Scandinavian Airlines System

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4	AUG 22/06	SAS
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159	AUG 22/00	02B
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167	AUG 22/00	02B
168	AUG 22/00	01B
169	AUG 22/00	01B
170	AUG 22/00	01B
171	AUG 22/00	02B
172	AUG 22/00	02B
173	AUG 22/00	02B
174	AUG 22/00	02B
R 175	AUG 22/09	02B.1
176	AUG 22/00	02B
177	AUG 22/00	02B
178	AUG 22/00	02B
R 179	AUG 22/09	02B.1
180	AUG 22/00	03B
180A	AUG 22/00	03B
180B	AUG 22/00	03B
180C	AUG 22/00	03B
180D	BLANK	
36-20-00		
101	AUG 22/00	22
102	NOV 10/92	06
103	NOV 10/92	21
104	APR 22/03	02
105	AUG 10/98	05
106	APR 22/03	08
107	NOV 10/95	10
108	AUG 22/06	07
109	AUG 22/06	06
110	AUG 22/06	06
111	AUG 22/06	06
112	AUG 22/06	05
113	AUG 22/06	06
114	BLANK	

CHAPTER 36 – PNEUMATIC SYSTEM

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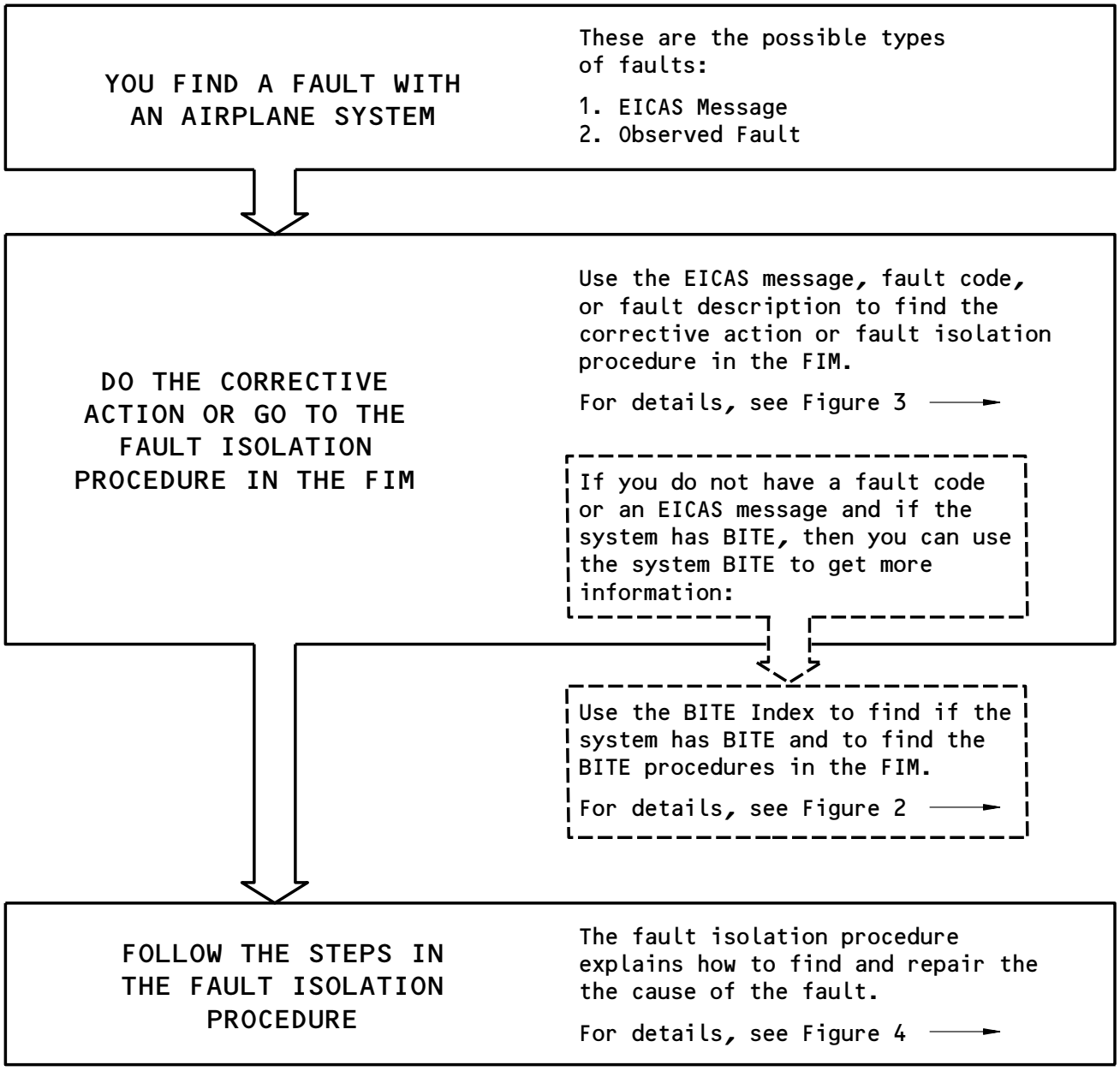
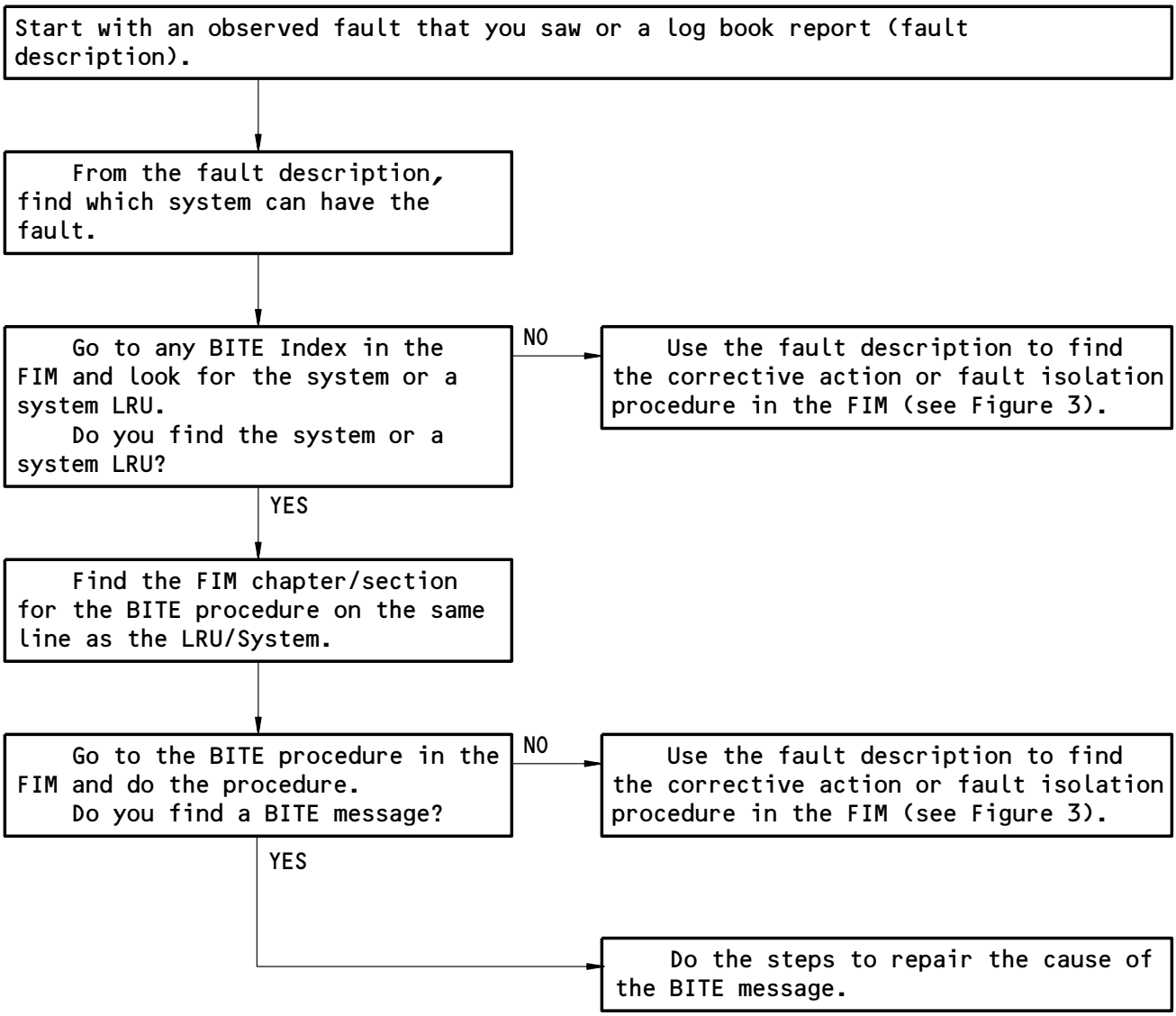


Basic Fault Isolation Process
Figure 1

K37706



How to Get Fault Information from BITE
Figure 2

IF YOU HAVE:	THEN DO THIS TO FIND THE CORRECTIVE ACTION OR FAULT ISOLATION PROCEDURE IN THE FIM:
FAULT CODE	1. The first two digits of the fault code are the FIM chapter that you need. Go to the Fault Code Index in that chapter and find the fault code. 2. Find the Fault Isolation Reference for the fault code and do the corrective action. If there is a FIM reference, then go to that fault isolation procedure in the FIM and do the steps in the procedure (see Figure 4).
EICAS MESSAGE TEXT (with no fault code)	1. If you know the chapter of the EICAS message, then go to the EICAS Messages section in that chapter and find the EICAS message. If you do not know the chapter of the EICAS message, then do these steps: A. Go to FIM EICAS MESSAGE LIST and find the EICAS message in the table. NOTE: The list follows the INTRODUCTION to the FIM. B. Find the chapter number on the same line as the EICAS message. Go to the EICAS Messages section in that chapter and find the EICAS message. 2. Do the corrective action in the "Procedure" column for the EICAS message. If there is a FIM reference, then go to that fault isolation procedure in the FIM and do the steps in the procedure (see Figure 4).
OBSERVED FAULT DESCRIPTION	1. Go to the Fault Code Diagram for the problem in the applicable chapter. 2. Do the fault analysis on the diagram and find the fault code. 3. The first two digits of the fault code are the FIM chapter that you need. Go to the Fault Code Index in that chapter and find the fault code. 4. Find the Fault Isolation Reference for the fault code and do the corrective action. If there is a FIM reference, then go to that fault isolation procedure in the FIM and do the steps in the procedure (see Figure 4).

How to Find the Corrective Action or Fault Isolation Procedure in the FIM
Figure 3

ASSUMED CONDITIONS AT START OF TASK

- External electrical power is OFF
- Hydraulic power and pneumatic power are OFF
- Engines are shut down
- Circuit breakers for the system are closed
- No equipment in the system is deactivated

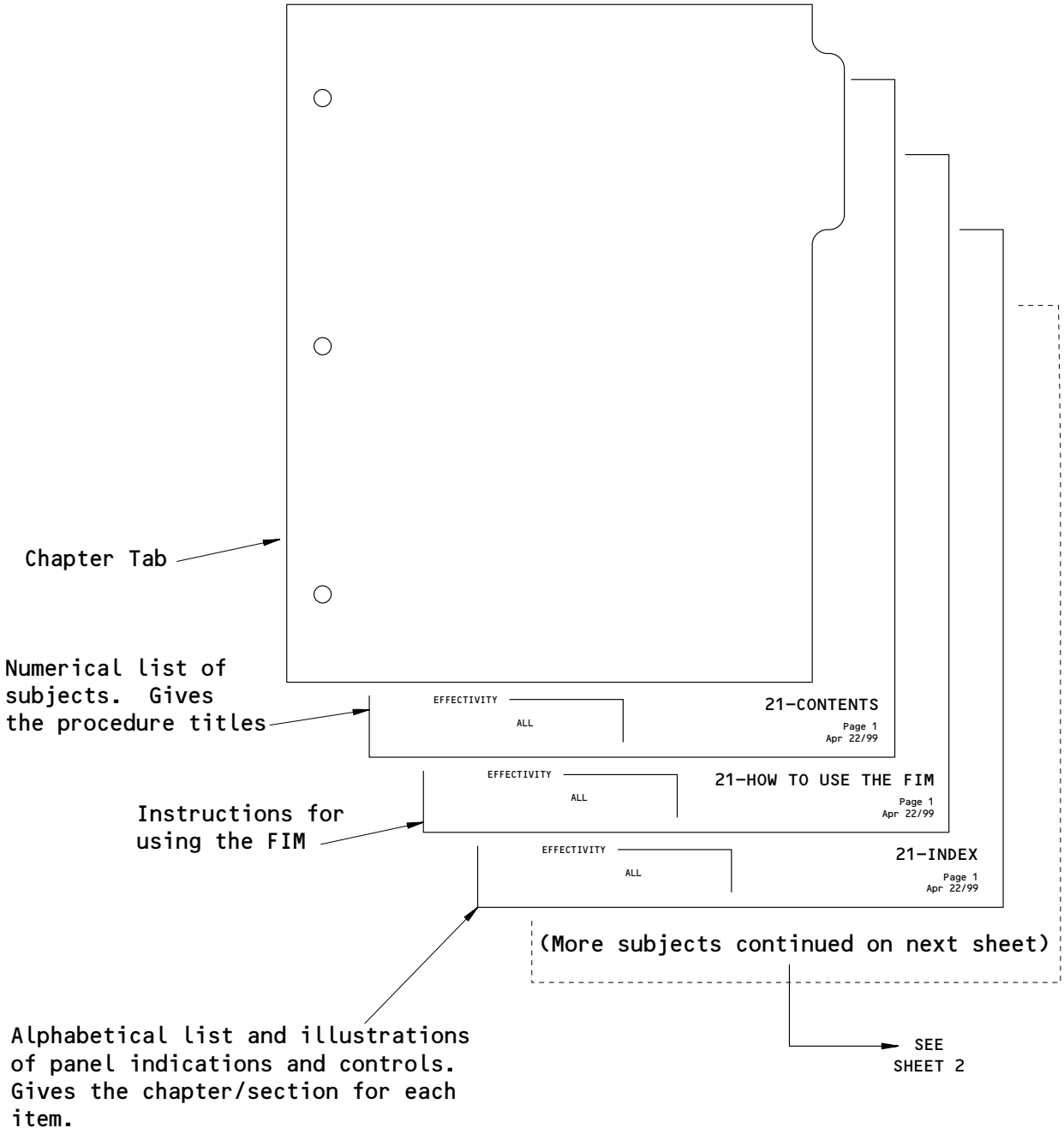
PREREQUISITES

- This box gives the steps to get the airplane from the normal shutdown condition to the configuration necessary to do the fault isolation procedure.
- The Prerequisites give procedure references, circuit breakers, and special tools and equipment requirements.

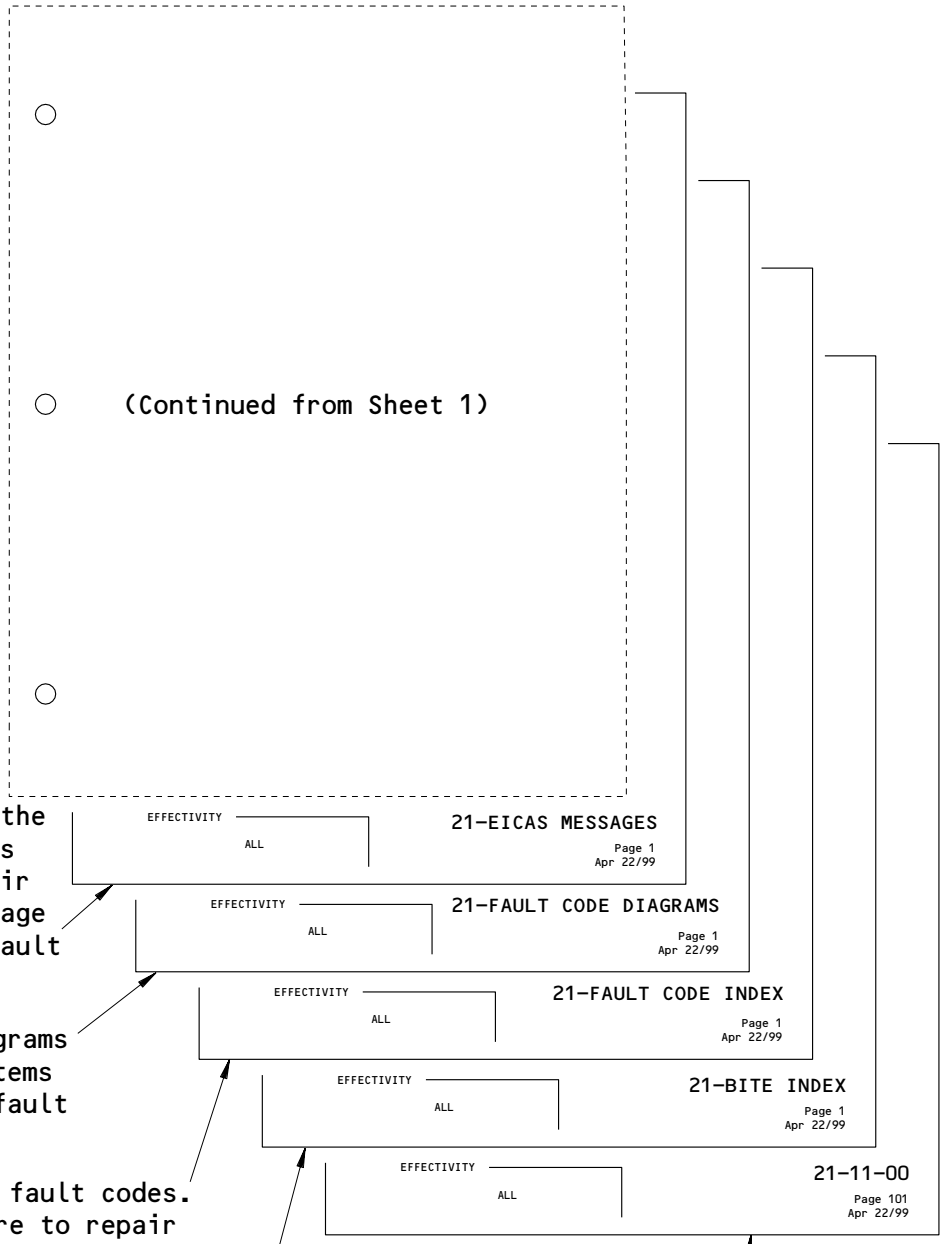
FAULT ISOLATION BLOCKS

- Start the fault isolation procedure at block 1 unless specified differently.
- Do the check to get an answer to the question in the box. Follow the arrow that applies to your answer. This will go to the next check.
- When you get to a box in the column at the right of the page, you have isolated that fault. Do the steps in that box to repair the cause of the fault.
- Make sure that fault is corrected to complete the procedure.

Do the Fault Isolation Procedure
Figure 4



Subjects in Each FIM Chapter
Figure 5 (Sheet 1)



Alphabetical list of the EICAS messages. Gives the procedure to repair the cause of the message or a reference to a fault isolation procedure.

Failure analysis diagrams for the airplane systems to find the correct fault code for the fault.

Numerical list of fault codes. Gives the procedure to repair the cause of the fault or a reference to a fault isolation procedure.

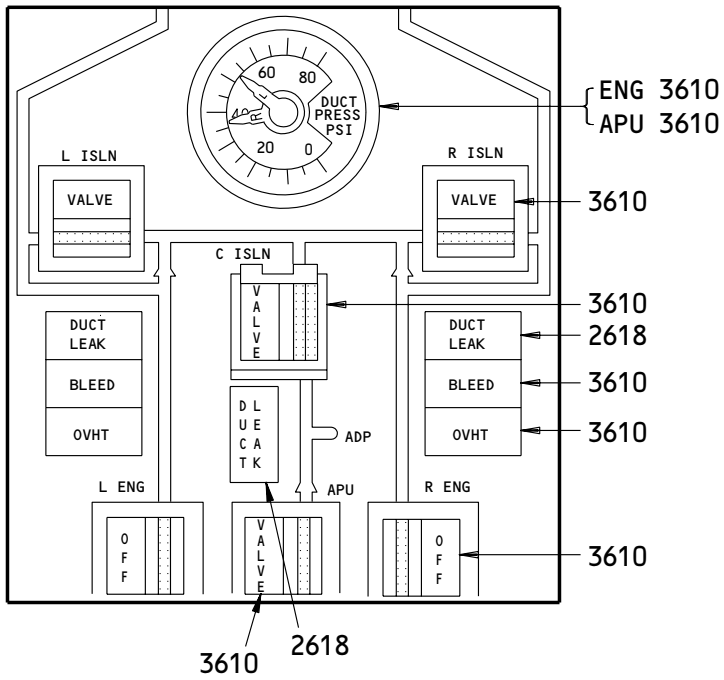
Alphabetical list of all the LRUs/systems that have BITE. Gives the chapter/section for the BITE procedure.

Component index, component location, and fault isolation procedures for the systems in the chapter.

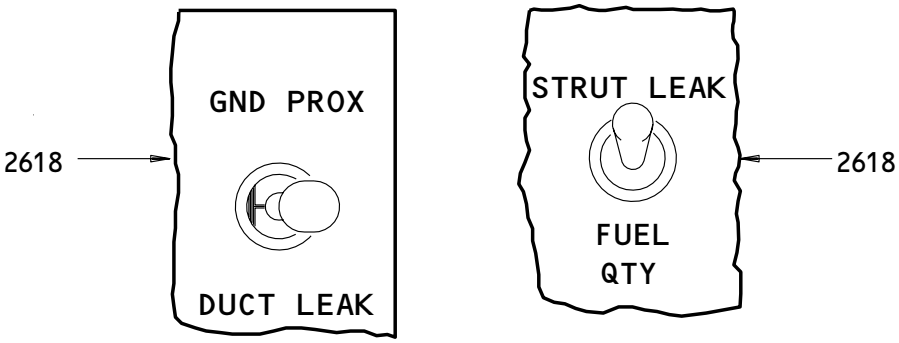
Subjects in Each FIM Chapter
Figure 5 (Sheet 2)

K37711

PNEUMATIC - INDEX



OVERHEAD PANEL



ACCESSORY PANEL

PNEUMATICS – INDEX

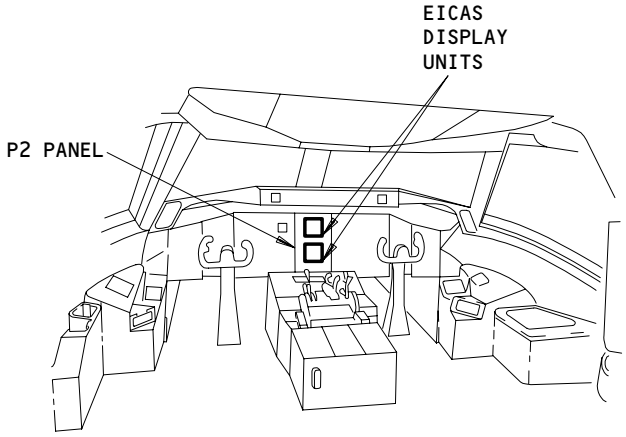
EFFECTIVITY

ALL

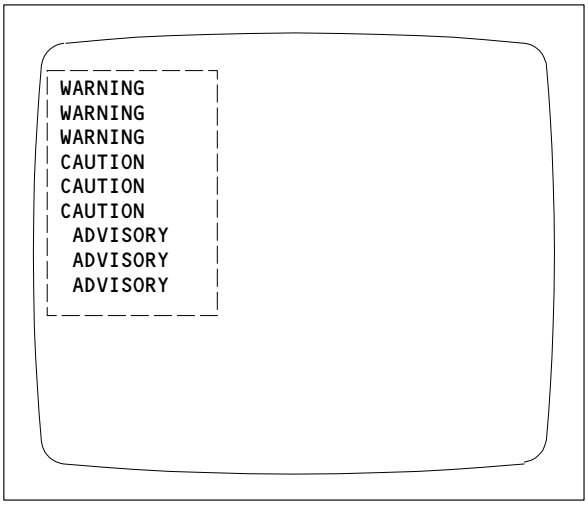
257609

PNEUMATIC - EICAS MESSAGE LIST

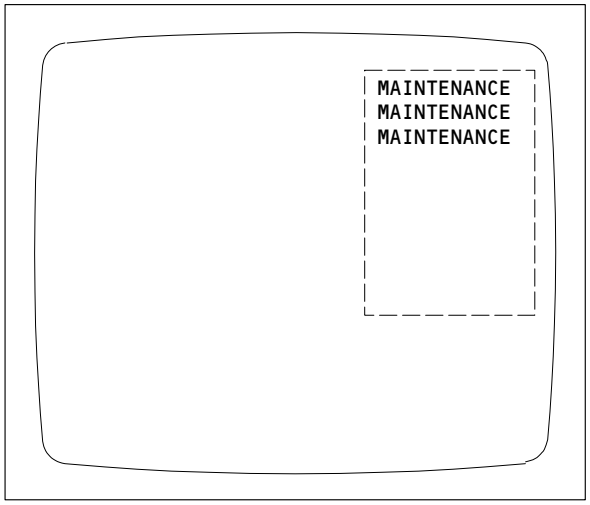
1. General
   A. This procedure shows the EICAS message locations and gives a list of procedures to find the solution for each message.
      (1) EICAS Message Locations (Fig. 1)
         (a) Figure 1 shows the location of the EICAS display units and the area where the messages show on the display units.
         (b) Each message level has a different location. The location and color of each message level is also shown.
      (2) The EICAS MESSAGE LIST gives the message, level, and procedure for each message.
         (a) The EICAS MESSAGE column lists the messages alphabetically. Messages which start with L, R, or C are put together and alphabetized at L.
         (b) The LEVEL column gives all levels for each message as follows:
            A - Warning messages
            B - Caution messages
            C - Advisory messages
            S - Status messages
            M - Maintenance messages
         (c) The PROCEDURE column gives the steps that are necessary to remove the message and includes one or more of the procedures that follow:
            1) A Fault Isolation Manual procedure reference
            2) A Maintenance Manual procedure and reference
            3) Wiring checks and a Wiring Diagram Manual reference
            4) A reference to an EICAS message list in a different chapter.
            5) A reference to a FAULT CODE INDEX and specified fault codes
            6) A step to change the airplane configuration



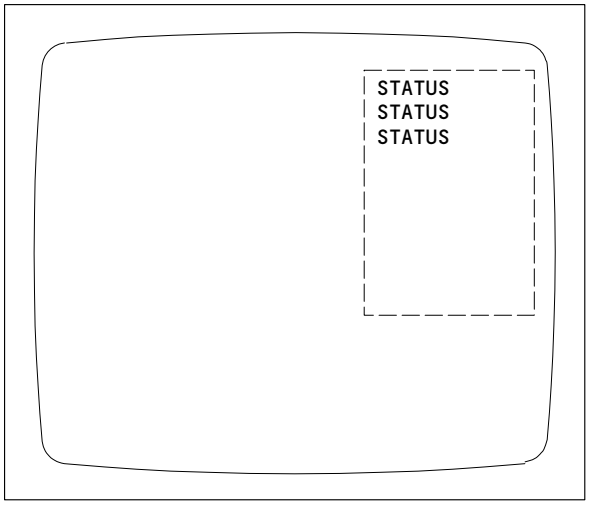
FLIGHT COMPARTMENT



ENGINE PRIMARY PAGE OR COMPACTED PAGE
(TOP DISPLAY UNIT)



ECS/MSG PAGE
(BOTTOM DISPLAY UNIT)



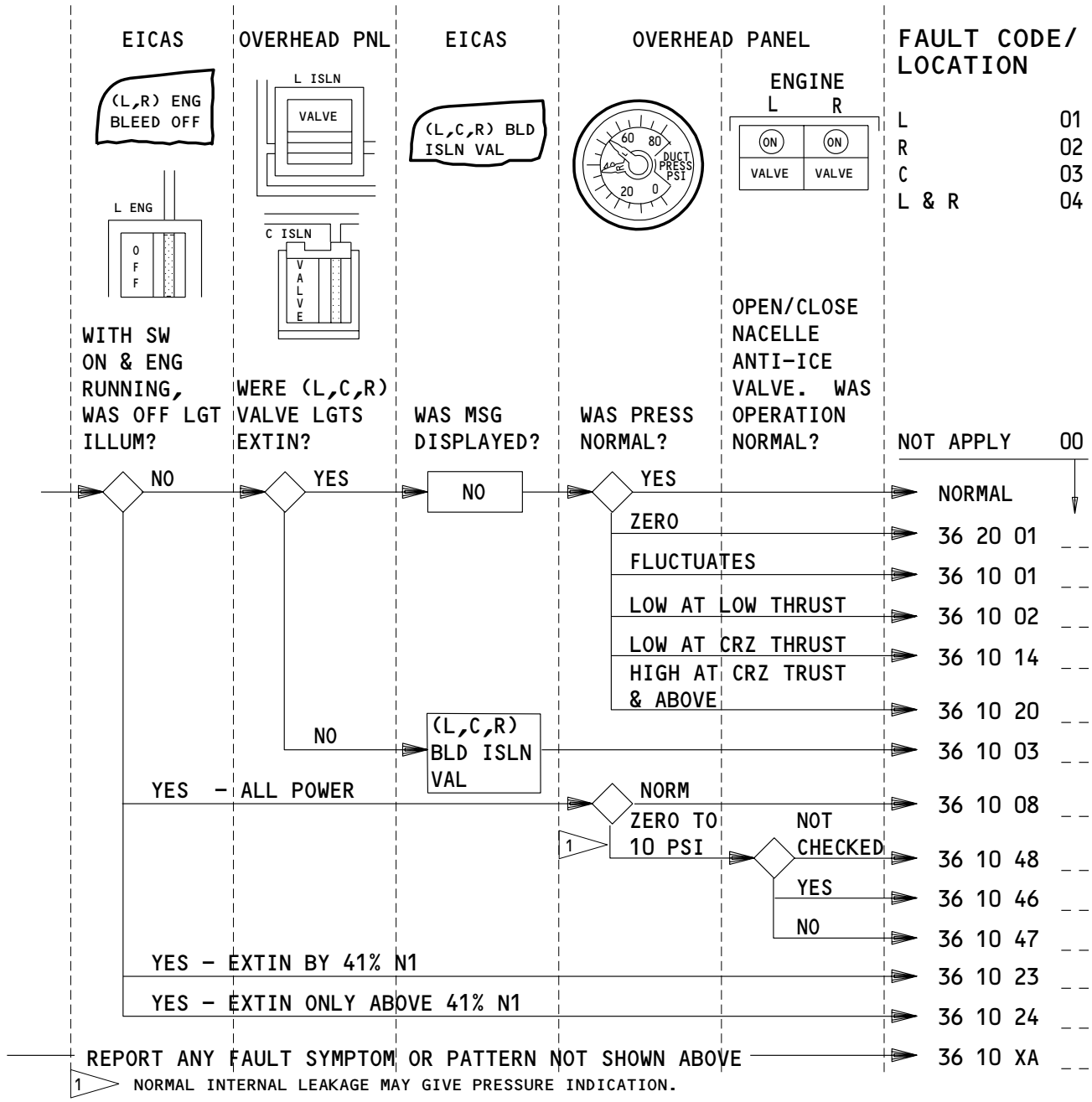
STATUS PAGE
(BOTTOM DISPLAY UNIT)

LEVEL	COLOR
A–WARNING	RED
B–CAUTION	YELLOW
C–ADVISORY	YELLOW
S–STATUS	WHITE
M–MAINTENANCE	WHITE

EICAS Message Locations
Figure 1

EICAS MESSAGE LIST		
EICAS MESSAGE	LEVEL	PROCEDURE
APU BLEED VAL	C	Replace the APU Air Supply Shutoff Valve V47(AMM 36-11-10).
(L,C,R) BLD ISLN VAL	C	FIM 36-10-00/101, Fig. 104 for the C BLD ISLN VAL FIM 36-10-00/101, Fig. 105 for the L, R BLD ISLN VAL
(L,R) ENG BLD OVHT	C	FIM 36-10-00/101, Fig. 113 or FIM 36-10-00/101, Fig. 125 or FIM 36-10-00/101, Fig. 126
(L,R) ENG BLEED OFF	C	FIM 36-10-00/101, Fig. 114 FIM 36-10-00/101, Fig. 115 FIM 36-10-00/101, Fig. 116 FIM 36-10-00/101, Fig. 123
(L,R) ENG HPSOV	B	FIM 36-10-00/101, Fig. 111 or FIM 36-10-00/101, Fig. 112
(L,R) ENG HPSOV	C	FIM 36-10-00/101, Fig. 111 or FIM 36-10-00/101, Fig. 112
(L,R) ENG HPSOV	S,M (NVM)	FIM 36-10-00/101, Fig. 111 or FIM 36-10-00/101, Fig. 112
(L,R) ENG PRV	B	FIM 36-10-00/101, Fig. 123 or FIM 36-10-00/101, Fig. 124 or FIM 36-10-00/101, Fig. 125 or FIM 36-10-00/101, Fig. 126

EICAS MESSAGE LIST		
EICAS MESSAGE	LEVEL	PROCEDURE
(L,R) ENG PRV	C	FIM 36-10-00/101, Fig. 123 or FIM 36-10-00/101, Fig. 124 or FIM 36-10-00/101, Fig. 125 or FIM 36-10-00/101, Fig. 126
(L,R) ENG PRV	S,M (NVM)	FIM 36-10-00/101, Fig. 123 or FIM 36-10-00/101, Fig. 124 or FIM 36-10-00/101, Fig. 125 or FIM 36-10-00/101, Fig. 126
(L,R) BLD DUCT LEAK	B	Go to 26-EICAS MESSAGES
BODY DUCT LEAK	B	Go to 26-EICAS MESSAGES
(L,R) STRUT DCT LEAK	B	Go to 26-EICAS MESSAGES



APPLICABLE CIRCUIT BREAKERS

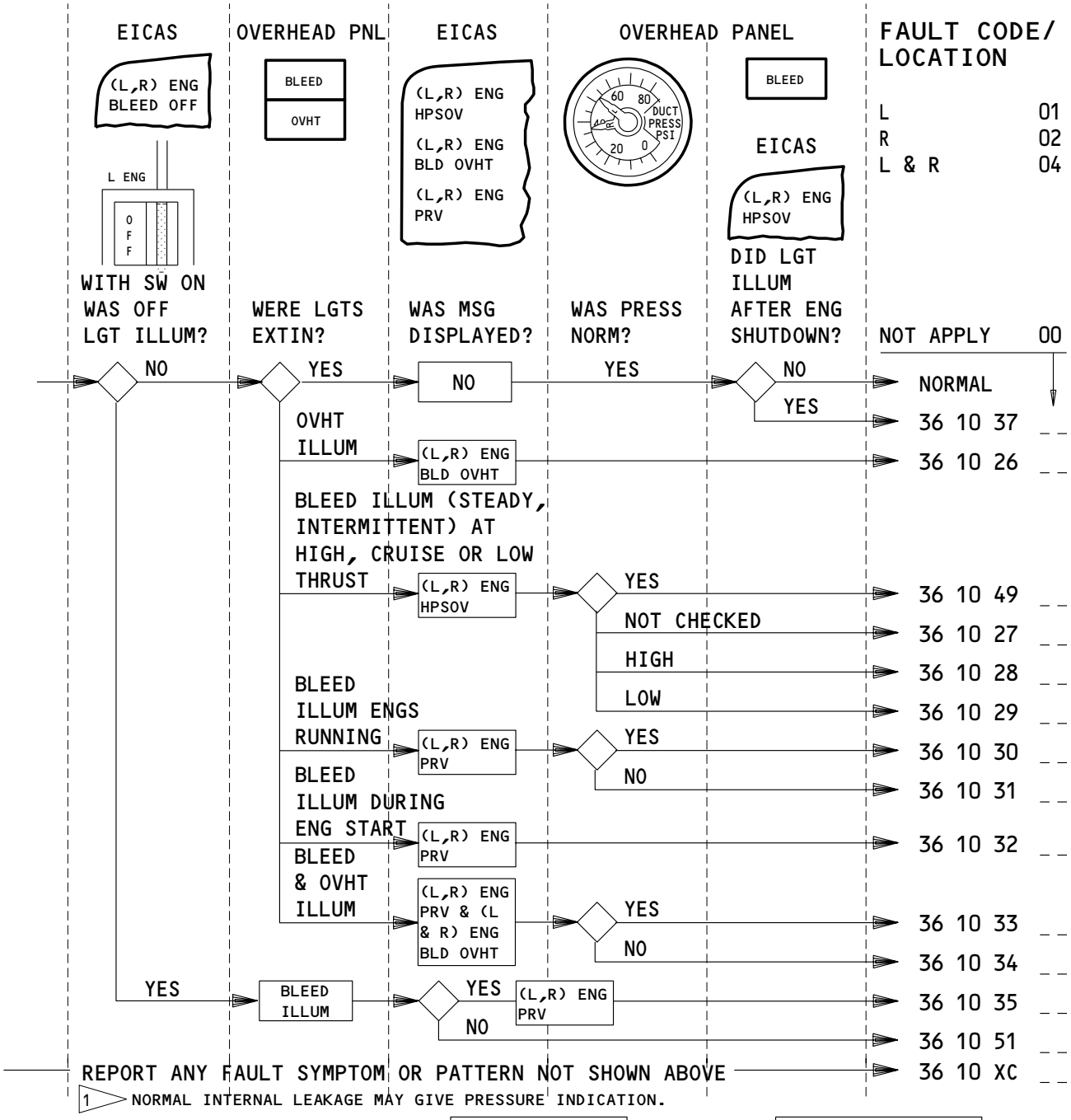
11A14	AIR SUPPLY ISOL VLV CONT L	11S14	ISOL VALVE PWR CTR	11S20	RIGHT ENG BLEED CONT
11A27	AIR SPLY ISOL ALTN CONT R	11S15	ISOL VALVE CONT CTR	11S21	RIGHT ISOL VALVE PWR
11S10	LEFT ENG BLEED IND	11S16	DUCT PRESS IND L	11S22	RIGHT ISOL VALVE CONT
11S11	LEFT ENG BLEED CONT	11S17	DUCT PRESS IND PWR	11S25	DUCT PRESS IND R
11S12	ISOL VALVE PWR L	11S19	RIGHT ENG BLEED IND		

ENGINE PNEUMATIC SUPPLY - FAULT CODES

EFFECTIVITY
ALL

36-FAULT CODE DIAGRAM

752361



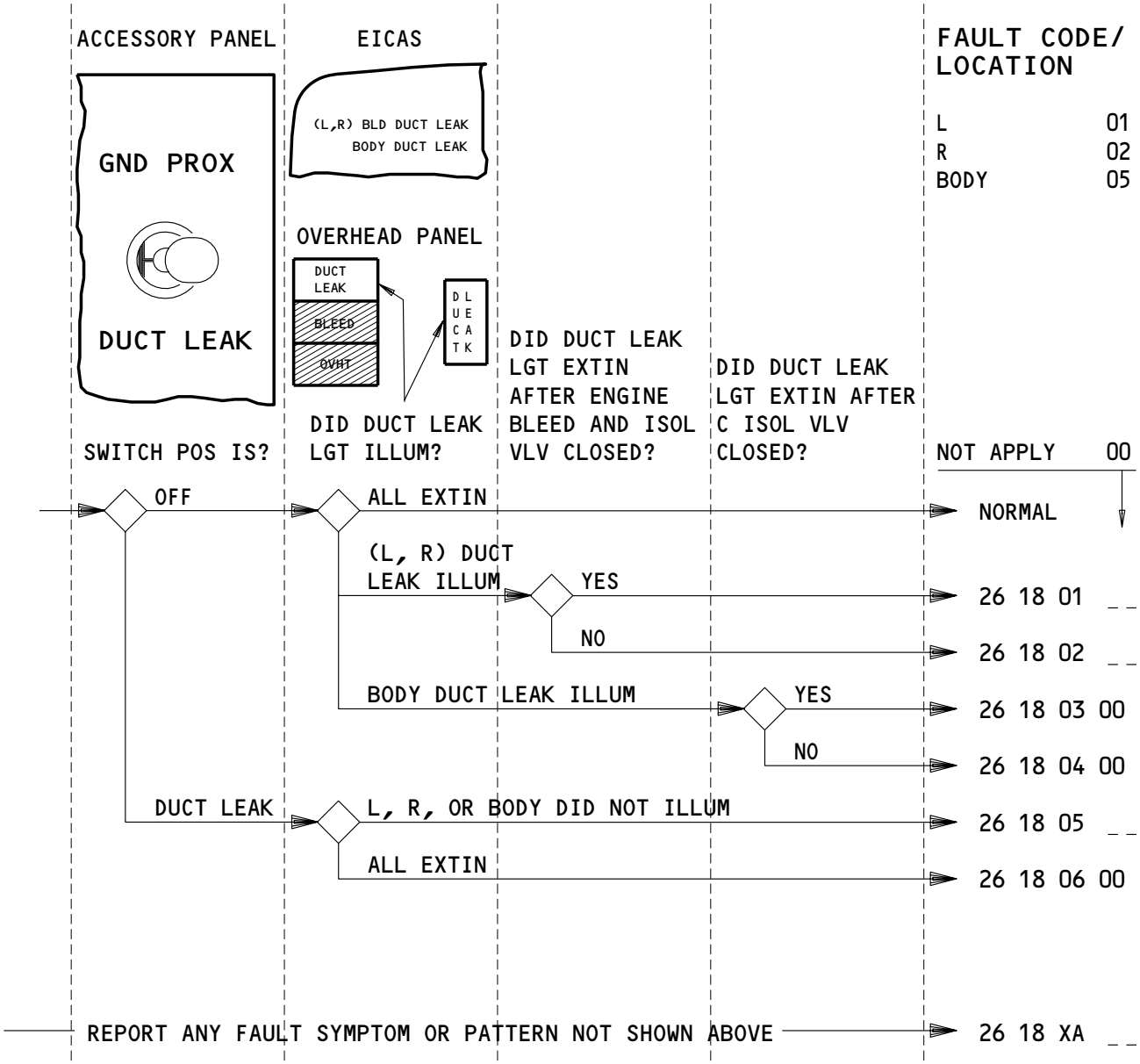
APPLICABLE CIRCUIT BREAKERS

11A14	AIR SUPPLY ISOL VLV CONT L	11S12	ISOL VALVE PWR L	11S19	RIGHT ENG BLEED IND
11A27	AIR SPLY ISOL ALTN CONT R	11S14	ISOL VALVE PWR CTR	11S20	RIGHT ENG BLEED CONT
11S10	LEFT ENG BLEED IND	11S15	ISOL VALVE CONT CTR	11S21	RIGHT ISOL VALVE PWR
11S11	LEFT ENG BLEED CONT	11S16	DUCT PRESS IND L	11S22	RIGHT ISOL VALVE CONT
		11S17	DUCT PRESS IND PWR	11S25	DUCT PRESS IND R

ENGINE PNEUMATIC SUPPLY – FAULT CODES

EFFECTIVITY
ALL

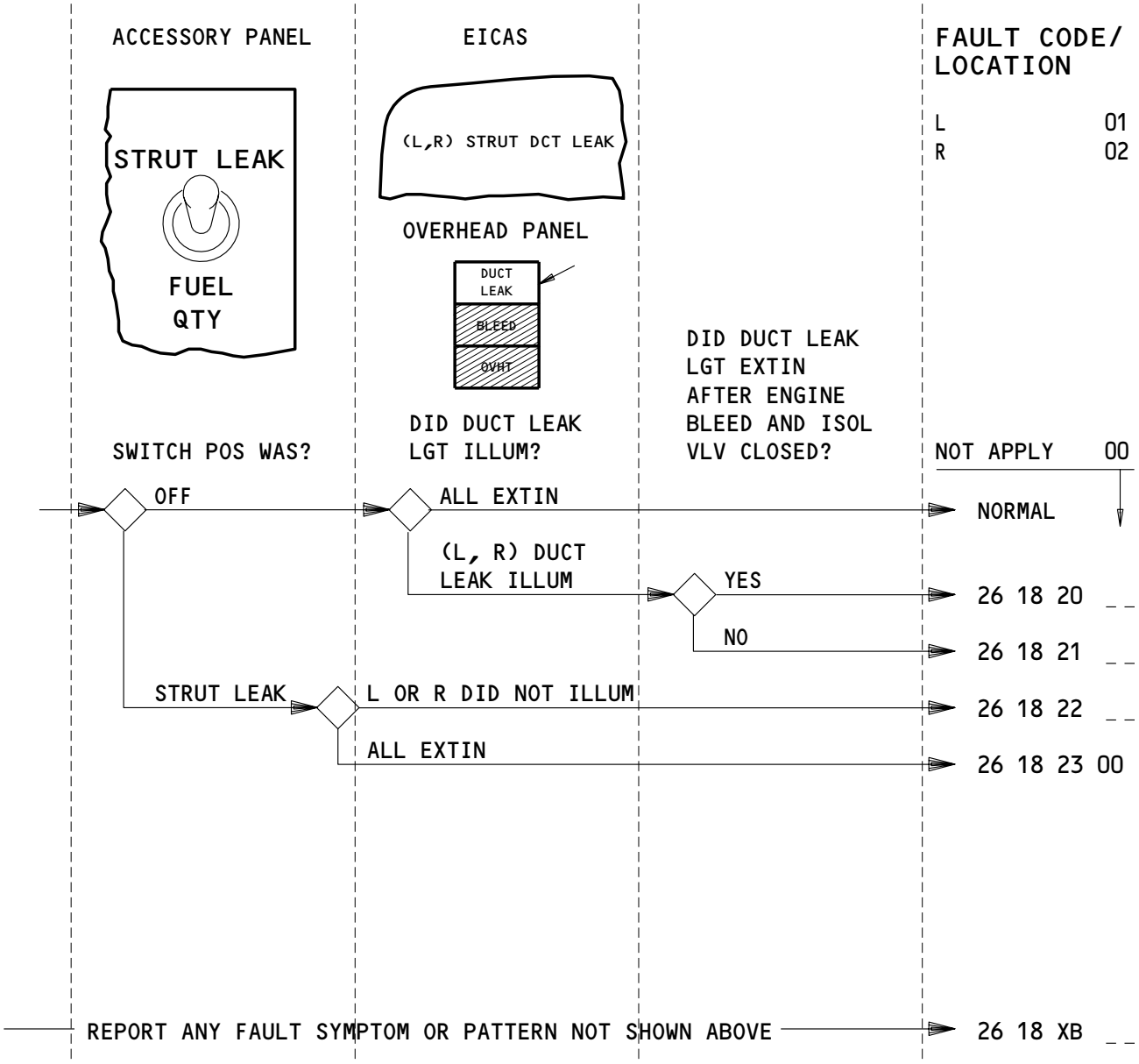
36-FAULT CODE DIAGRAM



APPLICABLE CIRCUIT BREAKERS AS INSTALLED

11B10	WW FIRE/DUCT LEAK
11B10	WW FIRE/DUCT

DUCT LEAK AND TEST - FAULT CODES



APPLICABLE CIRCUIT BREAKERS AS INSTALLED

11B10	WW FIRE/DUCT LEAK
11B10	WW FIRE/DUCT

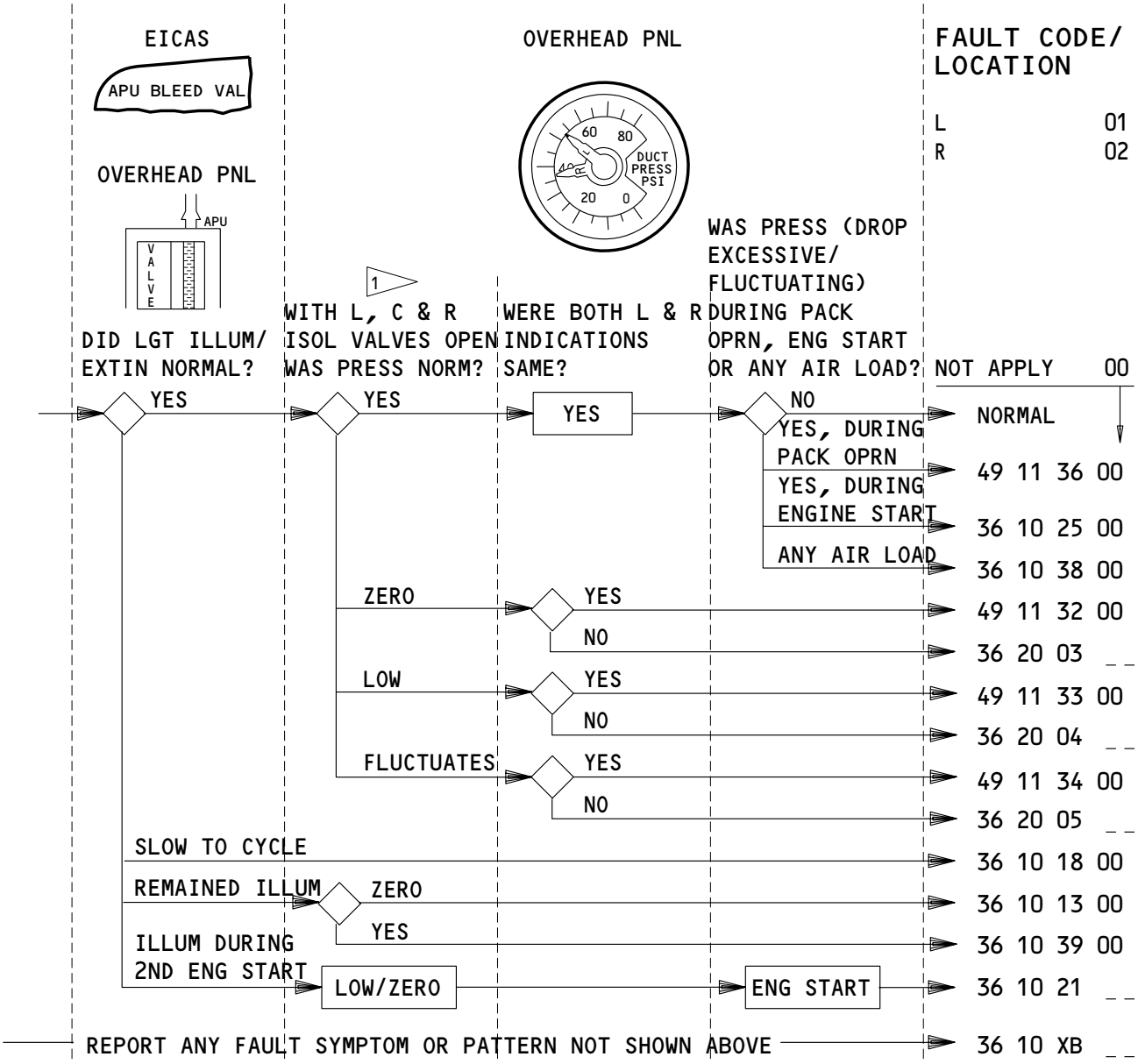
STRUT LEAK AND TEST – FAULT CODES

EFFECTIVITY

ALL

36-FAULT CODE DIAGRAM

L23056

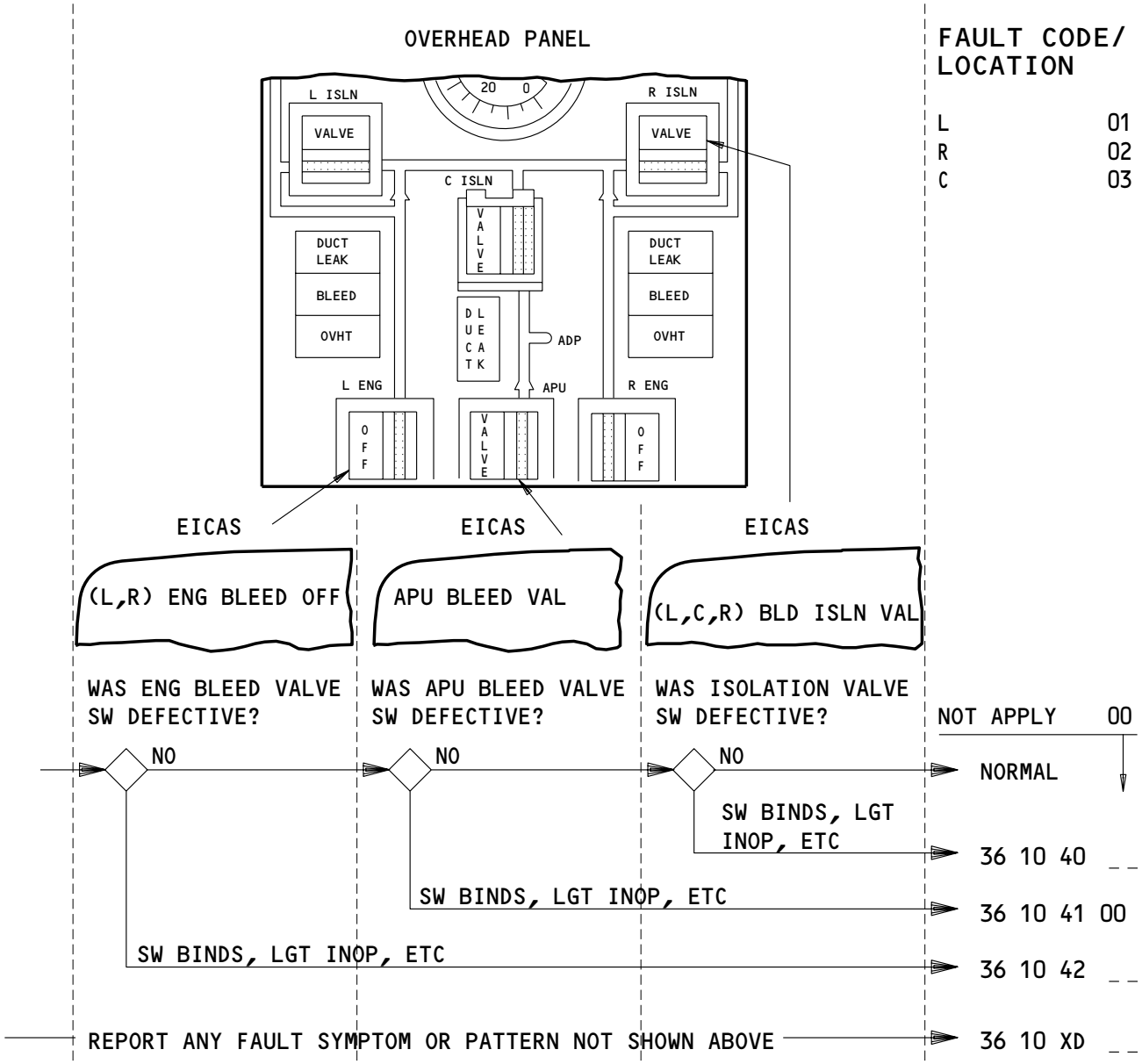


1 APU BLEED VALVE OPENS WITH APU BLEED SW ON, APU RUN LGT ILLUM AND BOTH ENG BLEED VALVES CLOSED OR CTR ISOL VALVE CLOSED (EXCEPT DURING START).

APPLICABLE CIRCUIT BREAKERS AS INSTALLED

11S16	DUCT PRESS IND L	11S24	APU BLEED CONT
11S17	DUCT PRESS IND PWR	11S25	DUCT PRESS IND R
11S23	APU BLEED PWR		

APU PNEUMATIC SUPPLY – FAULT CODES



APPLICABLE CIRCUIT BREAKERS

N/A

DEFECTIVE ENG, APU BLEED & ISOLATION VALVE SWITCHES – FAULT CODES

EFFECTIVITY

ALL

36-FAULT CODE DIAGRAM

FAULT CODE	1. LOG BOOK REPORT 2. FAULT ISOLATION REFERENCE
36 10 XA --	1. Report engine pneumatic supply symptoms or patterns along with fault. 2. FIM 36-20-00/101, Fig. 104, Block 1
36 10 XB --	1. An (01=L, 02=R) indication or APU pneumatic supply problem was encountered by the flight crew which is not covered by the fault code diagrams (Ref fault code diagram for flight crew actions). 2. FIM 36-10-00/101, Fig. 119
36 10 XC --	1. An (01=L, 02=R) engine BLEED and OVHT light problem was encountered by the flight crew which is not covered by the fault code diagrams (Ref fault code diagram for flight crew actions) 2. SSM 36-11-04
36 10 XD --	1. An (01=L, 02=R, 03=C) ENG, APU BLEED, or ISOLATION VALVE switch problem was encountered by the flight crew which is not covered by the fault code diagrams (Ref fault code diagram for flight crew actions). 2. SSM 36-11-01 and SSM 36-21-01
36 10 01 --	1. (01=L, 02=R, 04=L&R) duct press fluctuates with eng running & bleed sw on. 2. FIM 36-20-00/101, Fig. 103 OR FIM 36-10-00/101, Fig. 109
36 10 02 --	1. (01=L, 02=R) eng duct press low at low thrust. Press norm at CRZ thrust and above. 2. FIM 36-10-00/101, Fig. 107
36 10 03 --	1. EICAS msg (01=L, 02=R, 03=C) BLD ISLN VAL displayed. (L, R, C) ISLN VALVE lgt illum. 2. (01=L, 02=R) FIM 36-10-00/101, Fig. 105 (03=C) FIM 36-10-00/101, Fig. 104
36 10 04 --	Not Used

FAULT CODE	1. LOG BOOK REPORT 2. FAULT ISOLATION REFERENCE
36 10 05 00	Not Used
36 10 06 --	Not Used
36 10 07 --	Not Used
36 10 08 --	1. (01=L, 02=R) eng bleed air vlv OFF lgt illum with sw ON & eng running. Duct press was norm. 2. FIM 36-10-00/101, Fig. 114
36 10 09 --	Not Used
36 10 10 00 thru 36 10 12 00	Not Used
36 10 13 00	1. APU bleed air valve lgt illum with sw ON (OFF). EICAS msg APU BLEED VAL displayed. Duct pressure zero. 2. FIM 36-10-00/101, Fig. 106
36 10 14 --	1. (01=L, 02=R) Engine duct pressure low at cruise thrust. 2. FIM 36-10-00/101, Fig. 108
36 10 15 --	Not Used
36 10 16 --	Not Used
36 10 17 --	Not Used
36 10 18 00	1. APU BLEED VALVE slow to (open, close). 2. Replace APU shutoff valve, V47 (AMM 36-11-10).
36 10 19 --	Not Used
36 10 20 --	1. (01=L, 02=R) engine duct pressure was high at cruise thrust and above. Pressure normal at low thrust. 2. FIM 36-10-00/101, Fig. 110
36 10 21 --	1. APU bleed VALVE lgt illum and EICAS msg APU BLEED VALVE displayed during start of 2nd eng, (01=L, 02=R). Duct pressure was (low/zero). 2. Replace 2nd eng bleed air engine start relay K494 (K495) (WDM 36-11-41).

FAULT CODE	1. LOG BOOK REPORT 2. FAULT ISOLATION REFERENCE
36 10 23 --	1. (01=L, 02=R) eng bleed air vlv OFF lgt illum with sw ON and eng at low power. VLV OFF lgt extin below below 41% N1. 2. Replace the HPSOV (AMM 36-11-07/401).
36 10 24 --	1. (01=L, 02=R) eng bleed air vlv OFF lgt illum with sw ON. VLV OFF lgt exting above 41% N1. 2. FIM 36-10-00/101, Fig. 116
36 10 25 --	1. Pneumatic pressure drop excessive when using APU bleed air for engine start. 2. FIM 36-10-00/101, Fig. 118
36 10 26 --	1. EICAS msg (01=L, 02=R) ENG OVHT displayed. (L, R) OVHT lgt illum. 2. FIM 36-10-00/101, Fig. 113
36 10 27 --	1. EICAS msg (01=L, 02=R) ENG HPSOV displayed. (L, R) eng BLEED lgt illum (steady, intemittently) at (high, cruise or low) thrust. Duct press not checked. 2. FIM 36-10-00/101, Fig. 111
36 10 28 --	1. EICAS msg (01=L, 02=R) ENG HPSOV displayed. (L, R) eng BLEED lgt illum (steady, intermittently). Duct press high, _____ psi. 2. FIM 36-10-00/101, Fig. 111
36 10 29 --	1. EICAS msg (01=L, 02=R) ENG HPSOV displayed. (L, R) eng BLEED lgt illum (steady, intermittently). Duct press low, _____ psi. 2. FIM 36-10-00/101, Fig. 108 AND FIM 36-10-00/101, Fig. 111
36 10 30 --	1. EICAS msg (01=L, 02=R) ENG PRV displayed. (L, R) eng BLEED lgt illum. Duct press normal. 2. FIM 36-10-00/101, Fig. 123
36 10 31 --	1. EICAS msg (01=L, 02=R) ENG PRV displayed. (L, R) eng BLEED lgt illum. Duct press (high, low). 2. FIM 36-10-00/101, Fig. 123

FAULT CODE	1. LOG BOOK REPORT 2. FAULT ISOLATION REFERENCE
36 10 32 --	1. EICAS msg (O1=L, O2=R) ENG PRV displayed during engine start. (L, R) eng BLEED lgt illum. 2. FIM 36-10-00/101, Fig. 124
36 10 33 --	1. EICAS msg (O1=L, O2=R) ENG PRV & ENG BLD OVHT displayed. (L, R) eng BLEED & OVHT lgts illum. Duct press normal. 2. FIM 36-10-00/101, Fig. 125
36 10 34 --	1. EICAS msg (O1=L, O2=R) ENG PRV & ENG BLD OVHT displayed. (L, R) eng BLEED & OVHT lgts illum. Duct press (high, low). 2. FIM 36-10-00/101, Fig. 126
36 10 35 --	1. EICAS msg (O1=L, O2=R) ENG BLEED OFF & ENG PRV displayed. (L, R) eng bleed OFF & BLEED lgt illum. 2. FIM 36-10-00/101, Fig. 123
36 10 36 --	1. EICAS msg (O1=L, O2=R) ENG PRV displayed and BLEED lgt illum during eng start. (Refer to Chapter 71 for fault code diagram). 2. FIM 36-10-00/101, Fig. 124
36 10 37 --	1. EICAS msg (O1=L, O2=R) ENG HPSOV displayed and (L, R) ENG BLEED lgt illum after eng shut down. 2. FIM 36-10-00/101, Fig. 111
36 10 38 --	1. Pneumatic pressure (drops exessive/fluctuates) when using APU bleed air for any air load, (eng start, packs, ADP). 2. FIM 36-10-00/101, Fig. 119
36 10 39 00	1. APU bleed air valve lgt illum with sw ON (OFF). EICAS msg APU BLEED VAL displayed. Duct pressure normal. 2. Replace APU bleed VALVE switch/light, S5 (AMM 33-13-00). If fault persists, replace APU shutoff valve, V47 (AMM 36-11-10).
36 10 40 --	1. (O1=L, O2=R, O3=C) ISOLATION VALVE sw (binds, lgt inop, etc). 2. Replace defective (L, R, C) ISOLATION VALVE switch/light (S1, S3, S2) (AMM 33-13-00).
36 10 41 00	1. APU BLEED VALVE sw (binds, lgt inop, etc). 2. Replace defective APU BLEED VALVE switch/light (S5) (AMM 33-13-00).
36 10 42 --	1. (O1=L, O2=R) ENG BLEED VALVE sw (binds, lgt inop, etc). 2. Replace defective (L, R) ENG BLEED VALVE switch/light (S4, S6) (AMM 33-13-00).

FAULT CODE	1. LOG BOOK REPORT 2. FAULT ISOLATION REFERENCE
36 10 43 00 thru 36 10 45 00	Not Used
36 10 46 --	1. EICAS msgs (O1=L, O2=R) ENG BLEED OFF displayed. Eng bleed air vlv OFF lgt illum with sw ON and eng running. Duct press was (zero, less than 10 psi). Nacelle Anti-ice operates normal. 2. FIM 36-10-00/101, Fig. 115
36 10 47 --	1. EICAS msgs (O1=L, O2=R) ENG BLEED OFF displayed. Eng bleed air vlv OFF lgt illum with sw ON and eng running. Duct press was (zero, less than 10 psi). Nacelle Anti-ice failed to operate. 2. FIM 36-10-00/101, Fig. 115
36 10 48 --	1. EICAS msgs (O1=L, O2=R) ENG BLEED OFF displayed. Eng bleed air vlv OFF lgt illum with sw ON and eng running. Duct press was (zero, less than 10 psi). Nacelle Anti-ice operation not checked. 2. FIM 36-10-00/101, Fig. 115
36 10 49 --	1. EICAS msg (O1=L, O2=R) ENG HPSOV displayed. (L,R) eng BLEED lgt illum (steady, intermittent) at (high, cruise, low) thrust. Duct press normal. 2. FIM 36-10-00/101, Fig. 111
36 10 50 --	Not Used.
36 10 51 --	1. EICAS msg (O1=L, O2=R) ENG BLEED OFF displayed. (L,R) eng BLEED lgt illum. 2. FIM 36-10-00/101, Fig. 123

FAULT CODE	1. LOG BOOK REPORT 2. FAULT ISOLATION REFERENCE
36 10 52 00 thru 36 10 63 00	Not Used
36 20 01 --	1. (01=L, 02=R, 04=L&R) duct press zero with eng running & bleed sw ON. 2. FIM 36-20-00/101, Fig. 103, Block 1
36 20 02 --	Not used.
36 20 03 --	1. (01=L, 02=R) duct press zero with APU running & isln valves open. Press on other side norm. 2. FIM 36-20-00/101, Fig. 103, Block 1
36 20 04 --	1. Only (01=L, 02=R) duct press low with APU supplying press & isln valves open. Press on other side norm. 2. FIM 36-20-00/101, Fig. 103, Block 2
36 20 05 --	1. Only (01=L, 02=R) duct press fluctuating with APU supplying press & isln valves open. Press norm on other side. 2. FIM 36-20-00/101, Fig. 103, Block 2

BITE Index

1. General
   A. Use this index to find the BITE procedure for the applicable LRU/System.
   B. The BITE procedure will provide the fault isolation instructions for the fault indications/LRU maintenance messages.

LRU/System Name	Acronym	FIM Reference
ACARS Management Unit		23-22
Air Data Computer	ADC	34-12
Air Data Inertial Reference Unit	ADIRU	34-26
Air Supply Control and Test Unit	ASCTU	36-00/36-20
Air Traffic Control Transponder	ATC	34-53
Airborne Vibration Monitor Signal Conditioner	AVM	77-31
Antiskid/Autobrake Control Unit	AACU	32-42
APU Fire Detection System		26-15
Automatic Direction Finder Receiver	ADF	34-57
APU Control Unit (or Electronic Control Unit)	ECU	49-11
Autopilot/Flight Director	AFDS	22-00
Auxiliary Zone Temperature Controller	AZTC	2160/21-61
Brake Temperature Monitor Unit	BTMU	32-46
Bus Power Control Unit	BPCU	24-20
Cabin Pressure Controller	CPC	21-30/21-31
Cabin Temperature Controller	CTC	21-61
Digital Flight Data Acquisition Unit	DFDAU	31-31
Distance Measuring Equipment Interrogator	DME	34-55
Duct Leak (Wing and Body)		26-18
E/E Cooling Control Card (If cards installed)		21-58
ECS Bleed Configuration Card		36-10
Electronic Control Unit	ECU	49-11
Electronic Engine Control Monitor Unit (Non-FADEC Engines)	EECM	71-EECM Message Index
Electronic Flight Instrument System	EFIS	34-22

Bite Index
Figure 1 (Sheet 1)

LRU/System Name	Acronym	FIM Reference
Engine Fire/Overheat Detection System		26-11
Engine Indication and Crew Alerting System Computer	EICAS	31-41
Enhanced Ground Proximity Warning Computer	EGPWC	34-46
Equipment Cooling Systen Controller		21-58
Equipment Cooling Temperature Controller		21-58
Flap/Slat Electronic Unit	FSEU	27-51
Flap/Stabilizer Position Module	FSPM	27-58
Flight Management Computer	FMC	34-61
Fuel Quantity Indicating System Processor	FQIS	28-41
Ground Proximity Warning Computer	GPWC	34-46
HF (High Frequency) Communication		23-11
In-Flight Entertainment Equipment Cooling Card		21-58
Inertial Reference Unit	IRU	34-21
Instrument Comparator Unit	ICU	34-25
Instrument Landing System Receiver	ILS	34-31
Large Format Display System	LFDS	31-63
Lower Cargo Compartment Smoke Detection System		26-16
Maintenance Control Display Panel	MCDP	22-00
Multi-Mode Receiver	MMR	34-31
PA (Passenger Address) Amplifier		23-31
Pack Standby Temperature Controller	PSTC	21-51
Pack Temperature Controller	PTC	21-51
Passenger Entertainment System	PES	23-34
Power Supply Module (Control System Electronics Units)	PSM	27-09
Propulsion Interface and Monitor Unit (FADEC Engines)	PIMU	71-PIMU Message Index
Proximity Switch Electronics Unit	PSEU	32-09

Bite Index
Figure 1 (Sheet 2)

LRU/System Name	Acronym	FIM Reference
Radio Altimeter Transmitter/Receiver	RA	34-33
Rudder Ratio Changer Module	RRCM	27-09
Satellite Data Unit	SDU	23-25
Spoiler Control Module	SCM	27-09
Stabilizer Trim/Elevator Asymmetry Limit Module	SAM	27-09
Stall Warning Computer/Module (in Warning Electronic Unit)	SWC	27-32
Strut Overheat Detection System (RR Engines)		26-12
Thrust Management Computer/Autothrottle	TMC	22-00
Traffic Alert and Collision Avoidance Computer	TCAS	34-45
VHF (Very High Frequency) Communication		23-12
VOR/Marker Beacon Receiver	VOR/MKR	34-51
Warning Electronic Unit BITE Module (Stall Warning)	WEU	27-32
Weather Radar Transceiver	WXR	34-43
Wheel Well Fire Detection		26-17
Window Heat Control Unit	WHCU	30-41
Yaw Damper Module	YDM	22-21
Yaw Damper/Stabilizer Trim Module	YSM	27-09
Zone Temperature Controller	ZTC	21-60/21-61

Bite Index
Figure 1 (Sheet 3)

PNEUMATIC DISTRIBUTION

COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	AMM REFERENCE
ASSEMBLY - AIR SUPPLY CONTROL CARD	8	2	119AL, MAIN EQUIP CTR, P50	36-11-12
CIRCUIT BREAKER -			FLT COMPT, P11	
CONT, AIR SUPPLY APU BLEED, C1333		1	11S24	*
CONT, C AIR SUPPLY ISLN VLV, C1338		1	11S15	*
CONT, L AIR SUPPLY ENG BLEED, C1339		1	11S11	*
CONT, L AIR SUPPLY ISLN VLV, C1334		1	11A14	*
CONT, R AIR SUPPLY ENG BLEED, C1340		1	11S20	*
CONT, R AIR SUPPLY ISLN VLV, C1335		1	11S22	*
CONT, R AIR SUPPLY ISLN VLV ALT, C1345		1	11A27	*
IND, L AIR SUPPLY DUCT PRESS, C1332		1	11S16	*
IND, L AIR SUPPLY ENG BLEED, C1343		1	11S10	*
IND, R AIR SUPPLY ENG BLEED, C1344		1	11S19	*
IND, R AIR SUPPLY DUCT PRESS, C1342		1	11S25	*
POWER, AIR SUPPLY APU BLEED, C1336		1	11S23	*
PWR, AIR SUPPLY DUCT PRESS, C4241		1	11S17	*
PWR, C AIR SUPPLY ISLN VLV, C1337		1	11S14	*
PWR, L AIR SUPPLY ISLN VLV, C1330		1	11S12	*
PWR, R AIR SUPPLY ISLN VLV, C1331		1	11S21	*
CIRCUIT BREAKER -			119AL, MAIN EQUIP CTR, P36	
BITE, AIR SUPPLY, C1341		1	36L7	*
CONNECTOR - PNEUMATIC GROUND AIR	7	2	193LL	36-11-03
CONTROLLER - HIGH PRESSURE, M7191	5	2	415AL,425AL	36-11-08
CONTROLLER - PRESSURE REGULATING VALVE, M7200	5	2	415AL,425AL	36-11-19
MODULE - BLEED AIR SUPPLY, M15		1	FLT COMPT, P5	36-23-01
PRECOOLER - AIR SUPPLY	4	2	414AR,424AR,418AR,428AR,416AR, 426AR,417AL,427AL,436BR,446BR	36-11-15
RELAY - (FIM 31-01-06/101)				
START, LEFT ENG 1, K665				
START, RIGHT ENG 1, K666				
RELAY - (FIM 31-01-33/101)				
START, LEFT BLEED AIR ENGINE, K494				
N2, LEFT BLEED AIR ENGINE, K777				
RELAY - (FIM 31-01-36/101)				
INDICATION, C AIR SUPPLY ISLN VLV, CLOSED, K21				
INDICATION, C AIR SUPPLY ISLN VLV, OPEN, K22				
INDICATION, L AIR SUPPLY ISLN VLV, CLOSED, K10				
INDICATION, L AIR SUPPLY ISLN VLV, OPEN, K16				
VALVE, L T/R PNEUMATIC, K1021				

* SEE THE WDM EQUIPMENT LIST

Pneumatic Distribution - Component Index
Figure 101 (Sheet 1)

C10441

COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	AMM REFERENCE
RELAY - (FIM 31-01-37/101)				
CONT, RIGHT ENG TAI T/D, K649				
INDICATION R, AIR SUPPLY ISLN VLV, CLOSED, K19				
INDICATION R, AIR SUPPLY ISLN VLV, OPEN, K18				
N2, RIGHT ENG, K778				
START, RIGHT BLEED AIR ENGINE, K495				
VALVE, RIGHT T/R PNEUMATIC, K1022				
RELAY - (FIM 31-01-49/101)				
CONTROL, APU AIR SUPPLY VLV, K23				
INDICATION, APU AIR SUPPLY, CLOSED, K24				
INDICATION, APU AIR SUPPLY, OPEN K25				
SENSOR - FAN AIR TEMPERATURE, TS101	4	2	434AR,444AR	36-11-17
SWITCH - LEFT ENGINE FIRE, S37		1	AFT EQUIPMENT PANEL, P8	
SWITCH - RIGHT ENGINE FIRE, S38		1	AFT EQUIPMENT PANEL, P8	
SWITCH-LIGHT - BLEED AIR SUPPLY				
OFF, L ENG, YCZS4		1	FLT COMPT, P5, BLEED AIR SUPPLY MODULE, M15	*
OFF, R ENG, YCZS6		1	FLT COMPT, P5, BLEED AIR SUPPLY MODULE, M15	*
VALVE, APU, YCZS5		1	FLT COMPT, P5, BLEED AIR SUPPLY MODULE, M15	*
VALVE, C ISLN, YCZS2		1	FLT COMPT, P5, BLEED AIR SUPPLY MODULE, M15	*
VALVE, L ISLN, YCZS1		1	FLT COMPT, P5, BLEED AIR SUPPLY MODULE, M15	*
VALVE, R ISLN, YCZS3		1	FLT COMPT, P5, BLEED AIR SUPPLY MODULE, M15	*
VALVE - APU AIR SUPPLY CHECK	6	1	312AR	36-11-11
VALVE - APU AIR SUPPLY SHUTOFF, V47	6	1	313AL	36-11-10
VALVE - FAN AIR MODULATING, V112	4	2	414AR,424AR,418AR,428AR,416AR, 426AR	36-11-16
VALVE - HIGH PRESSURE SHUTOFF, V347	3	2	413AL,423AL,415AL,425AL,417AL, 427AL	36-11-07
VALVE - INTERMEDIATE PRESSURE CHECK	3	2	413AL,423AL,415AL,425AL,417AL, 427AL	36-11-06
VALVE - ISOLATION BYPASS CHECK	7	3	193NL,194LR	36-11-05
VALVE - LEFT, CENTER, RIGHT ISOLATION, V44, V45,V46	7	3	193NL,194LR	36-11-04
VALVE - LEFT, RIGHT, AIR SUPPLY PRESSURE REGULATING AND SHUTOFF, V42,V43	3,4	2	434AR,434AL,444AR,444AL	36-11-09
VALVE - PRESSURE REGULATING, V352	5	2	413AL,423AL,415AL,425AL,417AL, 427AL	36-11-18

* SEE THE WDM EQUIPMENT LIST

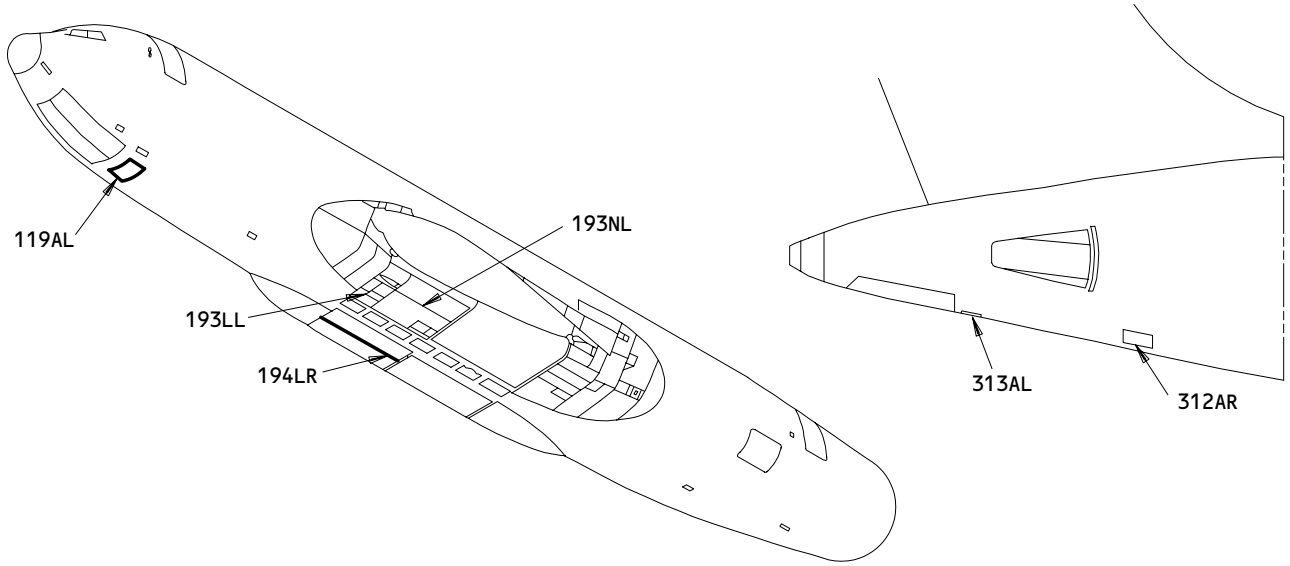
Pneumatic Distribution - Component Index
Figure 101 (Sheet 2)

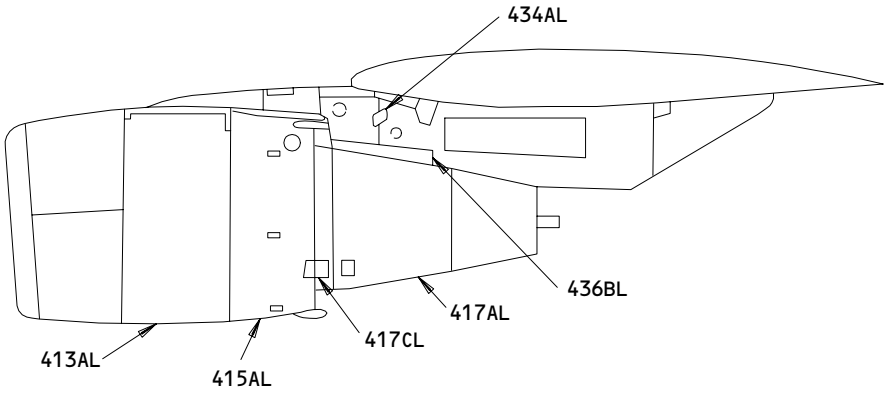
C10443

COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	AMM REFERENCE
SENSOR – FAN AIR TEMPERATURE, TS101	4	2	434AR,444AR	36-11-17
SWITCH – LEFT ENGINE FIRE, S37		1	AFT EQUIPMENT PANEL, P8	
SWITCH – RIGHT ENGINE FIRE, S38		1	AFT EQUIPMENT PANEL, P8	
SWITCH–LIGHTS – BLEED AIR SUPPLY				
OFF, L ENG, YCZS4		1	FLT COMPT, P5, BLEED AIR SUPPLY MODULE, M15	*
OFF, R ENG, YCZS6		1	FLT COMPT, P5, BLEED AIR SUPPLY MODULE, M15	*
VALVE, APU, YCZS5		1	FLT COMPT, P5, BLEED AIR SUPPLY MODULE, M15	*
VALVE, C ISLN, YCZS2		1	FLT COMPT, P5, BLEED AIR SUPPLY MODULE, M15	*
VALVE, L ISLN, YCZS1		1	FLT COMPT, P5, BLEED AIR SUPPLY MODULE, M15	*
VALVE, R ISLN, YCZS3		1	FLT COMPT, P5, BLEED AIR SUPPLY MODULE, M15	*
VALVE – APU AIR SUPPLY CHECK	6	1	312AR	36-11-11
VALVE – APU AIR SUPPLY SHUTOFF, V47	6	1	313AL	36-11-10
VALVE – FAN AIR MODULATING, V112	4	2	414AR,424AR,418AR,428AR,416AR, 426AR	36-11-16
VALVE – HIGH PRESSURE SHUTOFF, V347	3	2	413AL,423AL,415AL,425AL,417AL, 427AL	36-11-07
VALVE – INTERMEDIATE PRESSURE CHECK	3	2	413AL,423AL,415AL,425AL,417AL, 427AL	36-11-06
VALVE – ISOLATION BYPASS CHECK	7	3	193NL,194LR	36-11-05
VALVE – LEFT, CENTER, RIGHT ISOLATION, V44, V45,V46	7	3	193NL,194LR	36-11-04
VALVE – LEFT, RIGHT, AIR SUPPLY PRESSURE REGULATING AND SHUTOFF, V42,V43	3,4	2	434AR,434AL,444AR,444AL	36-11-09
VALVE – PRESSURE REGULATING, V352	5	2	413AL,423AL,415AL,425AL,417AL, 427AL	36-11-18

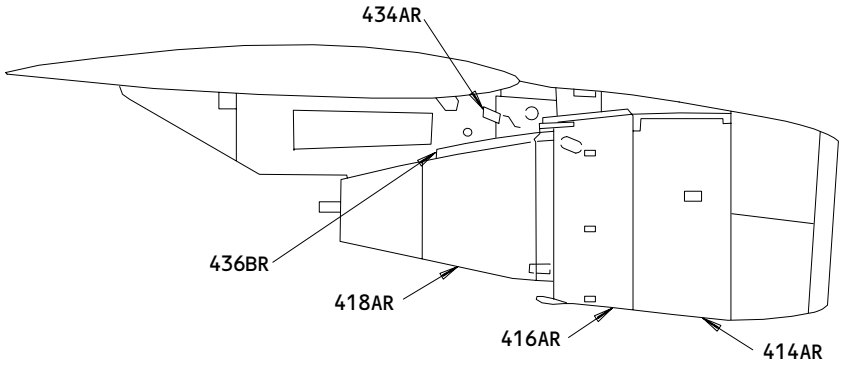
* SEE THE WDM EQUIPMENT LIST

Pneumatic Distribution – Component Index
Figure 101 (Sheet 3)



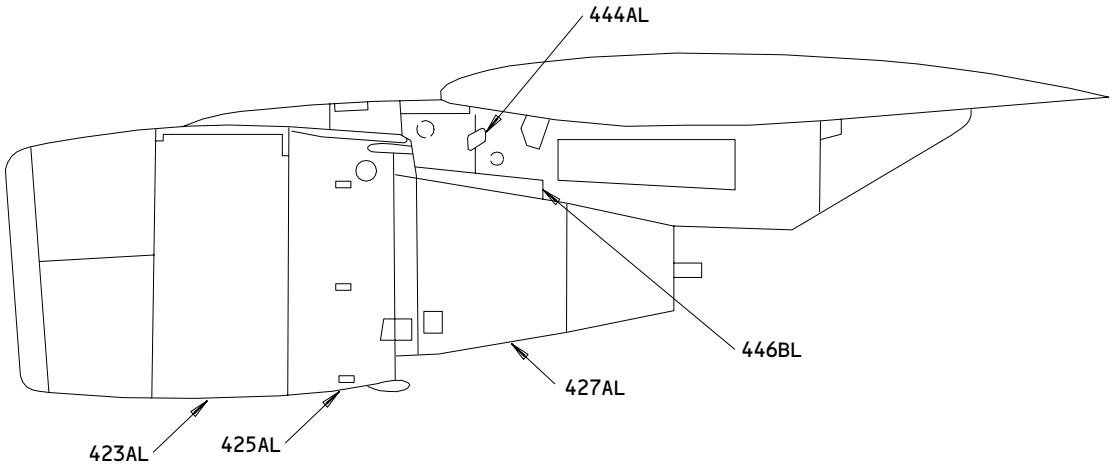


NO. 1 ENGINE
LEFT SIDE

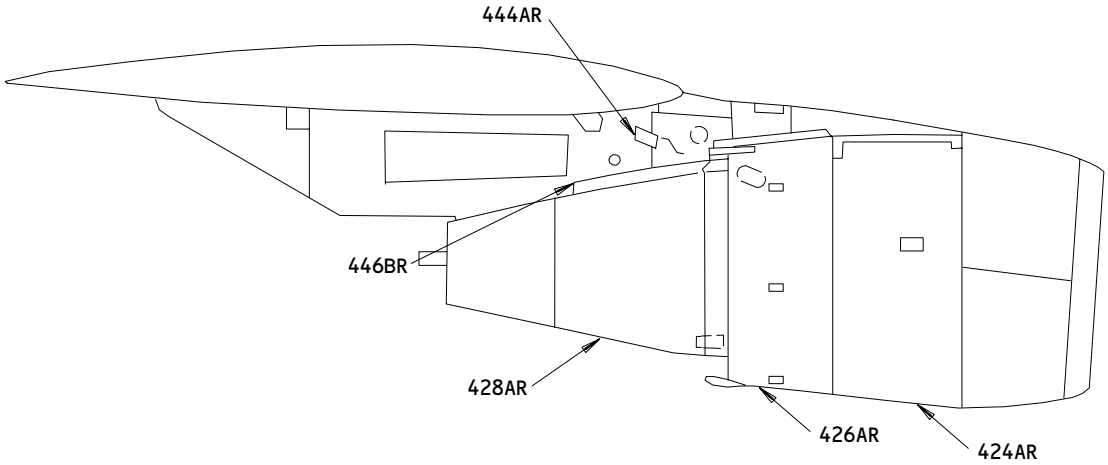


NO. 1 ENGINE
RIGHT SIDE

Pneumatic Distribution - Component Location
Figure 102 (Sheet 1)



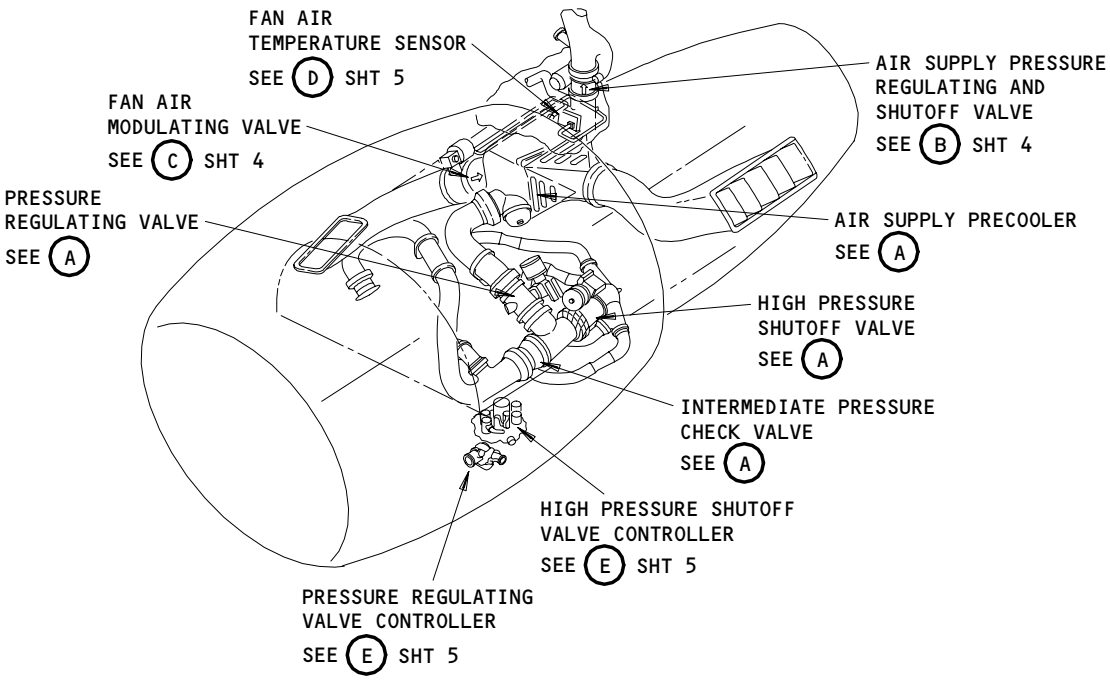
NO. 2 ENGINE
LEFT SIDE

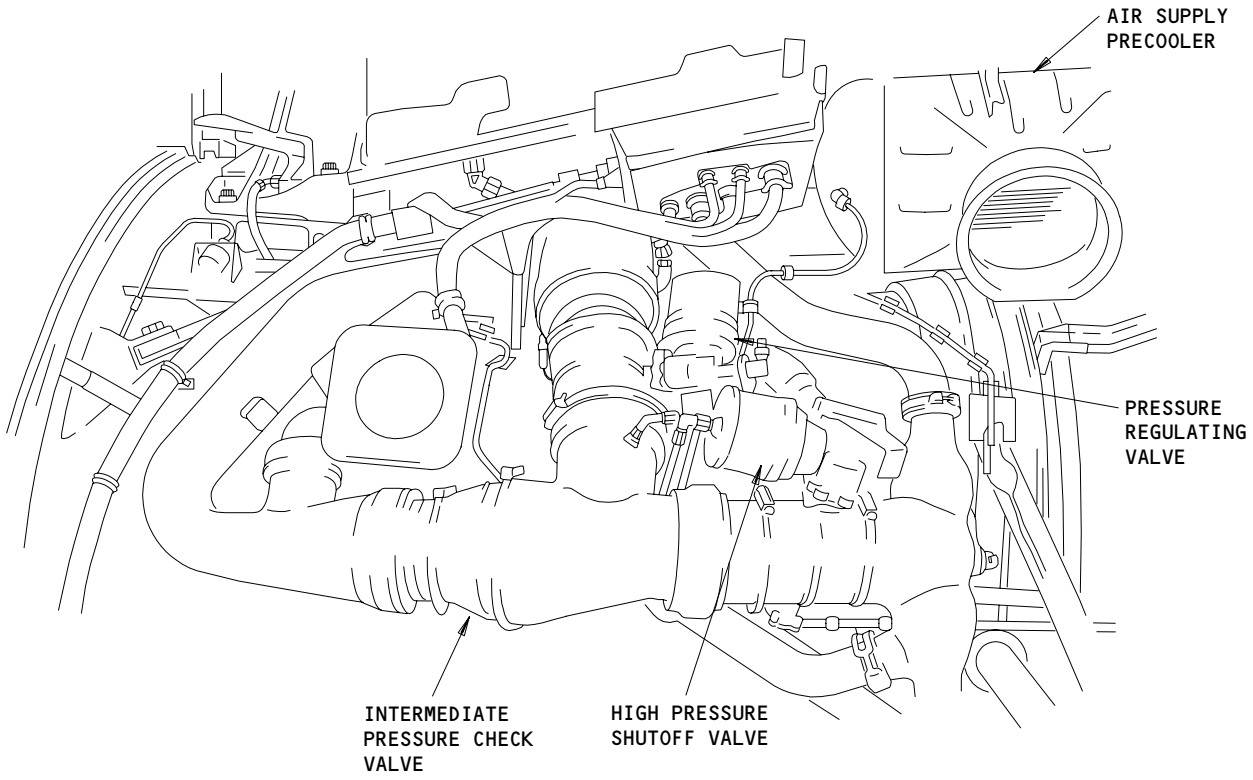


NO. 2 ENGINE
RIGHT SIDE

Pneumatic Distribution - Component Location
Figure 102 (Sheet 2)

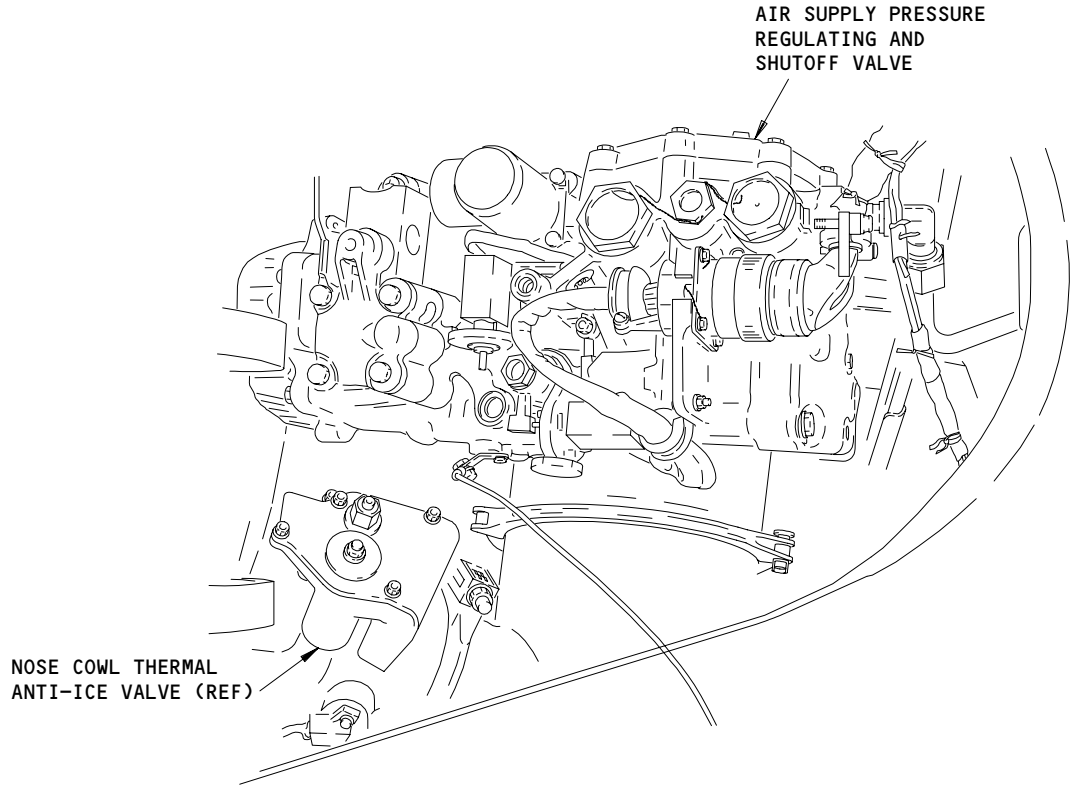
E88986





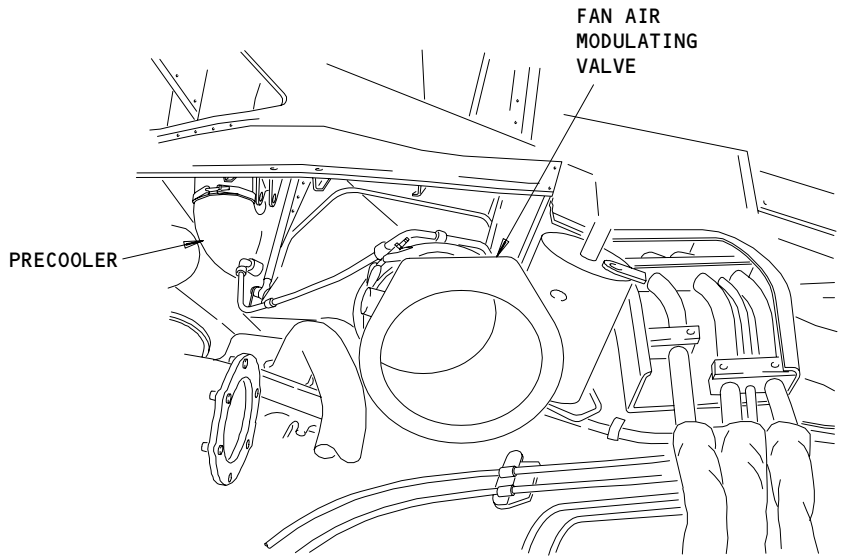
A

Pneumatic Distribution - Component Location
Figure 102 (Sheet 3)



AIR SUPPLY PRESSURE REGULATING AND SHUTOFF VALVE

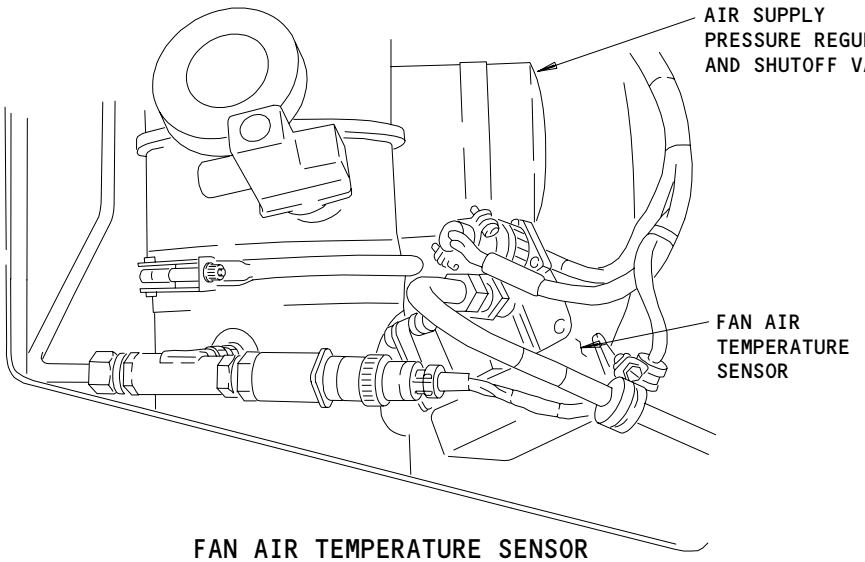
B



FAN AIR MODULATING VALVE

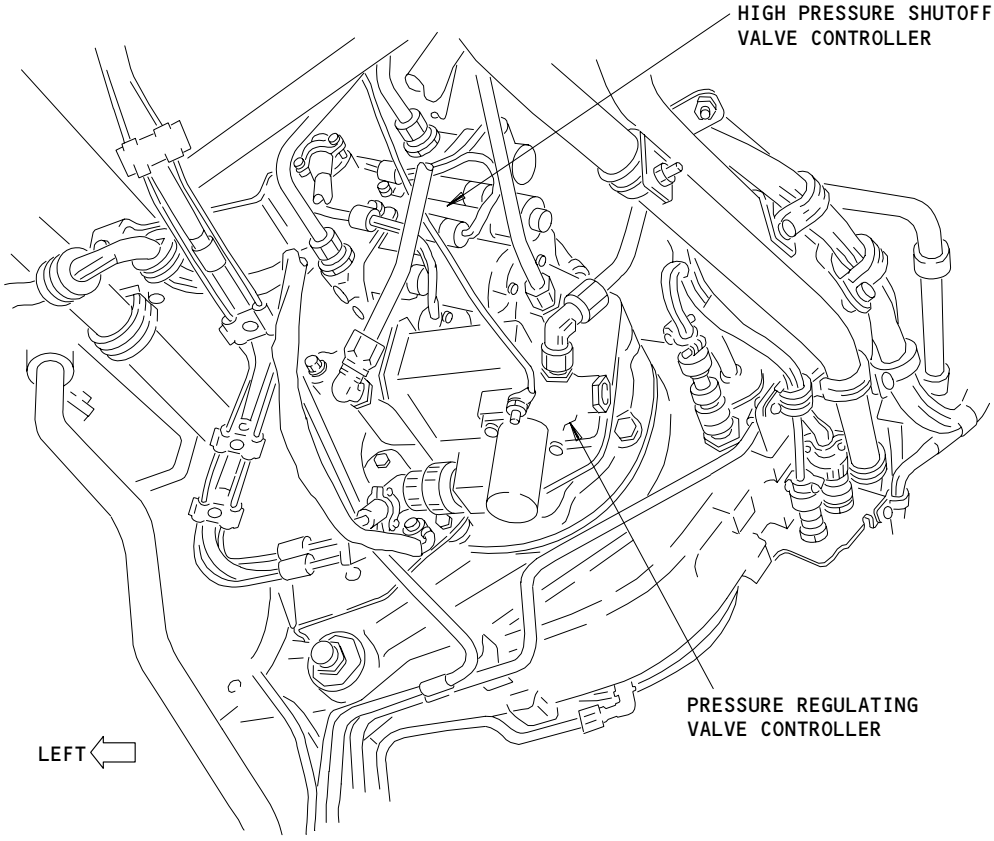
C

Pneumatic Distribution - Component Location (Details from Sht 3)
Figure 102 (Sheet 4)



FAN AIR TEMPERATURE SENSOR

D



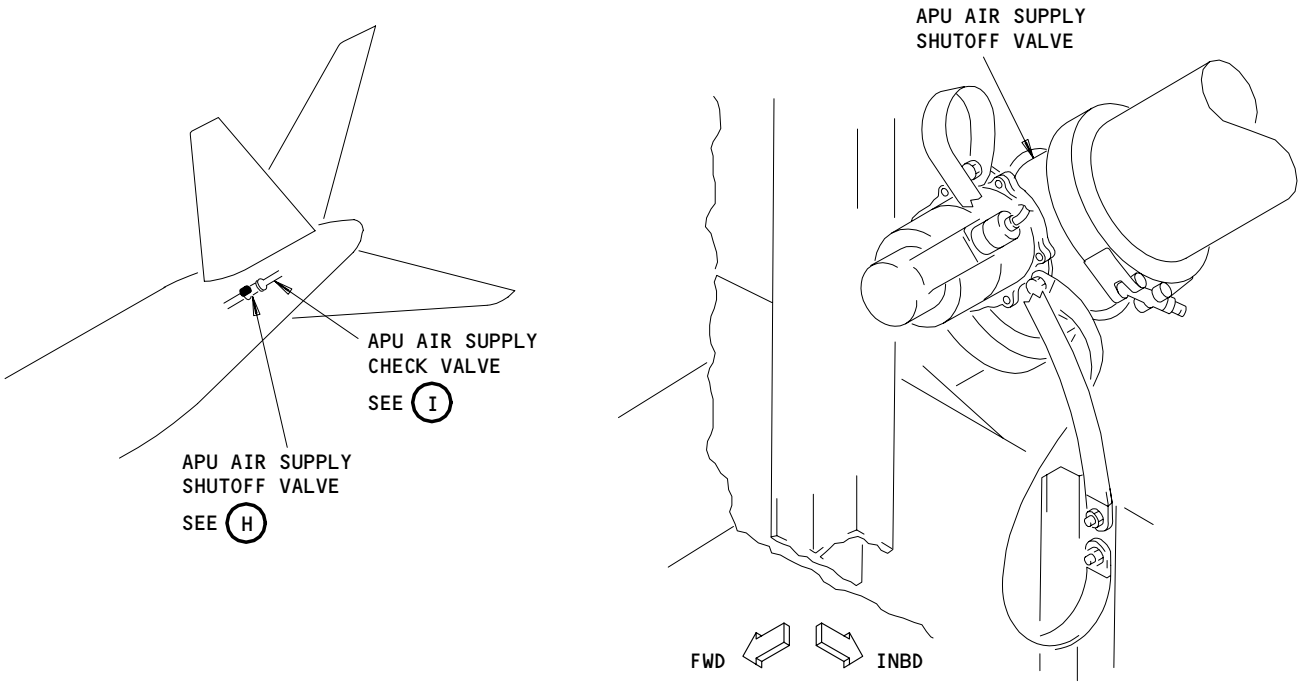
PRESSURE REGULATING VALVE CONTROLLER

E

NOT USED

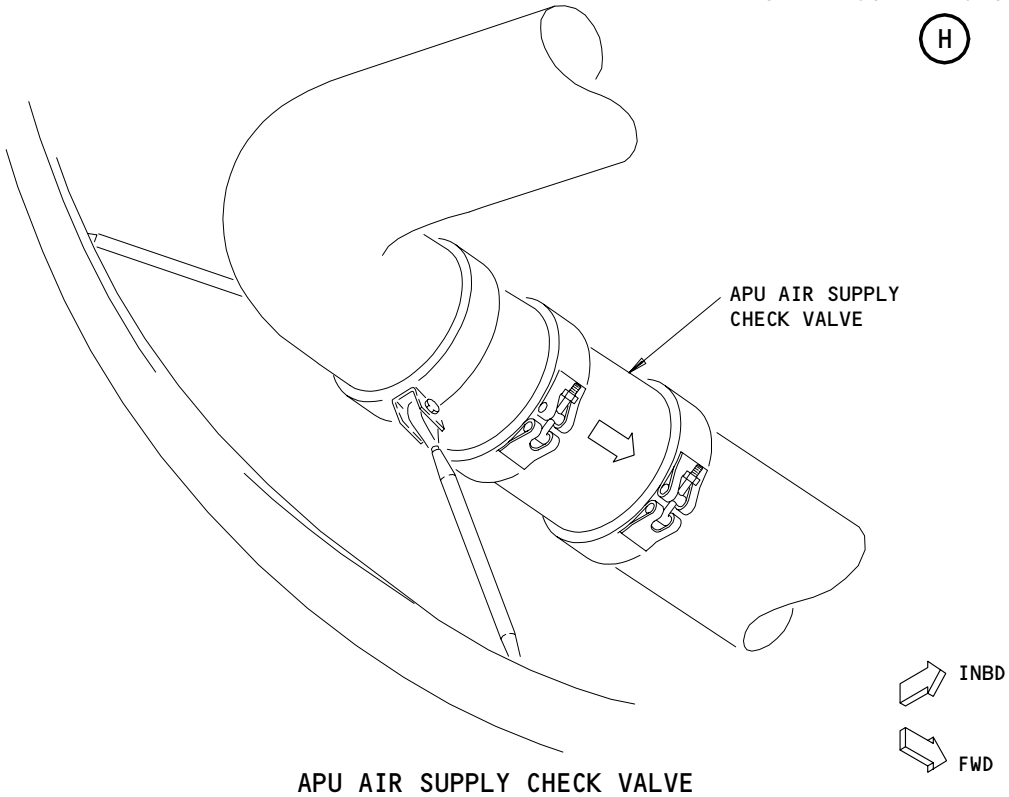
G

Pneumatic Distribution – Component Location (Details from Sht 3)
Figure 102 (Sheet 5)



APU AIR SUPPLY SHUTOFF VALVE

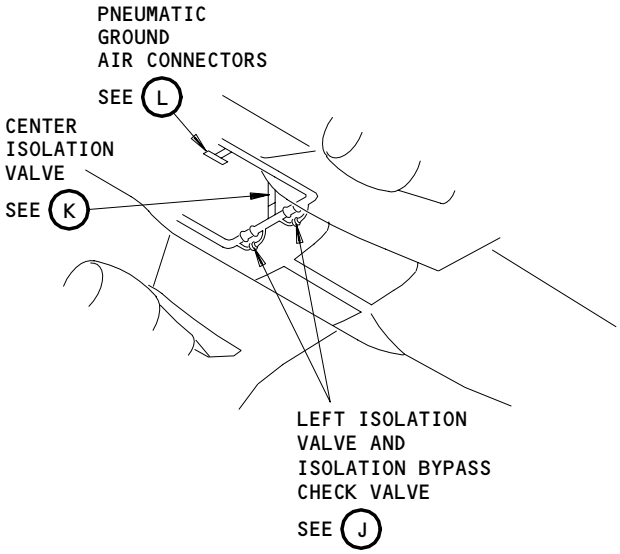
H

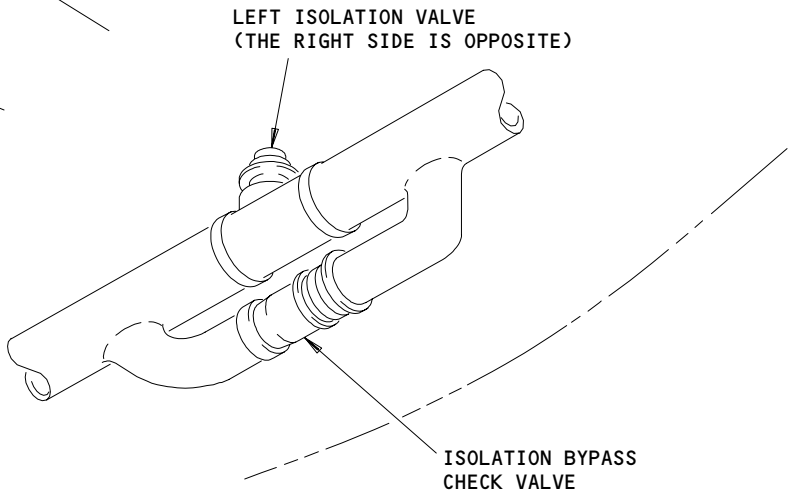


APU AIR SUPPLY CHECK VALVE

I

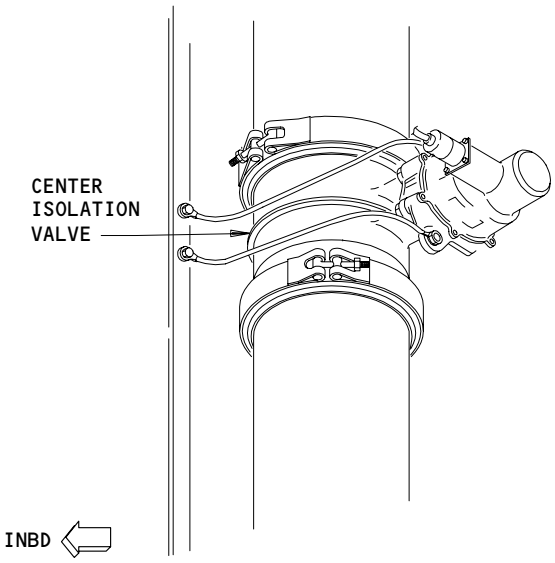
Pneumatic Distribution – Component Location
Figure 102 (Sheet 6)





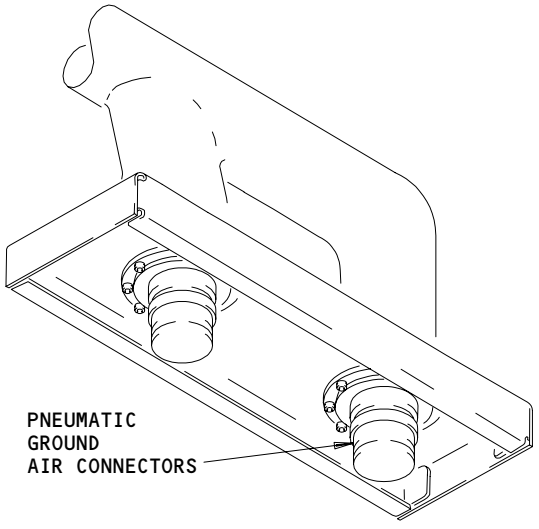
LEFT ISOLATION VALVE AND ISOLATION BYPASS CHECK VALVE

J



CENTER ISOLATION VALVE

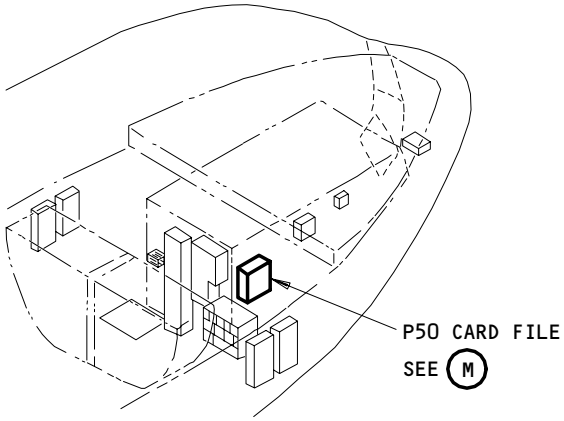
K

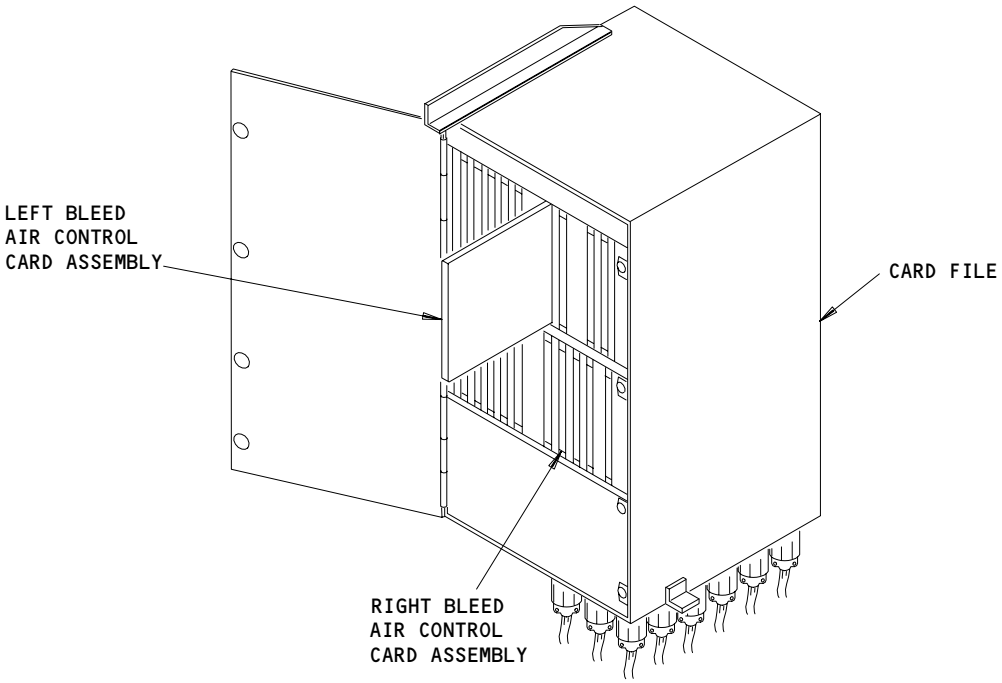


PNEUMATIC GROUND AIR CONNECTORS

L

Pneumatic Distribution - Component Location
Figure 102 (Sheet 7)





P50 CARD FILE
(M)

Pneumatic Distribution – Component Location
Figure 102 (Sheet 8)

EICAS MESSAGE "L (R) BLD DUCT LEAK" AND LEFT (RIGHT) DUCT LEAK LIGHT ILLUMINATED

PREREQUISITES
NONE

1	ALIGN THE DUCT CLAMPS; OR REPAIR OR REPLACE THE DUCT SECTION TO REPAIR THE DUCT LEAK IN THE WING LEADING EDGE (AMM 36-11-01/401).

EICAS Message L (R) BLD DUCT LEAK and Left (Right) Duct Leak Light Illuminated
Figure 103

EICAS MESSAGE "C BLD ISLN VAL", CENTER ISOLATION VALVE LIGHT FAILS TO GO OUT WITH VALVE SELECTED OPEN.

PREREQUISITES

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED:
11S14,11S15

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

DESCRIPTION:

THE ISOLATION VALVE IS NOT IN THE COMMANDED POSITION.

POSSIBLE CAUSES:

1. ISOLATION VALVE
2. ELECTRICAL CIRCUIT (OPEN/CLOSED POSITION INDICATION)(WDM 36-11-31).

FAULT ISOLATION:

1 PUT THE CENTER ISOLATION VALVE SWITCH-LIGHT ON THE P5 PANEL TO THE "OPEN" POSITION.
WAIT 30 SECONDS.
OPEN THIS CIRCUIT BREAKER ON THE P11 PANEL:

11S14, CENTER ISOLATION VALVE POWER

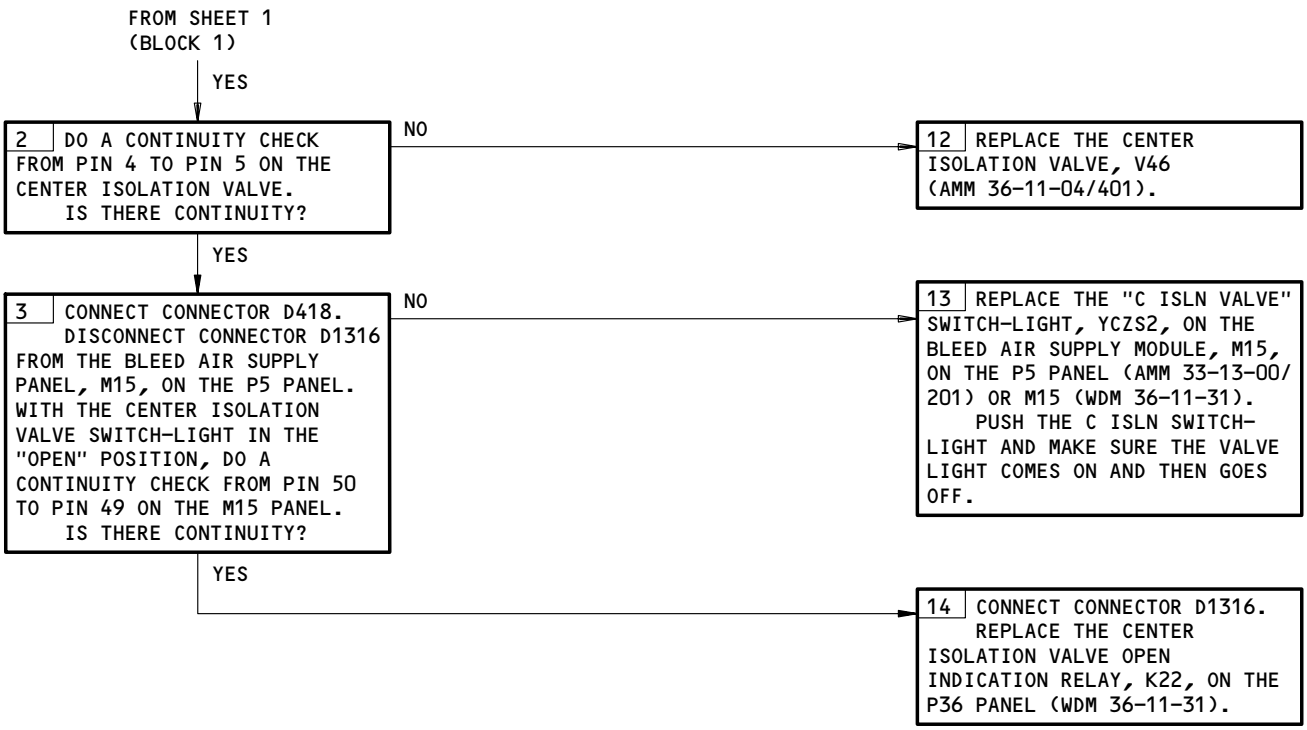
DISCONNECT CONNECTOR D418 FROM THE CENTER ISOLATION VALVE, V46.
DO A CHECK FOR 25 ±7V DC FROM PIN 4 TO PIN 5 (GROUND) ON THE CONNECTOR (WDM 36-11-31).
IS THERE 25 ±7V DC ON THE VOLTMETER?

NO → 11 REPLACE THE CENTER ISOLATION VALVE OPEN INDICATION RELAY, K22, ON THE P36 PANEL (WDM 36-11-31).

YES → SEE SHEET 2 (BLOCK 2)

EICAS Message C BLD ISLN VAL, Center Isolation Valve Light Fails to Go Out with Valve Selected Open.
Figure 104 (Sheet 1)

E92140



EICAS Message C BLD ISLN VAL, Center Isolation Valve Light Fails to Go Out with Valve Selected Open.
Figure 104 (Sheet 2)

EICAS MESSAGE "L (R) BLD ISLN VAL" DISPLAYED. L (R) ISLN VALVE LIGHT FAILS TO GO OUT WITH VALVE SELECTED OPEN.

PREREQUISITES

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED:
11S12,11S13, OR 11S21,11S22

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

DESCRIPTION:

THE ISOLATION VALVE IS NOT IN THE COMMANDED POSITION.

POSSIBLE CAUSES:

1. ISOLATION VALVE
2. ELECTRICAL CIRCUIT (OPEN/CLOSED POSITION INDICATION)(WDM 36-11-11,-21).

FAULT ISOLATION:

1 PUSH THE APPLICABLE LEFT (RIGHT) ISLN SWITCH-LIGHT ON THE P5 PANEL TO THE "OPEN" POSITION. WAIT 30 SECONDS.
OPEN THIS CIRCUIT BREAKER ON THE P11 PANEL:

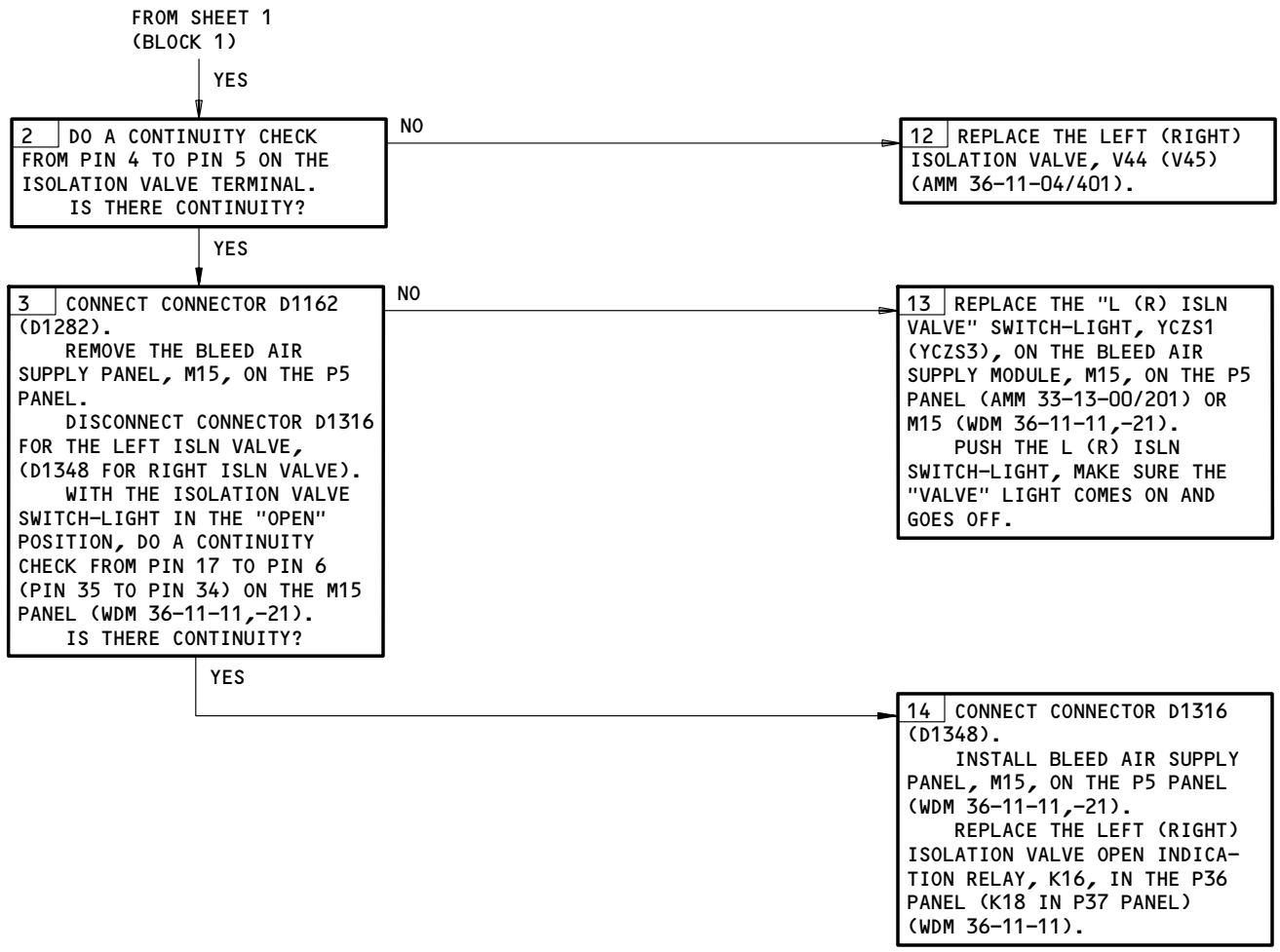
11S12 (11S21), L (R) ISLN VLV PWR

DISCONNECT CONNECTOR D1162 (D1282) ON THE LEFT (RIGHT) ISOLATION VALVE, V44 (V45).
DO A CHECK FOR 28V DC FROM PIN 4 TO PIN 5 (GROUND) ON THE CONNECTOR (WDM 36-11-11, -21).
IS THERE 28V DC ON THE VOLTMETER?

NO → 11 CONNECT CONNECTOR D1162 (D1282).
REPLACE THE L (R) ISOLATION VALVE OPEN INDICATION RELAY, K16, IN THE P36 PANEL (K18 IN P37 PANEL) (WDM 36-11-11,-21).

YES → SEE SHEET 2 (BLOCK 2)

EICAS Message L (R) BLD ISLN VAL Displayed.
L (R) ISLN Valve Light Fails to Go Out with Valve Selected Open.
Figure 105 (Sheet 1)



EICAS Message L (R) BLD ISLN VAL Displayed.
L (R) ISLN Valve Light Fails to Go Out with Valve Selected Open.
Figure 105 (Sheet 2)

APU BLEED AIR VALVE LIGHT ILLUMINATED WITH SWITCH "ON" ("OFF")

PREREQUISITES

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED:
11S23,11S24

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

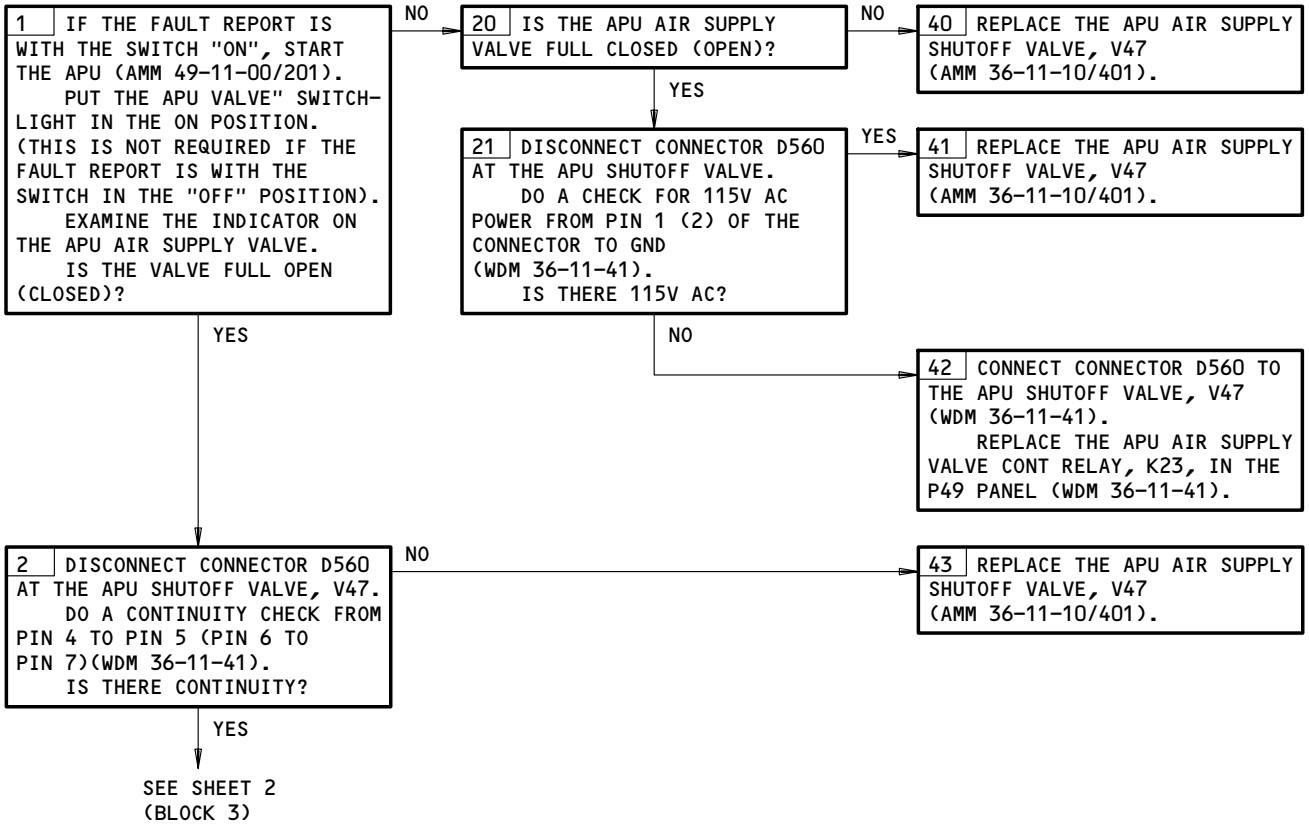
DESCRIPTION:

THE APU SHUTOFF VALVE IS NOT IN ITS COMMANDED POSITION.

POSSIBLE CAUSES:

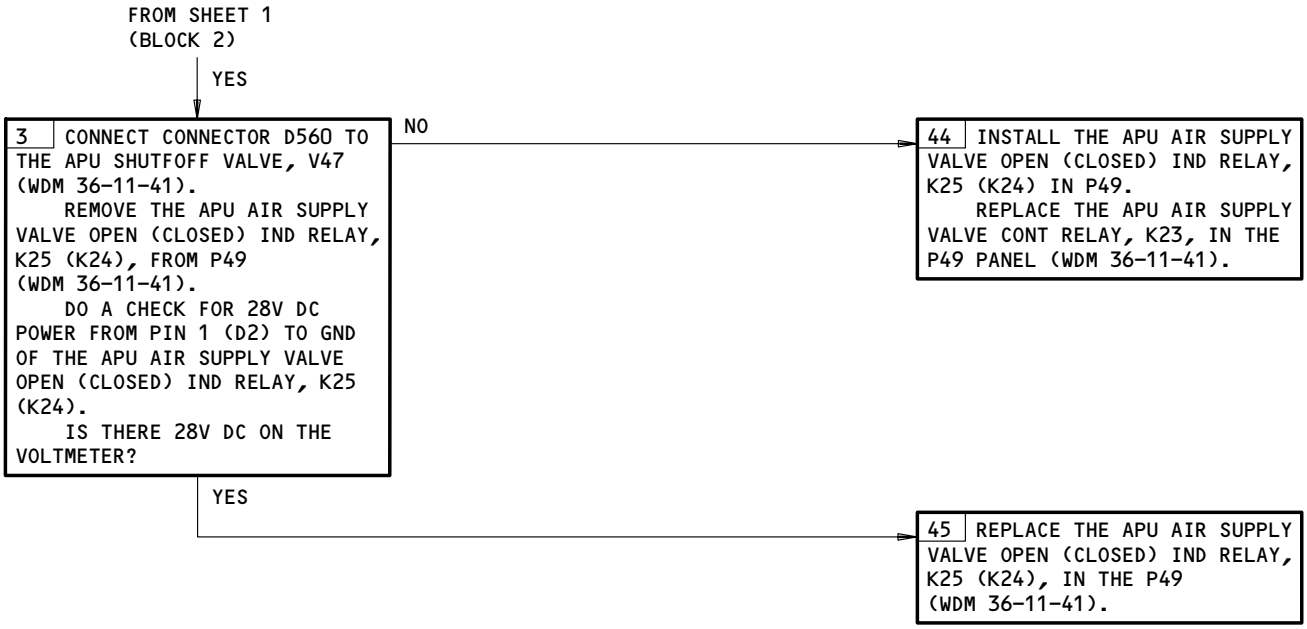
1. APU SHUTOFF VALVE
2. ELECTRICAL CIRCUIT PROBLEM TO THE APU SHUTOFF VALVE (OPEN/CLOSED POSITION INDICATION).

FAULT ISOLATION:



APU Bleed Air Valve Light Illuminated With Switch ON (OFF)
Figure 106 (Sheet 1)

E91968



APU Bleed Air Valve Light Illuminated With Switch ON (OFF)
Figure 106 (Sheet 2)

L (R) ENG DUCT PRESSURE LOW AT LOW THRUST (GROUND OPERATION OR DESCENT). PRESSURE NORMAL AT CRUISE THRUST AND ABOVE

PREREQUISITES

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED:
11S10,11S11,36L7; 5 11N14,11N23

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

CONSUMABLE MATERIALS:
ANTISEIZE COMPOUND, HIGH TEMPERATURE - BOSTIK, NEVER-SEEZ

POSSIBLE CAUSES:

1. LOOSE CONNECTOR AT THE HPC SOLENOID
2. LOOSE B-NUT CONNECTIONS FOR THE PRESSURE SENSE LINES AT THE PRV, PRVC, HPSOV, HPC, OR PRSOV
3. BAD HPC (BAD SOLENOID)(HPSOV/HPC ADJUSTMENT/TEST, AMM 36-11-07/501)
4. BAD PRVC (THE PRVC IS NOT REGULATING CORRECTLY)(PRV/PRVC ADJUSTMENT/TEST, AMM 36-11-18/501)
5. BAD HPSOV (THE HPSOV WILL NOT OPEN)(HPSOV/HPC ADJUSTMENT/TEST, AMM 36-11-07/501)
6. BAD PRV (THE PRV WILL NOT FULLY OPEN)(PRV/PRVC ADJUSTMENT/TEST, AMM 36-11-18/501)
7. BAD PRSOV (PRSOV NOT REGULATING CORRECTLY)(PRSOV ADJUSTMENT/TEST, AMM 36-11-09/501)
8. OPEN WIRE TO THE HPC SOLENOID
9. BLEED AIR CONTROL CARD OR ELECTRICAL CIRCUIT PROBLEMS.

FAULT ISOLATION:

1 USE THE INSTRUCTIONS ON THE AIR SUPPLY BITE MODULE.
KEEP A RECORD OF ALL THE FAULTS. 1
DID THE PROCEDURE SHOW A BAD COMPONENT?

YES → 41 REPLACE THE COMPONENT SHOWN.

NO

SEE SHEET 2
(BLOCK 2)

1 DO NOT DO THE BITE PROCEDURE IF THE BITE MODULE IS PART NUMBER S210T120-47 (HAMILTON STANDARD [H/S] PART NUMBER 773461-9) OR LESS, GO TO BLOCK 2.
IF THE BITE MODULE PART NUMBER IS S210T120-67 (H/S 804401-2) OR ABOVE, DO THE BITE PROCEDURE.

2 WARNING: FAILURE TO FOLLOW AMM 78-31-00/201 WHEN YOU CLOSE THE THRUST REVERSERS COULD RESULT IN INJURY TO PERSONNEL AND/OR DAMAGE TO EQUIPMENT.

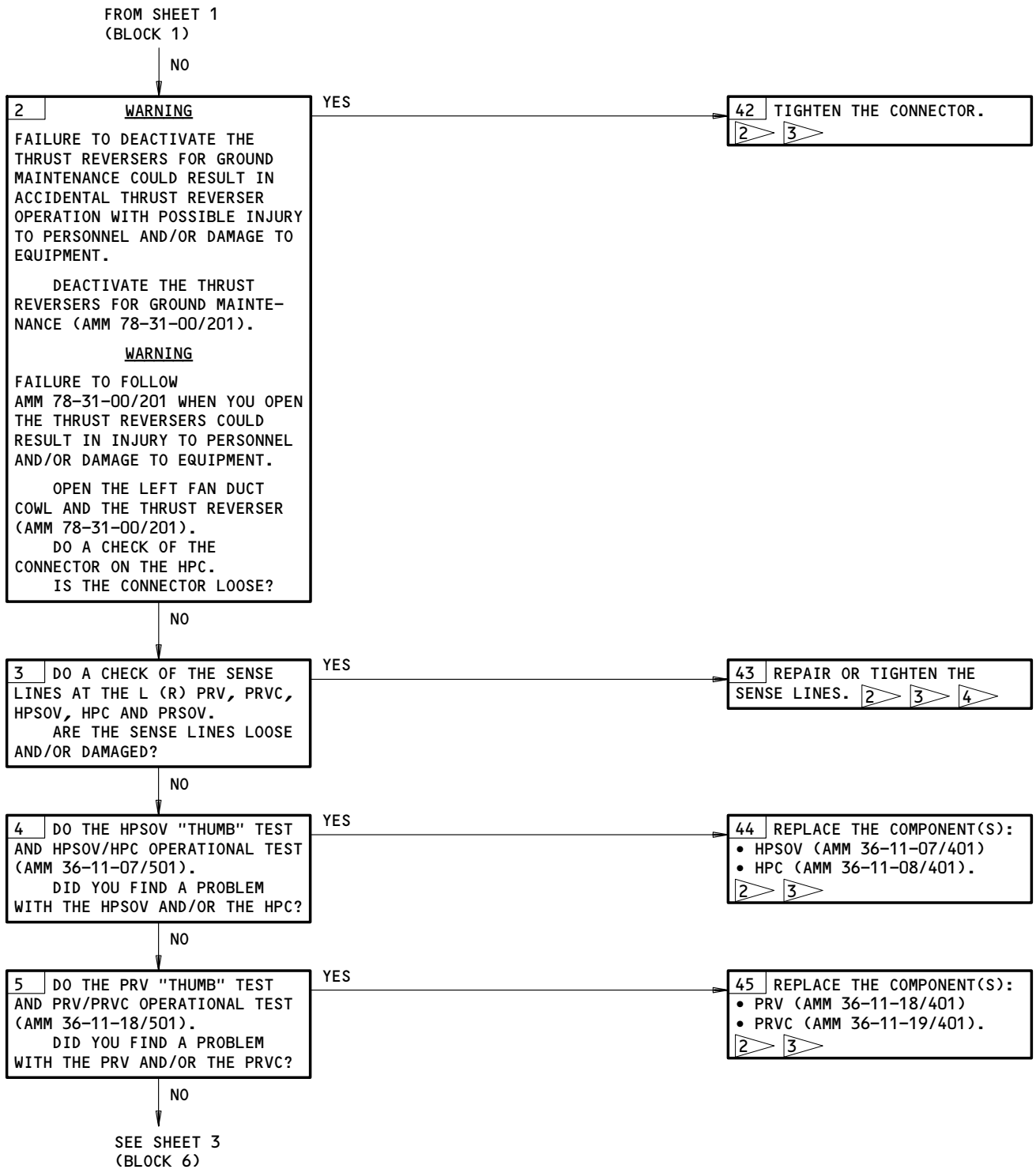
CLOSE THE LEFT FAN DUCT COWL AND THE THRUST REVERSER (AMM 78-31-00/201).

3 ACTIVATE THE THRUST REVERSERS (AMM 78-31-00/201).

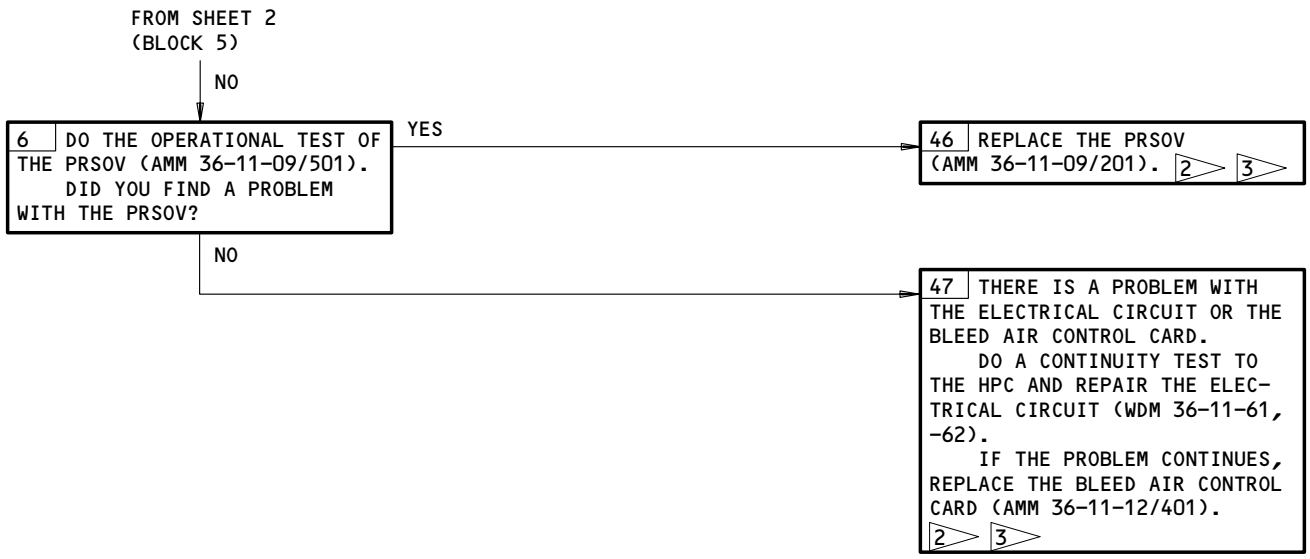
5 NOT INSTALLED ON ALL AIRPLANES

L (R) Eng Duct Pressure Low at Low Thrust (Ground Operation or Descent).
Pressure Normal at Cruise Thrust and Above
Figure 107 (Sheet 1)

C89394



L (R) Eng Duct Pressure Low at Low Thrust (Ground Operation or Descent).
Pressure Normal at Cruise Thrust and Above
Figure 107 (Sheet 2)



L (R) Eng Duct Pressure Low at Low Thrust (Ground Operation or Descent).
Pressure Normal at Cruise Thrust and Above
Figure 107 (Sheet 3)

PREREQUISITES

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED:
11S10,11S11,36L7; 3 > 11N14,11N23

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

CONSUMABLE MATERIALS:
ANTISEIZE COMPOUND, HIGH TEMPERATURE - BOSTIK, NEVER-SEEZ

L (R) ENG DUCT PRESSURE LOW AT CRUISE THRUST OR TAKEOFF

POSSIBLE CAUSES:

1. LOOSE B-NUT CONNECTIONS FOR THE PRESSURE SENSE LINES AT THE PRV, PRVC, OR PRSOV
2. BAD PRVC (THE PRVC IS NOT REGULATING CORRECTLY)(PRV/PRVC ADJUSTMENT/TEST, AMM 36-11-18/501)
3. BAD PRV (THE PRV WILL NOT FULLY OPEN)(PRV/PRVC ADJUSTMENT/TEST, AMM 36-11-18/501)
4. BAD PRSOV (PRSOV NOT REGULATING CORRECTLY)(PRSOV ADJUSTMENT/TEST, AMM 36-11-09/501)
5. PRSOV TEMPERATURE TOPPING (BAD FATS OR FAMV)(FAMV/FATS ADJUSTMENT/TEST, AMM 36-11-16/501)
6. BLEED AIR CONTROL CARD OR ELECTRICAL CIRCUIT PROBLEMS.

FAULT ISOLATION:

1 USE THE INSTRUCTIONS ON THE AIR SUPPLY BITE MODULE.
KEEP A RECORD OF ALL THE FAULTS. 1 >
DID THE PROCEDURE SHOW A BAD COMPONENT?

YES → 41 REPLACE THE COMPONENT SHOWN.

NO → SEE SHEET 2 (BLOCK 2)

1 > DO NOT DO THE BITE PROCEDURE IF THE BITE MODULE IS PART NUMBER S210T120-47 (HAMILTON STANDARD [H/S] PART NUMBER 773461-9) OR LESS, GO TO BLOCK 2. IF THE BITE MODULE PART NUMBER IS S210T120-67 (H/S 804401-2) OR ABOVE, DO THE BITE PROCEDURE.

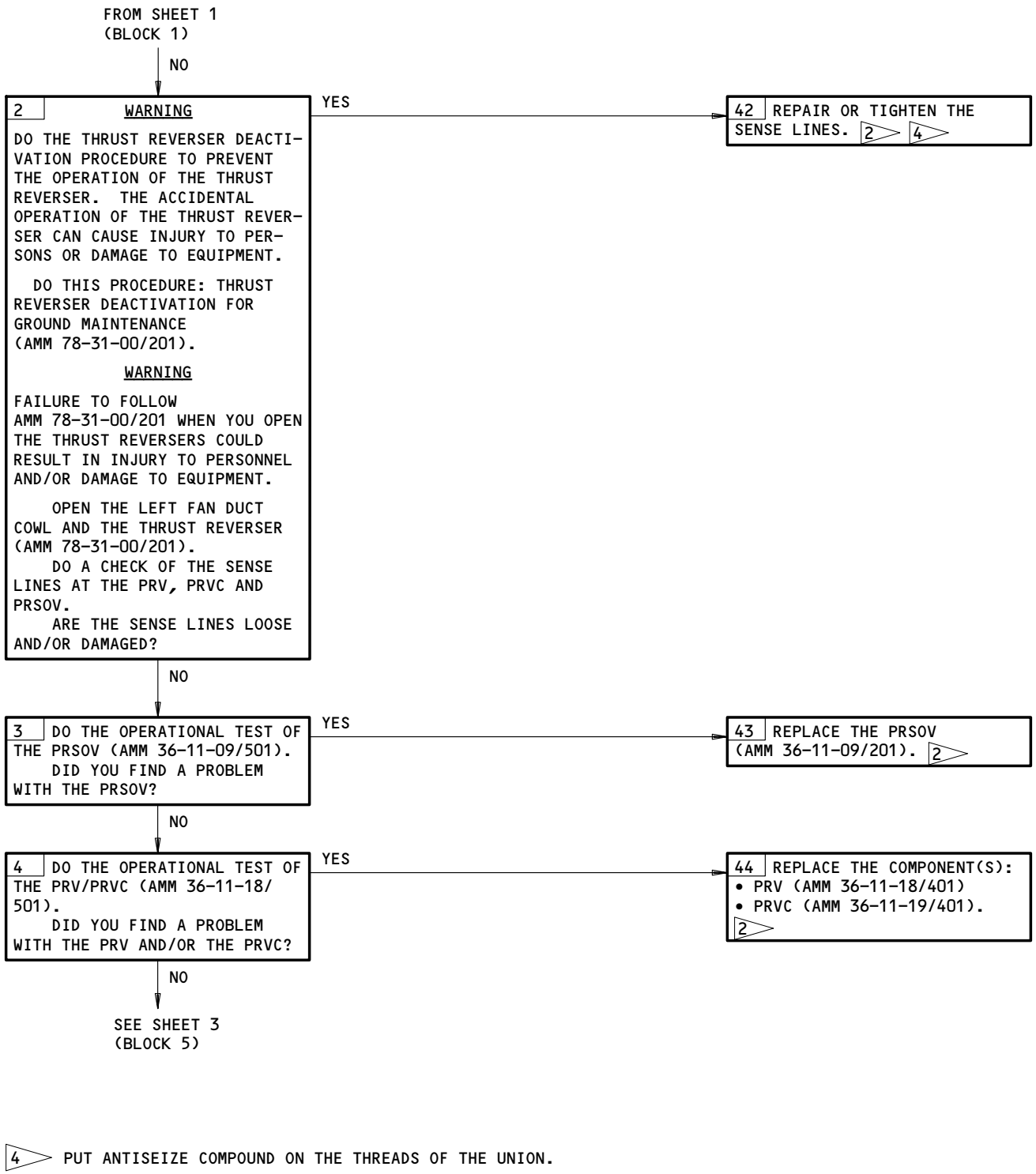
2 > WARNING: FAILURE TO FOLLOW AMM 78-31-00/201 WHEN YOU CLOSE THE THRUST REVERSERS COULD RESULT IN INJURY TO PERSONNEL AND/OR DAMAGE TO EQUIPMENT.

CLOSE THE LEFT FAN DUCT COWL AND THE THRUST REVERSER (AMM 78-31-00/201).

ACTIVATE THE THRUST REVERSERS (AMM 78-31-00/201).

3 > NOT INSTALLED ON ALL AIRPLANES

L (R) Eng Duct Pressure Low at Cruise Thrust or Takeoff
Figure 108 (Sheet 1)



4 PUT ANTISEIZE COMPOUND ON THE THREADS OF THE UNION.

L (R) Eng Duct Pressure Low at Cruise Thrust or Takeoff
Figure 108 (Sheet 2)

L (R) Eng Duct Pressure Low at Cruise Thrust or Takeoff
Figure 108 (Sheet 3)

PREREQUISITES

NONE

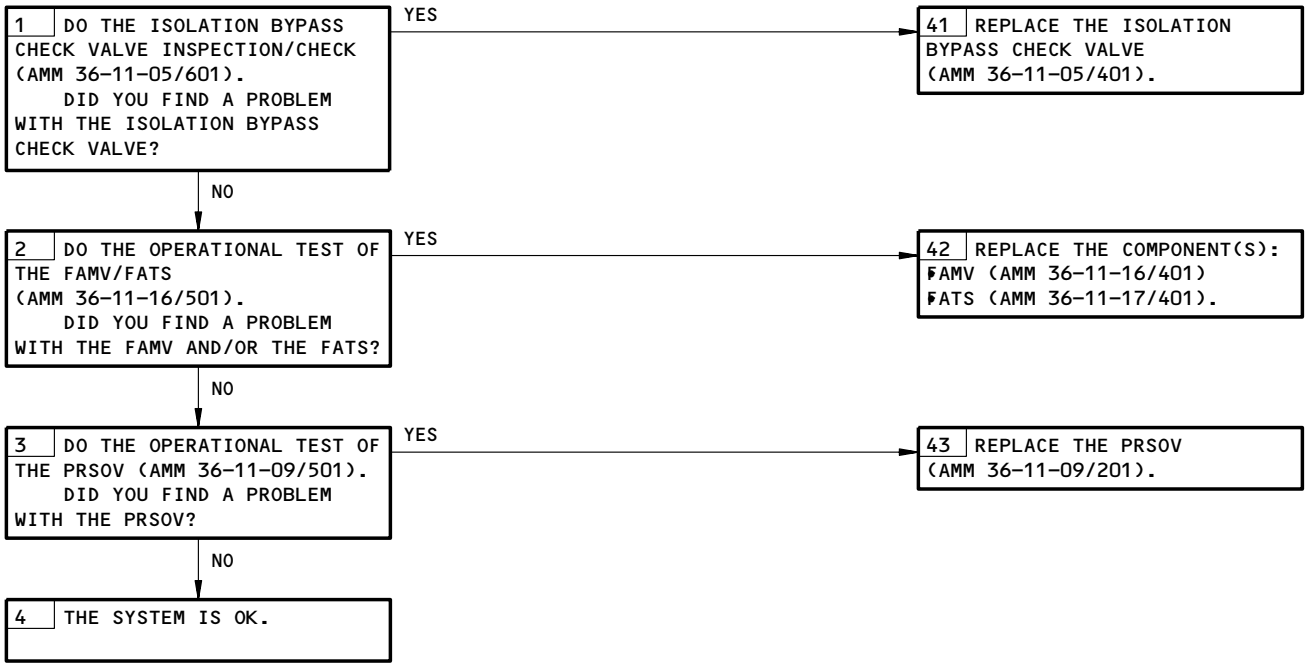
FLUCTUATING DUCT PRESSURE

NOTE: THIS CONDITION COULD OCCUR IF THERE IS NO DOWNSTREAM PNEUMATIC DEMAND, CAUSING THE PRSOV TO REGULATE CLOSED.

POSSIBLE CAUSES:

1. ISOLATION BYPASS CHECK VALVE FAILED OPEN.
2. PRSOV REGULATES CLOSED. NO DOWNSTREAM BLEED DEMAND.
3. BAD PRSOV (PRSOV NOT REGULATING CORRECTLY)(PRSOV ADJUSTMENT/TEST, AMM 36-11-09/501).
4. PRSOV TEMPERATURE TOPPING (BAD FATS OR FAMV)(FAMV/FATS ADJUSTMENT/TEST, AMM 36-11-16/501).
5. CLOGGED OR DIRTY AIR FILTER.

FAULT ISOLATION:



Fluctuating Duct Pressure
Figure 109

ENG DUCT PRESSURE WAS HIGH AT CRZ THRUST AND ABOVE. PRESSURE NORMAL AT LOW THRUST

PREREQUISITES

MAKE SURE THESE SYSTEMS WILL OPERATE:
EICAS (AMM 31-41-00/201)
PNEUMATIC POWER (AMM 36-00-00/201)

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED:
11S10,11S11,11S16,11S17,11S25,36L7

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

NOTE: THIS IS A MULTIPLE FAULT PROCEDURE.

1 PUSH THE LEFT,RIGHT, CENTER ISLN VAVLE SWITCH-LIGHTS ON THE P5 PANEL TO THE OPEN POSITION.
ON THE RIGHT SIDE P61 PANEL, PUSH THE ECS/MSG PUSH-BUTTON.
EXAMINE THE LEFT (RIGHT) EICAS INDICATION OF THE DUCT PRESSURE ON THE LOWER DISPLAY.
IS THE LEFT (RIGHT) EICAS INDICATION THE SAME AS THE LEFT (RIGHT) INDICATOR?

YES → 41 REPLACE THE LEFT (RIGHT) PRESSURE REGULATING AND SHUTOFF VALVE, V42 (V43) (AMM 36-11-09/201).
GO TO BLOCK 2.

NO → 42 REPLACE THE LEFT (RIGHT) DUCT PRESSURE TRANSDUCER, M1089 (M1088)(AMM 36-21-01/401).
IF THE PROBLEM CONTINUES, REPLACE THE DUCT PRESSURE INDICATOR, N122, ON THE P5 PANEL (AMM 36-21-02/401).

2 REMOVE PNEUMATIC POWER (AMM 36-00-00/201).

WARNING

DO THE THRUST REVERSER DEACTIVATION PROCEDURE TO PREVENT THE OPERATION OF THE THRUST REVERSER. THE ACCIDENTAL OPERATION OF THE THRUST REVERSER CAN CAUSE INJURY TO PERSONS OR DAMAGE TO EQUIPMENT.

DO THIS PROCEDURE: THRUST REVERSER DEACTIVATION FOR GROUND MAINTENANCE (FORWARD THRUST POSITION) (AMM 78-31-00/201).
OPEN THE APPLICABLE LEFT (RIGHT) ENGINE LEFT THRUST REVERSER (AMM 78-31-00/201).
LOOK AT THE SENSE LINE FROM THE ENGINE CASE TO THE HIGH PRESSURE CONTROLLER.
MAKE SURE THE CONNECTIONS ARE TIGHT AND THAT THE LINE IS NOT CRACKED AND DOES NOT HAVE A HOLE.
WAS THE SENSE LINE LOOSE, OR DOES IT HAVE A HOLE OR A CRACK?

YES → 43 TIGHTEN OR REPLACE THE SENSE LINE FROM THE ENGINE CASE TO THE HIGH PRESSURE CONTROLLER.
CLOSE THE LEFT THRUST REVERSER (AMM 78-31-00/201). 1

NO → 44 REPLACE THE APPLICABLE LEFT (RIGHT) HIGH PRESSURE CONTROLLER, M7191 (AMM 36-11-08/401). 1

1 DO THIS PROCEDURE: THRUST REVERSER ACTIVATION FOR GROUND MAINTENANCE (FORWARD THRUST POSITION)(AMM 78-31-00/201).

Eng Duct Pressure Was High At Crz Thrust and Above.
Pressure Normal At Low Thrust
Figure 110

PREREQUISITES

MAKE SURE THIS SYSTEM WILL OPERATE:
EICAS (AMM 31-41-00/201)

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED:
11S10,11S11,36L7

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

EQUIPMENT:
AIR SOURCE - LOW PRESSURE, 0-15 PSI, COMMERCIALLY AVAILABLE

CONSUMABLE MATERIALS:
ANTISEIZE COMPOUND, HIGH TEMPERATURE - BOSTIK, NEVER-SEEZ

EICAS MESSAGE "L (R) ENG HPSOV" DISPLAYED. LEFT (RIGHT) ENGINE "BLEED" LIGHT ILLUMINATED

DESCRIPTION:

THE HPSOV IS NOT CLOSED WHEN IT HAS BEEN COMMANDED CLOSED.

POSSIBLE CAUSES:

1. BAD HPSOV (HPSOV POSITION SWITCH CALIBRATION, THE HPSOV IS STUCK OPEN)(HPSOV/HPC ADJUSTMENT/TEST, AMM 36-11-07/501)
2. BAD HPC (THE PHH SWITCH IS OPEN)(HPSOV/HPC ADJUSTMENT/TEST, AMM 36-11-07/501)
3. OPEN WIRE TO THE HPSOV POSITION SWITCH OR TO THE HPC PHH SWITCH
4. BLEED AIR CONTROL CARD OR ELECTRICAL CIRCUIT PROBLEMS.

FAULT ISOLATION:

1

WARNING

DO THE THRUST REVERSER DEACTIVATION PROCEDURE TO PREVENT THE OPERATION OF THE THRUST REVERSER. THE ACCIDENTAL OPERATION OF THE THRUST REVERSER CAN CAUSE INJURY TO PERSONS OR DAMAGE TO EQUIPMENT.

DO THIS PROCEDURE: THRUST REVERSER DEACTIVATION FOR GROUND MAINTENANCE (AMM 78-31-00/201).

WARNING

FAILURE TO FOLLOW AMM 78-31-00/201 WHEN YOU OPEN THE THRUST REVERSERS COULD RESULT IN INJURY TO PERSONNEL AND/OR DAMAGE TO EQUIPMENT.

OPEN THE LEFT FAN DUCT COWL AND THE THRUST REVERSER (AMM 78-31-00/201).
LOOK AT THE VISUAL POSITION INDICATOR ON THE L (R) HIGH PRESSURE SHUTOFF VALVE (HPSOV), V347.
IS THE VALVE CLOSED?

NO → 40 REPLACE THE L (R) HPSOV, V347 (AMM 36-11-07/401). 1

YES

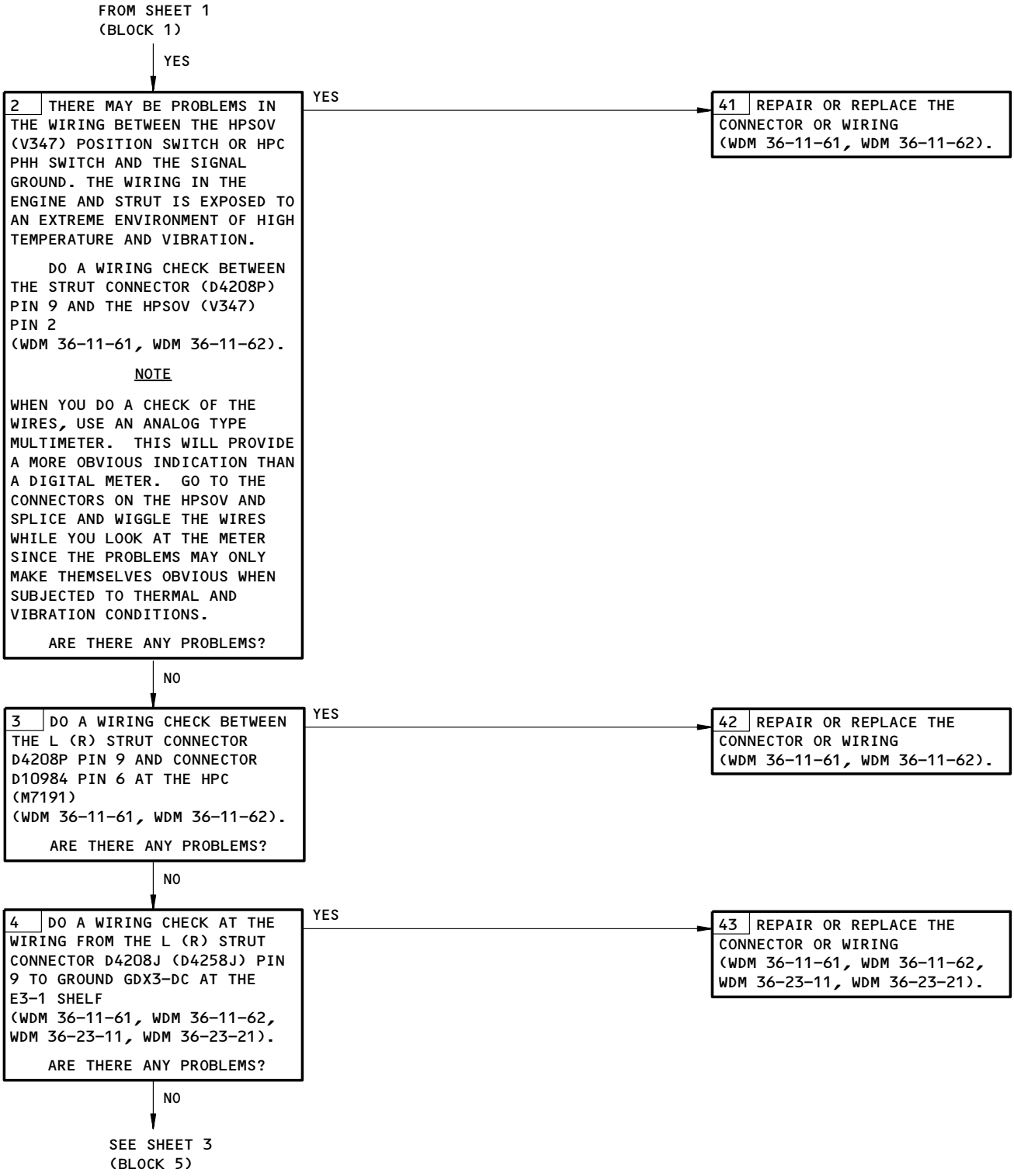
SEE SHEET 2
(BLOCK 2)

1 WARNING: FAILURE TO FOLLOW AMM 78-31-00/201 WHEN YOU CLOSE THE THRUST REVERSERS COULD RESULT IN INJURY TO PERSONNEL AND/OR DAMAGE TO EQUIPMENT.

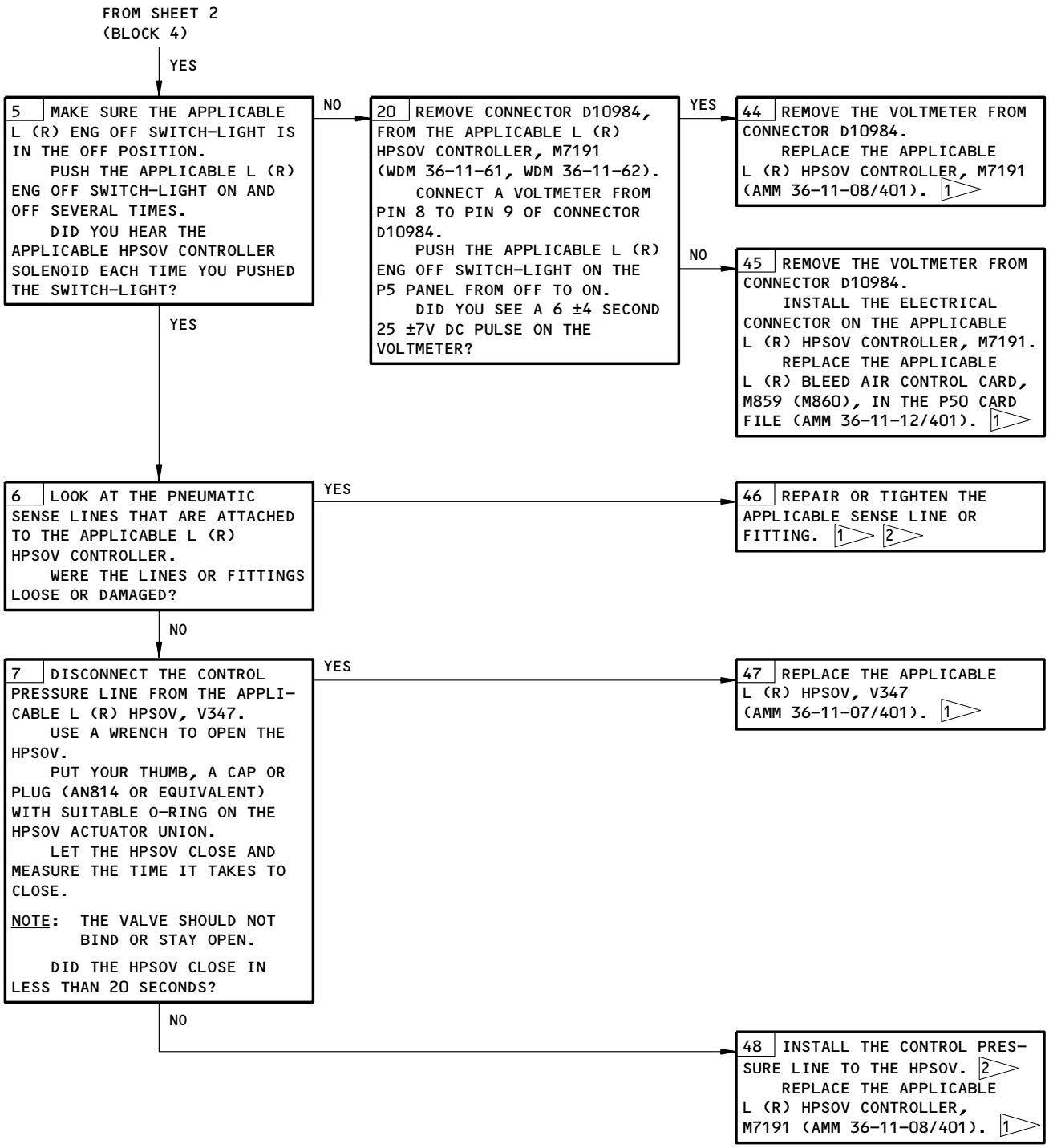
CLOSE THE LEFT FAN DUCT COWL AND THE THRUST REVERSER (AMM 78-31-00/201).

DO THIS PROCEDURE: THRUST REVERSERS ACTIVATION (AMM 78-31-00/201).

EICAS Message L (R) ENG HPSOV Displayed. L (R) BLEED Light Illuminated
Figure 111 (Sheet 1)



EICAS Message L (R) ENG HPSOV Displayed. L (R) BLEED Light Illuminated
Figure 111 (Sheet 2)



2 PUT THE ANTISEIZE COMPOUND ON THE THREADS OF THE NUT AND THE NIPPLE.

EICAS Message L (R) ENG HPSOV Displayed. L (R) BLEED Light Illuminated
Figure 111 (Sheet 3)

Not Used
Figure 112

EICAS MESSAGE "L (R) ENG BLD OVHT" DISPLAYED. LEFT (RIGHT) OVHT LIGHT ILLUMINATED

PREREQUISITES

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED:
11S10,11S11,36L7

MAKE SURE THE AIRPLANE IS IN THIS CONFIGURATION:
ELECTRICAL POWER IS ON (AMM 24-22-00/201)
PNEUMATIC DUCT PRESSURE IS ZERO (AMM 36-00-00/201)

CONSUMABLE MATERIALS:
ANTISEIZE COMPOUND, HIGH TEMPERATURE - BOSTIK, NEVER-SEEZ

DESCRIPTION:

AN OVERHEAT CONDITION (>490°F) HAS OCCURRED AND THE PRV IS CLOSED.

POSSIBLE CAUSES:

1. BAD FATS OR FAMV (FAMV/FATS ADJUSTMENT/TEST, AMM 36-11-16/501)
2. HPC SWITCHOVER OCCURS HIGH, JUST BELOW 127 PSI "BLEED" LIGHT INDICATION (HPSOV/HPC ADJUSTMENT/TEST, AMM 36-11-07/501)
3. BAD OVERTEMPERATURE SWITCH
4. STUCK OPEN CAI VALVE (ALLOWS HIGHER BLEED FLOW)
5. STUCK OPEN PRSOV (ALLOWS HIGHER BLEED FLOW)(PRSOV ADJUSTMENT/TEST, AMM 36-11-09/501)
6. OPEN WIRE TO THE OVERTEMPERATURE SWITCH
7. BLEED AIR CONTROL CARD OR ELECTRICAL CIRCUIT PROBLEMS.

FAULT ISOLATION:

1 WARNING

FAILURE TO DEACTIVATE THE THRUST REVERSERS FOR GROUND MAINTENANCE COULD RESULT IN ACCIDENTAL THRUST REVERSER OPERATION WITH POSSIBLE INJURY TO PERSONNEL AND/OR DAMAGE TO EQUIPMENT.

DEACTIVATE THE THRUST REVERSERS FOR GROUND MAINTENANCE (AMM 78-31-00/201).

WARNING

FAILURE TO FOLLOW AMM 78-31-00/201 WHEN YOU OPEN THE THRUST REVERSERS COULD RESULT IN INJURY TO PERSONNEL AND/OR DAMAGE TO EQUIPMENT.

OPEN BOTH OF THE FAN DUCT COWLS AND THE THRUST REVERSERS (AMM 78-31-00/201).

LOOK AT THE VISUAL POSITION INDICATOR ON THE HIGH PRESSURE SHUTOFF VALVE (HPSOV), V347.

IS THE VALVE CLOSED?

NO → 40 REPLACE THE L (R) HPSOV, V347 (AMM 36-11-07/401). 1

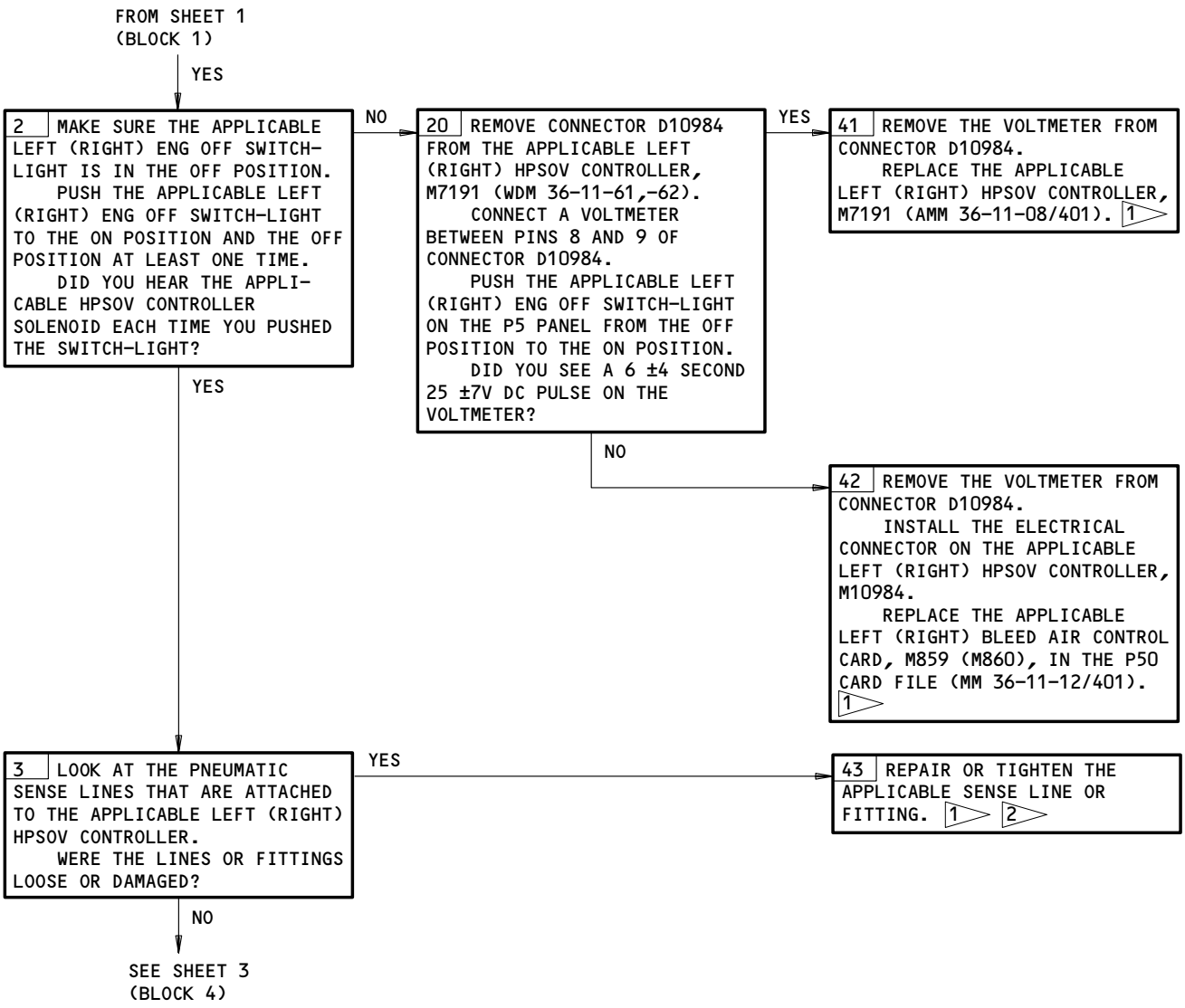
YES → SEE SHEET 2 (BLOCK 2)

1 WARNING: FAILURE TO FOLLOW AMM 78-31-00/201 WHEN YOU CLOSE THE THRUST REVERSERS COULD RESULT IN INJURY TO PERSONNEL AND/OR DAMAGE TO EQUIPMENT.

CLOSE THE LEFT FAN DUCT COWL AND THE THRUST REVERSER (AMM 78-31-00/201).

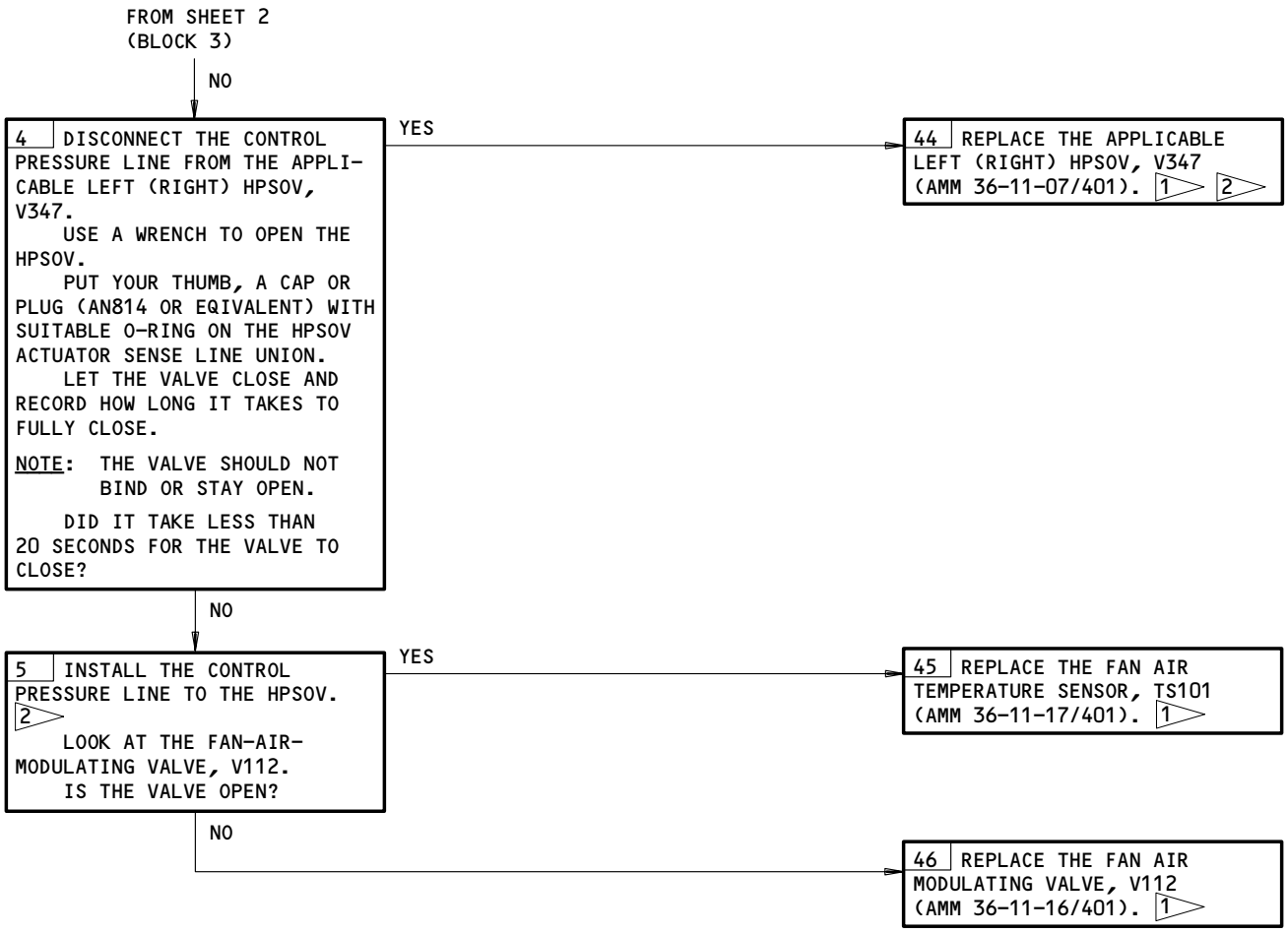
DO THIS PROCEDURE: THRUST REVERSERS ACTIVATION (AMM 78-31-00/201).

EICAS Message L (R) ENG BLD OVHT Displayed. Left (Right) OVHT Light Illuminated
Figure 113 (Sheet 1)



2 PUT ANTISEIZE COMPOUND ON THE THREADS OF THE NUT AND THE NIPPLE.

EICAS Message L (R) ENG BLD OVHT Displayed. Left (Right) OVHT Light Illuminated
Figure 113 (Sheet 2)



EICAS Message L (R) ENG BLD OVHT Displayed. Left (Right) OVHT Light Illuminated
Figure 113 (Sheet 3)

A29711

PREREQUISITES

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED:
11S10, 11S11, 36K7 OR 36L7

MAKE SURE THE AIRPLANE IS IN THIS CONFIGURATION:
ELECTRICAL POWER IS ON (AMM 24-22-00/201)
PNEUMATIC DUCT PRESSURE IS ZERO (AMM 36-00-00/201)

LEFT (RIGHT) ENGINE BLEED AIR VALVE "OFF" LIGHT ILLUMINATED WITH SWITCH "ON". DUCT PRESSURE NORMAL

NOTE: THE "ENG BLEED OFF" EICAS MESSAGE CAN APPEAR AND THE RELATED BLEED "OFF" LIGHT CAN COME ON DURING ENGINE OPERATION WITH THE PACKS OFF AND LITTLE OR NO DEMAND ON THE PNEUMATIC SYSTEM. THESE CONDITIONS ARE NORMAL.

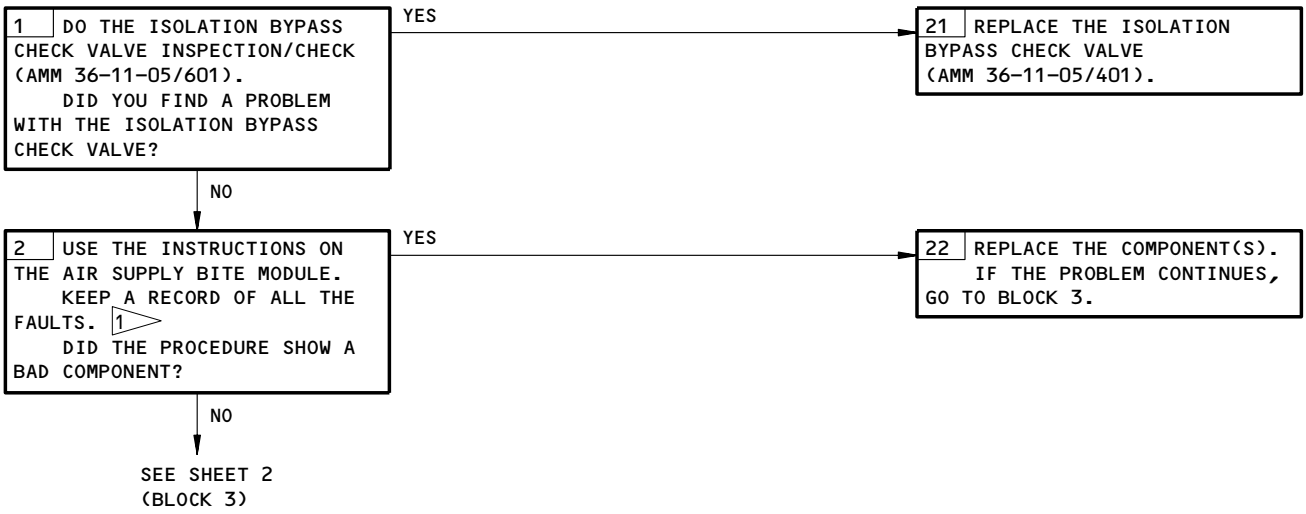
DESCRIPTION:

THE PRSOV IS CLOSED (OR ALMOST CLOSED) WITH THE ENGINE RUNNING.

POSSIBLE CAUSES:

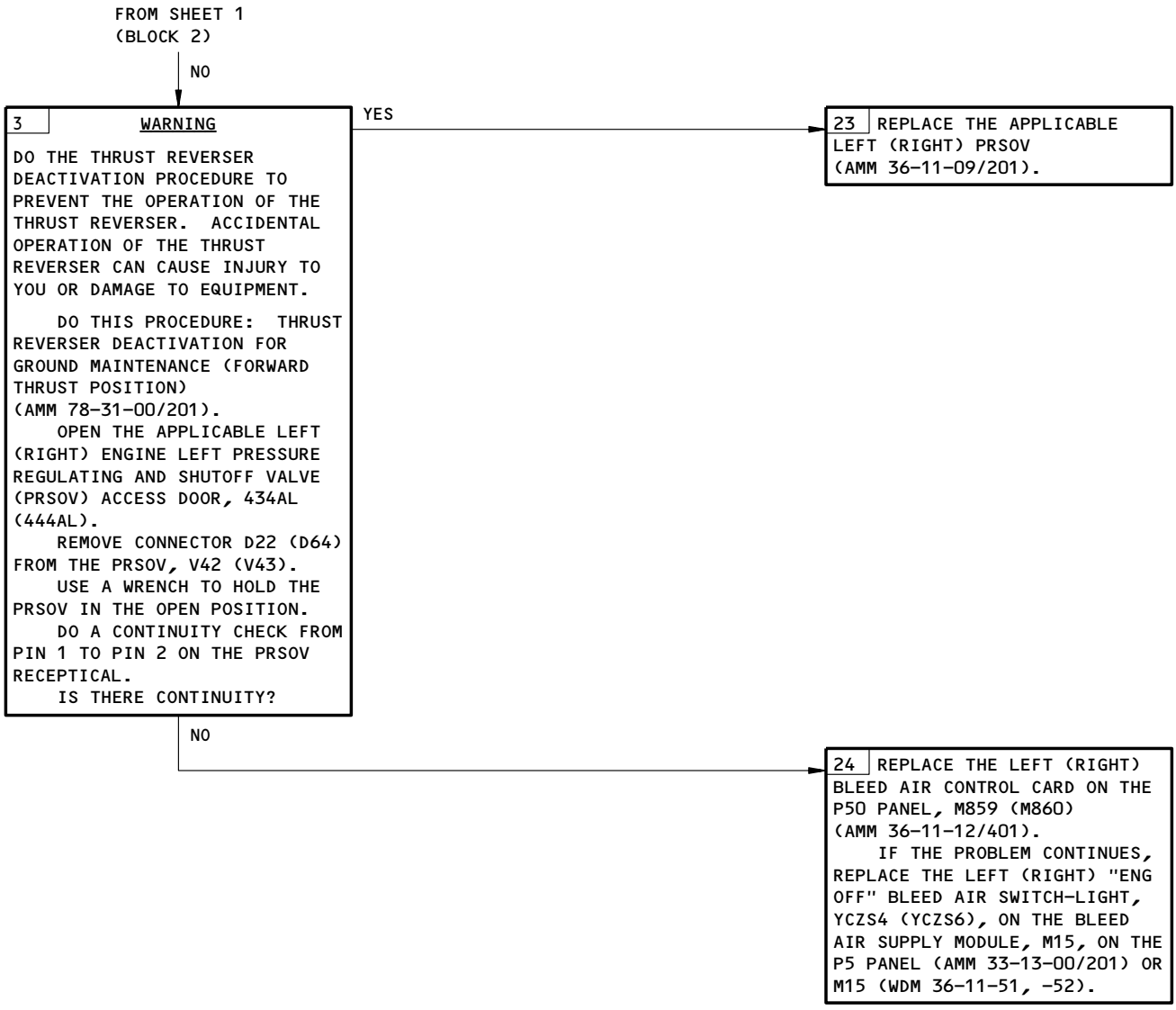
1. ISOLATION BYPASS CHECK VALVE FAILED OPEN.
2. PRSOV (AMM 36-11-09/501).
3. BLEED AIR CONTROL CARD OR ELECTRICAL CIRCUIT PROBLEMS.
4. L (R) ENG "OFF" SWITCH-LIGHT.

FAULT ISOLATION:



1 DO NOT DO THE BITE PROCEDURE IF THE BITE MODULE IS PART NUMBER S210T120-47 (HAMILTON STANDARD [H/S] PART NUMBER 773461-9) OR LESS, DO THE PROCEDURE IN BLOCK 3. IF THE BITE MODULE PART NUMBER IS S210T120-67 (H/S 804401-2) OR ABOVE, DO THE BITE PROCEDURE.

Left (Right) Engine Bleed Air Valve OFF Light Illuminated with Switch ON.
Duct Pressure Normal
Figure 114 (Sheet 1)



Left (Right) Engine Bleed Air Valve OFF Light Illuminated with Switch ON.
Duct Pressure Normal
Figure 114 (Sheet 2)

PREREQUISITES

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED:
11S10,11S11,36L7; 1 11N14,11N23

MAKE SURE THE AIRPLANE IS IN THIS CONFIGURATION:
ELECTRICAL POWER IS ON (AMM 24-22-00/201)
PNEUMATIC DUCT PRESSURE IS ZERO (AMM 36-00-00/201)

EQUIPMENT:
AIR SOURCE - LOW PRESSURE, 0-15 PSIG, COMMERCIALLY AVAILABLE

CONSUMABLE MATERIALS:
ANTISEIZE COMPOUND, HIGH TEMPERATURE - BOSTIK, NEVER-SEEZ

LEFT (RIGHT) ENG BLEED AIR VALVE "OFF" LIGHT ILLUMINATED WITH SWITCH "ON". DUCT PRESS ZERO.

NOTE: THE "ENG BLEED OFF" EICAS MESSAGE CAN APPEAR AND THE RELATED BLEED "OFF" LIGHT CAN COME ON DURING ENGINE OPERATION WITH THE PACKS OFF AND LITTLE OR NO DEMAND ON THE PNEUMATIC SYSTEM. THESE CONDITIONS ARE NORMAL.

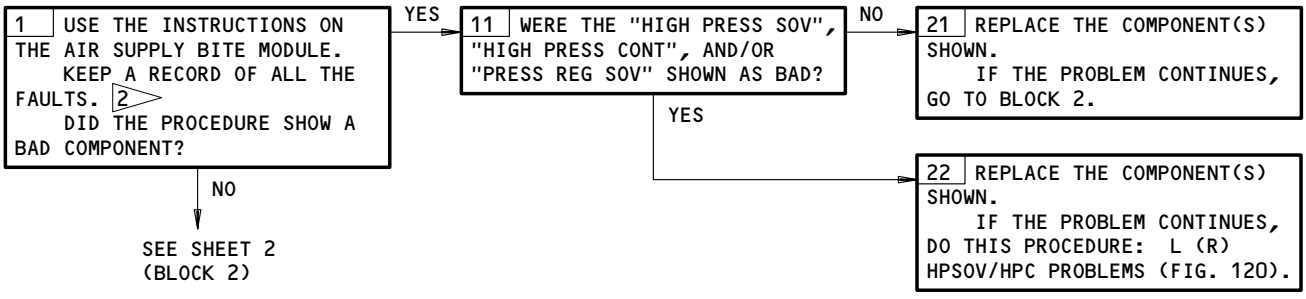
DESCRIPTION:

THE PRSOV IS CLOSED WITH THE ENGINE RUNNING.

POSSIBLE CAUSES:

1. LOOSE CONNECTOR AT THE PRVC OR PRSOV SOLENOID
2. PRSOV REGULATES CLOSED. NO DOWNSTREAM BLEED DEMAND
3. BAD PRVC (BAD SOLENOID)(PRV/PRVC ADJUSTMENT/TEST, AMM 36-11-18/501)
4. BAD PRV (THE PRV WILL NOT OPEN)(PRV/PRVC ADJUSTMENT/TEST, AMM 36-11-18/501)
5. BAD PRSOV (THE PRSOV WILL NOT OPEN)(PRSOV ADJUSTMENT/TEST, AMM 36-11-09/501)
6. PRSOV TEMPERATURE TOPPING (BAD FATS OR FAMV)(FAMV/FATS ADJUSTMENT/TEST, AMM 36-11-16/501)
7. OPEN WIRE TO THE PRVC OR PRSOV SOLENOIDS
8. BLEED AIR CONTROL CARD OR ELECTRICAL CIRCUIT PROBLEMS.

FAULT ISOLATION:



1 NOT INSTALLED ON ALL AIRPLANES

2 DO NOT DO THE BITE PROCEDURE IF THE BITE MODULE IS PART NUMBER S210T120-47 (HAMILTON STANDARD [H/S] PART NUMBER 773461-9) OR LESS, GO TO BLOCK 2. IF THE BITE MODULE PART NUMBER IS S210T120-67 (H/S 804401-2) OR ABOVE, DO THE BITE PROCEDURE.

Left (Right) Engine Bleed Air Valve OFF Light Illuminated with Switch ON.
Duct Pressure Zero.
Figure 115 (Sheet 1)

FROM SHEET 1
(BLOCK 1)

NO

2 DISCONNECT THE L (R) CONNECTOR D1316 (D1348) FROM THE BLEED AIR SUPPLY MODULE, M15, ON THE P5 PANEL.
DO A CHECK FOR GND AT THE LEFT CONNECTOR, PIN 11 (RIGHT CONNECTOR, PIN 13) (WDM 36-11-51,-52).
IS THERE GND?

YES → 12 WITH THE L (R) ENG OFF SWITCH/LIGHT SELECTED ON, DO A CONTINUITY CHECK FROM PIN 10 TO PIN 11 ON THE LEFT RECEPTACLE (PIN 12 TO PIN 13 ON THE RIGHT RECEPTACLE).
IS THERE CONTINUITY?

NO → 23 REPLACE THE L (R) ENG OFF SWITCH/LIGHT, YCZS4 (YCZS6), ON THE BLEED AIR SUPPLY MODULE, M15, ON THE P5 PANEL (AMM 33-13-00/201) OR M15 (WDM 36-11-51,-52).
MAKE SURE THE "OFF" LIGHT COMES ON.

NO

SEE SHEET 4
(BLOCK 30)

YES

13 DO A CHECK FOR A LOOSE CONNECTOR ON THE PRVC AND PRSOV.
IS THE CONNECTOR LOOSE?

YES → 24 TIGHTEN THE CONNECTOR.

NO

14 CONNECT THE LEFT (RIGHT) CONNECTOR TO THE L (R) PRSOV, CONNECTOR D1316 (D1348) TO THE BLEED AIR SUPPLY MODULE, M15, ON THE P5 PANEL.
DISCONNECT CONNECTOR D22 (D64) FROM THE L (R) PRESSURE REGULATING AND SHUTOFF VALVE, V42 (V43).
PUSH THE L (R) ENG OFF SWITCH/LIGHT ON THE P5 PANEL TO THE "OFF" POSITION.
CONNECT A VOLTMETER FROM PIN 6 TO PIN 7 OF CONNECTOR D22 (D64).
PUSH THE L (R) ENGINE OFF SWITCH/LIGHT TO THE "ON" POSITION.
DO A CHECK FOR 6 ±4 SECOND 25 ±7V DC PULSE.
DID THE PULSE SHOW?

NO → 25 DISCONNECT THE VOLTMETER FROM CONNECTOR D22 (D64).
DO A CONTINUITY CHECK TO THE PRSOV.
REPAIR THE WIRING (WDM 36-11-41,-51,-52).
INSTALL THE CONNECTOR.
IF NO WIRING PROBLEMS WERE FOUND, REPLACE THE L (R) BLEED AIR CONTROL CARD, M859 (M860), IN THE P50 CARD FILE (AMM 36-11-12/401).

YES

SEE SHEET 3
(BLOCK 15)

3 WARNING: FAILURE TO FOLLOW AMM 78-31-00/201 WHEN YOU CLOSE THE THRUST REVERSERS COULD RESULT IN INJURY TO PERSONNEL AND/OR DAMAGE TO EQUIPMENT.

CLOSE THE FAN DUCT COWL AND THRUST REVERSERS (AMM 78-31-00/201).

DO THIS PROCEDURE: THRUST REVERSERS ACTIVATION (AMM 78-31-00/201).

Left (Right) Engine Bleed Air Valve OFF Light Illuminated with Switch ON.
Duct Pressure Zero.
Figure 115 (Sheet 2)

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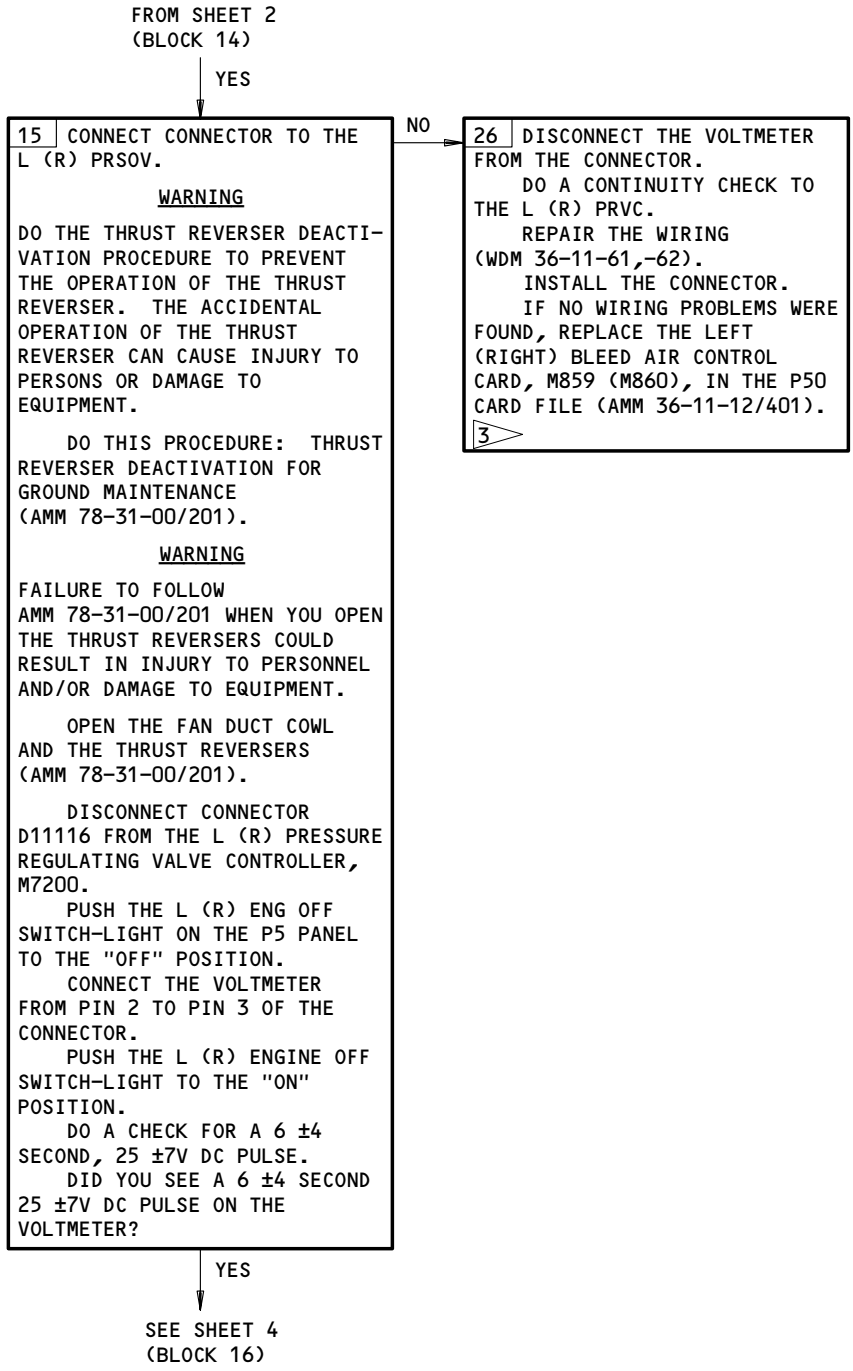
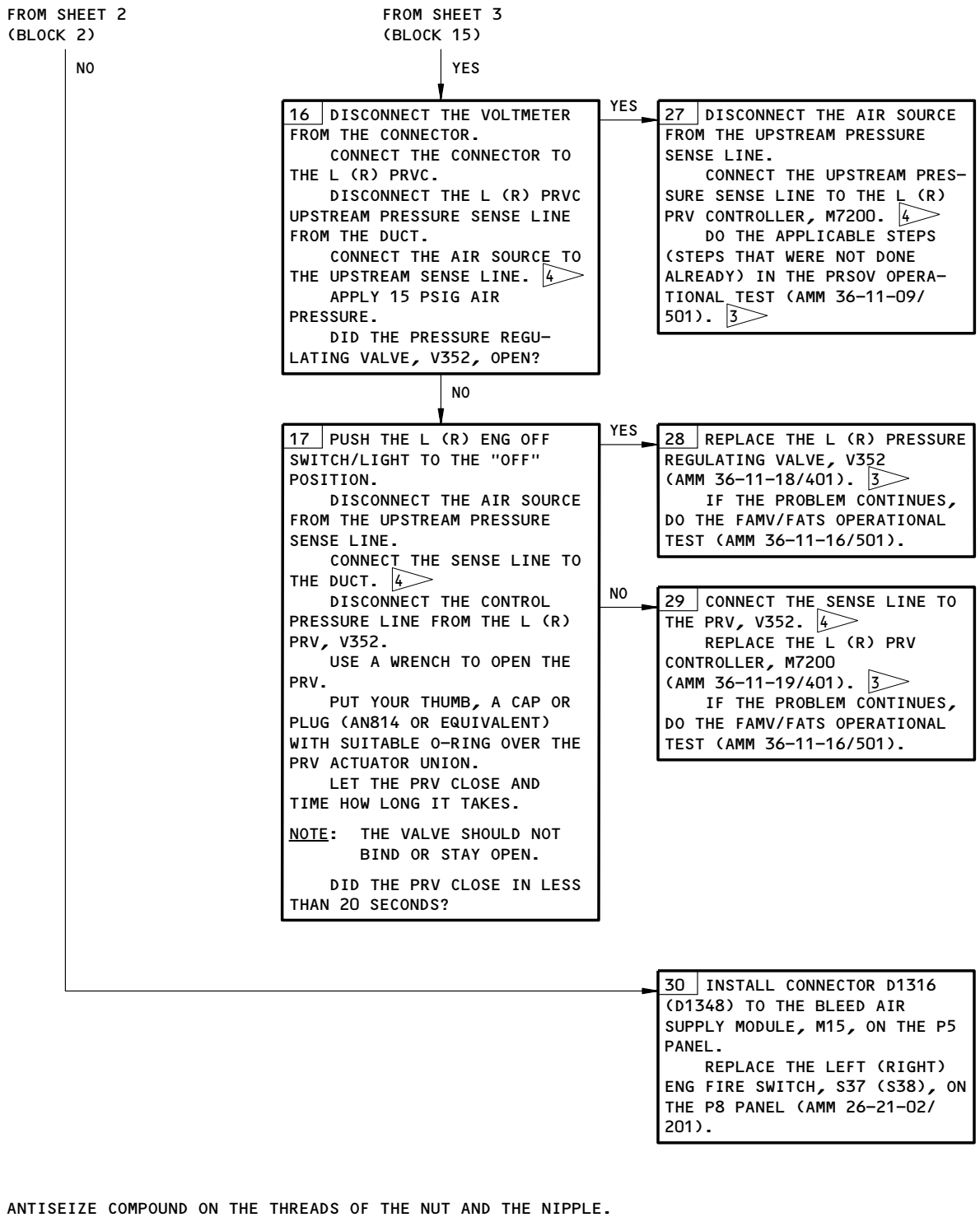


Left (Right) Engine Bleed Air Valve OFF Light Illuminated with Switch ON.
Duct Pressure Zero.
Figure 115 (Sheet 3)



Left (Right) Engine Bleed Air Valve OFF Light Illuminated with Switch ON.
Duct Pressure Zero.
Figure 115 (Sheet 4)

PREREQUISITES

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED:
11S10,11S11,11S19,11S20,36L7; 2 >11N14,11N23

MAKE SURE THE AIRPLANE IS IN THIS CONFIGURATION:
ELECTRICAL POWER IS ON (AMM 24-22-00/201)
PNEUMATIC DUCT PRESSURE IS ZERO (AMM 36-00-00/201)

EQUIPMENT:
AIR SOURCE - LOW PRESSURE, 0-15 PSIG, COMMERCIALLY AVAILABLE

CONSUMABLE MATERIALS:
ANTISEIZE COMPOUND, HIGH TEMPERATURE - BOSTIK, NEVER-SEEZ

L (R) ENG BLEED AIR VLV "OFF" LGT ILLUM WITH SW ON, ENG AT LOW POWER. "OFF" LGT EXTINGUISHED ABOVE 41 PERCENT N1

NOTE: THE "ENG BLEED OFF" EICAS MESSAGE CAN APPEAR AND THE RELATED BLEED "OFF" LIGHT CAN COME ON DURING ENGINE OPERATION WITH THE PACKS OFF AND LITTLE OR NO DEMAND ON THE PNEUMATIC SYSTEM. THESE CONDITIONS ARE NORMAL.

DESCRIPTION:

THE PRSOV IS CLOSED WITH THE ENGINE RUNNING.

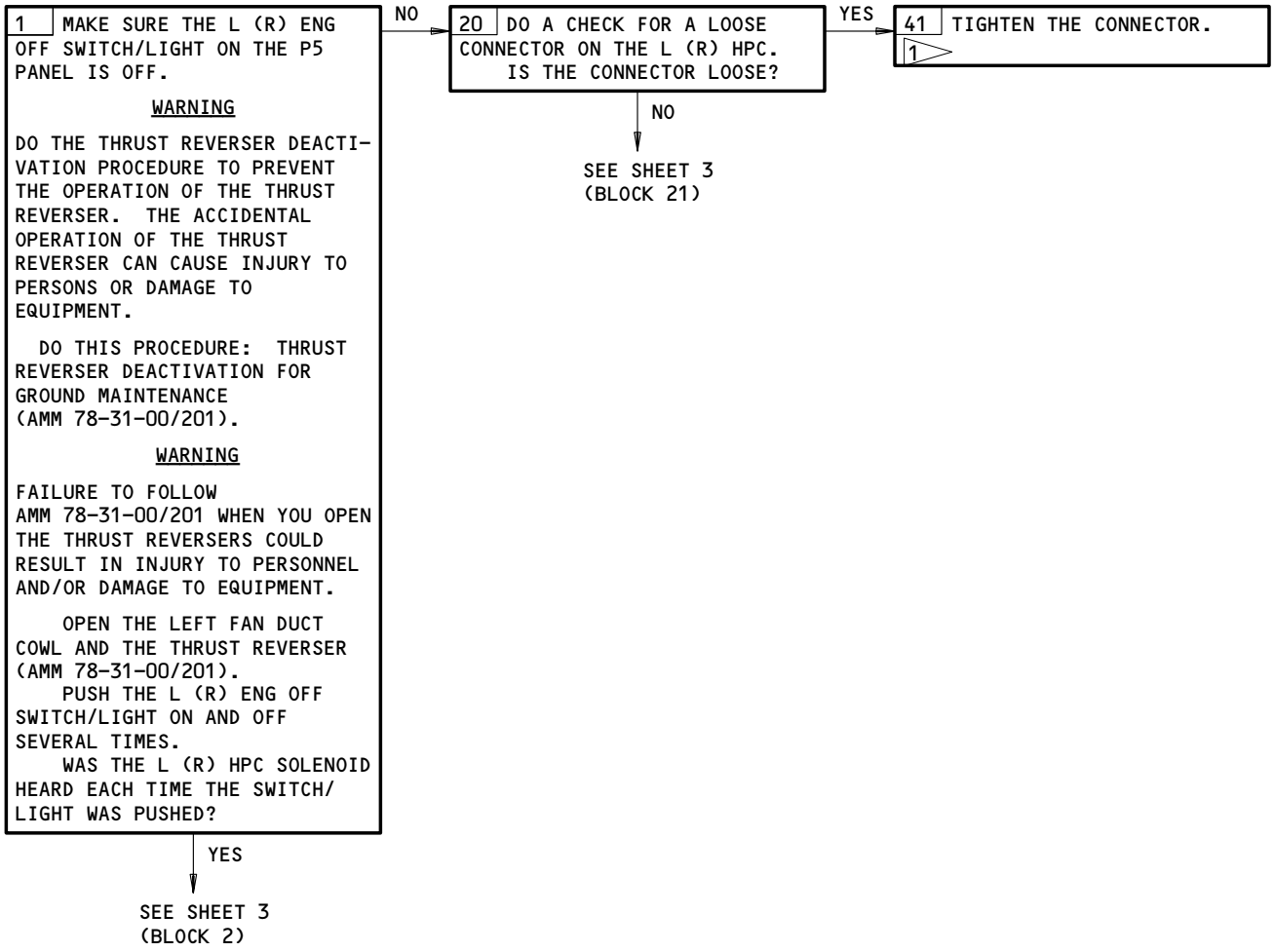
POSSIBLE CAUSES:

1. LOOSE CONNECTOR AT THE PRVC, HPC, OR PRSOV SOLENOID
2. LOOSE B-NUT CONNECTIONS FOR THE PRESSURE SENSE LINES AT THE PRV, PRVC, HPSOV, HPC, OR PRSOV
3. PRSOV REGULATES CLOSED. NO DOWNSTREAM BLEED DEMAND
4. BAD PRVC (BAD SOLENOID)(PRV/PRVC ADJUSTMENT/TEST, AMM 36-11-18/501)
5. BAD HPC (BAD SOLENOID)(HPSOV/HPC ADJUSTMENT/TEST, AMM 36-11-07/501)
6. BAD PRV (THE PRV WILL NOT OPEN)(PRV/PRVC ADJUSTMENT/TEST, AMM 36-11-18/501)
7. BAD HPSOV (THE HPSOV WILL NOT OPEN)(HPSOV/HPC ADJUSTMENT/TEST, AMM 36-11-07/501)
8. BAD PRSOV (THE PRSOV WILL NOT OPEN)(PRSOV ADJUSTMENT/TEST, AMM 36-11-09/501)
9. OPEN WIRE TO THE PRVC, HPC, OR PRSOV SOLENOIDS
10. BLEED AIR CONTROL CARD OR ELECTRICAL CIRCUIT PROBLEMS.

FAULT ISOLATION:

2 > NOT INSTALLED ON ALL AIRPLANES

L (R) Eng Bleed Air Vlv OFF Lgt Illum with Sw On, Eng at Low Power. OFF Lgt Extinguished Above 41 Percent N1
Figure 116 (Sheet 1)

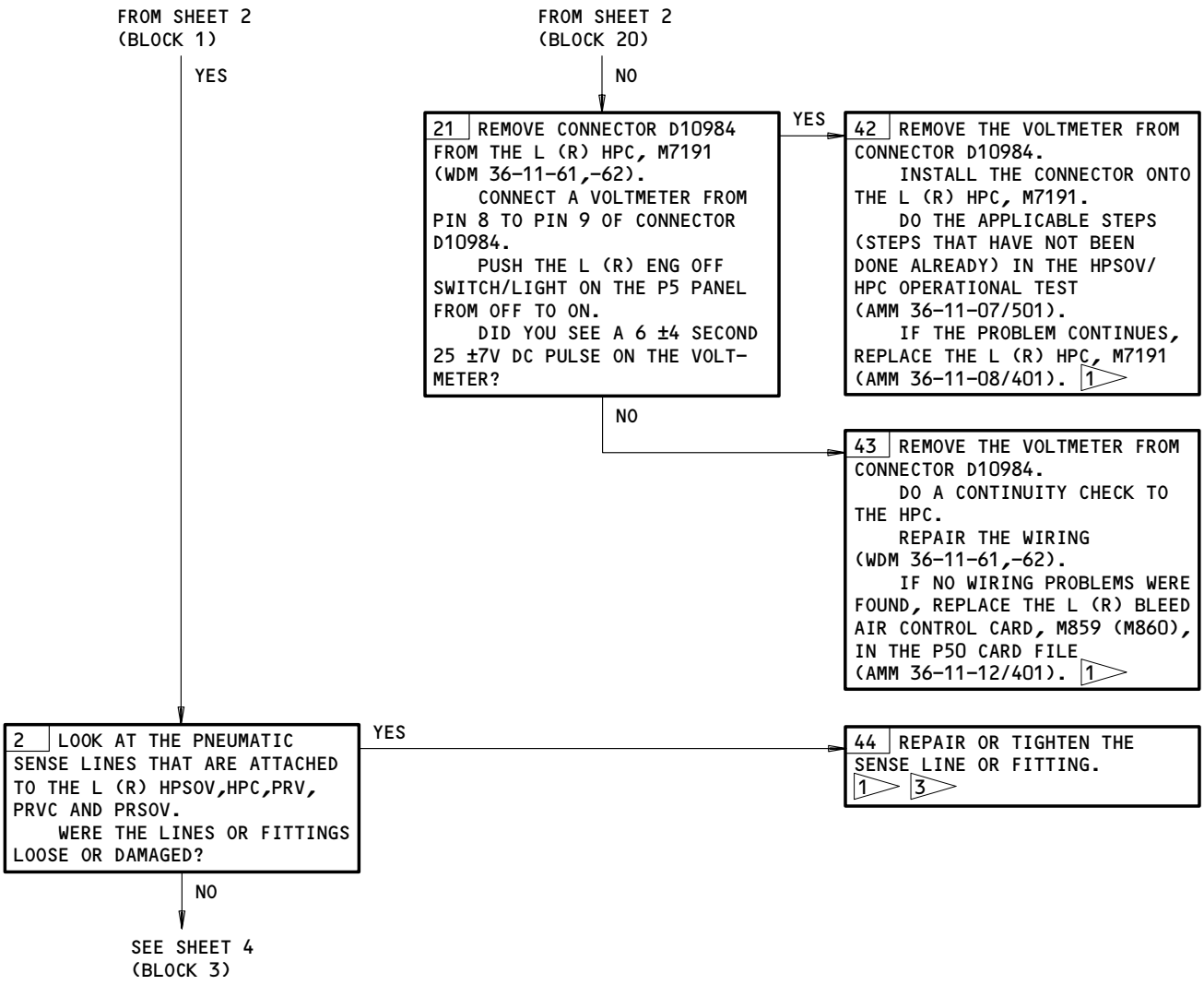


1 WARNING: FAILURE TO FOLLOW AMM 78-31-00/201 WHEN YOU CLOSE THE THRUST REVERSERS COULD RESULT IN INJURY TO PERSONNEL AND/OR DAMAGE TO EQUIPMENT.

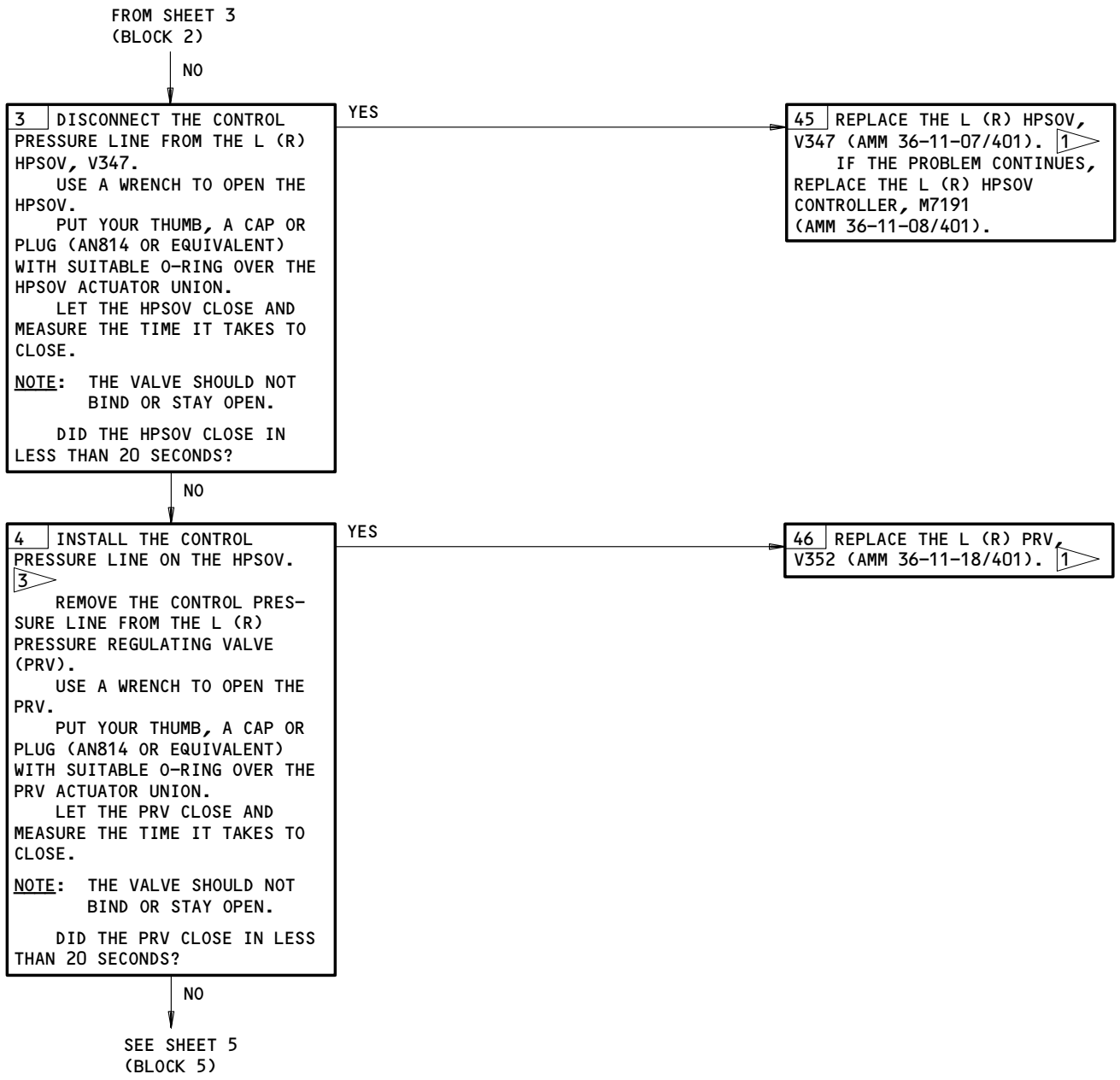
CLOSE THE LEFT FAN DUCT COWL AND THE THRUST REVERSER (AMM 78-31-00/201).

DO THIS PROCEDURE: THRUST REVERSERS ACTIVATION (AMM 78-31-00/201).

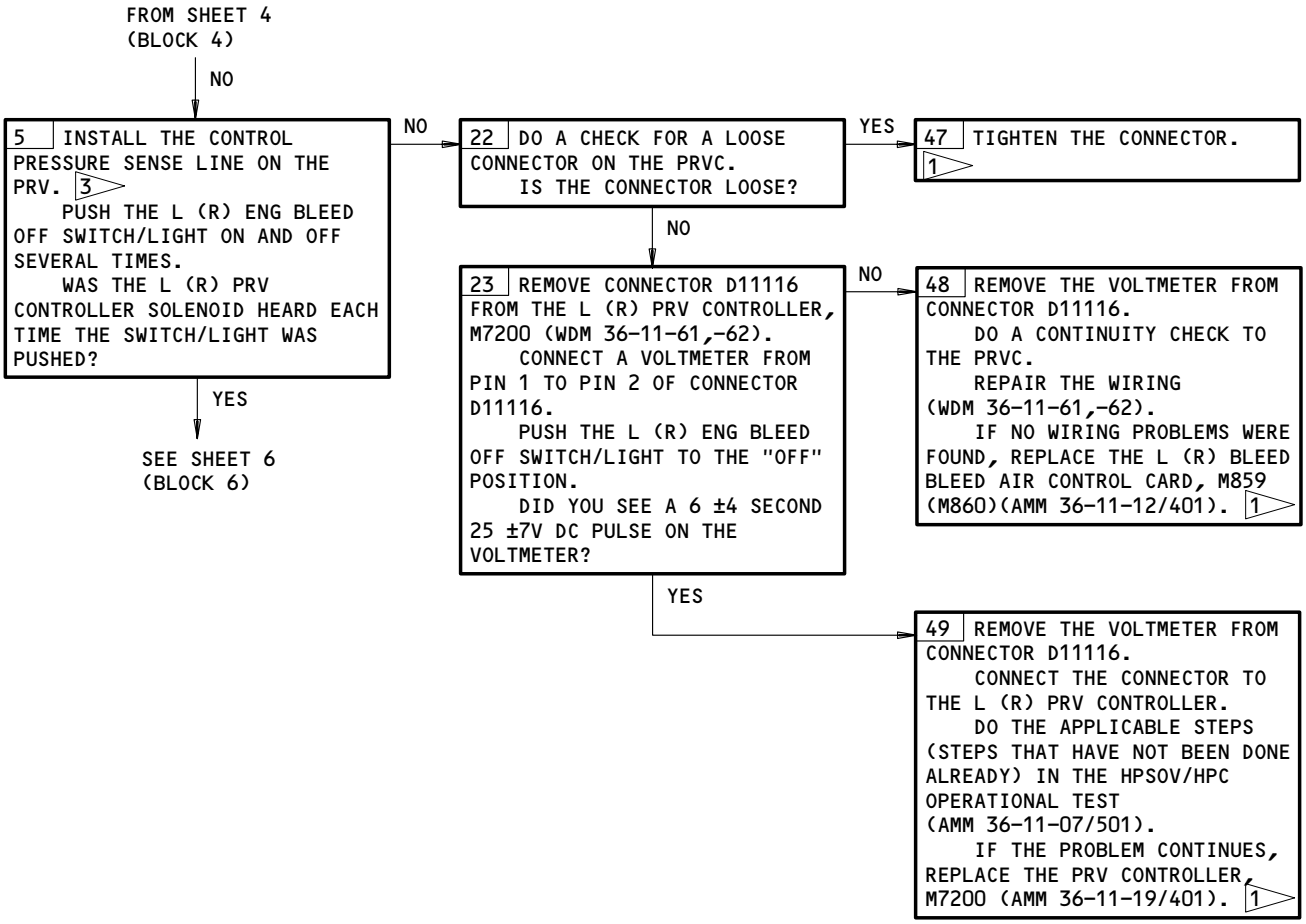
L (R) Eng Bleed Air Vlv OFF Lgt Illum with Sw On, Eng at Low Power. OFF Lgt Extinguished Above 41 Percent N1
Figure 116 (Sheet 2)



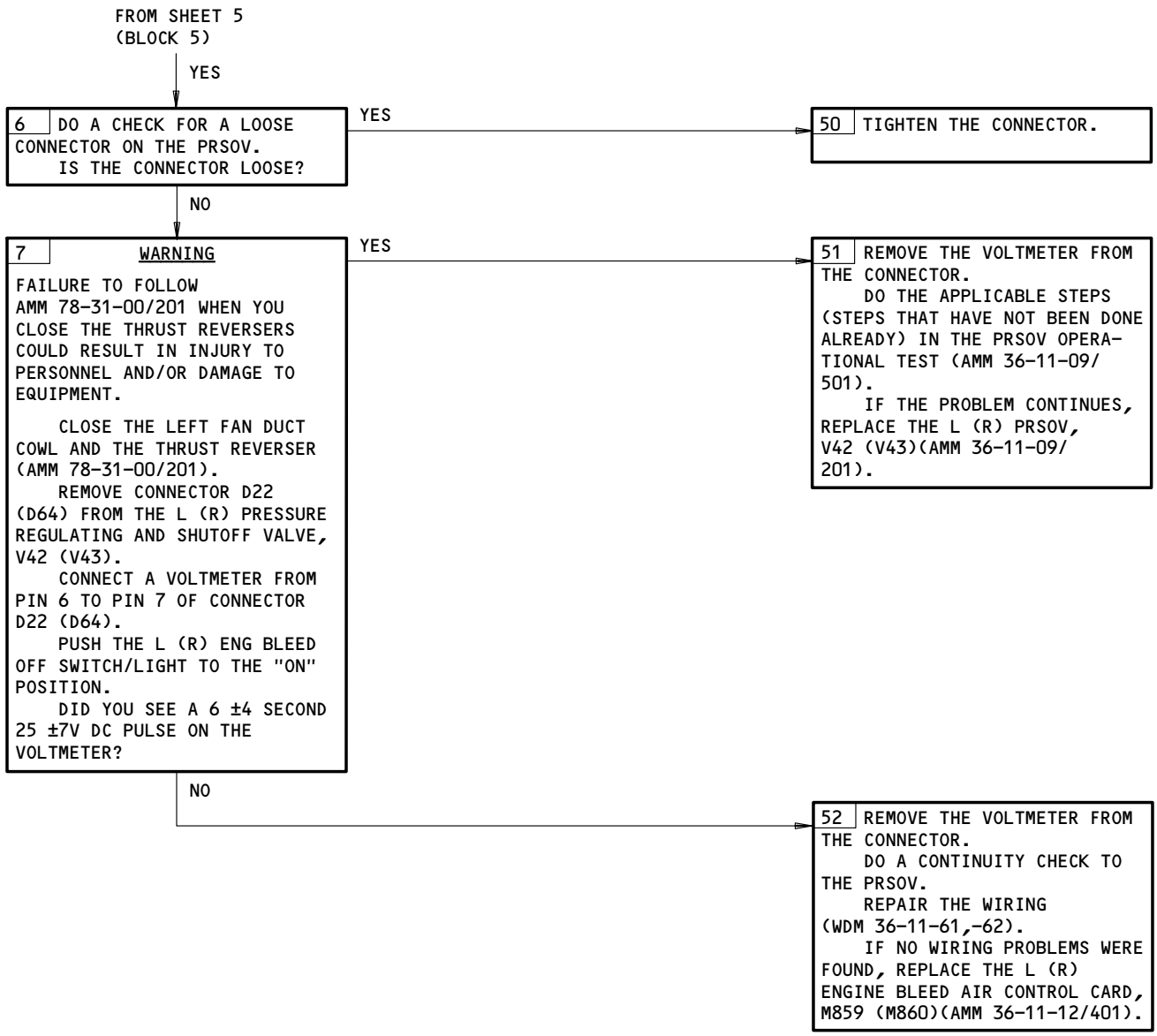
L (R) Eng Bleed Air Vlv OFF Lgt Illum with Sw On, Eng at Low Power. OFF Lgt Extinguished Above 41 Percent N1
Figure 116 (Sheet 3)



L (R) Eng Bleed Air Vlv OFF Lgt Illum with Sw On, Eng at Low Power. OFF Lgt Extinguished Above 41 Percent N1
Figure 116 (Sheet 4)



L (R) Eng Bleed Air Vlv OFF Lgt Illum with Sw On, Eng at Low Power. OFF Lgt Extinguished Above 41 Percent N1
Figure 116 (Sheet 5)



L (R) Eng Bleed Air Vlv OFF Lgt Illum with Sw On, Eng at Low Power. OFF Lgt Extinguished Above 41 Percent N1
Figure 116 (Sheet 6)

BOTH LEFT AND RIGHT DUCT PRESSURE ZERO WITH APU RUNNING, BLEED AIR SW ON, ISLN VALVES OPEN. ENGINE BLEED AIR VALVES INDICATING CLOSED

PREREQUISITES

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED:
11S14,11S15,11S23,11S24

MAKE SURE THE AIRPLANE IS IN THIS CONFIGURATION:
ELECTRICAL POWER IS ON (AMM 24-22-00/201)
PNEUMATIC PRESSURE ZERO (AMM 36-00-00/201)

POSSIBLE CAUSES:

1. CENTER ISOLATION VALVE
2. APU SHUTOFF VALVE
3. APU CHECK VALVE
4. ELECTRICAL CIRCUIT.

FAULT ISOLATION:

1 PUSH THE C ISLN VALVE SWITCH-LIGHT TO THE OPEN POSITION ON THE P5 PANEL.
MAKE SURE THE ISLN VALVE, V46, IS OPEN.
IS THE VALVE OPEN?

NO → 41 REPLACE THE CENTER ISLN VALVE, V46 (AMM 36-11-04/401).

YES ↓

2 PUSH THE APU VALVE SWITCH-LIGHT TO THE OPEN POSITION ON THE P5 PANEL.
MAKE SURE THE APU AIR SUPPLY SHUTOFF VALVE, V47, IS OPEN.
IS THE VALVE OPEN?

NO → 21 DISCONNECT CONNECTOR D560 FROM THE APU AIR SUPPLY SHUTOFF VALVE, V47 (WDM 36-11-41).
DO A CHECK FOR 115V AC POWER FROM THE CONNECTOR, PIN 1, TO GROUND.
DID YOU SEE 115V AC?

YES → 42 REPLACE THE APU AIR SUPPLY SHUTOFF VALVE, V47 (AMM 36-11-10/401).

NO → 43 CONNECT CONNECTOR D560 TO THE APU AIR SUPPLY SHUTOFF VALVE, V47.
REPLACE THE APU AIR SUPPLY VALVE CONTROL RELAY, K23, ON THE P49 PANEL (WDM 36-11-41).

YES → 44 REPLACE THE APU AIR SUPPLY CHECK VALVE (AMM 36-11-11/401).

Both Left and Right Duct Press Zero with APU Running, Bleed Air Switch ON, ISLN Valves Open. Engine Bleed Air Valves Indicating Closed
Figure 117

PNEUMATIC PRESSURE DROP EXCESSIVE WHEN USING APU BLEED AIR FOR ENGINE START

PREREQUISITES

MAKE SURE THIS CIRCUIT BREAKER IS CLOSED:
36L7

MAKE SURE THE AIRPLANE IS IN THIS CONFIGURATION:
ELECTRONIC POWER IS ON (AMM 24-22-00/201)
PNEUMATIC PRESSURE IS ZERO (AMM 36-00-00/201)

POSSIBLE CAUSES:

1. WING ANTI-ICE IS ON
2. PRSOV (AMM 36-11-09/201)
3. BLEED AIR CONTROL CARD (AMM 36-11-12/401)
4. PRSOV AIR FILTERS (AMM 36-11-09/201)
5. ELECTRICAL CIRCUIT.

FAULT ISOLATION:

1 MAKE SURE THAT THE WING ANTI-ICE SWITCH-LIGHT, S3, ON THE P5 PANEL IS IN THE OFF POSITION.
WAS SWITCH-LIGHT IN THE OFF POSITION?

NO → 21 PLACE THE WING ANTI-ICE SWITCH-LIGHT IN THE OFF POSITION.

YES ↓

2 DO THIS PROCEDURE: AIR SUPPLY BITE PROCEDURE (FIM 36-20-00/101, FIG. 104).
2
DID THE PROCEDURE SHOW A FAULTY COMPONENT?

YES → 22 REPLACE OR REPAIR THE COMPONENT(S).

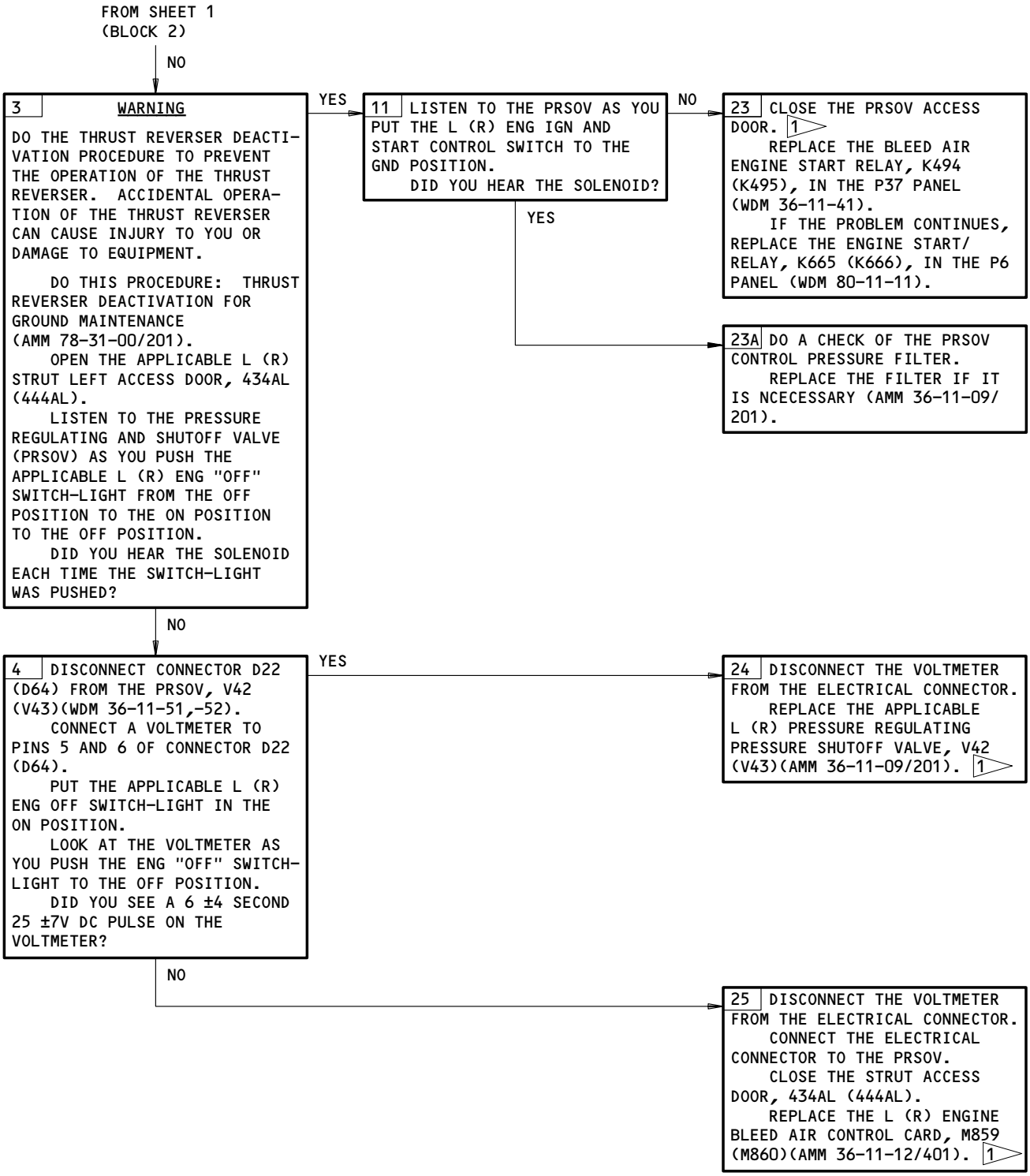
NO ↓

SEE SHEET 2
(BLOCK 3)

1 DO THIS PROCEDURE: THRUST REVERSER ACTIVATION (FORWARD THRUST POSITION)(AMM 78-31-00/201).

2 DO NOT DO THE BITE PROCEDURE IF THE BITE MODULE IS PART NUMBER S210T120-47 (HAMILTON STANDARD [H/S] PART NUMBER 773461-9) OR LESS.
IF THE BITE MODULE PART NUMBER IS S210T120-57 (H/S 773461-10) OR ABOVE, DO THE BITE PROCEDURE.

Pneumatic Pressure Drop Excessive When Using APU Bleed Air for Engine Starting
Figure 118 (Sheet 1)



Pneumatic Pressure Drop Excessive When Using APU Bleed Air for Engine Starting
Figure 118 (Sheet 2)

PNEUMATIC PRESSURE DROPS EXCESSIVE/ FLUCTUATES WHEN USING APU BLEED AIR FOR ANY AIR LOAD.

PREREQUISITES

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED:
11S10,11S11,36L7

MAKE SURE THE AIRPLANE IS IN THIS CONFIGURATION:
ELECTRICAL POWER IS ON (AMM 24-22-00/201)
PNEUMATIC DUCT PRESSURE IS ZERO (AMM 36-00-00/201)

POSSIBLE CAUSES:

1. WING ANTI-ICE IS ON
2. PRSOV
3. APU PROBLEMS.

FAULT ISOLATION:

1 MAKE SURE THAT THE WING ANTI-ICE SWITCH-LIGHT, S3, ON THE P5 PANEL IS IN THE OFF POSITION.
WAS SWITCH-LIGHT IN THE OFF POSITION?

NO → 31 PUT THE WING ANTI-ICE SWITCH-LIGHT IN THE OFF POSITION.
IF THE PROBLEM CONTINUES, GO TO BLOCK 2.

YES ↓

2 DO THIS PROCEDURE: AIR SUPPLY BITE PROCEDURE (FIM 36-20-00/101, FIG. 104).
2
DID THE PROCEDURE SHOW A BAD COMPONENT?

YES → 32 REPLACE THE COMPONENT.
IF THE PROBLEM CONTINUES, GO TO BLOCK 3.

NO ↓

SEE SHEET 2
(BLOCK 3)

1 DO THIS PROCEDURE: THRUST REVERSERS ACTIVATION (AMM 78-31-00/201)

2 DO NOT DO THE BITE PROCEDURE IF THE BITE MODULE IS PART NUMBER S210T120-47 (HAMILTON STANDARD [H/S] PART NUMBER 773461-9) OR LESS, GO TO BLOCK 3. IF THE BITE MODULE PART NUMBER IS S210T120-67 (H/S 804401-2) OR ABOVE, DO THE BITE PROCEDURE.

Pneumatic Pressure Drops Excessive/Fluctuates When Using APU Bleed Air For Any Air Load.
Figure 119 (Sheet 1)

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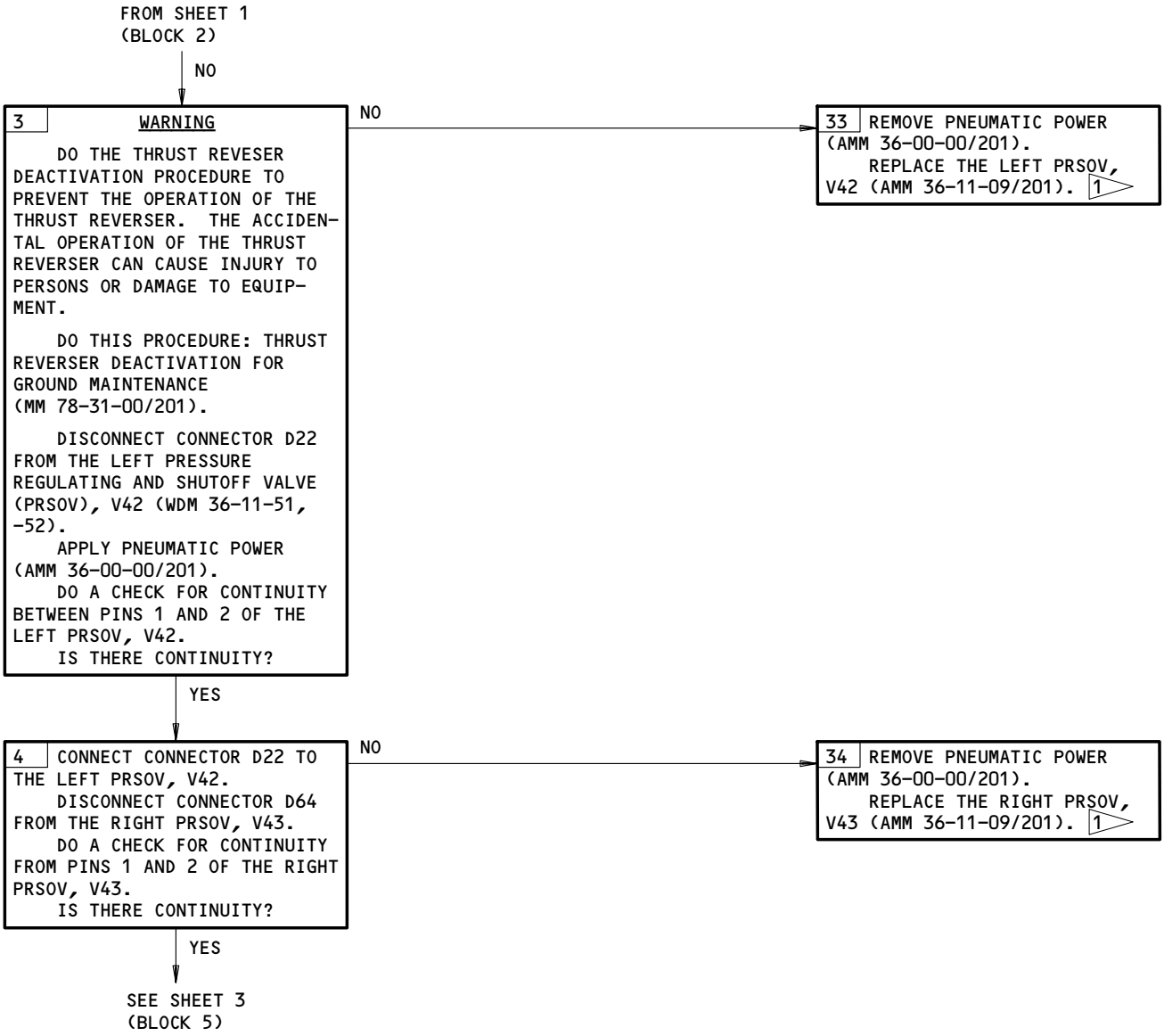
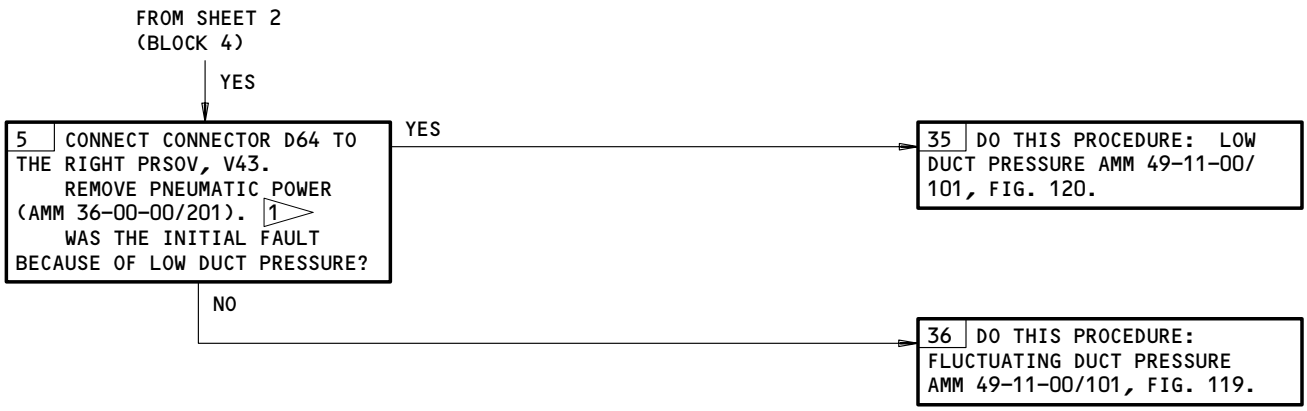


Pneumatic Pressure Drops Excessive/Fluctuates When Using APU Bleed Air For Any Air Load.
Figure 119 (Sheet 2)



Pneumatic Pressure Drops Excessive/Fluctuates When Using APU Bleed Air For Any Air Load.
Figure 119 (Sheet 3)

PREREQUISITES

MAKE SURE THIS SYSTEM WILL OPERATE:
EICAS (AMM 31-41-00/201)

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

BLEED "OFF" LIGHT EXTINGUISHES WHEN THE BLEED SWITCH IS "ON". ENGINES ARE NOT RUNNING. NO BLEED DEMAND SELECTED ON THE ENGINE-SIDE OF THE PRSOV.

NOTE: THIS CONDITION CAN OCCUR DUE TO A PRESSURE DIFFERENTIAL ACROSS THE PRSOV WHILE PRESSURIZING WITH THE APU OR GROUND CART. IF THERE IS NO DEMAND FOR BLEED AIR ON THE ENGINE-SIDE OF THE PRSOV, THE PRESSURE MAY BEGIN TO BUILD UP. WHEN THE PRESSURE BUILDS UP ENOUGH, IT CAN SLIGHTLY OPEN THE PRSOV CAUSING THE "OFF" LIGHT TO EXTINGUISH.

POSSIBLE CAUSES:

THIS CONDITION IS NORMAL.

FAULT ISOLATION:

1 SET THE "L (R) ENG ANTI-ICE" SWITCH TO "ON" POSITION, AT THE WING AND ENGINE ANTI-ICE CONTROL MODULE, M10397 (P5 PANEL).
MAKE SURE THE "L (R) BLEED" LIGHT ILLUMINATES AT THE AIR SUPPLY BLEED CONTROL MODULE, M15 (P5 PANEL).
IS THE "L (R) BLEED" LIGHT ILLUMINATED?

NO → 21 REPLACE AND EXAMINE THE LEFT (RIGHT) PRSOV (AMM 36-11-09/201).

YES ↓

2 SET THE "L (R) ENG ANTI-ICE" SWITCH TO "OFF".
SET THE "L (R) ENG" BLEED SWITCH TO "OFF" POSITION, AT THE AIR SUPPLY BLEED CONTROL MODULE, M15 (P5 PANEL).
MAKE SURE THE "L (R) ENG" BLEED "OFF" LIGHT ILLUMINATES AND THE LEFT (RIGHT) PRSOV CLOSES.
IS THE "L (R) ENG" BLEED "OFF" LIGHT ILLUMINATED AND THE LEFT (RIGHT) PRSOV CLOSED?

NO → 22 REPLACE AND EXAMINE THE LEFT (RIGHT) PRSOV (AMM 36-11-09/201).

YES ↓

23 LEFT (RIGHT) PRSOV IS ACCEPTABLE. NO ACTION IS REQUIRED.

Bleed OFF Light Extinguishes When The Bleed Switch Is ON. Engines Are Not Running. No Bleed Demand Selected On The Engine-Side of the PRSOV.
Figure 119A

PREREQUISITES

MAKE SURE THE AIRPLANE IS IN THIS CONFIGURATION:
PNEUMATIC DUCT PRESSURE IS ZERO (AMM 36-00-00/201)

EQUIPMENT:
APU OR GROUND AIR SOURCE: LOW PRESSURE, 0-150 PSIG, COMMERCIALLY AVAILABLE

CONSUMABLE MATERIALS:
ANTISEIZE COMPOUND, BOSTIK NEVER-SEEZ

L (R) HPSOV AND HPC PROBLEMS

POSSIBLE CAUSES:

1. SENSE LINES
2. HIGH PRESSURE SHUTOFF VALVE (HPSOV)
3. BLEED AIR CONTROL CARD
4. Phh WIRING ON THE HPC
5. HIGH PRESSURE CONTROLLER (HPC)
6. ELECTRICAL CIRCUIT.

FAULT ISOLATION:

1 WARNING

DO THE THRUST REVERSER DEACTIVATION PROCEDURE TO PREVENT THE OPERATION OF THE THRUST REVERSERS. THE ACCIDENTAL OPERATION OF THE THRUST REVERSER CAN CAUSE INJURY TO PERSONS AND DAMAGE TO EQUIPMENT.

DO THIS PROCEDURE: THRUST REVERSER DEACTIVATION FOR GROUND MAINTENANCE (AMM 78-31-00/201).
OPEN THE FAN COWL AND THRUST REVERSER (AMM 78-31-00/201).
LOOK AT THE L (R) HPSOV POSITION INDICATOR.
WITH NO PNEUMATIC PRESSURE, IS THE L (R) HPSOV IN THE CLOSED POSITION?

NO → 41 REPLACE THE L (R) HPSOV (AMM 36-11-07/401). 1

YES

SEE SHEET 2
(BLOCK 2)

1 WARNING: FAILURE TO FOLLOW AMM 78-31-00/201 WHEN YOU CLOSE THE THRUST REVERSERS COULD RESULT IN INJURY TO PERSONNEL AND/OR DAMAGE TO EQUIPMENT.

CLOSE THE LEFT FAN DUCT COWL AND THE THRUST REVERSER (AMM 78-31-00/201).

ACTIVATE THE THRUST REVERSERS (AMM 78-31-00/201).

L (R) HPSOV and HPC Problems
Figure 120 (Sheet 1)

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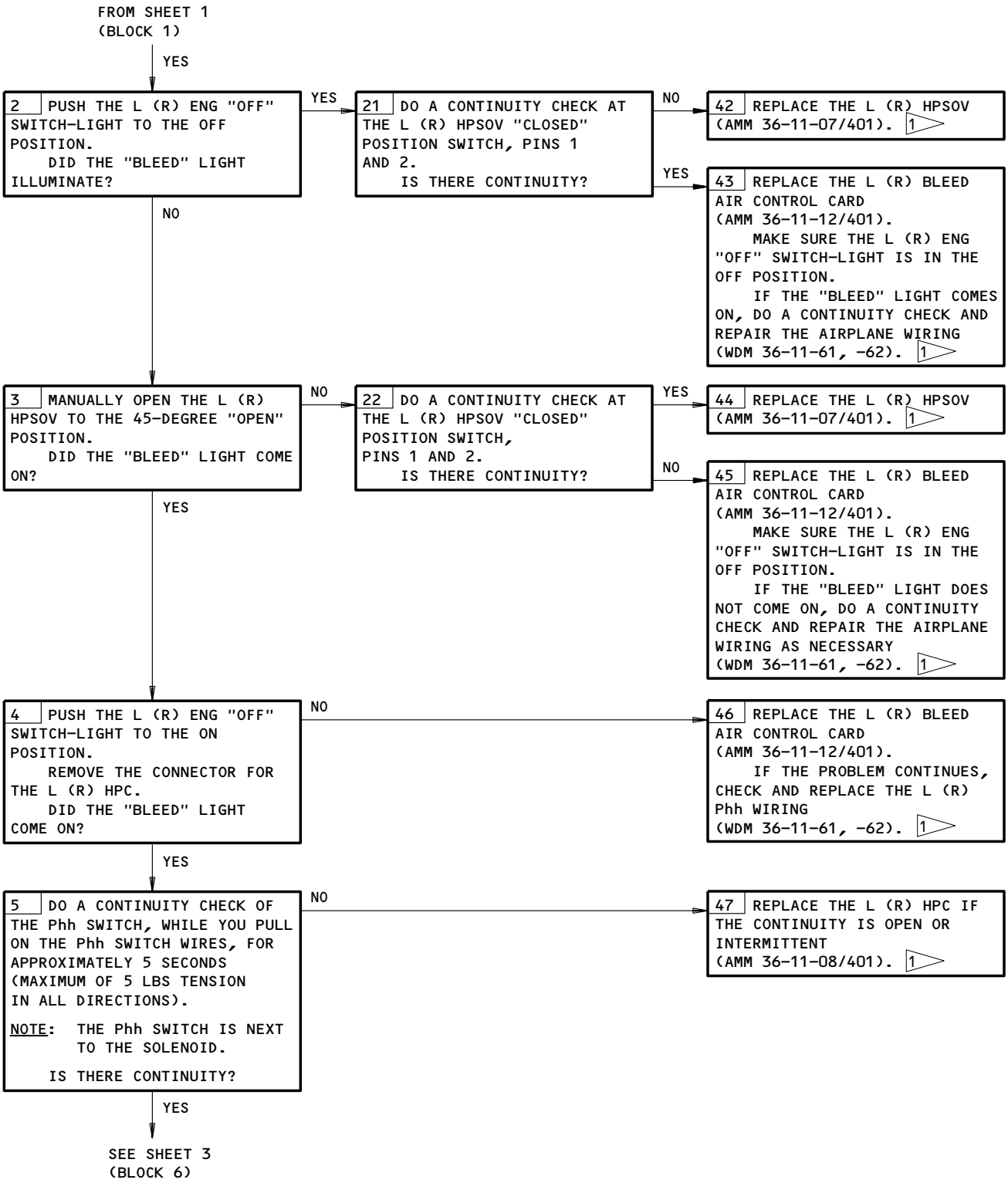
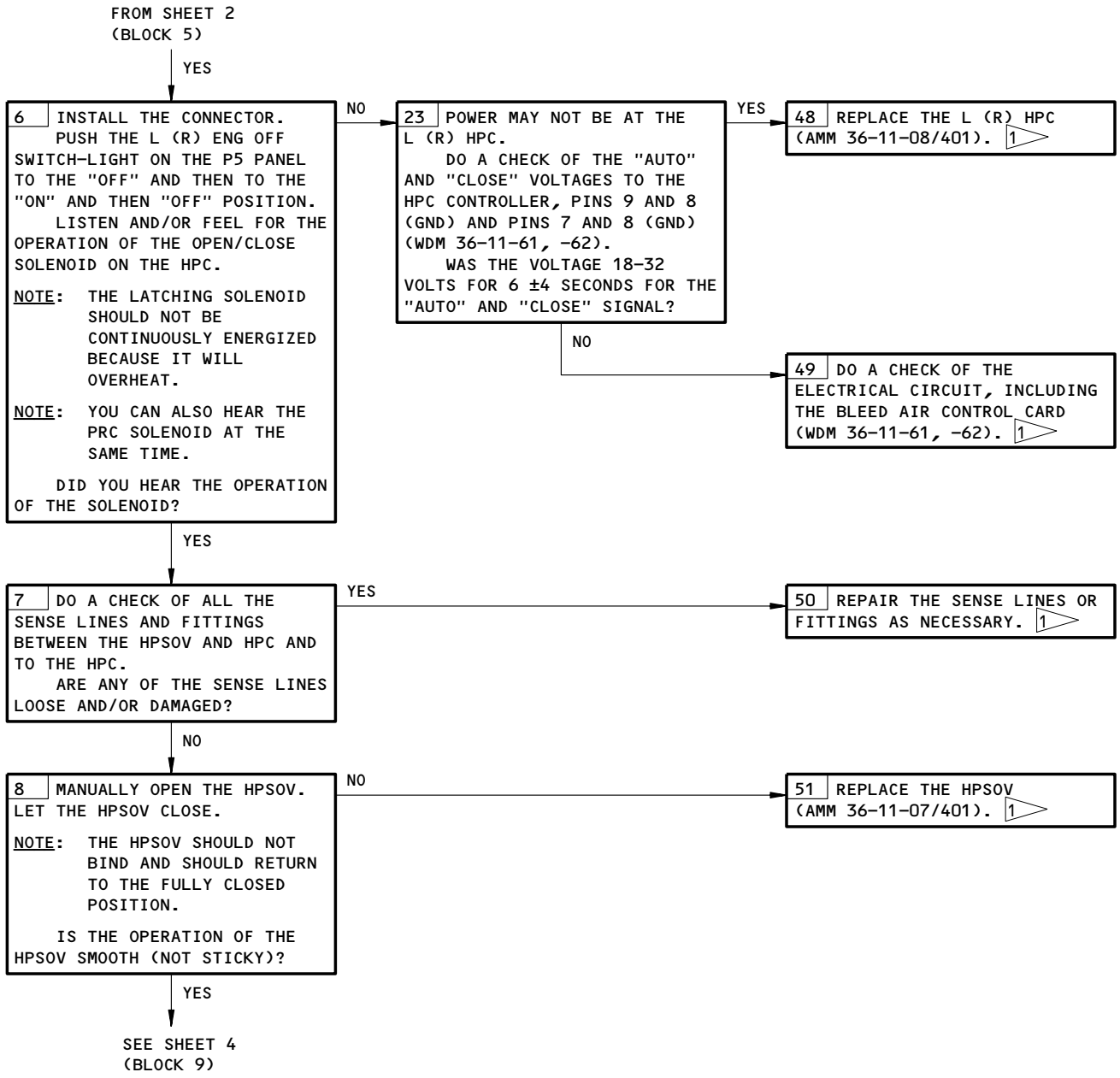
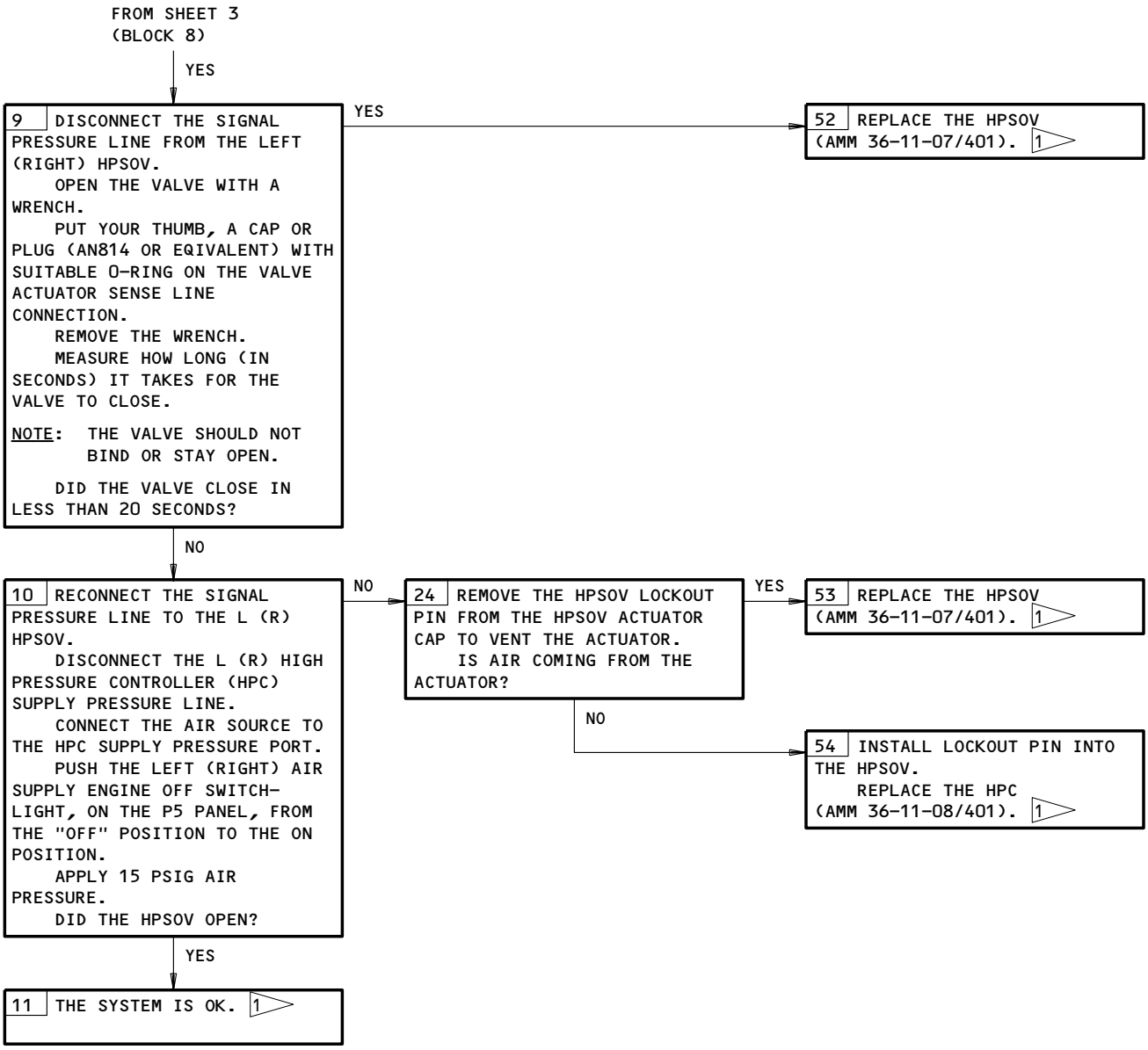


L (R) HPSOV and HPC Problems
Figure 120 (Sheet 2)



L (R) HPSOV and HPC Problems
Figure 120 (Sheet 3)



L (R) HPSOV and HPC Problems
Figure 120 (Sheet 4)

L (R) PRESSURE REGULATING AND SHUTOFF VALVE PROBLEMS

PREREQUISITES

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

EQUIPMENT:
LOW PRESSURE, 0-15 PSI, COMMERCIALLY AVAILABLE

CONSUMABLE MATERIALS:
ANTISEIZE COMPOUND, HIGH TEMPERATURE - COMMERCIALLY AVAILABLE

POSSIBLE CAUSES:

1. SENSE LINES
2. PRESSURE REGULATING AND SHUTOFF VALVE (PRSOV)
3. PRESSURE REGULATING VALVE (PRV)
4. PRESSURE REGULATING VALVE CONTROLLER (PRC)
5. BLEED AIR CONTROL CARD
6. ELECTRICAL CIRCUIT.

FAULT ISOLATION:

L (R) Pressure Regulating and Shutoff Valve Problems
Figure 121 (Sheet 1)

1 WARNING

DO THE THRUST REVERSER DEACTIVATION PROCEDURE TO PREVENT THE OPERATION OF THE THRUST REVERSER. THE ACCIDENTAL OPERATION OF THE THRUST REVERSER CAN CAUSE INJURY TO PERSONS OR DAMAGE TO EQUIPMENT.

DO THIS PROCEDURE: THRUST REVERSER DEACTIVATION FOR GROUND MAINTENANCE (AMM 78-31-00/201).

WARNING

MAKE SURE YOU OPEN THE FAN AND CORE COWL PANELS CORRECTLY (AMM 78-31-00/201) BEFORE YOU OPEN THE FAN DUCT COWL AND THRUST REVERSER. FAILURE TO FOLLOW THE INSTRUCTIONS IN AMM 78-31-00/201 CAN CAUSE INJURY TO PERSONS OR DAMAGE TO EQUIPMENT.

OPEN THE LEFT FAN DUCT COWL AND THE THRUST REVERSER (AMM 78-31-00/201).

MAKE SURE THE L (R) ENG "OFF" BLEED AIR SWITCH-LIGHT ON THE P5 PANEL IS IN THE OFF POSITION.

OPEN THE CIRCUIT BREAKERS 11S10,11S11,11S19,11S20 ON THE P11 PANEL.

DISCONNECT CONNECTOR D22 (D64) FROM THE L (R) PRESSURE REGULATING AND SHUTOFF VALVE (PRSOV), V42 (V43).

CONNECT THE VOLTMETER (VM1) BETWEEN THE CONNECTOR, PINS AND 6.

CONNECT THE SECOND VOLTMETER (VM2) BETWEEN THE CONNECTOR, PINS 6 AND 7 (WDM 36-11-41).

CLOSE THE CIRCUIT BREAKER 11S11 (11S20).

DO A CHECK FOR A 6 ±4 SECOND 25 ±7V DC PULSE AT EACH VOLTMETER.

DID YOU SEE A 6 ±4 SECOND 25 ±7V DC PULSE ON VM1?

YES → SEE SHEET 3 (BLOCK 2)

NO → 11 DID YOU SEE A 6 ±4 SECOND 25 ±7V DC PULSE ON VM2?

NO → 21 REMOVE THE VOLTMETERS, VM1 AND VM2, FROM CONNECTOR D22 (D64).

INSTALL CONNECTOR D22 (D64) TO THE PRSOV, V42 (V43).

CLOSE THE CIRCUIT BREAKER 11S10 (11S19) ON THE P11 PANEL.

REPLACE THE L (R) BLEED AIR CONTROL CARD, M859 (M860), IN THE P50 CARD FILE (AMM 36-11-12/401). 1 2

YES

22 REMOVE THE VOLTMETERS, VM1 AND VM2, FROM CONNECTOR D22 (D64).

INSTALL CONNECTOR D22 (D64) TO THE PRSOV, V42 (V43).

CLOSE THE CIRCUIT BREAKER 11S10 (11S19) ON THE P11 PANEL.

REPLACE THE L (R) ENG "OFF" BLEED AIR SWITCH-LIGHT, YCZS4 (YCZS6), ON THE BLEED AIR SUPPLY MODULE, M15, ON THE P5 PANEL (AMM 33-13-00/201) OR M15 (WDM 36-11-51,-52). 1 2

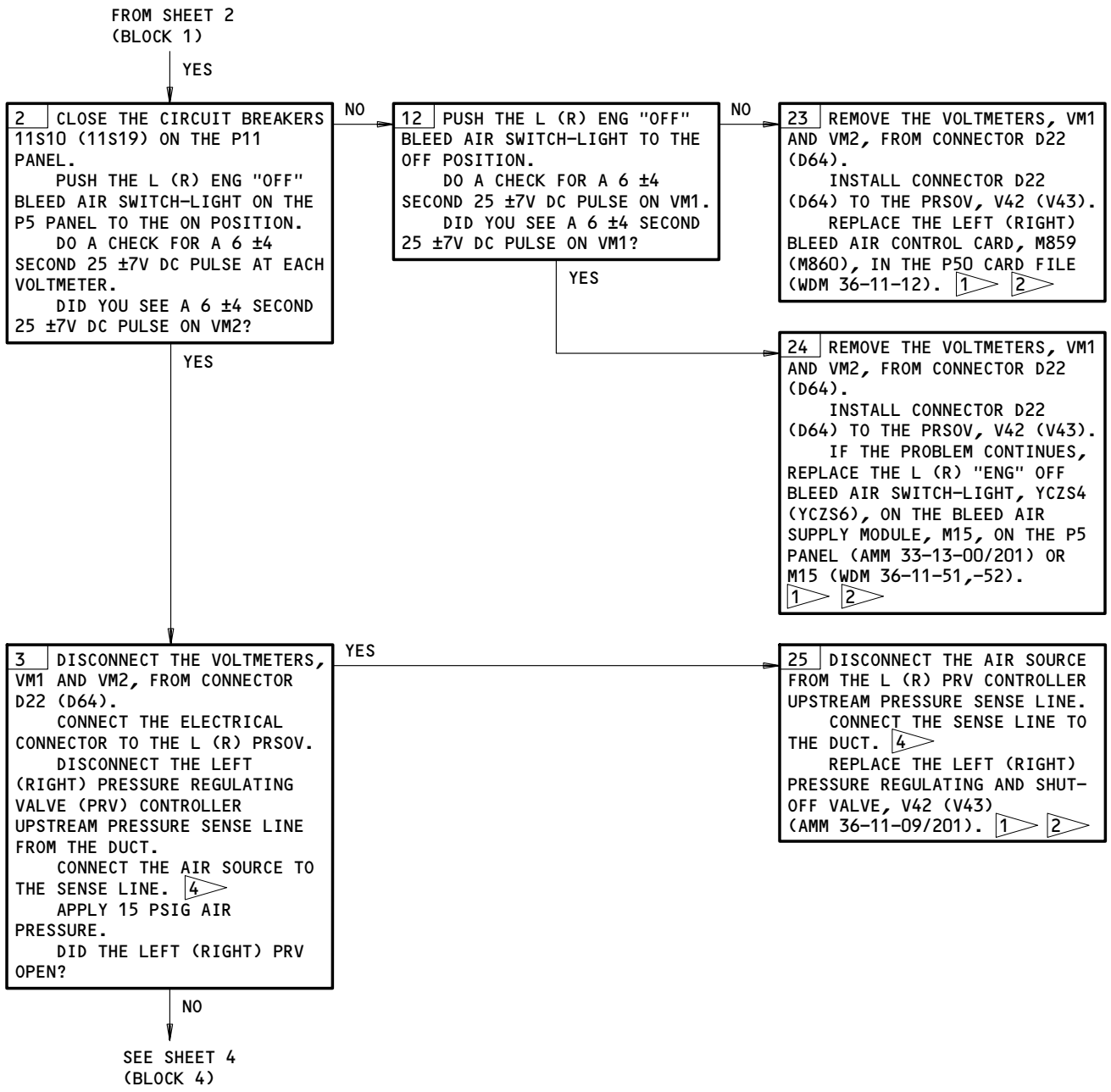
1 WARNING: MAKE SURE YOU CLOSE THE FAN AND CORE COWL PANELS CORRECTLY (AMM 78-31-00/201) BEFORE YOU CLOSE THE FAN DUCT COWL AND THRUST REVERSER. FAILURE TO FOLLOW THE INSTRUCTIONS IN AMM 78-31-00/201 CAN CAUSE INJURY TO PERSONS OR DAMAGE TO EQUIPMENT.

CLOSE THE LEFT FAN DUCT COWL AND THE THRUST REVERSER (AMM 78-31-00/201).

2 DO THIS PROCEDURE: THRUST REVERSERS ACTIVATION (AMM 78-31-00/201)

L (R) Pressure Regulating and Shutoff Valve Problems
Figure 121 (Sheet 2)

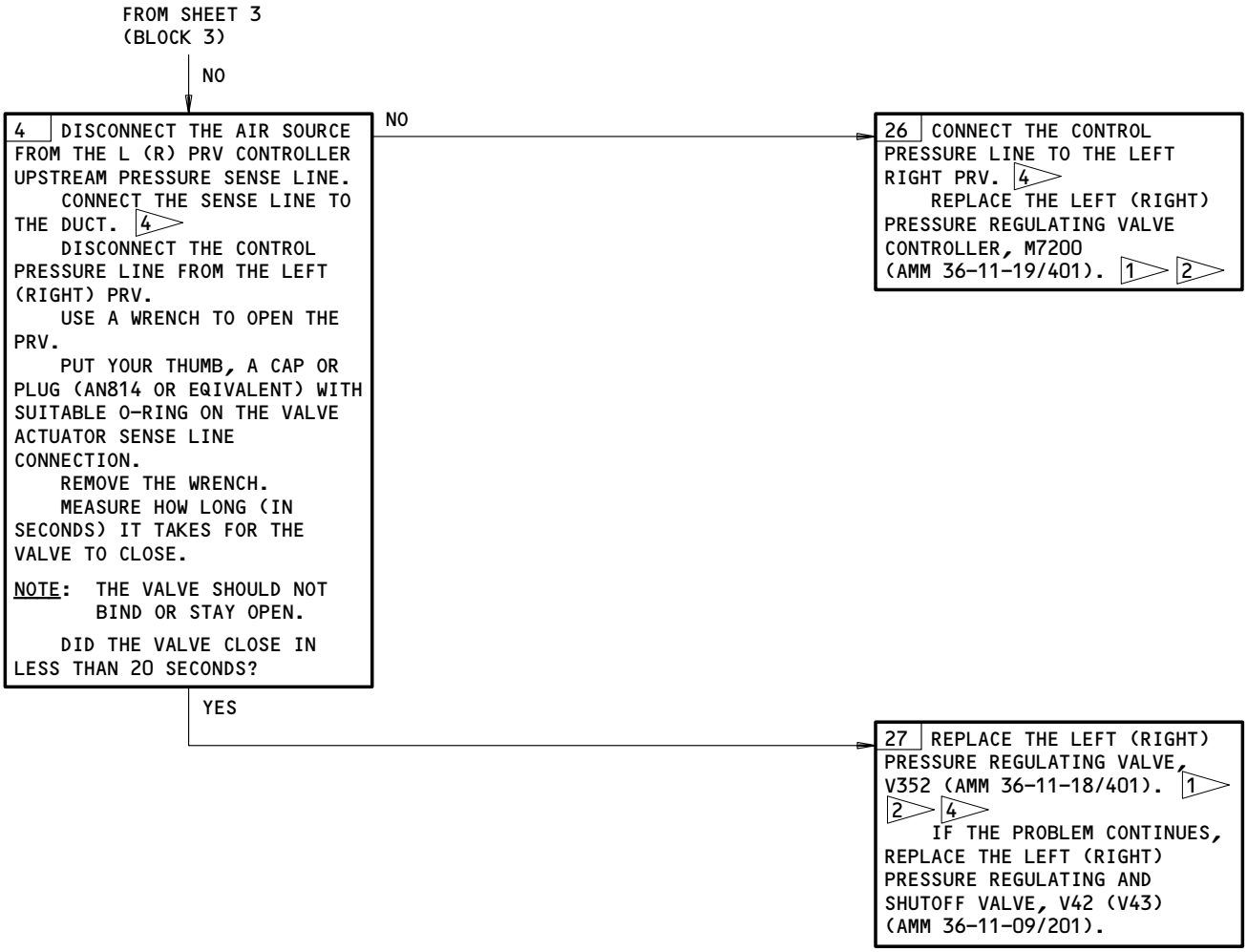
E92675



4 PUT THE ANTISEIZE COMPOUND ON THE THREADS OF THE NUT AND THE NIPPLE.

L (R) Pressure Regulating and Shutoff Valve Problems
Figure 121 (Sheet 3)

C10488



L (R) Pressure Regulating and Shutoff Valve Problems
Figure 121 (Sheet 4)

Not Used
Figure 122

PREREQUISITES

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED:
11S10, 11S11, 11S19, 11S20

MAKE SURE THE AIRPLANE IS IN THIS CONFIGURATION:
ELECTRICAL POWER IS ON (AMM 24-22-00/201)
ZERO PNEUMATIC PRESSURE (AMM 36-00-00/201)

EQUIPMENT:
AIR SOURCE - LOW PRESSURE, 0-15 PSIG, COMMERCIALLY AVAILABLE

CONSUMABLE MATERIALS:
ANTISEIZE COMPOUND, HIGH TEMPERATURE - BOSTIK, NEVER-SEEZ

EICAS MSG L (R) "ENG PRV" DISPLAYED. L (R) ENG "BLEED" LIGHT ILLUMINATED. POSSIBLE DUCT PRESSURE FLUCTUATIONS.

NOTE: THIS FAULT MAY ALSO HAVE THE EICAS MESSAGE "L (R) ENG BLEED OFF" AND THE L (R) ENG "OFF" SWITCH-LIGHT ILLUMINATED. THIS IS BECAUSE WHEN THE PRV IS CLOSED OR ALMOST CLOSED THE PRSOV WILL CLOSE OR ALMOST CLOSE.

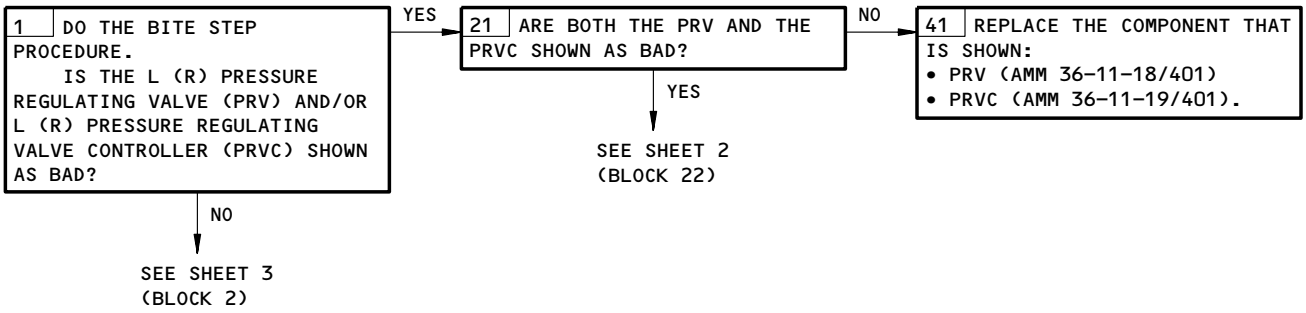
DESCRIPTION:

THE PRV IS NOT CLOSED WHEN IT HAS BEEN COMMANDED CLOSED OR A PRV FAILURE HAS OCCURRED, WHICH CAUSES AN OVERPRESSURE CONDITION.

POSSIBLE CAUSES:

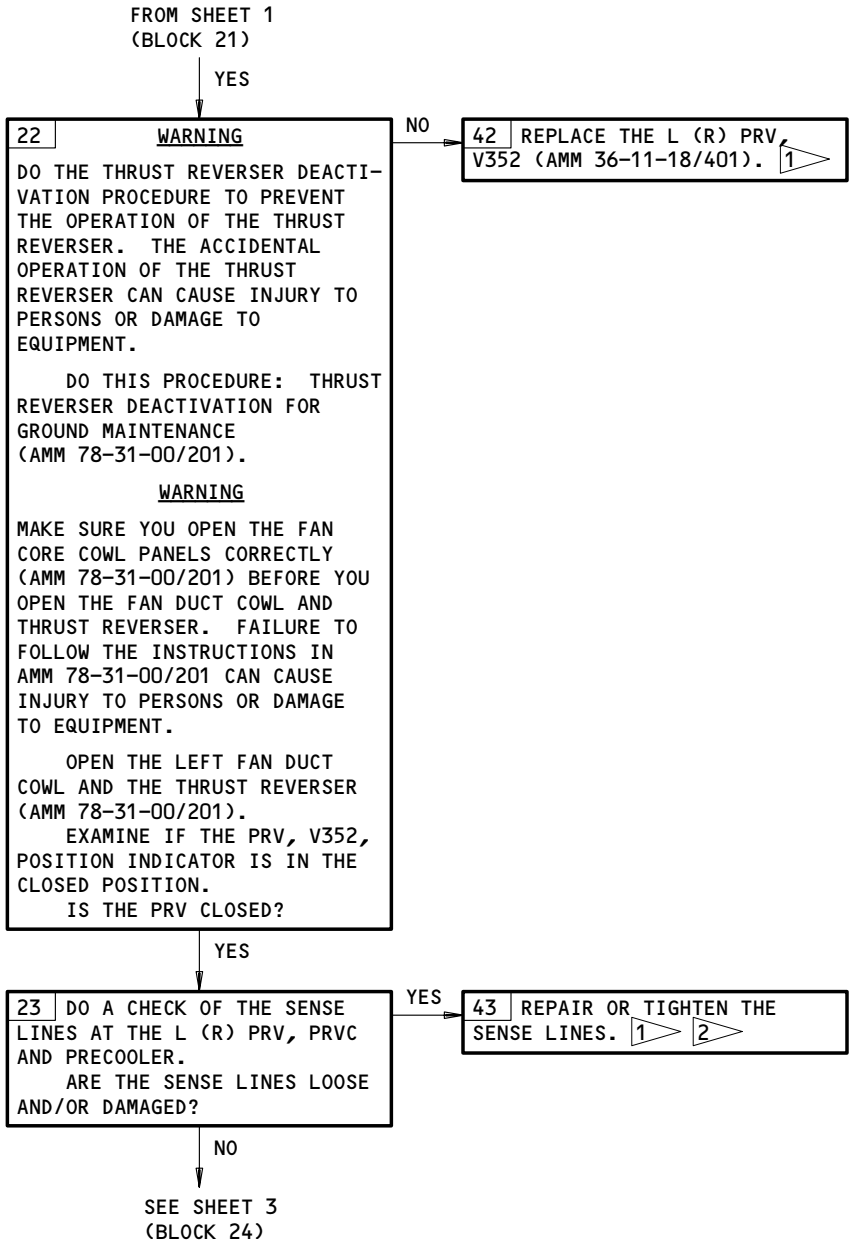
1. LOOSE PRVC SENSE LINE B-NUT AT THE PRECOOLER, OR PRVC
2. BAD PRVC (THE PRVC IS NOT REGULATING CORRECTLY)(PRV/PRVC ADJUSTMENT/TEST, AMM 36-11-18/501)
3. BAD PRV (THE PRV POSITION SWITCH CALIBRATION, THE PRV IS STUCK OPEN)(PRV/PRVC ADJUSTMENT, AMM 36-11-18/501)
4. TOO MUCH LEAKAGE PAST THE PRV BUTTERFLY DURING A NO PACKS TAKEOFF
5. BAD OVERPRESSURE SWITCH (PART NO. 211C117-197 OVERPRESSURE SWITCHES MAY CAUSE NUISANCE "ENG PRV" MESSAGES. THEY SHOULD BE REPLACED WITH THE NEWER PART NO. 21SN41-83, -83A OVERPRESSURE SWITCHES)
6. OPEN WIRE TO THE PRV POSITION SWITCH OR TO THE OVERPRESSURE SWITCH
7. BLEED AIR CONTROL CARD OR ELECTRICAL CIRCUIT PROBLEMS.

FAULT ISOLATION:



EICAS Msg L (R) ENG PRV Displayed. L (R) Eng BLEED Light Illuminated. Possible Duct Pressure Fluctuations.
Figure 123 (Sheet 1)

C97882



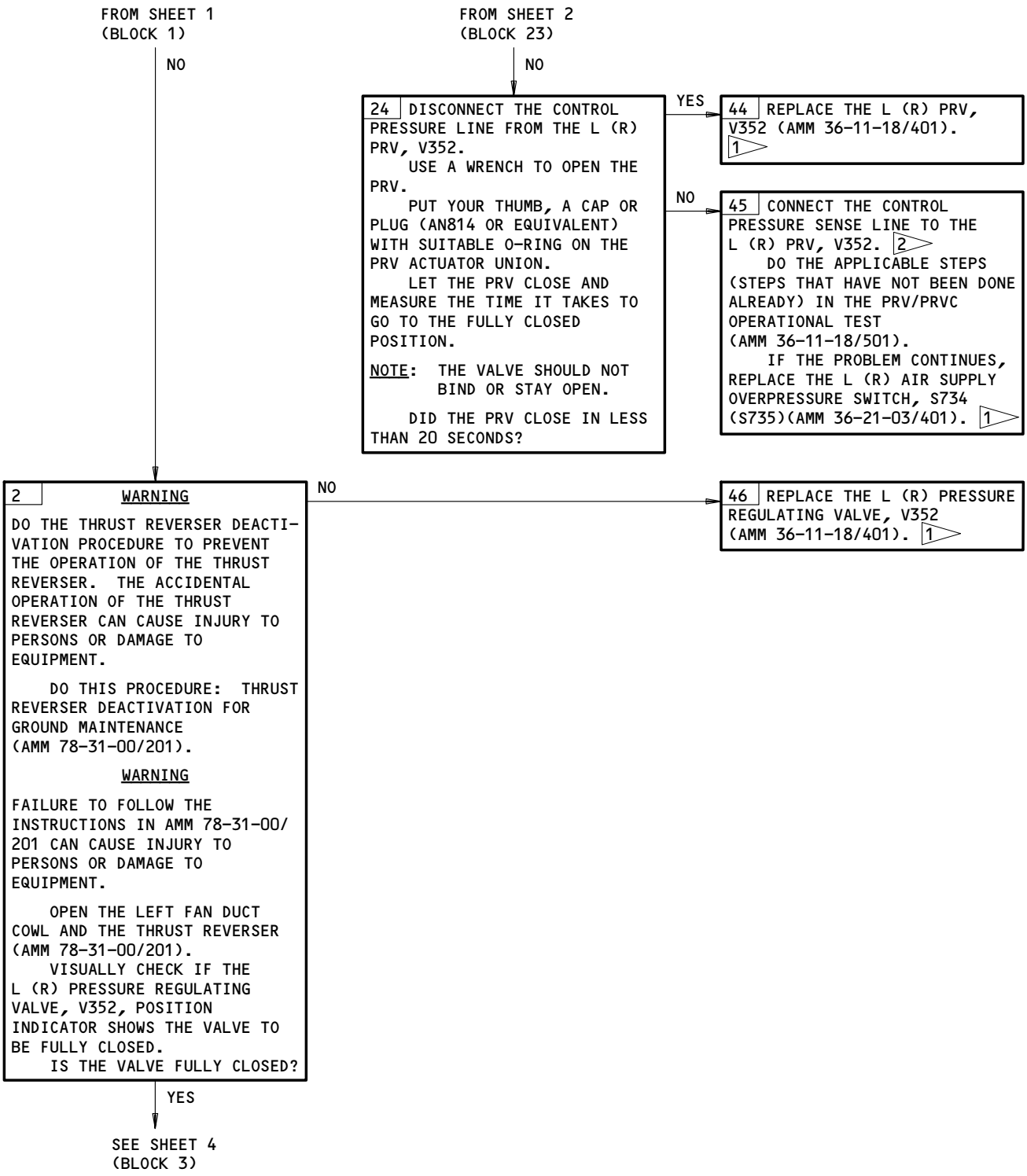
1 WARNING: FAILURE TO FOLLOW AMM 78-31-00/201 WHEN YOU CLOSE THE THRUST REVERSERS COULD RESULT IN INJURY TO PERSONNEL AND/OR DAMAGE TO EQUIPMENT.

CLOSE THE LEFT FAN DUCT COWL AND THE THRUST REVERSER (AMM 78-31-00/201).

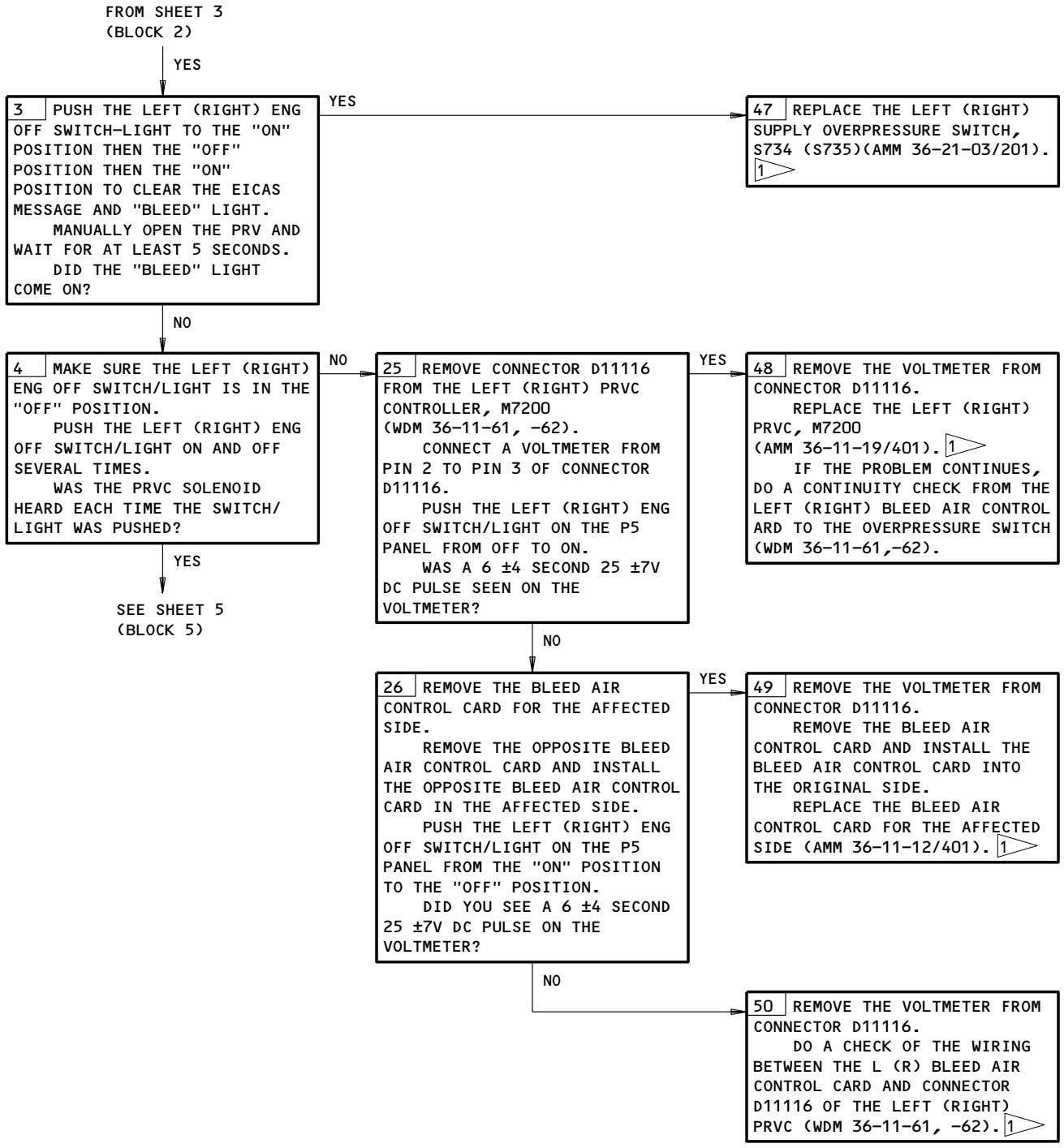
DO THIS PROCEDURE: THRUST REVERSERS ACTIVATION (AMM 78-31-00/201).

2 PUT ANTI-SEIZE COMPOUND ON THE THREADS OF THE NUT AND THE NIPPLE.

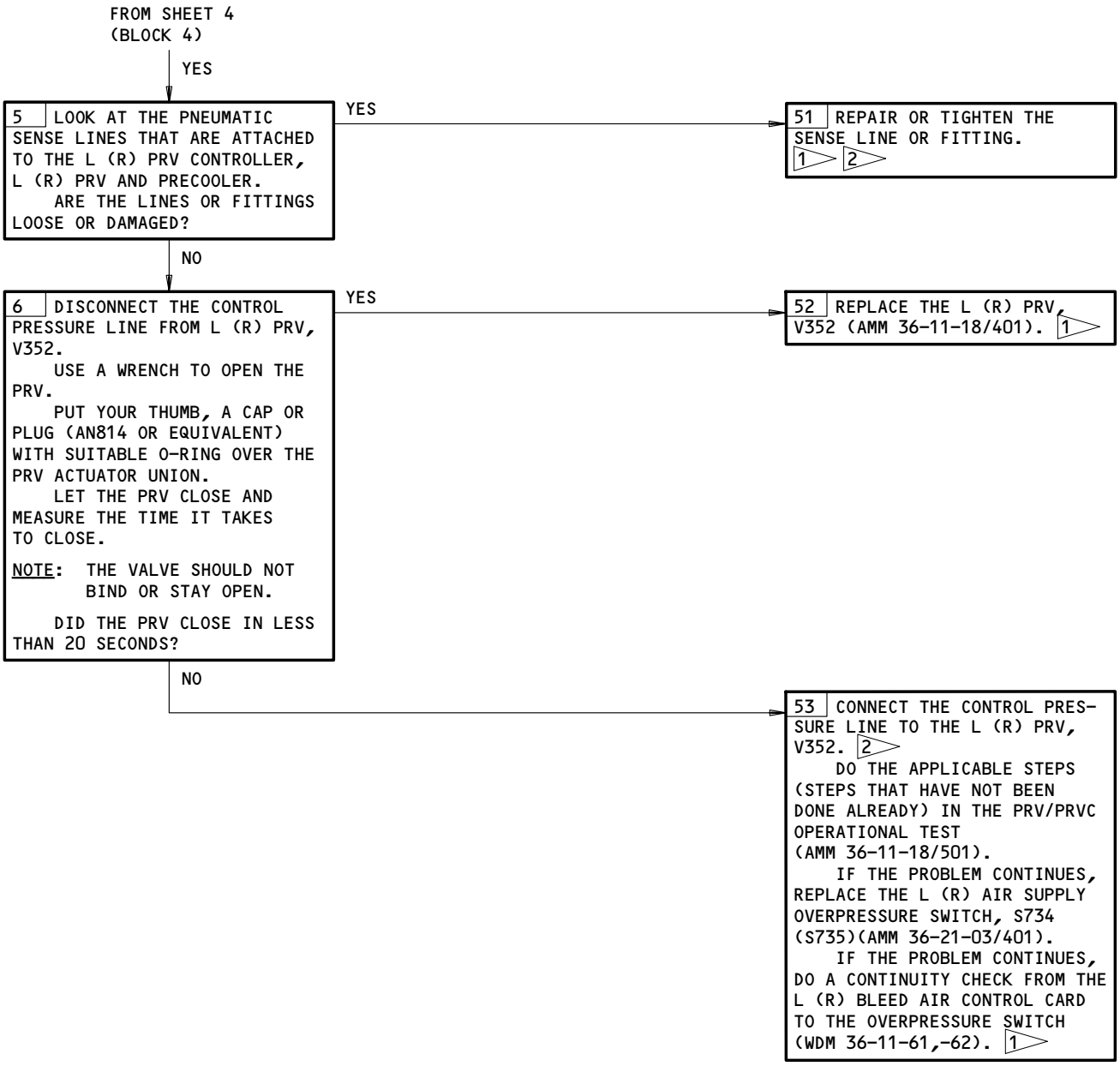
EICAS Msg L (R) ENG PRV Displayed. L (R) Eng BLEED Light Illuminated. Possible Duct Pressure Fluctuations.
Figure 123 (Sheet 2)



EICAS Msg L (R) ENG PRV Displayed. L (R) Eng BLEED Light Illuminated. Possible Duct Pressure Fluctuations.
Figure 123 (Sheet 3)



EICAS Msg L (R) ENG PRV Displayed. L (R) Eng BLEED Light Illuminated. Possible Duct Pressure Fluctuations.
Figure 123 (Sheet 4)



EICAS Msg L (R) ENG PRV Displayed. L (R) Eng BLEED Light Illuminated. Possible Duct Pressure Fluctuations.
Figure 123 (Sheet 5)

PREREQUISITES

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED:
11S10, 11S11, 11S19, 11S20

MAKE SURE THE AIRPLANE IS IN THIS CONFIGURATION:
ELECTRICAL POWER IS ON (AMM 24-22-00/201)
PNEUMATIC DUCT PRESSURE IS ZERO (AMM 36-00-00/201)

EQUIPMENT:
AIR SOURCE - LOW PRESSURE, 0-15 PSIG, COMMERCIALLY AVAILABLE

CONSUMABLE MATERIALS:
ANTISEIZE COMPOUND, HIGH TEMPERATURE - BOSTIK, NEVER-SEEZ

NOTE: IF THE "L/R ENG PRV" EICAS MESSAGE IS REPORTED TO HAVE DISPLAYED MOMENTARILY DURING ENGINE START, THE START CAN BE CONTINUED AS NORMAL. AFTER START, WITH THE ASSOCIATED ENGINE STABILIZED AT IDLE, SET THE ENGINE BLEED SWITCH TO OFF AND MONITOR THE EICAS DISPLAY FOR 15 SECONDS. IF THE "L/R ENG PRV" EICAS MESSAGE DOES NOT REAPPEAR, SET THE ENGINE BLEED SWITCH TO ON. NO FURTHER ACTION IS NECESSARY PRIOR TO DISPATCH. THE PRV ON THE ASSOCIATED ENGINE SHOULD BE SCHEDULED FOR REPLACEMENT AT THE NEXT MAINTENANCE OPPORTUNITY. (REFERENCE 767 MT 36-014R2).

EICAS MSG "L (R) ENG PRV" DISPLAYED DURING ENGINE START. L (R) ENG "BLEED" LIGHT ILLUMINATED.

DESCRIPTION:

THE PRV IS NOT CLOSED WHEN IT HAS BEEN COMMANDED CLOSED CLOSED OR A PRV FAILURE HAS OCCURRED, WHICH CAUSES AN OVERPRESSURE CONDITION.

POSSIBLE CAUSES:

1. LOOSE PRVC SENSE LINE B-NUT AT THE PRECOOLER, OR PRVC
2. BAD PRVC (THE PRVC IS NOT REGULATING CORRECTLY)(PRV/PRVC ADJUSTMENT/TEST, AMM 36-11-18/501)
3. BAD PRV (THE PRV POSITION SWITCH CALIBRATION, THE PRV IS STUCK OPEN)(PRV/PRVC ADJUSTMENT, AMM 36-11-18/501)
4. TOO MUCH LEAKAGE PAST THE PRV BUTTERFLY DURING A NO PACKS TAKEOFF
5. BAD OVERPRESSURE SWITCH
6. OPEN WIRE TO THE PRV POSITION SWITCH OR TO THE OVERPRESSURE SWITCH
7. BLEED AIR CONTROL CARD OR ELECTRICAL CIRCUIT PROBLEMS.

FAULT ISOLATION:

1 WARNING: FAILURE TO FOLLOW AMM 78-31-00/201 WHEN YOU CLOSE THE THRUST REVERSERS COULD RESULT IN INJURY TO PERSONNEL AND/OR DAMAGE TO EQUIPMENT.

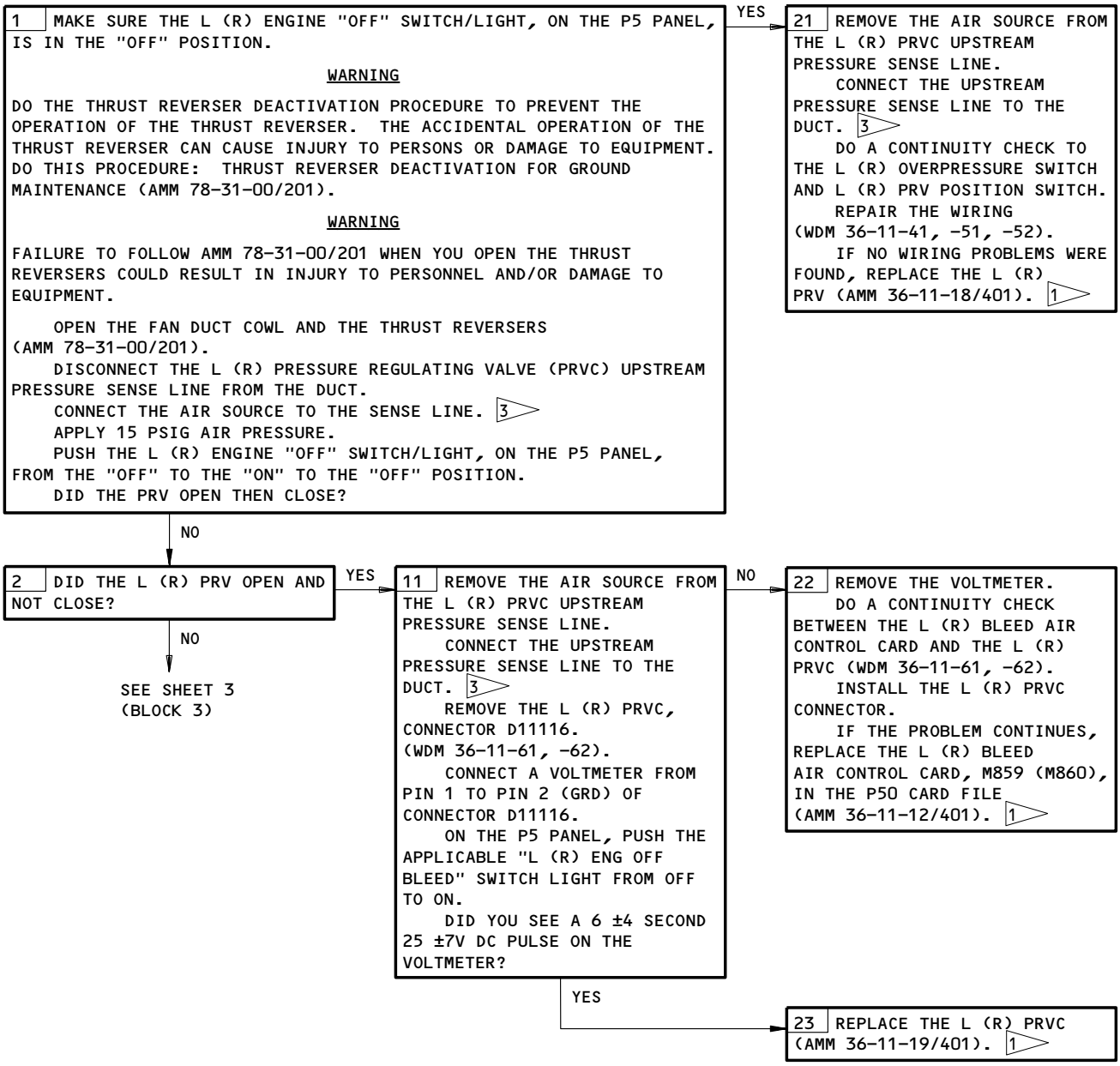
CLOSE THE FAN DUCT COWL AND THE THRUST REVERSERS (AMM 78-31-00/201).

ACTIVATE THE THRUST REVERSERS (AMM 78-31-00/201).

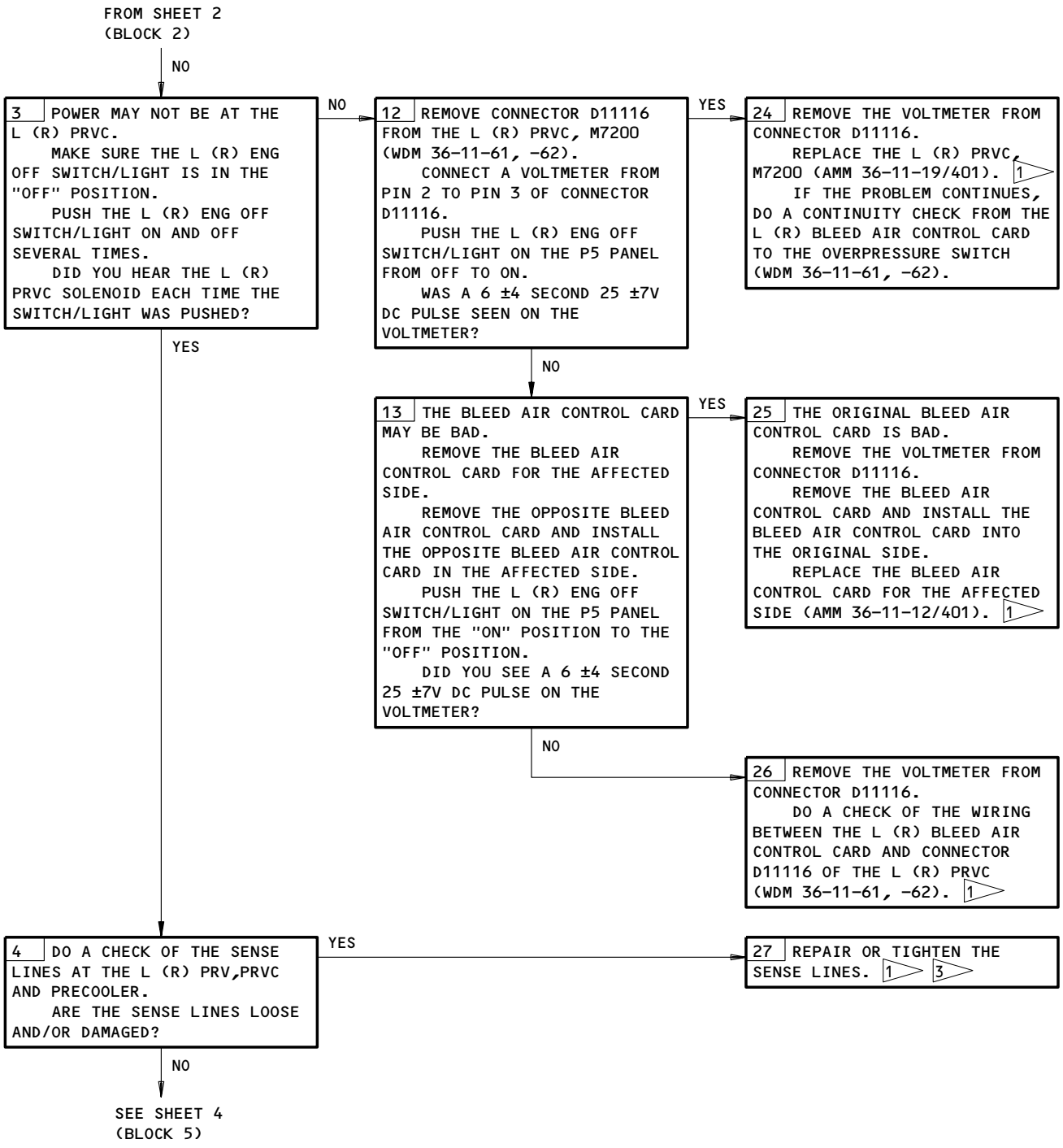
2 NOT USED

3 PUT ANTISEIZE COMPOUND ON THE THREADS OF THE NUT AND THE NIPPLE.

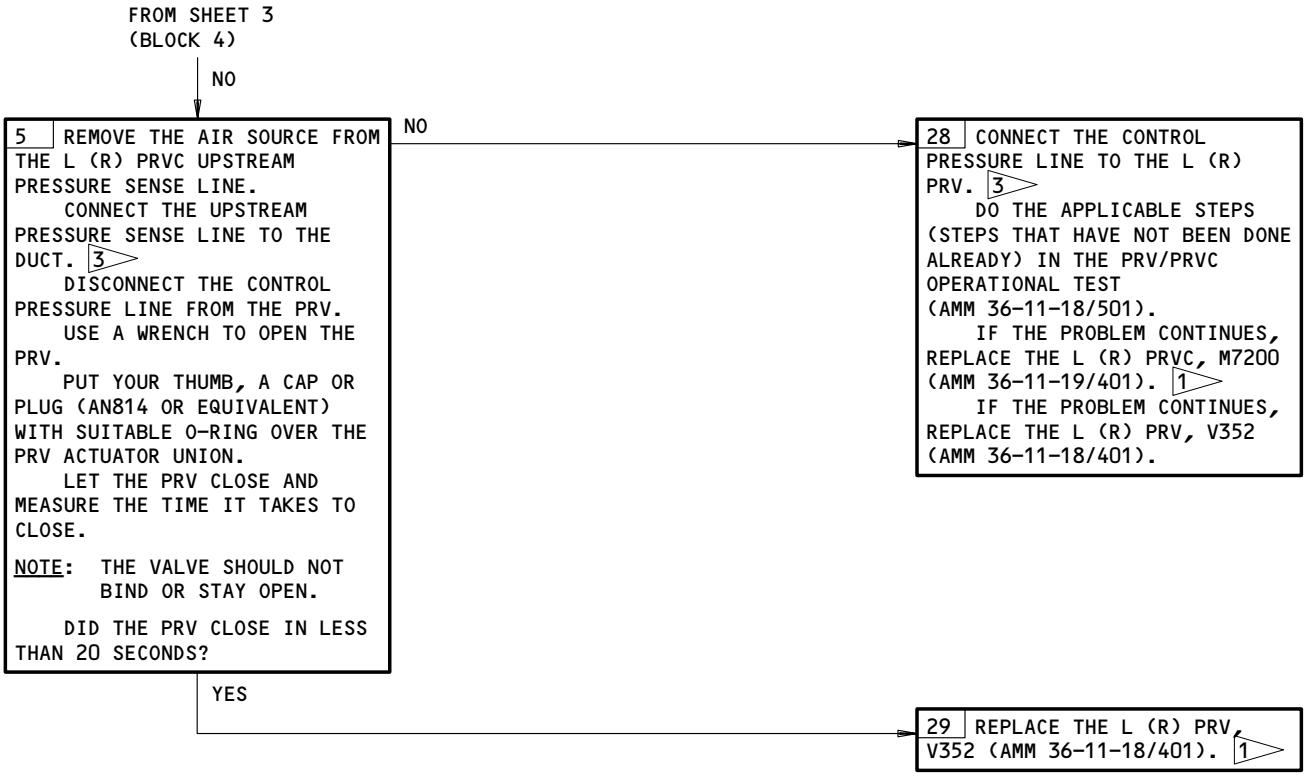
EICAS Msg L (R) ENG PRV Displayed During Engine Start.
L (R) Eng BLEED Light Illuminated.
Figure 124 (Sheet 1)



EICAS Msg L (R) ENG PRV Displayed During Engine Start.
L (R) Eng BLEED Light Illuminated.
Figure 124 (Sheet 2)



EICAS Msg L (R) ENG PRV Displayed During Engine Start.
L (R) Eng BLEED Light Illuminated
Figure 124 (Sheet 3)



EICAS Msg L (R) ENG PRV Displayed During Engine Start.
L (R) Eng BLEED Light Illuminated.
Figure 124 (Sheet 4)

EICAS MSGS "L (R) ENG PRV" AND "L (R) ENG BLD OVHT" DISPLAYED. L (R) ENG "BLEED" AND "OVHT" LIGHTS ILLUMINATED.

PREREQUISITES

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED:
11S10,11S11,11S19,11S20,36L7

MAKE SURE THE AIRPLANE IS IN THIS CONFIGURATION:
ELECTRICAL POWER IS ON (AMM 24-22-00/201)
PNEUMATIC DUCT PRESSURE IS ZERO (AMM 36-00-00/201)

EQUIPMENT:
AIR SOURCE - LOW PRESSURE, 0-15 PSIG, COMMERCIALLY AVAILABLE

CONSUMABLE MATERIALS:
ANTISEIZE COMPOUND, HIGH TEMPERATURE - BOSTIK, NEVER-SEEZ

DESCRIPTION:

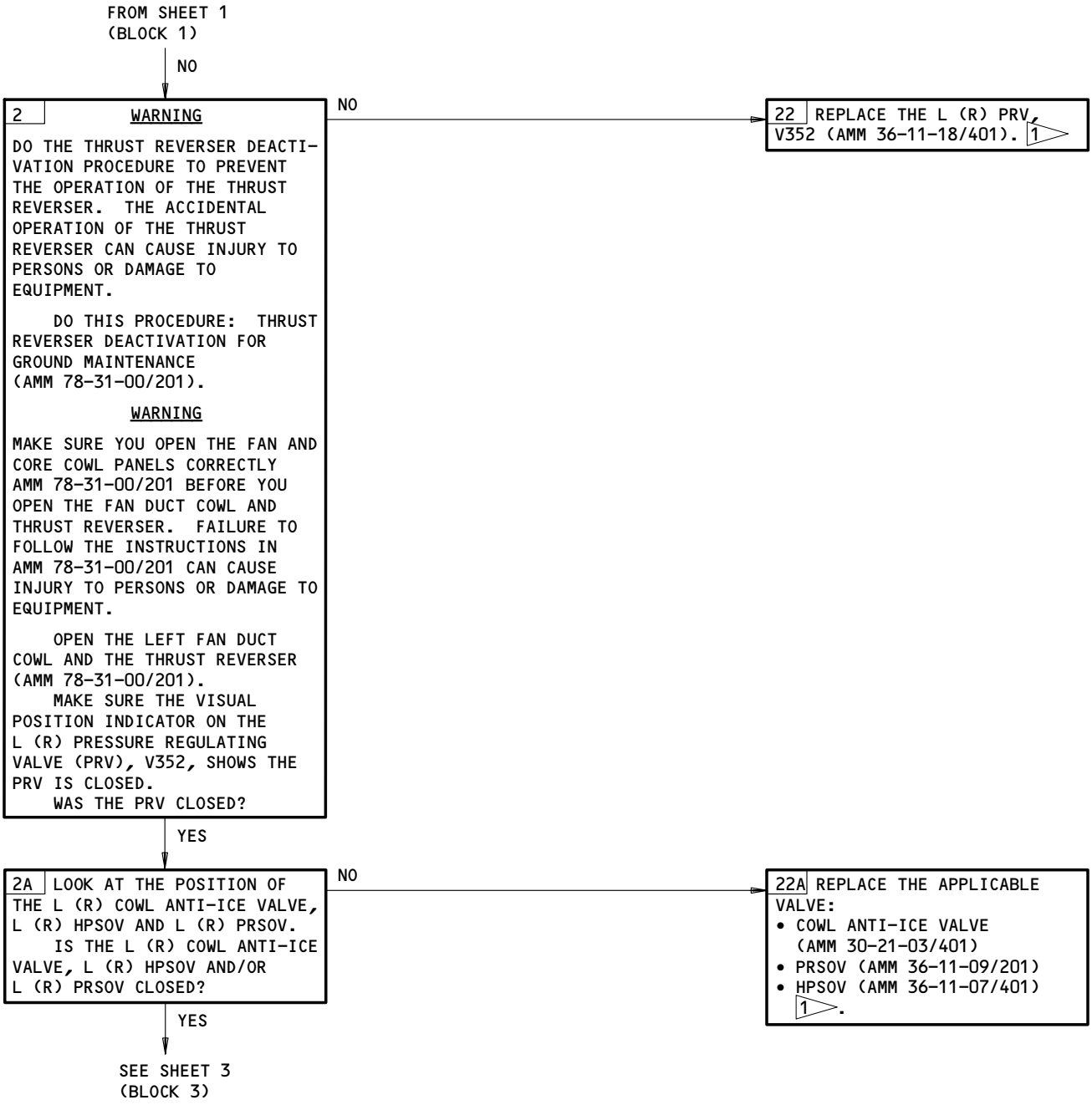
1. "L (R) ENG PRV" AND "BLEED" (THE PRV IS NOT CLOSED WHEN IT HAS BEEN COMMANDED CLOSED OR A PRV FAILURE RESULTING IN AN OVERPRESSURE CONDITION).
2. "L (R) ENG BLD OVHT" AND "OVHT" (THIS IS AN OVERHEAT CONDITION [>490°F] AND THE PRV IS CLOSED).

POSSIBLE CAUSES:

1. "L (R) ENG PRV" AND "BLEED"
   - A. LOOSE PRVC SENSE LINE B-NUT AT THE PRECOOLER OR PRVC
   - B. BAD PRVC (THE PRVC IS NOT REGULATING CORRECTLY) PRV/PRVC ADJUSTMENT/TEST (AMM 36-11-18/501)
   - C. BAD PRV (POSITION SWITCH CALIBRATION, THE PRV IS STUCK OPEN) PRV/PRVC ADJUSTMENT/TEST (AMM 36-11-18/501)
   - D. DURING A NO PACKS TAKEOFF. TOO MUCH LEAKAGE PAST THE PRV BUTTERFLY
   - E. BAD OVERPRESSURE SWITCH
   - F. OPEN WIRE TO THE PRV POSITION SWITCH OR TO THE OVERPRESSURE SWITCH
   - G. BLEED AIR CONTROL CARD AND/OR ELECTRICAL CIRCUIT PROBLEMS.
2. "L (R) ENG BLD OVHT" AND "OVHT"
   - A. BAD FATS OR FAMV, ADJUSTMENT/TEST (AMM 36-11-16/501)
   - B. HPC SWITCHOVER OCCURS HIGH, JUST BELOW THE 127 PSI "BLEED" LIGHT INDICATION
   - C. BAD OVERTEMPERATURE SWITCH
   - D. STUCK OPEN CAI VALVE (ALLOWS HIGHER BLEED FLOW)
   - E. STUCK OPEN PRSOV (ALLOWS HIGHER BLEED FLOW), ADJUSTMENT/TEST (AMM 36-11-09/501)
   - F. OPEN WIRE TO THE OVERTEMPERATURE SWITCH
   - G. BLEED AIR CONTROL CARD AND/OR ELECTRICAL CIRCUIT PROBLEMS.

FAULT ISOLATION:

EICAS Msgs L (R) ENG PRV and L (R) ENG BLD OVHT Displayed. L (R) Eng BLEED and OVHT Lights Illuminated.
Figure 125 (Sheet 1)

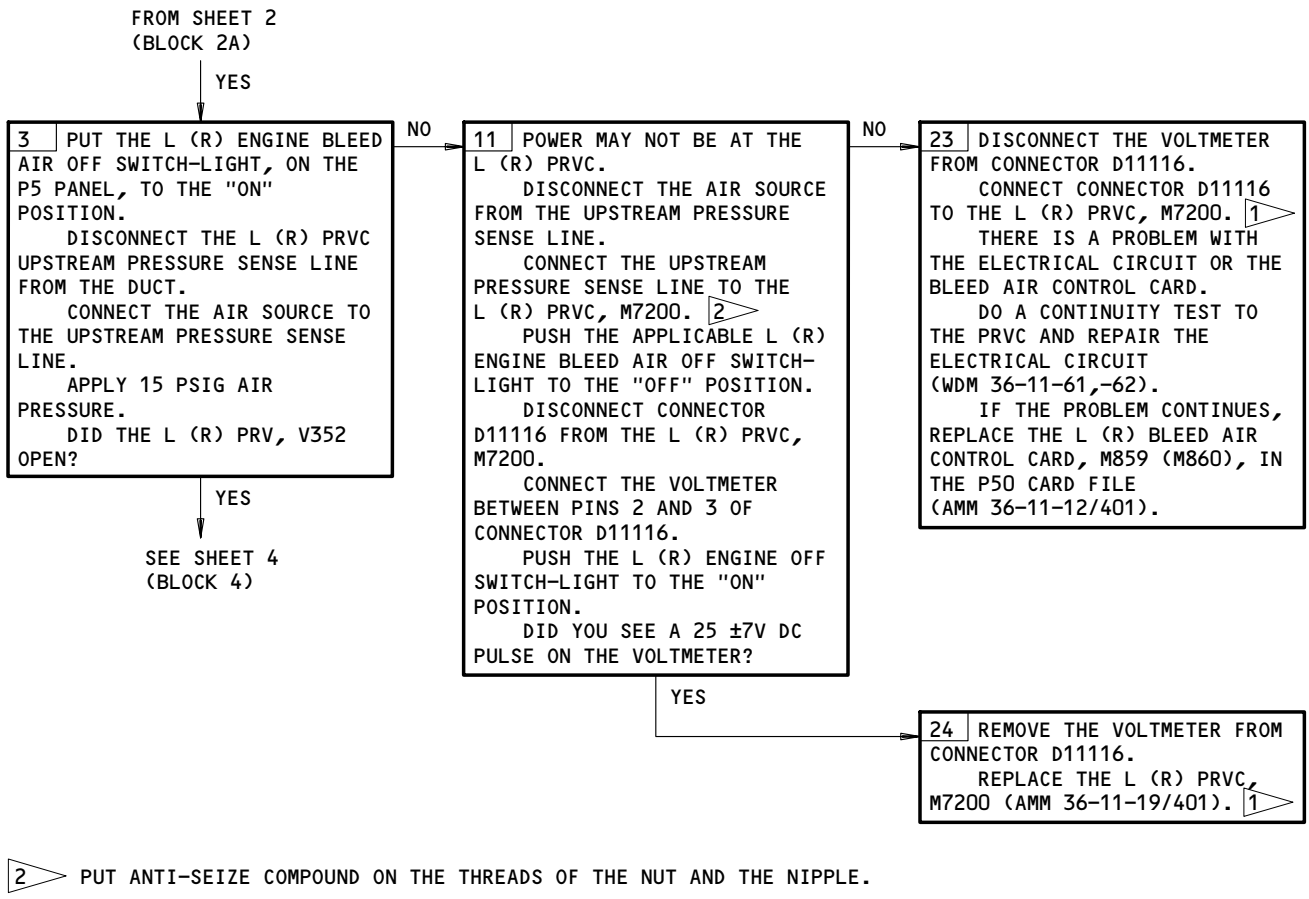


1 WARNING: MAKE SURE YOU CLOSE THE FAN AND CORE COWL PANELS CORRECTLY (AMM 78-31-00/201) BEFORE YOU CLOSE THE FAN DUCT COWL AND THE THRUST REVERSER. FAILURE TO FOLLOW THE INSTRUCTIONS IN AMM 78-31-00/201 CAN CAUSE INJURY TO PERSONS OR DAMAGE TO EQUIPMENT.

CLOSE THE FAN DUCT COWL AND THE THRUST REVERSERS (AMM 78-31-00/201).

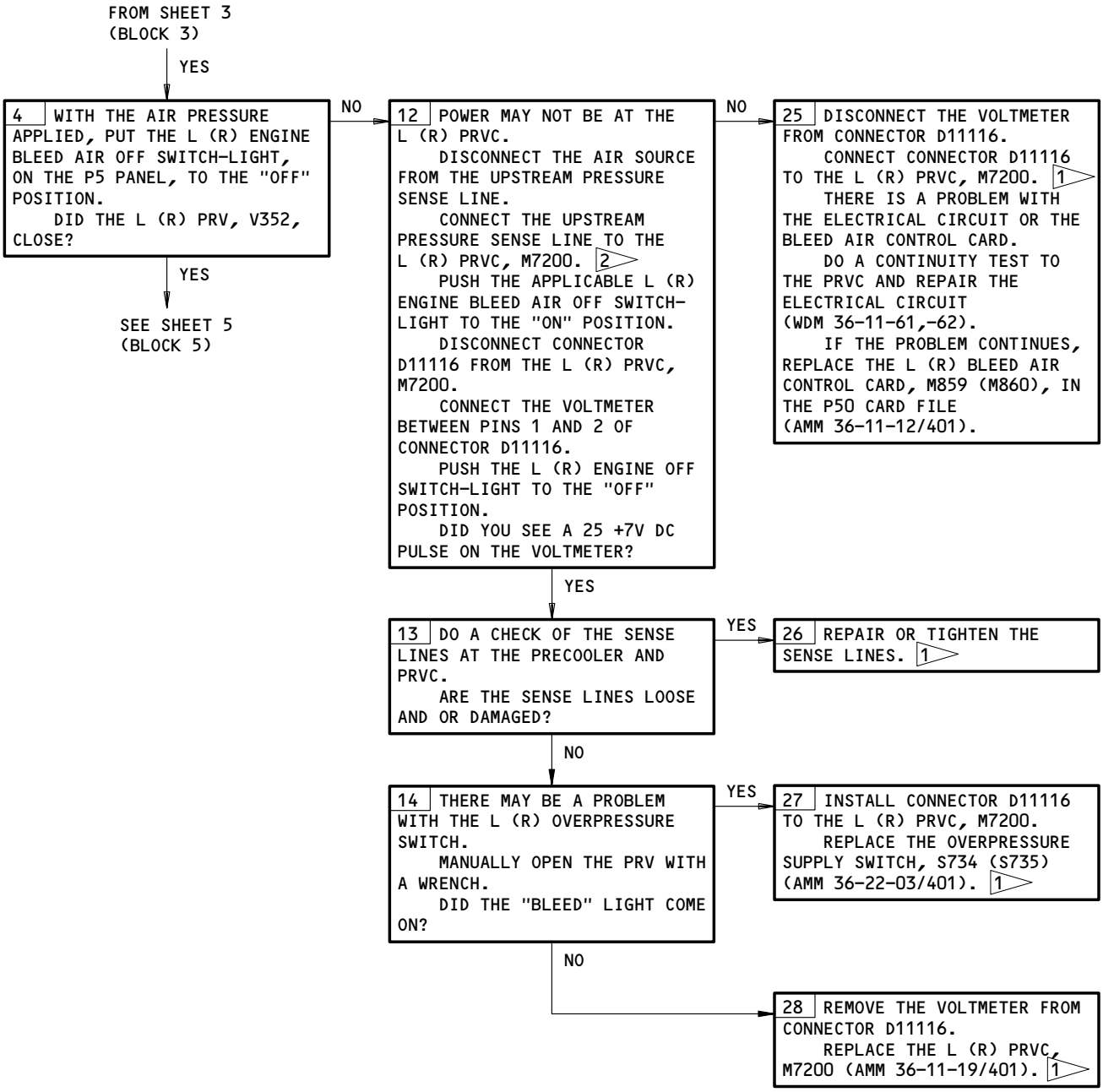
DO THIS PROCEDURE: THRUST REVERSERS ACTIVATION (AMM 78-31-00/201).

EICAS Msgs L (R) ENG PRV and L (R) ENG BLD OVHT Displayed. L (R) Eng BLEED and OVHT Lights Illuminated.
Figure 125 (Sheet 2)



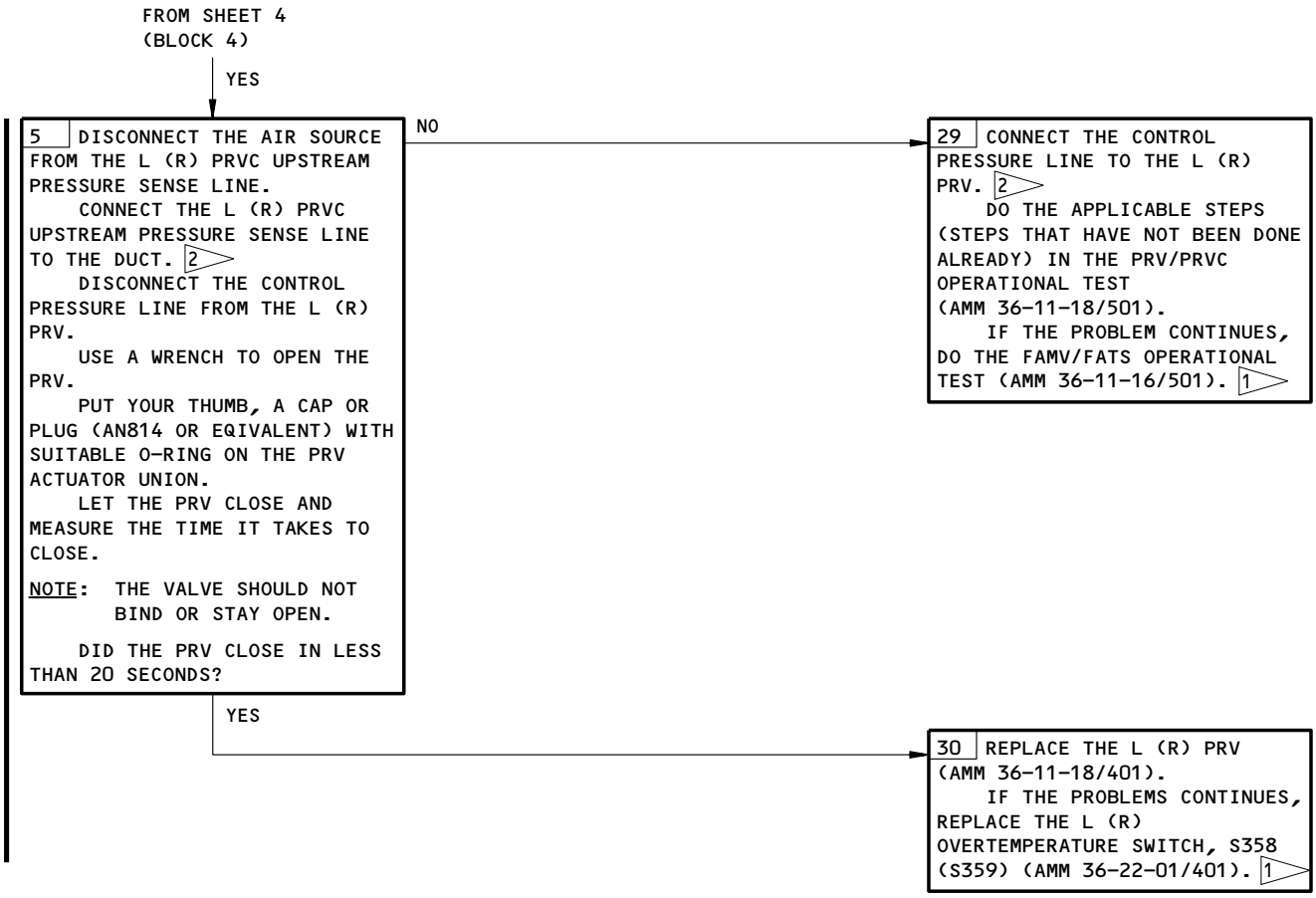
2 PUT ANTI-SEIZE COMPOUND ON THE THREADS OF THE NUT AND THE NIPPLE.

EICAS Msgs L (R) ENG PRV and L (R) ENG BLD OVHT Displayed. L (R) Eng BLEED and OVHT Lights Illuminated.
Figure 125 (Sheet 3)



EICAS Msgs L (R) ENG PRV and L (R) ENG BLD OVHT Displayed. L (R) Eng BLEED and OVHT Lights Illuminated.
Figure 125 (Sheet 4)

F78336



EICAS Msgs L (R) ENG PRV and L (R) ENG BLD OVHT Displayed. L (R) Eng BLEED and OVHT Lights Illuminated.
Figure 125 (Sheet 5)

F78339

EICAS MSGS "L (R) ENG PRV" AND "L (R) ENG BLD OVHT" DISPLAYED. L (R) ENG "BLEED" AND "OVHT" LIGHTS ILLUMINATED. DUCT PRESSURE (HIGH, LOW).

PREREQUISITES

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED:
11S10,11S11,11S19,11S20

MAKE SURE THE AIRPLANE IS IN THIS CONFIGURATION:
ELECTRICAL POWER IS ON (AMM 24-22-00/201)
PNEUMATIC DUCT PRESSURE IS ZERO (AMM 36-00-00/201)

EQUIPMENT:
AIR SOURCE - LOW PRESSURE, 0-15 PSIG, COMMERCIALLY AVAILABLE

CONSUMABLE MATERIALS:
ANTISEIZE COMPOUND, HIGH TEMPERATURE - BOSTIK, NEVER-SEEZ

DESCRIPTION:

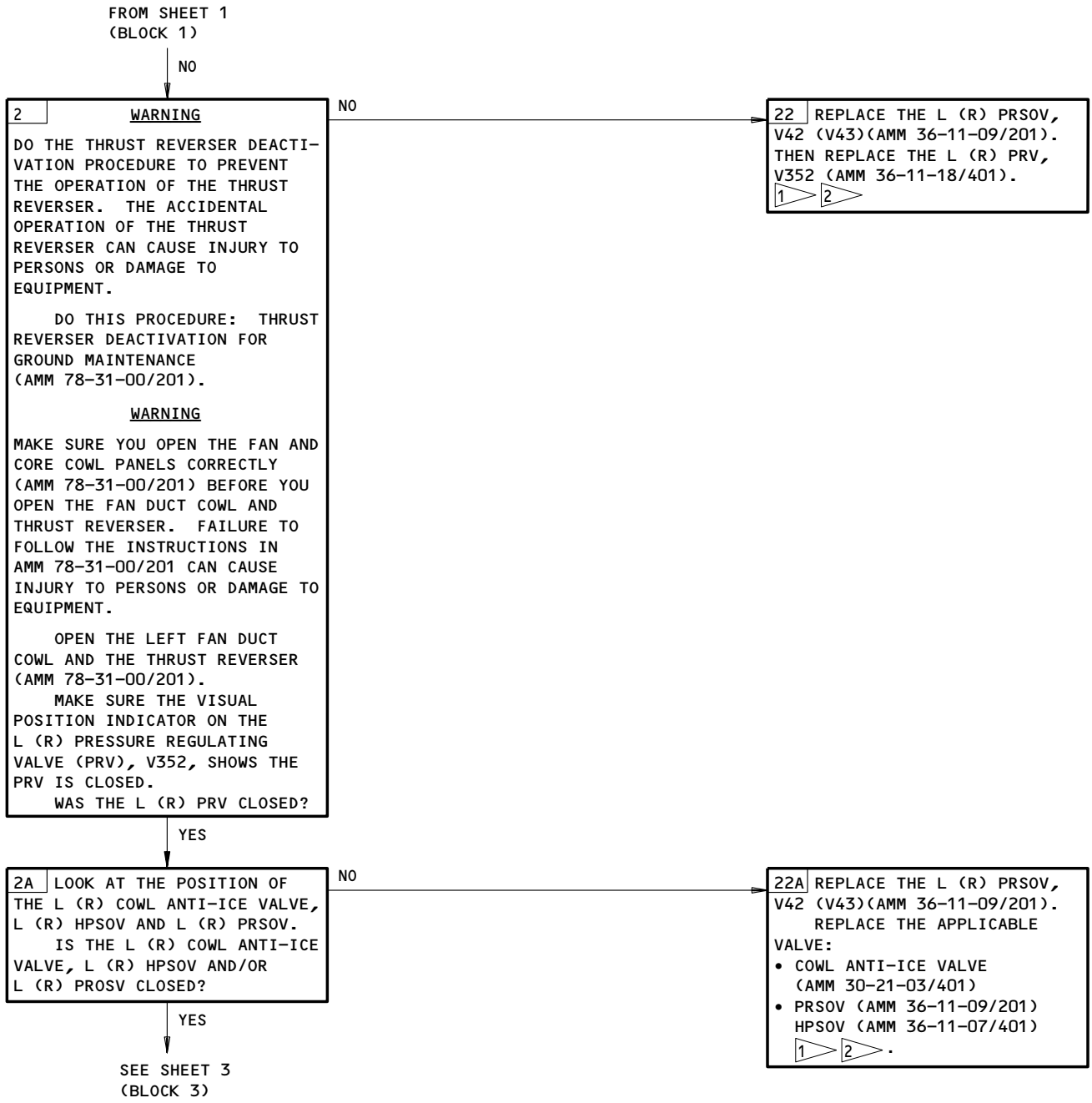
1. "L (R) ENG PRV" AND "BLEED" (THE PRV IS NOT CLOSED WHEN IT HAS BEEN COMMANDED CLOSED OR A PRV FAILURE RESULTING IN AN OVERPRESSURE CONDITION).
2. "L (R) ENG BLD OVHT" AND "OVHT" (THIS IS AN OVERHEAT CONDITION [>490°F] AND THE PRV IS CLOSED).

POSSIBLE CAUSES:

1. "L (R) ENG PRV" AND "BLEED"
   - A. LOOSE PRVC SENSE LINE B-NUT AT THE PRECOOLER OR PRVC
   - B. BAD PRVC (THE PRVC IS NOT REGULATING CORRECTLY) PRV/PRVC ADJUSTMENT/TEST (AMM 36-11-18/501)
   - C. BAD PRV (POSITION SWITCH CALIBRATION, THE PRV IS STUCK OPEN) PRV/PRVC ADJUSTMENT/TEST (AMM 36-11-18/501)
   - D. DURING A NO PACKS TAKEOFF. TOO MUCH LEAKAGE PAST THE PRV BUTTERFLY
   - E. BAD OVERPRESSURE SWITCH
   - F. OPEN WIRE TO THE PRV POSITION SWITCH OR TO THE OVERPRESSURE SWITCH
   - G. BLEED AIR CONTROL CARD AND/OR ELECTRICAL CIRCUIT PROBLEMS.
2. "L (R) ENG BLD OVHT" AND "OVHT"
   - A. BAD FATS OR FAMV, ADJUSTMENT/TEST (AMM 36-11-16/501)
   - B. HPC SWITCHOVER OCCURS HIGH, JUST BELOW THE 127 PSI "BLEED" LIGHT INDICATION
   - C. BAD OVERTEMPERATURE SWITCH
   - D. STUCK OPEN CAI VALVE (ALLOWS HIGHER BLEED FLOW)
   - E. STUCK OPEN PRSOV (ALLOWS HIGHER BLEED FLOW), ADJUSTMENT/TEST (AMM 36-11-09/501)
   - F. OPEN WIRE TO THE OVERTEMPERATURE SWITCH
   - G. BLEED AIR CONTROL CARD AND/OR ELECTRICAL CIRCUIT PROBLEMS.

FAULT ISOLATION:

EICAS Msgs L (R) ENG PRV and L (R) ENG BLD OVHT Displayed. L (R) Eng BLEED and OVHT Lights Illuminated. Duct Pressure (High, Low).
Figure 126 (Sheet 1)

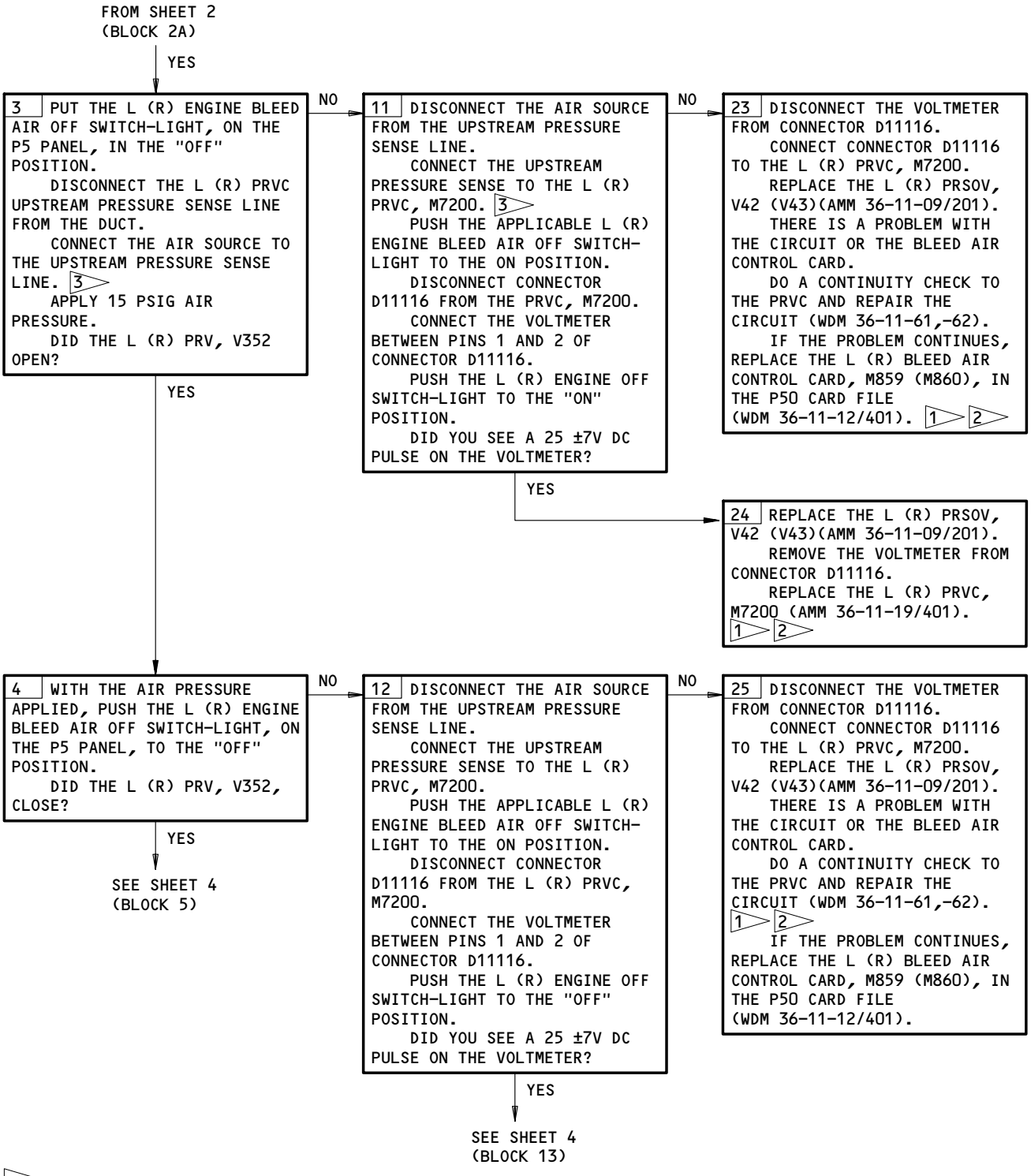


1 WARNING: MAKE SURE YOU CLOSE THE FAN AND CORE COWL PANELS CORRECTLY (AMM 78-31-00/201) BEFORE YOU CLOSE THE FAN DUCT COWL AND THRUST REVERSER. FAILURE TO FOLLOW THE INSTRUCTIONS IN AMM 78-31-00/201 CAN CAUSE INJURY TO PERSONS OR DAMAGE TO EQUIPMENT.

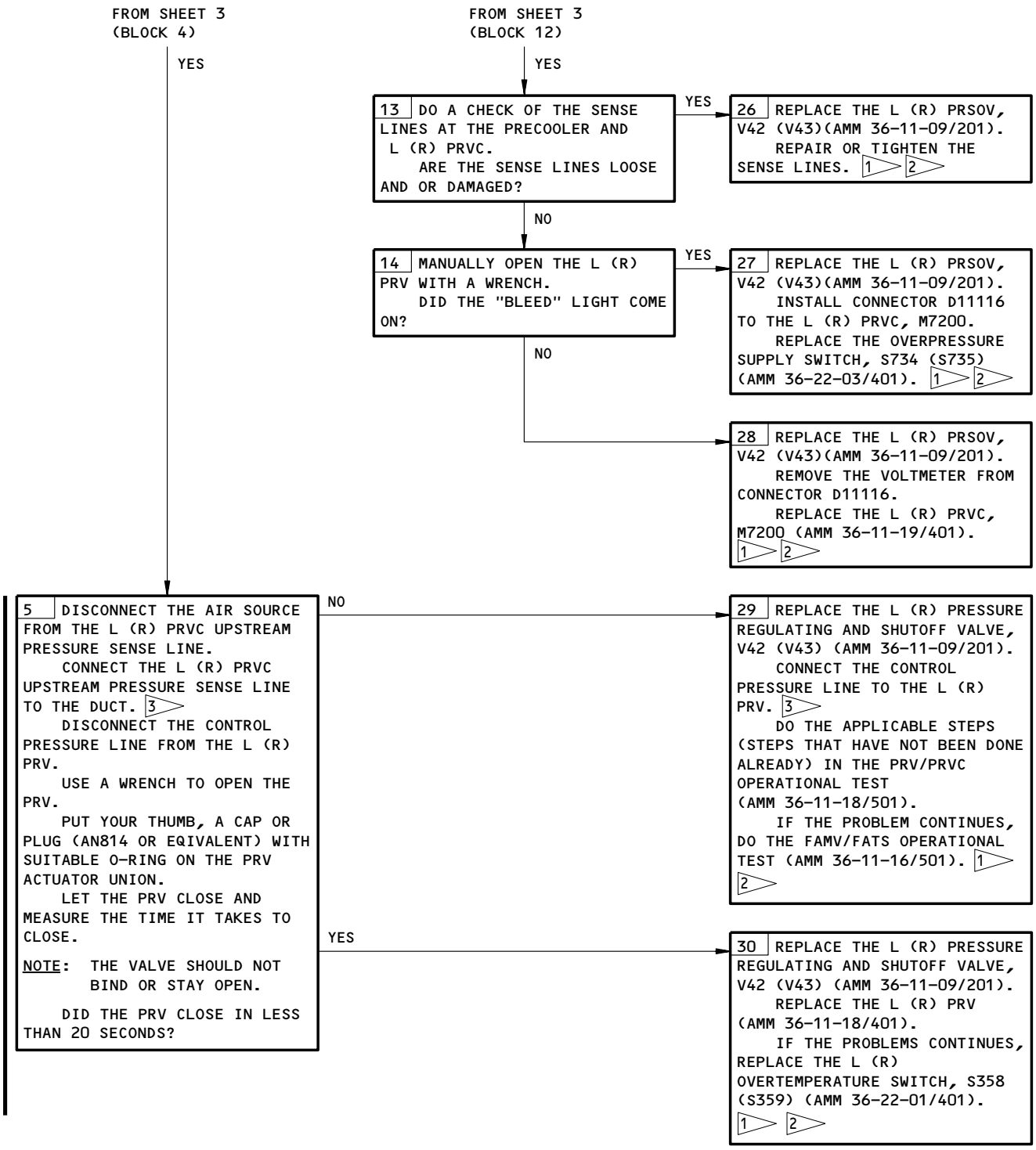
CLOSE THE LEFT (RIGHT) ENGINE LEFT FAN DUCT COWL AND THE THRUST REVERSER (AMM 78-31-00/201).

2 DO THIS PROCEDURE: THRUST REVERSERS ACTIVATION (AMM 78-31-00/201).

EICAS Msgs L (R) ENG PRV and L (R) ENG BLD OVHT Displayed. L (R) Eng BLEED and OVHT Lights Illuminated. Duct Pressure (High, Low).
Figure 126 (Sheet 2)



EICAS Msgs L (R) ENG PRV and L (R) ENG BLD OVHT Displayed. L (R) Eng BLEED and OVHT Lights Illuminated. Duct Pressure (High, Low).
Figure 126 (Sheet 3)



EICAS Msgs L (R) ENG PRV and L (R) ENG BLD OVHT Displayed. L (R) Eng BLEED and OVHT Lights Illuminated. Duct Pressure (High, Low).
Figure 126 (Sheet 4)

Not Used
Figure 127

PRESSURE REGULATING VALVE PROBLEMS WHEN ENGINE COWL ANTI-ICE IS SELECTED ON

PREREQUISITES

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED:
11S10,11S11,11S19,11S20,11T10,11T19

MAKE SURE THE AIRPLANE IS IN THIS CONFIGURATION:
ELECTRICAL POWER IS ON (AMM 24-22-00/201)
PNEUMATIC DUCT PRESSURE IS ZERO (AMM 36-00-00/201)

EQUIPMENT:
AIR SOURCE - 0-15 PSIG, COMMERCIALLY AVAILABLE

CONSUMABLE MATERIALS:
ANTISEIZE COMPOUND, HIGH TEMPERATURE-COMMERCIALLY AVAILABLE

POSSIBLE CAUSES:

1. SENSE LINES
2. PRESSURE REGULATING VALVE (PRV)
3. PRESSURE REGULATING VALVE CONTROLLER (PRC)
4. BLEED AIR CONTROL CARD
5. ENGINE INLET TAI VALVE
6. ELECTRICAL CIRCUIT.

FAULT ISOLATION:

Pressure Regulating Valve Problems When Engine Cowl Anti-Ice is Selected On
Figure 128 (Sheet 1)

1 PUT THE L (R) ENG ANTI-ICE SWITCH-LIGHT, S1 (S2), ON THE P5 PANEL IN THE ON POSITION.

PUT THE L (R) ENG BLEED AIR "OFF" SWITCH-LIGHT ON THE P5 PANEL IN THE "OFF" POSITION.

WARNING

DO THE THRUST REVERSER DEACTIVATION PROCEDURE TO PREVENT THE OPERATION OF THE THRUST REVERSER. THE ACCIDENTAL OPERATION OF THE THRUST REVERSER CAN CAUSE INJURY TO PERSONS OR DAMAGE TO EQUIPMENT.

DO THIS PROCEDURE: THRUST REVERSER DEACTIVATION FOR GROUND MAINTENANCE (AMM 78-31-00/201).

WARNING

MAKE SURE YOU OPEN THE FAN AND CORE COWL PANELS CORRECTLY (AMM 78-31-00/201) BEFORE YOU OPEN THE FAN DUCT COWL AND THRUST REVERSER. FAILURE TO FOLLOW THE INSTRUCTIONS IN (AMM 78-31-00/201) CAN CAUSE INJURY TO PERSONS OR DAMAGE TO EQUIPMENT.

OPEN THE APPLICABLE LEFT (RIGHT) ENGINE LEFT FAN DUCT COWL AND THE THRUST REVERSER 415AL (425AL)(AMM 78-31-00/201).

DISCONNECT CONNECTOR D11116 FROM THE LEFT (RIGHT) PRV CONTROLLER, M7200.

CONNECT THE VOLTMETER BETWEEN PINS 1 AND 4 OF CONNECTOR D11116.

PUT THE LEFT (RIGHT) ENG ANTI-ICE SWITCH-LIGHT, S1 (S2), ON THE P5 PANEL IN THE OFF POSITION THEN THE ON POSITION.

LOOK FOR A 6 ±4 SECOND 25 ±7V DC PULSE WHEN YOU PUT THE SWITCH-LIGHT IN THE ON POSITION.

DID YOU SEE A 6 ±4 SECOND 25 ±7V DC PULSE ON THE VOLTMETER?

NO →

41 REMOVE THE VOLTMETER FROM CONNECTOR D11116.

INSTALL CONNECTOR D11116 TO THE LEFT (RIGHT) PRV CONTROLLER, M7200. 1

DO THIS PROCEDURE: THRUST REVERSERS ACTIVATION (AMM 78-31-00/201).

REPLACE THE L (R) ENGINE BLEEN AIR CONTROL CARD, M859 (M860), IN THE P50 CARD FILE (AMM 36-11-12/401).

IF THE PROBLEM CONTINUES, REPLACE THE L (R) ENG BLEED AIR "OFF" SWITCH-LIGHT, S4 (S6), IN THE BLEED AIR SUPPLY PANEL ON THE P5 PANEL (WDM 36-11-61,-62).

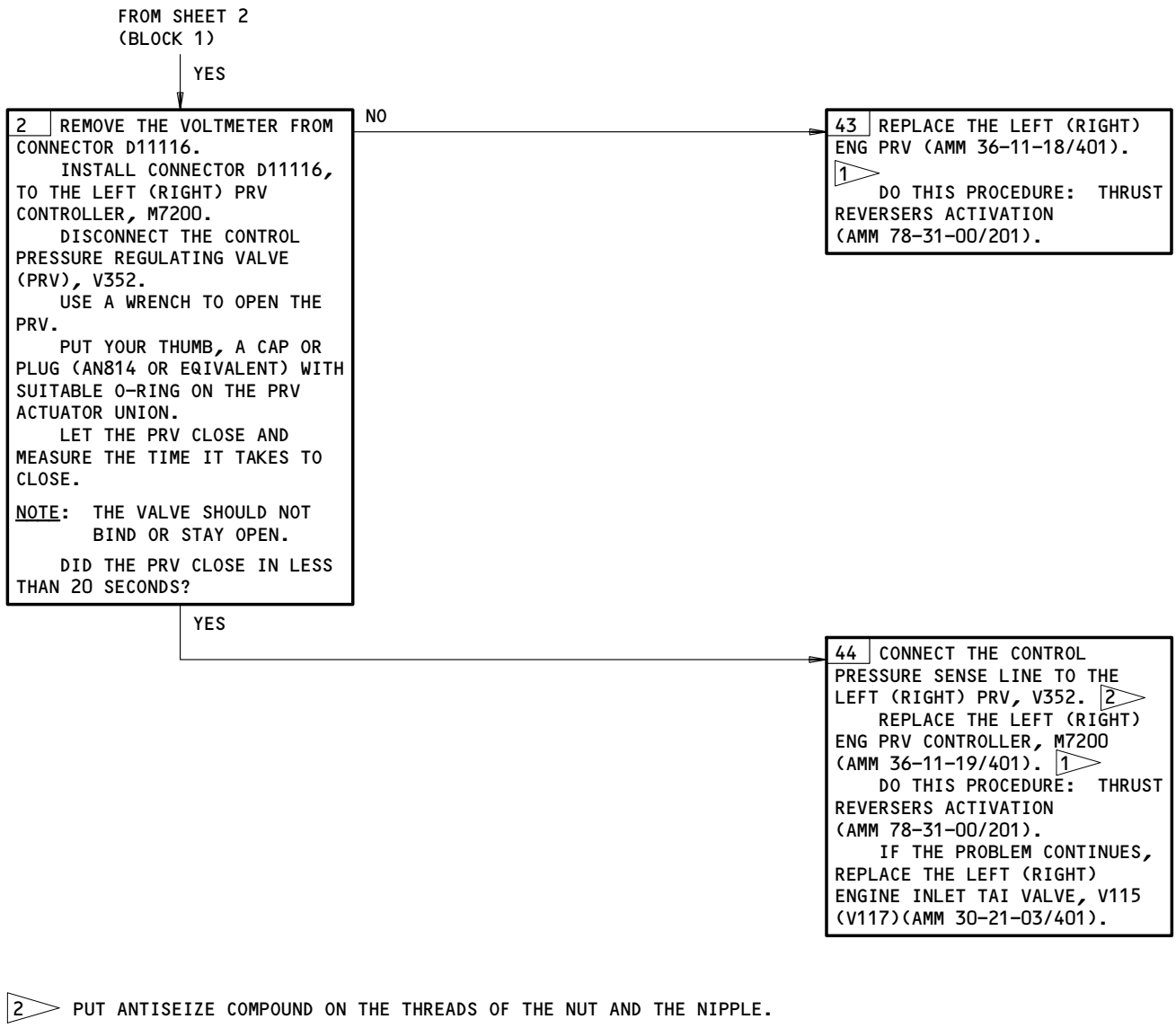
YES

SEE SHEET 3
(BLOCK 2)

1 WARNING: MAKE SURE YOU CLOSE THE FAN AND CORE COWL PANELS CORRECTLY (AMM 78-31-00/201) BEFORE YOU CLOSE THE FAN DUCT COWL AND THRUST REVERSER. FAILURE TO FOLLOW THE INSTRUCTIONS IN (AMM 78-31-00/201) CAN CAUSE INJURY TO PERSONS OR DAMAGE TO EQUIPMENT.

CLOSE THE LEFT FAN DUCT COWL AND THE THRUST REVERSER (AMM 78-31-00/201).

Pressure Regulating Valve Problems When Engine Cowl Anti-Ice is Selected On
Figure 128 (Sheet 2)



Pressure Regulating Valve Problems When Engine Cowl Anti-Ice Is Selected On
Figure 128 (Sheet 3)

EFFECTIVITY
ALL

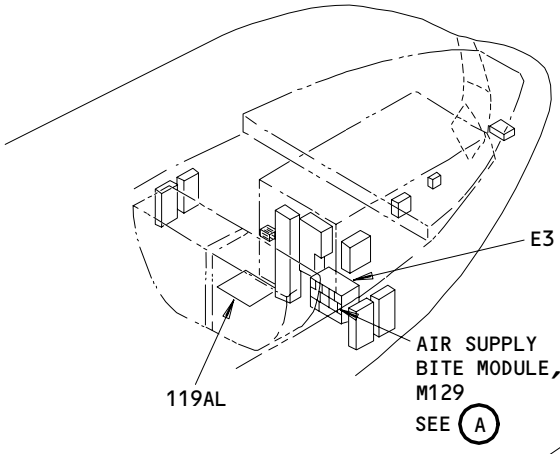
C11066

PNEUMATIC INDICATING

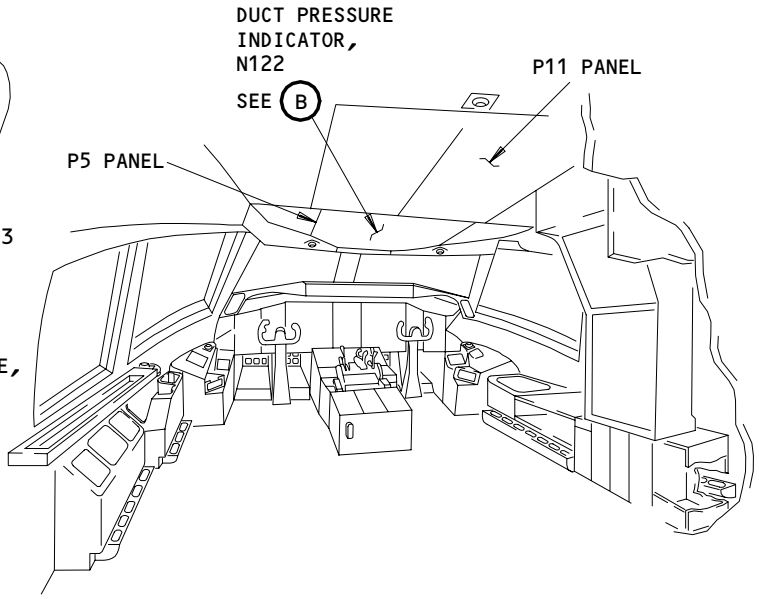
COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	AMM REFERENCE
BULB – LEFT PRECOOLER TEMPERATURE, TS350	2	1	434AL, L ENG STRUT	36-22-02
BULB – RIGHT PRECOOLER TEMPERATURE, TS351	2	1	444AL, R ENG STRUT	36-22-02
CIRCUIT BREAKER –	1		FLT COMPT, P11	
CONTROL, LEFT AIR SUPPLY ENG BLEED, C1339		1	11S11	*
CONTROL, RIGHT AIR SUPPLY ENG BLEED, C1340		1	11S20	*
IND, AIR SUPPLY DUCT PRESS PWR, C4221		1	11S17	*
IND, LEFT AIR SUPPLY DUCT PRESS, C1332		1	11S16	*
IND, LEFT AIR SUPPLY ENG BLEED, C1343		1	11S10	*
IND, RIGHT AIR SUPPLY DUCT PRESS, C1342		1	11S25	*
IND, RIGHT AIR SUPPLY ENG BLEED, C1344		1	11S19	*
PRESS DUCT				*
CIRCUIT BREAKER –	1		119AL, MAIN EQUIP CTR, P36	
BITE, AIR SUPPLY, C1341		1	36L7 OR 36K7	*
INDICATOR – DUCT PRESSURE, N122	1	1	FLT COMPT, P5	36-21-02
MODULE – AIR SUPPLY BITE, M129	1	1	119AL, MAIN EQUIP CTR, E3	36-23-01
SENSOR – LEFT PRV EXIT PRESSURE, M1842	3	1	511NB, WING ACCESS PANEL	36-21-08
SENSOR – RIGHT PRV EXIT PRESSURE, M1843	3	1	611NB, WING ACCESS PANEL	36-21-08
SWITCH – LEFT AIR SUPPLY THERMAL OVERTEMPERATURE, S358	2	1	434AL, L ENG STRUT	36-22-01
SWITCH – LEFT OVERPRESSURE, S734	2	1	511NB, WING ACCESS PANEL	36-21-03
SWITCH – RIGHT AIR SUPPLY THERMAL OVERTEMPERATURE, S359	2	1	444AL, R ENG STRUT	36-22-01
SWITCH – RIGHT OVERPRESSURE, S735	2	1	611NB, WING ACCESS PANEL	36-21-03
TRANSDUCER – LEFT DUCT PRESSURE, M1088	4	1	193KL, ECS BAY	36-21-01
TRANSDUCER – RIGHT DUCT PRESSURE, M1089	4	1	194KR, ECS BAY	36-21-01

* SEE THE WDM EQUIPMENT LIST

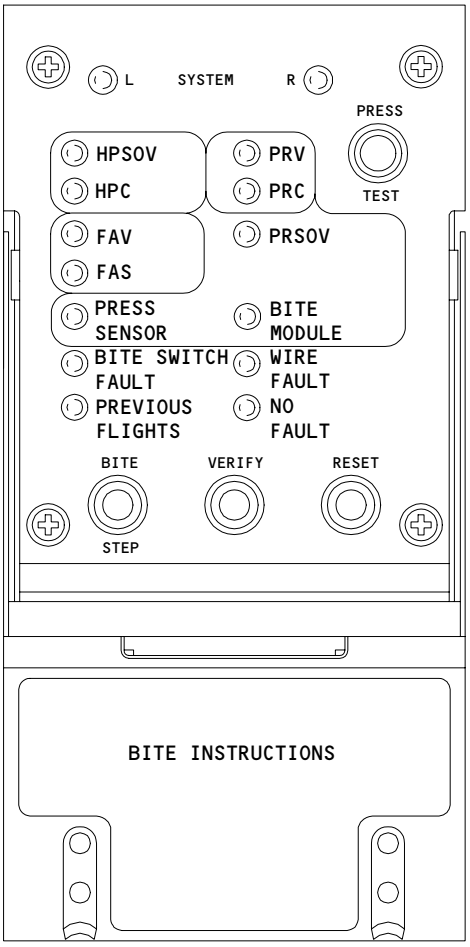
Pneumatic Indicating – Component Index
Figure 101



MAIN EQUIPMENT CENTER

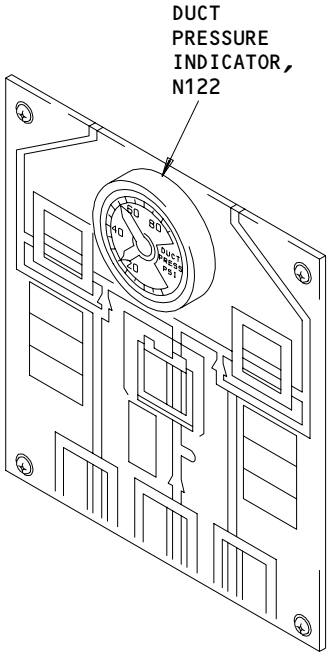


FLIGHT COMPARTMENT



AIR SUPPLY BITE MODULE, M129

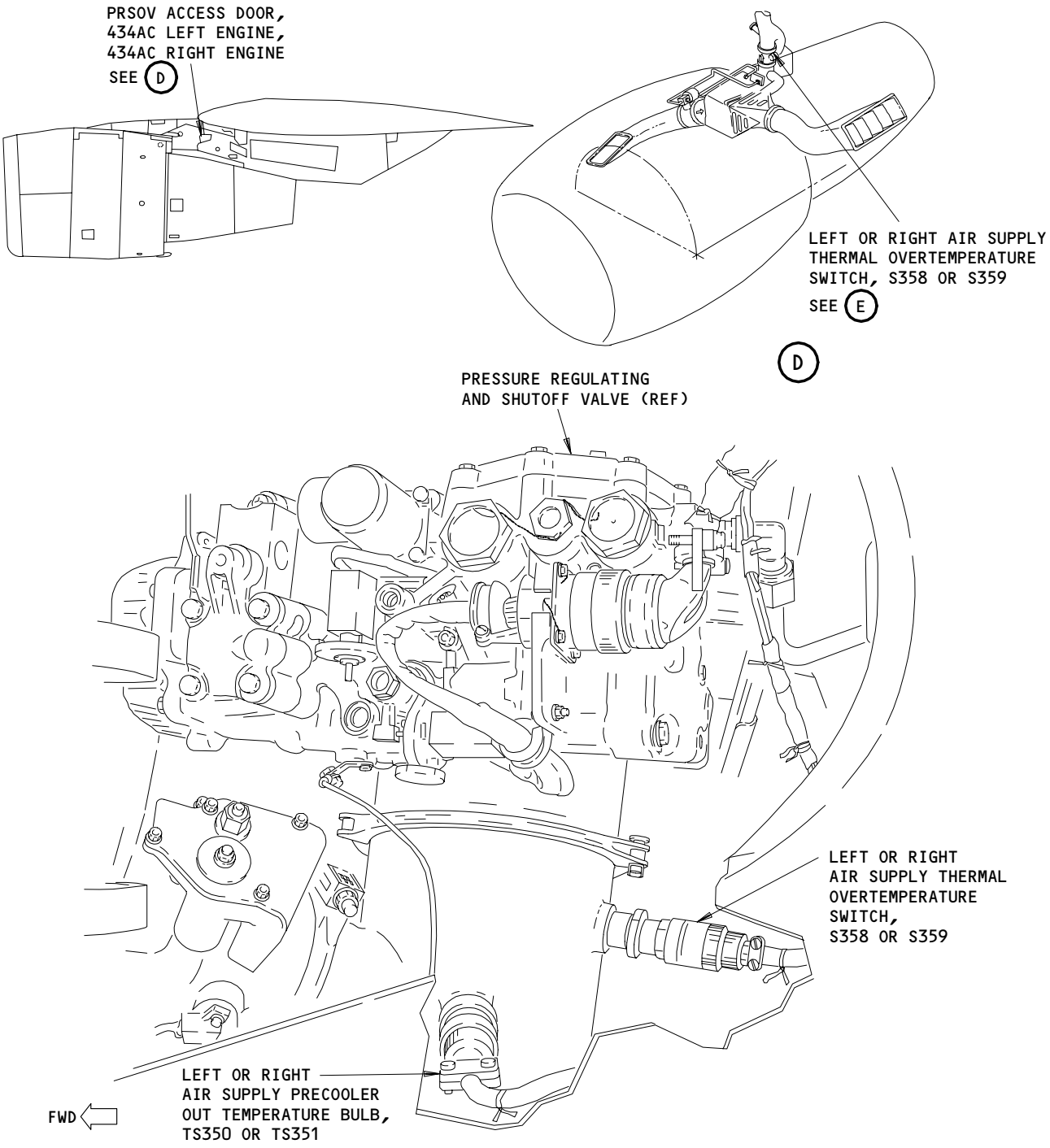
A



DUCT PRESSURE INDICATOR, N122

B

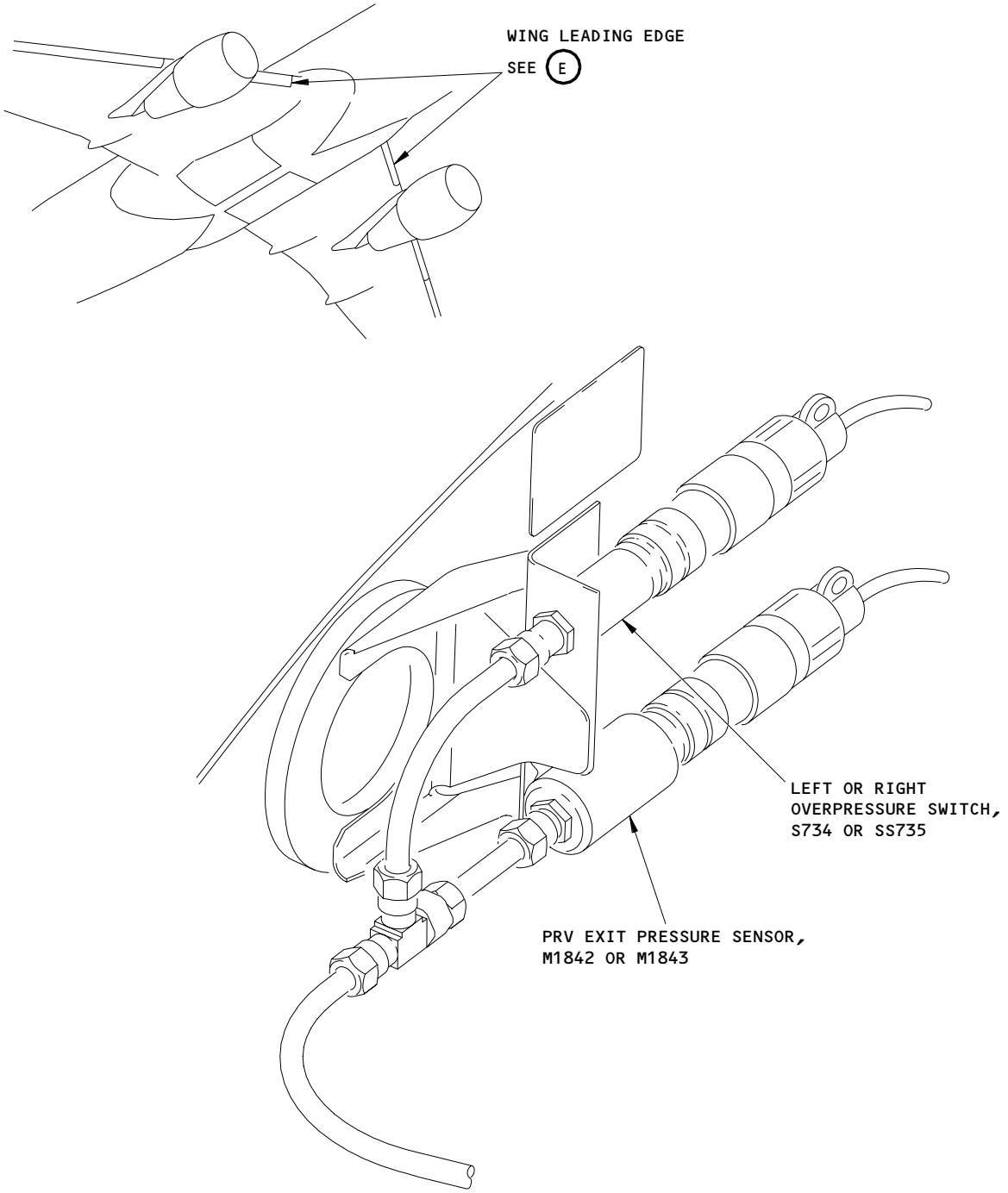
Pneumatic Indicating - Component Location
Figure 102 (Sheet 1)



LEFT OR RIGHT AIR SUPPLY THERMAL
OVERTEMPERATURE SWITCH

E

Pneumatic Indicating - Component Location
Figure 102 (Sheet 2)



WING LEADING EDGE

E

Pneumatic Indicating - Component Location
Figure 102 (Sheet 3)

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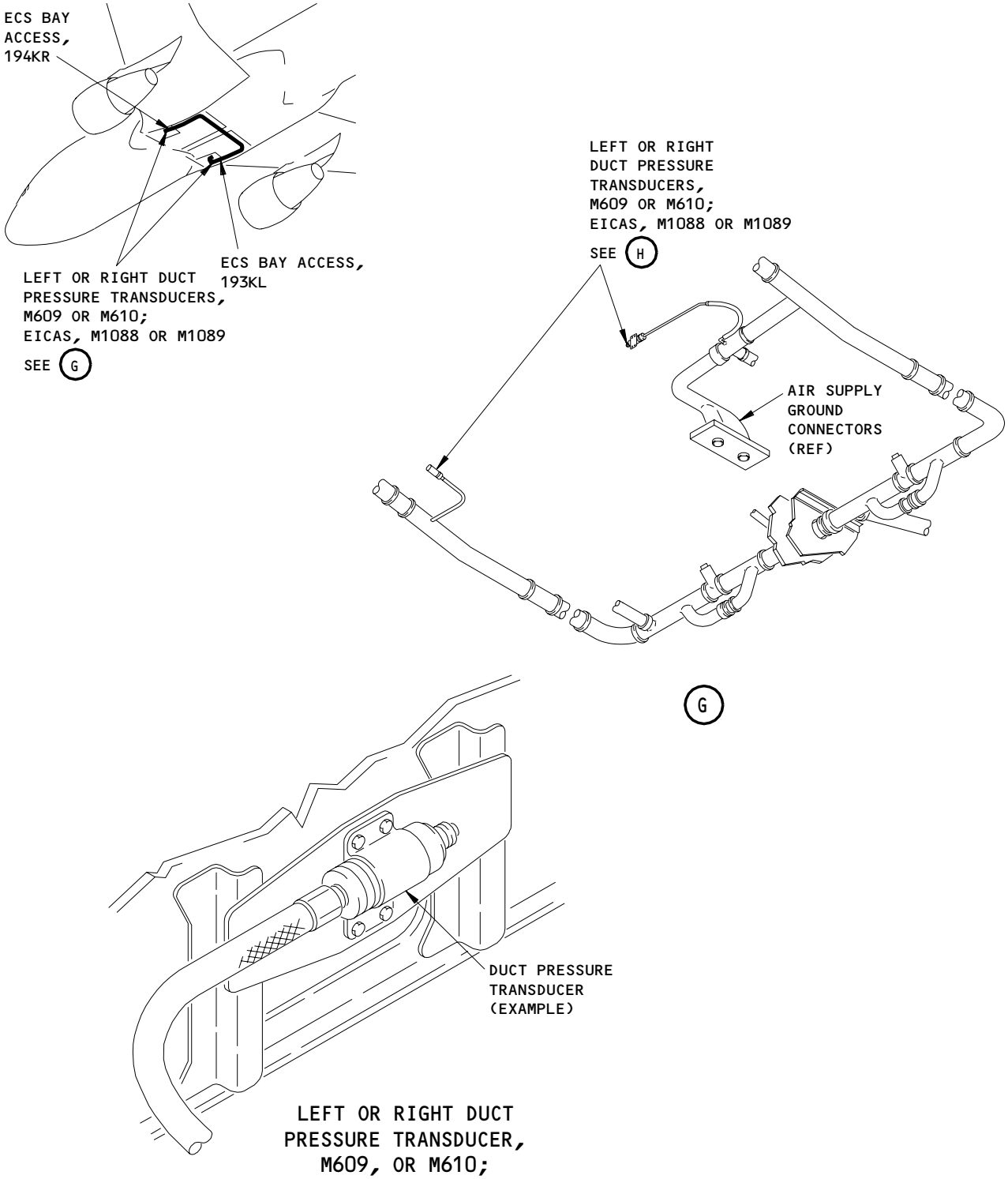

Pneumatic Indicating - Component Location
Figure 102 (Sheet 4)

PNEUMATIC DUCT PRESSURE INDICATING PROBLEMS

PREREQUISITES

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED:
11S16,11S17,11S25

MAKE SURE THE AIRPLANE IS IN THIS CONFIGURATION:
ELECTRICAL POWER IS ON (AMM 24-22-00/201)
PNEUMATIC POWER IS ON (AMM 36-00-00/201)

1 PUSH THE LEFT, RIGHT, CENTER ISOLATION VALVE SWITCH-LIGHTS ON P5 PANEL TO THE OPEN POSITION.
ON THE RIGHT SIDE OF P61 PANEL, PUSH THE ECS/MSG PUSHBUTTON.
EXAMINE THE LEFT (RIGHT) EICAS VALUE FOR DUCT PRESSURE ON THE LOWER DISPLAY.
IS THE LEFT (RIGHT) EICAS VALUE THE SAME AS THE LEFT (RIGHT) INDICATOR VALUE AND IS THIS VALUE LARGER THAN ZERO?

YES → 21 DO THE BITE PROCEDURE FOR AIR SUPPLY (FIM 36-20-00/101, FIG. 104). 1
DOES THE BITE PROCEDURE IDENTIFY A PRESSURE REGULATING AND SHUTOFF VALVE, V42 (V43) THAT DOES NOT OPERATE?

YES → 41 DO THE PROCEDURE TO CORRECT THE PROBLEM.

NO → 22 DOES THE BITE PROCEDURE IDENTIFY A HIGH PRESSURE CONTROLLER, M7191 THAT DOES NOT OPERATE?

YES → 42 DO THE PROCEDURE TO CORRECT THE PROBLEM.

NO → 43 REPLACE THE LEFT (RIGHT) SHUTOFF VALVE FOR HIGH PRESSURE, V347 (AMM 36-11-07/401).

NO → 2 IS THE LEFT (RIGHT) EICAS VALUE THE SAME AS THE LEFT (RIGHT) INDICATOR VALUE FOR DUAL DUCT PRESSURE?

NO → 23 WAS EITHER VALUE ZERO?

NO → 44 EXAMINE AND REPAIR THE CIRCUIT BETWEEN THE LEFT (RIGHT) DUCT PRESSURE TRANSDUCER, M609 (M610) M1089 (M1088) AND THE LEFT (RIGHT) EICAS COMPUTER M10181 (M10182) OR THE INDICATOR FOR DUAL DUCT PRESSURE, N122.

YES → 24 WAS THE EICAS VALUE ZERO?

YES → 45 DO THIS PROCEDURE: EICAS BITE PROCEDURE (FIM 31-41-00/101, FIG. 103).

NO → 46 REPLACE THE INDICATOR FOR DUAL DUCT PRESSURE, N122 (AMM 36-21-02/401).

YES → 47 REPLACE THE LEFT (RIGHT) TRANSDUCER FOR DUCT PRESSURE, M609 (M610) M1089 (M1088) (AMM 36-21-01/401).

1 DO NOT DO THE BITE PROCEDURE IF THE BITE MODULE IS PART NUMBER S210T120-47 (HAMILTON STANDARD [H/S] PART NUMBER 773461-9) OR LESS. REPLACE THE LEFT (RIGHT) PRESSURE REGULATING AND SHUTOFF VALVE, V42 (V43)(AMM 36-11-09).

IF THE BITE MODULE PART NUMBER IS S210T120-67 (H/S 804401-2) OR ABOVE, DO THE BITE PROCEDURE.

Pneumatic Duct Pressure Indicating Problems
Figure 103

PREREQUISITES

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED:
11S10,11S11,11S16,11S19,11S20,11S25,36L7

MAKE SURE THE AIRPLANE IS IN THIS CONFIGURATION:
ELECTRICAL POWER IS ON (AMM 24-22-00/201)
PNEUMATIC DUCT PRESSURE IS ZERO (AMM 36-00-00/201)

AIR SUPPLY BITE PROCEDURE

NOTE: TO PREVENT INCORRECT FAULT INDICATIONS, DO THE BITE TEST WITHOUT SYSTEM PRESSURE AND WITH THE ENGINES STOPPED.

DESCRIPTION (FOR A MORE DETAILED DESCRIPTION OF THE BITE MODULE BUTTONS SEE THE ILLUSTRATION AT THE END OF THIS PROCEDURE):

- LRU FAULT - FAILURE OF SENSOR/SWITCH IN LRU WHICH IS USED FOR SYSTEM OPERATION OR FLIGHT DECK INDICATION
- LRU WIRE FAULT 1 - OPEN CIRCUIT CONDITION FROM A SENSOR/SWITCH IN THE LRU WHICH IS USED FOR CONTROL OR FLIGHT DECK INDICATION
- BITE SWITCH FAULT - FAILURE OF SENSOR/SWITCH WHICH IS ONLY USED FOR THE BITE MODULE
- BITE SWITCH WIRE FAULT 1 - OPEN CIRCUIT CONDITION FROM A SENSOR/SWITCH WHICH IS USED FOR THE BITE MODULE
- BITE/STEP - DISPLAYS RECORDED FAULTS
- VERIFY - REAL TIME CHECK TO MAKE SURE THE LRUs ARE CONNECTED CORRECTLY AND THE VALVES ARE IN THE CORRECT POSITION WITH THE ENGINES OFF
- RESET - CLEARS THE FAULTS.

POSSIBLE CAUSES:

BITE DOES A CHECK OF THESE SYSTEM COMPONENTS:
- HIGH PRESS SOV (HIGH PRESSURE SHUTOFF VALVE)(AMM 36-11-07/401)
- HIGH PRESS CONT (HIGH PRESSURE CONTROLLER)(AMM 36-11-08/401)
- FAN AIR VALVE (FAN AIR MODULATING VALVE)(AMM 36-11-16/401)
- FAN AIR SENSOR (FAN AIR TEMPERATURE SENSOR)(AMM 36-11-17/401)
- PRESS REG SOV (PRESSURE REGULATING AND SHUTOFF VALVE)(AMM 36-11-09/201)
- BITE MODULE (AMM 36-23-01/401)
- PRV (PRESSURE REGULATING VALVE)(AMM 36-11-18/401)
- PRC (PRESSURE REGULATING VALVE CONTROLLER)(AMM 36-11-19/401)
- PRES SENSOR (PRV EXIT PRESSURE SENSOR)(AMM 36-21-08/401). THIS IS USED ONLY BY THE BITE MODULE.

BITE DOES NOT DO A CHECK OF THESE SYSTEM COMPONENTS:
- SENSE LINE LEAKAGE TO AND FROM COMPONENTS
- OPERATIONALLY TEST THE BLEED SYSTEM OR COMPONENTS.

IF THERE IS NO BITE MODULE INDICATION DO ONE OF THESE STEPS IF APPLICABLE:
- IF THE "BLEED" LIGHT IS ILLUMINATED REPLACE THE OVERPRESSURE SWITCH (AMM 36-21-03/201)
- IF THE "OVHT" LIGHT IS ILLUMINATED REPLACE THE OVERTEMPERATURE SWITCH (AMM 36-22-01/401)
- IF THE "OFF" LIGHT IS ILLUMINATED OR LOW PRESSURE EXISTS REPLACE THE AIR SUPPLY CONTROL BLEED CARD (AMM 36-11-12/401).

1 REPLACEMENT OF AN LRU FOR A WIRE FAULT WITHOUT DOING A CONTINUITY CHECK OF THE WIRING MAY RESULT IN AN UNJUSTIFIED COMPONENT REMOVAL.

Air Supply BITE Procedure
Figure 104 (Sheet 1)

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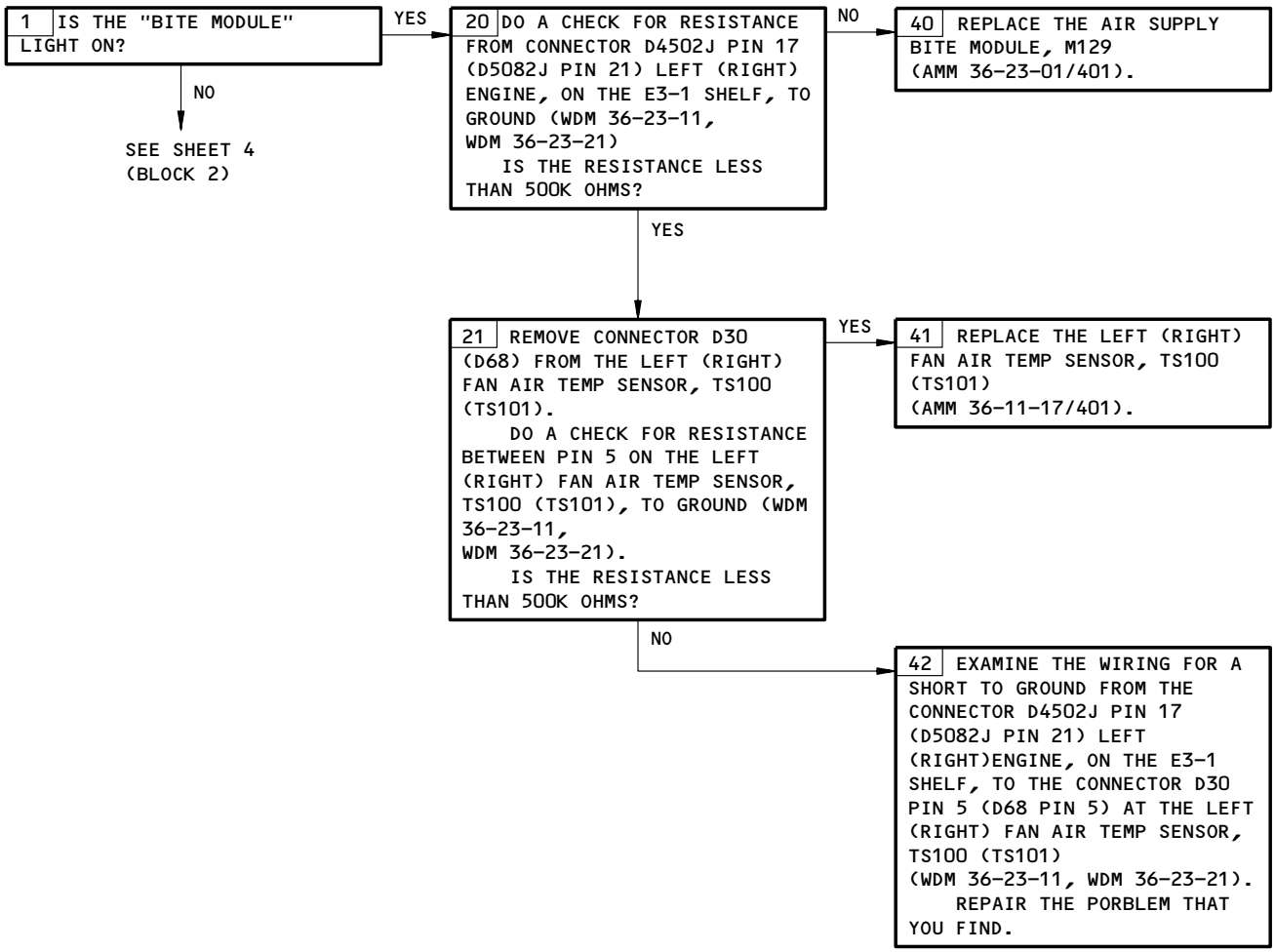
Air Supply BITE Procedure
Figure 104 (Sheet 2)



Air Supply BITE Procedure
Figure 104 (Sheet 3)

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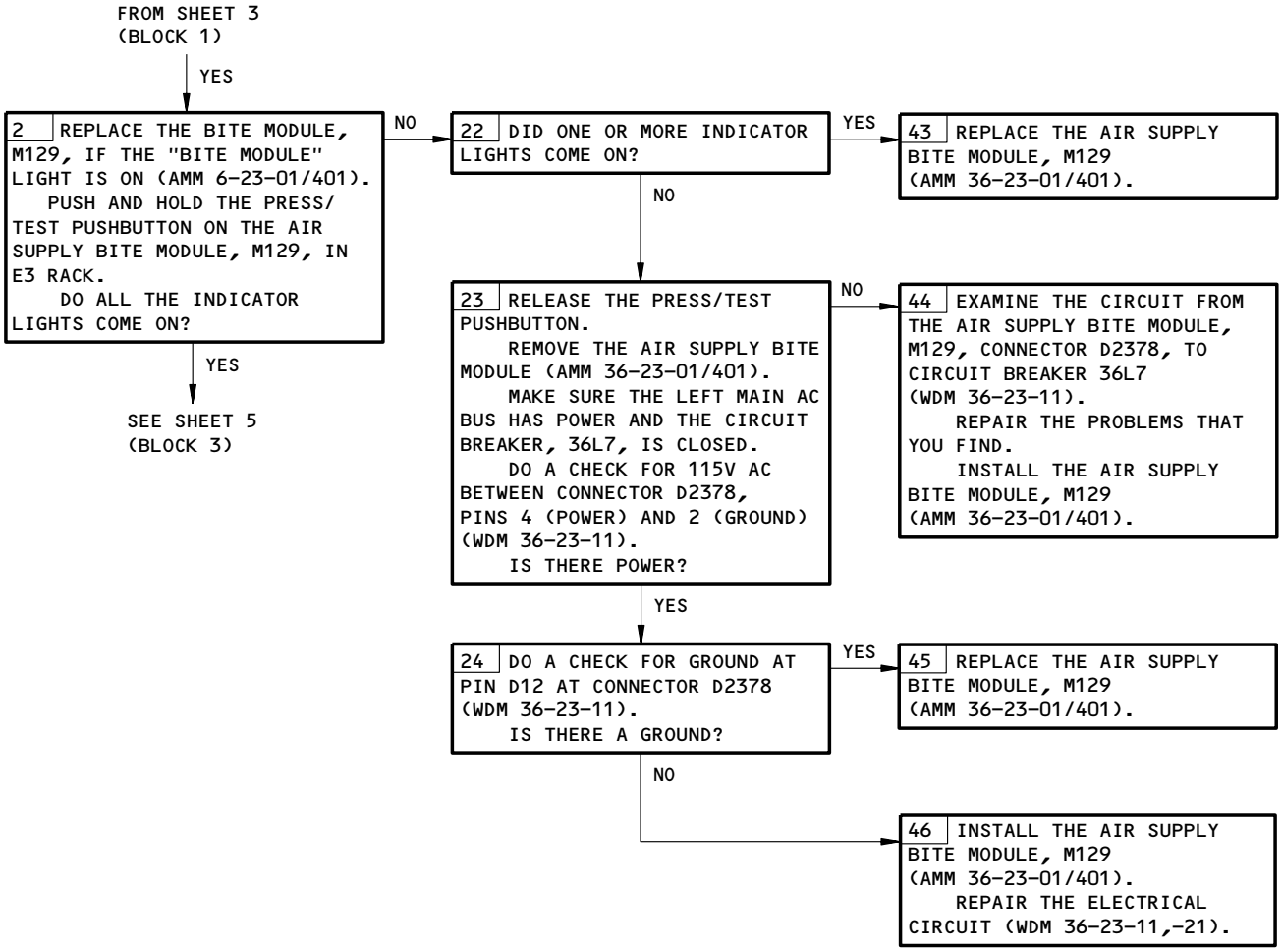
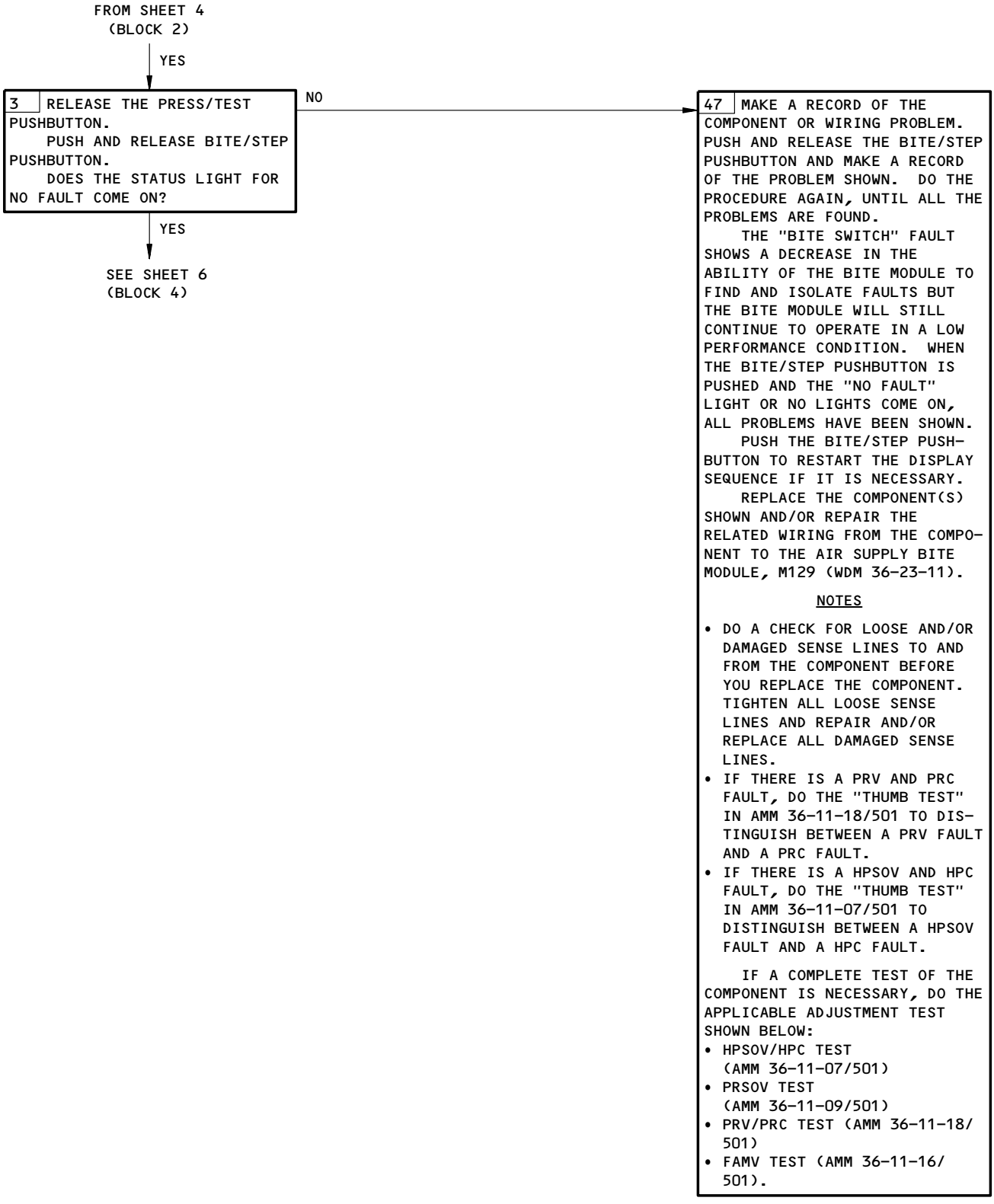
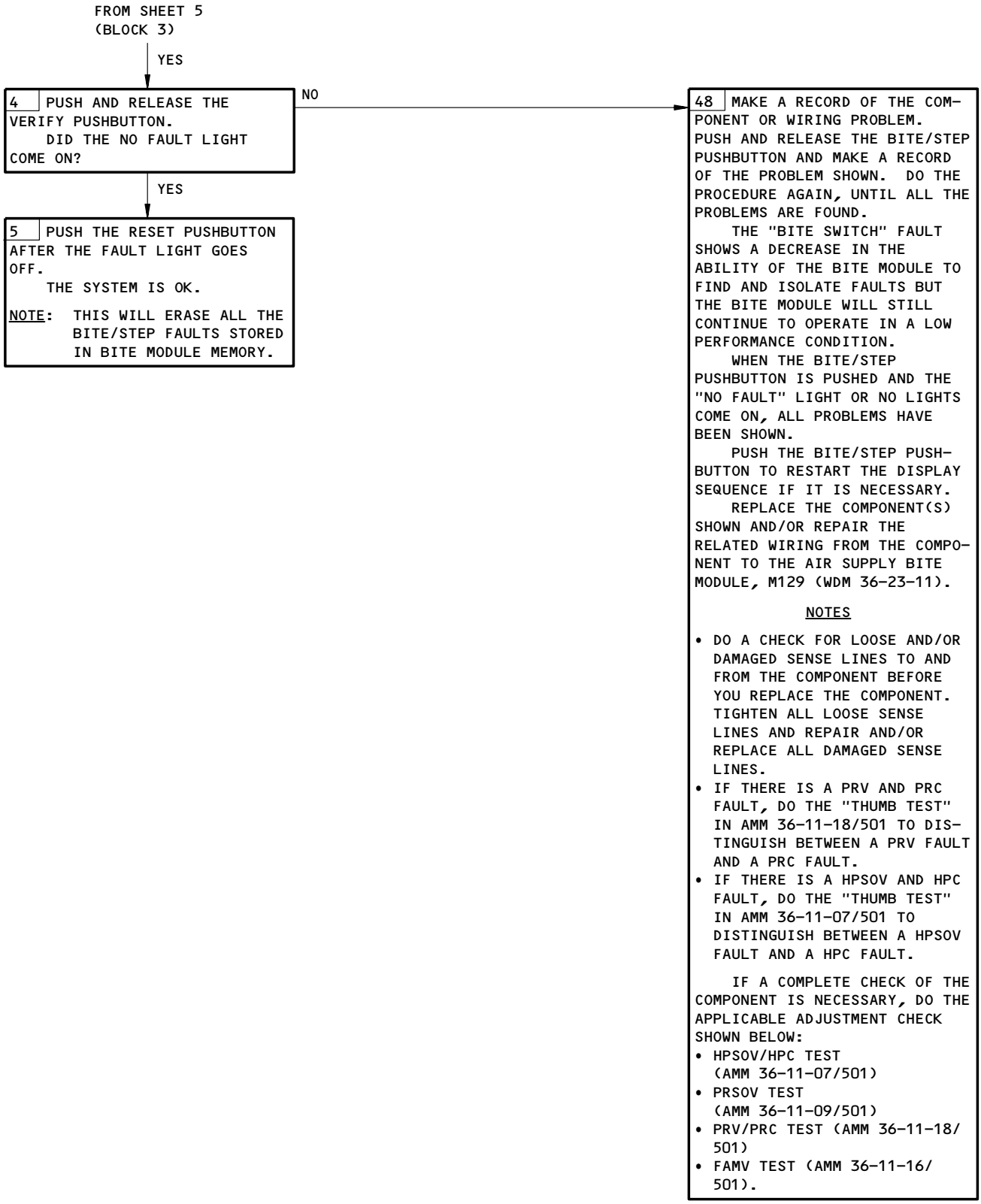


Air Supply BITE Procedure
Figure 104 (Sheet 4)



Air Supply BITE Procedure
Figure 104 (Sheet 5)



Air Supply BITE Procedure
Figure 104 (Sheet 6)

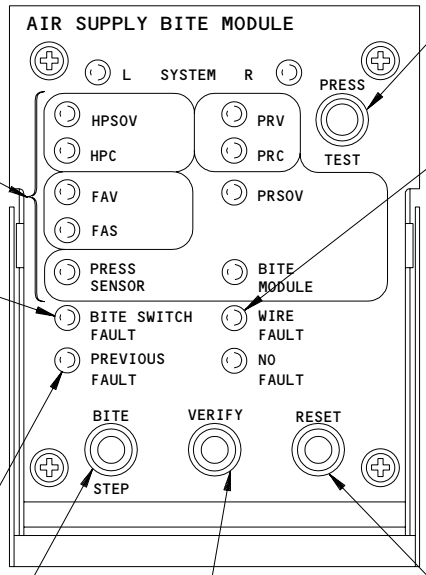
LRU FAULT:
- THE FAILURE OF A SENSOR/ SWITCH IN AN LRU WHICH IMPACTS SYSTEM OPERATION OR FLIGHT DECK INDICATIONS
- LRU FAULTS ARE SHOWN IF THE "BITE SWITCH FAULT" LIGHT IS NOT ILLUMINATED.

CORRECTIVE ACTION:
- REPLACE THE LRU.

BITE SWITCH FAULTS (WITH ASSOCIATED LRU LIGHT):
- SHOWS THE FAILURE OF SENSORS WHICH ARE USED ONLY BY THE BITE MODULE. THESE FAULTS DECREASE THE ABILITY OF THE BITE MODULE TO FIND OTHER SYSTEM FAILURES AND TO ISOLATE FAILURES TO A SINGLE LRU.
- BITE SWITCH FAULTS WILL NOT HAVE ASSOCIATED FLIGHT DECK EFFECTS BUT WILL CAUSE THE BITE MODULE TO OPERATE IN A DEGRADED PERFORMANCE MODE.

CORRECTIVE ACTION:
- REPLACE THE LRU.

PREVIOUS FLIGHT:
- ILLUMINATES WHEN A FAULT OCCURRED IN ANY FLIGHT BUT THE MOST RECENT.



PRESS/TEST:
- THIS DOES A TEST OF ALL THE INDICATOR LIGHTS ON THE BITE MODULE DISPLAY PANEL
- THE LIGHTS SHOULD REMAIN ILLUMINATED WHEN THE PRESS/TEST BUTTON IS PUSHED.

WIRE FAULT 1:
- AND LRU LIGHT – AN OPEN CIRCUIT CONDITION FROM A SENSOR/SWTICH USED FOR SYSTEM OPERATION AND/OR FLIGHT DECK INDICATION
- AND BITE SWITCH LIGHT – AN OPEN CIRCUIT CONDITION FROM A SENSOR USED ONLY BY THE BITE MODULE.

CORRECTIVE ACTION:
- AND LRU LIGHT – DO A CONTINUITY CHECK OF THE WIRING FROM THE LRU TO THE BLEED CARD
- AND BITE SWITCH LIGHT – DO A CONTINUITY CHECK OF THE WIRING FROM THE LRU TO THE BITE MODULE. REPAIR THE WIRING. IF THE WIRING IS OK, REPLACE THE LRU.

RESET:
- RESET WILL CLEAR ALL OR SOME OF THE FAULTS STORED IN THE PRIOR FAULT MEMORY, DEPENDING ON THE STATE OF THE BITE SWITCHES AND WIRES
- RESET IS ENABLED WHEN:
  - NO FAULTS ARE FOUND DURING VERIFY (NO FAULT LIGHT IS ON) OR
  - IF THE FAULTS ARE BITE SWITCH OR BITE SWITCH WIRE FAULTS.
- RESET IS DISABLED DURING BITE/STEP AND PRESS/TEST.

BITE/STEP:
- USED TO SHOW FAULTS STORED IN A PRIOR FAULT MEMORY BASE
- CURRENT FLIGHT (THE TIME BEFORE THE LAST GROUND TO AIR TRANSITION) FAULTS ARE SHOWN WHEN BITE/STEP IS FIRST PRESSED
- SUBSEQUENT DEPRESSION SHOWS THE FAULTS FOR ALL PREVIOUS FLIGHTS.
- A "NO FAULT" LIGHT WILL ILLUMINATE IF NO FAULTS ARE STORED.

VERIFY:
- THIS TEST WILL CONFIRM THAT THE LRUs ARE ELECTRICALLY CONNECTED CORRECTLY
- THIS DOES A TEST FOR OPEN WIRES FROM THE LRU TO THE BITE MODULE AND MAKES SURE THE SENSORS/SWITCHES ARE IN THEIR UNPRESSURIZED STATE (E.G. THE HPSOV POSITION SWITCH IS CLOSED, THE PRESSURE SENSOR READS 0 PSIG ETC.)
- FAULTS WILL BE SHOWN IMMEDIATELY AND CONTINUE TO PUSH THE BUTTON UNTIL NO LIGHTS ARE ON
- PARTS OF THIS TEST WILL BE PREVENTED IF THE MANIFOLD IS PRESSURIZED.

1 REPLACEMENT OF AN LRU FOR A WIRE FAULT WITHOUT DOING A CONTINUITY CHECK OF THE WIRING MAY RESULT IN A UNJUSTIFIED COMPONENT REMOVAL.

AIR SUPPLY BITE MODULE (E3-1)

Air Supply Bite Procedure
Figure 104 (Sheet 7)