TO: ALL HOLDERS OF ENGINE AND APU FIRE CONTROL MODULE P8-1 OVERHAUL MANUAL, 26-10-46

REVISION NO. 23, DATED JUL 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 coverage	X	X	X	X	X	X		X	X	X		X	

ENGINE AND APU FIRE CONTROL MODULE ASSEMBLY P8-1

26-10-46

BOEING P/N 65-84131-1

AIRLINE P/N

THE FOLLOWING DIRECTIVES APPLY TO THIS SUBJECT:

BOEING SERVICE BULLETIN	BOEING TEMPORARY REVISION	OTHER DIRECTIVES	DATE DIRECTIVE INCORPORATED INTO TEXT
	26-5		Mar 5/93

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
26-10-46		* 1104	Jul 1/08		
* T-1	Jul 1/08	* 1105	Jul 1/08		
T-2	BLANK	* 1106	Jul 1/08		
* LEP-1	Jul 1/08	* 1107	Jul 1/08		
LEP-2	BLANK	* 1108	DELETED		
* T/C-1	Jul 1/08	* 1109	DELETED		
T/C-2	BLANK	* 1110	DELETED		
* 1	Jul 1/08				
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* 701	Jul 1/08				
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* 703	Jul 1/08				
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* 705	Jul 1/08				
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* F 809	DELETED				
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* 1001	Jul 1/08				
1002	BLANK				
* 1101	Jul 1/08				
* 1102	Jul 1/08				
* 1103	Jul 1/08				

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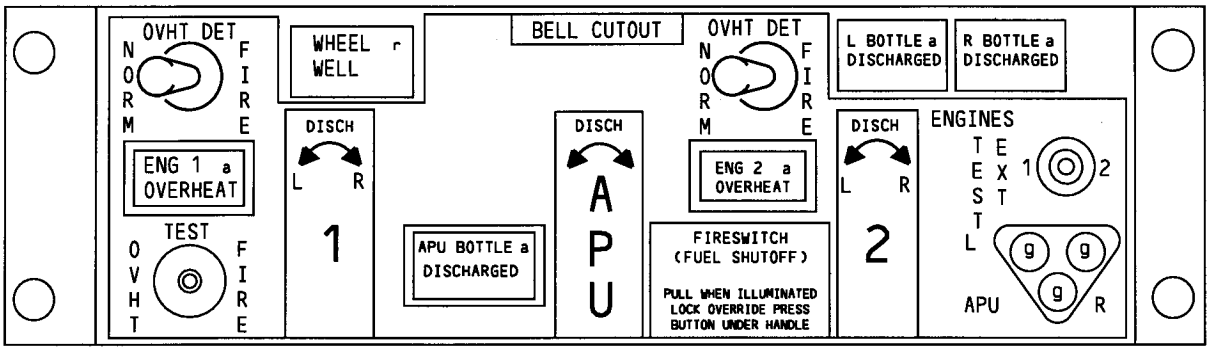
*[1] Use applicable procedures in SOPM 20-11-04, OHM 31-10-01 and standard industry practices.

*[2] Special instructions not required.

ENGINE AND APU FIRE CONTROL MODULE ASSEMBLY (P8-1)



65-84131-1

Engine and APU Fire Control Module Assembly
Figure 1

DESCRIPTION AND OPERATION

1. Description

   A. For coverage of 69-37307-40, -53, -57, -77, -103, -108, -114, refer to BAE Systems Controls, Inc. (V89954, 600 Main St., Johnson City, NY 13790-1806) CMM 26-10-46.

   B. The engine and APU fire control module assembly consists of two printed circuit assembly cards, test switches, fire switches, indicator light assemblies, and a wire bundle assembly. The module assembly is located in the P8 aft control stand electronic panel and may be easily removed from the aircraft for inspection or repair by loosening the four quick-release fasteners on the baseplate and disconnecting the power connectors.

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2. Operation

A. The engine and APU fire control module assembly contains the components necessary to monitor the fire detection system, wheel well and APU overheat detection system, and to control and test the fire extinguishing system. The baseplate of the module assembly contains fire warning lights for each engine and APU, engine overheat warning lights for each engine and APU, an overheat detection switch for each engine, a bell cutout switch, and a fire test switch. The baseplate also contains three fire switches which provide dual extinguishing capabilities at either engine or APU, left, right, and APU bottle discharge lights, fire extinguisher test switch, and three fire extinguisher test circuit lights. Master caution light control circuits and extinguisher bottle test circuits are contained on printed circuit assemblies within the module.

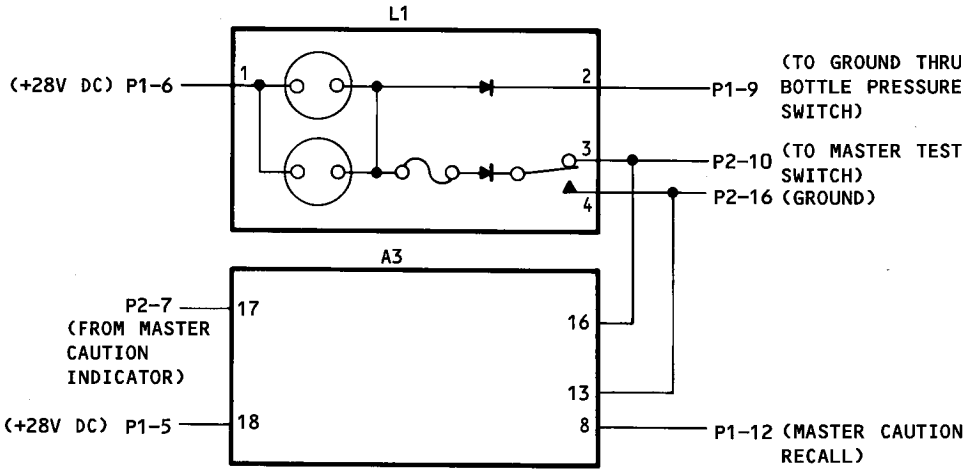
3. Functional Description

A. Indicator L1 (Left BOTTLE DISCHARGED), L2 (Right BOTTLE DISCHARGED) or L10 (APU BOTTLE DISCHARGED) illuminate to indicate low pressure in the fire extinguisher bottle. L1, L2 and L10 operate in a similar manner and only the L1 indicator circuit will be discussed (Fig. 2).

(1) With +28 volts dc supplied to pin P1-6, L1 will illuminate if pin P1-9 is grounded through the external left fire extinguisher bottle pressure switch, indicating low pressure in the bottle.

B. Indicator L3 (Left bottle test) and L4 (Right bottle test) are used to test whether the external fire extinguisher bottle discharge circuitry is intact. The indicator will illuminate to indicate that the circuit is complete. L3 and L4 operate in a similar manner and only the L3 indicator circuit will be discussed (Fig. 3).

(1) Pins P1-3 and P1-6 are supplied +28 volts dc. Pin P2-16 is connected to ground. Pins P1-4 and P1-30 are connected to ground through the external left fire extinguisher bottle squibs. Setting S11 (EXT TEST) to either 1 or 2 will illuminate L3, provided pins P1-4 and P1-30 are grounded (through the number 1 and 2 bottle squibs), indicating that the discharge circuitry is intact.



Indicator L1 Diagram
Figure 2

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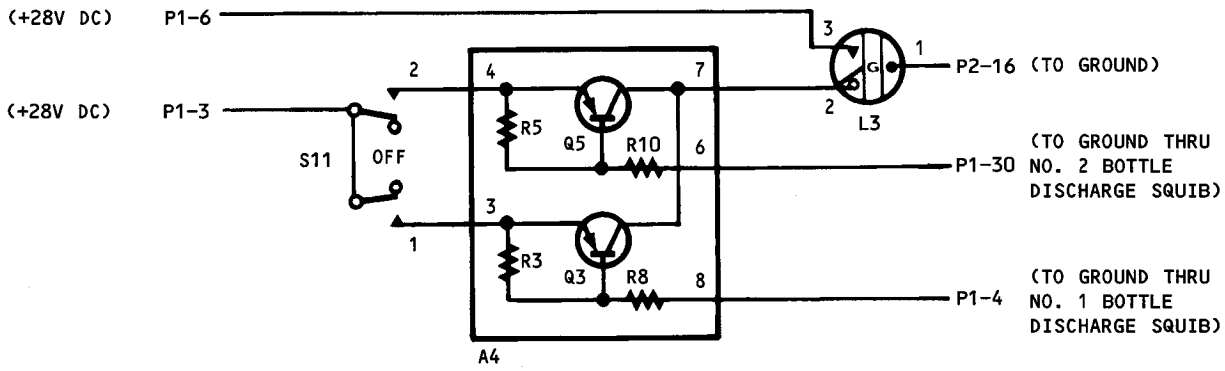

Indicator L3 Diagram
Figure 3

C. Indicator L5 (ENG 1 OVERHEAT) and L7 (ENG 2 OVERHEAT) illuminate to indicate an overheat condition at engine 1 or engine 2. An external master caution indicator is activated upon an overheat condition. L5 and L7 operate in a similar manner and only the L5 indicator circuit will be discussed (Fig. 4).

(1) With pin P2-6 grounded, L5 will illuminate to indicate an overheat condition at engine 1 if +28 volts dc from the engine detector circuit is supplied to pin PI-8.

(2) With +28 volts dc supplied to pin P1-5, pin P2-16 grounded, the master caution indicator connected to pin P2-7 and the +28-volt dc overheat signal supplied to pin P1-8 the master caution indicator is activated. The external master caution indicator circuit is completed by closing a path from pin P2-7 to pin P2-16 and ground.

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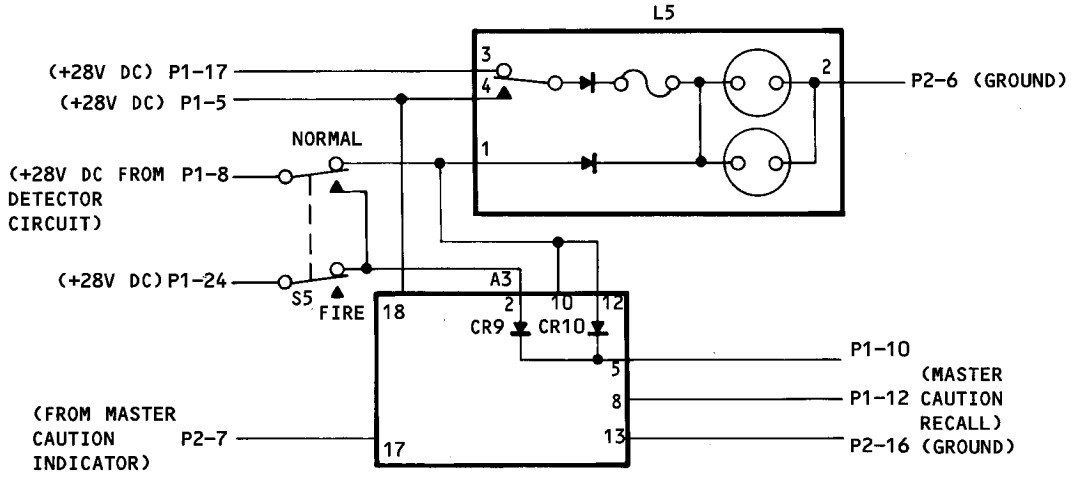
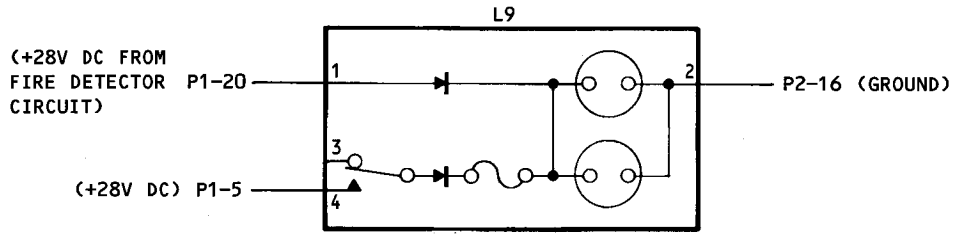
(3) The master caution indicator may be deactivated by momentarily opening the ground path at pin P2-7. At a later time the indication may be recalled by momentarily grounding pin P1-12, provided +28 volts dc is still present at pin P1-8.

(4) Setting S5 (OVHT DET) to FIRE removes the +28 volt- dc overheat signal from L5 and the A3 circuit, extinguishing L5 and the external master caution indicator.



Indicator L5 Diagram
Figure 4

D. Indicator L9 (WHEEL WELL) illuminates to indicate a fire in the wheel well (Fig. 5). Pin P2-16 is grounded and L9 illuminates when a +28-volt dc fire signal is supplied to pin P1-20.

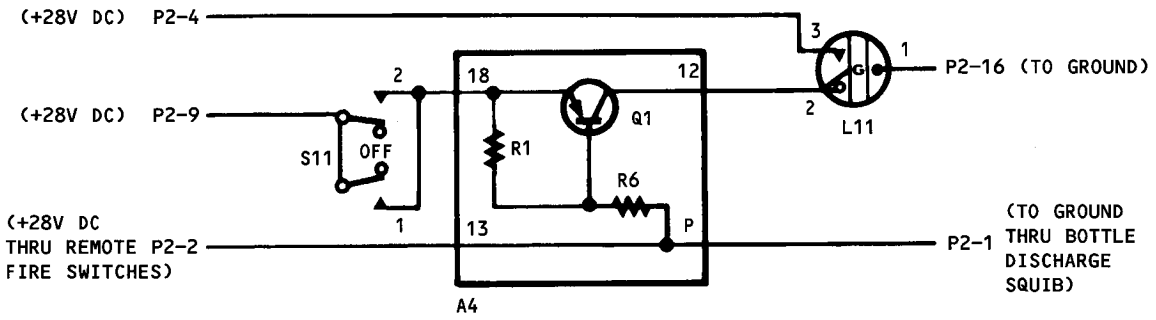


Indicator L9 Diagram
Figure 5

E. Indicator L11 (APU bottle test) is used to test whether the APU fire extinguisher bottle discharge circuit is intact. The indicator will illuminate to indicate that the circuit is complete (Fig. 6).

(1) Pins P2-4 and P2-9 are supplied +28 volts dc. Pin P2-16 is connected to ground. Pin P2-1 is connected to ground through the external APU fire extinguisher bottle squib. Setting S11 (EXT TEST) to either 1 or 2 will illuminate L11, provided pin P2-1 is grounded, indicating that the APU bottle discharge circuit is intact.

F. Fire switches S8 (Engine 1), S9 (Engine 2) and S10 (APU) shut down the engines or APU and energize the fire extinguishing circuitry. The fire handle is locked in place to prevent inadvertent operation and can be unlocked either electrically or mechanically. A fire or overheat signal (S8 and S9 only) energizes the handle



Indicator L11 Diagram
Figure 6

REPAIR

1. Materials

   NOTE: Equivalent substitutes may be used.

   A. Adhesive - Type 38 (SOPM 20-50-12)

   B. Sealant - BMS 5-26, Class A or Class B

2. All repair can be accomplished with standard industry practices and information contained in OHM 31-10-01 or SOPM 20-11-04 except as noted in the following:

   A. If replacement required, insert keying plug (48, Fig. 1101) into printed circuit assembly connector P6 (47, Fig. 1101) at position 6 except at position 15 for 65-84131-1. Connectors P7 and P10 do not require keying.

   B. If replacement required, bond spacer (9 or 10, Fig. 1101) to printed circuit assembly (7 or 8, Fig. 1101) per SOPM 20-50-12, Type 38 adhesive.

   C. When installing switch S5, discard rear hex nut supplied with switch. Install with locking ring, lockwasher, and one hex nut. Clean surfaces before installation and verify an electrical bond with less than 0.002 ohms after installation. Refer to SOPM 20-11-03 for electrical bonding.

   D. When installing switch S1, discard hex nut supplied with switch and install with adaptor threaded boot (36, Fig. 1101).

   E. When installing the following components, provide a moisture tight seal by applying a 0.025- to 0.035-inch coat of BMS 5-19, Class A, sealant to back surface of baseplate and to component:

      (1) S2

      (2) Fire switches S8, S9, and S10

      (3) Indicators L3, L4, L11

   F. When installing fire switches, install two seals for part 69-71089-1, and one seal for part 69-71089-2 (80, Fig. 1101) on each shaft:

      (1) Remove plastic cap and lamps.

      (2) Stretch seals over handle and slide into position. Do not allow seal to be cut by sharp edges on fire switch handle.

G. If an indicator light base assembly, P/N 282-1001-001, must be replaced, use the tool C26003 and the procedure shown below:

CAUTION: DO NOT INSTALL THE LIGHT BASE WITH THE INDICATOR LIGHT ALREADY INSTALLED IN THE BASE SINCE USING THE LIGHT AS A GRIP WHEN TIGHTENING THE SHEATH CAUSES EXCESSIVE FORCE TO BE APPLIED TO THE LIGHT SOCKET INTERNAL TO THE BASE. THIS INSTALLATION METHOD MAY CAUSE THE BASE THREADS TO BE STRIPPED OR DAMAGED.

(1) Place the indicator light base assembly, P/N 282-1001-001, into the hole in the panel assembly.

(2) Install the threaded outer sheath. Hold the base stationary with a finger or thumb and screw the sheath onto the base.

(3) Tighten the sheath using the C26003 tool. The friction provided by the finger/thumb is sufficient to hold the unit until it is secured.

(4) Apply a 0.025 to 0.035 inch coat of BMS 5-26, Class A or Class B sealant to back surface of baseplate and to light base assembly to provide a moisture tight installation.

H. When soldering the wires onto the squib light base assembly, place the light base assembly in a horizontal position to prevent solder from flowing downward into the switch assembly and causing internal contamination.

I. When replacing P/N 282-1001-001 with P/N 282-1001-002, all three squib lamps must be replaced with P/N 282-1001-002.

3. When you replace electronic parts, use only those specified in the Illustrated Parts List (IPL). Do not use unapproved parts such as "unscreened" parts not called out in the IPL.

TESTING

1. Test Equipment (Fig. 701)

COMPONENT	MODULE TEST SETUP (FIG. 702)
Power Supply: 18 volts dc, 1 amp	1
Multimeter: Simpson 260P (or equivalent)	1
Switch: SPST	22 (S1 thru S22)
Lamp: 28 volts at 40 ma 28 volts at 450 ma	14 (L2 thru L15) 3 (L1, L16, L17)
Connector with pigtail leads: BACC45FT18-31S8 BACC45FT18-31S9	1 (J1) 1 (J2)
Power Supply: 18 volts dc, 1 amp	1
Multimeter: Simpson 260 (or equivalent)	1
Switches: SPST	4 (S1 thru S4)
Lamps: 28 volts, 40 ma	10 (L1 thru L10)
Connectors: BACC45FT18-31S (Eng. 1) BACC45FT18-31S6 (Eng. 2) BACC45FT18-31S7 (APU)	 1 (for LRU switch S8) 1 (for LRU switch S9) 1 (for LRU switch S10)

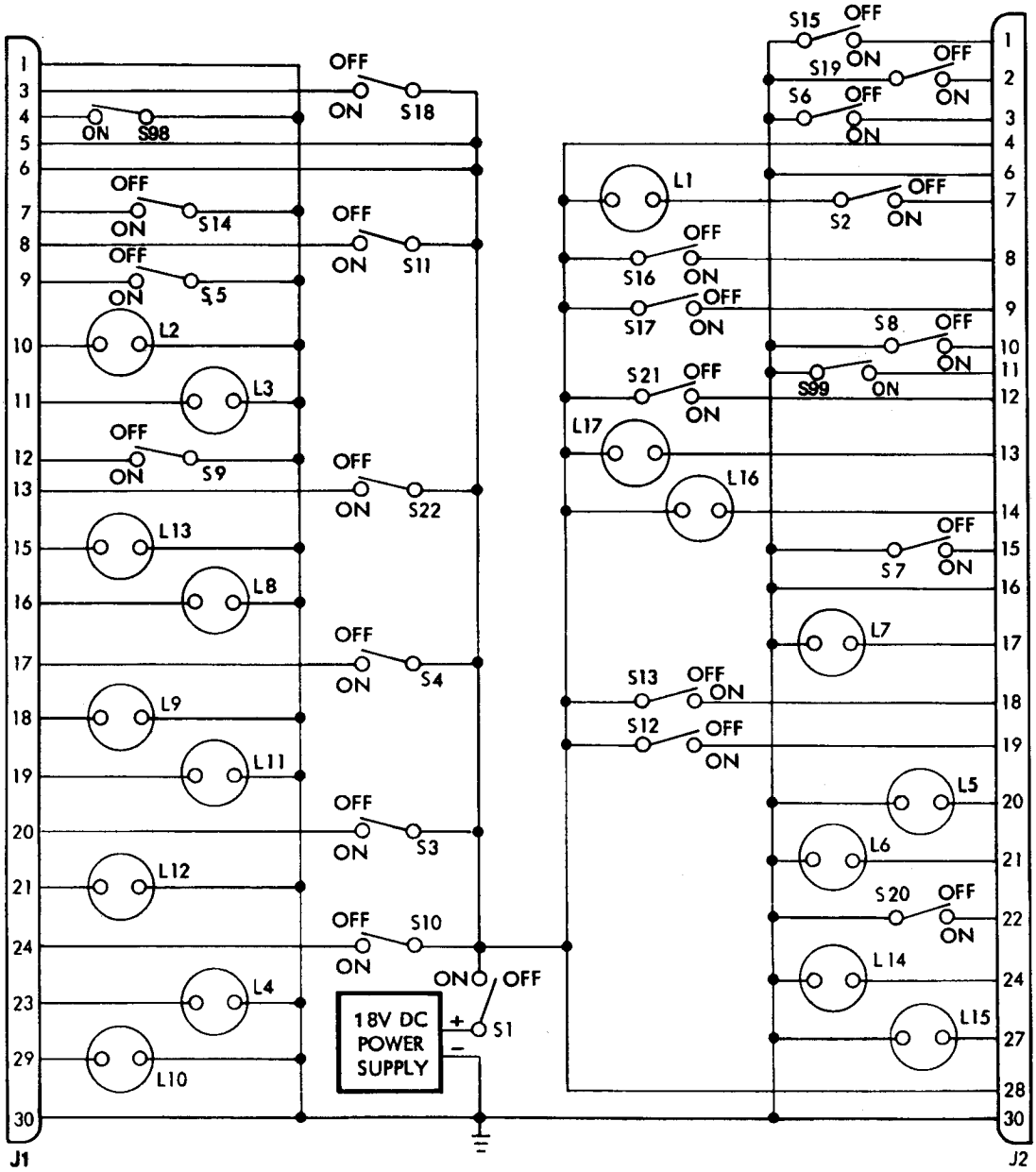
Test Equipment
Figure 701

2. Functional Test

   A. Verify continuity between pin P1-1 and case ground at lightplate power connector, and between pin P1-2 and center conductor of lightplate power connector.

   B. Connect module assembly to test setup (Fig. 702).

   C. Perform functional test per Fig. 703 and 703A.



Module Test Setup
Figure 702

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Component Tested	Procedure	From (+)	To (-)	Required Results
Wiring	Measure Continuity	P1-15	P1-21	Con
		P1-11	P1-23	Con
		P2-1	P2-2	Con
		P2-17	P2-21	Con
	Set S5 to NORM (left)			
S5		P1-11	P1-8	No con
		P1-11	P1-24	Con
S5,A3CR10	Measure ohms	P1-8	P1-10	50 ohms max.
		P1-10	P1-8	100k min.
S5	Measure continuity	P1-16	P1-19	No con
S4,S5	Set S4 to OFF (center)	P1-16	P1-5	No con
	S4 to FIRE (right)	P1-16	P1-5	No con
	Set S4 to OVHT/INOP (left)	P1-16	P1-5	Con
	Set S5 to FIRE (right)	P1-16	P1-5	No con
S5		P1-11	P1-8	Con
		P1-11	P1-24	No con
		P1-19	P1-16	Con
S4	Set S4 to OFF (center)	P1-19	P1-5	No con
	Set S4 to OVHT/INOP (left)	P1-19	P1-5	No con
	Set S4 to FIRE (right)	P1-19	P1-5	Con
S6,A4CR1	Set S6 to NORM (left)	P2-18	P2-20	50 ohms max
		P2-20	P2-18	100k min
S6	Set S5 to NORM (left)	P2-19	P2-21	Con
		P1-16	P1-18	Con
		P1-19	P1-18	No con
	Set S6 to FIRE (right)	P2-18	P2-21	Con
		P2-29	P2-21	No con
		P1-18	P1-19	Con
		P1-18	P1-16	No con
A4CR2	Measure ohms	P2-17	P2-20	50 ohms max
		P2-20	P2-17	100k min
L8	Measure continuity	P1-1	Case	Con
		P1-2	Centerpost of L8	Con
		P1-1	P1-2	No con
S2		P1-5	P1-15	No con
	Depress S2	P1-5	P1-15	Con

Continuity Test
Figure 703

Component Tested	Procedure	Connect 28 vdc	Connect Ground	Disconnect 28 vdc	Disconnect Ground	Required Results
L1,L3		P1-6	P2-16			L1,L3 off
	Depress L1,L3					on depressed
L1			P2-10		P2-16	L1 on
	Depress L1					on depressed
			P1-9		P2-10	L1 on
				P1-6	P1-9	
L2,L4, L10,L11		P2-4	P2-16			L2,L4,L10,L11 off
	Depress L2,L4, L10,L11					on depressed
L2,L10			P2-10		P2-16	L2,L10 on L4,L11 off
	Depress L2,L10					on depressed
L2			P2-3		P2-10	L2 on, L10 off
L10			P2-15		P2-3	L10 on, L2 off
				P2-4	P2-15	L10 off
L5,L7		P1-17	P2-6			L5,L7 on
	Depress L5,L7					off depressed
		P1-5		P1-17		L5,L7 off
	Depress L5,L7					on depressed
L5		P1-8		P1-5		L5 on
L7		P2-18		P1-8		L7 on, L5 off
				P2-18	P2-6	L7 off
L9		P1-20	P2-16			L9 on
		P1-5		P1-20		L9 off
	Depress L9					on depressed
	Remove connections			P1-5	P2-16	
	Set S1 to OFF (center)	P1-3	P1-4 P1-30 P2-16			

Functional Test
Figure 703A (Sheet 1)

Component Tested	Procedure	Connect 28 vdc	Connect Ground	Disconnect 28 vdc	Disconnect Ground	Required Results
A4,L3,S1	Set S1 to No. 1 (left) and hold					L3 on
A4					P1-4	L3 off
A4,S1	Set S1 to No. 2 (right) and hold		P1-4			L3 on
A4					P1-30	L3 off
	Set S1 to OFF (center)	P2-8	P2-30 P2-11	P1-3	P1-4	
A4,L4,S1	Set S1 to No. 1 (left) and hold					L4 on
A4					P2-11	L4 off
A4,S1	Set S1 to No. 2 (right) and hold		P2-11			L4 on
A4					P2-30	L4 off
	Set S1 to OFF (center)	P2-9	P2-1	P2-8	P2-11	
A4,L11,S1	Set S1 to No. 1 (left) and hold					L11 on
A4					P2-1	L11 off
A4,S1	Set S1 to No. 2 (right) and hold		P2-1			L11 on
	Remove all connections					

Functional Test
Figure 703A (Sheet 2)

D. ENGINE FIRE CUTOFF SWITCHES, 989-0504, 989-0505 AND 989-0506

(1) For full maintenance and repair of these switches, use the correct component maintenance manual of Vendor V81579. Use the functional tests below to make sure that the operation of the switches is correct.

(2) Connect fire switch S8 to test setup (Fig. 704).

NOTE: Test Fire Switch in vertical position to simulate installed position.

(3) Set fire switch handle to In position. Make sure that the handle cannot be pulled out or rotated.

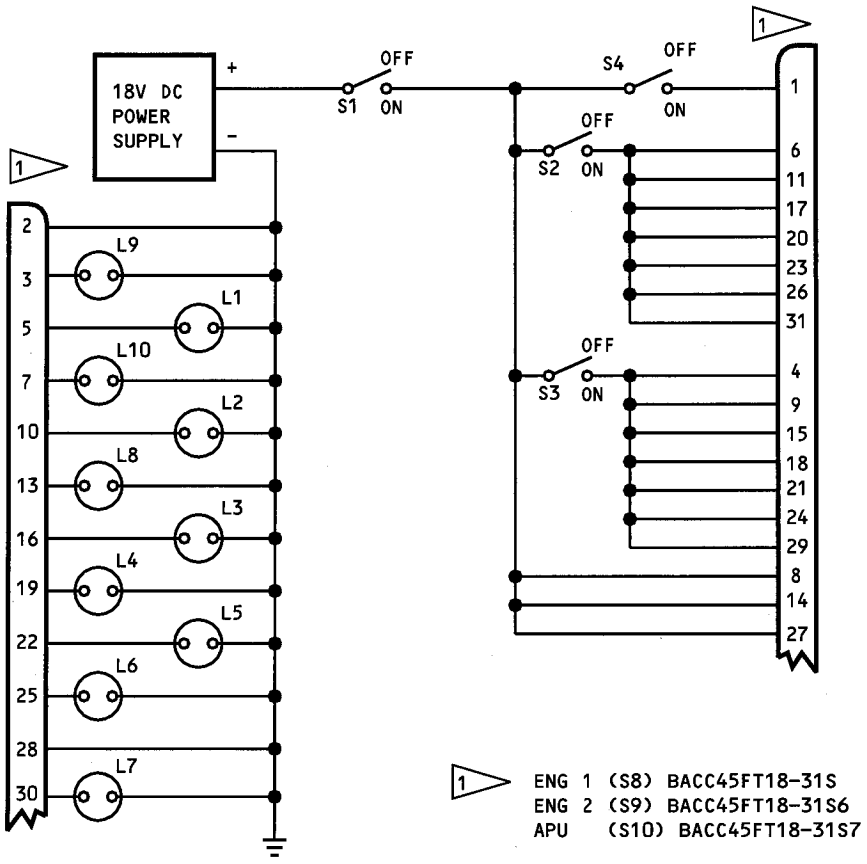
(4) Set switches to positions shown and make sure lamp indications are as specified in Fig. 705.

NOTE: Lamp indications stay unchanged unless otherwise specified.

(5) Set fire switch handle to In position. Make sure that the handle can not be pulled out or rotated.

(6) Repeat steps (2) thru (5) for fire switches S9 and S10.

(7) Turn off power supply and remove module assembly from test setup.



Fire Switch Test Setup
Figure 704

C18938

STEP	SWITCH		LAMP INDICATIONS	
	NUMBER	POSITION	ON	NOT ON
1	Fire Switch	In		All
2	Solenoid (Button)	Push-Hold		
3	Fire Switch	Out		
4	Solenoid (Button)	Released		
5	Fire Switch	In		
6	S1	ON		
7	Fire Switch	Out		
8	S2	ON		
9	S3	ON	L1,L2,L3,L4,L5, L6,L7	
10	S2,S3	OFF		L1,L2,L3,L4,L5, L6,L7
11	Fire Switch	Extreme Counter-clockwise and hold	L9,L10	
12	Fire Switch	Released		L9,L10
13	Fire Switch	Extreme Clockwise and hold	L8,L9	
14	Fire Switch	Released		L8,L9
15	S2	ON		
16	Fire Switch	In	L1,L2,L3,L4,L5, L6,L7	
17	S2	OFF		L1,L2,L3,L4,L5, L6,L7
18	S3	ON		
19	S3	OFF		
20	S4	ON	Fire Handle	
21	S1,S4	OFF		Fire Handle

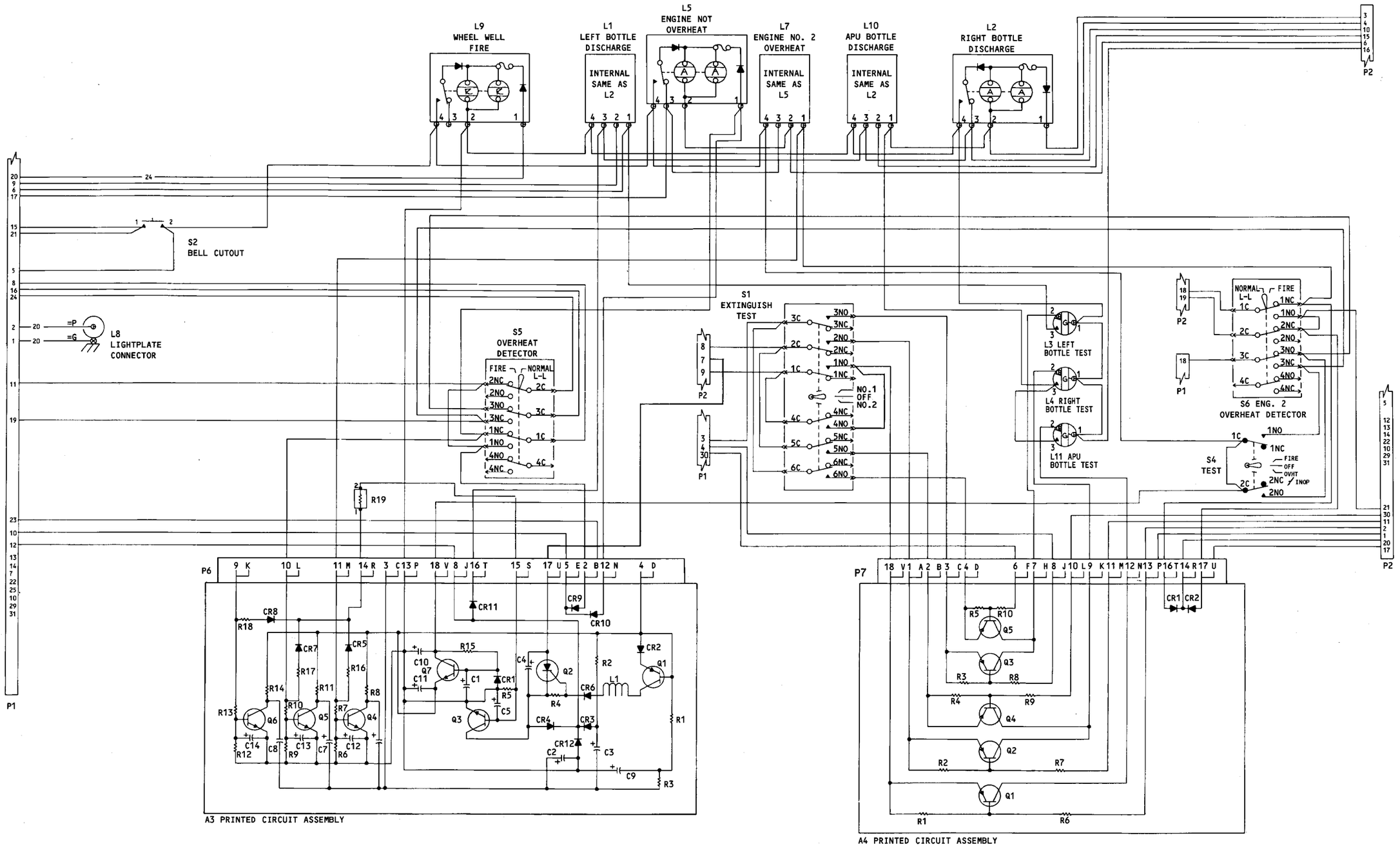
Fire Switch Test Procedure
Figure 705

TROUBLE SHOOTING

1. If failure of a test occurs, check for defective connections, incorrect wiring connections, and defective components.

NOTE: Trouble shooting is keyed to steps of the functional test procedures.

	Trouble	Possible Cause	Correction
A.	Par. 2.A.	L8	Replace L8



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

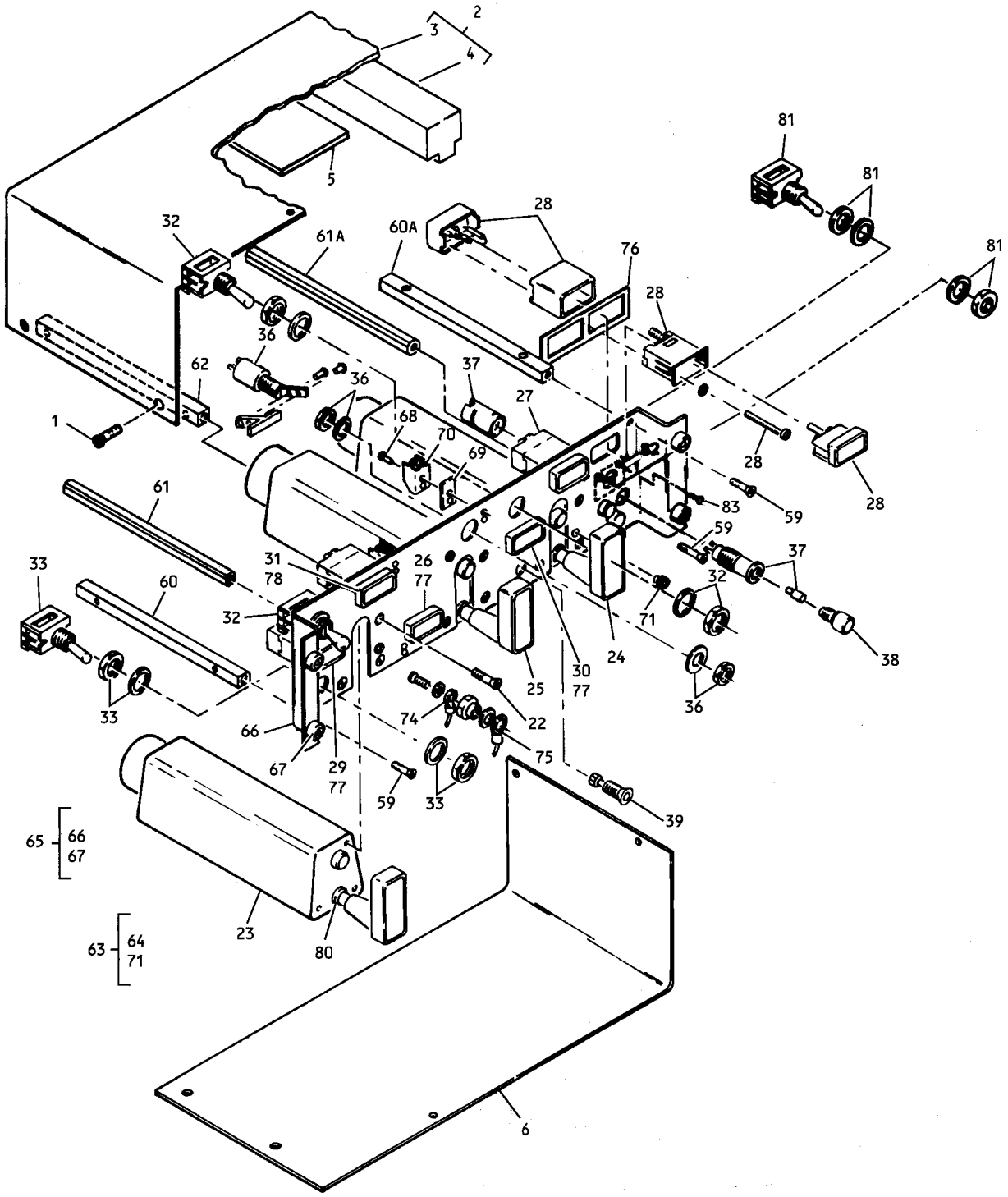
Schematic Diagram
Figure 801

W23185

SPECIAL TOOLS, FIXTURES, AND EQUIPMENT

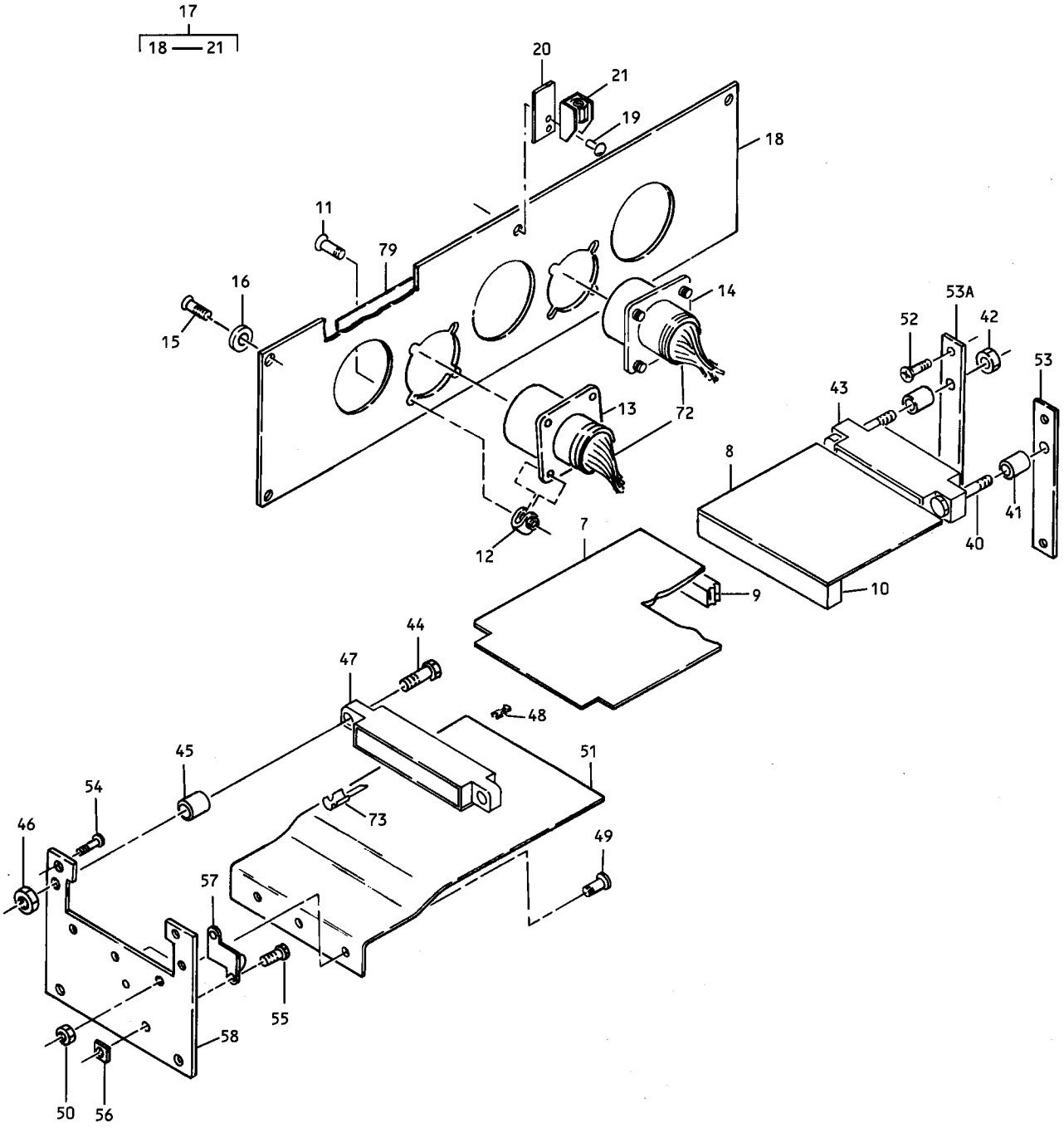
NOTE: Equivalent substitutes may be used.

1. C26003 - Light Base Nut Driver



Engine and APU Fire Control Module Assembly (P8-1)
Figure 1101 (Sheet 1)

1541526



Engine and APU Fire Control Module Assembly (P8-1)
Figure 1101 (Sheet 2)

1541530

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
1101-					
	65-84131-1		ENGINE AND APU FIRE CONTROL MODULE ASSY (P8-1)		RF
1	NAS514P440-4		. SCREW		14
2	69-43246-33		. COVER ASSY		1
3	69-43246-28		. . COVER		1
4	69-43246-34		. . FOAM		1
5	69-37307-6		. INSULATION PAD		1
6	69-43246-29		. COVER		1
7	69-51811-5		. PRINTED CIRCUIT ASSY		1
8	69-54803-1		. PRINTED CIRCUIT ASSY		1
9	69-37307-15		. SPACER		1
10	69-37307-22		. SPACER		1
11	BACS12CB04-5		. SCREW		8
12	BACN10NW1		. NUT, CLIP-ON		8
13	BACC45FN18-31P8		. CONNECTOR		1
14	BACC45FN18-31P9		. CONNECTOR		1
15	BACS12CB06-4		. SCREW		5
16	MS35337-41		. WASHER		5
17	69-43246-19		. BACKPLATE ASSY		1
18	69-43246-18		. . BACKPLATE		1
19	MS20426D2		. . RIVET (REPLD BY BACR15BA2D)		2
19	BACR15BA2D		. . RIVET (REPLS MS20426D2)		2
20	69-43246-7		. . SHIM		1
21	22A27M22-40		. . NUT, ANCHOR, V72962		1
21	M136R40		. . NUT, ANCHOR, V56878 (OPT)		1
22	NAS514P832-6		. SCREW		9
23	989-0504		. SWITCH, ENGINE FIRE CUTOFF, V81579 (BOEING 10-61318-4)		1
24	989-0505		. SWITCH, ENGINE FIRE CUTOFF, V81579 (BOEING 10-61318-5)		1
25	989-0506		. SWITCH, ENGINE FIRE CUTOFF, V81579 (BOEING 10-61318-6)		1
26	314-614-1001-004		. INDICATOR LIGHT ASSY, V81590 (BOEING 10-61305-94)		1
26	317-631-1001-004		. INDICATOR LIGHT ASSY, V81590 (BOEING 10-61803-94) (OPT)		1
27	314-614-1001-005		. INDICATOR LIGHT ASSY, V81590 (BOEING 10-61305-97)		1
27	317-631-1001-005		. INDICATOR LIGHT ASSY, V81590 (BOEING 10-61803-97) (OPT)		1

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
1101-					
28	314-614-1001-006		. INDICATOR LIGHT ASSY, V81590 (BOEING 10-61305-98)		1
28	317-631-1001-006		. INDICATOR LIGHT ASSY, V81590 (BOEING 10-61803-98) (OPT)		1
29	314-614-1002-001		. INDICATOR LIGHT ASSY, V81590 (BOEING 10-61305-123)		1
29	317-631-1002-001		. INDICATOR LIGHT ASSY, V81590 (BOEING 10-61803-123) (OPT)		1
30	314-614-1002-002		. INDICATOR LIGHT ASSY, V81590 (BOEING 10-61305-124)		1
30	317-631-1002-002		. INDICATOR LIGHT ASSY, V81590 (BOEING 10-61803-124) (OPT)		1
31	314-614-1002-003		. INDICATOR LIGHT ASSY, V81590 (BOEING 10-61305-125)		1
31	317-631-1002-003		. INDICATOR LIGHT ASSY, V81590 (BOEING 10-61803-125) (OPT)		1
32	64AT21-3D		. SWITCH, TOGGLE, V91929		2
33	31AT45		. SWITCH, TOGGLE, V91929		1
36	W20168		. SWITCH, PUSHBUTTON, V81640		1
37	282-1001-001		. LIGHT BASE ASSY, V81590		3
37	282-1001-002		. LIGHT BASE ASSY, V81590 *[2]		3
38	682-1001-001		. CAP, LIGHT, V81590		3
39	SCN001		. POWER CONNECTOR, V95354		1
40	BACS12CB06-14		. SCREW		2
41	NAS43DD1-17		. SPACER		2
42	NAS679A06W		. NUT (REPLD BY BACN10JC06)		2
42	BACN10JC06		. NUT (REPLS NAS679AO6W)		2
43	582555-1		. CONNECTOR, V00779		1
44	BACS12CB06-15		. SCREW		2
45	NAS43DD1-21		. SPACER		2
46	NAS679AO6W		. NUT (REPLD BY BACN10JC06)		2
46	BACN10JC06		. NUT (REPLS NAS679AO6W)		2
47	582555-1		. CONNECTOR, V00779		1
48	582507-1		. KEYING PLUG, V00779		1
49	BACS12BE02-4		. SCREW		3
50	BACN10DN26		. NUT		3
51	69-37307-13		. INSULATOR PAD		1
52	BACS12CB04-5		. SCREW		4
53	69-43246-24		. SUPPORT PLATE		1
53A	69-43246-25		. SUPPORT PLATE		1

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
1101-					
54	BACS12CB04-5		. SCREW		4
55	BACS12BE02-4		. SCREW		2
56	BACN10DN26		. NUT		2
57	RH5-330-1		. RESISTOR, 330 OHM ±1%, 5 W, V91637		1
57	3105M330-1		. RESISTOR, 330 OHM ±1%, 5 W, V00213 (OPT)		1
58	69-43246-14		. SUPPORT PLATE		1
59	NAS514P632-5		. SCREW		5
60	69-37268-21		. STANDOFF		1
60A	69-37307-44		. STANDOFF		1
61	69-37268-22		. STANDOFF		1
61A	69-37307-43		. STANDOFF		1
62	69-37268-21		. STANDOFF		1
63	69-37307-42		. BASEPLATE ASSY		1
64	69-37307-41		. . BASEPLATE		1
65	69-43259-1		. . . BASEPLATE ASSY		1
66	69-43259-2		. . . . BASEPLATE		1
67	BACS21DD1		. . . . STUD ASSY		4
68	MS20426D2		. . RIVET (REPLD BY BACR15BA2D)		6
68	BACR15BA2D		. . RIVET (REPLS MS20426D2)		6
69	69-43246-7		. . SHIM		3
70	22A27M22-40		. . NUT, ANCHOR, B72962		3
70	M136R40		. . NUT, ANCHOR, V56878 (OPT)		3
71	BACN10PA06-6		. . FASTENER, STAKE		3
72	65-84131-4		. WIRE BUNDLE		1
73	66143-2LP		. TAB TERMINAL, V00779		AR
74	BACT12AC		. TERMINAL LUG		AR
75	BACT12S		. TERMINAL LUG		AR
76	69-56337-2		. MOISTURE SEAL *[1]		1
77	69-56337-3		. MOISTURE SEAL *[1]		3
78	69-56337-4		. MOISTURE SEAL *[1]		1
79	BAC27DCC276		. MARKER		1
80	69-71089-1		. SEAL (DELETED BY SB 26A1023R3)		6
80	69-71089-2		. SEAL (ADDED BY SB 26A1023R3)		3
81	66AT21-7		. SWITCH, TOGGLE, V91929		1
82	65-84131-3		. MOUNTING PLATE		1
83	BACR15BA3D3		. RIVET		2
-84	69-37307-97		. WASHER		1
-84	AN960XC816		. WASHER (OPT)		1

- NOT ILLUSTRATED

*[1] USED WITH 10-61305 INDICATORS ONLY
*[2] 282-1001-001 BASE WITH 19903-001 SPACER IS OPTIONAL TO 282-1001-002. SEE REPAIR NOTE 2.I.

FIGURE 1101 REFERENCE DESIGNATION INDEX (SEE SCHEMATIC DIAGRAM)		
REFERENCE DESIGNATION	PART NUMBER	ITEM NO.
A3	69-51811-5	7
A4	69-54803-1	8
L1	*314-614-1001-005	27
L1	317-631-1001-005	27
L2	*314-614-1001-006	28
L2	317-631-1001-006	28
L3, L4	282-1001-001	37
L3, L4	282-1001-002	37
L5	*314-614-1002-001	29
L5	317-631-1002-001	29
L7	*314-614-1002-002	30
L7	317-631-1002-002	30
L8	SCN001	39
L9	*314-614-1002-003	31
L9	317-631-1002-003	31
L10	*314-614-1001-004	26
L10	317-631-1001-004	26
L11	282-1001-001	37
P1	BACC45FN18-31P8	13
P2	BACC45FN18-31P9	14
P6	582555-1	47
P7	582555-1	43
R19	RH5-330-1	57
R19	3105M330-1	57
S1	66AT21-7	81
S2	W20168	36
S4	31AT45	33
S5, S6	64AT21-3D	32
S8	989-0504	23
S9	989-0505	24
S10	989-0506	25

*PREFERRED PART

VENDORS

V00213	STRUTHERS-DUNN, INC., 2295 HOFFMEYER RD., FLORENCE, SOUTH CAROLINA 29501-7306
V00779	TYCO ELECTRONICS CORP., 2800 FULLING MILL RD., BLDG-38, MIDDLETOWN, PENNSYLVANIA 17057-3142
V019L2	MACLEAN-FOGG CO., 611 COUNTRY CLUB RD., POCAHONTAS, ARKANSAS 72455-8803
V05617	IDD AEROSPACE CORP., 18225 NE 76TH ST., REDMOND, WASHINGTON 98052-5021
V56878	SPS TECHNOLOGIES, 301 HIGHLAND AVE., JENKINTOWN, PENNSYLVANIA 19046-2692
V72962	HARVARD INDUSTRIES, INC., CANCELLED/REPLACED BY V019L2
V81579	ESTERLINE MASON ELECTRIC CO., 13955 BALBOA BLVD., SYLMAR, CALIFORNIA 91342-1084
V81590	KORRY MANUFACTURING CO., 901 DEXTER AVE. N., SEATTLE, WASHINGTON 98109-3515
V81640	EATON CORP., 2250 WHITFIELD AVE., SARASOTA, FLORIDA 34243-3926
V91637	VISHAY DALE ELECTRONICS, INC, 1122 23RD ST., COLUMBUS, NEBRASKA 68601-3647
V91929	HONEYWELL INTERNATIONAL, INC., 11 WEST SPRING ST., FREEPORT, ILLINOIS 61032-4316
V95354	METHODE ELECTRONICS, INC., 4001 INDUSTRIAL AVE., ROLLING MEADOWS, ILLINOIS 60008-1025
V97539	APM-HEXSEAL CORP., 44 HONECK ST., ENGLEWOOD, NEW JERSEY 07631-4134