864-035

(20) Remove the electrical power if it is not necessary (AMM 24-22-00/201).

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MAINTENANCE MANUAL

PASSENGER COMPARTMENT OVERHEAD STOWAGE COMPARTMENTS -DESCRIPTION AND OPERATION

1. <u>General</u>

- A. Full height stowage partitions are at forward center and aft center.
 - Overhead stowage bins are over each seat, outboard and center.
- 2. <u>Component Details</u>
 - A. Center Overhead Stowage Bins (Fig. 1)
 - (1) The center overhead stowage bins are in the ceiling over the center row of seats. Two rows of bins, separated by PSU's and air conditioning outlets, attach to overhead structure with adjustable hangars. Three removable 44" x 22" bins are in each 132" unit. Stowage bins open down and out for access to stowage areas. Lockable and removable gas springs help in closing the bin. Removable dry snubbers prevent fast bin movement. No lubrication is required on the bin opening mechanism. At video projector locations, PSU's are in the bins. Maximum bin loading capacity is 2 lb per inch of length.





- B. Outboard Overhead Stowage Bins (Fig. 2)
 - (1) The outboard overhead stowage bins are in the ceiling over the outboard seats. Outboard stowage bin modules attach to overhead frames by turnbuckles. Modules have varying lengths: 88", 81", 65", and 44". Each module has two doors, except the 44" module, which has only one door. The bin doors open in and up, and are inside the bin when fully open. Modules and doors remove/install easily. Bins are aligned by alignment pins.





CENTER OVERHEAD STOWAGE BINS - MAINTENANCE PRACTICES

- 1. <u>General</u>
 - A. This procedure has these tasks:
 - (1) How to open the center overhead stowage bin that does not operate.
 - (2) Removal and installation of the center overhead stowage bin.
 - (3) Removal and installation of the gas spring.
 - (4) Removal and installation of the spring assisted snubber.
 - (5) Removal and installation of the snubber.
 - (6) How to repair the lower arm that disengages from the center overhead stowage bin.
 - (7) Adjustment of the upstop screw at the center overhead stowage bin.
 - (8) Acceptance criteria for bin latching
 - B. The center overhead stowage bin is referred to as the stowage bin in this procedure.

TASK 25-28-01-002-001

2. Open the Center Overhead Stowage Bin That Does Not Operate

- A. Access
 - (1) Location Zone
 - 200 Upper Half of Fuselage
- B. Procedure

s 022-002

- (1) To open the stowage bin that does not operate, do the steps that follow:
 - (a) Open the adjacent stowage bin to get access to the stowage bin that does not operate.
 - (b) ON AIRPLANES WITH THE EMERGENCY RELEASE LEVER; push the release lever inboard (Fig. 202).

TASK 25-28-01-902-003

- 3. <u>Center Overhead Stowage Bin Removal/Installation</u> (Fig. 201)
 - A. Equipment
 - (1) Safety Pin Make from 0.125 inch diameter rod x 2.0 inches long - 2 safety pins for each stowage bin.

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1 YOU MUST OPEN THE ADJACENT STOWAGE BIN TO GET ACCESS TO THE STOWAGE BIN THAT DOES NOT OPERATE. PUSH THE RELEASE LEVER INBOARD.

> Release Lever Figure 202

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- B. Access
 - (1) Location Zone

200 Upper Half of Fuselage

- C. Procedure Remove the Stowage Bin
 - s 022-004
 - (1) To remove the stowage bin, do the steps that follow:
 - (a) Open the stowage bin.
 - (b) If the stowage bin does not open, do the Open the Center Overhead Stowage Bin That Does Not Operate procedure.
 - (c) Align the safety pin holes in the upper arm and lower arm.
 - (d) Put the safety pin through the safety pin hole. Do the same for the other end of the stowage bin.
 - (e) Remove the nut, washer, and bolt from the lower arm.
 - (f) Disengage the pin from the upper arm.
 - (g) Remove the stowage bin.
- D. Procedure Install the Stowage Bin

s 422-005

- (1) To install the stowage bin, do the steps that follow:
 - (a) Put the stowage bin into position.
 - (b) Engage the pin to the upper arm and tighten the pin. Turn the pin back one click.
 - (c) Install the nut, washer, and bolt to the lower arm.
 - (d) Remove the safety pins from the safety pin holes.

TASK 25-28-01-902-006

- 4. <u>Gas Spring Removal/Installation</u> (Fig. 201)
 - A. Access
 - (1) Location Zone

200 Upper Half of Fuselage

B. Procedure - Remove the Gas Spring

s 022-007

- (1) To remove the gas spring, do the steps that follow:
 - (a) Remove the stowage bin (refer to the Center Overhead Stowage Bin Removal/Installation procedure).

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- (b) Hold the pressure on the upper arm.
- (c) Remove the safety pin from the safety pin hole.
- (d) Move the lock rod into the clevis of the lower gas spring.
- (e) Remove the cotter pin, washer, and straight pin from the lug in the upper gas spring.
- (f) Disconnect the gas spring from the upper arm.
- (g) Disconnect the gas spring from the lower arm.
- (h) Remove the gas spring.
- C. Procedure Install the Gas Spring

s 422-008

- (1) To install the gas spring, do the steps that follow:
 - (a) Install the straight pin, washer, and cotter pin to the lug in the upper gas spring.
 - (b) Move the upper arm down.
 - (c) Install the clevis of the lower gas spring on the pin that attaches to the support frame.
 - (d) Install the lock pin into the lower hole in the lower gas spring clevis.
 - (e) Hold the pressure on the upper arm.
 - (f) Release the lock rod on the gas spring. Keep the lock rod in position.
 - (g) Align the safety pin holes in the upper arm and lower arm.
 - (h) Put the safety in the safety pin hole.
 - (i) Install the stowage bin (refer to the Center Overhead Stowage Bin Removal/Installation procedure).

TASK 25-28-01-902-009

- 5. Spring Assisted Snubber Removal/Installation (Fig. 201)
 - A. Access
 - (1) Location Zone

200 Upper Half of Fuselage

B. Procedure - Remove the Spring Assisted Snubber.

s 022-019

- <u>CAUTION</u>: BE CAREFUL WHEN YOU REMOVE THE SPRING ASSISTED SNUBBER. THE PRESSURE FROM THE SPRING ASSISTED SNUBBER CAN MAKE THE SPRING ASSISTED SNUBBER COME APART SUDDENLY AND CAUSE INJURY.
- (1) To remove the spring assisted snubber, do the steps that follow:(a) Remove the stowage bin (refer to the Center Overhead Stowage Bin Removal/Installation procedure).

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- (b) Put safety wire through both ends of the snubber to keep it together.
- (c) Hold the pressure on the upper arm.
- (d) Remove the safety pin from the safety hole
- (e) Release the pressure from the spring assisted snubber.
- (f) Remove the cotter pin, washer, and straight pin from the upper arm clevis to disconnect the spring assisted snubber from the upper arm.
- (g) Remove the bolt from the support frame spindle.
- (h) Remove the lower arm with the spring assisted snubber.
- (i) Remove the spring assisted snubber.
- C. Procedure Install the Spring Assisted Snubber.

s 422-011

- (1) To install the spring assisted snubber, do the steps that follow:
 - (a) Put the lower arm in the clevis of the lower spring assisted snubber. Move them on the support frame spindle.
 - (b) Install the bolt to the support frame spindle.
 - (c) Install the lug of the upper spring assisted snubber into the upper arm clevis with the straight pin, washer, and cotter pin.
 - (d) Apply the pressure on the upper arm to align the safety pin holes in the upper arm and lower arm.
 - (e) Install the safety pin to the safety pin hole.
 - (f) Install the stowage bin (refer to the Center Overhead Stowage Bin Removal/Installation procedure).

TASK 25-28-01-902-012

- 6. <u>Snubber Removal/Installation</u> (Fig. 201)
 - A. Access
 - (1) Location Zone
 - 200 Upper Half of Fuselage
 - B. Procedure Remove the Snubber

s 022-020

- <u>CAUTION</u>: BE CAREFUL WHEN YOU REMOVE THE SNUBBER. THE SNUBBER CAN COME APART SUDDENLY AND CAUSE INJURY.
- (1) To remove the snubber, do the steps that follow:
 - (a) Open the ceiling panel to get access to the snubber.
 - (b) Put safety wire through both ends of the snubber to keep it together.
 - (c) Remove the fastener that attaches the snubber to the upper arm.
 - (d) Remove the fasteners that attach the snubber to the stowage bin.

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(e) Remove the snubber.

C. Procedure - Install the Snubber

s 422-014

- (1) To install the snubber, do the steps that follow:
 - (a) Open the ceiling panel to get access to the snubber.
 - (b) Install the fasteners to attach the snubber to the stowage bin.
 - (c) Install the fastener to attach the snubber to the upper arm.

TASK 25-28-01-302-015

7. Repair the Lower Arm That Disengages From the Center Overhead Stowage Bin

- A. Consumable Materials
 - (1) Bolt BACB30LJ4-19, commercially available
 - (2) Washer BACW10P11AL, commercially available
 - (3) Spacer NAS43HT4-5, commercially available
- B. Access
 - (1) Location Zone

200 Upper Half of Fuselage

C. Procedure

s 352-016

- (1) To repair the lower arm, do the steps that follow:
 - (a) Open the stowage bin.
 - (b) If the stowage bin does not open, do the Open the Center Overhead Stowage Bin That Does Not Operate procedure.
 - (c) Remove the nut, washer, and bolt from the lower arm. Discard the bolt.
 - (d) Install the spacer, new washer, and new bolt (View A-A, Fig. 201).
 - (e) Install the nut and washer to connect the lower arm to the stowage bin.

TASK 25-28-01-822-017

- 8. Adjustment of the Upstop Screw
 - A. General
 - (1) The upstop screws are at each end of the stowage bin frame. A rubber cap on the screwhead touches the upper arm when the stowage bin closes.
 - B. Consumable Materials
 - (1) A00542, Compound, Retaining Loctite 242

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- C. Access
 - (1) Location Zone

200 Upper Half of Fuselage

- D. Procedure
 - s 822-018
 - (1) To adjust the upstop screw, do the steps that follow:
 - (a) Examine the rubber cap for damage.
 - (b) Loosen the locknut.
 - (c) Adjust the upstop screw 0.50 inch from the screw frame to the top of the rubber cap.
 - (d) Tighten the locknut.
 - (e) Apply the retaining compound to the threads of the upstop screw.

TASK 25-28-01-702-025

- 9. Acceptance Criteria for Bin Latching
 - A. Access
 - (1) Location Zone 200 Upper Half of Fuselage
 - B. Procedure

s 752-026

(1) Open the center stowage bin, if necessary.

s 752-027

(2) Put a 10 pound weight in the center of the bin.

s 752-028

(3) Push the bin up into the closed position.(a) The latch handle must be flush with the handle bezel.

s 752-030

- (4) Pull down on both of the corners of the bin.
 - (a) If one or both of the end latches are not engaged, the bin will move to the open position.
 - 1) Do the Adjustment of the Upstop Screw task and repeat this procedure from the beginning.

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- (b) If both of the end latches are engaged, move the latch handle 0.125 inches out from the flush position until the red flags are visible.
 - <u>NOTE</u>: If the bin opens, the end latches are in the correct position.
- (c) Release the latch handle.
 - 1) If the latch handle remains in the partially open position, this indicates that the end latches are partially engaged.
 - <u>NOTE</u>: This is an acceptable latch position. No further adjustment is necessary. Open the bin and close the bin.
 - 2) If the latch handle returns to the flush position, pull down on both corners to verify that both of the end latches are engaged.
 - a) If the bin remains closed, the end latches are in the correct position.
 - b) If the bin opens, move the snubber to the other end of the bin and repeat this procedure.
- s 752-029
- (5) Remove the ten-pound weight from the center of the bin.





OUTBOARD OVERHEAD STOWAGE BIN GAS SPRING - REMOVAL/INSTALLATION

- 1. <u>General</u>
 - A. This procedure contains two tasks:
 - (1) The first task is the removal of the gas spring from the outboard overhead stowage bin.
 - (2) The second task is the installation of the gas spring to the outboard overhead stowage bin.
 - B. The outboard overhead stowage bin is referred to as the stowage bin in this procedure.

TASK 25-28-02-004-001

- 2. <u>Remove the Gas Spring</u> (Fig. 401)
- A. Access
 - (1) Location Zone 200 Upper Half of Fuselage
 - B. Procedure

S 024-006

- (1) Do these steps to remove the gas springs:
 - (a) Open the stowage bin door. Make sure the stowage bin door is stable in the open position.
 - <u>NOTE</u>: When the gas spring is removed, the stowage bin door will close if it is not stable in the open position.
 - (b) Remove the five screws that attach the hinge cover to the hinge housing (View B, Fig. 401).
 - (c) Remove the hinge cover.
 - (d) Remove the bolt that attaches the gas spring to the door hinge bracket.
 - (e) Remove the bolt that attaches the gas spring to the hinge housing.
 - (f) Remove the gas spring.

TASK 25-28-02-404-002

- 3. Install the Gas Spring (Fig. 401)
 - A. Access
 - (1) Location Zone
 - 200 Upper Half of Fuselage

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B. Procedure

s 424-010

- (1) Do these steps to install the gas spring:
 - (a) Put the gas spring in position in the hinge housing (View B, Fig. 401).
 - (b) Install the bolt to attach the gas spring to the hinge housing.
 - (c) Install the bolt to attach the gas spring to the door hinge bracket.
 - (d) Install the five screws to attach the hinge cover to the hinge housing.

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OUTBOARD OVERHEAD STOWAGE BIN - MAINTENANCE PRACTICES

- 1. <u>General</u>
 - A. This procedure contains these tasks:
 - (1) Open the outboard overhead stowage bin door that does not operate.
 - (2) Check the door adjustment.
 - (3) Adjust the door, if necessary.
 - (4) Adjust the strike roller.
 - (5) Adjust the latch.
 - B. The outboard overhead stowage bin door is referred to as the stowage bin door in this procedure.
 - C. The strike roller and latch are not aligned with each other if one of these conditions occur:
 - (1) The outboard overhead stowage bin is closed with an up force and not with an outboard force.
 - (2) The strike roller is adjusted too high.

TASK 25-28-03-002-008

- 2. Open the Stowage Bin Door that Does Not Operate (Fig. 201).
 - A. Access
 - (1) Location Zone
 - 200 Upper Half of Fuselage
 - B. Procedure

s 022-002

(1) Open the adjacent stowage bin door.

s 822-003

- (2) Lightly pull inboard at the corner of the stowage bin door that does not operate.
 - s 822-001
- (3) If the stowage bin door stays closed, push the stowage bin door up directly above the latch, and lightly pull the stowage bin door inboard.

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TASK 25-28-03-802-009

- 3. Preliminary Adjustments.
 - A. Access
 - (1) Location Zone
 - 200 Upper Half of Fuselage
 - B. Procedure
 - <u>NOTE</u>: Before any adjustments are made, the doors and adjacent parts must be correctly located.

s 822-010

- (1) Gaps between the doors and the ceiling frame at forward and aft end must be equal.
 - (a) Gaps between doors and/or gaps between door and threshold must not vary more than 0.12 inches.





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- (b) The individual gaps must not vary more than 0.06 inches from top to bottom, within the same module.
- (c) The gap between the doors and the light fascia must not exceed 0.40 inches. The gap must not vary more the 0.12 inches from the forward to the aft end of an individual bin module.

s 822-011

(2) The threshold and strike assemblies must be adjusted to fit properly on the ceiling frame.

s 822-012

(3) Adjust the panel straightness by adjusting the center support turnbuckle on the top of the bin (88 and 81 inch bins only).

TASK 25-28-03-802-013

- 4. Door Adjustments (To be done with airplane in "Off Jack or Jig" position.)
 - A. Access
 - (1) Location Zone

200 Upper Half of Fuselage

B. Procedure

s 822-014

- (1) To move the door upper edge inboard or outboard:
 - (a) Loosen the fasteners on the hinge assembly.
 - (b) Move hinge in or out (allowed by the oversized holes) to the desired position.
 - (c) Tighten the fasteners.

s 822-015

- (2) To move the door forward or aft:
 - (a) Loosen the fasteners between the hinge asssemblies and the door.
 - (b) Move the door sideways (allowed by the oversized holes and floating inserts) to the desired position.
 - (c) Tighten the fasteners.

s 822-016

- (3) To move the door up or down:
 - (a) Loosen the fasteners on the hinge assembly.
 - (b) Move the door to the required position.
 - (c) Tighten the fasteners.
 - s 822-017
- (4) Adjustment of the door lower edge:
 - (a) Loosen the fasteners on the hinge assembly and/or door assembly.
 - <u>NOTE</u>: Be careful not to compromise the gap requirements for the door/ceiling frame, door/fascia or between the two doors.

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- (b) Adjust the door so that at least one of the bumpers contacts the threshold.
- (c) Tighten the fasteners.

TASK 25-28-03-822-004

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5. AIRPLANES WITH DOOR STRIKE ROLLERS;
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- Adjust the Strike Roller (Fig. 201)
 - A. Access
 - (1) Location Zone
 - 200 Upper Half of Fuselage
 - B. Procedure
 - s 032-005
 - (1) Loosen the two screws that attach the strike assembly.
 - s 822-006
 - (2) Align the strike roller with the latch.
 - s 432-007
 - (3) Tighten the two screws to attach the strike assembly.

TASK 25-28-03-802-018

- 6. AIRPLANES WITH LATCHES IN THE DOORS AND HAVING NO STRIKE ROLLERS;
 - Adjust the Latch (Fig. 202)
 - A. Access
 - (1) Location Zone
 - 200 Upper Half of Fuselage
 - B. Procedure

s 822-037

- (1) Loosen the seven screws that attach the latch assembly. Do not remove the screws.
 - <u>NOTE</u>: The latch assembly should move freely with no damage to the decorative surface of the door assembly.

s 822-019

(2) Move the latch handle the full open position.

s 822-020

(3) Close the door assembly.

s 822-021

(4) Slide the latch asssembly down until the latch bolt is 0.050 inches from the top of the strike.

s 822-022

(5) Tighten the seven latch attachment screws.

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C. Verify Latch Adjustment

s 822-023

- (1) Close the door slowly and verify full free travel of latch handle.
 - s 822-024
- (2) Free travel of the latch handle is 0.40 to 0.45 inches.

s 822-025

- Minimal binding condition is acceptable if outboard force applied to (3) door allows free operation of the latch.
 - If latch adjustment leaves a gap between the latch and the NOTE: stowage bin door, readjust the door and then the latch.

TASK 25-28-03-802-026

- 7. AIRPLANES WITH LATCHES IN THE DOORS AND WITH STRIKE ROLLERS; Adjust the Latch (Fig. 203)
 - Access Α.
 - (1) Location Zone
 - Upper Half of Fuselage 200
 - Procedure Β.

s 822-027

- Loosen the seven screws that attach the latch assembly. Do not (1) remove the screws.
 - The latch assembly should move freely with no damage to the NOTE: decorative surface of the door assembly.

s 822-028

Make sure the latch is set nominal to the door. The face of the (2) latch will be flush with the door, plus or minus .03 inch.

s 822-029

(3) Make sure the clearence between the strike and the latch is .06 to .10 inch.

s 822-030

(4) Make sure the operation of the latch is free.

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s 822-031

(5) If the latch bolt binds, move the latch either forward or aft, relative to the strike cutout.

s 822-032

(6) Make sure the mismatch centerline strike to the centerline latch bolt is .00 to .04 inch.

S 822-033

- (7) Tighten the seven latch attachment screws.
- C. Verify Latch Adjustment

S 822-034

(1) Close the door slowly and verify full free travel of latch handle.

s 822-035

(2) Free travel of the latch handle is 0.40 to 0.45 inches.

s 822-036

- (3) Minimal binding condition is acceptable if outboard force applied to door allows free operation of the latch.
 - <u>NOTE</u>: If latch adjustment leaves a gap between the latch and the stowage bin door, readjust the door and then the latch.



OUTBOARD OVERHEAD STOWAGE BIN - REMOVAL/INSTALLATION

- 1. <u>General</u>
 - A. This procedure contains two tasks.
 - (1) The first task is the removal of the outboard overhead stowage bin.
 - (2) The second task is the installation of the outboard overhead stowage bin.
 - B. The outboard overhead stowage bin is referred to as the stowage bin in this procedure.
 - TASK 25-28-03-004-001
- 2. <u>Remove the Outboard Overhead Stowage Bin</u> (Fig. 401)
 - A. References
 - (1) AMM 25-21-01/401, Sidewall Panels
 - (2) AMM 25-23-01/401, Passenger Service Units
 - (3) AMM 33-21-00/201, Passenger Compartment Illumination
 - B. Access
 - (1) Location Zone
 - 200 Upper Half of the Fuselage
 - C. Procedure
 - S 024-009
 - (1) Disconnect the ceiling panel hold-open strap.
 - s 034-010
 - (2) Disconnect the electrical connector for the fluorescent light (AMM 33-21-00).

s 024-011

- (3) Remove the PSU, speaker, NSFSB sign face, and spacer panels (AMM 25-23-01).
 - s 024-012
- (4) Remove the sidewall panel to get access to the gasper air duct (AMM 25-21-01/401).

S 024-013

(5) Disconnect the gasper air duct from the stowage bin.

s 034-014

(6) Remove the wire bundles from the top and the bottom of the stowage bin.

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s 034-036

- (7) Remove the inboard light assembly.
 - (a) Pull light tube assembly straight up.
 - (b) Assembly is held in place with velcro fastener tape.
 - (c) Stow light assembly and wire bundle out of the way.

NOTE: Do not disconnect wires from the light assembly.

S 034-037

(8) Remove the emergency light assembly from the ceiling frame (AMM 33-51-05/201).

s 034-038

(9) Remove the fluorescent light fixtures both inboard and outboard.

S 034-039

(10) Remove the fluorescent light ballast.

s 034-003

(11) Remove the ground terminal and clamps from the outboard PSU rail.

s 024-015

(12) Remove the splice plates from the ends of the inboard and the outboard PSU rails.

S 034-016

(13) Remove the alignment pins between the adjacent stowage bins.

s 034-040

(14) Remove the outboard PSU rail.

s 034-017

(15) Remove the bolts, washers, nuts, and bushings to disconnect the lower turnbuckles.

s 034-018

(16) Remove the bolt, spacer, washer, and nut to disconnect the diagonal strut at the lower outboard edge of the stowage bin.

s 034-019

(17) Hold the stowage bin and remove the bolts, washers, nuts, and bushings to disconnect the top turnbuckles.

s 434-004

(18) Install the bolts to the top turnbuckles to hold the adjacent stowage bins.

s 024-020

(19) Remove the stowage bin.

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TASK 25-28-03-404-021

- 3. Install the Outboard Overhead Stowage Bin (Fig. 401)
 - A. References
 - (1) AMM 25-21-01/401, Sidewall Panels
 - (2) AMM 25-23-01/401, Passenger Service Units
 - (3) AMM 33-21-00/201, Passenger Compartment Illumination
 - B. Access
 - (1) Location Zone 200 Upper Half of the Fuselage
 - C. Procedure

s 424-035

(1) Put the outboard overhead stowage bin in position.

s 434-023

(2) Install the bolts, washers, nuts, and bushings to attach the top turnbuckle.

s 434-024

(3) Install the alignment pins between the adjacent stowage bins.

s 434-025

(4) Install the bolts, washers, nuts, and bushings to attach the lower turnbuckle.

s 824-005

(5) Adjust the turnbuckles to hold the weight of the stowage bin. Make sure the stowage bin is aligned with the adjacent stowage bins.

S 434-026

(6) Install the bolt, spacer, washer, and nut to attach the diagonal strut to the lower outboard edge of the stowage bin.

s 434-041

(7) Install the outboard PSU rail.

S 424-027

(8) Connect the splice plates on the inboard and outboard PSU rails

S 424-028

(9) Connect the gasper air duct to the stowage bin.

s 424-029

(10) Install the sidewall panel (AMM 25-21-01/401).

s 434-030

(11) Connect the wire bundles to the brackets on the bottom and the top of the stowage bin.

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s 434-006

(12) Install the ground terminal and clamps to the outboard PSU rail.

s 434-042

(13) Install the fluorescent light ballast.

s 434-043

(14) Install the fluorescent light fixtures bothe inboard and outboard.

s 434-031

(15) Connect the electrical connector for the fluorescent light (AMM 33-21-00/201).

s 434-044

(16) Install the night light.

s 434-045

(17) Install the emergency light.

s 424-032

(18) Connect the ceiling hold-open strap.

s 424-034

(19) Install the PSU, speaker, NSFSB, and spacer panels
 (AMM 25-23-01/401).



PASSENGER AND CABIN ATTENDANT ACCOMMODATIONS - DESCRIPTION AND OPERATION

- 1. <u>General</u>
 - A. Electrical power is provided by service outlets and medical outlets. Service outlets provide power for electrical appliances used by service personnel during airplane servicing. Medical outlets provide power for in-flight medical equipment.
- 2. <u>Service Outlets</u>
 - A. Electrical power is provided in the passenger compartment by service outlets. The right bus supplies 115 volt ac power to outlets at the forward left door and the aft left door. In the flight compartment, the 115 volt ac service outlet is on the main power distribution panel P6. In the lower lobe, the 115 volt ac service outlet is on the E3 rack in the right forward equipment center. A 28 volt dc outlet is on the main power distribution panel P6.
- 3. <u>Medical Outlets</u>
 - A. Medical electrical power is provided in the passenger compartment by service outlets. An inverter, located in the E5 rack, supplies 115 volt ac/60 hz or 220 volt ac/50 hz power to outlets just aft of the purser's office and to outlets in the aft passenger cabin.
 - B. For more information on the service electrical outlets and medical electrical outlets refer to these schematics, as applical: SSM 25-29-01 SSM 25-29-02





TRASHCOMPACTOR - DESCRIPTION OPERATION

1. General МТН Α. The Mark III In-Flight Trash Compactor is a self-contained trash compacting system designed to fit in the cart recess of an aircraft MTH galley. The compactor is retained in the galley by existing cart МТН retention devices and operated independently of the associated galley МТН components. It is dependent only on the aircraft systems for source of МТН electrical power. The compactor is used for compacting all types of МТН MTH trash normally accumulated during inflight meal and beverage services.

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TRASHCOMPACTOR - CLEANING

-		TRASHCOMPACTOR - CLEANING					
MTH 1. MTU	1. <u>General</u>						
мтн	sani	A. In order to prolong the life of the compactor and adhere to general					
МТН	arou	nd service charged with this responsibility					
МТН	grou	ground service charged with this responsibility.					
мтн	TASK 25-30-01-107-001						
MTH 2.	Interior Cleaning						
	A. Procedure						
MTH							
MTH		s 867–002					
MTH	(1)	Open the main door and remove all compacted trash boxes by pulling					
MTH		the yellow handle on each box forward and out of the compactor.					
MTH		Close all flaps on trash boxes and dispose.					
MTH							
MTH	(2)	\$ 867-003					
MIH	(2)	Close, latch and lock all doors. Turn on the main power button and					
		press the compact button. Wait 15 seconds and then press the main					
мтц		be down to allow cleaning its upper surface					
МТН		be down to actow creaning its upper surface.					
МТН		s 117-004					
MTH	(3)	Brush all debris from the top of the platen into a dust pan or other					
MTH		receptacle. Use a mild, soapy solution, on a sponge or cloth and					
MTH		wipe clean the top of the platen.					
MTH							
MTH		s 117-005					
MTH	(4)	Spray platen with silocone spray such as Ambersil formula 1,					
MTH		K.L.M.nr. 3803117, and with mild disinfectant/deodorant such as					
MIH		Lysol.					
		\$ 867_007					
мтн	(5)	Close latch and lock all doors					
МТН							
МТН		s 717–006					
MTH	(6)	Press the compact button and wait another 15 seconds till the yellow					
MTH		"in use" light will go out and the green "ready" light will					
MTH		illuminate.					
MTH							
MTH	(-)	S 867-008					
MIH	(7)	Open the main door.					
МТU		s 027_000					
мтн	(8)	The moving sidewall located on the right inside of the compaction					
МТН	(0)	chamber, can be removed by turning the four quarter turn fasteners					
MTH		in a counterclockwise direction. This does not require any tools.					
MTH							
MTH		s 117–010					
MTH	(9)	Brush all foreign debris away from compactor walls, actuator plugs,					
MTH		bottom of compaction platen and floor emptying the debris into a					
MTH		dust pan or other receptacle.					

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SAS



МТН		
MTH		s 117–011
MTH	(10)	Use a mild, soapy solution on a sponge or cloth to wipe down the two
MTH		compartments and the moving wall.
MTH		
MTH		S 647–012
MTH	(11)	Spray all metal parts especially the side wall actuators with
MTH		silicone spray such as Ambersil formula 1, K.L.M. nr. 3803117.
MTH		
MTH		S 117–013
MTH	(12)	Spray the interior and the moving wall with a mild
MTH		disinfectant/deodorant such as Lysol.
MTH		
MTH		s 427–014
MTH	(13)	After cleaning behind the wall, affix the moving wall to the
MTH		sidewall actuators by turning the quarter turn fasteners in a
MTH		clockwise direction.
MTH		
MTH	TASK 25-3	30-01-107-016
MTH 3.	<u>Exterior</u>	<u>Cleaning</u>
	A. Proc	edure
MTH		
MTH		s 117-015
MTH	(1)	Care should be taken to also clean the outside of the compactor
MTH		using a damp soapy cloth or sponge. Particular attention should be
MTH		given to clean the following thoroughly:
MTH		(a) Button/switches.
MTH		(b) Trash bin door hinges.

MTH (c) Trash bin door interlock mechanisms.

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MAINTENANCE MANUAL

GALLEYS - DESCRIPTION AND OPERATION

- 1. <u>General</u> (Fig. 1)
 - A. Forward galleys are near the forward entry/service doors. Aft galleys are near aft entry/service doors.
 - B. For information on the galley wiring diagram, refer to the Wiring Diagram Manual(WDM 25-31-02).
- 2. <u>Component Details</u> (Fig. 2, 3, 4)
 - A. Galleys
 - (1) Galleys are for storing and preparing food and beverages. Waste is stored in waste bins. Removable inserts permit rapid replenishment of supplies, and disposal of waste.
 - (2) Galleys mount on floor fittings, and attach to airplane structure with overhead tie rods, which are accessible through ceiling panels. Floor fittings are on the outside of the galley wall.
 - B. Electrical Load Control Units (ELCU)
 - (1) Electrical load control units (ELCU) protect forward and aft galley circuits. ELCUs have a main contactor, current transformers (CT), and sensing circuits. ELCUs protect against overcurrent, and differential fault current. The main contactor stays closed until it receives an overcurrent or differential fault current signal. The main contactor will open when the utility bus switch on the pilot's overhead panel is opened. The overcurrent signal comes from a sensing circuit and from the internal LTs, which trip the ELCU. The overcurrent sensing circuit has a time delay. A small overcurrent will take longer to trip the ELCU. A large overcurrent will trip the ELCU faster. The CTs sense differential current differences. If the current difference is large, the ELCU will trip.
 - (2) The ELCUs and galley load relays (GLR) are controlled by the bus power control unit (BPCU) to reduce loads in galley buses. In the event of an overload, all galley buses are totally de-energized. The BPCU also locks out the galley reset until the overload condition is corrected or when the ground mode input is received. Galley buses can be reset manually with the UTILITY BUS switches on the pilot's overhead panel once ground mode is established.

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GALLEYS

COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	REFERENCE
CIRCUIT BREAKERS	1		FLT COMPT, P11	
GALLEY AFT, C737		1	1107	*
GALLEY FWD, C740		1	11033	*
GALLEY FWD/MID, C740 2		1	11033	*
GALLEY - AFT, A1,A2,A3,A4 1>	1	4	PASS CABIN	25-31-04
GALLEY - AFT, G5,G6,G7,G8 3	2	4	PASS CABIN	25-31-04
GALLEY - AFT, G5,G6,G7 4	2	3	PASS CABIN	25-31-04
GALLEY - FORWARD, F1,F2	1	2	PASS CABIN	25-31-01
GALLEY - FORWARD, G1,G1A,G2,G3,G4 3	2	5	PASS CABIN	25-31-01
GALLEY - FORWARD, G1,G2,G2A,G3,G4,G4A 4	2	6	PASS CABIN	25-31-01
L UTILITY BUS RESET, K1	1	1	FLT COMPT, P5, ELEC SYS PNL ASSY, M10063	*
R UTILITY BUS RESET, K2	1	1	FLT COMPT, P5, ELEC SYS PNL ASSY,	*
RELAY - (REF 31-01-36 ETG 101)			110005	
GALLEY GRND LOAD SHED, K10136				
SWITCH - (REF $24-51-00$, FIG. 101)				
L UTILITY BUS, S7				
R UTILITY BUS, S8				
TRANSFORMER - (REF 31-01-31)				
DIFF PROTECTION CURRENT, L GEN, T105				
TRANSFORMER - (REF 31-01-32)				
DIFF PROTECTION CURRENT, R GEN, T107				
UNIT - (REF 24-41-00, FIG. 101)				
BUS POWER CONTROL, M116				
UNIT - (REF 31-01-31, FIG. 101)				
AFT GALLEY PWR ELECT LOAD CNTRL, M1636				
L AFT GALLEY PWR ELECT LOAD CNTRL,				
M227 1				
R AFT GALLEY PWR ELECT LOAD CNTRL,				
M226 1				
UNIT - (REF 31-01-32, FIG. 101)				
FWD GALLEY PWR ELECT LOAD CNTRL, M225				
FWD GALLEY PWR ELECT CNIRL A, $ 2\rangle = M1617$				
FWD GALLEY PWR ELECT CNIRL B, 2 M1618				

* SEE WM EQUIPMENT LIST

- 1ALL MTH AIRPLANES2ALL SAS AIRPLANES3SAS 767-300 AIRPLANES
- 4 SAS 767-200 AIRPLANES













A3 A1 Α4 Α2

FORWARD GALLEYS F1,F2,F3 AFT GALLEYS A1,A2,A3,A4



Component Location

Figure 102 (Sheet 1) EFFECTIVITY-25-31-00 696604 ALL 15 Page 102 Nov 10/91 BOEING PROPRIETARY - Copyright (C) - Unpublished Work - See title page for details.







FORWARD GALLEYS G1,G1A,G2,G3,G4





FORWARD GALLEYS G1,G2,G2A,G3,G4,G4A 2 AFT GALLEYS G5,G6,G7 3







GALLEY WASTE ENCLOSURE - INSPECTION/CHECK

- 1. <u>General</u>
 - A. This is a procedure to examine the galley waste enclosures on the airplane to make sure that each galley waste enclosure can contain a fire.
 - B. The galley waste enclosure is referred to as the enclosure in this procedure.
 - C. This is a general inspection procedure for each galley waste enclosure.
 - TASK 25-31-00-206-002
- 2. <u>Examine the Galley Waste Enclosure</u>
 - A. Access
 - (1) Location Zone
 - 200 Upper Half of Fuselage
 - B. Procedure
 - s 206-006
 - (1) To do a check on the waste chute lid, do the steps that follow:(a) Make sure the edges of the lid do not have damage.
 - (b) Make sure the lid hinge is not loose or worn too much.
 - (c) Make sure the lid operates smoothly and closes correctly on the chute opening.
 - (d) Make sure the WASTE NO CIGARETTE DISPOSAL placard is installed on the lid.
 - (e) Make sure the CLOSE WHEN NOT IN USE placard is installed on the lid.
 - (f) Make sure the clearance is not more than 0.03 inch around the periphery of the lid.
 - s 206-007
 - (2) To do a check on the waste compartment and door, do the steps that follow:
 - (a) Make sure the door hinge is not loose or worn too much.

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- (b) Make sure the door edges do not have damage.
- (c) Make sure the door latch operates smoothly.
- (d) Make sure the door is tight when the door is closed and latched.
- (e) Make sure the door operates smoothly and closes correctly on the opening.
- (f) Make sure the waste container is in good structural condition.

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MAINTENANCE MANUAL

FORWARD GALLEY - REMOVAL/INSTALLATION

1. <u>General</u>

- A. This procedure contains these tasks:
 - (1) The removal of forward galleys G1 and G1A.
 - (2) The installation of forward galleys G1 and G1A.
 - (3) The removal of forward galleys G2 and G3.
 - (4) The installation of forward galleys G2 and G3.
 - (5) The removal of forward galleys G2A and G4A.
 - (6) The installation of forward galleys G2A and G4A.

TASK 25-31-01-004-002-001

- 2. <u>Remove the Forward Galley G1, and G1A/Forward Galley G1</u>
 - <u>NOTE</u>: SAS 150-161;
 - This task is to Remove the Forward Galley G1, and G1A (Fig. 401)

<u>NOTE</u>: SAS 050-149, 162-274;

This task is to Remove the Forward Galley G1 (Fig. 401A)

- A. General
 - (1) SAS 150-161;

The forward galleys G1 and G1A are a unit, you must remove the galleys together.

- B. References
 - (1) AMM 25-22-03/401, Movable Ceiling Panels
 - (2) AMM 25-25-03/401, Attendant Seats
- C. Access
- D. Procedure

s 864-003-001

 (1) Open this circuit breaker on the overhead circuit breaker panel, P11, and attach a DO-NOT-CLOSE tag:
 (a) 11U33, GALLEY FORWARD

S 014-004-001

(2) Open the movable ceiling panel (AMM 25-22-03/401).

s 034-005-001

(3) Disconnect the electrical connectors.



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s 034-006-001

(4) Disconnect the bonding jumper wires.

s 014-046-001

(5) Disconnect the oven vent.

s 014-008-001

(6) Disconnect the overhead tie rods from the galley ceiling.

S 014-009-001

(7) Remove the kick strips and the vertical trim strips.

s 014-010-001

(8) Disconnect the water supply line and the water drain line.

s 014-011-001

(9) Disconnect the chiller return duct.

S 014-012-001

(10) Disconnect the chiller supply duct.

s 014-013-001

(11) Remove the gutter retainers.

s 034-014-001

(12) Remove the cover plates.

s 034-015-001

(13) Remove the bolts, cylindrical nuts, and retainers nuts from the floor attach fitting.

s 014-016-001

(14) Move the galley in the aft direction.

s 034-017-001

(15) SAS 150-161;

Remove the fasteners along the vertical split line to disassemble the galleys G1 and G1A, if it is necessary.

01A



s 024-089-001 (16) Remove the galley. TASK 25-31-01-404-018-001 3. Install the Forward Galleys G1, and G1A/Forward Galley G1 NOTE: SAS 150-161; This task is to Install the Forward Galleys G1, and G1A (Fig. 401) SAS 050-149, 162-274; NOTE: This task is to Install the Forward Galley G1 (Fig. 401A) A. Consumable Materials (1) A00119, Adhesive - BMS 5-55, EC1870 (2) A00027, Sealant - Chromate Type, BMS 5-95 (3) A00247, Sealant - BAC 5010, Type 60 (4) B00192, Solvent - Skellysolve - S, BMS 3-2 B. References (1) AMM 25-22-03/401, Movable Ceiling Panels (2) AMM 25-25-03/401, Attendant Seats C. Access (1) Location Zone 221/222 Passenger Cabin - Section 41 D. Procedure s 414-020-001 (1) SAS 150-161; Install the fasteners along the vertical split line to assemble the galleys G1 and G1A, if it is necessary. s 394-021-001 (2) Apply the chromate sealant to all the joints and clearances along the vertical split line. s 114-022-001 (3) Clean all the mating surfaces of the chiller supply duct connection with the solvent. s 394-023-001 (4) Apply the adhesive to all the mating surfaces of the chiller supply duct connection. Let the adhesive dry for 10 to 20 minutes.

01A

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s 394-024-001

(5) Apply the Type 60 sealant to all the floor attach fittings.

s 014-025-001

(6) Put the galley in position on the floor attach fittings.

s 394-026-001

(7) Apply the Type 60 sealant around all the clearances at the floor attach fittings.

s 434-027-001

(8) Install the bolts, retainers and nuts in the floor attach fittings.

s 414-028-001

(9) Install the plate to connect the chiller return duct.

s 394-029-001

(10) Apply the chromate sealant to all the joints and clearances around the chiller return duct connection.

s 434-030-001

(11) Connect the water supply line and the water drain line.

s 394-031-001

(12) Apply the chromate sealant around all the clearances at the bottom of the galley.

s 414-032-001

(13) Install the kick strips and the vertical trim strips.

s 414-033-001

(14) Open the movable ceiling panel (AMM 25-22-03/401) to get access to the overhead connections.

s 414-034-001

(15) Connect the overhead tie rods at the galley ceiling.

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s 414-045-001 (16) Connect the oven vent. s 434-036-001 (17) Connect the bonding jumper wires. s 434-037-001 (18) Connect the electrical connectors. s 414-038-001 (19) Close the movable ceiling panel (AMM 25-22-03/401). s 864-039-001 (20) Remove the DO-NOT-CLOSE tag and close this circuit breaker on the P11 panel: (a) 11U33, GALLEY FORWARD S 864-097-001 (21) PRE-SB 25-0180; Reset the CHILLER SHUTDOWN CONT circuit breaker, B7 or C6, on the Main Power Distribution Panel, P6, if installed. <u>NOTE</u>: This assures that the latching from the fire detection system is reset. s 214-098-001 (22) POST-SB 25-0180; Make sure that the Forward Galley SYS OPR light is on. s 414-040-001 (23) Install the attendant seat (AMM 25-25-03/401), if it is necessary. TASK 25-31-01-004-092-001 4. Remove the Forward Galley G2 and G3 General Α. (1) The procedure to remove the galley G2 (Fig. 402) is the same as the procedure to remove the galley G3 (Fig. 403). B. Access (1) Location Zone 221/222 Passenger Cabin - Section 41 C. Procedure S 864-043-001 (1) Open this circuit breaker on the overhead circuit breaker panel, P11, and attach DO-NOT-CLOSE tag: (a) 11U33, GALLEY FORWARD

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s 034-044-001

(2) Disconnect the electrical connectors.

s 014-047-001

(3) Disconnect the oven vent.

s 014-048-001

(4) Disconnect the overhead tie rods at the galley ceiling.

S 014-049-001

(5) Remove the kick strips and the trim strips.

s 034-050-001

(6) Disconnect the chiller drain line.

s 014-051-001

(7) Disconnect the chiller duct.

S 034-052-001
SAS 050-149, 162-274;
Disconnect the water supply line and the water drain line.

s 034-053-001

(9) Remove the bolts, retainers, and nuts from the floor attach fitting.

s 024-054-001

(10) Remove the galley.

TASK 25-31-01-404-056-001

- 5. Install the Forward Galley G2 and G3
 - A. General

EFFECTIVITY-

SAS AIRPLANES

- (1) The procedure to install the galley G2 (Fig. 402) is the same as the procedure to install the galley G3 (Fig. 403).
- B. Consumable Materials(1) A00247, Sealant BAC 5010, Type 60

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C. Access (1) Location Zone 221/222 Passenger Cabin - Section 41 D. Procedure s 394-057-001 (1) Apply the Type 60 sealant to all the floor attach fittings. s 414-058-001 (2) Put the galley in position on the floor attach fittings. s 394-075-001 (3) Apply the sealant around all the clearances at the floor attach fittings. s 434-059-001 (4) Install the bolts, retainers and nuts in each floor attach fitting. s 434-060-001 (5) SAS 050-149, 162-274; Connect the water supply line and the water drain line. s 414-061-001 (6) Connect the chiller duct. s 434-062-001 (7) Connect the chiller drain line. s 414-063-001 (8) Install the kick strips and the trim strips. S 414-064-001 (9) Connect the overhead tie rods at the galley ceiling. s 414-065-001 (10) Connect the oven vent.

EFFECTIVITY-


s 434-066-001

(11) Connect the electrical connectors.

S 864-067-001

- (12) Remove the DO-NOT-CLOSE tag and close this circuit breaker on the P11 panel:
 - (a) 11U33, GALLEY FORWARD

S 864-099-001

- (13) PRE-SB 25-0180; Reset the CHILLER SHUTDOWN CONT circuit breaker, B7 or C6, on the Main Power Distribution Panel, P6, if installed.
 - <u>NOTE</u>: This assures that the latching from the fire detection system is reset.

s 214-100-001

- (14) POST-SB 25-0180;
 - Make sure that the Forward Galley SYS OPR light is on.

TASK 25-31-01-004-068-001

6. <u>Remove the Forward Galley G4</u> (Fig. 405)

- A. Access

 - B. Procedure

s 014-069-001

(1) Remove the kick strips and the vertical trim strips.

s 034-070-001

(2) Remove the bolts, retainers, and nuts from the floor attach fittings.

s 024-071-001

(3) Move the galley G4 in the forward direction.

s 024-090-001

(4) Remove the galley.

TASK 25-31-01-404-072-001

- 7. <u>Install the Forward Galley G4</u> (Fig. 405)
 - A. Consumable Materials
 - (1) A00247, Sealant BAC 5010, Type 60
 - B. Access
 - (1) Location Zone
 - 221/222 Passenger Cabin Section 41



C. Procedure

s 394-073-001

(1) Apply the sealant to all the floor attach fittings.

s 414-074-001

(2) Put the galley in position on the floor attach fittings.

s 394-091-001

(3) Apply the sealant around all the clearances at the floor attach fittings.

s 434-076-001

(4) Install the bolts, retainers and nuts in each floor attach fitting.

S 414-077-001

(5) Install the kick strips and the vertical trim strips.

TASK 25-31-01-004-093-001

- 8. SAS 050-149, 162-274;
 - Remove Forward Galley G2A, G4A
 - A. General
 - (1) The procedure to remove the galley G2A (Fig. 404) is the same as the procedure to remove the galley G4A (Fig. 406).
 - B. Access
 - C. Procedure

s 014-078-001

(1) Disconnect the overhead tie rod at the galley ceiling

s 014-079-001

(2) Remove the kick strips and vertical trim strips.

S 034-080-001

(3) Remove the bolts, retainers and nuts from each floor attach fitting.

s 024-081-001

(4) Remove the galley.





TASK 25-31-01-404-082-001 9. <u>SAS 050-149, 162-274;</u> Install Forward Galley G2A, G4A A. General (1) The procedure to install the galley G2A (Fig. 404) is the same as the procedure to install the galley G4A (Fig. 406). Consumable Materials Β. (1) A00247, Sealant - BAC 5010, Type 60 C. Access (1) Location Zone 221/222 Passenger Cabin - Section 41 D. Procedure s 394-083-001 (1) Apply the sealant to all the floor attach fittings. s 414-084-001 (2) Put the galley in position on the floor attach fittings. s 394-085-001 (3) Apply the sealant around all the clearances at the floor attach fittings. s 414-086-001 (4) Connect the overhead tie rod at the galley ceiling. s 434-087-001 (5) Install the bolts, retainers, and nuts to each floor attach fitting. S 414-088-001

(6) Install the kick strips and the vertical trim strips.



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FORWARD GALLEY - REMOVAL/INSTALLATION

- 1. <u>General</u>
 - A. This procedure contains six tasks:
 - (1) The first task is the removal of the forward galleys F1, F2.
 - (2) The second task is the installation of the forward galleys F1, F2.
 - (3) The third task is the removal of the forward galley F3.
 - (4) The fourth task is the installation of the forward galley F3.
 - (5) The fifth task is the removal of the forward galley F4.
 - (6) The sixth task is the installation of the forward galley F4.
 - TASK 25-31-01-004-001-002
- 2. <u>Remove the Forward Galleys F1, F2</u> (Fig. 401)
 - A. General
 - (1) The forward galleys F1, F2 are a unit. You have to remove the galleys together as one unit.
 - B. References
 - (1) AMM 25-22-02/401, Movable Ceiling Panels
 - (2) AMM 25-25-03/401, Attendant Seats
 - (3) AMM 38-10-00/201, Potable Water System
 - C. Access
 - (1) Location Zone
 - 200 Upper Half of Fuselage
 - D. Procedure

S 864-002-002

 (1) Open this circuit breaker on the overhead circuit breaker panel, P11, and attach a DO-NOT-CLOSE tag:
(a) 11U33, GALLEY FORWARD

S 864-003-002

(2) Open the fill/overflow valve to decrease the pressure of the water system (AMM 38-10-00/201).

s 014-058-002

(3) Open the movable ceiling panel (AMM 25-22-02/401).

s 034-057-002

(4) Disconnect the electrical connectors from the galley.

s 034-056-002

(5) Disconnect the bonding jumper wires.

s 034-055-002

(6) Disconnect the interphone connector.

s 034-054-002

(7) Disconnect the oven vent from the oven vent duct.

s 024-053-002

(8) Disconnect the overhead tie-rods from the galley.

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s 034-052-002

(9) Remove the kick strips and the vertical trim strips.

s 034-051-002

(10) Disconnect the water supply line and the water drain line.

s 034-050-002

(11) Disconnect the chiller return duct and the chiller supply duct.

s 034-049-002

(12) Remove the gutter retainers.

S 034-048-002

(13) Remove the coverplates.

S 024-047-002

(14) Remove the bolts, cylindrical nuts, and retainers from the floor attach fittings.

s 024-046-002

(15) Move the galleys aft.

s 024-045-002

(16) Remove the fasteners along the split lines to disassemble the galleys.

s 034-044-002

(17) Remove the attendant seat if it is necessary (AMM 25-25-03/401).

S 024-043-002

(18) Remove the galleys.

TASK 25-31-01-404-005-002

- 3. Install the Forward Galleys F1, F2 (Fig. 401)
 - A. Consumable Materials
 - (1) A00119, Adhesive BMS 5-55, EC1870
 - (2) A00247, Sealant Chromate Type, BMS 5-95
 - (3) A00027, Sealant BAC 5010, Type 60
 - (4) B00192, Solvent Skellysolve S, BMS 3-2
 - B. References
 - (1) AMM 25-22-02/401, Movable Ceiling Panels
 - (2) AMM 25-25-03/401, Attendant Seats
 - (3) AMM 38-10-00/201, Potable Water System
 - C. Access
 - (1) Location Zone
 - 200 Upper Half of Fuselage



D. Procedure

s 424-006-002

(1) Install the fasteners along the split lines to assemble the galleys.

s 394-007-002

(2) Apply the chromate sealant to all the joints and clearances at the split lines.

s 114-008-002

(3) Clean all the mating surfaces of the chiller supply duct connection with solvent.

s 394-009-002

(4) Apply the adhesive to all the mating surfaces of the chiller supply duct connection.

s 394-010-002

(5) Let the mating surfaces of the chiller supply duct connection dry for 10-20 minutes.

s 424-011-002

(6) Put the galleys into position on the floor attach fittings.

s 424-012-002

(7) Install the bolts, cylindrical nuts, and retainers to the floor attach fittings.

s 394-013-002

(8) Apply the Type 60 sealant to all the clearances at the floor attach fittings.

s 434-014-002

(9) Install the coverplates.

s 434-015-002

(10) Connect the chiller supply duct and the chiller return duct.

s 394-016-002

(11) Apply the chromate sealant to all the joints and clearances around the chiller return duct connection.

s 434-017-002

(12) Connect the water supply line and the water drain line.

S 394-018-002

(13) Apply the chromate sealant to all the clearances at the bottom of the galley.

s 434-019-002

(14) Install the kick strips and the vertical trim strips.

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S 434-024-002

(15) Install the gutter retainers.

s 424-020-002

(16) Connect the overhead tie-rods to the galley.

s 434-021-002

(17) Connect the oven vent to the oven vent duct.

s 434-022-002

(18) Connect the interphone connector.

s 434-023-002

(19) Connect the bonding jumper wires.

s 434-025-002

(20) Connect the electrical connectors to the galley.

S 864-026-002

(21) Close the fill/overflow valve (Ref 38-10-00).

s 414-027-002

(22) Close the movable ceiling panel (Ref 25-22-02).

S 864-028-002

(23) Remove the DO-NOT-CLOSE tag and close this circuit breaker on the P11 panel: (a) 11U33, GALLEY FORWARD

s 864-093-002

- (24) PRE-SB 25-0180; Reset the CHILLER SHUTDOWN CONT circuit breaker, B7 or C6, on the Main Power Distribution Panel, P6, if installed.
 - <u>NOTE</u>: This assures that the latching from the fire detection system is reset.





s 214-094-002 (25) POST-SB 25-0180; Make sure that the Forward Galley SYS OPR light is on. s 434-029-002 (26) Install the attendant seat if it is necessary (Ref 25-25-03). TASK 25-31-01-004-065-002 4. <u>Remove the Forward Galley F3 (Fig. 402)</u> Access Α. (1) Location Zone 200 Upper Half of Fuselage B. Procedure S 864-031-002 (1) Open this circuit breaker on the overhead circuit breaker panel, P11, and attach a DO-NOT-CLOSE tag: (a) 11U33, GALLEY FORWARD s 034-059-002 (2) Disconnect the electrical connectors from the galley. s 024-060-002 (3) Disconnect the overhead tie-rod from the galley. s 034-061-002 (4) Remove the kick strips and the vertical trim strips. s 034-062-002 (5) Remove the coverplates. s 024-063-002 (6) Remove the bolts, cylindrical nuts, and retainers from the floor attach fittings. s 024-064-002 (7) Remove the galley. TASK 25-31-01-404-033-002 5. Install the Forward Galley F3 (Fig. 402) A. Consumable Materials (1) A00027, Sealant - BAC 5010, Type 60

- Β. Access
 - (1) Location Zone 200 Upper Half of Fuselage

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C. Procedure

s 424-034-002

(1) Put the galley into its position on the floor attach fittings.

s 424-036-002

(2) Install the bolts, cylindrical nuts, and retainers to the floor attach fittings. Tighten the bolts to 300-500 pound-inches.

s 394-037-002

(3) Apply the sealant to all the clearances at the floor attach fittings.

s 434-038-002

(4) Install the coverplates.

s 434-042-002

(5) Install the kick strips and the vertical trim strips.

s 424-039-002

(6) Connect the overhead tie-rod to the galley.

s 434-040-002

(7) Connect the electrical connectors to the galley.

S 864-041-002

(8) Remove the DO-NOT-CLOSE tag and close this circuit breaker on the P11 panel:
(a) 11U33, GALLEY FORWARD

S 864-095-002

- (9) PRE-SB 25-0180; Reset the CHILLER SHUTDOWN CONT circuit breaker, B7 or C6, on the Main Power Distribution Panel, P6, if installed.
 - <u>NOTE</u>: This assures that the latching from the fire detection system is reset.





s 214-096-002

(10) POST-SB 25-0180;

Make sure that the Forward Galley SYS OPR light is on.

TASK 25-31-01-024-091-002

- 6. <u>Remove the Forward Galley F4 (Fig. 403)</u>
 - A. General
 - (1) The forward galley F4 is for alternate arrangement only not part of the delivery configuration.
 - B. References
 - (1) AMM 25-22-02/401, Lowered Ceiling Panels
 - (2) AMM 25-24-04/401, Partitions
 - (3) AMM 25-24-05/401, Coat Rod Retrator
 - C. Access
 - (1) Location Zone

200 Upper Half of Fuselage

D. Procedure

s 014-069-002

 (1) Open this circuit breaker on the overhead circuit breaker panel, P11, attach a DO-NOT-CLOSE tag:
(a) 11U33, GALLEY FORWARD

S 014-070-002

(2) Open the movable ceiling panel (AMM 25-11-02/401)

s 014-071-002

(3) Disconnect the electrical connectors from the galley.

S 024-072-002

(4) Disconnect the overhead tie-rod from the galley.

s 014-076-002

(5) Disconnect the chiller return duct and the chiller supply duct.

s 024-073-002

(6) Remove the stowage bin end caps.

s 024-075-002

(7) Remove the kick strips and vertical trim strips.

s 024-077-002

(8) Remove the cover plates.

S 024-078-002

(9) Remove the bolts, cylindrical nuts, and retainers from the floor attach fitting.



s 024-079-002 (10) Remove the galley. TASK 25-31-01-424-092-002 Install the Forward Galley F4 (Fig. 403) A. Consumable Materials (1) A00027, Sealant - BAC 5010, Type 60 Β. Access (1) Location Zone 200 Upper Half of Fuselage C. Procedure s 424-080-002 (1) Put the galley into its position on the floor attach fittings. s 424-081-002 Install the bolts, cylindrial nuts, and retainers to the floor (2) attach fitting. Tighten the bolts to 300-500 pound-inches. s 424-082-002 (3)

(3) Apply the sealant to all the clearances at the floor attach fittings.

s 424-083-002

(4) Install the coverplates.

s 424-084-002

(5) Install the kick strips and the vertical trim strips.

s 424-090-002

(6) Connect the overhead tie-rod to the galley.

s 414-085-002

(7) Connect the chiller return duct and the chiller supply duct.

s 424-086-002

(8) Install the stowage bin end caps.

s 414-087-002

(9) Connect the electrical connectors to the galley.

s 414-088-002

(10) Close the movable ceiling panel (AMM 25-11-02/401)

s 414-089-002

(11) Remove the DO-NOT-CLOSE tag and close ths circuit breaker on the P11
panel:
(a) 11U33, GALLEY FORWARD

7.



s 864-097-002

- (12) PRE-SB 25-0180; Reset the CHILLER SHUTDOWN CONT circuit breaker, B7 or C6, on the Main Power Distribution Panel, P6, if installed.
 - <u>NOTE</u>: This assures that the latching from the fire detection system is reset.

s 214-098-002

(13) POST-SB 25-0180;

Make sure that the Forward Galley SYS OPR light is on.

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GALLEY ELECTRICAL LOAD CONTROL UNITS - REMOVAL/INSTALLATION

- 1. <u>General</u>
 - A. This procedure contains these tasks:
 - (1) Remove the Galley Electrical Load Control Unit (ELCU) from the Generator Power Panels (P31 and P32).
 - (2) Install the ELCU in the Generator Power Panels (P31 and P32).
 - (3) Functional test of the Galley ELCU.
 - B. The ELCU's are located in the P31 Left Generator Power Panel and P32 Right Generator Power Panel. Each galley can have only one ELCU, but not all the galleys have an ELCU.
 - C. Each ELCU provides electrical overload and differential fault protection.
 - D. The ELCU has three phase input terminals and three phase output terminals. The correct installation of input wires to input terminals and output wires to output terminals, in the correct phase sequence, is necessary for the correct operation of the ELCU and galley equipment.

TASK 25-31-03-004-001

- 2. <u>Galley ELCU Removal</u> (Fig. 401)
 - A. References
 - (1) WDM 24-21-11 Left Gen Pwr Pnl, WDM 24-21-21 Right Gen Pwr Pnl
 - B. Access
 - (1) Location Zones

119 Main Equipment Center (Left)

- 120 Main Equipment Center (Right)
- C. Remove the ELCU
 - s 864-002
 - (1) Open the circuit breaker for the applicable bus or generator on the P31 Left Gen Pwr Pnl, and the P32 Right Pwr Gen Pnl and attach a D0 NOT CLOSE TAG:
 - <u>NOTE</u>: For the bus and generator circuit breakers and nomenclature, refer to the Wiring Diagram Manual (WDM 24-21-11, WDM 24-21-21)
 - (a) COO901 LEFT GEN

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- (b) COO902 LEFT BUS TIE
- (c) COO9O3 RIGHT GEN
- (d) COO9O4 RIGHT BUS TIE

S 864-056

- <u>WARNING</u>: REMOVE ELECTRICAL POWER FROM THE AIRPLANE BEFORE YOU DO THIS TASK. POWER PANELS CONTAIN HIGH VOLTAGES AND CURRENTS THAT CAN CAUSE DEATH OR INJURY TO PERSONS AND DAMAGE TO EQUIPMENT
- WARNING: BE CAREFUL WHEN YOU TOUCH THE ELCU. THE ELCU CAN BE HOT. WEAR PROTECTIVE GLOVES FOR THE REMOVAL. THE HIGH TEMPERATURE OF THE ELCU CAN BURN PERSONNEL AND CAUSE INJURY.
- (2) Remove electrical power (AMM 24-22-00/201).(a) Use an electrical multimeter to check that the power is switched off.

S 034-028

(3) Disconnect the ELCU electrical connector.

s 934-018

- <u>CAUTION</u>: YOU MUST TAG ALL THREE PHASE INPUT AND OUTPUT ELECTRICAL WIRES BEFORE YOU REMOVE THE WIRES FROM THE TERMINALS. IF YOU DO NOT TAG THE WIRES BEFORE YOU REMOVE THE WIRES THEY MAY BE TAGGED INCORRECTLY. IF YOU DO NOT INSTALL THE CORRECT WIRES TO THE CORRECT TERMINALS DAMAGE TO THE ELCU OR GALLEY EQUIPMENT MAY OCCUR.
- (4) Tag the input and output electrical wires for installation.

S 034-025

(5) Disconnect the input and output electrical wires.

S 024-008

(6) Remove the ELCU.

TASK 25-31-03-404-009

- 3. <u>Galley ELCU Installation</u> (Fig. 401)
 - A. References
 - (1) WDM 24-21-11 Left Gen Pwr Pnl, WDM 24-21-21 Right Gen Pwr PnlB. Access
 - (1) Location Zones
 - 119 Main Equipment Center (Left)
 - 120 Main Equipment Center (Right)
 - C. Procedure

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S 864-059

- <u>WARNING</u>: REMOVE ELECTRICAL POWER FROM THE AIRPLANE BEFORE YOU DO THIS TASK. POWER PANELS CONTAIN HIGH VOLTAGES AND CURRENTS THAT CAN CAUSE DEATH OR INJURY TO PERSONS AND DAMAGE TO EQUIPMENT
- WARNING: BE CAREFUL WHEN YOU TOUCH THE ELCU. THE ELCU CAN BE HOT. WEAR PROTECTIVE GLOVES FOR THE REMOVAL. THE HIGH TEMPERATURE OF THE ELCU CAN BURN PERSONNEL AND CAUSE INJURY.
- WARNING: REMOVE THE ELECTRICAL POWER BEFORE YOU REMOVE OR INSTALL THE COMPONENTS IN THE MAIN EQUIPMENT CENTER. THE HIGH VOLTAGE IN THE MAIN EQUIPMENT CENTER CAN KILL.
- (1) Remove electrical power (AMM 24-22-00/201).
 - (a) Use an electrical multimeter to check that the power is switched off.

S 864-062

- (2) Open the circuit breaker for the applicable bus or generator on the P31 Left Gen Pwr Pnl, and the P32 Right Pwr Gen Pnl and attach a D0 NOT CLOSE TAG:
 - <u>NOTE</u>: For the bus and generator circuit breakers and nomenclature, refer to the Wiring Diagram Manual (WDM 24–21–11, WDM 24–21–21)
 - (a) COO901 LEFT GEN
 - (b) COO9O2 LEFT BUS TIE
 - (c) COO9O3 RIGHT GEN
 - (d) COO9O4 RIGHT BUS TIE

s 424-063

(3) Install the ELCU.

(4) Make sure you tighten the terminal nuts on the ELCU to 115–125 inch-pounds torque.

s 424-041

- <u>CAUTION</u>: YOU MUST INSTALL THE THREE PHASE INPUT AND OUTPUT ELECTIRCAL WIRES TO THE CORRECT TERMINALS. IF YOU DO NOT INSTALL THE CORRECT WIRES TO THE CORRECT TERMINALS DAMAGE TO THE ELCU OR GALLEY EQUIPMENT CAN OCCUR.
- (5) Connect the input and output electrical wires.

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s 424-039



s 434-029

(6) Connect the ELCU electrical connector.

S 864-061

- (7) Close the circuit breaker for the applicable bus or generator on the P31 Left Gen Pwr Pnl, and the P32 Right Pwr Gen Pnl and remove the D0 NOT CLOSE TAG:
 - <u>NOTE</u>: For the bus and generator circuit breakers and nomenclature, refer to the Wiring Diagram Manual (WDM 24-21-11, WDM 24-21-21)
 - (a) COO901 LEFT GEN
 - (b) CO0902 LEFT BUS TIE
 - (c) COO9O3 RIGHT GEN
 - (d) COO904 RIGHT BUS TIE

S 864-054

(8) Supply electrical power (AMM 24-22-00/201).

s 864-052

- (9) PRE-SB 25-0180; Reset the CHILLER SHUTDOWN CONT circuit breaker, B7 or C6, on the Main Power Distribution Panel, P6, if installed.
 - <u>NOTE</u>: This assures that the latching from the fire detection system is reset.

s 214-053

(10) POST-SB 25-0180;

Make sure that the Mid Galley SYS OPR light is on.

TASK 25-31-03-764-020

- 4. Functional Test of the Galley ELCU
 - A. Equipment
 - (1) Phase Sequence Checker
 - (2) Volt Meter
 - B. References
 - (1) AMM 24-22-00/201, Electrical Power Control
 - C. Access
 - (1) Location Zones
 - 119 Main Equipment Center (Left)
 - 120 Main Equipment Center (Right)
 - D. Procedure

S 864-021

(1) Supply electrical power (AMM 24-22-00/201).

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s 764-023

(2) Make sure the correct phase sequence A, B, and C is at the ELCU output terminals.

S 764-027

(3) Measure 115 +5/-10V AC from terminals A2, B2, and C2 on the ELCU to ground.

S 764-024

(4) If you removed more that one ELCU from the same panel, make sure the correct galley control circuit breaker will supply power to the correct galley.

s 864-030

(5) Remove electrical power if it is not necessary (AMM 24-22-00/201).

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MAINTENANCE MANUAL

AFT GALLEY - REMOVAL/INSTALLATION

- 1. <u>General</u>
 - A. This procedure contains these tasks:
 - (1) The removal of the aft galleys.
 - (2) The installation of the aft galleys.
 - TASK 25-31-04-004-049
- 2. Aft Galley Removal
 - A. References
 - (1) AMM 25-22-02/401, Lowered Ceiling Panels
 - (2) AMM 25-25-03/401, Attendant Seats
 - (3) AMM 33-27-00/201, Galley Lights
 - (4) AMM 38-10-00/201, Potable Water System
 - (5) AMM 52-11-02/401, Doorway Lining
 - B. Access
 - (1) Location Zone

200 Upper Half of Fuselage

C. Prepare for Removal

S 864-050

 (1) Open these circuit breakers on the overhead circuit breaker panel, P11, and attach DO-NOT-CLOSE tags:
(a) 11U7, GALLEY AFT

s 014-001

(2) Open the lowered ceiling panels (AMM 25-22-02/401).

S 034-002

(3) Remove the lights in the galley ceiling to get access to the equipment (AMM 33-27-00/201).

S 864-003

(4) Open the fill/overflow valve to decrease the pressure of the water system (AMM 38-10-00/201).

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D. Procedure NOTE: SAS 150-161; Remove the aft galley G8 (Fig. 402). NOTE: MTH AIRPLANES; Remove the aft galley A4 (Fig. 402A). S 034-067 (1) Remove all the carts, containers, and appliances. s 034-105 (2) Remove the kick strips. s 034-106 (3) Remove the gutter retainers. s 034-071 (4) Disconnect the electrical connectors from the galley. s 034-072 (5) Remove the electrical bracket from the galley. S 024-107 (6) Disconnect the overhead tie-rods from the galley. S 024-108 (7) Remove the bolts, cylindrical nuts, and retainers from the floor attach fittings. s 024-109 (8) Remove the fasteners along the split line to remove the galley. s 024-076 (9) Remove the galley. E. Procedure NOTE: SAS AIRPLANES; Remove the aft galleys G5, G6 (Fig. 401). NOTE: MTH AIRPLANES; Remove the aft galleys A2, A3 (Fig. 401A). s 014-004 (1) Remove the aft doorway lining (AMM 52-11-02/401). s 034-005 (2) Remove the attendant seats (AMM 25-25-03/401).

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S 034-077

(3) Remove all the carts, containers, and appliances.

s 034-110

(4) Remove the kick strips.

s 034-111

(5) Remove the gutter retainers.

s 034-080

(6) Remove the outboard trim panels.

s 034-081

(7) Remove the tension cable.

S 034-082

(8) Disconnect the water supply line and the water drain line.

s 034-112

(9) Disconnect the chiller supply duct and the chiller return duct.

S 034-086

(10) Disconnect the electrical connectors from the galley.

s 024-113

(11) Disconnect the overhead tie-rods from the galley.

S 024-114

(12) Remove the bolts, cylindrical nuts, and retainers from the attach fittings.

S 024-115

(13) Remove the fasteners along the split lines to disassemble the galleys.

s 024-090

(14) Remove the galleys.

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F. Procedure

- <u>NOTE</u>: SAS AIRPLANES; Remove the aft galley G7 (Fig. 401)
- <u>NOTE</u>: MTH AIRPLANES; Remove the aft galley A1 (Fig. 401A).

S 034-092

(1) Remove all the carts, containers, and appliances.

S 034-116

(2) Remove the kick strips.

S 034-117

(3) Remove the gutter retainers.

S 034-118

(4) Disconnect the chiller supply duct and the chiller return duct.

s 024-119

(5) Remove the bolts, cylindrical nuts, and retainers from the floor attach fittings.

s 024-097

(6) Divide the galley horizontally and vertically as applicable to remove the galley from the airplane.

S 024-098

(7) Remove the galley.

TASK 25-31-04-404-007

3. <u>Aft Galley – Installation</u>

- A. Consumable Materials
 - (1) A00247 Sealant Chromate Type, BMS 5-95
 - (2) A00027 Adhesive BAC 5010 Type 60
- B. References
 - (1) AMM 25-22-02/401, Lowered Ceiling Panels
 - (2) AMM 25-25-03/401, Attendant Seats
 - (3) AMM 33-27-00/201, Galley Lights
 - (4) AMM 38-10-00/201, Potable Water System
 - (5) AMM 52-11-02/401, Doorway Lining
- C. Access
 - (1) Location Zone
 - 200 Upper Half of Fuselage

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- D. Procedure
 - <u>NOTE</u>: SAS AIRPLANES; Install the aft galley G7 (Fig. 401)
 - <u>NOTE</u>: MTH AIRPLANES; install the aft galley A1 (Fig. 401A)

s 424-008

(1) Put the lower galley parts in position on the floor attach fittings.

s 394-009

(2) Apply the sealant between the floor attach fittings and the galley.

s 424-120

(3) Install the bolts, cylindrical nuts, and retainers on the floor attach fittings. Do not tighten the bolts.

S 424-054

(4) Put the top galley parts in position on the lower galley parts.

S 424-122

- (5) SAS AIRPLANES; Install the fasteners but do not tighten.
 - <u>NOTE</u>: Keep all the fasteners loose to make the installation of the aft galley G5 and G6 easier.

s 424-123

- (6) MTH AIRPLANES; Install the fasteners but do not tighten.
 - <u>NOTE</u>: Keep all the fasteners loose to make the installation of the aft galley A2 and A3 easier.

s 394-013

(7) Apply the sealant between all the mating surfaces.

s 434-125

(8) Install the gutter retainers.

s 434-126

(9) Install the kick strips.

s 434-099

(10) Install all the carts, containers, and appliances.

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E. Procedure NOTE: SAS AIRPLANES; Install the aft galleys G5, G6 (Fig. 401) MTH AIRPLANES; NOTE: Install the aft galleys A2, A3 (Fig. 401A) s 424-015 (1) Put the lower galley parts in position on the floor attach fittings. s 394-016 (2) Apply the sealant between the floor attach fittings and the galley. s 394-017 (3) Apply the sealant between all the mating surfaces. s 424-127 (4) Install the bolts, cylindrical nuts, and retainers on the floor attach fittings. Do not tighten the bolts. s 424-059 (5) Put the top galley parts in position on the lower galley parts. s 424-129 (6) SAS AIRPLANES; Install the fasteners to connect the aft galleys G5 and G6 to the aft galley G7. s 424-130 (7) MTH AIRPLANES; Install the fasteners to connect the aft galleys A2 and A3 to the aft galley A1. s 424-132 (8) Install the bolts, cylindrical nuts, and retainers on the floor attach fittings. (a) Tighten the bolts to 300-500 pound-inches. S 424–133 (9) Tighten the fasteners along all the split lines. s 424-134 (10) Connect the overhead tie-rods to the galley. s 434-025 (11) Install the tension cable. Tighten the turnbuckle to 25-45 pounds

(11) Install the tension cable. Tighten the turnbuckle to 25-45 pounds tension.

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s 434-026 (12) Connect the electrical connectors to the galley. s 434-135 (13) Connect the chiller supply duct and the chiller return duct. S 434-028 (14) Connect the water supply line and the water drain line. s 434-136 (15) Install the gutter retainers. s 434-137 (16) Install the kick strips. s 394-031 (17) Apply the sealant to all the clearances and joints. s 434-138 (18) Install the ceiling trim with the adhesive. s 434-139 (19) Install the outboard trim panels. s 434-101 (20) Install the attendant seats (AMM 25-25-03/401). s 414-102 (21) Install the aft doorway lining (AMM 52-11-02/401). s 434-103 (22) Install all the carts, containers, and appliances. F. Procedure NOTE: SAS 150-161; Install the aft galley G8 (Fig. 402). NOTE: MTH AIRPLANES; Install the aft galley A4 (Fig. 402A). s 424-065 (1) Put the galley into position on the floor attach fittings. s 394-037 (2) Apply the sealant between the floor attach fittings and the galley.

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s 424-141 (3) Install the bolts, cylindrical nuts, and retainers on the floor attach fittings. (a) Tighten the bolts to 300-500 pound-inches. s 424-142 (4) Connect the overhead tie-rods to the galley. s 434-039 (5) Install the electrical bracket to the galley. s 434-040 (6) Connect the electrical connectors. s 434-143 (7) Install the kick strips. S 434-144 (8) Install the gutter retainers. s 434-145 (9) Install the ceiling trim with the adhesive. S 394-044 (10) Apply the sealant to all the clearances and joints. s 434-104 (11) Install all the carts, containers, and appliances. G. Put the Airplane Back to Its Usual Condition s 434-046 (1) Install the lights in the galley ceiling (AMM 33-27-00/201). s 414-047 (2) Close the lowered ceiling panels (AMM 25-22-02/401). S 864-048 (3) Close the fill/overflow valve (AMM 38-10-00/201). S 864-064 (4) Remove the DO-NOT-CLOSE tags and close these circuit breakers on the P11 panel:

(a) 11U7, GALLEY AFT

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s 864-156

- (5) PRE-SB 25-0180; Reset the CHILLER SHUTDOWN CONT circuit breaker, B7 or C6, on the Main Power Distribution Panel, P6, if installed.
 - <u>NOTE</u>: This assures that the latching from the fire detection system is reset.

S 214-157

(6) POST-SB 25-0180; Make sure that the Aft Galley SYS OPR light is on.

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MAINTENANCE MANUAL

GALLEY FILTER - CLEANING/PAINTING

1. <u>General</u>

- A. This procedure contains a task to clean the galley filter.
- TASK 25-31-10-107-001
- 2. <u>Clean the Galley Filter</u> (Fig. 701)
 - A. General
 - (1) The galley filters are foam filters and are behind the ovens in the galley oven bays.
 - B. References
 - (1) WDM 25-31-01, WDM 25-31-02, WDM 25-31-03, Galley Power





- C. Access
 - (1) Location Zones
 - 221/222Passenger Cabin Section 41231/232Passenger Cabin Section 43251/252Passenger Cabin Section 46
- D. Prepare to Clean the Galley Filter

S 867-002

(1) Open the circuit breaker for the applicable galley on the overhead circuit breaker panel, P11, and attach a DO-NOT-CLOSE tag:

<u>NOTE</u>: For the galley circuit breakers and nomenclature, refer to the Wiring Diagram Manual(WDM 25–31–03).

- (a) 11U33, GALLEY FWD/MID
- (b) 11U6, GALLEY MID
- (c) 11U7, GALLEY MID/AFT
- (d) 11U8, GALLEY AFT
- (e) 11U34, GALLEY AFT

S 017-004

(2) Remove the oven.

s 037-005

(3) On the airplanes with a filter grill that you can remove, remove the screws and remove the filter grill.

S 027-006

- (4) Remove the foam filter from the filter grill.
- E. Clean the Galley Filter

s 167-007

- (1) Clean the foam filter in soap and water.
- F. Put the Airplane Back to Its Usual Condition

s 437-008

(1) Install the foam filter in the filter grill.

s 437-009

(2) On the airplanes with a filter grill that you can remove, align the filter grill with the screw holes and install the screws.

s 417-010

(3) Install the oven.

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s 867-011

(4) Remove the DO-NOT-CLOSE tag and close the circuit breaker for the applicable galley on the P11 panel:

NOTE: For the galley circuit breakers and nomenclature, refer to the Wiring Diagram Manual (WDM 25-31-03).

- (a) 11U33, GALLEY FWD/MID
- (b) 11U6, GALLEY MID
- (c) 11U7, GALLEY MID/AFT
 (d) 11U8, GALLEY AFT
- (e) 11U34, GALLEY AFT

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MAINTENANCE MANUAL

<u>REFRIGERATION - DESCRIPTION AND OPERATION</u>

- 1. <u>General</u>
 - A. Electrically powered air chillers refrigerate food in the galleys. One chiller supplies chilled air to the forward galley, and two chillers supply chilled air to the aft galley.
- 2. Galley Chillers (Fig. 1)
 - A. The forward galley air chiller is in the area forward of the forward cargo compartment.
 - B. The aft galley air chillers are in the area aft of the bulk cargo compartment.
 - C. There are two air ducts between the air chiller and the galley. The supply duct moves the cold air from the air chiller to the galley. The return duct moves the air from the galley to the air chiller.

3. Operation

- A. For information on the galley chiller wiring diagram, refer to the Wiring Diagram Manual (WDM 25-33-01).
- B. Functional Description
 - (1) The air chillers use 115V ac and 28V dc.
 - (2) The ac and dc power for the forward galley air chiller is supplied through the circuit breakers on the forward galley.
 - (3) The ac and dc power for the aft galley air chiller is supplied through the circuit breakers on the aft galley.
 - (4) There is an ON/OFF switch on the galley to operate the air chiller.
 - (5) When the ON/OFF switch of the air chiller is put to the ON position, these conditions occur:
 - (a) The ON light comes on.
 - (b) The air chiller starts to operate.
 - (6) If there is a failure in the air chiller while it operates, these conditions occur:
 - (a) The operation of the air chiller stops.
 - (b) The ON light goes off.
 - (c) The FAULT light comes on.





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REFRIGERATION

COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	AMM REFERENCE
CHILLER - AFT	2	2	822, AFT OF BULK CARGO	25-33-02
CHILLER - FORWARD	2	1	119AL, MAIN EQUIP CTR, FORWARD, AGAINST RIGHT SIDEWALL	25-33-01
FILTER - AIR GALLEY - (FIM 25-31-00/101) AFT FORWARD RELAY - (FIM 31-01-37/101) CHILLER LATCH, K774	2		ON CHILLERS	25–33–00

			Refrigeratior Fi	n – Component gure 101	Index		
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MAIN EQUIP CTR

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MAINTENANCE MANUAL

GALLEY CHILLER - INSPECTION/CHECK

- 1. <u>General</u>
 - A. This procedure contains one task. The task is the inspection of the galley chiller.

TASK 25-33-00-206-001

- 2. <u>Galley Chiller Inspection/Check</u>
 - A. References
 - (1) 24-22-00/201, Electrical Power Control
 - B. Access
 - (1) Location Zone 200 Upper Half of Fuselage
 - C. Procedure

s 866-002

(1) Supply the electrical power (AMM 24-22-00).

s 206-003

- (2) To do a check on the galley chiller, do the steps that follow:(a) Make sure the cart door does not have damage.
 - (b) Make sure there are no damaged seals on the cart door.
 - (c) Make sure the cart door operates smoothly and closes correctly on the opening.
 - (d) Put the chiller ON-OFF switch on the galley to the ON position.
 - (e) Make sure the ON light is on.
 - (f) Make sure the air chiller supplies cool air.
 - (g) After 5 minutes, make sure the air chiller temperature is 33-45 degrees Fahrenheit.

S 866-005

(3) Put the air chiller ON-OFF switch on the galley to the OFF position.

S 866-004

(4) Remove the electrical power if it is not necessary (AMM 24-22-00).

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FORWARD GALLEY AIR CHILLER - REMOVAL/INSTALLATION

- 1. <u>General</u>
 - A. This procedure contains these tasks:
 - (1) Removal of the forward galley air chiller (EE bay with ramp).
 - (2) Installation of the forward galley air chiller (EE bay with ramp).

TASK 25-33-01-004-013

- 2. <u>Remove the Forward Galley Air Chiller (EE bay with Ramp)</u>
 - A. Equipment
 - (1) Forward Galley Air Chiller Replacement Equipment (ramp) – A25001–33
 - (2) Fishpole Hoist Commercially available
 - B. References
 - (1) WDM 25-33-11, Refrigeration Power
 - C. Access
 - (1) Location Zones 119/120 Main Equipment Center
 - D. Procedure

S 864-061

- (1) Open this circuit breaker on the main power distribution panel, P6, and attach D0-NOT-CLOSE tag:
 - (a) 6B7 or 6C6, CHILLER SHUTDOWN CONT
 - <u>NOTE</u>: For the galley chiller circuit breakers and nomenclature, refer to the Wiring Diagram Manual (WDM 25-33-11).

S 864-014

(2) Put the air chiller ON-OFF switch to the OFF position on the forward galley.

S 864-001

(3) Open the two CHILLER NO. 1 circuit breakers on the forward galley, and attach DO-NOT-CLOSE tags.

S 014-016

(4) Open the electrical equipment access door.

s 424-017

- (5) To install the ramp (Fig. 402), do the steps that follow:(a) Put the ramp into position.
 - (b) On the right side of the ramp, install the pin to the channel at the aft end of the chiller support structure.
 - (c) On the left side of the ramp, install the handle to the same channel.
 - (d) Connect the fishpole hoist to the attach point at the end of the ramp at BL 0.0.

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- (e) Use the fishpole hoist to lift the ramp to the horizontal position.
- s 034-018
- (6) Disconnect the electrical connector from the air chiller (Fig. 401).
 - S 034-080
- (7) Disconnect the drain line, if necessary.
 - s 034-020
- (8) AIRPLANES WITH CHILLER SUPPORT RAILS; Do the steps that follow:
 - (a) Remove the bolts, washers and packing from the chiller support.
 - (b) Move the air chiller aft until the forward end of the chiller rail disengages from the forward stop screw.
 - s 034-021
- (9) AIRPLANES WITHOUT CHILLER SUPPORT RAILS; Remove the screws (4 locations) on the bottom of the air chiller which attach the air chiller to the chiller support.

s 024-100

- <u>WARNING</u>: BE CAREFUL WHEN YOU MOVE THE GALLEY AIR CHILLER. BECAUSE THE GALLEY AIR CHILLER WEIGHS 86 POUNDS (38 KGS), INJURIES TO PERSONS CAN OCCUR.
- <u>CAUTION</u>: DO NOT LET THE GALLEY AIR CHILLER DAMAGE THE ADJACENT WIRE BUNDLES. PROTECT ADJACENT WIRE BUNDLES FROM DAMAGE DURING REMOVAL AND INSTALLATION. EXPOSED WIRES MAY CAUSE AN ELECTRICAL SHORT AND DAMAGE EQUIPMENT.
- (10) Put the air chiller on the ramp.

S 824-026

(11) Move the air chiller down the ramp.

s 824-027

(12) Lower the air chiller and the ramp at the same time to the top of the E/E rack.

s 034-002

(13) Disconnect the fishpole hoist from the ramp.

S 024-133

- (14) AIR CHILLERS WITH THREADED INSERTS (NO NYLON STRAPS);
 - Do the steps that follow:
 - (a) Attach the spreader bar to the air chiller (Fig. 402).
 - (b) Attach the fishpole hoist to the spreader bar.
 - (c) Lift the air chiller off of the ramp and let the air chiller hang.

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- (d) Make sure the air chiller is in a vertical position and install the safety strap.
- (e) Lower the air chiller to the ground through the electrical equipment access door.
- (f) Remove the strap and the spreader bar.

s 024-134

(15) AIR CHILLERS WITH NYLON STRAPS;

Do the steps that follow:

- (a) Lift the air chiller off of the ramp using the nylon straps and the fishpole hoist.
- (b) Rotate the air chiller to a vertical position.
- (c) Lower the air chiller to the ground through the electrical equipment access door.

s 164-034

- <u>WARNING</u>: MAKE SURE THE AREA AROUND THE AIR CHILLER IS CLEAN. THE AIR CHILLER IS NEAR THE CREW OXYGEN BOTTLES. OIL OR OTHER FLAMMABLE MATERIALS CAN CAUSE AN EXPLOSION IF THEY ARE NEAR THE CREW OXYGEN BOTTLES.
- (16) Clean the area around where the air chiller was installed.

s 214-111

(17) Do a visual inspection of all wire bundles adjacent to the galley air chiller.

S 304-175

(18) Repair any damaged wires and install a protective sleeve over the wire bundle.

s 304-176

- (19) Make sure the sleeve extends a minimum of two inches beyond the end of the radius of the wire bundle.
 - s 204-181
- (20) Do a system test for any wire that requires replacement or splicing to repair damage.

TASK 25-33-01-404-035

- 3. Install the Forward Galley Air Chiller (EE bay with Ramp)
 - A. Equipment
 - (1) Forward Galley Air Chiller Replacement
 - Equipment (Ramp) A25001–33
 - (2) Fishpole Hoist Commercially available
 - B. References
 - (1) AMM 25-33-00/601, Galley Chiller Inspection/Check

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- (2) WDM 25-33-11, Refrigeration Power C. Access
 - (1) Location Zones

119/120 Main Equipment Center

D. Procedure

s 424–183

- <u>WARNING</u>: MAKE SURE THE AREA AROUND THE AIR CHILLER IS CLEAN. THE AIR CHILLER IS NEAR THE CREW OXYGEN BOTTLES. OIL OR OTHER FLAMMABLE MATERIALS CAN CAUSE AN EXPLOSION IF THEY ARE NEAR THE CREW OXYGEN BOTTLES.
- WARNING: BE CAREFUL WHEN YOU MOVE THE GALLEY AIR CHILLER. BECAUSE THE GALLEY AIR CHILLER WEIGHS 86 POUNDS (38 KG), INJURIES TO PERSONS CAN OCCUR.
- <u>CAUTION</u>: DO NOT LET THE GALLEY AIR CHILLER CAUSE DAMAGE TO THE ADJACENT WIRE BUNDLES. PROTECT ADJACENT WIRE BUNDLES FROM DAMAGE DURING REMOVAL AND INSTALLATION. EXPOSED WIRES CAN CAUSE AN ELECTRICAL SHORT AND DAMAGE EQUIPMENT.
- (1) Clean the area where you will install the forward galley air chiller.

s 424-132

- (2) To install the ramp (Fig. 402), do the steps that follow:
 - (a) Put the ramp into position.
 - (b) On the right side of the ramp, install the pin to the channel at the aft end of the chiller support structure.
 - (c) On the left side of the ramp, install the handle to the same channel.

S 424-184

- (3) AIR CHILLERS WITH THREADED INSERTS (NO NYLON STRAPS); Do the steps that follow:
 - (a) Attach the spreader bar and the safety strap to the air chiller (Fig. 402).
 - (b) Attach the fishpole hoist to the spreader bar.
 - (c) Rotate the air chiller to a vertical position.
 - (d) Lift the air chiller through the electrical equipment access door.
 - (e) Rotate the air chiller to a horizontal position.
 - (f) Put the air chiller on the ramp.
 - 1) Make sure the air filter is in the correct position.
 - (g) Remove the strap and the spreader bar from the air chiller.

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s 424–131

- (4) AIR CHILLERS WITH NYLON STRAPS;
 - Do the steps that follow:
 - (a) Attach the fishpole hoist to the nylon straps.
 - (b) Rotate the air chiller to a vertical position.
 - (c) Lift the air chiller through the electrical equipment access door.
 - (d) Rotate the air chiller to a horizontal position.
 - (e) Put the air chiller on the ramp.
 - 1) Make sure the air filter is in the correct position.

S 424-128

(5) Disconnect the fishpole hoist from the air chiller.

S 424-129

(6) Connect the fishpole hoist to the attach point at the end of the ramp at BL 0.0.

s 424-130

(7) Use the fishpole hoist to lift the ramp and the air chiller at the same time to the horizontal position.

S 824-042

(8) Move the air chiller up the ramp.

s 024-101

- <u>WARNING</u>: BE CAREFUL WHEN YOU MOVE THE GALLEY AIR CHILLER. BECAUSE THE GALLEY AIR CHILLER WEIGHS 86 POUNDS (38 KGS), INJURIES TO PERSONS CAN OCCUR.
- <u>CAUTION</u>: DO NOT LET THE GALLEY AIR CHILLER DAMAGE THE ADJACENT WIRE BUNDLES. PROTECT ADJACENT WIRE BUNDLES FROM DAMAGE DURING REMOVAL AND INSTALLATION. EXPOSED WIRES MAY CAUSE AN ELECTRICAL SHORT AND DAMAGE EQUIPMENT.
- (9) Move the air chiller from the ramp to the installed position.

S 844–138

- <u>CAUTION</u>: MAKE SURE TO INSTALL THE COVER PLATE ON THE TOP EXHAUST PORT. FAILURE TO INSTALL THE COVER PLATE IN THE CORRECT POSITION WILL CAUSE THE AIR CHILLER TO OVERHEAT.
- (10) Make sure the side exhaust port is open and the cover plate for the condenser exhaust port is installed on the top exhaust port.

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S 864-124

(11) AIRPLANES WITH CHILLER SUPPORT RAILS; Make sure the chiller rails move into position at the forward end of the chiller support.

S 214-046

(12) Make sure the seal between the duct connections are satisfactory.

S 424-125

(13) AIRPLANES WITH CHILLER SUPPORT RAILS; Install the bolts, washers and packing (Fig. 401).

S 424-126

(14) AIRPLANES WITHOUT CHILLER SUPPORT RAILS; Install the screws (4 locations) on the bottom of the air chiller which attach the air chiller to the chiller support.

S 434-079

(15) Connect the drain, if necessary.

S 214-112

(16) Do a visual inspection of the wire bundles adjacent to the galley air chiller.

s 214-180

(17) Inspect the wire bundle aft of where the chiller is installed for damaged or chafed wires.

s 304–179

(18) Repair any damaged wires.

s 304-178

(19) Install a protective sleeve over wire bundle. Make sure the sleeve extends a minimum of two inches beyond the end of the radius of the wire bundle.

s 204-177

(20) Do a system test for any wire that requires replacement or splicing to repair damage.

s 434-051

(21) Connect the electrical connector to the air chiller.

S 864-053

(22) Remove the DO-NOT-CLOSE tags from the two CHILLER NO. 1 circuit breakers. Close the circuit breakers.

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S 864-062

- (23) Remove the DO-NOT-CLOSE tag and close this circuit breaker on the P6 panel:
 - (a) 6B7 or 6C6, CHILLER SHUTDOWN CONT
 - <u>NOTE</u>: For the galley chiller circuit breakers and nomenclature, refer to the Wiring Diagram Manual (WDM 25-33-11).

S 024-057

(24) Remove the fishpole hoist and the ramp.

s 414-058

(25) Close the electrical equipment access door.

s 204-069

(26) Do the galley chiller inspection/check procedure (AMM 25-33-00/601).

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AFT GALLEY AIR CHILLER - REMOVAL/INSTALLATION

- 1. <u>General</u>
 - A. This procedure contains two tasks:
 - (1) The first task is the removal of the aft galley air chiller.
 - (2) The second task is the installation of the aft galley air chiller.

TASK 25-33-02-004-001

- 2. <u>Remove the Aft Galley Air Chiller</u> (Fig. 401)
 - A. Equipment(1) Safety Barrier, Cargo Door A52005-18
 - B. References
 - (1) WDM 25-33-11, Refrigeration Power
 - C. Access (1) Location Zone
 - Location Zones 165/166 Area Aft of Bulk Cargo Compartment
 - D. Procedure

s 214-049

- (1) Make sure the air chiller ON-OFF switch is in the OFF position.
 - S 864-002
- (2) Open this circuit breaker on the main power distribution panel, P6, and attach a DO-NOT-CLOSE tag:
 - (a) 6B7 or 6C6, CHILLER SHUTDOWN CONT
 - <u>NOTE</u>: For the galley chiller circuit breakers and nomenclature, refer to the Wiring Diagram Manual (WDM 25-33-11).

S 864-013

(3) Open the two CHILLER and two CHILLER CONTROL circuit breakers on the aft galley, and attach DO-NOT-CLOSE tags.

s 424-005

- WARNING: MAKE SURE YOU INSTALL THE SAFETY BARRIER CORRECTLY. INCORRECT INSTALLATION OF THE SAFETY BARRIER CAN CAUSE INJURY TO PERSONS.
- (4) Install the safety barrier.

S 014-015

(5) Remove the bulk cargo nets to get access to the equipment area aft of the bulk cargo compartment.

S 024-019

(6) Remove the screws (four locations) on the bottom of the air chiller which attach the air chiller to the chiller support.

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S 014-076

- WARNING: BE CAREFUL WHEN YOU MOVE THE GALLEY AIR CHILLER. BECAUSE THE GALLEY AIR CHILLER WEIGHS 86 POUNDS (38 KGS), INJURIES TO PERSONS CAN OCCUR.
- <u>CAUTION</u>: DO NOT LET THE GALLEY AIR CHILLER DAMAGE THE ADJACENT WIRE BUNDLES. PROTECT ADJACENT WIRE BUNDLES FROM DAMAGE DURING REMOVAL AND INSTALLATION. EXPOSED WIRES MAY CAUSE AN ELECTRICAL SHORT AND DAMAGE EQUIPMENT.
- (7) Lift and move the air chiller forward to get access to the electrical connector.

S 034-023

- (8) Disconnect the electrical connector.
 - s 024-006
- (9) Remove the air chiller.

TASK 25-33-02-404-024

- 3. <u>Install the Aft Galley Air Chiller</u> (Fig. 401)
 - A. Equipment
 - (1) Safety Barrier, Cargo Door A52005-18
 - B. References
 - (1) AMM 25-33-00/601, Galley Chiller
 - (2) WDM 25-33-11, Refrigeration Power
 - C. Access
 - (1) Location Zones 165/166 Area Aft of Bulk Cargo Compartment
 - D. Procedure

S 424-026

(1) Put the air chiller aft in the chiller support.

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s 424-093

- <u>CAUTION</u>: MAKE SURE TO INSTALL THE COVER PLATE ON THE TOP EXHAUST PORT. FAILURE TO INSTALL THE COVER PLATE IN THE CORRECT POSITION WILL CAUSE THE AIR CHILLER TO OVERHEAT.
- (2) Make sure the side exhaust port is open and the cover plate for the condenser exhaust port is installed on the top exhaust port.

s 434-027

(3) Connect the electrical connector.

s 214-030

(4) Make sure the refrigeration duct connections seal correctly.

s 424-034

(5) Install the screws (4 locations) on the bottom of the air chiller to attach the air chiller to the chiller support.

S 864-039

(6) Remove the DO-NOT-CLOSE tags from the two CHILLER and two CHILLER CONTROL circuit breakers. Close the circuit breakers.

S 864-003

(7) Remove the DO-NOT-CLOSE tag and close this circuit breaker on the P6 panel:

(a) 6B7 or 6C6, CHILLER SHUTDOWN CONT

<u>NOTE</u>: For the galley chiller circuit breakers and nomenclature, refer to the Wiring Diagram Manual (WDM 25-33-11).

s 424-047

(8) Install the bulk cargo nets.

s 424-048

(9) Remove the safety barrier.

s 774-054

(10) Do the galley chiller inspection/check procedure (AMM 25-33-00/601).

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CHILLER AIR FILTER - CLEANING/PAINTING

- 1. <u>General</u>
 - A. This procedure contains one task. The task is the procedure to clean the air filter of the galley air chiller.

TASK 25-33-03-107-001

- 2. <u>Clean the Air Filter</u> (Fig. 701)
 - A. Consumable Materials
 - (1) Soap Commercially Available
 - B. Access
 - (1) Location Zones
 - 117/118Area Outboard and Above NLG Wheel Well231/232Passenger Cabin Section 43165/166Area Aft of Bulk Cargo Compartment
 - C. Procedure

S 027-002

(1) Remove the air filter from the chiller.

s 107-003

(2) Prepare a solution of soap and warm water.

S 147-004

(3) Soak the air filter in the soap solution to loosen the dirty particles.

s 177-005

(4) Flush the air filter with clean water.

s 167-006

(5) Dry the air filter with low pressure air.

s 427-007

(6) Install the air filter in the chiller.

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LAVATORIES - DESCRIPTION AND OPERATION

1. <u>General</u> (Fig. 1)

A. Lavatories are in the passenger compartment.

- B. All lavatory modules mount on floor structure. The lavatory forward of the forward entry door also attaches to the airplane structure by an overhead tierod. Access to floor tiedown bolts is from outside the lavatory module; access to overhead tierods is through ceiling panels.
- C. Two lavatory INOP lights are located on the aft attendants' panel. The INOP light indicates that the toilet flushing mechanism for the indicated lavatories has been deactivated. Deactivation is caused by a full waste tank. For further description of the waste tank system, refer to 38-30-00, Description and Operation.
- D. Vacuum waste disposal lines connect to the lavatory under the module. Access to vacuum waste lines is through an access panel under the toilet shroud. Water and drain lines connect inside the sink cabinet. Access to water and drain line connections is through a panel in the cabinet. Air vent lines and conditioned air lines connect above the module ceiling. Access to air lines is through ceiling panels. Electrical connections are above the module ceiling.











MAINTENANCE MANUAL

LAVATORIES - INSPECTION/CHECK

- 1. <u>General</u>
 - A. This procedure contains a task on how to examine the waste compartment door and the waste flap in the lavatory.

TASK 25-41-00-206-001

- 2. Examine the Waste Compartment Door and the Waste Flap (Fig. 601)
 - A. Access
 - (1) Location Zone

200 Upper Half of Fuselage

B. Procedure

s 216-015

- (1) Do these steps to make sure the waste flap is installed correctly:(a) Do a visual check to make sure the bottom of the flap is parallel with the surface of the counter top.
 - (b) Push down on the flap.
 - (c) Make sure the flap moves back to its initial position in less than one second when you move your hand away from the flap.
 - (d) Make sure the screws that attach the flap to the counter are tight.

s 216-002

- (2) Do an inspection of the waste flap:
 - (a) Make sure the waste flap is installed correctly.
 - (b) Make sure the waste flap seals correctly.
 - (c) Make sure the clearance between the counter and the waste flap is a maximum of 0.02 in. (0.51mm).
 - S 216-003
- (3) Do an inspection of the waste compartment door:
 - (a) Make sure the waste compartment door is installed correctly.
 - (b) Make sure the waste compartment door operates correctly.
 - (c) Make sure the waste compartment door seals correctly.
 - (d) Make sure the door edges are not damaged.
 - (e) Make sure the door latch operates smoothly.
 - (f) Make sure the door is tight when the door is closed and latched.
 - (g) Make sure the door operates smoothly and closes correctly on the opening.









Inspection of Lavatory for Corrosion (Example) Figure 602





s 216-016

- (4) Make sure there are no leaks in the waste compartment seals.
 - (a) Make sure the seals are completely around the periphery of the door and are completely intact.
 - (b) Make sure the seals come in contact with waste compartment structure when the door is closed.
 - (c) Make sure the NO CIGARETTE DISPOSAL placard is installed.

S 216-017

- (5) Make sure there are no visible cracks or damage in general.
 - (a) Make sure there is no damage caused by trash fires.
 - (b) Make sure that the periphery of the waste compartment is completely flat and has no damage.

TASK 25-41-00-206-004

3. Lavatory Inspection to Prevent Corrosion (Fig. 602)

A. Procedure

s 216-005

(1) Make sure the floor mat and coving do not have cracks or disbonding.

s 216-006

(2) Inspect all floor mat and coving seals for damage.
 Removal of the threshold cap is required for this inspection.
 (A 0.005 inch feeler gauge can be used as an additional aid to check for breaks in the seal).

S 216-007

- (3) Inspect for signs of mark off in the floor mat near the walls and threshold.
 - <u>NOTE</u>: The term "mark off" is a technical way to describe a surface disturbance. This usually appears as a ridge caused by a rise or drop in the surface. The ridge is caused by a shift or delamination of a lower unseen structure.

s 216-008

(4) Inspect for delamination and or gaps in the floor panel honeycomb by tap testing the floor mat to identify any hollow spots beneath the floor mat.

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TASK 25-41-00-206-009

- 4. Lavatory Inspection for Signs of Corrosion (Fig. 602)
 - A. Procedure

s 216-010

- (1) Look on all lower exterior walls and wall areas for prepreg delamination and signs of corrosion.
 - <u>NOTE</u>: Delamination in these areas can be corrosion of the aluminum extrusions that are in the walls of the lavatory. This could be an indicator for tie-down corrosion due to moisture seal failure.

S 216-018

(2) Look at the tie-downs for corrosion in case of moisture seal failure. Removal of carpet, kickstrip, and/or other adjoining surfaces may be required to view tie-downs from the exterior.



MAINTENANCE MANUAL

FORWARD LAVATORY - REMOVAL/INSTALLATION

- 1. <u>General</u>
 - A. This procedure contains these tasks:
 - (1) Removal of the forward lavatory F1.
 - (2) Installation of the forward lavatory F1.

TASK 25-41-01-004-001

- 2. <u>Forward Lavatory F1 Removal</u> (Fig. 401)
 - A. References
 - (1) AMM 25-22-02/401, Lowered Ceiling Panels
 - (2) AMM 35-21-13/201, Oxygen Modules
 - (3) AMM 38-10-00/201, Potable Water System
 - (4) AMM 38-32-01/401, Toilet Assembly
 - (5) AMM 52-11-02/401, Doorway Lining
 - B. Access
 - (1) Location Zone

200 Upper Half of Fuselage

C. Procedure

s 864-002

- (1) Open these circuit breakers on the overhead circuit breaker panel, P11, and attach DO-NOT-CLOSE tags:
 - (a) 11C22, PASS ADRS
 - (b) 11P34, LIGHTING LAV CALL SYS
 - (c) 11R7, LAVS SYS 1 LIGHTS
 - (d) 11R8, LAVS SYS 1 FLUSH
 - (e) 11R9, LAVS SYS 1 MIRROR

S 864-003

(2) Open these circuit breakers on the forward miscellaneous electrical equipment panel, P33, and attach DO-NOT-CLOSE tags:
 (a) 33J2, SIGNS NO SMOKE S/BELT

S 864-004

(3) Open this circuit breaker on the APU external power panel, P34, and attach a DO-NOT-CLOSE tag:
 (a) 34S4, LIGHTS LAV SVCE

S 014-006

(4) Remove the lowered ceiling panels (AMM 25-22-02).

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FLOOR ATTACH FITTING

Forward Lavatory F-1 Figure 401 (Sheet 1)

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s 404-140

(5) Remove the doorway lining (AMM 52-11-02/401) if it is necessary.

S 864-007

(6) Open the fill/overflow valve to decrease the pressure of the water system (AMM 38-10-00/201).

s 024-008

- (7) Do the steps that follow:
 - (a) Remove the foam closure seal and backup angle from the lavatory ceiling.
 - (b) Disconnect the electrical connector on top of the lavatory.
 - (c) Disconnect the bonding jumper wires.
 - (d) Disconnect the air distribution duct.
 - (e) Disconnect the overhead tie-rod from the lavatory.
 - (f) Remove the oxygen module (AMM 35-21-13/201).
 - (g) Hold the PSU and remove the quick-release fasteners.
 - (h) Lower the PSU and disconnect the electrical connector.
 - (i) Remove the PSU.
 - (j) Remove the fluorescent light lens and the light box.
 - (k) Open the faucets and stopper to let the water drain into the water tank.
 - (l) Remove the toilet (AMM 38-32-01/401).
 - (m) Disconnect the ventilation duct.
 - (n) Remove the boot from the riser tube.
 - (o) Remove the waste line access panel.
 - (p) Remove the sealant where the access panel attaches to to the lavatory and at the seam between the panels.
 - (q) Disconnect the riser tube from the waste line.
 - (r) Disconnect the flush line.
 - (s) Disconnect the water supply line and the water drain line.
 - (t) Remove the kick strips.
 - (u) Remove the screws from the floor attach fittings.
 - (v) Remove the shroud panel from the forward wall of the lavatory.
 - (w) Remove the bolts from the forward wall of the lavatory.
 - (x) Remove the sealant from the bottom of the lavatory.
 - (y) Make sure the lavatory is clear from all the structures.
 - (z) Remove the lavatory.

TASK 25-41-01-404-009

- 3. <u>Forward Lavatory F1 Installation</u> (Fig. 401)
 - A. Consumable Materials
 - (1) A00247, Sealant Chromate Type, BMS 5-95
 - (2) GOO150, Tape Teflon Permacel P421
 - B. References
 - (1) AMM 23-31-00/501, Passenger Address System
 - (2) AMM 25-22-02/401, Lowered Ceiling Panels

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- (3) AMM 33-26-00/201, Lavatory Lights
- (4) AMM 35-21-00/501, Manual Deployment Test Passenger Oxygen Masks
- (5) AMM 35-21-13/201, Oxygen Modules
- (6) AMM 38-10-00/201, Potable Water System
- (7) AMM 38-32-01/401, Toilet System
- (8) AMM 52-11-02/401, Doorway Lining
- C. Access
 - (1) Location Zone
 - 200 Upper Half of Fuselage
- D. Procedure

s 424-010

- (1) Do the steps that follow:
 - (a) Apply the tape where the lavatory touches the floor.
 - (b) Put the lavatory into its position.
 - (c) Install the screws to the floor attach fittings.
 - (d) Install the kick strips.
 - (e) Install the shroud panel to the forward wall of the lavatory.
 - (f) Connect the overhead tie-rod to the lavatory.
 - (g) Connect the water supply line and the water drain line.
 - (h) Connect the flush line.
 - (i) Do the steps that follow to connect the waste line connection:
 - <u>CAUTION</u>: MAKE SURE THE O-RING IS INSTALLED ON THE WASTE LINE BEFORE YOU INSTALL THE RISER TUBE. MAKE SURE THE O-RING IS IN GOOD CONDITION. A BAD OR MISSING O-RING CAN CAUSE FLUID LEACAGE. THE FLUID CAN CAUSE CORROSION ON SURROUNDING STRUCTURE.
 - 1) Make sure the o-ring is installed.
 - 2) Connect the riser tube to the waste line.
 - 3) Install the waste line access panel.
 - 4) Fillet seal the panel seam.
 - 5) Fillet seal the access panel where it meets the lavatory.
 - 6) Install the boot to the riser tube.
 - (j) Connect the ventilation duct.
 - (k) Install the toilet (AMM 38-32-01/401).
 - (l) Install the fluorescent light box and the light lens.
 - (m) Connect the electrical connector to the PSU.
 - (n) Install the quick-release fasteners to install the PSU.
 - (o) Install the oxygen module (AMM 35-21-13/201).
 - (p) Connect the air distribution duct.
 - (q) Connect the electrical connector on top of the lavatory.
 - (r) Connect the bonding jumper wires.
 - (s) Install the foam closure seal and backup angle to the lavatory.

s 394-011

(2) Apply the sealant around the waste line access panel.

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s 394-012 (3) Apply the sealant to the bottom of the lavatory. s 414-013 (4) Close the lowered ceiling panels (AMM 25-22-02/401). S 424-141 (5) Install doorway lining if necessary (AMM 52-11-02/401). S 864-014 (6) Close the fill/overflow valve (AMM 38-10-00/201). s 214-038 (7) Make sure there is no leak at the connection of the water supply line. S 864-015 (8) Remove the DO-NOT-CLOSE tags and close these circuit breakers on the P11 panel: (a) 11C22, PASS ADRS (b) 11P34, LIGHTING LAV CALL SYS (c) 11R8, LAVS SYS 1 FLUSH (d) 11R7, LAVS SYS 1 LIGHTS (e) 11R9, LAVS SYS 1 MIRROR S 864-016 (9) Remove the DO-NOT-CLOSE tag and close this circuit breaker on the P33 panel: (a) 33J2, SIGNS NO SMOKE S/BELT S 864-017 (10) Remove the DO-NOT-CLOSE tag and close this circuit breaker on the P34 panel: (a) 34S4, LIGHTS LAV SVCE s 714-019 (11) Make sure the lavatory speakers operate correctly (AMM 23-31-05/401). s 714-020 (12) Make sure the lavatory lights operate correctly (AMM 33-26-00/201).

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s 714-110

(13) Do the Manual Deployment Test of Passenger Oxygen Masks procedure (AMM 35-21-00/501).

S 014-142

(14) Remove the doorway lining if necessary (AMM 52-11-02/401).

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LAVATORY DOOR - REMOVAL/INSTALLATION

- 1. <u>General</u>
 - A. This procedure contains these tasks:
 - (1) The removal of the single lavatory door.
 - (2) The installation of the single lavatory door.
 - (3) The removal of the bi-fold lavatory door.
 - (4) The installation of the bi-fold lavatory door.

TASK 25-41-02-004-001

- 2. <u>Remove the Single Door</u> (Fig. 401)
 - A. Access
 - (1) Location Zones
 - 221/222Passenger Cabin Section 41231/232Passenger Cabin Section 43
 - 251/252 Passenger Cabin Section 46
 - B. Procedure

s 014-002

(1) Open the single door.

S 034-003

(2) Remove the screws that hold the door hinge to the lavatory module wall.

S 024-004

(3) Remove the single door.

TASK 25-41-02-404-006

- 3. <u>Install the Single Door</u> (Fig. 401)
 - A. Access
 - (1) Location Zones

221/222	Passenger	Cabin -	Section	41
231/232	Passenger	Cabin -	Section	43
251/252	Passenger	Cabin -	Section	46

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B. Procedure

s 414-005

(1) Put the single door in position.

s 434-007

(2) Install the screws to hold the door hinge to the lavatory module wall.

s 214-008

(3) Make sure the door closes correctly. If it does not close correctly, adjust the overhead tie rod as shown in Fig. 401.

TASK 25-41-02-004-009

- 4. <u>Remove the Bi-Fold Door</u> (Fig. 401)
 - A. Access
 - (1) Location Zones

221/222	Passenger	Cabin -	Section	41
231/232	Passenger	Cabin -	Section	43
251/252	Passenger	Cabin -	Section	46

B. Procedure

s 014-010

(1) Open the bi-fold door.

s 034-011

(2) Release the upper and lower hinge pins.

S 014-012

- (3) Move the bi-fold door to release the slide pin from the track.
 - s 024-013
- (4) Remove the bi-fold door.

TASK 25-41-02-404-014

- 5. Install the Bi-fold Door (Fig. 401)
 - A. Access
 - (1) Location Zones

221/222Passenger Cabin - Section 41231/232Passenger Cabin - Section 43251/252Passenger Cabin - Section 46

B. Procedure

S 414-015(1) Put the slide pin in the track.

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s 414-016

(2) Put the upper and lower hinge pins in the track.

s 204-017

(3) Make sure the door operates smoothly.

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MID-CABIN LAVATORIES - REMOVAL/INSTALLATION

- 1. <u>General</u>
 - A. This procedure contains two tasks:
 - (1) The first task is the removal of the sidewall mid lavatories, and the center mid lavatories.
 - (2) The second task is the installation of the sidewall mid lavatories, and the center mid lavatories.

TASK 25-41-03-004-002

2. <u>Remove the Mid Lavatories</u>

<u>NOTE</u>: For the sidewall mid lavatories, refer to Figure 401. For the center mid lavatories, refer to Figure 402.

- A. References
 - (1) AMM 25-21-01/401, Sidewall Panels
 - (2) AMM 25-22-02/401, Lowered Ceiling Panels
 - (3) AMM 25-24-03/401, Stowage Units
 - (4) AMM 25-25-01/201, Passenger Seats
 - (5) AMM 25-28-01/201, Center Overhead Stowage Bins
 - (6) AMM 25-28-03/201, Outboard Overhead Stowage Bins
 - (7) AMM 33-51-10/201, Floor Proximity Lights.
 - (8) AMM 35-21-13/201, Oxygen Modules
 - (9) AMM 38-10-00/201, Potable Water System
 - (10) AMM 38-32-01/401, Toilet Assembly
- B. Access
 - (1) Location Zone

200 Upper Half of Fuselage

C. Procedure

s 864-003

- (1) Open these circuit breakers on the overhead circuit breaker panel, P11, and attach DO-NOT-CLOSE tags:
 - (a) 11C22, PASS ADRS
 - (b) 11R7, LAVS SYS 1 LIGHTS
 - (c) 11R9, LAVS SYS 1 MIRROR
 - (d) 11R34, LAVS SYS 2 LIGHTS
 - (e) 11R36, LAVS SYS 2 MIRROR

S 864-004

(2) Open this circuit breaker on the forward miscellaneous electrical equipment panel, P33, and attach a DO-NOT-CLOSE tag:
 (a) 33J2, S/BELT NO SMOKE LAV SIGNS

S 864-005

(3) Open this circuit breaker on the APU external power panel, P34, and attach a DO-NOT-CLOSE tag:
 (a) 34S4, LAV SVCE LTS

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s 014-006

(4) Remove the lowered ceiling panels (AMM 25-22-02/401).

S 864-007

(5) Open the fill/overflow valve to decrease the pressure of the water system (AMM 38-10-00/201).

S 864-026

(6) Disconnect the electrical connector on top of the lavatory.

S 864-027

(7) Disconnect the bonding jumper wires.

S 014-028

(8) Disconnect the ventilation duct.

S 014-029

(9) Disconnect the air distribution duct.

S 024-030

(10) Remove the oxygen module (AMM 35-21-13/201).

s 024-031

- (11) Do the steps that follow to remove the PSU:
 - (a) Hold the PSU and remove the quick-release fasteners.
 - (b) Lower the PSU and disconnect the electrical connector.
 - (c) Remove the PSU.

s 014-033

(12) Open the faucets and stopper to let the water drain into the water tank.

s 024-075

(13) Remove the toilet (AMM 38-32-01/401).

S 024-034

- (14) Do the steps that follow to remove the waste line connection:(a) Remove the protective boot.
 - (b) Remove the two-piece waste line access panel.
 - 1) Remove the sealant where the access panel attaches to the lavatory and at the seam between the two panels.
 - 2) Separate the two panels and remove them from the airplane.
 - (c) Remove the lower clamp.
 - (d) Remove the riser tube.

S 024-035

(15) Disconnect the water supply line and the water drain line.

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s 014-036 (16) Remove the floor-mounted stowage unit if it is necessary (AMM 25-24-03/401). s 014-037 (17) Remove the passenger seats if it is necessary (AMM 25-25-01/201). s 014-038 (18) Remove the sidewall panels if it is necessary (AMM 25-21-01/401). s 014-073 (19) Remove the overhead stowage bins if it is necessary (AMM 25-28-01/201) (AMM 25-28-03/201). s 024-041 (20) For the center mid lavatory, do the steps that follow: (a) Remove the sculptured ceiling frames which are adjacent to the lavatory. (b) Remove the air outlet plenums. (c) Disconnect the two overhead tie-rods from the ceiling. s 014-042 (21) Remove the kick strips. s 014-043 (22) Remove the floor proximity lights if it is necessary (AMM 33-51-10/201). S 024-044 (23) Remove the screws from the floor attach fittings. S 024-045 (24) Remove the sealant from the bottom edges of the lavatory. S 024-047 (25) For the sidewall mid lavatory, tilt the top of the lavatory inboard. Move the lavatory inboard and aft. s 024-050 (26) For the center mid lavatory, tilt the top of the lavatory aft, then move the bottom of it forward. s 824-051 (27) Make sure the lavatory is clear from all the structures. s 024-052 (28) Remove the lavatory.

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TASK 25-41-03-404-010

3. <u>Install the Mid Lavatories</u>

NOTE: For the sidewall mid lavatories, refer to Figure 401. For the center mid lavatories, refer to Figure 402. A. Consumable Materials (1) A00247 Sealant - Chromate Type, BMS 5-95 (2) GO0155 - PERMACEL 421 References Β. (1) AMM 23-31-00/501, Passenger Address System (2) AMM 25-21-01/401, Sidewall Panels (3) AMM 25-22-02/401, Lowered Ceiling Panels (4) AMM 25-24-03/401, Stowage Units (5) AMM 25-25-01/201, Passenger Seats (6) AMM 25-28-01/201, Center Overhead Stowage Bins (7) AMM 25-28-03/201, Outboard Overhead Stowage Bins AMM 26-13-00/501, Lavatory Smoke Detection (8) (9) AMM 33-26-00/201, Lavatory Lights (10) AMM 33-51-10/201, Floor Proximity Lights (11) AMM 35-21-00/501, Manual Deployment Test - Passenger Oxygen Masks (12) AMM 35-21-13/201, Oxygen Modules (13) AMM 38-10-00/201, Potable Water System (14) AMM 38-32-01/401, Toilet System C. Access (1) Location Zone Upper Half of Fuselage 200 D. Procedure s 424-053 (1) Apply the tape where the lavatory touches the floor. s 424-054 (2) Put the lavatory into its position. s 424-055 Install the screws to the floor attach fittings. (3) s 424-059 For the center mid lavatory, do the steps that follow: (4) (a) Connect the two overhead tie-rods to the lavatory. (b) Install the air outlet plenums. (c) Install the sculptured ceiling frames. s 414-060 (5) Connect the water supply line and the water drain line. s 414-061 (6) Do the steps that follow to connect the waste line connection: EFFECTIVITY-

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CAUTION: MAKE SURE THE O-RING IS INSTALLED ON THE WASTE LINE BEFORE YOU INSTALL THE RISER TUBE. MAKE SURE THE O-RING IS IN GOOD CONDITION. A BAD OR MISSING O-RING CAN CAUSE FLUID LEAKAGE. THE FLUID CAN CAUSE CORROSION ON SURROUNDING STRUCTURE. (a) Make sure the o-ring is installed. (b) Install the riser tube. (c) Install the lower clamp. (d) Install the two-piece waste line access panel. 1) Fillet seal the panel seam. 2) Fillet seal the access panel where it meets the lavatory. (e) Install the protective boot. s 414-062 (7) Install the toilet (AMM 38-32-01/401). S 864-064 (8) Connect the electrical connector to the PSU. s 414-065 (9) Install the quick-release fasteners to install the PSU. S 424-066 (10) Install the oxygen module (AMM 35-21-13/201). s 424-067 (11) Connect the ventilation duct. s 424-068 (12) Connect the air distribution duct. S 864-069 (13) Connect the electrical connector on top of the lavatory. S 864-070 (14) Connect the bonding jumper wires.

s 394-012

(15) Apply the sealant to the bottom edges of the lavatory.

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s 414-056 (16) Install the kick strips. s 414-013 (17) Install the lowered ceiling panels (AMM 25-22-02/401). S 864-014 (18) Close the fill/overflow valve (AMM 38-10-00/001). s 864-015 (19) Remove the DO-NOT-CLOSE tags and close these circuit breakers on the P11 panel: (a) 11C22, PASS ADRS (b) 11R7, LAVS SYS 1 LIGHTS (c) 11R9, LAV SYS 1 MIRROR (d) 11R34, LAVS SYS 2 LIGHTS (e) 11R36, LAV SYS 2 MIRROR S 864-016 (20) Remove the DO-NOT-CLOSE tag and close this circuit breaker on the P33 panel: (a) 33J2, S/BELT NO SMOKE LAV SIGNS S 864-017 (21) Remove the DO-NOT-CLOSE tag and close this circuit breaker on the P34 panel: (a) 34S4, LAV SVCE LTS s 714-018

(22) Make sure the lavatory speakers operate correctly (AMM 23-31-00/501).

s 714-019

(23) Make sure the lavatory lights operate correctly (AMM 33-26-00/201).

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s 714-189

(24) Do the Lavatory Smoke Detection - Operational Test (AMM 26-13-00/501).

s 714-190

(25) Do the Manual Deployment Test of Passenger Oxygen Masks procedure (AMM 35-21-00/501).

s 434-020

(26) Install the floor-mounted stowage unit if it is necessary (AMM 25-24-03/401).

S 414-074

(27) Install the overhead stowage bins if it is necessary (AMM 25-28-01/201) (AMM 25-28-03/401).

s 414-071

(28) Install the sidewall panels if it is necessary (AMM 25-21-01/401).

s 414-072

(29) Install the floor proximity lights (AMM 33-51-10/201).

s 434-021

(30) Install the passenger seats (AMM 25-25-01/201).

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AFT LAVATORIES - REMOVAL/INSTALLATION

- 1. <u>General</u>
 - A. This procedure contains these tasks:
 - (1) Removal of the aft lavatories.
 - (2) Installation of the aft lavatories.
 - TASK 25-41-04-024-018
- 2. <u>Remove the Aft Lavatories</u> (Fig. 401)
 - A. References
 - (1) AMM 25-22-02/401, Lowered Ceiling Panels
 - (2) AMM 35-21-13/201, Oxygen Modules
 - (3) AMM 38-10-00/201, Potable Water System
 - (4) AMM 38-32-01/401, Toilet Assembly
 - B. Access
 - (1) Location Zone

200 Upper Half of Fuselage

C. Procedure

S 864-001

- Open these circuit breakers on the overhead circuit breaker panel, P11, and attach DO-NOT-CLOSE tags.
 - (a) 11C22, PASS ADRS
 - (b) 11R7, LAVS SYS 1 LIGHTS
 - (c) 11R9, LAVS SYS 1 MIRROR
 - (d) 11R34, LAVS SYS 2 LIGHTS
 - (e) 11R36, LAVS SYS 2 MIRROR
 - S 864-002
- (2) Open this circuit breaker on the forward miscellaneous electrical equipment panel, P33, and attach a DO-NOT-CLOSE tag:
 (a) 33J2, SIGNS NO SMOKE S/BELT

S 864-003

(3) Open this circuit breaker on the APU external power panel, P34, and attach a DO-NOT-CLOSE tag:
 (a) 34S4, LIGHTS LAV SVCE

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S 014-004

(4) Remove the lowered ceiling panels (AMM 25-22-02/401).

S 864-005

(5) Open the fill/overflow valve to decrease the pressure of the water system (AMM 38-10-00/201).

s 024-006

- (6) Do the steps that follow:
 - (a) Remove the foam closure seal and backup angle from the lavatory.
 - (b) Disconnect the electrical connector on top of the lavatory.
 - (c) Disconnect the bonding jumper wires.
 - (d) Remove the fluorescent light lens, lamps, and light box from the lavatory ceiling.
 - (e) Disconnect the ventilation duct.
 - (f) Disconnect the air distribution duct.
 - (g) Remove the oxygen module (AMM 35-21-13/201).
 - (h) Hold the PSU and remove the quick-release fasteners.
 - (i) Lower the PSU and disconnect the electrical connector.
 - (j) Remove the PSU.
 - (k) Open the faucets and stopper to let the water drain into the water tank.
 - (l) Remove the toilet (AMM 38-32-01/401).
 - (m) Do the steps that follow to remove the waste line connection:
 - 1) Remove the boot from the riser tube.
 - 2) Remove the waste line access panel.
 - 3) Remove the sealant where the access panel attaches to the lavatory and at the seam between the panels.
 - 4) Disconnect the riser tube from the waste line.
 - (n) Disconnect the water supply line and the water drain line.
 - (o) Remove the kick strips.
 - (p) Remove the screws from the floor attach fittings.
 - (q) Remove the sealant from the bottom of the lavatory.
 - (r) Make sure the lavatory is clear from all the structures.
 - (s) Remove the lavatory.

TASK 25-41-04-404-007

- 3. <u>Install the Aft Lavatory</u> (Fig. 401)
 - A. Consumable Materials
 - (1) A00247 Sealant Chromate Type, BMS 5-95
 - (2) GOO145 PERMACEL 421
 - B. References
 - (1) AMM 23-31-00/501, Passenger Address System
 - (2) AMM 25-22-02/401, Lowered Ceiling Panels

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- (3) AMM 33-26-00/201, Lavatory Lights
- (4) AMM 35-21-00/501, Manual Deployment Test Passenger Oxygen Masks
- (5) AMM 38-10-00/201, Potable Water System
- (6) AMM 38-32-01/401, Toilet System
- C. Access
 - (1) Location Zone

200 Upper Half of Fuselage

- D. Procedure
 - s 424-008
 - (1) Do the steps that follow:
 - (a) Apply the tape where the lavatory touches the floor.
 - (b) Put the lavatory into its position.
 - (c) Install the screws to the floor attach fittings.
 - (d) Install the kick strips.
 - (e) Connect the water supply line and the water drain line.
 - (f) Do the steps that follow to connect the waste line connection:
 - <u>CAUTION</u>: MAKE SURE THE O-RING IS INSTALLED ON THE WASTE LINE BEFORE YOU INSTALL THE RISER TUBE. MAKE SURE THE O-RING IS IN GOOD CONDITION. A BAD OR MISSING O-RING CAN CAUSE FLUID LEAKAGE. THE FLUID CAN CAUSE CORROSION ON SURROUNDING STRUCTURE.
 - 1) Make sure the o-ring is installed
 - 2) Connect the riser tube to the waste line.
 - 3) Install the waste line access panel.
 - 4) Fillet seal the panel seam.
 - 5) Fillet seal the access panel where it meets the lavatory.
 - 6) Install the boot to the riser tube.
 - (g) Install the toilet (AMM 38-32-01/401).
 - (h) Connect the electrical connector to the PSU.
 - (i) Install the quick-release fasteners to install the PSU.
 - (j) Install the oxygen module (AMM 35-21-13/201).
 - (k) Connect the ventilation duct.
 - (l) Connect the air distribution duct.
 - (m) Install the fluorescent light box, lamps, and lens to the lavatory ceiling.
 - (n) Connect the electrical connector on top of the lavatory.
 - (o) Connect the bonding jumper wires.
 - (p) Install the foam closure seal and backup angle to the lavatory.

s 394-010

(2) Apply the sealant to the bottom of the lavatory.

s 864-011

(3) Close the fill/overflow valve (AMM 38-10-00/201).

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s 414-012

(4) Install the lowered ceiling panels (AMM 25-22-02/401).

S 864-013

(5) Remove the DO-NOT-CLOSE tags and close these circuit breakers on the P11 panel:
(a) 11C22, PASS ADRS
(b) 11R7, LAVS SYS 1 LIGHTS
(c) 11R9, LAVS SYS 1 MIRROR
(d) 11R34, LAVS SYS 2 LIGHTS
(e) 11R36, LAVS SYS 2 MIRROR

S 864-014

(6) Remove the DO-NOT-CLOSE tag and close this circuit breaker on the P33 panel:
 (a) 33J2, SIGNS NO SMOKE S/BELT

s 864-015

(7) Remove the DO-NOT-CLOSE tag and close this circuit breaker on the P34 panel:
 (a) 34S4, LIGHTS LAV SVCE

s 714-016

(8) Make sure the lavatory speakers operate correctly (AMM 23-31-05/401).

S 864-017

(9) Make sure the lavatory lights operate correctly (AMM 33-26-00/201).

s 714-026

(10) Do the Manual Deployment Test of Passenger Oxygen Masks procedure (AMM 35-21-00/501).

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LAVATORY AMENITY DOOR - REMOVAL/INSTALLATION

- 1. <u>General</u>
 - A. This procedure contains two tasks:
 - (1) The first task is the removal of the lavatory amenity door.
 - (2) The second task is the installation of the lavatory amenity door.
 - B. The lavatory amenity door is referred to as the amenity door in this procedure.

TASK 25-43-01-004-001

- 2. <u>Remove the Amenity Door</u> (Fig. 401)
 - A. Access
 - (1) Location Zone

200 Upper Half of Fuselage

B. Procedure

s 024-002

- (1) To remove the amenity door, do the steps that follow:
 - (a) Release the primary latch on the amenity door.
 - (b) Open the waste compartment door to get access to the release button.
 - (c) Push the release button and let the amenity door open completely.
 - (d) Close the waste compartment door.
 - (e) Release the cable from the sink cabinet structure.
 - (f) Lift the amenity door off the hooks.
 - (g) Remove the amenity door.

TASK 25-43-01-404-003

- 3. Install the Amenity Door (Fig. 401)
 - A. Access

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- (1) Location Zone
 - 200 Upper Half of Fuselage

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FORWARD LAVATORY (EXAMPLE)



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B. Procedure

s 414-004

- (1) To install the amenity door, do the steps that follow:(a) Put the hooks into position on the retainers.
 - <u>CAUTION</u>: MAKE SURE THE HOOKS ARE ALIGNED CORRECTLY ON THE RETAINERS BEFORE YOU PUT THE AMENITY DOOR IN THE CLOSED POSITION. IF YOU ALIGN THE HOOKS INCORRECTLY AND YOU USE FORCE TO CLOSE THE AMENITY DOOR, YOU WILL BREAK THE HOOKS AND THE RETAINERS.
 - (b) Install the amenity door on the hooks.
 - (c) Attach the cable to the sink cabinet structure, and lock the cable with clip retainer.
 - (d) Close the amenity door.
 - (e) Make sure the amenity door engages with the primary latch and the secondary latch.



CARGO COMPARTMENTS - DESCRIPTION AND OPERATION

- 1. General
 - A. There are three cargo compartments in the lower lobe: forward and aft cargo compartments, and bulk cargo compartment. The aft cargo compartment and the bulk cargo compartment are separated by a removable net. The bulk cargo compartment has no conveying equipment. Bulk cargo is loaded and unloaded manually, and is held by cargo nets.
- 2. <u>Description</u>
 - A. Forward and Aft Cargo Compartments (Fig. 1)
 - (1) The forward and aft cargo compartment doors are on the right side of the airplane.
 - (2) 767-200 AIRPLANES;
 - Refer to the data that follows:
 - (a) The forward cargo compartment has six bays and the aft cargo compartment has five bays.
 - (b) The forward cargo compartment has a maximum capacity of twelve LD-2 containers and the aft cargo compartment has a maximum capacity of ten LD-2 containers.
 - (c) AIRPLANES WITH A LARGE FORWARD CARGO DOOR; The forward cargo compartment can hold pallets. You can load three 125- by 88-inch or three 125- by 96-inch pallets into the forward cargo compartment.
 - (d) The forward cargo compartment can hold half-pallets. You can load six 61.5- by 96-inch half-pallets into the forward cargo compartment.
 - (e) The aft cargo compartment cannot hold pallets because of the limited size of the aft cargo door.
 - (3) 767-300 AIRPLANES;
 - Refer to the data that follows:
 - (a) The forward cargo compartment has eight bays and the aft cargo compartment has seven bays.
 - (b) The forward cargo compartment has a maximum capacity of sixteen LD-2 containers and the aft cargo compartment has a maximum capacity of fourteen LD-2 containers.
 - (c) AIRPLANES WITH A LARGE FORWARD CARGO DOOR; The forward cargo compartment can hold pallets. You can load four 125- by 88-inch or four 125- by 96-inch pallets into the forward cargo compartment.

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- (d) The aft cargo compartment cannot hold pallets because of the limited size of the aft cargo door.
- (4) The aft cargo compartment is similar to the forward cargo compartment except that the aft end stops are retractable. This will let you load cargo into the bulk cargo compartment through the aft cargo compartment door.
- B. Bulk Cargo Compartment (Fig. 1)
 - (1) The bulk cargo compartment accommodates items of shapes and sizes that are not suitable for containers. Bulk cargo is secured to the compartment floor by nets. A divider separates the bulk compartment from the aft containerized compartment.
 - (2) Bulk cargo is normally loaded through an inward opening door (bulk cargo door) on the left side of the airplane. Large or odd shaped items can be loaded into the bulk compartment through the aft cargo compartment. You can use self-mobile belt conveyors to move cargo to and from the bulk compartment doorway.
 - (3) AIRPLANES WITH BULK CARGO DOOR PROTECTOR; the bulk cargo door has a door protector device. When the door is open, the door protector covers the door. When the door is closed, the door protector keeps the cargo off the door.



MAINTENANCE MANUAL

CARGO COMPARTMENT - INSPECTION/CHECK

TASK 25-52-00-206-001

- 1. <u>Compartment Lining Inspection/Check</u>
 - A. General
 - (1) This procedure gives instructions for the inspection of the linings in the forward, aft, and bulk cargo compartments.
 - (2) This procedure is for the linings on the sidewalls, ceilings, and bulkheads.
 - (3) It is important that all of the fasteners, seams, and punctures are sealed correctly to keep the fire protection and temperature control features of the compartment.
 - B. References
 - (1) AMM 25-52-01/401, Containerized Cargo Compartment Sidewall Lining
 - (2) AMM 25-52-02/401, Containerized Cargo Compartment Ceiling Lining
 - (3) AMM 25-52-10/801, Containerized Cargo Compartment Lining
 - (Fiberglass)
 - (4) AMM 25-52-11/801, Neoprene Coated Panels
 - (5) AMM 25-55-01/401, Bulk Cargo Compartment Sidewall Lining
 - (6) AMM 25-55-02/401, Bulk Cargo Compartment Ceiling Lining
 - C. Access
 - (1) Location Zones
 - 121/122 Forward Cargo Compartment
 - 153/154 Aft Cargo Compartment
 - 161/162 Bulk Cargo Compartment
 - D. Procedure

s 216-002

- - than the damage limits shown below:
 - (a) Slits that are 12-inches long
 - (b) "L" shaped tears that are 9-inches long on the two sides
 - (c) Holes of 1.5-inch diameter
 - (d) One damaged fastener or snap
 - (e) Damaged zippers with a maximum of 2 teeth missing in any 6 inch length.
 - (f) In the area of seams and fasteners, loose or damaged tape

S 906-006

(2) Replace the linings that have too much damage.

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MAINTENANCE MANUAL

<u>CARGO COMPARTMENT - CLEANING/PAINTING</u>

- 1. <u>General</u>
 - A. This procedure gives instructions to clean or paint the cargo compartments.

TASK 25-52-00-107-001

- 2. <u>Clean the Cargo Compartment</u>
 - A. Equipment

(1) Vacuum Cleaner - Example: Dual Air Vac - Clarke Model TMDGU, Clarke Industries, Inc., Clarke/American-Lincoln Div., 1100 Haskins Road, Bowling Green, OH 43402

- (2) Drum 30 or 55 Gallon capacity, mounted on casters
- (3) Hose Assembly 6 foot length, 1 1/2-inch ID; with swivel connection to pump - Example: Graco Model 206-266 siphon tube
- (4) Hose 50 foot length, 3/8-inch ID, 2250 psi working pressure with 3/8-inch pipe fittings at each end - Example: Graco Model 207-831

(5) Portable Airless Pump – Example: Graco Bulldog Model

207-463; Hydraclean Pressure with 7 gpm output, 1200 psi working pressure, 10:1 ratio pump on Pneumatic Cart Model 208-156, with Regulator Assembly 206-199; Graco Inc., 60-11th Ave. NE, Minneapolis, MN 53440

B. Consumable Materials

- (1) Solvent Alkaline, Waterbase
 (a) AMM 20-30-02/201, Cleaners Alkaline, Waterbase
- (2) GOOOO9, Corrosion inhibiting compound BMS 3-23
- (3) GO0099, Grease proof paper
- (4) GOO258, Laminated waterproof paper
- (5) GOO270, Masking tape
- (6) GO2173, pH testing paper with increments of in 0.5 units of pH change:
 - 5 to 10, 6.5 to 10, 6.0 to 8.0 or 8.0 to 9.5 pH range
- (7) GOO115, Polyethylene sheet

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- (8) GOO216, Wipers
- C. References
 - (1) AMM 20-30-02/201, Cleaners Alkaline, Waterbase
 - (2) AMM 20-41-00/201, Static Grounding
 - (3) AMM 24-22-00/201, Electrical Power-Control
 - (4) AMM 51-24-03/701, Corrosion Inhibiting Coating
- D. Access

 - (2) Access Panels 821 Forward Cargo Door 822 Aft Cargo Door
- E. Prepare to Clean

s 867-001

(1) Remove electrical power (AMM 24-22-00/201).

s 917-002

(2) Connect a static ground wire to the airplane (AMM 20-41-00/201).

s 027-007

- <u>CAUTION</u>: YOU MUST REMOVE ALL COMPONENTS THAT ARE NOT RESISTANT TO DAMAGE FROM THE SOLVENTS OR WATER. DAMAGE TO SOME COMPONENTS CAN OCCUR IF THEY GET WET WITH THE SOLVENTS OR WATER.
- (3) Remove all the insulation blankets and components that are not resistant to damage from the solvents or water.
 - s 957-021
- <u>CAUTION</u>: APPLY THE MASKING TAPE AND PAPER TO ALL AREAS THAT YOU WILL NOT CLEAN. YOU MUST OBEY THE MANUFACTURER'S INSTRUCTIONS. THESE CLEANERS HAVE HIGH CONCENTRATION LEVELS AND CAN CAUSE DAMAGE TO THE PAINT OR CAN CAUSE THE CORROSION OF METAL SURFACES.
- (4) Use polyethylene sheet, greaseproof paper or laminated waterproof paper and masking tape to cover the areas that you will not clean.
 - <u>NOTE</u>: This includes all the lubricated or waxed surfaces and the latches and fittings.





F. Procedure - Clean the Cargo Compartment

s 167-016

(1) Use a vacuum cleaner to remove loose unwanted materials.

s 117-017

- WARNING: DO NOT GET THESE SOLVENTS IN YOUR MOUTH OR EYES, OR ON YOUR SKIN. DO NOT BREATHE THE FUMES. PUT ON PROTECTIVE SPLASH GOGGLES AND GLOVES. KEEP THESE SOLVENTS AWAY FROM SPARKS, FLAME AND HEAT. THESE SOLVENTS CAN BE POISONOUS OR FLAMMABLE WHICH CAN CAUSE INJURY OR DAMAGE.
- <u>CAUTION</u>: DO NOT USE SOLVENTS THAT ARE NOT LISTED IN THE CONSUMABLE MATERIALS LIST. IF YOU USE OTHER SOLVENTS, DAMAGE TO THE EQUIPMENT COULD OCCUR.
- (2) Apply the Alkaline Emulsion solvent with the airless pump. Let the solvent soak for five minutes, but do not let it dry.

S 167-014

(3) Remove all the unwanted material that the solvent loosened with the vacuum cleaner.

s 167-013

(4) Apply more solvent and use the vacuum cleaner until the surfaces are clean.

s 177-012

(5) Flush the area with clean water. Use pressure to apply the water.

s 167-011

(6) Remove the water with a vacuum cleaner.

s 757-010

(7) Do a pH check of the water from the areas that have caught and held the water. Do this pH check in more than one area.

s 757-009

(8) Do a pH check of the clean water.

s 757-008

(9) Compare the pH of the clean water and the water you used to flush the area. If the pH has increased more than 1 pH unit, flush the area again.

S 167-007 (10) Dry the area with clean wipers.

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s 627-006

- (11) Apply the corrosion inhibiting compound on the areas you cleaned (AMM 51-24-03/701).
- G. Put the airplane back to its usual condition.

s 957-005

(1) Remove all the masking tape and paper.

s 417-004

(2) Install the equipment you removed.

s 917-003

(3) Disconnect the static ground wire if it is not necessary (Ref 20-41-00).

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CONTAINERIZED CARGO COMPARTMENT SIDEWALL LINING - REMOVAL/INSTALLATION

- 1. <u>General</u>
 - A. This procedure contains these tasks:
 - (1) The removal of the sidewall liners
 - (2) The removal of the endwall curtain in the forward cargo compartment
 - (3) The installation of the sidewall liners
 - (4) The installation of the endwall curtain in the forward cargo compartment.
 - B. The removal and installation procedures are also applicable for the sidewall linings in the bulk cargo compartments.
 - C. Before you install the ceiling lining you must know which type of fasteners are used. Some locations use metal fasteners (screws) and nutplates on the structure. Other locations use plastic fasteners (scrivets).

TASK 25-52-01-004-001

- 2. <u>Remove the Sidewall Lining</u> (Fig. 401)
 - A. Equipment
 - (1) ST991A-2, Removal Tool Scrivet Fasteners
 - B. Access
 - (1) Location Zones
 - 121/122 Forward Cargo Compartment
 - 153/154 Aft Cargo Compartment
 - 161/162 Bulk Cargo Compartment
 - (2) Access Panels
 - 821 Forward Cargo Door
 - 822 Aft Cargo Door
 - C. Procedure
 - s 034-002
 - (1) Remove and discard the tape from the fasteners and joints.

s 034-003

- (2) Remove the screws, or scrivets and grommets from around the edge of the lining.
 - (a) LININGS ATTACHED WITH SCRIVETS; Put the removal tool between the scrivet and grommet and lift out of the sidewall lining.
 - <u>NOTE</u>: The scrivet and grommet come out of the sidewall lining at the same time.

s 034-020

(3) Pull the lining away from the velcro tape and remove the lining.

EFFECTIVITY-

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TASK 25-52-01-004-017

- 3. Endwall Curtain Removal for the Forward Cargo Compartment (Fig. 402)
 - A. General
 - (1) This procedure removes the endwall curtain on the aft wall in the forward cargo compartment that is installed with snaps.
 - B. Access
 - (1) Location Zones
 - 121/122 Forward Cargo Compartment
 - C. Procedure

s 034-019

- <u>WARNING</u>: STAY AWAY FROM THE TORQUE TUBES THAT ARE BEHIND THE AFT WALL OF THE FORWARD CARGO COMPARTMENT. THE TORQUE TUBES FOR THE LEADING EDGE SLATS CAN TURN AND CAUSE INJURIES TO PERSONS.
- (1) Disconnect the snaps to remove the endwall curtain on the aft wall of the forward cargo compartment.
 - s 934-017
- (2) On the aft wall of the forward cargo compartment, put a sign in front of the area where you remove the endwall curtain.

TASK 25-52-01-404-004

- 4. Install the Sidewall Lining (Fig. 401)
 - A. Consumable Materials
 - (1) GOOO33 Cheesecloth BMS 15-5
 - (2) Solvent

NOTE: Use one of these solvents.

- (a) BOO111 Freon TF
- (b) B00090 1-1-1 Trichlorethane MIL-T-81533
- (c) BO0093 Tetrachloroethylene 0–T–236
- (3) Tape

NOTE: Use one of these tapes.

- (a) GOO348 Tape Permacel P621
- (b) GO2101 Permacel P212HD Glass cloth, flame resistant
- (c) GO2361 Tape, Cargo Lining BMS5-146

EFFECTIVITY-

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- B. Access
 - (1) Location Zones
 - 121/122Forward Cargo Compartment153/154Aft Cargo Compartment
 - 161/162 Bulk Cargo Compartment
 - (2) Access Panels
 - 821 Forward Cargo Door
 - 822 Aft Cargo Door

C. Procedure

s 424-005

(1) Hold the lining in the correct position.

s 424-011

- (2) Install the screws, or scrivets and grommets.
 - (a) LININGS ATTACHED WITH SCRIVETS; Do the steps that follow:
 - 1) To install the scrivets, put the grommets in position then push or lightly hit the scrivet into the grommet.
 - If the scrivet does not hold the lining, use a new scrivet and grommet.

s 214-012

(3) Make sure the inboard and outboard deformation of the lining is a maximum of 0.50 inch between the fasteners.

s 434-008

(4) Push on the lining in the areas that have velcro tape to make sure the velcro tape is fully attached.

s 114-007

(5) Clean the area on and around the fasteners, seals, and clearance with a cheesecloth which is moist with solvent.

s 144-006

(6) Make the area dry with a clean cheesecloth before the solvent dries.

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S 394-009

- WARNING: DO NOT PUT TAPE ON THE SMOKE DETECTOR TUBES OR THE FIRE EXTINGUISHER OUTLET TUBES. THE SMOKE DETECTOR AND THE FIRE EXTINGUISHER SYSTEM WILL NOT OPERATE CORRECTLY IF THERE IS TAPE ON THE TUBE OR OUTLETS.
- <u>CAUTION</u>: YOU MUST CORRECTLY INSTALL THE NEW TAPE TO MAKE SURE THE LINING IS FULLY SEALED. IF YOU INSTALL THE TAPE INCORRECTLY, THE SMOKE CAN GET INTO THE PASSENGER COMPARTMENT DURING A FIRE.
- (7) Apply the new tape to all the joints and fasteners as one continuous piece.
 - (a) If it is necessary to use short pieces of tape, make a minimum overlap of 0.50 inch.

S 394-037

- (8) Apply the center of the tape to the centerline of the lining joints and fasteners along the joints.
 - <u>NOTE</u>: Tape must include all panel joints and fasteners along joints, unless differently recorded.

s 394-038

(9) Apply the tape to extend more than the panel edge to seal the edge joint.

s 394-013

(10) Push the tape firmly with the fingers after the tape has been applied.

S 864-042

(11) If you install a new cargo lining you must use new tape that meets
 FAR 25-856 flammability requirements. See (AMM 25-52-10/801)

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TASK 25-52-01-404-026

- 5. Endwall Curtain Installation for the Forward Cargo Compartment (Fig. 402)
 - A. General
 - (1) This procedure installs the endwall curtain on the aft wall in the forward cargo compartment that is installed with snaps.
 - B. Consumable Materials
 - (1) GO2O92 BMS 8-283, Tape Foam (.375 X 1.0 inch wide)
 - (2) B00316 Naphtha, Aliphatic TT-N-95, Type I or II
 - C. Access
 - (1) Location Zones
 - 121/122 Forward Cargo Compartment
 - D. Procedure

s 284-022

(1) Make sure the tape contains sufficient adhesive properties to seal around the edge of the endwall curtain.

s 964-023

- (2) Do the steps that follow to replace the tape if it is necessary:
 - (a) Remove the tape.
 - (b) Use aliphatic Naphtha to remove the remaining adhesive on the bulkhead support.
 - (c) Apply the foam tape directly from the roll to the bulkhead support.
 - 1) If it is necessary to use short pieces of tape for the curved edges, make a minimum overlap of 0.50 inch.
 - (d) Push the tape firmly with the fingers after the tape has been applied.
 - (e) Cut the foam tape around the snaps with a maximum of .15 inch clearance.

s 934-014

(3) On the aft wall of the forward cargo compartment, remove the sign from the area where you install the endwall curtain.

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s 434-024

(4) To install the endwall curtain, connect the snaps on the endwall curtain to the snaps on the bulkhead support.

s 214-026

(5) Make sure there is a seal around the the edge of the endwall curtain.

s 434-025

(6) If the seal is not complete, locally apply more foam tape to complete the seal.

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CONTAINERIZED CARGO COMPARTMENT CEILING LINING - REMOVAL/INSTALLATION

- 1. <u>General</u>
 - A. This procedure contains these tasks.
 - (1) Remove the ceiling linings.
 - (2) Install the ceiling linings.
 - B. The ceiling lining in forward and aft cargo compartments are almost the same. Some linings have openings for light assemblies and smoke detectors.

TASK 25-52-02-004-001

- 2. <u>Remove the Ceiling Lining</u> (Fig. 401)
 - A. Equipment
 - (1) ST991A-2, Removal Tool Scrivet Fasteners
 - B. Access
 - (1) Location Zones

121/122 Forward Cargo Compartment 153/154 Aft Cargo Compartment

- (2) Access Panels
 - 821 Forward Cargo Door
 - 822 Aft Cargo Door
- C. Procedure

s 034-002

(1) Remove and discard the tape from the fasteners and joints.

s 034-003

(2) Remove the restraining straps.

S 034-004

(3) Remove the forward and aft shrouds.

S 024-005

- (4) Remove the screws and washers, or scrivets and grommets, that hold the ceiling lining to the floor beams of the main deck.
 - (a) LININGS ATTACHED WITH SCRIVETS;
 Put the removal tool between the scrivet and grommet and lift out of the ceiling lining.
 - <u>NOTE</u>: The scrivet and grommet come out of the ceiling lining at the same time.



10705



s 034-018

(5) Remove the ceiling lining.

TASK 25-52-02-404-006

- 3. Install the Ceiling Linings (Fig. 401)
 - A. General
 - Before you install the ceiling linings, you must know which type of (1) fasteners are used. Some locations use metal screws in nutplates that are attached to the structure. Other locations use plastic scrivets.
 - B. Consumable Materials
 - (1) Solvent

NOTE: Use one of these solvents.

- (a) B00090 1-1-1 trichloroethane MIL-T-81533
- (b) B00093 Tetrachloroethylene 0-T-236
- (c) BOO111 Freon TF
- (2) GOOO33 Cheesecloth - BMS 15-5
- (3) Tape

NOTE: Use one of these tapes.

- (a) GOO348 Tape Permacel P621
- (b) GO2101 Permacel P212HD Glass cloth, flame resistant
- (c) GO2361 Tape, Cargo Lining - BMS5-146
- C. Access
 - (1) Location Zones
 - 121/122 Forward Cargo Compartment
 - 153/154 Aft Cargo Compartment
 - (2) Access Panels
 - 821 Forward Cargo Door
 - 822 Aft Cargo Door

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D. Procedure

s 824-007

 Align the light assembly and smoke detector holes, if it is applicable.

s 424-020

(2) Put the ceiling lining against the floor beams of the main deck floor.

S 434-008

- (3) Install the screws, or scrivets and grommets, to attach the ceiling lining to the floor beam.
 - (a) LININGS ATTACHED WITH SCRIVETS;
 - Do the steps that follow:
 - 1) To install the scrivets, put the grommets in position then push or lightly hit the scrivet into the grommet.
 - If the scrivet does not hold the lining, use a new scrivet and grommet.

s 424-021

(4) Install the forward and aft shrouds.

s 424-022

(5) Install the restraining straps.

s 114-015

(6) Clean the area on and around the fasteners, joints, and clearances with a cheesecloth that is moist with solvent, Series 89 (AMM 20-30-89/201).

s 114-012

(7) Dry the area with a clean cheesecloth before the solvent, Series 89 (AMM 20-30-89/201) dries.

s 434-016

- <u>WARNING</u>: DO NOT PUT TAPE ON THE SMOKE DETECTOR TUBES. THE SMOKE DETECTOR WILL NOT OPERATE CORRECTLY IF THERE IS TAPE ON THE TUBE.
- <u>CAUTION</u>: YOU MUST CORRECTLY INSTALL THE NEW TAPE TO MAKE SURE THE LINING IS COMPLETELY SEALED. IF YOU INSTALL THE LINING INCORRECTLY, THE SMOKE CAN GET INTO THE PASSENGER COMPARTMENT DURING A FIRE.
- (8) Apply the new tape to all the clearances, joints and fasteners as one continuous piece.
 - (a) If it is necessary to use short pieces of tape, make a minimum overlap of 0.50 inch.

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s 394-023

- (9) Apply the center of the tape to the centerline of the lining joints and fasteners along the joints.
 - <u>NOTE</u>: Tape must include all panel joints and fasteners along joints, unless differently recorded.

S 394-024

(10) Apply the tape to extend more than the panel edge to seal the edge joint.

s 394-017

(11) Push the tape firmly with the fingers after the tape has been applied.

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CARGO COMPARTMENT INSULATION - REMOVAL/INSTALLATION

- 1. <u>General</u>
 - A. This procedure has these tasks.
 - (1) Insulation Removal.
 - (2) Insulation Installation.
 - B. This procedure has instructions for the removal and installation of insulation blankets and capstrips in the sidewalls and floors of the forward, aft, and bulk cargo compartments.

TASK 25-52-03-004-001

- 2. Insulation Removal (Fig. 401)
 - A. References
 - (1) AMM 25-52-01/401, Cargo Compartment Sidewall Lining
 - (2) AMM 53-01-05/401, Cargo Compartment Floor Panel
 - (3) AMM 25-52-06/401, Cargo Compartment Firestop
 - (4) AMM 25-53-03/401, Ball Transfer Panels
 - B. Access
 - (1) Location Zones
 - 121/122 Forward Cargo Compartment
 - 153/154 Aft Cargo Compartment
 - 161/162 Bulk Cargo Compartment
 - (2) Access Panels
 - 821 Forward Cargo Door
 - 822 Aft Cargo Door
 - C. Procedure

s 014-002

- For access to the sidewall insulation, remove the sidewall lining (AMM 25-52-01/401).
 - S 014-004
- (2) For access to the floor insulation in the forward and aft cargo compartments, remove the ball transfer panels (AMM 25-53-03/401).

S 024-075

(3) SAS 162-167 WITH SB 25-0193; Remove the firestop (AMM 25-52-06/401).

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s 934-005

(4) If you remove more than one blanket or capstrip, identify the location with a tag to make the subsequent installation easier.

S 034-006

(5) Remove the sealant from around the foam pad, if installed.

s 034-013

(6) Remove the foam pad, if installed.

S 024-007

(7) Remove the disk fasteners. Remove the blankets or capstrips from the fastener tape.

TASK 25-52-03-404-008

3. Insulation Installation (Fig. 401)

A. Consumable Materials

- (1) A00679 Compound Sealing BMS 5-95 Class B
- (2) A50110 Compound Sealing BMS 5-45 Class B-2
- (3) G02305 Tape Insulation Blanket BMS 5-149
- (4) G50327 Tape Advanced Insulation Blanket, BMS5-157
- (5) G02360 Tape Hook/Loop Fastener, (Polypropylene Hook & Nylon Loop) BMS8-285, Type IV
- (6) G50333 Tape Hook/Loop Fastener, Flame Propagation Resistant, BMS8-372
- B. References
 - (1) AMM 25-52-01/401, Cargo Compartment Sidewall Lining
 - (2) AMM 53-01-05/401, Cargo Compartment Floor Panel
 - (3) AMM 25-52-06/401, Cargo Compartment Firestop
 - (4) AMM 25-53-03/401, Ball Transfer Panels
- C. Access
 - (1) Location Zones
 - 121/122 Forward Cargo Compartment
 - 153/154 Aft Cargo Compartment
 - 161/162 Bulk Cargo Compartment
 - (2) Access Panels
 - 821 Forward Cargo Door
 - 822 Aft Cargo Door

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D. Check for Insulation Blanket Contamination

s 394-104

- WARNING: LET THE CORROSION-INHIBITING COMPOUNDS (CIC) BECOME FULLY DRY. IF CIC GETS ON THE INSULATION BLANKET, THE INSULATION BLANKET WILL BECOME LESS FLAME-RESISTANT. THIS INCREASES THE RISK OF FIRE, WHICH CAN CAUSE INJURIES TO PERSONNEL, AND DAMAGE TO EQUIPMENT.
- (1) To prevent CIC contamination of insulation blankets, let the corrosion-inhibiting compounds fully dry before you install the insulation blankets.
 - (a) Let the corrosion-inhibiting compounds dry longer than the minimum times listed below if you have one of these conditions:1) Low temperature.
 - 2) High humidity.
 - 3) Thick layer of corrosion-inhibiting compounds.
 - (b) Ventilate areas, after application of CIC such as BMS 3-23, for a minimum of 1 hour.
 - (c) Ventilate areas treated with CIC such as BMS 3-26 or BMS 3-29, for a minimum of 4 hours.

s 164-105

- WARNING: DO NOT USE DETERGENTS OR SOLVENTS TO CLEAN THE INSULATION BLANKET. IT CAN REMOVE FLAME RETARDANTS AND CAUSE FLAMMABLE RESIDUES ON THE INSULATION BLANKET WHICH INCREASES THE RISK OF FIRE. THIS CAN CAUSE INJURIES TO PERSONNEL, AND DAMAGE TO EQUIPMENT.
- (2) If there is CIC contamination, oily or waxy substances, or other fluids (which typically changes the color and appearance of the insulation blanket cover), replace the insulation blanket.

s 164–115

(3) If there are dust, lint or other loose debris on the insulation blanket, use a vacuum cleaner or a non-metallic soft brush to remove the contamination.

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S 164-107

- (4) Make sure the area is clean before you install the insulation blanket.
- E. Install the Insulation

s 964–117

- (1) If you replace an insulation blanket or capstrip, you must install an insulation blanket or capstrip that complies with FAR 25.856(a).
 (a) Use tape (BMS5-157) or hook and loop tape (BMS8-372), where necessary.
 - ······
 - <u>NOTE</u>: Tape (BMS5-157) and hook and loop tape (BMS8-372) are FAR 25.856(a).
 - (b) Replace the part of the hook and loop tape that is installed on the airplane structure where the replacement insulation blanket attaches, with hook and loop tape (BMS8-372), as necessary.

s 424-108

(2) Install new stand-offs to the structure, if it is necessary.

s 424-109

(3) Align the holes in the insulation blanket with the stand-offs.

s 424-110

(4) Put the applicable insulation blanket or capstrip in its position.

s 214-009

(5) Make sure you can see the part number on the inboard surface of the insulation.

s 424-010

(6) Push the blanket on the stand-off.

s 434-010

(7) Install the disk on the stand-off.

s 424-118

- (8) ALL AIRPLANES PRE SEP 2, 2005 FAR STD; AIRPLANES WITHOUT FAR 25.856(a) COMPLIANT THERMAL/ACOUSTIC INSULATION MATERIALS:
 - (a) For insulation blanket with BMS8-142 cover material: Use hook and loop tape (BMS8-285) or hook and loop tape (BMS8-372), where necessary to reduce any gaps between blankets, or between blanket and structure.
 - <u>NOTE</u>: Hook and loop tape (BMS8-372) is FAR 25.856(a) compliant, and it is the preferred alternative to hook and loop tape (BMS8-285).

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(b) Push the insulation blanket onto the tape.

S 424-119

- (9) ALL AIRPLANES POST SEP 2, 2005 FAR STD; AIRPLANES WITH FAR 25.856(a) COMPLIANT THERMAL/ACOUSTIC INSULATION MATERIALS:
 - (a) For insulation blanket with BMS8-377 cover material: Use hook and loop tape hook and loop tape (BMS8-372), where necessary to reduce any gaps between blankets, or between blanket and structure.
 - (b) Push the insulation blanket onto the tape.

S 364-113

- (10) Make sure moisture penetration through to the inboard side of the insulation blanket is minimized.
 - (a) Make sure all the insulation blankets are correctly overlapped to keep out any condensation that can flow between insulation blankets into the inboard side of the insulation blanket.

s 394–114

- (11) For replacement insulation blanket, push on the insulation blanket to remove the air that is inside the insulation blanket through the vent hole(s).
 - (a) Peel off the attach release liner on the circle tape and seal the vent hole(s).

s 394-011

(12) Apply the BMS5-45, Class B-2 sealant around the perimeter of the foam pad.

s 434-012

- (13) Install the foam pad.
 - (a) Install the foam pad to make an air tight seal.
 - (b) Apply BMS5-95 sealant as necessary to make an airtight seal between the pad and the airplane structure.
 - s 424-092
- (14) SAS 162-167 WITH SB 25-0193;

Install the firestops (AMM 25-52-06/401).

F. Put the Airplane Back to Its Usual Condition

s 414-013

 For the sidewall insulation, install the sidewall lining (AMM 25-52-01/401).

S 414-014

(2) For the floor insulation in the bulk cargo compartment, install the floor panels.

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s 414-015

(3) For the floor insulation in the forward and aft cargo compartments, install the ball transfer panels, if you removed them (AMM 25-53-03/401).

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MAINTENANCE MANUAL

<u>CARGO COMPARTMENT FIRESTOP - REMOVAL/INSTALLATION</u>

- 1. <u>General</u>
 - A. This procedure contains these tasks:
 - (1) Removal of the firestops in the forward and aft cargo compartments.
 - (2) Installation of the firestops in the forward and aft cargo compartments.
 - B. There are two types of firestops. The first type is a fiberglass bag. The second type is a fiberglass panel.
 - (1) The fiberglass bags compress around the tubes and ducts in a frame bay.
 - (2) The fiberglass panels are installed in the frame bays that have wires or electrical cables.
 - C. It is not necessary to install a firestop in a frame bay with the configurations that follow:
 - (1) Two or more metallic intercostals
 - (2) Wires or wire bundles are installed with heat exchanger ducts
 - (3) A duct that is a minimum of 15.0 inches wide and 3.0 inches high.
 - TASK 25-52-06-004-019
- 2. Firestop Removal (Fig. 401 and 402)
 - A. References
 - (1) AMM 25-52-01/401, Cargo Compartment Sidewall Lining
 - (2) AMM 53-01-05/401, Cargo Compartment Floor Panels
 - B. Access
 - (1) Location Zones

121/122Forward Cargo Compartment153/154Aft Cargo Compartment

- (2) Access Panels
 - 821 Forward Cargo Door
 - 822 Aft Cargo Door
- C. Procedure

s 014-020

(1) Remove the sloping sidewall liners (AMM 25-52-01/401).

s 014-021

(2) Remove the floor panels (AMM 53-01-05/401).

S 034-024

- (3) Do the steps that follow to remove a fiberglass bag firestop (Fig. 401):
 - (a) Do a check for tubes above or below the fiberglass bag firestop.

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MAINTENANCE MANUAL

(b) Pull the fiberglass bag firestop out of the frame bay.

NOTE: Make sure you are careful not to damage the tubes.

S 034-025

- (4) Do the steps that follow to remove the fiberglass panel firestop (Fig. 402):
 - (a) Remove the tape from the cut on the fiberglass panel firestop.
 - (b) Remove the wires or cables from the hole in the fiberglass panel firestop.
 - (c) Remove the fiberglass panel firestop.

TASK 25-52-06-404-023

- 3. <u>Firestop Installation</u> (Fig. 401 and 402)
 - A. General
 - (1) Frame bays with more than one fiberglass bag must have a cumulative depth or length equal to or greater than 5.00 inches or 23.00 inches, respectively.
 - (2) Compression fit should be as tight as a fiberglass bag feels when it is installed in a frame bay with no tube or duct. A minimum compression rate is 5 percent over the length (forward and aft) and 25 percent over the depth (up and down).
 - B. References
 - (1) AMM 25-52-01/401, Cargo Compartment Sidewall Lining
 - (2) AMM 53-01-05/401, Cargo Compartment Floor Panels
 - C. Access
 - (1) Location Zones

121/122Forward Cargo Compartment153/154Aft Cargo Compartment

- (2) Access Panels
 - 821 Forward Cargo Door
 - 822 Aft Cargo Door
- D. Procedure

s 214-026

(1) Make sure the insulation blankets are fully installed before you install the firestop.

s 424-027

(2) Attach velcro tape to the bag and the frame bay structure if it is necessary.

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Fiberglass Bag Firestop Installation Figure 401 (Sheet 1)

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B29104







EFFECTIVITY SAS 162-167 WITH SB 25-0193

B29106

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s 434-028

- (3) Do the steps that follow to install a fiberglass bag firestop (Fig. 401):
 - (a) Put the fiberglass bag below the support structure for the sloping sidewall and on top of stringer 33.
 - <u>NOTE</u>: There can be a small tube run below or above the fiberglass bag.
 - (b) If the frame bay has a tube or duct that has a 2.0-inch diameter or larger, do these steps:
 - Make sure there is a fiberglass sleeve around the tube or duct.
 - 2) Install a fiberglass bag below the tube or duct and on top of stringer 33.
 - 3) Install a fiberglass bag below the support structure for the sloping sidewall and on top of the tube or duct.

s 434-029

- (4) Do the steps that follow to install a fiberglass panel firestop (Fig. 402):
 - (a) Put the wires or cables through the hole in the fiberglass panel if it is necessary.
 - (b) Put tape on the cut that is in the fiberglass panel.
 - (c) Put the fiberglass panel in the location where you will install it.
 - (d) Make sure the tab on the fiberglass panel is on top of the sloping sidewall support structure.

s 414-030

(5) Install the floor panels (AMM 53-01-05/401).

s 414-031

(6) Install the sloping sidewall liners (AMM 25-52-01/401).

EFFECTIVITY SAS 162-167 WITH SB 25-0193 25-52-06

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CONTAINERIZED CARGO COMPARTMENT LINING (FIBERGLASS) - APPROVED REPAIRS

- 1. <u>General</u>
 - A. This procedure has these tasks for the repair of the fiberglass cargo lining:
 - (1) Cargo Door Lining Tape Repairs.
 - (2) Cargo Compartment Ceiling and Sidewall Lining Tape Repairs.
 - (3) Permanent Repairs to the Flat or Slightly Curved Liners.
 - (4) Repairs for Molded Panels, Shrouds, and Panels with Complex Curves.
 - B. The cargo linings are on the doors, ceilings, sidewalls, and bulkheads in each cargo compartment. The two types of cargo linings are the rigid cargo linings and flexible cargo linings.
 - (1) The rigid cargo linings are thin sheets of glass fabric laminations.
 - (a) They have fire-resistant and high strength properties to prevent damage to the structure behind the linings.
 - (b) Some of the rigid cargo linings have a thick honeycomb core bonded between the sheets of the glass fabric laminations.
 - (c) The procedure that follows is for the rigid cargo linings which DO NOT have a honeycomb core.
 - <u>NOTE</u>: Refer to AMM 25-00-00/801, Equipment/Furnishings, to repair the rigid cargo linings which do have a honeycomb core.
 - (2) The flexible cargo linings are thin sheets of glass fabric embedded within (or coated with) a sheet of neoprene (synthetic rubber).

<u>NOTE</u>: Refer to AMM 25-52-11/801, Neoprene - Coated Panels, to repair the flexible cargo linings.

- C. There are several permanent repair alternatives for flat or slightly curved liners in the class C cargo compartments.
 - <u>NOTE</u>: It is not necessary to remove the liners from the airplane for these permanent repairs.
 - (1) The use of screws with a bonded fiberglass patch.
 - <u>NOTE</u>: It is necessary to make sure that underlying structure is not contacted by screws when using this repair method.
 - (2) The Thermion Repair System which uses a bonded patch.

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- (3) The Akro Firequard System which uses a bonded patch.
- (4) The Gillpatch III System which uses an adhesive patch.
- D. If a permanent repair was done before to the cargo liner, that was not one of the above alternatives, you can install mechanical fasteners around the edges of the existing patches.
 - (1) Refer to the permanent repair procedures for the fastener installation.
- E. If you can remove the old patch, such as a temporary repair, you can install a bonded patch over the original damage.
 - (1) Refer to the permanent repair procedures for the installation of a bonded patch.

TASK 25-52-10-308-154

2. <u>Cargo Door Lining Tape Repairs</u>

A. General

Β.

- (1) This procedure has instructions to replace the loose or damaged tape on the cargo door lining.
- (2) It is important to replace the loose or damaged tape to seal the edges of the cargo door lining to prevent water damage, and also to prevent possible cuts or injuries to personnel caused by the rough edges on the cargo door lining.
- (3) This procedure uses a solvent to clean the cargo door lining before you install the new tape. A clean surface is necessary for the new tape to bond correctly to the cargo door lining. There must be sufficient air flow in the area where you use the solvents. You must not get the solvents in you mouth or eyes, or on your skin. Consumable Materials
- (1) G01043 Cloth Lint-free, Commercially available
- (2) Solvent

NOTE: Use one of these solvents:

- (a) B00083 Solvent Aliphatic Naphtha, TT-N-95, Type I or II
- (b) B00130 Alcohol Isopropyl
- (c) B00065 Alcohol Denatured

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(3) Tape

NOTE: Use one of these tapes:

(a) G02361 Tape - Cargo Lining, BMS5-146
(b) G50445 Tape - Advanced Insulation, BMS5-157 Type 1, Class 1, GR B, Composition PVF (White)

C. Access (1) Location Zones

121/122 Forward Cargo Compartment 153/154 Aft Cargo Compartment

D. Procedure

s 038-156

- (1) Remove the loose or damaged tape and discard it.
 - <u>NOTE</u>: The loose or damaged tape must not be used again. The tape will not bond correctly to the cargo door lining, if you use it again.

s 118–155

- WARNING: DO NOT GET SOLVENTS IN YOUR MOUTH, YOUR EYES, OR ON YOUR SKIN. DO NOT BREATHE THE FUMES FROM SOLVENTS. SOLVENTS ARE DANGEROUS MATERIALS. SOLVENTS CAN BE FLAMMABLE. OBEY THE MATERIAL SAFETY DATA SHEETS (MSDS) FOR SOLVENTS. OBEY LOCAL REGULATIONS FOR THE CORRECT PROCEDURES TO USE OR DISCARD SOLVENTS. SOLVENTS CAN CAUSE INJURIES TO PERSONNEL AND DAMAGE TO EQUIPMENT.
- (2) Use a lint-free clean, dry cloth and a commercially available oil-free cleaner such as isopropyl alcohol or equivalent to remove any oil, grease, dirt or stain from the repair area.
 - (a) Make sure the area is clean and dry before you apply new tape on the cargo door lining.

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s 358-168

(3) LINE NUMBER 001-949; AIRPLANES WITHOUT FAR 25.856(a) COMPLIANT THERMAL/ACOUSTIC INSULATION MATERIALS:

Do these steps to install new tape (BMS5-146) on the rigid urethane foam (BMS8-133) cargo door lining:

- (a) Apply the new tape (BMS5-146) over the applicable area on the cargo door lining.
- (b) Make sure the tape (BMS5-146) extends equally around the top of the fasteners, joints and edges on the cargo door lining.
- (c) Make sure the tape (BMS5-146) bonds fully to the cargo door lining.
- (d) Make sure there are no bubbles under the tape (BMS5-146).
- (e) Make sure the tape (BMS5-146) is flat on the surface of the cargo door lining.

s 358-158

- (4) LINE NUMBER 950 AND ON; LINE NUMBER 001-950 AIRPLANES WITH FAR 25.856(a) COMPLIANT THERMAL/ACOUSTIC INSULATION MATERIALS: Do these steps to install new advanced insulation tape (BMS5-157) on the flexible polyvinylidene fluoride foam (BMS8-371) cargo door lining:
 - (a) Apply the new tape (BMS5-157) over the applicable area on the cargo door lining.
 - (b) Make sure the tape (BMS5-157) extends equally around the top of the fasteners, joints and edges on the cargo door lining.
 - (c) Make sure the tape (BMS5-157) bonds fully to the cargo door lining.
 - (d) Make sure there are no bubbles under the tape (BMS5-157).
 - (e) Make sure the tape (BMS5-157) is flat on the surface of the cargo door lining.

TASK 25-52-10-308-159

- 3. <u>Cargo Compartment Ceiling and Sidewall Lining Tape Repairs</u>
 - A. General
 - (1) This procedure has instructions to replace the loose or damaged tape on the cargo compartment ceiling and sidewall lining.
 - (2) The tape is used to prevent the leakage of the fire retardant (halon gas) out of the cargo compartment. Therefore, it is important to replace the loose or damaged tape.
 - (3) This procedure uses a solvent to clean the cargo lining before you install the new tape. A clean surface is necessary for the tape to bond correctly to the cargo lining. There must be sufficient air flow in the area where you use the solvents. You must not get the solvents in you mouth or eyes, or on your skin.
 - B. Consumable Materials
 - (1) GO1043 Cloth Lint-free, Commercially available

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(2) Solvent

NOTE: Use one of these solvents:

(a) B00083 Solvent - Aliphatic Naphtha, TT-N-95, Type I or II
(b) B00130 Alcohol - Isopropyl
(c) B00065 Alcohol - Denatured
(3) G02361 Tape - Cargo Lining, BMS5-146
C. Access

(1) Location Zones
121/122 Forward Cargo Compartment
153/154 Aft Cargo Compartment

D. Procedure

S 358-162

- (1) Remove the loose or damaged tape and discard it.
 - <u>NOTE</u>: The loose or damaged tape must not be used again. The tape will not bond correctly to the cargo lining, if you use it again.

S 118–161

- WARNING: DO NOT GET SOLVENTS IN YOUR MOUTH, YOUR EYES, OR ON YOUR SKIN. DO NOT BREATHE THE FUMES FROM SOLVENTS. SOLVENTS ARE DANGEROUS MATERIALS. SOLVENTS CAN BE FLAMMABLE. OBEY THE MATERIAL SAFETY DATA SHEETS (MSDS) FOR SOLVENTS. OBEY LOCAL REGULATIONS FOR THE CORRECT PROCEDURES TO USE OR DISCARD SOLVENTS. SOLVENTS CAN CAUSE INJURIES TO PERSONNEL AND DAMAGE TO EQUIPMENT.
- (2) Use a lint-free clean, dry cloth and a commercially available oil-free cleaner such as isopropyl alcohol or equivalent to remove any oil, grease, dirt or stain from the repair area.
 - (a) Make sure the area is clean and dry before you apply new tape on the cargo lining.

s 358-160

- (3) Do these steps to install new tape on the cargo lining.
 - (a) Apply the new tape (BMS5-146) over the applicable area on the cargo lining.

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- (b) Make sure the tape (BMS5-146) extends equally around the top of the fasteners, joints and edges on the cargo lining.
- (c) Make sure the tape (BMS5-146) bonds fully to the cargo lining.
- (d) Make sure there are no bubbles under the tape (BMS5-146).
- (e) Make sure the tape (BMS5-146) is flat on the surface of the cargo lining.

TASK 25-52-10-348-011

- 4. <u>Permanent Repairs to the Flat or Slightly Curved Liners</u>
 - A. General
 - (1) The permanent repairs contain three alternatives.

NOTE: It is only necessary to use one of the alternatives.

- (2) Use the applicable consumable materials that are necessary for the repair procedure you use.
- B. Equipment
 - (1) Glass or metal container (commercially available)
 - (2) Knife or scissors (commercially available)
- C. Consumable Materials
 - (1) Abrasive paper (80-grit) commercially available
 - (2) Solvent

NOTE: Use one of these solvents:

- (a) B00083 Solvent Aliphatic Naphtha, TT-N-95, Type I or II
- (b) B00130 Alcohol Isopropyl
- (c) B00065 Alcohol Denatured
- (3) Use the materials that follow for the bonded patch with screws repair procedure:
 - (a) A00016 Adhesive Film, BMS 5-91, Type I, II, or III
 - (b) Screws Steel Sheet Metal, 0.164 inch diameter,
 - (U.S. size No. 8) x 3/16 inch long (commercially available)
 - (c) G02163 Liner Glass Fiber Reinforced Phenolic Laminate, BMS 8-223 Grade B

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(d) GO2361 Tape - Cargo Lining, BMS5-146

- (4) Use the materials that follow for the Thermion Repair System:
 - (a) Patch Kits Thermion Heat Resistant, P/N 9290-1 thru -7, Supplier: Thermion Inc.
 - (b) A01016 Epoxy Master Bond high Temperature, EP65HT-1
- Use the materials that follow for the Akro Fireguard Repair system:
 (a) Speed Patch self-adhesive, PN AF 844, AF 848, or AF888: Supplier Akro Fireguard Products Inc.
- (6) Use the materials that follow for the Gillpatch III System:(a) Patch Kits Gillpatch III 6306 kit,
 - Supplier: M. C. Gill Corporation
- D. References
 - (1) AMM 25-52-01/401, Containerized Cargo Compartment Sidewall Lining
 - (2) AMM 25-52-02/401, Containerized Cargo Compartment Ceiling Lining
- E. Access
 - (1) Location Zones

121/122 Forward Cargo Compartment 153/154 Aft Cargo Compartment

F. Procedure - Repair the Cargo Liners with Screws and a Bonded Patch

s 348-040

- (1) Make a fiberglass patch with the same thickness as the liner being repaired.
 - <u>NOTE</u>: The patch should make a minimum of a 2-inch overlap on the area that is not damaged. For example, the patch dimension that is necessary for a 1.5-inch diameter hole would be 5.5-inch diameter.

s 128-043

(2) Rub the back of the patch with abrasive paper.

S 168-045

(3) Clean all of the surfaces using denatured alcohol to remove the loose particles.

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S 348-046

(4) Apply adhesive to the back of the patch.

S 348-047

(5) Put the patch over the center of the damaged area.

S 348-048

(6) Apply pressure to the patch to make sure there is a good bond.

s 348-049

- (7) Attach the patch permanently with screws at approximately 1.25 inches apart and 0.50 inch from the edges of the patch.
 - <u>NOTE</u>: Make sure you put the screws apart such that the screws do not interfere with the underlying structure or systems.

s 348-050

(8) Apply the tape on the heads of the screws to keep them installed through the fiberglass liner and patch.

s 438-062

- WARNING: SEAL THE CARGO COMPARTMENT WITH THE LINERS. OBEY THE INSTRUCTIONS IN THE SPECIFIED PROCEDURE WHEN YOU INSTALL THE LINERS. IF YOU INSTALL THE LINERS INCORRECTLY, THE FIRE EXTINGUISHING AGENT OR SMOKE CAN GET INTO THE PASSENGER COMPARTMENT DURING A FIRE.
- (9) Install the cargo liner if you removed it to do the repair (AMM 25-52-01/401, AMM 25-52-02/401).
- G. Procedure The Thermion Repair System

S 348-053

- (1) Get the correct Thermion patch kit for the shape of the damage.
 - <u>NOTE</u>: The patch should make a minimum of a 2-inch overlap on the area that is not damaged. For example, the patch dimension that is necessary for a 1.5-inch diameter hole would be 5.5-inch diameter.

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s 128-052

(2) Rub the back of the patch with abrasive paper to remove the gloss being careful not to rub the impregnated scrim area.

s 128-054

(3) Use the abrasive paper to remove all signs of the tedlar on the area of the liner to be contacted by the patch.

NOTE: Tedlar is a protective white layer that is on the liner during the manufacture process.

S 168-055

(4) Clean all of the surfaces using denatured alcohol to remove the loose particles.

s 348-056

(5) Apply epoxy to the back of the patch and to the liner.

s 348-057

(6) Put the patch over the center of the damaged area.

s 348-058

(7) Apply pressure to the patch until the excess adhesive comes out from the edges.

s 348-059

Put the tape around the edges of the patch to hold the patch while (8) the adhesive dries for approximately 30 minutes.

NOTE: The tape will also protect the edges of the patch.

H. Procedure - The Akro Fireguard System

s 348-125

- Akro Fireguard System Instructions (1)
 - (a) Get the correct Akro Fireguard repair patches for the shape of the damage.
 - The patch should make a minimum of a 2-inch overlap on NOTE: the area that is not damaged. For example, the patch dimension that is necessary for a 1.5 inch diameter hole would be 5.5 inch diameter.
 - (b) Use the Akro installation instructions to attach the patch over the center of the damage.

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SAS	I.	Proc	edure – The Akro Fireguard AF 800 Series Speed Patch System
SAS SAS SAS		(1)	S 348–116 Get the correct Akro Fireguard repair patch for the shape and size
SAS SAS SAS			of the damage. AF844 is 4-inch x 4-inch, AF848 is 4-inch x 8-inch, and AF888 is 8-inch x 8-inch.
SAS SAS SAS SAS SAS SAS			<u>NOTE</u> : The patch shall make a minimum of 1 1/2-inch overlap on the area that is not damaged. For example, the patch dimension that is necessary for a 1-inch diameter hole would be 4-inch x 4-inch patch.
SAS			s 348–117
SAS SAS SAS SAS		(2)	Clean the surface to be repaired with solvent, Series 91 (AMM 20–30–91/201) It is not necessary to sand the surface but make sure an area larger than the Speed Patch is free from oil, dirt, humidity, etc.
SAS SAS			s 348–118
SAS		(3)	Peel off the entire patch from the release card.
SAS			s 348–119
SAS SAS SAS		(4)	Place the Speed Patch over the damage and smooth down firmly. It is important to press down around the edges of the repair to ensure a tight bond to the cargo liner.
ono	J.	Proc	edure – Gillpatch III System
		(1)	S 348–146 Get the Gillpatch III 6306 system kit, each kit has complete instructions to identify the repairable sizes and apply the patch. (a) The patch must extend 2-inches beyond all sides of a tear or puncture.
			<u>NOTE</u> : For example, the patch dimension that is necessary for a 1.5-inch diameter hole would be 5.5-inch diameter.
		(2)	S 168–147 Use a lint-free clean, dry cloth and a commercially available oil-free cleaner such as isopropyl alcohol or equivalent to remove any oil, grease, dirt or stain from the damaged area to be patched.
		(3)	S 218–148 Make sure the area is clean and dry before you apply the patch. (a) Wipe off any film residue that remains on the liner surface.
		(4)	S 218–149 If there are any Tedlar surface, note that it is not necessary to remove them, as the patch can be applied directly to Tedlar.

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s 348-150

(5) When you are ready to apply the patch, peel the protective backing from the pressure sensitive adhesive on the back of the patch.

<u>NOTE</u>: Handle the patch very carefully as the adhesive will adhere aggressively to any surface that comes in contact.

s 398-151

(6) Center the adhesive side of the patch over the damaged area.

s 398-152

- (7) Use you hand to rub with circular even pressure over the entire surface of the patch, which also includes the exposed edges.
 - s 218-153
- (8) Make sure the patch completely adheres to the cargo liner it covers.(a) The patch must be firmly stuck in place and extends 2 inches beyond all side of the tear or puncture.

TASK 25-52-10-308-099

- 5. <u>Repairs for Molded Panels, Shrouds, and Panels with Complex Curves</u>
 - A. General

I

- (1) The task that follows is a repair for molded panels, shrouds, and panels with complex curves.
- B. Consumable Materials
 - (1) G50400 Resin Fiberglass, BMS 8-201, Type IV
 - (2) G01081 Abrasive paper (200 grit or finer)
 - (3) GOO316 Fabric, Fiberglass BMS 9-3, Type H
 - (4) Solvent

NOTE: Use one of these solvents:

(a) B00083 Solvent - Aliphatic Naphtha, TT-N-95, Type I or II

(b) BOO130 Alcohol - Isopropyl

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(c) BOOO65 Alcohol – Denatured

- C. References
 - (1) AMM 25-52-01/401, Containerized Cargo Compartment Sidewall Lining
 - (2) AMM 25-52-02/401, Containerized Cargo Compartment Ceiling Lining
 - (3) SRM 51-70-06, Structural Repair Manual
- D. Access
 - (1) Location Zones
 - 121/122 Forward Cargo Compartment 153/154 Aft Cargo Compartment
- E. Procedure: Repair Molded Panels, Shrouds, and Panels with Complex Curves

s 038-100

(1) Get access behind the panel or remove the panel from the airplane (AMM 25-52-01/401 or AMM 25-52-02/401).

s 128-101

(2) Lightly rub the damaged area with abrasive paper on the two sides of the panel.

S 168-102

(3) Clean the damaged area with solvent.

s 348-103

(4) Do the structural repair on the fiberglass side of the panel (SRM 51-70-06).

s 348-104

(5) Follow the manufacturer's instructions to mix the BMS 8-201 resin and hardener.

s 348-105

- (6) Do the steps that follow to the front and the back of the panel:(a) Apply a layer of the mixed adhesive resin to the side of the damaged panel that shows in the cargo compartment.
 - (b) Apply a layer of BMS 9–3, Type H, fiberglass fabric on the layer of adhesive resin.
 - <u>NOTE</u>: The fiberglass fabric should make a minimum of a 2-inch overlap on the area that is not damaged. For example, the fiberglass fabric dimension that is necessary for a 1.5-inch diameter hole would be 5.5-inch diameter.
 - (c) Apply one more layer of the adhesive.

s 348-106

(7) Allow the adhesive to cure for a minimum of 24 hours at 77 \pm 10 degrees F or a minimum of 1 hour at 150 \pm 10 degrees F.

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s 348-107

(8) Attach the patches permanently with bolts, NAS603-5P or equivalent, washers, AN960JD10L or equivalent, and nuts, MS21042L3 or equivalent, at a maximum of 2 inches apart and approximately 0.5 inch from the edges of the fiberglass fabric.

s 218-108

(9) Make sure there is sufficient clearance between the bolts and the adjacent structure or systems behind the panel.

s 328-109

(10) Grind the ends of the bolts smooth with the nuts to get sufficient clearance.

s 438-110

(11) Install the panel if you removed it to do the repairs (AMM 25-52-01/401 or AMM 25-52-02/401).

S 968-111

(12) If sufficient clearance is still not obtained, replace the damaged panel.



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NEOPRENE-COATED PANELS - APPROVED REPAIRS

- 1. <u>General</u>
 - This procedure contains these tasks: Α.
 - (1) Repairs to neoprene-coated panels.
 - (2) Repairs to zipper sliders.

TASK 25-52-11-308-064

- Repairs for the Neoprene-coated Fabric Liners 2.
 - General Α.
 - (1) The task that follows is for the repair of neoprene-coated liners. There are three repair alternatives. It is only necessary to use one of the three alternatives.
 - (2) Liners designed for blow out if decompression occurs are not repairable and should be replaced.
 - Consumable Materials Β.
 - (1) A00016 Adhesive BMS 5-91, Type I, II, or III
 - B00065 Alcohol Denatured (2)
 - GO1498, Thread Fiberglass GFE-18 RLUB (3)
 - G50018, Fabric Polymer Coated, Flame Resistant Flexible Cargo (4) Liner, BMS8-343, Type I
 - GO2163, Liner Glass Fiber Reinforced Phenolic Laminate, BMS 8-223, Grade B, Class 2, Type 13 (5)
 - (6) G50740 Soft Liner Kit, Akro Fireguard AF450
 - С. Access
 - (1) Location Zones
 - Forward Cargo Compartment 121/122
 - 153/154 Aft Cargo Compartment
 - **D.** References

L

- (1) AMM 25-52-01/401 Containerized Cargo Compartment Sidewall Panels
- (2) AMM 25-52-02/401, Containerized Cargo Compartment Ceiling Lining
- E. Repair of the Neoprene-coated Liners with Mechanical Fasteners.
 - S 028-065
 - (1) Remove the fasteners that attach the liner to the structure.

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S 038-066

(2) Remove the liner (AMM 25-52-01/401 or AMM 25-52-02/401).

s 348-067

- (3) Make two fiberglass patches.
 - <u>NOTE</u>: The patch should make a minimum of a 2-inch overlap on the area that is not damaged. For example, the patch dimension that is necessary for a 1.5-inch diameter hole would be a 5.5-inch diameter.

S 168-068

(4) Clean all of the surfaces using denatured alcohol to remove the loose particles.

s 348-069

(5) Apply adhesive to the back of the patches.

S 348-070

(6) Put the patches over the center of the damaged area on the front and the back of the liner.

s 438-071

- (7) Apply pressure to the patches to make sure there is a good, continuous bond.
 - <u>NOTE</u>: The patch has a smooth surface when there is a good, continuous bond.

s 348-072

- (8) Do the steps that follow to permanently attach the patches:
 - (a) Install bolts, NAS603-5P or equivalent, washers, AN960JD10L or equivalent, and nuts, MS21042L3 or equivalent, at a maximum of 2 inches apart and 0.5 inch from the edges of the patches.
 - (b) Make sure there is sufficient clearance between the bolts and the adjacent systems behind the liner.
 - (c) Grind the ends of the bolts smooth with the nuts to get sufficient clearance.

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S 438-073

(9) Install the liner (AMM 25-52-01/401 or AMM 25-52-02/401).

S 968-074

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- (10) If sufficient clearance is still not obtained, replace the damaged liner.
- F. Repair of the Neoprene-coated Fabric Liners with Fiberglass Thread.

S 028-075

(1) Remove the fasteners that attach the liner to the structure.

S 038-076

(2) Remove the liner (AMM 25-52-01/401 or AMM 25-52-02/401).

s 348-077

- (3) Make a fiberglass patch.
 - <u>NOTE</u>: The patch should make a minimum of a 2-inch overlap on the area that is not damaged. For example, the patch dimension that is necessary for a 1.5-inch diameter hole would be a 5.5-inch diameter.

S 168-078

(4) Clean all of the surfaces using denatured alcohol to remove the loose particles.

s 348-079

(5) Apply adhesive to the back of the patch.

S 348-080

(6) Put the patch over the center of the damaged area on the front of the liner.

s 348-081

- (7) Apply pressure to the patch to make sure there is a good, continuous bond.
 - <u>NOTE</u>: The patch has a smooth surface when there is a good, continuous bond.

s 348-082

- (8) Use fiberglass thread to stitch two lines around the edge of the patch.
 - <u>NOTE</u>: There should be approximately 7 stitches in each inch of material. Also, the stitches must be 1/8 to 1/2 inch from the edge of the patch.

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s 438-083

- (9) Install the liner (AMM 25-52-01/401 or AMM 25-52-02/401).
- G. The Akro Fireguard System

s 348-103

(1) Refer to the Akro Fireguard AF450 Soft Liner Kit instructions for the steps to apply this repair.

NOTE: The patch must make a minimum overlap of 2 inches (5.08 cm)

on the area that is not damaged. For example, the minimum patch dimension that is necessary for a 1.5 inch (3.81 cm) diameter hole would be 5.5 inches (13.97 cm).

TASK 25-52-11-348-098

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<u>Zipper Slider - Approved Repair</u> (Fig. 801)

- A. General
 (1) This procedure gives instructions to replace and do a temporary repair to the zipper slider on the zippered panel.
- B. Consumable Materials
 - (1) A00165, Adhesive Neoprene, BMS 5-7 Type I
 - (2) Solvent

NOTE: Use one of these:

- (a) B00143, Solvent Trichlorotrifluorethane, MIL-C-81302
- (b) B00093 Tetrachloroethylene ASTM D4081
- (c) B00090 1-1-1 Trichloroethane MIL-T-81533
- (d) B00062, Acetone ASTM D 329
- (e) BOOO83 Naphtha
- (3) G60658, Steel wool
- (4) One-eighth-inch steel narrow wheel stitcher
- (5) G50555, End Seal Cap Zipper, BC-9A
- (6) G50556, Retainer Zipper End Stop BS-9
- (7) Use one of these zipper sliders:
 - (a) G50557, Slider Zipper, SL-9X

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(b) G50558, Slider - Zipper - SL-9Y (c) G50559, Slider - Zipper - SL-9Z (8) G50325, Tape - Fiberglass, Permacel - P212 or equivalent to MIL-I-19166 (9) G00348, Tape - Sealant, Fire Retardent - Permacel P621 (10) GOOO34, Cotton Wiper -Lint Free С. References (1) AMM 25-52-00/601, Containerized Cargo Compartment (2) AMM 25-52-01/401, Containerized Cargo Compartment Sidewall Linings D. Access (1) Location Zone 100 Lower Half of the Fuselage E. Procedure - Replace the Zipper Slider s 348-022 (1) Remove the end seal cap with a solvent. s 348-023 (2) Remove the metal end stop. NOTE: Use a pliers to pull it from the chain-side. s 348-024 (3) Move the zipper chains apart to permit easy access to the insert slider. \$ 348-025 (4) Install the slider on the zipper chain. NOTE: For vertical panels, pull out the replacement slider on the zipper chain to let the panel open from the bottom (Fig. 801). Make sure the zipper teeth are synchronized and engaged correctly. s 348-026 (5) Install the new metal end stop on the chain side. Tightly clinch the prongs of the stop. s 348-027 (6) Install the molded zipper seal cap: (a) Rub the cap area on the panel with the steel wool. (b) Clean the area with a cloth that is moist with a solvent. (c) Apply two layers of the adhesive to the cap area. Let the first layer dry before you apply the second layer. (d) Rub the area where the molded zipper seal cap will be, and treat as specified in steps (6)(b) and (6)(d). (e) Let the adhesive become tacky.

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- (f) Put the end seal cap in its position on the end of the zipper on the lip side. This will seal-off the end of the zipper.
- (g) Stitch the area and let it set or air-cure for 24 hours.
- F. Procedure Zipper and Zipper Panel Temporary Repairs
 - NOTE: You must have sufficient fire protection between the forward cargo compartment and the main electrical/electronic center. It is necessary, as an airworthiness-requirement, to keep the zippered panels sufficiently sealed at all times. If you find a defective panel during a transit stop, you must do temporary repairs to keep the necessary seal for fire protection. Also, you must write an entry in the airplane log book. This will help you make sure the necessary repairs are completed when the airplane is at a location that can do the repairs. Refer to AMM 25-52-00/601 for permitted damage before you do temporary repairs. If the lining has too much damage, replace the lining (AMM 25-52-01/401). For linings that have too much damage, you can have temporary repairs only until the airplane gets to a location that can do the permanent repairs. For linings that did not have too much damage, you can have the temporary repairs for the first 1000 flight-hours or 6 months.

s 348-028

- (1) Apply the white 2-inch fiberglass tape to the aft side of the panel. The tape must pull and hold the zipper joint together and be a cover for the split.
 - S 348-029
- (2) Use one layer of the tape to close the split, and with an equal width of the tape on the two sides of the split.

s 348-030

(3) Apply two more layers of tape, side-by-side, and make the joint come together along the center of the first layer.

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<u>CONTAINERIZED CARGO HANDLING SYSTEM - DESCRIPTION AND OPERATION</u>

- 1. <u>General</u>
 - A. Forward and Aft Cargo Handling System (Fig. 1 and Fig. 2)
 - <u>WARNING</u>: DO NOT TOUCH THE HEAT TUBES. THE CARGO COMPARTMENT HEAT TUBES BELOW THE FLOOR ARE 325°F (163°C). THEY CAN CAUSE BURNS, AND DAMAGE TO CARGO.
 - (1) The forward and aft cargo compartments have a powered cargo handling system. Movement and control are by electrically and mechanically operated components. The power drive units (PDU) provide the force for cargo movement. Power driven rollers on the PDUs contact the bottom of the cargo containers. The containers are guided, and positioned for direction of travel, by lateral guides, and by center and auxiliary stop/lock/guides. Control of the cargo system is by switches on internal and external control panels. Ball transfer panels, roller trays, and sill rollers carry the cargo in and out of the airplane, and provide a low-friction surface for easy movement. Containers can be moved manually if power fails. End stops and partial load stops prevent container movement after containers are loaded.
 - (2) The handling system for pallets in the forward compartment uses all the container handling components and additional components for pallet handling and restraint. A retractable guide roller (erected for containers, retracted for pallets) is on the cargo doorsill. Forward pallet locks, along the forward edge of the ball transfer panels, restrain loaded pallets. Aft pallet locks, along the aft edge of the ball transfer panels, restrain loaded pallets. Auxiliary side guide rails, along the right side, guide pallets being moved from the ball transfer panels into the forward or aft bays. Retractable pallet restraints, on the cargo doorsill, restrain 125 by 88 pallets loaded onto the ball transfer panels. All additional components for pallet handling operate manually.
 - (3) The handling system for pallets in the forward compartment uses all the container handling components and additional components for pallet handling and restraint. A retractable guide roller (erected for containers, retracted for pallets) is on the cargo doorsill. Forward pallet locks, along the forward edge of the ball transfer panels, restrain loaded pallets. Aft pallet locks, along the aft edge of the ball transfer panels, restrain loaded pallets. Auxiliary side guide rails, along the right side, guide pallets being moved from the ball transfer panels into the forward or aft bays. Retractable pallet restraints, on the cargo doorsill, restrain 88- by 125- and 96- by 125-inch pallets and standard containers loaded onto the ball transfer panels. All additional components for pallet handling operate manually.

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767-200 AIRPLANES WITH LARGE FORWARD CARGO DOOR

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AFT CARGO COMPARTMENT

Cargo Handling System Figure 2 (Sheet 4)

EFFECTIVITY 767-300 AIRPLANES

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- 2. <u>Component Details</u>
 - A. <u>Power Drive Units</u> (Fig. 3)
 - (1) The power drive units (PDU) mount on intercostals between the floor beams. Each PDU has a 115/200-volt, 400 Hz, three phase AC motor. The PDUs are interchangeable.
 - (2) When rollers are erected, they apply a force of 500-800 pounds to the bottom of the container. The roller is driven by a motor drive, through a gearbox. Power is supplied by an electrical cable that is attached to the drive motor.
 - B. <u>Lateral Guides</u> (Fig. 4)
 - (1) Lateral guides in the door areas provide lateral control for pallets/containers being moved into or out of the containerized cargo compartments. They restrain loaded containers. Guides on each side of the ball transfer panels operate by either a switch on or a joystick on the cargo handling control panels. Each lateral guide can be removed as a unit, or the actuator can be removed separately.
 - C. <u>Center and Auxiliary Stop/Lock/Guides</u> (Fig. 5)
 - (1) Two center guides in the door area extend to guide LD-2 containers. The guides also restrain containers on the ball transfer panel.
 - (2) Two auxiliary guides, similar to center guides, guide and restrain LD-3 containers.
 - (3) The lip restraints, on the guides, are raised and lowered manually. The lip guides are operated by 115v AC electric motor actuators and 28v DC control power.
 - D. <u>Ball Transfer Panel</u> (Fig. 6)
 - (1) A ball transfer panel is a low friction surface to help the cargo in the doorway area move freely. The transfer panels have a metal structure with rows of ball units. Each ball unit has a ball that is spring loaded and rides on ball bearings. There are two types of ball units available for these ball transfer panels. One type is held by a spring lock. The other type is held by two plastic tabs. The two types operate in the same way and are interchangeable (Fig. 6).
 - E. <u>Rollout Stops</u> (Fig. 7)

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(1) ON SAS AIRPLANES;

there are four rollout stops on the forward cargo compartment doorsill and two on the aft cargo compartment doorsill. All the rollout stops are powered with 115v ac electric motor actuators and controlled by 28v dc electrical power.

- (2) ON MTH AIRPLANES; there are four rollout stops on the forward cargo compartment doorsill and two on the aft cargo compartment doorsill. All the cargo compartment rollout stops are manually operated.
- (3) Lip guides on the rollout stop rotate downward for containers to pass inboard. A roller on each stop aids in transfer of containers. Lip guides spring back to vertical to prevent outward movement of containers. When the compartment is loaded, the lip guide and restraint will be in vertical position (actuator retracted) to restrain containers. When unloading, the lip guide and restraint will be in retracted position (actuator extended) to allow containers to move out of doorway. Lip guide and restraint can be retracted by applying pressure on pedal.
- F. <u>Sill Rollers</u> (Fig. 8)
 - (1) Four sill rollers mount on the aft doorsill, and six on the forward doorsill. These rollers provide a rolling surface for containers moving into or out of the compartments.
- G. <u>Guide Rollers</u> (Fig. 8)

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(1) One guide roller on each side of the cargo doorway guides the containers onto the ball transfer panels.





- H. <u>Roller Trays</u> (Fig. 8)
 - Six rows of roller trays extend the full length of the cargo compartment except for the area occupied by ball transfer panels. Roller trays provide a low friction surface for moving containers.

- (1) Manually operated center guides along the centerline guide LD-2 containers. Either guide arm can be locked down mechanically or released from the locked position by foot pressure. Guides mount to structure with bolts.
- J. <u>Auxiliary Guide</u> (Fig. 9)

 Auxiliary guides are similar to the center guides and are to the right of the centerline. They guide and restrain LD-3 containers.

- K. Fixed End Load Stop (Fig. 10)
 - (1) There are end stops in the roller trays at each end of the cargo compartment. The stops restrain containers from longitudinal movement.
- L. Partial Load Stop (Fig. 10)
 - (1) Partial load stops are on the outboard roller trays and the two center roller trays. Partial load stops restrain containers when the cargo compartment is partially loaded. The stops operate manually.
- M. <u>Retractable Stop</u> (Fig. 10)
 - (1) Two manually operated retractable stops in the center roller trays at the aft end of the aft cargo compartment retract to allow cargo to be loaded in the bulk cargo area.
- N. Side Guide Rails (Fig. 11)
 - (1) The side guide rails are along the outboard sides of the cargo compartments, except for the doorway area. Vertical rollers in the guide rails aid in longitudinal movement of containers. The guide rails attach to structure by tiedown bolts.
- 0. <u>Pallet Locks</u> (Fig. 11A)
 - (1) The forward pallet locks are along the forward edge of the ball transfer panels in the forward compartment. The aft pallet locks are along the aft edge of the ball transfer panels in the forward compartment. Pallet locks restrain pallets during flight.

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I. <u>Center Guide</u> (Fig. 9)







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- P. <u>Auxiliary Side Guide Rail</u> (Fig. 11A)
 - (1) The auxiliary side guide rails are on the right side of the forward cargo compartment. Auxiliary side guide rails guide 125 by 88 pallets into the forward or aft bays, and restrain these pallets during flight.
- Q. <u>Retractable Pallet Restraint</u> (Fig. 11A)
 - (1) Four retractable pallet restraints are in the doorway of the forward compartment. The retractable pallet restraints are to restrain 125 by 88 pallets on the ball transfer panels during flight.
- R. <u>Retractable Guide Roller</u> (Fig. 11A)
 - (1) A retractable guide roller is in the middle of the cargo doorsill in the forward compartment. The retractable guide roller is retracted when loading pallets, and erected when loading containers.
- S. <u>Pallet Turning Balls</u> (Fig. 11A)

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(1) The pallet turning balls are located aft of the doorway bays in the forward cargo compartment. The pallet turning balls are used to rotate oversized pallets that must be loaded through the large forward cargo door at an angle.







RETRACTABLE PALLET RESTRAINT (FORWARD CARGO COMPARTMENT)



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- T. Pallet End Stop (Fig. 11A)
 - (1) The pallet end stops are located at the forward end and the aft end of the forward cargo compartment. The pallet end stops are mounted in the roller trays. The pallet end stops do not raise or retract.
- U. <u>Cargo Handling Control Panels</u> (Fig. 12)
 - (1) There is an interior and an exterior cargo handling control panel for each cargo compartment. The interior control panels are on the doorway lining, forward of each cargo door. The exterior control panels are on the fuselage of the airplane, forward of each cargo door.
 - (2) Each exterior control panel has an eight-directional (8-d) switch to control the power drive units (PDUs). These 8-d switches give electrical power to the left side PDUs, the right side PDUs, or to the left and right side PDUs. The PDUs move the cargo in, out, forward, or aft. The POWER DRIVE UNITS switch on each exterior control panel removes electrical power from the PDUs that are forward or aft of the cargo door area.
 - (3) Each interior control panel has toggle switches to remove electrical power from the PDUs in individual bays after the bays have been loaded. If the PDUs operate when the bay is loaded, the PDUs will try to move the cargo that is held by the stops and locks. This will cause too much wear to the PDUs. Each switch position is indicated by individual lights. Each light will illuminate when power is available to the PDUs in the applicable bays.
 - (4) More description and function of all the switches and lights on these control panels is given in the paragraphs that follow.
- 3. <u>Operation</u>
 - A. Cargo Handling System Power Distribution
 - (1) The cargo handling system moves containers into and out of the cargo compartment. The system controls are operated by 28-volt dc power: the power drive units and the actuator motors are operated by 115/200-volt AC, 400 Hz, 3-phase power. All power for the forward and aft systems is from the ground handling busses on the P34 panel. The dc power for the controls is from the ground handling bus, through the cargo door open proximity sensor logic. The switches prevent powered system operation unless the cargo door is fully open.
 - (2) The system is prepared for operation by placing the system power switch on the control panel to ON. This provides power to all electrically operated cargo handling components.
 - (3) The power drive units are operated by placing the power drive unit switch on the control panel to either AFT ON or FWD ON, depending on which section of the cargo compartment is being loaded. Power is provided to individual drive units by placing the eight directional selector switch in the desired position.

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767-300 FWD EXTERIOR CONTROL PANEL



767-300 AFT EXTERIOR CONTROL PANEL



767-300 FWD INTERIOR CONTROL PANEL

1 ON ALL SAS AIRPLANES

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Cargo Control Panels Figure 12 (Sheet 1)

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767-200 FWD EXTERIOR CONTROL PANEL



767-200 AFT EXTERIOR CONTROL PANEL



767-200 FWD INTERIOR CONTROL PANEL

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767-200 AFT INTERIOR CONTROL PANEL

Cargo Control Panels Figure 12 (Sheet 2)

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- B. <u>Center (LD-2) and Auxiliary (LD-3) Stop/Lock/Guides</u>
 - (1) The center and auxiliary guides are operated by a switch on the exterior control panel. This CENTER GUIDES switch has three positions: LD-2, LD-3, and ALL DN.
 - (2) To load LD-2 containers, place the CENTER GUIDES switch to LD-2. Place containers onto the ball transfer panels. The LD-2 containers can now be moved forward or aft in the compartment.
 - (3) To load LD-3 containers, place the CENTER GUIDES switch to LD-3. Move one container onto the ball transfer panels until it contacts the left side guide rail. The LD-3 container can now be moved forward or aft in the compartment.
 - (4) To unload containers, place the CENTER GUIDES switch to ALL DN. This retracts all center or auxiliary guides and allows containers to be unloaded.
 - (5) Time delay relays limit the length of time that power is applied to the electrical actuators. Power will be applied for only 20 seconds after the CENTER GUIDES switch has been moved to any position.
 - (6) The automatic retraction feature is described as follows:
 - (a) The center (LD2) and auxiliary (LD3) stop/lock/guides have an automatic retraction feature to avoid damage from container impact if the center guides switch has not been manually switched to the ALL DOWN position prior to unloading.
 - (b) If the center guides switch is in the LD2 position and if the power drive unit switch is in the AFT ON position, the center (LD2) stop/lock/guides will automatically retract whenever the eight directional switch is placed in the FWD direction.
 - (c) If the center guides switch is in the LD2 position and if the power drive unit switch is in the FWD ON position, the center (LD2) stop/lock/guides will automatically retract whenever the eight directional switch is placed in the AFT direction.
 - (d) The automatic retraction operation of the auxiliary (LD3) stop/lock/guides are identical to that of the center (LD2) stop/lock/guides.
- C. Lateral Guides
 - (1) ON 767-200 AIRPLANES;

the lateral guides may be operated by two switches on the interior control panel. There is a FWD and an AFT switch under LATERAL GUIDES. Each switch controls three lateral guides along the side of the ball transfer panels. For normal container loading and unloading, the switches are positioned to NORMAL. The lateral guides will automatically retract when the 8-d switch is used to move containers forward or aft.

(2) ON 767-300 AIRPLANES;

the lateral guide switches are not installed on the interior control panel.

- D. <u>Rollout Stops</u>
 - (1) ON SAS AIRPLANES;

the rollout stops in the forward and aft cargo compartments are operated by a switch on the exterior control panels. Each ROLLOUT STOPS switch has three positions: UP, LOCK, and DOWN. Operate the ROLLOUT STOPS switch as follows:

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- (a) To load containers, put the ROLLOUT STOPS switch in the UP position. This moves the lip guides up. Containers move over the lip guides guide when being loaded. The lip guides spring back to vertical to restrain containers.
- (b) To restrain LD-2, LD-4, or LD-8 containers on the ball transfer panels during flight, put the ROLLOUT STOPS switch in the LOCK position. This moves the lip guides and restraints up. The restraints are locked up to restrain the containers.
- (c) To unload containers, put the ROLLOUT STOPS switch in the DOWN position. This retracts the lip guides and restraints to allow unloading.
- (2) Time delay relays limit the length of time that power is applied to the electrical actuators. Power will be applied for only 20 seconds after the ROLLOUT STOPS switch has been moved to any position.
- E. <u>Power Drive Units</u>
 - (1) The power drive units (PDU) are controlled by the eight-direction (8-d switch) selector switch on the exterior control panel. The 8-d switch has positions for loading and unloading containers, and for moving containers forward and aft in the compartment.
 - (2) Switches on the interior control panel can be used to shut off power to selected PDUs.
 - (3) 767-200 AIRPLANES; The forward compartment has two POWERED DRIVES switches: AFT BAYS and FWD BAYS. The AFT BAYS switch has three positions: F OFF, E-F OFF, and E-F ON. The FWD BAYS switch has two positions: A ON and A OFF.
 - (4) The aft compartment has one POWERED DRIVES switch: FWD BAYS. The FWD BAYS switch has three positions: A-B ON, A-B OFF, and A OFF.
 - (5) 767-300 AIRPLANES WITH LARGE FORWARD CARGO DOOR; The forward compartment has five POWER DRIVEBAYS switches: A OFF, H-E OFF, H-F OFF, H-G OFF, and H OFF.
 - (6) The aft cargo compartment has four POWER DRIVEBAYS switches: A OFF, B-A OFF, C-A OFF, and D-A OFF.
 - (7) In the forward cargo compartment, a time delay will occur between the command for longitudinal motion and the erection of the left side longitudinal PDUs 5L and 8L. This reduces misalignment of the pallets by allowing the left side lateral PDUs to remain erect while the longitudinal PDUs are erecting.

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- (8) The CENTER GUIDES switch on the exterior control panel has three positions: LD3, LD2, and ALL DN. These switch positions affect the power drive units (PDU) in the doorway.
 - (a) With the CENTER GUIDES switch in the LD3 or LD2 position, the longitudinal drive PDUs will retract as the 8-d switch is brought to neutral. Thus, during loading, a container coming off the external loader will not impact these PDUs.
 - (b) With the CENTER GUIDES switch in the LD2 position and the 8-d switch in the OUT position, the right and center lateral drive PDUs will drive outward while the left lateral drive PDU remains up and braked. This provides for separation of the LD2 containers prior to loading the forward or aft bays.
 - (c) With the CENTER GUIDES switch in the ALL DN position, the longitudinal drive PDUs will remain in contact with the containers to prevent rollout during unloading.

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FAULT ISOLATION/MAINT MANUAL

FORWARD CARGO COMPARTMENT - CARGO HANDLING

COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	REFERENCE
ACTUATOR - AUXILIARY STOP/LOCK/GUIDES				25-53-13
LD3 GUIDE ACTR, M1032 (FWD)	2	1	FWD AUX STOP/LOCK/GUIDE	
LD3 GUIDE ACTR, M1033 (AFT)	2	1	AFT AUX STOP/LOCK/GUIDE	
ACTUATOR - CENTER STOP/LOCK/GUIDES				25-53-13
LD2 GUIDE ACTR, M1O3O (FWD)	2	1	FWD CENTER STOP/LOCK/GUIDE	
LD2 GUIDE ACTR, M1O31 (AFT)	2	1	AFT CENTER STOP/LOCK/GUIDE	
ACTUATOR - LATERAL GUIDES				25-53-16
AFT LAT GUIDE ACTR, M1029 (LEFT)	2	1	AFT LEFT LATERAL GUIDE	
AFT LAT GUIDE ACTR, M1028 (MIDDLE)	2	1	AFT MIDDLE LATERAL GUIDE	
AFT LAT GUIDE ACTR, M1027 (RIGHT)	2	1	AFT RIGHT LATERAL GUIDE	
FWD LAT GUIDE ACTR, M1026 (LEFT)	2	1	FWD LEFT LATERAL GUIDE	
FWD LAT GUIDE ACTR, M1025 (MIDDLE)	2	1	FWD MIDDLE LATERAL GUIDE	
FWD LAT GUIDE ACTR, M1024 (RIGHT)	2	1	FWD RIGHT LATERAL GUIDE	
ACTUATOR - ROLLOUT STOPS	_			25-53-09
ROLLOUT STOP ACTR, M566 (FWD BAY C)	2	1	FWD BAY C ROLLOUT STOP	
ROLLOUT STOP ACTR, M567 (AFT BAY C)	2	1	AFT BAY C ROLLOUT STOP	
ROLLOUT STOP ACTR, M1036 (FWD BAY D)	2	1	FWD BAY D ROLLOUT STOP	
ROLLOUT STOP ACTR, M1037 (AFT BAY D)	2	1	AFT BAY D ROLLOUT STOP	
CIRCUIT BREAKERS	1		119AL, MAIN EQUIP CTR, P34	
FWD COMPT CARGO HDIG. C350		1	34416	*
FWD COMPT CARGO HDLG CONT, C746		1	34J2	*
CIRCUIT BREAKERS	1	-	821, FWD CARGO COMPT, P35	
CONTROL SWITCH - C76		1	35010	*
CTR GUIDES/ROLLOUT STOPS, C49		1	3501	*
DRIVE CONTROL _ C77		1	35010	*
LAT GUIDES - C45		1	3502	*
LEFT PDU/GUIDES _ C53		1	3586	*
PDU 11 /8L /11L _ C85		1	3502	*
PDU 1R/8R/11R . C81		1	35B2	*
PDU 21/61/101 = C86		1	3504	*
PDU 2R/6R/10R = C82		1	35B4	*
PDU 31/51/91 - C87		1	3506	*
PDU $3R/5R/9R$ C83		1	3586	*
PDII $41/71/5C = C88$		1	3508	*
PDU 4R/7R/8C - C84		1	35B8	*
RIGHT PDIL C54		1	3548	*
DIODE - (REF 31-01-35, FIG. 101)				
COTL ISOLATION - R36-R146-R147-R148-R149-				
R150_R151_R152_R153_R317_R318_R319_R320_				
R321,R353,R354				
, ,				

* SEE THE WDM EQUIPMENT LIST

Forward Cargo Compartment - Cargo Handling - Component Index Figure 101 (Sheet 1)

EFFECTIVITY FORWARD CARGO COMPARTMENT ON 767-200 AIRPLANES WITH LARGE FORWARD CARGO DOOR





COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	REFERENCE
DRIVE UNIT, POWER	8	1	FWD CARGO COMPT FLOOR	25-53-01
PDU 12, M347		1		
PDU 2L, M1040		1		
PDU 2R, M1039		1		
PDU 3L, M1005		1		
PDU 3R, M1004		1		
PDU 4L, M1007		1		
PDU 4R, M1006		1		
PDU 5L, M1010				
		1		
		1		
PDII 6R _ M1011				
PDU 7L, M1014		1		
PDU 7R, M1013		1		
PDU 8L, M1017		1		
PCU 8C, M1016		1		
PDU 8R, M1015		1		
PDU 9L, M1019		1		
PDU 9R, M1018		1		
PDI 111 M1023				
PDU 11R, M1022		1		
GUIDE - AUXILIARY	2	13	FWD CARGO COMPT FLOOR	25-53-14
GUIDE - CENTER	2	13	FWD CARGO COMPT FLOOR	25-53-14
GUIDE - LATERAL	2	6	FWD AND AFT OF THE BALL TRANSFER PANELS	25-53-16

* SEE THE WDM EQUIPMENT LIST

Forward Cargo Compartment - Cargo Handling - Component Index Figure 101 (Sheet 2)

EFFECTIVITY-FORWARD CARGO COMPARTMENT ON 767-200 AIRPLANES WITH LARGE FORWARD CARGO DOOR

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COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	REFERENCE
LIGHT				
CENTER GUIDES ALL DN, YA9L3	1	1	122AR, FWD CARGO DR, CARGO HDLG	*
CENTER GUIDES LD2, YA9L2	1	1	CONT MODULE, M844 122AR, FWD CARGO DR, CARGO HDLG CONT MODULE M844	*
CENTER GUIDES LD3, YA9L1	1	1	122AR, FWD CARGO DR, CARGO HDLG	*
			CONT MODULE, M844	
CONTROL PANEL DISPLAY, L595	1	1	122AR, FWD CARGO DR, CARGO HDLG	*
POWERED DRIVE UNITS AFT ON, YA9L5	1	1	122AR, FWD CARGO DR, CARGO HDLG	*
POWERED DRIVE UNITS FWD ON, YA9L4	1	1	122AR, FWD CARGO DR, CARGO HDLG	*
ROLLOUT STOPS DOWN, YA9L6	1	1	122AR, FWD CARGO DR, CARGO HDLG	*
ROLLOUT STOPS LOCK, YA9L8	1	1	122AR, FWD CARGO DR, CARGO HDLG CONT MODULE, M844	*
ROLLOUT STOPS UP, YA9L7	1	1	122AR, FWD CARGO DR, CARGO HDLG CONT MODULE, M844	*
LIGHT - (REF 31-01-35, FIG. 101)			·····	
PALLET LOADING, L436				
POWERED DRIVES AFT BAYS E-F OFF, L437				
POWERED DRIVES AFT BAYS E-F ON, L438				
POWERED DRIVES AFT BAYS & OFF, L145				
POWERED DRIVES FWD DATS A OFF, L149 POWERED DRIVES FWD BAYS A ON 1619				
MODULE - EXTERNAL CONTROL				25-53-05
FWD CARGO HDLG CONT, M844	1	1	122AR, FWD CARGO DR, P24	
PALLET LOCK - AFT	2	4	AFT OF THE BALL TRANSFER PANELS	25-53-22
PALLET LOCK - FWD	2	4	FWD OF THE BALL TRANSFER PANELS	25-53-21
PANEL - BALL TRANSFER	2	6	COMPT DOORWAY FLOOR	25-53-03
RAIL - AUXILIARY SIDE GUIDE	2	2	FWD COMPT FLOOR ALONG THE RIGHT SIDE	25-53-23
RAIL - SIDE GUIDE	2	7	COMPT FLOOR, ALONG THE SIDEWALLS	25-53-15

* SEE THE WDM EQUIPMENT LIST

Forward Cargo Compartment - Cargo Handling - Component Index Figure 101 (Sheet 3)

EFFECTIVITY FORWARD CARGO COMPARTMENT ON 767-200 AIRPLANES WITH LARGE FORWARD CARGO DOOR

283198





COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	REFERENCE
RELAYS - (REF 31-01-35, FIG. 101) AFT LAT GUIDES DOWN TIME DLY, K798 AFT LAT GUIDES DWN TIME DLY, K797 AFT LATL GUIDES DN, K264 AFT/IN DRIVE, K543 BAY A UNL DLY TDC, K268 BAY B LDG DLY TDC, K270 BAY C AFT DIR DLY TDC, K590 BAY C AFT DIR DLY TDC, K590 BAY C ROLLOUT HOOK LOCK, K595 BAY C ROLLOUT STOPS, K596 BAY D LDG DLY TDC, K591 BAY D UNL DLY TDC, K591 BAY D UNL DLY TDC, K592 BAY E UNL DLY TDC, K592 BAY E UNL DLY TDC, K275 BAY F UNL DLY TDC, K275 BAY F UNL DLY TDC, K277 CARGO HDLG SYS PWR, K245 CTR GUIDES ALL DOWN TIME DLY, K802 CTR GUIDES ALL DOWN TIME DLY, K802 CTR GUIDES PWR, K803 FWD CAR DOOR OPEN ENBL, K506 FWD LAT GUIDES UP TIME DLY, K796 FWD LAT GUIDES UP TIME DLY, K796 FWD LAT GUIDES UP TIME DLY, K796 FWD LATL GUIDES UP, K267 L2 GUIDES UP TIME DLY, K801 LD3 GUIDES UP TIME DLY, K801 LD3 GUIDES UP TIME DLY, K800 LD2 TD RESET, K979 PALLET MODE RELAY, K980 PALLET SELECT, K600 PDU AFT DRIVE, K262 PDU AFT DRIVE, K262 PDU AFT DRIVE, K264 PDU 1R CONT, K246 PDU 1R CONT, K246 PDU 1R CONT, K247 PDU 2R/3R CONT, K577 PDU 2R/3R CONT, K576 PDU 4L/6L CONT, K578 PDU 5L/8L ROLLER ERECT TIME DLY, K1000 PDU FO ZONB COLE TIME DLY, K1000	SHT			
PDU 5R/5L/5C CONT, K580 PDU 7L/9L CONT, K582 PDU 7R/9R CONT, K581 PDU 8R/8L/8C CONT, K583 PDU 10L CONT, K256 PDU 11L CONT, K585 PDU 11R CONT, K584 PDU 10R CONT, K257				

Forward Cargo Compartment - Cargo Handling - Component Index Figure 101 (Sheet 4)

EFFECTIVITY-FORWARD CARGO COMPARTMENT ON 767-200 AIRPLANES WITH LARGE FORWARD CARGO DOOR 25-53-00 CONFIG 2 Page 104 Aug 10/90



COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	REFERENCE
RELAYS - (REF 31-01-35, FIG. 101)(CONT) R/O HOOK LOCK TIME DLY, K812 R/O HOOK LOCK TIME DLY (BAY D), K821 ROLLOUT HOOK LOCK, K488 ROLLOUT STOPS DN, K489 ROLLOUT STOPS DWN TIME DLY, K814 ROLLOUT STOPS UP TIME DLY, K813 UNL DSBL, K1082 UNL MODE CKT ENABLE, K983 RESTRAINT - RETRACTABLE PALLET ROLLER - RETRACTABLE GUIDE ROLLER - SILL SELECTOR SWITCH - EIGHT DIRECTION FWD COMPT CARGO HDLG CONTROL, S326 STOP - FIXED END LOAD STOP - PARTIAL LOAD STOP - PALLET LOAD STOP - PALLET LOCK	2 2 2 1 2 2 2 2 2 2 2	4 1 6 1 5 5 12 8 2	FWD CARGO DOORSILL FWD CARGO DOORSILL FWD CARGO DOORSILL 122AR, FWD CARGO DR, P24 ROLLER TRAYS ROLLER TRAYS ROLLER TRAYS ROLLER TRAYS FWD COMPT, BALL TRANSFER PANELS	25-53-24 25-53-25 25-53-04 25-53-04 25-53-11 25-53-11 25-53-12 25-53-26 25-53-27
STOP - ROLLOUT STOP/LOCK/GUIDE - AUXILIARY STOP/LOCK/GUIDE - CENTER	2 2 2	4 2 2	FWD CARGO DOORSILL BALL TRANSFER PANELS BALL TRANSFER PANELS	25-53-09 25-53-13 25-53-13
CENTER GUIDES, YA9S1	1	1	122AR, FWD CARGO DR, CARGO HDLG	*
POWER DRIVE UNIT, YA9S2	1	1	122AR, FWD CARGO DR, CARGO HDLG	*
ROLLOUT STOPS, YA9S3	1	1	122AR, FWD CARGO DR, CARGO HDLG CONT MODULE, M844	*
SYSTEM POWER, YA9S4	1	1	122AR, FWD CARGO DR, CARGO HDLG CONT MODULE, M844	*
SWITCHES - (REF 31-01-35, FIG. 101) AFT DRIVES BAY PDU, S384 AFT LATERAL GUIDES, S388 FWD DRIVES BAY PDU, S383 FWD LATERAL GUIDES, S387 PALLET LOADING, S563 UNIT - (REF 32-09-03, FIG. 101) PROX SW ELEC, M162				

* SEE THE WDM EQUIPMENT LIST

Forward Cargo Compartment - Cargo Handling - Component Index Figure 101 (Sheet 5)

EFFECTIVITY-FORWARD CARGO COMPARTMENT ON 767-200 AIRPLANES WITH LARGE FORWARD CARGO DOOR 25-53-00 CONFIG 2 Page 105 Aug 10/90


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FORWARD CARGO COMPARTMENT



POWER DRIVE UNIT

Forward Cargo Compartment - Cargo Handling - Component Location Figure 102 (Sheet 7)

EFFECTIVITY FORWARD CARGO COMPARTMENT ON 767-200 AIRPLANES WITH LARGE FORWARD CARGO DOOR









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FAULT ISOLATION/MAINT MANUAL

AFT CARGO COMPARTMENT - CARGO HANDLING

COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	REFERENCE
ACTUATOR - AUXILIARY STOP/LOCK/GUIDES				25-53-13
LD3 GUIDE ACTR, M393 (FWD)	3	1	FWD AUX STOP/LOCK/GUIDE	
LD3 GUIDE ACTR, M566 (AFT)	3	1	AFT AUX STOP/LOCK/GUIDE	
ACTUATOR - CENTER STOP/LOCK/GUIDES				25-53-13
LD2 GUIDE ACTR, M392 (FWD)	3	1	FWD CENTER STOP/LOCK/GUIDE	
LD2 GUIDE ACTR, M557 (AFT)	3	1	AFT CENTER STOP/LOCK/GUIDE	
ACTUATOR - LATERAL GUIDES				25-53-16
AFT LAT GUIDE ACTR, M394 (LEFT)	3	1	AFT LEFT LATERAL GUIDE	
AFT LAT GUIDE ACTR, M395 (RIGHT)	3	1	AFT RIGHT LATERAL GUIDE	
AFT LAT GUIDE ACTR, M555 (MIDDLE)	3	1	AFT MIDDLE LATERAL GUIDE	
FWD LAT GUIDE ACTR, M390 (LEFT)	3	1	FWD LEFT LATERAL GUIDE	
FWD LAT GUIDE ACTR, M391 (RIGHT)	3	1	FWD RIGHT LATERAL GUIDE	
FWD LAT GUIDE ACTR, M558 (MIDDLE)	3	1	FWD MIDDLE LATERAL GUIDE	
ACTUATOR, ROLLOUT STOPS				25-53-09
ROLLOUT STOP ACTR, M568 (FWD)	3	1	FWD ROLLOUT STOP	
ROLLOUT STOP ACTR, M569 (AFT)	3	1	AFT ROLLOUT STOP	
CIRCUIT BREAKERS	1		119AL, MAIN EQUIP CTR, P34	
AFT COMPT CARGO HDLG CONT, C747		1	34J3	*
CARGO HDLG, C351		1	34A19	*
CIRCUIT BREAKERS	1		822, AFT CARGO COMPT, P39	
CONTROL SW, C75		1	39c10	*
DRIVE CONTROL, C78		1	39D10	*
L PDU/GUIDES, C55		1	39A6	*
LAT GUIDES ACTR, C46		1	39D2	*
PDU 1L/6L, C36		1	3902	*
PDU 1R/6R, C40		1	39B2	*
PDU 2L/4L/8L, C37		1	3904	*
PDU 2R/4R/8R, C41		1	39B4	*
PDU 3L/5L, C38		1	3906	*
PDU 3R/5R/6C, C42		1	39B6	*
PDU 7L/9L, C39		1	3908	*
PDU 7R/9R, C43		1	39B8	*
R PDU, C56		1	39A8	*
R/O STOPS/CTR GUIDES ACTR, C50		1	39D1	*
DIODE - (REF 31-01-39, FIG. 101)				
R38,R322,R329				

* SEE THE WDM EQUIPMENT LIST

Aft Cargo Compartment - Cargo Handling - Component Index Figure 101 (Sheet 1)

EFFECTIVITY AFT CARGO COMPARTMENT ON 767-200 AIRPLANES

612671



COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	REFERENCE
DRIVE UNITS, POWER	7		AFT CARGO COMPT FLOOR	25-53-01
PDU 1L, M373		1		
PDU 1R, M374		1		
PDU 2L, M375		1		
PDU 2R, M376		1		
PDU 3L, M377		1		
		1		
PDU 4E, M380		1		
PDU 51 - M381		1		
PDU 5R, M382		1		
PDU 6L, M383		1		
PDU 6C, M560		1		
PDU 6R, M384		1		
PDU 7L, M385		1		
PDU 7R, M386		1		
PDU 8L, M387				
PDU 8R, M388		1		
PDU 9L, M369		1		
	2	12	AFT CARGO COMPT FLOOP	25-53-14
GUIDE, CENTER	2	12	AFT CARGO COMPT FLOOR	25-53-14
GUIDE, LATERAL	2	6	FWD AND AFT OF BALL TRANSFER	25-53-16
LIGHT				
CENTER GUIDES ALL DN, YBAL3	1	1	154AR, AFT CARGO DR, CARGO HDLG CONT MODULE, M845	*
CENTER GUIDES LD2, YBAL2	1	1	154AR, AFT CARGO DR, CARGO HDLG CONT MODULE, M845	*
CENTER GUIDES LD3, YBAL1	1	1	154AR, AFT CARGO DR, CARGO HDLG CONT MODULE, M845	*
CONTROL PANEL DISPLAY, L596	1	1	154AR, AFT CARGO DR, CARGO HDLG CONT MODULE, M845	*
POWERED DRIVE UNITS AFT ON, YBAL5	1	1	154AR, AFT CARGO DR, CARGO HDLG CONT MODULE, M845	*
POWERED DRIVE UNITS FWD ON, YBAL4	1	1	154AR, AFT CARGO DR, CARGO HDLG CONT MODULE, M845	*
ROLLOUT STOPS DOWN, YBAL6	1	1	154AR, AFT CARGO DR, CARGO HDLG CONT MODULE, M845	*
ROLLOUT STOPS LOCK, YBAL8	1	1	154AR, AFT CARGO DR, CARGO HDLG CONT MODULE, M845	*
ROLLOUT STOPS UP, YBAL7	1	1	154AR, AFT CARGO DR, CARGO HDLG CONT MODULE, M845	*
LIGHT - (REF 31-01-39, FIG. 101) POWERED DRIVES FWD BAYS A-B OFF, L157 POWERED DRIVES FWD BAYS A-B ON, L159 POWERED DRIVES FWD BAYS A OFF, L158				
MODULE - EXTERNAL CONTROL				25-53-05
AFT CARGO HDLG CONT, M845		1	154AR, AFT CARGO DR, P27	
PANEL - BALL TRANSFER RAIL - SIDE GUIDE	2	3 7	AFT CARGO COMPT FLOOR, DOORWAY AFT CARGO COMPT FLOOR, ALONG SIDEWALLS	25-53-03 25-53-15

* SEE THE WDM EQUIPMENT LIST

Aft Cargo Compartment - Cargo Handling - Component Index Figure 101 (Sheet 2)

EFFECTIVITY AFT CARGO COMPARTMENT ON 767-200 AIRPLANES

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COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	REFERENCE
COMPONENT RELAYS - (REF 31-01-39, FIG. 101) AFT LAT GUIDES DOWN TIME DLY, K819 AFT LAT GUIDES UP TIME DLY, K818 AFT LAT GUIDES DN, K294 AFT/IN DRIVE, K545 BAY A UNL DLY TDC, K298 BAY B UNL DLY TDC, K300 BAY D AFT DIR DLY TDC, K300 BAY D AFT DIR DLY TDC, K301 CARGO DOOR OPEN ENBL, K507 CARGO HDLG SYS PWR, K278 CTR GUIDES CMD DOWN OVERRIDE, K999 CTR GUIDES CMD DOWN OVERRIDE, K999 CTR GUIDES DOWN TIME DLY, K816 FWD LAT GUIDES DOWN TIME DLY, K817 FWD LAT GUIDES DOWN TIME DLY, K816 FWD LAT GUIDES DOWN TIME DLY, K816 FWD LAT GUIDES DOWN, K296 FWD/OUT DRIVE, K542 LAT GUIDES UP TIME DLY, K805 LD3 GUIDES UP, TIME DLY, K805 LD3 GUIDES UP, TIME DLY, K804 LD2 TD RESET, K998 PDU AFT DRIVE, K292 PDU AFT DRIVE, K292 PDU AFT DRIVE, K292 PDU AFT DRIVE, K273 PDU AFT CONT DLY TDC, K73 PDU 1R CONT, K280 PDU 2R CONT, K281 PDU 2R CONT, K283 PDU 3R/4R CONT, K285 PDU 3R/4R CONT, K286 PDU 5L/7L CONT, K286 PDU 6L UNL DLY TDC, K67 PDU 5L/7C CONT, K286 PDU 6L UNL DLY TDC, K67 PDU 6L UNL DLY TDC, K67 PDU 6L UNL DLY TDC, K67 PDU 6L/6C/6R CONT, K289	102 SHT	QTY	ACCESS/AREA	REFERENCE
PDU 8L/9L CONT, K287 PDU 8R/9R CONT, K288 R/O HOOK LOCK TIME DLY, K808 ROLLOUT HOOK LOCK, K490 ROLLOUT STOPS, K491 ROLLOUT STOPS DOWN TIME DLY, K810 ROLLOUT STOP UP TIME DLY, K809 UNL DSBL, K1083 UNL MODE CKT ENABLE, K1001				

Aft Cargo Compartment - Cargo Handling - Component Index Figure 101 (Sheet 3)

EFFECTIVITY AFT CARGO COMPARTMENT ON 767-200 AIRPLANES

283444





COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	REFERENCE
ROLLER - SILL	2	4	CARGO DOORSILL	25-53-04
SELECTOR SWITCH - EIGHT DIRECTION				
AFT COMPT CARGO HDLG CONTROL, S327	1	1	154AR, AFT CARGO DR, P27	25-53-06
STOP - FIXED END LOAD	2	6	ROLLER TRAYS	25-53-11
STOP - PARTIAL LOAD	2	8	ROLLER TRAYS	25-53-12
STOP - RETRACTABLE LOAD	2	2	AFI COMPL, AFI BAY, ROLLER TRAYS	25-53-08
STOP - ROLLOUT	2	2	CARGO DOURSILL	25-55-09
STOP/LOCK/GUIDE - AUXILIARY	2	2	BALL TRANSFER PANELS	25-55-15
STOP/LOCK/GUIDE - CENTER	2	2	BALL TRANSFER PANELS	25-55-15
SWITCHES VDAS1	1	1		*
CENTER GOIDES, TEAST			CONT MODULE, M845	~
POWER DRIVE UNIT, YBAS2	1	1	154AR, FWD CARGO DR, CARGO HDLG CONT MODULE, M845	*
ROLLOUT STOPS, YBAS3	1	1	154AR, FWD CARGO DR, CARGO HDLG CONT MODULE, M845	*
SYSTEM POWER, YBAS4	1	1	154AR, FWD CARGO DR, CARGO HDLG CONT MODULE, M845	*
SWITCHES - (REF 31-01-39, FIG. 101) AFT LATERAL GUIDES, \$394			· · · · · · · · · · · · · · · · · · ·	
FWD DRIVES BAYS PDU, \$392				
FWD LATERAL GUIDES, \$395				
UNIT - (REF 32-09-03, FIG. 101)				
PROX SW ELEC, M162				

* SEE THE WDM EQUIPMENT LIST

Aft Cargo Compartment - Cargo Handling - Component Index Figure 101 (Sheet 4)

EFFECTIVITY AFT CARGO COMPARTMENT ON 767-200 AIRPLANES



AFT	CARGO	COMPARTMENT	ON	767–200	
AIRF	PLANES				





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Figure 102 (Sheet 3)

EFFECTIVITY AFT CARGO COMPARTMENT ON 767-200 AIRPLANES

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EFFECTIVITY AFT CARGO COMPARTMENT ON 767-200 AIRPLANES

282218

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Aft Cargo Compartment - Cargo Handling - Component Location (Details from Sht 2) Figure 102 (Sheet 6)

EFFECTIVITY AFT CARGO COMPARTMENT ON 767-200 AIRPLANES

282220

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Aft Cargo Compartment - Cargo Handling - Component Location Figure 102 (Sheet 7)

EFFECTIVITY AFT CARGO COMPARTMENT ON 767-200 AIRPLANES

201893





FAULT ISOLATION/MAINT MANUAL

FORWARD CARGO COMPARTMENT - CARGO HANDLING

SAS SAS SAS SAS	COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	AMM Reference
SAS SAS	ACTUATOR - AFT LATERAL GUIDE, M371,M372,M561 ACTUATOR - AFT ROLLOUT STOPS, M1035,M1037	2	3 2	AFT BAY AFT BAY	25-53-16 25-53-09
SAS SAS SAS	ACTUATOR – AUXILIARY STOP/LOCK LD3 GUIDE, M370 LD3 GUIDE, M562 ACTUATOR – CENTER STOP/LOCK	2 2	1 1	FWD BAY AFT BAY	25-53-13
SAS SAS	LD2 GUIDE, M369 LD2 GUIDE, M563	2	1	FWD BAY AFT BAY	
SAS SAS	ACTUATOR - FWD LATERAL GUIDE, M367,M368,M564 ACTUATOR - FWD ROLLOUT STOPS, M1034,M1036	2	3 2	FWD BAY FWD BAY	25-53-16 25-53-09
SAS SAS	CIRCUIT BREAKER - FWD COMPT CARGO HDLG, C350 FWD COMPT CARGO HDLG CONT, C746	1	1	119AL, MAIN EQUIP CTR, P34 34A16 34J2	*
SAS SAS	CIRCUIT BREAKER - CARGO CONT, C76 CARGO DR CONT, C10		1	821, FWD CARGO COMPT, P35 35C10 35B10	*
SAS SAS	CARGO DR CONT, C77 GUIDES AND LEFT PDUS, C53		1	35D10 35A6	* *
SAS SAS	GUIDES - LTRL, C49 GUIDES - LTRL, C45 PDU 1L/4L/7L/13L, C170		1	35D2 35C2	*
SAS SAS	PDU 1R/4R/7R/13R, C166 PDU 2L/8L/10L/14L, C171 PDU 2R/8R/10R/14R, C167		1 1 1	3582 3504 3584	* * *
SAS SAS	PDU 3L/5L/6L/11L, C172 PDU 3R/5R/6R/11R, C168 PDU 8C/9L/12L, C173		1 1 1	35C6 35B6 35C8	* * *
SAS SAS	PDU 5C/9R/12R, C169 RIGHT PDUS, C54		1 1	35B8 35A8	*
SAS SAS SAS SAS SAS SAS SAS	ALL SAS AIRPLANES				
SAS SAS SAS					
SAS SAS SAS SAS					
SAS SAS SAS					
SAS SAS SAS	Forward Cargo Compartment	- Car	go H	andling – Component Index	
575	EFFECTIVITY	 1	Cone		-7 00
Н32900	FORWARD CARGO COMPARTMENT ON 767-300 AIRPLANES WITH LARGE FORWARD CARGO DOOR			CONF 04 Pa))-UU IG 5 ge 101



COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	REFERENCE
DIODE - (REF 31-01-35, FIG. 101) COIL ISOLATION, R36,R146,R147,R148,R317, R318,R319,R320,R321,R323,R324,R325,R326, R327,R328,R355,R356,R366,R367				
DRIVE UNITS - POWERED	9	1	FWD CARGO COMPT FLOOR	25-53-01
PDU 12, 11347		1		
PDII 21 M1040		1		
PDU 2R. M1039		1		
PDU 3L, M1005		1		
PDU 3R, M1004		1		
PDU 4L, M1007		1		
PDU 4R, M1006		1		
PDU 5C, M1009		1		
PDU 5L, M1010		1		
PDU 5R, M1008		1		
PDU 6L, M1012		1		
		1		
PDU 7E, M1014 PDU 7F M1013		1		
PDII 80 - M1016		1		
PDU 8L, M1017		1		
PDU 8R, M1015		1		
PDU 9L, M1019		1		
PDU 9R, M1018		1		
PDU 10L, M1021		1		
PDU 10R, M1020		1		
PDU 11L, M1362		1		
PDU 11R, M1561		1		
PDU 12L, M1304 DNI 12D M1363		1		
PDU 12K, M1303		1		
PDU 13R _ M1365		1		
PDU 14L, M1368		1		
PDU 14R, M1367		1		
LIGHT	1		122AR, FWD CARGO HANDLING	
CONTROL PANEL DSPLY - 1 595		1	CONTROLS, FIOTA	
CTR GUIDES ALL DN, YA9103		1		
CTR GUIDES LD2 UP, YA9LO2		1		
CTR GUIDES LD3 UP, YA9L01		1		
PALLET HANDLING, YA9L09		1		
PDU AFT ON, YA9L05		1		
PDU FWD ON, YA9L04				
R/O STOP DOWN, YA9LU6		1		
K/U SIUP UP, TAYLU/		1		
RIU SIUF LUCK, IA7LUO				

* SEE THE WDM EQUIPMENT LIST

Forward Cargo Compartment – Cargo Handling – Component Index Figure 101 (Sheet 2)

EFFECTIVITY-FORWARD CARGO COMPARTMENT ON 767-300 AIRPLANES WITH LARGE FORWARD CARGO DOOR

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COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	REFERENCE
LIGHT - (REF 31-01-35, FIG. 101) L436,L812,L813,L814,L815,L816,L817,L818, L826				
LOCK – AFT PALLET	2	4	FWD COMPT - AFT OF BALL TRANSFER PANELS	25-53-22
LOCK - FWD PALLET	2	4	FWD COMPT - FWD OF BALL TRANSFER PANELS	25-53-21
LOCK - PALLET	2	5	FWD CARGO COMPT FLOOR	25-53-26
GUIDE - AUXILIARY	2	16	FWD CARGO COMPT FLOOR	25-53-14
GUIDE - CENTER	2	16	FWD CARGO COMPT FLOOR	25-53-14
GUIDE - LATERAL	2	6	FWD CARGO COMPT FLOOR	25-53-16
MODULE - EXTERNAL CONTROL				
FWD CARGO HDLG CONT, M844	1	1	122AR, FWD CARGO DR, P24	
PALLET RESTRAINT - RETRACTABLE	2	4	FWD COMPT, BALL TRANSFER PANEL,	25-53-24
PALLET TURNING BALLS	2	3	FWD COMPT, AFT END OF BALL	25-53-00
PANEL – BALL TRANSFER	2	6	EWD CARGO COMPT	25-53-03
RAIL - AUXILIARY SIDE GUIDE	2	3	FWD CARGO COMPT FLOOR ALONG RIGHT	25-53-23
RAIL - SIDE GUIDE PELAYS - (PEE 31-01-35 EIG 101)	2	10	FWD CARGO COMPT FLOOR	25-53-15
AFT LAT CUIDES DOWN TIME DIV K708				
AFT LAT GUIDES DOWN TIME DLY KT70				
AFT LATE CUIDES ON K266				
AFT/IN DRIVE K5/3				
BAT A UNE DET TDC, K200				
DAT D ONL DET TDC, KETO				
BAY C FUD DIP TOC K589				
BAY C POLLOUT HOOK LOCK K595				
BAY C POLLOUT STOPS K596				
BAY C INI DNI EDECT BRAKE LATCH KOR2				
BAY D LDG DTR DLY TDC K591				
BAY D LINI DIR DIY TOC K592				
BAY E LDG DLY TDC K274				
BAY E UNI DLY TDC - K275				
BAY E UNI DLY TDC - K277				
BAY G UNL TDC. K923				
BAY H UNL TDC, K924				
CARGO HDLG SYS PWR, K245				
CTR GUIDES ALL DOWN TIME DLY, K802				
CTR GUIDES CMD DOWN OVERRIDE, K981				
CTR GUIDES PWR, K803				
FWD CAR DOOR OPEN ENBL, K506				
FWD LAT GUIDES DOWN TIME DLY, K796				
FWD LAT GUIDES UP TIME DLY, K795				
FWD LATL GUIDES DN, K266				
FWD/OUT DRIVE, K542				

Forward Cargo Compartment - Cargo Handling - Component Index Figure 101 (Sheet 3)

EFFECTIVITY-FORWARD CARGO COMPARTMENT ON 767-300 AIRPLANES WITH LARGE FORWARD CARGO DOOR

271136

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COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	REFERENCE
LAT GUIDES PWR, K799 LD2 GUIDES DOWN, K265 LD3 GUIDES UP, K267 LD2 GUIDES UP TIME DLY, K801 LD3 GUIDES UP TIME DLY, K800 LD2 TD RESET, K979 PALLET MODE, K980 PALLET SELECT, K600 PDU AFT DRIVE, K262 PDU DRIVE DLY TDC, K925 PDU 1L CONT, K246 PDU 1R CONT, K247 PDU 2L/3L CONT, K577 PDU 2L/3L CONT, K579 PDU 4L/6L CONT, K579 PDU 5L/8L ROLLER ERECT, K1000 PDU 5R/5C/5L CONT, K580 PDU 7L/9L CONT, K582 PDU 7R/9R CONT, K581 PDU 8R/8C/8L CONT, K583 10L CONT, K991 10R CONT, K992 11L/12L CONT, K1112 11R/12R CONT, K1113 13L CONT, K993 13R CONT, K994 14L CONT, K995 14R CONT, K996 ROLLOUT HOOK LOCK, K488 ROLLOUT HOOK LOCK, K489 ROLLOUT HOOK LOCK TDO, K812 ROLLOUT STOPS DWN TDO, K814 ROLLOUT STOPS DWN TDO, K814 ROLLOUT STOP UP TDO, K813 UNLOAD DISABLE, K1082				
ROLLER - RETRACTABLE GUIDE ROLLER - SILL SELECTOR SWITCH - EIGHT DIRECTION FWD COMPT CARGO HDLG CONTROL, S326	2 2 1	1 8 1	FWD COMPT, DOOR SILL CARGO DOORSILL 122AR, FWD CARGO DR, P24	25-53-25 25-53-04 25-53-06

Forward Cargo Compartment - Cargo Handling - Component Index Figure 101 (Sheet 4)

EFFECTIVITY-FORWARD CARGO COMPARTMENT ON 767-300 AIRPLANES WITH LARGE FORWARD CARGO DOOR

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COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	REFERENCE
STOP - FIXED END PALLET LOAD	2	10	FWD CARGO COMPT FLOOR	25-53-11
STOP - PARTIAL LOAD	2	20	FWD COMPT, ROLLER TRAYS	25-53-12
STOP - RETRACTABLE	3	2	AFT COMPT, AFT BAY, ROLLER TRAY	25-53-08
STOP - ROLLOUT	2	4	FWD CARGO DOORSILL	25-53-09
STOP/LOCK/GUIDE - AUXILIARY	2	4	FWD COMPT, BALL TRANSFER PANELS	25-53-13
STOP/LOCK/GUIDE - CENTER	2	4	FWD COMPT ,BALL TRANSFER PANELS	25-53-13
SWITCHES				
CTR GUIDES, YA9S1	1	1	122AR, FWD CARGO DR, M844	*
POWER DRIVE UNITS, YA9S2	1	1	122AR, FWD CARGO DR, M844	*
ROLLOUT STOPS, YA9S3	1	1	122AR, FWD CARGO DR, M844	*
SYSTEM POWER, YA9S4	1	1	122AR, FWD CARGO DR, M844	
SWITCHES - (REF 31-01-35, FIG. 101)				
BAY A OFF, S675				
BAY E OFF, S698				
BAY F OFF, S677				
BAY G OFF, S678				
BAY H OFF, S679				
PALLEI HANDLING, S563				
UNII - (REF 32-09-03, FIG. 101)				
PROX SW ELEC, M162				

* SEE THE WDM EQUIPMENT LIST

Forward Cargo Compartment - Cargo Handling - Component Index Figure 101 (Sheet 5)

EFFECTIVITY-FORWARD CARGO COMPARTMENT ON 767-300 AIRPLANES WITH LARGE FORWARD CARGO DOOR







ACCESS DOOR, 119AL

CARGO HANDLING AND CARGO HANDLING CONTROL CIRCUIT BREAKERS

FORWARD COMPARTMENT CARGO HANDLING ACCESS PANEL, P35 FORWARD EXTERIOR CARGO CONTROL 🝌 FWD PANEL, M844 SEE (A)



FORWARD EXTERIOR CONTROL PANEL, M844



Forward Cargo Compartment - Cargo Handling - Component Location Figure 102 (Sheet 1)

EFFECTIVITY FORWARD CARGO COMPARTMENT ON 767-300 AIRPLANES WITH LARGE FORWARD CARGO DOOR

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Forward Cargo Compartment - Cargo Handling - Component Location (Details from Sht 2) Figure 102 (Sheet 4)

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Forward Cargo Compartment - Cargo Handling - Component Location (Details from Sht 2) Figure 102 (Sheet 8)

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EFFECTIVITY-25-53-00 FORWARD CARGO COMPARTMENT ON 767-300 AIRPLANES WITH LARGE FORWARD CARGO DOOR CONFIG 01 May 10/91







FAULT ISOLATION/MAINT MANUAL

AFT CARGO COMPARTMENT - CARGO HANDLING

COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	REFERENCE
ACTUATOR - AUXILIARY STOP/LOCK				25-53-13
LD3 GUIDE, M393	3	1	FWD BAY	
LD3 GUIDE, M566	3	1	AFT BAY	
ACTUATOR - CENTER STOP/LOCK				25-53-13
LD2 GUIDE, M392	3	1	FWD BAY	
LD2 GUIDE, M557	3	1	AFT BAY	
ACTUATOR - AFT LATERAL GUIDE, M394,M395,M555	3	3	AFT BAY	25-53-16
ACTUATOR - FWD LATERAL GUIDE, M390,M391,M558	3	3	FWD BAY	25-53-16
CIRCUIT BREAKERS	1		119AL, MAIN EQUIP CTR, P34	
AFT COMPT CARGO HDLG CONT, C747		1	34J3	*
CARGO HDLG, C351		1	34A19	*
CIRCUIT BREAKERS	1		822, AFT CARGO COMPT, P39	
CARGO CONT, C75		1	39C10	*
CARGO DRIVE CONTROL, C11		1	39B10	*
CARGO DRIVE CONTROL, C78		1	39D10	*
GUIDES AND LEFT PDUS, C55		1	39A6	*
GUIDES - CTR, C80		1	39D1	*
GUIDES - LTRL, C46		1	39D2	*
PDU 1L/5L/10L, C162		1	39C2	*
PDU 1R/5R/10R, C158		1	39B2	*
PDU 2L/6L/12L, C163		1	3904	*
PDU 2R/6R/12R/9C, C159		1	39B4	*
PDU 3L/7L/9L, C164		1	3906	*
PDU 3R/7R/9R, C160		1	39B6	*
PDU 4L/8L/11L, C165		1	3908	*
PDU 4R/8R/11R, C161		1	39B8	*
RIGHT PDU, C56		1	39A8	*

* SEE THE WDM EQUIPMENT LIST

Aft Cargo Compartment - Cargo Handling - Component Index Figure 101 (Sheet 1)

EFFECTIVITY AFT CARGO COMPARTMENT ON 767-300 AIRPLANES

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COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	REFERENCE
DIODE - (REF 31-01-39, FIG. 101) COIL ISOLATION, R38,R155,R156,R157,R158, R289,R290,R293,R294,R322,R329 DRIVE UNITS - POWERED PDU 1L, M373 PDU 1R, M374	9	1	AFT CARGO COMPT FLOOR	25-53-01
PDU 2L, M375 PDU 2R, M376 PDU 3L, M377 PDU 3R, M378 PDU 4L, M379 PDU 4R, M380		1 1 1 1 1		
PDU 5L, M381 PDU 5R, M382 PDU 6L, M383 PDU 6R, M384 PDU 7L, M385 PDU 7R, M386		1 1 1 1 1		
PDU 8L, M387 PDU 8R, M388 PDU 9L, M389 PDU 9C, M1297 PDU 9R, M559 PDU 10L, M1295		1 1 1 1 1 1		
PDU 10R, M1296 PDU 11L, M1298 PDU 11R, M1299 PDU 12L, M1300 PDU 12R, M1301 GUIDE - AUXILIARY	2	1 1 1 1 1 1 14	AFT CARGO COMPT FLOOR	25-53-14
GUIDE - CENTER GUIDE - LATERAL LIGHT	2 2 1	14 6	AFT CARGO COMPT FLOOR AFT CARGO COMPT FLOOR 154AR, AFT CARGO HDLG CONT MODULE, M845	25–53–14 25–53–16 *
CONTROL PANEL DSPLY, L596 CTR GUIDES ALL DN, YBAL3 CTR GUIDES LD2 UP, YBAL2 CTR GUIDES LD3 UP, YBAL1 PDU AFT ON, YBAL5 PDU FWD ON, YBAL4 ROLLOUT STOPS DOWN, YBAL6 ROLLOUT STOPS LOCK, YBAL8 ROLLOUT STOPS UP, YBAL7 LIGHT - (REF 31-01-39, FIG. 101) L819,L820,L821,L822,L823,L824,L825 MODULE - EXTERNAL CONTROL		1 1 1 1 1 1 1 1		
AFT CARGO HDLG CONT, M845 PANEL - BALL TRANSFER RAIL - SIDE GUIDE	1 2 2	1 3 9	154AR, AFT CARGO DR, P27 AFT CARGO COMPT AFT CARGO COMPT	25–53–05 25–53–03 25–53–15

* SEE THE WDM EQUIPMENT LIST

1 ALL SAS AIRPLANES

Aft Cargo Compartment - Cargo Handling - Component Index Figure 101 (Sheet 2)

EFFECTIVITY AFT CARGO COMPARTMENT ON 767-300 AIRPLANES



COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	REFERENCE
RELAYS - (REF 31-01-39, FIG. 101)				
AFT LAT GUIDES DOWN TIME DLY, K819				
AFT LAT GUIDES UP TIME DLY, K818				
AFT LATL GUIDES DN, K294				
AFT/IN DRIVE, K545				
BAY A UNL DLY TDC, K298				
BAY B UNL DLY TDC, K304				
BAY C UNL DLY TDC, K300				
BAY D UNL DLY TDC, K905				
BAY E LDG DLY TDC, K906				
BAY F AFT DLY TDC, K907				
BAY F FWD DLY TDC, K908				
BAY G UNL DLY TDC, K909				
CARGO DOOR OPEN ENBL, K507				
CARGO HDLG SYS PWR, K278				
CIR GUIDES ALL DOWN TIME DLY, K8U6				
CIR GUIDES DN OVERRIDE, K999				
CIR GUIDES PWR, KOU?				
FWD LAT GUIDES DOWN TIME DLY, KOT				
FWD LAT GUIDES OF TIME DLT, KOTO				
FWD LATE GUIDES DN, K290				
LAT CUIDES DUD V820				
LAT GUIDES FWR, KOZO				
LDZ GUIDES DOWN, KZ75				
LD2 GUIDES UP TIME DIV K805				
LD3 GUIDES UP TIME DLY, K804				
ID2 TD RESET K998				
PDU AFT DRIVE, K292				
PDU BAY C LDG DLY TDC, K41				
PDU BAY E UNL DLY TDC, K303				
PDU DRIVE DLY TDC, K926				
PDU ERECT BRAKE LATCH, BAY F UNL,				
K1004 *E13				
PDU 1L CONT, K279				
PDU 1R CONT, K280				
PDU 2L CONT, K281				
PDU 2R CONT, K282				
PDU 3L/4L CONT, K283				
PDU 3R/4R CONT, K284				
PDU 5L CONT, K910				
PDU 5R CONT, K911				
PDU 6L/7L CONT, K912				
PDU 6R//R CONT, K913				
PDU 8L/1UL CONT, K915				
PDU OK/TUK LUNI, KY16				
PDU 9L/9C/9R CONT, K914				
PDU TIL/IZL CONI, K917				
PDU TIK/TZK LUNT, KYTÖ INLOAD DISADLE V1097				
UNLOAD MODE CIRCUIT ENARLE V1001				
UNEVAD HODE CIRCUIT ENADEL, RIUUT		1		

Aft Cargo Compartment - Cargo Handling - Component Index Figure 101 (Sheet 3)

EFFECTIVITY AFT CARGO COMPARTMENT ON 767-300 AIRPLANES

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COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	REFERENCE
ROLLER - SILL	2	4	CARGO DOORSILL	25-53-04
SELECTOR SWITCH - EIGHT DIRECTION			· · · · · · · · · · · · · · · · · · ·	
AFT COMPT CARGO HDLG CONTROL, S327	1	1	154AR, AFT CARGO DR, P27	25-53-06
STOP - FIXED END LOAD	2	6	AFT COMPT, ROLLER TRAYS	25-53-11
STOP - PARTIAL LOAD	2	16	AFT COMPT, ROLLER TRAYS	25-53-12
STOP - RETRACTABLE END	2	2	AFT COMPL, AFT BAY, ROLLER TRAY	25-53-08
	2	2	AFT CARGO DOURSILL	25-55-09
STOP/LOCK/GUIDE = AUXILIART	2	2	AFT COMPT, BALL TRANSFER PANELS	25-53-15
SHITCH	2	2	AFT COMPT, DALL TRANSFER PANELS	27-72-12
CTR GUIDES, YBAS1	1	1	154AR, AFT CARGO HDLG CONT MODULE, M845	*
POWER DRIVE UNIT, YBAS2	1	1	154AR, AFT CARGO HDLG CONT MODULE, M845	*
ROLLOUT STOPS, YBAS3 1	1	1	154AR, AFT CARGO HDLG CONT MODULE, M845	*
SYSTEM POWER, YBAS4	1	1	154AR, AFT CARGO HDLG CONT MODULE, M845	*
SWITCH - (REF 31-01-39, FIG. 101)			,	
BAY A OFF, S680				
BAY B OFF, S681				
BAY C OFF, S682				
BAY D OFF, S683				
UNIT - (REF 32-09-03, FIG. 101) PROX SW ELEC, M162				

* SEE THE WDM EQUIPMENT LIST

Aft Cargo Compartment - Cargo Handling - Component Index Figure 101 (Sheet 4)

EFFECTIVITY AFT CARGO COMPARTMENT ON 767-300 AIRPLANES







Figure 102 (Sheet 1)

EFFECTIVITY AFT CARGO COMPARTMENT ON 767-300 AIRPLANES

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Aft Cargo Compartment – Cargo Handling – Component Location Figure 102 (Sheet 2)

EFFECTIVITY AFT CARGO COMPARTMENT ON 767-300 AIRPLANES

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EFFECTIVITY AFT CARGO COMPARTMENT ON 767-300 AIRPLANES

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Aft Cargo Compartment - Cargo Handling - Component Location (Details from Sht 2) Figure 102 (Sheet 6)

EFFECTIVITY AFT CARGO COMPARTMENT ON 767-300 AIRPLANES

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EFFECTIVITY AFT CARGO COMPARTMENT ON 767-300 AIRPLANES

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CONTAINERIZED CARGO HANDLING SYSTEM - ADJUSTMENT/TEST

- 1. <u>General</u>
 - A. This procedure contains one task. The task is an operational test of the containerized cargo handling system. This test is for the forward cargo compartments with large forward cargo door.

TASK 25-53-00-715-001-002

- 2. <u>Operational Test Containerized Cargo Handling System</u>
 - A. General
 - (1) This procedure is a test of the exterior cargo control panel switches, and the interior control panel switches. Also, it is a cargo handling electrical system (simulated operation) test.
 - B. References
 - (1) AMM 24-22-00/201, Electrical Power
 - (2) AMM 52-33-00/001 Large Forward Cargo Door
 - C. Equipment
 - (1) Safety Barrier A52007-1
 - D. Access
 - (1) Location Zones 121/122 Forward Cargo Compartment
 - (2) Access Panels 821 Forward Cargo Door
 - E. Prepare for Test

s 865-002-002

(1) Supply electrical power (AMM 24-22-00/201).

s 865-015-002

- (2) Open the cargo door.
 - <u>NOTE</u>: The cargo handling system will not operate unless cargo door is fully open.

EFFECTIVITY FORWARD CARGO COMPARTMENT ON 767-200 AIRPLANES WITH LARGE FORWARD CARGO DOOR











FORWARD INTERIOR CONTROL PANEL

Cargo Control Panels Figure 501

EFFECTIVITY FORWARD CARGO COMPARTMENT ON 767-200 AIRPLANES WITH LARGE FORWARD CARGO DOOR







s 865-014-002

- <u>WARNING</u>: USE CARE WHEN WORKING NEAR THE OPENING OF THE CARGO COMPARTMENT DOOR. INSTALL A SAFETY BARRIER, IF IT IS NECESSARY. INJURY TO PERSONS CAN OCCUR IF THEY FALL THROUGH THE OPENING OF THE DOOR.
- (3) Install a safety barrier across the cargo door opening.
- F. Test Containerized Cargo Handling System

s 715-004-002

- (1) Test Exterior Cargo Control Panel Switches
 - <u>NOTE</u>: All the switches are on the exterior control panel unless you are told differently.
 - (a) Put the SYSTEM POWER switch in the ON position (Fig. 501).
 - (b) Put the PALLET LOADING switch on the interior control panel in the OFF (down) position.

<u>NOTE</u>: This will cause only the two forward rollout stops to operate.

- (c) Put the ROLLOUT STOPS switch in the LOCK position.
 - 1) Make sure the LOCK and UP indicator lights come on.
 - 2) Make sure the lip guide and lip restraint are fully up and locked.
- (d) Put the ROLLOUT STOPS switch in the DOWN position.
 - 1) Make sure the DOWN indicator light comes on.
 - 2) Make sure the lip guide and lip restraint are retracted.
- (e) Put the ROLLOUT STOPS switch in the UP position.
 - 1) Make sure the UP indicator light comes on.
 - Make sure the lip restraint is retracted and the lip guide stays up.
- (f) Put the CENTER GUIDES switch in the ALL DN position.
 - 1) Make sure the ALL DN indicator light comes on.
 - Make sure the center (LD-2) and auxiliary (LD-3) guides and restraints are retracted.
- (g) Put the CENTER GUIDES switch in the LD-2 position.
 - 1) Make sure the LD-2 indicator light comes on.
 - Make sure the center (LD2) restraint is retracted, and the center guide stays up.
 - 3) Make sure the auxiliary (LD3) restraint and guide stay retracted.
 - 4) Do the steps that follow:
 - a) Manually lift the center (LD2) restraint.
 - b) Put the POWER DRIVE UNITS switch in the FWD ON position.
 - c) Hold the 8-d switch in the ALL AFT position.
 - d) Make sure the center (LD2) restraint and guide fully retract.

EFFECTIVITY-FORWARD CARGO COMPARTMENT ON 767-200 AIRPLANES WITH LARGE FORWARD CARGO DOOR

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- e) Put the 8-d switch in the neutral position.
- f) Make sure the center (LD2) guide comes up, but the restraint stays retracted.
- g) Put the POWER DRIVE UNITS switch in the AFT ON position.
- h) Hold the 8-d switch in the ALL FWD position.
- i) Make sure the center (LD2) guide fully retracts.
- j) Put the 8-d switch in the neutral position.
- k) Make sure the center (LD2) guide erects but the restraint stays retracted.
- (h) Put the CENTER GUIDES switch in the LD-3.
 - 1) Make sure the LD-3 indicator light comes on.
 - Make sure the auxiliary (LD3) restraint is retracted, and 2) the auxiliary guide is up.
 - 3) Make sure the center (LD2) restraint and guide retract.
 - 4) Do the steps that follow:
 - a) Manually lift the auxiliary (LD3) restraint.
 - b) Put the POWER DRIVE UNITS switch in the FWD ON position.
 - Hold the 8-d switch in the ALL AFT position. c)
 - d) Make sure the auxiliary (LD3) restraint and guide fully retract.
 - Put the 8-d switch in the neutral position. e)
 - f) Make sure the auxiliary (LD3) guide comes up, but the restraint stays retracted.
 - g) Put the POWER DRIVE UNITS switch in the AFT ON position.
 - h) Hold the 8-d switch in the ALL FWD position.
 - i) Make sure the auxiliary (LD3) guide fully retracts.
 - j) Put the 8-d switch in the neutral position.
 - k) Make sure the auxiliary (LD3) guide comes up, but the restraint stays retracted.
- (i) Put the POWER DRIVE UNITS switch in the FWD ON position.
 - 1) Make sure that FWD ON indicator light comes on.
- (j) Put the POWERED DRIVES FWD BAYS switch on the interior cargo control panel in the A ON position.
 - 1) Make sure the A ON indicator light comes on.
- (k) Put the POWERED DRIVES AFT BAYS switch on the interior cargo control panel in the E-F ON position.
 - 1) Make sure the POWERED DRIVES Bays A throught C lights come on.
- (l) Hold the 8-d switch in each position.
 - 1) Make sure the PDUs operate correctly (Table II).
- Put the POWER DRIVE UNITS switch in the AFT ON position. (m)
 - 1) Make sure the AFT ON indicator light comes on.
 - 2) Make sure the POWERED DRIVES Bays C through F lights come on.
- (n) Hold the 8-d switch in each position.
 - 1) Make sure the PDUs operate correctly (Table II).

EFFECTIVITY-FORWARD CARGO COMPARTMENT ON 767-200 AIRPLANES WITH LARGE FORWARD CARGO DOOR

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s 715-006-002

(2) Test - Interior Cargo Handling Control Panel Switches

<u>NOTE</u>: All the switches are on interior control panel unless you are told differently.

- (a) Put the LATERAL GUIDES FWD switch in the NORMAL position.
 - 1) Make sure the lateral guides forward of the doorway are up (Fig. 501).
- (b) Put the LATERAL GUIDES FWD switch in the DOWN position.1) Make sure the lateral guides forward of the doorway
 - retract.
- (c) Put the LATERAL GUIDES AFT switch in the NORMAL position.1) Make sure the lateral guides aft of the doorway are up.
- (d) Put the LATERAL GUIDES AFT switch in the DOWN position.1) Make sure the lateral guides aft of the doorway retract.
- (e) Put the POWER DRIVE UNITS switch on the external control panel in the FWD ON position.
- (f) Put the POWERED DRIVES FWD BAYS switch in the A OFF.
 - 1) Make sure the A OFF indicator light comes on.
 - Make sure the PDUs operate correctly (TABLE II).

NOTE: The PDUs in Bay A will not operate.

- (g) Put the POWER DRIVE UNITS switch on the external control panel in the AFT ON position.
- (h) Put the POWERED DRIVES AFT BAYS switch in the F OFF position.
 - 1) Make sure the F OFF indicator light comes on.
 - 2) Make sure the PDUs operate correctly (TABLE II).

<u>NOTE</u>: The PDUs in Bay F will not operate.

(i) Put the POWERED DRIVES AFT BAYS switch in the EF OFF position.

- 1) Make sure the EF OFF indicator light comes on.
- Make sure the PDUs operate correctly (TABLE II).

NOTE: The PDUs in Bays E and F will not operate.

- (j) Put the POWERED DRIVES AFT BAYS switch in the EF ON position.
 - 1) Make sure the EF ON indicator light comes on.
 - 2) Make sure the PDUs operate correctly (Table II).

EFFECTIVITY FORWARD CARGO COMPARTMENT ON 767-200 AIRPLANES WITH LARGE FORWARD CARGO DOOR

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TABLE II (PALLET LOADING switch in the off position)				
POWERED DRIVE UNITS SWITCH POSITION	AFT ON	AFT ON	FWD ON	FWD ON
8-D SWITCH POSITION *E1]	ALL FWD, FWD/LFT, OR FWD/RT	ALL AFT, AFT/LFT, OR AFT/RT	ALL FWD, FWD/LFT, OR FWD/RT	ALL AFT, AFT/LFT, OR AFT/RT
PDU ACTION SEQUENCE	-PDUS 5L,5C,5R RETRACT -AFT LATERAL GUIDES RETRACT -2.40 SEC DELAY -BAY C PDUS COME UP AND OPERATE FORWARD -0.20 SEC DELAY -BAY D PDUS COME UP AND OPERATE FORWARD -1.25 SEC DELAY -BAY E PDUS COME UP AND OPERATE FORWARD -1.25 SEC DELAY -BAY F PDUS COME UP AND OPERATE FORWARD	-PDUS 5L,5C,5R RETRACT -AFT LATERAL GUIDES RETRACT -2.0 SEC DELAY -BAY E&F PDUS COME UP AND OPERATE AFT -0.20 SEC DELAY -BAY D PDUS COME UP AND OPERATE AFT -0.20 SEC DELAY -BAY C PDUS COME UP AND OPERATE AFT	-PDUS 5L,5C,5R RETRACT -FWD LATERAL GUIDES RETRACT -2.0 SEC DELAY -BAY A PDUS COME UP AND OPERATE FORWARD -0.20 SEC DELAY -BAY B PDUS COME UP AND OPERATE FORWARD -0.20 SEC DELAY -BAY C PDUS COME UP AND OPERATE FORWARD	-PDUS 5L,5C,5R RETRACT -FWD LATERAL GUIDES RETRACT -2.40 SEC DELAY -BAY C PDUS COME UP AND OPERATE AFT -0.20 SEC DELAY -BAY B PDUS COME UP AND OPERATE AFT -1.25 SEC DELAY -BAY A PDUS COME UP AND OPERATE AFT

- *E1] If the 8-d switch is in the ALL FWD or ALL AFT position, the left and right PDUs in each bay will operate. If the 8-d switch is in the FWD/RT or AFT/RT position, only the PDU's on the right side of each bay will operate. If the 8-d switch is in the FWD/LFT or AFT/LFT position, only the PDUs on the left side of each bay will operate.
 - (k) Put the PALLET LOADING switch in the ON (up) position.
 - 1) Make sure the PALLET LOADING indicator light on the interior control panel comes on.
 - 2) Make sure the PALLET LOADING indicator light on the exterior control panel comes on.
 - 3) Do the tests again for the POWERED DRIVES FWD BAYS and POWERED DRIVES AFT BAYS switches on the interior control panel. Make sure the PDUs operate correctly (Table III).

EFFECTIVITY FORWARD CARGO COMPARTMENT ON 767-200 AIRPLANES WITH LARGE FORWARD CARGO DOOR 25-53-00 CONFIG 2 Page 507 Dec 22/00



4) Do the tests again for the ROLLOUT STOPS switch on the exterior control panel. Make sure all four rollout stops operate correctly.

TABLE III (PALLET LOADING switch in the ON position)				
POWERED DRIVE UNITS SWITCH POSITION	AFT ON	AFT ON	FWD ON	FWD ON
8-D SWITCH POSITION	ALL FWD, FWD/LFT, OR FWD/RT	ALL AFT, AFT/LFT, OR AFT/RT	ALL FWD, FWD/LFT, OR FWD/RT	ALL AFT, AFT/LFT, OR AFT/RT
PDU ACTION SEQUENCE	-PDUS 5L,5C,5R 8L, 8C, 8R RETRACT -2.4 SEC DELAY -BAY C PDUS COME UP AND OPERATE FORWARD -0.20 SEC DELAY -BAY D PDUS COME UP AND OPERATE FORWARD -1.25 SEC DELAY -BAY E&F PDUS COME UP AND OPERATE FORWARD	-PDUS 5L,5C,5R 8L, 8C, 8R RETRACT -2.0 SEC DELAY -BAY E&F PDUS COME UP AND OPERATE AFT -0.20 SEC DELAY -BAY D PDUS COME UP AND OPERATE AFT -0.20 SEC DELAY -BAY C PDUS COME UP AND OPERATE AFT	-PDUS 5C,5R, 8C, 8R RETRACT -2.0 SEC DELAY -BAY A PDUS COME UP AND OPERATE FORWARD -0.20 SEC DELAY -BAY B PDUS COME UP AND OPERATE FORWARD -0.20 SEC DELAY -BAY C PDUS COME UP AND OPERATE FORWARD -0.20 SEC DELAY -BAY D PDUS COME UP AND OPERATE FORWARD -3.0 SEC DELAY -PDUS 5L & 8L RETRACT	-PDUS 5L,5C,5R 8L, 8C, 8R RETRACT -2.2 SEC DELAY -BAY D PDUS COME UP AND OPERATE AFT -0.2 SEC DELAY -BAY C PDUS COME UP AND OPERATE AFT -0.2 SEC DELAY -BAY A&B PDUS COME UP AND OPERATE AFT

- (l) Put the ROLLOUT STOPS switch on the exterior control panel in the DOWN position.
- (m) Put the PALLET LOADING switch in the OFF (down) position.
 - Make sure the PALLET LOADING indicator light on the interior control panel go off.
 - 2) Make sure the PALLET LOADING indicator light on the exterior control panel go off.
 - 3) Make sure the two aft rollout stops move to the fully up and locked position.

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- 4) Make sure the two forward rollout stops stay in the fully retracted position.
- s 735-012-002
- (3) Test Cargo Handling Electrical System (Simulated Container Loading)

(a) Put these switches in the positions shown below:

SWITCH	CONTROL PANEL	SWITCH POSITION
SYSTEM POWER	Exterior	ON
POWER DRIVE UNITS	Exterior	FWD ON
ROLLOUT STOPS	Exterior	UP
CENTER GUIDES	Exterior	LD-2
INTERIOR LIGHTS	Interior	ON
PALLET LOADING	Interior	0FF (down)
LATERAL GUIDES AFT	Interior	NORMAL
LATERAL GUIDES FWD	Interior	NORMAL
POWERED DRIVES AFT BAYS	Interior	EF ON
POWERED DRIVES FWD BAYS	Interior	A ON

(b) Hold the 8-d switch in the IN position.

- Make sure the PDUs 5L, 5C, 5R come up and operate inboard.
 Put the 8-d switch in the ALL OFF position.
 - 1) Make sure PDUs 5L, 5C, 5R stop operation and stay up with the brake engaged.
- (d) Hold the 8-d switch in the OUT position.
 - 1) Make sure the PDUs 5C and 5R operate outboard.
 - 2) Make sure the PDU 5L stays up with the brake engaged.
- (e) Put the 8-d switch in the ALL OFF position. Make sure PDUs 5L, 5C, 5C stop operation, and stay up with the brakes engaged.
- (f) Hold the 8-d switch in the ALL FWD position.
 - 1) Make sure the PDU's 5L, 5C, 5R retract.
 - Make sure the lateral guides forward of the doorway Bay C retract.
 - Make sure that 2.0 seconds after you move the 8-d switch, PDUs 1L, 1R (Bay A) come up and operate forward.
 - 4) Make sure that 2.2 seconds after you move the 8-d switch, PDUs 2L, 2R, 3L, 3R (Bay B) come up and operate forward.
 - 5) Make sure that 2.4 seconds after you move the 8-d switch, PDUs 4L, 4R, 6L, 6R (Bay C) come up and operate forward.

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- (g) Put the 8-d switch in the ALL OFF position.
 - 1) Make sure the lateral guides forward of the doorway Bay C come up.
 - Make sure the PDUs forward of the doorway Bay C (Bays A, B) stop operation, and stay up with the brake engaged.
 - 3) Make sure the PDUs in the doorway Bay C stop operation, and retract.
- (h) Put the POWER DRIVE UNITS switch in the AFT ON position.
- (i) Hold the 8-d switch in the IN position.
- 1) Make sure PDUs 5L, 5C, 5R come up and operate inboard.
- (j) Put the 8-d switch in the ALL OFF position.
 - 1) Make sure PDUs 5L, 5C, 5R stop operation and stay up with the brake engaged.
- (k) Hold the 8-d switch in the OUT position.
 - 1) Make sure the PDUs 5C and 5R operate outboard.
 - 2) Make sure the PDU 5L stays up with the brakes engaged.
- (l) Put the 8-d switch in the ALL OFF position.
 - 1) Make sure PDUs 5L, 5C, 5R stop operation and stay up with the brakes engaged.
- (m) Hold the 8-d switch in the ALL AFT position.
 - 1) Make sure the PDUs 5L, 5C, 5R retract.
 - Make sure the lateral guides aft of the doorway Bay C retract.
 - 3) Make sure that 2.0 seconds after you move the 8-d switch, PDUs 10L, 10R, 11L, 11R (Bays E, F) come up and operate aft.
 - 4) Make sure that 2.2 seconds after you move the 8-d switch, PDUs 7L, 7R, 9L, 9R (Bay D) come up and operate aft.
 - 5) Make sure that 2.4 seconds after you move the 8-d switch, PDUs 4L, 4R, 6L, 6R (Bay C) come up and operate aft.
- (n) Put the 8-d switch to ALL OFF position and do the steps that follow:
 - Make sure the lateral guides aft of the doorway Bay C come up.
 - Make sure the PDUs aft of the doorway Bay C (Bays D, E, F) stop operation and stay up with the brakes engaged.
 - Make sure all the PDUs in the doorway Bay C stop operation, and retract.
- (o) Put the SYSTEM POWER switch in the OFF position.
 - 1) Make sure all the PDUs retract.

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- s 715-007-002
- (4) Test - Cargo Handling Electrical System (Simulated Container Unloading)

(a) Put these switches in the position shown below:

SWITCH	CONTROL PANEL	SWITCH POSITION
SYSTEM POWER	Exterior	ON
POWER DRIVE UNITS	Exterior	FWD ON
ROLLOUT STOPS	Exterior	LOCK
CENTER GUIDES	Exterior	ALL DN
INTERIOR LIGHTS	Interior	ON
PALLET LOADING	Interior	0FF (down)
LATERAL GUIDES AFT	Interior	NORMAL
LATERAL GUIDES FWD	Interior	NORMAL
POWERED DRIVES AFT BAYS	Interior	EF ON
POWERED DRIVES FWD BAYS	Interior	A ON

- (b) Momentarily hold the 8-d switch in the IN position to move PDUs 5L, 5C, 5R up.
- (c) Put the ROLLOUT STOPS switch in the DOWN position.
- 1) Make sure the rollout stop restraints and guides retract.
- (d) Hold the 8-d switch in the ALL AFT position.
 - 1) Make sure the PDUs 5L, 5C, 5R retract.
 - 2) Make sure the lateral guides forward of doorway Bay C retract.
 - Make sure that 2.4 seconds after you move the 8-d switch, 3) PDUs 4L, 4R, 6L, 6R (Bay C) come up and operate aft.
 - 4) Make sure that 2.6 seconds after you move the 8-d switch, PDUs 2L, 2R, 3L, 3R (Bay B) come up and operate aft.
 - 5) Make sure that 3.85 seconds after you move the 8-d switch, PDUs 1L, 1R (Bay A) come up and operate aft.
- Put the 8-d switch in the ALL OFF position. (e)
 - 1) Make sure the lateral guides forward of the doorway Bay C come up.
 - 2) Make sure all the energized PDUs (Bays A, B, C) stop operation, and stay up with the brakes engaged.

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- (f) Hold the 8-d switch in the OUT position.
 - 1) Make sure the PDUs 4L, 4R, 6L, 6R (Bay C) retract.
 - 2) Make sure the PDUs 5L, 5C, 5R come up and operate outboard.
 - 3) Make sure the PDUs 1L, 1R, 2L, 2R, 3L, 3R (Bays A, B) stay up with the brakes engaged.
- (g) Put the 8-d switch in the ALL OFF position.
 - 1) Make sure PDUs 5L, 5C, 5R stop operation and stay up with the brakes engaged.
- (h) Put the POWER DRIVE UNITS switch in the AFT ON position.
- (i) Hold the 8-d switch in the ALL FWD position.
 - 1) Make sure the PDUs 5L, 5C, 5R retract.
 - Make sure the lateral guides aft of the doorway Bay C retract.
 - 3) Make sure that 2.4 seconds after you move the 8-d switch, PDUs 4L, 4R, 6L, 6R (Bay C) come up and operate forward.
 - 4) Make sure that 2.6 seconds after you move the 8-d switch, PDUs 7L, 7R, 9L, 9R (Bay D) come up and operate forward.
 - 5) Make sure that 3.85 seconds after you move the 8-d switch, PDUs 10L, 10R (Bay E) come up and operate forward.
 - 6) Make sure that 5.1 seconds after you move the 8-d switch, PDUs 11L, 11R (Bay F) come up and operate forward.
- (j) Put the 8-d switch in the ALL OFF position.
 - Make sure the lateral guides aft of the doorway Bay C come up.
 - Make sure all the PDUs (Bays C, D, E, F) stop operation, and stay up with the brakes engaged.
- (k) Hold the 8-d switch in the OUT position.
 - 1) Make sure the PDUs 4L, 4R, 6L, 6R (Bay C) retract.
 - 2) Make sure the PDUs 5L, 5C, 5R come up and operate outboard.
 - 3) Make sure the PDUs 7L, 7R, 9L, 9R, 10L, 10R, 11L, 11R (Bays D, E, F) stay up with the brakes engaged.
- (l) Put the SYSTEM POWER switch in the OFF position.
 - 1) Make sure all the PDUs retract.

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- s 715-008-002
- (5) Test - Cargo Handling Electrical System (Simulated Pallet Loading) (a) Put these switches in the positions shown below:

SWITCH	CONTROL PANEL	SWITCH POSITION
SYSTEM POWER	Exterior	ON
POWER DRIVE UNITS	Exterior	FWD ON
ROLLOUT STOPS	Exterior	UP
CENTER GUIDES	Exterior	ALL DN
INTERIOR LIGHTS	Interior	ON
PALLET LOADING	Interior	ON (up)
LATERAL GUIDES AFT	Interior	DOWN
LATERAL GUIDES FWD	Interior	DOWN
POWERED DRIVES AFT BAYS	Interior	EF ON
POWERED DRIVES FWD BAYS	Interior	A ON

(b) Hold the 8-d switch in the IN position.

- 1) Make sure the PDUs 5L, 5C, 5R, 8L, 8C, 8R come up and operate inboard.
- (c) Put the 8-d switch in the ALL OFF position.
 - 1) Make sure the PDUs 5L, 5C, 5R, 8L, 8C, 8R stop operation and stay up with the brakes engaged.
- (d) Hold the 8-d switch in the ALL FWD position.
 - 1) Make sure the PDU's 5C, 5R, 8C, 8R retract.
 - 2) Make sure that 2.0 seconds after you move the 8-d switch, PDUs 1L, 1R (Bay A) come up and operate forward.
 - Make sure that 2.2 seconds after you move the 8-d switch, 3) PDUs 2L, 2R, 3L, 3R (Bay B) come up and operate forward.
 - 4) Make sure that 2.4 seconds after you move the 8-d switch, PDUs 4L, 4R, 6L, 6R (Bay C) come up and operate forward.
 - 5) Make sure that 2.6 seconds after you move the 8-d switch, PDUs 7L, 7R, 9L, 9R (Bay D) come up and operate forward.
 - Make sure that 5.6 seconds after you move the 8-d switch, 6) PDUs 5L and 8L retract.
- (e) Put the 8-d switch in the ALL OFF position.
 - 1) Make sure that all the driving PDUs (Bays A, B, C, D) stop operation and stay up with the brakes engaged.
- (f) Put the POWER DRIVE UNITS switch in the AFT ON position.

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- (g) Hold the 8-d switch in the IN position.
 - 1) Make sure all the PDUs in Bays A, B, C, D retract.
 - 2) Make sure the PDUs 5L, 5C, 5R, 8L, 8C, 8R come up and operate inboard.
- (h) Put the 8-d switch in the ALL OFF position.
 - 1) Make sure the PDUs 5L, 5C, 5R, 8L, 8R, 8C stop operation and stay up with the brakes engaged.
- (i) Hold the 8-d switch in the ALL AFT position.
 - 1) Make sure the PDUs 5C, 5R, 8C, 8R retract.
 - Make sure that 2.0 seconds after you move the 8-d switch, PDUs 10L, 10R, 11L, 11R (Bays E, F) come up and operate aft.
 - Make sure that 2.2 seconds after you move the 8-d switch, PDUs 7L, 7R, 9L, 9R (Bay D) come up and operate aft.
 - 4) Make sure that 2.4 seconds after you move the 8-d switch, PDUs 4L, 4R, 6L, 6R (Bay C) come up and operate aft.
 - 5) Make sure that 5.4 seconds after you move the 8-d switch, PDUs 5L and 8L retract.
- (j) Put the 8-d switch in the ALL OFF position.
 - 1) Make sure that all the driving PDUs (Bays C, D, E, F) stop operation, and stay up with the brakes engaged.
- (k) Put the SYSTEM POWER switch in the OFF position.1) Make sure all the PDUs retract.

s 715-009-002

(6) Test - Cargo Handling Electrical System (Simulated Pallet Unloading)(a) Put these switches in the positions shown below:

SWITCH	CONTROL PANEL	SWITCH POSITION
SYSTEM POWER	Exterior	ON
POWER DRIVE UNITS	Exterior	FWD ON
ROLLOUT STOPS	Exterior	DOWN
CENTER GUIDES	Exterior	ALL DN
INTERIOR LIGHTS	Interior	ON
PALLET LOADING	Interior	0N (up)
LATERAL GUIDES AFT	Interior	DOWN
LATERAL GUIDES FWD	Interior	DOWN
POWERED DRIVES AFT BAYS	Interior	EF ON
POWERED DRIVES FWD BAYS	Interior	A ON

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- (b) Hold the 8-d switch in the ALL AFT position.
 - 1) Make sure that 2.2 seconds after you move the 8-d switch, PDUs 7L, 7R, 9L, 9R (Bay D) come up and operate aft.
 - 2) Make sure that 2.4 seconds after you move the 8-d switch, PDUs 4L, 4R, 6L, 6R (Bay C) come up and operate aft.
 - 3) Make sure that 2.6 seconds after you move the 8-d switch, PDUs 1L, 1R, 2L, 2R, 3L 3R (Bays A, B) come up and operate aft.
- (c) Put the 8-d switch in the ALL OFF position.
 - Make sure all the PDUs in Bays A, B, C, D stop operation and stay up with the brakes engaged.
- (d) Hold the 8-d switch in the OUT position.
 - Make sure the PDUs 4L, 4R, 6L, 6R, 7L, 7R, 9L, 9R (Bays C, D) retract.
 - 2) Make sure the PDUs 5L, 5C, 5R, 8L, 8C, 8R come up and operate outboard.
- (e) Put the 8-d switch in the ALL OFF position.
 - 1) Make sure PDUs 5L, 5C, 5R, 8L, 8C, 8R stop operation and stay up with the brakes engaged.
- (f) Put the POWER DRIVE UNITS switch in the AFT ON position.
- (g) Hold the 8-d switch in the ALL FWD position.
 - 1) Make sure the PDUs 5L, 5C, 5R, 8L, 8C, 8R retract.
 - Make sure that 2.4 seconds after you move the 8-d switch, PDUs 4L, 4R, 6L, 6R (Bay C) come up and operate forward.
 - 3) Make sure that 2.6 seconds after you move the 8-d switch, PDUs 7L, 7R, 9L, 9R (Bay D) come up and operate forward.
 - Make sure that 3.85 seconds after you move the 8-d switch, PDUs 10L, 10R, 11L, 11R (Bays E, F) come up and operate forward.
- (h) Put the 8-d switch in the ALL OFF position.
 - 1) Make sure all the PDUs in Bays C, D, E, and F stop operation and stay up with the brakes engaged.
- (i) Hold the 8-d switch in the OUT position.
 - Make sure the PDUs 4L, 4R, 6L, 6R, 7L, 7R, 9L, 9R (Bays C, D) retract.

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- 2) Make sure the PDUs 5L, 5C, 5R, 8L, 8C, 8R come up and operate outboard.
- (j) Put the 8-d switch in the ALL OFF position.
 - 1) Make sure PDUs 5L, 5C, 5R, 8L, 8C, and 8R stop operation and stay up with the brakes engaged.
- (k) Put the SYSTEM POWER switch in the OFF position.

1) Make sure all the PDUs retract.

G. Put the airplane back in its initial condition.

s 865-010-002

(1) Close the cargo door (AMM 52-33-00/001).

s 865-011-002

(2) Remove electrical power if it is not necessary (AMM 24-22-00/201).

EFFECTIVITY FORWARD CARGO COMPARTMENT ON 767-200 AIRPLANES WITH LARGE FORWARD CARGO DOOR





CONTAINERIZED CARGO HANDLING SYSTEM - ADJUSTMENT/TEST

- 1. <u>General</u>
 - A. This procedure contains one task. The task is an operational test of the containerized cargo handling system. This test is for the aft cargo compartment.

TASK 25-53-00-715-001-003

- 2. <u>Operational Test Containerized Cargo Handling System</u>
 - A. General
 - (1) This procedure is a test of the exterior cargo control panel switches, and the interior control panel switches. This procedure has a cargo handling electrical system (simulated operation) test.
 - B. References
 - (1) AMM 24-22-00/201, Electrical Power
 - C. Access
 - (1) Location Zones

121/122 Forward Cargo Compartment 153/154 Aft Cargo Compartment

- (2) Access Panels
 - 821 Forward Cargo Door 822 Aft Cargo Door
- D. Prepare for Test

s 865-004-003

(1) Supply electrical power (AMM 24-22-00/201).

S 865-003-003

(2) Make sure the cargo door is fully open.

<u>NOTE</u>: The cargo handling system will not operate unless the cargo door is fully open.

E. Test - Containerized Cargo Handling System - Aft Cargo Compartment

s 715-002-003

- (1) Test Exterior Cargo Control Panel Switches
 - <u>NOTE</u>: All the switches are on the exterior control panel unless you are told differently.
 - (a) Put the SYSTEM POWER switch in the ON position.
 - (b) Put the ROLLOUT STOPS switch in the LOCK position.
 - 1) Make sure the LOCK and UP indicator lights come on.

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AFT INTERIOR CONTROL PANEL

Cargo Control Panels Figure 501

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- 2) Make sure the lip guide and lip restraint are fully UP and locked.
- (c) Put the ROLLOUT STOPS switch in the DOWN position.
 - 1) Make sure the DOWN indicator light comes on.
 - 2) Make sure the lip guide and lip restraint are retracted.
- (d) Put the ROLLOUT STOPS switch in the UP position.
 - 1) Make sure the UP indicator light comes on.
 - Make sure the lip restraint is retracted and the lip guide stays up.
- (e) Put the CENTER GUIDES switch in the ALL DN position.
 - 1) Make sure the ALL DN indicator light comes on.
 - Make sure the center (LD-2) and auxiliary (LD-3) guides and restraints are retracted.
- (f) Put the CENTER GUIDES switch in the LD-2 position.
 - 1) Make sure the LD-2 indicator light comes on.
 - Make sure the center (LD2) restraint is retracted, center guide is UP.
 - 3) Make sure the auxiliary (LD3) restraint and guide stay retracted.
 - 4) Do the steps that follow:
 - a) Manually lift the center (LD2) restraint.
 - b) Put the POWER DRIVE UNITS switch in the FWD ON position.
 - c) Hold the 8-d switch in the ALL AFT position.
 - d) Make sure the center (LD2) restraint and guide fully retract.
 - e) Put the the 8-d switch in the neutral position.
 - f) Make sure the center (LD2) guide comes up, but the restraint stays retracted.
 - g) Put the POWER DRIVE UNITS switch in the AFT ON position.
 - h) Hold the 8-d switch in the ALL FWD position.
 - i) Make sure the center (LD2) guide fully retracts.
 - j) Put the 8-d switch in the neutral position.
 - k) Make sure the center (LD2) guide comes up, but the restraint stays retracted.
- (g) Put the CENTER GUIDES switch in the LD-3 and do the steps that follow:
 - 1) Make sure the LD-3 indicator light comes on.
 - Make sure the auxiliary (LD3) restraint is retracted, and the auxiliary guide is up.
 - 3) Make sure the center (LD2) restraint and guide retract.
- (h) Put the POWER DRIVE UNITS switch in the FWD ON position and make sure the FWD ON indicator light comes on.
 - 1) Do the steps that follow:
 - a) Manually lift the auxiliary (LD3) restraint.

EFFECTIVITY AFT CARGO COMPARTMENT ON 767-200 AIRPLANES



- b) Put the POWER DRIVE UNITS switch in the FWD ON position.
- c) Hold the 8-d switch in the ALL AFT position.
- Make sure the auxiliary (LD3) restraint and guide fully retract.
- e) Put the 8-d switch in the neutral position.
- f) Make sure the auxiliary (LD3) guide comes up, but the restraint stays retracted.
- g) Put the POWER DRIVE UNITS switch in the AFT ON position.
- h) Hold the 8-d switch in the ALL FWD position.
- i) Make sure the auxiliary (LD3) guide fully retracts.
- j) Put the 8-d switch in the neutral position.
- Make sure the auxiliary (LD3) guide comes up, but the restraint stays retracted.
- (i) Put the POWERED DRIVES FWD BAYS switch on interior cargo control panel in the AB ON position.
 - 1) Make sure the AB ON indicator light comes on.
- (j) Hold the 8-d switch in each position.
 - 1) Make sure the PDUs operate correctly (Table I).
- (k) Put the POWER DRIVE UNITS switch in the AFT ON position.
- 1) Make sure the AFT ON indicator light comes on.
- (l) Hold the 8-d switch in each position.1) Make sure the PDUs operate correctly (Table I).

s 715-005-003

- (2) Test Interior Cargo Handling Control Panel Switches.
 - <u>NOTE</u>: All the switches are on the interior control panel unless you are told differently.
 - (a) Put the LATERAL GUIDES FWD switch in the NORMAL position.
 - 1) Make sure the lateral guides forward of the doorway are up.
 - (b) Put the LATERAL GUIDES FWD switch in the DOWN position.1) Make sure the lateral guides forward of the doorway retract.
 - (c) Put the LATERAL GUIDES AFT switch in the NORMAL position.1) Make sure the lateral guides aft of the doorway are up.
 - (d) Put the LATERAL GUIDES AFT switch in the DOWN position.1) Make sure the lateral guides aft of the doorway retract.
 - (e) Put the POWER DRIVE UNITS switch on the external control panel in the FWD ON position.
 - (f) Put the POWERED DRIVES FWD BAYS switch in the A OFF position.
 - 1) Make sure the OFF indicator light comes on.
 - 2) Make sure the PDUs operate correctly (Table I).

NOTE: PDUs in Bay A will not operate.

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- (g) Put the POWERED DRIVES FWD BAYS switch in the AB OFF position.
 - 1) Make sure the AB OFF indicator light comes on.
 - Make sure the PDUs operate correctly (Table I).

NOTE: PDUs in Bays A and B will not operate.

- (h) Put the POWERED DRIVES FWD BAYS switch in the AB ON position.
 - 1) Make sure the AB ON indicator light comes on.
 - 2) Make sure the PDUs operate correctly (Table I).
- (i) Put the POWER DRIVE UNITS switch on the external control panel in the AFT ON position.
 - 1) Make sure the PDUs operate correctly (Table I).

	TABLE I				
POWERED DRIVE UNITS SWITCH POSITION	AFT ON	AFT ON	FWD ON	FWD ON	
8-D SWITCH POSITION *E1]	ALL FWD, FWD/LFT, OR FWD/RT	ALL AFT, AFT/LFT, OR AFT/RT	ALL FWD, FWD/LFT, OR FWD/RT	ALL AFT, AFT/LFT, OR AFT/RT	
PDU ACTION SEQUENCE	-PDUS 6L,6C,6R RETRACT -AFT LATERAL GUIDES RETRACT -2.4 SEC DELAY -BAY D PDUS COME UP AND OPERATE FORWARD -0.20 SEC DELAY -BAY E PDUS COME UP AND OPERATE FORWARD	-PDUS 6L,6C,6R RETRACT -AFT LATERAL GUIDES RETRACT -2.0 SEC DELAY -BAY E PDUS COME UP AND OPERATE AFT -0.20 SEC DELAY -BAY D PDUS COME UP AND OPERATE AFT	-PDUS 6L,6C,6R RETRACT -FWD LATERAL GUIDES RETRACT -2.0 SEC DELAY -BAY A&B PDUS COME UP AND OPERATE FORWARD -0.20 SEC DELAY -BAY C PDUS COME UP AND OPERATE FORWARD -0.20 SEC DELAY -BAY D PDUS COME UP AND OPERATE FORWARD	-PDUS 6L,6C,6R RETRACT -FWD LATERAL GUIDES RETRACT -2.40 SEC DELAY -BAY D PDUS COME UP AND OPERATE AFT -0.20 SEC DELAY -BAY C PDUS COME UP AND OPERATE FORWARD -1.25 SEC DELAY -BAY B PDUS COME UP AND OPERATE AFT -BAY A PDUS COME UP AND OPERATE AFT	

*E1] If the 8-d switch is in the ALL FWD or ALL AFT position, the left and right PDUs in each bay will operate. If the 8-d switch is in the FWD/RT or AFT/RT position, only the PDUs on the right side of each bay will operate. If the 8-d switch is in the FWD/LFT or AFT/LFT position only the PDUs on the left side of each bay will operate.

EFFECTIVITY AFT CARGO COMPARTMENT ON 767-200 AIRPLANES



- s 715-006-003
- (3) Test Cargo Handling Electrical System (Simulated Container Loading)

(a) Put these switches in the positions shown below:

SWITCH	CONTROL PANEL	SWITCH POSITION
SYSTEM POWER	Exterior	ON
POWER DRIVE UNITS	Exterior	FWD ON
CENTER GUIDES	Exterior	LD-2
INTERIOR LIGHTS	Interior	ON
LATERAL GUIDES AFT	Interior	NORMAL
LATERAL GUIDES FWD	Interior	NORMAL
POWERED DRIVES FWD BAYS	Interior	AB ON
ROLLOUT STOPS	Exterior	UP

- (b) Hold the 8-d switch in the IN position.
 - 1) Make sure PDUs 6L, 6C, 6R come up and operate inboard.
- (c) Put the 8-d switch in the ALL OFF position.
 - Make sure PDUs 6L, 6C, 6R stop operation, and stay up with the brake engaged.
- (d) Hold the 8-d switch in the OUT position.
 - 1) Make sure the PDUs 6C and 6R retract, come up and operate outboard.
 - 2) Make sure the PDU 6L stays with the brake engaged.
- (e) Put the 8-d switch in the ALL OFF position.
 - Make sure PDUs 6L, 6C, 6R stop operation, and stay up with the brake engaged.
- (f) Hold the 8-d switch in the ALL FWD position.
 - 1) Make sure the PDUs 6L, 6C, 6R retract.
 - Make sure the lateral guides forward of the doorway retract.
 - Make sure that 2.0 seconds after you move the 8-d switch, PDUs 1L, 1R, 2L, 2R (Bays A and B) come up and operate forward.
 - 4) Make sure that 2.2 seconds after you move the 8-d switch, PDUs 3L, 3R, 4L, 4R (Bay C) come up and operate forward.
 - 5) Make sure that 2.4 seconds after you move the 8-d switch, PDUs 5L, 5R, 7L, 7R (Bay D) come up and operate forward.

EFFECTIVITY AFT CARGO COMPARTMENT ON 767-200 AIRPLANES



- (g) Put the 8-d switch in the ALL OFF position.
 - 1) Make sure the lateral guides forward of the doorway come up.
 - Make sure the PDUs forward of the doorway (Bays A, B, C) stop operation and stay with the brake engaged.
 - Make sure the PDUs in the doorway (Bay D) stop operation, and retract.
- (h) Put the POWER DRIVE UNITS switch in the AFT ON position.
- (i) Hold the 8-d switch in the IN position.
- 1) Make sure PDUs 6L, 6C, 6R come up and operate inboard.
- (j) Put the 8-d switch in the ALL OFF position.
 - 1) Make sure PDUs 6L, 6C, 6R stop operation, and stay up with the brake engaged.
- (k) Hold the 8-d switch in the OUT position.
 - 1) Make sure the PDUs 6C and 6R retract, come up and operate outboard.
 - 2) Make sure the PDU 6L stays up with the brakes engaged.
- (l) Put the 8-d switch in the ALL OFF position.
 - 1) Make sure PDUs 6L, 6C, 6R stop operation, and stay up with the brakes engaged.
- (m) Hold the 8-d switch in the ALL AFT position and do the steps that follow:
 - 1) Make sure the PDUs 6L, 6C, 6R retract.
 - 2) Make sure the lateral guides aft of the doorway retract.
 - 3) Make sure that 2.0 seconds after you move the 8-d switch, PDUs 8L, 8R, 9L, 9R (Bay E) come up and operate aft.
 - 4) Make sure that 2.2 seconds after you move the 8-d switch, PDUs 5L, 5R, 7L, 7R (Bay D) come up and operate aft.
- (n) Put the 8-d switch in the ALL OFF position.
 - 1) Make sure the lateral guides aft of the doorway comes up.
 - 2) Make sure all the PDUs in the aft bay (Bay E) stop operation, and stay up with the brake engaged.
 - Make sure the PDUs in the doorway (Bay D) stop operation and retract.
- (o) Put the SYSTEM POWER switch in the OFF position.
 - 1) Make sure all the PDUs retract.

EFFECTIVITY AFT CARGO COMPARTMENT ON 767-200 AIRPLANES



- s 735-009-003
- (4) Test Cargo Handling Electrical System (Simulated Container Unloading)

(a) Put these switches in the position shown below:

SWITCH	CONTROL PANEL	SWITCH POSITION
SYSTEM POWER	Exterior	ON
POWER DRIVE UNITS	Exterior	FWD ON
CENTER GUIDES	Exterior	ALL DWN
INTERIOR LIGHTS	Interior	ON
LATERAL GUIDES AFT	Interior	NORMAL
LATERAL GUIDES FWD	Interior	NORMAL
POWERED DRIVES FWD BAYS	Interior	AB ON
ROLLOUT STOPS	Exterior	LOCK

- (b) Momentarily hold the 8-d switch in the IN position to make the PDUs 6L, 6C, 6R come up.
- (c) Put the ROLLOUT STOPS switch in the DOWN position.
 - Make sure the rollout stop restraints and guides retract.
- (d) Hold the 8-d switch in the ALL AFT position.
 - 1) Make sure the PDUs 6L, 6C, 6R retract.
 - 2) Make sure the lateral guides forward of the doorway retract.
 - Make sure that 2.40 seconds after you move the 8-d switch, PDUs 5L, 5R, 7L, 7R (Bay D) come up and operate aft.
 - 4) Make sure that 2.60 seconds after you move the 8-d switch, PDUs 3L, 3R, 4L, 4R (Bay C) come on and operate aft.
 - 5) Make sure that 3.85 seconds after you move the 8-d switch, PDUs 2L, 2R (Bay B) come up and operate aft.
 - 6) Make sure that 5.10 seconds after you move the 8-d switch, PDUs 1L, 1R (Bay A) come up and operate aft.
- (e) Put the POWER DRIVE UNITS switch on the exterior control panel in the AFT ON position.
- (f) Hold the 8-d switch in the ALL FWD position.
 - 1) Make sure the PDUs 6L, 6C, 6R retract.
 - 2) Make sure the lateral guides aft of the doorway retract.
 - 3) Make sure that 2.4 seconds after you move the 8-d switch,
 - PDUs 5L, 5R, 7L, 7R (Bay D) come up and operate forward.
 - 4) Make sure that 2.6 seconds after you move the 8-d switch, PDUs 8L, 8R, 9L, 9R (Bay E) come up and operate forward.

EFFECTIVITY AFT CARGO COMPARTMENT ON 767-200 AIRPLANES



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- (g) Put the 8-d switch in the ALL OFF position.
 - 1) Make sure the lateral guides aft of the doorway come up.
 - Make sure the PDUs in the doorway and aft of the doorway (Bays D, E, F) stop operation stay up with the brake engaged.
- (h) Put the SYSTEM POWER switch in the OFF position.
 - 1) Make sure all the PDUs retract.
- F. Put the airplane back to its initial condition.
 - s 865-008-003
 - (1) Close the cargo door(AMM 52-35-00/001).

s 865-007-003

(2) Remove electrical power if it is not necessary (AMM 24-22-00/201).

EFFECTIVITY AFT CARGO COMPARTMENT ON 767-200 AIRPLANES




CONTAINERIZED CARGO HANDLING SYSTEM - ADJUSTMENT/TEST

- 1. <u>General</u>
 - A. This section contains one task. The task is an operational test of the containerized cargo handling system. This test is for the forward cargo compartment on 767–300 airplanes with large forward cargo door.

TASK 25-53-00-715-001-005

- 2. <u>Operational Test Containerized Cargo Handling System</u>
 - A. General
 - (1) This procedure is a test of the exterior cargo control panel switches, and the interior control panel switches. This procedure has a cargo handling electrical system (simulated operation) test.
 - B. References
 - (1) AMM 24-22-00/201, Electrical Power
 - C. Access
 - (1) Location Zones 121/122 Forward Cargo Compartment
 - D. Prepare for Test
 - S 865-002-005
 - (1) Supply electrical power (AMM 24-22-00/201).

s 865-003-005

- (2) Make sure the forward cargo door is fully open.
 - <u>NOTE</u>: The cargo handling system will not operate unless the cargo door is fully open.
- E. Test Containerized Cargo Handling System
 - s 715-004-005
 - (1) Test Exterior Cargo Control Panel Switches
 - <u>NOTE</u>: All the switches are on the exterior control panel unless you are told differently.
 - (a) Put the SYSTEM POWER switch in the ON position.















- (b) Put the PALLET LOADING switch on the interior control panel in the OFF (down) position.
 - <u>NOTE</u>: This will cause only the two forward rollout stops to operate.
- (c) ON ALL SAS AIRPLANES;

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- do the steps that follow:
- 1) Put the ROLLOUT STOPS switch in the LOCK position.
 - a) Make sure the LOCK and UP indicator lights come on.
 - b) Make sure the lip guide and lip restraint are fully up and locked.
- Put the ROLLOUT STOPS switch in the DOWN position.
 - a) Make sure the DOWN indicator light comes on.b) Make sure the lip guide and lip restraint are
 - retracted.
- 3) Put the ROLLOUT STOPS switch in the UP position.
 - a) Make sure the UP indicator light comes on.
 - Make sure the lip restraint is retracted and the lip guide stays up.
- 4) Put the CENTER GUIDES switch in the ALL DN position.
 - a) Make sure the ALL DN indicator light is on.
 - b) Make sure the center (LD2) and auxiliary (LD3) guides and restraints are retracted.
- 5) Put the CENTER GUIDES switch in the LD2 position.
- 6) Make sure the LD2 indicator light is on.
- 7) Make sure the center (LD2) restraint is retracted, and the center guide is up.
- Make sure the auxiliary (LD3) restraint and guide stay retracted.
- 9) Do these steps:
 - a) Manually lift the center (LD2) restraint.
 - b) Put the POWER DRIVE UNITS switch in the FWD ON position.
 - c) Hold the 8-d switch in the ALL AFT position.
 - d) Make sure the center (LD2) restraints and guides fully retract before the PDUs operate aft.
 - e) Put the 8-d switch in the neutral position.
 - f) Make sure the center (LD2) guides come up, but the restraints stay retracted.
 - g) Put the POWER DRIVE UNITS switch in the AFT ON position.
 - h) Hold the 8-d switch in the ALL FWD position.
 - i) Make sure the center (LD2) restraints and guides fully retract before the PDUs operate forward.
 - j) Put the 8-d switch in the neutral position.
 - k) Make sure the center (LD2) guides come up, but the restraints stay retracted.
- (d) Put the CENTER GUIDES switch in the LD3 position.1) Make sure the LD3 indicator light is on.

EFFECTIVITY-FORWARD CARGO COMPARTMENT ON 767-300 AIRPLANES WITH LARGE FORWARD CARGO DOOR

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- 2) Make sure the auxiliary (LD3) restraint is retracted, auxiliary guide is up.
- 3) Make sure the center (LD2) restraint and guide retract.
- 4) Do these steps:
 - a) Manually lift the auxiliary (LD3) restraint.
 - b) Put the POWER DRIVE UNITS switch in the FWD ON position.
 - c) Hold the 8-d switch in the ALL AFT position.
 - d) Make sure the auxiliary (LD3) restraints and guides fully retract before the PDUs operate aft.
 - e) Put the 8-d switch in the neutral position.
 - f) Make sure the auxiliary (LD3) guides come up, but the restraints stay retracted.
 - g) Put the POWER DRIVE UNITS switch in the AFT ON position.
 - h) Hold the 8-d switch in the ALL FWD position.
 - i) Make sure the auxiliary (LD3) restraints and guides fully retract before the PDUs operate forward.
 - j) Put the 8-d switch in the neutral position.
 - Make sure the auxiliary (LD3) guides come up, but the restraints stay retracted.
- (e) Put the POWER DRIVE UNITS switch in the FWD ON position.
 - Make sure the FWD ON indicator light is on.
- (f) Put the POWER DRIVEBAYS Bay A switch and Bay E thru Bay H switches on the interior control panel in the ON (up) position.
 - 1) Make sure the Bay A thru Bay C indicator lights are on and the Bay D thru Bay H indicator lights are off.
- (q) Hold the 8-d switch in each position.
 - 1) Make sure the PDUs operate correctly (Table II).
- (h) Put the POWER DRIVE UNITS switch in the AFT ON position.
 - 1) Make sure the AFT ON indicator light is on.
 - 2) Make sure the Bay A and Bay B indicator lights on the interior control panel are off.
 - 3) Make sure the Bay C thru Bay H indicator lights on the interior control panel are on.
 - 4) Hold the 8-d switch in each position.
 - 5) Make sure the PDUs operate correctly (Table II).

s 715-005-005

- (2) Test Interior Cargo Handling Control Panel Switches
 - <u>NOTE</u>: All the switches are on the interior control panel unless you are told differently.
 - (a) Put the POWER DRIVE UNITS switch on the exterior control panel in the FWD ON position.
 - (b) Put the POWER DRIVEBAYS Bay A switch in the A OFF position.1) Make sure the Bay A indicator light is off.

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2) Make sure the PDUs operate correctly (TABLE II).

NOTE: The PDUs in Bay A will not operate.

- (c) Put the POWER DRIVE UNITS switch on the external control panel in the AFT ON position.
- (d) Put the POWER DRIVEBAYS Bay H switch in the H OFF position.
 - 1) Make sure the Bay H indicator light is off.
 - 2) Make sure the PDUs operate correctly (TABLE II).

NOTE: The PDUs in Bay H will not operate.

- (e) Put the POWER DRIVEBAYS Bay G switch in the H-G OFF position.
 - Make sure the Bay G and Bay H indicator lights are off.
 - Make sure the PDUs operate correctly (Table II).

NOTE: The PDUs in Bays G and H will not operate.

- (f) Put the POWER DRIVEBAYS Bay F switch in the H-F OFF position.
 - 1) Make sure the Bay F thru Bay H indicator lights are off.
 - 2) Make sure the PDUs operate correctly (Table II).

NOTE: The PDUs in Bays F thru H will not operate.

- (g) Put the POWER DRIVEBAYS Bay E switch in the H-E OFF position.
 - 1) Make sure the Bay E thru Bay H indicator lights are off.
 - Make sure the PDUs operate correctly (Table II).

NOTE: The PDUs in Bays E thru H will not operate.

(h) Put the POWER DRIVEBAYS Bay A and Bay E thru Bay H switches in the ON (up) position.

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TABLE II (PALLET LOADING Switch in the OFF Position)				
POWERED DRIVE UNITS SWITCH POSITION	AFT	ON	FWD ON	
8-D SWITCH POSITION *E1]	ALL FWD, FWD/LFT, OR FWD/RT	ALL AFT, AFT/LFT, OR AFT/RT	ALL FWD, FWD/LFT, OR FWD/RT	ALL AFT, AFT/LFT, OR AFT/RT
PDU ACTION SEQUENCE	-PDUS 5L,5C,5R RETRACT -AFT LATERAL GUIDES RETRACT -2.20 SEC DELAY -BAY C PDUS COME UP AND OPERATE FORWARD -0.20 SEC DELAY -BAY D PDUS COME UP AND OPERATE FORWARD -1.25 SEC DELAY -BAY F PDUS COME UP AND OPERATE FORWARD -1.25 SEC DELAY -BAY F PDUS COME UP AND OPERATE FORWARD -1.25 SEC DELAY -BAY G PDUS COME UP AND OPERATE FORWARD -1.25 SEC DELAY -BAY G PDUS COME UP AND OPERATE FORWARD -1.25 SEC DELAY -BAY H PDUS COME UP AND OPERATE FORWARD	-PDUS 5L,5C,5R RETRACT -AFT LATERAL GUIDES RETRACT -2.0 SEC DELAY -BAY G&H PDUS COME UP AND OPERATE AFT -0.20 SEC DELAY -BAY F&E PDUS COME UP AND OPERATE AFT -0.20 SEC DELAY -BAY D PDUS COME UP AND OPERATE AFT -0.20 SEC DELAY -BAY C PDUS COME UP AND OPERATE AFT	-PDUS 5L,5C,5R RETRACT -FWD LATERAL GUIDES RETRACT -2.0 SEC DELAY -BAY A&B PDUS COME UP AND OPERATE FORWARD -0.20 SEC DELAY -BAY C PDUS COME UP AND OPERATE FORWARD	-PDUS 5L,5C,5R RETRACT -FWD LATERAL GUIDES RETRACT -2.60 SEC DELAY -BAY C PDUS COME UP AND OPERATE AFT -0.20 SEC DELAY -BAY B PDUS COME UP AND OPERATE AFT -1.25 SEC DELAY -BAY A PDUS COME UP AND OPERATE AFT

- *[1] If the 8-d switch is in the ALL FWD or ALL AFT position, the left and right PDUs in each bay will operate. If the 8-d switch is in the FWD/RT or AFT/RT position, only the PDUs on the right side of each bay will operate. If the 8-d switch is in the FWD/LFT or AFT/LFT position, only the PDUs on the left side of each bay will operate.
 - (i) Put the PALLET LOADING switch in the ON (up) position.1) Make sure the PALLET LOADING indicator light on the interior control panel is on.

EFFECTIVITY-FORWARD CARGO COMPARTMENT ON 767-300 AIRPLANES WITH LARGE FORWARD CARGO DOOR

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- 2) Make sure the PALLET LOADING indicator light on the exterior control panel is on.
- 3) Do the tests for POWERED DRIVES FWD BAYS and POWERED DRIVES AFT BAYS switches on the interior control panel. The PDUs must operate correctly, see Table III.

TABLE III (PALLET LOADING Switch in the ON Position)				
POWERED DRIVE UNITS SWITCH POSITION	POWERED DRIVE UNITS SWITCH AFT ON POSITION		FWD ON	
8-D SWITCH POSITION	ALL FWD, FWD/LFT, OR FWD/RT	ALL AFT, AFT/LFT, OR AFT/RT	ALL FWD, FWD/LFT, OR FWD/RT	ALL AFT, AFT/LFT, OR AFT/RT
PDU ACTION SEQUENCE	-PDUS 5L,5C,5R 8L, 8C, 8R RETRACT -2.2 SEC DELAY -BAY C PDUS COME UP AND OPERATE FORWARD -0.20 SEC DELAY -BAY D PDUS COME UP AND OPERATE FORWARD -1.25 SEC DELAY -BAY E&F PDUS COME UP AND OPERATE FORWARD -2.5 SEC DELAY -BAY G&H PDUS COME UP AND OPERATE FORWARD	-PDUS 5C,5R, 8C, 8R RETRACT -2.0 SEC DELAY -BAY G&H PDUS COME UP AND OPERATE AFT -0.20 SEC DELAY -BAY E&F PDUS COME UP AND OPERATE AFT -0.20 SEC DELAY -BAY C PDUS COME UP AND OPERATE AFT -0.20 SEC DELAY -BAY C PDUS COME UP AND OPERATE AFT -3.0 SEC DELAY -PDUS 5L, 8L RETRACT	-PDUS 5C,5R, 8C, 8R RETRACT -2.0 SEC DELAY -BAY A PDUS COME UP AND OPERATE FORWARD -0.20 SEC DELAY -BAY B PDUS COME UP AND OPERATE FORWARD -0.20 SEC DELAY -BAY C PDUS COME UP AND OPERATE FORWARD -0.20 SEC DELAY -BAY D PDUS COME UP AND OPERATE FORWARD -3.0 SEC DELAY -PDUS 5L, 8L RETRACT	-PDUS 5L,5C,5R 8L, 8C, 8R RETRACT -2.2 SEC DELAY -BAY D PDUS COME UP AND OPERATE AFT -0.2 SEC DELAY -BAY C PDUS COME UP AND OPERATE AFT -0.2 SEC DELAY -BAY A&B PDUS COME UP AND OPERATE AFT

- 4) Do the tests for the ROLLOUT STOPS switch on the exterior control panel. All four rollout stops must operate.
- (j) Put the ROLLOUT STOPS switch on the exterior control panel in the DOWN position.
- (k) Put the PALLET LOADING switch in the OFF (down) position.
 - 1) Make sure the PALLET LOADING indicator light on the interior control panel is off.
 - 2) Make sure the PALLET LOADING indicator light on the exterior control panel is off.

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- 3) Make sure the two aft rollout stops move to fully up and locked.
- Make sure the two forward rollout stops stay fully retracted.

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(3) Test - Cargo Handling Electrical System (Simulated Container Loading)

SWITCH	CONTROL PANEL	SWITCH POSITION
SYSTEM POWER	Exterior	ON
POWER DRIVE UNITS	Exterior	FWD ON
ROLLOUT STOPS	Exterior	UP
CENTER GUIDES	Exterior	LD-2
INTERIOR LIGHTS	Interior	ON
PALLET LOADING	Interior	0FF (down)
POWER DRIVEBAYS - FWD BAYS, Bay A	Interior	ON (UP)
POWER DRIVEBAYS - AFT BAYS, Bay E - Bay H	Interior	0N (up)

(a) Put these switches in the positions shown below:

- (b) Hold the 8-d switch in the IN position.
 - 1) Make sure the PDUs 5L, 5C, 5R come up and operate inboard.
- (c) Put the 8-d switch in the ALL OFF position.
 - 1) Make sure the PDUs 5L, 5C 5R stop operation and stay up with the brakes engaged.
- (d) Hold the 8-d switch in the OUT position.
 - 1) Make sure the PDUs 5C and 5R operate outboard.
 - 2) Make sure the PDU 5L stay up with the brake engaged.
- (e) Put the 8-d switch in the ALL OFF position.
 - 1) Make sure the PDUs 5L, 5C, 5R stop operation and stay up with the brake engaged.
- (f) Hold the 8-d switch in the ALL FWD position.
 - 1) Make sure the PDUs 5L, 5C, 5R retract.
 - Make sure the lateral guides forward of the doorway Bay C retract.
 - 3) Make sure that 2.0 seconds after you move the 8-d switch, PDUs 1L, 1R (Bay A) and PDUs 2L, 2R, 3L, 3R (Bay B) come up and operate forward.
 - 4) Make sure that 2.2 seconds after you move the 8-d switch, PDUs 4L, 4R, 6L, 6R (Bay C) come up and operate forward.

EFFECTIVITY FORWARD CARGO COMPARTMENT ON 767-300 AIRPLANES WITH LARGE FORWARD CARGO DOOR



- (g) Put the 8-d switch in the ALL OFF position.
 - 1) Make sure the lateral guides forward of the doorway Bay C come up.
 - Make sure PDUs forward of the doorway Bay C (Bays A, B) stop operation and stay up with the brake engaged.
 - 3) Make sure the PDUs in the doorway Bay C stop operation, and retract.
- (h) Put the POWER DRIVE UNITS switch in the AFT ON position.
- (i) Hold the 8-d switch in the IN position.
- 1) Make sure the PDUs 5L, 5C, 5R come up and operate inboard.
- (j) Put the 8-d switch in the ALL OFF position.
 - 1) Make sure the PDUs 5L, 5C, 5R stop operation, and stay up with the brake engaged.
- (k) Hold the 8-d switch in the OUT position.
 - 1) Make sure the PDUs 5C and 5R operate outboard.
 - 2) Make sure the PDU 5L stays up with the brakes engaged.
- (l) Put the 8-d switch in the ALL OFF position.
 - 1) Make sure the PDUs 5L, 5C, 5R stop operation, and stay up with the brake engaged.
- (m) Hold the 8-d switch in the ALL AFT position.
 - 1) Make sure the PDUs 5L, 5C, 5R retract.
 - Make sure the lateral guides aft of the doorway Bay C retract.
 - 3) Make sure that 2.0 seconds after you move the 8-d switch, PDUs 13L, 13R, 14L, 14R (Bays G, H) come up and operate aft.
 - 4) Make sure that 2.2 seconds after you move the 8-d switch, PDUs 10L, 10R, 11L, 11R, 12L, 12R (Bays E, F) come up and operate aft.
 - 5) Make sure that 2.4 seconds after you move the 8-d switch, PDUs 7L, 7R, 9L, 9R (Bay D) come up and operate aft.
 - 6) Make sure that 2.6 seconds after you move the 8-d switch, PDUs 4L, 4R, 6L, 6R (Bay C) come up and operate aft.
- (n) Put the 8-d switch in the ALL OFF position.
 - Make sure the lateral guides aft of the doorway Bay C come up.
 - Make sure all the PDUs in the doorway Bay C stop operation and retract.
 - Make sure all the PDUs aft of the doorway Bay C (Bays D, E, F, G, H) stop operation and stay up with the brakes engaged.
- (o) Put the SYSTEM POWER switch in the OFF position.1) Make sure all the PDUs retract.
- s 715-007-005
- (4) Test Cargo Handling Electrical System (Simulated Container Unloading)
 - (a) Put these switches in the position shown below:

EFFECTIVITY FORWARD CARGO COMPARTMENT ON 767-300 AIRPLANES WITH LARGE FORWARD CARGO DOOR



SWITCH	CONTROL PANEL	SWITCH POSITION
SYSTEM POWER	Exterior	ON
POWER DRIVE UNITS	Exterior	FWD ON
ROLLOUT STOPS	Exterior	LOCK
CENTER GUIDES	Exterior	ALL DN
INTERIOR LIGHTS	Interior	ON
PALLET LOADING	Interior	0FF (down)
POWER DRIVEBAYS - FWD BAY, Bay A	Interior	0N (up)
POWER DRIVEBAYS - AFT BAYS, Bay E - Bay H	Interior	0N (up)

- (b) Momentarily hold the 8-d switch in the IN position to make PDUs 5L, 5C, 5R come up.
- (c) Put the ROLLOUT STOPS switch in the DOWN position.
 - 1) Make sure the rollout stop restraints and guides retract.
- (d) Hold the 8-d switch in the ALL AFT position.
 - 1) Make sure the PDUs 5L, 5C, 5R retract.
 - 2) Make sure the lateral guides forward of the doorway Bay C retract.
 - 3) Make sure that 2.6 seconds after you move the 8-d switch, PDUs 4L, 4R, 6L, 6R (Bay C) come up and operate aft.
 - Make sure that 2.8 seconds after you move the 8-d switch, 4) PDUs 2L, 2R, 3L, 3R (Bay B) come up and operate aft.
 - Make sure that 4.05 seconds after you move the 8-d switch, 5) PDUs 1L, 1R (Bay A) come up and operate aft.
- (e) Put the 8-d switch in the ALL OFF position.
 - 1) Make sure the lateral guides forward of the doorway Bay C come up.
 - Make sure all the PDUs in Bays A, B, and C stop operation, 2) and stay up with the brake engaged.
- (f) Hold the 8-d switch in the OUT position.
 - 1) Make sure the PDUs 4L, 4R, 6L, 6R (Bay C) retract.
 - 2) Make sure the PDUs 5L, 5C, 5R come up and operate outboard.
 - Make sure the PDUs 1L, 1R, 2L, 2R, 3L, 3R (Bays A, B) stay 3) up with the brake engaged.
- (g) Put the 8-d switch in the ALL OFF position.
 - Make sure the PDUs 5L, 5C, 5R stop operation and stay up 1) with the brake engaged.
- (h) Put the POWER DRIVE UNITS switch in the AFT ON position.

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- (i) Hold the 8-d switch in the ALL FWD position.
 - 1) Make sure the PDUs 5L, 5C, 5R retract.
 - 2) Make sure that 2.2 seconds after you move the 8-d switch, PDUs 4L, 4R, 6L, 6R (Bay C) come up and operate forward.
 - 3) Make sure that 2.4 seconds after you move the 8-d switch, PDUs 7L, 7R, 9L, 9R (Bay D) come up and operate forward.
 - 4) Make sure that 3.65 seconds after you move the 8-d switch, PDUs 10L, 10R (Bay E) come up and operate forward.
 - 5) Make sure that 4.9 seconds after you move the 8-d switch, PDUs 11L, 11R, 12L, 12R (Bay F) come up and operate forward.
 - Make sure that 6.15 seconds after you move the 8-d switch, PDUs 13L, 13R (Bay G) come up and operate forward.
 - 7) Make sure that 7.40 seconds after you move the 8-d switch, PDUs 14L, 14R (Bay H) come up and operate forward.
- (j) Put the 8-d switch in the ALL OFF position.
 - Make sure the lateral guides aft of the doorway Bay C come up.
 - 2) Make sure all the PDUs in Bays C, D, E, F, G, and H stop operation, and stay up with the brake engaged.
- (k) Hold the 8-d switch in the OUT position.
 - 1) Make sure the PDUs 4L, 4R, 6L, 6R (Bay C) retract.
 - 2) Make sure the PDUs 5L, 5C, 5R come up and operate outboard.
 - 3) Make sure the PDUs 7L, 7R, 9L, 9R, 10L, 10R, 11L, 11R, 12L, 12R, 13L, 13R, 14L, 14R (Bays D, E, F, G, H) stay up with the brakes engaged.
- (l) Put the SYSTEM POWER switch in the OFF position.
 - 1) Make sure all the PDUs retract.

EFFECTIVITY FORWARD CARGO COMPARTMENT ON 767-300 AIRPLANES WITH LARGE FORWARD CARGO DOOR



- s 715-008-005
- (5) Test - Cargo Handling Electrical System (Simulated Pallet Loading) (a) Put these switches in the positions shown below:

SWITCH	CONTROL PANEL	SWITCH POSITION
SYSTEM POWER	Exterior	ON
POWER DRIVE UNITS	Exterior	FWD ON
ROLLOUT STOPS	Exterior	UP
CENTER GUIDES	Exterior	ALL DN
INTERIOR LIGHTS	Interior	ON
PALLET LOADING	Interior	0N (up)
POWER DRIVEBAYS - FWD BAYS, Bay A	Interior	0N (up)
POWER DRIVEBAYS - AFT BAYS, Bay E - Bay H	Interior	ON (up)

- (b) Hold the 8-d switch in the IN position.
 - 1) Make sure the PDUs 5L, 5C, 5R, 8L, 8C, 8R come up and operate inboard.
- (c) Put the 8-d switch in the ALL OFF position.
 - 1) Make sure the PDUs 5L, 5C, 5R, 8L, 8C, 8R stop operation and stay up with the brake engaged.
- (d) Hold the 8-d switch in the ALL FWD position.
 - 1) Make sure the PDUs 5C, 5R, 8C, 8R retract.
 - Make sure that 2.0 seconds after you move the 8-d switch, 2) PDUs 1L, 1R (Bay A) come up and operate forward.
 - 3) Make sure that 2.2 seconds after you move the 8-d switch, PDUs 2L, 2R, 3L, 3R (Bay B) come up and operate forward.
 - 4) Make sure that 2.4 seconds after you move the 8-d switch, PDUs 4L, 4R, 6L, 6R (Bay C) come up and operate forward.
 - Make sure that 2.6 seconds after you move the 8-d switch, 5) PDUs 7L, 7R, 9L, 9R (Bay D) come up and operate forward.
 - Make sure that 5.6 seconds after you move the 8-d switch, 6) PDUs 5L, 8L retract.
- (e) Put the 8-d switch in the ALL OFF position.
 - Make sure all the PDUs in Bays A, B, C, and D stop 1) operation and stay up with the brakes engaged.
- (f) Put the POWER DRIVE UNITS switch in the AFT ON position.
- Hold the 8-d switch in the IN position. (q)
 - 1) Make sure the PDUs in 5L, 5C, 5R, 8L, 8C, 8R come up and operate inboard.

EFFECTIVITY-FORWARD CARGO COMPARTMENT ON 767-300 AIRPLANES WITH LARGE FORWARD CARGO DOOR

CONFIG 02

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- (h) Put the 8-d switch in the ALL OFF position.
 - 1) Make sure the PDUs 5L, 5C, 5R, 8L, 8R, 8C stop operation and stay up with the brakes engaged.
- (i) Hold the 8-d switch in the ALL AFT position.
 - 1) Make sure the PDUs 5C, 5R, 8C, 8R retract.
 - Make sure that 2.0 seconds after you move the 8-d switch, PDUs 13L, 13R, 14L, 14R (Bays G, H) come up and operate aft.
 - Make sure that 2.2 seconds after you move the 8-d switch, PDUs 10L, 10R, 11L, 11R (Bays E, F) come up and operate aft.
 - 4) Make sure that 2.4 seconds after you move the 8-d switch, PDUs 7L, 7R, 9L, 9R (Bay D) come up and operate aft.
 - 5) Make sure that 2.6 seconds after you move the 8-d switch, PDUs 4L, 4R, 6L, 6R (Bay C) come up and operate aft.
 - Make sure that 5.6 seconds after you move the 8-d switch, PDUs 5L, 8L retract.
- (j) Put the 8-d switch in the ALL OFF position.
 - 1) Make sure the PDUs in Bays C, D, E, F, G, and H stop operation and stay up with the brake engaged.
- (k) Put the SYSTEM POWER switch in the OFF position.
 - 1) Make sure all the PDUs retract.

s 715-009-005

(6) Test - Cargo Handling Electrical System (Simulated Pallet Unloading)(a) Put these switches in the positions shown below:

SWITCH	CONTROL PANEL	SWITCH POSITION
SYSTEM POWER	Exterior	ON
POWER DRIVE UNITS	Exterior	FWD ON
ROLLOUT STOPS	Exterior	DOWN
CENTER GUIDES	Exterior	ALL DN
INTERIOR LIGHTS	Interior	ON
PALLET LOADING	Interior	ON (up)
POWER DRIVEBAYS - FWD BAYS, Bay A	Interior	ON (up)
POWER DRIVEBAYS - AFT BAYS, Bay E - Bay H	Interior	0N (up)

(b) Hold the 8-d switch in the ALL AFT position.

1) Make sure that 2.2 seconds after you move the 8-d switch, PDUs 7L, 7R, 9L, 9R (Bay D) come up and operate aft.

EFFECTIVITY FORWARD CARGO COMPARTMENT ON 767-300 AIRPLANES WITH LARGE FORWARD CARGO DOOR

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- 2) Make sure that 2.4 seconds after you move the 8-d switch,
- PDUs 4L, 4R, 6L, 6R (Bay C) come up and operate aft.
 3) Make sure that 2.6 seconds after you move the 8-d switch, PDUs 1L, 1R, 2L, 2R, 3L, 3R (Bays A, B) come up and operate aft.
- (c) Put the 8-d switch in the ALL OFF position.
 - 1) Make sure PDUs in Bays A, B, C, and D stop operation and stay up with the brake engaged.
- (d) Hold the 8-d switch in the OUT position.
 - Make sure the PDUs 4L, 4R, 6L, 6R, 7L, 7R, 9L, 9R (Bays C, D) retract.
 - 2) Make sure the PDUs 5L, 5C, 5R, 8L, 8C, 8R come up and operate outboard.
- (e) Put the 8-d switch in the ALL OFF position.
 - 1) Make sure the PDUs 5L, 5C, 5R, 8L, 8C, 8R stop operation and stay up with the brake engaged.
- (f) Put the POWER DRIVE UNITS switch in the AFT ON position.
- (g) Hold the 8-d switch in the ALL FWD position.
 - 1) Make sure the PDUs 5L, 5C, 5R, 8L, 8C, 8R retract.
 - 2) Make sure that 2.2 seconds after you move the 8-d switch, PDUs 4L, 4R, 6L, 6R (Bay C) come up and operate forward.
 - 3) Make sure that 2.4 seconds after you move the 8-d switch, PDUs 7L, 7R, 9L, 9R (Bay D) come up and operate forward.
 - Make sure that 3.65 seconds after you move the 8-d switch, PDUs 10L, 10R, 11L, 11R (Bay E, F) come up and operate forward.
 - 5) Make sure that 6.15 seconds after you move the 8-d switch, PDUs 13L, 13R, 14L, 14R (Bay G, H) come up and operate forward.
- (h) Put the 8-d switch in the ALL OFF position.
 - 1) Make sure all the PDUs in Bays C, D, E, F, G, and H stop operation and stay up with the brake engaged.
- (i) Hold the 8-d switch in the OUT position.
 - Make sure the PDUs 4L, 4R, 6L, 6R, 7L, 7R, 9L, 9R (Bays C, D) retract.
 - 2) Make sure the PDUs 5L, 5C, 5R, 8L, 8C, 8R come up and operate outboard.
- (j) Put the 8-d switch in the ALL OFF position.
 - 1) Make sure the PDUs 5L, 5C, 5R, 8L, 8C, 8R stop operation and stay up with the brake engaged.
- (k) Put the SYSTEM POWER switch in the OFF position.1) Make sure all the PDUs retract.
- F. Put the airplane back in its initial condition.

s 415-010-005

(1) Close the cargo door.

s 415-011-005

(2) Remove electrical power if it is not necessary (AMM 24-22-00/201).

EFFECTIVITY FORWARD CARGO COMPARTMENT ON 767-300 AIRPLANES WITH LARGE FORWARD CARGO DOOR

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CONTAINERIZED CARGO HANDLING SYSTEM - ADJUSTMENT/TEST

- 1. <u>General</u>
 - A. This procedure contains one task. The task is an operational test of the containerized cargo handling system. This test is for the aft cargo compartment on 767–300 airplanes.

TASK 25-53-00-715-001-006

- 2. <u>Operational Test Containerized Cargo Handling System</u>
 - A. General
 - (1) This procedure is a test of the exterior cargo control panel switches, and the interior control panel switches. This procedure has a cargo handling electrical system (simulated operation) test.
 - B. References
 - (1) AMM 24-22-00/201, Electrical Power
 - C. Access
 - (1) Location Zones 153/154 Aft Cargo Compartment
 - D. Prepare for Test
 - S 865-002-006
 - (1) Supply electrical power (AMM 24-22-00/201).

s 865-003-006

- (2) Make sure the aft cargo door is fully open.
 - <u>NOTE</u>: The cargo handling system will not operate unless the cargo door is fully open.
- E. Test Containerized Cargo Handling System
 - s 715-004-006
 - (1) Test Exterior Cargo Control Panel Switches
 - <u>NOTE</u>: All the switches are on the exterior control panel unless you are told differently.
 - (a) Put the SYSTEM POWER switch in the ON position.







AFT EXTERIOR CONTROL PANEL



AFT INTERIOR CONTROL PANEL

1 ALL SAS AIRPLANES

Cargo Control Panels Figure 501

EFFECTIVITY AFT CARGO COMPARTMENT ON 767-300 AIRPLANES













EFFECTIVITY AFT CARGO COMPARTMENT ON 767-300 AIRPLANES

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- (b) ON ALL SAS AIRPLANES;
 - do the steps that follow:
 - Put the ROLLOUT STOPS switch in the LOCK position.
 - a) Make sure the LOCK and UP indicator lights come on.
 - b) Make sure the lip guide and lip restraint are fully up and locked.
 - 2) Put the ROLLOUT STOPS switch in the DOWN position.
 - a) Make sure the DOWN indicator light comes on.
 - b) Make sure the lip guide and lip restraint are retracted.
 - 3) Put the ROLLOUT STOPS switch in the UP position.
 - a) Make sure the UP indicator light comes on.
 - b) Make sure the lip restraint is retracted and the lip guide stays up.
- (c) Put the CENTER GUIDES switch in the ALL DN position.
 - 1) Make sure the ALL DN indicator light is on.
 - Make sure the center (LD2) and auxiliary (LD3) guides and restraints are retracted.
- (d) Put the CENTER GUIDES switch in the LD2 position.
 - 1) Make sure the LD2 indicator light is on.
 - 2) Make sure the center (LD2) restraint is retracted and the center guide is up.
 - Make sure the auxiliary (LD3) restraint and guide are retracted.
 - 4) Do these steps:
 - a) Manually lift the center (LD2) restraint.
 - b) Put the POWER DRIVE UNITS switch in the FWD ON position.
 - c) Hold the 8-d switch in the ALL AFT position.
 - d) Make sure the center (LD2) restraints and guides fully retract before the PDUs operate aft.
 - e) Put the 8-d switch in the neutral position.
 - f) Make sure the center (LD2) guides come up, but the restraints stay retracted.
 - g) Put the POWER DRIVE UNITS switch in the AFT ON position.
 - h) Hold the 8-d switch in the ALL FWD position.
 - i) Make sure the center (LD2) restraints and guides fully retract before the PDUs operate forward.
 - j) Put the 8-d switch in the neutral position.
 - Make sure the center (LD2) guides come up, but the restraints stay retracted.
- (e) Put the CENTER GUIDES switch in the LD3 position.
 - 1) Make sure the LD3 indicator light is on.

EFFECTIVITY AFT CARGO COMPARTMENT ON 767-300 AIRPLANES



- 2) Make sure the auxiliary (LD3) restraint is retracted and the auxiliary guide is up.
- Make sure the center (LD2) restraint and guide are retracted.
- 4) Do these steps:
 - a) Manually lift the auxiliary (LD3) restraint.
 - b) Put the POWER DRIVE UNITS switch in the FWD ON position.
 - c) Hold the 8-d switch in the ALL AFT position.
 - d) Make sure the auxiliary (LD3) restraints and guides fully retract before the PDUs operate aft.
 - e) Put the 8-d switch in the neutral position.
 - f) Make sure the auxiliary (LD3) guides come up, but the restraints stay retracted.
 - g) Put the POWER DRIVE UNITS switch in the AFT ON position.
 - h) Hold the 8-d switch in the ALL FWD position.
 - i) Make sure the auxiliary (LD3) restraints and guides fully retract before the PDUs operate forward.
 - j) Put the 8-d switch in the neutral position.
 - k) Make sure the auxiliary (LD3) guides come up, but the restraints stay retracted.
- (f) Put the POWER DRIVE UNITS switch in the FWD ON position.
 - 1) Make sure the FWD ON indicator light is on.
 - Put the POWER DRIVEBAYS Bay D switch in the D-A ON position.
 - a) Make sure the Bay D indicator light is on.
 - 3) Hold the 8-d switch in each position.
 - 4) Make sure the PDUs operate correctly (Table I).
- (g) Put the POWER DRIVE UNITS switch in the AFT ON position.
 - 1) Make sure the AFT ON indicator light is on.
 - 2) Hold the 8-d switch in each position.
 - 3) Make sure the PDUs operate correctly (Table I).

s 715-005-006

- (2) Test Interior Cargo Handling Control Panel Switches
 - <u>NOTE</u>: All the switches are on the interior control panel unless you are told differently.
 - (a) Put the POWER DRIVE UNITS switch on the exterior control panel in the FWD ON position.
 - 1) Make sure the Bay A thru Bay F indicator lights are on.
 - 2) Make sure the Bay G indicator light is off.
 - (b) Put the POWER DRIVEBAYS Bay A switch in the A OFF position.
 - 1) Make sure the Bay A indicator light is off.
 - 2) Make sure the PDUs operate correctly (Table I).

<u>NOTE</u>: The PDUs in Bay A will not operate.

EFFECTIVITY AFT CARGO COMPARTMENT ON 767-300 AIRPLANES



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- (c) Put the POWER DRIVEBAYS Bay B switch in the B-A OFF position.1) Make sure the Bay B indicator light is off.
 - 2) Make sure the PDUs operate correctly (Table I).

NOTE: The PDUs in Bays A and B will not operate.

- (d) Put the POWER DRIVEBAYS Bay C switch in the C-A OFF position.
 - 1) Make sure the Bay C indicator light is off.
 - 2) Make sure the PDUs operate correctly (Table I).

NOTE: The PDUs in Bays A, B and C will not operate.

- (e) Put the POWER DRIVEBAYS Bay D switch in the D-A OFF position.
 - 1) Make sure the Bay D indicator light is off.
 - 2) Make sure the PDUs operate correctly (Table I).

NOTE: The PDUs in Bays A, B, C and D will not operate.

- (f) Put the POWER DRIVE UNITS switch on the exterior control panel in the AFT ON position.
 - 1) Make sure the Bay A thru Bay E indicator lights are off.
 - 2) Make sure the Bay F and Bay G indicator lights are on.



TABLE I - AFT COMPARTMENT				
POWERED DRIVE UNITS SWITCH POSITION	AFT	ON	FWD ON	
8-D SWITCH POSITION *E1]	ALL FWD, FWD/LFT, OR FWD/RT	ALL AFT, AFT/LFT, OR AFT/RT	ALL FWD, FWD/LFT, OR FWD/RT	ALL AFT, AFT/LFT, OR AFT/RT
PDU ACTION SEQUENCE	-PDUS 9L,9C,9R RETRACT -AFT LATERAL GUIDES RETRACT -2.6 SEC DELAY -BAY F PDUS COME UP AND OPERATE FORWARD -0.2 SEC DELAY -BAY G PDUS COME UP AND OPERATE FORWARD	-PDUS 9L,9C,9R RETRACT -AFT LATERAL GUIDES RETRACT -2.0 SEC DELAY -BAY G PDUS COME UP AND OPERATE AFT -0.2 SEC DELAY -BAY F PDUS COME UP AND OPERATE AFT	-PDUS 9L,9C,9R RETRACT -FWD LATERAL GUIDES RETRACT -2.0 SEC DELAY -BAY A&B PDUS COME UP AND OPERATE FORWARD -0.2 SEC DELAY -BAY C&D PDUS COME UP AND OPERATE FORWARD -0.2 SEC DELAY -BAY E PDUS COME UP AND OPERATE FORWARD -0.2 SEC DELAY -BAY F PDUS COME UP AND OPERATE FORWARD	-PDUS 9L,9C,9R RETRACT -FWD LATERAL GUIDES RETRACT -2.2 SEC DELAY -BAY F PDUS COME UP OPERATE AFT -0.2 SEC DELAY -BAY E PDUS COME UP AND OPERATE AFT -1.25 SEC DELAY -BAY D PDUS COME UP AND OPERATE AFT -1.25 SEC DELAY -BAY C PDUS COME UP AND OPERATE AFT -1.25 SEC DELAY -BAY B PDUS COME UP AND OPERATE AFT -1.25 SEC DELAY -BAY B PDUS COME UP AND OPERATE AFT -1.25 SEC DELAY -BAY A PDUS COME UP AND OPERATE AFT

*[1] If the 8-d switch is in the ALL FWD or ALL AFT position, the left and right PDUs in each bay will operate. If the 8-d switch is in the FWD/RT or AFT/RT position, only the PDUs on the right side of each bay will operate. If the 8-d switch is in the FWD/LFT or AFT/LFT position, only the PDUs on the left side of each bay will operate.

EFFECTIVITY AFT CARGO COMPARTMENT ON 767-300 AIRPLANES



s 715-006-006

(3) Test - Cargo Handling Electrical System (Simulated Container Loading)

(a) Put these switches in the positions shown below:

SWITCH	CONTROL PANEL	SWITCH POSITION
SYSTEM POWER	Exterior	ON
POWER DRIVE UNITS	Exterior	FWD ON
CENTER GUIDES	Exterior	LD-2
INTERIOR LIGHTS	Interior	ON
POWER DRIVEBAYS FWD BAYS, switches A thru D	Interior	0N (up)
ROLLOUT STOPS *E13	Exterior	UP

*E13 ALL SAS AIRPLANES

- (b) Hold the 8-d switch in the IN position.
- Make sure the PDUs 9L, 9C, 9R come up and operate inboard.
 Put the 8-d switch in the ALL OFF position.
 - 1) Make sure the PDUs 9L, 9C, 9R stop operation, and stay up with the brakes engaged.
- (d) Hold the 8-d switch in the OUT position.
 - 1) Make sure the PDUs 9C and 9R retract, then come up and operate outboard.
 - 2) Make sure the PDU 9L stays up with the brakes engaged.
- (e) Put the 8-d switch in the ALL OFF position.
 - Make sure the PDUs 9L, 9C, 9R stop operation and stay up with the brake engaged.
- (f) Hold the 8-d switch in the ALL FWD position and do the steps that follow:
 - 1) Make sure the PDUs 9L, 9C, 9R retract.
 - Make sure the lateral guides forward of the doorway retract.
 - Make sure that 2.0 seconds after you move the 8-d switch, PDUs 1L, 1R, 2L, 2R (Bays A and B) come up and operate forward.
 - 4) Make sure that 2.2 seconds after you move the 8-d switch, PDUs 3L, 3R, 4L, 4R, 5L, 5R (Bays C and D) come up and operate forward.
 - 5) Make sure that 2.4 seconds after you move the 8-d switch, PDUs 6L, 6R, 7L, 7R, (Bay E) come up and operate forward.
 - 6) Make sure that 2.6 seconds after you move the 8-d switch, PDUs 8L, 8R, 10L, 10R, (Bay F) come up and operate forward.

EFFECTIVITY AFT CARGO COMPARTMENT ON 767-300 AIRPLANES



- (g) Put the 8-d switch in the ALL OFF position.
 - 1) Make sure the lateral guides forward of the doorway come up.
 - Make sure the PDUs forward of the doorway (Bays A, B, C, D, E) stop operation and stay up with the brakes engaged.
 - 3) Make sure the PDUs in the doorway (Bay F) stop operation and retract.
- (h) Put the POWER DRIVE UNITS switch in the AFT ON position.
- (i) Hold the 8-d switch in the IN position.
- 1) Make sure the PDUs 9L, 9C, 9R come up and operate inboard.
- (j) Put the 8-d switch in the ALL OFF position.
 - 1) Make sure the PDUs 9L, 9C, 9R stop operation and stay up with the brakes engaged.
- (k) Hold the 8-d switch in the OUT position.
 - 1) Make sure the PDUs 9C and 9R retract, then come up and operate outboard.
 - Make sure the PDU 9L stays up with the brake engaged.
- (l) Put the 8-d switch in the ALL OFF position.
- (m) Make sure the PDUs 9L, 9C, 9R stop operation and stay up with the brake engaged.
- (n) Hold the 8-d switch in the ALL AFT position.
 - 1) Make sure the PDUs 9L, 9C, 9R retract.
 - 2) Make sure the lateral guides aft of the doorway retract.
 - 3) Make sure that 2.0 seconds after you move the 8-d switch, PDUs 11L, 11R, 12L, 12R (Bay G) come up and operate aft.
 - 4) Make sure that 2.2 seconds after you move the 8-d switch, PDUs 8L, 8R, 10L, 10R (Bay F) come up and operate aft.
- (o) Put the 8-d switch in the ALL OFF position.
 - 1) Make sure the lateral guides aft of the doorway come up.
 - 2) Make sure all the PDUs aft of the doorway (Bay G) stop operation, and stay up with the brake engaged.
 - 3) Make sure the PDUs in the doorway (Bay F) stop operation and retract.
- (p) Put the SYSTEM POWER switch in the OFF position.

EFFECTIVITY AFT CARGO COMPARTMENT ON 767-300 AIRPLANES



s 715-007-006

(4) Test - Cargo Handling Electrical System (Simulated Container Unloading)

(a) Put these switches in the position shown below:

SWITCH	CONTROL PANEL	SWITCH POSITION
SYSTEM POWER	Exterior	ON
POWER DRIVE UNITS	Exterior	FWD ON
CENTER GUIDES	Exterior	ALL DWN
INTERIOR LIGHTS	Interior	ON
POWER DRIVEBAYS FWD BAYS, switches A thru D	Interior	ON (up)
ROLLOUT STOPS *[1]	Exterior	LOCK

*E13 ALL SAS AIRPLANES

- (b) Momentarily hold the 8-d switch in the IN position to make the PDUs 9L, 9C, 9R come up.
- (c) Put the ROLLOUT STOPS switch in the DOWN position.
- 1) Make sure the rollout stop restraints and guides retract.
- (d) Hold the 8-d switch in the ALL AFT position.
 - Make sure the PDUs 9L, 9C, 9R retract.
 - Make sure the lateral guides forward of the doorway retract.
 - Make sure that 2.20 seconds after you move the 8-d switch, PDUs 8L, 8R, 10L, 10R (Bay F) come up and operate aft.
 - 4) Make sure that 2.40 seconds after you move the 8-d switch, PDUs 6L, 6R, 7L, 7R (Bay E) come up and operate aft.
 - 5) Make sure that 3.65 seconds after you move the 8-d switch, PDUs 5L, 5R (Bay D) come up and operate aft.
 - 6) Make sure that 4.90 seconds after you move the 8-d switch, PDUs 3L, 3R, 4L, 4R (Bay C) come up and operate aft.
 - 7) Make sure that 6.15 seconds after you move the 8-d switch, PDUs 2L, 2R (Bay B) come up and operate aft.
 - Make sure that 7.40 seconds after you move the 8-d switch, PDUs 1L, 1R (Bay A) come up and operate aft.
- (e) Put the POWER DRIVE UNITS switch on the exterior control panel in the AFT ON position.
- (f) Momentarily hold the 8-d switch in the IN position to make the PDUs 9L, 9C, 9R come up.
- (g) Hold the 8-d switch in the ALL FWD position.
 - 1) Make sure the PDUs 9L, 9C, 9R retract.
 - 2) Make sure the lateral guides aft of the doorway retract.

EFFECTIVITY AFT CARGO COMPARTMENT ON 767-300 AIRPLANES

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- 3) Make sure that 2.6 seconds after you move the 8-d switch, PDUs 8L, 8R, 10L, 10R (Bay F) come up and operate forward.
- 4) Make sure that 2.8 seconds after you move the 8-d switch, PDUs 11L, 11R, 12L, 12R (Bay G) come up and operate forward.
- (h) Put the 8-d switch in the ALL OFF position.
 - Make sure the lateral guides aft of the doorway come up.
 Make sure the PDUs in doorway and aft of the doorway (Bays
- F, G) stop operation, stay up with the brakes engaged.(i) Put the SYSTEM POWER switch in the OFF position.
 - 1) Make sure all the PDUs retract.
- F. Put the airplane back in its initial condition.
 - s 415-008-006
 - (1) Close the cargo door.
 - s 415-009-006
 - (2) Remove electrical power if it is not necessary (AMM 24-22-00/201).





MAINTENANCE MANUAL

POWER DRIVE UNIT - REMOVAL/INSTALLATION

1. <u>General</u>

I

- A. This procedure contains these tasks:
 - (1) Remove the power drive unit (PDU).
 - (2) Install the power drive unit (PDU).
 - (3) Operational check of the PDU system.
 - (4) Remove the power drive unit roller.
 - (5) Install the power drive unit roller.
- B. There are two types of PDUs available for use in the 767 airplanes. One type has one roller, and the other type has two rollers. These PDUs operate the same way.
- C. When you replace a Garrett Airesearch PDU with a Lucas Western PDU, a different electrical cable routing must be used to prevent damage. The Lucas Western PDUs have a longer cable.

TASK 25-53-01-004-002

- 2. <u>Remove the Power Drive Unit</u> (Fig. 401)
 - A. Equipment
 - (1) For standard cargo door, Safety Barrier, - A52005-18
 - (2) For large forward cargo door, Safety Barrier - A52007-1
 - B. References
 - (1) AMM 24-22-00/201, Electrical Power Control
 - C. Access
 - (1) Location Zones

121/122	Forward Cargo Compartment
153/154	Aft Cargo Compartment

D. Procedure

s 494-003

- <u>WARNING</u>: YOU MUST INSTALL THE SAFETY BARRIER CORRECTLY WHEN THE CARGO DOOR IS OPEN. INJURY TO PERSONS CAN OCCUR IF YOU DO NOT CORRECTLY INSTALL THE SAFETY BARRIER.
- (1) Install the safety barrier across the cargo door opening.

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S 864-004

- (2) For the forward compartment, open these circuit breakers on the forward cargo handling panel, P35, and attach DO-NOT-CLOSE tags:
 - (a) 35A6, GUIDES AND LEFT PDUS
 - (b) 35A8, RIGHT PDUS
 - (c) 35C10, CARGO CONTROL

S 864-005

- (3) For the aft compartment, open these circuit breakers on the cargo handling accessory panel, P39, and attach DO-NOT-CLOSE tags:
 - (a) 39A6, GUIDES AND LEFT PDUS
 - (b) 39A8, RIGHT PDUS
 - (c) 39C10, CARGO CONTROL

s 014-006

(4) If it is installed, remove the coverplate to get access to the electrical connector.

S 034-007

(5) Disconnect the electrical connector.

S 864-088

(6) Make a note of the electrical cable routing (including clamp locations, and if a tie wrap is used) to make sure it gets routed the same during the installation.

S 024-083

- (7) To remove only the PDU drive assembly, do the steps that follow:
 - (a) Remove the screw that attaches the PDU case-base ground cable to the PDU base.
 - (b) Remove the cotter pins and washers.
 - (c) Remove the clevis pins.
 - (d) Remove the PDU drive assembly.

S 034-084

- (8) To remove the complete PDU, do the steps that follow:
 - (a) Remove the bolts (2) and the washers (3).
 - (b) Remove the PDU (1).

TASK 25-53-01-404-010

- 3. <u>Install the Power Drive Unit</u> (Fig. 401)
 - A. Consumable Materials
 - (1) COO324 Film, chemical MIL-C-5541, Class 3

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25-53-01



- (2) COO913 Sealant, BMS3-27 or BMS3-38
- B. Parts
 - (1) 767-200 AIRPLANES;

Use this table for the forward cargo compartment:

АММ		A	[PC		
FIG	ITEM	NOMENCLATURE	SUBJECT	FIG	ITEM
401	1 2 3	Power Drive Unit Bolt Washer	25–53–01	02	30 35,40,45 50

(2) 767-200 AIRPLANES;

Use this table for the aft cargo compartment:

АММ			AIPC		
FIG	ITEM	NOMENCLATURE	SUBJECT	FIG	ITEM
401	1 2 3	Power Drive Unit Bolt Washer	25-53-01	05	25 30,35 40

(3) 767-300 AIRPLANES;

Use this table for the forward and aft cargo compartment:

АММ			AIPC		
FIG	ITEM	NOMENCLATURE	SUBJECT	FIG	ITEM
401	1 2 3	Power Drive Unit Bolt Washer	25-53-01	07	30,80 35,40, 45,50, 85,90, 95 55,100

- C. References
 - (1) AMM 24-22-00/201, Electrical Power Control
- D. Access
 - (1) Location Zones
 - 121/122 Forward Cargo Compartment
 - 153/154 Aft Cargo Compartment

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Power Drive Unit Electrical Cable Figure 402 (Sheet 2)





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E. Procedure

s 214-014

- Make sure the yellow-green layer, MIL-C-5541 Class 3, is on all the airplane structure that touches the base of the power drive unit (PDU) (1).
 - <u>NOTE</u>: The yellow-green film is a chemical conversion coating used as a corrosion preventive film for electrical applications where lower resistant contacts are necessary.
 - s 424-092
- (2) To install only the PDU drive assembly, do the steps that follow:
 - (a) Put the PDU drive assembly in position.
 - (b) Install the clevis pins.
 - (c) Install the washers and the cotter pins.
 - (d) Install the screw that attaches the PDU case-to-base ground cable to the PDU base.
 - (e) Do a resistance check between the PDU case and the airplane ground stud.

1) Make sure the resistance is not more than .005 ohms.

(f) Connect the electrical connector.

s 214-079

(3) Make sure the electrical cable is not damaged when the PDU moves from the down to the up position.

s 424-085

- (4) To install the complete PDU, do the steps that follow:(a) Put the PDU (1) in position.
 - <u>NOTE</u>: Make sure to install anti-corrosion sealant on the PDU mounting surface.
 - (b) Install the bolts (2) and the washers (3).
 - (c) Tighten the bolts (2) to 50-80 pound-inches.
 - (d) Do a resistance check between the PDU case and the airplane ground stud.

1) Make sure the resistance is not more than .005 ohms.

- (e) Connect the electrical connector.
- (f) Install the coverplate if it is necessary.

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S 864-086

- <u>CAUTION</u>: MAKE SURE THE ELECTRICAL CABLE IS OUT OF THE WAY WHEN YOU PUT THE PDU BODY DOWN. IF THE CABLE IS BETWEEN THE BASE AND THE BODY WHEN YOU PUT THE PDU DOWN, DAMAGE TO THE CABLE CAN OCCUR.
- (5) Put the PDU roller in its up position.

s 424-087

- (6) Do these steps to make sure that the PDU electrical cable is routed and clamped correctly.
 - (a) Make sure the electrical cable is not between the PDU body and the base.
 - (b) Route the cable to the clamp and the standoff on the PDU support.
 - Make sure the cable is snug between the clamp and the standoff.
 - (c) Use a tie-wrap to secure the cable at the standoff if it is necessary.
 - (d) Make sure that the electrical cable has a minimum bend radius of 0.50 in. (12.7mm) in all locations.
 - s 214-017
- (7) For the PDUs (1) that are not in the doorway, make sure the electrical cable can move into the hole in the pan.
 - <u>NOTE</u>: If the cable cannot move into the hole, damage can occur when the roller moves down.
 - S 424-044
- (8) WITH THE TWO PDUS FORWARD AND THE TWO PDUS AFT OF THE SMALL FORWARD CARGO DOOR AND THE AFT CARGO DOOR, route the electrical cable on Lucas Western PDUs through a clamp installed on the drain pan (Fig. 402).
 - <u>NOTE</u>: The clamp is required to prevent chafing of the cable between the PDU housing and the drain pan.

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s 214-018

- (9) For the PDUs (1) in the doorway, make sure the electrical cable is not in a position which can cause damage.
 - <u>NOTE</u>: If the cable is between the PDU and the floor, damage can result. If the cable is between the motor and the base, damage can result.

S 864-019

- (10) For the forward compartment, remove the DO-NOT-CLOSE tags and close these circuit breakers on the P35 panel:
 - (a) 35A6, GUIDES AND LEFT PDUS
 - (b) 35A8, RIGHT PDUS
 - (c) 35C10, CARGO CONTROL

S 864-020

- (11) For the aft compartment, remove the DO-NOT-CLOSE tags and close these circuit breakers on the P39 panel:
 - (a) 39A6, GUIDES AND LEFT PDUS
 - (b) 39A8, RIGHT PDUS
 - (c) 39C10, CARGO CONTROL

TASK 25-53-01-004-044

- 4. <u>Remove the Power Drive Unit Roller</u> (Fig. 403)
 - A. Equipment
 - (1) Standard cargo door, Safety Barrier, - A52005-18
 - B. Access
 - (1) Location Zones
 - 121/122 Forward Cargo Compartment 153/154 Aft Cargo Compartment
 - C. Procedure

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s 494-045

- <u>WARNING</u>: YOU MUST INSTALL THE SAFETY BARRIER CORRECTLY WHEN THE CARGO DOOR IS OPEN. INJURY TO PERSONS CAN OCCUR IF YOU DO NOT CORRECTLY INSTALL THE SAFETY BARRIER.
- (1) Install the safety barrier across the cargo door opening.

S 024-046

- (2) Do the steps that follow to remove the PDU roller (two rollers type):
 - (a) Put the PDU in the up position.
 - (b) Remove the retaining rings.

NOTE: Discard the retaining rings.

- (c) Remove the shaft from the PDU.
- (d) Remove the rollers.

S 024-047

- (3) Do the steps that follow to remove the PDU roller (one roller type):
 - (a) Put the PDU in the up position.
 - (b) Remove the bolt from the PDU.
 - (c) Remove the shaft.
 - <u>NOTE</u>: Turn the shaft until the concave portion of the shaft points up. This position permits the shaft to be clear from the cover.
 - (d) Pull back on the mounting sleeve until it is clear from the roller.
 - (e) Remove the roller.

TASK 25-53-01-404-048

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5. Install the Power Drive Unit Roller (Fig. 403)
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- A. Access
 - (1) Location Zones

121/122 Forward Cargo Compartment

153/154 Aft Cargo Compartment

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B. Procedure

s 424-049

- (1) Do the steps that follow to install the PDU roller (two rollers type):
 - (a) Make sure the output shaft bearing races are correctly installed. Push in if it is necessary.
 - (b) Install the shaft and the rollers at the same time.
 - (c) Install the retaining rings.
 - (d) Make sure the retaining rings attach correctly in the groove of the shaft.

s 424-050

- (2) Do the steps that follow to install the PDU roller (one roller type):
 - (a) Put the roller in the correct position on the PDU.
 - (b) Make sure the drive lugs on the roller engage fully with the drive lugs on the PDU.
 - (c) Install the shaft.

NOTE: Put the concave portion of the shaft points down.

- (d) Install the mounting sleeve.
- (e) Adjust both the shaft and the mounting sleeve until the holes on the shaft and the mounting sleeve align with each other.
- (f) Install the bolt to the holes.
- s 434-051
- (3) Put the PDU back in the normal position.

TASK 25-53-01-704-001

- 6. Power Drive Unit Operation Check
 - A. References
 - (1) AMM 24-22-00/201, Electrical Power Control
 - B. Access
 - (1) Location Zones
 - 121/122 Forward Cargo Compartment
 - 153/154 Aft Cargo Compartment
 - C. Procedure
 - S 864-033
 - (1) Supply electrical power (AMM 24-22-00/201).

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S 864-042

(2) Put the SYSTEM POWER switch on the exterior control panel in the ON position.

s 714-025

- (3) 767-200 AIRPLANES;
 - For the longitudinal PDUs in the doorway or forward of the doorway: (a) For the forward compartment, do these steps:
 - 1) Put the POWER DRIVE UNITS switch on the exterior control panel in the FWD ON position.
 - 2) Put the POWERED DRIVES FWD BAYS switch on the interior control panel in the A ON position.
 - (b) For the aft compartment, do these steps:
 - 1) Put the POWER DRIVE UNITS switch on the exterior control panel in the FWD ON position.
 - 2) Put the POWERED DRIVES FWD BAYS switch on the interior control panel in the A-B ON position.
 - (c) Hold the 8-d switch in the ALL FWD position. Make sure all the longitudinal PDUs in the doorway and forward of the doorway come up and operate forward.

s 714-024

(4) 767-200 AIRPLANES;

For longitudinal PDUs in the doorway and aft of the doorway, do these steps:

- (a) Put the POWER DRIVE UNITS switch on the exterior control panel in the AFT ON position.
- (b) In the forward compartment, also put the POWERED DRIVES AFT BAYS switch on the interior control panel in the E-F ON position.
- (c) Hold the 8-d switch in the ALL FWD position. Make sure all the longitudinal PDUs in the doorway and aft of doorway come up and operate forward.

s 714-026

- (5) 767-300 AIRPLANES;
 - For the longitudinal PDUs in the doorway or forward of the doorway:
 - (a) For the forward compartment, do these steps:
 - 1) Put the POWER DRIVE UNITS switch on the exterior control panel in the FWD ON position.
 - 2) Put the POWER DRIVEBAYS, Bay A and Bay B switch on the interior control panel in the ON position.
 - (b) For the aft compartment, do these steps:
 - 1) Put the POWER DRIVE UNITS switch on the exterior control panel in the FWD ON position.
 - 2) Put the POWER DRIVEBAYS, Bay A thru Bay D switches on the interior control panel in the ON position.
 - (c) Hold the 8-d switch in the ALL FWD position. Make sure all the longitudinal PDUs in the doorway and forward of the doorway come up and operate forward.

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s 714-072

(6) 767-300 AIRPLANES;

For the longitudinal PDUs in the doorway and aft of the doorway, do these steps:

- (a) Put the POWER DRIVE UNITS switch on the exterior control panel in the AFT ON position.
- (b) For the forward compartment only, also put the POWERED DRIVEBAYS Bay F thru Bay H switches on the interior control panel in the ON position.
- (c) Hold the 8-d switch in the ALL FWD position. Make sure all the longitudinal PDUs in the doorway and aft of the doorway come up and operate forward.

s 714-043

(7) For the three lateral PDUs in doorway, hold the directional switch to the IN position. Make sure the three lateral PDUs come up and operate inboard.

S 864-028

(8) Put the SYSTEM POWER switch in the OFF position.

s 714-069

(9) Make sure all the PDUs move to the retracted position.

s 864–031

- (10) Remove electrical power if it is not necessary (AMM 24-22-00/201).
 - s 094-032
- (11) Remove the safety barrier.

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MAINTENANCE MANUAL

POWER DRIVE UNIT - INSPECTION/CHECK

- 1. <u>General</u>
 - A. This procedure gives instructions for the inspection of the Power Drive Unit Rollers in the cargo compartment.

TASK 25-53-01-226-002

- 2. <u>Cargo Compartment Power Drive Unit Roller Inspection/Check</u> (Fig. 601)
 - A. Equipment
 - (1) STANDARD CARGO DOOR;
 - Safety Barrier A52005-18
 - (2) Safety Barrier A52007-1
 - B. Access
 - (1) Location Zones
 - 121 Forward Cargo Compartment (Left)
 - 122 Forward Cargo Compartment (Right)
 - 153 Aft Cargo Compartment (Left)
 - 154 Aft Cargo Compartment (Right)
 - (2) Access Panels
 - 821 Forward Cargo Door
 - 822 Aft Cargo Door
 - C. References
 - (1) AMM 24-22-00/201, Electrical Power
 - (2) AMM 25-53-01/401, Power Drive Unit
 - (3) AMM 52-33-00/201, Forward Cargo Door
 - (4) AMM 52-35-00/201, Aft Cargo Door
 - D. Prepare for the Inspection
 - S 866-011
 - (1) Supply electrical ground power (AMM 24-22-00/201).

S 866-009

(2) Open the applicable cargo door.

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F 36491



s 426-010

WARNING: YOU MUST CORRECTLY INSTALL THE SAFETY BARRIER. FAILURE TO CORRECTLY INSTALL THE SAFETY BARRIER CAN CAUSE INJURY.

(3) Install a safety barrier across the cargo door opening.

E. Procedure

S 966-001

(1) Replace the Rollers (AMM 25-53-01/401) that are beyond the limits shown in Fig. 601.

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ROLLER TRAY - REMOVAL/INSTALLATION

- 1. <u>General</u>
 - A. This procedure is for the roller trays in the forward and aft containerized cargo compartments.
 - B. This procedure has these tasks:
 - (1) A removal of the roller tray.
 - (2) An installation of the roller tray.

TASK 25-53-02-004-001

- 2. <u>Remove Roller Tray</u> (Fig. 401)
 - A. Equipment
 - (1) STANDARD CARGO DOOR;
 - Safety Barrier A52005-18
 - (2) LARGE FORWARD CARGO DOOR;
 - Safety Barrier A52007-1
 - B. Access
 - (1) Location Zones
 - 121 Forward Cargo Compartment (Left)
 - 122 Forward Cargo Compartment (Right)
 - 153 Aft Cargo Compartment (Left)
 - 154 Aft Cargo Compartment (Right)
 - (2) Access Panels
 - 821 Forward Cargo Door
 - 822 Aft Cargo Door
 - C. Procedure

s 484-002

- <u>WARNING</u>: YOU MUST INSTALL THE SAFETY BARRIER CORRECTLY WHEN THE DOOR IS OPEN. FAILURE TO CORRECTLY INSTALL THE SAFETY BARRIER CAN CAUSE INJURY.
- (1) Install the safety barrier across the cargo door opening.

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S 034-036

(2) Remove the attach bolts and washers.

S 034-038

(3) Remove the roller tray.

TASK 25-53-02-404-004

- 3. <u>Install Roller Tray</u> (Fig. 401)
 - A. References
 - (1) AMM 51-24-03/701, Corrosion Inhibiting Coating
 - B. Consumable Materials
 - (1) AOO247 Sealant Chromate, Type BMS 5-95
 - C. Access
 - (1) Location Zones
 - 121 Forward Cargo Compartment (Left)
 - 122 Forward Cargo Compartment (Right)
 - 153 Aft Cargo Compartment (Left)
 - 154 Aft Cargo Compartment (Right)
 - (2) Access Panels
 - 821 Forward Cargo Door
 - 822 Aft Cargo Door

D. Procedure

s 144-006

(1) Make sure you remove all the unwanted material and corrosion from the floor beam to roller tray interface before you install the roller tray.

s 374-036

(2) Apply sealant, BMS 5-95, on the floor beam at the floor to roller tray interface (AMM 51-24-03/701).

S 434-007

(3) Put the roller tray in position and install the bolts and washers. Tighten the bolts to 70–80 pound-inches.

S 094-008

(4) Remove the safety barrier.

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BALL TRANSFER PANEL - REMOVAL/INSTALLATION

- 1. <u>General</u>
 - A. This procedure has these tasks:
 - (1) A removal and an installation of the ball transfer panel.
 - (2) A removal and an installation of the ball unit.

TASK 25-53-03-904-001

- 2. <u>Remove and Install the Ball Transfer Panel</u> (Fig. 401)
 - A. Equipment
 - (1) STANDARD CARGO DOOR;
 - Safety Barrier A52005-18
 - (2) LARGE FORWARD CARGO DOOR; Safety Barrier - A52007-1
 - B. Access
 - C. Procedure Remove the Ball Transfer Panel

s 494-002

- WARNING: YOU MUST CORRECTLY INSTALL THE SAFETY BARRIER WHEN THE CARGO DOOR IS OPEN. FAILURE TO CORRECTLY INSTALL THE SAFETY BARRIER CAN CAUSE INJURY.
- (1) Install the safety barrier.

S 034-025

(2) Remove the bolts and washers that hold the panel to the support structure.

S 024-004

(3) Remove the panel from the airplane.

D. Procedure - Install the Ball Transfer Panel

s 424-005

(1) Put the panel in position on the mount brackets.

s 434-006

(2) Install the bolts and washers. Tighten the bolts to 70-80 pound-inches.

S 094-007

(3) Remove the safety barrier.

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TASK 25-53-03-904-008

- 3. <u>Remove and Install the Ball Unit</u> (Fig. 401)
 - A. Equipment
 - (1) Ball unit removal tool, A25009-1
 - (2) STANDARD CARGO DOOR;
 - Safety Barrier A52005-18
 - (3) LARGE FORWARD CARGO DOOR; Safety Barrier - A52007-1
 - B. Access
 - C. Procedure Remove the Ball Unit

s 494-009

(1) Install the safety barrier across the cargo door opening.

S 024-018

(2) BALL UNITS WITH TWO TABS;

Do the steps that follow at the same time:

- (a) Push the two tabs in the direction of the ball.
- (b) Lift the ball unit out of the panel.

s 024-024

ALL

(3) BALL UNITS WITHOUT TWO TABS;

Do the steps that follow:

- (a) If the ball unit does not have two screw holes, do these steps to drill the holes:
 - 1) Put the drill template on the ball unit.
 - Drill two holes with 0.136-inch diameters through the ball unit.
 - 3) Remove the drill template.
- (b) Do these steps to remove the ball unit:
 - 1) Put the tool on the ball unit and install 0.137-inch diameter self-tapping screws in the drilled holes.
 - Pull the tool handles apart to compress the spring locks of the ball unit.
 - 3) Lift up on the tool to lift the ball unit from the transfer panel.
 - 4) Remove the tool from the ball unit.



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<u>NOTE</u>: There is a lip around the top edge to help you lift out the ball unit.



- s 024-028
- (4) BALL UNITS WITH TWO SLOTS;
 - Do the steps that follow at the same time:
 - (a) Insert two small screwdrivers into the two slots.
 - (b) Push the two tabs in the direction of the ball with the screwdrivers.
 - (c) Lift the ball unit out of the panel.
- D. Procedure Install the Ball Unit

s 824-013

(1) Align the ball unit above the opening in the ball transfer panel.

s 424-022

BALL UNITS WITH TWO TABS OR TWO SLOTS; (2) Push the ball unit straight down until the two tabs fully engage in the ball transfer panel.

s 424-023

- (3) BALL UNITS WITHOUT TWO TABS; Do the steps that follow:
 - (a) Hold the ball unit level and compress the two spring locks.
 - (b) Push the ball unit straight down until the spring locks engage in the ball transfer panel.
 - The ball unit can catch if you do not push it straight NOTE: into the ball transfer panel.

s 754-016

- (4) Try to move the ball unit to the left, to the right, and in the up direction.
 - Some movement is permitted, but the ball unit must not NOTE: pull out if the spring locks or the two tabs are correctly engaged.

S 094-017

(5) Remove the safety barrier from the cargo door opening.

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SILL ROLLER - REMOVAL/INSTALLATION

- 1. <u>General</u>
 - A. This procedure has these tasks:
 - (1) A removal of the sill roller on the door sill.
 - (2) An installation of the sill roller on the door sill.

TASK 25-53-04-004-001

- 2. <u>Remove the Sill Roller</u> (Fig. 401)
 - A. Equipment
 - (1) STANDARD CARGO DOOR; Safety Barrier - A52005-8
 - (2) LARGE FORWARD CARGO DOOR; Safety Barrier - A52007-1
 - B. References
 - (1) AMM 25-53-03/401, Ball Transfer Panel
 - C. Access
 - (1) Location Zones

121/122	Forward Cargo Compartment
153/154	Aft Cargo Compartment

D. Procedure

s 494-013

- WARNING: YOU MUST CORRECTLY INSTALL THE SAFETY BARRIER. FAILURE TO CORRECTLY INSTALL THE SAFETY BARRIER CAN CAUSE INJURY.
- (1) Install the safety barrier across the cargo door opening.

S 034-009

(2) Remove the ball transfer panel which is nearest to the door sill (AMM 25-53-03/401).

S 024-008

- (3) Remove the fasteners that hold the sill roller on the door sill.
 - <u>NOTE</u>: Fastener, filler and washer locations must be noted before removal.

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s 024-012

(4) Remove the sill roller from the door sill.

s 434-007

- <u>CAUTION</u>: IF YOU WILL FLY THE AIRPLANE WITHOUT THE SILL ROLLER, YOU MUST INSTALL THE BOLTS WITH WASHERS. THE WASHERS MUST BE AS THICK AS THE SILL ROLLER BRACKET. TORQUE THE BOLTS TO 100-150 POUND-INCHES. IF YOU DO NOT INSTALL THE BOLTS AND WASHERS, DAMAGE TO THE DOOR SILL CAN OCCUR.
- (5) If you will fly the airplane without the sill roller, do these steps:
 - (a) Install the bolts in the door sill with washers that are equal in thickness to the sill roller bracket.
 - (b) Torque the bolts to 100-150 pound-inches.

TASK 25-53-04-404-003

- 3. <u>Install the Sill Roller</u> (Fig. 401)
 - A. Equipment
 - (1) STANDARD CARGO DOOR; Safety Barrier - A52005-8
 - (2) LARGE FORWARD CARGO DOOR;
 Safety Barrier A52007-1
 - B. References
 - (1) AMM 25-53-03/401, Ball Transfer Panel
 - C. Access

D. Procedure

s 424-005

(1) Put the sill roller in position on the door sill.

s 424-004

(2) Install the bolts and washers. Torque the bolts to 100–150 pound-inches.

s 414-011

(3) Install the ball transfer panel (AMM 25-53-03/401).

S 094-010

(4) Remove the safety barrier.

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EXTERNAL CONTROL MODULE - REMOVAL/INSTALLATION

- 1. <u>General</u>
 - A. This procedure contains these tasks:
 - (1) Removal of the external control module
 - (2) Installation of the external control module

TASK 25-53-05-004-001

- 2. <u>Remove the External Control Module</u> (Fig. 401)
 - A. Access
 - (1) Location Zones
 - 821 Forward Cargo Door
 - 822 Aft Cargo Door

B. Procedure

S 864-002

(1) For the forward compartment, open this circuit breaker on the APU external power panel, P34, and attach a DO-NOT-CLOSE tag:
 (a) 34J2, FWD CARGO HDLG CONT

S 864-003

(2) For the aft compartment, open this circuit breaker on the APU external power panel, P34, and attach a DO-NOT-CLOSE tag:
 (a) 34J3, AFT CARGO HDLG CONT

s 014-004

(3) Open the access door on the external control module.

s 034-005

(4) Remove the screws from the external control module.

S 024-006

(5) Remove the external control module from the airplane cutout.

S 034-007

(6) Disconnect the electrical connector.

TASK 25-53-05-404-008

- 3. Install the External Control Module (Fig. 401)
 - A. References
 - (1) AMM 24-22-00/201, Electrical Power Control

EFFECTIVITY-







- B. Access
 - (1) Location Zones
 - 821 Forward Cargo Door
 - 822 Aft Cargo Door
- C. Procedure

s 434-009

(1) Connect the electrical connector to the external control module.

s 024-010

(2) Put the external control module in the cutout on the fuselage.

s 434-011

(3) Install the screws.

S 864-012

(4) For the forward compartment, remove the DO-NOT-CLOSE tag and close this P34 panel circuit breaker:(a) 34J2, FWD CARGO HDLG CONT

s 864-013

(5) For the aft compartment, remove the DO-NOT-CLOSE tag and close this P34 panel circuit breaker:(a) 34J3, AFT CARGO HDLG CONT

S 864-014

(6) Supply electrical power (AMM 24-22-00/201).

s 714-015

(7) Put the SYSTEM POWER switch in the ON position.

s 764-011

(8) Make sure the lights on the control panel come on.

S 864-016

(9) Remove electrical power if it is not necessary (AMM 24-22-00/201).

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EIGHT DIRECTION SELECTOR SWITCH - REMOVAL/INSTALLATION

- 1. <u>General</u>
 - A. This procedure contains these tasks:
 - (1) The removal of the eight direction selector (8-d) switch from the forward or aft cargo compartments.
 - (2) The installation of the 8-d switch in the forward or aft cargo compartments.

TASK 25-53-06-004-001

- 2. <u>Remove the Eight Direction Selector Switch</u> (Fig. 401)
 - A. References
 - (1) AMM 24-22-00/201, Electrical Power Control
 - (2) AMM 52-33-00/001, Large Forward Cargo Door
 - (3) AMM 52-35-00/001, Aft Cargo Door
 - B. Access
 - (1) Location Zones
 - 821 Forward Cargo Door
 - 822 Aft Cargo Door
 - C. Prepare for the Removal
 - S 864-017
 - (1) Supply electrical ground power (AMM 24-22-00/201)

S 864-030

- (2) Open the forward cargo compartment door (AMM 52-33-00/001).
 - S 864-021
- (3) Open the aft cargo door (AMM 52-35-00/001).

s 864–025

- <u>WARNING</u>: USE CARE WHEN WORKING NEAR THE OPENING OF THE CARGO COMPARTMENT DOOR. INSTALL A SAFETY BARRIER, IF IT IS NECESSARY. INJURY TO PERSONS CAN OCCUR IF THEY FALL THROUGH THE OPENING OF THE DOOR.
- (4) Install a safety barrier across the cargo door opening.
 - S 864-002
- (5) Open these circuit breakers on the APU external power panel, P34, and attach a DO-NOT-CLOSE tag:
 - (a) 34J2, FWD CARGO HDLG CONT
 - (b) 34J3, AFT CARGO HDLG CONT

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D. Remove the Eight Direction Selector Switch

s 034-004

- (1) Remove the screws from the external control module.
 - s 034-005
- (2) Disconnect the electrical connector from the 8-d switch.

S 024-006

(3) Remove the 8-d switch.

TASK 25-53-06-404-007

3. <u>Install the Eight Direction Selector Switch</u> (Fig. 401)

- A. References
 - (1) AMM 24-22-00/201, Electrical Power Control
 - (2) AMM 25-53-00/501, Containerized Cargo Handling System
 - (3) AMM 52-33-00/001, Large Forward Cargo Door
 - (4) AMM 52-35-00/001, Aft Cargo Door
 - B. Consumables
 - (1) AOO247, BMS 5-95 Sealant
 - C. Access
 - (1) Location Zones
 - 821 Forward Cargo Door
 - 822 Aft Cargo Door
 - D. Procedure

s 434-008

(1) Connect the electrical connector to the 8-d switch.

s 434-032

(2) Apply sealant BMS 5-95 where applicable, before placing the 8-d switch in position.

S 824-009

(3) Put the 8-d switch in position on the control panel.

s 434-010

(4) Install the screws.

S 864-011

- (5) Remove the DO-NOT-CLOSE tags and close these circuit breakers on the P34 panel:
 - (a) 34J2, FWD CARGO HDLG CONT
 - (b) 34J3, AFT CARGO HDLG CONT

S 864-013

(6) Supply electrical power (AMM 24-22-00/201).

S 714-014

(7) Do the 8-d switch test procedure (AMM 25-53-00/501).

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- E. Put the Airplane back to its usual condition
 - S 024-028
 - (1) Remove the safety barrier if it was installed.
 - S 864-022
 - (2) Close the forward cargo compartment door (AMM 52-33-00/001).

S 864-024

(3) Close the aft cargo door (AMM 52-35-00/001).

S 864-015

(4) Remove electrical power if it is not necessary (AMM 24-22-00/201).

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RETRACTABLE STOP - REMOVAL/INSTALLATION

- 1. <u>General</u>
 - A. This procedure has these tasks:
 - (1) A removal of the retractable stop.
 - (2) An installation of the retractable stop.

TASK 25-53-08-004-001

- 2. <u>Remove the Retractable Stop</u> (Fig. 401)
 - A. Equipment
 - (1) STANDARD CARGO DOOR; Safety Barrier, Cargo Door - A52005-18
 - (2) LARGE CARGO DOOR; Safety Barrier - A52007-1
 - B. Access
 - (1) Location Zones 153/154 Aft Cargo Compartment
 - (2) Location Zones 121/122 Forward Cargo Compartment
 - (3) Access Panel 822 Aft Cargo Door
 - (4) Access Panel 821 Forward Cargo Door
 - C. Procedure

s 494-002

- WARNING: MAKE SURE THE SAFETY BARRIER IS CORRECTLY INSTALLED WHEN THE DOOR IS OPEN. IF THE SAFETY BARRIER IS INCORRECTLY INSTALLED, INJURY CAN OCCUR.
- (1) Install the safety barrier across the cargo door opening.

s 024-003

(2) Remove the bolts, washers, and nuts that hold the retractable stop to the roller tray.

S 024-004

(3) Remove the retractable stop from the roller tray.

TASK 25-53-08-404-005

- 3. <u>Install the Retractable Stop</u> (Fig. 401)
 - A. Access
 - (1) Location Zones

153/154 Aft Cargo Compartment

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- (2) Location Zones 121/122 Forward Cargo Compartment
- (3) Access Panel 822 Aft Cargo Door
- (4) Access Panel 821 Forward Cargo Door

B. Procedure

S 024-006

(1) Put the retractable stop in the roller tray with the bolt holes aligned.

s 424-007

(2) Install the bolts, washers, and nuts to attach the retractable stop to the roller tray.

s 424-009

(3) Tighten the bolts to 65 +/- 15 inch-pounds.

S 094-008

(4) Remove the safety barrier.



ROLLOUT STOP/LINEAR ACTUATOR - REMOVAL/INSTALLATION

- 1. <u>General</u>
 - A. This procedure has these tasks:
 - (1) Remove the rollout stops.
 - (2) Install the rollout stops.
 - (3) AIRPLANES WITH ELECTRICAL POWERED ROLLOUT STOPS; Remove the linear actuators from the rollout stops.
 - (4) AIRPLANES WITH ELECTRICAL POWERED ROLLOUT STOPS; Install the linear actuator in the rollout stops.
 - TASK 25-53-09-004-001
- 2. <u>Remove the Rollout Stop</u> (Fig. 401)
- A. General
 - (1) All the steps that involve the linear actuators are only for the electrical powered rollout stops.
 - B. Equipment
 - (1) STANDARD CARGO DOOR;
 - Safety Barrier A52005-18
 - (2) LARGE CARGO DOOR;
 - Safety Barrier A52007-1
 - C. References
 - (1) AMM 24-22-00/201, Electrical Power
 - (2) AMM 52-33-00/201, Forward Cargo Door
 - (3) AMM 52-35-00/201, Aft Cargo Door
 - D. Access
 - (1) Location Zones
 - 122 Forward Cargo Compartment (Right)
 - 154 Aft Cargo Compartment (Right)
 - E. Prepare for the Removal
 - S 864-088
 - (1) Supply electrical ground power (AMM 24-22-00/201).
 - S 014-089
 - (2) Open the applicable cargo door.

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s 494-051

- WARNING: INSTALL THE SAFETY BARRIER WHEN THE CARGO DOOR IS OPEN. IF YOU DO NOT CORRECTLY INSTALL THE SAFETY BARRIER, INJURIES TO PERSONNEL CAN OCCUR.
- (3) Install the safety barrier across the cargo door opening.
- F. Procedure Remove the Rollout Stop

s 034-004

(1) AIRPLANES WITH ELECTRICAL POWERED ROLLOUT STOPS; Disconnect the linear actuator end fitting from the lever.

S 024-005

(2) Remove the bolts that hold the rollout stop to the door sill and remove the rollout stop.

TASK 25-53-09-404-007

- 3. Install the Rollout Stop (Fig. 401).
 - A. General
 - (1) All the steps that involve the linear actuators are only for the electrical powered rollout stops in the forward compartment.
 - B. Equipment
 - (1) STANDARD CARGO DOOR;
 - Safety Barrier A52005-18
 - (2) LARGE CARGO DOOR;
 - Safety Barrier A52007-1
 - C. References
 - (1) AMM 24-22-00/201, Electrical Power Control
 - (2) AMM 25-53-03/401, Ball Transfer Panel
 - D. Access
 - (1) Location Zones
 - 122 Forward Cargo Compartment (Right)
 - 154 Aft Cargo Compartment (Right)
 - E. Procedure

S 864-059

(1) AIRPLANES WITH ELECTRICAL POWERED ROLLOUT STOPS; Use the ROLLOUT STOPS switch on the external control panel to extend the actuator to the LOCK position.

s 424-011

(2) Install the rollout stop on the door sill.

s 424-052

(3) Torque the bolts to 100 - 150 pound-inches.

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s 824-013

(4) AIRPLANES WITH ELECTRICAL POWERED ROLLOUT STOPS; Manually put the rollout stop lip restraint in the fully up position.

s 014-015

(5) FORWARD CARGO COMPARTMENT; Remove the ball transfer panel that is nearest to the door, if installed (AMM 25-53-03/401).

S 854-064

(6) CAM FOLLOWER WITH SPRING; Do these steps to prepare to connect the actuator to the rollout stop.

- (a) Use the manual release pedal to move the lip restraint down.
- (b) Make sure dimension A is 1.10 inches.
- (c) Move the ROLLOUT STOPS switch on the external control panel to the UP position to extend the actuator to the mid-position.

s 824-017

- CAUTION: WHEN YOU ADJUST THE ACTUATOR END FITTING, USE A WRENCH TO HOLD THE ACTUATOR RAM. IF THE ACTUATOR RAM TURNS, YOU WILL CAUSE INTERNAL DAMAGE TO THE ACTUATOR.
- (7) Use a wrench to hold the actuator ram. Adjust the end fitting until you can connect the lever with the pin as follows:
 - The cam follower must touch the cam on the lip restraint when NOTE: you install the pin. There must not be pressure up on the cam.
 - (a) Loosen the arm nut for the cam follower to remove any backlash between the shaft and cam follower arm.
 - (b) Push firmly on the cam follower arm counterclockwise, away from the cam surface, while you tighten the nut clockwise.
 - (c) AIRPLANES WITH AN ADJUSTABLE SLEEVE; Turn the adjustable sleeve while you hold the end fitting. Do not let the actuator ram or the end fitting turn.
 - AIRPLANES WITH A LOCKNUT; (d) Loosen the locknut and turn the end fitting while you hold the actuator ram.
 - 1) Tighten the locknut to 30 50 pound-inches.

S 854-065

(8) CAM FOLLOWER WITHOUT SPRING;

> Do these steps to make sure the actuator will stop, but does not stall, at the down-limit of travel:

(a) Remove the pin to disconnect the actuator end fitting from the lever. Do not change the adjustment of the end fitting.

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- (b) Use the ROLLOUT STOPS switch on the external control panel to move the actuator to the DOWN position.
- (c) Push the release pedal to lower the rollout stop to the fully down position.
- (d) Connect the end fitting to the lever with the pin. Do not change the end fitting adjustment.
- s 854-066
- (9) CAM FOLLOWER WITH SPRING;
 - Do these steps to make sure the spring is adjusted correctly.
 - (a) Move the ROLLOUT STOP switch to the LOCK position to extend the actuator to the fully extended position.
 - (b) Make sure the actuator stops automatically.
 - (c) Make sure the cam follower touches the cam on the lip restraint.
 - (d) Make sure dimension A is 1.00 inch.
 - s 434-020
- (10) Install the ball transfer panel, if applicable (AMM 25-52-03/401).
 - S 094-021
- (11) Remove the safety barrier.

S 864-022

(12) Remove electrical power if it is not necessary (AMM 24-22-00/201).

TASK 25-53-09-004-075

4. AIRPLANES WITH ELECTRICAL POWERED ROLLOUT STOPS;

<u>Remove the Linear Actuator</u>

- A. Equipment
 - (1) STANDARD CARGO DOOR;
 - Safety Barrier A52005-18
 - (2) LARGE CARGO DOOR;
 - Safety Barrier A52007-1
- B. References
 - (1) AMM 24-22-00/201, Electrical Power Control
 - (2) FORWARD CARGO COMPARTMENT IF INSTALLED;
 - AMM 25–53–03/401, Ball Transfer Panel
- C. Access
 - (1) Location Zones
 - 122 Forward Cargo Compartment (Right) or
 - 154 Aft Cargo Compartment (Right)
- D. Procedure Remove the Linear Actuator

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s 494-025

- <u>WARNING</u>: YOU MUST CORRECTLY INSTALL THE SAFETY BARRIER WHEN THE CARGO DOOR IS OPEN. INJURY TO PERSONS CAN OCCUR IF YOU DO NOT CORRECTLY INSTALL THE SAFETY BARRIER.
- (1) Install the safety barrier.

S 034-026

(2) Remove the ball transfer panel that is nearest to the door if installed (AMM 25-53-03/401).

S 864-027

(3) FORWARD CARGO COMPARTMENT;
 Open this circuit breaker on the forward cargo handling panel, P35, and attach a DO-NOT-CLOSE tag:
 (a) 35D1, GUIDES R/O CTR

S 864-028

(4) AFT CARGO COMPARTMENT;
 Open this circuit breaker on the cargo handling accessary panel,
 P39, and attach a DO-NOT-CLOSE tag:

 (a) 39D1, GUIDES R/O CTR

s 034-029

(5) Disconnect the electrical connector.

s 034-053

(6) Remove the cable clamp.

s 034-030

(7) Disconnect the ground strap.

s 034-031

(8) Remove the bolt to disconnect the linear actuator from the structure.

s 034-032

(9) Remove the pin to disconnect the actuator end fitting from the lever.

S 024-033 (10) Remove the linear actuator.

TASK 25-53-09-404-076

- 5. AIRPLANES WITH ELECTRICAL POWERED ROLLOUT STOPS; Install the Linear Actuator
 - A. Equipment
 - (1) STANDARD CARGO DOOR; Safety Barrier - A52005-18

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- (2) LARGE CARGO DOOR;
 - Safety Barrier A52007-1
- B. References
 - (1) AMM 24-22-00/201, Electrical Power Control
 - (2) FORWARD CARGO COMPARTMENT IF INSTALLED;
 - AMM 25–53–03/401, Ball Transfer Panel
- C. Access
 - (1) Location Zones
 - 122 Forward Cargo Compartment (Right) or
 - 154 Aft Cargo Compartment (Right)
- D. Procedure Install the Linear Actuator

S 824-034

(1) Move the linear actuator to the fully extended (LOCK) position before installation.

s 824-035

(2) Manually put the rollout stop lip restraint in the fully up position.

s 424-037

(3) Put the actuator in position and install the bolt to attach the actuator to the structure.

s 824–038

- <u>CAUTION</u>: WHEN YOU ADJUST THE ACTUATOR END FITTING, USE A WRENCH TO HOLD THE ACTUATOR RAM. IF THE ACTUATOR RAM TURNS, YOU WILL CAUSE INTERNAL DAMAGE TO THE ACTUATOR.
- (4) Use a wrench to hold the actuator ram. Adjust the end fitting until you can connect the lever with the pin as follows:
 - <u>NOTE</u>: The cam follower must touch the cam on the lip restraint when you install the pin. There must not be pressure up on the cam.
 - (a) Loosen the arm nut for the cam follower to remove any backlash between the shaft and cam follower arm.
 - (b) Push firmly on the cam follower arm counterclockwise, away from the cam surface, while you tighten the nut clockwise.
 - (c) AIRPLANES WITH AN ADJUSTABLE SLEEVE; Turn the adjustable sleeve while you hold the end fitting.

NOTE: Do not let the actuator ram or the end fitting turn.

(d) AIRPLANES WITH A LOCKNUT; Loosen the locknut and turn the end fitting while you hold the actuator ram.
1) Tighten the locknut to 30 - 50 pound-inches.

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S 434-039

(5) Connect the ground strap.

s 434-040

(6) Connect the electrical connector at the support structure of the electrical bracket.

s 434-041

(7) Install the cable clamp.

S 864-042

(8) Supply electrical power (AMM 24-22-00).

S 864-043

 (9) FORWARD CARGO COMPARTMENT; Remove the DO-NOT-CLOSE tag and close this circuit breaker on the P35 panel:

 (a) 35D1, GUIDES R/O CTR

S 864-044

 (10) AFT CARGO COMPARTMENT; Remove the DO-NOT-CLOSE tag and close this circuit breaker on the P39 panel:

 (a) 39D1, GUIDES R/O CTR

s 714-045

- (11) Do these steps to make sure the actuator will stop, but does not stall, at the down-limit of travel:
 - (a) Remove the pin to disconnect the actuator end fitting from the lever. Do not change the adjustment of the end fitting.
 - (b) Use the ROLLOUT STOPS switch on the external control panel to retract the actuator to the DOWN position.
 - (c) Push the release pedal to lower the rollout stop to the fully down position.
 - (d) Connect the end fitting to the lever with the pin. Do not change the end fitting adjustment.

s 714-047

- (12) Do an operational check:
 - (a) With the rollout stop fully down, put the switch on the exterior control panel in the UP position.
 - (b) Make sure the cam and cam follower do not touch.
 - (c) Put the switch in the LOCK position.
 - (d) Make sure the lip restraint locks in position with the pawls.
 - (e) Put the switch in the DOWN position.
 - (f) Make sure the actuator fully retracts and the lip guide and lip restraint are fully down.

s 414-048

(13) Install the ball transfer panel, if applicable (AMM 25-52-03/401).

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S 094-049

(14) Remove the safety barrier.

s 864-050

(15) Remove the electrical power if it is not necessary (AMM 24-22-00/201).

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FIXED END STOP - REMOVAL/INSTALLATION

- 1. <u>General</u>
 - A. This procedure has these tasks:
 - (1) A removal of the fixed end stop.
 - (2) An installation of the fixed end stop.

TASK 25-53-11-004-010

- 2. <u>Remove the Fixed End Stop</u> (Fig. 401)
 - A. Equipment
 - (1) STANDARD CARGO DOOR; Safety Barrier - A52005-18
 - (2) LARGE FORWARD CARGO DOOR; Safety Barrier - A52007-1
 - B. Access
 - C. Procedure

s 494-001

- <u>WARNING</u>: YOU MUST INSTALL THE SAFETY BARRIER CORRECTLY WHEN THE CARGO DOOR IS OPEN. INJURY TO PERSONS CAN OCCUR IF YOU DO NOT CORRECTLY INSTALL THE SAFETY BARRIER.
- (1) Install the safety barrier across the cargo door opening.

S 034-002

- (2) Remove the bolts, washers, and nuts from the stop.
 - S 024-009
- (3) Remove the stop from the roller tray.

TASK 25-53-11-004-011

- 3. <u>Install Fixed End Stop</u> (Fig. 401)
 - A. Equipment
 - (1) STANDARD CARGO DOOR; Safety Barrier - A52005-18

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- (2) LARGE FORWARD CARGO DOOR;
- Safety Barrier A52007-1
- B. Access
- C. Procedure
 - s 424-004
 - (1) Put the stop in the roller tray.

s 434-005

(2) Install all the bolts, washers, and nuts that attach the stop to the roller tray.

s 434-008

(3) Tighten the bolts to 50 - 80 pound-inches.

s 094-006

(4) Remove the safety barrier.



PARTIAL LOAD STOP - REMOVAL/INSTALLATION

- 1. <u>General</u>
 - A. This procedure is for the partial load stops in the forward and aft containerized lower lobe cargo compartments.
 - B. This procedure has these tasks:
 - (1) A removal of the partial load stop.
 - (2) An installation of the partial load stop.

TASK 25-53-12-904-001

- 2. <u>Remove the Partial Load Stops</u> (Fig. 401)
 - A. Equipment
 - (1) STANDARD CARGO DOOR;
 - Safety Barrier A52005-18
 - (2) LARGE FORWARD CARGO DOOR; Safety Barrier - A52007-1
 - B. Access
 - Location Zones

121/122 Forward Cargo Compartment 153/154 Aft Cargo Compartment

- (2) Access Panels 821 Forward Cargo Door
 - 822 Aft Cargo Door
- C. Procedure

s 494-002

- WARNING: MAKE SURE THE SAFETY BARRIER IS CORRECTLY INSTALLED WHEN THE DOOR IS OPEN. IF THE SAFETY BARRIER IS INCORRECTLY INSTALLED, INJURY CAN OCCUR.
- (1) Install the safety barrier across the cargo door opening.

s 034-003

(2) Remove the bolts, washers, and nuts that hold the partial load stop to the roller tray.

S 024-004

(3) Lift the partial load stop from the roller tray.

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TASK 25-53-12-404-008

- 3. Install the Partial Load Stop (Fig. 401)
 - A. Equipment
 - (1) STANDARD CARGO DOOR;
 - Safety Barrier A52005-18
 - LARGE FORWARD CARGO DOOR; (2)
 - Safety Barrier A52007-1
 - B. Access
 - (1) Location Zones
 - 121/122 Forward Cargo Compartment
 - 153/154 Aft Cargo Compartment
 - (2) Access Panels Forward Cargo Door 821 822
 - Aft Cargo Door
 - C. Procedure
 - s 424-005
 - Put the partial load stop in position in the roller tray and align (1) the bolt holes.

s 434-007

(2) Install the bolts, washers, and nuts to attach the partial load stop to the roller tray. Tighten the bolts to 50 - 80 pound-inches.

s 094-006

(3) Remove the safety barrier.



CENTER/AUXILIARY STOP/LOCK/GUIDE - REMOVAL/INSTALLATION

- 1. <u>General</u>
 - A. This procedure has these tasks.
 - (1) Remove the Center/Auxiliary Stop/Lock/Guide.
 - (2) Install the Center/Auxiliary Stop/Lock/Guide.
 - (3) Remove the actuator from the Center/Auxiliary Stop/Lock/Guide.
 - (4) Install the actuator from the Center/Auxiliary Stop/Lock/Guide.
 - (5) Operation test for the Center/Auxiliary Stop/Lock/Guide.

TASK 25-53-13-004-001

- 2. <u>Remove the Center/Auxiliary Stop/Lock/Guide</u> (Fig. 401)
 - A. Equipment
 - (1) STANDARD CARGO DOOR;
 - Safety Barrier -A52005-18
 - (2) LARGE FORWARD CARGO DOOR; Safety Barrier Fwd Cargo Door - A52007-1
 - B. References
 - (1) AMM 24-22-00/201, Electrical Power Control
 - (2) AMM 25-53-03/401, Ball Transfer Panels
 - C. Access
 - (1) Location Zones

121/122 Forward Cargo Compartment 153/154 Aft Cargo Compartment

D. Procedure

s 494-014

- <u>WARNING</u>: YOU MUST INSTALL THE SAFETY BARRIER CORRECTLY WHEN THE CARGO DOOR IS OPEN. INJURY TO PERSONS CAN OCCUR IF YOU DO NOT CORRECTLY INSTALL THE SAFETY BARRIER.
- (1) Install the safety barrier across the cargo door opening.

S 824-015

(2) Put the stop/lock in the retracted (unloading) position.

s 864-020

(3) In the forward compartment, open this circuit breaker on the forward cargo handling panel, P35, and attach a DO-NOT-CLOSE tag:
 (a) 35D1, GUIDES CTR

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S 864-021

(4) In aft compartment, open this circuit breaker on the cargo handling accessory panel, P39, and attach a DO-NOT-CLOSE tag:
 (a) 39D1, GUIDES CTR

S 034-016

(5) For the center stop/lock, remove the ball transfer panels to get access to the electrical connector (AMM 25–53–03/401).

s 034-018

(6) For the auxiliary stop/lock, remove the coverplate.

s 034-051

(7) Disconnect the electrical connector and the grounding strap.

S 034-049

(8) Remove the electrical cable clamp.

s 024-052

(9) Remove the bolts and washers.

s 024-010

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(10) Remove the stop/lock/guide.





TASK 25-53-13-404-011

- 3. Install the Stop/Lock/Guide (Fig. 401)
 - A. Equipment
 - (1) STANDARD CARGO DOOR;
 - Safety Barrier -A52005-18
 - (2) LARGE FORWARD CARGO DOOR;
 - Safety Barrier Fwd Cargo Door A52007-1
 - B. Reference
 - (1) AMM 24-22-00/201, Electrical Power Control
 - (2) AMM 25-53-03/401, Ball Transfer Panels
 - C. Access
 - D. Procedure

s 484-072

- <u>WARNING</u>: YOU MUST INSTALL THE SAFETY BARRIER CORRECTLY WHEN THE CARGO DOOR IS OPEN. INJURY TO PERSONS CAN OCCUR IF YOU DO NOT CORRECTLY INSTALL THE SAFETY BARRIER.
- (1) Install the safety barrier across the cargo door opening.

s 424-012

(2) Put the stop/lock/guide in position.

s 424-013

(3) Install the bolts and the washers.

s 434-016

(4) Connect the electrical connector and the grounding strap.

s 434-015

(5) Install the electrical cable clamp.

s 824–018

- <u>CAUTION</u>: DO NOT OPERATE THE CENTER OR AUXILIARY STOP/LOCK/GUIDE ELECTRICALLY BEFORE YOU PUT THE LIP GUIDE IN THE UP POSITION. DAMAGE TO THE LINEAR ACTUATOR CAN OCCUR IF YOU TRY TO OPERATE THE STOP/LOCK/GUIDE ELECTRICALLY WHEN THE STOP/LOCK/GUIDE IS MANUALLY LOCKED DOWN.
- (6) Put the lip guide to the up (loading) position.

S 434-024

(7) Install the ball transfer panels if it is necessary (AMM 25-53-03/401).

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s 434-025 (8) Install the coverplate if you removed it. S 864-026 (9) In the forward compartment, remove the DO-NOT-CLOSE tag and close this circuit breaker on the P35 panel: (a) 35D1, GUIDES CTR S 864-027 (10) In the aft compartment, remove the DO-NOT-CLOSE tag and close this circuit breaker on the P39 panel: (a) 39D1, GUIDES CTR s 714-002 (11) Do the Center/Auxiliary Stop/Lock/Guide Operation Test procedure. S 084-071 (12) Remove the safety barrier. TASK 25-53-13-004-019 4. <u>Remove the Stop/Lock/Guide Actuator</u> (Fig. 401) A. Equipment (1) STANDARD CARGO DOOR; Safety Barrier -A52005-18 (2) LARGE FORWARD CARGO DOOR; Safety Barrier Fwd Cargo Door - A52007-1 **B.** References (1) AMM 24-22-00/201, Electrical Power - Control (2) AMM 25-53-03/401, Ball Transfer Panels C. Access (1) Location Zones 121/122 Forward Cargo Compartment 153/154 Aft Cargo Compartment D. Procedure S 484-065 WARNING: YOU MUST INSTALL THE SAFETY BARRIER CORRECTLY WHEN THE CARGO DOOR IS OPEN. INJURY TO PERSONS CAN OCCUR IF YOU DO NOT CORRECTLY INSTALL THE SAFETY BARRIER. (1) Install the safety barrier across the cargo door opening. s 824-029 (2) Put the stop/lock in the retracted (unloading) position.

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S 864-030

(3) In the forward compartment, open this circuit breaker on the forward cargo handling panel, P35, and attach a DO-NOT-CLOSE tag:
 (a) 35D1, GUIDES CTR

s 864–031

(4) In aft compartment, open this circuit breaker on the cargo handling accessory panel, P39, and attach a DO-NOT-CLOSE tag:
 (a) 39D1, GUIDES CTR

s 034-032

(5) For the center stop/lock, remove the ball transfer panels to get access to the electrical connector (AMM 25–53–03/401).

s 034-033

(6) For the auxiliary stop/lock, remove the coverplate.

s 034-021

(7) AIRPLANES WITHOUT AN ADJUSTABLE SLEEVE;Make sure the pin on the lip restraint release pawl is not damaged. If the pin is damaged, replace the stop/lock/guide.

s 034-022

(8) Disconnect the electrical connector and grounding strap.

s 034-023

(9) Remove the electrical cable clamp.

S 034-024

- (10) Lift up the latch from around the crank pin to disengage the actuator end fitting from the crank.
 - <u>NOTE</u>: Make a written record of the lockwire location to make the subsequent installation easier.

s 034-025

(11) Remove the actuator pin.

S 024-026

- (12) Remove the actuator.
 - <u>NOTE</u>: If you will install a new actuator, remove the end fitting and the lock nut from the old actuator.

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TASK 25-53-13-404-027

- 5. Install the Stop/Lock/Guide Actuator (Fig. 401)
 - A. Equipment
 - (1) STANDARD CARGO DOOR;
 - Safety Barrier -A52005-18
 - (2) LARGE FORWARD CARGO DOOR;
 - Safety Barrier Fwd Cargo Door A52007-1
 - B. Reference
 (1) AMM 24-22-00/201, Electrical Power Control
 - (2) AMM 25-53-03/401, Ball Transfer Panels
 - C. Access
 - D. Procedure

S 484-066

- <u>WARNING</u>: YOU MUST INSTALL THE SAFETY BARRIER CORRECTLY WHEN THE CARGO DOOR IS OPEN. INJURY TO PERSONS CAN OCCUR IF YOU DO NOT CORRECTLY INSTALL THE SAFETY BARRIER.
- (1) Install the safety barrier across the cargo door opening.

s 224-029

- (2) If you will install a new actuator, measure the length of the actuator, in the fully retracted position as shown (View C, Fig. 401).
 - <u>NOTE</u>: You must measure this length before you install the end fitting on the actuator.

s 224-030

(3) If the fully retracted length of the actuator is not as shown, (View C, Fig. 401) reject the actuator.

s 434-031

- (4) If you will install a new actuator, install the end fitting and the locknut on the new actuator.
 - <u>NOTE</u>: Do not tighten the locknut. Install the actuator in the fully retracted position.
 - <u>NOTE</u>: Rotate the end fitting 90 degrees and safety the cap screws with lockwire.

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s 824-032

(5) Manually put the stop/lock/guide in the fully up position (lip guide fully up and locked).

s 424-033

(6) Put the actuator in position.

s 424-034

(7) Install the actuator pin.

s 824-036

- <u>CAUTION</u>: WHEN YOU ADJUST THE ACTUATOR END FITTING, USE A WRENCH TO HOLD THE ACTUATOR RAM. IF THE ACTUATOR RAM TURNS, YOU WILL CAUSE INTERNAL DAMAGE TO THE ACTUATOR.
- (8) With the actuator fully retracted, turn the end fitting until the crank pin engages with the crank.

s 824-053

(9) Tighten the locknut to 30 - 50 pound-inches.

s 714-037

(10) Make sure you can push the latch into position around the crank pin to connect the actuator end fitting.

NOTE: Do not install the lockwire.

s 714-038

- (11) To make sure the actuator stops but does not stall, at the down-limit of travel, do the steps that follow:
 - (a) Lift the latch from around the crank pin to disconnect the actuator end fitting from the crank.
 - (b) In the forward compartment, remove the DO-NOT-CLOSE tag and close this circuit breaker on the P35 panel:
 1) 35D1, GUIDES CTR

s 714-003

- (12) Do the Center/Auxiliary Stop/Lock/Guide Operation Test procedure.
 - (a) In the aft compartment, remove the DO-NOT-CLOSE tag and close this circuit breaker on the P39 panel:
 - 1) 39D1, GUIDES CTR
 - (b) Use the CENTER GUIDES switch on the external control panel to extend the actuator.
 - (c) In the forward compartment, open this circuit breaker on the P35 panel and attach a DO-NOT-CLOSE tag:
 1) 35D1, GUIDES CTR

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- (d) In the aft compartment, open this circuit breaker on the P39 panel and attach a DO-NOT-CLOSE tag:
 1) 39D1, GUIDES CTR
- (e) Turn the crank down to put the stop/lock/guide in the fully down position.
- (f) Push the latch to connect the actuator end fitting to the crank.
- (g) If the end fitting is too long, adjust the end fitting one turn (maximum) to connect it to the crank.
- (h) If the end fitting is too short, adjust the crank one or two turns until you can connect the crank.
 - <u>NOTE</u>: Make sure the lip guide stays below the top of the housing.
- (i) Tighten the locknut to 30 50 pound-inches.
- (j) Safety wire the latch with the lockwire to hold the latch in position around the crank pin.
- (k) Adjust the set screw as required.
- S 864-067
- (13) Connect the ground strap.

S 764-068

(14) Do a resistance check between the linear actuator ground strap fastener and the airplane structure.(a) Make sure the resistance is 0.015 ohms maximum.

S 864-069

(15) Connect the electrical connector.

S 434-056

(16) Install the ball transfer panels that you removed (AMM 25-53-03/401).

s 434-019

(17) Install the coverplate if you removed it.

S 864-022

(18) In the forward compartment, remove the DO-NOT-CLOSE tag and close this circuit breaker on the P35 panel:(a) 35D1, GUIDES CTR

S 864-023

(19) In the aft compartment, remove the DO-NOT-CLOSE tag and close this circuit breaker on the P39 panel:
 (a) 39D1, GUIDES CTR

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S 084-063 (20) Remove the safety barrier. S 864-064 (21) Remove electrical power if it is not necessary (AMM 24-22-00/201). TASK 25-53-13-704-060 6. Operation Test for the Center/Auxiliary Stop/Lock/Guide General Α. (1) Make sure that the lip guide is not in the locked down position. Β. Equipment (1) STANDARD CARGO DOOR; Safety Barrier -A52005-18 (2) LARGE FORWARD CARGO DOOR; Safety Barrier Fwd Cargo Door - A52007-1 С. References (1) AMM 24-22-00/201, Electrical Power - Control D. Access (1) Location Zones Forward Cargo Compartment 121/122 153/154 Aft Cargo Compartment E. Procedure

s 484-070

<u>WARNING</u>: YOU MUST INSTALL THE SAFETY BARRIER CORRECTLY WHEN THE CARGO DOOR IS OPEN. INJURY TO PERSONS CAN OCCUR IF YOU DO NOT CORRECTLY INSTALL THE SAFETY BARRIER.

(1) Install the safety barrier across the cargo door opening.

S 864-043

(2) Supply electrical power (AMM 24-22-00/201).

s 714-061

(3) Do the operational test as follows:(a) Put the CENTER GUIDES switch in the LD-2 position.

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- (b) Make sure the center stop/lock/guides are up, and the auxiliary stop/lock/guides are down.
- (c) Put the CENTER GUIDES switch in the LD-3 position.
- (d) Make sure the auxiliary stop/lock/guides are up, and the center stop/lock/guides are down.
- (e) Put the CENTER GUIDES switch in the ALL DN position.
- (f) Make sure all the center and auxiliary stop/lock/guides are down.

S 084-062

(4) Remove the safety barrier.

S 864-047

(5) Remove electrical power if it is not necessary (AMM 24-22-00/201).

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CENTER/AUXILIARY STOP/LOCK/GUIDE AND ACTUATOR - INSPECTION/CHECK

- 1. <u>General</u>
 - A. This procedure contains the center/auxiliary stop/lock/guide and actuator wear limits.
 - B. In this procedure, no instructions are given to get access to, remove, or install the parts. Refer to the Center/Auxiliary Stop/Lock/Guide – Removal/Installation for this data.

TASK 25-53-13-206-001

- 2. <u>Center/Auxiliary Stop/Lock/Guide and Actuator Wear Limits</u> (Fig. 601)
 - A. General
 - (1) This procedure contains the center/auxiliary stop/lock/guide and actuator wear limits.
 - (2) In this procedure, no instructions are given to get access to, remove, or install the parts. Refer to the Center/Auxiliary Stop/Lock/Guide - Removal/Installation for this data.









MAINTENANCE MANUAL

			DESIGN	LIMITS	WEAR LIMITS				
			DIAM	ETER	ALLOWED	ALLOWED DIAM		REPAIR	DEDATE
NO.	PART NAME	DIM.	MIN	MAX	WEAR DIM.	CLEAR- ANCE	PART	PART	REPAIR INSTR.
	ROLLER	ID	0.2500	0.2540	0.2550	0.00/5	х		
1	ROLLER PIN	OD	0.2485	0.2495	0.2495	0.0065	х		
_	GUIDE ASSY	ID	0.2495	0.2505	TBF	TOF	х		
2	ROLLER PIN	OD	0.2485	0.2495	TBF	IBF	х		
-	GUIDE ASSY	ID	0.3750	0.3765	0.3775	0.00/5	х		
5	PIN	OD	0.3730	0.3740	0.3720	0.0045	х		
	LINK ASSY	ID	0.3750	0.3765	0.3785	0.00/5	х		
4	PIN	OD	0.3720	0.3740	0.3700	0.0065	x		
_	LWR TOGGLE LINK ASSY	ID	0.3750	0.3765	0.3785	0.00/5	х		
5	PIN	OD	0.3720	0.3740	0.3700	0.0065	x		
	HOUSING	ID	0.3750	0.3765	0.3775			x	
6	PIN	OD	0.3720	0.3730	0.3715	0.0050	x		
_	LWR TOGGLE LINK ASSY	ID	0.3750	0.3765	0.3775		x		
(PIN	OD	0.3720	0.3730	0.3710	0.0055	x		
	LEVER	ID	0.3743	0.3749	TBF			x	
8	PIN	OD	0.3725	0.3735	TBF	TBF	x		
	LWR TOGGLE LINK ASSY	ID	0.3750	0.3765	0.3775		x		
9	PIN	OD	0.3725	0.3735	0.3715	0.0050	x		
	CRANK	ID	0.3743	0.3749	TBF			x	
10	PIN	OD	0.3725	0.3735	TBF	TBF	x		
	HOUSING	ID	0.3750	0.3765	0.3775			x	
11	PIN	OD	0.3725	0.3735	0.3715	0.0050	x		
	LINK ASSY	ID	0.3750	0.3765	0.3775	0.0515	x		
12	PIN	OD	0.3730	0.3740	0.3720	0.0045	x		
47	HOUSING	ID	0.3750	0.3765	0.3775	0.0055		X	
15	PIN	OD	0.3720	0.3740	0.3710	0.0055	x		

1> YOU CAN REPAIR THIS PART; REFER TO THE COMPONENT MAINTENANCE MANUAL FOR INSTRUCTIONS

Center/Auxiliary Stop/Lock/Guide and Actuator Wear Limits Figure 601 (Sheet 3)

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CENTER AND AUXILIARY GUIDE - REMOVAL/INSTALLATION

- 1. <u>General</u>
 - A. This procedure is for the center and auxiliary guides in the forward or aft cargo compartments.
 - B. This procedure has these tasks:
 - (1) Removal of the center and auxiliary guides.
 - (2) Installation of the center and auxiliary guides.

TASK 25-53-14-904-001

- 2. <u>Remove the Center and Auxiliary Guide</u> (Fig. 401).
 - A. Equipment
 - (1) STANDARD CARGO DOOR; Safety Barrier - A52005-18
 - (2) LARGE CARGO DOOR;
 Safety Barrier A52007-1
 - B. Access
 - (1) Location Zones

121/122 Forward Cargo Compartment 153/154 Aft Cargo Compartment

- (2) Access Panels
 - 821 Forward Cargo Door
 - 822 Aft Cargo Door
- C. Procedure

s 494-002

- <u>WARNING</u>: MAKE SURE THE SAFETY BARRIER IS CORRECTLY INSTALLED WHEN THE DOOR IS OPEN. IF THE SAFETY BARRIER IS INCORRECTLY INSTALLED, INJURY CAN OCCUR.
- (1) Install the safety barrier across the cargo door opening.

s 034-003

(2) Remove the bolts and washers that hold the guide to the support structure.

S 024-004

(3) Remove the guide.

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TASK 25-53-14-404-009

- 3. Install the Center and Auxiliary Guide (Fig. 401)
 - A. Access
 - (1) Location Zones
 - 121/122 Forward Cargo Compartment 153/154 Aft Cargo Compartment

B. Procedure

s 024-005

(1) Put the guide in position on the support structure.

<u>NOTE</u>: For the auxiliary guide, make sure the guide arm is on the inboard side.

s 434-006

(2) Install the bolts and washers to 70 - 80 pound-inches.

s 714-007

(3) Make sure the guide arm can move freely and does not bind.

S 094-008

(4) Remove the safety barrier.



SIDE GUIDE RAIL - REMOVAL/INSTALLATION

- 1. <u>General</u>
 - A. This procedure has these tasks:
 - (1) A removal of the side guide rail.
 - (2) An installation of the side guide rail.
 - B. This procedure is for the side guide rail in the forward and aft containerized lower lobe cargo compartments.

TASK 25-53-15-904-001

- 2. <u>Remove the Guide Rail</u> (Fig. 401)
 - A. Equipment
 - (1) For the standard cargo door, Safety Barrier - A52005-18
 - (2) For the large forward cargo door, Safety Barrier - A52007-1
 - B. Access
 - (1) Location Zones

121/122Forward Cargo Compartment153/154Aft Cargo Compartment

- (2) Access Panels
 - 821 Forward Cargo Door
 - 822 Aft Cargo Door
- C. Procedure

s 494-002

- <u>WARNING</u>: MAKE SURE THE SAFETY BARRIER IS CORRECTLY INSTALLED WHEN THE DOOR IS OPEN. IF THE SAFETY BARRIER IS INCORRECTLY INSTALLED, INJURY CAN OCCUR.
- (1) Install the safety barrier across the cargo door opening.

S 024-003

(2) Remove the surface mounted anchor fitting.

s 024-004

(3) Remove the bolts, nuts, and washers that hold the guide rail to the structure.

s 024-005

- (4) For the left side guide rail that is forward of the ball transfer panels, do this step:
 - (a) Remove the bolts and nuts on one side of the joint to disconnect the guide rail sections.

S 024-006

(5) Remove the guide rail.

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TASK 25-53-15-404-011

- 3. Install the Guide Rail (Fig. 401)
 - A. Equipment
 - (1) For the standard cargo door,
 - Safety Barrier A52005-18
 - (2) For the large forward cargo door, Safety Barrier - A52007-1
 - B. Access
 - (1) Location Zones
 - 121/122Forward Cargo Compartment153/154Aft Cargo Compartment
 - (2) Access Panels 821 Forward Cargo Door 822 Aft Cargo Door
 - C. Procedure

s 424-007

(1) Put the guide rail in position on the support fittings.

s 024-008

(2) Install the bolts, washers, and nuts.

s 424-012

(3) Tighten the bolts to 50 - 80 pound-inches.

s 424-009

(4) Install the surface mounted anchor fittings.

s 424-006

(5) Tighten the bolts to 30 - 35 pound-inches.

s 094-010

(6) Remove the safety barrier.

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LATERAL GUIDE - MAINTENANCE PRACTICES

- 1. <u>General</u>
 - A. This procedure contains one task. The task is to manually lower or lift the lateral guide if there is an actuator failure.

TASK 25-53-16-982-002

- 2. Lateral Guide Manual Operation
 - A. Equipment
 - (1) STANDARD CARGO DOOR; Safety Barrier - A52005-18
 - (2) LARGE CARGO DOOR; Safety Barrier - A52007-1
 - B. Access
 - C. Procedure

s 492-001

- <u>WARNING</u>: YOU MUST INSTALL THE SAFETY BARRIER CORRECTLY WHEN THE CARGO DOOR IS OPEN. INJURY TO PERSONS CAN RESULT IF YOU DO NOT CORRECTLY INSTALL THE SAFETY BARRIER.
- (1) Install the safety barrier across the cargo door opening.

s 982-016

- (2) Do the steps that follow to manually operate the lateral guides (Fig. 201):
 - (a) If the actuator failed in the retracted position and the guide rail is up, do these steps:
 - 1) To lower the guide rail
 - a) Rotate the uplock pawl away from the lateral guide assembly while you push down on the guide rail.
 - b) Turn the downlock pawl to lock the guide rail down.
 - 2) To lift the guide rail up again
 - a) Push down on the rail while you turn the downlock pawl to unlock the guide rail.
 - b) Release the guide rail.

<u>NOTE</u>: It will return to the up position.

c) Make sure the uplock pawl engages.

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- (b) If the actuator failed in the extended position and the guide rail is down, do these steps:
 - 1) To lift the guide rail
 - a) Use a screwdriver or a similar long, slim object to trip the toggle link on the attenuator assembly.

<u>NOTE</u>: The guide rail will lift automatically if the toggle link is tripped correctly.

- 2) To lower the guide rail again
 - a) Rotate the uplock pawl away from the lateral guide assembly while you push down the guide rail.
 - b) Turn the downlock pawl to lock the guide rail down.

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LATERAL GUIDE AND ACTUATOR - REMOVAL/INSTALLATION

- 1. General
 - A. This procedure contains these tasks:
 - (1) Preparation for the removal.
 - (2) Removal of the lateral guide.
 - (3) Installation of the lateral guide.
 - (4) Removal of the actuator from the lateral guide.
 - (5) Installation of the actuator in the lateral guide.
 - (6) Removal of the pin from the clevis and collar.
 - (7) Installation of the pin in the clevis and collar.
 - (8) Put the airplane back in its initial condition.

TASK 25-53-16-844-001

- 2. <u>Prepare for the Removal</u>
 - A. Equipment
 - (1) STANDARD CARGO DOOR;
 - Safety Barrier A52005-18
 - (2) LARGE CARGO DOOR;
 - Safety Barrier A52007-1
 - B. Access
 - C. Procedure

S 494-039

- <u>WARNING</u>: YOU MUST INSTALL THE SAFETY BARRIER CORRECTLY WHEN THE CARGO DOOR IS OPEN. INJURY TO PERSONS CAN RESULT IF YOU DO NOT CORRECTLY INSTALL THE SAFETY BARRIER.
- (1) Install the safety barrier across the cargo door opening.

S 864-003

(2) Open this circuit breaker on the forward cargo handling panel, P35, and attach a DO-NOT-CLOSE tag:
 (a) 35D2, GUIDES LTRL

S 864-004

(3) Open this circuit breaker on the aft cargo handling panel, P39, and attach a DO-NOT-CLOSE tag:
 (a) 39D2, GUIDES LTRL

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s 014-005

(4) Remove the ball transfer panel as necessary (AMM 25-53-03/401).

TASK 25-53-16-004-085

- 3. <u>Remove the Lateral Guide</u> (Fig. 401)
 - A. Equipment
 - (1) STANDARD CARGO DOOR; Safety Barrier - A52005-18
 - (2) LARGE CARGO DOOR;
 - Safety Barrier A52007-1
 - B. Procedure

S 844-008

(1) Do the Prepare the Airplane procedure.

S 034-009

(2) Disconnect the electrical connector.

s 034-010

(3) Disconnect the ground wire from the airplane grounding stud.

s 424-011

(4) Remove the attach bolts (11).

s 024-013

(5) Remove the lateral guide.

TASK 25-53-16-404-086

- 4. Install the Lateral Guide (Fig. 401)
 - A. Equipment
 - (1) STANDARD CARGO DOOR; Safety Barrier - A52005-18
 - (2) LARGE CARGO DOOR; Safety Barrier - A52007-1
 - B. Access
 - C. Procedure
 - s 424-016
 - (1) Put the lateral guide in position.

s 424-018

(2) Install and tighten the attach bolts (11) to 220-410 pound-inches.

s 434-019

(3) Connect the ground wire to the airplane ground stud.

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s 434-020

(4) Connect the electrical connector.

TASK 25-53-16-004-021

- 5. <u>Remove the Lateral Guide Actuator</u> (Fig. 401)
 - A. Equipment
 - (1) STANDARD CARGO DOOR; Safety Barrier - A52005-18
 - (2) LARGE CARGO DOOR;
 - Safety Barrier A52007-1
 - B. Access
 - C. Procedure

S 844-021

(1) Do the Prepare the Airplane procedure.

s 034-024

(2) Disconnect the electrical connector.

S 034-025

- (3) Disconnect the ground wire from airplane gound stud.
 - s 034-026
- (4) Remove the crank pin (16).

<u>NOTE</u>: Move the guide rail (1) up out of the way.

S 034-027

(5) Remove the clevis pin (10).

s 024-033

(6) Remove the bolt (21).

s 024-034

(7) Remove the actuator (6).

S 034-035(8) If you will install a new actuator, do the steps that follow:

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- <u>CAUTION</u>: HOLD THE ACTUATOR RAM WITH A WRENCH WHEN YOU ADJUST THE SLEEVE. INTERNAL DAMAGE TO THE ACTUATOR CAN OCCUR IF YOU LET THE ACTUATOR RAM TURN.
- (a) Remove the clevis and the adjustable sleeve.
- (b) Remove the snap ring (20), the mounting pin (2) and the actuator support (14).
 - <u>NOTE</u>: Write the position of the spring (4) in relation to the actuator end fitting (3) on a paper. Also, write the position of the actuator support (14) in relation to the actuator (14) on a paper.

TASK 25-53-16-404-084

- 6. Install the Lateral Guide Actuator (Fig. 401)
 - A. Equipment
 - (1) STANDARD CARGO DOOR; Safety Barrier - A52005-18
 - (2) LARGE CARGO DOOR;
 - Safety Barrier A52007-1
 - B. Procedure

s 224-038

- (1) Measure the length of the linear actuator in the fully retracted position (Fig. 401).
 - <u>NOTE</u>: If you do not get the dimension and the tolerance shown, replace the linear actuator.

s 434-041

- <u>CAUTION</u>: HOLD THE ACTUATOR RAM WITH A WRENCH WHEN YOU ADJUST THE SLEEVE. INTERNAL DAMAGE TO THE ACTUATOR CAN OCCUR IF YOU LET THE ACTUATOR RAM TURN.
- (2) If you will install a new actuator (6), install the clevis and the adjustable sleeve assembly.

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NOTE: Install the actuator (6) in the fully retracted position.

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S 824-043

- <u>CAUTION</u>: HOLD THE ACTUATOR RAM WITH A WRENCH WHEN YOU ADJUST THE SLEEVE. INTERNAL DAMAGE TO THE ACTUATOR CAN OCCUR IF YOU LET THE ACTUATOR RAM TURN.
- (3) Turn the adjustable sleeve to get the dimension shown (Fig. 401).
 - <u>NOTE</u>: The dimension is between the centerline of the mounting pin hole in the actuator end fitting and the edge of slot in the clevis.

s 424-045

(4) Put the actuator (6) in the lateral guide with the long slot in the clevis (12) to the bottom.

s 424-049

(5) Put the actuator support (14) in the lateral guide. Do not install the bolt (21).

s 434-050

(6) With the spring (4) in the correct position over the actuator end fitting (3), install the mounting pin (2).

S 424-083

(7) Install the snap ring (20) on the mounting pin (2).

s 434-053

(8) Install the bolt (21).

S 434-054

(9) Install the clevis pin (10).

s 224-055

(10) Make sure the clearance between the clevis pin (10) and the clevis (12) is in the tolerance shown.

s 434-035

(11) Move the guide rail (1) down and install the crank pin (16).

s 434-056

(12) Connect the ground wire to the airplane ground stud.

s 434-057

(13) Connect the electrical connector.

EFFECTIVITY-

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TASK 25-53-16-004-058

7. <u>Remove the Pin</u>

NOTE: This procedure is only for guides with an adjustable sleeve.

A. Procedure

S 914-022

(1) Do the Prepare the Airplane procedure.

s 034-059

(2) Do the "Remove the Lateral Guide Actuator" procedure.

s 034-061

<u>CAUTION</u>: HOLD THE ACTUATOR RAM WITH A WRENCH WHEN YOU ADJUST THE SLEEVE. INTERNAL DAMAGE TO THE ACTUATOR CAN OCCUR IF YOU LET THE ACTUATOR RAM TURN.

(3) Remove the clevis from the actuator ram.

s 984-041

- (4) Push the pin from the collar and the clevis.
 - s 034-063
- (5) Remove the collar and adjustable sleeve from the clevis.

TASK 25-53-16-404-064

8. Install the Pin

- A. Consumable Materials(1) D00566 Lubricant BMS 3-8
 - (2) D00015 Grease BMS 3-24
- B. Access
 - (1) Location Zones
 121/122 Forward Cargo Compartment
 153/154 Aft Cargo Compartment
- C. Procedure

EFFECTIVITY-

s 224-065

- (1) Measure the length of the linear actuator in the fully retracted position (Fig. 401).
 - <u>NOTE</u>: If you do not get the dimension and the tolerance shown, replace the linear actuator.



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S 644-067

(2) Apply a thin layer of lubricant to the shaft of the clevis (12).

S 644-068

(3) Apply a thin layer of lubricant to the metallic surfaces of the adjustable sleeve.

S 424-069

(4) Install the adjustable sleeve on the shaft with the hex end of the adjustable sleeve to the clevis (12).

s 424-070

(5) Install the collar on the shaft of the clevis (12).

s 224-071

(6) Make sure the pin hole in the collar is aligned with the pin hole in the clevis shaft.

S 224-087

- (7) Make sure the clearance between the collar and the adjustable sleeve is between 0.002 to 0.012 inch.
 - <u>NOTE</u>: If the clearance is not in this range, remove and turn the collar.

s 424-072

- (8) Push the pin through the collar and clevis (12).
 - <u>NOTE</u>: The end of the pin must make a smooth surface with the collar surface.

s 424-073

- <u>CAUTION</u>: HOLD THE ACTUATOR RAM WITH A WRENCH WHEN YOU INSTALL THE CLEVIS TO THE ACTUATOR RAM. INTERNAL DAMAGE TO THE ACTUATOR CAN OCCUR IF YOU LET THE ACTUATOR RAM TURN.
- (9) Install the clevis (12) on the actuator.

NOTE: Do not tighten the adjustable sleeve at this step.

S 404-074

(10) Do the Install Lateral Guide Actuator procedure.

S 844-034

(11) Do the Put the Airplane Back to Its Initial Condition task.

EFFECTIVITY-----

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TASK 25-53-16-844-074

- 9. Put the Airplane Back to its Initial Condition
 - A. Procedure

s 414-075

(1) Install all the ball transfer panels that you removed (AMM 25-53-03/401).

S 864-076

(2) Supply electrical power (AMM 24-22-00/201).

S 864-077

(3) For the forward compartment, remove the DO-NOT-CLOSE tag and close this P35 panel circuit breaker:(a) 35D2, GUIDES LTRL

S 864-078

(4) For the aft compartment, remove the DO-NOT-CLOSE tag and close this P39 panel circuit breaker:(a) 39D2, GUIDES LTRL

s 714-079

(5) Do the lateral guide operation test (AMM 25-53-16/501).

s 094-081

(6) Remove the safety barrier.

S 864-082

(7) Remove electrical power if it is not necessary (AMM 24-22-00/201).

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LATERAL GUIDE ATTENUATOR - ADJUSTMENT/TEST

- 1. <u>General</u>
 - A. This procedure gives instructions to do an adjustment/ test of the lateral guide attenuator.
 - B. This adjustment/test procedure can done with the guides installed in the airplane or on a test bench.

TASK 25-53-16-705-006

2. <u>Test the Lateral Guide</u> (Fig. 501)

A. Equipment

- (1) Attenuator Adjustment Fixture Make as shown
 (Fig. 501)
- B. Consumable Materials
 - (1) A00412 Compound Loctite Thread Locking
 - (2) DOO095 Lubricant Rulon Spray Dry Film
- C. Access
 - (1) Location Zones
 - 121/122Forward Cargo Compartment153/154Aft Cargo Compartment
- D. Prepare for the Test

s 105-001

(1) Clean the attenuator parts.

s 645-002

(2) Lubricate the pivot pins with a dry film lubricant.

S 865-003

(3) Supply electrical power for the actuator.

s 485-004

(4) Assemble an attenuator adjustment fixture with one of the mass and length configurations shown (Table 1).

s 435-005

(5) Hold the guide assembly in position with the four bolts and nuts.

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TABLE 1 ATTENUATOR ADJUSTMENT FIXTURE														
MASS AND LENGTH	MA	SS, M	LENGTH, L		M LENGTH, L		DISTANCE, D1		DISTANCE, D2		MOMENTUM			
CONFIGUR- ATION NO.	LBS	(KG)	INCH	(METER)	INCH	(METER)	INCH	(METER)	LB FT/SEC	(KG METER/SEC)				
1	15 0	(4 75)	70 0 (/ 00)		17.5	(0.44)			50.67	(7.15)				
I	12.0	(0.75)	72.0	(1.02)			24.0	(0.61)	69.49	(9.53)				
2	20 0	(9.0)	48.0 (1.21)		11.0	(0.27)			52.01	(7.13)				
L	20.0	().0)					14.5	(0.36)	68.56	(9.40)				
3	20 0	(9.0)	60 0 (1 52)		12.0	(0.30)			50.75	(6.96)				
5	20.0	(9.0)	00.0	00.0 (1.92)			16.5	(0.41)	69.78	(9.57)				
					13.0	(0.33)			50.19	(6.88)				
4	20.0	(9.0)	72.0	(1.82)			18.0	(0.45)	69.49	(9.53)				
5	25.0	(11,25)	60.0	(1,52)	9.5	(0.24)			50.22	(6.88)				
1	2210	(1112)/	0010	(11)2)			13.0	(0.33)	68.73	(9.42)				
6	25.0	(11 25)	72 0	(1.82)	10.5	(0.26)			50.67	(6.94)				
-		(1112)/	1210					12.0			14.5	(0.36)	69.98	(9.59)
7	30.0	(13,50)	72.0	(1.82)	9.5	(0.24)			52.12	(7.14)				
•	55.5			(1102)			12.0	(0.30)	69.49	(9.53)				
8	30.0	(13,50)	84.0	(2,13)	9.5	(0.24)			50.93	(6.98)				
5	5010	(131)07	5410	(2113)			13.0	(0.33)	69.70	(9.55)				

DO NOT RELEASE THE MASS FROM A DISTANCE MORE THAN THE DISTANCE D2 SHOWN IN TABLE 1. MECHANICAL DAMAGE TO THE GUIDE ASSEMBLY CAN OCCUR IF YOU DO NOT OBEY TABLE 1

THIS IS THE RECOMMENDED MASS AND LENGTH CONFIGURATION

Lateral Guide Attenuator Adjustment Figure 501 (Sheet 1)

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593004



E. Procedure

S 825-008

- <u>CAUTION</u>: DO NOT APPLY ELECTRICAL POWER TO THE ACTUATOR FOR TOO MUCH TIME AFTER THE GUIDE RAIL IS IN THE FULLY UP POSITION. IF YOU APPLY ELECTRICAL POWER FOR MORE THAN 2 OR 3 SECONDS, YOU WILL CAUSE DAMAGE TO THE ACTUATOR.
- (1) Apply electrical power to the actuator until the guide rail is in the fully up position.

s 645-009

(2) Apply thread locking compound to the threads of the attenuator adjusting screw.

s 825-010

(3) Apply electrical power to the actuator until the guide rail is down 0.70 - 0.80 inch from the fully up position.

s 825-011

- (4) Adjust the attenuator sensitivity as follows:
 - (a) Move the mass to a position (D1) that will cause an impulse momentum equivalent to a 50-pound container at a rate of 1 foot per second.

NOTE: D1 will be 12.0 inches in the recommended configuration.

- (b) Let the mass hit the guide assembly as shown.
- (c) If the attenuator released, do these steps:
 - 1) Apply electrical power to the actuator to until the guide assembly is in the fully up position to lock the attenuator.
 - Apply electrical power to the actuator until the guide rail is down 0.70 - 0.80 inch from the fully up position.
 - 3) Adjust the attenuator adjustment screw.

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- 4) Do the test again.
 - <u>NOTE</u>: If the attenuator releases at an impact load of from 50 to 70 pounds at a rate of 1 foot per second, then continue. If it does not, adjust the attenuator again and do the test again.
- (d) If the attenuator did not release, do these steps:
 - <u>CAUTION</u>: DO NOT APPLY AN IMPULSE MOMENTUM MORE THAN A 70-POUND CONTAINER AT A RATE OF 1 FOOT PER SECOND. YOU WILL CAUSE MECHANICAL DAMAGE TO THE GUIDE ASSEMBLY IF YOU APPLY TOO MUCH IMPULSE MOMENTUM.
 - 1) Move the mass to a position (D2).
 - <u>NOTE</u>: The position (D2) must cause an impulse momentum equivalent Refer to Fig. 501 for the recommended mass and length configuration.
 - 2) Let the mass hit the guide assembly as shown.
 - 3) If attenuator did not release, do this step:
 - Adjust the attenuator adjustment screw until the attenuator will release when an impact load of 50 - 70 pounds at a rate of 1 foot per second hits the end of the guide rail.
- (e) Do the held-actuator test as follows:
 - <u>CAUTION</u>: DO NOT APPLY ELECTRICAL POWER TO THE ACTUATOR FOR TOO MUCH TIME AFTER THE GUIDE RAIL IS IN THE FULLY UP POSITION. IF YOU APPLY ELECTRICAL POWER FOR MORE THAN 2 OR 3 SECONDS, YOU WILL CAUSE DAMAGE TO THE ACTUATOR.
 - 1) Apply electrical power to the actuator until the guide rail is in the fully up position
 - <u>NOTE</u>: The actuator will be in the fully retracted position.
 - 2) Hold the guide rail in the fully up position.
 - <u>NOTE</u>: You must not let the guide rail move in the subsequent step.

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- <u>CAUTION</u>: DO NOT APPLY ELECTRICAL POWER FOR TOO MUCH TIME WHEN THE ACTUATOR CANNOT MOVE. IF YOU APPLY ELECTRICAL POWER FOR MORE THAN 2 OR 3 SECONDS, YOU WILL CAUSE DAMAGE TO THE ACTUATOR.
- 3) Apply electrical power to the actuator to try to extend the actuator.
- 4) If the attenuator released, adjust the attenuator again with the instructions given before.
- 5) Release the guide rail.
- 6) Apply electrical power to the actuator until the guide rail is in a not fully up position.
- 7) Hold the guide rail in this position.
 - <u>NOTE</u>: You must not let the guide rail move in the subsequent step.
- <u>CAUTION</u>: DO NOT APPLY ELECTRICAL POWER FOR TOO MUCH TIME WHEN THE ACTUATOR CANNOT MOVE. IF YOU APPLY ELECTRICAL POWER FOR MORE THAN 2 OR 3 SECONDS, YOU WILL CAUSE DAMAGE TO THE ACTUATOR.
- 8) Apply electrical power to the actuator to try to retract and extend the actuator.
- 9) If the attenuator released, adjust the attenuator until the attenuator does not release during the held-actuator test.

6



LATERAL GUIDE AND ACTUATOR - INSPECTION/CHECK

- 1. <u>General</u>
 - A. This procedure contains the lateral guide and actuator wear limits.
 - B. In this procedure, no instructions are given to get access to, remove, or install the parts. Refer to the Lateral Guide and Actuator – Removal/Installation procedure for this data.

TASK 25-53-16-206-001

- 2. Lateral Guide and Actuator Wear Limits (Fig. 601)
 - A. General
 - (1) This procedure contains the lateral guide and actuator wear limits.
 - (2) In this procedure, no instructions are given to get access to, remove, or install the parts. Refer to the Lateral Guide and Actuator - Removal/Installation procedure for this data.

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			DESIGN LIMITS		WEAR LIMITS				
			DIAMETER		ALLOWED	MAX DIAM	REPLACE	REPAIR	
NO.	PART NAME	DIM.	MIN	MAX	WEAR DIM.	CLEAR- ANCE	WORN PART	WORN PART	REPAIR INSTR.
	RAIL	ID	0.3733	0.3738	TBF			х	
1	PIN	OD	0.3740	0.3745	TBF	IBF	х		
	CRANK	ID	0.3750	0.3765	0.3770	0.0070		х	
2	PIN	OD	0.3740	0.3745	0.3735	0.0030	х		
-	BASE	ID	0.5000	0.5015	0.5035	0.00/5		х	
5	PIN	OD	0.4970	0.4990	0.4950	0.0065	х		
	CRANK	ID	0.5000	0.5015	0.5035	0.00/5		х	
4	PIN	OD	0.4970	0.4990	0.4950	0.0065	х		
_	BLOCK	ID	0.1710	0.1770	0.1790	0.00/0	х		
5	ROLLER	OD	0.1550	0.1570	0.1530	0.0240	х		
	CRANK	ID	0.2500	0.2515	0.2525	0.00/5		х	
0	PIN	OD	0.2480	0.2490	0.2470	0.0045	х		
-	BASE	ID	0.5625	0.5640	0.5660	0.00/0		х	
	PIN	OD	0.5600	0.5620	0.5580	0.0060	х		
	CRANK	ID	0.5650	0.5645	0.5665	0.00/5		х	
8	PIN	OD	0.5600	0.5620	0.5580	0.0065	х		

1> YOU CAN REPAIR THIS PART; REFER TO THE COMPONENT MAINTENANCE MANUAL FOR INSTRUCTIONS

Lateral Guide and Actuator Wear Limits Figure 601 (Sheet 3)

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MAINTENANCE MANUAL

FORWARD PALLET LOCK - REMOVAL/INSTALLATION

- 1. <u>General</u>
 - A. This procedure is for the pallet locks that are forward of the ball transfer panel in the forward cargo compartment.
 - B. This procedure has these tasks:
 - (1) A removal of the forward pallet locks.
 - (2) An installation of the forward pallet locks.

TASK 25-53-21-004-002

- 2. <u>Remove the Forward Pallet Lock</u> (Fig. 401)
 - A. Equipment
 - (1) LARGE CARGO DOOR;
 - Safety Barrier A52007-1
 - B. Access
 - C. Procedure

s 494-003

- <u>WARNING</u>: YOU MUST INSTALL THE SAFETY BARRIER CORRECTLY WHEN THE CARGO DOOR IS OPEN. INJURY TO PERSONS CAN OCCUR IF YOU DO NOT CORRECTLY INSTALL THE SAFETY BARRIER.
- (1) Install the safety barrier across the cargo door opening.

s 024-004

- (2) Remove the bolts.
 - s 024-005
- (3) Remove the pallet lock.

TASK 25-53-21-404-006

- 3. Install the Forward Pallet Lock (Fig. 401)
 - A. Equipment
 - (1) LARGE CARGO DOOR;
 - Safety Barrier A52007-1
 - B. Consumable Materials
 - (1) A00247 Adhesive, Sealant Chromate Type
 BMS 5-95

EFFECTIVITY-----

25-53-21

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02







767-300 FORWARD CARGO COMPARTMENT









- C. Access
 - (1) Location Zones

121/122 Forward Cargo Compartment

D. Procedure

s 424-008

- (1) For the three pallet locks (View A, Fig. 401) that are not nearest to the left side guide rail, do these steps:
 - (a) Put the pallet lock in position.
 - (b) Install the bolts.
 - (c) Torque the bolts to 135-150 pound-inches.

s 424-001

- (2) For the pallet lock (View B, Fig. 401) that is nearest to the left side guide rail, do these steps:
 - (a) Hold the pallet lock in position to show the clearance between the pallet lock and the structure.
 - (b) Put shim material in the clearance between the base of the pallet lock and the structure until the clearance is full.
 - (c) Apply adhesive sealant to bond the shim material to the pallet lock.
 - (d) Put the pallet lock in position and install the bolts.
 - (e) Torque the bolts to 135-150 pound-inches.

S 094-007

EFFECTIVITY-

(3) Remove the safety barrier.

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MAINTENANCE MANUAL

AFT PALLET LOCK - REMOVAL/INSTALLATION

- 1. <u>General</u>
 - A. This procedure has these tasks:
 - (1) A removal of the aft pallet lock.
 - (2) An installation of the aft pallet lock.
 - B. This procedure is for the pallet locks that are aft of the ball transfer panel in the forward and aft lower lobe containerized cargo compartment.

TASK 25-53-22-004-001

- 2. <u>Remove the Aft Pallet Lock</u> (Fig. 401)
 - A. References
 - (1) AMM 52-33-00/001, Large Forward Cargo Door
 - (2) AMM 52-35-00/001, Standard Aft Cargo Door
 - B. Equipment
 - (1) LARGE CARGO DOOR;
 - Safety Barrier A52007-1
 - (2) STANDARD CARGO DOOR;

Safety Barrier - A52005-18

- C. Access
 - (1) Location Zones

121/122	Forward Cargo Compartment
153/154	Aft Cargo Compartment

D. Procedure

S 864-011

(1) Open the cargo compartment door.

s 494-002

- <u>WARNING</u>: YOU MUST INSTALL THE SAFETY BARRIER CORRECTLY WHEN THE CARGO DOOR IS OPEN. INJURY TO PERSONS CAN OCCUR IF YOU DO NOT CORRECTLY INSTALL THE SAFETY BARRIER.
- (2) Install the safety barrier across the cargo door opening.

s 024-003

(3) Remove the bolts, washers, and nuts that hold the aft pallet lock to the lock tray.

S 024-004

(4) Remove the aft pallet lock.

TASK 25-53-22-404-005

- 3. <u>Install the Aft Pallet Lock</u> (Fig. 401)
- A. Equipment
 - (1) LARGE CARGO DOOR; Safety Barrier - A52007-1

EFFECTIVITY-----

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- (2) STANDARD CARGO DOOR;
- Safety Barrier A52005-18
- B. Access
 - (1) Location Zones

121/122 Forward Cargo Compartment 153/154 Aft Cargo Compartment

C. Procedure

s 424-006

(1) Put the pallet lock in the lock tray.

s 434-007

(2) Install the bolts, washers, and nuts.

s 424-010

(3) Torque the nuts to 95 +/- 5 pound-inches.

S 094-008

(4) Remove the safety barrier.

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AUXILIARY SIDE GUIDE RAIL AND BASE - REMOVAL/INSTALLATION

- 1. <u>General</u>
 - A. This procedure has these tasks:
 - (1) A removal of the rail from the auxiliary side guide.
 - (2) An installation of the rail on the auxiliary side guide.
 - (3) A removal of the base from the auxiliary side guide.
 - (4) An installation of the base on the auxiliary side guide.

TASK 25-53-23-004-001

- 2. <u>Remove the Auxiliary Side Guide Rail</u> (Fig. 401)
 - A. Equipment
 - (1) Safety barrier, large cargo door A52007–1
 - B. Access
 - C. Procedure

s 494-002

- <u>WARNING</u>: YOU MUST INSTALL THE SAFETY BARRIER CORRECTLY WHEN THE CARGO DOOR IS OPEN. INJURY TO PERSONS CAN RESULT IF YOU DO NOT CORRECTLY INSTALL THE SAFETY BARRIER.
- (1) Install the safety barrier across the cargo door opening.

s 034-003

(2) Remove the bolts, washers, and nuts.

S 024-004

(3) Remove the auxiliary guide rail.

s 224-005

(4) Measure the thickness of the shim.

<u>NOTE</u>: Write the dimension on a paper to make sure it stays correct for the subsequent installation.

TASK 25-53-23-404-006

- 3. Install the Auxiliary Side Guide Rail (Fig. 401) .
 - A. Equipment
 - (1) Safety barrier, large cargo door A52007-1

EFFECTIVITY-

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02





Auxiliary Side Guide Rail Installation Figure 401 (Sheet 1)













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- B. Consumable Materials
 (1) CO0259 Primer BMS 10-11, Type 1
 C. Access
 - (1) Location Zones 121/122 Forward Cargo Compartment 153/154 Aft Cargo Compartment
- D. Procedure

s 424-007

- (1) Put the auxiliary side guide rail and the shims in position (View B-B, Fig. 401).
 - <u>NOTE</u>: If you install new shims, there must be more than 0.007 inch clearance after the installation of the new shims. If you do not install new shims, the shims must be the same thickness that you measured during the removal.

s 034-019

(2) Remove the shims from the auxiliary side guide rail.

s 354-008

(3) Delaminate, drill, and deburr the shims, as necessary, to get the correct thickness.

s 374-020

(4) Apply primer to the shim surfaces that do not have primer.

s 434-009

(5) Install the shims in the auxiliary side guide rail.

NOTE: You can install the shims while the primer is wet.

s 434-010

(6) Install the bolts, washers, and nuts.

S 094-010

(7) Remove the safety barrier.

TASK 25-53-23-004-011

- 4. <u>Remove the Auxiliary Side Guide Base</u> (Fig. 401)
 - A. Equipment
 - (1) Safety barrier, large cargo door A52007-1

EFFECTIVITY-

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- B. Access
- C. Procedure

s 494-012

- WARNING: YOU MUST INSTALL THE SAFETY BARRIER CORRECTLY WHEN THE CARGO DOOR IS OPEN. INJURY TO PERSONS CAN OCCUR IF YOU DO NOT CORRECTLY INSTALL THE SAFETY BARRIER.
- (1) Install the safety barrier across the cargo door opening.

s 034-013

(2) Remove the bolts, washers, and nuts that hold the base to the guide rail and the structure.

S 024-014

(3) Remove the auxiliary side guide base.

TASK 25-53-23-404-015

Install the Auxiliary Side Guide Base (Fig. 401)

A. Equipment

5.

- (1) Safety barrier, large cargo door A52007-1
- B. Access

153/154 Aft Cargo Compartment

C. Procedure

s 024-016

(1) Put the base in position.

S 034-017

(2) Install the bolts, washers, and nuts that hold the base to the guide rail and the structure.

S 094-018

(3) Remove the safety barrier.

EFFECTIVITY-

ALL

01



RETRACTABLE PALLET RESTRAINT - REMOVAL/INSTALLATION

- 1. <u>General</u>
 - A. This procedure is for the retractable pallet restraints on the door sill in the forward cargo compartment.
 - B. This procedure has these tasks:
 - (1) A removal of the retractable pallet restraint on the door sill.
 - (2) An installation of the retractable pallet restraint on the door sill.

TASK 25-53-24-004-001

- 2. <u>Remove the Retractable Pallet Restraint</u> (Fig. 401)
 - A. Equipment
 - (1) LARGE CARGO DOOR; Safety Barrier - A52007-1
 - B. Access (1) Location Zones 121/122 Forward Cargo Compartment
 - C. Procedure

s 494-002

- <u>WARNING</u>: YOU MUST INSTALL THE SAFETY BARRIER CORRECTLY WHEN THE CARGO DOOR IS OPEN. INJURY TO PERSONS CAN OCCUR IF YOU DO NOT CORRECTLY INSTALL THE SAFETY BARRIER.
- (1) Install the safety barrier across the cargo door opening.

S 034-003

- (2) Remove the bolts that hold the restraint to the structure.
 - S 024-004
- (3) Remove the restraint from the airplane.

TASK 25-53-24-404-005

- 3. Install the Retractable Pallet Restraint (Fig. 401)
 - A. Equipment
 - (1) LARGE CARGO DOOR;
 - Safety Barrier A52007-1
 - B. Access
 - (1) Location Zones
 - 121/122 Forward Cargo Compartment

EFFECTIVITY-

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02







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C. Procedure

s 024-006

(1) Put the retractable restraint in position.

S 034-007

(2) Install the bolts, but tighten them only with your hand.

s 824-008

(3) Put the restraint in the up position.

s 824-009

(4) With hand pressure, move the restraint until the vertical face of the restraint is 88.23 ± 0.03 inches from the face of the rollers on the left side guide rail.

s 034-010

(5) Torque the bolts to 30-35 pound-inches.

s 094-011

(6) Remove the safety barrier.



RETRACTABLE GUIDE ROLLER - REMOVAL/INSTALLATION

- 1. <u>General</u>
 - A. This procedure is for the retractable guide roller (guide roller) on the door sill of the forward cargo compartment.
 - B. This procedure has these tasks:
 - (1) A removal of the guide roller.
 - (2) An installation of the guide roller.

TASK 25-53-25-024-008

- 2. <u>Remove the Retractable Guide Roller</u> (Fig. 401)
 - A. Equipment
 - (1) LARGE CARGO DOOR; Safety Barrier - A52007-1
 - B. References
 - (1) AMM 25-53-03/401, Ball Transfer Panels
 - C. Access
 - (1) Location Zone 122 Forward Cargo Compartment (Right)
 - D. Procedure

s 494-001

- <u>WARNING</u>: YOU MUST INSTALL THE SAFETY BARRIER CORRECTLY WHEN THE CARGO DOOR IS OPEN. INJURY TO PERSONS CAN OCCUR IF YOU DO NOT CORRECTLY INSTALL THE SAFETY BARRIER.
- (1) Install the safety barrier across the cargo door opening.

S 034-002

(2) Remove the ball transfer panel if it is necessary (AMM 25-53-03/401).

S 024-003

(3) Remove the bolts, washers, and nuts that hold the guide roller to the door sill.

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s 024-004

- (4) Remove the guide roller.
- TASK 25-53-25-404-005
- 3. Install the Retractable Guide Roller (Fig. 401)
 - A. Equipment
 - (1) LARGE CARGO DOOR;
 - Safety Barrier A52007-1
 - Β. References
 - (1) AMM 25-53-03/401, Ball Transfer Panels
 - C. Access
 - (1) Location Zone
 - 122 Forward Cargo Compartment (Right)
 - D. Procedure

s 164-012

(1) Make sure all corrosion is removed from the door sill in the area where the guide roller is to be installed.

s 424-006

(2) Put the guide roller in position on the door sill.

s 424-007

(3) Install the bolts, washers, and nuts.

s 434-008

(4) Install the ball transfer panels that you removed (AMM 25-53-03).

S 094-009

(5) Remove the safety barrier.

EFFECTIVITY-



MAINTENANCE MANUAL

PALLET LOCK - REMOVAL/INSTALLATION

- 1. <u>General</u>
 - A. This procedure is for the pallet locks in the roller trays in the forward cargo compartment
 - B. There is more than one type of pallet lock in the roller trays. The removal and installation procedures are the same for all types of pallet locks in the roller trays.
 - C. This procedure has these tasks:
 - (1) A removal of the pallet lock.
 - (2) An installation of the pallet lock.

TASK 25-53-26-004-001

- 2. <u>Remove the Pallet Lock</u> (Fig. 401)
- A. Equipment
 - (1) SMALL CARGO DOOR;
 - Safety Barrier A52005-18
 - (2) LARGE CARGO DOOR;

Safety Barrier - A52007-1

- B. Access
 - (1) Location Zones 121/122 Forward Cargo Compartment
- C. Procedure

s 494-002

<u>WARNING</u>: YOU MUST INSTALL THE SAFETY BARRIER CORRECTLY WHEN THE CARGO DOOR IS OPEN. INJURY TO PERSONS CAN OCCUR IF YOU DO NOT CORRECTLY INSTALL THE SAFETY BARRIER.

- (1) Install the safety barrier across the cargo door opening.
 - S 024-003
- (2) Remove the bolts, washers, and nuts.

s 024-004

(3) Remove the pallet lock.

TASK 25-53-26-004-005

- 3. <u>Install the Pallet Lock</u> (Fig. 401)
 - A. Equipment
 - (1) SMALL CARGO DOOR; Safety Barrier - A52005-18

EFFECTIVITY AIRPLANES WITH PALLET LOCKS IN THE ROLLER TRAYS



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EFFECTIVITY AIRPLANES WITH PALLET LOCKS IN THE ROLLER TRAYS 25-53-26

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- (2) LARGE CARGO DOOR; Safety Barrier - A52007-1
- B. Access
 - (1) Location Zones 121/122 Forward Cargo Compartment
- C. Procedure

s 424-006

(1) Put the pallet lock in position in the roller tray.

s 424-007

(2) Install the bolts, washers, and nuts.

S 094-008

(3) Remove the safety barrier.

EFFECTIVITY AIRPLANES WITH PALLET LOCKS IN THE ROLLER TRAYS



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PALLET LOCK/STOP - REMOVAL/INSTALLATION

- 1. <u>General</u>
 - A. This procedure contains these tasks.
 - (1) Remove the pallet lock/stops that are near the ball transfer panels.
 - (2) Install the pallet lock/stops that are near the ball transfer panels.
 - TASK 25-53-27-004-001
- 2. <u>Remove the Pallet Lock/Stop</u> (Fig. 401)
 - A. References
 - (1) AMM 52-33-00/201, Large Forward Cargo Door
 - (2) AMM 52-35-00/201, Standard Aft Cargo Door
 - B. Equipment
 - (1) LARGE CARGO DOOR;
 - Safety Barrier A52007-1
 - (2) STANDARD CARGO DOOR;
 - Safety Barrier A52005-18
 - C. Access
 - (1) Location Zones
 - 121/122Forward Cargo Compartment153/154Aft Cargo Compartment
 - D. Procedure
 - S 864-011

s 494-002

- WARNING: YOU MUST INSTALL THE SAFETY BARRIER CORRECTLY WHEN THE CARGO DOOR IS OPEN. INJURY TO PERSONS CAN OCCUR IF YOU DO NOT CORRECTLY INSTALL THE SAFETY BARRIER.
- (2) Install the safety barrier across the cargo door opening.

s 024-003

(3) Remove the bolts that hold the pallet lock/stop to the cargo compartment floor.

S 024-004

(4) Remove the pallet lock/stop.

TASK 25-53-27-404-005

- 3. <u>Install the Pallet Lock/Stop</u> (Fig. 401)
 - A. References
 - (1) AMM 52-33-00/201, Large Forward Cargo Door

EFFECTIVITY AIRPLANES WITH HALF-PALLET EQUIPMENT

25-53-27

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- (2) AMM 52-35-00/201, Standard Aft Cargo Door
- B. Equipment
 - (1) LARGE CARGO DOOR;
 - Safety Barrier A52007-1
 - (2) STANDARD CARGO DOOR;
 - Safety Barrier A52005-18
- C. Access
- D. Procedure

s 424-006

(1) Put the pallet lock/stop in position with the bolt holes aligned.

s 424-007

- (2) Install the bolts.
- E. Return the Airplane To Its Usual Condition

S 094-008

(1) Remove the safety barrier.

S 864-012

(2) Close the cargo compartment door (AMM 52-33-00/201, AMM 52-35-00/201).

EFFECTIVITY-AIRPLANES WITH HALF-PALLET EQUIPMENT

25-53-27



BULK CARGO COMPARTMENT SIDEWALL LINING - REMOVAL/INSTALLATION

TASK 25-55-01-904-001

- 1. Bulk Cargo Compartment Sidewall Lining Removal/Installation
 - A. Procedure

s 904-002

(1) Refer to 25-52-01/401, Containerized Cargo Compartment Sidewall Lining, for the bulk cargo compartment. The sidewall lining removal and installation procedures for the bulk cargo compartment are the same as those for the other compartments.

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BULK CARGO COMPARTMENT CEILING LINING - REMOVAL/INSTALLATION

TASK 25-55-02-904-001

- 1. Bulk Cargo Compartment Ceiling Lining Removal/Installation
 - A. References
 - (1) AMM 25-52-02/401
 - B. Procedure

s 904-002

(1) Refer to 25-52-02/401, Containerized Cargo Compartment Ceiling Lining, for the bulk cargo compartment. The ceiling lining removal and installation procedures for the bulk cargo compartment are the same as those for the other compartments.

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BULK CARGO COMPARTMENT INSULATION - REMOVAL/INSTALLATION

TASK 25-55-04-904-001

- 1. <u>Bulk Cargo Compartment Insulation Removal/Installation</u>
 - A. Procedure

s 904-002

(1) Refer to 25-52-03/401, Cargo Compartment Insulation, for the bulk cargo compartment. The insulation removal and installation procedures for the bulk cargo compartment are the same as those for the other cargo compartments.

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MAINTENANCE MANUAL

EMERGENCY EQUIPMENT - DESCRIPTION AND OPERATION

- 1. General
 - A. The emergency equipment includes:
 - (1) Escape ropes in the flight compartment
 - (2) Escape slides in the entry/service doors and the off-wing slide compartment
 - Detachable emergency equipment is in the flight compartment and (3) passenger compartment.
- 2. Escape Ropes and Descent Devices
 - A. Escape ropes are installed in the flight compartment. For more data, refer to (AMM 25-61-00/001), Escape Ropes and Descent Devices.
 - Β. Overwing assist straps are installed near the emergency exit hatches. For more data, refer to (AMM 25-61-00/001), Escape Ropes and Descent Devices.
- 3. Emergency Signaling Equipment
 - A. Emergency evacuation signal panels are in the flight compartment and the passenger compartment. For more data, refer to (AMM 25-63-00/001), Emergency Signaling Equipment.
- 4. Detachable Emergency Equipment
 - Miscellaneous emergency equipment (flashlights, portable oxygen, fire Α. extinguishers, etc.), if installed, are in the flight compartment and the passenger compartment.
- 5. Off-Wing Escape System
 - The off-wing escape slides are installed at each aft wing/body fairing. Α. For more data, refer to (AMM 25-65-00/001), Off-Wing Escape System
- 6. Door-Mounted Escape System
 - Escape slides are installed on each entry/service door. For more data, Α. refer to (AMM 25-66-00/001), Door-Mounted Escape System.

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ESCAPE ROPES AND DESCENT DEVICES - DESCRIPTION AND OPERATION

1. <u>General</u>

- A. The escape ropes are installed in compartments above the No. 2 windows in the flight compartment.
- B. The overwing assist straps are installed in tubes near the overwing emergency exit hatches.
- 2. <u>Component Details</u>
 - A. <u>Flight Compartment Escape Ropes</u> (Fig. 1)
 - (1) Flight compartment escape ropes are installed behind a panel above the No. 2 windows, with one end permanently attached to structure. In use, the rope deploys out the No. 2 window and crew members can lower themselves to the ground.





- B. Overwing Emergency Exit Hatch Assist Straps (Fig. 2)
 - (1) AIRPLANES WITH ONE HATCH OVER EACH WING; there is one assist strap at each overwing emergency exit hatch.
 - (2) AIRPLANES WITH TWO HATCHES OVER EACH WING; there is one assist strap at each of the forward overwing emergency exit hatches.
 - (3) The assist strap is nylon webbing with a hook attached to one end. The strap is used when the overwing emergency exit hatch is opened after an emergency landing or ditching.
 - (4) In use, the strap pulls out of the stowage tube and the hook attaches to the wing attach fitting. The strap gives a handhold for passengers that exit through the overwing emergency exit hatch onto the wing.
 - (5) In flight, the strap is kept in the stowage tube in the ceiling structure above the hatch. One end of the strap is permanently attached to an anchor bracket on the doorway structure. The hook end of the strap is kept in a hook pouch, under the anchor bracket on the doorway structure.



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MAINTENANCE MANUAL

OVERWING ESCAPE HATCH ASSIST STRAP - MAINTENANCE PRACTICES

- 1. <u>General</u>
 - A. This procedure contains instructions on how to put the assist strap into the stowage tube at the off-wing emergency exit.

TASK 25-61-01-862-001

- 2. <u>Assist Strap Stowage</u> (Fig. 201)
 - A. Consumable Materials
 - (1) G00291, Tape Conductive, Scotch No. 425 (Aluminum Foil), 0.25 inch wide
 - B. References
 - (1) AMM 52-21-01/201, Overwing Escape Hatch
 - C. Access (1) Location Zone 200 Upper Half of Fuselage
 - D. Procedure Put the Assist Strap Into the Stowage Tube

s 012-005

(1) Remove the overwing escape hatch (AMM 52-21-01/201).

s 032-006

(2) Remove the nut to remove the assist strap from the doorway structure.

s 212-007

(3) Make sure the assist strap has no damage.

S 862-008

(4) Fold the assist strap, and put the tape on the assist strap (Fig. 201).

S 862-009

(5) Put the assist strap into the stowage tube. Make sure you put the folded end of the assist strap in the stowage tube first.

s 432-010

(6) With the assist strap fully in the stowage tube, install the nut to attach the assist strap to the doorway structure.

s 432-011

(7) Install the clamp leg into the stowage tube.

S 862-012

(8) Put the hook into the hook retainer pouch and around the pin. Close the pouch.

s 212-003

- (9) To make sure the assist strap is installed correctly (Fig. 201), do the steps that follow:
 - (a) Make sure the assist strap is in the stowage tube.

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- (b) Make sure the assist strap is attached to the doorway structure correctly.
- (c) Make sure the hook is attached to the pin in the hook retainer pouch.

s 412-013

(10) Install the overwing escape hatch (AMM 52-21-01/201).

s 212-016

- WARNING: MAKE SURE THE AUTO ARM, AUTO FIRE, BACK-UP ARM, AND BACK-UP FIRE ARE AT NORMAL POSITION BEFORE YOU PUT THE GUARDED DISABLE SWITCH TO THE NORMAL POSITION. ACCIDENTAL ESCAPE SLIDE DEPLOYMENT CAN CAUSE INJURY TO PERSONS OR DAMAGE TO EQUIPMENT.
- (11) Make sure the auto arm, auto fire, back-up arm, and back-up fire are at normal position.

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FLIGHT COMPARTMENT ESCAPE ROPE - MAINTENANCE PRACTICES

- 1. <u>General</u>
 - A. This procedure contains these tasks:
 - (1) Escape rope removal
 - (2) Escape rope Inspection
 - (3) Escape rope Installation
 - (4) Put the escape rope in the rope container
 - B. The flight compartment escape rope is near the No. 2 windows.

TASK 25-61-02-002-044

- 2. Escape Rope Removal (Fig. 201)
 - A. Access
 - (1) Location Zone 211/212 Control Cabin - Section 41
 - B. Procedure

S 012-043

(1) Open the door to the rope container.

s 022-045

(2) Unsnap the panel strip from the overhead panel.

S 022-041

(3) Remove the bolt, the nut, the washer and the spacer from the link which connects the ends of the nylon anchor strap.

S 022-046

(4) Remove the escape rope from the nylon anchor strap.

S 022-027

(5) Remove the rope from the rope container.

TASK 25-61-02-202-023

- 3. Escape Rope Inspection
 - A. Access
 - (1) Location Zone
 - 211/212 Control Cabin Section 41

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B. Procedure

s 712-028

(1) Make sure the door for the escape rope opens when you press the latch button.

s 212-024

(2) Do a visual check of the escape rope fitting.(a) Make sure that the fittings are not bent or corroded.

s 212-025

(3) Do a visual check of each of the escape ropes for fraying or worn areas.

NOTE: If the escape rope is frayed or worn, it must be replaced.

s 212-026

(4) Make sure the escape rope is not wet or knotted.

TASK 25-61-02-402-047

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4. Escape Rope Installation (Fig. 201)
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- A. Access
 - (1) Location Zone 211/212 Control Cabin - Section 41
- B. Procedure

s 422-039

- WARNING: ON ROPES WITH A PLAITED END, YOU MUST ATTACH THE PLAITED EYE SPLICE END OF THE ESCAPE ROPE TO THE NYLON ANCHOR STRAP. IF YOU DO NOT ATTACH THE PLAITED EYE SPLICE END OF THE ESCAPE ROPE TO THE NYLON ANCHOR STRAP, THE ROPE CAN DISCONNECT FROM THE AIRPLANE AND CAN CAUSE INJURY TO PERSONS.
- (1) Put the nylon anchor strap through the looped end of the escape rope.

s 422-042

- (2) Install the bolt, the nut, the washer and the spacer to connect the ends of the nylon anchor strap.
 - (a) Make sure the escape rope is not attached to the bolt or the link.

s 422-029

(3) Put the escape rope in the rope container.

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TASK 25-61-02-862-001

- 5. Put the Escape Rope in the Rope Container (Fig. 201)
 - A. Access

 - B. Procedure

s 422-035

(1) Install the panel strip on the overhead panel with the snaps.

s 422-036

- (2) Wind the rope into the bag, starting with the unattached end of the rope.
 - WARNING: DO NOT CLOSE OR ATTACH THE BAG. IF THE BAG IS ATTACHED, THE BAG AND THE ROPE WILL NOT FALL FROM THE POCKET IN AN EMERGENCY. IF THE BAG IS CLOSED, THE ROPE WILL NOT FALL FROM THE BAG IN AN EMERGENCY. INJURY TO PERSONS CAN RESULT.
 - (a) Install the bag into the escape rope cavity with the bottom of the bag to the inboard side.
- C. Return the airplane to its usual condition.
 - S 942-040

EFFECTIVITY-

(1) Close the rope container door.

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OVERWATER SURVIVAL EQUIPMENT - DESCRIPTION AND OPERATION

- 1. <u>General</u>
 - A. Passenger, attendant and crew safety equipment provided for sea evacuation includes:
 - (1) slide rafts
 - (2) MTH AIRPLANES;
 - life rafts
 - (3) life vests.
- 2. <u>Slide Rafts</u>
 - A. Slide rafts are inflatable escape slides which detach from the airplane for use as a life raft. Slide rafts are mounted on passenger doors only. A lanyard releases the slide raft from the door's girt bar.
- 3. MTH AIRPLANES;

<u>Life Rafts</u>

- A. Life raft stowage is provided in the forward closet. A gas cylinder inflates the life raft when activated by pulling a lanyard.
- 4. Life Vests
 - A. There are life vests for all passengers and crew members. There is a life vest under each flight compartment seat. There is a life vest under each passenger and each attendants seat. Life vests are individually sealed in plastic bags.



MAINTENANCE MANUAL

EMERGENCY SIGNALING EQUIPMENT - DESCRIPTION & OPERATION

- 1. <u>Emergency Locator Transmitter (ELT</u>)
 - A. An Emergency Locator Transmitter sends a signal when you put it in water.
 - (1) Use this transmitter only in an emergency.
 - (2) The Emergency Locator Transmitter is in these locations:(a) SAS AIRPLANES;

overhead stowage bin, forward of the aft entry doors.

- 2. Emergency Evacuation Signal (EES) System
 - A. An Emergency Evacuation Signal (EES) system tells the crew to start evacuation procedures.
 - (1) The EES system has these panels:
 - (a) One panel in the flight compartment
 - (b) Five panels in the passenger compartment.
 - B. Description
 - (1) The passenger compartment EES panel has:
 - (a) a COMMAND switch (Forward, Left side attendant station only)
 - (b) a HORN SHUTOFF switch (Forward, Left side station only)
 - (c) a flashing amber light
 - (d) an intermittent horn.
 - (2) The flight compartment EES panel has:
 - (a) a COMMAND switch
 - (b) a HORN SHUTOFF switch
 - (c) a flashing red light
 - (d) an intermittent horn.
 - (3) The EES panels operate on 28V dc power.
 - (4) The 28 volts comes from the 28V DC HOT BAT. BUS through the EVAC SIGNAL circuit breaker on the MAIN PWR DISTR PNL P6.
 - C. Operation
 - (1) Start the EES system alarms with one of these steps:
 - (a) Move the COMMAND switch on the flight compartment EES panel to the ON position.
 - (b) Push the COMMAND switch on the EES panel at the forward left side attendant's station.
 - (2) Stop the horns:
 - (a) Push the HORN SHUTOFF switch on one of these EES panels:
 - 1) the forward left side attendant's station panel
 - 2) the flight compartment panel.
 - (3) Stop all alarms:
 - (a) Move the COMMAND switch to the OFF position at one of these panels:
 - 1) the panel used to start the signals
 - 2) the flight compartment panel.

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TYPICAL PASS COMPT EMER EVAC CONT PANEL

Emergency Evacuation Signal System Schematic (Typical) Figure 1

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FAULT ISOLATION/MAINT MANUAL

EMERGENCY EVACUATION SIGNAL PANEL

COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	REFERENCE
CIRCUIT BREAKERS			FLT COMPT, P6	
EVAC SIGNAL, C748		1	6F2	*
PANEL - EMERGENCY EVACUATION SIGNAL, M61		1	FLT COMPT, P5	25-63-01
PANEL - EMERGENCY EVACUATION SIGNAL, M881		1	PASS COMPT, FWD ABBR ATTEND PNL, P57	25-63-01
PANEL - EMERGENCY EVACUATION SIGNAL, M882		1	PASS COMPT, FWD ATTEND PNL, P21	25-63-01
PANEL - EMERGENCY EVACUATION SIGNAL, M883		1	PASS COMPT, MID ABBR ATTEND PNL, P58	25-63-01
PANEL - EMERGENCY EVACUATION SIGNAL, M884		1	PASS COMPT, AFT ABBR ATTEND PNL, P59	25-63-01
PANEL - EMERGENCY EVACUATION SIGNAL, M885		1	PASS COMPT, AFT ATTEND PNL, P22	25-63-01

* SEE WM EQUIPMENT LIST













EMERGENCY EVACUATION SIGNAL PANEL - MAINTENANCE PRACTICES

- 1. <u>General</u>
 - A. This procedure for the Emergency Evacuation Signal (EES) system has these tasks:
 - (1) EES panel removal
 - (2) EES panel installation
 - (3) operational test of the flight compartment EES panel
 - (4) operational test of the passenger compartment EES panels

TASK 25-63-01-002-011

- 2. <u>Remove the Emergency Evacuation Signal Panel</u> (Fig. 201)
 - A. Access
 - (1) Location Zones 200 Upper Half of Fuselage
 - B. Procedure

s 862-001

 (1) Open this circuit breaker on the main power distribution panel P6, and attach a DO-NOT-CLOSE tag:
(a) 6F2, EVAC SIGNAL

s 032-002

(2) Pull the bezel down and away from the EES panel to remove the decorative trim. Remove the decorative trim.

s 032-012

(3) Push the "V" clip together to release the bezel.

s 032-013

(4) For the passenger compartment, hold the EES panel and remove the quick-release fasteners.

s 032-003

(5) For the flight compartment, remove the screws from the EES panel.

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FLIGHT COMPARTMENT EES PANEL (ON PILOT'S OVERHEAD PANEL P5)



PASSENGER COMPARTMENT EES PANEL (AT ATTENDANT STATIONS) (EXAMPLE)



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S 092-014

(6) Move the EES panel away from the part that holds the EES panel.

s 032-004

(7) Disconnect the electrical connector from the EES panel.

s 022-015

(8) Remove the EES panel.

TASK 25-63-01-402-030

- 3. Install the Emergency Evacuation Signal Panel (Fig. 201)
 - A. Access
 - (1) Location Zones 200 Upper Half of Fuselage
 - B. Procedure

s 432-017

(1) Connect the electrical connector to the EES panel.

s 422-018

(2) For the passenger compartment, put the EES panel in position and install the quick-release fasteners.

s 432-005

(3) For the flight compartment, put the EES panel in position and install the screws.

s 432-019

(4) Hold the "V" clip on the bezel together and install the bezel.

S 862-006

(5) Remove the DO-NOT-CLOSE tag and close this circuit breaker on the P6 panel:
(a) 6F2, EVAC SIGNAL

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TASK 25-63-01-702-020

- <u>Emergency Evacuation Signal Panel Operational Test Flight Compartment</u> (Fig. 201)
 - A. References
 - (1) AMM 24-22-00/201, Electrical Power Control
 - B. Access
 - (1) Location Zones 200 Upper Half of Fuselage
 - C. Procedure

S 862-021

(1) Supply electrical power (Ref 24-22-00).

s 862-022

- (2) Make sure this circuit breaker on the main power distribution panel P6, is closed:
 - (a) 6F2, EVAC SIGNAL

S 862-023

- (3) Move the COMMAND switch on the flight compartment EES panel to the ON position.
 - (a) Make sure the horns come on at all EES panels.
 - (b) Make sure the EVAC light comes on at all EES panels.

s 712-007

- (4) Pull the HORN SHUTOFF switch at each EES panel.
 - (a) Make sure the horn on each panel stops.
 - (b) Make sure the EVAC light on each panel stays on.

s 862-024

- (5) Put the COMMAND switch on the flight compartment EES panel in the OFF position.
 - (a) Make sure the EVAC lights on all EES panels are off.

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TASK 25-63-01-702-031

- 5. <u>Emergency Evacuation Signal Panel Operational Test Passenger Compartment</u> (Fig. 201)
 - A. References
 - (1) AMM 24-22-00/201, Electrical Power Control
 - B. Access
 - (1) Location Zones 200 Upper Half of Fuselage
 - C. Procedure

S 862-008

(1) Supply electrical power (Ref 24-22-00).

s 862-009

- (2) Make sure this circuit breaker on the main power distribution panel P6, is closed:
 - (a) 6F2, EVAC SIGNAL

s 712-019

- (3) Do these steps for all the EES panels:
 - (a) Push the COMMAND switch on the passenger compartment EES panel.1) Make sure the horns come on at all EES panels.
 - 2) Make sure the EVAC lights come on at all EES panels.
 - (b) Push the COMMAND switch again.
 - 1) Make sure the horns stop at all EES panels.
 - 2) Make sure the EVAC lights are off at all EES panels.

s 712-010

(4) Do the Operational Test - Passenger Compartment procedure again for all the other EES panels.

S 862-029

(5) Remove the electrical power if it is not necessary (Ref 24-22-00).

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POWER MEGAPHONE - MAINTENANCE PRACTICES

- 1. <u>General</u>
 - A. This procedure has these tasks:
 - (1) Battery Voltage Test
 - (2) Megaphone Batteries Removal
 - (3) Megaphone Batteries Installation
 - (4) Megaphone Gain Control Adjustment
 - (5) MEGAPHONES WITH GAIN CONTROL; Megaphone Gain Control Adjustment
 - (6) Megaphone Operational Test

TASK 25-63-02-702-001

- 2. Battery Voltage Test
 - A. Equipment

(1) Multimeter

- B. Access
 - (1) Location Zone
 - 200 Upper Half Fuselage
- C. Procedure

s 032-002

(1) Open the quick-disconnect clamp.

S 022-003

(2) Remove the megaphone from the mounting bracket.

s 032-004

(3) Remove the batteries from the megaphone.

s 762-005

(4) Set the multimeter to measure 12 volts dc.

s 762-006

- (5) Connect the multimeter to the megaphone as follows:
 - (a) Connect the negative lead of the multimeter to the black test jack on the megaphone.
 - (b) Connect the positive lead of the multimeter to the red test jack on the megaphone.

s 982-007

(6) Push the trigger on the megaphone.

S 762-008

(7) Make sure the meter shows 12 volts DC.

EFFECTIVITY AIRPLANES WITH POWER MEGAPHONES

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s 762-009

(8) Push the trigger on the megaphone for 5 seconds.

s 762-010

(9) Make sure the multimeter continues to show 12 volts DC or more.

s 422-011

(10) If the multimeter shows less than 12 volts DC, replace the batteries.

s 712-012

(11) If the multimeter shows 15 volts dc or more, do the tasks to adjust the megaphone gain and do the operational test.

TASK 25-63-02-002-013

- 3. Megaphone Battery Removal
 - A. Access (1) Location Zone 200 Upper Half Fuselage
 - B. Procedure

s 012-014

- <u>CAUTION</u>: DO NOT LET THE COVER PULL ON THE MICROPHONE CABLE. THE COVER CAN CAUSE DAMAGE TO THE CABLE IF THE COVER PULLS ON IT.
- (1) Release the fasteners on the sides of the housing.

s 032-015

(2) Lift the cover.

S 022-016

(3) Remove the batteries from the megaphone.

TASK 25-63-02-402-017

- 4. Megaphone Batteries Installation
 - A. Consumable Materials
 - (1) GOO749 Batteries 1.5-Volt, C-Size
 - (2) G02190 Cloth Crocus
 - B. Access
 - (1) Location Zone
 - 200 Upper Half Fuselage

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C. Procedure

s 212-018

(1) Make sure the area around the battery springs is clean.

s 162-019

(2) Clean the battery contacts with the crocus cloth.

S 422-020

(3) Install the batteries.

NOTE: Obey the correct battery polarity shown on the contact board.

s 412-021

- (4) Install the cover of the megaphone housing.
 - S 862-022
- (5) MEGAPHONES WITH GAIN CONTROL; Do the task to adjust the megaphone gain.

s 712-023

(6) Do the Megaphone Operational Test.

TASK 25-63-02-822-024

- 5. Megaphone Gain Adjustment
 - A. Access
 - (1) Location Zone 200 Upper Half Fuselage
 - B. Procedure

s 762-025

(1) Do the task to test the battery voltage.

S 012-026

(2) Remove the cap on the megaphone gain control.

S 822-027

(3) Push the trigger, count into the microphone, and adjust the gain control clockwise.

s 822-028

(4) Continue to adjust the gain control until you hear feedback or you cannot adjust the control.

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s 822-029

(5) When you hear feedback, adjust the gain control counterclockwise until the feedback stops.

s 412-030

(6) Install the cap on the megaphone gain control.

TASK 25-63-02-702-031

- 6. <u>Megaphone Operational Test</u>
 - A. Access
 - (1) Location Zone 200 Upper Half Fuselage
 - B. Procedure

s 022-032

(1) Disconnect the clamp and remove the megaphone from the mounting bracket.

s 712-033

(2) Put the microphone near your mouth while you point the horn at the opposite end of the airplane.

s 712-034

(3) Push the trigger while you count slowly in a clear voice.

s 712-035

(4) Make sure your voice can be heard clearly at each point in the airplane.

s 712-036

(5) If the voice output is weak or you hear feedback, do the task to adjust the megaphone gain.

s 422-037

(6) Attach the megaphone on the mounting bracket with a clamp.

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MAINTENANCE MANUAL

DETACHABLE EMERGENCY EQUIPMENT - DESCRIPTION AND OPERATION

- 1. Flight Compartment Emergency Equipment
 - A. The flight compartment has detachable emergency equipment to be used in an emergency. The emergency equipment consists of:
 - (1) Crash axe
 - (2) Emergency locator transmitter
 - (3) Fire extinguisher
 - (4) Portable oxygen, refer to AMM 35-00-00/001 for more data.
 - (5) Smoke goggles
 - (6) Smoke Masks
- 2. <u>Passenger Compartment Emergency Equipment</u>
 - A. The passenger compartment has detachable emergency equipment to be used in an emergency. This equipment is stored in various locations in the passenger compartment. The emergency equipment consists of:
 - (1) Fire Extinguisher
 - (2) First Aid Kit
 - (3) Flashlight
 - (4) Portable Oxygen Bottle
 - (5) Power Megaphone
 - (6) Portable Breathing Equipment

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MAINTENANCE MANUAL

POWER MEGAPHONE - MAINTENANCE PRACTICES

1. <u>General</u>

A. Refer to AMM 25-63-02/201 for Power Megaphone - Maintanance Practices.

EFFECTIVITY AIRPLANES WITH POWER MEGAPHONES

25-64-01

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OFF-WING ESCAPE SYSTEM - DESCRIPTION AND OPERATION

- 1. <u>General</u>
 - A. The off-wing escape slide allows passengers, exiting through the emergency escape hatch, to be able to reach the ground from the wing. The escape slide automatically deploys when any escape hatch is opened by pulling the emergency PULL handle from inside the airplane. The escape slide, actuating system, and inflation system are stored in a compartment in the aft wing/body fairing.
 - B. AIRPLANES WITH TWO HATCHES OVER EACH WING; The slide will automatically deploy when either the forward or aft escape hatch is opened from inside the airplane by pulling the emergency PULL handle, if the other hatch has not been disabled.
 - C. For more details on the Off-Wing Escape System, refer to these wiring diagrams and functional schematics. WDM 25-65-11: LEFT OFF-WING ESCAPE WDM 25-65-12: RIGHT OFF-WING ESCAPE
 - SSM 25-65-01: OFF WING ESCAPE SLIDES
- 2. <u>Component Details</u>
 - A. Off-Wing Escape Slide (Fig. 1)
 - (1) The off-wing escape slide is an inflatable escape device. When not in use, the escape slide is stored in the off-wing slide compartment located above the wing in the aft wing/body fairing. The escape slide is folded into a "slide pack" and attached to the slide packboard. A slide pack cover holds the folded escape slide on the slide packboard until the escape slide is deployed. The slide packboard is attached to the door of the off-wing slide compartment.
 - (2) When the escape slide is inflated, an inflatable ramp covers the inboard spoilers at the trailing edge of the wing. An inflatable guide rail is attached to the ramp to provide handholds for evacuating passengers. The inflated slide is connected to the ramp. The inflated slide has two lanes with a center divider to prevent cross over between sliding passengers. Guard rails along each side of the inflated slide prevent sliding passengers from falling off of the slide.
 - B. Off-Wing Slide Inflation Cylinder (Fig. 2)
 - (1) The off-wing slide inflation cylinder is in a compartment located below the wing in the aft wing/body fairing. The inflation cylinder contains high pressure gas which inflates the off-wing escape slide. The inflation cylinder pressure gage is visible through an access door on the aft bulkhead of the main landing gear wheel well. Access to the inflation cylinder is through a door in the aft wing/body fairing.
 - (2) An inflation cable connects to the inflation cylinder regulator from a bellcrank that is attached to the inside of the slide compartment door. The cable activates the cylinder to supply gas to inflate the slide.

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM



02.1



(3) AIRPLANES WITHOUT COVER ON THE PULL FORCE INCREASE MECHANISM;

A pull force increase mechanism is connected to the regulator and contains a high tension spring that increases the valve actuation force. The pull force increase mechanism is for shop uses only and is not to be disengaged while on the airplane.

(4) AIRPLANES WITH COVER ON THE PULL FORCE INCREASE MECHANISM;

A pull force increase mechanism is connected to the regulator and contains a high tension spring that increases the valve actuation force. The PFIM safety cover on the pull force increace mechanism locks the retainer spring in the ENGAGED detent.

- (5) An inflation hose connects to the slide pack from the inflation cylinder. The inflation hose carries the gas to an aspirator which inflates the slide with an air/gas mixture.
- C. Disarm Cables (Fig. 3)
 - (1) A slide pack cover release cable and a disarm cable connect to the integrator. The slide pack cover release cable prevents the slide pack cover from releasing when the off-wing compartment door is opened for maintenance. The disarm cable disarms the inflation system for maintenance.
 - (2) The cover release cable and the disarm cable are actuated when the integrator is used to manually disarm the off-wing escape system.
- D. Off-Wing Compartment Door (Fig. 3)
 - (1) The door of the off-wing slide compartment is part of the aft wing/body fairing. The door is hinged at the bottom and held closed by four latches across the top. The packboard with the slide pack is attached to the inside of the off-wing compartment door.
 - (2) The off-wing compartment door remains closed until the off-wing escape system is activated. When the off-wing escape system is activated, the door is powered open by two door opening actuators.
 - (3) The off-wing compartment door can be opened for maintenance using the integrator.
- E. Off-Wing Compartment Door Opening Actuator (Fig. 3)
 - (1) Two door opening actuators are in each off-wing slide compartment to power the off-wing compartment door open. The actuators are powered by expanding gases provided by replaceable squibs.
 - (2) The door opening actuator cartridges are mechanically fired. The latch connecting rods operate bellcranks that pull on the firing pins which fire the door opening actuator cartridges. The actuators pull on the cables connected to the hinge/bellcranks to open the off-wing slide compartment door.
- F. Off-Wing Compartment Door Latch Opening Actuator (Fig. 3)
 - (1) An off-wing compartment door latch opening actuator is in a compartment located aft of the off-wing slide compartment. Access to the latch opening actuator is through the latch opening actuator access door located aft of the integrator access door. The latch opening actuator is powered by expanding gases provided by a replaceable squib. The latch opening actuator pulls on the integrator which pulls on the latch connecting rods to unlatch the door.

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- (2) The latch opening actuator squib is electrically fired. An electrical signal is transmitted to the latch opening actuator squib when the overwing escape hatch is opened by pulling the emergency PULL handle from inside the airplane.
- G. Off-Wing Escape System Integrator (Fig. 3)
 - (1) The off-wing escape system integrator is in a compartment directly aft of the off-wing slide compartment. Access to the integrator is through the integrator access door. The integrator is used to unlatch or latch the off-wing slide compartment door.
 - (2) The integrator controls the disarm cable and the cover release cable leading to the slide inflation system and the slide pack cover release system. When the cam on the integrator is rotated fully aft, the off-wing slide compartment door is unlatched. With the cam rotated fully aft and the lock handle in the SAFETY position, the off-wing slide compartment door can be opened without causing the door opening actuators to fire. When the cam on the integrator is rotated fully forward, the off-wing slide compartment door is latched. The cam must be rotated fully forward and the off-wing slide compartment door must be latched closed before arming the off-wing escape system. The lock handle has three positions: LOCKED, UNLOCK, and SAFETY. The LOCKED position locks the cam fully forward. The lock handle can be moved to the LOCKED position only when the cam is fully forward. The UNLOCK position allows rotation of the cam forward or aft to close and open the latches. The SAFETY position locks the cam fully aft for maintenance on the off-wing escape system. The lock handle can be moved to the SAFETY position only when the cam is fully aft.
- H. Off-Wing Escape System Switches (Fig. 4)
 - (1) The off-wing escape system switches are located above each emergency escape hatch, behind a hinged EXIT sign panel. The auto arm and auto fire switches are activated when the emergency escape hatch is opened by pulling the emergency PULL handle from inside the airplane. The backup arm and backup fire switches can be activated by the manual inflation handle if the escape slide does not deploy automatically when the escape hatch is opened. A disable switch can be used to interrupt power to the spoiler panel down relay and the electrically fired actuators of the off-wing escape system.
- I. Off-Wing Escape System Emergency Battery (Fig. 5)
 - (1) The emergency battery for the off-wing escape system is aft of the emergency escape hatch, at floor level, behind the air return grill. The emergency battery supplies power through the off-wing escape system switches to the electrically fired actuators.

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM





- (2) During normal operation, the left emergency battery provides power to the left system, and the right emergency battery provides power to the right system. If the BACKUP ARM and BACKUP FIRE switches are used to deploy the escape slide, the opposite side emergency battery provides power to the escape system.
- (3) The emergency battery is continually charged to a state of readiness.
- (4) Power to charge the right emergency battery comes from the 28V DC R BUS through this circuit breaker on the pilot's overhead circuit breaker panel P11:

(a) 11P36, EMER LTS WING ESC R

- (5) Power to charge the left emergency battery comes from the 28V DC R BUS through this circuit breaker on the pilot's overhead circuit breaker panel P11:
 - (a) 11P35, EMER LTS WING ESC L
- J. Off-Wing Escape System Spoiler Override Actuator (Fig. 6)
 - (1) A spoiler override actuator is located below spoiler panel 6 (left side) and spoiler panel 7 (right side), on the spoiler beam. The actuators are powered by expanding gases provided by replaceable squibs.
 - (2) The spoiler override actuator squibs are electrically fired. An electrical signal is transmitted to the spoiler override actuator squib when the emergency escape hatch is opened by pulling the emergency PULL handle from inside the airplane. The spoiler override actuator "blows down" the spoiler panels so the off-wing escape slide can deploy without damage.
 - <u>NOTE</u>: AIRPLANES WITH TWO HATCHES OVER EACH WING; An electrical signal is transmitted to the spoiler override actuator squib when either the forward or aft hatch is opened by pulling the emergency PULL handle from the inside of the airplane.
- K. Squib Test Panel (Fig. 7)
 - (1) The squib test panel is on R SIDE PNL P61 in the flight compartment. The squib test panel is used to check the electrical continuity of the spoiler override actuator squib firing circuits, and the latch opening actuator squib firing circuits.
- 3. Operation (Fig. 8)
 - A. Functional Description
 - (1) The off-wing escape slide is deployed and inflated when the emergency escape hatch is opened from the inside without disarming or disabling the off-wing escape system. When the escape hatch is opened, the auto arm and auto fire switches are moved to FIRE, and electrical signals are transmitted to the spoiler override actuators, the latch opening actuators, and the spoiler panel down relays.

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM



- (2) AIRPLANES WITH TWO HATCHES OVER EACH WING; The off-wing escape slide is deployed and inflated when either the forward or aft emergency escape hatch is opened from the inside without disarming or disabling the off-wing escape system.
- (3) Initially, the electrical signal energizes the spoiler panel down relays to ground the spoiler 6 and 7 power control actuators. If the hydraulic system is pressurized, spoilers 6 and 7 will retract normally before the spoiler override actuators fire; if the hydraulic system is depressurized, firing of the spoiler override actuators will force spoilers 6 and 7 to retract.
- (4) The latch opening actuators fire after a delay of 2.0 seconds, to allow time for the inboard spoilers to retract. The latch opening actuators unlatch the off-wing slide compartment door, and activate the door opening actuators to open the off-wing slide compartment door. The door opening actuators also slow the rotation of the door to prevent damage to the upper wing surface.
- (5) As the door rotates open, the slide pack cover is released and the slide inflation cylinder is activated to inflate the escape slide. The slide pack cover is released when the cover release trigger on the slide pack contacts the stop block mounted on the aft bulkhead in the off-wing compartment. The inflation cylinder is triggered when the control rod attached to the door rotates a bellcrank to pull on the inflation cable. The inflation cable actuates the inflation trigger on the inflation cylinder regulator to release the gas from the cylinder.
- (6) The gas from the inflation cylinder flows through a hose to two aspirators on the escape slide. The aspirators pull in ambient air which mixes with the gas from the cylinder to inflate the escape slide to a usable escape device for evacuating passengers.
- B. Squib Test
 - (1) The squib test panel has TEST 1 and TEST 2 switches with EMER ESCAPE L and EMER ESCAPE R test lights. TEST 1 checks the left and right slide squibs and TEST 2 checks the left and right spoiler squibs. Both L and R test lights should illuminate to verify the system is operational.
 - (2) The operational status of the EMER ESCAPE L and EMER ESCAPE R test lights is checked by pushing the respective test light. The test lights will illuminate if they are operational.

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM





- (3) The squib test checks that there is electrical continuity to the squibs. Each test switch provides a ground for both emergency batteries. Pressing TEST 1 switch will activate the SLIDE DOOR SQUIB TEST RELAY and the SLIDE DOOR SQUIB RELAY. Pressing TEST 2 switch will activate the SPOILER SQUIB TEST RELAY and the SPOILER RETRACT RELAY. If after pressing TEST 1 switch the EMER ESCAPE L and the EMER ESCAPE R test lights illuminate, then there is electrical continuity to the SLIDE DOOR LATCH RELEASE SQUIB. If after pressing TEST 2 switch the EMER ESCAPE R test lights illuminate, then there is electrical continuity to the SLIDE DOOR LATCH RELEASE SQUIB. If after pressing TEST 2 switch the EMER ESCAPE L and the EMER ESCAPE R test lights illuminate, then there is electrical continuity to the SPOILER OVERRIDE ACTUATOR SQUIB. The relays complete the circuit from the 28v dc R BUS to the squibs illuminating the test lights. Less than 1v dc is applied to the squibs during testing due to the large impedance of the test lights.
- C. Control
 - (1) AIRPLANES WITH ONE HATCH OVER EACH WING; The off-wing escape slide is deployed by opening the emergency escape hatch by pulling the emergency PULL handle from inside the airplane without disarming or disabling the off-wing escape system.
 - (2) AIRPLANES WITH TWO HATCHES OVER EACH WING; The off-wing escape slide is deployed by opening either the forward or aft emergency escape hatch by pulling the emergency PULL handle from inside the airplane without disarming or disabling the off-wing escape system.
 - (3) If the off-wing escape slide does not deploy automatically, the slide is deployed by pulling the manual deploy handle in the doorway of the emergency escape hatch.























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1AIRPLANES WITH TWO FIRE EXTINGUISHING
BOTTLES IN THE CARGO COMPARTMENT2AIRPLANES WITH THREE FIRE EXTINGUISHING
BOTTLES IN THE CARGO COMPARTMENT



EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM





OFF-WING ESCAPE SYSTEM - DESCRIPTION AND OPERATION

- 1. <u>General</u>
 - A. The off-wing escape slide allows passengers, exiting through the emergency escape hatch, to be able to reach the ground from the wing. The escape slide automatically deploys when any escape hatch is opened by pulling the emergency PULL handle from inside the airplane. The escape slide assembly and inflation system are located in compartments in the aft wing/body fairing.
 - B. The slide will automatically deploy when either the forward or aft escape hatch is opened from inside the airplane by pulling the emergency PULL handle.
- 2. <u>Component Details</u>
 - A. Off-Wing Escape Slide (Fig. 1)
 - (1) The off-wing escape slide is an inflatable escape device. When not in use, the escape slide is stored as part of the escape slide assembly installed in the off-wing slide compartment located above the wing in the aft wing/body fairing. The escape slide assembly is a replaceable unit consisting of an enclosure with a blowout door and escape slide. The escape slide is folded inside and attached to the interior of the escape slide enclosure. Servicing of the escape slide and inflation cylinder may be done by the supplier or qualified shop.
 - (2) When the off-wing escape system is activated high pressure gas enters the escape slide assembly and is routed to the escape slide and to four pressure operated door lock actuators. The door opens downward against the top of the wing and is loosely retained by three straps. The escape slide inflates and deploys out of the escape slide enclosure onto the wing surface.
 - (3) When the escape slide is inflated, an inflatable ramp covers the inboard spoiler at the trailing edge of the wing. An inflatable guide rail is attached to the ramp to direct evacuating passengers. The inflated slide consists of a walking ramp leading to sliding lanes with a center divider to prevent cross over between sliding evacuees. Guard rails along each side of the inflated slide prevent sliding passengers from falling off of the slide.
 - B. Off-Wing Slide Inflation Cylinder (Fig. 2)
 - (1) The off-wing slide inflation cylinder is in a compartment located below the wing in the aft wing/body fairing. The inflation cylinder contains high pressure gas which inflates the off-wing escape slide. The inflation cylinder pressure gage is visible through an access door on the aft bulkhead of the main landing gear wheel well. Access to the inflation cylinder is through a door in the aft wing/body fairing.

EFFECTIVITY AIRPLANES WITH MODULAR OFF-WING ESCAPE SYSTEM





- (2) The inflation cylinder regulator is activated by a squib that is electrically fired. An electrical signal is transmitted to the regulator squib when the overwing escape hatch is opened by pulling the emergency PULL handle from inside the airplane. The regulator activates the cylinder to supply gas to inflate the slide.
- C. Off-Wing Escape System Switches (Fig. 3)
 - (1) The off-wing escape system switches are located above each emergency escape hatch, behind a hinged EXIT sign panel. The auto arm and auto fire switches are activated when the emergency escape hatch is opened by pulling the emergency PULL handle from inside the airplane. The backup arm and backup fire switches can be activated by the manual inflation handle if the escape slide does not deploy automatically when the escape hatch is opened. A disable switch can be used to interrupt power to the spoiler panel down relay and the electrically fired inflation cylinder regulator of the off-wing escape system.
- D. Off-Wing Escape System Emergency Battery (Fig. 4)
 - (1) The emergency battery for the off-wing escape system is aft of the emergency escape hatch, at floor level, behind the air return grill. The emergency battery supplies power through the off-wing escape system switches to the electrically fired squibs.
 - (2) During normal operation, the left emergency battery provides power to the left system, and the right emergency battery provides power to the right system. If the BACKUP ARM and BACKUP FIRE switches are used to deploy the escape slide, the opposite side emergency battery provides power to the escape system.
 - (3) The emergency battery is continually charged to a state of readiness.
 - (4) Power to charge the right emergency battery comes from the 28V DC R BUS through this circuit breaker on the pilot's overhead circuit breaker panel P11:

(a) 11P36, EMER LTS WING ESC R

- (5) Power to charge the left emergency battery comes from the 28V DC R BUS through this circuit breaker on the pilot's overhead circuit breaker panel P11:
 - (a) 11P35, EMER LTS WING ESC L
- E. Off-Wing Escape System Spoiler Override Actuator (Fig. 5)
 - (1) A spoiler override actuator is located below spoiler panel 6 (left side) and spoiler panel 7 (right side), on the spoiler beam. The actuators are powered by expanding gases provided by replaceable squibs.

EFFECTIVITY AIRPLANES WITH MODULAR OFF-WING ESCAPE SYSTEM



- (2) The spoiler override actuator squibs are electrically fired. An electrical signal is transmitted to the spoiler override actuator squib when the emergency escape hatch is opened by pulling the emergency PULL handle from inside the airplane. The spoiler override actuator "blows down" the spoiler panels so the off-wing escape slide can deploy without damage.
- F. Squib Test Panel (Fig. 6)
 - (1) The squib test panel is on R SIDE PNL P61 in the flight compartment. The squib test panel is used to check the electrical continuity of the spoiler override actuator squib firing circuits, and the inflation cylinder regulator squib firing circuit.
- 3. Operation (Fig. 7)
 - A. Functional Description
 - (1) The off-wing escape slide is deployed and inflated when the emergency escape hatch is opened from the inside without disarming or disabling the off-wing escape system. When the escape hatch is opened, the auto arm and auto fire switches are moved to FIRE, and electrical signals are transmitted to the spoiler override actuator, the inflation cylinder regulator, and the spoiler panel down relay.
 - (a) The off-wing escape slide is deployed and inflated when either the forward or aft emergency escape hatch is opened from the inside without disarming or disabling the off-wing escape system.
 - (2) Initially, the electrical signal energizes the spoiler panel down relays to ground the spoiler 6 and 7 power control actuators. If the hydraulic system is pressurized, spoilers 6 and 7 will retract normally before the spoiler override actuators fire; if the hydraulic system is depressurized, firing of the spoiler override actuators will force spoilers 6 and 7 to retract.
 - (3) The regulator squib fires after a delay of 2.0 seconds, to allow time for the inboard spoilers to retract. The regulator squib activates the inflation cylinder which pressurizes the escape slide assembly releasing the "blow out" door and inflating the escape slide.
 - (4) The gas from the inflation cylinder flows through a hose to the aspirator on the escape slide. The aspirator pulls in ambient air which mixes with the gas from the cylinder to inflate the escape slide to a usable escape device for evacuating passengers.

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- (5) For more details on the Escape Slide System, refer to these wiring diagrams and functional schematics: WDM 25-65-11: LEFT OFF-WING ESCAPE WDM 25-65-12: RIGHT OFF-WING ESCAPE SSM 25-65-01: OFF-WING ESCAPE SLIDES
- B. Squib Test
 - (1) The squib test panel has TEST 1 and TEST 2 switches with EMER ESCAPE L and EMER ESCAPE R test lights. TEST 1 checks the left and right slide squibs and TEST 2 checks the left and right spoiler squibs. Both L and R test lights should illuminate to verify the system is operational.
 - (2) The operational status of the EMER ESCAPE L and EMER ESCAPE R test lights is checked by pushing the respective test light. The test lights will illuminate if they are operational.
 - (3) The squib test checks that there is electrical continuity to the squibs. Each test switch provides a ground for both emergency batteries. Pressing TEST 1 switch will activate the REGULATOR SQUIB TEST RELAY and the REGULATOR SQUIB RELAY. Pressing TEST 2 switch will activate the SPOILER SQUIB TEST RELAY and the SPOILER RETRACT RELAY. If after pressing TEST 1 switch the EMER ESCAPE L and the EMER ESCAPE R test lights illuminate, then there is electrical continuity to the REGULATOR RELEASE SQUIB. If after pressing TEST 2 switch the EMER ESCAPE L and the EMER ESCAPE R test lights illuminate, then there is electrical continuity to the SPOILER OVERRIDE ACTUATOR SQUIB. The relays complete the circuit from the 28v dc R BUS to the squibs illuminating the test lights. The test lamps limit the squib test to about 40 ma.
- C. Control
 - (1) The off-wing escape slide is deployed by opening either the forward or aft emergency escape hatch by pulling the emergency PULL handle from inside the airplane without disarming or disabling the off-wing escape system.
 - (2) If the off-wing escape slide does not deploy automatically, the slide is deployed by pulling the manual deploy handle in the doorway of the emergency escape hatch.

EFFECTIVITY AIRPLANES WITH MODULAR OFF-WING ESCAPE SYSTEM



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Squib Test Panel Figure 6

EFFECTIVITY AIRPLANES WITH MODULAR OFF-WING ESCAPE SYSTEM



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OFF-WING ESCAPE SYSTEM

COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	AMM REFERENCE
ACTUATOR - LEFT OFF-WING SLIDE COMPARTMENT DOOR LATCH OPENING	6	1	195QL, AFT LEFT SIDE WING/BODY FAIRING	25-65-11
ACTUATOR - LEFT OFF-WING SLIDE COMPARTMENT DOOR OPENING	6	2	195EL, AFT LEFT SIDE WING/BODY FAIRING	25-65-10
ACTUATOR - LEFT OFF-WING SLIDE SPOILER OVER- RIDE	2	1	AFT OF SPOILER BEAM AT INBOARD SPOILER PANEL NO. 6	25-65-20
ACTUATOR - RIGHT OFF-WING SLIDE COMPARTMENT DOOR LATCH OPENING	6	1	196QR, AFT RIGHT SIDE WING/BODY FAIRING	25-65-11
ACTUATOR - RIGHT OFF-WING SLIDE COMPARTMENT DOOR OPENING	6	2	196ER, AFT RIGHT SIDE WING/BODY FAIRING	25-65-10
ACTUATOR - RIGHT OFF-WING SLIDE SPOILER OVER- RIDE	2	1	AFT OF SPOILER BEAM AT INBOARD SPOILER PANEL NO. 7	25-65-20
BATTERY - LEFT OFF-WING ESCAPE SYSTEM EMERGENCY, M961	5	1	BEHIND AIR GRILL, AFT OF LEFT HATCH	25-65-17
BATTERY - RIGHT OFF-WING ESCAPE SYSTEM EMERGENCY, M962	5	1	BEHIND AIR GRILL, AFT OF RIGHT HATCH	25-65-17
CABLE - LEFT DISARM	3	1	195EL, AFT LEFT SIDE WING/BODY FAIRING	25-65-04
CABLE - LEFT INFLATION	3	1	195EL TO 197CL, FROM AFT LEFT SIDE WING/BODY FAIRING TO BOTTOM OF AFT LEFT SIDE WING/BODY FAIRING	25-65-04
CABLE - LEFT COVER RELEASE	3	1	195EL, AFT LEFT SIDE WING/BODY FAIRING	25-65-04
CABLE - RIGHT DISARM	3	1	196ER, AFT RIGHT SIDE WING/BODY FAIRING	25-65-04
CABLE - RIGHT INFLATION	3	1	196ER TO 198CR, FROM AFT RIGHT SIDE WING/BODY FAIRING TO BOTTOM OF AFT RIGHT SIDE WING/BODY FAIRING	25-65-04
CABLE - RIGHT COVER RELEASE	3	1	196ER, AFT RIGHT SIDE WING/BODY FAIRING	25-65-04
CIRCUIT BREAKERS			FLT COMPT, P11	±
EMER LIS WING ESC LEFT, CISUZ EMER LIS WING ESC RIGHT, C1280		1	11P36	*
CYLINDER - LEFT OFF-WING SLIDE INFLATION	4	1	197CL, BOTTOM OF AFT LEFT SIDE WING/BODY FAIRING	25-65-02
CYLINDER - RIGHT OFF-WING SLIDE INFLATION	4	1	198CR, BOTTOM OF AFT RIGHT SIDE WING/BODY FAIRING	25-65-02
DOOR - LEFT INTEGRATOR ACCESS	3	1	195ML, AFT LEFT SIDE WING/BODY FAIRING	25-65-07
DOOR - LEFT LATCH OPENING ACTUATOR ACCESS	3	1	195QL, AFT LEFT SIDE WING/BODY FAIRING	25-65-11
DOOR - LEFT OFF-WING SLIDE COMPARTMENT	3	1	195EL, AFT LEFT SIDE WING/BODY FAIRING	25-65-08
DOOR - RIGHT INTEGRATOR ACCESS	3	1	196MR, AFT RIGHT SIDE WING/BODY FAIRING	25-65-07
DOOR - RIGHT LATCH OPENING ACTUATOR ACCESS	3	1	195QR, AFT RIGHT SIDE WING/BODY FAIRING	25-65-11
DOOR - RIGHT OFF-WING SLIDE COMPARTMENT	3	1	195ER, AFT RIGHT SIDE WING/BODY FAIRING	25-65-08

* SEE THE WDM EQUIPMENT LIST

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Off-Wing Escape System - Component Index Figure 101 (Sheet 1)

EFFECTIVITY AIRPLANES WITH BUILT UP OFF-WING ESCAPE SYSTEM



02

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COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	AMM REFERENCE
INTEGRATOR - LEFT OFF-WING ESCAPE SYSTEM	7	1	195ML, AFT LEFT SIDE WING/BODY FAIRING	25-65-12
INTEGRATOR - RIGHT OFF-WING ESCAPE SYSTEM	7	1	196MR, AFT RIGHT SIDE WING/BODY FAIRING	25-65-12
RELAY - LEFT SLIDE DOOR SQUIB, K1 OF M1135	8	1	BEHIND EXIT SIGN PANEL ABOVE LEFT OVERWING ESCAPE HATCH	*
RELAY - LEFT SLIDE DOOR SQUIB TEST, K3 OF M1135	8	1	BEHIND EXIT SIGN PANEL ABOVE LEFT OVERWING ESCAPE HATCH	*
RELAY - LEFT SPOILER RETRACT, K2 OF M1135	8	1	BEHIND EXIT SIGN PANEL ABOVE	*
RELAY - LEFT SPOILER SQUIB TEST, K4 OF M1135	8	1	BEHIND EXIT SIGN PANEL ABOVE	*
RELAY - RIGHT SLIDE DOOR SQUIB, K1 OF M1136	8	1	BEHIND EXIT SIGN PANEL ABOVE	*
RELAY - RIGHT SLIDE DOOR SQUIB TEST, K3 OF	8	1	BEHIND EXIT SIGN PANEL ABOVE	*
RELAY - RIGHT SPOILER RETRACT, K2 OF M1136	8	1	BEHIND EXIT SIGN PANEL ABOVE	*
RELAY - RIGHT SPOILER SQUIB TEST, K4 OF M1136	8	1	BEHIND EXIT SIGN PANEL ABOVE	*
RELAY - SQUIB TEST 1, K838		1	P19, ABOVE LEFT FORWARD PASSENGER COMPARTMENT CEILING PANEL	*
RELAY - SQUIB TEST 2, K839		1	P19, ABOVE LEFT FORWARD PASSENGER COMPARTMENT CEILING PANEL	*
SLIDE - LEFT OFF-WING ESCAPE	2	1	195EL, AFT LEFT SIDE WING/BODY FAIRING	25-65-01
SLIDE - RIGHT OFF-WING ESCAPE	2	1	196ER, AFT RIGHT SIDE WING/BODY FAIRING	25-65-01
SQUIB - LEFT DOOR OPENING ACTUATOR	6	2	195EL, AFT LEFT SIDE WING/BODY FAIRING	25-65-13
SQUIB - LEFT LATCH OPENING ACTUATOR, M957	6	1	195QL, AFT LEFT SIDE WING/BODY FAIRING	25-65-14
SQUIB - LEFT SPOILER OVERRIDE ACTUATOR, M955	2	1	IN SPOILER OVERRIDE ACTUATOR, AFT OF SPOILER BEAM AT INBOARD SPOILER PANEL NO. 6	25-65-19
SQUIB - RIGHT DOOR OPENING ACTUATOR	6	2	196ER, AFT RIGHT SIDE WING/BODY FAIRING	25-65-13
SQUIB - RIGHT LATCH OPENING ACTUATOR, M958	6	1	196QR, AFT RIGHT SIDE WING/BODY FAIRING	25-65-14
SQUIB - RIGHT SPOILER OVERRIDE ACTUATOR, M956	2	1	IN SPOILER OVERRIDE ACTUATOR, AFT OF SPOILER BEAM AT INBOARD SPOILER PANEL NO. 7	25-65-19

Off-Wing Escape System - Component Index Figure 101 (Sheet 2)

EFFECTIVITY AIRPLANES WITH ONE HATCH OVER EACH WING



COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	AMM REFERENCE
INTEGRATOR - LEFT OFF-WING SYSTEM	7	1	195ML, AFT LEFT SIDE WING/BODY	25-65-12
INTEGRATOR - RIGHT OFF-WING ESCAPE SYSTEM	7	1	196MR, AFT RIGHT SIDE WING/BODY FAIRING	25-65-12
RELAY - LEFT SLIDE DOOR SQUIB, K1 OF M1135	9	1	BEHIND EXIT SIGN PANEL ABOVE	*
RELAY - LEFT SLIDE DOOR SQUIB TEST, K3 OF	9	1	BEHIND EXIT SIGN PANEL ABOVE	*
RELAY - LEFT SLIDE DOOR SQUIB TEST, K5 OF	9	1	BEHIND EXIT SIGN PANEL ABOVE	*
RELAY - LEFT SPOILER RETRACT, K2 OF M1135	9	1	BEHIND EXIT SIGN PANEL ABOVE	*
RELAY - LEFT SPOILER SQUIB TEST, K4 OF M1135	9	1	BEHIND EXIT SIGN PANEL ABOVE	*
RELAY - LEFT SPOILER SQUIB TEST, K6 OF M1135	9	1	BEHIND EXIT SIGN PANEL ABOVE	*
RELAY - RIGHT SLIDE DOOR SQUIB, K1 OF M1136	9	1	BEHIND EXIT SIGN PANEL ABOVE	*
RELAY - RIGHT SLIDE DOOR SQUIB TEST, K3 OF	9	1	BEHIND EXIT SIGN PANEL ABOVE	*
RELAY - RIGHT SLIDE DOOR SQUIB TEST, K5 OF	9	1	BEHIND EXIT SIGN PANEL ABOVE	*
RELAY - RIGHT SPOILER RETRACT, K2 OF M1136	9	1	BEHIND EXIT SIGN PANEL ABOVE	*
RELAY - RIGHT SPOILER SQUIB TEST, K4 OF M1136	9	1	BEHIND EXIT SIGN PANEL ABOVE	*
RELAY - RIGHT SPOILER SQUIB TEST, K6 OF M1136	9	1	BEHIND EXIT SIGN PANEL ABOVE	*
RELAY - SQUIB TEST 1, K838		1	P19, ABOVE LEFT FORWARD PASSENGER COMPARTMENT CEILING PANFI	*
RELAY - SQUIB TEST 2, K839		1	P19, ABOVE LEFT FORWARD PASSENGER COMPARTMENT CEILING PANEL	*
SLIDE - LEFT OFF-WING ESCAPE	2	1	195EL, AFT LEFT SIDE WING/BODY FAIRING	25-65-01
SLIDE - RIGHT OFF-WING ESCAPE	2	1	196ER, AFT RIGHT SIDE WING/BODY FAIRING	25-65-01
SQUIB - LEFT DOOR OPENING ACTUATOR	6	2	195EL, AFT LEFT SIDE WING/BODY FAIRING	25-65-13
SQUIB - LEFT LATCH OPENING ACTUATOR, M957	6	1	195QL, AFT LEFT SIDE WING/BODY FAIRING	25-65-14
SQUIB - LEFT SPOILER OVERRIDE ACTUATOR, M955	2	1	IN SPOILER OVERRIDE ACTUATOR, AFT OF SPOILER BEAM AT INBOARD SPOILER PANEL NO. 6	25-65-19
SQUIB - RIGHT DOOR OPENING ACTUATOR	6	2	196ER, AFT RIGHT SIDE WING/BODY	25-65-13
SQUIB - RIGHT LATCH OPENING ACTUATOR, M958	6	1	196QR, AFT RIGHT SIDE WING/BODY	25-65-14
SQUIB - RIGHT SPOILER OVERRIDE ACTUATOR, M956	2	1	IN SPOILER OVERRIDE ACTUATOR, AFT OF SPOILER BEAM AT INBOARD SPOILER PANEL NO. 7	25-65-19

Off-Wing Escape System - Component Index Figure 101 (Sheet 3)

EFFECTIVITY AIRPLANES WITH TWO HATCHES OVER EACH WING

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COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	AMM REFERENCE
SWITCH - LEFT AUTO ARM, S530	8	1	BEHIND EXIT SIGN PANEL ABOVE LEFT OVERWING ESCAPE HATCH	25-65-15
SWITCH - LEFT AUTO FIRE, S532	8	1	BEHIND EXIT SIGN PANEL ABOVE LEFT OVERWING ESCAPE HATCH	25-65-15
SWITCH - LEFT BACKUP ARM, S1 OF M1135	8	1	BEHIND EXIT SIGN PANEL ABOVE LEFT OVERWING ESCAPE HATCH	25-65-15
SWITCH - LEFT BACKUP FIRE, S2 OF M1135	8	1	BEHIND EXIT SIGN PANEL ABOVE LEFT OVERWING ESCAPE HATCH	25-65-15
SWITCH - LEFT DISABLE, S528	8	1	BEHIND EXIT SIGN PANEL ABOVE LEFT OVERWING ESCAPE HATCH	25-65-15
SWITCH - RIGHT AUTO ARM, S531	8	1	BEHIND EXIT SIGN PANEL ABOVE RIGHT OVERWING ESCAPE HATCH	25-65-15
SWITCH - RIGHT AUTO FIRE, S533	8	1	BEHIND EXIT SIGN PANEL ABOVE RIGHT OVERWING ESCAPE HATCH	25-65-15
SWITCH - RIGHT BACKUP ARM, S1 OF M1136	8	1	BEHIND EXIT SIGN PANEL ABOVE RIGHT OVERWING ESCAPE HATCH	25-65-15
SWITCH - RIGHT BACKUP FIRE, S2 OF M1136	8	1	BEHIND EXIT SIGN PANEL ABOVE RIGHT OVERWING ESCAPE HATCH	25-65-15
SWITCH - RIGHT DISABLE, S529	8	1	BEHIND EXIT SIGN PANEL ABOVE RIGHT OVERWING ESCAPE HATCH	25-65-15
TIME DELAY - LEFT SLIDE DOOR SQUIB, M1 OF M1135	8	1	BEHIND EXIT SIGN PANEL ABOVE LEFT OVERWING ESCAPE HATCH	*
TIME DELAY - RIGHT SLIDE DOOR SQUIB, M1 OF M1136	8	1	BEHIND EXIT SIGN PANEL ABOVE RIGHT OVERWING ESCAPE HATCH	*

Off-Wing Escape System - Component Index Figure 101 (Sheet 4)

EFFECTIVITY AIRPLANES WITH ONE HATCH OVER EACH WING



COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	AMM REFERENCE
SWITCH - LEFT AFT OFF-WING ESCAPE SYSTEM	9	1	BEHIND EXIT SIGN PANEL ABOVE	25-65-15
SWITCH - LEFT AFT OFF-WING ESCAPE SYSTEM AUTO FIRE, \$626	9	1	BEHIND EXIT SIGN PANEL ABOVE LEFT AFT OVERWING ESCAPE HATCH	25-65-15
SWITCH - LEFT AFT OFF-WING ESCAPE SYSTEM BACKUP ARM, S1 OF M1135	9	1	BEHIND EXIT SIGN PANEL ABOVE LEFT AFT OVERWING ESCAPE HATCH	25-65-15
SWITCH - LEFT AFT OFF-WING ESCAPE SYSTEM BACKUP FIRE, S2 OF M1135	9	1	BEHIND EXIT SIGN PANEL ABOVE LEFT AFT OVERWING ESCAPE HATCH	25-65-15
SWITCH - LEFT AFT OFF-WING ESCAPE SYSTEM DISABLE, S618	9	1	BEHIND EXIT SIGN PANEL ABOVE LEFT AFT OVERWING ESCAPE HATCH	25-65-15
SWITCH - RIGHT AFT OFF-WING ESCAPE SYSTEM	9	1	BEHIND EXIT SIGN PANEL ABOVE RIGHT AFT OVERWING ESCAPE HATCH	25-65-15
SWITCH - RIGHT AFT OFF-WING ESCAPE SYSTEM	9	1	BEHIND EXIT SIGN PANEL ABOVE RIGHT AFT OVERWING ESCAPE HATCH	25-65-15
SWITCH - RIGHT AFT OFF-WING ESCAPE SYSTEM BACKUP ARM, S1 OF M1136	9	1	BEHIND EXIT SIGN PANEL ABOVE RIGHT AFT OVERWING ESCAPE HATCH	25-65-15
SWITCH - RIGHT AFT OFF-WING ESCAPE SYSTEM BACKUP FIRE, S2 OF M1136	9	1	BEHIND EXIT SIGN PANEL ABOVE RIGHT AFT OVERWING ESCAPE HATCH	25-65-15
SWITCH - RIGHT AFT OFF-WING ESCAPE SYSTEM DISABLE, S617	9	1	BEHIND EXIT SIGN PANEL ABOVE RIGHT AFT OVERWING ESCAPE HATCH	25-65-15
SWITCH - LEFT FWD OFF-WING ESCAPE SYSTEM AUTO ARM, S624	9	1	BEHIND EXIT SIGN PANEL ABOVE LEFT FORWARD OVERWING ESCAPE HATCH	25-65-15
SWITCH - LEFT FWD OFF-WING ESCAPE SYSTEM AUTO FIRE, S628	9	1	BEHIND EXIT SIGN PANEL ABOVE LEFT FORWARD OVERWING ESCAPE HATCH	25-65-15
SWITCH - LEFT FWD OFF-WING ESCAPE SYSTEM BACKUP ARM, S630	9	1	BEHIND EXIT SIGN PANEL ABOVE LEFT FORWARD OVERWING ESCAPE HATCH	25-65-15
SWITCH - LEFT FWD OFF-WING ESCAPE SYSTEM BACKUP FIRE, S632	9	1	BEHIND EXIT SIGN PANEL ABOVE LEFT FORWARD OVERWING ESCAPE HATCH	25-65-15
SWITCH - LEFT FWD OFF-WING ESCAPE SYSTEM DISABLE, S620	9	1	BEHIND EXIT SIGN PANEL ABOVE LEFT FORWARD OVERWING ESCAPE HATCH	25-65-15
SWITCH - RIGHT FWD OFF-WING ESCAPE SYSTEM AUTO ARM, S623	9	1	BEHIND EXIT SIGN PANEL ABOVE RIGHT FORWARD OVERWING ESCAPE HATCH	25-65-15
SWITCH - RIGHT FWD OFF-WING ESCAPE SYSTEM AUTO FIRE, S627	9	1	BEHIND EXIT SIGN PANEL ABOVE RIGHT FORWARD OVERWING ESCAPE HATCH	25-65-15
SWITCH - RIGHT FWD OFF-WING ESCAPE SYSTEM BACKUP ARM, S629	9	1	BEHIND EXIT SIGN PANEL ABOVE RIGHT FORWARD OVERWING ESCAPE HATCH	25-65-15
SWITCH - RIGHT FWD OFF-WING ESCAPE SYSTEM BACKUP FIRE, S631	9	1	BEHIND EXIT SIGN PANEL ABOVE RIGHT FORWARD OVERWING ESCAPE HATCH	25-65-15
SWITCH - RIGHT FWD OFF-WING ESCAPE SYSTEM DISABLE, S619	9	1	BEHIND EXIT SIGN PANEL ABOVE RIGHT FORWARD OVERWING ESCAPE HATCH	25-65-15
TIME DELAY - LEFT SLIDE DOOR SQUIB, M1 OF M1135	9	1	BEHIND EXIT SIGN PANEL ABOVE LEFT AFT OVERWING ESCAPE HATCH	*
TIME DELAY - RIGHT SLIDE DOOR SQUIB, M1 OF M1136	9	1	BEHIND EXIT SIGN PANEL ABOVE RIGHT AFT OVERWING ESCAPE HATCH	*

Off-Wing Escape System - Component Index Figure 101 (Sheet 5)

EFFECTIVITY AIRPLANES WITH TWO HATCHES OVER EACH WING

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Off-Wing Escape System - Component Location Figure 102 (Sheet 1)

EFFECTIVITY AIRPLANES WITH BUILT UP OFF-WING ESCAPE SYSTEM 25-65-00 CONFIG 1 Page 106 Apr 22/06

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Figure 102 (Sheet 4)

EFFECTIVITY AIRPLANES WITH BUILT UP OFF-WING ESCAPE SYSTEM

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SYSTEM






EFFECTIVITY AIRPLANES WITH BUILT UP OFF-WING ESCAPE SYSTEM



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Off-Wing Escape System - Component Location Figure 102 (Sheet 8)

EFFECTIVITY AIRPLANES WITH ONE HATCH OVER EACH WING

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OFF-WING ESCAPE SYSTEM

COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	AMM Reference
ACTUATOR - LEFT OFF-WING SLIDE SPOILER OVERRIDE	2	1	AFT OF SPOILER BEAM AT INBOARD SPOILER PANEL NO. 6	25-65-20
ACTUATOR - RIGHT OFF-WING SLIDE SPOILER OVERRIDE	2	1	AFT OF SPOILER BEAM AT INBOARD SPOILER PANEL NO. 7	25-65-20
BATTERY - LEFT OFF-WING ESCAPE SYSTEM EMERGENCY, M961	4	1	BEHIND AIR GRILL, AFT OF LEFT HATCH	25-65-17
BATTERY - RIGHT OFF-WING ESCAPE SYSTEM EMERGENCY, M962	4	1	BEHIND AIR GRILL, AFT OF RIGHT HATCH	25-65-17
CIRCUIT BREAKERS			FLT COMPT, P11	
EMER LTS WING ESC LEFT, C1302		1	11P35	*
EMER LTS WING ESC RIGHT, C1280		1	11P36	*
CYLINDER - LEFT OFF-WING SLIDE INFLATION	3	1	197CL, BOTTOM OF AFT LEFT SIDE WING/BODY FAIRING	25-65-02
CYLINDER - RIGHT OFF-WING SLIDE INFLATION	3	1	198CR, BOTTOM OF AFT RIGHT SIDE WING/BODY FAIRING	25-65-02
RELAY - LEFT INFLATION CYLINDER SQUIB, K1 OF M1135	5	1	BEHIND EXIT SIGN PANEL ABOVE LEFT AFT OVERWING ESCAPE HATCH	*
RELAY - LEFT INFLATION CYLINDER SQUIB TEST, K3 OF M1135	5	1	BEHIND EXIT SIGN PANEL ABOVE LEFT AFT OVERWING ESCAPE HATCH	*
RELAY - LEFT INFLATION CYLINDER SQUIB TEST, K5 OF M1135	5	1	BEHIND EXIT SIGN PANEL ABOVE LEFT AFT OVERWING ESCAPE HATCH	*
RELAY - LEFT SPOILER RETRACT, K2 OF M1135	5	1	BEHIND EXIT SIGN PANEL ABOVE	*
RELAY - LEFT SPOILER SQUIB TEST, K4 OF M1135	5	1	BEHIND EXIT SIGN PANEL ABOVE	*
RELAY - LEFT SPOILER SQUIB TEST, K6 OF M1135	5	1	BEHIND EXIT SIGN PANEL ABOVE	*
RELAY - RIGHT INFLATION CYLINDER SQUIB, K1 OF M1136	5	1	BEHIND EXIT SIGN PANEL ABOVE RIGHT AFT OVERWING ESCAPE HATCH	*

* SEE THE WDM EQUIPMENT LIST

Off-Wing Escape System - Component Index Figure 101 (Sheet 1)

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COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	AMM REFERENCE
RELAY - RIGHT INFLATION CYLINDER SQUIB TEST,	5	1	BEHIND EXIT SIGN PANEL ABOVE	*
RELAY - RIGHT INFLATION CYLINDER SQUIB TEST, K5 OF M1136	5	1	BEHIND EXIT SIGN PANEL ABOVE RIGHT AFT OVERWING ESCAPE HATCH	*
RELAY - RIGHT SPOILER RETRACT, K2 OF M1136	5	1	BEHIND EXIT SIGN PANEL ABOVE RIGHT AFT OVERWING ESCAPE HATCH	*
RELAY - RIGHT SPOILER SQUIB TEST, K4 OF M1136	5	1	BEHIND EXIT SIGN PANEL ABOVE RIGHT AFT OVERWING ESCAPE HATCH	*
RELAY - RIGHT SPOILER SQUIB TEST, K6 OF M1136	5	1	BEHIND EXIT SIGN PANEL ABOVE RIGHT AFT OVERWING ESCAPE HATCH	*
RELAY - SQUIB TEST 1, K838		1	P19, ABOVE LEFT FORWARD PASSENGER COMPARTMENT CEILING PANEL	*
RELAY - SQUIB TEST 2, K839		1	P19, ABOVE LEFT FORWARD PASSENGER COMPARTMENT CEILING PANEL	*
SLIDE - LEFT OFF-WING ESCAPE	2	1	195EL, AFT LEFT SIDE WING/BODY FAIRING	25-65-01
SLIDE - RIGHT OFF-WING ESCAPE	2	1	196ER, AFT RIGHT SIDE WING/BODY FAIRING	25-65-01
SQUIB - LEFT SPOILER OVERRIDE ACTUATOR, M955	2	1	IN SPOILER OVERRIDE ACTUATOR, AFT OF SPOILER BEAM AT INBOARD SPOILER PANEL NO. 6	25-65-19
SQUIB - RIGHT SPOILER OVERRIDE ACTUATOR, M956	2	1	IN SPOILER OVERRIDE ACTUATOR, AFT OF SPOILER BEAM AT INBOARD SPOILER PANEL NO. 7	25-65-19
SQUIB - RIGHT WING SLIDE INFLATION CYLINDER SQUIB, M12141	3	1	148CR BOTTOM OF AFT RIGHT SIDE WING/BODY FAIRING	
SQUIB - LEFT WING SLIDE INFLATION CYLINDER SQUIB, M12142	3	1	147CL BOTTOM OF AFT LEFT SIDE WING/BODY FAIRING	

* SEE THE WDM EQUIPMENT LIST

Off-Wing Escape System - Component Index Figure 101 (Sheet 2)

EFFECTIVITY AIRPLANES WITH MODULAR OFF-WING ESCAPE SYSTEM





COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	AMM REFERENCE
SWITCH - LEFT AFT OFF-WING ESCAPE SYSTEM	5	1	BEHIND EXIT SIGN PANEL ABOVE LEFT AFT OVERWING ESCAPE HATCH	25-65-15
SWITCH - LEFT AFT OFF-WING ESCAPE SYSTEM AUTO FIRE, \$626	5	1	BEHIND EXIT SIGN PANEL ABOVE LEFT AFT OVERWING ESCAPE HATCH	25-65-15
SWITCH - LEFT AFT OFF-WING ESCAPE SYSTEM BACKUP ARM, S1 OF M1135	5	1	BEHIND EXIT SIGN PANEL ABOVE LEFT AFT OVERWING ESCAPE HATCH	25-65-15
SWITCH - LEFT AFT OFF-WING ESCAPE SYSTEM BACKUP FIRE, S2 OF M1135	5	1	BEHIND EXIT SIGN PANEL ABOVE LEFT AFT OVERWING ESCAPE HATCH	25-65-15
SWITCH - LEFT AFT OFF-WING ESCAPE SYSTEM DISABLE, S618	5	1	BEHIND EXIT SIGN PANEL ABOVE LEFT AFT OVERWING ESCAPE HATCH	25-65-15
SWITCH - RIGHT AFT OFF-WING ESCAPE SYSTEM	5	1	BEHIND EXIT SIGN PANEL ABOVE RIGHT AFT OVERWING ESCAPE HATCH	25-65-15
SWITCH - RIGHT AFT OFF-WING ESCAPE SYSTEM	5	1	BEHIND EXIT SIGN PANEL ABOVE RIGHT AFT OVERWING ESCAPE HATCH	25-65-15
SWITCH - RIGHT AFT OFF-WING ESCAPE SYSTEM BACKUP ARM, S1 OF M1136	5	1	BEHIND EXIT SIGN PANEL ABOVE RIGHT AFT OVERWING ESCAPE HATCH	25-65-15
SWITCH - RIGHT AFT OFF-WING ESCAPE SYSTEM BACKUP FIRE, S2 OF M1136	5	1	BEHIND EXIT SIGN PANEL ABOVE RIGHT AFT OVERWING ESCAPE HATCH	25-65-15
SWITCH - RIGHT AFT OFF-WING ESCAPE SYSTEM DISABLE, S617	5	1	BEHIND EXIT SIGN PANEL ABOVE RIGHT AFT OVERWING ESCAPE HATCH	25-65-15
SWITCH - LEFT FWD OFF-WING ESCAPE SYSTEM	5	1	BEHIND EXIT SIGN PANEL ABOVE LEFT FORWARD OVERWING ESCAPE HATCH	25-65-15
SWITCH - LEFT FWD OFF-WING ESCAPE SYSTEM AUTO FIRE, S628	5	1	BEHIND EXIT SIGN PANEL ABOVE LEFT FORWARD OVERWING ESCAPE HATCH	25-65-15
SWITCH - LEFT FWD OFF-WING ESCAPE SYSTEM BACKUP ARM, S630	5	1	BEHIND EXIT SIGN PANEL ABOVE LEFT FORWARD OVERWING ESCAPE HATCH	25-65-15
SWITCH - LEFT FWD OFF-WING ESCAPE SYSTEM BACKUP FIRE, S632	5	1	BEHIND EXIT SIGN PANEL ABOVE LEFT FORWARD OVERWING ESCAPE HATCH	25-65-15
SWITCH - LEFT FWD OFF-WING ESCAPE SYSTEM DISABLE, S620	5	1	BEHIND EXIT SIGN PANEL ABOVE LEFT FORWARD OVERWING ESCAPE HATCH	25-65-15
SWITCH - RIGHT FWD OFF-WING ESCAPE SYSTEM AUTO ARM, S623	5	1	BEHIND EXIT SIGN PANEL ABOVE RIGHT FORWARD OVERWING ESCAPE HATCH	25-65-15
SWITCH - RIGHT FWD OFF-WING ESCAPE SYSTEM AUTO FIRE, S627	5	1	BEHIND EXIT SIGN PANEL ABOVE RIGHT FORWARD OVERWING ESCAPE HATCH	25-65-15
SWITCH - RIGHT FWD OFF-WING ESCAPE SYSTEM BACKUP ARM, S629	5	1	BEHIND EXIT SIGN PANEL ABOVE RIGHT FORWARD OVERWING ESCAPE HATCH	25-65-15
SWITCH - RIGHT FWD OFF-WING ESCAPE SYSTEM BACKUP FIRE, S631	5	1	BEHIND EXIT SIGN PANEL ABOVE RIGHT FORWARD OVERWING ESCAPE HATCH	25-65-15
SWITCH - RIGHT FWD OFF-WING ESCAPE SYSTEM DISABLE, S619	5	1	BEHIND EXIT SIGN PANEL ABOVE RIGHT FORWARD OVERWING ESCAPE HATCH	25-65-15
TIME DELAY - LEFT INFLATION CYLINDER SQUIB, M1 OF M1135	5	1	BEHIND EXIT SIGN PANEL ABOVE LEFT AFT OVERWING ESCAPE HATCH	*
TIME DELAY - RIGHT INFLATION CYLINDER SQUIB, M1 OF M1136	5	1	BEHIND EXIT SIGN PANEL ABOVE RIGHT AFT OVERWING ESCAPE HATCH	*

* SEE THE WDM EQUIPMENT LIST

Off-Wing Escape System - Component Index Figure 101 (Sheet 3)

EFFECTIVITY AIRPLANES WITH MODULAR OFF-WING ESCAPE SYSTEM



















EFFECTIVITY AIRPLANES WITH MODULAR OFF-WING ESCAPE SYSTEM



MAINTENANCE MANUAL

OFF-WING ESCAPE SYSTEM - MAINTENANCE PRACTICES

- 1. <u>General</u>
 - A. This procedure contains these tasks:
 - (1) Disarm the off-wing escape system
 - (2) Arm the off-wing escape system.
 - (3) Put the off-wing escape system back to its initial condition after the deployment of the escape slide.
 - (4) Apply corrosion prevention treatment.

TASK 25-65-00-042-001-001

2. Disarm the Off-Wing Escape System

- A. General
 - (1) This procedure gives instructions to disarm the off-wing escape system.
 - (2) To prevent accidental slide deployment, you must use this procedure when:
 - (a) You do work on or near the off-wing escape system.
 - (b) You do work on or near the overwing emergency exit hatch.
- B. References
 - (1) AMM 27-51-00/201, Trailing Edge Flap System
 - (2) AMM 29-11-00/201, Main (Left, Right, Center) Hydraulic Systems
 - (3) AMM 32-00-15/201, Landing Gear Door Locks
 - (4) AMM 32-00-20/201, Landing Gear Downlocks
- C. Access
 - (1) Location Zones
 - 141/142 Area Above MLG Wheel Well
 - 195/196 Wing to Body Aft Upper Half
 - 553/653 Spoiler No. 6 (LH), No. 7 (RH)
 - 832/842 Overwing Emergency Exit Hatch
 - 834/844 Overwing Emergency Exit Hatch
 - (2) Access Panels

195EL/196ER	Off-Wing Escape Slide Compartment Door
195ML/196MR	Integrator Access Door
195QL/196QR	Latch Opening Actuator Access Door
197CL/198CR	Lower Access Door

D. Procedure







DISARM THE OFF-WING ESCAPE SYSTEM

WARNING: YOU MUST DO THE TASKS IN THIS PROCEDURE TO DISARM THE OFF-WING ESCAPE SYSTEM. YOU CAN ACCIDENTALLY DEPLOY THE ESCAPE SLIDE IF YOU DO NOT DO THE TASKS TO DISARM THE OFF-WING ESCAPE SYSTEM. THIS CAN CAUSE INJURY TO PERSONS AND DAMAGE TO EQUIPMENT.

TASK IN THE TEXT	INSPECTION CONDITION	LOCATION	FIGURE
1. INSTALL LANDING GEAR DOWNLOCK PIN	LOCKS INSTALLED	NOSE AND MAIN LANDING GEAR	
2. OPEN DOORS AND INSTALL LANDING GEAR DOOR LOCKS	LANDING GEAR DOOR LOCKS DOWN	MAIN LANDING GEAR DOORS	
3. DISARM THE INFLATION	ITE IN ARMING WINDOW ACCESS PANEL IN MAIN		203
CYLINDER	SAFETY PIN IN REGULATOR	WELL	203
4. OPEN CIRCUIT BREAKERS	CIRCUIT BREAKERS - OPEN, "DO NOT CLOSE" TAG INSTALLED	FLIGHT DECK	
5. DISARM THE EMERGENCY BATTERIES	ELECTRICAL CONNECTOR DISCONNECTED	PASSENGER COMPARTMENT BEHIND AIR GRILL	204
6. DISARM THE OVERWING	DISABLE HANDLE IS DOWN	PASSENGER COMPARTMENT	205
EMERGENCY EXII HAICH	ARM SWITCHES ARE DOWN	OVER THE HATCHES	
7. DISARM THE LATCH- OPENING ACTUATORS	SHORTING CAP INSTALLED	WING-TO-BODY FAIRING	206
8. DISARM THE SPOILER OVERRIDE ACTUATOR	SHORTING CAP INSTALLED	TRAILING EDGE WING	207

Summary - Disarm the Off-Wing Escape System Figure 201

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM





s 862-002-001

- WARNING: MAKE SURE THAT THE DOWNLOCKS ARE INSTALLED IN ALL OF THE LANDING GEAR. WITHOUT THE DOWNLOCKS, THE LANDING GEAR CAN RETRACT AND CAUSE INJURIES TO PERSONS AND DAMAGE TO EQUIPEMENT.
- (1) Make sure the downlocks are installed on the nose and main landing gear (AMM 32-00-20/201).

s 492-003-001

WARNING: OBEY THE INSTALLATION PROCEDURE TO INSTALL THE DOOR LOCKS. THE DOORS OPEN AND CLOSE QUICKLY AND CAN CAUSE INJURY TO PERSONS OR DAMAGE TO EQUIPMENT.

(2) Open the doors for the landing gear and install the door locks (AMM 32-00-15/201).

s 042-004-001

- (3) Disarm the inflation cylinder:
 - (a) Open the lower access door (197CL or 198CR) to get access to the safety pin for the inflation cylinder (Fig. 202 & 203).
 - <u>NOTE</u>: The safety pin is kept in a pouch which is in the lower access door.
 - (b) Open the access door in the aft wall of the wheel well to get access to the inflation cylinder regulator.
 - WARNING: DO NOT TURN THE REGULATOR ARMING SHAFT OR MOVE THE INFLATION TRIGGER BEFORE YOU INSTALL THE SAFETY PIN FOR THE INFLATION CYLINDER. ACCIDENTAL DEPLOYMENT OF THE ESCAPE SYSTEM CAN OCCUR AND CAUSE INJURY OR DAMAGE.
 - (c) Install the safety pin into the SAFETY hole of the inflation cylinder regulator (View B, Fig. 203).
 - (d) Make sure you can see the white indicator in the arming indicator window on the regulator (View C, Fig. 203).
 - <u>NOTE</u>: If you can not see the white indicator in the arming indicator window, maintenance or replacement of the inflation cylinder is necessary.

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM





(LEFT SIDE IS SHOWN, RIGHT SIDE IS OPPOSITE)

Off-Wing Escape System Components Figure 202

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM







s 862-005-001

- (4) Open these circuit breakers on the overhead circuit breaker panel, P11, and attach DO-NOT-CLOSE tags:
 - (a) 11C6, FLT CONT ELEC 1L AC
 - (b) 11C7, FLT CONT ELEC 1L DC
 - (c) 11C8, FLT CONT ELEC 2L AC
 - (d) 11C9, FLT CONT ELEC 2L DC
 - (e) 11G17, FLT CONT ELEC 1R AC
 - (f) 11G18, FLT CONT ELEC 1R DC
 - (g) 11G26, FLT CONT ELEC 2R AC
 - (h) 11G27, FLT CONT ELEC 2R DC
 - (i) 11P35, EMER LTS WING ESC L
 - (j) 11P36, EMER LTS WING ESC R

s 042-006-001

- (5) Disarm the emergency batteries:
 - (a) Remove the air return grills which are near the left and right overwing escape hatches.
 - WARNING: MAKE SURE THE LEFT AND RIGHT BATTERIES ARE DISCONNECTED OR ELSE ONE OR BOTH OF THE ESCAPE SLIDES MAY ACTIVATE. ACCIDENTAL ESCAPE SLIDE DEPLOYMENT CAN CAUSE INJURIES TO PERSONS AND DAMAGE TO EQUIPMENT.
 - (b) Disconnect the electrical connectors from the left (M961) and right (M962) emergency batteries of the off-wing escape system (View A, Fig. 204).
 - <u>NOTE</u>: You must disconnect the left and right emergency batteries when you do work on one or both of the two off-wing escape systems.

s 042-007-001

- (6) Disarm the overwing emergency exit hatches:
 - (a) Open the EXIT sign panel which is above the hatch to get access to the off-wing escape switches.
 - <u>NOTE</u>: If there are screws at the lower corners of the panel, use a phillips screwdriver to remove the screws (flush mounted 1/4 turn fasteners) then lift the panel. If the panel has small holes in the lower corners, put a 1/8 inch allen wrench into the holes to release the screws, then lift the panel.

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM





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- WARNING: MAKE SURE YOU PUT THE DISABLE HANDLE DOWN TO THE SAFE POSITION BEFORE YOU DISARM THE LATCH OPENING ACTUATOR. IF THE DISABLE HANDLE IS NOT IN THE SAFE POSITION, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (b) Put the disable handle down to the SAFE position. Push down tightly on the disable handle.
- (c) Make sure the auto arm and the auto fire switches are at the ARM, down position (Fig. 205).
- s 042-008-001
- (7) Disarm the latch opening actuator (Fig 206):
 - (a) Open the latch opening actuator access door (196QR or 195QL).
 - WARNING: BE CAREFUL WHEN YOU INSTALL THE SHORTING CAP ON THE LATCH OPENING ACTUATOR. THE SQUIB ON THE ACTUATOR CAN ACCIDENTALLY FIRE AND CAUSE INJURY OR DAMAGE.
 - (b) Disconnect the electrical connector from the latch opening actuator squib.
 - (c) Install a cap on the electrical connector for protection.
 - <u>CAUTION</u>: BE CAREFUL NOT TO BEND A PIN DURING INSTALLATION OF THE SHORTING CAP. THE SHORTING CAP CAN CAUSE DAMAGE TO THE SQUIB PINS.
 - (d) Install the shorting cap on the latch opening actuator squib.
 - <u>NOTE</u>: The shorting cap is kept in the pouch which is in the latch opening actuator compartment.
 - S 042-009-001
- (8) Disarm the spoiler override actuator (Fig. 207):
 - (a) Pressurize the main (left, right, center) hydraulic systems (AMM 29-11-00/201).
 - (b) Extend the flaps to the fully extended position (AMM 27-51-00/201) to get access to the spoiler override actuator.
 - (c) Remove the pressure from the main (left, right, center) hydraulic systems (AMM 29-11-00/201).
 - (d) Complete the deactivation procedure for the flaps (AMM 27-51-00/201).

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM











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- WARNING: BE CAREFUL WHEN YOU TOUCH THE ACTUATORS. THE SQUIB ON THE ACTUATORS CAN ACCIDENTALLY FIRE AND CAUSE INJURY OR DAMAGE.
- (e) Disconnect the electrical connector from the spoiler override actuator squib.
- (f) Install a cap on the electrical connector for protection.
- <u>CAUTION</u>: BE CAREFUL NOT TO BEND A PIN DURING INSTALLATION OF THE SHORTING CAP. THE SHORTING CAP CAN CAUSE DAMAGE TO THE SQUIB PINS.
- (g) Install the shorting cap on the spoiler override actuator squib.
 - <u>NOTE</u>: The shorting cap is kept in a pouch which is in the lower access door (197CL or 198CR).

TASK 25-65-00-442-010-001

- 3. Arm the Off-Wing Escape System
 - A. References
 - (1) AMM 24-22-00/201, Electrical Power Control
 - (2) AMM 25-65-02/401, Off-Wing Escape Slide Inflation Cylinder
 - (3) AMM 27-51-00/201, Trailing Edge Flap System
 - (4) AMM 29-11-00/201, Main (Left, Right, Center) Hydraulic Systems
 - (5) AMM 32-00-15/201, Landing Gear Door Locks
 - (6) AMM 32-00-20/201, Landing Gear Downlocks
 - B. Access
 - (1) Location Zones
 - 141/142 Area Above MLG Wheel Well
 - 195/196 Wing to Body Aft Upper Half
 - 553/653 Spoiler No. 6 (LH), No. 7 (RH)
 - 832/842 Overwing Emergency Exit Hatch
 - 834/844 Overwing Emergency Exit Hatch

(2) Access Panels

Off-Wing Escape Slide Compartment Door
Integrator Access Door
Latch Opening Actuator Access Door
Lower Access Door

- C. Prepare for the Procedure
 - s 862-011-001
 - (1) Supply electrical power to the airplane (AMM 24-22-00/201).
- D. Procedure

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM





MAINTENANCE MANUAL

ARM THE OFF-WING ESCAPE SYSTEM

WARNING: YOU MUST DO THE TASKS IN THIS PROCEDURE TO ARM THE OFF-WING ESCAPE SYSTEM. YOU CAN ACCIDENTALLY DEPLOY THE ESCAPE SLIDE IF YOU DO NOT DO THE TASKS TO DISARM THE OFF-WING ESCAPE SYSTEM. THIS CAN CAUSE INJURY TO PERSONS AND DAMAGE TO EQUIPMENT.

TASK IN THE TEXT	INSPECTION CONDITION	LOCATION	FIGURE
1. ARM SPOTLER OVERRIDE	NO STRAY VOLTAGE		207
ACTUATOR	CONNECTOR INSTALLED	TRAILING EDGE WING	
2. ARM LATCH OPENING	NO STRAY VOLTAGE	UTNE TO DODY FAIDING	206
ACTUATOR	CONNECTOR INSTALLED	WING-TO-BODT FAIRING	
3. ARM EXIT HATCHES	EXIT HATCH INSTALLED		205
	ARM/FIRE SWITCHES IN THE ARM POSITION DISABLE HANDLE UP	OVER THE HATCHES	
4. ARM EMERGENCY BATTERIES	CONNECTOR INSTALLED	PASSENGER COMPARTMENT BEHIND AIR GRILL	204
5. CLOSE CIRCUIT BREAKERS	CLOSED	FLIGHT DECK	
6. DO SQUIB TEST	GREEN LIGHTS ON FOR TEST 1 AND TEST 2	FLIGHT DECK	209
7. ARM THE INFLATION	WHITE COLOR IN ARMING WINDOW		
CYLINDER	RETAINER SPRING IN THE ENGAGED POSITION AND THE BALL IN THE MIDDLE OF THE CABLE IS BEHIND THE SPRING.	ACCESS PANEL IN MAIN LANDING GEAR WHEEL WELL	203
	SAFETY PIN REMOVED		
8. ARM MAIN LANDING GEAR DOOR	DOWNLOCKS REMOVED (UP)	MAIN LANDING GEAR WHEEL WELL	

Summary - Arm the Off-Wing Escape System Figure 208

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM



s 862-012-001

- WARNING: MAKE SURE THE OFF-WING ESCAPE SYSTEM IS DISARMED. IF THE OFF-WING ESCAPE SYSTEM IS NOT DISARMED YOU CAN ACCIDENTALLY DEPLOY THE ESCAPE SLIDE WHEN YOU ARM THE OFF-WING ESCAPE SYSTEM. THIS CAN CAUSE INJURY TO PERSONS AND DAMAGE TO EQUIPMENT.
- (1) Arm the spoiler override actuator (Fig. 207):
 - (a) Pressurize the main (left, right, center) hydraulic systems (AMM 29-11-00/201).
 - (b) Extend the flaps (AMM 27-51-00/201).
 - (c) Remove pressure from the main (left, right, center) hydraulic systems (AMM 29-11-00/201).
 - (d) Complete the deactivation procedures for the flaps (AMM 27-15-00/201).
 - <u>WARNING</u>: BE CAREFUL WHEN YOU REMOVE THE SHORTING CAP FROM THE SPOILER OVERRIDE ACTUATOR. THE SQUIB ON THE ACTUATOR CAN ACCIDENTALLY FIRE AND CAUSE INJURY OR DAMAGE.
 - (e) Remove the shorting cap from the spoiler override actuator squib.
 - <u>NOTE</u>: Keep the shorting cap in the pouch which is in the lower access door (197CL or 198CR).
 - (f) Make sure there is no voltage on any of the pins of the electrical connector.
 - (g) Connect the electrical connector to the spoiler override actuator squib.
 - (h) Put the hydraulic systems back to their initial condition (AMM 29-11-00/201).
 - (i) Do the activation procedure for the flaps (AMM 27-51-00).
 - (j) Retract the flaps (AMM 27-51-00).

s 862-013-001

- (2) Arm the latch opening actuator (Fig. 206):
 - <u>WARNING</u>: BE CAREFUL WHEN YOU REMOVE THE SHORTING CAP FROM THE LATCH OPENING ACTUATOR. THE SQUIB ON THE ACTUATOR CAN ACCIDENTALLY FIRE AND CAUSE INJURY OR DAMAGE.
 - (a) Remove the shorting cap from the latch opening actuator squib.
 - <u>NOTE</u>: Keep the shorting cap in the pouch which is in the latch opening actuator compartment.

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM





MAINTENANCE MANUAL

- (b) Make sure there is no voltage on any of the pins of the electrical connector.
- (c) Connect the electrical connector to the latch opening actuator squib.
- (d) Close the latch opening actuator access door (196QR or 195QL).

s 862-014-001

- (3) Arm the overwing exit hatches:
 - (a) Make sure the overwing emergency exit hatches are installed (AMM 52-21-01/201).
 - (b) AIRPLANES WITH ONE HATCH OVER EACH WING; Make sure the backup arm switch and backup fire switch are in the ARM, up position (Fig. 205).
 - <u>NOTE</u>: Physically make sure that the backup arm and backup fire switches are in the ARM, (UP) position for both exit hatches.
 - (c) AIRPLANES WITH TWO HATCHES OVER EACH WING; Make sure the backup arm switch and the backup fire switch of both the forward and aft escape hatches are in the ARM, up position.
 - <u>NOTE</u>: Physically make sure that the backup arm and backup fire switches are in the ARM, (UP) position for both forward and aft exit hatches.
 - <u>WARNING</u>: ON THE AUTO ARM/FIRE SWITCH PANEL, MAKE SURE THE STRAIGHT PIN IS BELOW THE AUTO ARM SWITCH AND THE AUTO FIRE SWITCH. IF THE STRAIGHT PIN IS NOT BELOW THE AUTO ARM SWITCH AND THE AUTO FIRE SWITCH, AUTOMATIC DEPLOYMENT OF THE OFF-WING ESCAPE SYSTEM WILL NOT OCCUR WHEN AN OVERWING ESCAPE HATCH IS REMOVED.

THE STRAIGHT PIN MUST OPERATE THE AUTO ARM SWITCH AND THE AUTO FIRE SWITCH WHEN AN OVERWING ESCAPE HATCH IS REMOVED.

- (d) Make sure the straight pin is below the auto arm switch and the auto fire switch (Fig. 205). If the straight pin is not below the auto arm and auto fire switches, do these steps:
 - Disconnect the electrical connector from the auto arm/fire switch panel.
 - <u>NOTE</u>: This step prevents the electrical operation of the AUTO ARM switch and the AUTO FIRE switch.
 - 2) Put the auto arm switch and the auto fire switch to the FIRE, up position.
 - 3) Lower the lever to push the straight pin down.

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM

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- 4) Put the auto arm switch and the auto fire switch to the ARM, down position.
 - <u>NOTE</u>: The straight pin must be below the auto arm switch and the auto fire switch. The straight pin must operate the auto arm switch and the auto fire switch when an overwing escape hatch is removed.
- Connect the electrical connector to the auto arm/fire switch panel.
- (e) Push down tightly on the disable handle. Make sure the auto arm and auto fire switches are in the ARM, down position.
 - <u>NOTE</u>: AIRPLANES WITH TWO HATCHES OVER EACH WING; The auto arm and auto fire switches of both the forward and aft escape hatches must be in the ARM, down position.
- WARNING: MAKE SURE THE AUTO ARM AND BACKUP ARM SWITCHES ARE IN THE ARM POSITION BEFORE YOU MOVE THE DISABLE HANDLE TO THE ARM POSITION. IF THE AUTO AND BACKUP SWITCHES ARE NOT IN THE ARM POSITION WHEN YOU MOVE THE DISABLE HANDLE, ACCIDENTAL DEPLOYMENT OF THE ESCAPE SLIDE CAN OCCUR AND CAUSE INJURY OR DAMAGE.
- (f) Put the disable handle to the ARM, up position.
- (g) Make sure the auto arm and auto fire switches are in the ARM, down position.
- (h) Make sure there is a small quantity of movement when you lightly touch the straight pin.
 - <u>NOTE</u>: This makes sure that the straight pin does not put pressure on the auto arm and auto fire switches when they are in the ARM, down position.

The straight pin must be below the auto arm switch and the auto fire switch.

- (i) Close the EXIT sign panel above the overwing escape hatch.
 - <u>NOTE</u>: Use an allen wrench or phillips screwdriver to install the screws at the lower corners of the panel.

s 862-015-001

(4) Arm the emergency batteries:

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM





- <u>WARNING</u>: BE CAREFUL WHEN CONNECTING THE LEFT AND RIGHT BATTERIES OR ELSE ONE OR BOTH OF THE ESCAPE SLIDES MAY ACTIVATE. ACCIDENTAL ESCAPE SLIDE DEPLOYMENT CAN CAUSE INJURIES TO PERSONS AND DAMAGE TO EQUIPMENT.
- (a) Connect the electrical connectors to the left (M961) and right (M962) emergency batteries of the off-wing escape system (Fig. 204).
- (b) Install the air return grills.

s 862-058-001

(5) Remove the DO-NOT-CLOSE tags and close these circuit breakers on the P6 circuit breaker panel:

s 862-016-001

- (6) Remove the DO-NOT-CLOSE tags and close these circuit breakers on the P11 panel:
 - (a) 11C6, FLT CONT ELEC 1L AC
 - (b) 11C7, FLT CONT ELEC 1L DC
 - (c) 11C8, FLT CONT ELEC 2L AC
 - (d) 11C9, FLT CONT ELEC 2L DC
 - (e) 11G17, FLT CONT ELEC 1R AC
 - (f) 11G18, FLT CONT ELEC 1R DC
 - (g) 11G26, FLT CONT ELEC 2R AC
 - (h) 11G27, FLT CONT ELEC 2R DC
 - (i) 11P35, EMER LTS WING ESC L
 - (j) 11P36, EMER LTS WING ESC R
 - s 732-017-001
- (7) Do the squib test as follows (Fig. 209):
 - (a) Push and hold the TEST 1 switch on the squib test panel M32 which is on the right side panel P61.
 - 1) Make sure the EMER ESCAPE L and EMER ESCAPE R lights on the squib test panel come on in 3 seconds.
 - <u>NOTE</u>: You must wait for the lights to come on because of the time delay in the system to allow the the inboard spoilers to retract.
 - (b) Release the TEST 1 switch.
 - (c) Push and hold the TEST 2 switch on the squib test panel M32 which is on the right side panel P61.
 - Make sure the EMER ESCAPE L and EMER ESCAPE R lights on the squib test panel are on.
 - (d) Release the TEST 2 switch.

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM





 1
 AIRPLANES WITH TWO FIRE EXTINGUISHING BOTTLES IN THE CARGO COMPARTMENT

 2
 AIRPLANES WITH THREE FIRE EXTINGUISHING BOTTLES IN THE CARGO COMPARTMENT

Spoiler Override Actuator Squib Test Figure 209

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM



03

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- s 862-018-001
- (8) Arm the inflation cylinder.
 - (a) Make sure the inflation trigger cable (6) is installed correctly.
 - AIRPLANES WITHOUT COVER ON THE PULL FORCE INCREASE MECHANISM; Make sure the retainer spring (9) on the pull force
 - increase mechanism is detented in the ENGAGED position.
 2) AIRPLANES WITHOUT COVER ON THE PULL FORCE INCREASE
 MECHANISM;
 Make sure the ball in the middle of the inflation trigger
 cable is installed behind the retainer spring in the pull
 force increase mechanism (View C, Fig. 203).
 - 3) AIRPLANES WITH COVER ON THE PULL FORCE INCREASE MECHANISM; Make sure the ball in the middle of the inflation trigger cable is installed behind the retainer spring in the pull force increase mechanism (View C, Fig. 203A).
 - 4) If the ball in the middle of the inflation trigger cable is not installed behind the retainer spring, then you must replace the inflation cylinder (AMM 25-65-02/401).
 - (b) Make sure you can see the white indicator in the arming indicator window (View C, Fig. 203).
 - WARNING: MAKE SURE THE RETAINER SPRING OF THE PULL FORCE INCREASE MECHANISM IS IN THE "ENGAGED" POSITION BEFORE YOU REMOVE THE SAFETY PIN FROM THE INFLATION CYLINDER REGULATOR. IF THE RETAINER SPRING IS NOT IN THE "ENGAGED" POSITION, THE ESCAPE SYSTEM CAN NOT OPERATE CORRECTLY.
 - (c) AIRPLANES WITHOUT COVER ON THE PULL FORCE INCREASE MECHANISM; Remove the safety pin from the SAFETY hole in the inflation cylinder regulator. Keep the safety pin in the pouch which is in the lower access door (197CL or 198CR).
 - (d) AIRPLANES WITH COVER ON THE PULL FORCE INCREASE MECHANISM; Remove the safety pin from the SAFETY hole in the inflation cylinder regulator. Keep the safety pin in the pouch which is in the lower access door (197CL or 198CR).
 - (e) Close the lower access door.

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM



- (f) Make sure the pressure gage needle on the inflation cylinder is in the green band (or one needle above the green band).
 - <u>NOTE</u>: The inflation cylinder must be at a constant, stable temperature for two hours or more for the check to be correct. A fast change in the temperature causes the green band to move more quickly than the pressure gage needle. The pressure gage needle can show an incorrect low indication immediately after a large increase in temperature.
- (g) Close the access door in the wheelwell.

s 862-019-001

- WARNING: OBEY THE REMOVAL PROCEDURE FOR THE DOOR LOCKS. THE DOORS OPEN AND CLOSE QUICKLY. THE MOVEMENT OF THE DOORS CAN CAUSE INJURY TO PERSONS AND DAMAGE TO EQUIPMENT.
- (9) Remove the door locks from the landing gear doors and close the doors (AMM 32-00-15/201).

s 862-065-001

(10) Pressurize the center hydraulic system (AMM 29-11-00/201).

s 862-067-001

(11) Close the landing gear doors.

s 862-066-001

(12) Depressurize the center hydraulic system (AMM 29-11-00/201).

s 862-020-001

(13) Remove electrical power if not required (AMM 24-22-00/201).

TASK 25-65-00-842-021-001

- 4. Put the Off-Wing Escape System Back to Its Initial Condition
 - A. General
 - (1) This procedure gives instructions to put the off-wing escape system back to its usual condition after the deployment of the escape slide.
 - B. Equipment
 - (1) Inflate/Deflate Valve Adapter -300279-1 Sargent Industries PICO Division, P.O. Box 548, 15350 Stafford St., City of Industry, CA 91747 (Recommended)

Commerically Available (Alternative)

- C. Consumable Materials
 - (1) B00402 Cleaner, Alkaline MIL-C-87936
- D. References
 - (1) AMM 12-21-19/301, Off-Wing Escape System

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM

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MAINTENANCE MANUAL

- (2) AMM 25-65-01/401, Off-Wing Escape Slide Pack (3) AMM 25-65-02/401, Off-Wing Slide Inflation Cylinder (4) AMM 25-65-08/201, Off-Wing Slide Compartment Door (5) AMM 25-65-10/401, Off-Wing Slide Compartment Door Opening Actuator (6) AMM 25-65-11/401, Off-Wing Slide Compartment Door Latch Opening Actuator (7) AMM 25-65-17/401, Off-Wing Escape System Emergency Battery AMM 25-65-19/401, Off-Wing Escape System Spoiler Override Actuator (8) Squib (9) AMM 25-65-20/401, Off-Wing Escape System Spoiler Override Actuator (10) AMM 52-21-01/201, Overwing Escape Hatch Access (1) Location Zones 141/142 Area Above MLG Wheel Well
 - 195/196Wing to Body Aft Upper Half553/653Spoiler No. 6 (LH), No. 7 (RH)832/842Overwing Emergency Exit Hatch834/844Overwing Emergency Exit Hatch

(2) Access Panels

Ε.

195EL/196ER	Off-Wing Escape Slide Compartment Door
195ML/196MR	Integrator Access Door
195QL/196QR	Latch Opening Actuator Access Door
197CL/198CR	Lower Access Door

F. Procedure - Put the Off-Wing Escape System Back to Its Initial Condition

s 042-022-001

- <u>WARNING</u>: REFER TO THE PROCEDURE TO DISARM THE OFF-WING ESCAPE SYSTEM. IF YOU INCORRECTLY DISARM THE OFF-WING ESCAPE SYSTEM, ACCIDENTAL DEPLOYMENT OF THE ESCAPE SLIDE CAN OCCUR AND CAUSE INJURY OR DAMAGE.
- (1) Do the task: Disarm the off-wing escape system.

s 032-023-001

(2) Remove the left and right off-wing escape system emergency batteries (AMM 25-65-17/401).

s 432-024-001

(3) Put a protective cover on the work area of the wing surface.

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM





s 032-025-001

(4) Remove the inflation cylinder (AMM 25-65-02/401).

s 862-026-001

- <u>CAUTION</u>: BE CAREFUL WHEN YOU TOUCH THE ESCAPE SLIDE. DAMAGE TO THE ESCAPE SLIDE AND THE ASPIRATORS CAN OCCUR IF YOU ARE NOT CAREFUL.
- (5) Use the inflate/deflate valve adaptor to deflate the escape slide. Do not fully deflate the escape slide. Make sure the escape slide is soft. Make sure the escape slide keeps its shape.

s 012-027-001

(6) Open the Y fitting cover that is between the aspirators (Fig. 210).

s 032-028-001

(7) Disconnect the large hose from the Y fitting.

s 212-029-001

- (8) Find the white escape slide release handle which is attached to the escape slide.
 - <u>NOTE</u>: The white escape slide release handle is between the escape slide and the fuselage.

s 042-030-001

(9) Pull the escape slide release handle in the forward direction to release the escape slide from the girt bars on the packboard.

s 862-031-001

(10) Lift the escape slide. Move the escape slide outboard until it clears the packboard.

s 032-032-001

(11) Remove the escape slide from the wing of the airplane.

s 032-033-001

- (12) Remove the packboard from the off-wing slide compartment door (AMM 25-65-01/401).
- G. Do these steps to prevent damamge to the inflation disconnect housing:

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM







s 412-034-001

<u>CAUTION</u>: YOU MUST CLOSE THE SLIDE COMPARTMENT DOOR. IF YOU DO NOT CLOSE THE SLIDE COMPARTMENT DOOR THE DISARM CAM WILL BREAK THE INFLATION DISCONNECT HOUSING WHEN YOU OPEN THE SLIDE COMPARTMENT DOOR LATCHES.

(1) Close the slide compartment door to make the inflation disconnect housing rotate inboard.

s 012-035-001

(2) Open the slide compartment door latches using the integrator.

s 012-036-001

(3) Open the slide compartment door to get access to the door opening actuators.

s 032-037-001

(4) Remove the door opening actuators (AMM 25-65-10/401).

s 032-038-001

(5) Remove the latch opening actuators (AMM 25-65-11/401).

s 032-039-001

(6) Remove the spoiler override actuator (AMM 25-65-20/401).

s 032-040-001

(7) Remove the fired spoiler override actuator squib (AMM 25-65-19/401).

s 102-041-001

- (8) Use an alkaline cleaner to clean these areas:
 - (a) The inner side of the slide compartment.
 - (b) The door latching system components.
 - (c) The inflation system components.

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM





s 102-042-001

(9) Flush the area with clean water.

s 102-043-001

(10) Wipe the area dry with a clean cheesecloth.

s 432-044-001

(11) Install the door opening actuators (AMM 25-65-10/401).

<u>NOTE</u>: Do not remove the safety pins from the door opening actuators.

s 642-045-001

(12) Lubricate the off-wing escape system (AMM 12-21-19/301).

s 432-046-001

(13) Install the escape slide pack on the slide compartment door (AMM 25-65-01/401).

s 032-047-001

(14) Remove the safety pins from the door opening actuators.

<u>NOTE</u>: Keep the safety pins in the pouch which is in the latch opening actuator compartment (195QL or 196QR).

s 432-048-001

(15) Install the latch opening actuators (AMM 25-65-11/401).

s 412-049-001

- WARNING: REFER TO AMM 25-65-08/201 FOR THE PROCEDURE TO CLOSE THE SLIDE COMPARTMENT DOOR. IF YOU INCORRECTLY CLOSE THE SLIDE COMPARTMENT DOOR, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (16) Close the slide compartment door (AMM 25-65-08/201).

s 432-050-001

(17) Install the spoiler override actuator (AMM 25-65-20/401).

s 432-051-001

(18) Install a new spoiler override actuator squib (AMM 25-65-19/401).

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM



s 432-052-001

(19) Install the inflation cylinder (AMM 25-65-02/401).

s 432-053-001

(20) Install the overwing emergency exit hatch (AMM 52-21-01/201).

s 432-054-001

(21) Install the off-wing escape system emergency battery (AMM 25-65-17/401).

s 212-055-001

(22) Make sure the EMER DOORS light on the overhead panel, P5, is off.

s 442-056-001

- WARNING: REFER TO AMM 25-65-00/201 FOR THE PROCEDURE TO ARM THE OFF-WING ESCAPE SYSTEM. IF YOU INCORRECTLY ARM THE OFF-WING ESCAPE SYSTEM, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (23) Do the task: Arm the off-wing escape system.

TASK 25-65-00-622-060-001

- 5. <u>Corrosion Prevention Treatment</u>
 - A. General
 - (1) Corrosion can cause much friction in the escape slide release mechanism. This condition may prevent the escape slide retaining shaft from rotating. Without rotation of the shaft, the slide cover will not deploy and the pressure vessel will not trigger.
 - (2) Corrosion can occur on packboard bushings.
 - (3) Corrosion can occur between the packboard cover release rod and the bearing, which are made of different metals.
 - (4) Corrosion can occur around the fittings because of water that can collect in the stowed escape slide. This water can also cause mold to start on the slide surfaces.






- (5) In the integrator at the latch opening actuator, stress corrosion can occur on the 400 CRES pins MS16562–236 that attach cams to the bellcrank.
- (6) In the off-wing escape system switch panel, moisture accumulation can cause corrosion of switch terminals.
- (7) Obey the precaution that follows before you apply the corrosion prevention treatment:
 - (a) Make sure that you correctly disarm the off-wing escape system. If you incorrectly disarm the off-wing escape system, the escape slide can inflate and cause injury or damage. To disarm the off-wing escape system, refer to AMM 25-65-00/201.
- (8) After suspected corrosion areas have been cleaned (Ref AMM 51-21-03/701), a thorough inspection is effective to make sure that protective finishes provided during manufacture stay intact.
- (9) For minor corrosion, to keep the downtime of the airplane to a minimum, the corrosion products should be cleaned off, followed by the application of a corrosion preventive compound into the affected area to decrease the corrosion process (Ref AMM 51-24-09/701). The finish system should be repaired at the first opportunity consistent with the maintenance schedule.
- (10) Frequency of Application
 - (a) Periodic inspection is required in areas identified as susceptible to corrosion and should be consistent to the schedules specified in the Maintenance Planning Document. Operators must be aware of reported problems and areas of occurrences.
- (11) Obey the precautions that follow when you apply the corrosion preventive compound:
 - (a) Do not apply corrosion preventive compounds on grease joints or sealed bearings. These compounds dissolve grease and other lubricants. They are penetrating compounds and can get around the seals and into the bearings.
 - (b) Do not apply corrosion preventive compounds on interior materials such as insulation blankets or liners. The compounds change the flammable quality of these materials.

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM





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D66833



D66841





1 400 CRES PINS MS16562-236 CAN GET STRESS CORROSION CRACKS

D66913

Off-Wing Escape Slide Integrator Figure 213 (Sheet 2)

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM

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OFF-WING ESCAPE SYSTEM - MAINTENANCE PRACTICES

- 1. <u>General</u>
 - A. This procedure contains these tasks:
 - (1) Disarm the off-wing escape system
 - (2) Arm the off-wing escape system.
 - (3) Put the off-wing escape system back to its initial condition after the deployment of the escape slide.
 - (4) Apply corrosion prevention treatment.

TASK 25-65-00-042-001-002

- 2. Disarm the Off-Wing Escape System
 - A. General
 - (1) This procedure gives instructions to disarm the off-wing escape system. If the escape slide has been deployed and has not been rearmed the steps to disarm the spoiler actuator squibs and inflation cylinder regulator squib are unnecessary.
 - (2) To prevent accidental slide deployment, you must use this procedure when:
 - (a) You do work on or near the off-wing escape system.
 - (b) You do work on or near the overwing emergency exit hatch.
 - B. References
 - (1) AMM 27-51-00/201, Trailing Edge Flap System
 - (2) AMM 29-11-00/201, Main (Left, Right, Center) Hydraulic Systems
 - (3) AMM 32-00-15/201, Landing Gear Door Locks
 - (4) AMM 32-00-20/201, Landing Gear Downlocks
 - C. Access
 - (1) Location Zones

141/142 Area Above MLG Wheel Well 195/196 Wing to Body - Aft Upper Half 553/653 Spoiler No. 6 (LH), No. 7 (RH) 832/842 Overwing Emergency Exit Hatch 834/844 Overwing Emergency Exit Hatch

(2) Access Panels

195EL/196ER	Off-Wing Escape Slie	de Compartment Door
197CL/198CR	Lower Access Door	

D. Procedure

EFFECTIVITY AIRPLANES WITH MODULAR OFF-WING ESCAPE SYSTEM



DISARM THE OFF-WING ESCAPE SYSTEM

WARNING: YOU MUST DO THE TASKS IN THIS PROCEDURE TO DISARM THE OFF-WING ESCAPE SYSTEM. YOU CAN ACCIDENTALLY DEPLOY THE ESCAPE SLIDE IF YOU DO NOT DO THE TASKS TO DISARM THE OFF-WING ESCAPE SYSTEM. THIS CAN CAUSE INJURY TO PERSONS AND DAMAGE TO EQUIPMENT.

TASK IN THE TEXT	INSPECTION CONDITION	LOCATION	FIGURE
1. INSTALL LANDING GEAR DOWNLOCK PIN	LOCKS INSTALLED	NOSE AND MAIN LANDING GEAR	
2. OPEN DOORS AND INSTALL LANDING GEAR DOOR LOCKS	LANDING GEAR DOOR LOCKS DOWN	MAIN LANDING GEAR DOORS	
3. PIN REGULATOR	SAFETY PIN IN REGULATOR	MAIN LANDING GEAR DOORS	
4. OPEN CIRCUIT BREAKERS	CIRCUIT BREAKERS - OPEN, "DO NOT CLOSE" TAG INSTALLED	FLIGHT DECK	
5. DISARM THE EMERGENCY BATTERIES	ELECTRICAL CONNECTOR DISCONNECTED	PASSENGER COMPARTMENT BEHIND AIR GRILL	204
6. DISARM THE OVERWING	DISABLE HANDLE IS DOWN	PASSENGER COMPARTMENT OVER THE HATCHES	205
EMERGENCY EXIT HATCH	ARM SWITCHES ARE DOWN		
7. DISARM THE INFLATION	SQUIB CONNECTOR REMOVED	ACCESS PANEL IN MAIN LANDING GEAR WHEEL WELL	203
CYLINDER	SHORTING CAP INSTALLED		
8. DISARM THE SPOILER	SHORTING CAP INSTALLED	TRAILING EDGE WING	206
OVERRIDE ACTUATOR	SQUIB CONNECTOR REMOVED		

Summary - Disarm the Off-Wing Escape System Figure 201

EFFECTIVITY AIRPLANES WITH MODULAR OFF-WING ESCAPE SYSTEM





s 862-002-002

- <u>WARNING</u>: MAKE SURE THAT THE DOWNLOCKS ARE INSTALLED IN ALL OF THE LANDING GEAR. WITHOUT THE DOWNLOCKS, THE LANDING GEAR CAN RETRACT AND CAUSE INJURIES TO PERSONS AND DAMAGE TO EQUIPMENT.
- (1) Make sure the downlocks are installed on the nose and main landing gear (AMM 32-00-20/201).

s 482-071-002

- WARNING: OBEY THE INSTALLATION PROCEDURE TO INSTALL THE DOOR LOCKS. THE DOORS OPEN AND CLOSE QUICKLY AND CAN CAUSE INJURY TO PERSONS OR DAMAGE TO EQUIPMENT.
- (2) Open the doors for the landing gear and install the door locks (AMM 32-00-15/201).

s 482-070-002

- (3) Install the safety pin.
 - (a) Open the lower access door (197CL or 198CR) to get access to the inflation cylinder safety pin. (Fig. 202).
 - <u>NOTE</u>: The safety pin is kept in a pouch in the lower access door.
 - (b) Open the access door in the aft wall of the wheel well to get access to the inflation cylinder regulator.
 - (c) Install the safety pin into the SAFETY pin hole of the inflation cylinder regulator (View B, Fig. 203).

s 862-060-002

- (4) Open these circuit breakers on the overhead circuit breaker panel, P11, and attach DO-NOT-CLOSE tags:
 - (a) 11C6, FLT CONT ELEC 1L AC
 - (b) 11C7, FLT CONT ELEC 1L DC
 - (c) 11C8, FLT CONT ELEC 2L AC
 - (d) 11C9, FLT CONT ELEC 2L DC
 - (e) 11G17, FLT CONT ELEC 1R AC
 - (f) 11G18, FLT CONT ELEC 1R DC
 - (g) 11G26, FLT CONT ELEC 2R AC
 - (h) 11G27, FLT CONT ELEC 2R DC
 - (i) 11P35, EMER LTS WING ESC L(j) 11P36, EMER LTS WING ESC R
 - s 042-061-002
- (5) Disarm the emergency batteries:
 - (a) Remove the air return grills which are near the left and right overwing escape hatches.

EFFECTIVITY AIRPLANES WITH MODULAR OFF-WING ESCAPE SYSTEM





- (b) Disconnect the electrical connectors from the left (M961) and right (M962) emergency batteries of the off-wing escape system (View A, Fig. 204).
 - <u>NOTE</u>: You must disconnect the left and right emergency batteries when you do work on one or both of the two off-wing escape systems.
- S 042-062-002
- (6) Disarm the overwing emergency exit hatches:
 - (a) Open the EXIT sign panel which is above the hatch to get access to the off-wing escape switches.
 - <u>NOTE</u>: If there are screws at the lower corners of the panel, use a phillips screwdriver to remove the screws (flush mounted 1/4 turn fasteners) then lift the panel. If the panel has small holes in the lower corners, put a 1/8 inch allen wrench into the holes to release the screws, then lift the panel.
 - <u>WARNING</u>: MAKE SURE YOU PUT THE DISABLE HANDLE DOWN TO THE SAFE POSITION BEFORE YOU DISARM THE SQUIB. IF THE DISABLE HANDLE IS NOT IN THE SAFE POSITION, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
 - (b) Put the disable handle down to the SAFE position. Push down tightly on the disable handle.
 - (c) Make sure the auto arm and the auto fire switches are at the ARM, down position (Fig. 205).
 - S 042-059-002
- (7) Disarm the inflation cylinder:
 - (a) Open the lower access door (197CL or 198CR) to get access to the safety pin and shorting cap for the inflation cylinder (Fig. 202 & 203).
 - <u>NOTE</u>: The safety pin and shorting cap are kept in pouchs in the lower access door.

EFFECTIVITY AIRPLANES WITH MODULAR OFF-WING ESCAPE SYSTEM



- (b) Open the access door in the aft wall of the wheel well to get access to the inflation cylinder regulator.
- (c) Disarm the inflation cylinder squib (Fig 203):

WARNING: BE CAREFUL NOT TO TOUCH PIN CONNECTORS IN THE SQUIB. THE SQUIBS CAN ACCIDENTALLY FIRE AND CAUSE INJURY OR DAMAGE.

- 1) Disconnect the electrical connector from the regulator assembly squib (M12142, M12141).
- 2) Install a cap on the electrical connector for protection.

<u>CAUTION</u>: BE CAREFUL NOT TO BEND A PIN DURING INSTALLATION OF THE SHORTING CAP. THE SHORTING CAP CAN CAUSE DAMAGE TO THE SQUIB PINS .

- 3) Install the shorting cap on the inflation cylinder regulator squib.
- s 042-008-002
- (8) Disarm the spoiler override actuator (Fig. 207):
 - (a) Pressurize the main (left, right, center) hydraulic systems (AMM 29-11-00/201).
 - (b) Extend the flaps to the fully extended position (AMM 27-51-00/201) to get access to the spoiler override actuator.
 - (c) Remove the pressure from the main (left, right, center) hydraulic systems (AMM 29-11-00/201).
 - (d) Complete the deactivation procedure for the flaps (AMM 27-51-00/201).
 - <u>WARNING</u>: DO NOT TOUCH THE PIN CONNECTOR IN THE SQUIB. THIS CAN CAUSE THE SQUIBS TO FIRE ACCIDENTALLY. IF YOU TOUCH THE PIN CONNECTOR, INJURIES TO PERSONNEL, AND DAMAGE TO EQUIPMENT WILL OCCUR.
 - (e) Disconnect the electrical connector from the spoiler override actuator squib.
 - (f) Install a cap on the electrical connector for protection.





- <u>CAUTION</u>: DO NOT BEND A PIN DURING INSTALLATION OF THE SHORTING CAP. THE SHORTING CAP CAN CAUSE DAMAGE TO THE SQUIB PINS.
- (g) Install the shorting cap on the spoiler override actuator squib.
 - <u>NOTE</u>: The shorting cap is kept in a pouch which is in the lower access door (197CL or 198CR).

TASK 25-65-00-442-009-002

- 3. Arm the Off-Wing Escape System
 - A. References

(1) AMM 24-22-00/201, Electrical Power - Control

- (2) AMM 27-51-00/201, Trailing Edge Flap System
- (3) AMM 29-11-00/201, Main (Left, Right, Center) Hydraulic Systems
 - (4) AMM 32-00-15/201, Landing Gear Door Locks
 - (5) AMM 32-00-20/201, Landing Gear Downlocks
 - (6) AMM 52-21-01/201, Overwing escape hatch
- B. Access
 - (1) Location Zones

141/142 Area Above MLG Wheel Well 195/196 Wing to Body – Aft Upper Half

- 553/653 Spoiler No. 6 (LH), No. 7 (RH)
- 832/842 Overwing Emergency Exit Hatch

834/844 Overwing Emergency Exit Hatch

(2)	Access	Pane	ls
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195EL/196ER	Off-Wing Escape Slide Compartment Door
197CL/198CR	Lower Access Door
197PZX/198KZX	Pressure Gauge Access Door

C. Prepare for the Procedure

s 862-010-002

(1) Supply electrical power to the airplane (AMM 24-22-00/201).

EFFECTIVITY AIRPLANES WITH MODULAR OFF-WING ESCAPE SYSTEM







AIRPLANES WITH MODULAR OFF-WING ESCAPE SYSTEM

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ARM THE OFF-WING ESCAPE SYSTEM

WARNING: ESCAPE SYSTEM. THIS CAN CAUSE INJURY TO PERSONS AND DAMAGE TO EQUIPMENT. YOU MUST DO THE TASKS IN THIS PROCEDURE TO ARM THE OFF-WING ESCAPE SYSTEM. YOU CAN ACCIDENTALLY DEPLOY THE ESCAPE SLIDE IF YOU DO NOT DO THE TASKS TO ARM THE OFF-WING

TASK IN THE TEXT	INSPECTION CONDITION	LOCATION	FIGURE
	CHECK PRESSURE IN CYLINDER	ACCESS PANEL IN MAIN LANDING GEAR WHEEL WELL	
1. ARM INFLATION CYLINDER DO NOT REMOVE SAFETY PIN UNTIL STEP 7.	NO STRAY VOLTAGE	ACCESS DOOR	203
	SQUIB CONNECTOR INSTALLED		
2. ARM THE SPOILER OVERIDE ACTUATOR	NO STRAY VOLTAGE		206
	SQUIB CONNECTOR INSTALLED	TRAILING LDGL WING	200
3. ARM OVERWING	EXIT HATCH INSTALLED	PASSENGER COMPARTMENT OVER THE HATCHES	205
HATCHES	ARM/FIRE SWITCHES IN THE ARM POSITION DISABLE HANDLE UP		
4. ARM THE EMERGENCY BATTERIES.	ELECTRICAL CONNECTOR CONNECTED	PASSENGER COMPARTMENT BEHIND AIR GRILL	204
5. CLOSE CIRCUIT BREAKERS	CIRCUIT CLOSED	FLIGHT DECK	
6. DO SQUIB TEST	GREEN LIGHTS ON FOR TEST 1 AND TEST 2	FLIGHT DECK	208
7. REMOVE PIN FROM REGULATOR	REMOVE SAFETY PIN FROM REGULATOR	ACCESS PANEL IN MAIN LANDING GEAR WHEEL WELL	203
8. REMOVE LANDING GEAR DOWN LOCK PIN	LOCKS REMOVED	NOSE AND MAIN LANDING GEAR	
9. ARM MAIN LANDING GEAR DOOR	DOWNLOCKS REMOVED (UP)	MAIN LANDING GEAR DOORS	

Summary - Arm the Off-wing Escape System Figure 207

EFFECTIVITY AIRPLANES WITH MODULAR OFF-WING ESCAPE SYSTEM









D. Procedure

s 862-011-002

- WARNING: MAKE SURE THE OFF-WING ESCAPE SYSTEM IS DISARMED. IF THE OFF-WING ESCAPE SYSTEM IS NOT DISARMED YOU CAN ACCIDENTALLY DEPLOY THE ESCAPE SLIDE WHEN YOU ARM THE OFF-WING ESCAPE SYSTEM. THIS CAN CAUSE INJURY TO PERSONS AND DAMAGE TO EQUIPMENT.
- (1) Arm the inflation cylinder.
 - WARNING: BE CAREFUL NOT TO TOUCH PIN CONNECTORS IN THE SQUIB. THE SQUIBS CAN ACCIDENTALLY FIRE AND CAUSE INJURY OR DAMAGE.
 - <u>NOTE</u>: Do not remove the safety pin. The safety pin is removed at a later step.
 - (a) Make sure the pressure gage needle on the inflation cylinder is in the green band (or one needle above the green band).
 - <u>NOTE</u>: The inflation cylinder must be at a constant, stable temperature for two hours or more for the check to be correct. A fast change in the temperature causes the green band to move more quickly than the pressure gage needle. The pressure gage needle can show an incorrect low indication immediately after a large increase in temperature.
 - <u>WARNING</u>: BE CAREFUL WHEN YOU REMOVE THE SHORTING CAP FROM THE INFLATION CYLINDER REGULATOR SQUIB. THE SQUIB ON THE REGULATOR CAN ACCIDENTALLY FIRE AND CAUSE INJURY OR DAMAGE.
 - (b) Remove the shorting cap from the inflation cylinder regulator squib.
 - <u>NOTE</u>: Keep the shorting cap in the pouch which is in the lower access door (197CL or 198CR).
 - (c) Make sure there is no stray voltage on any of the pins of the electrical connector.

EFFECTIVITY AIRPLANES WITH MODULAR OFF-WING ESCAPE SYSTEM





- <u>NOTE</u>: Stray voltage is detected by using a standard Digital multimeter with 10 to 15 thousand ohm shunt resistor across the multimeter lead to verify the following voltages and current at the airplane wiring side of the squib connector:
 - a) Less than 250 millivolts (0.250 volts) ACb) Less than 250 millivolts (0.250 volts) DC
 - c) Less than 5 milliamps (0.005 amps)

The current measurement does not use shunt resistance.

(d) Connect the electrical connector to the inflation cylinder regulator squib.

s 862-064-002

- (2) Arm the spoiler override actuator (Fig. 206):
 - (a) Pressurize the main (left, right, center) hydraulic systems (AMM 29-11-00/201).
 - (b) Do the activation procedure for the flaps (AMM 27-51-00/201).
 - (c) Extend the flaps (AMM 27-51-00/201).
 - (d) Remove pressure from the main (left, right, center) hydraulic systems (AMM 29-11-00/201).
 - (e) Complete the deactivation procedures for the flaps (AMM 27-15-00/201).
 - WARNING: BE CAREFUL WHEN YOU REMOVE THE SHORTING CAP FROM THE SPOILER OVERRIDE ACTUATOR. THE SQUIB ON THE ACTUATOR CAN ACCIDENTALLY FIRE AND CAUSE INJURY OR DAMAGE.
 - (f) Remove the shorting cap from the spoiler override actuator squib.
 - <u>NOTE</u>: Keep the shorting cap in the pouch which is in the lower access door (197CL or 198CR).
 - (g) Make sure there is no stray voltage on any of the pins of the electrical connector.

EFFECTIVITY AIRPLANES WITH MODULAR OFF-WING ESCAPE SYSTEM





<u>NOTE</u>: Stray voltage is detected by using a standard Digital multimeter with 10 to 15 thousand ohm shunt resistor across the multimeter lead to verify the following voltages and current at the airplane wiring side of the squib connector:

a) Less than 250 millivolts (0.250 volts) ACb) Less than 250 millivolts (0.250 volts) DCc) Less than 5 milliamps (0.005 amps)

The current measurement does not use shunt resistance.

- (h) Connect the electrical connector to the spoiler override actuator squib.
- (i) Put the hydraulic systems back to their initial condition (AMM 29-11-00/201).
- (j) Do the activation procedure for the flaps (AMM 27-51-00).
- (k) Retract the flaps (AMM 27-51-00).

s 862-013-002

- (3) Arm the overwing exit hatches:
 - (a) Make sure the overwing emergency exit hatches are installed (AMM 52-21-01/201).
 - (b) Make sure the backup arm switch and the backup fire switch of both the forward and aft escape hatches are in the ARM, up position.
 - <u>NOTE</u>: Physically make sure that the backup arm and backup fire switches are in the ARM, (UP) position for both forward and aft exit hatches.

EFFECTIVITY AIRPLANES WITH MODULAR OFF-WING ESCAPE SYSTEM



<u>WARNING</u>: ON THE AUTO ARM/FIRE SWITCH PANEL, MAKE SURE THE STRAIGHT PIN IS BELOW THE AUTO ARM SWITCH AND THE AUTO FIRE SWITCH. IF THE STRAIGHT PIN IS NOT BELOW THE AUTO ARM SWITCH AND THE AUTO FIRE SWITCH, AUTOMATIC DEPLOYMENT OF THE OFF-WING ESCAPE SYSTEM WILL NOT OCCUR WHEN AN OVERWING ESCAPE HATCH IS REMOVED.

THE STRAIGHT PIN MUST OPERATE THE AUTO ARM SWITCH AND THE AUTO FIRE SWITCH WHEN AN OVERWING ESCAPE HATCH IS REMOVED.

- (c) Make sure the straight pin is below the auto arm switch and the auto fire switch (Fig. 205).
 - <u>NOTE</u>: The straight pin must be below the auto arm switch and the auto fire switch. The straight pin must operate the auto arm switch and the auto fire switch when an overwing escape hatch is removed.
- (d) Push down tightly on the disable handle. Make sure the auto arm and auto fire switches are in the ARM, down position.
 - <u>NOTE</u>: AIRPLANES WITH TWO HATCHES OVER EACH WING; The auto arm and auto fire switches of both the forward and aft escape hatches must be in the ARM, down position.
 - WARNING: MAKE SURE THE AUTO ARM AND BACKUP ARM SWITCHES ARE IN THE ARM POSITION BEFORE YOU MOVE THE DISABLE HANDLE TO THE ARM POSITION. IF THE AUTO AND BACKUP SWITCHES ARE NOT IN THE ARM POSITION WHEN YOU MOVE THE DISABLE HANDLE, ACCIDENTAL DEPLOYMENT OF THE ESCAPE SLIDE CAN OCCUR AND CAUSE INJURY OR DAMAGE.
- (e) Put the disable handle to the ARM, up position.
- (f) Make sure the auto arm and auto fire switches are in the ARM, down position.
- (g) Make sure there is a small quantity of movement when you lightly touch the straight pin.
 - <u>NOTE</u>: This makes sure that the straight pin does not put pressure on the auto arm and auto fire switches when they are in the ARM, down position.

The straight pin must be below the auto arm switch and the auto fire switch.





MAINTENANCE MANUAL

- (h) Close the EXIT sign panel above the overwing escape hatch.
 - <u>NOTE</u>: Use an allen wrench or phillips screwdriver to install the screws at the lower corners of the panel.

s 862-058-002

- (4) Arm the emergency batteries:
 - (a) Connect the electrical connectors to the left (M961) and right (M962) emergency batteries of the off-wing escape system (Fig. 204).
 - (b) Install the air return grills.

s 862-055-002

- (5) Remove the DO-NOT-CLOSE tags and close these circuit breakers on the P11 panel:
 - (a) 11C6, FLT CONT ELEC 1L AC
 - (b) 11C7, FLT CONT ELEC 1L DC
 - (c) 11C8, FLT CONT ELEC 2L AC
 - (d) 11C9, FLT CONT ELEC 2L DC
 - (e) 11G17, FLT CONT ELEC 1R AC
 - (f) 11G18, FLT CONT ELEC 1R DC
 - (g) 11G26, FLT CONT ELEC 2R AC
 - (h) 11G27, FLT CONT ELEC 2R DC
 - (i) 11P35, EMER LTS WING ESC L
 - (j) 11P36, EMER LTS WING ESC R

s 732-056-002

- (6) Do the squib test as follows (Fig. 208):
 - (a) Push and hold the TEST 1 switch on the squib test panel M32 which is on the right side panel P61.
 - 1) Make sure the EMER ESCAPE L and EMER ESCAPE R lights on the squib test panel come on in 3 seconds.
 - <u>NOTE</u>: You must wait for the lights to come on because of the time delay in the system to allow the the inboard spoilers to retract.
 - (b) Release the TEST 1 switch.
 - (c) Push and hold the TEST 2 switch on the squib test panel M32 which is on the right side panel P61.
 - 1) Make sure the EMER ESCAPE L and EMER ESCAPE R lights on the squib test panel are on.
 - (d) Release the TEST 2 switch.
 - (e) Remove the safety pin from the SAFETY hole in the inflation cylinder regulator. Keep the safety pin in the pouch which is in the lower access door (197CL or 198CR).
 - (f) Close the lower access door.
 - (g) Close the access door in the wheelwell.

EFFECTIVITY AIRPLANES WITH MODULAR OFF-WING ESCAPE SYSTEM

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- S 862-017-002
- WARNING: MAKE SURE THE AREA AROUND THE DOORS FOR THE MAIN LANDING GEAR, AND THE AREA AROUND THE TAIL SKID (IF APPLICABLE), IS CLEAR OF PERSONS AND EQUIPMENT. THE MOVEMENT OF THE DOORS AND THE TAIL SKID CAN CAUSE INJURIES TO PERSONS AND DAMAGE TO EQUIPMENT.
- (7) Make sure the downlocks are removed on the nose and main landing gear (AMM 32-00-20/201).

s 082-065-002

- WARNING: OBEY THE REMOVAL PROCEDURE FOR THE DOOR LOCKS. THE DOORS OPEN AND CLOSE QUICKLY. THE MOVEMENT OF THE DOORS CAN CAUSE INJURY TO PERSONS AND DAMAGE TO EQUIPMENT.
- (8) Remove the door locks from the landing gear doors and close the doors (AMM 32-00-15/201).

s 862-076-002

(9) Pressurize the center hydraulic system (AMM 29-11-00/201).

S 862-078-002

(10) Close the landing gear doors.

s 862-077-002

(11) Depressurize the center hydraulic system (AMM 29-11-00/201).

s 862-018-002

(12) Remove electrical power if not required (AMM 24-22-00/201).

TASK 25-65-00-842-019-002

- Put the Off-Wing Escape System Back to Its Initial Condition
- A. General

4.

- (1) This procedure gives instructions to put the off-wing escape system back to its usual condition after the deployment of the escape slide.
- B. References
 - (1) AMM 25-65-02/401, Off-Wing Slide Inflation Cylinder
 - (2) AMM 25-65-05/401, Off-Wing Escape Slide Assembly
 - (3) AMM 25-65-17/401, Off-Wing Escape System Emergency Battery
 - (4) AMM 25-65-19/401, Off-Wing Escape System Spoiler Override Actuator Souib
 - (5) AMM 25-65-20/401, Off-Wing Escape System Spoiler Override Actuator
 - (6) AMM 52-21-01/201, Overwing Escape Hatch

EFFECTIVITY AIRPLANES WITH MODULAR OFF-WING ESCAPE SYSTEM





- C. Access
 - (1) Location Zones

141/142 Area Above MLG Wheel Well 195/196 Wing to Body – Aft Upper Half 553/653 Spoiler No. 6 (LH), No. 7 (RH) 832/842 Overwing Emergency Exit Hatch 834/844 Overwing Emergency Exit Hatch

- D. Procedure Put the Off-Wing Escape System Back to Its Initial Condition
 - s 042-020-002
 - WARNING: OBEY THE PROCEDURE TO DISARM THE OFF-WING ESCAPE SYSTEM. IF YOU INCORRECTLY DISARM THE OFF-WING ESCAPE SYSTEM, ACCIDENTAL DEPLOYMENT OF THE ESCAPE SLIDE CAN OCCUR AND CAUSE INJURY OR DAMAGE.
 - (1) Do the task: Disarm the off-wing escape system.

s 032-021-002

(2) Remove the left and right off-wing escape system emergency batteries for deep cycle recharge. (AMM 25-65-17/401).

s 432-022-002

(3) Put a protective cover on the work area of the wing surface.

s 032-023-002

(4) Remove the inflation cylinder (AMM 25-65-02/401).

s 862-024-002

- <u>CAUTION</u>: BE CAREFUL WHEN YOU TOUCH THE ESCAPE SLIDE. DAMAGE TO THE ESCAPE SLIDE AND THE ASPIRATOR CAN OCCUR IF YOU ARE NOT CAREFUL.
- (5) Push the aspirator flapper valve to deflate slide and ramp.

s 212-027-002

(6) Find the slide release handle which is attached to the girt extension at the top of the slide enclosure.

EFFECTIVITY AIRPLANES WITH MODULAR OFF-WING ESCAPE SYSTEM





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Off-Wing Escape Slide Figure 209 (Sheet 2)

EFFECTIVITY AIRPLANES WITH MODULAR OFF-WING ESCAPE SYSTEM



s 042-028-002

(7) Pull the slide release handle to release the escape slide from the slide enclosure.

s 012-025-002

(8) Disconnect the hose assembly from the 90° elbow fitting at the back of the slide enclosure.

s 032-030-002

(9) Remove the escape slide from the wing of the airplane.

s 032-031-002

(10) Remove the escape slide enclosure from the wing to body fairing. (AMM 25-65-05/401).

s 032-037-002

(11) Remove the spoiler override actuator (AMM 25-65-20/401).

s 032-038-002

(12) Remove the fired spoiler override actuator squib (AMM 25-65-19/401).

s 432-049-002

(13) Install a new spoiler override actuator squib (AMM 25-65-19/401).

s 432-048-002

(14) Install the spoiler override actuator (AMM 25-65-20/401).

s 432-044-002

(15) Install the escape slide assembly into the slide compartment opening in the wing to body fairing. (AMM 25-65-05/401).

s 782-072-002

- (16) Check pressure of inflation cylinder.
 - (a) Make sure the pressure gage needle on the inflation cylinder is in the green band (or one needle above the green band).
 - <u>NOTE</u>: The inflation cylinder must be at a constant, stable temperature for two hours or more for the check to be correct. A fast change in the temperature causes the green band to move more quickly than the pressure gage needle. The pressure gage needle can show an incorrect low indication immediately after a large increase in temperature.

s 432-050-002

(17) Install the inflation cylinder (AMM 25-65-02/401).

s 432-051-002

(18) Install the overwing emergency exit hatch (AMM 52-21-01/201).

EFFECTIVITY AIRPLANES WITH MODULAR OFF-WING ESCAPE SYSTEM

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s 432-052-002

(19) Install the off-wing escape system emergency battery
 (AMM 25-65-17/401).

s 212-053-002

(20) Make sure the EMER DOORS light on the overhead panel, P5, is off.

s 442-054-002

WARNING: REFER TO AMM 25-65-00/201 FOR THE PROCEDURE TO ARM THE OFF-WING ESCAPE SYSTEM. IF YOU INCORRECTLY ARM THE OFF-WING ESCAPE SYSTEM, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.

(21) Do the task: Arm the off-wing escape system.

TASK 25-65-00-622-075-002

- 5. <u>Corrosion Prevention Treatment</u>
 - A. General
 - (1) Corrosion can occur around the fittings because of water which can collect in the stowed escape slide. This water can also cause mold to start on the slide surfaces.
 - (2) In the off-wing escape system switch panel, moisture accumulation can cause corrosion of switch terminals.
 - (3) Obey the precaution that follows before you apply the corrosion prevention treatment:
 - (a) Make sure that you correctly disarm the off-wing escape system. If you incorrectly disarm the off-wing escape system, the escape slide can inflate and cause injury or damage. To disarm the off-wing escape system, do this task: Disarm the Off-Wing Escape System, AMM 25-65-00/201.
 - (4) After suspected corrosion areas are cleaned (Ref AMM 51-21-03/701), a full inspection is effective to make sure that protective finishes provided during manufacture stay intact.

EFFECTIVITY AIRPLANES WITH MODULAR OFF-WING ESCAPE SYSTEM



- (5) For minor corrosion, to keep the downtime of the airplane to a minimum, the corrosion products should be cleaned off, followed by the application of a corrosion preventive compound into the affected area to decrease the corrosion process (Ref AMM 51-24-09/701). The finish system should be repaired at the first opportunity consistent with the maintenance schedule.
- (6) Frequency of Application
 - (a) Periodic inspection is required in areas identified as susceptible to corrosion and should be consistent to the schedules specified in the Maintenance Planning Document. Operators must be aware of reported problems and areas of occurrences.
- (7) Obey the precautions that follow when you apply the corrosion preventive compound:
 - (a) Do not apply corrosion preventive compounds on grease joints or sealed bearings. These compounds dissolve grease and other lubricants. They are penetrating compounds and can get around the seals and into the bearings.
 - (b) Do not apply corrosion preventive compounds on interior materials such as insulation blankets or liners. The compounds change the flammable quality of these materials.









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MAINTENANCE MANUAL

OFF-WING ESCAPE SYSTEM - ADJUSTMENT/TEST

1. <u>General</u>

- A. This procedure contains these tasks:
 - (1) The adjustment of the off-wing escape system
 - (2) AIRPLANES WITH ONE HATCH OVER EACH WING;
 - The electrical system test of the off-wing escape system
 - (3) AIRPLANES WITH TWO HATCHES OVER EACH WING; The electrical system test of the off-wing escape system
 - (4) The mechanical system test of the off-wing escape system
 - (5) The operational test of the off-wing escape system.

TASK 25-65-00-825-001-001

- 2. Adjustment Off-Wing Escape System
 - A. General
 - (1) This procedure gives instructions for the adjustment of the door-opening actuator system and the latching system of the off-wing escape system.
 - (2) You must adjust the off-wing escape system in the correct sequence.
 - (a) Prepare for Adjustment
 - (b) Door-latching System Adjustment
 - (c) Door Closed Stops Adjustment
 - (d) Door-opening Actuator System Adjustment
 - (e) Door Open Stops Adjustment
 - (f) Put the Airplane Back to Its Initial Condition

B. Equipment

- (1) Gas Pressure Vessel Simulator A25005-29
- (2) Door-Opening Actuator Simulator A25003-24
 (2 simulators)
- (3) Latch-Opening Actuator Simulator A25014-29
- (4) Wrench, Integrator A25011-2 (Recommended)
 - 1/4 inch square drive socket wrench (Optional)
- (5) Electrical Test Equipment A25012-19
- C. Consumable Materials
 - (1) Sealant BMS 5-95
- D. References
 - (1) AMM 24-22-00/201, Control (Supply Power)
 - (2) AMM 25-65-00/201, Off-Wing Escape System
 - (3) AMM 25-65-08/201, Off-Wing Slide Compartment Door
 - (4) AMM 25-65-10/401, Off-Wing Slide Compartment Door Opening Actuators
 - (5) AMM 25-65-11/401, Off-Wing Slide Compartment Door Latch Opening Actuators
 - (6) AMM 52-71-01/401, Door Warning System Proximity Sensors

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM





- E. Access
 - (1) Location Zones

141/142	Area Above MLG Wheel Well
195/196	Wing to Body – Aft Upper Half
553/653	Spoiler No. 6 (LH), No. 7 (RH)
832/842	Overwing Emergency Exit Hatch
834/844	Overwing Emergency Exit Hatch

(2) Access Panels

195EL/196ER	Off-Wing Slide Compartment Door
195QL/196QR	Latch Opening Actuator Door
195ML/196MR	Integrator Access Door
197CL/198CR	Lower Access Door
197PZX/198KZX	Escape Slide Pressure Cylinder Gage

F. Prepare for Adjustment (Fig. 501)

s 045-002-001

- WARNING: MAKE SURE YOU OBEY THE PROCEDURE TO DISARM THE OFF-WING ESCAPE SYSTEM. IF YOU INCORRECTLY DISARM THE OFF-WING ESCAPE SYSTEM, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (1) Disarm the off-wing escape system (AMM 25-65-00/201).

s 495-003-001

(2) Put a protective cover on the work area of the wing surface.

s 015-004-001

- <u>WARNING</u>: MAKE SURE YOU OBEY THE PROCEDURE TO OPEN THE SLIDE COMPARTMENT DOOR. IF YOU INCORRECTLY OPEN THE SLIDE COMPARTMENT DOOR, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (3) Unlatch and open the slide compartment door (AMM 25-65-08/201).

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM





s 495-005-001

- <u>WARNING</u>: BE CAREFUL WHEN YOU INSTALL THE SAFETY PIN ON THE FORWARD AND AFT DOOR OPENING-ACTUATOR. THE SQUIB ON THE ACTUATORS CAN ACCIDENTALLY FIRE AND CAUSE INJURY OR DAMAGE.
- (4) Install the safety pins on the forward door-opening actuator and on the aft door-opening actuator (Fig. 501).
 - <u>NOTE</u>: The safety pins are kept in a pouch which is in the latch-opening actuator compartment.
- G. Door-latching System Adjustment

s 025-006-001

(1) Remove the door closed sensor (S218 Left Side, S219 Right Side) for the slide compartment door (Fig. 509) (AMM 52-71-01/401).

s 865-007-001

(2) Push the integrator lock handle inboard to the UNLOCK position (View A-A, Fig. 502).

s 865-008-001

(3) Put the integrator wrench into the wrench socket of the cam. Use the integrator wrench to turn the cam full forward to close the latches on the slide compartment door (View A, Fig. 502).

<u>NOTE</u>: The cross pin is moved forward by the cam.

s 865-009-001

- WARNING: MAKE SURE THE INTEGRATOR LOCK HANDLE MOVES THROUGH THE FULL O.4-INCH TRAVEL FROM THE "UNLOCKED" TO THE "LOCKED" POSITION. MAKE SURE YOU CAN FEEL THE DETENT WHICH IS IN THE MIDDLE OF THE O.4-INCH TRAVEL. IF THE INTEGRATOR LOCK HANDLE IS IN AN INCORRECT POSITION, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (4) Push the integrator lock handle inboard to the LOCKED position.

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM




s 035-010-001

(5) Remove the pin, washer, and cotter pin from the clevis and bellcrank to disconnect the disarm cable (Fig. 503, view B).

s 035-011-001

(6) Remove the pin, washer, and cotter pin from the clevis and bellcrank to disconnect the cover release cable (Fig. 503, view B).

s 035-012-001

(7) On the door latch, remove the pin, washer, cotter pin, and jamnut to disconnect the latch control rods from the aft end of the latch sliders (View A-A, Fig. 503).

s 825-013-001

- (8) Do these steps to adjust the slide compartment door latches:
 - (a) Do these steps to prepare to adjust the slide compartment door latches:
 - Make sure the integrator lock handle is in the LOCKED position (Fig. 502, view A-A).
 - 2) Make sure the cross pin is full forward in the slot.
 - 3) Make sure you remove the lock sensor from the latch train to prevent damage.
 - (b) Do these steps to adjust the length of the latch control rod for each latch:

NOTE: Make sure you adjust each latch one at a time.

Make sure you adjust each latch with this procedure.

Make sure you adjust each latch in sequence from the aft end to the forward end of the slide compartment.

- 1) Loosen the jamnut on the latch control rod.
- 2) Adjust the length of the latch control rod (Fig. 503, view A-A).

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM



- 3) Pull the integrator connector and the latch slider to the full forward position.
- 4) Adjust the length of the control rod to the shortest distance that will allow you to put the pin in the clevis at the aft end of the latch slider.
- 5) Install the pin, washer, cotter pin, and jamnut to connect the latch control rods to the aft end of the latch sliders.
- 6) Tighten the jamnut on the latch control rod and install lockwire.
- (c) Do these steps to make sure the latches are adjusted correctly:
 - 1) Pull the lock handle to the UNLOCK position.
 - 2) Turn the integrator cam full aft.
 - 3) Pull the lock handle outboard to the SAFETY position.
 - Pull the latch control rod aft to determine that the jaws of all of the door latches are in the full open position (Fig. 503, view A-A).
 - <u>NOTE</u>: If you move the latch sliders aft and the jaws do not open farther, then the jaws of the door latch are in the full open position.
 - 5) The center of the latch keeper and the centerline of the door latch must align in 0.03 inch or less.
 - 6) Make sure that the latch keeper will not catch the open jaws of the door latch.
 - 7) If the jaws of the door latches are not in the full open position, then do the steps to adjust the length of the latch control rod for each latch again.
 - 8) If some of the jaws of the door latches are in the closed position, then the door latch is installed incorrectly.
 - <u>CAUTION</u>: MAKE SURE THAT EACH DOOR LATCH IS NOT INSTALLED UPSIDE DOWN. THE LATCH SLIDER MUST CLOSE THE DOOR LATCH JAWS WHEN THE LATCH SLIDER IS PULLED IN THE FORWARD DIRECTION. DAMAGE TO EQUIPMENT MAY OCCUR.
 - a) Install the door latch again and do the steps to adjust the length of the latch control rod for each latch again.





9) Tighten the door latch bolts 35 to 40 inch pounds.

s 435-014-001

(9) Install the pin, washer, cotter pin, and jamnut to connect the latch control rods to the aft end of the latch sliders (Fig. 503).

s 435-015-001

(10) Tighten the jamnut on the latch control rod and install the lockwire.

s 825-016-001

- (11) Adjust the latch link (Fig. 505).
 - <u>NOTE</u>: The dimension is measured from the forward end of the jamnut to the aft face of the bulkhead web.

s 825-017-001

(12) Make sure the integrator lock handle is free to move from the LOCKED to the UNLOCK and back to the LOCKED positions (Fig. 502).

s 355-018-001

- (13) If the integrator lock handle does not move freely, do these steps:
 - <u>NOTE</u>: Incorrect adjustment between the integrator and the aft most door latch can cause the integrator lock handle to not move freely.
 - (a) On the aft most door latch, remove the pin, washer, cotter pin, and jamnut from the clevis. Disconnect the latch control rod from the aft end of the aft most latch slider (Fig. 503).
 - (b) Loosen the jamnut on the latch control rod. Turn the clevis 1/2 turn to make the latch control rod shorter.
 - (c) Install the pin, washer, cotter pin, and jamnut to connect the latch control rod to the aft end of the aft most latch slider.

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM





(d) Tighten the jamnut on the latch control rod and install the lockwire.

s 425-019-001

- (14) Install the door closed sensor (S218 Left Side, S219 Right Side) for the slide compartment door (Fig. 509) (AMM 52-71-01/401).
 - (a) Do these steps to adjust the door closed sensor:
 - 1) Make sure the clearance between the door closed sensor and the target is correct (View A-A).
 - <u>NOTE</u>: Make sure the latch control rod is fully forward so that the target is as near as possible to the sensor to measure the clearance.
 - a) Make sure the target does not touch the door closed sensor when you move the door latches to the open and closed positions.
 - 2) If the clearance is not correct, do these steps to adjust:
 - a) Make sure the integrator is in the LOCKED position.
 - b) Make sure the door latches are in the closed position.
 - c) Pull the latch control rod fully forward.
 - d) Make sure the surface of the door closed sensor and the surface of the target are parallel.
 - e) Add or remove washers to get the correct clearance between the sensor and the target.

s 435-020-001

(15) Install the pin, washer, and cotter pin through the clevis and the bellcrank to connect the disarm cable (Fig. 503, view B).

s 435-021-001

(16) Install the pin, washer, and cotter pin through the clevis and the bellcrank to connect the release cable (Fig. 503, view B).

s 865-022-001

- WARNING: MAKE SURE THE INTEGRATOR LOCK HANDLE MOVES THROUGH THE FULL O.4-INCH TRAVEL FROM THE "LOCKED" TO THE "UNLOCK" POSITION. MAKE SURE YOU CAN FEEL THE DETENT WHICH IS IN THE MIDDLE OF THE O.4-INCH TRAVEL. IF THE INTEGRATOR LOCK HANDLE IS IN AN INCORRECT POSITION, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (17) Pull the integrator lock handle in the outboard direction to the UNLOCK position (Fig. 502).

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s 865-023-001

(18) Put the integrator wrench A25011-2 into the wrench socket of the cam.

s 865-024-001

(19) Turn the cam full aft to open the door latches.

NOTE: The cross pin is moved fully aft in the slot by the cam.

s 865-025-001

(20) Use a torque wrench to measure the torque as you move the cross pin aft in the slot. Make sure that the torque is less than 175 inch pounds.

s 865-026-001

- (21) Pull the integrator lock handle in the outboard direction to the SAFETY position.
- H. Door Closed Stops Adjustment (Fig. 503)

s 415-271-001

- (1) Do these steps to adjust the door-closed stops:
 - (a) Close and latch the slide compartment door (AMM 25-65-08/201).
 - (b) Make sure that 70% of the forward edge of the door is flush within \pm 0.080 inch, and 30% is flush within \pm 0.100 inch.
 - (c) Make sure that 70% of the aft edge of the door is flush within +0.150 and -0.060 inch, and 30% is flush within +0.200 and -0.060 inch.
 - (d) Make sure that the lower edge of the door is flush within \pm 0.03 inch.
 - (e) Make sure that the upper edge of the door is flush within \pm .04 inch.

s 825-030-001

- (2) If the flushness is more or less than the specified limits, do these steps:
 - <u>NOTE</u>: These steps are to adjust the flushness of the top edge and the aft edge of the slide compartment door. To adjust the flushness of the forward edge you must adjust the panel forward of the slide compartment door.

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- WARNING: MAKE SURE YOU OBEY THE PROCEDURE TO OPEN THE SLIDE COMPARTMENT DOOR. IF YOU INCORRECTLY OPEN THE SLIDE COMPARTMENT DOOR, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (a) Unlatch and open the slide compartment door (AMM 25-65-08/201).
- (b) Turn all the door closed stops (11 locations) inboard to the least extended position.
- (c) Adjust the door closed stops on the top edge of the door (outboard direction) until they all touch the door.
- (d) Adjust the latch keeper in or out to get the necessary door flushness.
 - Make sure the latch keeper pin and the door latch (4 locations) align correctly in the horizontal direction (Fig. 504, view C).
 - 2) If the center of the latch keeper pin and the centerline of the door latch align in 0.03 inch or less, do not adjust.
 - 3) If the center of the latch keeper pin and the centerline of the door latch are not aligned within 0.03 inch, adjustment is necessary.
 - 4) Make sure that the latch keeper is installed correctly.
 - 5) Find which part of the latch jaws (forward or aft half) catches on the latch keeper pin.
 - 6) Adjust the latch keeper pin forward or aft to get 0.03 inch or less or adjust the door latches.
 - 7) If it is necessary to replace the latch keeper, do these steps:
 - a) Remove the latch keeper from the slide compartment door.
 - b) Discard the bolts, washers, and nuts.
 - c) Install the new latch keeper on the slide compartment door.
 - d) Make sure to correctly position the offset slot to give the necessary door latch to latch keeper pin alignment.





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- e) A red arrow on the bottom of the part points in the direction of the offset slot.
- f) Install two bolts, washers, and nuts in each latch keeper with sealant BMS 5-95.
- g) Seal the washers and nuts with sealant BMS 5-95.
- (e) Make sure the door flushness of the top edge of the slide compartment door is \pm 0.04 inch, when closed.
- (f) Adjust the door closed stops on the aft edge of the door (outboard direction) until they all touch the door.
- (g) Adjust the latch keeper in or out to get the necessary door flushness.
- (h) Make sure that 70% of the aft edge of the door is flush within +.150 and -.060 inch, and 30% is flush within +.200 and -.060 inch.
- (i) Close and latch the slide compartment door (AMM 25-65-08/201).

(3) Unlatch and open the slide compartment door (AMM 25-65-08/201).

s 395-032-001

- <u>CAUTION</u>: THE DOOR LATCHES HAVE DRY LUBRICANT. MORE LUBRICANT IS NOT NECESSARY. MORE ADDED LUBRICANT WILL CAUSE DAMAGE TO THE SLIDE COMPARTMENT DOOR.
- (4) Do not apply lubricant to the door latches.

s 415-033-001

- (5) Close and latch the slide compartment door (AMM 25-65-08/201).
- I. Door Opening Actuator System Adjustment

s 035-034-001

 Remove the forward and aft door-opening actuators (AMM 25-65-10/401).

s 495-035-001

(2) Install the forward and aft door-opening actuator simulators (Fig. 506).

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM

s 015-031-001



s 035-036-001

(3) Remove the latch-opening actuator (AMM 25-65-11/401).

s 495-037-001

(4) Install the latch-opening actuator simulator (Fig. 506, view C).(a) Make sure the lock pin is installed in index hole A.

s 035-038-001

(5) Remove the straight pin, washer, and cotter pin from the clevis that connects the forward bellcrank to the forward actuating rod (Fig. 505).

s 035-039-001

(6) Remove the straight pin, washer, and cotter pin from the clevis that connects the aft bellcrank to the aft actuating rod (Fig. 504).

s 215-040-001

(7) Make sure the cross pin is fully aft in the slot of the integrator (View A-A, Fig. 502).

s 865-041-001

(8) Pull the integrator lock handle outboard to the SAFETY position.

s 035-042-001

(9) Loosen the jamnut on the aft actuating rod (Fig. 504).

s 825-043-001

- (10) Adjust the aft actuating rod (Fig. 504).
 - (a) The preliminary adjustment of the aft actuating rod is 5.67 to 5.73 inches.

s 825-044-001

- (11) Do these steps to make sure the aft actuating rod is adjusted correctly:
 - (a) Make sure the pin that connects the aft bellcrank to the actuating link is fully forward against the end of the slot.







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- (b) Make sure it is possible to install the straight pin in the clevis.
- (c) Make sure there is no free movement in the linkage from the aft bellcrank to the firing pin.

s 435-045-001

(12) Install the straight pin, washer, and cotter pin through the clevis that connects the aft bellcrank to the aft actuating rod (Fig. 504).

s 435-046-001

(13) Tighten the jamnut on the aft actuating rod.

NOTE: Make sure the actuator firing pin has not moved.

s 035-047-001

(14) Loosen the jamnut on the forward actuating rod (Fig. 505).

s 825-048-001

- (15) Adjust the forward actuating rod (Fig. 505).
 - (a) The preliminary adjustment of the actuating rod is 5.70 ±0.03 inches.

s 825-049-001

- (16) Do these steps to make sure these forward actuating rod (Fig. 505) is adjusted correctly:
 - (a) Make sure the pin, that connects the forward bellcrank to the latch link, is fully forward against the end of the slot in the latch link.
 - (b) Make sure it is possible to install the straight pin in the clevis.

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM



<u>NOTE</u>: This step can only be done when the straight pin is installed in the clevis.



- (c) Make sure there is no free movement in the linkage from the forward bellcrank to the firing pin.
 - <u>NOTE</u>: This step can only be done when the straight pin is installed.

s 435-050-001

(17) Install the straight pin, washer, and cotter pin through the clevis that connects the forward bellcrank to the forward actuating rod (Fig. 505).

s 435-051-001

(18) Tighten the jamnut on the forward actuating rod.

NOTE: Make sure the actuator firing pin has not moved.

s 865-052-001

(19) Push the integrator lock handle inboard to the UNLOCK position (View A-A, 502).

s 865-053-001

- (20) Put the integrator wrench into the wrench socket of the cam. Use the integrator wrench to turn the cam full forward to close the slide compartment door latches (View A, Fig. 502).
 - <u>NOTE</u>: The cross pin is moved fully forward in the slot by the cam.
 - s 825-054-001
- (21) Adjust the actuator firing pins as follows:
 - (a) Remove the lock pin from the index hole A of the latch-opening actuator simulator.







- (b) Move the latch-opening actuator simulator and align the index mark B with the index mark C (View C, Fig. 506).
- (c) Put the lock pin in the index hole B.
- (d) Make sure the actuator firing pins moved a minimum of 0.45 inch for the forward door-opening actuator (Fig. 505) and the aft door-opening actuator (Fig. 504).
 - <u>NOTE</u>: This dimension is measured to make sure that the top of the firing pins on the forward and aft door-opening actuator simulators have moved down a minimum of 0.45 inch.
- (e) If the actuator firing pins did not move a minimum of 0.45 inch, adjust the door-opening actuator system again.
- (f) Remove the lock pin from the latch-opening actuator simulator.
- (g) Move the latch-opening actuator simulator and align the index mark A with the index mark C (View C, Fig. 506).
- (h) Put the lock pin in the index hole A.

s 865-055-001

(22) Put the integrator wrench into the wrench socket of the cam. Use the integrator wrench to turn the cam full aft to open the slide compartment door latches (View A, Fig. 502).

NOTE: The cross pin is moved fully aft in the slot by the cam.

s 215-056-001

(23) Make sure the firing pins in the forward and aft door-opening actuator simulators have not moved.

s 435-057-001

(24) Install the lockwire on the jamnut of the aft actuating rod (Fig. 504).

s 435-058-001

(25) Install the lockwire on the jamnut of the forward actuating rod (Fig. 505).

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s 095-059-001

(26) Remove the forward and aft door-opening actuator simulators (Fig. 506).

s 435-060-001

(27) Install the forward and aft door-opening actuators (AMM 25-65-10/401).

s 095-061-001

(28) Remove the latch-opening actuator simulator.

s 435-062-001

- <u>WARNING</u>: MAKE SURE YOU OBEY THE PROCEDURE TO INSTALL THE LATCH- OPENING ACTUATOR. IF YOU INCORRECTLY INSTALL THE LATCH OPENING ACTUATOR, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (29) Install the latch-opening actuator (AMM 25-65-11/401).
- J. Door Open Stops Adjustment

s 825-063-001

- (1) Adjust the length of the aft door open stop.
 - <u>NOTE</u>: Make sure the aft door open stop is fully extended at the dimension shown between the centerlines of the pins (Fig. 503).
 - (a) Adjust the aft door stop to prevent a load on the actuator (door opening) cable.
 - (b) Apply a lateral force of 3 to 7 pounds at the middle of the actuator (door opening) cable.
 - (c) Make sure that the actuator cable moves 0.30 to 0.50 inch in the direction of the load.





- (d) Make sure that the cross pin is in the integrator fitting in the fully forward position.
- (e) Adjust the actuating link 3.40 to 3.50 inches (Fig. 504).
- (f) Make sure there is a 1 inch distance between the aft top edge of the slide compartment door and the trailing edge flap when the slide compartment door is in the full open position and the flaps are retracted in the full up position.

s 825-064-001

(2) Adjust the length of the forward door open stop.

<u>NOTE</u>: Make sure the door-opening cable is tight, but permits the aft door open stop to be fully extended.

- (a) Adjust the forward door stop to prevent a load on the actuator (door opening) cable.
- (b) Apply a lateral force of 3 to 7 pounds at the middle of the actuator (door opening) cable.
- (c) Make sure that the actuator cable will move 0.25 to 0.40 inch in the direction of the load.
- (d) Adjust the latch link 2.99 to 3.05 inches (Fig. 505).

s 825-065-001

- (3) Adjust the actuator cables (Fig. 504 and Fig. 505).
 - <u>NOTE</u>: Make sure the actuator cables are tight between the door-opening actuator and the door hinge. The actuator cables must not be too tight. The forward and aft door open stops must hold the weight of the slide compartment door and the slide pack.

s 435-066-001

- (4) Tighten the jamnut on the actuator rod of the aft door-opening actuator (View A-A, Fig. 504).
 - s 435-067-001
- (5) Tighten the jamnut on the actuator rod of the forward door-opening actuator (View A-A, Fig. 505).
- K. Put the Airplane Back to Its Initial Condition

S 095-068-001

(1) Remove the safety pins from the forward door-opening actuator and the aft door-opening actuator (Fig. 501).

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s 495-069-001

(2) Put the safety pins in the pouch which is in the latch-opening actuator compartment.

s 215-070-001

(3) Make sure the EMER DOORS indicator on the overhead panel, P5, is on.

s 215-071-001

- (4) Make sure the applicable EICAS messages show on the top display:(a) L WING SLIDE
 - (b) R WING SLIDE
 - (c) EMER DOORS

s 415-072-001

- <u>WARNING</u>: MAKE SURE YOU OBEY THE PROCEDURE TO CLOSE THE SLIDE COMPARTMENT DOOR. IF YOU INCORRECTLY CLOSE THE SLIDE COMPARTMENT DOOR, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (5) Close and latch the slide compartment door (AMM 25-65-08/201).

s 215-073-001

(6) Make sure the EMER DOORS door warning indicator light on the overhead panel, P5, is off.

s 215-074-001

(7) Make sure the off-wing escape system EICAS messages do not show.

s 095-075-001

(8) Remove the protective cover from the work area on the wing surface.

s 445-076-001

- WARNING: MAKE SURE YOU OBEY THE PROCEDURE TO ARM THE OFF-WING ESCAPE SYSTEM. IF YOU INCORRECTLY ARM THE OFF-WING ESCAPE SYSTEM, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (9) Arm the off-wing escape system (AMM 25-65-00/201).

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TASK 25-65-00-765-077-001

- 3. AIRPLANES WITH ONE HATCH OVER EACH WING; <u>Electrical System Test - Off-Wing Escape System</u>
 - A. General
 - (1) This task gives instructions for the electrical system test.
 - (2) The tests in this procedure are for the left off-wing escape system. The procedures for the right off-wing escape system are equivalent.
 - (3) You must do these tests in the correct sequence.
 - (a) Do the electrical system test.
 - (b) Do the mechanical system test.
 - (c) Do the operational test, if necessary.
 - (4) Electrical System Test
 - (a) Prepare for the electrical system test
 - (b) Do the electrical system test:
 - 1) Auto Fire System Test
 - 2) Back-up Fire System Test
 - 3) Squib Indicator Test
 - 4) Battery Charge Test
 - 5) Put the electrical system back to its initial condition.
 - (5) Start Test Requirements
 - (a) The purpose of this testing is to ensure the integrity of the electrical control system that:
 - 1) Grounds out the main spoiler power control hydraulic actuator input.
 - 2) Fires the ignition squibs of the emergency spoiler override actuators.
 - 3) Fires the ignition squibs of the latch opening actuators.
 - (b) The Spoiler Control module 3R must be removed from E2-1 shelf for the duration of this test.
 - B. Equipment

 - (2) Wrench 1/8 inch Allen
 - (3) Electrical Test Equipment Off-Wing Escape
 Slide System A25012-19
 - (4) Ohmmeter O-1k ohm range with low level range to read 3 ohm
 - (5) Voltmeter 0-50 volt dc range
 - C. References
 - (1) AMM 24-22-00/201, Manual Control (Apply Power)

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- (2) AMM 25-65-08/201 Off-Wing Slide Compartment Door
- (3) AMM 25-65-17/401 Off-Wing Escape System Emergency Battery
- (4) AMM 25-65-19/401 Off-Wing Escape System Spoiler Override Actuator Squib
- (5) AMM 27-09-00/201, Flight Control System Electronics Unit (CSEU)

D. Access

(1) Location Zones

141/142	Area Above MLG Wheel Well
195/196	Wing to Body – Aft Upper Half
553/653	Spoiler No. 6 (LH), No. 7 (RH)
070 (0 (0	

832/842 Overwing Emergency Exit Hatch

(2) Access Panels

195EL/196EROff-Wing Slide Compartment Door195QL/196QRLatch Opening Actuator Door195ML/196MRIntegrator Access Door197CL/198CRLower Access Door197PZX/198KZXEscape System Pressure Cylinder Gage

E. Prepare for the Electrical System Test

s 845-078-001

- (1) Do these steps to make sure the left and right overwing escape system batteries (M961 and M962) are charged:
 - (a) Make sure these circuit breakers on the P11-6 overhead panel are closed for 4 or more hours:
 - 1) 11P35 EMER LTS WING ESC L
 - 2) 11P36, EMER LTS WING ESC R
 - s 025-079-001
- (2) Remove the spoiler control module 3R from E2-1 shelf (AMM 27-09-00/201).

s 415-080-001

- (3) Close and latch the slide compartment door (AMM 25-65-08/201).
 - <u>WARNING</u>: MAKE SURE THE SLIDE COMPARTMENT DOOR IS IN THE CLOSED POSITION. IF THE SLIDE COMPARTMENT DOOR IS OPEN WHEN YOU DO THE ELECTRICAL SYSTEM TEST, ACCIDENTAL SLIDE DEPLOYMENT CAN OCCUR AND CAUSE INJURY OR DAMAGE.
 - (a) Keep the slide compartment door in the closed position.
 - s 865-081-001
- (4) Put the switches in these positions:
 - (a) Open the EXIT sign panel above the overwing escape hatch with an allen wrench or phillips screwdriver (Fig. 507).
 - (b) Make sure the backup arm switches and the backup fire switches are in the ARM, up position (Fig. 507).

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- <u>WARNING</u>: MAKE SURE THE AUTO ARM AND AUTO FIRE SWITCHES ARE IN THE ARM POSITION BEFORE YOU MOVE THE DISABLE HANDLE TO THE SAFE POSITION. FAILURE TO DO THIS CAN ACCIDENTALLY INFLATE THE ESCAPE SLIDE AND CAUSE INJURY OR DAMAGE.
- (c) Push down on the disable handle. Make sure the auto arm and auto fire switches are in the ARM, down position (Fig. 507, view A).
- (d) Put the disable handle in the ARM, up position (Fig. 507).

s 865-082-001

- (5) Open these circuit breakers on the overhead circuit breaker panel, P11, and attach DO-NOT-CLOSE tags:
 - (a) 11C6, FLIGHT CONTROLS FLT CONT ELEC 1L AC
 - (b) 11C7, FLIGHT CONTROLS FLT CONT ELEC 1L DC
 - (c) 11C8, FLIGHT CONTROLS FLT CONT ELEC 2L AC
 - (d) 11C9, FLIGHT CONTROLS FLT CONT ELEC 2L DC
 - (e) 11G17, FLIGHT CONTROLS FLT CONT ELEC 1R AC
 - (f) 11G18, FLIGHT CONTROLS FLT CONT ELEC 1R DC
 - (g) 11G26, FLIGHT CONTROLS FLT CONT ELEC 2R AC
 - (h) 11G27, FLIGHT CONTROLS FLT CONT ELEC 2R DC
 - (i) 11P35, EMER LTS WING ESC L
 - (j) 11P36, EMER LTS WING ESC R

s 025-083-001

- (6) Disconnect the electrical connectors from the latch-opening actuators (Fig. 502).
 - (a) Disconnect the electrical connector from the left latch-opening actuator.
 - 1) Install the shorting cap on the left latch-opening actuator.
 - <u>NOTE</u>: The shorting cap is kept in a pouch which is in the latch-opening actuator compartment.
 - (b) Disconnect the electrical connector from the left spoiler override actuator (AMM 25-65-19/401).
 - 1) Install the shorting cap on the left spoiler override actuator.
 - <u>NOTE</u>: The shorting cap is kept in a pouch which is in the lower access door.
 - (c) Disconnect the electrical connector from the left spoiler No. 6 power control actuator.

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- (d) Disconnect the electrical connector from the right latch-opening actuator (Fig. 502).
 - 1) Install the shorting cap on the right latch-opening actuator.

- (e) Disconnect the electrical connector from the right spoiler override actuator (AMM 25-65-19/401).
 - 1) Install the shorting cap on the right spoiler override actuator.

<u>NOTE</u>: The shorting cap is kept in a pouch which is in the lower access door.

(f) Disconnect the electrical connector from the right spoiler No. 7 power control actuator.

s 435-084-001

- (7) Connect the electrical connectors to the emergency batteries (M961 and M962) for the left and right off-wing escape system (AMM 25-65-17/401).
 - <u>NOTE</u>: You must connect the emergency batteries for the left and right off-wing escape system when you do a test on the left or right off-wing escape system.

s 435-085-001

- (8) When you do a test on the left off-wing escape system:
 (a) Connect J3 of the test box (A25012) to the left spoiler override actuator connector.
 - (b) Connect J2 of the test box to the left latch-opening actuator connector.
 - (c) Make sure the two voltmeters show O volts.
 - (d) Do not disconnect J2 or J3.
 - (e) Connect J4 of the test box to the wire harness plug for the left inboard spoiler No. 6 power control actuator connector.
 - (f) Put the switch on the test box in position 1.
 - (g) Make sure the ohmmeter shows a value of more than 400 ohms.

<u>NOTE</u>: The 400 ohm resistance is to show that the spoiler retract relay is not energized.

(h) Do not disconnect J3, J4, or J2.

s 435-086-001

(9) When you do a test on the right off-wing escape system:(a) Connect J3 of the test box to the right spoiler override actuator connector.

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<u>NOTE</u>: The shorting cap is kept in a pouch which is in the latch-opening actuator compartment.



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- (b) Connect J2 of the test box to the right latch-opening actuator connector.
- (c) Make sure the two voltmeters show O volts.
- (d) Do not disconnect J2 or J3.
- (e) Connect J4 of the test box to the wire harness plug for the right inboard spoiler No. 7 power control actuator connector.
- (f) Put the switch on the test box in position 1.
- (g) Make sure the ohmmeter shows a value of more than 400 ohms.

<u>NOTE</u>: The 400 ohm resistance is to show that the spoiler retract relay is not energized.

(h) Do not disconnect J3, J4, or J2.

- F. Do the Electrical System Test
 - <u>NOTE</u>: Do the electrical system test in the sequence shown for the left off-wing escape system. Do the electrical system test in the sequence shown for the right off-wing escape system.
 - s 715-087-001
 - (1) For the auto fire system test, do these steps:
 - (a) Put the auto arm switch S530 (S531) to the FIRE, up position (Fig. 507).
 - (b) Make sure the two voltmeters show O volts.
 - (c) Make sure the ohmmeter shows a value of more than 400 ohms.

<u>NOTE</u>: The 400 ohm resistance is to show that the spoiler retract relay is not energized.

- (d) Put the auto arm switch \$530 (\$531) to the ARM, down position.
- (e) Put the auto fire switch \$532 (\$533) to the FIRE, up position.
- (f) Make sure the two voltmeters show O volts.
- (g) Make sure the ohmmeter shows a value of more than 400 ohms.

<u>NOTE</u>: The 400 ohm resistance is to show that the spoiler retract relay is not energized.

- (h) Put the auto fire switch S532 (S533) to the ARM, down position.
- (i) Put the auto arm switch \$530 (\$531) and auto fire switch \$532 (\$533) to the FIRE, up position.
- (j) Make sure the spoiler override actuator voltmeter on the test box shows a value between 6 and 9 volts.
- (k) Make sure the ohmmeter shows a value of 10 ohms or less.
- (l) After 2.0 \pm 0.2 seconds, make sure the latch-opening actuator voltmeter on the test box shows a value between 6 and 9 volts.
- (m) Make sure the ohmmeter shows a value of 10 ohms or less.
- (n) Put the auto arm switch \$530 (\$531) and the auto fire switch \$532 (\$533) to the ARM, down position.
- (o) Put the disable switch S528 (S529) in the ARM, up position.

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- (p) Put the auto arm switch \$530 (\$531) and the auto fire switch \$532 (\$533) to the FIRE, up position.
- (q) Put the switch on the test box in position 2.
- (r) Make sure the ohmmeter shows a value of 10 ohms or less.
- (s) Put the disable switch S528 (S529) to the SAFE, down position.
- (t) Make sure the two voltmeters show O volts.
- (u) Make sure the ohmmeter shows a value of more than 400 ohms.

<u>NOTE</u>: The 400 ohm resistance is to show that the spoiler retract relay is not energized.

- (v) Put these switches back to their initial condition:
 - 1) The auto arm switch \$530 (\$531) to the ARM, down position.
 - 2) The auto fire switch \$532 (\$533) to the ARM, down position.
 - 3) The disable switch S528 (S529) to the ARMED, up position.
- (w) Put the switch on the test box in position 1.

s 715-088-001

- (2) For the back-up fire system test, do these steps:
 - (a) When you do a test on the left off-wing escape system, disconnect the electrical connector from the emergency battery for the left off-wing escape system (AMM 25-65-17/401).
 - (b) When you do a test on the right off-wing escape system, disconnect the electrical connector from the emergency battery for the right off-wing escape system.
 - (c) Do these steps:
 - 1) Put the backup arm switch S1 of M1135 (M1136) and the backup fire switch S2 of M1135 (M1136) to the FIRE, down position.
 - 2) Make sure the spoiler override actuator voltmeter on the test box shows a value between 6 and 9 volts.
 - 3) Make sure the ohmmeter shows a value of 10 ohms or less.
 - After 2.0 ±0.2 seconds, make sure the latch-opening actuator voltmeter on the test box shows a value between 6 and 9 volts.
 - 5) Put the disable switch S528 (S529) to the SAFE, down position.
 - 6) Make sure the auto arm switch S530 (S531) and the auto fire switch S532 (S533) are in the ARM, down position.
 - 7) Make sure the two voltmeters show O volts.
 - 8) Make sure the ohmmeter shows a value of more than 400 ohms.

<u>NOTE</u>: The 400 ohm resistance is to show that the spoiler retract relay is not energized.

- 9) Put the backup fire switch S2 of M1135 (M1136) and the backup arm switch S1 of M1135 (M1136) to the ARM, up position.
- 10) Put the disable switch S528 (S529) to the ARMED, up position.

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- (3) For the squib indicator test (Fig. 508), do these steps:
 - (a) Make sure the electrical connectors to the emergency batteries (M961 and M962) for the left and right off-wing escape systems are connected (AMM 25-65-17/401).
 - (b) Remove the DO-NOT-CLOSE tags. Close these circuit breakers on the overhead panel, P11:
 1) 11P36, EMER LTS WING ESC R
 -) Supply cleathing power (AMM 2/ 22 00)
 - (c) Supply electrical power (AMM 24-22-00/201).
 - (d) Push the EMER ESCAPE L light on the squib test panel, M32, which is on the right side panel, P61 (Fig. 508).
 1) Make sure the EMER ESCAPE L light is on.
 - (e) Push the EMER ESCAPE R light on the squib test panel, M32, which is on the right side panel, P61.
 - Make sure the EMER ESCAPE R light is on.
 (f) Push Disable Switch for RH Hatch (S617) in the
 - Push Disable Switch for RH Hatch (S617) in the safe position.
 1) Push and hold the TEST 1 switch. Make sure the EMER ESCAPE L light is on in 3 seconds, and the EMER ESCAPE R light is off. Release the TEST 1 switch.
 - 2) Push and hold the TEST 2 switch. Make sure the EMER ESCAPE L light is on and that the EMER ESCAPE R light is off. Release the TEST 2 switch.
 - 3) Push and hold the TEST 1 and TEST 2 switches at the same time. Make sure the EMER ESCAPE L and the EMER ESCAPE R lights are off. Release the TEST 1 and TEST 2 switches.
 - Disconnect the electrical connector from the emergency battery (M962) for the right off-wing escape system (AMM 25-65-17/401).
 - 5) Push and hold the TEST 1 switch. Make sure the EMER ESCAPE L light is off. Release the TEST 1 switch.
 - 6) Push and hold the TEST 2 switch. Make sure the EMER ESCAPE L light is on. Release the TEST 2 switch.
 - 7) Connect the electrical connector to the emergency battery (M962) for the right off-wing escape system (AMM 25-65-17/401).

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- 8) Put the auto arm switch S530 to the FIRE, up position.
- 9) Push and hold the TEST 1 switch. Make sure the EMER ESCAPE L light is on in 3 seconds. Release the TEST 1 switch (Fig. 508).
- 10) Push and hold the TEST 2 switch. Make sure the EMER ESCAPE L light is off. Release the TEST 2 switch.
- 11) Put the auto arm switch S530 to the ARM, down position (Fig. 507).
- 12) Put the auto fire switch S532 to the FIRE, up position.
- 13) Push and hold the TEST 1 switch. Make sure the EMER ESCAPE L light is on in 3 seconds. Release the TEST 1 switch.
- 14) Push and hold the TEST 2 switch. Make sure the EMER ESCAPE L light is off. Release the TEST 2 switch.
- 15) Put the auto fire switch S532 to the ARM, down position.
- 16) Do these steps:
 - a) Put the backup arm switch S1 and the backup fire switch S2 of M1135 to the FIRE, down position.
 - b) Push and hold the TEST 1 switch. Make sure the EMER ESCAPE L light is off. Release the TEST 1 switch.
 - c) Push and hold the TEST 2 switch. Make sure the EMER ESCAPE L light is on. Release the TEST 2 switch.
 - d) Put the backup arm switch S1 and the backup fire switch S2 of M1135 to the ARM, up position.
- (g) On the right off-wing escape system, do these steps:
- (h) Put Disable Switch for LH hatch (S618) in the safe position.
 - 1) Push and hold the TEST 1 switch. Make sure the EMER ESCAPE R light is on in 3 seconds and that the EMER ESCAPE L light is off. Release the TEST 1 switch.
 - 2) Push and hold the TEST 2 switch. Make sure the EMER ESCAPE R light is on and that the EMER ESCAPE L light is off. Release the TEST 2 switch.
 - 3) Push and hold the TEST 1 and TEST 2 switches at the same time. Make sure the EMER ESCAPE L and EMER ESCAPE R lights are off. Release the TEST 1 and TEST 2 switches.
 - Disconnect the electrical connector from the emergency battery (M961) for the left off-wing escape system (AMM 25-65-17/401).
 - 5) Push and hold the TEST 1 switch. Make sure the EMER ESCAPE R light is off. Release the TEST 1 switch.
 - 6) Push and hold the TEST 2 switch. Make sure the EMER ESCAPE R light is on. Release the TEST 2 switch.
 - 7) Connect the electrical connector to the emergency battery for the left off-wing escape system.
 - 8) Put the auto arm switch S531 to the FIRE, up position.
 - 9) Push and hold the TEST 1 switch. Make sure the EMER ESCAPE R light is on in 3 seconds. Release the TEST 1 switch.
 - 10) Push and hold the TEST 2 switch. Make sure the EMER ESCAPE R light is off. Release the TEST 2 switch.
 - 11) Put the auto arm switch S531 to the ARM, down position.
 - 12) Put the auto fire switch S533 to the FIRE, up position.

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- 13) Push and hold the TEST 1 switch. Make sure the EMER ESCAPE R light is on in 3 seconds. Release the TEST 1 switch.
- 14) Push and hold the TEST 2 switch. Make sure the EMER ESCAPE R light is off. Release the TEST 2 switch.
- 15) Put the auto fire switch S533 to the ARM, down position.
 - a) Return Disable Switch for LH hatch (S618) to the armed position.
 - b) Put the backup arm switch S1 and the backup fire switch S2 of M1136 to the FIRE, down position.
 - c) Push and hold the TEST 1 switch. Make sure the EMER ESCAPE R light is off. Release the TEST 1 switch.
 - d) Push and hold the TEST 2 switch. Make sure the EMER ESCAPE R light is on. Release the TEST 2 switch.
 - e) Put the backup arm switch S1 and the backup fire switch S2 of M1136 to the ARM, up position.
- (i) Open this circuit breaker on the overhead circuit breaker panel, P11, and attach a DO-NOT-CLOSE tag:
 1) 11P36, EMER LTS WING ESC R

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- (4) Do the Battery Charge Test
 - (a) For the left off-wing escape system, do these steps:
 - Disconnect the electrical connector from the emergency battery (M961) for the left off-wing escape system (AMM 25-65-17/401).
 - Connect the voltmeter between pin 1 and pin 2 of the electrical connector on the emergency battery for the left off-wing escape system.
 - Make sure the voltmeter shows a value of less than 12 volts.
 - 4) Remove the DO-NOT-CLOSE tag and close this circuit breaker on the P11 panel:
 - a) 11P35, EMER LTS WING ESC L
 - 5) Make sure the voltmeter shows a value between 23 and 33 volts.
 - Push and hold the TEST 1 switch on the squib test panel, M32 (Fig. 508). Make sure the voltmeter shows a value of less than 12 volts.
 - 7) Release the TEST 1 switch. Make sure the voltmeter shows a value between 23 and 33 volts.
 - 8) Push and hold the TEST 2 switch. Make sure the voltmeter shows a value of less than 12 volts.
 - 9) Release the TEST 2 switch. Make sure the voltmeter shows a value between 23 and 33 volts.
 - 10) Open these circuit breakers on the overhead circuit breaker panel, P11, and attach a DO-NOT-CLOSE tags:
 - a) 11P35, EMER LTS WING ESC L
 - b) 11P36, EMER LTS WING ESC R

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM



- 11) Connect the electrical connector to the emergency battery (M961) for the left off-wing escape system (AMM 25-65-17/401).
- 12) Disconnect J3 of the test box from the electrical connector of the left spoiler override actuator.
- 13) Disconnect J2 of the test box from the electrical connector of the left latch-opening actuator.
- 14) Disconnect J4 of the test box from the wire harness plug (D00161) for the left inboard spoiler No. 6 power control actuator.
- (b) For the right off-wing escape system, do these steps:
 - Disconnect the electrical connector from the emergency battery (M962) for the right off-wing escape system (AMM 25-65-17/401).
 - Connect the voltmeter between pin 1 and pin 2 of the electrical connector on the emergency battery for the right off-wing escape system.
 - Make sure the voltmeter shows a value of less than 12 volts.
 - Remove the DO-NOT-CLOSE tag and close this circuit breaker on the P11 panel:
 - a) 11P36, EMER LTS WING ESC R
 - 5) Make sure the voltmeter shows a value between 23 and 33 volts.
 - Push and hold the TEST 1 switch on the squib test panel, M32 (Fig. 508). Make sure the voltmeter shows a value of less than 12 volts.
 - 7) Release the TEST 1 switch. Make sure the voltmeter shows a value between 23 and 33 volts.
 - 8) Push and hold the TEST 2 switch. Make sure the voltmeter shows a value of less than 12 volts.
 - Release the TEST 2 switch. Make sure the voltmeter shows a value between 23 and 33 volts.
 - 10) Open this circuit breaker on the overhead circuit breaker panel, P11, and attach a DO-NOT-CLOSE tag:
 a) 11P36, EMER LTS WING ESC R





- 11) Connect the electrical connector to the emergency battery (M962) for the right off-wing escape system (AMM 25-65-17/401).
- 12) Disconnect J3 of the test box from the electrical connector of the the right spoiler override actuator.
- 13) Disconnect J2 of the test box from the electrical connector of the right latch-opening actuator.
- 14) Disconnect J4 of the test box from the wire harness plug for the right inboard spoiler No. 7 power control actuator.

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- (5) Do these steps to put the electrical system back to its initial condition:
 - (a) Remove the shorting cap from the left latch-opening actuator. Then put the shorting cap in the pouch which is in the latch-opening actuator compartment.
 - WARNING: MAKE SURE THERE IS NO VOLTAGE PRESENT AT PIN A OF THE LATCH-OPENING ACTUATOR CONNECTOR (D01130). A VOLTAGE PRESENT AT PIN A CAN DEPLOY THE ESCAPE SLIDE AND CAUSE INJURY OR DAMAGE WHEN THE CONNECTOR IS RECONNECTED TO THE ACTUATOR.
 - (b) Make sure there is no voltage present at pin A of the latch-opening actuator connector.
 - (c) Connect the electrical connector to the left latch-opening actuator (Fig. 502).
 - (d) Remove the shorting cap from the left spoiler override actuator. Then put the shorting cap in the pouch which is in the lower access door (AMM 25-65-19/401).
 - (e) Connect the electrical connector to the left spoiler override actuator.
 - (f) Connect the electrical connector to the left spoiler No. 6 control actuator.
 - (g) Remove the shorting cap from the right latch-opening actuator. Then put the shorting cap in the pouch which is in the latch-opening actuator compartment.
 - WARNING: MAKE SURE THERE IS NO VOLTAGE PRESENT AT PIN A OF THE LATCH-OPENING ACTUATOR CONNECTOR. A VOLTAGE PRESENT AT PIN A CAN DEPLOY THE ESCAPE SLIDE AND CAUSE INJURY OR DAMAGE WHEN THE CONNECTOR IS RECONNECTED TO THE ACTUATOR.
 - (h) Make sure there is no voltage present at pin A of the latch-opening actuator connector.
 - (i) Connect the electrical connector to the right latch-opening actuator (Fig. 502).
 - (j) Remove the shorting cap from the right spoiler override actuator. Put the shorting cap in the pouch which is in the lower access door (AMM 25-65-19/401).

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- (k) Connect the electrical connector to the right spoiler override actuator.
- (l) Connect the electrical connector to the right spoiler No. 7 power control actuator.
- (m) Put the spoiler control module 3R back in the E2-1 shelf (AMM 27-09-00/201).

TASK 25-65-00-765-092-001

- 4. AIRPLANES WITH TWO HATCHES OVER EACH WING; <u>Electrical System Test - Off-Wing Escape System</u>
 - Α. General
 - (1) This task gives instructions for the electrical system test.
 - (2) The tests in this procedure are for the left off-wing escape system. The procedures for the right off-wing escape system are equivalent.
 - You must do these tests in the correct sequence. (3)
 - (a) Do the electrical system test.
 - (b) Do the mechanical system test.
 - (c) Do the operational test, if necessary.
 - Electrical System Test (4)
 - (a) Prepare for the electrical system test
 - (b) Do the electrical system test:
 - 1) Auto Fire System Test
 - Back-up Fire System Test
 - 3) Squib Indicator Test
 - 4) Battery Charge Test

5) Put the electrical system back to its initial condition.

- Start Test Requirements (5)
 - The purpose of this testing is to ensure the integrity of the (a) electrical control system that:
 - 1) Grounds out the main spoiler power control hydraulic actuator input.
 - 2) Fires the ignition squibs of the emergency spoiler override actuators.
 - Fires the ignition squibs of the latch opening actuators. 3)
 - (b) The Spoiler Control module 3R must be removed from E2-1 shelf for the duration of this test (AMM 27-09-00/201).
- B. Equipment

(1) Wrench, Off-Wing Escape System Integrator - A25011-2 (Recommended) 1/4 inch square drive socket wrench (Optional)

- (2) Wrench - 1/8 inch Allen
- (3) Electrical Test Equipment Off-Wing Escape Slide System - A25012-19
- (4) Ohmmeter - 0-1k ohm range with low level range to read 3 ohm
- (5) Stop Watch - Commercially available
- C. References
 - (1) AMM 27-09-00/201, Flight Control System Electronics Unit (CSEU)
 - (2) AMM 25-65-17/401, Off-Wing Escape System Emergency Battery
 - (3) AMM 25-65-19/401, Off-Wing Escape System Spoiler Override Actuator Squib

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- (4) AMM 27-09-00/201, Flight Control System Electronics Unit (CSEU)
- (5) AMM 27-61-00/501, Spoiler Speedbrake Control System
- D. Access
 - (1) Location Zones

Area Above MLG Wheel Well
Wing to Body – Aft Upper Half
Spoiler No. 6 (LH), No. 7 (RH)
Overwing Emergency Exit Hatch
Overwing Emergency Exit Hatch

- E. Prepare for the Electrical System Test

s 845-093-001

- (1) Make sure the left and right off-wing escape system batteries (M961 and M962) are charged:
 - (a) Make sure these circuit breakers on the P11-6 overhead panel are closed for 4 or more hours:
 - 1) 11P35, EMER LTS WING ESC L
 - 2) 11P36, EMER LTS WING ESC R

s 025-094-001

(2) Remove the spoiler control module 3R from E2-1 shelf (AMM 27-09-00/201).

s 415-095-001

- <u>WARNING</u>: MAKE SURE THE SLIDE COMPARTMENT DOOR IS IN THE CLOSED POSITION. IF THE SLIDE COMPARTMENT DOOR IS OPEN WHEN YOU DO THE ELECTRICAL SYSTEM TEST, ACCIDENTAL SLIDE DEPLOYMENT CAN OCCUR AND CAUSE INJURY OR DAMAGE.
- (3) Make sure both slide compartment doors are closed and latched (AMM 25-65-08/201).

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s 215-096-001

- (4) Put switches for both the forward and aft hatches in these positions:
 - (a) Open the EXIT sign panel above each overwing escape hatch with an allen wrench or phillips screwdriver (Fig. 507).
 - (b) Make sure the backup arm switches and the backup fire switches are in the ARM, up position (Fig. 507).
 - <u>WARNING</u>: MAKE SURE THE AUTO ARM AND AUTO FIRE SWITCHES ARE IN THE ARM POSITION BEFORE YOU MOVE THE DISABLE HANDLE TO THE SAFE POSITION. FAILURE TO DO THIS CAN ACCIDENTALLY INFLATE THE ESCAPE SLIDE AND CAUSE INJURY OR DAMAGE.
 - (c) Push down on the disable handle. Make sure the auto arm and auto fire switches are in the ARM, down position (Fig. 507).
 - (d) Put the disable handle in the ARMED, up position (Fig. 507).

s 865-097-001

- (5) Open these circuit breakers on the overhead circuit breaker panel, P11, and attach DO-NOT-CLOSE tags:
 - (a) 11C6, FLIGHT CONTROLS FLT CONT ELEC 1L AC
 - (b) 11C7, FLIGHT CONTROLS FLT CONT ELEC 1L DC
 - (c) 11C8, FLIGHT CONTROLS FLT CONT ELEC 2L AC
 - (d) 11C9, FLIGHT CONTROLS FLT CONT ELEC 2L DC
 - (e) 11G17, FLIGHT CONTROLS FLT CONT ELEC 1R AC
 - (f) 11G18, FLIGHT CONTROLS FLT CONT ELEC 1R DC
 - (g) 11G26, FLIGHT CONTROLS FLT CONT ELEC 2R AC
 - (h) 11G27, FLIGHT CONTROLS FLT CONT ELEC 2R DC
 - (i) 11P35, EMER LTS WING ESC L
 - (j) 11P36, EMER LTS WING ESC R

s 025-098-001

- (6) Do these steps to connect the electrical test equipment (A25012-19) to the left off-wing escape system:
 - (a) Disconnect the electrical connector from the left latch-opening actuator (Fig. 502).
 - 1) Install the shorting cap on the left latch-opening actuator.
 - <u>NOTE</u>: The shorting cap is kept in a pouch which is in the latch-opening actuator compartment.

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- (b) Disconnect the electrical connector from the left spoiler override actuator (AMM 25-65-19/401).
 - 1) Install the shorting cap on the left spoiler override actuator.

<u>NOTE</u>: The shorting cap is kept in a pouch which is in the lower access door.

- (c) Disconnect the electrical connector from the inboard spoiler No. 6 power control actuator.
- (d) Disconnect the electrical connector from the right latch-opening actuator (Fig. 502).
 - Install the shorting cap on the right latch-opening actuator.
 - <u>NOTE</u>: The shorting cap is kept in a pouch which is in the latch-opening actuator compartment.
- s 435-099-001
- (7) Connect the electrical connectors to the emergency batteries (M961 and M962) for the left and right off-wing escape system (AMM 25-65-17/401).
 - <u>NOTE</u>: You must connect the emergency batteries for the left and right off-wing escape system when you do a test on the left or right off-wing escape system.

s 205-100-001

- (8) When you do a test on the left off-wing escape system:
 - (a) Connect the test equipment to the airplane:
 - Connect J3 of the electrical test equipment (A25012-19) to the left spoiler override actuator.
 - Connect J2 of the test equipment to the left latch-opening actuator connector.
 - 3) Make sure the two voltmeters show O volts.

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- 4) Connect J4 of the test equipment to the wire harness plug for the (left) inboard spoiler No. 6 power control actuator connector.
- 5) Put the switch on the test box in position 1.
- 6) Connect the ohmmeter to the test equipment.
 - a) Make sure the ohmmeter shows a value of more than 400 ohms.
 - <u>NOTE</u>: The 400 ohm resistance is to show that the spoiler retract relay is not energized.
- s 025-101-001
- (9) Do these steps to connect the electrical test equipment A25012-19 to the right off-wing escape slide system:
 - (a) Disconnect the electrical connector from the right spoiler override actuator (AMM 25-65-19/401).
 - 1) Install the shorting cap on the right spoiler override actuator.

<u>NOTE</u>: The shorting cap is kept in a pouch which is in the lower access door.

(b) Disconnect the electrical connector from the (right) inboard spoiler No. 7 power control actuator.

s 025-102-001

- (10) Connect the electrical connectors to the emergency batteries (M961 and M962) for the right off-wing escape system (AMM 25-65-17/401).
 - <u>NOTE</u>: You must connect the emergency batteries for the right off-wing escape system when you do a test on the right off-wing escape system.

s 205–103–001

(11) Connect the electrical test equipment (A25012-19) to the airplane:

- (a) Connect J3 of the test box to the right spoiler override actuator connector.
- (b) Connect J2 of the test box to the right latch-opening actuator connector.
- (c) Make sure the two voltmeters show O volts.
- (d) Connect J4 of the test box to the wire harness plug for the right inboard spoiler No. 7 power control actuator connector.
- (e) Connect the ohmmeter to the test equipment
- (f) Put the switch on the test box in position 1.
- (g) Make sure the ohmmeter shows a value of more than 400 ohms.

<u>NOTE</u>: The 400 ohm resistance is to show that the spoiler retract relay is not energized.

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM





- F. Do the Electrical System Test
 - <u>NOTE</u>: Do the electrical system test in the sequence shown for the left off-wing escape system. Do the electrical system test in the sequence shown for the right off-wing escape system.
 - s 715-104-001
 - (1) For the auto fire system test, do these steps:
 - (a) When you do a test on the left off-wing escape system, disconnect the electrical connector from the right emergency battery (M962) (AMM 25-65-17/401).
 - (b) When you do a test on the right off-wing escape system, disconnect the electrical connector from the left emergency battery (M961) (AMM 25-65-17/401).
 - (c) Put the left forward auto arm switch S624 (S623) to the FIRE, up position (Fig. 507).

<u>NOTE</u>: The auto arm switch S624 (S623) is above the forward overwing escape hatch.

- (d) Look at the test equipment for the following:
 - 1) Make sure the two voltmeters show O volts.
 - 2) Make sure the ohmmeter shows a value of more than 400 ohms.

<u>NOTE</u>: The 400 ohm resistance is to show that the spoiler retract relay is not energized.

(e) Put the left forward auto arm switch S624 (S623) to the ARM, down position (Fig. 507).

<u>NOTE</u>: The forward auto arm switch is above the forward off-wing escape hatch.

(f) Put the left forward auto fire switch S628 (S627) to the FIRE, up position.

<u>NOTE</u>: The auto arm switch S628 (S627) is above the forward overwing escape hatch.

- (g) Look at the test equipment for the following:
 - 1) Make sure the two voltmeters show O volts.
 - 2) Make sure the ohmmeter shows a value of more than 400 ohms.

<u>NOTE</u>: The 400 ohm resistance is to show that the spoiler retract relay is not energized.

- (h) Put the left forward auto fire switch S628 (S627) to the ARM, down position (Fig. 507).
- (i) Put the left forward auto arm switch S624 (S623) and left forward auto fire switch S628 (S627) to the FIRE, up position.

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- (j) Look at the test equipment for the following:
 - 1) Make sure the spoiler override actuator voltmeter on the test box shows a value between 6 and 9 volts.
 - 2) Make sure the ohmmeter shows a value of 10 ohms or less.
 - Make sure it takes from 1.8 to 3.0 seconds before the test equipment latch-opening actuator voltmeter shows a value between 6 and 9 volts.
 - 4) Make sure the ohmmeter value remains at 10 ohms or less.
- (k) Put the left forward auto arm switch S624 (S623) and the left forward auto fire switch S628 (S627) to the ARM, down position.
- (l) Put the left aft auto arm switch S622 (S621) to the FIRE, up position.

<u>NOTE</u>: The auto arm switch S622 (S621) is above the aft overwing escape hatch.

- (m) Look at the test equipment for the following:
 - 1) Make sure the two voltmeters show O volts.
 - 2) Make sure the ohmmeter shows a value more than 400 ohms.

<u>NOTE</u>: The 400 ohm resistance is to show that the spoiler retract relay is not energized.

- (n) Put the left aft auto arm switch S622 (S621) to the ARM, down position.
- (o) Put the aft auto fire switch S626 (S625) to the FIRE, up position.

<u>NOTE</u>: The auto fire switch S626 (S625) is found above the aft overwing escape hatch.

- (p) Look at the test equipment for the following:
 - 1) Make sure the two voltmeters show O volts.
 - 2) Make sure the ohmmeter shows a value of more than 400 ohms.

<u>NOTE</u>: The 400 ohm resistance is to show that the spoiler retract relay is not energized.

- (q) Put the aft auto fire switch S626 (S625) to the ARM, down position.
- (r) Put the aft auto arm switch S622 (S621) and aft auto fire switch S626 (S625) to the FIRE, up position.
- (s) Look at the test equipment for the following:
 - 1) Make sure the spoiler override actuator voltmeter on the test box shows a value between 6 and 9 volts.
 - 2) Make sure the ohmmeter shows a value of 10 ohms or less.
 - Make sure it takes from 1.8 to 3.0 seconds before the test equipment latch-opening actuator voltmeter shows a value between 6 and 9 volts.
 - 4) Make sure the value shown on the ohmmeter stays at 10 ohms or less.

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- (t) Put the aft auto arm switch S622 (S621) and the aft auto fire switch S626 (S625) to the ARM, down position.
- (u) Put the forward auto arm switch S624 (S623) and the forward auto fire switch S628 (S627) to the FIRE, up position.
- (v) On the test equipment do the following:
 - 1) Put the switch on the test box in position 2.
 - 2) Make sure the ohmmeter shows a value of 10 ohms or less.
- (w) Put the forward disable switch S620 (S619) to the SAFE, down position.

<u>NOTE</u>: The disable switch S620 (S619) is above the forward overwing escape hatch.

- (x) On the test equipment look for the following:
 - 1) Make sure the two voltmeters show O volts.
 - 2) Make sure the ohmmeter shows a value of more than 400 ohms.

<u>NOTE</u>: The 400 ohm resistance is to show that the spoiler retract relay is not energized.

- (y) Put these switches back to their initial condition:
 - 1) The forward auto arm switch S624 (S623) to the ARM, down position.
 - 2) The forward auto fire switch S628 (S627) to the ARM, down position.
 - 3) The forward disable switch S620 (S619) to the ARMED, up position.
- (z) On the test equipment, put the switch in position 1.
- (aa) Put the aft auto arm switch S622 (S621) and aft auto fire switch S626 (S625) to the FIRE, up position.
- (ab) On the test equipment do the following:
 - 1) Put the switch on the test box in position 2.
 - 2) Make sure the ohmmeter shows a value of 10 ohms or less.
- (ac) Put the aft disable switch S618 (S617) to the SAFE, down position.

<u>NOTE</u>: The disable switch S618 (S617) is above the aft overwing escape hatch.

- (ad) On the test equipment do the following:
 - 1) Make sure the two voltmeters show O volts.
 - 2) Make sure the ohmmeter shows a value of more than 400 ohms.

- (ae) Put these switches back to their initial condition:
 - 1) The auto arm switch S622 (S621) to the ARM, down position.
 - 2) The auto fire switch S626 (S625) to the ARM, down position.
 - 3) The disable switch S618 (S617) to the ARMED, up position.
- (af) On the test equipment put the switch in position 1.

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<u>NOTE</u>: The 400 ohm resistance is to show that the spoiler retract relay is not energized.



- (ag) When you do a test on the left off-wing escape system, connect the electrical connector to the right emergency battery (M962) (AMM 25-65-17/401).
- (ah) When you do a test on the right off-wing escape system, connect the electrical connector to the left emergency battery (M961) (AMM 25-65-17/401).

s 715-105-001

- (2) For the back-up fire system test, do these steps:
 - <u>NOTE</u>: You must do the backup fire system test for the left and right off-wing escape system.
 - (a) When you do a test on the left off-wing escape system, disconnect the electrical connector from the left emergency battery (M961) (AMM 25-65-17/401).
 - (b) When you do a test on the right off-wing escape system, disconnect the electrical connector from the right emergency battery (M962) (AMM 25-65-17/401).
 - (c) On the test equipment look for the following:
 - 1) Make sure the two voltmeters show O volts.
 - 2) Make sure the ohmmeter shows a value of more than 400 ohms.

<u>NOTE</u>: The 400 ohm resistance is to show that the spoiler retract relay is not energized.

- (d) Put the backup arm switch S630 (S629) and the backup fire switch S632 (S631) to the FIRE, down position (Fig. 507).
 - <u>NOTE</u>: The forward backup arm switch S630 (S629) and the forward backup fire switch S632 (S631) are found above the forward overwing escape hatch.

(e) On the test equipment look for the following:

- 1) Make sure the spoiler override actuator voltmeter on the test box shows a value between 6 and 9 volts.
- 2) Make sure the ohmmeter shows a value of 10 ohms or less.
- 3) Make sure it takes from 1.8 to 3 seconds before the test equipment latch-opening actuator voltmeter shows a value between 6 and 9 volts.

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- 4) Make sure the value shown on the ohmmeter stays at 10 ohms or less.
- (f) Put the disable switch S620 (S619) to the SAFE, down position.
- (g) On the test equipment look for the following:
 - 1) Make sure the two voltmeters show O volts.
 - 2) Make sure the ohmmeter shows a value of more than 400 ohms.

<u>NOTE</u>: The 400 ohm resistance is to show that the spoiler retract relay is not energized.

- (h) Put the backup arm switch S630 (S629) and the backup fire switch S632 (S631) to the ARM, up position.
- (i) Put the disable switch S620 (S619) to the ARM, up position.
- (j) Put the back up arm switch S1 of M1135 (M1136) and the back up fire switch S2 of M1135 (M1136) to the FIRE, down position.
- (k) Look at the test equipment for the following:
 - 1) Make sure the spoiler override actuator voltmeter on the test box shows a value between 6 and 9 volts.
 - 2) Make sure the ohmmeter shows a value of 10 ohms or less.
 - 3) Make sure it takes from 1.8 to 3 seconds before the test equipment latch-opening actuator voltmeter shows a value between 6 and 9 volts.
- (l) Put the disable switch S618 (S617) to the SAFE, down position.

<u>NOTE</u>: The disable switch S618 (S617) is found above the aft overwing escape hatch.

- (m) Make sure the auto arm switch S622 (S621) and the auto fire switch S626 (S625) are in the ARM, down position.
- (n) On the test equipment look for the following:
 - 1) Make sure the two voltmeters show O volts.
 - 2) Make sure the ohmmeter shows a value of more than 400 ohms.

<u>NOTE</u>: The 400 ohm resistance is to show that the spoiler retract relay is not energized.

- (o) Put the backup fire switch S2 of M1135 (M1136) and the backup arm switch S1 of M1135 (M1136) to the ARM, up position.
 - <u>NOTE</u>: The backup fire switch S2 and the backup arm switch S1 are found above the aft overwing escape hatch.
- <u>WARNING</u>: MAKE SURE THE BACKUP ARM SWITCHES AND BACKUP FIRE SWITCHES ARE IN THE ARM POSITION BEFORE YOU MOVE THE DISABLE HANDLE TO THE ARM POSITION. FAILURE TO DO THIS CAN ACCIDENTALLY INFLATE THE ESCAPE SLIDE AND CAUSE INJURY OR DAMAGE.
- (p) Make sure the backup arm switch S1 and the backup fire switch S2 of M1135 (M1136) are in the ARM, up position.
- (q) Put the disable switch S618 (S617) to the ARM, up position.

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- (r) When you do a test on the left off-wing escape system, connect the electrical connector to the left emergency battery (M961) (AMM 25-65-17/401).
- (s) When you do a test on the right off-wing escape system, connect the electrical connector to the right emergency battery (M962) (AMM 25-65-17/401).
- s 715-106-001
- (3) For the squib indicator test (Fig. 508), do these steps:
 - (a) Remove the DO-NOT-CLOSE tag and close this circuit breaker on the P11 panel:
 - 1) 11P35, EMER LTS OFF WING ESC L
 - 2) 11P36, EMER LTS OFF WING ESC R
 - (b) Supply electrical power (AMM 24-22-00/201).
 - (c) Push the EMER ESCAPE L light on the squib test panel, M32
 (Fig. 508).
 - (d) Make sure the EMER ESCAPE L light is on.
 - (e) Push the EMER ESCAPE R light on the squib test panel, M32.
 - (f) Make sure the EMER ESCAPE R light is on.
 - (g) On the left off-wing escape system, do these steps:
 1) Put Disable Switches for the RH hatches (\$617 & \$619) in the safe position.
 - Push and hold the TEST 1 switch. Make sure the EMER ESCAPE L light is on in 3 seconds, and the EMER ESCAPE R light is off. Release the TEST 1 switch.
 - 3) Push and hold the TEST 2 switch. Make sure the EMER ESCAPE L light is on and that the EMER ESCAPE R light is off. Release the TEST 2 switch.
 - 4) Push and hold the TEST 1 and TEST 2 switches at the same time. Make sure the EMER ESCAPE L and the EMER ESCAPE R lights are off. Release the TEST 1 and TEST 2 switches.
 - 5) Put the auto arm switch S624 to the FIRE, up position (Fig. 507).

<u>NOTE</u>: The auto arm switch S624 is above the left forward overwing escape hatch.

- 6) Push and hold the TEST 1 switch. Make sure the EMER ESCAPE L light is on in 3 seconds. Release the TEST 1 switch (Fig. 508).
- 7) Push and hold the TEST 2 switch. Make sure the EMER ESCAPE L light is off. Release the TEST 2 switch.
- 8) Put the auto arm switch S624 to the ARM, down position.
- 9) Put the auto fire switch S628 to the FIRE, up position.
 - <u>NOTE</u>: The auto fire switch is found on the left forward overwing escape hatch.
- 10) Push and hold the TEST 1 switch. Make sure the EMER ESCAPE L light is on in 3 seconds. Release the TEST 1 switch.




- 11) Push and hold the TEST 2 switch. Make sure the EMER ESCAPE L light is off. Release the TEST 2 switch.
- 12) Put the auto fire switch S628 to the ARM, down position.
- 13) Put the auto arm switch S622 to the FIRE, up position.

<u>NOTE</u>: The auto arm switch S622 is above the left aft overwing escape hatch.

- 14) Push and hold the TEST 1 switch. Make sure the EMER ESCAPE L light is off. Release the TEST 1 switch.
- 15) Push and hold the TEST 2 switch. Make sure the EMER ESCAPE L light is on. Release the TEST 2 switch.
- 16) Put the auto arm switch S622 to the ARM, down position.
- 17) Put the auto fire switch S626 to the FIRE, up position.

<u>NOTE</u>: The auto fire switch S626 is above the left aft overwing escape hatch.

- 18) Push and hold the TEST 1 switch. Make sure the EMER ESCAPE L light is off. Release the TEST 1 switch.
- 19) Push and hold the TEST 2 switch. Make sure the EMER ESCAPE L light is on. Release the TEST 2 switch.
- 20) Put the auto fire switch S626 to the ARM, down position.
- 21) Return Disable Switches for RH Hatches (S617 & S619) to the armed position.
- (h) On the right off-wing escape system, do these steps:
 - Put Disable switches for LH hatches (S618 & S620) in the safe position.
 - 2) Push and hold the TEST 1 switch. Make sure the EMER ESCAPE R light is on in 3 seconds and that the EMER ESCAPE L light is off. Release the TEST 1 switch.
 - 3) Push and hold the TEST 2 switch. Make sure the EMER ESCAPE R light is on and that the EMER ESCAPE L light is off. Release the TEST 2 switch.
 - 4) Push and hold the TEST 1 and TEST 2 switches at the same time. Make sure the EMER ESCAPE L and EMER ESCAPE R lights are off. Release the TEST 1 and TEST 2 switches.
 - 5) Put the auto arm switch S623 to the FIRE, up position.

<u>NOTE</u>: The auto arm switch S623 is above the right forward overwing escape hatch.

- 6) Push and hold the TEST 1 switch. Make sure the EMER ESCAPE R light is on in 3 seconds. Release the TEST 1 switch.
- 7) Push and hold the TEST 2 switch. Make sure the EMER ESCAPE R light is off. Release the TEST 2 switch.
- 8) Put the auto arm switch S623 to the ARM, down position.

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9) Put the auto fire switch S627 to the FIRE, up position.

<u>NOTE</u>: The auto fire switch is above the right forward overwing escape hatch.

- 10) Push and hold the TEST 1 switch. Make sure the EMER ESCAPE R light is on in 3 seconds. Release the TEST 1 switch.
- 11) Push and hold the TEST 2 switch. Make sure the EMER ESCAPE R light is off. Release the TEST 2 switch.
- 12) Put the auto fire switch S627 to the ARM, down position.
- 13) Put the auto arm switch S621 to the FIRE, up position.

<u>NOTE</u>: The auto arm switch S621 is above the right aft overwing escape hatch.

- 14) Push and hold the TEST 1 switch. Make sure the EMER ESCAPE R light is off. Release the TEST 1 switch.
- 15) Push and hold the TEST 2 switch. Make sure the EMER ESCAPE R light is on. Release the TEST 2 switch.
- 16) Put the auto arm switch S621 to the ARM, down position.
- 17) Put the auto fire switch S625 to the FIRE, up position.

<u>NOTE</u>: The auto fire switch S625 is above the right aft overwing escape hatch.

- 18) Push and hold the TEST 1 switch. Make sure the EMER ESCAPE R light is off. Release the TEST 1 switch.
- 19) Push and hold the TEST 2 switch. Make sure the EMER ESCAPE R light is on. Release the TEST 2 switch.
- 20) Put the auto fire switch S625 to the ARM, down position.
- 21) Return Disable Switches for LH hatches (S618 & S620) to the armed position.
- (i) Open this circuit breaker on the overhead circuit breaker panel, P11, and attach a DO-NOT-CLOSE tag:
 1) 11P36, EMER LTS OFF WING ESC R
- s 715-107-001
- (4) Do the Battery Charge Test
 - (a) For the left off-wing escape system, do these steps:
 - Disconnect the electrical connector from the emergency battery for the left off-wing escape system.
 - 2) Connect the voltmeter between pin 1 and pin 2 of the electrical connector on the emergency battery for the left off-wing escape system.
 - 3) Make sure the voltmeter shows a value of less than 12 volts.
 - 4) Remove the DO-NOT-CLOSE tags and close these circuit breakers on the P11 panel:
 - a) 11P35, EMER LTS WING ESC L

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM





b) 11P36, EMER LTS WING ESC R

- 5) Make sure the voltmeter shows a value between 23 and 33 volts.
- Push and hold the TEST 1 switch on the squib test panel, M32 (Fig. 508). Make sure the voltmeter shows a value of less than 12 volts.
- 7) Release the TEST 1 switch. Make sure the voltmeter shows a value between 23 and 33 volts.
- 8) Push and hold the TEST 2 switch. Make sure the voltmeter shows a value of less than 12 volts.
- 9) Release the TEST 2 switch. Make sure the voltmeter shows a value between 23 and 33 volts.
- 10) Open these circuit breakers on the overhead circuit breaker panel, P11, and attach a DO-NOT-CLOSE tags:
 - a) 11P35, EMER LTS WING ESC L
 - b) 11P36, EMER LTS WING ESC R
- 11) Connect the electrical connector to the emergency battery (M962) for the left off-wing escape system (AMM 25-65-17/401).
- 12) Disconnect J3 of the test box from the electrical connector of the left spoiler override actuator (AMM 25-65-19/401).
- 13) Disconnect J2 of the test box from the electrical connector of the left latch-opening actuator (Fig. 502).
- 14) Disconnect J4 of the test box from the wire harness plug for the left inboard spoiler No. 6 power control actuator.
- (b) For the right off-wing escape system, do these steps:
 - Disconnect the electrical connector from the emergency battery (M962) for the right off-wing escape system (AMM 25-65-17/401).
 - Connect the voltmeter between pin 1 and pin 2 of the electrical connector on the emergency battery for the right off-wing escape system.
 - Make sure the voltmeter shows a value of less than 12 volts.
 - 4) Remove the DO-NOT-CLOSE tag and close this circuit breaker on the P11 panel:
 - a) 11P36, EMER LTS WING ESC R

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM



- 5) Make sure the voltmeter shows a value between 23 and 33 volts.
- Push and hold the TEST 1 switch on the squib test panel, M32 (Fig. 508). Make sure the voltmeter shows a value of less than 12 volts.
- 7) Release the TEST 1 switch. Make sure the voltmeter shows a value between 23 and 33 volts.
- 8) Push and hold the TEST 2 switch. Make sure the voltmeter shows a value of less than 12 volts.
- Release the TEST 2 switch. Make sure the voltmeter shows a value between 23 and 33 volts.
- 10) Open this circuit breaker on the overhead circuit breaker panel, P11, and attach a DO-NOT-CLOSE tag:
 a) 11P36, EMER LTS WING ESC R
- 11) Connect the electrical connector to the emergency battery (M962) for the right off-wing escape system (AMM 25-65-17/401).
- 12) Disconnect J3 of the test box from the electrical connector of the the right spoiler override actuator (AMM 25-65-19/401).
- 13) Disconnect J2 of the test box from the electrical connector of the right latch-opening actuator (Fig. 502).
- 14) Disconnect J4 of the test box from the wire harness plug for the right inboard spoiler No. 7 power control actuator.

s 865-108-001

- (5) Do these steps to put the electrical system back to its initial condition:
 - (a) Remove the shorting cap from the left latch-opening actuator. Put the shorting cap in the pouch which is in the latch-opening actuator compartment.
 - <u>WARNING</u>: MAKE SURE THERE IS NO VOLTAGE PRESENT AT PIN A OF THE LATCH-OPENING ACTUATOR CONNECTOR. A VOLTAGE PRESENT AT PIN A CAN DEPLOY THE ESCAPE SLIDE AND CAUSE INJURY OR DAMAGE WHEN THE CONNECTOR IS RECONNECTED TO THE ACTUATOR.
 - (b) Make sure there is no voltage present at pin A of the latch-opening actuator connector.
 - (c) Connect the electrical connector to the left latch-opening actuator (Fig. 502).
 - (d) Remove the shorting cap from the left spoiler override actuator. Put the shorting cap in the pouch which is in the lower access door.
 - (e) Connect the electrical connector to the left spoiler override actuator (AMM 25-65-19/401).
 - (f) Connect the electrical connector to the left spoiler No. 6 power control actuator.
 - (g) Remove the shorting cap from the right latch-opening actuator. Put the shorting cap in the pouch which is in the latch-opening actuator compartment.

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM



WARNING: MAKE SURE THERE IS NO VOLTAGE PRESENT AT PIN A OF THE LATCH-OPENING ACTUATOR CONNECTOR. A VOLTAGE PRESENT AT PIN A CAN DEPLOY THE ESCAPE SLIDE AND CAUSE INJURY OR DAMAGE WHEN THE CONNECTOR IS RECONNECTED TO THE ACTUATOR.

- (h) Make sure there is no voltage present at pin A of the latch-opening actuator connector.
- (i) Connect the electrical connector to the right latch-opening actuator (Fig. 502).
- (j) Remove the shorting cap from the right spoiler override actuator. Put the shorting cap in the pouch which is in the lower access door.
- (k) Connect the electrical connector to the right spoiler override actuator (AMM 25-65-19/401).
- Connect the electrical connector to the right spoiler No. 7 power control actuator.
- (m) Put the spoiler control module 3R back in the E2-1 shelf (AMM 27-09-00/201).

TASK 25-65-00-705-109-001

- 5. Mechanical System Test Off-Wing Escape System
 - A. General
 - (1) This task gives instructions for the mechanical system test.
 - (2) The tests in this procedure are for the left off-wing escape system. The procedures for the right off-wing escape system are equivalent.
 - B. Equipment
 - (1) Pressure Vessel Simulator A25005-29
 - (2) Door-Opening Actuator Simulator A25003-24
 (2 simulators)
 - (3) Latch-Opening Actuator Simulator A25014-29
 - (4) Wrench, Off-Wing Escape System Integrator A25011-2 (Recommended) 1/4 inch square drive socket wrench (Optional)
 - C. References
 - (1) AMM 25-65-00/201, Off-Wing Escape System
 - (2) AMM 25-65-01/401, Off-Wing Evacuation Ramp/Slide Pack
 - (3) AMM 25-65-02/401, Off-Wing Slide Inflation Cylinder
 - (4) AMM 25-65-08/201, Off-Wing Slide Compartment Door
 - (5) AMM 25-65-10/401, Off-Wing Slide Compartment Door Opening Actuators
 - (6) AMM 25-65-11/401, Off-Wing Slide Compartment Door Latch Opening
 - Actuators

- D. Access
 - (1) Location Zones
 - 141/142Area Above MLG Wheel Well195/196Wing to Body Aft Upper Half553/653Spoiler No. 6 (LH), No. 7 (RH)832/842Overwing Emergency Exit Hatch834/844Overwing Emergency Exit Hatch

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM



(2) Access Panels

•	195EL/196ER	Off-Wing Slide Compartment Door
•	195QL/196QR	Latch Opening Actuator Door
•	195ML/196MR	Integrator Access Door
•	197CL/198CR	Lower Access Door
•	197PZX/198KZX	Escape System Pressure Cylinder Gage

E. Prepare for the Mechanical System Test

s 045-110-001

- <u>WARNING</u>: MAKE SURE YOU OBEY THE PROCEDURE TO DISARM THE OFF-WING ESCAPE SYSTEM. IF YOU INCORRECTLY DISARM THE OFF-WING ESCAPE SYSTEM, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (1) Disarm the off-wing escape system (AMM 25-65-00/201).

s 495-111-001

(2) Put a protective cover on the work area of the wing surface.

s 015-112-001

- <u>WARNING</u>: MAKE SURE YOU OBEY THE PROCEDURE TO OPEN THE SLIDE COMPARTMENT DOOR. IF YOU INCORRECTLY OPEN THE SLIDE COMPARTMENT DOOR, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (3) Unlatch and open the slide compartment door (AMM 25-65-08/201).

s 495-113-001

- (4) Install the safety pins on the forward door-opening actuator and on the aft door-opening actuator (Fig. 501).
 - <u>NOTE</u>: The safety pins are kept in a pouch which is in the latch-opening actuator compartment.





s 035-114-001

(5) Remove the off-wing slide inflation cylinder (AMM 25-65-02/401).

s 495-115-001

(6) Install the pressure vessel simulator A25005-29 (Fig. 506, view A).

s 035-116-001

(7) Remove the aft and forward door-opening actuators (AMM 25-65-10/401).

s 495-117-001

(8) Install the door-opening actuator simulators A25003-24 (Fig. 506, view D).

s 025-118-001

(9) Remove the stop block so that the packboard trigger does not hit the stop block.

s 025-119-001

(10) Unlace the slide pack cover when the slide compartment door opens for the mechanical system test.

s 215-120-001

(11) Make sure the slide pack cover does not release.

NOTE: The slide pack must stay on the slide compartment door.

s 035-121-001

(12) Remove the latch-opening actuator (AMM 25-65-11/401).

s 495-122-001

(13) Install the latch-opening actuator simulator A25014-29 (Fig. 506, view C).

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s 015-123-001

(14) Keep the integrator access door and the latch-opening actuator access door open.

s 715-124-001

- (15) Do a check on the integrator for these conditions (Fig. 502):
 - (a) The cam is turned fully forward.
 - (b) The cross pin is fully forward in the slot of the integrator.
 - (c) Make sure you do not see a red color in the witness hole of the integrator.
- F. Do the mechanical system test

s 865-125-001

(1) Keep the slide compartment door in an open position.

s 865-126-001

- WARNING: MAKE SURE THE INTEGRATOR LOCK HANDLE MOVES THROUGH THE FULL O.4-INCH TRAVEL FROM THE "LOCKED" TO THE "UNLOCK" POSITION. MAKE SURE YOU CAN FEEL THE DETENT WHICH IS IN THE MIDDLE OF THE O.4-INCH TRAVEL. IF THE INTEGRATOR LOCK HANDLE IS IN AN INCORRECT POSITION, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (2) Pull the integrator lock handle to the UNLOCK position (View A-A, Fig. 502).

s 865-127-001

(3) Put the integrator wrench into the wrench socket of the cam. Use the integrator wrench to turn the cam full aft to open the slide compartment door latches (Fig. 502, view A-A).

NOTE: The cross pin is moved aft by the cam.

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM





s 865-128-001

(4) Pull the integrator lock handle outboard to the SAFETY position (Fig. 502, view A-A).

s 015-129-001

(5) Open the slide compartment door slowly to the full open position.

s 215-130-001

(6) Make sure the firing pin in the aft and forward door-opening actuator simulators A25003-24 did not move (Fig. 506, view D).

s 215-131-001

(7) Make sure the trigger mechanism in the gas pressure vessel simulator did not move (View A, Fig. 506).

s 865-132-001

(8) Push the integrator lock handle inboard to the UNLOCK position (Fig. 502, view A-A).

NOTE: Keep the slide compartment door open.

s 865-133-001

(9) Put the integrator wrench into the wrench socket of the cam. Use the integrator wrench to turn the cam full forward to close the slide compartment door latches (View A, Fig. 502).

NOTE: The cross pin is moved forward by the cam.

s 865-134-001

- WARNING: MAKE SURE THE INTEGRATOR LOCK HANDLE MOVES THROUGH THE FULL O.4-INCH TRAVEL FROM THE "UNLOCKED" TO THE "LOCK" POSITION. MAKE SURE YOU CAN FEEL THE DETENT WHICH IS IN THE MIDDLE OF THE O.4-INCH TRAVEL. IF THE INTEGRATOR LOCK HANDLE IS IN AN INCORRECT POSITION, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (10) Push the integrator lock handle inboard to the LOCKED position (Fig. 502, view A-A).

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM



s 865-135-001

(11) Manually, push or pull the arm of the latch-opening actuator simulator A25014-29.

s 225-136-001

(12) Make sure the latch-opening actuator simulator moves 1.68 inches minimum.

s 215-137-001

(13) Make sure that the slide compartment door latches are fully open.

s 225-138-001

(14) Make sure the forward and aft door-opening actuator simulator A25003-24 firing pins move 0.45 inch minimum (Fig. 505 and Fig. 504).

s 865-139-001

(15) Put the latch-opening actuator simulator A25014-29 back to its initial condition.

S 865-140-001

- WARNING: MAKE SURE THE INTEGRATOR LOCK HANDLE MOVES THROUGH THE FULL O.4-INCH TRAVEL FROM THE "LOCKED" TO THE "UNLOCK" POSITION. MAKE SURE YOU CAN FEEL THE DETENT WHICH IS IN THE MIDDLE OF THE O.4-INCH TRAVEL. IF THE INTEGRATOR LOCK HANDLE IS IN AN INCORRECT POSITION, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (16) Pull the integrator lock handle outboard to the UNLOCK position (View A-A, Fig. 502).

s 865-141-001

(17) Put the integrator wrench into the wrench socket of the cam. Use the integrator wrench to turn the cam full aft to open the latches in the slide compartment door (Fig. 502, view A).

NOTE: The cross pin is moved aft by the cam.

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM





s 415-142-001

(18) Close the slide compartment door and keep it closed.

s 865-143-001

(19) Put the integrator wrench into the wrench socket of the cam. Use the integrator wrench to turn the cam full forward to close the slide compartment door latches (View A, Fig. 502).

<u>NOTE</u>: The cross pin is moved forward by the cam.

s 865-144-001

- WARNING: MOVE THE INTEGRATOR LOCK HANDLE TO THE "LOCK" POSITION. MAKE SURE THE INTEGRATOR LOCK HANDLE MOVES THROUGH THE FULL 0.4-INCH TRAVEL FROM THE "UNLOCKED" TO THE "LOCK" POSITION. MAKE SURE YOU CAN FEEL THE DETENT WHICH IS IN THE MIDDLE OF THE 0.4-INCH TRAVEL. IF THE INTEGRATOR LOCK HANDLE IS IN AN INCORRECT POSITION, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (20) Push the integrator lock handle inboard to the LOCK position (Fig. 502, view A-A).

s 205-145-001

- (21) Do a check on the integrator for these conditions (Fig. 502):
 - (a) The cam is turned fully forward.
 - (b) The cross pin is fully forward in the slot of the integrator.
 - (c) The integrator lock handle is in the LOCKED position.
 - (d) Make sure you do not see a red color in the witness hole of the integrator.

S 865-146-001

(22) Manually, push or pull the arm of the latch-opening actuator simulator A25014-29.

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM



s 225-147-001

(23) Make sure the latch-opening actuator simulator moves 1.68 inches minimum.

s 415-148-001

- (24) Manually open the slide compartment door.
 - <u>NOTE</u>: The slide pack cover will not unlace because the stop block is removed.

s 225-149-001

(25) Make sure that the trigger mechanism cable of the gas pressure vessel simulator A25005-29 moves 1.65 inch minimum.

s 095-150-001

(26) Remove the door-opening actuator simulators (View D, Fig. 506).

s 095-151-001

(27) Remove the latch-opening actuator simulator (View C, Fig. 506).

s 095-152-001

(28) Remove the gas pressure vessel simulator (View A, Fig. 506).

s 425-153-001

(29) Install the stop block and do the final adjustment of the packboard trigger and stop block (AMM 25-65-01/401).

s 435-154-001

(30) Install the door-opening actuators (AMM 25-65-10/401).





s 435-155-001

- WARNING: MAKE SURE YOU OBEY THE PROCEDURE TO INSTALL THE LATCH-OPENING ACTUATOR. IF YOU INCORRECTLY INSTALL THE LATCH-OPENING ACTUATOR, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (31) Install the latch-opening actuator (AMM 25-65-11/401).

s 435-156-001

(32) Install the slide inflation cylinder (AMM 25-65-02/401).

s 095-157-001

(33) Remove the protective cover from the wing surface.

TASK 25-65-00-705-158-001

- 6. Operational Test Off-Wing Escape System
 - A. General
 - (1) This task gives instructions for the operational test.
 - (2) The tests in this procedure are for the left off-wing escape system.
 - The procedures for the right off-wing escape system are equivalent.
 - B. References
 - (1) AMM 24-22-00/201, Manual Control Maintenance Practices (Apply Power)
 - (2) AMM 25-65-00/201, Off-Wing Escape System
 - (3) AMM 25-65-02/401, Off-Wing Escape Slide Inflation Cylinder
 - (4) AMM 27-61-00/201, Spoiler Speedbrake Control System
 - (5) AMM 27-09-00/201, Flight Control System Electronics Unit (CSEU)
 - (6) AMM 29-11-00/201, Main (Left, Right, Center) Hydraulic Systems.
 - (7) AMM 52-21-01/201, Emergency Escape Hatch
 - C. Access
 - (1) Location Zones

141/142	Area Above MLG Wheel Well
195/196	Wing to Body – Aft Upper Half
553/653	Spoiler No. 6 (LH), No. 7 (RH)
832/842	Overwing Emergency Exit Hatch
834/844	Overwing Emergency Exit Hatch

- (2) Access Panels 195EL/196ER Off-Wing Slide Compartment Door 197CL/198CR Lower Access Door 197PZX/198KZX Escape Slide Pressure Cylinder Gage
- D. Prepare for the Operational Test

s 865-159-001

- (1) Remove the DO-NOT-CLOSE tags and close these circuit breakers on the P11 panel:
 - (a) 11C6, FLIGHT CONTROLS FLT CONT ELEC 1L AC

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- (b) 11C7, FLIGHT CONTROLS FLT CONT ELEC 1L DC
 (c) 11C8, FLIGHT CONTROLS FLT CONT ELEC 2L AC
 (d) 11C9, FLIGHT CONTROLS FLT CONT ELEC 2L DC
 (e) 11G17, FLIGHT CONTROLS FLT CONT ELEC 1R AC
 (f) 11G18, FLIGHT CONTROLS FLT CONT ELEC 1R DC
- (g) 11G26, FLIGHT CONTROLS FLT CONT ELEC 2R AC
- (h) 11G27, FLIGHT CONTROLS FLT CONT ELEC 2R DC

s 865-160-001

- (2) Open this circuit breaker on the overhead circuit breaker panel, P11, and attach a DO-NOT-CLOSE tag:
 - (a) 11G11, FLIGHT CONTROLS AUTO SPEED BRAKE
 - <u>NOTE</u>: This circuit breaker is opened to prevent the accidental operation of the auto speed brake control system.

s 865-161-001

(3) Make sure all electrical and hydraulic systems are energized and operate correctly.

s 705-162-001

(4) Make sure the spoiler speedbrake system is activated (AMM 27-61-00/201).

s 215-279-001

(5) Make sure the ball in the middle of the inflation trigger cable is installed behind the retainer spring in the pull force increase mechanism.

s 965-280-001

(6) If the ball in the middle of the inflation trigger cable is not installed behind the retainer spring, then you must replace the inflation cylinder (AMM 25-65-02/401).

s 095-163-001

(7) Remove the safety pin from the inflation cylinder, if it was installed.

s 215-164-001

- (8) Make sure that the needle is in the green zone on the cylinder pressure gauge (Fig. 510).
- E. Do the Operational Test

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM





s 865-165-001

- WARNING: MOVE ALL PERSONS AND EQUIPMENT AWAY FROM THE SPOILER PANELS AND THE OFF-WING ESCAPE SYSTEM. SPOILER PANEL MOVEMENT OR ESCAPE SLIDE DEPLOYMENT CAN CAUSE INJURY OR DAMAGE.
- (1) Move the speed brake lever to the full, up position to lift the spoiler panels.

S 865-166-001

(2) Pull the disable handle down to the SAFE position to disarm the off-wing escape slide.

s 025-167-001

- <u>WARNING</u>: MAKE SURE YOU OBEY THE PROCEDURE TO REMOVE THE OVERWING ESCAPE HATCH. IF YOU INCORRECTLY REMOVE THE OVERWING ESCAPE HATCH, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (3) Remove the overwing escape hatch (AMM 52-21-01/201).

s 215-168-001

(4) Make sure that the actuators have not fired.

s 215-169-001

(5) Make sure the inboard spoiler (No. 6 left, or No. 7 right) did not move down.

s 215-170-001

(6) Make sure the slide pack cover has not released.

s 425-171-001

- <u>WARNING</u>: MAKE SURE YOU OBEY THE PROCEDURE TO INSTALL THE OVERWING ESCAPE HATCH. IF YOU INCORRECTLY INSTALL THE OVERWING ESCAPE HATCH, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (7) Install the overwing escape hatch (AMM 52-21-01/201).

s 865-172-001

(8) Push the disable handle up to the ARMED position to arm the off-wing escape slide.

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s 215-173-001

(9) AIRPLANES WITH TWO HATCHES OVER EACH WING; make sure that the two disable handles are in the ARMED position.

s 015-174-001

(10) Use the emergency PULL handle to open the overwing escape hatch.

s 205-175-001

- (11) For the left off-wing escape system, do these checks:
 - (a) Make sure the left escape slide fully inflates in less than 10 seconds.
 - (b) Make sure the left spoiler override actuator has fired.
 - (c) Make sure the left inboard spoiler No. 6 is down.
 - (d) Make sure the slide compartment door for the left off-wing escape system is open.
 - (e) Make sure the left slide pack cover has released.
 - (f) Make sure the left escape slide is fully inflated.
 - (g) AIRPLANES WITH A EXTERIOR STEP FOR THE HATCH; Make sure the left step is fully down.

s 205-176-001

- (12) For the right off-wing escape system, do these checks:
 - (a) Make sure the right escape slide fully inflates in less than 10 seconds.
 - (b) Make sure the right spoiler override actuator has fired.
 - (c) Make sure the right inboard spoiler No. 7 is down.
 - (d) Make sure the slide compartment door for the right off-wing escape system is open.
 - (e) Make sure the right slide pack cover has released.
 - (f) AIRPLANES WITH AN EXTERIOR STEP FOR THE HATCH; Make sure the right step is fully down.

s 865-177-001

(13) Move the speed brake lever to the full, down position to lower the spoiler panels.

S 865-178-001

- (14) Remove the DO-NOT-CLOSE tag. Close this circuit breaker on the overhead panel, P11:
 - (a) 11G11, FLIGHT CONTROLS AUTO SPEED BRAKE

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM



F. Put the airplane back to its usual condition.

S 865-179-001

(1) After deployment of the escape slide, put the off-wing escape system back to its initial condition (AMM 25-65-00/201).

S 865-180-001

(2) Remove the hydraulic power if it is not necessary.

s 865-181-001

(3) Push the reset button to set the fault indication on the spoiler control modules (AMM 27-09-00/201).

s 865-182-001

(4) Remove electrical power if it is not necessary (AMM 24-22-00/201).

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Slide Compartment Door-Latching System Adjustment Figure 503 (Sheet 1)









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Slide Compartment Door-Latching System Adjustment Figure 503 (Sheet 4)



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THIS DIMENSION IS USED ONLY FOR THE ADJUSTMENT OF THE SLIDE COMPARTMENT DOOR-LATCHING SYSTEM

2 THIS DIMENSION IS USED ONLY FOR THE PRELIMINARY ADJUSTMENT

Aft Door-Opening Actuator Figure 504

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM



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AIRPLANES WITH TWO FIRE EXTINGUISHING BOTTLES IN THE CARGO COMPARTMENT AIRPLANES WITH THREE FIRE EXTINGUISHING BOTTLES IN THE CARGO COMPARTMENT

Off-Wing Escape System Squib Test Figure 508

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM













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MAINTENANCE MANUAL

OFF-WING ESCAPE SYSTEM - ADJUSTMENT/TEST

- 1. <u>General</u>
 - A. This procedure contains these tasks:
 - (1) The electrical system test of the off-wing escape system.
 - (2) The operational test of the off-wing escape system.
 - TASK 25-65-00-765-190-002
- AIRPLANES WITH ONE HATCH OVER EACH WING; <u>Electrical System Test - Off-Wing Escape System</u>
 - A. General
 - (1) This task gives instructions for the electrical system test.
 - (2) The tests in this procedure are for the left off-wing escape system. The procedures for the right off-wing escape system are equivalent.
 - (3) You must do these tests in the correct sequence.
 - (4) If you do both the electrical system test and the operational check, do the electrical system test first.
 - (a) Do the electrical system test.
 - (b) Do the operational test, if necessary.
 - (5) Electrical System Test
 - (a) Prepare for the electrical system test
 - (b) Do the electrical system test:
 - 1) Auto Fire System Test
 - 2) Back-up Fire System Test
 - 3) Squib Indicator Test
 - 4) Battery Charge Test
 - 5) Put the electrical system back to its initial condition.
 - (6) Start Test Requirements
 - (a) The purpose of this testing is to ensure the integrity of the electrical control system that:
 - 1) Grounds out the main spoiler power control hydraulic actuator input.
 - 2) Fires the ignition squibs of the emergency spoiler override actuators.
 - 3) Fires the ignition squibs of the inflation cylinder regulator.





MAINTENANCE MANUAL

- (b) The Spoiler Control module 3R must be removed from E2-1 shelf for the duration of this test (AMM 27-09-00/201).
- B. Equipment
 - (1) Electrical Test Equipment Off-Wing Escape
 Slide System A25012-29
 - (2) Ohmmeter O-1k ohm range with low level range to read 3 ohm
 - (3) Stop Watch Commercially available
- C. References
 - (1) AMM 24-22-00/201, Control (Supply Power)
 - (2) AMM 25-65-17/401, Off-Wing Escape System Emergency Battery
 - (3) AMM 25-65-19/401, Off-Wing Escape System Spoiler Override Actuator Squib
 - (4) AMM 27-09-00/201, Flight Control System Electronics (CSEU)
 - (5) Location Zones
 - 141/142Area Above MLG Wheel Well195/196Wing to Body Aft Upper Half553/653Spoiler No. 6 (LH), No. 7 (RH)

 - 832/842 Overwing Emergency Exit Hatch

- 197PZX/198KZX Escape System Pressure Cylinder Gage
- D. Prepare for the Electrical System Test

s 845-172-002

- (1) Make sure the left and right off-wing escape system batteries (M961 and M962) are charged:
 - (a) Make sure these circuit breakers on the P11-6 overhead panel are closed for 4 or more hours:
 - 1) 11P35, EMER LTS WING ESC L
 - 2) 11P36, EMER LTS WING ESC R

s 025-173-002

(2) Remove the spoiler control module 3R from E2-1 shelf (AMM 27-09-00/201).

s 865-174-002

- (3) Put the switches for the overwing escape hatches in these positions:(a) Open the EXIT sign panel above the overwing escape hatch with
 - an allen wrench or phillips screwdriver (Fig. 501).
 - (b) Make sure the backup arm switches and the backup fire switches are in the ARM, up position (Fig. 501).

EFFECTIVITY AIRPLANES WITH MODULAR OFF-WING ESCAPE SYSTEM





- <u>WARNING</u>: MAKE SURE THE AUTO ARM AND AUTO FIRE SWITCHES ARE IN THE ARM POSITION BEFORE YOU MOVE THE DISABLE HANDLE TO THE SAFE POSITION. FAILURE TO DO THIS CAN ACCIDENTALLY INFLATE THE ESCAPE SLIDE AND CAUSE INJURY OR DAMAGE.
- (c) Push down on the disable handle. Make sure the auto arm and auto fire switches are in the ARM, down position (Fig. 501).
- (d) Put the disable handle in the ARMED, up position (Fig. 501).

s 865-175-002

- WARNING: <u>WARNING</u>: DO NOT OPEN THE "FLT CONT ELEC 1 DC" CIRCUIT BREAKER UNTIL YOU OPEN THE CIRCUIT BREAKERS FOR PITOT PROBE HEAT. ON AIRPLANES THAT HAVE A YSM, THE PITOT PROBE WILL COME ON. A HOT PITOT PROBE CAN CAUSE INJURIES TO PERSONNEL AND DAMAGE TO EQUIPMENT.
- (4) Open these circuit breakers on the P6 circuit breaker panel, and attach D0-NOT-CLOSE tags:
 - (a) 6K14, PITOT PROBE HT, CAPT, PHASE A
 - (b) 6K15, PITOT PROBE HT, CAPT, PHASE B
 - (c) 6K16, PITOT PROBE HT, AUX R, PHASE B
 - (d) 6K17, PITOT PROBE HT, AUX R, PHASE C
 - (e) 6L17 L AOA PROBE HT
 - (f) 6L18 L TAT PROBE HT

s 025-176-002

- (5) Open these circuit breakers on the overhead circuit breaker panel, P11, and attach DO-NOT-CLOSE tags:
 - (a) 11C6, FLIGHT CONTROLS FLT CONT ELEC 1L AC
 - (b) 11C7, FLIGHT CONTROLS FLT CONT ELEC 1L DC
 - (c) 11C8, FLIGHT CONTROLS FLT CONT ELEC 2L AC
 - (d) 11C9, FLIGHT CONTROLS FLT CONT ELEC 2L DC
 - (e) 11G17, FLIGHT CONTROLS FLT CONT ELEC 1R AC
 - (f) 11G18, FLIGHT CONTROLS FLT CONT ELEC 1R DC
 - (g) 11G26, FLIGHT CONTROLS FLT CONT ELEC 2R AC
 - (h) 11G27, FLIGHT CONTROLS FLT CONT ELEC 2R DC

EFFECTIVITY AIRPLANES WITH MODULAR OFF-WING ESCAPE SYSTEM


- (i) 11P35 EMER LTS WING ESC L
- (j) 11P36, EMER LTS WING ESC R

s 025-177-002

- (6) Do these steps to connect the electrical test equipment (A25012-29) to the left off-wing escape system:
 - (a) Disconnect the electrical connector from the left inflation cylinder regulator (Fig. 504).
 - Install the shorting cap on the left inflation cylinder regulator.
 - <u>NOTE</u>: The shorting cap is kept in a pouch which is in the lower access door.
 - (b) Disconnect the electrical connector from the left spoiler override actuator (AMM 25-65-19/401).
 - 1) Install the shorting cap on the left spoiler override actuator.
 - <u>NOTE</u>: The shorting cap is kept in a pouch which is in the lower access door.
 - (c) Disconnect the electrical connector from the inboard spoiler No. 6 power control actuator.
 - (d) Disconnect the electrical connector from the right inflation cylinder regulator (Fig. 502).
 - Install the shorting cap on the right inflation cylinder regulator.
 - <u>NOTE</u>: The shorting cap is kept in a pouch which is in the lower access door.
 - (e) Disconnect the electrical connector from the right spoiler override actuator (AMM 25-65-19/401).
 - 1) Install the shorting cap on the right spoiler override actuator.
 - <u>NOTE</u>: The shorting cap is kept in a pouch which is in the lower access door.

EFFECTIVITY AIRPLANES WITH MODULAR OFF-WING ESCAPE SYSTEM



s 025-178-002

- (7) Connect the electrical connectors to the emergency batteries (M961 and M962) for the left and right off-wing escape system (AMM 25-65-17/401).
 - <u>NOTE</u>: You must connect the emergency batteries for the left and right off-wing escape system when you do a test on the left or right off-wing escape system.

s 025-179-002

(8) When you do a test on the left off-wing escape system:

- (a) Connect the test equipment to the airplane:
 - Connect J3 of the electrical test equipment (A25012-29) to the left spoiler override actuator.
 - 2) Connect J2 of the test equipment to the left inflation cylinder regulator connector.
 - 3) Make sure the two voltmeters show O volts.
 - 4) Connect J4 of the test equipment to the wire harness plug for the (left) inboard spoiler No. 6 power control actuator connector.
 - 5) Put the switch on the test box in position 1.
 - 6) Connect the ohmmeter to the test equipment.
 - a) Make sure the ohmmeter shows a value of more than 400 ohms.

<u>NOTE</u>: The 400 ohm resistance is to show that the spoiler retract relay is not energized.

- s 025-180-002
- (9) Do these steps to connect the electrical test equipment A25012-29 to the right off-wing escape slide system:
 - (a) Disconnect the electrical connector from the right spoiler override actuator (AMM 25-65-19/401).
 - 1) Install the shorting cap on the right spoiler override actuator.
 - <u>NOTE</u>: The shorting cap is kept in a pouch which is in the lower access door.
 - (b) Disconnect the electrical connector from the (right) inboard spoiler No. 7 power control actuator.





s 025-181-002

- (10) Connect the electrical connectors to the emergency batteries (M961 and M962) for the right off-wing escape system (AMM 25-65-17/401).
 - <u>NOTE</u>: You must connect the emergency batteries for the right off-wing escape system when you do a test on the right off-wing escape system.

s 025-182-002

- (11) Connect the electrical test equipment (A25012-29) to the airplane:
 - (a) Connect J3 of the test box to the right spoiler override actuator connector.
 - (b) Connect J2 of the test box to the right inflation cylinder regulator connector.
 - (c) Make sure the two voltmeters show O volts.
 - (d) Connect J4 of the test box to the wire harness plug for the right inboard spoiler No. 7 power control actuator connector.
 - (e) Connect the ohmmeter to the test equipment
 - (f) Put the switch on the test box in position 1.
 - (g) Make sure the ohmmeter shows a value of more than 400 ohms.

<u>NOTE</u>: The 400-ohm resistance is to show that the spoiler retract relay is not energized.

- E. Do the Electrical System Test
 - <u>NOTE</u>: Do the electrical system test in the sequence shown for the left off-wing escape system. Do the electrical system test in the sequence shown for the right off-wing escape system.

s 025-183-002

- (1) For the auto fire system test, do these steps:
 - (a) When you do a test on the left off-wing escape system, disconnect the electrical connector from the right emergency battery (M962) (AMM 25-65-17/401).
 - (b) When you do a test on the right off-wing escape system, disconnect the electrical connector from the left emergency battery (M961) (AMM 25-65-17/401).
 - (c) Put the left auto arm switch S530 (S531) to the FIRE, up position (Fig. 501).
 - <u>NOTE</u>: The auto arm switch S530 (S531) is above the overwing escape hatch.
 - (d) Look at the test equipment for the following:1) Make sure the two voltmeters show 0 volts.

EFFECTIVITY AIRPLANES WITH MODULAR OFF-WING ESCAPE SYSTEM



2) Make sure the ohmmeter shows a value of more than 400 ohms.

NOTE: The 400-ohm resistance is to show that the spoiler retract relay is not energized.

(e) Put the left auto arm switch S530 (S531) to the ARM, down position (Fig. 501).

NOTE: The auto arm switch \$530 (\$531) is above the off-wing escape hatch.

(f) Put the left auto fire switch S532 (S533) to the FIRE, up position.

NOTE: The auto fire switch \$532 (\$533) is above the overwing escape hatch.

- Look at the test equipment for the following: (q)
 - 1) Make sure the two voltmeters show O volts.
 - Make sure the ohmmeter shows a value of more than 400 ohms. 2)

NOTE: The 400-ohm resistance is to show that the spoiler retract relay is not energized.

- (h) Put the left auto fire switch \$532 (\$533) to the ARM, down position (Fig. 501).
- (i) Put the left auto arm switch \$530 (\$531) and left auto fire switch S532 (S533) to the FIRE, up position.
- Look at the test equipment for the following: (j)
 - 1) Make sure the spoiler override actuator voltmeter on the test box shows a value between 6 and 9 volts.
 - 2) Make sure the ohmmeter shows a value of 10 ohms or less.
 - 3) Make sure it takes from 1.8 to 3.0 seconds before the test equipment inflation cylinder regulator voltmeter shows a value between 6 and 9 volts.
 - 4) Make sure the ohmmeter value remains at 10 ohms or less.
- (k) Put the left auto arm switch \$530 (\$531) and the left auto fire switch S532 (S533) to the ARM, down position.
- (l) Put the disable switch \$528 (\$529) in the ARM, up position.
- (m) Put the auto arm switch \$530 (\$531) and the auto fire switch S532 (S533) to the FIRE, up position.
- On the test equipment do the following: (n)
 - 1) Put the switch on the test box in position 2.
 - 2) Make sure the ohmmeter shows a value of 10 ohms or less.
- (o) Put the disable switch S528 (S529) to the SAFE, down position.

NOTE: The disable switch \$528 (\$529) is above the overwing escape hatch.

On the test equipment look for the following: (p) 1) Make sure the two voltmeters show O volts.

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2) Make sure the ohmmeter shows a value of more than 400 ohms.

<u>NOTE</u>: The 400-ohm resistance is to show that the spoiler retract relay is not energized.

- (q) Put these switches back to their initial condition:
 - 1) The auto arm switch S530 (S531) to the ARM, down position.
 - 2) The auto fire switch \$532 (\$533) to the ARM, down position.
 - 3) The disable switch S528 (S529) to the ARMED, up position.
- (r) On the test equipment, put the switch in position 1.
- (s) When you do a test on the left off-wing escape system, connect the electrical connector to the right emergency battery (M962) (AMM 25-65-17/401).
- (t) When you do a test on the right off-wing escape system, connect the electrical connector to the left emergency battery (M961) (AMM 25-65-17/401).

s 025-184-002

- (2) For the back-up fire system test, do these steps:
 - <u>NOTE</u>: You must do the backup fire system test for the left and right off-wing escape system.
 - (a) When you do a test on the left off-wing escape system, disconnect the electrical connector from the left emergency battery (M961) (AMM 25-65-17/401).
 - (b) When you do a test on the right off-wing escape system, disconnect the electrical connector from the right emergency battery (M962) (AMM 25-65-17/401).
 - (c) On the test equipment look for the following:
 - 1) Make sure the two voltmeters show O volts.
 - 2) Make sure the ohmmeter shows a value of more than 400 ohms.

- (d) Put the backup arm switch S1 of M1135 (M1136) and the backup fire switch S2 of M1135 (M1136) to the FIRE, down position.##
 - <u>NOTE</u>: The backup arm switch S1 of M1135 (M1136) and the backup fire switch S2 of M1135 (M1136) are found above the overwing escape hatch.
- (e) On the test equipment look for the following:
 - Make sure the spoiler override actuator voltmeter on the test box shows a value between 6 and 9 volts.
 - 2) Make sure the ohmmeter shows a value of 10 ohms or less.
 - 3) Make sure it takes from 1.8 to 3 seconds before the test equipment inflation cylinder regulator voltmeter shows a value between 6 and 9 volts.

EFFECTIVITY AIRPLANES WITH MODULAR OFF-WING ESCAPE SYSTEM

<u>NOTE</u>: The 400-ohm resistance is to show that the spoiler retract relay is not energized.



- 4) Make sure the value shown on the ohmmeter stays at 10 ohms or less.
- (f) Put the disable switch S528 (S529) to the SAFE, down position.
- (g) Make sure the auto arm switch \$530 (\$531) and the auto fire
- switch \$532 (\$533) are in the ARM, down position.
- (h) On the test equipment look for the following:
 - 1) Make sure the two voltmeters show O volts.
 - 2) Make sure the ohmmeter shows a value of more than 400 ohms.

<u>NOTE</u>: The 400-ohm resistance is to show that the spoiler retract relay is not energized.

- (i) Put the backup arm switch S1 of M1135 (M1136) and the backup fire switch S2 of M1135 (M1136) to the ARM, up position.
- (j) Put the disable switch S528 (S529) to the ARM, up position.
- (k) Put the back up arm switch S1 of M1135 (M1136) and the back up fire switch S2 of M1135 (M1136) to the FIRE, down position.
- (l) Look at the test equipment for the following:
 - 1) Make sure the spoiler override actuator voltmeter on the test box shows a value between 6 and 9 volts.
 - 2) Make sure the ohmmeter shows a value of 10 ohms or less.
 - 3) Make sure it takes from 1.8 to 3 seconds before the test equipment inflation cylinder regulator voltmeter shows a value between 6 and 9 volts.
- (m) When you do a test on the left off-wing escape system, connect the electrical connector to the left emergency battery (M961) (AMM 25-65-17/401).
- (n) When you do a test on the right off-wing escape system, connect the electrical connector to the right emergency battery (M962) (AMM 25-65-17/401).
- s 025-185-002
- (3) For the squib indicator test (Fig. 502), do these steps:
 - (a) Remove the DO-NOT-CLOSE tag and close this circuit breaker on the P11 panel:
 - 1) 11P36, EMER LTS OFF WING ESC R
 - (b) Supply electrical power (AMM 24-22-00/201).
 - (c) Push the EMER ESCAPE L light on the squib test panel, M32
 (Fig. 502).
 - (d) Make sure the EMER ESCAPE L light is on.
 - (e) Push the EMER ESCAPE R light on the squib test panel, M32.
 - (f) Make sure the EMER ESCAPE R light is on.
 - (g) On the left off-wing escape system, do these steps:
 - Push and hold the TEST 1 switch. Make sure the EMER ESCAPE L light is on in 3 seconds, and the EMER ESCAPE R light is off. Release the TEST 1 switch.
 - 2) Push and hold the TEST 2 switch. Make sure the EMER ESCAPE L light is on and that the EMER ESCAPE R light is off. Release the TEST 2 switch.

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- 3) Push and hold the TEST 1 and TEST 2 switches at the same time. Make sure the EMER ESCAPE L and the EMER ESCAPE R lights are off. Release the TEST 1 and TEST 2 switches.
- 4) Put the auto arm switch \$530 to the FIRE, up position (Fig. 501).

<u>NOTE</u>: The auto arm switch S530 is above the left overwing escape hatch.

- 5) Push and hold the TEST 1 switch. Make sure the EMER ESCAPE L light is on in 3 seconds. Release the TEST 1 switch (Fig. 502).
- 6) Push and hold the TEST 2 switch. Make sure the EMER ESCAPE L light is off. Release the TEST 2 switch.
- 7) Put the auto arm switch S530 to the ARM, down position.
- 8) Put the auto fire switch S532 to the FIRE, up position.

<u>NOTE</u>: The auto fire switch S532 is found on the left overwing escape hatch.

- 9) Push and hold the TEST 1 switch. Make sure the EMER ESCAPE L light is on in 3 seconds. Release the TEST 1 switch.
- 10) Push and hold the TEST 2 switch. Make sure the EMER ESCAPE L light is off. Release the TEST 2 switch.
- 11) Put the auto fire switch S532 to the ARM, down position.
- (h) On the right off-wing escape system, do these steps:
 - Push and hold the TEST 1 switch. Make sure the EMER ESCAPE R light is on in 3 seconds and that the EMER ESCAPE L light is off. Release the TEST 1 switch.
 - 2) Push and hold the TEST 2 switch. Make sure the EMER ESCAPE R light is on and that the EMER ESCAPE L light is off. Release the TEST 2 switch.
 - 3) Push and hold the TEST 1 and TEST 2 switches at the same time. Make sure the EMER ESCAPE L and EMER ESCAPE R lights are off. Release the TEST 1 and TEST 2 switches.
 - 4) Put the auto arm switch S531 to the FIRE, up position.

<u>NOTE</u>: The auto arm switch S531 is above the right overwing escape hatch.

- 5) Push and hold the TEST 1 switch. Make sure the EMER ESCAPE R light is on in 3 seconds. Release the TEST 1 switch.
- 6) Push and hold the TEST 2 switch. Make sure the EMER ESCAPE R light is off. Release the TEST 2 switch.
- 7) Put the auto arm switch S531 to the ARM, down position.
- 8) Put the auto fire switch S533 to the FIRE, up position.

<u>NOTE</u>: The auto fire switch S533 is above the right overwing escape hatch.

EFFECTIVITY AIRPLANES WITH MODULAR OFF-WING ESCAPE SYSTEM



- 9) Push and hold the TEST 1 switch. Make sure the EMER ESCAPE R light is on in 3 seconds. Release the TEST 1 switch.
- 10) Push and hold the TEST 2 switch. Make sure the EMER ESCAPE R light is off. Release the TEST 2 switch.
- 11) Put the auto fire switch \$533 to the ARM, down position.
- (i) Open this circuit breaker on the overhead circuit breaker panel, P11, and attach a DO-NOT-CLOSE tag:
 - 1) 11P36, EMER LTS OFF WING ESC R
- s 025-186-002
- (4) Do the Battery Charge Test
 - (a) For the left off-wing escape system, do these steps:
 - Disconnect the electrical connector from the emergency battery (M961) for the left off-wing escape system (AMM 25-65-17/401).
 - Connect the voltmeter between pin 1 and pin 2 of the electrical connector on the emergency battery for the left off-wing escape system.
 - Make sure the voltmeter shows a value of less than 12 volts.
 - 4) Remove the DO-NOT-CLOSE tags and close these circuit breakers on the P11 panel:
 - a) 11P35, EMER LTS WING ESC L
 - b) 11P36, EMER LTS WING ESC R
 - 5) Make sure the voltmeter shows a value between 23 and 33 volts.
 - Push and hold the TEST 1 switch on the squib test panel, M32 (Fig. 502). Make sure the voltmeter shows a value of less than 12 volts.
 - 7) Release the TEST 1 switch. Make sure the voltmeter shows a value between 23 and 33 volts.
 - 8) Push and hold the TEST 2 switch. Make sure the voltmeter shows a value of less than 12 volts.
 - 9) Release the TEST 2 switch. Make sure the voltmeter shows a value between 23 and 33 volts.
 - 10) Open these circuit breakers on the overhead circuit breaker panel, P11, and attach a DO-NOT-CLOSE tags:
 - a) 11P35, EMER LTS WING ESC L
 - b) 11P36, EMER LTS WING ESC R
 - 11) Connect the electrical connector to the emergency battery
 (M961) for the left off-wing escape system
 (AMM 25-65-17/401).
 - 12) Disconnect J3 of the test box from the electrical connector of the left spoiler override actuator (AMM 25-65-19/401).
 - 13) Disconnect J2 of the test box from the electrical connector of the left inflation cylinder regulator (Fig. 504).
 - 14) Disconnect J4 of the test box from the wire harness plug for the left inboard spoiler No. 6 power control actuator.

EFFECTIVITY AIRPLANES WITH MODULAR OFF-WING ESCAPE SYSTEM



- (b) For the right off-wing escape system, do these steps:
 - Disconnect the electrical connector from the emergency battery (M962) for the right off-wing escape system (AMM 25-65-17/401).
 - Connect the voltmeter between pin 1 and pin 2 of the electrical connector on the emergency battery for the right off-wing escape system.
 - Make sure the voltmeter shows a value of less than 12 volts.
 - 4) Remove the DO-NOT-CLOSE tag and close this circuit breaker on the P11 panel:
 - a) 11P36, EMER LTS WING ESC R
 - 5) Make sure the voltmeter shows a value between 23 and 33 volts.
 - Push and hold the TEST 1 switch on the squib test panel, M32 (Fig. 502). Make sure the voltmeter shows a value of less than 12 volts.
 - 7) Release the TEST 1 switch. Make sure the voltmeter shows a value between 23 and 33 volts.
 - 8) Push and hold the TEST 2 switch. Make sure the voltmeter shows a value of less than 12 volts.
 - 9) Release the TEST 2 switch. Make sure the voltmeter shows a value between 23 and 33 volts.
 - 10) Open this circuit breaker on the overhead circuit breaker panel, P11, and attach a DO-NOT-CLOSE tag:
 a) 11P36, EMER LTS WING ESC R
 - 11) Connect the electrical connector to the emergency battery (M962) for the right off-wing escape system (AMM 25-65-17/401).
 - 12) Disconnect J3 of the test box from the electrical connector of the the right spoiler override actuator (AMM 25-65-19/401).
 - 13) Disconnect J2 of the test box from the electrical connector of the right inflation cylinder regulator (Fig. 502).
 - 14) Disconnect J4 of the test box from the wire harness plug for the right inboard spoiler No. 7 power control actuator.

s 025-187-002

(5) Do a test of the spoiler control system (AMM 27-61-00/501).

s 025-188-002

- (6) Do these steps to put the electrical system back to its initial condition:
 - (a) Remove the shorting cap from the left inflation cylinder regulator. Put the shorting cap in the pouch which is in the lower access door.

EFFECTIVITY AIRPLANES WITH MODULAR OFF-WING ESCAPE SYSTEM





- <u>WARNING</u>: MAKE SURE THERE IS NO VOLTAGE PRESENT AT PIN A OF THE INFLATION CYLINDER REGULATOR CONNECTOR. A VOLTAGE PRESENT AT PIN A CAN DEPLOY THE ESCAPE SLIDE AND CAUSE INJURY OR DAMAGE WHEN THE CONNECTOR IS RECONNECTED TO THE REGULATOR.
- (b) Make sure there is no voltage present at pin A of the inflation cylinder regulator connector.
- (c) Connect the electrical connector to the left inflation cylinder regulator (Fig. 504).
- (d) Remove the shorting cap from the left spoiler override actuator. Put the shorting cap in the pouch which is in the lower access door.
- (e) Connect the electrical connector to the left spoiler override actuator (AMM 25-65-19/401).
- (f) Connect the electrical connector to the left spoiler No. 6 power control actuator.
- (g) Remove the shorting cap from the right inflation cylinder regulator. Put the shorting cap in the pouch which is in the lower access door.
- <u>WARNING</u>: MAKE SURE THERE IS NO VOLTAGE PRESENT AT PIN A OF THE INFLATION CYLINDER REGULATOR CONNECTOR. A VOLTAGE PRESENT AT PIN A CAN DEPLOY THE ESCAPE SLIDE AND CAUSE INJURY OR DAMAGE WHEN THE CONNECTOR IS RECONNECTED TO THE REGULATOR.
- (h) Make sure there is no voltage present at pin A of the inflation cylinder regulator connector.
- (i) Connect the electrical connector to the right inflation cylinder regulator (Fig. 504).
- (j) Remove the shorting cap from the right spoiler override actuator. Put the shorting cap in the pouch which is in the lower access door.
- (k) Connect the electrical connector to the right spoiler override actuator (AMM 25-65-19/401).
- (l) Connect the electrical connector to the right spoiler No. 7 power control actuator.
- (m) Put the spoiler control module 3R back in the E2-1 shelf (AMM 27-09-00/201).

EFFECTIVITY AIRPLANES WITH MODULAR OFF-WING ESCAPE SYSTEM



TASK 25-65-00-765-191-002

- 3. AIRPLANES WITH TWO HATCHES OVER EACH WING; <u>Electrical System Test - Off-Wing Escape System</u>
 - A. General
 - (1) This task gives instructions for the electrical system test.
 - (2) The tests in this procedure are for the left off-wing escape system. The procedures for the right off-wing escape system are equivalent.
 - (3) You must do these tests in the correct sequence.
 - (4) If you do both the electrical system test and the operational check, do the electrical system test first.
 - (a) Do the electrical system test.
 - (b) Do the operational test, if necessary.
 - (5) Electrical System Test
 - (a) Prepare for the electrical system test
 - (b) Do the electrical system test:
 - 1) Auto Fire System Test
 - 2) Back-up Fire System Test
 - 3) Squib Indicator Test
 - 4) Battery Charge Test
 - 5) Put the electrical system back to its initial condition.
 - (6) Start Test Requirements
 - (a) The purpose of this testing is to ensure the integrity of the electrical control system that:
 - Grounds out the main spoiler power control hydraulic actuator input.
 - Fires the ignition squibs of the emergency spoiler override actuators.
 - 3) Fires the ignition squibs of the inflation cylinder regulator.
 - (b) The Spoiler Control module 3R must be removed from E2-1 shelf
 - for the duration of this test (AMM 27-09-00/201).

B. Equipment

- (1) Electrical Test Equipment Off-Wing Escape
 Slide System A25012-29
- (2) Ohmmeter O-1k ohm range with low level range to read 3 ohm

EFFECTIVITY AIRPLANES WITH MODULAR OFF-WING ESCAPE SYSTEM



- (3) Stop Watch Commercially available
- C. References
 - (1) AMM 27-09-00/201, Flight Control System Electronics Unit (CSEU)
 - (2) AMM 25-65-17/401, Off-Wing Escape System Emergency Battery
 - (3) AMM 25-65-19/401, Off-Wing Escape System Spoiler Override Actuator Squib
 - (4) AMM 27-09-00/201, Flight Control System Electronics Unit (CSEU)
 - (5) AMM 27-61-00/501, Spoiler Speedbrake Control System
- D. Access
 - (1) Location Zones

141/142 Area Above MLG Wheel Well

195/196 Wing to Body – Aft Upper Half

553/653 Spoiler No. 6 (LH), No. 7 (RH)

832/842 Overwing Emergency Exit Hatch

834/844 Overwing Emergency Exit Hatch

(2) Access Panels

195EL/196ER	Off-Wing Slide Compartment Door
197CL/198CR	Lower Access Door
197PZX/198KZX	Escape System Pressure Cylinder Gage

E. Prepare for the Electrical System Test

s 845-150-002

- (1) Make sure the left and right off-wing escape system batteries (M961 and M962) are charged:
 - (a) Make sure these circuit breakers on the P11-6 overhead panel are closed for 4 or more hours:
 - 1) 11P35, EMER LTS WING ESC L
 - 2) 11P36, EMER LTS WING ESC R

s 025-151-002

(2) Remove the spoiler control module 3R from E2-1 shelf (AMM 27-09-00/201).

s 865-170-002

- (3) Put switches for both the forward and aft hatches in these positions:
 - (a) Open the EXIT sign panel above each overwing escape hatch with an allen wrench or phillips screwdriver (Fig. 501).

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- (b) Make sure the backup arm switches and the backup fire switches are in the ARM, up position (Fig. 501).
- <u>WARNING</u>: MAKE SURE THE AUTO ARM AND AUTO FIRE SWITCHES ARE IN THE ARM POSITION BEFORE YOU MOVE THE DISABLE HANDLE TO THE SAFE POSITION. FAILURE TO DO THIS CAN ACCIDENTALLY INFLATE THE ESCAPE SLIDE AND CAUSE INJURY OR DAMAGE.
- (c) Push down on the disable handle. Make sure the auto arm and auto fire switches are in the ARM, down position (Fig. 501).
- (d) Put the disable handle in the ARMED, up position (Fig. 501).

s 865-168-002

- WARNING: <u>WARNING</u>: DO NOT OPEN THE "FLT CONT ELEC 1 DC" CIRCUIT BREAKER UNTIL YOU OPEN THE CIRCUIT BREAKERS FOR PITOT PROBE HEAT. ON AIRPLANES THAT HAVE A YSM, THE PITOT PROBE WILL COME ON. A HOT PITOT PROBE CAN CAUSE INJURIES TO PERSONNEL AND DAMAGE TO EQUIPMENT.
- (4) Open these circuit breakers on the P6 circuit breaker panel, and attach D0-NOT-CLOSE tags:
 - (a) 6K14, PITOT PROBE HT, CAPT, PHASE A
 - (b) 6K15, PITOT PROBE HT, CAPT, PHASE B
 - (c) 6K16, PITOT PROBE HT, AUX R, PHASE B
 - (d) 6K17, PITOT PROBE HT, AUX R, PHASE C
 - (e) 6L17 L AOA PROBE HT
 - (f) 6L18 L TAT PROBE HT

s 865-154-002

- (5) Open these circuit breakers on the overhead circuit breaker panel, P11, and attach DO-NOT-CLOSE tags:
 - (a) 11C6, FLIGHT CONTROLS FLT CONT ELEC 1L AC
 - (b) 11C7, FLIGHT CONTROLS FLT CONT ELEC 1L DC
 - (c) 11C8, FLIGHT CONTROLS FLT CONT ELEC 2L AC

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- (d) 11C9, FLIGHT CONTROLS FLT CONT ELEC 2L DC
- (e) 11G17, FLIGHT CONTROLS FLT CONT ELEC 1R AC
- (f) 11G18, FLIGHT CONTROLS FLT CONT ELEC 1R DC
- (g) 11G26, FLIGHT CONTROLS FLT CONT ELEC 2R AC
- (h) 11G27, FLIGHT CONTROLS FLT CONT ELEC 2R DC
- (i) 11P35, EMER LTS WING ESC L
- (j) 11P36, EMER LTS WING ESC R

s 025-155-002

- (6) Do these steps to connect the electrical test equipment (A25012-29) to the left off-wing escape system:
 - (a) Disconnect the electrical connector from the left inflation cylinder regulator (Fig. 504).
 - 1) Install the shorting cap on the left inflation cylinder regulator.

<u>NOTE</u>: The shorting cap is kept in a pouch which is in the lower access door.

- (b) Disconnect the electrical connector from the left spoiler override actuator (AMM 25-65-19/401).
 - 1) Install the shorting cap on the left spoiler override actuator.
 - <u>NOTE</u>: The shorting cap is kept in a pouch which is in the lower access door.
- (c) Disconnect the electrical connector from the inboard spoiler No. 6 power control actuator.
- (d) Disconnect the electrical connector from the right inflation cylinder regulator (Fig. 502).
 - 1) Install the shorting cap on the right inflation cylinder regulator.
 - <u>NOTE</u>: The shorting cap is kept in a pouch which is in the lower access door.





- (e) Disconnect the electrical connector from the right spoiler override actuator (AMM 25-65-19/401).
 - 1) Install the shorting cap on the right spoiler override actuator.
 - <u>NOTE</u>: The shorting cap is kept in a pouch which is in the lower access door.

s 435-156-002

- (7) Connect the electrical connectors to the emergency batteries (M961 and M962) for the left and right off-wing escape system (AMM 25-65-17/401).
 - <u>NOTE</u>: You must connect the emergency batteries for the left and right off-wing escape system when you do a test on the left or right off-wing escape system.

s 205-157-002

- (8) When you do a test on the left off-wing escape system:
 - (a) Connect the test equipment to the airplane:
 - Connect J3 of the electrical test equipment (A25012-29) to the left spoiler override actuator.
 - Connect J2 of the test equipment to the left inflation cylinder regulator connector.
 - 3) Make sure the two voltmeters show O volts.
 - Connect J4 of the test equipment to the wire harness plug for the (left) inboard spoiler No. 6 power control actuator connector.
 - 5) Put the switch on the test box in position 1.
 - 6) Connect the ohmmeter to the test equipment.
 - a) Make sure the ohmmeter shows a value of more than 400 ohms.
 - <u>NOTE</u>: The 400 ohm resistance is to show that the spoiler retract relay is not energized.

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s 025-158-002

- (9) Do these steps to connect the electrical test equipment A25012-29 to the right off-wing escape slide system:
 - (a) Disconnect the electrical connector from the right spoiler override actuator (AMM 25-65-19/401).
 - 1) Install the shorting cap on the right spoiler override actuator.

<u>NOTE</u>: The shorting cap is kept in a pouch which is in the lower access door.

(b) Disconnect the electrical connector from the (right) inboard spoiler No. 7 power control actuator.

s 025-159-002

- (10) Connect the electrical connectors to the emergency batteries (M961 and M962) for the right off-wing escape system (AMM 25-65-17/401).
 - <u>NOTE</u>: You must connect the emergency batteries for the right off-wing escape system when you do a test on the right off-wing escape system.

s 205-160-002

(11) Connect the electrical test equipment (A25012-29) to the airplane:

- (a) Connect J3 of the test box to the right spoiler override actuator connector.
- (b) Connect J2 of the test box to the right inflation cylinder regulator connector.
- (c) Make sure the two voltmeters show O volts.
- (d) Connect J4 of the test box to the wire harness plug for the right inboard spoiler No. 7 power control actuator connector.
- (e) Connect the ohmmeter to the test equipment
- (f) Put the switch on the test box in position 1.
- (g) Make sure the ohmmeter shows a value of more than 400 ohms.
 - <u>NOTE</u>: The 400-ohm resistance is to show that the spoiler retract relay is not energized.





- F. Do the Electrical System Test
 - <u>NOTE</u>: Do the electrical system test in the sequence shown for the left off-wing escape system. Do the electrical system test in the sequence shown for the right off-wing escape system.
 - s 715-161-002
 - (1) For the auto fire system test, do these steps:
 - (a) When you do a test on the left off-wing escape system, disconnect the electrical connector from the right emergency battery (M962) (AMM 25-65-17/401).
 - (b) When you do a test on the right off-wing escape system, disconnect the electrical connector from the left emergency battery (M961) (AMM 25-65-17/401).
 - (c) Put the left forward auto arm switch S624 (S623) to the FIRE, up position (Fig. 501).

<u>NOTE</u>: The auto arm switch S624 (S623) is above the forward overwing escape hatch.

- (d) Look at the test equipment for the following:
 - 1) Make sure the two voltmeters show O volts.
 - 2) Make sure the ohmmeter shows a value of more than 400 ohms.

<u>NOTE</u>: The 400-ohm resistance is to show that the spoiler retract relay is not energized.

(e) Put the left forward auto arm switch S624 (S623) to the ARM, down position (Fig. 501).

<u>NOTE</u>: The forward auto arm switch is above the forward off-wing escape hatch.

(f) Put the left forward auto fire switch S628 (S627) to the FIRE, up position.

<u>NOTE</u>: The auto arm switch S628 (S627) is above the forward overwing escape hatch.

(g) Look at the test equipment for the following:1) Make sure the two voltmeters show 0 volts.

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2) Make sure the ohmmeter shows a value of more than 400 ohms.

<u>NOTE</u>: The 400-ohm resistance is to show that the spoiler retract relay is not energized.

- (h) Put the left forward auto fire switch S628 (S627) to the ARM, down position (Fig. 501).
- (i) Put the left forward auto arm switch S624 (S623) and left forward auto fire switch S628 (S627) to the FIRE, up position.
- (j) Look at the test equipment for the following:1) Make sure the spoiler override actuator voltmeter on the
 - test box shows a value between 6 and 9 volts.
 - 2) Make sure the ohmmeter shows a value of 10 ohms or less.
 - Make sure it takes from 1.8 to 3.0 seconds before the test equipment inflation cylinder regulator voltmeter shows a value between 6 and 9 volts.
 - 4) Make sure the ohmmeter value remains at 10 ohms or less.
- (k) Put the left forward auto arm switch S624 (S623) and the left forward auto fire switch S628 (S627) to the ARM, down position.
- (l) Put the left aft auto arm switch S622 (S621) to the FIRE, up position.

<u>NOTE</u>: The auto arm switch S622 (S621) is above the aft overwing escape hatch.

- (m) Look at the test equipment for the following:
 - 1) Make sure the two voltmeters show O volts.
 - 2) Make sure the ohmmeter shows a value more than 400 ohms.

<u>NOTE</u>: The 400-ohm resistance is to show that the spoiler retract relay is not energized.

- (n) Put the left aft auto arm switch S622 (S621) to the ARM, down position.
- (o) Put the aft auto fire switch S626 (S625) to the FIRE, up position.

<u>NOTE</u>: The auto fire switch S626 (S625) is found above the aft overwing escape hatch.

(p) Look at the test equipment for the following:1) Make sure the two voltmeters show 0 volts.

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- MAINTENANCE MANUAL
- 2) Make sure the ohmmeter shows a value of more than 400 ohms.

<u>NOTE</u>: The 400-ohm resistance is to show that the spoiler retract relay is not energized.

- (q) Put the aft auto fire switch S626 (S625) to the ARM, down position.
- (r) Put the aft auto arm switch S622 (S621) and aft auto fire switch S626 (S625) to the FIRE, up position.
- (s) Look at the test equipment for the following:
 - Make sure the spoiler override actuator voltmeter on the test box shows a value between 6 and 9 volts.
 - 2) Make sure the ohmmeter shows a value of 10 ohms or less.
 - 3) Make sure it takes from 1.8 to 3.0 seconds before the test equipment inflation cylinder regulator voltmeter shows a value between 6 and 9 volts.
 - Make sure the value shown on the ohmmeter stays at 10 ohms or less.
- (t) Put the aft auto arm switch S622 (S621) and the aft auto fire switch S626 (S625) to the ARM, down position.
- (u) Put the forward auto arm switch S624 (S623) and the forward auto fire switch S628 (S627) to the FIRE, up position.
- (v) On the test equipment do the following:
 1) Put the switch on the test box in position 2.
 2) Make any the aburt to a value of 40 abure on the second secon
- 2) Make sure the ohmmeter shows a value of 10 ohms or less.(w) Put the forward disable switch S620 (S619) to the SAFE, down position.
 - <u>NOTE</u>: The disable switch S620 (S619) is above the forward overwing escape hatch.
- (x) On the test equipment look for the following:
 - 1) Make sure the two voltmeters show O volts.
 - 2) Make sure the ohmmeter shows a value of more than 400 ohms.

<u>NOTE</u>: The 400-ohm resistance is to show that the spoiler retract relay is not energized.

- (y) Put these switches back to their initial condition:
 - 1) The forward auto arm switch S624 (S623) to the ARM, down position.
 - 2) The forward auto fire switch S628 (S627) to the ARM, down position.
 - The forward disable switch S620 (S619) to the ARMED, up position.
- (z) On the test equipment, put the switch in position 1.

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- (aa) Put the aft auto arm switch S622 (S621) and aft auto fire switch S626 (S625) to the FIRE, up position.
- (ab) On the test equipment do the following:
 - 1) Put the switch on the test box in position 2.
 - 2) Make sure the ohmmeter shows a value of 10 ohms or less.
- (ac) Put the aft disable switch S618 (S617) to the SAFE, down position.

<u>NOTE</u>: The disable switch S618 (S617) is above the aft overwing escape hatch.

(ad) On the test equipment do the following:

- 1) Make sure the two voltmeters show O volts.
- 2) Make sure the ohmmeter shows a value of more than 400 ohms.

<u>NOTE</u>: The 400-ohm resistance is to show that the spoiler retract relay is not energized.

- (ae) Put these switches back to their initial condition:
 - 1) The auto arm switch S622 (S621) to the ARM, down position.
 - 2) The auto fire switch S626 (S625) to the ARM, down position.
 - 3) The disable switch S618 (S617) to the ARMED, up position.
- (af) On the test equipment put the switch in position 1.
- (ag) When you do a test on the left off-wing escape system, connect the electrical connector to the right emergency battery (M962) (AMM 25-65-17/401).
- (ah) When you do a test on the right off-wing escape system, connect the electrical connector to the left emergency battery (M961) (AMM 25-65-17/401).

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- (2) For the back-up fire system test, do these steps:
 - <u>NOTE</u>: You must do the backup fire system test for the left and right off-wing escape system.
 - (a) When you do a test on the left off-wing escape system, disconnect the electrical connector from the left emergency battery (M961) (AMM 25-65-17/401).
 - (b) When you do a test on the right off-wing escape system, disconnect the electrical connector from the right emergency battery (M962) (AMM 25-65-17/401).
 - (c) On the test equipment look for the following:
 - 1) Make sure the two voltmeters show O volts.

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2) Make sure the ohmmeter shows a value of more than 400 ohms.

<u>NOTE</u>: The 400-ohm resistance is to show that the spoiler retract relay is not energized.

- (d) Put the backup arm switch S630 (S629) and the backup fire switch S632 (S631) to the FIRE, down position (Fig. 507).
 - <u>NOTE</u>: The forward backup arm switch S630 (S629) and the forward backup fire switch S632 (S631) are found above the forward overwing escape hatch.
- (e) On the test equipment look for the following:
 - 1) Make sure the spoiler override actuator voltmeter on the test box shows a value between 6 and 9 volts.
 - 2) Make sure the ohmmeter shows a value of 10 ohms or less.
 - 3) Make sure it takes from 1.8 to 3 seconds before the test equipment inflation cylinder regulator voltmeter shows a value between 6 and 9 volts.
 - Make sure the value shown on the ohmmeter stays at 10 ohms or less.
- (f) Put the disable switch S620 (S619) to the SAFE, down position.
- (g) On the test equipment look for the following:
 - Make sure the two voltmeters show O volts.
 - Make sure the ohmmeter shows a value of more than 400 ohms.

<u>NOTE</u>: The 400-ohm resistance is to show that the spoiler retract relay is not energized.

- (h) Put the backup arm switch S630 (S629) and the backup fire switch S632 (S631) to the ARM, up position.
- (i) Put the disable switch S620 (S619) to the ARM, up position.
- (j) Put the back up arm switch S1 of M1135 (M1136) and the back up fire switch S2 of M1135 (M1136) to the FIRE, down position.
- (k) Look at the test equipment for the following:
 - 1) Make sure the spoiler override actuator voltmeter on the test box shows a value between 6 and 9 volts.
 - 2) Make sure the ohmmeter shows a value of 10 ohms or less.
 - 3) Make sure it takes from 1.8 to 3 seconds before the test equipment inflation cylinder regulator voltmeter shows a value between 6 and 9 volts.
- (l) Put the disable switch S618 (S617) to the SAFE, down position.
 - <u>NOTE</u>: The disable switch S618 (S617) is found above the aft overwing escape hatch.

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- (m) Make sure the auto arm switch S622 (S621) and the auto fire switch S626 (S625) are in the ARM, down position.
- (n) On the test equipment look for the following:
 - 1) Make sure the two voltmeters show O volts.
 - 2) Make sure the ohmmeter shows a value of more than 400 ohms.

<u>NOTE</u>: The 400-ohm resistance is to show that the spoiler retract relay is not energized.

- (o) Put the backup fire switch S2 of M1135 (M1136) and the backup arm switch S1 of M1135 (M1136) to the ARM, up position.
 - <u>NOTE</u>: The backup fire switch S2 and the backup arm switch S1 are found above the aft overwing escape hatch.
- <u>WARNING</u>: MAKE SURE THE BACKUP ARM SWITCHES AND BACKUP FIRE SWITCHES ARE IN THE ARM POSITION BEFORE YOU MOVE THE DISABLE HANDLE TO THE ARM POSITION. FAILURE TO DO THIS CAN ACCIDENTALLY INFLATE THE ESCAPE SLIDE AND CAUSE INJURY OR DAMAGE.
- (p) Make sure the backup arm switch S1 and the backup fire switch S2 of M1135 (M1136) are in the ARM, up position.
- (q) Put the disable switch S618 (S617) to the ARM, up position.
- (r) When you do a test on the left off-wing escape system, connect the electrical connector to the left emergency battery (M961) (AMM 25-65-17/401).
- (s) When you do a test on the right off-wing escape system, connect the electrical connector to the right emergency battery (M962) (AMM 25-65-17/401).
- s 715-163-002
- (3) For the squib indicator test (Fig. 502), do these steps:
 - (a) Remove the DO-NOT-CLOSE tag and close this circuit breaker on the P11 panel:
 - 1) 11P36, EMER LTS OFF WING ESC R
 - (b) Supply electrical power (AMM 24-22-00/201).
 - (c) Push the EMER ESCAPE L light on the squib test panel, M32 (Fig. 502).
 - (d) Make sure the EMER ESCAPE L light is on.
 - (e) Push the EMER ESCAPE R light on the squib test panel, M32.
 - (f) Make sure the EMER ESCAPE R light is on.
 - (g) On the left off-wing escape system, do these steps:
 - 1) Push and hold the TEST 1 switch. Make sure the EMER ESCAPE L light is on in 3 seconds, and the EMER ESCAPE R light is off. Release the TEST 1 switch.

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- 2) Push and hold the TEST 2 switch. Make sure the EMER ESCAPE L light is on and that the EMER ESCAPE R light is off. Release the TEST 2 switch.
- 3) Push and hold the TEST 1 and TEST 2 switches at the same time. Make sure the EMER ESCAPE L and the EMER ESCAPE R lights are off. Release the TEST 1 and TEST 2 switches.
- 4) Put the auto arm switch S624 to the FIRE, up position (Fig. 501).

<u>NOTE</u>: The auto arm switch S624 is above the left forward overwing escape hatch.

- 5) Push and hold the TEST 1 switch. Make sure the EMER ESCAPE L light is on in 3 seconds. Release the TEST 1 switch (Fig. 502).
- 6) Push and hold the TEST 2 switch. Make sure the EMER ESCAPE L light is off. Release the TEST 2 switch.
- 7) Put the auto arm switch S624 to the ARM, down position.
- 8) Put the auto fire switch S628 to the FIRE, up position.

<u>NOTE</u>: The auto fire switch is found on the left forward overwing escape hatch.

- 9) Push and hold the TEST 1 switch. Make sure the EMER ESCAPE L light is on in 3 seconds. Release the TEST 1 switch.
- 10) Push and hold the TEST 2 switch. Make sure the EMER ESCAPE L light is off. Release the TEST 2 switch.
- 11) Put the auto fire switch S628 to the ARM, down position.
- 12) Put the auto arm switch S622 to the FIRE, up position.

<u>NOTE</u>: The auto arm switch S622 is above the left aft overwing escape hatch.

- 13) Push and hold the TEST 1 switch. Make sure the EMER ESCAPE L light is off. Release the TEST 1 switch.
- 14) Push and hold the TEST 2 switch. Make sure the EMER ESCAPE L light is on. Release the TEST 2 switch.
- 15) Put the auto arm switch S622 to the ARM, down position.
- 16) Put the auto fire switch S626 to the FIRE, up position.

<u>NOTE</u>: The auto fire switch S626 is above the left aft overwing escape hatch.

17) Push and hold the TEST 1 switch. Make sure the EMER ESCAPE L light is off. Release the TEST 1 switch.

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- 18) Push and hold the TEST 2 switch. Make sure the EMER ESCAPE L light is on. Release the TEST 2 switch.
- 19) Put the auto fire switch S626 to the ARM, down position.
- (h) On the right off-wing escape system, do these steps:
 - Push and hold the TEST 1 switch. Make sure the EMER ESCAPE R light is on in 3 seconds and that the EMER ESCAPE L light is off. Release the TEST 1 switch.
 - 2) Push and hold the TEST 2 switch. Make sure the EMER ESCAPE R light is on and that the EMER ESCAPE L light is off. Release the TEST 2 switch.
 - 3) Push and hold the TEST 1 and TEST 2 switches at the same time. Make sure the EMER ESCAPE L and EMER ESCAPE R lights are off. Release the TEST 1 and TEST 2 switches.
 - 4) Put the auto arm switch S623 to the FIRE, up position.

<u>NOTE</u>: The auto arm switch S623 is above the right forward overwing escape hatch.

- 5) Push and hold the TEST 1 switch. Make sure the EMER ESCAPE R light is on in 3 seconds. Release the TEST 1 switch.
- 6) Push and hold the TEST 2 switch. Make sure the EMER ESCAPE R light is off. Release the TEST 2 switch.
- 7) Put the auto arm switch S623 to the ARM, down position.
- 8) Put the auto fire switch S627 to the FIRE, up position.

<u>NOTE</u>: The auto fire switch is above the right forward overwing escape hatch.

- 9) Push and hold the TEST 1 switch. Make sure the EMER ESCAPE R light is on in 3 seconds. Release the TEST 1 switch.
- 10) Push and hold the TEST 2 switch. Make sure the EMER ESCAPE R light is off. Release the TEST 2 switch.
- 11) Put the auto fire switch S627 to the ARM, down position.
- 12) Put the auto arm switch S621 to the FIRE, up position.

<u>NOTE</u>: The auto arm switch S621 is above the right aft overwing escape hatch.

- 13) Push and hold the TEST 1 switch. Make sure the EMER ESCAPE R light is off. Release the TEST 1 switch.
- 14) Push and hold the TEST 2 switch. Make sure the EMER ESCAPE R light is on. Release the TEST 2 switch.
- 15) Put the auto arm switch S621 to the ARM, down position.

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16) Put the auto fire switch S625 to the FIRE, up position.

<u>NOTE</u>: The auto fire switch S625 is above the right aft overwing escape hatch.

- 17) Push and hold the TEST 1 switch. Make sure the EMER ESCAPE R light is off. Release the TEST 1 switch.
- 18) Push and hold the TEST 2 switch. Make sure the EMER ESCAPE R light is on. Release the TEST 2 switch.
- 19) Put the auto fire switch S625 to the ARM, down position.
- (i) Open this circuit breaker on the overhead circuit breaker panel, P11, and attach a DO-NOT-CLOSE tag:
 1) 11P36, EMER LTS OFF WING ESC R
- s 715-164-002
- (4) Do the Battery Charge Test
 - (a) For the left off-wing escape system, do these steps:
 - Disconnect the electrical connector from the emergency battery for the left off-wing escape system.
 - Connect the voltmeter between pin 1 and pin 2 of the electrical connector on the emergency battery for the left off-wing escape system.
 - Make sure the voltmeter shows a value of less than 12 volts.
 - 4) Remove the DO-NOT-CLOSE tags and close these circuit breakers on the P11 panel:
 - a) 11P35, EMER LTS WING ESC L
 - b) 11P36, EMER LTS WING ESC R
 - 5) Make sure the voltmeter shows a value between 23 and 33 volts.
 - Push and hold the TEST 1 switch on the squib test panel, M32 (Fig. 502). Make sure the voltmeter shows a value of less than 12 volts.
 - 7) Release the TEST 1 switch. Make sure the voltmeter shows a value between 23 and 33 volts.
 - 8) Push and hold the TEST 2 switch. Make sure the voltmeter shows a value of less than 12 volts.
 - 9) Release the TEST 2 switch. Make sure the voltmeter shows a value between 23 and 33 volts.
 - 10) Open these circuit breakers on the overhead circuit breaker panel, P11, and attach a DO-NOT-CLOSE tags:
 - a) 11P35, EMER LTS WING ESC L
 - b) 11P36, EMER LTS WING ESC R
 - 11) Connect the electrical connector to the emergency battery (M962) for the left off-wing escape system (AMM 25-65-17/401).

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- 12) Disconnect J3 of the test box from the electrical connector of the left spoiler override actuator (AMM 25-65-19/401).
- 13) Disconnect J2 of the test box from the electrical connector of the left inflation cylinder regulator (Fig. 504).
- 14) Disconnect J4 of the test box from the wire harness plug for the left inboard spoiler No. 6 power control actuator.
- (b) For the right off-wing escape system, do these steps:
 - Disconnect the electrical connector from the emergency battery (M962) for the right off-wing escape system (AMM 25-65-17/401).
 - Connect the voltmeter between pin 1 and pin 2 of the electrical connector on the emergency battery for the right off-wing escape system.
 - 3) Make sure the voltmeter shows a value of less than 12 volts.
 - 4) Remove the DO-NOT-CLOSE tag and close this circuit breaker on the P11 panel:
 - a) 11P36, EMER LTS WING ESC R
 - 5) Make sure the voltmeter shows a value between 23 and 33 volts.
 - Push and hold the TEST 1 switch on the squib test panel, M32 (Fig. 502). Make sure the voltmeter shows a value of less than 12 volts.
 - Release the TEST 1 switch. Make sure the voltmeter shows a value between 23 and 33 volts.
 - 8) Push and hold the TEST 2 switch. Make sure the voltmeter shows a value of less than 12 volts.
 - Release the TEST 2 switch. Make sure the voltmeter shows a value between 23 and 33 volts.
 - 10) Open this circuit breaker on the overhead circuit breaker panel, P11, and attach a DO-NOT-CLOSE tag:
 a) 11P36, EMER LTS WING ESC R
 - 11) Connect the electrical connector to the emergency battery (M962) for the right off-wing escape system (AMM 25-65-17/401).
 - 12) Disconnect J3 of the test box from the electrical connector of the the right spoiler override actuator (AMM 25-65-19/401).
 - 13) Disconnect J2 of the test box from the electrical connector of the right inflation cylinder regulator (Fig. 502).
 - 14) Disconnect J4 of the test box from the wire harness plug for the right inboard spoiler No. 7 power control actuator.

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(5) Do a test of the spoiler control system (AMM 27-61-00/501).

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- (6) Do these steps to put the electrical system back to its initial condition:
 - (a) Remove the shorting cap from the left inflation cylinder regulator. Put the shorting cap in the pouch which is in the lower access door.
 - WARNING: MAKE SURE THERE IS NO VOLTAGE PRESENT AT PIN A OF THE INFLATION CYLINDER REGULATOR CONNECTOR. A VOLTAGE PRESENT AT PIN A CAN DEPLOY THE ESCAPE SLIDE AND CAUSE INJURY OR DAMAGE WHEN THE CONNECTOR IS RECONNECTED TO THE REGULATOR.
 - (b) Make sure there is no voltage present at pin A of the inflation cylinder regulator connector.
 - (c) Connect the electrical connector to the left inflation cylinder regulator (Fig. 504).
 - (d) Remove the shorting cap from the left spoiler override actuator. Put the shorting cap in the pouch which is in the lower access door.
 - (e) Connect the electrical connector to the left spoiler override actuator (AMM 25-65-19/401).
 - (f) Connect the electrical connector to the left spoiler No. 6 power control actuator.
 - (g) Remove the shorting cap from the right inflation cylinder regulator. Put the shorting cap in the pouch which is in the lower access door.
 - <u>WARNING</u>: MAKE SURE THERE IS NO VOLTAGE PRESENT AT PIN A OF THE INFLATION CYLINDER REGULATOR CONNECTOR. A VOLTAGE PRESENT AT PIN A CAN DEPLOY THE ESCAPE SLIDE AND CAUSE INJURY OR DAMAGE WHEN THE CONNECTOR IS RECONNECTED TO THE REGULATOR.
 - (h) Make sure there is no voltage present at pin A of the inflation cylinder regulator connector.
 - (i) Connect the electrical connector to the right inflation cylinder regulator (Fig. 504).
 - (j) Remove the shorting cap from the right spoiler override actuator. Put the shorting cap in the pouch which is in the lower access door.
 - (k) Connect the electrical connector to the right spoiler override actuator (AMM 25-65-19/401).
 - (l) Connect the electrical connector to the right spoiler No. 7 power control actuator.
 - (m) Put the spoiler control module 3R back in the E2-1 shelf (AMM 27-09-00/201).

EFFECTIVITY AIRPLANES WITH MODULAR OFF-WING ESCAPE SYSTEM



TASK 25-65-00-705-124-002

- 4. Operational Test Off-Wing Escape System
 - A. General
 - (1) This task gives instructions for the operational test.
 - (2) The tests in this procedure are for the left off-wing escape system. The procedures for the right off-wing escape system are equivalent.
 - B. References
 - (1) AMM 24-22-00/201, Manual Control Maintenance Practices (Apply Power)
 - (2) AMM 25-65-00/201, Off-Wing Escape System
 - (3) AMM 27-61-00/201, Spoiler Speedbrake Control System
 - (4) AMM 27-09-00/201, Flight Control System Electronics Unit (CSEU)
 - (5) AMM 29-11-00/201, Main (Left, Right, Center) Hydraulic Systems.
 - (6) AMM 52-21-01/201, Emergency Escape Hatch
 - C. Access
 - (1) Location Zones

141/142	Area Above MLG Wheel Well
195/196	Wing to Body – Aft Upper Half
553/653	Spoiler No. 6 (LH), No. 7 (RH)
332/842	Overwing Emergency Exit Hatch
834/844	Overwing Emergency Exit Hatch

(2) Location Zones

141/142	Area Above MLG Wheel Well
195/196	Wing to Body – Aft Upper Half
553/653	Spoiler No. 6 (LH), No. 7 (RH)
832/842	Overwing Emergency Exit Hatch

- (3) Access Panels 197CL/198CR Lower Access Door 197PZX/198KZX Escape System Pressure Cylinder Gage
- D. Prepare for the Operational Test

S 865-169-002

- (1) Remove the DO-NOT-CLOSE tags and close these circuit breakers on the P6 circuit breaker panel:
 - (a) 6K14, PITOT PROBE HT, CAPT, PHASE A
 - (b) 6K15, PITOT PROBE HT, CAPT, PHASE B
 - (c) 6K16, PITOT PROBE HT, AUX R, PHASE B
 - (d) 6K17, PITOT PROBE HT, AUX R, PHASE C

EFFECTIVITY AIRPLANES WITH MODULAR OFF-WING ESCAPE SYSTEM





- (e) 6L17 L AOA PROBE HT
- (f) 6L18 L TAT PROBE HT

s 865-125-002

- (2) Remove the DO-NOT-CLOSE tags and close these circuit breakers on the P11 panel:
 - (a) 11C6, FLIGHT CONTROLS FLT CONT ELEC 1L AC
 - (b) 11C7, FLIGHT CONTROLS FLT CONT ELEC 1L DC
 - (c) 11C8, FLIGHT CONTROLS FLT CONT ELEC 2L AC
 - (d) 11C9, FLIGHT CONTROLS FLT CONT ELEC 2L DC
 - (e) 11G17, FLIGHT CONTROLS FLT CONT ELEC 1R AC
 - (f) 11G18, FLIGHT CONTROLS FLT CONT ELEC 1R DC
 - (g) 11G26, FLIGHT CONTROLS FLT CONT ELEC 2R AC
 - (h) 11G27, FLIGHT CONTROLS FLT CONT ELEC 2R DC

s 865-126-002

- (3) Open this circuit breaker on the overhead circuit breaker panel, P11, and attach a DO-NOT-CLOSE tag:
 - (a) 11G11, FLIGHT CONTROLS AUTO SPEED BRAKE

<u>NOTE</u>: This circuit breaker is opened to prevent the accidental operation of the auto speedbrake control system.

s 865-127-002

(4) Make sure all electrical and hydraulic systems are energized and operate correctly.

s 705-128-002

(5) Make sure the spoiler speedbrake system is activated (AMM 27-61-00/201).

s 095-129-002

(6) Remove the safety pin from the inflation cylinder, if it was installed.

s 215-130-002

- (7) Make sure that the needle is in the green zone on the cylinder pressure gauge (Fig. 504).
- E. Do the Operational Test

s 865-131-002

- <u>WARNING</u>: MOVE ALL PERSONS AND EQUIPMENT AWAY FROM THE SPOILER PANELS AND THE OFF-WING ESCAPE SYSTEM. SPOILER PANEL MOVEMENT OR ESCAPE SLIDE DEPLOYMENT CAN CAUSE INJURY OR DAMAGE.
- Move the speed brake lever to the full, up position to lift the spoiler panels.

EFFECTIVITY AIRPLANES WITH MODULAR OFF-WING ESCAPE SYSTEM



s 865-132-002

(2) Pull the disable handle down to the SAFE position to disarm the off-wing escape slide.

s 025-133-002

- <u>WARNING</u>: MAKE SURE YOU OBEY THE PROCEDURE TO REMOVE THE OVERWING ESCAPE HATCH. IF YOU INCORRECTLY REMOVE THE OVERWING ESCAPE HATCH, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (3) Remove the overwing escape hatch (AMM 52-21-01/201).

s 215-134-002

(4) Make sure that the actuators have not fired.

s 215-135-002

(5) Make sure the inboard spoiler (No. 6 left or No. 7 right) did not move down.

s 215-136-002

(6) Make sure the escape slide has not deployed.

s 425-137-002

- WARNING: MAKE SURE YOU OBEY THE PROCEDURE TO INSTALL THE OVERWING ESCAPE HATCH. IF YOU INCORRECTLY INSTALL THE OVERWING ESCAPE HATCH, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (7) Install the overwing escape hatch (AMM 52-21-01/201).

s 865-138-002

(8) Push the disable handle up to the ARMED position to arm the off-wing escape slide.

s 865-167-002

(9) Make sure that the two disable handles are in the ARMED position.

s 015-139-002

(10) Use the emergency PULL handle to open the overwing escape hatch.

s 205-140-002

- (11) For the left off-wing escape system, do these checks:
 - (a) Make sure the left escape slide fully inflates in less than 10 seconds.
 - (b) Make sure the left spoiler override actuator has fired.
 - (c) Make sure the left inboard spoiler No. 6 is down.
 - (d) Make sure the left escape slide has deployed onto the wing.

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- (e) Make sure the left escape slide is fully inflated.
- (f) Make sure the left step is fully down.
- s 205-141-002
- (12) For the right off-wing escape system, do these checks:
 - (a) Make sure the right escape slide fully inflates in less than 10 seconds.
 - (b) Make sure the right spoiler override actuator has fired.
 - (c) Make sure the right inboard spoiler No. 7 is down.
 - (d) Make sure the right slide escape slide has deployed onto the wing.
 - (e) Make sure the right escape slide is fully inflated.
 - (f) Make sure the right step is fully down.

S 865-142-002

(13) Move the speed brake lever to the full, down position to lower the spoiler panels.

s 865-143-002

(a) 11G11, FLIGHT CONTROLS AUTO SPEED BRAKE

F. Put the airplane back to its usual condition.

S 865-144-002

(1) After deployment of the escape slide, put the off-wing escape system back to its initial condition (AMM 25-65-00/201).

s 865-145-002

(2) Remove the hydraulic power if it is not necessary.

S 865-146-002

(3) Push the reset button to set the fault indication on the spoiler control modules (AMM 27-09-00/201).

s 865-147-002

(4) Remove electrical power if it is not necessary (AMM 24-22-00/201).

EFFECTIVITY AIRPLANES WITH MODULAR OFF-WING ESCAPE SYSTEM





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EFFECTIVITY AIRPLANES WITH MODULAR OFF-WING ESCAPE SYSTEM















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MAINTENANCE MANUAL

OFF-WING ESCAPE SYSTEM - INSPECTION/CHECK

- 1. <u>General</u>
 - A. This procedure contains these tasks:
 - (1) Latches and Disconnect Housing Examination
 - <u>NOTE</u>: Do not open the off-wing escape slide door before you do this check. The torque measurement in the check will not be accurate if you operate the door first.
 - (2) Inflation Hose Examination
 - (3) Fast Check of the Off-Wing Excape System

TASK 25-65-00-206-001-001

- 2. <u>Latches and Disconnect Housing Examination</u> (Fig. 601)
 - A. References
 - (1) AMM 25-65-00/201, Off-Wing Escape System
 - (2) AMM 25-65-08/201, Off-Wing Slide Compartment Door
 - B. Access

(2)	Access Panels	
	195EL/196ER	Off-Wing Slide Compartment Door
	195ML/195MR	Integrator Access Door
	195QL/196QR	Latch-Opening Actuator Access Door

C. Prepare for the check of the latches and disconnect housing.

s 046-002-001

- WARNING: YOU MUST OBEY THE PROCEDURE TO DISARM THE OFF-WING ESCAPE SYSTEM. IF YOU INCORRECTLY DISARM THE ESCAPE SYSTEM, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (1) Disarm the off-wing escape system (AMM 25-65-00/201).

S 946-003-001

- (2) Put a protective cover on the work area of the wing surface.
- D. Latches Check

S 016-004-001

(1) Open the integrator access door 195ML or 196MR.

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM





s 016-005-001

- (2) AIRPLANES WITH INEGRATORS WITH UNLATCH AND LATCH LEVER; Open the slide compartment door latches:
 - (a) Remove the lockpin from the integrator secondary lock (View B).
 - (b) Turn the lock lever clockwise.

NOTE: The lock lever is out of the slot in the latch shaft.

- <u>WARNING</u>: DO NOT OPEN THE SLIDE COMPARTMENT DOOR UNLESS THE UNLATCH LEVER IS TURNED FULLY AFT. IF THE UNLATCH LEVER IS NOT TURNED FULLY AFT WHEN YOU OPEN THE SLIDE COMPARTMENT DOOR, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- <u>CAUTION</u>: DO NOT PERMIT THE SLIDE COMPARTMENT DOOR TO OPEN WITHOUT A SUPPORT. YOU CAN CAUSE DAMAGE TO THE DOOR IF YOU PERMIT THE DOOR TO OPEN WITHOUT A SUPPORT.
- (c) Put the torque wrench in the wrench socket of the unlatch lever (View A-A).
- (d) Measure the torque while you turn the unlatch lever aft against the lever stop to open the latches.
- (e) Make a record of the maximum torque.
- (f) If the maximum torque is more than 175 inch-pounds, replace the latches.
 - <u>NOTE</u>: You do not have to do a check of the edge margin on the latch slider plates if you will replace the latches. You must examine the disconnect housing even if you replace the latches.

S 016-006-001

(3) AIRPLANES WITH INTEGRATORS WITH LOCK HANDLES; Open the slide compartment door latches:

S 016-007-001

(4) Open the slide compartment door latches:

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM





- WARNING: MOVE THE INTEGRATOR LOCK HANDLE TO THE "UNLOCK" POSITION. MAKE SURE THE INTEGRATOR LOCK HANDLE MOVES THROUGH THE FULL 0.4-INCH TRAVEL FROM THE "LOCK" TO THE "UNLOCK" POSITION. MAKE SURE YOU CAN FEEL THE DETENT WHICH IS IN THE MIDDLE OF THE 0.4-INCH TRAVEL. IF THE INTEGRATOR LOCK HANDLE IS IN AN INCORRECT POSITION, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (a) Pull the integrator lock handle outboard to the UNLOCK position.
- (b) Put the torque wrench into the wrench socket of the cam.
- (c) Measure the torque while you turn the cam fully aft to open the slide compartment door latches.

NOTE: The cross pin is moved aft by the cam.

- (d) Make a record of the maximum torque.
- (e) If the maximum torque is more than 175 inch-pounds, replace the latches.
 - <u>NOTE</u>: You do not have to do a check of the edge margin on the latch slider plates if you will replace the latches. You must examine the disconnect housing even if you replace the latches.
- (f) Pull the integrator lock handle outboard to the SAFETY position.
- S 866-008-001
- <u>WARNING</u>: DO NOT OPEN THE SLIDE COMPARTMENT DOOR UNLESS THE CAM IS TURNED FULLY AFT. IF THE CAM IS NOT TURNED FULLY AFT WHEN YOU OPEN THE SLIDE COMPARTMENT DOOR, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- <u>CAUTION</u>: DO NOT PERMIT THE SLIDE COMPARTMENT DOOR TO OPEN WITHOUT A SUPPORT. YOU CAN CAUSE DAMAGE TO THE DOOR IF YOU PERMIT THE DOOR TO OPEN WITHOUT A SUPPORT.
- (5) Open the slide compartment door 195EL or 196ER slowly to the full open position.

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM



S 866-009-001

(6) AIRPLANES WITH INTEGRATOR WITH LOCK HANDLES; Move the integrator lock handle inboard to the unlock position (View A-A).

s 416-011-001

- (7) Install the safety pin on the forward door opening actuator (View C) and on the aft door opening actuator (View D).
 - <u>NOTE</u>: The safety pins are kept in a pouch which is in the latch opening actuator compartment.

s 226-012-001

- (8) Do a check of the edge margin on the latch slider plates.
 - (a) Remove the pins and the washers that connect the latch control rods to the latch slider plates.
 - (b) Make sure that the edge margin on the end holes is 0.110 inch (2.794 mm) or more.
 - <u>NOTE</u>: If the end hole is worn on the opposite side but the edge margin is sufficient, the latch is serviceable. This wear can cause door warning indications but the door will operate correctly.
 - (c) Install the pins and washers that connect the latch control rods to the latch slider plates.
- E. Do a check of the disconnect housing.

s 216-013-001

(1) Visually examine the disconnect housing to make sure it is not broken at the edge or the arm.

s 986-014-001

(2) Push on the crosspin to make sure that it is fully seated.

s 866-015-001

(3) Turn the latch lever or the cam to move the crosspin forward.

S 866-016-001

(4) Turn the integrator to move the crosspin forward.

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM



S 866-017-001

(5) Make sure that the disconnect housing turns to the vertical position.

s 986-018-001

(6) Push down on the arm of the disconnect housing.

s 216-019-001

(7) Make sure that it turns inboard and moves back to the vertical position when you release it.

s 866-020-001

(8) Turn the unlatch lever or the cam to move the crosspin aft.

s 866-021-001

(9) Turn the integrator to move the crosspin aft.

s 216-022-001

- (10) Make sure that the disconnect housing turns inboard and the arm moves down.
- F. Put the airplane back to its usual condition.

s 416-023-001

- WARNING: YOU MUST OBEY THE PROCEDURE TO CLOSE THE SLIDE COMPARTMENT DOOR. IF YOU INCORRECTLY CLOSE THE SLIDE COMPARTMENT DOOR, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (1) Close the slide compartment door (AMM 25-65-08/201).
 - s 946-024-001
- (2) Remove the protective cover from the work area of the wing surface.

s 866-025-001

(3) If necessary, arm the off-wing escape slide system (AMM 25-65-00/201).

TASK 25-65-00-216-026-001

- 3. <u>Inflation Hose Examination</u> (Fig. 602)
 - A. References
 - (1) AMM 06-41-00/201, Fuselage (Major Zones 100 and 200) Access Doors and Panels
 - (2) AMM 25-65-00/201, Off-Wing Escape System
 - (3) AMM 25-65-08/201, Off-Wing Slide Compartment Door

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM





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B. Access

- (1) Location Zone
 - 195 Wing to Body-Aft Upper Half (Left)196 Wing to Body-Aft Upper Half (Right)
- (2) Access Panels 197CL 198CR 195QL

196QR

C. Prepare for the Inflation Hose Inspection/Check

S 046-027-001

- WARNING: YOU MUST OBEY THE PROCEDURE TO DISARM THE OFF-WING ESCAPE SYSTEM. IF YOU INCORRECTLY DISARM THE ESCAPE SYSTEM, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (1) Disarm the off-wing escape system (AMM 25-65-00/201).

s 016-028-001

(2) Open the lower access door 197CL or 198CR (AMM 06-41-00/201).

s 016-029-001

- WARNING: YOU MUST OBEY THE PROCEDURE TO OPEN THE SLIDE COMPARTMENT DOOR. IF YOU INCORRECTLY OPEN THE SLIDE COMPARTMENT DOOR, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (3) Open the slide compartment door (AMM 25-65-08/201).

s 016-030-001

(4) Open the latch opening actuator access door 195QL or 196QR (AMM 06-41-00/201).

s 416-031-001

- (5) Install the safety pins on the door opening actuators.
 - <u>NOTE</u>: The safety pins are in the pouch found in the latch opening actuator compartment.

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM





D. Examine the Inflation Hose (Fig. 602):

s 216-032-001

- (1) Examine the inflation hoses for damage:
 - (a) Examine hoses for bulges, frayed brading, crossed threads, security of end fittings and other signs of deterioration or damage.
 - 1) Replace damaged hoses.
 - (b) Examine hoses for soft spots, collapsed areas and kinks.
 - <u>NOTE</u>: Generally these soft spots, collapsed areas and kinks are due to a tight bend radius in the hose installation.
 - 1) If you find soft spots or kinks, do a proof pressure and leak test as follows:
 - a) Cap hose ends with appropriate inserts and fill hose interior with water.
 - b) Do hydrostatic proof pressure and leakage test (1 minute duration) at 900 PSIG.
 - c) Dry hoses thoroughly (both internally and externally) before you release acceptable hoses to service.
 - d) Replace hoses which do not keep pressure or show leaks.

s 216-033-001

- (2) Do the these steps to examine the inflation hose through the lower access door:
 - (a) Examine the connection between the inflation hose and the inflation cylinder for damage.
 - (b) Make sure the clamps which attach the inflation hose to the airplane structure are tight.
 - (c) Examine the connection between the inflation hose and the elbow fitting for damage.

s 216-034-001

- (3) Do these steps to examine the inflation hose through the off-wing slide compartment:
 - (a) Examine the connection between the inflation hose and the elbow fitting for damage.
 - (b) Make sure the elbow fitting points forward.
- E. Put the Airplane Back to Its Initial Condition

s 036-035-001

(1) Remove the safety pins from the door opening actuators. Put the safety pins in the pouch found in the latch opening actuator compartment.

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM





s 416-036-001

(2) Close the latch opening actuator access door 195QL or 196QR, (AMM 06-41-00/201).

s 416-037-001

(3) Close the lower access door 197CL or 198CR, (AMM 06-41-00/201).

s 216-038-001

(4) Make sure the EMER DOORS light on the overhead panel, P5, is on.

s 216-039-001

- (5) Make sure the applicable EICAS messages show on the top display:(a) L WING SLIDE
 - (b) R WING SLIDE
 - (c) EMER DOORS

s 416-040-001

- WARNING: YOU MUST OBEY THE PROCEDURE TO CLOSE THE SLIDE COMPARTMENT DOOR. IF YOU INCORRECTLY CLOSE THE SLIDE COMPARTMENT DOOR, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (6) Close the slide compartment door (AMM 25-65-08/201).

s 216-041-001

(7) Make sure the EMER DOORS light on the overhead panel, P5, is off.

s 216-042-001

(8) Make sure the off-wing escape system EICAS messages do not show.

s 446-043-001

- WARNING: YOU MUST OBEY THE PROCEDURE TO ARM THE OFF-WING ESCAPE SYSTEM. IF YOU INCORRECTLY ARM THE OFF-WING ESCAPE SYSTEM THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (9) When it is necessary, arm the off-wing escape system (AMM 25-65-00/201).

TASK 25-65-00-206-044-001

- 4. <u>Fast Check of the Off-Wing Escape System</u> (Fig. 603, Fig. 604, Fig. 605)
 - A. References
 - (1) AMM 25-65-00/201, Off-Wing Escape System

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- (2) AMM 25-65-02/401, Off-Wing Escape Slide Inflation Cylinder
- (3) AMM 25-65-08/201, Off-Wing Slide Compartment Door
- B. Access
 - (1) Location Zone

195/196 Wing-to-Body Fairings - Aft Upper Half

(2)	Access Panels	
	195EL/196ER	Off-Wing Slide Compartment Door
	195ML/196MR	Integrator Access Door
	197CL/198CR	Inflation Cylinder Access Door
	197PZX/198KZX	Pressure Gage Access Door

C. Procedure

S 046-045-001

- <u>WARNING</u>: YOU MUST OBEY THE PROCEDURE TO DISARM THE OFF-WING ESCAPE SYSTEM. IF YOU INCORRECTLY DISARM THE ESCAPE SYSTEM, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (1) Do this task: Disarm the Off-Wing Escape System (AMM 25-65-00/201).

s 016-046-001

- WARNING: YOU MUST OBEY THE PROCEDURE TO OPEN THE SLIDE COMPARTMENT DOOR. IF YOU INCORRECTLY OPEN THE SLIDE COMPARTMENT DOOR, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (2) Do this task: Open the Slide Compartment Door (AMM 25-65-08/201).

s 206-047-001

- (3) Do a check of the rigging of the latch train and integrator (Fig. 603):
 - (a) AIRPLANES WITH INTEGRATORS WITH UNLATCH AND LATCH LEVERS; Make sure the latches close correctly.
 - 1) Put the integrator wrench in the wrench socket of the unlatch lever.
 - 2) Turn the unlatch lever fully forward and against the lever stop.
 - 3) Put the integrator wrench in the wrench socket of the latch lever.
 - 4) Turn the latch lever forward until the aft latch starts to close.
 - 5) Make sure that all the other latches start to close.
 - 6) Continue to turn the latch lever until the cross pin is fully forward in the slot of the integrator.
 - 7) Make sure all the latches close at the same time and close completely.

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM





- 8) Release the latch lever.
- 9) Make sure that the latch lever goes back to the fully aft position.
- (b) AIRPLANES WITH INTEGRATORS WITH LOCK HANDELS;
- Make sure that the latches close correctly.
- (c) Make sure that the latches close correctly:
 - Pull the integrator lock handle outboard to the UNLOCK position.
 - Put the integrator wrench into the wrench socket of the cam.
 - 3) Turn the cam forward until the aft latch starts to close.
 - 4) Continue to turn the cam.
 - 5) Make sure that all the latches fully close at the same time.
 - 6) Make sure that the cross pin is fully forward in the slot of the integrator.
 - Push the integrator lock handle inboard to the LOCKED position (View A-A).
 - AIRPLANES WITH INTEGRATORS WITH WITNESS HOLES;
 Make sure that there is no red in the witness hole.
 - 9) Make sure that there is no red the in witness hole.
- (d) Use the control rod between the aft and aft middle door latches to push the latch train aft.
 - 1) Make sure that the integrator connector cannot move aft.
 - Make sure that the secondary lock lever can go in the slot of the latch shaft with the lock pin installed.
 - 3) Make sure that the locking pin is on the flat surface of the shaft detent.
- (e) AIRPLANES WITH INTEGRATORS WITH UNLATCH AND LATCH LEVERS; Make sure that the latches open correctly.
 - 1) Put the integrator wrench in the wrench socket of the unlatch lever.
 - 2) Turn the unlatch lever aft until the aft latch starts to open.
 - 3) Make sure that all the other latches start to open.
 - 4) Continue to turn the unlatch lever.
 - 5) Make sure that all the latches fully open at the same time.
 - 6) Make sure that the unlatch lever is fully aft against the lever stop.
- (f) AIRPLANES WITH INTEGRATORS WITH LOCK HANDLES; Make sure that the latches open correctly.
- (g) Make sure that the latches open correctly.
 - 1) Pull the integrator lock handle outboard to the UNLOCK position.
 - 2) Put the integrator wrench into the wrench socket of the cam.

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM





- 3) Turn the cam aft until the aft latch starts to open.
- 4) Make sure that all the other latches start to open.
- 5) Continue to turn the cam.
- 6) Make sure that all the latches fully open at the same time.
- 7) Make sure that the cross pin is fully aft in the slot of the integrator.
- Pull the integrator lock handle outboard to the SAFETY position.
- (h) Do a check of the latch keeper and jaws.
 - 1) Move the slide compartment door to the almost closed position.
 - Make sure that the latch keeper will not catch the open jaws of the door latches.
 - Move the slide compartment door slowly to the full open position.

s 206-048-001

- (4) Do a check of the rigging of the inflation system (Fig. 603, Fig. 604, Fig. 605).
 - (a) Do the task: Examine the inflation hose.
 - 1) Make sure that these conditions for the disconnect housing and stop block occur (Fig. 605):
 - <u>NOTE</u>: The latches and the slide door are open when you begin.
 - 2) Make sure that the inflation cylinder safety pin is installed in the inflation cylinder.
 - 3) Move the slide compartment door to the closed position.
 - a) Make sure that there is clearance between the packboard cover release mechanism and the stop block.
 - <u>CAUTION</u>: DO NOT LET THE SLIDE COMPARTMENT DOOR OPEN FULLY. FULLY OPENING THE SLIDE COMPARTMENT DOOR WILL ACTUATE THE INFLATION CABLE. DAMAGE TO EQUIPMENT WILL OCCUR.
 - 4) Open the slide compartment door only a sufficient amount for the latch keepers on the door to clear the latches.
 - 5) AIRPLANES WITH INTEGRATORS WITH UNLATCH AND LATCH LEVERS; Close the latches:
 - a) Put the integrator wrench in the wrench socket of the unlatch lever.
 - b) Turn the unlatch lever fully forward until it is against the lever stop.
 - c) Put the integrator wrench in the wrench socket of the latch lever.





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- d) Turn the latch lever fully forward until the cross pin is fully forward in the slot.
- e) Let the latch lever go back to its initial condition.
- f) Make sure the cross pin is fully forward in the slot of the integrator.
- 6) AIRPLANES WITH INTEGRATORS WITH LOCK HANDLES; Close the latches:
- 7) Close the latches:
 - a) Push the integrator lock handle inboard to the UNLOCK position.
 - b) Put the integrator wrench in the wrench socket of the cam.
 - c) Turn the cam forward.
 - d) Make sure the cross pin is fully forward in the slot of the integrator.
 - e) Push the integrator lock handle to the LOCKED position.
- <u>CAUTION</u>: DO NOT TURN THE PACKBOARD COVER RELEASE TRIGGER. IF YOU TURN THE PACKBOARD COVER RELEASE TRIGGER, THE SLIDE PACK COVER WILL RELEASE; AND YOU WILL HAVE TO REMOVE AND REPACK THE SLIDE. DAMAGE TO EQUIPMENT WILL OCCUR.
- Slowly move the slide compartment door a sufficient distance to see the stop block. Make sure that the stop block touches the packboard cover release trigger (Fig. 603, B-B).
 - a) Make sure that the forward end of the stop block is not more than .03 inch (0.76 mm) from the forward end of the packboard trigger.
- 9) Move the door toward the closed position.
- 10) AIRPLANES WITH INTEGRATORS WITH UNLATCH AND LATCH LEVERS; Open the latches.
 - a) Put the integrator wrench in the wrench socket of the unlatch lever.
 - b) Turn the unlatch lever aft, until the unlatch lever is against the lever stop.
- 11) AIRPLANES WITH INTEGRATORS WITH LOCK HANDLES;
- Open the latches.
- 12) Open the latches.
 - a) Pull the lock handle out to the UNLOCKED position.
 - b) Put the integrator wrench in the wrench socket of the cam.
 - c) Turn the cam aft.
 - d) Make sure the crosspin is fully aft in the slot.
 - e) Pull the lock handle out to the SAFETY position.

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM





- 13) Open the door.
- 14) Make sure the disconnect housing turns inboard and the arm moves down.
- 15) Make sure the length of inflation actuation rod is 6.25 ± 0.02 inch (15.88 ± 0.05 cm), measured from centerlines of the connecting pins (Fig. 605).
- 16) Make sure that the minimum clearance between bellcrank and connector (t-pin and sleeve) is 0.05 inch (1.27 mm).
- 17) Make sure that the crosspin is aligned correctly and fully seated in the sleeve (Fig. 605).
- 18) Go to the inflation cylinder access door to check the inflation cable.
- 19) Check that there is no slack in the inflation cable by pulling it towards the inflation cylinder.
- (b) Examine the inflation cylinder and pressure gauge.
 - Make sure that the pressure gauge needle on the inflation cylinder is in the green band (or one needle width above the green band) (Fig. 604).
 - <u>NOTE</u>: The inflation cylinder must be at a constant, stable temperature for 2 hours or more for the check to be correct. A fast change in the temperature causes the green band to move more quickly than the pressure gauge needle. The pressure gauge needle can show an incorrect low indication immediately after a large increase in temperature.
 - 2) AIRPLANES WITHOUT COVER ON THE PULL FORCE INCREASE MECHANISM; Make sure that the retainer spring for the pull force

increase mechanism is in the engaged position (Fig. 604). AIRPLANES WITHOUT COVER ON THE PULL FORCE INCREASE

MECHANISM; Make sure that the middle ball on the trigger cable is behind the regulator and the retainier spring (Fig. 604).

- 4) AIRPLANES WITH COVER ON THE PULL FORCE INCREASE MECHANISM; Make sure that the middle ball on the trigger cable is behind the retainer spring (Fig. 604).
- 5) Make sure that the middle ball on the trigger cable is behind the retainer spring (Fig. 601).

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM

3)



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- 6) If the ball in the middle of the inflation trigger cable is not installed behind the retainer spring, then you must replace the inflation cylinder (AMM 25-65-02/401).
- 7) Make sure that the inflation cable pin is in the middle of the slot.
- 8) Make sure that the centerline of the inflation cable pin measures 0.45 ± 0.03 inch (11.43 ± 0.76 mm) to the centerline of the bellcrank pivot point (Fig. 604).
- s 206-049-001
- (5) Do a check of the rigging of the actuator system (Fig. 603):
 - (a) Do a check of the rigging of the actuator cables.
 - 1) Make sure that there is no load on the aft actuator cable.
 - Apply 3 to 7 pounds of force to the middle of the aft actuator cable (aft door-opening cable).
 - 3) Make sure that there is 0.3 to 0.5 inches (7.62 to 12.7 mm) of lateral movement in the direction of the force.
 - 4) Make sure there is no load on the forward actuator cable.
 - 5) Apply 3 to 7 pounds of force to the middle of the forward actuator cable (forward door-opening cable).
 - Make sure that there is 0.25 to 0.40 inches (6.35 to 10.16 mm) of lateral movement in the direction of the force.
 - (b) Do a check of the rigging of the door opening actuators.
 - Make sure the pin that connects the forward bellcrank to the latch link, is fully forward against the end of the slot in the latch link.
 - Make sure there is no excessive movement in the linkage from forward bellcrank to the forward door opening actuator firing pin.
 - 3) Make sure the pin that connects the aft bellcrank to the latch link, is fully forward against the end of the slot in the latch link.
 - 4) Make sure there is no excessive movement in the linkage from the aft bellcrank to the aft door opening actuator firing pin.
 - s 206-050-001
- (6) Do a check of the rigging of the door sensors and slide door closed stops.
 - (a) Make sure that the EMER DOORS door warning indicator light on the overhead panel, P5 is on.
 - (b) Make sure the applicable EICAS messages show on the top display:
 - 1) L WING SLIDE
 - 2) R WING SLIDE
 - 3) EMER DOORS
 - (c) Move the slide door inboard until it is almost closed.
 - (d) Make sure that all the doorstops are an equal distance from the door.

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM

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- WARNING: YOU MUST OBEY THE PROCEDURE TO CLOSE THE SLIDE COMPARTMENT DOOR. IF YOU INCORRECTLY CLOSE THE SLIDE COMPARTMENT DOOR, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (e) Close the slide compartment door all the way.
- (f) Make sure the EMER DOORS door warning indicator light on the overhead panel, P5 is off.
- (g) Make sure the applicable EICAS messages do not show.
- (h) Do a check of the slide door flushness:
 - 1) For the forward edge of the door:
 - a) 70% of door must be flush to the skin by +0.150 to -0.06 inch (3.81 to 1.52 mm).
 - b) 30% of door must be flush within +0.200 to -0.06 inch (5.08 to 1.52 mm).
 - 2) For the aft edge of the door:
 - a) 70% of door must be flush within ± 0.080 inch (2.03 mm).
 - b) 30% of door must be flush within ± 0.100 inch (2.54 mm).
 - 3) The upper edge of the door must be flush within \pm 0.04 inch (1.016 mm).
 - 4) The lower edge of the door must be flush within \pm 0.03 inch (0.76 mm).

s 446-051-001

- WARNING: YOU MUST OBEY THE PROCEDURE TO ARM THE OFF-WING ESCAPE SYSTEM. IF YOU INCORRECTLY ARM THE OFF-WING ESCAPE SYSTEM THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (7) When necessary, Arm the Off-Wing Escape System (AMM 25-65-00/201).







Latch and Disconnect Housing Check Figure 601 (Sheet 1)





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Latch and Disconnect Housing Check Figure 601 (Sheet 2)

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Latch and Disconnect Housing Check Figure 601 (Sheet 3)

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Latch and Disconnect Housing Check Figure 601 (Sheet 4)



















Latch Train and Integrator - Fast Check Figure 603 (Sheet 2)

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM

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Latch Train and Integrator - Fast Check Figure 603 (Sheet 3)





02.1



AIRPLANES WITH BUILT-UP OFF-WING ESCAPE 02

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SYSTEM



Inflation System - Fast Check Figure 604 (Sheet 1)







Inflation System - Fast Check Figure 604 (Sheet 2)

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Inflation System - Fast Check Figure 604A (Sheet 2)

EFFECTIVITY AIRPLANES WITH PFIM SAFETY COVER (POST-SB 25-317);





Disarm System - Fast Check Figure 605 (Sheet 1)







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OFF-WING ESCAPE SYSTEM - INSPECTION/CHECK

- 1. <u>General</u>
 - A. This procedure contains this task:
 - (1) Examine the Inflation Tube
 - (2) Examine the Inflation Hose
 - TASK 25-65-00-216-001-002
- 2. Examine the Inflation Tube
 - A. References
 - (1) AMM 25-65-00/201, Off-Wing Escape System
 - B. Access
 - (1) Location Zone
 - 195 Wing to Body-Aft Upper Half (Left)
 - 196 Wing to Body-Aft Upper Half (Right)
 - (2) Access Panels
 - 197CL 198CR 195RL 196RR
 - C. Prepare for the Inflation Tube Inspection/Check

s 466-002-002

- <u>WARNING</u>: YOU MUST OBEY THE PROCEDURE TO DISARM THE OFF-WING ESCAPE SYSTEM. IF YOU INCORRECTLY DISARM THE ESCAPE SYSTEM, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (1) Disarm the off-wing escape system (AMM 25-65-00/201).

s 016-005-002

(2) Open the lower access door 197CL or 198CR.

S 016-006-002

- (3) Open the access panel 195RL or 196RR.
- D. Examine the Inflation Tube and Hose

s 216-007-002

- (1) Examine the inflation tube for damage:
 - (a) Examine tube for bulges, dents, crossed threads, security of end fittings and other signs of deterioration or damage.
 1) Perlage damaged tube
 - 1) Replace damaged tube.

EFFECTIVITY AIRPLANES WITH MODULAR OFF-WING ESCAPE SYSTEM





- s 216-008-002
- (2) Examine the inflation hose for damage:
 - (a) Examine hose for bulges, frayed braiding, crossed threads, security of end fittings and other signs of deterioration or damage.
 - (b) Examine hose for soft spots, collapsed areas and kinks.
 - <u>NOTE</u>: Generally these soft spots, collapsed areas and kinks are due to a tight bend radii in the hose installation.
 - 1) Replace the slide pack if you find damage to the hose.

s 216-009-002

- (3) Do the these steps to examine the inflation tube through the lower access door:
 - (a) Examine the connection between the inflation tube and the inflation cylinder for damage.
 - (b) Make sure the clamps which attach the inflation tube to the airplane structure are tight.
 - (c) Examine the grounding strap for damage.

s 216-010-002

- (4) Do these steps to examine the inflation hose through the access panel:
 - (a) Examine the connection between the inflation hose and the tube fitting for damage.
 - (b) Make sure the bracket supports the hose.
- E. Put the Airplane Back to Its Initial Condition

s 416-011-002

(1) Close the access panel 195RL or 196RR.

s 416-015-002

(2) Close the lower access door 197CL or 198CR.

EFFECTIVITY AIRPLANES WITH MODULAR OFF-WING ESCAPE SYSTEM



s 416-014-002

- WARNING: YOU MUST OBEY THE PROCEDURE TO ARM THE OFF-WING ESCAPE SYSTEM. IF YOU INCORRECTLY ARM THE OFF-WING ESCAPE SYSTEM THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (3) When it is necessary, arm the off-wing escape system (AMM 25-65-00/201).

EFFECTIVITY AIRPLANES WITH MODULAR OFF-WING ESCAPE SYSTEM





OVERWING ESCAPE SQUIB TEST SYSTEM - DISPATCH DEVIATIONS

1. General

A. This procedure has one task to test the overwing escape squib system.

TASK 25-65-00-049-001

- 2. <u>Maintenance</u>
 - A. Off-wing Electrical System Test

NOTE: This will make sure the system operates correctly.

S 869-031

(1) Put an 'INOP' placard on the applicable test button or the test light for the escape system on the squib test panel.

S 869-002

(2) Extend the flaps fully (AMM 27-51-00).

s 869-003

- <u>WARNING</u>: MAKE SURE YOU DEACTIVATE THE FLAPS AND REMOVE THE PRESSURE FROM THE MAIN HYDRAULIC SYSTEMS. ACCIDENTAL ACTIVATION OF THE FLAPS CAN CAUSE INJURIES TO PERSONS OR DAMAGE TO EQUIPMENT.
- (3) Remove the pressure from the main (left, right, center) hydraulic systems (AMM 29-11-00).

S 049-004

(4) Do the procedure to deactivate the flaps (AMM 27-51-00).

S 869-005

- (5) Open these circuit breakers on the overhead panel, P11, and attach DO-NOT-CLOSE tags:
 - (a) 11C6, FLT CONT ELEC 1L AC
 (b) 11C7, FLT CONT ELEC 1L DC
 (c) 11C8, FLT CONT ELEC 2L AC
 (d) 11C9, FLT CONT ELEC 2L DC
 (e) 11G17, FLT CONT ELEC 1R AC
 (f) 11G18, FLT CONT ELEC 1R DC
 (g) 11G26, FLT CONT ELEC 2R AC
 (h) 11G27, FLT CONT ELEC 2R DC

	-			
(i)	11G11,	AUTO	SPEED	BRAKE

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OFF-WING ESCAPE SYSTEM SWITCHES SEE (A)

INTERIOR VIEW OF THE OVERWING ESCAPE HATCH WITH THE EXIT SIGN PANEL OPEN





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S 019-006

- (6) Open the EXIT sign panel above the overwing escape hatch.
 - <u>NOTE</u>: On airplanes that have two escape hatches over each wing, you can open one of the two EXIT sign panels.

s 869-007

- WARNING: MAKE SURE YOU PUT THE DISABLE HANDLE TO THE "SAFE" POSITION. ACCIDENTAL DEPLOYMENT OF THE ESCAPE SLIDE CAN CAUSE INJURIES TO PERSONS OR DAMAGE TO EQUIPMENT.
- (7) Move the disable handle to the SAFE (down) position.

S 869-008

(8) Push down firmly on the disable handle.

s 219-009

(9) Visually examine the AUTO ARM and AUTO FIRE switches to make sure they are at the ARM (down) position.

s 039-010

(10) Disconnect the electrical connector from the squib on the spoiler override actuator.

s 019-011

(11) Open the access door for the latch opening actuator.

s 039-012

(12) Disconnect the electrical connector from the squib on the actuator that opens the latch.

s 229-013

- <u>WARNING</u>: MAKE SURE THE SHORT CIRCUIT CURRENT OF THE OHMMETER IS NOT MORE THAN 50 MILLIAMPERES WHEN SET AT THE X10 OHM RANGE. FOR THE TEST, THE OHMMETER MUST BE SET AT THE X1000 OHM OR HIGHER RANGE. THE SQUIB CAN FIRE AND CAUSE INJURIES TO PERSONS OR DAMAGE TO EQUIPMENT.
- (13) Use an ohmmeter with the short circuit current not more than 50 milliamperes when it is set at the X10 ohm range, and set the ohmmeter to the X1000 ohm range.

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s 499-014

- (14) Connect the ohmmeter across pins A and B on the latch opening actuator squib, and/or across pins 3 and 4 on spoiler override actuator squib.
 - (a) Make sure the ohmmeter shows less than 10 ohms.
 - (b) Disconnect the ohmmeter.

s 499-015

(15) Install shorting caps on the squibs.

s 499-016

(16) Connect the voltmeter to pin A on the electrical connector for the latch opening actuator squib, and/or to pin 3 on the electrical connector for the spoiler override actuator squib.

S 869-017

(17) Move the disable handle to the ARM (up) position.

s 869–018

- (18) Move the AUTO ARM and AUTO FIRE switches to the FIRE (up) position.
 - (a) After 3.0 seconds, make sure that the voltmeter, connected to the electrical connector for the latch opening actuator squib, shows 6 to 9 volts dc.
 - (b) Make sure the voltmeter, connected to the electrical connector for the spoiler override actuator squib, shows 6 to 9 volts.

s 869-019

- (19) Move the AUTO ARM and AUTO FIRE switches to the ARM (down) position.
 - (a) Make sure the voltmeter shows O volts.
 - (b) Disconnect the voltmeter.

s 869-020

(20) Move the disable handle to the SAFE (down) position.

S 099-021

(21) Remove the shorting cap from the spoiler override actuator squib.

s 439-022

(22) Connect the electrical connector to the squib.

s 099-023

(23) Remove the shorting cap from the latch opening actuator squib.

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s 439-024

(24) Connect the electrical connector to the squib.



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s 419-025

(25) Close the access door for the latch opening actuator.

S 869-026

(26) Move the disable handle to the ARMED (up) position.

S 019-027

(27) Close the EXIT sign above the overwing escape hatch.

s 869-028

- (28) Remove the DO-NOT-CLOSE tags and close these circuit breakers on the P11 panel:
 - (a) 11C6, FLT CONT ELEC 1L AC
 - (b) 11C7, FLT CONT ELEC 1L DC
 - (c) 11C8, FLT CONT ELEC 2L AC
 - (d) 11C9, FLT CONT ELEC 2L DC
 - (e) 11G17, FLT CONT ELEC 1R AC
 - (f) 11G18, FLT CONT ELEC 1R DC
 - (g) 11G26, FLT CONT ELEC 2R AC
 - (h) 11G27, FLT CONT ELEC 2R DC
 - (i) 11G11, AUTO SPEED BRAKE

S 869-029

(29) Put the hydraulic systems back to the usual condition (AMM 29-11-00).

s 449-030

(30) Activate the flaps again and move the flaps to the fully retracted position (AMM 27-51-00).



MAINTENANCE MANUAL

OFF-WING ESCAPE SLIDE PACK - REMOVAL/INSTALLATION

- 1. <u>General</u>
 - A. This procedure contains these tasks:
 - (1) Remove the off-wing escape slide pack.
 - (2) Install the off-wing escape slide pack.
 - B. This procedure is to remove and install the off-wing escape slide pack when it is not inflated.
 - C. This procedure is for the left and right off-wing escape slide pack.

TASK 25-65-01-024-001

- 2. <u>Remove the Slide Pack</u>
 - A. Equipment
 - (1) Safety Equipment, Off-Wing Escape System A25016-1
 - (2) Protective Pad Ensolite (or equivalent) 1 inch X 48 inches X 48 inches (25.4mm x 1.22 meters x 1.22 meters) - commercially available
 - B. References
 - (1) AMM 25-65-00/201, Off-Wing Escape System
 - (2) AMM 25-65-02/401, Off-Wing Escape Slide Inflation Cylinder
 - (3) AMM 25-65-04/401, Off-Wing Escape System Cables
 - (4) AMM 25-65-08/201, Off-Wing Slide Compartment Door
 - C. Access
 - (1) Location Zones
 - 195 Wing to Body Aft Upper Half (Left)
 - 196 Wing to Body Aft Upper Half (Right)
 - (2) Access Panels

195EL	Off-Wing Evacuation Ramp/Slide Pack (Left)
195ML	Off-Wing Escape Slide Mechanism (Left)
195QL	Off-Wing Escape Slide Door Mechanism Actuator (Left)
196ER	Off-Wing Evacuation Ramp/Slide Pack (Right)
196MR	Off-Wing Escape Slide Control (Right)
196QR	Off-Wing Escape Slide Mechanism Actuator (Right)

D. Prepare to Remove the Slide Pack

S 044-002

- <u>WARNING</u>: YOU MUST OBEY THE PROCEDURE TO DISARM THE OFF-WING ESCAPE SYSTEM. IF YOU DISARM THE OFF-WING ESCAPE SYSTEM INCORRECTLY, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (1) Disarm the off-wing escape system (AMM 25-65-00/201).

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s 964-035

(2) If the off wing escape system operated with the regulator safety pin installed, you must replace the inflation cable (AMM 25-65-04/401) and the inflation cylinder (AMM 25-65-02/401).

\$ 944-003

(3) Put a protective pad over the work area of the wing surface.

S 014-004

- WARNING: YOU MUST OBEY THE PROCEDURE TO OPEN THE SLIDE COMPARTMENT DOOR. IF YOU OPEN THE SLIDE COMPARTMENT DOOR INCORRECTLY, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (4) Open the slide compartment door (AMM 25-65-08/201).

s 434-005

- (5) Install the safety pins on the door opening actuators (Fig. 401).
 - NOTE: The door opening actuator safety pins are in a pouch found in the latch opening actuator compartment. The safety pins are a part of the off-wing escape system equipment.
- E. Remove the Slide Pack (Fig. 402)
 - S 034-006
 - (1) Disconnect the inflation hose from the slide pack.

S 014-007

- (2) Lift and hold the slide compartment door to almost a closed position. Remove the bolts (1A, 1B, 1C, 1D, 1E) which attach the slide pack (2) to the slide compartment door (3) (View A, Fig. 402).
 - NOTE: Make a written record of the location of the bolts for installation.

\$ 034-008

(3) Open the slide compartment door.

S 034-009

(4) Disconnect the packboard ground strap from the packboard ground strap structure attach point (View A, Fig. 402).

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s 024-010

(5) Remove the slide pack (2).

<u>NOTE</u>: The slide pack weighs approximately 155 pounds and it is recommended that two persons remove the slide pack.

TASK 25-65-01-424-011

- 3. <u>Install the Slide Pack</u>
 - A. Access

 - (2) Access Panels

195EL	Off-Wing Evacuation Ramp/Slide Pack (Left)
195ML	Off-Wing Escape Slide Mechanism (Left)
195QL	Off-Wing Escape Slide Door Mechanism Actuator (Left)
196ER	Off-Wing Evacuation Ramp/Slide Pack (Right)
196MR	Off-Wing Escape Slide Control (Right)
196QR	Off-Wing Escape Slide Mechanism Actuator (Right)

B. Equipment

- (2) Wrench, Integrator A25011-2 (Recommended)
 1/4 inch square drive socket wrench (Optional)
- (3) Protective Pad Ensolite (or equivalent) 1 inch X 48 inches X 48

inches (25.4mm x 1.22 meters x 1.22 meters) - commercially available Parts

C. Parts

Refer to the table that follows:

I	ММ		IPC		
FIG	ITEM	NOMENCLATURE	SUBJECT	FIG	ITEM
402	2 2	Slide Pack (Evacuation Assy), Left Slide Pack (Evacuation Assy), Right	25-65-65	01	35,36, 37 40,41, 42

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D. References

- (1) AMM 25-65-00/201, Off-Wing Escape System
- (2) AMM 25-65-00/501, Off-Wing Escape System
- (3) AMM 25-65-08/201, Off-Wing Slide Compartment Door
- E. Prepare to Install the Slide Pack

<u>NOTE</u>: Additional information useful in this procedure may be found in this reference: (AMM 25-65-00/501).

s 944-058

(1) Put a protective pad over the work area of the wing surface.

F. Procedure

s 424-012

 Install the slide pack (2) on the inner surface of the slide compartment door (3) (View B-B, Fig. 402).

s 424-013

(2) Make sure the two alignment pins (4) installed on the slide compartment door (3) are engaged with the holes on the slide pack (2) (View A-A, Fig. 402).

s 424-027

(3) Install the bolts (1C and 1B) on the external side of the slide compartment door (3) to attach the slide pack (2) to the slide compartment door (3) (View B-B, Fig. 402).

S 414-014

(4) Lift and hold the slide compartment door to a half closed position.

s 414-015

(5) Install the bolts (1A, 1D, and 1E) on the external side of the slide compartment door (3) to attach the slide pack (2) to the slide compartment door (3). Use the sequence that follows for the bolt installation:

I F SEQUENCE F	F BOLT	I F DOOR POSITION [™]		
1st	1C	OPEN		
2nd	1B	OPEN		
3rd	1A	HALF CLOSED		
4th	1D	HALF CLOSED		
5th	1E	HALF CLOSED		

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s 414-016

(6) Connect the inflation hose to the slide pack (2). Make sure the elbow fitting at the aft end of the slide compartment points forward.

S 414-017

- (7) Connect the packboard ground strap to the attach point on the structure (View A, Fig. 402).
- G. Final Adjustment of the Packboard Trigger and Stop Block
 - <u>NOTE</u>: This adjustment is to make sure that there is engagement between the stop block mounted on the structure and the trigger mounted on the pack board. This adjustment is for slide deployment and clearance for maintenance.

s 824-042

(1) Make sure that the slide compartment door is open and that the latches are in the open position.

S 824-059

(2) Make sure that the inflation cylinder safety pin is installed in the inflation cylinder.

S 824-041

(3) Move the slide compartment door to the closed position.(a) Make sure that there is clearance between the packboard cover release mechanism and the stop block.

s 824-043

- <u>CAUTION</u>: DO NOT LET THE SLIDE COMPARTMENT DOOR OPEN FULLY. FULLY OPENING THE SLIDE COMPARTMENT DOOR WILL ACTUATE THE INFLATION CABLE. DAMAGE TO EQUIPMENT WILL OCCUR.
- (4) Open the slide compartment door only a sufficient amount (approximately 2.0 inches) for the latch keepers on the door to clear the latches.

S 824-045

(5) Close the latches:(a) Push the integrator lock handle inboard to the UNLOCK position.

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- (b) Put the integrator wrench in the wrench socket of the cam.
- (c) Turn the cam forward.
- (d) Make sure the cross pin is fully forward in the slot of the integrator.
- (e) Push the integrator lock handle to the LOCKED position.

s 824-056

- <u>CAUTION</u>: DO NOT TURN THE PACKBOARD COVER RELEASE TRIGGER. IF YOU TURN THE PACKBOARD COVER RELEASE TRIGGER, THE SLIDE PACK COVER WILL RELEASE; AND YOU WILL HAVE TO REMOVE AND REPACK THE SLIDE. DAMAGE TO EQUIPMENT WILL OCCUR.
- (6) Slowly move the slide compartment door a sufficient distance (approximately 2.0 inches) to see the stop block. Make sure that the stop block touches the packboard cover release trigger (View A-A, View B-B, Fig. 403).
 - (a) Make sure that the forward end of the stop block is not more than .03 inch (0.76 mm) from the forward end of the packboard trigger.
 - (b) Make sure that the dimension from the stop block to the centerline of the packboard cover release trigger is .05 +/-.05 inch (1.27 mm) (View A-A, Fig. 403).

S 824-049

- (7) Move the door toward the closed position.
 - s 824-057
- (8) Open the latches.
 - (a) Pull the lock handle out to the UNLOCKED position.
 - (b) Put the integrator wrench in the wrench socket of the cam.
 - (c) Turn the cam aft.
 - (d) Make sure the cross pin is fully aft in the slot.
 - (e) Pull the lock handle out to the SAFETY position.

s 824-052

- (9) Open the door.
 - s 824-024
- (10) Adjust the stop block (Fig. 403):

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S 824-023

(11) To adjust the stop block vertically, re-position the washers on the stop block bolt. The dimension from the stop block to the centerline of the packboard cover release trigger is .05 +/- .05 inch (1.27 mm) (View A-A, Fig. 403).

s 824-053

- (12) To adjust the stop block horizontally, change the length of the cover release cable in the cover release pin (View B-B, Fig. 403).
 - (a) Make sure that the forward end of the stop block is not more than .03 inch (0.76 mm) from the forward end of the packboard trigger.
 - (b) Tighten the nut and secure with lockwire to secure the cover release cable in the cover release pin.

S 824-054

- (13) If adjustments were made, move the slide compartment door to the closed position.
 - (a) Make sure that there is clearance between the packboard cover release mechanism and the stop block.
- H. Put the Airplane Back to Its Initial Condition

S 034-018

 Remove the safety pins from the door opening actuators (Fig. 401). Put the safety pins in the pouch found in the latch opening actuator compartment.

s 214-032

(2) Make sure the EMER DOORS light on the overhead panel, P5, is on.

s 214-033

- (3) Make sure the applicable EICAS messages show on the top display:(a) L WING SLIDE
 - (b) R WING SLIDE
 - (c) EMER DOORS

s 414-019

- <u>WARNING</u>: YOU MUST OBEY THE PROCEDURE TO CLOSE THE SLIDE COMPARTMENT DOOR. IF YOU CLOSE THE SLIDE COMPARTMENT DOOR INCORRECTLY, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (4) Close the slide compartment door (AMM 25-65-08/201).

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s 214-020

(5) Make sure the EMER DOORS light on overhead panel, P5, is off.

s 214-021

(6) Make sure the off-wing escape system EICAS messages do not show.

S 944-022

(7) Remove the protective covering from the wing surface work area.

s 444-025

- WARNING: YOU MUST OBEY THE PROCEDURE TO ARM THE OFF-WING ESCAPE SYSTEM. IF YOU ARM THE OFF-WING ESCAPE SYSTEM INCORRECTLY, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (8) When it is necessary, Arm the off-wing escape system (AMM 25-65-00/201).

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OFF-WING ESCAPE SLIDE INFLATION CYLINDER - MAINTENANCE PRACTICES

1. <u>General</u>

A. This task contains a check of the inflation cylinder condition.

TASK 25-65-02-212-001

- 2. Inflation Cylinder Condition Check
 - A. Access
 - B. Procedure

s 012-002

(1) Remove the access panels.

s 212-003

- <u>WARNING</u>: THE OFF-WING ESCAPE SYSTEM IS ARMED. BE CAREFUL WHEN YOU DO A CHECK OF THE INFLATION CYLINDER. IF YOU TOUCH ANY COMPONENT OF THE OFF-WING ESCAPE SYSTEM, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (2) Do a general visual check of the inflation cylinder for condition and security.

s 212-004

(3) Do a general visual check of the escape system components for condition and security.

S 962-005

(4) Replace any damaged components.

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\$ 412-006(5) Install the access panels.

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OFF-WING ESCAPE SLIDE INFLATION CYLINDER - REMOVAL/INSTALLATION

1. <u>General</u>

- A. This procedure contains these tasks:
 - (1) Remove the off-wing escape slide inflation cylinder.
 - (2) Install the off-wing escape slide inflation cylinder.
- B. The inflation cylinder is in a compartment which is aft of the aft wheel well bulkhead. An access door on the aft wheel well bulkhead gives access to the pressure gage and to the installation point for the ball lock safety pin. The lower access door on the lower fuselage which is aft of the wheel well gives access to remove and install the inflation cylinder. The safety pin for the inflation cylinder is kept in a pouch which is in the lower access door.
- C. This procedure is for the left and right off-wing escape slide inflation cylinders.

TASK 25-65-02-004-001-001

- 2. <u>Remove the Off-Wing Slide Inflation Cylinder (Fig. 401)</u>
 - A. References
 - (1) AMM 06-41-00/201, Fuselage (Major Zones 100 and 200) Access Doors and Panels
 - (2) AMM 25-65-00/201, Off-Wing Escape System
 - B. Access
 - (1) Location Zone

197 Wing to Body - Aft Lower Half (Left)
198 Wing to Body - Aft Lower Half (Right)

(2) Access Panels

197CL Lower Access Door (Left) 198CR Lower Access Door (Right)

C. Procedure

s 044-002-001

- WARNING: YOU MUST OBEY THE PROCEDURE TO DISARM THE OFF-WING ESCAPE SYSTEM. IF YOU INCORRECTLY DISARM THE OFF-WING ESCAPE SYSTEM, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (1) Disarm the off-wing escape system (AMM 25-65-00/201).

s 014-003-001

(2) Open the access door 197CL or 198CR to get access to the inflation cylinders (AMM 06-41-00/201).

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM





s 034-004-001

(3) Remove the pin (2) that connects the bellcrank (5) to the inflation trigger (6).

s 034-005-001

(4) Disconnect the inflation hose (4) from the inflation cylinder (1).

S 094-006-001

(5) Install the metal vent cap on the inflation cylinder (1).

<u>NOTE</u>: The metal vent cap is kept in a pouch which is in the lower access door.

s 094-007-001

(6) Install the plastic dust cap on the inflation hose (4).

<u>NOTE</u>: The plastic dust cap is kept in a pouch which is in the lower access door.

s 024-008-001

(7) Hold the inflation cylinder and disengage the clamps (7).

s 024-009-001

(8) Remove the inflation cylinder.

TASK 25-65-02-404-010-001

- 3. Install the Off-Wing Slide Inflation Cylinder (Fig. 401)
 - A. Parts
 - (1) Refer to the IPC for the part numbers and effectivities of the items in the subsequent table:

ММ			IPC		
FIG	ITEM	NOMENCLATURE	SUBJECT	FIG	ITEM
401	1	Inflation Cylinder	25-65-02	01	340,341

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM



B. References

AMM 06-41-00/201, Fuselage (Major Zones 100 and 200) Access Doors and Panels
AMM 25-65-00/201, Off-Wing Escape System
AMM 25-65-02/601, Off-Wing Escape Slide Inflation Cylinder

C. Access

Location Zone
197 Wing to Body - Aft Lower Half (Left)
198 Wing to Body - Aft Lower Half (Right)

(2) Access Panels

197CL Lower Access Door (Left) 198CR Lower Access Door (Right)

D. Procedure

s 044-011-001

- WARNING: YOU MUST OBEY THE PROCEDURE TO DISARM THE OFF-WING ESCAPE SYSTEM. IF YOU INCORRECTLY DISARM THE OFF-WING ESCAPE SYSTEM, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (1) Make sure the off-wing escape system is disarmed (AMM 25-65-00/201).

s 214-012-001

(2) Do the task to do a check of the inflation cylinder pressure.

s 424-013-001

(3) Install the inflation cylinder (1) through the lower access door.

s 434-014-001

- (4) Put the pressure gage (8) in the center of the opening in the bracket.
 - <u>NOTE</u>: Use the shims (12) if necessary to put the pressure gage in the correct position.

s 824-015-001

(5) Move the inflation cylinder (1) in a longitudinal direction to align the bellcrank (5) between the inflation trigger (6).

s 424-016-001

(6) Tightly hold the inflation cylinder (1) and engage the clamps (7) around the inflation cylinder.

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM



s 424-017-001

- (7) Tighten the clamp bolts to 50 inch-pounds (5.6 Nm).
 - <u>NOTE</u>: If the inflation cylinder is not held tightly in position when you tighten the clamp bolts, the inflation cylinder will turn and cause an incorrect installation of the inflation cylinder.

s 214-018-001

- (8) Do a check on the inflation cylinder regulator.
 - (a) AIRPLANES WITHOUT COVER ON THE PULL FORCE INCREASE MECHANISM;Make sure the retainer spring (9) on the pull force increase
 - mechanism is in the ENGAGED position.
 (b) AIRPLANES WITHOUT COVER ON THE PULL FORCE INCREASE MECHANISM;
 Make sure the ball in the middle of the inflation trigger cable is installed behind the retainer spring in the pull force increase mechanism.
 - (c) AIRPLANES WITH COVER ON THE PULL FORCE INCREASE MECHANISM;
 Make sure the ball in the middle of the inflation trigger cable is installed behind the retainer spring in the pull force increase mechanism.
 - (d) If the ball in the middle of the inflation trigger cable is not installed behind the retainer spring, then you must replace the inflation cylinder.
 - (e) Make sure you can see the white indicator in the arming indicator window.

s 824-019-001

(9) Adjust the inflation trigger (6) and the fitting on the inflation cable (10) to mate the bellcrank (5) with the fully extended inflation cable (10).

s 824-020-001

(10) With the inflation cable pin (11) in the center of the slot, keep the dimension between the center of the inflation cable pin (11) and the center of the bellcrank pivot point.

s 434-021-001

(11) Use the cotter pin to install the pin (2) and the washers (3) to connect the bellcrank (5) to the inflation trigger (10).

s 094-022-001

(12) Remove the metal vent cap from the inflation cylinder (1) and the plastic dust cap on the inflation hose (4). Put the metal vent cap and the plastic dust cap in a pouch which is in the lower access door.

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM

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s 434-023-001

- (13) Connect the inflation hose (4) to the inflation cylinder (1).
 - <u>NOTE</u>: Install inflation hose in the compartment so that the hose is straight between the mounting brackets along the hinges of the access door.

s 214-024-001

(14) Do the procedure to check the pressure of the inflation cylinder (AMM 25-65-02/601).

s 444-025-001

- WARNING: YOU MUST OBEY THE PROCEDURE TO ARM THE OFF-WING ESCAPE SYSTEM. IF YOU INCORRECTLY ARM THE OFF-WING ESCAPE SYSTEM, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (15) When it is necessary, arm the off-wing escape system (AMM 25-65-00/201).









Figure 401 (Sheet 2)









EFFECTIVITY AIRPLANES WITH PFIM SAFETY COVER (POST-SB 25-317);



OFF-WING ESCAPE SLIDE INFLATION CYLINDER - REMOVAL/INSTALLATION

1. <u>General</u>

- A. This procedure contains these tasks:
 - (1) Remove the off-wing escape slide inflation cylinder.
 - (2) Install the off-wing escape slide inflation cylinder.
- B. The inflation cylinder is in a compartment which is aft of the aft wheel well bulkhead. An access door on the aft wheel well bulkhead gives access to the pressure gage and to the installation point for the ball lock safety pin and regulator shorting cap. The lower access door on the lower aft of the wheel well gives access fuselage which installs the inflation cylinder. The safety pin and shorting cap for the inflation cylinder are kept in pouchs in the lower access door.
- C. This procedure is for the left and right off-wing escape slide inflation cylinders.

TASK 25-65-02-004-001-002

- 2. <u>Remove the Off-Wing Slide Inflation Cylinder (Fig. 401)</u>
 - A. References
 - (1) AMM 06-41-00/201, Fuselage (Major Zones 100 and 200) Access Doors and Panels
 - (2) AMM 25-65-00/201, Off-Wing Escape System
 - B. Access
 - (1) Location Zone

197 Wing to Body - Aft Lower Half (Left)
198 Wing to Body - Aft Lower Half (Right)

(2) Access Panels

197CL Lower Access Door (Left) 198CR Lower Access Door (Right)

C. Procedure

S 044-002-002

- WARNING: YOU MUST OBEY THE PROCEDURE TO DISARM THE OFF-WING ESCAPE SYSTEM. IF YOU INCORRECTLY DISARM THE OFF-WING ESCAPE SYSTEM, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (1) Disarm the off-wing escape system (AMM 25-65-00/201).

s 014-003-002

(2) Open the access door 197CL or 198CR to get access to the inflation cylinders (AMM 06-41-00/201).

EFFECTIVITY AIRPLANES WITH MODULAR OFF-WING ESCAPE SYSTEM





s 034-005-002

(3) Loosen the B-nut and disconnect the high pressure tube (6) from the regulator fitting.

S 094-007-002

- (4) Install the plastic dust cap on the high pressure tube (6).
 - <u>NOTE</u>: The plastic dust cap is kept in a pouch which is in the lower access door.

s 024-008-002

(5) Put a lift tool below the inflation cylinder (1).

s 024-009-002

(6) Remove the strap liners (7).

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S 024-026-002
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(7) Remove the inflation cylinder (1).

TASK 25-65-02-404-010-002

- 3. Install the Off-Wing Slide Inflation Cylinder (Fig. 401)
 - A. Parts
 - (1) Refer to the IPC for the part numbers and effectivities of the items in the subsequent table:

MM		IPC			
FIG	ITEM	NOMENCLATURE	SUBJECT	FIG	ITEM
401	1	Cylinder Assy-Charged	25-65-02	02	60

B. Consumable Materials

- (1) D50099 Grease, Grease Fuel and Oxidizer Resistant, MIL-PRF-27617 Type III
- (2) D50004 (ALTERNATIVE) Compound, Compound AntiSeize, BMS3-28
- C. References
 - (1) AMM 06-41-00/201, Fuselage (Major Zones 100 and 200) Access Doors and Panels
 - (2) AMM 25-65-00/201, Off-Wing Escape System
 - (3) AMM 25-65-02/601, Off-Wing Escape Slide Inflation Cylinder
- D. Access
 - (1) Location Zone
 - 197 Wing to Body Aft Lower Half (Left)
 - 198 Wing to Body Aft Lower Half (Right)

EFFECTIVITY AIRPLANES WITH MODULAR OFF-WING ESCAPE SYSTEM



- E. Procedure

s 044-011-002

- WARNING: YOU MUST OBEY THE PROCEDURE TO DISARM THE OFF-WING ESCAPE SYSTEM. IF YOU INCORRECTLY DISARM THE OFF-WING ESCAPE SYSTEM, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (1) Make sure the off-wing escape system is disarmed (AMM 25-65-00/201).

s 214-012-002

(2) Do the task to do a check of the inflation cylinder pressure.

s 014-027-002

(3) Open the access door 197CL or 198CR to get access to the inflation cylinders (AMM 06-41-00/201).

s 424-013-002

- (4) Install the inflation cylinder assembly.
 - (a) Use a lift tool to put the inflation cylinder (1) against the strap liners (7).
 - <u>NOTE</u>: Position the inflation cylinder (1) so that the regulator (4) is face down.
 - (b) Install the strap liners (7).
 - <u>NOTE</u>: Leave the strap liners (7) loose until the high pressure tube (6) is attached.

S 024-028-002

(5) Remove dust caps from the high pressure tube fitting and the regulator fitting.

s 424-017-002

- (6) Attach the high pressure tube (6) to the cylinder assembly (1).
 - (a) Lubricate B-nut with Grease, MIL-PRF-27617 Type III.
 - (b) Manually thread and seat the B-nut and high pressure tube (6) on the regulator fitting.
 - (c) Torque the B-nut to 20-25 ft-lbs.

s 434-019-002

(7) Tighten the strap liner nuts to a torque of 50-55 in-lbs.

EFFECTIVITY AIRPLANES WITH MODULAR OFF-WING ESCAPE SYSTEM





s 214-022-002

(8) Do the procedure to check the pressure of the inflation cylinder (AMM 25-65-02/601).

s 444-023-002

- WARNING: YOU MUST OBEY THE PROCEDURE TO ARM THE OFF-WING ESCAPE SYSTEM. IF YOU INCORRECTLY ARM THE OFF-WING ESCAPE SYSTEM, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (9) When it is necessary, arm the off-wing escape system (AMM 25-65-00/201).

EFFECTIVITY AIRPLANES WITH MODULAR OFF-WING ESCAPE SYSTEM







OFF-WING ESCAPE SLIDE INFLATION CYLINDER - INSPECTION/CHECK

- 1. General
 - A. This procedure is a check of the inflation cylinder pressure.
 - B. The inflation cylinder is in a compartment which is aft of the aft wheel well bulkhead. An access door on the aft wheel well bulkhead gives access to the pressure gage.
 - C. This procedure is for the left and right off-wing escape slide inflation cylinders.
 - TASK 25-65-02-786-001-001
- 2. Inflation Cylinder Pressure Check
 - A. Access
 - (1) Location Zones

197 Wing to Body - Aft Lower Half (Left)
198 Wing to Body - Aft Lower Half (Right)

- (2) Access Panels
 - 197PZX Escape Slide Pressure Cylinder Gage (Left) 198KZX Escape Slide Pressure Cylinder Gage (Right)
- B. Procedure

s 016-002-001

(1) Remove the access panels.

s 786-003-001

- <u>WARNING</u>: THE OFF-WING ESCAPE SYSTEM IS ARMED. BE CAREFUL WHEN YOU DO A CHECK OF THE INFLATION CYLINDER PRESSURE. IF YOU TOUCH ANY COMPONENT OF THE OFF-WING ESCAPE SYSTEM, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (2) Do a check on the inflation cylinder pressure (Fig. 601).
 - <u>NOTE</u>: Be careful when you do the check of the inflation cylinder pressure because the off-wing escape system is armed.

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM





- (a) Make sure the pressure gage needle on the inflation cylinder is in the green band (or one needle width above the green band).
 - <u>NOTE</u>: The inflation cylinder must be at a constant, stable temperature for two hours or more for the check to be correct. A fast change in the temperature causes the green band to move more quickly than the pressure gage needle. The pressure gage needle can show an incorrect low indication immediately after a large increase in temperature.

s 416-004-001

(3) Install the access panels.

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM













Figure 601A

EFFECTIVITY-AIRPLANES WITH PFIM SAFETY COVER (POST-SB 25-317);



OFF-WING ESCAPE SLIDE INFLATION CYLINDER - INSPECTION/CHECK

- 1. General
 - A. This procedure is a check of the inflation cylinder pressure.
 - B. The inflation cylinder is in a compartment which is aft of the aft wheel well bulkhead. An access door on the aft wheel well bulkhead gives access to the pressure gage.
 - C. This procedure is for the left and right off-wing escape slide inflation cylinders.
 - TASK 25-65-02-786-001-002
- 2. Inflation Cylinder Pressure Check
 - A. Access
 - (1) Location Zones

197 Wing to Body - Aft Lower Half (Left)

- 198 Wing to Body Aft Lower Half (Right)
- B. Procedure

S 016-002-002

(1) Remove the access panels.

s 786-003-002

- <u>WARNING</u>: THE OFF-WING ESCAPE SYSTEM IS ARMED. BE CAREFUL WHEN YOU DO A CHECK OF THE INFLATION CYLINDER PRESSURE. IF YOU TOUCH ANY COMPONENT OF THE OFF-WING ESCAPE SYSTEM, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (2) Do a check on the inflation cylinder pressure (Fig. 601).
 - <u>NOTE</u>: Be careful when you do the check of the inflation cylinder pressure because the off-wing escape system is armed.

EFFECTIVITY AIRPLANES WITH MODULAR OFF-WING ESCAPE SYSTEM




- (a) Make sure the pressure gage needle on the inflation cylinder is in the green band (or one needle width above the green band).
 - <u>NOTE</u>: The inflation cylinder must be at a constant, stable temperature for two hours or more for the check to be correct. A fast change in the temperature causes the green band to move more quickly than the pressure gage needle. The pressure gage needle can show an incorrect low indication immediately after a large increase in temperature.

s 416-004-002

(3) Install the access panels.

EFFECTIVITY AIRPLANES WITH MODULAR OFF-WING ESCAPE SYSTEM



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OFF-WING ESCAPE SYSTEM CABLES - REMOVAL/INSTALLATION

- 1. <u>General</u>
 - A. This procedure contains these tasks:
 - (1) Prepare to remove the off-wing escape system cables.
 - (2) Remove the cover release cable.
 - (3) Remove the disarm cable.
 - (4) Remove the inflation cable.
 - (5) Remove the Disconnect Housing.
 - (6) Install the cover release cable.
 - (7) Install the disarm cable.
 - (8) Install the disconnect housing.
 - (9) Install the inflation cable.
 - (10) Examine the freedom of movement and adjustment of the inflation cable.
 - (11) Install and Do the Initial Adjustment of the Stop Block for the Cover Release Cable.
 - (12) Put the Airplane Back to Its Initial Condition.

TASK 25-65-04-844-001

- 2. <u>Prepare to Remove the System Cables</u>
 - A. References
 - (1) AMM 06-41-00/201, Fuselage (Major Zones 100 and 200) Access Doors and Panels
 - (2) AMM 25-65-00/201, Off-Wing Escape System
 - (3) AMM 25-65-08/201, Off-Wing Slide Compartment Door
 - B. Access
 - (1) Location Zone

190 Fairings

(2)	Access Panels	
	195EL/196ER	Off-Wing Slide Compartment Door
	197CL/198CR	Lower Access Door

C. Procedure

S 044-002

- WARNING: YOU MUST OBEY THE PROCEDURE TO DISARM THE OFF-WING ESCAPE SYSTEM. IF YOU INCORRECTLY DISARM THE OFF-WING ESCAPE SYSTEM, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (1) Disarm the off-wing escape system (AMM 25-65-00/201).

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM



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S 024-147

- <u>CAUTION</u>: YOU MUST REPLACE THE INFLATION CABLE AND THE REGULATOR LANYARD IF THE OFF-WING ESCAPE SYSTEM OPERATED WITH THE REGULATOR SAFETY PIN INSTALLED. POSSIBLE SEPARATION OF THE COMPONENTS ATTACHED TO THE CABLE CAN OCCUR. IF SEPARATION DOES OCCUR, THE OFF-WING ESCAPE SYSTEM WILL NOT OPERATE CORRECTLY.
- (2) Remove the pin (45) to disconnect the inflation trigger (44) from the bellcrank (35).

S 494-003

(3) Put a protective cover on the work area of wing surface.

S 014-004

- WARNING: YOU MUST OBEY THE PROCEDURE TO OPEN THE SLIDE COMPARTMENT DOOR. IF YOU INCORRECTLY OPEN THE SLIDE COMPARTMENT DOOR, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (4) Open the slide compartment door (AMM 25-65-08/201).

S 494-005

- (5) Install the safety pins on the door-opening actuators (Fig. 401).
 - <u>NOTE</u>: The safety pins are kept in a pouch which is in the latch-opening actuator compartment.

S 864-141

- (6) Make sure the bellcrank (1) on the integrator is down.
 - (a) Put the integrator in the armed position.
 - 1) Put the integrator lock handle in the unlock position.
 - 2) Put the integrator wrench in the wrench socket of the cam.
 - 3) Turn the cam to the full forward position.
 - 4) Push the integrator lock handle inboard to the locked position.

TASK 25-65-04-004-006

- 3. <u>Remove the Cover Release Cable</u>
 - A. References
 - (1) AMM 06-41-00/201, Fuselage (Major Zones 100 and 200) Access Doors and Panels
 - B. Access
 - (1) Location Zone 190 Fairings
 - (2) Access Panels 195LL/196LR Access Panel

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM

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C. Procedure

s 014-008

(1) Remove the access panel 195LL or 196LR which is below the integrator access door to get access to the cover release cable (Fig. 402).

s 034-120

- (2) Do these steps to disconnect the cover release cable (Fig. 403):(a) Disconnect the cable:
 - Remove the clevis pin (51), washer (52), and cotter pin (53) to disconnect the clevis (50) from the bellcrank (1).
 - 2) Remove the clevis (50) from the cover release cable (18).
 - (b) Remove the nut (27).
 - (c) Pull the end of the cover release cable (18) down through the bracket (5).
 - (d) Remove the cover release pin (23) from the cover release cable (18).
 - (e) Remove the nut (26) on the aft bulkhead (6) of the slide compartment.
 - (f) Remove the cover release cable (18).
- TASK 25-65-04-004-017
- 4. <u>Remove the Disarm Cable</u>
- A. References

(1) AMM 06-41-00/201, Fuselage (Major Zones 100 and 200) Access Doors and Panels

- B. Access
 - (1) Location Zone 190 Fairings
 - (2) Access Panels 195LL/196LR Access Panel
- C. Procedure

S 014-019

(1) Remove the access panel 195LL or 196LR which is below the integrator access door to get access to the disarm cable (Fig. 402).

s 034-020

(2) Remove the clevis pin (2), washer (48), and cotter pin (49) to disconnect the disarm cable (4) from the bellcrank (1) (Fig. 403).

s 024-021

(3) Remove the clevis (3) from the disarm cable (4).

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S 024-022

(4) Remove the nut (21) and pull the end of the disarm cable (4) down through the bracket (5).

s 034-023

(5) Remove the clevis pin (10), washer (61), and cotter pin (62) to disconnect the disarm cable (4) from the disarm cam (24).

S 024-024

(6) Remove the clevis (8) from the disarm cable (4).

S 024-025

(7) Remove the nut (22) on the cable support (7) and remove the disarm cable (4).

TASK 25-65-04-004-026

- 5. <u>Remove the Inflation Cable</u>
 - A. References
 - (1) AMM 06-41-00/201, Fuselage (Major Zones 100 and 200) Access Doors and Panels

(2) AMM 29-21-00/201, Ram Air Turbine (RAT)

- B. Access
 - (1) Location Zone 190 Fairings
- C. Procedure
 - S 014-028
 - (1) For the inflation cable on the left off-wing escape system:
 - (a) Remove or open the access panels 195SL, 195ML and 197CL (AMM 06-41-00/201).

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- S 014-029
- (2) For the inflation cable on the right off-wing escape system:
 (a) Remove or open the access panels 196MR and 198CR (AMM 06-41-00/201).
 - (b) Release the RAT (AMM 29-21-00/201).
 - s 034-031
- (3) Remove the clevis pin (28), pin (75), and washer (76) to disconnect the upper end of the inflation cable (31) from the cross pin (15) (Fig. 404).

s 024-032

(4) Remove the lockwire (30).

s 024-033

(5) Remove the clevis (29) from the end of the inflation cable (31).

S 024-034

(6) Remove the nut (32) that connects the inflation cable (31) to the bracket (33).

S 024-035

(7) Pull the end of the inflation cable (31) down through the bracket (33).

s 024-036

(8) Remove the inflation cable pin (36) to disconnect the inflation cable (31) from the bellcrank (35).

s 024-037

(9) Remove the lockwire (38) and the clevis (37) at the lower end of the inflation cable (31).

S 024-038

(10) Remove the outboard nut (42) that connects the inflation cable (31) to the bracket (39).





s 024-039

(11) Pull the end of the inflation cable (31) inboard through the bracket (39).

s 024-040

(12) Remove the screws (41) from the clamps (40) that are along the inflation cable (31).

s 024-041

(13) Remove the inflation cable (31).

TASK 25-65-04-044-149

- 6. <u>Remove the Disconnect Housing</u>
 - A. References
 - (1) AMM 06-41-00/201, Fuselage (Major Zones 100 and 200) Access Doors and Panels
 - B. Access(1) Location Zone190 Fairings
 - (2) Access Panels 195LL/196LR Access Panel
 - C. Procedure
 - S 014-174 (1) Remove the access panel 195LL or 196LR (AMM 06-41-00/201).

s 024-150

(2) Remove the cotter pin (67), pin (14), and washer (68).

s 024-151

(3) Remove the screws (69) and washers (70).

S 024-152

(4) Remove the clevis pin (28), washer (75), and pin (76) (Fig. 403 and 405).

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S 024-177 (5) Disengage the clevis (29) from the cross pin (15). s 024-153 (6) Remove the cam assembly (71) from the top of the slide compartment floor. s 024-159 (7) Remove the lockwire (72). S 024-160 (8) Pull the cross pin (15) through the top of the disconnect housing (66). s 024-161 (9) Remove the lockwire (73) and pin (65). s 024-162 (10) Remove the disconnect housing (66). S 024-163 (11) Remove the spring (74). TASK 25-65-04-404-042 Install the Cover Release Cable Α. References (1) AMM 06-41-00/201, Fuselage (Major Zones 100 and 200) Access Doors and Panels B. Access (1) Location Zone 190 Fairings (2) Access Panels 195LL/196LR Access Panel C. Procedure s 424-043 Put the long end of the cover release cable (18) in position through (1) the bracket (5) (Fig. 403). s 424-143 Put the short end of the cover release cable (18) in position (2) through the aft bulkhead (6) of the slide compartment (Fig. 403). s 434-121

(3) Connect the cover release cable (18) to the cover release pin (23) and make sure the jamnut is installed on the cover release cable.

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s 434-044 (4) Tighten the nut (26) against the aft bulkhead (6) of the slide compartment. s 434-045 (5) Tighten the nut (27) against the bracket (5). s 824-131 (6) Do the task: Install and Do the Initial Adjustment of the Stop Block for the Cover Release Cable. s 414-052 (7) Install the access panel 195LL or 196LR. S 844-053 (8) Put the Airplane Back to Its Initial Condition. TASK 25-65-04-404-054 Install the Disarm Cable References (1) AMM 06-41-00/201, Fuselage (Major Zones 100 and 200) Access Doors and Panels Access (1) Location Zone 190 Fairings (2) Access Panels 195LL/196LR Access Panel C. Procedure s 424-055 (1) Put the disarm cable (4) in position through the support (7) and the bracket (5) (Fig. 403). NOTE: Make sure you push the disarm cable (4) as far as possible through the support (7). s 424-056 (2) Connect the lower end of the disarm cable (4) to the clevis (8). s 434-057 (3) Connect the clevis (8) to the disarm cam (24) with the clevis pin (10), washer (61), and cotter pin (62).

s 434-058

8.

Α.

Β.

(4) Tighten the nut (22) against the support (7).

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s 824-059

- (5) With the disarm cable (4) in the fully extended position (armed position), adjust the clevis (8) at lower end of the cable to get the correct dimension (Fig. 403).
 - <u>NOTE</u>: The dimension is measured between the centerline of the clevis pin (10) and the support (7).

s 424-060

(6) Connect the upper end of the disarm cable (4) to the clevis (3).

s 434-061

- (7) Connect the clevis (3) to the bellcrank (1) with the clevis pin (2), washer (48) and cotter pin (49).
 - <u>NOTE</u>: If necessary, you can adjust either the clevis (3) or the cable attachment to the bracket (5).

s 434-062

(8) Tighten the nut (21) against the bracket (5).

S 034-063

(9) Remove the pin (12), washer (59), and cotter pin (60) to disconnect the rod (13) from the slide compartment door.

s 224-064

(10) Turn the bellcrank (11) inboard, then turn it outboard.

s 224-065

(11) Make sure the minimum clearance between the bellcrank (11) and the connector (63) is 0.05 inch (1.27 mm) (View D).

S 824-066

- (12) If necessary, adjust the length of the rod (13) to get the correct dimension (Fig. 403).
 - <u>NOTE</u>: The dimension is measured between the centerline of the pin (12) and the centerline of the pin (14).

s 434-067

(13) Install the pin (12), washer (59), and cotter pin (60) to connect the rod (13) to the slide compartment door.

s 414-068

(14) Install the access panel 195LL or 196LR.

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S 844-069

(15) Do the Put the Airplane Back to Its Initial Condition task.

- TASK 25-65-04-414-154
- 9. Install the Disconnect Housing
 - A. References
 - (1) AMM 06-41-00/201, Fuselage (Major Zones 100 and 200) Access Doors and Panels
 - B. Access (1) Location Zone 190 Fairings
 - (2) Access Panels 195LL/196LR Access Panel
 - C. Procedure

s 424-155

- (1) Install the spring (74) onto the disconnect housing (66).
 - <u>NOTE</u>: The curled part of the spring (74) should wrap around the disconnect housing (66).

s 424-156

- (2) Install the disconnect housing (66) into the cam assembly (71).
 - s 424-165
- (3) Install the lockwire (73) and pin (65).

S 424-168

(4) Install the cam assembly (71) to its proper position.

s 424-166

(5) Install the cross pin (15) through the top of the disconnect housing (66).

s 424-169

(6) Connect the clevis (29) to the cross pin (15) and install the clevis pin (28), pin (75), and washer (76).

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s 424-167 (7) Install the lockwire (72). s 424-172 (8) Install the washers (70) and screws (69). s 424-173 (9) Install the washer (68), pin (14), and cotter pin (67) (Fig. 403). s 424-170 (10) Make sure the cross pin (15) is seated properly in the disconnect housing (66). s 414-175 (11) Install the access panel 195LL or 196LR (AMM 06-41-00/201). TASK 25-65-04-404-070 10. Install the Inflation Cable A. References (1) AMM 06-41-00/201, Fuselage (Major Zones 100 and 200) Access Doors and Panels (2) AMM 29-21-00/201, Ram Air Turbine (RAT) Β. Access (1) Location Zone 190 Fairings (2) Access Panels 195ML/196MR Integrator Access Door 195SL Access Panel 197CL/198CR Access Panel C. Procedure s 034-071 MAKE SURE THE INFLATION CYLINDER SAFETY PIN IS INSTALLED BEFORE WARNING: YOU REMOVE THE PIN (45). IF THE INFLATION CYLINDER SAFETY PIN WAS NOT INSTALLED, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE. (1) If necessary, remove the pin (45) to disconnect the bellcrank (35) from the inflation trigger (44)(Fig. 404). s 424-072

(2) Put the flexible end of the inflation cable (31) in position through the bracket (39).

s 424-073

(3) Install the clamps (40) with the screws (41).

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s 424-074 (4) Attach the clevis (29) to the upper end of the inflation cable (31). s 434-075 (5) Install the lockwire (30). s 434-076 (6) Connect the clevis (29) to the cross pin (15) with the clevis pin (28), pin (75), and washer (76). s 204-178 (7) Make sure the cross pin (15) is seated properly in the disconnect housing (66). s 434-077 (8) Tighten the nut (32) against the bracket (33). s 424-078 (9) Attach the clevis (37) to the lower end of the inflation cable (31). NOTE: Do not install the lockwire (38) until after the clevis (37) is adjusted. s 424-079 (10) Pull the lower end of the inflation cable (31) until it is fully extended. s 824-080 (11) Adjust the clevis (37) to get the correct dimension (View C, Fig. 404). NOTE: Make sure the inflation cable pin (36) is in the center in the slot of the clevis (37). If necessary, you can adjust the cable attachment to the bracket (39). s 434-081 (12) Attach the lockwire (38) to the clevis (37). s 424-082 (13) Install the inflation cable pin (36) to attach the inflation cable (31) to the bellcrank (35). s 204-083 (14) Do the task: Examine the Freedom of Movement and Adjustment of the Inflation Cable.

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S 414-084

(15) For the inflation cable on the left off-wing escape system:
 (a) Install or close the access panels 195SL, 195ML, and 197CL (AMM 06-41-00/201).

s 414-085

- (16) For the inflation cable on the right off-wing escape system:
 - (a) Install or close the access panels 196MR, and 198CR (AMM 06-41-00/201).
 - (b) Retract the RAT (AMM 29-21-00/201).

S 844-087

(17) Put the Airplane Back to Its Initial Condition.

TASK 25-65-04-204-088

- 11. Examine the Freedom of Movement and Adjustment of the Inflation Cable
 - A. Equipment
 - (1) Wrench, Off-Wing Escape System Integrator -A25011-2 (Recommended); 1/4 inch square drive socket wrench (Optional)
 - (2) Safety Equipment, Off-Wing Escape System A25016-1
 - B. References
 - (1) AMM 06-41-00/201, Fuselage (Major Zones 100 and 200) Access Doors and Panels
 - (2) AMM 25-65-08/201, Off-Wing Slide Compartment Door
 - C. Access
 - (1) Location Zone 190 Fairings
 - (2) Access Panels 195EL/196ER Off-Wing Slide Compartment Door
 - D. Procedure

s 214-089

- WARNING: MAKE SURE THE BALL LOCK SAFETY PIN IS INSTALLED IN THE INFLATION CYLINDER BEFORE YOU MOVE THE OFF-WING SLIDE COMPARTMENT DOOR OR BEFORE YOU REMOVE THE PIN (45, FIG 404). IF THE BALL LOCK SAFETY PIN WAS NOT INSTALLED, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (1) Make sure the ball lock safety pin is installed in the inflation cylinder.

s 034-090

(2) Remove the pin (45, Fig. 404) if it was not removed before.

S 494-091

(3) Put a support below the slide compartment door.

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S 034-092

(4) Disconnect the cover release pin (23) from the stop block (16) (Fig. 403).

s 414-093

(5) Close the slide compartment door until the latch keepers on the door are outboard of the door latches.

S 414-124

- (6) Do these steps to close the slide compartment door latches:
 - (a) Push the integrator lock handle in the inboard direction to the UNLOCK position.
 - (b) Put the integrator wrench in the wrench socket and turn the cam full forward to close the slide compartment door latches.
 - (c) Make sure you do not see a red color in the witness hole of the integrator when the cross pin is fully forward in the slot.

s 214-097

(7) Make sure the inflation cable (31) operates smoothly while you fully open the slide compartment door.

s 224-098

(8) Make sure you get a 1.65 inch minimum between the fire and arm position of the bellcrank (35) (View C, Fig. 404).

s 434-105

(9) Pull the lower end of the cable (31) until it is fully extended (View C, Fig. 404).

s 204–179

(10) Make sure the cross pin (15) is seated properly in the disconnect housing (66).

s 824-106

(11) Adjust the trigger (44) to install the pin (45) in the bellcrank (35).

S 424-148

(12) Do the task: Install and Do the Initial Adjustment of the Stop Block for the Cover Release Cable (AMM 25-65-04/401).

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S 414-104

WARNING: YOU MUST OBEY THE PROCEDURE TO CLOSE THE SLIDE COMPARTMENT DOOR. IF YOU INCORRECTLY CLOSE THE SLIDE COMPARTMENT DOOR, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.

(13) Close the slide compartment door (AMM 25-65-08/201).

TASK 25-65-04-824-125

12. <u>Install and Do the Initial Adjustment of the Stop Block for the Cover Release</u> <u>Cable</u> (Fig. 403)

- A. Equipment
 - (1) Wrench, Off-Wing Escape System Integrator -A25011-2 (Recommended); 1/4 inch square drive socket wrench (Optional)
 - (2) Safety Equipment, Off-Wing Escape System A25016-1
- B. References
 - (1) AMM 06-41-00/201, Fuselage (Major Zones 100 and 200) Access Doors and Panels
 - (2) AMM 25-65-08/201, Off-Wing Slide Compartment Door
- C. Access
 - (1) Location Zone
 - 190 Fairings
 - (2) Access Panels 195EL/196ER Off-Wing Slide Compartment Door
- D. Procedure

s 424-115

(1) Pull the lower end of the cover release cable (18).

s 824-126

- (2) To adjust the stop block (16) in the armed position, adjust the length of the cover release cable (18) in the cover release pin (23) to get the correct dimension (View C).
 - <u>NOTE</u>: This dimension is the initial adjustment. It is measured from the forward end of the stop block (16) to the face of the cover release support (17) with the stop block (16) extended in the fully forward position (armed position).

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- s 834-129
- (3) Do these steps:
 - (a) Do these steps to connect the cover release cable:
 - <u>NOTE</u>: Keep the full extention on the lower end of the cable. Keep the integrator cam fully forward.
 - Adjust the clevis (50) as necessary to connect the upper end of the cover release cable (18) to the clevis (50) (Fig. 403).
 - 2) Connect the clevis (50) to the bellcrank (1) with the clevis pin (51), washer (52), and cotter pin (53).
 - (b) With the integrator lock handle in the unlocked position, turn the cam to move the cross pin to the full aft position in the slot.
 - (c) Make sure that the stop block (16) travels a minimum of 0.40 inch aft to the disarmed position and is at a maximum of 3.29 inches from the face of the cover release support (Fig. 403, View B).
 - s 824-130
- (4) Do the final adjustment of the stop block (AMM 25-65-01/401).
 - <u>NOTE</u>: You must do a final adjustment of the stop block when you install the slide pack (AMM 25-65-01/401).

TASK 25-65-04-844-107

- 13. Put the Airplane Back to Its Initial Condition
 - A. References (1) AMM 06-41-00/201, Fuselage (Major Zones 100 and 200) Access Doors and Panels
 - (2) AMM 25-65-00/201, Off-Wing Escape System
 - (3) AMM 25-65-08/201, Off-Wing Slide Compartment Door
 - B. Access
 - (1) Location Zone 190 Fairings
 - (2) Access Panels 195EL/196ER Off-Wing Slide Compartment Door
 - C. Procedure

s 434-108

 Remove the safety pins from the door-opening actuators (Fig. 401). Put the safety pins in the pouch which is in the latch-opening actuator compartment.

s 414-109

(2) Install the access panel (195LL or 196LR) (Fig. 402).

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s 214-136

(3) Make sure the EMER DOORS light on the overhead panel, P5, is on.

s 214–137

- (4) Make sure the applicable EICAS messages show on the top display:(a) L WING SLIDE
 - (b) R WING SLIDE
 - (c) EMER DOORS

s 414-110

- WARNING: YOU MUST OBEY THE PROCEDURE TO CLOSE THE SLIDE COMPARTMENT DOOR. IF YOU INCORRECTLY CLOSE THE SLIDE COMPARTMENT DOOR, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (5) Close the slide compartment door (AMM 25-65-08/201).

S 094-111

(6) Remove the protective cover from the wing surface work area.

s 214-112

(7) Make sure the EMER DOORS light on overhead panel, P5, is off.

s 214-113

(8) Make sure the off-wing escape system EICAS messages do not show.

s 424-146

(9) If necessary, install the pin (45) in the trigger (44) and the bellcrank (35).

S 444-114

- <u>WARNING</u>: YOU MUST OBEY THE PROCEDURE TO ARM THE OFF-WING ESCAPE SYSTEM. IF YOU INCORRECTLY ARM THE OFF-WING ESCAPE SYSTEM, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (10) Arm the off-wing escape system (AMM 25-65-00/201).



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Door Opening Actuator Installation Figure 401

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OFF-WING SLIDE COMPARTMENT

Disarm Cable, Cover Release Cable, and Stop Block Figure 403 (Sheet 1)

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Disarm Cable, Cover Release Cable, and Stop Block Figure 403 (Sheet 2)



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Figure 4U3 (Sheet 4)

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OFF-WING ESCAPE SLIDE ASSEMBLY - REMOVAL/INSTALLATION

- 1. <u>General</u>
 - A. This procedure contains these tasks:
 - (1) Remove the off-wing escape slide assembly.
 - (2) Install the off-wing escape slide assembly.
 - B. This procedure is for the left and right off-wing escape slide assembly. the airplane.
 - <u>NOTE</u>: The slide pack weighs approximately 140 pounds (undeployed). It is recommended that two persons accomplish the procedures.

TASK 25-65-05-024-001

- 2. <u>Remove the Escape Slide Assembly</u>
 - A. Equipment

 - (2) Hoist Boom, General, 400 lb Capacity -SPL 2527 or equivalent
 - B. References
 - (1) AMM 25-65-00/201, Off-Wing Escape System
 - C. Access
 - (1) Location Zones
 - 195 Wing to Body Aft Upper Half (Left)196 Wing to Body Aft Upper Half (Right)

(2) Access Panels

195EL Off-Wing Escape Slide Compartment (Left)
196ER Off-Wing Escape Slide Assembly (Right)
196RR Ram Air Turbine System Components
195RL Air Turbine Driven Hydraulic Pump

D. Prepare to Remove the Escape Slide Assembly

s 044-002

- WARNING: YOU MUST OBEY THE PROCEDURE TO DISARM THE OFF-WING ESCAPE SYSTEM. IF YOU DISARM THE OFF-WING ESCAPE SYSTEM INCORRECTLY, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (1) Disarm the off-wing escape system (AMM 25-65-00/201).

S 944-004

(2) Put a protective cover over the work area of the wing surface.

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- E. Remove the Escape Slide Assembly (Fig. 401)
 - S 014-036
 - (1) Open the access doors (195RL or 196RR) to gain access to the flexible hose connection below the slide compartment.

s 024-035

(2) Loosen the B-nut on the tube assembly and disconnect the flexible hose.

s 024-034

(3) Remove the strap attaching the hose to the structure bracket.

S 984-033

(4) Route the flexible hose through the opening in bottom of the slide compartment close out panel.

S 484-032

(5) Install a dust cap to the open tube assembly.

S 014-048

- <u>WARNING</u>: DO NOT STAND OR REST THE ESCAPE SLIDE ASSEMBLY ON THE TRAILING EDGE FLAP SYSTEM. WEIGHT PLACED ON THE FLAPS CAN CAUSE DAMAGE TO THE EQUIPMENT OR INJURY TO PERSONNEL.
- (6) Gain access to the wing area in front of the slide compartment.

s 034-007

(7) Remove the 17 bolts and washers that attach the forward, aft, and upper edges of the escape slide assembly to the escape slide compartment.

S 014-008

(8) Carefully tilt the top of the escape slide assembly away from the slide compartment until it reaches the extent of the tether which should be attached to the top of the escape slide assembly.

S 484-049

- <u>WARNING</u>: THE TETHER MUST BE ATTACHED AND LOCKED TO THE ANCHOR PLATE ON THE ESCAPE SLIDE ASSEMBLY. THE TETHER IS PROVIDED FOR SAFETY AND TO PREVENT THE ESCAPE SLIDE FROM PIVOTING OUT AND FALLING FROM THE AIRPLANE.
- (9) Position and attach a hoist boom to the lifting brackets at the forward and aft ends of the escape slide assembly.

s 014-047

(10) Remove the tether and allow the boom hoist to support the escape slide assembly.

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s 034-054

(11) Remove the 8 bolts that attach the lower edge of the escape slide assembly to the escape slide compartment.

S 024-058

(12) Lift and guide the escape slide assembly from the compartment and away from the airplane.

TASK 25-65-05-424-012

- 3. Install the Escape Slide Assembly Α. Access (1) Location Zones 195 Wing to Body - Aft Upper Half (Left) 196 Wing to Body - Aft Upper Half (Right) (2) Access Panels 195EL Off-Wing Escape Slide Assembly (Left) 196ER Off-Wing Escape Slide Assembly (Right) B. Equipment (1) Safety Equipment, Off-Wing Escape System -A25016-1
 - (2) Hoist Boom, General, 400 lb Capacity -SPL 2527 or equivalent
 - C. Parts
 - Refer to the table that follows:
 - D. References
 - (1) AMM 25-65-00/201, Off-Wing Escape System
 - E. Procedure

s 214-037

(1) Inspect the slide compartment and remove any foreign objects, particularly those that may be behind the structural lower chord and on top of the flap drive closeout.

s 484-051

- <u>CAUTION</u>: JAMMING OF FOREIGN OBJECTS BETEEN THE STRUCTUAL LOWER CHORD AND THE LOWER FLANGE OF THE ESCAPE SLIDE ASSEMBLY DURING INSTALLATION MAY CAUSE DAMAGE TO THESE COMPONENTS.
- (2) Position and attach a hoist boom to the forward and aft ends of the escape slide assembly.

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S 984-039

(3) Lift and guide the escape slide assembly to the escape slide compartment.

S 414-016

(4) Route the flexible hose through the opening in the bottom of the slide compartment closeout panel.

S 984-040

(5) Position the bottom edge of the escape slide assembly on the compartment corner fittings.

s 434-055

(6) Install and tighten the 8 bolts that attach the lower edge of the escape slide assembly to the escape slide compartment.

S 414-018

(7) Push the top of the escape slide assembly to the staged position and attach the tether to the escape slide assembly and the compartment bracket.

s 024-050

- <u>WARNING</u>: THE TETHER MUST BE ATTACHED AND LOCKED TO THE ANCHOR PLATE ON THE ESCAPE SLIDE ASSEMBLY. THE TETHER IS PROVIDED FOR SAFETY AND TO PREVENT THE ESCAPE SLIDE FROM PIVOTING OUT AND FALLING FROM THE AIRPLANE.
- (8) Disconnect the lifting tool and allow the tether to support the escape slide assembly.

S 414-019

(9) Push the escape slide assembly to a closed position.

S 824-041

(10) Check that the gap between the escape slide compartment and the adjacent fairing panels is .030 inches.

s 324-042

- (11) Trim the fairing panels a maximum of .1 inches if necessary to achieve the correct gap.
 - <u>NOTE</u>: Trimming the escape slide assembly is not allowed because it is an interchangeable part.

s 424-043

(12) Install and tighten the 17 bolts and washers that attach the forward, aft, and upper edges of the escape slide assembly to the escape slide compartment.

EFFECTIVITY AIRPLANES WITH MODULAR OFF-WING ESCAPE SYSTEM

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S 414-044

(13) Gain access to the flexible hose and tube connection.

s 014-045

(14) Remove the dust cap from the tube assembly (if installed).

s 424-046

(15) Attach the flexible hose to the structure bracket with a strap.

s 424-052

(16) Connect the flexible hose and the tube assembly.

s 424-053

(17) Tighten the B-nut to 20-25 ft-lbs.

F. Put the Airplane Back to Its Initial Condition

S 944-028

(1) Remove the protective covering from the wing surface work area.

S 444-029

- <u>WARNING</u>: YOU MUST OBEY THE PROCEDURE TO ARM THE OFF-WING ESCAPE SYSTEM. IF YOU ARM THE OFF-WING ESCAPE SYSTEM INCORRECTLY, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (2) Arm the off-wing escape system (AMM 25-65-00/201).



01







EFFECTIVITY AIRPLANES WITH MODULAR OFF-WING ESCAPE SYSTEM 25-65-05

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INTEGRATOR ACCESS DOOR - INSPECTION/CHECK

- 1. <u>General</u>
 - A. This procedure contains the task to make sure the off-wing escape system integrator is in the latched position before you close the integrator access door.

TASK 25-65-07-206-001

- 2. Integrator Access Door Inspection
 - A. References
 - (1) AMM 06-41-00/201, Fuselage (Major Zones 100 and 200) Access Doors and Panels
 - B. Access

(2) Access Panels

195ML Integrator Access Door (Left) 196MR Integrator Access Door (Right)

C. Procedure

s 016-002

(1) Open the integrator access door 195ML or 196MR (AMM 06-41-00/201).

s 206-005

- (2) Do a check of the integrator with lock handles (Fig. 601):(a) Make sure the cam is turned fully forward.
 - (b) Make sure the cross pin is fully forward in the slot.
 - WARNING: MAKE SURE THAT THE INTEGRATOR HANDLE MOVES THROUGH THE FULL 0.4 INCH (10.16 mm) TRAVEL WHEN THE INTEGRATOR LOCK HANDLE MOVES FROM THE "UNLOCK" TO THE "LOCK" POSITION. MAKE SURE YOU CAN FEEL THE DETENT WHICH IS IN THE MIDDLE OF THE 0.4 INCH (10.16 mm) TRAVEL. IF THE INTEGRATOR LOCK HANDLE IS IN AN INCORRECT POSITION, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
 - (c) Make sure the lock handle is in the LOCK position.


- (d) Make sure you do not see a red color in the witness hole on the integrator.
- S 016-006
- (3) Close the integrator access door.

S 216-007

(4) Make sure the EMER DOORS light on overhead panel, P5, is off.

s 216-008

- (5) Make sure these EICAS messages do not show on the top display:(a) L WING SLIDE

 - (b) R WING SLIDE
 - (c) EMER DOORS

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Figure 601

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM

F77708

25-65-07

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10N



OFF-WING SLIDE COMPARTMENT DOOR - MAINTENANCE PRACTICES

- 1. <u>General</u>
 - A. This procedure contains these tasks:
 - (1) Open the slide compartment door.
 - (2) Close the slide compartment door.
 - B. Refer to AMM 52-71-00/501 for the adjustment and system test of the proximity sensors for the door warning system.

TASK 25-65-08-862-001

- 2. Open the Off-Wing Slide Compartment Door
 - A. Equipment
 - (1) Wrench, Off-Wing Escape System Integrator -A25011-2 (Recommended); 1/4 inch square drive socket wrench (Optional)
 - (2) Safety Equipment, Off-Wing Escape System A25016-1
 - B. References
 - (1) AMM 06-41-00/201, Fuselage (Major Zones 100 and 200) Access Doors and Panels
 - (2) AMM 25-65-00/201, Off-Wing Escape System
 - C. Access
 - (1) Location Zones 195/196 Wing-to-Body Fairings - Aft Upper Half

(2)	Access Panels			
	195el/196er	Off-Wing Slide Compartment Door		
	195ML/196MR	Integrator Access Door		
	195QL/196QR	Latch-Opening Actuator Access Door		

D. Prepare to Open the Slide Compartment Door

s 042-002

- WARNING: YOU MUST OBEY THE PROCEDURE TO DISARM THE OFF-WING ESCAPE SYSTEM. IF YOU INCORRECTLY DISARM THE OFF-WING ESCAPE SYSTEM, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (1) Disarm the off-wing escape system (AMM 25-65-00/201).

s 492-003

(2) Put a protective cover on the work area of the wing surface.

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM



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E. Open the Slide Compartment Door

s 012-004

(1) Open the integrator access door 195ML or 196MR (AMM 06-41-00/201).

S 012-025

- (2) Open the slide compartment door latches:
 - WARNING: MOVE THE INTEGRATOR LOCK HANDLE TO THE "UNLOCK" POSITION. MAKE SURE THE INTEGRATOR LOCK HANDLE MOVES THROUGH THE FULL 0.4-INCH TRAVEL FROM THE "LOCK" TO THE "UNLOCK" POSITION. MAKE SURE YOU CAN FEEL THE DETENT WHICH IS IN THE MIDDLE OF THE 0.4-INCH TRAVEL. IF THE INTEGRATOR LOCK HANDLE IS IN AN INCORRECT POSITION, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
 - (a) Pull the integrator lock handle outboard to the UNLOCK position (Fig. 202).
 - (b) Put the integrator wrench into the wrench socket of the cam.
 - (c) Turn the cam fully aft to open the slide compartment door latches.

NOTE: The cross pin is moved aft by the cam.

(d) Pull the integrator lock handle outboard to the SAFETY position (Fig. 203).

S 862-009

- <u>WARNING</u>: DO NOT OPEN THE SLIDE COMPARTMENT DOOR UNLESS THE CAM IS TURNED FULLY AFT. IF THE CAM IS NOT TURNED FULLY AFT WHEN YOU OPEN THE SLIDE COMPARTMENT DOOR, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- <u>CAUTION</u>: DO NOT PERMIT THE SLIDE COMPARTMENT DOOR TO OPEN WITHOUT A SUPPORT. YOU CAN CAUSE DAMAGE TO THE DOOR IF YOU PERMIT THE DOOR TO OPEN WITHOUT A SUPPORT.
- (3) Open the slide compartment door 195EL or 196ER (AMM 06-41-00/201) slowly to the full open position.

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM



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s 412-030

- (4) Install the safety pin on the forward door opening actuator (View B, Fig. 201) and on the aft door opening actuator (View C, Fig. 201).
 - <u>NOTE</u>: The safety pins are kept in a pouch which is in the latch opening actuator compartment.

TASK 25-65-08-862-011

- 3. <u>Close the Off-Wing Slide Compartment Door</u>
 - A. Equipment
 - (1) Wrench, Off-Wing Escape System Integrator -A25011-2 (Recommended); 1/4 inch square drive
 - socket wrench (Optional)
 - (2) Safety Equipment, Off-Wing Escape System A25016-1
 - B. References
 - (1) AMM 06-41-00/201, Fuselage (Major Zones 100 and 200) Access Doors and Panels
 - (2) AMM 25-65-00/201, Off-Wing Escape System
 - C. Access
 - (1) Location Zones 195/196 Wing-to-Body Fairings - Aft Upper Half
 - (2) Access Panels

195EL/196ER	Off-Wing Slide Compartment Door
195ML/196MR	Integrator Access Door
195QL/196QR	Latch-Opening Actuator Access Door

D. Procedure

S 012-012

(1) Open the integrator access door.

S 412-027

- (2) Do these steps to close the door:
 - (a) Make sure the latches open and close correctly.

NOTE: The slide compartment door must be in the open position.

- 1) Push the integrator lock handle inboard to the UNLOCK position (Fig. 203).
- 2) Put the integrator wrench into the wrench socket of the cam.

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM



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3) Turn the cam fully forward to close the slide compartment door latches.

NOTE: The cross pin is moved forward by the cam.

- 4) Make sure all four latch jaws are closed.
- 5) Turn the cam fully aft to open the slide compartment door latches.
- 6) Make sure all four latch jaws are open.
- 7) Pull the integrator lock handle outboard to the SAFETY position.
- (b) Remove the safety pin from the forward door opening actuator (View B , Fig. 201) and the aft door opening actuator (View C, Fig. 201).
 - <u>NOTE</u>: Keep the safety pins in the pouch which is in the latch opening actuator compartment.
- <u>CAUTION</u>: MAKE SURE THE CAM IS TURNED FULLY AFT BEFORE YOU CLOSE THE SLIDE COMPARTMENT DOOR. IF THE CAM IS NOT TURNED FULLY AFT WHEN YOU CLOSE THE SLIDE COMPARTMENT DOOR, YOU CAN DAMAGE THE LATCHES WHEN YOU CLOSE THE SLIDE COMPARTMENT DOOR.
- (c) Close the slide compartment door and hold it in the closed position.
- (d) Push the integrator lock handle inboard to the UNLOCK position (Fig. 203).
- (e) Put the integrator wrench into the wrench socket of the cam.
- (f) Turn the cam fully forward to close the slide compartment door latches.

NOTE: The cross pin is moved forward by the cam.

- (g) Make sure you do not see a red color in the witness hole of the integrator when the cross pin is fully forward in the slot.
 - <u>NOTE</u>: If you see a red color in the witness hole, the door latch-opening actuator has a damaged actuator shear pin. An actuator with a damaged shear pin can cause the escape slide to inflate.
 - If you see a red color in the witness hole of the integrator, replace the door latch-opening actuator (AMM 25-65-11/401).

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM

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- WARNING: MOVE THE INTEGRATOR LOCK HANDLE TO THE "LOCK" POSITION. MAKE SURE THE INTEGRATOR LOCK HANDLE MOVES THROUGH THE FULL 0.4-INCH TRAVEL FROM THE "UNLOCK" TO THE "LOCK" POSITION. MAKE SURE YOU CAN FEEL THE DETENT WHICH IS IN THE MIDDLE OF THE 0.4-INCH TRAVEL. IF THE INTEGRATOR LOCK HANDLE IS IN AN INCORRECT POSITION, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (h) Push the integrator lock handle inboard to the LOCKED position (Fig. 202).

S 862-019

(3) Release the slide compartment door.

s 412-020

- (4) Close the integrator access door 195ML or 196MR (AMM 06-41-00/201).
- E. Put the Airplane Back to Its Initial Condition

s 092-021

(1) Remove the protective cover from the work area of the wing surface.

s 442-022

- <u>WARNING</u>: YOU MUST OBEY THE PROCEDURE TO ARM THE OFF-WING ESCAPE SYSTEM. IF YOU INCORRECTLY ARM THE OFF-WING ESCAPE SYSTEM, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (2) When it is necessary, arm the off-wing escape system (AMM 25-65-00/201).

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Off-Wing Slide Compartment Door Figure 201 (Sheet 2)

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OFF-WING SLIDE COMPARTMENT DOOR - REMOVAL/INSTALLATION

- 1. <u>General</u>
 - A. This procedure contains these tasks:
 - (1) Remove the off-wing slide compartment door.
 - (2) Install the off-wing slide compartment door.

TASK 25-65-08-004-001

- 2. <u>Remove the Off-Wing Slide Compartment Door</u>
 - A. References
 - (1) AMM 25-65-00/201, Off-Wing Escape System
 - (2) AMM 25-65-00/501, Off-Wing Escape System
 - (3) AMM 25-65-01/401, Off-Wing Escape Slide Pack
 - (4) AMM 25-65-08/201, Off-Wing Slide Compartment Door
 - B. Access
 - (1) Location Zone 195/196 Wing to Body Fairings – Aft Upper Half
 - C. Prepare to Remove the Slide Compartment Door

s 044-002

- WARNING: REFER TO AMM 25-65-00/201 FOR THE PROCEDURE TO DISARM THE OFF-WING ESCAPE SYSTEM. IF YOU INCORRECTLY DISARM THE OFF-WING ESCAPE SYSTEM, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (1) Disarm the off-wing escape system (AMM 25-65-00/201).

s 434-003

(2) Put a protective cover above the work area on the wing surface.

S 014-004

- WARNING: REFER TO AMM 25-65-08/201 FOR THE PROCEDURE TO OPEN THE OFF-WING SLIDE COMPARTMENT DOOR. IF YOU INCORRECTLY OPEN THE OFF-WING SLIDE COMPARTMENT DOOR, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (3) Open the slide compartment door (AMM 25-65-08/201).

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM



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s 494-005

(4) Install the safety pin on the forward door opening actuator (View C, Fig. 401) and on the aft door opening actuator (View D, Fig. 401).

<u>NOTE</u>: The safety pins are kept in a pouch which is in the latch opening actuator compartment.

D. Remove the Slide Compartment Door

S 024-006

(1) Remove the off-wing escape slide pack (AMM 25-65-01/401).

S 034-007

(2) Disconnect the door opening cables from the door hinges (View A, Fig. 401).

s 034-008

(3) Disconnect the forward and aft door open stops from the slide compartment door.

s 034-009

(4) Disconnect the inflation actuation rod from the slide compartment door.

s 034-010

(5) Remove the bonding jumper from the forward door hinge.

s 034-011

(6) Remove the fasteners from the hinges to remove the slide compartment door from the airplane structure.

NOTE: Write the location of all the shims that you removed.

S 024-012

(7) Remove the slide compartment door.

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM





TASK 25-65-08-404-013

- 3. Install the Slide Compartment Door
 - A. Consumable Materials
 - (1) Sealant Chromate Type, BMS 5-95
 - B. References
 - (1) AMM 25-65-00/201, Off-Wing Escape System
 - (2) AMM 25-65-00/501, Off-Wing Escape System
 - (3) AMM 25-65-01/401, Off-Wing Escape Slide Pack
 - (4) AMM 25-65-08/201, Off-Wing Slide Compartment Door
 - C. Access
 - (1) Location Zone 196/196 Wing to Body Fairings - Aft Upper Half
 - D. Procedure

s 304-014

- (1) If you install a new slide compartment door, it may be necessary to cut the door edges as follows:
 - (a) Cut the door edges to give a clearance of 0.06 \pm 0.03 inch between the door edges and the airplane skin panels.

(b) Apply sealant to all the door edges that you cut.

s 434-015

(2) Attach the hinges of the slide compartment door to the airplane structure with the fasteners and shims as necessary (View A, Fig. 401).

S 864-016

- (3) Adjust the slide compartment door as necessary to get the correct flushness.
 - (a) For the forward edge of the door, 70% must be flush within \pm .080 inch, and 30% must be flush within \pm .100 inch.
 - (b) For the aft edge of the door, 70% must be flush within +.150 and -.060 inch, and 30% must be flush within +.200 and -.060 inch.

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM



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<u>NOTE</u>: The trim dimension is not to vary more than 0.03inch over 12 inches of length.



- (c) For the lower edge of the door, the flushness must be within ± .03 inch.
- (d) For the upper edge of the door, the flushness must be within ± .04 inch.

s 434-017

(4) Connect the door open stops to the slide compartment door.

s 434-018

(5) Connect the door opening cables to the door hinges.

S 864-019

(6) Do the procedure to adjust the off-wing escape system to adjust the slide compartment door-opening actuator system and the latching system (AMM 25-65-00/501).

s 434-020

(7) Connect the bonding jumper to the forward door hinge (View A, Fig. 401).

s 434-021

(8) Connect the inflation actuation rod to the slide compartment door.

S 864-022

(9) Adjust the length of the inflation actuation rod to the dimension shown between the centerlines of the connecting pins (View B, Fig. 401).

s 424-023

- (10) Install the off-wing escape slide pack (AMM 25-65-01/401).
- E. Put the Airplane Back to Its Initial Condition

S 094-024

- Remove the safety pin from the forward door opening actuator (View C, Fig. 401) and the aft door opening actuator (View D, Fig. 401).
 - <u>NOTE</u>: Keep the safety pins in the pouch which is in the latch opening actuator compartment.

s 214-033

(2) Make sure the EMER DOORS light on the overhead panel, P5, is on.

s 214-036

- (3) Make sure the applicable EICAS messages show on the top display.
 - (a) L WING SLIDE
 - (b) R WING SLIDE

(c) EMER DOORS

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM



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s 414-025

- WARNING: REFER TO AMM 25-65-08/201 FOR THE PROCEDURE TO CLOSE THE OFF-WING SLIDE COMPARTMENT DOOR. IF YOU INCORRECTLY CLOSE THE OFF-WING SLIDE COMPARTMENT DOOR, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (4) Close the slide compartment door (AMM 25-65-08/201).

s 214-026

(5) Make sure the EMER DOORS light on the overhead panel, P5, is off.

s 214-027

(6) Make sure the off-wing escape system EICAS messages do not show.

S 034-028

(7) Remove the protective cover from the work area on the wing surface.

s 444-029

- WARNING: REFER TO AMM 25-65-00 FOR THE PROCEDURE TO ARM THE OFF-WING ESCAPE SYSTEM. IF YOU INCORRECTLY ARM THE OFF-WING ESCAPE SYSTEM, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (8) Arm the off-wing escape system (AMM 25-65-00/201).



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C53733





Off-Wing Slide Compartment Door Installation Figure 401 (Sheet 2)

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM

C53731

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02N



MAINTENANCE MANUAL

OFF-WING SLIDE COMPARTMENT DOOR LATCH AND LATCH KEEPER - REMOVAL/INSTALLATION

- 1. <u>General</u>
 - A. This procedure contains these tasks:
 - (1) The removal of a latch for the off-wing slide compartment door.
 - (2) The installation of a latch for the off-wing slide compartment door.
 - (3) The removal of a latch keeper on the off-wing slide compartment door.
 - (4) The installation of a latch keeper on the off-wing slide compartment door.
 - (5) A check of the latch system after latch replacement.

TASK 25-65-09-004-001

- 2. Off-Wing Slide Compartment Door Latch Removal (Fig. 401)
 - A. General
 - (1) The most forward latch is latch 1, the next aft latch is latch 2, the next aft latch is latch 3, and the most aft latch is latch 4.
 - (2) Only replace the latch that is defective.
 - B. References
 - (1) AMM 25-65-00/201, Off-Wing Escape System
 - (2) AMM 25-65-08/201, Off-Wing Slide Compartment Door
 - C. Access
 - (1) Location Zone
 - 195/196 Wing-to-Body Fairings Aft Upper Half
 - (2) Access Panels 195EL/196ER Off-Wing Slide Compartment Door
 - D. Prepare for the Latch Removal

s 864-002

- <u>WARNING</u>: YOU MUST FOLLOW THE PROCEDURE TO DISARM THE OFF-WING ESCAPE SYSTEM. IF YOU INCORRECTLY DISARM THE ESCAPE SYSTEM, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (1) Disarm the off-wing escape system (AMM 25-65-00/201).

s 944-003

(2) Put a protective cover on the work area of the wing surface.

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM



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S 014-011

<u>WARNING</u>: YOU MUST FOLLOW THE PROCEDURE TO OPEN THE SLIDE COMPARTMENT DOOR. IF YOU INCORRECTLY OPEN THE SLIDE COMPARTMENT DOOR, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.

- (3) Open the slide compartment door (AMM 25-65-08/201).
- E. Off-Wing Slide Compartment Door Latch Removal

S 024-005

- (1) Remove Latch 1:
 - (a) Remove the cotter pin (7), the two washers (6), and the pin (5) to disconnect the latch (11) from the aft clevis.
 - (b) Remove the cotter pin (7), the two washers (6), and the pin (12) to disconnect the latch (11) from the forward clevis.
 - (c) Remove the two bolts (3) and washers (4) to disconnect the latch bracket (14) from the support structure.
 - (d) Remove the two bolts (8), washers (9), and nuts (10) to disconnect the latch (11) from the latch bracket (14).
 - (e) Keep the shims (2) and (13).

S 024-006

- (2) Remove Latch 2, 3, or 4:
 - (a) Remove the cotter pin (7), the two washers (6), and the pin (5) that connect the latch (11) to the forward clevis.
 - (b) LATCH 2 OR 3; Remove the cotter pin (7), the two washers (6), and the pin (5) that connect the latch (11) to the aft clevis.
 - (c) LATCH 4; Remove the cotter pin (7), the two washers (6), and the pin (12) that connect the latch (11) to the aft clevis.
 - (d) Remove the two bolts (17) and washers (9) that attach the latch (11), the latch support (16), and the shim (15) to the support structure.
 - (e) Keep the latch support (16) and the shim (15).

TASK 25-65-09-404-007

- 3. Off-Wing Slide Compartment Door Latch Installation (Fig. 401)
 - A. References
 - (1) AMM 25-65-00/201, Off-Wing Escape System
 - (2) AMM 25-65-08/201, Off-Wing Slide Compartment Door
 - B. Consumable Materials
 - (1) CO0259 Primer, BMS 10-11, Type 1

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM

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- - (2) Access Panels 195EL/196ER Off-Wing Slide Compartment Door
- D. Off-wing slide compartment door latch installation

s 424-008

- (1) Install latch 1:(a) Install the shim (13) on the latch (11).
 - <u>CAUTION</u>: MAKE SURE THAT THE LATCH IS INSTALLED SO THAT THE JAWS CLOSE WHEN YOU PULL THE SLIDER FORWARD. THE DOOR WILL NOT OPEN IF THE LATCH IS INSTALLED UPSIDE DOWN.
 - (b) Attach the latch (11) and the shim (13) to the latch bracket (14) with the two bolts (8), washers (9) and nuts (10).
 - (c) Tighten the nuts (10) to 35 40 pound-inches (3.9 4.5 Nm).
 - (d) Attach the shim (2) and the latch bracket (14) to the support structure with the two bolts (3) and washers (4).

<u>NOTE</u>: Do not tighten the bolts (3) until you have done the check of the latch alignment.

- (e) Install the pin (5), the two washers (6), and the cotter pin (7) to connect the latch (11) to the aft clevis.
 - <u>NOTE</u>: Do not bend the cotter pin (7) until you have done a check of the latch installation.
- (f) Install the pin (12), the two washers (6), and the cotter pin(7) to connect the latch (11) to the forward clevis.
- (g) If you will not replace another latch, do the alignment check for latch 1.

s 424-009

(2) Install latch 2, 3, or 4:

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM

03



- <u>CAUTION</u>: MAKE SURE THAT THE LATCH IS INSTALLED SO THAT THE JAWS CLOSE WHEN YOU PULL THE SLIDER FORWARD. THE DOOR WILL NOT OPEN IF THE LATCH IS INSTALLED UPSIDE DOWN.
- (a) Attach the latch (11), the latch support (16), and the shim (15) to the support structure with the two bolts (17) and washers (9).

<u>NOTE</u>: Do not tighten the bolts (17) until you have done the check of the latch alignment.

- (b) Install the cotter pin (7), the two washers (6), and the pin (5) that connect the latch (11) to the forward clevis.
- (c) LATCH 2 OR 3; Install the cotter pin (7), the two washers (6), and the pin (5) that connect the latch (11) to the aft clevis.

<u>NOTE</u>: Do not bend the cotter pin (7) until you have done a check of the latch installation.

- (d) LATCH 4; Install the cotter pin (7), the two washers (6), and the pin (12) that connect the latch (11) to the aft clevis.
 - <u>NOTE</u>: Do not bend the cotter pin (7) until you have done a check of the latch installation.
- (e) If you will not replace another latch, do the alignment check for latch 2, 3, or 4.
- s 224-010
- (3) Do the alignment check of the latch:
 - (a) Close the slide compartment door with the latches open.
 - (b) Make sure that the latch keeper assemblies on the door do not catch on the open jaws of the latches.
 - (c) Make sure that the keepers align in 0.03 inch (0.8 mm) or less to the latch centerline.
 - (d) If it is necessary to adjust latch 1 vertically, do the steps that follow:
 - Remove the bolts (3) that you did not tighten and the washers (4).
 - Remove the shim (2) that is between the latch bracket (14) and the support structure.

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3) Adjust the thickness of the shim (2).

- 4) Coat the bare shim surfaces with primer.
- 5) Install the shim (2) between the latch bracket (14) and the support structure.
- 6) Install the bolts (3) and washers (4).
- (e) If it is necessary to adjust latch 2, 3, or 4 vertically, do the steps that follow:
 - 1) Remove the bolts (17) that you did not tighten and the washers (9).
 - Remove the shim (15) that is between the latch support (16) and the support structure.
 - 3) Adjust the thickness of the shim (15) as necessary.

<u>NOTE</u>: The maximum shim thickness you can install is 0.05 inch (1.3 mm).

- 4) Coat the bare shim surfaces with primer.
- 5) Install the shim (15) between the latch support (16) and the support structure.
- 6) Install the bolts (17) and washers (9).
- (f) If the keeper does not align horizontally, do the steps that follow:
 - 1) Loosen the bolts (3) or (17).
 - 2) Adjust the latch position.
 - 3) If you still cannot align the latch with the keeper, replace the keeper.
- (g) Tighten the bolts (3) or (17) to 35 40 pound-inches (3.9 4.5 Nm).

s 724-026

- (4) Do the installation test for the off-wing slide compartment door latches.
- E. Put the Airplane Back to Its Usual Condition

s 414-012

- <u>WARNING</u>: YOU MUST FOLLOW THE PROCEDURE TO CLOSE THE SLIDE COMPARTMENT DOOR. IF YOU INCORRECTLY CLOSE THE SLIDE COMPARTMENT DOOR, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (1) Close the slide compartment door (AMM 25-65-08/201).

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<u>NOTE</u>: The maximum shim thickness you can install is 0.05 inch (1.3 mm).



s 944-013

(2) Remove the protective cover on the work area of the wing surface.

S 864-014

WARNING: YOU MUST FOLLOW THE PROCEDURE TO ARM THE OFF-WING ESCAPE SYSTEM. IF YOU INCORRECTLY ARM THE ESCAPE SYSTEM, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.

(3) If necessary, arm the off-wing escape system (AMM 25-65-00/201).

TASK 25-65-09-004-015

- 4. Off-Wing Slide Compartment Door Latch Keeper Removal (Fig. 402)
 - A. General
 - Replace only the latch keepers that do not align with correctly installed latches.
 - B. Access
 - (1) Location Zone 195/196 Wing-to-Body Fairings - Aft Upper Half
 - (2) Access Panels 195EL/196ER Off-Wing Slide Compartment Door
 - C. Off-Wing Slide Compartment Door Latch Keeper Removal

S 024-016

- (1) Remove the latch keeper:
 - (a) Remove the two bolts (32), washers (33) and nuts (34) that attach the latch keeper (31) to the slide compartment door.
 - (b) Remove the latch keeper (31).
 - (c) Remove the unwanted sealant.

TASK 25-65-09-404-017

5. Off-Wing Slide Compartment Door Latch Keeper Installation (Fig. 402)

- A. Consumable Materials
 - (1) A00247 Sealant, Chromate, Type BMS5-95
- B. Access
 - (1) Location Zone 195/196 Wind

195/196 Wing-to-Body Fairings - Aft Upper Half

(2) Access Panels 195EL/196ER Off-Wing Slide Compartment Door

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C. Off-Wing Slide Compartment Door Latch Keeper Installation

s 424-018

- (1) Install the latch keeper:
 - (a) Adjust the latch keeper (31):
 - 1) Turn the head of the latch keeper (31) to adjust the height to the same height as the one you removed.
 - 2) If necessary, position the slot to give the correct alignment with the latch.
 - (b) Position the latch keeper (31) on the slide compartment door.
 - (c) Put sealant on the bolts (32) and install them.
 - (d) Put sealant on the nuts (34) and washers (33) and install them on the bolts (32).

s 724-025

(2) Do a check of the installation of the latch system.

TASK 25-65-09-704-021

- 6. Installation Test of the Latch System (Fig. 403, 404, 405)
 - A. Equipment
 - (1) Wrench, Integrator A25011-2 (Recommended)
 - 1/4 inch square drive socket wrench (Optional)
 - B. Access
 - (1) Location Zone

195/196 Wing-to-Body Fairings - Aft Upper Half

- (2) Access Panels 195EL/196ER Off-Wing Slide Compartment Door 195ML/195MR Integrator Access Door 195QL/196QR Latch-Opening Actuator Access Door
- C. Procedure for the installation test

S 724-027

- (1) Do the Installation Test of the Door Latch System:
 - (a) Push the integrator lock handle inboard to the UNLOCK position.
 - (b) Put the integrator wrench A25011-2 into the wrench socket of the cam.
 - (c) Use the integrator wrench A25011–2 to turn the cam full forward to close the latches on the slide compartment door.

NOTE: The cross pin is moved forward by the cam.



03



- WARNING: MAKE SURE THE INTEGRATOR LOCK HANDLE MOVES THROUGH THE FULL 0.4-INCH TRAVEL FROM THE "UNLOCKED" TO THE "LOCKED" POSITION. MAKE SURE YOU CAN FEEL THE DETENT WHICH IS IN THE MIDDLE OF THE 0.4-INCH TRAVEL. IF THE INTEGRATOR LOCK HANDLE IS IN AN INCORRECT POSITION, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (d) Push the integrator lock handle inboard to the LOCKED position.
- (e) Make sure that the door closed sensor (S218 Left Side, S219 Right Side) for the slide compartment door is adjusted correctly.
- (f) On each door latch, remove the pin, washers, and cotter pin to disconnect the latch control rods from the aft end of the latch sliders.
- (g) Make sure the cross pin is full forward in the slot.
- (h) Do these steps to adjust the length of the latch control rod for each latch:
 - <u>NOTE</u>: Make sure you adjust each latch one at a time. Make sure you adjust each latch with this procedure.

Make sure you adjust each latch in sequence from the aft end to the forward end of the slide compartment.

- 1) Pull the latch control rod and the latch slider to the full forward position.
- Make sure that the control rod is adjusted to the shortest distance that will allow you to put the pin in the clevis at the aft end of the latch slider.
 - a) Visually examine the holes in the clevis and the latch slider.
 - b) Make sure that the fit of the pin in the holes is correct.
- (i) Install the pin, washers, and cotter pin to connect the latch control rods to the aft end of the latch sliders.
- (j) Make sure that the latch link is adjusted correctly.
 - <u>NOTE</u>: The dimension is measured from the forward end of the jamnut to the aft face of the bulkhead web.
- (k) Pull the lock handle to the UNLOCK position.
- (l) Turn the integrator cam full aft.
- (m) Pull the lock handle outboard to the SAFETY position.

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- (n) Pull the latch control rod aft to make sure that the jaws of all of the door latches are in the full open position.
 - <u>NOTE</u>: If you move the latch sliders aft and the jaws do not open farther, then the jaws of the door latch are in the full open position.

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Slide Compartment Door - Latch Replacement Figure 401 (Sheet 1)



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Slide Compartment Door - Latch Keeper Replacement Figure 402

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Integrator Figure 403 (Sheet 1)

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Integrator Figure 403 (Sheet 2)

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1>>	MOVE	THE LOCK	HANDLE	TO THE	"LOCKED" POSITION
-	ONLY	WHEN THE	CAM IS	IN THE	FORWARD POSITION
2	MOVE	THE LOCK	HANDLE	то тне	"SAFETY" POSITION
-	ONLY	WHEN THE	CAM IS	IN THE	AFT POSITION

Integrator Figure 403 (Sheet 3)

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L95156




OFF-WING SLIDE COMPARTMENT DOOR-OPENING ACTUATOR - REMOVAL/INSTALLATION

- 1. <u>General</u>
 - A. This procedure contains these tasks:
 - (1) Remove the slide compartment door-opening actuator.
 - (2) Install the slide compartment door-opening actuator.
 - B. There is a forward door-opening actuator and an aft door-opening actuator for each slide compartment door.
 - C. Use this procedure on all door-opening actuators.

TASK 25-65-10-004-001

- 2. <u>Remove the Slide Compartment Door-Opening Actuator</u>
 - A. Equipment
 - (1) Safety Equipment, Off-Wing Escape System A25016-1
 - (2) Protective Pad Ensolite (or equivalent) 1 inch X 48 inches X 48 inches (25.4mm x 1.22 meters x 1.22 meters) commercially available
 - B. References
 - (1) AMM 06-41-00/201, Fuselage (Major Zones 100 and 200) Access Doors and Panels
 - (2) AMM 25-65-00/201, Off-Wing Escape System
 - (3) AMM 25-65-08/201, Off-Wing Slide Compartment Door
 - C. Access

(2)	Access Panels	
	195EL/196ER	Off-Wing Slide Compartment Door
	195ML/196MR	Integrator Access Door
	195QL/196QR	Latch-Opening Actuator Access Door

D. Prepare to Remove the Door-opening Actuator

s 044-002

- WARNING: YOU MUST OBEY THE PROCEDURE TO DISARM THE OFF-WING ESCAPE SYSTEM. IF YOU INCORRECTLY DISARM THE OFF-WING ESCAPE SYSTEM, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (1) Disarm the off-wing escape system (AMM 25-65-00/201).

s 494-003

(2) Put a protective pad on the work area of the wing surface.

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s 014-004

- WARNING: YOU MUST OBEY THE PROCEDURE TO OPEN THE SLIDE COMPARTMENT DOOR. IF YOU INCORRECTLY OPEN THE SLIDE COMPARTMENT DOOR, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (3) Open the slide compartment door (AMM 25-65-08/201).

s 014-005

(4) Open the latch-opening actuator access door 195QL or 196QR (AMM 06-41-00/201).

s 494-006

- <u>WARNING</u>: BE CAREFUL WHEN YOU INSTALL THE SAFETY PINS ON THE FORWARD AND AFT DOOR-OPENING ACTUATORS. THE CARTRIDGES ON THE ACTUATORS CAN ACCIDENTALLY FIRE AND CAUSE INJURY OR DAMAGE.
- (5) Install the safety pins (9) in the forward door-opening actuator (View B, Fig. 401) and in the aft door-opening actuator (View C, Fig. 401).
 - <u>NOTE</u>: The safety pins for the door-opening actuators are in the pouch found in the latch-opening actuator compartment.
- E. Remove the Door-opening Actuator (Figure 401)

s 024-034

- (1) Do these steps to remove the forward door-opening actuator:
 - (a) Loosen the jamnut (27) on the cable terminal (26).
 - (b) Move the slide compartment door to the half closed position to remove the tension from the cable (16).
 - (c) Remove the pin (18), washer (19), and cotter pin (20) to disconnect the cable (16) from the door hinge (17).

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- (d) Remove the pin (11) to disconnect the lever (14) from the firing pin clevis (10).
- (e) Remove the bolt (5), washers (6) and nut (7) that connects the door-opening actuator (8) to the actuator support bracket (1).
- (f) Remove the pin (2), washer (3), and cotter pin (4) that connects the door-opening actuator (8) to the actuator support bracket (1).
- (g) Remove the door-opening actuator (8).
- (h) Remove the cable (16).

s 024–035

- (2) Do these steps to remove the aft door-opening actuator:
 - (a) Loosen the jamnut (27) on the cable terminal (26).
 - (b) Move the slide compartment door to the half closed position to remove the tension from the cable (16).
 - (c) Remove the pin (18), washer (19), and cotter pin (20) to disconnect the cable (16) from the door hinge (17).
 - (d) Remove the bolt (29) to disconnect the actuating rod (21) from the lever (14).
 - (e) Remove the bolt (5), washers (6) and nut (7) that connects the door-opening actuator (8) to the actuator support bracket (1).
 - (f) Remove the pin (2), washer (3), and cotter pin (4) that connects the door-opening actuator (8) to the actuator support bracket (1).
 - (g) Remove the door-opening actuator (8).
 - (h) Remove the pin (11) to disconnect the lever (14) from the firing pin clevis (10).
 - (i) Remove the cable (16).

s 504-015

- WARNING: IF THE DOOR-OPENING ACTUATOR HAS NOT FIRED, YOU MUST BE CAREFUL WHEN YOU TOUCH, KEEP, OR MOVE THE DOOR-OPENING ACTUATOR. REFER TO THE APPLICABLE LAWS AND FIRE REGULATIONS FOR CLASS 1, DIVISION 4 EXPLOSIVE DEVICES. IF YOU ARE NOT CAREFUL, THE DOOR-OPENING ACTUATOR CAN ACCIDENTALLY FIRE AND CAUSE INJURY OR DAMAGE.
- (3) Put the door-opening actuator (8) in a plastic bag. Seal the plastic bag. Attach a tag with the part number, nomenclature, and safety information for the door-opening actuator (8).

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TASK 25-65-10-404-016

3. Install the Slide Compartment Door-Opening Actuator

A. General

(1) Do not install an actuator again unless you know it is satisfactory.B. Equipment

- (1) Safety Equipment, Off-Wing Escape System A25016-1
- (2) Protective Pad Ensolite (or equivalent) 1 inch X 48 inches X 48 inches (25.4mm x 1.22 meters x 1.22 meters) commercially available
- C. References
 - (1) AMM 06-41-00/201, Fuselage (Major Zones 100 and 200) Access Doors and Panels
 - (2) AMM 25-65-00/201, Off-Wing Escape System
 - (3) AMM 25-65-00/501, Off-Wing Escape System
 - (4) AMM 25-65-08/201, Off-Wing Slide Compartment Door
- D. Access
 - (1) Location Zones

195/196 Wing-to-Body Fairings - Aft Upper Half

(2) Access Panels

195EL/196ER	Off-Wing Slide Compartment Door
195ML/196MR	Integrator Access Door
195QL/196QR	Latch-Opening Actuator Access Door

- E. Prepare to Install the Door Opening Actuator.
 - <u>NOTE</u>: Additional information useful in this procedure may be found in this reference: (AMM 25-65-00/501).

S 944-074

- (1) Put a protective pad over the work area of the wing surface.
- F. Install the Door-opening Actuator (Figure 401)

S 214-017

- <u>WARNING</u>: BE CAREFUL WHEN YOU TOUCH THE DOOR-OPENING ACTUATORS. IF YOU ARE NOT CAREFUL, THE DOOR-OPENING ACTUATORS CAN ACCIDENTALLY FIRE AND CAUSE INJURY OR DAMAGE.
- (1) Do these steps to install the forward door-opening actuator:
 (a) Make sure the jamnut (27) is tightened to the end of the thread on the actuator rod (28).
 - (b) Make sure the cable terminal (26) is installed approximately 0.55 inch on the thread of the actuator rod (28).

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- (c) Install the door-opening actuator (8).
- (d) Put the door opening actuator (8) in position on the actuator support bracket and install the pin (2), washer (3), and cotter pin (4).
- (e) Install the bolt (5), washers (6) and nut (7) to attach the door opening actuator (8) to the actuator support bracket (1).
- (f) Install the cable (16) over the pulleys (15). Remove the pulley guards as it is necessary.
- (g) Install the pin (11), washer (12), and cotter pin (13), to connect the lever (14) to the firing pin clevis (10).
- (h) Install the pin (18), washer (19), and cotter pin (20) to connect the cable (16) to the door hinge (17).
- (i) Turn the jamnut (27) on the actuator rod (28) as it is necessary to make sure the cable (16) is tight and engaged with all the pulleys (15).
- (j) Install the pulley guards as it is necessary.

s 424-037

- (2) Do these steps to install the aft door-opening actuator:
 - (a) Make sure the jamnut (27) is tightened to the end of the thread on the actuator rod (28).
 - (b) Make sure the cable terminal (26) is installed approximately 0.55 inch on the thread of the actuator rod (28).
 - (c) Install the pin (11), washer (12), and cotter pin (13), to connect the lever (14) to the firing pin clevis (10).
 - (d) Install the door-opening actuator (8).
 - (e) Put the door opening actuator (8) in position on the actuator support bracket and install the pin (2), washer (3), and cotter pin (4).
 - (f) Install the bolt (5), washers (6) and nut (7) to attach the door opening actuator (8) to the actuator support bracket (1).
 - (g) Install the bolt (29) to connect the actuating rod (21) to the lever (14).
 - (h) Install the cable (16) over the pulleys (15). Remove the pulley guards as it is necessary.



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- (i) Install the pin (18), washer (19), and cotter pin (20) to connect the cable (16) to the door hinge (17).
- (j) Turn the jamnut (27) on the actuator rod (28) as it is necessary to make sure the cable (16) is tight and engaged with all the pulleys (15).
- (k) Install the pulley guards as it is necessary.

S 824-071

- (3) Do these steps to adjust the aft door-opening actuator cable:(a) Make sure that the slide compartment door is in the full open position.
 - (b) Make sure that the trailing edge flaps are in the full up position.
 - (c) Make sure that there is a 1.0 + 0.1 inch distance between the aft top edge of the slide compartment door and the top surface of the wing.
 - (d) Turn the actuator rod until the actuator cable is tight and touches the pulleys.
 - (e) Make sure that the cables do not hold the weight of the slide compartment door and the slide pack.

s 824-072

- (4) Do these steps to adjust the forward door-opening actuator cable:
 - (a) Make sure that the slide compartment door is in the full open position.
 - (b) Make sure that the trailing edge flaps are in the full up position.
 - (c) Make sure that there is a 1.0 + 0.1 inch distance between the aft top edge of the slide compartment door and the top surface of the wing.
 - (d) Turn the actuator rod until the actuator cable is tight and touches the pulleys.
 - (e) Make sure that the cables do not hold the weight of the slide compartment door and the slide pack.

s 434-073

- (5) Tighten the jamnut on the actuator rod of the forward and aft door opening actuator.
 - <u>NOTE</u>: Make sure the actuator cables are tight between the door-opening actuator and the door hinge. The actuator cables must not be too tight. The forward and aft door open stops must hold the weight of the slide compartment door and the slide pack.

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM



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G. Put the Airplane Back to Its Initial Condition

S 094-027

(1) Remove the safety pins (9) from the door-opening actuators (8).

<u>NOTE</u>: Keep the safety pins (9) in the pouch which is in the latchopening actuator compartment.

s 414-028

(2) Close the latch-opening actuator access door.

s 214-042

(3) Make sure the EMER DOORS light on the overhead panel, P5, is on.

s 214-045

- (4) Make sure the applicable EICAS messages show on the top display:(a) L WING SLIDE
 - (b) R WING SLIDE
 - (c) EMER DOORS

s 414-029

- WARNING: YOU MUST OBEY THE PROCEDURE TO CLOSE THE SLIDE COMPARTMENT DOOR. IF YOU INCORRECTLY CLOSE THE SLIDE COMPARTMENT DOOR, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (5) Close the slide compartment door (AMM 25-65-08/201).

s 214-030

(6) Make sure the EMER DOORS light on the overhead panel, P5, is off.

s 214-031

(7) Make sure the off-wing escape system EICAS messages do not show.

S 094-032(8) Remove the protective cover from the work area of the wing surface.

S 444-033

- <u>WARNING</u>: YOU MUST OBEY THE PROCEDURE TO ARM THE OFF-WING ESCAPE SYSTEM. IF YOU INCORRECTLY ARM THE OFF-WING ESCAPE SYSTEM, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (9) Arm the off-wing escape system (AMM 25-65-00/201).

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Door-Opening Actuator Figure 401 (Sheet 2)

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MAINTENANCE MANUAL

OFF-WING SLIDE COMPARTMENT DOOR LATCH-OPENING ACTUATOR -REMOVAL/INSTALLATION

- 1. <u>General</u>
 - A. This procedure contains these tasks:
 - (1) Remove the slide compartment door latch-opening actuator.
 - (2) Install the slide compartment door latch-opening actuator.
 - B. Use this procedure for all the slide compartment door latch-opening actuators.

TASK 25-65-11-004-001

- 2. <u>Remove the Slide Compartment Door Latch-Opening Actuator</u>
 - A. Equipment
 - (1) Safety Equipment, Off-Wing Escape System -A25016-1
 - **B.** References
 - (1) AMM 06-41-00/201, Fuselage (Major zones 100 & 200) Access Doors and Panels
 - (2) AMM 25-65-00/201, Off-Wing Escape System
 - (3) AMM 25-65-08/201, Off-Wing Slide Compartment Door
 - C. Access
 - (1) Location Zones 195/196 Wing-to-Body Fairings - Aft Upper Half

(2)	Access Panels	
	195el/196er	Off-Wing Slide Compartment Door
	195ML/196MR	Integrator Access Door
	195QL/196QR	Latch-Opening Actuator Access Door

D. Prepare to Remove the Latch-opening Actuator

s 044-002

- WARNING: YOU MUST OBEY THE PROCEDURE TO DISARM THE OFF-WING ESCAPE SYSTEM. IF YOU INCORRECTLY DISARM THE OFF-WING ESCAPE SYSTEM, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (1) Disarm the off-wing escape system (AMM 25-65-00/201).

S 494-003

(2) Put a protective cover on the work area of the wing surface.

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM



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s 014-004

- WARNING: YOU MUST OBEY THE PROCEDURE TO OPEN THE SLIDE COMPARTMENT DOOR. IF YOU INCORRECTLY OPEN THE SLIDE COMPARTMENT DOOR, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (3) If actuator has not fired, open the slide compartment door (AMM 25-65-08/201).

s 014-005

(4) Open the latch-opening actuator access door 195QL or 196QR (AMM 06-41-00/201).

s 494-006

- WARNING: BE CAREFUL WHEN YOU INSTALL THE SHORTING CAP ON THE ACTUATOR. THE SQUIB ON THE ACTUATOR CAN ACCIDENTALLY FIRE AND CAUSE INJURY OR DAMAGE.
- (5) Install the shorting cap on the latch-opening actuator (Fig. 402A).
 - <u>NOTE</u>: The shorting cap is kept in a pouch which is in the latch-opening actuator compartment.
- E. Remove the Latch-opening Actuator

s 024-030

- (1) Do these steps to remove the latch-opening actuator:
 - (a) Make sure the integrator cam is in the aft position and the lock handle is in the SAFETY position (Fig. 402).
 - (b) Examine the latch-opening actuator to see if it has fired (Fig. 403).
 - WARNING: IF THE LATCH-OPENING ACTUATOR HAS NOT FIRED, YOU MUST BE CAREFUL WHEN YOU TOUCH, KEEP, OR MOVE THE LATCH-OPENING ACTUATOR. REFER TO THE APPLICABLE LAWS AND FIRE REGULATIONS FOR CLASS 1, DIVISION 4 EXPLOSIVE DEVICES. IF YOU ARE NOT CAREFUL, THE LATCH-OPENING ACTUATOR CAN ACCIDENTALLY FIRE AND CAUSE INJURY OR DAMAGE.
 - (c) Remove the screws that attach the latch-opening actuator to the integrator carrier.

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM

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(d) Lift the latch-opening actuator to remove it from the integrator carrier.

s 504-011

(2) Put the latch-opening actuator in a plastic bag. Seal the plastic bag. Attach a tag with the part number, nomenclature, and safety information for the latch-opening actuator.

TASK 25-65-11-404-012

3. Install the Slide Compartment Door Latch-Opening Actuator

A. Equipment

- (1) Actuator Gage Latch Opening, Off-Wing Escape
 System A25019-1
- (2) Safety Equipment, Off-Wing Escape System A25016-1
- (3) Spring Scale Hand-held compression force, range 0-25 pounds - commercially available
- (4) Wrench, Off-Wing Escape System Integrator A25011-2 (Recommended); 1/4-inch square drive socket wrench (Optional)
- B. References
 - (1) AMM 06-41-00/201, Fuselage (Major zones 100 & 200) Access Doors and Panels
 - (2) AMM 25-65-00/201, Off-Wing Escape System

(3) AMM 25-65-08/201, Off-Wing Slide Compartment Door

- C. Access
 - (1) Location Zones 195/196 Wing-to-Body Fairings - Aft Upper Half

(2)	Access Panels	
	195EL/196ER	Off-Wing Slide Compartment Door
	195ML/196MR	Integrator Access Door
	195QL/196QR	Latch-Opening Actuator Access Door

D. Procedure

s 424-033

- (1) Do these steps to install the latch-opening actuator:
 - (a) Do these steps to make sure the pawl on the integrator connector and the detent on the integrator carrier correctly engage:
 - 1) Push the integrator lock handle inboard to the UNLOCK position (Fig. 402).

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM

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- 2) Put the integrator wrench into the wrench socket of the cam and slowly turn the cam full forward.
- 3) Make sure the cross pin is moved fully forward by the cam.
- 4) Make sure the slide compartment door latches move to the closed position (View B-B, Fig. 404).
- 5) Put the wrench into the wrench socket of the cam and slowly turn the cam full aft.
- 6) Make sure the cross pin is moved fully aft by the cam.
- 7) Make sure the slide compartment door latches move to the open position (View A-A, Fig. 404).
- 8) If the slide compartment door latches do not close and open, when the cam is turned fully forward and fully aft, do these steps:
 - a) With the integrator lock handle in the UNLOCK position, turn the cam full forward (Fig. 402).
 - <u>NOTE</u>: The cross pin is moved forward by the cam.
 - WARNING: MOVE THE INTEGRATOR LOCK HANDLE TO THE "LOCK" POSITION. MAKE SURE THE INTEGRATOR LOCK HANDLE MOVES THROUGH THE FULL 0.4-INCH TRAVEL FROM THE "UNLOCK" TO THE "LOCK" POSITION. MAKE SURE YOU CAN FEEL THE DETENT WHICH IS IN THE MIDDLE OF THE 0.4-INCH TRAVEL. IF THE INTEGRATOR LOCK HANDLE IS IN AN INCORRECT POSITION, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
 - b) Push the integrator lock handle inboard to the LOCKED position.
 - c) Hold the latch control rod and pull it in the forward direction until the slide compartment door latches are in the closed position (Fig. 404).
 - <u>NOTE</u>: Use the latch control rod found between the first and second door latches, near the integrator.

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- <u>CAUTION</u>: DO NOT USE THE NEW LATCH-OPENING ACTUATOR TO PUSH THE INTEGRATOR CONNECTOR FORWARD. YOU CAN CAUSE DAMAGE TO THE SHEAR PIN IN THE NEW LATCH-OPENING ACTUATOR.
- d) Insert the screwdriver through the integrator channel (Fig. 405).
- e) Lightly push the integrator hook forward to permit the pawl on the integrator connector to release down into the detent of the integrator carrier (View C, Fig. 406).
- WARNING: MOVE THE INTEGRATOR LOCK HANDLE TO THE "UNLOCK" POSITION. MAKE SURE THE INTEGRATOR LOCK HANDLE MOVES THROUGH THE FULL 0.4-INCH TRAVEL FROM THE "LOCK" TO THE "UNLOCK" POSITION. MAKE SURE YOU CAN FEEL THE DETENT WHICH IS IN THE MIDDLE OF THE 0.4-INCH TRAVEL. IF THE INTEGRATOR LOCK HANDLE IS IN AN INCORRECT POSITION, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- f) Pull the integrator lock handle outboard to the UNLOCK position (Fig. 402).
- g) Put the integrator wrench into the wrench socket of cam and turn the cam full aft.

NOTE: The cross pin is moved aft by the cam.

- h) Slowly turn the cam fully forward.
- i) Examine the integrator as follows:
- j) Make sure the cross pin is moved fully forward by the cam.
- k) Make sure the slide compartment door latches move to the closed position (Fig. 404).





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- If the slide compartment door latches do not move to the closed position, do the steps to make sure the pawl on the integrator connector and the detent on the integrator carrier correctly engage.
- m) Slowly turn the cam fully aft.
- n) Examine the integrator as follows:
- o) Make sure the cross pin is moved fully aft by the cam.
- p) Make sure the slide compartment door latches move to the open position (Fig. 404).
- q) If the slide compartment door latches do not move to the open position, do the steps to make sure the pawl on the integrator connector and the detent on the integrator carrier correctly engage.
- 9) If the slide compartment latches move to the closed position and then to the open position (the pawl on the integrator connector and the detent on the integrator carrier are engaged), pull the integrator lock handle outboard to the SAFETY position.
- WARNING: DO NOT INSTALL THE LATCH-OPENING ACTUATOR ON THE INTEGRATOR CARRIER WHEN THE DETENT ON THE INTEGRATOR CARRIER AND THE PAWL ON THE INTEGRATOR CONNECTOR ARE NOT ENGAGED. INSTALLATION OF THE LATCH-OPENING ACTUATOR ON A DISENGAGED INTEGRATOR CARRIER CAN CAUSE THE ESCAPE SLIDE TO INFLATE AND CAUSE INJURY OR DAMAGE.
- (b) Install the latch-opening actuator as follows:
 - <u>NOTE</u>: Make sure the integrator lock handle is in the SAFETY position and the cross pin is moved to the full aft position by the cam.
 - <u>WARNING</u>: MAKE SURE THE DIMENSION ON THE ACTUATOR PISTON/NUT IS CORRECT. IF THIS DIMENSION IS INCORRECT, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
 - 1) Use the actuator gage to measure the actuator piston/nut dimension shown in Fig. 407.

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- 2) If the actuator piston/nut dimension is not as shown in View A, Fig. 407, adjust the actuator nut as follows:a) Loosen the jamnut.
 - b) Adjust the actuator nut to the dimension shown in Fig. 407.
 - c) Tighten the jamnut to 30-50 pound-inches.
- WARNING: MAKE SURE THE ACTUATOR SHEAR PIN IS NOT DAMAGED. A DAMAGED SHEAR PIN CAN CAUSE THE ESCAPE SLIDE TO INFLATE AND CAUSE INJURY OR DAMAGE.
- 3) Examine the actuator shear pin as follows:
 - a) Use a clamp to attach the actuator to a shop bench.
 - b) Use a hand-held compression force measuring spring scale to apply a 15-20 pound force to the end of the actuator nut in the direction of the usual travel for the actuator piston shaft.
 - c) Make sure the piston shaft does not move more than 0.03 inch. If the piston shaft moves more than 0.03 inch, the actuator shear pin is damaged.

- WARNING: DO NOT PULL THE INTEGRATOR HOOK IN THE AFT DIRECTION WHILE YOU INSTALL THE LATCH-OPENING ACTUATOR ON THE INTEGRATOR CARRIER. THE PAWL ON THE INTEGRATOR CONNECTOR CAN GO ABOVE THE DETENT OF THE INTEGRATOR CARRIER, BY THE HOOK AND DISENGAGE THE CARRIER (VIEW D, FIG. 406). A DISENGAGED INTEGRATOR CARRIER CAN CAUSE THE ESCAPE SLIDE TO INFLATE AND CAUSE INJURY OR DAMAGE.
- 4) Put the latch-opening actuator on the integrator carrier.

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<u>NOTE</u>: You must not install the latch-opening actuator until it is repaired.



- 5) Make sure the actuator nut is engaged with the integrator hook (View A, Fig. 407).
- 6) Put the two screws into the outboard side fastener holes of the actuator.
- Tighten the screws with your hand into the integrator carrier to align the latch-opening actuator with the integrator carrier.
- WARNING: DO NOT MOVE THE LATCH-OPENING ACTUATOR WHILE YOU REMOVE THE SCREWS FROM THE LATCH-OPENING ACTUATOR. IF THE LATCH-OPENING ACTUATOR IS NOT ALIGNED, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- Remove the two screws from the latch-opening actuator after the latch-opening actuator is aligned with the integrator carrier.
- WARNING: DO NOT MOVE THE LATCH-OPENING ACTUATOR FROM THE INTEGRATOR CARRIER AFTER YOU REMOVE ALL THE SCREWS. IF THE LATCH-OPENING ACTUATOR IS NOT ALIGNED, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- 9) Do the steps to make sure the pawl on the integrator connector and the detent on the integrator carrier correctly engage.
- 10) Install the latch-opening actuator.
- 11) Install the latch-opening actuator screws.
 - <u>NOTE</u>: Make sure you do not move the latch-opening actuator.
- 12) Tighten all the screws into the integrator carrier with the socket wrench.

S 094-051

(2) Remove the shorting cap from the latch-opening actuator (Fig. 402A).

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S 094-016

(3) Put the shorting cap in the pouch which is in the latch-opening actuator compartment.

s 704-034

- <u>WARNING</u>: MAKE SURE THERE IS NO VOLTAGE PRESENT AT PIN A OF THE LATCH-OPENING ACTUATOR CONNECTOR. A VOLTAGE PRESENT AT PIN A CAN DEPLOY THE ESCAPE SLIDE AND CAUSE INJURY OR DAMAGE WHEN THE CONNECTOR IS RECONNECTED TO THE ACTUATOR.
- (4) Make sure there is no voltage present at pin A of the latch-opening actuator connector.

s 434-017

- (5) Connect the electrical connector to the latch-opening actuator.
- E. Put the Airplane Back to Its Initial Condition

s 494-018

(1) Remove the safety pins from the door-opening actuators.

s 494-019

(2) Put the safety pins in the pouch which is in the latch-opening actuator compartment.

s 414-020

(3) Close the latch-opening actuator access door.

s 214-043

(4) Make sure the EMER DOORS light on the overhead panel, P5, is on.

s 214-046

(5) Make sure the applicable EICAS messages show on the top display:(a) L WING SLIDE



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- (b) R WING SLIDE
- (c) EMER DOORS

s 414-021

- WARNING: YOU MUST OBEY THE PROCEDURE TO CLOSE THE SLIDE COMPARTMENT DOOR. IF YOU INCORRECTLY CLOSE THE SLIDE COMPARTMENT DOOR, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE
- (6) Close the slide compartment door (AMM 25-65-08/201).

s 214-022

(7) Make sure the EMER DOORS light on the overhead panel, P5, is off.

s 214-023

(8) Make sure the off-wing escape system EICAS messages do not show.

S 094-024

(9) Remove the protective cover from the work area of the wing surface.

s 444-025

- WARNING: YOU MUST OBEY THE PROCEDURE TO ARM THE OFF-WING ESCAPE SYSTEM. IF YOU INCORRECTLY ARM THE OFF-WING ESCAPE SYSTEM, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (10) Arm the off-wing escape system (AMM 25-65-00/201).

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Latch-Opening Actuator Figure 402

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM 25-65-11

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INTEGRATOR IN LATCHED POSITION (CAM IN FORWARD POSITION) (LOCK HANDLE IN "LOCKED" POSITION)



Off-Wing Escape System Integrator in Latched Position Figure 405

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM

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Off-Wing Escape System Integrator Figure 406 (Sheet 2)

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM 25-65-11

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OFF-WING ESCAPE SYSTEM INTEGRATOR - REMOVAL/INSTALLATION

- 1. <u>General</u>
 - A. This procedure contains these tasks:
 - (1) Remove the integrator on the off-wing escape system.
 - (2) Install the integrator on the off-wing escape system.
 - B. Use this procedure for the integrators on the left and right off-wing escape systems.

TASK 25-65-12-004-001

- 2. <u>Remove the Off-Wing Escape System Integrator</u> (Fig. 401)
 - A. Equipment
 - (1) Wrench, Off-Wing Escape System Integrator -A25011-2 (Recommended); 1/4-inch square drive socket wrench (Optional)
 - (2) Safety Equipment, Off-Wing Escape System A25016-1
 - B. References
 - (1) AMM 06-41-00/201, Fuselage (Major Zones 100 and 200) Access Doors and Panels
 - (2) AMM 25-65-00/201, Off-Wing Escape System
 - (3) AMM 25-65-08/201, Off-Wing Slide Compartment Door
 - (4) AMM 25-65-10/401, Off-Wing Slide Compartment Door-Opening Actuator
 - C. Access
 - (1) Location Zones 195/196 Wing-to-Body Fairings - Aft Upper Half

(2)	Access Panels	
	195EL/196ER	Off-Wing Slide Compartment Door
	195ML/196MR	Integrator Access Door
	195QL/196QR	Latch-Opening Actuator Access Door

D. Prepare to Remove the Integrator

s 044-002

- WARNING: YOU MUST OBEY THE PROCEDURE TO DISARM THE OFF-WING ESCAPE SYSTEM. IF YOU INCORRECTLY DISARM THE OFF-WING ESCAPE SYSTEM, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (1) Disarm the off-wing escape system (AMM 25-65-00/201).

s 494-003

(2) Put a protective cover on the work area of the wing surface.

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM



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S 014-004

- WARNING: YOU MUST OBEY THE PROCEDURE TO OPEN THE SLIDE COMPARTMENT DOOR. IF YOU INCORRECTLY OPEN THE SLIDE COMPARTMENT DOOR, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (3) Open the slide compartment door (AMM 25-65-08/201).

s 494-005

- <u>WARNING</u>: BE CAREFUL WHEN YOU INSTALL THE SAFETY PINS ON THE FORWARD AND AFT DOOR-OPENING ACTUATORS. THE CARTRIDGES ON THE ACTUATORS CAN ACCIDENTALLY FIRE AND CAUSE INJURY OR DAMAGE.
- (4) Install the safety pins on the door-opening actuators.

<u>NOTE</u>: The safety pins are kept in a pouch which is in the latch-opening actuator compartment.

E. Remove the Integrator

s 034-006

(1) Remove the pin (2), washer (3), and cotter pin (4) (View D) to disconnect the disarm cable (23) from the bellcrank (1).

s 034-007

(2) Remove the pin (5), washer (6), and cotter pin (7) to disconnect the cover release cable (8) from the bellcrank (1).

s 034-008

(3) Remove the pin (13), washer (14), and cotter pin (15) (View C) to disconnect the clevis (16) from the integrator connector (22).

s 034-009

(4) Remove the pin (9), washer (10), and cotter pin (11) to disconnect the bellcrank (20) from the actuating rod (12).

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM



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s 034-010 (5) Remove the pin (17), washer (18), and cotter pin (19) to disconnect the bellcrank (20) from the integrator connector (22). You can move the integrator connector (22) in the aft NOTE: direction to permit easy access to the pin (17). s 024-011 (6) Remove the screws (21) from the integrator. s 024-012 (7) Remove the integrator. TASK 25-65-12-404-013 3. Install the Off-Wing Escape System Integrator (Fig. 401) A. Equipment Wrench, Off-Wing Escape System Integrator -(1) A25011-2 (Recommended); 1/4-inch square drive socket wrench (Optional) Safety Equipment, Off-Wing Escape System - A25016-1 (2) References Β. (1) AMM 06-41-00/201, Fuselage (Major Zones 100 and 200) Access Doors and Panels AMM 25-65-00/201, Off-Wing Escape System (2) AMM 25-65-08/201, Off-Wing Slide Compartment Door (3) (4) AMM 25-65-10/401, Off-Wing Slide Compartment Door Opening Actuator C. Access (1) Location Zones 195/196 Wing-to-Body Fairings - Aft Upper Half (2) Access Panels 195EL/196ER Off-Wing Slide Compartment Door

- 195ML/196MR Integrator Access Door
- 195QL/196QR Latch-Opening Actuator Access Door

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM



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D. Install the Integrator

s 424-014

(1) Put the integrator into position on the airplane structure.

s 434-015

- (2) Connect the bellcrank (20) to the integrator connector (22) with the pin (17), washer (18), and cotter pin (19) (View D).
 - <u>NOTE</u>: The longest arm of the bellcrank (20) is connected to the integrator connector (22).

s 434-016

(3) Connect the clevis (16) to the integrator connector (22) with the pin (13), washer (14), and cotter pin (15).

s 434-017

(4) Connect the bellcrank (20) to the actuating rod (12) with the pin (9), washer (10), and cotter pin (11).

s 434-018

(5) Connect the disarm cable (23) to the bellcrank (1) with the pin (2), washer (3), and cotter pin (4) (View D).

s 434-019

(6) Connect the cover release cable (8) to the bellcrank (1) with the pin (5), washer (6), and cotter pin (7).

s 424-020

(7) Attach the integrator to the airplane structure with the screws (21) (View D).

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM



<u>NOTE</u>: The shortest arm of the bellcrank (20) is connected to the actuating rod (12).



E. Put the Airplane Back to Its Initial Condition

S 094-021

(1) Remove the safety pins from the door opening actuators. Keep the safety pins in the off-wing escape system safety equipment.

s 214-060

(2) Make sure the EMER DOORS light on the overhead panel, P5, is on.

s 214-063

- (3) Make sure the applicable EICAS messages show on the top display:(a) L WING SLIDE
 - (b) R WING SLIDE
 - (c) EMER DOORS

s 414-022

- <u>WARNING</u>: YOU MUST OBEY THE PROCEDURE TO CLOSE THE SLIDE COMPARTMENT DOOR. IF YOU INCORRECTLY CLOSE THE SLIDE COMPARTMENT DOOR, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (4) Close the slide compartment door (AMM 25-65-08/201).

s 214-023

(5) Make sure the EMER DOORS light on the overhead panel, P5, is off.

S 214-024

(6) Make sure the off-wing escape system EICAS messages do not show.

S 094-025

(7) Remove the protective cover from the wing surface of the work area.

S 444-026

- WARNING: YOU MUST OBEY THE PROCEDURE TO ARM THE OFF-WING ESCAPE SYSTEM. IF YOU INCORRECTLY ARM THE OFF-WING ESCAPE SYSTEM, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (8) Arm the off-wing escape system (AMM 25-65-00/201).

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM





WITH LATCH AND UNLATCH LEVERS Off-Wing Slide Compartment Door Installation Figure 401 (Sheet 1)

EFFECTIVITY AIRPLANES WITH BUILT-UP OFF-WING ESCAPE SYSTEM 25-65-12

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MAINTENANCE MANUAL

OFF-WING ESCAPE SYSTEM SWITCHES - REMOVAL/INSTALLATION

- 1. <u>General</u>
 - A. This procedure contains these tasks:
 - (1) Prepare to remove and install the off-wing escape system switch panels and switches.
 - (2) Remove and install the auto arm/fire switch panel.
 - (3) Remove and install the backup arm/fire switch panel.
 - (4) Remove and install the auto arm/fire switches.
 - (5) Put the airplane back to its initial condition.
 - B. The auto arm/fire switch panel and the backup arm/fire switch panel are behind the exit sign panel which is above each overwing escape hatch.
 - C. The auto arm/fire switches are installed on the auto arm/fire switch panel.

TASK 25-65-15-864-001

- 2. <u>Prepare to Remove or Install the Off-Wing Escape System Switch Panels and</u> <u>Switches</u>
 - A. References
 - (1) AMM 25-65-00/201, Off-Wing Escape System
 - B. Access
 - (1) AIRPLANES WITH ONE HATCH OVER EACH WING;
 - Location Zones
 - 832 Overwing Emergency Exit Hatch (Left)
 - 842 Overwing Emergency Exit Hatch (Right)
 - (2) AIRPLANES WITH TWO HATCHES OVER EACH WING;
 - Location Zones
 - 832 Overwing Emergency Exit Hatch (Forward/Left)
 - 834 Overwing Emergency Exit Hatch (Aft/Left)
 - 842 Overwing Emergency Exit Hatch (Forward/Right)
 - 844 Overwing Emergency Exit Hatch (Aft/Right)
 - C. Procedure

s 864-002

- WARNING: YOU MUST OBEY THE PROCEDURE TO DISARM THE OFF-WING ESCAPE SYSTEM. IF YOU INCORRECTLY DISARM THE OFF-WING ESCAPE SYSTEM, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (1) Disarm the off-wing escape system (AMM 25-65-00/201).

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TASK 25-65-15-904-073

- 3. <u>Remove and Install the Auto Arm/Fire Switch Panel</u> (Fig. 401) Α. Access (1) AIRPLANES WITH ONE HATCH OVER EACH WING; Location Zones 832 Overwing Emergency Exit Hatch (Left) 842 Overwing Emergency Exit Hatch (Right) (2) AIRPLANES WITH TWO HATCHES OVER EACH WING; Location Zones 832 Overwing Emergency Exit Hatch (Forward/Left) 834 Overwing Emergency Exit Hatch (Aft/Left) 842 Overwing Emergency Exit Hatch (Forward/Right) 844 Overwing Emergency Exit Hatch (Aft/Right) B. Remove the Auto Arm/Fire Switch Panel s 864-021 (1) Do the "Prepare to Remove or Install the Off-Wing Escape System Switch Panels and Switches" task. s 024-022 (2) Disconnect the electrical connector from the auto arm/fire switch panel (View A-A). s 024-023 (3) Remove the screws (1) and washers (2) from the auto actuator guard (View A-A). \$ 024-024 (4) Remove the auto actuator guard (View A-A). s 024-025 (5) Remove the cotter pin (3), washer (4), and straight pin (5) from the auto actuator and the auto actuator support bracket (View B-B). S 024-026 Remove the cotter pin (6), washers (7), and straight pin (8) to (6) disconnect the link from the auto actuator (View A-A). \$ 024-027
 - (7) Remove the auto actuator (View A-A).

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S 024-028

(8) Remove the screws (9) and washers (10) from the auto arm/fire switch panel (View A-A).

S 024-029

- (9) Remove the auto arm/fire switch panel.
- C. Install the Auto Arm/Fire Switch Panel

s 424-030

(1) Put the auto arm/fire switch panel into the correct position on the airplane structure (View A-A).

s 424-031

(2) Install the washers (10) and screws (9) (View A-A).

S 864-032

(3) Put the auto arm switch and auto fire switch to the ARM (down) position.

S 864-033

(4) Put the disable handle to the ARMED (up) position.

s 424-034

- <u>WARNING</u>: MAKE SURE THE STRAIGHT PIN IS ALWAYS BELOW THE AUTO ARM SWITCH AND THE AUTO FIRE SWITCH. IF THE STRAIGHT PIN IS NOT BELOW THE AUTO ARM SWITCH AND THE AUTO FIRE SWITCH, THE ESCAPE SLIDE WILL NOT INFLATE WHEN AN OVERWING ESCAPE HATCH IS REMOVED.
- (5) Make sure the straight pin (11) is below the auto arm switch and the auto fire switch. If not, move the straight pin to the correct position (View A-A).
 - (a) Make sure that the straight pin (11) is adjusted so the pin is touching the switch toggles but not the switch base.

S 864-035

(6) Put the disable handle to the SAFE (down) position.

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s 424-036

(7) Install the straight pin (8), washers (7), and the cotter pin (6) to connect the auto actuator to the link (View A-A).

s 424-037

(8) Install the straight pin (5), washer (4), and cotter pin (3) to connect the auto actuator to the auto actuator support bracket (View B-B).

S 864-093

(9) Put the disable handle to the SAFE (down) position.

S 864-094

(10) Make sure the overwing emergency exit hatch is partially open or as the hatch is being opened.

s 824-038

(11) Adjust the two eye bolts to get a 0.01 - 0.04 inch (0.25 - 1.02 mm) clearance between the auto actuator and the striker pin (View B-B).

S 864-095

(12) Make sure that the shorter eye bolt is connected to the straight pin bracket.

S 864-039

(13) Put the disable handle to the ARMED (up) position.

s 214-040

(14) Make sure the eye bolt and the link are aligned (View C). If not, adjust the linkage.

s 824-041

(15) Make sure the straight pin pushes the auto arm switch and the auto fire switch up when the hatch is removed. If not, adjust the linkage to change the position of the straight pin (11) (View A-A).

s 824-042

(16) Make sure the clearance between the auto actuator bolt and the auto actuator support bracket is 0.01-0.04 inch (0.25-1.02 mm) (View B-B). If not, adjust the auto actuator bolt. Make sure the disable handle is in the ARMED (up) position.

S 864-043

(17) Put the disable handle to the SAFE (down) position.

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s 424-044

(18) Put the auto actuator guard into position and install the washers(2) and screws (1) (View A-A).

s 424-045

(19) Connect the electrical connector to the auto arm/fire switch panel
 (View A-A).

S 864-046

(20) Do the task: Put the Airplane Back to Its Usual Condition.

TASK 25-65-15-904-047

- 4. <u>Remove and Install the Backup Arm/Fire Switch Panel</u> (Fig. 402)
 - A. References
 - (1) AMM 20-10-21/601, Electrical Bonding
 - B. Access
 - (1) AIRPLANES WITH ONE HATCH OVER EACH WING;
 - Location Zones
 - 832 Overwing Emergency Exit Hatch (Left)
 - 842 Overwing Emergency Exit Hatch (Right)
 - (2) AIRPLANES WITH TWO HATCHES OVER EACH WING;
 - Location Zones
 - 832 Overwing Emergency Exit Hatch (Forward/Left)
 - 834 Overwing Emergency Exit Hatch (Aft/Left)
 - 842 Overwing Emergency Exit Hatch (Forward/Right)
 - 844 Overwing Emergency Exit Hatch (Aft/Right)
 - C. Remove the Backup Arm/Fire Switch Panel

S 024-048

(1) Disconnect the electrical connector from the backup arm/fire switch panel.

S 024-049

(2) Remove the nut and washer to disconnect the backup arm/fire switch panel from the manual deploy lanyard.

s 024-050

(3) Remove the screws, washers, and nuts from the backup arm/fire switch panel.

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s 024-051

(4) Remove the backup arm/fire switch panel.

D. Install the Backup Arm/Fire Switch Panel

s 424-052

(1) Put the backup arm/fire switch panel into position on the airplane structure.

s 424-053

(2) Install the nuts, washers, and screws.

S 864-054

(3) Put the backup arm switch toggle and backup fire switch toggle to the ARM (up) position.

S 764-072

(4) Make sure the bonding resistance between the backup arm/fire switch panel and airplane structure is less than 0.0025 ohms (AMM 20-10-21/601).

s 424-056

(5) Install the washer and nut to connect the backup arm/fire switch panel to the manual deploy lanyard.

s 424-057

(6) Connect the electrical connector to the backup arm/fire switch panel.

S 864-058

(7) Do the "Put the Airplane Back to Its Usual Condition" task.

TASK 25-65-15-904-059

- 5. Remove and Install the Auto Arm and Auto Fire Switches
 - A. Access
 - (1) AIRPLANES WITH ONE HATCH OVER EACH WING; Location Zones
 - 832 Overwing Emergency Exit Hatch (Left)
 - 842 Overwing Emergency Exit Hatch (Right)

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- (2) AIRPLANES WITH TWO HATCHES OVER EACH WING; Location Zones
 - 832 Overwing Emergency Exit Hatch (Forward/Left)
 - 834 Overwing Emergency Exit Hatch (Aft/Left)
 - 842 Overwing Emergency Exit Hatch (Forward/Right)
 - 844 Overwing Emergency Exit Hatch (Aft/Right)
- B. Remove the Auto Arm Switch and the Auto Fire Switch

S 864-060

(1) Do the task: Remove the auto arm/fire switch panel task.

s 864-061

(2) Put the disable handle to the ARMED (up) position.

S 024-062

(3) Remove the hex nut from the switch and discard (View B, Fig. 401).

S 864-063

(4) Put the disable handle to the SAFE (down) position.

S 024-064

- (5) Remove the auto arm switch and auto fire switch from the back of the auto arm/fire switch panel.
- C. Install the Auto Arm Switch and Auto Fire Switch

s 424-065

(1) Install the auto arm switch and the auto fire switch directly against the auto arm/fire switch panel (View B, Fig. 401).

s 424-066

(2) Install the lockwasher, lock ring, and hex nut.

NOTE: Discard the second hex nut if it is installed.

S 864-067

(3) Do the task: Install the auto arm/fire switch panel.

TASK 25-65-15-864-068

- 6. Put the Airplane Back to Its Initial Condition
 - A. References
 - (1) AMM 25-65-00/201, Off-Wing Escape System

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- B. Access
 - (1) AIRPLANES WITH ONE HATCH OVER EACH WING; Location Zones 832 Overwing Emergency Exit Hatch (Left) 842 Overwing Emergency Exit Hatch (Right) (2) AIRPLANES WITH TWO HATCHES OVER EACH WING; Location Zones 832 Overwing Emergency Exit Hatch (Forward/Left) 834 Overwing Emergency Exit Hatch (Aft/Left) 842 Overwing Emergency Exit Hatch (Forward/Right) 844 Overwing Emergency Exit Hatch (Aft/Right)
- C. Procedure

S 864-069

- WARNING: YOU MUST OBEY THE PROCEDURE TO ARM THE OFF-WING ESCAPE SYSTEM. IF YOU INCORRECTLY ARM THE OFF-WING ESCAPE SYSTEM, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (1) Arm the off-wing escape system (AMM 25-65-00/201).







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Backup Arm/Fire Switch Panel Figure 402 (Sheet 1)

EFFECTIVITY AIRPLANES WITH ONE EMERGENCY EXIT HATCH OVER EACH WING

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OFF-WING ESCAPE SYSTEM EMERGENCY BATTERY - REMOVAL/INSTALLATION

1. <u>General</u>

- A. This procedure contains these tasks:
 - (1) Remove the off-wing escape system emergency battery.
 - (2) Install the off-wing escape system emergency battery.
- B. The emergency battery for each off-wing escape system is behind an air grill which is aft of the overwing escape hatch(es).
- C. The left emergency battery can supply electrical power to the left and right off-wing escape systems. The right emergency battery can also supply electrical power to the left and right off-wing escape systems.
- D. This procedure is for the left and right emergency batteries.

TASK 25-65-17-004-001

- 2. <u>Remove the Off-Wing Escape System Emergency Battery</u>
 - A. References
 - (1) AMM 20-41-01/201, Electrostatic Discharge Sensitive Devices
 - (2) AMM 25-65-00/201, Off-Wing Escape System
 - B. Access
 - (1) Location Zone

240 BS 786 to BS 1065

C. Procedure

S 864-002

- (1) Open these circuit breakers on the overhead circuit breaker panel, P11, and attach DO-NOT-CLOSE tags:
 - (a) 11P35, EMER LTS WING ESC L
 - (b) 11P36, EMER LTS WING ESC R

s 044-003

- WARNING: YOU MUST OBEY THE PROCEDURE TO DISARM THE OFF-WING ESCAPE SYSTEM. IF YOU INCORRECTLY DISARM THE OFF-WING ESCAPE SYSTEM, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (2) Disarm the off-wing escape system (AMM 25-65-00/201).

S 044-004

(3) Remove the screws that hold the air grill (Fig. 401).

s 034-005

(4) Remove the air grill.

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s 764-019

- <u>CAUTION</u>: DO NOT TOUCH THE POWER SUPPLY BEFORE YOU DO THE PROCEDURE FOR DEVICES THAT ARE SENSITIVE TO ELECTROSTATIC DISCHARGE. ELECTROSTATIC DISCHARGE CAN CAUSE DAMAGE TO THE POWER SUPPLY.
- (5) Before you touch the power supply, do the procedure for devices that are sensitive to electrostatic discharge (AMM 20-41-01/201).

s 024-022

(6) Remove the screws from the receptacle that holds the off-wing escape system emergency battery (View A, Fig. 401).

S 024-007

(7) Remove the off-wing escape system emergency battery from the receptacle.

TASK 25-65-17-404-008

- 3. <u>Install the Off-Wing Escape System Emergency Battery</u>
 - A. References
 - (1) AMM 20-41-01/201, Electrostatic Discharge Sensitive Devices
 - (2) AMM 25-65-00/201, Off-Wing Escape System
 - B. Access (1) Location Zone 240 BS 786 to BS 1065
 - C. Procedure

S 764-020

- <u>CAUTION</u>: DO NOT TOUCH THE POWER SUPPLY BEFORE YOU DO THE PROCEDURE FOR DEVICES THAT ARE SENSITIVE TO ELECTORSTATIC DISCHARGE. ELECTROSTATIC DISCHARGE CAN CAUSE DAMAGE TO THE POWER SUPPLY.
- Before you touch the power supply, do the procedure for devices that are sensitive to electrostatic discharge (AMM 20-41-01/201).

s 424-023

(2) Put the off-wing escape system emergency battery in the receptacle (View A, Fig. 401).

s 424-010

(3) Install the screws that hold the off-wing escape system emergency battery.

s 424-011

(4) Put the air grill in position.

s 434-012

(5) Install the screws that hold the air grill.

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S 444-013

- WARNING: YOU MUST OBEY THE PROCEDURE TO ARM THE OFF-WING ESCAPE SYSTEM. IF YOU INCORRECTLY ARM THE OFF-WING ESCAPE SYSTEM, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (6) Arm the off-wing escape system (AMM 25-65-00/201).

s 414-017

(7) Remove the DO-NOT-CLOSE tags and close these circuit breakers on the overhead circuit breaker panel, P11:

(a) 11P35, EMER LTS WING ESC L

(b) 11P36, EMER LTS WING ESC R

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OFF-WING ESCAPE SYSTEM SPOILER OVERRIDE ACTUATOR SQUIB -REMOVAL/INSTALLATION

1. <u>General</u>

- A. This procedure contains these tasks:
 - (1) Remove the squib in the spoiler override actuator.
 - (2) Install the squib in the spoiler override actuator.
- B. Use this procedure to replace a fired or unfired squib.
- C. You can use this procedure with the spoiler override actuator installed on the airplane.
- D. This procedure applies to the left and right spoiler override actuator squibs. The squibs are installed on the spoiler override actuators which are on the aft side of the spoiler beam and outboard of the inboard spoiler power control actuators.
- E. The spoiler override actuator squib is an electrically fired cartridge which powers the spoiler override actuator by use of a pressurized gas.
- F. You must keep a record of the number of times the spoiler override actuator has fired because the actuator is a life-limited part. There is a strike-off plate on the actuator for this record.

TASK 25-65-19-004-001

- 2. Remove the Spoiler Override Actuator Squib
 - A. Equipment
 - (1) Safety Equipment, Off-Wing Escape System A25016-1
 - B. References
 - (1) AMM 25-65-00/201, Off-Wing Escape System
 - (2) AMM 25-65-20/401, Off-Wing Escape System Spoiler Override Actuator
 - C. Access
 - (1) Location Zone 553/653 Spoiler No. 6 (LH), No. 7 (RH)
 - D. Procedure

S 844-016

- WARNING: YOU MUST OBEY THE PROCEDURE TO DISARM THE OFF-WING ESCAPE SYSTEM. IF YOU INCORRECTLY DISARM THE OFF-WING ESCAPE SYSTEM, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (1) Do the procedure to disarm the off-wing escape system (AMM 25-65-00/201).

S 024-002

(2) If the spoiler override actuator squib has not fired, do these steps:

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- WARNING: IF THE SPOILER OVERRIDE ACTUATOR SQUIB HAS NOT FIRED, INSTALL THE SHORTING CAP ON THE SQUIB. BE CAREFUL WHEN YOU TOUCH THE SPOILER OVERRIDE ACTUATOR SQUIB. IF YOU ARE NOT CAREFUL, THE SPOILER OVERRIDE ACTUATOR SQUIB CAN ACCIDENTALLY FIRE AND CAUSE INJURY OR DAMAGE.
- (a) Install the shorting cap on the spoiler override actuator squib (View B, Fig. 401).
 - <u>NOTE</u>: The shorting cap is part of the off-wing escape system safety equipment.
- (b) Remove the spoiler override actuator squib.
- (c) Refer to the applicable safety standards to discard the spoiler override actuator squib, if it is at the service life limit.

S 964-003

- WARNING: IF THE SPOILER OVERRIDE ACTUATOR SQUIB HAS FIRED, THE SPOILER OVERRIDE ACTUATOR CONTAINS PRESSURIZED GAS. REMOVE THE SPOILER OVERRIDE ACTUATOR SQUIB ONLY BY THE APPROVED METHOD GIVEN IN THIS PROCEDURE. IF YOU INCORRECTLY USE THIS PROCEDURE, INJURY OR DAMAGE CAN OCCUR.
- (3) If the spoiler override actuator squib has fired,
 - do these steps:
 - (a) Loosen the spoiler override actuator squib one full turn to release all the pressurized gas.
 - <u>NOTE</u>: If possible, make sure the air flows freely through the work area when you loosen the spoiler override actuator squib.
 - (b) Slowly remove the spoiler override actuator squib.
 - (c) Push the piston to the retracted position.
 - (d) Remove the fired spoiler override actuator squib.
 - (e) Refer to the applicable safety standards to discard the fired spoiler override actuator squib.

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- <u>CAUTION</u>: ONLY USE A SOFT CLOTH WHEN YOU CLEAN THE SPOILER OVERRIDE ACTUATOR. A BRUSH CAN SCRATCH THE INNER SURFACE OF THE SPOILER OVERRIDE ACTUATOR AND CAUSE DAMAGE.
- (f) Remove the remaining propellent residue with a soft cloth.
 - <u>NOTE</u>: It is not mandatory to clean the spoiler overide actuator.

S 034-004

(4) Discard the O-ring.

s 214-005

(5) Examine the inner surface of the spoiler override actuator cover for moisture.

s 304-006

(6) If the interior of the spoiler override actuator cover is wet because of leakage of damping fluid, remove the spoiler override actuator for repair (AMM 25-65-20/401).

TASK 25-65-19-404-007

- 3. Install the Spoiler Override Actuator Squib
 - A. Equipment
 - (1) Safety Equipment, Off-Wing Escape System A25016-1
 - Consumable Materials
 - (1) DOO121 Grease DC-33
 - C. References
 - (1) AMM 25-65-00/201, Off-Wing Escape System
 - (2) AMM 25-65-20/401, Off-Wing Escape System Spoiler Override Actuator
 - D. Access

Β.

- (1) Location Zone 553/653 Spoiler No. 6 (LH), No. 7 (RH)
- E. Procedure

s 214-008

- <u>WARNING</u>: MAKE SURE THE OFF-WING ESCAPE SYSTEM IS DISARMED. IF THE OFF-WING ESCAPE SYSTEM IS ARMED, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (1) Make sure the off-wing escape system is disarmed (AMM 25-65-00/201).

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S 644-009

(2) Apply a light layer of grease to the new 0-ring for the spoiler override actuator squib (View B, Fig. 401).

s 434-010

(3) Install the new O-ring into the spoiler override actuator.

s 494-011

- (4) If the shorting cap is not installed, make sure you install the shorting cap into the spoiler override actuator squib (View B, Fig. 401).
 - <u>NOTE</u>: The shorting cap is kept in a pouch which is in the latch opening actuator compartment.

s 434-012

(5) Install an unfired spoiler override actuator squib into the spoiler override actuator.

s 434-013

(6) Tighten the spoiler override actuator squib to 125-175 pound-inches.

S 444-014

- WARNING: YOU MUST OBEY THE PROCEDURE TO ARM THE OFF-WING ESCAPE SYSTEM. IF YOU INCORRECTLY ARM THE OFF-WING ESCAPE SYSTEM, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (7) Arm the off-wing escape system (AMM 25-65-00/201).

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OFF-WING ESCAPE SYSTEM SPOILER OVERRIDE ACTUATOR - REMOVAL/INSTALLATION

- 1. <u>General</u>
 - A. This procedure contains these tasks:
 - (1) Remove the spoiler override actuator
 - (2) Install the spoiler override actuator.
 - B. Use this procedure for the left and right spoiler override actuators.
 - C. The spoiler override actuators are on the aft side of the spoiler beam, outboard of the inboard spoiler power control actuators.
 - D. You must keep a record of the number of times the spoiler override actuator has fired. There is a strike-off plate on the actuator for this record.

TASK 25-65-20-004-001

- 2. <u>Remove the Spoiler Override Actuator</u>
 - A. Equipment
 - (1) Safety Equipment, Off-Wing Escape System A25016-1
 - B. References
 - (1) AMM 25-65-00/201, Off-Wing Escape System
 - C. Access (1) Location Zones
 - 553/653 Spoiler No. 6 (LH), No. 7 (RH)
 - D. Procedure

s 044-002

- WARNING: YOU MUST OBEY THE PROCEDURE TO DISARM THE OFF-WING ESCAPE SYSTEM. IF YOU INCORRECTLY DISARM THE OFF-WING ESCAPE SYSTEM, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (1) Do the procedure to disarm the off-wing escape system (AMM 25-65-00/201).

S 864-003

- (2) If the spoiler override actuator squib has fired, release the pressure gas as follows:
 - <u>NOTE</u>: Make sure the air flows freely through the work area when the gas is released.
 - (a) Disconnect the electrical connector from the spoiler override actuator (View A, Fig. 401).
 - (b) Loosen the spoiler override actuator squib one full turn.

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s 034-004

- WARNING: BE CAREFUL WHEN YOU TOUCH THE ACTUATORS. THE SQUIB ON THE ACTUATORS CAN ACCIDENTALLY FIRE AND CAUSE INJURY OR DAMAGE.
- (3) Disconnect the electrical connector from the spoiler override actuator.

s 494-005

(4) Install the shorting cap on the spoiler override actuator (View B).

<u>NOTE</u>: The shorting cap is part of the off-wing escape system safety equipment.

S 034-006

(5) Disconnect the jumper wire that connects the spoiler override actuator to the spoiler beam of the airplane structure.

s 034-007

(6) Remove the bolts, slip bushings, washers, and nuts from the spoiler override actuator.

S 024-008

(7) Remove the spoiler override actuator.

s 504-009

- WARNING: IF THE SPOILER OVERRIDE ACTUATOR SQUIB HAS NOT FIRED, YOU MUST BE CAREFUL WHEN YOU TOUCH, KEEP, OR MOVE THE SPOILER OVERRIDE ACTUATOR SQUIB. REFER TO THE APPLICABLE LAWS AND FIRE REGUALTIONS FOR CLASS 1, DIVISION 4 EXPLOSIVE DEVICES. IF YOU ARE NOT CAREFUL, THE SPOILER OVERRIDE ACTUATOR SQUIB CAN ACCIDENTALLY FIRE AND CAUSE INJURY OR DAMAGE.
- (8) Put the spoiler override actuator in a plastic bag and seal the plastic bag. Attach a tag with the part number, nomenclature, and information for the safety procedures to touch, keep, or move the spoiler override actuator.

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TASK 25-65-20-404-010

- 3. Install the Spoiler Override Actuator
 - A. General
 - (1) You may install the spoiler override actuator squib on the spoiler override actuator before you install the spoiler override actuator on the airplane.
 - B. Equipment
 - (1) Safety Equipment, Off-Wing Escape System A25016-1
 - C. References
 - (1) AMM 25-65-00/201, Off-Wing Escape System
 - D. Access
 - (1) Location Zones
 - 553/653 Spoiler No. 6 (LH), No. 7 (RH)
 - E. Procedure

s 214-011

- WARNING: MAKE SURE THE OFF-WING ESCAPE SYSTEM IS DISARMED. IF THE OFF-WING ESCAPE SYSTEM IS ARMED, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (1) Make sure the off-wing escape system is disarmed (AMM 25-65-00/201).

s 214-012

(2) Make sure the shorting cap is installed on the spoiler override actuator squib (View B, Fig. 401).

s 434-013

(3) Put the spoiler override actuator in position and install the bolts, slip bushings, washers, and nuts (View B, Fig. 401).

s 434-014

(4) Connect the jumper wire to the spoiler beam of the airplane structure.

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s 034-017

(5) Remove the shorting cap from the spoiler override actuator (View B, Fig. 401).

s 424-018

(6) Connect the electrical connector to the spoiler override actuator.

s 444-015

- WARNING: YOU MUST OBEY THE PROCEDURE TO ARM THE OFF-WING ESCAPE SYSTEM. IF YOU INCORRECTLY ARM THE OFF-WING ESCAPE SYSTEM, THE ESCAPE SLIDE CAN ACCIDENTALLY INFLATE AND CAUSE INJURY OR DAMAGE.
- (7) Do the procedure to arm the off-wing escape system (AMM 25-65-00/201).

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DOOR-MOUNTED ESCAPE SYSTEM - DESCRIPTION AND OPERATION

1. <u>General</u>

- A. The door-mounted escape system for the entry/service door contains an escape slide-raft installed on each entry/service door.
- B. The door-mounted escape system is used only during an emergency evacuation of the passenger compartment. The door-mounted escape system lets passengers escape through the doors in an emergency.
- C. The door-mounted escape system for the entry/service doors deploys when the escape system is armed and the door is opened.
- D. The escape slide-raft on an entry/service door can be disconnected from the airplane and used as a life raft.
- E. In this procedure an escape slide-raft on the entry/service door will be referred to as a slide.
- 2. <u>Component Details Entry/Service Doors</u> (Fig. 2)
 - A. Door-Mounted Escape System (Fig. 1)
 - (1) The door-mounted escape system is installed on the lower part of the entry/service door behind the bustle. The door-mounted escape system contains a slide that inflates.
 - (2) The slide is folded into an escape pack which also contains the inflation cylinder and inflation hoses to inflate the slide.
 - (3) The pack is installed on a packboard. A pack cover holds the folded slide on the packboard until the system is deployed.
 - (4) The escape pack also contains this emergency equipment:
 - (a) survival kit
 - (b) manual inflation pump
 - (c) heaving/trailing line with a life ring
 - (d) sea anchor
 - (e) canopy which can be erected over the slide-raft.
 - (5) When inflated, the slide has two lanes for evacuating passengers to slide down. A divider down the center separates the two lanes to prevent collisions between sliding passengers. Guard rails along each side prevent sliding passengers from falling off of the slide.
 - B. Escape System Deployment
 - (1) The deployment system is attached to the entry/service door and deploys the escape pack out of the doorway. These are the components of the deployment system:
 (a) deployment here
 - (a) deployment bar

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- (b) gas spring
- (c) deployment cables with cable retractors
- (d) girt bar carrier.
- (2) The girt bar is installed through a loop in the slide girt and locked into the girt bar carrier. The girt bar carrier fits into the floor fittings. The girt bar carrier is locked to the floor fittings when the system is armed. When the system is disarmed the girt bar carrier is free to lift up with the door when the door is opened.
- (3) When the girt bar carrier is locked and the door is opened, the escape pack deploys out the door and inflates. The girt bar pulls on the girt to hold the escape pack to the floor while the door opens.
- (4) The deployment bar is attached to fittings on the entry/service door. The deployment bar is linked by cables at its forward and aft ends to cable retractors installed on each end of the girt bar carrier.
- (5) As the door opens, these cables turn the deployment bar to push the escape pack out the door. As the door continues to move up the cables are released from the deployment bar and retract into the spring loaded cable retractors.
- C. Packboard Guide Track and Latch
 - (1) A guide track is attached to the structure of the entry/service door. A guide pin on the packboard fits into the guide track. The guide pin is held into the track by the latch at the top of the track.
 - (2) When the door opens with the system armed, the guide pin slides in the guide track. The escape pack is held vertical until the door lifts above it and the guide pin slides out the bottom of the guide track.
- 3. Operation Entry/Service Doors
 - A. Functional Description
 - (1) The door-mounted escape system for the entry/service doors deploys when the escape system is armed and the door is opened.
 - (2) When the door is opened, the girt bar and girt bar carrier are held to the floor. The girt bar pulls on the girt to hold the escape pack down.
 - (3) As the door moves up, the lower half of the bustle hinges inboard to clear the escape pack.
 - (4) After the lower edge of the door has moved above the escape pack pack, the deployment cables pull on the deployment bar. The deployment bar turns and pushes the pack out the door.
 - (5) As the escape pack falls to a position below the door sill, the cover release lanyard releases the pack cover. This allows the inflation cylinder to drop which pulls the inflation lanyard. The inflation lanyard triggers the regulator on the inflation cylinder to release the gas from the cylinder.

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- (6) The gas from the inflation cylinder flows through hoses to aspirators on the escape slide. The aspirators pull in ambient air which mixes with the gas from the cylinder to inflate the slide to a usable escape device for evacuating passengers.
- (7) When the slide is fully extended and below the horizontal it is ready for use.
- B. Control
 - (1) The door-mounted escape system for the entry/service doors deploys when the escape system is armed and the door is opened.
 - (2) If the door-mounted escape system does not inflate automatically, you can pull the manual inflation handle on the right side of the girt to inflate.

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DOOR-MOUNTED ESCAPE SYSTEM

COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	REFERENCE
BAR - DEPLOYMENT	1	4	BEHIND BUSTLE ON ENTRY/SERVICE DOORS	25-66-03
BAR - GIRT	1	4	BEHIND BUSTLE ON ESCAPE SLIDE- RAFT PACKS	25-66-05
CABLE - DEPLOYMENT	2	8	ON CABLE RETRACTOR	25-66-03
LATCH - SLIDE-RAFT	2	4	BEHIND BUSTLE ON ENTRY/SERVICE DOORS	25-66-04
LOCK - GIRT BAR	2	8	ON GIRT BAR CARRIER	25-66-01
PACK - DOOR-MOUNTED ESCAPE SLIDE-RAFT	2	4	BEHIND BUSTLE ON ENTRY/SERVICE DOORS	25-66-01
RETRACTOR - DEPLOYMENT CABLE	2	8	ON GIRT BAR CARRIER	25-66-03
SNUBBER	2	4	BEHIND BUSTLE ON ENTRY/SERVICE DOORS	25-66-03
TRACK - SLIDE-RAFT GUIDE	2	4	BEHIND BUSTLE ON ENTRY/SERVICE DOORS	25-66-04

Door-Mounted	Escape	System -	- Component	Index
	Fig	gure 101		

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MAINTENANCE MANUAL

ENTRY/SERVICE DOOR ESCAPE SYSTEM - MAINTENANCE PRACTICES

- 1. <u>General</u>
 - A. This procedure contains these tasks:
 - (1) Put the escape system back to its initial condition after an escape slide-raft deployment.
 - <u>NOTE</u>: Four men are necessary to remove the inflated escape slide-raft. Two men can do all of the other procedures.
 - (2) Apply corrosion prevention treatment.

TASK 25-66-00-602-001

- 2. Put the Escape System Back to the Usual Condition Entry/Service Door
 - A. Equipment
 - (1) Rope (or cord) 1/4 or 3/8 inch diameter by 50
 - feet long
 - B. References
 - (1) AMM 25-66-01/401, Entry/Service Door Escape Slide-Raft
 - (2) AMM 52-11-13/201, Entry/Service Door Ground Lock
 - C. Access
 - (1) Location Zones
 - 831 Forward Entry Door
 - 833 Aft Entry Door
 - 841 Forward Service Door
 - 843 Aft Service Door
 - D. Procedure

s 032-002

- (1) Disconnect the battery pack for the escape slide-raft lights.
 - <u>NOTE</u>: The battery pack is on the bottom surface of the escape slide-raft near the end that attaches to the airplane. A step ladder is necessary to get to the battery pack.

s 612-005

(2) Deflate the escape slide-raft until the slide-raft is soft, but keeps its shape.

s 032-008

(3) Disconnect the cover flap on the girt bar.

s 032-009

(4) Remove one of the two pins that are installed through the cord loops.

NOTE: The pins are attached to the girt release handle.

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s 032-010

(5) On the released side of the girt, pull the webbing loops free of the girt bar cover flap through the grommets in the cover flap.

s 492-011

(6) Push the rope through the two free webbing loops.

s 492-012

(7) Tie the end of the rope to the running length of the rope.

s 162-013

- CAUTION: MAKE SURE THE AREA ON THE GROUND BELOW THE ESCAPE SLIDE-RAFT IS CLEAN. SHARP OBJECTS ON THE GROUND CAN CAUSE DAMAGE TO THE SLIDE-RAFT WHEN IT IS LOWERED.
- (8) Make sure the area on the ground below the escape slide-raft is clean.

s 032-016

- BE CAREFUL WHEN YOU LOWER THE ESCAPE SLIDE-RAFT. THE ESCAPE CAUTION: SLIDE-RAFT IS VERY HEAVY. DAMAGE TO THE SLIDE-RAFT OR THE INFLATION COMPONENTS CAN OCCUR IF THEY ARE NOT MOVED CORRECTLY.
- (9) With two men to hold the rope and two men to lift the lower end of the slide-raft, pull the girt release handle. This removes the remaining pin from the cord loop and fully releases the slide-raft from the airplane.

s 032-020

(10) Lower the escape slide-raft to the ground.

s 032-023

(11) Remove the girt bar and the girt bar flap from the girt bar carrier.

s 432-024

(12) Keep the girt bar, girt bar flap, and girt release handle with the escape slide-raft.

s 432-027

(13) Remove the girt bar carrier from the floor fittings.

s 432-028

(14) Keep the girt bar carrier on the airplane for subsequent installation on the door.

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S 612-029

(15) Fully deflate the escape slide-raft.

s 612-032

(16) Refer to the instructions from the slide-raft manufacturer to examine, repair, and repack the escape slide-raft.

s 862-035

(17) Move the arm/disarm handle to the DISARMED position.

s 432-036

(18) Close the entry/service door as follows:

NOTE: Two men are necessary to close the entry/service door.

- (a) Get access to the counterbalance as follows:
 - 1) For forward entry door, open the lowered ceiling panel immediately aft of the flight compartment door.
 - 2) For forward service door, open the sculptured ceiling panel above the aisle immediately aft of the door.
 - 3) For aft entry door, open the sculptured ceiling panel above the aisle immdiately forward of the door.
 - 4) For aft service door, open the large lowered ceiling panel immediately forward of the aft galleys.
- (b) Engage the pawl on the counterbalance.
- (c) Attach a DO-NOT-OPERATE tag to the counterbalance pawl.
- (d) Hold the brackets for the girt bar carrier or the escape slide-raft, and pull the entry/service door halfway down.
 - <u>NOTE</u>: The entry/service door will close with the counterbalance pawl engaged, but it will not open.
- (e) Install the girt bar carrier on the entry/service door as shown (Fig. 201).
 - Lift the lock pawl and set the girt bar carrier in position on the lift pin.
 - 2) Release the lock pawl.

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- (f) Pull the entry/service door fully down.
- (g) Move the interior handle down to the latched position.
- (h) Install the ground lock for the entry/service door (AMM 52-11-13/201).

s 032-037

(19) Remove the bustle.

s 822-038

(20) Turn the deployment bar inboard on the door.

s 212-039

- (21) Look for damage on these items:
 - (a) The deployment cables.
 - (b) The deployment cable retractors.
 - (c) The deployment bar.
 - (d) The gas spring.
 - (e) The girt bar carrier.
 - (f) The mode select mechanism.

s 422-037

(22) Install the escape slide-raft (AMM 25-66-01/401).

s 432-040

(23) Install the bustle.

s 092-041

(24) Remove the ground lock for the entry/service door (AMM 52-11-13/201).

s 492-042

(25) Remove the DO-NOT-OPERATE tag from the pawl.

S 092-043

(26) Hold the handwheel on the counterbalance and disengage the pawl.

S 412-044

(27) Close the access panels to the counterbalance.

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TASK 25-66-00-622-076

- 3. <u>Corrosion Prevention Treatment</u> (Fig. 202)
 - A. General
 - (1) Corrosion can cause much friction in the escape slide release mechanism. This condition may prevent the escape slide retaining shaft from rotating. Without rotation of the shaft, the slide cover will not deploy and the pressure vessel will not trigger.
 - (2) Corrosion can occur on packboard bushings.
 - (3) Corrosion can occur between the packboard cover release rod and the bearing, which are made of different metals.
 - (4) Corrosion can occur around the fittings because of water which can collect in the stowed escape slide. This water can also cause mold to start on the slide surfaces.
 - (5) After suspected corrosion areas are cleaned (AMM 51-21-03/701), a full inspection is effective to make sure that protective finishes provided during manufacture stay intact.
 - (6) For minor corrosion, to keep the downtime of the airplane to a minimum, the corrosion products should be cleaned off, followed by the application of a corrosion preventive compound into the affected area to decrease the corrosion process (AMM 51-24-09/701). The finish system should be repaired at the first opportunity consistent with the maintenance schedule.
 - (7) Frequency of Application
 - (a) Periodic inspection is required in areas identified as susceptible to corrosion and should be consistent to the schedules specified in the Maintenance Planning Document. Operators must be aware of reported problems and areas of occurrences.
 - (8) Obey the precautions that follow when you apply the corrosion preventive compound:
 - (a) Do not apply corrosion preventive compounds on grease joints or sealed bearings. These compounds dissolve grease and other lubricants. They are penetrating compounds and can get around the seals and into the bearings.
 - (b) Do not apply corrosion preventive compounds on internal materials such as insulation blankets or liners. The compounds change the flammable quality of these materials.

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ENTRY/SERVICE DOOR ESCAPE SYSTEM - ADJUSTMENT/TEST

- 1. <u>General</u>
 - A. This procedure gives the instructions for a test of the escape system on the entry/service door.
 - B. Two different tests are given for the entry/service escape system. In the first test, the door is opened and the escape slide-raft is inflated. In the second test, the door is opened but the escape slide-raft is not inflated.

TASK 25-66-00-705-001

- 2. Escape System Test (Slide-Raft Will Inflate) (Fig. 501)
 - A. General
 - (1) In this test, the entry/service door is opened and the escape slide-raft is inflated. It will be necessary to repack the escape slide-raft before it is installed back on the door.
 - B. Equipment
 - (1) Protective Pad Ensolite (or equivalent) 1 inch X 48 inches X 48 inches (25.4mm x 1.22 meters x 1.22 meters) - commercially available
 - C. References
 - (1) AMM 25-66-00/201, Entry/Service Door Escape System
 - (2) AMM 52-11-00/201, Entry/Service Door Maintenance Practices
 - D. Access
 - (1) Location Zones
 - 831 Forward Entry Door
 - 833 Aft Entry Door
 - 841 Forward Service Door
 - 843 Aft Service Door
 - E. Procedure

s 495-005

- <u>CAUTION</u>: ATTACH THE PROTECTIVE PAD TO THE FUSELAGE BELOW THE APPLICABLE DOOR. IF THE PROTECTIVE PAD IS NOT INSTALLED, DAMAGE TO THE FUSELAGE SKIN OR THE PACKBOARD CAN OCCUR.
- (1) Attach the protective pad to the fuselage below the applicable door.

S 865-006

(2) Close and latch the entry/service door (AMM 52-11-00/201).

s 215-007

- <u>WARNING</u>: MAKE SURE THERE ARE NO PERSONS OR EQUIPMENT IN THE AREA AROUND THE ENTRY/SERVICE DOOR. THE MOVEMENT OF THE DOOR AND THE INFLATION SEQUENCE OF THE ESCAPE SYSTEM CAN CAUSE INJURY OR DAMAGE.
- (3) Make sure there are no persons or equipment in the area around the entry/service door.

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S 865-008

(4) Move the arm/disarm handle to the ARMED (outboard) position.

s 215-009

(5) Make sure the yellow indicator flags for the girt bar show in the windows at the bottom of the door.

s 865-010

(6) Open the entry/service door.

s 215-011

- (7) Look for these conditions:
 - (a) The slide-raft is fully inflated.
 - (b) The slide-raft fully inflates in less than 10 seconds after it starts to inflate.
 - (c) The deployment bar is turned down and outboard, and is against the upper door sill.
 - (d) The deployment cables are fully retracted.
 - (e) The cable retractors are turned outboard and are against the lower door sill.
 - (f) The girt bar assembly is turned outboard of the floor fittings.

s 615-012

(8) Put the escape system back to its usual condition (AMM 25-66-00/201).

s 095-013

(9) Remove the protective pad from the fuselage.

TASK 25-66-00-705-014

- 3. Escape System Test (Slide-Raft Will Not Inflate) (Fig. 501)
 - A. General
 - (1) In this test, the entry/service door is opened and the escape slide-raft is released but not inflated. After the test, you can immediately install the escape slide-raft back on the door.
 - B. Equipment
 - (1) Protective Pad Ensolite (or equivalent) 1 inch X 48 inches X 48 inches (25.4 mm x 1.22 meters x 1.22 meters)- commercially available
 - (2) Hex wrench 5/16 inch commercially available
 - C. Consumable Materials
 - GO0009 Compound, Corrosion Inhibiting BMS 3-23, Type II
 - D. References
 - (1) AMM 25-66-00/201, Entry/Service Door Escape System
 - (2) AMM 25-66-01/401, Entry/Service Door Escape Slide-Raft

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- (3) AMM 52-11-13/201, Entry/Service Door Ground Lock
- E. Access
 - (1) Location Zones
 - 831 Forward Entry Door
 - 833 Aft Entry Door
 - 841 Forward Service Door
 - 843 Aft Service Door

F. Procedure

s 495-018

(1) Set a work platform below the applicable door.

s 495-019

(2) Make sure the work platform is level with (or not more than one inch below) the lower doorsill.

s 495-020

- <u>CAUTION</u>: SET THE PROTECTIVE PAD ON THE WORK PLATFORM. IF THERE IS NO PROTECTIVE PAD ON THE WORK PLATFORM, DAMAGE TO THE PACKBOARD CAN OCCUR.
- (3) Set the protective pad on the work platform. Make sure the inboard edge of the pad is against the fuselage skin and in the middle of the doorway.

S 865-021

(4) Close and latch the entry/service door (AMM 25-66-00/201).

s 035-022

(5) Remove the bustle.

S 095-023

(6) Remove the safety pin from the stowage pouch on the escape slide-raft.

s 495-026

- WARNING: MAKE SURE YOU INSTALL THE SAFETY PIN INTO THE INFLATION CYLINDER REGULATOR. THE ACCIDENTAL INFLATION OF THE ESCAPE SLIDE-RAFT CAN CAUSE INJURY OR DAMAGE.
- (7) Install the safety pin into the inflation cylinder regulator.

s 825-029

(8) Turn the girt bar locks 1/4 turn.

s 035-030

(9) Remove the girt bar from the girt bar carrier.

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s 435-031

(10) Attach the girt bar to the escape slide-raft with the snap straps.

s 435-034

- (11) Use tape to hold the release mechanism latch for the packboard lower cover.
 - <u>NOTE</u>: If the lower cover is released during the test, it will be necessary to repack the escape slide-raft.

s 035-037

(12) Disconnect the girt bar from the escape slide-raft.

s 825-040

(13) Set the girt bar in position on the girt bar carrier.

s 825-041

(14) Turn the forward and the aft girt bar locks 1/4 turn (until the arrows on the locks align with the arrows on the carrier).

s 435-042

(15) Install the bustle.

s 215-043

- <u>WARNING</u>: MAKE SURE THERE ARE NO PERSONS OR EQUIPMENT IN THE AREA AROUND THE ENTRY/SERVICE DOOR. THE MOVEMENT OF THE DOOR AND THE ESCAPE SYSTEM CAN CAUSE INJURY OR DAMAGE.
- (16) Make sure there are no persons or equipment in the area around the entry/service door.

S 865-044

(17) Move the arm/disarm handle to the ARMED (outboard) position.

s 215-045

(18) Make sure the yellow indicator flags for the girt bar show in the windows at the bottom of the door.

S 865-046

(19) Open the entry/service door.



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s 215-047

- (20) Look for these conditions:
 - (a) The escape slide-raft is fully out of the door and on the work platform.
 - <u>NOTE</u>: Do not move the escape slide-raft until the girt bar is removed from the girt bar carrier.
 - (b) The deployment bar is turned down and outboard, and is against the upper door sill.
 - (c) The deployment cables are fully retracted.
 - (d) The cable retractors are turned outboard and are against the lower door sill.
 - (e) The girt bar assembly is turned outboard of the floor fittings.
 - (f) The packboard lower cover is not released from the cover release mechanism.

s 825-048

(21) Turn the girt bar locks 1/4 turn.

S 035-049

(22) Remove the girt bar from the girt bar carrier.

S 435-050

(23) Attach the girt bar to the escape slide-raft with the snap straps.

S 865-053

(24) Move the arm/disarm handle to the DISARMED (inboard) position.

s 035-054

(25) Remove the girt bar carrier from the floor fittings.

s 035-055

(26) Remove the tape from the release mechanism latch for the packboard lower cover. Make sure you do not operate the release mechanism when you remove the tape.

s 215-056

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(27) Look for damage on these items:(a) The deployment cables.

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- (b) The deployment cable retractors.
- (c) The deployment bar.
- (d) The gas spring.
- (e) The girt bar carrier.
- (f) The mode select mechanism.

s 625-057

- (28) Apply corrosion inhibiting compound at the locations shown on the packboard (View B) as follows:
 - (a) Clean the surfaces as necessary to remove moisture and other unwanted material.
 - (b) Apply a sufficient quantity of compound to the interfaces of the pivot shaft/bushing. Make sure you apply the compound only at the correct locations.
 - (c) After 30 minutes, remove the unwanted compound.

S 435-058

- (29) Install the release cables in the two sides of the packboard.
 - (a) Put the hex wrench in the arming hole of the release mechanism for the packboard side cover.
 - (b) Install the ball end of the release cable into the slot in the packboard extension.
 - (c) Turn the hex wrench toward the upper end of the packboard until it gets to the stop.
 - <u>NOTE</u>: A distinct metallic click indicates sufficient rotation of the wrench.
 - (d) Make sure the release cable is engaged by the release mechanism for the side cover.
 - (e) Remove the hex wrench.

s 435-059

(30) Apply a downward pressure to the pack at each front cover cable location, and put the ball end of each cable into the applicable slot in the packboard side channel.

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s 825-060

(31) Move the escape slide-raft to the floor of the passenger compartment.

S 015-063

- (32) Get access to the counterbalance as follows:
 - (a) For the entry doors, open the ceiling panel above the aisle immediately forward of the door.
 - (b) For the service doors, open the ceiling panel above the aisle immediately aft of the door.

S 825-064

(33) Engage the pawl on the counterbalance.

S 495-065

(34) Attach a DO-NOT-OPERATE tag to the counterbalance pawl.

s 825-066

- (35) Pull the entry/service door approximately halfway down.
 - <u>NOTE</u>: The entry/service door will close when the counterbalance pawl is engaged, but it will not open. Two persons are necessary to close the door.

S 035-067

(36) Remove the bustle.

s 825-068

(37) Turn the deployment bar inboard and up.

s 435-069

- (38) Install the girt bar carrier on the door.
 - (a) Set the girt bar carrier in position on the door with the girt bar locks inboard and the carrier rotation arms engaged in the slots.
 - (b) Turn the warning flags up and inboard until the lock pawls engage the girt bar carrier.

S 865-070

(39) Pull the entry/service door down to the fully closed position (AMM 25-66-00/201).

s 865-071

(40) Move the interior handle to the latched position.

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s 495-072

(41) Install the ground lock for the entry/service door (AMM 52-11-13/201).

s 435-073

(42) Attach the deployment cables to the deployment bar.

s 435-074

(43) Install the escape slide-raft (AMM 25-66-01/401).

s 825-078

- <u>CAUTION</u>: MAKE SURE YOU HOLD THE HANDWHEEL WHEN YOU DISENGAGE THE PAWL. IF YOU DO NOT HOLD THE HANDWHEEL, THE COUNTERBALANCE SPRINGS WILL RELEASE QUICKLY, WHICH CAN CAUSE DAMAGE TO THE COUNTERBALANCE.
- (44) Hold the handwheel on the counterbalance, and disengage the pawl.

s 825-079

(45) Slowly let the handwheel turn clockwise until there is no force on the handwheel.

s 415-080

(46) Close the access panels to the counterbalance.





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ENTRY/SERVICE DOOR ESCAPE SLIDE PACK - REMOVAL/INSTALLATION

- 1. <u>General</u>
 - A. This procedure has these tasks:
 - (1) The removal of the escape slide pack.
 - (2) The installation of the escape slide pack.
 - B. In this procedure an escape slide-raft will be referred to as an escape slide pack.
 - (1) Two persons are necessary to lift or move the escape slide pack. The weight of the escape slide pack is approximately 146 lbs (66 kg).

TASK 25-66-01-004-001

- 2. <u>Remove the Escape Slide Pack</u>
 - A. References
 - (1) AMM 25-66-00/201, Entry/Service Door Escape System
 - (2) AMM 52-11-13/201, Entry/Service Door Ground Lock
 - B. Access
 - (1) Location Zones
 - 831 Forward Entry Door
 - 833 Aft Entry Door
 - 841 Forward Service Door
 - 843 Aft Service Door
 - C. Procedure

S 864-004

(1) Close and latch the entry/service door (AMM 25-66-00/201).

s 494-005

- <u>WARNING</u>: MAKE SURE YOU INSTALL THE GROUND LOCK FOR THE ENTRY/SERVICE DOOR. WITHOUT THE GROUND LOCK INSTALLED, THE DOOR CAN LIFT ACCIDENTALLY, AND CAUSE INJURY OR DAMAGE.
- (2) Install the ground lock for the entry/service door (AMM 52-11-13/201).

s 864-006

(3) Move the arm/disarm handle to the DISARMED position.

s 214-007

(4) Make sure that the yellow flag indicators for the girt bar (3) are not shown in the windows at the bottom of the door.

S 014-008

(5) Remove the bustle (2).

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S 094-009

(6) Remove the safety pin from the stowage pouch on the escape slide pack (1).

s 494-012

- <u>WARNING</u>: MAKE SURE YOU INSTALL THE SAFETY PIN INTO THE INFLATION CYLINDER REGULATOR. THE ACCIDENTAL INFLATION OF THE ESCAPE SYSTEM CAN CAUSE INJURY OR DAMAGE.
- (7) Install safety pin into the inflation cylinder regulator.

S 034-016

- <u>CAUTION</u>: MAKE SURE YOU DO NOT PULL ON THE RELEASE CABLES WHEN YOU MOVE THE GIRT BAR. A FORCE ON THE CABLES CAN CAUSE THE ESCAPE SLIDE PACK TO RELEASE FROM THE DOOR.
- (8) Remove the girt bar (3) from the girt bar carrier.

s 434-019

(9) Attach the girt bar (3) to the escape slide pack (1) with the retainer straps.

S 824-023

(10) Turn the deployment bar down to touch the floor.

s 034-026

(11) Release the snaps of the safety strap for the latch handle (View A, Fig. 402).

S 824-027

(12) Hold the top of the escape slide pack (1) and turn the latch handle to the unlocked position.

S 024-030

(13) Lower the escape slide pack (1) down and inboard until it is on the floor.

NOTE: It is not necessary to lift the escape slide pack (1).

S 824-033

(14) Move the escape slide pack (1) inboard until the two lower fittings are disengaged from the mounting brackets on the door.

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TASK 25-66-01-404-036

- 3. Install the Escape Slide Pack
 - A. Parts

АММ					
FIG	ITEM	NOMENCLATURE	SUBJECT	FIG	ITEM
401	1	Escape Slide-Raft Bustle (Forward Entry) Bustle (Forward Service) Bustle (Aft Entry/Service)	25-66-01 52-11-02	01 20 25	1 5 10 15 10 11 10
	3	Girt Bar	25-66-01	01	340

- B. References
- (1) AMM 52-11-13/201, Entry/Service Door Ground Lock
- C. Access
 - (1) Location Zones
 - 831 Forward Entry Door
 - 833 Aft Entry Door
 - 841 Forward Service Door
 - 843 Aft Service Door
- D. Procedure

s 214-039

- <u>WARNING</u>: MAKE SURE YOU INSTALL THE GROUND LOCK FOR THE ENTRY/SERVICE DOOR. WITHOUT THE GROUND LOCK INSTALLED, THE DOOR CAN LIFT ACCIDENTALLY, AND CAUSE INJURY OR DAMAGE.
- (1) Make sure the ground lock for the entry/service door is installed. (AMM 52-11-13/201).

s 824-040

(2) Turn the deployment bar down to touch the floor.

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s 214-041

- (3) Make sure the needle on the inflation cylinder gage is in the green band.
 - <u>NOTE</u>: The inflation cylinder must be at a constant, stable temperature for two hours or more for the check to be correct. A fast change in the temperature causes the green band to move more quickly than the pressure gage needle. The pressure gage needle can show an incorrect low indication immediately after a large increase in temperature.

s 214-067

- <u>CAUTION</u>: MAKE SURE THAT THE DEPLOYMENT CABLES ARE CORRECTLY ENGAGED INTO THE DEPLOYMENT CABLE RETRACTORS.
- (4) Set the escape slide pack (1) inboard face down (with the cover on the floor and the packboard on top).

s 824-045

(5) Move the escape slide pack (1) in front of the entry/service door with the lower fittings adjacent to the door.

S 824-048

(6) Move the escape slide pack (1) outboard and align the lower fittings with the mounting brackets on the door.

s 824-051

- (7) Continue to move the escape slide pack (1) outboard until the two lower fittings are engaged with the brackets on the door.
 - <u>NOTE</u>: You can move the escape slide pack (1) from side to side on its face to get the lower fitting height necessary to engage the door brackets. It is not necessary to lift the escape slide pack (1).

s 424-054

(8) Lift the top of the escape slide pack (1) up and outboard.

s 214-033

(9) Make sure the guide pin on the escape slide pack (1) aligns with the track on the door.

s 424-036

(10) Hold the top of the escape slide pack (1) tightly against the latch. Turn the latch handle to the locked position (Fig. 402).

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s 434-041

- (11) Attach the snaps of the safety strap for the latch handle (View A, Fig. 402).
 - <u>NOTE</u>: The safety strap holds the latch handle in the locked position.

S 824-064

(12) Turn the deployment bar up to the loaded position (Fig. 401).

s 214-043

(13) Make sure the deployment cables are in the correct position as shown in View A-A, Fig. 401.

S 034-044

- <u>CAUTION</u>: MAKE SURE YOU DO NOT PULL ON THE RELEASE CABLES WHEN YOU MOVE THE GIRT BAR. A FORCE ON THE CABLES CAN CAUSE THE ESCAPE SLIDE PACK TO RELEASE FROM THE DOOR.
- (14) Release the retainer straps and disconnect the girt bar from the escape slide pack (1).

S 434-047

(15) Install the girt bar in the girt bar carrier.

s 824-065

- (16) Turn the girt bar locks to align the arrows as shown (View B, Fig. 401).
 - (a) When you turn the girt bar lock, make sure you can feel the ball plunger in the lock operate correctly with positive detent action between the unlocked and locked positions.
 - (b) If the girt bar lock does not operate correctly, adjust the ball plunger in the lock.

s 214-061

- (17) Do a check on the round, white, silicone bumper on the forward side of the packboard as follows:
 - (a) Make sure the clearance between the bumper and the forward surface of the packboard channel is 0.15 to 0.21 inch (3.8 to 5.3 mm).
 - (b) If the clearance is not correct, adjust the bumper.

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S 094-049

- <u>WARNING</u>: MAKE SURE YOU REMOVE THE SAFETY PIN FROM THE INFLATION CYLINDER REGULATOR. MAKE SURE THE SAFETY PIN IS NOT DAMAGED OR BROKEN. THE ESCAPE SYSTEM WILL NOT INFLATE IN AN EMERGENCY IF THE SAFETY PIN OR PART OF THE SAFETY PIN IS IN THE INFLATION CYLINDER REGULATOR.
- (18) Remove the safety pin from the inflation cylinder regulator.

s 494-052

(19) Put the safety pin into the pocket on the escape slide pack (1).

s 414-066

- <u>CAUTION</u>: MAKE SURE YOU DO NOT PULL ON THE RELEASE CABLES WHEN YOU INSTALL THE BUSTLE. A FORCE ON THE CABLES CAN CAUSE THE ESCAPE SLIDE PACK TO RELEASE FROM THE DOOR.
- (20) Install the bustle (2).

S 864-056

(21) Move the arm/disarm handle to the ARMED position.

s 214-057

(22) Make sure the yellow indicator flags for the girt bar completely fill the windows at the bottom of the bustle (2).

s 864-058

(23) Move the arm/disarm handle to the DISARMED position.

s 214-059

(24) Make sure the yellow indicator flags for the girt bar are not shown in the windows at the bottom of the bustle (2).

S 094-060

(25) Remove the ground lock for the entry/service door (Ref 52-11-13).

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Entry/Service Door Escape System Figure 401 (Sheet 1)

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Entry/Service Door Escape System Figure 401 (Sheet 3)







ENTRY/SERVICE DOOR (BUSTLE REMOVED)



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ENTRY/SERVICE DOOR ESCAPE SYSTEM - INSPECTION/CHECK

- 1. General
 - A. This procedure gives the instructions to examine the escape system on the entry/service doors.

TASK 25-66-01-206-001

- 2. Escape System Check (Fig. 601)
 - A. Reference
 - (1) AMM 25-66-00/201, Entry/Service Door Escape System
 - B. Access
 - (1) Location Zones
 - 831 Forward Entry Door
 - 833 Aft Entry Door
 - 841 Forward Service Door
 - 843 Aft Service Door
 - C. Procedure
 - S 866-002
 - (1) Close and latch the entry/service door (AMM 25-66-00/201).

S 016-003

(2) Remove the bustle.

s 216-004

(3) Make sure the two release cables are locked into the lower packboard fitting, and have no tension.

s 216-005

(4) Make sure the girt bar is locked into the girt bar carrier.

s 716-012

(5) Make sure that the girt bar locks operate correctly and you can feel a positive detent from the ball plungers in the locks.

s 216-006

(6) Make sure the two deployment cables are installed in the separation links on the deployment bar.

S 216-007

(7) Make sure the deployment cables are in the correct position as shown in View D.

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S 216-008

- (8) Make sure the pressure gage needle on the inflation cylinder is in the green band, or one needle width above the green band.
 - <u>NOTE</u>: The inflation cylinder must be at a constant, stable temperature for two hours or more for the check to be correct. A fast change in the temperature causes the green band to move more quickly than the pressure gage needle. The pressure gage needle can show an incorrect low indication immediately after a large increase in temperature.

s 216-009

- (9) Make sure the safety pin is not damaged or broken and that it is in its storage pocket.
 - <u>NOTE</u>: The escape system will not inflate in an emergency if the safety pin or part of the safety pin is in the inflation cylinder regulator.

s 416-010

(10) Install the bustle.







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A-A



SEPARATION LINK







ENTRY/SERVICE DOOR ESCAPE SYSTEM INFLATION CYLINDER - INSPECTION/CHECK

- 1. <u>General</u>
 - A. This procedure gives the instructions to examine the inflation cylinders for the escape slide-rafts on the entry/service doors.

TASK 25-66-02-206-001

- 2. <u>Inflation Cylinder Check</u> (Fig. 601)
 - A. Reference
 - (1) AMM 25-66-00/201, Entry/Service Door Escape System
 - B. Access
 - (1) Location Zones
 - 831 Forward Entry Door
 - 833 Aft Entry Door
 - 841 Forward Service Door
 - 843 Aft Service Door
 - C. Procedure
 - S 866-002
 - (1) Close and latch the entry/service door (AMM 25-66-00/201).

S 826-003

(2) Move the spring-loaded mirror on the side of the bustle until you can see the pressure gage.

s 226-004

- (3) Make sure the orange pointer on the pressure gage needle is on the green cursor.
 - <u>NOTE</u>: The inflation cylinder must be at a constant, stable temperature for two hours or more for the check to be correct. A fast change in the temperature causes the green band to move more quickly than the pressure gage needle. The pressure gage needle can show an incorrect low indication immediately after a large increase in temperature.

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MAINTENANCE MANUAL

ENTRY/SERVICE DOOR ESCAPE SYSTEM DEPLOYMENT MECHANISM - REMOVAL/INSTALLATION

1. <u>General</u>

- A. This procedure gives the instructions to remove and install these components of the deployment mechanism for the entry/service door:
 - (1) The deployment cable retractor.
 - (2) The deployment bar.
 - (3) The gas spring.
 - (4) The girt bar carrier.

TASK 25-66-03-004-001

2. <u>Remove the Deployment Cable Retractor</u> (Fig. 401, 402)

- A. References
 - (1) AMM 25-66-00/201, Entry/Service Door Escape System
 - (2) AMM 52-11-13/201, Entry/Service Door Ground Lock
 - B. Access
 - (1) Location Zones
 - 831 Forward Entry Door
 - 833 Aft Entry Door
 - 841 Forward Service Door
 - 843 Aft Service Door
 - C. Procedure
 - S 864-002
 - (1) Close and latch the entry/service door (AMM 25-66-00/201).

s 494-003

(2) Install the ground lock for the entry/service door (AMM 52-11-13/201).

S 014-004

(3) Remove the bustle.

S 094-005

(4) Remove the safety pin from the inspection pocket.

s 494-006

- <u>WARNING</u>: INSTALL THE SAFETY PIN IN THE INFLATION CYLINDER REGULATOR BEFORE YOU REMOVE THE ESCAPE SLIDE-RAFT FROM THE DOOR. WITHOUT THE SAFETY PIN INSTALLED, THE ESCAPE SLIDE-RAFT CAN INFLATE ACCIDENTALLY AND CAUSE INJURY OR DAMAGE.
- (5) Install the safety pin in the inflation cylinder regulator.

S 034-009

(6) Disconnect the deployment cable from the deployment bar.

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s 034-010 (7) Remove the girt bar from the girt bar carrier. s 434-011 (8) Attach the girt bar to the escape slide-raft (View A-A, Fig. 402). S 024-014 (9) Remove the screw and the deployment cable retractor. TASK 25-66-03-404-015 3. Install the Deployment Cable Retractor Α. References (1) AMM 52-11-13/201, Entry/Service Door Ground Lock Β. Access (1) Location Zones 831 Forward Entry Door 833 Aft Entry Door 841 Forward Service Door 843 Aft Service Door C. Procedure s 424-016 (1) Hold the cable retractor in the correct position, and install the screw. S 944-149 (2) Remove the girt bar from the escape slide-raft (View A-A Fig. 402). s 434-017 (3) Install the girt bar in the girt bar carrier. s 434-018 (4) Connect the deployment cable to the deployment bar. s 214-019 (5) Make sure the deployment cable is in the correct position as shown in View C, Fig. 401. s 094-020 WARNING: MAKE SURE YOU REMOVE THE SAFETY PIN FROM THE INFLATION CYLINDER REGULATOR BEFORE YOU INSTALL THE BUSTLE. THE ESCAPE SLIDE-RAFT WILL NOT INFLATE IN AN EMERGENCY IF THE SAFETY PIN IS INSTALLED. (6) Remove the safety pin from the inflation cylinder regulator. s 494-023 (7) Put the safety pin into the inspection pocket.

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s 414-024

(8) Install the bustle.

S 864-025

(9) Move the arm/disarm handle to the ARMED position.

S 214-026

(10) Make sure you can see the armed indicators in the windows at the bottom of the bustle.

S 864-027

(11) Move the arm/disarm handle to the DISARMED position.

S 094-028

(12) Remove the ground lock for the entry/service door (AMM 52-11-13/201).

TASK 25-66-03-004-025

4. <u>Remove the Deployment Bar</u>

- A. References
 - (1) AMM 25-66-00/201, Entry/Service Door Escape System
 - (2) AMM 25-66-01/401, Entry/Service Door Escape Slide-Raft
 - (3) AMM 52-11-13/201, Entry/Service Door Ground Lock
 - B. Access
 - (1) Location Zones
 - 831 Forward Entry Door
 - 833 Aft Entry Door
 - 841 Forward Service Door
 - 843 Aft Service Door
 - C. Procedure

S 864-026

(1) Close and latch the entry/service door (AMM 25-66-00/201).

S 494-027

(2) Install the ground lock for the entry/service door (AMM 52-11-13/201).

S 014-028

(3) Remove the bustle.

S 094-029

(4) Remove the safety pin from the inspection pocket.

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s 494-030

- <u>WARNING</u>: INSTALL THE SAFETY PIN IN THE INFLATION CYLINDER REGULATOR BEFORE YOU REMOVE THE ESCAPE SLIDE-RAFT FROM THE DOOR. WITHOUT THE SAFETY PIN INSTALLED, THE ESCAPE SLIDE-RAFT CAN INFLATE ACCIDENTALLY AND CAUSE INJURY OR DAMAGE.
- (5) Install the safety pin in the inflation cylinder regulator.
 - S 034-034
- (6) Remove the escape slide-raft (AMM 25-66-01/401).
 - s 034-036
- (7) Do the Remove the Gas Spring procedure.
 - S 024-037
- (8) Remove the bolt and the spacers, and remove the deployment bar.

TASK 25-66-03-404-038

- 5. Install the Deployment Bar
 - A. References
 - (1) AMM 25-66-01/401, Entry/Service Door Escape Slide-Raft
 - (2) AMM 52-11-13/201, Entry/Service Door Ground Lock
 - B. Access
 - (1) Location Zones
 - 831 Forward Entry Door
 - 833 Aft Entry Door
 - 841 Forward Service Door
 - 843 Aft Service Door
 - C. Procedure

s 424-039

 Hold the deployment bar in the correct position, and install the bolt and the spacers.

s 434-040

(2) Do the task: Install the Gas Spring.

s 434-042

(3) Install the escape slide-raft (AMM 25-66-01/401).

S 094-044

- <u>WARNING</u>: MAKE SURE YOU REMOVE THE SAFETY PIN FROM THE INFLATION CYLINDER REGULATOR BEFORE YOU INSTALL THE BUSTLE. THE ESCAPE SLIDE-RAFT WILL NOT INFLATE IN AN EMERGENCY IF THE SAFETY PIN IS INSTALLED.
- (4) Remove the safety pin from the inflation cylinder regulator.

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s 494-047 (5) Put the safety pin into the inspection pocket. S 414-048 (6) Install the bustle. S 864-049 (7) Move the arm/disarm handle to the ARMED position. s 214-050 (8) Make sure you can see the armed indicators in the windows at the bottom of the bustle. S 864-051 (9) Move the arm/disarm handle to the DISARMED position. s 094-052 (10) Remove the ground lock for the entry/service door (AMM 52-11-13/201). TASK 25-66-03-004-053 6. <u>Remove the Gas Spring</u> A. References (1) AMM 25-66-00/201, Entry/Service Door Escape System AMM 52-11-13/201, Entry/Service Door Ground Lock (2) B. Access (1) Location Zones Forward Entry Door 831 833 Aft Entry Door 841 Forward Service Door 843 Aft Service Door C. Procedure S 864-054 (1) Close and latch the entry/service door (AMM 25-66-00/201). s 494-055 (2) Install the ground lock for the entry/service door (AMM 52-11-13/201). s 014-056 (3) Remove the bustle. S 094-057 (4) Remove the safety pin from the inspection pocket.

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s 494-058

- WARNING: INSTALL THE SAFETY PIN IN THE INFLATION CYLINDER REGULATOR BEFORE YOU REMOVE THE ESCAPE SLIDE-RAFT FROM THE DOOR. WITHOUT THE SAFETY PIN INSTALLED, THE ESCAPE SLIDE-RAFT CAN INFLATE ACCIDENTALLY AND CAUSE INJURY OR DAMAGE.
- (5) Install the safety pin in the inflation cylinder regulator.

s 034-064

(6) Remove the bolt and the spacers from the top of the gas spring retainer bracket. Push on the top of the body of the gas spring to make it easier to remove the bolt and the spacers.

s 824-065

- <u>CAUTION</u>: BE CAREFUL WHEN YOU TURN THE GAS SPRING SHAFT TO REMOVE IT FROM THE CLEVIS. DAMAGE TO THE SURFACE OF THE SHAFT CAN CAUSE DAMAGE TO THE SEALS AND GAS LEAKAGE.
- (7) Carefully turn the gas spring shaft out of the clevis.

S 024-066

(8) Remove the gas spring.

TASK 25-66-03-404-067

- 7. Install the Gas Spring
 - A. References
 - (1) AMM 52-11-13/201, Entry/Service Door Ground Lock
 - B. Access
 - (1) Location Zones
 - 831 Forward Entry Door
 - 833 Aft Entry Door
 - 841 Forward Service Door
 - 843 Aft Service Door
 - C. Procedure

s 824-068

- <u>CAUTION</u>: BE CAREFUL WHEN YOU TURN THE GAS SPRING SHAFT TO INSTALL IT INTO THE CLEVIS. DAMAGE TO THE SURFACE OF THE SHAFT CAN CAUSE DAMAGE TO THE SEALS AND GAS LEAKAGE.
- (1) Carefully turn the gas spring shaft into the clevis.

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s 424-069

(2) Compress the gas spring and install the bolt and the spacers into the top of the gas spring retainer bracket.

S 094-073

- <u>WARNING</u>: MAKE SURE YOU REMOVE THE SAFETY PIN FROM THE INFLATION CYLINDER REGULATOR BEFORE YOU INSTALL THE BUSTLE. THE ESCAPE SLIDE-RAFT WILL NOT INFLATE IN AN EMERGENCY IF THE SAFETY PIN IS INSTALLED.
- (3) Remove the safety pin from the inflation cylinder regulator

s 494-076

(4) Put the safety pin into the inspection pocket.

S 414-077

(5) Install the bustle.

S 864-078

(6) Move the arm/disarm handle to the ARMED position.

S 214-079

(7) Make sure you can see the armed indicators in the windows at the bottom of the bustle.

S 864-150

(8) Move the arm/disarm handle to the DISARMED position.

s 214-151

(9) Make sure you can not see the armed indicators in the window at the bottom of the bustle.

S 094-080

(10) Remove the ground lock for the entry/service door (AMM 52-11-13/201).

TASK 25-66-03-004-081

- 8. <u>Remove the Girt Bar Carrier</u>
 - A. References
 - (1) AMM 25-66-00/201 Entry/Service Door Escape System

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- (2) AMM 52-11-13/201, Entry/Service Door Ground Lock B. Access
 - (1) I
 - (1) Location Zones
 - 831 Forward Entry Door
 - 833 Aft Entry Door
 - 841 Forward Service Door
 - 843 Aft Service Door

C. Procedure

- S 864-082
- (1) Close and latch the entry/service door (AMM 25-66-00/201).

s 424-152

(2) Install the ground lock for the entry/service door (AMM 52-11-13/201).

S 014-083

(3) Remove the bustle.

S 094-084

(4) Remove the safety pin from the inspection pocket.

s 494-085

- <u>WARNING</u>: INSTALL THE SAFETY PIN IN THE INFLATION CYLINDER REGULATOR BEFORE YOU REMOVE THE ESCAPE SLIDE-RAFT FROM THE DOOR. WITHOUT THE SAFETY PIN INSTALLED, THE ESCAPE SLIDE-RAFT CAN INFLATE ACCIDENTALLY AND CAUSE INJURY OR DAMAGE.
- (5) Install the safety pin in the inflation cylinder regulator.

S 034-088

(6) Disconnect the deployment cable from the deployment bar.

s 824-089

(7) Turn the forward and aft girt bar locks on the girt bar carrier to the unlocked position.

s 034-090

(8) Remove the girt bar from the girt bar carrier.

s 434-091

(9) Attach the girt bar to the escape slide-raft (View A-A, Fig. 402).

s 944–153

(10) Remove the ground lock for the entry/service door (AMM 52-11-13/201).

S 864-094

(11) Open the entry/service door.

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s 824-095

(12) Push up the forward and aft lock pawl lift pins at the same time.

s 824-096

(13) Turn the warning flags inboard and down to release the girt bar carrier from the door.

S 024-097

(14) Remove the girt bar carrier.

TASK 25-66-03-404-098

- 9. Install the Girt Bar Carrier
 - A. Consumable Materials
 - (1) D00189 Dow Corning 111
 - (2) D00650 976V Compound
 - B. References
 - (1) AMM 12-21-18/301, Entry/Service Door
 - (2) AMM 25-66-00/201, Entry/Service Door Escape System
 - C. Access
 - (1) Location Zones
 - 831 Forward Entry Door
 - 833 Aft Entry Door
 - 841 Forward Service Door
 - 843 Aft Service Door
 - D. Procedure
 - S 864-099
 - (1) Open the entry/service door.

S 644-138

- (2) Do these steps to lubricate the girt bar carrier assembly:
 - (a) Apply the Dow Corning 111 or 976V compound to the girt bar carrier bearings, inside the surface of bearing cavity, and to all surfaces of the lock arm shaft before you assemble the girt bar carrier (AMM 12-21-18/301)
 - (b) Clean excess grease from assembled girt bar carrier and clean the drain holes.

s 424-100

(3) Put the girt bar carrier in the correct position on the door. Make sure the girt bar locks are inboard and the carrier rotation arms are engaged in the slots.

s 824-101

(4) Turn the warning flags up and outboard until the lock pawls engage the girt bar carrier.

s 864-102

(5) Close and latch the entry/service door (AMM 25-66-00/201).

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s 434-103

(6) Put the girt bar in the correct position on the girt bar carrier.

s 824-104

(7) Turn the forward and aft girt bar locks until the arrows on the locks align with the arrows on the carrier.

s 434-105

(8) Connect the deployment cable to the deployment bar.

s 214-106

(9) Make sure the deployment cable is in the correct position as shown in View B, Fig. 402.

s 094-107

- <u>WARNING</u>: MAKE SURE YOU REMOVE THE SAFETY PIN FROM THE INFLATION CYLINDER REGULATOR BEFORE YOU INSTALL THE BUSTLE. THE ESCAPE SLIDE-RAFT WILL NOT INFLATE IN AN EMERGENCY IF THE SAFETY PIN IS INSTALLED.
- (10) Remove the safety pin from the inflation cylinder regulator.

s 494-110

- (11) Put the safety pin into the inspection pocket.
 - s 424-111
- (12) Install the bustle.

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ENTRY/SERVICE DOOR (EXAMPLE)





Escape System Inflation Cylinder Figure 401

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ENTRY/SERVICE DOOR ESCAPE SYSTEM PACKBOARD GUIDE TRACK AND LATCH - REMOVAL/INSTALLATION

- 1. <u>General</u>
 - A. This procedure gives the instructions to remove and install the packboard guide track and latch on the entry/service doors.

TASK 25-66-04-004-001

- 2. <u>Remove the Guide Track and Latch</u> (Fig. 401)
 - A. References
 - (1) AMM 25-66-01/401, Entry/Service Door Escape Slide-Raft
 - (2) AMM 52-11-13/201, Entry/Service Door Ground Lock
 - B. Access
 - (1) Location Zones
 - 831 Forward Entry Door
 - 833 Aft Entry Door
 - 841 Forward Service Door
 - 843 Aft Service Door
 - C. Procedure

S 494-002

(1) Install the ground lock for the entry/service door (AMM 52-11-13/201).

s 014-003

(2) Remove the bustle.

S 034-004

(3) Remove the safety pin from its stowage pouch.

s 494-027

- <u>WARNING</u>: INSTALL THE SAFETY PIN INTO THE INFLATION CYLINDER BEFORE YOU REMOVE THE ESCAPE SLIDE-RAFT FROM THE DOOR. WITHOUT THE SAFETY PIN INSTALLED, THE ESCAPE SLIDE-RAFT CAN INFLATE ACCIDENTALLY AND CAUSE INJURY OR DAMAGE.
- (4) Install the safety pin into the inflation cylinder.

S 034-006

(5) Remove the escape slide-raft (AMM 25-66-01/401).

S 034-009

(6) Remove the latch handle.

s 024-010

(7) Remove the fasteners that attach the guide track to the door structure.

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S 024-011

(8) Remove the fasteners that attach the latch to the door structure. Remove the latch and the guide track as a unit.

S 024-012

- (9) To disconnect the track from the latch, remove the fastener that attaches the guide track to the latch.
 - <u>NOTE</u>: You cannot remove or install the fastener that attaches the guide track to the latch unless the guide track and the latch are removed from the door structure.

TASK 25-66-04-404-013

- 3. Install the Guide Track and Latch (Fig. 401)
 - A. Access
 - (1) Location Zones
 - 831 Forward Entry Door
 - 833 Aft Entry Door
 - 841 Forward Service Door
 - 843 Aft Service Door

B. Procedure

s 424-025

(1) Install the fastener to attach the guide track to the latch.

s 424-014

(2) Hold the guide track and the latch in the correct position on the door structure.

s 424-015

(3) Install the fasteners to attach the latch to the door structure.

s 424-016

(4) Install the fasteners to attach the guide track to the door structure.

S 434-017

(5) Install the latch handle.

s 434-019

(6) Install the escape slide-raft (AMM 25-66-01/401).

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s 094-030

- WARNING: MAKE SURE YOU REMOVE THE SAFETY PIN FROM THE INFLATION CYLINDER REGULATOR. MAKE SURE THE SAFETY PIN IS NOT DAMAGE OR BROKEN. THE ESCAPE SLIDE-RAFT SYSTEM WILL NOT INFLATE IN AN EMERGENCY IF THE SAFETY PIN OR PART OF THE SAFETY PIN IS IN THE INFLATION CYLINDER REGULATOR.
- (7) Remove the safety pin from the inflation cylinder.

s 434-022

(8) Put the safety pin into its stowage pouch.

s 414-023

(9) Install the bustle.

S 094-024

(10) Remove the ground lock for the entry/service door (AMM 52-11-13/201).

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MAINTENANCE MANUAL

ENTRY/SERVICE DOOR GIRT BAR - INSPECTION/CHECK

- 1. <u>General</u>
 - A. This procedure gives the instructions to examine the girt bar for the entry/service doors.

TASK 25-66-05-206-001

- 2. <u>Girt Bar Inspection/Check</u> (Fig. 601)
 - A. References
 - (1) AMM 25-66-00/201, Entry/Service Door Escape System
 - (2) AMM 52-11-13/201, Entry/Service Door Ground Lock
 - B. Access
 - (1) Location Zones
 - 831 Forward Entry Door
 - 833 Aft Entry Door
 - 841 Forward Service Door
 - 843 Aft Service Door
 - C. Procedure
 - S 866-002
 - (1) Close and latch the entry/service door (AMM 25-66-00/201).

s 496-003

(2) Install the ground lock for the entry/service door (AMM 52-11-13/201).

S 016-004

(3) Remove the bustle.

S 036-005

(4) Remove the safety pin from the inspection pocket on the pack.

s 496-006

- WARNING: MAKE SURE YOU INSTALL THE SAFETY PIN IN THE INFLATION CYLINDER. WITHOUT THE SAFETY PIN, THE ESCAPE SLIDE-RAFT CAN INFLATE ACCIDENTALLY AND CAUSE INJURY OR DAMAGE.
- (5) Install the safety pin in the inflation cylinder.

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S 216-008

(6) Make sure the girt bar is installed and locked into the girt bar carrier.

s 716-020

(7) Make sure the girt bar locks operate correctly with positive detent action from the ball plungers in the locks.

S 866-009

(8) Push the release button and move the arm/disarm handle to the ARMED (outboard) position.

s 216-010

(9) Make sure the yellow indicator flags move into the windows at the bottom of the door as the arm/disarm handle is moved to the ARMED position. The flags must fill the windows from top to bottom.

s 866-019

(10) Move the arm/disarm handle to the DISARMED (inboard) position.

s 216-012

(11) Make sure the yellow indicator flags move out of the windows at the bottom of the door as the arm/disarm handle is moved to the DISARMED position.

s 716-013

(12) Push the release button and move the arm/disarm handle to the ARMED position, and then to the DISARMED position. Make sure the movement is smooth.

S 096-014

(13) Remove the safety pin from the inflation cylinder.

s 436-015

(14) Put the safety pin into the inspection pocket on the pack.

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s 416-016

(15) Install the bustle.

S 866-017

(16) Make sure the arm/disarm handle is in the DISARMED position.

S 096-018

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(17) Remove the ground lock for the entry/service door (AMM 52-11-13/201).

