



WHELEN AEROSPACE TECHNOLOGIES

Phone: (860) 526-9504  
Fax: (860) 526-2009  
Internet: www.flyWAT.com  
Sales/Service e-mail: info@flyWAT.com

**Installation Guide/ICA:  
Model 70905( )-series  
Model(s) 7090503, 7090513  
P/N:01-0770905-03, 01-0770905-13  
LED Flashing Anti-Collision Light Assembly**

*TSO-C96a  
CLASS I  
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.*

**OPERATING INSTRUCTIONS:**

**Normal Operational Voltage:** . . . . .28 VDC  
(Operational from 24-32 VDC)  
**Average Input Current:** . . . . .0.45 Amps  
**Peak Input Current:** . . . . .2.5 Amps @ .25 Seconds

**EQUIPMENT LIMITATIONS:**

**Rotorcraft for which type certificate was applied for after April 1, 1957 to August 11, 1971:**

The anti-collision system must produce a minimum of 100 effective candelas in Aviation Red or White, 360° around the vertical axis, 30° above and below the horizontal plane. A single beacon will meet this requirement.

**Rotorcraft for which type certificate was applied for after August 11, 1971 to February 5, 1976:**

The anti-collision system must produce a minimum of 400 effective candelas in Aviation Red or White, 360° around the vertical axis, 30° above and below the horizontal plane. This beacon does not meet this requirement.

**Rotorcraft for which type certificate was applied for after February 5, 1976:**

The anti-collision system must produce a minimum of 150 effective candelas in Aviation Red, 360° around the vertical axis, 30° above and below the horizontal plane. A single beacon will meet this requirement.

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 LED anti-collision light.

**CONTINUED AIRWORTHINESS:** The 70905 series LED anti-collision light assembly is designed with 5 columns consisting of 5 LEDs each, and 5 columns consisting of 4 LEDs each. Should any one LED or any vertical column fail, 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.

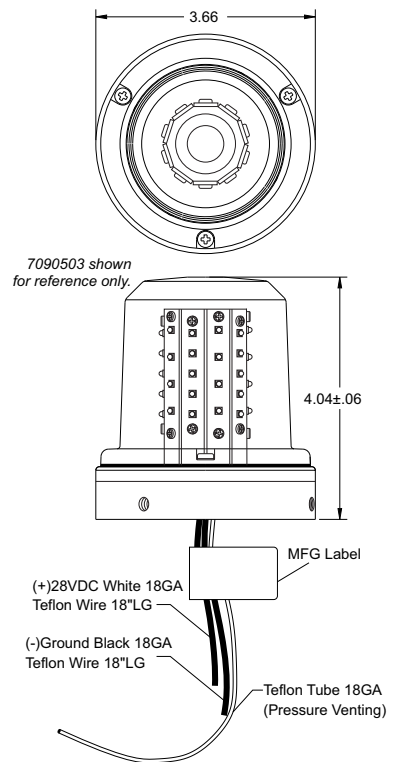
Inspect the lens, replace if there is excessive scratching, pitting, discoloration or cracking. For additional lens maintenance detail see SAE ARP5637.

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

**INSTALLATION PROCEDURES:** The following information is to assist in the installation of a WAT LED Flashing Anti-collision Light System.

1. The installation procedure described in the following text will be confined to a single light installation, but is identical for multiple light installations.
2. Prepare the aircraft for means to secure the LED Flashing Anti-collision Light assembly (see reference AC 43.13-2A, Ch. 9).

3. 28 VDC (+) and (-) ground leads equipped with an appropriate sized breaker to be supplied to the LED Flashing Anti-collision Light Assembly System. Both leads must be connected by an approved FAA connection. Insure that the wire leads and the pressure venting tube are all clear of any obstructions and ty-wrap as required. The pressure venting tube may be trimmed to minimum length of 1" from base.
4. Install the light assembly by securing to aircraft using #6-32 x 3/8" (maximum length) approved hardware. **NOTE:** Lens mounting screws installed with 5-7 in./lbs. of torque.
5. All inverted (bottom) mounted units shall require waterproofing of the unused mounting holes. An application of single-part silicone (RTV) or equivalent applied into mounting holes is recommended (see illustration on page 2). Inverted and/or standard mounted units, when necessary, may require waterproofing around any open area where water could get in. Specifically, the lens to the flasher base assembly, and the flasher base assembly to the aircraft. **NOTE:** It is permissible to drill a 1/8" drain hole in the center of the lens for bottom mounting Model 7090503 (Model 7090513 lens has the drain hole for bottom mounting).
6. Check all avionics systems for interference from this installation.
7. A flight check should be performed by a properly certified pilot.
8. If required, update aircraft records utilizing FAA Field Approval (Form 337) or equivalent.



Aviation

