

CHAPTER 26

LIGHTS

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CHAPTER 26

LIGHTS

26-00 Description

A red anti-collision light is installed on the tailcone and is controlled by the strobe switch. Position lights are installed on each side of the cabin and in the tail and are controlled by the nav lights switch. Post and internal lights (earlier aircraft) or a light at the top of the windshield (later aircraft) illuminate the instruments. Instrument lighting is active when the nav lights switch is on and lighting is dimmed via the knob above the nav lights switch. An overhead map light mounted on a swivel is controlled by an adjacent switch. The map light may be used for emergency lighting of the instrument panel. An additional cabin light with an adjacent switch is located just aft of the map light (later aircraft).

Two landing lights are installed in the nose at different vertical angles. One wide angle and one narrow-beam light are used to increase the lighted area (later aircraft). One landing light switch controls both lights and is located on the cyclic center post.

NOTE

Landing lights operate only when clutch actuator switch is in the engage position.

NOTE

Continuous operation of landing and position lights in flight is recommended to promote collision avoidance.

An optional flashing light may be mounted on the tailcone in addition to the standard anti-collision light. On earlier aircraft, the optional light is controlled by the strobe switch and the standard light is powered whenever the battery switch is on. On later aircraft, the optional light is controlled by a separate switch.

26-10 Exterior Lights26-11 Strobe Light(s)**A. Removal**

1. Turn battery switch off. Pull out STROBE circuit breaker (5 amp, or 7½ amp if forward strobe is installed) at panel.
2. Remove hardware securing A708 strobe light assembly's retainer, lens, and gasket to light assembly.
3. Remove hardware securing light assembly to tailcone mount.
4. Remove hardware securing ground wire, if ground is installed at mount. Disconnect light assembly harness from airframe harness and remove light assembly.

26-11 Strobe Light(s) (continued)**B. Installation**

1. Turn battery switch off. Pull out STROBE circuit breaker (5 amp, or 7½ amp if forward strobe is installed) at panel.
2. Install hardware securing A708 strobe light assembly's ground wire to tailcone mount, if ground is installed at mount. Connect light assembly's harness to airframe harness at connectors.
3. Install hardware securing light assembly to tailcone mount (white forward strobe: two missing columns of LEDs facing forward). Verify security.
4. Install hardware securing light assembly's gasket, lens, and retainer to light assembly. Verify security.
5. Push in STROBE circuit breaker (5 amp, or 7½ amp if forward strobe is installed) at panel. Turn battery switch and strobe switch(es) on and verify function. Turn battery switch off.

26-12 Navigation Lights**A. Removal**

1. Turn battery switch off. Pull out LTS circuit breaker (5 amp) at panel.
2.
 - a. LED Position Lights: Remove screw securing retainer, lens, and gasket to light assembly. Remove hardware securing light assembly, gasket, and ground wire to chin. Cut and discard ty-rap securing excess wire to light assembly, pull out light assembly, and disconnect light assembly harness from airframe harness at connector.
 - b. Incandescent Position Lights: Remove screw securing retainer, lens, and gasket to light assembly. Remove lamp from position light assembly.
 - c. LED Tail Light: Remove screws securing retainer, lens, gasket, and light assembly to C529-1 mount assembly. Pull out light assembly and disconnect light assembly harness from airframe harness at connector.
 - d. Incandescent Tail Light: Remove screws securing retainer, lens, gasket, and light assembly to C529-1 mount assembly. Remove lamp.

26-12 Navigation Lights (continued)**B. Installation**

1. Turn battery switch off. Pull out LTS circuit breaker (5 amp) at panel.
2.
 - a. LED Position Lights: Connect light assembly harness to airframe harness at connector. Install hardware securing light assembly, gasket, and ground wire to chin. Verify security. Install ty-rap securing excess wire to light assembly. Cinch ty-rap until snug without over-tightening, and trim tip flush with head. Install screw securing retainer, lens, and gasket to light assembly. Verify security.
 - b. Incandescent Position Lights: Install lamp in position light assembly. Install screw securing retainer, lens, and gasket to light assembly. Verify security.
 - c. LED Tail Light: Connect light assembly harness to airframe harness at connector. Install screws securing retainer, lens, gasket, and light assembly to C529-1 mount assembly. Verify security.
 - d. Incandescent Tail Light: Install lamp in tail light assembly. Install screws securing retainer, lens, gasket, and light assembly to C529-1 mount assembly. Verify security.
3. Push in LTS circuit breaker (5 amp) at panel. Turn battery switch and LTS switch on and verify function. Turn battery switch and LTS switch off.

C. LED Assembly Replacement

1. Turn battery switch off. Pull out LTS circuit breaker (5 amp) at panel.
2.
 - a. Position Lights: Remove incandescent position light assembly per Part A step 2a.
 - b. Tail Light: Remove screws securing retainer, lens, gasket, and light assembly to C529-1 mount assembly. Pull out light assembly and disconnect light assembly harness from airframe harness at connector, if applicable, or perform the following:
 1. Cut A689-2 or -3 light assembly wires flush with back of assembly.
 2. Strip wires & crimp (1) B263-2 socket on each wire. Inspect crimps per § 23-84.
 3. Install sockets/wires in B263-13 housing, positive wire in position 1, ground wire in position 2. Verify polarity using multimeter.
3.
 - a. Position Lights: Install LED position light assembly per Part B step 2a.
 - b. Tail Light: Install LED position light assembly per Part B step 2c.
4. Push in LTS circuit breaker (5 amp) at panel. Turn battery switch and LTS switch on and verify function. Turn battery switch and LTS switch off.

26-13 Landing Lights**NOTE**

Landing lights operate only when clutch actuator switch is in the engage position.

NOTE

Verify correct landing light circuit breaker installed:

28v HID landing lights	B297-7 (7 ½ amp)
28v sealed beam landing lights	B297-10 (10 amp)
14v HID landing lights	B297-15 (15 amp)
14v sealed beam landing lights	B297-20 (20 amp)

A. Removal

1. Turn battery switch off. Pull out LAND LT circuit breaker (see note) at panel.
2. Remove screws securing C526-1 retainer or C526-2 bezel to chin and remove retainer or bezel.
3. As required, remove screws securing C526-3 retainers and lamps to C526-2 bezel. Disconnect landing light cable from lamp and remove lamp.

B. Installation

1. Turn battery switch off. Pull out LAND LT circuit breaker (see note) at panel.

NOTE

B557-1 (spot) landing light is installed in LH location and B557-2 (flood) taxi light is installed in RH location, HID installations only.

2. As required, route landing light cable(s) thru C526-3 retainer(s). Connect landing light cable to landing light.
3. As required, install screws securing C526-3 retainer(s) and lamp(s) to C526-2 bezel. Install screws securing C526-1 retainer or C526-2 bezel to chin.
4. Push in LAND LT circuit breaker (see note) at panel. Turn battery switch and landing light switch on (cyclic center post) and verify function. Turn battery switch and landing light switch off.

26-20 Interior Lights26-21 Panel Light**A. LED Assembly Replacement**

1. Turn battery switch off. Pull out LTS circuit breaker (5 amp) at panel.
2. Remove hardware securing G196 light assembly to windshield stiffener. Remove two cap screws securing cover and LED assembly to housing. Disconnect LED assembly wires from airframe harness and remove LED assembly.
3. Connect C238-2289 (white) airframe harness wire to new LED assembly red wire, and C238-2290 airframe harness wire to LED assembly black wire. Install cover (chamfer facing away from housing) and install two cap screws. Install hardware securing G196 light assembly to windshield stiffener. Verify security.
4. Push in LTS circuit breaker (5 amp) at panel. Turn battery switch and LTS switch on and verify function. Verify dimming knob adjusts brightness. Turn battery switch and LTS switch off.

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