



## FAULT ISOLATION MANUAL

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### TASK 24-30-00-810-803

#### L TRU (Caution) – Fault Isolation

##### 1. General

- A. This fault isolation procedure is for when the L TRU caution light on the Caution and Warning Panel (CAWP) is on.
- B. The L TRU caution light on the CAWP comes on when the left Transformer Rectifier Unit (TRU) is not energizing the left or right secondary feeder buses because of a source or bus fault condition (output is less than 15 V dc).
- C. There are no related Central Diagnostic System (CDS) or Electrical Power Control Unit (EPCU) fault code status messages.
- D. Refer to the Fault Tree for the overview of the task.

Refer to Figure 203

##### 2. Job Set-Up Information

Subtask 24-30-00-946-010

##### A. Reference Information

REFERENCE	DESIGNATION
AMM20-30-11-760-801	Electrical Test of the Aircraft Wiring
AMM24-00-00-910-801	Electrical/Electronic Safety Precautions
AMM24-31-21-000-801	Removal of the DC Transformer Rectifier Unit
AMM24-31-21-400-801	Installation of the DC Transformer Rectifier Unit
AMM24-31-21-710-801	Operational Test of the DC Transformer Rectifier Unit
AMM31-51-01-000-801	Removal of the Caution and Warning Panel
AMM31-51-01-400-801	Installation of the Caution and Warning Panel
AMM71-00-00-868-801	Engine Start
AMM71-00-00-868-802	Engine Shutdown
WM24-31-00	DC Power Generation System

##### 3. Job Set-Up

Subtask 24-30-00-910-025

**WARNING:** OBEY ALL THE SAFETY PRECAUTIONS WHEN YOU DO MAINTENANCE ON OR NEAR ELECTRICAL/ELECTRONIC EQUIPMENT. IF YOU DO NOT DO THIS, YOU CAN CAUSE INJURIES TO PERSONS AND DAMAGE TO THE EQUIPMENT.

- A. Obey all the electrical/electronic safety precautions (Refer to AMM24-00-00-910-801).



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Subtask 24-30-00-810-075

- B. Before you carry out the Fault Isolation procedure inspect all the related connectors and contactors for the recessed pins, signs of pitting or arcing, corrosion, discoloration (heat damage), fluid contamination or presence of foreign materials and physical damage. If damage is found, repair the damage.

### 4. Fault Confirmation

Subtask 24-30-00-810-011

- A. Confirm the fault as follows:

- (1) Do an operational test of the left TRU (Refer to AMM24-31-21-710-801).
- (2) If the L TRU caution light does not come on, no maintenance procedure is necessary. Do the Close Out.
- (3) If the L TRU caution light comes on, do the Fault Isolation.

### 5. Fault Isolation

Subtask 24-30-00-810-012

**NOTE:** When you do a check for the ground faults, you must do the check with the airframe ground and the connector backshell shield ground points.

**NOTE:** Check the single, double and triple shielded wires for the short to aircraft ground, pin to pin and connector backshell shield ground points.

- A. Check that the power is available on the left AC bus.
- B. If power is not available on the left AC bus, refer to the related Fault Isolation procedure to resolve the AC power issue. Do the Close Out.
- C. On Multi Function Display (MFD) electrical systems page, if power is available on the left AC bus, check the load on the left TRU.
- D. If there is no load on the left TRU, remove and replace the left TRU (Refer to AMM24-31-21-000-801 and AMM24-31-21-400-801). Do the Close Out.
- E. If the load is present on the left TRU, do the steps that follow:
- (1) Run the No. 1 engine (Refer to AMM71-00-00-868-801).
  - (2) On the AC Control Panel (ACCP), set the GEN1 switch to the GEN1 position.
  - (3) On the ACCP, set the GEN2 and EXT PWR switches to the OFF position.
  - (4) On DC Control Panel (DCCP), set the following switches to the OFF position:
    - GEN1
    - GEN2
    - EXT PWR
    - STBY BATT



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- AUX BATT
- MAIN BATT
- BATTERY MASTER.

(5) Open, safety and tag the circuit breaker that follows:

CB PANEL	CB NO.	NAME
115 V AC Variable Frequency Circuit Breaker Panel	CB 58	R TRU

- (6) On the MFD, check the voltage of the left TRU.
- (7) If the voltage on the left TRU is not more than 20 V dc, remove and replace the left TRU (Refer to AMM24-31-21-000-801 and AMM24-31-21-400-801). Do the Close Out.
- (8) If the voltage on the left TRU is more than 20 V dc, do the steps that follow:
- (a) Check the wiring for the ground faults and the isolation resistance between the CAWP and the EPCU (Refer to WM24-31-00 and AMM20-30-11-760-801):

3312-P1 (CAWP)	2431-P11 (EPCU)
21	54

- (b) Check the wiring for the continuity, ground faults and the isolation resistance between the EPCU and the left TRU (Refer to WM24-31-00 and AMM20-30-11-760-801):

2431-P11 (EPCU)	2431-P20-1 (L TRU)
34	7

- (c) If the wiring is unserviceable, repair the wiring. Do the Close Out.
- (d) Remove and replace the CAWP (Refer to AMM31-51-01-000-801 and AMM31-51-01-400-801). Do the Close Out.

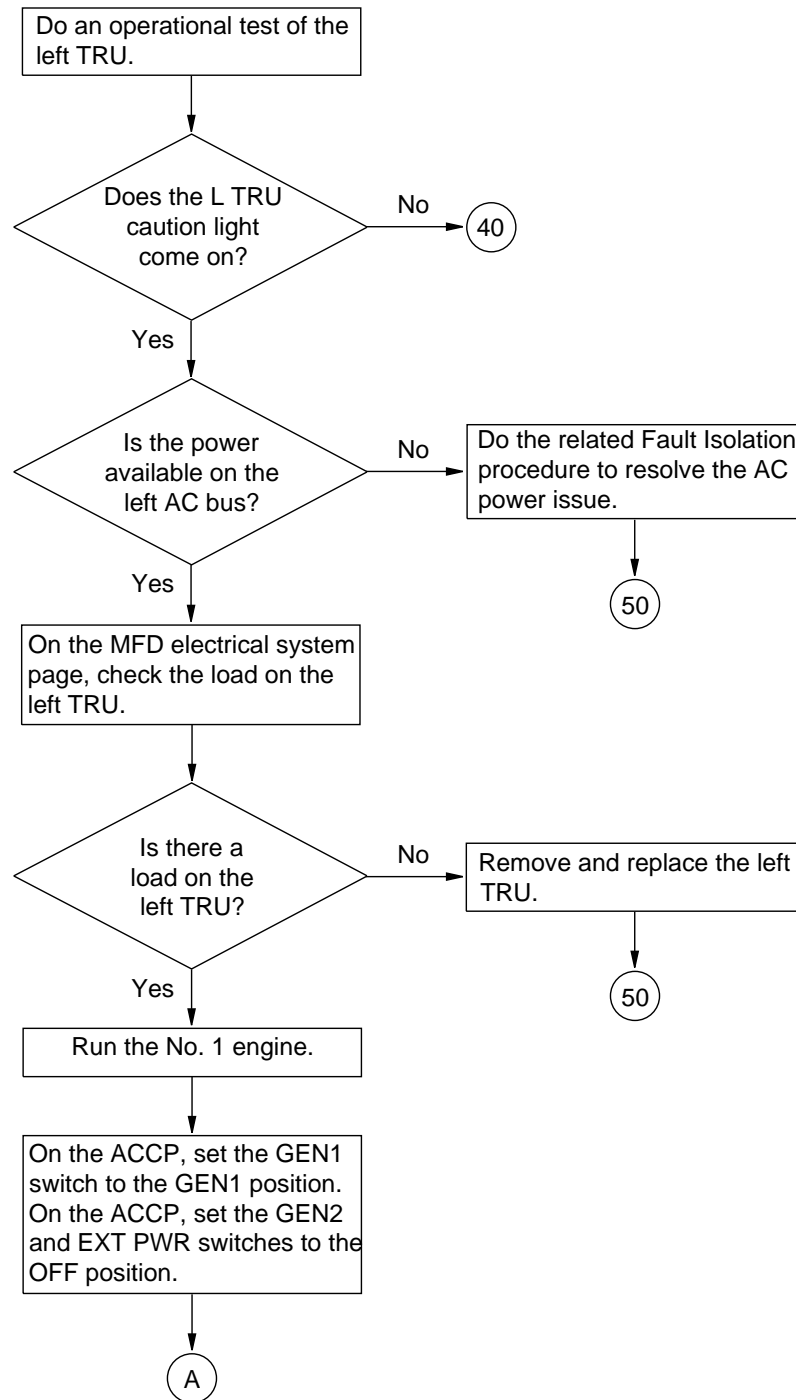
### 6. Close Out

Subtask 24-30-00-941-010

- A. Shut down the No. 1 engine (Refer to AMM71-00-00-868-802).
- B. Do an operational test of the left TRU (Refer to AMM24-31-21-710-801).
- C. Make sure that the L TRU caution light on the CAWP is not on.
- D. Remove all the tools, equipment and unwanted materials from the work area.



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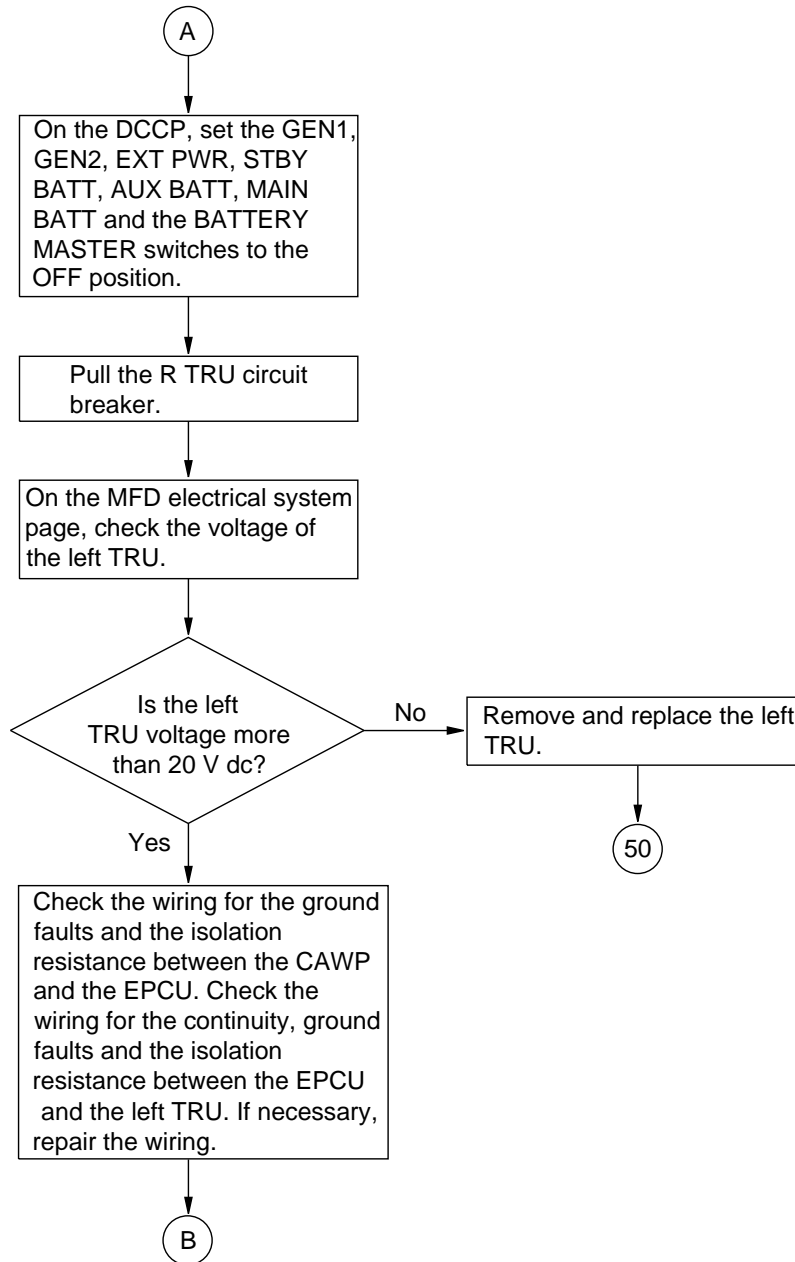


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L TRU (Caution) – Fault Isolation  
Figure 203 (Sheet 1 of 3)



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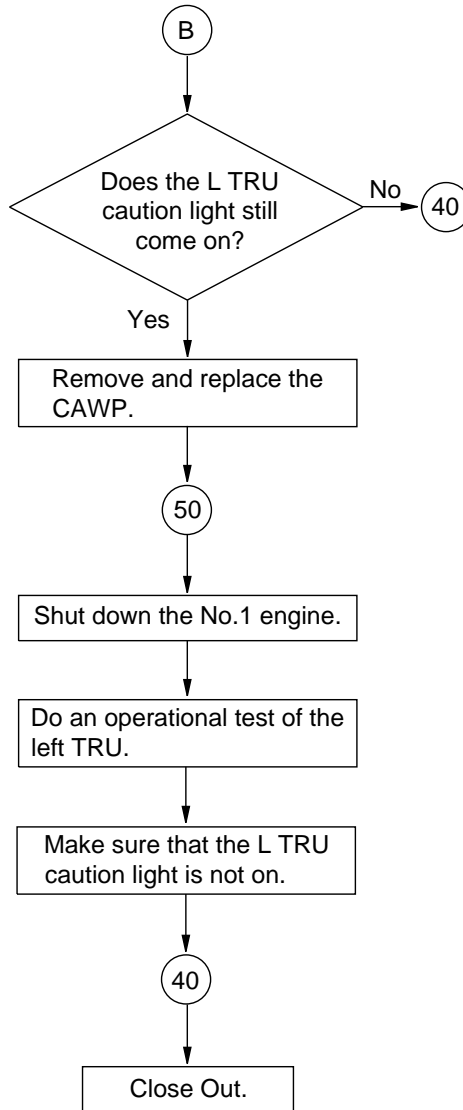


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L TRU (Caution) – Fault Isolation  
Figure 203 (Sheet 2 of 3)



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L TRU (Caution) – Fault Isolation  
Figure 203 (Sheet 3 of 3)