



FAULT ISOLATION MANUAL

**ON A/C ALL

TASK 27-50-00-810-802

FLAP POWER (Caution) – Fault Isolation

1. General

- A. This fault isolation procedure is for when the Caution and Warning Panel (CAWP) FLAP POWER caution light is on.
- B. The CAWP FLAP POWER caution light is latched on and no more flap movement is possible when the Flap Control Unit (FCU) senses a condition that follows:
 - Flap asymmetry
 - Uncommanded movement
 - The position transducer is unserviceable
 - The flap lever transducer is unserviceable
 - The arming switch is unserviceable
 - The Flap Power Unit (FPU) is unserviceable
 - The FCU is unserviceable
 - A failed Power-up Built-in Test (PBIT).

NOTE: There are two possible conditions that can cause the FLAP POWER caution light to come on as nuisance fault:

- The FLAP POWER caution light will come on if you move the flap control lever to a different position and there is no pressure in the No. 1 hydraulic system for six seconds.
 - The FLAP POWER caution light will come on if you move the flap control lever to a different position and the release trigger does not go to the bottom of the detent for 10 seconds.
- C. To reset the FLAP POWER caution light on the caution and warning panel (Refer to AMM 27-52-00-840-801).
- D. The Central Diagnostic System (CDS) can show the related messages that follow:
 - ASYMMETRY
 - UNCOMMANDED MOVEMENT
 - LEFT POSITION TRANSDUCER
 - RIGHT POSITION TRANSDUCER
 - FLAP LEVER TRANSDUCER
 - HYDRAULIC PRESSURE LOSS
 - ARMING SWITCH
 - ECU CONTINUOUS BIT
 - ECU POWER ON BIT.



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2. Job Set-Up Information

Subtask 27-50-00-946-009

A. Reference Information

| REFERENCE | DESIGNATION |
|----------------------|---|
| AMM 27-50-00-710-801 | Operational Test of the Wing Flaps |
| AMM 27-51-00-742-801 | Retrieval of Data from the Flap Control Unit |
| AMM 27-51-01-000-801 | Removal of the Flap Control Unit |
| AMM 27-51-01-400-801 | Installation of the Flap Control Unit |
| AMM 27-52-00-840-801 | Reset of the FLAP POWER Caution Light on the Caution and Warning Panel |
| AMM 27-52-01-000-801 | Removal of the Flap Power Unit (FPU) |
| AMM 27-52-01-400-801 | Installation of the Flap Power Unit (FPU) |
| AMM 45-00-27-742-802 | Retrieval of Data from the Central Diagnostic System – Flaps System (FLAPS) |
| AMM 45-00-27-743-802 | Erase the Data from the Central Diagnostic System – Flaps System (FLAPS) |
| FIM 27-50-00-810-805 | ARMING SWITCH (Status) – Fault Isolation |
| FIM 27-50-00-810-806 | ECU POWER ON BIT (Status) – Fault Isolation |
| FIM 27-50-00-810-807 | ECU CONTINUOUS BIT (Status) – Fault Isolation |
| FIM 27-51-00-810-801 | UNCOMMANDED MOVEMENT (Status) – Fault Isolation |
| FIM 27-51-06-810-801 | FLAP LEVER TRANSDUCER (Status) – Fault Isolation |
| FIM 27-53-00-810-801 | ASYMMETRY (Status) – Fault Isolation |
| FIM 27-53-06-810-801 | LEFT POSITION TRANSDUCER (Status) – Fault Isolation |
| FIM 27-53-06-810-802 | RIGHT POSITION TRANSDUCER (Status) – Fault Isolation |
| FIM 29-10-00-810-803 | HYDRAULIC PRESSURE LOSS |

3. Fault Confirmation

Subtask 27-50-00-810-009

A. Confirm the fault as follows:

- (1) Do the CDS fault indication retrieval (Refer to AMM 45-00-27-742-802).

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EFFECTIVITY:
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NOTE: For flap system fault codes, go to the OTHER SYSTEMS on page 2/2 by pushing the NEXT key until you see FLAPS. Flap fault codes are not shown in the FCS section of the OTHER SYSTEMS on page 1/2.

- (2) Erase the data from the CDS (Refer to AMM 45-00-27-743-802).
- (3) Do the operational test of the wing flaps (Refer to AMM 27-50-00-710-801).
 - (a) If the FLAP POWER caution light does not come on, no maintenance procedure is necessary. Do the Close Out.
 - (b) If the FLAP POWER caution light does come on, do the CDS fault indication retrieval again (Refer to AMM 45-00-27-742-802). Do the Fault Isolation.

4. Fault Isolation

Subtask 27-50-00-810-010

A. Isolate the fault as follows:

- (1) If the message is ASYMMETRY, do the fault isolation for ASYMMETRY (Refer to FIM 27-53-00-810-801). Do the Close Out.
- (2) If the message is UNCOMMANDED MOVEMENT, do the fault isolation for UNCOMMANDED MOVEMENT (Refer to FIM 27-51-00-810-801). Do the Close Out.
- (3) If the message is LEFT POSITION TRANSDUCER, do the fault isolation for LEFT POSITION TRANSDUCER (Refer to FIM 27-53-06-810-801). Do the Close Out.
- (4) If the message is RIGHT POSITION TRANSDUCER, do the fault isolation for RIGHT POSITION TRANSDUCER (Refer to FIM 27-53-06-810-802).
- (5) If the message is FLAP LEVER TRANSDUCER, do the fault isolation for FLAP LEVER TRANSDUCER (Refer to FIM 27-51-06-810-801). Do the Close Out.
- (6) If the message is HYDRAULIC PRESSURE LOSS, do the fault isolation for HYDRAULIC PRESSURE LOSS (Refer to FIM 29-10-00-810-803). Do the Close Out.
- (7) If the message is ARMING SWITCH, do the fault isolation for ARMING SWITCH (Refer to FIM 27-50-00-810-805). Do the Close Out.
- (8) If the message is ECU CONTINUOUS BIT, do the fault isolation for ECU CONTINUOUS BIT (Refer to FIM 27-50-00-810-807).
- (9) If the message is ECU POWER ON BIT, do the fault isolation for ECU POWER ON BIT (Refer to FIM 27-50-00-810-806). Do the Close Out.
- (10) If there is no related CDS message, check the left and right flap position transducer values for the correct range (Refer to AMM 45-00-27-742-802). Replace the transducer that is out of range. Do the Close Out.
- (11) If the fault continues, check the FCU status and retrieve data by laptop (Refer to AMM 27-51-00-742-801). Replace the FCU unless the retrieved data indicates another component is at fault (Refer to AMM 27-51-01-000-801 and AMM 27-51-01-400-801). Do the Close Out.



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NOTE: The flap data retrieval by laptop is optional but recommended for continuous faults. The FCU can record more detailed fault information than the aircraft CDS shows. Make sure that you include all downloaded fault data when you send the FCU to a repair facility.

5. Close Out

Subtask 27-50-00-941-008

- A. Make sure that the FLAP POWER caution light does not come on when you do the operational test of the wing flaps (Refer to AMM 27-50-00-710-801).
- B. Remove all tools, equipment, and unwanted materials from the work area.