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Display on VORCP Abnormal

(Fig. 108)



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(Fig. 110)



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 I 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

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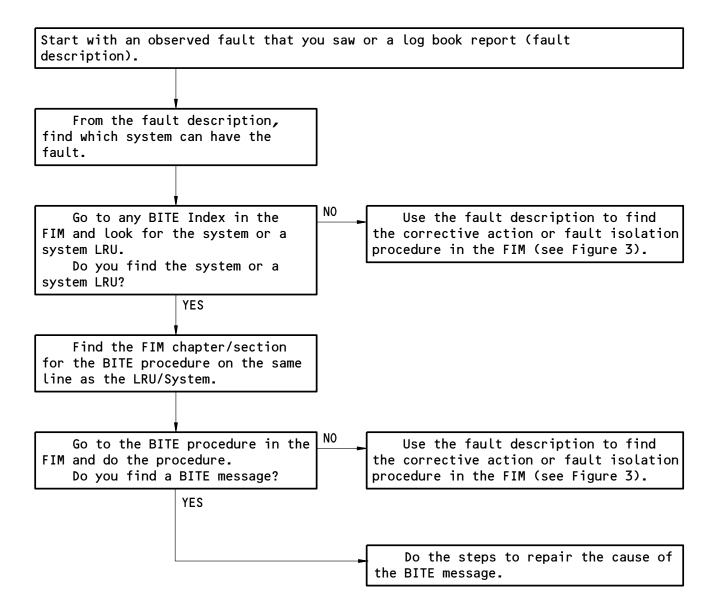
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For details, see Figure 4 —

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How to Get Fault Information from BITE Figure 2

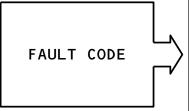
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Page 2 Sep 20/98 IF YOU HAVE:

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

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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

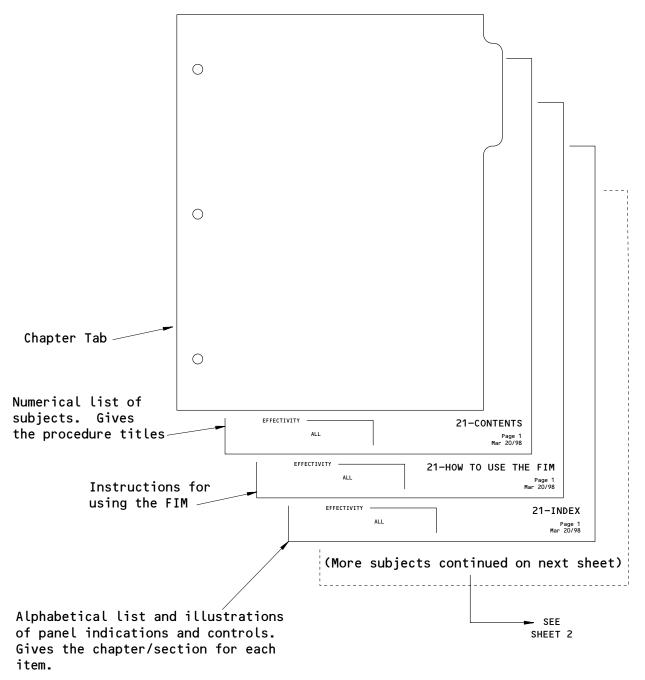
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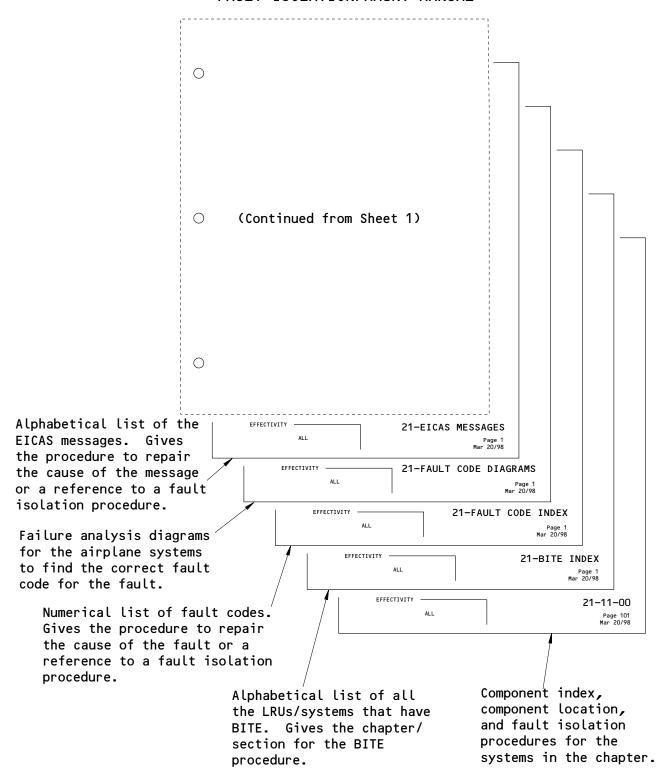


Subjects in Each FIM Chapter Figure 5 (Sheet 1)

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Subjects in Each FIM Chapter Figure 5 (Sheet 2)

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MISCELLANEOUS MESSAGES	
SG FAIL	

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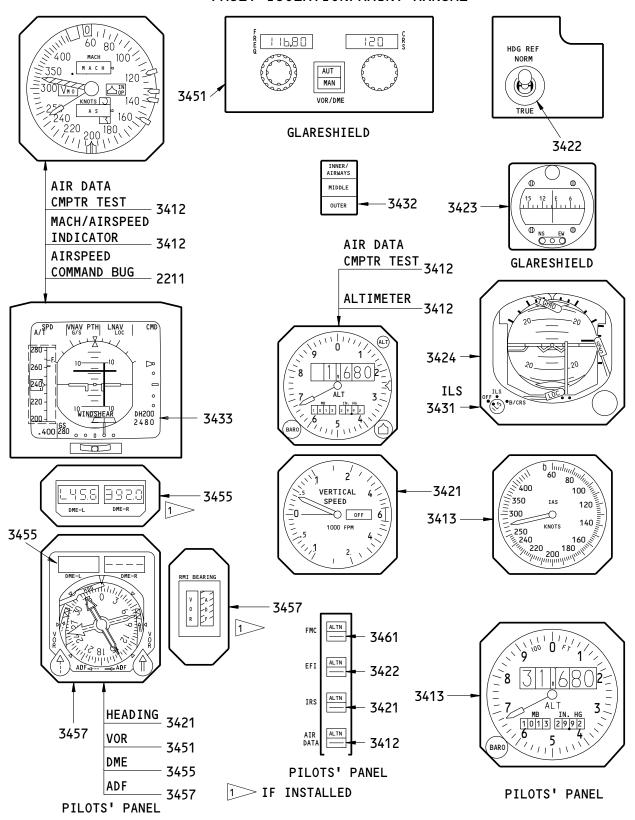
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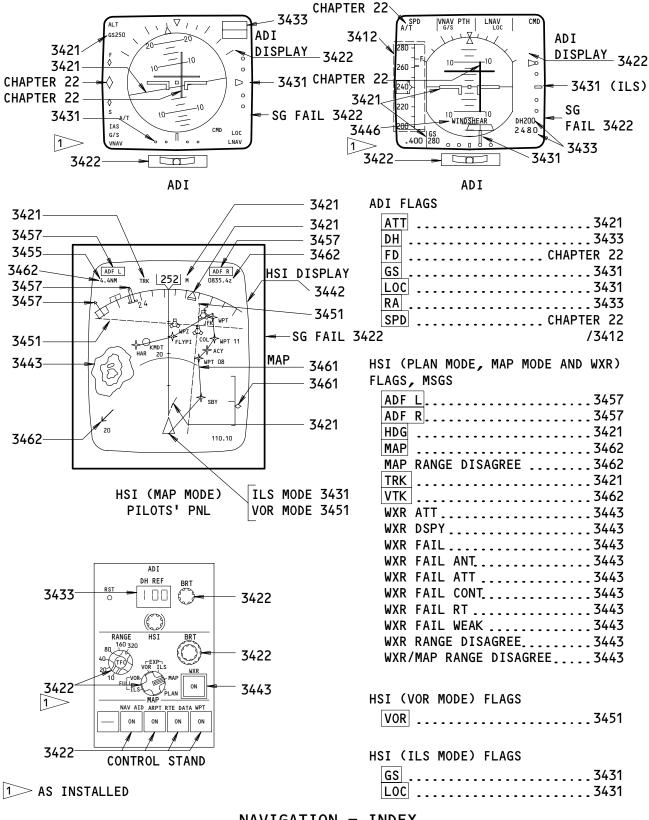
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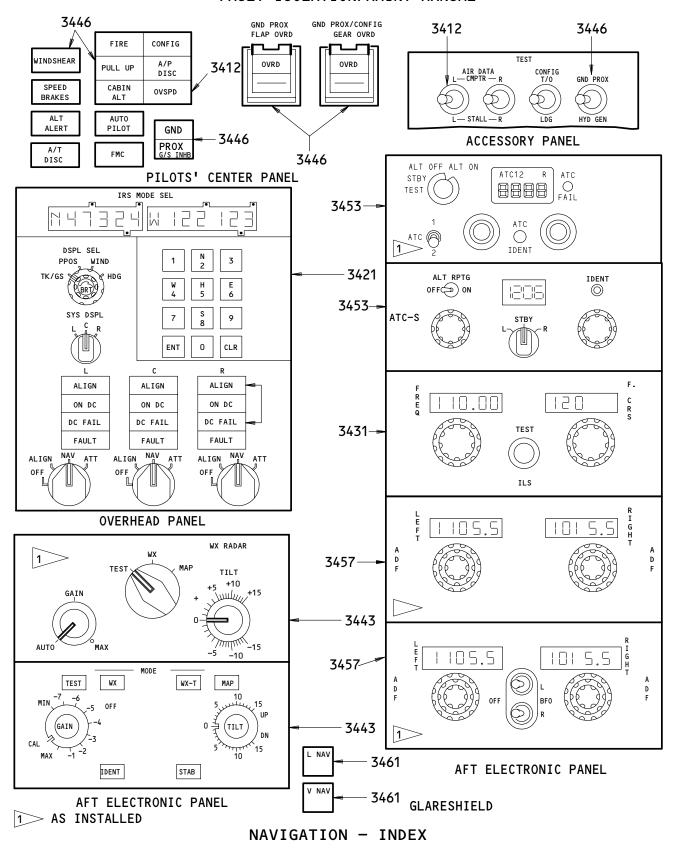
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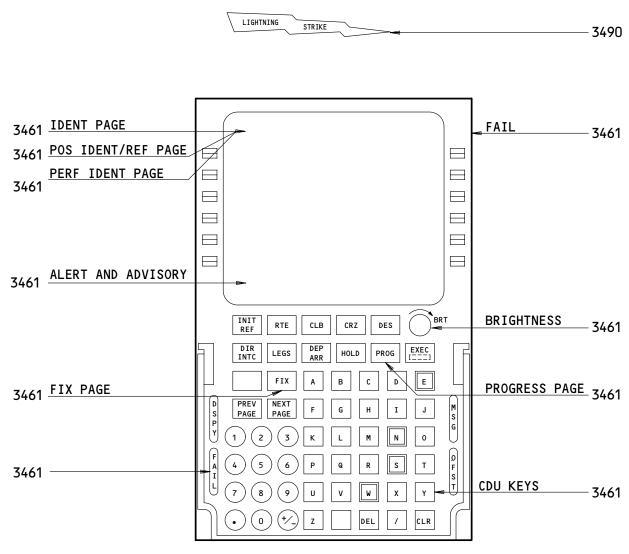




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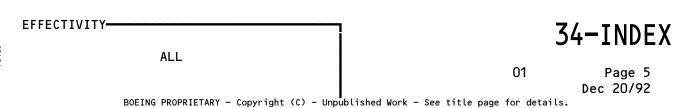
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FWD ELECTRONIC PANEL

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ALTIMETER TO			DR CHAPTER 22
CHECK		FMCS	
IRS ACCURACY	CHECK 3421	AIRSPEED BUG	G (VNAV MODE)3461
ADF		ALERT/ADVISO	DRY3461
ADF MODE (AU	DIO & FLAGS)3457	MESSAGES	
ANT MODE (AU	DIO & FLAGS)3457	CDU BRIGHTNE	ESS3461
CONTROL		CDU FAIL	
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STANDBY		FMC FAIL	
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	DBY)3413	LNAV GUIDANO	CE3461
	CTRIC)3413	MAP DATA	
	DBY3413	MAP GENERAL.	
ALTITUDE ALERT	CHAPTER 22		INIT3461
ATC TRANSPONDE	R3453	POSITION IN	IT3461
	CHAPTER 22	POSITION REF	
AUTOTHROTTLE .	CHAPTER 22	PROGRESS PAG	GE3461
COMPASS (STAND	BY)3423		
CDU	SEE FMC	VNAV GUIDANO	E

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TEST			3433
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GROUND SPEED (IRS)	3421	STANDBY	
HEADING REF	3422		3413
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HEADING	3421	COMPASS	3423
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ILS		TRUE AIRSPEED (TAS	3412
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NAVIGATION - EICAS MESSAGE LIST

1. General

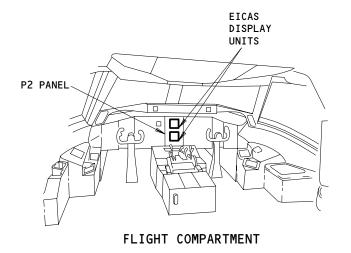
- A. This procedure shows the EICAS message locations and gives a list of procedures to find the solution for each message.
 - (1) EICAS Message Locations (Fig. 1)
 - (a) Figure 1 shows the location of the EICAS display units and the area where the messages show on the display units.
 - (b) Each message 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
 - E Communications messages (with aural chime)
 - F Communications 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

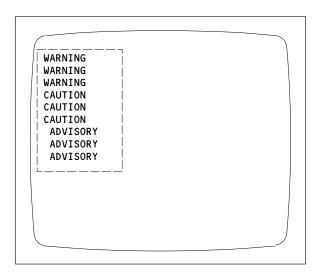
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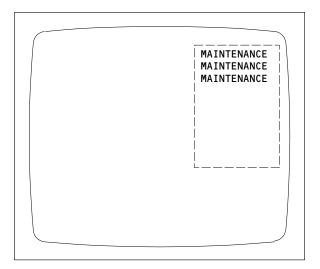
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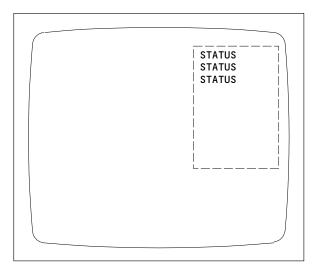




ENGINE PRIMARY PAGE OR COMPACTED PAGE (TOP DISPLAY UNIT)



ECS/MSG PAGE (BOTTOM DISPLAY UNIT)



STATUS PAGE (BOTTOM DISPLAY UNIT)

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

EICAS Message Locations Figure 1

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EICAS MESSAGE LIST		
EICAS MESSAGE	LEVEL	PROCEDURE
ALT CALLOUTS	С	This message shows when there is a problem with the EGPWC altitude callout function. The most likely cause is a problem with the radio altitude data. Refer to FIM 34-46-00/101, Fig. 103.
ALTITUDE ALERT	В	Replace the altitude alert module, M617 (AMM 34-16-01/401).
ALT DISAGREE	В	FIM 34-12-00/101, Fig. 104.
ATC FAULT	С	FIM 34-53-00/101, Fig. 103
ATT DISAGREE	В	FIM 34-21-00/101, Fig. 107
ATT FAIL	С	Do a check for a nuisance EICAS message: Put the EICAS computer select switch to an alternative position. If the message does not show, open and then close the circuit breaker for the EICAS computer that shows the nuisance message. If the problem continues, replace the EICAS computer that shows the nuisance message. This message is used only during self-test. If this message is not a nuisance message and shows during usual operation, replace the instrument comparator unit (AMM 34-25-01/401).
COMPARATOR BITE	S,M NVM	FIM 34-25-00/101, Fig. 103
F/O PVD	С	EICAS OPS S/W -01 THRU -03; Do a check for a nuisance EICAS message: Put the EICAS computer select switch to an alternative position. If the message does not show, open and then close the circuit breaker for the EICAS computer that shows the nuisance message. If the problem continues, replace the EICAS computer that shows the nuisance message.

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EICAS MESSAGE LIST		
EICAS MESSAGE	LEVEL	PROCEDURE
FAST/SLOW FAIL	С	Do a check for a nuisance EICAS message: Put the EICAS computer select switch to an alternative position. If the message does not show, open and then close the circuit breaker for the EICAS computer that shows the nuisance message. If the problem continues, replace the EICAS computer that shows the nuisance message. Used only during self-test. If this message shows during usual operation, replace the instrument comparator unit (AMM 34-25-01/401).
FD COMMAND FAIL	С	Used only during self-test. If this message shows during usual operation, replace the instrument comparator unit (AMM 34-25-01/401).
FMC MESSAGE	С	FIM 34-61-00/101, Fig. 109
GND PROX BITE	S,M	FIM 34-46-00/101, Fig. 103
GND PROX SYS	С	FIM 34-46-00/101, Fig. 103
GND PROX SYS	S,M	FIM 34-46-00/101, Fig. 103
GPS	С	Replace the left and right multimode receivers (AMM 34-31-01/401).
G/S DISAGREE	С	Do a check for a nuisance EICAS message: Put the EICAS computer select switch to an alternative position. If the message does not show, open and then close the circuit breaker for the EICAS computer that shows the nuisance message. If the problem continues, replace the EICAS computer that shows the nuisance message. Used only during self-test. If this message shows during usual operation, replace the instrument comparator unit (AMM 34-25-01/401).

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ALL



EICAS MESSAGE LIST		
EICAS MESSAGE	LEVEL	PROCEDURE
G/S FAIL	С	Do a check for a nuisance EICAS message: Put the EICAS computer select switch to an alternative position. If the message does not show, open and then close the circuit breaker for the EICAS computer that shows the nuisance message. If the problem continues, replace the EICAS computer that shows the nuisance message. Used only during self-test. If this message shows during usual operation, replace the instrument comparator unit (AMM 34-25-01/401).
HDG DISAGREE	С	Do a check for a nuisance EICAS message: Put the EICAS computer select switch to an alternative position. If the message does not show, open and then close the circuit breaker for the EICAS computer that shows the nuisance message. If the problem continues, replace the EICAS computer that shows the nuisance message. GUI 115; If the message is not a nuisance message, see FIM 34-24-00/101, Fig. 107. GUI 001-114, 116-999; Used only during self-test. If this message shows during usual operation, replace the instrument comparator unit (AMM 34-25-01/401).
HDG FAIL	С	Do a check for a nuisance EICAS message: Put the EICAS computer select switch to an alternative position. If the message does not show, open and then close the circuit breaker for the EICAS computer that shows the nuisance message. If the problem continues, replace the EICAS computer that shows the nuisance message. Used only during self-test. If this message shows during usual operation, replace the instrument comparator unit (AMM 34-25-01/401).
IAS DISAGREE	В	FIM 34-12-00/101, Fig. 107.

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EICAS MESSAGE LIST		
EICAS MESSAGE	LEVEL	PROCEDURE
INSTR SWITCH	В	If "INSTR SWITCH" shows when only one of the two EFI switches are in the ALTN position, replace the L (R) EFI source select switch, S3 (S11) (AMM 33-13-00/201). If the problem continues, examine and repair the applicable circuits (WDM 34-22-17, WDM 34-22-27).
L(R) FMC FAIL	С	FIM 34-61-00/101, Fig. 108B
L(R) GPS	С	Replace the left (right) multimode receiver (AMM 34-31-01/401).
L(R,C) IRS DC FAIL	С	Restore DC power (AMM 24-22-00/201). If the problem continues, refer to FIM 34-21-00/101, Fig. 105
L(R,C) IRS FAULT	С	FIM 34-21-00/101, Fig. 107
L(R,C) IRS ON DC	С	Restore AC power (AMM 24-22-00/201). If the problem continues, refer to FIM 34-21-00/101, Fig. 106
LOC DISAGREE	С	Do a check for a nuisance EICAS message: Put the EICAS computer select switch to an alternative position. If the message does not show, open and then close the circuit breaker for the EICAS computer that shows the nuisance message. If the problem continues, replace the EICAS computer that shows the nuisance message. Used only during self-test. If this message shows during usual operation, replace the instrument comparator unit (AMM 34-25-01/401).

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ALL



EICAS MESSAGE LIST		
EICAS MESSAGE	LEVEL	PROCEDURE
LOC FAIL	С	Do a check for a nuisance EICAS message: Put the EICAS computer select switch to an alternative position. If the message does not show, open and then close the circuit breaker for the EICAS computer that shows the nuisance message. If the problem continues, replace the EICAS computer that shows the nuisance message. This message is used only during self-test. If this message is not a nuisance message and shows during usual operation, replace the instrument comparator unit (AMM 34-25-01/401).
OVERSPEED	А	 Visually examine the airplane structure (AMM 05-51-04/201). Do the Air Data System - Operational Test (AMM 34-12-00/501). If an air data computer fails, replace the applicable air data computer (AMM 34-12-01/401).
PILOT RESPONSE	A,B,C	No activity has been detected on the MCP, EFIS/EICAS, Radio Control Panel, MCDU, or HF/VHF radios. Do a check for a nuisance EICAS message: Put the EICAS computer select switch to an alternative position. If the message does not show, open and then close the circuit breaker for the EICAS computer that shows the nuisance message. If the problem continues, replace the EICAS computer that shows the nuisance message.

ALL

34-EICAS MESSAGES



EICAS MESSAGE LIST					
EICAS MESSAGE	LEVEL	PROCEDURE			
RA DISAGREE	С	Do a check for a nuisance EICAS message: Put the EICAS computer select switch to an alternative position. If the message does not show, open and then close the circuit breaker for the EICAS computer that shows the nuisance message. If the problem continues, replace the EICAS computer that shows the nuisance message. Used only during self-test. If this message shows during usual operation, replace the instrument comparator unit (AMM 34-25-01/401).			
TCAS	С	FIM 34-45-00/101, Fig. 103			
TCAS FAIL	С	FIM 34-45-00/101, Fig. 103			
TCAS OFF	С	TCAS is in TA or TA/RA mode. No maintenand action is necessary.			
TERR OVRD	С	This message shows when the TERR OVRD switch is in the OVRD position. If the message shows when the switch is not in th OVRD position, do the Ground Proximity Warning Computer BITE Procedure (FIM 34-46-00/101, Fig. 103).			
TERR POS	С	This message shows when there is not enough accuracy in the horizontal position data or if the horizontal position data is not available. This message will stop showing when the accuracy returns or when the data becomes available. If the message continues to show, do the Ground Proximity Warning Computer Bite Procedure (FIM 34-46-00/101, Fig. 103).			
TERR SYS	S	This message shows if there is a problem with the EGPWS terrain clearance floor or terrain awareness and display functions. Do the Ground Proximity Warning Computer BITE Procedure (FIM 34-46-00/101, Fig. 103).			

EFFECTIVITY-

34-EICAS MESSAGES

ALL

' Page 8 Sep 28/03



EICAS MESSAGE LIST					
EICAS MESSAGE	LEVEL	PROCEDURE			
TRACK DISAGREE	С	GUI 115; FIM 34-21-00/101, Fig. 107 GUI 001-114, 116-999; Used only during self-test. If this message shows during usual operation, replace the instrument comparator unit (AMM 34-25-01/401).			
TRACK FAIL	С	Do a check for a nuisance EICAS message: Put the EICAS computer select switch to an alternative position. If the message does not show, open and then close the circuit breaker for the EICAS computer that shows the nuisance message. If the problem continues, replace the EICAS computer that shows the nuisance message. Used only during self-test. If this message shows during usual operation, replace the instrument comparator unit (AMM 34-25-01/401).			
UNABLE RNP	В,С	Required navigation performance accuracy has not been met. Message is for flight crew awareness only. No maintenance action is necessary.			
WINDSHEAR PRED	S	Open then close this circuit breaker on the P11 panel: 11F2, WXR L / 11F27 WXR R (if installed). If the problem continues, do this task: Replace the weather radar transceiver (AMM 34-43-01/401). If the problem continues, refer to FIM 34-43-00/101, Fig. 103.			

EFFECTIVITY-

34-EICAS MESSAGES

ALL



EICAS MESSAGE LIST				
EICAS MESSAGE	LEVEL	PROCEDURE		
WINDSHEAR SYS	С	If this message shows and the "WINDSHEAR PRED" message shows, do the procedure for the "WINDSHEAR PRED" message. If this message shows and the "WINDSHEAR REAC" message shows, do the procedure for the "WINDSHEAR REAC" message.		
WXR SYS	S,M (NVM)	Open and then close this circuit breaker on the P11 panel: 11F2, WXR L/ 11F27 WXR R (if installed). If the problem continues, do this task: FIM 34-43-00/101, Fig. 103.		

EFFECTIVITY-

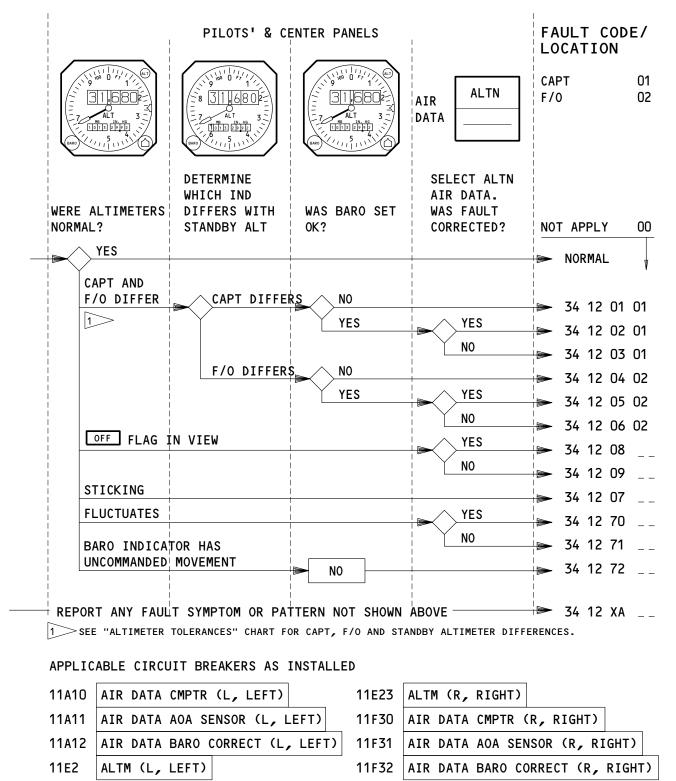
ALL

34-EICAS MESSAGES

80

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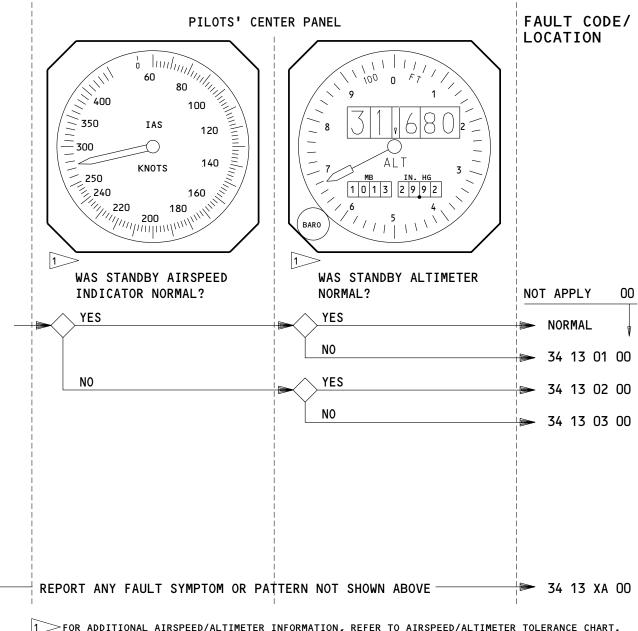




ELECTRIC ALTIMETER - FAULT CODES

34-FAULT CODE DIAGRAM





1 FOR ADDITIONAL AIRSPEED/ALTIMETER INFORMATION, REFER TO AIRSPEED/ALTIMETER TOLERANCE CHART.

APPLICABLE CIRCUIT BREAKERS

11A8 STBY ALTM VIB

STANDBY AIRSPEED AND ALTIMETER - FAULT CODES

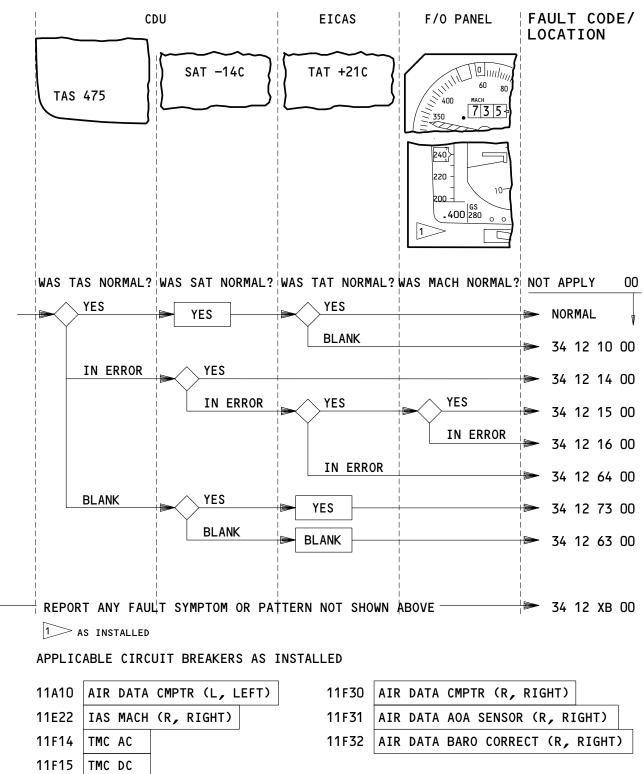
EFFECTIVITY-ALL

34-FAULT CODE DIAGRAM

02

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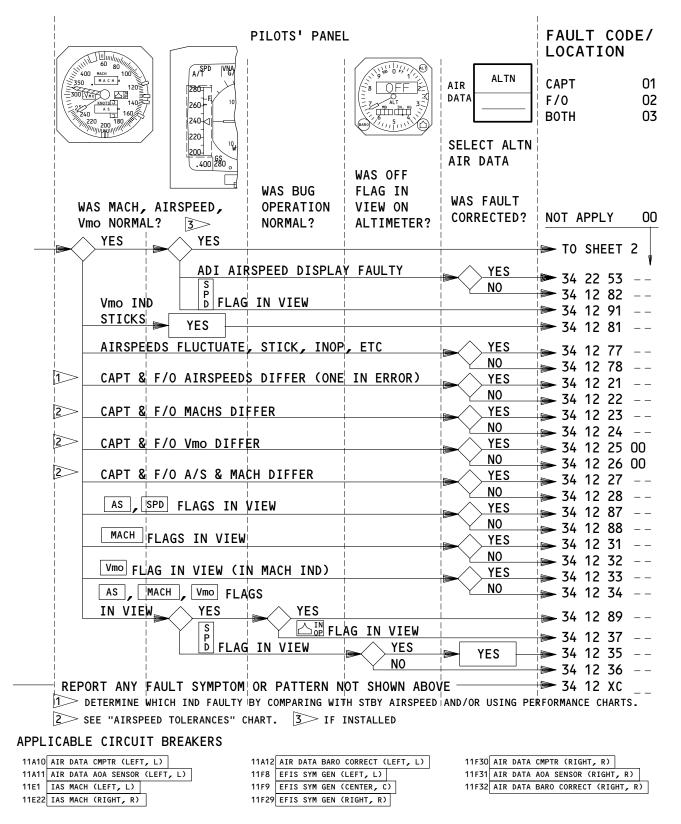
TAS, SAT AND TAT - FAULT CODES

ALL

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ELECTRIC MACH, AIRSPEED & ALTN AIR DATA (SHEET 1) - FAULT CODES

EFFECTIVITY-ALL

34-FAULT CODE DIAGRAM

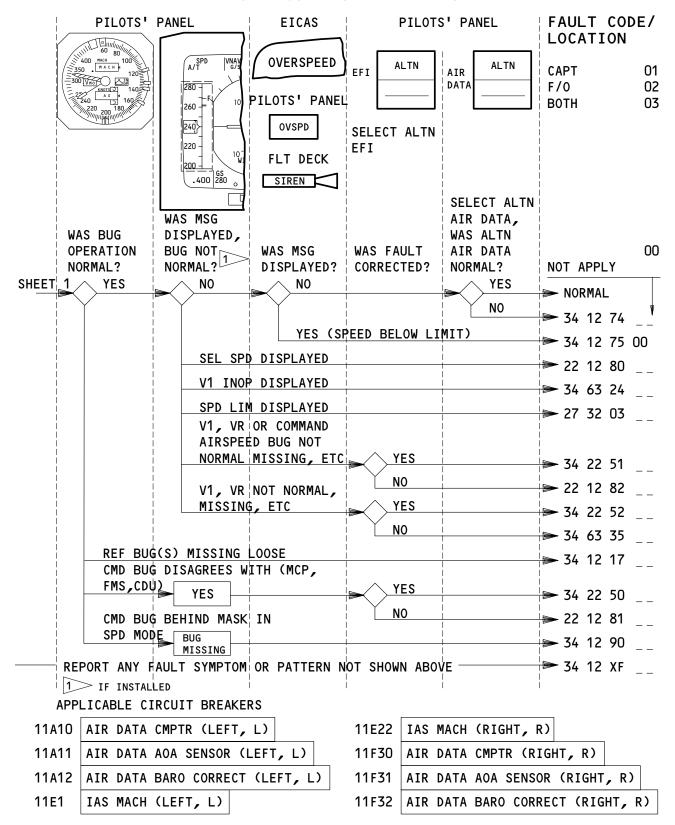
07

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A52140



FAULT ISOLATION/MAINT MANUAL



ELECTRIC MACH, AIRSPEED & ALTN AIR DATA (SHEET 2) - FAULT CODES

EFFECTIVITY-ALL

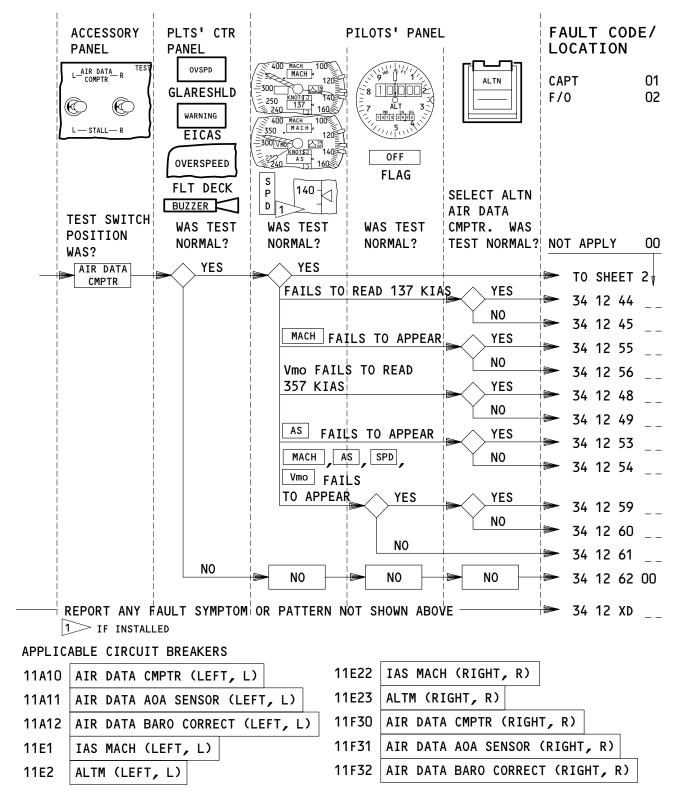
34-FAULT CODE DIAGRAM

80

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A52147



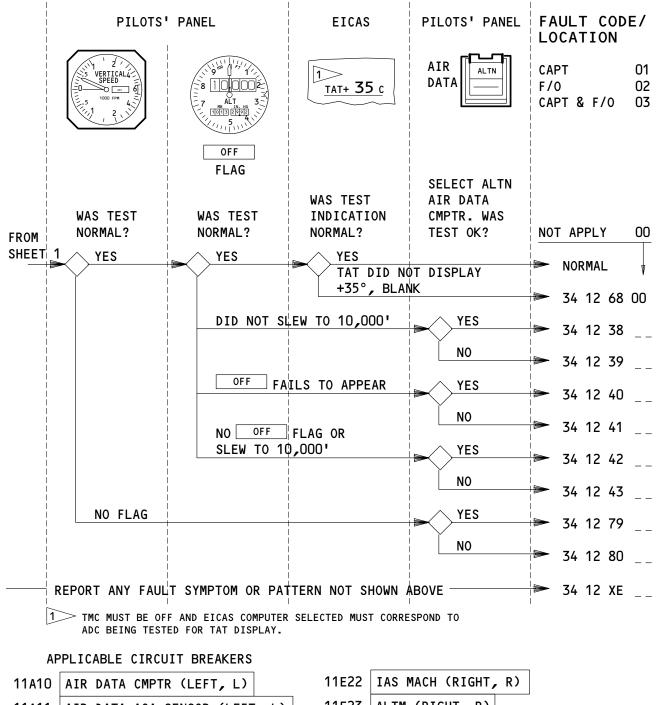


AIR DATA COMPUTER TEST (SHEET 1) - FAULT CODES

34-FAULT CODE DIAGRAM

09 Page 6 May 28/01





11A10	AIR DATA CMPTR (LEFT, L)	11E22	IAS MACH (RIGHT, R)
11A11	AIR DATA AOA SENSOR (LEFT, L)	11E23	ALTM (RIGHT, R)
11A12	AIR DATA BARO CORRECT (LEFT, L)	11F30	AIR DATA CMPTR (RIGHT, R)
11E1	IAS MACH (LEFT, L)	11F31	AIR DATA AOA SENSOR (RIGHT, R)
11E2	ALTM (LEFT, L)	11F32	AIR DATA BARO CORRECT (RIGHT, R)

AIR DATA COMPUTER TEST (SHEET 2) - FAULT CODES

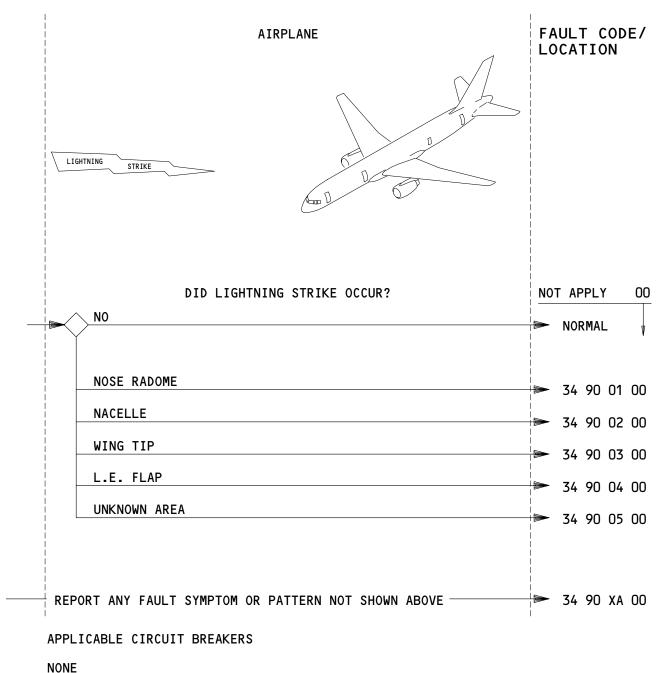
ALL

34-FAULT CODE DIAGRAM

05

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LIGHTNING STRIKE - FAULT CODES

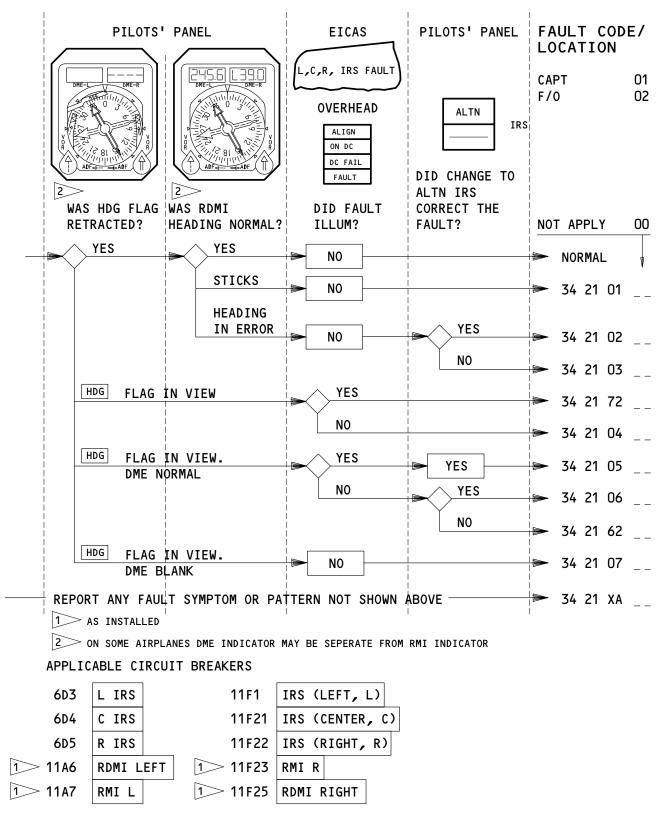
EFFECTIVITY ALL

34-FAULT CODE DIAGRAM

01

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RDMI HEADING - FAULT CODES

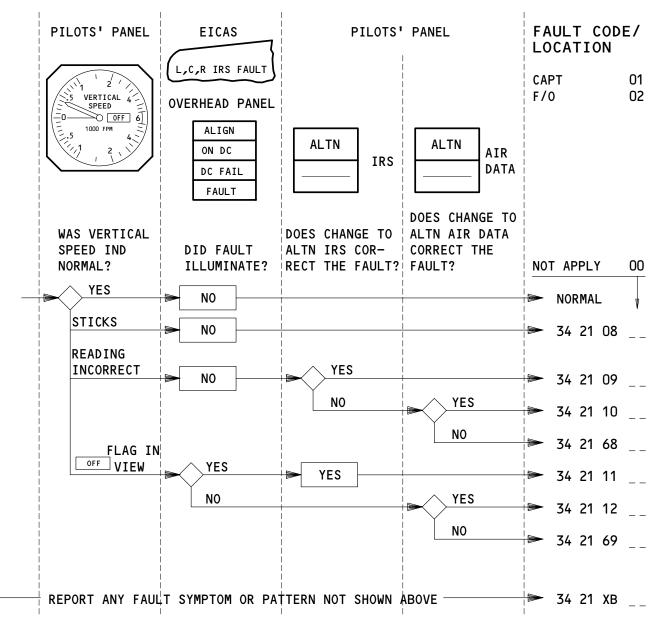
ALL ALL

34-FAULT CODE DIAGRAM

80

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APPLICABLE CIRCUIT BREAKERS

6D3	IRS L	11E26	VSI (RIGHT, R)
6D4	IRS C	11F1	IRS (LEFT, L)
6D5	IRS R	11F21	IRS (CENTER, C)
11E5	VSI (LEFT, L)	11F22	IRS (RIGHT, R)

VERTICAL SPEED INDICATOR - FAULT CODES

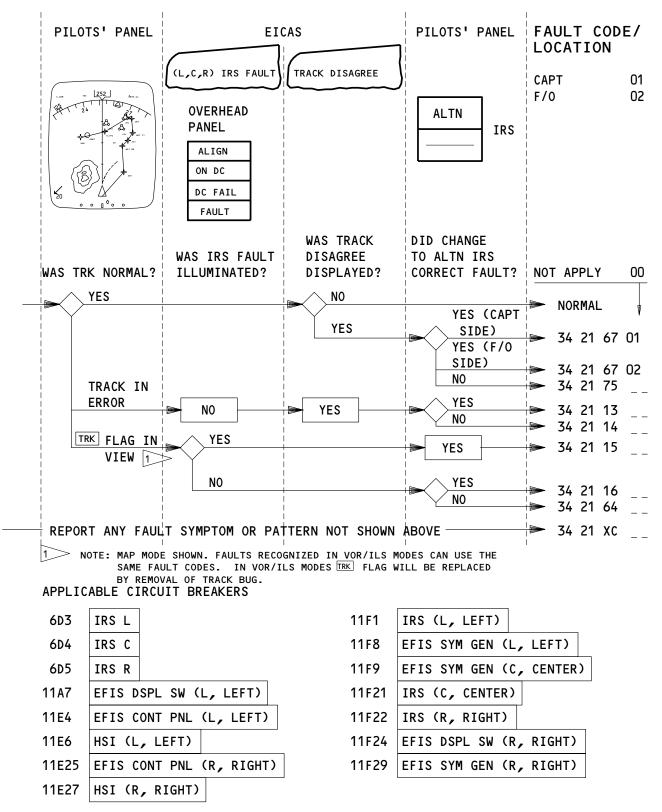
ALL

34-FAULT CODE DIAGRAM

09

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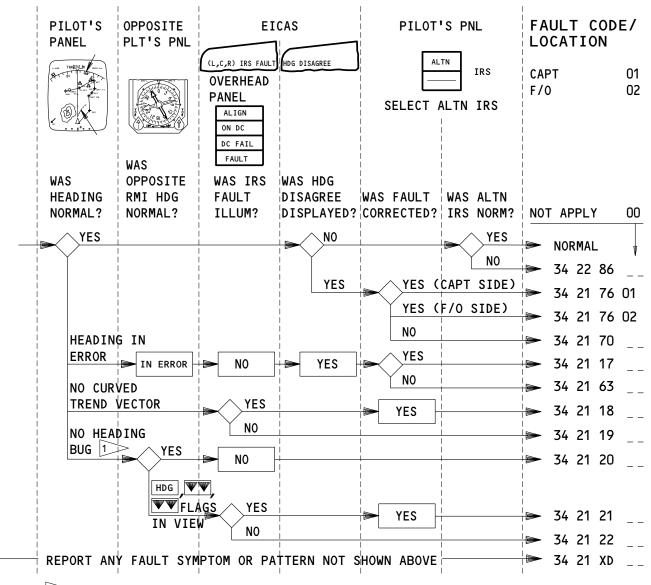
HSI TRACK - FAULT CODES

34-FAULT CODE DIAGRAM

02 Page 11

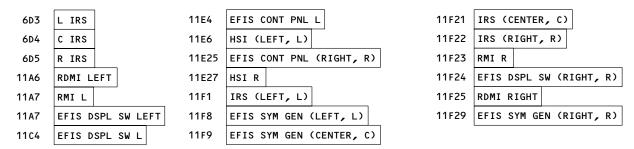


FAULT ISOLATION/MAINT MANUAL



NOTE: MAP MODE SHOWN. FAULTS RECOGNIZED IN VOR/ILS MODES CAN USE THE SAME FAULT CODES. IN VOR/ILS MODES "NO HEADING BUG" WILL BE REPLACED BY HDG FLAGS.

APPLICABLE CIRCUIT BREAKERS AS INSTALLED



HSI HEADING, TREND VECTOR & ALTN IRS - FAULT CODES

34-I

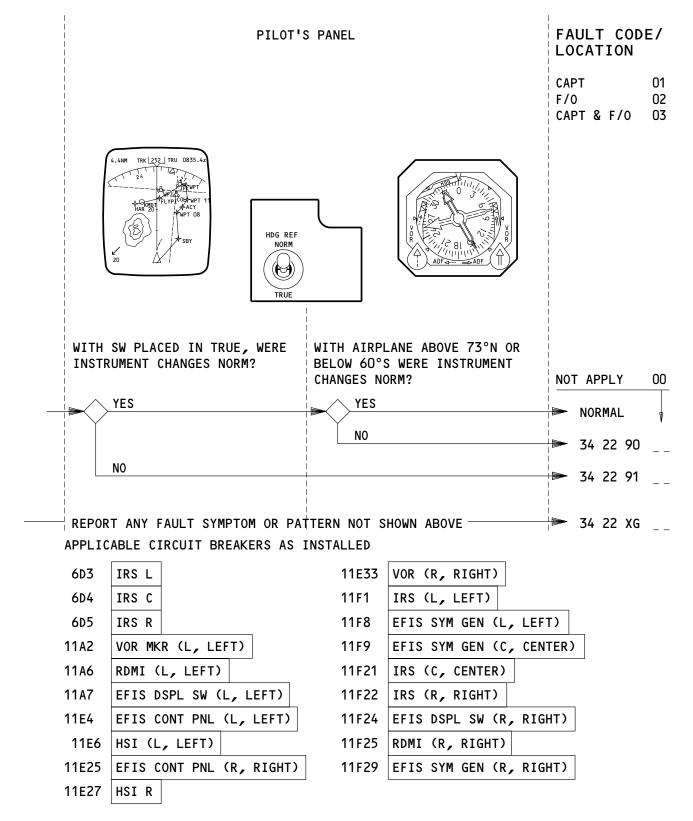
34-FAULT CODE DIAGRAM

02

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A51693





HEADING REFERENCE - FAULT CODES

ALL

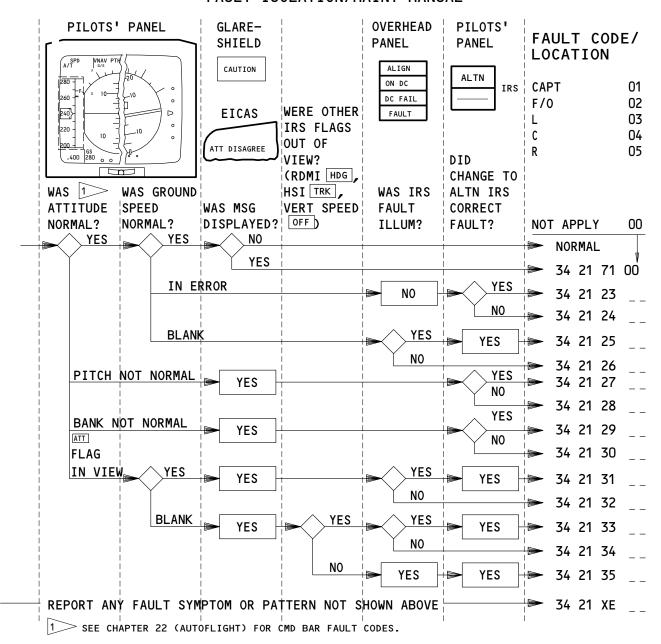
34-FAULT CODE DIAGRAM

02

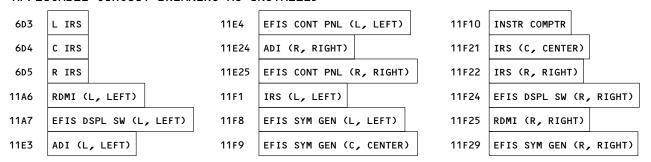
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FAULT ISOLATION/MAINT MANUAL



APPLICABLE CIRCUIT BREAKERS AS INSTALLED



ADI ATTITUDE AND GROUND SPEED - FAULT CODES

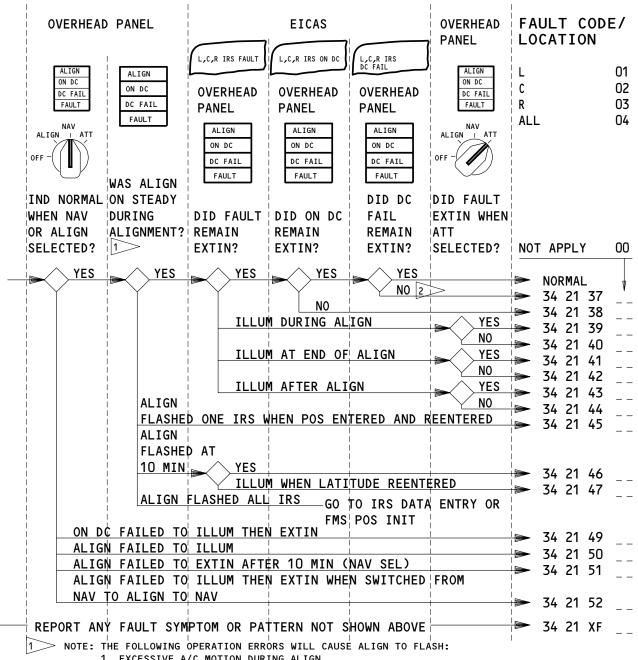
EFFECTIVITY-ALL

34-FAULT CODE DIAGRAM

05

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1. EXCESSIVE A/C MOTION DURING ALIGN.

2. ENTERED LONG FAILS TO MATCH LAST POS OF IRS.

3. ENTERED LAT FAILS TO MATCH IRS CALCULATED LAT.

APPLICABLE CIRCUIT BREAKERS AS INSTALLED

6D3	L IRS	6D5	R IRS		11F21	IRS	(C, CEN	ITER)
6D4	C IRS	11F1	IRS (L,	LEFT)	11F22	IRS	(R, RIG	HT)

IRS MODE SEL PANEL - FAULT CODES

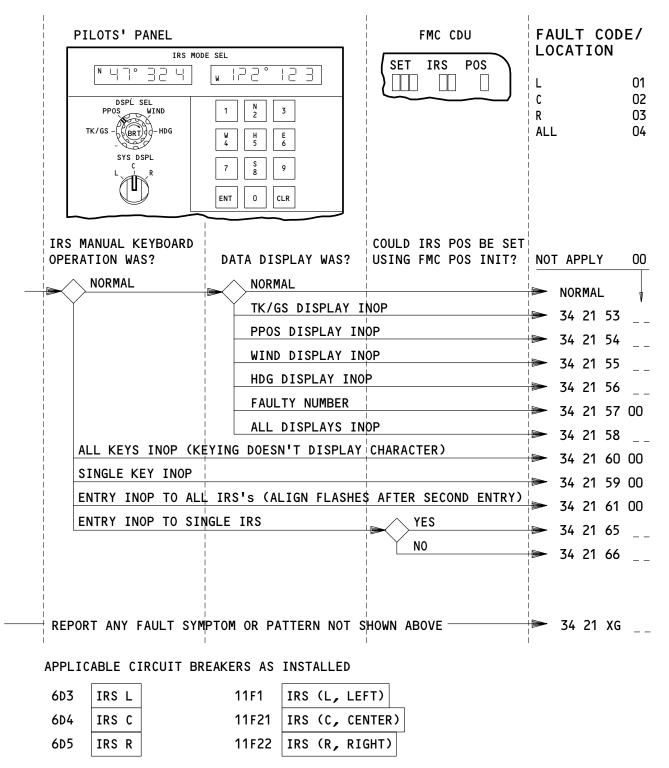
EFFECTIVITY-ALL

34-FAULT CODE DIAGRAM

01

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IRS DATA ENTRY AND DISPLAY - FAULT CODES

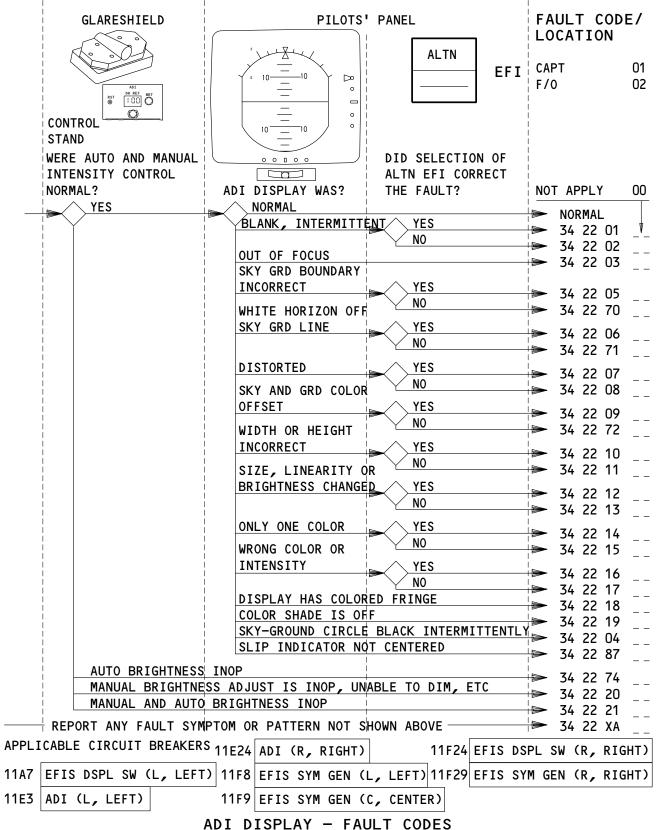
ALL ALL

34-FAULT CODE DIAGRAM

01

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ADI DISPLAT - PAULI CODES

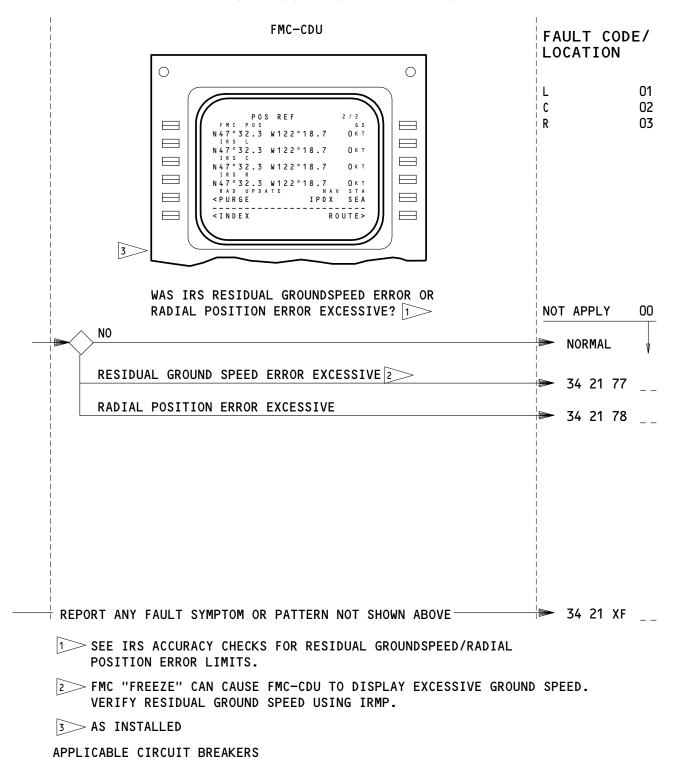
EFFECTIVITY-

ALL

34-FAULT CODE DIAGRAM

01

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IRS ACCURACY - FAULT CODES

ALL ALL

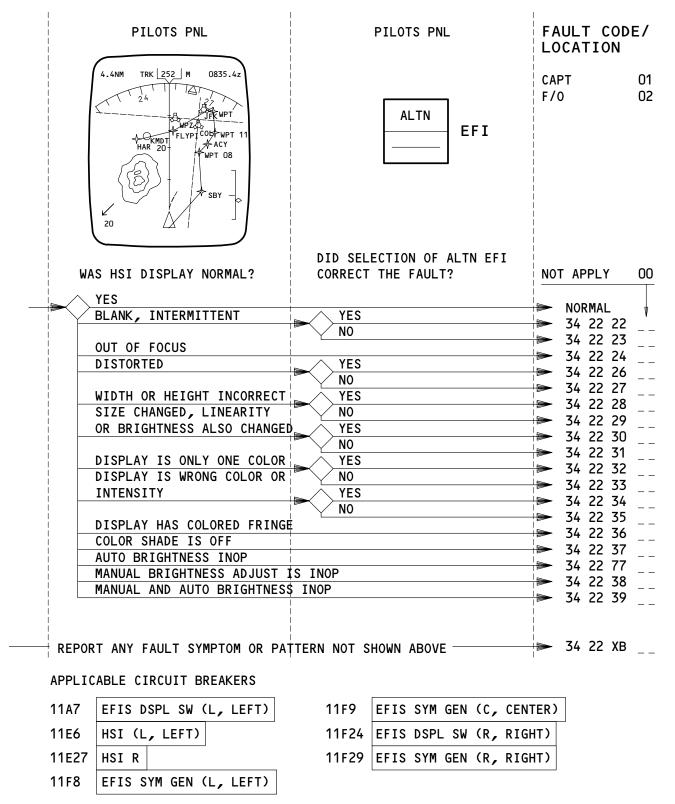
NONE

34-FAULT CODE DIAGRAM

01

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HSI DISPLAY - FAULT CODES

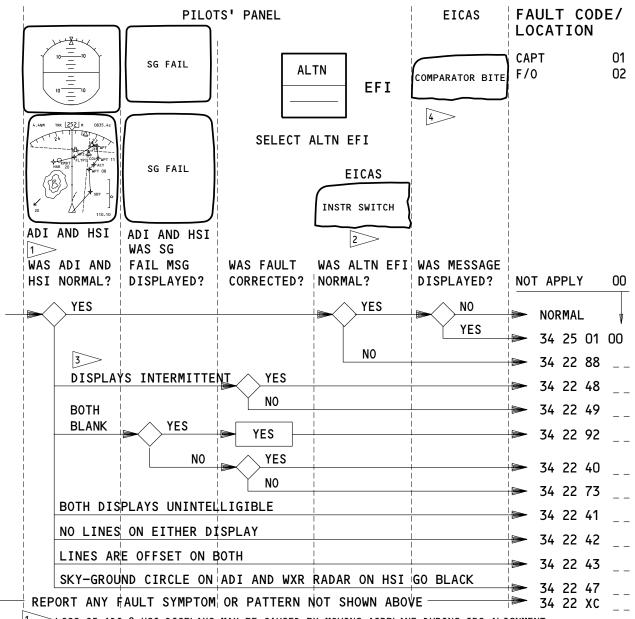
ALL

34-FAULT CODE DIAGRAM

05

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FAULT ISOLATION/MAINT MANUAL



1 LOSS OF ADI & HSI DISPLAYS MAY BE CAUSED BY MOVING AIRPLANE DURING IRS ALIGNMENT.

APPLICABLE CIRCUIT BREAKERS AS INSTALLED

11E3	ADI (L, LEFT)	11E27	HSI R 11F20	RADIO ALTM (C, CENTER)
11E6	HSI (L, LEFT)	11F8	EFIS SYM GEN (L, LEFT) 11F29	EFIS SYM GEN (R, RIGHT)
11E24	ADI (R, RIGHT)	11F9	EFIS SYM GEN (C, CENTER)	

ALTN EFI, ADI AND HSI - FAULT CODES

EFFECTIVITY-

34-FAULT CODE DIAGRAM

02

ALL

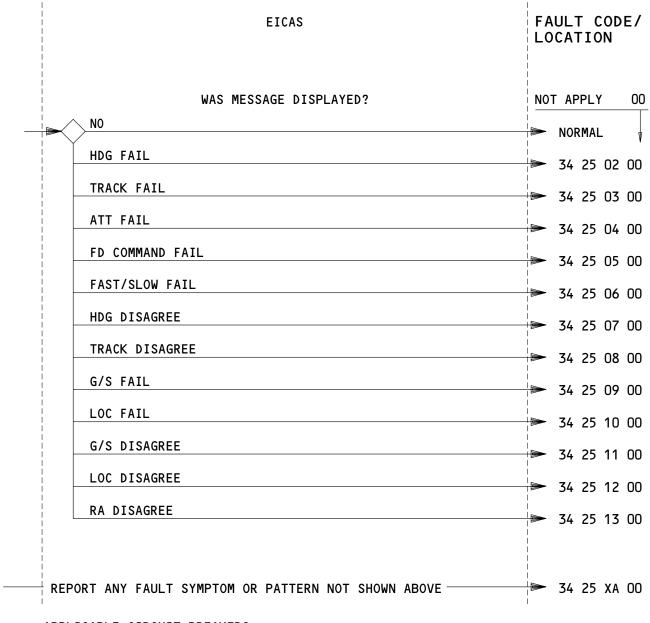
Page 20 May 28/01

² EICAS MSG DISPLAYS IF BOTH CAPT & F/O EFI SELECTED TO ALTN.

FAULT CODES.

FAILURE OF THE INSTRUMENT COMPARITOR UNIT (IF INSTALLED) MAY PRODUCE ASSOCIATED EICAS MESSAGE DISPLAYS. REFER TO NAVIGATION CHAPTER, "COMPARATOR BITE EICAS MESSAGE."





APPLICABLE CIRCUIT BREAKERS

NONE

COMPARATOR BITE EICAS MESSAGE - FAULT CODES

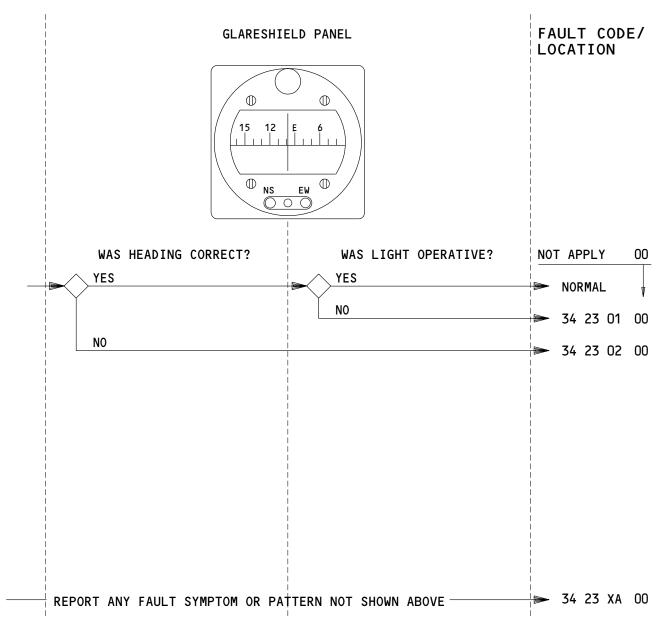
EFFECTIVITY ALL

34-FAULT CODE DIAGRAM

02

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APPLICABLE CIRCUIT BREAKERS AS INSTALLED

11B7 LIGHTS (STBY) INSTR

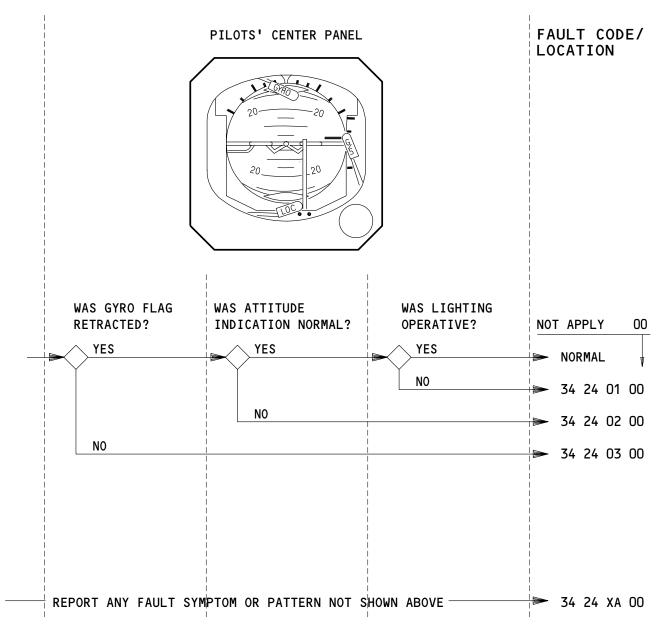
STANDBY COMPASS - FAULT CODES

34-FAULT CODE DIAGRAM

04

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APPLICABLE CIRCUIT BREAKERS AS INSTALLED

11A5 STBY ATT IND
11B7 LIGHTS (STBY) INSTR

STANDBY ATTITUDE INDICATOR - FAULT CODES

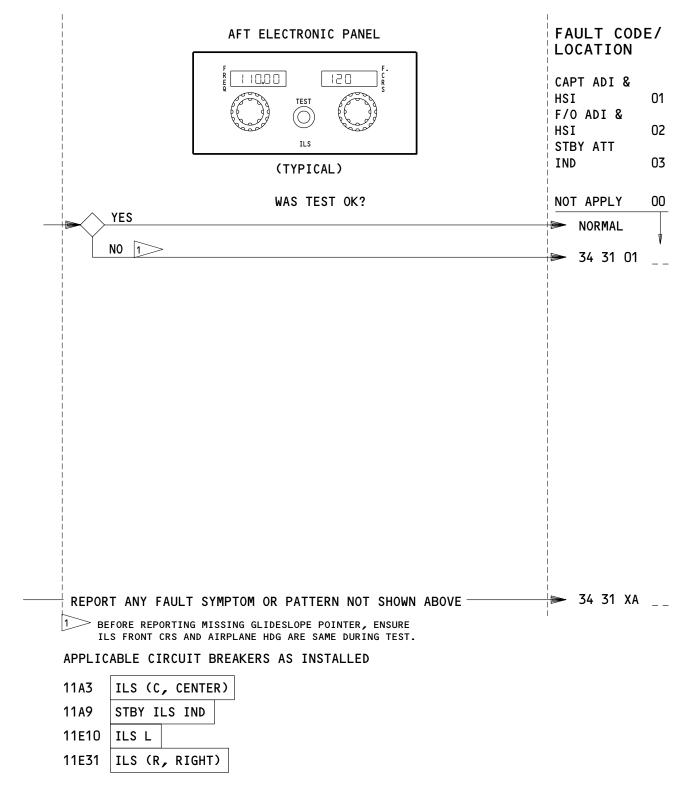
ALL ALL

34-FAULT CODE DIAGRAM

05

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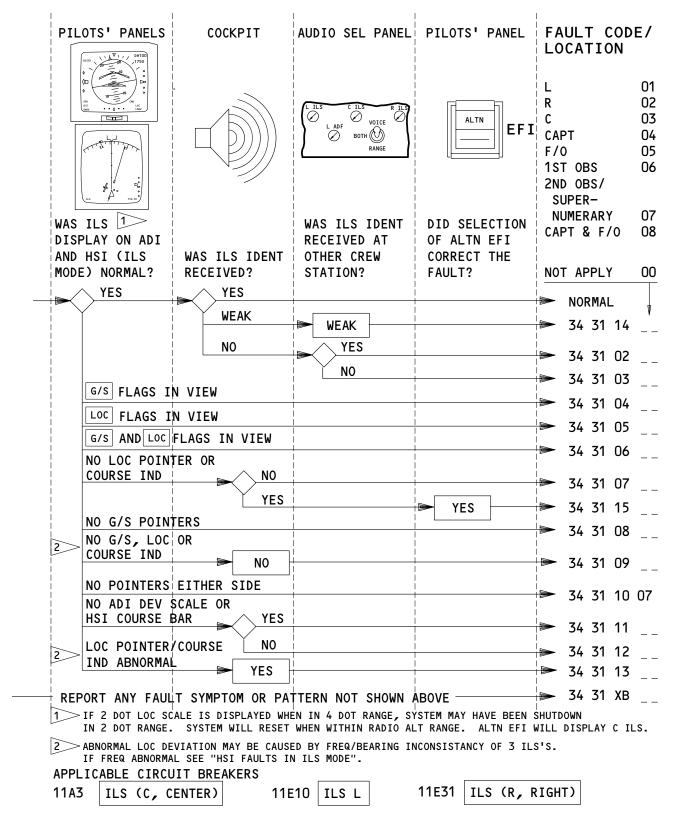
ILS TEST - FAULT CODES

ALL

34-FAULT CODE DIAGRAM

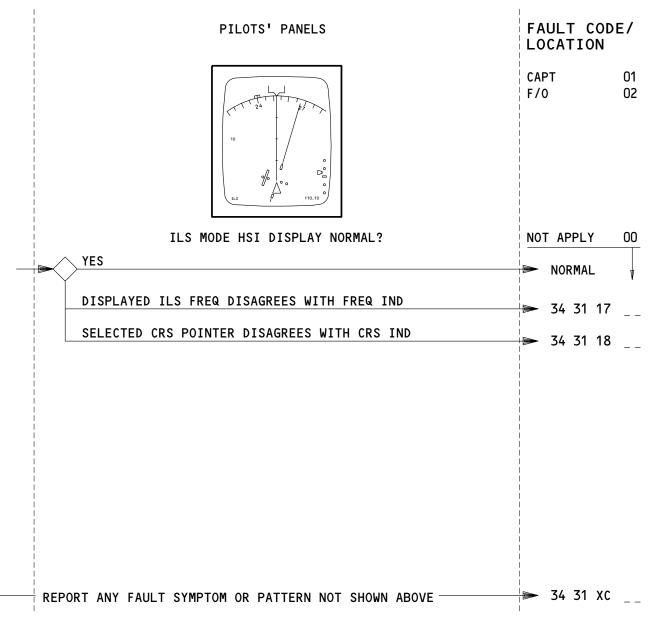
05

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ILS ADI/HSI DISPLAYS AND IDENT - FAULT CODES

34-FAULT CODE DIAGRAM



APPLICABLE CIRCUIT BREAKERS AS INSTALLED

11E10 ILS L 11E31 ILS (R, RIGHT)

HSI FAULTS IN ILS MODE - FAULT CODES

EFFECTIVITY-

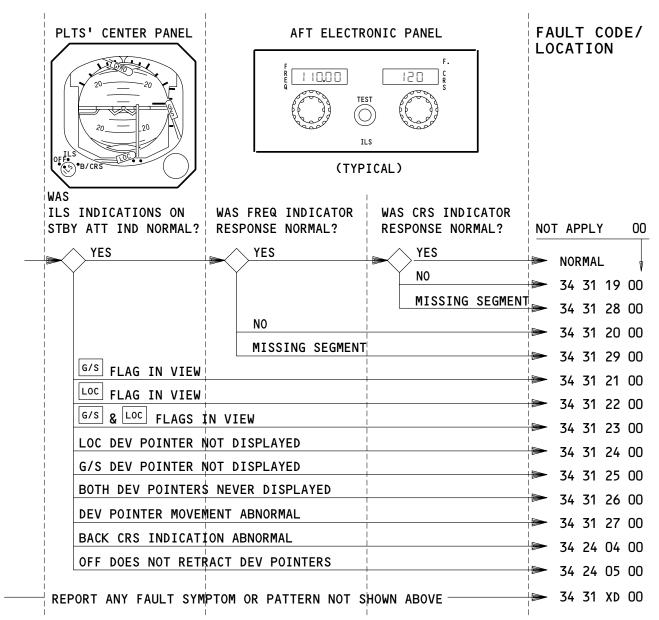
34-FAULT CODE DIAGRAM

04

ALL

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APPLICABLE CIRCUIT BREAKERS AS INSTALLED

11A3 ILS (C, CENTER)
11A9 STBY ILS IND

ILS STANDBY ATTITUDE DISPLAY AND ILS CONTROLS - FAULT CODES

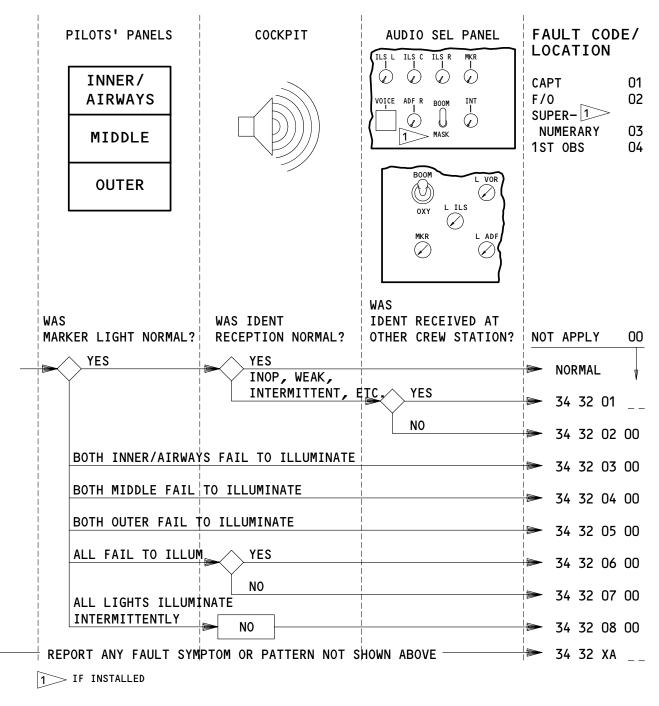
ALL

34-FAULT CODE DIAGRAM

05

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APPLICABLE CIRCUIT BREAKERS

11A2 VOR MKR (LEFT, L)

MARKER BEACON - FAULT CODES

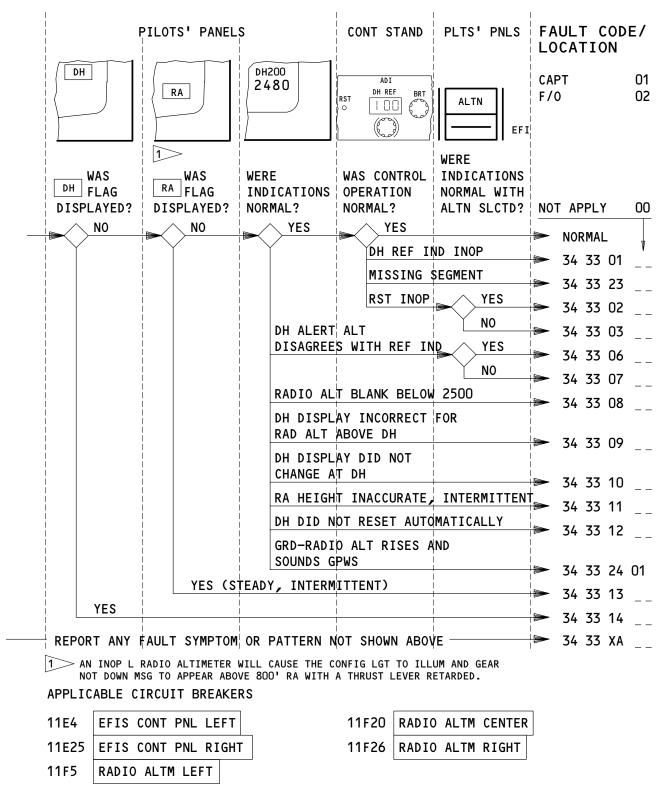
ALL

34-FAULT CODE DIAGRAM

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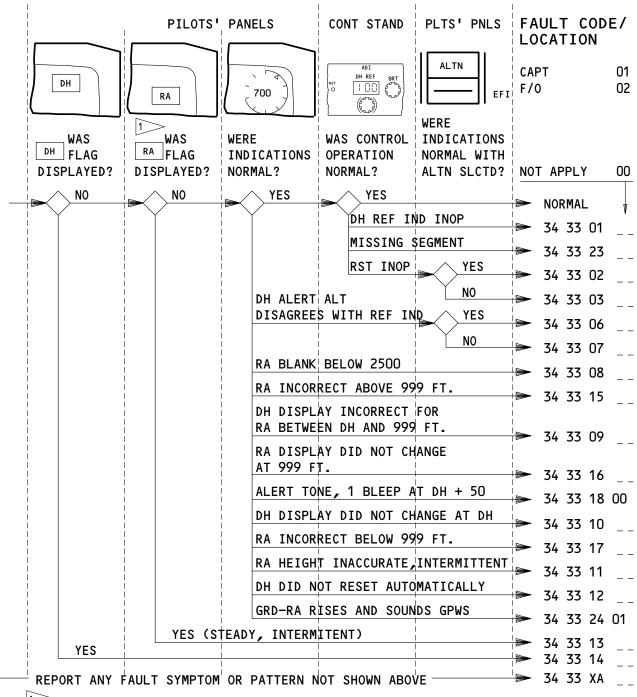
RADIO ALTIMETER & DH (ADI) - FAULT CODES

34-FAULT CODE DIAGRAM

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AN INOP L RADIO ALTIMETER WILL CAUSE THE CONFIG LGT TO ILLUM AND GEAR NOT DOWN MSG TO APPEAR ABOVE 800' RA WITH A THRUST LEVER RETARDED.

APPLICABLE CIRCUIT BREAKERS

RADIO ALTIMETER & DH (ADI) - FAULT CODES

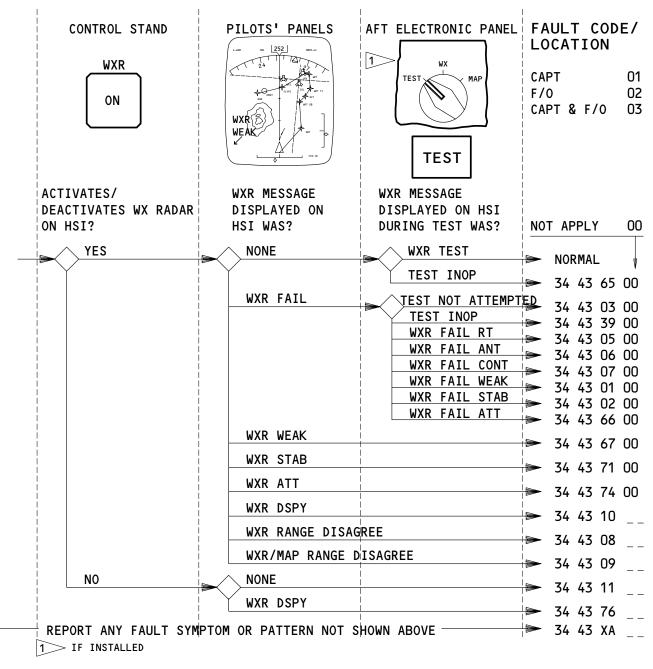
AIRPLANES WITH DIAL RA > 1000'

34-FAULT CODE DIAGRAM

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APPLICABLE CIRCUIT BREAKERS

11F2 WX RADAR

WEATHER RADAR FAULTS (HSI) - FAULT CODES

ALL

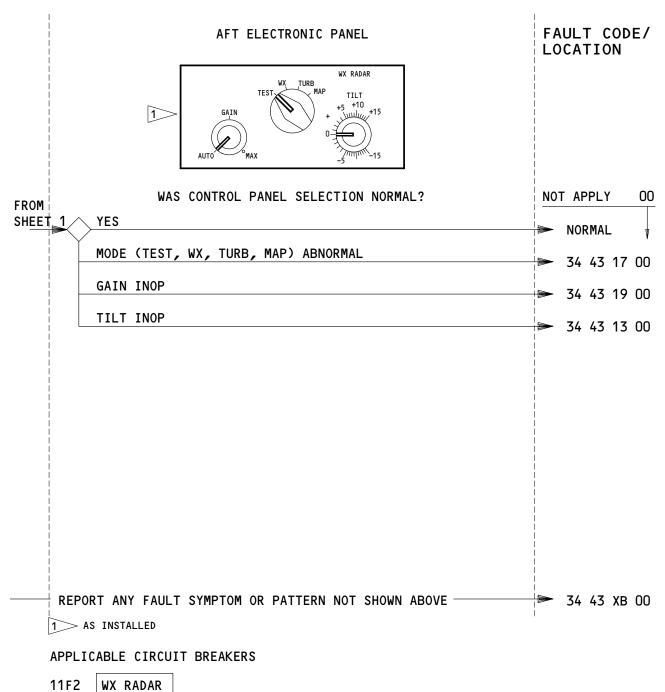
34-FAULT CODE DIAGRAM

16

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A54201





WEATHER RADAR CONTROLS - FAULT CODES

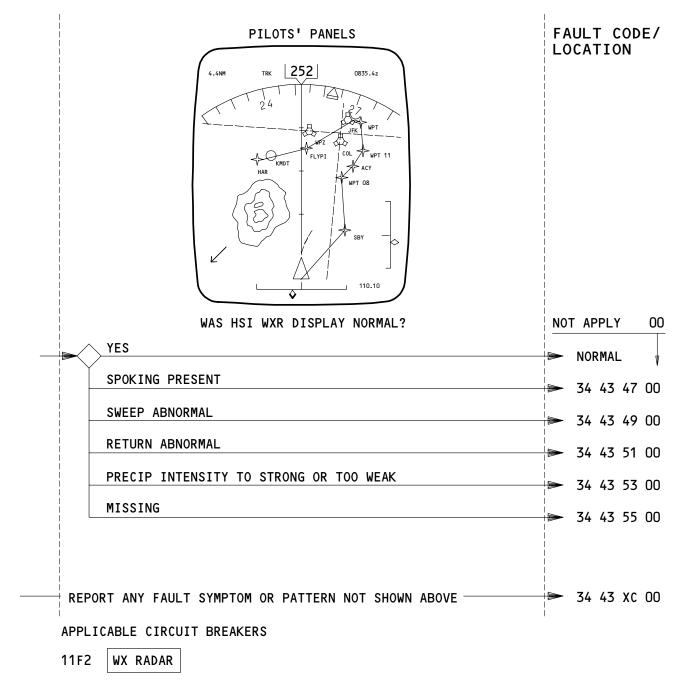
EFFECTIVITY-

34-FAULT CODE DIAGRAM

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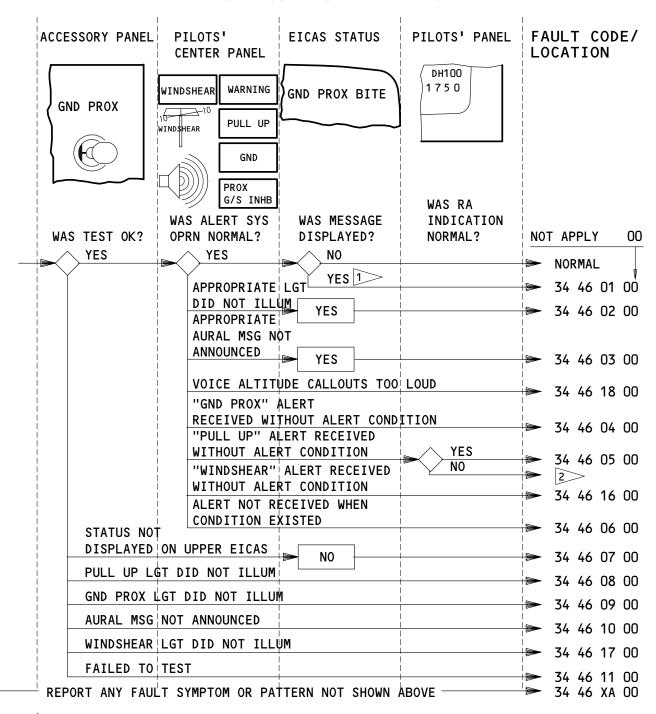
WEATHER RADAR DISPLAY QUALITY - FAULT CODES

ALL

34-FAULT CODE DIAGRAM

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1> GND PROX BITE WILL NOT DISPLAY WITH L-IRS OFF.

2 > SEE "RADIO ALTIMETER & DH (ADI)" FAULT CODES.

APPLICABLE CIRCUIT BREAKERS

11F4 GND PROX (CMPTR)

ALL

GROUND PROXIMITY & WINDSHEAR WARNING TEST AND OPERATION - FAULT CODES

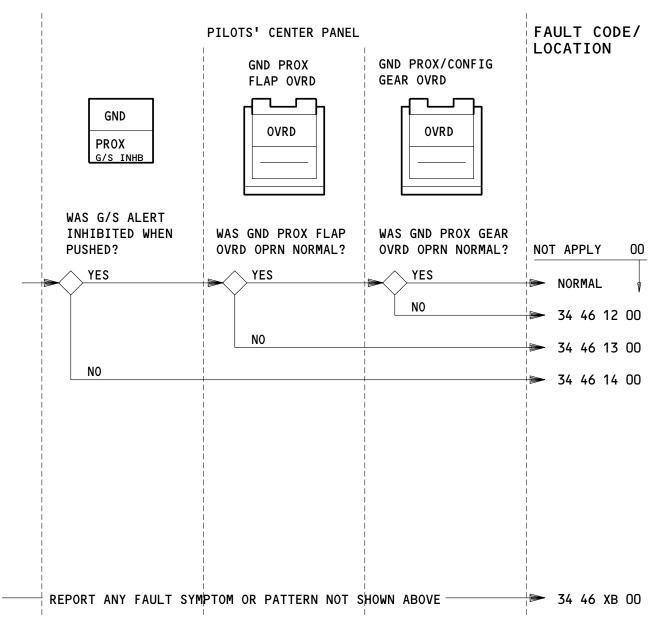
THE STREET STREE

34-FAULT CODE DIAGRAM

09

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11F4 GND PROX (CMPTR)

GROUND PROXIMITY WARNING, INHB & OVRD - FAULT CODES

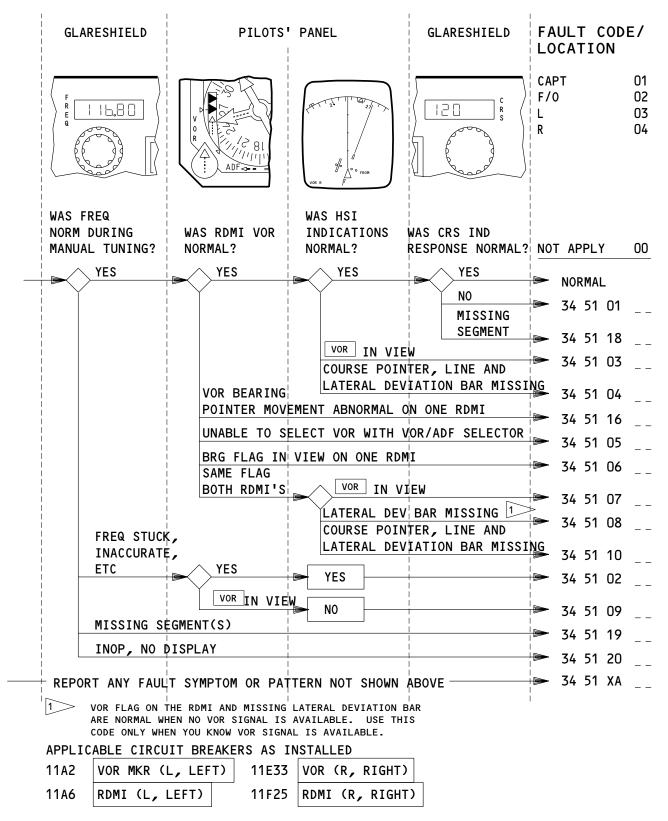
ALL

34-FAULT CODE DIAGRAM

03

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VOR - CONTROL AND DISPLAY - FAULT CODES

EFFECTIVITY-

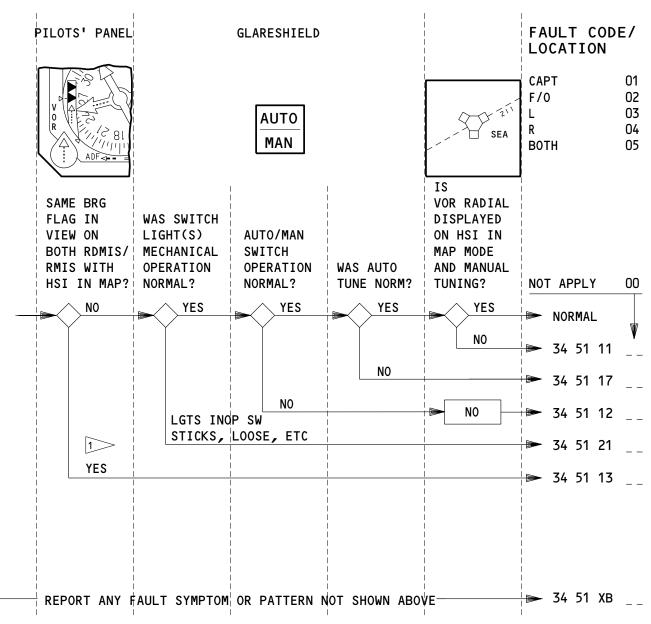
34-FAULT CODE DIAGRAM

03

ALL

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VERIFY VOR IS OK WITH HSI IN VOR MODE BEFORE SELECTING THIS CODE. IF NOT SELECT CODE FROM "VOR - CONTROL AND DISPLAY" PAGE.

APPLICABLE CIRCUIT BREAKERS AS INSTALLED

11A2	VOR MKR (L, LEFT)
11A6	RDMI (L, LEFT)
11E33	VOR (R, RIGHT)
11F25	RDMI (R, RIGHT)

VOR - HSI IN MAP MODE - FAULT CODES

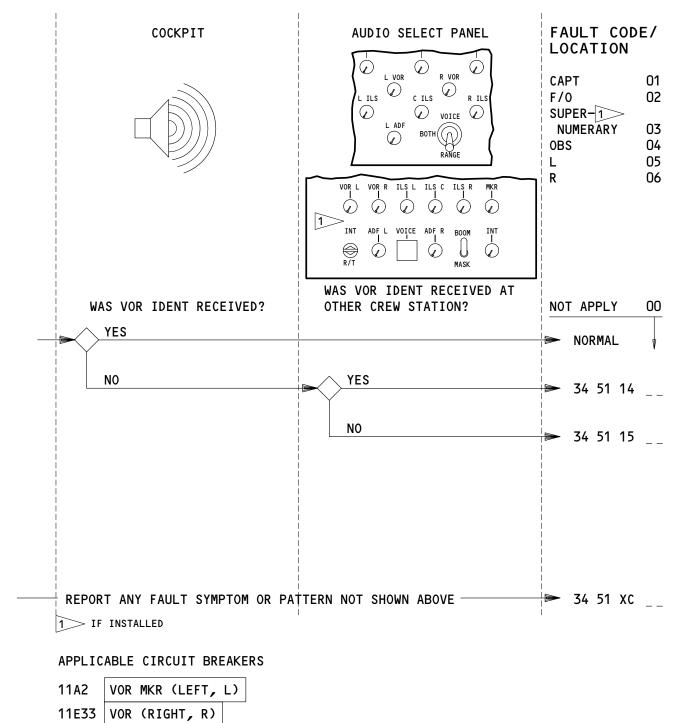
ALL

34-FAULT CODE DIAGRAM

03

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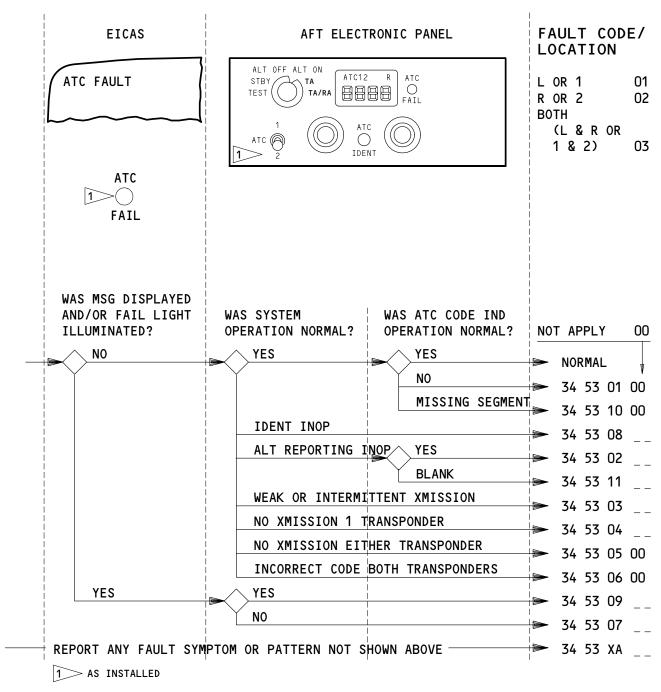
VOR IDENT - FAULT CODES

34-FAULT CODE DIAGRAM

2′

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APPLICABLE CIRCUIT BREAKERS

11F7 ATC (L, LEFT)
11F28 ATC (R, RIGHT)

ATC TRANSPONDER - FAULT CODES

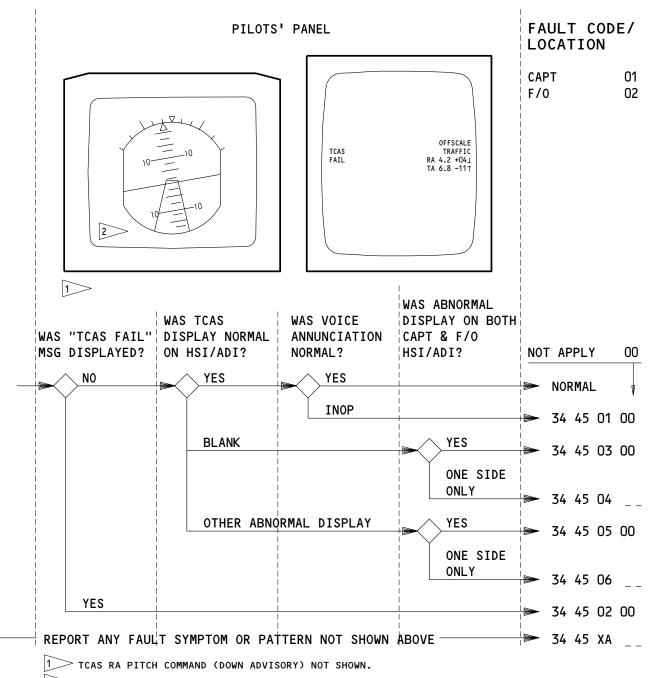
ALL

34-FAULT CODE DIAGRAM

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² TCAS DISPLAYS AS INSTALLED.

11F3	TCAS	;	
11F7	ATC	(L,	LEFT)
11F28	ATC	(R,	RIGHT)

TCAS - FAULT CODES

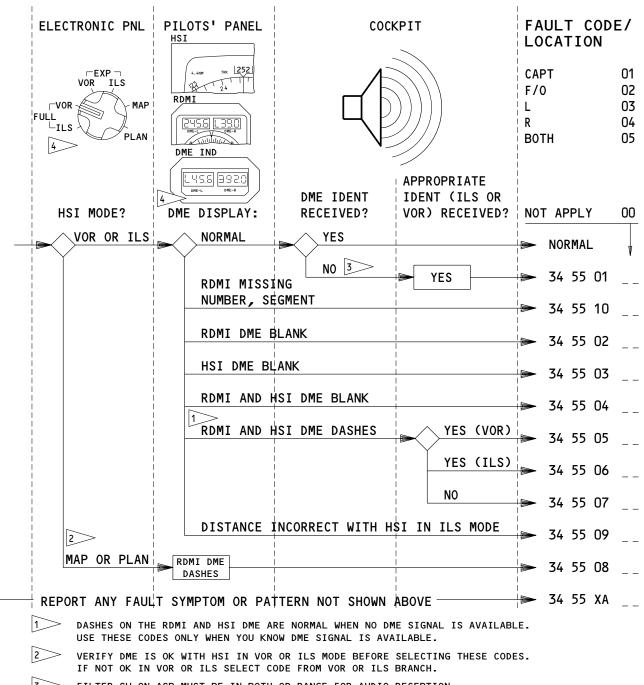
ALL

34-FAULT CODE DIAGRAM

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FILTER SW ON ASP MUST BE IN BOTH OR RANGE FOR AUDIO RECEPTION.

> AS INSTALLED

APPLICABLE CIRCUIT BREAKERS

 11A2
 VOR MKR (L, LEFT)
 11E32
 DME (R, RIGHT)

 11E11
 DME (L, LEFT)
 11E33
 VOR (R, RIGHT)

DME - FAULT CODES

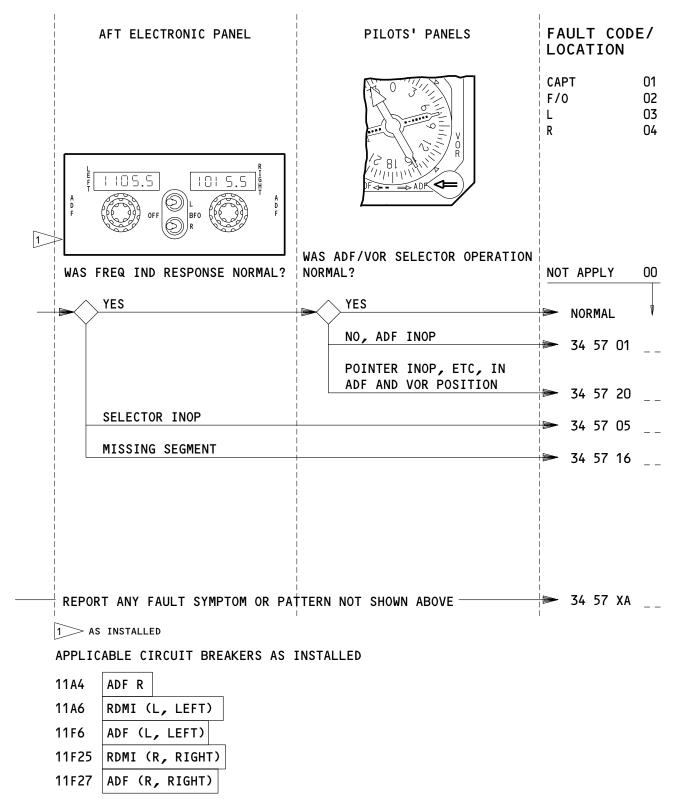
ALL

34-FAULT CODE DIAGRAM

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ADF CONTROL PANEL/RDMI/RMI - FAULT CODES

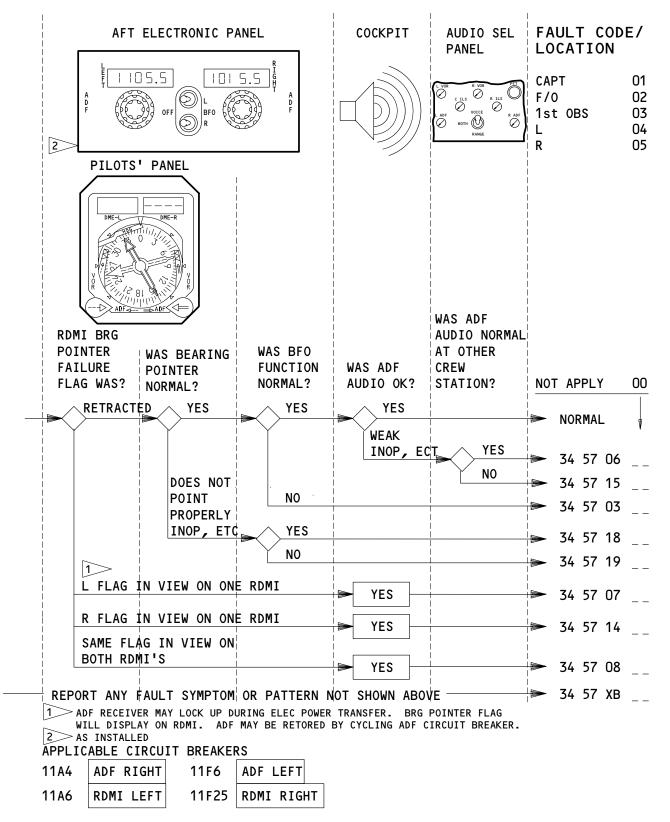
ALL

34-FAULT CODE DIAGRAM

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ADF (ADF, ANT MODE) - FAULT CODES

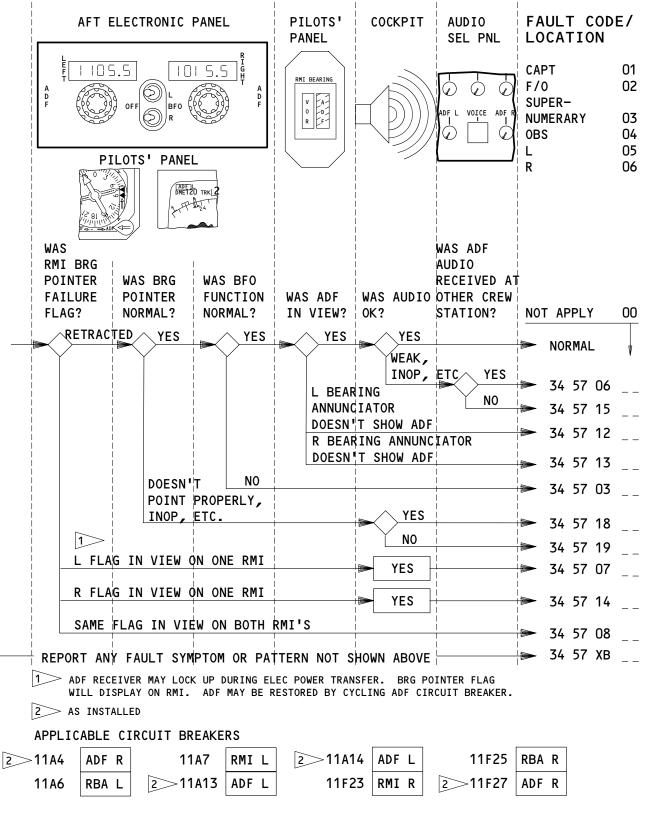
EFFECTIVITY—————AIRPLANES WITH RDMI

34-FAULT CODE DIAGRAM

10

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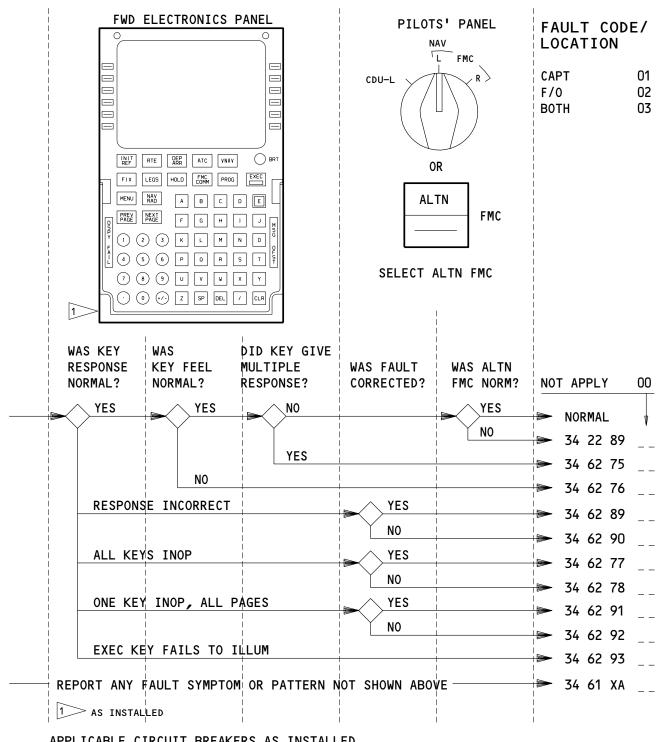
ADF - FAULT CODES

34-FAULT CODE DIAGRAM

08

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11E8	FMCS CDU (L, LEFT)	11E29	FMCS CDU (R, RIGHT)
11E9	FMCS CMPTR (L, LEFT)	11E30	FMCS CMPTR (R, RIGHT)

FMC-CDU KEYS & ALTN FMC - FAULT CODES

EFFECTIVITY-ALL

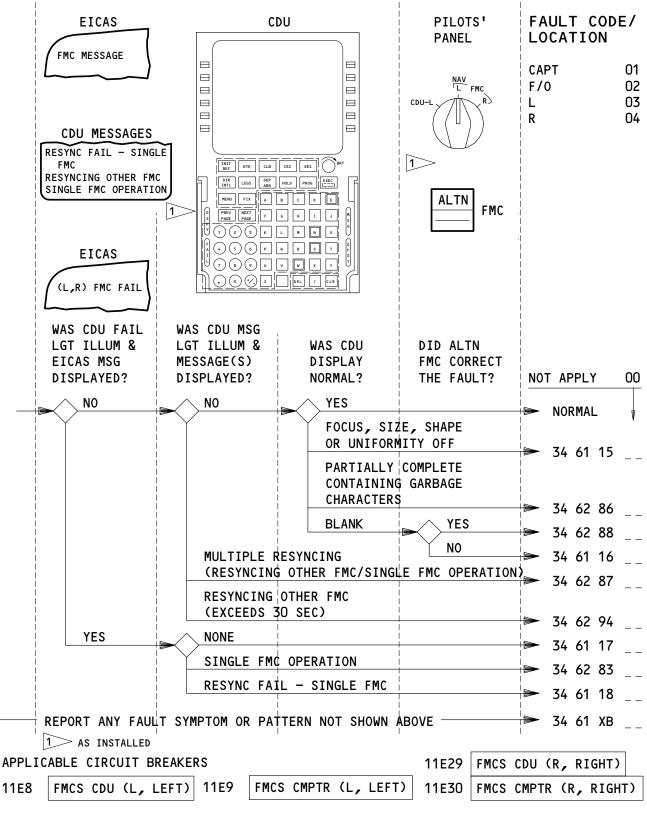
34-FAULT CODE DIAGRAM

12

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FAULT ISOLATION/MAINT MANUAL



CDU FAIL, FMC FAIL AND RESYNC - FAULT CODES

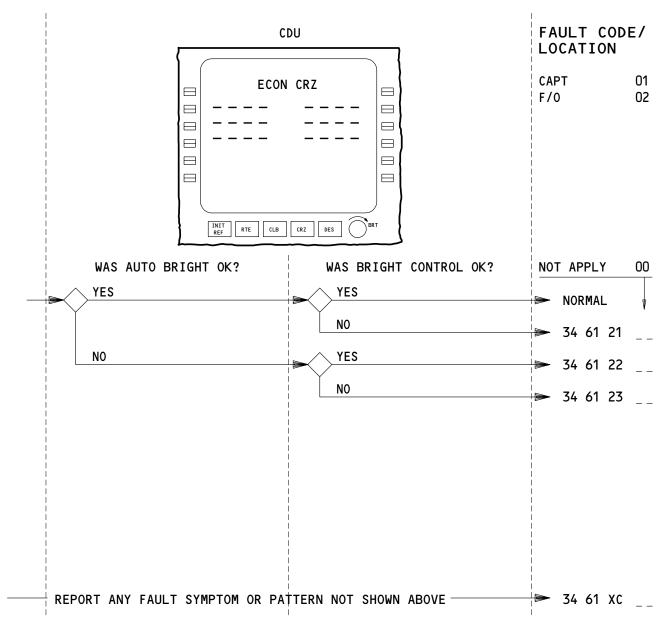
ALL

34-FAULT CODE DIAGRAM

08

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APPLICABLE CIRCUIT BREAKERS AS INSTALLED AS INSTALLED

11E8	FMCS CDU (L, LEFT)	11E29	FMCS CDU (R, RIGHT)
11E9	FMCS CMPTR (L, LEFT)	11E30	FMCS CMPTR (R, RIGHT)

FMC-CDU BRIGHTNESS - FAULT CODES

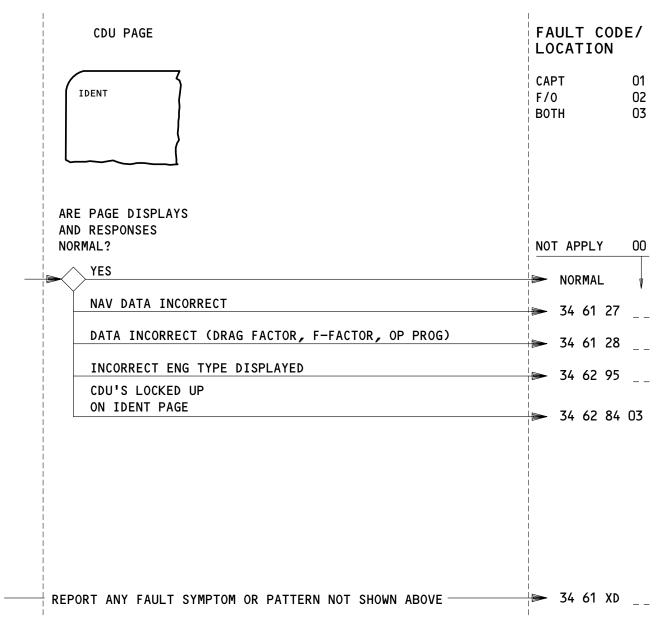
ALL

34-FAULT CODE DIAGRAM

80

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11E8	FMCS CDU (L, LEFT)	11E29	FMCS CDU (R, RIGHT)
11E9	FMCS CMPTR (L, LEFT)	11E30	FMCS CMPTR (R, RIGHT)

FMC-CDU IDENT PAGE - FAULT CODES

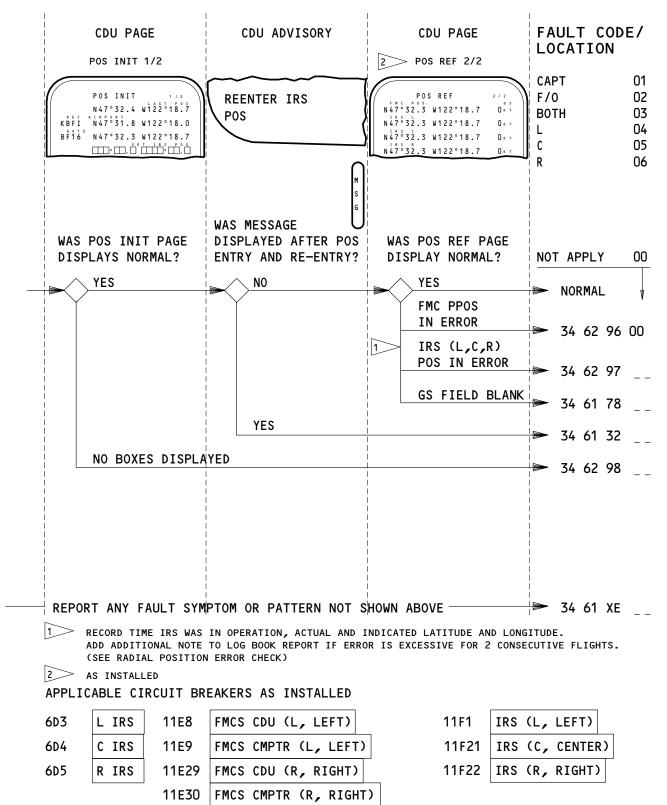
EFFECTIVITY-

34-FAULT CODE DIAGRAM

80

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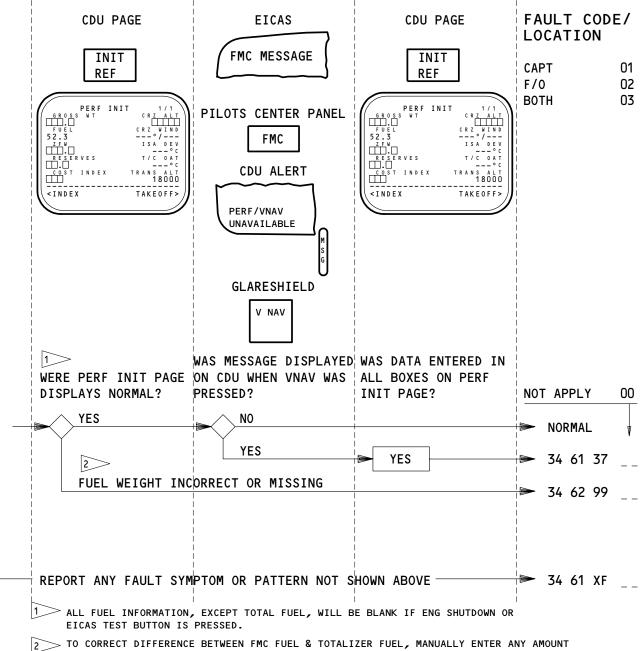
FMC-CDU POS INIT/REF PAGE - FAULT CODES

34-FAULT CODE DIAGRAM

07



FAULT ISOLATION/MAINT MANUAL



OF FUEL, THEN DELETE FUEL WITH DELETE KEY. FMC SHOULD THEN DISPLAY TOTALIZER FUEL.

APPLICABLE CIRCUIT BREAKERS AS INSTALLED

11E8	FMCS CDU (L, LEFT)
11E9	FMCS CMPTR (L, LEFT)
11E29	FMCS CDU (R, RIGHT)
11E30	FMCS CMPTR (R, RIGHT)

FMC-CDU PERFORMANCE INITIALIZATION PAGE - FAULT CODES

34-FAULT CODE DIAGRAM

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CDU PAGE	FAULT CODE	≣/
FIX INFO	F/0	01 02 03
ARE PAGE DISPLAYS AND RESPONSES NORMAL?	NOT APPLY	00
YES	NORMAL	
BRG/DIS FR INCORRECT	34 61 72	
PL/BRG/DIS INCORRECT ABEAM INCORRECT	34 61 73	
DTG INCORRECT	34 61 74 34 61 75	
REPORT ANY FAULT SYMPTOM OR PATTERN NOT SHOWN ABOVE	 	
REPURT ANT FAULT STIMPTOM OR PATTERN NOT SHOWN ABOVE) J4 U1 AK	

11E8	FMCS CDU (L, LEFT)
11E9	FMCS CMPTR (L, LEFT)
11E29	FMCS CDU (R, RIGHT)
11E30	FMCS CMPTR (R, RIGHT)

FMC - CDU FIX PAGE - FAULT CODES

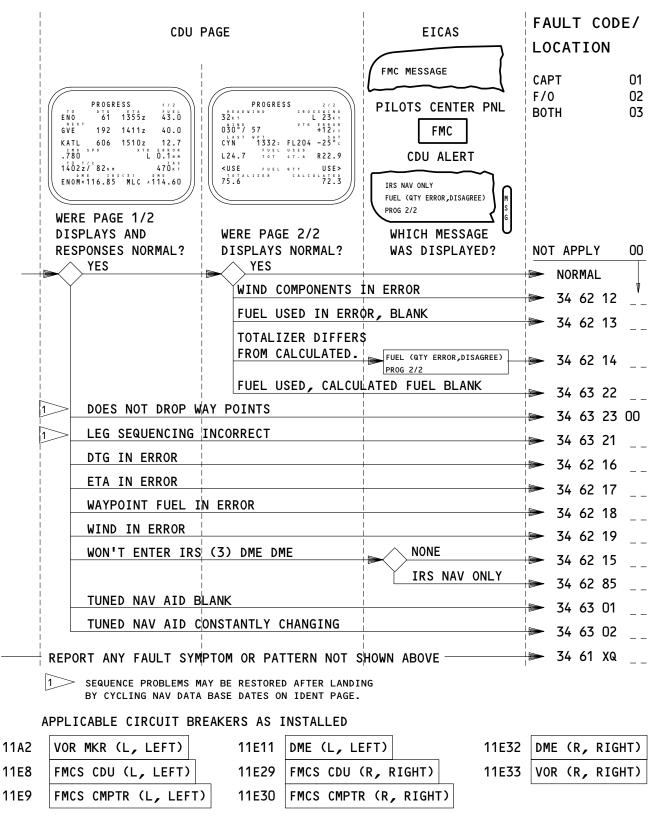
ALL

34-FAULT CODE DIAGRAM

09

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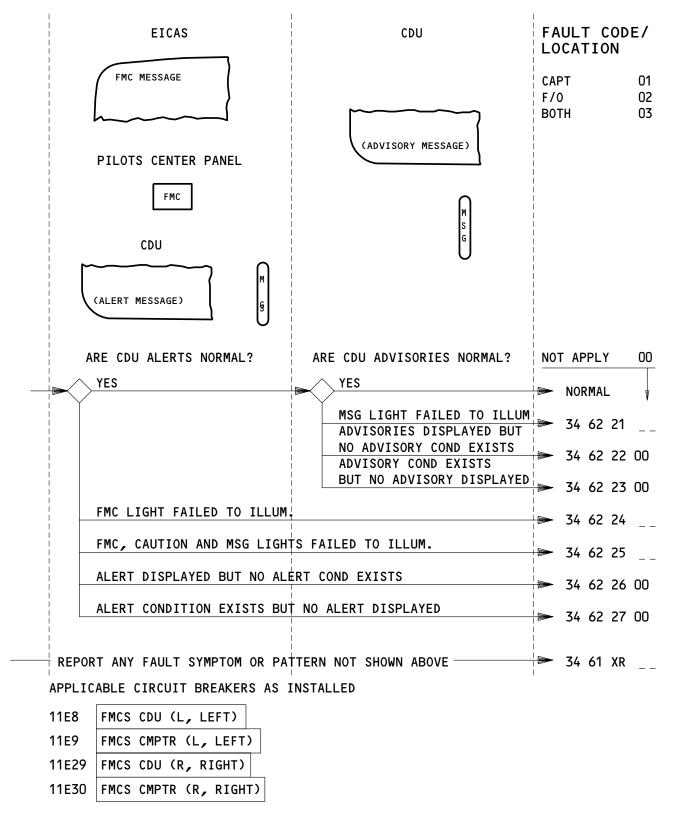


FMC-CDU PROGRESS PAGE - FAULT CODES

34-FAULT CODE DIAGRAM

12





FMC-CDU ALERT AND ADVISORY MESSAGES - FAULT CODES

ALL

34-FAULT CODE DIAGRAM

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EICAS	FAULT CODE/ LOCATION
WAS MSG DISPLAYED?	NOT APPLY 00
NO	➤ NORMAL
GPS	→ 34 58 01 00
UNABLE RNP	→ 34 63 36 00
L GPS	→ 34 58 02 00
R GPS	→ 34 58 01 00
WINDSHEAR SYS	→ 34 46 21 00
EPORT ANY FAULT SYMPTOM OR PATTERN NOT SHOWN ABOVE —	→ 34 21 XA 00

EICAS MESSAGE - FAULT CODES

 34-FAULT CODE DIAGRAM

14

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		FAULT CODE/ LOCATION			Ξ/
WAS MSG DISPLAYED?	NOT				00
OPS UNABLE RNP L GPS R GPS WINDSHEAR SYS		34 ! 34 ! 34 ! 34 !	58 (63 3 58 (58 (36 (02 (01 (00 00 00
REPORT ANY FAULT SYMPTOM OR PATTERN NOT SHOWN ABOVE	 - - - - -	34 7	21)	(A	00

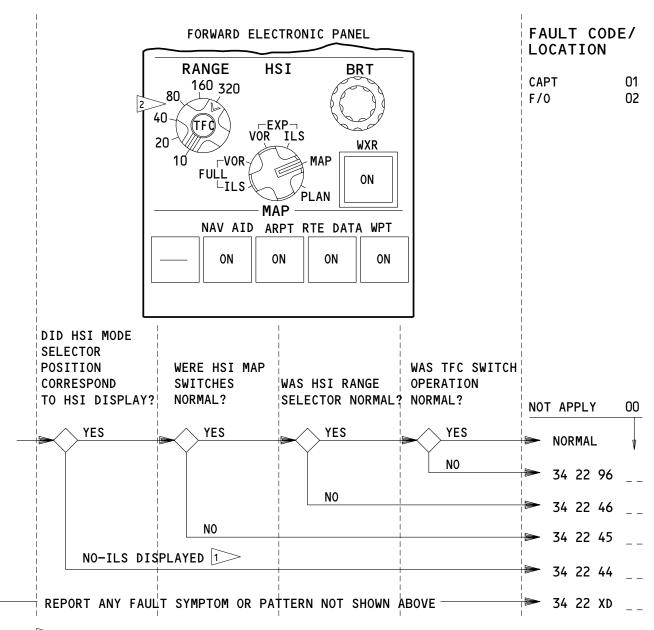
EICAS MESSAGE - FAULT CODES

ALL

34-FAULT CODE DIAGRAM

12

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1>> DH AND WX RADAR FAIL FLAGS DISPLAYED.

2 AS INSTALLED

APPLICABLE CIRCUIT BREAKERS

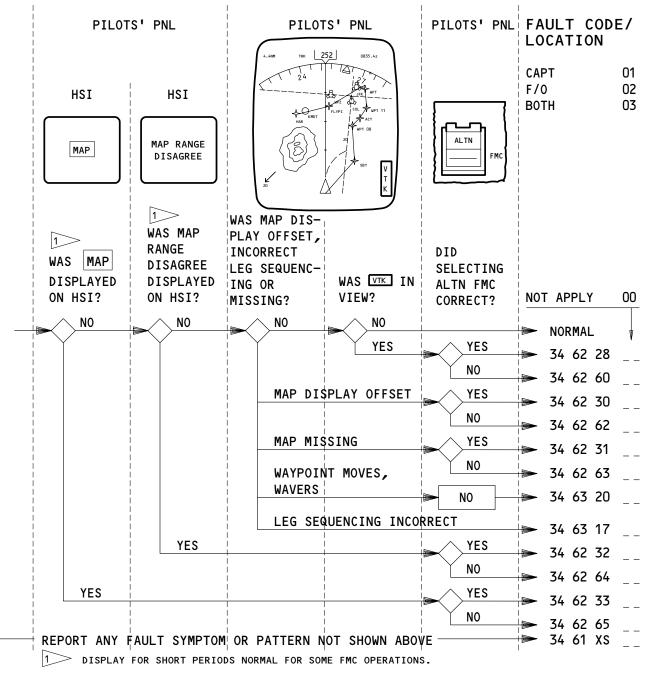
11E4	EFIS CONT PANEL (L, LEFT)	11E29	FMCS CDU (R, RIGHT)
11E8	FMCS CDU (L, LEFT)	11E30	FMCS CMPTR (R, RIGHT)
11E9	FMCS CMPTR (L, LEFT)		
11E25	EFIS CONT PANEL (R, RIGHT)		

FMC - HSI TRAFFIC RANGE, MAP AND MODE SELECT - FAULT CODES

EFFECTIVITY-ALL

34-FAULT CODE DIAGRAM





11E4	EFIS CONT PANEL (L, LEFT)	11E25	EFIS CONT PANEL (R, RIGHT)	11F8	EFIS SYM GEN (L, LEFT)
11E6	HSI (L, LEFT)	11E27	HSI (R, RIGHT)	11F9	EFIS SYM GEN (C, CENTER)
11E8	FMCS CDU (L, LEFT)	11E29	FMCS CDU (R, RIGHT)	11F29	EFIS SYM GEN (R, RIGHT)
11E9	FMCS CMPTR (L, LEFT)	11E30	FMCS CMPTR (R, RIGHT)		

FMC-HSI MAP GENERAL - FAULT CODES

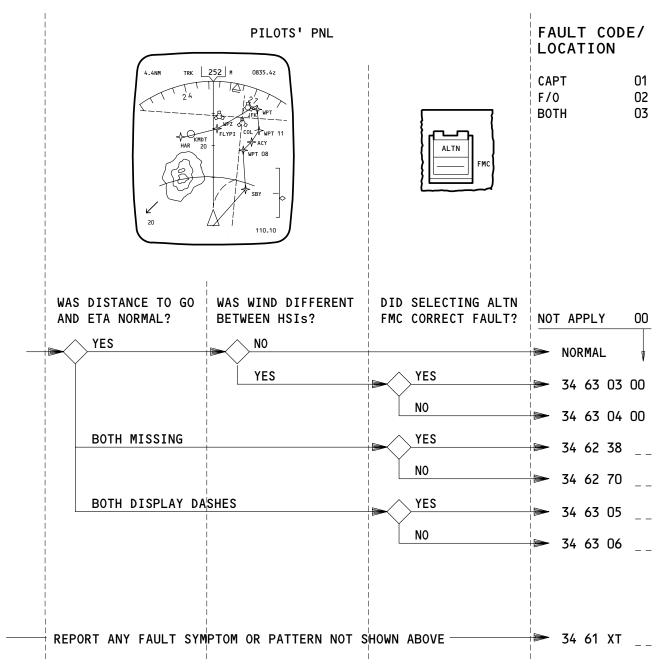
ALL

34-FAULT CODE DIAGRAM

12

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11E4	EFIS CONT PANEL (L, LEFT)	11E25	EFIS CONT PANEL (R, RIGHT)	11F8	EFIS SYM GEN (L, LEFT)
11E6	HSI (L, LEFT)	11E27	HSI (R, RIGHT)	11F9	EFIS SYM GEN (C, CENTER)
11E8	FMCS CDU (L, LEFT)	11E29	FMCS CDU (R, RIGHT)	11F29	EFIS SYM GEN (R, RIGHT)
11E9	FMCS CMPTR (L, LEFT)	11E30	FMCS CMPTR (R, RIGHT)		

FMC-HSI MAP DATA - FAULT CODES

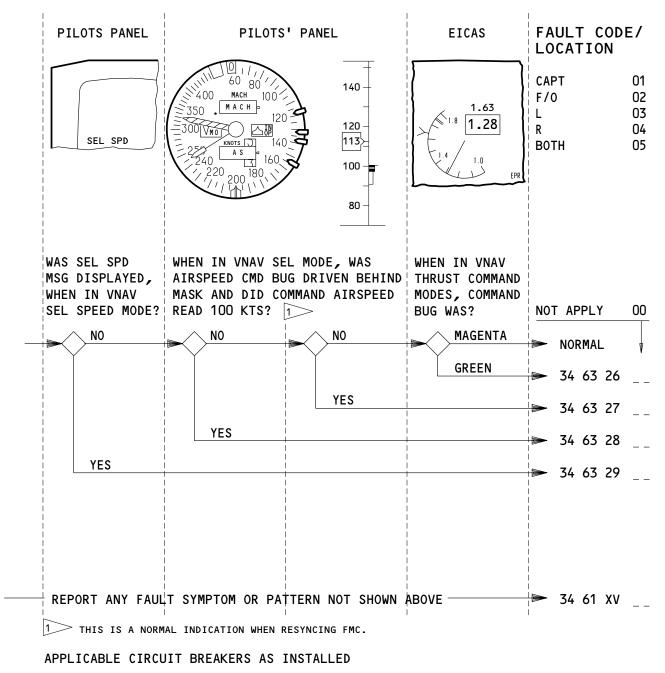
ALL

34-FAULT CODE DIAGRAM

80

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11E1	IAS MACH (L, LEFT)	11E22	IAS MACH (R, RIGHT)
11E8	FMCS CDU (L, LEFT)	11E29	FMCS CDU (R, RIGHT)
11E9	FMCS CMPTR (L, LEFT)	11E30	FMCS CMPTR (R, RIGHT)

FMC-VNAV MODE EPR AND AIRSPEED BUGS - FAULT CODES

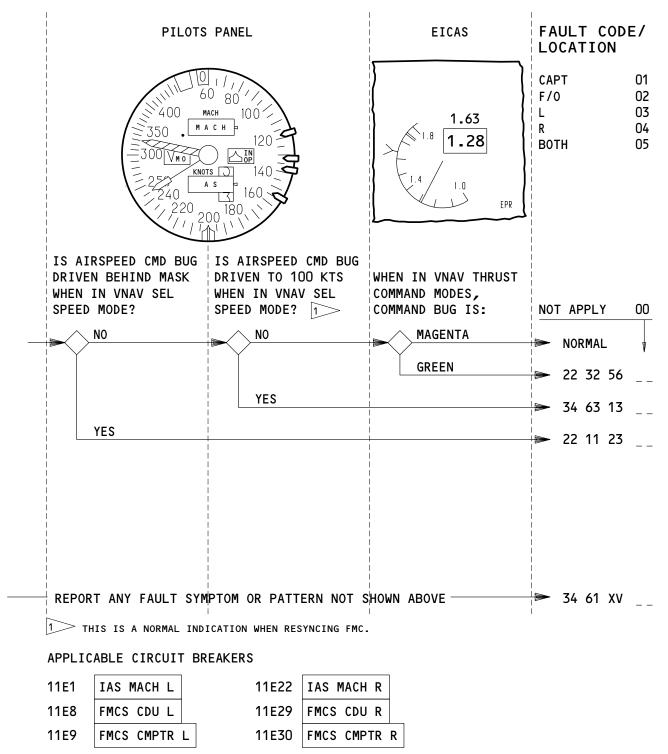
AIRPLANES WITH EADI SPEED TAPE

34-FAULT CODE DIAGRAM

09

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FMC-VNAV MODE EPR AND AIRSPEED BUGS - FAULT CODES

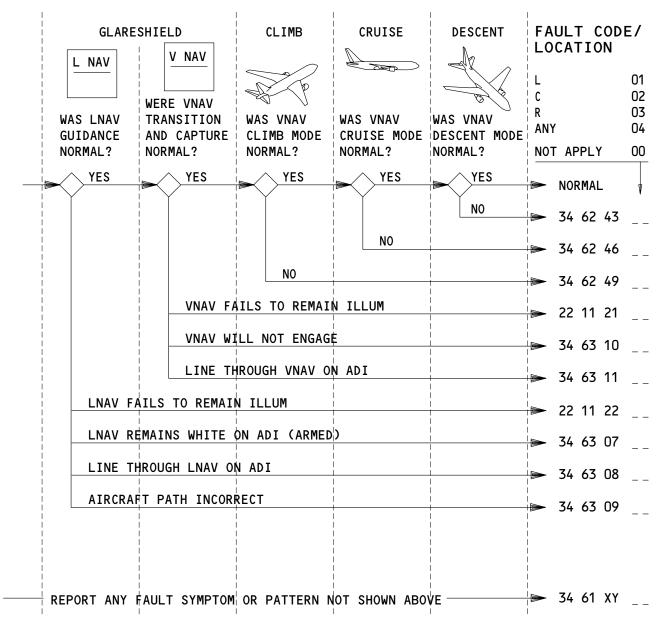
AIRPLANES WITHOUT EADI SPEED TAPE

34-FAULT CODE DIAGRAM

09

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11E8	FMCS CDU (L, LEFT)	11E21	FLT CONT CMPTR SERVO (C, CTR)
11E9	FMCS CMPTR (L, LEFT)	11E29	FMCS CDU (R, RIGHT)
11E16	MODE CONT PNL (L, LEFT)	11E30	FMCS CMPTR (R, RIGHT)
11E17	FLT CONT (CMPTR PWR L, COMPUTER POWER LEFT)	11E34	MODE CONT PNL (R, RIGHT)
11E18	FLT CONT (CMPTR, COMPUTER) SERVO (L, LEFT)	11E35	FLT CONT CMPTR PWR (R, RIGHT)
11E20	FLT CONT CMPTR PWR (C, CTR)	11E36	FLT CONT CMPTR SERVO (R, RIGHT)

FMC-LNAV AND VNAV GUIDANCE - FAULT CODES

34-FAULT CODE DIAGRAM



CHART 1

ALTIMETER TOLERANCES - GROUND

ALTITUDE	MAX DIFFERENCE		
FEET	CAPT & F/O	CAPT & F/O AND STANDBY	
SEA LEVEL	40	35	
5,000'	40	50	
10,000'	45	60	

ALTIMETER TOLERANCES - FLIGHT

		MAX. DIFFERENCE		
ALTITUDE FEET	IAS/MACH	CAPT & F/O	CAPT OR F/O & STANDBY	
10,000'	250 KTS	60	100	
20,000'	300 KTS	115	20,010 ± 180	
30,000'	M.80	135	30,085 ± 250	
35,000'	M.80	145	35,080 ± 265	
40,000'	M.80	160	40,080 ± 280	

CHART 2

AIRSPEED TOLERANCES

AIRSPEED	MAX. DIFFERENCE		
KNOTS	CAPT & F/O	STANDBY	
100	± 3 KTS	99 - 105	
140	± 3 KTS	139.5 - 145.5	
200	± 3 KTS	200.5 - 207.5	
250	± 3 KTS	251 - 258 (35,000 & BELOW)	
300	± 3 KTS	300 - 308 (35,000') 301 - 309 (30,000 & BELOW)	
MACH			
.4050	± .010M		
.6070	± .009M		
.80 & ABOVE	± .008M		

CHARTS

EFFECTIVITY-

34-FAULT CODE DIAGRAM

04

ALL

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RESIDUAL GROUNDSPEED ERROR CHECK

THE FMC-CDU POS REF PAGE 2/2 DISPLAYS RESIDUAL GROUNDSPEED FOR FMC AND EACH IRS AT THE END OF THE FLIGHT. USE THE FOLLOWING PROCEDURE TO DETERMINE EXCESSIVE RESIDUAL GROUNDSPEED ERROR.

NOTE: THE IRS'S AND FMC'S MUST NOT BE SHUTOFF PRIOR TO COMPLETING THIS PROCEDURE. FMC "FREEZE" CAN CAUSE FMC-CDU TO DISPLAY EXCESSIVE GROUND SPEED. VERIFY RESIDUAL GROUND SPEED USING IRMP.

- 1 SELECT POS REF PAGE 2/2 (4/4 PEGASUS EQUIPPED AIRPLANES) AND CHECK EACH IRS RESIDUAL GROUNDSPEED ERROR.
- 2 IF THE IRS RESIDUAL GROUNDSPEED ERROR IS 21 KNOTS OR GREATER AFTER COMPLETION OF ANY ONE CHECK (FLIGHT) OR 15 KNOTS OR GREATER AFTER EACH OF TWO CONSECUTIVE CHECKS (FLIGHTS), MAINTENANCE ACTION IS REQUIRED.

RADIAL POSITION ERROR CHECK

THE FMC-CDU POS REF PAGE 2/2 (4/4 PEGASUS EQUIPPED AIRPLANES) DISPLAYS CURRENT POSITION FOR EACH IRS AND AN ACTUAL POSITION ERROR CHECK IS PERFORMED USING THE RTE 1 OR RTE 2 LEGS PAGE. THIS IS DONE BY ENTERING THE ACTUAL (PARKING) AND IRS POSITIONS AS WAYPOINTS AND COMPARING THEIR DIFFERENCE IN NAUTICAL MILES TO A DEVIATION CRITERIA. USE THE FOLLOWING PROCEDURE TO DETERMINE EXCESSIVE RADIAL POSITION ERROR.

NOTE: THE IRS'S AND FMC'S MUST NOT BE SHUTOFF PRIOR TO COMPLETING THIS PROCEDURE.

- 1 SELECT THE POS REF 2/2 (4/4 PEGASUS EQUIPPED AIRPLANES) PAGE AND RECORD THE DISPLAYED LATITUDE AND LONGITUDE FOR EACH IRS.
- 2 SELECT THE RTE 1 OR RTE 2 LEGS PAGE AND ENTER ACTUAL LATITUDE AND LONGITUDE (GATE, RAMP, ETC) AS A WAYPOINT.
- 3 ENTER DISPLAYED LATITUDE AND LONGITUDE OF IRS AS NEXT WAYPOINT ON RTE 1 OR RTE 2 LEGS PAGE. ENTER MANUALLY RECORDED DATA FROM (1) OR LINE SELECT FROM POS REF PAGE.
- 4 RADIAL POSITION ERROR IS THE DISTANCE BETWEEN THE TWO ENTERED WAYPOINTS OR THE COMPUTED LEG LENGTH.
- 5 COMPARE THE DISTANCE ALONG WITH THE TIME IN NAV MODE TO THE ACCEPT/REJECT LIMITS ON THE FOLLOWING IRS PERFORMANCE CRITERIA CHART.
- 6 IF THE IRS RADIAL POSITION ERROR FALLS UPON THE SHADED AREA FOR TWO CONSECUTIVE FLIGHTS OR ABOVE THE SHADED AREA FOR ONE FLIGHT, MAINTENANCE ACTION IS REQUIRED.

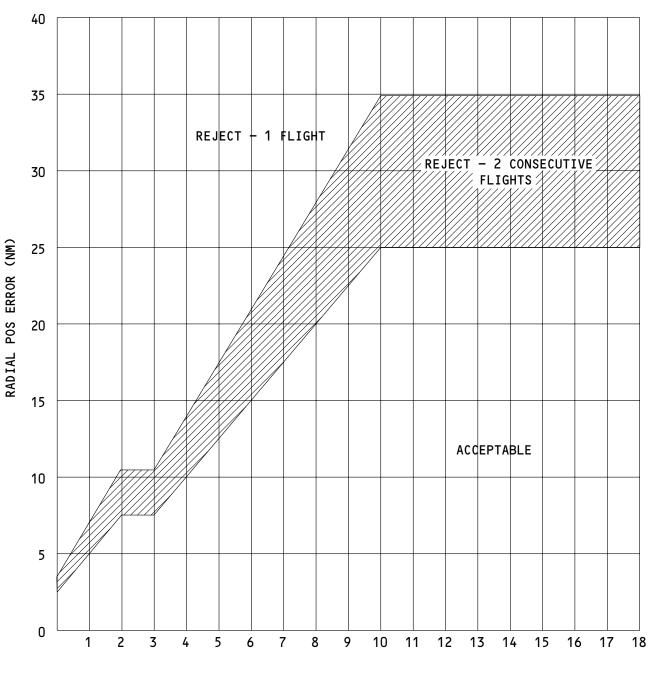
IRS ACCURACY CHECKS

EFFECTIVITY-

34-FAULT CODE DIAGRAM

ALL

IRS PERFORMANCE CRITERIA CHART



TIME IN NAV POS (HOURS)

IRS ACCURACY CHECKS

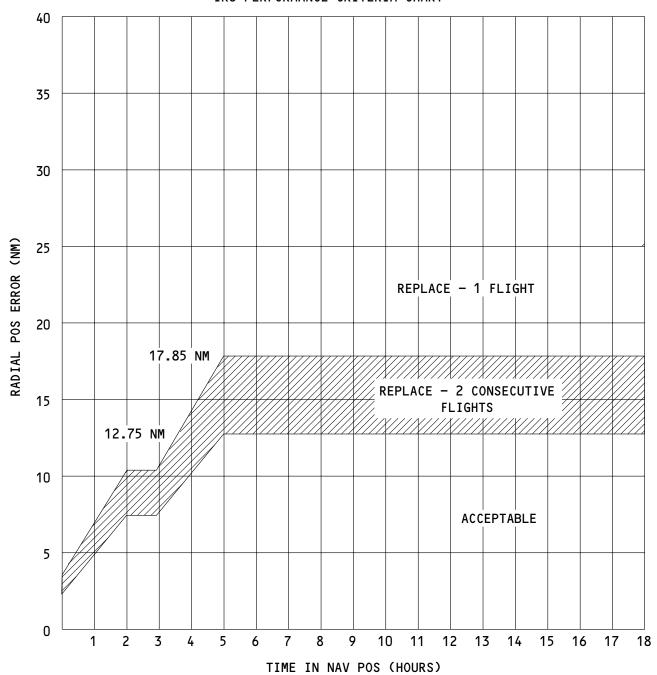
34-FAULT CODE DIAGRAM

04

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IRS PERFORMANCE CRITERIA CHART



IRS ACCURACY CHECKS

34-FAULT CODE DIAGRAM

02

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FAULT CODE	1. LOG BOOK REPORT 2. FAULT ISOLATION REFERENCE
34 12 XA	 A (01=Capt, 02=F/0) electric altimeter problem was encountered by the flight crew which is not covered in the fault code diagrams. (Ref fault code diagram for flight crew actions.) SSM 34-12-01, SSM 34-12-02, SSM 34-13-01
34 12 XB 00	 Report TAS, SAT and TAT symptoms or pattering along with fault code. (Ref fault code diagram for flight crew actions.) SSM 34-12-01, SSM 34-12-02
34 12 XC	 A (01=Capt, 02=F/O) electric mach, airspeed, and ALTN AIR DATA problem was encountered by the flight crew which is not covered in the fault code diagrams. (Ref fault code diagram sheet one for flight crew actions.) SSM 34-12-01, SSM 34-12-02, SSM 34-13-01
34 12 XD	 A (01=Capt, 02=F/O) air data computer test problem was encountered by the flight crew which is not covered in the fault code diagrams (Ref fault code diagram for flight crew actions.) SSM 34-12-01, SSM 34-12-02
34 12 XE	 An air data computer test problem was encountered by the flight crew which is not covered in the fault code diagrams. (Ref fault code diagram sheet two for flight crew actions.) SSM 34-12-01, SSM 34-12-02
34 12 XF	 A (01=Capt, 02=F/O) electric mach, airspeed, and ALTN AIR DATA problem was encountered by the flight crew which is not covered in the fault code diagrams. (Ref fault code diagram sheet two for flight crew actions.) SSM 34-12-01, SSM 34-12-02, SSM 34-13-01
34 13 XA 00	 A standby airspeed and altimeter problem was encountered by the flight crew which is not covered in the fault code diagrams. (Ref fault code diagram for flight crew actions.) SSM 34-13-01.

34-FAULT CODE INDEX

01

FAULT CODE	1. LOG BOOK REPORT 2. FAULT ISOLATION REFERENCE
34 16 XA	 A (01=Capt, 02=F/O, 03=Both) altitude alert problem was encountered by the flight crew which is not covered in the fault code diagrams. (Ref Chapter 22 fault code diagram for flight crew actions.) SSM 34-16-01
34 21 XA	 A (01=Capt, 02=F/0) RDMI heading problem was encountered by the flight crew which is not covered in the fault code diagrams. (Ref fault code diagram for flight crew actions.) A (01=Capt, 02=F/0) vertical speed indicator problem was encountered by the flight crew which is not covered in the fault code diagrams. (Ref fault code diagram for flight crew actions.)
	2. SSM 34-21-01, SSM 34-21-02, SSM 34-21-03, SSM 34-22-03
34 21 XC	 A (01=Capt, 02=F/0) EHSI track problem was encountered by the flight crew which is not covered in the fault code diagrams. (Ref fault code diagram for flight crew actions.) SSM 34-21-01, SSM 34-21-02, SSM 34-21-03, SSM 34-22-12, SSM 34-22-22
34 21 XD	 A (01=Capt, 02=F/0) EHSI heading and trend vector problem was encountered by the flight crew which is not covered in the fault code diagrams. (Ref fault code diagram for flight crew actions.) SSM 34-21-01, SSM 34-21-02, SSM 34-21-03, SSM 34-22-12, SSM 34-22-22
34 21 XE	1. A (01=Capt, 02=F/0, 03=L, 04=C, 05=R) EADI attitude and ground speed problem was encountered by the flight crew which is not covered in the fault code diagrams. (Ref fault code diagram
34 21 XF	for flight crew actions.) 1. A (01=L, 02=C, 03=R, 04=ALL) IRS mode control panel problem was encountered by the flight crew which is not covered in the fault code diagrams. (Ref fault code diagram for flight crew actions.) 2. SSM 34-21-01, SSM 34-21-02, SSM 34-21-03

34-FAULT CODE INDEX

FAULT CODE	1. LOG BOOK REPORT 2. FAULT ISOLATION REFERENCE
34 21 XF 00	 A (01=L, 02=C, 03=R, 04=ALL) IRS accuracy problem was encountered by the flight crew which is not covered in the fault code diagrams. (Ref fault code diagram for flight crew actions.) SSM 34-21-01, SSM 34-21-02, SSM 34-21-03
34 21 XG	 A (01=L, 02=C, 03=R, 04=ALL) IRS data entry and display problem was encountered by the flight crew which is not covered in the fault code diagrams. (Ref fault code diagram for flight crew actions.) SSM 34-21-01 through SSM 34-21-03
34 22 XA	 A (01=Capt, 02=F/0) EADI problem was encountered by the flight crew which is not covered in the fault code diagrams. (Ref fault code diagram for flight crew actions.) SSM 34-22-12
34 22 XB	 A (01=Capt, 02=F/0) EHSI problem was encountered by the flight crew which is not covered in the fault code diagrams. (Ref fault code diagram for flight crew actions.) SSM 34-22-12
34 22 XC	 A (01=Capt, 02=F/0) EHSI and EADI problem was encountered by the flight crew which is not covered in the fault code diagrams. (Ref fault code diagram for flight crew actions.) SSM 34-22-11, SSM 34-22-12
34 22 XD	 A (01=Capt, 02=F/0) EHSI mode, map, or range select problem was encountered by the flight crew which is not covered in the fault code diagrams. (Ref fault code diagram for flight crew actions.) SSM 34-22-12
34 22 XE	34 22 XE thru 34 22 XF Not Used
34 22 XG	 An EFIS (heading reference) problem was encountered by the flight crew which is not covered in the fault code diagrams. (Ref fault code diagram for flight crew actions.) SSM 34-22-12

34-FAULT CODE INDEX

07

FAULT CODE	1. LOG BOOK REPORT 2. FAULT ISOLATION REFERENCE
34 23 XA 00	 A standby magnetic compass problem was encountered by the flight crew which is not covered in the fault code diagrams. (Ref fault code diagram for flight crew actions.) Perform standby compass swing operation (AMM 34-23-00/201).
34 24 XA 00	 A standby attitude reference system problem was encountered by the flight crew which is not covered in the fault code diagrams. (Ref fault code diagram for flight crew actions.) SSM 34-24-01
34 31 XA	 A (O1=Capt EHSI and EADI, O2=F/O EADI and EHSI, O3=STBY ATT IND) ILS TEST problem was encountered by the flight crew which is not covered in the fault code diagrams. (Ref fault code diagram for flight crew actions.)
34 31 XB	 A (01=L, 02=C, 03=R, 04=Capt, 04=F/O) ILS-EADI/EHSI and Ident problem was encountered by the flight crew which is not covered in the fault code diagrams. (Ref fault code diagram for flight crew actions.) SSM 34-31-01, SSM 34-31-02, SSM 34-31-03
34 31 XC	 A (01=Capt, 02=F/0) ILS/EHSI problem was encountered by the flight crew which is not covered in the fault code diagrams. (Ref fault code diagram for flight crew actions.) SSM 34-31-01, SSM 34-31-02, SSM 34-31-03
34 31 XD 00	 An ILS controls and STBY ATT IND problem was encountered by the flight crew which is not covered in the fault code diagrams. (Ref fault code diagram for flight crew actions.) SSM 34-31-01, SSM 34-31-02, SSM 34-31-03

34-FAULT CODE INDEX

FAULT CODE	1. LOG BOOK REPORT 2. FAULT ISOLATION REFERENCE
34 32 XA	1. A (01=Capt, 02=F/0, 03=Sup Num, 04=1st Obs) marker beacon problem was encountered by the flight crew which is not covered in the fault code diagrams. (Ref fault code diagram for flight crew actions.)
34 33 XA	 SSM 34-32-01. A (01=Capt, 02=F/O) radio altimeter and DH (ADI) problem was encountered by the flight crew which is not covered in the fault code diagrams. (Ref fault code diagram for flight crew actions.) SSM 34-33-01, SSM 34-33-02, SSM 34-33-03, SSM 34-22-11, SSM 34-22-21
34 43 XA	 A (01=Capt, 02=F/0, 03=Capt and F/0) WXR display (EHSI) problem was encountered by the flight crew which is not covered in the fault code diagrams. (Ref fault code diagram for flight crew actions.) SSM 34-43-01
34 43 XB 00	 A WXR control problem was encountered by the flight crew which is not covered in the fault code diagrams. (Ref fault code diagram for flight crew actions. SSM 34-43-01
34 43 XC 00	 A WXR display quality problem was encountered by the flight crew which was not covered in the fault code diagrams (Ref fault code diagrams for flight crew actions). SSM 34-43-01
34 45 XA	 A (01=Capt, 02=F/0) TCAS problem was encountered by the flight crew which is not covered in the fault code diagrams. (Ref fault code diagram for flight crew actions.) SSM 34-45-01
34 46 XA 00	 A ground proximity and wind shear warning problem was encountered by the flight crew which is not covered in the fault code diagrams. (Ref fault code diagram for flight crew actions.) SSM 34-46-01
34 46 XB 00	 A ground proximity warning control problem was encountered by the flight crew which is not covered in the fault code diagrams. (Ref fault code diagram for flight crew actions.) SSM 34-46-01

34-FAULT CODE INDEX

22

FAULT CODE	1. LOG BOOK REPORT 2. FAULT ISOLATION REFERENCE
34 51 XA	 A (01=Capt, 02=F/0) VOR-Control and display - problem was encountered by the flight crew which is not covered in the fault code diagrams. (Ref fault code diagram for flight crew actions.) SSM 34-51-01, SSM 34-51-02
34 51 XB	 A (01=Capt, 02=F/0, 03=L, 04=R) VOR-EHSI in MAP mode - display problem was encountered by the flight crew which is not covered in the fault code diagrams. (Ref fault code diagram for flight crew actions.) SSM 34-51-01, SSM 34-51-02
34 51 XC 34 53 XA	 A (01=Capt, 02=F/O) VOR Ident problem was encountered by the flight crew which is not covered in the fault code diagrams. (Ref fault code diagram for flight crew actions.) A (01=L, 02=R) ATC transponder problem was encountered by the flight crew which is not covered in the fault code diagrams. (Ref fault code diagram for flight crew actions.) SSM 34-53-01, SSM 34-53-02
34 55 XA	 A (01=Capt, 02=F/0, 03=L, 04=R) DME problem was encountered by the flight crew which is not covered in the fault code diagrams. (Ref fault code diagram for flight crew actions.) SSM 34-55-01, SSM 34-55-02
34 57 XA	 A (01=CAPT, 02=F/0) ADF control panel/RDMI problem was encountered by the flight crew which is not covered in the fault code diagrams. (Ref Fault Code diagram for flight crew actions). SSM 34-57-01
34 57 XB	 A (01=Capt, 02=F/0, 03=OBS) ADF/RDMI problem was encountered by the flight crew which is not covered in the fault code diagrams. (Ref fault code diagram for flight crew actions.) SSM 34-57-01
34 61 XA	 A (01=Capt, 02=F/0, 03=Both) FMC CDU keys problem was encountered by the flight crew which is not covered in the fault code diagrams. (Ref fault code diagram for flight crew actions.) SSM 34-60-01, SSM 34-61-01, SSM 34-61-02, SSM 34-61-03, SSM 34-61-04

FAULT CODE	1. LOG BOOK REPORT 2. FAULT ISOLATION REFERENCE
34 61 XB	 A (01=Capt, 02=F/0) CDU fail, FMC fail, or resync problem was encountered by the flight crew which is not covered in the fault code diagrams. (Ref fault code diagram for flight crew actions.) SSM 34-60-01, SSM 34-61-01, SSM 34-61-02, SSM 34-61-03, SSM 34-61-04
34 61 XC	 A (01=Capt, 02=F/O) FMC-CDU brightness and paging problem was encountered by the flight crew which is not covered in the fault code diagrams. (Ref fault code diagram for flight crew actions.) SSM 34-60-01, SSM 34-61-01, SSM 34-61-02, SSM 34-61-03, SSM 34-61-04
34 61 XD	 A (01=Capt, 02=F/0, 03=Both) FMC-CDU IDENT page problem was encountered by the flight crew which is not covered in the fault code diagrams. (Ref fault code diagram for flight crew actions.) SSM 34-60-01, SSM 34-61-01, SSM 34-61-02, SSM 34-61-03, SSM 34-61-04
34 61 XE	 A (O1=Capt, O2=F/O, O3=Both) FMC-CDU POS INIT/REF page problem was encountered by the flight crew which is not covered in the fault code diagrams. (Ref fault code diagram for flight crew actions.) SSM 34-60-O1, SSM 34-61-O1, SSM 34-61-O2, SSM 34-61-O3, SSM 34-61-O4
34 61 XF	 A (01=Capt, 02=F/0, 03=Both) FMC-CDU PERFORMANCE INITIALIZATION PAGE Problem was encountered by the flight crew which is not covered in the fault code diagrams. (Ref fault code diagram for flight crew actions.) SSM 34-60-01, SSM 34-61-01, SSM 34-61-02, SSM 34-61-03, SSM 34-61-04
34 61 XG	34 61 XG thru 34 61 XJ Not Used.
34 61 XK	 A (01=Capt, 02=F/0, 03=Both) FMC-CDU FIX INFO page problem was encountered by the flight crew which is not covered in the fault code diagrams. (Ref fault code diagram for flight crew actions.) SSM 34-60-01, SSM 34-61-01, SSM 34-61-02, SSM 34-61-03, SSM 34-61-04

34-FAULT CODE INDEX

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FAULT CODE	1. LOG BOOK REPORT 2. FAULT ISOLATION REFERENCE
34 61 XL	34 61 XL thru 34 61 XP Not Used
34 61 XQ	 A (01=Capt, 02=F/0, 03=Both) FMC-CDU PROGRESS page problem was encountered by the flight crew which is not covered in the fault code diagrams. (Ref fault code diagram for flight crew actions.) SSM 34-60-01, SSM 34-61-01, SSM 34-61-02, SSM 34-61-03, SSM 34-61-04
34 61 XR	 A (01=Capt, 02=F/0, 03=Both) FMC-CDU alert and advisory problem was encountered by the flight crew which is not covered in the fault code diagrams. (Ref fault code diagram for flight crew actions.) SSM 34-60-01, SSM 34-61-01, SSM 34-61-02, SSM 34-61-03, SSM 34-61-04
34 61 XS	 A (01=Capt, 02=F/0, 03=Both) FMC-EHSI MAP general problem was encountered by the flight crew which is not covered in the fault code diagrams. (Ref fault code diagram for flight crew actions.) SSM 34-61-02, SSM 34-61-04
34 61 XT	 A (01=Capt, 02=F/0, 03=Both) FMC-EHSI MAP data problem was encountered by the flight crew which is not covered in the fault code diagrams. (Ref fault code diagram for flight crew actions.) SSM 34-61-02, SSM 34-61-04
34 61 XU	Not Used
34 61 XV	 A (01=Capt, 02=F/0, 03=L, 04=R, 05=Both) FMC-VNAV mode EPR and airspeed bug problem was encountered by the flight crew which is not covered in the fault code diagrams. (Ref fault code diagram for flight crew actions.) SSM 34-60-01, SSM 34-61-01, SSM 34-61-02, SSM 34-61-03, SSM 34-61-04
34 61 XW	Not used.
34 61 XX	Not used.

	FAULT CODE	1. LOG BOOK REPORT 2. FAULT ISOLATION REFERENCE
34	61 XY	 A (01=Capt, 02=F/0, 03=Both) FMC-LNAV and VNAV guidance problem was encountered by the flight crew which is not covered in the fault code diagrams. (Ref fault code diagram for flight crew actions.) SSM 34-60-01, SSM 34-61-01, SSM 34-61-02, SSM 34-61-03, SSM 34-61-04
34	90 XA 00	 A lightning strike occurred which was not covered in the fault code diagrams (Ref fault code diagrams for flight crew action). Examine the airplane for a lightning strike or a severe static discharge (AMM 05-51-19).
34	12 01 01	 BARO SET INOP on captain's altimeter. Replace the captain's altimeter, N8 (AMM 34-13-01/401)
34	12 02 01	 Capt altimeter in error. It reads F/O altimeter reads Capt altimeter norm with ALTN AIR DATA selected. FIM 34-12-00/101, Fig. 103, Block 1
34	12 03 01	 Capt altimeter in error with both normal and ALTN AIR DATA selected. It reads F/O altimeter reads Stby altimeter reads Replace the captain's altimeter, N8 (AMM 34-13-01/401)
34	12 04 02	 BARO SET INOP on F/O's altimeter. Replace the F/O's altimeter, N48 (AMM 34-13-01/401)
34	12 05 02	 F/O altimeter in error. It reads Capt altimeter reads F/O altimeter norm with ALTN AIR DATA selected. FIM 34-12-00/101, Fig. 103, Block 1
34	12 06 02	 F/O altimeter in error with both normal and ALTN AIR DATA selected. It reads Capt altimeter reads Stby altimeter reads Replace the F/O's altimeter, N48 (AMM 34-13-01/401).
34	12 07	1. (01=Capt, 02=F/0) Altimeter sticking. 2. Replace the applicable altimeter, N8 (captain) or N48 (F/0)

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ALL

		1. LOG BOOK REPORT 2. FAULT ISOLATION REFERENCE
34	12 08	 OFF flag in view on (01 = Capt, 02 = F/O) altimeter. OFF flag out of view with ALTN AIR DATA selected. FIM 34-12-00/101, Fig. 104, Block 1
34	12 09	 Off flag in view on (01 = Capt, 02 = F/0) altimeter with NORMAL or ALTN AIR DATA selected. Replace the applicable altimeter, N8 (captain) or N48 (F/0) (AMM 34-13-01/401).
34	12 10 00	 TAT indication blank. TAS and SAT normal. FIM 34-12-00/101, Fig. 109, Block 1
34	12 11 00	Not used.
34	12 12 00	Not used.
34	12 13 00	Not used.
34	12 14 00	 TAS in error. Reads, should be SAT normal. Replace the applicable ADC, M100 (left) of M101 (right) (AMM 34-12-01/401).
34	12 15 00	 TAS and SAT in error. TAS reads, should be TAT and Mach normal. Replace the applicable ADC, M100 (left) or M101 (right) (AMM 34-12-01/401).
34	12 16 00	1. TAS and SAT and Mach in error. TAS reads, SAT reads, Mach reads 2. FIM 34-12-00/101, Fig. 106, Block 1
34	12 17	 Ref bug(s) (missing, loose) from (01 = Capt, 02 = F/0, 03 = Both) Mach/IAS indicators. Replace the applicable Mach/airspeed indicator, N1 (captain) or N41 (F/0) (AMM 34-13-02/401).
34	12 18	Not Used.
34	thru 12 20	

	FAULT CODE	1. LOG BOOK REPORT 2. FAULT ISOLATION REFERENCE
34	12 21	 (01=Capt, 02=F/0) A/S in error. Capt's A/S reads F/0 A/S reads Stby A/S reads ALTN AIR DATA selection corrects the fault. Replace the applicable ADC, M100 (left) or M101 (right) (AMM 34-12-01/401).
34	12 22	 (01=Capt, 02=F/0) A/S in error. Capt's A/S reads F/0's A/S reads Stby A/S reads ALTN AIR DATA selection fails to correct fault. MASI in error: replace the applicable Mach/airspeed indicator, N1 (captain) or N41 (F/0) (AMM 34-13-02/401). EADI in error: (FIM 34-22-00/101)
34	12 23	 (01=Capt, 02=F/0) Mach indication in error. Capt's Mach reads F/0 Mach reads ALTN AIR DATA selection corrects the fault. Replace the applicable ADC, M100 (left) or M101 (right) (AMM 34-12-01/401).
34	12 24	 (01=Capt, 02=F/0) Mach indication in error. Capt's Mach reads F/0 Mach reads ALTN AIR DATA selection fails to correct fault. MASI in error: replace the applicable Mach/airspeed indicator, N1 (captain) or N41 (F/0) (AMM 34-13-02/401). EADI in error: (FIM 34-22-00/101)
34	12 25 00	 Capt and F/O Vmo differ. Capt's Vmo reads F/O Vmo reads Selecting (Capt, F/O) ALTN AIR DATA corrects the fault. Replace the applicable ADC, M100 (left) or M101 (right) (AMM 34-12-01/401).
34	12 26 00	 Capt and F/O Vmo differ. Capts Vmo reads F/O Vmo reads ALTN AIR DATA selection fails to correct fault. Replace the applicable Mach/airspeed indicator, N1 (captain) or N41 (F/O) (AMM 34-13-02/401).
34	12 27	1. (01=Capt, 02=F/0) A/S and Mach in error. Readings are: Capt A/S, F/0 A/S, Stby A/S, Capt Mach, F/0 Mach Selecting ALTN AIR DATA corrects the fault. 2. FIM 34-12-00/101, Fig. 107, Block 1

34-FAULT CODE INDEX

ALL

FAULT CODE	1. LOG BOOK REPORT 2. FAULT ISOLATION REFERENCE
34 12 28	 (01=Capt, 02=F/0) A/S and Mach in error. Readings are: Capt A/S, F/0 A/S, Stby A/S, Capt Mach, F/0 Mach Selecting ALTN AIR DATA fails to correct the fault. MASI error: replace the applicable mach/airspeed indicator, N1 (captain) or N41 (F/0) (AMM 34-13-02/401). EADI error: (FIM 34-22-00/101)
34 12 29 and 34 12 30	Not Used
34 12 31	 (01=Capt, 02=F/0) MACH flag in view. ALTN AIR DATA selection corrects the fault. Replace the applicable ADC, M100 (left) or M101 (right) (AMM 34-12-01/401).
34 12 32	 (01=Capt, 02=F/0) MACH flag in view. ALTN AIR DATA selection fails to correct fault. Replace the applicable mach/airspeed indicator, N1 (captain) or N41 (F/0) (AMM 34-13-02/401).
34 12 33	 (01=Capt, 02=F/0) Vmo flag in view. ALTN AIR DATA selection corrects the fault. Replace the applicable ADC M100 (left) or M101 (right) (AMM 34-12-01/401).
34 12 34	 (01=Capt, 02=F/0) Vmo flag in view. ALTN AIR DATA selection fails to correct fault. Replace the applicable mach/airspeed indicator, N1 (captain) or N41 (F/0) (AMM 34-13-02/401).
34 12 35	 (01=Capt, 02=F/0) AS, MACH, Vmo, and SPD flags in view. Command bug operation normal. Altimeter OFF flag in view. ALTN AIR DATA selection corrects the fault. FIM 34-12-00/101, Fig. 108, Block 2
34 12 36	 (01=Capt, 02=F/0) AS, MACH, Vmo, and SPD flags in view. Altimeter OFF flag not in view. Replace the applicable ADC, M100 (left) or M101 (right) (AMM 34-12-01/401).
34 12 37	 (01=Capt, 02=F/0) AS, MACH, Vmo and command bug INOP flags in view. EADI airspeed tape was normal. FIM 34-12-00/101, Fig. 108, Bock 1

FAULT CODE	1. LOG BOOK REPORT 2. FAULT ISOLATION REFERENCE
34 12 38	 (01=Capt, 02=F/O) Altm fails to read 10,000 ft during ADC test. Test OK with ALTN AIR DATA selected. Replace the applicable ADC, M100 (left) or M101 (right) (AMM 34-12-01/401).
34 12 39	 (01=Capt, 02=F/0) Altm fails to read 10,000 ft during ADC, test with normal or ALTN AIR DATA selected. Replace the applicable altimeter, N8 (captain) or N48 (F/0) (AMM 34-13-01/401).
34 12 40	 (01=Capt, 02=F/0) Altm OFF flag fails to appear during ADC test. Test OK with ALTN AIR DATA selected. Replace the applicable ADC, M100 (left) or M101 (right) (AMM 34-12-01/401).
34 12 41	 (01=Capt, 02=F/O) Altm OFF flag fails to appear during ADC computer test with normal or ALTN AIR DATA selected. Replace the applicable ADC, M100 (left) or M101 (right) (AMM 34-12-01/401).
34 12 42	 (01=Capt, 02=F/O) Altm OFF flag fails to appear and altm fails to read 10,000 ft during ADC test. Test OK with ALTN AIR DATA selected. Replace the applicable ADC, M100 (left) or M101 (right) (AMM 34-12-01/401).
34 12 43	 (01=Capt, 02=F/0) Altm OFF flag fails to appear and altm fails to read 10,000 ft during ADC test with normal or ALTN AIR DATA selected. Replace the applicable altimeter, N8 (captain) or N48 (F/0) (AMM 34-13-01/401).
34 12 44	 (01=Capt, 02=F/0) Airspeed fails to read 137 KIAS during ADC test. Test OK with ALTN AIR DATA selected. Replace the applicable ADC, M100 (left) or M101 (right) (AMM 34-12-01/401).

FAULT CODE	1. LOG BOOK REPORT 2. FAULT ISOLATION REFERENCE
34 12 45	 (01=Capt, 02=F/O) Airspeed fails to read 137 KIAS during ADC test. With normal or ALTN AIR DATA selected. Replace the applicable MACH/AIRSPEED indicator, N1 (captain) or N41 (F/O) (AMM 34-13-02/401).
34 12 46	Not Used
34 12 47	Not Used
34 12 48	 (01=Capt, 02=F/0) Vmo fails to read 357 KIAS during ADC test. Test OK with ALTN AIR DATA selected. Replace the applicable ADC, M100 (left) or M101 (right) (AMM 34-12-01/401).
34 12 49	 (01=Capt, 02=F/0) Vmo fails to read 357 KIAS during ADC test with normal or ALTN AIR. Replace the applicable MACH/AIRSPEED indicator, N1 (captain) or N41 (F/0) (AMM 34-13-02/401).
34 12 50	34 12 50 thru 34 12 52 Not Used
34 12 53	 (01=Capt, 02=F/O) A/S flag fails to appear during ADC test. Test OK with ALTN AIR DATA selected. Replace the applicable ADC, M100 (left) or M101 (right) (AMM 34-12-01/401).
34 12 54	 (01=Capt, 02=F/O) A/S flag fails to appear during ADC test with normal or ALTN AIR DATA selected. Replace the applicable MACH/AIRSPEED indicator, N1 (captain) or N41 (F/O) (AMM 34-13-02/401).
34 12 55	 (01=Capt, 02=F/0) MACH flag fails to appear during ADC test. Test OK with ALTN AIR DATA selected. Replace the applicable ADC, M100 (left) or M101 (right) (AMM 34-12-01/401).

FAULT CODE	1. LOG BOOK REPORT 2. FAULT ISOLATION REFERENCE
34 12 56	 (01=Capt, 02=F/O) MACH flag fails to appear during ADC test with normal or ALTN AIR DATA selected. Replace the applicable MACH/AIRSPEED indicator, N1 (captain) or N41 (F/O) (AMM 34-13-02/401).
34 12 57	Not Used
34 12 58	Not Used
34 12 59	 (01=Capt, 02=F/0) Mach/AS and Vmo flags fail to appear during ADC test. Test OK with ALTN AIR DATA selected. Replace the applicable ADC, M100 (left) or M101 (right) (AMM 34-12-01/401).
34 12 60	 All (01=Capt, 02=F/0) Mach/IAS, SPD, and VMO failure flags fail to appear during ADC test with normal or ALTN AIR DATA selected. FIM 34-12-00/101, Fig. 109, Block 1.
34 12 61	 All (01=Capt, 02=F/0) Mach/IAS, VMO, SPD and altm failure flags fail to appear during ADC test. Replace the applicable ADC, M100 (left) or M101 (right) (AMM 34-12-01/401).
34 12 62 00	 ADC test is inop. Replace the applicable ADC, M100 (left) or M101 (right) (AMM 34-12-01/401).
34 12 63 00	1. TAS, SAT and TAT indications are blank. 2. FIM 34-12-00/101, Fig. 109, Block 1
34 12 64 00	 TAS, SAT and TAT in error. TAS reads, SAT reads, TAT reads FIM 34-12-00/101, Fig. 109, Block 1
34 12 65	34 12 65 thru 34 12 67 Not Used

FAULT CODE	1. LOG BOOK REPORT 2. FAULT ISOLATION REFERENCE
34 12 68 00	 ADC test of TAT +35°C on EICAS (did not display, was blank, etc). FIM 34-12-00/101, Fig. 109, Block 1
34 12 69 00	Not Used
34 12 70	 (01=Capt, 02=F/0) Altimeter fluctuates. Altimeter normal with ALTN AIR DATA selected. FIM 34-12-00/101, Fig. 103, Block 1
34 12 71	 (01=Capt, 02=F/0) Altimeter fluctuates with normal or ALTN AIR DATA selected. Replace the applicable altimeter, N8 (captain) or N48 (F/0) (N48) (AMM 34-13-01/401).
34 12 72	 (01=Capt, 02=F/0) Altimeter baro indicator has uncommanded movement. Replace the applicable altimeter, N8 (captain) or N48 (F/0) (AMM 34-13-01/401).
34 12 73 00	 TAS indication blank. SAT and TAT normal. Replace the applicable ADC, M100 (left) or M101 (right) (AMM 34-12-01/401).
34 12 74	 Selecting (01=Capt, 02=F/O) ALTN AIR DATA not norm. (Describe) Replace the applicable ADC, M100 (left) or M101 (right) (AMM 34-12-01/401).
34 12 75 00	 EICAS msg OVERSPEED displayed and OVSP lgt illum. Airspeed below limit. Replace the applicable ADC, M100 (left) or M101 (right) (AMM 34-12-01/401).
34 12 77	 (01=Capt, 02=F/0) A/S indicator (fluctuates, sticks, inop, etc.) ALTN AIR DATA selection corrects the fault. FIM 34-12-00/101, Fig. 107, Block 1
34 12 78	 (01=Capt, 02=F/0) A/S indicator (fluctuates, sticks, inop, etc.) ALTN AIR DATA selection fails to correct the fault. Replace the applicable MASI, N1 (captain) or N41 (F/0) (AMM 34-13-02/401).

FAULT	1. LOG BOOK REPORT
CODE	2. FAULT ISOLATION REFERENCE
34 12 79	 (O1=Capt, O2=F/O, O3=Capt & F/O) VSI did not display flag(s) during ADC test. Test OK with ALTN AIR DATA selected.
	2. Replace the applicable ADC, M100 (left) or M101 (right) (AMM 34-13-02/401).
34 12 80	1. (01=Capt, 02=F/0, 03=Capt & F/0) VSI did not display flag(s)
	during ADC test with norm or ALTN AIR DATA selected. 2. Replace the applicable VSI, N9 (captain) or N49 (F/0)
	(AMM 34-22-06/401).
34 12 81	1. (01=Capt, 02=F/O) VMO indicator sticks.
	2. Replace the applicable ADC, M100 (left) or M101 (right) (AMM 34-13-02/401).
34 12 82	1. (O1=Capt, O2=F/O) EADI speed tape faulty (describe) with
34 12 32	normal or ALTN AIR DATA selected.
	2. FIM 34-22-00/101, Fig. 108, Block 1. If the problem continues FIM 34-12-00/101, Fig. 109, Block 1.
34 12 83	1. (O1=Capt, O2=F/O) SPD flag and Altn OFF flag in view. ALTN
31 12 03	AIR DATA selection corrects fault.
	2. FIM 34-12-00/101, Fig. 104, Block 1
34 12 84	1. (O1=Capt, O2=F/O) SPD and MACH flag fails to appear during ADC test. Test ok with ALTN AIR DATA selected.
	2. Replace the applicable ADC, M100 (left) or M101 (right)
	(AMM 34-12-01/401).
34 12 85	1. (O1=Capt, O2=F/O) SPD and MACH flag fails to appear during ADC test with normal or ALTN AIR DATA selected.
	2. FIM 34-12-00/101, Fig. 109, Block 1.
34 12 86	1. (O1=Capt, O2=F/O) SPD, MACH and ALTM OFF flags fail to appear
	during ADC test. 2. FIM 34-12-00/101, Fig. 109, Block 1.
34 12 87	
34 12 01	 (01=Capt, 02=F/0) AS and SPD flags in view. ALTN AIR DATA selection corrected the fault.
	2. FIM 34-12-00/101, Fig. 107A, Block 1.
34 12 88	 (01=Capt, 02=F/0) AS and SPD flags in view. ALTN AIR DATA selection fails to correct the fault.
	2. FIM 34-12-00/101, Fig. 109, Block 1.

FAULT CODE	1. LOG BOOK REPORT 2. FAULT ISOLATION REFERENCE
34 12 89	 (01=Capt, 02=F/0) AS, MACH, VMO flags in view in Mach/Airspeed Ind. Command Bug and EADI airspeed are norm. FIM 34-12-00/101, Fig. 108, Block 1.
34 12 90	 Command bug(s) on (01=Capt, 02=F/0, 03=Both) AS/MACH indicator(s) behind mask(s) and disappear from EADI speed tape during SPD mode. Replace the AFDS mode control panel (AMM 22-11-02).
34 12 91	1. (01=Capt, 02=F/0) EADI SPD flag in view. MACH ind is normal. 2. FIM 34-12-00/101, Fig. 107A, Block 1.
34 13 01 00	 Standby Altimeter (Describe the problem: low, high, sticks, fluctuates, vibrates, INOP, etc.). Replace the standby altimeter, N23 (AMM 34-13-06/401).
34 13 02 00	 Standby airspeed (Describe the problem: low, high, sticks, fluctuates, etc.). FIM 34-13-00/101, Fig. 103, Block 1
34 13 03 00	 Standby altimeter and standby airspeed (Describe the problem: low, high, fluctuates, Etc.) FIM 34-11-00/101, Fig. 104, Block 1.
34 21 01	 (01=Capt, 02=F/0) RDMI heading card sticks. Replace the applicable RDMI, N43 (Capt) or N3 (F/0) (AMM 34-22-05/401).
34 21 02	 (01=Capt, 02=F/0) RDMI and opposite EHSI heading in error. Capt's RDMI reads, F/0's RDMI reads, standby compass reads OK on ALTN IRS. Replace the applicable IRU, M159 (left) or M161 (right)
34 21 03	 (AMM 34-21-01/401). 1. (01=Capt, 02=F/0) RDMI heading in error. Capt reads, F/0 reads, standby compass reads ALTN IRS doesn't correct. 2. Replace the applicable RDMI, N43 (capt) or N3 (F/0) (AMM 34-22-05/401).

FAULT CODE	1. LOG BOOK REPORT 2. FAULT ISOLATION REFERENCE
34 21 04	 (O1=Capt, O2=F/O) RDMI heading flag in view. IRS FAULT not illuminated. Open, and then close, the applicable RDMI circuit breaker, L RDMI 11A6 (C635), or R RDMI 11F25 (C636). If the problem continues replace the applicable RDMI, N43 (captain) or N3 (F/O) (AMM 34-22-05/401).
34 21 05	 (01=Capt, 02=F/0) RDMI HDG flag in view. DME normal. (L, R) IRS fault is indicated. Ok on ALTN IRS. Replace the applicable IRU, M159 (left) or M161 (right) (AMM 34-21-01/401).
34 21 06	 (01=Capt, 02=F/0) RDMI HDG flag in view. DME normal. ALTN IRS corrects fault. FIM 34-21-00/101, Fig. 103, Block 1
34 21 07	 (01=Capt, 02=F/0) RDMI HDG flag in view. DME is blank. Replace the applicable RDMI, N43 (Capt) or N3 (F/0) (AMM 34-22-05/401)
34 21 08	 (01=Capt, 02=F/0) Vertical speed sticks. Replace the applicable VSI N9 (left) or N49 (Right) (AMM 34-22-06).
34 21 09	 (01=Capt, 02=F/0) Vertical speed incorrect. Ok on ALTN IRS. Replace the applicable IRU, M159 (left) or M161 (right) (AMM 34-21-01/401).
34 21 10	 (01=Capt, 02=F/0) Vertical speed incorrect. ALTN IRS doesn't correct. ALTN AIR DATA corrects. FIM 34-12-00/101, Fig. 109, Block 1
34 21 11	 (01=Capt, 02=F/0) VSI flag in view. (L, R) IRS fault indicated. Ok on ALTN IRS. Replace the applicable IRU, M159 (left) or M161 (right) (AMM 34-21-01/401).
34 21 12	 (01=Capt, 02=F/0) VSI flag in view. ALT AIR DATA corrects. FIM 34-12-00/101, Fig. 109, Block 1

	FAULT CODE	1. LOG BOOK REPORT 2. FAULT ISOLATION REFERENCE
34	21 13	 (01=Capt, 02=F/0) EHSI track in error. Capt track, F/0 track Ok on ALTN IRS. Replace the applicable IRU, M159 (left) or M161 (right) (AMM 34-21-01/401).
34	21 14	 (01=Capt, 02=F/0) EHSI track in error. Capt track, F/0 track ALTN IRS doesn't correct. Replace the applicable symbol generator, M148 (left) or M150 (right) (AMM 34-22-01/401).
34	21 15	 (01=Capt, 02=F/0) EHSI track flag in view. IRS fault light illuminates and EICAS message (L, C, R) IRS FAULT displayed. Ok on ALTN IRS. Replace the applicable IRU, M159 (left) or M161 (right) (AMM 34-21-01/401).
34	21 16	 (01=Capt, 02=F/0) EHSI track flag in view. Ok on ALTN IRS. Replace the applicable IRU, M159 (left) or M161 (right) (AMM 34-21-01/401).
34	21 17	 (01=Capt, 02=F/0) EHSI heading bug in error. Capt EHSI heading, F/O RDMI heading, standby compass heading OK on ALTN IRS. Replace the applicable IRU, M159 (left) or M161 (right) (AMM 34-21-01/401).
34	21 18	 (01=Capt, 02=F/0) HSI curved trend vector missing. IRS fault light illuminates. EICAS message (L, C, R) IRS FAULT displayed. OK on ALTN IRS. Replace the applicable IRU, M159 (left) or M161 (right) (AMM 34-21-01/401).
34	21 19	 (01=Capt, 02=F/0) EHSI curved trend vector missing. Replace the applicable symbol generator, M148 (left) or M150 (right) (AMM 34-22-01/401).
34	21 20	 (01=Capt, 02=F/0) EHSI heading bug missing. Opposite RDMI HDG normal. Replace the applicable symbol generator, (M148) (left) or M150 (right) (AMM 34-22-01/401).

	FAULT CODE	LOG BOOK REPORT FAULT ISOLATION REFERENCE
34	21 21	. (O1=Capt, O2=F/O) EHSI heading bug missing. HDG and VOR flags in view on opposite RDMI. IRS fault light illuminates, EICAS message (L,C,R,) IRS FAULT displayed. Ok on ALTN IRS Replace the applicable IRU, M159 (left) or M161 (right) (AMM 34-21-01/401).
34	21 22	 (01=Capt, 02=F/0) EHSI heading bug missing. HDG and VOR flags in view on opposite RDMI. Replace the applicable IRU, M159 (left) or M161 (right) (AMM 34-21-01/401).
34	21 23	. (01=Capt, 02=F/0) EADI ground speed in error. Capt ground speed reads Ok on ALTN IRS Replace the applicable IRU, M159 (left) or M161 (right) (AMM 34-21-01/401).
34	21 24	 (01=Capt, 02=F/O) ADI ground speed in error. ALTN IRS doesn't correct. Replace the applicable symbol generator, M148 (left) or M150 (ight) (AMM 34-22-01/401).
34	21 25	. (01=Capt, 02=F/0) EADI ground speed blank. (L,R) IRS fault indicated. Ok on ALTN IRS Replace the applicable IRU, M159 (left) or M161 (right) (AMM 34-21-01/401).
34	21 26	. (O1=Capt, O2=F/O) EADI ground speed blank. . Replace the applicable symbol generator, M148 (left) or M150 right (AMM 34-22-01/401).
34	21 27	. (01=Capt, 02=F/O) EADI pitch (describe problem: indicates excessive pitch, oscillates, drifts, etc). ATT DISAGREE message displayed on EICAS. Ok on ALTN IRS. Replace the applicable IRU, M159 (left) or M161 (right) (AMM 34-21-01/401).
34	21 28	. (01=Capt, 02=F/0) EADI pitch (describe problem: indicates excessive pitch, oscillates, drifts, etc). ALTN IRS doesn't correct. Replace the applicable symbol generator M148 (left) or M150 (right) (AMM 34-22-01/401).

	1. LOG BOOK REPORT 2. FAULT ISOLATION REFERENCE
34 21 29	 (01=Capt, 02=F/0) EADI bank (describe problem: indicates excessive bank, oscillates, drifts, etc). ATT DISAGREE message displayed on EICAS. Ok on ALTN IRS. Replace the applicable IRU, M159 (left) or M161 (right) (AMM 34-21-01/401).
34 21 30	 (01=Capt, 02=F/0) EADI bank (describe problem: indicates excessive bank, oscillates, drifts, etc). ATT DISAGREE message display on EICAS. ALTN IRS doesn't correct. Replace the symbol generator, M148 (left) or M150 (right) (AMM 34-22-01/401).
34 21 31	 (01=Capt, 02=F/0) EADI ATT flag in view. (L, R) IRS fault indicated. ATT DISAGREE message displayed on EICAS. 0k on ALTN IRS. Replace the applicable IRU, M159 (left) or M161 (right) (AMM 34-21-01/401).
34 21 32	 (01=Capt, 02=F/0) EADI ATT flag in view. ATT DISAGREE message displayed on EICAS. Replace the applicable symbol generator, M148 (left) or M150 (right) (AMM 34-22-01/401).
34 21 33	 (01=Capt, 02=F/0) EADI ATT flag in view and ground speed blank. ATT DISAGREE message displayed on EICAS. (L, R) IRS fault indicated. OK on ALTN IRS. Replace the applicable IRU, M159 (left) or M161 (right) (AMM 34-21-01/401).
34 21 34	 (01=Capt, 02=F/0) EADI ATT flag in view and ground speed blank. ATT DISAGREE message displayed on EICAS. Replace the symbol generator, M148 (left) or M150 (right) (AMM 34-22-01/401).
34 21 35	 (O1=Capt, O2=F/O) EADI ATT flag in view and ground speed blank. ATT DISAGREE message displayed on EICAS. RDMI HDG flag, EHSI TRK flag, and vert speed OFF flag also in view. (L, R) IRS fault indicated. Ok on ALTN IRS.

FAULT CODE	1. LOG BOOK REPORT 2. FAULT ISOLATION REFERENCE
	2. Replace the applicable IRU, M159 (left) or M161 (right) (AMM 34-21-01/401).
34 21 36	Not used
34 21 37	1. (01=L, 02=C, 03=R, 04=All) IRS indicate(s) IRS DC FAIL. 2. FIM 34-21-00/101, Fig. 105, Block 1
34 21 38	1. (01=L, 02=C, 03=R, 04=ALL) IRS indicate(s) IRS ON DC. 2. FIM 34-21-00/101, Fig. 106, Block 1
34 21 39	 During alignment (01=L, 02=C, 03=R) IRS indicated IRS FAULT. Selecting ATT extinguished FAULT. Replace the applicable IRU, M159 (left), M160 (center), or M161 (right) (AMM 34-21-01/401).
34 21 40	 During alignment (01=L, 02=C, 03=R) IRS indicated IRS FAULT. FAULT remained illum with ATT selected. Replace the applicable IRU, M159 (left), M160 (center), or M161 (right) (AMM 34-21-01/401).
34 21 41	 At end of alignment (O1=L, O2=C, O3=R) IRS indicated IRS FAULT. Selecting ATT extinguished FAULT. Replace the applicable IRU, M159 (left), M160 (center), or M161 (right) (AMM 34-21-O1/401).
34 21 42	 At end of alignment (O1=L, O2=C, O3=R) IRS indicated IRS FAULT. FAULT remained illum with ATT selected. Replace the applicable IRU, M159 (left), M160 (center), or M161 (right) (AMM 34-21-O1/401).
34 21 43	 After alignment (01=L, 02=C, 03=R) IRS indicated IRS FAULT. Selecting ATT extinguished FAULT. Replace the applicable IRU, M159 (left), M160 (center), or M161 (right) (AMM 34-21-01/401).
34 21 44	 After alignment (01=L, 02=C, 03=R) IRS indicated IRS FAULT. FAULT remained illum with ATT selected. Replace the applicable IRU, M159 (left), M160 (center), or M161 (right) (AMM 34-21-01/401).

FAULT CODE	1. LOG BOOK REPORT 2. FAULT ISOLATION REFERENCE
34 21 45	 (01=L, 02=C, 03=R) ALIGN flashed when pos entered and re-entered. Replace the applicable IRU, M159 (left), M160 (center), or M161 (right) (AMM 34-21-01/401).
34 21 46	 (01=L, 02=C, 03=R, 04=ALL) ALIGN flashed approx 10 min after align mode entered. IRS FAULT remained extin. Replace the applicable IRU, M159 (left), M160 (center), or M161 (right) (AMM 34-21-01/401). If all flashed, replace the IRS panel, M59 (AMM 34-21-02/201).
34 21 47	 (01=L, 02=C, 03=R, 04=ALL) ALIGN flashed approx 10 min after align entered. IRS FAULT illuminated when latitude was re-entered. Replace the applicable IRU, M159 (left), M160 (center), or M161 (right) (AMM 34-21-01/401).
	For (04), replace the IRS panel, M59 (AMM 34-21-02/201).
34 21 48	Not used.
34 21 49	 ON DC failed to illum and then exting on (O1=L, O2=C, O3=R) IRS(s) when align initiated. Replace the applicable IRU, M159 (left), M160 (center), or M161 (right) (AMM 34-21-01/401).
34 21 50	 ALIGN failed to illum on (01=L, 02=C, 03=R) IRS(s) when align initiated. Replace the applicable IRU, M159 (left), M160 (center), or M161 (right) (AMM 34-21-01/401).
34 21 51	 ALIGN failed to exting on (01=L, 02=C, 03=R) IRS when NAV entered. NAV selected when turned on. FIM 34-21-00/101, Fig. 106D, Block 1
34 21 52	 ALIGN failed to illum and then exting on (01=L, 02=C, 03=R) IRS when switched from NAV to ALIGN to NAV. Replace the applicable IRU, M159 (left), M160 (center), or M161 (right) (AMM 34-21-01/401).

FAULT CODE	1. LOG BOOK REPORT 2. FAULT ISOLATION REFERENCE
34 21 53	 TK/GS display on IRS panel is inop from (01=L, 02=C, 03=R), 04=ALL) IRS system(s). Replace the IRS panel, (M59) (AMM 34-21-02/201).
34 21 54	 PPOS display on IRS panel is inop from (01=L, 02=C, 03=R, 04=ALL) IRS system(s). Replace the IRS panel, M59 (AMM 34-21-02/201).
34 21 55	 WIND display on IRS panel is inop from (01=L, 02=C, 03=R, 04=ALL) IRS system(s). Replace the IRS panel, M59 (AMM 34-21-02/201).
34 21 56	 HDG display on IRS panel is inop from (01=L, 02=C, 03=R, 04=ALL) IRS system(s). Replace the IRS panel, M59 (AMM 34-21-02/201).
34 21 57	 (01=L, 02=C, 03=R) IRS residual position error excessive, (indicate NM error, time in nav & No. of flights). Replace the IRU M159 (left) (M160 (center), M161 (right)) (AMM 34-21-01/401).
34 21 57 00	 The number in (describe position) is (describe problem: segment missing, blank, cycling, etc) on IRS panel. Replace the IRS panel, M59 (AMM 34-21-02/201).
34 21 58	 All displays on IRS panel are inop from (01=L, 02=C, 03=R, 04=ALL) IRS system(s). Replace the applicable IRU, M159 (left), M160 (center), or M161 (right) (AMM 34-21-01/401). If the problem continues, replace the IRS panel, M59 (AMM 34-21-02/201).
34 21 59	 (01=L, 02=C, 03=R) IRS residual groundspeed error excessive, (indicate G.S. error, No. of flights). Do the residual groundspeed error check (FIM 34-21-00/101). Replace the IRU M159 (left) (M160 (center), M161 (right)) (AMM 34-21-01/401).
34 21 59 00	1. (describe key: 1, 2, 3, etc) key is inop on IRS panel. 2. Replace the IRS panel, M59 (AMM 34-21-02/201).
34 21 60 00	 All keys are inop on IRS panel. Replace the IRS panel, M59 (AMM 34-21-02/201).

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FAULT CODE	1. LOG BOOK REPORT 2. FAULT ISOLATION REFERENCE
34 21 61 00	 Align light flashes on all IRU annunciators, after second position was entered on IRS panel. FIM 34-21-00/101, Fig. 106C, Block 1
34 21 62	 (01=Capt, 02=F/0) RDMI HDG flag in view. DME normal. ALTN IRS doesn't correct. Replace the applicable RDMI, N43 (captain) or N3 (F/0) (AMM 34-22-05/401).
34 21 63	1. (O1=Capt, O2=F/O) EHSI heading bug in error. Capt HSI heading, F/O RDMI heading Standby compass heading ALTN IRS doesn't correct. 2. FIM 34-22-00/101, Fig. 108, Block 1
34 21 64	 (01=Capt, 02=F/0) EHSI track flag in view. ALTN IRS doesn't correct. Replace the applicable symbol generator, M148 (left) or M150 (right) (AMM 34-22-01/401).
34 21 65	 Align light flashes on (01=L, 02=C, 03=R) IRS panel after second position entry from IRS panel. IRS pos entry from FMC-CDU ok. FIM 34-21-00/101, Fig. 106B, Block 1
34 21 66	 Align light flashes on (01=L, 02=C, 03=R) IRS panel after second position entry from IRS panel. IRS pos entry from FMC unsuccessful. FIM 34-21-00/101, Fig. 106A, Block 1
34 21 67 01	 TRACK DISAGREE displayed on EICAS. Changing to ALTN IRS on Capt side corrects the fault. Replace the left IRU, M159 (AMM 34-21-01/401).
34 21 67 02	 TRACK DISAGREE displayed on EICAS. Changing to ALTN IRS on F/O side corrects the fault. Replace the right IRU, M161 (AMM 34-21-01/401).
34 21 68	 (01=Capt, 02=F/0) vertical speed incorrect. ALTN IRS doesn't correct. ALTN AIR DATA doesn't correct. Replace the applicable VSI, N9 (captain) or N49 (F/0) (AMM 34-22-06/401).
34 21 69	 (01=Capt, 02=F/0) VSI flag in view. ALTN AIR DATA doesn't correct. FIM 34-21-00/101, Fig. 104, Block 1.

FAULT CODE	1. LOG BOOK REPORT 2. FAULT ISOLATION REFERENCE
34 21 70 00	 HDG DISAGREE displayed on EICAS. Changing to ALTN IRS doesn't correct the fault. FIM 34-25-00/101, Fig. 103, Block 1 FIM 34-22-00/101, Fig. 108, Block 1
34 21 70 00	Not used
34 21 71 00	 ATT DISAGREE message displayed on EICAS. FIM 34-21-00/101, Fig. 107, Block 1
34 21 72	 (01=CAPT, 02=F/0) RDMI heading flag in view. IRS FAULT illuminated. Replace the applicable IRU, M159 (left) or M160 (right) (AMM 34-21-01/401).
34 21 73	 After flight residual GS on (01=L, 02=C, 03=R) IRU is too high for two consecutive flights (Record GS error per flight). Replace the applicable IRU, M159 (left), M160 (center), or M161 (right) (AMM 34-21-01/401).
34 21 74	 After flight P POS is in error on (01=L, 02=C, 03=R, IRU). (Record time IRS was in operation, actual and indicated latitude and longitude. Add note if IRS error was excessive for 2 consecutive flights. FIM 34-21-00/101, Fig. 107A, Block 1
34 21 75	 TRACK DISAGREE displayed on EICAS. Changing to ALTN IRS does not correct the fault. FIM 34-25-00/101, Fig. 103, Block 1 FIM 34-22-00/101, Fig. 108, Block 1
34 21 76 01	 HDG DISAGREE displayed on EICAS. Changing to ALTN IRS on Capt side corrects the fault. Replace the left IRU, M159 (AMM 34-21-01/401).
34 21 76 02	 HDG DISAGREE displayed on EICAS changing to ALTN IRS on F/O side corrects the fault. Replace the right IRU, M161 (AMM 34-21-01/401).

FAULT CODE	1. LOG BOOK REPORT 2. FAULT ISOLATION REFERENCE
34 21 77	 (01=L, 02=C, 03=R) IRS residual groundspeed error excessive, (indicate G.S. error, No. of flights). Replace the L (C, R) IRU, B7161 (B7163, B7162) (AMM 34-21-01/401).
34 21 78	 (01=L, 02=C, 03=R) IRS residual position error excessive, (indicate NM error, tine in nav & No. of flights). Replace the L (C, R) IRU, B7161 (B7163, B7162) (AMM 34-21-01/401).
34 22 01	 (01=Capt, 02=F/0) EADI is (blank, intermittent). Selecting ALT EFI corrects the fault. Replace the applicable EFIS symbol generator, M148 (left) or M150 (right) (AMM 34-22-01/401).
34 22 02	 (01=Capt, 02=F/0) EADI is (blank, intermittent). Selecting ALT EFI does not correct fault. FIM 34-22-00/101, Fig. 104, Block 2
34 22 03	1. (01=Capt, 02=F/0) EADI is out of focus. 2. FIM 34-22-00/101, Fig. 104, Block 1
34 22 04	 (01=Capt, 02=F/0) EADI SKY-GND display goes black intermittently. FIM 34-22-00/101, Fig. 104, Block 1
34 22 05	 (01=Capt, 01=F/O) EADI sky/ground boundary is incorrect. Selecting ALTN EFI corrects fault. Replace the applicable EFIS symbol generator, M148 (left) or M150 (right) (AMM 34-22-01/401).
34 22 06	 (01=Capt, 02=F/0) EADI white horizon line is not aligned with the sky/ground line. Selecting ALTN EFI corrects fault. Replace the applicable EFIS symbol generator, M148 (left) or M150 (right) (AMM 34-22-01/401).
34 22 07	 (01=Capt, 02=F/0) EADI is distorted. Selecting ALT EFI corrects the fault. Replace the applicable EFIS symbol generator, M148 (left) or M150 (right) (AMM 34-22-01/401).
34 22 08	 (01=Capt, 02=F/0) EADI is distorted. Selecting ALT EFI does not correct the fault. FIM 34-22-00/101, Fig. 104, Block 2

FAULT CODE	1. LOG BOOK REPORT 2. FAULT ISOLATION REFERENCE
34 22 09	 (01=Capt, 02=F/0) EADI sky and ground colors are offset. Selecting ALTN EFI corrects fault. Replace the applicable EFIS symbol generator, M148 (left) or M150 (right) (AMM 34-22-01/401).
34 22 10	 (01=Capt, 02=F/0) EADI (width, height) is incorrect. Selecting ALT EFI corrects fault. Replace the applicable EFIS symbol generator, M148 (left) or M150 (right) (AMM 34-22-01/401).
34 22 11	 (01=Capt, 02=F/0) EADI (width, height) is incorrect. Selecting ALT EFI does not correct fault. FIM 34-22-00/101, Fig. 104, Block 2
34 22 12	 (01=Capt, 02=F/0) EADI size and (linearity, brightness) changed. Selecting ALT EFI corrects the fault. Replace the applicable EFIS symbol generator, M148 (left) or M150 (right) (AMM 34-22-01/401).
34 22 13	 (01=Capt, 02=F/0) EADI size and (linearity, brightness) changed. Selecting ALT EFI does not correct the fault. FIM 34-22-00/101, Fig. 104, Block 2
34 22 14	 (01=Capt, 02=F/0) EADI is only one color. Selecting ALT EFI corrects fault. Replace the applicable EFIS symbol generator, M148 (left) or M150 (right) (AMM 34-22-01/401).
34 22 15	 (01=Capt, 02=F/0) EADI is only one color. Selecting ALT EFI does not correct fault. FIM 34-22-00/101, Fig. 104, Block 2
34 22 16	 (01=Capt, 02=F/0) EADI is wrong (color, intensity). Selecting ALT EFI corrects the fault. Replace the applicable EFIS symbol generator, M148 (left) or M150 (right) (AMM 34-22-01/401).
34 22 17	 (01=Capt, 02=F/0) EADI is wrong (color, intensity). Selecting ALT EFI does not correct fault. FIM 34-22-00/101, Fig. 104, Block 2
34 22 18	 (01=Capt, 02=F/0) EADI has a colored fringe on the display. Replace the applicable EADI, N4 (captain) or N44 (F/0) as necessary (AMM 34-22-03/401).

FAULT CODE	1. LOG BOOK REPORT 2. FAULT ISOLATION REFERENCE
34 22 19	1. (01=Capt, 02=F/0) EADI color shade is off. 2. FIM 34-22-00/101, Fig. 104, Block 1
34 22 20	 (01=Capt, 02=F/0) EADI manual brightness adjust is (inop, unable to dim, etc). FIM 34-22-00/101, Fig. 105, Block 1
34 22 21	 (01=Capt, 02=F/0) EADI manual and auto brightness adjust are inop. FIM 34-22-00/101, Fig. 105, Block 1
34 22 22	 (01=Capt, 02=F/0) EHSI is (blank, intermittent). Selecting ALT EFI corrects the fault. Replace the applicable EFIS symbol generator, M148 (left) or M150 (right) (AMM 34-22-01/401).
34 22 23	 (01=Capt, 02=F/0) EHSI is (blank, intermittent). Selecting ALT EFI does not correct fault. FIM 34-22-00/101, Fig. 106, Block 1
34 22 24	1. (01=Capt, 02=F/0) EHSI is out of focus. 2. FIM 34-22-00/101, Fig. 105, Block 1
34 22 25	Not Used
34 22 26	 (01=Capt, 02=F/0) EHSI is distorted. Selecting ALT EFI corrects the fault. Replace the applicable EFIS symbol generator, M148 (left) or M150 (right) (AMM 34-22-01/401).
34 22 27	 (01=Capt, 02=F/0) EHSI is distorted. Selecting ALT EFI does not correct the fault. FIM 34-22-00/101, Fig. 106, Block 1
34 22 28	 (01=Capt, 02=F/0) EHSI (width, height) is incorrect. Selecting ALT EFI corrects the fault. Replace the applicable EFIS symbol generator, M148 (left) or M150 (right) (AMM 34-22-01/401).
34 22 29	 (01=Capt, 02=F/0) EHSI (width, height) is incorrect. Selecting ALT EFI does not correct fault. FIM 34-22-00/101, Fig. 106, Block 1

FAULT CODE	1. LOG BOOK REPORT 2. FAULT ISOLATION REFERENCE
34 22 30	 (01=Capt, 02=F/0) EHSI size and (linearity, brightness) changed. Selecting ALT EFI corrects the fault. Replace the applicable EFIS symbol generator, M148 (left) or M150 (right) (AMM 34-22-01/401).
34 22 31	 (01=Capt, 02=F/0) EHSI size and (linearity, brightness) changed. Selecting ALT EFI does not correct the fault. FIM 34-22-00/101, Fig. 106, Block 1
34 22 32	 (01=Capt, 02=F/0) EHSI is only one color. Selecting ALT EFI corrects fault. Replace the applicable EFIS symbol generator, M148 (left) or M150 (right) (AMM 34-22-01/401).
34 22 33	 (01=Capt, 02=F/0) EHSI is only one color. Selecting ALT EFI does not correct fault. FIM 34-22-00/101, Fig. 106, Block 1
34 22 34	 (01=Capt, 02=F/0) EHSI is wrong (color, intensity). Selecting ALT EFI corrects the faults. Replace the applicable EFIS symbol generator, M148 (left) or M150 (right) (AMM 34-22-01/401).
34 22 35	 (01=Capt, 02=F/0) EHSI is wrong (color, intensity). Selecting ALT EFI does not correct the fault. FIM 34-22-00/101, Fig. 106, Block 1
34 22 36	 (01=Capt, 02=F/0) EHSI has a colored fringe on the display. Replace the applicable EHSI, N5 (captain) or N45 (F/0) as necessary (AMM 34-22-04/401).
34 22 37	1. (01=Capt, 02=F/0) EHSI color shade is off. 2. FIM 34-22-00/101, Fig. 107, Block 1
34 22 38	 (01=Capt, 02=F/0) EHSI manual brightness adjust is inop. FIM 34-22-00/101, Fig. 107, Block 1
34 22 39	 (01=Capt, 02=F/0) EHSI manual and auto brightness adjust is inop. FIM 34-22-00/101, Fig. 107, Block 1

FAULT CODE	1. LOG BOOK REPORT 2. FAULT ISOLATION REFERENCE
34 22 40	 (01=Capt, 02=F/0) EADI and EHSI are blank. Selecting ALTN EFI corrects the fault. FIM 34-22-00/101, Fig. 108, Block 1
34 22 41	 (01=Capt, 02=F/0) EADI and EHSI displays are unintelligable. Replace the applicable EFIS symbol generator, M148 (left) or M150 (right) (AMM 34-22-01/401).
34 22 42	 (01=Capt, 02=F/0) EADI and EHSI have no lines on the displays. Replace the applicable EFIS symbol generator, M148 (left) or M150 (right) (AMM 34-22-01/401).
34 22 43	 (01=Capt, 02=F/0) EADI and EHSI lines are offset. Replace the applicable EFIS symbol generator, M148 (left) or M150 (right) (AMM 34-22-01/401).
34 22 44	 (01=Capt, 02=F/0) HSI mode selector position does not correspond to HSI display. ILS mode displayed. DH and WX RADAR FAIL displayed. Replace the applicable EFIS control panel, M94 (left) or M95 (right) as necessary (AMM 34-22-02/201).
34 22 45	 (01=Capt, 02=F/0) HSI (NAV AID, ARPT, RTE DATA, WPT) MAP feature switch(es) (describe fault). Replace the applicable EFIS control panel, M94 (left) or M95 (right) as necessary (AMM 34-22-02/201).
34 22 46	 (01=Capt, 02=F/0) HSI RANGE selector (describe fault). Replace the applicable EFIS control panel, M94 (left) or M95 (right) as necessary (AMM 34-22-02/201).
34 22 47	 (01=CAPT, 02=F/0) sky-gnd circle on EADI and WXR radar on HSI go black. FIM 34-22-00/101, Fig. 108, Block 1
34 22 48	 (01=Capt, 02=F/0) EADI and EHSI displays intermittent. Displays normal on ALTN EFI. Replace the applicable EFIS symbol generator, M148 (left) or M150 (right) (AMM 34-22-01/401).
34 22 49	 (01=Capt, 02=F/0) EADI and EHSI displays intermittent. Condition same on ALTN EFI. FIM 34-22-00/101, Fig. 108, Block 1

FAULT CODE	1. LOG BOOK REPORT 2. FAULT ISOLATION REFERENCE
34 22 50	 Command bug(s) on (01=Capt, 02=F/0, 03=both) EADI speed Tape(s) and MACH/AS Indicator(s) disagree(s) with (MCP FMS CDU). Bugs normal using ALTN EFI. Replace the applicable EFIS symbol generator, M148 (left) or M150 (right) (AMM 34-22-01/401).
34 22 51	 (V1, Vr, Command) Airspeed Command Bug(s) (not normal, missing, etc) on (O1=Capt, O2=F/O) EADI speed tape(s). ALTN EFI selection corrects fault. Replace the applicable EFIS symbol generator, M148 (left) or M150 (right) (AMM 34-22-01/401).
34 22 52	 V1, Vr Bug(s) (not normal, missing etc) on (01=Capt, 02=F/0, 03=both) EADI speed tape(s). ALTN EFI selection corrects fault. Replace the applicable EFIS symbol generator, M148 (left) or M150 (right) (AMM 34-22-01/401).
34 22 53	 (01=Capt, 02=F/0) ADI speed Tape faulty (describe). ALTN AIR DATA selection corrects fault. FIM 34-12-00/101, Fig. 109, Block 1. IF fault persists, perform FIM 34-22-00/101, Fig. 104, Block 1.
34 22 54	34 22 54 thru 34 22 69 Not Used
34 22 70	 (01=CAPT, 02=F/0) EADI sky/gnd boundry is incorrect. Selecting ALTN EFI does not correct fault. FIM 34-22-00/101, Fig. 104, Block 1
34 22 71	 (01=CAPT, 02=F/0) EADI white horizon line is offset from sky/gnd boundry. Selecting ALTN EFI does not correct fault. FIM 34-22-00/101, Fig. 104, Block 1
34 22 72	 (01=CAPT, 02=F/0) EADI sky and gnd color are offset. Selecting ALTN EFI does not correct fault. FIM 34-22-00/101, Fig. 104, Block 1
34 22 73	 (01=CAPT, 02=F/0) EADI and EHSI are both blank. Selecting ALTN EFI does not correct fault. FIM 34-22-00/101, Fig. 108, Block 1
34 22 74	1. (01=CAPT, 02=F/0) EADI auto brightness inop. 2. FIM 34-22-00/101, Fig. 105, Block 1

		1. LOG BOOK REPORT 2. FAULT ISOLATION REFERENCE
34	22 75 00	Not Used
34	22 76 00	Not Used
34	22 77	 (01=CAPT, 02=F/0) EHSI auto brightness inop. FIM 34-22-00/101, Fig. 107, Block 1
34	22 78	34 22 78 thru 34 22 85 Not used
34	22 86	 Selecting (O1=Capt, O2=F/O) ALTN IRS not norm. (Describe). Replace the applicable IRU, M159 (left), M160 (center), or M161 (right) (AMM 34-21-01/401).
34	22 87	 (01=Capt, 02=F/0) slip indicator not centered. Adjust the EADI inclinometer (AMM 34-22-00/501)
34	22 88	 Selecting (O1=Capt, O2=F/O) ALTN EFI not norm. (Describe). Examine and repair the applicable ALTN EFI switch and the related circuits (WDM 34-22-17, WDM 34-22-27)
34	22 89	 Selecting (O1=Capt, O2=F/O) ALTN FMC not norm. (Describe). Examine and repair the applicable ALTN FMC switch and the related circuits (WDM 34-22-17, WDM 34-22-27)
34	22 90	1. (O1=Capt, O2=F/O, O3=Capt & F/O) HSI and (opposite side, both) RDMI/RMI failed to indicate change to true heading when (above 73 degrees N, below 60 degrees S). System normal with HDG REF sw in TRUE.
		2. Replace the applicable EFIS symbol generator, M148 (left) or M150 (right) (AMM 34-22-01/401).

	1. LOG BOOK REPORT
CODE	2. FAULT ISOLATION REFERENCE
34 22 91	 (O1=Capt, O2=F/O, O3=Capt & F/O) HSI and (opposite side, both) RDMI RMI failed to indicate change to true heading with HDG REF sw in TRUE. Examine and repair or replace the HDG REF SW and the related circuits (WDM 34-22-26).
34 22 92	 (01=Capt., 02=F/0) EADI and EHSI are blank with SG FAIL message displayed in both indicators. Selecting ALTN EFI corrects fault. FIM 34-22-00/101, Fig. 108, Block 1. If the problem continues replace the EFIS symbol generator, M148 (left) or M150 (right) as necessary (AMM 34-22-01/401).
34 22 96	 (01=Capt, 02=F/0) TFC switch (describe fault). Replace the EFIS control panel.
34 23 01 00	 Standby compass light inoperative. Replace the bulb.
34 23 02 00	1. Standby compass heading incorrect. Reads, should read
	2. Do a standby compass calibration (AMM 34-23-00/201)
34 24 01 00	 Standby attitude indicator lights inoperative. Replace the standby attitude indicator (AMM 34-23-00).
34 24 02 00	 Standby attitude indicator attitude display abnormal (pitch, roll, etc.) and GYRO flag is out of view. FIM 34-24-00/101, Fig. 103, Block 1

FAULT CODE	1. LOG BOOK REPORT 2. FAULT ISOLATION REFERENCE
34 24 03 00	 Standby attitude indicator GYRO flag is in view. FIM 34-24-00/101, Fig. 103, Block 1
34 24 04 00	 With the back course mode selected, the localizer deviation pointer of the standby indicator did not reverse. FIM 34-24-00/101, Fig. 103, Block 1
34 24 05 00	 The deviation pointers of the standby attitude indicator do not retract with the ILS selector in the OFF position. FIM 34-24-00/101, Fig. 103, Block 1
34 25 01 00	 COMPARATOR BITE message displayed on EICAS status page. (Ref Chapter 31 for fault code diagram). FIM 34-25-00/101, Fig. 103, Block 1
34 25 02 00	 EICAS msg HDG FAIL displayed. Used only during self-test. If this message shows during usual operation, replace the instrument comparator unit (AMM 34-25-01/401).
34 25 03 00	 EICAS msg TRACK FAIL displayed. Used only during self-test. If this message shows during usual operation, replace the instrument comparator unit (AMM 34-25-01/401).
34 25 04 00	 EICAS msg ATT FAIL displayed. Do a check for a nuisance EICAS message: Put the EICAS computer select switch to an alternative position. If the message does not show, open and then close the circuit breaker for the EICAS computer that shows the nuisance message. If the problem continues, replace the EICAS computer that shows the nuisance message. This message is used only during self-test. If this message is not a nuisance message and shows during usual operation,

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FAULT CODE	1. LOG BOOK REPORT 2. FAULT ISOLATION REFERENCE
34 25 05 00	 EICAS msg FD COMMAND FAIL displayed. Used only during self-test. If this message shows during usual operation, replace the instrument comparator unit (AMM 34-25-01/401).
34 25 06 00	 EICAS msg FAST/SLOW FAIL displayed. Used only during self-test. If this message shows during usual operation, replace the instrument comparator unit (AMM 34-25-01/401).
34 25 07 00	 EICAS msg HDG DISAGREE displayed. GUI 001-114, 116-999; Used only during self-test. If this message shows during usual operation, replace the instrument comparator unit (AMM 34-25-01/401). GUI 115; FIM 34-21-00/101, Fig. 107, Block 1.
34 25 08 00	 EICAS msg TRACK DISAGREE displayed. GUI 001-114, 116-999; Used only during self-test. If this message shows during usual operation, replace the instrument comparator unit (AMM 34-25-01/401). GUI 115; FIM 34-21-00/101, Fig. 107, Block 1.
34 25 09 00	 EICAS msg G/S FAIL displayed. Used only during self-test. If this message shows during usual operation, replace the instrument comparator unit (AMM 34-25-01/401).
34 25 10 00	 EICAS msg LOC FAIL displayed. Do a check for a nuisance EICAS message: Put the EICAS computer select switch to an alternative position. If the message does not show, open and then close the circuit breaker for the EICAS computer that shows the nuisance message. If the problem continues, replace the EICAS computer that shows the nuisance message. This message is used only during self-test. If this message is not a nuisance message and shows during usual operation, replace the instrument comparator unit (AMM 34-25-01/401).

FAULT CODE	1. LOG BOOK REPORT 2. FAULT ISOLATION REFERENCE
34 25 11 00	 EICAS msg G/S DISAGREE displayed. Used only during self-test. If this message shows during usual operation, replace the instrument comparator unit (AMM 34-25-01/401).
34 25 12 00	 EICAS msg LOC DISAGREE displayed. Used only during self-test. If this message shows during usual operation, replace the instrument comparator unit (AMM 34-25-01/401).
34 25 13 00	 EICAS msg RA DISAGREE displayed. Used only during self-test. If this message shows during usual operation, replace the instrument comparator unit (AMM 34-25-01/401).
34 31 01	 ILS test response abnormal on (01=Capt EADI & EHSI, 02=F/0 EADI & EHSI, 03=STBY ATT IND). Identify those test indications which were abnormal. (01=Capt EADI & EHSI, 02=F/0 EADI & EHSI) FIM 34-31-00/101, Fig. 104, Block 1 (03=STBY ATT IND) FIM 34-31-00/101, Fig. 107, Block 1
34 31 02	 (L, R, C) ILS ident not received at (04=Capt, 05=F/0, 06=1st 0bs, 07= 2nd OBS/Supernumerary) crew position. Deviation pointer display normal. Replace the applicable audio select panel, M70 (captain), M71 (F/0), or M98 (1st Obs) (AMM 23-51-01/401).
34 31 03	 (01=L, 02=R, 03=C) ILS ident not received at any crew position. Deviation pointer normal. Replace the applicable ILS receiver, M156 (left), M158 (right), or M157 (center) (AMM 34-31-01/401).

FAULT CODE	1. LOG BOOK REPORT 2. FAULT ISOLATION REFERENCE
34 31 04	 G/S flag in view in the (04=Capt, 05=F/0) EADI & EHSI. Replace the applicable ILS receiver, M156 (left) or M158 (right) (AMM 34-31-01/401).
34 31 05	 LOC flag in view on the (04=Capt, 05=F/O) EADI and EHSI. Replace (left-M156, right-M158) the ILS receiver (AMM 34-31-01).
34 31 06	 G/S and LOC flags in view on the (04=Capt, 05=F/O) EADI and EHSI. FIM 34-31-00/101, Fig. 105, Block 1
34 31 07	 Loc pointer or COURSE indicator not displayed on the (04=Capt, 05=F/0) EADI & EHSI. ILS ident not received. FIM 34-31-00/101, Fig. 110, Block 1
34 31 08	 G/S pointer not displayed on the (04=Capt, 05=F/0) EADI & EHSI. FIM 34-31-00/101, Fig. 111, Block 1
34 31 09	 G/S and LOC pointers or COURSE indicator not displayed on the (O4=Capt, O5=F/O) EADI and EHSI. ILS ident not received. Replace the ILS control panel, M87 (AMM 34-31-02/401).
34 31 10 07	 G/S and LOC pointers not displayed on Capt's or F/0's EADI and EHSI. Replace the ILS control panel, M87 (AMM 34-31-02/401).
34 31 11	 The deviation scales and COURSE bar(s) are missing on (04=Capt's, 05=F/0's, 08=Capt & F/0) EADI's. The pointers are not displayed on the corresponding EHSI. ILS ident received. Replace the applicable EFIS symbol generator, M148 (left) or M150 (right) (AMM 34-22-01/401).

FAULT CODE	1. LOG BOOK REPORT 2. FAULT ISOLATION REFERENCE
34 31 12	 The deviation scales and COURSE bar(s) are missing on (04=Capt, 05=F/0, 08=Capt & F/0) EADI. The pointers are not displayed on the corresponding EHSI. ILS ident not received. Replace the ILS control panel, M87 (AMM 34-31-02/401).
34 31 13	 (04=Capt, 05=F/O) EADI and EHSI LOC pointer and COURSE indicator (intermittent, has reverse heading, etc). Replace the ILS control panel, M87 (AMM 34-31-02/401).
34 31 14	 (01=L, 02=R, 03=C) ILS reception is weak. Replace the dual localizer antenna, M248 (left) or M249 (right) (AMM 34-31-04/401).
34 31 15	 LOC pointer or COURSE ind not displayed on the (04=Capt, 05=F/O) EADI and EHSI. Displays were norm with ALTN EFI selected. Replace the ILS receiver, M156 (left) or M158 (right) (AMM 34-31-01/401).
34 31 16	Not Used
34 31 17	 ILS frequency displayed on the (01=Capt, 02=F/0) EHSI disagrees with the frequency indicator. HSI reads Control reads Replace the ILS control panel, M87 (AMM 34-31-02/401)
34 31 18	 Selected course pointer display on the (01=Capt, 02=F/0) EHSI disagrees with the course indicator. Replace the ILS control panel, M87 (AMM 34-31-02/401)
34 31 19 00	 ILS F. CRS indicator does not respond to selector movement. Replace the ILS control panel, M87 (AMM 34-31-02/401)



FAULT CODE	1. LOG BOOK REPORT 2. FAULT ISOLATION REFERENCE
34 31 20 00	1. Frequency indicator does not respond to selector movement. 2. Replace the ILS control panel, M87 (AMM 34-31-02/401)
34 31 21 00	 G/S flag in view in the standby attitude indicator. FIM 34-31-00/101, Fig. 107, Block 1
34 31 22 00	 LOC flag in view in the standby attitude indicator. FIM 34-31-00/101, Fig. 107, Block 1
34 31 23 00	1. G/S & LOC flags in view in the standby attitude indicator. 2. FIM 34-31-00/101, Fig. 107, Block 1
34 31 24 00	 Localizer deviation pointer not displayed in the standby attitude indicator. Replace the dual localizer antenna, M249 (right/center)
34 31 25 00	 (AMM 34-31-04/401) 1. Glideslope deviation pointer never displayed in the standby attitude indicator. 2. FIM 34-31-00/101, Fig. 109, Block 1
34 31 26 00	 G/S and LOC pointers not displayed in the standby attitude indicator. FIM 34-31-00/101, Fig. 108, Block 1
34 31 27 00	 The (glideslope, localizer) deviation pointer of the standby attitude indicator (fluctuates, sticks, etc). Replace the standby attitude indicator, M20 (AMM 34-24-01/401).
34 31 28 00	 ILS F. CRS indicator has missing segment. Replace the ILS control panel, M87 (AMM 34-31-02/401).
34 31 29 00	 ILS FREQ indicator has missing segment. Replace the ILS control panel, M87 (AMM 34-31-02/401).

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	FAULT CODE	1. LOG BOOK REPORT 2. FAULT ISOLATION REFERENCE
34	32 01	 Marker beacon ident (inop, weak, intermittent, etc) at (01=Capt, 02=F/0, 03=Supernumerary, 04=1st Obs) station. All other crew stations OK. Marker lgts OK. Replace the applicable audio selector panel (AMM 23-51-01/401).
34	32 02 00	 Marker beacon ident (inop, weak, intermittent, etc) at any crew station. Marker lights are OK. Replace the left VOR receiver, M186 (AMM 34-51-01/401).
34	32 03 00	 Both INNER/AIRWAYS marker lights fail to illuminate. Replace the left VOR receiver, M186 (AMM 34-51-01/401).
34	32 04 00	 Both MIDDLE marker lights fail to illuminate. Replace the left VOR receiver, M186 (AMM 34-51-01/401).
34	32 05 00	 Both OUTER marker lights fail to illuminate. Replace the left VOR receiver, M186 (AMM 34-51-01/401).
34	32 06 00	 All marker beacon lights fail to illuminate ident received. Replace the left VOR receiver, M186 (AMM 34-51-01/401).
34	32 07 00	 All marker beacon lights fail to illuminate. Ident not received. FIM 34-32-00/101, Fig. 103, Block 1
34	32 08 00	 All marker beacon lights illuminate intermittently. No ident received. FIM 34-32-00/101, Fig. 103, Block 1
34	33 01	 (01=Capt, 02=F/0) Decision height reference indicator does not respond to selector movement. Replace the applicable EFIS control panel, M94 (left) or M93 (right) (AMM 34-22-02/201)
34	33 02	 (01=Capt, 02=F/0) DH reset SW does not reset decision height display on EADI. Operation normal with ALTN EFI selected. Replace the applicable Symbol Generator M148 (left) or M150 (right) (AMM 34-22-01/401).
34	33 03	 (01=Capt, 02=F/0) DH reset SW does not reset decision height display on EADI. Condition remains the same with ALTN EFI selected. Replace the L (R) EFIS control panel M94 (M93) (AMM 34-22-02)

FAULT CODE	1. LOG BOOK REPORT 2. FAULT ISOLATION REFERENCE
34 33 04	Not Used
34 33 05	Not Used
34 33 06	 Decision height alert altitude on (O1=Capt, O2=F/O) EADI disagrees with decision height reference indicator. Operation normal with alternate EFI selected. Replace the applicable Symbol Generator, M148 (left) or M150 (right) (AMM 34-22-01/401)
34 33 07	 Decision height alert altitude on (O1=Capt, O2=F/O) EADI disagrees with decision height reference indicator. Condition remains the same with alternate EFI selected. Replace the applicable EFIS control panel, M94 (left) or M93 (right) (AMM 34-22-02/201)
34 33 08	 Rad alt display on (01=Capt, 02=F/0) EADI blank below 2500 feet AGL. Replace the applicable Symbol Generator, M148 (left) or M150 (right) (AMM 34-22-01/401).
34 33 09	 (Selected decision height not displayed, "DH" not displayed, display color incorrect, etc) on (01=Capt, 02=F/0) EADI for rad alt above decision height.
34 33 10	 Selected decision height not removed from display, "DH" did not enlarge/flash/change color, etc on (01=Capt, 02=F/0) EADI at decision height. Replace the applicable Symbol Generator, M148 (left) or M150 (right) (AMM 34-22-01/401).
34 33 11	 Radio altitude height on the (01=Capt, 02=F/0) EADI is (inaccurate, intermittent). (State amount of inaccuracy, if known.) FIM 34-33-00/101, Fig. 103, Block 1
34 33 12	 Decision height display on the (O1=Capt, O2=F/O) EADI did not reset (automatically, etc). Replace the applicable Symbol Generator, M148 (left) or M150 (right) (AMM 34-22-01/401).
34 33 13	 RA flag displayed (steady, intermittent) on the (01=Capt, 02=F/0) EADI. FIM 34-33-00/101, Fig. 104, Block 1

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FAULT CODE	1. LOG BOOK REPORT 2. FAULT ISOLATION REFERENCE
34 33 14	 DH flag displayed on the (01=Capt, 02=F/O) EADI. FIM 34-33-00/101, Fig. 105, Block 1
34 33 15	Not Used
34 33 16	Not Used
34 33 17	Not Used
34 33 18	34 33 18 thru 34 33 22 Not Used
34 33 23	 (01=Capt, 02=F/0) Decision height reference indicator has missing segment(s). Replace the L (R) EFIS control panel M94 (M93) (AMM 34-22-02).
34 33 24 01	 On ground, Capt Radio alt rides to and sounds GPWS. Replace the applicable Radio Altimeter, M202 (left) or M203 (right) (AMM 34-33-01/401).
34 43 01 00	 WXR FAIL displayed on EHSIs and WXR test displays WXR FAIL WEAK. FIM 34-43-00/101, Fig. 103, Block 1
34 43 02 00	 WXR FAIL displayed on EHSI and WXR test displays WXR FAIL STAB. FIM 34-43-00/101, Fig. 103, Block 1
34 43 03 00	 WXR FAIL displayed on HSI WXR SELF TEST not attempted. FIM 34-43-00/101, Fig. 103, Block 1
34 43 04 00	Not used.
34 43 05 00	 WXR FAIL displayed on EHSI. WXR SELF TEST displays WXR FAIL RT. FIM 34-43-00/101, Fig. 103, Block 1
34 43 06 00	 WXR FAIL displayed on EHSI. WXR SELF TEST displays WXR FAIL ANT. FIM 34-43-00/101, Fig. 103, Block 1
34 43 07 00	 WXR FAIL displayed on EHSI. WXR SELF TEST displays WXR FAIL CONT. FIM 34-43-00/101, Fig. 103, Block 1

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FAULT CODE	1. LOG BOOK REPORT 2. FAULT ISOLATION REFERENCE
34 43 08	 WXR RANGE DISAGREE displayed on (01=CAPT, 02=F/0, 03=B0TH) EHSI(s). FIM 34-43-00/101, Fig. 103, Block 1
34 43 09	 WXR/MAP RANGE DISAGREE displayed on (01=CAPT, 02=F/0, 03=B0TH) EHSI(s). Replace the applicable EFIS control panel, M94 (captain) or M93 (F/0) as necessary (AMM 34-22-02/201)
34 43 10	 WXR DSPY displayed on (01=Capt, 02=F/0, 03=Capt and F/0) EHSI(s). (How often and number of times did it occur.) FIM 34-22-00/101, Fig. 106, Block 1
34 43 11	 (01=CAPT, 02=F/0, 03=CAPT & F/0) weather radar switch does not (activate, deactivate) radar. FIM 34-43-00/101, Fig. 103, Block 1
34 43 12	Not Used
34 43 13 00	 Antenna tilt operation is not normal. (Describe condition.) FIM 34-43-00/101, Fig. 103, Block 1
34 43 14 00	Not Used
34 43 15	Not Used
34 43 16	Not Used
34 43 17 00	 Weather radar mode switch (Test, WX, WX/TURB, MAP) (describe fault: inop, etc). FIM 34-43-00/101, Fig. 103, Block 1
34 43 18	Not Used
34 43 19 00	 Gain Control (inoperative, operation not normal). (Describe condition if operation not normal). FIM 34-43-00/101, Fig. 103, Block 1
34 43 20	Not Used
34 43 21 00	 WXR ATT displayed on both EHSIs. WXR test displays WXR FAIL ATT on EHSI. FIM 34-43-00/101, Fig. 103, Block 1

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FAULT CODE	1. LOG BOOK REPORT 2. FAULT ISOLATION REFERENCE
34 43 22	34 43 22 thru 34 43 38 Not Used
34 43 39 00	 WXR FAIL displayed on EHSI. WXR TEST inop. FIM 34-43-00/101, Fig. 103, Block 1
34 43 40	34 43 40 thru 34 43 46 Not Used
34 43 47 00	 Spoking present on WXR display. FIM 34-43-00/101, Fig. 103, Block 1
7/ /7 /9	Not Hood
34 43 48	Not Used
34 43 49 00	 Sweep (describe fault: missing, sticks, etc) on WXR display. FIM 34-43-00/101, Fig. 103, Block 1
34 43 50 00	Not Used
34 43 51 00	 Returns (describe fault: fixed, noisy, false, etc) on WXR display. FIM 34-43-00/101, Fig. 103, Block 1
34 43 52 00	Not Used
34 43 53 00	 Precip intensity too (strong, weak) on WXR display. FIM 34-43-00/101, Fig. 103, Block 1
34 43 54	Not Used
34 43 55 00	 WXR display missing from HSI. FIM 34-43-00/101, Fig. 103, Block 1
34 43 56	34 43 56 thru 34 43 65 Not Used

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	1. LOG BOOK REPORT 2. FAULT ISOLATION REFERENCE
34 43 65 00	 WXR failed to test. WXR TEST message did not display on HSI. FIM 34-43-00/101, Fig. 103, Block 1
34 43 67 00	 WXR WEAK displayed on HSI. Replace the WXR XCVR, M213 (AMM 34-43-01/401)
34 43 68 00	 WXR WEAK displayed on HSI. WXR test not attempted. FIM 34-43-00/101, Fig. 103, Block 1
34 43 69 00	1. WXR WEAK displayed on HSI. WXR test displays WXR FAIL RT. 2. FIM 34-43-00/101, Fig. 103, Block 1
34 43 70 00	1. WXR WEAK displayed on HSI. WXR test displays WXR FAIL ANT. 2. FIM 34-43-00/101, Fig. 103, Block 1
34 43 71 00	 WXR STAB displayed on HSI. FIM 34-43-00/101, Fig.103, Block 1.
34 43 72 00	 WXR STAB displayed on HSI. WXR test not attempted. FIM 34-43-00/101, Fig. 103, Block 1
34 43 73 00	 WXR STAB displayed on HSI. WXR test displays WXR FAIL RT. FIM 34-43-00/101, Fig. 103, Block 1
34 43 74 00	 WXR ATT displayed on HSI. FIM 34-43-00/101, Fig. 103, Block 1
34 43 75 00	 WXR ATT displayed on HSI. WXR test not attempted. FIM 34-43-00/101, Fig. 103, Block 1

FAULT CODE	1. LOG BOOK REPORT 2. FAULT ISOLATION REFERENCE
34 43 76	 (01=Capt, 02=F/0, 03=Capt & F/0) weather radar switch doesn't activate radar. WXR DSPY message is on HSI. FIM 34-43-00/101, Fig. 103, Block 1
34 45 01 00	 TCAS voice annunciations (inoperative, inappropriate). Display on HSI/ADI normal. FIM 34-45-00/101, Fig. 104, Block 1.
34 45 02 00 34 45 03 00	 TCAS FAIL message displayed on HSI. FIM 34-45-00/101, Fig. 103, Block 1. If the problem persists, perform a BITE test on the appropriate Air Data Computer (ADC) to verify a possible TAT probe element failure, (AMM 34-12-00/501). TCAS display blank on both CAPT & F/O HSI/ADI when selected.
34 45 04	 FIM 34-45-00/101, Fig. 103, Block 1. TCAS display blank on (01=CAPT, 02=F/0) HSI/ADI when selected. Replace the left EFIS symbol generator, M148 (left) or M150
34 45 05 00	 (right) (AMM 34-22-01/401). 1. TCAS display (describe abnormal display) on both CAPT & F/O HSI/ADI when selected. 2. FIM 34-45-00/101, Fig. 103, Block 1.
34 45 06	 TCAS display (describe abnormal display) on(01=CAPT, 02=F/0) HSI/ADI when selected. Replace the left or right EFIS symbol generator, M148 (left) or M150 (right) (AMM 34-22-01/401).
34 45 15 00	 The EICAS message, TCAS displayed. FIM 34-45-00/101, Figure 103, Block 1.
34 46 01 00	 GND PROX BITE status message displayed on EICAS. FIM 34-46-00/101, Fig. 103, Block 1
34 46 02 00	 The (PULL UP, GND PROX, WINDSHEAR) lgt did not illuminate when (specify alert condition) existed. FIM 34-46-00/101, Fig. 104, Block 1
34 46 03 00	 The aural message for (specify alert condition) was not announced. FIM 34-46-00/101, Fig. 104, Block 1

FAULT CODE	1. LOG BOOK REPORT 2. FAULT ISOLATION REFERENCE
34 46 04 00	 A Gnd Prox alert was received with no alert condition (state sink rate, radio altitude, landing or ascending, gear and flap state, if known). FIM 34-46-00/101, Fig. 103, Block 1
34 46 05 00	 A PULL UP alert was received with no alert condition (state sink rate, radio altitude, landing or ascending, gear and flap state, if known). Radio Altitude indication was normal. FIM 34-46-00/101, Fig. 103, Block 1
34 46 06 00	 A (gnd prox, PULL UP) alert was not received when (specify alert condition) existed. FIM 34-46-00/101, Fig. 103, Block 1
34 46 07 00	 EICAS msg GND PROX BITE was not displayed on STATUS page during GND PROX test. FIM 34-46-00/101, Fig. 103, Block 1
34 46 08 00	 PULL UP light did not illuminate during GND PROX test. Replace the ground proximity warning computer, (M147) (AMM 34-46-01/401)
34 46 09 00	 GND PROX light did not illuminate during GND PROX test. Replace the ground proximity warning computer, M147 (AMM 34-46-01/401)
34 46 10 00	 The (sink rate, whoop-whoop pull up, terrain, don't sink, too low gear, too low flaps, too low terrain, glideslope, windshear) aural message(s) was not announced during test. (State whether test switch was momentarily positioned to GND PROX or held there for more than 5 seconds.) FIM 34-46-00/101, Fig. 104, Block 1
34 46 11 00	 The ground proximity warning system failed to test. FIM 34-46-00/101, Fig. 104, Block 1
34 46 12 00	 GND PROX/CONFIG GEAR OVRD switch did not inhibit (TOO LOW TERRAIN, TOO LOW GEAR) ground prox alerts. FIM 34-46-00/101, Fig. 103, Block 1
34 46 13 00	 The GND PROX FLAP OVRD sw did not inhibit (T00 LOW TERRAIN, T00 LOW FLAP) ground prox alerts. FIM 34-46-00/101, Fig. 103, Block 1

FAULT CODE	1. LOG BOOK REPORT 2. FAULT ISOLATION REFERENCE
34 46 14 00	1. The G/S INHB sw did not inhibit the G/S alert. 2. FIM 34-46-00/101, Fig. 103, Block 1
34 46 15 00	 EICAS msg GND PROX BITE displayed (Ref Chapter 31 for fault code diagram). FIM 34-46-00/101, Fig. 103, Block 1
34 46 16 00	 WINDSHEAR alert was received with no alert condition. FIM 34-46-00/101, Fig. 104, Block 1
34 46 17 00	 WINDSHEAR did not illum during gnd prox test. FIM 34-46-00/101, Fig. 104, Block 1
34 46 18 00	 Voice Altitude callouts too loud FIM 34-46-00/101, Fig. 103, Block 1
34 46 20 00 34 51 01	 The EICAS message GND PROX SYS displayed. FIM 34-46-00/101, Fig. 103 (03=L, 04=R) VOR course indicator on glareshield does not respond properly to selector operation. Replace the applicable VOR control panel, M91 (left) or M92 (right) as necessary.
34 51 02	 (03=L, 04=R) VOR FREQ (stuck, inaccurate, etc) during manual tuning. HSI and RDMI indications are normal. FIM 34-51-00/101, Fig. 108, Block 1
34 51 03	 (01=Capt, 02=F/0) HSI has VOR flag in view. RDMI VOR bearing needles are normal. FIM 34-51-00/101, Fig. 106, Block 1
34 51 04	 (01=Capt, 02=F/0) HSI has course pointer, line and dev bar missing. RDMI VOR bearing needles are normal. Replace the applicable VOR control panel, M91 (left) or M92 (right) as necessary.
34 51 05	 Unable to select (L, R) VOR with VOR/ADF selector on (O1=Capt, O2=F/O) RDMI. Replace the applicable RDMI, N3 (left) or N43 (right) as necessary (AMM 34-22-05/401).
34 51 06	 (L, R) VOR flag in view on (01=Capt, 02=F/0) RDMI. The associated HSI VOR indiction are normal. HSI is in VOR mode. Replace the applicable RDMI, N3 (left) or N43 (right) as necessary (AMM 34-22-05/401).

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FAULT CODE	1. LOG BOOK REPORT 2. FAULT ISOLATION REFERENCE
34 51 07	 (03=L, 04=R) VOR flag in view on both RDMI's. The associated HSI has VOR flag in view when the HSI is in VOR mode. FIM 34-51-00/101, Fig. 107, Block 1
34 51 08	 (03=L, 04=R) VOR flag in view on both RMI's. The associated HSI has the lateral dev bar missing when the HSI is in VOR mode. The freq display on the VOR is normal. FIM 34-51-00/101, Fig. 109, Block 1
34 51 09	 (03=L, 04=R) VOR freq (stuck, inaccurate, etc) during manual tuning, VOR flags were in view. FIM 34-51-00/101, Fig. 104, Block 1
34 51 10	 (03=L, 04=R) VOR flag in view on both RDMI's. The associated HSI has course pointer, line and dev bar missing. Replace the applicable VOR control panel, M91 (left) or M92 (right) as necessary.
34 51 11	 VOR radial not displayed on (01=Capt, 02=F/0, 05=Both) HSI's with HSI in map and manual tuning selected. Replace the applicable VOR control panel, M91 (left) or M92 (right) as necessary.
34 51 12	 Auto/Man switch inop on (03=L, 04=R) VOR with HSI on map mode. Replace the applicable VOR control panel, M91 (left) or M92 (right) as necessary.
34 51 13	 (03=L, 04=R, 05=Both) BRG flags in view on both RDMI's with HSI's in MAP. VOR's are normal with HSI's in VOR mode. FIM 34-51-00/101, Fig. 105, Block 1
34 51 14	 (L, R) VOR ident not received at (01=Capt, 02=F/0, 03=0bs) station. Other crew stations OK. Replace the applicable audio select panel, M70 (captain), M71 (F/O), or M98 (1st Obs) (AMM 23-51-01/401).
34 51 15	 (04=L, 05=R) VOR ident not received at any crew station. Replace the applicable VOR receiver, M186 (left) or M187 (right) as necessary (AMM 34-51-01/401).
34 51 16	 (L, R) VOR bearing points on (01=CAPT, 02=F/0) RDMI (describe fault, sticks, inop, etc). Replace the applicable RDMI, N3 (left) or N43 (right) as necessary (AMM 34-22-05/401).

FAULT CODE	1. LOG BOOK REPORT 2. FAULT ISOLATION REFERENCE
34 51 17	1. (03=L, 04=R, 05=Both) VOR(s) will not autotune. 2. FIM 34-51-00/101, Fig. 105, Block 1
34 51 18	 (03=L, 04=R) VOR course indicator on glareshield has missing segment. Replace the applicable VOR control panel, M91 (left) or M92 (right).
34 51 19	 (03=L, 04=R) VOR FREQ indicator on glareshield has missing segment. Replace the applicable VOR control panel, M91 (left) or M92 (right).
34 51 20	1. (03=L, 04=R) VOR inop, no display on VOR/DME control panel. 2. FIM 34-51-00/101, Fig. 103, Block 1
34 51 21	 (03=L, 04=R) VOR auto/manual select SW (light(s) inop, sticks, loose, etc). Replace the applicable VOR control panel, M91 (left) or M92 (right).
34 53 01 00	 ATC code indicator does not respond to selector movement. Replace the dual ATC control panel, M10140 (AMM 34-53-02/401).
34 53 02	 ATC altitude reporting inoperative with the (01=L or 1, 02=R or 2, 03=both L & R or 1 & 2) transponder(s) selected. FIM 34-53-00/101, Fig. 104, Block 1.
34 53 03	 ATC transmission (weak, intermittent, etc) with the (01=L or 1 02=R or 2, 03=both L & R or 1 &2) transponder selected. FIM 34-53-00/101, Fig. 105, Block 1.
34 53 04	 Reported no ATC transmission with the (01=L or 1, 02=R or 2, 03=both L & R or 1 & 2) transponder(s) selected. FIM 34-53-00/101, Fig. 105, Block 1
34 53 05 00	 Reported no ATC transmission with either transponder selected. FIM 34-53-00/101, Fig. 105, Block 1
34 53 06 00	 Reported transmitted code disagrees with the ATC code indicator with either transponder selected. Replace the dual ATC control panel, M10140 (AMM 34-53-02/401).

FAULT CODE	1. LOG BOOK REPORT 2. FAULT ISOLATION REFERENCE
34 53 07	 EICAS message ATC fault displayed (and ATC FAIL light illuminated) with the (01=L or 1, 02=R or 2) transponder selected. Transponder reported inop. FIM 34-53-00/101, Fig. 103, Block 1.
34 53 08	 ATC identification inop with (01=L or 1, 02=R or 2, 03=both L & R or 1 & 2) transponder(s) selected. Replace the dual ATC control panel, M10140 (AMM 34-53-02/401).
34 53 09 34 53 10 00	 EICAS message ATC fault displayed (and ATC FAULT light illuminated) with the (01=L or 1, 02=R or 2) transponder selected. Transponder reported normal. FIM 34-53-00/101, Fig. 103, Block 1 ATC code indicator has missing segment. Replace the ATC control panel, M10140 (AMM 34-53-02/401).
34 53 11	 (01=L or 1, 02= R or 2) ATC code indicator blank and was reported as inop. Replace the dual ATC control panel, M10140 (AMM 34-53-02/401).
34 55 01	 DME identification signal not received on the (03=L, 04=R) receiver. The corresponding DME displays are normal. (VOR, ILS) ident is also normal. FIM 34-55-00/101, Fig. 109, Block 1
34 55 02	 (01=Capt, 02=F/0) (L, R) RDMI DME display is blank. The EHSI DME display is OK. Replace the applicable RDMI, N3 (left) or N43 (right) (AMM 34-22-05/401).
34 55 03	 (01=Capt, 02=F/0)(L,R) EHSI DME display is blank. The RDMI DME is 0K. FIM 34-55-00/101, Fig. 106, Block 1
34 55 04	 The RDMI (DME indicator) and EHSI DME displays are blank for the (03=L, 04=R) DME. FIM 34-55-00/101, Fig. 107, Block 1
34 55 05	 The RDMI (DME indicator) and EHSI DME displays are dashes for the (03=L, 04=R) DME. VOR ident OK. FIM 34-55-00/101, Fig. 104, Block 1
34 55 06	 The RDMI (DME indicator) and EHSI DME displays are dashes for the (03=L, 04=R) DME. ILS Ident 0K. FIM 34-55-00/101, Fig. 105, Block 1

FAULT CODE	1. LOG BOOK REPORT 2. FAULT ISOLATION REFERENCE
34 55 07	 The RDMI (DME indicator) and EHSI DME displays are dashes for the (03=L,04=R) DME. (VOR, ILS) ident not received. A usable DME signal is present. FIM 34-55-00/101, Fig. 103, Block 1
34 55 08	 The RDMI (DME indicator) DME display for the (03=L,04=R,05=both) DME(s) is dashes with the EHSI in MAP or PLAN mode. FIM 34-55-00/101, Fig. 108, Block 1
34 55 09	 The RDMI (DME indicator) and EHSI DME distance is incorrect on the (O1=CAPT, O2=F/O) side with the EHSI in ILS mode. FIM 34-55-00/101, Fig. 103, Block 1
34 55 10	 (01=Capt, 02=F/0) (L, R) RDMI (DME indicator) DME has missing (number, segment). Replace the applicable RDMI, N3 (left) or N43 (right) (AMM 34-22-05/401).
34 57 01	 Unable to select ADF with the (L, R) RDMI ADF/VOR selector on the (O1=Capt, O2=F/O) RDMI. Warning flags are retracted. VOR operation normal. Replace the applicable RDMI, N3 (left) or N43 (right) as necessary (AMM 34-22-05/401).
34 57 02 00	Not Used
34 57 03	1. ADF tone inoperative in (03=L, 04=R) position. 2. FIM 34-57-00/101, Fig. 103, Block 1
34 57 04	Not Used
34 57 05	 (03=Left, 04=Right) ADF frequency indicator does not respond properly to selector operation. (Identify digits) Replace the ADF control panel, M1046 (AMM 34-57-02/401).
34 57 07	 During ADF operation, (L, R) bearing pointer failure flag in view in the (O1=Capt, O2=F/O) RDMI with mode selector positioned to ADF. Operation of the other RDMI is normal. Identification signal reception also normal. Replace the applicable RDMI, N3 (left) or N43 (right) (AMM 34-22-05/401).

FAULT CODE	1. LOG BOOK REPORT 2. FAULT ISOLATION REFERENCE
34 57 08	 During ADF operation both (04=L, 05=R) bearing pointer failure flags continuously in view with mode selector positioned to ADF. FIM 34-57-00/101, Fig. 104, Block 1
34 57 09	 ADF audio (describe fault) at either crew station using (04=L, 05=R) receiver with mode selector positioned to ANT. RDMI bearing pointer operation normal. FIM 34-57-00/101, Fig. 103, Block 1
34 57 10	 During ADF operation, (L, R) bearing pointer failure flag retracted in the (O1=Capt, O2=F/O) RMDI with mode selector positioned to ANT. Operation of the other RDMI is normal. Identification signal reception also normal. Replace the applicable RDMI, N3 (left) or (right) as necessary (AMM 34-22-05/401).
34 57 11	 During ADF operation, (04=L, 05=R) both bearing pointer failure flags retracted with mode selector positioned to ANT. Identification signal reception normal. Replace the ADF control panel, M1046 (AMM 34-57-02/401).
34 57 12	 (L, R) ADF audio (describe fault) at (01=Capt, 02=F/0, 03=1st 0bs) crew station with mode selector positioned to ADF. FIM 34-57-00/101, Fig. 103, Block 1
34 57 13	 (L, R) ADF audio (describe fault) at (01=Capt, 02=F/0, 03=0bs) crew station with mode selector positioned to ANT. FIM 34-57-00/101, Fig. 103, Block 1
34 57 14	Not used.
34 57 15 00	Not Used
34 57 16	1. (03=L, 04=R) ADF frequency indicator has segment missing. 2. Replace the ADF control panel, M1046 (AMM 34-57-02/401).

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FAULT CODE	1. LOG BOOK REPORT 2. FAULT ISOLATION REFERENCE
34 57 17	 (03=L, 04=R) ADF fails test. (Describe.) Replace the applicable ADF receiver, M215 (left) or M216 (right) (AMM 34-57-01/401).
34 57 18	 (04=L, 05=R) ADF pointer (does not point properly, INOP, etc.). Audio is normal. Replace the applicable RDMI, N3 (left) or N43 (right) (AMM 34-22-05/401).
34 57 19	 (04=L, 05=R) ADF pointer (does not point properly, INOP, etc.). Audio is (describe fault). FIM 34-57-00/101, Fig. 104, Block 1
34 57 20	 (01=Capt, 02=F/0) (wide, narrow) RDMI pointer is (inop, stuck, etc) in ADF and VOR position. Replace the applicable RDMI, N3 (left) or N43 (right) as necessary (AMM 34-22-05/401).
34 57 27	 (03=L, 04=R) ADF fails test. (Describe.) Replace the applicable ADF receiver, M215 (left) or M216 (right) (AMM 34-57-01/401).
34 61 01	34 61 01 thru 34 61 14 Not Used
34 61 15	 (01=Capt, 02=F/0) CDU display is (describe fault, e.g., out of focus, blinking, small, etc). Replace the FMC CDU, M76 (left) or M77 (right) (AMM 34-61-02/201).
34 61 16	 (01=Capt, 02=F/0) CDU display blank. Selecting ALTN FMC does not correct the fault. Replace the FMC CDU, M76 (left) or M77 (right) (AMM 34-61-02).
34 61 17	1. EICAS msg (03=L, 04=R) FMC FAIL displayed. 2. FIM 34-61-00/101, Fig. 108B
34 61 18	 EICAS msg (03=L, 04=R) FMC FAIL displayed. Other CDU displays RESYNCING SINGLE FMC msg. FIM 34-61-00/101, Fig. 108B



FAULT CODE	1. LOG BOOK REPORT 2. FAULT ISOLATION REFERENCE
34 61 19	Not Used
34 61 20	Not Used
34 61 21	 Manual brightness control is INOP on (01=Capt, 02=F/0) CDU. Replace the FMC CDU M76 (left) or M77 (right) (AMM 34-61-02/201).
34 61 22	 Automatic brightness control is INOP on (01=Capt, 02=F/0) CDU. Replace the FMC CDU M76 (left) or M77 (right) (AMM 34-61-02/201).
34 61 23	 Manual and automatic brightness controls are INOP on (O1=Capt, O2=F/O) CDU. Replace the FMC CDU, M76 (left) or M77 (right) (AMM 34-61-02/201).
34 61 24	34 61 24 thru 34 61 26 Not Used
34 61 27	 Nav data incorrect on (01=Capt, 02=F/0, 03=Both) CDU IDENT page(s). FIM 34-61-00/101, Fig. 106, Block 10
34 61 28	 (State data, e.g., drag factor, F-F factor, op program, etc) is incorrect on (01=Capt, 02=F/0, 03=Both) CDU IDENT page(s). FIM 34-61-00/101, Fig. 106, Block 1
34 61 29	34 61 29 thru 34 61 31 Not Used

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FAULT CODE	1. LOG BOOK REPORT 2. FAULT ISOLATION REFERENCE
34 61 32	 IRS position entry from (O1=Capt, O2=F/O) CDU results in REENTER IRS POS on scratch pad. Message would not clear after position reentered. FIM 34-61-00/101, Fig. 104, Block 1
34 61 33	34 61 33 thru 34 61 36 Not Used
34 61 37	 FMC MESSAGE on EICAS and PERF/VNAV UNAVAILABLE displayed on (01=Capt, 02=F/0, 03=Both) CDU(s) when VNAV button pressed. Data was entered in all boxes on PERF UNIT page. FIM 34-61-00/101, Fig. 110, Block 1
34 61 38	34 61 38 thru 34 61 71 Not Used
34 61 72	 BRG/DIS FR incorrect on (01=Capt, 02=F/0, 03=Both) FIX INFO page(s). FIM 34-61-00/101, Fig. 104, Block 1
34 61 73	 PL/BRG/DIS incorrect on (01=Capt, 02=F/0, 03=Both) FIX INFO page(s). FIM 34-61-00/101, Fig. 104, Block 1
34 61 74	 ABEAM incorrect on (01=Capt, 02=F/0, 03=Both) FIX INFO page(s). FIM 34-61-00/101, Fig. 104, Block 1
34 61 75	 DTG incorrect on (01=Capt, 02=F/0, 03=Both) FIX INFO page(s). FIM 34-61-00/101, Fig. 104, Block 1

FAULT CODE	1. LOG BOOK REPORT 2. FAULT ISOLATION REFERENCE
34 61 77	Not Used
34 61 78	 GS field blank on (01=Capt, 02=F/0, 03=Both) CDU POS REF page. Close the applicable IRU circuit breaker. Cycle the FMC circuit breaker from the open to closed position. If the problem continues do the IRS BITE procedure when (RMM 34-03).
34 61 79	34 61 79 thru 34 61 99 Not Used
34 62 01	34 62 01 thru 34 62 11 Not Used
34 62 12	 Wind components in error on PROGRESS page 2 on (01=Capt, 02=F/0, 03=both) CDU(s). FIM 34-61-00/101, Fig. 104, Block 1
34 62 13	 FUEL USED (in error, blank) on PROGRESS page 2 on (01=Capt, 02=F/0, 03=both) CDU(s). FIM 34-61-00/101, Fig. 105, Block 1
34 62 14	 FUEL (QTY ERROR, DISAGREE)-PROG 2/2 alert message is displayed on CDU. TOTALIZER differs from CALCULATED on PROGRESS page 2 of (01=Capt, 02=F/0, 03=both) CDU(s). FIM 34-61-00/101, Fig. 105, Block 1
34 62 15	 FMC will not enter the IRS (3) DME DME mode. PROGRESS page 1 indicates (IRS (2) DME DME, IRS (3) DME VOR, etc) on the (01=Capt, 02=F/0, 03=Both) CDU(s). FIM 34-61-00/101, Fig. 104, Block 1

FAULT CODE	1. LOG BOOK REPORT 2. FAULT ISOLATION REFERENCE
34 62 16	 DTG in error on PROGRESS page 1 of (01=Capt, 02=F/0, 03=both) CDU(s). FIM 34-61-00/101, Fig. 104, Block 1
34 62 17	 ETA in error on PROGRESS page 1 of (01=Capt, 02=F/0, 03=both) CDU(s). FIM 34-61-00/101, Fig. 104, Block 1
34 62 18	 Waypoint FUEL in error on PROGRESS page 1 of (01=Capt, 02=F/0, 03=both) CDU(s). FIM 34-61-00/101, Fig. 105, Block 1
34 62 19	 Wind in error on PROGRESS page 1 of (01=Capt, 02=F/0, 03=both) CDU(s). FIM 34-61-00/101, Fig. 104, Block 1
34 62 20	Not Used
34 62 21	 MSG light fails to illuminate with CDU advisories on (01=Capt, 02=F/0, 03=both) CDU(s). Replace the applicable FMC CDU, M76 (left) or M77 (right) (AMM 34-61-02/201).
34 62 22 00	 (NOT IN DATA BASE, REENTER IRS POSITION, MAX ALT FLXXX, etc) advisory message displayed when the advisory condition does not exist. Replace the applicable FMC M134 (left) or M135 (right) (AMM 34-61-01/401).
34 62 23 00	 The following advisory condition exists and no advisory message was received: (describe advisory condition). Replace the applicable FMC, M134 (left) or M135 (right) (AMM 34-61-01/401).

FAULT CODE	1. LOG BOOK REPORT 2. FAULT ISOLATION REFERENCE
34 62 24	 The FMC light fails to illuminate with CDU alert on (01=Capt, 02=F/0, 03=Both) CDU. (01=Capt, 02=F/0)FIM 34-61-00/101, Fig. 107, Block 1 (03=Both) FIM 34-61-00/101, Fig. 107, Block 11
34 62 25	 The FMC light, CAUTION light, and MSG light fail to illuminate with CDU alerts on (01=Capt, 02=F/0, 03=both) CDU(s). Replace the applicable FMC, M134 (left) or M135 (right) (AMM 34-61-01/401).
34 62 26 00	 (IRS NAV ONLY, RW/ILS FREQ, END OF ROUTE, DISCONTINUITY, NO ACTIVE ROUTE, etc) alert messages displayed when the alert condition does not exist. Replace the applicable FMC, M134 (left) or M135 (right) (AMM 34-61-01/401).
34 62 27 00	 The following alert condition exists and no alert message was received: (describe alert condition). Replace the applicable FMC, M134 (left) or M135 (right) (AMM 34-61-01/401).
34 62 28	 VTK flag is in view on (01=Capt, 02=F/0) HSI. Selecting ALTN FMC corrects the fault. Replace the applicable flight management computer, M134 (left) or M135 (right) (AMM 34-61-01/401).
34 62 29	Not Used
34 62 30	 Map display is offset on (01=Capt, 02=F/0) HSI. Selecting ALTN FMC corrects the faults. Replace the applicable flight management computer, M134 (left) or M135 (right) (AMM 34-61-01/401).

FAULT CODE	1. LOG BOOK REPORT 2. FAULT ISOLATION REFERENCE
34 62 31	 Map is missing on (O1=Capt, O2=F/O) HSI. Selecting ALTN FMC corrects the fault. Replace the flight management computer M134 (left) or M135 (right) (AMM 34-61-O1).
34 62 32	 (01=Capt, 02=F/0) HSI displays MAP RANGE DISAGREE. Selecting ALTN FMC corrects the fault. Replace the applicable flight management computer, M134 (left) or M134 (right) (AMM 34-61-01/401).
34 62 33	 (01=Capt, 02=F/0) HSI displays MAP flag. Selecting ALTN FMC corrects the problem. Replace the applicable flight management computer, M134 (left) or M135 (right) (AMM 34-61-01/401).
34 62 34	34 62 34 thru 34 62 37 Not Used
34 62 38	 Distance to go and ETA are missing from (01=Capt, 02=F/0) HSI. Selecting ALTN FMC corrects the fault. Replace the applicable flight management computer, M134 (left) or M135 (right) (AMM 34-61-01/401).
34 62 39	34 62 39 thru 34 62 42 Not Used
34 62 43	 The airplane (describe proglem: EPR, speed or path in error, loses fuel weight) in VNAV DESCENT mode. Fault occurs with (O1=L, O2=C, O3=R, O4=any) A/P engaged. FIM 34-61-00/101, Fig. 110, Block 1

FAULT CODE	1. LOG BOOK REPORT 2. FAULT ISOLATION REFERENCE
34 62 44	Not Used
34 62 45	Not Used
34 62 46	 The airplane (describe problem: EPR, speed or path in error, loses fuel weight) in VNAV CRUISE mode. Fault occurs with (01=L, 02=C, 03=R, 04=Any) A/P engaged. FIM 34-61-00/101, Fig. 110, Block 1
34 62 47	Not Used
34 62 48	Not Used
34 62 49	 The airplane (describe problem: EPR, speed or path in error, loses fuel weight) in VNAV CLIMB mode. Fault occurs with (O1=L, O2=C, O3=R, O4=Any) A/P engaged. FIM 34-61-00/101, Fig. 110, Block 1
34 62 50	34 62 50 thru 34 62 59 Not Used
34 62 60	 VTK flag is in view on (01=Capt, 02=F/0, 03=Both) HSI(s). Selecting ALTN FMC does not correct the fault. Replace the applicable EFIS symbol generator, M148 (left), M149 (center), or M150 (right) (AMM 34-22-01/401).
34 62 61	Not Used
34 62 62	 Map display is offset on (01=Capt, 02=F/0, 03=Both) HSI(s). Selecting ALTN FMC does not correct the fault. Replace the applicable EFIS symbol generator, M148 (left), M149 (center), or M150 (right) (AMM 34-22-01/401).

	1. LOG BOOK REPORT 2. FAULT ISOLATION REFERENCE
34 62 63	 Map is missing on (01=Capt, 02=F/0, 03=Both) HSI(s). Selecting ALTN FMC does not correct the fault. Replace the applicable EFIS symbol generator, M148 (left), M149 (center), or M150 (right) (AMM 34-22-01/401).
34 62 64	 (01=Capt, 02=F/0, 03=Both) HSI(s) display MAP RANGE DISAGREE. Selecting ALTN FMC does not correct the fault. FIM 34-61-00/101, Fig. 108, Block 1
34 62 65	 (01=Capt, 02=F/0, 03=Both) HSI(s) display MAP flag. Selecting ALTN FMC does not correct the fault. Replace the applicable EFIS symbol generator, M148 (left), M149 (center), or M150 (right) (AMM 34-22-01/401).
34 62 66	34 62 66 thru 34 62 69 Not Used
34 62 70	 Distance to go and ETA are missing from (01=Capt, 02=F/0, 03=Both) HSI(s). Selecting ALTN FMC does not correct the fault. Replace the applicable EFIS symbol generator, M148 (left), M149 (center), or M150 (right) (AMM 34-22-01/401).
34 62 71	34 62 71 thru 34 62 74 Not Used
34 62 75	 (Specify key) key on (O1=CAPT, O2=F/O) CDU gives multiple response. Replace the applicable FMC CDU, M76 (left) or M77 (right) (AMM 34-61-02/201).

FAULT CODE	1. LOG BOOK REPORT 2. FAULT ISOLATION REFERENCE
34 62 76	 (Specify key) key on (01=CAPT, 02=F/0) CDU feel is abnormal. Replace the applicable FMC CDU, M76 (left) or M77 (right) (AMM 34-61-02/201).
34 62 77	 All keys on (01=CAPT, 02=F/0) CDU inop. Selection of ALTN FMC corrects the fault. Replace the applicable FMC, M134 (left) or M135 (right) (AMM 34-61-01/401).
34 62 78	 All keys on (01=CAPT, 02=F/O) CDU inop with normal and ALTN FMC selected. Replace the applicable FMC CDU, M76 (left) or M77 (right) (AMM 34-61-02/201).
34 62 79	34 62 79 thru 34 62 82 Not Used
34 62 83	 EICAS msg (03=L, 04=R) FMC FAIL displayed. Other CDU displays SINGLE FMC OPERATION msg. FIM 34-61-00/101, Fig. 108B
34 62 84 03	 Both CDU's are locked up on IDENT page. FIM 34-61-00/101, Fig. 109, Block 1
34 62 85	 IRS NAV ONLY alert message displayed on (01=Capt, 02=F/0, 03=Both) CDU(s). FIM 34-61-00/101, Fig. 104, Block 1
34 62 86	 (01=CAPT, 02=F/0) CDU display is (describe fault, e.g.: partially complete or garbage). Replace the applicable FMC CDU, M76 (left) or M77 (right) (AMM 34-61-02/201)
34 62 87	 (Record number of resyncs) resyncs experienced in (record time period) in (01=Capt, 02=F/0) CDU. FIM 34-61-00/101, Fig. 109, Block 1

FAULT CODE	1. LOG BOOK REPORT 2. FAULT ISOLATION REFERENCE
34 62 88	 (01=Capt, 02=F/0) CDU display blank. Selecting ALTN FMC corrects the fault. FIM 34-61-00/101, Fig. 109, Block 1
34 62 89	 (Specify key) key on (O1=CAPT, O2=F/O) CDU gives incorrect response. Selecting ALTN FMC corrects the fault. Replace the applicable FMC, M134 (left) or M135 (right) (AMM 34-61-01/401)
34 62 90	 (Specify key) key on (01=CAPT, 02=F/0) CDU gives incorrect response with normal and ALTN FMC selected. Replace the applicable FMC CDU, M76 (left) or M77 (right) (AMM 34-61-02/201).
34 62 91	 (Specify key) on (O1=CAPT, O2=F/O) CDU inop on all pages. Selection of ALTN FMC corrects the fault. Replace the applicable FMC, M134 (left) or M135 (right) (AMM 34-61-01/401)
34 62 92	 (Specify key) on (O1=CAPT, O2=F/O) CDU inop on all pages with normal and ALTN FMC selected. Replace the applicable FMC CDU, M76 (left) or M77 (right) (AMM 34-61-02/201).
34 62 93	 EXEC key on (01=CAPT, 02=F/0, 03=B0TH) CDU(s) fails to illum. FIM 34-61-00/101, Fig. 103, Block 1
34 62 94	 FMC resync takes longer than 30 secs in (01=Capt, 02=F/0) CDU. FIM 34-61-00/101, Fig. 109, Block 1
34 62 95	 Incorrect engine type displayed on (01=Capt, 02=F/0, 03=Both) CDU IDENT page(s). Replace the applicable FMC, M134 (left) or M135 (right) (AMM 34-61-01/401).
34 62 96 00	 FMC pos on CDU POS REF page 2/2 is in error (Record error). FIM 34-61-00/101, Fig. 104, Block 1
34 62 97	 (04=L, 05=C, 06=R) IRS pos on CDU POS REF page 2/2 is (4/4) in error (Record time IRS was in operation, actual and indicated latitude and longitude. Add note if IRS error was excessive for 2 consecutive flights). FIM 34-21-00/101, Fig. 107A, Block 1

FAULT CODE	1. LOG BOOK REPORT 2. FAULT ISOLATION REFERENCE
34 62 98	 No boxes are displayed for position initialization on (O1=CAPT, O2=F/O, O3=BOTH) CDU(s). FIM 34-61-00/101, Fig. 104, Block 1
34 62 99	 The fuel weight is (incorrect, missing) from the performance initialization page on the (O1=CAPT, O2=F/O, O3=BOTH) CDU(s). FIM 34-61-00/101, Fig. 105, Block 1
34 63 01	 Tuned navaid data blank on progress page of (01=CAPT, 02=F/0, 03=BOTH) CDU(s). FIM 34-61-00/101, Fig. 104, Block 1
34 63 02	 Tuned navaid data constantly changing on progress page of (01=CAPT, 02=F/0, 03=BOTH) CDU(s). FIM 34-61-00/101, Fig. 104, Block 1
34 63 03 00	 Wind vector on Capt HSI differs from F/O HSI. Selecting ALTN FMC corrects the fault. Replace the applicable FMC, M134 (left) or M135 (right) (AMM 34-61-01/401).
34 63 04 00	 Wind vector on Capt HSI differs from F/O HSI with both normal and ALTN FMC selected. Replace the applicable EFIS symbol generator, M148 (left), M149 (center), or M150 (right) (AMM 34-22-01/401).
34 63 05	 Distance to go and ETA display dashes on (01=CAPT, 02=F/0, 03=BOTH) HSI(s). Selecting ALTN FMC corrects the fault. Replace the applicable FMC, M134 (left) or M135 (right) (AMM 34-61-01/401).
34 63 06	 Distance to go and ETA display dashes on (01=CAPT, 02=F/0, 03=BOTH) HSI(s) with normal and ALTN FMC. Replace the applicable EFIS symbol generator, M148 (left), M149 (center), or M150 (right) (AMM 34-22-01/401).
34 63 07	 LNAV remains white (armed) on ADI with (01=L, 02=C, 03=R, 04=ANY) A/P engaged. FIM 34-61-00/101, Fig. 110, Block 1
34 63 08	 There is a line through LNAV on the AOI with (O1=L, O2=C, O3=R, O4=ANY) A/P engaged. FIM 34-61-00/101, Fig. 110, Block 1

FAULT CODE	1. LOG BOOK REPORT 2. FAULT ISOLATION REFERENCE
34 63 09	 The airplane (describe problem: heading, track or transition error) in LNAV mode. Fault occurs with (01=L, 02=C, 03=R, 04=ANY) A/P engaged. FIM 34-61-00/101, Fig. 110, Block 1
34 63 10	 VNAV will not engage with (01=L, 02=C, 03=R, 04=any) A/P engaged. FIM 34-61-00/101, Fig. 110, Block 1
34 63 11	 There is a line through VNAV on the ADI with (01=L, 02=C, 03=R, 04=ANY) A/P engaged. FIM 34-61-00/101, Fig. 110, Block 1
34 63 12	Not Used
34 63 13	 Airspeed command bug on (01=CAPT, 02=F/0) Mach/AS meter(s) is driven to 100 kts with VNAV selected speed mode active. FIM 34-61-00/101, Fig. 109, Block 1
34 63 14	 FAIL is illum and screen displays FMC on (01=Capt, 02=F/0) CDU. Selecting ALTN FMC corrects the fault. FIM 34-61-00/101, Fig. 109, Block 1
34 63 15	 Fail is illum and screen displays FMC on (01=Capt, 02=F/0) CDU. Selecting ALTN FMC does not correct the fault. FIM 34-61-00/101, Fig. 109, Block 1
34 63 16	 Leg sequencing incorrect on (01=Capt, 02=F/0) CDU. Cycle the Naviagtion Data Base. Cycle the Navigation Data Base again, so that the Data Base with the current date is active. Return to service (AMM 34-61-00).
34 63 17	 (01=Capt, 02=F/0) HSI displays leg sequencing incorrectly. Cycle the Naviagtion Data Base. Cycle the Navigation Data Base again, so that the Data Base with the current date is active. Return to service (AMM 34-61-00).
34 63 18 00	 Total fuel differs from FMC calcutaled fuel qty. Fuel qty ERROR-PROG 2/2 alert msg on CDU and EICAS msg FMC message displayed. Fuel flow was normal. Total fuel, FMC calculated fuel FIM 34-61-00/101, Fig. 105, Block 1

FAULT CODE	1. LOG BOOK REPORT 2. FAULT ISOLATION REFERENCE
34 63 19	 FUEL USED and CALCULATED FUEL display blank on (01=Capt, 02=F/0, 03=both) CDU(s). FIM 34-61-00/101, Fig. 105, Block 1
34 63 20	 Waypoint display (moves, wavers, etc) on (01=Capt, 02=F/0, 03=both) HSI(s). Selecting ALTN FMC does not correct the fault. FIM 34-61-00/101, Fig. 109, Block 1
34 63 21	 (01=Capt, 02=F/0) leg sequencing is incorrect on CDU. Push the line select key 3 right, and then line select key 2 right on the CDU IDENT page, to cycle the Navigation Data Base. Cycle the Navigation Data Base again, so that the Data Base with current date is active. Return to service (AMM 34-61-00).
34 63 22	 FUEL USED and CALCULATED FUEL display blank on (01=Capt, 02=F/0, 03=both) CDU(s). FIM 34-61-00/101, Fig. 105, Block 1
34 63 23 00	 CDU's do not drop way points. Push the line select key 3 right, and then line select key 2 right on the CDU IDENT page, to cycle the Navigation Data Base. Cycle the Navigation Data Base again, so that the Data Base with current date is active. Return to service (AMM 34-61-00).
34 63 24	 V1 INOP displayed on (01=Capt, 02=F/O) EADI. FIM 34-61-00/101, Fig. 109, Block 1
34 63 25 00	 V1, V2 bug(s) (not normal, missing, etc) on (01=Capt, 02=F/0, 03=both) EADI speed tape(s) with normal or ALTN EFI selected. FIM 34-61-00/101, Fig. 109, Block 1
34 63 26	 EPR command bug on (03=L, 04=R, 05=both) EPR indicators is green with VNAV thrust command mode active. FIM 34-61-00/101, Fig. 110, Block 1
34 63 27	 Command airspeed on (01=Capt, 02=F/0, 03=both) EADI speed tape(s) read(s) 100 Kts with VNAV selected, speed mode active. FIM 34-61-00/101, Fig. 109, Block 1

FAULT CODE	1. LOG BOOK REPORT 2. FAULT ISOLATION REFERENCE
34 63 28	 Airspeed command bug on (01=Capt, 02=F/0, 03=both) Mach/AS meter(s) is driven behind the mask with VNAV selected, speed mode active. FIM 34-61-00/101, Fig. 109, Block 1
34 63 29	 SEL SPD msg displayed on (01=Capt, 02=F/0, 03=both) EADI speed tape(s) with VNAV selected, speed mode active. FIM 34-61-00/101, Fig. 110, Block 1
34 63 30	34 63 30 thru 34 63 34 Not Used
34 63 35	 V1, Vr bug(s) (not normal, missing, etc) on (01=Capt, 02=F/0, 03=both) ADI speed tape(s) with normal or ALT EFI selected. FIM 34-61-00/101, Fig. 109, Block 1
34 90 01 00	 Lightning strike occurred on the nose radome. Examine the airplane for a lightning strike or a severe static discharge (AMM 05-51-19).
34 90 02 00	 Lightning strike occurred on the nacelle(s). Examine the airplane for a lightning strike or a severe static discharge (AMM 05-51-19).
34 90 03 00	 Lightning strike occurred on the wingtip(s). Examine the airplane for a lightning strike or a severe static discharge (AMM 05-51-19).
34 90 04 00	 Lightning strike occurred on leading edge flaps. Examine the airplane for a lightning strike or a severe static discharge (AMM 05-51-19).
34 90 05 00	 Lightning strike occurred on an unknown area. Examine the airplane for a lightning strike or a severe static discharge (AMM 05-51-19).



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
Air Data Inertial Reference Unit	ADIRU	34-26
Air Traffic Control Transponder	ATC	34-53
Airborne Vibration Monitor Signal Conditioner	AVM	77–31
Antiskid/Autobrake Control Unit		32-42
APU Fire Detection System		26-15
Automatic Direction Finder Receiver	ADF	34-57
APU Control Unit	ECU	49–11
Brake Temperature Monitor Unit		32-46
Bus Power Control Unit	BPCU	24-20
Cabin Pressure Controller		21-30
Digital Flight Data Acquisition Unit	DFDAU	31-31
Distance Measuring Equipment Interrogator	DME	34-55
Duct Leak (Wing and Body)		26-18
E/E Cooling Control Card (If cards installed)		21-58
ECS Bleed Configuration Card		36–10
Electronic Engine Control (RR Engines)	EEC	73–21
Electronic Engine Control Monitor Unit (PW Engines)	EECM	71-EPCS Message Index
Electronic Flight Instrument System	EFIS	34-22
Electronic Propulsion Control System (PW Engines)	EPCS	71-EPCS Message Index
Engine Fire/Overheat Detection System		26–11
Engine Indication and Crew Alerting System Computer	EICAS	31-41

Bite Index Figure 1 (Sheet 1)

EFFECTIVITY-

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LRU/System Name	Acronym	FIM Reference
Engine Turbine Cooling Overheat Detection System (RR Engines)		26-13
Enhanced Ground Proximity Warning Computer	EGPWC	34-46
Flap/Slat Accessory Module	FSAM	27-51
Flap/Slat Electronic Unit	FSEU	27-51
Flight Management Computer	FMC	34-61
Fuel Quantity Indicating System Processor	FQIS	28-41
Ground Proximity Warning Computer	GPWC	34-46
HF (High Frequency) Communication		23-11
Inertial Reference Unit	IRU	34-21
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)

EFFECTIVITY-

34-BITE INDEX

ALL

01 Page 2



<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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01

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PITOT-STATIC SYSTEM

COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	AMM REFERENCE
PORT - CAPTAIN'S STATIC		2	FWD FUSELAGE, L UPPER AND R LOWER	34-11-03
PORT - F/O'S STATIC		2	FWD FUSELAGE, L LOWER AND R UPPER	
PORT - STATIC, ALTERNATE		2	FWD FUSELAGE, 1 EACH SIDE	34-11-03
PROBE - AUX 1 PITOT, B27		1	NOSE SECTION, R SIDE - LOWER PROBE	34-11-01
PROBE - AUX 2 PITOT, B29		1	NOSE SECTION, L SIDE - LOWER PROBE	34-11-01
PROBE - CAPTAIN'S PITOT, B26		1	NOSE SECTION, L SIDE - UPPER PROBE	34-11-01
PROBE - F/O'S PITOT, B28		1	NOSE SECTION, R SIDE - UPPER PROBE	34-11-01
PROBE HEATER - (FIM 30-31-00/101)				

^{*} SEE THE WDM EQUIPMENT LIST

Pitot-Static System - Component Index Figure 101

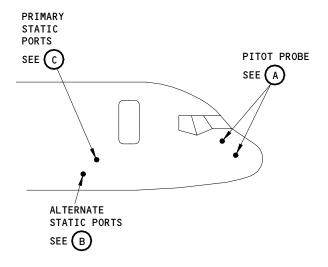
EFFECTIVITY-

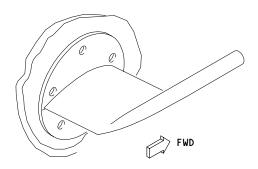
34-11-00

01

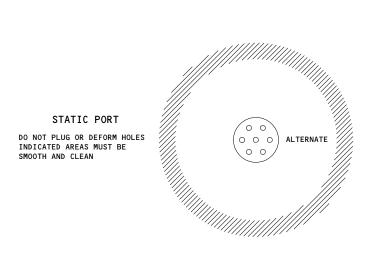
Page 101 Sep 20/94





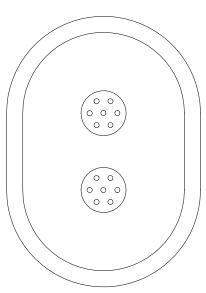


PITOT PROBE (EXAMPLE)



ALTERNATE STATIC PORTS

(B)



PRIMARY STATIC PORTS

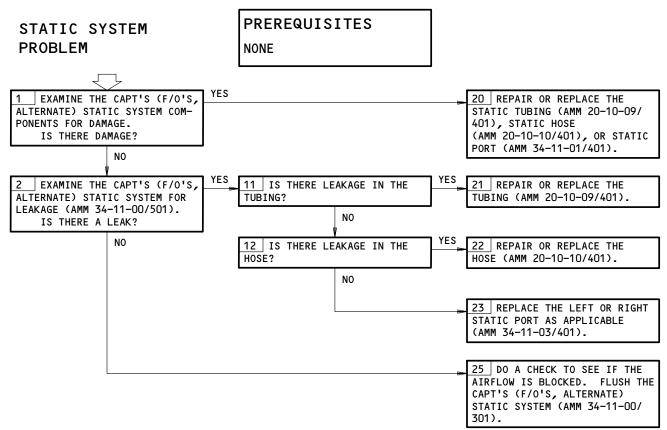
Pitot-Static System - Component Location Figure 102

34-11-00

01

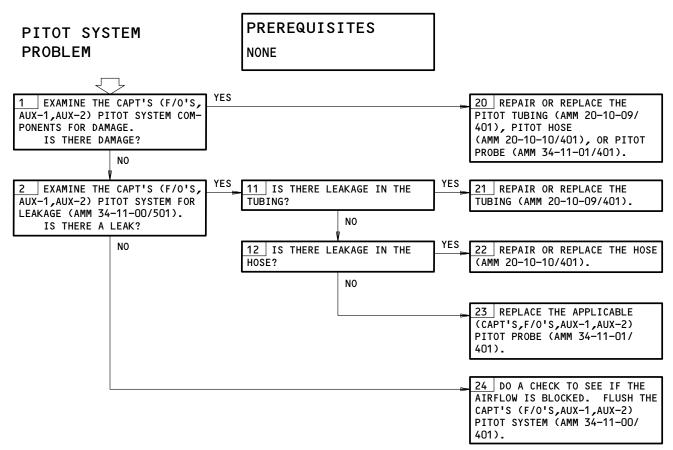
Page 102 Sep 20/94





Static System Problem Figure 103

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Pitot System Problem Figure 104



AIR DATA COMPUTING SYSTEM

COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	AMM REFERENCE
CIRCUIT BREAKERS	1		FLIGHT COMPARTMENT, P11	
AIR DATA AOA SENSOR LEFT, C1		1	11A11	*
AIR DATA AOA SENSOR RIGHT, C3		1	11F31	*
AIR DATA BARO CORRECT LEFT, C2		1	11A12	*
AIR DATA BARO CORRECT RIGHT, C4		1	11F32	*
AIR DATA CMPTR LEFT, C625		1	11A10	*
AIR DATA CMPTR RIGHT, C626		1	11F30	*
AIR DATA SOURCE SEL RELAY LEFT, C4664		1	11B4	*
AIR DATA SOURCE SEL RELAY RIGHT, C4665		1	11B5	*
COMPUTER - AIR DATA L, M100	2	1	119BL, MAIN EQUIPMENT CENTER, E2-1	34-12-01
COMPUTER - AIR DATA R, M101	2	1	119BL, MAIN EQUIPMENT CENTER, E2-2	34-12-01
MODULE - DISCRETE WARNING DISPLAY, M779 PANEL - (FIM 30-32-00/101)	1	1	FLIGHT COMPARTMENT, P1-3	*
MISCELLANEOUS TEST, M10398				
PROBE - TOTAL AIR TEMPERATURE, TS5001	2	1	L SIDE FORWARD FUSELAGE	34-12-02
RELAY - LEFT AIR DATA SOURCE SELECT, K10802	2	1	119BL, MAIN EQUIPMENT CENTER, E2-4	
RELAY - RIGHT AIR DATA SOURCE SELECT, K10803 1	2	1	119BL, MAIN EQUIPMENT CENTER, E2-4	
RELAY - (FIM 31-01-36/101)				
SYS 1 AIR/GROUND, K148				
RELAY - (FIM 31-01-37/101)				
SYS 2 AIR/GROUND, K207				
SENSOR - ANGLE OF ATTACK L, TS12	2	1	L SIDE FUSELAGE NOSE	34-12-03
SENSOR - ANGLE OF ATTACK R, TS13	2	1	R SIDE FUSELAGE NOSE	34-12-03
SWITCH - CAPT ADC INSTR SOURCE SELECT, S482	1	1	FLIGHT COMPARTMENT, P1-1	*
SWITCH - F/O ADC INSTR SOURCE SELECT, S483 TRANSFORMER - (FIM 31-01-36/101) AIR DATA COMPUTER L, T139	1	1	FLIGHT COMPARTMENT, P3-3	*
TRANSFORMER - (FIM 31-01-37/101) AIR DATA COMPUTER R, T140				

^{*} SEE THE WDM EQUIPMENT LIST

1 AIRPLANES POST-SB 34-0222

Air Data Computing System - Component Index Figure 101

EFFECTIVITY-

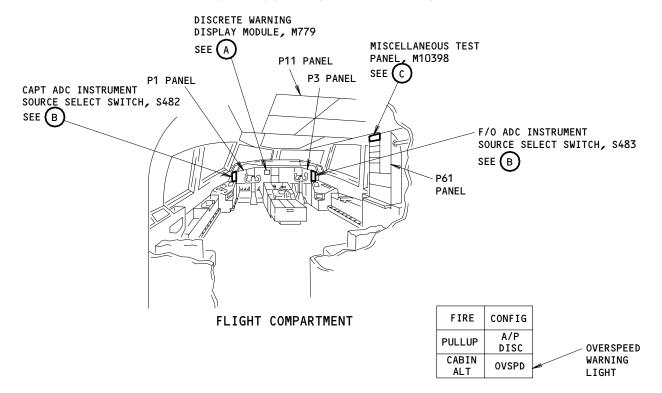
34-12-00

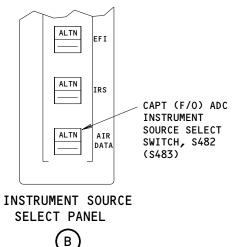
ALL

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FAULT ISOLATION/MAINT MANUAL

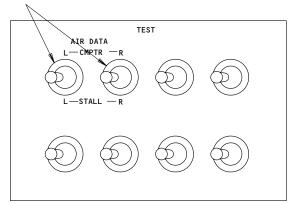




DISCRETE WARNING DISPLAY MODULE, M779



AIR DATA COMPUTER TEST SWITCHES



MISCELLANEOUS TEST PANEL, M10398 (REF)

Component Location Figure 102 (Sheet 1)

EFFECTIVITY-ALL

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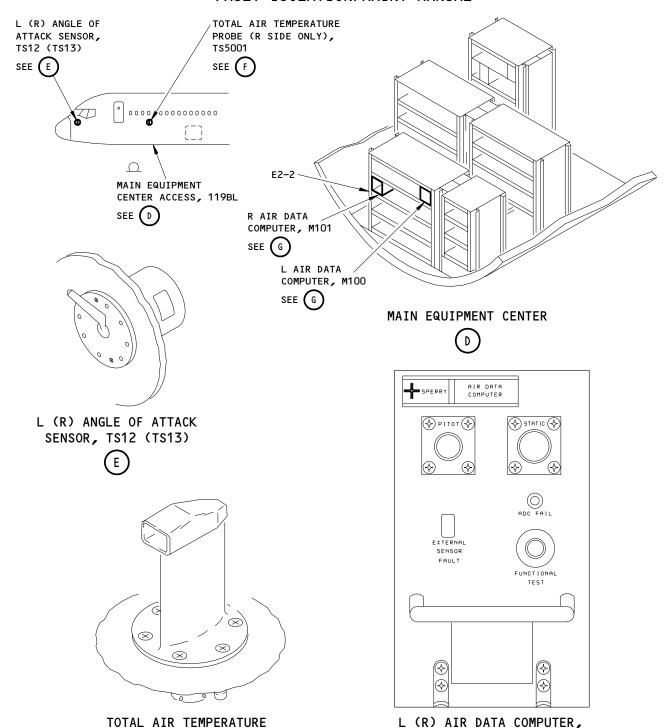
34-12-00

01

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FAULT ISOLATION/MAINT MANUAL



Air Data Computing System - Component Location Figure 102 (Sheet 2)

M100 (M101)

ALL

O1 Page 103
Mar 20/90

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PROBE, TS5001



CAPT (F/O) ALTIMETER ERROR IS CORRECTED WITH ALTN AIR DATA SELECTED

PREREQUISITES

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11A10, 11A11, 11A12, 11E2, 11E23, 11F30, 11F31, 11F32

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

YES PUSH THE LEFT (RIGHT) 21 REPLACE THE LEFT (RIGHT) ADC FUNCTIONAL TEST BUTTON. ADC M100 (M101) DID THE FAULT BALL SHOW (AMM 34-12-01/201). YELLOW? NO 22 DO THIS PROCEDURE: "STATIC SYSTEM PROBLEM" FOR THE CAPT (F/O) STATIC SYSTEM (FIM 34-11-00/101, FIG. 103). IF THE PROBLEM CONTINUES, DO THIS PROCEDURE: "PITOT SYSTEM PROBLEM" FOR THE CAPT (F/O) PITOT SYSTEM (FIM 34-11-00/101, FIG. 104). IF THE PROBLEM CONTINUES, USE A DATA BUS READER TO DO A CHECK OF THE AOA SENSOR FOR ITS 0° POSITION (AMM 34-12-00/501). NOTE: YOU MAY GET AN ALTITUDE OR MACH AIRSPEED ERROR IF YOU DO NOT ALIGN THE AOA SENSOR. IF THE PROBLEM CONTINUES, DO A TEST OF THE AOA SENSOR (FIM 34-12-00/101, FIG. 109). IF THE PROBLEM CONTINUES, DO THIS CORRECTIVE ACTION: "SYSTEM TEST - AIR DATA COMPUTING SYSTEM" (AMM 34-12-00/501). REPAIR

> Capt (F/O) Altimeter is Corrected with ALTN Air Data Selected Figure 103

EFFECTIVITY-ALL

34-12-00

THE PROBLEMS THAT YOU FIND.

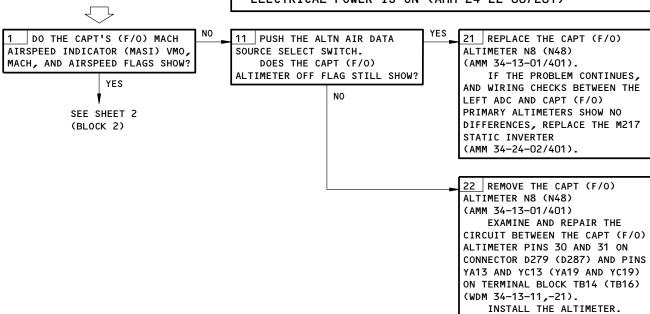


MAKE SURE THIS SYSTEM WILL OPERATE: PITOT-STATIC SYSTEM AT AMBIENT (AMM 34-11-00/501) EFIS (AMM 34-22-00-/501)

PREREQUISITES

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED:
11A10, 11A11, 11A12, 11E1, 11E2, 11E22, 11E23,
11F30, 11F31, 11F32

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

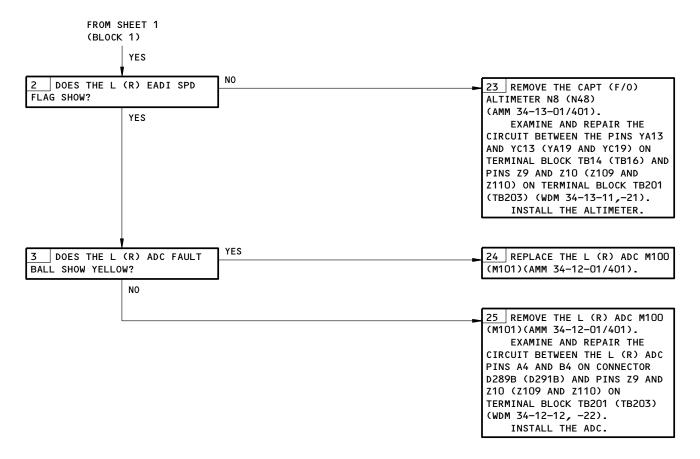


Off Flag in View on Capt's (F/O's) Altimeter Figure 104 (Sheet 1)

GUI 009, 115

34-12-00

ALTIMETER



Off Flag in View on Capt's (F/O's) Altimeter Figure 104 (Sheet 2)

GUI 009, 115

34-12-00

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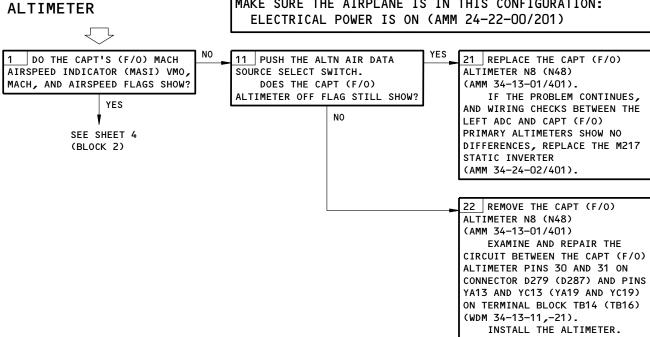


PREREQUISITES

MAKE SURE THIS SYSTEM WILL OPERATE: PITOT-STATIC SYSTEM AT AMBIENT (AMM 34-11-00/501) EFIS (AMM 34-22-00-/501)

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11A10, 11A11, 11A12, 11E1, 11E2, 11E22, 11E23, 11F30, 11F31, 11F32

MAKE SURE THE AIRPLANE IS IN THIS CONFIGURATION:

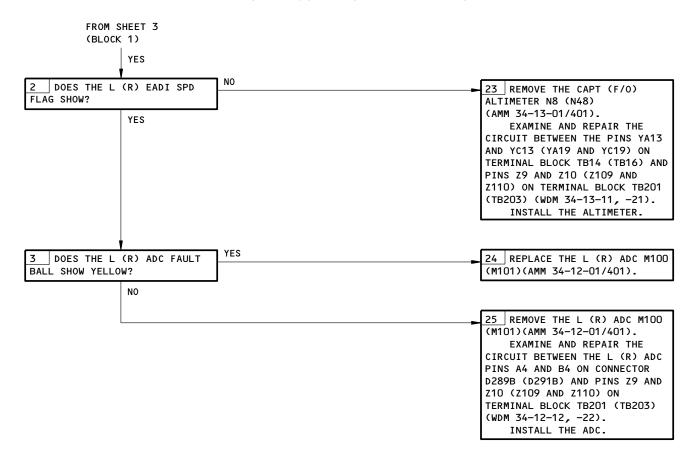


Off Flag in View on Capt's (F/O's) Altimeter Figure 104 (Sheet 3)

EFFECTIVITY-GUI 001-008, 010-114, 116-999

OFF FLAG IN VIEW

ON CAPT'S (F/O'S)



Off Flag in View on Capt's (F/O's) Altimeter Figure 104 (Sheet 4)

34-12-00

07

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1374871



Not Used Figure 105

E46733

34-12-00

03

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PREREQUISITES

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11A10,11A11,11A12,11E1,11E2,11E8,11E9,11E22,11E23, 11E29,11E30,11F30,11F31,11F32

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

CAPT (F/O) TAS/SAT AND MACH ARE IN ERROR

YES PUSH THE FUNCTIONAL TEST 11 REPLACE THE LEFT (RIGHT) ADC, M100 (M101) SWITCH ON L (R) ADC. DOES THE L (R) ADC FAULT-(AMM 34-12-01/401). BALL SHOW YELLOW? 13 DO THIS PROCEDURE: "PITOT SYSTEM PROBLEM" FOR THE CAPT (F/O) PITOT SYSTEM (FIM 34-11-00/101, FIG. 104). IF THE FAILURE CONTINUES, DO THIS PROCEDURE: "STATIC SYSTEM PROBLEM" FOR THE CAPT (F/O) STATIC SYSTEM (FIM 34-11-00/101, FIG. 103).

TAS/SAT and Mach Are In Error Figure 106

34-12-00

04

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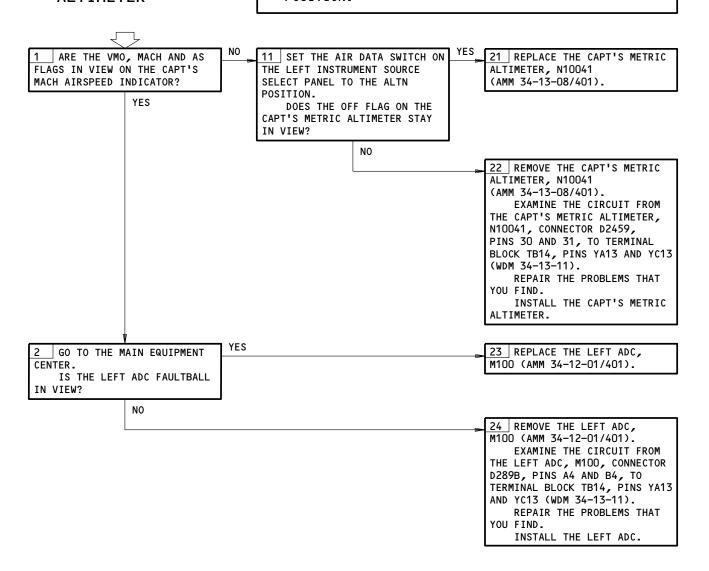
PREREQUISITES

MAKE SURE THIS SYSTEM WILL OPERATE: EFIS (AMM 34-22-00/501)

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11A10,11A11,11A12,11E1,11E2,11E3,11E4,11E7,11E22, 11E23,11F30,11F31,11F32,

MAKE SURE THE AIRPLANE IS IN THIS CONFIGURATION: ELECTRICAL POWER IS ON (AMM 24-22-00/201) PITOT-STATIC SYSTEM AT AMBIENT (AMM 34-11-00/501) ALL INSTRUMENT SOURCE SELECT SWITCHES IN THE NORM POSITION.

OFF FLAG IN VIEW ON CAPT'S METRIC ALTIMETER



Off Flag in View on Capt's Metric Altimeter Figure 106A

GUI 010, 011 WITH SB 34-166

34-12-00

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PREREQUISITES ELECTRICAL POWER (MM 24-22-00) CAPT (F/O) MASI PITOT-STATIC SYSTEM AT AMBIENT IN ERROR. SELECT-ING ALTN AIR DATA CB'S: (LEFT ADC) 11A10,11A11,11A12,11E1 (RIGHT ADC) 11E22,11F30,11F31,11F32 CORRECTS FAULT YES PUSH THE L (R) ADC TEST 13 DO THE PROCEDURE "PITOT SWITCH ON THE MISCELLANEOUS SYSTEM PROBLEMS" FOR THE TEST PANEL, P61, TO THE "AIR DATA CMPTR" POSITION. CAPT (F/O) PITOT SYSTEM (MM 34-11-00, FIG. 104). AFTER 7 SECONDS, DOES THE IF THE FAILURE CONTINUES, MACH AIRSPEED INDICATION SHOW DO THE PROCEDURE "STATIC SYSTEM PROBLEMS" FOR THE CAPT 137 KTS? (F/O) STATIC SYSTEM NO (MM 34-11-00, FIG. 103).YES 2 DO THE MODE CONTROL DIS-14 REPLACE THE LEFT (RIGHT) PLAY PANEL (MCDP) GROUND TEST ADC M100 (M101)(MM 34-12-01). 30 - CURRENT FAULT REPORT (22-00-03, FIG. 117). NO DOES THE MCDP MESSAGE 15 REPLACE THE CAPT'S (F/O) "ADC L" ("ADC R") SHOW? MASI N1 (N41)(MM 34-13-02).

Capt (F/O) MASI in Error. Selecting Altn Air Data Corrects Fault Figure 107

GUI 009, 115

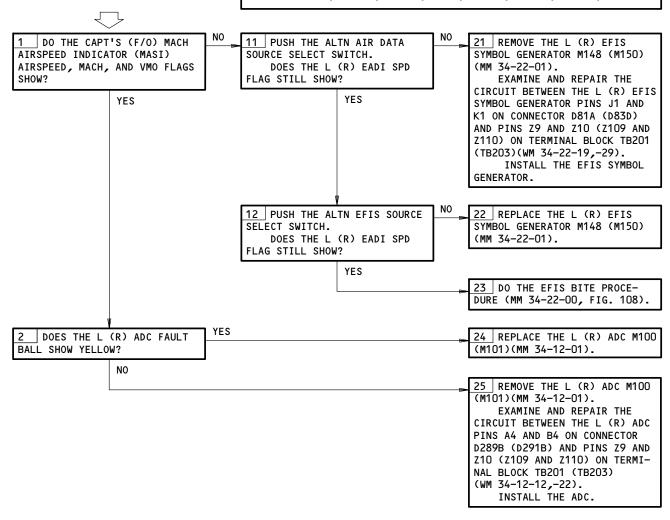




ELECTRICAL POWER (24-22-00) PITOT STATIC SYSTEM AT AMBIENT EFIS (34-22-00)

SPD FLAG IN VIEW ON L (R) EADI

CB'S: 11A10,11A11,11A12,11E2,11E23,11F30,11F31,11F32



SPD Flag in View on L (R) EADI Figure 107A

EFFECTIVITY GUI 001-008, 010-114, 116-999



CAPT (F/O) AIRSPEED AND/OR MACH INDICA-TIONS IN ERROR. SELECTING ALTN AIR DATA CORRECTS FAULT

PREREQUISITES

ELECTRICAL POWER (MM 24-22-00) PITOT-STATIC SYSTEM AT AMBIENT EFIS (MM 34-22-00)

CB'S: (LEFT ADC) 11A10,11A11,11A12,11E1 (RIGHT ADC) 11E22,11F30,11F31,11F32



Capt (F/O) Airspeed and/or Mach Indications in Error. Selecting Altn Air Data Corrects Fault Figure 107B

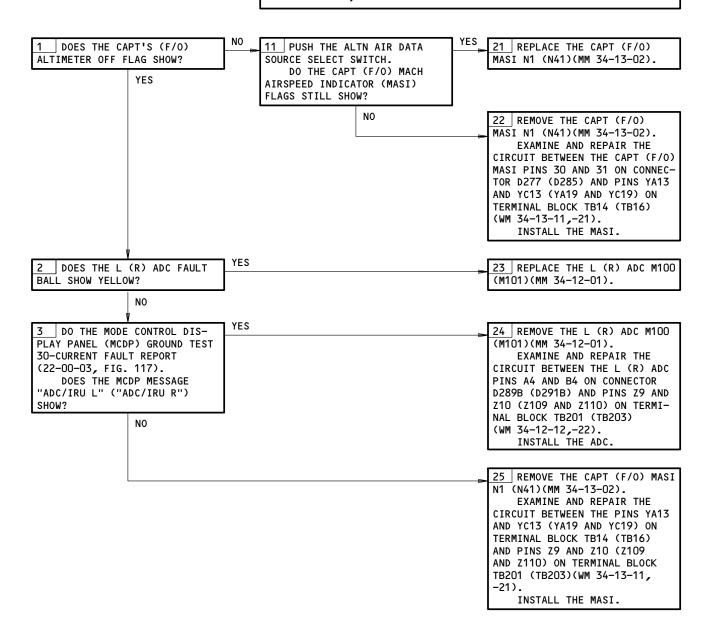


VMO, MACH, AND AS FLAGS IN VIEW ON CAPT (F/O) MACH/ AIRSPEED INDICATOR

PREREQUISITES

ELECTRICAL POWER (MM 24-22-00)

CB'S: 11A10,11A11,11A12,11E1,11E2,11E22,11E23,11F30, 11F31,11F32



VMO, Mach, and AS Flags in View on Capt (F/O) Mach/Airspeed Indicator Figure 108 (Sheet 1)

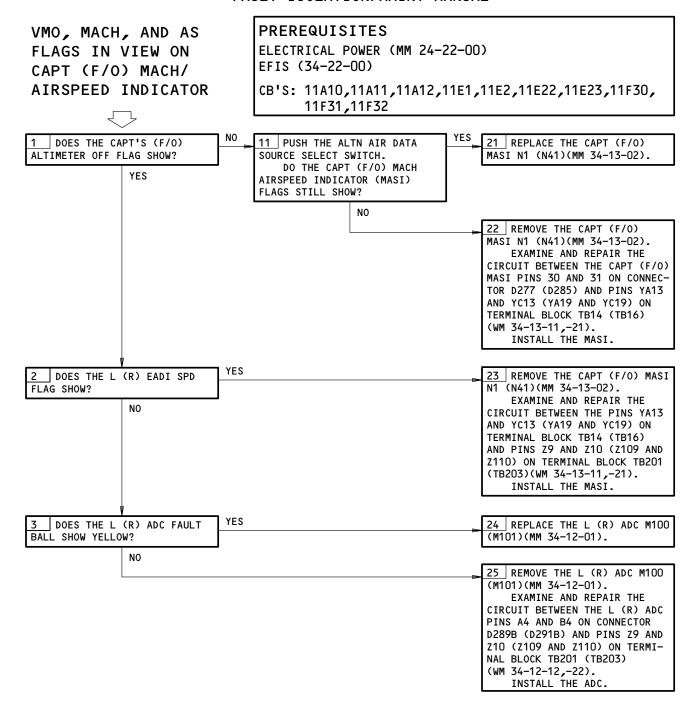
GUI 009, 115

34-12-00

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VMO, Mach, and AS Flags in View on Capt (F/O) Mach/Airspeed Indicator Figure 108 (Sheet 2)



PREREQUISITES

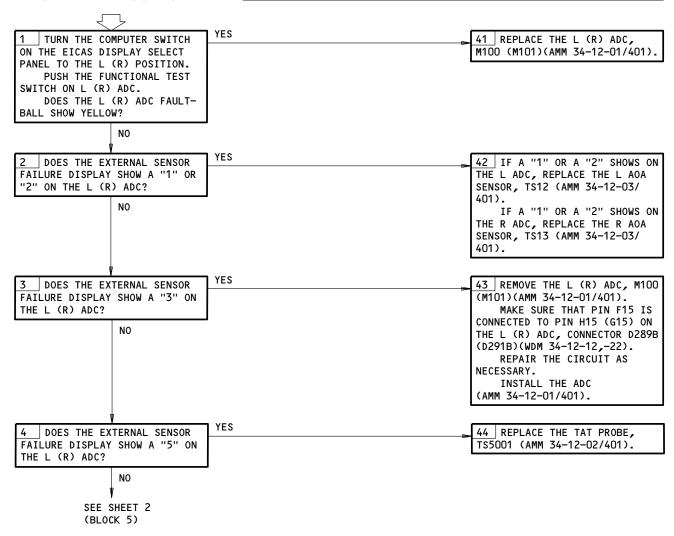
MAKE SURE THESE SYSTEMS WILL OPERATE: EICAS (AMM 31-41-00/201) WARNING SYSTEM (AMM 31-51-00/501)

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11A10,11A11,11A12,11E1,11E2,11E22,11E23,11F30, 11F31,11F32

MAKE SURE THESE CIRCUIT BREAKERS ARE OPEN: 11A17,11F14,11F15,11F16

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

ADC BITE PROCEDURE



ADC BITE Procedure Figure 109 (Sheet 1)

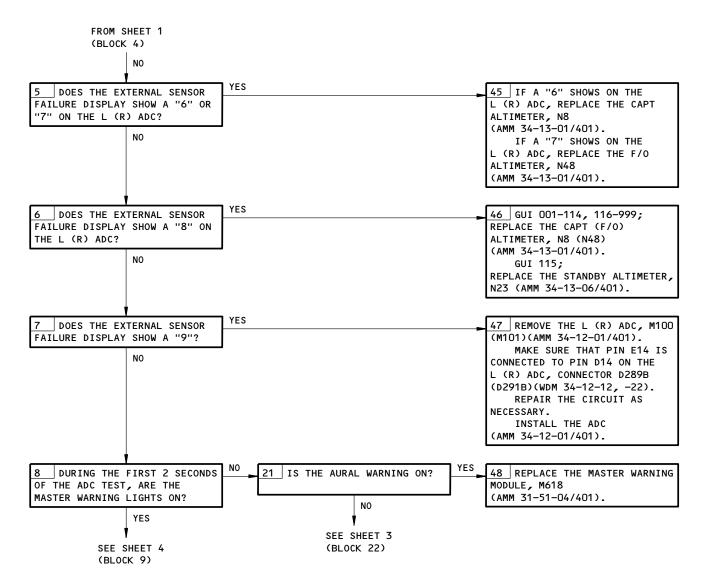
GUI 009, 115

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34-12-00

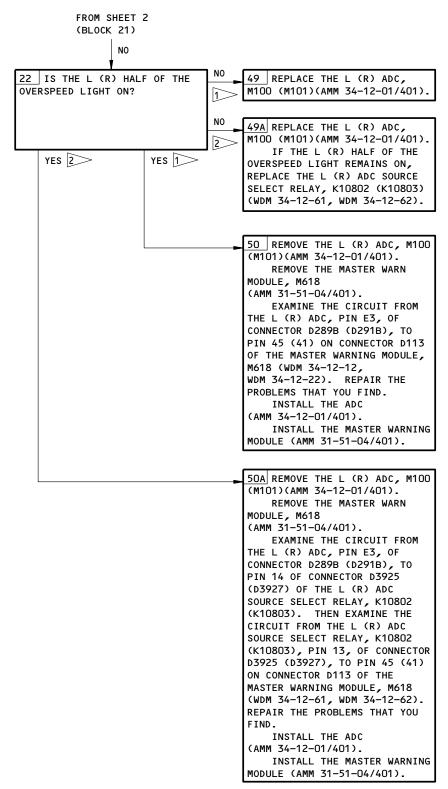
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ADC BITE Procedure Figure 109 (Sheet 2)

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AIRPLANES PRE-SB 34-0222

AIRPLANES POST-SB 34-0222

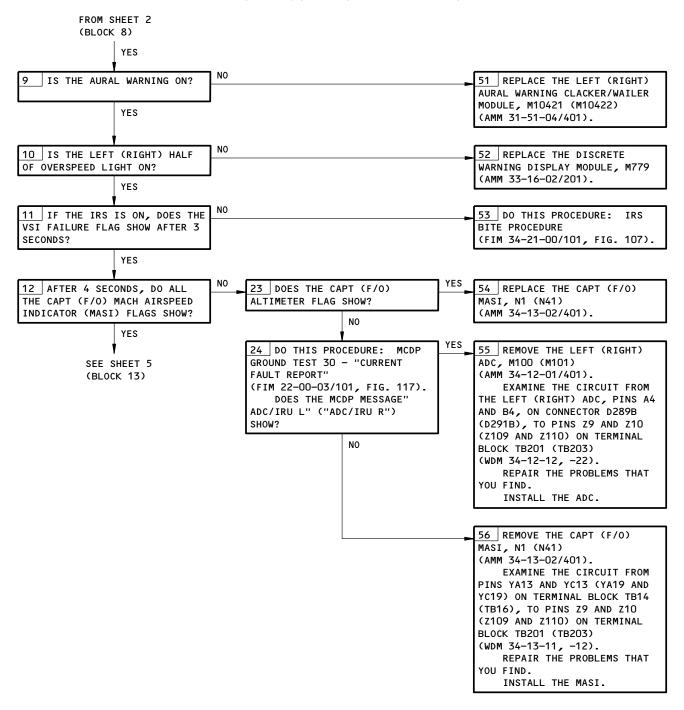
ADC BITE Procedure Figure 109 (Sheet 3)

GUI 009, 115

34-12-00

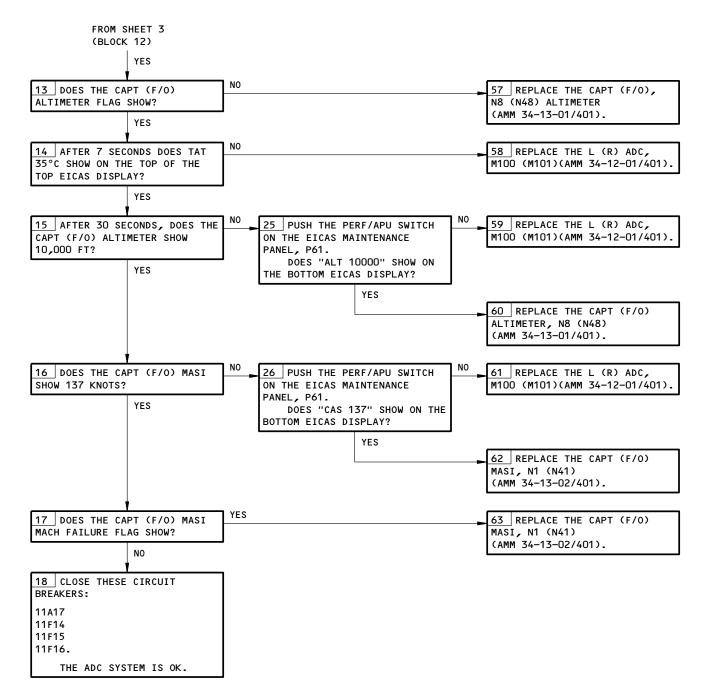
13

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ADC BITE Procedure Figure 109 (Sheet 4)





ADC BITE Procedure Figure 109 (Sheet 5)

PREREQUISITES

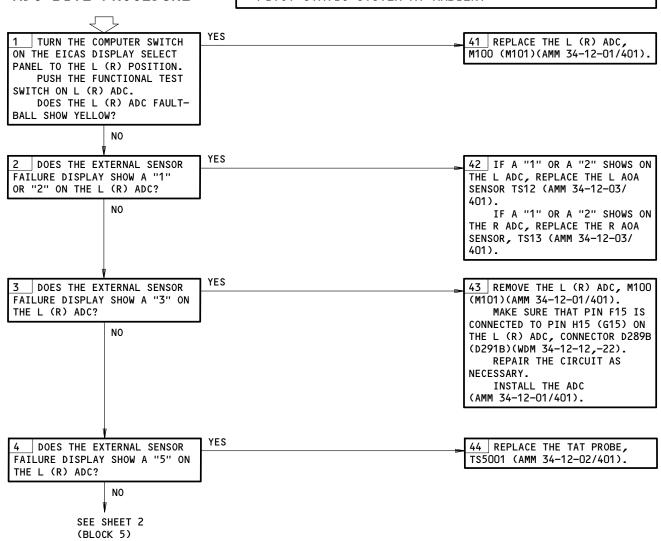
MAKE SURE THESE SYSTEMS WILL OPERATE: EICAS (AMM 31-41-00/201) WARNING SYSTEM (AMM 31-51-00/501) EFIS (AMM 34-22-00/501)

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11A10,11A11,11A12,11E1,11E22,11E23,11F30,11F31, 11F32

MAKE SURE THESE CIRCUIT BREAKERS ARE OPEN: 11A17,11F14,11F15,11F16

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

ADC BITE PROCEDURE



ADC BITE Procedure Figure 109A (Sheet 1)

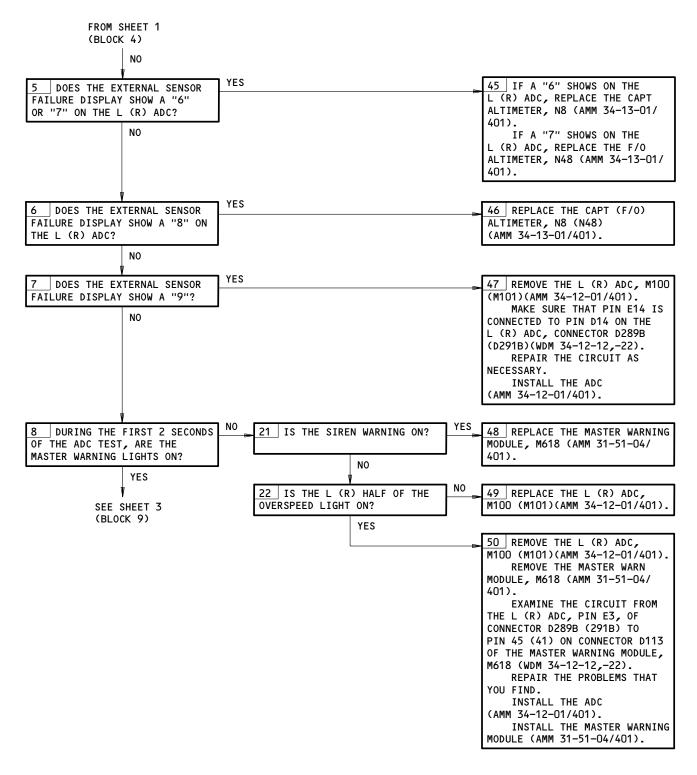
EFFECTIVITY GUI 001-008, 010-114, 116-999

34-12-00

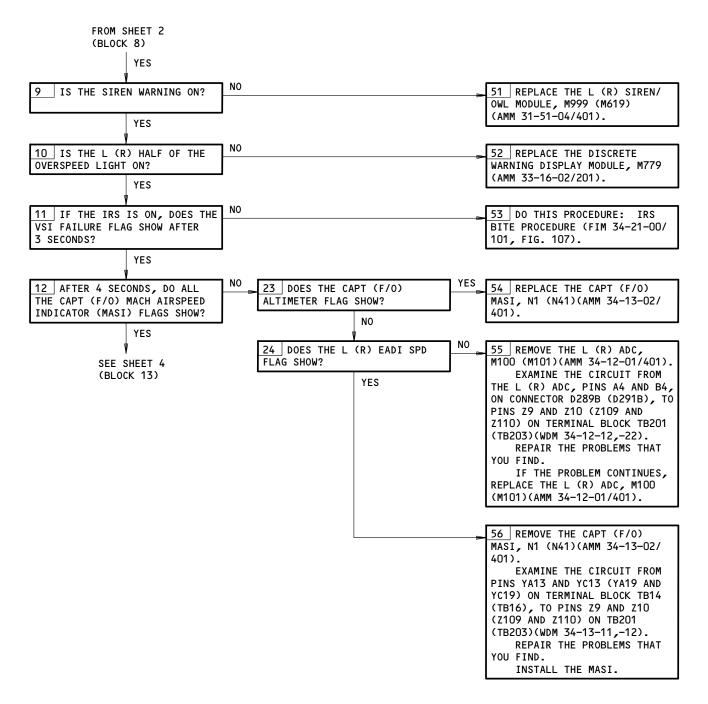
13

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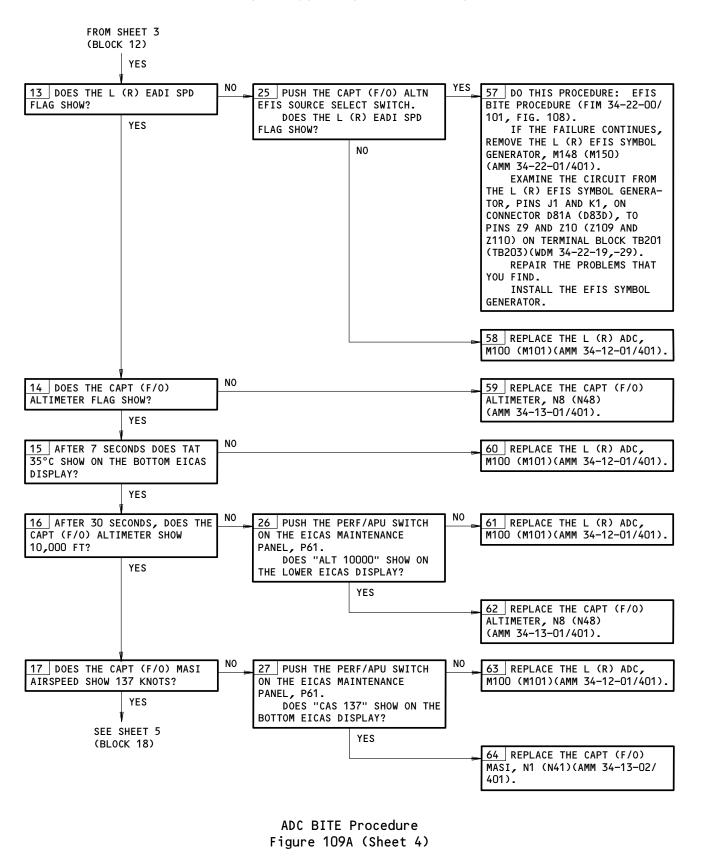




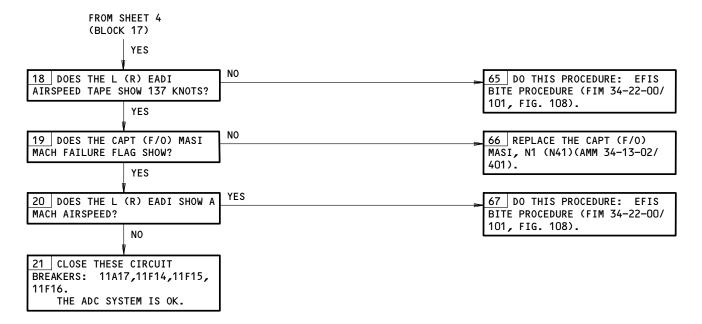
ADC BITE Procedure Figure 109A (Sheet 2)



ADC BITE Procedure Figure 109A (Sheet 3)







ADC BITE Procedure Figure 109A (Sheet 5)



1. ARINC Data Bus Charts

A. General

<u>CAUTION</u>: DO NOT DIRECTLY TOUCH THE CONNECTORS. USE A BREAKOUT BOX OR YOU CAN CAUSE DAMAGE TO THE CONNECTORS.

(1) The ARINC 429 data bus charts give data necessary to make an analysis of ARINC 429 transmitters, receivers, and data buses. For the test, use a breakout box at the available terminal or at the LRU connectors.

B. Equipment

- (1) Standard multi-meter
- (2) 429EBP Data Bus Analyzer (recommended) JcAIR Instrumentation 400 Industrial Parkway Industrial Airport, KS 66031

429-2 Data Bus Analyzer (alternative) Interface Technology 150 E. Arrow Highway San Dimas, CA 91773

(3) A34011-1 Breakout Box (recommended) A34011-112 Breakout Box (alternative)

NOTE: Octal labels 034, 035, 251, and 252 are multiple function labels and will not show correct data in engineering units on the data bus analyzer unless you set the hex equipment identification to ID=06. If you cannot set the hex equipment identification, do the steps that follow:

- Show the label in hexadecimal format
- Make a record of the value
- Set the data bus analyzer to send a label in hex format as shown below:

RECEIVED LABEL	TRANSMIT LABEL
034	234 or 236
035	235 or 237
251	204 or 220
252	204 or 220

- Put in the hexadecimal value that you recorded for the RECEIVED LABEL.
- Use engineering format to show the correct engineering value.

EFFECTIVITY-



ADC									
DIGITAL OUTPUT BUS CHART									
	BUS NAME					BUS	ВІТ		
	SOURCE	TYPE	BUS	CON	PINS		RATE	DATA BUS	
ADC	(L R)	А	1	В	A02 B02	429	L0	ADC APFDS BUS	
ADC	(L R)	А	2	В	A04 B04	429	L0	ADC INSTR BUS	
ADC	(L R)	А	3	В	A06 B06	429	L0	ADC ENG CONT BUS	
ADC	(L R)	Α	4	В	АО8 ВО8	429	L0	ADC GEN PRPS BUS	

ALL



L	L				I	I	L	L
BARO COR NO.3(MB)	Α	034	BCD	8	XX	± 7999.9	ALWAYS POS	MB
BARO COR NO.3(IN)	Α	035	BCD	8	XX	± 79.999	ALWAYS POS	INS HG
ALTITUDE (29.92)	Α	203	BNR	16	XX	± 131,072	ABOVE SEA LEV	FEET
ALTITUDE (BARO #1)	Α	204	BNR	16	XX	± 131,072	ABOVE SEA LEV	FEET
MACH	Α	205	BNR	8	хх	± 4.096	ALWAYS POS	MACH
COMPUTED AIRSPEED	Α	206	BNR	8	хх	± 1024	ALWAYS POS	KNOTS
MAX OPRTG SCHEDULE	Α	207	BNR	8	хх	± 1024	ALWAYS POS	KNOTS
TRUE AIRSPEED	Α	210	BNR	8	хх	± 2048	ALWAYS POS	KNOTS
TOTAL AIR TEMP	Α	211	BNR	2	хх	± 512	ABOVE FREEZIN	DEG C
ALTITUDE RATE	Α	212	BNR	16	хх	± 32,768	CLIMB UP	FT/MIN
STATIC AIR TEMP	Α	213	BNR	2	хх	± 512	ABOVE FREEZIN	DEG C
IMPACT PRESSURE	Α	215	BNR	8	хх	± 512	ALWAYS POS	МВ
ALTITUDE (BARO #2)	Α	220	BNR	16	хх	± 131,072	ABOVE SEA LEV	FEET
INDICATED AOA	Α	221	BNR	16	хх	± 180	NOSE UP	DEG
ANGLE OF ATTACK-#1	Α	222	BNR	16	хх	± 180	NOSE UP	DEG
ANGLE OF ATTACK-#2	Α	223	BNR	16	хх	± 180	NOSE UP	DEG
TRUE AIRSPEED-D	Α	230	BCD	2	хх	± 799	ALWAYS POS	KNOTS
TOTAL AIR TEMP-D	Α	231	BCD	2	хх	± 99	ABOVE FREEZIN	DEG C
STATIC AIR TEMP-D	Α	233	BCD	2	хх	± 99	ABOVE FREEZIN	DEG C
BARO COR NO.1(MB)	Α	234	BCD	8	хх	± 7999.9	ALWAYS POS	МВ
BARO COR NO.1(IN)	Α	235	BCD	8	хх	± 79.999	ALWAYS POS	INS HG
BARO COR NO.2(MB)	Α	236	BCD	8	хх	± 7999.9	ALWAYS POS	МВ
BARO COR NO.2(IN)	Α	237	BCD	8	хх	± 79.999	ALWAYS POS	INS HG
CORRECTED AOA	Α	241	BNR	16	хх	± 180	NOSE UP	DEG

ALL



!	l		l I	ı .	I	ı	!	I 1
BARO COR NO.3(MB)	Α	034	BCD	8	хх	± 7999.9	ALWAYS POS	МВ
BARO COR NO.3(IN)	Α	035	BCD	8	хх	± 79.999	ALWAYS POS	INS HG
TOTAL PRESSURE	Α	242	BNR	8	хх	± 2048	ALWAYS POS	МВ
ALTITUDE (BARO #3)	Α	251	BNR	16	хх	± 131,072	ABOVE SEA LEV	FEET
ALTITUDE (BARO #4)	Α	252	BNR	16	хх	± 131,072	ABOVE SEA LEV	FEET
ADC DISCRETES #1	Α	270	DIS	2	хх	N/A	N/A	N/A
ADC DISCRETES #2	Α	271	DIS	2	хх	N/A	N/A	N/A
MAINTENANCE WD 1	Α	350	DIS	2	хх	N/A	N/A	N/A
MAINTENANCE WD 2	Α	351	DIS	2	хх	N/A	N/A	N/A
MAINTENANCE WD 3	Α	352	DIS	2	хх	N/A	N/A	N/A
MAINTENANCE WD 4	Α	353	BCD	2	хх	N/A	N/A	N/A
MAINTENANCE WD 5	Α	354	BNR	2	хх	± 63.999	ALWAYS POS	INS HG

ALL



ADC				
	DISCRE	TE O	CTAL LABELS/BIT CHART	
SIGNAL	OCTAL LABEL	ВІТ	ONE-STATE	ZERO-STATE
SENSOR #1 HEAT ON	270	11	#1 HTR ON	#1 HTR OFF
SENSOR #2 HEAT ON	270	12	#2 HTR ON	#2 HTR OFF
ADC INVALID	270	13	ADC FAIL	ADC OK
PIT/STAT HEAT ON L	270	14	L P/S ON	L P/S OFF
PIT/STAT HEAT ON R	270	15	R P/S ON	R P/S OFF
TAT PROBE HEAT ON	270	16	TAT HTR ON	HTR OFF
#1 AOA HEAT ON	270	17	AOA #1 ON	AOA #1 OFF
#2 AOA HEAT ON	270	18	AOA #2 ON	AOA #2 OFF
OVERSPEED	270	19	OVERSPEED	NOT OVRSPD
ONSIDE AOA FAIL	270	20	ONSIDE FL	ONSIDE OK
AOA UNIQUE	270	21	UNIQUE	AVERAGE
VMO ALTERNATE #1	270	22	VMO=ALT #1	VMO NOT #1
VMO ALTERNATE #2	270	23	VMO=ALT #2	VMO NOT #2
VMO ALTERNATE #3	270	24	VMO=ALT #3	VMO NOT #3
VMO ALTERNATE #4	270	25	VMO=ALT #4	VMO NOT #4
SSEC ALTERNATE	270	26	ALTERNATE	NORMAL
AOAC ALTERNATE	270	27	ALTERNATE	NORMAL
BARO PORT "A"	270	28	BARO "A"	BARO "B"
ZERO SSEC (MACH)	270	29	NO MACH	МАСН
ZERO SSEC (AOA)	271	11	NO AOA	AOA
EXT AOA MON (FAIL)	271	12	PRI AOA FL	PRI AOA OK
AOA ROT REF	271	13	#1=#2	#1=-#2

ALL



ADC				
	DISCRE	TE O	CTAL LABELS/BIT CHART	
SIGNAL	OCTAL LABEL	ВІТ	ONE-STATE	ZERO-STATE
SDI PAR SET	271	14	SET	NOT SET
#4 BARO ALT=#1	271	16	#4 ALT=#1	#4 NOT #1
#4 BARO ALT=#2	271	17	#4 ALT=#2	#4 NOT #2
#4 BARO ALT=#3	271	18	#4 ALT=#3	#4 NOT #3
#1 AOA VANE TEST	350	11	#1 AOA FAIL	#1 A0A OK
#2 AOA VANE TEST	350	12	#2 AOA FAIL	#2 A0A 0K
SDI PARITY	350	13	PAR FAIL	PAR OK
TAT INPUT TEST	350	15	TAT FAIL	TAT OK
BARO #1 TEST	350	16	BARO #1 FL	BARO #1 OK
BARO #2 TEST	350	17	BARO #2 FL	BARO #2 OK
BARO #3 TEST	350	18	BARO #3 FL	BARO #3 OK
A/C TYPE PROG TEST	350	19	PROG FAIL	PROG OK
A/C TYPE CONST TST	350	20	CONST FAIL	CONST OK
OSPD HDWR TEST	350	21	OSPD FAIL	OSPD OK
A TO D TEST	350	22	A TO D FL	A TO D OK
PROCESSOR TEST	350	23	PROC FAIL	PROC OK
RAM TEST	350	24	RAM FAIL	RAM OK
PROG MEM TEST	350	25	PROM FAIL	PROM OK
PS SENS PER TEST	350	26	SENSOR FL	SENSOR OK
PS SENS TEMP TEST	350	27	SENSOR FL	SENSOR OK
PS CALIB TEST	350	28	CALIB FAIL	CALIB OK
F/D CONVERSION TST	350	29	CONV FAIL	CONV OK



ADC				
	DISCRE	TE O	CTAL LABELS/BIT CHART	
SIGNAL	OCTAL LABEL	ВІТ	ONE-STATE	ZERO-STATE
PT SENS PER TEST	351	11	SENSOR FL	SENSOR OK
PT SENS TEMP TEST	351	12	SENSOR FL	SENSOR OK
PT CALIB TEST	351	13	CALIB FAIL	CALIB OK
ARINC XMTR TEST	351	14	XMTR FAIL	XMTR OK
ARINC XMTR TEST	351	15	XMTR FAIL	XMTR OK
ARINC XMTR TEST	351	16	XMTR FAIL	XMTR OK
POWER SUPPLY TEST	351	17	PWR SUP FL	PWR SUP OK
PS=PT	351	19	PS NOT PT	PS=PT
AVERAGE AOA TEST	351	20	INVALID	AOA OK
TEMP PS=TEMP PT	351	21	PS NOT PT	PS=PT
PROG SEQ TEST	351	22	SEQ FAIL	SEQ OK
VMO TEST	351	23	>1 VMO	<2 VMO
EAROM TEST	351	24	EAROM FL	EAROM OK
BARO #4 TEST	351	26	#4=NCD	#4=PRG PIN
CKSUM CHIP1	352	11	#1 FAIL	#1 OK
CKSUM CHIP2	352	12	#2 FAIL	#2 OK
CKSUM CHIP3	352	13	#3 FAIL	#3 OK
CKSUM CHIP4	352	14	#4 FAIL	#4 OK
PS MEM CHECK	352	15	PS MEM FL	PS MEM OK
PT MEM CHECK	352	16	PT MEM FL	PT MEM OK
A/C TYPE MEM CHECK	352	17	MEM FAIL	MEM OK



ADC								
DISCRETE OCTAL LABELS/BIT CHART								
SIGNAL	OCTAL LABEL	ВІТ	ONE-STATE	ZERO-STATE				
A/C TYPE LSB	352	24	LSB=1	LSB=0				
A/C TYPE LSB+1	352	25	LSB+1=1	LSB+1=0				
A/C TYPE LSB+2	352	26	LSB+2=1	LSB+2=0				
A/C TYPE LSB+3	352	27	LSB+3=1	LSB+3=0				
A/C TYPE MSB	352	28	MSB=1	MSB=0				
A/C TYPE PARITY	352	29	PRTY EVEN	PRTY ODD				

ALL



AIR DATA INSTRUMENTS

COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	AMM REFERENCE
ALTIMETER - CAPT, N8 ALTIMETER - F/O, N48	2 2	1	FLIGHT COMPARTMENT, P1 FLIGHT COMPARTMENT, P3	34-13-01 34-13-01
ALTIMETER - STANDBY, N23	2	i	FLIGHT COMPARTMENT, P1	34-13-06
CIRCUIT BREAKER -	1	1	FLIGHT COMPARTMENT, P11	
ALTM LEFT, C584		1	11E2	*
ALTM RIGHT, C585		1	11E23	*
IAS MACH LEFT, C580		1	11E1	*
IAS MACH RIGHT, C581		1	11E22	*
METRIC ALTM LEFT, C4499		1	11E7	*
STBY ALTM VIB, C591		1	11A8	*
INDICATOR - CAPT MACH AIRSPEED, N1	2	1	FLIGHT COMPARTMENT, P1	34-13-02
INDICATOR - F/O MACH AIRSPEED, N41	2	1	FLIGHT COMPARTMENT, P3	34-13-02
INDICATOR - STANDBY AIRSPEED, N22	2	1	FLIGHT COMPARTMENT, P1	34-13-05
METRIC ALTIMETER - CAPT, N10041 SWITCH - (FIM 34-12-00/101) CAPT ADC INSTR SOURCE SELECT, S482 F/O ADC INSTR SOURCE SELECT, S483		1	FLIGHT COMPARTMENT, P1	34-13-08

^{*} SEE THE WDM EQUIPMENT LIST

1 GUI 010,011 POST SB 34-166

Air Data Instruments - Component Index Figure 101

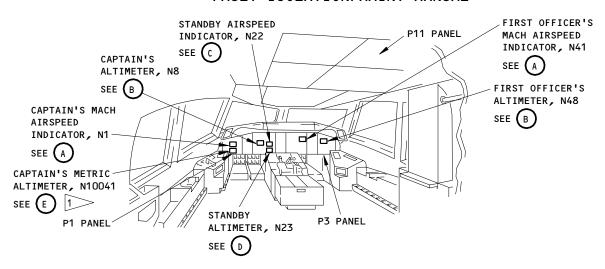
EFFECTIVITY-ALL

34-13-00

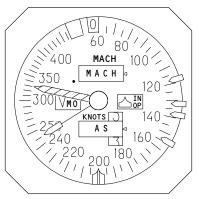
H04033



FAULT ISOLATION/MAINT MANUAL



FLIGHT COMPARTMENT

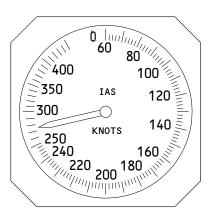


MACH AIRSPEED INDICATOR (WITH FLAGS), N1 OR N41



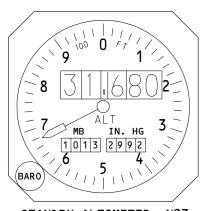
ALTIMETER (WITH OFF FLAG), N8 OR N48

В

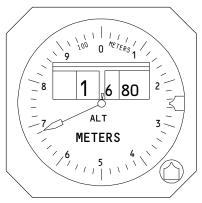


STANDBY AIRSPEED INDICATOR, N22

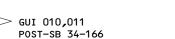
C







METRIC ALTIMETER, N10041







Air Data Instruments - Component Location Figure 102

ALL ALL

34-13-00

07

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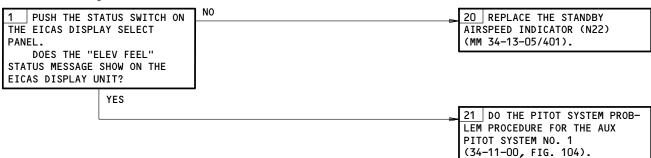
STANDBY AIRSPEED INDICATOR ERROR

PREREQUISITES

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

CB'S IN: 11A8,11J2,11J3,11J29,11J30,11J31,11J32

 \bigcirc



Standby Airspeed Indicator Error Figure 103

34-13-00



ALTITUDE ALERT SYSTEM

COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	REFERENCE
ALTIMETER - (REF 34-13-00, FIG. 101) CAPT, N8 F/O, N48 CIRCUIT BREAKERS AURAL WARN SPKR LEFT, C567 AURAL WARN SPKR RIGHT, C568 WARN ELEX A, C565 WARN ELEX B, C566 LIGHT - ALTITUDE ADVISORY LIGHT - ALTITUDE ALERT, L485 MODULE - ALTITUDE ALERT, M617 MODULE - (REF 32-09-03, FIG. 101) PSEU, M162 SWITCH - (REF 34-12-00, FIG. 101) CAPT ADC, S482 SWITCH - (REF 32-44-00, FIG.101) PARKING BRAKE, S459	 	1 1 1 1 2 1 1	FLT COMPT, P11 11B16 11H35 11J33 11B18 FLT COMPT, P1,P3, ALTIMETER N8, N48 FLT COMPT, P1 119BL, MAIN EQUIP CTR, P51	* * * * * 34–16–01

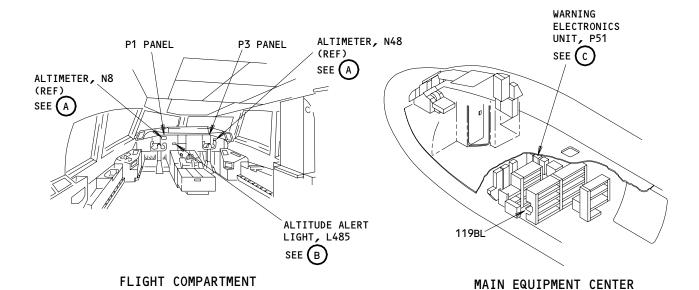
^{*} SEE THE WDM EQUIPMENT LIST

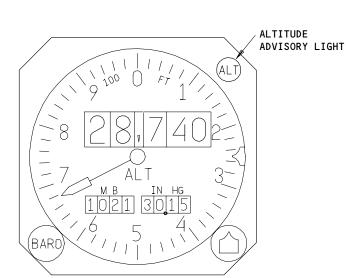
Altitude Alert System - Component Index Figure 101

EFFECTIVITY-ALL 34-16-00

248800



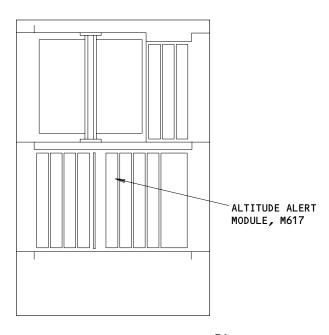




ALTIMETER, N8 OR N48 (REF)

ALT ALERT a

ALTITUDE ALERT LIGHT, L485



WARNING ELECTRONICS UNIT, P51

Component Location Figure 102

EFFECTIVITY-ALL

55241

34-16-00

01

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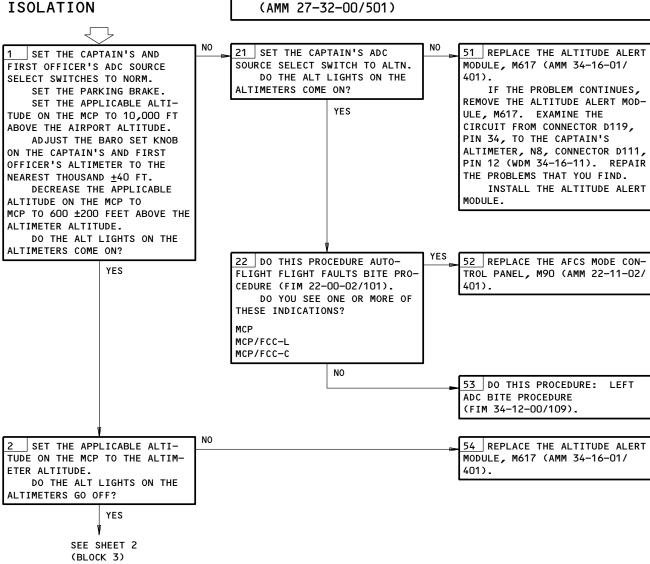
MAKE SURE THESE SYSTEMS WILL OPERATE: AUTOPILOT (AMM 22-10-00/501) EICAS (AMM 31-41-00/201) ADC (AMM 34-12-00/501)

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11B16,11B18,11H35,11J33

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

EQUIPMENT:

PROXIMITY SENSOR ACTUATOR/DEACTUATOR SET A27092-25 (AMM 27-32-00/501)



Altitude Alert System Fault Isolation Figure 103 (Sheet 1)

GUI 010, 011 WITHOUT SB 34-167, AND GUI 001-009

ALTITUDE ALERT

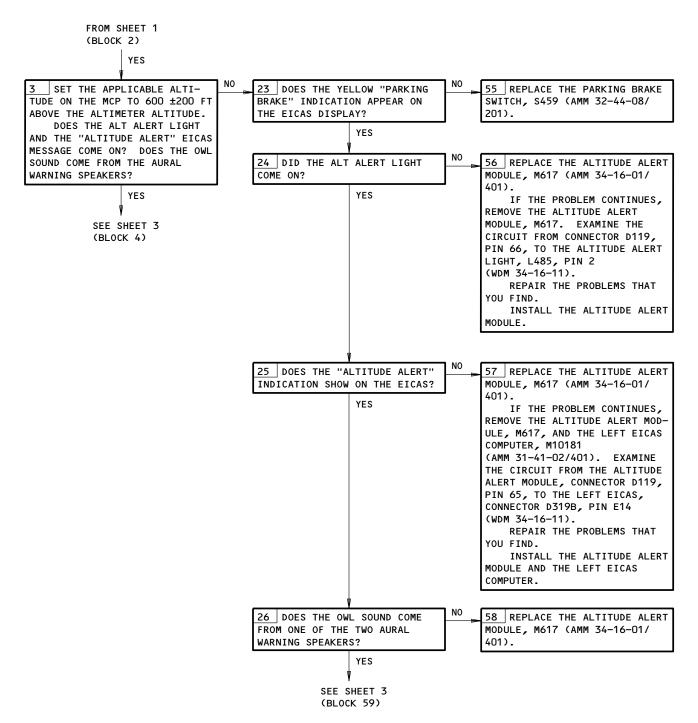
SYSTEM FAULT

34-16-00

14

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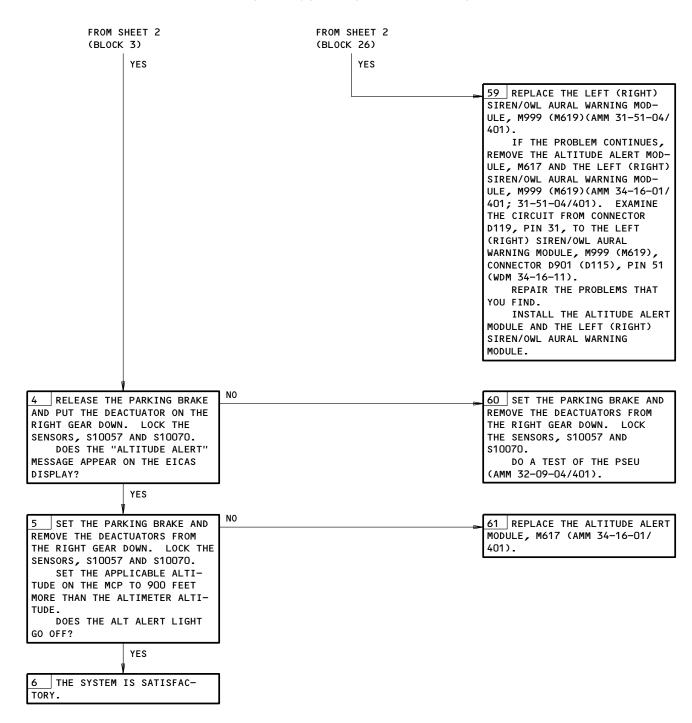
Altitude Alert System Fault Isolation Figure 103 (Sheet 2)

GUI 010, 011 WITHOUT SB 34-167, AND GUI 001-009

34-16-00

05

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Altitude Alert System Fault Isolation Figure 103 (Sheet 3)

34-16-00

05

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MAKE SURE THESE SYSTEMS WILL OPERATE:
AUTOPILOT (AMM 22-10-00/501)
EICAS (AMM 31-41-00/201)
ADC (AMM 34-12-00/501)

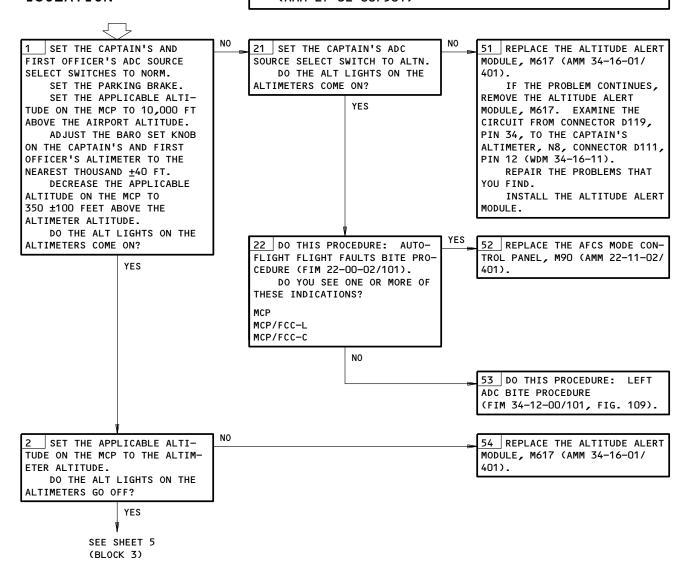
MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11B16,11B18,11H35,11J33

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

ALTITUDE ALERT SYSTEM FAULT ISOLATION

EQUIPMENT:

PROXIMITY SENSOR ACTUATOR/DEACTUATOR SET A27092-25 (AMM 27-32-00/501)



Altitude Alert System Fault Isolation Figure 103 (Sheet 4)

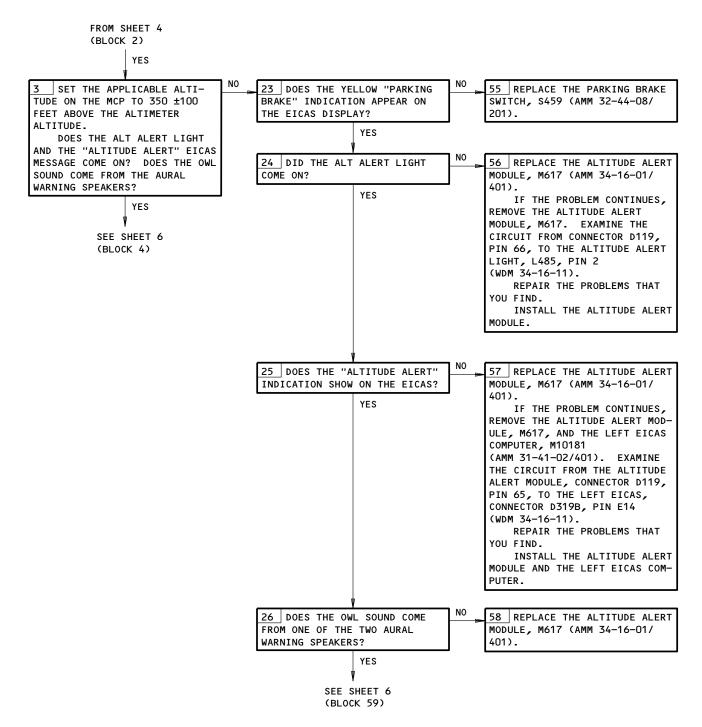
GUI 010, 011 WITH SB 34-167, AND GUI 012-114, 116-999

34-16-00

03

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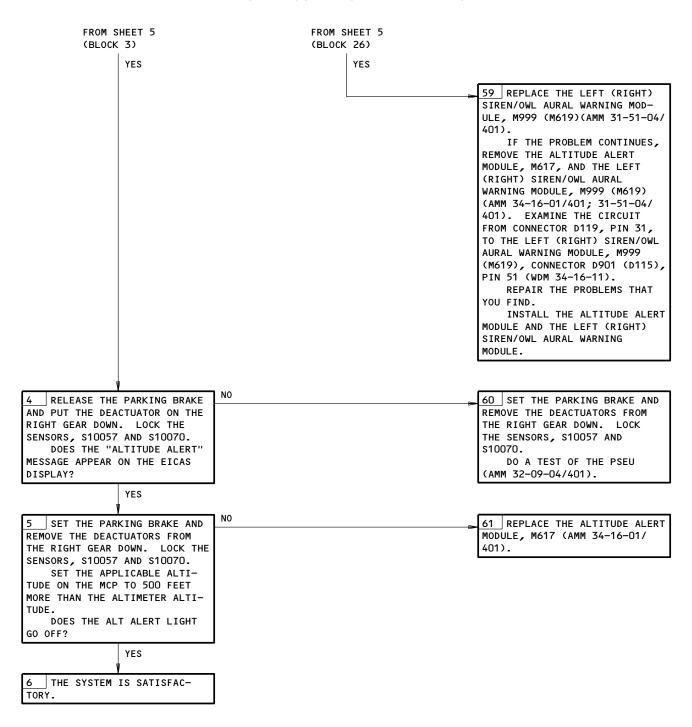
Altitude Alert System Fault Isolation Figure 103 (Sheet 5)

GUI 010, 011 WITH SB 34-167, AND GUI 012-114, 116-999

34-16-00

03

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Altitude Alert System Fault Isolation Figure 103 (Sheet 6)

34-16-00

03

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MAKE SURE THESE SYSTEMS WILL OPERATE:
AUTOPILOT (AMM 22-10-00/501)
EICAS (AMM 31-41-00/201)
ADC (AMM 34-12-00/501)

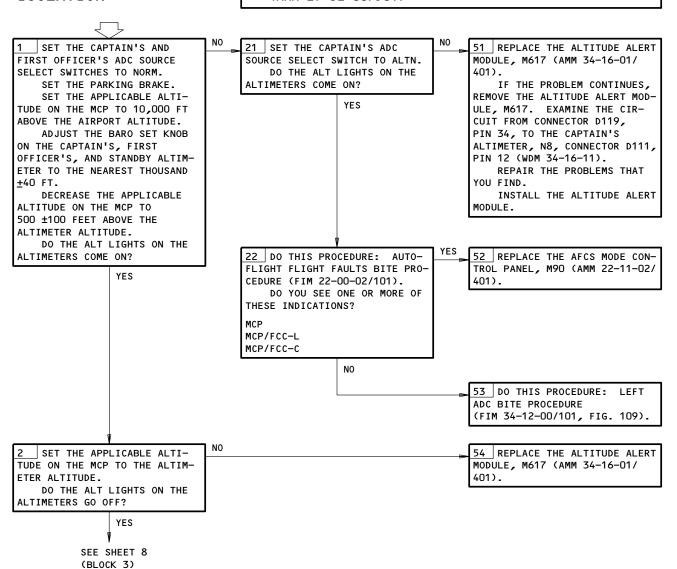
MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11B16,11B18,11H35,11J33

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

EQUIPMENT:

PROXIMITY SENSOR ACTUATOR/DEACTUATOR SET A27092-25 (AMM 27-32-00/501)

ALTITUDE ALERT SYSTEM FAULT ISOLATION



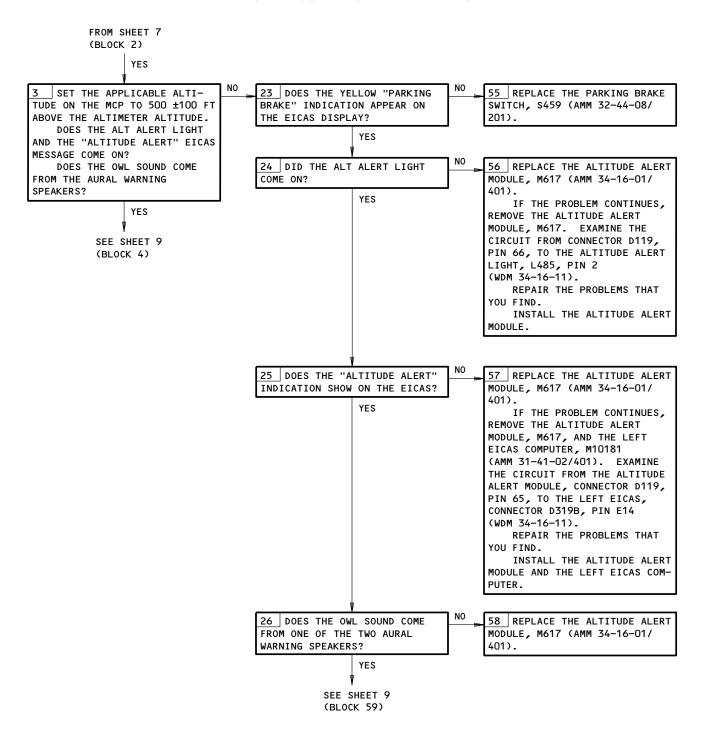
Altitude Alert System Fault Isolation Figure 103 (Sheet 7)

GUI 115

34-16-00

01

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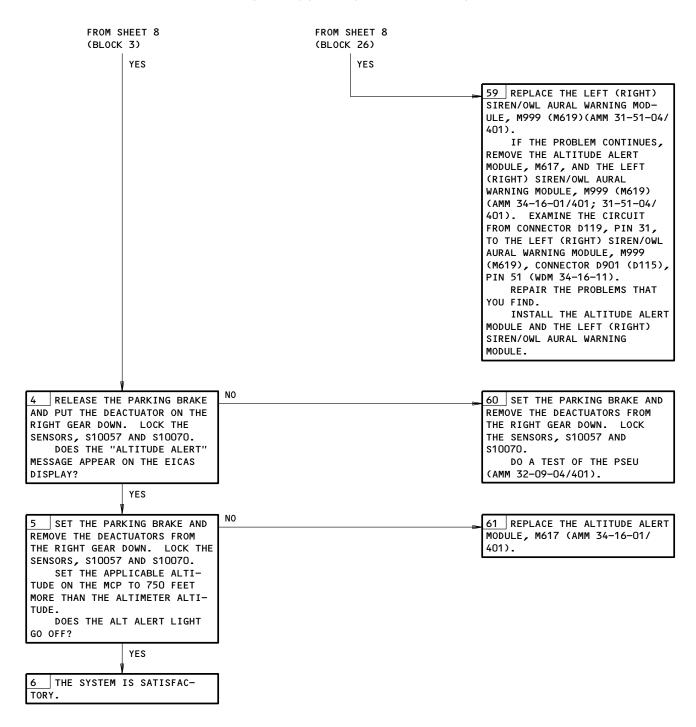


Altitude Alert System Fault Isolation Figure 103 (Sheet 8)

EFFECTIVITY
GUI 115

01 Page 110
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Altitude Alert System Fault Isolation Figure 103 (Sheet 9)

GUI 115

34-16-00

O1 Page 111
Sep 20/97

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INERTIAL REFERENCE SYSTEM

COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	AMM REFERENCE
CIRCUIT BREAKER -			FLT COMPT, P6	
BATTERY XFR CONT, C814		1	6D2	*
CENTER BUS CONT, C880		1	6G6	*
IRS C, C621		1	6D4	*
IRS L, C611		1	6D3	*
IRS R, C620		1	6D5	*
CIRCUIT BREAKER -			FLT COMPT, P11	
IRS CENTER, C613		1	11F21	*
IRS LEFT, C611		1	11F1	*
IRS RIGHT, C612		1	11F22	*
COMPUTER - AIR DATA (FIM 34-12-00/101)				
ADC L, M100				
ADC R, M101				
INDICATOR - (FIM 34-22-00/101)				
RDMI L, N3 1				
RDMI R, N43 1				
RMI L, N10024 2				
RMI R, N10026 2				
VSI L, N9				
VSI R, N49				
PANEL - (FIM 24-33-00/101)				
STANDBY POWER CONTROL, M10062			ELT COMPT DE	7/ 24 02
PANEL - INERTIAL REFERENCE MODE, M59		1	FLT COMPT, P5	34-21-02
RELAY - (FIM 31-01-06/101)				
CENTER BUS ISOLATION, K123				
MAIN BATTERY, K104				
MAIN BATTERY TRANSFER, K106		1	FLT COMPT D4	*
RELAY - IRS DC PWR DISCONNECT, K137 SWITCH - BATTERY, S2		1 1	FLT COMPT, P6 FLT COMPT, P5, STANDBY POWER	24-33-01
SWITCH - BATTERT, 32		'	CONTROL PANEL, M10062	
SWITCH - CAPT ADC INSTR SOURCE SEL, S482		1	FLT COMPT, P1	*
SWITCH - F/O ADC INSTR SOURCE SEL, S483		1	FLT COMPT, P3	*
UNIT - INERTIAL REFERENCE C, M160		1	119BL, MAIN EQUIP CTR, E2-4	34-21-01
UNIT - INERTIAL REFERENCE L, M159		1	119BL, MAIN EQUIP CTR, E2-4	34-21-01
UNIT - INERTIAL REFERENCE R, M161		1	119BL, MAIN EQUIP CTR, E2-4	34-21-01

^{*} SEE THE WDM EQUIPMENT LIST

> GUI 001-114,116-999

Inertial Reference System - Component Index Figure 101

EFFECTIVITY-

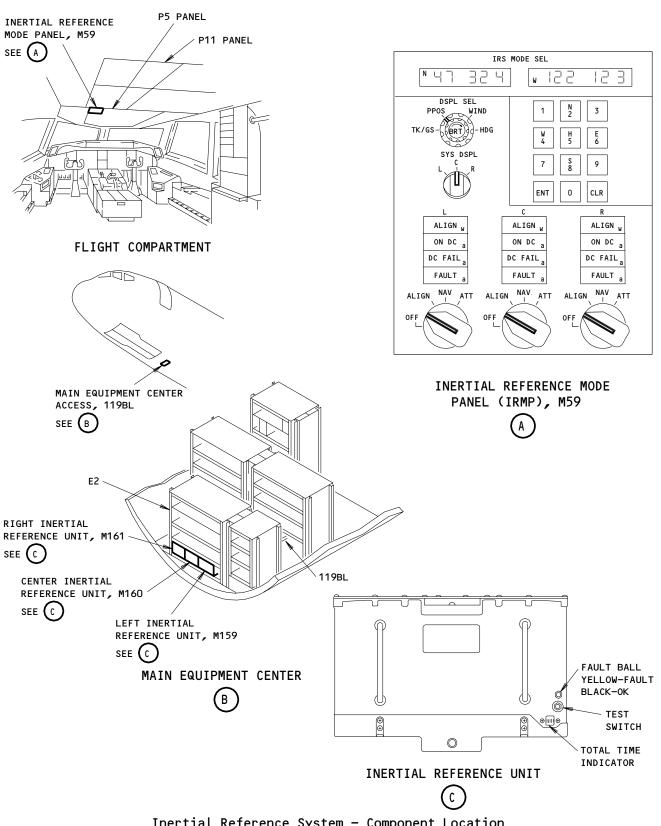
34-21-00

ALL

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FAULT ISOLATION/MAINT MANUAL



Inertial Reference System - Component Location Figure 102

ALL ALL

34-21-00

01

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CAPT (F/O) RDMI VOR AND HDG FLAGS IN VIEW ELECTRICAL POWER (MM 24-22-00/201)

F/O (CAPT) IRS INSTR SOURCE SELECT SWITCH IN THE USUAL POSITION

CB'S: 6D3,6D4,6D5,11A6,11F1,11F21,11F22,11F25

₹

REPLACE THE L (R) RDMI, N3 (N43)(MM 34-22-05/401). IF THE PROBLEM CONTINUES, REMOVE THE L (R) IRU, M159 (M161)(MM 34-21-01/401). REMOVE THE L (R) RDMI, N3 (N43)(MM 34-22-05/401). REPAIR THE DATA BUS CIRCUIT FROM THE R (L) IRU PINS C10 AND C11 ON CONNECTORS D141B (D137B) TO THE L (R) RDMI PINS 41 AND 42 ON CONNECTOR D183 (D185)(WM 34-21-11,-21).

INSTALL THE IRU AND THE RDMI.

Capt (F/O) RDMI VOR and HDG Flags In View Figure 103 (Sheet 1)

EFFECTIVITY GUI 001-114, 116-999



CAPT (F/O) RMI VOR AND HDG FLAGS IN VIEW ELECTRICAL POWER (MM 24-22-00/201)
F/O (CAPT) IRS SOURCE SELECT SWITCH IN THE USUAL
POSITION

CB'S: 6D3,6D4,6D5,11A7,11F1,11F21,11F22,11F23

₹}

1 REPLACE THE L (R) RMI, N10024 (N10026)(MM 34-22-05/401). IF THE PROBLEM CONTINUES, REMOVE THE L (R) IRU, M159 (M161)(MM 34-21-01/401). REMOVE THE L (R) RMI, N10024 (N10026)(MM 34-22-05/401). REPAIR THE DATA BUS CIRCUIT FROM THE R (L) IRU PINS C10 AND C11 ON CONNECTORS D141B (D137B) TO THE L (R) RMI PINS 41 AND 42 ON CONNECTOR D771 (D801)(WM 34-21-11,-21). INSTALL THE IRU AND THE RMI.

Capt (F/O) RMI VOR and HDG Flags In View Figure 103 (Sheet 2)

GUI 115

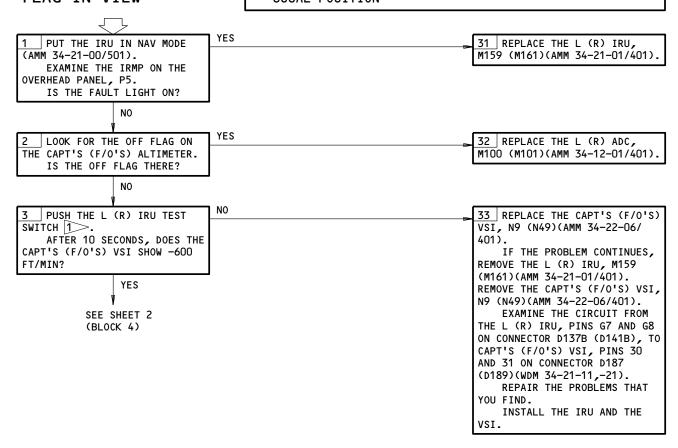


MAKE SURE THESE SYSTEMS WILL OPERATE: ADC SYSTEM (AMM 34-12-00/501) EFIS (AMM 34-22-00/501)

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 6D3,6D4,6D5,11E5,11E26,11F1,11F21,11F22

MAKE SURE THE AIRPLANE IS IN THIS CONFIGURATION: ELECTRICAL POWER IS ON (AMM 24-22-00/201) CAPT (F/O) IRS & ADC INSTR SOURCE SEL SWITCH IN THE USUAL POSITION

CAPT (F/O) VSI OFF FLAG IN VIEW



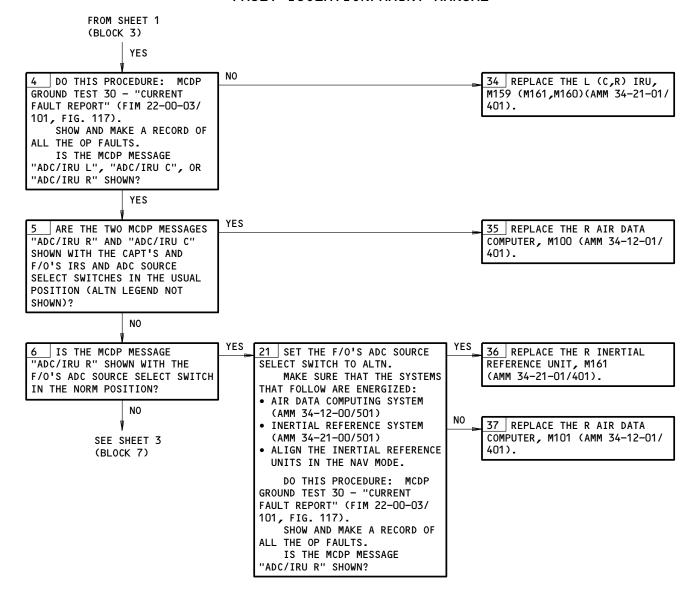
for the LEFT AND RIGHT SYSTEM, YOU CAN USE THE YAW DAMPER TEST SWITCH TO START THE TEST. THIS IS AN ALTERNATIVE TO THE APPLICABLE IRU TEST SWITCH.

Capt (F/O) VSI Off Flag In View Figure 104 (Sheet 1)

ALL

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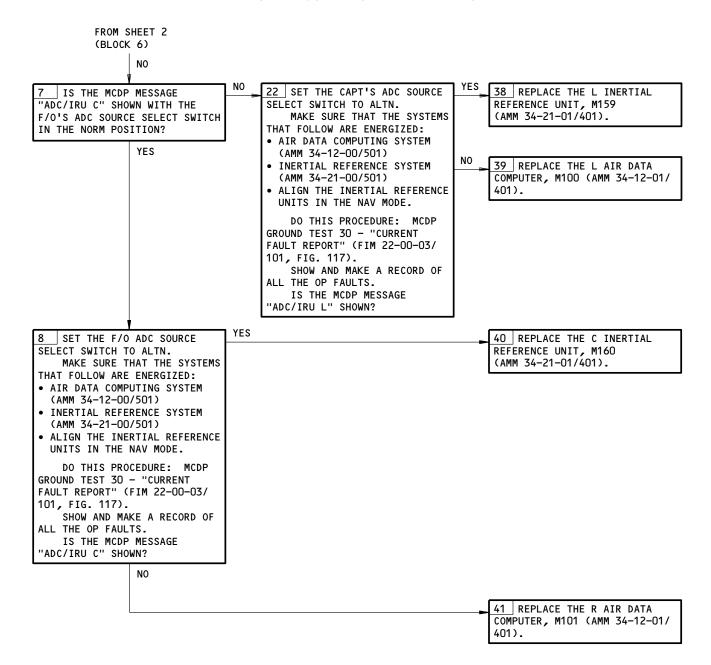


Capt (F/O) VSI Off Flag In View Figure 104 (Sheet 2)

ALL

O1 Page 106
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Capt (F/O) VSI OFF Flag In View Figure 104 (Sheet 3)

ALL 09 Page 107 Dec 20/96

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MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 6D3, 6D4, 6D5, 11F1, 11F21, 11F22

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

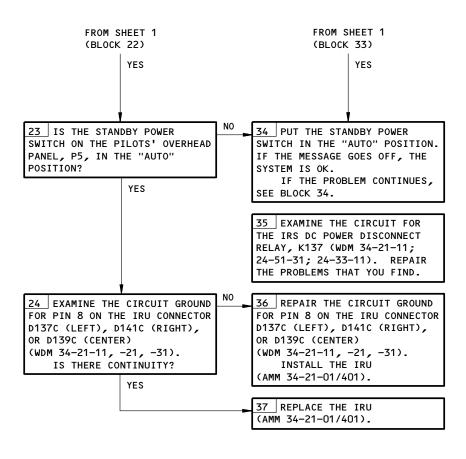
IRS INDICATES IRS DC FAIL

PUT THE BAT SWITCH TO ON. 31 EXAMINE THE WIRING OF THE STBY POWER SWITCH ON AUTO. DC UNDER VOLTAGE SENSING AC POWER CONNECTED TO MAIN RELAY, K113 (WDM 24-33-11) AND BUSES. EEC ALT PWR SWITCHES THE MAIN BAT TRANSFER RELAY, K106 (WDM 24-33-11,) REPLACE IN NORMAL. EICAS IS OPERATING. AS NECESSARY. TURN BAT SWITCH TO OFF. DO THE EICAS ADVISORY MESSSAGE "STANDY BUS OFF" AND EICAS STATUS MESSAGE "STBY INVERTER" SHOW? N0 YES 21 WAS A CHECK OF THE CIRCUIT 32 EXAMINE THE CIRCUIT FROM REMOVE THE LEFT (RIGHT OR THE IRS, RIGHT CIRCUIT BREAKER CENTER) IRU, M159 (M161 OR FROM THE IRS RIGHT CIRCUIT M160) (AMM 34-21-01/401). BREAKER, TO PIN 7 ON THE RIGHT ON PANEL P6, TO PIN 7 ON THE RIGHT IRU, CONNECTOR D141C (WDM 34-21-21). REPAIR THE **EXAMINE THE CIRCUIT** IRU CONNECTOR D141C, DONE FOR FROM THE IRS LEFT (RIGHT OR CONTINUITY? CENTER) CIRCUIT BREAKERS PROBLEMS THAT YOU FIND. NO (AS APPLICABLE) ON PANEL P6, INSTALL THE IRU TO PIN 7 ON THE LEFT (RIGHT (AMM 34-21-01/401). OR CENTER) IRU CONNECTOR D137C (LEFT), D141C (RIGHT), 22 REMOVE THE IRS DC POWER 33 REPLACE THE IRS DC POWER. OR D139C (CENTER) DISCONNECT RELAY, K137 DISCONNECT RELAY, K137 (WDM 34-21-11, -21, -31).(WDM 34-21-11, -31).(WDM 34-21-11, -31). IS THERE CONTINUITY? IS 28V DC POWER AVAILABLE IF THE PROBLEM CONTINUES, AT PIN X1 OF CONNECTOR D145? EXAMINE THE CIRCUIT FROM THE YES IRS, LEFT OR CENTER CIRCUIT YES BREAKER ON PANEL P6, TO PIN 7 SEE SHEET 2 ON THE LEFT OR CENTER IRU, (BLOCK 24) SEE SHEET 2 CONNECTOR D137C (LEFT), OR D139C (CENTER) (WDM 34-21-11, (BLOCK 23) -31). REPAIR THE PROBLEMS THAT YOU FIND. INSTALL THE IRU (AMM 34-21-01/401).

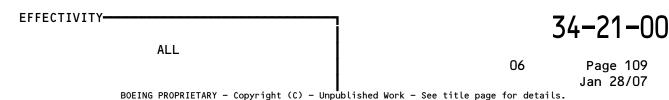
> IRS Indicates IRS DC Fail Figure 105 (Sheet 1)

EFFECTIVITY-ALL





IRS Indicates IRS DC Fail
 Figure 105 (Sheet 2)





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

IRS INDICATES IRS ON DC

 \Box

CB'S: 6D3,6D4,6D5,11F1,11F21,11F22

1 REMOVE THE LEFT, RIGHT, OR CENTER IRU (M159,M161, OR M160) AS APPLICABLE (MM 34-21-01/401).

EXAMINE AND REPAIR THE CIRCUIT FROM THE IRS LEFT, RIGHT, OR CENTER CIRCUIT BREAKER (AS APPLICABLE)

ON PANEL P11 TO PIN 1 ON THE IRU CONNECTOR D137C (LEFT), D141C (RIGHT), OR D139C (CENTER)(WM 34-21-11, -21,-31).

IF THE PROBLEM CONTINUES, EXAMINE PIN 5 ON THE APPLICABLE IRU CONNECTOR FOR GROUND. REPAIR THE CIRCUIT AS NECESSARY (WM 34-21-11,-21,-31).

INSTALL THE IRU (MM 34-21-01/401).

IRS Indicates IRS on DC Figure 106

ALL

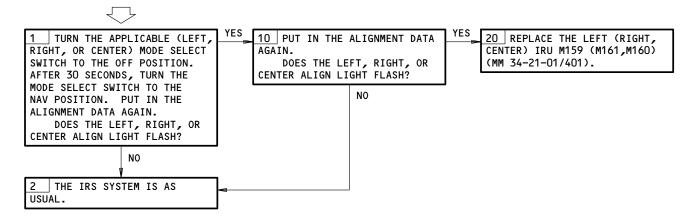


ENTRY INOP TO SINGLE IRS (ALIGN FLASHES AFTER SECOND ENTRY). POSITION ENTRY FROM FMC-CDU UNSUCCESSFUL

PREREQUISITES

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

CB'S: 6D3,6D4,6D5,11F1,11F21,11F22



Entry Inop to Single IRS (Align Flashes after Second Entry). Position Entry from FMC-CDU Unsuccessful Figure 106A

EFFECTIVITY-ALL

768668

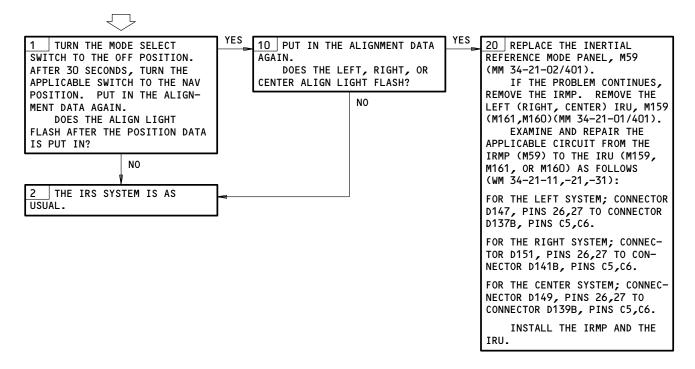


ENTRY INOP TO SINGLE IRS (ALIGN FLASHES AFTER SECOND ENTRY). POSITION ENTRY FROM FMC-CDU SUCCESSFUL

PREREQUISITES

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

CB'S: 6D3,6D4,6D5,11F1,11F21,11F22



Entry Inop to Single IRS (Align Flashes after Second Entry). Position Entry from FMC-CDU Successful Figure 106B

EFFECTIVITY-ALL

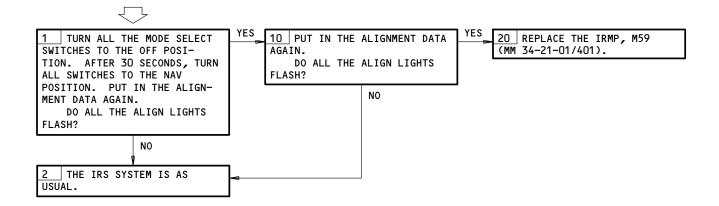


ENTRY INOP TO ALL IRS'S (ALIGN FLASHES AFTER SECOND ENTRY.)

PREREQUISITES

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

CB'S: 6D3,6D4,6D5,11F1,11F21,11F22



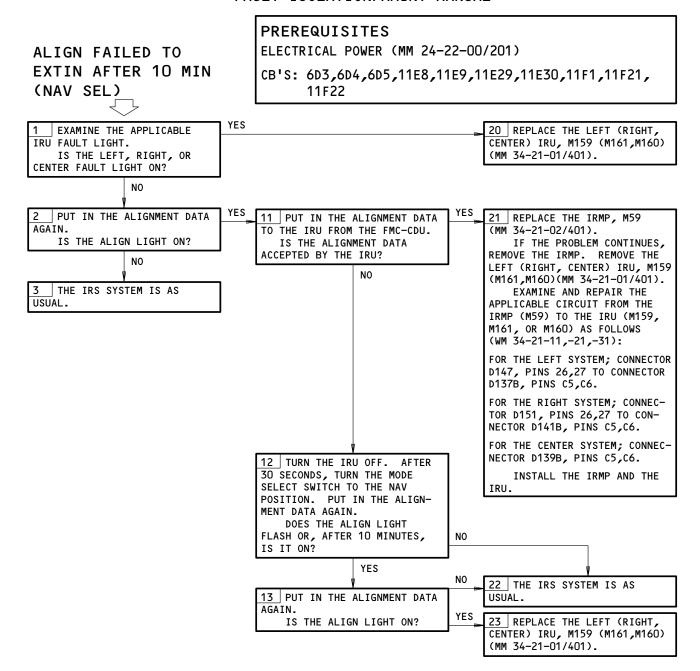
Entry Inop to ALL IRS'S (Align Flashes after Second Entry). Figure 106C

ALL

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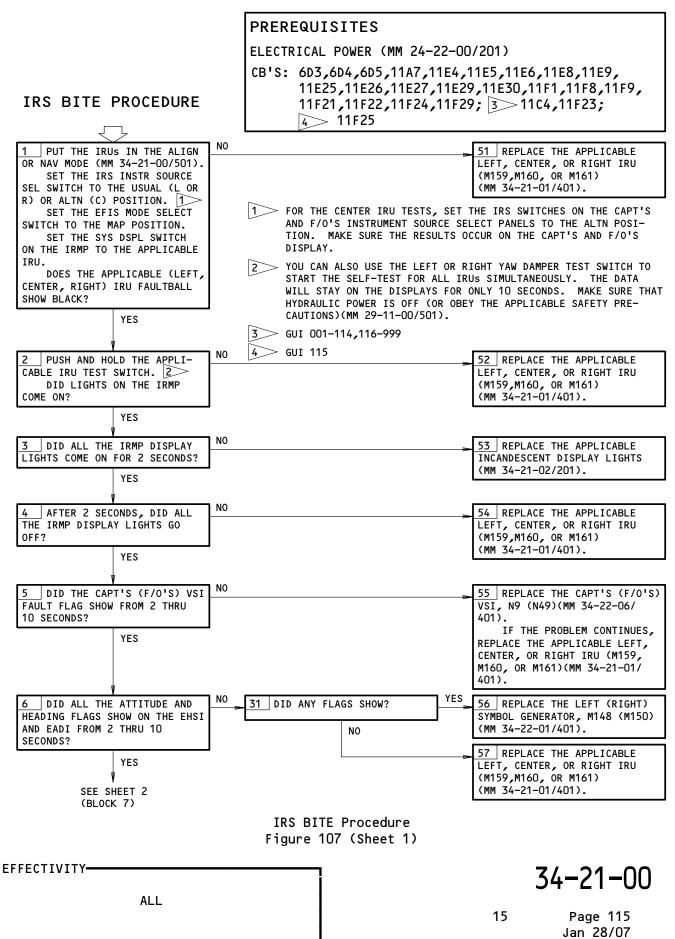
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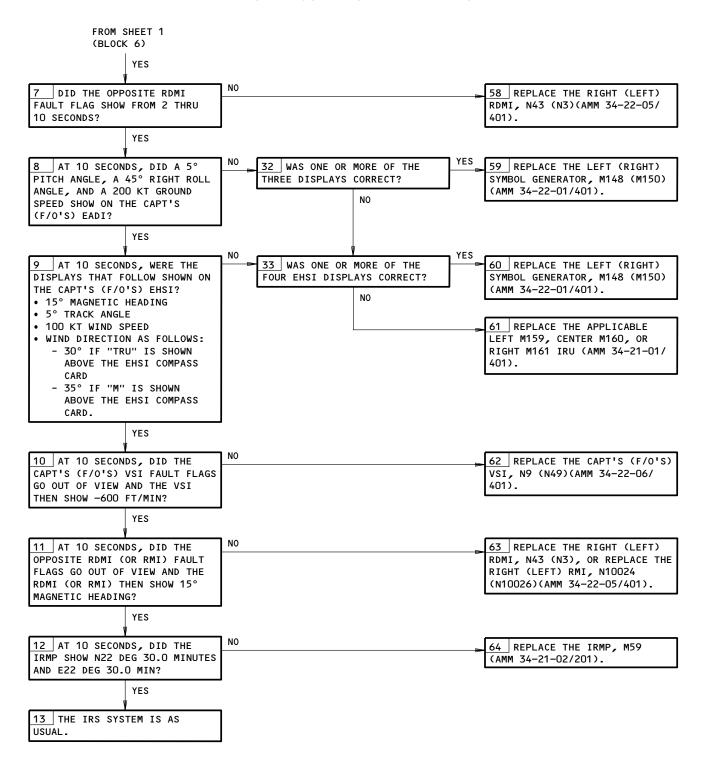
Align Failed to Extin After 10 Min (Nav Sel) Figure 106D

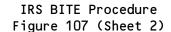


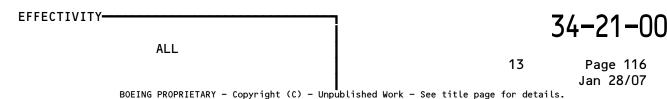




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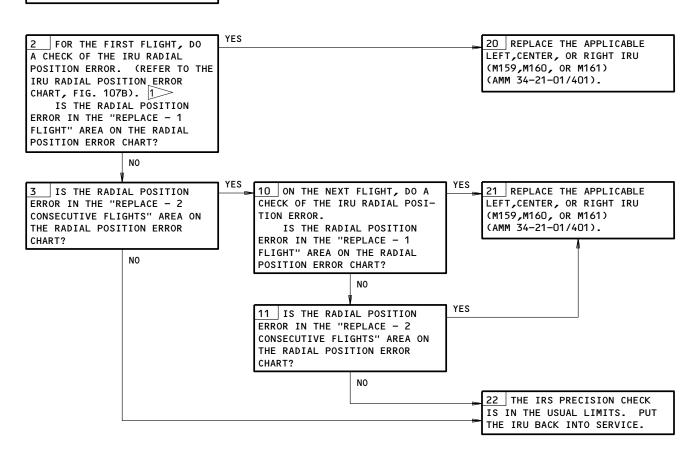


PREREQUISITES
NONE

NOTE: MAKE SURE THAT THE IRUS AND THE FMCs STAY ON UNTIL YOU DO THIS CHECK.

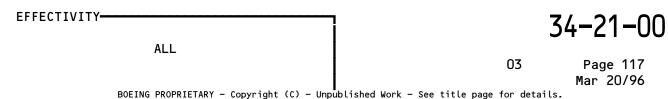
IRS REMOVAL CHECKS

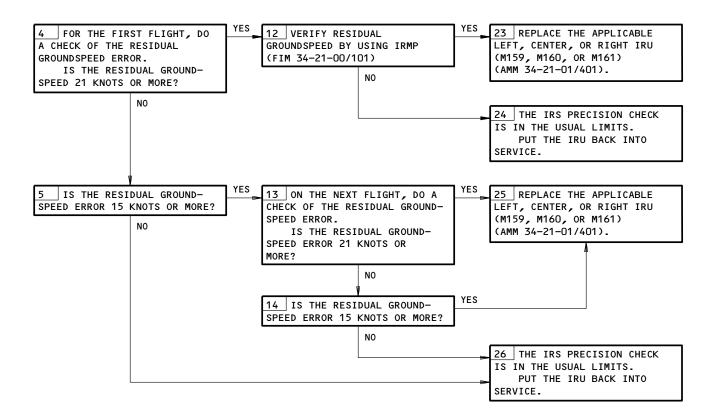
1 FOR A CHECK OF THE IRU
RADIAL POSITION ERROR, GO TO
BLOCK 2. FOR A CHECK OF THE
RESIDUAL GROUNDSPEED, GO TO
BLOCK 4.



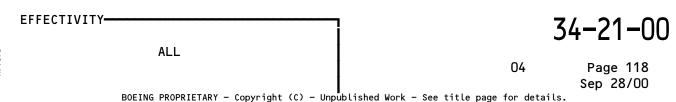
1> TO CALCULATE THIS VALUE, DO THE IRU REMOVAL CHECKS AT THE END OF THIS PROCEDURE.

IRS Removal Checks Figure 107A (Sheet 1)

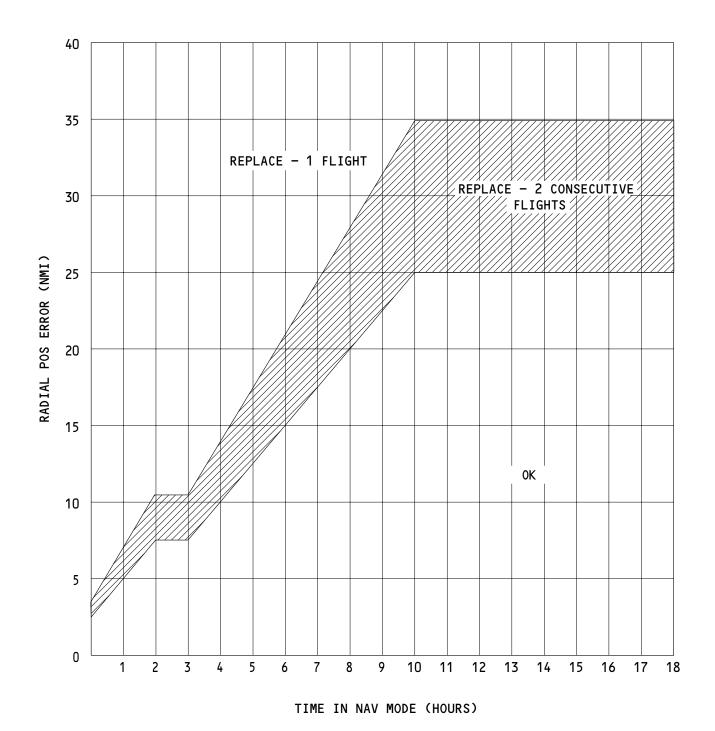




IRS Removal Checks Figure 107A (Sheet 2)







IRU Radial Position Error Figure 107B

ALL

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1. ARINC Data Bus Charts

A. General

<u>CAUTION</u>: DO NOT DIRECTLY TOUCH THE CONNECTORS. USE A BREAKOUT BOX OR YOU CAN CAUSE DAMAGE TO THE CONNECTORS.

(1) The ARINC 429 data bus charts give data necessary to make an analysis of ARINC 429 transmitters, receivers, and data buses. For the test, use a breakout box at the available terminal or at the LRU connectors.

B. Equipment

- (1) Standard multi-meter
- (2) 429EBP Data Bus Analyzer (recommended) JcAIR Instrumentation 400 Industrial Parkway Industrial Airport, KS 66031

429-2 Data Bus Analyzer (alternative) Interface Technology 150 E. Arrow Highway San Dimas, CA 91773

(3) A34011-1 Breakout Box (recommended) A34011-112 Breakout Box (alternative)

NOTE: Octal label 315 is a multiple function label. It does not show correctly in engineering units on the data bus analyzer unless you set the hexadecimal equipment ID = 04. For analyzers that cannot have the ID set, show the label in hexadecimal format and make a record of the value. Set the data bus analyzer to send label 015 in hex format and use the value you made a record of for label 315. Change the label 015 format to engineering to show the correct engineering units.

IRMP DIGITAL OUTPUT BUS CHART										
BUS NAME			BUS	ВІТ						
SOURCE	TYPE	BUS	CON	PINS	FORMAT	RATE	DATA BUS			
IRMP	Α	1	С	26 27	429	LO	IRMP BUS OUT IRU-C			
IRMP	Α	1	L	26 27	429	LO	IRMP BUS OUT IRU-L			
IRMP	Α	1	R	26 27	429	LO	IRMP BUS OUT IRU-R			

EFFECTIVITY-

ALL



IRMP(ID=OA4) OCTAL LABELS CHART										
SIGNAL TYPE LABEL FORMAT RATE SDI RANGE SENSE UNITS										
SET LATITUDE	Α	041	BCD	2		90s-90N	NORTH	DEG:MIN		
SET LONGITUDE	Α	042	BCD	2		180E-180W	EAST	DEG:MIN		
SET MAGNETIC HDG	Α	043	BCD	2		0-359	CW FRM NORTH	DEG		

IRU DIGITAL OUTPUT BUS CHART									
BUS NAME			BUS	BIT					
SOURCE	TYPE	BUS	CON	PINS	FORMAT	RATE	DATA BUS		
IRU (LCR)	А	1	В	G07 G08	429	HI	IRU #1		
IRU (LCR)	Α	2	В	E05 E06	429	HI	IRU #2		
IRU (LCR)	Α	3	В	C10 C11	429	HI	IRU #3		

EFFECTIVITY-

34-21-00

ALL

03



IRU(ID=004) OCTAL LABELS CHART										
SIGNAL	TYPE	LABEL	FORMAT	MIN UPDATE RATE	SDI	BINARY RANGE	POSITIVE SENSE	UNITS		
PRESENT POS LAT-D	Α	010	BCD	2	00	90s-90N	NORTH FROM O	DEG:MIN		
PRESENT POS LONG-D	Α	011	BCD	2	00	180E-180W	EAST FROM O	DEG:MIN		
GROUND SPEED-D	Α	012	BCD	2	00	0-2000	ALWAYS POS	KNOTS		
TRACK ANGLE TRUE-D	Α	013	BCD	2	00	0-359.9	CW FROM NORTH	DEG		
MAGNETIC HEADING-D	Α	014	BCD	2	00	0-359.9	CW FROM NORTH	DEG		
WIND SPEED-D	Α	015	BCD	2	00	0-256	ALWAYS POS	KNOTS		
WIND DIRECT TRUE-D	Α	016	BCD	2	00	0-359	CW FROM NORTH	DEG		
TRUE HEADING-D	Α	044	BCD	2	00	0-359.9	CW FROM NORTH	DEG		
IRS DISCRETES	Α	270	DIS	2	00	N/A	N/A	N/A		
IRS TEST	Α	277	DIS	2	00	N/A	N/A	N/A		
PRESENT POS-LAT	Α	310	BNR	5	N/A	+-180	NORTH FROM O	DEG		
PRESENT POS-LONG	Α	311	BNR	5	N/A	+-180	EAST FROM O	DEG		
GROUND SPEED	Α	312	BNR	10	00	0-4096	ALWAYS POS	KNOTS		
TRACK ANGLE TRUE	Α	313	BNR	20	00	+-180	CW FROM NORTH	DEG		
TRUE HEADING	Α	314	BNR	20	00	+-180	CW FROM NORTH	DEG		
WIND SPEED	Α	315	BNR	10	00	0-256	ALWAYS POS	KNOTS		
WIND DIRECT TRUE	Α	316	BNR	10	00	+-180	CW FROM NORTH	DEG		
TRACK ANGLE-MAG	Α	317	BNR	20	00	+-180	CW FROM NORTH	DEG		
MAGNETIC HEADING	Α	320	BNR	20	00	+-180	CW FROM NORTH	DEG		
DRIFT ANGLE	Α	321	BNR	20	00	+-180	RIGHT	DEG		

ALL



IRU(ID=004) OCTAL LABELS CHART										
SIGNAL	TYPE	LABEL	FORMAT	MIN UPDATE RATE	SDI	BINARY RANGE	POSITIVE SENSE	UNITS		
FLIGHT PATH ANGLE	Α	322	BNR	20	00	+-180	UP	DEG		
FLIGHT PATH ACCEL	Α	323	BNR	50	00	+-4	FORWARD	G'S		
PITCH ANGLE	Α	324	BNR	50	00	+-180	UP	DEG		
ROLL ANGLE	Α	325	BNR	50	00	+-180	RIGHT WING DO	DEG		
BODY PITCH RATE	Α	326	BNR	50	00	+-128	UP	DEG/SEC		
BODY ROLL RATE	Α	327	BNR	50	00	+-128	RIGHT WING DO	DEG/SEC		
BODY YAW RATE	Α	330	BNR	50	00	+-128	NOSE RIGHT	DEG/SEC		
BODY LONGIT ACCEL	Α	331	BNR	50	00	+-4	FORWARD	G'S		
BODY LATERAL ACCEL	Α	332	BNR	50	00	+-4	RIGHT	G'S		
BODY NORMAL ACCEL	Α	333	BNR	50	00	+-4	UP	G'S		
PLATFORM HEADING	Α	334	BNR	10	00	+-180	CW FROM ZERO	DEG		
TRACK ANGLE RATE	Α	335	BNR	50	00	+-32	CW	DEG/SEC		
PITCH ATT RATE	Α	336	BNR	50	00	+-128	UP	DEG/SEC		
ROLL ATT RATE	Α	337	BNR	50	00	+-128	RIGHT WING DO	DEG/SEC		
IRS MAINT DISCRETE	Α	350	DIS	2	00	N/A	N/A	N/A		
IRMP BITE DSPL	Α	351	DIS	2		N/A	N/A	N/A		
GPS MAINT DIS	Α	353	DIS	1	00	N/A	N/A	N/A		
POTENTIAL VERT SPD	Α	360	BNR	50	00	+-32,768	UP	FT/MIN		

EFFECTIVITY-

ALL



IRU(ID=004) OCTAL LABELS CHART									
SIGNAL	TYPE	LABEL	FORMAT	MIN UPDATE RATE	SDI	BINARY RANGE	POSITIVE SENSE	UNITS	
INERTIAL ALTITUDE	Α	361	BNR	25	N/A	+-131,072	UP	FEET	
ALONG TK HRZ ACCEL	Α	362	BNR	50	00	+-4	FORWARD	G'S	
CROSS TK HRZ ACCEL	Α	363	BNR	50	00	+-4	RIGHT	G'S	
VERTICAL ACCEL	А	364	BNR	50	00	+-4	UP	G'S	
INERTIAL VERT SPD	Α	365	BNR	50	00	+-32,768	UP	FT/MIN	
N-S VELOCITY	Α	366	BNR	10	00	+-4096	NORTH	KNOTS	
E-W VELOCITY	Α	367	BNR	10	00	+-4096	EAST	KNOTS	

ALL



IRU DISCRETE OCTAL LABELS/BIT CHART							
SIGNAL	OCTAL LABEL	BIT	ONE-STATE	ZERO-STATE			
ALIGN MODE/NR	270	11	ALIGN MODE	NOT ALIGN			
REV ATTITUDE MODE	270	12	REV ATT	NO REV ATT			
NAV MODE	270	13	NAV	NO NAV			
SET HEADING	270	14	SET HDG	NO SET HDG			
ATTITUDE INVALID	270	15	ATT INVAL	ATT VALID			
DC FAIL	270	16	DC FAIL	DC OK			
ON DC	270	17	ON DC	OFF DC			
ADC FAULT	270	18	ADC FAULT	NO FAULT			
IRU FAULT	270	19	IRU FAULT	NO FAULT			
DC FAIL ON DC	270	20	DC FAIL	NO FAULT			
ALIGN FAULT	270	21	ALIGN FLT	NO FAULT			
NO IRS INITIAL	270	22	NO INITIAL	INITAL			
EXCESS MOTION ERR	270	23	EXC MOTION	NO ERROR			
ADC/IRU FAULT	270	24	FAULT	NO FAULT			
REENTER POS	270	25	ENTER POS	NO ACTION			
ALIGN STATUS	270	26	1 MIN	0			
ALIGN STATUS	270	27	2 MIN	0			
ALIGN STATUS	270	28	4 MIN	0			
CYCLE IRS	270	29	CYCLE IRS	NO ACTION			
POWER SUPPLY	350	11	FAULT	NO FAULT			
DIGITAL INPUT	350	12	FAULT	NO FAULT			
SENSOR LSIC	350	13	FAULT	NO FAULT			
MEMORY (RAM)	350	14	FAULT	NO FAULT			



IRU DISCRETE OCTAL LABELS/BIT CHART							
SIGNAL	OCTAL LABEL	BIT	ONE-STATE	ZERO-STATE			
MEMORY (PROM)	350	15	FAULT	NO FAULT			
PITCH RATE	350	16	FAULT	NO FAULT			
GYRO	350	17	FAULT	NO FAULT			
TEMP SENSOR	350	19	FAULT	NO FAULT			
SYSTEM TESTS	350	20	FAULT	NO FAULT			
DISCRETE I/O	350	21	FAULT	NO FAULT			
WDT	350	22	FAULT	NO FAULT			
CPU	350	23	FAULT	NO FAULT			
A/D OR MUX	350	24	FAULT	NO FAULT			
GPS RESERVED *[1]	350	25	TBD	TBD			
GPS RESERVED *[1]	350	26	TBD	TBD			
GPS RESERVED *[1]	350	27	TBD	TBD			
GPS RESERVED *[1]	350	28	TBD	TBD			
PWR SUPP CRITICAL	351	11	FAULT	NO FAULT			
DIG I/O WRAPROUND	351	12	FAULT	NO FAULT			
RAM/NVM/PROM MMRY	351	13	FAULT	NO FAULT			
LSIC	351	14	FAULT	NO FAULT			
DISCRETE INPUT	351	15	FAULT	NO FAULT			
PROCESSOR	351	16	FAULT	NO FAULT			
GYRO	351	17	FAULT	NO FAULT			
ALIGN/SYSTEM	351	18	FAULT	NO FAULT			
A/D MUX DATA TRAN	351	19	FAULT	NO FAULT			
POWER SUPPLY	351	20	FAULT	NO FAULT			

ALL



IRU DISCRETE OCTAL LABELS/BIT CHART							
SIGNAL	OCTAL LABEL	ВІТ	ONE-STATE	ZERO-STATE			
ADC/DSCRTOUT WRAP	351	21	FAULT	NO FAULT			
SPARE	351	22	NOT USED	NOT USED			
CALIBRATION PROM	351	23	FAULT	NO FAULT			
INA/OTA	351	24	FAULT	NO FAULT			
ANALOG PITCH RATE	351	25	FAULT	NO FAULT			
GYRO	351	26	FAULT	NO FAULT			
GYRO CONFIG	351	27	FAULT	NO FAULT			
TEMP SENSOR	351	28	FAULT	NO FAULT			
SPARE	351	29	NOT USED	NOT USED			
GPS FAULT *[1]	351	29	FAULT	NO FAULT			
NO GPS FNCTN INSTL *[2]	353	27	NOT INSTALLED	INSTALLED			

^{*[1] -107} IRU'S AND ON (ALWAYS ZERO STATE)

^{*[2] -107} IRU'S AND ON (ALWAYS ONE STATE)



2. IRU Removal Checks (Fig. 107A)

- A. Two checks are used to make a decision if an IRU is recommended to be replaced. The checks are the residual groundspeed error and the radial position error measurements.
 - (1) Residual groundspeed is the groundspeed of the airplane when the airplane is parked. The POS REF (position reference) page 2/2 on the FMC CDU shows the residual groundspeed for the FMC and the IRUs at the end of the flight.
 - (2) Radial position error is the distance between present position and computed IRU position. The POS REF page 2/2 on the FMC CDU shows the present position for the IRUs. The radial position error check uses the FMC CDU RTE (route) 1 or RTE 2 legs page to calculate the IRS radial position error. The actual and calculated IRS positions are input as waypoints. Their difference, in nautical miles, is compared to the deviation criteria to make a decision if the IRU is recommended to be replaced.
- B. Residual Groundspeed Error Check

<u>NOTE</u>: The IRUs and FMCs must not be shut down before the groundspeed error check is complete.

- (1) Push the INIT REF key on the CDU.
- (2) Push the line select key (LSK) adjacent to <INDEX. (a) Make sure the INIT REF INDEX page is shown.
- (3) Push the LSK adjacent to <POS.
 - (a) Make sure the POS INIT page 1/2 is shown.
- (4) Push the NEXT PAGE or PREV PAGE key to show the POS REF page.
 - (a) Make sure the POS REF page is shown.
- (5) Record the residual groundspeed error shown on the POS REF page for each IRU.

<u>NOTE</u>: FMC freeze can cause FMC-CDU to display excessive groundspeed. Verify IRU residue using IRMP.

(6) AIRPLANES WITH IRMP P/N S242T101-202 THROUGH -999; Do these steps:

NOTE: The groundspeed will not change on the FMC when an IRU is replaced. This procedure must be performed after completion of a flight before IRU is switched out of the NAV mode. This value should be recorded before power shutdown.

- (a) Rotate IRMP "SYS DSPL" switch to L, C, or R position, as appropriate.
- (b) Rotate IRMP "DSPL SEL" switch to TK/GS position.
- (c) Read residual speed on the IRMP upper right display window.
- (d) Repeat for each IRU position.
- (7) Replace the IRU (AMM 34-21-01/401) if one of these conditions occur:
 - (a) The residual groundspeed error is 15 knots or larger after each of two consecutive checks.



- (b) The residual groundspeed error is 21 knots or larger at the end of one check.
- C. Radial Position Error Check

<u>NOTE</u>: The IRUs and FMCs must not be shut down before the radial position error check is complete.

- (1) Push the INIT REF key on the CDU.
- (2) Push the line select key (LSK) adjacent to <INDEX.</p>
 (a) Make sure the INIT REF INDEX page is shown.
- (3) Push the LSK key adjacent to <POS.
 - (a) Make sure the POS INIT page 1/2 is shown.
- (4) Push the NEXT PAGE or PREV PAGE key to show the POS REF page.
 (a) Make sure the POS REF page is shown.
- (5) Record the latitude and longitude shown for each IRU.
- (6) Push the LEGS mode key.
 - (a) Make sure the RTE 1 LEGS or RTE 2 LEGS page is shown.
- (7) Input the present position latitude and longitude (gate, ramp, etc.) as a waypoint.
- (8) Input the latitude and longitude of the left IRU as the next waypoint on the RTE 1 or RTE 2 LEGS page.

NOTE: This can be done manually or by line selection from the POS REF page.

(9) Record the computed leg length between the present position waypoint and the left IRU waypoint.

NOTE: This is the radial position error of the left IRU.

- (10) Input the latitude and longitude of the center IRU after the present position waypoint, either manually or by line selection from the POS REF page.
- (11) Record the computed leg length between the present position waypoint and the center IRU waypoint.

NOTE: This is the radial position error of the center IRU.

- (12) Input the latitude and longitude of the right IRU after the present position waypoint, either manually or by line selection from the POS REF page.
- (13) Record the computed leg length between the present position waypoint and the right IRU waypoint.

NOTE: This is the radial position error of the right IRU.

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(14) Compare these radial position errors for a given navigation time to the accept/reject limits on Fig. 107B.

NOTE: Navigation time is the time since an IRU last entered NAV mode after a full 10 minute alignment was completed. Flight time is permitted if navigation time is not available.

- (15) Replace the IRU (AMM 34-21-01/401) if one of these conditions occur:
 - (a) The radial position error of the IRU for a given navigation time falls in the "REPLACE 1 FLIGHT" area of Fig. 107B.
 - (b) The radial position error of the IRU for a given navigation time falls in the "REPLACE 2 CONSECUTIVE FLIGHTS" area of Fig. 107B for two consecutive flights.

34-21-00

01



ELECTRONIC FLIGHT INSTRUMENT SYSTEM (EFIS)

CIRCUIT BREAKER - 2 FLT		
CINCOII DILANLIN		
ADI LEFT, C593 1 11E		*
ADI RIGHT, C594 1 11E	E24	*
EFIS CONT PNL LEFT, C633 1 11E	E4	*
EFIS CONT PNL RIGHT, C634 1 11E	E25	*
EFIS DSPL SW LEFT, C622 1 11A	A7	*
EFIS DSPL SW RIGHT, C623	F24	*
EFIS SYM GEN CENTER, C639 1 11F	F9	*
EFIS SYM GEN LEFT, C637 1 11F		*
EFIS SYM GEN RIGHT, C638 1 11F	F29	*
FLIGHT RECORDER DC, C578		*
HSI LEFT, C588 1 1 11E	E6	*
HSI RIGHT, C589		*
RDMI LEFT, C635		*
RDMI RIGHT, C636		*
VSI LEFT, C586 1 11E		*
	E26	*
	9BL, MAIN EQUIP CTR, E2-3	34-22-01
	9BL, MAIN EQUIP CTR, E2-1	34-22-01
	9BL, MAIN EQUIP CTR, E2-2	34-22-01
, , , , , , , , , , , , , , , , , , , ,	T COMPT, P1-1	34-22-03
DIRECTOR, N4	,	
	T COMPT, P1-1	34-22-04
SITUATION, N5	,	
	T COMPT, P1-1	34-22-05
	T COMPT, P1-3	34-22-06
	T COMPT, P3-3	34-22-03
DIRECTOR, N44	, ,	
	T COMPT, P3-3	34-22-04
SITUATION, N45	, ,	
	T COMPT, P3-1	34-22-05
N43		
INDICATOR - RIGHT VERTICAL SPEED, N49 2 1 FLT	T COMPT, P3-3	34-22-06
PANEL - (FIM 34-51-00/101)	, ,	
LEFT VOR/DME CONTROL, M91		
RIGHT VOR/DME CONTROL, M92		
·	T COMPT, P10	34-22-02
	T COMPT, P10	34-22-02
RELAY - (FIM 31-01-36/101)	,	
SYS NO. 1 AIR/GND, K141		
SYS NO. 1 AIR/GND, K167		
SYS NO. 1 AIR/GND, K170		
SYS NO. 1 AIR/GND, K177		
RELAY - (FIM 31-01-37/101)		
FLIGHT RECORDER I/P SW, K15		

^{*} SEE THE WDM EQUIPMENT LIST

Electronic Flight Instrument System (EFIS) - Component Index Figure 101 (Sheet 1)

EFFECTIVITY GUI 001-114, 116-999



ELECTRONIC FLIGHT INSTRUMENT SYSTEM (EFIS)

COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	AMM REFERENCE
SENSOR - LEFT EFIS REMOTE LIGHT, TS187		1	FLT COMPT, P7	34-22-08
SENSOR - RIGHT EFIS REMOTE LIGHT, TS188		1	FLT COMPT, P7	34-22-08
SWITCH - HEADING REFERENCE, S616	2	1	FLT COMPT, P3-1	*
SWITCH - LEFT EFI, S3	1	1	FLT COMPT, P1-1	33-13-00
SWITCH - LEFT F/D, S1	1	1	FLT COMPT, P1-1	33-13-00
SWITCH - LEFT FMC, S2 3	1	1	FLT COMPT, P1-1	33-13-00
SWITCH - LEFT IRS, S4	1	1	FLT COMPT, P1-1	33-13-00
SWITCH - LEFT NAV, S2 4	1	1	FLT COMPT, P1-1	33-13-00
SWITCH - RIGHT EFI, S11	1	1	FLT COMPT, P3-3	33-13-00
SWITCH - RIGHT F/D, S9	1	1	FLT COMPT, P3-3	33-13-00
SWITCH - RIGHT FMC, S10 3	1	1	FLT COMPT, P3-3	33-13-00
SWITCH - RIGHT IRS, S12	1	1	FLT COMPT, P3-3	33-13-00
SWITCH - RIGHT NAV, S10 4	1	1	FLT COMPT, P3-3	33-13-00

^{*} SEE THE WDM EQUIPMENT LIST

3 ATZ 003 PRE-SB 34-414; ATZ 001, 002, 007

4 ATZ 003 POST-SB 34-414; ATZ 101-999

Electronic Flight Instrument System (EFIS) - Component Index Figure 101 (Sheet 2)

GUI 001-114, 116-999

34-22-00

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ELECTRONIC FLIGHT INSTRUMENT SYSTEM (EFIS)

COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	AMM REFERENCE
CIRCUIT BREAKER -	4		FLT COMPT, P11	
ADI LEFT, C593		1	11E3	*
ADI RIGHT, C594		1	11E24	*
EFIS CONT PNL LEFT, C633		1	11E4	*
EFIS CONT PNL RIGHT, C634		i	11E25	*
EFIS DSPL SW LEFT, C622		i	1104	*
EFIS DSPL SW RIGHT, C623		l i	11F24	*
EFIS SYM GEN LEFT, C637		i	1158	*
EFIS SYM GEN RIGHT, C638		l i	11F29	*
EFIS SYM GEN CENTER, C639		i	11F9	*
FLIGHT RECORDER DC, C578		i	11J8	*
HSI LEFT, C588		l i	11E6	*
HSI RIGHT, C589		i	11E27	*
RBA L, C4239		l i	11A6	*
RBA R, C4240		i	11F25	*
RMI L, C635		1	11A7	*
RMI R, C636		1	11F23	*
			11E5	*
VSI LEFT, C586			· · =-	*
VSI RIGHT, C587	7	1	11E26	
GENERATOR - LEFT EFIS SYMBOL, M148	3	1	119BL, MAIN EQUIP CTR, E2-1	34-22-01
GENERATOR - CENTER EFIS SYMBOL, M149	3	1	119BL, MAIN EQUIP CTR, E2-3	34-22-01
GENERATOR - RIGHT EFIS SYMBOL, M150	4	1 1	119BL, MAIN EQUIP CTR, E2-2	34-22-01
INDICATOR - LEFT ELECTRONIC ATTITUDE DIRECTOR, N4	'		FLT COMPT, P1-1	34-22-03
INDICATOR - LEFT ELECTRONIC HORIZONTAL	4	1	FLT COMPT, P1-1	34-22-04
SITUATION, N5				
INDICATOR - LEFT RADIO MAGNETIC, N10024	4	1	FLT COMPT, P1-3	34-22-07
INDICATOR - LEFT RMI BEARING SOURCE ANNUNCIATOR, N10025	4	1	FLT COMPT, P1-3	34-22-07
INDICATOR - LEFT VERTICAL SPEED, N9	4	1	FLT COMPT, P1-3	34-22-06
INDICATOR - RIGHT ELECTRONIC ATTITUDE DIRECTOR, N44	4	1	FLT COMPT, P3-3	34-22-03
INDICATOR - RIGHT ELECTRONIC HORIZONTAL SITUATION, N45	4	1	FLT COMPT, P3-3	34-22-04
INDICATOR - RIGHT RADIO MAGNETIC, N10026	4	1	FLT COMPT, P3-3	34-22-07
INDICATOR - RIGHT RADIO MAGNETIC, NIGOZO INDICATOR - RIGHT RMI BEARING SOURCE	4	1	FLT COMPT, P3-3	34-22-07
ANNUNCIATOR, N10027	"	'	12. 00111 1 1 3 3	J- LL 01
INDICATOR - RIGHT VERTICAL SPEED, N49	4	1	FLT COMPT, P3-3	34-22-06
PANEL - (FIM 34-51-00/101)	-	l '	121 00111, 13 3	34 22 00
LEFT VOR/DME CONTROL, M91				
RIGHT VOR/DME CONTROL, M92				
·	4	1	FLT COMPT, P10	34-22-02
PANEL - LEFT EFIS CONTROL, M94 PANEL - RIGHT EFIS CONTROL, M93	4	1	FLT COMPT, P10	34-22-02
RELAY - (FIM 31-01-36/101)	"	'	ILI COMITATIO	J4-22-02
SYS NO. 1 AIR/GND, K141				
SYS NO. 1 AIR/GND, K170				
SYS NO. 1 AIR/GND, K177				
RELAY - (FIM 31-01-37/101)				
FLIGHT RECORDER I/P SW, K15				

^{*} SEE THE WDM EQUIPMENT LIST

Electronic Flight Instrument System (EFIS) - Component Index Figure 101 (Sheet 3)

EFFECTIVITY——GUI 115

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COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	AMM REFERENCE
SENSOR - LEFT EFIS REMOTE LIGHT, TS187		1	FLT COMPT, P7	34-22-08
SENSOR - RIGHT EFIS REMOTE LIGHT, TS188		1	FLT COMPT, P7	34-22-08
SWITCH - HEADING REFERENCE, S616	4	1	FLT COMPT, P3-1	*
SWITCH - LEFT EFI, S3	3	1	FLT COMPT, P1-1	33-13-00
SWITCH - LEFT F/D, S1	3	1	FLT COMPT, P1-1	33-13-00
SWITCH - LEFT FMC, S2 1	3	1	FLT COMPT, P1-1	33-13-00
SWITCH - LEFT IRS, S4	3	1	FLT COMPT, P1-1	33-13-00
SWITCH - LEFT NAV, S2 1	3	1	FLT COMPT, P1-1	33-13-00
SWITCH - RIGHT EFI, S11	3	1	FLT COMPT, P3-3	33-13-00
SWITCH - RIGHT F/D, S9	3	1	FLT COMPT, P3-3	33-13-00
SWITCH - RIGHT FMC, S10 2	3	1	FLT COMPT, P3-3	33-13-00
SWITCH - RIGHT IRS, S12	3	1	FLT COMPT, P3-3	33-13-00
SWITCH - RIGHT NAV, S10 2	3	1	FLT COMPT, P3-3	33-13-00

^{*} SEE THE WDM EQUIPMENT LIST

GUI 115 PRE-SB 34-414; GUI 001-011 QUI 115 POST-SB 34-414;

Electronic Flight Instrument System (EFIS) - Component Index Figure 101 (Sheet 4)

GUI 115

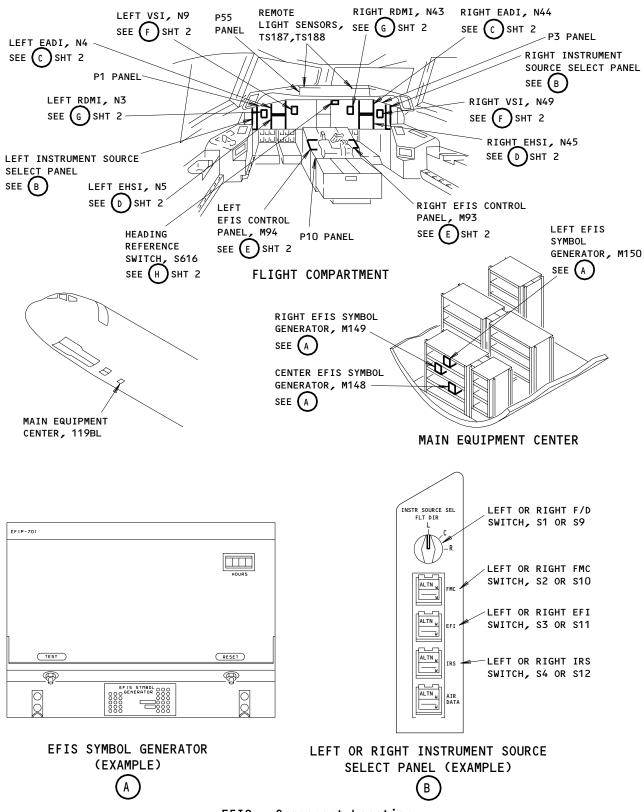
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FAULT ISOLATION/MAINT MANUAL



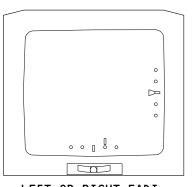
EFIS - Component Location Figure 102 (Sheet 1)

GUI 001-114, 116-999

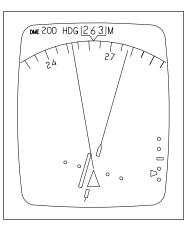
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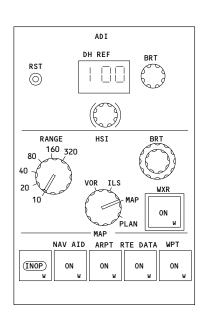
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LEFT OR RIGHT EADI, N4 OR N44

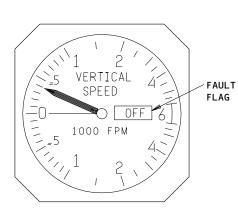


LEFT OR RIGHT EHSI, N5 OR N45

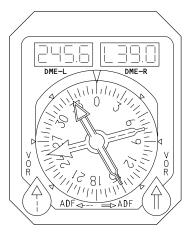


LEFT OR RIGHT EFIS CONTROL PANEL, M94 OR M93

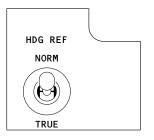




LEFT OR RIGHT VERTICAL SPEED INDICATOR, N9 OR N49



LEFT OR RIGHT RDMI, N3 OR N43 $\,$



HEADING REFERENCE SWITCH, S616



EFIS - Component Location (Details from Sht 1) Figure 102 (Sheet 2)

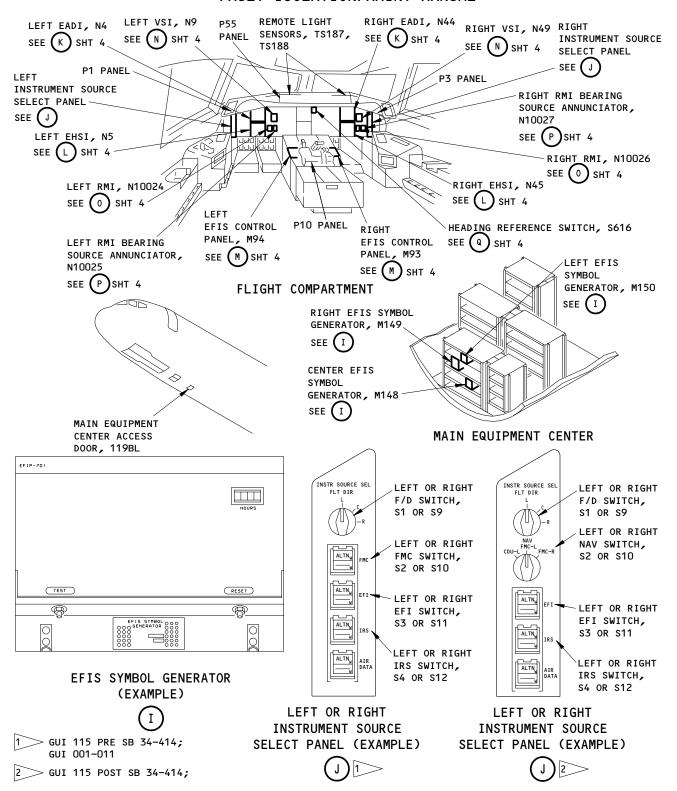
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FAULT ISOLATION/MAINT MANUAL



Electronic Flight Instrument System (EFIS) - Component Location Figure 102 (Sheet 3)

GUI 115

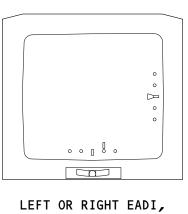
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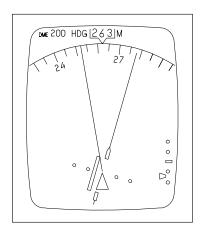
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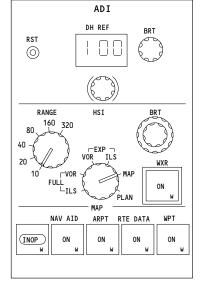
FAULT ISOLATION/MAINT MANUAL



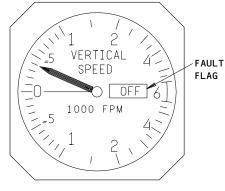
LEFT OR RIGHT EADI, N4 OR N44



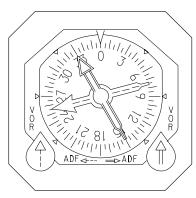
LEFT OR RIGHT EHSI, N5 OR N45



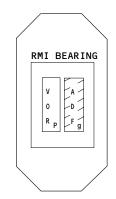
LEFT OR RIGHT EFIS CONTROL PANEL, M94 OR M93



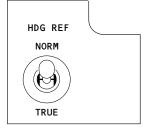
LEFT OR RIGHT VERTICAL SPEED INDICATOR, N9 OR N49



LEFT OR RIGHT RMI, N10024 OR N10026



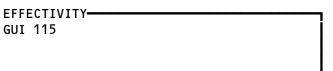
LEFT OR RIGHT RMI BEARING SOURCE ANNUNCIATOR, N10025 OR N10027



HEADING REFERENCE SWITCH, S616



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



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Not Used Figure 103

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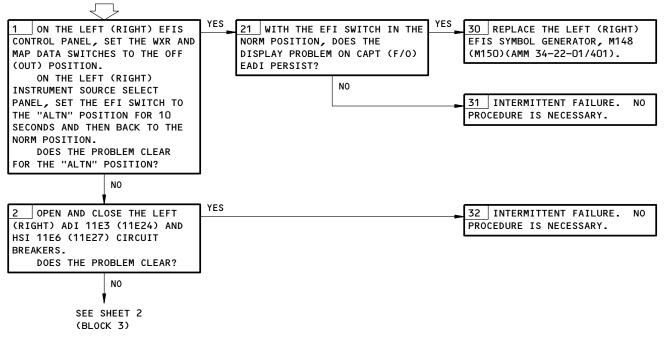
DISPLAY PROBLEMS ON CAPT (F/O) EADI

PREREQUISITES

MAKE SURE THIS SYSTEM WILL OPERATE:
 EFIS (AMM 34-22-00/501)

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED:
 11E3, 11E4, 11E6, 11E24, 11E25, 11E27, 11F8, 11F9, 11F24, 11F29; 1 11A7; 2 11C4

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



1 GUI 001-114, 116-999 2 GUI 115

Display Problems on Capt (F/O) EADI Figure 104 (Sheet 1)

ALL

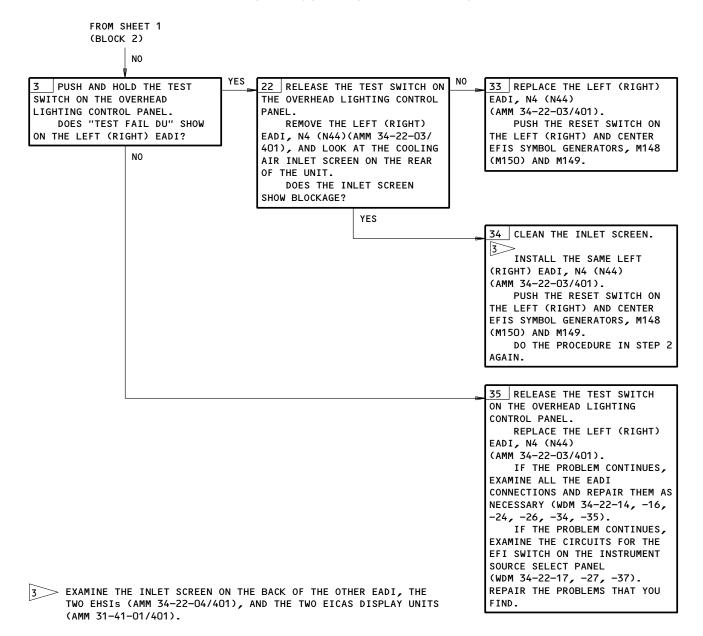
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Display Problems on Capt (F/O) EADI Figure 104 (Sheet 2)

34-22-00

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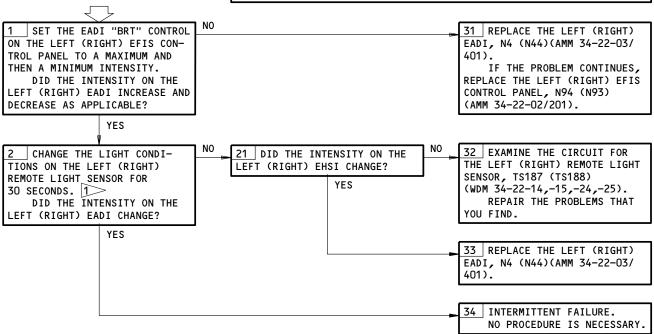
PREREQUISITES

MAKE SURE THIS SYSTEM WILL OPERATE: EFIS (AMM 34-22-00/501)

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11E3,11E4,11E6,11E24,11E25,11E27,11F8,11F9,11F24, 11F29; 2 11A7; 3 11C4

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

PROBLEM ON CAPT (F/O) EADI



1 FOR LIGHT CONDITIONS, PUT A COVER ON THE SENSOR.
FOR NO LIGHT CONDITIONS, POINT A LIGHT SOURCE AT THE SENSOR.

2> GUI 001-114,116-999

3>> GUI 115

Brightness Control Problem on Capt (F/O) EADI Figure 105

ALL

ALL

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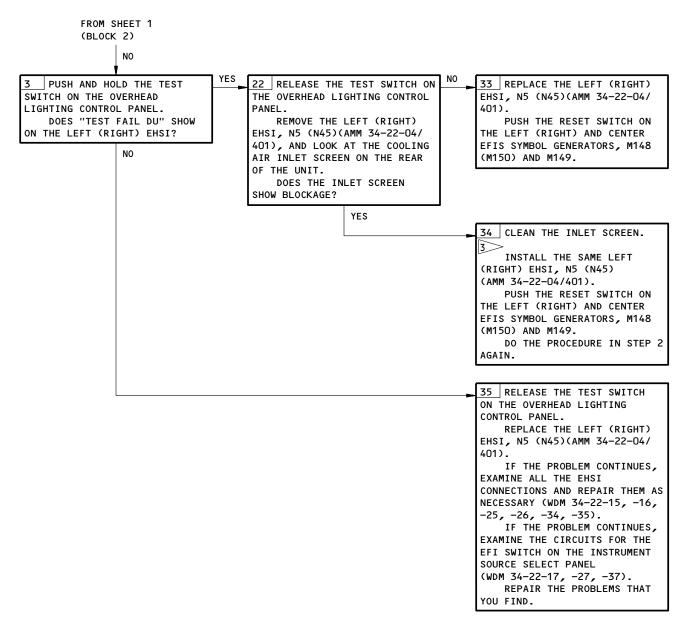


PREREQUISITES

MAKE SURE THIS SYSTEM WILL OPERATE: EFIS (AMM 34-22-00/501) MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11E3,11E4,11E6,11E24,11E25,11E27,11F8,11F9,11F24, **DISPLAY PROBLEMS** 11F29; 1>11A7; 2>11C4 ON CAPT (F/O) MAKE SURE THE AIRPLANE IS IN THIS CONFIGURATION: **EHSI** ELECTRICAL POWER IS ON (AMM 24-22-00/201) 1 ON THE LEFT (RIGHT) EFIS 21 WITH THE EFI SWITCH IN THE 30 REPLACE THE LEFT (RIGHT) CONTROL PANEL, SET THE WXR AND NORM POSITION, DOES THE EFIS SYMBOL GENERATOR, M148 MAP DATA SWITCHES TO THE OFF DISPLAY PROBLEM ON CAPT (F/O) (M150)(AMM 34-22-01/401). (OUT) POSITION. EHSI CONTINUE ? ON THE LEFT (RIGHT) NO INSTRUMENT SOURCE SELECT PANEL, SET THE EFI SWITCH TO 31 INTERMITTENT FAILURE. NO PROCEDURE IS NECESSARY. THE "ALTN" POSITION FOR 10 SECONDS AND THEN BACK TO THE NORM POSITION. DOES THE PROBLEM CLEAR FOR THE "ALTN" POSITION? YES OPEN AND CLOSE THE LEFT 32 INTERMITTENT FAILURE. NO (RIGHT) ADI 11E3 (11E24) AND PROCEDURE IS NECESSARY. HSI 11E6 (11E27) CIRCUIT BREAKERS. DOES THE PROBLEM CLEAR? NΩ SEE SHEET 2 (BLOCK 3) GUI 001-114,116-999

Display Problems on Capt (F/O) EHSI Figure 106 (Sheet 1)

EFFECTIVITY-ALL



EXAMINE THE INLET SCREEN ON THE BACK OF THE OTHER EHSI, THE TWO EADIS (AMM 34-22-03/401), AND THE TWO EICAS DISPLAY UNITS (AMM 31-41-01/401).

Display Problems on Capt (F/O) EHSI Figure 106 (Sheet 2)

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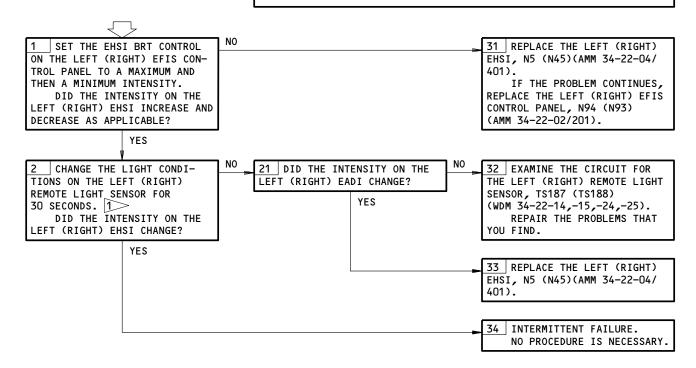
PREREQUISITES

MAKE SURE THIS SYSTEM WILL OPERATE: EFIS (AMM 34-22-00/501)

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11E3,11E4,11E6,11E24,11E25,11E27,11F8,11F9,11F24, 11F29; 2>11A7; 3>11C4

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

BRIGHTNESS CONTROL PROBLEM ON CAPT (F/O) EHSI



1 FOR LIGHT CONDITIONS, PUT A COVER ON THE SENSOR. FOR NO LIGHT CONDITIONS, POINT A LIGHT SOURCE AT THE SENSOR.

> GUI 001-114,116-999

3 > GUI 115

Brightness Control Problem on Capt (F/O) EHSI Figure 107

EFFECTIVITY-ALL

PREREQUISITES

MAKE SURE THESE SYSTEMS WILL OPERATE: EICAS (AMM 31-41-00/201) EFIS (AMM 34-22-00/501)

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11E3, 11E4, 11E6, 11E24, 11E25, 11E27, 11F8, 11F9, 11F24, 11F29; 2 11A7; 3 11C4

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

EFIS BITE PROCEDURE

NO ON THE LEFT AND RIGHT EFIS CONTROL PANELS, SET THE WXR SWITCH TO THE ON (IN) POSITION, ALL THE MAP DATA SWITCHES TO THE ON (IN) POSITION 4, THE MODE SWITCH TO THE "PLAN" POSITION, THE DH REF TO 50, AND ALL THE "BRT" CONTROLS FULLY CLOCKWISE. ON THE LEFT AND RIGHT INSTRUMENT SOURCE SELECT PANELS, SET THE EFI SWITCH TO THE ALT POSITION AND BACK TO THE NORM POSITION. ON THE LEFT AND RIGHT EFIS SYMBOL GENERATORS, PUSH THE RESET SWITCH. ON THE OVERHEAD LIGHTING CONTROL PANEL, PUSH AND HOLD THE TEST SWITCH. SET THE MODE SWITCHES ON THE EFIS CONTROL PANELS TO EACH MODE FOR 15 SECONDS. IS THE MESSAGE, "SG FAIL", SHOWN ON THE LEFT (RIGHT) EADI OR EHSI? YES SEE SHEET 2

41 THE MESSAGE IS A INTERMITTENT MESSAGE. NO ACTION IS REQUIRED.

> DISENGAGE THE TEST SWITCH ON THE OVERHEAD LIGHTING CONTROL PANEL.

2 GUI 001-114, 116-999

(BLOCK 2)

3>> GUI 115

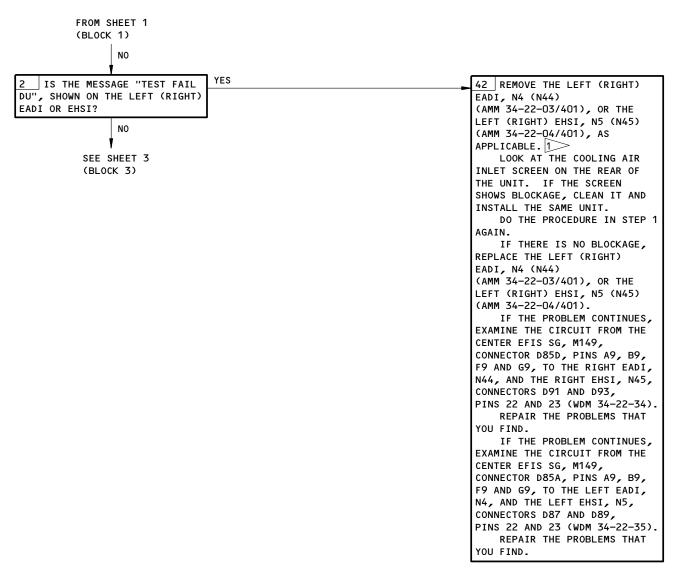
DO NOT PUSH THE INOP SWITCH ON THE EFIS CONTROL PANEL. IF YOU DO, INCORRECT DISPLAY WILL OCCUR.

EFIS BITE Procedure Figure 108 (Sheet 1)

34-22-00

05

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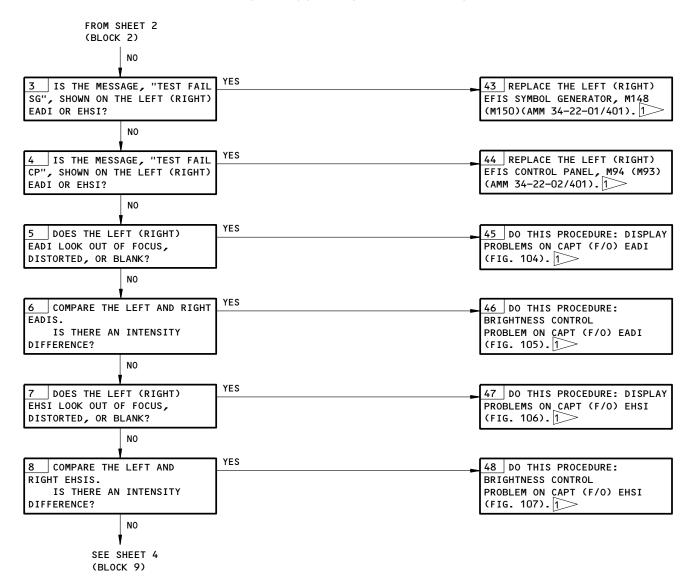


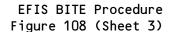
EFIS BITE Procedure Figure 108 (Sheet 2)

34-22-00

03

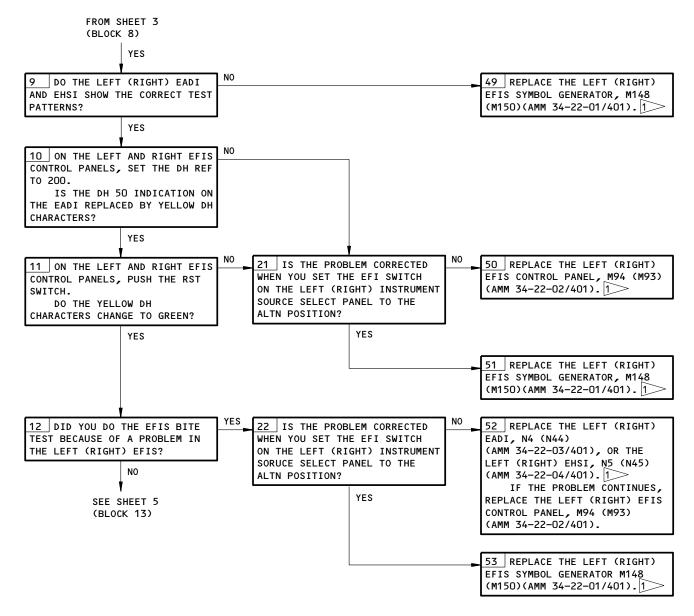
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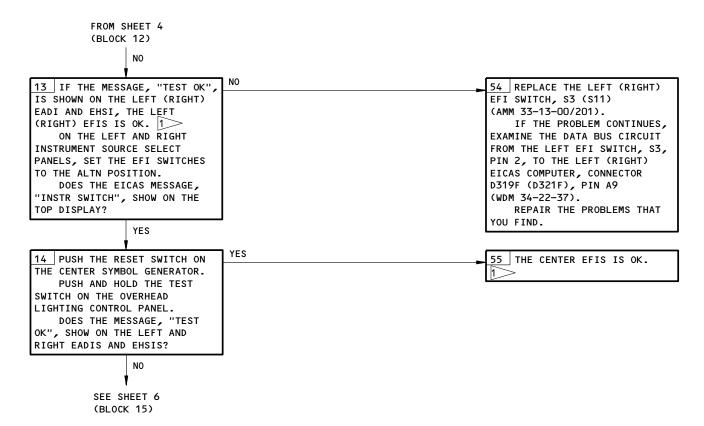


EFIS BITE Procedure Figure 108 (Sheet 4)

ALL

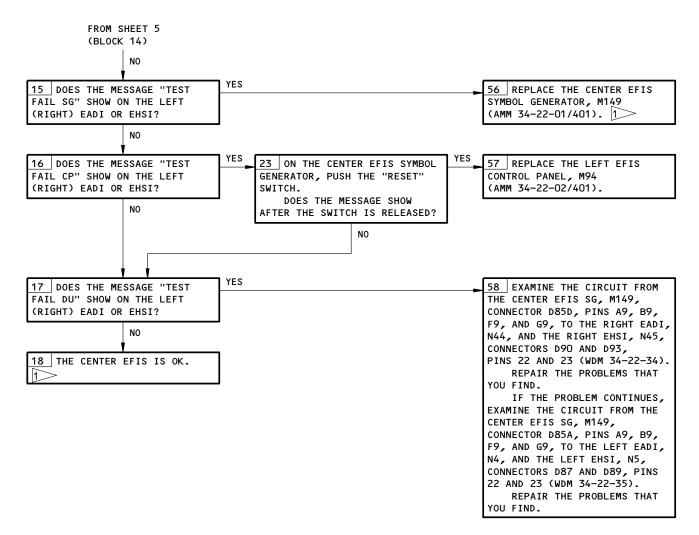
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Page 119
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EFIS BITE Procedure Figure 108 (Sheet 5)





EFIS BITE Procedure Figure 108 (Sheet 6)



1. ARINC Data Bus Charts

A. General

<u>CAUTION</u>: DO NOT DIRECTLY TOUCH THE CONNECTORS. USE A BREAKOUT BOX OR YOU CAN CAUSE DAMAGE TO THE CONNECTORS.

- (1) The ARINC 429 data bus charts give data necessary to make an analysis of ARINC 429 transmitters, receivers, and data buses. For the test, use a breakout box at the available terminal or at the LRU connectors.
- B. Equipment
 - (1) Standard multi-meter
 - (2) 429EBP Data Bus Analyzer (recommended) JcAIR Instrumentation 400 Industrial Parkway Industrial Airport, KS 66031

429-2 Data Bus Analyzer (alternative) Interface Technology 150 E. Arrow Highway San Dimas, CA 91773

(3) A34011-1 Breakout Box (recommended)
A34011-112 Breakout Box (alternative)

EFIS CP									
DIGITAL OUTPUT BUS CHART									
BUS NAME					BUS	DIT			
SOURCE	TYPE	BUS	CON	PINS	FORMAT	RATE	DATA BUS		
EFISCP (L R)	Α	1		36 35	429	LO	OUTPUT BUS		

EFFECTIVITY-



EFIS CP ID = C5									
OCTAL LABELS CHART									
SIGNAL	TYPE	LABEL	FORMAT	MIN UPDATE RATE	SDI	BINARY RANGE	POSITIVE SENSE	UNITS	
WXR RANGE	Α	271	DIS	10	00	N/A	ALWAYS POS	N/A	
EFIS DISCRETES #1	Α	272	DIS	5	00	N/A	N/A	N/A	
EFIS DISCRETES #2	Α	273	DIS	5	00	N/A	N/A	N/A	
DH SELECTED-D	Α	170	BCD	5	00	-20,+2500	ABOVE GROUND	FEET	
DH SELECTED	Α	370	BNR	5	00	± 16,384	ABOVE GROUND	FEET	

ALL



EFIS CP									
DISCRETE OCTAL LABELS/BIT CHART									
SIGNAL	OCTAL LABEL	віт	ONE-STATE	ZERO-STATE					
SPARE	271	11	TBD						
SPARE	271	12	TBD						
SPARE	271	13	TBD						
SPARE	271	14	TBD						
SPARE	271	15	TBD						
SPARE	271	16	TBD						
SPARE	271	17	TBD						
SPARE	271	18	TBD						
SPARE	271	19	TBD						
SPARE	271	20	TBD						
SPARE	271	21	TBD						
SPARE	271	22	TBD						
SPARE	271	23	TBD						
10 MI RANGE SEL	271	29-24	000010						
160 MI RANGE SEL	271	29-24	100000						
20 MI RANGE SEL	271	29-24	000100						
320 MI RANGE SEL	271	29-24	000000						
40 MI RANGE SEL	271	29-24	001000						
5 MI RANGE SEL	271	29-24	000001						
80 MI RANGE SEL	271	29-24	010000						
INVALID DATA	271	31-30	01						
SLAVE	271	31-30	11						



EFIS CP								
DISCRETE OCTAL LABELS/BIT CHART								
SIGNAL	OCTAL LABEL	BIT	ONE-STATE	ZERO-STATE				
TEST	271	31–30	10					
VALID DATA	271	31–30	00					
ILS (MOD) MODE SEL	272	16-11	000100					
MAP MODE SELECTED	272	16-11	000001					
PLAN MODE SELECTED	272	16-11	001000					
ILS (STD) MODE SEL	272	16-11	100000					
VOR (STD) MODE SEL	272	16-11	010000					
VOR (MOD) MODE SEL	272	16-11	000010					
SUM CHECK	272	17	NOT OK	ок				
SPARE	272	18	1	0				
AIRPORTS	272	23-19	10000					
NAV AIDS	272	23-19	00010					
RTE DATA	272	23-19	01000					
SPARE	272	23-19	00001					
WPT	272	23-19	00100					
MAP ORIENT	272	24	TRACK	HDG				
VOR/ILS ORIENT	272	25	TRACK	HDG				
APPROACH MODE	272	29-27	001					
FULL COMPASS ROSE	272	29-27	010					
RSV TEST	272	29-27	100					
DEG PITCHREF S/B	273	19–11	NEG	POS				

ALL



EFIS CP						
DISCRETE OCTAL LABELS/BIT CHART						
SIGNAL	OCTAL LABEL	ВІТ	ONE-STATE	ZERO-STATE		
0.100 DEG PITCHREF	273	19–11	00000001			
0.200 DEG PITCHREF	273	19–11	00000010			
0.400 DEG PITCHREF	273	19–11	000000100			
0.800 DEG PITCHREF	273	19–11	000001000			
RA ALERT RESET	272	26	RESET			
1.600 DEG PITCHREF	273	19–11	000010000			
12.80 DEG PITCHREF	273	19–11	010000000			
3.200 DEG PITCHREF	273	19–11	000100000			
6.400 DEG PITCHREF	273	19–11	001000000			
FLT PATH DATA	273	20	ON	OFF		
SPARE	273	21	1	0		
SPARE	273	22	1	0		
WXR DATA	273	23	WXR SEL	NOT SEL		
10 MI RANGE SEL	273	29-24	000010			
160 MI RANGE SEL	273	29-24	100000			



EFIS CP							
DISCRETE OCTAL LABELS/BIT CHART							
SIGNAL	OCTAL LABEL	ВІТ	ONE-STATE	ZERO-STATE			
20 MI RANGE SEL	273	29-24	000100				
320 MI RANGE SEL	273	29-24	000000				
40 MI RANGE SEL	273	29-24	001000				
5 MI RANGE SEL	273	29-24	000001				
80 MI RANGE SEL	273	29-24	010000				

EFIS CU							
DIGITAL OUTPUT BUS CHART							
BUS NAME					BUS	ВІТ	
SOURCE	TYPE	BUS	CON	PINS	FORMAT	ı	DATA BUS
EFISCU (L)	А	1	В	A08 B08	429	LO	OUTPUT BUS 1
EFISCU (L)	А	2	В	A15 B15	429	LO	OUTPUT BUS 2

EFIS CU								
OCTAL LABELS CHART								
SIGNAL	TYPE	LABEL	FORMAT	MIN UPDATE RATE	SDI	BINARY RANGE	POSITIVE SENSE	UNITS
COMP FLAG WORD	Α	270	DIS	4	00	N/A	N/A	N/A
COMP WARN WORD	Α	271	DIS	4	00	N/A	N/A	N/A

ALL



EFIS CU						
DISCRETE OCTAL LABELS/BIT CHART						
SIGNAL	OCTAL LABEL	BIT	ONE-STATE	ZERO-STATE		
CAPT G/S FLAG	270	11	FLAG	NO FLAG		
F/O G/S FLAG	270	12	FLAG	NO FLAG		
CAPT LOC FLAG	270	13	FLAG	NO FLAG		
F/O LOC FLAG	270	14	FLAG	NO FLAG		
CAPT HDG FLAG	270	15	FLAG	NO FLAG		
F/O HDG FLAG	270	16	FLAG	NO FLAG		
CAPT TRK FLAG	270	17	FLAG	NO FLAG		
F/O TRK FLAG	270	18	FLAG	NO FLAG		
CAPT ATT FLAG	270	19	FLAG	NO FLAG		
F/O ATT FLAG	270	20	FLAG	NO FLAG		
CAPT FD FLAG	270	21	FLAG	NO FLAG		
F/O FD FLAG	270	22	FLAG	NO FLAG		
CAPT SPD FLAG	270	23	FLAG	NO FLAG		
F/O SPD FLAG	270	24	FLAG	NO FLAG		

ALL



EFIS CU						
DISCRETE OCTAL LABELS/BIT CHART						
SIGNAL	OCTAL LABEL	BIT	ONE-STATE	ZERO-STATE		
SPARE	270	25	1	0		
SPARE	270	26	1	0		
SPARE	270	27	1	0		
SPARE	270	28	1	0		
SPARE	270	29	1	0		
G/S WARN	271	11	WARN	NO WARN		
LOC WARN	271	12	WARN	NO WARN		
HDG WARN	271	13	WARN	NO WARN		
TRK WARN	271	14	WARN	NO WARN		
ATT WARN	271	15	WARN	NO WARN		
RA WARN	271	16	WARN	NO WARN		
SPARE	271	17	1	0		
SPARE	271	18	1	0		
SPARE	271	19	1	0		
SPARE	271	20	1	0		
SPARE	271	21	1	0		



EFIS CU									
DISCRETE OCTAL LABELS/BIT CHART									
SIGNAL	OCTAL LABEL	BIT	ONE-STATE	ZERO-STATE					
SPARE	271	22	1	0					
SPARE	271	23	1	0					
SPARE	271	24	1	0					
SPARE	271	25	1	0					
SPARE	271	26	1	0					
SPARE	271	27	1	0					
SPARE	271	28	1	0					
ICU BITE	271	29	FAULT	NO FAULT					

EFIS SG								
DIGITAL OUTPUT BUS CHART								
BUS NAME					BUS	ртт		
SOURCE	TYPE	BUS	CON	PINS	FORMAT	RATE	DATA BUS	
EFISSG (L C R)	А	1	Е	A13 B13	429	L0	OUTPUT BUS	

ALL

34-22-00



EFIS SG ID = 25										
OCTAL LABELS CHART										
SIGNAL	TYPE	LABEL	FORMAT	MIN UPDATE RATE	SDI	BINARY RANGE	POSITIVE SENSE	UNITS		
GROUND SPEED	Α	012	BCD	4	00	0-2000	ALWAYS POS	KNOTS		
FLT DIR-ROLL	Α	140	BNR	4	00	± 180	RIGHT	DEG		
FLT DIR-PITCH	Α	141	BNR	4	00	± 180	UP	DEG		
A/T FAST SLOW CMD	Α	142	BNR	4	00	± 32	OVERSPEED	KNOTS		
RADIO HEIGHT	Α	164	BNR	4	00	± 8192	ABOVE TOUCHDO	FEET		
LOCALIZER DEV	Α	173	BNR	4	00	± .4	FLY RIGHT	DDM		
GLIDESLOPE DEV	Α	174	BNR	4	00	± .8	ABOVE BEAM	DDM		
MODE DISCRETES #2	Α	270	DIS	4	00	N/A	N/A	N/A		
AFDS MODE STATUS-3	Α	274	BNR	4	00	N/A	N/A	N/A		
AFDS MODE STATUS-4	Α	275	BNR	4	00	N/A	N/A	N/A		
TRACK ANGLE TRUE	Α	313	BNR	4	00	± 180	CW FROM NORTH	DEG		
TRUE HEADING	Α	314	BNR	4	00	± 180	CW FROM NORTH	DEG		
TRACK ANGLE-MAG	Α	317	BNR	4	00	± 180	CW FROM NORTH	DEG		
MAGNETIC HEADING	Α	320	BNR	4	00	± 180	CW FROM NORTH	DEG		



EFIS SG ID = 25										
OCTAL LABELS CHART										
SIGNAL	TYPE	LABEL	FORMAT	MIN UPDATE RATE	SDI	BINARY RANGE	POSITIVE SENSE	UNITS		
PITCH ANGLE	Α	324	BNR	4	00	± 180	UP	DEG		
ROLL ANGLE	Α	325	BNR	4	00	± 180	RIGHT WING DO	DEG		
EFISSG MAINT WORD	Α	350	DIS	4	00	N/A	N/A	N/A		
CP & DU MAINT WORD	Α	351	DIS	4	00	N/A	N/A	N/A		
SENS STAT MAINT WD	Α	352	DIS	4	00	N/A	N/A	N/A		
MODE DISCRETES #1	Α	353	DIS	4	00	N/A	N/A	N/A		

34-22-00



EFIS SG								
DISCRETE OCTAL LABELS/BIT CHART								
SIGNAL	OCTAL LABEL	BIT	ONE-STATE	ZERO-STATE				
SPARE	270	11	1	0				
SPARE	270	12	1	0				
SPARE	270	13	1	0				
DH ALERT	270	14	ALERT	ок				
DH+DELTA (H) ALERT	270	15	ALERT	ок				
H ALERT	270	16	ALERT	ок				
FMC/IRS GROUND SPD	270	17	FMC	IRS				
FMC/IRS TRACK DATA	270	18	FMC	IRS				
MAG/TRUE DATA	270	19	TRUE	MAG				
SPARE	270	20	1	0				
SPARE	270	21	1	0				
SPARE	270	22	1	0				
SPARE	270	23	1	0				
SPARE	270	24	1	0				

05



EFIS SG								
DISCRETE OCTAL LABELS/BIT CHART								
SIGNAL	OCTAL LABEL	BIT	ONE-STATE	ZERO-STATE				
SPARE	270	25	1	0				
SPARE	270	26	1	0				
SPARE	270	27	1	0				
SPARE	270	28	1	0				
SPARE	270	29	1	0				
SG OVERTEMP	350	11	FAULT	ок				
SG MAIN PROCESSOR	350	12	FAULT	ок				
SG MAIN MEMORY	350	13	FAULT	ок				
SG DISPLAY DRIVE	350	14	FAULT	ок				
SG DSPLY SEQUENCER	350	15	FAULT	ок				
SG CONTROLLER	350	16	FAULT	ок				
SG DIGTAL OUTPUT	350	17	FAULT	ок				
SG I/O PROC NO.1	350	18	FAULT	ок				
SG I/O PROC NO.2	350	19	FAULT	ок				
SG I/O PROC NO.3	350	20	FAULT	ок				
SPARE	350	21	1	0				

34-22-00



EFIS SG								
DISCRETE OCTAL LABELS/BIT CHART								
SIGNAL	OCTAL LABEL	BIT	ONE-STATE	ZERO-STATE				
SPARE	350	22	1	0				
SPARE	350	23	1	0				
SPARE	350	24	1	0				
SPARE	350	25	1	0				
SPARE	350	26	1	0				
SPARE	350	27	1	0				
SPARE	350	28	1	0				
SPARE	350	29	1	0				
SPARE	351	11	1	0				
L-EADI ANOMALIES	351	12	FAULT	ок				
L-EADI BEAM FAIL	351	13	FAULT	ок				
L-EADI OVERTEMP	351	14	FAULT	ок				
R-EADI ANOMALIES	351	15	FAULT	ок				
R-EADI BEAM FAIL	351	16	FAULT	ок				



EFIS SG								
DISCRETE OCTAL LABELS/BIT CHART								
SIGNAL	OCTAL LABEL BIT ONE-STATE							
R-EADI OVERTEMP	351	17	FAULT	ок				
L-EHSI ANOMALIES	351	18	FAULT	ок				
L-EHSI BEAM FAIL	351	19	FAULT	ок				
L-EHSI OVERTEMP	351	20	FAULT	ок				
R-EHSI ANOMALIES	351	21	FAULT	ок				
R-EHSI BEAM FAIL	351	22	FAULT	ок				
R-EHSI OVERTEMP	351	23	FAULT	ок				
L-CP FAULT	351	24	FAULT	ок				
R-CP FAULT	351	25	FAULT	ок				
SPARE	351	26	1	0				
SPARE	351	27	1	0				
SPARE	351	28	1	0				
SPARE	351	29	1	0				
L-FCC DATA FAULT	352	11	FAULT	ОК				

ALL

34-22-00



EFIS SG	 							
DISCRETE OCTAL LABELS/BIT CHART								
SIGNAL	OCTAL LABEL	BIT	ONE-STATE	ZERO-STATE				
C-FCC DATA FAULT	352	12	FAULT	ок				
R-FCC DATA FAULT	352	13	FAULT	ок				
L-FMC DATA FAULT	352	14	FAULT	ок				
R-FMC DATA FAULT	352	15	FAULT	ок				
TMC DATA FAULT	352	16	FAULT	ок				
L-IRS DATA FAULT	352	17	FAULT	ок				
C-IRS DATA FAULT	352	18	FAULT	ок				
R-IRS DATA FAULT	352	19	FAULT	ок				
L-ADC DATA FAULT	352	20	FAULT	ок				
R-ADC DATA FAULT	352	21	FAULT	ок				
L-VOR DATA FAULT	352	22	FAULT	ок				
R-VOR DATA FAULT	352	23	FAULT	ок				
L-DME DATA FAULT	352	24	FAULT	ок				
R-DME DATA FAULT	352	25	FAULT	ок				
RA DATA FAULT	352	26	FAULT	ок				
ILS DATA FAULT	352	27	FAULT	ок				
MLS DATA FAULT	352	28	FAULT	ок				
WXR DATA FAULT	352	29	FAULT	ок				
R EADI FAULT	353	12	FAULT	ок				
SPARE	353	13	1	0				

ALL

34-22-00



EFIS SG					
	DISCRE	TE OCT	AL LABELS/BIT CHAR	Г	
SIGNAL	OCTAL LABEL	1 1 1			
R CP FAULT	353	15	FAULT	ок	
R EHSI FAULT	353	17	FAULT	ок	
SG FAULT	353	18	FAULT	ок	
SPARE	353	19	1	0	
SPARE	353	20	1	0	
SPARE	353	21	1	0	
SPARE	353	22	1	0	
SPARE	353	23	1	0	
SPARE	353	24	1	0	
SPARE	353	25	1	0	
SPARE	353	26	1	0	
SPARE	353	27	1	0	
SPARE	353	28	1	0	
SPARE	353	29	1	0	

ALL ALL



STANDBY MAGNETIC COMPASS

COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	AMM REFERENCE
COMPASS - STANDBY MAGNETIC, N99		1	FLT COMPT, P5	34-23-00

^{*} SEE THE WDM EQUIPMENT LIST

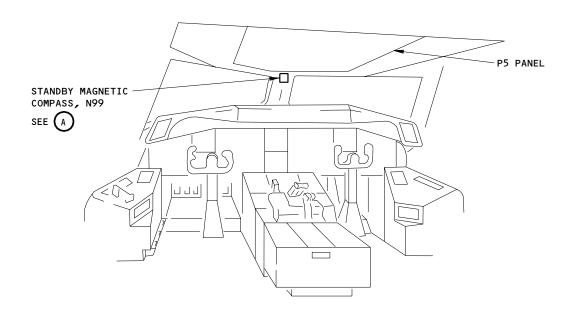
Standby Magnetic Compass - Component Index Figure 101

34-23-00

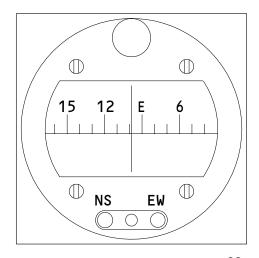
01

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FLIGHT COMPARTMENT



STANDBY MAGNETIC COMPASS, N99



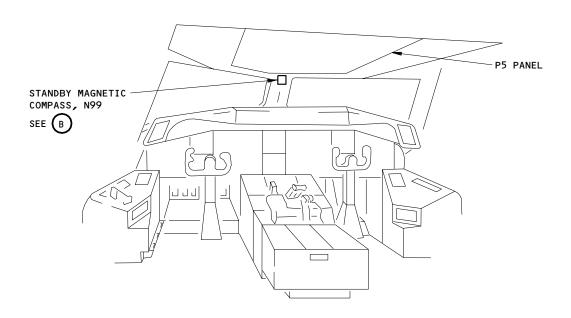
Standby Magnetic Compass - Component Location Figure 102 (Sheet 1)

34-23-00

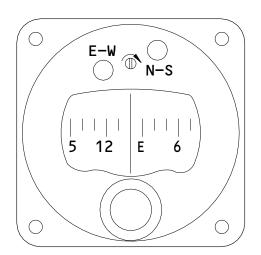
01

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FLIGHT COMPARTMENT



Standby Magnetic Compass - Component Location Figure 102 (Sheet 2)

STANDBY MAGNETIC COMPASS, N99

34-23-00

01

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STANDBY ATTITUDE REFERENCE SYSTEM

COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	AMM REFERENCE
CIRCUIT BREAKER - STBY ATT IND, C619 STBY ILS IND, C604 INDICATOR - STANDBY ATTITUDE, N20 UNIT - STATIC INV/ILS PRCS, M917	 	1 1 1 1	FLT COMPT, P11 11A5 11A9 FLT COMPT, P1 119BL, MAIN EQUIP CTR, E2-3	* * 34-24-01 34-24-02

^{*} SEE THE WDM EQUIPMENT LIST

Standby Attitude Reference System - Component Index Figure 101

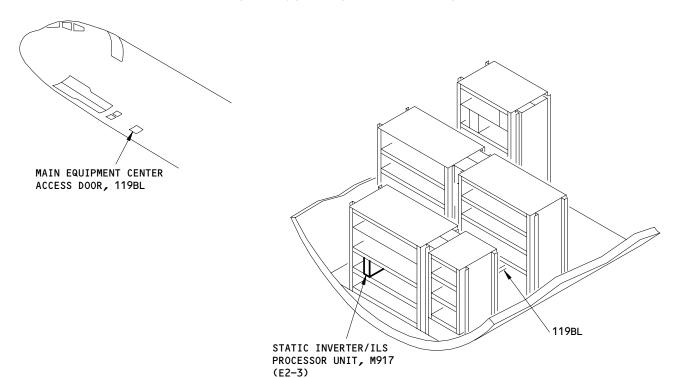
EFFECTIVITY-ALL

34-24-00

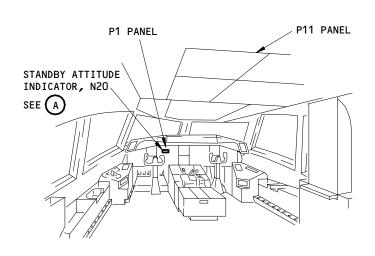
E45848



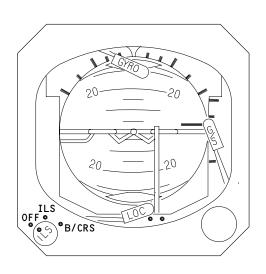
FAULT ISOLATION/MAINT MANUAL



MAIN EQUIPMENT CENTER



FLIGHT COMPARTMENT



STANDBY ATTITUDE INDICATOR, N20



Standby Attitude Reference System - Component Location Figure 102

EFFECTIVITY-ALL

34-24-00

02

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PREREQUISITES

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11A5, 11B7

MAKE SURE THE AIRPLANE IS IN THE CONFIGURATION THAT FOLLOWS:

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

STANDBY ATTITUDE INDICATION PROBLEMS

REPLACE THE STANDBY
ATTITUDE INDICATOR, N20
(AMM 34-24-01/401).
IF THE PROBLEM CONTINUES,
REPLACE THE STATIC
INVERTER/ILS PROCESSOR, M917
(AMM 34-24-02/401).

Standby Attitude Indication Problems Figure 103

ALL

34-24-00

01

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INSTRUMENT COMPARISON SYSTEM

COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	AMM REFERENCE
CIRCUIT BREAKER - EFIS INSTR COMPTR SWITCH - (FIM 34-22-00/101) LEFT EFIS, S3 RIGHT EFIS, S11		1	FLIGHT COMPARTMENT, P11 11F10	*
UNIT - INSTRUMENT COMPARATOR, M1060		1	119BL, MAIN EQUIP CTR, E2-3	34-25-01

^{*} SEE THE WDM EQUIPMENT LIST

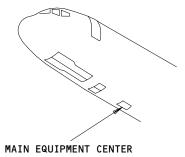
Instrument Comparison System - Component Index Figure 101

 34-25-00

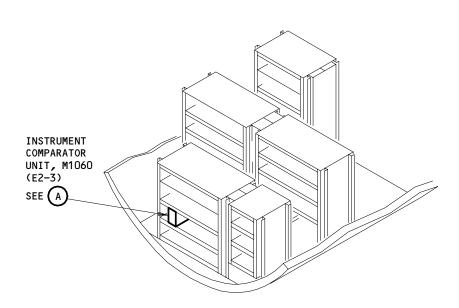
02

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MAIN EQUIPMENT CENTER ACCESS DOOR, 119BL



MAIN EQUIPMENT CENTER



INSTRUMENT COMPARATOR UNIT, M1060



Instrument Comparison System - Component Location Figure 102

EFFECTIVITY-ALL

600279

34-25-00

01

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INSTRUMENT COMPAR-ISON SYSTEM BITE

ELECTRICAL POWER (MM 24-22-00/201) EICAS (MM 31-41-00/201) WARNING SYSTEM (MM 31-51-00/501) IRS (MM 34-21-00/501) EFIS (MM 34-22-00/501)

CB'S: 11F10

PREREQUISITES

1 ON THE INSTRUMENT COMPAR-ATOR UNIT, M1060, PUSH AND HOLD THE TEST SWITCH. ON THE EICAS DISPLAY SELECT PANEL,

M10195, PUSH THE STATUS SWITCH. ON THE TOP EICAS DISPLAY

UNIT, MAKE SURE THESE MESSAGES

SHOW: "G/S FAIL"

PROCEDURE

"LOC FAIL" "G/S DISAGREE"

"LOC DISAGREE"

"HDG FAIL"

"TRACK FAIL" "ATT FAIL"

"FD COMMAND FAIL"

"FAST/SLOW FAIL"

"HDG DISAGREE"

"TRACK DISAGREE"

"ATT DISAGREE"

"RA DISAGREE"

ON THE STATUS PAGE OF THE BOTTOM EICAS DISPLAY UNIT, MAKE SURE THIS MESSAGE SHOWS:

"COMPARATOR BITE"

600278

DO ALL THESE MESSAGES APPEAR?

YES

RELEASE THE TEST SWITCH. THE INSTRUMENT COMPARISON SYS-TEM IS OK.

N0 YES 10 RELEASE THE TEST SWITCH. 20 REPLACE THE INSTRUMENT COMPARATOR UNIT, M1060, DOES THE EICAS MESSAGE, "COMPARATOR BITE", SHOW ON THE STATUS PAGE OF THE BOTTOM (MM 34-25-01/401).DISPLAY? NO 21 DO THE EICAS BITE PROCE-DURE (31-41-00, FIG. 103).

Instrument Comparison System BITE Procedure Figure 103

EFFECTIVITY-ALL

34-25-00

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1. ARINC Data Bus Charts

A. General

CAUTION: DO NOT DIRECTLY TOUCH THE CONNECTORS. USE A BREAKOUT BOX OR YOU CAN CAUSE DAMAGE TO THE CONNECTORS.

- (1) The ARINC 429 data bus charts give data necessary to make an analysis of ARINC 429 transmitters, receivers, and data buses. For the test, use a breakout box at the available terminal or at the LRU connectors.
- B. Equipment
 - (1) Standard multi-meter
 - (2) 429EBP Data Bus Analyzer (recommended) JcAIR Instrumentation 400 Industrial Parkway Industrial Airport, KS 66031

429-2 Data Bus Analyzer (alternative) Interface Technology 150 E. Arrow Highway, San Dimas, CA 91773

C. A34011-1 Breakout Box (recommended) A34011-112 Breakout Box (alternative)

EFFECTIVITY-

34-25-00

ALL

01



EFIS CU								
DIGITAL OUTPUT BUS CHART								
BUS NAME					BUS	ВІТ		
SOURCE	TYPE	BUS	CON	PINS	FORMAT		DATA BUS	
EFISCU-L	Α	1	В	АО8 ВО8	429	L0	OUTPUT BUS 1	
EFISCU-L	Α	2	В	A15 B15	429	LO	OUTPUT BUS 2	

EFIS CU								
OCTAL LABELS CHART								
SIGNAL	TYPE	LABEL	FORMAT	MIN UPDATE RATE	SDI	BINARY RANGE	POSITIVE SENSE	UNITS
COMP FLAG WORD	Α	270	DIS	4	00	N/A	N/A	N/A
COMP WARN WORD	Α	271	DIS	4	00	N/A	N/A	N/A

34-25-00



EFIS CU								
DISCRETE OCTAL LABELS/BIT CHART								
SIGNAL	OCTAL LABEL	BIT	ONE-STATE	ZERO-STATE				
CAPT G/S FLAG	270	11	FLAG	NO FLAG				
F/O G/S FLAG	270	12	FLAG	NO FLAG				
CAPT LOC FLAG	270	13	FLAG	NO FLAG				
F/O LOC FLAG	270	14	FLAG	NO FLAG				
CAPT HDG FLAG	270	15	FLAG	NO FLAG				
F/O HDG FLAG	270	16	FLAG	NO FLAG				
CAPT TRK FLAG	270	17	FLAG	NO FLAG				
F/O TRK FLAG	270	18	FLAG	NO FLAG				
CAPT ATT FLAG	270	19	FLAG	NO FLAG				
F/O ATT FLAG	270	20	FLAG	NO FLAG				
CAPT FD FLAG	270	21	FLAG	NO FLAG				
F/O FD FLAG	270	22	FLAG	NO FLAG				
CAPT SPD FLAG	270	23	FLAG	NO FLAG				
F/O SPD FLAG	270	24	FLAG	NO FLAG				



EFIS CU								
DISCRETE OCTAL LABELS/BIT CHART								
SIGNAL	OCTAL LABEL	BIT	ONE-STATE	ZERO-STATE				
SPARE	270	25	1	0				
SPARE	270	26	1	0				
SPARE	270	27	1	0				
SPARE	270	28	1	0				
SPARE	270	29	1	0				
G/S WARN	271	11	WARN	NO WARN				
LOC WARN	271	12	WARN	NO WARN				
HDG WARN	271	13	WARN	NO WARN				
TRK WARN	271	14	WARN	NO WARN				
ATT WARN	271	15	WARN	NO WARN				
RA WARN	271	16	WARN	NO WARN				
SPARE	271	17	1	0				
SPARE	271	18	1	0				
SPARE	271	19	1	0				
SPARE	271	20	1	0				
SPARE	271	21	1	0				
SPARE	271	22	1	0				
SPARE	271	23	1	0				
SPARE	271	24	1	0				
SPARE	271	25	1	0				
SPARE	271	26	1	0				
SPARE	271	27	1	0				

34-25-00

ALL



EFIS CU							
DISCRETE OCTAL LABELS/BIT CHART							
SIGNAL	OCTAL LABEL	BIT	ONE-STATE	ZERO-STATE			
SPARE	271	28	1	0			
ICU BITE	271	29	FAULT	NO FAULT			

ALL ALL

34-25-00



INSTRUMENT LANDING SYSTEM

COMPONENT		QTY	ACCESS/AREA	AMM REFERENCE
ANTENNA - CENTER DUAL GLIDE SLOPE, M251	1	1	111AL, NOSE RADOME	34-31-03
ANTENNA - CENTER DUAL LOCALIZER, M249	1 1	1	111AL, NOSE RADOME	34-31-04
ANTENNA - LEFT/RIGHT DUAL GLIDE SLOPE, M250	1	1	111AL, NOSE RADOME	34-31-03
ANTENNA - LEFT/RIGHT DUAL LOCALIZER, M248	1	1	111AL, NOSE RADOME	34-31-04
CIRCUIT BREAKER -	2		FLT COMPT, P11	
ILS CENTER, C606 1		1	11A3	*
ILS L, C603 1		1	11E10	*
ILS RIGHT, C605 1		1	11E31	*
MMR CENTER, C4602 2		1	11E31	*
MMR LEFT, C4600 2		1	11E10	*
MMR RIGHT, C4601 2		1	11A3	*
PANEL - ILS CONTROL, M87	2	1	FLT COMPT, P8	34-31-02
RECEIVER - CENTER ILS, M157	1	1	119BL, MAIN EQUIP CTR, E2-3	34-31-01
RECEIVER - CENTER MMR, M11251 2		1	119BL, MAIN EQUIP CTR, E2-3	34-31-02
RECEIVER - LEFT ILS, M156	1	1	119BL, MAIN EQUIP CTR, E2-3	34-31-01
RECEIVER - LEFT MMR, M11249 2	1	1	119BL, MAIN EQUIP CTR, E2-3	34-31-02
RECEIVER - RIGHT ILS, M158	1	1	119BL, MAIN EQUIP CTR, E2-2	34-31-01
RECEIVER - RIGHT MMR, M11250 2	1	1	119BL, MAIN EQUIP CTR, E2-2	34-31-02
RELAY - (FIM 31-01-36/101)				
SYS NO. 1 AIR/GND, K143				
SYS NO. 1 AIR/GND, K167				
RELAY - (FIM 31-01-37/101)				
SYS NO. 2 AIR/GND, K214				

* SEE THE WDM EQUIPMENT LIST

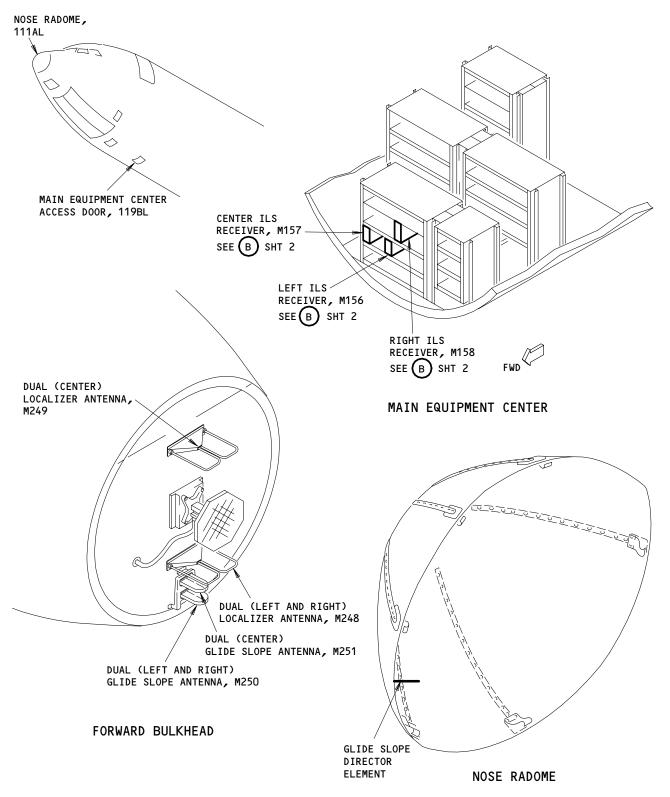
1 AIRPLANES WITH ILS RECEIVERS

2 AIRPLANES WITH MULTI-MODE RECEIVERS (MMR)

Instrument Landing System - Component Index Figure 101

EFFECTIVITY-ALL





Instrument Landing System - Component Location Figure 102 (Sheet 1)

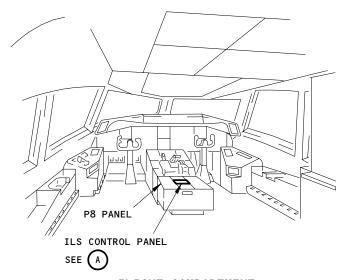
ALL

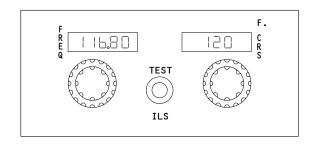
O8
Page 102
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BOEING PROPRIETARY - Copyright (C) - Unpublished Work - See title page for details.



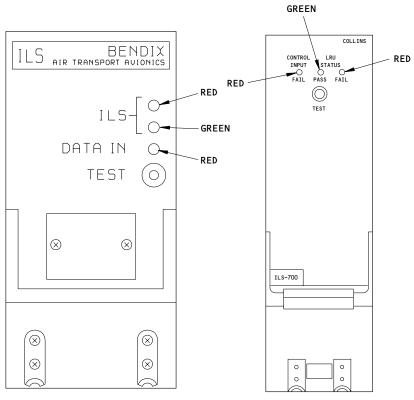
FAULT ISOLATION/MAINT MANUAL

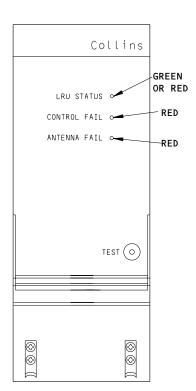




ILS CONTROL PANEL, M87

FLIGHT COMPARTMENT





LEFT, RIGHT OR CENTER ILS RECEIVER, M156, M158 OR M157

LEFT, RIGHT OR CENTER ILS RECEIVER, M156, M158 OR M157

LEFT, RIGHT OR CENTER MULTI-MODE RECEIVER





> GUI 001, 009, 115 GUI 002-008, 010-114,116-999 > GUI 115 (POST SB 34-0400)

Instrument Landing System - Component Location Figure 102 (Sheet 2)

EFFECTIVITY-ALL

34-31-00

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PREREQUISITES

MAKE SURE THESE SYSTEMS WILL OPERATE: IRS (AMM 34-21-00/501) EFIS (AMM 34-22-00/501)

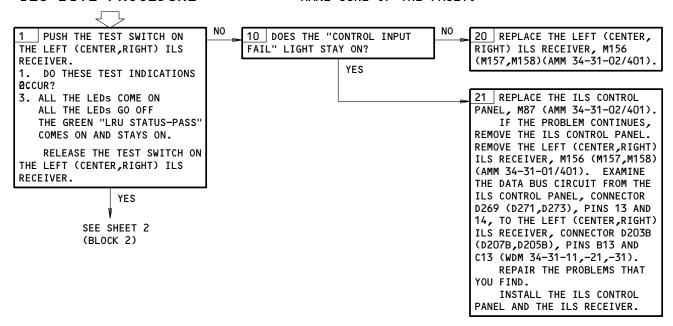
MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11A3,11E10,11E31

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

NOTE: COLLINS ILS RECEIVERS P/N 622-5221-102 S/N 4766 AND BELOW OR P/N 822-0282-102 S/N 4764 AND BELOW WITHOUT COLLINS SERVICE BULLETIN ILS-700-34-20 DATED OCTOBER 15, 1991 AND COLLINS SERVICE BULLETIN ILS-700/700A-34-23 DATED AUGUST 22, 1995, CAN FAIL THE BITE TEST STARTED FROM THE FRONT PANEL OF THE ILS RECEIVER WHEN THERE IS NO FAULT. IF THIS

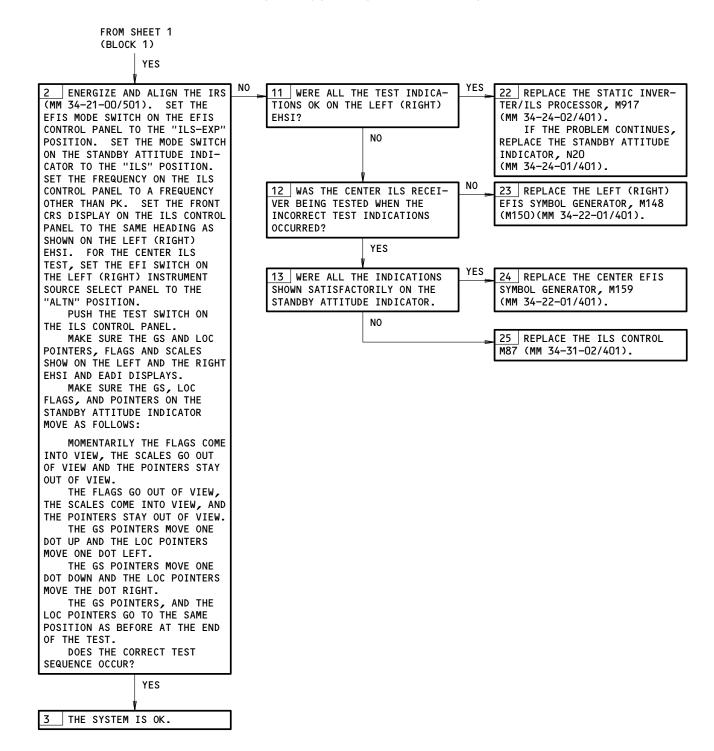
OCCURS, DO THE ILS CONTROL PANEL SELF-TEST TO MAKE SURE OF THE FAULT.

ILS BITE PROCEDURE



ILS BITE Procedure Figure 103 (Sheet 1)

GUI 002-008, 010-114, 116-999



ILS BITE Procedure Figure 103 (Sheet 2)

816645



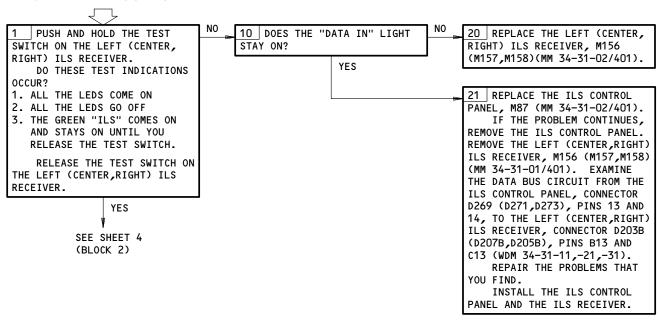
PREREQUISITES

MAKE SURE THESE SYSTEMS WILL OPERATE: IRS (MM 34-21-00/501) EFIS (MM 34-22-00/501)

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11A3,11E10,11E31

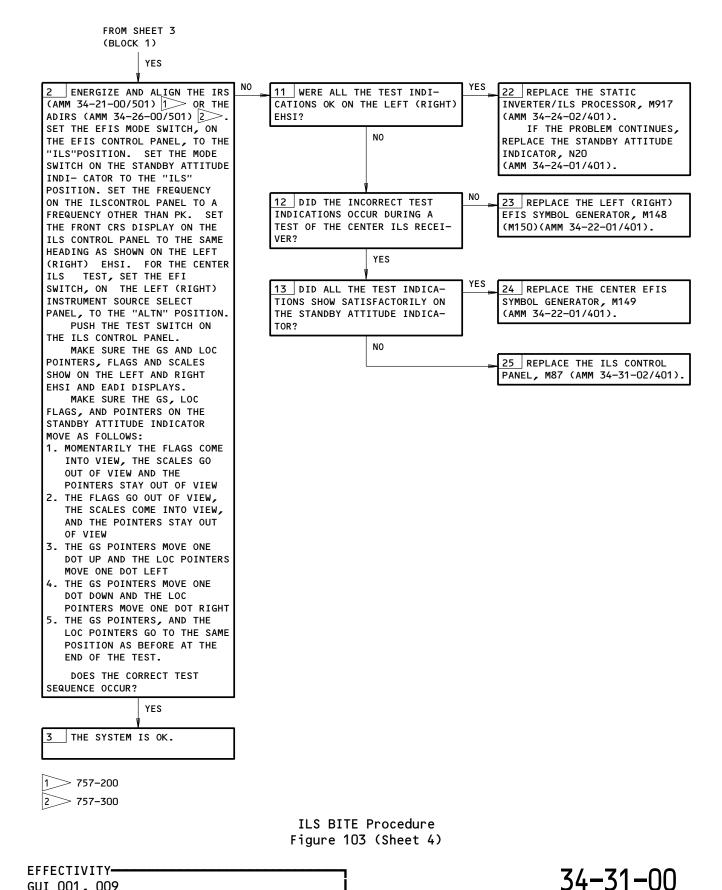
MAKE SURE THE AIRPLANE IS IN THIS CONFIGURATION: ELECTRICAL POWER IS ON (MM 24-22-00/201)

ILS BITE PROCEDURE



ILS BITE Procedure Figure 103 (Sheet 3)

GUI 001, 009



GUI 001, 009

Jan 28/02



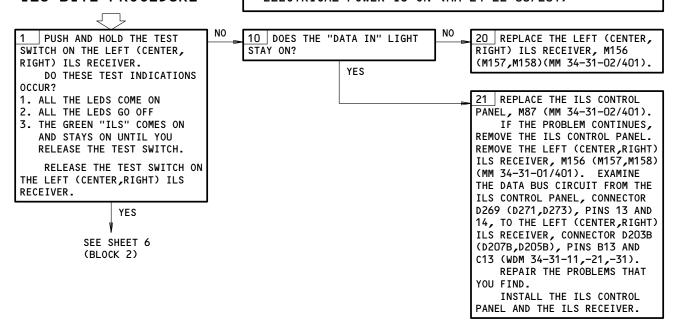
PREREQUISITES

MAKE SURE THESE SYSTEMS WILL OPERATE: IRS (MM 34-21-00/501) EFIS (MM 34-22-00/501)

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11A3,11E10,11E31

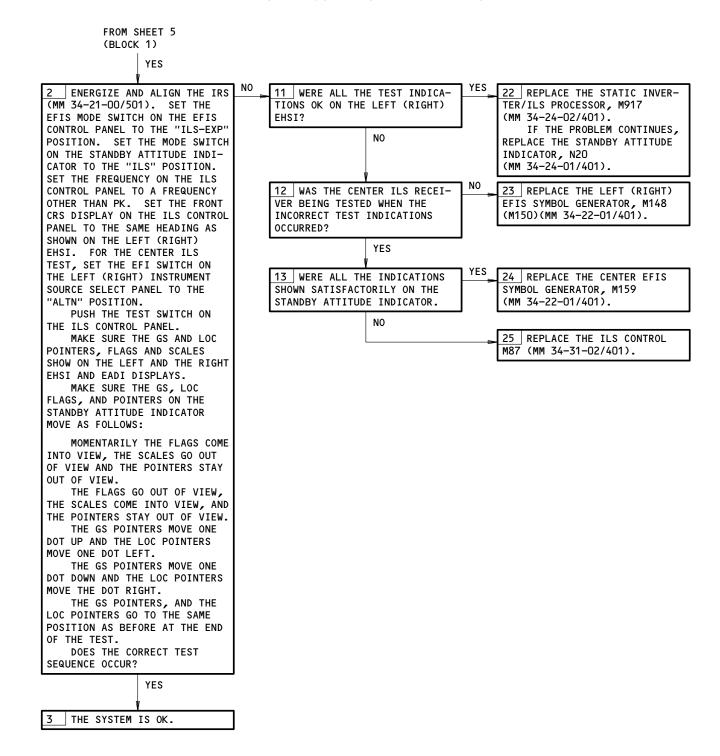
MAKE SURE THE AIRPLANE IS IN THIS CONFIGURATION: ELECTRICAL POWER IS ON (MM 24-22-00/201)

ILS BITE PROCEDURE



ILS BITE Procedure Figure 103 (Sheet 5)

GUI 115



ILS BITE Procedure Figure 103 (Sheet 6)

EFFECTIVITY GUI 115

A45345

PREREQUISITES

NOTE:

MAKE SURE THESE SYSTEMS WILL OPERATE: IRS (AMM 34-21-00/501) EFIS (AMM 34-22-00/501

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11E10,11E31

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

ABNORMAL ILS TEST RESPONSE ON CAPT

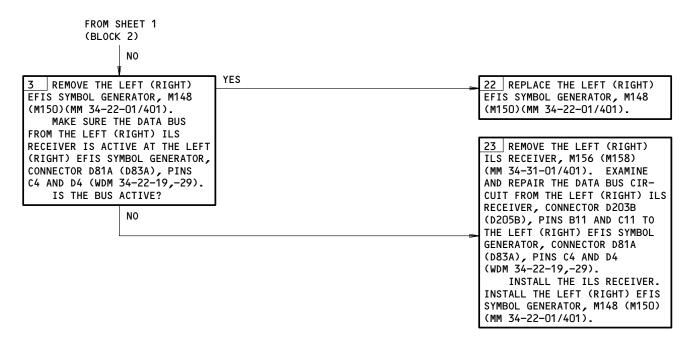
(F/O) EADI & EHSI

COLLINS ILS RECEIVERS P/N 622-5221-102 S/N 4766 AND BELOW OR P/N 822-0282-102 S/N 4764 AND BELOW WITHOUT COLLINS SERVICE BULLETIN ILS-700-34-20 DATED OCTOBER 15, 1991 AND COLLINS SERVICE BULLETIN ILS-700/700A-34-23 DATED AUGUST 22, 1995, CAN FAIL THE BITE TEST STARTED FROM THE FRONT PANEL OF THE ILS RECEIVER WHEN THERE IS NO FAULT. IF THIS OCCURS, DO THE ILS CONTROL PANEL SELF-TEST TO MAKE SURE OF THE FAULT.

YES 1 ENERGIZE AND ALIGN THE IRS 20 REPLACE THE LEFT (RIGHT) IN THE NAV MODE ILS RECEIVER, M156 (M158) (AMM 34-31-01/401).(AMM 34-21-00/501). PUSH AND HOLD THE TEST SWITCH ON THE LEFT (RIGHT) ILS RECEIVER. DOES THE RED "LRU STATUS-FAIL" LIGHT COME ON AT THE END OF THE TEST (AFTER APPROXIMATELY 5 SECONDS)? RELEASE THE TEST SWITCH ON THE LEFT (RIGHT) RECEIVER. YES DOES THE RED "CONTROL 21 | REPLACE THE ILS CONTROL INPUT FAIL" LIGHT COME ON AT PANEL, M87 (AMM 34-31-02/401). THE END OF THE TEST? IF THE PROBLEM CONTINUES, REMOVE THE ILS CONTROL PANEL. NO REMOVE THE LEFT (RIGHT) ILS RECEIVER, M156 (M158) SEE SHEET 2 (AMM 34-31-01/401).EXAMINE THE DATA BUS (BLOCK 3) CIRCUIT FROM THE ILS CONTROL PANEL, CONNECTOR D269 (D273), PINS 13 AND 14, TO THE LEFT (RIGHT) ILS RECEIVER CONNECTOR D203B (D205B), PINS B13 AND C13 (WDM 34-31-11,-21). REPAIR THE PROBLEMS THAT YOU FIND. INSTALL THE ILS CONTROL PANEL AND THE ILS RECEIVER.

Abnormal ILS Test Response on Capt (F/O) EADI & EHSI Figure 104 (Sheet 1)





Abnormal ILS Test Response on Capt (F/O) EADI & EHSI Figure 104 (Sheet 2)

GUI 002-008, 010-114, 116-999

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PREREQUISITES

MAKE SURE THESE SYSTEMS WILL OPERATE:
IRS (MM 34-21-00/501)
EFIS (MM 34-22-00/501)

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11E10,11E31

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

ABNORMAL ILS TEST RESPONSE ON CAPT (F/O) EADI & EHSI

YES 20 REPLACE THE LEFT (RIGHT) ENERGIZE AND ALIGN THE IRS IN THE NAV MODE ILS RECEIVER, M156 (M158) (MM 34-31-01/401).(MM 34-21-00/501).PUSH AND HOLD THE TEST SWITCH ON THE LEFT (RIGHT) ILS RECEIVER. DOES THE RED "ILS" LIGHT COME ON AT THE END OF THE TEST (AFTER APPROXIMATELY 5 SECONDS)? RELEASE THE TEST SWITCH ON THE LEFT (RIGHT) RECEIVER. NO YES DOES THE RED "DATA IN" 21 REPLACE THE ILS CONTROL PANEL, M87 (MM 34-31-02/401). LIGHT COME ON AT THE END OF IF THE PROBLEM CONTINUES, THE TEST? REMOVE THE ILS CONTROL PANEL. NO REMOVE THE LEFT (RIGHT) ILS RECEIVER, M156 (M158) (MM 34-31-01/401). EXAMINE SEE SHEET 4 AND REPAIR THE DATA BUS CIR-(BLOCK 3) CUIT FROM THE ILS CONTROL PANEL, CONNECTOR D269 (D273), PINS 13 AND 14 TO THE LEFT (RIGHT) ILS RECEIVER, CONNEC-TOR D203B (D205B), PINS B13 AND C13 (WDM 34-31-11,-21). INSTALL THE ILS CONTROL PANEL, AND THE ILS RECEIVER.

Abnormal ILS Test Response on Capt (F/O) EADI & EHSI Figure 104 (Sheet 3)

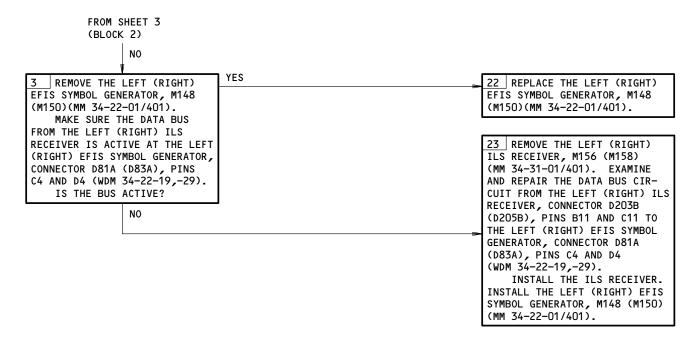
GUI 001, 009, 115

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Abnormal ILS Test Response on Capt (F/O) EADI & EHSI Figure 104 (Sheet 4)

GUI 001, 009, 115

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MAKE SURE THESE SYSTEMS WILL OPERATE: IRS (MM 34-21-00/501) EFIS (MM 34-22-00/501)

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11E10,11E31

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

G/S AND LOC FLAGS IN VIEW ON CAPT (F/O) EHSI & EADI

NO ENERGIZE AND ALIGN THE 21 REPLACE THE LEFT (RIGHT) IRS IN THE NAV MODE ILS RECEIVER, M156 (M158) (MM 34-21-00/501).(MM 34-31-01/401).PUSH AND HOLD THE TEST SWITCH ON THE LEFT (RIGHT) ILS RECEIVER. DOES THE GREEN "LRU STATUS PASS" LIGHT COME ON AT THE END OF THE TEST (AFTER APPROXI-MATELY 5 SECONDS)? RELEASE THE TEST SWITCH ON THE LEFT (RIGHT) RECEIVER. YES YES 2 REMOVE LEFT (RIGHT) EFIS 22 REPLACE THE LEFT (RIGHT) SYMBOL GENERATOR, M148 (M150) EFIS SYMBOL GENERATOR, M148 (MM 34-22-01/401).(M150)(MM 34-22-01/401).MAKE SURE THE DATA BUS FROM THE LEFT (RIGHT) ILS RECEIVER IS ACTIVE AT THE LEFT (RIGHT) EFIS SYMBOL GENERATOR, CONNECTOR D81B (D83D), PINS C4 AND D4 (WDM 34-22-19,-29). IS THE BUS ACTIVE? 23 REMOVE THE LEFT (RIGHT) ILS RECEIVER, M156 (M158) (MM 34-31-01/401). EXAMINE AND REPAIR THE DATA BUS CIR-CUIT FROM THE LEFT (RIGHT) ILS RECEIVER, CONNECTOR D203B (D205B), PINS B11 AND C11 TO THE LEFT (RIGHT) EFIS SYMBOL GENERATOR, CONNECTOR D81A (D83A), PINS C4 AND D4 (WDM 34-22-19,-29).INSTALL THE ILS RECEIVER. INSTALL THE LEFT (RIGHT) EFIS

G/S and LOC Flags in View on Capt (F/O) EHSI & EADI Figure 105 (Sheet 1)

34-31-00

SYMBOL GENERATOR, M148 (M150)

(MM 34-22-01/401).

04

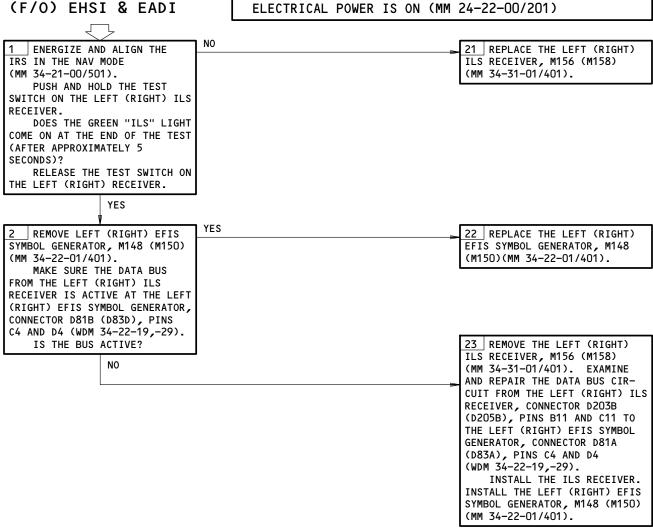
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MAKE SURE THESE SYSTEMS WILL OPERATE:
IRS (MM 34-21-00/501)
EFIS (MM 34-22-00/501)

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11E10,11E31

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



G/S and LOC Flags in View on Capt (F/O) EHSI & EADI Figure 105 (Sheet 2)

GUI 001, 009, 115

G/S AND LOC FLAGS

IN VIEW ON CAPT

34-31-00

04

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MAKE SURE THESE SYSTEMS WILL OPERATE: IRS (MM 34-21-00/501) EFIS (MM 34-22-00/501)

MAKE SURE THIS CIRCUIT BREAKER IS CLOSED: 11E10,11E31

MAKE SURE THE AIRPLANE IS IN THE CONFIGURATION THAT FOLLOWS:

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

EHSI AND EADI —
BOTH G/S AND LOC
DEV POINTERS
MISSING (NCD)

1 ENERGIZE AND ALIGN THE IRS IN THE NAV MODE (MM 34-21-00/501).

REPLACE THE ILS CONTROL PANEL, M87 (MM 34-31-02/401).

IF THE PROBLEM CONTINUES, REMOVE THE ILS CONTROL PANEL. REMOVE THE LEFT (RIGHT) ILS RECEIVER (MM 34-31-01/401). EXAMINE AND REPAIR THE DATA BUS CIRCUIT FROM THE ILS CONTROL PANEL, CONNECTOR D269 (D273), PINS 14 AND 13 TO THE LEFT (RIGHT) ILS RECEIVER, CONNECTOR D203B(D205B), PINS B13 AND C13 (WDM 34-31-11,-21).

INSTALL THE ILS CONTROL PANEL AND THE ILS RECEIVER.

Capt (F/O) EHSI & EADI - Both G/S and LOC Dev Pointers Missing (NCD) Figure 106

EFFECTIVITY

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MAKE SURE THIS SYSTEM WILL OPERATE:
STANDBY ATTITUDE REFERENCE SYSTEM (MM 34-24-00/501)

MAKE SURE THIS CIRCUIT BREAKER IS CLOSED: 11A3

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

FAULTY STANDBY ATTITUDE INDICATOR OPERATION

NO 1 PUSH AND HOLD THE TEST 11 REPLACE THE CENTER ILS RECEIVER, M157 SWITCH ON THE CENTER ILS RECEIVER. (MM 34-31-01/401).DOES THE GREEN "LRU STATUS-PASS" LIGHT COME ON AT THE END OF THE TEST (AFTER APPROXIMATELY 6 SECONDS)? RELEASE THE TEST SWITCH ON THE CENTER RECEIVER. YES YES 2 REMOVE THE STATIC INVER-12 REPLACE THE STATIC INVER-TOR/ILS PROCESSOR, M917 TOR/ILS PROCESSOR, M917 (MM 34-24-02/401).(MM 34-24-02/401).MAKE SURE THE DATA BUS IF THE PROBLEM CONTINUES, FROM THE CENTER ILS RECEIVER REMOVE THE STANDBY ATTITUDE IS ACTIVE AT THE STATIC INVER-INDICATOR, M20 TOR/ILS PROCESSOR, CONNECTOR (MM 34-24-01/401).D447A, PINS A1 AND B1 (WDM 34-24-11). IS THE BUS ACTIVE? NO

REMOVE THE CENTER ILS

RECEIVER, M157
(MM 34-31-01/401). EXAMINE
AND REPAIR THE DATA BUS CIRCUIT FROM THE CENTER ILS
RECEIVER, CONNECTOR D207B,
PINS B11 AND C11 TO THE STATIC
INVERTOR/ILS PROCESSOR, CONNECTOR D447A, PINS A1 AND B1
(WDM 34-24-11).
INSTALL THE ILS RECEIVER.
INSTALL THE STATIC
INVERTOR/ILS PROCESSOR, M917
(MM 34-24-02/401).

Faulty Standby Attitude Indicator Operation Figure 107 (Sheet 1)

GUI 002-008, 010-114, 116-999

34-31-00

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MAKE SURE THIS SYSTEM WILL OPERATE: STANDBY ATTITUDE REFERENCE SYSTEM (MM 34-24-00/501)

MAKE SURE THIS CIRCUIT BREAKER IS CLOSED: 11A3

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

FAULTY STANDBY ATTITUDE INDICATOR OPERATION

NO 1 PUSH AND HOLD THE TEST 11 REPLACE THE CENTER ILS RECEIVER, M157 SWITCH ON THE CENTER ILS RECEIVER. (MM 34-31-01/401).DOES THE GREEN "ILS" LIGHT COME ON AT THE END OF THE TEST (AFTER APPROXIMATELY 6 SECONDS)? RELEASE THE TEST SWITCH ON THE CENTER RECEIVER. YES YES 2 REMOVE THE STATIC INVER-12 REPLACE THE STATIC INVER-TOR/ILS PROCESSOR, M917 TOR/ILS PROCESSOR, M917 (MM 34-24-02/401).(MM 34-24-02/401).MAKE SURE THE DATA BUS IF THE PROBLEM CONTINUES, FROM THE CENTER ILS RECEIVER REPLACE THE STANDBY ATTITUDE INDICATOR, M20 IS ACTIVE AT THE STATIC INVER-TOR/ILS PROCESSOR, CONNECTOR (MM 34-24-01/401).D447A, PINS A1 AND B1 (WDM 34-24-11).IS THE BUS ACTIVE? 13 REMOVE THE CENTER ILS RECEIVER, M157 NO (MM 34-31-01/401). EXAMINE AND REPAIR THE DATA BUS CIR-CUIT FROM THE CENTER ILS

Faulty Standby Attitude Indicator Operation Figure 107 (Sheet 2)

GUI 001, 009, 115

A31681

34-31-00

RECEIVER, CONNECTOR D207B, PINS B11 AND C11 TO THE STATIC INVERTOR/ILS PROCESSOR, CON-NECTOR D447A, PINS A1 AND B1

(WDM 34-24-11).



MAKE SURE THESE SYSTEMS WILL OPERATE: STANDBY ATTITUDE REFERENCE SYSTEM (AMM 34-24-00/501)

MAKE SURE THIS CIRCUIT BREAKER IS CLOSED: 11A3

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

STBY ATT - BOTH DEV POINTERS MISSING (NCD)

REPLACE THE ILS CONTROL PANEL, M87 (AMM 34-31-02/401).

IF THE PROBLEM CONTINUES, REMOVE THE ILS CONTROL PANEL. REMOVE THE CENTER ILS RECEIVER

(AMM 34-31-01/401). REPAIR THE DATA BUS CIRCUIT, AS NECESSARY, FROM THE ILS CONTROL PANEL CONNECTOR D271, PINS 13 AND 14 TO THE CENTER ILS RECEIVER, CONNECTOR D207B, PINS B13 AND C13 (WDM 34-31-31).

INSTALL THE ILS CONTROL PANEL. INSTALL THE CENTER ILS RECEIVER.

Stby Att - Both Dev Pointers Missing (NCD) Figure 108

EFFECTIVITY----

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MAKE SURE THESE SYSTEMS WILL OPERATE: STANDBY ATTITUDE REFERENCE SYSTEM (AMM 34-24-00/501)

MAKE SURE THIS CIRCUIT BREAKER IS CLOSED:

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

LOC (G/S) DEV POINTER MISSING ON STBY ATT IND

1 REMOVE THE CENTER ILS
RECEIVER, M157
(AMM 34-31-01/401).
DO THIS PROCEDURE:
ANTENNA CABLE CHECK PROCEDURE
(AMM 20-10-32/201) AT THE
CENTER ILS RECIEVER, CONNECTOR
D207C, PINS 1 AND C1-LOC
(PINS 5 AND C5-G/S)
(WDM 34-31-31).
IS THE ANTENNA CIRCUIT OK?

YES

Z INSTALL THE CENTER ILS RECEIVER, M157 (AMM 34-31-01/401). REPLACE THE CENTER DUAL G/S ANTENNA, M249 (AMM 34-31-03/ 401; 34-31-04/401).

NO

REPLACE THE LOC (G/S)

ANTENNA CIRCUIT FROM THE
CENTER ILS RECEIVER, CONNECTOR
D207C, PINS 1 AND C1
(PINS 5,C5), TO THE CENTER
DUAL LOC (G/S) ANTENNA,
CONNECTOR D199 (D201), PINS A1
AND C1 (WDM 34-31-31).
INSTALL THE CENTER ILS
RECEIVER, M157
(AMM 34-31-01/401).

Loc (G/S) Dev Pointer Missing on Stby Att Ind Figure 109

34-31-00

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55638



MAKE SURE THESE SYSTEMS WILL OPERATE: IRS (AMM 34-21-00/501) EFIS (AMM 34-22-00/501)

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11E10, 11E31

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

1 ALIGN THE IRS IN THE NAV MODE (AMM 34-21-00/501). SET THE FRONT CRS DISPLAY ON THE ILS CONTROL PANEL TO THE SAME HEADING AS SHOWN ON

YES

LOC DEV POINTER

NOT DISPLAYED

THE LEFT (RIGHT) EHSI.

PUSH AND HOLD THE TEST
SWITCH ON THE LEFT (RIGHT) ILS
RECEIVER.

IS THE LCD SCREEN BLANK?

1A DOES THE RED "LRU STATUS-FAIL" LIGHT COME ON AT THE END OF THE TEST (AFTER APPROXI-MATELY 5 SECONDS)? RELEASE THE TEST SWITCH.

NO.

20 REPLACE THE LEFT (RIGHT)
ILS RECEIVER, M156 (M158)
(AMM 34-31-01/401).

20A REPLACE THE LEFT (RIGHT)
ILS RECEIVER, M156 (M158)
(AMM 34-31-01/401).

21 REPLACE THE LEFT (RIGHT)
ILS RECEIVER, M156 (M158)
(AMM 34-31-01/401).

IF THE PROBLEM CONTINUES, REMOVE THE LEFT (RIGHT) ILS RECEIVER.

DO THE ANTENNA CABLE CHECK
PROCEDURE (AMM 20-10-32/201)
AT THE LEFT (RIGHT) ILS
RECEIVER, CONNECTOR D203C
(D205C), PINS 1 AND C1.
IF THE LOCALIZER ANTENNA

IF THE LOCALIZER ANTENNA
CIRCUIT IS NOT OK, REPAIR OR
REPLACE THE ANTENNA CIRCUIT
FROM THE LEFT (RIGHT) ILS
RECEIVER, CONNECTOR D203C
(D205C), PINS 1 AND C1, TO THE
LEFT/RIGHT DUAL LOCALIZER
ANTENNA, CONNECTOR D191
(D195), PINS A1 AND C1
(WDM 34-31-11,-21).
IF THE LOCALIZER ANTENNA

IF THE LOCALIZER ANTENNA CIRCUIT IS OK, REPLACE THE LEFT/RIGHT DUAL LOCALIZER ANTENNA, M248 (AMM 34-31-03/401).

INSTALL THE LEFT (RIGHT) ILS RECEIVER.

LOC Dev Pointer Not Displayed Figure 110 (Sheet 1)

34-31-00

05

Page 121 May 28/01



MAKE SURE THESE SYSTEMS WILL OPERATE: IRS (AMM 34-21-00/501) EFIS (AMM 34-22-00/501)

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11E10,11E31

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

LOC DEV POINTER NOT DISPLAYED

ALIGN THE IRS IN THE NAV
MODE (AMM 34-21-00/501).
SET THE FRONT CRS DISPLAY
ON THE ILS CONTROL PANEL TO
THE SAME HEADING AS SHOWN ON
THE LEFT (RIGHT) EHSI.
PUSH AND HOLD THE TEST
SWITCH ON THE LEFT (RIGHT) ILS
RECEIVER.

DOES THE RED "ILS" LIGHT COME ON AT THE END OF THE TEST (AFTER APPROXIMATELY 5 SECONDS)?

NO

RELEASE THE TEST SWITCH.

20 REPLACE THE LEFT (RIGHT)
ILS RECEIVER, M156 (M158)

21 REPLACE THE LEFT (RIGHT)
ILS RECEIVER, M156 (M158)
(AMM 34-31-01/401).

(AMM 34-31-01/401).

IF THE PROBLEM CONTINUES, REMOVE THE LEFT (RIGHT) ILS RECEIVER.

DO THE ANTENNA CABLE CHECK
PROCEDURE (AMM 20-10-32/201)
AT THE LEFT (RIGHT) ILS
RECEIVER, CONNECTOR D203C
(D205C), PINS 1 AND C1.
IF THE LOCALIZER ANTENNA

IF THE LOCALIZER ANTENNA
CIRCUIT IS NOT OK, REPAIR OR
REPLACE THE ANTENNA CIRCUIT
FROM THE LEFT (RIGHT) ILS
RECEIVER, CONNECTOR D203C
(D205C), PINS 1 AND C1, TO THE
LEFT/RIGHT DUAL LOCALIZER
ANTENNA, CONNECTOR D191
(D195), PINS A1 AND C1
(WDM 34-31-11,-21).

IF THE LOCALIZER ANTENNA CIRCUIT IS OK, REPLACE THE LEFT/RIGHT DUAL LOCALIZER ANTENNA, M248 (AMM 34-31-03/401).

INSTALL THE LEFT (RIGHT)
ILS RECEIVER.

LOC Dev Pointer Not Displayed Figure 110 (Sheet 2)

34-31-00

03

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MAKE SURE THESE SYSTEMS WILL OPERATE: IRS (AMM 34-21-00/501) EFIS (AMM 34-22-00/501)

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11E10,11E31

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

NOTE: THE GLIDESLOPE DEVIATION POINTER DOES NOT SHOW ON THE EADI AND EHSI (ILS MODE), WHEN THESE CONDITIONS OCCUR:

- THE DIFFERENCE BETWEEN THE AIRPLANE TRACK ANGLE AND THE RUNWAY HEADING IS GREATER THAN 90 DEGREES
- THE BACKCOURSE IS SET.

G/S DEV POINTER NOT DISPLAYED

YES 1 | ALIGN THE IRS IN THE NAV 20 REPLACE THE LEFT (RIGHT) ILS RECEIVER, M156 (M158) MODE (AMM 34-21-00/501) SET THE FRONT CRS DISPLAY ON THE (AMM 34-31-01/401).ILS CONTROL PANEL TO THE SAME HEADING AS SHOWN ON THE LEFT 21 REPLACE THE LEFT (RIGHT) (RIGHT) EHSI. ILS RECEIVER, M156 (M158) SET THE MODE SWITCH ON THE (AMM 34-31-01/401). STANDBY ATTITUDE/ILS INDICATOR IF THE PROBLEM CONTINUES, TO THE "ILS" POSITION. REMOVE THE LEFT (RIGHT) ILS PUSH AND HOLD THE TEST RECEIVER. SWITCH ON THE LEFT (RIGHT) ILS DO THE ANTENNA CABLE CHECK RECEIVER. PROCEDURE (AMM 20-10-32/201) IS THE LCD SCREEN BLANK? AT THE LEFT (RIGHT) ILS RECEIVER, CONNECTOR D203C NO (D2O5C), PINS 5 AND C5. IF THE G/S ANTENNA CIRCUIT NO 1A DOES THE RED "LRU STATUS-IS NOT OK, REPAIR OR REPLACE FAIL" LIGHT COME ON AT THE END THE ANTENNA CIRCUIT FROM THE OF THE TEST (AFTER APPROXI-LEFT (RIGHT) ILS RECEIVER, MATELY 5 SECONDS)? CONNECTOR D203C (D205C), PINS 5 AND C5, TO THE LEFT/RIGHT RELEASE THE TEST SWITCH. DUAL G/S ANTENNA CONNECTOR YES D193 (D197), PINS A1 AND C1, (WDM 34-31-11,-21). IF THE G/S ANTENNA CIRCUIT IS OK, REPLACE THE LEFT/RIGHT DUAL G/S ANTENNA, M250 (AMM 34-31-03/401. INSTALL THE LEFT (RIGHT) ILS RECEIVER. 21A REPLACE THE LEFT (RIGHT) ILS RECEIVER, M156 (M158) (AMM 34-31-01/401).

G/S Dev Pointer Not Displayed Figure 111 (Sheet 1)

GUI 002-008, 010-114, 116-999

34-31-00

02

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MAKE SURE THESE SYSTEMS WILL OPERATE: IRS (AMM 34-21-00/501) EFIS (AMM 34-22-00/501)

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11E10,11E31

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

NOTE: THE GLIDESLOPE DEVIATION POINTER DOES NOT SHOW ON THE EADI AND EHSI (ILS MODE), WHEN THESE CONDITIONS OCCUR:

- THE DIFFERENCE BETWEEN THE AIRPLANE TRACK ANGLE AND THE RUNWAY HEADING IS GREATER THAN 90 DEGREES.
- THE BACKCOURSE IS SET.

G/S DEV POINTER NOT DISPLAYED

YES 1 | ALIGN THE IRS IN THE NAV 20 REPLACE THE LEFT (RIGHT) MODE (AMM 34-21-00/501) SET ILS RECEIVER, M156 (M158) THE FRONT CRS DISPLAY ON THE (AMM 34-31-01/401).ILS CONTROL PANEL TO THE SAME HEADING AS SHOWN ON THE LEFT (RIGHT) EHSI. SET THE MODE SWITCH ON THE STANDBY ATTITUDE/ILS INDICATOR TO THE "ILS" POSITION. PUSH AND HOLD THE TEST SWITCH ON THE LEFT (RIGHT) ILS NO RECEIVER. 21 REPLACE THE LEFT (RIGHT) DOES THE RED "ILS" LIGHT ILS RECEIVER, M156 (M158) (AMM 34-31-01/401). COME ON AT THE END OF THE TEST (AFTER APPROXIMATELY 5 IF THE PROBLEM CONTINUES, REMOVE THE LEFT (RIGHT) ILS SECONDS)? RELEASE THE TEST SWITCH. RECEIVER. DO THE ANTENNA CABLE CHECK PROCEDURE (AMM 20-10-32/201) AT THE LEFT (RIGHT) ILS RECEIVER, CONNECTOR D203C (D205C), PINS 5 AND C5. IF THE G/S ANTENNA CIRCUIT IS NOT OK, REPAIR OR REPLACE THE ANTENNA CIRCUIT FROM THE LEFT (RIGHT) ILS RECEIVER, CONNECTOR D203C (D205C), PINS 5 AND C5, TO THE LEFT/RIGHT DUAL G/S ANTENNA CONNECTOR D193 (D197), PINS A1 AND C1, (WDM 34-31-11,-21). IF THE G/S ANTENNA CIRCUIT IS OK, REPLACE THE LEFT/RIGHT DUAL G/S ANTENNA, M250 (AMM 34-31-03/401. INSTALL THE LEFT (RIGHT) ILS RECEIVER.

G/S Dev Pointer Not Displayed Figure 111 (Sheet 2)

GUI 001, 009, 115

34-31-00

01

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1. ARINC Data Bus Charts

A. General

<u>CAUTION</u>: DO NOT DIRECTLY TOUCH THE CONNECTORS. USE A BREAKOUT BOX OR YOU CAN CAUSE DAMAGE TO THE CONNECTORS.

(1) The ARINC 429 data bus charts give data necessary to make an analysis of ARINC 429 transmitters, receivers, and data buses. For the test, use a breakout box at the available terminal or at the LRU connectors.

B. Equipment

- (1) Standard multi-meter
- (2) 429EBP Data Bus Analyzer (recommended) JcAIR Instrumentation 400 Industrial Parkway Industrial Airport, KS 66031

429-2 Data Bus Analyzer (alternative) Interface Technology 150 E. Arrow Highway San Dimas, CA 91773

(3) A34011-1 Breakout Box (recommended)
A34011-112 Breakout Box (alternative)

	ILS										
DIGITAL OUTPUT BUS CHART											
	BUS NAME		CON	PINS	BUS	BIT	DATA				
	SOURCE	TYPE	BUS			FORMAT	RATE	BUS			
ILS	(LCR)	Α	1	В	в07 с07	429	LO	ILS OUTPUT #1			
ILS	(LCR)	Α	2	В	B11 C11	429	LO	ILS OUTPUT #2			

EFFECTIVITY-



	ILS ID = 010										
OCTAL LABELS CHART											
SIGNAL	SIGNAL TYPE LABEL FORMAT WIN UPDATE SDI BINARY POSITIVE UNITS RATE SENSE										
SEL RUNWAY HDG-D	Α	017	BCD	5	00	0-359	ALWAYS POS	DEG			
ILS FREQUENCY	Α	033	BCD	5	00	108-111.95	ALWAYS POS	MHZ			
LOCALIZER DEV	Α	173	BNR	16	00	+ 4	FLY RIGHT	DDM			
GLIDESLOPE DEV	Α	174	BNR	16	00	+8	FLY DOWN	DDM			

ILS								
DISCRETE OCTAL LABELS/BIT CHART								
SIGNAL	OCTAL LABEL	BIT	ONE-STATE	ZERO-STATE				
TUNE INHIBIT	173	11	INHIBIT	NORMAL				
TUNE INHIBIT	174	11	INHIBIT	NORMAL				

EFFECTIVITY-

ALL

34-31-00



	ILS CP										
DIGITAL OUTPUT BUS CHART											
BUS NAME							ΡI	NS	BUS	BIT	DATA
	SOURCE			TYPE	BUS				FORMAT	RATE	BUS
ILSCP	(С)	Α	1		14	13	429	LO	ILS FREQ-L
ILSCP	(С)	Α	2		14	13	429	LO	ILS FREQ-R
ILSCP	(С)	Α	3		14	13	429	LO	ILS FREQ-C

ILS CP ID = OBO											
OCTAL LABELS CHART											
SIGNAL TYPE LABEL FORMAT UPDATE SDI BINARY POSITIVE UNITS											
SEL RUNWAY HDG-D	Α	017	BCD	5	00	0-359	CW FROM N	DEG			
ILS FREQUENCY	Α	033	BCD	5	00	108-111.95	ALWAYS POS	MHZ			
DME FREQUENCY	Α	035	BCD	5	00	108-135.95	ALWAYS POS	MHZ			

EFFECTIVITY-



MARKER BEACON SYSTEM

COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	AMM REFERENCE
ANTENNA - MARKER BEACON, M243	1	1	BOTTOM FWD FUSELAGE	34-32-01
CIRCUIT BREAKER -	1		FLT COMPT, P11	
VOR MKR LEFT, C595		1	11A2	*
LIGHT - CAPT INNER MKR BEACON LT ASSY, L237	1	1	FLT COMPT, P1	*
LIGHT - CAPT MIDDLE MKR BEACON LT ASSY, L238	1	1	FLT COMPT, P1	*
LIGHT - CAPT OUTER MKR BEACON LT ASSY, L239	1	1	FLT COMPT, P1	*
LIGHT - F/O INNER MKR BEACON LT ASSY, L240	1	1	FLT COMPT, P3	*
LIGHT - F/O MIDDLE MKR BEACON LT ASSY, L241	1	1	FLT COMPT, P3	*
LIGHT - F/O OUTER MKR BEACON LT ASSY, L242 PANEL - (REF 23-51-00, FIG. 101)	1	1	FLT COMPT, P3	*
CAPT AUDIO SELECTOR, M70				
F/O AUDIO SELECTOR, M71				
OBS AUDIO SELECTOR, M98				
SUPERNUMERATOR AUDIO SELECTOR, M10216 3				
RECEIVER - VOR/MKR L, M186	2	1	822, AFT CARGO COMPT, E6-1 1 ; 119BL, MAIN EQUIP CTR, E3-2 2	34-51-01
UNIT - (FIM 31-31-00/101)			,	
DIGITAL FLIGHT DATA ACQUISITION, M138 4				

^{*} SEE THE WDM EQUIPMENT LIST

1 AIRPLANES WITH RECEIVER IN AFT EQUIPMENT CENTER > AIRPLANES WITH RECEIVER IN MAIN EQUIPMENT CENTER > AIRPLANES WITH SUPERNUMERTOR 4 AIRPLANES WITH DFDAU

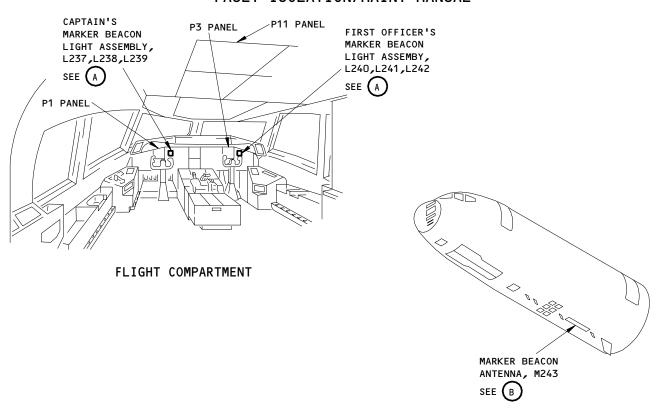
> Marker Beacon System - Component Index Figure 101

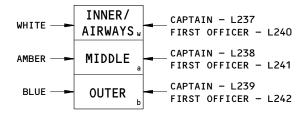
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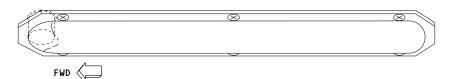
FAULT ISOLATION/MAINT MANUAL





MARKER BEACON LIGHTS





MARKER BEACON ANTENNA, M243



Marker Beacon System - Component Location Figure 102 (Sheet 1)

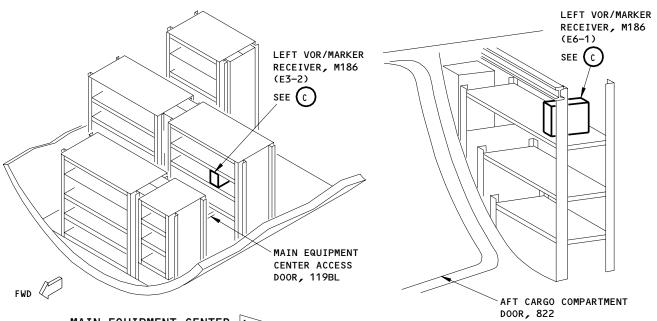
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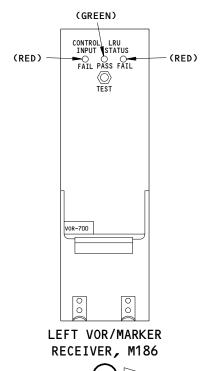


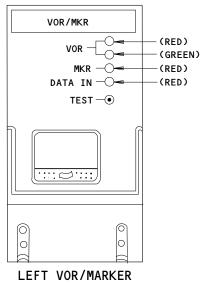
FAULT ISOLATION/MAINT MANUAL



MAIN EQUIPMENT CENTER 1

AFT EQUIPMENT CENTER 2





RECEIVER, M186



- > AIRPLANES WITH RECEIVER IN MAIN EQUIPMENT CENTER
- AIRPLANES WITH RECEIVER IN AFT EQUIPMENT CENTER
- AIRPLANES WITH COLLINS -700 SERIES RECEIVERS
- > AIRPLANES WITH ALLIEDSIGNAL RVA-36A SERIES RECEIVERS

Marker Beacon System - Component Location Figure 102 (Sheet 2)

EFFECTIVITY-ALL

34-32-00

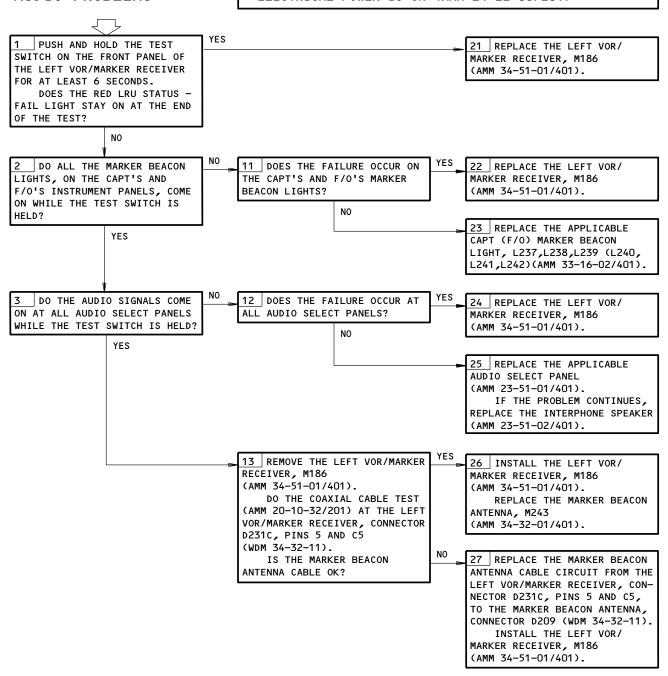
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MARKER BEACON LIGHTS AND/OR AUDIO PROBLEMS MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11A2,11C25,11C26,11G29,11G30,11P2

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



Marker Beacon Lights and/or Audio Problems Figure 103 (Sheet 1)

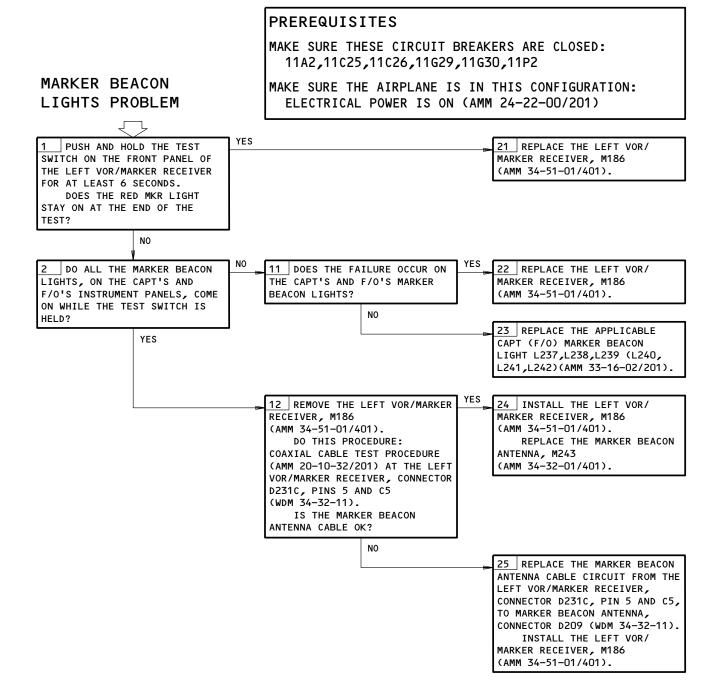
EFFECTIVITY
AIRPLENES WITH VOR-700 SERIES
RECEIVERS

34-32-00

03

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Marker Beacon Lights Problem Figure 103 (Sheet 2)

AIRPLANES WITH RVA-36A SERIES RECEIVERS

34-32-00



RADIO ALTIMETER SYSTEM

	FIG. 102			
COMPONENT	SHT	QTY	ACCESS/AREA	REFERENCE
ANTENNA - RADIO ALTIMETER RECEIVER, M253, M255,M257		3	BOTTOM FORWARD FUSELAGE	34-33-02
ANTENNA - RADIO ALTIMETER TRANSMITTER, M252,M254,M256		3	BOTTOM FORWARD FUSELAGE	34-33-02
CIRCUIT BREAKERS -			FLT COMPT, P11	
RAD ALTM CENTER, C602		1	11F20	*
RAD ALTM LEFT, C600		1	11F5	*
RAD ALTM RIGHT, C601		1	11F26	*
INDICATOR - (REF 34-22-00, FIG. 101) LEFT ELEX ATTITUDE DIRECTION, N4				
RIGHT ELEX ATTITUDE DIRECTION, N44				
PANEL - (REF 34-22-00, FIG. 101)				
LEFT EFIS CONTROL, M94				
RIGHT EFIS CONTROL, M93				
RELAY - (REF 31-01-36, FIG. 101)				
SYS NO. 1 AIR/GND, K167				
SYS NO. 2 AIR/GND, K143				
SYS NO. 2 AIR/GND, K214				
SYMBOL GENERATOR - (REF 34-22-00, FIG. 101)				
CENTER EFIS, M149				
LEFT EFIS, M148				
RIGHT EFIS, M150				
TRANSMITTER/RECEIVER - CENTER RAD ALTM, M204		1	821, FWD CARGO COMPARTMENT E5 RACK ACCESS PANEL, E5-3	34-33-02
TRANSMITTER/RECEIVER - LEFT RAD ALTM, M202		1	821, FWD CARGO COMPARTMENT E5 RACK ACCESS PANEL, E5-1	34-33-02
TRANSMITTER/RECEIVER - RIGHT RAD ALTM, M203		1	821, FWD CARGO COMPARTMENT E5 RACK ACCESS PANEL, E5-2	34-33-02

^{*} SEE THE WDM EQUIPMENT LIST

Radio Altimeter System - Component Index Figure 101

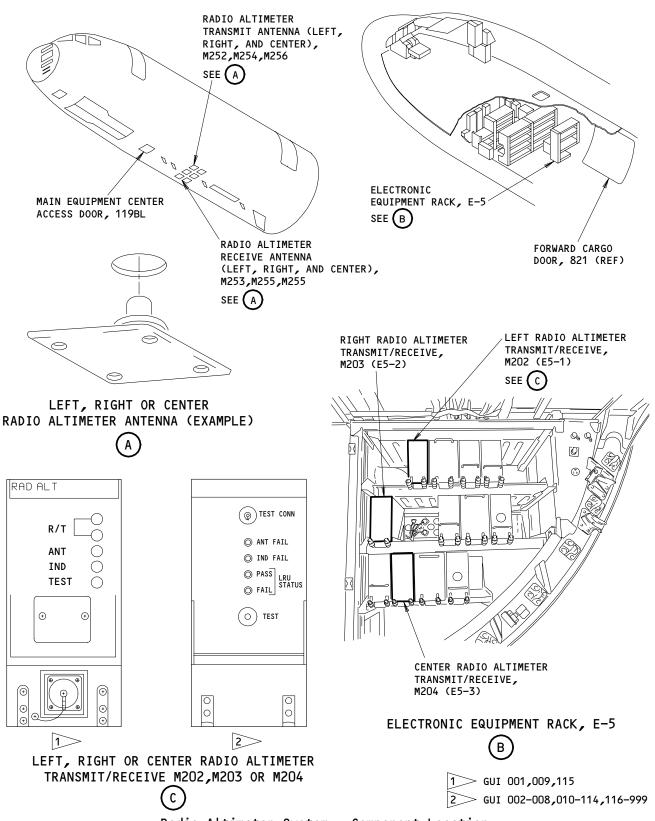
EFFECTIVITY-

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34-33-00



FAULT ISOLATION/MAINT MANUAL



Radio Altimeter System - Component Location Figure 102

ALL

34-33-00

13

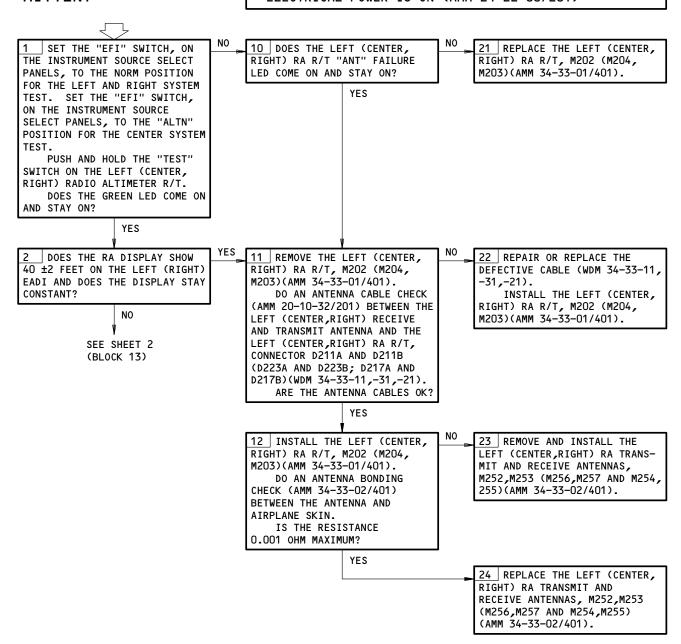
Page 102 Dec 20/96

A44560

RADIO ALTITUDE HEIGHT ON THE CAPT (F/O) EADI IS INACCURATE, INTER-MITTENT MAKE SURE THIS SYSTEM WILL OPERATE: EFIS (AMM 34-22-00/501)

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11F5,11F20,11F26

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



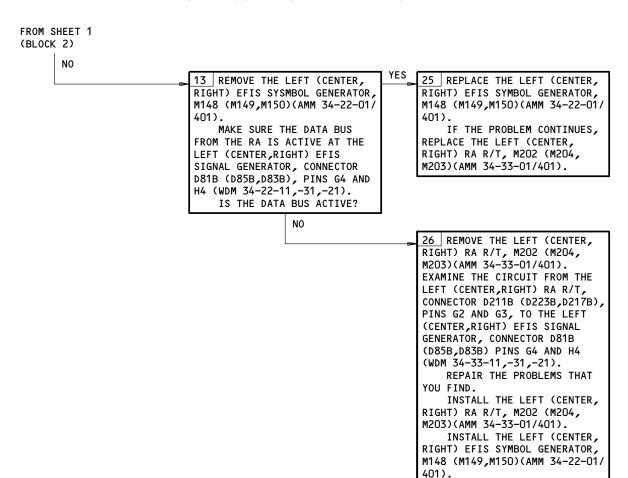
Radio Altitude Height on the Capt (F/O) EADI Is Inaccurate, Intermittent Figure 103 (Sheet 1)

ALL

O2 Page 103

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Radio Altitude Height on the Capt (F/O) EADI is Inaccurate, Intermittent Figure 103 (Sheet 2)

EFFECTIVITY-ALL

34-33-00

01

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MAKE SURE THIS SYSTEM WILL OPERATE: EFIS (AMM 34-22-00/501)

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11F5,11F20,11F26

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

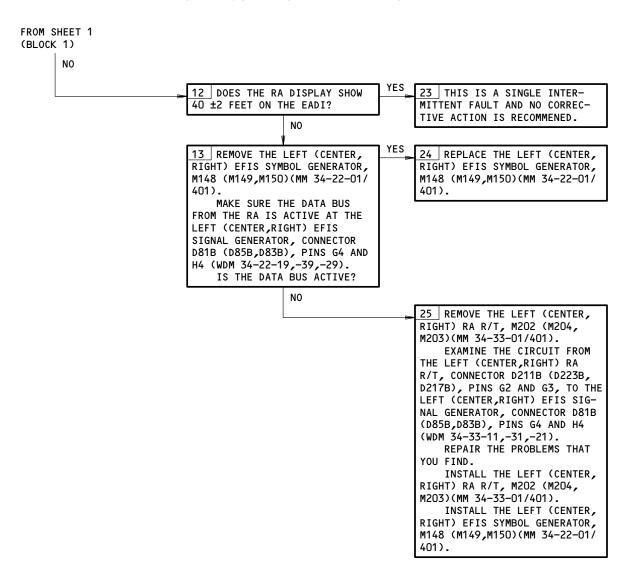
RA FLAG DISPLAYED ON CAPT (F/O) EADI

10 DOES THE LEFT (CENTER, SET THE "EFIS" SWITCH, ON 20 REPLACE THE LEFT (CENTER, THE INSTRUMENT SOURCE SELECT RIGHT) RA R/T "ANT" LED COME RIGHT) RA R/T, M202 (M204, PANELS, TO THE NORM POSITION M203)(AMM 34-33-01/401). ON? FOR THE LEFT AND RIGHT SYSTEM YES TEST. SET THE "EFI" SWITCH, ON THE INSTRUMENT SOURCE SELECT PANELS, TO THE "ALTN" 11 REMOVE THE LEFT (CENTER, 21 REPLACE THE LEFT (CENTER, POSITION FOR THE CENTER SYSTEM RIGHT) RA R/T, M202 (M204, RIGHT) RA R/T, M202 (M204, M203)(AMM 34-33-01/401). M203)(AMM 34-33-01/401). PUSH AND HOLD THE "TEST" DO AN ANTENNA CABLE CHECK REPLACE THE LEFT (CENTER, SWITCH ON THE LEFT (CENTER, (AMM 20-10-32/201) BETWEEN THE RIGHT) RA TRANSMIT AND RECEIVE RIGHT) RADIO ALTIMETER R/T. LEFT (CENTER, RIGHT) RECEIVE ANTENNAS, M252, M253 (M256, DOES THE RED LED COME ON AND TRANSMIT ANTENNA AND THE M257; M254,M255)(AMM 34-33-02/ AND STAY ON? LEFT (CENTER, RIGHT) RA R/T, 401). CONNECTOR D211A AND D211B N0 (D223A AND D223B; D217A AND D217B)(WDM 34-33-11,-31,-21). SEE SHEET 2 ARE THE ANTENNA CABLES OK? (BLOCK 12) NO 22 REPAIR OR REPLACE THE BAD CABLE (WDM 34-33-11,-21, -31).INSTALL THE LEFT (CENTER, RIGHT) RA R/T, M202 (M204, M203)(AMM 34-33-01/401).

> RA Flag Displayed on Capt (F/O) EADI Figure 104 (Sheet 1)

ALL

34-33-00



RA Flag Displayed on Capt (F/O) EADI Figure 104 (Sheet 2)

34-33-00

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MAKE SURE THIS SYSTEM WILL OPERATE: EFIS (MM 34-22-00/501)

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11F5,11F20,11F26

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

DH FLAG DISPLAYED ON CAPT (F/O) EADI

SET THE MODE SWITCH, ON 11 REMOVE THE LEFT (RIGHT) 21 REPLACE THE LEFT (RIGHT) THE LEFT (RIGHT) EFIS CONTROL EFIS SYMBOL GENERATOR, M148 EFIS SYMBOL GENERATOR, M148 PANEL, TO THE "MAP" POSITION. (M150)(MM 34-22-01/401).(M150)(MM 34-22-01/401).IS THE MAP MODE SHOWN ON MAKE SURE THE DATA BUS THE EHSI DISPLAY? FROM THE EFIS CONTROL PANEL IS ACTIVE AT THE LEFT (RIGHT) YES EFIS SIGNAL GENERATOR, CON-NECTOR D81A (D83D), PINS E5 AND F5 (WDM 34-22-14,-24). IS THE DATA BUS ACTIVE? NO 22 REMOVE THE LEFT (RIGHT) EFIS CONTROL PANEL, M94 (M93) (MM 34-22-02/401). EXAMINE THE CIRCUIT FROM THE LEFT (RIGHT) EFIS CONTROL PANEL, CONNECTOR D95 (D97), PINS 35 AND 36, TO THE LEFT (RIGHT) EFIS SIGNAL GENERATOR, CONNECTOR D81A (83D), PINS E5 AND F54 (WDM 34-22-14,-24). REPAIR THE PROBLEMS THAT YOU FIND. INSTALL THE LEFT (RIGHT) EFIS CONTROL PANEL, M94 (M93) (MM 34-22-01/401).INSTALL THE LEFT (RIGHT) EFIS SYMBOL GENERATOR, M148 (M150)(MM 34-22-01/401). 23 REPLACE LEFT (RIGHT) EFIS CONTROL PANEL, M94 (M93) (MM 34-22-02/401).

DH Flag Displayed on Capt (F/O) EADI Figure 105

ALL

34-33-00

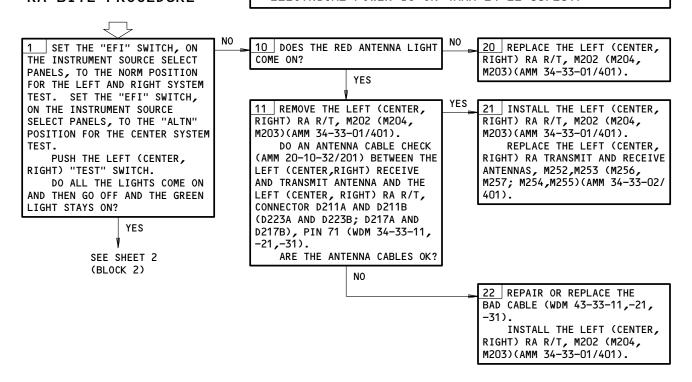


MAKE SURE THIS SYSTEM WILL OPERATE: EFIS (AMM 34-22-00/501)

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11F5,11F20,11F26

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

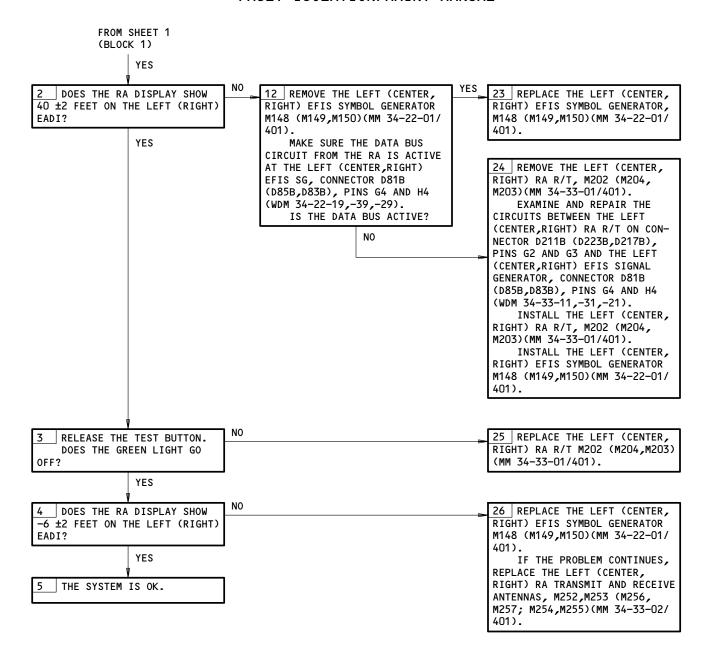
RA BITE PROCEDURE



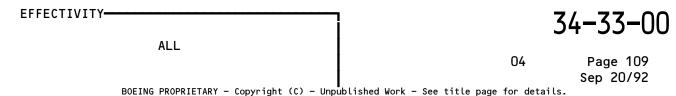
RA BITE Procedure Figure 105A (Sheet 1)

EFFECTIVITY-ALL

34-33-00



RA BITE Procedure Figure 105A (Sheet 2)





1. ARINC Data Bus Charts

A. General

<u>CAUTION</u>: DO NOT DIRECTLY TOUCH THE CONNECTORS. USE A BREAKOUT BOX OR YOU CAN CAUSE DAMAGE TO THE CONNECTORS.

- (1) The ARINC 429 data bus charts give data necessary to make an analysis of ARINC 429 transmitters, receivers, and data buses. For the test, use a breakout box at the available terminal or at the LRU connectors.
- B. Equipment
 - (1) Standard multi-meter
 - (2) 429EBP Data Bus Analyzer (recommended) JcAIR Instrumentation 400 Industrial Parkway Industrial Airport, KS 66031

429-2 Data Bus Analyzer (alternative) Interface Technology 150 E. Arrow Highway San Dimas, CA 91773

(3) A34011-1 Breakout Box (recommended)
A34011-112 Breakout Box (alternative)

	RA											
	DIGITAL OUTPUT BUS CHART											
BUS NAME						PINS	BUS	BIT	DATA			
	SOURCE		TYPE	BUS			FORMAT	RATE	BUS			
RA	(LCR))	Α	1	В	B02 B03	429	LO	ALTITUDE #1			
RA	(LCR))	Α	2	В	G02 G03	429	LO	ALTITUDE #2			

EFFECTIVITY-

34-33-00

ALL

80

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RA ID=07											
OCTAL LABELS CHART											
SIGNAL	TYPE	LABEL	FORMAT	MIN UPDATE RATE	SDI	BINARY RANGE	POSITIVE SENSE	UNITS			
RADIO HEIGHT	А	164	BNR	20	XX	+-8192	ABOVE TOUCHDN	FEET			
RADIO HEIGHT-D	А	165	BCD	5	XX	+-7999.9	ABOVE TOUCHDN	FEET			

			RA					
DISCRETE OCTAL LABELS/BIT CHART								
SIGNAL	OCTAL LABEL	BIT	ONE-STATE	ZERO-STATE				
TEST INHIBITED	164	11	INHIBIT	NOT INHIBIT				

EFFECTIVITY-

ALL

34-33-00



WEATHER RADAR SYSTEM

COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	AMM REFERENCE
ANTENNA - WEATHER RADAR, M269 ASSEMBLY - WAVEGUIDE CIRCUIT BREAKER - WX RADAR, C615 PANEL - WEATHER RADAR CONTROL, M75 PANEL - (FIM 34-22-00/101) LEFT EFIS CONT PNL, M94 RIGHT EFIS CONT PNL, M93 SWITCH - (FIM 34-22-00/101) LEFT IRS, P1	2 2 1	1 1 1 1	111AL, NOSE RADOME 113AL, FWD BULKHEAD FLT COMPT, P11 11F2 FLT COMPT, P8	34-43-05 34-43-04 * 34-43-02
TRANSCEIVER - WEATHER RADAR, M213	2	1	113AL, FWD EQUIP CTR	34-43-01

^{*} SEE THE WDM EQUIPMENT LIST

Weather Radar System - Component Index Figure 101

EFFECTIVITY-

ALL

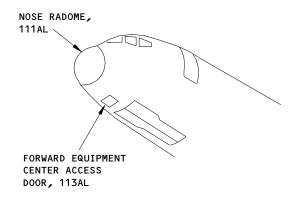
34-43-00

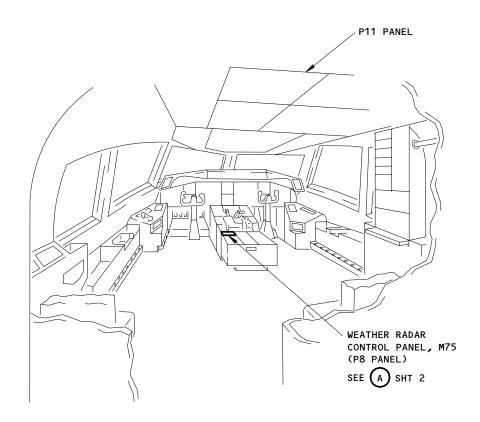
01

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E45912







FLIGHT COMPARTMENT

Weather Radar System - Component Location Figure 102 (Sheet 1)

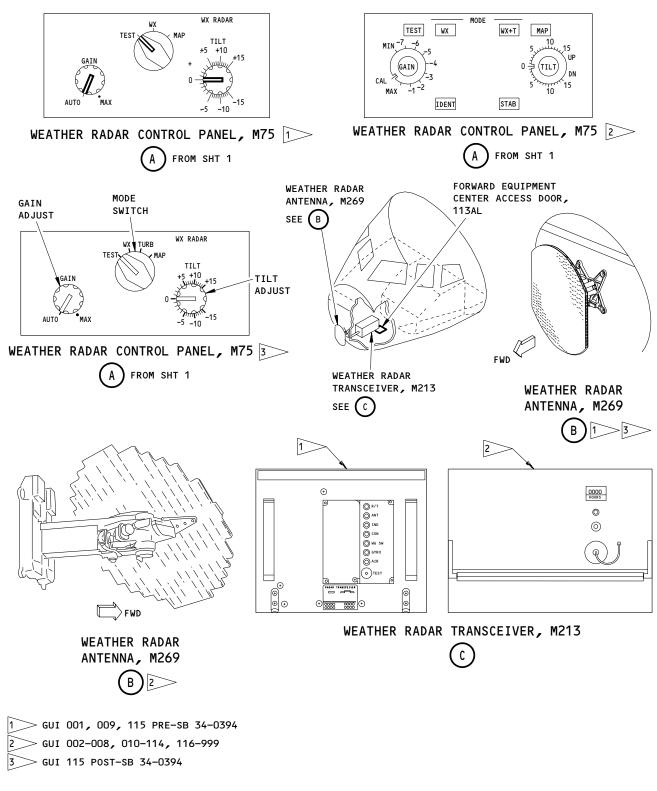
EFFECTIVITY ALL

34-43-00

01

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Weather Radar System - Component Location Figure 102 (Sheet 2)

MAKE SURE THESE SYSTEMS WILL OPERATE:
IRS (MM 34-21-00/501)
EFIS (MM 34-22-00/501)
WXR (MM 34-43-00/501)
FMCS (MM 34-61-00/501

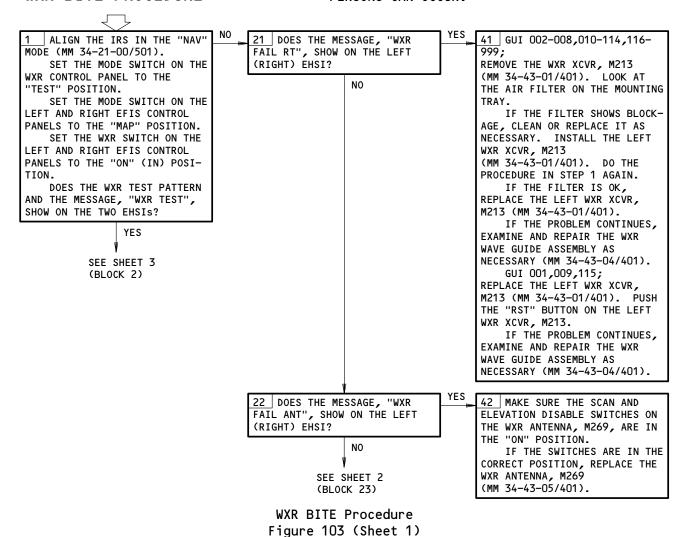
MAKE SURE THIS CIRCUIT BREAKER IS CLOSED: 11F2

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

WARNING:

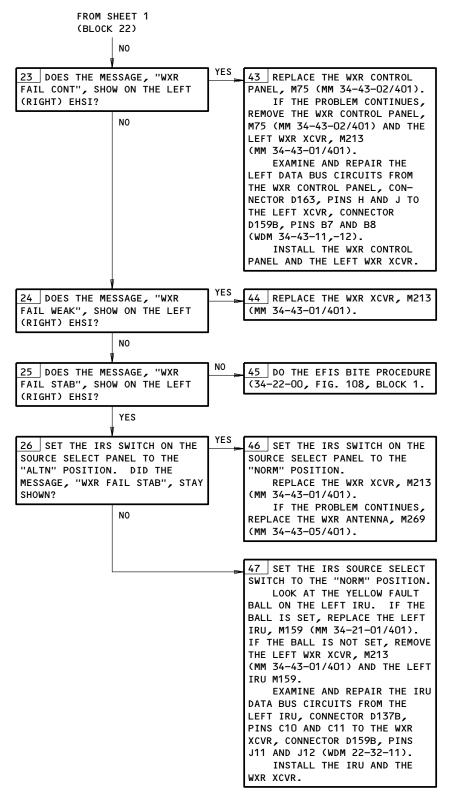
WHEN YOU DO THE BITE TEST, MAKE SURE YOU SET THE WXR CONTROL PANEL TO A NON-RADIATING TEST MODE OR OBEY THE PRECAUTIONS FOR WXR OPERATION IN A RADIATING MODE. IF YOU DO NOT DO ONE OF THESE ALTERNATIVES, INJURY TO PERSONS CAN OCCUR.

WXR BITE PROCEDURE



EFFECTIVITY-

ALL



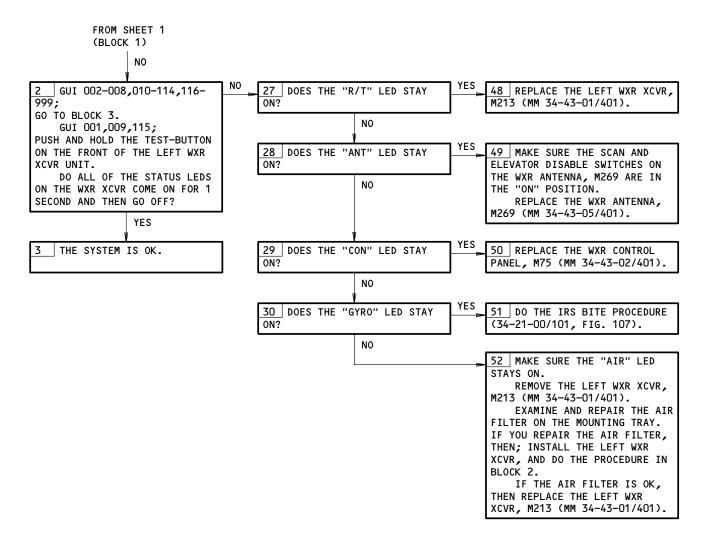
WXR BITE Procedure Figure 103 (Sheet 2)

EFFECTIVITY-ALL

34-43-00

01

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WXR BITE Procedure Figure 103 (Sheet 3)

986412



PREREQUISITES

MAKE SURE THESE SYSTEMS WILL OPERATE:
IRS (AMM 34-21-00/501)
EFIS (AMM 34-22-00/501)
WXR (AMM 34-43-00/501)
FMCS (AMM 34-61-00/501)

MAKE SURE THIS CIRCUIT BREAKER IS CLOSED: 11F2

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

WARNING: DO NOT OPERATE WEATHER RADAR IN A HANGAR

OR WITHIN 50 FEET OF ANY PERSONNEL. THESE CONDITIONS CAN CAUSE INJURY TO PERSONNEL.

WARNING: DO NOT OPERATE THE WEATHER RADAR WITHIN

50 FEET OF A FUEL SPILL OR OPEN FUEL CELLS. OPERATION OF THE WEATHER RADAR WITHIN THE 50 FEET LIMIT CAN CAUSE A FIRE OR EXPLOSION. A FIRE OR EXPLOSION CAN CAUSE SERIOUS INJURY OR DEATH TO PERSONS

AND CAUSE DAMAGE TO EQUIPMENT.

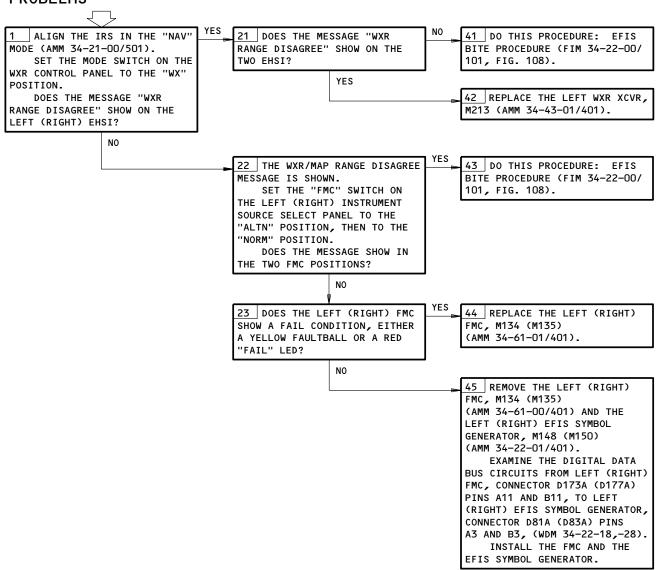
WXR Range Disagree Problems Figure 103A (Sheet 1)

EFFECTIVITY-

34-43-00



WXR RANGE DISAGREE PROBLEMS



WXR Range Disagree Problems Figure 103A (Sheet 2)



1. <u>Visual Check</u>

A. Procedure

- (1) Do a visual check of the weather radar LRUs below and make sure that the LRUs have no damage or missing hardware and that the mount screws are tight.
 - (a) R/T mount
 - (b) Antenna drive assembly
 - (c) Antenna planar array
 - (d) Antenna
 - (e) Control Panel
- (2) Make sure the R/T hold-down screws are tight.
- (3) Make sure the system electrical connectors are connected correctly.
- (4) Make sure the waveguide connection to the antenna drive assembly is attached correctly.
- (5) Make sure there are no dirt or foreign objects in the waveguide drain hole.

NOTE: The drain hole may be checked when there is a suspected problem with R/T sensitivity or the weather radar display is blank.

2. ARINC Data Bus Charts

A. General

<u>CAUTION</u>: DO NOT DIRECTLY TOUCH THE CONNECTORS. USE A BREAKOUT BOX OR YOU CAN CAUSE DAMAGE TO THE CONNECTORS.

- (1) The ARINC 429 data bus charts give data necessary to make an analysis of ARINC 429 transmitters, receivers, and data buses. For the test, use a breakout box at the available terminal or at the LRU connectors.
- B. Equipment
 - (1) Standard multi-meter
 - (2) 429EBP Data Bus Analyzer (recommended) JcAIR Instrumentation 400 Industrial Parkway Industrial Airport, KS 66031

429-2 Data Bus Analyzer (alternative) Interface Technology 150 E. Arrow Highway San Dimas, CA 91773

(3) A34011-1 Breakout Box (recommended) A34011-112 Breakout Box (alternative)

EFFECTIVITY-

34-43-00



						WXR	СР							
DIGITAL OUTPUT BUS CHART														
BUS NAME					CON	P:	INS			BUS	BIT		DATA	
SOURCE		TYI	PE	BUS					F	ORMAT	RATE		BUS	
WXR CP(L)		А		1	D395	5	UF		4	29	L0		OUTPUT	BUS L
SPARE		А		2	D395	5	HJ		4	29	LO		OUTPUT	BUS R
l						_ • • • • • • • • • • • • • • • • • • •						<u> </u>		I I
GAIN	Α	270)	BNF	2	10		00		N/A		N/A		dB
TILT	Α	270)	BNF	2	10		00		+-15		UP		DEG
L			L		1									
STABILIZATION ON		270		13	co	DED		1						
MAP		270	1	6-14	4 CC	DED	0′	10						
TEST		270	1	6-14	4 CC	DED	10	00						
WEATHER		270	1	6-14	+ cc	DED	00	01						

ALL ALL

34-43-00



TRAFFIC ALERT AND COLLISION AVOIDANCE SYSTEM (TCAS)

COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	AMM REFERENCE
ANTENNA - BOTTOM TCAS, M10821 ANTENNA - TOP TCAS, M10820 CIRCUIT BREAKER - TCAS, C4443 COMPUTER - (FIM 31-41-00/101) EICAS LEFT, M10181 EICAS RIGHT, M10182 COMPUTER - (FIM 34-46-00/101)	1 1	1 1 1	BOTTOM OF FUSELAGE TOP OF FUSELAGE FLIGHT COMPARTMENT, P11 11F3	34-45-02 34-45-02 *
GROUND PROXIMITY, M147 COMPUTER - TCAS, M10819 INDICATOR - (FIM 34-22-00/101) LEFT ELECTRONIC HORIZONTAL SITUATION, N5 RIGHT ELECTRONIC HORIZONTAL SITUATION, N45 LEFT VERTICAL SPEED, N9 RIGHT VERTICAL SPEED, N49 INTERROGATOR - (FIM 34-55-00/101) LEFT DME, M123 RIGHT DME, M124 MODULE - (FIM 31-51-00/101) LEFT SIREN/OWL (AURAL WARNING), M999 RIGHT SIREN/OWL (AURAL WARNING), M619 MODULE - (FIM 32-30-00/101)	2	1	119BL, MAIN EQUIP CENTER, E2-1	34-45-01
LANDING GEAR LEVER, M937 PANEL - ATC CONTROL, M10140 RELAY - (FIM 31-01-36/101) SYS NO. 1 AIR/GND, K143 RELAY - (FIM 31-01-37/101) SYS NO. 2 AIR/GND, K201 SWITCH - (FIM 34-12-00/101) LEFT ADC, S482 RIGHT ADC, S483 SWITCH - (FIM 34-21-00/101) IRS SOURCE SELECT, S12 TRANSPONDER - (FIM 34-53-00/101) LEFT ATC, M10141 RIGHT ATC, M10142	2	1	FLIGHT COMPARTMENT, P8	34-53-02

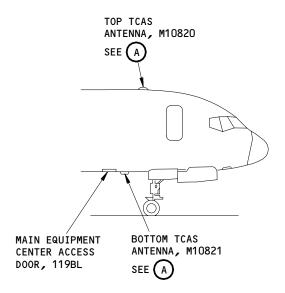
^{*} SEE THE WDM EQUIPMENT LIST

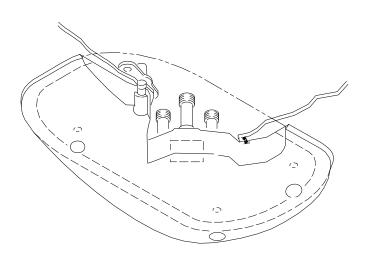
Traffic Alert and Collision Avoidance System (TCAS) - Component Index Figure 101

EFFECTIVITY-AIRPLANES WITH COLLINS TCAS

34-45-00 CONFIG 1 Page 101 Sep 20/95







BOTTOM OR TOP TCAS ANTENNA, M10821 OR M10820



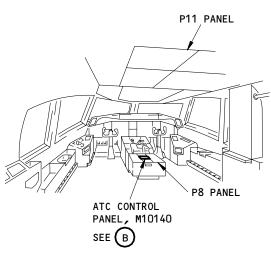
Traffic Alert and Collision Avoidance System (TCAS) - Component Location Figure 102 (Sheet 1)

AIRPLANES WITH COLLINS TCAS

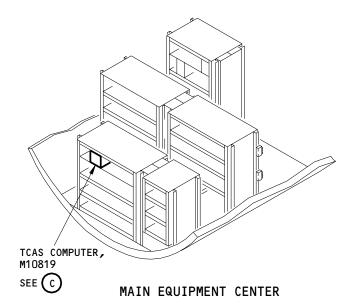
34-45-00 CONFIG 1 Page 102 Sep 20/95

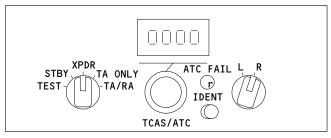
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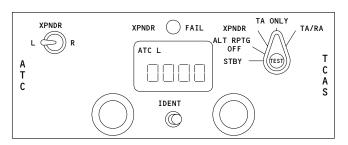
FLIGHT COMPARTMENT





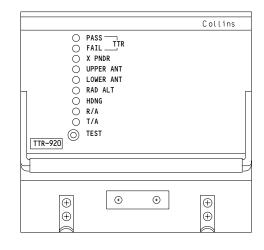
TCAS/ATC CONTROL PANEL, M10140





ATC CONTROL PANEL, M10140





TCAS COMPUTER, M10819

1>> ILF 224,524

> ILF 523

Traffic Alert and Collision Avoidance System (TCAS) - Component Location Figure 102 (Sheet 2)

EFFECTIVITY-AIRPLANES WITH COLLINS TCAS

34-45-00 CONFIG

01

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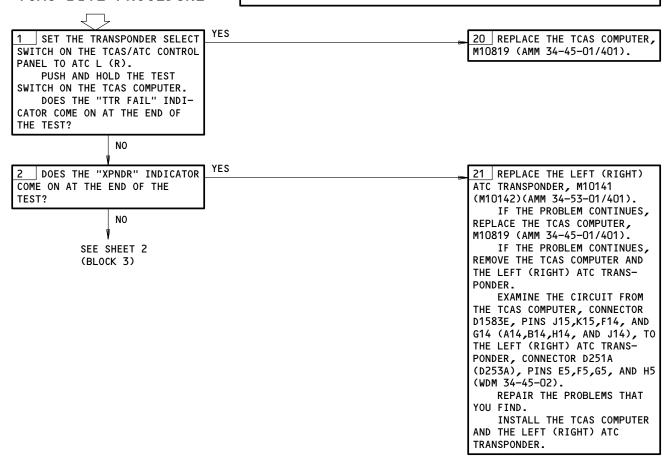
PREREQUISITES

MAKE SURE THESE SYSTEMS WILL OPERATE: ADC SYSTEM (AMM 34-12-00/501) ATC SYSTEM (AMM 34-53-00/501)

MAKE SURE THIS CIRCUIT BREAKER IS CLOSED: 11F3, TCAS

MAKE SURE THE AIRPLANE IS IN THIS CONFIGURATION: ELECTRICAL POWER IS ON (AMM 24-22-00/201) ALIGN IRS (AMM 34-21-00/201)

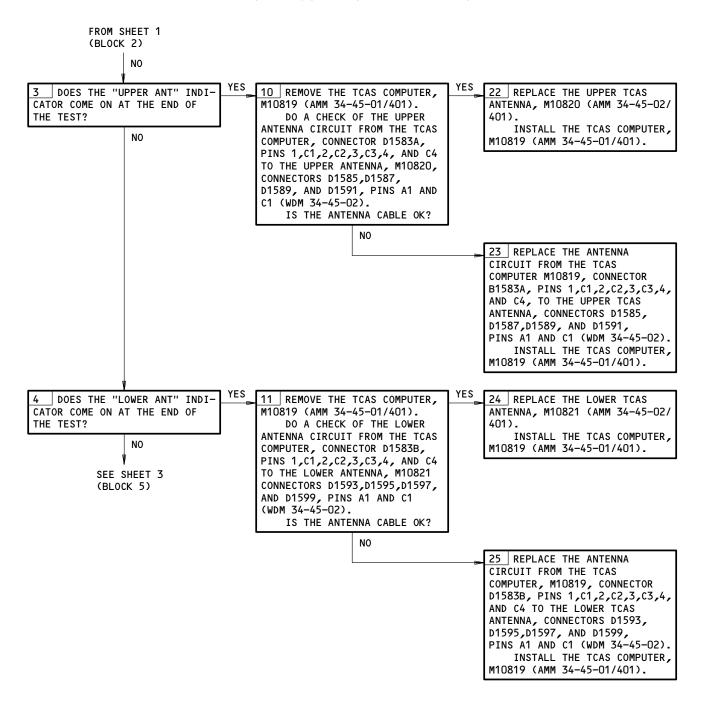
TCAS BITE PROCEDURE



TCAS BITE Procedure Figure 103 (Sheet 1)

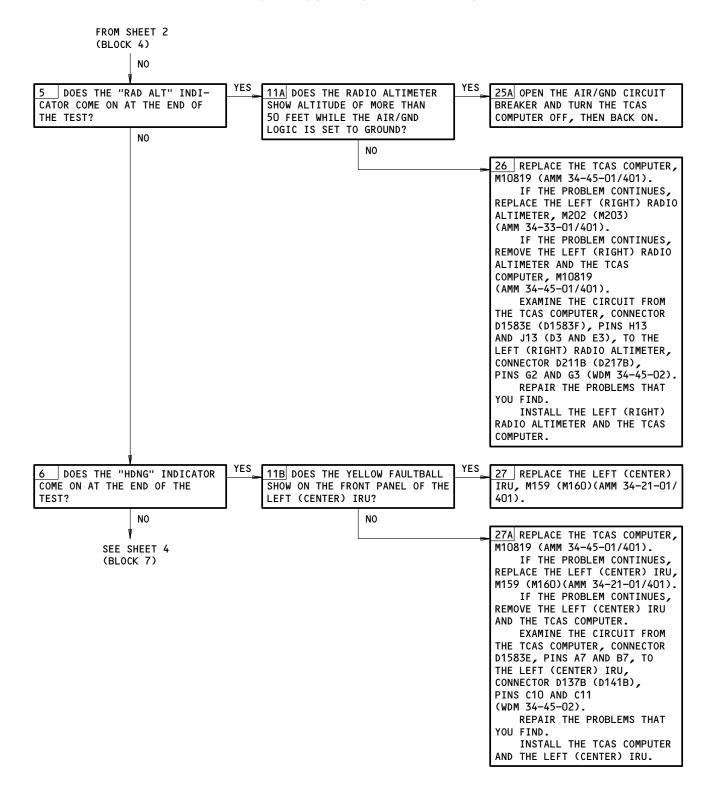
34-45-00 CONFIG 1 Page 104 Sep 20/95

01



TCAS BITE Procedure Figure 103 (Sheet 2)

34-45-00 config 1



TCAS BITE Procedure Figure 103 (Sheet 3)

AIRPLANES WITH COLLINS TCAS

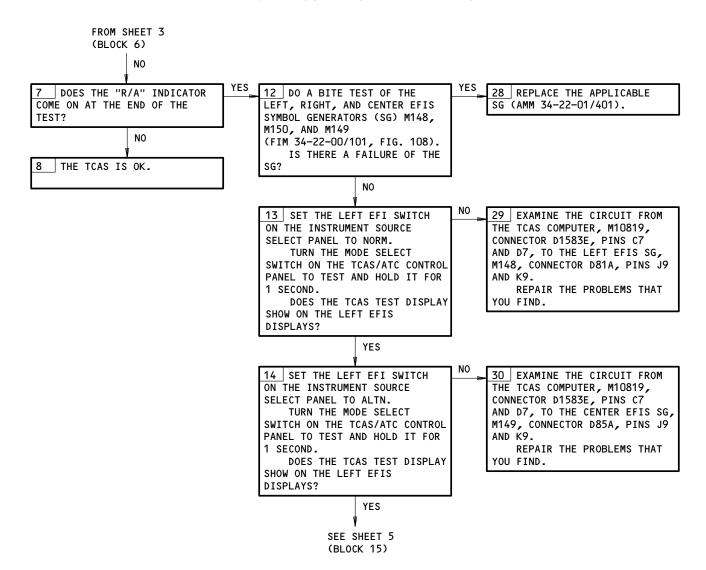
34-45-00

CONFIG 1

Page 106

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TCAS BITE Procedure Figure 103 (Sheet 4)

34-45-00 CONFIG 1 Page 107 Sep 20/95

FROM SHEET 4 (BLOCK 14) YES 15 SET THE RIGHT EFI SWITCH 31 EXAMINE THE CIRCUIT FROM THE TCAS COMPUTER, M10819, ON THE INSTRUMENT SOURCE CONNECTOR D1583E, PINS G7 SELECT PANEL TO NORM. TURN THE MODE SELECT AND H7, TO THE RIGHT EFIS SG, SWITCH ON THE TCAS/ATC CONTROL M150, CONNECTOR D83E, PINS J9 PANEL TO TEST AND HOLD IT FOR AND K9. REPAIR THE PROBLEMS THAT DOES THE TCAS TEST DISPLAY YOU FIND. SHOW ON THE RIGHT EFIS DISPLAYS? YES 16 SET THE RIGHT EFI SWITCH 32 EXAMINE THE CIRCUIT FROM ON THE INSTRUMENT SOURCE THE TCAS COMPUTER, M10819, CONNECTOR D1583E, PINS C7 SELECT PANEL TO ALTN. TURN THE MODE SELECT AND D7, TO THE CENTER EFIS SG, SWITCH ON THE TCAS/ATC CONTROL M149, CONNECTOR D85D, PINS J9 PANEL TO TEST AND HOLD IT FOR AND K9. 1 SECOND. REPAIR THE PROBLEMS THAT DOES THE TCAS TEST DISPLAY YOU FIND. SHOW ON THE RIGHT EFIS DISPLAYS? YES 33 REPLACE THE TCAS COMPUTER, M10819 (AMM 34-45-01/401). IF THE PROBLEM CONTINUES. EXAMINE THE CIRCUIT FROM THE TCAS COMPUTER, M10819, CONNECTOR D1583E, PIN C14, TO THE LEFT EFIS SG, M148, CONNECTOR D81E, PIN E11, AND THE CENTER EFIS SG, M149, CONNECTOR D85E, PIN E11. REPAIR THE PROBLEMS THAT YOU FIND. IF THE PROBLEM CONTINUES, EXAMINE THE CIRCUIT FROM THE TCAS COMPUTER, M10819, CONNECTOR D1583E, PIN E13, TO THE RIGHT EFIS SG, M150, CONNECTOR D83E, PIN G11, AND THE CENTER EFIS SG, M149, CONNECTOR D85E, PIN G11. REPAIR THE PROBLEMS THAT YOU FIND.

TCAS BITE Procedure Figure 103 (Sheet 5)

EFFECTIVITY-AIRPLANES WITH COLLINS TCAS

34-45-00 CONFIG



PREREQUISITES

MAKE SURE THESE SYSTEMS WILL OPERATE:

ADC SYSTEM (AMM 34-12-00/501)

ATC SYSTEM (AMM 34-53-00/501)

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

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED:

11B16, WARN SPKR L

11B18, WARN ELEX B

11F3, TCAS

11H35, WARN SPKR R

11J33, WARN ELEX A

MAKE SURE THE AIRPLANE IS IN THIS CONFIGURATION: ELECTRICAL POWER IS ON (AMM 24-22-00/201) ALIGN IRS (AMM 34-21-00/201)

TCAS VOICE ADVISORY ALERT FAILURE

1 HOLD THE MODE SWITCH ON
THE ATC CONTROL PANEL TO THE
TEST POSITION FOR ABOUT
1 SECOND.
DOES THE COCKPIT SPEAKERS
OR HEADSET VOICED "TCAS
SYSTEM TEST OK"?

YES

2 THE TCAS VOICE ADVISORY
ALERT IS OK.

20 REPLACE THE TCAS COMPUTER,
M10819 (AMM 34-45-01/401).

IF THE PROBLEM CONTINUES,
REPLACE THE LEFT AURAL WARNING
SIREN/OWL MODULE, M999.

EXAMINE THE CIRCUIT FROM
THE TCAS COMPUTER, CONNECTOR
D1583F, PINS F3 AND G3, TO THE
LEFT AURAL WARNING SIREN/OWL
MODULE, CONNECTOR D901,
PINS 62 AND 63.

REPAIR THE PROBLEMS THAT
YOU FIND.

TCAS Voice Advisory Alert Failure Figure 104

AIRPLANES WITH COLLINS TCAS

34-45-00 CONFIG 1



1. ARINC Data Bus Charts

A. General

<u>CAUTION</u>: DO NOT DIRECTLY TOUCH THE CONNECTORS. USE A BREAKOUT BOX OR YOU CAN CAUSE DAMAGE TO THE CONNECTORS.

(1) The ARINC 429 data bus charts give data necessary to make an analysis of ARINC 429 transmitters, receivers, and data buses. For the test, use a breakout box at the available terminal or at the LRU connectors.

B. Equipment

- (1) Standard multi-meter
- (2) 429EBP Data Bus Analyzer (recommended) JCAIR Instrumentation 400 Industrial Parkway Industrial Airport, KS 66031

429-2 Data Bus Analyzer (alternative) Interface Technology 150 E. Arrow Highway San Dimas, CA 91773

(3) A34011-1 Breakout Box (recommended) A34011-112 Breakout Box (alternative)

TCAS COMPUTER											
DIGITAL OUTPUT BUS CHART											
BUS NAME					BUS	ВІТ					
SOURCE	TYPE	BUS	CON	PINS	FORMAT		DATA BUS				
TCAS	Α	1	RMP	15J 15K	429	HI	COORDINATION DATA				
TCAS	Α	2	RMP	14A 14B	429	HI	COORDINATION DATA				
TCAS	Α	1	RMP	7C 7D	429	HI	TA/RA DISPLAY #1				
TCAS	Α	2	RMP	7G 7H	429	HI	TA/RA DISPLAY #2				

AIRPLANES WITH COLLINS TCAS

34-45-00



TCAS COMPUTER ID=035											
OCTAL LABELS CHART											
SIGNAL	TYPE	LABEL	FORMAT	MIN UPDATE RATE	SDI	BINARY RANGE	POSITIVE SENSE	UNITS			
INTRUDER ALTITUDE	Α	131	BCD	2	00	± 12,700	N/A	FEET			
INTRUDER BEARING	Α	132	BCD	2	00	± 180	N/A	DEGREES			
INTRUDER RANGE	Α	130	BCD	2	00	128	N/A	NM			
OWN AIRCRAFT ALT	Α	203	BCD	2	00	131,072	N/A	FEET			

 34-45-00 CONFIG 1 Page 111 Dec 20/96



TRAFFIC ALERT AND COLLISION AVOIDANCE SYSTEM (TCAS)

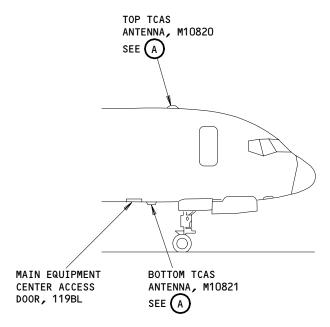
COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	AMM REFERENCE
ANTENNA - BOTTOM TCAS, M10821 ANTENNA - TOP TCAS, M10820 CIRCUIT BREAKER - TCAS, C4443 COMPUTER - (FIM 31-41-00/101) EICAS LEFT, M10181 EICAS RIGHT, M10182 COMPUTER - (FIM 34-46-00/101)	1 1	1 1 1	BOTTOM OF FUSELAGE TOP OF FUSELAGE FLIGHT COMPARTMENT, P11 11F3	34-45-02 34-45-02 *
GROUND PROXIMITY, M147 COMPUTER - TCAS, M10819 INDICATOR - (FIM 34-22-00/101) LEFT ELECTRONIC HORIZONTAL SITUATION, N5 LEFT VERTICAL SPEED, N9 RIGHT ELECTRONIC HORIZONTAL SITUATION, N45 RIGHT VERTICAL SPEED, N49 INTERROGATOR - (FIM 34-55-00/101) LEFT DME, M123 RIGHT DME, M124 MODULE - (FIM 31-51-00/101) LEFT SIREN/OWL (AURAL WARNING), M999 RIGHT SIREN/OWL (AURAL WARNING), M619 MODULE - (FIM 32-30-00/101)	2	1	119BL, MAIN EQUIP CENTER, E2-1	34-45-01
LANDING GEAR LEVER, M937 PANEL - ATC CONTROL, M10140 RELAY - (FIM 31-01-36/101) SYS NO. 1 AIR/GND, K143 RELAY - (FIM 31-01-37/101) SYS NO. 2 AIR/GND, K201 SWITCH - (FIM 34-12-00/101) LEFT ADC, S482 RIGHT ADC, S483 SWITCH - (FIM 34-21-00/101) IRS SOURCE SELECT, S12 TRANSPONDER - (FIM 34-53-00/101) LEFT ATC, M10141 RIGHT ATC, M10142	2	1	FLIGHT COMPARTMENT, P8	34–53–02

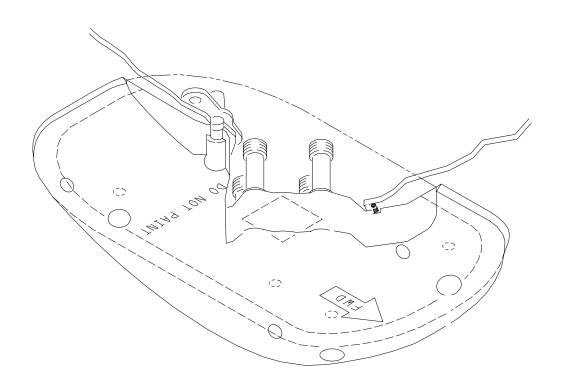
^{*} SEE THE WDM EQUIPMENT LIST

Traffic Alert and Collision Avoidance System (TCAS) - Component Index Figure 101

EFFECTIVITY-AIRPLANES WITH RT-950 TCAS 34-45-00 CONFIG 2 Page 101







BOTTOM OR TOP TCAS ANTENNA, M10821 OR M10820

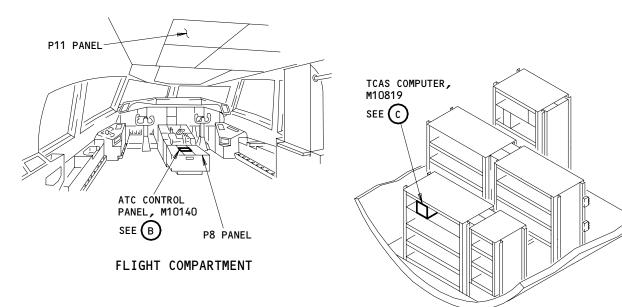


Traffic Alert and Collision Avoidance System (TCAS) - Component Location Figure 102 (Sheet 1)

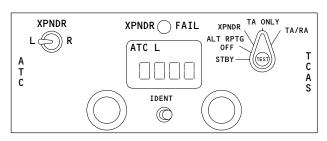
AIRPLANES WITH RT-950 TCAS

34-45-00 CONFIG 2 Page 102



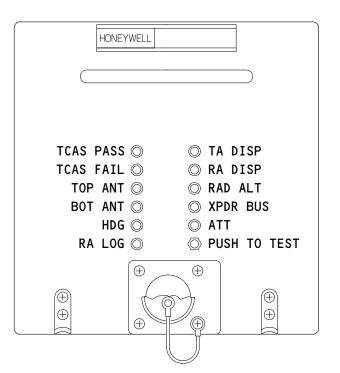


MAIN EQUIPMENT CENTER



TCAS/ATC CONTROL PANEL, M10140

(B)



TCAS COMPUTER, M10819



Traffic Alert and Collision Avoidance System (TCAS) - Component Location Figure 102 (Sheet 2)

34-45-00 CONFIG 2 Page 103

Jan 28/02



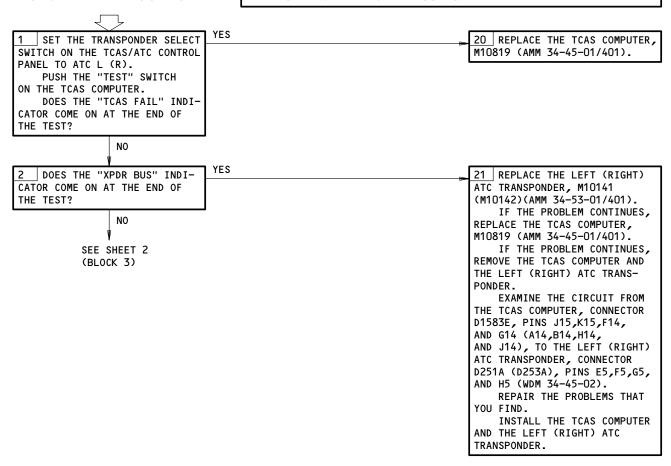
PREREQUISITES

MAKE SURE THESE SYSTEMS WILL OPERATE: ADC SYSTEM (AMM 34-12-00/501) ATC SYSTEM (AMM 34-53-00/501)

MAKE SURE THIS CIRCUIT BREAKER IS CLOSED: 11F12, TCAS

MAKE SURE THE AIRPLANE IS IN THIS CONFIGURATION: ELECTRICAL POWER IS ON (AMM 24-22-00/201) ALIGN IRS (AMM 34-21-00/201)

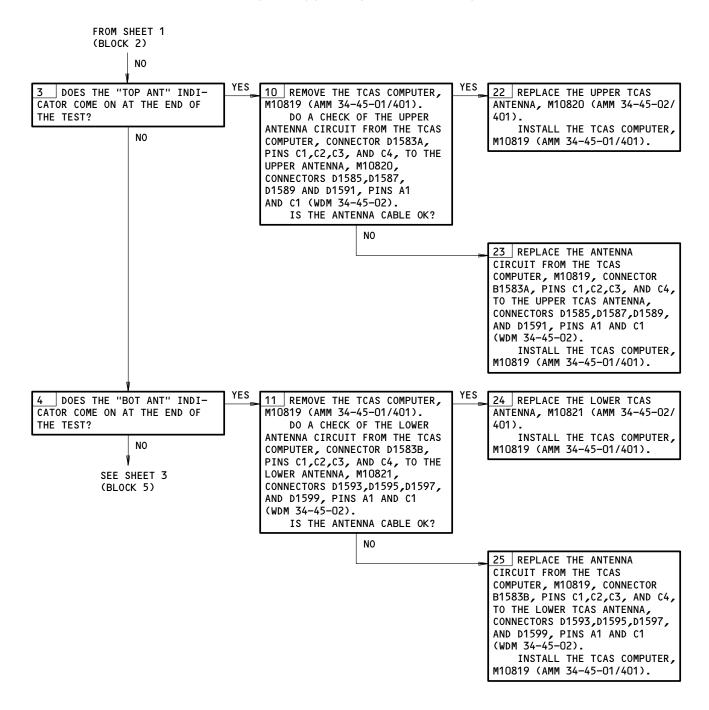
TCAS BITE PROCEDURE



TCAS BITE Procedure Figure 103 (Sheet 1)

EFFECTIVITY-AIRPLANES WITH RT-950 TCAS

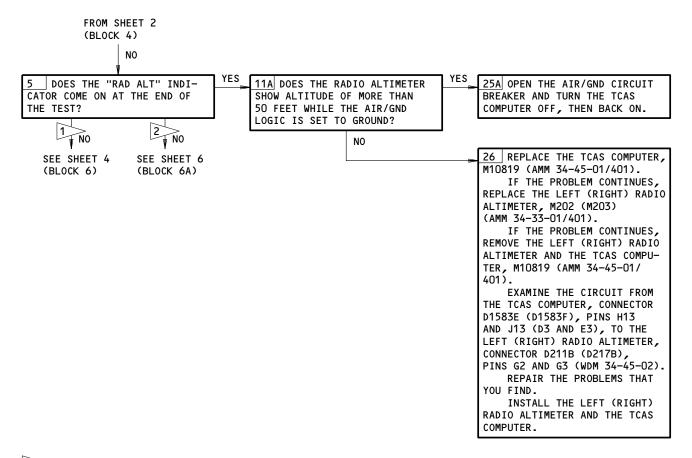
34-45-00 CONFIG Page 104 Jan 28/02



TCAS BITE Procedure Figure 103 (Sheet 2)

34-45-00 config 2





AIRPLANES WITH TCAS DISPLAYED ON THE EFIS DISPLAY

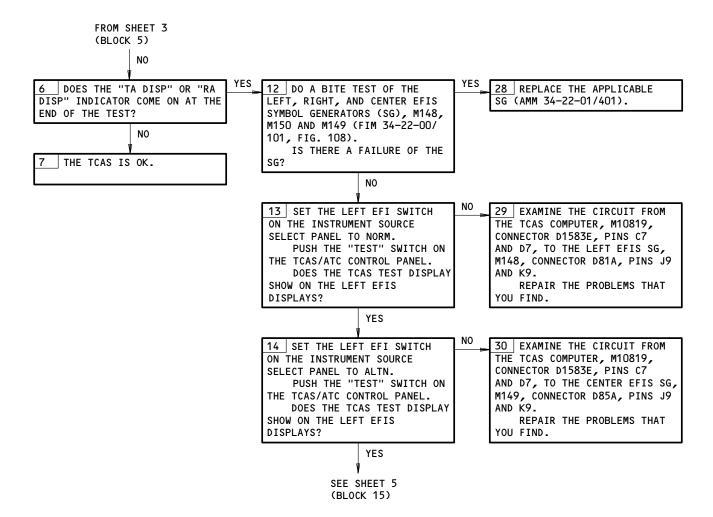
AIRPLANES WITH TCAS DISPLAYED ON THE TA/RA VSI

TCAS BITE Procedure Figure 103 (Sheet 3)

34-45-00 CONFIG 2 Page 106

Jan 28/02

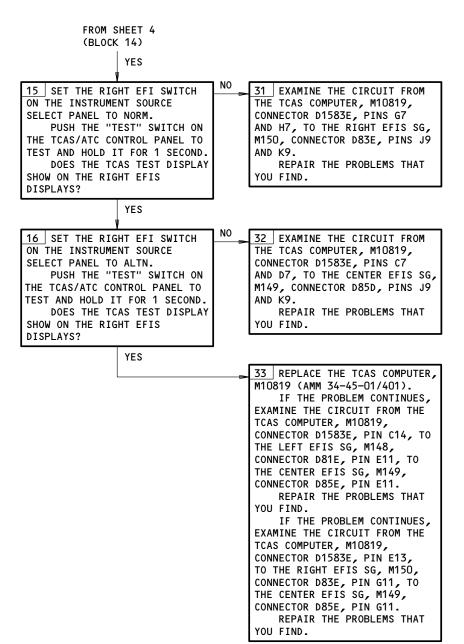
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TCAS BITE Procedure Figure 103 (Sheet 4)

EFFECTIVITY-AIRPLANES WITH RT-950 TCAS

34-45-00 CONFIG Page 107

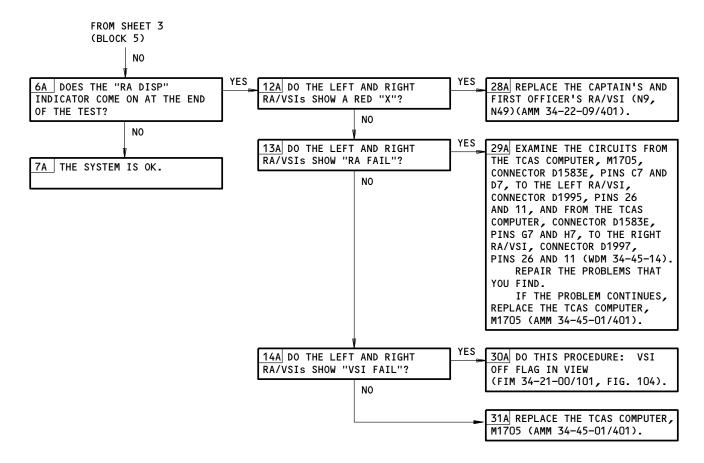


TCAS BITE Procedure Figure 103 (Sheet 5)

AIRPLANES WITH RT-950 TCAS

34-45-00





TCAS BITE Procedure Figure 103 (Sheet 6)

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PREREQUISITES

MAKE SURE THESE SYSTEMS WILL OPERATE: WEU SYSTEM (AMM 31-51-00/501)

ADC SYSTEM (AMM 34-12-00/501)

ATC SYSTEM (AMM 34-53-00/501)

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED:

11B16, WARN SPKR L

11B18, WARN ELEX B

11F3, TCAS

NO

11H35, WARN SPKR R

11J33, WARN ELEX A

MAKE SURE THE AIRPLANE IS IN THIS CONFIGURATION: ELECTRICAL POWER IS ON (AMM 24-22-00/201) ALIGN IRS (AMM 34-21-00/201)

TCAS VOICE ADVISORY ALERT FAILURE

1 PUSH THE "TEST" SWITCH ON THE ATC CONTROL PANEL.
DO THE FLIGHT COMPARTMENT SPEAKERS OR HEADSETS VOICE,
"TCAS TEST PASS", OR "TCAS TEST FAIL"?

YES

THE TCAS VOICE ADVISORY
ALERT IS OK.

20 REPLACE THE TCAS COMPUTER,
M10819 (AMM 34-45-01/401).

IF THE PROBLEM CONTINUES,
REPLACE THE LEFT AURAL WARNING
SIREN/OWL MODULE, M999.

EXAMINE THE CIRCUIT FROM
THE TCAS COMPUTER, CONNECTOR
D1583F, PINS F3 AND G3, TO
THE LEFT AURAL WARNING SIREN/
OWL MODULE, CONNECTOR D901,
PINS 62 AND 63.

REPAIR THE PROBLEMS THAT

YOU FIND.

TCAS Voice Advisory Alert Failure Figure 104

AIRPLANES WITH RT-950 TCAS

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1. ARINC Data Bus Charts

A. General

CAUTION: DO NOT DIRECTLY TOUCH THE CONNECTORS. USE A BREAKOUT BOX OR YOU CAN CAUSE DAMAGE TO THE CONNECTORS.

(1) The ARINC 429 data bus charts give data necessary to make an analysis of ARINC 429 transmitters, receivers, and data buses. For the test, use a breakout box at the available terminal or at the LRU connectors.

B. Equipment

- (1) Standard multi-meter
- (2) 429EBP Data Bus Analyzer (recommended) JcAIR Instrumentation 400 Industrial Parkway Industrial Airport, KS 66031

429-2 Data Bus Analyzer (alternative) Interface Technology 150 E. Arrow Highway San Dimas, CA 91773

A34011-1 Breakout Box (recommended) A34011-112 Breakout Box (alternative)

TCAS COMPUTER											
DIGITAL OUTPUT BUS CHART											
BUS NAME					DUC	ртт					
SOURCE	TYPE	BUS	CON	PINS	BUS FORMAT	RATE	DATA BUS				
TCAS	Α	1	RMP	15J 15K	429	HI	COORDINATION DATA				
TCAS	Α	2	RMP	14A 14B	429	HI	COORDINATION DATA				
TCAS	Α	1	RMP	7C 7D	429	HI	TA/RA DISPLAY #1				
TCAS	Α	2	RMP	7G 7H	429	ні	TA/RA DISPLAY #2				



TCAS COMPUTER ID=0	35										
OCTAL LABELS CHART											
SIGNAL	TYPE	LABEL	FORMAT	MIN UPDATE RATE	SDI	BINARY RANGE	POSITIVE SENSE	UNITS			
INTRUDER ALTITUDE	Α	131	BCD	2	00	± 12,700	N/A	FEET			
INTRUDER BEARING	Α	132	BCD	2	00	± 180	N/A	DEGREES			
INTRUDER RANGE	А	130	BCD	2	00	± 28	N/A	NM			
OWN AIRCRAFT ALT	А	203	BCD	2	00	± 31,072	N/A	FEET			

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GROUND PROXIMITY WARNING SYSTEM

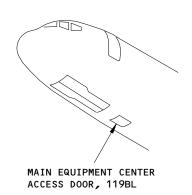
COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	AMM REFERENCE
CIRCUIT BREAKER -			FLT COMPT, P11	
GND PROX, C592		1	11F4	*
COMPUTER - GROUND PROXIMITY WARNING, M147	1	1	119BL, MAIN EQUIP CTR, E2-3	34-46-01
LIGHT - GND PROX PULL UP, M779	2	1	FLT COMPT, P1	*
LIGHT - WINDSHEAR, L649	2	1	FLT COMPT, P1	*
PANEL - (FIM 30-32-00/101)				
MISCELLANEOUS TEST, M10398				
SWITCH - GND PROX TEST, S2	2	1	FLT COMPT, P61	*
SWITCH-LIGHT - GND PROX/CONFIG GEAR OVRD,	2	1	FLT COMPT, P3	*
S10231				
SWITCH-LIGHT - GND PROX FLAP OVRD, S10172	2	1	FLT COMPT, P3	*
SWITCH-LIGHT - GND PROX - G/S INHB, N10015	2	1	FLT COMPT, P1	*

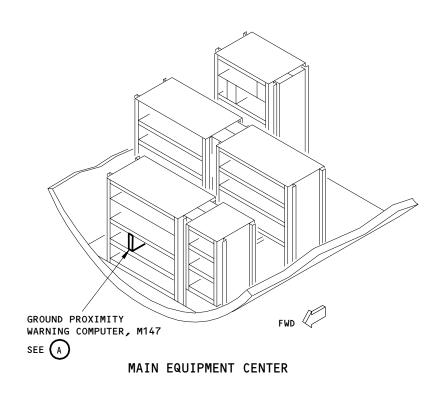
^{*} SEE THE WDM EQUIPMENT LIST

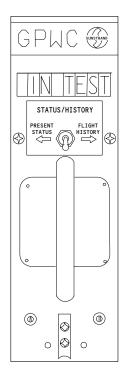
Ground Proximity Warning System - Component Index Figure 101

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GROUND PROXIMITY WARNING COMPUTER, M147



Ground Proximity Warning System - Component Location Figure 102 (Sheet 1)

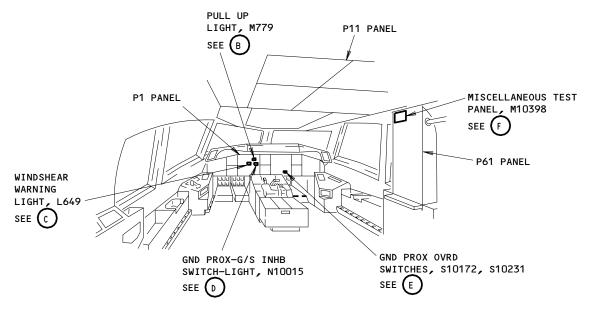
AIRPLANES WITHOUT ENHANCED GPWC

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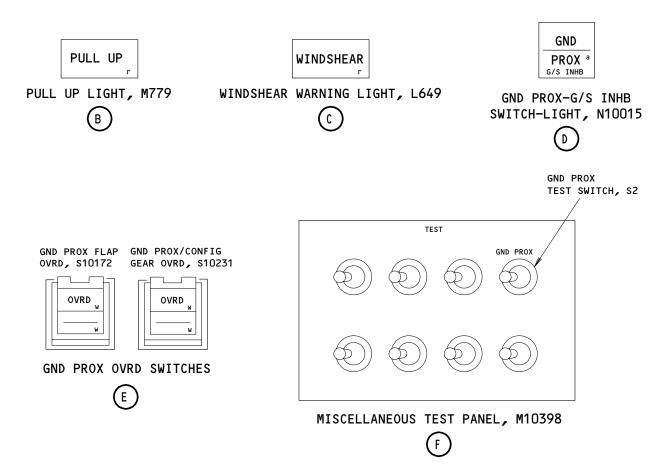
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FLIGHT COMPARTMENT



Ground Proximity Warning System - Component Location Figure 102 (Sheet 2)

AIRPLANES WITHOUT ENHANCED GPWC

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1. ARINC Data Bus Charts

A. General

<u>CAUTION</u>: DO NOT DIRECTLY TOUCH THE CONNECTORS. USE A BREAKOUT BOX OR YOU CAN CAUSE DAMAGE TO THE CONNECTORS.

(1) The ARINC 429 data bus charts give data necessary to make an analysis of ARINC 429 transmitters, receivers, and data buses. For the test, use a breakout box at the available terminal or at the LRU connectors.

B. Equipment

- (1) Standard multi-meter
- (2) 429EBP Data Bus Analyzer (recommended) JcAIR Instrumentation 400 Industrial Parkway Industrial Airport, KS 66031

429-2 Data Bus Analyzer (alternative) Interface Technology 150 E. Arrow Highway San Dimas, CA 91773

(3) A34011-1 Breakout Box (recommended) A34011-112 Breakout Box (alternative)

GI	PWC D	IGITA	AL OUT	TPUT BUS	CHART		
BUS NAME					BUS	BIT	
SOURCE	TYPE	BUS	CON	PINS	FORMAT	RATE	DATA BUS
GPWC	Α	1	В	CO1 DO1	429	LO	WARN MODE & MAINT

	GPWC(ID=23) OCTAL LABELS CHART										
SIGNAL	TYPE	LABEL		MIN UPDATE RATE	SDI	BINARY RANGE	POSITIVE SENSE	UNITS			
WARNING MODE+MAINT	Α	270	DIS	12.5	00	N/A	N/A	N/A			

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PREREQUISITES

MAKE SURE THESE SYSTEMS WILL OPERATE:
ENGINE INDICATING AND CREW ALERTING SYSTEM
(AMM 31-41-00/501)
WARNING SYSTEM (AMM 31-51-00/501)
AIR DATA COMPUTING SYSTEM (AMM 34-12-00/501)
INERTIAL REFERENCE SYSTEM (AMM 34-21-00/501)
ELECTRONIC FLIGHT INSTRUMENT SYSTEM (EFIS)
(AMM 34-22-00/501)
ILS (AMM 34-31-00/501)
RADIO ALTIMETER SYSTEM (AMM 34-33-00/501)
FLIGHT MANAGEMENT SYSTEM (AMM 34-61-00/501)

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11B16, 11B18, 11F4, 11H35, 11J33

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

GROUND PROXIMITY WARNING COMPUTER BITE PROCEDURE

ENERGIZE AND ALIGN THE 31 REMOVE THE GPWC, M147 71 REPLACE THE GPWC, M147 LEFT IRU (AMM 34-21-00/201). (AMM 34-46-01/401). (AMM 34-46-01/401). MAKE SURE THE "OVRD" LIGHT IS THERE 115V AC AT THE IS NOT ON IN THESE SWITCHES ON GPWC, CONNECTOR D433C, PIN 2, NO THE P3-1 PANEL: AND A GROUND AT THE GPWC, 72 EXAMINE THE CIRCUIT FROM CONNECTOR D433C, PIN 3 THE GPWC, CONNECTOR D433C, "GND PROX/CONFIG GEAR OVRD" (WDM 34-46-11). PIN 2, TO CIRCUIT BREAKER SWITCH. C592 (11F4). REPAIR THE "GND PROX/FLAP OVRD" SWITCH. PROBLEMS THAT YOU FIND. EXAMINE THE CIRCUIT FROM MOMENTARILY SET THE STATUS/HISTORY SWITCH ON THE THE GPWC, CONNECTOR D433C, GPWC TO THE "PRESENT STATUS" PIN 3, TO GROUND POSITION. (WDM 34-46-11). REPAIR THE PROBLEMS THAT YOU FIND. LOOK FOR THESE INDICATIONS ON THE GPWC BITE DISPLAY: INSTALL THE GPWC, M147 (AMM 34-46-01/401). X X X X X X X X IN TEST AIRCRAFT TYPE 757-200 ALT AUDIO INHIBIT SELECTED 3 QFE SELECTED 3 FMC SELECTED SYSTEM OK > SOMETIMES THE EICAS MESSAGE, "GND PROX BITE" ("GND PROX SYS", SOFTWARE VERSION IS "XXX", POST-SB 31-78) CAN SHOW AFTER THE FAULT IS CORRECTED. "DD-MMM-YY" 2>> MOMENTARILY SET THE STATUS/HISTORY SWITCH ON THE GPWC TO THE DATABASE VERSION IS "XXX", "HISTORY" POSITION TO ERASE THE EICAS MESSAGE "GND PROX BITE" "DD-MMM-YY" ("GND PROX SYS", POST-SB 31-78) **END TEST** DID SOME OF THESE GPWC "XXX" IS THE SOFTWARE VERSION "DD-MMM-YY" IS THE REVISION DATE INDICATIONS OCCUR? SUI 115 YES SEE SHEET 2 (BLOCK 2)

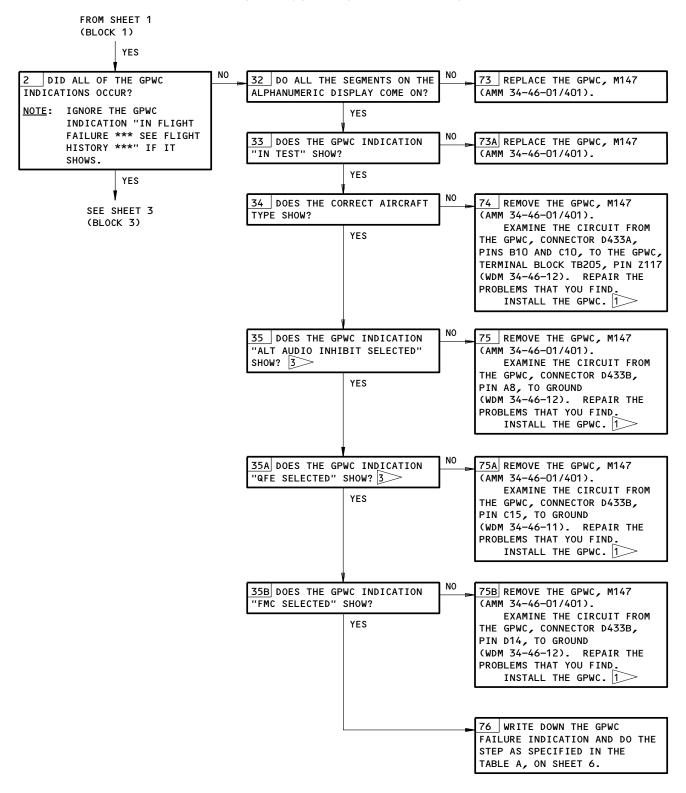
Ground Proximity Warning Computer BITE Procedure
Figure 103 (Sheet 1)

AIRPLANES WITH -206 AND PREVIOUS GPWC

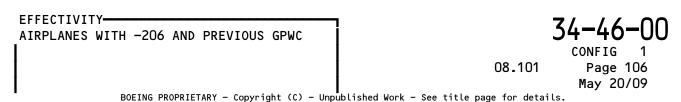
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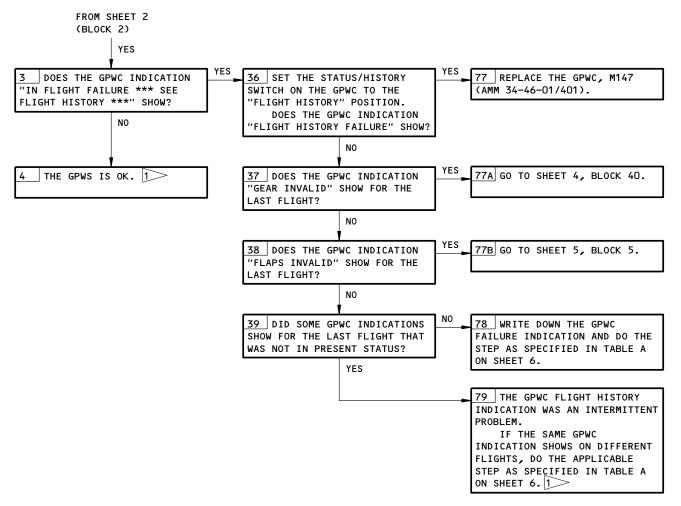
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Ground Proximity Warning Computer BITE Procedure Figure 103 (Sheet 2)







Ground Proximity Warning Computer BITE Procedure Figure 103 (Sheet 3)

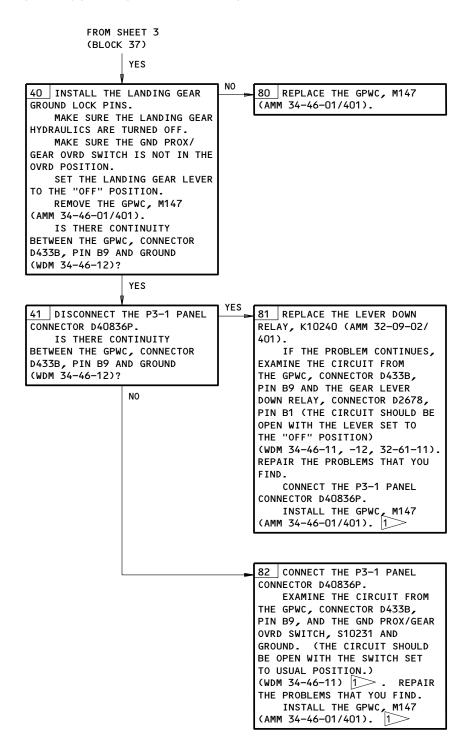
EFFECTIVITY
AIRPLANES WITH -206 AND PREVIOUS GPWC

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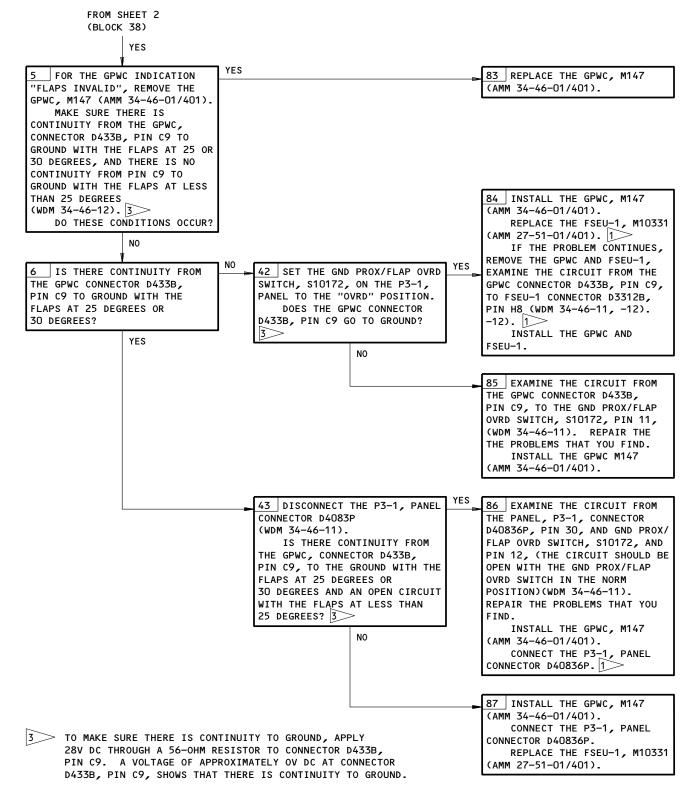


Ground Proximity Warning Computer BITE Procedure Figure 103 (Sheet 4)

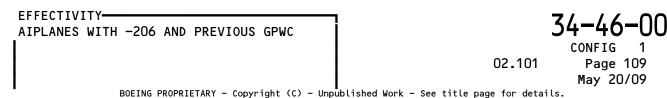
EFFECTIVITY-AIRPLANES WITH -206 AND PREVIOUS GPWC

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Ground Proximity Warning Computer BITE Procedure
Figure 103 (Sheet 5)





FAILURE INDICATION	REFER TO SHT-BLOCK		
AIRCRAFT TYPE INVALID	14-23		
AIR DATA INACTIVE	7-8		
AIR/GROUND INVALID	13-21		
AUDIO SELECT INVALID	13-22		
BARORATE INVALID	7-9		
BARO ALTITUDE INVALID	7-9		
BODY PITCH RATE INVALID	10-16		
CALLOUTS OPTION INVALID	14-24		
COMPUTED AIRSPEED INVALID	7-9		
CORRECTED BARO ALTITUDE INVALID	7-9		
CORRECTED AOA #1 INVALID	11–18		
CORRECTED AOA #2 INVALID	11–18		
DSW #1 DATA INACTIVE	11–17		
DSW #2 DATA INACTIVE	11–17		
EFS DATA INACTIVE	7-9A		
FLAP ANGLE #1 INVALID	11–18		
FLAP ANGLE #2 INVALID	11–18		
FLAPS INVALID	3–38		
FLIGHT PATH ACCEL INVALID	10-16		
FMC DATA INACTIVE	8-10		
FMC LATITUDE INVALID	8-11		
FMC LONGITUDE INVALID	8-11		
FMC MAG TRACK INVALID	8-11		
GEAR INVALID GLIDESLOPE CANCEL INVALID	3–37 9–14		
GLIDESLOPE CANCEL INVALID	9-14 9-13		
GPWS FAILED	7-7		
ILS DATA INACTIVE	9-12		
INDICATED AOA #1 INVALID	11-18		
INDICATED AOA #2 INVALID	11-18		
INERTIAL ALTITUDE INVALID	10-16		
INERTIAL VERTICAL SPEED INVALID	10-16		
IRS DATA INACTIVE	10-15		
IRS LATITUDE INVALID	10-16		
IRS LONGITUDE INVALID	10-16		
IRS MAG TRACK INVALID	10-16		
IRS MODE INVALID	10-16		
LOCALIZER INVALID	9-13		
PITCH ANGLE INVALID	10-16		
QFE SELECTED	15-25		
RADIO ALTIMETER DATA INACTIVE	12-19		
RADIO ALTITUDE INVALID	12-20		
ROLL ANGLE INVALID	10–16		
RUNWAY COURSE INVALID	9–13		
STICK SHAKER AOA #1 INVALID	11–18		
STICK SHAKER AOA #2 INVALID	11–18		
TRUE AIRSPEED INVALID	7-9		

CONNECTIONS TABLE A

Ground Proximity Warning Computer BITE Procedure Figure 103 (Sheet 6)

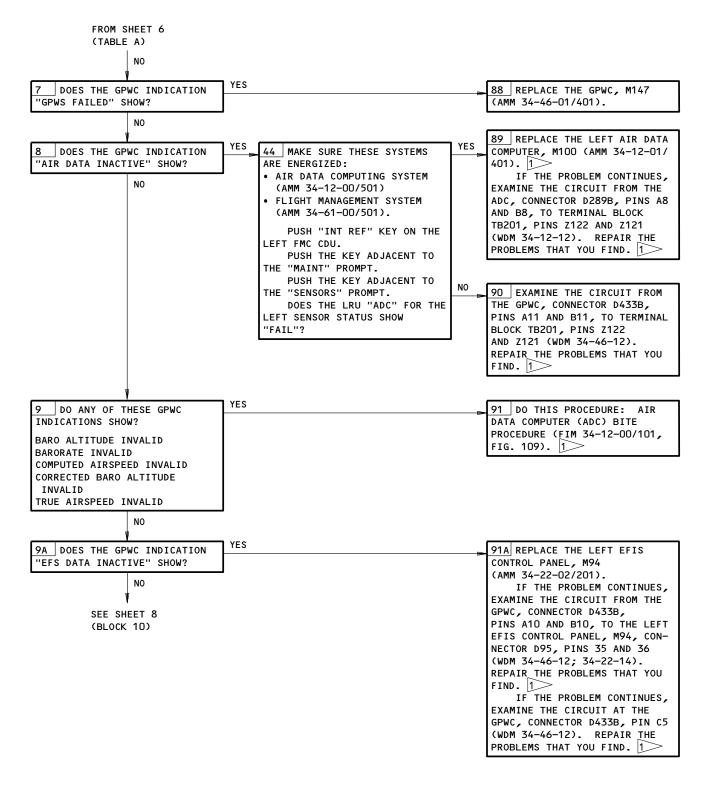
AIRPLANES WITH -206 AND PREVIOUS GPWC

34-46-00

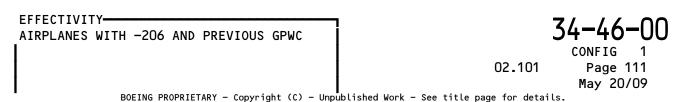
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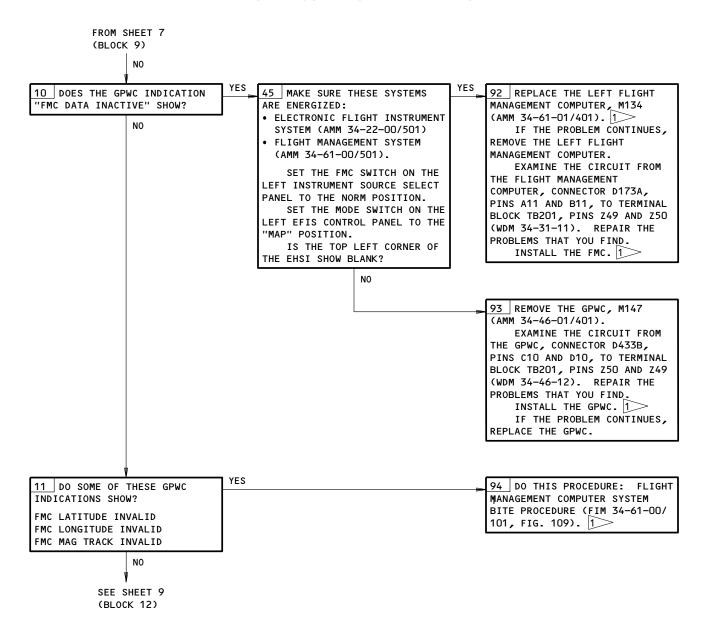
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Ground Proximity Warning Computer BITE Procedure Figure 103 (Sheet 7)





Ground Proximity Warning Computer BITE Procedure Figure 103 (Sheet 8)

AIRPLANES WITH -206 AND PREVIOUS GPWC

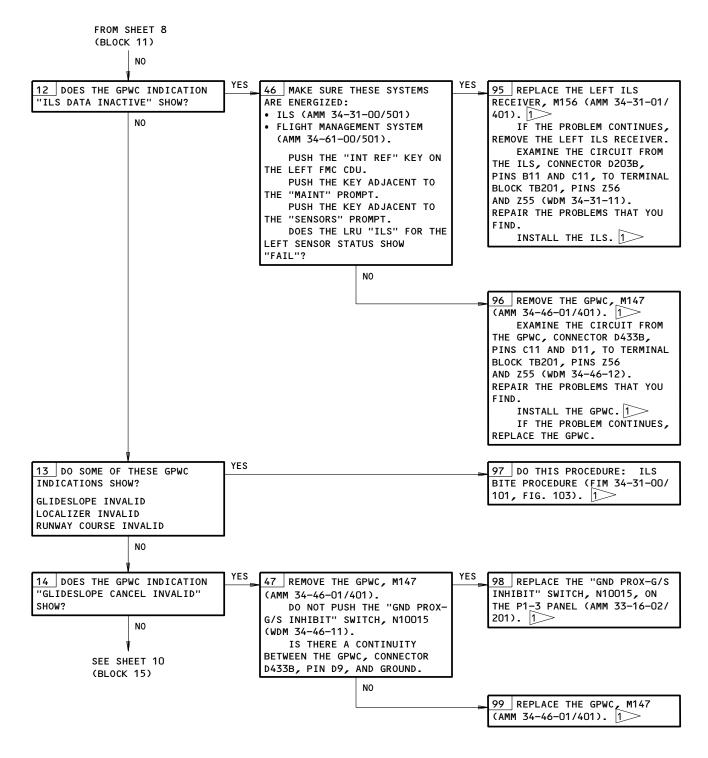
CONFIG 1

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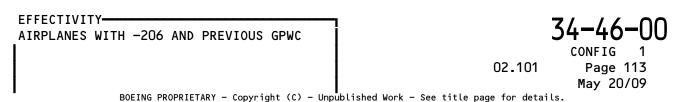
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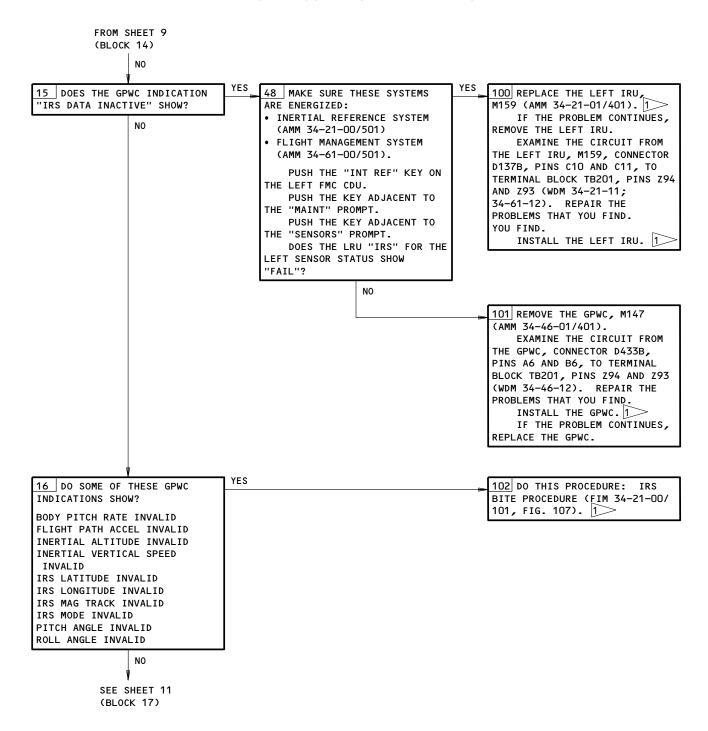
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Ground Proximity Warning Computer BITE Procedure Figure 103 (Sheet 9)





Ground Proximity Warning Computer BITE Procedure Figure 103 (Sheet 10)

AIRPLANES WITH -206 AND PREVIOUS GPWC

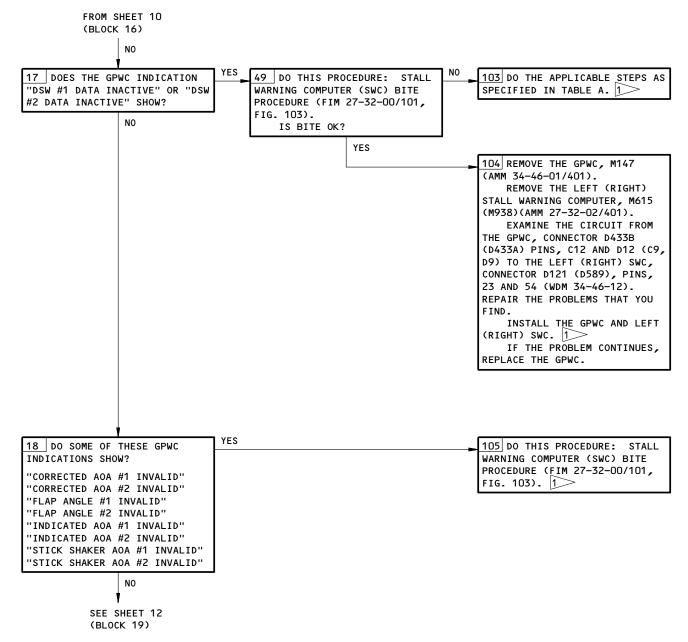
CONFIG 1

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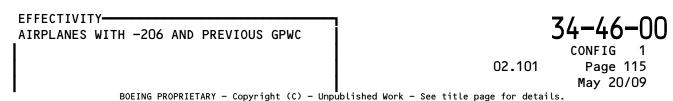
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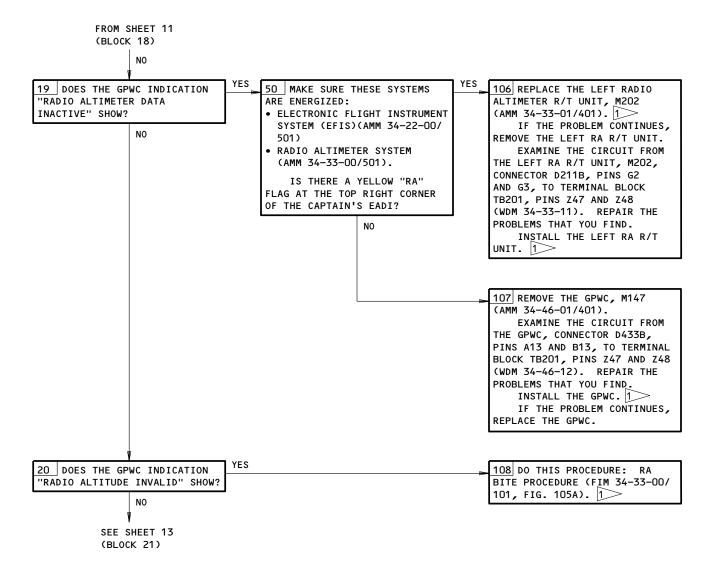




Ground Proximity Warning Computer BITE Procedure Figure 103 (Sheet 11)







Ground Proximity Warning Computer BITE Procedure Figure 103 (Sheet 12)

EFFECTIVITY
AIRPLANES WITH -206 AND PREVIOUS GPWC

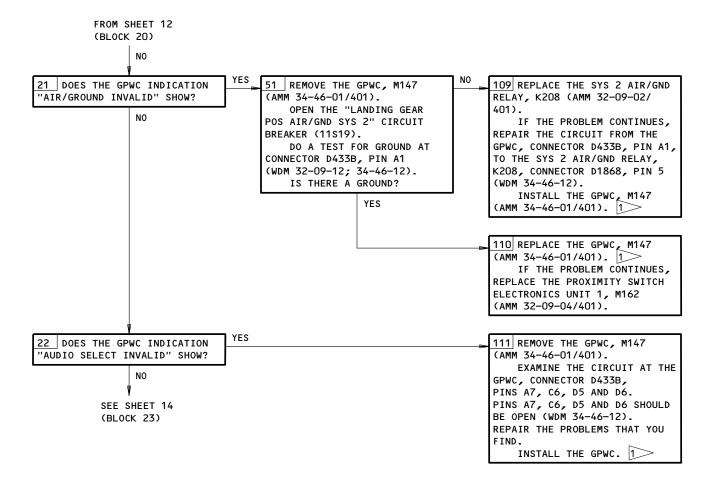
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Ground Proximity Warning Computer BITE Procedure Figure 103 (Sheet 13)

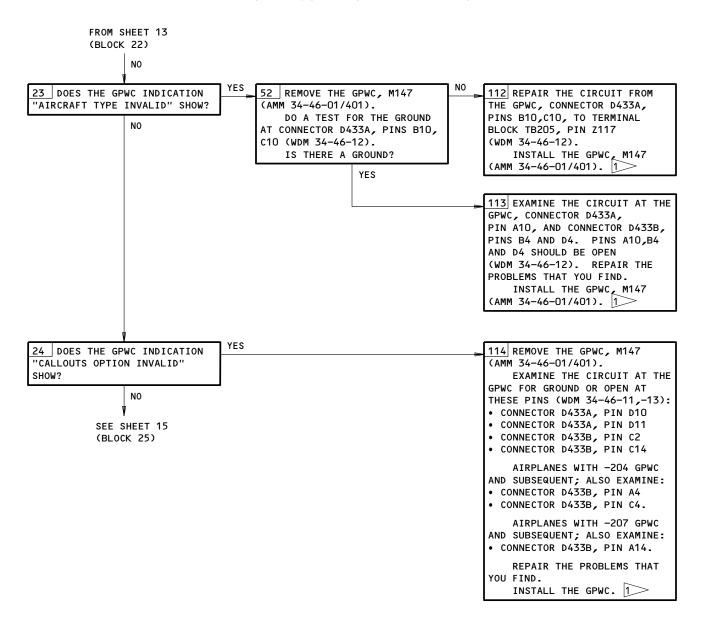
EFFECTIVITY
AIRPLANES WITH -206 AND PREVIOUS GPWC

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Ground Proximity Warning Computer BITE Procedure Figure 103 (Sheet 14)

AIRPLANES WITH -206 AND PREVIOUS GPWC

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Ground Proximity Warning Computer BITE Procedure Figure 103 (Sheet 15)

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Not Used Figure 103A

EFFECTIVITY

AIRPLANES WITHOUT ENHANCED GPWC

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PREREQUISITES

MAKE SURE THESE SYSTEMS WILL OPERATE:
ENGINE INDICATING AND CREW ALERTING SYSTEM
(AMM 31-41-00/501)
WARNING SYSTEM (AMM 31-51-00/501)
AIR DATA COMPUTING SYSTEM (AMM 34-12-00/501)
INERTIAL REFERENCE SYSTEM (AMM 34-21-00/501)
ELECTRONIC FLIGHT INSTRUMENT SYSTEM (EFIS)
(AMM 34-22-00/501)
ILS (AMM 34-31-00/501)
RADIO ALTIMETER SYSTEM (AMM 34-33-00/501)
FLIGHT MANAGEMENT SYSTEM (AMM 34-61-00/501)

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11B16, 11B18, 11F4, 11H35, 11J33

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

GROUND PROXIMITY WARNING COMPUTER BITE PROCEDURE

1 ENERGIZE AND ALIGN THE
LEFT IRU (AMM 34-21-00/201).
MAKE SURE THE "OVRD" LIGHT
IS NOT ON IN THESE SWITCHES ON
THE P3-1 PANEL:
• "GND PROX/CONFIG GEAR OVRD"
SWITCH
• "GND PROX/FLAP OVRD" SWITCH.
MOMENTARILY SET THE
STATUS/HISTORY SWITCH ON THE
GPWC TO THE "PRESENT STATUS"
POSITION.
LOOK FOR THESE INDICATIONS

IN TEST
AIRCRAFT TYPE 757-200
FMC SELECTED
SYSTEM OK
SOFTWARE VERSION IS "XXX",
"DD-MMM-YY"
DATABASE VERSION IS "XXX",
"DD-MMM-YY"
1*XXXXX*
2*XXXXX*
END TEST
DID SOME OF THESE GPWC

INDICATIONS OCCUR?

ON THE GPWC BITE DISPLAY:

31 REMOVE THE GPWC, M147

(AMM 34-46-01/401).

IS THERE 115V AC AT THE GPWC, CONNECTOR D433C, PIN 2, AND A GROUND AT THE GPWC, CONNECTOR D433C, PIN 3 (WDM 34-46-11).

71 REPLACE THE GPWC, M147 (AMM 34-46-01/401).

72 EXAMINE THE CIRCUIT FROM

THE GPWC, CONNECTOR D433C,
PIN 2, TO CIRCUIT BREAKER C592
(11F4). REPAIR THE PROBLEMS
THAT YOU FIND.

EXAMINE THE CIRCUIT FROM
THE GPWC, CONNECTOR D433C,
D433C, PIN 3, TO GROUND
(WDM 34-46-11). REPAIR THE
PROBLEMS THAT YOU FIND.

INSTALL THE GPWC, M147
(AMM 34-46-01/401).

SOMETIMES THE EICAS MESSAGE, "GND PROX BITE" ("GND PROX SYS", POST-SB 31-78) CAN SHOW AFTER THE FAULT IS CORRECTED. MOMENTARILY SET THE STATUS/HISTORY SWITCH ON THE GPWC TO THE "HISTORY" POSITION TO ERASE THE EICAS MESSAGE "GND PROX BITE" ("GND PROX SYS", POST-SB 31-78).

2> "XXX" IS THE SOFTWARE VERSION "DD-MMM-YY" IS THE REVISION DATE

Ground Proximity Warning Computer BITE Procedure Figure 103B (Sheet 1)

YFS

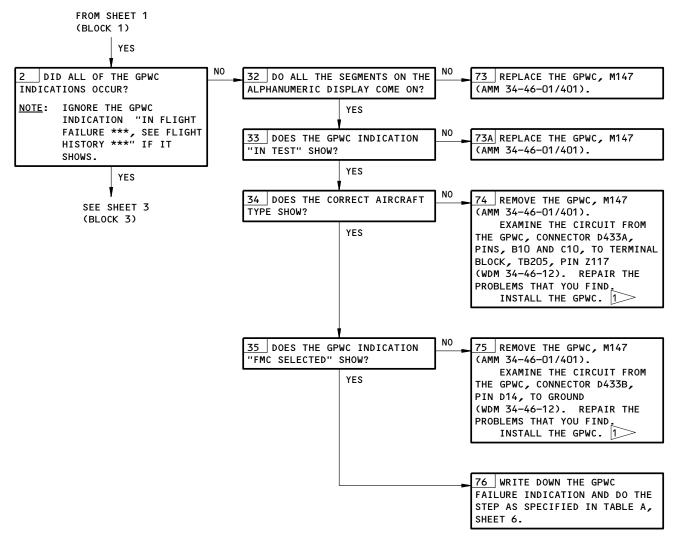
SEE SHEET 2 (BLOCK 2)

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Ground Proximity Warning Computer BITE Procedure Figure 103B (Sheet 2)

EFFECTIVITY
AIRPLANES WITH -207 AND ON GPWC

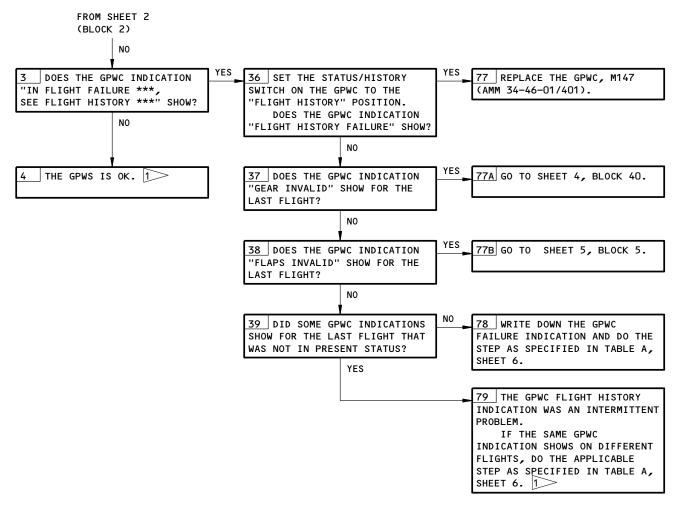
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Ground Proximity Warning Computer BITE Procedure Figure 103B (Sheet 3)

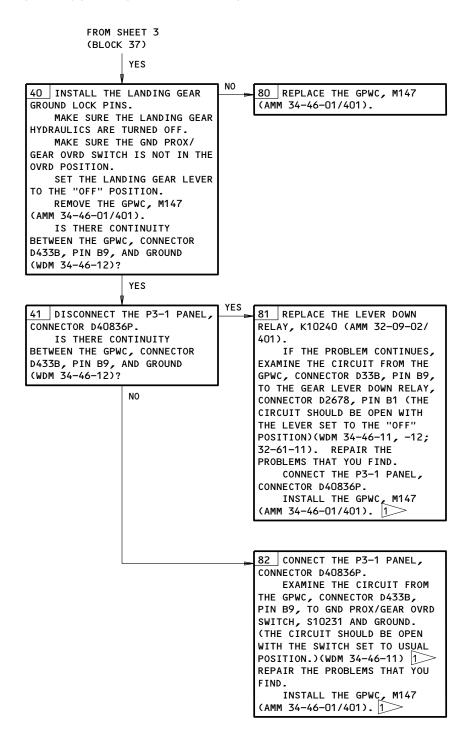
EFFECTIVITY
AIRPLANES WITH -207 AND ON GPWC

CONFIG 1

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Ground Proximity Warning Computer BITE Procedure Figure 103B (Sheet 4)

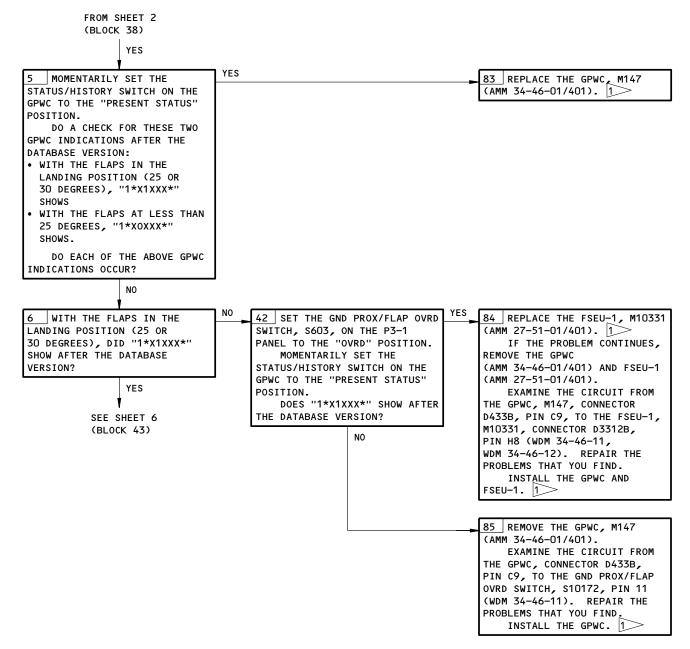
EFFECTIVITY
AIRPLANES WITH -207 AND ON GPWC

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Ground Proximity Warning Computer BITE Procedure Figure 103B (Sheet 5)

EFFECTIVITY
AIRPLANES WITH -207 AND ON GPWC

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FROM SHEET 5 (BLOCK 6)

NΩ

YES

NO

43 DISCONNECT CONNECTOR D5305P, ON THE P3-1 PANEL (WDM 34-46-12).

MOMENTARILY SET THE STATUS/HISTORY SWITCH ON THE GPWC TO THE "PRESENT STATUS" POSITION.

DO A CHECK FOR THESE TWO GPWC INDICATIONS AFTER THE DATABASE VERSION:

- WITH THE FLAPS IN THE LANDING POSITION (25 OR 30 DEGREES), "1*X1XXX*"
- WITH THE FLAPS AT LESS THAN 25 DEGREES, "1*XOXXX*" SHOWS.

DO EACH OF THE ABOVE GPWC INDICATIONS OCCUR?

86 REMOVE THE GPWC, M147 (AMM 34-46-01/401). EXAMINE THE CIRCUIT FROM PANEL P3-1, CONNECTOR D40836P, PIN 30, TO THE GND PROX/FLAP OVRD SWITCH, S10172, AND \$10172, TO PIN 12, (THE CIRCUIT SHOULD BE OPEN WITH THE GND PROX/FLAP OVRD SWITCH IN THE NORM POSITION) (WDM 34-46-11). REPAIR THE PROBLEMS THAT YOU FIND. INSTALL THE GPWC, M147 (AMM 34-46-01/401). CONNECT CONNECTOR D40836P ON THE P3-1 PANEL. 87 CONNECT CONNECTOR D40836P

ON THE P3-1 PANEL.

REPLACE THE FSEU-1, M10331

(AMM 27-51-01/401).

FAILURE INDICATION	REFER TO SHT-BLOCK
AIRCRAFT TYPE INVALID	14-23
AIR DATA INACTIVE	7-8
AIR/GROUND INVALID	13-21
AUDIO SELECT INVALID	13-22
BARO ALTITUDE INVALID	7-9
BARORATE INVALID	7-9
BODY PITCH RATE INVALID	10-16
CALLOUTS OPTION INVALID	14-24
COMPUTED AIRSPEED INVALID	7-9
CORRECTED BARO ALTITUDE INVALID	7-9
CORRECTED AOA #1 INVALID	11-18
CORRECTED AOA #2 INVALID	11-18
DSW #1 DATA INACTIVE	11-17
DSW #2 DATA INACTIVE	11-17
EFS DATA INACTIVE	7-9A
FLAP ANGLE #1 INVALID	11-18
FLAP ANGLE #2 INVALID	11-18
FLAPS INVALID	3-38
FLIGHT PATH ACCEL INVALID	10-16
FMC DATA INACTIVE	8-10
FMC LATITUDE INVALID	8-11
FMC LONGITUDE INVALID	8-11
FMC MAG TRACK INVALID	8-11
GEAR INVALID	3-37

FAILURE INDICATION	REFER TO SHT-BLOCK
GLIDESLOPE CANCEL INVALID	9-14
GLIDESLOPE INVALID	9–13
GPWS FAILED	7–7
ILS DATA INACTIVE	9–12
INDICATED AOA #1 INVALID	11–18
INDICATED AOA #2 INVALID	11–18
INERTIAL ALTITUDE INVALID	10–16
INERTIAL VERTICAL SPEED INVALID	10–16
IRS DATA INACTIVE	10–15
IRS LATITUDE INVALID	10–16
IRS LONGITUDE INVALID	10–16
IRS MAG TRACK INVALID	10–16
IRS MODE INVALID	10–16
LOCALIZER INVALID	9–13
PITCH ANGLE INVALID	10–16
QFE SELECTED	15-25
RADIO ALTIMETER DATA INACTIVE	12-19
RADIO ALTITUDE INVALID	12-20
ROLL ANGLE INVALID	10–16
RUNWAY COURSE INVALID	9–13
STICK SHAKER AOA #1 INVALID	11–18
STICK SHAKER AOA #2 INVALID	11–18
TRUE AIRSPEED INVALID	7-9

CONNECTIONS TABLE A

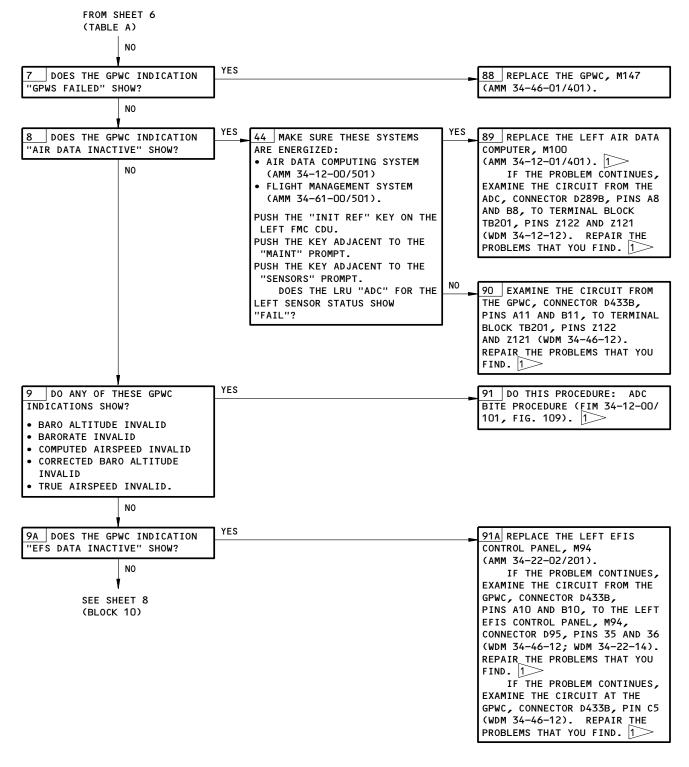
Ground Proximity Warning Computer BITE Procedure Figure 103B (Sheet 6)

AIRPLANES WITH -207 AND ON GPWC

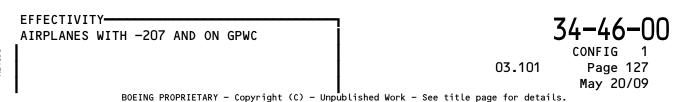
34-46-00

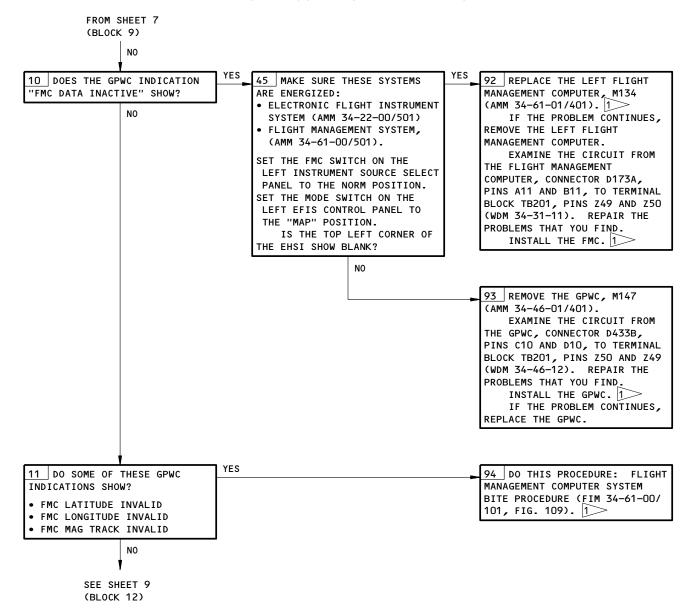
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Ground Proximity Warning Computer BITE Procedure Figure 103B (Sheet 7)





Ground Proximity Warning Computer BITE Procedure Figure 103B (Sheet 8)

EFFECTIVITY—AIRPLANES WITH -207 AND ON GPWC

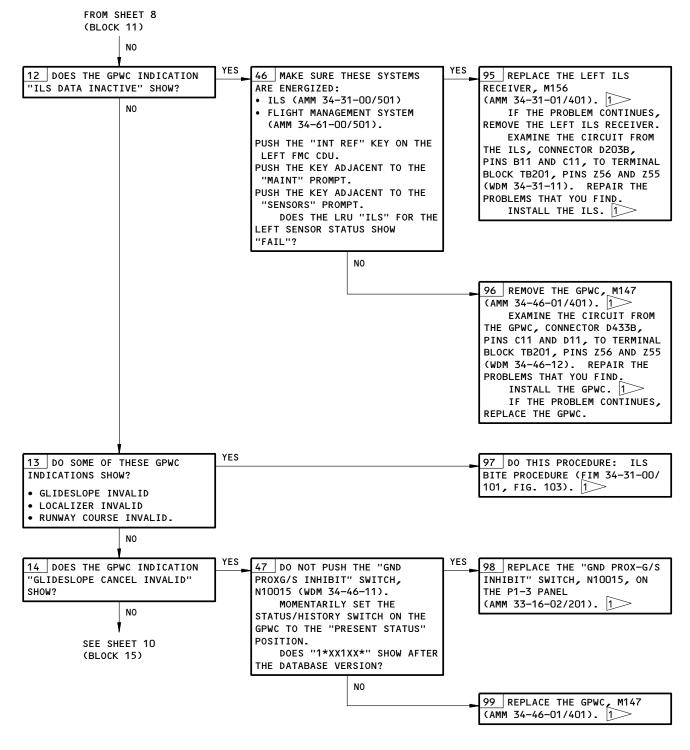
CONFIG 1

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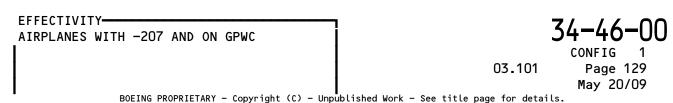
May 20/09

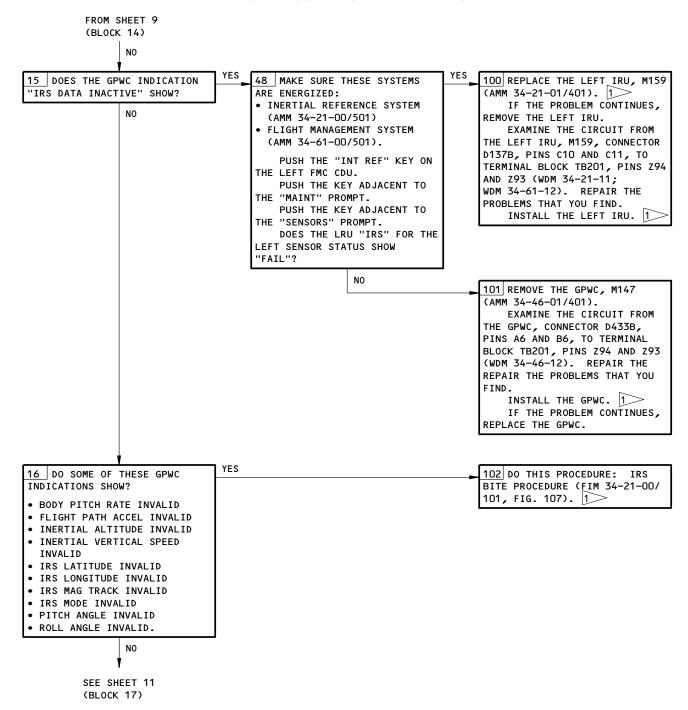
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Ground Proximity Warning Computer BITE Procedure Figure 103B (Sheet 9)





Ground Proximity Warning Computer BITE Procedure Figure 103B (Sheet 10)

EFFECTIVITY
AIRPLANES WITH -207 AND ON GPWC

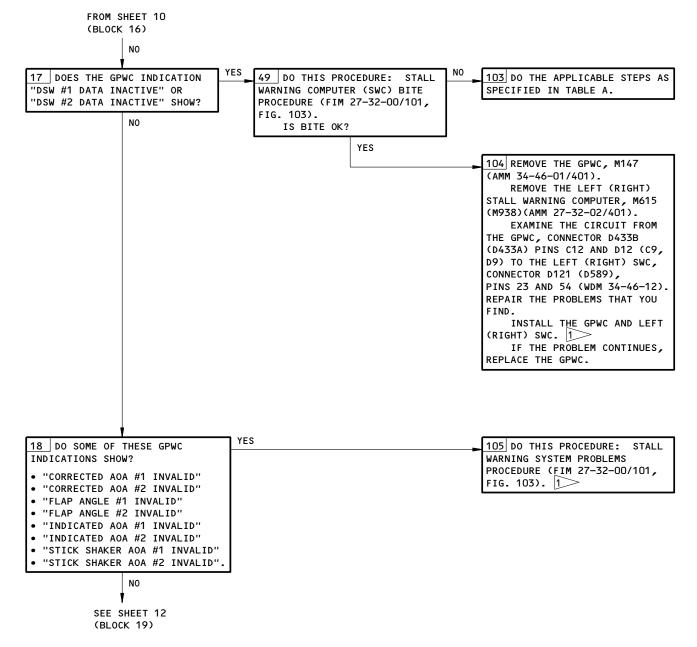
CONFIG 1

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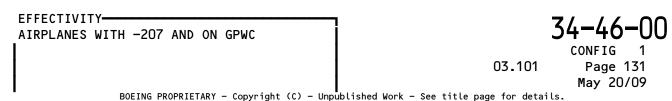
May 20/09

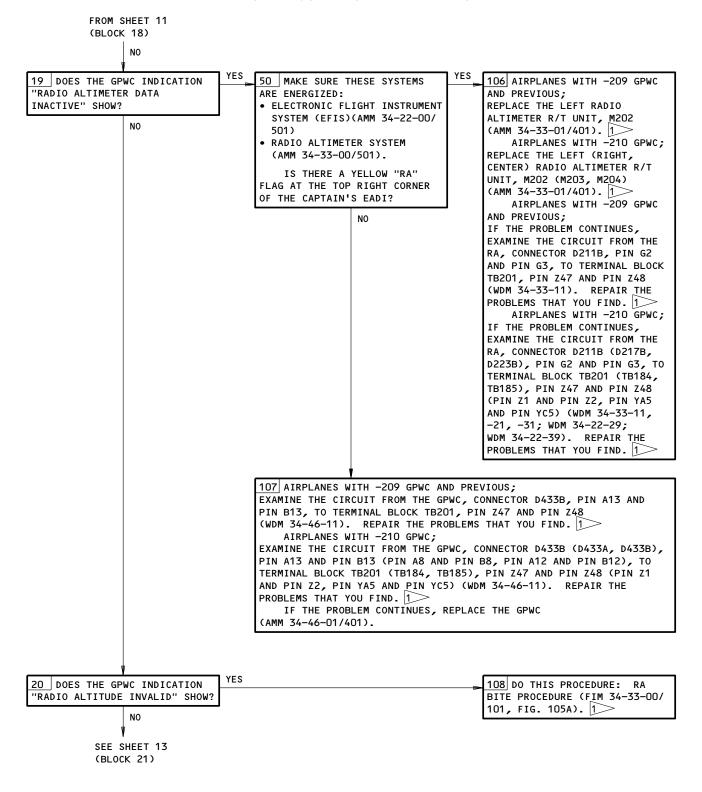
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Ground Proximity Warning Computer BITE Procedure Figure 103B (Sheet 11)





Ground Proximity Warning Computer BITE Procedure Figure 103B (Sheet 12)

EFFECTIVITY
AIRPLANES WITH -207 AND ON GPWC

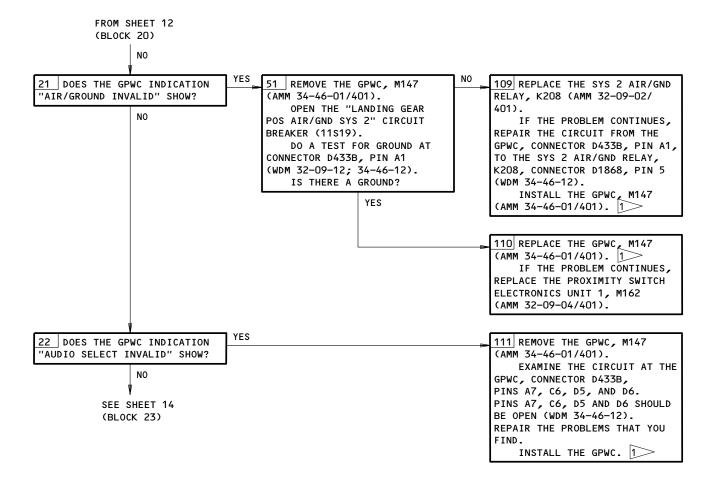
CONFIG 1

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Ground Proximity Warning Computer BITE Procedure Figure 103B (Sheet 13)

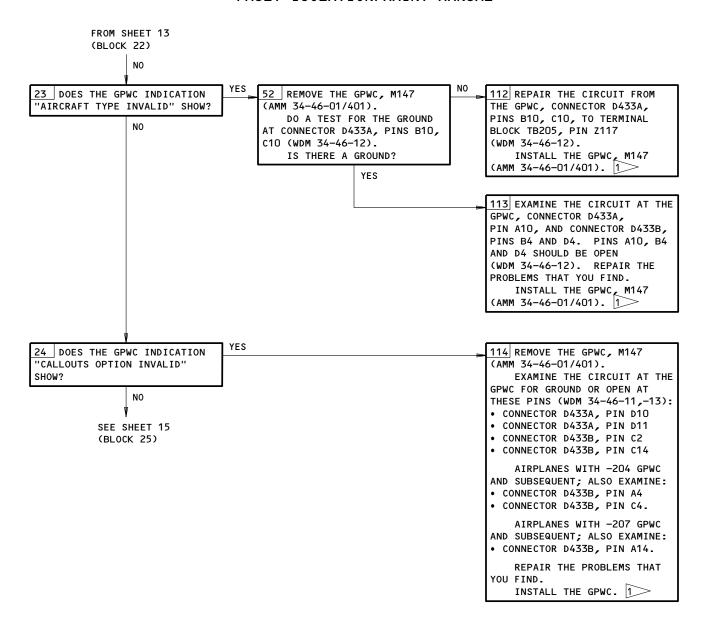
EFFECTIVITY
AIRPLANES WITH -207 AND ON GPWC

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Ground Proximity Warning Computer BITE Procedure Figure 103B (Sheet 14)

EFFECTIVITY
AIRPLANES WITH -207 AND ON GPWC

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Ground Proximity Warning Computer BITE Procedure Figure 103B (Sheet 15)

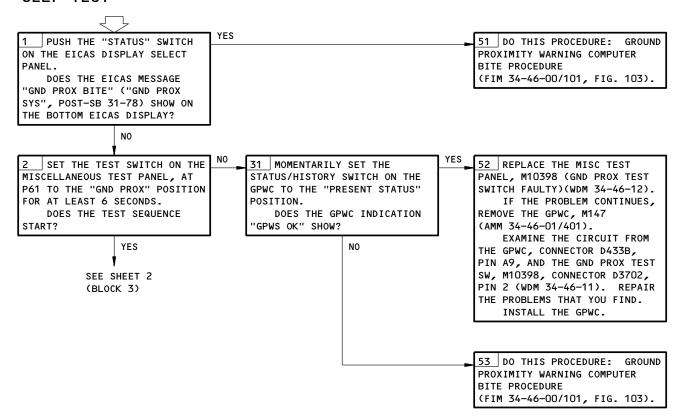
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PREREQUISITES

MAKE SURE THESE SYSTEMS WILL OPERATE:
STALL WARNING COMPUTER (AMM 27-32-00/501)
ENGINE INDICATING AND CREW ALERTING SYSTEM
(AMM 31-41-00/501)
WARNING SYSTEM (AMM 31-51-00/501)
AIR DATA COMPUTING SYSTEM (AMM 34-12-00/501)
INERTIAL REFERENCE SYSTEM (AMM 34-21-00/501)
ELECTRONIC FLIGHT INSTRUMENT SYSTEM (EFIS)
(AMM 34-22-00/501)
ILS (AMM 34-31-00/501), RADIO ALTIMETER SYSTEM
(AMM 34-33-00/501)
FLIGHT MANAGEMENT SYSTEM (AMM 34-61-00/501)
MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED:
11B16, 11B18, 11F4, 11H35, 11J33

GROUND PROXIMITY WARNING SYSTEM SELF-TEST

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



Ground Proximity Warning System Self-Test Figure 104 (Sheet 1)

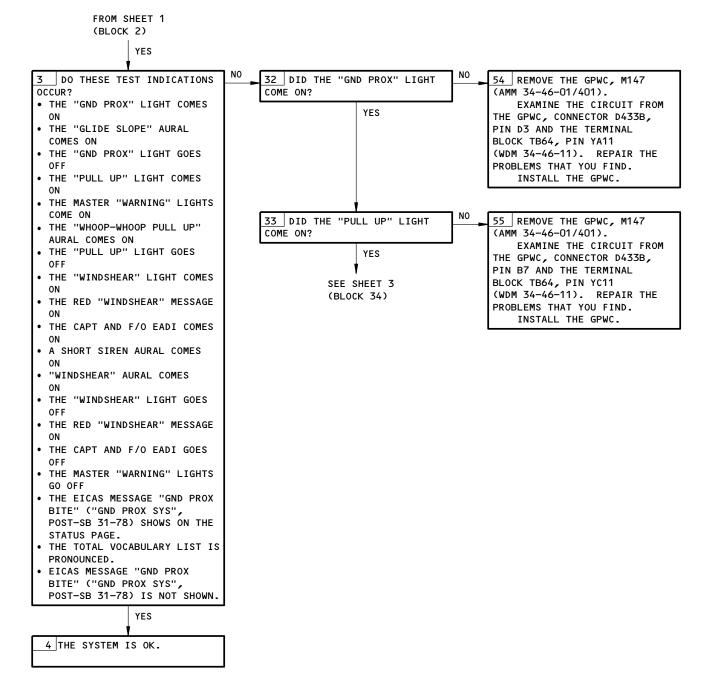
AIRPLANES WITHOUT ENHANCED GPWC

CONFIG 1

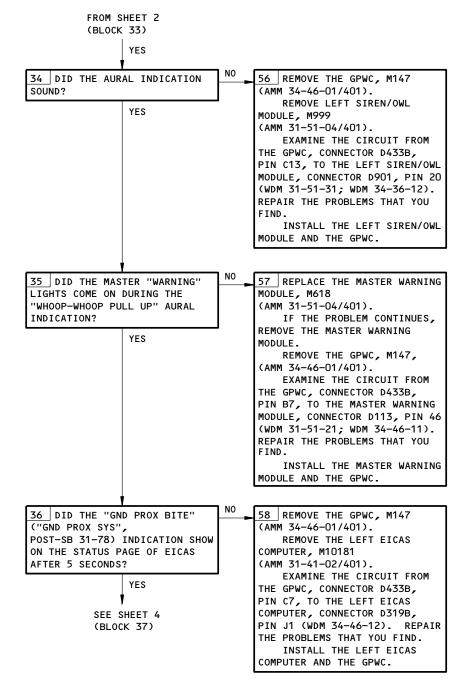
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Ground Proximity Warning System Self-Test Figure 104 (Sheet 2)



Ground Proximity Warning System Self-Test Figure 104 (Sheet 3)

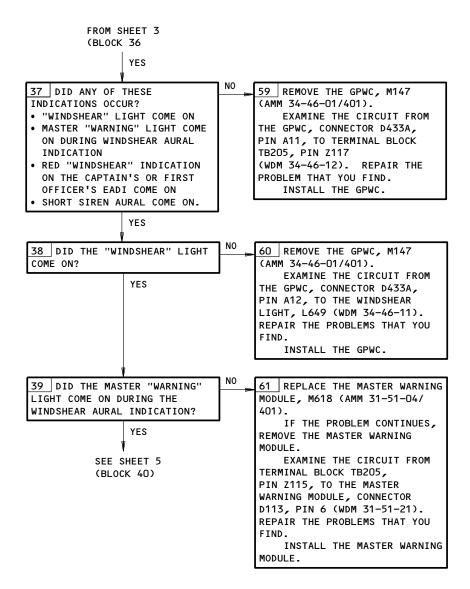
EFFECTIVITY
AIRPLANES WITHOUT ENHANCED GPWC

CONFIG 1

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Ground Proximity Warning System Self-Test Figure 104 (Sheet 4)

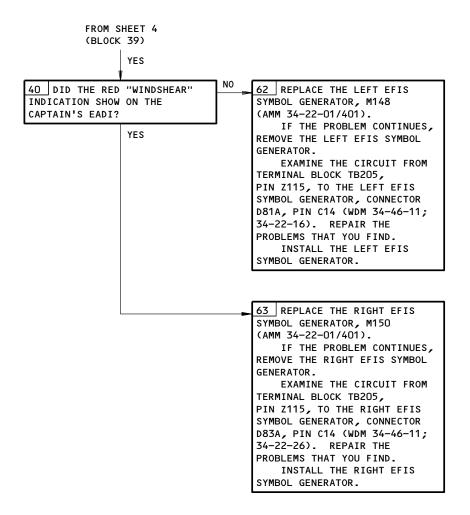
AIRPLANES WITHOUT ENHANCED GPWC

CONFIG 1

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Ground Proximity Warning System Self-Test Figure 104 (Sheet 5)

EFFECTIVITY-AIRPLANES WITHOUT ENHANCED GPWC

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GPWC DISCRETE OCTAL LABELS/BIT CHART							
SIGNAL	OCTAL LABEL	BIT	ONE-STATE	ZERO-STATE			
SINK RATE	270	11	TRUE	NOT TRUE			
PULL UP	270	12	TRUE	NOT TRUE			
TERRAIN	270	13	TRUE	NOT TRUE			
DON'T SINK	270	14	TRUE	NOT TRUE			
TOO LOW GEAR	270	15	TRUE	NOT TRUE			
TOO LOW FLAP	270	16	TRUE	NOT TRUE			
TOO LOW TERRAIN	270	17	TRUE	NOT TRUE			
GLIDESLOPE	270	18	TRUE	NOT TRUE			
MINIMUMS	270	19	TRUE	NOT TRUE			
TERRAIN PULL UP	270	20	TRUE	NOT TRUE			
TOO LOW TERRAIN	270	22	TRUE	NOT TRUE			
WIND SHEAR	270	23	TRUE	NOT TRUE			

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GROUND PROXIMITY WARNING SYSTEM

COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	AMM REFERENCE
CIRCUIT BREAKER -			FLT COMPT, P11	
GND PROX, C592		1	11F4	*
TERRAIN DISPLAY, C4509		1	11E7	*
COMPUTER - GROUND PROXIMITY WARNING, M147	1	1	119BL, MAIN EQUIP CTR, E2-3	34-46-01
LIGHT - GND PROX PULL UP, M779	2	1	FLT COMPT, P1	*
LIGHT - WINDSHEAR, L649	2	1	FLT COMPT, P1	*
PANEL - (FIM 30-32-00/101)				
MISCELLANEOUS TEST, M10398				
SWITCH - GND PROX TEST, S2	2	1	FLT COMPT, P61	*
SWITCH-LIGHT - GND PROX GEAR OVRD, S10231	2	1	FLT COMPT, P3	*
SWITCH-LIGHT - GND PROX FLAP OVRD, S10172	2	1	FLT COMPT, P3	*
SWITCH-LIGHT - GND PROX - G/S INHB, N10015	2	1	FLT COMPT, P1	*
SWITCH-LIGHT - TERR OVRD, S10680	2	1	FLT COMPT, P3	*

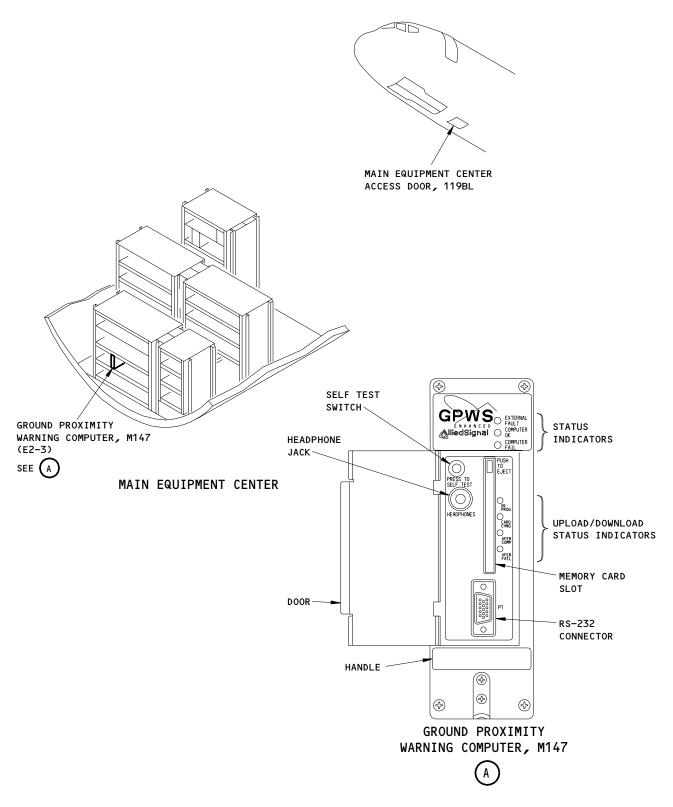
^{*} SEE THE WDM EQUIPMENT LIST

Ground Proximity Warning System - Component Index Figure 101

EFFECTIVITY-AIRPLANES WITH THE ENHANCED GPWC

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Ground Proximity Warning System - Component Location Figure 102 (Sheet 1)

AIRPLANES WITH THE ENHANCED GPWC

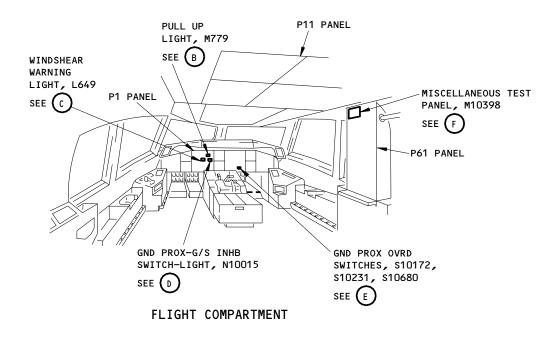
CONFIG 3

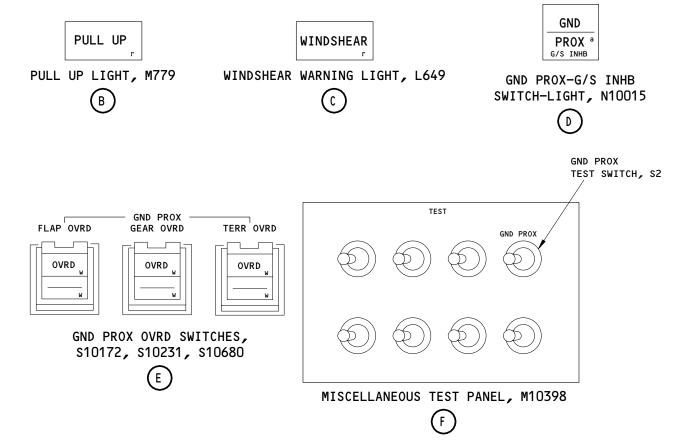
O1 Page 102

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Ground Proximity Warning System - Component Location Figure 102 (Sheet 2)

AIRPLANES WITH THE ENHANCED GPWC

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CONFIG 3

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PREREQUISITES MAKE SURE THESE SYSTEMS WILL OPERATE: ENGINE INDICATING AND CREW ALERTING SYSTEM (AMM 31-41-00/201)WARNING SYSTEM (AMM 31-51-00/501) AIR DATA COMPUTING SYSTEM (AMM 34-12-00/501) INERTIAL REFERENCE SYSTEM (AMM 34-21-00/501) ELECTRONIC FLIGHT INSTRUMENT SYSTEM (EFIS) (AMM 34-22-00/501) ILS (AMM 34-31-00/501) RADIO ALTIMETER SYSTEM (AMM 34-33-00/501) WEATHER RADAR SYSTEM (AMM 34-43-00/501) GLOBAL POSITIONING SYSTEM, IF INSTALLED (AMM 34-58-00/501)FLIGHT MANAGEMENT SYSTEM (AMM 34-61-00/501) MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11B16, 11B18, 11E7, 11F4, 11H35, 11J33 MAKE SURE THE AIRPLANE IS IN THIS CONFIGURATION: ELECTRICAL POWER IS ON (AMM 24-22-00/201) GROUND PROXIMITY WARNING COMPUTER **EQUIPMENT: BITE PROCEDURE HEADPHONES** NO 1 ON THE GPWC FRONT PANEL, 21 ON THE GPWC FRONT PANEL, 31 REPLACE THE GPWC, M147, IS THE YELLOW "EXTERNAL FAULT" IS THE RED "COMPUTER FAIL" (AMM 34-46-01/401).LIGHT ON? LIGHT ON? YES NO 22 ON THE GPWC FRONT PANEL, 32 MAKE SURE THE GPWC, M147, IS THE GREEN "COMPUTER OK" IS INSTALLED IN THE RACK LIGHT ON? CORRECTLY AND POWER TO THE GPWS IS ON. YFS 33 THE SYSTEM IS OK. NO 2 THIS PROCEDURE USES 34 | THE SYSTEM IS OK. HEADPHONES. PLUG THE HEADPHONES INTO THE JACK ON THE FRONT PANEL OF THE GPWC. PUSH THE SELF-TEST SWITCH MOMENTARILY TO START THE LEVEL 1 SELF-TEST. PUSH THE SELF-TEST SWITCH AGAIN MOMENTARILY TO SKIP TO THE LEVEL 2 SELF-TEST FOR CURRENT FAULTS. DO YOU HEAR ANY FAULT YES SEE SHEET 2 MESSAGES? (BLOCK 3)

Ground Proximity Warning Computer BITE Procedure
Figure 103 (Sheet 1)

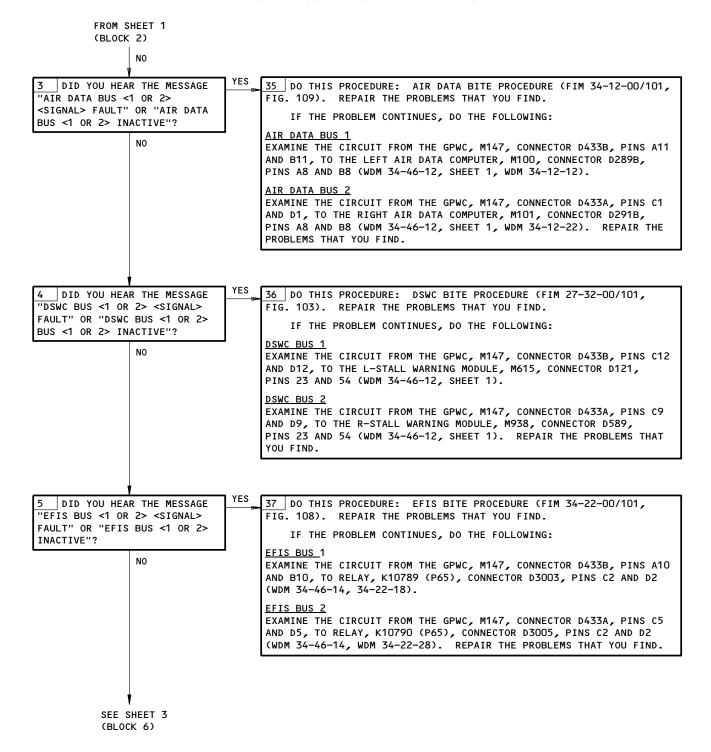
AIRPLANES WITH THE ENHANCED GPWC

34-46-00

CONFIG 3

O1 Page 104

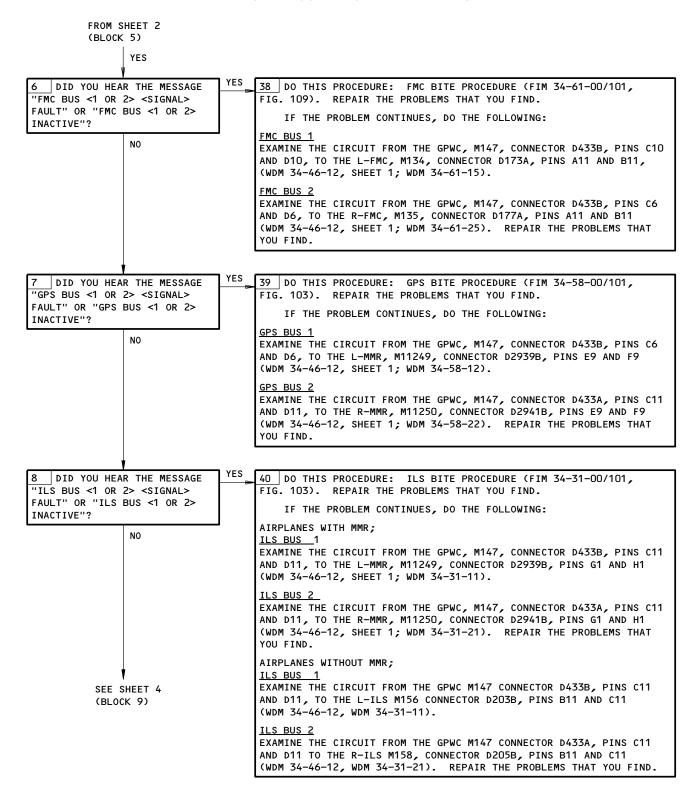
May 28/99



Ground Proximity Warning Computer BITE Procedure Figure 103 (Sheet 2)

AIRPLANES WITH THE ENHANCED GPWC

34-46-00



Ground Proximity Warning Computer BITE Procedure Figure 103 (Sheet 3)

FFFFCTIVITY-AIRPLANES WITH THE ENHANCED GPWC

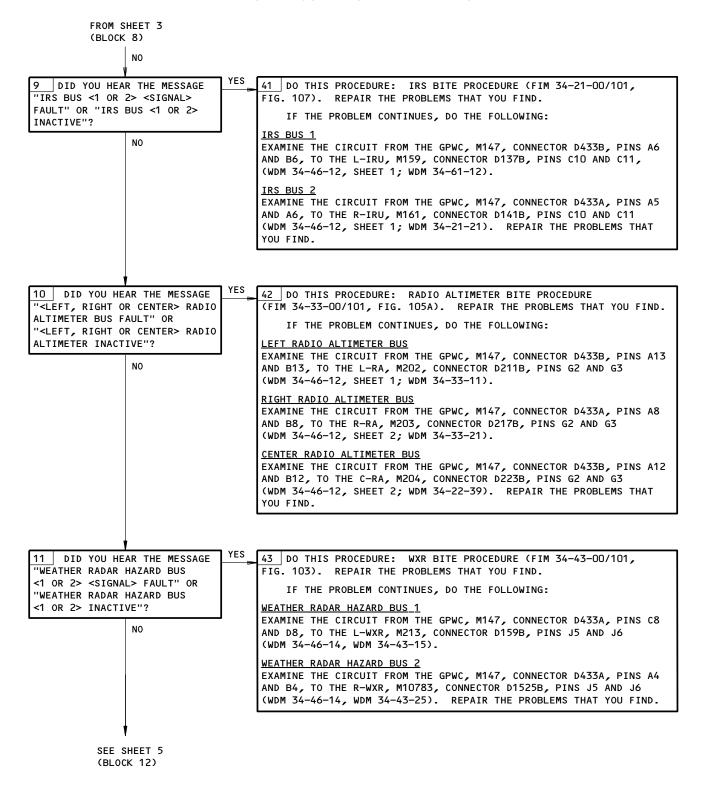
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CONFIG

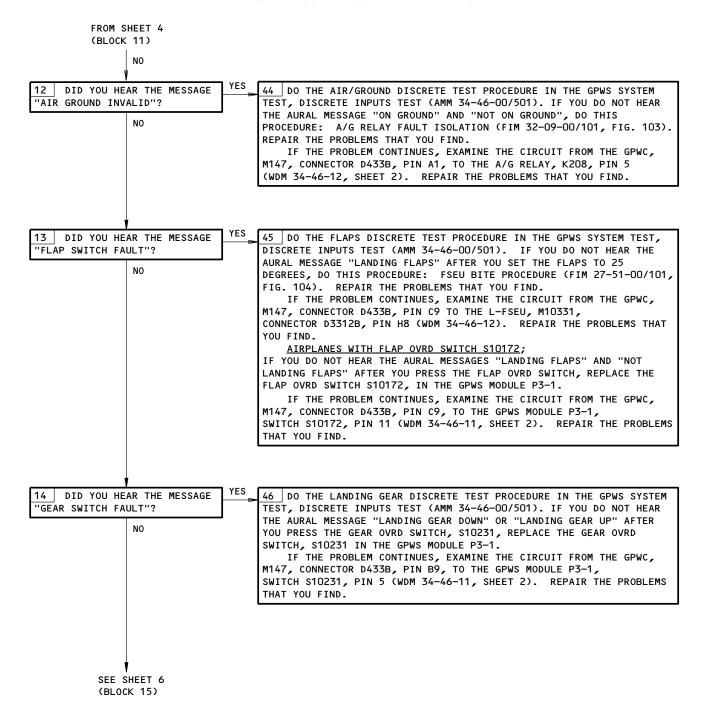
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Ground Proximity Warning Computer BITE Procedure
Figure 103 (Sheet 4)

34-46-00



Ground Proximity Warning Computer BITE Procedure Figure 103 (Sheet 5)

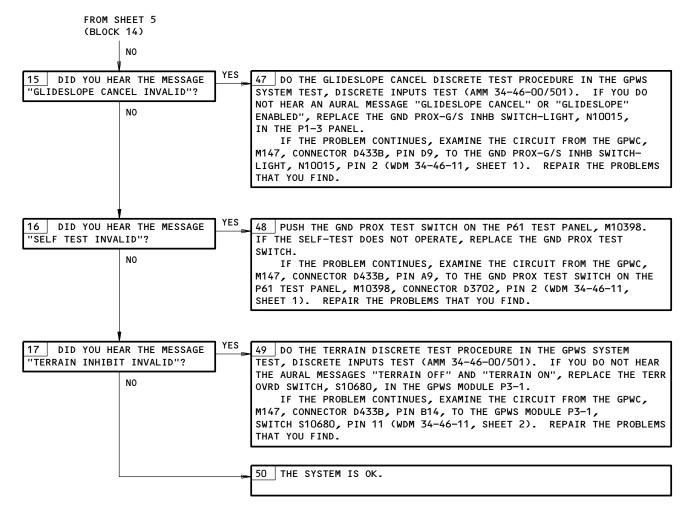
AIRPLANES WITH THE ENHANCED GPWC

34-46-00

01

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Ground Proximity Warning Computer BITE Procedure Figure 103 (Sheet 6)

AIRPLANES WITH THE ENHANCED GPWC

34-46-00 config 3



VOR NAVIGATION SYSTEM

COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	REFERENCE
ANTENNA - DUAL VOR, M262	1	1	326, VERTICAL STAB.	34-51-03
CIRCUIT BREAKERS -	1		FLT COMPT, P11	
VOR MKR LEFT, C595		1	11A2	*
VOR RIGHT, C596		1	11E33	*
INDICATORS - (34-22-00/101)				
LEFT RADIO MAGNETIC, M10024 1				
RIGHT RADIO MAGNETIC, M10026 1 LEFT RADIO DIRECTION MAGNETIC, N3 2				
RIGHT RADIO DIRECTION MAGNETIC, N3 2				
PANELS - (34-22-00/101)				
LEFT EFIS CONTROL, M94				
RIGHT EFIS CONTROL, M93				
PANEL - LEFT VOR/DME CONTROL, M91	1	1	FLT COMPT, P55	34-51-02
PANEL - RIGHT VOR/DME CONTROL, M92	1	1	FLT COMPT, P55	34-51-02
RECEIVER - LEFT VOR/MARKER, M186	2	1	822, AFT CARGO COMPT, E6-1 1>;	
		_	119BL, MAIN EQUIP CTR, E3-2 2	34-51-01
RECEIVER - RIGHT VOR/MARKER, M187	2	1	822, AFT CARGO COMPT, E6-1 1;	7, 5, 0,
DELAY (74 04 7/ (404))			119BL, MAIN EQUIP CTR, E3-2 2	34-51-01
RELAY - (31-01-36/101)				
SYS NO. 1 AIR/GND, K167 RELAY - (31-01-37/101)				
SYS NO. 2 AIR/GND, K214				
SIS NO. 2 AIR/UND, N214	1			

^{*} SEE THE WDM EQUIPMENT LIST

1>> GUI 115

2 GUI 001-114,116-999

VOR Navigation System - Component Index Figure 101

EFFECTIVITY-

A70706

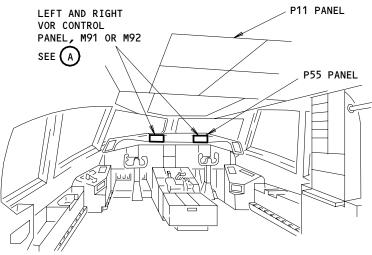
34-51-00

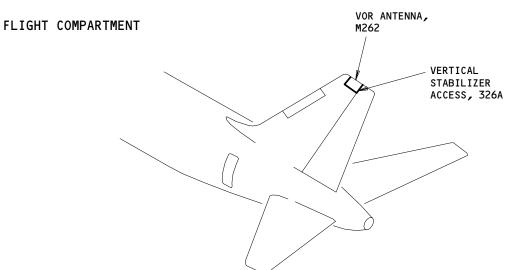
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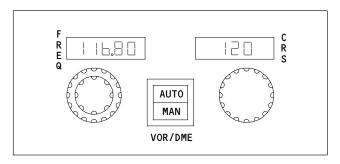
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FAULT ISOLATION/MAINT MANUAL







LEFT OR RIGHT VOR CONTROL PANEL, M91 OR M92



VOR Navigation System - Component Location Figure 102 (Sheet 1)

EFFECTIVITY-ALL

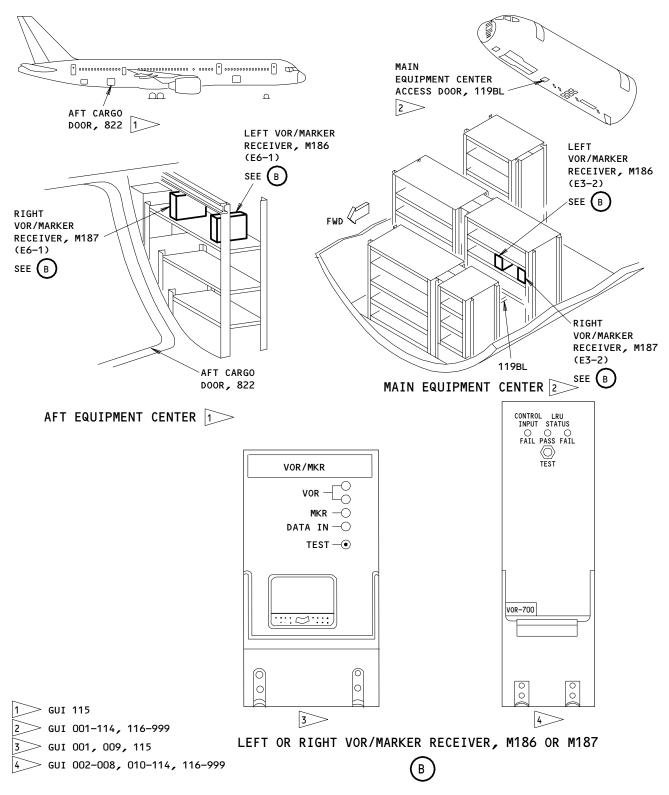
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34-51-00

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VOR Navigation System - Component Location Figure 102 (Sheet 2)

ALL

20 Page 103
Dec 20/96

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ELECTRICAL POWER (MM 24-22-00/201) IRS (MM 34-21-00/501) EFIS (MM 34-22-00/501)

VOR BITE PROCEDURE

PROCEDURE CB'S: 11A2,11A6,11E4,11E25,11E33,11F25

NO ENERGIZE AND ALIGN THE 10 DO THE TWO RDMIS INDICATE 20 REPLACE THE LEFT (RIGHT) IRS. SET THE MODE SWITCH ON INCORRECTLY? RDMI, N3 (N43)(MM 34-22-05/ THE EFIS CONTROL PANEL TO THE 401). YES "VOR" POSITION. TURN THE LEFT IF THE PROBLEM CONTINUES, AND RIGHT POINTER SOURCE REMOVE THE LEFT (RIGHT) RDMI, SWITCHES ON EACH RDMI TO THE N3 (N43). FOR THE LEFT VOR, VOR POSITION. PUSH AND HOLD EXAMINE AND REPAIR THE THE TEST SWITCH ON THE LEFT CIRCUIT FROM THE LEFT (RIGHT) RDMI, CONNECTOR D183 (D185), PINS 38 AND 39 TO TB14, PINS (RIGHT) VOR RECEIVER. ON THE RDMIs, DO THESE STEPS OCCUR? YA16 AND YC16. FOR THE RIGHT VOR, EXAMINE AND REPAIR THE 1) THE LEFT (RIGHT) BEARING CIRCUIT FROM THE LEFT (RIGHT) FLAGS SHOW FOR 6 SECONDS RDMI, CONNECTOR D183 (D185), 2) THE FLAGS DO NOT SHOW PINS 48 AND 49 TO TB16, PINS YA13 AND YC13 THE THIN BEARING POINTERS (WDM 34-22-81,-91).SHOW 180 ±2 FOR 10 INSTALL THE LEFT (RIGHT) SECONDS. RDMI. YES 21 REPLACE THE LEFT (RIGHT) SEE SHEET 2 VOR/MARKER RECEIVER, M186 (BLOCK 2) (M187)(MM 34-51-01/401). IF THE PROBLEM CONTINUES, REMOVE THE LEFT (RIGHT) VOR/ MARKER RECEIVER, M186 (M187). EXAMINE AND REPAIR THE CIRCUIT FROM THE LEFT (RIGHT) VOR/ MARKER RECEIVER, CONNECTOR D231B (D235B), PINS B13 AND C13 TO TB14 (TB16), PINS YA16

VOR BITE Procedure Figure 103 (Sheet 1)

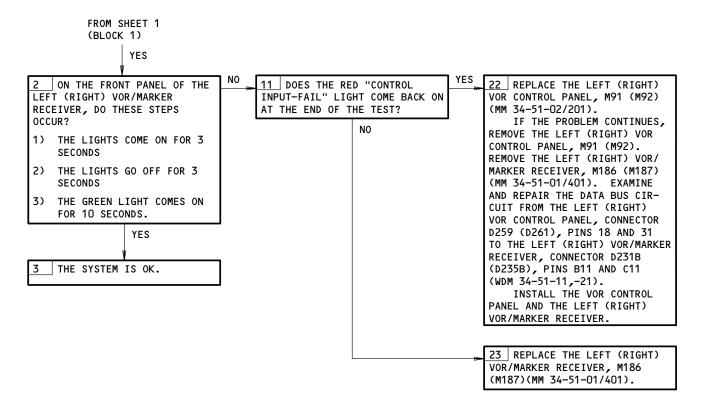
34-51-00

AND YC16 (YA13 AND YC13) (WDM 34-51-11,-21).

VOR/MARKER RECEIVER.

INSTALL THE LEFT (RIGHT)





VOR BITE Procedure Figure 103 (Sheet 2)

GUI 002-008, 010-114, 116-999;

34-51-00

11

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MAKE SURE THIS SYSTEM WILL OPERATE: IRS (MM 34-21-00/501) EFIS (MM 34-22-00/501)

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11A2,11A6,11E4,11E25,11E33,11F25

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

VOR BITE PROCEDURE

20 REPLACE THE LEFT (RIGHT) ENERGIZE AND ALIGN THE 10 DO THE TWO RDMIS INDICATE IRS. SET THE MODE SWITCH ON INCORRECTLY? RDMI, N3 (N43)(MM 34-22-05/ THE EFIS CONTROL PANEL TO THE 401). YES "VOR" POSITION. TURN THE LEFT IF THE PROBLEM CONTINUES, AND RIGHT POINTER SOURCE REMOVE THE LEFT (RIGHT) RDMI, SWITCHES ON EACH RDMI TO THE N3 (N43). FOR THE LEFT VOR, VOR POSITION. PUSH AND HOLD EXAMINE AND REPAIR THE THE TEST SWITCH ON THE LEFT CIRCUIT FROM THE LEFT (RIGHT) RDMI, CONNECTOR D183 (D185), PINS 38 AND 39, TO TB14, PINS YA16 AND YC16. FOR THE RIGHT (RIGHT) VOR RECEIVER. ON THE RDMIS, DO THESE STEPS OCCUR? VOR, EXAMINE AND REPAIR THE 1) THE LEFT (RIGHT) BEARING CIRCUIT FROM THE LEFT (RIGHT) FLAGS SHOW FOR 6 SECONDS RDMI, CONNECTOR D183 (D185), THE FLAGS DO NOT SHOW PINS 48 AND 49, TO TB16, PINS 3) THE THIN BEARING POINTERS YA13 AND YC13 SHOW 180 ±2 FOR 10 (WDM 34-22-81,-91). SECONDS. INSTALL THE LEFT (RIGHT) RDMT. YES SEE SHEET 4 21 REPLACE THE LEFT (RIGHT) (BLOCK 2) VOR/MARKER RECEIVER, M186 (M187)(MM 34-51-01/401).IF THE PROBLEM CONTINUES, REMOVE THE LEFT (RIGHT) VOR/ MARKER RECEIVER, M186 (M187). EXAMINE AND REPAIR THE CIRCUIT FROM THE LEFT (RIGHT) VOR/ MARKER RECEIVER, CONNECTOR D231B (D235B), PINS B13 AND C13, TO TB14 (TB16), PINS YA16 AND YC16 (YA13 AND YC13)

> **VOR BITE Procedure** Figure 103 (Sheet 3)

EFFECTIVITY-GUI 001, 009

A32116

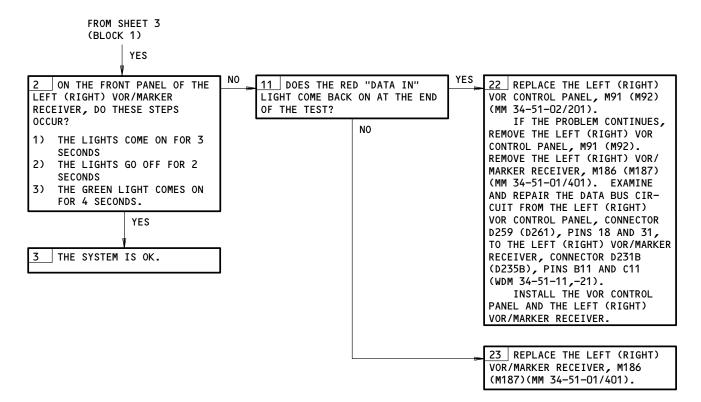
34-51-00

(WDM 34-51-11,-21).

VOR/MARKER RECEIVER.

INSTALL THE LEFT (RIGHT)





VOR BITE Procedure Figure 103 (Sheet 4)

A32121

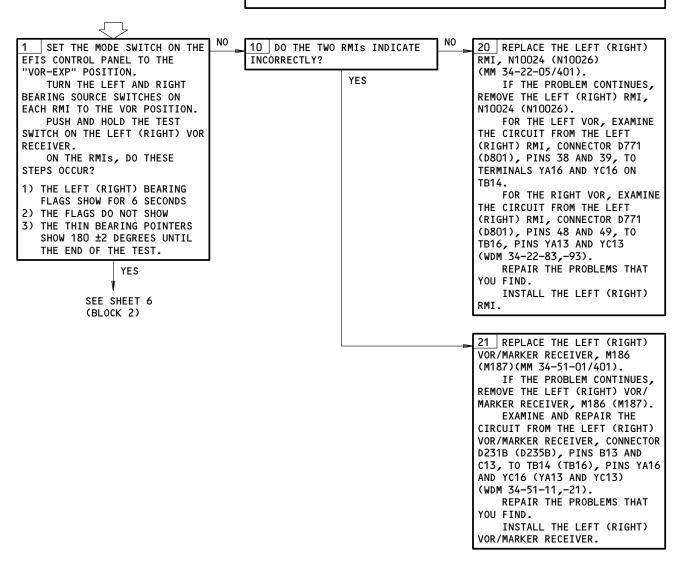


MAKE SURE THESE SYSTEMS WILL OPERATE: IRS (MM 34-21-00/501) EFIS (MM 34-22-00/501)

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11A2,11E33

MAKE SURE THE AIRPLANE IS IN THIS CONFIGURATION: ELECTRICAL POWER IS ON (MM 24-22-00/201) INERTIAL REFERENCE SYSTEM IS ALIGNED IN THE NAV MODE (MM 34-21-00/201)

VOR BITE PROCEDURE



VOR BITE Procedure Figure 103 (Sheet 5)

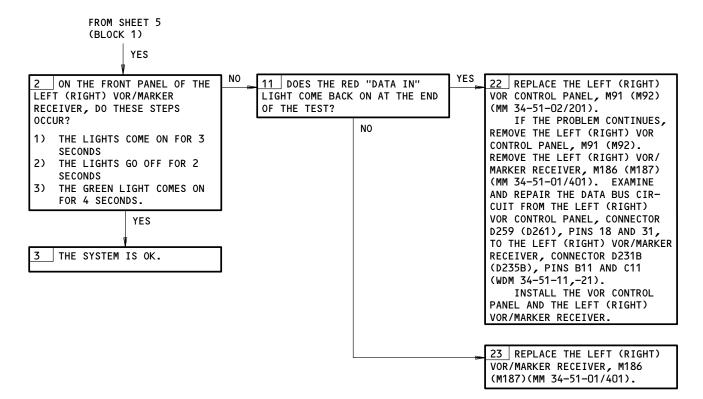
GUI 115

34-51-00

13

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VOR BITE Procedure Figure 103 (Sheet 6)

EFFECTIVITY-**GUI 115**

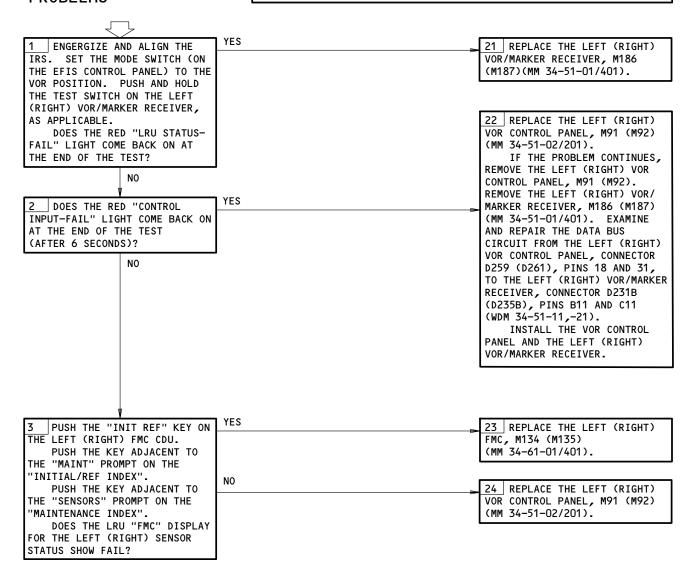


MAKE SURE THIS SYSTEM WILL OPERATE: IRS (MM 34-21-00/501) EFIS (MM 34-22-00/501)

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11A2,11A6,11E33,11F25

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

VOR FLAGS IN VIEW, **VORCP DISPLAY PROBLEMS**



VOR Flags in View, VORCP Display Problems Figure 104 (Sheet 1)

EFFECTIVITY-GUI 002-008, 010-114, 116-999

A32122



VOR FLAGS IN VIEW,

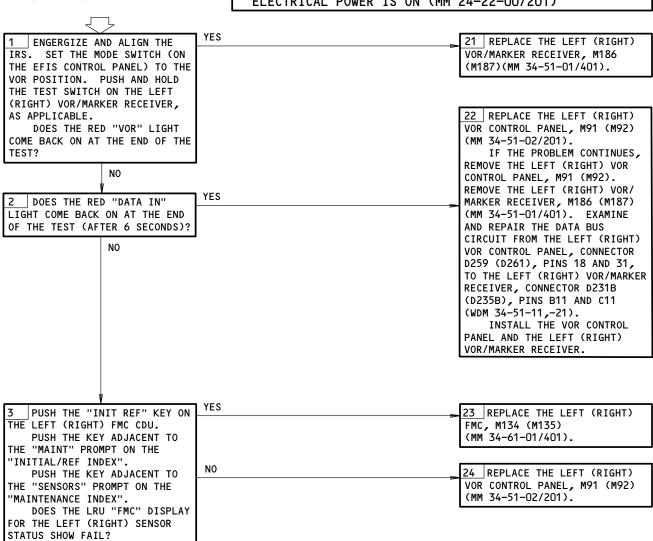
VORCP DISPLAY

PROBLEMS

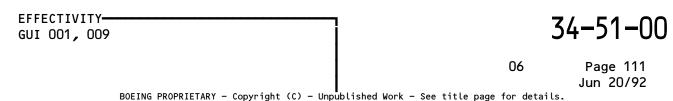
MAKE SURE THIS SYSTEM WILL OPERATE: IRS (MM 34-21-00/501) EFIS (MM 34-22-00/501)

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11A2,11A6,11E33,11F25

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



VOR Flags in View, VORCP Display Problems Figure 104 (Sheet 2)



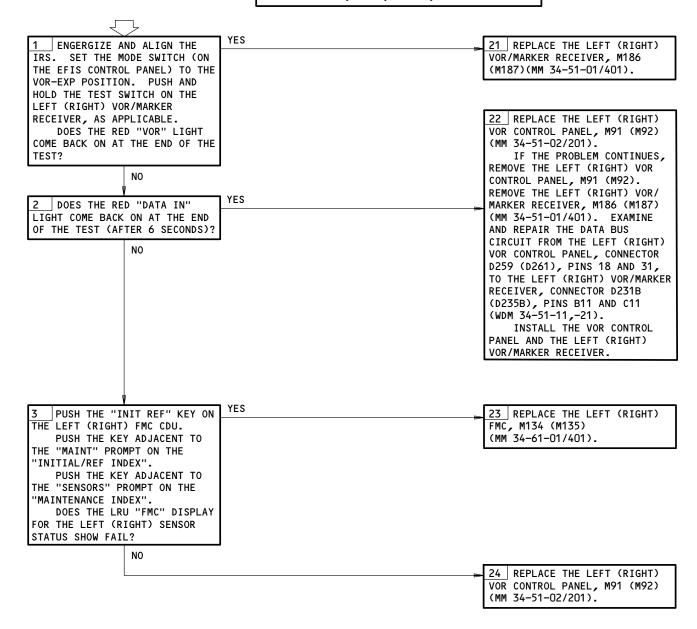


VOR FLAGS IN VIEW, VORCP DISPLAY PROBLEMS

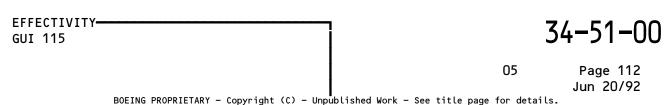
PREREQUISITES

ELECTRICAL POWER (MM 24-22-00/201) IRS (MM 34-21-00/501) EFIS (MM 34-22-00/501)

CB'S: 11A2,11A6,11E33,11F25



VOR Flags in View, VORCP Display Problems Figure 104 (Sheet 3)



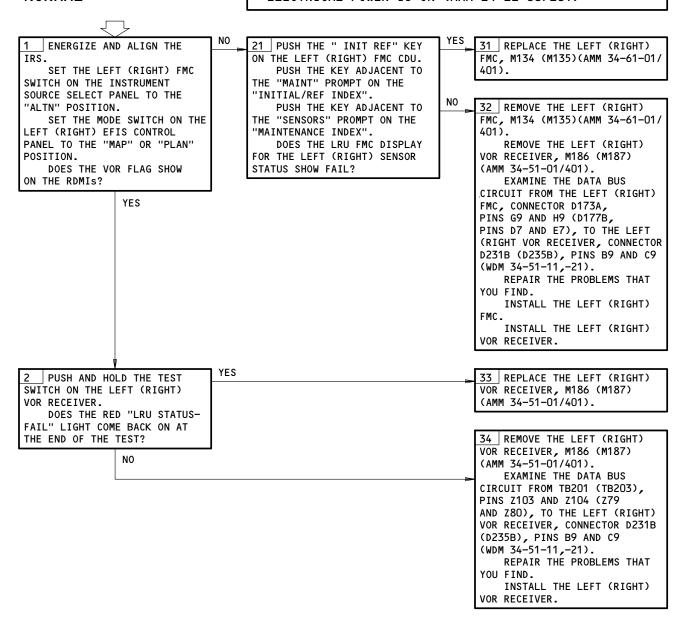


MAKE SURE THIS SYSTEM WILL OPERATE: IRS (AMM 34-21-00/501) EFIS (AMM 34-22-00/501)

FMCS (AMM 34-61-00/501)

AUTOTUNE - VOR FLAG IN VIEW ON RDMIS, MANUAL OPERATION NORMAL MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11A2,11A6,11E9,11E30,11E33,11F25

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



Autotune - VOR Flag in View on RDMIs, Manual Operation Normal Figure 105 (Sheet 1)

GUI 002-008, 010-114, 116-999

34-51-00

06

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MAKE SURE THIS SYSTEM WILL OPERATE:

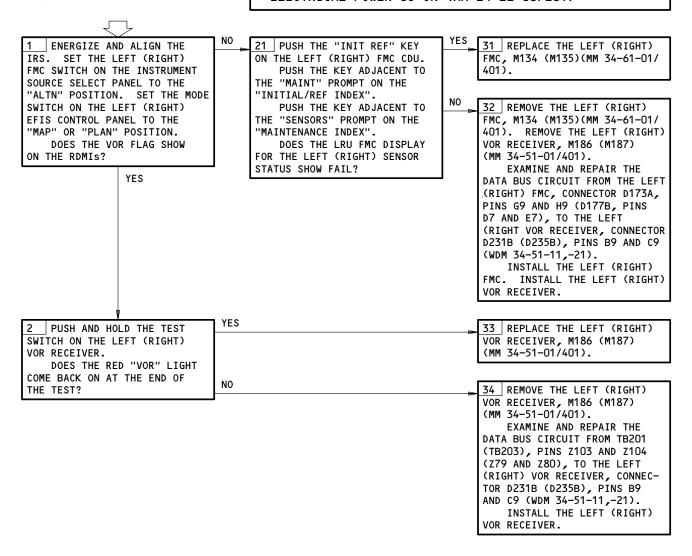
IRS (MM 34-21-00/501) EFIS (MM 34-22-00/501)

FMCS (MM 34-61-00/501)

AUTOTUNE - VOR FLAG IN VIEW ON RDMIs, MANUAL OPERATION NORMAL

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11A2,11A6,11E9,11E30,11E33,11F25

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



Autotune - VOR Flag in View on RDMIs, Manual Operation Normal Figure 105 (Sheet 2)

EFFECTIVITY-GUI 001, 009

A32125



MAKE SURE THESE SYSTEMS WILL OPERATE:

IRS (MM 34-21-00/501)

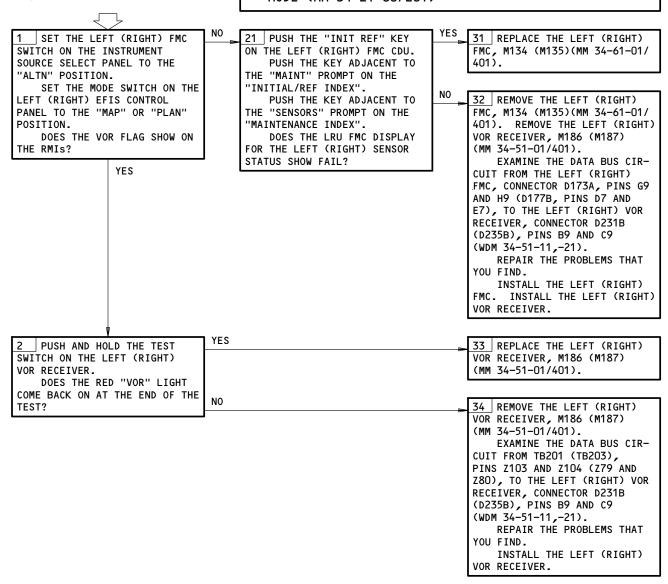
EFIS (MM 34-22-00/501)

FMCS (MM 34-61-00/501)

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11A2,11E33

AUTOTUNE - VOR FLAG IN VIEW ON RMIS, MANUAL OPERATION NORMAL

MAKE SURE THE AIRPLANE IS IN THIS CONFIGURATION: ELECTRICAL POWER IS ON (MM 24-22-00/201) INERTIAL REFERENCE SYSTEM IS ALIGNED IN THE NAV MODE (MM 34-21-00/201)



Autotune - VOR Flag in View on RMIs, Manual Operation Normal Figure 105 (Sheet 3)

GUI 115

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03

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MAKE SURE THESE SYSTEMS WILL OPERATE: IRS (AMM 34-21-00/501) EFIS (AMM 34-22-00/501)

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11A2,11E33

MAKE SURE THE AIRPLANE IS IN THIS CONFIGURATION: ELECTRICAL POWER IS ON (AMM 24-22-00/201) INERTIAL REFERENCE SYSTEM IS ALIGNED IN THE NAV MODE (AMM 34-21-00/201)

VOR FLAG ON EHSI, RDMI/RMI DISPLAYS ARE NORMAL

NOTE: IF YOU SET THE "INOP" SWITCH ON THE EFIS CONTROL PANEL WHEN YOU ARE IN THE MAP MODE, A VOR FLAG WILL SHOW ON THE EHSI. MAKE SURE THE "INOP" SWITCH IS NOT SET.

1 SET THE "EFI" SWITCH ON THE LEFT (RIGHT) INSTRUMENT SOURCE SELECT PANEL TO THE "ALTN" POSITION.

DOES THE VOR FLAG SHOW ON THE CAPT (F/O) EHSI?

YES

N0

31 REPLACE THE LEFT (RIGHT) EFIS SYMBOL GENERATOR, M148 (M150)(AMM 34-22-01/401).

IF THE PROBLEM CONTINUES, REMOVE THE LEFT (RIGHT) EFIS SYMBOL GENERATOR.

EXAMINE THE DATA BUS CIR-CUIT FROM TB201 (TB203), PINS YC75 AND YC76 (Z87 AND Z88), TO THE LEFT (RIGHT) EFIS SYMBOL GENERATOR, CONNECTOR D81A (D83D), PINS J3 AND K3 (WDM 34-22-19,-29).

REPAIR THE PROBLEMS THAT YOU FIND.

INSTALL THE LEFT (RIGHT) EFIS SYMBOL GENERATOR.

32 REMOVE THE LEFT (RIGHT) VOR RECEIVER, M186 (M187) (AMM 34-51-01/401).

EXAMINE THE DATA BUS CIRCUIT FROM THE LEFT (RIGHT) VOR RECEIVER, CONNECTOR D231B (D235B), PINS B13 AND C13, TO TB201 (TB203), PINS YC75 AND YC76 (Z87 AND Z88)

(WDM 34-22-19,-29).

REPAIR THE PROBLEMS THAT YOU FIND.

INSTALL THE LEFT (RIGHT)
VOR RECEIVER.

VOR Flag on EHSI, RDMI/RMI Displays are Normal Figure 106

 34-51-00

04

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MAKE SURE THESE SYSTEMS WILL OPERATE: IRS (MM 34-21-00/501) EFIS (MM 34-22-00/501)

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11A2,11E33

MAKE SURE THE AIRPLANE IS IN THIS CONFIGURATION: ELECTRICAL POWER IS ON (MM 24-22-00/201) INERTIAL REFERENCE SYSTEM IS ALIGNED IN THE NAV MODE (MM 34-21-00/201)

VOR DISPLAY PROBLEMS ON LEFT (RIGHT) RDMI AND EHSI

1 PUSH AND HOLD THE TEST
SWITCH ON THE LEFT (RIGHT)
VOR RECEIVER.
DOES THE RED "LRU STATUS—
FAIL" LIGHT COME BACK ON AT
THE END OF THE TEST?

NO

21 REPLACE THE LEFT (RIGHT)
VOR RECEIVER, M186 (M187)
(MM 34–51–01/401).

22 DO THE PROCEDURE 34–51–00,
FIG. 106, SHT 1.

VOR Display Problems on Left (Right) RDMI and EHSI Figure 107 (Sheet 1)



MAKE SURE THESE SYSTEMS WILL OPERATE: IRS (MM 34-21-00/501) EFIS (MM 34-22-00/501)

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11A2,11E33

MAKE SURE THE AIRPLANE IS IN THIS CONFIGURATION: ELECTRICAL POWER IS ON (MM 24-22-00/201) INERTIAL REFERENCE SYSTEM IS ALIGNED IN THE NAV MODE (MM 34-21-00/201)

VOR DISPLAY PROBLEMS ON LEFT (RIGHT) RDMI AND EHSI

1 PUSH AND HOLD THE TEST
SWITCH ON THE LEFT (RIGHT)
VOR RECEIVER.
DOES THE RED "VOR" LIGHT
COME BACK ON AT THE END OF
THE TEST?

NO

21 REPLACE THE LEFT (RIGHT)
VOR RECEIVER, M186 (M187)
(MM 34-51-01).

22 DO THE PROCEDURE 34-51-00,
FIG. 106, SHT 1.

VOR Display Problems on Left (Right) RDMI and EHSI Figure 107 (Sheet 2)

GUI 001, 009



MAKE SURE THESE SYSTEMS WILL OPERATE: IRS (MM 34-21-00/501) EFIS (MM 34-22-00/501)

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11A2,11E33

MAKE SURE THE AIRPLANE IS IN THIS CONFIGURATION: ELECTRICAL POWER IS ON (MM 24-22-00/201) INERTIAL REFERENCE SYSTEM IS ALIGNED IN THE NAV MODE (MM 34-21-00/201)

VOR DISPLAY
PROBLEMS ON LEFT
(RIGHT) RMI AND
EHSI

1 PUSH AND HOLD THE TEST
SWITCH ON THE LEFT (RIGHT)
VOR RECEIVER.
DOES THE RED "VOR" LIGHT
COME BACK ON AT THE END OF
THE TEST?

NO

21 REPLACE THE LEFT (RIGHT)
VOR RECEIVER, M186 (M187)
(MM 34-51-01).

22 DO THE PROCEDURE 34-51-00,
FIG. 106, SHT 2.

VOR Display Problems on Left (Right) RMI and EHSI Figure 107 (Sheet 3)

VOR INDICATIONS NORMAL, FREQ DISPLAY ON VORCP ABNORMAL

PREREQUISITES
ELECTRICAL POWER (MM 24-22-00/201)

IRS (MM 34-21-00/501)

EFIS (MM 34-22-00/501) FMCS (MM 34-61-00/501)

CB'S: 11A2,11A6,11E9,11E30,11E33,11F25

21 REMOVE THE LEFT (RIGHT) ENERGIZE AND ALIGN THE 11 PUSH THE "INIT REF" KEY VOR CONTROL PANEL, M91 (M92) IRS. REPLACE THE LEFT (RIGHT) ON THE LEFT (RIGHT) FMC CDU. VOR CONTROL PANEL, M91 (M92) PUSH THE KEY ADJACENT TO (MM 34-51-02/201).THE "MAINT" PROMPT ON THE EXAMINE AND REPAIR THE (MM 34-51-02/201).IS THE DISPLAY AS USUAL? "INITIAL/REF INDEX". DATA BUS CIRCUIT FROM TB201 PUSH THE KEY ADJACENT TO (TB203), PINS Z101 AND Z102 YES THE "SENSORS" PROMPT ON THE (YA73 AND YA74) TO THE LEFT (RIGHT) VOR CONTROL PANEL, "MAINTENANCE INDEX". DOES THE LRU VOR FOR THE CONNECTOR D259 (D261), PINS 8 AND 21 (WDM 34-51-11,-21). LEFT (RIGHT) SENSOR STATUS SHOW FAIL? INSTALL THE VOR CONTROL PANEL. YES 2 THE VOR SYSTEM IS OK. 12 ON THE LEFT (RIGHT) FMC 22 REPLACE THE LEFT (RIGHT) CDU, DOES THE LRU FMC FOR THE FMC, M134 (M135)(MM 34-51-01/ LEFT (RIGHT) SENSOR STATUS 401). SHOW FAIL? NO 23 REMOVE THE LEFT (RIGHT) VOR/MARKER RECEIVER, M186 (M187)(MM 34-51-01/401).EXAMINE AND REPAIR THE DATA BUS CIRCUIT FROM THE LEFT (RIGHT) VOR/MARKER RECEIVER, CONNECTOR D231B (D235B), PINS A4 AND B4 TO TB201 (TB203), PINS Z101 AND Z102 (YA73 AND YA74)

VOR Indications Normal, Freq Display on VORCP Abnormal Figure 108

34-51-00

(WDM 34-51-11,-21).

VOR/MARKER RECEIVER.

INSTALL THE LEFT (RIGHT)

196727



MAKE SURE THESE SYSTEMS WILL OPERATE: IRS (AMM 34-21-00/501) EFIS (AMM 34-22-00/501)

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11A2,11E33

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

BRG FLAG ON RDMIS, NO "VOR" FLAG ON EHSI, VORCP FREQ SELECT OK

1 REMOVE THE LEFT (RIGHT)

VOR/MARKER RECEIVER, M186

(M187)(AMM 34-51-01/401).

DO THE ANTENNA CABLE CHECK

PROCEDURE (AMM 20-10-32/201)

AT THE LEFT (RIGHT) VOR/MARKER

RECEIVER, CONNECTOR D231C

(D235C), PIN 1.

IS THE VOR ANTENNA CABLE

YES

20 INSTALL THE LEFT (RIGHT)
VOR/MARKER RECEIVER, M186
(M187)(AMM 34-51-01/401).
REPLACE THE VOR ANTENNA,
M262 (AMM 34-51-03/401).

NO

21 REPLACE THE VOR ANTENNA
CABLE CIRCUIT FROM THE LEFT
(RIGHT) VOR/MARKER RECEIVER,
CONNECTOR D231C (D235C),
PIN 1, TO THE VOR ANTENNA,
CONNECTOR D597 (D621)
(WDM 34-51-11,-21).
INSTALL THE LEFT (RIGHT)
VOR/MARKER RECEIVER, M186
(M187)(AMM 34-51-01/401).

EFFECTIVITY GUI 001-114, 116-999

34-51-00

A70977



MAKE SURE THESE SYSTEMS WILL OPERATE: IRS (AMM 34-21-00/501) EFIS (AMM 34-22-00/501)

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11A2,11E33

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

YES 1 REMOVE THE LEFT (RIGHT) 20 INSTALL THE LEFT (RIGHT) VOR/MARKER RECEIVER, M186 VOR/MARKER RECEIVER, M186 (M187)(AMM 34-51-01/401). (M187)(AMM 34-51-01/401). REPLACE THE VOR ANTENNA, DO THE ANTENNA CABLE CHECK PROCEDURE (AMM 20-10-32/201) M262 (AMM 34-51-03/401). AT THE LEFT (RIGHT) VOR/MARKER RECEIVER, CONNECTOR D231C (D235C), PIN 1. IS THE VOR ANTENNA CABLE NO 21 REPLACE THE VOR ANTENNA CABLE CIRCUIT FROM THE LEFT (RIGHT) VOR/MARKER RECEIVER, CONNECTOR D231C (D235C), PIN 1, TO THE VOR ANTENNA, CONNECTOR D597 (D621) (WDM 34-51-11,-21).

Brg Flag on RMIs, No VOR Flag on EHSI, VORCP Freq Select OK Figure 109 (Sheet 2)

GUI 115

BRG FLAG ON RMIs,

NO "VOR" FLAG ON

EHSI, VORCP FREQ

SELECT OK

34-51-00

INSTALL THE LEFT (RIGHT)
VOR/MARKER RECEIVER, M186
(M187)(AMM 34-51-01/401).



1. ARINC Data Bus Charts

A. General

<u>CAUTION</u>: DO NOT DIRECTLY TOUCH THE CONNECTORS. USE A BREAKOUT BOX OR YOU CAN CAUSE DAMAGE TO THE CONNECTORS.

(1) The ARINC 429 data bus charts give data necessary to make an analysis of ARINC 429 transmitters, receivers, and data buses. For the test, use a breakout box at the available terminal or at the LRU connectors.

B. Equipment

- (1) Standard multi-meter
- (2) 429EBP Data Bus Analyzer (recommended) JcAIR Instrumentation 400 Industrial Parkway Industrial Airport, KS 66031

429-2 Data Bus Analyzer (alternative) Interface Technology 150 E. Arrow Highway San Dimas, CA 91773

(3) A34011-1 Breakout Box (recommended) A34011-112 Breakout Box (alternative)

VOR										
DIGITAL OUTPUT BUS CHART										
	Bl	JS	NAME					BUS	ВІТ	
	SOURCE	E		TYPE	BUS	CON	PINS	FORMAT		DATA BUS
VOR	(L	R)	Α	1	В	A04 B04	429	LO	OMNIBEARING #1
VOR	(L	R)	Α	2	В	B13 C13	429	LO	OMNIBEARING #2

VOR ID=11										
OCTAL LABELS CHART										
SIGNAL TYPE LABEL FORMAT RATE SDI RANGE SENSE UN								UNITS		
SELECTED COURSE #1	Α	024	BCD	5	00	0-359	CW FROM N	DEG		
VOR FREQUENCY	Α	034	BCD	5	00	108-117.95	ALWAYS POS	MHZ		
VOR OMNIBEARING	Α	222	BNR	16	00	+-180	CW FROM N	DEG		

ΕІ					

ALL



VOR									
DISCRETE OCTAL LABELS/BIT CHART									
SIGNAL	OCTAL LABEL	ВІТ	ONE-STATE	ZERO-STATE					
400 HZ MKR BEACON	222	11	PRESENT	NOT PRES					
1300 HZ MKR BEACON	222	12	PRESENT	NOT PRES					
4000 HZ MKR BEACON	222	13	PRESENT	NOT PRES					

EFFECTIVITY-

34-51-00

02



VOR CP									
DIGITAL OUTPUT BUS CHART									
BUS NAME						BUS	BIT	А	
SOURCE	TYPE	BUS	CON	PIN	S	FORMAT		DATA BUS	
VORCP (L R)	А	1		18	31	429	L0	VOR FREQUENCY	
VORCP (L R)	А	2		16	29	429	L0	DME FREQUENCY	

VOR CP ID=B1										
OCTAL LABELS CHART										
SIGNAL	TYPE	LABEL	FORMAT	MIN UPDATE RATE	SDI	BINARY RANGE	POSITIVE SENSE	UNITS		
SEL RUNWAY HDG-D	Α	017	BCD	5	00	0-359	CW FROM N	DEG		
SELECTED COURSE #1	Α	024	BCD	5	00	0-359	CW FROM N	DEG		
ILS FREQUENCY	Α	033	BCD	5	00	108-111.95	ALWAYS POS	MHZ		
VOR FREQUENCY	Α	034	BCD	5	00	108-117.95	ALWAYS POS	MHZ		
DME FREQUENCY	Α	035	BCD	5	00	108-135.95	ALWAYS POS	MHZ		

VOR CP										
DISCRETE OCTAL LABELS/BIT CHART										
SIGNAL	OCTAL LABEL	BIT	ONE-STATE	ZERO-STATE						
VOR/ILS FREQ	034	14	ILS	VOR						
DME MODE 1	035	11	CODED							
DME MODE 2	035	12	CODED							
DME MODE 3	035	13	CODED							
VOR/ILS FREQ	035	14	ILS	VOR						

EFFECTIVITY-



AIR TRAFFIC CONTROL (ATC) SYSTEM

COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	AMM REFERENCE
ANTENNA - BOTTOM ATC, M10144 ANTENNA - TOP ATC, M10769 CIRCUIT BREAKER - ATC ANT SWITCH, C4423 ATC LEFT, C4051 ATC RIGHT, C4052 COMPUTER - (FIM 31-41-00/101) EICAS LEFT, M10181	1 1	1 1 1 1 1	BOTTOM OF FUSELAGE TOP OF FUSELAGE FLIGHT COMPT, P11 11C20 11F7 11F28	34-53-03 34-53-03 * * *
EICAS RIGHT, M10182 PANEL - ATC CONTROL, M10140 RELAY - (FIM 31-01-36/101) SYS NO. 1 AIR/GND, K143 RELAY - (FIM 31-01-37/101) SYS NO. 2 AIR/GND, K201 SWITCH - (FIM 34-12-00/101) LEFT ADC, S482 RIGHT ADC, S483	2	1	FLIGHT COMPT, P8	34-53-02
SWITCH - BOTTOM ATC ANT, S10564 SWITCH - TOP ATC ANT, S10563 TRANSPONDER - LEFT ATC, M10141 TRANSPONDER - RIGHT ATC, M10142	2 2 2 2	1 1 1 1	119BL, MAIN EQUIP CENTER, E3-3 119BL, MAIN EQUIP CENTER, E3-2 119BL, MAIN EQUIP CENTER, E3-3 119BL, MAIN EQUIP CENTER, E3-2	34-53-04 34-53-04 34-53-01 34-53-01

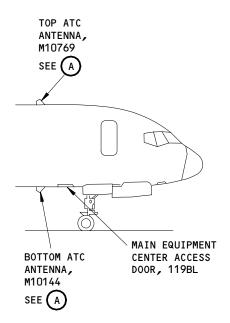
^{*} SEE THE WDM EQUIPMENT LIST

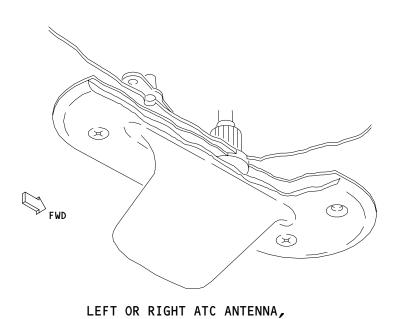
Air Traffic Control (ATC) System - Component Index Figure 101

EFFECTIVITY—GUI 115

34-53-00 config 3







Air Traffic Control (ATC) System - Component Location Figure 102 (Sheet 1)

M10144 OR M10769

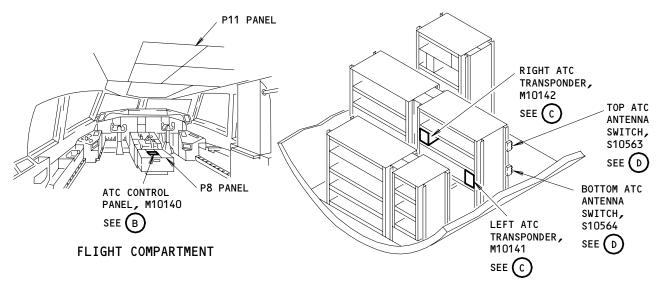
EFFECTIVITY-GUI 115

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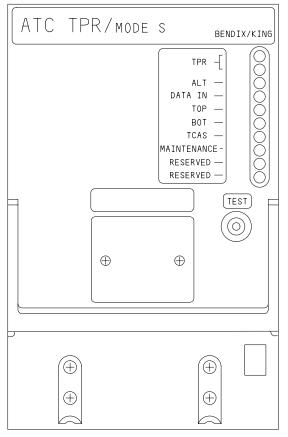
05



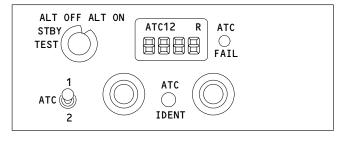
FAULT ISOLATION/MAINT MANUAL



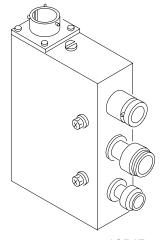




LEFT OR RIGHT ATC TRANSPONDER, M10141 OR M10142



ATC CONTROL PANEL, M10140



ATC ANTENNA SWITCH, S10563 OR S10564



Air Traffic Control (ATC) System - Component Location Figure 102 (Sheet 2)

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MAKE SURE THIS SYSTEM WILL OPERATE: ADC SYSTEM (MM 34-12-00/501)

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11C20,11F7,11F28

MAKE SURE THE AIRPLANE IS IN THE CONFIGURATION THAT FOLLOWS:

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

ATC SYSTEM **BITE PROCEDURE**

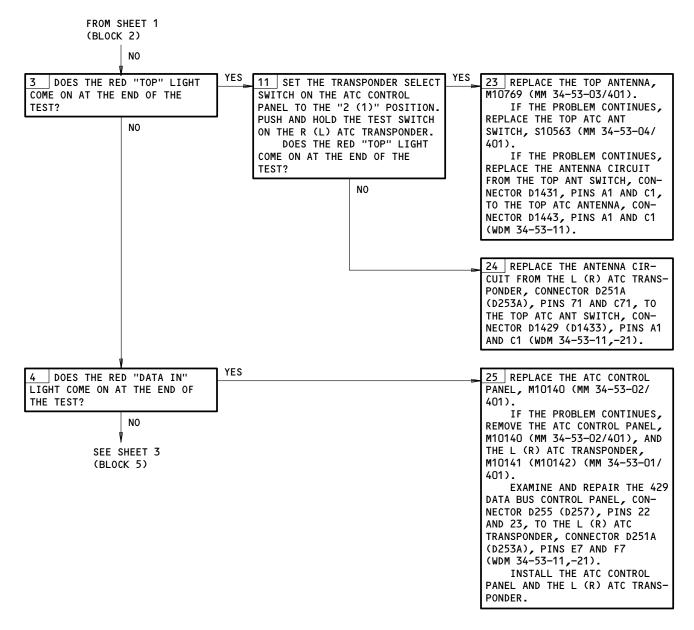
YES SET THE TRANSPONDER SELECT 20 REPLACE THE L (R) ATC SWITCH ON THE ATC CONTROL TRANSPONDER, M10141 (M10142) (MM 34-53-01/401). PANEL TO THE "1 (2)" POSITION. SET THE L (R) ADC SWITCH ON THE INSTRUMENT SOURCE SELECT PANEL TO THE "NORM" POSITION. PUSH AND HOLD THE TEST SWITCH ON THE L (R) ATC TRANSPONDER. DOES THE RED "TPR" LIGHT COME ON AT THE END OF THE TEST? NO YES YES DOES THE RED "BOT" LIGHT 10 SET THE TRANSPONDER SELECT 21 REPLACE THE BOTTOM COME ON AT THE END OF THE SWITCH ON THE ATC CONTROL ANTENNA, M10144 (MM 34-53-03/ PANEL TO THE "2 (1)" POSITION. TEST? 401). PUSH AND HOLD THE TEST SWITCH IF THE PROBLEM CONTINUES, NO ON THE R (L) ATC TRANSPONDER. REPLACE THE BOTTOM ATC ANT DOES THE RED "BOT" LIGHT SWITCH, S10564 (MM 34-53-04/ SEE SHEET 2 COME ON AT THE END OF THE 401). TFST? IF THE PROBLEM CONTINUES, (BLOCK 3) REPLACE THE ANTENNA CIRCUIT NO FROM THE BOTTOM ANT SWITCH, CONNECTOR D1439, PINS A1 AND C1, TO THE BOTTOM ATC ANTENNA, CONNECTOR D429, PINS A1 AND C1 (WDM 34-53-11). 22 REPLACE THE ANTENNA CIR-CUIT FROM THE L (R) ATC TRANS-PONDER, CONNECTOR D251B (D253B), PINS 71 AND C71, TO THE BOTTOM ATC ANT SWITCH, CONNECTOR D1437 (D1441), PINS A1 AND C1 (WDM 34-53-11,-21).

> ATC System BITE Procedure Figure 103 (Sheet 1)

EFFECTIVITY-**GUI 115**

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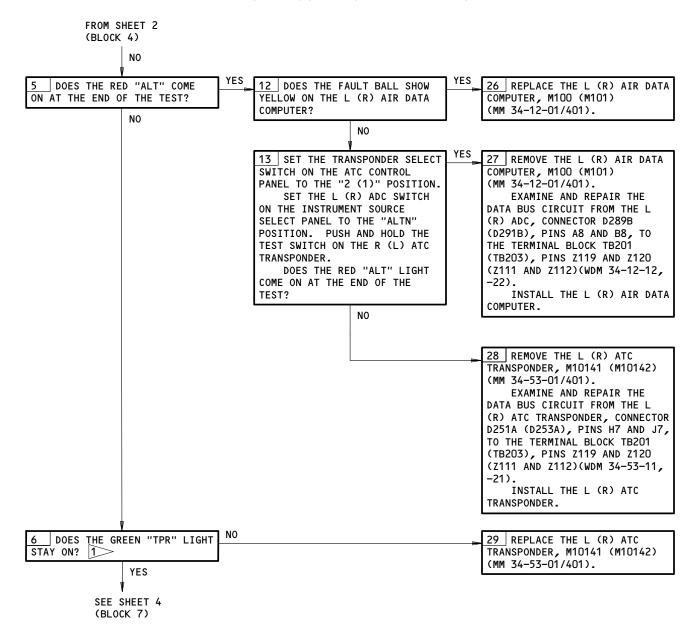
34-53-00



ATC System BITE Procedure Figure 103 (Sheet 2)

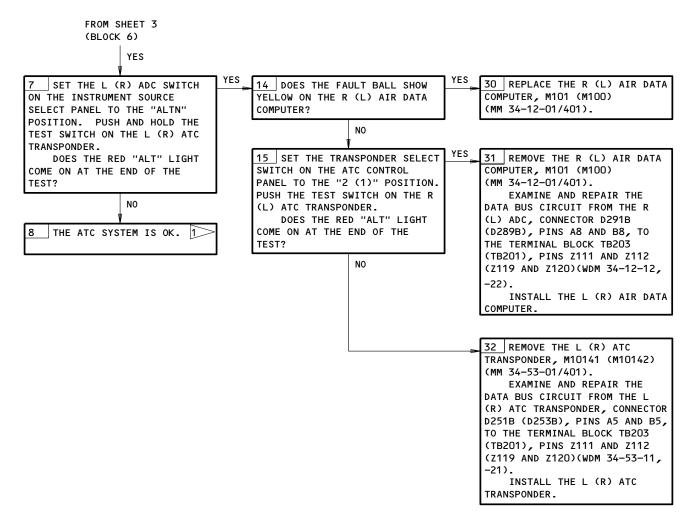
GUI 115

SOS



THE GREEN "TPR" LIGHT WILL STAY ON OR FLICKER AT THE END OF THE TEST IF THE TRANSPONDER IS REPLYING TO A SIGNAL.

ATC System BITE Procedure Figure 103 (Sheet 3)



ATC System BITE Procedure Figure 103 (Sheet 4)

EFFECTIVITY-**GUI 115**

34-53-00 CONFIG



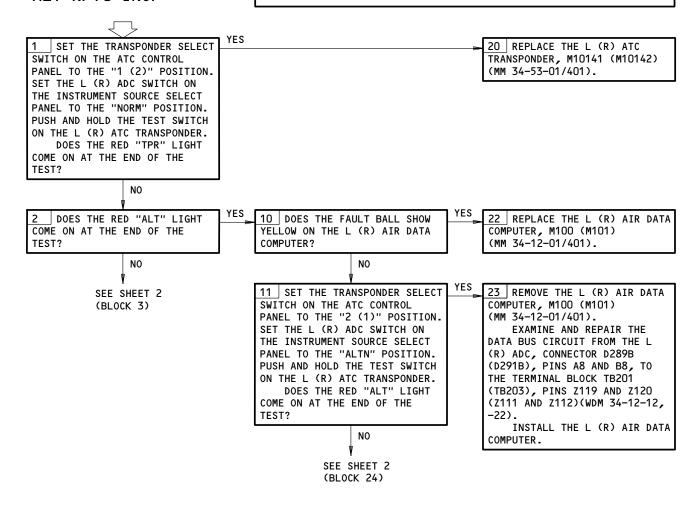
MAKE SURE THIS SYSTEM WILL OPERATE: ADC SYSTEM (MM 34-12-00/501)

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11C2O,11F7,11F28

MAKE SURE THE AIRPLANE IS IN THE CONFIGURATION THAT FOLLOWS:

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

ALT RPTG INOP



Alt Rptg Inop Figure 104 (Sheet 1)

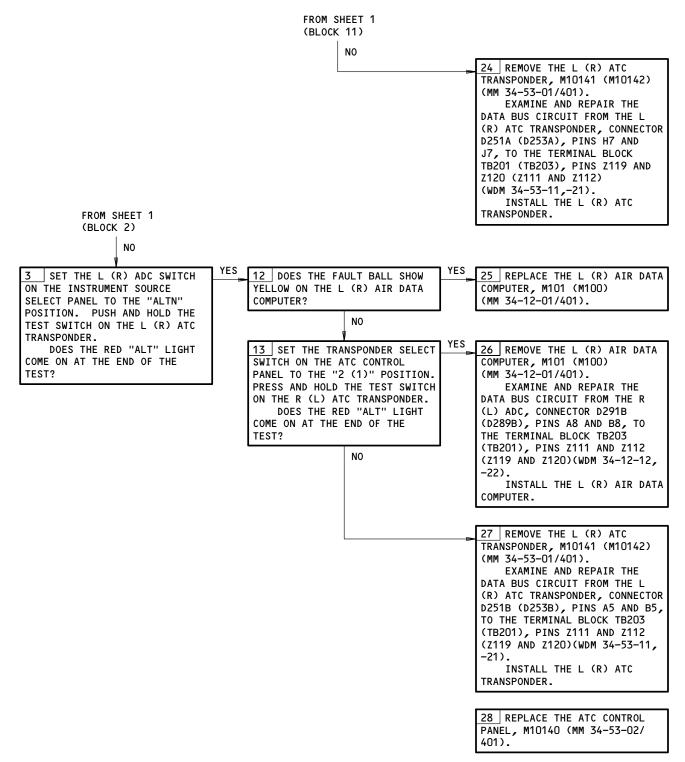
GUI 115

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CONFIG 3

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Alt Rptg Inop Figure 104 (Sheet 2)

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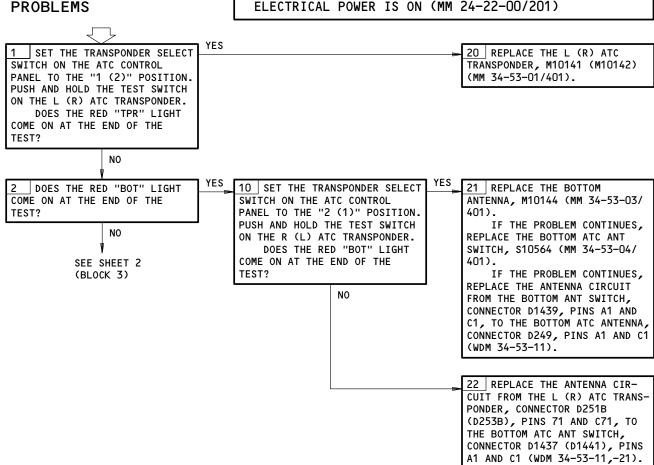


MAKE SURE THIS SYSTEM WILL OPERATE: ADC SYSTEM (MM 34-12-00/501)

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11C20,11F7,11F28

MAKE SURE THE AIRPLANE IS IN THE CONFIGURATION THAT FOLLOWS:

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



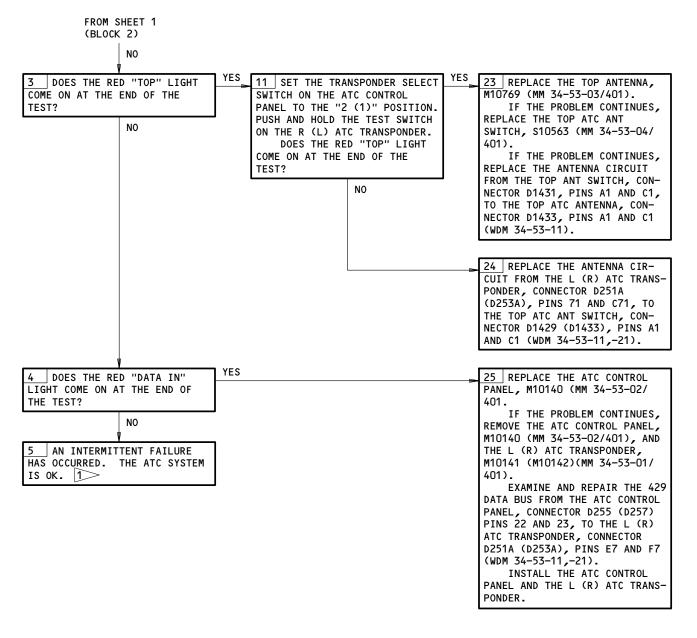
ATC Transmission Problems Figure 105 (Sheet 1)

EFFECTIVITY-**GUI 115**

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ATC TRANSMISSION

34-53-00 CONFIG



THE GREEN "TPR" LIGHT WILL STAY ON OR FLICKER AT THE END OF THE TEST IF THE TRANSPONDER IS REPLYING TO A SIGNAL.

ATC Transmission Problems Figure 105 (Sheet 2)



1. ARINC Data Bus Charts

A. General

<u>CAUTION</u>: DO NOT DIRECTLY TOUCH THE CONNECTORS. USE A BREAKOUT BOX OR YOU CAN CAUSE DAMAGE TO THE CONNECTORS.

(1) The ARINC 429 data bus charts give data necessary to make an analysis of ARINC 429 transmitters, receivers, and data buses. For the test, use a breakout box at the available terminal or at the LRU connectors.

B. Equipment

- (1) Standard multi-meter
- (2) 429EBP Data Bus Analyzer (recommended) JCAIR Instrumentation 400 Industrial Parkway Industrial Airport, KS 66031

429-2 Data Bus Analyzer (alternative) Interface Technology 150 E. Arrow Highway San Dimas, CA 91773

(3) A34011-1 Breakout Box (recommended) A34011-112 Breakout Box (alternative)

ATC PNI	ATC PNL									
DIGITAL OUTPUT BUS CHART										
BUS NAME							BUS	ВІТ		
	SOURCE		TYPE	BUS	CON	PINS	FORMAT		DATA BUS	
ATCPNL	(L)	Α	1	P1	22 23	429	LO	CONTROL DATA OUT L	
ATCPNL	(R)	Α	2	P2	22 23	429	L0	CONTROL DATA OUT R	

ATC PNL ID=B8									
OCTAL LABELS CHART									
SIGNAL	TYPE	LABEL	FORMAT	MIN UPDATE RATE	SDI	BINARY RANGE	POSITIVE SENSE	UNITS	
XPONDER CODE	Α	031	BCD	5	00	N/A	N/A	N/A	

EFFECTIVITY—GUI 115

34-53-00

CONFIG



AIR TRAFFIC CONTROL (ATC) SYSTEM

COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	AMM REFERENCE
ANTENNA - BOTTOM ATC, M10144	1	1	BOTTOM OF FUSELAGE	34-53-03
ANTENNA - TOP ATC, M10769	1	1	TOP OF FUSELAGE	34-53-03
CIRCUIT BREAKER -			FLIGHT COMPT, P11	
ATC ANT SWITCH, C4423		1	11020	*
ATC LEFT, C4051		1	11F7	*
ATC RIGHT, C4052		1	11F28	*
COMPUTER - (FIM 31-41-00/101)				
EICAS LEFT, M10181				
EICAS RIGHT, M10182	_		_	
PANEL - ATC CONTROL, M10140	2	1	FLIGHT COMPT, P8	34-53-02
RELAY - (FIM 31-01-36/101)				
SYS NO. 1 AIR/GND, K143				
RELAY - (FIM 31-01-37/101)				
SYS NO. 2 AIR/GND, K201				
SWITCH - (FIM 34-12-00/101)				
LEFT ADC, S482				
RIGHT ADC, S483	,	1	110DL MAIN FOLLID CENTED F7 7	7/ 57 0/
SWITCH - BOTTOM ATC ANT, \$10564	2 2		119BL, MAIN EQUIP CENTER, E3-3	34-53-04
SWITCH - TOP ATC ANT, S10563	2		119BL, MAIN EQUIP CENTER, E3-2	34-53-04 34-53-01
TRANSPONDER - LEFT ATC, M10141	2		119BL, MAIN EQUIP CENTER, E3-3	34-53-01
TRANSPONDER - RIGHT ATC, M10142	4		119BL, MAIN EQUIP CENTER, E3-2	34-53-01

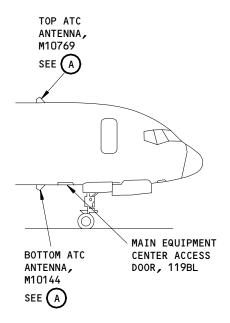
^{*} SEE THE WDM EQUIPMENT LIST

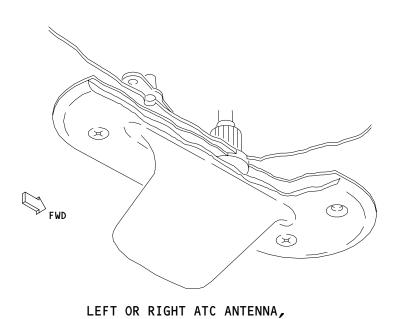
Air Traffic Control (ATC) System - Component Index Figure 101

EFFECTIVITY-GUI 001-114, 116-999

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Air Traffic Control (ATC) System - Component Location Figure 102 (Sheet 1)

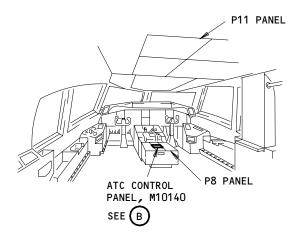
M10144 OR M10769

814010

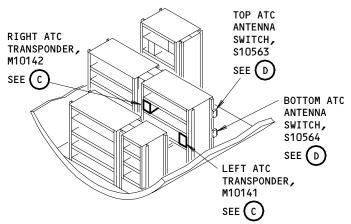
34-53-00 CONFIG 4 Page 102 Sep 20/94



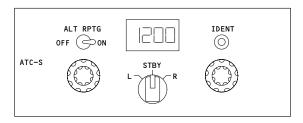
FAULT ISOLATION/MAINT MANUAL



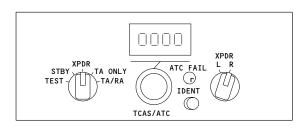
FLIGHT COMPARTMENT



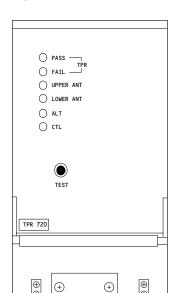
MAIN EQUIPMENT CENTER



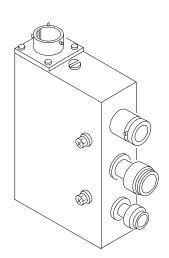
ATC CONTROL PANEL, M10140



ATC CONTROL PANEL, M10140



LEFT OR RIGHT ATC TRANSPONDER,
M10141 OR M10142



ATC ANTENNA SWITCH, \$10563 OR \$10564

1 GUI 001-006 2 GUI 007-114,116-999

(c)

Air Traffic Control (ATC) System - Component Location Figure 102 (Sheet 2)

34-53-00 CONFIG 4

09

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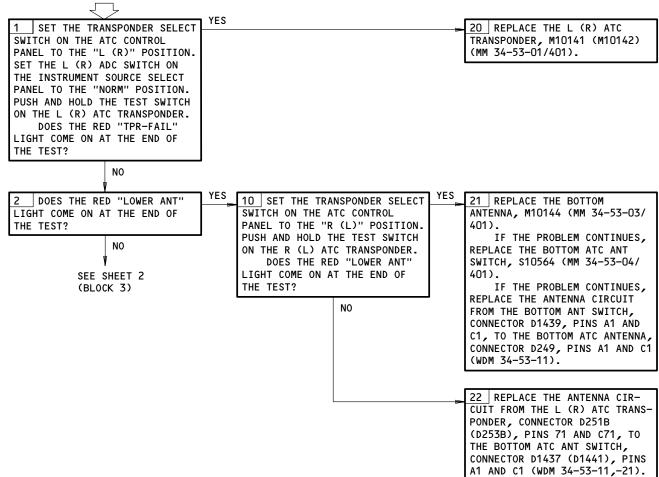
MAKE SURE THIS SYSTEM WILL OPERATE: ADC SYSTEM (MM 34-12-00/501)

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11C2O,11F7,11F28

MAKE SURE THE AIRPLANE IS IN THE CONFIGURATION THAT FOLLOWS:

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

ATC SYSTEM BITE PROCEDURE



ATC System BITE Procedure Figure 103 (Sheet 1)

GUI 001-114, 116-999

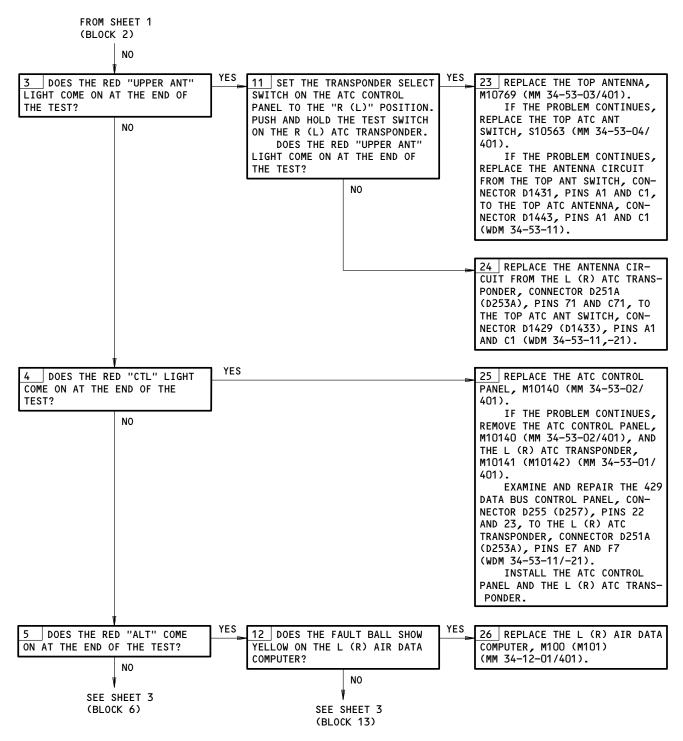
34-53-00

CONFIG 4

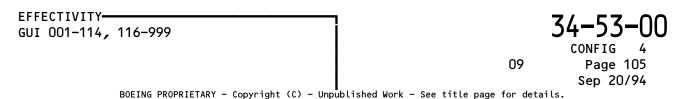
Page 104

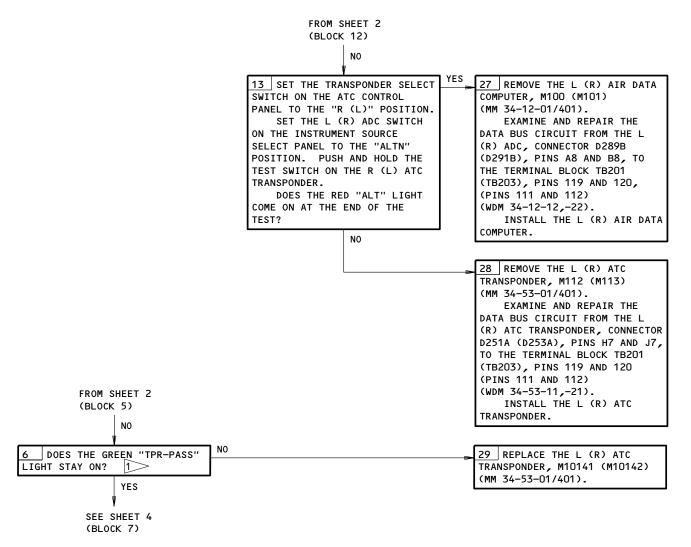
Sep 20/94





ATC System BITE Procedure Figure 103 (Sheet 2)

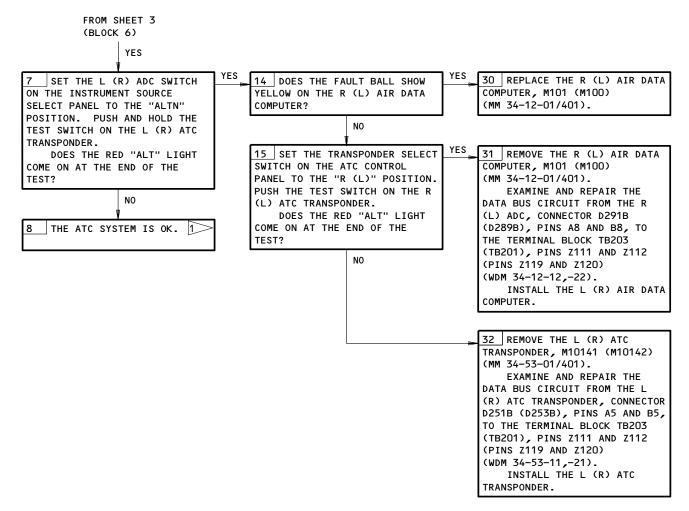




THE GREEN "TPR-PASS" LIGHT WILL STAY ON OR FLICKER AT THE END OF THE TEST IF THE TRANSPONDER IS REPLYING TO A SIGNAL.

ATC System BITE Procedure Figure 103 (Sheet 3)





ATC System BITE Procedure Figure 103 (Sheet 4)

GUI 001-114, 116-999

34-53-00 CONFIG 4 Page 107



MAKE SURE THIS SYSTEM WILL OPERATE: ADC SYSTEM (MM 34-12-00/501)

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11c20,11f7,11f28

MAKE SURE THE AIRPLANE IS IN THE CONFIGURATION THAT FOLLOWS:

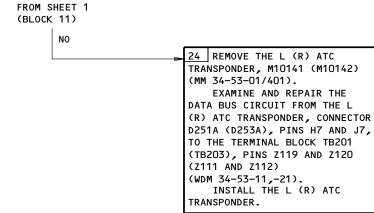
ELECTRICAL POWER IS ON (MM 24-22-00/201)

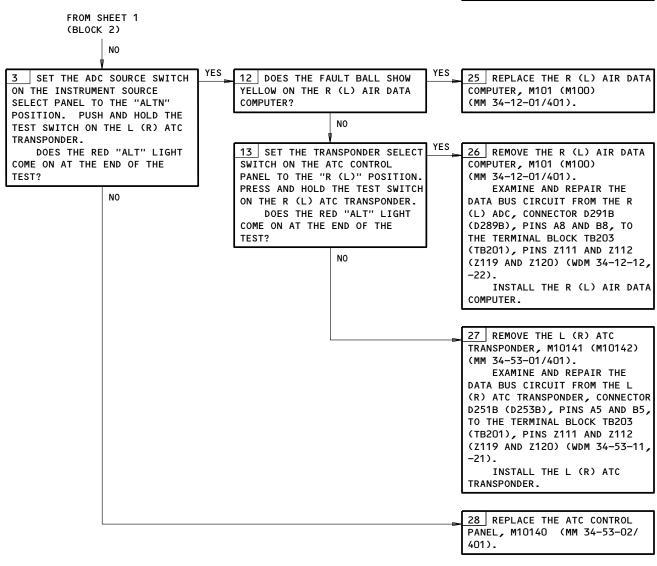
ALT RPTG INOP YES 1 SET THE TRANSPONDER SELECT 20 REPLACE THE L (R) ATC SWITCH ON THE ATC CONTROL TRANSPONDER, M10141 (M10142) PANEL TO THE "L (R)" POSITION. (MM 34-53-01/401).SET THE L (R) ADC SWITCH ON THE INSTRUMENT SOURCE SELECT PANEL TO THE "NORM" POSITION. PUSH AND HOLD THE TEST SWITCH ON THE L (R) ATC TRANSPONDER. DOES THE RED "TPR-FAIL" LIGHT COME ON AT THE END OF THE TEST? NO YES 2 DOES THE RED "ALT" LIGHT 10 DOES THE FAULT BALL SHOW 22 REPLACE THE L (R) AIR DATA COME ON AT THE END OF THE YELLOW ON THE L (R) AIR DATA COMPUTER, M100 (M101) TEST? COMPUTER? (MM 34-12-01/401).NO NO 23 REMOVE THE L (R) AIR DATA SEE SHEET 2 11 SET THE TRANSPONDER SELECT SWITCH ON THE ATC CONTROL COMPUTER, M100 (M101) (BLOCK 3) PANEL TO THE "R (L)" POSITION. (MM 34-12-01/401).SET THE L (R) ADC SWITCH ON EXAMINE AND REPAIR THE THE INSTRUMENT SOURCE SELECT DATA BUS CIRCUIT FROM THE L PANEL TO THE "ALTN" POSITION. (R) ADC, CONNECTOR D289B PUSH AND HOLD THE TEST SWITCH (D291B), PINS A8 AND B8, TO ON THE L (R) ATC TRANSPONDER. THE TERMINAL BLOCK TB201 DOES THE RED "ALT" LIGHT (TB203), PINS Z119 AND Z120 COME ON AT THE END OF THE (Z111 AND Z112) (WDM 34-12-12, TEST? -22). INSTALL THE L (R) AIR DATA NO COMPUTER. SEE SHEET 2 (BLOCK 24)

Alt Rptg Inop Figure 104 (Sheet 1)

EFFECTIVITY-GUI 001-114, 116-999

34-53-00 CONFIG





Alt Rptg Inop Figure 104 (Sheet 2)

EFFECTIVITY
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CONFIG 4

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MAKE SURE THIS SYSTEM WILL OPERATE: ADC SYSTEM (MM 34-12-00/501)

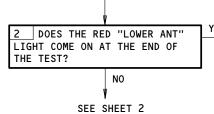
MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11C2O,11F7,11F28

MAKE SURE THE AIRPLANE IS IN THE CONFIGURATION THAT FOLLOWS:

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

PROBLEMS ELECTRICAL 1 SET THE TRANSPONDER SELECT SWITCH ON THE ATC CONTROL

20 REPLACE THE L (R) ATC TRANSPONDER, M10141 (M10142) (MM 34-53-01/401).



(BLOCK 3)

ATC TRANSMISSION

PANEL TO THE "L (R)" POSITION.

PUSH AND HOLD THE TEST SWITCH ON THE L (R) ATC TRANSPONDER. DOES THE RED "TPR-FAIL" LIGHT COME ON AT THE END OF

NO

THE TEST?

10 SET THE TRANSPONDER SELECT SWITCH ON THE ATC CONTROL PANEL TO THE "R (L)" POSITION. PUSH AND HOLD THE TEST SWITCH ON THE R (L) ATC TRANSPONDER. DOES THE RED "LOWER ANT" LIGHT COME ON AT THE END OF THE TEST?

NO

ANTENNA, M10144 (MM 34-53-03/401).

IF THE PROBLEM CONTINUES, REPLACE THE BOTTOM ATC ANT SWITCH, S10564 (MM 34-53-04/401).

21 REPLACE THE BOTTOM

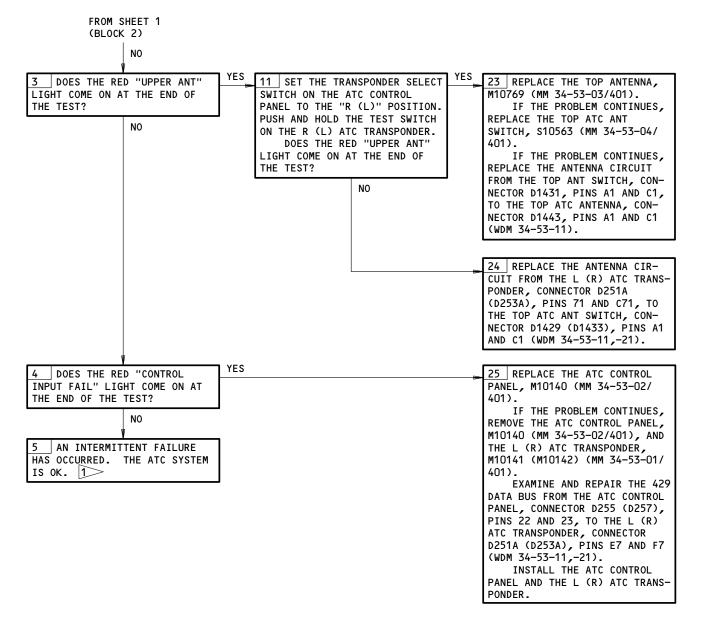
IF THE PROBLEM CONTINUES, REPLACE THE ANTENNA CIRCUIT FROM THE BOTTOM ANT SWITCH, CONNECTOR D1439, PINS A1 AND C1, TO THE BOTTOM ATC ANTENNA, CONNECTOR D429, PINS A1 AND C1 (WDM 34-53-11).

ZZ REPLACE THE ANTENNA CIR-CUIT FROM THE L (R) ATC TRANS-PONDER, CONNECTOR D251B (D253B), PINS 71 AND C71, TO THE BOTTOM ATC ANT SWITCH, CONNECTOR D1437 (D1441), PINS A1 AND C1 (WDM 34-53-11,-21).

ATC Transmission Problems Figure 105 (Sheet 1)

GUI 001-114, 116-999

34-53-00 config 4



THE GREEN "TPR-PASS" LIGHT WILL STAY ON OR FLICKER AT THE END OF THE TEST IF THE TRANSPONDER IS REPLYING TO A SIGNAL.

ATC Transmission Problems Figure 105 (Sheet 2)

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34-53-00

CONFIG 4

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1. ARINC Data Bus Charts

A. General

<u>CAUTION</u>: DO NOT DIRECTLY TOUCH THE CONNECTORS. USE A BREAKOUT BOX OR YOU CAN CAUSE DAMAGE TO THE CONNECTORS.

(1) The ARINC 429 data bus charts give data necessary to make an analysis of ARINC 429 transmitters, receivers, and data buses. For the test, use a breakout box at the available terminal or at the LRU connectors.

B. Equipment

- (1) Standard multi-meter
- (2) 429EBP Data Bus Analyzer (recommended) JCAIR Instrumentation 400 Industrial Parkway Industrial Airport, KS 66031

429-2 Data Bus Analyzer (alternative) Interface Technology 150 E. Arrow Highway San Dimas, CA 91773

(3) A34011-1 Breakout Box (recommended) A34011-112 Breakout Box (alternative)

ATC PNL										
DIGITAL OUTPUT BUS CHART										
BUS NAME								BUS	ВІТ	
	SOURCE		TYPE	BUS	CON	P	INS	FORMAT		DATA BUS
ATCPNL	(L)	Α	1	P1	22	23	429	L0	CONTROL DATA OUT L
ATCPNL	(R)	Α	2	P2	22	23	429	L0	CONTROL DATA OUT R

ATC PNL ID=B8										
OCTAL LABELS CHART										
SIGNAL	TYPE	LABEL	FORMAT	MIN UPDATE RATE	SDI	BINARY RANGE	POSITIVE SENSE	UNITS		
XPONDER CODE	Α	031	BCD	5	00	N/A	N/A	N/A		

34-53-00

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COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	AMM REFERENCE
ANTENNA LEFT DME, M263 RIGHT DME, M264 CIRCUIT BREAKERS - NAVIGATION LEFT DME, C582 RIGHT DME, C583 INDICATORS - (FIM 34-22-00/101) LEFT RADIO DISTANCE MAGNETIC, N3 RIGHT RADIO DISTANCE MAGNETIC, N43 INDICATOR LEFT DUAL DISTANCE, N10030 RIGHT DUAL DISTANCE, N10031 INTERROGATOR LEFT DME, M123 RIGHT DME, M124 PANELS - (FIM 34-22-00/101) LEFT EFIS CONTROL, M94 RIGHT EFIS CONTROL, M94 RIGHT EFIS CONTROL, M93 PANELS - (FIM 34-51-00/101) LEFT VOR CONTROL, M91 RIGHT VOR CONTROL, M92 RELAY - (FIM 31-01-36/101) SYSTEM NO. 1 AIR/GROUND, K167 RELAY - (FIM 31-01-37/101) SYSTEM NO. 2 AIR/GROUND, K214	 	1 1 1 1 1 1 1 1 1 1	BOTTOM FUSELAGE BOTTOM FUSELAGE FLT COMPT, P11 11E32 FLT COMPT, P1-1 FLT COMPT, P3-1 119BL, MAIN EQUIP CTR, E3-3 119BL, MAIN EQUIP CTR, E3-2	34-55-02 34-55-02 * * 34-55-03 34-55-01 34-55-01

^{*} SEE THE WDM EQUIPMENT LIST

GUI 001-114,116-999

GUI 115

DME System - Component Index Figure 101

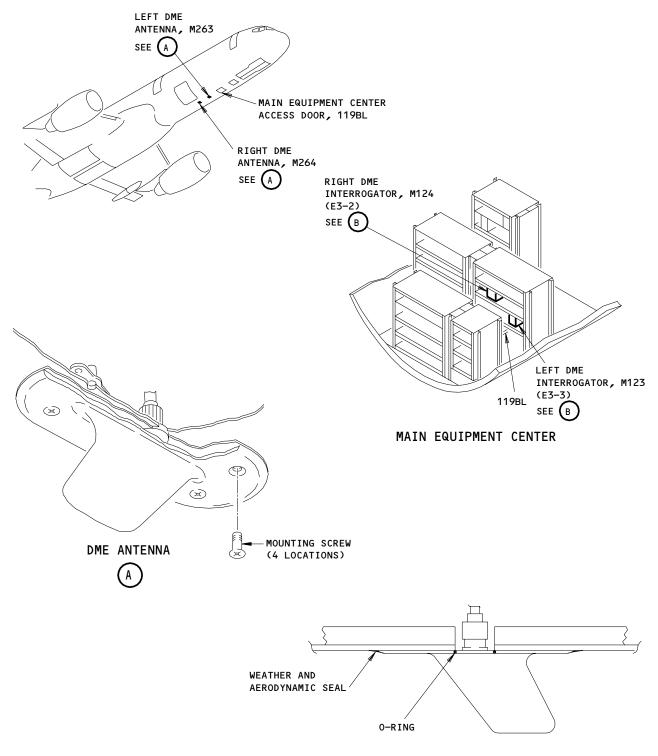
ALL

34-55-00

04

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SEALANT LOCATION

DME System - Component Location Figure 102 (Sheet 1)

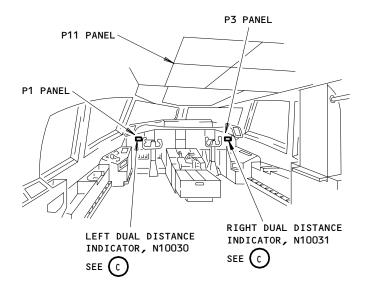
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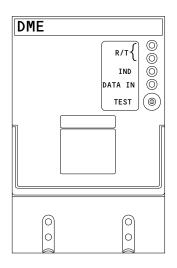
May 20/98

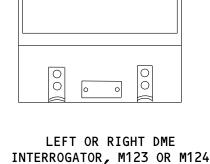
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FLIGHT COMPARTMENT





o CONTROL INPUT

o PASS

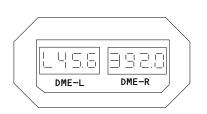
o FAIL

(o) TEST

FAIL

LRU

STATUS



LEFT OR RIGHT DUAL DISTANCE INDICATOR, N10030 OR N10031



LEFT OR RIGHT DME INTERROGATOR, M123 OR M124





AIRPLANES WITH COLLINS DME-700 SERIES INTERROGATORS

2 AIRPLANES WITH ALLIED SIGNAL DMA-37A SERIES INTERROGATORS

> DME System - Component Location Figure 102 (Sheet 2)

EFFECTIVITY ALL

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03

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MAKE SURE THESE SYSTEMS WILL OPERATE: EFIS (AMM 34-22-00/501) ILS (AMM 34-31-00/501) VOR (AMM 34-51-00/501)

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11A2,11E11,11E32,11E33

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

23 REPLACE THE LEFT (RIGHT)

M10030, (M10031)(AMM 34-55-03/

DUAL DISTANCE INDICATOR,

401).

DME SYSTEM BITE PROCEDURE

3 | AIRPLANES WITH ALLIED-

BACK ON AT THE END OF THE

DOES THE RED "IND" LIGHT COME

SIGNAL DMA-37A SERIES

INTERROGATORS;

TEST?

YES ON THE CAPTAIN (FIRST 21 REPLACE THE LEFT (RIGHT) OFFICER) EFIS CONTROL PANEL DME INTERROGATOR, M123 (M124) (AMM 34-55-01/401). SET THE MODE SELECT SWITCH TO THE "EXP-VOR"("VOR") POSITION. PUSH AND HOLD THE "TEST" SWITCH ON THE LEFT (RIGHT) DME INTERROGATOR -AIRPLANES WITH COLLINS DME -700 SERIES INTERROGATORS; DOES THE RED "LRU STATUS-FAIL" LIGHT COME BACK ON AT THE END OF THE TEST (AFTER ABOUT 6 SECONDS)? AIRPLANES WITH ALLIED-SIGNAL DMA-37A SERIES INTERROGATORS; 22 REPLACE THE LEFT (RIGHT) DOES THE RED "R/T" LIGHT COME VOR CONTROL PANEL, M91 (M92) BACK ON AT THE END OF THE TEST (AMM 34-51-02/201). (AFTER ABOUT 6 SECONDS)? IF THE PROBLEM CONTINUES, RELEASE THE "TEST" SWITCH REMOVE THE LEFT (RIGHT) VOR ON THE LEFT (RIGHT) DME CONTROL PANEL. INTERROGATOR. REMOVE THE LEFT (RIGHT) DME INTERROGATOR, M123 (M124) NO (AMM 34-55-01/401). EXAMINE THE DATA BUS YES 2 AIRPLANES WITH COLLINS DME CIRCUIT FROM THE LEFT (RIGHT) -700 SERIES INTERROGATORS; VOR CONTROL PANEL, CONNECTOR DOES THE RED "CONTROL INPUT-D259 (D261), PINS 16 AND 29, FAIL" LIGHT COME BACK ON AT TO THE LEFT (RIGHT) DME THE END OF THE TEST? INTERROGATOR, CONNECTOR D239B AIRPLANES WITH ALLIED-(D243B), PINS D3 AND E3 (WDM 34-55-11,-21). REPAIR SIGNAL DMA-37A SERIES INTERROGATORS; THE PROBLEMS THAT YOU FIND. DOES THE RED "DATA IN" LIGHT INSTALL THE VOR CONTROL COME BACK ON AT THE END OF THE PANEL AND THE DME INTERROGATOR. TFST? NO

DME System BITE Procedure Figure 103 (Sheet 1)

ALL

O8
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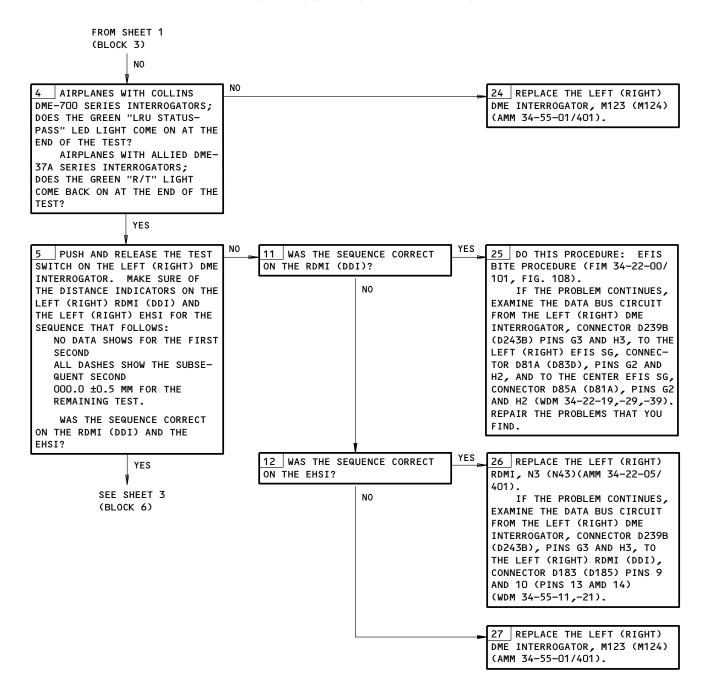
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YES

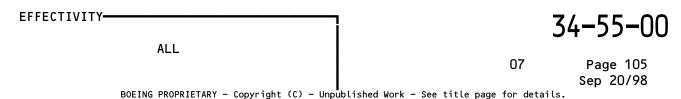
NO.

SEE SHEET 2

(BLOCK 4)



DME System BITE Procedure Figure 103 (Sheet 2)



(BLOCK 5) YES 6 ON THE CAPTAIN (FIRST 13 PUSH AND HOLD THE "TEST" 28 REPLACE THE LEFT (RIGHT) SWITCH ON THE LEFT (RIGHT) ILS OFFICER) EFIS CONTROL PANEL, VOR CONTROL PANEL, M91 (M92) SET THE MODE SELECT SWITCH (AMM 34-51-02/201). RECEIVER. TO THE "EXP-ILS" ("ILS") AIRPLANES WITH COLLINS IF THE PROBLEM CONTINUES, DME-700 SERIES INTERROGATORS; REMOVE THE LEFT (RIGHT) VOR POSITION. SET THE FREQUENCY ON THE DOES THE RED "CONTROL INPUT-CONTROL PANEL. ILS CONTROL PANEL TO A FAIL" LIGHT ON THE ILS RCVR REMOVE THE ILS CONTROL PANEL, M87 (AMM 34-31-02/401). FREQUENCY OTHER THAN "PK". COME BACK ON AT THE END OF THE PUSH AND HOLD THE "TEST" **EXAMINE THE DATA BUS** AIRPLANES WITH ALLIED-SWITCH ON THE LEFT (RIGHT) DME CIRCUIT FROM THE LEFT (RIGHT) INTERROGATOR. SIGNAL DMA-37A SERIES VOR CONTROL PANEL, CONNECTOR D259 (D261), PINS 10 AND 22, AIRPLANES WITH COLLINS INTERROGATORS; DME-700 SERIES INTERROGATORS; DOES THE RED "DATA-IN" LIGHT TO THE ILS CONTROL PANEL, CONNECTOR D269 (D273), PINS 13 DOES THE RED "CONTROL INPUT-ON THE ILS RCVR COME BACK ON FAIL" LIGHT COME BACK ON AT AT THE END OF THE TEST? AND 14 (WDM 34-31-11,-21). RELEASE THE "TEST" SWITCH THE END OF THE TEST? REPAIR THE PROBLEMS THAT YOU AIRPLANES WITH ALLIED-ON THE LEFT (RIGHT) ILS RECEIVER. SIGNAL DMA-37A SERIES INSTALL THE VOR CONTROL INTERROGATORS; PANEL AND ILS CONTROL PANEL. YES DOES THE RED "DATA-IN" LIGHT COME BACK ON AT THE END OF THE 29 REPLACE THE ILS CONTROL TEST? PANEL, M87 (AMM 34-31-02/401). RELEASE THE "TEST" SWITCH ON THE LEFT (RIGHT) DME IF THE PROBLEM CONTINUES, INTERROGATOR. REMOVE THE LEFT (RIGHT) VOR CONTROL PANEL, M91 (M92) NO (AMM 34-51-02/201) REMOVE THE ILS CONTROL THE SYSTEM IS OK. PANEL. EXAMINE THE DATA BUS CIRCUIT FROM THE LEFT (RIGHT) VOR CONTROL PANEL, CONNECTOR D259 (D261), PINS 10 AND 22, TO THE ILS CONTROL PANEL, CONNECTOR D269 (D273), PINS 13 AND 14 (WDM 34-31-11,-21). REPAIR THE PROBLEMS THAT YOU

DME System BITE Procedure Figure 103 (Sheet 3)

ALL ALL

FROM SHEET 2

34-55-00

FIND.

INSTALL THE VOR CONTROL PANEL AND ILS CONTROL PANEL.



MAKE SURE THIS SYSTEM WILL OPERATE: EFIS (AMM 34-22-00/501)

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11A2,11E11,11E32,11E33

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

VOR MODE - DME DISPLAYS DASHES, VOR IDENT NORMAL

YES ON THE LEFT (RIGHT) EFIS 21 REPLACE THE LEFT (RIGHT) CONTROL PANEL, SET THE MODE DME INTERROGATOR, M123 (M124) SWITCH TO THE "VOR-EXP" (AMM 34-55-01/401). ("VOR") POSITION. PUSH AND HOLD THE TEST SWITCH ON THE LEFT (RIGHT) DME INTERROGATOR. AIRPLANES WITH COLLINS DME-700 SERIES INTERROGATORS; DOES THE RED 'LRU STATUS-FAIL" LIGHT COME BACK ON AT THE END OF THE TEST (AFTER 6 SECONDS)? AIRPLANES WITH ALLIED-SIGNAL DMA-37A SERIES INTERROGATORS; DOES THE RED "R/T" LIGHT COME BACK ON AT THE END OF THE TEST 22 REPLACE THE LEFT (RIGHT) (AFTER 6 SECONDS)? VOR CONTROL PANEL, M91 (M92) RELEASE THE "TEST" SWITCH (AMM 34-51-02/201). ON THE LEFT (RIGHT) DME IF THE PROBLEM CONTINUES, INTERROGATOR. REMOVE THE LEFT (RIGHT) VOR CONTROL PANEL. NO REMOVE THE LEFT (RIGHT) DME INTERROGATOR, M123 (M124) YES 2 AIRPLANES WITH COLLINS (AMM 34-55-01/401). DME-700 SERIES INTERROGATORS; EXAMINE THE DATA BUS DOES THE RED "CONTROL INPUT-CIRCUIT FROM THE LEFT (RIGHT) FAIL" LIGHT COME BACK ON AT VOR CONTROL PANEL, CONNECTOR THE END OF THE TEST (AFTER D259 (D261), PINS 16 AND 29, 6 SECONDS)? TO THE LEFT (RIGHT) DME AIRPLANES WITH ALLIED-INTERROGATOR, CONNECTOR SIGNAL DMA-37A SERIES D239B (D243B), PINS D3 AND E3 INTERROGATORS; (WDM 34-55-11,-21). REPAIR DOES THE RED "DATA IN" LIGHT THE PROBLEMS THAT YOU FIND. COME BACK ON AT THE END OF THE INSTALL THE VOR CONTROL TEST (AFTER 6 SECONDS)? PANEL AND THE DME INTERROGATOR. NO 23 DO THIS PROCEDURE: ILS MODE - DME DISPLAYS DASHES, ILS IDENT NORMAL (FIM 34-55-00/101, FIG. 105 BLOCK 3).

VOR Mode - DME Displays Dashes, VOR Ident Normal Figure 104

34-55-00



MAKE SURE THESE SYSTEMS WILL OPERATE: EFIS (AMM 34-22-00/501) ILS (AMM 34-31-00/501)

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11A2, 11E11,11E32,11E33

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

ILS MODE - DME DISPLAYS DASHES, ILS IDENT NORMAL

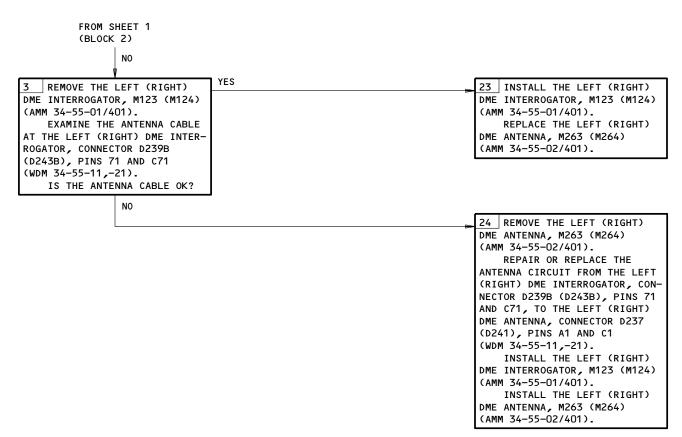
YES 1 ON THE LEFT (RIGHT) EFIS 21 REPLACE THE LEFT (RIGHT) CONTROL PANEL SET THE MODE DME INTERROGATOR, M123 (M124) SWITCH TO THE "EXP-ILS" (AMM 34-55-01/401). ("ILS") POSITION. PUSH AND HOLD THE "TEST" SWITCH ON THE LEFT (RIGHT) DME INTERROGATOR. AIRPLANES WITH COLLINS DME-700 SERIES INTERROGATORS; 22 REPLACE THE LEFT (RIGHT) VOR CONTROL PANEL, M91 (M92) DOES THE RED "LRU STATUS-FAIL" LIGHT COME BACK ON AT THE END (AMM 34-51-02/201). IF THE PROBLEM CONTINUES, OF THE TEST (AFTER 6 SECONDS)? AIRPLANES WITH ALLIED-REMOVE THE LEFT (RIGHT) VOR CONTROL PANEL. SIGNAL DMA-37A SERIES INTERROGATORS; REMOVE THE ILS CONTROL DOES THE RED "R/T" LIGHT COME PANEL, M87 (AMM 34-31-02/401). BACK ON AT THE END OF THE TEST EXAMINE THE DATA BUS (AFTER 6 SECONDS)? CIRCUIT FROM THE LEFT (RIGHT) RELEASE THE "TEST" SWITCH VOR CONTROL PANEL, CONNECTOR ON THE LEFT (RIGHT) DME D259 (D261), PINS 10 AND 22, INTERROGATOR. TO THE ILS CONTROL PANEL, CONNECTOR D269 (D273), NΩ PINS 13 AND 14 (WDM 34-31-11, -21). REPAIR THE PROBLEMS YES THAT YOU FIND. 2 AIRPLANES WITH COLLINS INSTALL THE VOR CONTROL DME-700 SERIES INTERROGATORS; PANEL AND THE ILS CONTROL DOES THE RED "CONTROL INPUT-PANEL. FAIL" LIGHT COME BACK ON AT IF THE PROBLEM CONTINUES, THE END OF THE TEST (AFTER REMOVE THE LEFT (RIGHT) DME 6 SECONDS)? INTERROGATOR, M123 (M124) AIRPLANES WITH ALLIED-(AMM 34-55-01/401). SIGNAL DMA-37A SERIES REMOVE THE LEFT (RIGHT) INTERROGATORS; VOR CONTROL PANEL. DOES THE RED "DATA-IN" LIGHT **EXAMINE THE DATA BUS** COME BACK AT THE END OF THE CIRCUIT FROM THE LEFT (RIGHT) TEST (AFTER 6 SECONDS)? DME INTERROGATOR, CONNECTOR D239B (D243B), PINS D3 AND E3, NO TO THE LEFT (RIGHT) VOR CONTROL PANEL, CONNECTOR D259 SEE SHEET 2 (D261), PINS 16 AND 29 (BLOCK 3) (WDM 34-55-11,-21). REPAIR THE PROBLEMS THAT YOU FIND. INSTALL THE LEFT (RIGHT) DME INTERROGATOR AND THE VOR CONTROL PANEL.

ALL

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34-55-00

01

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MAKE SURE THIS SYSTEM WILL OPERATE: EFIS (AMM 34-22-00/501)

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11A2,11E11,11E32,11E33

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

BLANK DME DISPLAY ON EHSI - OTHERWISE NORMAL

1 REMOVE THE LEFT (RIGHT)
DME INTERROGATOR, M123 (M124)
(AMM 34-55-01/401).
REMOVE THE LEFT (RIGHT)
EFIS SYMBOL GENERATOR, M148
(M150)(AMM 34-22-01/401).
MAKE SURE THERE IS DATA ON
THE 429 INPUT BUS FROM THE
LEFT (RIGHT) DME INTERROGATOR
AT THE LEFT (RIGHT) EFIS SYMBOL GENERATOR, CONNECTOR D81A,
(D83D) PINS G2 AND H2,
(WDM 34-22-19,-29).
IS THE BUS ACTIVE?

YES

20 INSTALL THE LEFT (RIGHT)
DME INTERROGATOR, M123 (M124)
(AMM 34-55-01/401). REPLACE
THE LEFT (RIGHT) EFIS SYMBOL
GENERATOR, M148 (M150)
(AMM 34-22-01/401).

N0

21 EXAMINE AND REPAIR THE
DATA BUS CIRCUIT FROM THE LEFT
(RIGHT) DME INTERROGATOR, CONNECTOR D239B (D243B), PINS G3
AND H3 TO THE LEFT (RIGHT)
EFIS SYMBOL GENERATOR, CONNECTOR D81A (D83D), PINS G2 AND
H2 (WDM 34-22-19,-29).
INSTALL THE LEFT (RIGHT)
DME INTERROGATOR, M123 (M124)
(AMM 34-55-01/401).
INSTALL THE LEFT (RIGHT)
EFIS SYMBOL GENERATOR, M148
(M150)(AMM 34-22-01/401).

Blank DME Display on EHSI - Otherwise Normal Figure 106

EFFECTIVITY—

34-55-00

ALL

12

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MAKE SURE THIS SYSTEM WILL OPERATE: EFIS (AMM 34-22-00/501)

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11A2,11E11,11E32,11E33

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

DME EHSI AND RDMI DISPLAYS BLANK

1 PUSH AND HOLD "TEST"
SWITCH ON THE LEFT (RIGHT) DME
INTERROGATOR.

AIRPLANES WITH COLLINS
DME-700 SERIES INTERROGATORS;
DOES THE RED "LRU STATUS-FAIL"
LIGHT COME ON AT THE END OF
THE TEST (AFTER 6 SECONDS)?
AIRPLANES WITH ALLIEDSIGNAL DMA-37A SERIES
INTERROGATORS;
DOES THE RED "R/T" LIGHT COME
ON AT THE END OF TEST (AFTER
6 SECONDS)?

RELEASE THE "TEST" SWITCH ON THE LEFT (RIGHT) DME INTERROGATOR.

NO

21 REPLACE THE LEFT (RIGHT)
DME INTERROGATOR, M123 (M124)
(AMM 34-55-01/401).

22 REMOVE THE LEFT (RIGHT) DME INTERROGATOR, M123 (M124) (AMM 34-55-01/401). REMOVE THE LEFT (RIGHT) EFIS SYMBOL GENERATOR, M148 (M150)(AMM 34-22-01/401). **EXAMINE THE DATA BUS** CIRCUIT FROM THE LEFT (RIGHT) DME INTERROGATOR, CONNECTOR D239B (D243B), PINS G3 AND H3, TO THE LEFT (RIGHT) EFIS SYMBOL GENERATOR, CONNECTOR D81A (D83D), PINS G2 AND H2 (WDM 34-22-19,-29). REPAIR THE PROBLEMS THAT YOU FIND. INSTALL THE LEFT (RIGHT) DME INTERROGATOR, M123 (M124) (AMM 34-55-01/401). INSTALL THE LEFT (RIGHT) EFIS SYMBOL GENERATOR, M148 (M150)(AMM 34-22-01/401).

DME EHSI and RDMI Displays Blank Figure 107

ALL

34-55-00

04

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MAKE SURE THESE SYSTEMS WILL OPERATE: EFIS (AMM 34-22-00/501) FMC (AMM 34-61-00/501)

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11A2,11E11,11E32,11E33

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

AUTOTUNE MODE DME DISPLAYS SHOW DASHES

NO 1 ON THE LEFT (RIGHT) EFIS 21 PUSH AND HOLD THE TEST 31 REMOVE THE LEFT (RIGHT) CONTROL PANEL, SET THE MODE SWITCH ON THE LEFT (RIGHT) DME INTERROGATOR, M123 (M124) SWITCH TO THE "EXP-VOR" DME INTERROGATOR. (AMM 34-55-01/401). ("VOR") POSITION. REMOVE THE LEFT (RIGHT) AIRPLANES WITH COLLINS CALL UP THE REFERENCE FMC, M134 (M135)(AMM 34-61-01/ DME-700 SERIES INTERROGATORS; SENSOR STATUS PAGE ON THE 401). DOES THE RED "LRU STATUS-FAIL" FMC/CDU (AMM 34-61-00/401). LIGHT COME ON AT THE END OF EXAMINE THE DATA BUS FROM IS THE DME INPUT "OK"? THE LEFT (RIGHT) DME INTERRO-THE TEST (AFTER 6 SECONDS)? AIRPLANES WITH ALLIED-GATOR, CONNECTOR D239B YES (D243B), PINS G1 AND H1, TO SIGNAL DMA-37A SERIES INTER-ROGATORS; THE LEFT (RIGHT) FMC, CONNEC-DOES THE RED "R/T" LIGHT COME TOR D173A (D177B), PINS D1 ON AT THE END OF THE TEST AND E1 (PINS G7 AND H7) (AFTER 6 SECONDS)? (WDM 34-55-11,-21). REPAIR RELEASE THE TEST SWITCH ON THE PROBLEMS THAT YOU FIND. THE LEFT (RIGHT) DME INTER-INSTALL THE DME INTERRO-ROGATOR. GATOR AND THE FMC. YES 32 REPLACE THE LEFT (RIGHT) DME INTERROGATOR, M123 (M124) (AMM 34-55-01/401). YES DOES THE FMC "FAIL" LIGHT 33 REPLACE THE LEFT (RIGHT) FMC, M134 (M135)(AMM 34-61-01/ ON THE LEFT (RIGHT) FMC/CDU COME ON? 401). NΩ 34 REMOVE THE LEFT (RIGHT) DME INTERROGATOR, M123 (M124) (AMM 34-55-01/401). REMOVE THE LEFT (RIGHT) FMC, M134 (M135)(AMM 34-61-01/ 401) -EXAMINE THE DATA BUS CIR-CUIT FROM THE LEFT (RIGHT) FMC, CONNECTOR D173A (D177B), PINS G9 AND H9 (PINS D7 AND E7), TO THE LEFT (RIGHT) DME INTERROGATOR, CONNECTOR D239B (D243B), PINS A3 AND B3 (WDM 34-55-11,-21). REPAIR THE PROBLEMS THAT YOU FIND. INSTALL THE DME INTERRO-GATOR AND THE FMC.

> Autotune Mode - DME Displays Show Dashes Figure 108

ALL

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MAKE SURE THIS SYSTEM WILL OPERATE: EFIS (AMM 34-22-00/501)

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11A2,11E11,11E32,11E33

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

DME IDENT SIGNAL MISSING - DISPLAYS NORMAL

REPLACE THE LEFT (RIGHT) DME INTERROGATOR, M123 (M124)(AMM 34-55-01/401).

IF THE PROBLEM CONTINUES, REPLACE THE LEFT (RIGHT) VOR CONTROL PANEL, M91 (M92)(AMM 34-51-02/201).

DME Ident Signal Missing - Displays Normal Figure 109

EFFECTIVITY-

34-55-00



1. ARINC Data Bus Charts

A. General

<u>CAUTION</u>: DO NOT DIRECTLY TOUCH THE CONNECTORS. USE A BREAKOUT BOX OR YOU CAN CAUSE DAMAGE TO THE CONNECTORS.

(1) The ARINC 429 data bus charts give data necessary to make an analysis of ARINC 429 transmitters, receivers, and data buses. For the test, use a breakout box at the available terminal or at the LRU connector.

B. Equipment

- (1) Standard multi-meter
- (2) 429EBP Data Bus Analyzer (recommended) JcAIR Instrumentation 400 Industrial Parkway Industrial Airport, KS 66031

429-2 Data Bus Analyzer (alternative) Interface Technology 150 E. Arrow Highway San Dimas, CA 91773

(3) A34011-1 Breakout Box (recommended) A34011-112 Breakout Box (alternative)

	DME										
	DIGITAL OUTPUT BUS CHART										
BUS NAME CON PINS BUS BIT DATA									DATA		
	SOURC	E		TYPE	BUS			FORMAT	RATE	BUS	
DME	(L	R)	Α	1	В	G01 H01	429	LO	DME DATA OUTPT#1	
DME	(L	R)	Α	2	В	G03 H03	429	LO	DME DATA OUTPT#2	

DME ID = 09										
OCTAL LABELS CHART										
SIGNAL TYPE LABEL FORMAT WIN UPDATE SDI BINARY POSITIVE UNIT										
DME FREQUENCY	А	035	BCD	5	00	108-135.95	ALWAYS POS	MHZ		
DME DISTANCE-D	Α	201	BCD	6	00	-1T0399.99	ALWAYS POS	NM		
DME DISTANCE	Α	202	BNR	6	00	0-512	ALWAYS POS	NM		

EFFECTIVITY-

34-55-00

ALL

05



DME										
DISCRETE OCTAL LABELS/BIT CHART										
SIGNAL	OCTAL LABEL	BIT	ONE-STATE	ZERO-STATE						
VEL MEMORY MODE	202	11	MEM MODE	NORM MODE						

EFFECTIVITY-

ALL

34-55-00

06

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AUTOMATIC DIRECTION FINDER (ADF) SYSTEM

COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	AMM REFERENCE
ANTENNA - LEFT ADF, M265	1	1	TOP OF FUSELAGE	34-57-03
ANTENNA - RIGHT ADF, M266	1	1	TOP OF FUSELAGE	34-57-03
CIRCUIT BREAKER -	2		FLIGHT COMPARTMENT, P11	
ADF LEFT, C607		1	11F6	*
ADF RIGHT, C4118		1	1 11A4; 2 11F27	*
INDICATOR - (FIM_34-22-00/101)				
LEFT RDMI, N3 1>				
RIGHT RDMI, N43 1				
LEFT RMI, N10026 2				
RIGHT RMI, N10024 2				
PANEL - ADF CONTROL, M1046	2	1	FLIGHT COMPARTMENT, P8	34-57-02
RECEIVER - LEFT ADF, M215	2	1	822, AFT EQUIPMENT CENTER, E6-1	34-57-01
RECEIVER - RIGHT ADF, M216	2	1	822, AFT EQUIPMENT CENTER, E6-1	34-57-01
RELAY - (FIM 31-01-36/101)				
SYS NO. 1 AIR/GROUND, K167				

^{*} SEE THE WDM EQUIPMENT LIST

1 GUI 001-114,116-999 2 GUI 115

Automatic Direction Finder (ADF) System - Component Index Figure 101

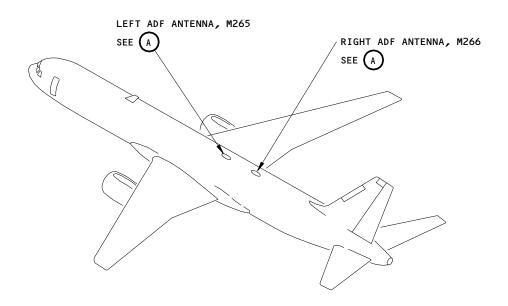
ALL

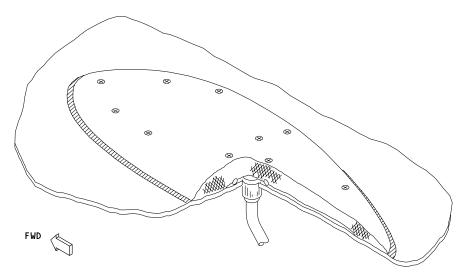
34-57-00

23

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LEFT OR RIGHT ADF ANTENNA, M265 OR M266



Automatic Direction Finder (ADF) System - Component Location Figure 102 (Sheet 1)

EFFECTIVITY-ALL

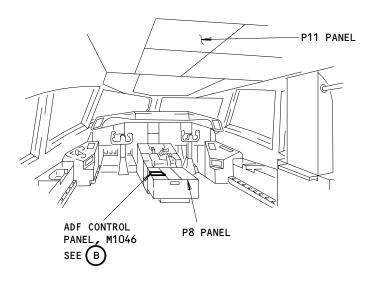
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34-57-00

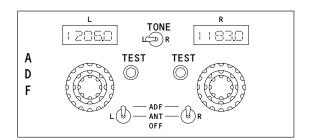
28

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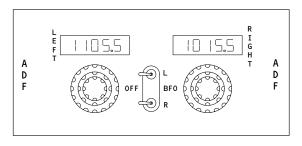




FLIGHT COMPARTMENT



ADF CONTROL PANEL, M1046



ADF CONTROL PANEL, M1046

3 GUI 002-008,010-114 4 GUI 001,009,115

A72111

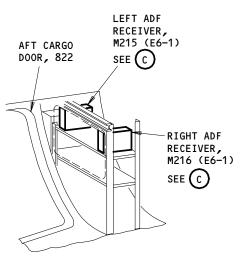
Automatic Direction Finder (ADF) System - Component Location Figure 102 (Sheet 2)

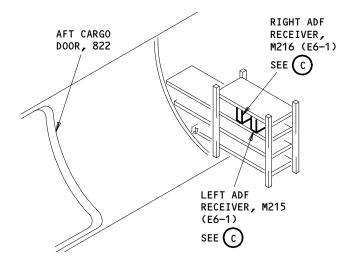
34-57-00

24

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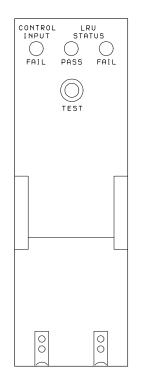


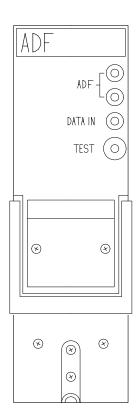




AFT EQUIPMENT CENTER 5

AFT EQUIPMENT CENTER 6





LEFT OR RIGHT ADF RECEIVER, M215 OR M216

LEFT OR RIGHT ADF RECEIVER, M215 OR M216

5 GUI 001-114,116-999 6 GUI 115

A72113





Automatic Direction Finder (ADF) System - Component Location Figure 102 (Sheet 3)

ALL

34-57-00

23

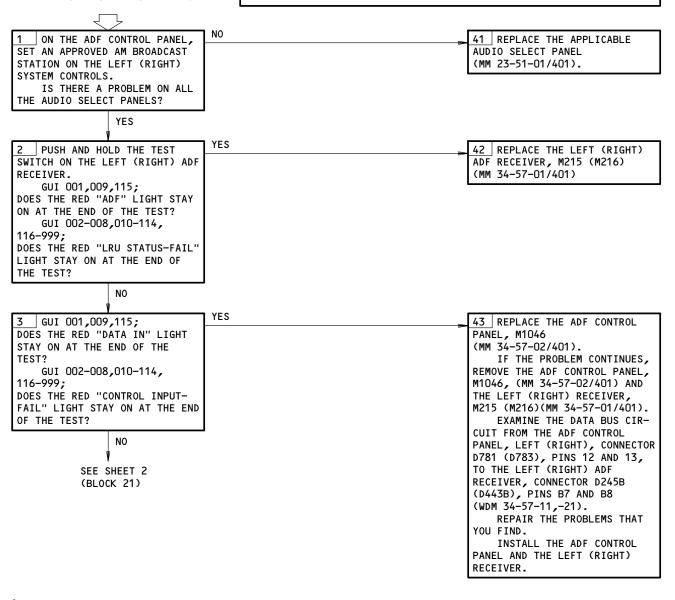
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MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11C26,11F6,11G29,11G30; 1>11A4; 2>11F27

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

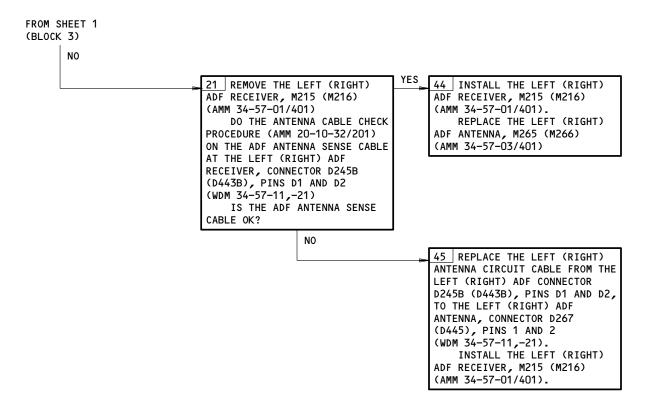
ADF AUDIO PROBLEMS



> GUI 001-114,116-999 > GUI 115

> ADF Audio Problems Figure 103 (Sheet 1)

EFFECTIVITY-34-57-00 ALL 10



ADF Audio Problems Figure 103 (Sheet 2)

EFFECTIVITY ALL

34-57-00

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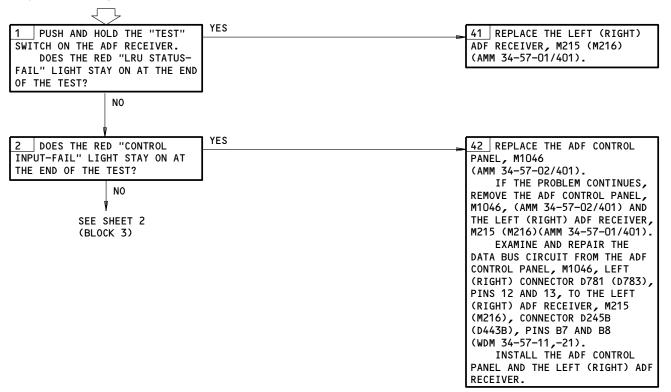


MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11A4,11A6,11F6,11F25

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

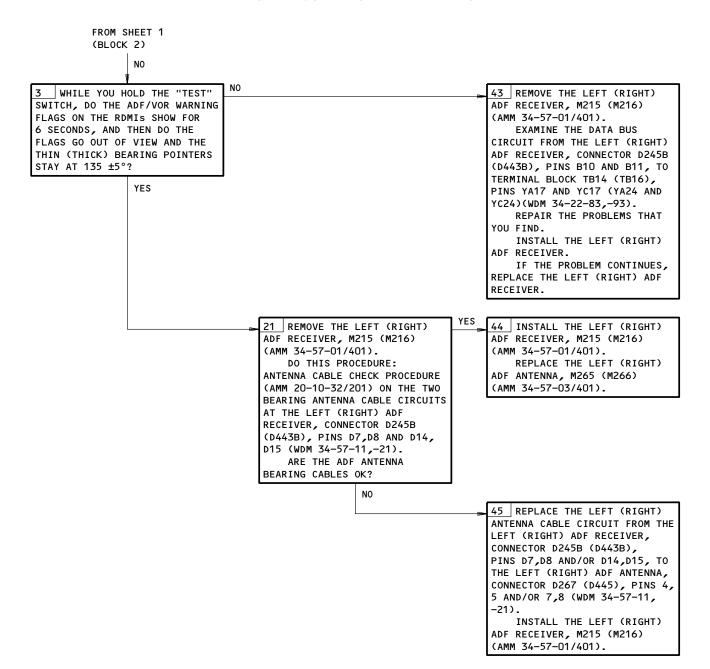
NOTE: IF THE LEFT (RIGHT) ADF FLAGS ARE IN VIEW ON THE RDMIS, OPEN AND CLOSE THE ADF LEFT (RIGHT) CIRCUIT BREAKER. IF THE FLAGS GO OUT OF VIEW, THERE IS NO PROBLEM. IF THE FLAGS STAY, GO TO BLOCK 1.

ADF PROBLEMS ON BOTH RDMIs



ADF Problems on Both RDMIs Figure 104 (Sheet 1)

GUI 002-008, 010-114, 116-999



ADF Problems on Both RDMIs Figure 104 (Sheet 2)

34-57-00

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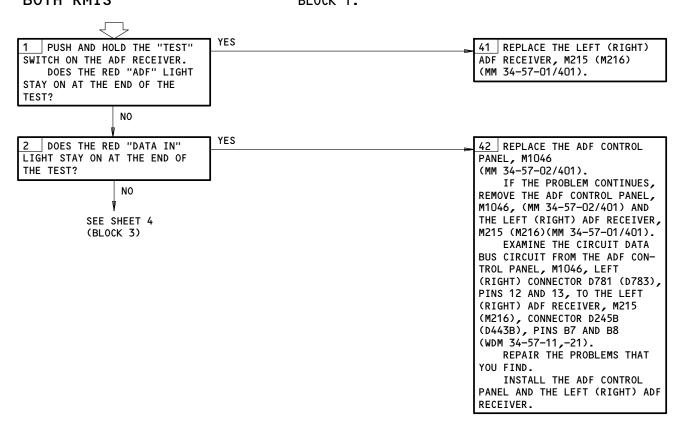


MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11A7,11F6,11F23,11F27

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

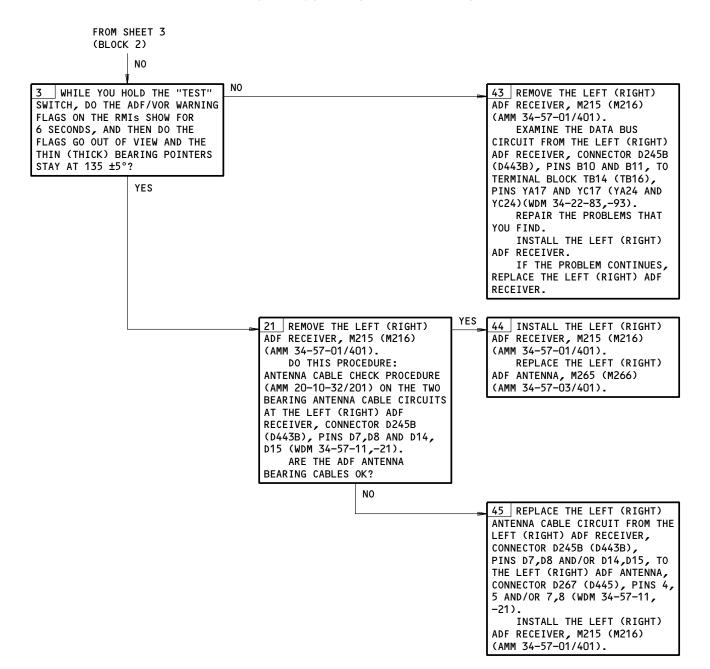
ADF PROBLEMS ON BOTH RMIS

NOTE: IF THE LEFT (RIGHT) ADF FLAGS ARE IN VIEW ON THE RMIS, OPEN AND CLOSE THE ADF LEFT (RIGHT) CIRCUIT BREAKER. IF THE FLAGS GO OUT OF VIEW, THERE IS NO PROBLEM. IF THE FLAGS STAY, GO TO BLOCK 1.



ADF Problems on Both RMIS Figure 104 (Sheet 3)

EFFECTIVITY-**GUI 115**



ADF Problems on Both RMIs Figure 104 (Sheet 4)

GUI 115

34-57-00

10

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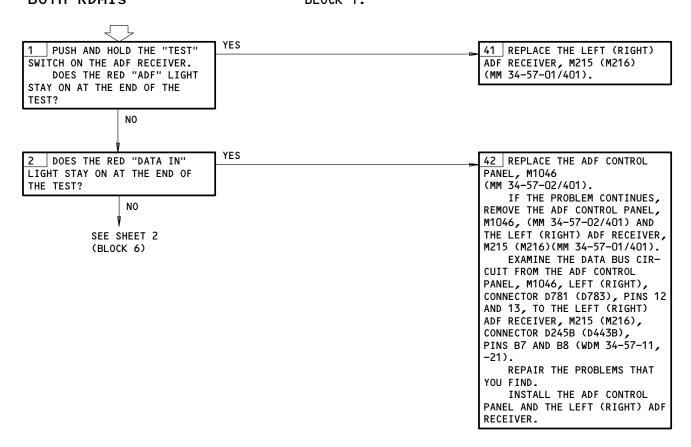


MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11A4,11A6,11F6,11F25

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

ADF PROBLEMS ON BOTH RDMIs

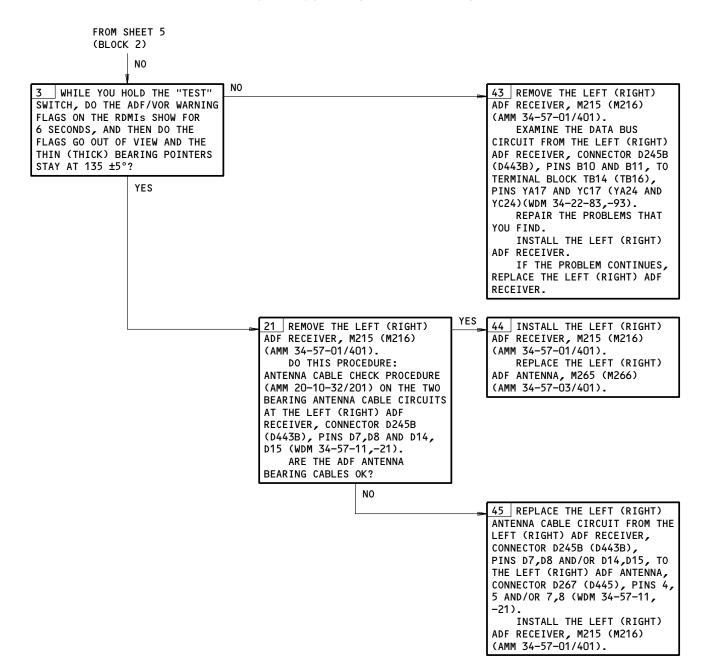
NOTE: IF THE LEFT (RIGHT) ADF FLAGS ARE IN VIEW ON THE RDMIS, OPEN AND CLOSE THE ADF LEFT (RIGHT) CIRCUIT BREAKER. IF THE FLAGS GO OUT OF VIEW, THERE IS NO PROBLEM. IF THE FLAGS STAY, GO TO BLOCK 1.



ADF Problems on Both RDMIs Figure 104 (Sheet 5)

GUI 001, 009

B13983



ADF Problems on Both RDMIs Figure 104 (Sheet 6)

EFFECTIVITY-GUI 001, 009

34-57-00

07

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1. ARINC Data Bus Charts

A. General

<u>CAUTION</u>: DO NOT DIRECTLY TOUCH THE CONNECTORS. USE A BREAKOUT BOX OR YOU CAN CAUSE DAMAGE TO THE CONNECTORS.

(1) The ARINC 429 data bus charts give data necessary to make an analysis of ARINC 429 transmitters, receivers, and data buses. For the test, use a breakout box at the available terminal or at the LRU connectors.

B. Equipment

- (1) Standard multi-meter
- (2) 429EBP Data Bus Analyzer (recommended) JCAIR Instrumentation 400 Industrial Parkway Industrial Airport, KS 66031

429-2 Data Bus Analyzer (alternative) Interface Technology 150 E. Arrow Highway San Dimas, CA 91773

(3) A34011-1 Breakout Box (recommended)
A34011-112 Breakout Box (alternative)

NOTE: Octal label 222 is a multiple function label and will not show in correct engineering units on the data bus analyzer unless you use the hexadecimal equipment ID=11. For analyzers not able to set the ID, show the label in hexadecimal format, and write down the value. Set the data bus analyzer to transmit label 162 in hex format and insert the value that you wrote down for label 222. Change the label 162 format to show the correct engineering units.

EFFECTIVITY-



ADF								
DIGITAL OUTPUT BUS CHART								
BUS NAME	CON	PINS	BUS	BIT	DATA			
SOURCE	TYPE	BUS			FORMAT	RATE	BUS	
ADF (L, R)	Α	2	В	G03 H03	429	LO	BEARING OUTPT NO.1	

ADF ID = 12								
OCTAL LABELS CHART								
SIGNAL	TYPE	LABEL	l .	MIN UPDATE RATE	SDI	BINARY RANGE	POSITIVE SENSE	UNITS
ADF BEARING	Α	162	BNR	16	00	+-180	SW FROM HEADING	DEG

ALL



ADF PNL										
DIGITAL OUTPUT BUS CHART										
BUS NAME	CON	PIN	NS	BUS	BIT	DATA				
SOURCE TYPE BUS					FORMAT	RATE	BUS			
ADFPNL (L)	А	1		12	13	429	LO	FREQ/FUNCTION-L		
ADFPNL (L)	Α	2		12	13	429	L0	FREQ/FUNCTION-R		

EFFECTIVITY-

ALL



ADF PNL ID=B2								
OCTAL LABELS CHART								
SIGNAL	TYPE	LABEL	1	MIN UPDATE RATE	SDI	BINARY RANGE	POSITIVE SENSE	UNITS
ADF FREQUENCY	А	032	BCD	5	00	190–1750	ALWAYS POS	KHZ

EFFECTIVITY-

34-57-00

ALL

01

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ADF PNL									
DISCRETE OCTAL LABELS/BIT CHART									
SIGNAL	OCTAL LABEL	BIT	ONE-STATE	ZERO-STATE					
BFO-ON	032	11	BFO ON	BFO OFF *[1]					
ANT MODE	032	12	ANT MODE	ADF MODE *[2]					
0.5 KHZ TUNING	032	14	.5 KHZ	.O KHZ					

EFFECTIVITY-ALL

^{*[1]} BFO signal on GUI 001, 009, 115 *[2] MODE switch on GUI 002-008, 010-114, 116-999



GLOBAL POSITIONING SYSTEM (GPS)

COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	AMM REFERENCE
ANTENNA - L GPS, M11247 ANTENNA - R GPS, M11248		1		
CIRCUIT BREAKER -			FLT COMPT, P11	
MMR LEFT, C4600		1	11E10	*
MMR RIGHT, C4601		1	11E31	*
RECEIVER - LEFT MULTI-MODE, M11249	1	1	119AL, MAIN EQUIP CTR, E2-3	34-31-01
RECEIVER - RIGHT MULTI-MODE, M11250	1	1	119AL, MAIN EQUIP CTR, E2-2	34-31-01

^{*} SEE THE WDM EQUIPMENT LIST

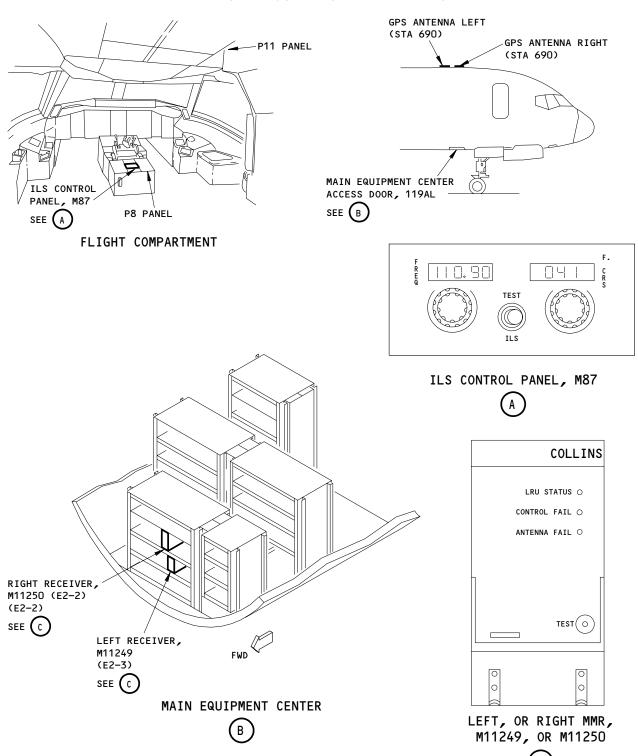
Global Positioning System (GPS) - Component Index Figure 101

AIRPLANES WITH GPS

34-58-00



FAULT ISOLATION/MAINT MANUAL



GPS - Component Location Figure 102

34-58-00

02

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MAKE SURE THESE SYSTEMS WILL OPERATE: IRS (AMM 34-21-00/501) EFIS (AMM 34-22-00/501)

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11A3, 11E10, 11E31

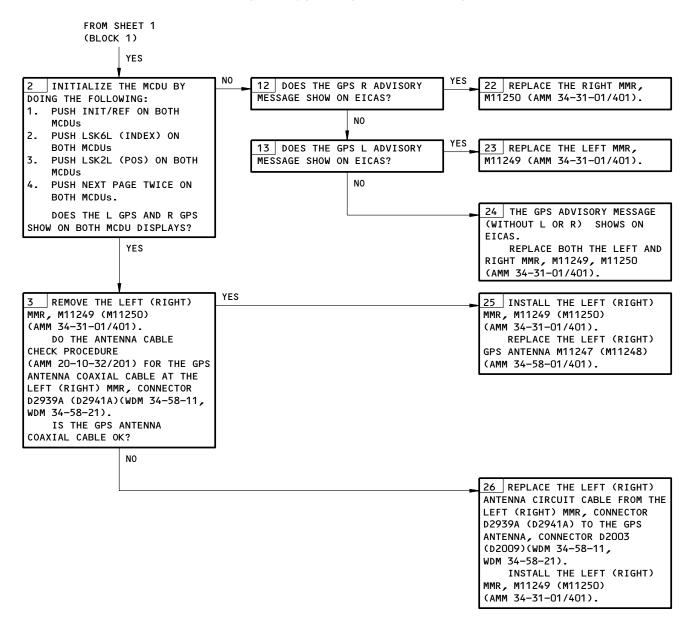
MAKE SURE THE AIRPLANE IS IN THIS CONFIGURATION: ELECTRICAL POWER IS ON (AMM 24-22-00/201)

GPS PROBLEMS

10 DOES THE "CONTROL FAIL" PUSH AND RELEASE THE TEST 20 REPLACE THE LEFT (RIGHT) SWITCH ON THE LEFT (RIGHT) LIGHT STAY ON? MMR, M11249 (M11250) (AMM 34-31-02/401). MMR. YES DO THESE TEST INDICATIONS OCCUR? 1. BOTH LIGHTS COME ON RED 21 REPLACE THE ILS CONTROL PANEL, M87 (AMM 34-31-02/401). 2. AFTER 3 SECONDS THE "LRU STATUS" LIGHT CHANGES TO IF THE PROBLEM CONTINUES, REMOVE THE ILS CONTROL PANEL. GREEN 3. AFTER 6 SECONDS BOTH LIGHTS REMOVE THE LEFT (RIGHT) MMR, M11249 (M11250) GO OFF 4. AFTER ABOUT 15 SECONDS THE (AMM 34-31-01/401). GREEN "LRU STATUS" LIGHT EXAMINE THE DATA BUS COMES ON. CIRCUIT FROM THE ILS CONTROL PANEL, CONNECTOR D269 (D273), YES PINS 13 AND 14, TO THE LEFT (RIGHT) MMR, CONNECTOR D2939B SEE SHEET 2 (D2941B), PINS K1 AND J1 (WDM 34-31-11, WDM 34-31-21). (BLOCK 2) REPAIR THE PROBLEMS THAT YOU FIND. INSTALL THE ILS CONTROL PANEL AND THE MMR.

> GPS Problems Figure 103 (Sheet 1)

EFFECTIVITY-AIRPLANES WITH GPS 34-58-00



GPS Problems Figure 103 (Sheet 2)



FLIGHT MANAGEMENT COMPUTER SYSTEM

	F.T.C			
COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	REFERENCE
CARD - (77-35-00/101) ENG ECS DISCRETES LEFT, M10313 ENG ECS DISCRETES RIGHT, M10312 CLOCK - (31-25-00/101) CAPT, N2 F/0, N42				
CIRCUIT BREAKER -	1	1	FLT COMPT, P11 11F27	*
DBLDR, C630 2 FMCS CDU LEFT, C597		1 1	11E8	*
FMCS CDU RIGHT, C598		i	11E29	*
FMCS CMPTR LEFT, C609		1	11E9	*
FMCS CMPTR RIGHT, C610		1	11E30	*
FMC TUNING LEFT, C641		1	11F13	*
CIRCUIT BREAKER -	2		119BL, MAIN EQUIP CTR, P37	
FMCS DATA BASE LOAD, C630		1	37E8	*
COMPUTER - (34-12-00/101) AIR DATA LEFT, M100				
AIR DATA EEFT, MIOO AIR DATA RIGHT, MIO1				
COMPUTER - (31-41-00/101)				
EICAS L, M10181				
EICAS R, M10182				
COMPUTER - FLIGHT MANAGEMENT L, M134	2	1	119BL, MAIN EQUIP CTR, E2-1	34-61-01
COMPUTER - FLIGHT MANAGEMENT R, M135	2	1	119BL, MAIN EQUIP CTR, E2-2	34-61-01
COMPUTER - (22-32-00/101) THRUST MANAGEMENT, M183				
CONNECTOR - DATA BASE LOADER L, D917	1	1	FLT COMPT	*
INDICATOR - (34-13-00/101)			121 00111 1	
CAPT MACH/AIRSPEED, N1				
F/O'S MACH/AIRSPEED, N41				
INDICATOR - (34-22-00/101)				
CAPT ELECTRONIC ATTITUDE DIRECTOR, N4				
CAPT ELECTRONIC HORIZONTAL SITUATION, N5				
CAPT RADIO DISTANCE MAGNETIC, N3 F/O'S ELECTRONIC ATTITUDE DIRECTOR, N44				
F/O'S ELECTRONIC HORIZONTAL SITUATION, N45				
F/O'S RADIO DISTANCE MAGNETIC, N43				
INTERROGATOR - (34-55-00/101)				
DME L, M123				
DME R, M124	1	1	FLT COMPT D1 7	*
LIGHT - FMC ANNUNCIATOR, L471 PANEL - (22-11-00/101)	1	1	FLT COMPT, P1-3	_ ^
AFCS MODE CONTROL, M90				
PANEL - (34-22-00/101)				
EFIS CONTROL L, M94				
EFIS CONTROL R, M93				
PANEL - (34-51-00/101)				
VOR CONTROL L, M91 VOR CONTROL R, M92				
RECEIVER - (34-51-00/101)				
VOR L, M186				
VOR R, M187				

* SEE THE WDM EQUIPMENT LIST

1 GUI 001-009,115

2 GUI 010-114,116-999

Flight Management Computer System - Component Index Figure 101 (Sheet 1)

34-61-00

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COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	REFERENCE
RELAY - (REF 31-01-36, FIG. 101) FMC TUNING L, K757 SYS 1 AIR/GND, K124 RELAY - (REF 31-01-37, FIG. 101) FMC TUNING R, K758 SYS 2 AIR/GND, K10203 SWITCH - CAPT FMC SOURCE SELECT, S2 SWITCH - F/O'S FMC SOURCE SELECT, S10 SYMBOL GENERATOR - (REF 34-22-00, FIG. 101) EFIS C, M149 EFIS L, M148 EFIS R, M150 UNIT - (REF 31-31-00, FIG. 101) DIGITAL FLIGHT DATA ACQUISITION, M138	1 1	1 1	FLT COMPT, P1 FLT COMPT, P3	*
UNIT - L FLIGHT MANAGEMENT COMPUTER CONTROL/ DISPLAY, M76	1	1	FLT COMPT, P9	34-61-02
UNIT - R FLIGHT MANAGEMENT COMPUTER CONTROL/ DISPLAY, M77 UNIT - (REF 28-41-00, FIG. 101) FUEL QUANTITY PROCESSOR, M121 UNIT - (REF 34-21-00, FIG. 101) INERTIAL REFERENCE CTR, M160 INERTIAL REFERENCE L, M159 INERTIAL REFERENCE R, M161	1	1	FLT COMPT, P9	34-61-02

^{*} SEE THE WDM EQUIPMENT LIST

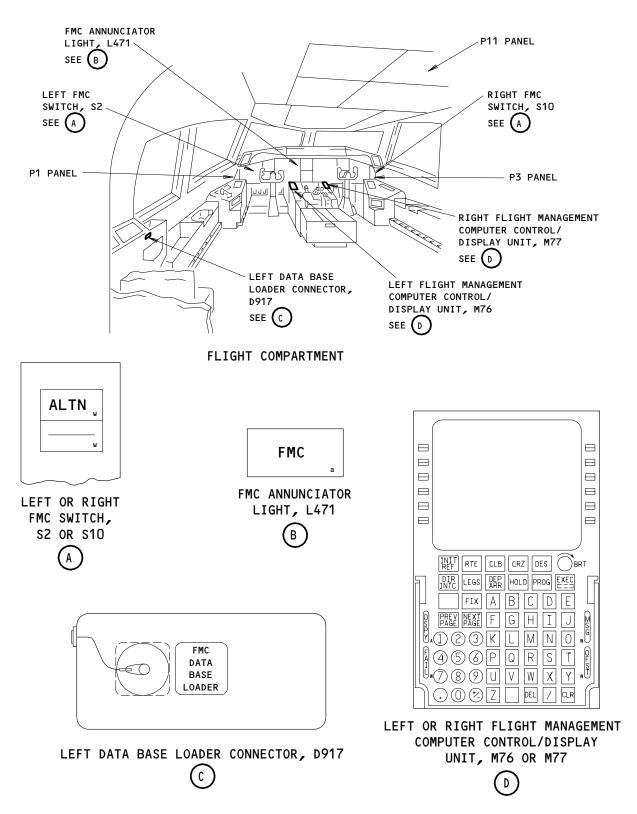
Flight Management Computer System - Component Index Figure 101 (Sheet 2)

ALL ALL

195453

34-61-00





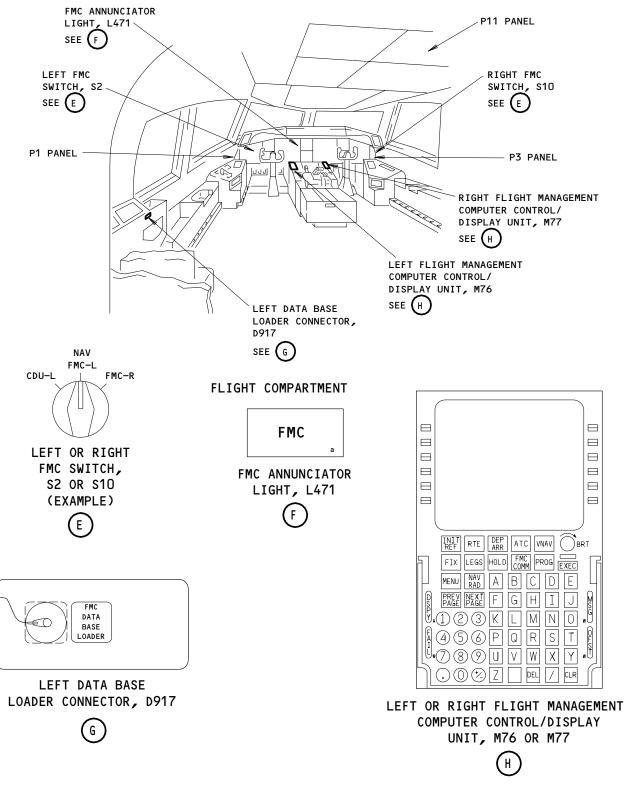
Flight Management Computer System - Component Location Figure 102 (Sheet 1)

EFFECTIVITY-GUI 115 PRE-SB 34-414; GUI 001 PRE-SB 34-427; GUI 002-114, 116-999

34-61-00

43.1 Page 103 May 20/09





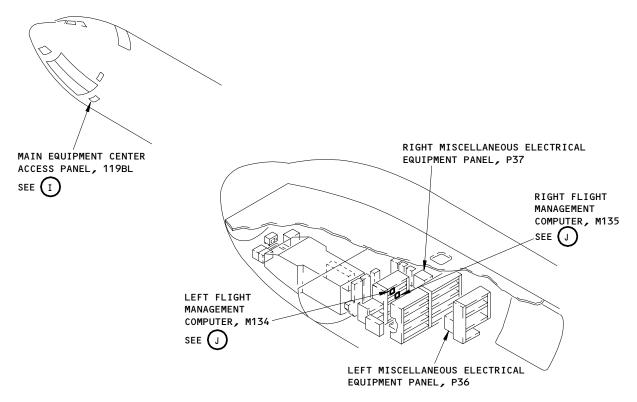
Flight Management Computer System - Component Location Figure 102 (Sheet 2)

GUI 115 POST-SB 34-414; GUI 001 POST-SB 34-427 34-61-00

31.1

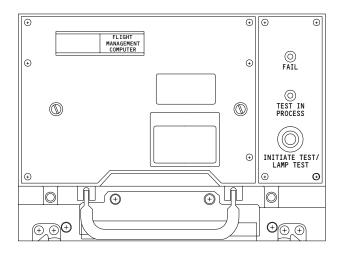
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MAIN EQUIPMENT CENTER





LEFT OR RIGHT FLIGHT MANAGEMENT COMPUTER, M134 OR M135



Flight Management Computer System - Component Location Figure 102 (Sheet 3)

ALL

34-61-00

07

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The FMC Flight Faults BITE Procedure Is Part of the Autoflight BITE. See the Autoflight BITE Fault Isolation (FIM 22-00-02/101).

Figure 102A

ALL ALL

34-61-00

02

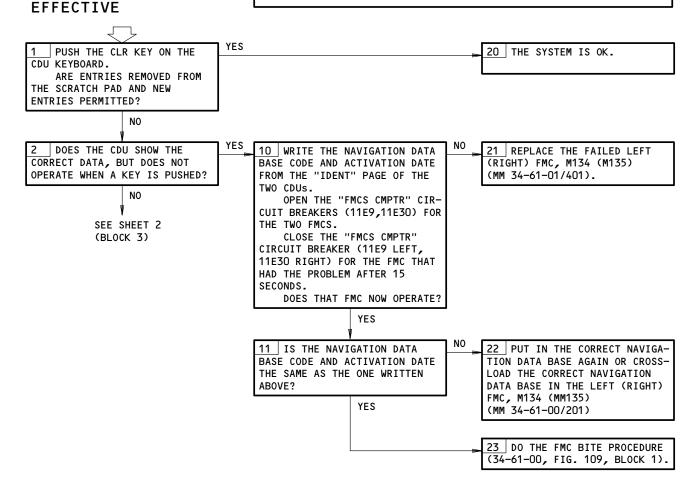
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ACTION PERFORMED ON LEFT (RIGHT) CDU KEYBOARD IS NOT MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11E8,11E9,11E29,11E30

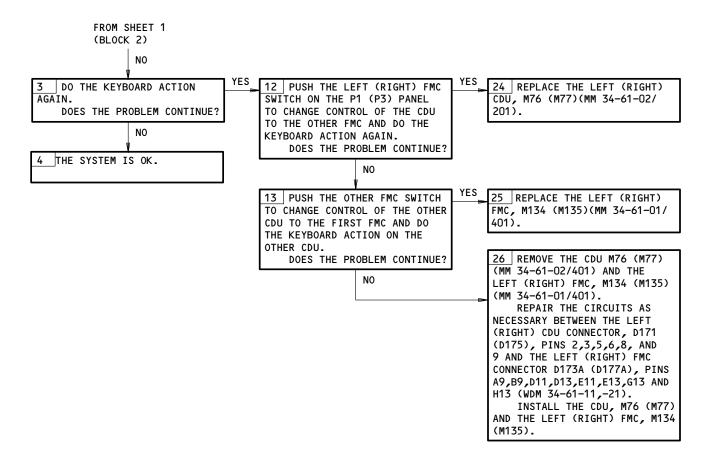
MAKE SURE THE AIRPLANE IS IN THE CONFIGURATION THAT FOLLOWS:

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



Action Performed on Left (Right) CDU Keyboard is Not Effective Figure 103 (Sheet 1)

34-61-00



Action Performed on Left (Right) CDU Keyboard is Not Effective Figure 103 (Sheet 2)

ALL

ALL

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May 28/05

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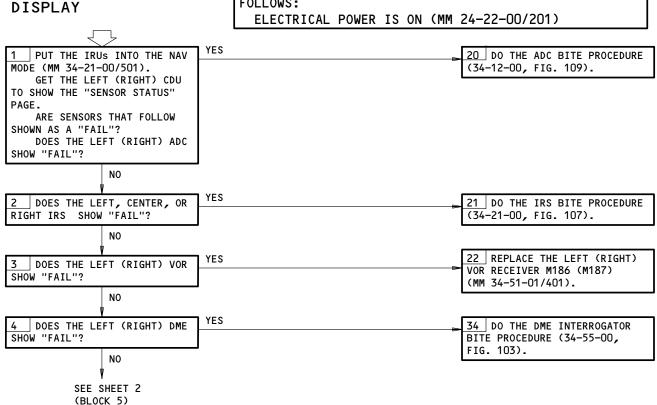


DATA INCORRECT ON LEFT (RIGHT) CDU

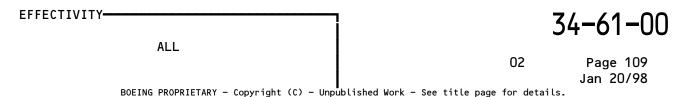
MAKE SURE THESE SYSTEMS WILL OPERATE:
AIR DATA COMPUTING SYSTEM (MM 34-12-00/501)
INERTIAL REFERENCE SYSTEM (MM 34-21-00/501)
VOR SYSTEM (MM 34-51-00/501)
DME SYSTEM (MM 34-55-00/501)

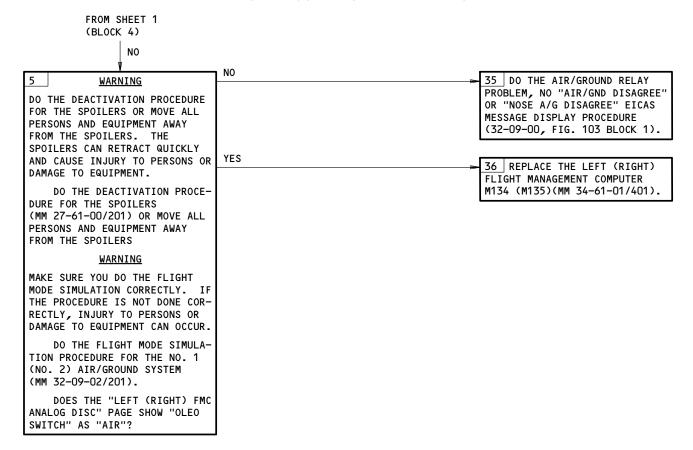
MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11E8,11E9,11E29,11E30

MAKE SURE THE AIRPLANE IS IN THE CONFIGURATION THAT FOLLOWS:



Data Incorrect on Left (Right) CDU Display Figure 104 (Sheet 1)





Data Incorrect on Left (Right) CDU Display Figure 104 (Sheet 2)

ALL

08 Page 110
Jan 20/98



MAKE SURE THESE SYSTEMS WILL OPERATE:

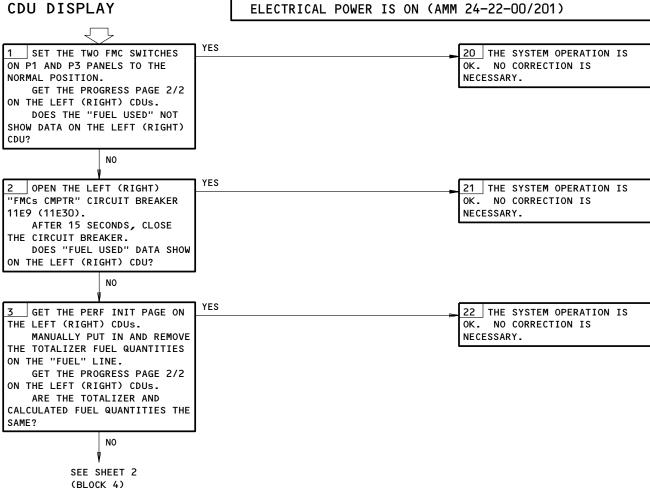
FUEL QUANTITY INDICATING SYSTEM (AMM 28-41-00/501)

EICAS (AMM 31-41-00/501)

FUEL FLOW INDICATING SYSTEM (AMM 73-31-00/001)

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11E8, 11E9, 11E29, 11E30

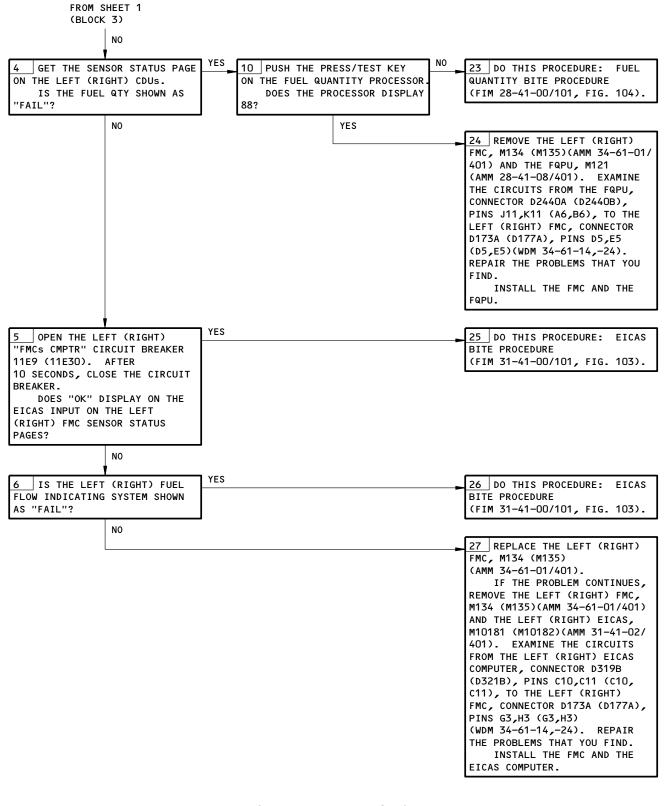
MAKE SURE THE AIRPLANE IS IN THIS CONFIGURATION: ELECTRICAL POWER IS ON (AMM 24-22-00/201)



Fuel Error on CDU Display Figure 105 (Sheet 1)

FUEL ERROR ON

34-61-00



Fuel Error on CDU Display Figure 105 (Sheet 2)

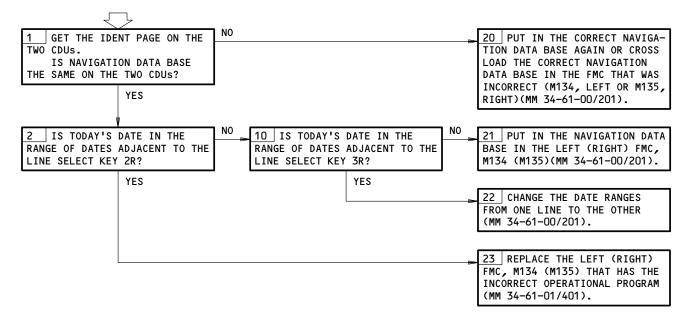


MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11E8,11E9,11E29,11E30

MAKE SURE THE AIRPLANE IS IN THE CONFIGURATION THAT FOLLOWS:

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

FMC NAVIGATION DATA BASE OR PROGRAM WRONG



FMC Navigation Data Base or Program Wrong Figure 106

EFFECTIVITY-ALL

34-61-00



FMC LIGHT FAILS TO ILLUMINATE WITH CDU ALERT

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11E8,11E9,11E29,11E30

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

N0 PUSH THE MASTER DIM AND 20 PUT A NEW LAMP IN THE FMC TEST SWITCH. LIGHT, L471. IF THE PROBLEM CONTINUES, DOES THE FMC LIGHT COME ON? REPLACE THE DIODE/FUSE CARD, (AMM 33-16-02/201). YES 21 EXAMINE THE CIRCUIT FROM THE FMC LIGHT, L471, PIN 2, TO THE LEFT (RIGHT) FMC, CONNECTOR D173A (D177A), PIN K13 (K13)(WDM 34-61-15, -25). REPAIR THE PROBLEMS THAT YOU FIND. IF THE PROBLEM CONTINUES, REPLACE THE LEFT (RIGHT) FMC, M134 (M135), THAT HAD THE CDU MESSAGE ALERT (AMM 34-61-01/ 401).

FMC Light Fails To Illuminate With CDU Alert Figure 107

E46752

34-61-00



PREREQUISITES MAKE SURE THIS SYSTEM WILL OPERATE: EFIS (AMM 34-22-00/501) MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: "MAP RANGE DISAGREE" 11E8, 11E9, 11E29, 11E30 MESSAGE DISPLAYED MAKE SURE THE AIRPLANE IS IN THIS CONFIGURATION: ON LEFT (RIGHT) EHSI ELECTRICAL POWER IS ON (AMM 24-22-00/201) YES GET THE SENSOR STATUS PAGE 20 REPLACE THE LEFT (RIGHT) ON THE LEFT (RIGHT) CDUs. EFIS CONTROL PANEL, M94 (M93) IS THE EFIS/CP SHOWN AS (AMM 34-22-02/201). 'FAIL''? NO 10 CHECK THE APPLICABLE 21 REPLACE APPLICABLE (LEFT, (CAPT,F/O) FMC INSTR SOURCE CENTER, RIGHT) EFIS SYMBOL SELECT SWITCH (S2, S10) FOR GENERATOR (M148,M149,M150) CONTINUNITY (WDM 34-22-17, (AMM 34-22-01/401). WDM 34-22-27). IS THERE CONTINUITY IN THE NORMAL AND ALTERNATE POSITIONS? 22 REPLACE APPLICABLE (CAPT, F/O) FMC INSTR SOURCE SELECT SWITCH (S2, S10) (WDM 34-22-17, WDM 34-22-27).

MAP RANGE DISAGREE Message Displayed on Left (Right) EHSI Figure 108

EFFECTIVITY-ALL

34-61-00

02

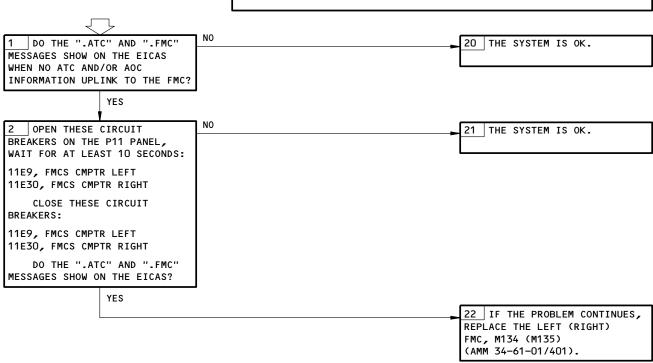
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MAKE SURE THESE SYSTEMS WILL OPERATE: AUTOPILOT (AMM 22-10-00/501) THRUST MANAGEMENT SYSTEM (AMM 22-32-00/501) INERTIAL REFERENCE SYSTEM (AMM 34-21-00/501) OR AIR DATA INERTIAL REFERENCE SYSTEM (AMM 34-26-00/501)

ERRONEOUS DISPLAY MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11E8, 11E9, 11E29, 11E30

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



Erroneous Display of ".ATC" and ".FMC" Messages on EICAS Figure 108A

EFFECTIVITY-ALL

OF ".ATC" AND

ON EICAS

".FMC" MESSAGES

34-61-00



MAKE SURE THESE SYSTEMS WILL OPERATE:
AUTOPILOT (AMM 22-10-00/501)
THRUST MANAGEMENT SYSTEM (AMM 22-32-00/501)
INERTIAL REFERENCE SYSTEM (AMM 34-21-00/501) OR
AIR DATA INERTIAL REFERENCE SYSTEM
(AMM 34-26-00/501)

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11E8, 11E9, 11E29, 11E30

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

NO DOES THE LEFT (RIGHT) FMC 20 THE SYSTEM IS OK. SHOW FAILURE INDICATIONS THAT FOLLOWS? • "L (R) FMC FAIL" MESSAGE ON EICAS "TIMEOUT RESELECT" MESSAGE ON CDU MAP FAIL INDICATIONS. NO 2 OPEN THESE CIRCUIT 21 THE SYSTEM IS OK. BREAKERS ON THE P11 PANEL, WAIT FOR AT LEAST 10 SECONDS: 11E9, FMCS CMPTR LEFT 11E30, FMCS CMPTR RIGHT CLOSE THESE CIRCUIT BREAKERS: 11E9, FMCS CMPTR LEFT 11E30, FMCS CMPTR RIGHT DO THE ".FMC" MESSAGES SHOW ON THE EICAS? YES

"L (R) FMC FAIL" on EICAS Figure 108B

"L (R) FMC FAIL"

ON EICAS

34-61-00

22 DO THIS PROCEDURE:
FLIGHT MANAGEMENT COMPUTER
SYSTEM BITE PROCEDURE

(FIG. 109).

03

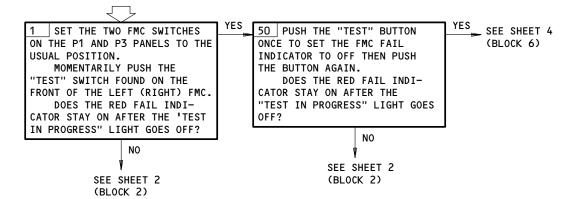
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MAKE SURE THESE SYSTEMS WILL OPERATE:
AIR DATA COMPUTING SYSTEM (MM 34-12-00/501)
AUTOFLIGHT (MM 22-10-00/501)
CLOCKS (MM 31-25-00/501)
DME SYSTEM (MM 34-55-00/501)
EFIS (MM 34-22-00/501)
EICAS (MM 31-41-00/501)
FUEL QUANITY INDICATING SYSTEM (MM 28-41-00/501)
INERTIAL REFERENCE SYSTEM (MM 34-21-00/501)
INSTRUMENT LANDING SYSTEM (MM 34-31-00/501)
THRUST MANAGEMENT SYSTEM (MM 22-32--00/501)
VOR SYSTEM (MM 34-51-00/501)

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11E8,11E9,11E29,11E30

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

FLIGHT MANAGEMENT COMPUTER SYSTEM BITE PROCEDURE

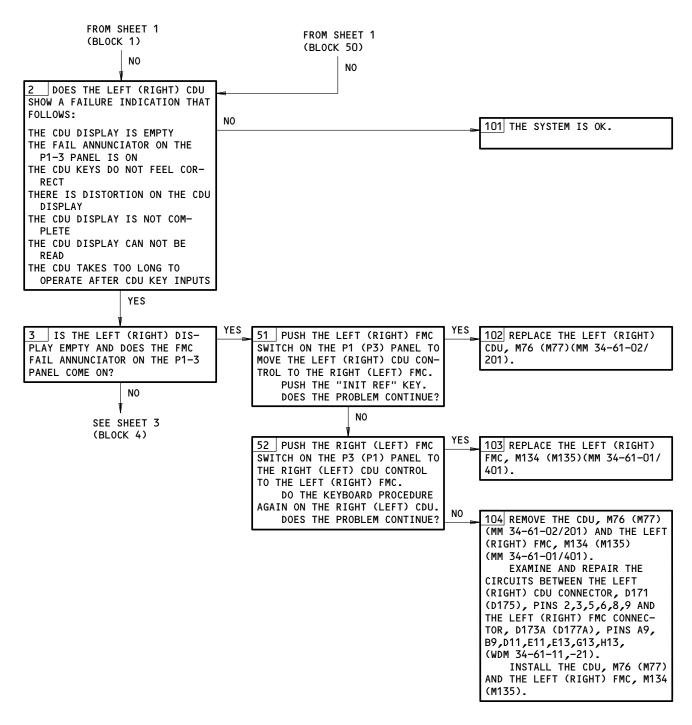


Flight Management Computer System BITE Procedure Figure 109 (Sheet 1)

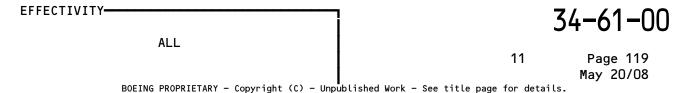
230014

34-61-00

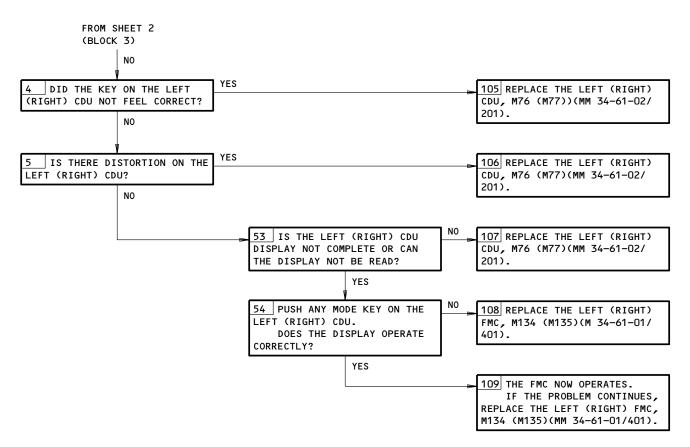




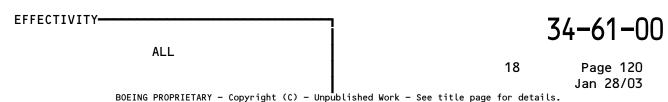
Flight Management Computer System BITE Procedure Figure 109 (Sheet 2)

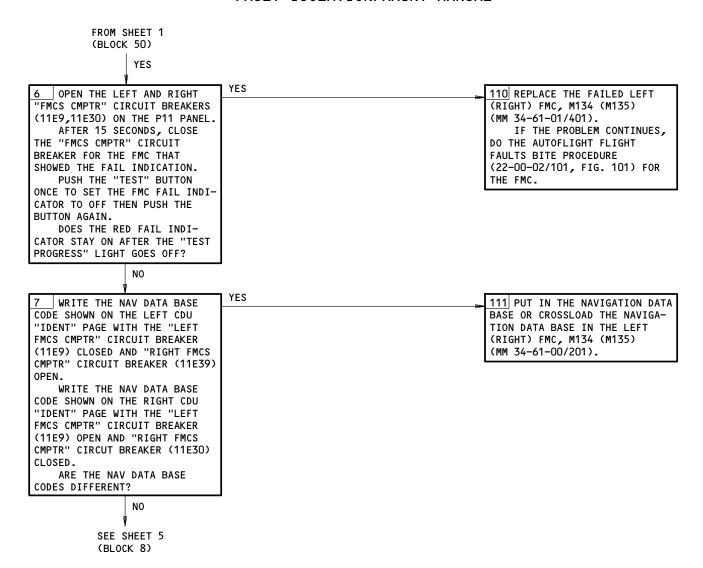






Flight Management Computer System BITE Procedure Figure 109 (Sheet 3)





Flight Management Computer System BITE Procedure Figure 109 (Sheet 4)

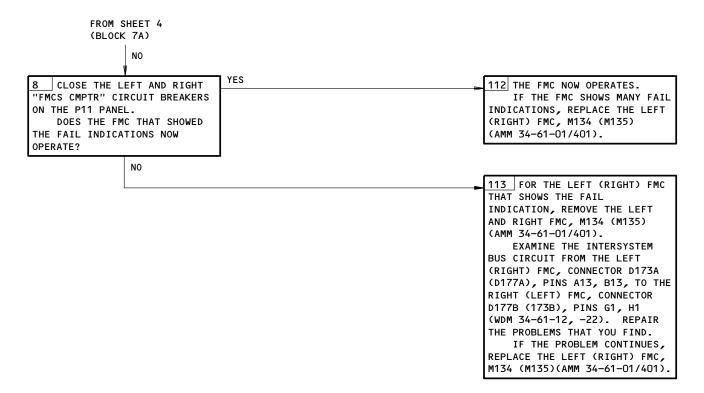
ALL

ALL

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May 20/08

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Flight Management Computer System BITE Procedure Figure 109 (Sheet 5)



PREREQUISITES

MAKE SURE THESE SYSTEMS WILL OPERATE: AUTOPILOT (MM 22-10-00/501) THRUST MANAGEMENT SYSTEM (MM 22-32-00/501) INERTIAL REFERENCE SYSTEM (MM 34-21-00/501)

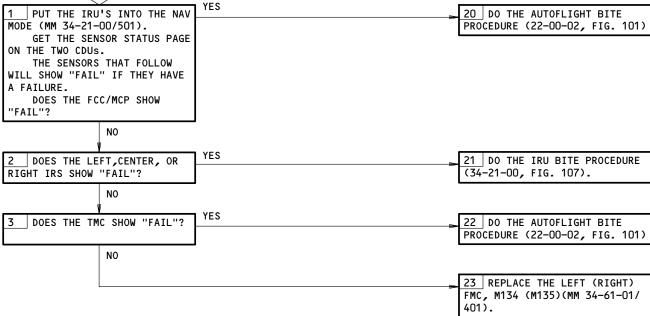
MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11E8,11E9,11E29,11E30

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

MAKE SURE THE AIRPLANE IS IN THE CONFIGURATION THAT FOLLOWS:

VNAV PATH, ALTITUDE, TRANSITION; LNAV PATH, HEADING,

TRANSITION ERROR



VNAV Path, Altitude, Transition, LNAV Path, Heading, Transition Error Figure 110

EFFECTIVITY-ALL

24224

PREREQUISITES

MAKE SURE THESE SYSTEMS WILL OPERATE:
AUTOPILOT (AMM 22-10-00/501)
THRUST MANAGEMENT SYSTEM (AMM 22-32-00/501)
INERTIAL REFERENCE SYSTEM (AMM 34-21-00/501)

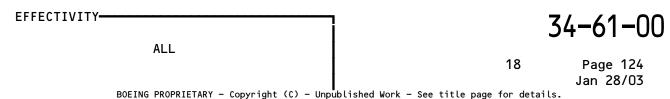
MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11E8, 11E9, 11E29, 11E30

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

FMC FAILURE CAUSED BY VOR/DME DATA ERROR

YES 1 ON THE P11 PANEL, OPEN 20 DO THIS PROCEDURE: THESE CIRCUIT BREAKERS: BITE PROCEDURE • LEFT AND RIGHT FMC (11E9, (FIM 34-51-00/101). 11E30) • LEFT AND RIGHT VOR (11A2, 11E32) • LEFT AND RIGHT DME (11E11, 11E32) AFTER 15 SECONDS, CLOSE THESE CIRCUIT BREAKERS: • LEFT AND RIGHT FMC (11E9, 11E30) • LEFT AND RIGHT VOR (11A2, 11E32) • LEFT AND RIGHT DME (11E11, 11E32) GET THE SENSOR STATUS PAGE 1/2 ON THE LEFT (RIGHT) DOES THE LEFT (RIGHT) VOR SHOW "FAIL"? NO YES DOES THE LEFT (RIGHT) DME 21 DO THIS PROCEDURE: DME SHOW "FAIL"? BITE PROCEDURE (FIM 34-55-00/101). NO 3 GET THE SENSOR STATUS 22 DO THIS PROCEDURE: FMC PAGE 2/2 ON THE LEFT (RIGHT) BITE PROCEDURE (FIM 34-61-01/101). CDU. DOES THE LEFT (RIGHT) FMC SHOW "OK"? YES 23 THE SYSTEM IS OK.

FMC Failure Caused by VOR/DME Data Error Figure 110A





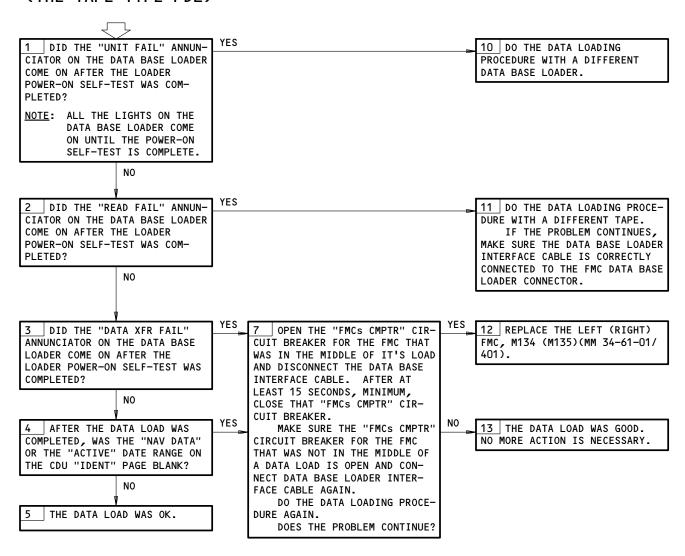
PREREQUISITES

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED: 11E8,11E9,11E29,11E30

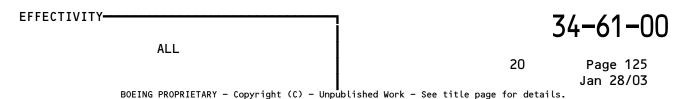
MAKE SURE THE AIRPLANE IS IN THE CONFIGURATION THAT FOLLOWS:

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

FMC NAV DATA LOADING PROBLEMS (THE TAPE TYPE PDL)



FMC Nav Data Loading Problems Figure 111





1. ARINC Data Bus Charts

A. General

<u>CAUTION</u>: DO NOT DIRECTLY TOUCH THE CONNECTORS. USE A BREAKOUT BOX OR YOU CAN CAUSE DAMAGE TO THE CONNECTORS.

(1) The ARINC 429 data bus charts give data necessary to make an analysis of ARINC 429 transmitters, receivers, and data buses. For the test, use a breakout box at the available terminal or at the LRU connector.

B. Equipment

- (1) Standard multi-meter
- (2) 429EBP Data Bus Analyzer (recommended) JcAIR Instrumentation 400 Industrial Parkway Industrial Airport, KS 66031

429-2 Data Bus Analyzer (alternative) Interface Technology 150 E. Arrow Highway San Dimas, CA 91773

(3) A34011-1 Breakout Box (recommended) A34011-112 Breakout Box (alternative)

NOTE: Octal label 315 is a multiple function label and will not display correctly in engineering units on the data bus analyzer unless hexadecimal equipment ID=02 is selected. For analyzers not capable of having ID selected, display the label in hexadecimal format and record the value. Set the data bus analyzer to transmit label 015 in hex format and insert the value recorded for label 315. Change label 015 format to engineering to display correct engineering units.

EFFECTIVITY-



FMC											
				D.	IGITA	AL O	JTPUT BU	s c	CHART		
	В	BUS	NAME							DIT	
	SOURCE			TYPE	BUS	CON	N PINS		BUS FORMAT	BIT RATE	DATA BUS
FMC	(L	R)	В	1	Α	G09 H09		429	LO	FMC 1-GENERAL
FMC	(L	R)	С	2	В	D07 E07		429	LO	FMC 2-GENERAL
FMC	(L	R)	Α	3	Α	A13 B13		429	HI	FMC 3-INTERSYSTEM
FMC	(L	R)	D	4	Α	A11 B11		429	HI	FMC 4-EFIS, GPWC
FMC	(L	R)	Н	5	Α	D13 E13		739	HI	FMC 5-MCDU
FMC	(L	R)	F	7	Α	G11 H11		429	LO	FMC 7-DATA UPDATE
FMC	(L	R)	В	1	Α	G09 H09		429	LO	FMC 1-GENERAL
FMC	(L	R)	С	2	В	D07 E07		429	LO	FMC 2-GENERAL
FMC	(L	R)	Α	3	Α	A13 B13		429	HI	FMC 3-INTERSYSTEM
FMC	(L	R)	D	4	Α	A11 B11		429	HI	FMC 4-EFIS, GPWC
FMC	(L	R)	Е	5	Α	D13 E13		429	HI	FMC 5-ONSIDE CDU
FMC	(L	R)	Е	6	Α	G13 H13		429	HI	FMC 6-OFFSIDE CDU
FMC	(L	R)	F	7	Α	G11 H11		429	LO	FMC 7-DATA UPDATE

ALL



FMC ID-002												
OCTAL LABELS CHART												
SIGNAL	TYPE	LABEL	FORMAT	MIN UPDATE RATE	SDI	BINARY RANGE	POSITIVE SENSE	UNITS				
SYNCHRONISING DATA	Α	TBS	BLK	TBS	00	TBS	N/A	TBS				
DISTANCE TO GO-D	В	001	BCD	5	00	0-3999.9	ALWAYS POS	NM				
VOR FREQUENCY-L	В	034	BCD	5	00	108-117.95	ALWAYS POS	MHZ				
DME FREQUENCY-L	В	035	BCD	5	00	108-135.95	ALWAYS POS	MHZ				
SET LATITUDE	В	041	BCD	2	N/A	± 90	NORTH	DEG: MIN				
SET LONGITUDE	В	042	BCD	2	N/A	± 180	EAST	DEG: MIN				
SET MAGNETIC HDG	В	043	BCD	2	00	0-359	CW FROM NORTH	DEG				
GROSS WEIGHT	В	075	BNR	1	00	0-1310720	ALWAYS POS	LBS				
TARGET AIRSPEED	В	077	BNR	5	00	± 512	ALWAYS POS	KNOTS				
SELECTED ALTITUDE	В	102	BNR	5	00	± 65,536	ABOVE SEA LVL	FEET				
SELECTED AIRSPEED	В	103	BNR	5	00	± 512	ALWAYS POS	KNOTS				
SELECTED MACH	В	106	BNR	5	00	± 4.096	ALWAYS POS	MACH				
WAYPOINT BEARING	В	115	BNR	10	00	± 180	CW FROM NORTH	DEG				
HORIZTL STEERING	В	121	BNR	10	00	± 180	ROLL RIGHT	DEG				
VERTICAL STEERING	В	122	BNR	10	00	± 180	PITCH UP	DEG				
ASSUMED TEMP	В	213	BNR	5	00	± 512	ABOVE O DEG	DEG C				
WRAP-AROUND TEST	В	266	BNR	N/A	00	N/A	N/A	N/A				
FMC DISCRETES #1	В	270	DIS	5	00	N/A	N/A	N/A				
FMC DISCRETES #2	В	271	DIS	5	хх	N/A	N/A	N/A				



FMC ID-002												
OCTAL LABELS CHART												
SIGNAL	TYPE	LABEL	FORMAT	MIN UPDATE RATE	SDI	BINARY RANGE	POSITIVE SENSE	UNITS				
VERT STEERING RATE	В	302	BNR	10	00	± 5	UP	DEG/SEC				
INTERFACE MONITOR	В	350	DIS	1	00	N/A	N/A	N/A				
FMC BITE DATA 1	В	351	DIS	1	00	N/A	N/A	N/A				
FMC BITE DATA 2	В	352	DIS	1	00	N/A	N/A	N/A				
FAULT DATA	В	356	BLK	1	00	N/A	N/A	N/A				
INTERFACE CHK DATA	В	357	BLK	1	00	N/A	N/A	N/A				
N1 TARGET	В	341	BNR	5	00	± 256	ALWAYS POS	%RPM				
DISTANCE TO GO-D	С	001	BCD	5	00	0-3999.9	ALWAYS POS	NM				
VOR FREQUENCY-R	С	034	BCD	5	00	108-117.95	ALWAYS POS	MHZ				
DME FREQUENCY-R	С	035	BCD	5	00	108-135.95	ALWAYS POS	MHZ				
SET LATITUDE	С	041	BCD	2	N/A	± 90	NORTH	DEG:MIN				
SET LONGITUDE	С	042	BCD	2	N/A	± 180	EAST	DEG:MIN				
SET MAGNETIC HDG	С	043	BCD	2	00	0-359	CW FROM NORTH	DEG				
GROSS WEIGHT	С	075	BNR	1	00	0-1310720	ALWAYS POS	LBS				
TARGET AIRSPEED	С	077	BNR	5	00	± 512	ALWAYS POS	KNOTS				
SELECTED ALTITUDE	С	102	BNR	5	00	± 65,536	ABOVE SEA LVL	FEET				
SELECTED AIRSPEED	С	103	BNR	5	00	± 512	ALWAYS POS	KNOTS				
SELECTED MACH	С	106	BNR	5	00	± 4.096	ALWAYS POS	MACH				



FMC ID-002											
			OCTAL I	_ABELS (CHAR	г					
SIGNAL	TYPE	LABEL	FORMAT	MIN UPDATE FORMAT RATE		BINARY RANGE	POSITIVE SENSE	UNITS			
WAYPOINT BEARING	C 115		BNR	10	00	± 180	CW FROM NORTH	DEG			
HORIZTL STEERING	С	121	BNR	10	00	± 180	ROLL RIGHT	DEG			
VERTICAL STEERING	С	122	BNR	10	00	± 180	PITCH UP	DEG			
ASSUMED TEMP	С	213	BNR	5	00	± 512	ABOVE O DEG	DEG C			
MIN MANEUVER SPEED	С	225	BNR	1	00	0-512	ALWAYS POS	KTS			
EXTNSN/RETRCTN SPD	С	263	BNR	1	00	0-512	ALWAYS POS	ктѕ			
MIN BUFFET SPEED	С	265	BNR	10	00	0-512	ALWAYS POS	ктѕ			
WRAP-AROUND TEST	С	266	BNR	N/A	00	N/A	N/A	N/A			
FMC DISCRETES #1	С	270	DIS	5	00	N/A	N/A	N/A			
FMC DISCRETES #2	С	271	DIS	5	хх	N/A	N/A	N/A			
INTERFACE MONITOR	С	350	DIS	1	00	N/A	N/A	N/A			
FMC BITE DATA 1	С	351	DIS	1	00	N/A	N/A	N/A			
FMC BITE DATA 2	С	352	DIS	1	00	N/A	N/A	N/A			
FAULT DATA	С	356	BLK	1	00	N/A	N/A	N/A			
N1 TARGET	С	341	BNR	5	00	± 256	ALWAYS POS	%RPM			
DISTANCE TO GO-D	D	001	BCD	2	00	0-3999.9	ALWAYS POS	NM			
GROUND SPEED-D	D	012	BCD	2	00	0-2000	ALWAYS POS	KNOTS			
ЕТА	D	056	BCD	2	00	0-23:59.9	ALWAYS POS	HR:MIN			
ROT/REF SPEED	D	072	BNR	1	00	0-512	ALWAYS POS	KTS			

ALL ALL



FMC ID-002												
OCTAL LABELS CHART												
SIGNAL	TYPE	LABEL	FORMAT	MIN UPDATE RATE	SDI	BINARY RANGE	POSITIVE SENSE	UNITS				
DECISION SPEED	D	073	BNR	1	00	0-512	ALWAYS POS	KTS				
DESIRED TRACK	D	114	BNR	20	00	± 180	CW FROM NORTH	DEG				
CROSS TRACK DIST	D	116	BNR	20	00	± 128	RIGHT OF PATH	NM				
VERTICAL DEVI	D	117	BNR	20	00	± 2048	ABOVE PATH	FEET				
RANGE TO ALTITUDE	D	120	BNR	20	00	0-512	ALWAYS POS	NM				
FMC DISCRETES #2	D	271	DIS	5	00	N/A	N/A	N/A				
START DYNAMIC DATA	D	303	DIS	20	00	N/A	N/A	N/A				
PRESENT POS-LAT	D	310	BNR	10	N/A	± 180	NORTH	DEG				
PRESENT POS-LONG	D	311	BNR	10	N/A	± 180	EAST	DEG				
GROUND SPEED	D	312	BNR	20	00	0-4096	ALWAYS POS	KNOTS				
TRACK ANGLE TRUE	D	313	BNR	20	00	± 180	CW FROM NORTH	DEG				
WIND SPEED	D	315	BNR	10	00	0-256	ALWAYS POS	KNOTS				
WIND DIRECT TRUE	D	316	BNR	10	00	± 180	CW FROM NORTH	DEG				
TRACK ANGLE-MAG	D	317	BNR	20	00	± 180	CW FROM NORTH	DEG				
DRIFT ANGLE	D	321	BNR	20	00	± 180	DRIFT RIGHT	DEG				
FLIGHT PATH ANGLE	D	322	BNR	20	00	± 180	UP	DEG				
DISPLAY UPDATE ETC	E	TBS	TBS	TBS	N/A	TBS	N/A	TBS				
DBL PROTCOL	F	TBS	TBS	TBS	N/A	TBS	N/A	TBS				
TEXT TRANSFER	G	357	BLK	N/A	N/A	N/A	N/A	N/A				

ALL



FMC ID-002												
OCTAL LABELS CHART												
SIGNAL TYPE LABEL FORMAT RATE SDI RANGE SENSE												
DISPLAY UPDATE	Н	MAL	BLK	N/A	N/A	N/A	N/A	N/A				
FLIGHT PLAN	Н	044	BLK	N/A	N/A	N/A	N/A	N/A				
SUBSYSTEM IDENT	Н	172	BCD	1	N/A	N/A	N/A	N/A				
INITIAL WORD	Н	244	BLK	N/A	N/A	N/A	N/A	N/A				

ALL



FMC											
DISCRETE OCTAL LABELS/BIT CHART											
SIGNAL	OCTAL LABEL BIT		ONE-STATE	ZERO-STATE							
DME MODE 1	035	11	CODED								
DME MODE 2	035	12	CODED								
DME MODE 3	035	13	CODED								
ILS/VOR FREQ	035	14	ILS	VOR							
A/T MACH MODE REQ	270	11	REQUESTED	NOT REQ							
THRUST MODE REQ	270	12	REQUESTED	NOT REQ							
A/T A/S MODE REQ	270	13	REQUESTED	NOT REQ							
CLB MODE REQ	270	14	REQUESTED	NOT REQ							
CON MODE REQ	270	15	REQUESTED	NOT REQ							
CRZ MODE REQ	270	16	REQUESTED	NOT REQ							
G/A MODE REQ	270	17	REQUESTED	NOT REQ							
T/O MODE REQ	270	18	REQUESTED	NOT REQ							
RATING 1 REQ	270	19	REQUESTED	NOT REQ							
RATING 2 REQ	270	20	REQUESTED	NOT REQ							
MESSAGE ANNUN	270	21	ON	OFF							
DISPLAY ANNUN	270	22	ON	OFF							
OFFSET ANNUN	270	23	ON	OFF							
LAT TRAK CHG ALRTL	270	24	ALERT	NORMAL							
LAT TRAK CHG ALRTR	270	25	ALERT	NORMAL							
VERT TRAK CHG ALRT	270	26	ALERT	NORMAL							

ALL



FMC												
DISCRETE OCTAL LABELS/BIT CHART												
SIGNAL	OCTAL LABEL	BIT	ONE-STATE	ZERO-STATE								
(SPARE)	270	27	1	0								
IDLE THRUST REQ	270	28	REQUESTED	NOT REQ								
THROTTLE DORMANT	270	29	REQUESTED	NOT REQ								
ENGINE IDENT 1	271	11	CODED									
ENGINE IDENT 2	271	12	CODED									
ENGINE IDENT 3	271	13	CODED									
ENGINE IDENT 4	271	14	CODED									
ENGINE IDENT 5	271	15	CODED									
ENGINE IDENT 6	271	16	CODED									
ENGINE IDENT 7	271	17	CODED									
ENGINE IDENT 8	271	18	CODED									
ENGINE IDENT 9	271	19	CODED									
ENGINE IDENT 10	271	20	CODED									
(SPARE)	271	21	1	0								
(SPARE)	271	22	1	0								
(SPARE)	271	23	1	0								
VSPEED OPER	271	24	OPER	INOPER								
VPATH OPER	271	25	OPER	INOPER								
(SPARE)	271	26	1	0								
(SPARE)	271	27	1	0								

ALL



FMC											
DISCRETE OCTAL LABELS/BIT CHART											
SIGNAL	OCTAL LABEL	BIT	ONE-STATE	ZERO-STATE							
(SPARE)	271	28	1	0							
(SPARE)	271	29	1	0							
LANDING FLAP <20	272	12-11	00	1							
LANDING FLAP =20	272	12-11	01	<u> </u>							
LANDING FLAP =25	272	12-11	10								
LANDING FLAP =30	270	12–11	11								
LEFT IRS	350	9	L IRS FAIL	NO FAIL							
RIGHT IRS	350	10	R IRS FAIL	NO FAIL							
CENTER IRS	350	11	C IRS FAIL	NO FAIL							
LEFT DME	350	12	L DME FAIL	NO FAIL							
RIGHT DME	350	13	R DME FAIL	NO FAIL							
LEFT VOR	350	14	L VOR FAIL	NO FAIL							
RIGHT VOR	350	15	R VOR FAIL	NO FAIL							
ILS	350	16	ONS ILS FL	NO FAIL							
LEFT ADC	350	17	L ADC FAIL	NO FAIL							
RIGHT ADC	350	18	R ADC FAIL	NO FAIL							
TMC	350	19	TMC FAIL	NO FAIL							
MCP	350	20	MCP FAIL	NO FAIL							
EFIS	350	21	EFISCP FAIL	NO FAIL							
L FUEL FLOW	350	22	FFS1 FAIL	NO FAIL							



FMC											
DISCRETE OCTAL LABELS/BIT CHART											
SIGNAL	OCTAL LABEL	BIT	ONE-STATE	ZERO-STATE							
R FUEL FLOW	350	23	FFS2 FAIL	NO FAIL							
C FUEL FLOW	350	24	FFS3 FAIL	NO FAIL							
FUEL QUANTITY	350	25	FQS FAIL	NO FAIL							
DIGITAL CLOCK	350	26	GMTCLOCK FL	NO FAIL							
LOADER	350	27	DBLOADER FL	NO FAIL							
SDP 175	351	11	PROCESSR FL	NO FAIL							
PROGRAM RAM	351	12	RAM FAIL	NO FAIL							
STEERING RAM	351	13	LSR FAIL	NO FAIL							
PROM	351	14	PROM FAIL	NO FAIL							
DISK	351	15	DISK FAIL	NO FAIL							
HEARTBEAT MONITOR	351	16	HEARTBT FL	NO FAIL							
FMC/CDU L INTRFACE	351	17	FMC/LCDU	NO FAIL							
FMC/CDU R INTRFACE	351	18	FMC/RCDU	NO FAIL							
INTERSYSTEM BUS	351	19	ISB FAIL	NO FAIL							
429 TRANSMITTERS	351	20	XMTR FAIL	NO FAIL							
429 RECEIVERS	351	21	RCVR FAIL	NO FAIL							
BUFFER RAM	352	11	BUFF RAM FL	NO FAIL							
PROM	352	12	PROM FAIL	NO FAIL							
DISPLAY RAM	352	13	DSP RAM FL	NO FAIL							
DISPLAY RAM HALF	352	14	DSP HALF FL	NO FAIL							
CRT	352	15	CRT FAILURE	NO FAIL							



FMC											
DISCRETE OCTAL LABELS/BIT CHART											
SIGNAL OCTAL LABEL BIT ONE-STATE ZERO-STATE											
PROGRAM MEM SEQ	352	16	MEM SEQ FL	NO FAIL							
HI VOLT POWER SUP	352	17	HVPS FAIL	NO FAIL							

CDU													
				D]	T BUS	CHART							
	В	US N	NAME						BUS	ВІТ			
	SOURCE TYPE BUS							INS	FORMAT	l .		DATA	BUS
FMCDU	(L	R 2)	Α	1	D	08	09	429	LO	CDU		