



Installation Instructions

SunBeacon II Series



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Approval	Name	Intent	
Author	Robert Prew	Installation and Operation Instructions for the SunBeacon II Series lights	
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1 Part Number Matrix

The table below shows part numbers that this installation document is applicable to
 Table 1-1: Applicable Part Numbers

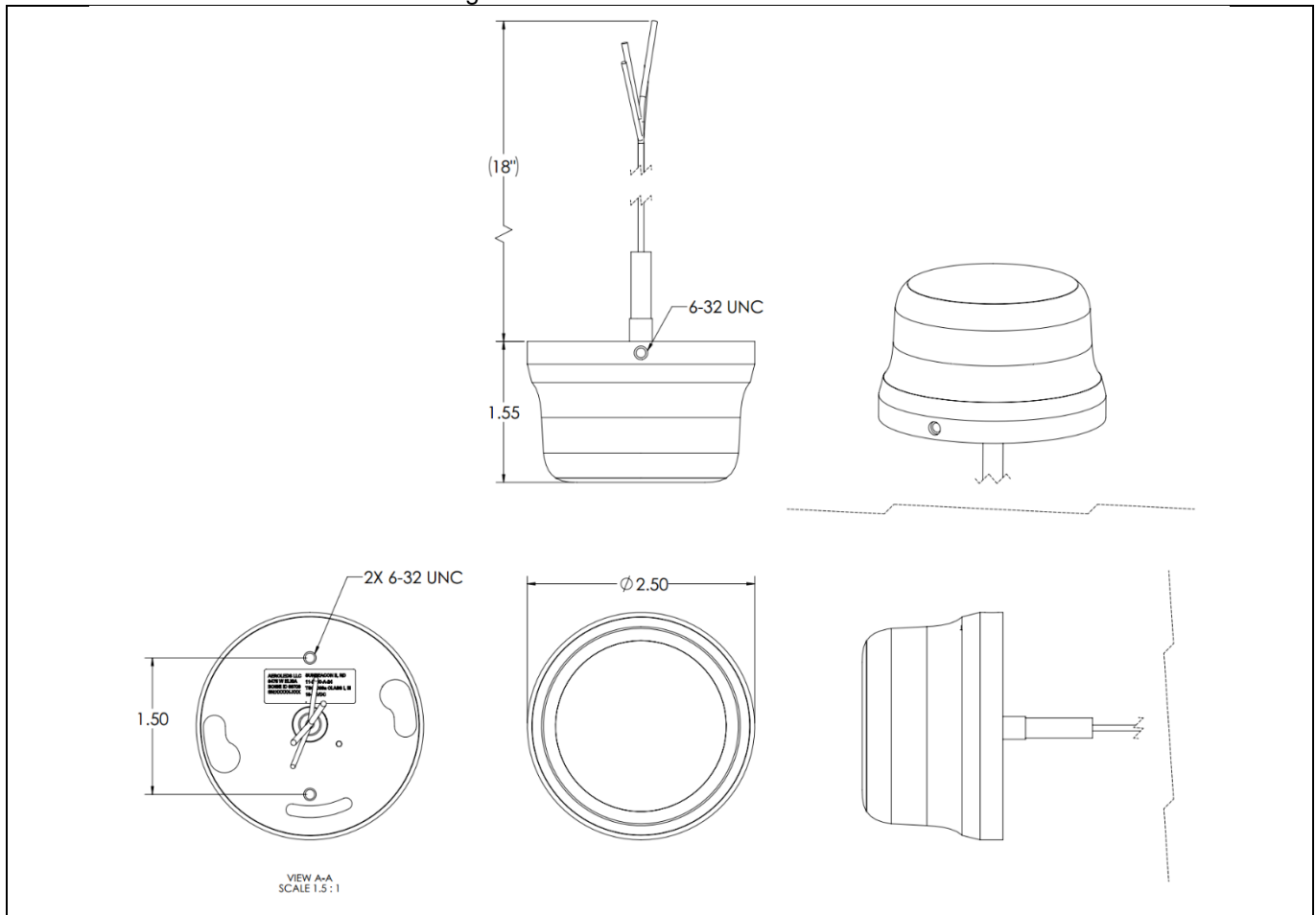
Part Number	Description
11-2200-A-24	LIGHT-ASSY,SunBeacon II,RD
11-2200-A-12	LIGHT-ASSY,SunBeacon II,RD
11-2200-B-24	LIGHT-ASSY,SunBeacon II,WT
11-2200-B-12	LIGHT-ASSY,SunBeacon II,WT

2 Specifications

- Operational Voltage: 24 V_{DC} nominal
- Average Input Current: 0.6 Amps
- Peak Input Current: 4.6 Amps
- Average Power: 15 Watts

- Operational Voltage: 12 V_{DC} nominal
- Average Input Current: 1.2 Amps
- Peak Input Current: 9.2 Amps
- Average Power: 15 Watts

Table 2-1: Dimensional Drawing



3 Instructions for Continued Airworthiness

The SunBeacon II ACS light is designed with many LEDs mounted behind a lens. The lights contain no user repairable items. Should more than two LEDs fail the unit must be replaced.

Interval	Description	Notes
50 hr.	<ul style="list-style-type: none">• Perform functional check on light(s)• Replace components as required	Lights are not field repairable and should be sent to manufacturer for repair/replacement if defective
100 hr.	<ul style="list-style-type: none">• Perform functional check on light(s) / replace unit if defective• Inspect for discoloration of lens• Inspect mounting for security• Inspect all connectors for good engagement• Inspect wiring for chaffing / defects• Replace components as required	
Annually	--SAME AS 100 HOUR--	

4 Limitations and Installations

4.1 Equipment Limitations:

Consult **14CFR, §43.13-1B** for guidance on acceptable methods, techniques, and practices. Mount in place of current Beacon with circuit breaker or fuse appropriate for rated current. For retrofit installation existing circuit breaker or fuse can typically be used. The procedures contained herein are not intended to conflict with the procedures set forth by aircraft and engine manufacturers, nor do they supersede the FAA approved manuals and FAA regulations.

4.2 Airworthiness Limitations:

The Airworthiness Limitations section is FAA approved and specifies maintenance required under **14 CFR, §43.16** and **14 CFR, §91.403** of the Federal Aviation Regulations unless an alternative program has been FAA approved. There are no new (or additional) airworthiness limitations associated with this equipment and/or installation.

4.3 Installation Procedures

- 4.3.1 Refer to the aircraft manufacturer's service manual and/or illustrated parts catalog to identify the light system installed in your aircraft. -This will provide information on the location of the components and the assembly details.
- 4.3.2 Note, if the aircraft being modified incorporates a remote sensor (flux gate) compass do not mount the LED light within 24 inches of the remote compass components. After installation of the LED lighting system, a compass swing procedure must be performed with the light on & off. The position error card must be annotated accordingly.
- 4.3.3 Mount the LED light with a minimum 4 inch clearance to exhaust system components unless adequate heat shielding is utilized to block radiant heat.

4.4 Wire Sizes

4.4.1 Reference: **AC43.13-1B, Chapter 11, §4 and §5** for appropriate wire sizing and fuse/breaker protection

4.5 Removal

4.5.1 Prepare the aircraft for maintenance:

- Disconnect aircraft power and ground.
- Ensure all switches are in the OFF position
- Attach maintenance warning tags
- Pull light circuit breakers.
- Reference airframe manufacturer's maintenance manual and remove light covers to gain access to lamp assembly(s) and bracket(s).
- Remove existing lamp(s) from brackets, mark and retain hardware.
- Record weight of removed lamps.

4.6 Installation

4.6.1 The installation procedure described in the following text is for a single light installation, but the procedure is identical for multiple light installations.

4.6.2 Determine which mounting type shown in the installation diagram is required for the mounting location. The bracket can be used to mark the mounting hole locations. The brackets are ordered separately, depending on the mounting configuration.

4.6.3 By design, the twist lock Mounting Bracket locks into the Sunbeacon II product body.

4.6.4 Mount the twist lock bracket using four 6-32 100 degree countersunk screws.

4.6.5 Connect the red wire to switched power for the beacon light

4.6.6 Connect the black wire to aircraft ground via the shield for non-conducting surfaces or tie to structure for conducting surfaces

4.6.7 Connect the green wire to the synchronization wire from other installed light(s). It is recommended that the attached wiring diagram be followed for minimum RFI.

4.6.8 Attach the light to the mounting bracket and anchor in place with the 8-32 hex head set screw (provided) that inserts into the rear of the light.

4.6.9 Power up aircraft and verify proper operation of LED light(s)

4.6.10 Using the appropriate aircraft maintenance manual, verify that the light angle has not changed, and is oriented in accordance with manufacturer's instructions.

4.6.11 A flight check should be performed by a properly certified pilot.

4.6.12 Perform EMI test to verify there is no interference caused by light installation.

4.6.13 Reinstall any light covers removed to gain access to lamp assemblies and brackets.

4.6.14 Enter appropriate logbook entry detailing work.

4.6.15 Weight & balance change from standard light assemblies to LED light assemblies is considered negligible.

4.7 Troubleshooting

4.7.1 Check for bus voltage at power input wire to the light, reestablish power if inadequate power is found. Check for excessive resistance at light ground and repair if necessary. Remove and bench check light if wiring is verified good.

5 Wiring Diagrams

5.1 Wiring Diagram for SunBeacon II

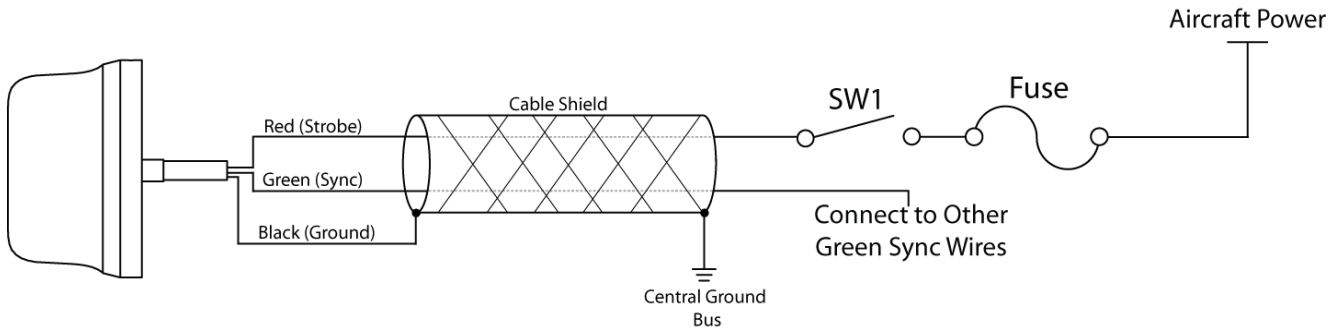
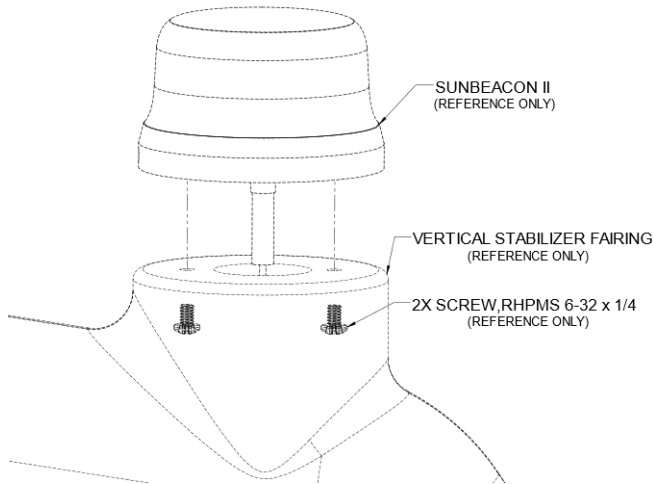


Photo 5-1

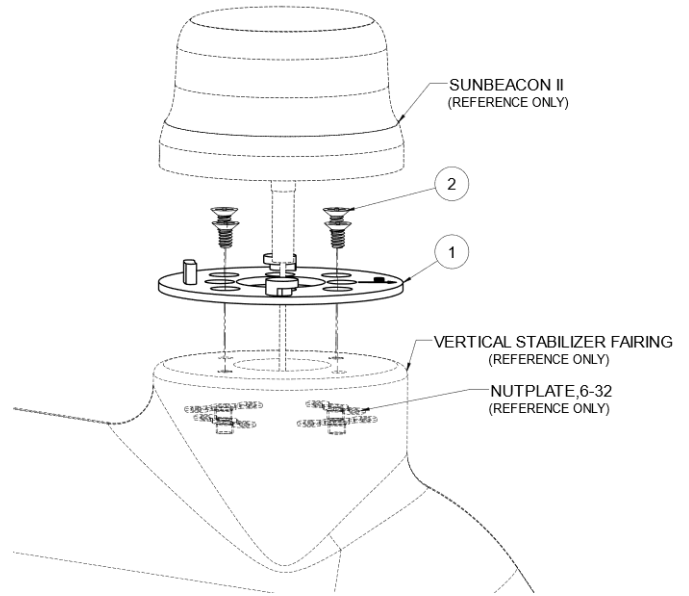
Fuse/breaker should be rated for wire size per **AC43.13-1B**

6 Installation Mounting Options

6.1 Installation Mounting Options

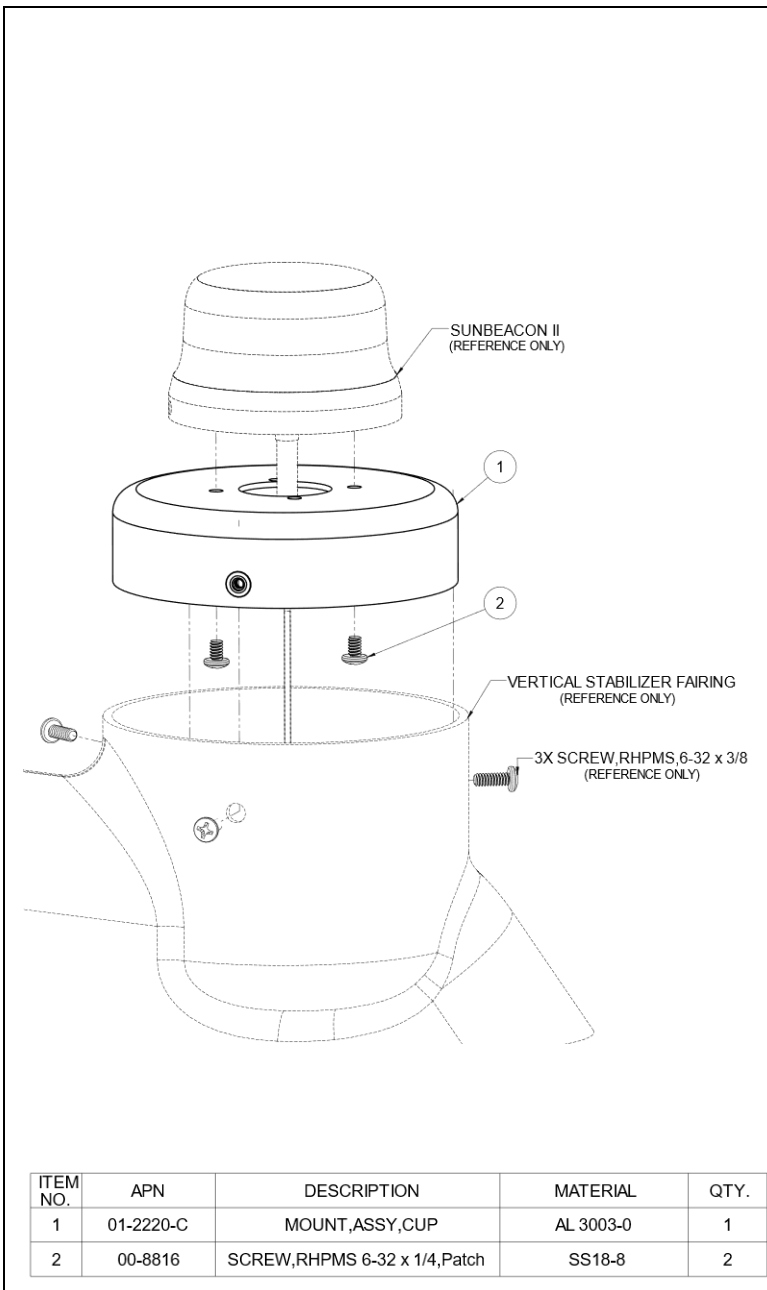


Config A: Direct Mount

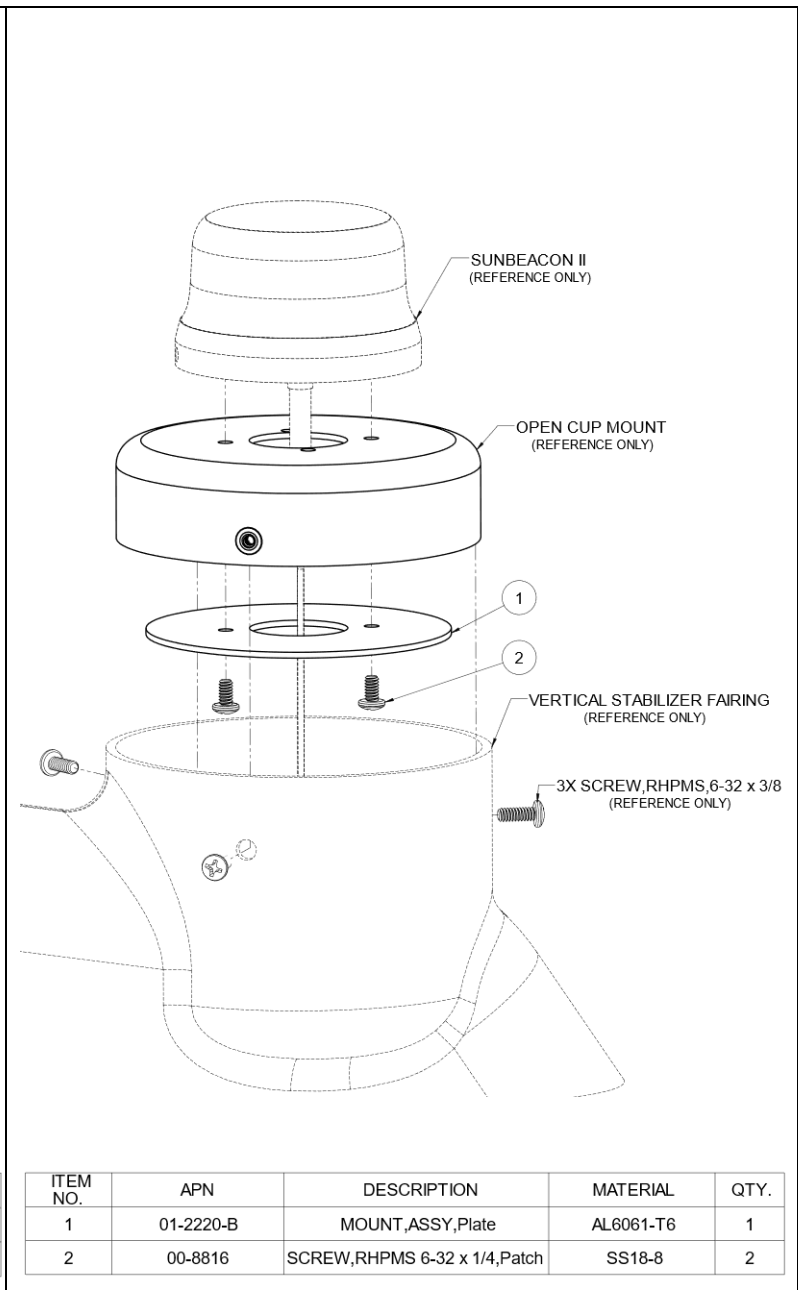


**Config B: Twist Mount
(KIT-01-1096)**

ITEM NO.	APN	DESCRIPTION	MATERIAL	QTY.
1	01-2220-A	MOUNT_ASSY	AL6061-T6	1
2	00-8869	SCREW,FHPMS 6-32 x 1/4,100,Patch	SS18-8	4



**Config C: Cup Mount Adapter
(KIT-0049)**



**Config D: Plate Mount
(KIT-0056)**

7 DO-160 Compliance

DO-160E Section	Compliance Level
4	F2
5	S2
6	B
7	A
8	U
9	H
10	S
11	F
12	S
13	F
14	T
15	A
16	Z
17	A
18	Z
19	ZC
20	RR
21	H
22	A3E3
24	C