

TO: ALL HOLDERS OF CENTER INSTRUMENT MODULE ASSEMBLY P2-2 OVERHAUL MANUAL,
 31-36-68

REVISION NO. 4, DATED NOV 1/08

HIGHLIGHTS

DESCRIPTION OF CHANGE	TOPICS AFFECTED												
	D & O	D / Assy	Cleaning	Insp / Chk	Repair	Assy	F / C	Test	T / Shooting	S / Tools	Storage	IPL	L / Overhaul
Removed BAE Systems assemblies from manual	X				X			X				X	

CENTER INSTRUMENT MODULE ASSEMBLY, P2-2

31-36-68

| BOEING P/N 69-73033-7, -9, -32

AIRLINE P/N

THE FOLLOWING DIRECTIVES APPLY TO THIS SUBJECT:

BOEING SERVICE BULLETIN	BOEING TEMPORARY REVISION	OTHER DIRECTIVES	DATE DIRECTIVE INCORPORATED INTO TEXT
80-1006 80-1007R1 80-1046		PRR 32116 PRR 32179-4 MC 3540-11K MC 3540-11K MC 3540-15K	Jun 10/72 Sep 10/72 Mar 5/84 Dec 5/85 Nov 1/04

Nov 1/08

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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
31-36-68					
* T-1	Nov 1/08				
T-2	BLANK				
* LEP-1	Nov 1/08				
LEP-2	BLANK				
* T/C-1	Nov 1/08				
T/C-2	BLANK				
* 1	Nov 1/08				
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* 2A	Nov 1/08				
2B	BLANK				
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* 12D	DELETED				
* 13	Nov 1/08				
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* [1] Use applicable procedures in OHM 31-10-01 and industry practices.

* [2] Special instructions not required.

CENTER INSTRUMENT PANEL ASSEMBLY, P2-2

NOTE: For coverage of 69-37305-78, -81, -82, -87, -88, -91, -92, refer to BAE Systems Controls Inc., (V89954 BAE Systems Controls Inc., 600 Main St., Johnson City, NY 13790-1806) CMM 31-36-68.

1. DESCRIPTION AND OPERATION

- A. The P2-2 module assemblies contain switches, indicator lamps, and instrument clamps used in engine monitoring. The module is installed on the center instrument panel with four quick-disconnect studs.

NOTE: Special instructions for disassembly, cleaning, inspection, assembly, trouble shooting, special tools, or storage are not required. Standard shop practices, and procedures contained in OHM 31-10-01, Instrument Panel Electrical Module General Information, are sufficient for overhaul of this assembly.

2. REPAIR

- A. When installing Korry Indicator Lamps 318-630-1001 - () (Boeing 10-61803- []), use a torque of 64 ± 3 ounce-inches on mounting screws.
- B. When installing spacers (85, Fig. 5), apply Loctite primer, Grade T, and Nut Lock Compound 74 (Loctite Corporation, 705 North Mountain Road, Newington, Connecticut), to threaded areas of attaching screws at both ends per manufacturer's instructions.

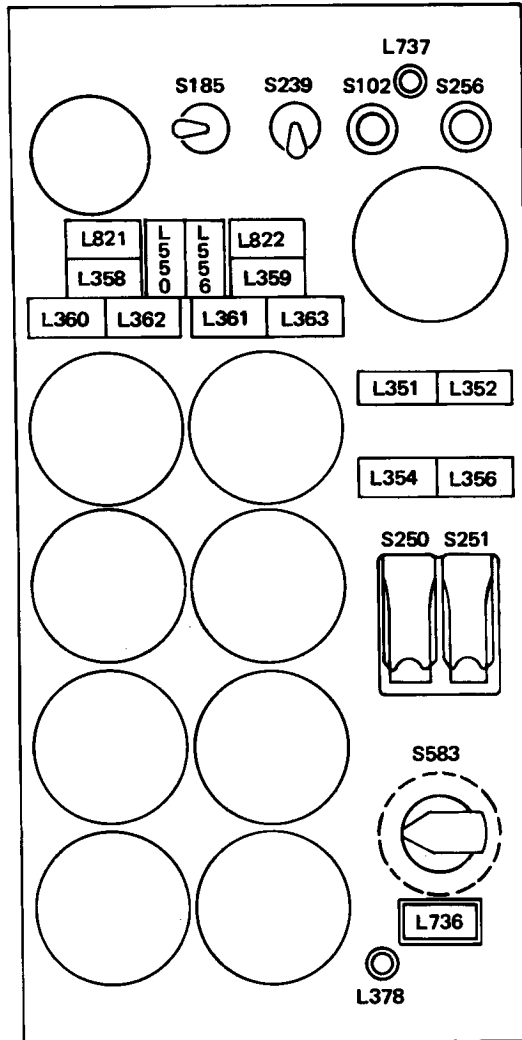
3. TESTING

A. Test Equipment

- (1) Multimeter: Any of the Simpson 260 series multimeters, or equivalent
- (2) Connectors (with pigtail leads): BACC45FT18-31S6 and -31S7 (2 required) to mate with D4258J and D4260J
- (3) Power Supply: 28 volts dc

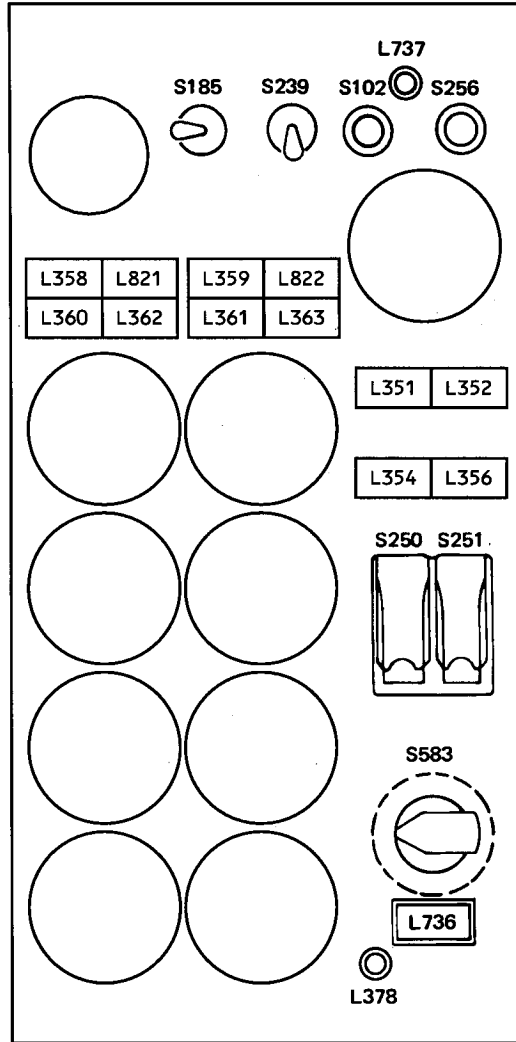
B. Functional Test (See Figure 1 for component locations.)

- (1) Attach test connectors. Identify and tag pigtail leads. Identify upper connector (D4258J) as "A," and lower connector D4260J as "B." Throughout testing, A and B will be used to identify module connectors instead of the reference designators.



69-73033-7,-9

Component Locations
Figure 1 (Sheet 1)



69-73033-32

Component Locations
Figure 1 (Sheet 2)

(2) Test lamp circuitry per Fig. 2.

Step	Procedure	Module Lamps Illuminated
1	Connect B-17 to 28 volts dc	
2	Connect A-15 to ground	
3	Depress all module lamps in sequence. Listed lamps shall illuminate only while depressed	L358, L360, L362, L736, L550 *[1], L822
4	Disconnect B-17	
5	Connect A-17 to 28 volts dc	
6	Depress all module lamps in sequence. Listed lamps shall illuminate only while depressed	L351, L352, L359, L361, L363, L556 *[1], L821
7	Disconnect A-17	
8	Connect A-24 to 28 volts dc	
9	Depress all module lamps in sequence. Listed lamp shall illuminate only while depressed	L356
10	Disconnect A-24	
11	Connect B-24 to 28 volts dc	
12	Depress all module lamps in sequence. Listed lamp shall illuminate only while depressed	L354
13	Connect A-24, A-17, and B-17 to 28 volts dc	
14	Connect B-16 to ground	All module lamps
15	Disconnect B-16	
16	Connect each of the listed pins in turn to ground. The lamp listed shall illuminate while the ground connection is in place	
	Pin A-26	L351
	Pin A-27	L352
	Pin B-4	L354
	Pin A-30	L356
	Pin A-25	L358
	Pin B-25	L359
	Pin A-18	L360
	Pin B-18	L361
	Pin A-19	L362
	Pin B-19	L363
	Pin A-10	L550 *[1]
	Pin A-12	L556 *[1]
	Pin A-13 (Set S583 to OFF [left])	None
	Pin A-13 (Set S583 to MIN, MED, and MAX in turn [rotate to right])	L736 at each position
	Pin B-5	L821
	Pin B-6	L822
17	Remove all connections	

Lamp Tests
Figure 2 (Sheet 1)

Step	Procedure	Module Lamps Illuminated
18	Connect pins A-17, A-24, B-17, B-24 to ground	None
19	Connect pin B-16 to 28 volts dc	
20	Disconnect pin B-16	None
21	Set S583 to any position other than OFF.	
	Connect each of the following pins in turn to 28 volts dc	
	A-26 A-30 B-19	
	A-27 A-18 A-10 *[1]	
		A-12 *[1]
	A-25 A-19 A-13	
	B-25 B-5	
	B-4 B-6	
22	Remove all connections	

*[1] L550, L556 installed on assemblies 69-73033-7, -9 only

Lamp Tests
 Figure 2 (Sheet 2)

(3) Set switches and verify continuity or no continuity between pins listed in Fig. 3.

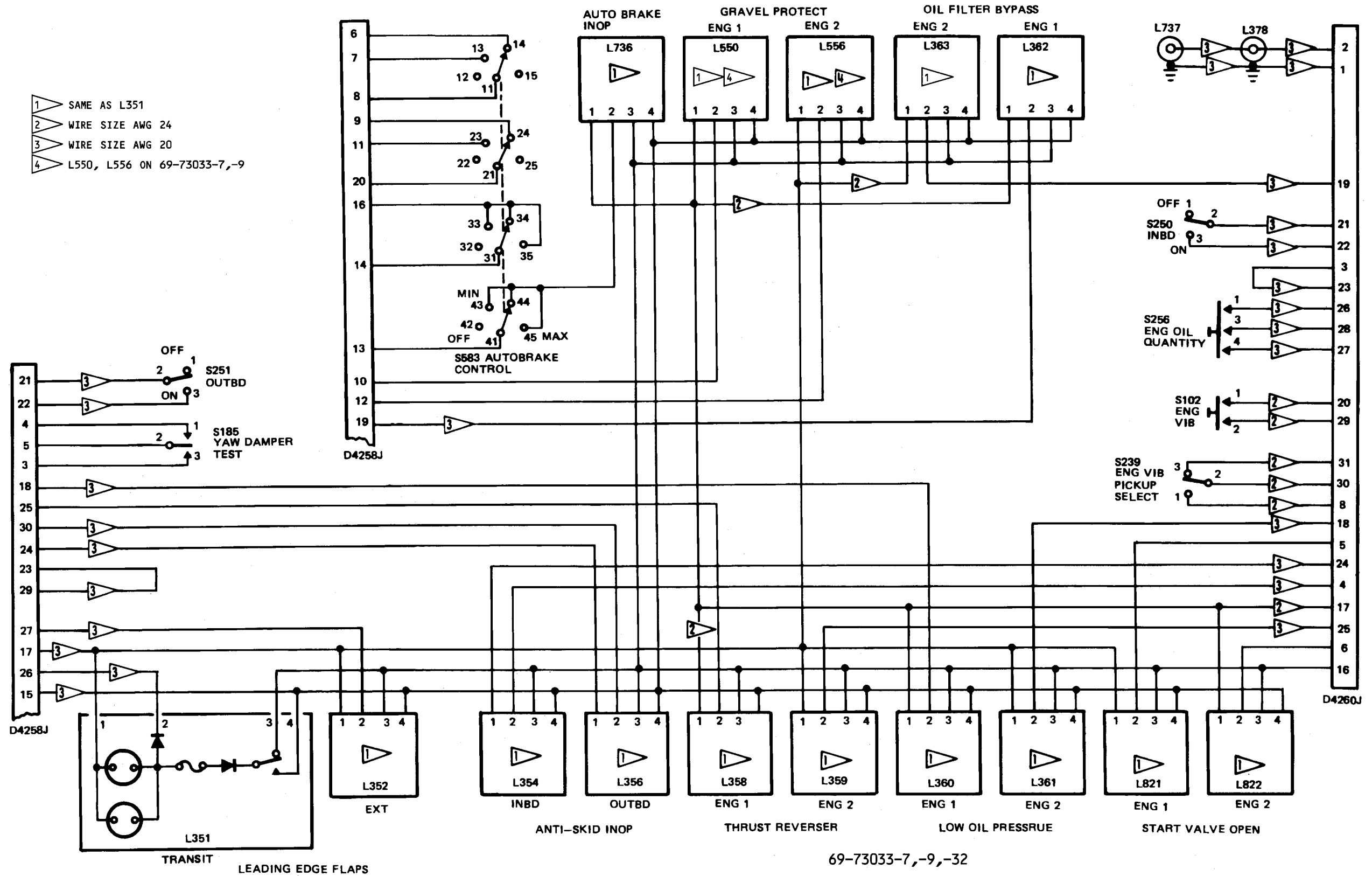
Step	Switch Tested	Switch Setting	Continuity Between Pins	No Continuity Between Pins
1	S102	Depress	B-20 to B-29	
2	S102	Release		B-20 to B-29
3	S185	Set to left	A-5 to A-4	A-5 to A-3
4	S185	Set to right	A-5 to A-3	A-5 to A-4
5	S185	Set to center		A-5 to A-3 A-5 to A-4
6	S250	Set to ON (up)	B-21 to B-22	
7	S250	Set to OFF (down)		B-21 to B-22
8	S251	Set to ON (up)	A-21 to A-22	
9	S251	Set to OFF (down)		A-21 to A-22
10	S256	Depress	B-26 to B-28 B-26 to B-27	
11	S256	Release		B-26 to B-28 B-26 to B-27

Switch and Continuity Tests
 Figure 3 (Sheet 1)

Step	Switch Tested	Switch Setting	Continuity Between Pins	No Continuity Between Pins
12	S583	Set to MAX (full right rotation)	A-14 to A-16	A-20 to A-9 A-20 to A-1 A-8 to A-6 A-8 to A-7
13	S583	Set to MED (one step rotation to left)	A-14 to A-16 A-20 to A-9 A-8 to A-6	A-20 to A-11 A-8 to A-7
14	S583	Set to MIN (one step rotation to left)	A-14 to A-16 A-20 to A-11 A-8 to A-7	A-20 to A-9 A-8 to A-6
15	S583	Set to OFF (full rotation to left)		A-14 to A-16 A-20 to A-11 A-20 to A-9 A-8 to A-7 A-8 to A-6
16	S239	Set to up	B-30 to B-31	B-30 to B-8
17	S239	Set to down	B-30 to B-8	B-30 to B-31
18	Wiring	--	A-23 to A-29	
19	Wiring	--	B-23 to B-3	
20	L737, L738	--	B-2 to both center pins B-1 to chassis B-1 to both outer rims	B-1 to B-2

Switch and Continuity Tests
Figure 3 (Sheet 2)

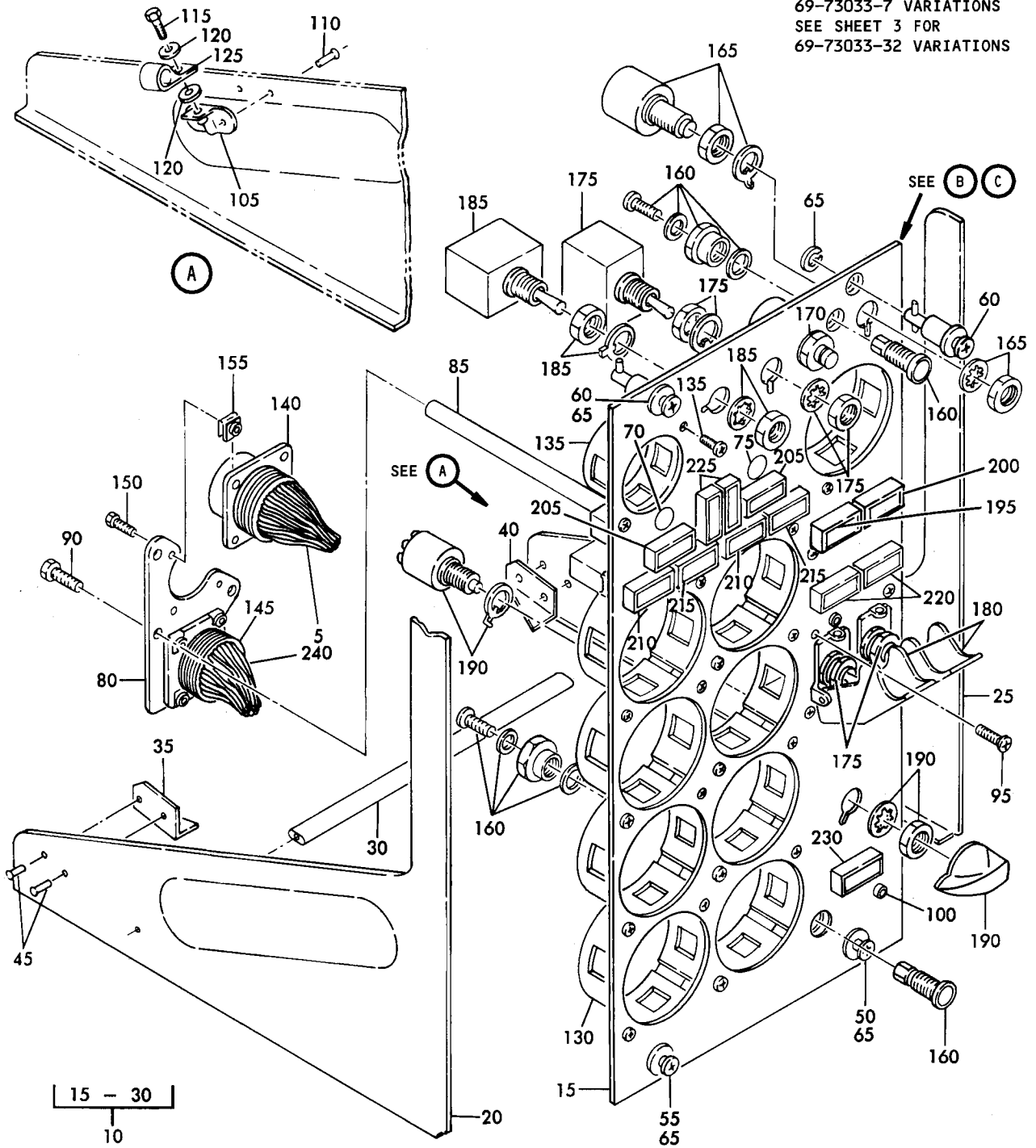
(4) End of test. Disconnect test connectors and turn off power supply.



Schematic Diagram
Figure 4 (Sheet 1)

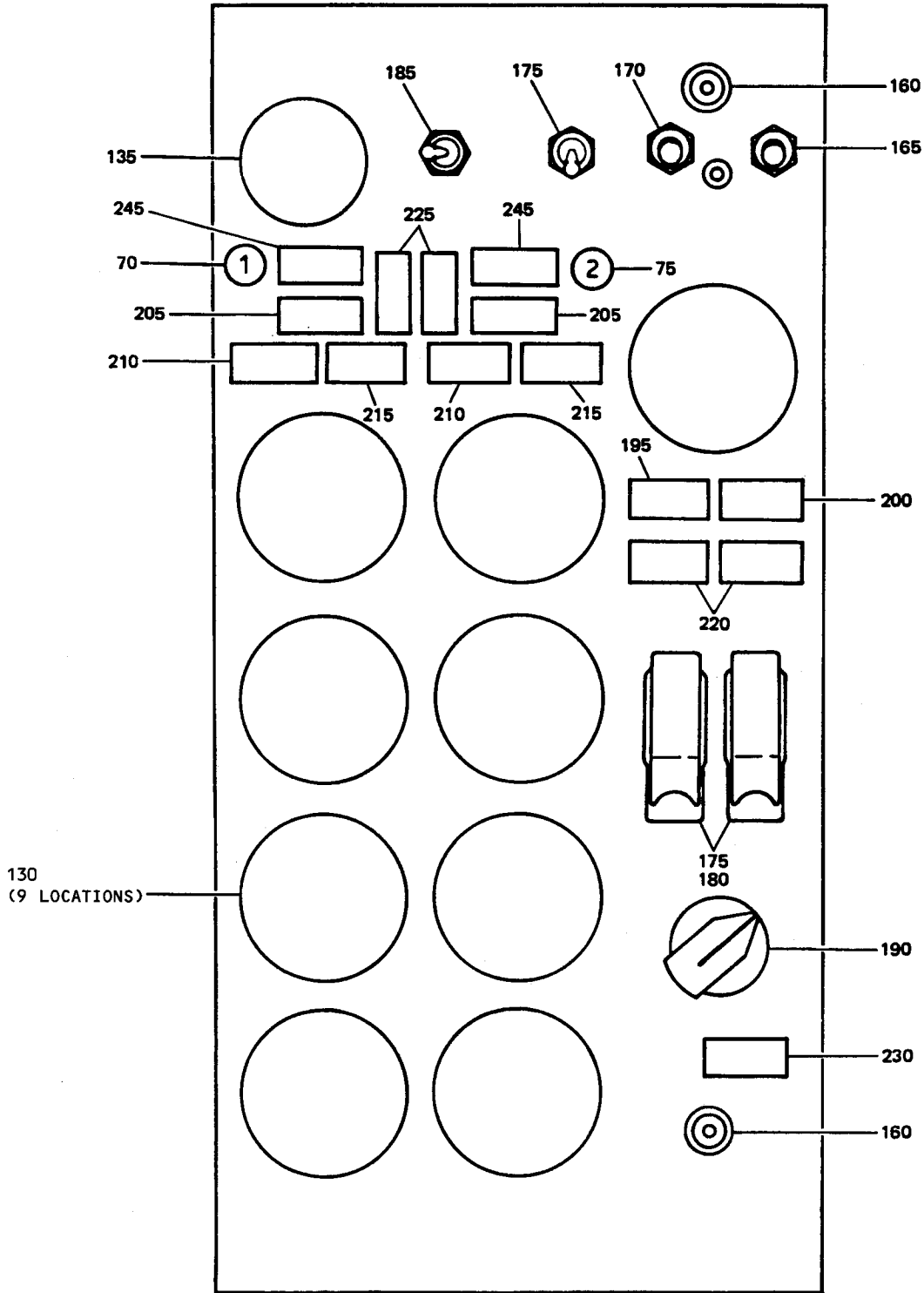
4. ILLUSTRATED PARTS LIST

NOTE: SEE SHEET 2 FOR
69-73033-7 VARIATIONS
SEE SHEET 3 FOR
69-73033-32 VARIATIONS



ASSEMBLIES 69-73033-7, -9, -32

Center Instrument Module Assembly P2-2
Figure 5 (Sheet 1)



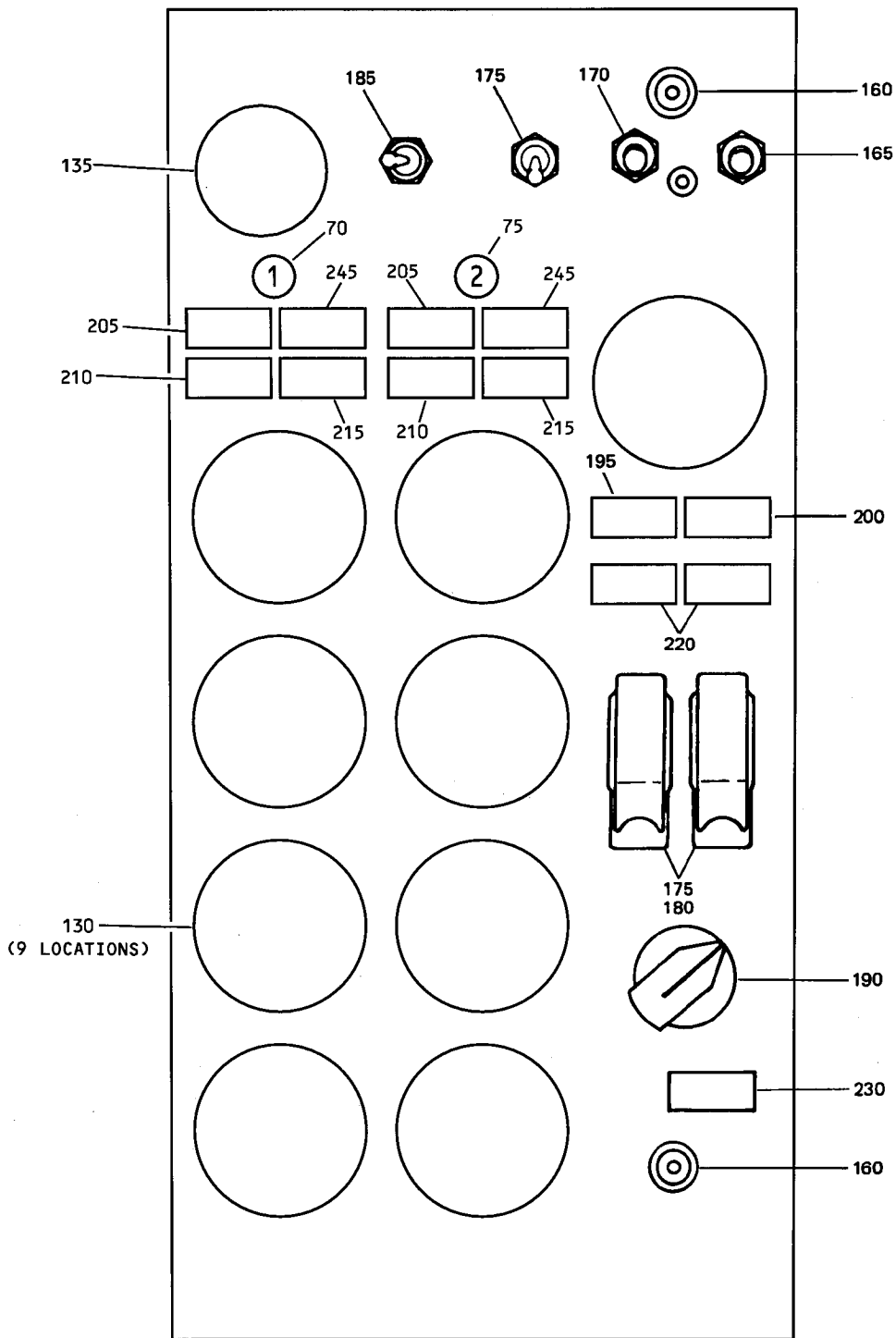
ASSEMBLY 69-73033-7,-9

(B)

Center Instrument Module Assembly P2-2
Figure 5 (Sheet 2)

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(C)

Center Instrument Module Assembly P2-2
Figure 5 (Sheet 3)

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE							USE CODE	QTY PER ASSY
			1	2	3	4	5	6	7		
5-	69-73033-7		CENTER INSTRUMENT MODULE ASSY P2-2 (SB 80-1006)							A	
	69-73033-9		CENTER INSTRUMENT MODULE ASSY P2-2 (SB 80-1007)							B	
	69-73033-32		CENTER INSTRUMENT MODULE ASSY P2-2 (SB 80-1046)							C	
5	61-37305-255		. WIRE BUNDLE							AB	1
5	69-37305-413		. WIRE BUNDLE							C	1
10	69-37305-83		. BASEPLATE ASSY							A	1
10	69-37305-89		. BASEPLATE ASSY							B	1
10	69-37305-85		. BASEPLATE ASSY (MODIFIED BY SB 80-1046)							C	1
15	69-37305-84		. . BASEPLATE							A	1
15	69-37306-90		. . BASEPLATE							B	1
15	69-37305-86		. . BASEPLATE (MODIFIED BY SB 80-1046)							C	1
20	69-41277-3		. . SUPPORT BRACKET								1
25	69-41277-4		. . SUPPORT BRACKET								1
30	69-42851-5		. . STABILIZING ROD								1
35	69-43831-1		. MODULE STOP								1
40	69-43831-2		. MODULE STOP								1
45	BACR15BA4D		. RIVET								4
50	BACS21Y5RB		. STUD								1
55	26S55-5AB		. STUD, V71286								1
60	26S55-6AB		. STUD, V71286								2
65	BACW10X4		. WASHER								4
70	BACM10N00-2S		. MARKER								1
75	BACM10N00-2T		. MARKER								1
80	69-43873-22		. PLATE							A	1
80	69-43873-31		. PLATE							BC	1
85	66-13524-6		. SPACER								3
90	BACS12CB06-5		. SCREW								3
95	NAS514P632-6		. SCREW								3
100	BACN10PA06-12		. NUT, PRESS								4
105	BACN10MK3-45		. NUTPLATE								1
110	BACR15BA3D		. RIVET								2
115	BACS12CB3		. SCREW								1
120	AN960D		. WASHER								2

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE							USE CODE	QTY PER ASSY
			1	2	3	4	5	6	7		
5-125	BACC10DK		.								1
130	BACC10EL3		.								9
135	BACC10EL2		.								1
140	BACC45FN18-31P6		.								1
145	BACC45FN18-31P7		.								1
150	BACS12CB04-6		.								6
155	BACN10W1		.								6
160	SCN001		.								2
165	D20011-05		.								1
170	D20011-01		.								1
175	MS24523-23		.								3
180	11170-1		.								2
185	MS24523-27		.								1
190	69-1963JANCO		.								1
195	318-630-1001-046		.								1
200	318-630-1001-045		.								1
205	318-630-1001-013		.								2
210	318-630-1001-014		.								2
215	318-630-1001-015		.								2
220	318-630-1001-016		.								2
225	318-630-1001-133		.						A		2
230	318-630-1001-145		.								1
245	318-630-1001-229		.								2

VENDORS

V26742	METHODE ELECTRONICS, INC., 7401 W. WILSON AVE., HARWOOD HEIGHTS, ILLINOIS 60706-4548
V71286	ALCOA GLOBAL FASTENERS, INC., 3014 W. LOMITA AVE., TORRANCE, CALIFORNIA 90505-5103
V72914	GRIMES AEROSPACE CO., 550 STATE ROUTE 55, P.O. BOX 247, URBANA, OHIO 43078-9482
V81590	KORRY ELECTRONICS CO., 901 DEXTER AVE. N., SEATTLE, WASHINGTON 98109-3515
V81640	EATON CORP., DBA FLUID POWER DIV., 2250 WHITFIELD AVE., SARASOTA, FLORIDA 34243-3926
V91812	JANCO CORP., DBA ESTERLINE MASON, 13955 BALBOA BLVD., SYLMAR, CALIFORNIA 91342-1084

FIG. 5 REFERENCE DESIGNATION INDEX (SEE SCHEMATIC DIAGRAM)

REFERENCE DESIGNATION	PART NUMBER	ITEM NO.
D4258J	BACC45FN18-31P6	140
D4260J	BACC45FN18-31P7	145
L351	318-630-1001-046	195
L352	318-630-1001-045	200
L354, L356	318-630-1001-016	220
L358, L359	318-630-1001-013	205
L360, L361	318-630-1001-014	210
L362, L363	318-630-1001-015	215
L378	SCN001	160
L550, L556	318-630-1001-133	225
L736	318-630-1001-145	230
L737	SCN001	160
L821, L822	318-630-1001-229	245
S102	D20011-01	170
S185	MS24523-27	185
S239, S250, S251	MS24523-23	175
S256	D20011-05	165
S583	69-1963JANCO	190

* PREFERRED PART