

# WHELEN<sup>®</sup>

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## Installation Guide: Aviation model 9035450 P/N 01-0790354-50 LED Tail Navigation and Anti-Collision Light Assembly

TSO-C30c  
 TYPE III;  
 APPROVED



TSO-C96a  
 CLASS II;  
 APPROVED

The conditions and tests required for TSO approval of this article are minimum performance standards. It is the responsibility of those installing this article either on or within a specific type or class of aircraft to determine that the aircraft installation conditions are within the TSO standards. TSO articles must have separate approval for installation in aircraft. The article may be installed only if performed under 14 CFR part 43 or the applicable airworthiness requirements.

### SPECIFICATIONS:

**Nominal Operational Voltage:** ..... 28 VDC  
 (operational from 24-32VDC)

#### Anti-Collision

Average Current ..... 0.53 amps  
 Pulse Current: ..... 2.8 amps@250 ms  
 Flashrate ..... 45± 5 per min.

#### Navigation

Current ..... 0.16 amps

### EQUIPMENT LIMITATIONS:

An approved lighting system consists of three lights, one located on the tail and one located on each wingtip. Model 9035450 is a tail position and anti-collision light. The assembly should be mounted as far aft on the aircraft as practicable on a thermally conductive surface. The baseplate must be mounted parallel to the vertical and horizontal centerlines of the aircraft to project the patterns properly.

Certain types of installations may require additional testing.

### CONTINUED AIRWORTHINESS:

The tail navigation light is designed with 4 LEDs. The anti-collision light is designed with 30 LEDs. If any one LED fails, the unit must be repaired or replaced. **NOTE:** To reduce eye strain, use an optical filter such as dark glasses or a blue covering dome during LED inspection. Inspect the lens. Replace if there is excessive scratching, pitting, discoloration or cracking.

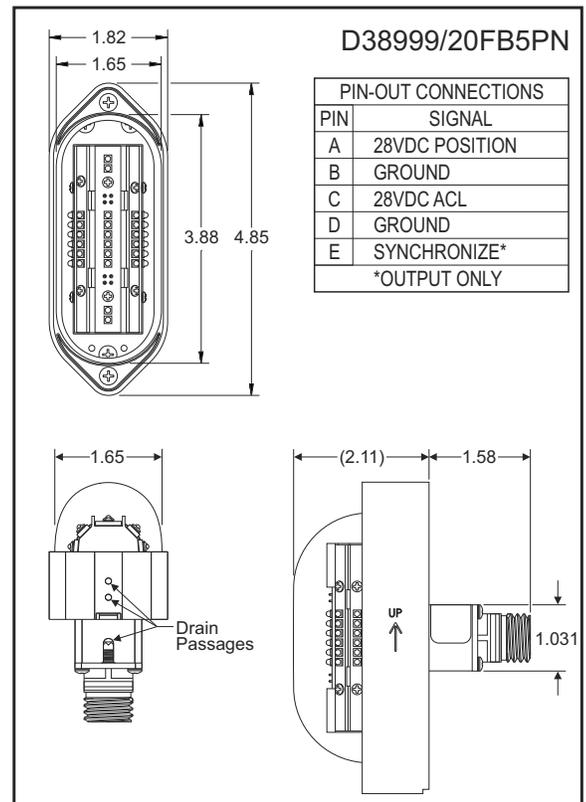
**Note:** The anti-collision light has an internal diagnostic circuit that will shut-off after 20-25 flashes if a failure is detected.

### INSTALLATION PROCEDURES:

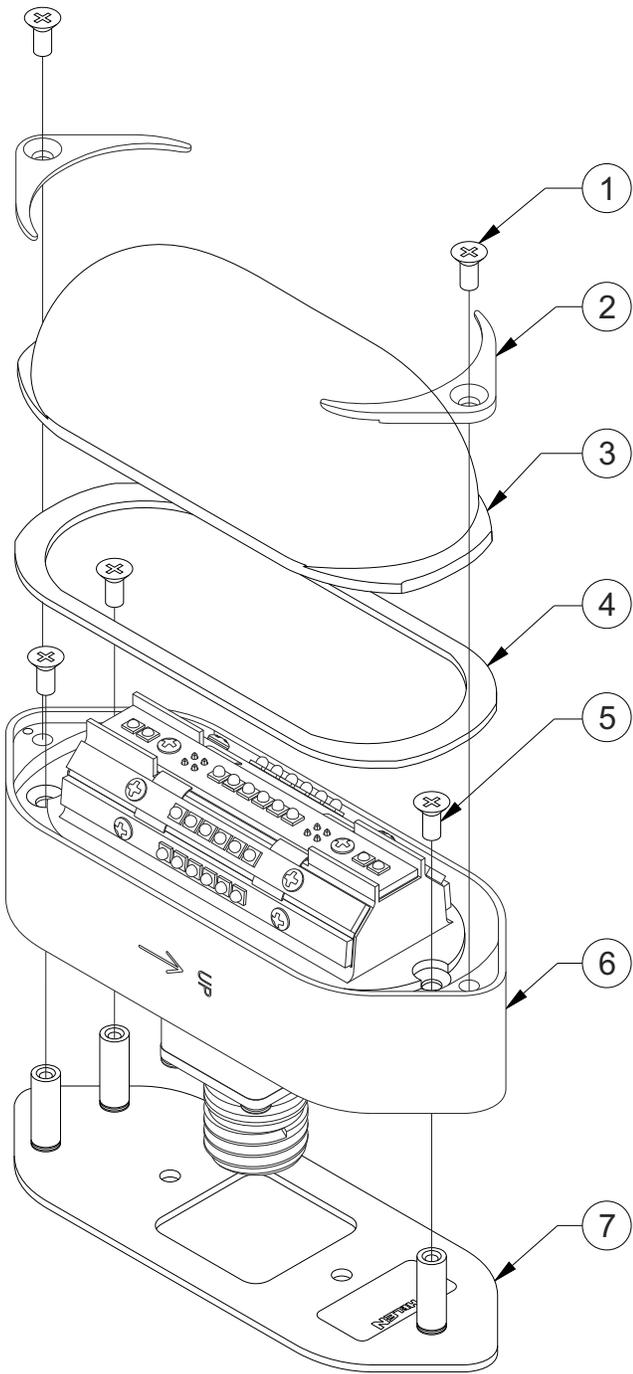
- Using the mounting detail information provided, prepare the aircraft for means to secure the light assembly.
- Remove the 2, #6 Phillips head screws and lens retainers. Carefully remove lens. Remove 3 Phillips head screws securing the baseplate to the light assembly. Remove the baseplate. **CAUTION:** Do not touch LEDs with either fingers or sharp objects. This could soil and/or damage the LED, effecting the optical performance of the light.
- Using the appropriate hardware, install the baseplate directly to the aircraft, making sure the single post end is up.
- Route the wires through the opening in the baseplate. Connect the light inputs according to the chart shown. Connect the power lead to an appropriately sized breaker. Connections to be in accordance with FAA approved methods.

**Note:** SYNC is a low-power, output control signal. Connecting to the synchronize signal of any Whelen LED anti-collision assembly will cause the lights to flash at the same time. If synchronization is not necessary, the connection may be left open.

- Reinstall the light assembly onto the baseplate and insure that all leads are clear of any obstructions and secured as required. Note that proper orientation is achieved with the drain holes down.
- Reinstall the lens and secure using the retainers and screws. **Note:** Visually confirm that the lens, gasket and retainers are fully and properly seated.
- When necessary, waterproof the light base to the aircraft. Apply single part silicone (RTV) or equivalent around any open area where water could get in. Do not cover the drain holes.
- Check all avionics systems for interference from this installation.
- A flight check should be performed by a properly certified pilot.
- Update aircraft records, complete Form 337 and obtain FAA field approval for installation, as required.



Aviation



QTY	ITEM	PART NUMBER	DESCRIPTION
*		01-0790354-50	ASS'Y, TAIL/AC MODEL 9035450
2	1	14-0050563-26	SCREW, 6-32 X 3/8 P100FH/CSNK MS24693C26
2	2	19-151138-001	RETAINER, LENS
1	3	68-3971137A30	LENS, NON-OPTIC
1	4	38-0250938-01	GASKET, LENS
3	5	14-062116-05M	SCREW, 6-32 X 5/16 PFHMS, SS 100° CSNK, PATCH
1	6	01-0290801-50	SUB-ASSY, MODEL 9035450
1	7	07-771956-100	PLATE, MOUNTING

