



WHELEN AEROSPACE TECHNOLOGIES

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**Installation Guide/ICA:**  
**Model(s) 9063001, 9063002, 9063003, 9063004**  
**P/N(s): 01-0790630-01, -02, -03, -04**  
**LED Wingtip Anti-Collision /**  
**Position Light Assembly**

TSO-C30c  
 TYPE I, II;  
 APPROVED

TSO-C96a  
 CLASS II;  
 APPROVED

*The conditions and tests required for TSO approval of this article are minimum performance standards. Those installing this article either on or within a specific type or class of aircraft must determine that the aircraft installation conditions are within the TSO standards which include any accepted integrated non-TSO functions. TSO articles and any accepted integrated non-TSO function(s) must have separate approval for installation in an aircraft. The article may be installed only according to 14 CFR part 43 or the applicable airworthiness requirements.*

**WARNING:** This product can expose you to chemicals including Methylene Chloride which is known to the State of California to cause cancer, and Bisphenol A, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

**SPECIFICATIONS:**

Nominal Operational Voltage: .....28VDC  
 (Operational from 22-32VDC)  
 Input Current -  
 Green LED Position Light.....0.23 Amps  
 Red LED Position Light.....0.26 Amps  
 LED Anti-Collision Light (Avg.).....0.57 Amps  
 Flashrate .....45 ± 5 FPM

**EQUIPMENT LIMITATIONS:** An approved forward lighting system consists of two wingtip assemblies. The wingtip attachment is defined in Whelen Document TF172

Certain types of installations may require additional testing.

**AIRWORTHINESS LIMITATIONS:** The Airworthiness Limitations section is FAA approved and specifies inspections and other maintenance required under §43.16 and §91.403 of the Federal Aviation Regulations, unless an alternative program has been approved. No airworthiness limitations are associated with the installation of the light assembly.

**CONTINUED AIRWORTHINESS:** The anti-collision light is designed with 30 LEDs. The position light is designed with 14 red or 12 green LEDs.

If any one bank of LEDs fails for the Anti-Collision light or the position light, the assembly still meets the FAR requirements for intensity and chromaticity. If a second bank of LEDs fails for either the Anti-Collision light or the Position light, the electronics module must be replaced.

**Note: The unit has an internal diagnostic circuit to detect failures. If a failure of multiple banks of LEDs is detected, the unit will shut off that portion of the lighthouse after 20-25 seconds.**

**To reduce eye strain, use an optical filter such as dark glasses or a blue covering dome during LED inspection.**

The lens area of the assembly is equipped with an abrasion resistant, protective mask. This mask should be inspected for excessive scratching, pitting, discoloration, cuts, blisters, perforations or edge lifting. Replace the lens/retainer assembly as required.

The abrasion protective mask requires periodic cleaning and waxing. Clean lens with a non-alcohol based cleaning solution. After cleaning, wax lens with a non-silicon based paste wax.

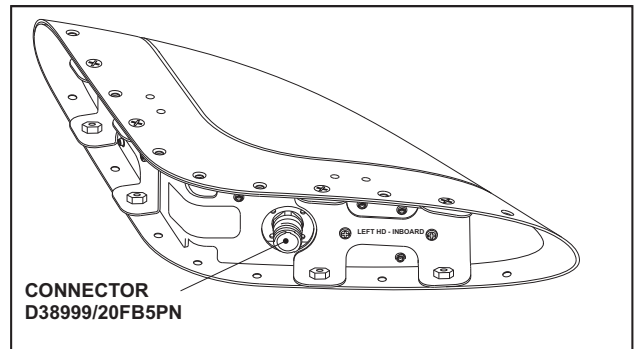
The abrasion mask (erosion boot/tape) is installed to protect and prolong the life of the lens. The aircraft is permitted to dispatch with an abrasion mask that has begun to peel; However, such a condition needs to be monitored closely by the operator, and if the lens begins to get cloudy, hazy, or if the black paint starts to peel, then the replacement of the lens assembly is required and dispatch is not recommended. Under such conditions the lens will no longer meet the required regulatory operational performance requirements.

**PERIODIC INSPECTIONS:** An annual inspection shall be performed unless the OEM specifies a shorter interval.

**INSTALLATION PROCEDURE:** The following information is to assist you in installing a WAT light system. Please refer to the OEM manual for your aircraft for specific removal and installation instructions.

**CAUTION!** Do not touch the LEDs with either fingers or sharp objects, as this could soil or damage the LEDs and effect the optical performance of the light.

1. Remove and discard the 8 (eight) screws and nuts shown.
2. Remove Lens/Retainer assembly from the LED module
3. Position the Lens/Retainer assembly onto the wingtip mounting flange in its mounted position.
4. Using the Lens/Retainer assembly as a template, mark the 22 mounting hole locations onto the wingtip mounting flange.
5. Remove the Lens/Retainer assembly from the wingtip mounting flange and drill to provide #10 threaded mounting holes. NOTE: The H-bracket holes (8 places) do not receive threads at this time.
6. Remove the H-brackets from the LED module. Do not discard the (4) #10 screws.
7. Place the appropriate H-bracket into its installed position inside the wingtip mounting flange. Secure the H-bracket to the wingtip mounting flange using a Cleco clamp at the 4 mounting hole locations.
8. With the H-bracket in position, match-drill and rivet a #10, 2-lug nut plate to the inside of the H-bracket (4 places). NOTE: The H-bracket is now permanently affixed to the aircraft. Repeat for the remaining H-bracket.
9. Secure the LED module onto the installed H-brackets using the original hardware.
10. Make the necessary wiring connections and test for proper operation of the LED module.
11. Using the appropriate #10 flat head screws, install the Lens/Retainer assembly onto the wingtip mounting flange.
12. Check all avionics systems for interference from this installation.
13. A flight check should be performed by a properly certified pilot.
14. If required, update aircraft records utilizing FAA Field Approval (Form 337) or equivalent.

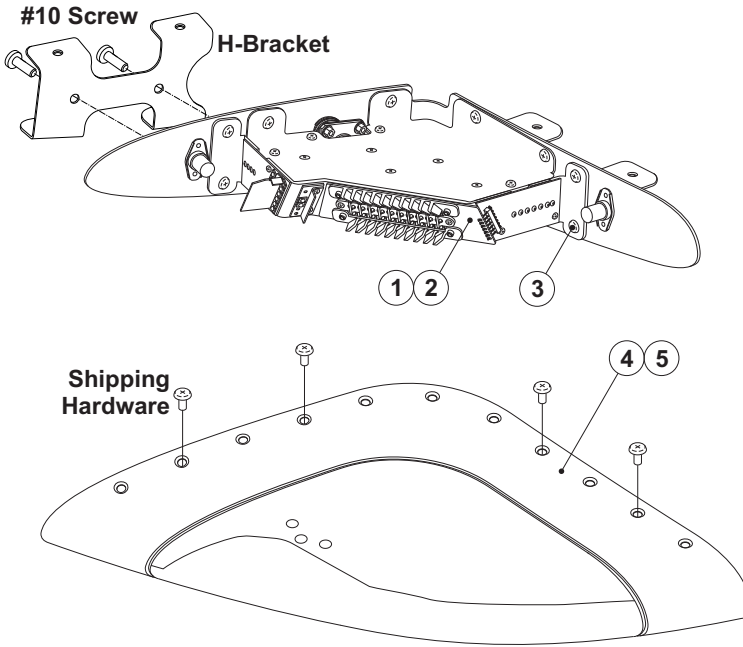


**Note:** SYNC is a low power, input control signal. Connecting the synchronize signal of any Whelen LED Anti-collision assembly will cause the lights to flash at the same time. If synchronization is not needed, the connection may be left open.

Connector Wiring	
A	28VDC (Position)
B	Ground
C	28VDC (ACL)
D	Ground
E	SYNC (see note)

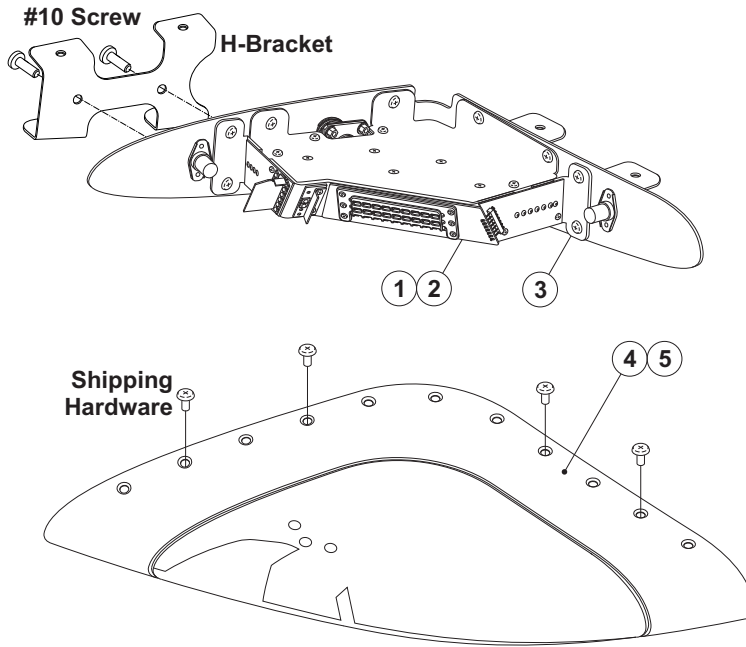
Aviation

Model(s) 9063001, 9063002



- 1 01-0290657-R0 LED Module, Right, Green
- 2 01-0290657-L0 LED Module, Left, Red
- 3 14-06221C-060 Screw, 6-32 x 3/8 PPHMS
- 4 02-0390641-R0 Assy, Lens/Retainer, Right
- 5 02-0390641-L0 Assy, Lens/Retainer, Left

Model(s) 9063003, 9063004



- 1 01-0290657-R1 LED Module, Right, Green
- 2 01-0290657-L1 LED Module, Left, Red
- 3 14-06221C-060 Screw, 6-32 x 3/8 PPHMS
- 4 02-0390641-R1 Assy, Lens/Retainer, Right
- 5 02-0390641-L1 Assy, Lens/Retainer, Left