



FAULT ISOLATION MANUAL

**ON A/C ALL

TASK 77-31-00-810-828

#1 ENG FADEC (Caution) – Fault Isolation

1. General

- A. This fault isolation procedure is for when the caution and warning panel (CAWP) #1 ENG FADEC caution light is on.
- B. The CAWP #1 ENG FADEC caution light comes on when it is necessary to move the power lever slowly to keep the possibility of an engine surge to a minimum. Also, it can be necessary to set the power levers to two different positions to keep symmetrical thrust between the two powerplants.
- C. The FADEC 1 will make the #1 ENG FADEC caution light come on when it senses a condition that follows:
 - Two MTOP crosscheck latched failed
 - Two MCR crosscheck latched failed
 - Two MCL crosscheck latched failed
 - PLA crosscheck fault with no reasonability check possible
 - NH crosscheck latched failed
 - NPT crosscheck latched failed and no NP signal from PEC
 - HP HBOV wraparound latched failed on channel in control
 - T1.5/T1.8 inlet temperature crosscheck latched failed with parameter set to average
 - Ambient pressure crosscheck latched failed
 - Main oil temperature (MOT) crosscheck latched failed
 - Fuel flow crosscheck latched failed
 - ADC inputs (CAS, TAS, SAP, SAT, and pitot pressure) have malfunctioned
 - LP HBOV wraparound latched failed
 - LP HBOV closed commanding HP to open (LP tracking error fault) on channel in control
 - Two LP HBOV position latch failed for more than five seconds
 - Cautionary fault indication by remote channel.
- D. The engine display (ED) can show the related fault codes that follow:
 - 716, NH intermittent fault
 - 720, T1.5 intermittent fault
 - 721, MOT intermittent fault
 - 726, PLA intermittent fault
 - 727, WFMV intermittent fault
 - 734, NPT latched failed
 - 735, QDEF latched failed

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- 736, T1.8 sensor input latched failed
- 737, Main oil temperature sensor input latched failed
- 743, FMU metering valve LVDT latched failed
- 750, ARINC input label 211 latched failed (T1.5 remote engine)
- 781, MOT crosscheck annunciation fail flag
- 782, NH crosscheck latched failed
- 784, NPT crosscheck annunciation fail flag
- 786, Overspeed NH below idle detect latched failed: bit 6 of OSBIDIND
- 803, T1.5 crosscheck latched failed
- 810, WFMV crosscheck latched failed
- 817, Max climb rating data fault latch (bit 6 of MCLIND)
- 819, Max cruise rating data fault latch (bit 6 of MCRIND)
- 820, MCR rating data crosscheck fault latch
- 821, MTO rating data crosscheck fault latch
- 918, LP HBOV closed commanding HP to open (LP tracking error fault)
- 919, NH probe failed open circuit
- 920, NH overspeed gate array probe failed open circuit
- 922, NPT/Q probe failed open circuit
- 935, Wf metering valve track check latched failed
- 964, Air data unit failure
- 971, LP HBOV bias fault flag.

2. Job Set-Up Information

Subtask 77-31-00-946-031

A. Reference Information

REFERENCE	DESIGNATION
FIM TASK 73-20-00-810-804	High Pressure Rotor Speed (NH) Related Faults – Fault Isolation
FIM TASK 73-20-00-810-806	Power Turbine Speed (NPT) and Torque Related Faults – Fault Isolation
FIM TASK 73-20-00-810-808	Total Inlet Temperature T1.8 Signal – Fault Isolation
FIM TASK 73-20-00-810-809	Main Oil Temperature (MOT) Sensor Related Faults – Fault Isolation
FIM TASK 73-20-00-810-814	Power Lever Angle (PLA) Related Faults – Fault Isolation

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REFERENCE	DESIGNATION
FIM TASK 73-20-00-810-815	Fuel Metering Unit Related Faults – Fault Isolation
FIM TASK 73-20-00-810-824	Steady state surge BIAS in the P2.2 bleed valve logic – Fault Isolation
FIM TASK 73-20-00-810-826	ADU Communication – Fault Isolation
FIM TASK 73-20-00-810-827	ECIU Communication (engine inputs) – Fault Isolation
FIM TASK 73-20-00-810-830	P2.2 Bleed Valve Position – Fault Isolation
FIM TASK 73-20-00-810-848	High Pressure Rotor Speed (NH) Overspeed Sensing – Fault Isolation
FIM TASK 73-20-00-810-858	Maximum Climb Rating Signal – Fault Isolation
FIM TASK 73-20-00-810-859	Maximum Cruise Rating Signal – Fault Isolation
FIM TASK 73-20-00-810-860	Maximum Take-off Rating Comparison Between Channel A and B
AMM TASK 77-31-00-710-802	Operational Test for Engine Fault Code Indications

3. Fault Confirmation

Subtask 77-31-00-810-045

- A. Do the operational test for engine fault code indications (Refer to AMM TASK 77-31-00-710-802). Do the Fault Isolation.

4. Fault Isolation

Subtask 77-31-00-810-051

- A. Isolate the fault as follows:
- (1) If the fault code is 716, do the fault isolation for fault code 716 (Refer to FIM TASK 73-20-00-810-804). Do the Close Out.
 - (2) If the fault code is 720, do the fault isolation for fault code 720 (Refer to FIM TASK 73-20-00-810-808). Do the Close Out.
 - (3) If the fault code is 721, do the fault isolation for fault code 721 (Refer to FIM TASK 73-20-00-810-809). Do the Close Out.
 - (4) If the fault code is 726, do the fault isolation for fault code 726 (Refer to FIM TASK 73-20-00-810-814). Do the Close Out.
 - (5) If the fault code is 727, do the fault isolation for fault code 727 (Refer to FIM TASK 73-20-00-810-815). Do the Close Out.
 - (6) If the fault code is 732, do the fault isolation for fault code 732 (Refer to FIM TASK 73-20-00-810-804). Do the Close Out.



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- (7) If the fault code is 734, do the fault isolation for fault code 734 (Refer to FIM TASK 73-20-00-810-806). Do the Close Out.
- (8) If the fault code is 735, do the fault isolation for fault code 735 (Refer to FIM TASK 73-20-00-810-806). Do the Close Out.
- (9) If the fault code is 736, do the fault isolation for fault code 736 (Refer to FIM TASK 73-20-00-810-808). Do the Close Out.
- (10) If the fault code is 737, do the fault isolation for fault code 737 (Refer to FIM TASK 73-20-00-810-809). Do the Close Out.
- (11) If the fault code is 743, do the fault isolation for fault code 743 (Refer to FIM TASK 73-20-00-810-815). Do the Close Out.
- (12) If the fault code is 750, do the fault isolation for fault code 750 (Refer to FIM TASK 73-20-00-810-827). Do the Close Out.
- (13) If the fault code is 781, do the fault isolation for fault code 781 (Refer to FIM TASK 73-20-00-810-809). Do the Close Out.
- (14) If the fault code is 782, do the fault isolation for fault code 782 (Refer to FIM TASK 73-20-00-810-804). Do the Close Out.
- (15) If the fault code is 784, do the fault isolation for fault code 784 (Refer to FIM TASK 73-20-00-810-806). Do the Close Out.
- (16) If the fault code is 786, do the fault isolation for fault code 786 (Refer to FIM TASK 73-20-00-810-848). Do the Close Out.
- (17) If the fault code is 803, do the fault isolation for fault code 803 (Refer to FIM TASK 73-20-00-810-808). Do the Close Out.
- (18) If the fault code is 806, do the fault isolation for fault code 806 (Refer to FIM TASK 73-20-00-810-802). Do the Close Out.
- (19) If the fault code is 810, do the fault isolation for fault code 810 (Refer to FIM TASK 73-20-00-810-815). Do the Close Out.
- (20) If the fault code is 817, do the fault isolation for fault code 817 (Refer to FIM TASK 73-20-00-810-858). Do the Close Out.
- (21) If the fault code is 818, do the fault isolation for fault code 818 (Refer to FIM TASK 73-20-00-810-858). Do the Close Out.
- (22) If the fault code is 819, do the fault isolation for fault code 819 (Refer to FIM TASK 73-20-00-810-859). Do the Close Out.
- (23) If the fault code is 820, do the fault isolation for fault code 820 (Refer to FIM TASK 73-20-00-810-859). Do the Close Out.
- (24) If the fault code is 821, do the fault isolation for fault code 821 (Refer to FIM TASK 73-20-00-810-860). Do the Close Out.
- (25) If the fault code is 918, do the fault isolation for fault code 918 (Refer to FIM TASK 73-20-00-810-830). Do the Close Out.
- (26) If the fault code is 919, do the fault isolation for fault code 919 (Refer to FIM TASK 73-20-00-810-804). Do the Close Out.



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- (27) If the fault code is 920, do the fault isolation for fault code 920 (Refer to FIM TASK 73-20-00-810-804). Do the Close Out.
- (28) If the fault code is 922, do the fault isolation for fault code 922 (Refer to FIM TASK 73-20-00-810-806). Do the Close Out.
- (29) If the fault code is 935, do the fault isolation for fault code 935 (Refer to FIM TASK 73-20-00-810-803). Do the Close Out.
- (30) If the fault code is 964, do the fault isolation for fault code 964 (Refer to FIM TASK 73-20-00-810-826). Do the Close Out.
- (31) If the fault code is 971, do the fault isolation for fault code 971 (Refer to FIM TASK 73-20-00-810-824). Do the Close Out.

5. Close Out

Subtask 77-31-00-941-032

- A. Make sure that the CAWP #1 ENG FADEC caution light is not on.
- B. Remove all tools, equipment and unwanted materials from the work area.