

**WINDSHIELD ANTI-ICE - MAINTENANCE PRACTICES****1. General**

- A. Windshield anti-ice maintenance practices include component removal/installation.

**2. Windshield Anti-Ice Panel and Attach Bracket Removal/Installation**

**NOTE:** Airplanes 20800381 and On and 208B1088 and On, and those incorporating SK208-146, have a larger anti-ice panel installed. The larger anti-ice panel has an additional attach rod, and a different electrical connector.

- A. Remove Windshield Anti-Ice Panel and Attach Bracket (Refer to Figure 201).

- (1) Make sure electrical power is off.
- (2) Disconnect the connector from the receptacle that is found at the center lower windshield, then install the cover over the receptacle.
- (3) Disconnect the shock chord hook or the attach rod(s).
- (4) Move the spring-loaded lever on the release assembly to release the hinge pins, then remove the anti-ice panel.
- (5) Stow the anti-ice panel in the storage bag for protection.
- (6) Attach the anti-ice panel to the sidewall of the airplane, aft of the cargo door.
  - (a) Stretch the storage bag attach chord over the anti-ice panel, then hook the attach cord into the bracket.
- (7) Remove the screws, washers, nuts and spacer, that attach the attach bracket to the windshield retainer.

**NOTE:** Do not let the washers and nuts fall behind the instrument panel when you remove the windshield anti-ice attach bracket.

- (8) Remove attach bracket from the anti-ice panel, then remove the screws, washers and nuts.

- B. Install the Windshield Anti-Ice Panel and Attach Bracket (Refer to Figure 201).

- (1) To install the attach bracket, align the attach bracket with the holes in windshield retainer, then install the screws, washers and nuts.
- (2) To install the anti-ice panel, do the steps that follow:
  - (a) Put the anti-ice panel in the center of the attach bracket.
  - (b) Insert the inboard hinge pin into the hole in the attach bracket.
  - (c) Retract the hinge pin on the other end of release assembly with the spring-loaded lever.
  - (d) Release the spring-loaded lever to let the hinge pin engage into the hole in the attach bracket.
  - (e) Do a check that the anti-ice panel is installed correctly.
- (3) Attach the shock chord hook or the attach rod(s) to the airplane.
- (4) Make that electrical power is off.

**CAUTION:** Accidental operation of the heated anti-ice panel for an extended period of time, without the engine in operation, will cause damage to the anti-ice panel and crazing of the windshield.

- (5) Remove the cover from receptacle, then connect connector to the receptacle.

- (6) Do the Windshield Anti-Ice System Operational Check. Refer to Windshield Anti-Ice - Inspection/Check.

**3. Windshield Anti-Ice Electrical Receptacle Cover Removal/Installation**

- A. Remove the Windshield Anti-Ice Electrical Receptacle Cover (Refer to Figure 201).

- (1) Make sure that the electrical power is off.
- (2) Disconnect the connector from the receptacle in the cover.
- (3) Remove the screws, washers and nuts that attach the cover to the windshield retainers.
- (4) Remove the nut that attaches the receptacle to the cover.
- (5) Put a tag on the wires from the receptacle to identify them.
- (6) Remove the wires from the receptacle.
- (7) Remove the cover.

- B. Install the Windshield Anti-Ice Electrical Receptacle Cover (Refer to Figure 201).

- (1) Put the wires through the hole in the electrical receptacle cover, then install the wires in the receptacle.
- (2) Remove the tags from the wires.
- (3) Put the receptacle in the cover, then attach with the nut.
  - (a) Use FULACRYL FS3606T to make a seal around the perimeter of the cover, electrical receptacle and the hole in the windshield retainer where the anti-ice wires route.

**NOTE:** Seal is applied to keep moisture out of the cabin area.

- (4) Install the screws, washers and nuts that attach the cover to the windshield retainers.
- (5) Connect the connector to the receptacle.

#### 4. Windshield Anti-Ice Controller Removal/Installation

- A. Remove the Windshield Anti-Ice Controller (Refer to Figure 201).
  - (1) Make sure electrical power is off.
  - (2) Remove the circuit breaker panel to get access to the anti-ice controller that is found in the electrical equipment box behind the circuit breaker panel.
  - (3) Put a tag on the wires from the controller.
  - (4) Remove the controller wires.
  - (5) Remove the screws that attach the controller to the electrical equipment box, then remove the controller from the airplane.
- B. Install the Windshield Anti-Ice Controller (Refer to Figure 201).
  - (1) Make sure that electrical power is off.
  - (2) Align the controller with the nutplates in the electrical equipment box, then install with the screws.
  - (3) Remove the identification tags from wires, then install the wires to the controller.
  - (4) Install the circuit breaker panel.

#### 5. Windshield Anti-Ice Relay Removal/Installation

- A. Remove the Windshield Anti-Ice Relay (Refer to Figure 201).
  - (1) Make sure electrical power is off.
  - (2) Remove the circuit breaker panel to get access to the anti-ice relay that is found in the electrical equipment box.
  - (3) Remove the plug(s) from the anti-ice relay mounting base.
  - (4) Remove the screw(s) that attach the relay to the airplane.
  - (5) Remove the relay from the airplane.
- B. Install the Windshield Anti-Ice Relay (Refer to Figure 201).
  - (1) Make sure electrical power is off.
  - (2) Attach the relay with the screw(s).
  - (3) Connect the plug(s) into the relay.
  - (4) Install the circuit breaker panel.

#### 6. Approved Repairs

- A. Windshield Anti-Ice Panel Repair (Refer to Figure 202).

**NOTE:** There are two different methods to attach the upper side of the anti-ice panel. Earlier serial number airplanes had a rubber bungee system and this was later changed to a steel rod system.

- (1) Make sure electrical power is off.
- (2) Disconnect the electrical connector from the receptacle that is found at the lower, center part of the windshield.
- (3) Remove the screws, washers and nuts that attach the lower bracket and release assembly, remove the lower bracket and release assembly.

**NOTE:** If you replace only one side of the frame, use extreme precaution when you remove the hinge block of the release assembly from the remaining side. This is necessary so you do not damage the copper strip that is found between the hinge block and the frame channel.

**CAUTION:** Be careful so you do not damage the glass.

- (4) Remove the side frame assembly.

**NOTE:** You can use a thin putty knife to help in the removal of the side frame assembly.

- (5) Use methyl n-propyl ketone to remove all the copper tape or sealer from the glass, if necessary.
- (6) Clean the glass with alcohol, then a clean cloth.
- (7) Pull off the backing and put the new self-sticking copper tape (3M, 1181) in position the on outboard face of the glass.
- (8) Make sure there is a 0.06-inch space between the top and side edges of the glass.
- (9) Make sure there is a 1.0-inch overlap of copper tape from the bottom edge of the glass.
- (10) Tin the outer 0.75 inches of the overlap of the copper strip(s). Refer to Model 208 Series Wiring Diagram Manual, Chapter 20, Soldering - Maintenance Practices.
- (11) Put the three 2601445-13 rubber spacers on the inside length of the glass retainer channel.
- (12) Make sure they are equally distanced between the ends of the channel.

**NOTE:** There will be one spacer in the center and one spacer near each end. The spacers are to prevent contact with the glass and the rivet tails.

- (13) Use Type 1, Class 2A adhesive to make a bond between the new 2601445-2 and/or-3 frame assembly to the glass. Refer to Chapter 20, Fuel, Weather and High- Temperature Sealing - Maintenance Practices.
- (14) Align the top edges of the glass and the frame.
- (15) Put the hinge blocks in position, then attach the components for the windshield anti-ice panel.
- (16) Drill two holes in each new tinned copper to align the hinge block.
- (17) Make an electrical bond between the following components. Refer to Chapter 20, Electrical Bonding - Maintenance Practices.

- (a) The lower bracket to the 2601445-2 and -3 frame assemblies.
- (b) The 2601445-2 and -3 frame assemblies to the copper strips.

**CAUTION:** Make sure the electrical lead is attached in the clamp.

- (c) The ground terminal to the frame assembly.

**NOTE:** Make sure that none of the screws extend into a position where the windshield can be scratched.

- (18) Remove the rod end and nut from the 2601445-10 rod assembly, then install it through the spring guide assembly.
- (19) Install the nut and the rod end on the rod assembly.
- (20) Connect the connector to the receptacle that is found at the center lower windshield.
- (21) If the panel has not been modified per SK208-113, or on Airplanes 20800001 thru 20800232, or on Airplanes 208B0001 thru 208B0353, you must also do the step that follows:
- (a) Remove the existing screw, nut and washer in the upper windshield located at approximately LBL 18.25.
    - 1 Replace the existing screw with a screw combination that forms the mount for the rod assembly.
    - 2 Put the washer and nut on both the outside and inside of the windshield.
    - 3 Make sure you leave 0.22 inches of screw shank between the outer nut and the head of the screw.

Figure 201 : Sheet 1 : Windshield Anti-Ice Panel Installation

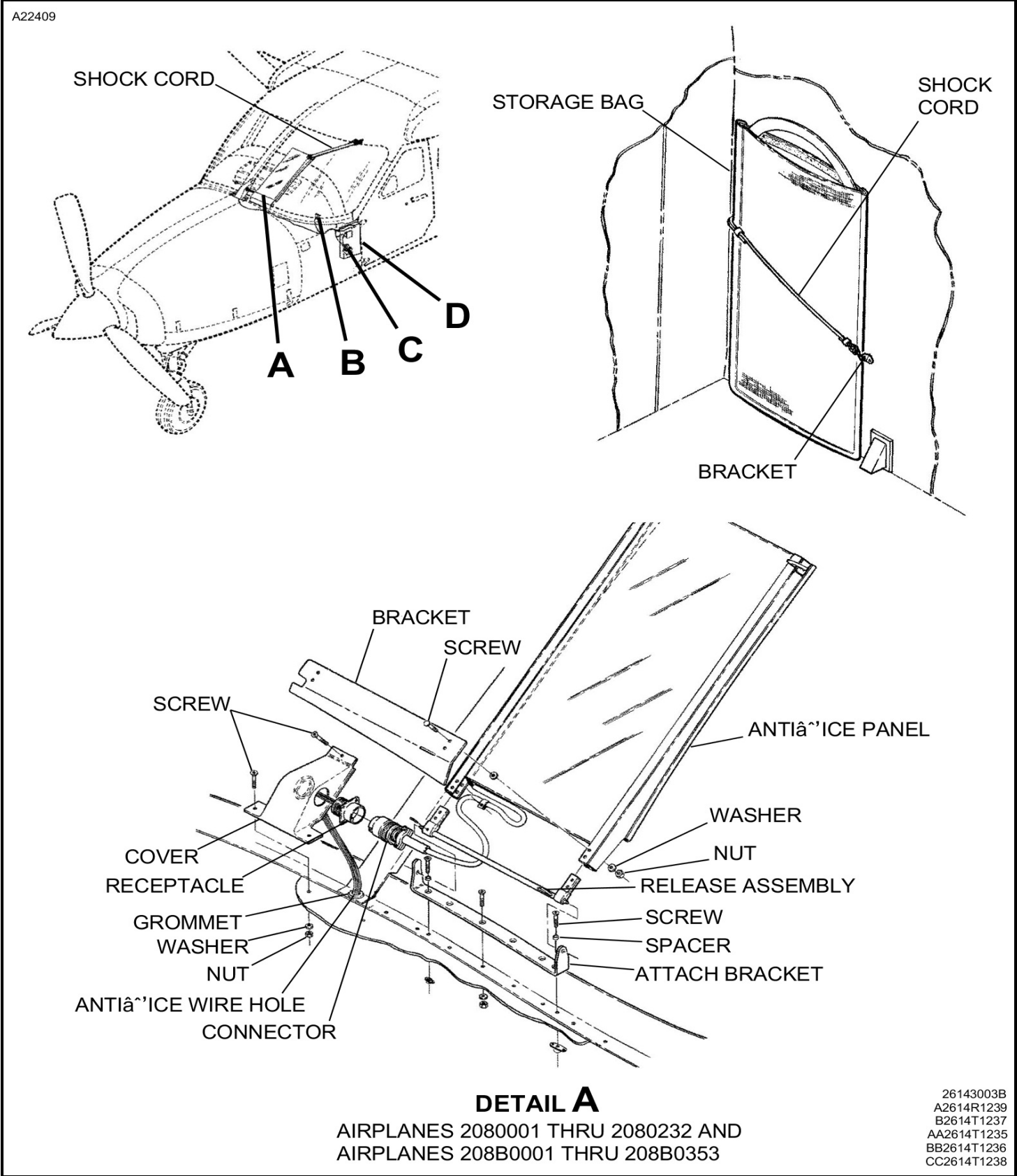
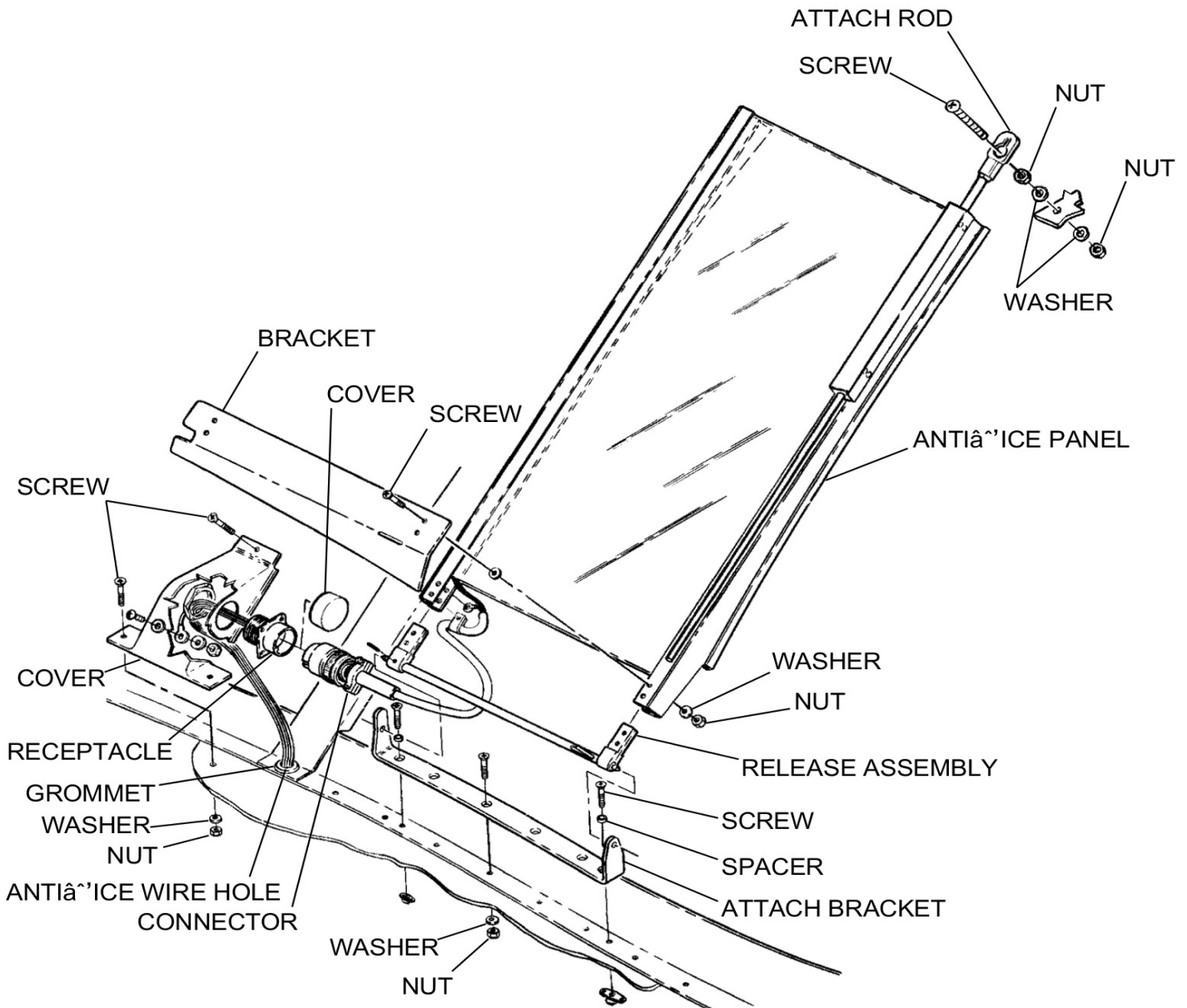


Figure 201 : Sheet 2 : Windshield Anti-Ice Panel Installation

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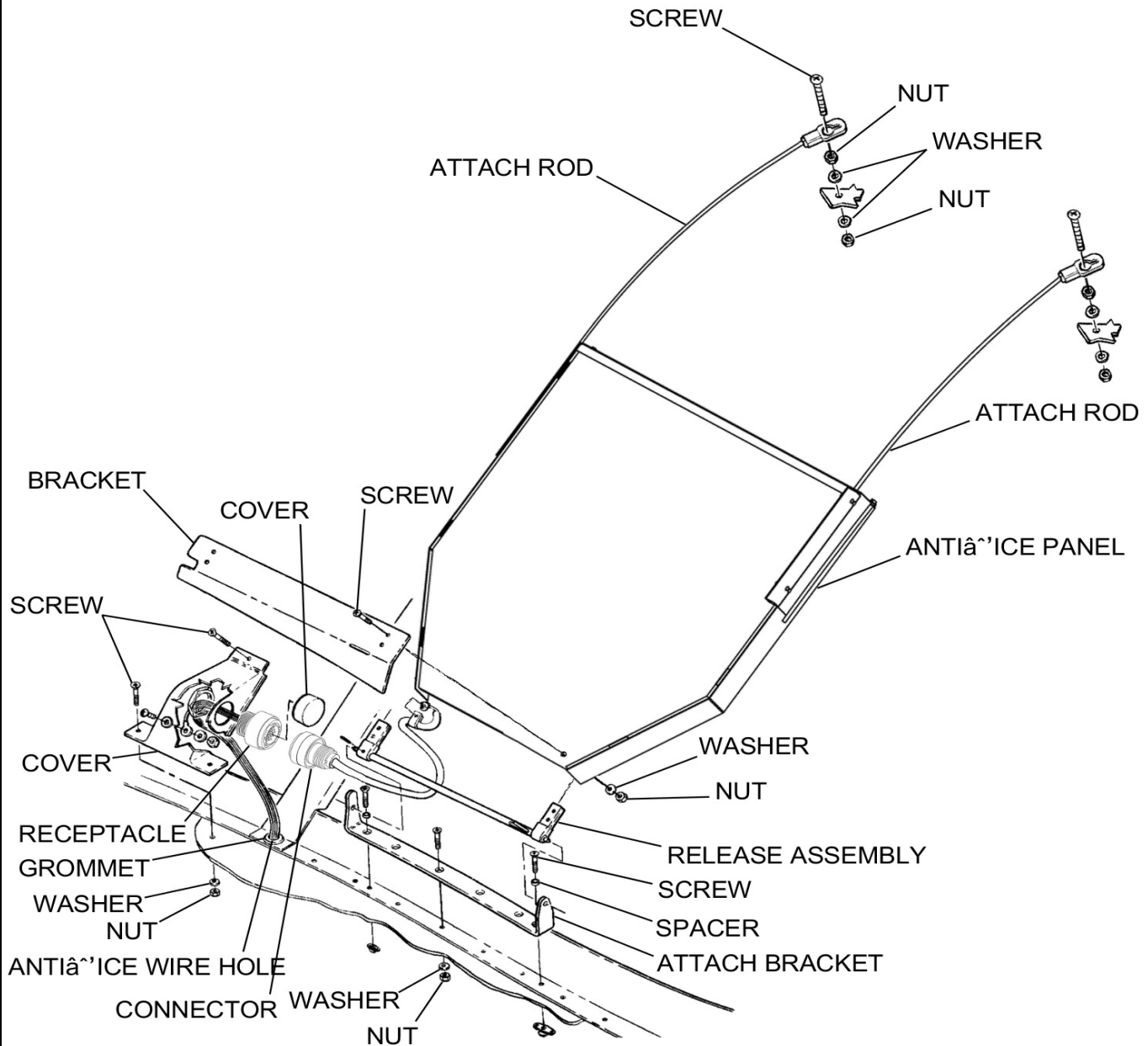
### DETAIL A

AIRPLANES 20800233 THRU 20800381 AND  
AIRPLANES 208B0354 THRU 208B1087, AND  
AIRPLANES 20800001 THRU 20800232 AND  
208B0001 THRU 208B0353  
INCORPORATING SK208-113

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Figure 201 : Sheet 3 : Windshield Anti-Ice Panel Installation

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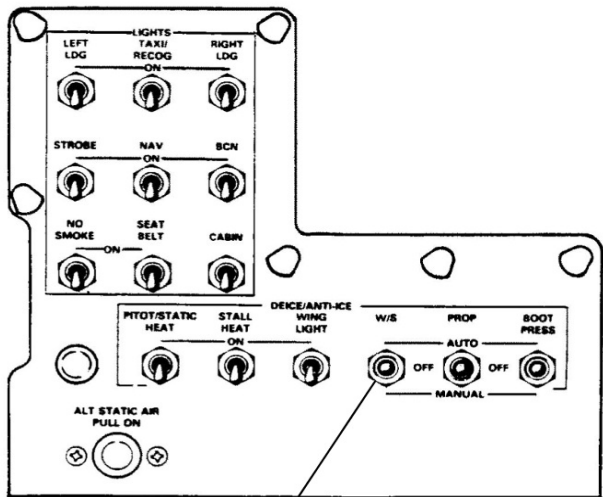
### DETAIL A

AIRPLANES 20800382 AND ON, AND  
AIRPLANES 208B1088 AND ON, AND  
AIRPLANES 20800001 THRU 20800381 AND  
208B0001 THRU 208B1087  
INCORPORATING SK208-146

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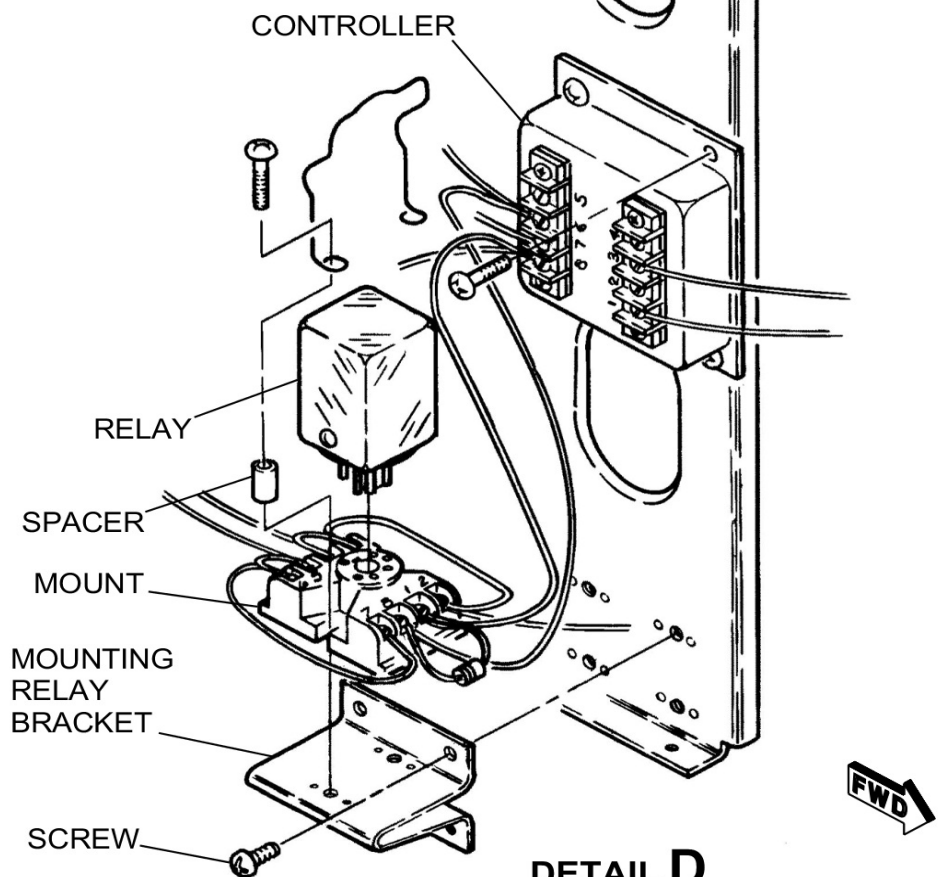
Figure 201 : Sheet 4 : Windshield Anti-Ice Panel Installation

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ANTI-ICE SWITCH

**DETAIL B**



**DETAIL D**

AIRPLANES 20800001 THRU 20800381 AND  
AIRPLANES 208B0001 THRU 208B1087



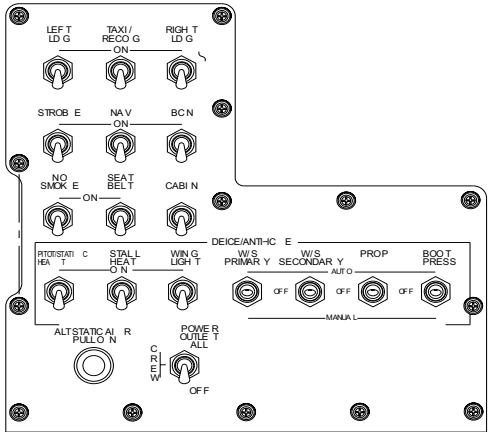
**DETAIL C**

AIRPLANES 20800001 THRU 20800381 AND  
AIRPLANES 208B0001 THRU 208B1087

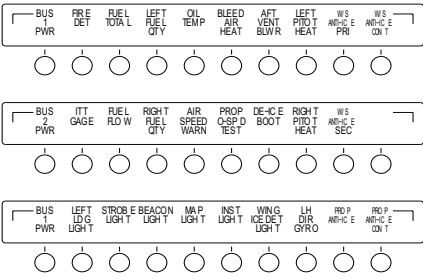
B2614R1071  
C2618R2010  
D2614R1027

Figure 201 : Sheet 5 : Windshield Anti-Ice Panel Installation

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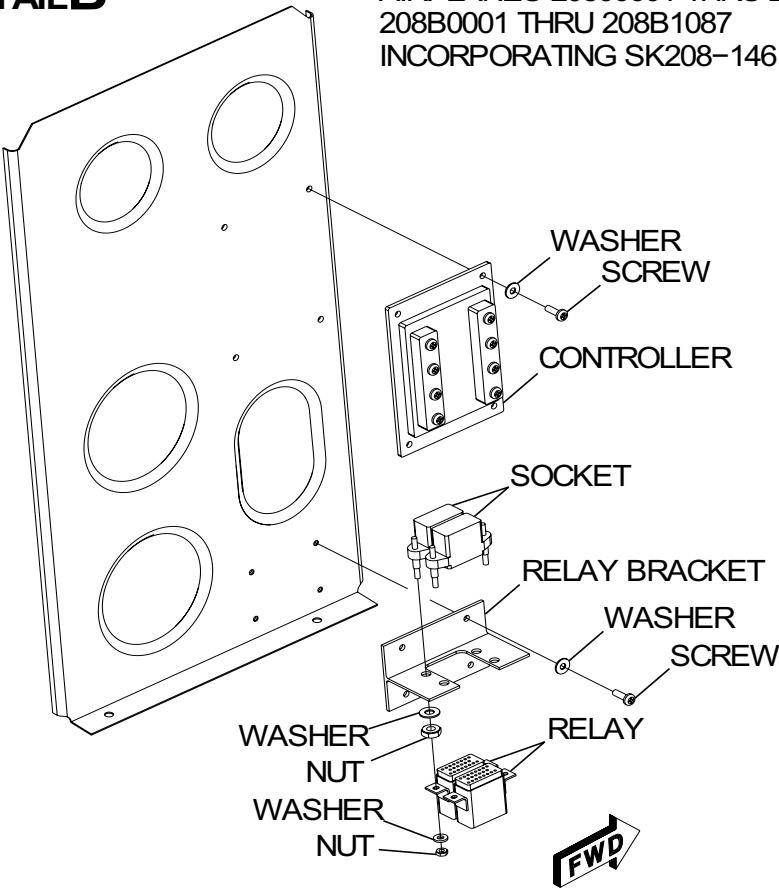


**DETAIL B**



**DETAIL C**

AIRPLANES 20800382 AND ON, AND  
AIRPLANES 208B1088 AND ON, AND  
AIRPLANES 20800001 THRU 20800381 AND  
208B0001 THRU 208B1087  
INCORPORATING SK208-146



**DETAIL C**

AIRPLANES 20800382 AND ON, AND  
AIRPLANES 208B1088 AND ON, AND  
AIRPLANES 20800001 THRU 20800381 AND  
208B0001 THRU 208B1087  
INCORPORATING SK208-146

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C2614T1373  
D2614T1072



Figure 202 : Sheet 1 : Windshield Anti-Ice Panel Repair

