LED EXTERIOR LIGHTING - DESCRIPTION AND OPERATION

1. General

A. LED external lights are installed on Airplanes 208B5000 and On. For data applicable to incandescent external light installations refer to Incandescent Exterior Lighting - Description and Operation.

B. This section gives a general description and operation of the external LED lights. The external LED lights include the, ground recognition light (FV001), NAV/anti-collision lights left (FL003) and right (FR003), courtesy lights left (ZL001) and right (ZR001), wing inspection light (FC009) and the landing light (FL005) and left taxi light (FL006) and the right landing light (FR005), and the right taxi light (FR006). One landing and one taxi light are installed in each of the two landing/taxi light assemblies. Refer to Figure 1.

2. Description

A. There are two landing lights installed on the airplane, one in each outboard leading edge installed in the same assembly as the one of the two taxi/recognition lights. The lights are controlled by the LEFT LDG (SI016), RIGHT LDG (SI014), TAXI/RECOG (SI015) switches as applicable, found on the left switch panel. Protection for the light circuit is supplied by the LEFT LDG, RIGHT LDG, and TAXI LIGHT circuit breakers found on left sidewall circuit breaker panel. The taxi/recognition lights each have a hardcoated polycarbonate lens.

B. There are two NAV/anti-collision/tail position lights installed on the airplane, one on each wing tip. The lights are controlled by the NAV switch (SI017), found on the left switch panel. Protection for the circuit is supplied by the NAV LIGHT circuit breaker found on left sidewall circuit breaker panel. The strobe lights are controlled by the STROBE switch (SI018), found on the left switch panel. Protection for the circuit is supplied by the STROBE LIGHT circuit breaker found on left sidewall circuit breaker panel. The assembly includes an aft white position light.

NOTE: Because of this installation, for Airplanes 208B5000 and On the tail stinger position light is no longer needed and is not installed.

C. The ground recognition light is installed on tip of vertical fin. The light is controlled by the BCN switch (SI009), found on the left switch panel. A flasher is mounted on the canted bulkhead at FS 388.68 on Model 208, and at FS 436.68 on the Model 208B. Since the flasher is designed to accommodate two flashing beacon units, a (95 watt/60 ohm) resistor is installed just below the flasher to eliminate radio noise feed-back. If an additional flasher is installed by the customer, the resistor can be removed from the circuit without causing radio noise feedback. Protection for the circuit is supplied by the BEACON LIGHT circuit breaker, found on left circuit breaker panel.

D. The wing inspection light is found on left forward cabin top, forward wing root rib. The light is controlled by the ANTI-ICE - WING LIGHT switch (S47), found on the left switch panel. Protection for the circuit is supplied by the WING ICE DET LIGHT circuit breaker, found on the left circuit breaker panel.

E. Courtesy lights are installed between the wing strut fairing and the fuselage on the lower side of each wing. The lights are controlled by the CABIN switch (SI021), found on the left switch panel. For the passenger model airplanes, the light circuit use a solid-state timer which allows the lights to remain on for a period of 30 minutes after the passengers have departed the airplane.

Figure 1 : Sheet 1 : LED Exterior Lights