

CHAPTER

76

**ENGINE
CONTROLS**

(GE90-100 SERIES ENGINES)

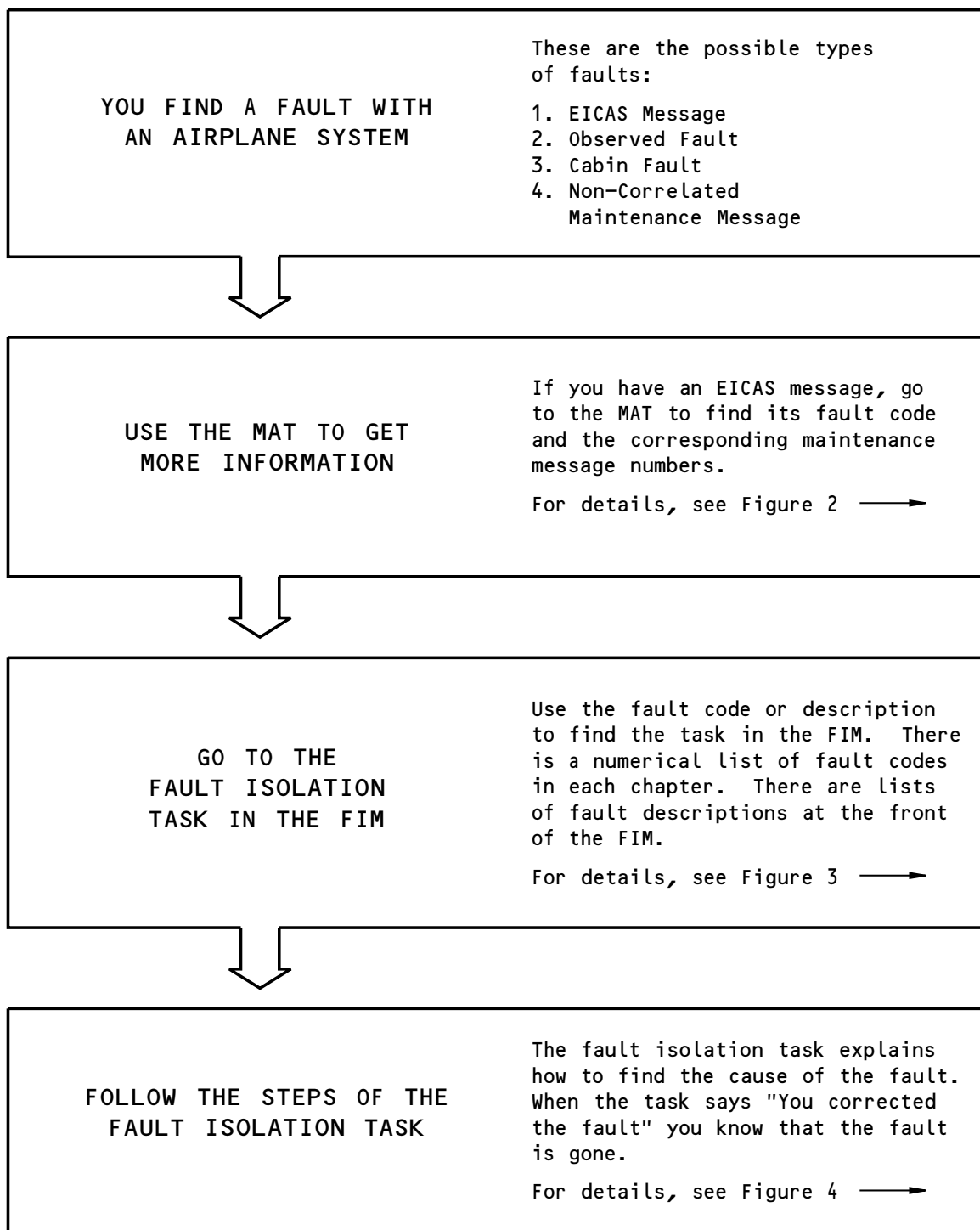
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FAULT ISOLATION MANUAL**

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ENGINE CONTROLS**

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A = Added, R = Revised, D = Deleted, O = Overflow, C = Customer Originated Change

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E84424 S0000132469_V1

**Basic Fault Isolation Process
Figure 1**

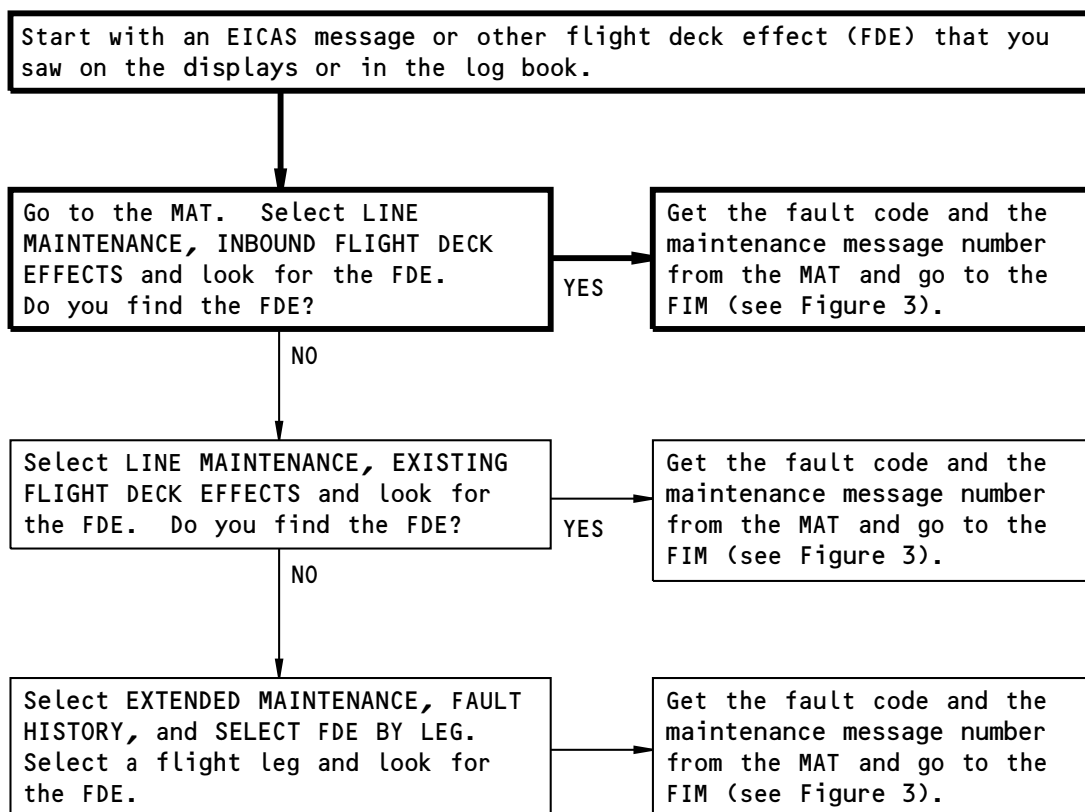
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NOTE: The bold lines show the most common path.

E84425 S0000132475_V1

Getting Fault Information from the MAT
Figure 2

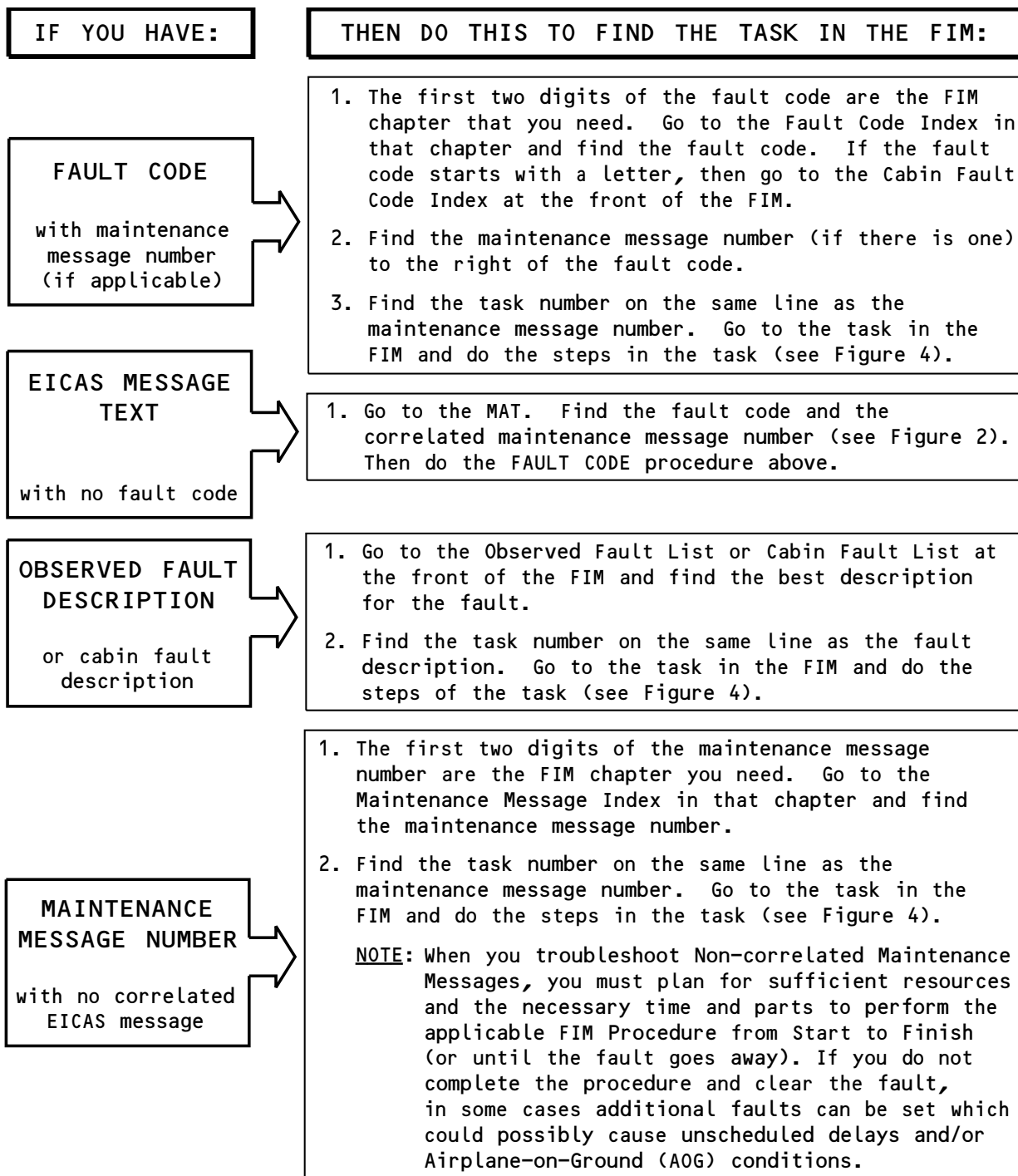
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E84427 S0000132476_V2

Finding the Fault Isolation Task in the FIM
Figure 3

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- External electrical power is ON
- Hydraulic power and pneumatic power are OFF
- Engines are shut down
- No equipment in the system is deactivated

INITIAL EVALUATION PARAGRAPH

- The Initial Evaluation paragraph at the start of the task helps you determine whether you can detect the fault right now.
- If you cannot detect the fault right now, then the task cannot isolate the fault and the Initial Evaluation paragraph will say that there was an intermittent fault.
- If you have an intermittent fault, you must use your judgement (and follow your airline's policy) to decide which components to replace. Then monitor the airplane to see if the fault happens again on subsequent flights.

FAULT ISOLATION STEPS

- The FIM task steps are presented in a specified order. "The If... then" statements will guide you along a logical path. But if you do not plan to follow the FIM task exactly, make sure that you read it before you start to isolate the fault. Some FIM procedures start with important steps that have an effect on the other steps in the procedure.
- When you are at the endpoint of the path, the step says "You corrected the fault." Complete the step and exit the procedure.
- The Recommended Maintenance Action that shows on the MAT for the maintenance message gives a list of possible causes in order by probability of failure. In the FIM procedure, the possible causes can be in a different order from the MAT.

WIRING CHECKS

When a step says "Do a wiring check", do these three types of electrical checks for the specified contacts (pins):

- continuity from contact to contact
- shorts between the contacts
- shorts from each contact to ground

E84428 S0000132477_V3

**Doing the Fault Isolation Task
Figure 4**

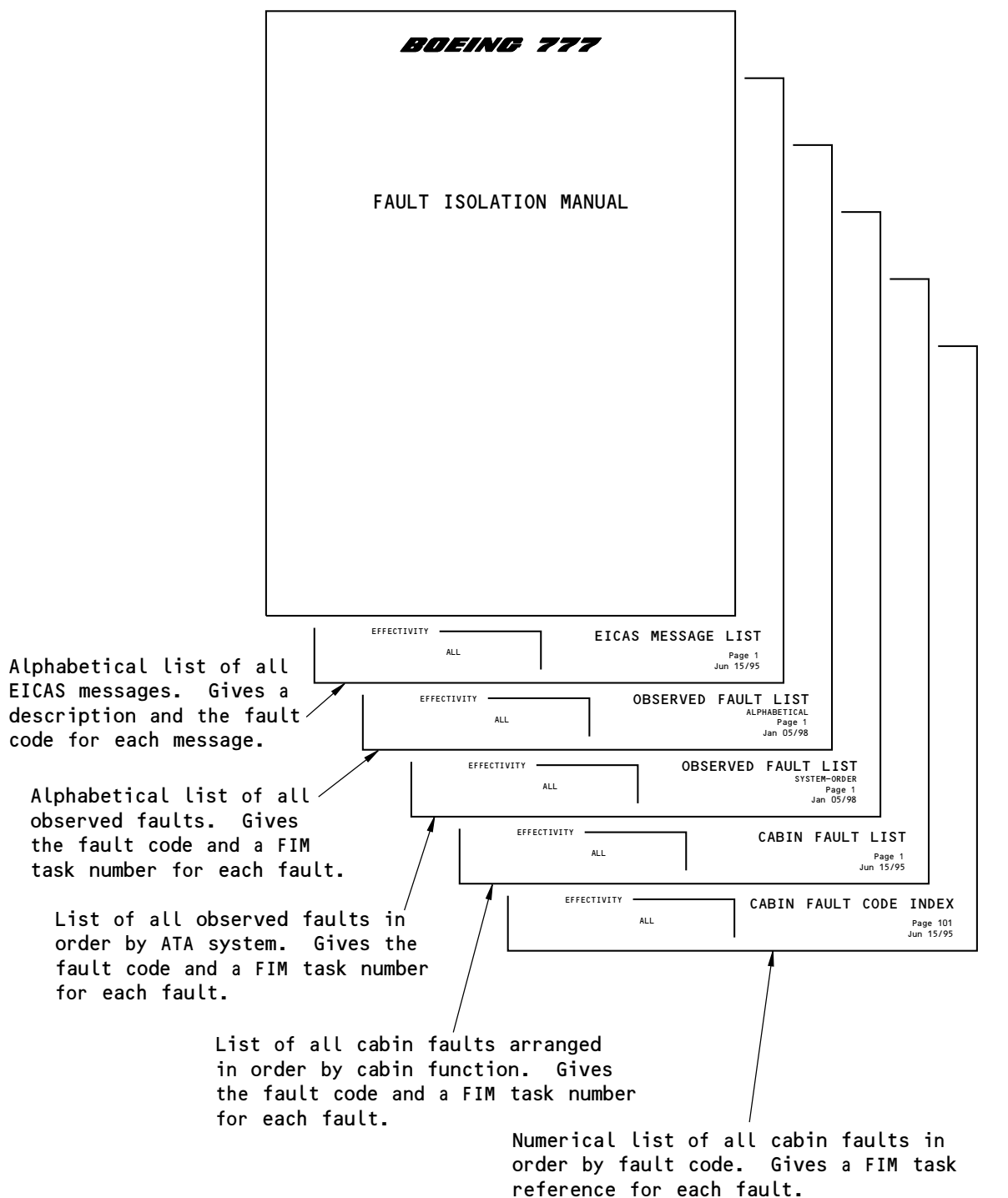
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F39750 S0000132478_V1

Subjects at Front of FIM
Figure 5

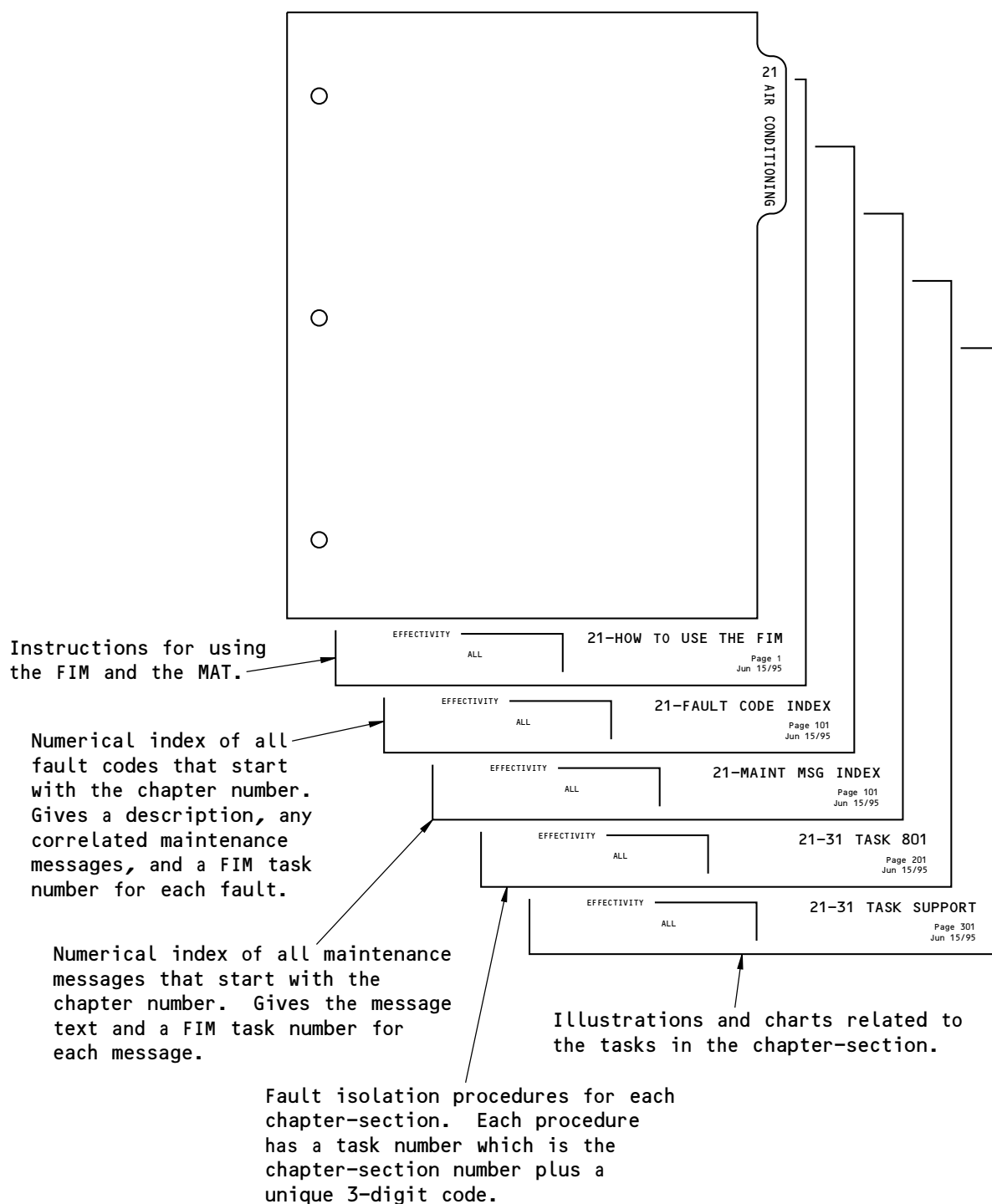
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F39837 S0000132479_V1

Subjects in Each FIM Chapter
Figure 6

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FAULT CODE	FAULT DESCRIPTION	MAINT MSG	GO TO FIM TASK
761 611 50	Thrust lever: Thrust levers misaligned.	22-21081	22-31 TASK 807
		22-21082	22-31 TASK 841
		22-21120	22-31 TASK 823
		22-22081	22-31 TASK 830
		22-22082	22-31 TASK 843
		22-22120	22-31 TASK 832
		22-28893	22-31 TASK 808
		22-28894	22-31 TASK 809
		22-29181	22-31 TASK 948
		22-29182	22-31 TASK 949
		22-29183	22-31 TASK 950
		22-29184	22-31 TASK 951
		73-03021	73-26 TASK 801
		73-03022	73-26 TASK 802
		73-03051	73-26 TASK 805
		73-03052	73-26 TASK 806
		73-03221	73-26 TASK 833
		73-03222	73-26 TASK 834
		73-03251	73-26 TASK 845
		73-03252	73-26 TASK 846
		73-04012	73-27 TASK 802
		73-04131	73-28 TASK 830
		73-04132	73-28 TASK 830
		73-04141	73-28 TASK 830
		73-04142	73-28 TASK 830
		73-04151	73-28 TASK 830
		73-04152	73-28 TASK 830
		73-15241	73-26 TASK 837
		73-15242	73-26 TASK 838
		73-15251	73-26 TASK 839
		73-15252	73-26 TASK 840
		73-25261	73-26 TASK 841
		73-25262	73-26 TASK 842
		73-25271	73-26 TASK 843
		73-25272	73-26 TASK 844

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FAULT CODE	FAULT DESCRIPTION	MAINT MSG	GO TO FIM TASK
761 611 50	Thrust lever: Thrust levers misaligned.	(continued)	
		76-35201	76-11 TASK 806
		76-35202	76-11 TASK 806
762 001 50	ENG SHUTDOWN (EICAS CAUTION)	22-18804	22-18 TASK 801
		22-18894	22-18 TASK 804
		22-18895	22-18 TASK 805
		23-81001	23-91 TASK 801
		23-81002	23-91 TASK 802
		23-81003	23-91 TASK 803
		23-81004	23-91 TASK 804
		23-81005	23-91 TASK 805
		23-81006	23-91 TASK 806
		23-81007	23-91 TASK 807
		24-11787	24-32 TASK 817
		24-12051	24-32 TASK 819
		24-12056	24-32 TASK 820
		24-13801	24-61 TASK 805
		24-13815	24-61 TASK 806
		31-50007	31-44 TASK 821
		31-50008	31-44 TASK 822
		31-50017	31-44 TASK 823
		31-50018	31-44 TASK 824
		31-50027	31-44 TASK 825
		31-50028	31-44 TASK 826
		31-50201	31-43 TASK 852
		31-50202	31-43 TASK 853
		31-50417	31-44 TASK 884
		31-50418	31-44 TASK 885
		31-50427	31-44 TASK 886
		31-50428	31-44 TASK 887
		31-50437	31-44 TASK 888
		31-50438	31-44 TASK 889
		31-50447	31-44 TASK 890
		31-50448	31-44 TASK 891
		31-52013	31-43 TASK 866
		31-52014	31-43 TASK 867

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FAULT CODE	FAULT DESCRIPTION	MAINT MSG	GO TO FIM TASK
762 001 50	ENG SHUTDOWN (EICAS CAUTION)	(continued)	
		31-52101	31-41 TASK 817
		31-52112	31-41 TASK 820
		31-52121	31-41 TASK 821
		31-52122	31-41 TASK 822
		31-52601	31-41 TASK 832
		31-52602	31-41 TASK 833
		31-54013	31-43 TASK 868
		31-54014	31-43 TASK 869
		31-54101	31-41 TASK 834
		31-54102	31-41 TASK 835
		31-54121	31-41 TASK 838
		31-54122	31-41 TASK 839
		31-54601	31-41 TASK 840
		31-54602	31-41 TASK 841
		31-56013	31-43 TASK 870
		31-56014	31-43 TASK 871
		31-56102	31-41 TASK 845
		31-56111	31-41 TASK 846
		31-56121	31-41 TASK 848
		31-56122	31-41 TASK 849
		31-56601	31-41 TASK 842
		31-56602	31-41 TASK 843
		31-58013	31-43 TASK 872
		31-58014	31-43 TASK 873
		31-58101	31-41 TASK 852
		31-58102	31-41 TASK 853
		31-58121	31-41 TASK 856
		31-58122	31-41 TASK 857
		31-58601	31-41 TASK 992
		31-58602	31-41 TASK 993
		31-61031	31-41 TASK 862
		31-61032	31-41 TASK 891
		31-61041	31-43 TASK 835
		31-61042	31-43 TASK 836
		31-61111	31-43 TASK 856

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FAULT CODE	FAULT DESCRIPTION	MAINT MSG	GO TO FIM TASK
762 001 50	ENG SHUTDOWN (EICAS CAUTION)	(continued)	
		31-61112	31-43 TASK 856
		31-61113	31-43 TASK 856
		31-61114	31-43 TASK 856
		31-61115	31-43 TASK 856
		31-61116	31-43 TASK 856
		31-61117	31-43 TASK 856
		31-61118	31-43 TASK 856
		31-62031	31-43 TASK 846
		31-62032	31-43 TASK 847
		31-62041	31-43 TASK 848
		31-62042	31-43 TASK 849
		31-69903	31-42 TASK 881
		31-69904	31-42 TASK 881
		31-69905	31-42 TASK 881
		31-69906	31-42 TASK 881
		73-35501	73-28 TASK 850
		73-35502	73-28 TASK 852
762 001 51	ENG SHUTDOWN L (EICAS CAUTION)	23-81001	23-91 TASK 801
		23-81002	23-91 TASK 802
		23-81004	23-91 TASK 804
		23-81005	23-91 TASK 805
		24-11787	24-32 TASK 817
		24-12051	24-32 TASK 819
		24-12056	24-32 TASK 820
		24-13801	24-61 TASK 805
		24-13815	24-61 TASK 806
		31-50007	31-44 TASK 821
		31-50008	31-44 TASK 822
		31-50017	31-44 TASK 823
		31-50018	31-44 TASK 824
		31-50027	31-44 TASK 825
		31-50028	31-44 TASK 826
		31-50201	31-43 TASK 852
		31-50202	31-43 TASK 853
		31-50427	31-44 TASK 886

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FAULT CODE	FAULT DESCRIPTION	MAINT MSG	GO TO FIM TASK
762 001 51	ENG SHUTDOWN L (EICAS CAUTION)	(continued)	
		31-50428	31-44 TASK 887
		31-50437	31-44 TASK 888
		31-50438	31-44 TASK 889
		31-50447	31-44 TASK 890
		31-50448	31-44 TASK 891
		31-56013	31-43 TASK 870
		31-56014	31-43 TASK 871
		31-56102	31-41 TASK 845
		31-56111	31-41 TASK 846
		31-56121	31-41 TASK 848
		31-56122	31-41 TASK 849
		31-56601	31-41 TASK 842
		31-56602	31-41 TASK 843
		31-58013	31-43 TASK 872
		31-58014	31-43 TASK 873
		31-58101	31-41 TASK 852
		31-58102	31-41 TASK 853
		31-58121	31-41 TASK 856
		31-58122	31-41 TASK 857
		31-58601	31-41 TASK 992
		31-58602	31-41 TASK 993
		31-61031	31-41 TASK 862
		31-61032	31-41 TASK 891
		31-61041	31-43 TASK 835
		31-61042	31-43 TASK 836
		31-61111	31-43 TASK 856
		31-61112	31-43 TASK 856
		31-61113	31-43 TASK 856
		31-61114	31-43 TASK 856
		73-35501	73-28 TASK 850
762 001 52	ENG SHUTDOWN R (EICAS CAUTION)	22-18804	22-18 TASK 801
		22-18894	22-18 TASK 804
		22-18895	22-18 TASK 805
		23-81002	23-91 TASK 802
		23-81003	23-91 TASK 803

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FAULT CODE	FAULT DESCRIPTION	MAINT MSG	GO TO FIM TASK
762 001 52	ENG SHUTDOWN R (EICAS CAUTION)	(continued)	
		23-81006	23-91 TASK 806
		23-81007	23-91 TASK 807
		24-11787	24-32 TASK 817
		24-12051	24-32 TASK 819
		24-12056	24-32 TASK 820
		24-13801	24-61 TASK 805
		24-13815	24-61 TASK 806
		31-50007	31-44 TASK 821
		31-50008	31-44 TASK 822
		31-50017	31-44 TASK 823
		31-50018	31-44 TASK 824
		31-50027	31-44 TASK 825
		31-50028	31-44 TASK 826
		31-50201	31-43 TASK 852
		31-50202	31-43 TASK 853
		31-50417	31-44 TASK 884
		31-50418	31-44 TASK 885
		31-50427	31-44 TASK 886
		31-50428	31-44 TASK 887
		31-50437	31-44 TASK 888
		31-50438	31-44 TASK 889
		31-50447	31-44 TASK 890
		31-50448	31-44 TASK 891
		31-52013	31-43 TASK 866
		31-52014	31-43 TASK 867
		31-52101	31-41 TASK 817
		31-52112	31-41 TASK 820
		31-52121	31-41 TASK 821
		31-52122	31-41 TASK 822
		31-52601	31-41 TASK 832
		31-52602	31-41 TASK 833
		31-54013	31-43 TASK 868
		31-54014	31-43 TASK 869
		31-54101	31-41 TASK 834
		31-54102	31-41 TASK 835

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FAULT CODE	FAULT DESCRIPTION	MAINT MSG	GO TO FIM TASK
762 001 52	ENG SHUTDOWN R (EICAS CAUTION)	(continued)	
		31-54121	31-41 TASK 838
		31-54122	31-41 TASK 839
		31-54601	31-41 TASK 840
		31-54602	31-41 TASK 841
		31-61115	31-43 TASK 856
		31-61116	31-43 TASK 856
		31-61117	31-43 TASK 856
		31-61118	31-43 TASK 856
		31-62031	31-43 TASK 846
		31-62032	31-43 TASK 847
		31-62041	31-43 TASK 848
		31-62042	31-43 TASK 849
		31-69903	31-42 TASK 881
		31-69904	31-42 TASK 881
		31-69905	31-42 TASK 881
		31-69906	31-42 TASK 881
		73-35502	73-28 TASK 852

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MAINT MESSAGE	MESSAGE TEXT	GO TO FIM TASK
76-15211*	Thrust Lever Angle (TLA) Resolver (L Eng ch A) signal is out of range.	76-11 TASK 807
76-15212*	Thrust Lever Angle (TLA) Resolver (R Eng ch A) signal is out of range.	76-11 TASK 807
76-25211*	Thrust Lever Angle (TLA) Resolver (L Eng ch B) signal is out of range.	76-11 TASK 808
76-25212*	Thrust Lever Angle (TLA) Resolver (R Eng ch B) signal is out of range.	76-11 TASK 808
76-35201*	Position signals from Thrust Lever Angle (TLA) Resolver (L Eng) Channel A and B do not agree.	76-11 TASK 806
76-35202*	Position signals from Thrust Lever Angle (TLA) Resolver (R Eng) Channel A and B do not agree.	76-11 TASK 806

*If the MAT shows LATCHED for the correlated EICAS message, then you must erase the EICAS message after you complete the FIM task.

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**777-200/300
FAULT ISOLATION MANUAL****806. Thrust Lever Angle (TLA) Resolver Position Signal Disagree (Ch A and Ch B) - Fault Isolation****A. Maintenance Messages**

- (1) This task is for maintenance messages: 76-35201, 76-35202.

B. Description

- (1) The position signal for the TLA resolver, M73102 (M73202), in channel A and channel B do not agree.

C. Initial Evaluation

- (1) Set the applicable EEC MAINT POWER switch on the overhead maintenance panel, P61, to the NORM position.
- (2) Select the Existing Fault Screen on the MAT.
- (3) Set the applicable EEC MAINT POWER switch on the P61 panel to the TEST position and stop for 60 seconds.
- (4) Move the applicable thrust lever to the full forward thrust position and back to the idle stop position.
- (5) Set the applicable EEC MAINT POWER switch on the P61 panel to the NORM position.
- (6) If the MAT shows the maintenance message, then do the fault isolation procedure below.
- (7) If the MAT does not show the maintenance message, then there was an intermittent fault.

D. Fault Isolation Procedure

REMOVE ELECTRICAL POWER FROM THE EEC BEFORE YOU DISCONNECT THE ELECTRICAL CONNECTORS. IF YOU DO NOT OBEY THIS INSTRUCTION, DAMAGE TO THE EEC CAN OCCUR.

- (1) Make sure the applicable EEC MAINT POWER switch on the P61 panel is in the NORM position.
- (2) For the left engine, do a wiring check between these pins of connectors DM73102A (channel A) DM73102B (channel B) at the TLA, M73102, connectors D71119J/D71319P (channel A) D71123J/D71323P (channel B) at the fan/strut disconnect panel, AN0181 and connectors DM73003C (channel A) DM73003D (channel B) at the EEC, M73003 (WDM 73-21-14):
 - (a) Disconnect connectors DM73102A and DM73102B from the TLA, M73102.
 - (b) Disconnect connectors D71319P and D71323P from the fan/strut disconnect panel, AN0181.
 - (c) Disconnect connectors DM73003C and DM73003D from the EEC, M73003.
 - (d) Do a check for continuity between these connector pins:

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DM73102A	D71119J
8	12
7	11
15	13
5	14
10	15
2	16

D71319P	DM73003C
12	H
11	b
13	J
14	d
15	G
16	F

DM73102B	D71123J
8	13
7	12
15	2
5	7
10	5
2	6

D71323P	DM73003D
13	H
12	b
2	J
7	d
5	G
6	F

- (3) For the right engine, do a wiring check between these pins of connectors DM73202A (channel A) DM73202B (channel B) at the TLA, M73202, connectors D71219J/D71319P (channel A) D71223J/D71323P (channel B) at the fan/strut disconnect panel, AN0181 and connectors DM73003C (channel A) DM73003D (channel B) at the EEC, M73003 (WDM 73-21-24):
- Disconnect connectors DM73202A and DM73202B from the TLA, M73202.
 - Disconnect connectors D71319P and D71323P from the fan/strut disconnect panel, AN0181.
 - Disconnect connectors DM73003C and DM73003D from the EEC, M73003.
 - Do a check for continuity between these connector pins:

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DM73202A	D71219J
15	12
5	11
8	13
7	14
10	15
2	16

D71319P	DM73003C
12	H
11	b
13	J
14	d
15	G
16	F

DM73202B	D71123J
15	13
5	12
8	2
7	7
10	5
2	6

D71323P	DM73003D
13	H
12	b
2	J
7	d
5	G
6	F

- (4) If you find a problem in a wire harness, then do the applicable step:
 - (a) Repair the applicable wire harness.
 - (b) Replace the applicable wiring.
 - (c) Re-connect all the connectors.
 - (d) Do the repair confirmation procedure at the end of this task.
- (5) If you do not find a problem with the wiring, then do these steps:
 - (a) Re-connect all the connectors.
 - (b) Continue with the procedure.
- (6) If the MAT shows the maintenance message, then replace the EEC, M73003.
 These are the tasks:
 EEC (FADEC) Removal, AMM TASK 73-21-15-000-801-H01
 EEC (FADEC) Installation, AMM TASK 73-21-15-400-801-H01.

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- (a) Do the repair confirmation procedure at the end of this task.
- (7) If the MAT shows the maintenance message, then replace the TLA, M73102 (M73202).

These are the tasks:

Thrust Lever Angle Resolver Removal, AMM TASK 76-11-02-000-801-H01

Thrust Lever Angle Resolver Installation, AMM TASK 76-11-02-400-801-H01.

- (a) Do the repair confirmation procedure at the end of this task.

E. Repair Confirmation

- (1) Set the applicable EEC MAINT POWER switch on the overhead maintenance panel, P61, to the NORM position.
- (2) Select the Existing Fault Screen on the MAT.
- (3) Set the applicable EEC MAINT POWER switch on the P61 panel to the TEST position and stop for 60 seconds.
- (4) Move the applicable thrust lever to the full forward thrust position and back to the idle stop position.
- (5) Set the applicable EEC MAINT POWER switch on the P61 panel to the NORM position.
- (6) If the MAT shows the maintenance message, then continue with the subsequent step of this fault isolation procedure.
- (7) If the MAT does not show the maintenance message, then you have corrected the fault.

————— **END OF TASK** —————

807. Thrust Lever Angle (TLA) Resolver Signal Is Out of Range (Ch A) - Fault Isolation**A. Maintenance Messages**

- (1) This task is for maintenance messages: 76-15211, 76-15212.

B. Description

- (1) The signal for the TLA resolver, M73102 (M73202), in channel A is out of range.

C. Initial Evaluation

- (1) Set the applicable EEC MAINT POWER switch on the overhead maintenance panel, P61, to the NORM position.
- (2) Select the Existing Fault Screen on the MAT.
- (3) Set the applicable EEC MAINT POWER switch on the P61 panel to the TEST position and stop for 60 seconds.
- (4) Move the applicable thrust lever to the full forward thrust position and back to the idle stop position.
- (5) Set the applicable EEC MAINT POWER switch on the P61 panel to the NORM position.
- (6) If the MAT shows the maintenance message, then do the fault isolation procedure below.
- (7) If the MAT does not show the maintenance message, then there was an intermittent fault.

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D. Fault Isolation Procedure



REMOVE ELECTRICAL POWER FROM THE EEC BEFORE YOU DISCONNECT THE ELECTRICAL CONNECTORS. IF YOU DO NOT OBEY THIS INSTRUCTION, DAMAGE TO THE EEC CAN OCCUR.

- (1) Make sure the applicable EEC MAINT POWER switch on the P61 panel is in the NORM position.
- (2) Disconnect connector DM73102A (DM73202A) from the TLA, M73102 (M73202).
- (3) Measure the resistance between these pairs of pins of the connector on the TLA, M73102 (M73202) (WDM 73-21-14):

DM73102A		DM73102A
7		8 62 +/- 12.4 ohms
5		15 62 +/- 12.4 ohms
2		10 145 +/- 29 ohms

DM73202A		DM73202A
7		8 62 +/- 12.4 ohms
5		15 62 +/- 12.4 ohms
2		10 145 +/- 29 ohms

- (4) If the resistance is not in the range specified for each pair of pins, then replace the TLA, M73102 (M73202).
These are the tasks:
Thrust Lever Angle Resolver Removal, AMM TASK 76-11-02-000-801-H01
Thrust Lever Angle Resolver Installation, AMM TASK 76-11-02-400-801-H01.
- (5) If the resistance is in the range specified for each pair of pins, then do the wiring check for the applicable engine:
 - (a) For the left engine, do a wiring check between these pins of connector DM73102A at the TLA, M73102, connector D71119J/D71319P at the fan/strut disconnect panel, AN0181 and connector DM73003C at the EEC, M73003 (WDM 73-21-14):
 - 1) Disconnect connector D71319P from the fan/strut disconnect panel, AN0181.
 - 2) Disconnect connector DM73003C from the EEC, M73003.

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DM73102A	D71119J
8	12
7	11
15	13
5	14
10	15
2	16

D71319P	DM73003C
12	H
11	b
13	J
14	d
15	G
16	F

- (b) For the right engine, do a wiring check between these pins of connector DM73202A at the TLA, M73202, connector D71219J/D71319P at the fan/strut disconnect panel, AN0181 and connector DM73003C at the EEC, M73003 (WDM 73-21-24) :
- 1) Disconnect connector D71319P from the fan/strut disconnect panel, AN0181.
 - 2) Disconnect connector DM73003C from the EEC, M73003.

DM73202A	D71219J
15	12
5	11
8	13
7	14
10	15
2	16

D71319P	DM73003C
12	H
11	b
13	J
14	d
15	G
16	F

- (6) If you find a problem in a wire harness, then do the applicable steps:
- (a) Repair the applicable wire harness.
 - (b) Replace the applicable wiring.
 - (c) Re-connect all the connectors.
 - (d) Do the repair confirmation procedure at the end of this task.
- (7) If you do not find a problem with the wiring, then do these steps:
- (a) Re-connect all the connectors.
 - (b) Continue with the procedure.

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- (8) If the MAT shows the maintenance message, then replace the EEC, M73003.

These are the tasks:

EEC (FADEC) Removal, AMM TASK 73-21-15-000-801-H01

EEC (FADEC) Installation, AMM TASK 73-21-15-400-801-H01.

- (a) Do the repair confirmation procedure at the end of this task.

E. Repair Confirmation

- (1) Set the applicable EEC MAINT POWER switch on the overhead maintenance panel, P61, to the NORM position.
- (2) Select the Existing Fault Screen on the MAT.
- (3) Set the applicable EEC MAINT POWER switch on the P61 panel to the TEST position and stop for 60 seconds.
- (4) Move the applicable thrust lever to the full forward thrust position and back to the idle stop position.
- (5) Set the applicable EEC MAINT POWER switch on the P61 panel to the NORM position.
- (6) If the MAT shows the maintenance message, then continue with the subsequent step of this fault isolation procedure.
- (7) If the MAT does not show the maintenance message, then you have corrected the fault.

————— END OF TASK —————

808. Thrust Lever Angle (TLA) Resolver Signal Is Out of Range (Ch B) - Fault Isolation

A. Maintenance Messages

- (1) This task is for maintenance messages: 76-25211, 76-25212.

B. Description

- (1) The signal for the TLA resolver, M73102 (M73202), in channel B is out of range.

C. Initial Evaluation

- (1) Set the applicable EEC MAINT POWER switch on the overhead maintenance panel, P61, to the NORM position.
- (2) Select the Existing Fault Screen on the MAT.
- (3) Set the applicable EEC MAINT POWER switch on the P61 panel to the TEST position and stop for 60 seconds.
- (4) Move the applicable thrust lever to the full forward thrust position and back to the idle stop position.
- (5) Set the applicable EEC MAINT POWER switch on the P61 panel to the NORM position.
- (6) If the MAT shows the maintenance message, then do the fault isolation procedure below.
- (7) If the MAT does not show the maintenance message, then there was an intermittent fault.

D. Fault Isolation Procedure



REMOVE ELECTRICAL POWER FROM THE EEC BEFORE YOU DISCONNECT THE ELECTRICAL CONNECTORS. IF YOU DO NOT OBEY THIS INSTRUCTION, DAMAGE TO THE EEC CAN OCCUR.

- (1) Make sure the applicable EEC MAINT POWER switch on the P61 panel is in the NORM position.

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- (2) Disconnect connector DM73102B (DM73202B) from the TLA, M73102 (M73202).
- (3) Measure the resistance between these pairs of pins of the connector on the TLA, M73102 (M73202) (WDM 73-21-14):

DM73102B	DM73102B	
7	8	62 +/- 12.4 ohms
5	15	62 +/- 12.4 ohms
2	10	145 +/- 29 ohms

DM73202B	DM73202B	
7	8	62 +/- 12.4 ohms
5	15	62 +/- 12.4 ohms
2	10	145 +/- 29 ohms

- (4) If the resistance is not in the range specified for each pair of pins, then replace the TLA, M73102 (M73202).
These are the tasks:
Thrust Lever Angle Resolver Removal, AMM TASK 76-11-02-000-801-H01
Thrust Lever Angle Resolver Installation, AMM TASK 76-11-02-400-801-H01.
- (5) If the resistance is in the range specified for each pair of pins, then do the wiring check for the applicable engine:
 - (a) For the left engine, do a wiring check between these pins of connector DM73102B at the TLA, M73102, connector D71123J/D71323P at the fan/strut disconnect panel, AN0181 and connector DM73003D at the EEC, M73003 (WDM 73-21-14):
 - 1) Disconnect connector D71323P from the fan/strut disconnect panel, AN0181.
 - 2) Disconnect connectors DM73003D from the EEC, M73003.

DM73102B	D71123J
8	13
7	12
15	2
5	7
10	5
2	6

D71323P	DM73003D
13	H
12	b
2	J
7	d
5	G
6	F

- (b) For the right engine, do a wiring check between these pins of connector DM73202B at the TLA, M73202, connector D71223J/D71323P at the fan/strut disconnect panel, AN0181 and connector DM73003D (channel B) at the EEC, M73003 (WDM 73-21-24):
 - 1) Disconnect connector D71323P from the fan/strut disconnect panel, AN0181.

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- 2) Disconnect connector DM73003D from the EEC, M73003.

DM73202B	D71123J
15	13
5	12
8	2
7	7
10	5
2	6

D71323P	DM73003D
13	H
12	b
2	J
7	d
5	G
6	F

- (6) If you find a problem in a wire harness, then do the applicable steps:
- (a) Repair the applicable wire harness.
 - (b) Replace the applicable wiring.
 - (c) Re-connect all the connectors.
 - (d) Do the repair confirmation procedure at the end of this task.
- (7) If you do not find a problem with the wiring, then do these steps:
- (a) Re-connect all the connectors.
 - (b) Continue with the procedure.
- (8) If the MAT shows the maintenance message, then replace the EEC, M73003.
- These are the tasks:
- EEC (FADEC) Removal, AMM TASK 73-21-15-000-801-H01
- EEC (FADEC) Installation, AMM TASK 73-21-15-400-801-H01.
- (a) Do the repair confirmation procedure at the end of this task.

E. Repair Confirmation

- (1) Set the applicable EEC MAINT POWER switch on the overhead maintenance panel, P61, to the NORM position.
- (2) Select the Existing Fault Screen on the MAT.
- (3) Set the applicable EEC MAINT POWER switch on the P61 panel to the TEST position and stop for 60 seconds.
- (4) Move the applicable thrust lever to the full forward thrust position and back to the idle stop position.
- (5) Set the applicable EEC MAINT POWER switch on the P61 panel to the NORM position.
- (6) If the MAT shows the maintenance message, then continue with the subsequent step of this fault Isolation procedure.
- (7) If the MAT does not show the maintenance message, then you have corrected the fault.

————— **END OF TASK** —————

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FAULT ISOLATION MANUAL****802. Observed Fault with Correlated Maintenance Messages - Fault Isolation****A. Initial Evaluation**

- (1) Find the fault code to the right of the fault description in the Observed Faults List (at the front of the FIM).
 - (a) 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.
 - (b) Find the maintenance message to the right of the fault code.
 - (c) Find the task number on the same line as the maintenance message number.
 - (d) Go to the task in the FIM and do the steps in the task.

———— **END OF TASK** ————

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