

INCANDESCENT FLIGHT COMPARTMENT LIGHTING - DESCRIPTION AND OPERATION

1. General

- A. Incandescent flight compartment lighting includes, post lights for instrument panel lighting, outside air temperature gage, and overhead console lighting. Overhead flood lighting is provided for left sidewall switch and circuit breaker panel, instrument panel, and pilot's control pedestal. The overhead console has two subminiature annunciator lights that come on for ON/OFF oxygen control and the fuel selector labels. There is also a map light that is installed internally on the underside of pilot's control wheel for map lighting. There is an annunciator panel installed on the upper part of the instrument panel that gives emergency and normal operational data to the flight crew.

2. Description and Operation

- A. There are four concentric-type dual lighting controls installed on lower-left portion of instrument panel to left of control pedestal. These four controls vary intensity of instrument panel lighting, left sidewall switch and circuit breaker panel lighting, control pedestal lighting, and overhead console lighting. Following paragraphs describe controls that operate flight compartment lighting.
- (1) Large (outer) knob, labeled L FLT Panel, varies intensity of post lights illuminating left portion of instrument panel directly in front of pilot. Control also varies integral lighting intensity of digital clock, HSI, ADI, and radio instruments. Small (inner) knob, labeled FLOOD, varies brightness of right overhead floodlight which provides light for left map. Clockwise rotation of either knob increases lamp brightness and counterclockwise rotation decreases brightness.
 - (2) Large (outer) knob labeled, ENG INST, varies intensity of post lights illuminating engine instruments located on top center of instrument panel. Small (inner) knob, labeled RADIO, controls integral lights and digital readouts of avionics equipment. Clockwise rotation of either knob increases lamp brightness and counterclockwise rotation decreases brightness. However, extreme counterclockwise rotation of RADIO knob turns digital readouts on bright for daylight viewing.
 - (3) Large (outer) knob labeled, LWR PANEL/PED/OVHD, varies intensity of floodlights illuminating lower center portion of instrument panel, pedestal, overhead console, and outside air temperature gage. Small (inner) knob, labeled SW/CKT BKR, varies intensity of lights illuminating left sidewall switch and circuit breaker panel. Clockwise rotation of either knob increases lamp brightness and counterclockwise rotation decreases brightness.
 - (4) Large (outer) knob, labeled R FLT PANEL, varies intensity of post lights illuminating right portion of instrument panel directly in front of right front passenger. Small (inner) knob, labeled R FLOOD, varies brightness of left overhead floodlight which provides light for right map.
- B. Flight compartment lighting circuits incorporate three transistorized light-dimming assemblies that are controlled by flight compartment lighting controls. Three transistorized dimming assemblies are mounted in back of left sidewall circuit breaker panel.
- (1) Top-Mounted Dimming Assembly is a three-transistorized unit and controls light dimming for: R FLT PANEL lights, R FLOOD light, and L FLT PANEL lights.
 - (2) Center-Mounted Dimming Assembly is a three-transistorized unit and controls light dimming for: ENG INST lights, RADIO lights, and L FLOOD light.
 - (3) Bottom-Mounted Dimming Assembly is a two-transistorized unit and controls light dimming for: LWR PANEL/PED/OVHD lights and SW/CKT BKR lights.
- C. Instrument panel postlighting is provided for left and right removable flight panels, left and right nonremovable flight panels, engine instruments, and lower left removable panel. Refer to Pilot's Operating Handbook for operation of post lights. Postlights are protected by circuit breakers mounted in left sidewall switch and circuit breaker panel, and light dimming is accomplished by a transistorized dimming assembly mounted on aft side of left sidewall switch and circuit breaker panel.
- D. Overhead console lighting provides for flight compartment floodlighting consisting of three lights mounted in overhead console. Two outside floodlights provide illumination for instrument panel, and a center floodlight provides illumination for control pedestal. Overhead console also incorporates a postlight to illuminate emergency flap switches, and also two subminiature-type lights provide illumination for FUEL TANK SELECTOR annunciator and OXYGEN ON/OFF annunciator. Concentric rheostats coupled to transistorized dimming assemblies vary light intensities. Protection for circuits is provided by circuit breakers mounted in left sidewall switch and circuit breaker panel.
- E. There are two floodlights encased in a light-directing shield mounted on forward top side of pedestal which provides light for the lower center portion of instrument panel. Concentric rheostats mounted on lower instrument panel varies lighting intensity. Protection for circuit is provided by circuit breaker mounted in left sidewall circuit breaker panel labeled

RADIO/FLOODLIGHT.

- F. There are two floodlights which provide lighting for left sidewall circuit breaker panel. A floodlight is mounted on bottom left side of instrument panel glareshield to provide lighting for switches mounted on top of sidewall circuit breaker panel. A second floodlight is mounted under the lower left side instrument panel and provides lighting for the lower half of left sidewall circuit breaker panel. It is controlled by a rheostat labeled S/W CKT BKR. This rheostat is installed on lower left side of instrument panel and controls lamp intensity for all of left sidewall circuit breaker panel floodlights. Protection for floodlights is provided by a 10-amp circuit breaker, labeled CABIN LIGHT, which is installed on left sidewall circuit breaker panel.
- G. A control wheel maplight is internally mounted in control wheel. A rheostat, located on lower right side of wheel, controls lamp intensity. For Airplanes 208B5000 and On, protection for the light circuit is supplied by the circuit breaker placarded AVN/LED/STBY LIGHTS, found on the left circuit breaker panel. For Airplanes 20800001 and On and Airplanes 208B0001 thru 208B4999, protection for the light circuit is supplied by the circuit breaker placarded MAPLIGHT, found on the left circuit breaker panel.