



Installation Instructions

SunRay EVO III



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1 System Description

SunRay™ EVO III LED is an optimized landing light. This compact LED can be mounted virtually anywhere on the aircraft. SunRay EVO III comes equipped with fully integrated pulse (wigwag) functionality and requires no external circuitry. The light can be installed as a single, dual, or quad light configurations.

2 Model Number

Model	Part Number	Description	Voltage (V)	Current (Amps)	Power (W)	Weight (oz)
SunRay EVO III	01-1150	Landing w/Pulse	14	2.5	35	4.5
			28	1.3		

Table 1

3 Instructions for Continued Airworthiness

SunRay EVO III series LED landing light assembly contains no user serviceable items. Should any LED fail, unit must be replaced.

4 Periodic Inspections

Interval	Inspection	Remedy	Notes
Pre-Flight	<ul style="list-style-type: none">Perform a functional check and observe that all LEDs are illuminated.	<ul style="list-style-type: none">If all LEDs are not illuminated replace light as soon as is practicable.	<ul style="list-style-type: none">Lights are not user serviceable.Lights are very bright and to reduce eye strain during inspection use an optical filter such as dark glasses or welding goggles.
Annually, unless the OEM specifies a shorter interval	<ul style="list-style-type: none">Perform a functional check and observe that all LEDs are illuminated.Check mounting, connections, and wire integrity	<ul style="list-style-type: none">If all LEDs are not illuminated, the light must be replaced.Adjust or replace wiring, and connectors as required	

4.1 Installation

Consult **14CFR, §43.13-1B** for guidance on acceptable methods, techniques, and practices. For retrofit installation existing circuit breaker or fuse may typically be used. Procedures contained herein are not intended to conflict with procedures set forth by aircraft OEM, nor do they supersede FAA manuals and FAA regulations.

4.2 Installation Procedures

1. This installation procedure is for single or multiple light installations (wiring diagrams provided).
2. Pulse function is a self-contained feature and does not require use of external control circuitry. An additional wire and switch will be required to enable pulse mode, and for multiple lights an additional synchronization wire installation will be required.
3. Refer to aircraft manufacturer's service manual and/or illustrated parts catalog to identify landing and/or taxi light system installed in your aircraft. This will provide information on location of components and assembly details
4. Mount LED light with a minimum 4-inch clearance to exhaust system components unless adequate heat shielding is utilized to block radiant heat.
5. Reference airframe manufacturer's current maintenance manual and install LED light(s) in brackets using retained hardware
6. Install suitable aircraft approved connectors or splices to connect landing light assemblies to wires routed from switch in accordance with wiring diagram(s).
 - a. Yellow wire is used to power pulse mode. Follow wiring diagrams for connecting blue and green synchronization wires for two and four light installations.
 - b. Install an appropriate aircraft approved switch and circuit breaker of correct rating for lights installed for pulse function. Original landing light switch/switches may be used.
7. Verify proper operation of LED light(s), in both steady-on and pulse functions (as appropriate to installation)
8. Verify light angle is oriented & aimed in accordance with manufacturer's instructions (if applicable)
9. Reinstall associated light hardware IAW aircraft maintenance manual
10. Record installation with appropriate logbook entry (if applicable)

Note: The use of shielded cable is recommended although not required for installation.

It is recommended that ground connections for all lights be made at a single location on aircraft central ground bus. This "single point ground" scheme helps to eliminate ground loops and ground bounce that can occur when using airframe as a ground.

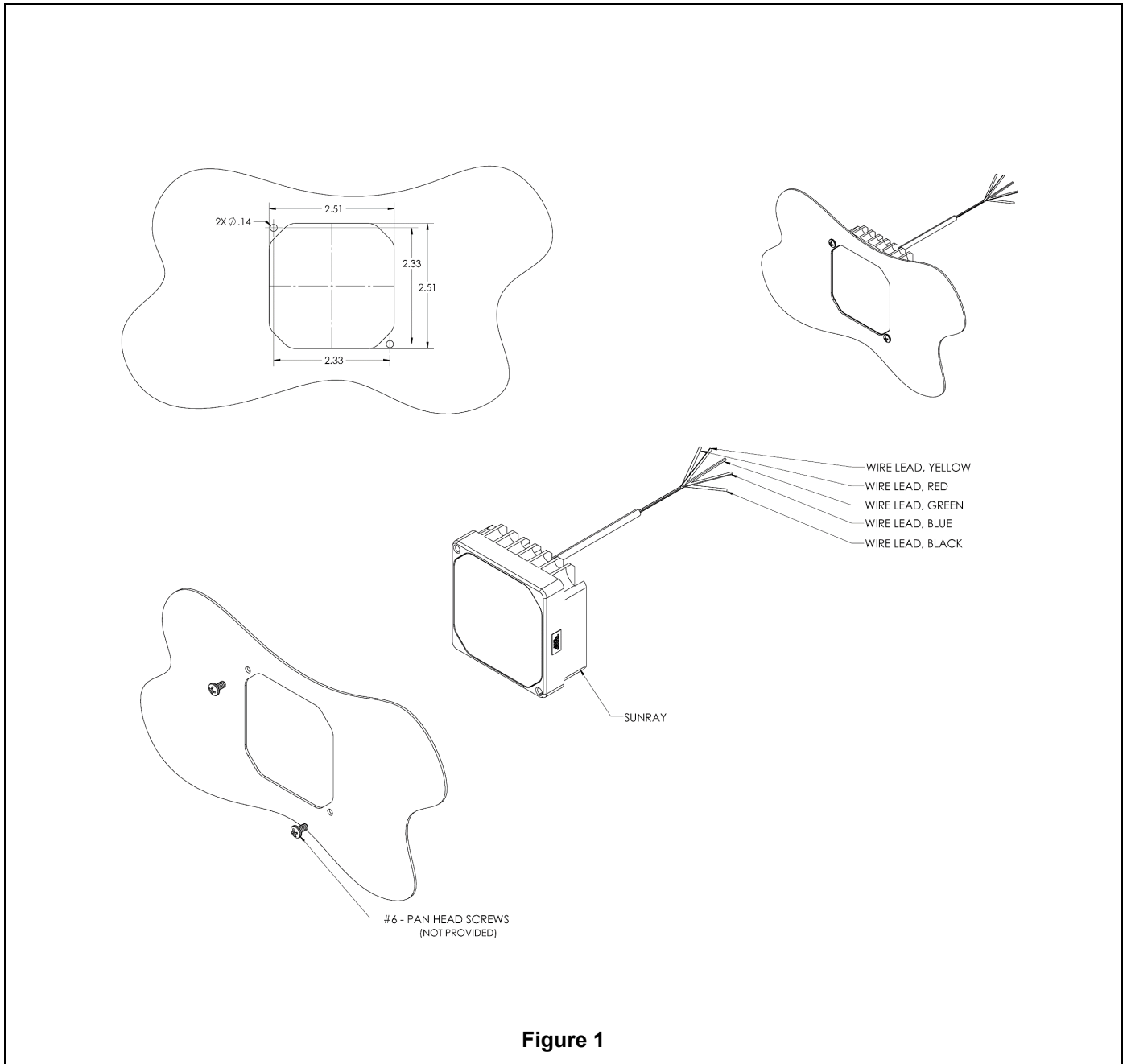
4.3 Troubleshooting

1. Check for proper voltage at power input wire to light
2. Ensure light is adequately grounded
3. Check for continuity in wiring and connections
4. If wiring is verified, remove light and bench-check with appropriately sized power supply

If above actions do not correct problem, contact AeroLEDs tech support at 1-208-850-3294 for a resolution.

4.4 Installation Options

4.4.1 Front Mount Installation



4.4.2 Step Mount Installation

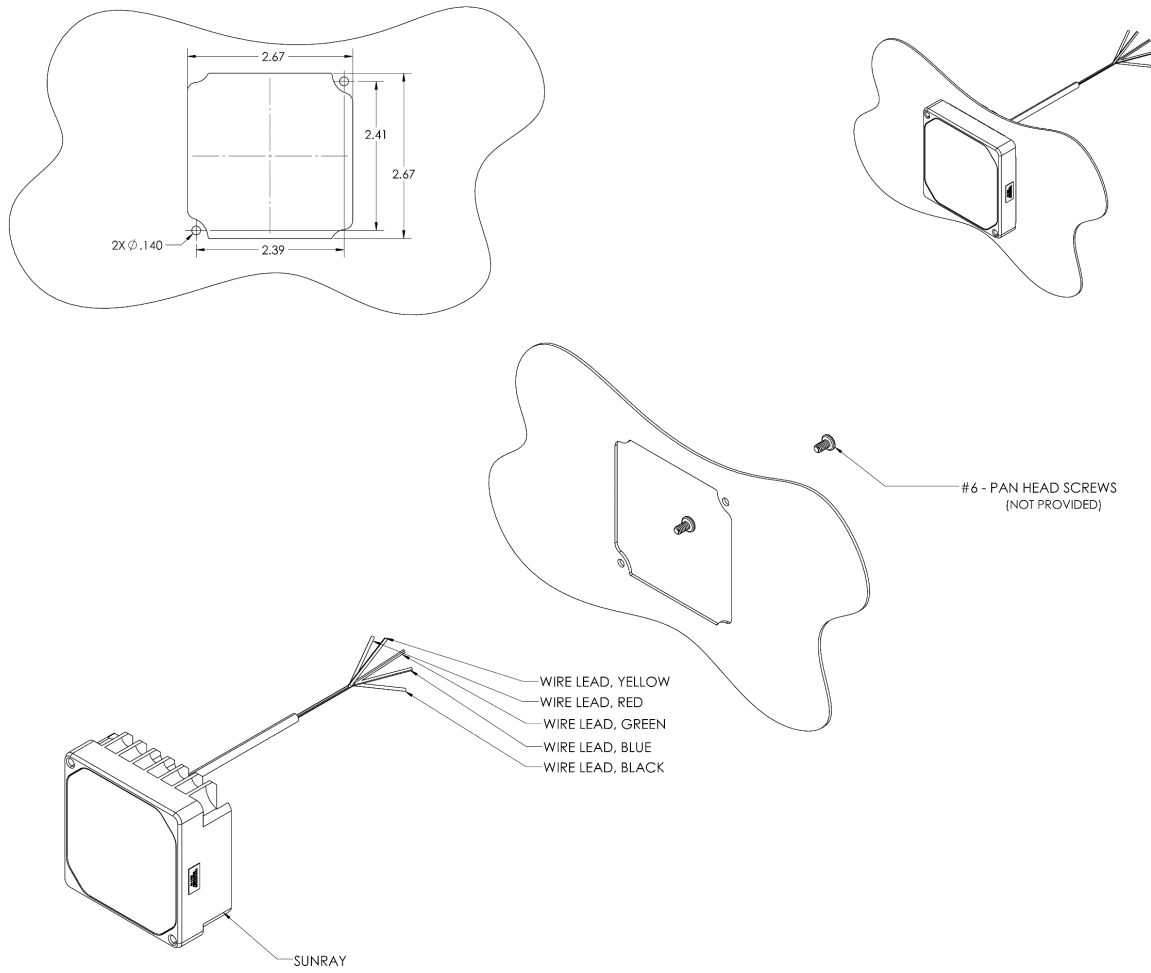


Figure 2

5 Wiring Diagrams

5.1 Wiring Diagram for Single SunRay EVO III Landing Light

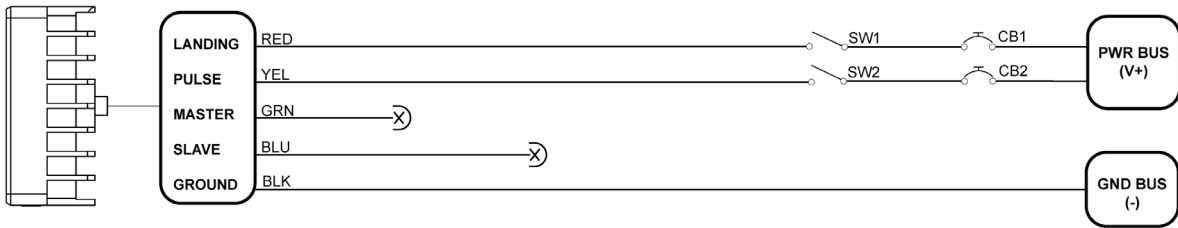


Figure 3

5.2 Wiring Diagram for Dual SunRay EVO III Landing Lights

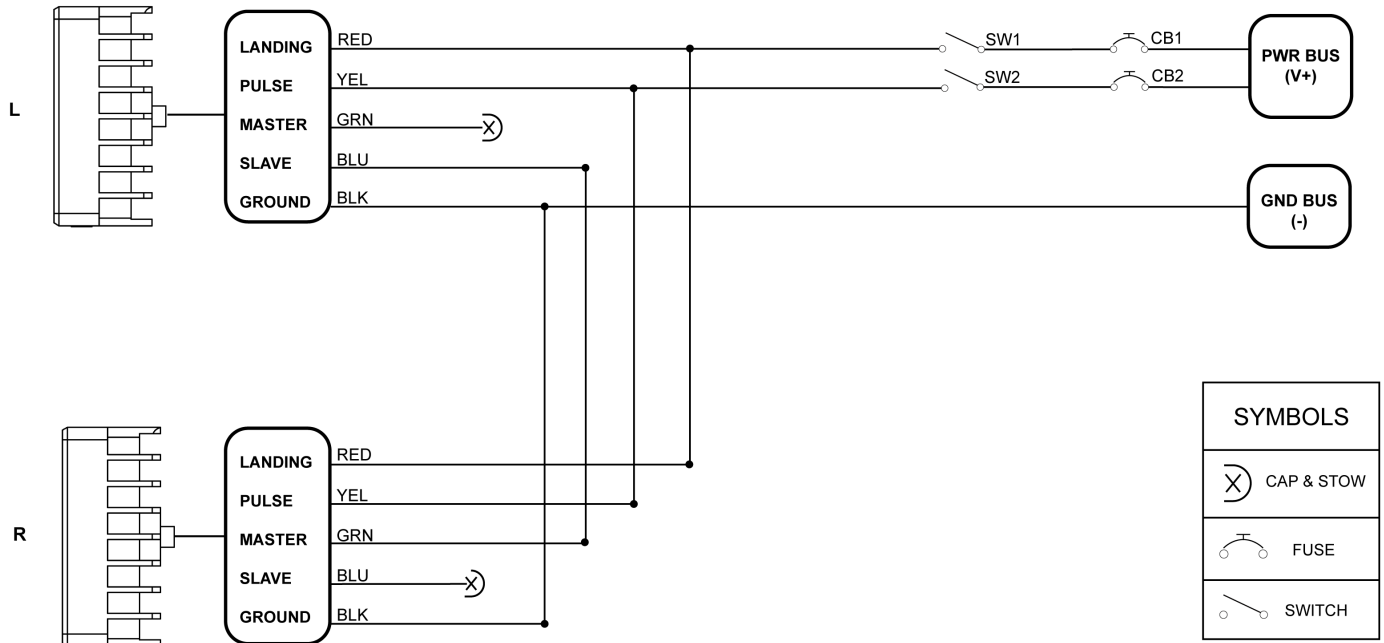


Figure 4

5.3 Wiring Diagram for Four SunRay EVO III Landing Lights

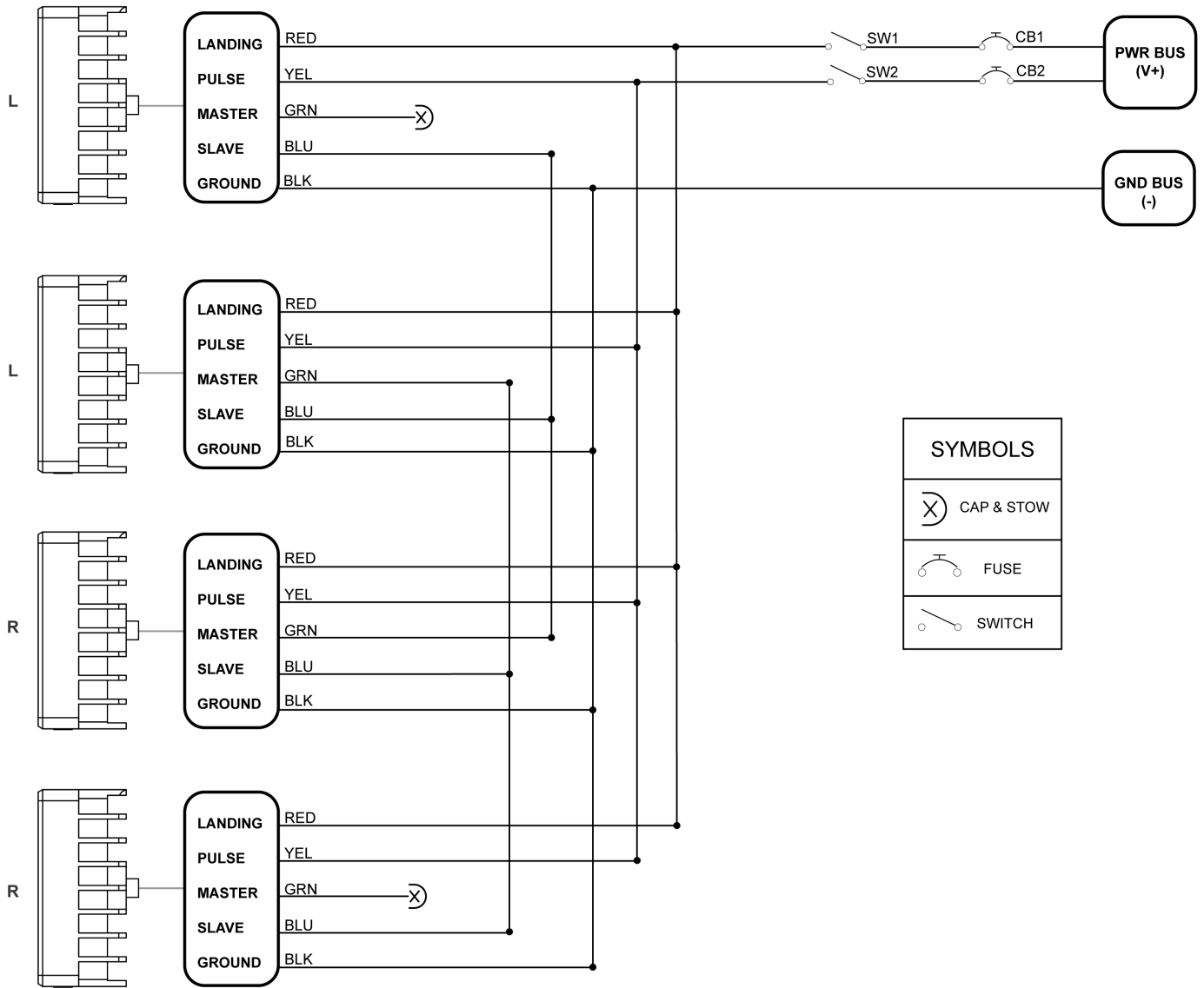


Figure 5