

WHELEN[®]

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Installation Guide:
70946()-series
Models 7094601, 7094602, 7094603, 7094604
P/N: 01-0770946-01, 01-0770946-02
01-0770946-03, 01-0770946-04
LED Position/Anti-Collision Light Assembly



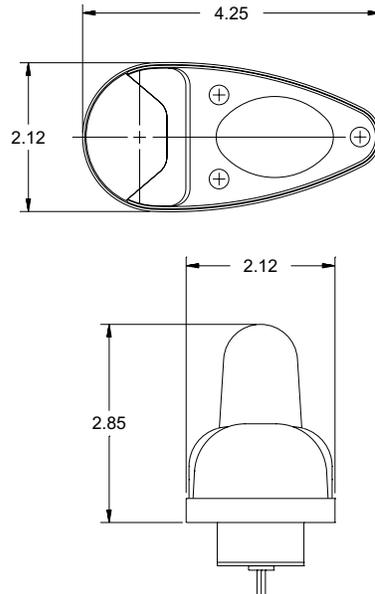
TSO-C30c
 TYPES I & II APPROVED

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.

OVERALL DIMENSIONS



OPERATING INSTRUCTIONS:

Operational Voltage: 28 VDC Nominal

Position Light Input Current: 0.3 Amps

EQUIPMENT LIMITATIONS: The model 70946 Series must be properly mounted to comply with FAR Part 91.205(c-2) & (c-3). The light assembly should be mounted so that the light distribution pattern is not obstructed by any parts of the aircraft. A limited amount of obstruction is permitted (Ref. FAR Part 23.1401 for anti-collision lights, and FAR 23.187 for position lights).

A minimum 20 joule power supply is needed to meet Class II intensity requirements.

The base plate must be mounted parallel to the vertical and horizontal centerlines of the aircraft to project patterns properly.

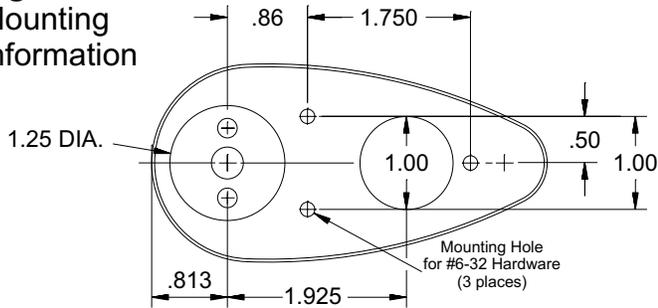
CONTINUED AIRWORTHINESS: The model 70946 Series LED Forward Position/Strobe light assembly is designed with (6) LED's. If any one LED fails, the unit must be repaired or replaced. Inspect the lenses for excessive scratches or pitting. Replace if necessary

INSTALLATION PROCEDURES: The following information is to assist in the installation of a Whelen LED Forward Position Light System.

1. Choose the appropriate 70946() series replacement light assembly.
2. The installation procedure described in the following text will be confined to a single light installation, but is identical for multiple light installations.
3. If necessary, fabricate the mounting pattern using dimensions found in Fig.1.
4. Make the necessary wiring connections using 20 AWG minimum wire for the position lights, and Whelen 16 AWG 3/c cable for the strobe lights. All connections must use FAA approved techniques.
5. Remove the (3) #6-32 x 5/16 retainer mounting screws and retainer.
6. Attach the base assembly to the wingtip using (3) #6-32 pan head screws.
7. Re-attach lens retainer.
8. Check all avionics systems for interference from installation.
9. A flight check should be performed by a properly certified pilot.
10. When necessary, waterproof the assembly to aircraft. Apply aviation approved single part silicone (RTV) or equivalent around any open area where water could get in.
11. Update aircraft records, complete Form 337 and obtain FAA field approval for installation.

QTY	QTY	QTY	QTY	ITEM	PART NUMBER	DESCRIPTION
		*			01-0770971-40	70946 FORWARD POSITION LIGHT (GREEN LED)
	*				01-0770971-50	70946 FORWARD POSITION LIGHT (RED LED)
	*				01-0770971-03	70946 FORWARD POSITION LIGHT (GREEN LED)
*					01-0770971-04	70946 FORWARD POSITION LIGHT (RED LED)
3	3	3	3	1	14-0050563-24	SCREW, #6-32 x 1/4 P100FH/CSK
1	1	1	1	2	19-170927-009	WINGTIP STROBE LENS RETAINER
1	1	1	1	3	68-2290005-34	STROBE LENS (CLEAR)
-	-	1	1	4	36-0050628-00	FLASHTUBE ASSEMBLY
1	1	-	-	5	36-0050626-01	FLASHTUBE ASSEMBLY (w/Connector)
1	1	1	1	6	38-0130107-00	GASKET
-	1	-	1	7	01-0270972-01	LED ASSEMBLY, 6 LED (GREEN)
1	-	1	-	8	01-0270972-02	LED ASSEMBLY, 6 LED (RED)
1	1	1	1	9	38-0250883-00	LENS GASKET
1	1	1	1	10	68-2270911-31	LENS (CLEAR)

Fig. 1
Mounting Information



WIRING (Strobe):

The strobe connections are as follows. **Observe the following strobe color coding:**

- RED Pin 1 (Anode)
- BLACK Pin 2 (Cathode)
- WHITE Pin 3 (Trigger)

CAUTION! If pins 1 & 2 or pins 2 & 3 are reversed, the system will appear to operate normally, however this condition will cause premature flash tube failure.

WIRING (LED):

Connect the forward position light wires as follows, using 20 awg minimum, approved aviation wire or cable. **Observe the following color coding:**

- WHITE To (+) 28 Volts DC
- BLACK To (-) Ground

