

INCANDESCENT FLIGHT COMPARTMENT LIGHTING - MAINTENANCE PRACTICES**1. General**

- A. Flight compartment lights include instrument lights, three overhead floodlights, post lights for the instruments and overhead console, left sidewall circuit breaker panel, lower instrument panel, and a maplight mounted internally in control wheel.

2. Rheostat Control Removal/Installation

- A. Remove Rheostat Control (Refer to Figure 201).
- (1) Align setscrew holes in both knobs (8) and (10), then loosen setscrew (9) and remove knobs (10) and (8).
 - (2) Remove nut (7) securing rheostat to instrument panel.
 - (3) Remove rheostats (1), (2), (3) or (4) from back of panel and retain lockwasher (6) and nut (5) for reinstallation.
 - (4) Remove shrink tubing (12).
 - (5) Unsolder electrical lead (11) and tag for reinstallation.
- B. Install Rheostat Control (Refer to Figure 201).
- (1) Place a one-inch section of shrink tubing (12) over each electrical lead (11).
 - (2) Solder electrical lead to rheostat terminal, slide shrink tubing over terminals, and shrink tubing using a heating gun.
 - (3) Remove tags from electrical leads.
 - (4) Assemble nut (5) lockwasher (6) to rheostats (1), (2), (3) or (4).
 - (5) Insert rheostat through instrument panel and secure using nut (7).
 - (6) Install knobs (8) and (10), align setscrew holes in knobs, insert setscrew (9), and tighten.

3. Solid State Dimming Assembly Removal/Installation

- A. Remove Solid State Dimming Assembly (Refer to Figure 202).
- (1) Remove left sidewall circuit breaker panel by removing screws securing panel to side of airplane.
 - (2) Disconnect electrical connector (4).
 - (3) Remove screws (1) and washers (2) securing dimming assembly to back of panel.
 - (4) To remove transistors for circuit checking, remove screws (5) and washers (6), and retain insulators (15) for reinstallation.
- B. Install Solid State Dimming Assembly (Refer to Figure 202).
- (1) Install transistors and insulators (15) on dimming assembly using screws (5) and washers (6).
NOTE: Apply Thermal Compound (Dow Corning #4 or equivalent) to all transistors.
 - (2) Install dimming assembly using screws (1) and washers (2).
 - (3) Connect electrical connector (4).
 - (4) Install left sidewall circuit breaker panel to side of airplane using screws.

4. Instrument Panel Post Light Removal/Installation

- A. Remove Instrument Panel Post Light (Refer to Figure 203).
- (1) Remove cap assembly (1) from socket assembly (3).
 - (2) Remove bulb (2) from socket assembly (3).
 - (3) Unscrew connector (8) from socket assembly (3), and retain nut (7), lockwasher (6), washer (5), and lockwasher (4) for reinstallation.
 - (4) Remove socket assembly (3) from instrument panel.
- B. Install Instrument Panel Post Light (Refer to Figure 203).
- (1) Assemble lockwasher (4) and insert socket assembly (3) through instrument panel.
 - (2) Assemble washer (5), lockwasher (6), and nut (7), and screw connector (8) onto socket assembly (3).
 - (3) Insert bulb (2) into socket assembly (3).
 - (4) Push cap assembly (1) over socket assembly (3).

5. Overhead Console Floodlight Removal/Installation

- A. Remove Overhead Console Floodlight (Refer to Figure 204).

- (1) Unscrew cap (7) from socket assembly (6).
- (2) Remove two screws (8) securing socket assembly (6) to overhead console.
- (3) Remove socket assembly (6) from overhead console.
- (4) Slide shield (4) off of socket assembly.
- (5) Press in slightly on bulb (5) and turn counterclockwise to remove from socket assembly (6).
- (6) Remove electrical leads (9) and tag for reinstallation.

B. Install Overhead Console Floodlight (Refer to Figure 204).

- (1) Connect electrical leads (9) and remove tags.
- (2) Insert bulb (5) into socket assembly (6), press in slightly, and turn clockwise.
- (3) Slide shield (4) over socket assembly (6).
- (4) Insert socket assembly (6) into overhead console and secure using two screws (8).
- (5) Screw cap (7) onto socket assembly (6).

6. Overhead Console Post Light Removal/Installation

A. Remove Overhead Console Post Light (Refer to Figure 204).

- (1) Remove cap assembly (3) from socket assembly (1).
- (2) Remove bulb (2) from cap assembly (3).

B. Install Overhead Console Post Light (Refer to Figure 204).

- (1) Insert bulb (2) into cap assembly (3).
- (2) Push cap assembly (3) over socket assembly (1).

7. Fuel Tank Selector and Oxygen Control Annunciator Light Removal/Installation

A. Remove Fuel Tank Selector and Oxygen Control Annunciator Light (Refer to Figure 204).

- (1) Remove socket (12) by unscrewing from overhead console.
- (2) Remove bulb (10) from socket and retain shield (11) for reinstallation.

B. Install Fuel Tank Selector and Oxygen Control Annunciator Light (Refer to Figure 204).

- (1) Assemble shield (11) to socket (12).
- (2) Insert bulb (10) into socket (12) and screw socket into overhead console.

8. Lower Instrument Panel Floodlight Removal/Installation

A. Remove Lower Instrument Panel Floodlight (Refer to Figure 205).

- (1) Remove screws (1) securing shield (2) to pedestal.
- (2) Press in slightly on bulb (3) and turn counterclockwise to remove from socket (4).

B. Install Lower Instrument Panel Floodlight (Refer to Figure 205).

- (1) Insert bulb (3) into socket (4), press in slightly and turn clockwise.
- (2) Install screws (1) securing shield (2) to pedestal.

9. Left Sidewall Circuit Breaker Panel Floodlight Removal/Installation (Bottom Left Side of Instrument Panel Glareshield)

A. Remove Floodlight (Refer to Figure 206).

- (1) Grasp hood (13) and gently pull to remove hood.
- (2) Push in slightly on bulb (12) and turn counterclockwise to remove bulb from socket (11).
- (3) Remove two screws (10) securing bracket (9) to glareshield.
- (4) Unscrew housing (7) from socket (11) and keep retainer clip (8) for reinstallation.

B. Install Floodlight (Refer to Figure 206).

- (1) Place socket (11) through bracket (9) and retainer clip (8), and screw into housing (7).
- (2) Install two screws (10) securing bracket (9) to glareshield.
- (3) Insert bulb (12) into socket (11), push in slightly and turn clockwise.

- (4) Push hood (13) over socket (11) after ensuring alignment pin matches alignment groove in hood.

10. Left Sidewall Circuit Breaker Panel Floodlight Removal/Installation (Under Lower Left Side of Instrument Panel Glareshield)

- A. Remove Left Sidewall Circuit Breaker Panel Floodlight (Refer to Figure 206).
 - (1) Grasp hood (15) and gently pull to remove hood.
 - (2) Push in slightly on bulb (16) and turn counterclockwise to remove bulb from socket (17).
 - (3) Remove two screws (19) and two nuts (23) securing bracket (18) to plate (22).
 - (4) Unscrew housing (21) from socket (17) and retain retainer clip (20) for reinstallation.
- B. Install Left Sidewall Circuit Breaker Panel Floodlight (Refer to Figure 206).
 - (1) Place socket (17) through bracket (18) and retainer clip (20) and screw into housing (21).
 - (2) Install two screws (19) and two nuts (23) securing bracket (18) to plate (22).
 - (3) Insert bulb (16) into socket (17), push in slightly and turn clockwise.
 - (4) Push hood (15) over socket (17) after ensuring alignment pin matches alignment groove in hood.

11. Control Wheel Maplight Removal/Installation

- A. Remove Control Wheel Maplight (Refer to Figure 207).
 - (1) Rotate pilot's control wheel approximately 90 degrees clockwise for access to maplight.
 - (2) Press in on bulb (1) and turn counterclockwise to remove bulb.
 - (3) Remove nut (3), washer (4), and socket (2).
 - (4) Loosen setscrew (6) in knob (5) and remove knob.
 - (5) Remove nut (7) and rheostat (8) from lower left side of control wheel.
- B. Install Control Wheel Maplight (Refer to Figure 207).
 - (1) Rotate pilot's control wheel approximately 90 degrees clockwise for access to maplight.
 - (2) Place rheostat (8) through hole in lower side of control wheel.
 - (3) Install nut (7) on rheostat (8) and tighten.
 - (4) Install knob (5) on rheostat (8) and tighten setscrew (6).
 - (5) Install socket (2), washer (4), and nut (3) and tighten.
 - (6) Press bulb (1) into socket (2) and turn clockwise.

12. Cargo Dome Light Removal/Installation

- A. Remove Cargo Dome Light (Refer to Figure 208).
 - (1) Remove lens assembly (6) by removing screws.
 - (2) Press in slightly on bulb (4) and turn counterclockwise to remove bulb from socket assembly (2).
 - (3) Remove screws (5) and remove socket assembly (2) from splice plate (1).
- B. Install Cargo Dome Light (Refer to Figure 208).
 - (1) Install screws (5) securing socket assembly (2) to splice plate (1).
 - (2) Insert bulb (4) into socket assembly (2), press in slightly, and turn clockwise.
 - (3) Ensure gasket (3) is in place.
 - (4) Secure lens assembly (6) using screws.

13. Outside Air Temperature Gage Post Light Removal/Installation

- A. Remove Outside Air Temperature Gage Post Light (Refer to Figure 209).
 - (1) Remove outside air temperature gage to gain access to post light connector.
 - (2) Remove cap assembly (1) from socket assembly (3).
 - (3) Remove bulb (2) from socket assembly (3).
 - (4) Unscrew electrical connector (8) from socket assembly (3).
 - (5) Unscrew nut (7) from socket assembly (3) and retain nut (7), lockwasher (6), washer (5), and lockwasher (4) for reinstallation.

- B. Install Outside Air Temperature Gage Post Light (Refer to Figure 209).
- (1) Assemble lockwasher (4) on socket assembly (3) and insert socket assembly (3) through trim panel.
 - (2) Tighten nut (7) and screw electrical connector (8) onto socket assembly (3).
 - (3) Install bulb (2) to socket assembly (3).
 - (4) Install cap assembly (1) to socket assembly (3).
 - (5) Install outside air temperature gage.

Figure 201 : Sheet 1 : Flight Compartment Lighting Controls

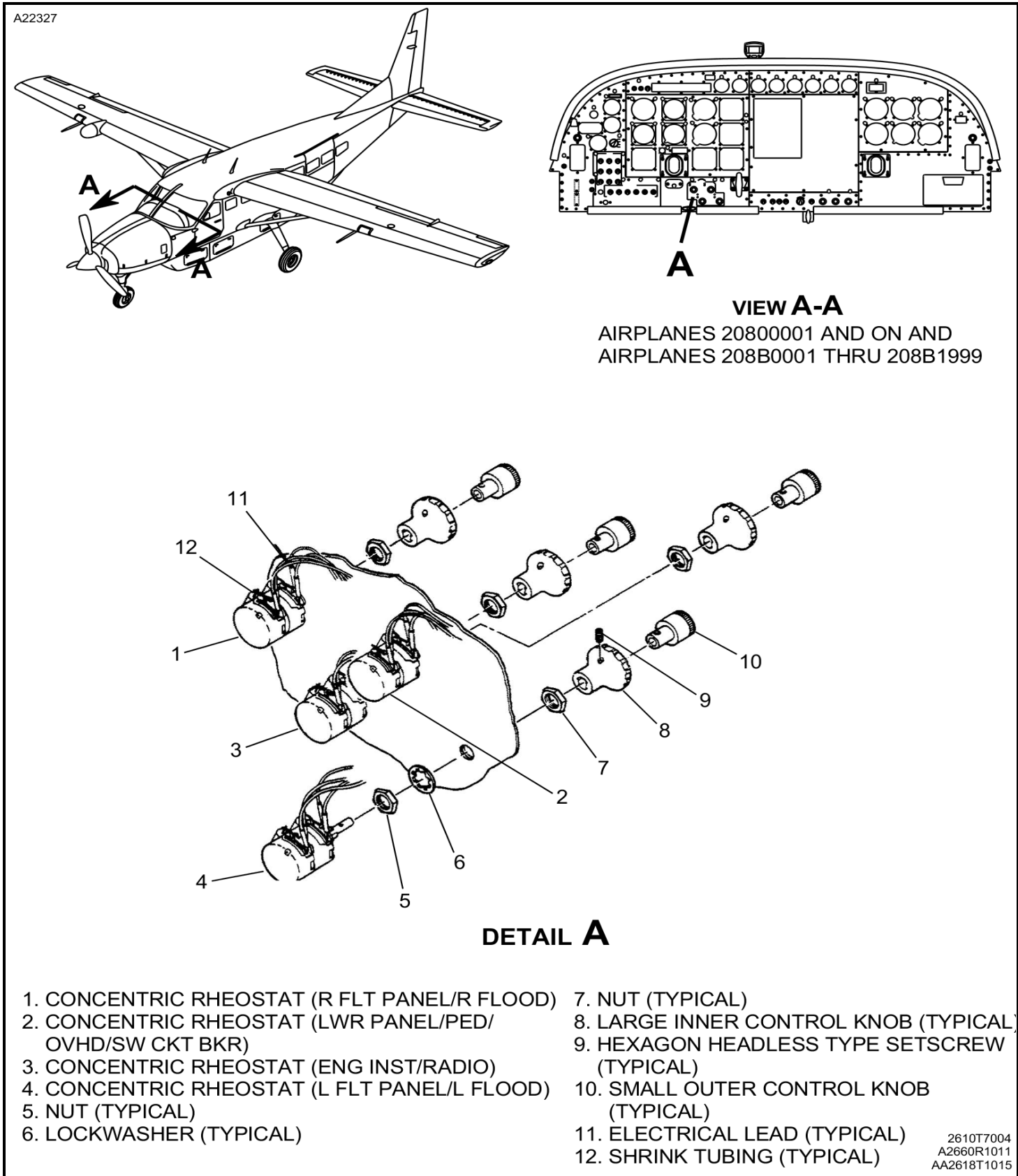


Figure 201 : Sheet 2 : Flight Compartment Lighting Controls

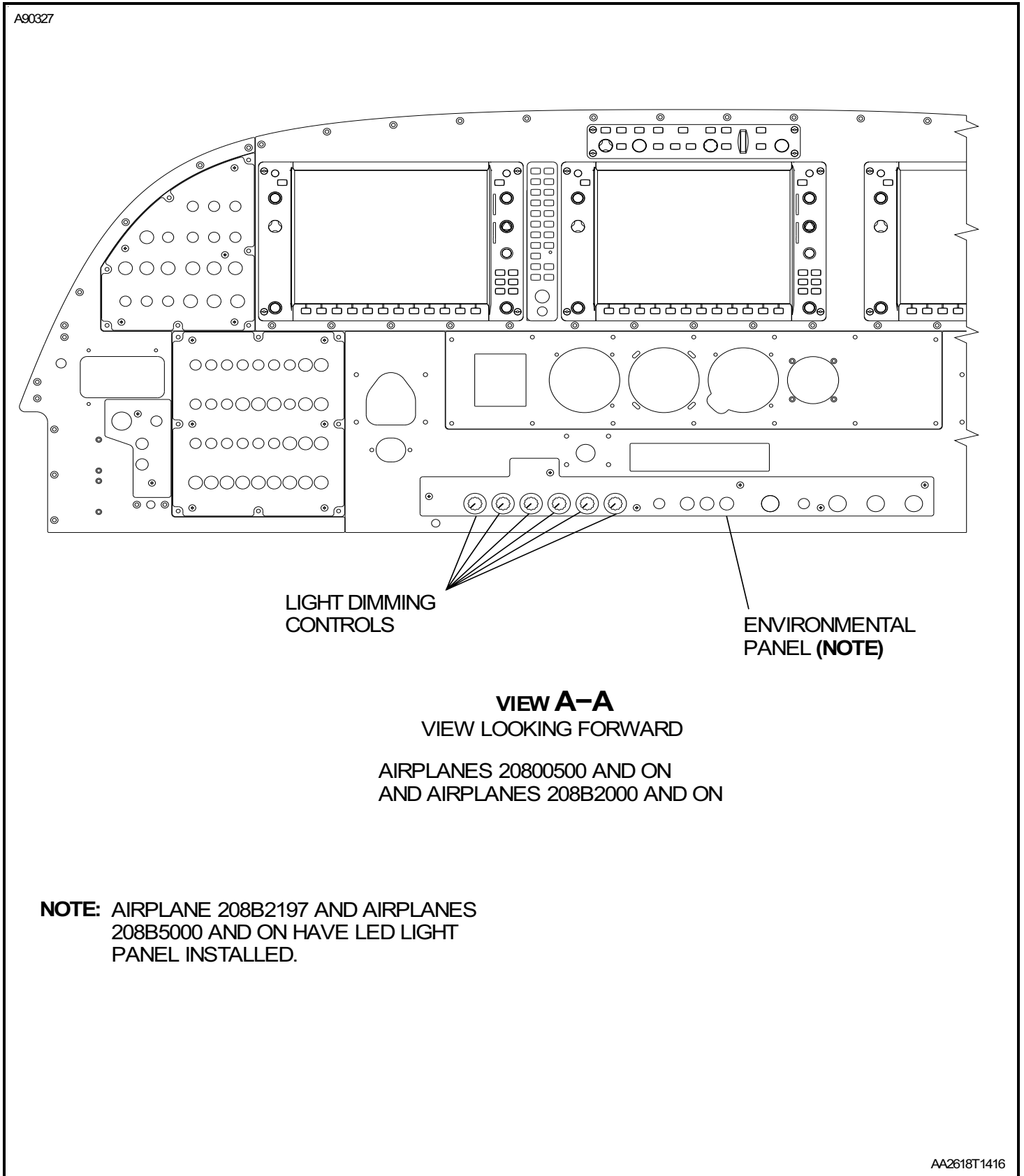
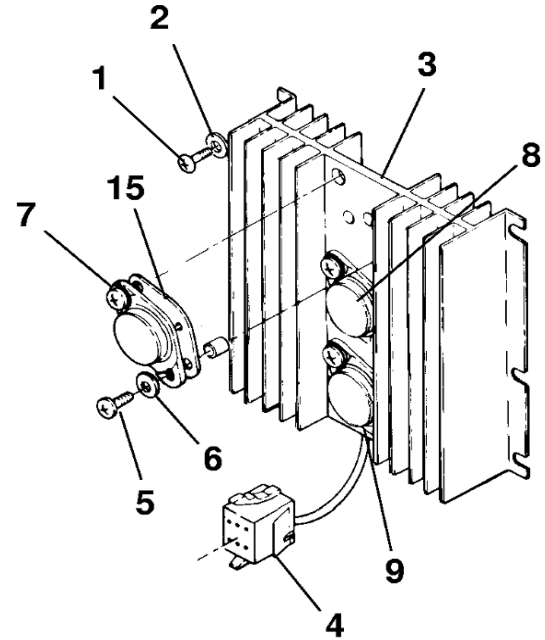
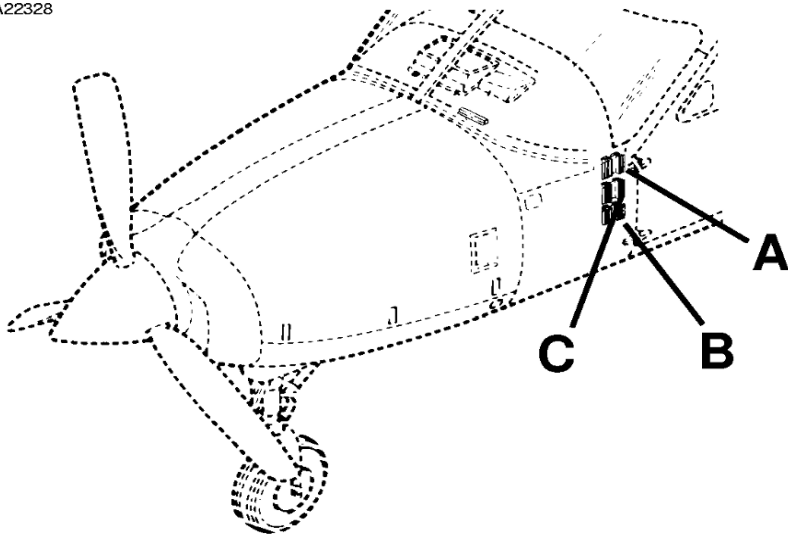
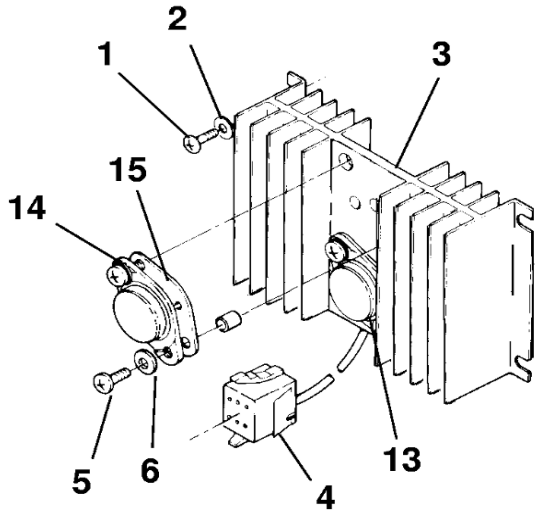


Figure 202 : Sheet 1 : Solid State Light Dimming Installations

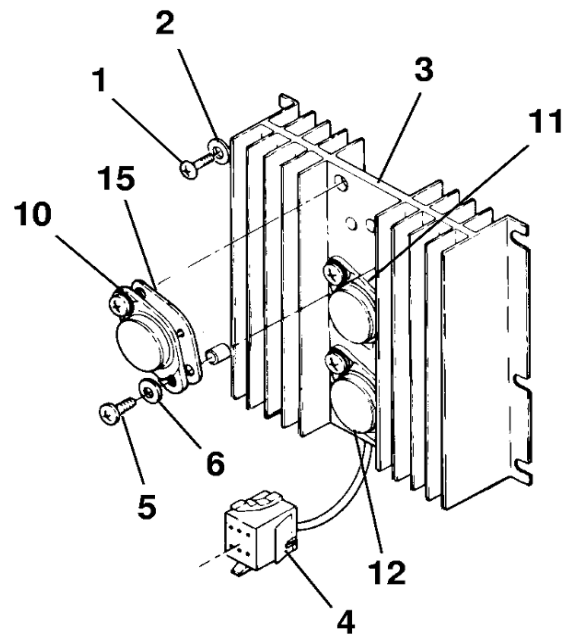
A22328



DETAIL A



DETAIL C



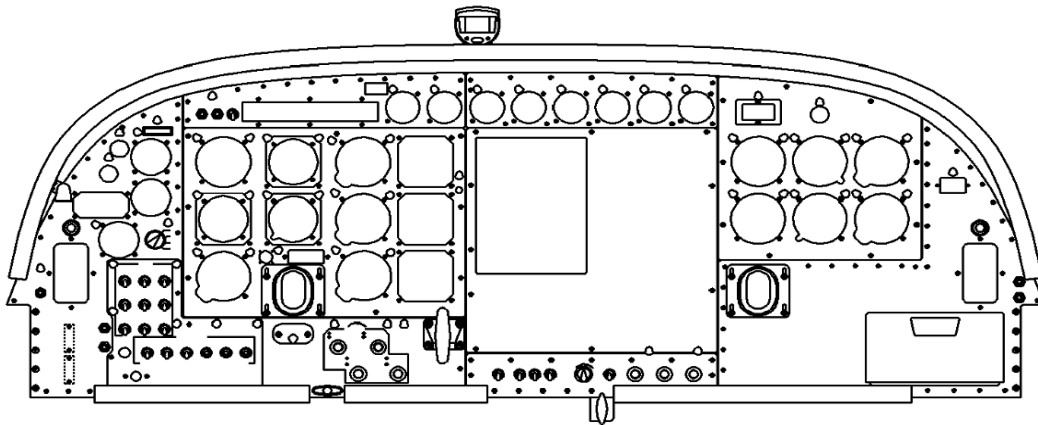
DETAIL B

1. SCREWS
2. WASHERS
3. DIMMING ASSEMBLIES
4. CONNECTOR
5. SCREWS
6. WASHER
7. LEFT FLIGHT PANEL TRANSISTOR
8. RIGHT FLOOD TRANSISTOR
9. RIGHT FLIGHT PANEL TRANSISTOR
10. RADIO TRANSISTOR
11. LEFT FLOOD TRANSISTOR
12. ENGINE INSTRUMENT TRANSISTOR
13. LOWER PANEL/PED/OVHD TRANSISTOR
14. CIRCUIT BREAKER PANEL TRANSISTOR
15. INSULATOR

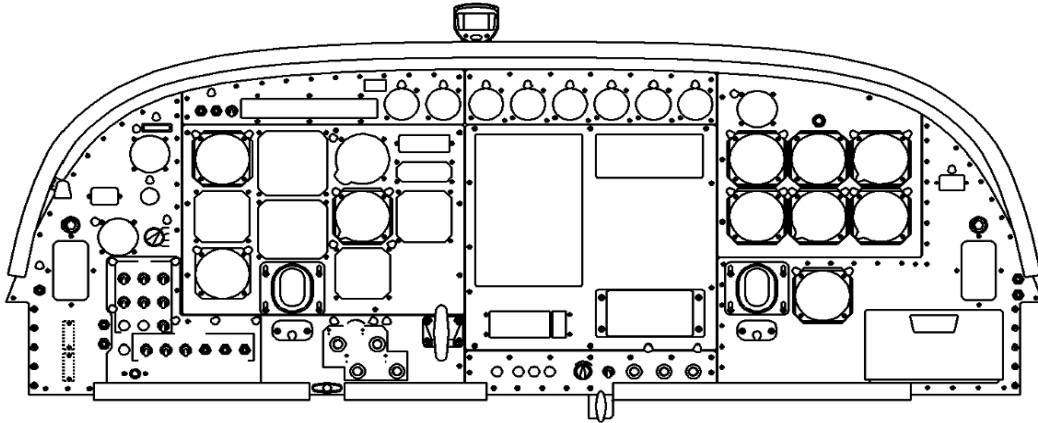
26181032
 A2618X1154
 B2618X1154
 C2618X1155

Figure 203 : Sheet 1 : Instrument Panel Post Light Installation

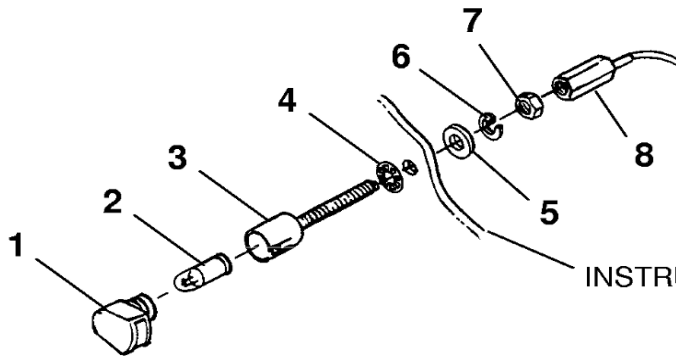
A22329



MODEL 208, 208 CARGOMASTER AND 208B PASSENGER



MODEL 208B ONLY



TYPICAL POST LIGHT INSTALLATION
 FOR ALL INSTRUMENT PANEL
 MOUNTED POST LIGHTS

INSTRUMENT PANEL

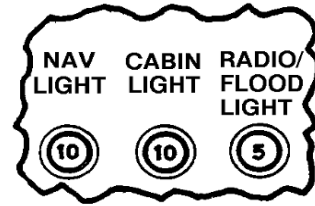
- 1. CAP ASSEMBLY
- 2. BULB
- 3. SOCKET ASSEMBLY
- 4. LOCKWASHER
- 5. WASHER
- 6. LOCKWASHER
- 7. NUT
- 8. CONNECTOR

NOTE: POST LIGHTS HAVE BEEN DARKENED IN ON THE INSTRUMENT PANEL DRAWING IN ORDER TO HIGHLIGHT THEIR LOCATIONS. POST LIGHTS SHOWN MAY OR MAY NOT BE INSTALLED DEPENDING ON THE SPECIFIC INSTRUMENTS INSTALLED.

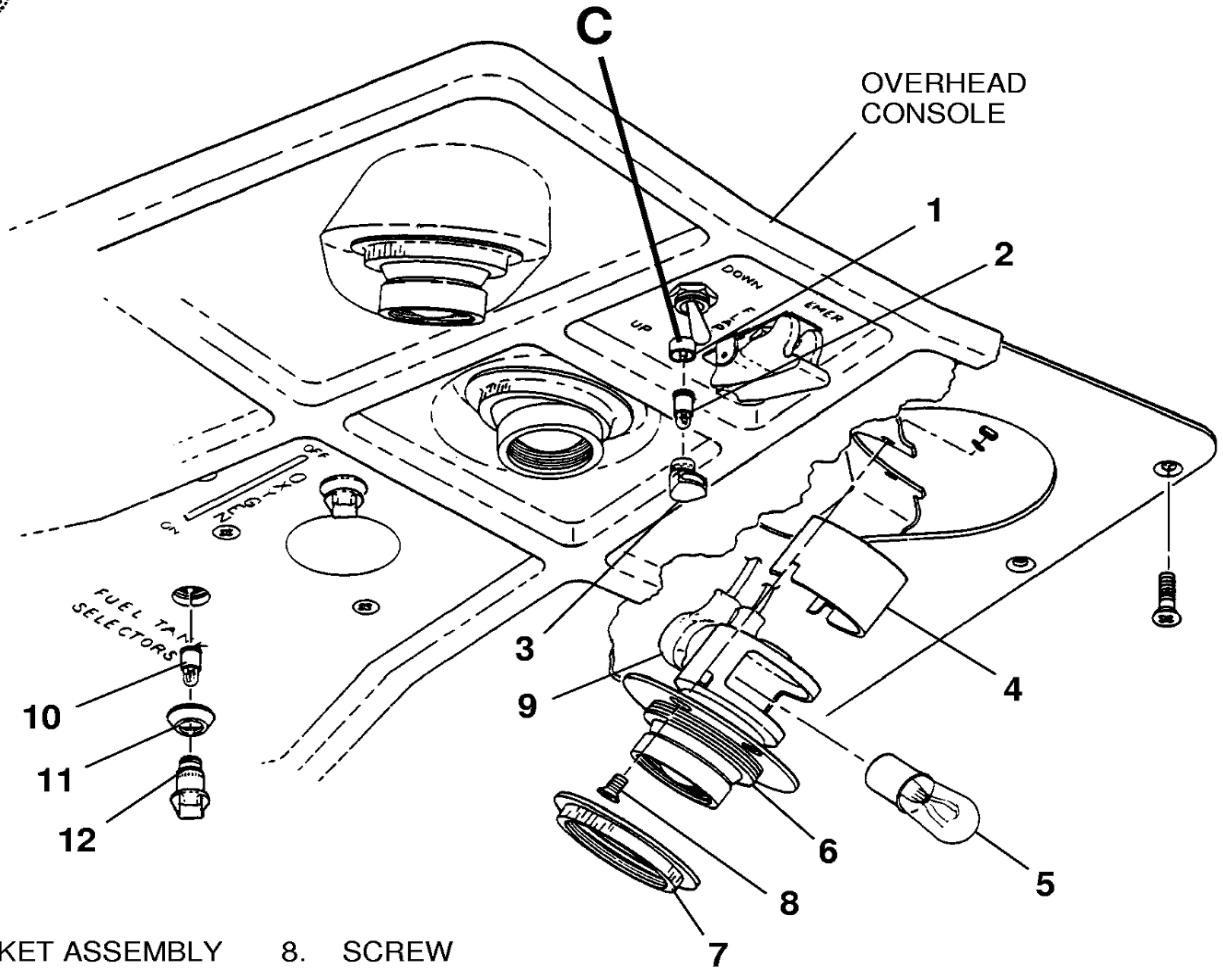
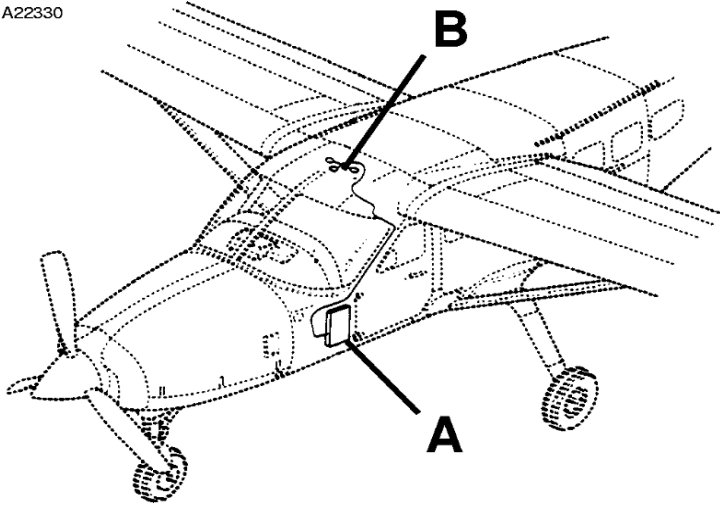
2618C1010
 2618C1012
 2618X1159

Figure 204 : Sheet 1 : Overhead Console Lighting Installation

A22330



DETAIL A



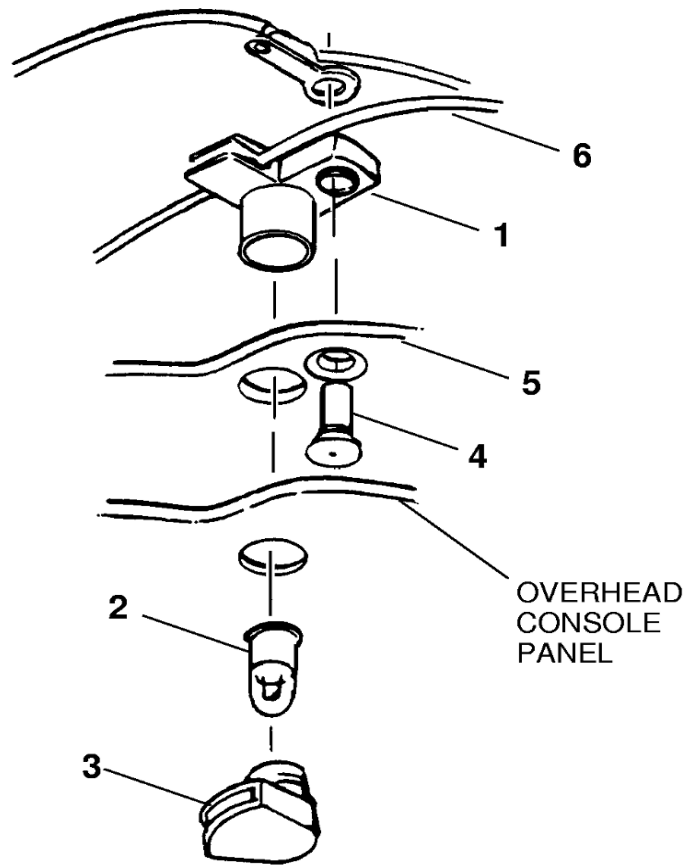
DETAIL B

- | | |
|--------------------|--------------------|
| 1. SOCKET ASSEMBLY | 8. SCREW |
| 2. BULB | 9. ELECTRICAL LEAD |
| 3. CAP ASSEMBLY | 10. BULB |
| 4. SHIELD | 11. SHIELD |
| 5. BULB | 12. SOCKET |
| 6. SOCKET ASSEMBLY | 13. FILTER (BLUE) |
| 7. CAP | |

2618X1177
 A2618X1178
 B26183003

Figure 204 : Sheet 2 : Overhead Console Lighting Installation

A22331



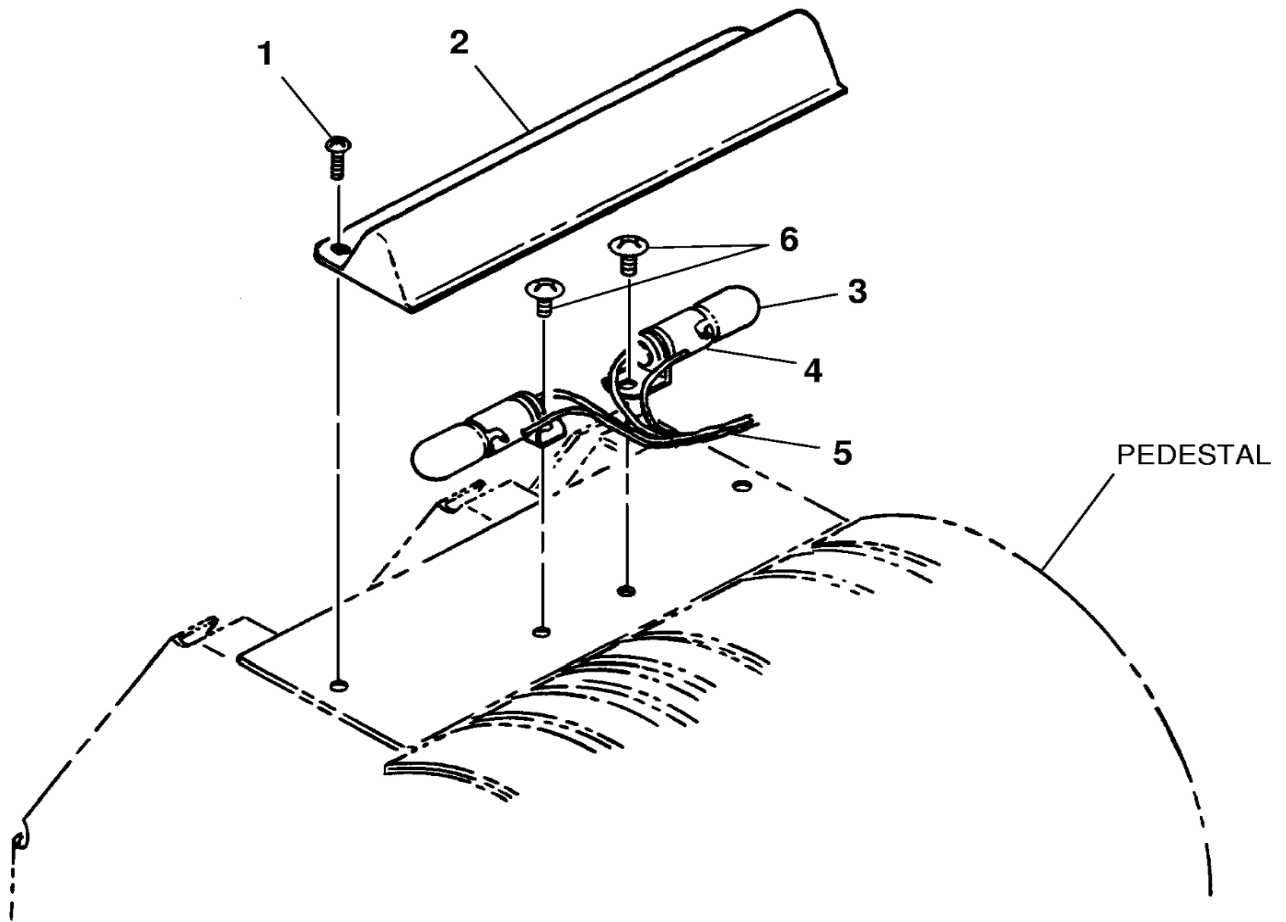
DETAIL C
OVERHEAD CONSOLE POST LIGHT

- 1. SOCKET ASSEMBLY
- 2. BULB
- 3. CAP ASSEMBLY
- 4. RIVET
- 5. FRAME
- 6. GROUND WIRE

C2618X1179

Figure 205 : Sheet 1 : Lower Instrument Panel Floodlighting Installation

A22332



- 1. SCREW
- 2. SHIELD
- 3. BULB
- 4. SOCKET
- 5. ELECTRICAL LEAD
- 6. SCREW

26181031

Figure 206 : Sheet 1 : Circuit Breaker Floodlights Installation

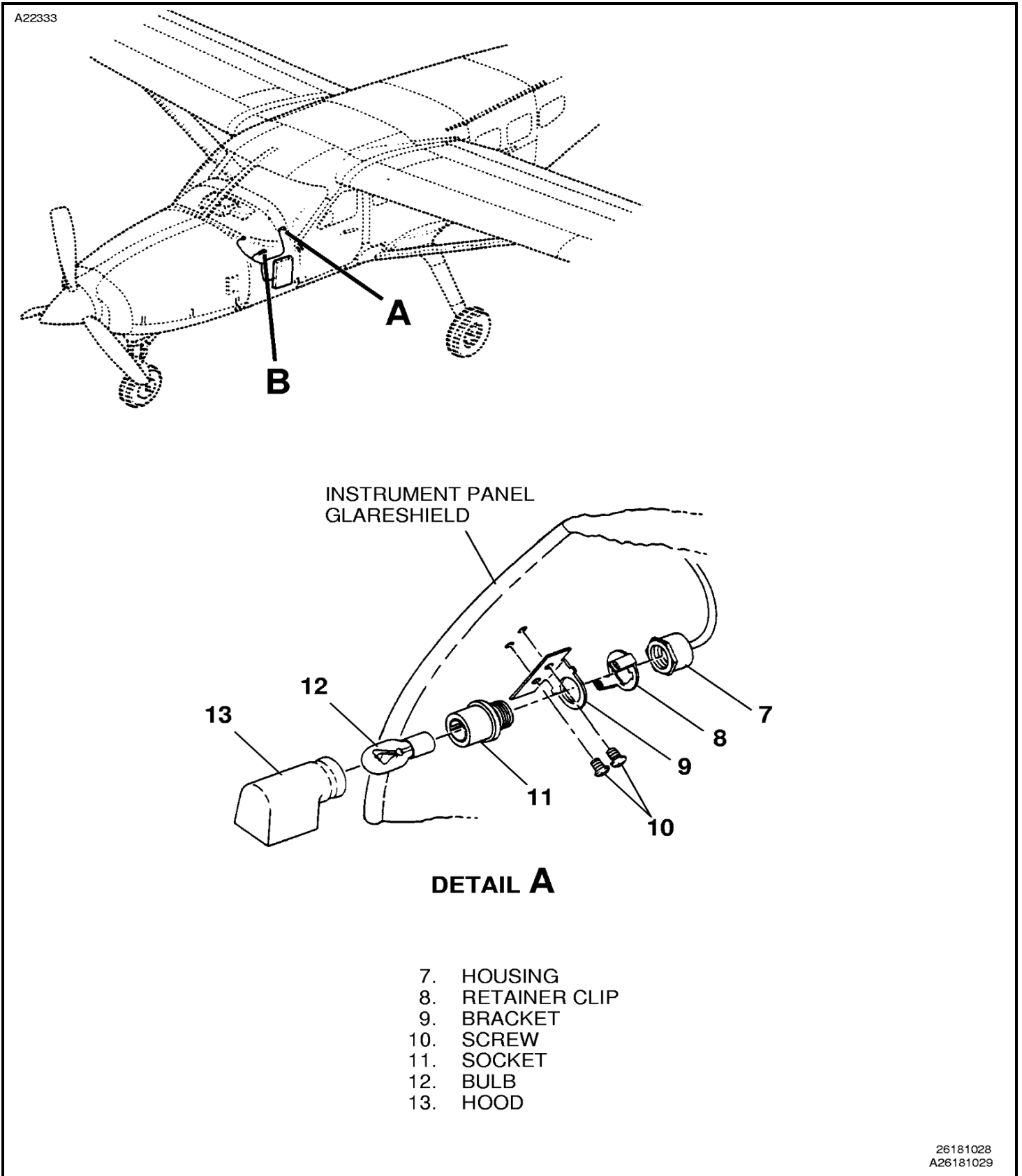
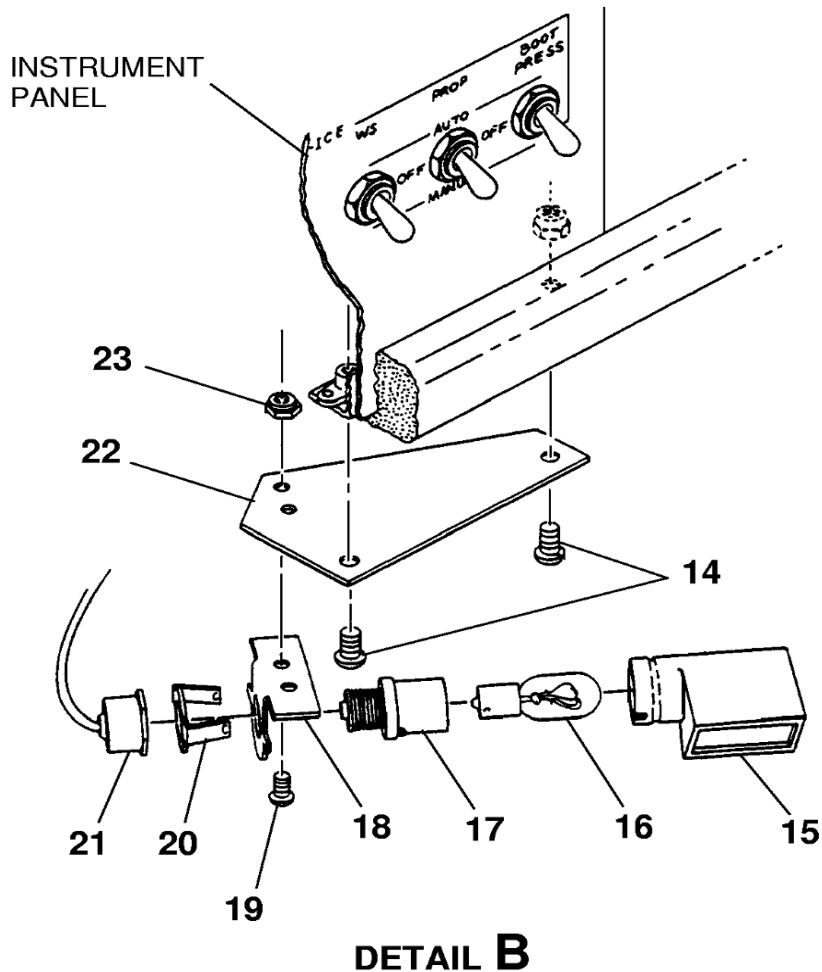


Figure 206 : Sheet 2 : Circuit Breaker Floodlights Installation

A22335

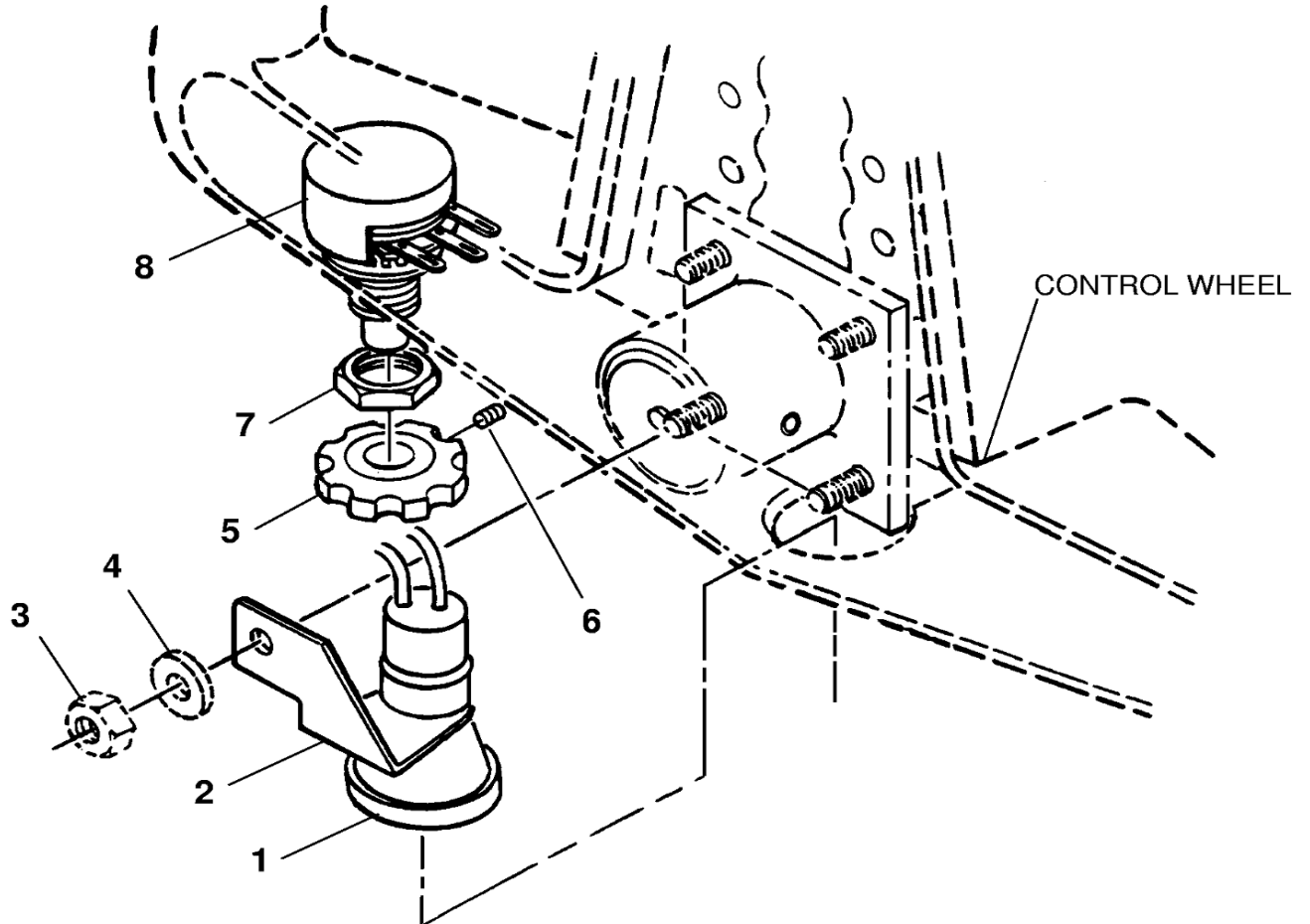


- 14. SCREW
- 15. HOOD
- 16. BULB
- 17. SOCKET
- 18. BRACKET
- 19. SCREW
- 20. RETAINER CLIP
- 21. HOUSING
- 22. PLATE
- 23. NUT

E26181030

Figure 207 : Sheet 1 : Control Wheel Map Light Installation

A22336

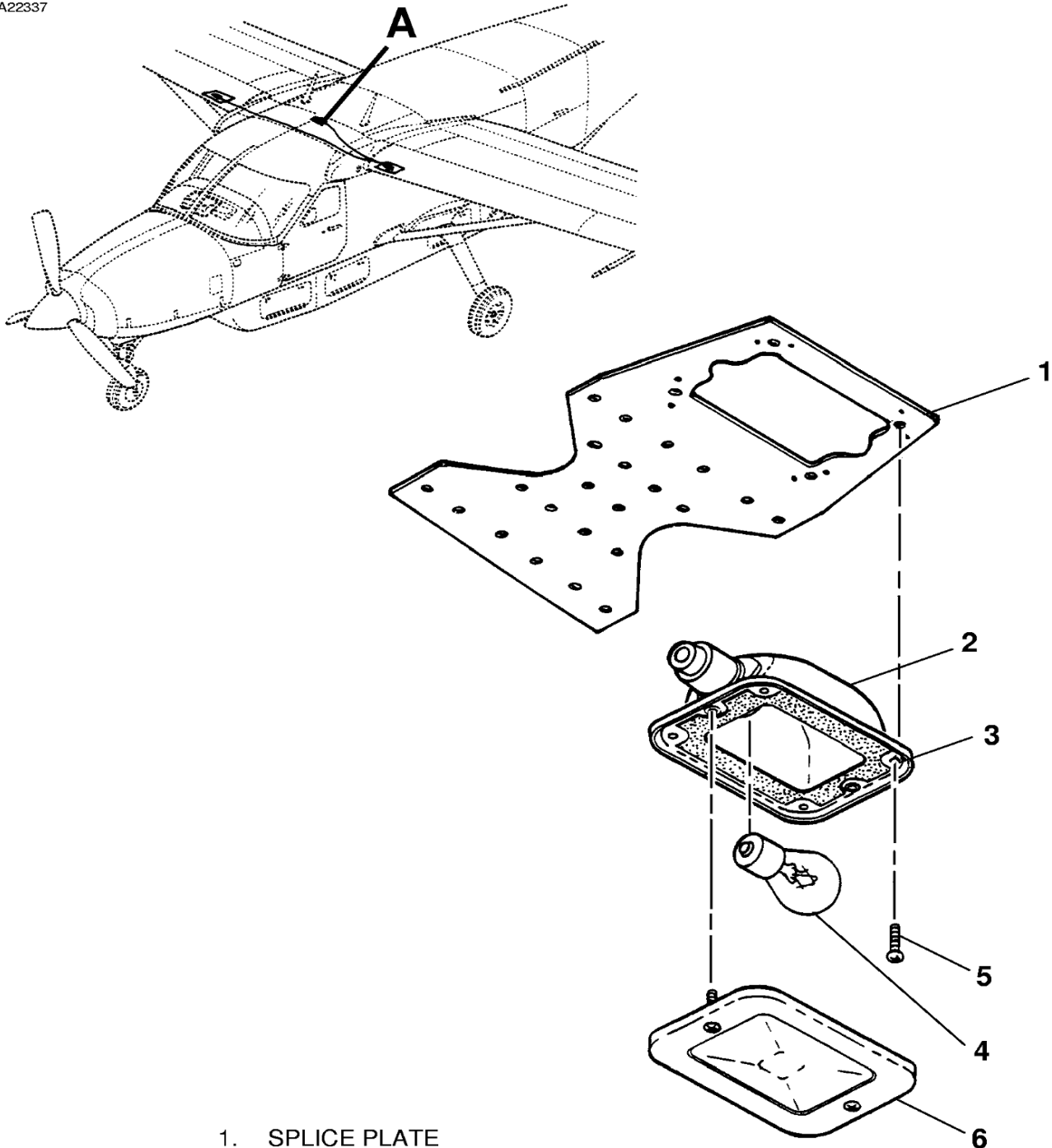


1. LAMP
2. SOCKET
3. NUT
4. WASHER
5. KNOB
6. SET SCREW
7. NUT
8. RHEOSTAT

2618X1153

Figure 208 : Sheet 1 : Dome Light Installation

A22337



- 1. SPLICE PLATE
- 2. SOCKET ASSEMBLY
- 3. GASKET
- 4. BULB
- 5. SCREW
- 6. LENS ASSEMBLY

DETAIL A

26181018
A26181023

Figure 209 : Sheet 1 : Outside Air Temperature Gage Post Light Installation

