

### GPA Group plc

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Discharged. (Fig. 105)			

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These are the possible types of faults: YOU FIND A FAULT WITH 1. EICAS Message AN AIRPLANE SYSTEM 2. Observed Fault Use the EICAS message, fault code, or fault description to find the corrective action or fault isolation procedure in the FIM. DO THE CORRECTIVE For details, see Figure 3 -ACTION OR GO TO THE FAULT ISOLATION PROCEDURE IN THE FIM If you do not have a fault code or an EICAS message and if the system has BITE, then you can use the system BITE to get more information: Use the BITE Index to find if the system has BITE and to find the BITE procedures in the FIM. For details, see Figure 2 -The fault isolation procedure FOLLOW THE STEPS IN explains how to find and repair the THE FAULT ISOLATION the cause of the fault. **PROCEDURE** 

> Basic Fault Isolation Process Figure 1

EFFECTIVITY

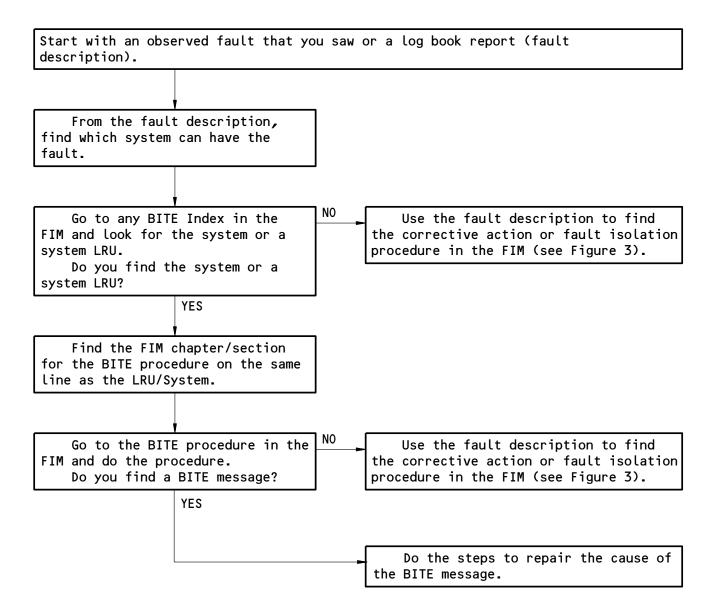
26-HOW TO USE THE FIM

For details, see Figure 4 —

01

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How to Get Fault Information from BITE Figure 2

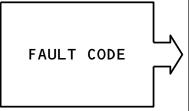
ALL 26-HOW T

26-HOW TO USE THE FIM

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Page 2 Sep 20/98 IF YOU HAVE:

THEN DO THIS TO FIND THE CORRECTIVE ACTION OR FAULT ISOLATION PROCEDURE IN THE FIM:



- 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)

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).



- 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

EFFECTIVITY-

26-HOW TO USE THE FIM

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### 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

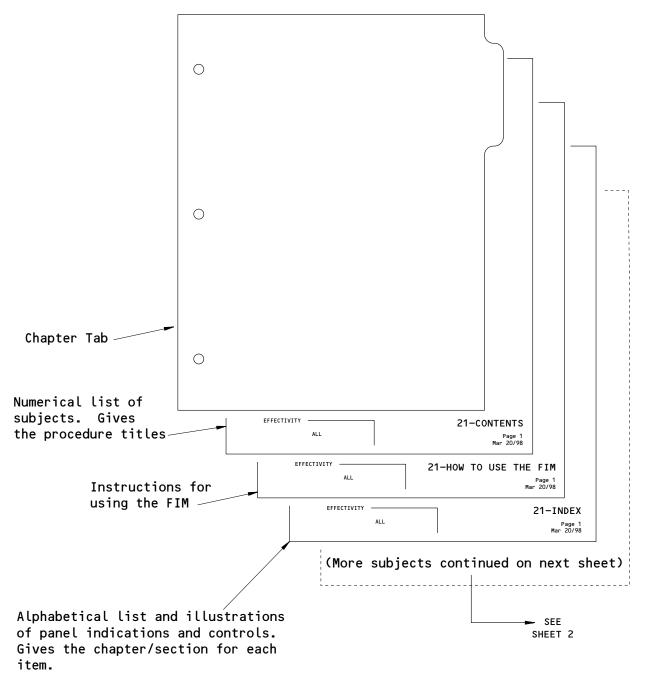
- Start the fault isolation procedure at block 1 unless specified differently.
- Do the check to get an answer to the question in the box. Follow the arrow that applies to your answer. This will go to the next check.
- When you get to a box in the column at the right of the page, you have isolated that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

EFFECTIVITY-

26-HOW TO USE THE FIM



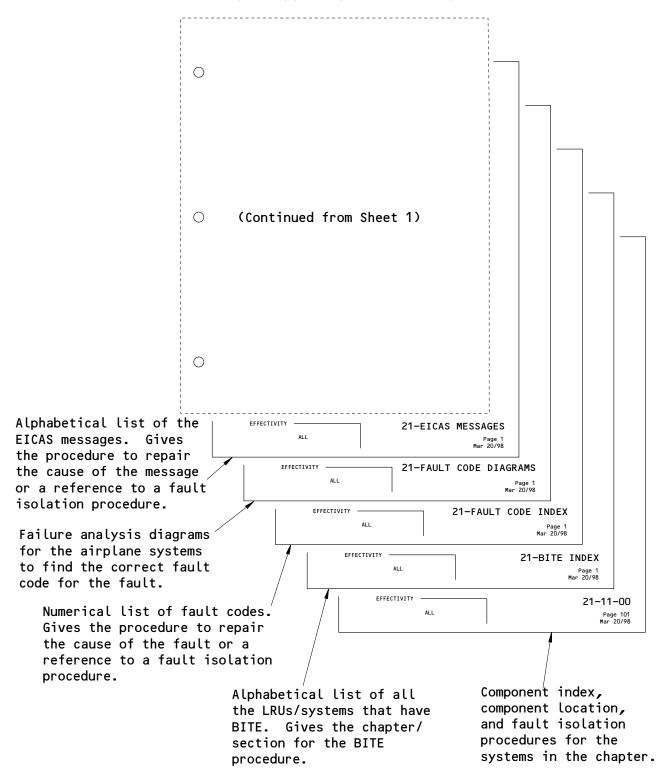


Subjects in Each FIM Chapter Figure 5 (Sheet 1)

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Subjects in Each FIM Chapter Figure 5 (Sheet 2)

EFFECTIVITY-

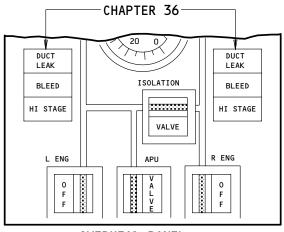
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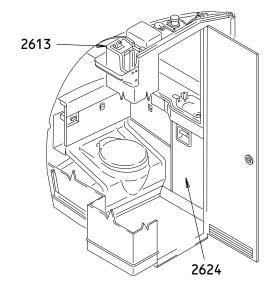
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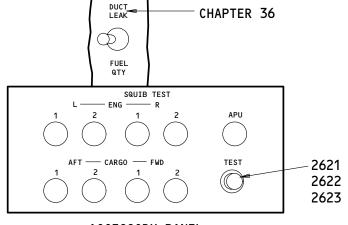


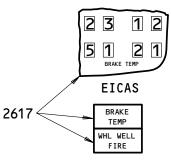
### FAULT ISOLATION/MAINT MANUAL



OVERHEAD PANEL







ACCESSORY PANEL

**TITLE** 

PILOTS' CENTER PANEL

CHAP/SEC

<del></del>	
APU FIRE	2615
BRAKE TEMP	2617
BTL DISCH LGT ILLUM (ENG, APU, CARGO)	2621,2622,2623
CARGO COMPT FIRE	2616
DUCT LEAK AND TEST	CHAPTER 36
ENGINE FIRE	2611
ENGINE OVERHEAT	
EQUIP COOL SMOKE	CHAPTER 21
FIRE/OVHT DETECTOR (ENG)	2611
FIRE/OVHT DETECTOR (APU, CARGO)	2615,2616
FIRE/OVHT TEST (ENG, APU, CARGO)	2611,2615,2616
FIRE/OVHT TEST - ENG	2612,2613
LAVATORY SMOKE & FIRE PROTECTION	2613,2624
SQUIB TEST	2621,2622,2623
WHEEL WELL FIRE AND TEST	

### FIRE PROTECTION - INDEX Figure 1 (Sheet 1)

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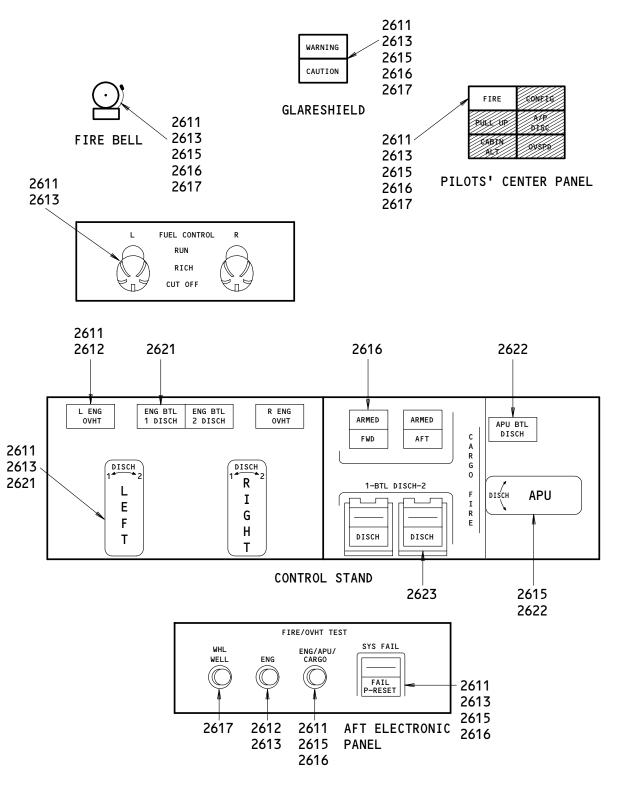
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26-INDEX

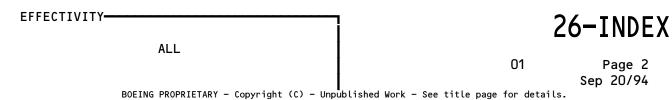
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FIRE PROTECTION - INDEX Figure 1 (Sheet 2)





#### FIRE PROTECTION - 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

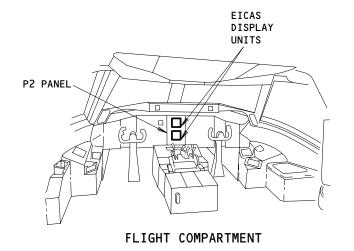
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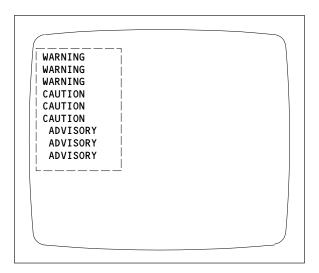
26-EICAS MESSAGES

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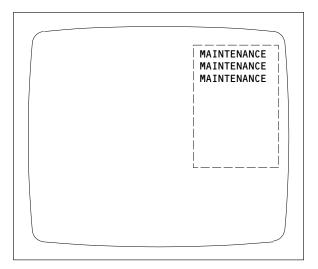


### FAULT ISOLATION/MAINT MANUAL

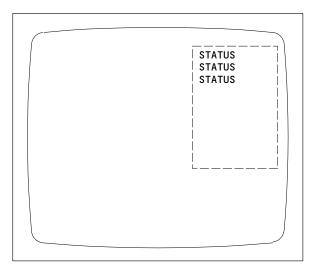




ENGINE PRIMARY PAGE OR COMPACTED PAGE (TOP DISPLAY UNIT)



ECS/MSG PAGE (BOTTOM DISPLAY UNIT)



STATUS PAGE (BOTTOM DISPLAY UNIT)

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

**EICAS Message Locations** Figure 1

EFFECTIVITY-ALL

## 26-EICAS MESSAGES

01

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EICAS MESSAGE LIST					
EICAS MESSAGE	LEVEL	PROCEDURE			
APU BTL	С	Replace the APU fire bottle (AMM 26-22-01/401).			
AFT CARGO DET 1 (2)	S	Replace the applicable aft cargo fire detector (AMM 26-16-01/201).			
AFT CARGO DET 1 (2)	М	FIM 26-16-00/101, Fig. 106			
AFT CARGO FIRE	Α	FIM 26-23-00/101, Fig. 106			
AFT DET FAN	М	FIM 26-16-00/101, Fig. 104			
APU FIRE	Α	FIM 26-15-00/101, Fig. 103			
APU FIRE LP 1 (2)	S,M	FIM 26-15-00/101, Fig. 104			
CARGO BTL 1	С	FIM 26-23-00/101, FIG. 103			
CARGO BTL 2	С	FIM 26-23-00/101, FIG. 104			
CARGO BTL 1 and 2	С	Replace the cargo fire extinguishing bottles (AMM 26-23-02/401).			
CARGO DET AIR	S	FIM 26-16-00/101, Fig. 107			
DUCT LEAK BITE	М	FIM 26-18-00/101, Fig. 103			
DUCT LEAK LP	S	FIM 26-18-00/101, Fig. 103			
ENG BTL 1 (2)	С	Replace the engine fire extinguishing bottles (AMM 26-21-01/401).			
FIRE/OVHT SYS	С	FIM 26-11-00/101, Fig. 103			
FWD CARGO DET 1 (2)	S	Replace the applicable forward cargo fire detector (AMM 26-16-01/201).			
FWD CARGO DET 1 (2)	М	FIM 26-16-00/101, Fig. 106			
FWD CARGO FIRE	Α	FIM 26-23-00/101, Figs. 105			
FWD DET FAN	М	FIM 26-16-00/101, Fig. 105			
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# 26-EICAS MESSAGES



EICAS MESSAGE LIST					
EICAS MESSAGE	LEVEL	PROCEDURE			
L (R) BLD DUCT LEAK	В	FIM 26-18-00/101, Fig. 103			
L (R) ENGINE FIRE	Α	FIM 26-11-00/101, Fig. 103			
L (R) ENG FIRE LP 1 (2)	S,M	FIM 26-11-00/101, Figs. 103			
L (R) ENG OH LP 1 (2)	S,M	FIM 26-11-00/101, Figs. 103			
L (R) ENG OVHT	В	FIM 26-11-00/101, Fig. 103			
L (R) STRUT OH DET 1 (2)	S,M	FIM 26-12-00/101, Fig. 104			
L (R) TURB OH DET 1 (2)	S,M	FIM 26-13-00/101, Fig. 104			
WHEEL WELL FIRE	Α	FIM 26-17-00/101, Fig. 103			
L STRUT OH DET 1	S,M	FIM 26-12-00/101, Fig. 103			
L STRUT OH DET 1	S,M	FIM 26-12-00/101, Fig. 103			
R STRUT OH DET 1	S,M	FIM 26-12-00/101, Fig. 103			
L STRUT OH DET 2	S,M	FIM 26-12-00/101, Fig. 103			
R STRUT OH DET 2	S,M	FIM 26-12-00/101, Fig. 103			

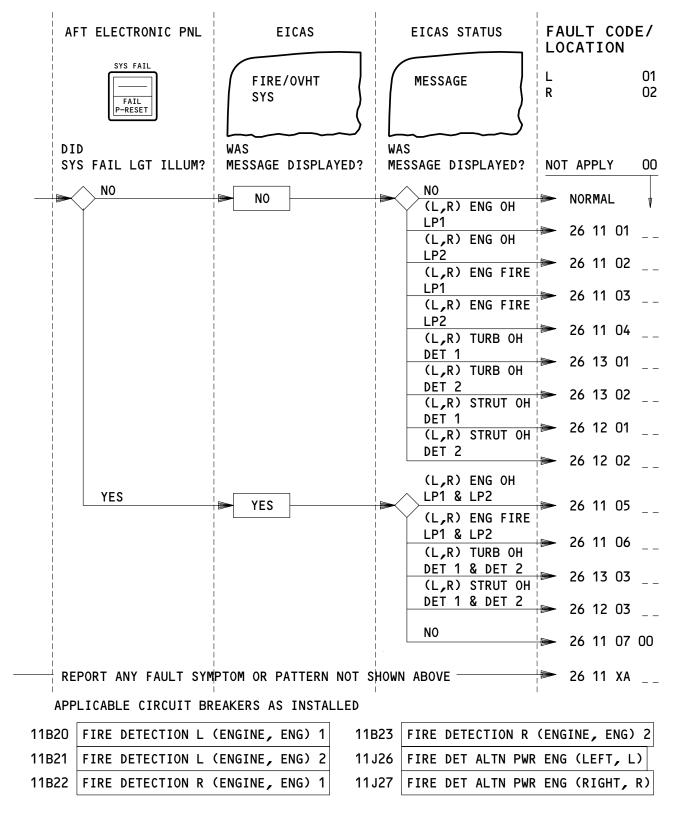
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26-EICAS MESSAGES

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FIRE/OVHT DETECTOR (ENG) - FAULT CODES

01

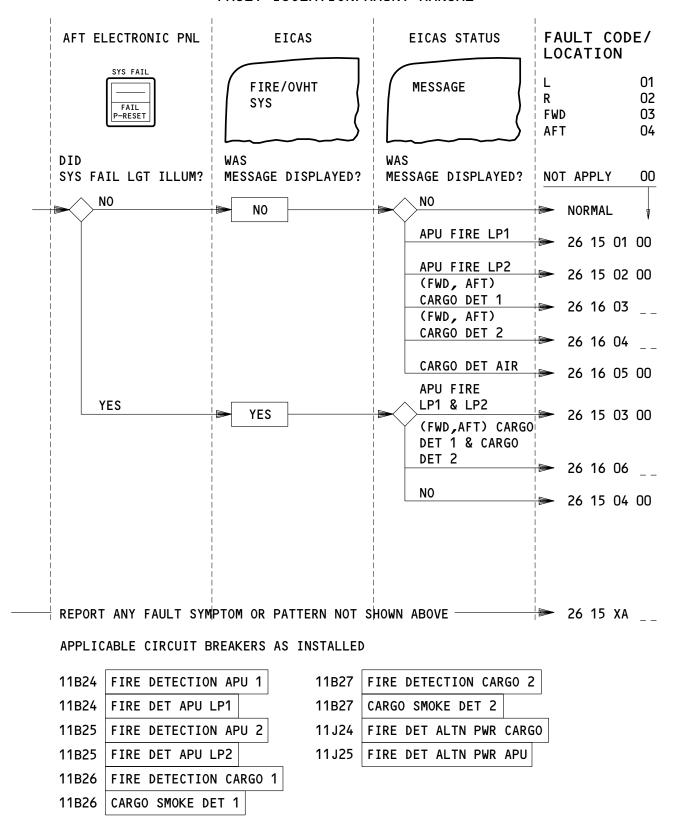
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26-FAULT CODE DIAGRAM

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### FAULT ISOLATION/MAINT MANUAL



FIRE/OVHT DETECTOR (APU & CARGO) - FAULT CODES

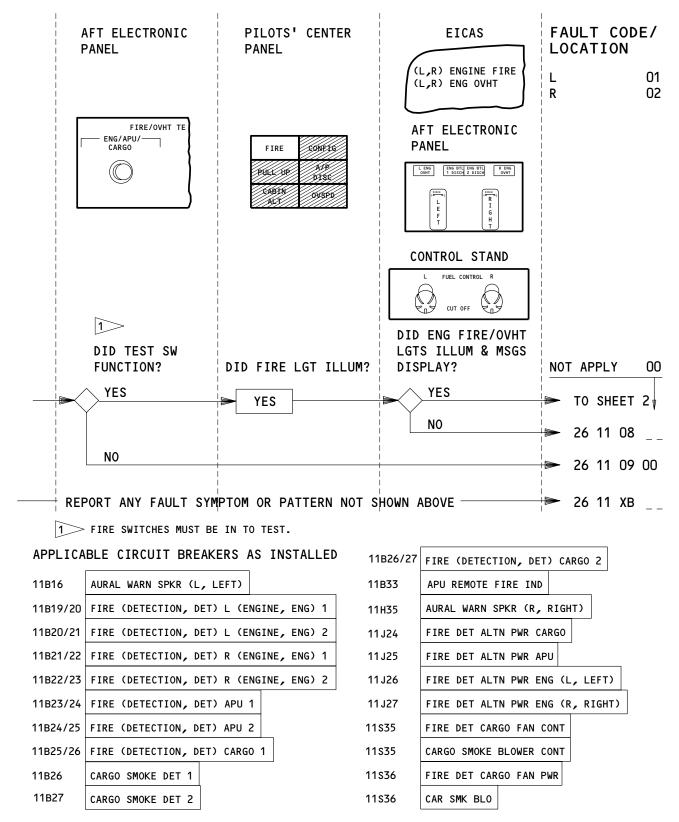
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### 26-FAULT CODE DIAGRAM

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FIRE/OVHT TEST - ENG, APU, CARGO (SHEET 1) - FAULT CODES

EFFECTIVITY-ALL

### 26-FAULT CODE DIAGRAM

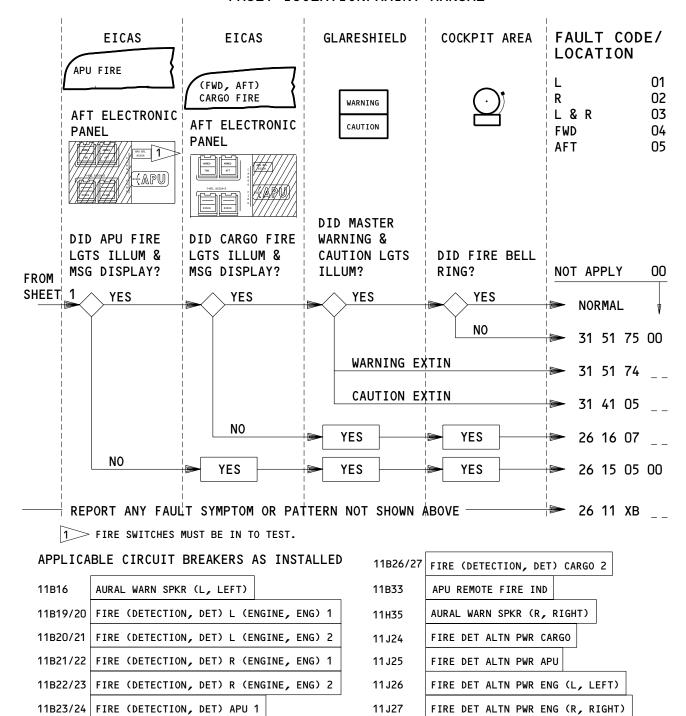
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005425



### FAULT ISOLATION/MAINT MANUAL



FIRE/OVHT TEST - ENG, APU, CARGO (SHEET 2) - FAULT CODES

11S35

11s35

11s36

11S36

ALL ALL

11B24/25 FIRE (DETECTION, DET) APU 2

11B25/26 FIRE (DETECTION, DET) CARGO 1

CARGO SMOKE DET 1

CARGO SMOKE DET 2

### 26-FAULT CODE DIAGRAM

FIRE DET CARGO FAN CONT

CARGO SMOKE BLOWER CONT

FIRE DET CARGO FAN PWR

CAR SMK BLO

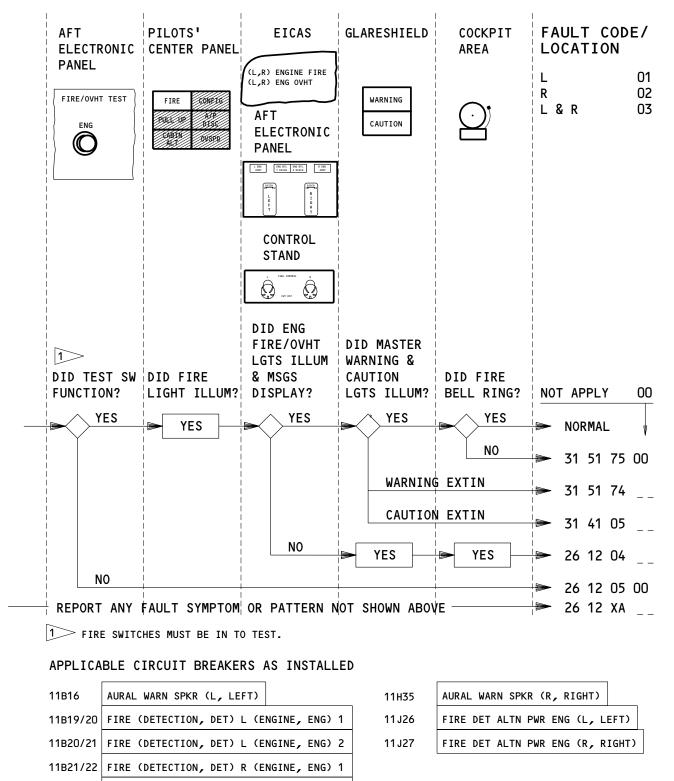
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11B26

11B27





FIRE/OVHT TEST (ENG) - FAULT CODES

26-FAULT CODE DIAGRAM

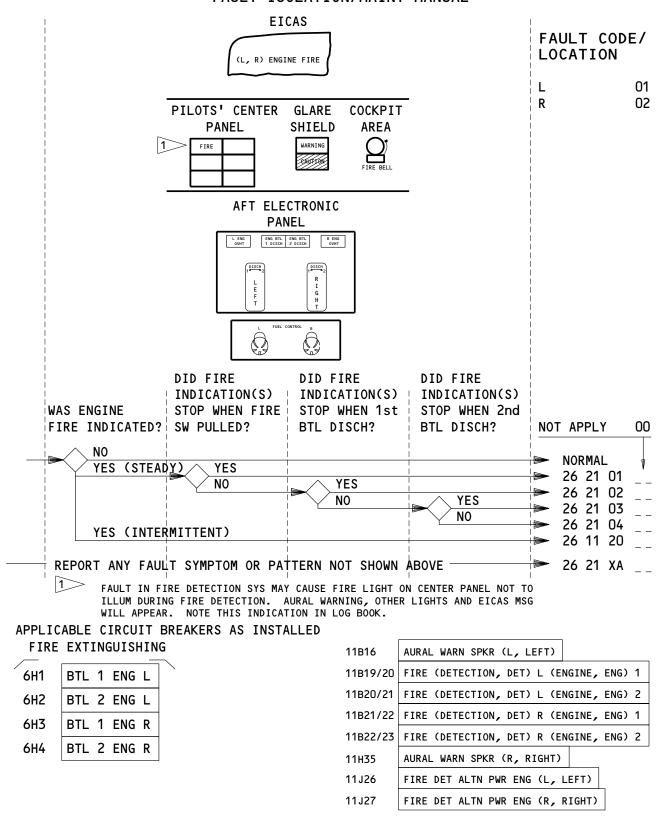
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11B22/23 FIRE (DETECTION, DET) R (ENGINE, ENG) 2



### FAULT ISOLATION/MAINT MANUAL



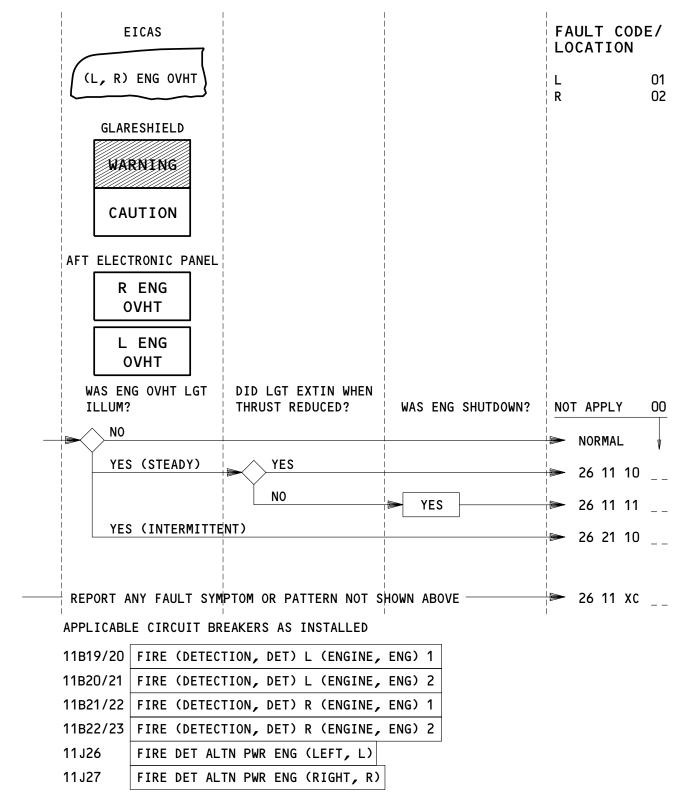
ENGINE FIRE - FAULT CODES

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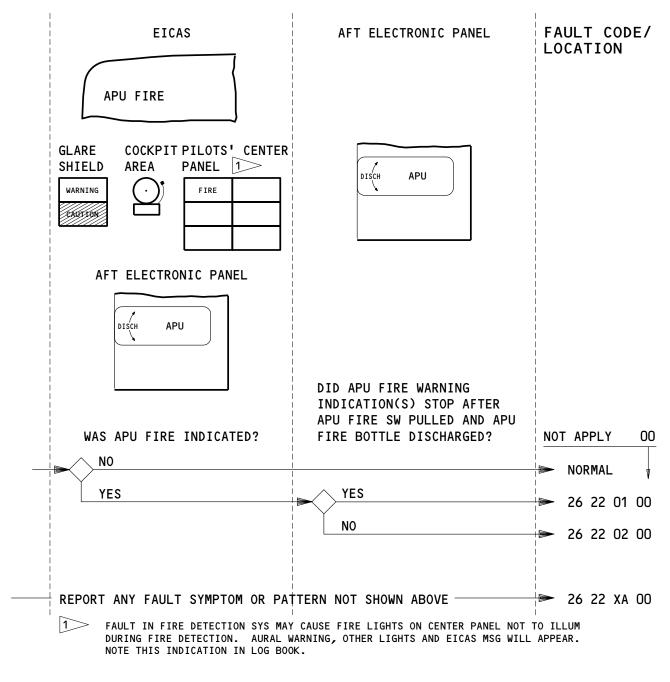
### ENGINE OVERHEAT - FAULT CODES

26-FAULT CODE DIAGRAM

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### APPLICABLE CIRCUIT BREAKERS AS INSTALLED

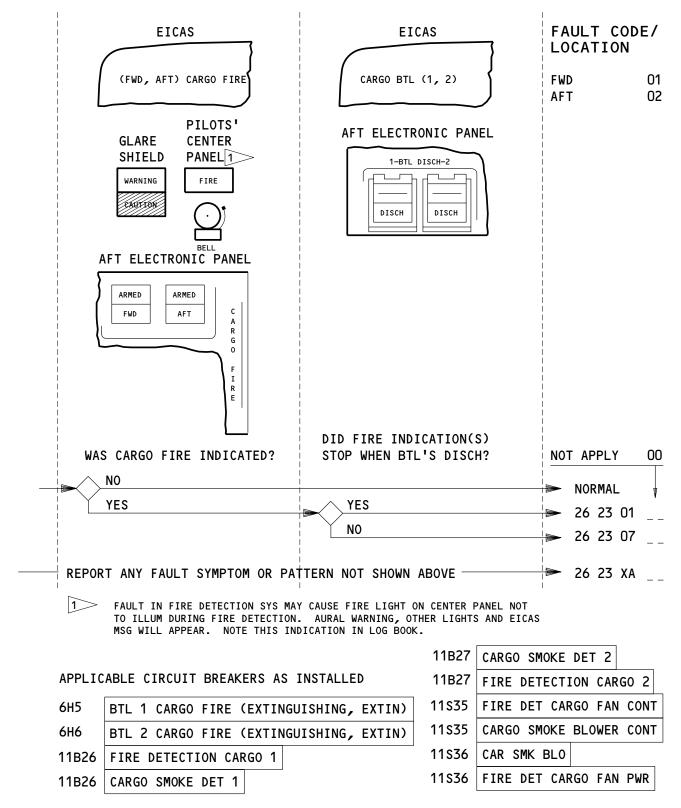
6G1/2	FIRE EXT APU		11B24/25	FIRE DETECTION APU 2
6G1	APU FIRE EXT		11B33	APU REMOTE FIRE IND
11B23/24	FIRE DETECTION	N APU 1	'	

APU FIRE - FAULT CODES

26-FAULT CODE DIAGRAM

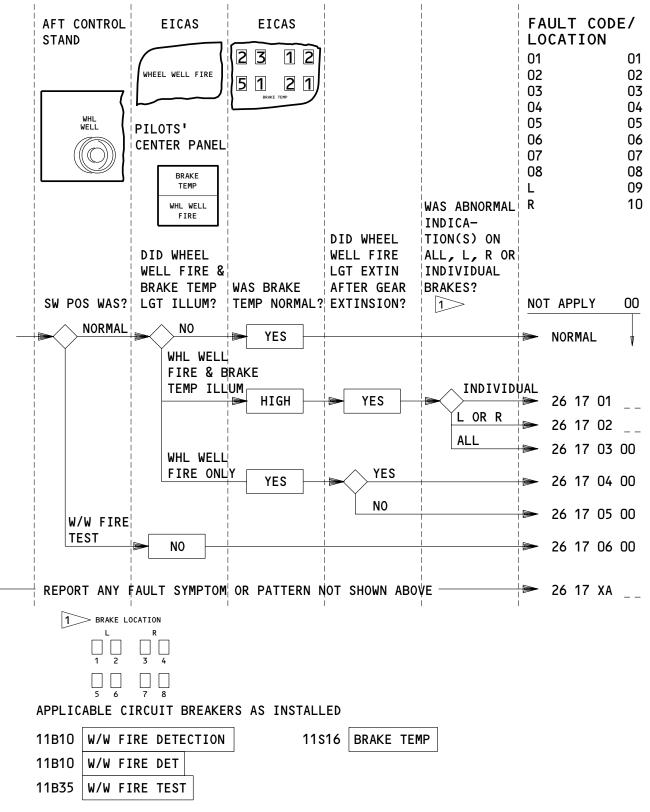
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CARGO FIRE - FAULT CODES





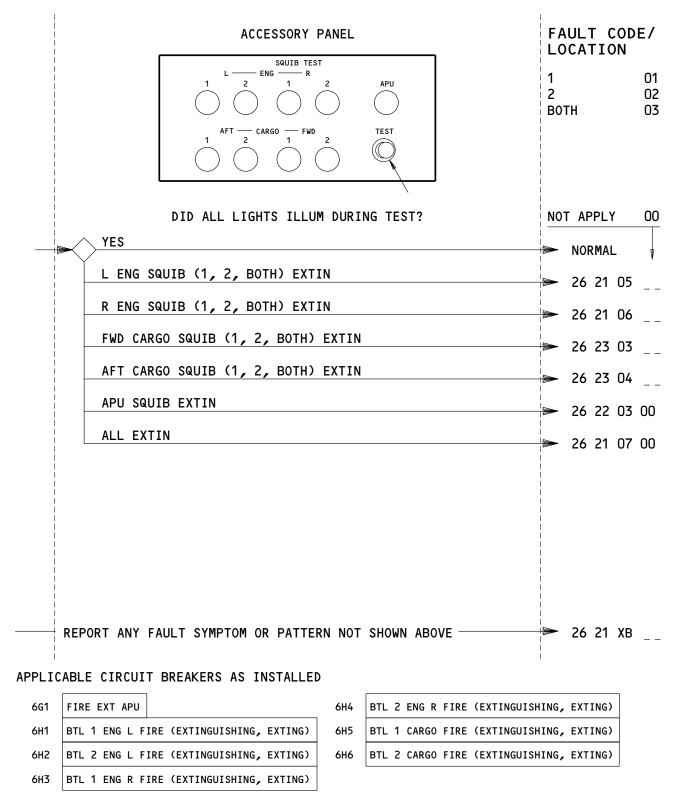
WHEEL WELL FIRE & TEST - FAULT CODES

26-FAULT CODE DIAGRAM

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SQUIB TEST - FAULT CODES

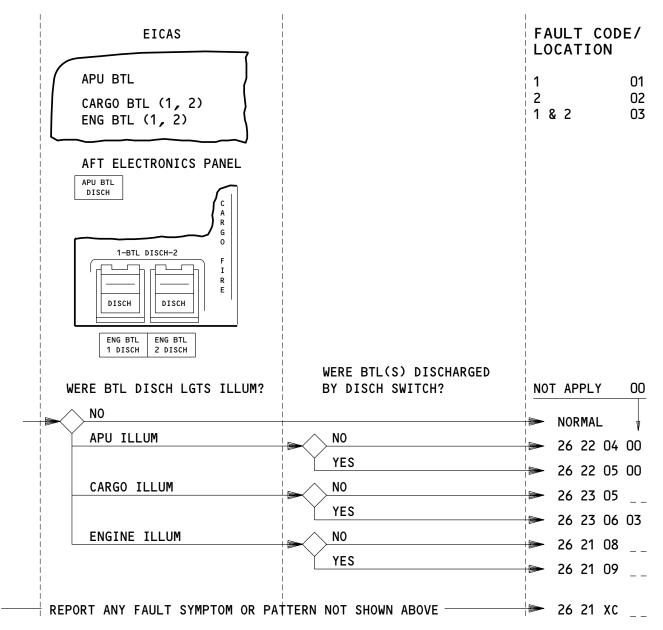
ALL 26

## 26-FAULT CODE DIAGRAM

01

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### APPLICABLE CIRCUIT BREAKERS AS INSTALLED

6G1	APU FIRE EXT	6Н3	BTL 1 ENG R FIRE EXTINGUISHING
6G2	FIRE EXT APU	6H4	BTL 2 ENG R FIRE EXTINGUISHING
6H1	BTL 1 ENG L FIRE EXTINGUISHING	6H5	BTL 1 CARGO FIRE EXTINGUISHING
6H2	BTL 2 ENG L FIRE EXTINGUISHING	6H6	BTL 2 CARGO FIRE EXTINGUISHING

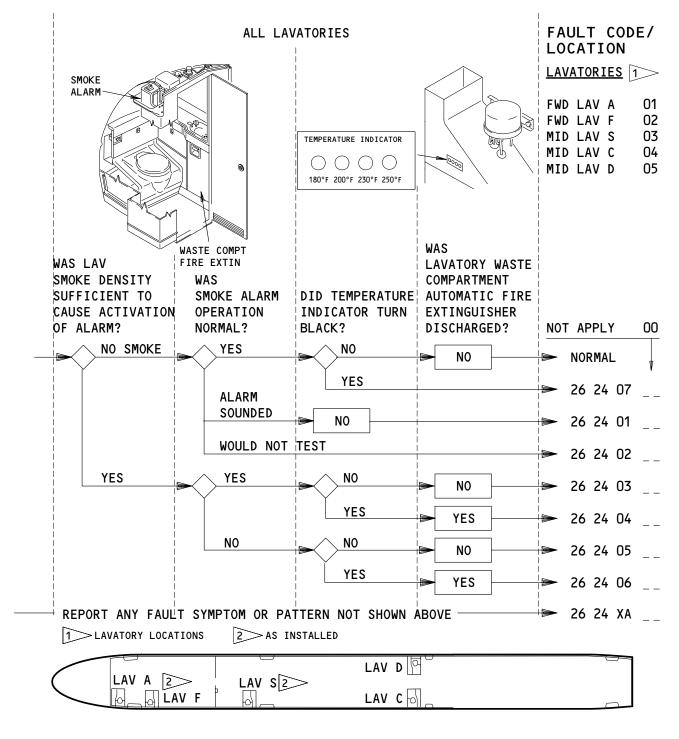
### BOTTLE DISCHARGE LIGHTS ILLUMINATED - FAULT CODES

## 26-FAULT CODE DIAGRAM

01

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#### APPLICABLE CIRCUIT BREAKERS

11N8 PASS CALL LAV SMOKE DET L
11N9 PASS CALL LAV SMOKE DET R

LAVATORY SMOKE & FIRE PROTECTION - FAULT CODES

EFFECTIVITY-

ALL

## 26-FAULT CODE DIAGRAM

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FAULT CODE	LOG BOOK REPORT	FAULT ISOLATION REFERENCE
26 11 XA	(01=L, 02=R) An engine fire/overheat detector problem was encountered by the flight crew which is not covered in the fault code diagrams.	SSM 26-11-01 thru SSM 26-11-04, SSM 26-12-01, SSM 26-12-02, SSM 26-13-01, SSM 26-13-02
26 11 XB	Report fire/ovht test - eng, APU, cargo symptoms or patterns along with fault code.	SSM 26-11-01 thru SSM 26-11-04, SSM 26-12-01, SSM 26-12-02, SSM 26-13-01,SSM 26-13-02, SSM 26-15-01, SSM 26-16-01, SSM 26-16-02
26 11 XC	Report ENG OVERHEAT symptoms or patterns along with fault code.	SSM 26-11-03, SSM 26-11-04
26 12 XA	(01=L, 02=R) An engine fire/overheat test problem was encountered by the flight crew which is not covered in the fault code diagrams.	SSM 26-12-01, SSM 26-12-02, SSM 26-13-01, SSM 26-13-02
26 15 XA	Report FIRE/OVHT detector (APU & CARGO) symptoms or patterns along with fault code.	SSM 26-15-01, SSM 26-16-01, SSM 26-16-02
26 17 XA	Report WHEEL WELL FIRE & TEST symptoms or patterns along with fault code.	SSM 26-17-01
26 18 XA	(01=L, 02=R) A duct leak problem was encountered by the flight crew which is not covered in the fault code diagrams.	SSM 26-18-01, SSM 26-18-02



FAULT CODE	LOG BOOK REPORT	FAULT ISOLATION REFERENCE
26 21 XA	Report engine fire symptoms or patterns along with fault code.	SSM 26-21-01
26 21 XB	(01=L, 02=R, 03=B0TH) A squib test problem was encountered by the flight crew which is not covered in the fault code diagrams.	SSM 26-21-01, SSM 26-22-01, SSM 26-23-01
26 21 XC	Report bottle discharge lights illuminated symptoms or patterns along with fault code.	SSM 26-21-01, SSM 26-22-01, SSM 26-23-01
26 21 XD	(01=1, 02=2, 03=BOTH) A squib test problem was encountered by the flight crew which is not covered in the fault code diagrams.	SSM 26-21-01, SSM 26-22-01, SSM 26-23-01
26 22 XA 00	Report APU FIRE symptoms or patterns along with fault code.	SSM 26-22-01
26 23 XA	Report CARGO FIRE symptoms or patterns along with fault code.	SSM 26-23-01
26 24 XA	(01=FWD LAV A, 02=MID LAV S, 03=MID LAV C, 04=MID LAV D) A lavatory smoke and fire protection system problem was encountered by the flight crew that was not covered in the fault code diagram.	FIM 26-14-00/101, Fig. 103
26 11 01	(01=L, 02=R) EICAS status msg ENG OH LP 1 displayed.	FIM 26-11-00/101, Fig. 103
26 11 02	(01=L, 02=R) EICAS status msg ENG OH LP 2 displayed.	FIM 26-11-00/101, Fig. 103
26 11 03	(01=L, 02=R) EICAS status msg ENG FIRE LP 1 displayed.	FIM 26-11-00/101, Fig. 103
26 11 04	(01=L, 02=R) EICAS status msg ENG FIRE LP 2 displayed.	FIM 26-11-00/101, Fig. 103

# 26-FAULT CODE INDEX

ALL



FAULT CODE	LOG BOOK REPORT	FAULT ISOLATION REFERENCE
26 11 05	Fire protection SYSTEM FAIL lgt on. EICAS msg FIRE/OVHT SYS displayed. EICAS status msg (O1=L, O2=R) ENG OH LP 1 and LP 2 displayed.	FIM 26-11-00/101, Fig. 103
26 11 06	Fire protection SYSTEM FAIL lgt on. EICAS msg FIRE/OVHT SYS displayed. EICAS status msg (O1=L, O2=R) ENG FIRE LP 1 and LP 2 displayed.	FIM 26-11-00/101, Fig. 103
26 11 07 00	Fire protection system FAIL lgt on. EICAS msg FIRE/OVHT SYS displayed. EICAS status msg not displayed.	FIM 26-11-00/101, Fig. 103
26 11 08	(O1=L, O2=R) FIRE, OVHT, FIRE & OVHT lgt(s) failed to come on during ENG/APU/CARGO FIRE/OVHT TEST. Appropriate EICAS msg (was, was not) displayed.	FIM 26-11-00/101, Fig. 103
26 11 09 00	ENG/APU/CARGO FIRE/OVHT TEST failed to function.	Replace the ENG-APU-CARGO test switch YQQSOO1 on the fire-ovht test panel M10445, or M10445 (AMM 26-11-02).
26 11 10	(01=L, 02=R) EICAS msg ENG OVHT displayed with ENG OVHT lgt on. Light extin after thrust reduction.	FIM 26-11-00/101, Fig. 103A
26 11 11	(01=L, 02=R) EICAS msg ENG OVHT displayed with ENG OVHT lgt on. Light remained on after thrust reduction. Engine was shut down.	Do a visual check of the detector and/or detector loop areas for indications of heat damage. Replace burn wires/harnesses. Repair any leaks. Replace the L(R) Fire-Ovht Logic Test Card, M10224 (M10274) (AMM 26-10-01).
26 11 12 00	EICAS status/maintenance msg L ENG FIRE LP 1 displayed.	FIM 26-11-00/101, Fig. 103

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FAULT CODE	LOG BOOK REPORT	FAULT ISOLATION REFERENCE
26 11 13 00	EICAS status/maintenance msg L ENG FIRE LP 2 displayed.	FIM 26-11-00/101, Fig. 103
26 11 14 00	EICAS status/maintenance msg L ENG OH LP 1 dislayed.	FIM 26-11-00/101, Fig. 103
26 11 15 00	EICAS status/maintenance msg L ENG OH LP 2 dislayed.	FIM 26-11-00/101, Fig. 103
26 11 16 00	EICAS status/maintenance msg R ENG FIRE LP 1 displayed.	FIM 26-11-00/101, Fig. 103
26 11 17 00	EICAS status/maintenance msg R ENG FIRE LP 2 displayed.	FIM 26-11-00/101, Fig. 103
26 11 18 00	EICAS status/maintenance msg R ENG OH LP 1 dislayed.	FIM 26-11-00/101, Fig. 103
26 11 19 00	EICAS status/maintenance msg R ENG OH LP 2 dislayed.	FIM 26-11-00/101, Fig. 103
26 11 20	(O1=L, O2=R) Engine had intermittent ENGINE FIRE indication.	Take out and put back in the circuit cards in P54. Make a check of the detector connectors for contaminated or damaged pin, socket, insulation or pushed back pin. Make sure the connectors are tightened. Do a continuity check of the detector while the detector vibrates.
26 12 01	(01=L, 02=R) EICAS status msg STRUT OH DET 1 displayed.	FIM 26-12-00/101, Fig. 104
26 12 02	(01=L, 02=R) EICAS status msg STRUT OH DET 2 displayed.	FIM 26-12-00/101, Fig. 104
26 12 03	Fire protection SYSTEM FAIL lgt on. EICAS msg FIRE/OVHT SYS displayed. EICAS status msg (O1=L, O2=R) STRUT OH DET 1 and DET 2 displayed.	FIM 26-12-00/101, Fig. 103



FAULT CODE	LOG BOOK REPORT	FAULT ISOLATION REFERENCE
26 12 04	(01=L, 02=R) (FIRE, 0VHT, FIRE & 0VHT) Lights failed to come on during ENG FIRE/OVHT TEST. Appropriate EICAS msg (was, was not) displayed.	(OVHT) FIM 26-12-00/101,
26 12 05 00	ENG FIRE/OVHT TEST failed to function.	Replace the fire-ovht test panel M10445 (AMM 26-11-02).
26 12 06 00	EICAS status/maintenance msg L STRUT OH DET 1 displayed.	FIM 26-12-00/101, Fig. 104
26 12 07 00	EICAS status/maintenance msg L STRUT OH DET 2 displayed.	FIM 26-12-00/101, Fig. 104
26 12 08 00	EICAS status/maintenance msg R STRUT OH DET 1 displayed.	FIM 26-12-00/101, Fig. 104
26 12 09 00	EICAS status/maintenance msg R STRUT OH DET 2 displayed.	FIM 26-12-00/101, Fig. 104
26 13 01	(01=L, 02=R) EICAS status msg TURB OH DET 1 displayed.	FIM 26-13-00/101, Fig. 104
26 13 02	(O1=L, O2=R) EICAS status msg TURB OH DET 2 displayed.	FIM 26-13-00/101, Fig. 104
26 13 03	Fire protection SYSTEM FAIL lgt on. EICAS msg FIRE/OVHT SYS displayed. EICAS status msg (O1=L, O2=R) TURB OH DET 1 and DET 2 displayed.	FIM 26-13-00/101, Fig. 103
26 13 04 00	EICAS status/maintenance msg L TURB OH DET 1 displayed.	FIM 26-13-00/101, Fig. 104
26 13 05 00	EICAS status/maintenance msg L TURB OH DET 2 displayed.	FIM 26-13-00/101, Fig. 104
26 13 06 00	EICAS status/maintenance msg R TURB OH DET 1 displayed.	FIM 26-13-00/101, Fig. 104
26 13 07 00	EICAS status/maintenance msg R TURB OH DET 2 displayed.	FIM 26-13-00/101, Fig. 104



FAULT CODE	LOG BOOK REPORT	FAULT ISOLATION REFERENCE
26 15 01 00	EICAS status/maintenance msg APU FIRE LP 1 displayed.	FIM 26-15-00/101, Fig. 104
26 15 02 00	EICAS status/maintenance msg APU FIRE LP 2 displayed.	FIM 26-15-00/101, Fig. 104
26 15 03 00	Fire protection SYSTEM FAIL lgt on. EICAS msg FIRE/OVHT SYS displayed. EICAS status msg APU FIRE LP 1 and LP 2 displayed.	FIM 26-15-00/101, Fig. 103
26 15 04 00	Fire protection SYSTEM FAIL lgt on. EICAS msg FIRE/OVHT SYS displayed. EICAS status msg not displayed.	FIM 26-15-00/101, Fig. 103
26 15 05 00	APU fire warning lgt(s) failed to come on during ENG/APU/CARGO FIRE/OVHT TEST. EICAS msg APU FIRE (was, was not) displayed.	FIM 26-15-00/101, Fig. 103
26 15 06 00	EICAS status/maintenance msg APU FIRE LP 1 displayed.	FIM 26-15-00/101, Fig. 104
26 15 07 00	EICAS status/maintenance msg APU FIRE LP 2 displayed.	FIM 26-15-00/101, Fig. 104
26 16 01 00	EICAS status/maintenance msg FWD DET FAN displayed.	FIM 26-16-00/101, Fig. 105
26 16 02 00	EICAS status/maintenance msg AFT DET FAN displayed.	FIM 26-16-00/101, Fig. 104
26 16 03	(03=FWD, 04=AFT) EICAS status msg CARGO DET 1 displayed.	FIM 26-16-00/101, Fig. 106
26 16 04	(03=FWD, 04=AFT) EICAS status msg CARGO DET 2 displayed.	FIM 26-16-00/101, Fig. 106
26 16 05 00	EICAS status msg CARGO DET AIR displayed.	FIM 26-16-00/101, Fig. 107



FAULT CODE	LOG BOOK REPORT	FAULT ISOLATION REFERENCE
26 16 06	Fire protection SYSTEM FAIL lgt on. EICAS msg FIRE/OVHT SYS displayed. EICAS status msg (O3=FWD, O4=AFT) CARGO DET 1 and CARGO DET 2 displayed.	FIM 26-16-00/101, Fig. 103
26 16 07	(O4=FWD, O5=AFT) Cargo fire lgt failed to come on during ENG/APU/CARGO FIRE/OVHT TEST. EICAS msg (FWD, AFT) CARGO FIRE (was, was not) displayed.	FIM 26-16-00/101, Fig. 103
26 16 08 00	EICAS status/maintenance msg AFT CARGO DET 1 displayed.	FIM 26-16-00/101, Fig. 106
26 16 09 00	EICAS status/maintenance msg AFT CARGO DET 2 displayed.	FIM 26-16-00/101, Fig. 106
26 16 10 00	EICAS status/maintenance msg FWD CARGO DET 1 displayed.	FIM 26-16-00/101, Fig. 106
26 16 11 00	EICAS status/maintenance msg FWD CARGO DET 2 displayed.	FIM 26-16-00/101, Fig. 106
26 17 04 00	WHEEL WELL FIRE lgt on. EICAS msg WHEEL WELL FIRE displayed. Light extin after gear extension.	FIM 26-17-00/101, Fig. 103
26 17 05 00	WHEEL WELL FIRE lgt on. EICAS msg WHEEL WELL FIRE displayed. Light did not extin after gear extension.	FIM 26-17-00/101, Fig. 103
26 17 06 00	WHEEL WELL FIRE lgt failed to come on during test.	FIM 26-17-00/101, Fig. 103
26 18 01	(01=L, 02=R) EICAS msg (L,R) BLD LEAK displayed. DUCT LEAK lgt on with eng supplying pneu sys. Light remained on after bleed air valve closed.	FIM 26-18-00/101, Fig. 103

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FAULT CODE	LOG BOOK REPORT	FAULT ISOLATION REFERENCE
26 18 02	(01=L, 02=R) EICAS msg (L,R) BLD LEAK displayed. DUCT LEAK lgt on with APU supplying pneu sys. Light remained on after APU bleed air valve closed.	FIM 26-18-00/101, Fig. 103
26 18 03 00	EICAS status/maintenance msg DUCT LEAK BITE displayed.	FIM 26-18-00/101, Fig. 103
26 18 04 00	EICAS status/maintenance msg DUCT LEAK LP displayed.	FIM 26-18-00/101, Fig. 103
26 18 06	(01=L, 02=R) DUCT LEAK light did not come on during test.	FIM 26-18-00/101, Fig. 103
26 18 07 00	(01=L, 02=R) L and R DUCT LEAK lights did not come on during test.	FIM 26-18-00/101, Fig. 103
26 21 01	(01=L, 02=R) ENGINE FIRE indicated. EICAS msg (L,R) ENGINE FIRE displayed. Fire indications stopped when fire switch pulled.	Push the fire switch handle back to the vertical initial position. Examine the engine for signs of a fire or overheat condition. Look for possible fuel oil or hydraulic fluid leaks and damaged pneumatic ducts. Repair as necessary.
26 21 02	(01=L, 02=R) ENGINE FIRE indicated. EICAS msg (L,R) ENGINE FIRE displayed. Fire indications stopped when fire switch pulled and first bottle discharged.	Push the fire switch handle back to the vertical initial position. Examine the engine for signs of a fire or overheat condition. Look for possible fuel oil or hydraulic fluid leaks and damaged pneumatic ducts. Repair as necessary. If the problem still exists, replace the engine fire extinguisher bottle No. 1 (AMM 26-21-01).



FAULT CODE	LOG BOOK REPORT	FAULT ISOLATION REFERENCE
26 21 03	(01=L, 02=R) ENGINE FIRE indicated. EICAS msg (L,R) ENGINE FIRE displayed. Fire indications stopped when fire switch pulled and both bottle discharged.	Push the fire switch handle back to the vertical initial position. Examine the engine for signs of a fire or overheat condition. Look for possible fuel oil or hydraulic fluid leaks and damaged pneumatic ducts. Repair as necessary. If the problem still exists, replace the engine fire extinguisher bottle No. 1 and No. 2 (AMM 26-21-01).
26 21 04	(01=L, 02=R) ENGINE FIRE indicated. EICAS msg (L,R) ENGINE FIRE displayed. Fire indications continued when fire switch pulled and both bottles discharged.	Push the fire switch handle back to the vertical initial position. Examine the engine for signs of a fire or overheat condition. Look for possible fuel oil or hydraulic fluid leaks and damaged pneumatic ducts. Repair as necessary. If the problem still exists, replace the AFOLTS card for the engine fire detection (AMM 26-10-01).
26 21 05	(01=1, 02=2, 03=B0TH) Left ENG SQUIB TEST lgt(s) failed to come on during test.	(01=1, 02=2) Replace the engine fire extinguisher bottle squib cartridge where fault occurs (AMM 26-21-01). (03=B0TH) Replace the squib test control panel M10401 (AMM 26-21-04).
26 21 06	(01=1, 02=2, 03=B0TH) Right ENG SQUIB TEST lgt(s) failed to come on during test.	(01=1, 02=2) Replace the engine fire extinguisher bottle squib cartridge where fault occurs (AMM 26-21-01). (03=B0TH) Replace the squib test control panel M10401 (AMM 26-21-04).
26 21 07 00	All SQUIB TEST lgts failed to come on during test.	Replace the squib test panel (AMM 26-21-04).

# 26-FAULT CODE INDEX

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FAULT CODE	LOG BOOK REPORT	FAULT ISOLATION REFERENCE
26 21 08	(01=1, 02=2, 03=1 & 2) ENG BTL DISCH lgt on, EICAS msg (1, 2, 1 & 2) ENG BTL displayed. Discharge switch not used.	(01=1, 02=2) Replace the engine fire extinguisher bottle where fault occurs (faulty pressure switch) (AMM 26-21-01). (03=1&2) Replace the squib test control panel M10401 (AMM 26-21-04).
26 21 09	(01=1, 02=2, 03=1 & 2) ENG BTL DISCH lgt on, EICAS msg (1, 2, 1 & 2) ENG BTL displayed. Bottle was disch by switch.	(01=1, 02=2, 03=1&2) Replace the engine fire extinguisher bottle(s) that releases its contents (AMM 26-21-01). Make a check for fire damage on the engine and repair as necessary.
26 21 10	(01=L, 02=R) Engine had intermittent (L,R) ENG OVHT indication.	Do a visual check of the detector and/or detector loop areas for indications of heat damage. Replace any burn wires or harnesses. Repair any duct leaks.  Take out and put back in the circuit cards in P54. Make a check of the detector connectors for contaminated or damaged pin, socket, insulation or pushed back pin. Make sure the connectors are tightened. Do a continuity check of the detector while the detector vibrates.
26 22 01 00	APU fire indicated. EICAS msg APU FIRE displayed. APU fire switch pulled and bottle discharged. APU fire indication(s) stopped.	Replace the APU fire extinguisher bottle (AMM 26-22-01).
26 22 02 00	APU fire indicated. EICAS msg APU FIRE displayed. APU fire switch pulled and bottle discharged. APU fire indication(s) remained.	Replace the AFOLTS card for APU fire detection (AMM 26-10-01).
26 22 03 00	APU SQUIB TEST lgt failed to come on during test.	Replace the APU fire extinguisher bottle squib cartridge (AMM 26-22-01).

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FAULT CODE	LOG BOOK REPORT	FAULT ISOLATION REFERENCE
26 22 04 00	APU BTL DISCH lgt on, EICAS msg APU BTL displayed. Discharge switch not used.	Replace the APU fire extinguisher bottle (faulty pressure switch)(AMM 26-22-01).
26 22 05 00	APU BTL DISCH lgt on, EICAS msg APU BTL displayed. Bottle was disch by switch.	Replace the APU fire extinguisher bottle (AMM 26-22-01).
26 23 01	(01=FWD, 02=AFT) Cargo fire indicated. EICAS msg (FWD, AFT) CARGO FIRE displayed. Fire indication(s) stopped when bottles 1 and 2 discharged.	(01=FWD) Replace the fire extinguishing bottles No. 1 M10466 and No. 2 M10467 (AMM 26-23-02). Reset the discharge line pressure switch S633 in the forward cargo compartment. (02=AFT) Replace the fire extinguishing bottles No. 1 M10466 and No. 2 M10467 (AMM 26-23-02).
26 23 03	(01=1, 02=2, 03=BOTH) Forward CARGO SQUIB TEST lgt(s) failed to come on during test.	(01=1, 02=2) Replace the cargo fire extinguisher bottle squib cartridge where fault occurs (AMM 26-23-01). (03=B0TH) Replace the squib test control panel M10401 (AMM 26-21-04).
26 23 04	(01=1, 02=2, 03=B0TH) Aft CARGO SQUIB TEST lgt(s) failed to come on during test.	(01=1, 02=2) Replace the cargo fire extinguisher bottle squib cartridge where fault occurs (AMM 26-23-01). (03=BOTH) Replace the squib test control panel M10401 (AMM 26-21-04).



FAULT CODE	LOG BOOK REPORT	FAULT ISOLATION REFERENCE
26 23 05	(01=1, 02=2, 03=1&2) CARGO BTL DISCH lgt on, EICAS msg (1, 2, 1 & 2) CARGO BTL displayed. Discharge switch not used.	(01=1) FIM 26-23-00/101, Fig. 103 (02=2) FIM 26-23-00/101, Fig. 104 (03=1&2) Replace the fire extinguishing bottles No. 1 M10466 and No. 2 M10467 (AMM 26-23-02). Do a check of the red reset button on the discharge line pressure switch S633 in the forward cargo compartment and reset if extended.
26 23 06 03	EICAS msg 1 & 2 CARGO BTL displayed and 1 & 2 CARGO BTL DISCH lgts on. Bottles were disch by switch.	Replace the fire extinguisher bottle(s) that released its contents (AMM 26-23-02). Do a check of the red reset button on the discharge line pressure switch S633 in the forward cargo compartment and reset if extended.
26 23 07	(O1=FWD, O2=AFT) Cargo fire indicated. EICAS msg (FWD, AFT) CARGO FIRE displayed. Fire indication(s) remained when bottles disch.	(01=FWD) FIM 26-23-00/101, Fig. 105 (02=AFT) FIM 26-23-00/101, Fig. 106
26 24 01	(01=FWD LAV A, 02=FWD LAV F, 03=MID LAV S, 04=MID LAV C, 05=MID LAV D) Lavatory smoke alarm sounded, no smoke, fire extinguisher did not discharge.	FIM 26-14-00/101, Fig. 103
26 24 02	(01=FWD LAV A, 02=FWD LAV F, 03=MID LAV S, 04=MID LAV C, 05=MID LAV D) Lavatory smoke detector will not test when self-test switch activated.	FIM 26-14-00/101, Fig. 103



FAULT CODE	LOG BOOK REPORT	FAULT ISOLATION REFERENCE
26 24 03	(01=FWD LAV A, 02=FWD LAV F, 02=MID LAV S, 03=NUD LAV C, 04=MID LAV D) Lavatory smoke alarm activated by smoke, automatic fire extinguisher did not discharge and Temp Ind still gray.	FIM 26-14-00/101, Fig. 103
26 24 04	(01=FWD LAV A, 02=FWD LAV F, 03=MID LAV S, 04=MID LAV C, 05=MID LAV D) Lavatory smoke alarm activated by smoke, fire extinguisher discharged.	FIM 26-14-00/101, Fig. 103
26 24 05	(01=FWD LAV A, 02=FWD LAV F, 03=MID LAV S, 04=MID LAV C, 05=MID LAV D) At high smoke density, lav smoke alarm did not activate, automatic fire extinguisher did not discharge.	FIM 26-14-00/101, Fig. 103
26 24 06	(01=FWD LAV A, 02=FWD LAV F, 03=MID LAV S, 04=MID LAV C, 05=MID LAV D) At high smoke density, lav smoke alarm did not activate, automatic fire extinguisher discharged.	FIM 26-14-00/101, Fig. 103
26 24 07	(01=FWD LAV A, 02=MID LAV F, 03=MID LAV S, 04=MID LAV C, 05=MID LAV D) Waste compt temp indicator turned black.	Repair any fire damage as necessary. Replace the temperature indicator (AMM 26-24-01). Replace the automatic fire extinguisher if the fusible tips are melted (AMM 26-24-01).



### **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	<u>Acronym</u>	FIM Reference
Air Data Computer	ADC	34–12
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Air Traffic Control Transponder	ATC	34-53
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APU Fire Detection System		26-15
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Bite Index Figure 1 (Sheet 1)

EFFECTIVITY-

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LRU/System Name	Acronym	FIM Reference
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Instrument Comparator Unit	ICU	34-25
Instrument Landing System Receiver	ILS	34-31
Lower Cargo Compartment Smoke Detection System		26-16
Maintenance Control Display Panel	MCDP	22-00
PA (Passenger Address) Amplifier		23-31
Pack Standby Temperature Controller		21-51
Pack Temperature Controller		21-51
Passenger Entertainment System	PES	23-34
Power Supply Module (Control System Electronics Units)	PSM	27-09
Propulsion Discrete Interface Unit (PW Engines)	PDIU	73–21
Proximity Switch Electronics Unit	PSEU	32-09
Radio Altimeter Transmitter/Receiver	RA	34-33
Rudder Ratio Changer Module	RRCM	27-09
Spoiler Control Module	SCM	27-09
Stabilizer Position Module	SPM	27-48
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

Bite Index Figure 1 (Sheet 2)

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<u>LRU/System Name</u>	<u>Acronym</u>	FIM Reference
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		21-60

Bite Index Figure 1 (Sheet 3)

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### **DETECTION**

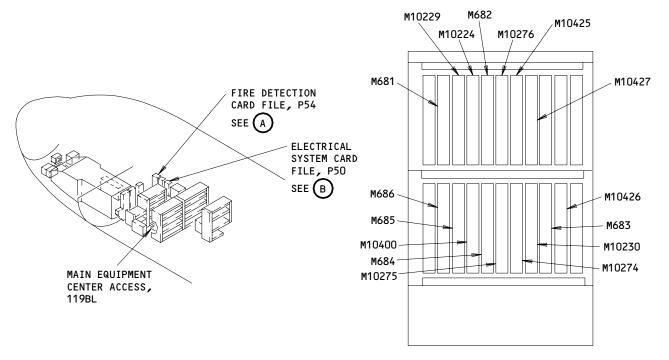
COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	REFERENCE
				0/ 10 01
CARD 1 - FIRE/OVHT LOGIC/TEST, M10224		1	119BL, MAIN EQUIP CTR, P54	26-10-01
CARD 2 - FIRE/OVHT LOGIC/TEST, M10274		1	119BL, MAIN EQUIP CTR, P54	26-10-01
CARD 3 - FIRE/OVHT LOGIC/TEST, M10400		1	119BL, MAIN EQUIP CTR, P54	26-10-01
CARD 4 - FIRE/OVHT LOGIC/TEST, M10425		1	119BL, MAIN EQUIP CTR, P54	26-10-01
CARD 5 - FIRE/OVHT LOGIC/TEST, M10426		1	119BL, MAIN EQUIP CTR, P54	26-10-01
CARD 6 - FIRE/OVHT LOGIC/TEST, M10427		1	119BL, MAIN EQUIP CTR, P54	26-10-01
CARD - LOOP 1 APU FIRE DET, M685		1	119BL, MAIN EQUIP CTR, P54	26-10-01
CARD - LOOP 2 APU FIRE DET, M686		1	119BL, MAIN EQUIP CTR, P54	26-10-01
CARD - LOOP 1 LEFT ENG FIRE DET, M681		1	119BL, MAIN EQUIP CTR, P54	26-10-01
CARD - LOOP 2 LEFT ENG FIRE DET, M682		1	119BL, MAIN EQUIP CTR, P54	26-10-01
CARD - LOOP 1 RIGHT ENG FIRE DET, M683		1	119BL, MAIN EQUIP CTR, P54	26-10-01
CARD - LOOP 2 RIGHT ENG FIRE DET, M684		1	119BL, MAIN EQUIP CTR, P54	26-10-01
CARD - DUCT LEAK & WHEEL WELL FIRE, M691		1	119BL, MAIN EQUIP CTR, P50	26-10-01
CARD - LOOP 1 LEFT NACELLE OVHT DET, M10229		1	119BL, MAIN EQUIP CTR, P54	26-10-01
CARD - LOOP 2 LEFT NACELLE OVHT DET, M10276		1	119BL, MAIN EQUIP CTR, P54	26-10-01
CARD - LOOP 1 RIGHT NACELLE OVHT DET, M10230		1	119BL, MAIN EQUIP CTR, P54	26-10-01
CARD - LOOP 2 RIGHT NACELLE OVHT DET, M10275		1	119BL, MAIN EQUIP CTR, P54	26-10-01
CARD - DUCT LEAK & WHEEL WELL PWR SUPPLY, M10428		1	119BL, MAIN EQUIP CTR, P50	26-10-01

Detection - Component Index Figure 101

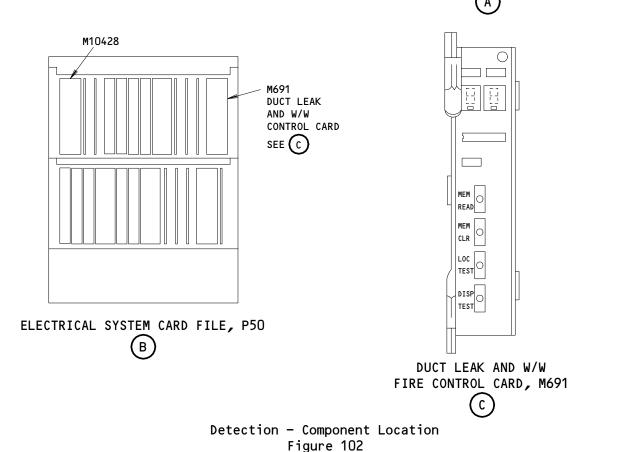
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### FAULT ISOLATION/MAINT MANUAL



### FIRE DETECTION CARD FILE, P54



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### **ENGINE FIRE DETECTION SYSTEM**

COMPONENT		QTY	ACCESS/AREA	REFERENCE
CARD 1 - FIRE/OVHT LOGIC/TEST, M10224	1	1	119BL MAIN EQUIP CTR, P54	26-10-01
CARD 2 - FIRE/OVHT LOGIC/TEST, M10274	1	1	119BL MAIN EQUIP CTR, P54	26-10-01
CARD - LOOP 1 L ENG FIRE DET, M681	1	1	119BL MAIN EQUIP CTR, P54	26-10-01
CARD - LOOP 2 L ENG FIRE DET, M682	1	1	119BL MAIN EQUIP CTR, P54	26-10-01
CARD - LOOP 1 R ENG FIRE DET, M683	1	1	119BL MAIN EQUIP CTR, P54	26-10-01
CARD - LOOP 2 R ENG FIRE DET, M684	1	1	119BL MAIN EQUIP CTR, P54	26-10-01
CARD - LOOP 1 L NACELLE OVHT DET, M10229	1	1	119BL MAIN EQUIP CTR, P54	26-10-01
CARD - LOOP 2 L NACELLE OVHT DET, M10276	1	1	119BL MAIN EQUIP CTR, P54	26-10-01
CARD - LOOP 1 R NACELLE OVHT DET, M10230	1	1	119BL MAIN EQUIP CTR, P54	26-10-01
CARD - LOOP 2 R NACELLE OVHT DET, M10275	1	1	119BL MAIN EQUIP CTR, P54	26-10-01
CIRCUIT BREAKERS -	1		FLT COMPT, P11	
FIRE DET ALIN PWR ENG L, C763		1	11J26	*
FIRE DET ALTN PWR ENG R, C764		1	11J27	*
FIRE DETECTION L ENG 1, C774		1	11B20	*
FIRE DETECTION L ENG 2, C783		1	11B21	*
FIRE DETECTION R ENG 1, C775		1	11B22	*
FIRE DETECTION R ENG 2, C784		1	11B23	*
COMPUTER - (REF 31-41-00, FIG. 101)				
EICAS L, M10181				
EICAS R, M10182				
DIODE - BUS ISOLATION, R193,R194,R197,R198	1	4	FLT COMPT, BEHIND P5	*
ELEMENT - ENGINE FIRE DETECTOR,	3	8	413AL,423AL,414AR,424AR,	26-11-01
TS5148,TS5146,TS5144,TS5142,			415AL,425AL,417AL,427AL,	
TS5147,TS5145,TS5143,TS5141			EACH ENGINE	
ELEMENT - ENGINE OVHT DETECTOR,	2	4	415AL,425AL,416AR,426AR,	26-11-01
TS5064,TS5065,TS5073,TS5074			EACH ENGINE	
LIGHT - L ENG OVHT, YQNLOO1	1	1	FLT COMPT, P8, FIRE CONT PANEL, M10443	*
LIGHT - R ENG OVHT, YQNLOO3	1	1	FLT COMPT, P8, FIRE CONT PANEL, M10443	*
LIGHT - L ENG VALVE, YQSLOO2	1	1	FLT COMPT, P8, FUEL CONT, M73	*
LIGHT - R ENG VALVE, YQSLOO4	1	1	FLT COMPT, P8, FUEL CONT, M73	*
PANEL - FIRE/OVHT TEST, M10445	1	1	FLT COMPT, P8	26-11-02
PANEL - (REF 26-21-00, FIG. 101) ENG FIRE CONTROL, M10443			,	

<sup>\*</sup> SEE THE WDM EQUIPMENT LIST

Engine Fire Detection System - Component Index Figure 101 (Sheet 1)

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COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	AMM REFERENCE
PANEL - (AMM 28-22-00, FIG. 101) FUEL CONTROL, M73 SWITCH - TEST, ENG/APU/CARGO, YQQS001 SWITCH - FAIL LIGHT RESET, YQQS003 SWITCH - (AMM 26-21-00, FIG. 101) L ENGINE FIRE, S37 R ENGINE FIRE, S38	1 1	1 1	FLT COMPT, P8, FIRE TEST, M10445 FLT COMPT, P8, FIRE TEST, M10445	*

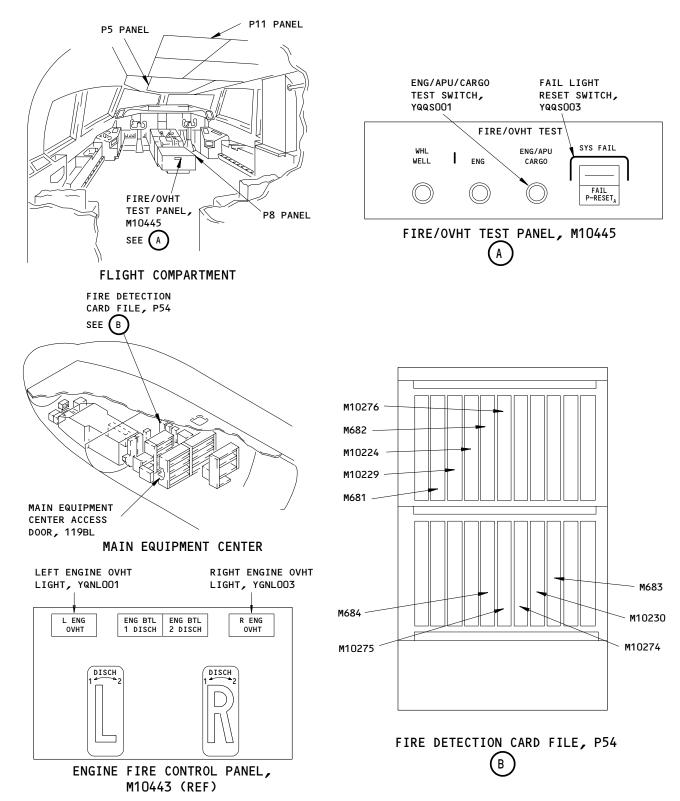
<sup>\*</sup> SEE THE WDM EQUIPMENT LIST

Engine Fire Detection System - Component Index Figure 101 (Sheet 2)

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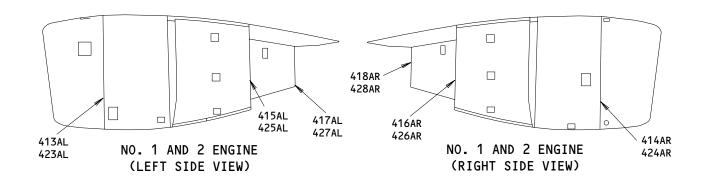
Engine Fire Detection System - Component Location Figure 102 (Sheet 1)

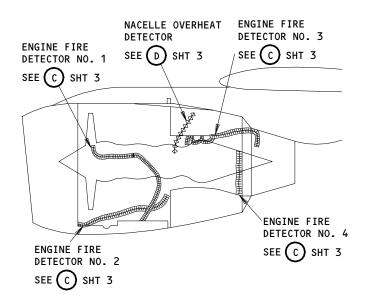
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Engine Fire Detection System - Component Location Figure 102 (Sheet 2)

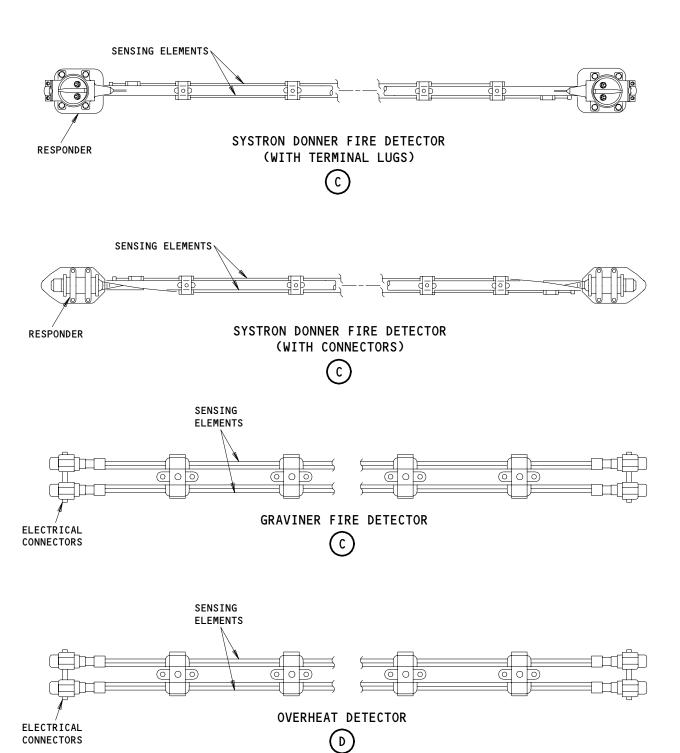
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Engine Fire Detection Component Location Figure 102 (Sheet 3)

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#### **PREREQUISITES** MAKE SURE THESE SYSTEMS WILL OPERATE: EICAS (AMM 31-41-00/501) WARNING SYSTEM (AMM 31-51-00/501) MASTER DIM AND TEST SYSTEM (AMM 33-16-00/501) MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11B20, 11B21, 11B22, 11B23, 11J26, 11J27 MAKE SURE THESE CIRCUIT BREAKERS ARE OPEN AND ATTACH **ENGINE FIRE/OVERHEAT** DO-NOT-CLOSE TAGS: **DETECTION SYSTEM** 6H1, 6H2, 6H3, 6H4, 11B24, 11B25, 11B26, 11B27, BITE PROCEDURE 11B33, 11B34, 11J24, 11J25 NO DO A VISUAL CHECK OF THE 101 REPAIR THE DAMAGE. DETECTOR AND/OR LOOP AREAS FOR INDICATIONS OF HEAT DAMAGE. DO THE WIRE/HARNESS OR DUCTS CHECK OK ? YES NO 1A PUSH THE MASTER DIM AND 101A DO THIS PROCEDURE: TEST SWITCH ON THE RIGHT FLIGHT COMPARTMENT MASTER DIM OVERHEAD LIGHTING CONTROL AND TEST PROBLEMS PROCEDURE PANEL (ON P5). (FIM 33-16-00/101, FIG. 103). DO ALL OF THESE INDICATION LIGHTS COME ON? "L ENG OVHT' LIGHT (ON P8) • "R ENG OVHT" LIGHT (ON P8) • "FAIL P-RESET" ON FIRE/OVHT TEST PANEL (ON P8) MASTER "WARNING" LIGHTS (ON P7) DISCRETE "FIRE" LIGHT (ON P1-3) YES NO PUSH AND HOLD THE MD&T 102 REPLACE THE FIRE/OVHT "TEST" SWITCH TO STOP THE TEST PANEL, M10445 (AMM 26-11-01/401). TEST. PUSH AND HOLD THE "ENG/ APU/CARGO" TEST SWITCH ON THE FIRE/OVHT TEST PANEL, M10445 $(0N P8)_{-}$ DO ANY OF THESE INDICATION LIGHTS COME ON? • "LEFT" ENGINE FIRE SWITCH LIGHT • "RIGHT" ENGINE FIRE SWITCH LIGHT YES • "L ENG OVHT" LIGHT ➤ SEE SHEET 2 • "R ENG OVHT" LIGHT (BLOCK 3) • DISCRETE "FIRE" LIGHT MASTER "WARNING" LIGHT

## Engine Fire/Overheat Detection System BITE Procedure Figure 103 (Sheet 1)



FROM SHEET 2 (BLOCK 3) YES

NO 103 2 PULL OUT AND PUT RELEASE THE "ENG/APU/ 51 DO ANY OF THE L (R) ENGINE BACK IN THE AFOLTS NO. 1 (2) CARGO" TEST SWITCH. FIRE INDICATIONS IN BLOCK 3, FOR THE LEFT ENGINE FIRE COME ON? CARD, M10224 (M10274) DETECTION BITE PROCEDURE: (AMM 26-10-01/401). YES OPEN THESE CIRCUIT BREAKERS ON 3>IF THE PROBLEM CONTINUES, THE OVERHEAD CIRCUIT BREAKER REPLACE THE AFOLTS NO. 1 (2) PANEL, P11: CARD, M10224 (M10274) (AMM 26-10-01/401). 11B22, FIRE DETECTION RIGHT FNGINE 1 52 DOES ONE OF THESE CONDI-104 1 EXAMINE THE CIRCUIT 11B23, FIRE DETECTION RIGHT FROM CONNECTOR D1822 (D2330), TIONS OCCUR: ENGINE 2 • IS THE "LEFT (RIGHT)" ENGINE PIN 11, TO TB158, DIODE R10137 11J27, ALTERNATE POWER FIRE (TB159, DIODE R10136) FIRE SWITCH LIGHT ON DETECTION ENGINE R DOES THE LEFT (RIGHT) ENGINE (WDM 26-11-11, -21). REPAIR FOR THE RIGHT ENGINE FIRE FIRE SWITCH HANDLE PULL OUT THE PROBLEMS THAT YOU FIND. DETECTION BITE PROCEDURE: WITHOUT THE USE OF THE OPEN THESE CIRCUIT BREAKERS ON MANUAL OVERRIDE? THE P11 PANEL: YES 11B20, FIRE DETECTION LEFT ENGINE 1 53 DOES THE "LEFT (RIGHT)" 105 1 REPLACE THE LAMP FOR 11B21, FIRE DETECTION LEFT ENGINE FIRE SWITCH LIGHT COME THE L (R) FIRE SWITCH, S37 ENGINE 2 (\$38)(WDM 26-11-11, -21). ON? 11J26, ALTERNATE POWER FIRE IF THE PROBLEM CONTINUES, DETECTION ENGINE L YES EXAMINE THE CIRCUIT FROM PUSH AND HOLD THE "ENG/ TB158, DIODE R10137, (TB159, APU/CARGO" TEST SWITCH. DIODE R10136), TO CONNECTOR SEE SHEET 3 DO ALL OF THESE L (R) (BLOCK 54) D1594 (D1588), PIN 2 LIGHT INDICATIONS COME ON? (WDM 26-11-11, -21). REPAIR THE PROBLEMS THAT YOU FIND. "LEFT (RIGHT)" ENGINE FIRE SWITCH LIGHT L (R) FUEL CONTROL SWITCH LIGHT > RELEASE THE "ENG/APU/CARGO" TEST SWITCH "L (R) ENG OVHT" LIGHT

DO ALL OF THESE I (R) EICAS MESSAGES SHOW ON THE TOP DISPLAY?

L (R) ENGINE FIRE L (R) ENG OVHT

MASTER "WARNING" LIGHT

DISCRETE "FIRE" LIGHT

YOU CAN NOW HEAR THE FIRE BELL.

#### WARNING

DO NOT TURN THE HANDLE WHEN THE ENGINE FIRE SWITCH IS PULLED OUT. THE CONTENTS WILL COME OUT OF THE ENGINE FIRE BOTTLES IF YOU TURN THE HANDI F

THE L (R) ENGINE FIRE SWITCH HANDLE CAN BE PULLED OUT IF YOU DO NOT USE THE MANUAL OVERRIDE.

NOTE: PULLING THE FIRE HANDLE SWITCH SILENCES THE FIRE BELL.

> SOME AFOLTS CARDS HAVE RED AND YELLOW LED INDICATIONS. THE ILLUMINATION OF A YELLOW LED INDICATES A MALFUNCTION EXTERNAL TO THE AFOLTS CARDS. TROUBLESHOOT AIRPLANE WIRING AND SYSTEM, DO NOT REPLACE CARD BEFORE YOU CHECK AND FIX PROBLEM. THE ILLUMINATION OF A RED LED INDICATES A MALFUNCTION INTERNAL TO THE AFOLTS CARD. REPLACEMENT OF CARD IS REQUIRED

3 <u>CAUTION</u>: DO A CHECK OF THE AIRPLANE WIRES AND SYSTEM BEFORE YOU

REPLACE THE AFOLTS CARD. CORRECT THE PROBLEMS FOUND. IF YOU DO NOT DO THIS CHECK, A PROBLEM WITH THE WIRES MAY CAUSE THE NEW AFOLTS CARD TO

FAIL (SHORT OR OPEN).

YES SEE SHEET 5 (BLOCK 4)

Engine Fire/Overheat Detection System BITE Procedure Figure 103 (Sheet 2)

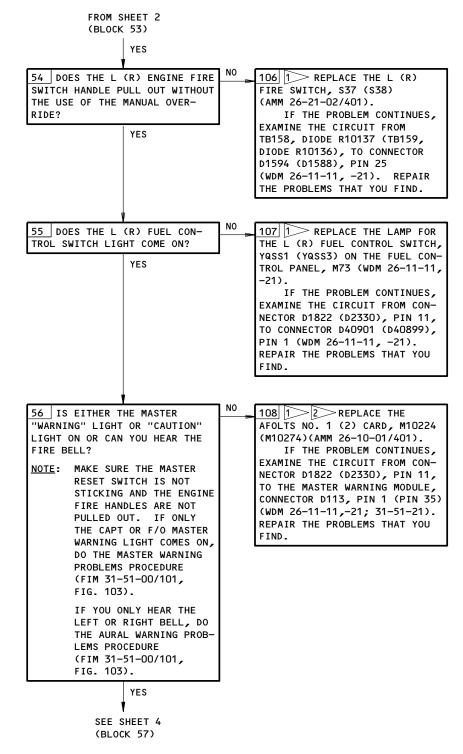
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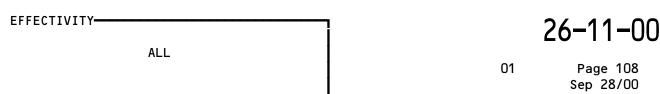
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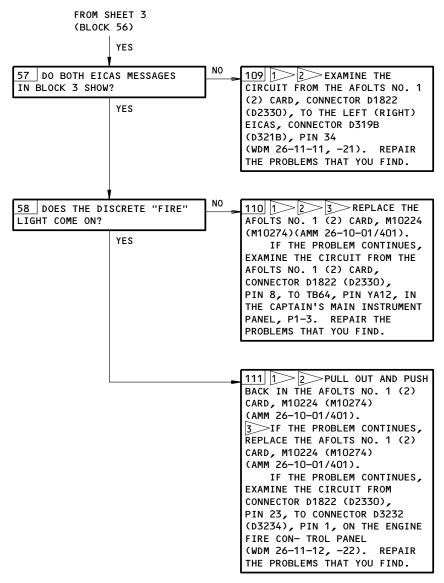


1 RELEASE THE "ENG/APU/CARGO" TEST SWITCH

Engine Fire/Overheat Detection System BITE Procedure Figure 103 (Sheet 3)

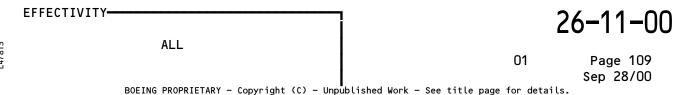


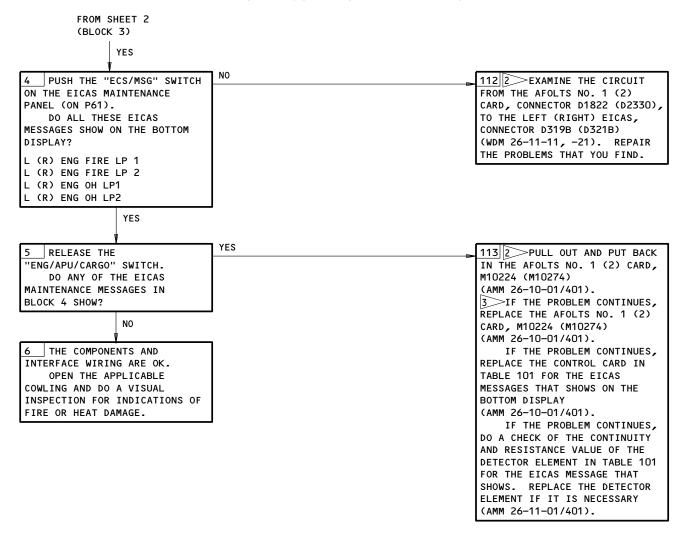




1 RELEASE THE "ENG/APU/CARGO" TEST SWITCH

## Engine Fire/Overheat Detection System BITE Procedure Figure 103 (Sheet 4)





# Engine Fire/Overheat Detection System BITE Procedure Figure 103 (Sheet 5)



EICAS MESSAGE	CONTROL CARD	DETECTOR NUMBER/ ELECTRICAL CON- NECTOR 4 (ROLLS ROYCE ENGINES)	DETECTOR NUMBER/ ELECTRICAL CON- NECTOR (PRATT AND WHITNEY ENGINES)	RESISTANCE IN OHMS PINS A-D OR LUG A-C
L ENG FIRE LP 1	M681	TS5037/D1406 TS5035/D1410 TS5033/D1414 TS5031/D1418	TS5251A/D5034 TS5252A/D5038 TS5253A/D5042 TS5254A/D5046	5700-6300
L ENG FIRE LP 2	M682	TS5036/D1408 TS5034/D1412 TS5032/D1416 TS5030/D1420	TS5251B/D5036 TS5252B/D5040 TS5253B/D5044 TS5254B/D5048	5700-6300
R ENG FIRE LP 1	M683	TS5037/D1406 TS5035/D1410 TS5033/D1414 TS5031/D1418	TS5251A/D5034 TS5252A/D5038 TS5253A/D5042 TS5254A/D5046	5700-6300
R ENG FIRE LP 2	M684	TS5036/D1408 TS5034/D1412 TS5032/D1416 TS5030/D1420	TS5251B/D5036 TS5252B/D5040 TS5253B/D5044 TS5254B/D5048	5700-6300
L ENG OH LP 1	M10229	TS5064/D2122 4>	TS5256A/D5082	1425-1575
L ENG OH LP 2	M10276	TS5065/D2402 4>>	TS5256B/D5084	1425-1575
R ENG OH LP 1	M10230	TS5073/D2800 4>>	TS5256A/D5082	1425-1575
R ENG OH LP 2	M10275	TS5074/D2804 4>>	TS5256B/D5084	1425-1575

SYSTRON-DONNER TABLE 101

4 AIRPLANES WITH SYSTRON-DONNER FIRE DETECTORS WITH CONNECTORS; THE CONNECTOR NUMBERS ARE NOT APPLICABLE TO DETECTORS WITH LUGS.

Engine Fire/Overheat Detection System BITE Procedure Figure 103 (Sheet 6)

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EICAS MESSAGE	CONTROL CARD	DETECTOR NUMBER/ ELECTRICAL CONNECTORS	RESISTANCE IN OHMS CENTER PINS 5
L ENG FIRE LP 1	M681	TS5148/D1446,D1450 TS5146/D1454,D1458 TS5144/D1462,D1466 TS5142/D1470,D1474	14.7-22.1 15.4-23.1 18.8-28.2 14.2-21.4
L ENG FIRE LP 2	M682	TS5147/D1448,D1452 TS5145/D1456,D1460 TS5143/D1464,D1468 TS5141/D1472,D1476	14.7-22.1 15.4-23.1 18.8-28.2 14.2-21.4
R ENG FIRE LP 1	M683	TS5148/D1446,D1450 TS5146/D1454,D1458 TS5144/D1462,D1466 TS5142/D1470,D1474	14.7-22.1 15.4-23.1 18.8-28.2 14.2-21.4
R ENG FIRE LP 2	M684	TS5147/D1448,D1452 TS5145/D1456,D1460 TS5143/D1464,D1468 TS5141/D1472,D1476	14.7-22.1 15.4-23.1 18.8-28.2 14.2-21.4
L ENG OH LP 1	M10229	TS5064/D2122	1425-1575
L ENG OH LP 2	M10276	TS5065/D2402	1425-1575
R ENG OH LP 1	M10230	TS5073/D2800	1425-1575
R ENG OH LP 2	M10275	TS5074/D2804	1425-1575

## GRAVINER TABLE 101

5 DISCARD THE CRUSH WASHER IF THE DETECTOR/AIRPLANE WIRING CONNECTION IS OPENED FOR THE TEST.

DETECTOR NUMBER	LOOP NUMBER	ENGINE ZONE	ENGINE LOCATION
TS5141 TS5142	2 1	LOWER AFT	LOWER SECTOR TURBINE CASE
TS5143 TS5144	2 1	UPPER AFT	UPPER COMBUSTION TURBINE CASE
TS5145 TS5146	2 1	UPPER FWD	LEFT SIDE L.P. COMPESSOR CASE
TS5147 TS5148	2 1	LOWER FWD	RIGHT SIDE L.P. COMPRESSOR CASE

# LEFT/RIGHT ENGINE FIRE DETECTOR LOCATION TABLE 102

Engine Fire/Overheat Detection System BITE Procedure Figure 103 (Sheet 7)

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ENGINE OR STRUT
OVERHEAT DETECTED.
"ENG OVHT" LIGHT ON.
L(R) "ENG OVHT" EICAS
MSG DISPLAYED. STRUT
OR THRUST REVERSER OR
FAN COWL PANEL
PRESSURE RELIEF DOORS
ARE OPEN.

### **PREREQUISITES**

MAKE SURE THESE SYSTEMS WILL OPERATE:
EICAS (AMM 31-41-00/501)
WARNING SYSTEM (AMM 31-51-00/501)
MASTER DIM AND TEST SYSTEM (AMM 33-16-00/501)

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11B20, 11B21, 11B22, 11B23, 11J26, 11J27

MAKE SURE THE AIRPLANE IS IN THIS CONFIGURATION: ELECTRICAL POWER IS ON (AMM 24-22-00/201) PNEUMATIC DUCT PRESSURE IS ZERO THRUST REVERSER DEACTIVATED (AMM 78-31-00/201)



### **DESCRIPTION:**

HIGH TEMPERATURE, AIR PRESSURE SOURCE ON THE ENGINE OR IN THE STRUT CAUSED AN OVERHEAT TO BE DETECTED AND THE PRESSURE RELIEF DOORS TO OPEN TO RELIEVE INTERNAL PRESSURE.

### **POSSIBLE CAUSES:**

FORWARD STRUT PRESSURE DOORS OPEN:

- ⊕ PRECOOLER BURST (FORWARD SIDE)
- # PRECOOLER INLET DUCT BURST OR DUCT CLAMPS
- # HP2 OFFTAKE DUCT OR DUCT CLAMP
- ⊕ HP6 OFFTAKE DUCT OR DUCT CLAMP
- ⊕ INTERMEDIATE PRESSURE CHECK VALVE
- ⊕ INLET THERMAL ANTI-ICE DUCT BURST OR DUCT CLAMPS
- ♥ STARTER DUCT BURST OR DUCT CLAMPS

AFT STRUT PRESSURE RELIEF DOOR OPEN:

- ⊕ PRSOV CLAMPS OR DUCT
- ⊕ PRECOOLER BURST (AFT SIDE)
- ⊕ STARTER DUCT BURST OR DUCT CLAMPS

FAN COWL PANEL PRESSURE RELIEF DOOR OPEN:

- INLET THERMAL ANTI-ICE DUCT BURST OR CLAMPS
- ♥ STARTER DUCT BURST OR CLAMPS

BOTTOM THRUST REVERSER, ZONE 3 PRESSURE RELIEF DOOR OPEN:

- ⊕ HP2 OFFTAKE DUCT OR DUCT CLAMP
- ⊕ HP6 OFFTAKE DUCT OR DUCT CLAMP
- ⊕ HPSOV OR DUCT CLAMPS
- ⊕ LP COMPRESSOR CASE PROBLEM
- ⊕ COMBUSTION SECTION PROBLEM
- ⊕ LP TURBINE CASE OR EXHAUST CASE PROBLEM
- ⊕ COOLING AIR TUBES; LACK OF COOLING AIR
- ullet IGNITER PLUGS, CASE AREA AROUND THE IGNITERS
- BORESCOPE PLUGS, CASE AREA AROUND PLUGS

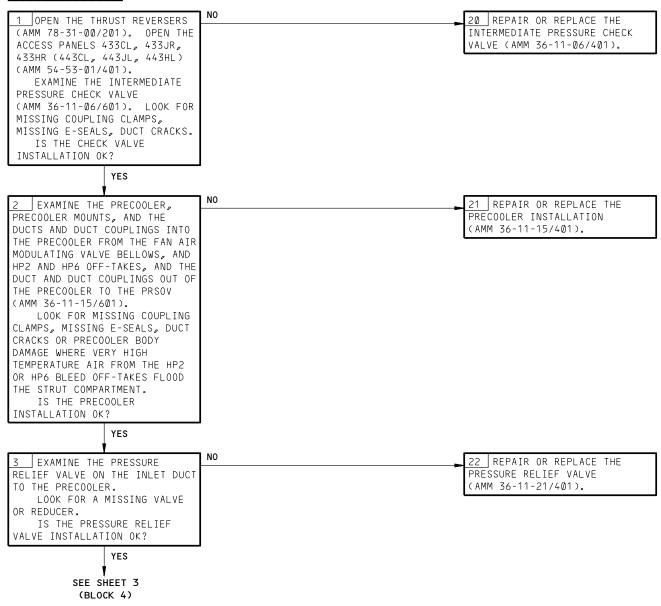
Engine or Strut Overheat Detected. "ENG OVHT" Light On. L(R) "ENG OVHT" Eicas Msg Displayed. Strut or Thrust Reverser or Fan Cowl Panel Pressure Relief Doors Are Open.

Figure 103A (Sheet 1)

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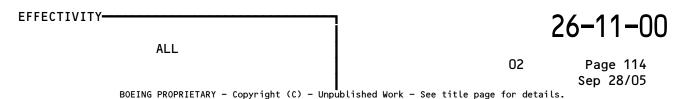
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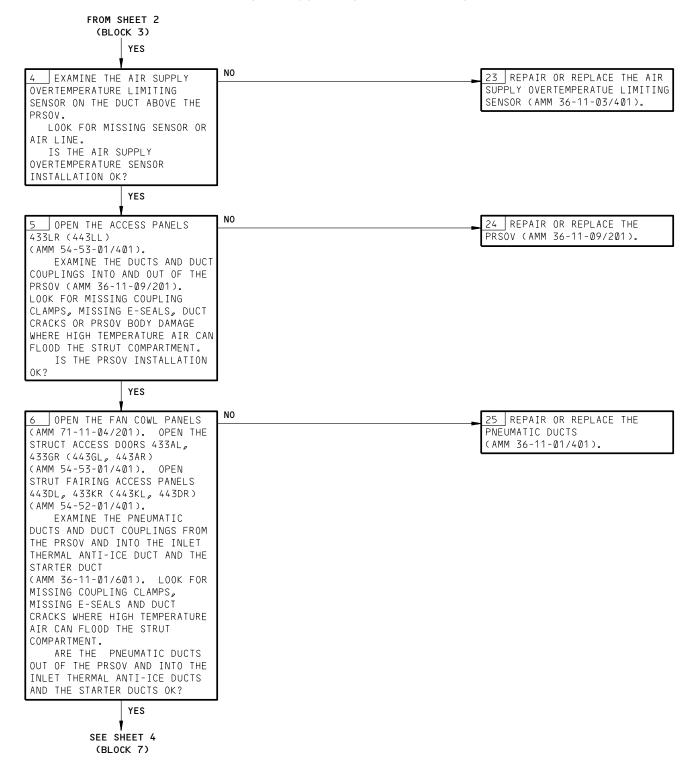
### **FAULT ISOLATION:**



Engine or Strut Overheat Detected. "ENG OVHT" Light On. L(R) "ENG OVHT" Eicas Msg Displayed. Strut or Thrust Reverser or Fan Cowl Panel Pressure Relief Doors Are Open.

Figure 103A (Sheet 2)



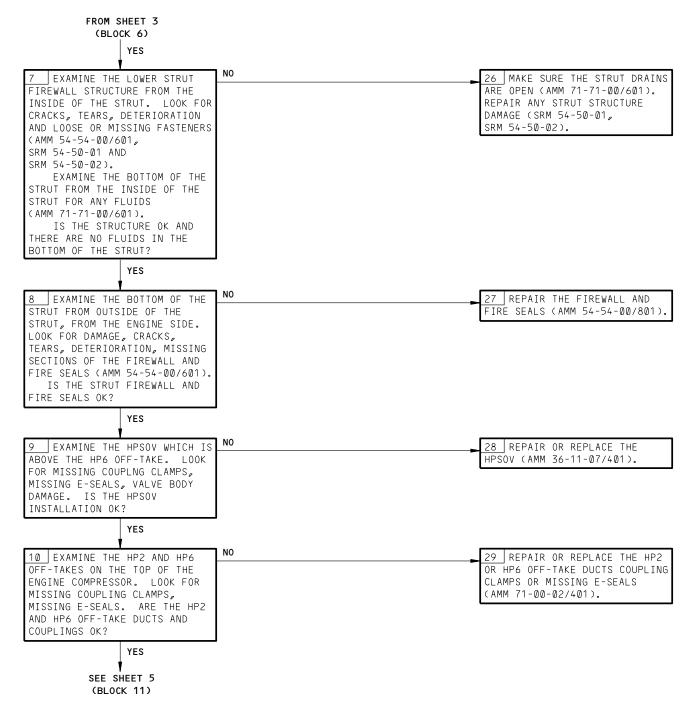


Engine or Strut Overheat Detected. "ENG OVHT" Light On. L(R) "ENG OVHT" Eicas Msg Displayed. Strut or Thrust Reverser or Fan Cowl Panel Pressure Relief Doors Are Open.

Figure 103A (Sheet 3)

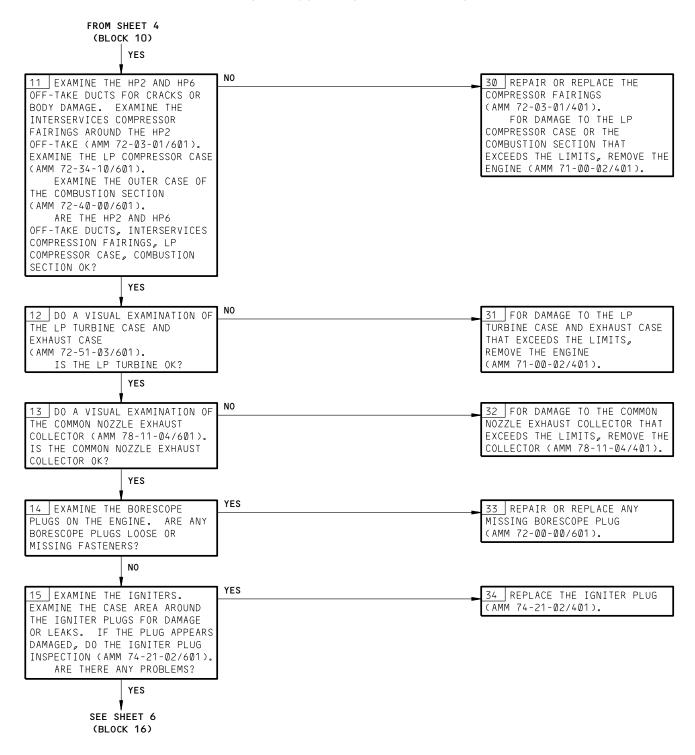
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Engine or Strut Overheat Detected. "ENG OVHT" Light On. L(R) "ENG OVHT" Eicas Msg Displayed. Strut or Thrust Reverser or Fan Cowl Panel Pressure Relief Doors Are Open.

Figure 103A (Sheet 4)



Engine or Strut Overheat Detected. "ENG OVHT" Light On. L(R) "ENG OVHT" Eicas Msg Displayed. Strut or Thrust Reverser or Fan Cowl Panel Pressure Relief Doors Are Open.

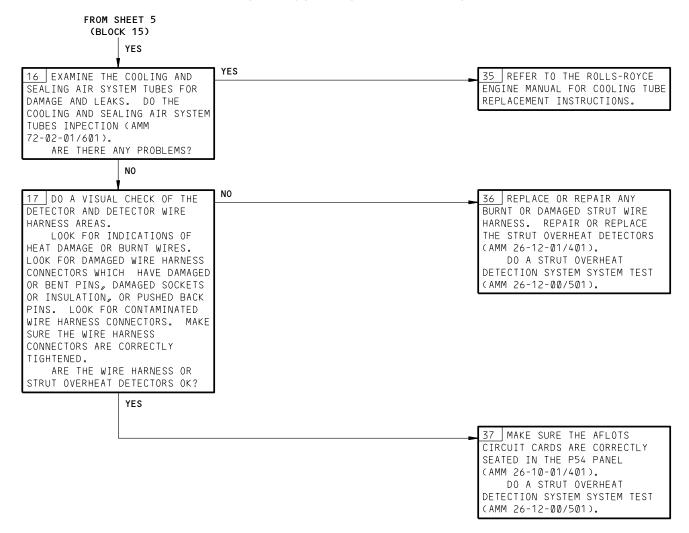
Figure 103A (Sheet 5)

ALL

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Engine or Strut Overheat Detected. "ENG OVHT" Light On. L(R) "ENG OVHT" Eicas Msg Displayed. Strut or Thrust Reverser or Fan Cowl Panel Pressure Relief Doors Are Open.

Figure 103A (Sheet 6)

ALL

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### STRUT OVERHEAT DETECTION SYSTEM

COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	AMM REFERENCE
CARD 4 - (FIM 26-10-00/101)  FIRE/OVHT LOGIC/TEST, M10425  CARD 5 - (FIM 26-10-00/101)  FIRE/OVHT LOGIC/TEST, M10426  CIRCUIT BREAKERS  FIRE DET ALTN PWR ENGINE LEFT, C763  FIRE DET ALTN PWR ENGINE RIGHT, C764  FIRE DETECTION L ENGINE 1, C774  FIRE DETECTION L ENGINE 2, C783  FIRE DETECTION R ENGINE 1, C775  FIRE DETECTION R ENGINE 2, C784  COMPUTER - (FIM 31-41-00/101)  EICAS L, M10181		1 1 1 1 1	FLT COMPT, P11 11J26 11J27 11B20 11B21 11B22 11B23	* * * *
EICAS R, M10182 LIGHT - L ENG OVHT, YQNL001 LIGHT - R ENG OVHT, YQNL003	 	1	FLT COMPT, P8, ENG FIRE CONT PNL, M10443 FLT COMPT, P8, ENG FIRE CONT PNL,	*
PANEL - (FIM 26-21-00/101) ENGINE FIRE CONTROL, M10443  PANEL - (FIM 26-11-00/101) FIRE/OVHT TEST, M10445  SWITCH - ENG TEST YQQS002		1	M10443  FLT COMPT, P8, FIRE/OVHT TEST	*
OUTTON LEFT OTDUT OWNT/ON			PNL, M10445	27, 42, 04
SWITCH - LEFT STRUT OVHT/SW  NO. 1, LOOP 1, S10194  NO. 2, LOOP 1, S10195  NO. 3, LOOP 1, S10196  NO. 2, LOOP 2, S10197  NO. 1, LOOP 2, S10198  NO. 3, LOOP 2, S10199		6	430, LEFT ENG STRUT 432AL 432AL 432AL 432AL 433LR 433LR	26-12-01
SWITCH - RIGHT STRUT OVHT SW  NO. 2, LOOP 1, S10200  NO. 1, LOOP 1, S10201  NO. 3, LOOP 1, S10202  NO. 2, LOOP 2, S10203  NO. 1, LOOP 2, S10204  NO. 3, LOOP 2, S10205		6	440, RIGHT ENG STRUT 442AL 442AL 442AL 442AL 443AL 443AL	26–12–01

<sup>\*</sup> SEE THE WDM EQUIPMENT LIST

Strut Overheat Detection System - Component Index Figure 101

EFFECTIVITY-

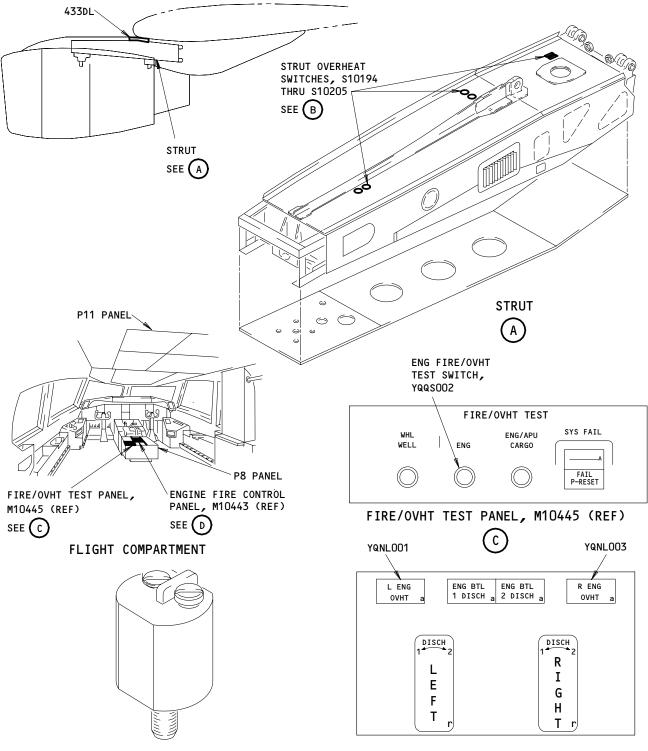
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## FAULT ISOLATION/MAINT MANUAL



STRUT OVERHEAT SWITCHES, S10194 THRU S10205 ENGINE FIRE CONTROL PANEL, M10443 (REF)

Strut Overheat Detection System - Component Location Figure 102

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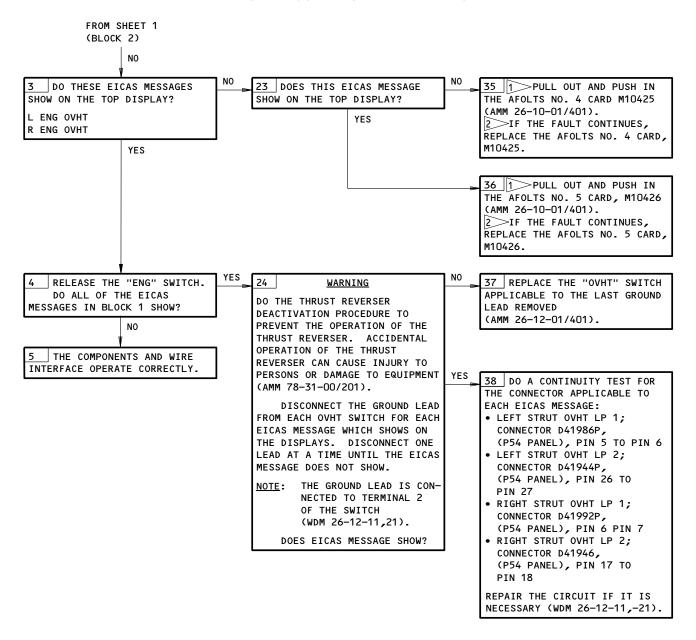
#### **PREREQUISITES** MAKE SURE THESE SYSTEMS WILL OPERATE: EICAS (AMM 31-41-00/501) WARNING SYSTEM (AMM 31-51-00/501) MASTER DIM AND TEST SYSTEM (AMM 33-16-00/501) STRUT OVERHEAT MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11B20, 11B21, 11B22, 11B23, 11J26, 11J27 **DETECTION SYSTEM BITE PROCEDURE** MAKE SURE THE AIRPLANE IS IN THIS CONFIGURATION: ELECTRICAL POWER IS ON (AMM 24-22-00/201) 1 DO A VISUAL CHECK OF THE NO 30 REPAIR THE DAMAGE. DETECTOR AND/OR LOOP AREAS FOR INDICATIONS OF HEAT DAMAGE. DO THE WIRE/HARNESS OR DUCTS CHECK OK ? YES 1A PUSH THE "ECS/MSG" SWITCH 20 DO ANY EICAS MESSAGES SHOW 30A REPLACE THE "ENG" SWITCH ON THE EICAS PANEL (P61). ON THE BOTTOM DISPLAY? YQQS002, ON THE "FIRE/OVHT PUSH AND HOLD THE "ENG" SWITCH TEST" PANEL, M10445 ON THE "FIRE/OVHT TEST" PANEL (AMM 26-11-01/401). AT THE PILOTS' AFT CONTROL STAND (P8). 31 1>PULL OUT AND PUSH IN 21 DO THESE EICAS MESSAGES DO THESE EICAS MESSAGES THE AFOLTS NO. 4 CARD, M10425 SHOW ON THE BOTTOM DISPLAY? SHOW ON THE BOTTOM DISPLAY? (AMM 26-10-01/401). L STRUT OH DET 1 2>IF THE FAULT CONTINUES. L STRUT OH DET 1 L STRUT OH DET 2 R STRUT OH DET 1 REPLACE THE AFOLTS NO. 4 CARD, L STRUT OH DET 2 M10425. YES R STRUT OH DET 2 32 1 PULL OUT AND PUSH IN YFS THE AFOLTS NO. 5 CARD, M10426 (AMM 26-10-01/401). 2>IF THE FAULT CONTINUES, REPLACE THE AFOLTS NO. 5 CARD M10426. NO DO THESE YELLOW LIGHTS 22 PUSH THE "MASTER DIM AND 33 REPLACE THE "L (R) ENG COME ON? TEST" SWITCH ON THE PILOTS' OVHT" LIGHT IF IT IS NECESSARY (WDM 26-12-11, 26-12-21). OVERHEAD PANEL, P5. I FNG OVHT DOES THE L (R) ENG OVHT R ENG OVHT 34 1 2 REPLACE THE AFOLTS LIGHT COME ON? CARD FOR THE "L (R) ENG OVHT" YES LIGHT (AFOLTS NO. 4 - M10425-LEFT, AFOLTS NO. 5 - M10426-SEE SHEET 2 RIGHT) (AMM 26-10-01/401). (BLOCK 3) > SOME AFOLTS CARDS HAVE RED AND YELLOW LED INDICATIONS. THE ILLUMINATION OF A YELLOW > <u>CAUTION</u>: DO A CHECK OF THE AIRPLANE LED INDICATES A MALFUNCTION EXTERNAL TO THE WIRES AND SYSTEM BEFORE YOU AFOLTS CARDS. TROUBLESHOOT AIRPLANE WIRING REPLACE THE AFOLTS CARD. AND SYSTEM, DO NOT REPLACE CARD BEFORE YOU CORRECT THE PROBLEMS FOUND. CHECK AND FIX PROBLEM. THE ILLUMINATION OF IF YOU DO NOT DO THIS CHECK, A A RED LED INDICATES A MALFUNCTION INTERNAL PROBLEM WITH THE WIRES MAY TO THE AFOLTS CARD. REPLACEMENT OF CARD IS CAUSE THE NEW AFOLTS CARD TO REQUIRED FAIL (SHORT OR OPEN).

Strut Overheat Detection System BITE Procedure Figure 103 (Sheet 1)

ALL

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Strut Overheat Detection System BITE Procedure Figure 103 (Sheet 2)

ALL

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## EICAS MESSAGE "L (R) STRUT OH DET 1 (2)" DISPLAYED

### **PREREQUISITES**

ELECTRICAL POWER (MM 24-22-00/201) EICAS (MM 31-41-00/501)

CB'S: 11B20,11B21,11B22,11B23



EICAS Message "L (R) STRUT OH DET 1 (2)" Displayed Figure 104

26-12-00



#### ENGINE TURBINE COOLING OVERHEAT DETECTION SYSTEM

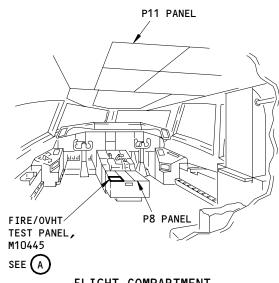
COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	AMM REFERENCE
CARD 4 - FIRE/OVHT LOGIC TEST, M10425	2	1	119BL, MAIN EQUIP CTR, P54	26-10-01
CARD 5 - FIRE/OVHT LOGIC TEST, M10426 CIRCUIT BREAKER -	2	1	119BL, MAIN EQUIP CTR, P54 FLT COMPT, P11	26-10-01
FIRE DET ALTN PWR ENGINE LEFT, C763		1	11J26	*
FIRE DET ALTN PWR ENGINE RIGHT, C764		1	11 J27	*
FIRE DETECTION L ENGINE 1, C774		1	11B20	*
FIRE DETECTION L ENGINE 2, C783		1	11B21	*
FIRE DETECTION R ENGINE 1, C775		1	11B22	*
FIRE DETECTION R ENGINE 2, C784		1	11B23	*
PANEL (FIM 26-12-00/101)				
FIRE TEST, M10445				
SWITCH - ENG TEST, YQQSOO2	1	1	FLT COMPT, P8, FIRE TEST, M10445	*
SWITCH - FAIL LIGHT RESET, YQQSOO3	1	1	FLT COMPT, P8, FIRE TEST, M10445	*
SWITCH - TURBINE OVERHEAT DETECTION, \$10139	2	2	EACH ENGINE	26-13-01
SWITCH - TURBINE OVERHEAT DETECTION, S10140	2	2	EACH ENGINE	26-13-01

<sup>\*</sup> SEE THE WDM EQUIPMENT LIST

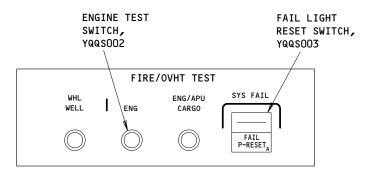
Engine Turbine Cooling Overheat Detection System - Component Index Figure 101

ALL





FLIGHT COMPARTMENT



FIRE/OVHT TEST PANEL, M10445 (REF)



Engine Turbine Cooling Overheat Detection System - Component Location Figure 102 (Sheet 1)

EFFECTIVITY-ALL

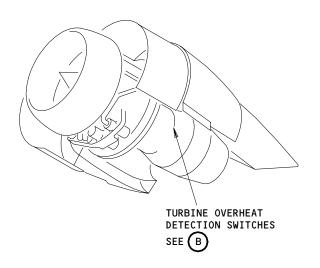
78922

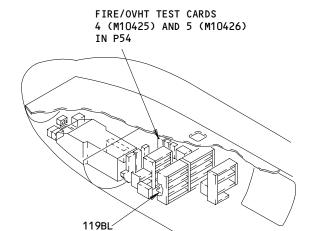
26-13-00

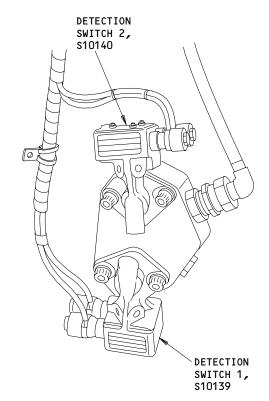
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#### TURBINE OVERHEAT DETECTION SWITCHES



Component Location Figure 102 (Sheet 2)

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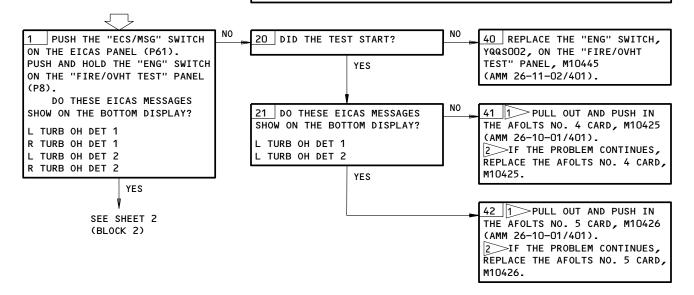


MAKE SURE THESE SYSTEMS WILL OPERATE: EICAS (AMM 31-41-00/501) WARNING SYSTEM (AMM 31-51-00/501) MASTER DIM AND TEST (AMM 33-16-00/501)

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11B20, 11B21, 11B22, 11B23, 11J26, 11J27

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

**ENGINE TURBINE COOLING OVERHEAT DETECTION SYSTEM BITE PROCEDURE** 



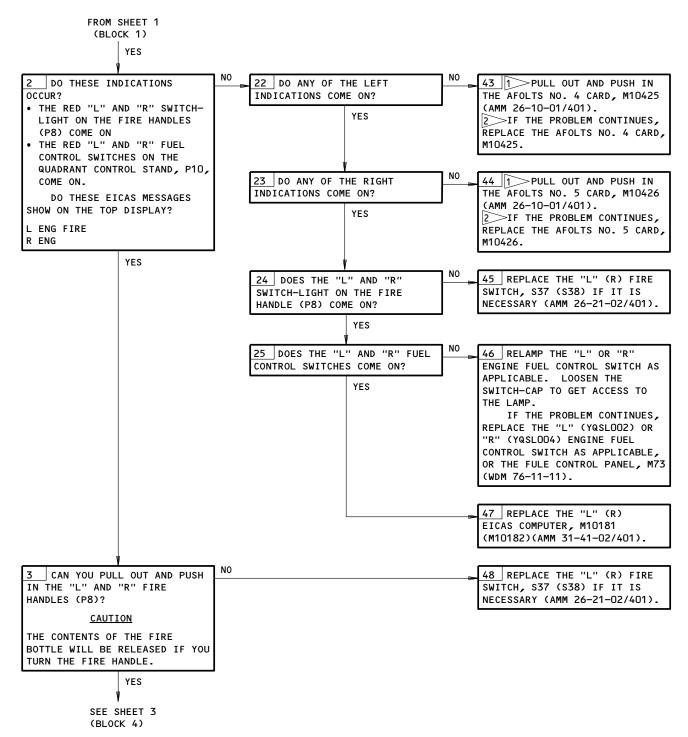
1 SOME AFOLTS CARDS HAVE RED AND YELLOW LED INDICATIONS. THE ILLUMINATION OF A YELLOW LED INDICATES A MALFUNCTION EXTERNAL TO THE AFOLTS CARDS. TROUBLESHOOT AIRPLANE WIRING AND SYSTEM, DO NOT REPLACE CARD BEFORE YOU CHECK AND FIX PROBLEM. THE ILLUMINATION OF A RED LED INDICATES A MALFUNCTION INTERNAL TO THE AFOLTS CARD. REPLACEMENT OF CARD IS REQUIRED.

2 CAUTION: DO A CHECK OF THE AIRPLANE WIRES AND SYSTEM BEFORE YOU REPLACE THE AFOLTS CARD. CORRECT THE PROBLEMS FOUND. IF YOU DO NOT DO THIS CHECK, A PROBLEM WITH THE WIRES MAY CAUSE THE NEW AFOLTS CARD TO FAIL (SHORT OR OPEN).

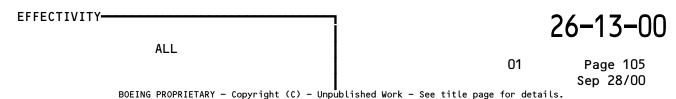
Engine Turbine Cooling Overheat Detection System BITE Procedure Figure 103 (Sheet 1)

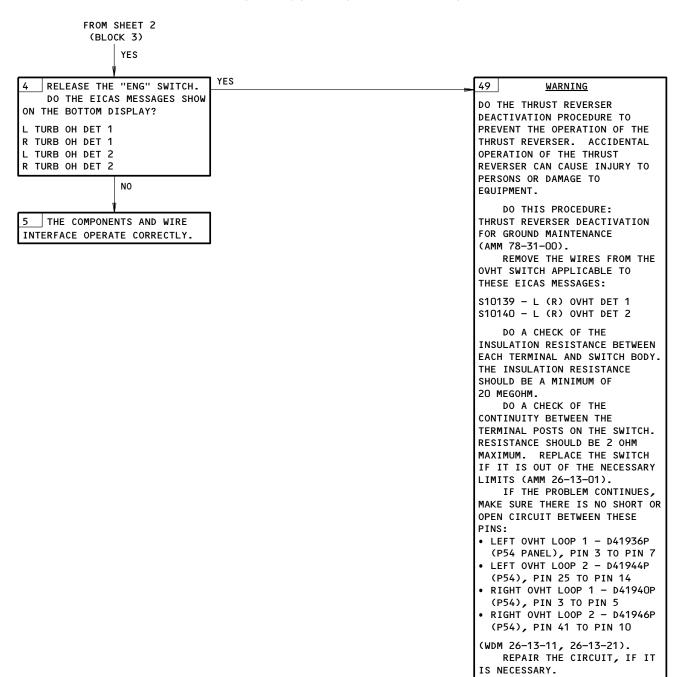
EFFECTIVITY-ALL





Engine Turbine Cooling Overheat Detection System BITE Procedure Figure 103 (Sheet 2)





Engine Turbine Cooling Overheat Detection System BITE Procedure Figure 103 (Sheet 3)

EFFECTIVITY-ALL



EICAS MSG. "L (R) TURB OH DET 1 (2)" **DISPLAYED** 

#### **PREREQUISITES**

ELECTRICAL POWER (MM 24-22-00/201) EICAS (MM 31-41-00/501)

CB'S: 11B20,11B21,11B22,11B23

YES DOES THE EICAS MESSAGE DO THE ENGINE TURBINE SHOW ON THE BOTTOM DISPLAY COOLING OVERHEAT DETECTION AFTER THE PREREQUISITES ARE SYSTEM BITE PROCEDURE (26-13-00/100, FIG. 103). PUSH THE "ECS/MSG" SWITCH SATISFIED? NO ON THE EICAS PANEL (P61). MAKE SURE THE EICAS THE SYSTEM OPERATES MESSAGE DOES NOT SHOW. CORRECTLY.

> EICAS Msg. L (R) TURB OH DET 1 (2) Displayed Figure 104

EFFECTIVITY-ALL

70332



#### LAVATORY SMOKE DETECTION

COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	AMM REFERENCE
CIRCUIT BREAKER - PASS CALL LAV SMOKE DET LEFT, C4376 PASS CALL LAV SMOKE DET RIGHT, C4375 LAVATORY SMOKE DETECTOR, M4		1 1 1	FLT COMPT, P11 11N8 11N9 EACH LAVATORY	* * *

<sup>\*</sup> SEE THE WDM EQUIPMENT LIST

Lavatory Smoke Detection - Component Index Figure 101

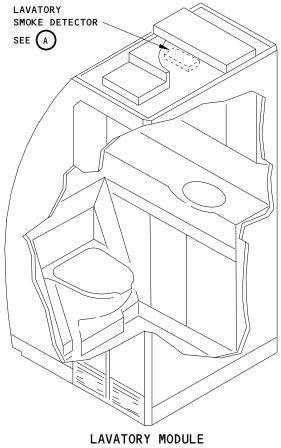
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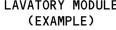
26-14-00

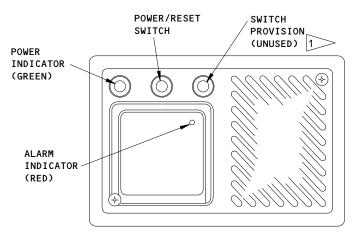
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LAVATORY SMOKE DETECTOR (EXAMPLE)



NOT ON ALL
SMOKE DETECTORS

K24977

Lavatory Smoke Detection - Component Location Figure 102

ALL

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#### **PREREQUISITES** MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11N8,11N9 LAVATORY SMOKE MAKE SURE THE AIRPLANE IS IN THE CONFIGURATION THAT DETECTION AND FIRE FOLLOWS: PROTECTION PROBLEMS ELECTRICAL POWER IS ON (MM 24-22-00/201) NO DOES THE GREEN POWER INDI-20 REPLACE THE LAVATORY SMOKE CATOR LIGHT ON THE SMOKE DETECTOR (MM 26-14-01/201). DETECTOR FACE, COME ON? YES DOES AT LEAST ONE OF THE 10 EXAMINE THE FUSIBLE TIPS 21 REPLACE THE TEMPERATURE TEMPERATURE INDICATORS, ON THE ON THE FIRE EXTINGUISHER IN INDICATOR AND THE FIRE EXTIN-HEAT SENSITIVE STRIP (INSIDE THE WASTE COMPARTMENT. GUISHER (MM 26-24-01/201). THE WASTE COMPARTMENT CHUTE), ARE THE FUSIBLE TIPS CHANGE FROM GREY TO BLACK? NO NO 22 REPLACE THE TEMPERATURE INDICATOR (MM 26-24-01/201). EXAMINE THE FUSIBLE TIPS 23 REPLACE THE FIRE EXTIN-ON THE WASTE COMPARTMENT FIRE GUISHER (MM 26-24-01/201). EXTINGUISHER. ARE THE FUSIBLE TIPS MFI TFD? NO NO MAKE SMOKE NEAR THE SMOKE 24 REPLACE THE LAVATORY SMOKE DETECTOR. USE AN APPLICABLE DETECTOR (MM 26-14-01/201). SMOKE SOURCE.

25 REPLACE THE LAVATORY SMOKE

DETECTOR (MM 26-14-01/201).



DOES THE RED ALARM LIGHT, ON THE SMOKE DETECTOR, COME ON AND DO YOU HEAR THE SMOKE DETECTOR ALARM HORN SOUND?

YES

CLEAR THE SMOKE FROM THE

DO THE ALARM INDICATIONS

YES

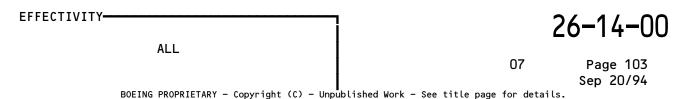
LAVATORY. PUSH THE POWER/

RESET SWITCH ON THE SMOKE

SYSTEM IS OK.

DETECTOR FACE.

STOP?



Lavatory Smoke Detection and Fire Protection Problems
Figure 103



#### APU FIRE DETECTION SYSTEM

COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	AMM REFERENCE
CARD 3 - FIRE/OVHT LOGIC/TEST, M10400 CARD - LOOP 1 APU FIRE DET, M685 CARD - LOOP 2 APU FIRE DET, M686 CARD - L ENG SPEED, M10298 CARD - R ENG SPEED, M10311 CIRCUIT BREAKER - APU REMOTE FIRE IND, C796 FIRE DET ALTN PWR APU, C765 FIRE DETECTION APU 1, C776	2 2 2 2 2 2	1 1 1 1 1 1 1	119BL, MAIN EQUIP CTR, P54 119BL, MAIN EQUIP CTR, P54 119BL, MAIN EQUIP CTR, P54 119BL, MAIN EQUIP CTR, P50 119BL, MAIN EQUIP CTR, P50 FLT COMPT, P11 11B33 11J25 11B24	26-10-01 26-10-01 26-10-01 * * *
FIRE DETECTION APU 2, C785  COMPUTER - (FIM 31-41-00/101)  EICAS L, M10181  EICAS R, M10182		1	11B25	*
DETECTOR - APU FIRE, TS5066,TS5067,TS5062, TS5063 DIODE - BUS ISOLATION, R201,R202 DIODE - ISOLATION 1, R10088	1	2 2 1	315AL,316AR, APU COMPT  FLT COMPT, BEHIND P5 FLT COMPT, BEHIND P36	26-15-02 *
HORN - APU FIRE WARNING, B122 LIGHT - APU FIRE, L401 MODULE - DISCRETE WARNING DISPLAY, M779 PANEL - (FIM 26-11-00/101)	1	1 1 1	NOSE LANDING GEAR, P62 NOSE LANDING GEAR, P62 FLT COMPT, P1-3	* * *
FIRE/OVHT TEST, M10445  PANEL - (FIM 26-22-00/101)  APU/CARGO FIRE CONT, M10444  PANEL - (FIM 49-61-00/101)				
APU START, M10324 OR APU CONTROL, M1 RELAY - (FIM 31-01-33/101) APU HORN INTERRUPTER, K420 EXTERNAL SHUTDOWN, K421 RELAY - (FIM 31-01-36/101)				
AIR GND, K145 APU FIRE, K10334 APU GND, K10373 APU REMOTE WARNING, K10374 TEST, K10325				
RELAY - (FIM 31-01-37/101) AIR GND SYS 2, K219 SWITCH - APU BOTTLE DISCH, S485	1	1	NOSE LANDING GEAR, P62	*
SWITCH - APU FIRE, S39	1	1	FLT COMPT, P8, APU/CARGO FIRE CONTROL PANEL, M10444	*
SWITCH - APU FIRE SHUTDOWN, S484 SWITCH - ENG/APU/CARGO, YQQSOO1	1	1	NOSE LANDING GÉAR, P62 FLT COMPT, P8, FIRE/OVHT TEST	*
SWITCH - FAIL LIGHT RESET, YQQSOO2	1	1	PANEL, M10445 FLT COMPT, P8, FIRE/OVHT TEST PANEL, M10445	*

<sup>\*</sup> SEE THE WDM EQUIPMENT LIST

APU Fire Detection System - Component Index Figure 101

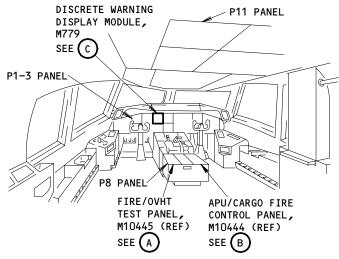
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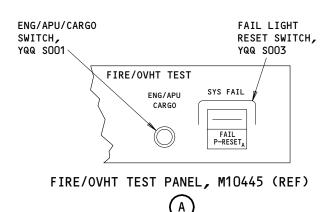
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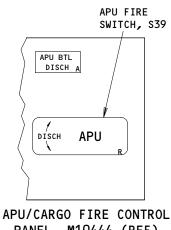
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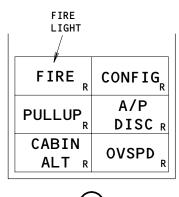
FLIGHT COMPARTMENT





PANEL, M10444 (REF)





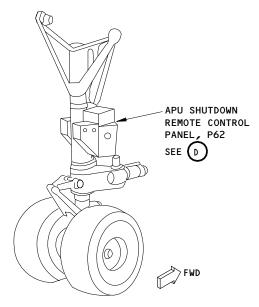
APU Fire Detection System - Component Location Figure 102 (Sheet 1)

EFFECTIVITY-ALL

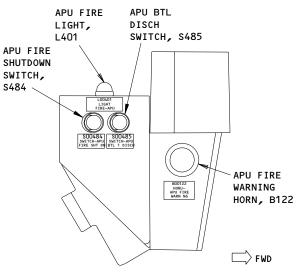
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NOSE LANDING GEAR



APU SHUTDOWN REMOTE CONTROL PANEL, P62

APU Fire Detection System - Component Location Figure 102 (Sheet 2)

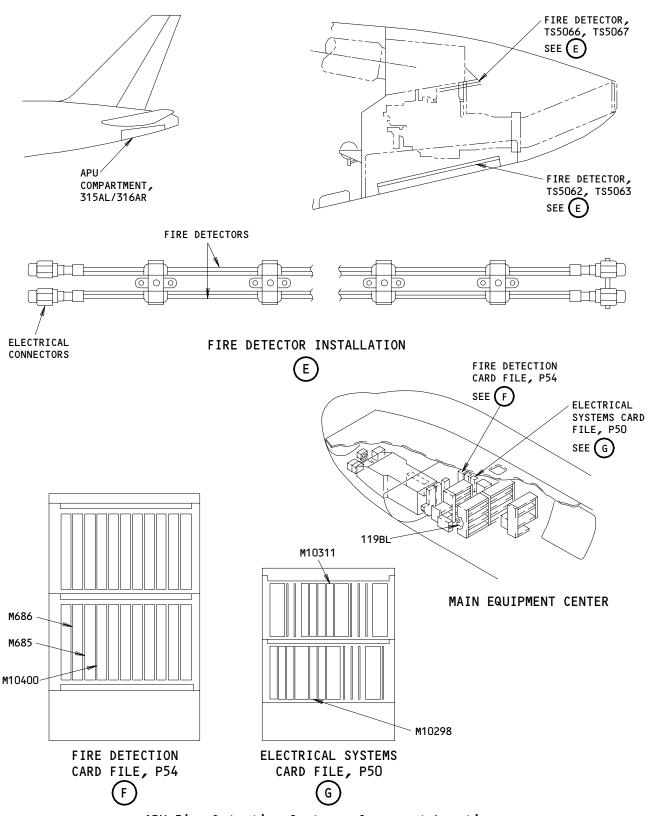
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## FAULT ISOLATION/MAINT MANUAL



APU Fire Detection System - Component Location Figure 102 (Sheet 3)

EFFECTIVITY-ALL

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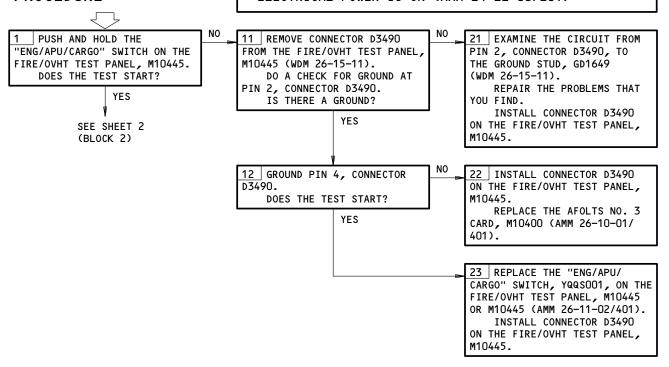
MAKE SURE THESE SYSTEMS WILL OPERATE: EICAS (AMM 31-41-00/501) WARNING SYSTEM (AMM 33-16-00/501) MASTER DIM AND TEST (AMM 33-16-00/501)

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11B24,11B25,11B33,11J25

MAKE SURE THIS CIRCUIT BREAKER IS OPEN AND ATTACH DO-NOT-CLOSE TAG:

## APU FIRE DETECTION SYSTEM BITE **PROCEDURE**

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

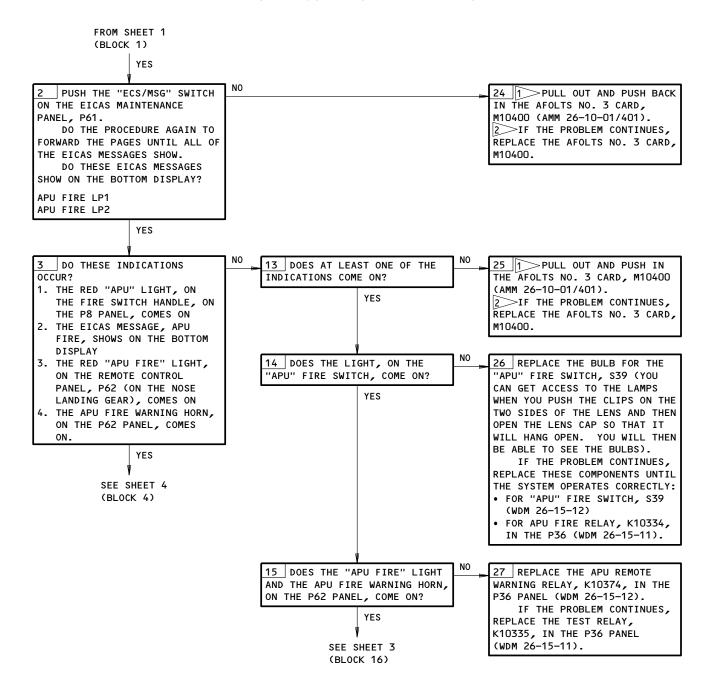


#### APU Fire Detection System BITE Procedure Figure 103 (Sheet 1)

EFFECTIVITY-ALL

56873

26-15-00



## APU Fire Detection System BITE Procedure Figure 103 (Sheet 2)

FROM SHEET 2 (BLOCK 15) YES 16 DOES THE "APU FIRE" LIGHT, 28 REPLACE THE "APU FIRE" LIGHT, L401, ON THE P62 PANEL ON THE P62 PANEL, STAY OFF? (WDM 26-15-12). NO IF THE PROBLEM CONTINUES, DO A CHECK TO MAKE SURE THAT NO OPEN OR SHORT CIRCUIT EXISTS IN THE CIRCUIT BETWEEN THE RELAY, K10374, CONNECTOR D4396, PIN A1 (IN THE P36 PANEL) AND THE CENTER P TERMINAL, L401, ON THE P62 PANEL (WDM 26-15-12). REPAIR THE CIRCUIT, IF IT IS NECESSARY. 29 REPLACE THE COMPONENTS IN THE SEQUENCE THAT FOLLOWS UNTIL THE APU FIRE WARNING HORN OPERATES CORRECTLY: 1. APU HORN INTERRUPTER RELAY, K420, IN THE P33 PANEL (WDM 26-15-12). WARNING YOU MUST REFER TO THE AMM 27-61-00/201 FOR THE APPLICABLE SPOILER/SPEEDBRAKE DEACTIVATION PROCEDURE. THE SUBSEQUENT STEP CAN CAUSE AN ACCIDENTAL MOVEMENT OF THE SPOILER WHICH CAN CAUSE SERIOUS INJURY TO PERSONS. 2. EXTERNAL SHUTDOWN RELAY, K421, IN THE P33 PANEL (WDM 26-15-12). AIR/GND SYSTEM 2 RELAY, K219, IN THE P37 PANEL (WDM 32-09-12). 4. APU FIRE WARNING HORN, B122, IN THE P62 PANEL (WDM 26-15-12).IF THE PROBLEM CONTINUES, DO A CHECK TO MAKE SURE THAT THERE IS NO OPEN OR SHORT CIRCUIT IN THE CIRCUIT BETWEEN THE K420, CONNECTOR D2422, IN THE P33 PANEL, AND THE B122, TERMINAL A (P62) (WDM 26-15-12). REPAIR THE CIRCUIT, IF IT

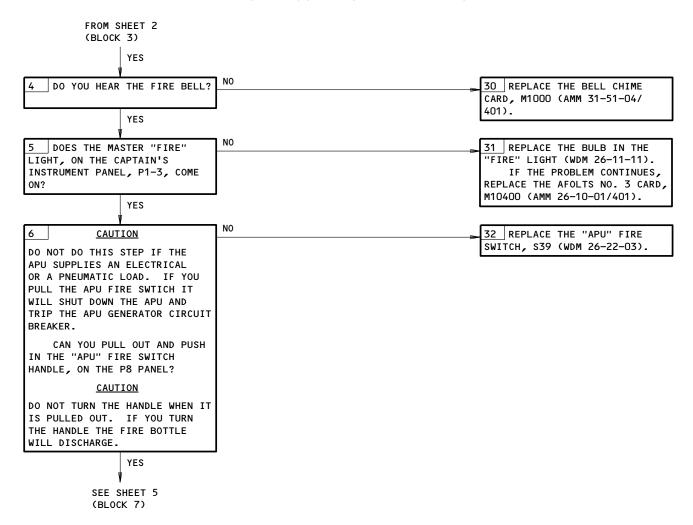
## APU Fire Detection System BITE Procedure Figure 103 (Sheet 3)

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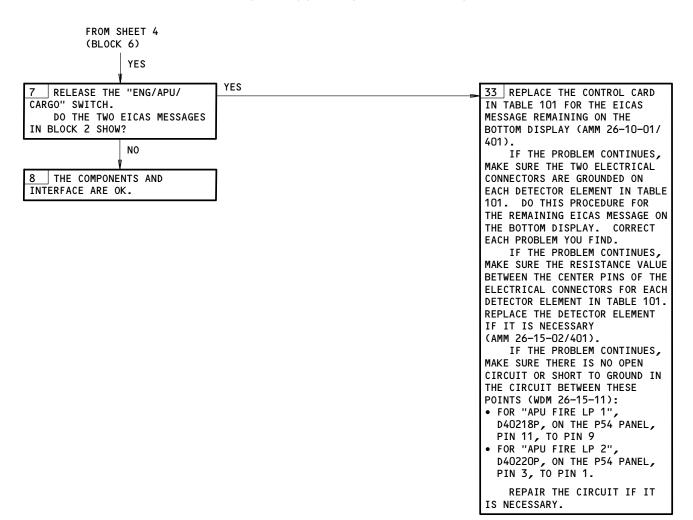
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IS NECESSARY.



# APU Fire Detection System BITE Procedure Figure 103 (Sheet 4)

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APU Fire Detection System BITE Procedure Figure 103 (Sheet 5)

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EICAS MESSAGE	CONTROL CARD	DETECTOR NUMBER/ ELECTRICAL CONNECTOR	CTR CONDUCTOR RESISTANCE IN OHMS END TO END 1
APU FIRE LP 1	M685	TS5066/D1908,D1910 TS5067/D1900,D1902	9.5-15
APU FIRE LP 2	M686	TS5062/D1912,D1914 TS5063/D1904,D1906	9.5-15

**TABLE 101** 

1 DISCARD THE COPPER CRUSH WASHER IF YOU OPEN THE DETECTOR/AIRPLANE WIRING CONNECTION.

APU Fire Detection System BITE Procedure Figure 103 (Sheet 6)

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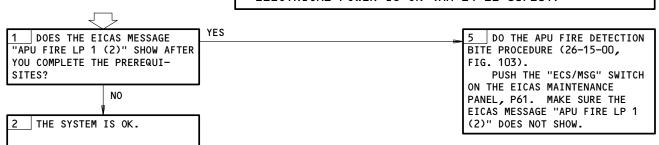


MAKE SURE THIS SYSTEM WILL OPERATE: EICAS (MM 31-41-00/501)

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11B24,11B25,11J25

MAKE SURE THE AIRPLANE IS IN THE CONFIGURATION THAT FOLLOWS:

ELECTRICAL POWER IS ON (MM 24-22-00/201)



EICAS Msg. APU FIRE LP 1 (2) Displayed Figure 104

71047

EICAS MSG. "APU

FIRE LP 1 (2)"

**DISPLAYED** 

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#### LOWER CARGO COMPARTMENT SMOKE DETECTION SYSTEM

COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	AMM REFERENCE
BLOWER 1 - FWD SMOKE DETECTOR, M10462	2	1	821, FORWARD CARGO COMPT	26-16-02
BLOWER 2 - FWD SMOKE DETECTOR, M10463	2	1	821, FORWARD CARGO COMPT	26-16-02
BLOWER 3 - AFT SMOKE DETECTOR, M10464	2	1	822, AFT CARGO COMPT	26-16-02
BLOWER 4 - AFT SMOKE DETECTOR, M10465	2	1	822, AFT CARGO COMPT	26-16-02
CARD 6 - FIRE/OVHT TEST/LOGIC, M10427	1	1	119BL, MAIN EQUIP CTR, P54	26-10-01
CIRCUIT BREAKER -	1		FLT COMPT, P11	*
CARGO SMOKE DET 1 OR FIRE DETECTION CARGO 1, C772		1	11B26	*
CARGO SMOKE DET 2 OR FIRE DETECTION CARGO 2, C788		1	11B27	*
CARGO SMOKE BLO, C794		1	11\$36	*
CARGO SMOKE BLOWER CONT OR FIRE DET CARGO FAN CONT, C795		1	11835	*
FIRE DET ALTN PWR CARGO, C766		1	11J24	*
CIRCUIT BREAKER -	∥ 1	l '	119BL, MAIN EQUIP CTR, P70	
SMOKE DET BLOWER 1, C60	'	1	70B10	
SMOKE DET BLOWER 2, C61		i	70B10	26-16-01
SMOKE DET BLOWER 3, C62		i	70B12	26-16-01
SMOKE DET BLOWER 4, C63		1	70B13	*
COMPUTER - (FIM 31-41-00/101)		'	10013	*
EICAS L, M10181				*
EICAS R, M10182				*
DETECTOR - AFT CARGO SMOKE 1, M10460	2	1	822, AFT CARGO COMPT	26-16-01
DETECTOR - AFT CARGO SMOKE 2, M10461	2	1	822, AFT CARGO COMPT	26-16-01
DETECTOR - FWD CARGO SMOKE 1, M10458	2	1	821, FWD CARGO COMPT	26-16-01
DETECTOR - FWD CARGO SMOKE 2, M10459	2	1	821, FWD CARGO COMPT	26-16-01
DIODE - BUS ISOLATION, R203,R204	1	2	FLT COMPT, BEHIND P5	
PANEL - (FIM 26-11-00/101)			,	
FIRE/OVHT TEST, M10445				
DISCRETE WARNING DISPLAY, M779				
PANEL - (FIM 26-22-00/101)				
APU/CARGO FIRE CONT, M10444				
RELAY - (FIM 31-01-36/101)				
BLOWER 1 DELAY, K10378				
BLOWER 3 DELAY, K10379	.	١.		
SWITCH - ENG/APU/CARGO, YQQSOO1	1	1	FLT COMPT,P8,FIRE TEST PNL, M10445	*
SWITCH - FAIL LIGHT RESET, YQQS003	1		FLT COMPT,P8,FIRE TEST PNL, M10445	*
SWITCH/LIGHT - (FIM 26-23-00/101)		1		
FWD CARGO FIRE, S1				
AFT CARGO FIRE, S2				
SWITCH - AFT PLENUM PRESSURE, S10332	1	1	821, FWD CARGO COMPT	26-16-03
SWITCH - FWD PLENUM PRESSURE, S10333	2	1	822, AFT CARGO COMPT	26-16-03

<sup>\*</sup> SEE THE WDM EQUIPMENT LIST

Lower Cargo Compartment Smoke Detection System - Component Index Figure 101

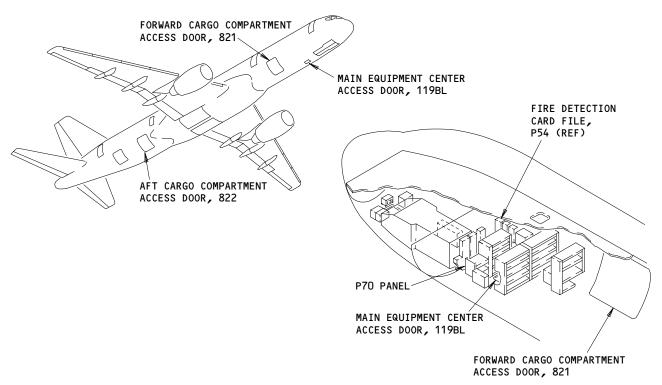
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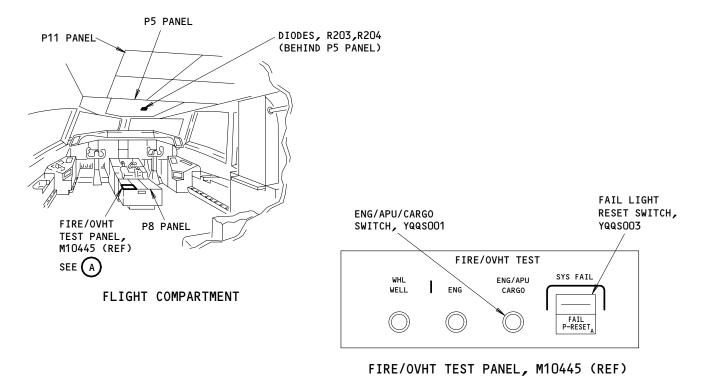
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Lower Cargo Compartment Smoke Detection System - Component Location Figure 102 (Sheet 1)

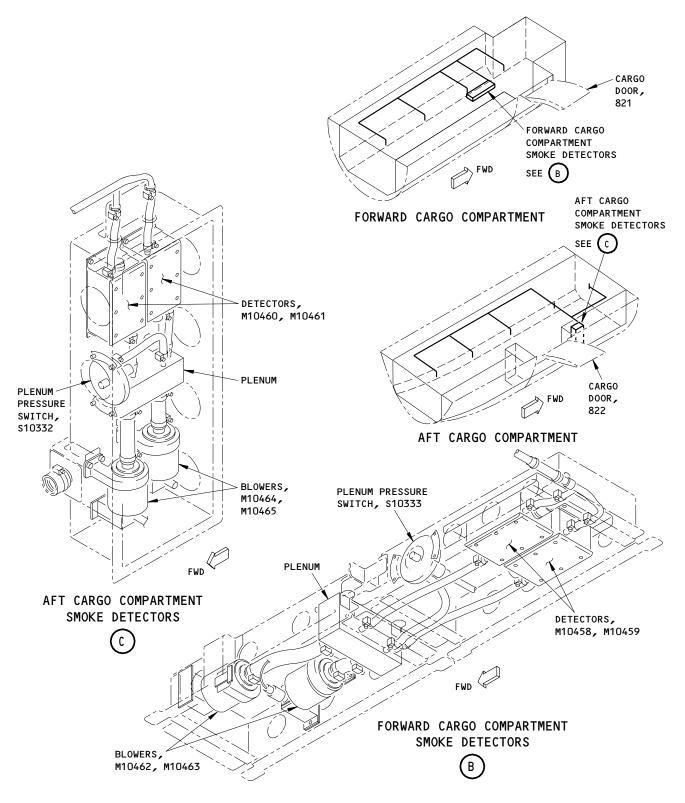
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Lower Cargo Compartment Smoke Detection System - Component Location Figure 102 (Sheet 2)

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MAKE SURE THESE SYSTEMS WILL OPERATE: EICAS (AMM 31-41-00/501) WARNING SYSTEM (AMM 31-51-00/501) MASTER DIM AND TEST (AMM 33-16-00/501)

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11B26, 11B27, 11J24

MAKE SURE THESE CIRCUIT BREAKERS ARE OPEN AND ATTACH DO-NOT-CLOSE TAGS:

11B20, 11B21, 11B22, 11B23, 11B24, 11B25, 11J25, 11J26, 11J27

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

LOWER CARGO COMPARTMENT SMOKE **DETECTION SYSTEM** BITE PROCEDURE

1 PUSH AND HOLD THE "ENG/ APU/CARGO" SWITCH ON FIRE/OVHT TEST PANEL AT P8.

PUSH THE "ECS/MSG" SWITCH ON THE EICAS PANEL, ON THE P61 PANEL.

PUSH THE SWITCH AGAIN, AS NECESSARY TO ADVANCE THE PAGES UNTIL ALL EICAS MESSAGES ARE SHOWN.

ARE ALL OF THE EICAS MAIN-TENANCE MESSAGES THAT FOLLOW SHOWN? 1

YES

FWD CARGO DET 1 FWD CARGO DET 2

FWD CARGO DET 1 FWD CARGO DET 2

> SEE SHEET 2 (BLOCK 2)

50 2 RESEAT AFOLTS CARD 6, M10427 (AMM 26-10-01/401). 3>IF THE PROBLEM CONTINUES, REPLACE AFOLTS CARD 6, M10427 (AMM 26-10-01/401).

DO THE EICAS MESSAGES IN BLOCK 1 NOW SHOW?

> SEE SHEET 2 (BLOCK 2)

YES

100 SMOKE DETECTORS WITH LAMP PLACARD; REPLACE THE PILOT LAMP IN THE

APPLICABLE DETECTOR LISTED IN TABLE 101 (AMM 26-16-01/201). CLEAN THE AIR SAMPLING

CHAMBER IN THE APPLICABLE DETECTOR, LISTED IN TABLE 101 (AMM 26-16-01/201).

IF THE PROBLEM CONTINUES, REPLACE THE APPLICABLE SMOKE DETECTOR (AMM 26-16-01/201). 2>IF THE PROBLEM CONTINUES, EXAMINE THE CIRCUIT FROM THE AFOLTS CARD NO. 6, TO THE APPLICABLE SMOKE DETECTOR (WDM 26-16-11). REPAIR THE PROBLEMS THAT YOU FIND.

1 THE ORDER THAT THE EICAS MAINTENANCE MESSAGES ARE SHOWN IS NOT IMPORTANT

2 SOME AFOLTS CARDS HAVE RED AND YELLOW LED INDICATIONS. THE ILLUMINATION OF A YELLOW LED INDICATES A MALFUNCTION EXTERNAL TO THE AFOLTS CARDS. TROUBLESHOOT AIRPLANE WIRING AND SYSTEM, DO NOT REPLACE CARD BEFORE YOU CHECK AND FIX PROBLEM. THE ILLUMINATION OF A RED LED INDICATES A MALFUNCTION INTERNAL TO THE AFOLTS CARD. REPLACEMENT OF CARD IS REQUIRED.

3 CAUTION: DO A CHECK OF THE AIRPLANE WIRES AND SYSTEM BEFORE YOU REPLACE THE AFOLTS CARD. CORRECT THE PROBLEMS FOUND. IF YOU DO NOT DO THIS CHECK, A PROBLEM WITH THE WIRES MAY CAUSE THE NEW AFOLTS CARD TO FAIL (SHORT OR OPEN).

Lower Cargo Compartment Smoke Detection System BITE Procedure Figure 103 (Sheet 1)

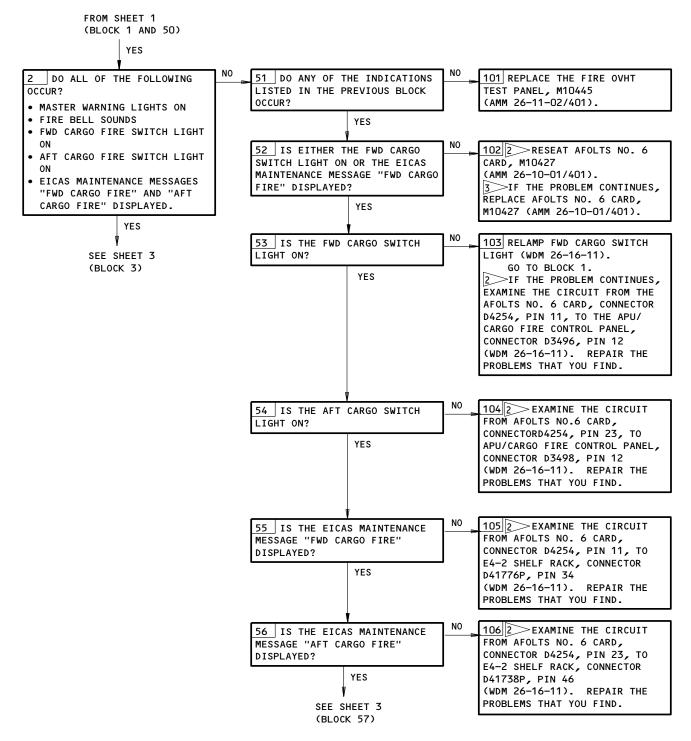
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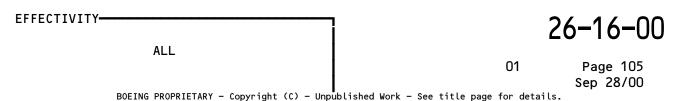
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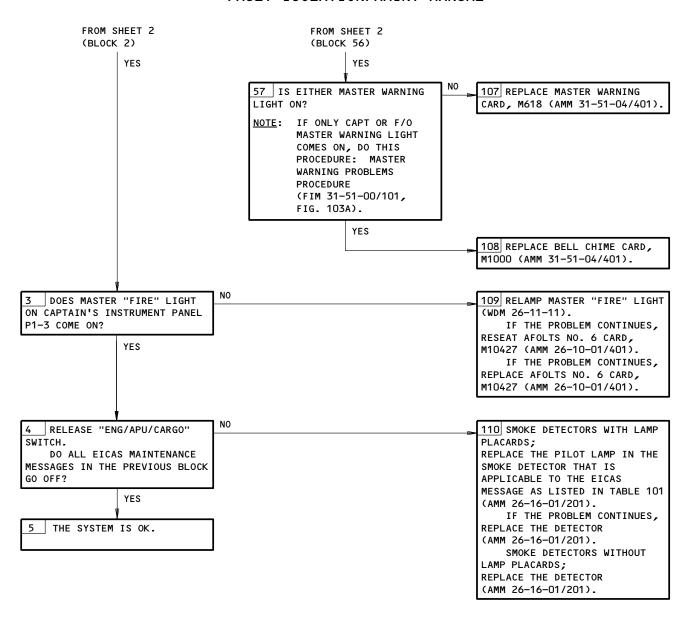
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Lower Cargo Compartment Smoke Detection System BITE Procedure Figure 103 (Sheet 2)

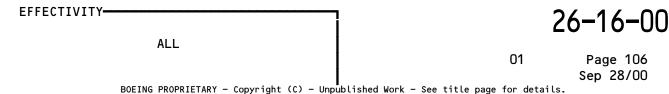




EICAS MESSAGE	DETECTOR
FWD CARGO DET 1	M10458
FWD CARGO DET 2	M10459
AFT CARGO DET 1	M10460
AFT CARGO DET 2	M10461

**TABLE 101** 

Lower Cargo Compartment Smoke Detection System BITE Procedure Figure 103 (Sheet 3)





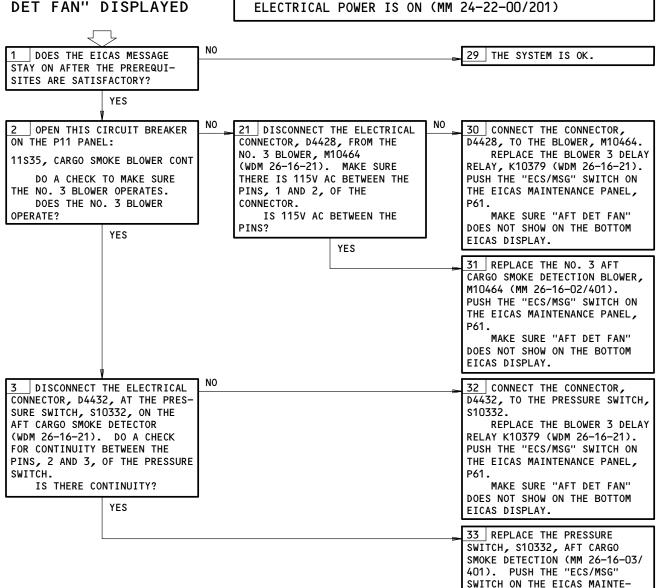
EICAS MESSAGE "AFT

MAKE SURE THIS SYSTEM WILL OPERATE: EICAS (MM 31-41-00/501)

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11s35,11s36,70B12,70B13

MAKE SURE THE AIRPLANE IS IN THE CONFIGURATION THAT FOLLOWS:

ELECTRICAL POWER IS ON (MM 24-22-00/201)



EICAS Message AFT DET FAN Displayed Figure 104

NANCE PANEL, P61.

EICAS DISPLAY.

MAKE SURE "AFT DET FAN" DOES NOT SHOW ON THE BOTTOM

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EICAS MESSAGE "FWD

MAKE SURE THIS SYSTEM WILL OPERATE: EICAS (MM 31-41-00/501)

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11S35,11S36,70B10,70B11

MAKE SURE THE AIRPLANE IS IN THE CONFIGURATION THAT FOLLOWS:

#### DET FAN" DISPLAYED ELECTRICAL POWER IS ON (MM 24-22-00/201) NO 29 | THE SYSTEM IS OK. DOES THE EICAS MESSAGE STAY ON THE DISPLAY AFTER THE PREREQUISITES ARE DONE? YES 2 OPEN THIS CIRCUIT BREAKER 21 DISCONNECT THE ELECTRICAL 30 CONNECT THE CONNECTOR, D4424, TO THE BLOWER, M10462. ON THE P11 PANEL: CONNECTOR, D4424, FROM THE NO. 1 BLOWER, M10462 REPLACE THE BLOWER 1 DELAY • 11S35, CARGO SMOKE BLOWER (WDM 26-16-21). MAKE SURE RELAY, K10378 (WDM 26-16-21). CONT. THERE IS 115V AC BETWEEN THE PUSH THE ECS/MSG SWITCH ON THE EICAS MAINTENANCE PANEL, P61. DO A CHECK TO MAKE SURE PINS, 1 AND 2, OF THE THE NO. 1 BLOWER OPERATES. CONNECTOR. MAKE SURE "FWD DET FAN" DOES THE NO. 1 BLOWER IS 115V AC BETWEEN THE DOES NOT SHOW ON THE BOTTOM OPERATE? EICAS DISPLAY. YES YFS 31 REPLACE THE NO. 1 FWD CARGO SMOKE DETECTION BLOWER, M10462 (MM 26-16-02/401). PUSH THE ECS/MSG SWITCH ON THE EICAS MAINTENANCE PANEL, P61. MAKE SURE "FWD DET FAN" DOES NOT SHOW ON THE BOTTOM EICAS DISPLAY. N0 32 | CONNECT THE CONNECTOR, DISCONNECT THE ELECTRICAL CONNECTOR, D4434, AT THE PRES-D4434, TO THE PRESSURE SWITCH, SURE SWITCH, S10333, ON THE s10333. FWD CARGO SMOKE DETECTOR REPLACE THE BLOWER 1 DELAY RELAY K10378 (WDM 26-16-21). (WDM 26-16-21). DO A CHECK FOR CONTINUITY BETWEEN THE PUSH THE ECS/MSG SWITCH ON THE EICAS MAINTENANCE PANEL, P61. PINS, 2 AND 3, OF THE PRESSURE MAKE SURE "FWD DET FAN" SWITCH. DOES NOT SHOW ON THE BOTTOM IS THERE CONTINUITY? EICAS DISPLAY. YES 33 REPLACE THE FORWARD CARGO PRESSURE SWITCH, S10333, (MM 26-16-03/401). PUSH THE ECS/MSG SWITCH ON EICAS MAIN-TENANCE PANEL, P61. MAKE SURE "FWD DET FAN" DOES NOT SHOW ON THE BOTTOM

EICAS Message FWD DET FAN Displayed Figure 105

EICAS DISPLAY.

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MAKE SURE THIS SYSTEM WILL OPERATE: EICAS (MM 31-41-00/501)

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11B26,11B27,11S35,11S36

MAKE SURE THE AIRPLANE IS IN THE CONFIGURATION THAT FOLLOWS:

ELECTRICAL POWER IS ON (MM 24-22-00/201)

EICAS MSG. "FWD (AFT) CARGO DET 1 (2)" DISPLAYED



EICAS Msg. "FWD (AFT) CARGO DET 1 (2)" Displayed Figure 106

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MAKE SURE THIS SYSTEM WILL OPERATE: EICAS (MM 31-41-00/501)

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11s35,11s36,70B10,70B11,70B12,70B13

MAKE SURE THE AIRPLANE IS IN THE CONFIGURATION THAT FOLLOWS:

ELECTRICAL POWER IS ON (MM 24-22-00/201)

EICAS MSG. "CARGO DET AIR" DISPLAYED

5 DOES THIS EICAS MESSAGE DOES THE MESSAGE STAY ON 10 REPLACE THE PLENUM PRES-AFTER THE PREREQUISITES ARE SHOW ON THE BOTTOM DISPLAY? SURE SWITCH, ON THE FORWARD SATISFACTORY? SMOKE DETECTOR (MM 26-16-03/ "FWD DET FAN" 401). PUSH "ECS/MSG" SWITCH ON NO THE EICAS PANEL, P61, AND MAKE THE SYSTEM IS OK. SURE THE EICAS MESSAGES DO NOT IF THE PROBLEM CONTINUES, REPLACE THE FORWARD SMOKE DETECTOR BLOWERS, 1 AND 2 (M10462,M10463)(MM 26-16-02/ 401). PUSH THE "ECS/MSG" SWITCH ON THE EICAS MAINTENANCE PANEL, P61, AND MAKE SURE THE EICAS MESSAGES DO NOT SHOW. 11 REPLACE THE PLENUM PRES-SURE SWITCH (S10332) ON THE AFT SMOKE DETECTOR (MM 26-16-03/401).PUSH THE "ECS/MSG" SWITCH ON THE EICAS MAINTENANCE PANEL, P61, AND MAKE SURE THE EICAS MESSAGE DOES NOT SHOW. IF THE PROBLEM CONTINUES. REPLACE THE AFT SMOKE DETECTOR BLOWERS, 3 AND 4 (M10464, M10465)(MM 26-16-02/401).PUSH THE "ECS/MSG" SWITCH ON THE EICAS MAINTENANCE PANEL, P61, AND MAKE SURE THE

> EICAS Msg. "CARGO DET AIR" Displayed Figure 107

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EICAS MESSAGE DOES NOT SHOW.



#### WHEEL WELL FIRE DETECTION

COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	AMM REFERENCE
CARD - DUCT LEAK AND WHEEL WELL OVHT CONTROL, M691	2	1	119BL, MAIN EQUIP CTR, P50	26-10-01
CARD - DUCT LEAK AND WHEEL WELL POWER SUPPLY, M10428	2	1	119BL, MAIN EQUIP CTR, P50	26-10-01
CIRCUIT BREAKER -	1		FLT COMPT, P11	
W/W FIRE TEST, C4290		1	11B35	*
W/W FIRE DET, C770		1	11B10	*
COMPUTER - (FIM 31-41-00/101)				
EICAS L, M10181				
EICAS R, M10182				
DETECTOR - WHEEL WELL OVERHEAT, TS202,TS203,	2	4	MAIN WHEEL WELLS	26-17-01
TS204,TS205				
LIGHT - WHEEL WELL FIRE, L445	1	1	FLT COMPT, P3-1, WARNING DISPLAY	*
MODULE - DISCRETE WARNING DISPLAY, M779	2	1	FLT COMPT, P1-3, MODULE M779	*
PANEL - (FIM 26-11-00/101)				
FIRE/OVHT TEST, M10445				
SWITCH - WHEEL WELL FIRE TEST, YQQSOO3 OR	2	1	FLT COMPT, P8, FIRE/OVHT TEST	*
YQQS004			PANEL, M10445	

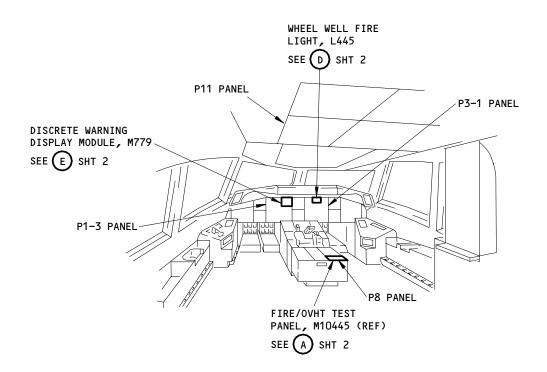
<sup>\*</sup> SEE THE WDM EQUIPMENT LIST

Wheel Well Fire Detection - Component Index Figure 101

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FLIGHT COMPARTMENT

Wheel Well Fire Detection - Component Location Figure 102 (Sheet 1)

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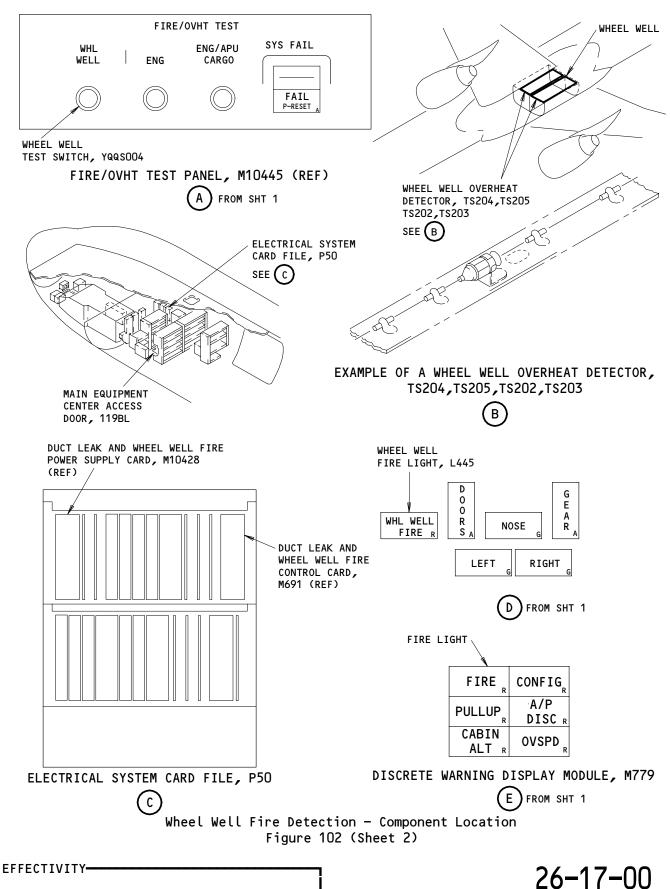
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EICAS (AMM 31-41-00/501)

WARNING SYSTEM (AMM 31-51-00/501)

MASTER DIM AND TEST (AMM 33-16-00/501)

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED:

11B10,11B35

MAKE SURE THE AIRPLANE IS IN THE CONFIGURATION THAT FOLLOWS:

ELECTRICAL POWER IS ON (AMM 24-22-00/201) EQUIPMENT:

BK PRECISION 875B LCR METER OR TEGAM INC. 252/SP2596 LCR METER OR EQUIVALENT

# WHEEL WELL FIRE DETECTION BITE PROCEDURE

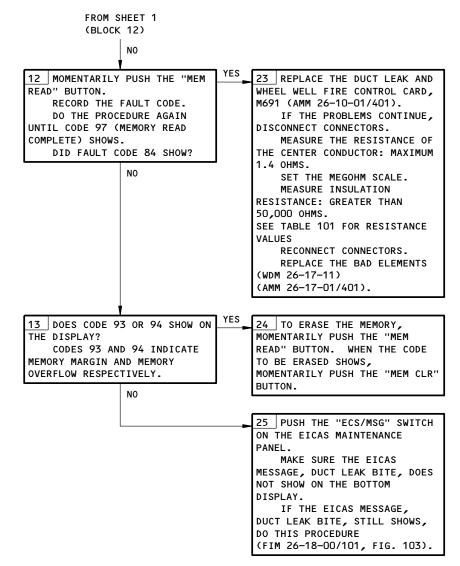
NO PUSH AND HOLD THE "WHL 20 REPLACE THE FIRE TEST WELL" SWITCH ON THE FIRE/ PANEL, M10445 OVHT TEST PANEL (P8). (AMM 26-11-02/401). MAKE SURE THESE INDICATIONS OCCUR: THE WHEEL WELL FIRE LIGHT (P3-1) COMES ON. THE MASTER FIRE LIGHT (P1-3) COMES ON. YOU CAN HEAR THE AURAL WARNING FIRE BELL. THE EICAS MESSAGE, WHEEL WELL FIRE, SHOWS ON THE TOP DISPLAY. THE MASTER WARNING LIGHTS (P7) (ONE FOR THE LEFT AND THE OTHER FOR THE RIGHT) COMES ON DOES AT LEAST ONE OF THE ABOVE WARNINGS OCCUR? 10 PUSH THE "DISP TEST" RELEASE THE "WHL WELL" 21 REPLACE THE DUCT LEAK AND SWITCH. BUTTON ON THE DUCT LEAK AND WHEEL WELL FIRE POWER SUPPLY DOES THE EICAS MESSAGE, WHEEL WELL FIRE CONTROL CARD CARD, M10428 (AMM 26-10-01). WHEEL WELL FIRE, STILL SHOW (P50) IF THE PROBLEM CONTINUES, THE TOP DISPLAY? DOES CODE 88 SHOW ON THE REPLACE THE DUCT LEAK AND LED DISPLAY? WHEEL WELL FIRE CONTROL CARD, M691 (AMM 26-10-01/401). YES YES 3 PUSH THE "ECS/MSG" SWITCH, 22 REPLACE THE DUCT LEAK AND ON EICAS MAINTENANCE PANEL 11 | MOMENTARILY PUSH THE "LOC (P61). TEST" BUTTON. WHEEL WELL FIRE POWER SUPPLY DOES CODE 91 AND THEN 99 DOES THE EICAS MESSAGE CARD, M10428 DUCT LEAK BITE SHOW THE BOTTOM SHOW ON THE DISPLAY? CODE 91 (AMM 26-10-01/401). DISPLAY? INDICATES A LOCAL TEST IN IF THE PROBLEM CONTINUES, PROGRESS SHOULD SHOW; CODE 99 REPLACE THE DUCT LEAK AND NO SHOULD SHOW WHEN THE TEST IS WHEEL WELL FIRE CONTROL CARD, M691 (AMM 26-10-01/401). DONE. THE COMPONENTS AND INTER-YES FACE WIRING ARE OK. SEE SHEET 2 (BLOCK 12)

Wheel Well Fire Detection BITE Procedure Figure 103 (Sheet 1)

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#### Wheel Well Fire Detection BITE Procedure Figure 103 (Sheet 2)

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## WHEEL WELL FIRE DETECTION - FAULT ISOLATION

## 1. Overheat Detector Element Resistance Values

TABLE 101 - OVERHEAT DETECTOR ELEMENT RESISTANCE VALUES							
EQUIPMENT NUMBER	VENDOR PART NUMBER	MINIMUM RESISTANCE CORE-TO-CASE GROUND (Megohms)	MAXIMUM RESISTANCE CORE-TO-CORE (Milliohms)				
T\$202	35578-2-400	1.282	591				
T\$203	35614-4-400	0.877	843				
TS204	35578-2-400	1.282	591				
T\$205	35614-4-400	0.887	843				

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COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	AMM REFERENCE
CARD - DUCT LEAK AND WHEEL WELL FIRE CONTROL, M691	3	1	119BL, MAIN EQUIP CTR, P50	26-10-01
CARD - DUCT LEAK AND WHEEL WELL FIRE PWR SUPPLY, M10428	3	1	119BL, MAIN EQUIP CTR, P50	26-10-01
CIRCUIT BREAKER -	1		FLT COMPT, P11	
DUCT LEAK CONT, C4261		1	11026	*
DUCT LEAK DET LEFT, C4207		1	11017	*
DUCT LEAK DET RIGHT, C4208  COMPUTER - (FIM 31-41-00/101)  EICAS L, M10181  EICAS R, M10182		1	11025	*
DETECTOR - DUCT LEAK, TS5157,TS5158,TS5260, TS5159,TS5160,TS5161,TS5162,TS5259	2	8	L WING LOOP, ZONE 1	26-18-01
DETECTOR - DUCT LEAK, TS5167,TS5168,TS5163, TS5164,TS5166,TS5165	2	6	L PACK BAY, ZONE 2	26-18-01
DETECTOR - DUCT LEAK, TS5169,TS5170	2	2	MAIN WHEEL WELL, ZONE 3	26-18-01
DETECTOR - DUCT LEAK, TS5171,TS5172,TS5173, TS5174,TS5179,TS5180,TS5175,TS5176,TS5177, TS5178	2	10	BODY LOOP, ZONE 4, SEC 46	26-18-01
DETECTOR - DUCT LEAK, TS5181,TS5182,TS5183, TS5184	2	4	BODY LOOP, ZONE 5, SEC 48	26-18-01
DETECTOR - DUCT LEAK, TS5185,TS5186,TS5187, TS5188,TS5189,TS5190	2	6	R WING LOOP, ZONE 6	26-18-01
DETECTOR - DUCT LEAK, TS5191,TS5192	2	2	R PACK BAY, ZONE 7	26-18-01
LIGHT - L WING BODY OVHT, YNNLOO1	2	1	FLT COMPT, P5, BLEED AIR CONT, M10259	*
LIGHT - R WING BODY OVHT, YNNLOO2	2	1	FLT COMPT, P5, BLEED AIR CONT, M10259	*
PANEL - (FIM 30-32-00/101) MISC TEST, M10398 PANEL - (FIM 36-10-00/101) BLEED AIR CONT, M10259				
SWITCH - DUCT LEAK/FUEL QTY, YPHSOO6	2	1	FLT COMPT, P61, MISC TEST PNL, M10398	*

<sup>\*</sup> SEE THE WDM EQUIPMENT LIST

Duct Leak Detection - Component Index Figure 101

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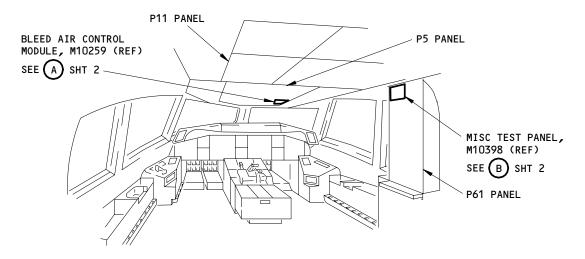
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FLIGHT COMPARTMENT

Duct Leak Detection - Component Location Figure 102 (Sheet 1)

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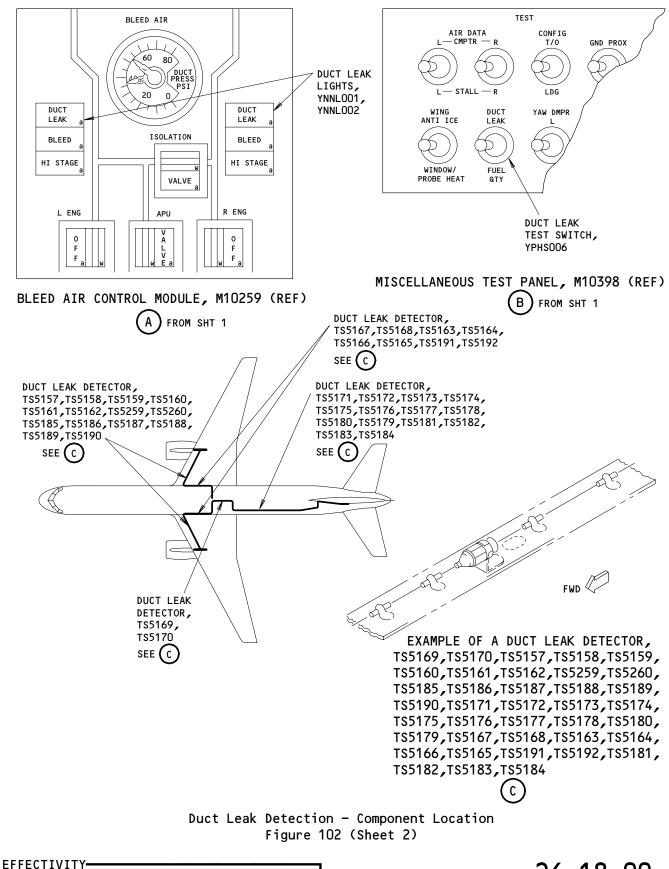
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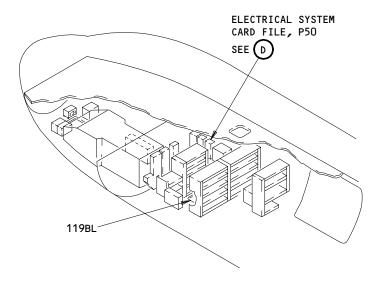
## FAULT ISOLATION/MAINT MANUAL



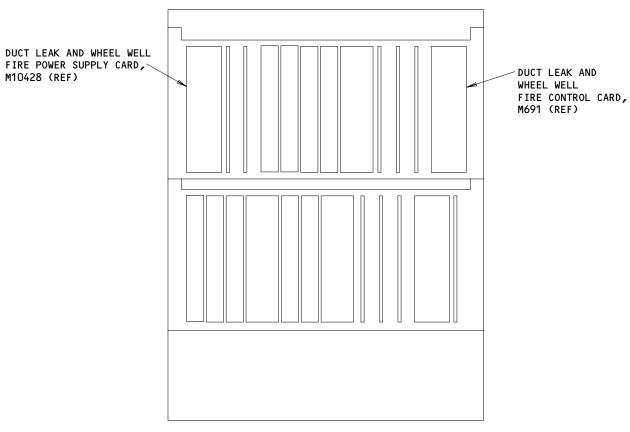
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#### MAIN EQUIPMENT CENTER



ELECTRICAL SYSTEM CARD FILE, P50



Duct Leak Detection - Component Location Figure 102 (Sheet 3)

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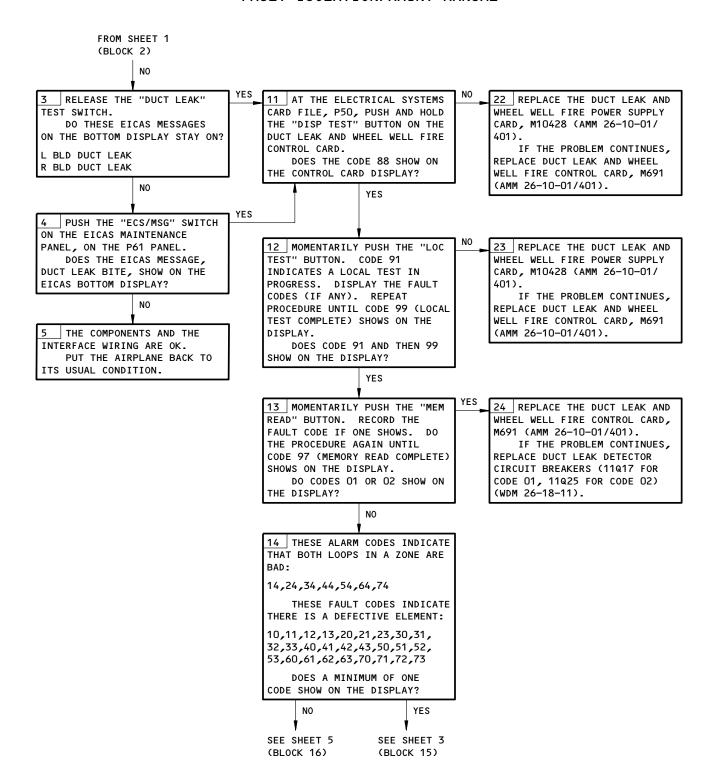
#### **PREREQUISITES** MAKE SURE THESE SYSTEMS WILL OPERATE: EICAS (AMM 31-41-00/201) EICAS (AMM 31-41-00/501) MASTER DIM AND TEST (AMM 33-16-00/501) MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11017,11025,11026 WING AND BODY DUCT MAKE SURE THE AIRPLANE IS IN THIS CONFIGURATION: LEAK DETECTION ELECTRICAL POWER IS ON (AMM 24-22-00/201) **BITE PROCEDURE EQUIPMENT:** BK PRECISION 875B LCR METER OR TEGAM INC. 252/SP2596 LCR METER OR EQUIVALENT PUSH THE "ECS/MSG" BUTTON ON THE EICAS MAINTENANCE PANEL, ON THE P61 PANEL, AFTER YES 10 WAIT MORE THAN 30 SECONDS 20 DO THE PROCEDURE IN POWER UP OF THE DUCT LEAK AND THEN TRY TO ERASE THE BLOCK 11. DETECTION SYSTEM. DUCT LEAK BITE, FROM THE DOES THE EICAS MESSAGE, BOTTOM DISPLAY. DUCT LEAK BITE, SHOW ON THE DOES THE EICAS MESSAGE, **BOTTOM DISPLAY?** DUCT LEAK BITE, SHOW ON THE BOTTOM DISPLAY? YES NO DO THE ENGINE SHUTDOWN 21 DO A CHECK OF THE AIRPLANE INPUT REMOVAL PROCEDURE WIRING TO THE DUCT LEAK TEST (AMM 31-41-00/201).SWITCH, M10398, ON THE P61 NOTE: MASTER CAUTION, OWL PANEL (WDM 26-18-11). AURAL, AND A NUMBER OF ENGINE MESSAGES ARE INHIBITED WHEN ENGINES DO NOT OPERATE. AT THE MISCELLANEOUS TEST PANEL, M10398, ON THE P61 PANEL, PUSH AND HOLD THE "DUCT LEAK" TEST SWITCH IN THE "DUCT LEAK" POSITION. MAKE SURE THESE INDICATIONS OCCUR: NOTE: THE MASTER CAUTION LIGHT AND THE AURAL CAUTION BELL ARE NOT ON WHEN BOTH OF THE FUEL CONTROL SWITCHES ARE IN THE "CUTOFF" POSITION. 1. BOTH OF THE YELLOW DUCT LEAK LIGHTS ON THE PNEUMATIC CONTROL PANEL, P5, COME ON. 2. THE EICAS MESSAGES SHOW ON THE TOP DISPLAY: L BLD DUCT LEAK R BLD DUCT LEAK 3. THE MASTER CAUTION LIGHTS ON P7 COME ON. 4. THE AURAL CAUTION BELL COMES ON. DOES A MINIMUM OF ONE OF YES SEE SHEET 2 THE CAUTION INDICATIONS OCCUR? (BLOCK 3)

Wing and Body Duct Leak Detection BITE Procedure Figure 103 (Sheet 1)

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Wing And Body Duct Leak Detection BITE Procedure Figure 103 (Sheet 2)

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FROM SHEET 2 (BLOCK 14)

YES

- 15 DO THESE STEPS TO ERASE THE CODES FROM MEMORY:
- 1. PUSH AND RELEASE THE "LOC TEST" BUTTON. (THIS EXECUTES A LOCAL TEST).
- 2. MAKE SURE CODE "99" (LOCAL TEST COMPLETE) SHOWS ON THE BOTTOM DISPLAY AFTER THE LOCAL TEST IS COMPLETED.
- 3. WITHIN 10 SECONDS, PUSH AND RELEASE THE "MEM READ" BUTTON.
- 4. MAKE SURE "97" (MEMORY READ COMPLETE) SHOWS ON THE DISPLAY.
- 5. WITHIN 10 SECONDS, PUSH AND HOLD THE "LOC TEST" BUTTON AND THEN PUSH AND HOLD THE "MEM READ" BUTTON.
- RELEASE THE "LOC TEST" BUTTON AND THEN RELEASE "MEM READ" BUTTON.
- 7. MAKE SURE CODE "96" (DO YOU WANT MEMORY CLEARED) SHOWS ON THE DISPLAY.
- WITHIN 5 SECONDS, PUSH AND RELEASE THE "MEM CLR" BUTTON.
- THE CODE FOR THE LAST ALARM
- RECORDED SHOWS ON THE DISPLAY. PUSH AND RELEASE THE "MEM CLR" BUTTON.
- 11. MAKE SURE THE ALARM HISTORY CODE IS ERASED AND THE DISPLAY IS BLANK.
- 12. PUSH AND RELEASE THE "MEM READ" AND THEN THE "MEM CLR" BUTTON.
- 13. REPEAT THE ABOVE STEP, AS NECESSARY, UNTIL CODE 97 SHOWS ON THE DISPLAY.
- 14. PUSH AND RELEASE THE "MEM READ" BUTTON AGAIN TO REMOVE CODE 97.
- 15. MAKE SURE CODE 97 DOES NOT SHOW

ARE THE CODES ERASED?

DO THESE STEPS TO VERIFY ALARM HISTORY IS CLEARED:

- 1. PUSH AND HOLD THE "DISP TEST" BUTTON THEN PUSH AND HOLD THE "MEM READ" BUTTON.
- REPLEASE THE "DISP TEST" BUTTON THEN RELEASE THE "MEM READ" BUTTON.
- 3. MAKE SURE CODE 97 IS DISPLAYED.
- PUSH AND RELEASE "MEM READ" AGAIN TO BLANK THE DISPLAY.
- MAKE SURE DISPLAY IS BLANK.

(CONTINUE)

25 DO A CHECK OF THE DETECTOR ELEMENTS FOR CONTINUITY OF THE CENTER CONDUCTOR, AND TO MAKE SURE THERE ARE NO SHORT CIRCUITS BETWEEN THE CENTER CONDUCTOR AND CASE (WDM 26-18-11, -21).

SEE TABLE 101 FOR RESISTANCE VALUES. DO A CHECK OF THE BONDING BETWEEN

THE ELEMENT CONNECTOR AND THE PRIMARY STRUCTURE TO MAKE SURE IT IS NOT MORE THAN 0.004 OHMS. REPLACE THE

DEFECTIVE ELEMENTS (AMM 26-18-01/401).						
		ALARM/				
<u>CODE</u>	<u>ZONE</u>	<u>FAULT</u>	<u>L00P</u>			
10	L WING	SHORT	Α			
11	L WING	SHORT	В			
12	L WING	OPEN	Α			
13	L WING	OPEN	В			
14	L WING LEADING EDGE	ALARM	A&B			
20	L A/C PACK BAY	SHORT	Α			
21	L A/C PACK BAY	SHORT	В			
22	L A/C PACK BAY	OPEN	Α			
23	L A/C PACK BAY	OPEN	В			
24	L A/C PACK BAY	ALARM	A&B			
30	WHEEL WELL ECS	SHORT	Α			
31	WHEEL WELL ECS	SHORT	В			
32	WHEEL WELL ECS	OPEN	Α			
33	WHEEL WELL ECS	OPEN	В			
34	WHEEL WELL ECS	ALARM	A&B			
40	AFT CARGO SECT 46	SHORT	Α			
41	AFT CARGO SECT 46	SHORT	В			
42	AFT CARGO SECT 46	OPEN	Α			
43	AFT CARGO SECT 46	OPEN	В			
44	AFT CARGO SECT 46	ALARM	A&B			
50	AFT BULKHD SECT 48	SHORT	Α			
51	AFT BULKHD SECT 48	SHORT	В			
52	AFT BULKHD SECT 48	OPEN	Α			
53	AFT BULKHD SECT 48	OPEN	В			
54	AFT BULKHD SECT 48	ALARM	A&B			
60	R WING	SHORT	Α			
61	R WING	SHORT	В			
62	R WING	OPEN	Α			
63	R WING	OPEN	В			
64	R WING LEADING EDGE	ALARM	A&B			
70	R A/C PACK BAY	SHORT	Α			
71	R A/C PACK BAY	SHORT	В			
72	R A/C PACK BAY	OPEN	Α			
73	R A/C PACK BAY	OPEN	В			
74	R A/C PACK BAY	ALARM	A&B			
84	WHEEL WELL	ALARM	A&B			

Wing And Body Duct Leak Detection BITE Procedure Figure 103 (Sheet 3)

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## FAULT ISOLATION/MAINT MANUAL

(CONTINUE)

DO THESE STEPS TO VERIFY ALARM HISTORY IS CLEARED:

- 6. PUSH AND RELEASE THE LOC TEST BUTTON ON THE WHEEL WELL FIRE AND ECS DUCT LEAK DETECTION SYSTEM CONTROL CARD M691 ON THE ELECTRICAL SYSTEMS CARD
- FILE, P50.
  7. MAKE SURE CODES 91 AND THEN 99 ARE SHOWN ON THE M691 DISPLAY.
- PUSH AND RELEASE THE MEM **READ BUTTON ON THE M691** DISPLAY.
- MADE SURE CODES 24 OR 74 ARE SHOWN.
- PUSH AND RELEASE THE MEM CLR BUTTON.
- MAKE SURE THE DISPLAY IS 11. BLANK.
- 12. PUSH AND RELEASE THE MEM READ BUTTON.
- 13. MAKE SURE CODE 24 OR 74 IS SHOWN.
- PUSH AND RELEASE THE MEM CLR BUTTON.
- MAKE SURE THE DISPLAY IS 15. BLANK.
- PUSH AND RELEASE THE MEM READ BUTTON.
- MAKE SURE CODE 97 IS SHOWN.
- 18. PUSH AND RELEASE THE MEM CLR BUTTON.
- 19. MAKE SURE THE DISPLAY IS BLANK.

IS ALARM HISTORY CLEARED?

YES

SEE SHEET 5 (BLOCK 16)

Wing and Body Duct Leak Detection BITE Prodecure Figure 103 (Sheet 4)

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16 CODES 93 AND 94 INDICATE A FROM SHEET 2 -MEMORY MARGIN AND MEMORY OVERFLOW, (BLOCK 14) RESPECTIVELY. YES FROM SHEET 4 DO CODES 93 OR 94 SHOW ON THE (BLOCK 15) NO 15 DO THESE STEPS TO ERASE THE CODES FROM MEMORY: PUSH AND RELEASE THE "LOC TEST" BUTTON. (THIS EXECUTES A LOCAL MAKE SURE CODE "99" (LOCAL TEST COMPLETE) SHOWS ON THE BOTTOM DISPLAY AFTER THE LOCAL TEST

26 DO THESE STEPS TO ERASE THE CODES FROM MEMORY:

- 1. PUSH AND RELEASE THE "LOC TEST" BUTTON. (THIS EXECUTES A LOCAL TEST).
- MAKE SURE CODE "99" (LOCAL TEST COMPLETE) SHOWS ON THE BOTTOM DISPLAY AFTER THE LOCAL TEST IS COMPLETED.
- WITHIN 10 SECONDS, PUSH AND RELEASE THE "MEM READ" BUTTON.
- MAKE SURE "97" (MEMORY READ COMPLETE) SHOWS ON THE DISPLAY.
- WITHIN 10 SECONDS, PUSH AND HOLD THE "LOC TEST" BUTTON AND THEN PUSH AND HOLD THE "MEM READ" BUTTON.
- RELEASE THE "LOC TEST" BUTTON AND THEN RELEASE "MEM READ" BUTTON.
- MAKE SURE CODE "96" (DO YOU WANT MEMORY CLEARED) SHOWS ON THE DISPLAY.
- WITHIN 5 SECONDS, PUSH AND RELEASE THE "MEM CLR" BUTTON.
- THE CODE FOR THE LAST ALARM
- RECORDED SHOWS ON THE DISPLAY. 10. PUSH AND RELEASE THE "MEM CLR"
- BUTTON. 11. MAKE SURE THE ALARM HISTORY CODE IS ERASED AND THE DISPLAY
- IS BLANK. PUSH AND RELEASE THE "MEM READ" AND THEN THE "MEM CLR" BUTTON.
- REPEAT THE ABOVE STEP, AS NECESSARY, UNTIL CODE 97 SHOWS ON THE DISPLAY.
- PUSH AND RELEASE THE "MEM READ" 14. BUTTON AGAIN TO REMOVE CODE 97.
- 15. MAKE SURE CODE 97 DOES NOT SHOW.

#### DO THESE STEPS:

- 1. PUSH THE "ECS/MSG" SWITCH ON THE EICAS MAINTENANCE PANEL.
- MAKE SURE THE EICAS MESSAGE, DUCT LEAK BITE, DOES NOT SHOW ON THE BOTTOM DISPLAY.
- IF THE ABOVE EICAS MESSAGE STILL SHOWS, DO THE AIR SUPPLY DISTRIBUTION SYSTEM LEAKAGE TEST (AMM 36-11-00-501) FOR THE (L, R) WING OR BODY DUCT AS INDICATED.
- IF THE LEAK IS NOT FOUND, DO A CHECK FOR CRACKS IN THE WING OR BODY DUCT (AMM 36-11-01/601).

- IS COMPLETED.
- WITHIN 10 SECONDS, PUSH AND RELEASE THE "MEM READ" BUTTON.
- MAKE SURE "97" (MEMORY READ COMPLETE) SHOWS ON THE DISPLAY.
- WITHIN 10 SECONDS, PUSH AND HOLD THE "LOC TEST" BUTTON AND THEN PUSH AND HOLD THE "MEM READ" BUTTON.
- RELEASE THE "LOC TEST" BUTTON AND THEN RELEASE "MEM READ" BUTTON.
- MAKE SURE CODE "96" (DO YOU WANT MEMORY CLEARED) SHOWS ON THE DISPLAY.
- WITHIN 5 SECONDS, PUSH AND RELEASE THE "MEM CLR" BUTTON.
- THE CODE FOR THE LAST ALARM RECORDED SHOWS ON THE DISPLAY.
- 10 PUSH AND RELEASE THE "MEM CLR" BUTTON.
- 11. MAKE SURE THE ALARM HISTORY CODE IS ERASED AND THE DISPLAY IS BLANK.
- PUSH AND RELEASE THE "MEM READ" AND THEN THE "MEM CLR" BUTTON.
- REPEAT THE ABOVE STEP, AS NECESSARY, UNTIL CODE 97 SHOWS ON THE DISPLAY.
- PUSH AND RELEASE THE "MEM READ" 14 BUTTON AGAIN TO REMOVE CODE 97.
- MAKE SURE CODE 97 DOES NOT 15. SHOW.

#### DO THESE STEPS TO VERIFY ALARM HISTORY IS CLEARED:

- 1. PUSH AND HOLD THE "DISP TEST" BUTTON THEN PUSH AND HOLD THE "MEM READ" BUTTON.
- REPLEASE THE "DISP TEST" BUTTON THEN RELEASE THE "MEM READ" BUTTON.
- MAKE SURE CODE 97 IS DISPLAYED.
- PUSH AND RELEASE "MEM READ" AGAIN TO BLANK THE DISPLAY.
- MAKE SURE DISPLAY IS BLANK.

Wing And Body Duct Leak Detection BITE Procedure Figure 103 (Sheet 5)

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## WING AND BODY DUCT LEAK DETECTION

## 1. <u>Overheat Detector Element Resistance Values</u>

TAE	SLE 101 - OVERHEAT	DETECTOR ELEMENT RESIST	ANCE VALUES
EQUIPMENT NUMBER	VENDOR PART NUMBER	MINIMUM RESISTANCE CORE-TO-CASE GROUND (Megohms)	MAXIMUM RESISTANCE CORE-TO-CORE (Milliohms)
TS5157	35542-2-255	2.381	339
TS5158	35542-2-255	2.381	339
TS5159	35618-2-255	0.847	871
TS5160	35618-2-255	0.847	871
TS5161	35619-2-255 35604-2-255 35624-2-255 35591-2-255	0.840 0.962 0.806 1.099	878 773 913 682
TS5162	35619-2-255 35604-2-255 35624-2-255 35591-2-255	0.840 0.962 0.806 1.099	878 773 913 682
TS5259	35528-2-310	0.714	241
TS5260	35528-2-310	0.714	241
TS5167	35641-2-255	0.709	1032
TS5168	35641-2-255	0.709	1032
TS5163	35652-2-255	0.658	1109
TS5164	35652-2-255	0.658	1109
TS5165	35593-2-255	1.075	696
TS5166	35593-2-255	1.075	696

EFFECTIVITY-



TAB	LE 101 - OVERHEAT	DETECTOR ELEMENT RESIST	ANCE VALUES
EQUIPMENT NUMBER	VENDOR PART NUMBER	MINIMUM RESISTANCE CORE-TO-CASE GROUND (Megohms)	MAXIMUM RESISTANCE CORE-TO-CORE (Milliohms)
TS5169	35660-2-255	0.625	1165
TS5170	35660-2-255	0.625	1165
TS5171	35619-2-255 35624-2-255	0.840 0.806	878 913
TS5172	35619-2-255 35624-2-255	0.840 0.806	878 913
TS5173	35619-2-255	0.840	878
TS5174	35619-2-255	0.840	878
TS5175	35619-2-255	0.840	878
TS5176	35619-2-255	0.840	878
TS5177	35619-2-255	0.840	878
TS5178	35619-2-255	0.840	878
TS5179	35619-2-255	0.840	878
TS5180	35619-2-255	0.840	878
TS5308	35624-2-255	0.806	913
TS5309	35624-2-255	0.806	913
TS5181	35624-2-255	0.806	913
TS5182	35624-2-255	0.806	913
TS5183	35587-2-255	1.149	654

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TAE	BLE 101 - OVERHEAT	DETECTOR ELEMENT RESIST	ANCE VALUES
EQUIPMENT NUMBER	VENDOR PART NUMBER	MINIMUM RESISTANCE CORE-TO-CASE GROUND (Megohms)	MAXIMUM RESISTANCE CORE-TO-CORE (Milliohms)
TS5184	35587-2-255	1.149	654
TS5185	35542-2-255	2.381	339
TS5186	35542-2-255	2.381	339
TS5187	35618-2-255	0.847	871
TS5188	35618-2-255	0.847	871
TS5189	35619-2-255 35604-2-255 35624-2-255 35591-2-255	0.840 0.962 0.806 1.099	878 773 913 682
TS5190	35619-2-255 35593-2-255 35604-2-255 35624-2-255 35591-2-255	0.840 1.075 0.962 0.806 1.099	878 696 773 913 682
TS5261	35528-2-310	0.714	241
TS5262	35528-2-310	0.714	241
TS5191	35600-2-255	1.000	745
TS5192	35600-2-255	1.000	745

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## **ENGINE FIRE EXTINGUISHING SYSTEM**

COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	AMM REFERENCE
BOTTLE - DISCH/CARTRIDGE ENG FIRE EXTINGUISH- ING, B17,B18		2	821, FWD CARGO COMPT	26-21-01
CIRCUIT BREAKER -			FLT COMPT, P6	
FIRE EXTINGUISHING ENG L BTL 1, C778		1	6H1	*
FIRE EXTINGUISHING ENG L BTL 2, C786		1	6H2	*
FIRE EXTINGUISHING ENG R BTL 1, C779		1	6H3	*
FIRE EXTINGUISHING ENG R BTL 2, C787 COMPUTER - (FIM 31-41-00/101) EICAS L, M10181		1	6H4	*
EICAS R, M10182				
LIGHT - ENG BTL 1 DISCH, YQNL2		1	FLT COMPT, ENGINE FIRE CONTROL PANEL, M10443	*
LIGHT - ENG BTL 2 DISCH, YQNL4		1	FLT COMPT, ENGINE FIRE CONTROL PANEL, M10443	*
LIGHT - L ENG 1, YQML1		1	FLT COMPT, SQUIB TEST CONTROL PANEL, M10401	*
LIGHT - L ENG 2, YQML2		1	FLT COMPT, SQUIB TEST CONTROL PANEL, M10401	*
LIGHT - R ENG 1, YQML3		1	FLT COMPT, SQUIB TEST CONTROL PANEL, M10401	*
LIGHT - R ENG 2, YQML4		1	FLT COMPT, SQUIB TEST CONTROL PANEL, M10401	*
PANEL - (FIM 26-11-00/101)			-	
ENGINE FIRE CONTROL, M10443				
PANEL - SQUIB TEST CONTROL, M10401		1	FLT COMPT, P61	26-21-04
SWITCH - LEFT ENGINE FIRE, YQNS37		1	FLT COMPT, ENGINE FIRE CONTROL PANEL, M10443	26-21-02
SWITCH - RIGHT ENGINE FIRE, YQNS38		1	FLT COMPT, ENGINE FIRE CONTROL PANEL, M10443	26-21-02
SWITCH - TEST 1, YQMS1		1	FLT COMPT, SQUIB TEST CONTROL M10401	*

<sup>\*</sup> SEE WM EQUIPMENT LIST

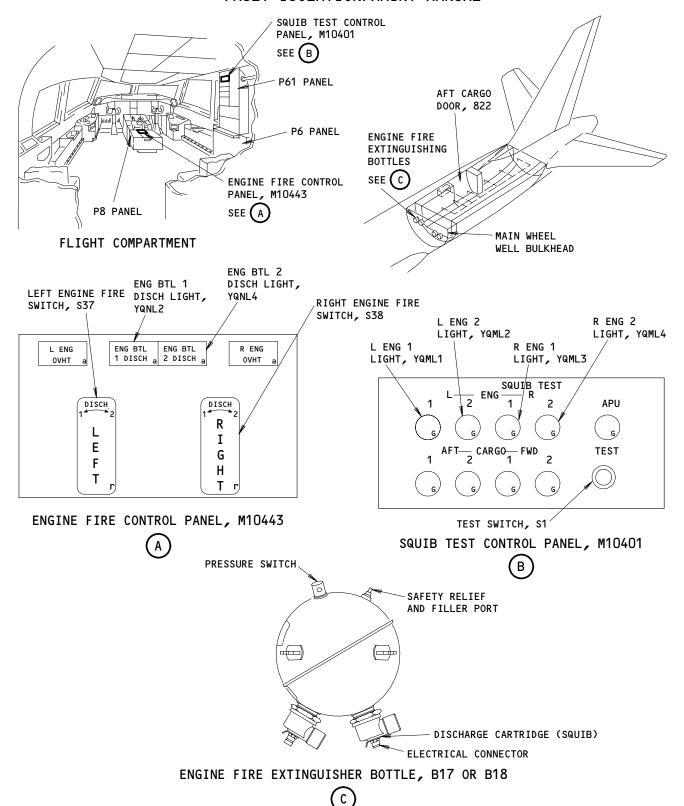
Engine Fire Extinguishing System - Component Index Figure 101

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### FAULT ISOLATION/MAINT MANUAL



Engine Fire Extinguishing System - Component Location Figure 102

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## APU FIRE EXTINGUISHING SYSTEM

COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	REFERENCE
BOTTLE DISCH/CARTRIDGE - APU FIRE EXT	2	1	313AL, B25	26-22-01
CIRCUIT BREAKER	1		FLT COMPT, P6	
FIRE EXT APU, C780		1	6G1	*
FIRE EXTINGUISHING ENG L BTL 1, C778		1	6Н1	
CIRCUIT BREAKER		_	FLT COMPT, P11	
FIRE DETECTION APU 1, C776		1	11B24	
FIRE DETECTION APU 2, C785		1	11B25	*
COMPUTER - (REF 31-41-00, FIG. 101)				*
EICAS L, M10181				
EICAS R, M10182			51 T 00MDT M40/04	
LIGHT - APU, YQML5	2	1	FLT COMPT, M10401	*
LIGHT - APU BTL DISCH, YQPL1	1	1	FLT COMPT, M10444	*
PANEL - APU CARGO FIRE CONTROL, M10444	1	1	FLT COMPT, P8	*
PANEL - (REF 26-21-00, FIG. 101) SQUIB TEST CONTROL, M10401				
RELAY - (REF 31-01-36, FIG. 101)				
AIR/GND, K145				
APU BOTTLE DISC, K10336				
APU FIRE, K10334				
APU GND RELAY, K10373				
APU SQUIB TEST, K3				
RELAY - (REF 31-01-33, FIG. 101)				
EXTERNAL SHUTDOWN, K421				
SPEED CARD - (REF 77-12-00, FIG. 101)				
LEFT ENG, M10298				
RIGHT ENG, M10311				
SWITCH - APU BOTTLE DISCH, S485	2	1	NOSE LANDING GEAR, P62	*
SWITCH - APU FIRE, S39	1	1	FLT COMPT, M10444	26-22-03
SWITCH - SQUIB TEST, YQMS1	2	1	FLT COMPT, M10401	*

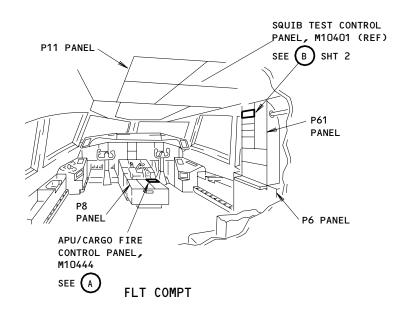
<sup>\*</sup> SEE WM EQUIPMENT LIST

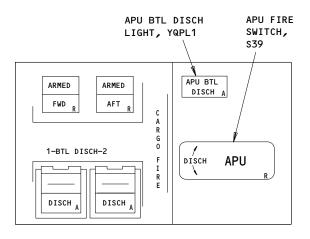
Component Index Figure 101

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APU/CARGO FIRE CONTROL PANEL, M10444



Component Location Figure 102 (Sheet 1)

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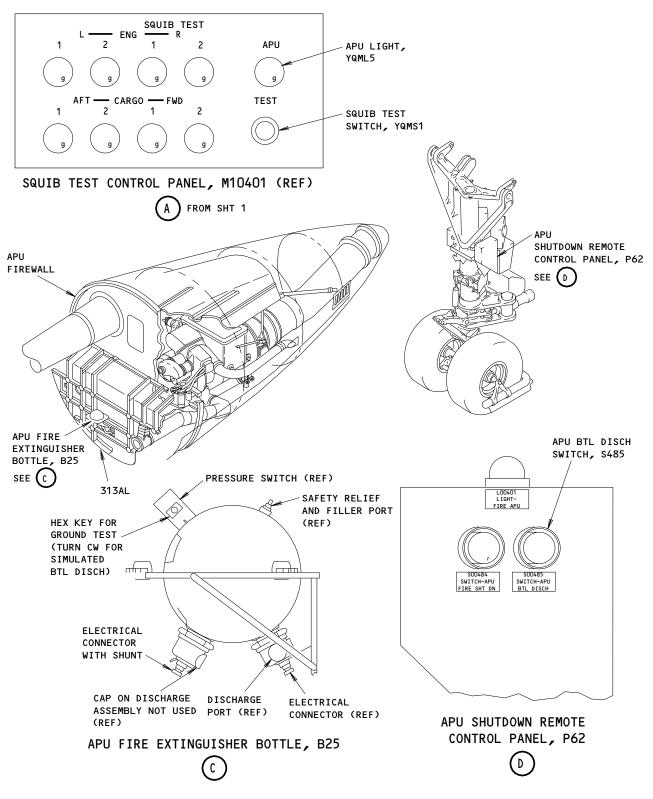
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Component Location Figure 102 (Sheet 2)

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## CARGO COMPARMENT FIRE EXTINGUISHING SYSTEM

	FIG.			
	102			
COMPONENT	SHT	QTY	ACCESS/AREA	REFERENCE
BOTTLE - CARGO FIRE EXTINGUISHING, M10466,		2	822, AFT CARGO COMPT	26-23-02
M10467			,	
CIRCUIT BREAKERS			FLT COMPT, P6	
FIRE EXTINGUISHING CARGO BTL 1, C781		1	6H5	*
FIRE EXTINGUISHING CARGO BTL 2, C773		1	6H6	*
FIRE EXTINGUISHING ENG L BTL 1, C778		1	6H1	*
COMPUTERS - (31-41-00/101)				
EICAS L, M10181				
EICAS R, M10182				
FILTER/DRYER 1		2	FWD AND AFT CARGO COMPT CEILING	*
LIGHT - AFT CARGO 1, YQML8		'	FLT COMPT, P61, SQUIB TEST PANEL, M10401	^
LIGHT - AFT CARGO 2, YQML9		1	FLT COMPT, P61, SQUIB TEST PANEL,	*
LIGHT - AFT CARGO 2, TWILF		'	M10401	
LIGHT - FWD CARGO 1, YQML6		1	FLT COMPT, P61, SQUIB TEST PANEL,	*
Elani Tub omico Ty Tunico			M10401	
LIGHT - FWD CARGO 2, YQML7		1	FLT COMPT, P61, SQUIB TEST PANEL,	*
PANEL - (26-21-00/101)				
SQUIB TEST CONTROL, M10401				*
PANEL - APU/CARGO FIRE CONTROL, M10444		1	FLT COMPT, P8	
REGULATOR 1		1	AFT CARGO COMPT CEILING	
SWITCH - AFT CARGO DISCHARGE LINE PRESSURE,		1	821, FWD CARGO COMPT, DISCHARGE	*
s10565 1>>			LINE	
SWITCH - AFT CARGO FIRE, YQPS2		1	FLT COMPT, P8, APU/CARGO FIRE	26-23-01
		_	CONTROL PANEL, M10444	*
SWITCH - BTL 1 DISCH, YQPS3		1	FLT COMPT, P8, APU/CARGO FIRE	*
CULTCU DTI 2 DICCU VODC/		1	CONTROL PANEL, M10444	*
SWITCH - BTL 2 DISCH, YQPS4		1	FLT COMPT, P8, APU/CARGO FIRE CONTROL PANEL, M10444	*
SWITCH - FWD CARGO DISCHARGE LINE PRESSURE,		1	821, FWD CARGO COMPT, DISCHARGE	*
S633		'	LINE	
SWITCH - FWD CARGO FIRE, YQPS1		1	FLT COMPT, P8, APU/CARGO FIRE	26-23-01
CHILD OF CONTROL LINE PARTY		'	CONTROL PANEL, M10444	20 23 01
SWITCH - TEST, YQMS1		1	FLT COMPT, P61, SQUIB TEST PANEL,	*
, ,			M10401	
		1	I .	1

\* SEE THE WDM EQUIPMENT LIST

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Cargo Compartment Fire Extinguishing System - Component Index Figure 101

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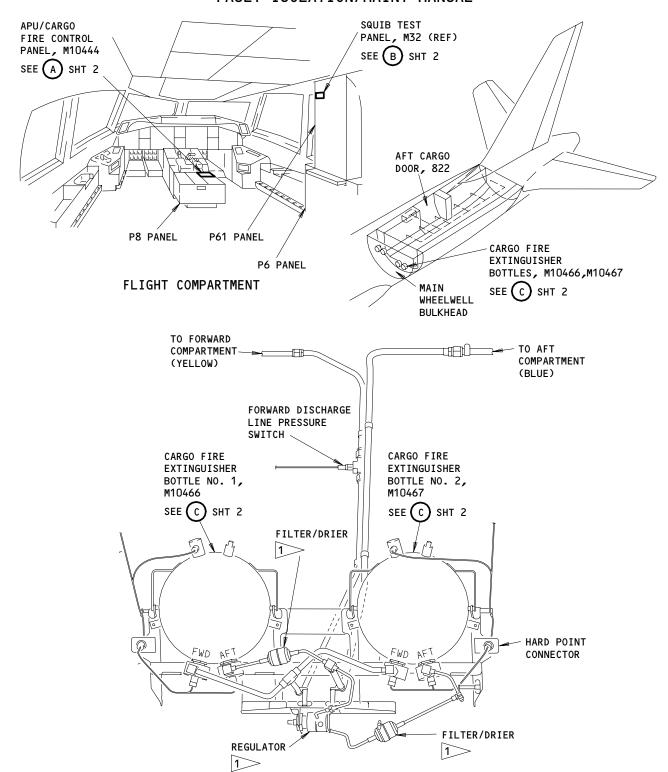
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# FAULT ISOLATION/MAINT MANUAL



CARGO COMPARTMENT FIRE EXTINGUISHER BOTTLES

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Component Location Figure 102 (Sheet 1)

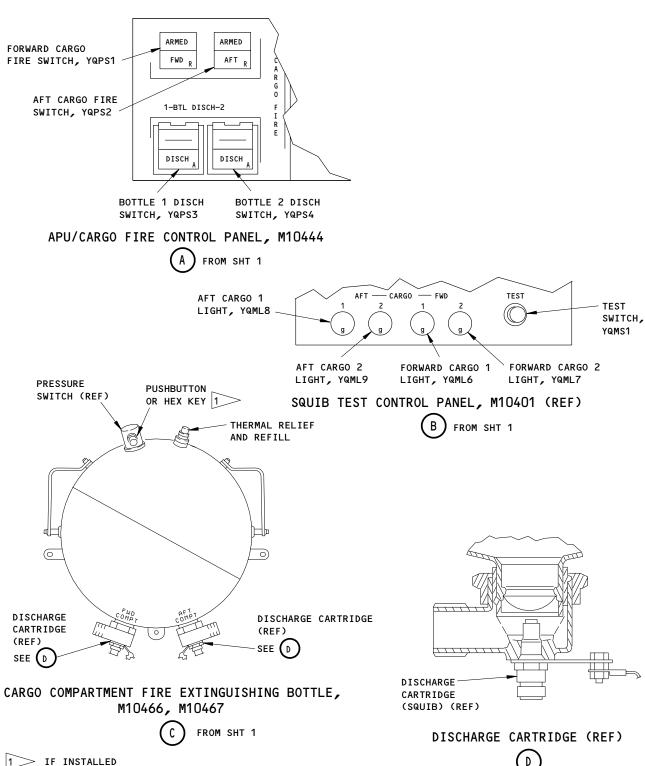
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Cargo Compartment Fire Extinguishing System - Component Location Figure 102 (Sheet 2)

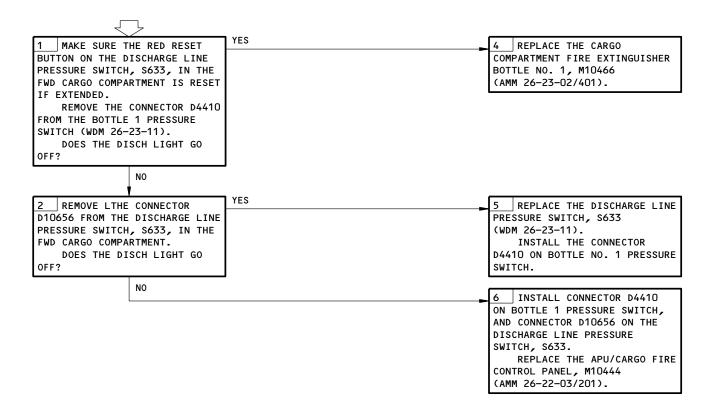
ALL

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May 28/01

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"CARGO BTL 1 DISCH" LGT ILLUM. EICAS MSG "CARGO BTL 1" DISPLAYED. DISCH SWITCH NOT USED. PREREQUISITES NONE



CARGO BTL 1 DISCH Lgt Illum. EICAS Msg CARGO BTL 1 Displayed
Disch Switch Not Used.
Figure 103

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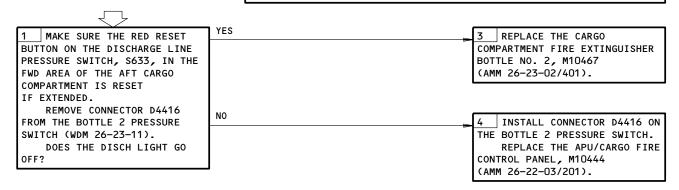
"CARGO BTL 2 DISCH"
LGT ILLUM. EICAS
MSG "CARGO BTL 2"
DISPLAYED. DISCH
SWITCH NOT USED.

PREREQUISITES

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

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 6H5, 6H6

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



CARGO BTL 2 DISCH Lgt Illum. EICAS Msg CARGO BTL 2 Displayed.

Disch Switch Not Used.

Figure 104 (Sheet 1)

ALL EXCEPT GUI 115

26-23-00

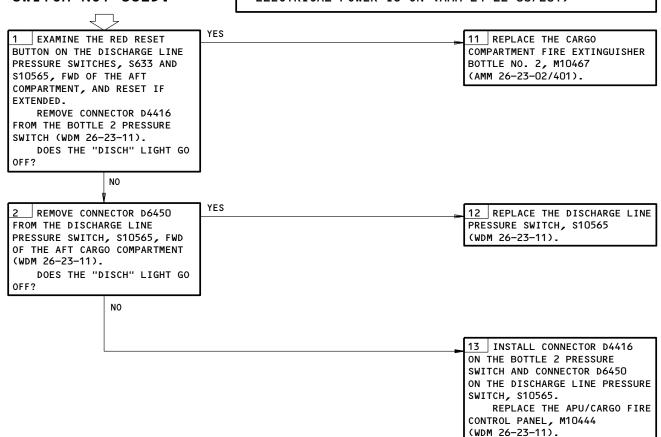
"CARGO BTL DISCH"
LGT ILLUM. EICAS
MSG "CARGO BTL 2"
DISPLAYED. "DISCH"
SWITCH NOT USED.

### **PREREQUISITES**

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

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 6H5, 6H6

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



CARGO BTL DISCH Lgt Illum. EICAS Msg CARGO BTL 2 Displayed.

DISCH Switch Not Used.

Figure 104 (Sheet 2)

GUI 115

26-23-00

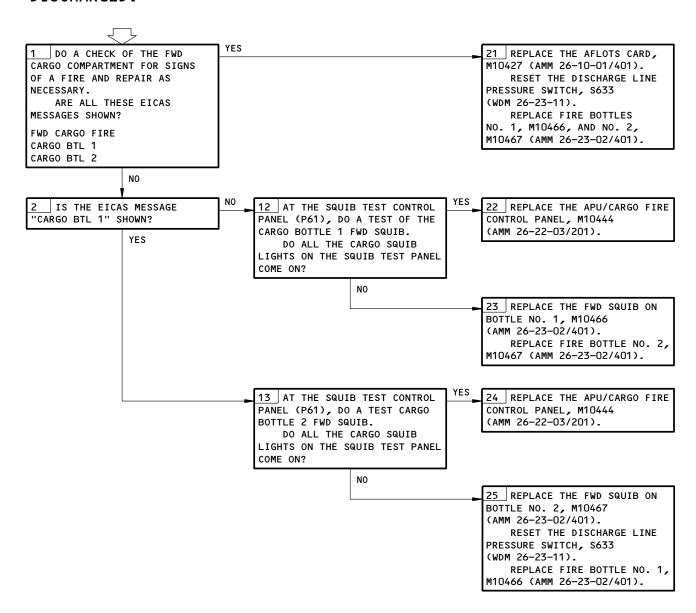
FWD CARGO FIRE
INDICATED. EICAS
MSG "FWD CARGO FIRE"
DISPLAYED. FIRE
INDICATION(S)
REMAINED WHEN
BOTTLE 1 DISCHARGED.
BOTTLE 2 WAS
DISCHARGED.

#### **PREREQUISITES**

MAKE SURE THIS SYSTEM WILL OPERATE: EICAS (AMM 31-41-00/501)

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 6H5,6H6

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



Fwd Cargo Fire Indicated. EICAS Msg FWD CARGO FIRE Displayed.

Fire Indication(s) Remained When Bottle 1 Discharged. Bottle 2 Was Discharged.

Figure 105

ALL

O5

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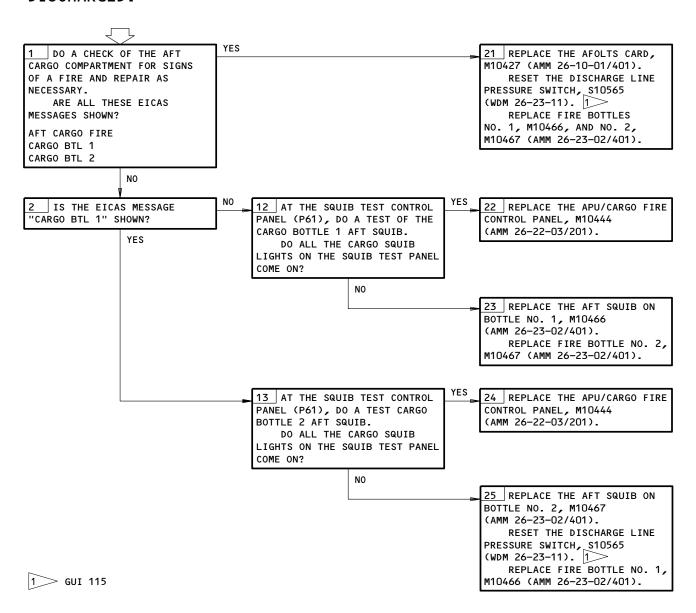
AFT CARGO FIRE
INDICATED. EICAS
MSG "AFT CARGO FIRE"
DISPLAYED. FIRE
INDICATION(S)
REMAINED WHEN
BOTTLE 1 DISCHARGED.
BOTTLE 2 WAS
DISCHARGED.

#### **PREREQUISITES**

MAKE SURE THIS SYSTEM WILL OPERATE: EICAS (AMM 31-41-00/501)

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 6H5, 6H6

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



Aft Cargo Fire Indicated. EICAS Msg AFT CARGO FIRE Displayed. Fire Indication(s) Remained When Bottle 1 Discharged. Bottle 2 Was Discharged. Figure 106