

CHECK BEING PERFORMED: Custom

ZONES: 154 211 212  
 A/C NUMBER:  
 REV. DATE: 06/06/06  
 FREQUENCY: A/R

W/C NUMBER: 212R2401 DATE:  
 W/O:  
 JAC CODE:

MFR P/N	DESCRIPTION	QTY
4579	AIRCRAFT BATTERY (OR EQUIVALENT)	1

## PANELS

822

## REFERENCES

1, AMM 24-22-00, AMM 31-41-00

MECH INSP

MPD REF: 24-31-03-4A

TEST (OFF-AIRCRAFT) THE APU BATTERY CAPACITY AND RECONDITION THE BATTERY.

NOTE: TASK IS ALSO A CMP REQUIREMENT FOR ETOPS.

BATTERY TEST AND RECONDITIONING PROCEDURES ARE FOUND IN THE VENDOR COMPONENT MAINTENANCE MANUAL. THE FOLLOWING PROCEDURE APPLIES TO THE ON-AIRCRAFT PORTION OF THIS TASK (REMOVAL/INSTALLATION).

1. Remove the APU battery.

A. Prepare for removal (Fig. 1).

CAUTION: FAILURE TO OPEN THE CIRCUIT BREAKERS IN THIS SEQUENCE CAN CAUSE DAMAGE TO THE APU BATTERY CHARGER.

XXXXX

(1) Open the circuit breakers in the sequence shown.

(a) Open 37B5 or 37K2, APU BATTERY CHARGER circuit breaker on the right miscellaneous electrical equipment panel, P37, and attach a DO-NOT-CLOSE tag.

(b) Open APU BAT CHGR circuit breaker on the aft equipment center rack, E6, and attach a DO-NOT-CLOSE tag.

(c) Airplanes with Extended Standby Power open 6D2, BAT XFER CONT circuit breaker on the P6 panel and attach a DO-NOT-CLOSE tag.

NOTE: All aircraft configured for ETOPS have Extended Standby Power.

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\_\_\_\_\_ XXXXX (2) Open the forward doors on the E6 rack.

B. Remove the APU battery.

\_\_\_\_\_ XXXXX (1) Do these steps to remove the APU battery:

(a) Disconnect the electrical connectors from the APU battery.

(b) Release the APU battery tray.

(c) Move the APU battery tray out.

(d) Remove the screws that hold the APU battery in the tray.

WARNING: DO NOT REMOVE THE APU BATTERY WITHOUT AID.  
BATTERY WEIGHS 96 POUNDS AND INJURY CAN OCCUR  
IF BATTERY REMOVAL IS DONE WITHOUT AID.

(e) Remove the APU battery.

C. Route battery to shop.

\_\_\_\_\_ XXXXX (1) Attach a M-31 tag to the removed battery and indicate in the "Removal Remarks" block that the "BATTERY REQUIRES DEEP-CYCLE AND CAPACITY CHECK".

2. Install the APU Battery (Fig. 1).

A. Procedure.

\_\_\_\_\_ XXXXX (1) Do these steps to install the APU battery:

WARNING: DO NOT INSTALL THE APU BATTERY WITHOUT AID.  
BATTERY WEIGHS 96 POUNDS AND INJURY CAN OCCUR  
IF INSTALLATION IS DONE WITHOUT AID.

(a) Install the APU battery in the tray.

(b) Install the screws that attach the APU battery to the tray.

(c) Move the APU battery tray aft into the E6 rack.

(d) Lock the APU battery tray.

(e) Connect the electrical connectors to the APU battery.

CAUTION: IF YOU DO NOT CLOSE THE CIRCUIT BREAKERS IN THIS SEQUENCE, DAMAGE TO THE BATTERY CHARGER CAN OCCUR.

\_\_\_\_\_ XXXXX B. Close the circuit breakers in the sequence shown.

(1) Remove the DO-NOT-CLOSE tag, and close this circuit breaker on the E6 rack.

(a) APU BAT CHGR

(2) Remove the DO-NOT-CLOSE tag, and close this circuit breaker on the P37 panel.

(b) 37B5 or 37K2, APU BATTERY CHARGER

(3) Remove the DO-NOT-CLOSE tag, and close this circuit breaker on the P6 panel.

(a) 6D2, BAT XFER CONT

3. Do these steps to check the APU battery ground stud:

\_\_\_\_\_ XXXXX A. Perform a General Visual Inspection of the APU battery ground stud. Ensure terminal lug, ground strap or stud is not damaged, deformed, discolored, or annealed.

NOTE: If any damage is found, a logbook (M-10) or non-routine entry is required. Troubleshooting and repair procedures are found in AMM 34-31-03-4.

\_\_\_\_\_ XXXXX B. Clean the fuselage area next to the APU ground studs. Make sure there is no dust on the APU ground stud area.

4. Perform a test of the APU battery installation.

\_\_\_\_\_ XXXXX A. Supply electrical power (AMM 24-22-00).

\_\_\_\_\_ XXXXX B. Make sure the six EICAS circuit breakers on the overhead

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panel, P11, are closed.

\_\_\_\_\_ XXXXX C. Do the Maintenance Message Erase procedure (AMM 31-41-00).

\_\_\_\_\_ XXXXX D. Make sure the STBY POWER switch, on the pilots' overhead panel, P5, is set to the AUTO position.

\_\_\_\_\_ XXXXX E. Do a test of the APU battery as follows:

(1) Push the ECS MSG switch on the EICAS maintenance panel on the right side panel, P61.

NOTE: Make sure the EICAS message, APU BAT CHGR, does not show on the bottom display.

(2) Make sure the BAT switch, on the pilots' overhead panel, P5, is ON.

(3) Turn the STBY POWER switch to the BAT position.

(4) Push the ELEC HYD switch on the EICAS maintenance panel on the right side panel, P61.

(5) Make sure the value that follows is below APU/BAT on the bottom EICAS display.

(a) DC-V = 24 +/- 4

(6) Turn the STBY POWER switch to the AUTO position.

NOTE: Watch the EICAS display closely. The values on the display will change quickly.

(7) Make sure these values show below APU/BAT on the bottom EICAS display.

(a) DC-A value increases quickly to 38 +/- 5.

(b) DC-V value increases to 33 +/- 4 then decreases to 28 +/- 3.

NOTE: It will usually take less than one minute for the voltage value to increase and then decrease. A fully discharged battery can

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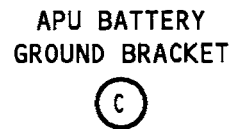
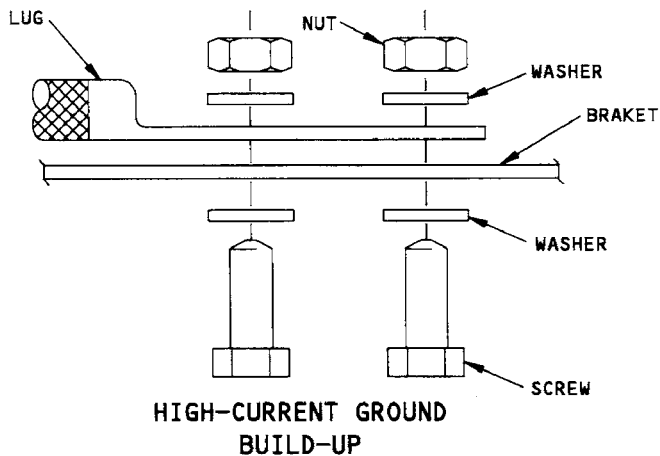
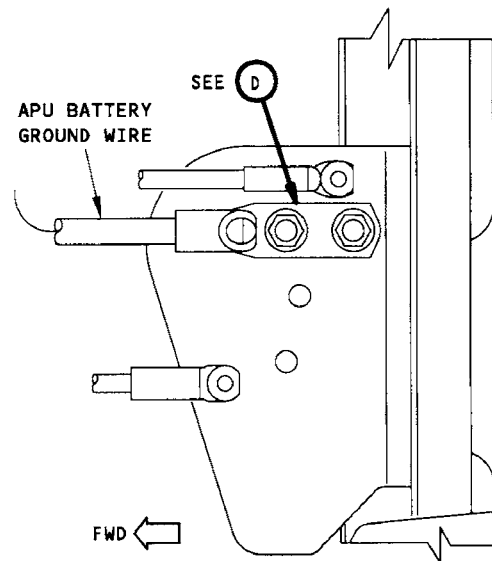
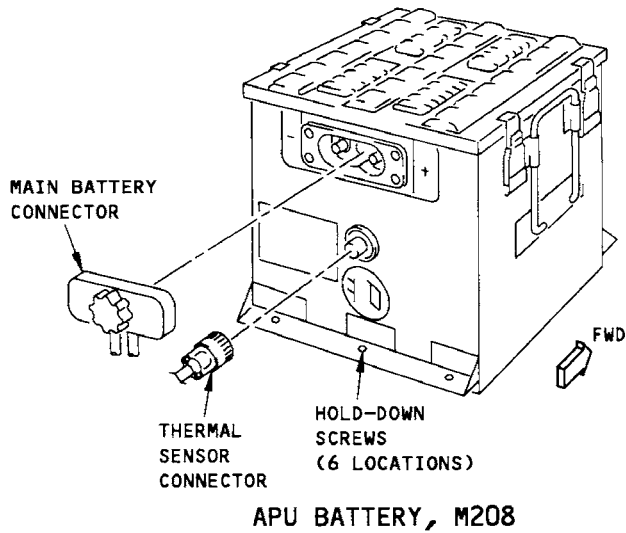
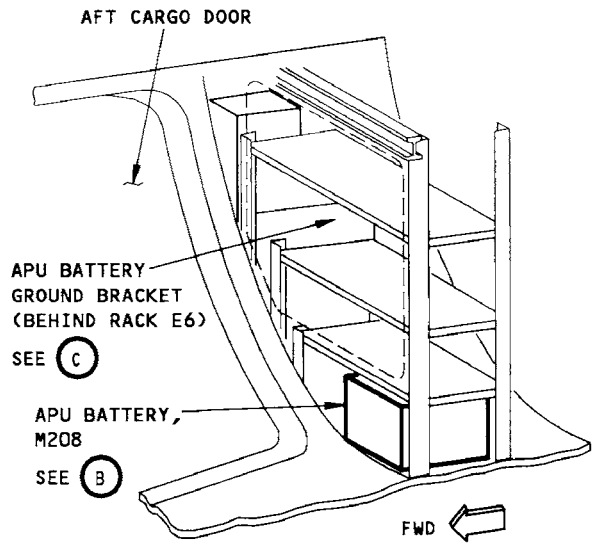
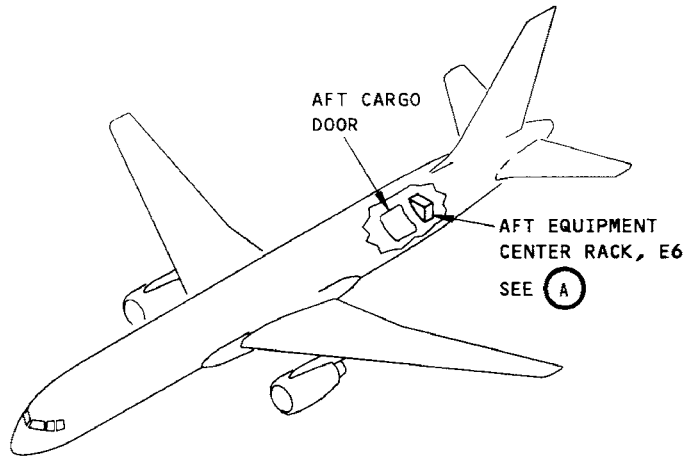
extend this time to 75 minutes.

(c) After the DC-V value decreases to 28 +/- 2 make  
sure the DC-A value is 0 +/- 5.

XXXXX 5. Remove electrical power if it is no longer required (AMM  
24-22-00).

\*\*\*\*\*END OF WORKCARD\*\*\*\*\*

# 212R2401



APU Battery Installation