

**BOEING**   
**COMMERCIAL JET**  
OVERHAUL MANUAL

# FLIGHT INSTRUMENT MODULE ASSEMBLIES

## P1-1, P1-3, P2-1, P3-1, P3-3

### 31-36-87

BOEING P/N 65-87833-3, -7, -8, -9, -10

AIRLINE P/N

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THE FOLLOWING DIRECTIVES APPLY TO THIS SUBJECT:

BOEING SERVICE BULLETIN	BOEING TEMPORARY REVISION	OTHER DIRECTIVES	DATE DIRECTIVE INCORPORATED INTO TEXT
		MR 39205-6	Jun 25/74
		MR 39205-9	Jun 25/74
		MR 39205-26	Jun 25/74
		MR 39205-34	Jun 25/74
		MR 39205-50	Jun 25/74

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LIST OF EFFECTIVE PAGES					
* Indicates pages revised, added or deleted in latest revision					
F Indicates foldout pages - print one side only					
PAGE	DATE	PAGE	DATE	PAGE	DATE
31-36-87		* 1114	Jun 25/74		
* T-1	Jun 25/74	* 1115	BLANK		
* T-2	BLANK	* 1116	Jun 25/74		
* LEP-1	Jun 25/74	* 1117	Jun 25/74		
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* 701	Jun 25/74	* 1123	Jun 25/74		
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* 708	BLANK	* 1130	Jun 25/74		
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\*[2] Special instructions not required.

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FLIGHT INSTRUMENT MODULE ASSEMBLIES P1-1, P1-3, P2-1, P3-1, P3-3

DESCRIPTION AND OPERATION

1. The flight instrument module assemblies contain switches and indicators in the flight instrument system. The assemblies also provide instrument mounting clamps. A unit can be removed by disengagement of four quick-disconnect studs. The switches and indicators are connected to airplane wire bundle by rear-mounted connectors.

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TESTING

1. Test Equipment

- A. Power Supplies: 28 volts dc  
6 volts dc  
28 ±1 volts ac, 400 Hz
- B. Multimeter: Model 260 (Simpson) or equivalent
- C. Connectors (with pigtail leads) per Fig. 701

Assembly 65-87833	Test Connector	Mates With
-3	BACC45FT22-19S BACC45FT22-55S	D4246J D4256J
-7	BACC45FT12-12S	D431
-8	BACC45FT12-12S6 BACC45FT12-12S7	D475 D645
-9	BACC45FT18-31S	D425
-10	BACC45FT12-12S BACC45FT12-12S8	D429 D543

Test Connectors  
Figure 701

2. Test Preparation

- A. Install mating connectors and identify pigtail leads.

3. Functional Test, 65-87833-3

- A. Label upper connector "A" (D4246J). Label lower connector "B" (D4256J).
- B. Verify continuity as specified in Fig. 702.

NOTE: Con means that continuity exists and that the resistance must be less than 1 ohm. No Con means that the circuit is open (infinite resistance).

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Switch Positions		Measure Between Pins	Required Results
Switch	Position		
S257	Released	B-1 and B-2	No Con
		B-3 and B-4	Con
		B-5 and B-14	No Con
S257	Pressed	B-6 and B-13	No Con
		B-1 and B-2	Con
		B-3 and B-4	No Con
S270	BRT	B-5 and B-14	Con
		B-6 and B-13	Con
		A-9 and A-8	No Con
S270	TEST	A-9 and A-10	No Con
		A-9 and A-11	Con
		A-12 and A-13	Con
		A-18 and A-19	Con
		B-22 and B-23	Con
		B-22 and B-26	No Con
		B-24 and B-21	No Con
		B-24 and B-25	Con
		A-9 and A-8	No Con
		A-9 and A-10	Con
S270	DIM	A-9 and A-11	No Con
		A-12 and A-13	No Con
		A-18 and A-19	No Con
		B-22 and B-23	No Con
		B-22 and B-26	No Con
		B-24 and B-21	No Con
		B-24 and B-25	No Con
		A-9 and A-8	Con
		A-9 and A-10	No Con
		A-9 and A-11	Con
S289	Released	A-12 and A-13	Con
		A-18 and A-19	Con
S289	Pressed	B-22 and B-23	Con
		B-22 and B-26	Con
S300	Released	B-24 and B-21	Con
		B-24 and B-25	Con
S300	Pressed	A-15 and A-16	No Con
		A-15 and A-16	Con
S315	Released	B-28 and B-29	No Con
		B-30 and B-31	No Con
S315	Pressed	B-28 and B-29	Con
		B-30 and B-31	Con
S316	Released	A-17 and B-55	No Con
		A-17 and B-55	Con
S316	Pressed	A-16 and A-17	No Con
		B-54 and B-55	No Con
S316	Pressed	A-16 and A-17	Con
		B-54 and B-55	Con

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C. Test indicator light assemblies per Fig. 703.

Component Tested	Apply 28 VDC to D4256J pin:	Ground to D4256J pin:	Indicator Position	Indicator	
				Illuminated	Extinguished
L334	8	9		X	
	9	8			X
	7	9	Pressed	X	
L441	9	7	Pressed		X
	19	9	Released	X	
	15	12		X	
	12	15			X
	15	27	Released	X	
L442	27	15	Released		X
	15	11	Pressed	X	
	15	17		X	
	17	15			X
	15	27	Released	X	
	27	15	Released		X
	15	16	Pressed	X	

Indicator Light Assembly Tests, 65-87833-3  
Figure 703

D. Verify test results as specified in Fig. 704.

Component Tested	Procedure	Required Results
L375	<u>D4246J Connector Pins</u>	
	Verify continuity from pin 6 to power connector L375 rim	Continuity
	Verify continuity from pin 7 to power connector L375 center	Continuity
	Verify no continuity from pin 6 to pin 7	No Continuity
T45	Connect 28 volts ac to pin 3 Connect pin 5 to ground Rotate transformer control fully clockwise Measure voltage from pin 4 to pin 5 Rotate transformer control slowly to extreme counterclockwise position, while monitoring voltage from pin 4 to 5	28 ±2 volts ac Voltage decreases smoothly to less than 1 volt ac

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4. Functional Test, 65-87833-7

A. Test L812 as specified in Fig. 705.

Component Tested	Procedure	Required Results
L812	<p><u>D431 Connector Pins</u></p> <p>Connect 28 volts dc to pin 1.            Connect pin 2 to ground            Disconnect pin 2            Connect pin 4 to ground            Depress lamp, release</p> <p>Disconnect pin 4            Connect pin 3 to ground            Depress lamp, release</p> <p>Remove all connections            Connect pin 1 to ground            Connect 28 volts dc momentarily to each of pins 2 and 3</p>	<p>Lamp illuminated            Lamp extinguished            Lamp extinguished            Lamp illuminated while depressed</p> <p>Lamp illuminated            Lamp extinguished while depressed            Lamp extinguished</p> <p>Lamp extinguished</p>

Functional Test, 65-87833-7  
 Figure 705



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## 5. Functional Test, 65-87833-8

A. Verify test results as specified in Fig. 706.

Component Tested	Procedure	Required Results
	<u>D645 Connector Pins</u>	
L377	Verify continuity from pin 1 to power connector L377 rim	Continuity
	Verify continuity from pin 2 to power connector L377 center	Continuity
	Verify no continuity from pin 1 to 2	No Continuity
M380	Connect ohmmeter pin 9 to 10 Expose M380 to ambient room light Cover M380 (total darkness)	200 ohms maximum 300k minimum
M378	Connect ohmmeter pin 11 to 12 Expose M378 to ambient room light Cover M378 (total darkness)	200 ohms maximum 300k minimum
L376 L815	Perform following test on both connectors: <u>D475 pins test L376</u> <u>D645 pins test L815</u>	
	Connect 28 volts dc to pin 3 Connect pin 4 to ground Disconnect pin 4 Connect pin 6 to ground Depress lamp, release	Lamp illuminated Lamp extinguished Lamp extinguished Lamp illuminated while depressed
	Disconnect pin 6 Connect pin 5 to ground Depress lamp, release	Lamp illuminated Lamp extinguished while depressed
	Remove all connections Connect pin 3 to ground Connect 28 volts dc momentarily to each of pins 4 and 5	Lamp extinguished Lamp extinguished

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## 6. Functional Test, 65-87833-9

A. Verify test results as specified in Fig. 707.

Component Tested	Procedure	Required Results
L335	<u>D425 Connector Pins</u> Connect pin 5 to 6.3 volts dc Connect pin 4 to ground Depress each lamp cap of L335  Connect pin 9 to ground Connect pin 3 to ground Connect pin 10 to ground Remove all test connections	Each lamp shall illuminate when pressed and extinguish when released L335U shall illuminate L335V shall illuminate L335W shall illuminate
L337	Verify continuity from pin 1 to power connector L337 rim Verify continuity from pin 2 to power connector L337 center Verify no continuity from pin 1 to 2	Continuity Continuity No Continuity
M379	Connect ohmmeter pin 13 to 14 Expose M379 to ambient room light Cover M379 (total darkness)	200 ohms maximum 300k minimum
M377	Connect ohmmeter pin 15 to 16 Expose M377 to ambient room light Cover M377 (total darkness)	200 ohms maximum 300k minimum
L734	Connect 28 volts dc to pin 12 Connect pin 11 to ground Depress lamp, release Remove all connections Depress lamp  Release lamp  Connect pin 12 to ground Connect 28 volts dc momentarily to pin 11	Lamp illuminated Lamp illuminated Lamp extinguished Continuity pins 19 to 20 No Con pins 18 to 20 Continuity pins 18 to 20 No Con pins 19 to 20  Lamp extinguished
S210	Set S210 to TEST (down) Set S210 to LOW (center)  Set S210 to HIGH (up)	Continuity pins 7 to 8 No Con pins 6 to 8 and pins 6 to 7 Continuity pins 6 to 7

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## 7. Functional Test, 65-87833-10

## A. Test L336 and L735 as specified in Fig. 708.

Component Tested	Procedure	Required Results
L336	<u>D429 Connector Pins</u> Connect pin 5 to 6.3 volts dc Connect pin 4 to ground Depress each lamp cap of L336  Connect pin 9 to ground Connect pin 3 to ground Connect pin 10 to ground Remove all test connections	Each lamp shall illuminate when pressed and extinguish when released L336U shall illuminate L336V shall illuminate L336W shall illuminate
L735	<u>D543 Connector Pins</u> Connect 28 volts dc to pin 2 Connect pin 1 to ground Depress lamp, release Remove all connections Depress lamp  Release lamp  Connect pin 2 to ground Connect 28 volts dc momentarily to pin 1	Lamp illuminated Lamp illuminated Lamp extinguished Continuity pins 10 to 11 No Con pins 9 to 11 Continuity pins 9 to 11 No Con pins 10 to 11  Lamp extinguished

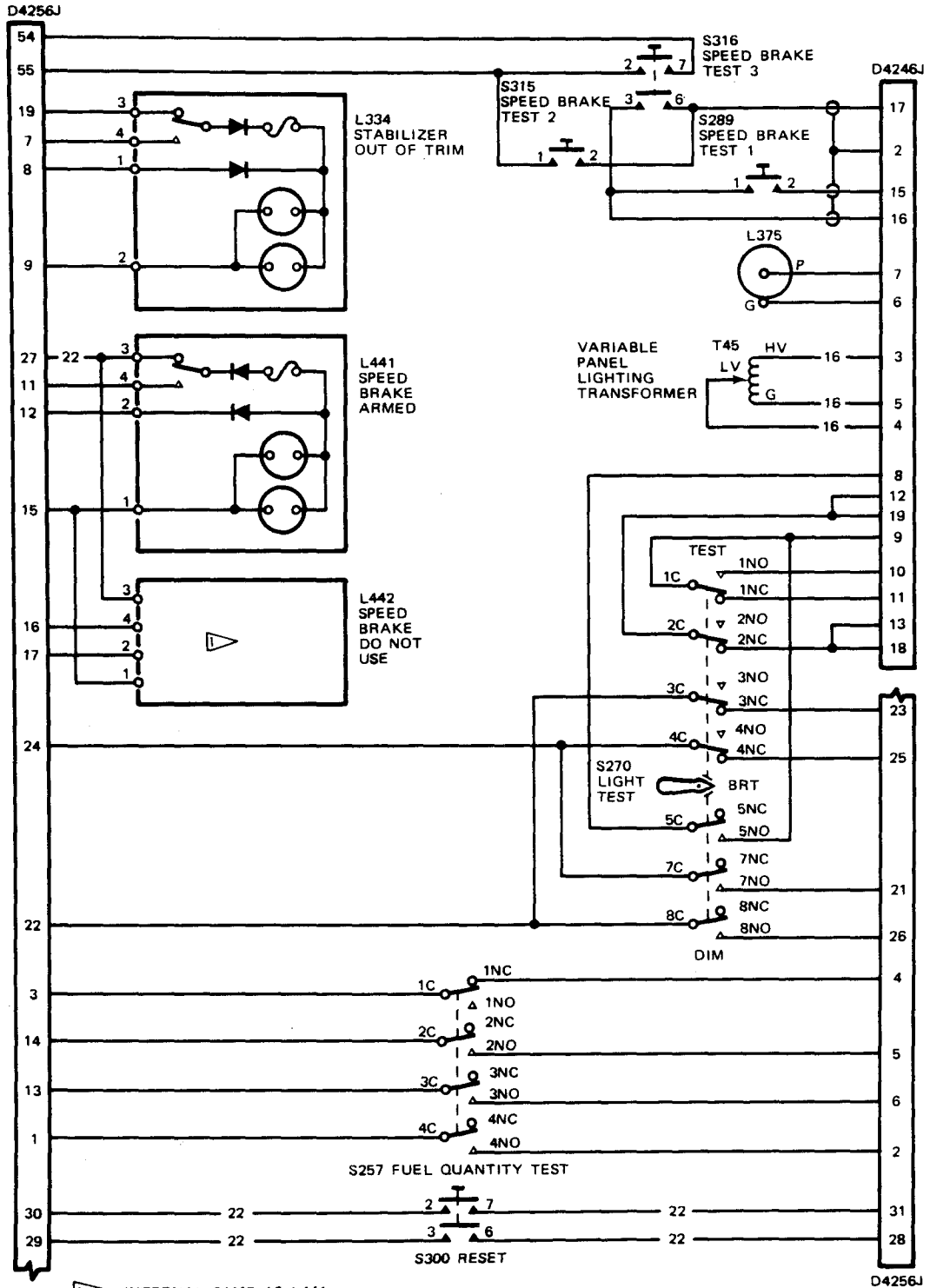
Functional Test, 65-87833-10  
 Figure 708

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TROUBLE SHOOTING

1. If failure of a test occurs, check for defective connections or incorrect wiring before replacing components.
2. If a lamp test fails, test bulb. If bulb not defective, replace lamp assembly.
3. If a switch test fails, replace switch.

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NOTE: ALL WIRES BMS 13-16, TYPE 1, CLASS 1  
SIZE AWG 20 EXCEPT AS NOTED

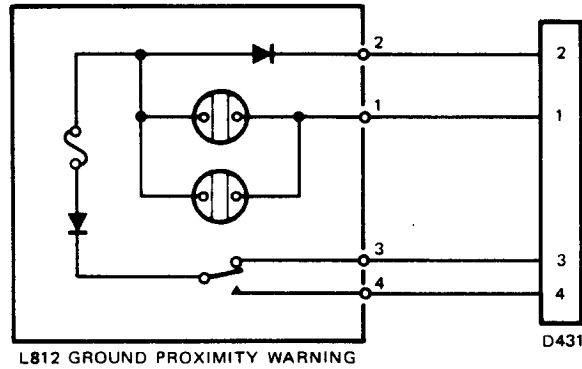
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Center Instrument Module Assembly P2-1  
Schematic Diagram  
Figure 801

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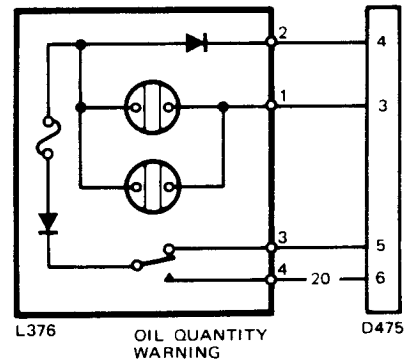
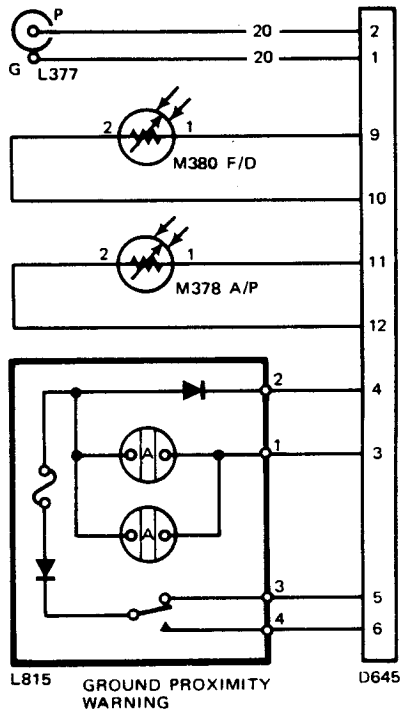
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NOTE:  
 ALL WIRES BMS 13-16, TYPE 1, CLASS 1,  
 SIZE AWG 22 EXCEPT AS NOTED

P/N 65-87833-7

Captain Flight Instrument Module Assembly P1-1  
 Schematic Diagram  
 Figure 802

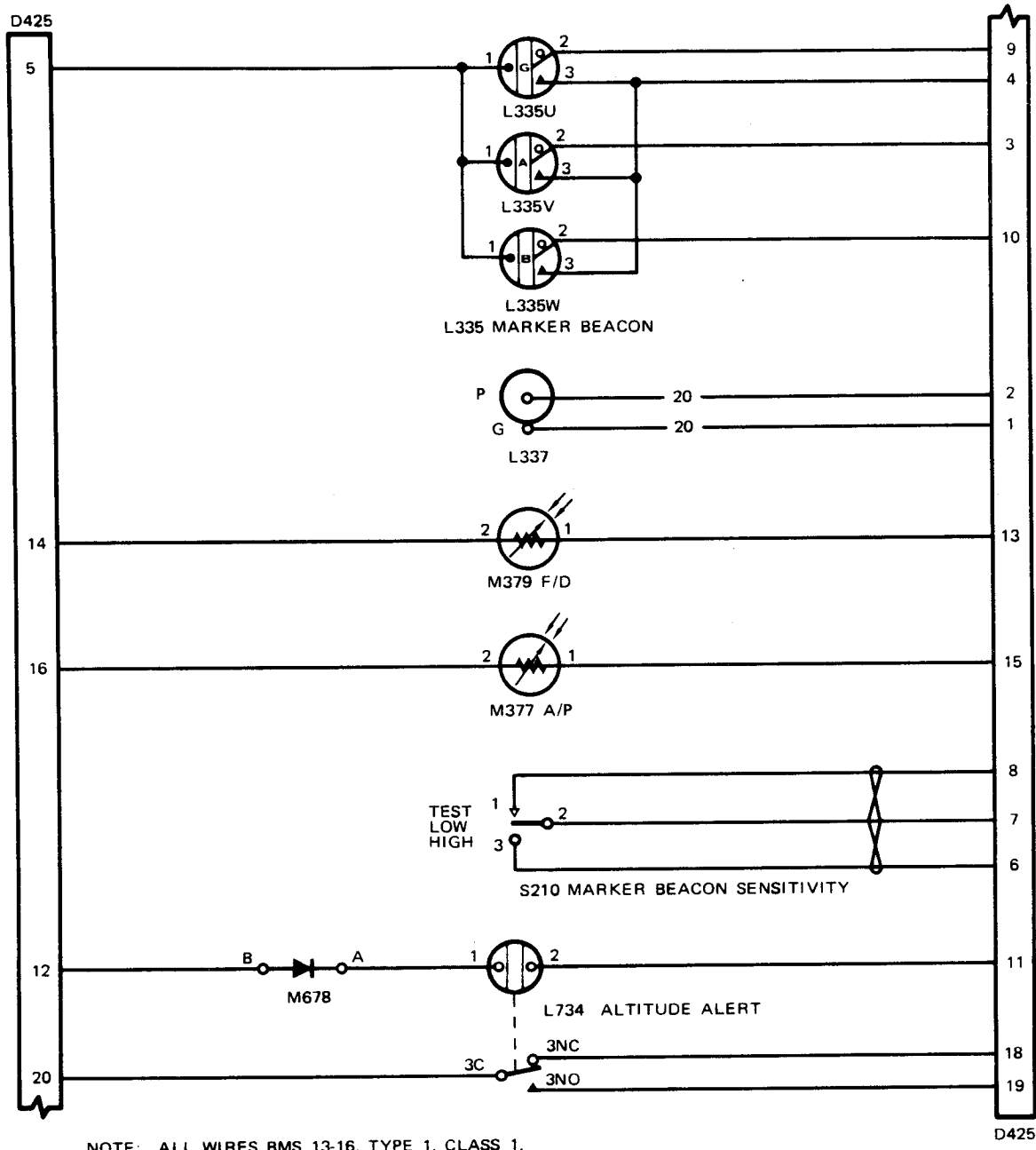


NOTE: ALL WIRE BMS 13-16, TYPE 1,  
 CLASS 1, SIZE AWG 22, UNLESS  
 OTHERWISE NOTED

P/N 65-87833-8

First Officer's Flight Instrument Module Assembly P3-1  
 Schematic Diagram  
 Figure 803

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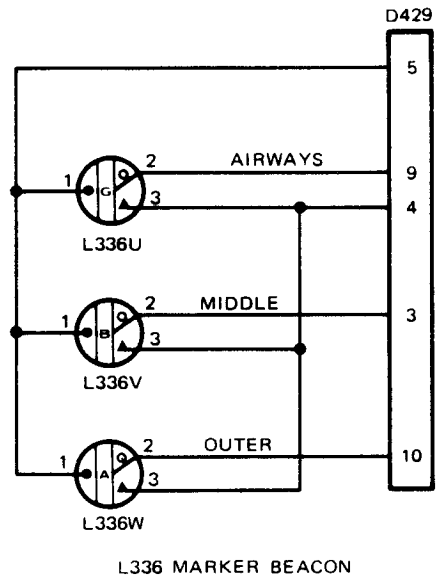
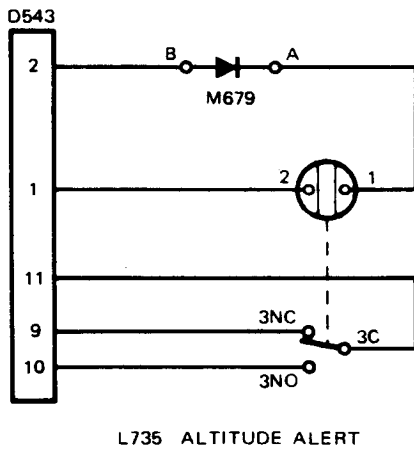
NOTE: ALL WIRES BMS 13-16, TYPE 1, CLASS 1,  
 SIZE AWG 22 EXCEPT AS NOTED

P/N 65-87833-9

Captain Flight Instrument Module Assembly Pl-3  
 Schematic Diagram  
 Figure 804

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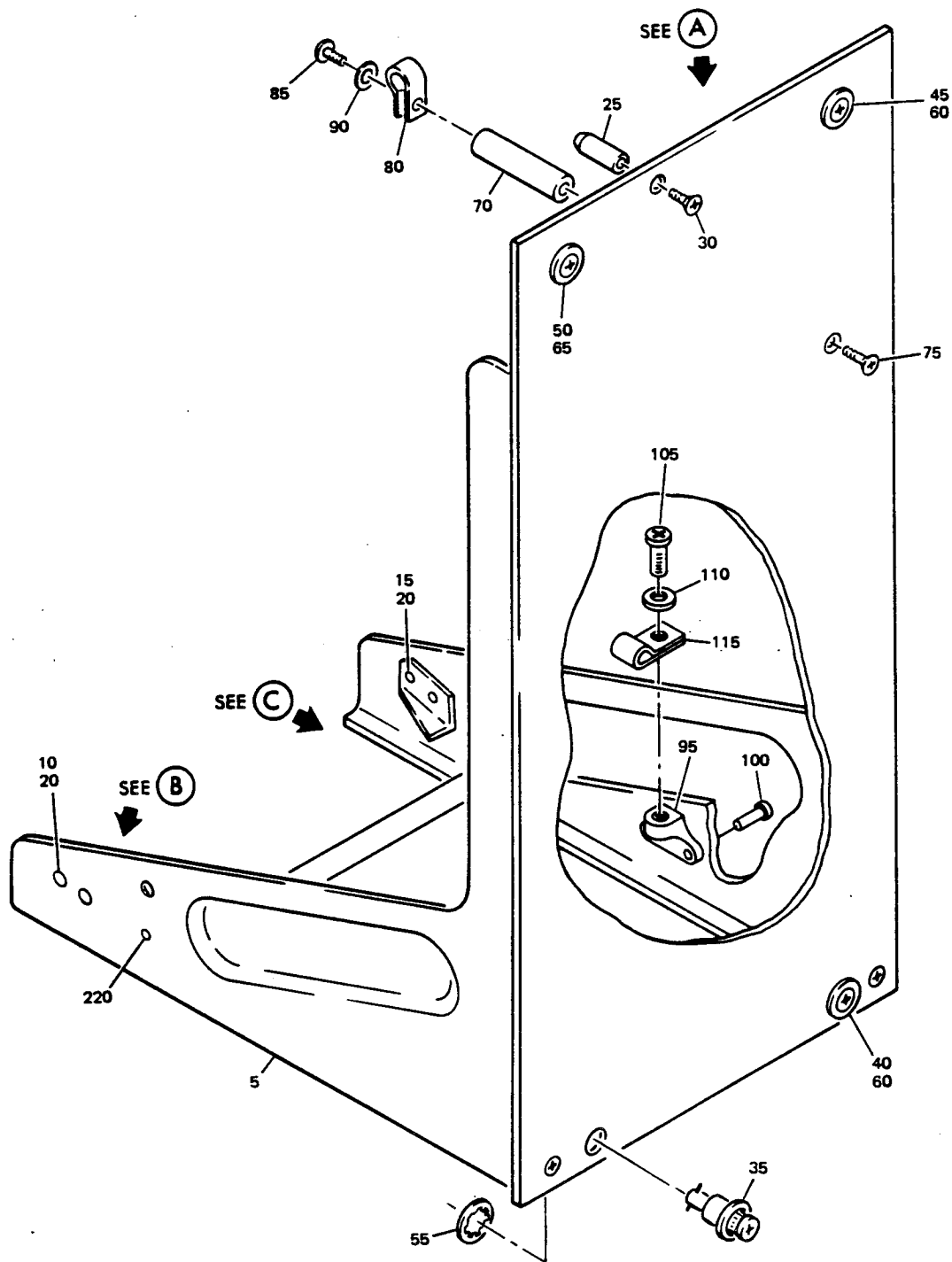
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NOTE: ALL WIRE BMS 13-16, TYPE 1, CLASS 1,  
 SIZE AWG 22 EXCEPT AS NOTED

P/N 65-87833-10





Flight Instrument Module Assembly, P1-1, P1-3, P2-1, P3-1, and P3-3  
Common Details

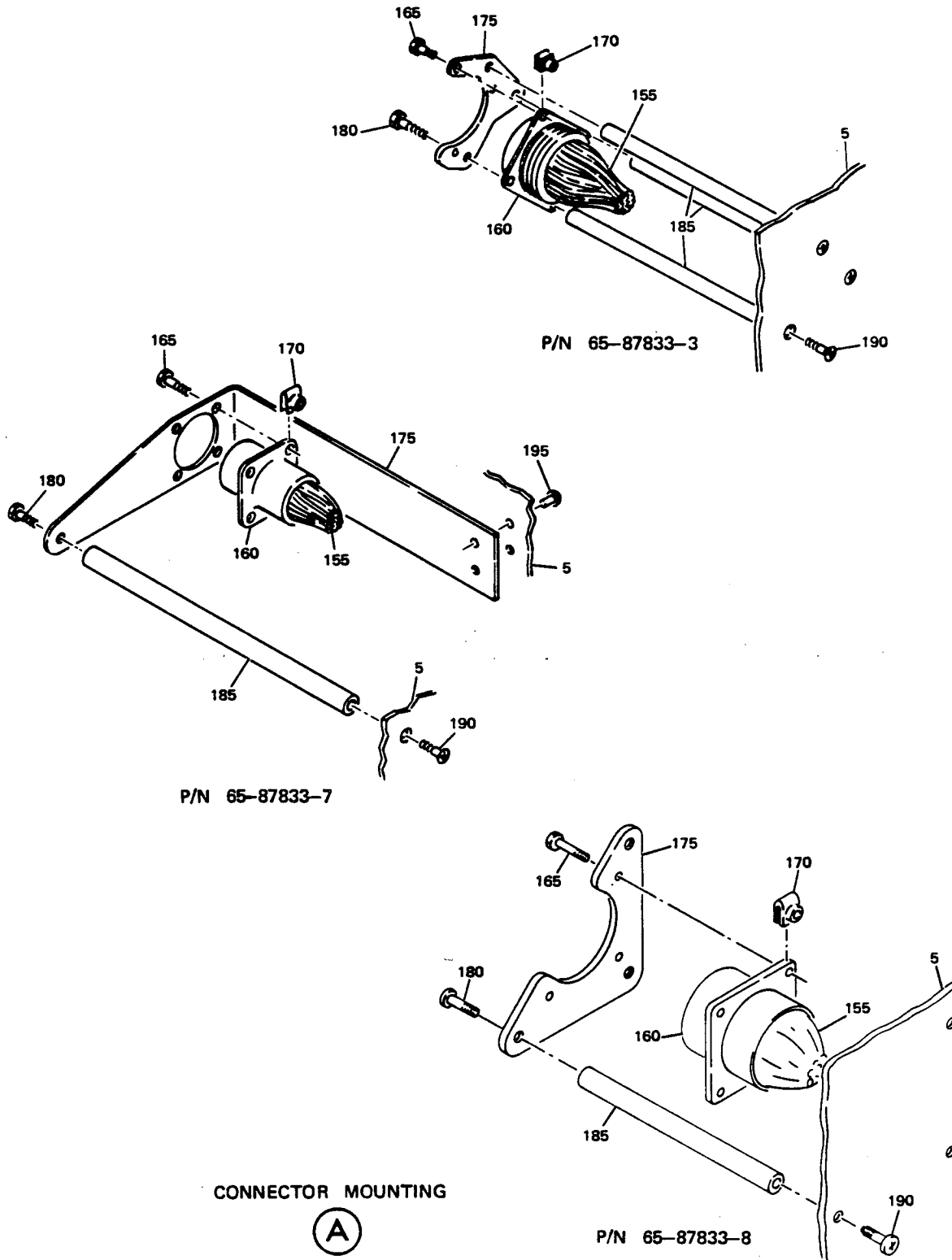
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Figure 1101 (Sheet 1)

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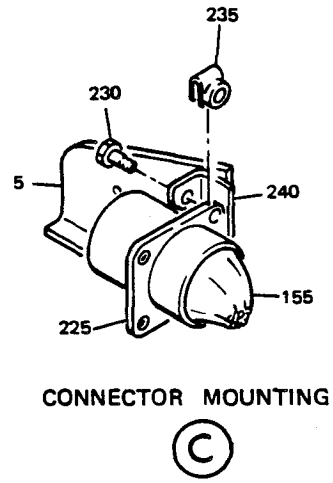
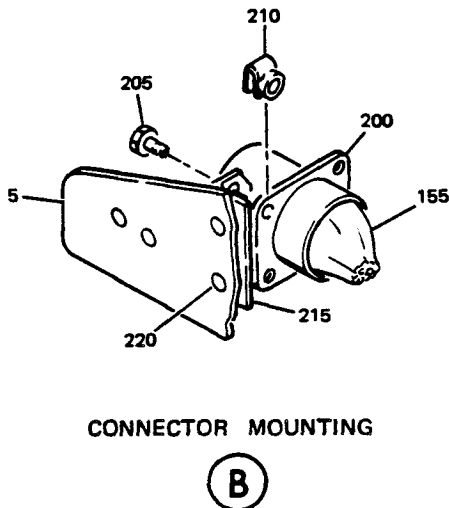
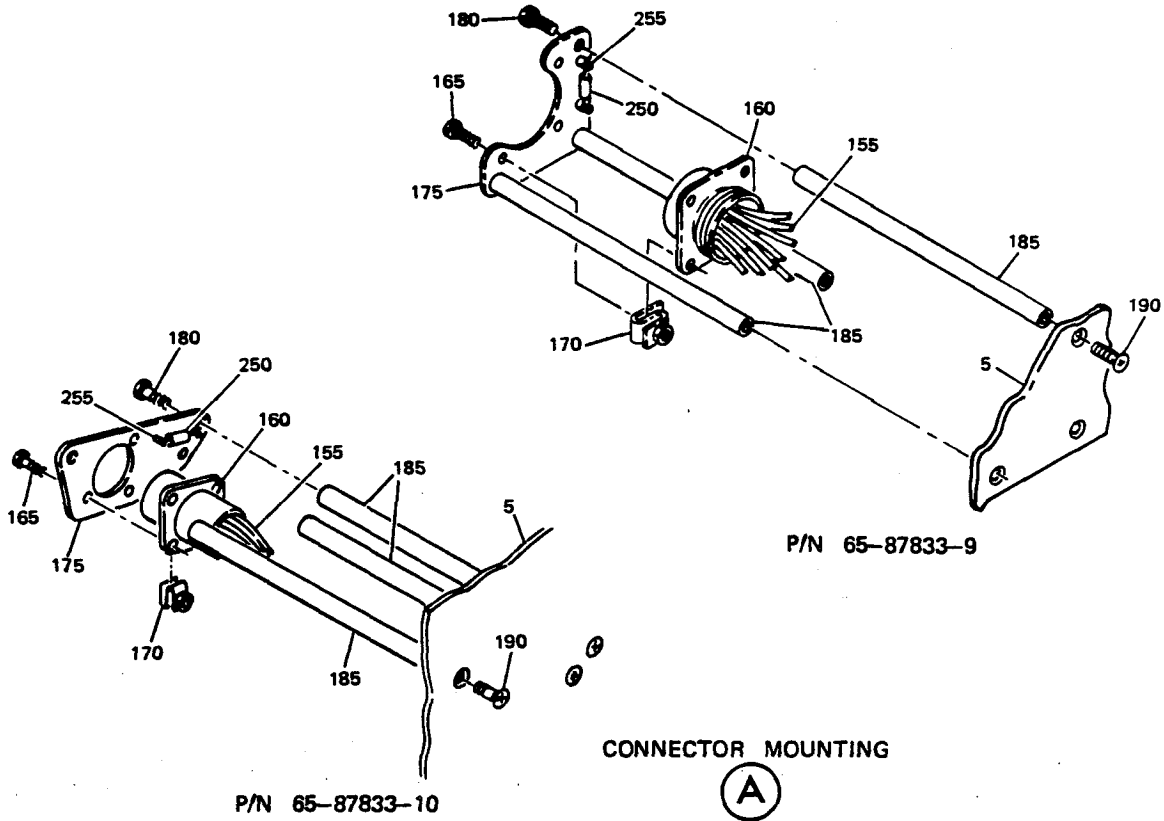
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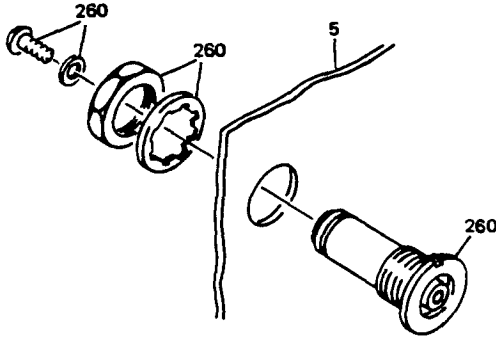
Flight Instrument Module Assembly, F1-1, F1-3, F2-1, F3-1, and F3-3  
 Common Details

Figure 1101 (Sheet 2)

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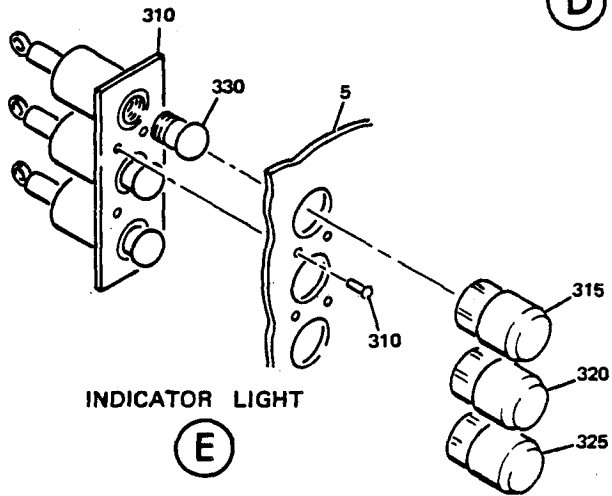


Flight Instrument Module Assembly, FI-1, FI-3, F2-1, F3-1, and F3-3  
Common Details



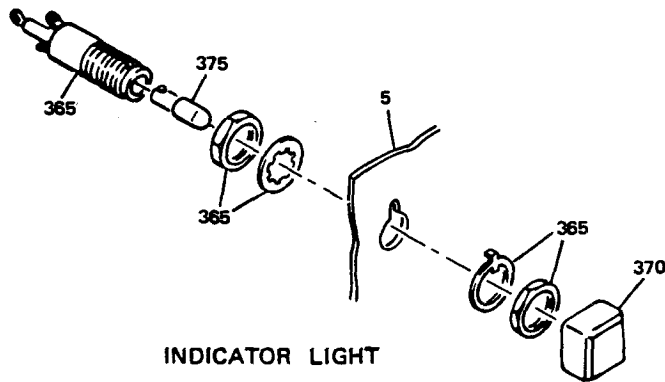
POWER CONNECTOR

(D)



INDICATOR LIGHT

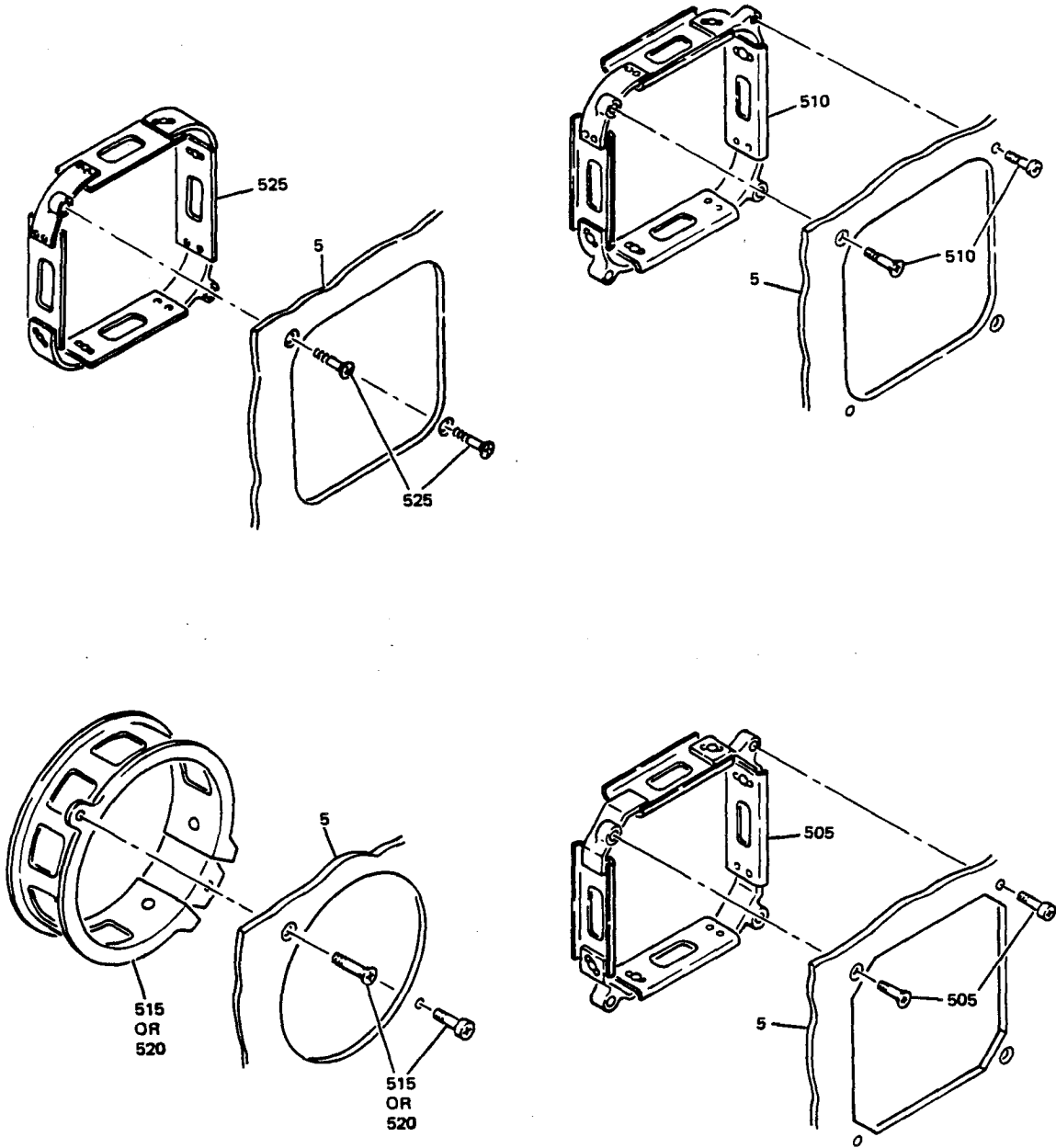
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INDICATOR LIGHT

(F)

Flight Instrument Module Assembly, F1-1, F1-3, F2-1, F3-1, and F3-3  
 Common Details



INSTRUMENT CLAMPS

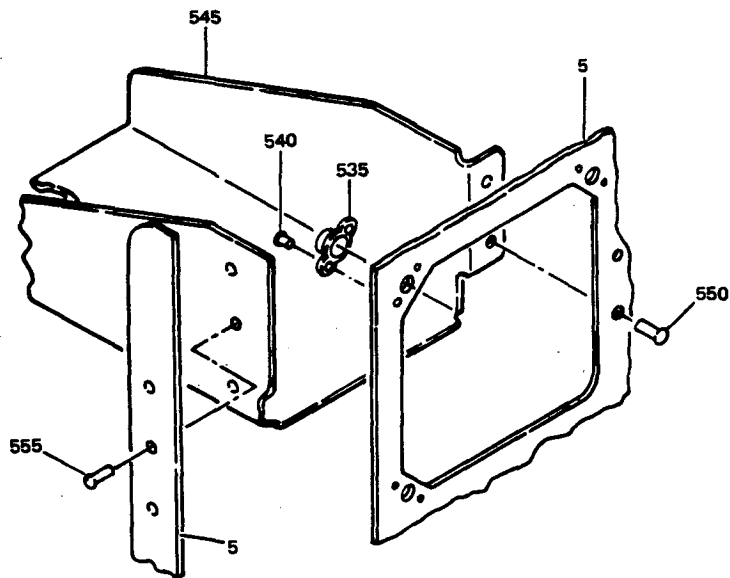


Flight Instrument Module Assembly, F1-1, F1-3, P2-1, P3-1, and P3-3  
Common Details

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Figure 1101 (Sheet 5)

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SUPPORT BRACKET

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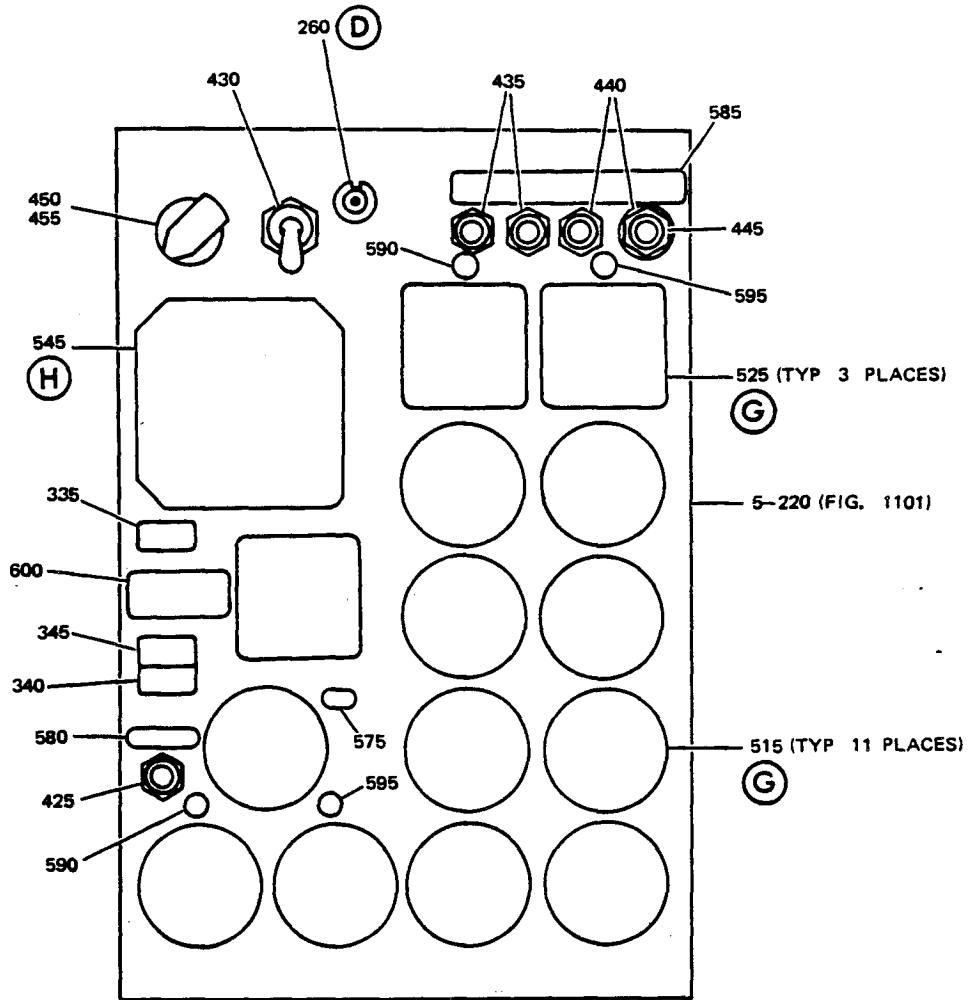
Flight Instrument Module Assembly, P1-1, P1-3, P2-1, P3-1, and P3-3

Common Details

Figure 1101 (Sheet 6)

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P/N 65-87833-3

Center Instrument Module Assembly P2-1  
 Figure 1102

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FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	N O M E N C L A T U R E							USE CODE	QTY PER ASSY
			1	2	3	4	5	6	7		
1102	65-87833-3		CTR INSTR MOD ASSY P2-1								
			<u>BASIC FRAME (ITEMS 5 THRU 150)</u>								
5	69-37304-40		. BASEPLATE ASSY								1
10	69-43831-1		. MODULE STOP								1
15	69-43831-2		. MODULE STOP								1
20	BACR15BA4D		. RIVET								4
25	69-42739-1		. INDEX PIN								2
30	NAS514P832-6		. SCREW								2
35	BACS21Y5RB		. STUD								1
40	26S55-5AB		. STUD, V71286								1
45	26S55-6AB		. STUD, V71286								1
50	26S55-6AB		. STUD, V71286								1
55	BACW1OX2		. WASHER								1
60	BACW1OX4		. WASHER								2
65	BACW1OX4		. WASHER								1
70											
thru											
150	NOT USED										
			<u>WIRE BUNDLE AND CONNECTORS (ITEMS 155 THRU 300)</u>								
155	61-30064-020		. WIRE BUNDLE								1
160	BACC45FN22-19P		. CONNECTOR								1
165	BACS12CB04-6		. SCREW								3
170	BACN1ONW1		. NUT, CLIP								3
175	69-49743-2		. PLATE, SUPPORT								1
180	BACS12CB06-5		. SCREW								3
185	66-13524-12		. SPACER								3
190	NAS514P632-6		. SCREW								3
195	NOT USED										
200	BACC45FN22-55P		. CONNECTOR								1
205	BACS12CB04-6		. SCREW								3
210	BACN1ONW1		. NUT, CLIP								3
215	69-43873-9		. ANGLE								1
220	BACR15BA5D		. RIVET								2
225											
thru											
255	NOT USED										
260	SCN001		. POWER CONNECTOR, V95354								1



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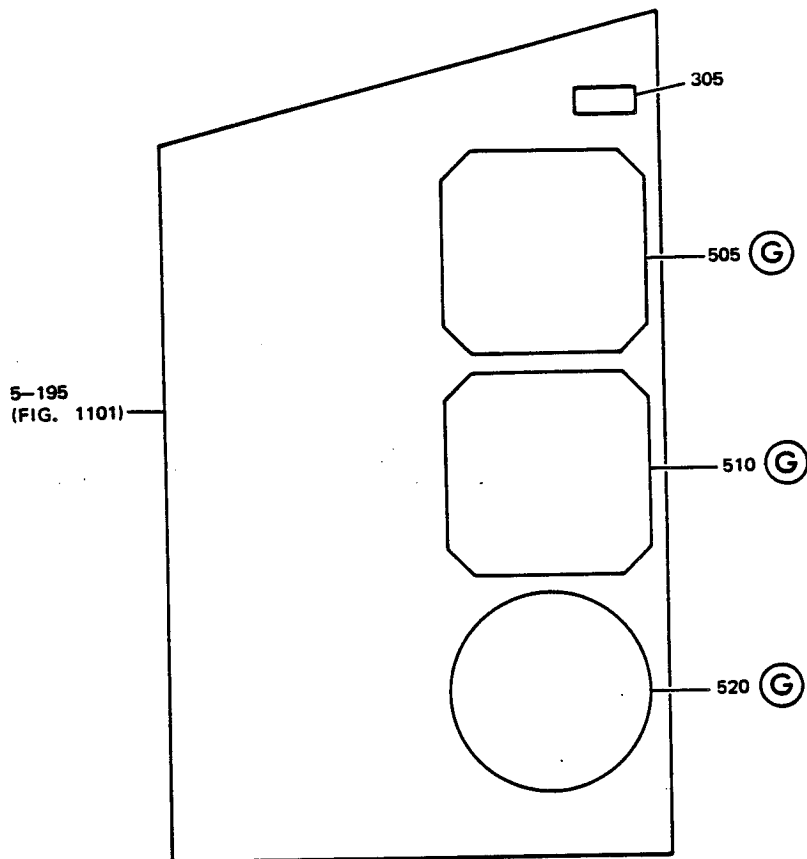
65-87833

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	N O M E N C L A T U R E							USE CODE	QTY PER ASSY
			1	2	3	4	5	6	7		
1102 265 thru 300	NOT USED		<u>INDICATORS (ITEMS 305 THRU 400)</u>								
305 thru 330	NOT USED										
335	319-619-1002-005		. INDICATOR LIGHT ASSY, V81590 (BOEING 10-61305-19)								1
340	319-619-1001-068		. INDICATOR LIGHT ASSY, V81590 (BOEING 10-61305-89)								1
345	319-619-1001-069		. INDICATOR LIGHT ASSY, V81590 (BOEING 10-61305-90)								1
350 thru 400	NOT USED		<u>SWITCHES (ITEMS 405 THRU 500)</u>								
405 thru 420	NOT USED										
425	4PB11T2		. SWITCH, PUSHBUTTON, V91929								1
430	68AT11-1		. SWITCH, TOGGLE, V91929								1
435	W20161-01		. SWITCH, PUSHBUTTON, V81640								2
440	W20163-03		. SWITCH, PUSHBUTTON, V81640								2
445	A120-017		. SHIELD, V81640								1
450	6430A		. TRANSFORMER, V95266								1
455	533043		. KNOB, V15084								1
460 thru 500	NOT USED		<u>INSTRUMENT MOUNTINGS, MARKERS, AND MISCELLANEOUS (ITEMS 505 AND ON)</u>								
505 thru 510	NOT USED										
515	BACCLOEL3		. CLAMP, INSTR								11

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FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	N O M E N C L A T U R E							USE CODE	QTY PER ASSY
			1	2	3	4	5	6	7		
1102											
525	19748		.							3	
530	NOT USED										
535	BACN10JPO6A		.							3	
540	BACR15BA3D		.							6	
545	69-43992-1		.							1	
550	BACR15BA6D		.							2	
555	BACR15BA5D		.							3	
560											
thru											
570	NOT USED										
575	BAC27DCC16		.							1	
580	BAC27DCC65		.							1	
585	BAC27DCC266		.							1	
590	BACM10N00-2S		.							2	
595	BACM10N00-2T		.							2	
600	BAC27DCC676		.							1	

REFERENCE DESIGNATION INDEX (SEE SCHEMATIC DIAGRAM)		
REFERENCE DESIGNATION	PART NUMBER	FIG. 1102 ITEM NO.
D4246J	BACC45FN22-19P	160
D4256J	BACC45FN22-55P	200
L334	319-619-1002-005	335
L375	SCN001	260
L441	319-619-1001-068	340
L442	319-619-1001-069	345
S257	4PB11T2	425
S270	68AT11-1	430
S289, S315	W20161-01	435
S300, S316	W20163-03	440
T45	6430A	450



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Captain Flight Instrument Module Assembly P1-1  
Figure 1103

**BOEING**   
**COMMERCIAL JET**  
**OVERHAUL MANUAL**

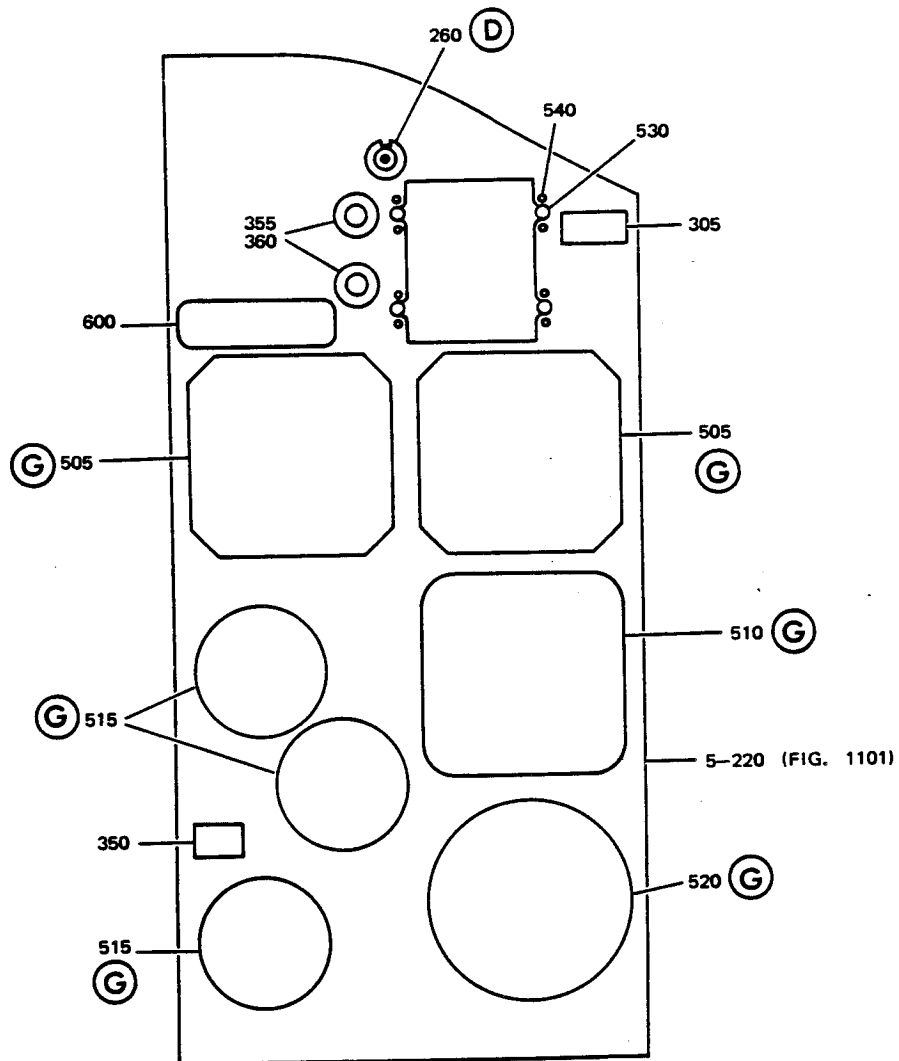
FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	N O M E N C L A T U R E							USE CODE	QTY PER ASSY
			1	2	3	4	5	6	7		
1103	65-87833-7		CAPT FLT INSTR MOD ASSY P1-1								
			<u>BASIC FRAME (ITEMS 5 THRU 150)</u>								
5	69-37300-79		. BASEPLATE ASSY								1
10	69-43831-1		. MODULE STOP								1
15	69-43831-2		. MODULE STOP								1
20	BACR15BA4D		. RIVET								4
25	69-42739-1		. INDEX PIN								2
30	NAS514P832-6		. SCREW								2
35	26S55-5AB		. STUD, V71286								1
40	26S55-5AB		. STUD, V71286								1
45	26S55-6AB		. STUD, V71286								1
50	26S55-6AB		. STUD, V71286								1
55	BACW1OX4		. WASHER								1
60	BACW1OX4		. WASHER								2
65	BACW1OX4		. WASHER								1
70 thru 150	NOT USED										
			<u>WIRE BUNDLE AND CONNECTORS (ITEMS 155 THRU 300)</u>								
155	61-30033-010		. WIRE BUNDLE								1
160	BAC045FN12-12P		. CONNECTOR								1
165	BACS12CB04-6		. SCREW								3
170	BACN1ONW1		. NUT, CLIP								3
175	69-49743-12		. PLATE, SUPPORT								1
180	BACS12CB06-6		. SCREW								1
185	66-13524-7		. SPACER								1
190	NAS514P632-6		. SCREW								1
195	BACR15BA5D		. RIVET								2
200 thru 300	NOT USED										
			<u>INDICATORS (ITEMS 305 THRU 400)</u>								
305	318-630-1001-212		. INDICATOR LIGHT, V81590 (BOEING 10-61803-294)								1
310 thru 400	NOT USED										

**BOEING**   
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FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	N O M E N C L A T U R E							USE CODE	QTY PER ASSY		
			1	2	3	4	5	6	7				
1103	NOT USED		<u>SWITCHES (ITEMS 405 THRU 500)</u>										
405 thru 500			<u>INSTRUMENT MOUNTINGS, MARKERS, AND MISCELLANEOUS (ITEMS 505 AND ON)</u>										
505			9963	. CLAMP INSTR, V91893 (PREF)								1	
505			123-3	. CLAMP INSTR, V01378 (OPT)								1	
505			54621	. CLAMP INSTR, V98625 (OPT)								1	
510			52321	. CLAMP INSTR, V98625								1	
515			NOT USED										
520			BACCLOEL4	. CLAMP INSTR								1	

REFERENCE DESIGNATION INDEX (SEE SCHEMATIC DIAGRAM)		
REFERENCE DESIGNATION	PART NUMBER	FIG. 1103 ITEM NO.
D431	BACC45FN12-12P	160
L812	318-630-1001-212	255



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First Officer's Flight Instrument Module Assembly P3-1  
Figure 1104

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**BOEING**   
**COMMERCIAL JET**  
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FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	N O M E N C L A T U R E							USE CODE	QTY PER ASSY
			1	2	3	4	5	6	7		
1104	65-87833-8		FIRST OFF. FLT INSTR MOD ASSY P3-1								
			<u>BASIC FRAME (ITEMS 5 THRU 150)</u>								
5	69-37308-145		. BASEPLATE ASSY								1
10	69-43831-1		. MODULE STOP								1
15	69-43831-2		. MODULE STOP								1
20	BACR15BA4D		. RIVET								4
25	69-42739-1		. INDEX PIN								2
30	NAS514P832-6		. SCREW								2
35	26S55-5AB		. STUD, V71286								1
40	26S55-5AB		. STUD, V71286								1
45	26S55-6AB		. STUD, V71286								1
50	26S55-6AB		. STUD, V71286								1
55	BACW1OX4		. WASHER								1
60	BACW1OX4		. WASHER								2
65	BACW1OX4		. WASHER								1
70	66-13524-4		. SPACER								2
75	NAS514P632-6		. SCREW								2
80	BACC1ODK		. CLAMP								2
85	BACS12CB3		. SCREW								2
90	AN96OD1OL		. WASHER								2
95 thru 150	NOT USED										
			<u>WIRE BUNDLE AND CONNECTORS (ITEMS 155 THRU 300)</u>								
155	61-30039-024		. WIRE BUNDLE								1
160	BACC45FN12-12P7		. CONNECTOR								1
165	BACS12CB04-6		. SCREW								3
170	BACN1ONW1		. NUT, CLIP								3
175	69-49743-4		. PLATE, SUPPORT								1
180	BACS12CB06-5		. SCREW								3
185	66-13524-4		. SPACER								3
190	NAS514P632-6		. SCREW								3
195	NOT USED										
200	BACC45FN12-12P6		. CONNECTOR								1
205	BACS12CB04-6		. SCREW								3

**BOEING**   
**COMMERCIAL JET**  
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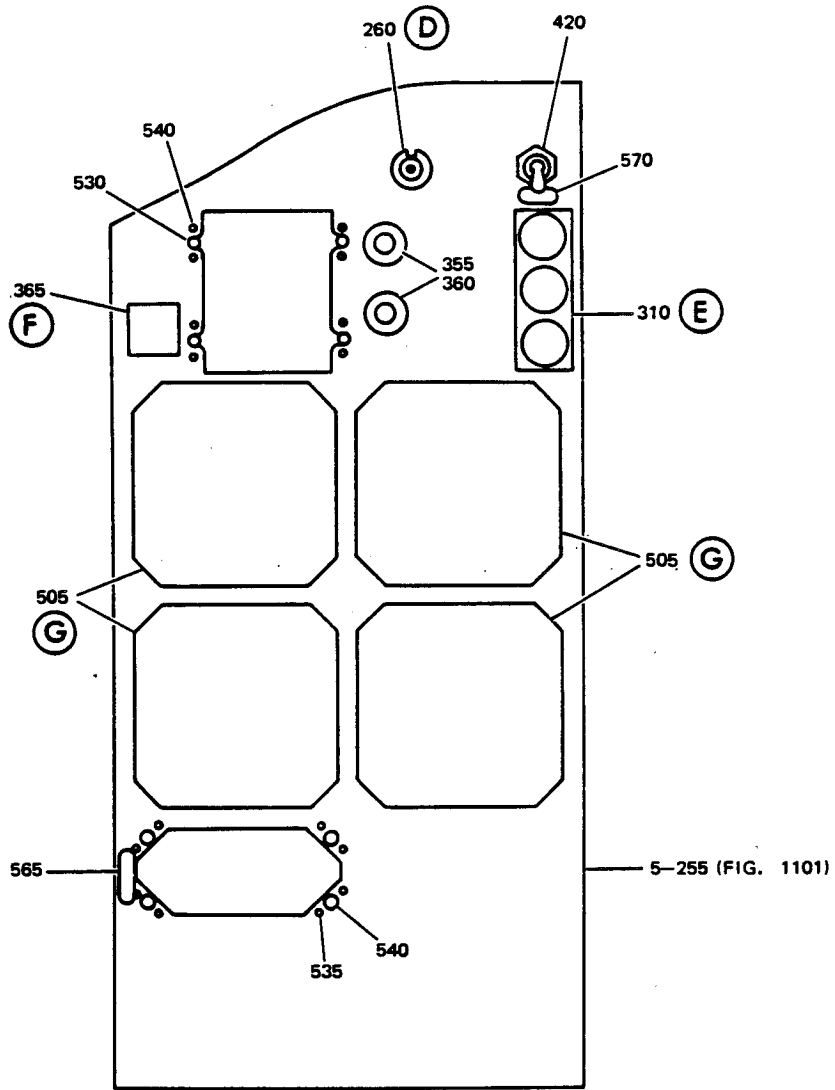
FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	N O M E N C L A T U R E							USE CODE	QTY PER ASSY
			1	2	3	4	5	6	7		
1104											
210	BACN1ONW1										3
215	69-43873-5										1
220	BACR15BA5D										2
225											
thru											
255	NOT USED										
260	SCN001										1
265											
thru											
300	NOT USED										
			<u>INDICATORS (ITEMS 305 THRU 400)</u>								
305	318-630-1001-212										1
310											
thru											
345	NOT USED										
350	318-630-1001-006										1
355	21K187										2
360	346-1001-001										2
365											
thru											
400	NOT USED										
			<u>SWITCHES (ITEMS 405 THRU 500)</u>								
405											
thru											
500	NOT USED										
			<u>INSTRUMENT MOUNTINGS, MARKERS, AND MISCELLANEOUS (ITEMS 505 AND ON)</u>								
505	123-3										2
505	9963										2
505	54621										2
510	52321										1
515	BACCLOEL3										3
520	BACCLOEL4										1



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FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	N O M E N C L A T U R E							USE CODE	QTY PER ASSY
			1	2	3	4	5	6	7		
1104											
525	NOT USED										
530	BACN10JP04A										4
535	NOT USED										
540	BACR15BA3D										8
545											
thru											
595	NOT USED										
600	BAC27DCC788										1

REFERENCE DESIGNATION INDEX (SEE SCHEMATIC DIAGRAM)		
REFERENCE DESIGNATION	PART NUMBER	FIG. 1104 ITEM NO.
D475	BACC45FN12-12P6	200
D645	BACC45FN12-12P7	160
L377	SCN001	260
L376	318-630-1001-006	350
L815	318-630-1001-012	305
M378,M380	21K187	355



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Captain Flight Instrument Module Assembly FI-3  
Figure 1105

**BOEING**   
**COMMERCIAL JET**  
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FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	N O M E N C L A T U R E							USE CODE	QTY PER ASSY
			1	2	3	4	5	6	7		
1105	65-87833-9		CAPT. FLT INSTR MOD ASSY P1-3								
			<u>BASIC FRAME (ITEMS 5 THRU 150)</u>								
5	69-37302-31		. BASEPLATE ASSY								1
10	69-43831-1		. MODULE STOP								1
15	69-43831-2		. MODULE STOP								1
20	BACR15BA4D		. RIVET								4
25	69-42739-1		. INDEX PIN								2
30	NAS514P832-6		. SCREW								2
35	26S55-5AB		. STUD, V71286								1
40	26S55-5AB		. STUD, V71286								1
45	26S55-6AB		. STUD, V71286								1
50	BACS21Y6RB		. STUD								1
55	BACW1OX4		. WASHER								1
60	BACW1OX4		. WASHER								2
65	BACW1OX2		. WASHER								1
70											
thru											
150	NOT USED										
			<u>WIRE BUNDLE AND CONNECTORS (ITEMS 155 THRU 300)</u>								
155	61-30037-032		. WIRE BUNDLE								1
160	BACC45FN18-31P		. CONNECTOR								1
165	BACS12CB04-6		. SCREW								3
170	BACN1ONW1		. NUT, CLIP								3
175	69-43873-4		. PLATE, SUPPORT								1
180	BACS12CB06-5		. SCREW								3
185	66-13524-3		. SPACER								2
190	NAS154P632-6		. SCREW								2
195											
thru											
245	NOT USED										
250	1N5061		. DIODE								1
255	4443B9		. TERMINAL, V88245								2
260	SCN001		. POWER CONNECTOR, V95354								1
265											
thru											
300	NOT USED										

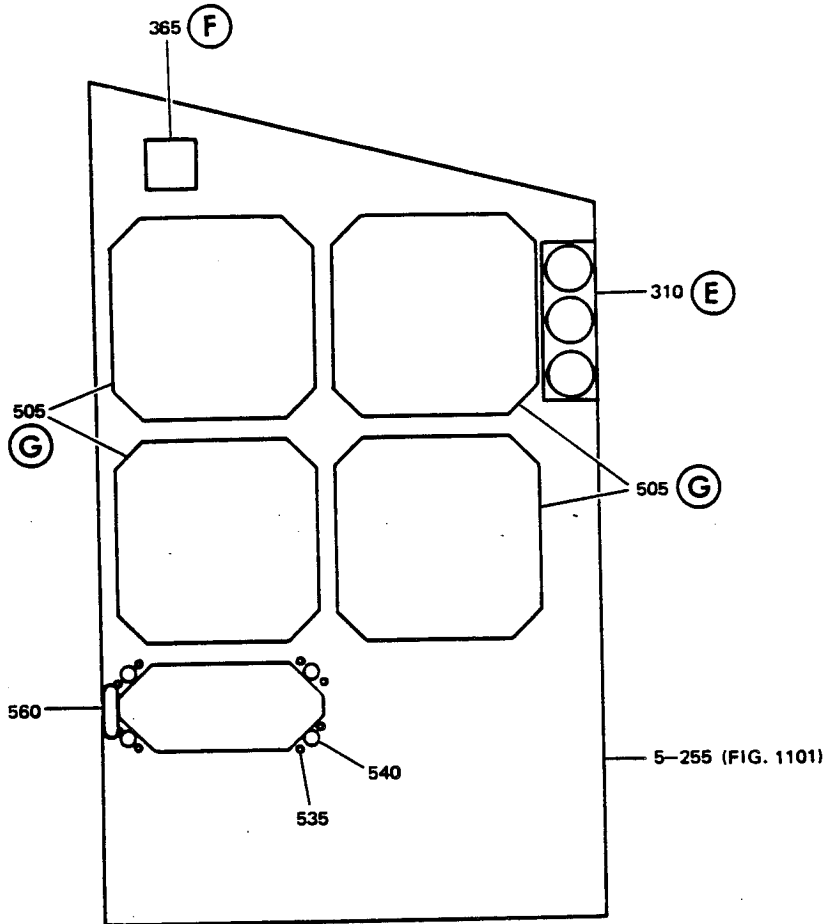
**BOEING**   
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FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	N O M E N C L A T U R E							USE CODE	QTY PER ASSY
			1	2	3	4	5	6	7		
1105			<u>INDICATORS (ITEMS 305 THRU 400)</u>								
305	NOT USED										
310	074-1012-002		. BASE ASSY, INDICATOR LIGHT, V81590								1
315	539-1012-002		. CAP, INDICATOR LIGHT, V81590								1
320	539-1012-003		. CAP, INDICATOR LIGHT, V81590								1
325	539-1012-004		. CAP, INDICATOR LIGHT, V81590								1
330	MS15571-2		. BULB								3
335 thru 350	NOT USED										
355	21K187		. PHOTOCELL, V81878								2
360	346-1001-001		. RECEPTACLE, V81590								2
365	088-1031-001		. BASE ASSY, INDICATOR LIGHT, V81590								1
370	515-1039-002		. CAP, INDICATOR LIGHT, V81590								1
375	1864		. BULB, V24455								1
380 thru 400	NOT USED										
			<u>SWITCHES (ITEMS 405 THRU 500)</u>								
405 thru 415	NOT USED										
420	MS24523-31		. SWITCH, TOGGLE								1
425 thru 500	NOT USED										
			<u>INSTRUMENT MOUNTINGS, MARKERS, AND MISCELLANEOUS (ITEMS 505 AND ON)</u>								
505	9963		. CLAMP, INSTR, V91893 (PREF)								4
505	54621		. CLAMP, INSTR, V98625 (OPT)								4
510 thru 525	NOT USED										
530	BACN10JPO4A		. NUTPLATE								4
535	BACN10JPO6A		. NUTPLATE								4
540	BACR15BA3D		. RIVET								16
545 thru 560	NOT USED										
565	BAC27DCC6		. MARKER, ALUM FOIL								1
570	BAC27DCC351		. MARKER, ALUM FOIL								1

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REFERENCE DESIGNATION INDEX (SEE SCHEMATIC DIAGRAM)		
REFERENCE DESIGNATION	PART NUMBER	FIG. 1105 ITEM NO.
D425	BACC45FN18-31P	160
L335	074-1012-002	310
L337	SCN001	260
L734	088-1031-001	365
M377, M379	21K187	355
M678	1N5061	250
S210	MS24523-31	420



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First Officer's Flight Instrument Module Assembly P3-3  
Figure 1106

**BOEING**   
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**OVERHAUL MANUAL**

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	N O M E N C L A T U R E							USE CODE	QTY PER ASSY
			1	2	3	4	5	6	7		
1106	65-87833-10		FIRST OFF. FLT INSTR MOD ASSY P3-3								
			<u>BASIC FRAME (ITEMS 5 THRU 150)</u>								
5	69-37310-26		. BASEPLATE ASSY								1
10	69-43831-1		. MODULE STOP								1
15	69-43831-2		. MODULE STOP								1
20	BACR15BA4D		. RIVET								4
25	69-42739-1		. INDEX PIN								2
30	NAS514P832-6		. SCREW								2
35	26S55-5AB		. STUD, V71286								1
40	26S55-5AB		. STUD, V71286								1
45	26S55-6AB		. STUD, V71286								1
50	26S55-6AB		. STUD, V71286								1
55	BACW10X4		. WASHER								1
60	BACW10X4		. WASHER								2
65	BACW10X4		. WASHER								1
70											
thru											
90	NOT USED										
95	BACN10MK3-45		. NUTPLATE								1
100	BACR15BA3D		. RIVET								2
105	BACR12CB3		. SCREW								1
110	AN960D10L		. WASHER								1
115	BACCL0DK		. CLAMP								1
120											
thru											
150	NOT USED										
			<u>WIRE BUNDLE AND CONNECTORS (ITEMS 155 THRU 300)</u>								
155	61-30045-026		. WIRE BUNDLE								1
160	BACC45FN12-12P8		. CONNECTOR								1
165	BACR12CB04-6		. SCREW								3
170	BACN10NW1		. NUT, CLIP								3
175	69-49743-1		. PLATE, SUPPORT								1
180	BACR12CB06-6		. SCREW								3
185	66-13524-7		. SPACER								3
190	NAS514P632-6		. SCREW								3
195											
thru											
220	NOT USED										

**BOEING**   
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FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	N O M E N C L A T U R E							USE CODE	QTY PER ASSY
			1	2	3	4	5	6	7		
1106											
225	BACC45FN12-12P		.								1
230	BACS12CB04-6		.								3
235	BACN10NW1		.								3
240	69-43873-6		.								1
245	BACR15BA5D		.								2
250	1N5061		.								1
255	4443B9		.								2
260											
thru											
300	NOT USED										
			<u>INDICATORS (ITEMS 305 THRU 400)</u>								
305	NOT USED										
310	074-1012-002		.								1
315	539-1012-002		.								1
320	539-1012-003		.								1
325	539-1012-004		.								1
330	MS15571-2		.								3
335											
thru											
360	NOT USED										
365	088-1031-001		.								1
370	515-1039-002		.								1
375	1864		.								1
380											
thru											
400	NOT USED										
			<u>SWITCHES (ITEMS 405 THRU 500)</u>								
405											
thru											
500	NOT USED										
			<u>INSTRUMENT MOUNTINGS, MARKERS, AND MISCELLANEOUS (ITEMS 505 AND ON)</u>								
505	9963		.								4
505	54621		.								4
510											
thru											
530	NOT USED										



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FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	N O M E N C L A T U R E							USE CODE	QTY PER ASSY
			1	2	3	4	5	6	7		
1106											
535	NAS697A06L										4
540	BACR15BA3D										8
545											
thru											
555	NOT USED										
560	BAC27DCC3										1

REFERENCE DESIGNATION INDEX (SEE SCHEMATIC DIAGRAM)

REFERENCE DESIGNATION	PART NUMBER	FIG. 1106 ITEM NO.
D429	BACC45FN12-12P	225
D543	BACC45FN12-12P8	160
L336	074-1012-002	310
L735	088-1031-001	365
M679	1N5061	250

**BOEING**   
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VENDORS

V01378 DEL ELECTRONICS CORPORATION, 250 EAST SANDFORD BLVD, MT. VERNON, NEW YORK 10550

V15084 AEROSPACE KNOB COMPANY, DIVISION OF DUPREE INC., P.O. BOX 3156, 9835 DUPREE STREET, SOUTH EL MONTE, CALIBORNIA 91733

V18178 VACTEC INCORPORATED, 2423 NORTHLINE INDUSTRIAL BLVD, MARYLAND HEIGHTS, MISSOURI 63043

V24455 RC-95 INCORPORATED, 9 EAST 38TH STREET, NEW YORK, NEW YORK 10016

V71286 REX CHAINEBELT INCORPORATED, CAMLOCK DIVISION, 22 SPRING VALLEY ROAD, PARAMUS, NEW JERSEY 07652

V81590 KORRY MANUFACTURING COMPANY, 223-8TH AVENUE NORTH, SEATTLE, WASHINGTON 98109

V81640 THE SINGER COMPANY, CONTROLS DIVISION, 1420 DELMAR DRIVE, FOLCROFT, PENNSYLVANIA 19032

V88245 LITTON INDUSTRIES, USECO DIVISION, 13536 SATICOY STREET, VAN NUYS, CALIFORNIA 91409

V91893 MSP INCORPORATED, 200 WEST SHERMAN STREET, P.O. BOX 1056, MARION, INDIANA 46952

V91929 HONEYWELL INCORPORATED, MICROSWITCH DIVISION, CHICAGO AND SPRING STREETS, FREEPORT, ILLINOIS 61032

V95266 OECO CORPORATION, 712 S.E. HAWTHORNE BLVD, PORTLAND, OREGON 97214

V95354 METHODE MANUFACTURING CORPORATION, 1700 SOUTH HICK ROAD, ROLLING MEADOWS, ILLINOIS 60008

V98625 AEROQUIP CORPORATION, MARMAN DIVISION, 11214 EXPOSITION BLVD, LOS ANGELES, CALIFORNIA 90064

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Part No.	Fig. and Index No.	Qty. per Assy.
AN960D10L		AR
A120-017	1102-445	1
BACC10DK	1104-80	2
BACC10DK	1106-115	1
BACC10EL3	1102-515	11
BACC10EL3	1104-515	3
BACC10EL3	1106-515	3
BACC10EL4	1103-520	1
BACC10EL4	1104-520	1
BACC45FN12-12P	1103-160	1
BACC45FN12-12P	1106-225	1
BACC45FN12-12P6	1104-200	1
BACC45FN12-12P7	1104-160	1
BACC45FN12-12P8	1106-160	1
BACC45FN18-31P	1105-160	1
BACC45FN22-19P	1102-160	1
BACC45FN22-55P	1102-200	1
BACML0N00-2S	1102-590	2
BACML0N00-2T	1102-595	2
BACN10JPO4A	1104-530	4
BACN10JPO4A	1105-530	4
BACN10JPO6A	1102-535	3
BACN10JPO6A	1105-535	4
BACN10MK3-45	1106-95	1
BACN10NW1	1102-170	3
BACN10NW1	1102-210	3
BACN10NW1	1103-170	3
BACN10NW1	1104-170	3
BACN10NW1	1104-210	3
BACN10NW1	1105-170	3
BACN10NW1	1106-170	3
BACN10NW1	1106-235	3
BACR15BA3D	1102-540	6
BACR15BA3D	1104-540	8
BACR15BA3D	1105-540	16
BACR15BA3D	1106-100	2
BACR15BA3D	1106-540	8
BACR15BA4D	1102-20	4
BACR15BA4D	1103-20	4
BACR15BA4D	1104-20	4
BACR15BA4D	1105-20	4

Part No.	Fig. and Index No.	Qty. per Assy.
BACR15BA4D	1106-20	4
BACR15BA5D	1102-220	2
BACR15BA5D	1102-555	3
BACR15BA5D	1103-195	2
BACR15BA5D	1104-220	2
BACR15BA5D	1106-245	2
BACR15BA6D	1102-550	2
BACR12CB04-6	1102-165	3
BACR12CB04-6	1102-205	3
BACR12CB04-6	1103-165	3
BACR12CB04-6	1104-165	3
BACR12CB04-6	1104-205	3
BACR12CB04-6	1105-165	3
BACR12CB04-6	1106-165	3
BACR12CB04-6	1106-230	3
BACR12CB06-5	1102-180	3
BACR12CB06-5	1104-180	3
BACR12CB06-5	1105-180	3
BACR12CB06-6	1103-180	1
BACR12CB06-6	1106-180	3
BACR12CB3	1104-85	2
BACR12CB3	1106-105	1
BACR21Y5RB	1102-35	1
BACR21Y6RB	1105-50	1
BACW10X2	1102-55	1
BACW10X2	1105-65	1
BACW10X4	1102-60	2
BACW10X4	1102-65	1
BACW10X4	1103-55	1
BACW10X4	1103-60	2
BACW10X4	1103-65	1
BACW10X4	1104-55	1
BACW10X4	1104-60	2
BACW10X4	1104-65	1
BACW10X4	1105-55	1
BACW10X4	1105-60	2
BACW10X4	1106-55	1
BACW10X4	1106-60	2
BACW10X4	1106-65	1
BAC27DCC16	1102-575	1
BAC27DCC266	1102-585	1
BAC27DCC3	1106-560	1

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Part No.	Fig. and Index No.	Qty. per Assy.	Part No.	Fig. and Index No.	Qty. per Assy.
BAC27DCC351	1105-570	1	26S55-5AB	1104-40	1
BAC27DCC6	1105-565	1	26S55-5AB	1105-35	1
BAC27DCC65	1102-580	1	26S55-5AB	1105-40	1
BAC27DCC676	1102-600	1	26S55-5AB	1106-35	1
BAC27DCC788	1104-600	1	26S55-5AB	1106-40	1
MS15571-2		AR	26S55-6AB	1102-45	1
MS24523-31		AR	26S55-6AB	1102-50	1
NAS514P632-6		AR	26S55-6AB	1103-45	1
NAS514P832-6		AR	26S55-6AB	1103-50	1
NAS697A06L		AR	26S55-6AB	1104-45	1
SCN001	1102-260	1	26S55-6AB	1104-50	1
SCN001	1104-260	1	26S55-6AB	1105-45	1
SCN001	1105-260	1	26S55-6AB	1106-45	1
W20161-01	1102-435	2	26S55-6AB	1106-50	1
W20161-03	1102-440	2	318-630-1001-006	1104-350	1
074-1012-002	1105-310	1	318-630-1001-212	1103-305	1
074-1012-002	1106-310	1	318-630-1001-212	1104-305	1
088-1031-001	1105-365	1	319-619-1001-068	1102-340	1
088-1031-001	1106-365	1	319-619-1001-069	1102-345	1
1N5061	1105-250	1	319-619-1002-005	1102-335	1
1N5061	1106-250	1	346-1001-001	1104-360	2
10-61305-19	1102-335	1	346-1001-001	1105-360	2
10-61305-89	1102-340	1	4PB11T2	1102-425	1
10-61305-90	1102-345	1	4443B9	1105-255	2
10-61803-10	1104-350	1	4443B9	1106-255	2
10-61803-294	1103-305	1	515-1039-002	1105-370	1
10-61803-294	1104-305	1	515-1039-002	1106-370	1
123-3	1103-505	1	52321	1103-510	1
123-3	1104-505	2	52321	1104-510	1
1864	1105-375	1	533043	1102-455	1
1864	1106-375	1	539-1012-002	1105-315	1
19748	1102-525	3	539-1012-002	1106-315	1
21K187	1104-355	2	539-1012-003	1105-320	1
21K187	1105-355	2	539-1012-003	1106-320	1
26S55-5AB	1102-40	1	539-1012-004	1105-325	1
26S55-5AB	1103-35	1	539-1012-004	1106-325	1
26S55-5AB	1103-40	1			
26S55-5AB	1104-35	1			

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Part No.	Fig. and Index No.	Qty. per Assy.	Part No.	Fig. and Index No.	Qty. per Assy.
54621	1103-505	1	69-43831-2	1105-15	1
54621	1104-505	2	69-43831-2	1106-15	1
54621	1105-505	4	69-43873-1	1106-175	1
54621	1106-505	4	69-43873-4	1105-175	1
			69-43873-5	1104-215	1
61-30033-010	1103-155	1	69-43873-6	1106-240	1
61-30037-032	1105-155	1	69-43873-9	1102-215	1
61-30039-024	1104-155	1	69-43992-1	1102-545	1
61-30045-026	1106-155	1	69-49743-1	1106-175	1
61-30064-020	1102-155	1	69-49743-12	1103-175	1
6430A	1102-450	1	69-49743-2	1102-175	1
65-87833-10	1106	RF	69-49743-4	1104-175	1
65-87833-3	1102	RF			
65-87833-7	1103	RF	9963	1103-505	1
65-87833-8	1104	RF	9963	1104-505	2
65-87833-9	1105	RF	9963	1105-505	4
66-13524-12	1102-185	3	9963	1106-505	4
66-13524-3	1105-185	2			
66-13524-4	1104-70	2			
66-13524-4	1104-185	3			
66-13524-4	1103-185	1			
66-13524-7	1106-185	3			
66-13524-7	1102-430	1			
68AT11-1	1103-5	1			
69-37300-79	1105-5	1			
69-37302-31	1102-5	1			
69-37304-40	1104-5	1			
69-37308-145	1106-5	1			
69-37310-26	1102-25	2			
69-42739-1	1103-25	2			
69-42739-1	1104-25	2			
69-42739-1	1105-25	2			
69-42739-1	1106-25	2			
69-43831-1	1102-10	1			
69-43831-1	1103-10	1			
69-43831-1	1104-10	1			
69-43831-1	1105-10	1			
69-43831-1	1106-10	1			
69-43831-2	1102-15	1			
69-43831-2	1103-15	1			
69-43831-2	1104-15	1			