



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: 90777()-series

Models 90777L0, R0, L1, R1
 P/Ns: 01-0790777-L0, R0, L1, R1

LED Position/Anti-Collision 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.

SPECIFICATIONS:

Nominal Operational Voltage:..... 28 VDC
 (Operation from 22-32 VDC)

Input Current:

Anti-Collision Light (Avg.):..... 0.47 Amps
 Anti-Collision Light (Pulse@.25 Sec.)..... 2.5 Amps
 Position Light..... 0.25 Amps
 Recognition Light (Optional)..... 0.45 Amps

Flashrate..... 45 ±5 / Min.

Weight (Ref)

-L0, -R0 1.9 lbs.
 -L1, -R1 1.5 lbs.

EQUIPMENT LIMITATIONS: An approved forward lighting system consists of two lights, one located on each wingtip.

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

The light assembly must be mounted behind a clear lens.

Certain types of aircraft 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 position/anti-collision light.

CONTINUED AIRWORTHINESS: The forward position light is designed with 3 Green or 4 Red LEDs. Should any one forward position LED fail, the unit must be repaired or replaced. The anti-collision light is designed with 6 banks of 6 LEDs. If any one LED fails, the unit will still meet the light output requirements. If two or more LEDs fail, the unit must be repaired or replaced.

Note: The anti-collision light will automatically shut-off after 20 flashes if a failure of a bank is detected.

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

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 Light System.

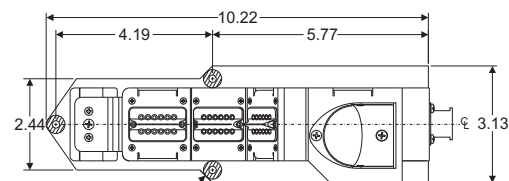
1. Choose the appropriate light assembly.
2. Using the mounting detail information provided, prepare the aircraft for means to secure the light assembly.

3. 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.

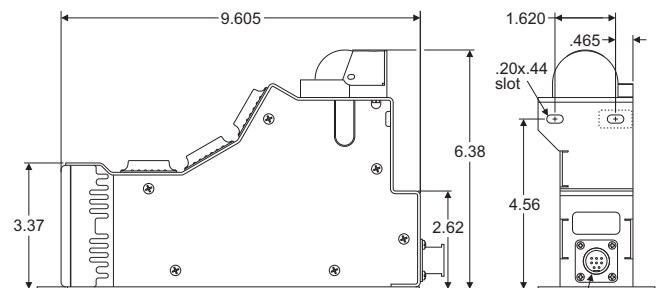
Note: SYNC is a low power input control signal. Connecting to an output synchronize signal of a WAT LED anti-collision assembly will cause the lights to flash at the same time. If synchronization is not necessary, the connection may be left open.

CAUTION: Do not touch the LED with either fingers or sharp objects. This could soil and/or damage the lens and effect the optical performance of the LEDs.

4. Using the appropriate hardware install the baseplate (3 places) to the aircraft. Insure that all leads are clear of any obstructions and secured as required.
5. Using the appropriate hardware, attach the aft surface to the aircraft at the upper slot, as required.
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.



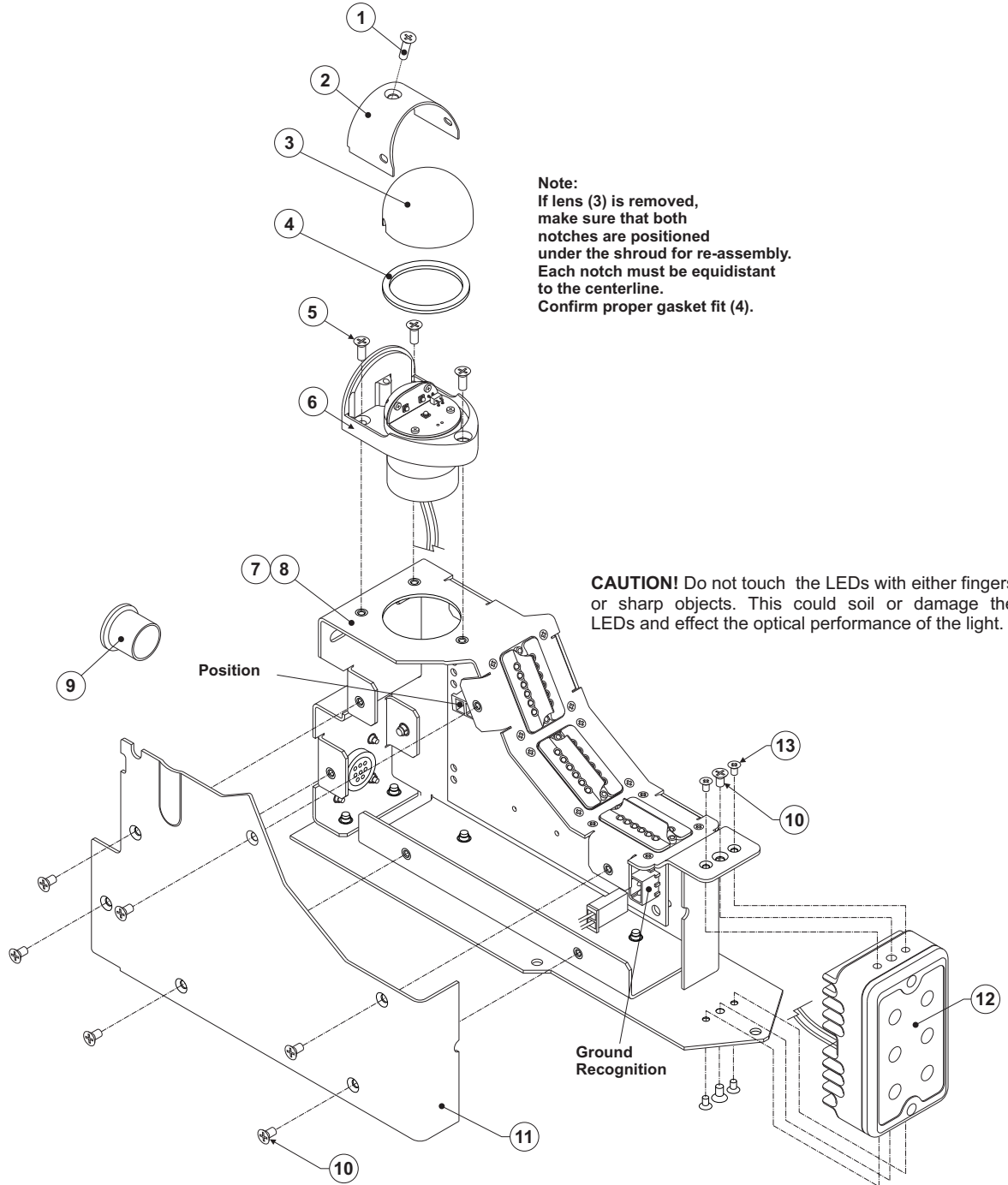
Ø.196
 Ø.50 Area free of finish
 for electrical bonding (3 places)



AMP #205841-1

Connector Pin Out	
1	+28VDC POS
2	+28VDC REC
3	+28VDC ANTI-COL
4	SYNC (INPUT)
5	GROUND

QTY	QTY	ITEM	PART NUMBER	DESCRIPTION
	*		01-0790777-L0	LEFT POSITION/ANTI-COLLISION LIGHT w/REC
*			01-0790777-L1	LEFT POSITION/ANTI-COLLISION LIGHT w/o REC
1	1	1	14-0050508B31	SCREW, 6-32 x 5/8 PFHMS (MS51959-31B)
1	1	2	19-171596-200	RETAINER, LENS BLACK ANODIZED
1	1	3	68-3950902A30	LENS, HARDCOAT
1	1	4	38-0231440-00	GASKET, LENS
3	3	5	14-0050563B28	SCREW, 6-32 x 1/2 BLK P100FH/CSNK MS24693-28B
1	1	6	01-0271850-52	ASSY, LIGHTHEAD 28V BLACK ANODIZED, RED
-	1	7	_____	SUB ASSEMBLY, LED LEFT ANTI-COLLISION LIGHT w/REC
1	-	8	_____	SUB ASSEMBLY, LED LEFT ANTI-COLLISION LIGHT w/o REC
1	1	9	22-0415625-00	DUST CAP
6	8	10	14-0050563B24	SCREW, 6-32 x 1/4 BLK P100FH/CSNK MS24693-24B
1	1	11	07-790781-L23	SIDE PANEL "B" LEFT HAND, BLACK
-	1	12	01-0271878-20	MODEL 7187820 TIR 2X3, 28V RECOGNITION LIGHT
-	4	13	14-0050581B02	SCREW, 4-40 x 1/4 P100FH/CSNK BLK MS24693-2B



Note:
 If lens (3) is removed, make sure that both notches are positioned under the shroud for re-assembly. Each notch must be equidistant to the centerline. Confirm proper gasket fit (4).

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

QTY	QTY	ITEM	PART NUMBER	DESCRIPTION
	*		01-0790777-R0	RIGHT POSITION/ANTI-COLLISION LIGHT w/REC
*			01-0790777-R1	RIGHT POSITION/ANTI-COLLISION LIGHT w/o REC
1	1	1	14-0050508B31	SCREW, 6-32 x 5/8 PPHMS (MS51959-31B)
1	1	2	19-171596-200	RETAINER, LENS BLACK ANODIZED
1	1	3	68-3950902A30	LENS, HARDCOAT
1	1	4	38-0231440-00	GASKET, LENS
3	3	5	14-0050563B28	SCREW, 6-32 x 1/2 BLK P100FH/CSNK MS24693-28B
1	1	6	01-0271850-51	ASSY, LIGHTHEAD 28V BLACK ANODIZED, GREEN
-	1	7		SUB ASSEMBLY, LED RIGHT ANTI-COLLISION LIGHT w/REC
1	-	8		SUB ASSEMBLY, LED RIGHT ANTI-COLLISION LIGHT w/o REC
1	1	9	22-0415625-00	DUST CAP
6	8	10	14-0050563B24	SCREW, 6-32 x 1/4 BLK P100FH/CSNK MS24693-24B
1	1	11	07-790781-R23	SIDE PANEL "B" RIGHT HAND, BLACK
-	1	12	01-0271878-20	MODEL 7187820 TIR 2X3, 28V RECOGNITION LIGHT
-	4	13	14-0050581B02	SCREW, 4-40 x 1/4 P100FH/CSNK BLK MS24693-2B

Note:
 If lens (3) is removed,
 make sure that both
 notches are positioned
 under the shroud for re-assembly.
 Each notch must be equidistant
 to the centerline.
 Confirm proper gasket fit (4).

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

