HIGHLIGHTS

REVISION NO. 54 May 01/08

Pages which have been revised are outlined below, together with the Highlights of the Revision

CH/SE/SU C PAGES	REASON FOR CHANGE	EFFECTIVITY
CHAPTER 71		
L.E.P. 1- 1	REVISED TO REFLECT THIS REVISION INDICATING NEW,REVISED, AND/OR DELETED PAGES	
71-00-00 205, 207- 209	EFFECTIVITY UPDATED (THROUGHOUT THE TEXT)	201-225, 227-227, 229-299, 426-455, 476-499, 503-549, 551-599, 701-749,
71-50-00 216, 222, 228, 234	EFFECTIVITY UPDATED EFFECTIVITY UPDATED (THROUGHOUT THE TEXT)	227-227, 229-238, 276-281, 476-478,

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A319/A320/A321
TROUBLE SHOOTING MANUAL

CHAPTER 71

POWER PLANT

LIST OF EFFECTIVE PAGES

N, R or D indicates pages which are New, Revised or Deleted respectively
Remove and insert the affected pages and complete the Record of Revisions and the Record of Temporary Revisions as necessary

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RECORD			
OF TEMP.			
REVISION			
L.E.P.	R	1- 1	May01/08
T. of C.		1	Nov01/03
T. of C.		2	Nov01/03
71-OBSV		101	Nov01/07
71-OBSV		102	Nov01/03
71-CFDS		101	Feb01/00
71-CFDS		102	Feb01/00
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71-00-00	R	209	May01/08
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POWER PLANT

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	WARNINGS/MALFUNCTIONS	CFDS FAULT MESSAGES				FAULT ISOLATION PROCEDURE
		SOURCE	MESSAGE	ATA	C	
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	ENG 1 - Fuel Leak at the Turbine Rear Frame water drain					710000 P 210 T 810 812
	ENG 1 - Idle speeds (minimum or approach) too high or too low					730000 P 228 T 810 872
R	ENG 1 - Incorrect power after take off (N1 mismatch)					730000 P 234 T 810 873
	ENG 2 - Blow out/flame out					720000 P 215 T 810 807
	ENG 2 - Fuel leak at the drain mast during engine start (cold condition)					710000 P 204 T 810 804
	ENG 2 - Fuel Leak at the Turbine Rear Frame water drain					710000 P 211 T 810 813
	ENG 2 - Idle speeds (minimum or approach) too high or too low					730000 P 228 T 810 872
R	ENG 2 - Incorrect power after take off (N1 mismatch)					730000 P 234 T 810 873

WARNINGS/MALFUNCTIONS	CFDS FAULT MESSAGES				FAULT ISOLATION PROCEDURE
	SOURCE	MESSAGE	ATA	C	
ENGINE - High idle speed on both engines					710000 P 205 T 810 805
SMOKE Smoke and/or oil smell in the cabin from engine					710000 P 201 T 810 802

	WARNINGS/MALFUNCTIONS	CFDS FAULT MESSAGES				FAULT ISOLATION PROCEDURE
		SOURCE	MESSAGE	ATA	C	
		EIU1FAD	J1, 115 VAC, ECU ENG1A	715100	1	715000 P 201 T 810 801
R		EIU1FAD	J1, 115 VAC, ECU ENG1B	715100	1	715000 P 257 T 810 824
		EIU1FAD	J2, 115 VAC, ECU ENG1A	715100	1	715000 P 207 T 810 803
R		EIU1FAD	J2, 115 VAC, ECU ENG1B	715100	1	715000 P 263 T 810 826
R		EIU1FAD	J3 (INSTINCT DISC) ENG1A	715100	S	715000 P 237 T 810 809
R		EIU1FAD	J3 (INSTINCT DISC) ENG1B	715100	S	715000 P 253 T 810 822
R		EIU1FAD	J3, ADC1 ENG1A	715100	3	715000 P 245 T 810 813
R		EIU1FAD	J3, ADC1 ENG1B	715100	3	715000 P 269 T 810 828
R		EIU1FAD	J3, ADC1* ENG1A	715100	S	715000 P 245 T 810 813
R		EIU1FAD	J3, ADC1* ENG1B	715100	S	715000 P 269 T 810 828
R		EIU1FAD	J4, ADC2 ENG1A	715100	3	715000 P 249 T 810 815
R		EIU1FAD	J4, ADC2 ENG1B	715100	3	715000 P 273 T 810 830
R		EIU1FAD	J4, ADC2* ENG1A	715100	S	715000 P 249 T 810 815
R		EIU1FAD	J4, ADC2* ENG1B	715100	S	715000 P 273 T 810 830
		EIU1FAD	J5, TR ACFT SW, ECU	715100	1	715000 P 213 T 810 805

	WARNINGS/MALFUNCTIONS	CFDS FAULT MESSAGES				FAULT ISOLATION PROCEDURE
		SOURCE	MESSAGE	ATA	C	
R		EIU1FAD	J6, TR ACFT SW, ECU	715100	1	715000 P 225 T 810 807
		EIU2FAD	J1, 115 VAC, ECU ENG2A	715100	1	715000 P 204 T 810 802
R		EIU2FAD	J1, 115 VAC, ECU ENG2B	715100	1	715000 P 260 T 810 825
		EIU2FAD	J2, 115 VAC, ECU ENG2A	715100	1	715000 P 210 T 810 804
R		EIU2FAD	J2, 115 VAC, ECU ENG2B	715100	1	715000 P 266 T 810 827
R		EIU2FAD	J3 (INSTINCT DISC) ENG2A	715100	S	715000 P 239 T 810 810
R		EIU2FAD	J3 (INSTINCT DISC) ENG2B	715100	S	715000 P 255 T 810 823
R		EIU2FAD	J3, ADC1 ENG2A	715100	3	715000 P 247 T 810 814
R		EIU2FAD	J3, ADC1 ENG2B	715100	3	715000 P 271 T 810 829
R		EIU2FAD	J3, ADC1* ENG2A	715100	S	715000 P 247 T 810 814
R		EIU2FAD	J3, ADC1* ENG2B	715100	S	715000 P 271 T 810 829
R		EIU2FAD	J4, ADC2 ENG2A	715100	3	715000 P 251 T 810 816
R		EIU2FAD	J4, ADC2 ENG2B	715100	3	715000 P 275 T 810 831
R		EIU2FAD	J4, ADC2* ENG2A	715100	S	715000 P 251 T 810 816
R		EIU2FAD	J4, ADC2* ENG2B	715100	S	715000 P 275 T 810 831

	WARNINGS/MALFUNCTIONS	CFDS FAULT MESSAGES				FAULT ISOLATION PROCEDURE
		SOURCE	MESSAGE	ATA	C	
R		EIU2FAD	J5, TR ACFT SW, ECU	715100	1	715000 P 219 T 810 806
R		EIU2FAD	J6, TR ACFT SW, ECU	715100	1	715000 P 231 T 810 808

TASK 71-00-00-810-802

Smoke and/or Oil Smell in the Cabin

1. Possible Causes

- stationary air oil seals in the forward sump
- static seals in the forward sump

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION
AMM 21-00-00-615-003	Decontamination of the Environmental Control System (ECS) when the Temperature is below 24 deg.C (Engine/s)
AMM 21-00-00-615-004	Decontamination of the Environmental Control System (ECS) when the Temperature is above 24 deg.C (Engine/s)
AMM 71-00-00-710-006	Minimum Idle Check
R AMM 71-00-00-790-002	Fuel or Hydraulic or Oil Leakage Limits
AMM 72-31-00-290-002	Inspection of the High Pressure Compressor Rotor Assembly
AMM 75-31-60-000-002	Removal of the Bleed Valve and Ballscrew Actuator Assembly
AMM 75-31-60-400-002	Installation of the Bleed Valve and Ballscrew Actuator Assembly

3. Fault Confirmation

A. Not applicable, the fault is evident.

4. Fault Isolation

A. If the fault symptom is identified by the crew observation smoke and/or smell in the cabin from the engine:

NOTE : The fault can be due to deffective stationary air oil seals in the forward sump or static seals in the forward sump.

- do a minimum idle check (Ref. AMM TASK 71-00-00-710-006) for 15 minutes at minimum idle.
- check for oil drops or smoke coming out of the forward sump drain, during the engine operation (Ref. AMM TASK 71-00-00-790-002).

(1) Do a borescope inspection of the HP compressor stage No.1 and No.2 blades through the S1 and S2 inspection ports (Ref. AMM TASK 72-31-00-290-002). Check for oil wetting.

(2) Check for presence of oil wetting at the 6 O'clock position of the booster inlet (IGV).

(3) Check for presence of oil wetting inside the two lower forward sump pressurizing tubes.

(a) remove one of the bleed valve and ballscrew actuator assembly at the 4 or 8 O'clock position (Ref. AMM TASK 75-31-60-000-002).

(b) get your hand through the VBV door opening to access to the inlet of the forward sump pressurization tube.

(c) check with the finger tip for presence of oil wetting.

NOTE : If the access is too difficult, use a flexible borescope.

(d) install the bleed valve and ballscrew actuator assembly (Ref. AMM TASK 75-31-60-400-002).

(4) If excessive oil leakage/smoke from the forward sump drain, oil wetting on the HPC stage 1 and 2 blades, oil wetting on the booster inlet and the forward sump pressurizing tubes was identified, remove the engine.

(5) If no oil leakage/smoke from the forward sump drain, oil wetting on the HPC stage 1 and 2 blades, oil wetting on the booster inlet and the forward sump pressurizing tubes was identified:

R (a) clean and do the decontamination of the Environmental Control
R System (ECS) (Ref. AMM TASK 21-00-00-615-003) or (Ref. AMM TASK 21-00-00-615-004).

TASK 71-00-00-810-803

Fuel Leak at the Engine 1 Drain Mast During an Engine Start in Case of Extreme
R Cold Condition (OAT less than -20 deg.C)

1. Possible Causes

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION
AMM 71-00-00-710-004	Engine Manual Start

3. Fault Confirmation

A. Not applicable.

4. Fault Isolation

A. If the fault symptom is identified by the crew observation fuel leak at
R the drain mast during an engine start (OAT less than -20 deg.C):
- do the maintenance procedure (Static fuel leaks in case of extreme cold condition) (Ref. AMM TASK 71-00-00-710-004).

TASK 71-00-00-810-804

R Fuel Leaks at the Engine 2 Drain Mast During an Engine Start in Case of Extreme Cold Condition (OAT less than -20 deg.C)

1. Possible Causes

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION
AMM 71-00-00-710-004	Engine Manual Start

3. Fault Confirmation

A. Not applicable.

4. Fault Isolation

R A. If the fault symptom is identified by the crew observation fuel leak at the drain mast during an engine start (OAT less than -20 deg.C):
- do the maintenance procedure (Static fuel leaks in case of extreme cold condition) (Ref. AMM TASK 71-00-00-710-004).

TASK 71-00-00-810-805

High Idle Speed on both Engines

1. Possible Causes

- CONT-ZONE TEMPERATURE (8HK)
- P/BSW-ANTI ICE/WING (3DL)
- ACSC (47HH, 57HH)

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION
AMM 21-61-34-000-002	Removal of the Air-Conditioning System Controller (47HH, 57HH)
AMM 21-61-34-400-002	Installation of the Air-Conditioning System Controller (47HH, 57HH)
AMM 21-63-34-000-001	Removal of the Zone Controller (8HK)
AMM 21-63-34-400-001	Installation of the Zone Controller (8HK)
AMM 71-00-00-710-043	Normal Engine Automatic Start Procedure
ASM 73-25/06	
AWM 30-11-01	

3. Fault Confirmation

A. Test

(1) Not applicable.

4. Fault Isolation

R **ON A/C 201-225, 227-227, 229-299, 426-455, 476-499, 503-549, 551-599,
R 701-749,

A. If the fault symptom is identified by a high idle speed on both engines:
- replace the CONT-ZONE TEMPERATURE (8HK) (Ref. AMM TASK 21-63-34-000-001) and (Ref. AMM TASK 21-63-34-400-001).

(1) If the fault continues:
- do a check of the aircraft wiring between the CONT-ZONE TEMPERATURE (8HK) and both EIU (Ref. ASM 73-25/06):

(a) 8HK pins AA/1J, 2J to the first terminal block.

(b) 8HK pins AA/1B, 2B to the first terminal block.

(2) If nothing is found or if the fault continues:
- with the ANTI ICE/WING pushbutton switch (3DL) released, make sure that there is ground at pin AA/C2 of this pushbutton switch.

(a) If there is no ground:
- replace the P/BSW-ANTI ICE/WING (3DL) (Ref. AWM 30-11-01).

R **ON A/C 456-475,

R A. If the fault symptom is identified by a high idle speed on both engines:
R - replace the ACSC (47HH, 57HH) (Ref. AMM TASK 21-61-34-000-002) and
R (Ref. AMM TASK 21-61-34-400-002).

R (1) If the fault continues:
R - do a check of the aircraft wiring between the ACSC (47HH, 57HH) and
R both EIU (Ref. ASM 73-25/06):

R (a) 47HH pins AA/7E, 7F to the first terminal block.

R (b) 57HH pins AA/7E, 7F to the first terminal block.

R (2) If nothing is found or if the fault continues:
R - with the ANTI ICE/WING pushbutton switch (3DL) released, make sure
R that there is ground at pin AA/C2 of this pushbutton switch.

R (a) If there is no ground:
R - replace the P/BSW-ANTI ICE/WING (3DL) (Ref. AWM 30-11-01).

R **ON A/C ALL

B. Test

(1) Start the engines (Ref. AMM TASK 71-00-00-710-043).

(2) Check that the idle speed is correct.

TASK 71-00-00-810-807

The Engine is Slow to Accelerate

1. Possible Causes

- PS3 Sense Line
- HP Bleed Valve
- Pressure Regulating Valve
- Wing anti-ice valve
- Nacelle anti-ice
- Air conditionning system
- IP check valve
- HMU
- ECU (4000KS)

2. Job Set-up Information

A. Referenced Information

	REFERENCE	DESIGNATION
	AMM 36-11-00-710-001	Operational Test to read the CURRENT STATUS of the Engine Bleed Air System
	AMM 36-11-41-200-001	Inspection/Check of the IP Bleed Check Valve
	AMM 71-00-00-710-025	Accel Check
R	AMM 72-00-00-200-026	Inspection/Check of the PS3 Line
R	AMM 72-31-00-290-002	Inspection of the High Pressure Compressor Rotor
R		Assembly
R	AMM 73-21-10-000-002	Removal of the Hydromechanical Unit (HMU)
R	AMM 73-21-10-400-002	Installation of the Hydromechanical Unit (HMU)
	AMM 73-21-60-000-001	Removal of the Electronic Control Unit (ECU)(4000KS)
	AMM 73-21-60-400-001	Installation of the Electronic Control Unit (ECU)(4000KS)
R	AMM 73-21-60-740-026	Read the CLASS 3 REPORT
	AMM 73-29-00-710-040	Operational Test of the FADEC on the ground (with Engine Motoring)

3. Fault Confirmation

A. test

(1) Do the "ACCEL CHECK" (Ref. AMM TASK 71-00-00-710-025)

NOTE : Slow acceleration is most likely to occur during power up for take off between min idle and N1=50 percent.

(2) If the Accel Chek is within the limits and the fault is still reported during subsequent flights, following trouble shooting is to be done at first opportunity without interfering with Revenue Service Operation.

(3) If the Accel Chek is not within the limits, following trouble shooting is to be done prior to next flight.

4. Fault Isolation

R A. Do this procedure.

R (1) Do a check of the Post Flight Report (PFR), the FADEC Last Leg Report
R and of the Schedule Maintenance Report (SRM) or Class 3 Report (Ref.
R AMM TASK 73-21-60-740-026) for PS3, ECU, HMU, FMV, VSV failure
R messages. Do the trouble shooting related to the failure message(s)
R if present.

R (2) If no failure message is found, do the following trouble shooting:
R - Do a check of the PS3 Sense Line for blockage or leakage (Ref. AMM
R TASK 72-00-00-200-026)
R - If nothing is found:
R - If available, do a check of the DMU take-off report of the last leg
R to determine the level of bleed output taken on each engine. Check
R line C1 of the DMU report ACCS SD/313600 (STANDARD HEADERS FOR
R PRINT REPORTS for details)
R - If no DMU report is available do a test to read the current engine
R status of the bleed air system (Ref. AMM TASK 36-11-00-710-001).
R - If the bleed output recorded either on the DMU report or in the
R bleed air system is not the same for each engine:
R - check that there are no fault affectting the engine HP Bleed Valve
R or Pressure Regulating Valve. Correct as necessary per applicable
R TSM.
R - check that there are no fault affectting the Wing anti-ice valve or
R Nacelle anti-ice. Correct as necessary per applicable TSM.
R - check that there are no fault affectting the Air conditionning
R system (Air cycle machine, pack flow valve control, zone
R controller). Correct as necessary per applicable TSM.
R - If nothing is found:

R (3) Inspect the IP check valve for condition or sticky flappers (Ref. AMM
R TASK 36-11-41-200-001)

R (a) If damage is found:
R - repair as necessary

R (b) If nothing is found, continue the trouble shooting as follows.

R (4) Do a visual check of the VSV linkage and look for any loose parts at
R VSV actuator bellcrank or rings mechanical corrections.

R (a) If damage is found:
R - repair as necessary

R (b) If nothing is found:
R - replace the HMU (Ref. AMM TASK 73-21-10-000-002) and (Ref. AMM
R TASK 73-21-10-400-002).

R 1 If the fault continues during subsequent flights:
R - Replace the ECU (4000KS) (Ref. AMM TASK 73-21-60-000-001)
R and (Ref. AMM TASK 73-21-60-400-001).

R a If the fault continue during subsequent flights:
R - Do a borescope inspection of the HP compressor (Ref. AMM
R TASK 72-31-00-290-002).

5. Close-up

A. Test.

(1) If the test made in Para. 3. A. was found within the limits:
- Do the operational test of the FADEC A and B (with the engine motoring) (Ref. AMM TASK 73-29-00-710-040).

(2) If the test made in Para. 3. A. was not found within the limits:
- Do the Accel Check (Ref. AMM TASK 71-00-00-710-025).

(a) If the fault is not confirmed:
- no maintenance action is required.

(b) If the fault continues:
- repeat the fault isolation procedure.

R TASK 71-00-00-810-812

R Fuel Leak at the Engine 1 Turbine Rear Frame Water Drain

R 1. Possible Causes

R - HMU

R 2. Job Set-up Information

R A. Referenced Information

REFERENCE	DESIGNATION
AMM 71-00-00-710-001	Dry Motoring Check
AMM 71-00-00-710-001	Dry Motoring Check
AMM 71-00-00-710-006	Minimum Idle Check
AMM 71-00-00-710-006	Minimum Idle Check
AMM 73-21-10-000-001	Removal of the Hydromechanical Unit (HMU)
AMM 73-21-10-000-002	Removal of the Hydromechanical Unit (HMU)
AMM 73-21-10-400-001	Installation of the Hydromechanical Unit (HMU)
AMM 73-21-10-400-002	Installation of the Hydromechanical Unit (HMU)

R 3. Fault Confirmation

R A. Not applicable.

R 4. Fault Isolation

R A. If the fault symptom is identified by the crew observation fuel leak at the Turbine Rear Frame water drain:
- do the Dry Motoring check (Ref. AMM TASK 71-00-00-710-001) (Ref. AMM TASK 71-00-00-710-001).
- perform a minimum idle check (Ref. AMM TASK 71-00-00-710-006) (Ref. AMM TASK 71-00-00-710-006).

(1) If fuel leak is present, replace the HMU (Ref. AMM TASK 73-21-10-000-001) (Ref. AMM TASK 73-21-10-400-001) (Ref. AMM TASK 73-21-10-000-002) (Ref. AMM TASK 73-21-10-400-002).

R TASK 71-00-00-810-813

R Fuel Leak at the Engine 2 Turbine Rear Frame Water Drain

R 1. Possible Causes

R - HMU

R 2. Job Set-up Information

R A. Referenced Information

REFERENCE	DESIGNATION
AMM 71-00-00-710-001	Dry Motoring Check
AMM 71-00-00-710-001	Dry Motoring Check
AMM 71-00-00-710-006	Minimum Idle Check
AMM 71-00-00-710-006	Minimum Idle Check
AMM 73-21-10-000-001	Removal of the Hydromechanical Unit (HMU)
AMM 73-21-10-000-002	Removal of the Hydromechanical Unit (HMU)
AMM 73-21-10-400-001	Installation of the Hydromechanical Unit (HMU)
AMM 73-21-10-400-002	Installation of the Hydromechanical Unit (HMU)

R 3. Fault Confirmation

R A. Not applicable.

R 4. Fault Isolation

R A. If the fault symptom is identified by the crew observation fuel leak at the Turbine Rear Frame water drain:
- do the Dry Motoring check (Ref. AMM TASK 71-00-00-710-001) (Ref. AMM TASK 71-00-00-710-001).
- perform a minimum idle check (Ref. AMM TASK 71-00-00-710-006) (Ref. AMM TASK 71-00-00-710-006).

(1) If fuel leak is present, replace the HMU (Ref. AMM TASK 73-21-10-000-001) (Ref. AMM TASK 73-21-10-400-001) (Ref. AMM TASK 73-21-10-000-002) (Ref. AMM TASK 73-21-10-400-002).

TASK 71-50-00-810-801

Loss of the 115VAC Power Supply on the ECU 1

1. Possible Causes

- EIU-1 (1KS1)
- ECU (4000KS)
- J1 harness
- wiring
- C/B-ENGINE/1 AND 2/IGN/SYS A (1JH)

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION
AMM 73-21-60-000-001	Removal of the Electronic Control Unit (ECU)(4000KS)
AMM 73-21-60-400-001	Installation of the Electronic Control Unit (ECU)(4000KS)
AMM 73-25-34-000-040	Removal of the Engine Interface Unit (EIU) (1KS1,1KS2)
AMM 73-25-34-400-040	Installation of the Engine Interface Unit (EIU) (1KS1,1KS2)
AMM 73-29-00-710-040	Operational Test of the FADEC on the Ground (with Engine non Motoring)
ASM 74-31/01	

3. Fault Confirmation

A. Make sure that this(these) circuit breaker(s) is(are) closed:

PANEL	DESIGNATION	IDENT.	LOCATION
49VU	ENGINE/1 AND 2/IGN/SYS A	1JH	A03

B. Test

(1) If you cannot close the circuit breaker (1JH), refer to Para. 4.B.

(2) Do the operational test of the FADEC 1A on the ground (with engine non motoring) (Ref. AMM TASK 73-29-00-710-040)

4. Fault Isolation

A. If the circuit breaker (1JH) is closed and if the test gives the maintenance message J1, 115 VAC, ECU:

R CAUTION : WHEN THE "ENG/MASTER" LEVER IS IN THE "ON" POSITION, BE VERY
R CAREFUL NOT TO SET THE "ENG/MODE" SELECTOR SWITCH TO "CRANK" OR
R "IGN/START".
R IF YOU DO SET THE SELECTOR SWITCH TO ONE OF THESE POSITIONS,
R THE ENGINE WILL START. THERE IS THUS A RISK OF INJURY TO
R PERSONS AND OF DAMAGE TO EQUIPMENT.

R - On the panel 115 VU, set the MASTER switch to "ON".
- do a check for 115VAC at the ECU (4000KS) pins J1/7 (Ref. ASM 74-31/01).
R - On the panel 115 VU, set the MASTER switch to "OFF".

(1) If there is 115VAC:
- replace the ECU (4000KS) (Ref. AMM TASK 73-21-60-000-001) and (Ref. AMM TASK 73-21-60-400-001).

(2) If there is no 115VAC:
- do a check for 115VAC at the EIU-1 (1KS1) pin AB/14F.

(a) If there is 115VAC:
- replace the EIU-1 (1KS1) (Ref. AMM TASK 73-25-34-000-040) and (Ref. AMM TASK 73-25-34-400-040).

1 If the fault continues:
- replace the J1 harness between the EIU-1 (1KS1) and the ECU (4000KS).

(b) If there is no 115VAC:
- do a check of the wiring between the EIU-1 (1KS1) pin AB/14F and the circuit breaker (1JH).

1 If there is no continuity:
- repair the above wiring.

2 If there is continuity:
- replace the C/B-ENGINE/1 AND 2/IGN/SYS A (1JH).

(3) If the fault continues:
- make sure that there is no ground signal at the EIU-1 (1KS1) pin AA/5B.

B. If the circuit breaker (1JH) is open:
- close it.

(1) If the circuit breaker trips:
- remove the ECU (4000KS) (Ref. AMM TASK 73-21-60-000-001) and
- remove the EIU-1 (1KS1) (Ref. AMM TASK 73-25-34-000-040).

(2) If the circuit breaker trips again:
- do a check and repair the wiring for short to ground between the EIU-1 (1KS1) pin AB/14F and the circuit breaker (1JH).

(a) If the fault continues:
- replace the C/B-ENGINE/1 AND 2/IGN/SYS A (1JH).

(3) If the circuit breaker stays closed:
- install the EIU-1 (1KS1) (Ref. AMM TASK 73-25-34-400-040).

(a) If the circuit breaker trips:
- replace the EIU-1 (1KS1) (Ref. AMM TASK 73-25-34-000-040) and (Ref. AMM TASK 73-25-34-400-040).

(b) If the circuit breaker stays closed:
- install the ECU (4000KS) (Ref. AMM TASK 73-21-60-400-001).

1 If the circuit breaker trips:
- replace the ECU (4000KS) (Ref. AMM TASK 73-21-60-000-001) and (Ref. AMM TASK 73-21-60-400-001).

2 If the circuit breaker trips again:
- do a check and repair the wiring between the ECU (4000KS) pins J1/7 and the EIU-1 (1KS1) pin AB/14B.

(4) If the fault continues:
- make sure that there is no ground signal at the EIU-1 (1KS1) pin AA/5B.

C. Do the test given in Para. 3.

TASK 71-50-00-810-802

Loss of the 115VAC Power Supply on the ECU 2

1. Possible Causes

- EIU-2 (1KS2)
- ECU (4000KS)
- J1 harness
- wiring
- C/B-ENGINE/1 AND 2/IGN/SYS A (1JH)

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION
AMM 73-21-60-000-001	Removal of the Electronic Control Unit (ECU)(4000KS)
AMM 73-21-60-400-001	Installation of the Electronic Control Unit (ECU)(4000KS)
AMM 73-25-34-000-040	Removal of the Engine Interface Unit (EIU) (1KS1,1KS2)
AMM 73-25-34-400-040	Installation of the Engine Interface Unit (EIU) (1KS1,1KS2)
AMM 73-29-00-710-040	Operational Test of the FADEC on the Ground (with Engine non Motoring)
ASM 74-31/01	

3. Fault Confirmation

A. Make sure that this(these) circuit breaker(s) is(are) closed:

PANEL	DESIGNATION	IDENT.	LOCATION
49VU	ENGINE/1 AND 2/IGN/SYS A	1JH	A03

B. Test

(1) If you cannot close the circuit breaker (1JH), refer to Para. 4.B.

(2) Do the operational test of the FADEC 2A on the ground (with engine non motoring) (Ref. AMM TASK 73-29-00-710-040)

4. Fault Isolation

A. If the circuit breaker (1JH) is closed and if the test gives the maintenance message J1, 115 VAC, ECU:

R CAUTION : WHEN THE "ENG/MASTER" LEVER IS IN THE "ON" POSITION, BE VERY
R CAREFUL NOT TO SET THE "ENG/MODE" SELECTOR SWITCH TO "CRANK" OR
R "IGN/START".
R IF YOU DO SET THE SELECTOR SWITCH TO ONE OF THESE POSITIONS,
R THE ENGINE WILL START. THERE IS THUS A RISK OF INJURY TO
R PERSONS AND OF DAMAGE TO EQUIPMENT.

R - On the panel 115 VU, set the MASTER switch to "ON".
- do a check for 115VAC at the ECU (4000KS) pins J1/7 (Ref. ASM 74-31/01).
R - On the panel 115 VU, set the MASTER switch to "OFF".

(1) If there is 115VAC:
- replace the ECU (4000KS) (Ref. AMM TASK 73-21-60-000-001) and (Ref. AMM TASK 73-21-60-400-001).

(2) If there is no 115VAC:
- do a check for 115VAC at the EIU-2 (1KS2) pin AB/14F.

(a) If there is 115VAC:
- replace the EIU-2 (1KS2) (Ref. AMM TASK 73-25-34-000-040) and (Ref. AMM TASK 73-25-34-400-040).

1 If the fault continues:
- replace the J1 harness between the EIU-2 (1KS2) and the ECU (4000KS).

(b) If there is no 115VAC:
- do a check of the wiring between the EIU-2 (1KS2) pin AB/14F and the circuit breaker (1JH).

1 If there is no continuity:
- repair the above wiring.

2 If there is continuity:
- replace the C/B-ENGINE/1 AND 2/IGN/SYS A (1JH).

(3) If the fault continues:
- make sure that there is no ground signal at the EIU-2 (1KS2) pin AA/5B.

B. If the circuit breaker (1JH) is open:
- close it.

(1) If the circuit breaker trips:
- remove the ECU (4000KS) (Ref. AMM TASK 73-21-60-000-001) and
- remove the EIU-2 (1KS2) (Ref. AMM TASK 73-25-34-000-040).

(2) If the circuit breaker trips again:
- do a check and repair the wiring for short to ground between the EIU-2 (1KS2) pin AB/14F and the circuit breaker (1JH).

(a) If the fault continues:
- replace the C/B-ENGINE/1 AND 2/IGN/SYS A (1JH).

(3) If the circuit breaker stays closed:
- install the EIU-2 (1KS2) (Ref. AMM TASK 73-25-34-400-040).

(a) If the circuit breaker trips:
- replace the EIU-2 (1KS2) (Ref. AMM TASK 73-25-34-000-040) and (Ref. AMM TASK 73-25-34-400-040).

(b) If the circuit breaker stays closed:
- install the ECU (4000KS) (Ref. AMM TASK 73-21-60-400-001).

1 If the circuit breaker trips:
- replace the ECU (4000KS) (Ref. AMM TASK 73-21-60-000-001) and (Ref. AMM TASK 73-21-60-400-001).

2 If the circuit breaker trips again:
- do a check and repair the wiring between the ECU (4000KS) pins J1/7 and the EIU-2 (1KS2) pin AB/14B.

(4) If the fault continues:
- make sure that there is no ground signal at the EIU-2 (1KS2) pin AA/5B.

C. Do the test given in Para. 3.

TASK 71-50-00-810-803

Loss of the 115VAC Power Supply on the ECU 1

1. Possible Causes

- EIU-1 (1KS1)
- ECU (4000KS)
- J2 harness
- wiring
- C/B-ENGINE/IGN/ENG1/SYS B (3JH1)

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION
AMM 73-21-60-000-001	Removal of the Electronic Control Unit (ECU)(4000KS)
AMM 73-21-60-400-001	Installation of the Electronic Control Unit (ECU)(4000KS)
AMM 73-25-34-000-040	Removal of the Engine Interface Unit (EIU) (1KS1,1KS2)
AMM 73-25-34-400-040	Installation of the Engine Interface Unit (EIU) (1KS1,1KS2)
AMM 73-29-00-710-040	Operational Test of the FADEC on the Ground (with Engine non Motoring)
ASM 74-31/01	

3. Fault Confirmation

A. Make sure that this(these) circuit breaker(s) is(are) closed:

PANEL	DESIGNATION	IDENT.	LOCATION
121VU	ENGINE/IGN/ENG1/SYS B	3JH1	P41

B. Test

(1) If you cannot close the circuit breaker (3JH1), refer to Para. 4.B.

(2) Do the operational test of the FADEC 1A on the ground (with engine non motoring) (Ref. AMM TASK 73-29-00-710-040).

4. Fault Isolation

A. If the circuit breaker (3JH1) is closed and if the test gives the maintenance message J2, 115 VAC, ECU:

R CAUTION : WHEN THE "ENG/MASTER" LEVER IS IN THE "ON" POSITION, BE VERY
R CAREFUL NOT TO SET THE "ENG/MODE" SELECTOR SWITCH TO "CRANK" OR
R "IGN/START".
R IF YOU DO SET THE SELECTOR SWITCH TO ONE OF THESE POSITIONS,
R THE ENGINE WILL START. THERE IS THUS A RISK OF INJURY TO
R PERSONS AND OF DAMAGE TO EQUIPMENT.

R - On the panel 115 VU, set the MASTER switch to "ON".
- do a check for 115VAC at the ECU (4000KS) pins J2/7 (Ref. ASM 74-31/01).
R - On the panel 115 VU, set the MASTER switch to "OFF".

(1) If there is 115VAC:
- replace the ECU (4000KS) (Ref. AMM TASK 73-21-60-000-001) and (Ref. AMM TASK 73-21-60-400-001).

(2) If there is no 115VAC:
- do a check for 115VAC at the EIU-1 (1KS1) pin AC/1.

(a) If there is 115VAC:
- replace the EIU-1 (1KS1) (Ref. AMM TASK 73-25-34-000-040) and (Ref. AMM TASK 73-25-34-400-040).

1 If the fault continues:
- replace the J2 harness between the EIU-1 (1KS1) and the ECU (4000KS).

(b) If there is no 115VAC:
- do a check of the wiring between the EIU-1 (1KS1) pin AC/1 and the circuit breaker (3JH1).

1 If there is no continuity:
- repair the above wiring.

2 If there is continuity:
- replace the C/B-ENGINE/IGN/ENG1/SYS B (3JH1).

(3) If the fault continues:
- make sure that there is no ground signal at the EIU-1 (1KS1) pin AA/5B.

B. If the circuit breaker (3JH1) is open:
- close it.

(1) If the circuit breaker trips:
- remove the ECU (4000KS) (Ref. AMM TASK 73-21-60-000-001)
- remove the EIU-1 (1KS1) (Ref. AMM TASK 73-25-34-000-040).

(2) If the circuit breaker trips again:
- do a check and repair the wiring for short to ground between the EIU-1 pin AC/1 and the circuit breaker (3JH1).

(a) If the fault continues:
- replace the C/B-ENGINE/IGN/ENG1/SYS B (3JH1).

(3) If the circuit breaker stays closed:
- install the EIU-1 (1KS1) (Ref. AMM TASK 73-25-34-400-040).

(a) If the circuit breaker trips:
- replace the EIU-1 (1KS1) (Ref. AMM TASK 73-25-34-000-040) and (Ref. AMM TASK 73-25-34-400-040).

(b) If the circuit breaker stays closed:
- install the ECU (4000KS) (Ref. AMM TASK 73-21-60-400-001).

1 If the circuit breaker trips:
- replace the ECU (4000KS) (Ref. AMM TASK 73-21-60-000-001) and (Ref. AMM TASK 73-21-60-400-001).

2 If the circuit breaker trips again:
- do a check and repair the wiring between the ECU (4000KS) pins J2/7 and the EIU-1 pin AC/4.

(4) If the fault continues:
- make sure that there is no ground signal at the EIU-1 (1KS1) pin AA/5B.

C. Do the test given in Para. 3.A.

TASK 71-50-00-810-804

Loss of the 115VAC Power Supply on the ECU 2

1. Possible Causes

- EIU-2 (1KS2)
- ECU (4000KS)
- J2 harness
- wiring
R - C/B-ENGINE/IGN/ENG2/SYS B (3JH2)

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION
AMM 73-21-60-000-001	Removal of the Electronic Control Unit (ECU)(4000KS)
AMM 73-21-60-400-001	Installation of the Electronic Control Unit (ECU)(4000KS)
AMM 73-25-34-000-040	Removal of the Engine Interface Unit (EIU) (1KS1,1KS2)
AMM 73-25-34-400-040	Installation of the Engine Interface Unit (EIU) (1KS1,1KS2)
AMM 73-29-00-710-040	Operational Test of the FADEC on the Ground (with Engine non Motoring)
ASM 74-31/01	

3. Fault Confirmation

A. Make sure that this(these) circuit breaker(s) is(are) closed:

PANEL	DESIGNATION	IDENT.	LOCATION
121VU	ENGINE/IGN/ENG2/SYS B	3JH2	P42

B. Test

(1) If you cannot close the circuit breaker (3JH2), refer to Para. 4.B.

(2) Do the operational test of the FADEC 2A on the ground (with engine non motoring) (Ref. AMM TASK 73-29-00-710-040).

4. Fault Isolation

A. If the circuit breaker (3JH2) is closed and if the test gives the maintenance message J2, 115 VAC, ECU:

R CAUTION : WHEN THE "ENG/MASTER" LEVER IS IN THE "ON" POSITION, BE VERY
R CAREFUL NOT TO SET THE "ENG/MODE" SELECTOR SWITCH TO "CRANK" OR
R "IGN/START".
R IF YOU DO SET THE SELECTOR SWITCH TO ONE OF THESE POSITIONS,
R THE ENGINE WILL START. THERE IS THUS A RISK OF INJURY TO
R PERSONS AND OF DAMAGE TO EQUIPMENT.

R - On the panel 115 VU, set the MASTER switch to "ON".
- do a check for 115VAC at the ECU (4000KS) pins J2/7 (Ref. ASM 74-31/01).
R - On the panel 115 VU, set the MASTER switch to "OFF".

(1) If there is 115VAC:
- replace the ECU (4000KS) (Ref. AMM TASK 73-21-60-000-001) and (Ref. AMM TASK 73-21-60-400-001).

(2) If there is no 115VAC:
- do a check for 115VAC at the EIU-2 (1KS2) pin AC/1.

(a) If there is 115VAC:
- replace the EIU-2 (1KS2) (Ref. AMM TASK 73-25-34-000-040) and (Ref. AMM TASK 73-25-34-400-040).

1 If the fault continues:
- replace the J2 harness between the EIU-2 (1KS2) and the ECU (4000KS).

(b) If there is no 115VAC:
- do a check of the wiring between the EIU-2 (1KS2) pin AC/1 and the circuit breaker (3JH2).

1 If there is no continuity:
- repair the above wiring.

2 If there is continuity:
- replace the C/B-ENGINE/IGN/ENG2/SYS B (3JH2).

(3) If the fault continues:
- make sure that there is no ground signal at the EIU-2 (1KS2) pin AA/5B.

B. If the circuit breaker (3JH2) is open:
- close it.

(1) If the circuit breaker trips:
- remove the ECU (4000KS) (Ref. AMM TASK 73-21-60-000-001) and
- remove the EIU-2 (1KS2) (Ref. AMM TASK 73-25-34-000-040).

(2) If the circuit breaker trips again:
- do a check and repair the wiring for short to ground between the EIU-2 (1KS2) pin AC/1 and the circuit breaker (3JH2).

(a) If the fault continues:
- replace the C/B-ENGINE/IGN/ENG2/SYS B (3JH2).

(3) If the circuit breaker stays closed:
- install the EIU-2 (1KS2) (Ref. AMM TASK 73-25-34-400-040).

(a) If the circuit breaker trips:
- replace the EIU-2 (1KS2) (Ref. AMM TASK 73-25-34-000-040) and (Ref. AMM TASK 73-25-34-400-040).

(b) If the circuit breaker stays closed:
- install the ECU (4000KS) (Ref. AMM TASK 73-21-60-400-001).

1 If the circuit breaker trips:
- replace the ECU (4000KS) (Ref. AMM TASK 73-21-60-000-001) and (Ref. AMM TASK 73-21-60-400-001).

2 If the circuit breaker trips again:
- do a check and repair the wiring between the ECU (4000KS) pins J2/7 and the EIU-2 (1KS2) pin AC/4.

(4) If the fault continues:
- make sure that there is no ground signal at the EIU-2 (1KS2) pin AA/5B.

C. Do the test given in Para. 3.

TASK 71-50-00-810-805

Failure of the Thrust Reverser Inhibition Switch - Engine 1 - Channel A

1. Possible Causes

- CTL UNIT-THROTTLE, ENG 1 (8KS1)
- EIU-1 (1KS1)
- RELAY-THRUST REV INHIBITION, ENG 1 (14KS1)
- thrust reverser harness
- aircraft wiring
- ECU (4000KS)
- SEC-1 (1CE1)
- SEC-2 (1CE2)

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION
AMM 27-94-34-000-001	Removal of the SEC (1CE1,1CE2,1CE3)
AMM 27-94-34-400-001	Installation of the SEC (1CE1,1CE2,1CE3)
AMM 71-51-43-000-044	Removal of the Thrust Reverser (Channel A and B) Harness (4200KS)
AMM 71-51-43-400-044	Installation of the Thrust Reverser (Channel A and B) Harness (4200KS)
AMM 73-21-60-000-001	Removal of the Electronic Control Unit (ECU)
AMM 73-21-60-400-001	Installation of the Electronic Control Unit (ECU)
AMM 73-25-34-000-040	Removal of the Engine Interface Unit (EIU)
AMM 73-25-34-400-040	Installation of the Engine Interface Unit (EIU)
AMM 76-11-19-000-042	Removal of the Throttle Control Unit (8KS1, 8KS2)
AMM 76-11-19-400-042	Installation of the Throttle Control Unit (8KS1, 8KS2)
AMM 78-31-00-710-042	Operational Test of the Thrust Reverser System
ASM 73-25/16	
ASM 73-25/16	
ASM 78-37/01	

3. Fault Confirmation

A. Make sure that the throttle lever is not in the thrust reverser area.

B. Do the operational test of the thrust reverser system (Ref. AMM TASK 78-31-00-710-042).

4. Fault Isolation

R **ON A/C 201-225, 239-275, 282-299, 426-475, 479-499, 503-549, 551-599,
R 701-749,

A. This fault message is generated when the ECU detects an unwanted closure of the inhibition relay 14KS1 or a short or short to ground in the harness J5 or in the thrust reverser harness or in the aircraft wiring.

CAUTION : MAKE SURE THAT THERE IS NO HYDRAULIC PRESSURE WHILE YOU DO THIS TEST. PUT A WARNING NOTICE IN THE COCKPIT TO TELL PERSONS NOT TO PRESSURIZE THE HYDRAULIC SYSTEMS.

(1) If the test gives the maintenance message J5, TR ACFT SW, ECU:
- on the overhead panel 50VU, push and release the P/BSW-ENG/FADEC GND PWR/1 (7KS1) the ON legend comes on,
- remove the RELAY-THRUST REV INHIBITION, ENG 1 (14KS1) from 187VU and do a check for 28VDC at pin A/X on the relay base (Ref. ASM 73-25/16).

(a) If there is 28VDC:
- disconnect the connector E from the TCU1 (8KS1) and do a check for ground at pin E/C.

1 If there is ground:
- replace the CTL UNIT-THROTTLE, ENG 1 (8KS1) (Ref. AMM TASK 76-11-19-000-042) and (Ref. AMM TASK 76-11-19-400-042).

2 If there is no ground:
- on the overhead panel 50VU, push the P/BSW-ENG/FADEC GND PWR/1 (7KS1) the ON legend goes off,
- remove the EIU1 (1KS1) (Ref. AMM TASK 73-25-34-000-040) and disconnect the connector E from the TCU1 (8KS1),
- do a check for a short to ground between (Ref. ASM 78-37/01):
.the EIU1 (1KS1) pin AA/4C and the TCU1 (8KS1) pin E/C
.the EIU1 (1KS1) pin AA/4A and the TCU1 (8KS1) pin E/C.

3 If there is a short to ground:
- repair as required.

4 If nothing is found:
- replace the EIU-1 (1KS1) (Ref. AMM TASK 73-25-34-000-040) and (Ref. AMM TASK 73-25-34-400-040).

(b) If there is no 28VDC:
- on the overhead panel 50VU, push the P/BSW-ENG/FADEC GND PWR/1 (7KS1) the ON legend goes off,
- replace the RELAY-THRUST REV INHIBITION, ENG 1 (14KS1) on 187VU (Ref. ASM 73-25/16).

1 If the fault continues:
- disconnect the harness J5 from the ECU (4000KS),
- do a resistance check between:
  . pins 7 and 8 (>10 megohms)
  . pins 7 and 11 (>10 megohms)
  . pin 7 and the ground (>10 megohms).

a If there is an electrical short or a short to ground:
- replace the thrust reverser harness (Ref. AMM TASK 71-51-43-000-044) and (Ref. AMM TASK 71-51-43-400-044) or repair the aircraft wiring to the relay 14KS1 (Ref. ASM 73-25/16).

2 If nothing is found:
- replace the ECU (4000KS) (Ref. AMM TASK 73-21-60-000-001) and (Ref. AMM TASK 73-21-60-400-001).

(2) If the test does not give the maintenance message J5, TR ACFT SW, ECU:
- replace the RELAY-THRUST REV INHIBITION, ENG 1 (14KS1) on 187VU (Ref. ASM 73-25/16).

(a) If the fault continues:
- replace the EIU-1 (1KS1) (Ref. AMM TASK 73-25-34-000-040) and (Ref. AMM TASK 73-25-34-400-040).

(b) If the fault continues:
- replace the CTL UNIT-THROTTLE, ENG 1 (8KS1) (Ref. AMM TASK 76-11-19-000-042) and (Ref. AMM TASK 76-11-19-400-042).

(c) If the fault continues:
- replace the ECU (4000KS) (Ref. AMM TASK 73-21-60-000-001) and (Ref. AMM TASK 73-21-60-400-001).

(d) If the fault continues:
- do a check for a short to ground between (Ref. ASM 73-25/16):
  .the EIU1 (1KS1) pin AA/4C and the TCU1 (8KS1) pin E/C
  .the EIU1 (1KS1) pin AA/4A and the TCU1 (8KS1) pin E/C
  .the relay (14KS1) and its related wiring.

1 If nothing is found:
- replace the thrust reverser harness (Ref. AMM TASK 71-51-43-000-044) and (Ref. AMM TASK 71-51-43-400-044).

R **ON A/C 227-227, 229-238, 276-281, 476-478,

A. This fault message is generated when the ECU detects an unwanted closure of the inhibition relay 14KS1 or a short or short to ground in the harness J5 or in the thrust reverser harness or in the aircraft wiring.

CAUTION : MAKE SURE THAT THERE IS NO HYDRAULIC PRESSURE WHILE YOU DO THIS TEST. PUT A WARNING NOTICE IN THE COCKPIT TO TELL PERSONS NOT TO PRESSURIZE THE HYDRAULIC SYSTEMS.

(1) If the test gives the maintenance message J5, TR ACFT SW, ECU:
- on the overhead panel 50VU, push and release the P/BSW-ENG/FADEC GND PWR/1 (7KS1) the ON legend comes on,
- remove the RELAY-THRUST REV INHIBITION, ENG 1 (14KS1) from 187VU and do a check for 28VDC at pin A/X on the relay base (Ref. ASM 73-25/16).

(a) If there is 28VDC:
- on the overhead panel 50VU, push the P/BSW-ENG/FADEC GND PWR/1 (7KS1) the ON legend goes off,
- remove the EIU1 (1KS1) (Ref. AMM TASK 73-25-34-000-040), the SEC1 (1CE1) and the SEC2 (1CE2) (Ref. AMM TASK 27-94-34-000-001),
- do a check for a short to ground between (Ref. ASM 73-25/16):
  .the EIU1 (1KS1) pin AA/4C and the SEC1 (1CE1) pin AB/15E
  .the EIU1 (1KS1) pin AA/4A and the SEC2 (1CE2) pin AB/15E.

1 If there is a short to ground:
- repair as required.

2 If nothing is found:
- replace the EIU-1 (1KS1) (Ref. AMM TASK 73-25-34-000-040) and (Ref. AMM TASK 73-25-34-400-040).

3 If the fault continues:
- replace the SEC-1 (1CE1) (Ref. AMM TASK 27-94-34-000-001) and (Ref. AMM TASK 27-94-34-400-001).

4 If the fault continues:
- replace the SEC-2 (1CE2) (Ref. AMM TASK 27-94-34-000-001) and (Ref. AMM TASK 27-94-34-400-001).

(b) If there is no 28VDC:
- on the overhead panel 50VU, push the P/BSW-ENG/FADEC GND PWR/1 (7KS1) the ON legend goes off,
- replace the RELAY-THRUST REV INHIBITION, ENG 1 (14KS1) on 187VU (Ref. ASM 73-25/16).

1 If the fault continues:
- disconnect the harness J5 from the ECU (4000KS),
- do a resistance check between:

. pins 7 and 8 (>10 megohms)
. pins 7 and 11 (>10 megohms)
. pin 7 and the ground (>10 megohms).

a If there is an electrical short or a short to ground:
- replace the thrust reverser harness (Ref. AMM TASK 71-51-43-000-044) and (Ref. AMM TASK 71-51-43-400-044) or repair the aircraft wiring to the relay 14KS1 (Ref. ASM 73-25/16).

2 If nothing is found:
- replace the ECU (4000KS) (Ref. AMM TASK 73-21-60-000-001) and (Ref. AMM TASK 73-21-60-400-001).

(2) If the test does not give the maintenance message J5, TR ACFT SW, ECU:
- replace the RELAY-THRUST REV INHIBITION, ENG 1 (14KS1) on 187VU (Ref. ASM 73-25/16).

(a) If the fault continues:
- replace the EIU-1 (1KS1) (Ref. AMM TASK 73-25-34-000-040) and (Ref. AMM TASK 73-25-34-400-040).

(b) If the fault continues:
- replace the SEC-1 (1CE1) (Ref. AMM TASK 27-94-34-000-001) and (Ref. AMM TASK 27-94-34-400-001).

(c) If the fault continues:
- replace the SEC-2 (1CE2) (Ref. AMM TASK 27-94-34-000-001) and (Ref. AMM TASK 27-94-34-400-001).

(d) If the fault continues:
- replace the ECU (4000KS) (Ref. AMM TASK 73-21-60-000-001) and (Ref. AMM TASK 73-21-60-400-001).

(e) If the fault continues:
- do a check for a short to ground between (Ref. ASM 73-25/16):
.the EIU1 (1KS1) pin AA/4C and the SEC1 (1CE1) pin AB/15E
.the EIU1 (1KS1) pin AA/4A and the SEC2 (1CE2) pin AB/15E
.the relay (14KS1) and its related wiring.

1 If nothing is found:
- replace the thrust reverser harness (Ref. AMM TASK 71-51-43-000-044) and (Ref. AMM TASK 71-51-43-400-044).

**ON A/C ALL

B. Do the test given in Para. 3.

(1) No additional maintenance action is required if the fault is not confirmed.

(2) Repeat the fault isolation procedure if the fault continues.

TASK 71-50-00-810-806

Failure of the Thrust Reverser Inhibition Switch - Engine 2 - Channel A

1. Possible Causes

- CTL UNIT-THROTTLE, ENG 2 (8KS2)
- EIU-2 (1KS2)
- RELAY-THRUST REV INHIBITION, ENG 2 (14KS2)
- thrust reverser harness
- aircraft wiring
- ECU (4000KS)
- SEC-1 (1CE1)
- SEC-3 (1CE3)

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION
AMM 27-94-34-000-001	Removal of the SEC (1CE1,1CE2,1CE3)
AMM 27-94-34-400-001	Installation of the SEC (1CE1,1CE2,1CE3)
AMM 71-51-43-000-044	Removal of the Thrust Reverser (Channel A and B) Harness (4200KS)
AMM 71-51-43-400-044	Installation of the Thrust Reverser (Channel A and B) Harness (4200KS)
AMM 73-21-60-000-001	Removal of the Electronic Control Unit (ECU)
AMM 73-21-60-400-001	Installation of the Electronic Control Unit (ECU)
AMM 73-25-34-000-040	Removal of the Engine Interface Unit (EIU)
AMM 73-25-34-400-040	Installation of the Engine Interface Unit (EIU)
AMM 76-11-19-000-042	Removal of the Throttle Control Unit (8KS1, 8KS2)
AMM 76-11-19-400-042	Installation of the Throttle Control Unit (8KS1, 8KS2)
AMM 78-31-00-710-042	Operational Test of the Thrust Reverser System
ASM 73-25/16	
ASM 73-25/16	
ASM 78-37/01	

3. Fault Confirmation

A. Make sure that the throttle lever is not in the thrust reverser area.

B. Do the operational test of the thrust reverser system (Ref. AMM TASK 78-31-00-710-042).

4. Fault Isolation

R **ON A/C 201-225, 239-275, 282-299, 426-475, 479-499, 503-549, 551-599,
R 701-749,

A. This fault message is generated when the ECU detects an unwanted closure of the inhibition relay 14KS2 or a short or short to ground in the harness J5 or in the thrust reverser harness or in the aircraft wiring.

CAUTION : MAKE SURE THAT THERE IS NO HYDRAULIC PRESSURE WHILE YOU DO THIS TEST. PUT A WARNING NOTICE IN THE COCKPIT TO TELL PERSONS NOT TO PRESSURIZE THE HYDRAULIC SYSTEMS.

(1) If the test gives the maintenance message J5, TR ACFT SW, ECU:
- on the overhead panel 50VU, push and release the P/BSW-ENG/FADEC GND PWR/2 (7KS2) the ON legend comes on,
- remove the RELAY-THRUST REV INHIBITION, ENG 2 (14KS2) from 188VU and do a check for 28VDC at pin A/X on the relay base (Ref. ASM 73-25/16).

(a) If there is 28VDC:
- disconnect the connector E from the TCU2 (8KS2) and do a check for ground at pin E/C.

1 If there is ground:
- replace the CTL UNIT-THROTTLE, ENG 2 (8KS2) (Ref. AMM TASK 76-11-19-000-042) and (Ref. AMM TASK 76-11-19-400-042).

2 If there is no ground:
- on the overhead panel 50VU, push the P/BSW-ENG/FADEC GND PWR/2 (7KS2) the ON legend goes off,
- remove the EIU2 (1KS2) (Ref. AMM TASK 73-25-34-000-040) and disconnect the connector E from the TCU2 (8KS2),
- do a check for a short to ground between (Ref. ASM 78-37/01):
.the EIU2 (1KS2) pin AA/4C and the TCU2 (8KS2) pin E/C
.the EIU2 (1KS2) pin AA/4A and the TCU2 (8KS2) pin E/C.

3 If there is a short to ground:
- repair as required.

4 If nothing is found:
- replace the EIU-2 (1KS2) (Ref. AMM TASK 73-25-34-000-040) and (Ref. AMM TASK 73-25-34-400-040).

(b) If there is no 28VDC:
- on the overhead panel 50VU, push the P/BSW-ENG/FADEC GND PWR/2 (7KS2) the ON legend goes off,
- replace the RELAY-THRUST REV INHIBITION, ENG 2 (14KS2) on 188VU (Ref. ASM 73-25/16).

1 If the fault continues:
- disconnect the harness J5 from the ECU (4000KS),
- do a resistance check between:
  . pins 7 and 8 (>10 megohms)
  . pins 7 and 11 (>10 megohms)
  . pin 7 and the ground (>10 megohms).

a If there is an electrical short or a short to ground:
- replace the thrust reverser harness (Ref. AMM TASK 71-51-43-000-044) and (Ref. AMM TASK 71-51-43-400-044) or repair the aircraft wiring to the relay 14KS2 (Ref. ASM 73-25/16).

2 If nothing is found:
- replace the ECU (4000KS) (Ref. AMM TASK 73-21-60-000-001) and (Ref. AMM TASK 73-21-60-400-001).

(2) If the test does not give the maintenance message J5, TR ACFT SW, ECU:
- replace the RELAY-THRUST REV INHIBITION, ENG 2 (14KS2) on 188VU (Ref. ASM 73-25/16).

(a) If the fault continues:
- replace the EIU-2 (1KS2) (Ref. AMM TASK 73-25-34-000-040) and (Ref. AMM TASK 73-25-34-400-040).

(b) If the fault continues:
- replace the CTL UNIT-THROTTLE, ENG 2 (8KS2) (Ref. AMM TASK 76-11-19-000-042) and (Ref. AMM TASK 76-11-19-400-042).

(c) If the fault continues:
- replace the ECU (4000KS) (Ref. AMM TASK 73-21-60-000-001) and (Ref. AMM TASK 73-21-60-400-001).

(d) If the fault continues:
- do a check for a short to ground between (Ref. ASM 73-25/16):
  .the EIU2 (1KS2) pin AA/4C and the TCU2 (8KS2) pin E/C
  .the EIU2 (1KS2) pin AA/4A and the TCU1 (8KS2) pin E/C
  .the relay (14KS2) and its related wiring.

1 If nothing is found:
- replace the thrust reverser harness (Ref. AMM TASK 71-51-43-000-044) and (Ref. AMM TASK 71-51-43-400-044).

R **ON A/C 227-227, 229-238, 276-281, 476-478,

A. This fault message is generated when the ECU detects an unwanted closure of the inhibition relay 14KS2 or a short or short to ground in the harness J5 or in the thrust reverser harness or in the aircraft wiring.

CAUTION : MAKE SURE THAT THERE IS NO HYDRAULIC PRESSURE WHILE YOU DO THIS TEST. PUT A WARNING NOTICE IN THE COCKPIT TO TELL PERSONS NOT TO PRESSURIZE THE HYDRAULIC SYSTEMS.

(1) If the test gives the maintenance message J5, TR ACFT SW, ECU:
- on the overhead panel 50VU, push and release the P/BSW-ENG/FADEC GND PWR/2 (7KS2) the ON legend comes on,
- remove the RELAY-THRUST REV INHIBITION, ENG 2 (14KS2) from 188VU and do a check for 28VDC at pin A/X on the relay base (Ref. ASM 73-25/16).

(a) If there is 28VDC:
- on the overhead panel 50VU, push the P/BSW-ENG/FADEC GND PWR/2 (7KS2) the ON legend goes off,
- remove the EIU2 (1KS2) (Ref. AMM TASK 73-25-34-000-040) and the SEC1 (1CE1) and the SEC3 (1CE3) (Ref. AMM TASK 27-94-34-000-001),
- do a check for a short to ground between (Ref. ASM 73-25/16):
  .the EIU2 (1KS2) pin AA/4C and the SEC1 (1CE1) pin AE/15F
  .the EIU2 (1KS2) pin AA/4A and the SEC3 (1CE3) pin AE/15F.

1 If there is a short to ground:
- repair as required.

2 If nothing is found:
- replace the EIU-2 (1KS2) (Ref. AMM TASK 73-25-34-000-040) and (Ref. AMM TASK 73-25-34-400-040).

3 If the fault continues:
- replace the SEC-1 (1CE1) (Ref. AMM TASK 27-94-34-000-001) and (Ref. AMM TASK 27-94-34-400-001).

4 If the fault continues:
- replace the SEC-3 (1CE3) (Ref. AMM TASK 27-94-34-000-001) and (Ref. AMM TASK 27-94-34-400-001).

(b) If there is no 28VDC:
- on the overhead panel 50VU, push the P/BSW-ENG/FADEC GND PWR/2 (7KS2) the ON legend goes off,
- replace the RELAY-THRUST REV INHIBITION, ENG 2 (14KS2) on 188VU (Ref. ASM 73-25/16).

1 If the fault continues:
- disconnect the harness J5 from the ECU (4000KS),
- do a resistance check between:

. pins 7 and 8 (>10 megohms)
. pins 7 and 11 (>10 megohms)
. pin 7 and the ground (>10 megohms).

a If there is an electrical short or a short to ground:
- replace the thrust reverser harness (Ref. AMM TASK 71-51-43-000-044) and (Ref. AMM TASK 71-51-43-400-044) or repair the aircraft wiring to the relay 14KS2 (Ref. ASM 73-25/16).

2 If nothing is found:
- replace the ECU (4000KS) (Ref. AMM TASK 73-21-60-000-001) and (Ref. AMM TASK 73-21-60-400-001).

(2) If the test does not give the maintenance message J5, TR ACFT SW, ECU:
- replace the RELAY-THRUST REV INHIBITION, ENG 2 (14KS2) on 188VU (Ref. ASM 73-25/16).

(a) If the fault continues:
- replace the EIU-2 (1KS2) (Ref. AMM TASK 73-25-34-000-040) and (Ref. AMM TASK 73-25-34-400-040).

(b) If the fault continues:
- replace the SEC-1 (1CE1) (Ref. AMM TASK 27-94-34-000-001) and (Ref. AMM TASK 27-94-34-400-001).

(c) If the fault continues:
- replace the SEC-3 (1CE3) (Ref. AMM TASK 27-94-34-000-001) and (Ref. AMM TASK 27-94-34-400-001).

(d) If the fault continues:
- replace the ECU (4000KS) (Ref. AMM TASK 73-21-60-000-001) and (Ref. AMM TASK 73-21-60-400-001).

(e) If the fault continues:
- do a check for a short to ground between (Ref. ASM 73-25/16):
.the EIU2 (1KS2) pin AA/4C and the SEC1 (1CE1) pin AE/15F
.the EIU2 (1KS2) pin AA/4A and the SEC3 (1CE3) pin AE/15F
.the relay (14KS2) and its related wiring.

1 If nothing is found:
- replace the thrust reverser harness (Ref. AMM TASK 71-51-43-000-044) and (Ref. AMM TASK 71-51-43-400-044).

**ON A/C ALL

B. Do the test given in Para. 3.

(1) No additional maintenance action is required if the fault is not confirmed.

(2) Repeat the fault isolation procedure if the fault continues.

TASK 71-50-00-810-807

Failure of the Thrust Reverser Inhibition Switch - Engine 1 - Channel B

1. Possible Causes

- CTL UNIT-THROTTLE, ENG 1 (8KS1)
- EIU-1 (1KS1)
- RELAY-THRUST REV INHIBITION, ENG 1 (14KS1)
- thrust reverser harness
- aircraft wiring
- ECU (4000KS)
- SEC-1 (1CE1)
- SEC-2 (1CE2)

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION
AMM 27-94-34-000-001	Removal of the SEC (1CE1,1CE2,1CE3)
AMM 27-94-34-400-001	Installation of the SEC (1CE1,1CE2,1CE3)
AMM 71-51-43-000-044	Removal of the Thrust Reverser (Channel A and B) Harness (4200KS)
AMM 71-51-43-400-044	Installation of the Thrust Reverser (Channel A and B) Harness (4200KS)
AMM 73-21-60-000-001	Removal of the Electronic Control Unit (ECU)
AMM 73-21-60-400-001	Installation of the Electronic Control Unit (ECU)
AMM 73-25-34-000-040	Removal of the Engine Interface Unit (EIU)
AMM 73-25-34-400-040	Installation of the Engine Interface Unit (EIU)
AMM 76-11-19-000-042	Removal of the Throttle Control Unit (8KS1, 8KS2)
AMM 76-11-19-400-042	Installation of the Throttle Control Unit (8KS1, 8KS2)
AMM 78-31-00-710-042	Operational Test of the Thrust Reverser System
ASM 73-25/16	
ASM 73-25/16	
ASM 78-37/01	

3. Fault Confirmation

A. Make sure that the throttle lever is not in the thrust reverser area.

B. Do the operational test of the thrust reverser system (Ref. AMM TASK 78-31-00-710-042).

4. Fault Isolation

R **ON A/C 201-225, 239-275, 282-299, 426-475, 479-499, 503-549, 551-599,
R 701-749,

A. This fault message is generated when the ECU detects an unwanted closure of the inhibition relay 14KS1 or a short or short to ground in the harness J6 or in the thrust reverser harness or in the aircraft wiring.

CAUTION : MAKE SURE THAT THERE IS NO HYDRAULIC PRESSURE WHILE YOU DO THIS TEST. PUT A WARNING NOTICE IN THE COCKPIT TO TELL PERSONS NOT TO PRESSURIZE THE HYDRAULIC SYSTEMS.

(1) If the test gives the maintenance message J6, TR ACFT SW, ECU:
- on the overhead panel 50VU, push and release the P/BSW-ENG/FADEC GND PWR/1 (7KS1) the ON legend comes on,
- remove the RELAY-THRUST REV INHIBITION, ENG 1 (14KS1) from 187VU and do a check for 28VDC at pin A/X on the relay base (Ref. ASM 73-25/16).

(a) If there is 28VDC:
- disconnect the connector E from the TCU1 (8KS1) and do a check for ground at pin E/C.

1 If there is ground:
- replace the CTL UNIT-THROTTLE, ENG 1 (8KS1) (Ref. AMM TASK 76-11-19-000-042) and (Ref. AMM TASK 76-11-19-400-042).

2 If there is no ground:
- on the overhead panel 50VU, push the P/BSW-ENG/FADEC GND PWR/1 (7KS1) the ON legend goes off,
- remove the EIU1 (1KS1) (Ref. AMM TASK 73-25-34-000-040) and disconnect the connector E from the TCU1 (8KS1),
- do a check for a short to ground between (Ref. ASM 78-37/01):
.the EIU1 (1KS1) pin AA/4C and the TCU1 (8KS1) pin E/C
.the EIU1 (1KS1) pin AA/4A and the TCU1 (8KS1) pin E/C.

3 If there is a short to ground:
- repair as required.

4 If nothing is found:
- replace the EIU-1 (1KS1) (Ref. AMM TASK 73-25-34-000-040) and (Ref. AMM TASK 73-25-34-400-040).

(b) If there is no 28VDC:
- on the overhead panel 50VU, push the P/BSW-ENG/FADEC GND PWR/1 (7KS1) the ON legend goes off,
- replace the RELAY-THRUST REV INHIBITION, ENG 1 (14KS1) on 187VU (Ref. ASM 73-25/16).

1 If the fault continues:
- disconnect the harness J6 from the ECU (4000KS),
- do a resistance check between:
  . pins 7 and 8 (>10 megohms)
  . pins 7 and 11 (>10 megohms)
  . pin 7 and the ground (>10 megohms).

a If there is an electrical short or a short to ground:
- replace the thrust reverser harness (Ref. AMM TASK 71-51-43-000-044) and (Ref. AMM TASK 71-51-43-400-044) or repair the aircraft wiring to the relay 14KS1 (Ref. ASM 73-25/16).

2 If nothing is found:
- replace the ECU (4000KS) (Ref. AMM TASK 73-21-60-000-001) and (Ref. AMM TASK 73-21-60-400-001).

(2) If the test does not give the maintenance message J6, TR ACFT SW, ECU:
- replace the RELAY-THRUST REV INHIBITION, ENG 1 (14KS1) on 187VU (Ref. ASM 73-25/16).

(a) If the fault continues:
- replace the EIU-1 (1KS1) (Ref. AMM TASK 73-25-34-000-040) and (Ref. AMM TASK 73-25-34-400-040).

(b) If the fault continues:
- replace the CTL UNIT-THROTTLE, ENG 1 (8KS1) (Ref. AMM TASK 76-11-19-000-042) and (Ref. AMM TASK 76-11-19-400-042).

(c) If the fault continues:
- replace the ECU (4000KS) (Ref. AMM TASK 73-21-60-000-001) and (Ref. AMM TASK 73-21-60-400-001).

(d) If the fault continues:
- do a check for a short to ground between (Ref. ASM 73-25/16):
  .the EIU1 (1KS1) pin AA/4C and the TCU1 (8KS1) pin E/C
  .the EIU1 (1KS1) pin AA/4A and the TCU1 (8KS1) pin E/C
  .the relay (14KS1) and its related wiring.

1 If nothing is found:
- replace the thrust reverser harness (Ref. AMM TASK 71-51-43-000-044) and (Ref. AMM TASK 71-51-43-400-044).

R **ON A/C 227-227, 229-238, 276-281, 476-478,

A. This fault message is generated when the ECU detects an unwanted closure of the inhibition relay 14KS1 or a short or short to ground in the harness J6 or in the thrust reverser harness or in the aircraft wiring.

CAUTION : MAKE SURE THAT THERE IS NO HYDRAULIC PRESSURE WHILE YOU DO THIS TEST. PUT A WARNING NOTICE IN THE COCKPIT TO TELL PERSONS NOT TO PRESSURIZE THE HYDRAULIC SYSTEMS.

(1) If the test gives the maintenance message J6, TR ACFT SW, ECU:
- on the overhead panel 50VU, push and release the P/BSW-ENG/FADEC GND PWR/1 (7KS1) the ON legend comes on,
- remove the RELAY-THRUST REV INHIBITION, ENG 1 (14KS1) from 187VU and do a check for 28VDC at pin A/X on the relay base (Ref. ASM 73-25/16).

(a) If there is 28VDC:
- on the overhead panel 50VU, push the P/BSW-ENG/FADEC GND PWR/1 (7KS1) the ON legend goes off,
- remove the EIU1 (1KS1) (Ref. AMM TASK 73-25-34-000-040), the SEC1 (1CE1) and the SEC2 (1CE2) (Ref. AMM TASK 27-94-34-000-001),
- do a check for a short to ground between (Ref. ASM 73-25/16):
.the EIU1 (1KS1) pin AA/4C and the SEC1 (1CE1) pin AB/15E
.the EIU1 (1KS1) pin AA/4A and the SEC2 (1CE2) pin AB/15E.

1 If there is a short to ground:
- repair as required.

2 If nothing is found:
- replace the EIU-1 (1KS1) (Ref. AMM TASK 73-25-34-000-040) and (Ref. AMM TASK 73-25-34-400-040).

3 If the fault continues:
- replace the SEC-1 (1CE1) (Ref. AMM TASK 27-94-34-000-001) and (Ref. AMM TASK 27-94-34-400-001).

4 If the fault continues:
- replace the SEC-2 (1CE2) (Ref. AMM TASK 27-94-34-000-001) and (Ref. AMM TASK 27-94-34-400-001).

(b) If there is no 28VDC:
- on the overhead panel 50VU, push the P/BSW-ENG/FADEC GND PWR/1 (7KS1) the ON legend goes off,
- replace the RELAY-THRUST REV INHIBITION, ENG 1 (14KS1) on 187VU (Ref. ASM 73-25/16).

1 If the fault continues:
- disconnect the harness J6 from the ECU (4000KS),
- do a resistance check between:

. pins 7 and 8 (>10 megohms)
. pins 7 and 11 (>10 megohms)
. pin 7 and the ground (>10 megohms).

a If there is an electrical short or a short to ground:
- replace the thrust reverser harness (Ref. AMM TASK 71-51-43-000-044) and (Ref. AMM TASK 71-51-43-400-044) or repair the aircraft wiring to the relay 14KS1 (Ref. ASM 73-25/16).

2 If nothing is found:
- replace the ECU (4000KS) (Ref. AMM TASK 73-21-60-000-001) and (Ref. AMM TASK 73-21-60-400-001).

(2) If the test does not give the maintenance message J6, TR ACFT SW, ECU:
- replace the RELAY-THRUST REV INHIBITION, ENG 1 (14KS1) on 187VU (Ref. ASM 73-25/16).

(a) If the fault continues:
- replace the EIU-1 (1KS1) (Ref. AMM TASK 73-25-34-000-040) and (Ref. AMM TASK 73-25-34-400-040).

(b) If the fault continues:
- replace the SEC-1 (1CE1) (Ref. AMM TASK 27-94-34-000-001) and (Ref. AMM TASK 27-94-34-400-001).

(c) If the fault continues:
- replace the SEC-2 (1CE2) (Ref. AMM TASK 27-94-34-000-001) and (Ref. AMM TASK 27-94-34-400-001).

(d) If the fault continues:
- replace the ECU (4000KS) (Ref. AMM TASK 73-21-60-000-001) and (Ref. AMM TASK 73-21-60-400-001).

(e) If the fault continues:
- do a check for a short to ground between (Ref. ASM 73-25/16):
.the EIU1 (1KS1) pin AA/4C and the SEC1 (1CE1) pin AB/15E
.the EIU1 (1KS1) pin AA/4A and the SEC2 (1CE2) pin AB/15E
.the relay (14KS1) and its related wiring.

1 If nothing is found:
- replace the thrust reverser harness (Ref. AMM TASK 71-51-43-000-044) and (Ref. AMM TASK 71-51-43-400-044).

**ON A/C ALL

B. Do the test given in Para. 3.

(1) No additional maintenance action is required if the fault is not confirmed.

(2) Repeat the fault isolation procedure if the fault continues.

TASK 71-50-00-810-808

Failure of the Thrust Reverser Inhibition Switch - Engine 2 - Channel B

1. Possible Causes

- CTL UNIT-THROTTLE, ENG 2 (8KS2)
- EIU-2 (1KS2)
- RELAY-THRUST REV INHIBITION, ENG 2 (14KS2)
- thrust reverser harness
- aircraft wiring
- ECU (4000KS)
- SEC-1 (1CE1)
- SEC-3 (1CE3)

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION
AMM 27-94-34-000-001	Removal of the SEC (1CE1,1CE2,1CE3)
AMM 27-94-34-400-001	Installation of the SEC (1CE1,1CE2,1CE3)
AMM 71-51-43-000-044	Removal of the Thrust Reverser (Channel A and B) Harness (4200KS)
AMM 71-51-43-400-044	Installation of the Thrust Reverser (Channel A and B) Harness (4200KS)
AMM 73-21-60-000-001	Removal of the Electronic Control Unit (ECU)
AMM 73-21-60-400-001	Installation of the Electronic Control Unit (ECU)
AMM 73-25-34-000-040	Removal of the Engine Interface Unit (EIU)
AMM 73-25-34-400-040	Installation of the Engine Interface Unit (EIU)
AMM 76-11-19-000-042	Removal of the Throttle Control Unit (8KS1, 8KS2)
AMM 76-11-19-400-042	Installation of the Throttle Control Unit (8KS1, 8KS2)
AMM 78-31-00-710-042	Operational Test of the Thrust Reverser System
ASM 73-25/16	
ASM 73-25/16	
ASM 78-37/01	

3. Fault Confirmation

A. Make sure that the throttle lever is not in the thrust reverser area.

B. Do the operational test of the thrust reverser system (Ref. AMM TASK 78-31-00-710-042).

4. Fault Isolation

R **ON A/C 201-225, 239-275, 282-299, 426-475, 479-499, 503-549, 551-599,
R 701-749,

A. This fault message is generated when the ECU detects an unwanted closure of the inhibition relay 14KS2 or a short or short to ground in the harness J6 or in the thrust reverser harness or in the aircraft wiring.

CAUTION : MAKE SURE THAT THERE IS NO HYDRAULIC PRESSURE WHILE YOU DO THIS TEST. PUT A WARNING NOTICE IN THE COCKPIT TO TELL PERSONS NOT TO PRESSURIZE THE HYDRAULIC SYSTEMS.

(1) If the test gives the maintenance message J6, TR ACFT SW, ECU:
- on the overhead panel 50VU, push and release the P/BSW-ENG/FADEC GND PWR/2 (7KS2) the ON legend comes on,
- remove the RELAY-THRUST REV INHIBITION, ENG 2 (14KS2) from 188VU and do a check for 28VDC at pin A/X on the relay base (Ref. ASM 73-25/16).

(a) If there is 28VDC:
- disconnect the connector E from the TCU2 (8KS2) and do a check for ground at pin E/C.

1 If there is ground:
- replace the CTL UNIT-THROTTLE, ENG 2 (8KS2) (Ref. AMM TASK 76-11-19-000-042) and (Ref. AMM TASK 76-11-19-400-042).

2 If there is no ground:
- on the overhead panel 50VU, push the P/BSW-ENG/FADEC GND PWR/2 (7KS2) the ON legend goes off,
- remove the EIU2 (1KS2) (Ref. AMM TASK 73-25-34-000-040) and disconnect the connector E from the TCU2 (8KS2),
- do a check for a short to ground between (Ref. ASM 78-37/01),
.the EIU2 (1KS2) pin AA/4C and the TCU2 (8KS2) pin E/C
.the EIU2 (1KS2) pin AA/4A and the TCU2 (8KS2) pin E/C.

3 If there is a short to ground:
- repair as required.

4 If nothing is found:
- replace the EIU-2 (1KS2) (Ref. AMM TASK 73-25-34-000-040) and (Ref. AMM TASK 73-25-34-400-040).

(b) If there is no 28VDC:
- on the overhead panel 50VU, push the P/BSW-ENG/FADEC GND PWR/2 (7KS2) the ON legend goes off,
- replace the RELAY-THRUST REV INHIBITION, ENG 2 (14KS2) on 188VU (Ref. ASM 73-25/16).

1 If the fault continues:
- disconnect the harness J6 from the ECU (4000KS),
- do a resistance check between:
  . pins 7 and 8 (>10 megohms)
  . pins 7 and 11 (>10 megohms)
  . pin 7 and the ground (>10 megohms).

a If there is an electrical short or a short to ground:
- replace the thrust reverser harness (Ref. AMM TASK 71-51-43-000-044) and (Ref. AMM TASK 71-51-43-400-044) or repair the aircraft wiring to the relay 14KS2 (Ref. ASM 73-25/16).

2 If nothing is found:
- replace the ECU (4000KS) (Ref. AMM TASK 73-21-60-000-001) and (Ref. AMM TASK 73-21-60-400-001).

(2) If the test does not give the maintenance message J6, TR ACFT SW, ECU:
- replace the RELAY-THRUST REV INHIBITION, ENG 2 (14KS2) on 188VU (Ref. ASM 73-25/16).

(a) If the fault continues:
- replace the EIU-2 (1KS2) (Ref. AMM TASK 73-25-34-000-040) and (Ref. AMM TASK 73-25-34-400-040).

(b) If the fault continues:
- replace the CTL UNIT-THROTTLE, ENG 2 (8KS2) (Ref. AMM TASK 76-11-19-000-042) and (Ref. AMM TASK 76-11-19-400-042).

(c) If the fault continues:
- replace the ECU (4000KS) (Ref. AMM TASK 73-21-60-000-001) and (Ref. AMM TASK 73-21-60-400-001).

(d) If the fault continues:
- do a check for a short to ground between (Ref. ASM 73-25/16):
  .the EIU2 (1KS2) pin AA/4C and the TCU2 (8KS2) pin E/C
  .the EIU2 (1KS2) pin AA/4A and the TCU2 (8KS2) pin E/C
  .the relay (14KS2) and its related wiring.

1 If nothing is found:
- replace the thrust reverser harness (Ref. AMM TASK 71-51-43-000-044) and (Ref. AMM TASK 71-51-43-400-044).

R **ON A/C 227-227, 229-238, 276-281, 476-478,

A. This fault message is generated when the ECU detects an unwanted closure of the inhibition relay 14KS2 or a short or short to ground in the harness J6 or in the thrust reverser harness or in the aircraft wiring.

CAUTION : MAKE SURE THAT THERE IS NO HYDRAULIC PRESSURE WHILE YOU DO THIS TEST. PUT A WARNING NOTICE IN THE COCKPIT TO TELL PERSONS NOT TO PRESSURIZE THE HYDRAULIC SYSTEMS.

(1) If the test gives the maintenance message J6, TR ACFT SW, ECU:
- on the overhead panel 50VU, push and release the P/BSW-ENG/FADEC GND PWR/2 (7KS2) the ON legend comes on,
- remove the RELAY-THRUST REV INHIBITION, ENG 2 (14KS2) from 188VU and do a check for 28VDC at pin A/X on the relay base (Ref. ASM 73-25/16).

(a) If there is 28VDC:
- on the overhead panel 50VU, push the P/BSW-ENG/FADEC GND PWR/2 (7KS2) the ON legend goes off,
- remove the EIU2 (1KS2) (Ref. AMM TASK 73-25-34-000-040), the SEC1 (1CE1) and the SEC3 (1CE3) (Ref. AMM TASK 27-94-34-000-001),
- do a check for a short to ground between (Ref. ASM 73-25/16):
.the EIU2 (1KS2) pin AA/4C and the SEC1 (1CE1) pin AE/15F
.the EIU2 (1KS2) pin AA/4A and the SEC3 (1CE3) pin AE/15F.

1 If there is a short to ground:
- repair as required.

2 If nothing is found:
- replace the EIU-2 (1KS2) (Ref. AMM TASK 73-25-34-000-040) and (Ref. AMM TASK 73-25-34-400-040).

3 If the fault continues:
- replace the SEC-1 (1CE1) (Ref. AMM TASK 27-94-34-000-001) and (Ref. AMM TASK 27-94-34-400-001).

4 If the fault continues:
- replace the SEC-3 (1CE3) (Ref. AMM TASK 27-94-34-000-001) and (Ref. AMM TASK 27-94-34-400-001).

(b) If there is no 28VDC:
- on the overhead panel 50VU, push the P/BSW-ENG/FADEC GND PWR/2 (7KS2) the ON legend goes off,
- replace the RELAY-THRUST REV INHIBITION, ENG 2 (14KS2) on 188VU (Ref. ASM 73-25/16).

1 If the fault continues:
- disconnect the harness J6 from the ECU (4000KS),
- do a resistance check between:

. pins 7 and 8 (>10 megohms)
. pins 7 and 11 (>10 megohms)
. pin 7 and the ground (>10 megohms).

a If there is an electrical short or a short to ground:
- replace the thrust reverser harness (Ref. AMM TASK 71-51-43-000-044) and (Ref. AMM TASK 71-51-43-400-044) or repair the aircraft wiring to the relay 14KS2 (Ref. ASM 73-25/16).

2 If nothing is found:
- replace the ECU (4000KS) (Ref. AMM TASK 73-21-60-000-001) and (Ref. AMM TASK 73-21-60-400-001).

(2) If the test does not give the maintenance message J6, TR ACFT SW, ECU:
- replace the RELAY-THRUST REV INHIBITION, ENG 2 (14KS2) on 188VU (Ref. ASM 73-25/16).

(a) If the fault continues:
- replace the EIU-2 (1KS2) (Ref. AMM TASK 73-25-34-000-040) and (Ref. AMM TASK 73-25-34-400-040).

(b) If the fault continues:
- replace the SEC-1 (1CE1) (Ref. AMM TASK 27-94-34-000-001) and (Ref. AMM TASK 27-94-34-400-001).

(c) If the fault continues:
- replace the SEC-3 (1CE3) (Ref. AMM TASK 27-94-34-000-001) and (Ref. AMM TASK 27-94-34-400-001).

(d) If the fault continues:
- replace the ECU (4000KS) (Ref. AMM TASK 73-21-60-000-001) and (Ref. AMM TASK 73-21-60-400-001).

(e) If the fault continues:
- do a check for a short to ground between (Ref. ASM 73-25/16):
.the EIU2 (1KS2) pin AA/4C and the SEC1 (1CE1) pin AE/15F
.the EIU2 (1KS2) pin AA/4A and the SEC3 (1CE3) pin AE/15F
.the relay (14KS2) and its related wiring.

1 If nothing is found:
- replace the thrust reverser harness (Ref. AMM TASK 71-51-43-000-044) and (Ref. AMM TASK 71-51-43-400-044).

**ON A/C ALL

B. Do the test given in Para. 3.

(1) No additional maintenance action is required if the fault is not confirmed.

(2) Repeat the fault isolation procedure if the fault continues.

TASK 71-50-00-810-809

Loss of the A/THR Control on Engine 1

1. Possible Causes

- A/THR 1 relay (5CA1)
- harness J3
- ECU (4000KS)

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION
AMM 71-51-43-000-044	Removal of the Thrust Reverser (Channel A and B) Harness (4200KS)
AMM 71-51-43-400-044	Installation of the Thrust Reverser (Channel A and B) Harness (4200KS)
AMM 73-21-60-000-001	Removal of the Electronic Control Unit (ECU)(4000KS)
AMM 73-21-60-400-001	Installation of the Electronic Control Unit (ECU)(4000KS)
AMM 73-29-00-710-040	Operational Test of the FADEC on the Ground (with Engine non Motoring)
ASM 73-25/12	

3. Fault Confirmation

A. Test

(1) Do the operational test of the FADEC 1A on the ground (with engine non motoring) (Ref. AMM TASK 73-29-00-710-040).

4. Fault Isolation

A. If the test gives the maintenance message J3 (INSTINCT DISC):
- do a visual check of the connector J3 at the ECU (4000KS) for integrity (Ref. ASM 73-25/12).

(1) If the fault continues:
- do a check for open circuit at the harness J3 between pins 6 and 31.

(2) If the fault continues:
- replace the A/THR 1 relay (5CA1) (Ref. ASM 73-25/12).

(3) If the fault continues:
- replace the harness J3 (Ref. AMM TASK 71-51-43-000-044) and (Ref. AMM TASK 71-51-43-400-044).

(4) If the fault continues:
- replace the ECU (4000KS) (Ref. AMM TASK 73-21-60-000-001) and (Ref. AMM TASK 73-21-60-400-001).

B. Do the test given in Para. 3.A.

TASK 71-50-00-810-810

Loss of the A/THR Control on Engine 2

1. Possible Causes

- RELAY - A/THR 2 INST DISC
- harness J3
- ECU (4000KS)

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION
AMM 71-51-43-000-044	Removal of the Thrust Reverser (Channel A and B) Harness (4200KS)
AMM 71-51-43-400-044	Installation of the Thrust Reverser (Channel A and B) Harness (4200KS)
AMM 73-21-60-000-001	Removal of the Electronic Control Unit (ECU)(4000KS)
AMM 73-21-60-400-001	Installation of the Electronic Control Unit (ECU)(4000KS)
AMM 73-29-00-710-040	Operational Test of the FADEC on the Ground (with Engine non Motoring)
ASM 73-25/12	

3. Fault Confirmation

A. Test

(1) Do the operational test of the FADEC 2A on the ground (with engine non motoring) (Ref. AMM TASK 73-29-00-710-040).

4. Fault Isolation

A. If the test gives the maintenance message J3 (INSTINCT DISC):
- do a visual check of the connector J3 at the ECU (4000KS) for integrity (Ref. ASM 73-25/12).

(1) If the fault continues:
- do a check for open circuit at the harness J3 between pins 6 and 31.

(2) If the fault continues:
- replace the RELAY - A/THR 2 INST DISC (Ref. ASM 73-25/12).

(3) If the fault continues:
- replace the harness J3 (Ref. AMM TASK 71-51-43-000-044) and (Ref. AMM TASK 71-51-43-400-044).

(4) If the fault continues:
- replace the ECU (4000KS) (Ref. AMM TASK 73-21-60-000-001) and (Ref. AMM TASK 73-21-60-400-001).

B. Do the test given in Para. 3.A.

TASK 71-50-00-810-811

Loss of All Signals from the EIU to the FADEC on Engine 1

1. Possible Causes

- EIU-1 (1KS1)
- ENGINE/1/FADEC A/AND EIU 1 (2KS1)
- ENGINE/ENG1/FADEC B/AND EIU (4KS1)
- connector J3 at the ECU (4000KS)
- harness J3
- ECU (4000KS)

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION
AMM 73-21-60-000-001	Removal of the Electronic Control Unit (ECU)(4000KS)
AMM 73-21-60-400-001	Installation of the Electronic Control Unit (ECU)(4000KS)
AMM 73-25-34-000-040	Removal of the Engine Interface Unit (EIU) (1KS1,1KS2)
AMM 73-25-34-400-040	Installation of the Engine Interface Unit (EIU) (1KS1,1KS2)
AMM 73-29-00-710-040	Operational Test of the FADEC on the Ground (with Engine non Motoring)
ASM 73-25/05	
ASM 73-25/10	

3. Fault Confirmation

A. Table of the circuit breakers used in this procedure:

PANEL	DESIGNATION	IDENT.	LOCATION
49VU	ENGINE/1/FADEC A/AND EIU 1	2KS1	A04
121VU	ENGINE/ENG1/FADEC B/AND EIU 1	4KS1	R41

B. Do the operational test of the FADEC 1A on the ground (with engine non motoring) (Ref. AMM TASK 73-29-00-710-040).

4. Fault Isolation

A. If the test gives the maintenance message EIU (ARINC), J3:
- do a visual check of the connector J3 at the ECU (4000KS) for integrity (Ref. ASM 73-25/10).

(1) If the fault continues do a check of the status of circuit breakers 2KS1 and 4KS1 (Ref. ASM 73-25/05).

(a) If the circuit breakers 2KS1 and 4KS1 are closed:
- do a check for 28VDC at EIU 1 pins AC/9, 11.

1 If there is 28VDC:
- replace the EIU-1 (1KS1) (Ref. AMM TASK 73-25-34-000-040) and (Ref. AMM TASK 73-25-34-400-040).

2 If there is not 28VDC:
- do a check of the wiring between the circuit breakers 2KS1 and 4KS1 and the EIU 1 pins AC/9, 11.
- if there is no continuity:
- repair the wiring.
- if there is continuity:
- replace the ENGINE/1/FADEC A/AND EIU 1 (2KS1) and/or ENGINE/ENG1/FADEC B/AND EIU (4KS1).

(b) If the circuit breakers 2KS1 and/or 4KS1 are open:
- close them.

1 If they trip again:
- replace the EIU-1 (1KS1) (Ref. AMM TASK 73-25-34-000-040) and (Ref. AMM TASK 73-25-34-400-040).

a If the fault continues:
- do a check of the wiring for short to ground between the circuit breakers 2KS1 and/or 4KS1 and the EIU 1.
- if the wiring is not correct:
- repair it.
- if the wiring is correct:
- replace the ENGINE/1/FADEC A/AND EIU 1 (2KS1) and/or ENGINE/ENG1/FADEC B/AND EIU (4KS1).

(2) If the fault continues:
- replace the harness J3.

(3) If the fault continues:
- replace the ECU (4000KS) (Ref. AMM TASK 73-21-60-000-001) and (Ref. AMM TASK 73-21-60-400-001).

B. Do the test given in Para. 3.A.

TASK 71-50-00-810-812

Loss of all Signals from the EIU to the FADEC on Engine 2

1. Possible Causes

- EIU-2 (1KS2)
- ENGINE/2/FADEC A/AND EIU 2 (2KS2)
- ENGINE/ENG2/FADEC B (4KS2)
- connector J3 at the ECU (4000KS)
- harness J3
- ECU (4000KS)

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION
AMM 73-21-60-000-001	Removal of the Electronic Control Unit (ECU)(4000KS)
AMM 73-21-60-400-001	Installation of the Electronic Control Unit (ECU)(4000KS)
AMM 73-25-34-000-040	Removal of the Engine Interface Unit (EIU) (1KS1,1KS2)
AMM 73-25-34-400-040	Installation of the Engine Interface Unit (EIU) (1KS1,1KS2)
AMM 73-29-00-710-040	Operational Test of the FADEC on the Ground (with Engine non Motoring)
ASM 73-25/05	
ASM 73-25/10	

3. Fault Confirmation

A. Table of the circuit breakers used in this procedure:

PANEL	DESIGNATION	IDENT.	LOCATION
49VU	ENGINE/2/FADEC A/AND EIU 2	2KS2	A05
121VU	ENGINE/ENG2/FADEC B	4KS2	Q40

B. Do the operational test of the FADEC 2A on the ground (with engine motoring) (Ref. AMM TASK 73-29-00-710-040).

4. Fault Isolation

A. If the test gives the maintenance message EIU (ARINC), J3:
- do a visual check of the connector J3 at the ECU (4000KS) for integrity (Ref. ASM 73-25/10).

(1) If the fault continues do a check of the status of circuit breakers 2KS2 and 4KS2 (Ref. ASM 73-25/05).

(a) If the circuit breakers 2KS2 and 4KS2 are closed:
- do a check for 28VDC at EIU 2 pins AC/9, 11.

1 If there is 28VDC:
- replace the EIU-2 (1KS2) (Ref. AMM TASK 73-25-34-000-040) and (Ref. AMM TASK 73-25-34-400-040).

2 If there is not 28VDC:
- do a check of the wiring between the circuit breakers 2KS2 and 4KS2 and the EIU 1 pins AC/9, 11.
- if there is no continuity:
- repair the wiring.
- if there is continuity:
- replace the ENGINE/2/FADEC A/AND EIU 2 (2KS2) and/or ENGINE/ENG2/FADEC B (4KS2).

(b) If the circuit breakers 2KS2 and/or 4KS2 are open:
- close them.

1 If they trip again:
- replace the EIU-2 (1KS2) (Ref. AMM TASK 73-25-34-000-040) and (Ref. AMM TASK 73-25-34-400-040).

a If the fault continues:
- do a check of the wiring for short to ground between the circuit breakers 2KS2 and/or 4KS2 and the EIU 1.
- if the wiring is not correct:
- repair it.
- if the wiring is correct:
- replace the ENGINE/2/FADEC A/AND EIU 2 (2KS2) and/or ENGINE/ENG2/FADEC B (4KS2).

(2) If the fault continues:
- replace the harness J3.

(3) If the fault continues:
- replace the ECU (4000KS) (Ref. AMM TASK 73-21-60-000-001) and (Ref. AMM TASK 73-21-60-400-001).

B. Do the test given in Para. 3.A.

TASK 71-50-00-810-813

Loss of the ADIRU1 Signal to the ECU on Engine 1

1. Possible Causes

- harness J3
- ADIRU-1 (1FP1)
- ECU (4000KS)
- aircraft wiring between the ADIRU1 (1FP1) and the connector 402VC1 on the pylon junction box

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION
AMM 34-12-34-000-001	Removal of the ADIRU (1FP1, 1FP2, 1FP3)
AMM 34-12-34-400-001	Installation of the ADIRU (1FP1, 1FP2, 1FP3)
AMM 73-21-60-000-001	Removal of the Electronic Control Unit (ECU)(4000KS)
AMM 73-21-60-400-001	Installation of the Electronic Control Unit (ECU)(4000KS)
AMM 73-29-00-710-040	Operational Test of the FADEC on the Ground (with Engine non Motoring)
ASM 73-25/10	
AWM 71-51-04	
AWM 73-25-25	

3. Fault Confirmation

A. Test

(1) Do the operational test of the FADEC 1A on the ground (with engine non motoring) (Ref. AMM TASK 73-29-00-710-040).

4. Fault Isolation

A. If the test gives the maintenance message J3, ADC1 or J3, ADC1*:
- do a check for open or short to ground of the harness J3 between the ECU (4000KS) and the connector 402VC1 on the pylon junction box, pins J3/9, 2 to pins 402VC1/28, 14 (Ref. AWM 71-51-04).

(1) If the fault continues:
- replace the harness J3.

(2) If the fault continues:
- replace the ADIRU-1 (1FP1) (Ref. AMM TASK 34-12-34-000-001) and (Ref. AMM TASK 34-12-34-400-001).

(3) If the fault continues:
- replace the ECU (4000KS) (Ref. AMM TASK 73-21-60-000-001) and (Ref. AMM TASK 73-21-60-400-001).

(4) If the fault continues:
- do a check and repair the aircraft wiring between the ADIRU1 (1FP1) and the connector 402VC1 on the pylon junction box, pins AA/12B, 12D to pins 402VC1/14, 28 (Ref. AWM 73-25-25) and (Ref. ASM 73-25/10).

B. Do the test given in Para. 3.

TASK 71-50-00-810-814

Loss of the ADIRU1 Signal to the ECU on Engine 2

1. Possible Causes

- harness J3
- ADIRU-1 (1FP1)
- ECU (4000KS)
- aircraft wiring between the ADIRU1 (1FP1) and the connector 402VC2 on the pylon junction box

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION
AMM 34-12-34-000-001	Removal of the ADIRU (1FP1, 1FP2, 1FP3)
AMM 34-12-34-400-001	Installation of the ADIRU (1FP1, 1FP2, 1FP3)
AMM 73-21-60-000-001	Removal of the Electronic Control Unit (ECU)(4000KS)
AMM 73-21-60-400-001	Installation of the Electronic Control Unit (ECU)(4000KS)
AMM 73-29-00-710-040	Operational Test of the FADEC on the Ground (with Engine non Motoring)
ASM 73-25/10	
AWM 71-51-04	
AWM 73-25-25	

3. Fault Confirmation

A. Test

(1) Do the operational test of the FADEC 2A on the ground (with engine non motoring) (Ref. AMM TASK 73-29-00-710-040).

4. Fault Isolation

A. If the test gives the maintenance message J3, ADC1 or J3, ADC1*:
- do a check for open or short to ground of the harness J3 between the ECU (4000KS) and the connector 402VC2 on the pylon junction box, pins J3/9, 2 to pins 402VC2/28, 14 (Ref. AWM 71-51-04).

(1) If the fault continues:
- replace the harness J3.

(2) If the fault continues:
- replace the ADIRU-1 (1FP1) (Ref. AMM TASK 34-12-34-000-001) and (Ref. AMM TASK 34-12-34-400-001).

(3) If the fault continues:
- replace the ECU (4000KS) (Ref. AMM TASK 73-21-60-000-001) and (Ref. AMM TASK 73-21-60-400-001).

(4) If the fault continues:
- do a check and repair the aircraft wiring between the ADIRU1 (1FP1) and the connector 402VC2 on the pylon junction box: pins AA/14B, 14D to pins 402VC2/14, 28 (Ref. AWM 73-25-25) and (Ref. ASM 73-25/10).

B. Do the test given in Para. 3.

TASK 71-50-00-810-815

Loss of the ADIRU2 Signal to the ECU on Engine 1

1. Possible Causes

- harness J4
- ADIRU-2 (1FP2)
- ECU (4000KS)
- aircraft wiring between the ADIRU2 (1FP2) and the connector 403VC1 on the pylon junction box

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION
AMM 34-12-34-000-001	Removal of the ADIRU (1FP1, 1FP2, 1FP3)
AMM 34-12-34-400-001	Installation of the ADIRU (1FP1, 1FP2, 1FP3)
AMM 73-21-60-000-001	Removal of the Electronic Control Unit (ECU)(4000KS)
AMM 73-21-60-400-001	Installation of the Electronic Control Unit (ECU)(4000KS)
AMM 73-29-00-710-040	Operational Test of the FADEC on the Ground (with Engine non Motoring)
ASM 73-25/10	
AWM 71-51-04	
AWM 73-25-33	

3. Fault Confirmation

A. Test

(1) Do the operational test of the FADEC 1A on the ground (with engine non motoring) (Ref. AMM TASK 73-29-00-710-040).

4. Fault Isolation

A. If the test gives the maintenance message J4, ADC2 or J4, ADC2*:
- do a check for open or short to ground of the harness J4 between the ECU (4000KS) and the connector 403VC1 on the pylon junction box, pins J4/9, 2 to pins 403VC1/28, 14 (Ref. AWM 71-51-04).

(1) If the fault continues:
- replace the harness J4.

(2) If the fault continues:
- replace the ADIRU-2 (1FP2) (Ref. AMM TASK 34-12-34-000-001) and (Ref. AMM TASK 34-12-34-400-001).

(3) If the fault continues:
- replace the ECU (4000KS) (Ref. AMM TASK 73-21-60-000-001) and (Ref. AMM TASK 73-21-60-400-001).

(4) If the fault continues:
- do a check and repair the aircraft wiring between the ADIRU2 (1FP2) and the connector 403VC1 on the pylon junction box, pins AA/12B, 12D to pins 403VC1/14, 28 (Ref. AWM 73-25-33) and (Ref. ASM 73-25/10).

B. Do the test given in Para. 3.

TASK 71-50-00-810-816

Loss of the ADIRU 2 Signal to the ECU on Engine 2

1. Possible Causes

- harness J4
- ADIRU-2 (1FP2)
- ECU (4000KS)
- aircraft wiring between the ADIRU2 (1FP2) and the connector 403VC2 on the pylon junction box

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION
AMM 34-12-34-000-001	Removal of the ADIRU (1FP1, 1FP2, 1FP3)
AMM 34-12-34-400-001	Installation of the ADIRU (1FP1, 1FP2, 1FP3)
AMM 73-21-60-000-001	Removal of the Electronic Control Unit (ECU)(4000KS)
AMM 73-21-60-400-001	Installation of the Electronic Control Unit (ECU)(4000KS)
AMM 73-29-00-710-040	Operational Test of the FADEC on the Ground (with Engine non Motoring)
ASM 73-25/10	
AWM 71-51-04	
AWM 73-25-34	

3. Fault Confirmation

A. Test

(1) Do the operational test of the FADEC 2A on the ground (with engine non motoring) (Ref. AMM TASK 73-29-00-710-040).

4. Fault Isolation

A. If the test gives the maintenance message J4, ADC2 or J4, ADC2*:
- do a check for open or short to ground of the harness J4 between the ECU (4000KS) and the connector 403VC2 on the pylon junction box, pins J4/9, 2 to pins 403VC2/28, 14 (Ref. AWM 71-51-04).

(1) If the fault continues:
- replace the harness J4.

(2) If the fault continues:
- replace the ADIRU-2 (1FP2) (Ref. AMM TASK 34-12-34-000-001) and (Ref. AMM TASK 34-12-34-400-001).

(3) If the fault continues:
- replace the ECU (4000KS) (Ref. AMM TASK 73-21-60-000-001) and (Ref. AMM TASK 73-21-60-400-001).

(4) If the fault continues:
- do a check and repair the aircraft wiring between the ADIRU2 (1FP2) and the connector 403VC2 on the pylon junction box: pins AA/14B, 14D to pins 403VC2/14, 28 (Ref. AWM 73-25-34) and (Ref. ASM 73-25/10).

B. Do the test given in Para. 3.

TASK 71-50-00-810-822

Loss of the A/THR Control on Engine 1

1. Possible Causes

- A/THR 1 relay (5CA1)
- harness J3
- ECU (4000KS)

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION
AMM 71-51-43-000-044	Removal of the Thrust Reverser (Channel A and B) Harness (4200KS)
AMM 71-51-43-400-044	Installation of the Thrust Reverser (Channel A and B) Harness (4200KS)
AMM 73-21-60-000-001	Removal of the Electronic Control Unit (ECU)(4000KS)
AMM 73-21-60-400-001	Installation of the Electronic Control Unit (ECU)(4000KS)
AMM 73-29-00-710-040	Operational Test of the FADEC on the Ground (with Engine non Motoring)
ASM 73-25/12	

3. Fault Confirmation

A. Test

(1) Do the operational test of the FADEC 1B on the ground (with engine non motoring) (Ref. AMM TASK 73-29-00-710-040).

4. Fault Isolation

A. If the test gives the maintenance message J3 (INSTINCT DISC):
- do a visual check of the connector J3 at the ECU (4000KS) for integrity (Ref. ASM 73-25/12).

(1) If the fault continues:
- do a check for open circuit at the harness J3 between pins 6 and 31.

(2) If the fault continues:
- replace the A/THR 1 relay (5CA1) (Ref. ASM 73-25/12).

(3) If the fault continues:
- replace the harness J3 (Ref. AMM TASK 71-51-43-000-044) and (Ref. AMM TASK 71-51-43-400-044).

(4) If the fault continues:
- replace the ECU (4000KS) (Ref. AMM TASK 73-21-60-000-001) and (Ref. AMM TASK 73-21-60-400-001).

B. Do the test given in Para. 3.A.

TASK 71-50-00-810-823

Loss of the A/THR Control on Engine 2

1. Possible Causes

- RELAY - A/THR 2 INST DISC
- harness J3
- ECU (4000KS)

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION
AMM 71-51-43-000-044	Removal of the Thrust Reverser (Channel A and B) Harness (4200KS)
AMM 71-51-43-400-044	Installation of the Thrust Reverser (Channel A and B) Harness (4200KS)
AMM 73-21-60-000-001	Removal of the Electronic Control Unit (ECU)(4000KS)
AMM 73-21-60-400-001	Installation of the Electronic Control Unit (ECU)(4000KS)
AMM 73-29-00-710-040	Operational Test of the FADEC on the Ground (with Engine non Motoring)
ASM 73-25/12	

3. Fault Confirmation

A. Test

(1) Do the operational test of the FADEC 2B on the ground (with engine non motoring) (Ref. AMM TASK 73-29-00-710-040).

4. Fault Isolation

A. If the test gives the maintenance message J3 (INSTINCT DISC):
- do a visual check of the connector J3 at the ECU (4000KS) for integrity (Ref. ASM 73-25/12).

(1) If the fault continues:
- do a check for open circuit at the harness J3 between pins 6 and 31.

(2) If the fault continues:
- replace the RELAY - A/THR 2 INST DISC (Ref. ASM 73-25/12).

(3) If the fault continues:
- replace the harness J3 (Ref. AMM TASK 71-51-43-000-044) and (Ref. AMM TASK 71-51-43-400-044).

(4) If the fault continues:
- replace the ECU (4000KS) (Ref. AMM TASK 73-21-60-000-001) and (Ref. AMM TASK 73-21-60-400-001).

B. Do the test given in Para. 3.A.

TASK 71-50-00-810-824

Loss of the 115VAC Power Supply on the ECU 1

1. Possible Causes

- EIU-1 (1KS1)
- ECU (4000KS)
- J1 harness
- wiring
- C/B-ENGINE/1 AND 2/IGN/SYS A (1JH)

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION
AMM 73-21-60-000-001	Removal of the Electronic Control Unit (ECU)(4000KS)
AMM 73-21-60-400-001	Installation of the Electronic Control Unit (ECU)(4000KS)
AMM 73-25-34-000-040	Removal of the Engine Interface Unit (EIU) (1KS1,1KS2)
AMM 73-25-34-400-040	Installation of the Engine Interface Unit (EIU) (1KS1,1KS2)
AMM 73-29-00-710-040	Operational Test of the FADEC on the Ground (with Engine non Motoring)
ASM 74-31/01	

3. Fault Confirmation

A. Make sure that this(these) circuit breaker(s) is(are) closed:

PANEL	DESIGNATION	IDENT.	LOCATION
49VU	ENGINE/1 AND 2/IGN/SYS A	1JH	A03

B. Test

(1) If you cannot close the circuit breaker (1JH), refer to Para. 4.B.

(2) Do the operational test of the FADEC 1B on the ground (with engine non motoring) (Ref. AMM TASK 73-29-00-710-040).

4. Fault Isolation

A. If the circuit breaker (1JH) is closed and if the test gives the maintenance message J1, 115 VAC, ECU:

R CAUTION : WHEN THE "ENG/MASTER" LEVER IS IN THE "ON" POSITION, BE VERY
R CAREFUL NOT TO SET THE "ENG/MODE" SELECTOR SWITCH TO "CRANK" OR
R "IGN/START".
R IF YOU DO SET THE SELECTOR SWITCH TO ONE OF THESE POSITIONS,
R THE ENGINE WILL START. THERE IS THUS A RISK OF INJURY TO
R PERSONS AND OF DAMAGE TO EQUIPMENT.

R - On the panel 115 VU, set the MASTER switch to "ON".
- do a check for 115VAC at the ECU (4000KS) pins J1/7, 8 (Ref. ASM 74-31/01).
R - On the panel 115 VU, set the MASTER switch to "OFF".

(1) If there is 115VAC:
- replace the ECU (4000KS) (Ref. AMM TASK 73-21-60-000-001) and (Ref. AMM TASK 73-21-60-400-001).

(2) If there is no 115VAC:
- do a check for 115VAC at the EIU-1 (1KS1) pin AB/14F.

(a) If there is 115VAC:
- replace the EIU-1 (1KS1) (Ref. AMM TASK 73-25-34-000-040) and (Ref. AMM TASK 73-25-34-400-040).

1 If the fault continues:
- replace the J1 harness between the EIU-1 (1KS1) and the ECU (4000KS).

(b) If there is no 115VAC:
- do a check of the wiring between the EIU-1 (1KS1) pin AB/14F and the circuit breaker (1JH).

1 If there is no continuity:
- repair the above wiring.

2 If there is continuity:
- replace the C/B-ENGINE/1 AND 2/IGN/SYS A (1JH).

(3) If the fault continues:
- make sure that there is no ground signal at the EIU-1 (1KS1) pin AA/5B.

B. If the circuit breaker (1JH) is open:
- close it.

(1) If the circuit breaker trips:
- remove the ECU (4000KS) (Ref. AMM TASK 73-21-60-000-001) and
- remove the EIU-1 (1KS1) (Ref. AMM TASK 73-25-34-000-040).

(2) If the circuit breaker trips again:
- do a check and repair the wiring for short to ground between the EIU-1 (1KS1) pin AB/14F and the circuit breaker (1JH).

(a) If the fault continues:
- replace the C/B-ENGINE/1 AND 2/IGN/SYS A (1JH).

(3) If the circuit breaker stays closed:
- install the EIU-1 (1KS1) (Ref. AMM TASK 73-25-34-400-040).

(a) If the circuit breaker trips:
- replace the EIU-1 (1KS1) (Ref. AMM TASK 73-25-34-000-040) and (Ref. AMM TASK 73-25-34-400-040).

(b) If the circuit breaker stays closed:
- install the ECU (4000KS) (Ref. AMM TASK 73-21-60-400-001).

1 If the circuit breaker trips:
- replace the ECU (4000KS) (Ref. AMM TASK 73-21-60-000-001) and (Ref. AMM TASK 73-21-60-400-001).

2 If the circuit breaker trips again:
- do a check and repair the wiring between the ECU (4000KS) pins J1/7, 8 and the EIU-1 (1KS1) pin AB/14B.

(4) If the fault continues:
- make sure that there is no ground signal at the EIU-1 (1KS1) pin AA/5B.

C. Do the test given in Para. 3.

TASK 71-50-00-810-825

Loss of the 115VAC Power Supply on the ECU 2

1. Possible Causes

- EIU-2 (1KS2)
- ECU (4000KS)
- J1 harness
- wiring
- C/B-ENGINE/1 AND 2/IGN/SYS A (1JH)

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION
AMM 73-21-60-000-001	Removal of the Electronic Control Unit (ECU)(4000KS)
AMM 73-21-60-400-001	Installation of the Electronic Control Unit (ECU)(4000KS)
AMM 73-25-34-000-040	Removal of the Engine Interface Unit (EIU) (1KS1,1KS2)
AMM 73-25-34-400-040	Installation of the Engine Interface Unit (EIU) (1KS1,1KS2)
AMM 73-29-00-710-040	Operational Test of the FADEC on the Ground (with Engine non Motoring)
ASM 74-31/01	

3. Fault Confirmation

A. Make sure that this(these) circuit breaker(s) is(are) closed:

PANEL	DESIGNATION	IDENT.	LOCATION
49VU	ENGINE/1 AND 2/IGN/SYS A	1JH	A03

B. Test

(1) If you cannot close the circuit breaker (1JH), refer to Para. 4.B.

(2) Do the operational test of the FADEC 2B on the ground (with engine non motoring) (Ref. AMM TASK 73-29-00-710-040).

4. Fault Isolation

A. If the circuit breaker (1JH) is closed and if the test gives the maintenance message J1, 115 VAC, ECU:

R CAUTION : WHEN THE "ENG/MASTER" LEVER IS IN THE "ON" POSITION, BE VERY
R CAREFUL NOT TO SET THE "ENG/MODE" SELECTOR SWITCH TO "CRANK" OR
R "IGN/START".
R IF YOU DO SET THE SELECTOR SWITCH TO ONE OF THESE POSITIONS,
R THE ENGINE WILL START. THERE IS THUS A RISK OF INJURY TO
R PERSONS AND OF DAMAGE TO EQUIPMENT.

R - On the panel 115 VU, set the MASTER switch to "ON".
- do a check for 115VAC at the ECU (4000KS) pins J1/7, 8 (Ref. ASM 74-31/01).
R - On the panel 115 VU, set the MASTER switch to "OFF".

(1) If there is 115VAC:
- replace the ECU (4000KS) (Ref. AMM TASK 73-21-60-000-001) and (Ref. AMM TASK 73-21-60-400-001).

(2) If there is no 115VAC:
- do a check for 115VAC at the EIU-2 (1KS2) pin AB/14F.

(a) If there is 115VAC:
- replace the EIU-2 (1KS2) (Ref. AMM TASK 73-25-34-000-040) and (Ref. AMM TASK 73-25-34-400-040).

1 If the fault continues:
- replace the J1 harness between the EIU-2 (1KS2) and the ECU (4000KS).

(b) If there is no 115VAC:
- do a check of the wiring between the EIU-2 (1KS2) pin AB/14F and the circuit breaker (1JH).

1 If there is no continuity:
- repair the above wiring.

2 If there is continuity:
- replace the C/B-ENGINE/1 AND 2/IGN/SYS A (1JH).

(3) If the fault continues:
- make sure that there is no ground signal at the EIU-2 (1KS2) pin AA/5B.

B. If the circuit breaker (1JH) is open:
- close it.

(1) If the circuit breaker trips:
- remove the ECU (4000KS) (Ref. AMM TASK 73-21-60-000-001) and
- remove the EIU-2 (1KS2) (Ref. AMM TASK 73-25-34-000-040).

(2) If the circuit breaker trips again:
- do a check and repair the wiring for short to ground between the EIU-2 (1KS2) pin AB/14F and the circuit breaker (1JH).

(a) If the fault continues:
- replace the C/B-ENGINE/1 AND 2/IGN/SYS A (1JH).

(3) If the circuit breaker stays closed:
- install the EIU-2 (1KS2) (Ref. AMM TASK 73-25-34-400-040).

(a) If the circuit breaker trips:
- replace the EIU-2 (1KS2) (Ref. AMM TASK 73-25-34-000-040) and (Ref. AMM TASK 73-25-34-400-040).

(b) If the circuit breaker stays closed:
- install the ECU (4000KS) (Ref. AMM TASK 73-21-60-400-001).

1 If the circuit breaker trips:
- replace the ECU (4000KS) (Ref. AMM TASK 73-21-60-000-001) and (Ref. AMM TASK 73-21-60-400-001).

2 If the circuit breaker trips again:
- do a check and repair the wiring between the ECU (4000KS) pins J1/7, 8 and the EIU-2 (1KS2) pin AB/14B.

(4) If the fault continues:
- make sure that there is no ground signal at the EIU-2 (1KS2) pin AA/5B.

C. Do the test given in Para. 3.

TASK 71-50-00-810-826

Loss of the 115VAC Power Supply on the ECU 1

1. Possible Causes

- EIU-1 (1KS1)
- ECU (4000KS)
- J2 harness
- wiring
- C/B-ENGINE/IGN/ENG1/SYS B (3JH1)

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION
AMM 73-21-60-000-001	Removal of the Electronic Control Unit (ECU)(4000KS)
AMM 73-21-60-400-001	Installation of the Electronic Control Unit (ECU)(4000KS)
AMM 73-25-34-000-040	Removal of the Engine Interface Unit (EIU) (1KS1,1KS2)
AMM 73-25-34-400-040	Installation of the Engine Interface Unit (EIU) (1KS1,1KS2)
AMM 73-29-00-710-040	Operational Test of the FADEC on the Ground (with Engine non Motoring)
ASM 74-31/01	

3. Fault Confirmation

A. Make sure that this(these) circuit breaker(s) is(are) closed:

PANEL	DESIGNATION	IDENT.	LOCATION
121VU	ENGINE/IGN/ENG1/SYS B	3JH1	P41

B. Test

(1) If you cannot close the circuit breaker (3JH1), refer to Para. 4.B.

(2) Do the operational test of the FADEC 1B on the ground (with engine non motoring) (Ref. AMM TASK 73-29-00-710-040).

4. Fault Isolation

A. If the circuit breaker (3JH1) is closed and if the test gives the maintenance message J2, 115 VOLTS AC:

R CAUTION : WHEN THE "ENG/MASTER" LEVER IS IN THE "ON" POSITION, BE VERY
R CAREFUL NOT TO SET THE "ENG/MODE" SELECTOR SWITCH TO "CRANK" OR
R "IGN/START".
R IF YOU DO SET THE SELECTOR SWITCH TO ONE OF THESE POSITIONS,
R THE ENGINE WILL START. THERE IS THUS A RISK OF INJURY TO
R PERSONS AND OF DAMAGE TO EQUIPMENT.

R - On the panel 115 VU, set the MASTER switch to "ON".
- do a check for 115VAC at the ECU (4000KS) pins J2/7, 8 (Ref. ASM 74-31/01).
R - On the panel 115 VU, set the MASTER switch to "OFF".

(1) If there is 115VAC:
- replace the ECU (4000KS) (Ref. AMM TASK 73-21-60-000-001) and (Ref. AMM TASK 73-21-60-400-001).

(2) If there is no 115VAC:
- do a check for 115VAC at the EIU-1 (1KS1) pin AC/1.

(a) If there is 115VAC:
- replace the EIU-1 (1KS1) (Ref. AMM TASK 73-25-34-000-040) and (Ref. AMM TASK 73-25-34-400-040).

1 If the fault continues:
- replace the J2 harness between the EIU-1 (1KS1) and the ECU (4000KS).

(b) If there is no 115VAC:
- do a check of the wiring between the EIU-1 (1KS1) pin AC/1 and the circuit breaker (3JH1).

1 If there is no continuity:
- repair the above wiring.

2 If there is continuity:
- replace the C/B-ENGINE/IGN/ENG1/SYS B (3JH1).

(3) If the fault continues:
- make sure that there is no ground signal at the EIU-1 (1KS1) pin AA/5B.

B. If the circuit breaker (3JH1) is open:
- close it.

(1) If the circuit breaker trips:
- remove the ECU (4000KS) (Ref. AMM TASK 73-21-60-000-001)
- remove the EIU-1 (1KS1) (Ref. AMM TASK 73-25-34-000-040).

(2) If the circuit breaker trips again:
- do a check and repair the wiring for short to ground between the EIU-1 pin AC/1 and the circuit breaker (3JH1).

(a) If the fault continues:
- replace the C/B-ENGINE/IGN/ENG1/SYS B (3JH1).

(3) If the circuit breaker stays closed:
- install the EIU-1 (1KS1) (Ref. AMM TASK 73-25-34-400-040).

(a) If the circuit breaker trips:
- replace the EIU-1 (1KS1) (Ref. AMM TASK 73-25-34-000-040) and (Ref. AMM TASK 73-25-34-400-040).

(b) If the circuit breaker stays closed:
- install the ECU (4000KS) (Ref. AMM TASK 73-21-60-400-001).

1 If the circuit breaker trips:
- replace the ECU (4000KS) (Ref. AMM TASK 73-21-60-000-001) and (Ref. AMM TASK 73-21-60-400-001).

2 If the circuit breaker trips again:
- do a check and repair the wiring between the ECU (4000KS) pins J2/7, 8 and the EIU-1 pin AC/4.

(4) If the fault continues:
- make sure that there is no ground signal at the EIU-1 (1KS1) pin AA/5B.

C. Do the test given in Para. 3.A.

TASK 71-50-00-810-827

Loss of the 115VAC Power Supply on the ECU 2

1. Possible Causes

- EIU-2 (1KS2)
- ECU (4000KS)
- J2 harness
- wiring
- C/B-ENGINE/ING/ENG2/SYS B (3JH2)

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION
AMM 73-21-60-000-001	Removal of the Electronic Control Unit (ECU)(4000KS)
AMM 73-21-60-400-001	Installation of the Electronic Control Unit (ECU)(4000KS)
AMM 73-25-34-000-040	Removal of the Engine Interface Unit (EIU) (1KS1,1KS2)
AMM 73-25-34-400-040	Installation of the Engine Interface Unit (EIU) (1KS1,1KS2)
AMM 73-29-00-710-040	Operational Test of the FADEC on the Ground (with Engine non Motoring)
ASM 74-31/01	

3. Fault Confirmation

A. Make sure that this(these) circuit breaker(s) is(are) closed:

PANEL	DESIGNATION	IDENT.	LOCATION
121VU	ENGINE/IGN/ENG2/SYS B	3JH2	P42

B. Test

(1) If you cannot close the circuit breaker (3JH2), refer to Para. 4.B.

(2) Do the operational test of the FADEC 2B on the ground (with engine non motoring) (Ref. AMM TASK 73-29-00-710-040).

4. Fault Isolation

A. If the circuit breaker (3JH2) is closed and if the test gives the maintenance message J2, 115 VAC, ECU:

R CAUTION : WHEN THE "ENG/MASTER" LEVER IS IN THE "ON" POSITION, BE VERY
R CAREFUL NOT TO SET THE "ENG/MODE" SELECTOR SWITCH TO "CRANK" OR
R "IGN/START".
R IF YOU DO SET THE SELECTOR SWITCH TO ONE OF THESE POSITIONS,
R THE ENGINE WILL START. THERE IS THUS A RISK OF INJURY TO
R PERSONS AND OF DAMAGE TO EQUIPMENT.

R - On the panel 115 VU, set the MASTER switch to "ON".
- do a check for 115VAC at the ECU (4000KS) pins J2/7, 8 (Ref. ASM 74-31/01).
R - On the panel 115 VU, set the MASTER switch to "OFF".

(1) If there is 115VAC:
- replace the ECU (4000KS) (Ref. AMM TASK 73-21-60-000-001) and (Ref. AMM TASK 73-21-60-400-001).

(2) If there is no 115VAC:
- do a check for 115VAC at the EIU-2 (1KS2) pin AC/1.

(a) If there is 115VAC:
- replace the EIU-2 (1KS2) (Ref. AMM TASK 73-25-34-000-040) and (Ref. AMM TASK 73-25-34-400-040).

1 If the fault continues:
- replace the J2 harness between the EIU-2 (1KS2) and the ECU (4000KS).

(b) If there is no 115VAC:
- do a check of the wiring between the EIU-2 (1KS2) pin AC/1 and the circuit breaker (3JH2).

1 If there is no continuity:
- repair the above wiring.

2 If there is continuity:
- replace the C/B-ENGINE/ING/ENG2/SYS B (3JH2).

(3) If the fault continues:
- make sure that there is no ground signal at the EIU-2 (1KS2) pin AA/5B.

B. If the circuit breaker (3JH2) is open:
- close it.

(1) If the circuit breaker trips:
- remove the ECU (4000KS) (Ref. AMM TASK 73-21-60-000-001) and
- remove the EIU-2 (1KS2) (Ref. AMM TASK 73-25-34-000-040).

(2) If the circuit breaker trips again:
- do a check and repair the wiring for short to ground between the EIU-2 (1KS2) pin AC/1 and the circuit breaker (3JH2).

(a) If the fault continues:
- replace the C/B-ENGINE/ING/ENG2/SYS B (3JH2).

(3) If the circuit breaker stays closed:
- install the EIU-2 (1KS2) (Ref. AMM TASK 73-25-34-400-040).

(a) If the circuit breaker trips:
- replace the EIU-2 (1KS2) (Ref. AMM TASK 73-25-34-000-040) and (Ref. AMM TASK 73-25-34-400-040).

(b) If the circuit breaker stays closed:
- install the ECU (4000KS) (Ref. AMM TASK 73-21-60-400-001).

1 If the circuit breaker trips:
- replace the ECU (4000KS) (Ref. AMM TASK 73-21-60-000-001) and (Ref. AMM TASK 73-21-60-400-001).

2 If the circuit breaker trips again:
- do a check and repair the wiring between the ECU (4000KS) pins J2/7, 8 and the EIU-2 (1KS2) pin AC/4.

(4) If the fault continues:
- make sure that there is no ground signal at the EIU-2 (1KS2) pin AA/5B.

C. Do the test given in Para. 3.

TASK 71-50-00-810-828

Loss of the ADIRU1 Signal to the ECU on Engine 1

1. Possible Causes

- harness J3
- ADIRU-1 (1FP1)
- ECU (4000KS)
- aircraft wiring between the ADIRU1 (1FP1) and the connector 402VC1 on the pylon junction box

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION
AMM 34-12-34-000-001	Removal of the ADIRU (1FP1, 1FP2, 1FP3)
AMM 34-12-34-400-001	Installation of the ADIRU (1FP1, 1FP2, 1FP3)
AMM 73-21-60-000-001	Removal of the Electronic Control Unit (ECU)(4000KS)
AMM 73-21-60-400-001	Installation of the Electronic Control Unit (ECU)(4000KS)
AMM 73-29-00-710-040	Operational Test of the FADEC on the Ground (with Engine non Motoring)
ASM 73-25/10	
AWM 71-51-04	
AWM 73-25-25	

3. Fault Confirmation

A. Test

(1) Do the operational test of the FADEC 1B on the ground (with engine non motoring) (Ref. AMM TASK 73-29-00-710-040).

4. Fault Isolation

A. If the test gives the maintenance message J3, ADC1 or J3, ADC1*:
- do a check for open or short to ground of the harness J3 between the ECU (4000KS) and the connector 402VC1 on the pylon junction box, pins J3/9, 2 to pins 402VC1/28, 14 (Ref. AWM 71-51-04).

(1) If the fault continues:
- replace the harness J3.

(2) If the fault continues:
- replace the ADIRU-1 (1FP1) (Ref. AMM TASK 34-12-34-000-001) and (Ref. AMM TASK 34-12-34-400-001).

(3) If the fault continues:
- replace the ECU (4000KS) (Ref. AMM TASK 73-21-60-000-001) and (Ref. AMM TASK 73-21-60-400-001).

(4) If the fault continues:
- do a check and repair the aircraft wiring between the ADIRU1 (1FP1) and the connector 402VC1 on the pylon junction box, pins AA/12B, 12D to pins 402VC1/14, 28 (Ref. AWM 73-25-25) and (Ref. ASM 73-25/10).

B. Do the test given in Para. 3.

TASK 71-50-00-810-829

Loss of the ADIRU1 Signal to the ECU on Engine 2

1. Possible Causes

- harness J3
- ADIRU-1 (1FP1)
- ECU (4000KS)
- aircraft wiring between the ADIRU1 (1FP1) and the connector 402VC2 on the pylon junction box

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION
AMM 34-12-34-000-001	Removal of the ADIRU (1FP1, 1FP2, 1FP3)
AMM 34-12-34-400-001	Installation of the ADIRU (1FP1, 1FP2, 1FP3)
AMM 73-21-60-000-001	Removal of the Electronic Control Unit (ECU)(4000KS)
AMM 73-21-60-400-001	Installation of the Electronic Control Unit (ECU)(4000KS)
AMM 73-29-00-710-040	Operational Test of the FADEC on the Ground (with Engine non Motoring)
ASM 73-25/10	
AWM 71-51-04	
AWM 73-25-25	

3. Fault Confirmation

A. Test

(1) Do the operational test of the FADEC 2B on the ground (with engine non motoring) (Ref. AMM TASK 73-29-00-710-040).

4. Fault Isolation

A. If the test gives the maintenance message J3, ADC1 or J3, ADC1*:
- do a check for open or short to ground of the harness J3 between the ECU (4000KS) and the connector 402VC2 on the pylon junction box, pins J3/9, 2 to pins 402VC2/28, 14 (Ref. AWM 71-51-04).

(1) If the fault continues:
- replace the harness J3.

(2) If the fault continues:
- replace the ADIRU-1 (1FP1) (Ref. AMM TASK 34-12-34-000-001) and (Ref. AMM TASK 34-12-34-400-001).

(3) If the fault continues:
- replace the ECU (4000KS) (Ref. AMM TASK 73-21-60-000-001) and (Ref. AMM TASK 73-21-60-400-001).

(4) If the fault continues:
- do a check and repair the aircraft wiring between the ADIRU1 (1FP1) and the connector 402VC2 on the pylon junction box: pins AA/14B, 14D to pins 402VC2/14, 28 (Ref. AWM 73-25-25) and (Ref. ASM 73-25/10).

B. Do the test given in Para. 3.

TASK 71-50-00-810-830

Loss of the ADIRU2 Signal to the ECU on Engine 1

1. Possible Causes

- harness J4
- ADIRU-2 (1FP2)
- ECU (4000KS)
- aircraft wiring between the ADIRU2 (1FP2) and the connector 403VC1 on the pylon junction box

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION
AMM 34-12-34-000-001	Removal of the ADIRU (1FP1, 1FP2, 1FP3)
AMM 34-12-34-400-001	Installation of the ADIRU (1FP1, 1FP2, 1FP3)
AMM 73-21-60-000-001	Removal of the Electronic Control Unit (ECU)(4000KS)
AMM 73-21-60-400-001	Installation of the Electronic Control Unit (ECU)(4000KS)
AMM 73-29-00-710-040	Operational Test of the FADEC on the Ground (with Engine non Motoring)
ASM 73-25/10	
AWM 71-51-04	
AWM 73-25-33	

3. Fault Confirmation

A. Test

(1) Do the operational test of the FADEC 1B on the ground (with engine non motoring) (Ref. AMM TASK 73-29-00-710-040).

4. Fault Isolation

A. If the test gives the maintenance message J4, ADC2 or J4, ADC2*:
- do a check for open or short to ground of the harness J4 between the ECU (4000KS) and the connector 403VC1 on the pylon junction box, pins J4/9, 2 to pins 403VC1/28, 14 (Ref. AWM 71-51-04).

(1) If the fault continues:
- replace the harness J4.

(2) If the fault continues:
- replace the ADIRU-2 (1FP2) (Ref. AMM TASK 34-12-34-000-001) and (Ref. AMM TASK 34-12-34-400-001).

(3) If the fault continues:
- replace the ECU (4000KS) (Ref. AMM TASK 73-21-60-000-001) and (Ref. AMM TASK 73-21-60-400-001).

(4) If the fault continues:
- do a check and repair the aircraft wiring between the ADIRU2 (1FP2) and the connector 403VC1 on the pylon junction box, pins AA/12B, 12D to pins 403VC1/14, 28 (Ref. AWM 73-25-33) and (Ref. ASM 73-25/10).

B. Do the test given in Para. 3.

TASK 71-50-00-810-831

Loss of the ADIRU2 Signal to the ECU on Engine 2

1. Possible Causes

- harness J4
- ADIRU-2 (1FP2)
- ECU (4000KS)
- aircraft wiring between the ADIRU2 (1FP2) and the connector 403VC2 on the pylon junction box

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION
AMM 34-12-34-000-001	Removal of the ADIRU (1FP1, 1FP2, 1FP3)
AMM 34-12-34-400-001	Installation of the ADIRU (1FP1, 1FP2, 1FP3)
AMM 73-21-60-000-001	Removal of the Electronic Control Unit (ECU)(4000KS)
AMM 73-21-60-400-001	Installation of the Electronic Control Unit (ECU)(4000KS)
AMM 73-29-00-710-040	Operational Test of the FADEC on the Ground (with Engine non Motoring)
ASM 73-25/10	
AWM 71-51-04	
AWM 73-25-34	

3. Fault Confirmation

A. Test

(1) Do the operational test of the FADEC 2B on the ground (with engine non motoring) (Ref. AMM TASK 73-29-00-710-040).

4. Fault Isolation

A. If the test gives the maintenance message J4, ADC2 or J4, ADC2*:
- do a check for open or short to ground of the harness J4 between the ECU (4000KS) and the connector 403VC2 on the pylon junction box, pins J4/9, 2 to pins 403VC2/28, 14 (Ref. AWM 71-51-04).

(1) If the fault continues:
- replace the harness J4.

(2) If the fault continues:
- replace the ADIRU-2 (1FP2) (Ref. AMM TASK 34-12-34-000-001) and (Ref. AMM TASK 34-12-34-400-001).

(3) If the fault continues:
- replace the ECU (4000KS) (Ref. AMM TASK 73-21-60-000-001) and (Ref. AMM TASK 73-21-60-400-001).

(4) If the fault continues:
- do a check and repair the aircraft wiring between the ADIRU2 (1FP2) and the connector 403VC2 on the pylon junction box: pins AA/14B, 14D to pins 403VC2/14, 28 (Ref. AWM 73-25-34) and (Ref. ASM 73-25/10).

B. Do the test given in Para. 3.

TASK 71-50-00-810-832

Loss of all Signals from the EIU to the FADEC on Engine 1

1. Possible Causes

- EIU-1 (1KS1)
- connector J3 at the ECU (4000KS)
- harness J3
- ECU (4000KS)

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION
AMM 73-21-60-000-001	Removal of the Electronic Control Unit (ECU)(4000KS)
AMM 73-21-60-400-001	Installation of the Electronic Control Unit (ECU)(4000KS)
AMM 73-25-34-000-040	Removal of the Engine Interface Unit (EIU) (1KS1,1KS2)
AMM 73-25-34-400-040	Installation of the Engine Interface Unit (EIU) (1KS1,1KS2)
AMM 73-29-00-710-040	Operational Test of the FADEC on the Ground (with Engine non Motoring)
ASM 73-25/10	

3. Fault Confirmation

A. Do the operational test of the FADEC 1B on the ground (with engine non motoring) (Ref. AMM TASK 73-29-00-710-040).

4. Fault Isolation

A. If the test gives the maintenance message EIU (ARINC), J3:
- do a visual check of the connector J3 at the ECU (4000KS) for integrity (Ref. ASM 73-25/10).

(1) If the fault continues:
- do a check for 28VDC at EIU 1 pins AC/9, 11.

(a) If there is 28VDC:
- replace the EIU-1 (1KS1) (Ref. AMM TASK 73-25-34-000-040) and (Ref. AMM TASK 73-25-34-400-040).

(2) If the fault continues:
- replace the harness J3.

(3) If the fault continues:
- replace the ECU (4000KS) (Ref. AMM TASK 73-21-60-000-001) and (Ref. AMM TASK 73-21-60-400-001).

B. Do the test given in Para. 3.A.

TASK 71-50-00-810-833

Loss of all Signals from the EIU to the FADEC on Engine 2

1. Possible Causes

- EIU-2 (1KS2)
- connector J3 at the ECU (4000KS)
- harness J3
- ECU (4000KS)

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION
AMM 73-21-60-000-001	Removal of the Electronic Control Unit (ECU)(4000KS)
AMM 73-21-60-400-001	Installation of the Electronic Control Unit (ECU)(4000KS)
AMM 73-25-34-000-040	Removal of the Engine Interface Unit (EIU) (1KS1,1KS2)
AMM 73-25-34-400-040	Installation of the Engine Interface Unit (EIU) (1KS1,1KS2)
AMM 73-29-00-710-040	Operational Test of the FADEC on the Ground (with Engine non Motoring)
ASM 73-25/10	

3. Fault Confirmation

A. Do the operational test of the FADEC 2B on the ground (with engine motoring) (Ref. AMM TASK 73-29-00-710-040).

4. Fault Isolation

A. If the test gives the maintenance message EIU (ARINC), J3:
- do a visual check of the connector J3 at the ECU (4000KS) for integrity (Ref. ASM 73-25/10).

(1) If the fault continues:
- do a check for 28VDC at EIU 2 pins AC/9, 11.

(a) If there is 28VDC:
- replace the EIU-2 (1KS2) (Ref. AMM TASK 73-25-34-000-040) and (Ref. AMM TASK 73-25-34-400-040).

(2) If the fault continues:
- replace the harness J3.

(3) If the fault continues:
- replace the ECU (4000KS) (Ref. AMM TASK 73-21-60-000-001) and (Ref. AMM TASK 73-21-60-400-001).

B. Do the test given in Para. 3.A.