# LED FLIGHT COMPARTMENT LIGHTING - DESCRIPTION AND OPERATION

## 1. General

A. The LED flight compartment lighting consists of Light Emitting Diode (LED) panels for the instrument panel, overhead console, left circuit breaker panel assembly and throttle quadrant lighting. Chart (flood) LED lights are installed in the overhead console. Electrical power for the overhead console LED panels and the chart lights is supplied by the COCKPIT FLOOD LIGHTS circuit breaker found on the left circuit breaker panel. Electrical power for the flight compartment LED panels is supplied by the AVN/LED/STBY LIGHTS circuit breaker also found on the left circuit breaker panel.

## 2. Description and Operation

A. There are six dimming controls installed on lower-left portion of instrument panel to left of control pedestal. These controls vary the intensity of instrument panel, left sidewall switch and circuit breaker panel lighting, throttle quadrant/pedestal lighting, and overhead lighting.

(1) The AVIONICS dimmer control changes the intensity of the Garmin GMC 710 AFCS controller, the Garmin GMA 1347/1360D Audio Controller, and the pilot and copilot wheel map lights.

(2) The STANDBY IND dimmer control changes the intensity of the standby instruments found on the lower area of the instrument panel.

(3) The LED PANELS ANNUN dimmer control changes the intensity of the cockpit LED panels and lights. This switch has a on/off or day option if the LAA is selected.

(4) The LEFT FLOOD dimmer control changes the intensity of the left overhead chart light.

(5) The CENTER FLOOD dimmer control changes the intensity of the center overhead chart light.

(6) The RIGHT FLOOD dimmer control changes the intensity of the right overhead chart light.

B. Flight compartment lighting circuits incorporate two dimming modules that are controlled by the flight compartment dimming controls. The dimming modules are mounted in back of the avionics mounting plate.

(1) The top-mounted dimming assembly (UC009) is a three output unit that controls light dimming for the left, right and center LED chart (flood) lights.

(2) The lower-mounted dimming assembly (UC010) is a three output unit that controls light dimming for the instrument panel, left circuit breaker panel, overhead LED panels, standby instruments, the Garmin GMC 710 AFCS controller and the Garmin GMA 1347/1360D Audio Controller.

C. Instrument panel LED panels are installed on the left circuit breaker switch panel (UI001), environmental panel (UI004), avionics circuit breaker panel (UI003), left circuit breaker panel (UC015), throttle quadrant (UC019), and the alternate static panel (UI002). Refer to Pilot's Operating Handbook for operation of LED panels. LED panels are protected by circuit breakers mounted in left sidewall switch and circuit breaker panel, and light dimming is accomplished by a solid state dimming assembly mounted on the aft side of the avionics mounting plate.

D. The overhead console includes a LED panel (without oxygen (U013), with oxygen is (UC014) )for the FUEL TANK SELECTORS panel and (if installed) oxygen panel which come on to show labeling for ON/OFF oxygen control and the labeling for fuel selector. Also, there is a LED panel for the STBY FLAP MOTOR panel (UC012) to show the switch position. Rheostats coupled to solid state dimming assemblies vary light intensities. Protection for circuits is given by the COCKPIT circuit breaker found on the circuit breaker panel.

E. For the removal and installation procedures for the flight compartment rheostat control, the solid state dimming module assemblies, control wheel maplights and the outside air temperature gage post light refer to:

(1) For the potentiometer control refer to, Incandescent Flight Compartment Lighting - Maintenance Practices, Rheostat Control Removal/Installation.

(2) For the solid state dimming assembly refer to, Incandescent Flight Compartment Lighting - Maintenance Practices, Transistorized Dimming Assembly Removal/Installation.

(3) For the control wheel maplight refer to, Incandescent Flight Compartment Lighting - Maintenance Practices, Control Wheel Maplight Removal/Installation.