SEALED LEAD ACID BATTERY - MAINTENANCE PRACTICES

1. General

A. The battery is a maintenance free, 24 VDC, 40 ampere-hour sealed lead acid battery. The battery is a recombinant gas (RG) absorbed electrolyte battery. Because the electrolyte is absorbed in glass mat (AGM) separators, no leakage will occur, even if the case is cracked or damaged through mishandling. The battery is equipped with overboard vent lines, which connect to the vent fittings on the battery case. The battery is located on the right side of the forward fire wall.

NOTE: Battery is serviced and charged at the factory. Although the battery is a maintenance free battery, to ensure airworthiness, battery capacity must be checked periodically. Refer to Chapter 5, Inspection Time Limits.

NOTE: When replacing Ni- Cad battery with lead acid battery, refer to Ni-Cad Battery - Removal/Installation for modification of Battery Overheat Warning System.

2. Battery Removal/Installation

A. Remove Battery (Refer to Figure 201).

(1) Ensure battery switch is in OFF position.
(2) Open right side cowl door. Refer to Chapter 71, Engine Cowling and Nose Cap - Maintenance Practices.
(3) Disconnect battery connector from battery.
(4) Pull lever to release battery tray from latch on fire wall.
(5) Swing battery tray away from fire wall.
(6) Cut and remove safety wire from wing nuts.
(7) Remove wing nuts and washers from strap securing battery cover to battery and tray.
(8) Remove battery cover.
(9) Remove vent lines from elbows.
(10) Clean adhesive from vent lines and elbows using isopropyl alcohol.
(11) Remove battery from airplane.

B. Install Battery (Refer to Figure 201).

(1) Clean battery support and battery tray as necessary.
(2) Position battery on battery tray, but do not secure .
(3) Connect battery connector to battery and hand tighten.
(4) Position battery cover on battery and secure with strap, washers and wing nuts.
(5) Safety wire wing nuts. Refer to Chapter 20, Safetying - Maintenance Practices.
(6) Apply 14-30 adhesive to vent lines and elbows.
(7) Install vent lines to elbows.
(8) Swing battery aft until lever engages latch on fire wall.
(9) Close right cowl door. Refer to Chapter 71, Engine Cowling and Nosecap - Maintenance Practices.

3. Battery Receptacle Inspection

A. Items To Inspect.

(1) Connect pins should be inspected for corrosion, pitting or burn marks. If any of these defects are evident to the extent that total electrical contact could be prevented, the surface shall be cleaned.
(2) If cleaning process reduces pin diameter below 0.370 inch, the battery shall be replaced.

4. Battery Quick-Disconnect Inspection

A. Items To Inspect

(1) Check for excessively loose handle and locking assembly.
(2) Check for pitted or corroded mating surfaces.
(3) Check for burn marks caused when battery is disconnected under load.
(4) Test for resiliency of mating surfaces to an oversized pin (Elcon connector only). Insert larger diameter probe (0.385 inch diameter) of a GO/NO-GO gage into helix or sleeve to maximum depth. Ensure a snug fit with a removal force

greater than one pound.

(5) To assure contact is adequate for a worn battery pin, insert small diameter end (0.370 inch diameter) of GO/NO-GO gage.

(a) Elcon connector, ensure a snug fit with a nominal removal force of one pound.

(b) Rebling connector, ensure each socket exerts sufficient pressure on the pin to hold the 0.370 inch diameter GO/NO-GO gage when the quick-disconnect is inverted to a position where the gage is pointed downward.

(6) If the connector fails to pass resiliency test or shows excessive wear or damage, replace connector.

Figure 201 : Sheet 1 : Sealed Lead Acid Battery Installation