## ELECTRICAL DISTRIBUTION SYSTEM - INSPECTION/CHECK

### 1. General

A. This section has the inspections and checks necessary to keep the electrical distribution system components in a serviceable condition.

**TASK 24-50-00-220**

### 2. Power Distribution Boxes Detailed Inspection

A. General

(1) This task gives the procedures to do a detailed inspection of the power distribution boxes.

B. Special Tools

(1) None

C. Access

(1) Remove the upper left and right cowling doors to get access to the battery and the power distribution boxes. Refer to Chapter 71, Engine Cowling and Nose Cap - Maintenance Practices.

D. Do a Detailed Inspection of the Power Distribution Box (Electrical Power). Refer to Figure 601.

(1) Set the BATTERY switch to the OFF position.

(2) Remove the external electrical power from the airplane.

(3) Disconnect the battery terminals.

(4) Attach a warning tag to the battery and the external power receptacle that have the statement that follows:

**WARNING: Do Not Connect or Apply Electrical Power to the Airplane - Maintenance in Progress.**

(5) Remove the screws that attach the cover to the electrical power distribution box.

(a) Remove the cover from the box.

(6) Examine all electrical components for condition and security.

(7) Examine all electrical wires and cables for correct routing, support, chafing, and security of the connectors.

(8) Examine the box and the cover for condition and security.

(9) Examine the sealant between the box and firewall for condition.

(a) If the seal is broken, loose, or deteriorated, replace it with a new fillet seal using Type II, Class B-4 sealant. Refer to Chapter 20, Fuel, Weather and High-Temperature Sealing - Maintenance Practices.

(10) Examine all current limiters for signs of an open link.

(a) If the condition is unknown, remove the current limiter(s) and do a resistance test with an ohmmeter.

1 The resistance must be less than 1 ohm.

(11) Examine the sealant on the firewall electrical connectors for condition.

(a) If the seal is broken, loose, or deteriorated, replace it with new silicone sealant (part number Q3-6077). Refer to Chapter 20, Electrical Bonding - Maintenance Practices.

(12) Put the cover in its position on the electrical power distribution box.

(a) Install the screws.

E. Do a Detailed Inspection of the Power Distribution Box (Standby Electrical Power). Refer to Figure 602.

(1) Remove the screws that attach the cover to the standby electrical power distribution box.

(a) Remove the cover from the box.

(2) Examine the box and the cover for condition and security.

(3) Examine all electrical components for condition, contamination, and security.

(a) If there are signs of contamination, remove the contamination and apply Type II, Class B-4 sealant across the top of the cover and the relay base assembly. Refer to Chapter 20, Fuel, Weather and High-Temperature Sealing - Maintenance Practices.

(4) Examine all electrical wires and cables for correct routing, support, chafing, and security of the connectors.

(5) Examine the current limiters for signs of an open link.

(a) If the condition is unknown, remove the current limiter(s) and do a resistance test with an ohmmeter.

1 The resistance must be less than 1 ohm.

(6) Examine the sealant between the base of the box and the firewall for condition.

(a) If the seal is broken, loose, or deteriorated, replace it with a new fillet seal using Type II, Class B-4 sealant. Refer to Chapter 20, Fuel, Weather and High-Temperature Sealing - Maintenance Practices.

(7) Put the cover in its position on the standby electrical power distribution box.

(a) Install the screws.

(8) Apply a new fillet seal between the cover and the base using Type II, Class B-4 sealant. Refer to Chapter 20, Fuel, Weather and High-Temperature Sealing - Maintenance Practices.

(9) Remove the warning tag from the battery and the external power receptacle.

(10) Connect the battery.

F. Restore Access

(1) Install the upper left and right cowling doors. Refer to Chapter 71, Engine Cowling and Nose Cap - Maintenance Practices.

**END OF TASK**

Figure 601 : Sheet 1 : Electrical Power Distribution Box

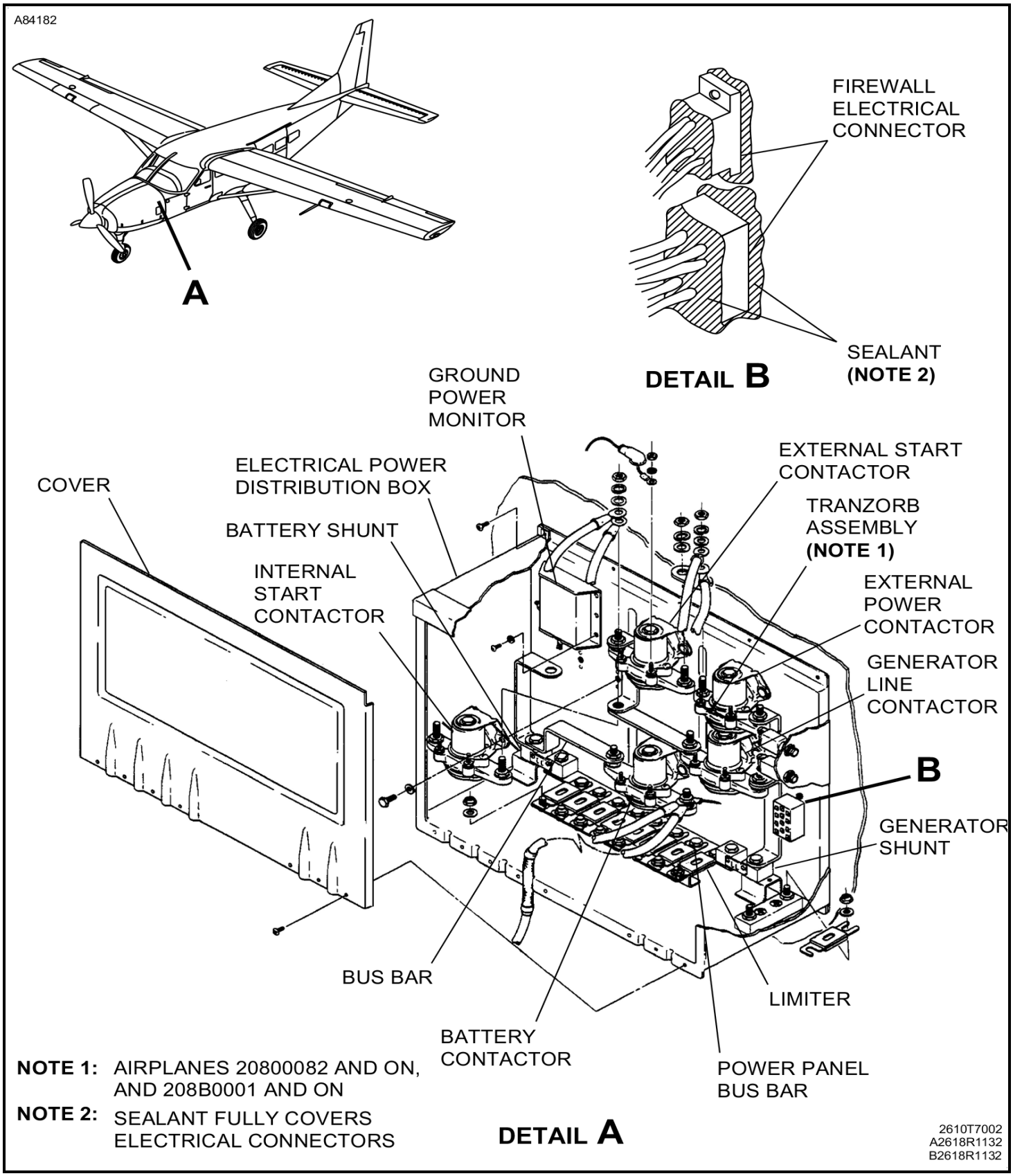

Figure 602 : Sheet 1 : Standby Electrical Power Distribution Box