



Installation Instructions

Sunspot 36-4000 Series



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TABLE OF CONTENTS

1	System Description	4
2	Model Numbers	4
3	Instructions for Continued Airworthiness	4
4	Installation	5
4.1	Installation Procedures	5
4.2	Troubleshooting	6
5	Wiring Diagrams.....	6
5.1	Wiring Diagram for Single SunSpot without Pulse	6
5.2	Wiring Diagram for Single SunSpot with Pulse	7
5.3	Wiring Diagram for Dual SunSpots with Pulse (WigWag)	8
5.4	Wiring Diagram for Four LED SunSpots with Pulse (WigWag)	9

1 System Description

The SunSpot Series LED landing and taxi lights consume less power, produce more lumens, and provide a much longer service life when compared to legacy lighting. These attributes make the SunSpot Series ideal for all Part 23, 25, 27, & 29, experimental, Special Use and Military applications. The SunSpot Series optics are designed to provide a wider beam pattern without sacrificing center beam intensity which provides a better 'site picture' for the pilot during critical stages of flight. The color temperature of the LEDs will provide full-scale color rendering of objects which allow increased depth of field visual cues to the pilot as opposed to the monochromatic color rendered by legacy incandescent lamp. AeroLEDs offers a full line of PAR36, 46, and 64 SunSpot Series LED drop in replacement options that are PMA and STC certified.

2 Model Numbers

Model	Part Number	Description	Voltage (V)	Current (Amps)	Power (W)	Weight (oz)
SunSpot 36-4313	01-1030-4313	Landing	14	6.8	95	11.5
	01-1030-4313-H	Landing w/Pulse				
SunSpot 36-4314	01-1030-4314	Taxi				
	01-1030-4314-H	Taxi w/Pulse				
SunSpot 36-4587	01-1030-4587	Taxi	28	3.4	95	
	01-1030-4587-H	Taxi w/Pulse				
SunSpot 36-4596	01-1030-4596	Landing				
	01-1030-4596-H	Landing w/Pulse				

3 Instructions for Continued Airworthiness

SunSpot series LED landing or taxi light assembly contains no user serviceable items. Should any LED fail, unit must be replaced.

Interval	Description
50 hr.	<ul style="list-style-type: none">• Perform functional check on light(s)• Replace components as required
100 hr.	<ul style="list-style-type: none">• Perform functional check on light(s)• 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 Installation

Consult **14CFR, §43.13-1B** for guidance on acceptable methods, techniques, and practices. Mount in approved bulb holder. 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 approved manuals and FAA regulations.

4.1 Installation Procedures

1. Reference airframe manufacturer's maintenance manual and remove light covers to gain access to lamp assembly(s) and bracket(s)
2. This installation procedure is for single or multiple light installations. Wiring diagrams are provided for single, dual, and quad light installations. For lights without pulse, existing aircraft wiring, switches and breakers may be utilized.
3. **Versions with Pulse:** 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.
4. 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
5. Mount LED light with a minimum 4-inch clearance to exhaust system components unless adequate heat shielding is utilized to block radiant heat.
6. Reference airframe manufacturer's current maintenance manual and install LED light(s) in brackets using retained hardware
7. Ensure alignment key is fitted to bracket
8. Install suitable aircraft approved connectors or splices to connect landing light assemblies to wires routed from switch in accordance with wiring diagram(s).
9. Screw terminals are not polarity sensitive
 - 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.
10. Placard switches appropriately.
11. Verify proper operation of LED light(s), in both pulsing and steady functions (as appropriate to installation)
12. Using appropriate aircraft maintenance manual, verify light angle has not changed, and is oriented & aimed in accordance with manufacturer's instructions
13. Reinstall associated light hardware IAW aircraft maintenance manual
14. Record installation with appropriate logbook entry

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.

4.2 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

5 Wiring Diagrams

5.1 Wiring Diagram for Single SunSpot without Pulse

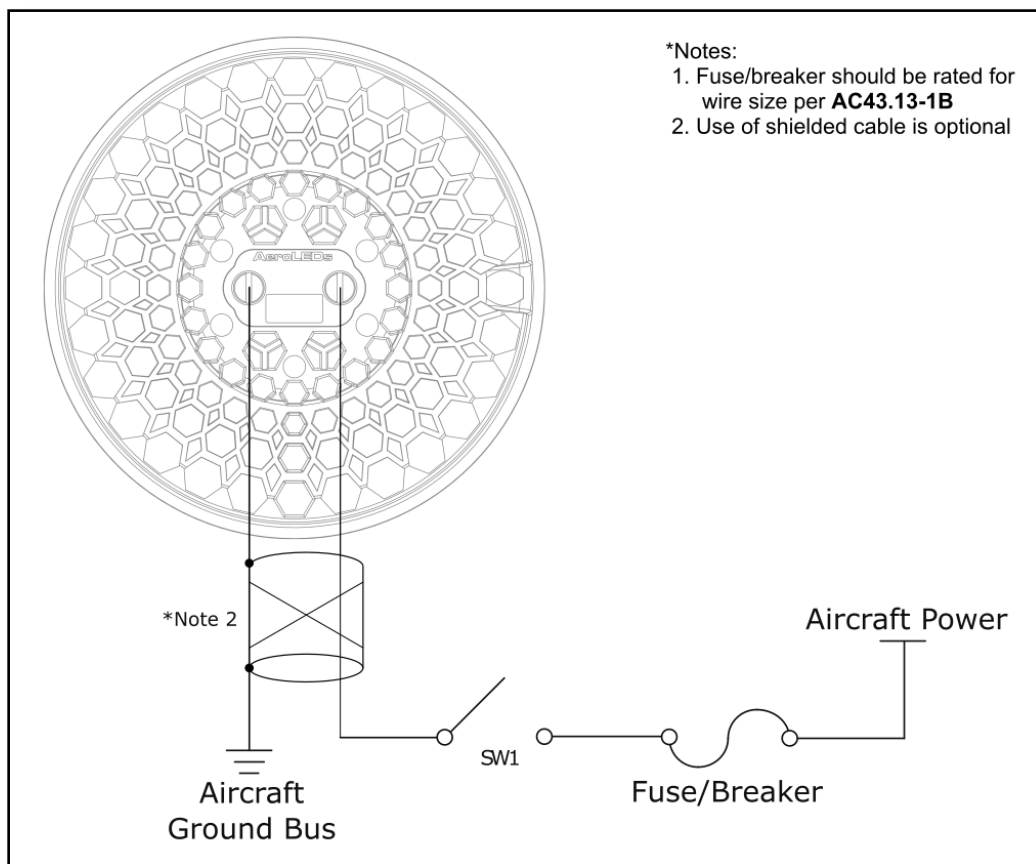


Photo 5-1

5.2 Wiring Diagram for Single SunSpot with Pulse

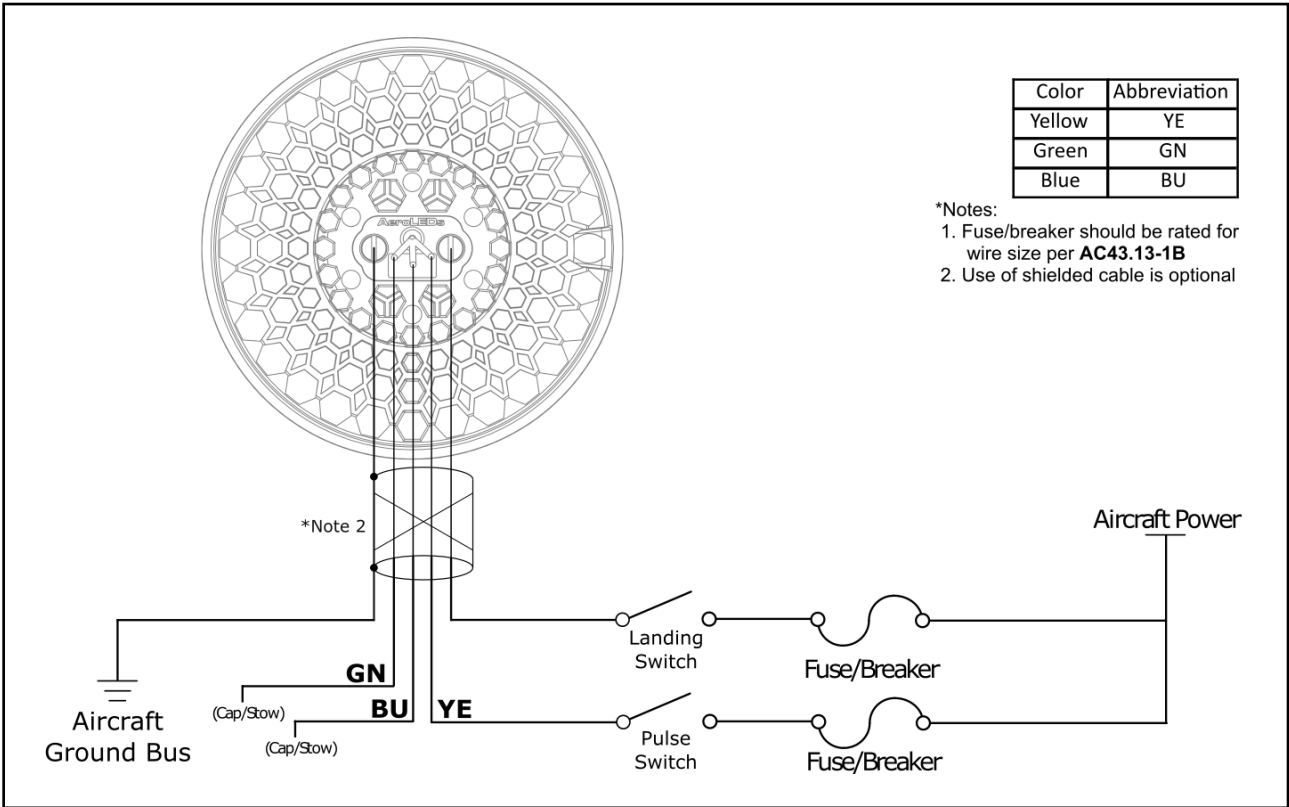


Photo 5-2

5.3 Wiring Diagram for Dual SunSpots with Pulse (WigWag)

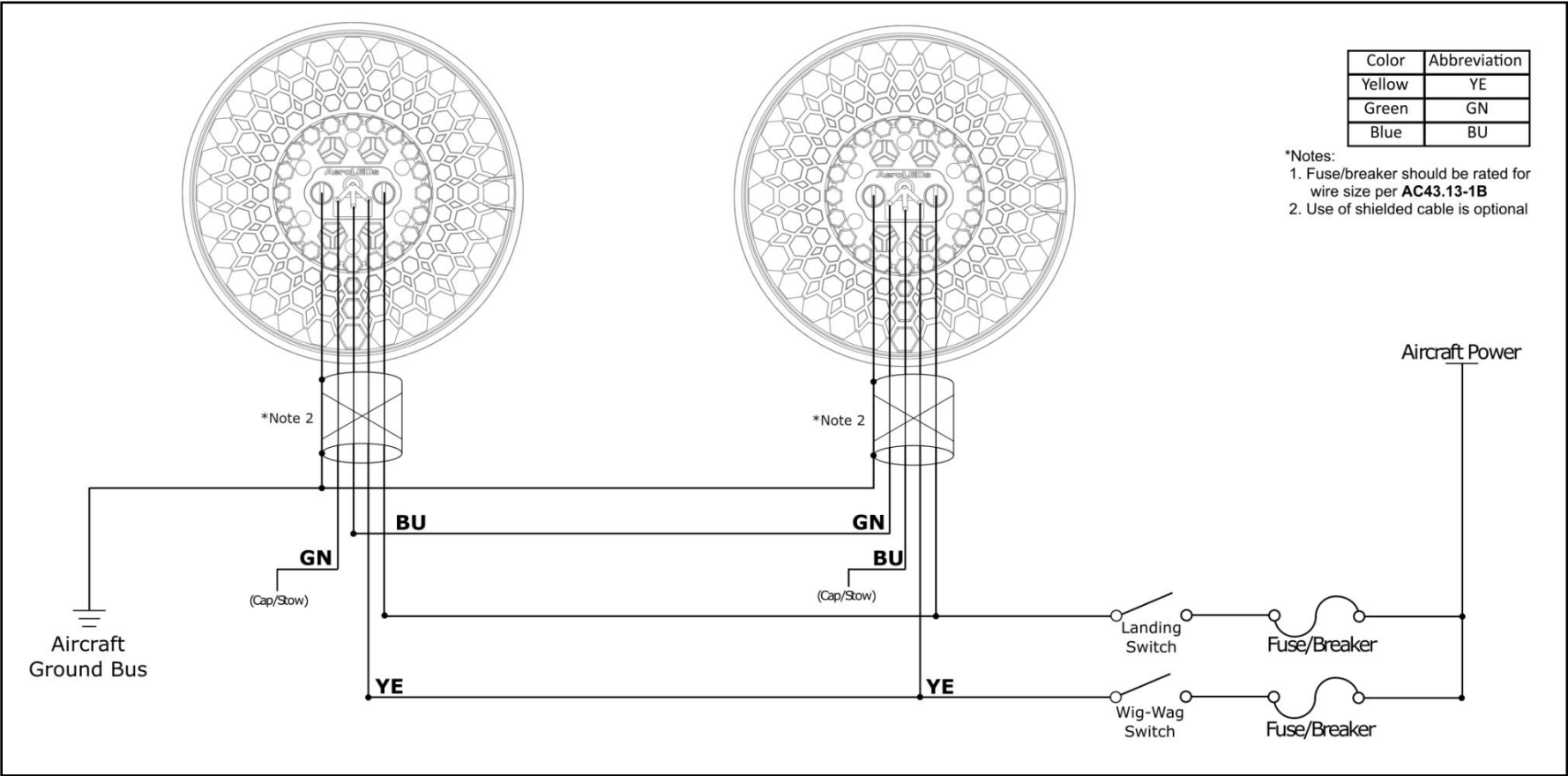


Photo 5-3

If lights are installed in close proximity (within two feet), install using a sync circuit (00-8120).



5.4 Wiring Diagram for Four LED SunSpots with Pulse (WigWag)

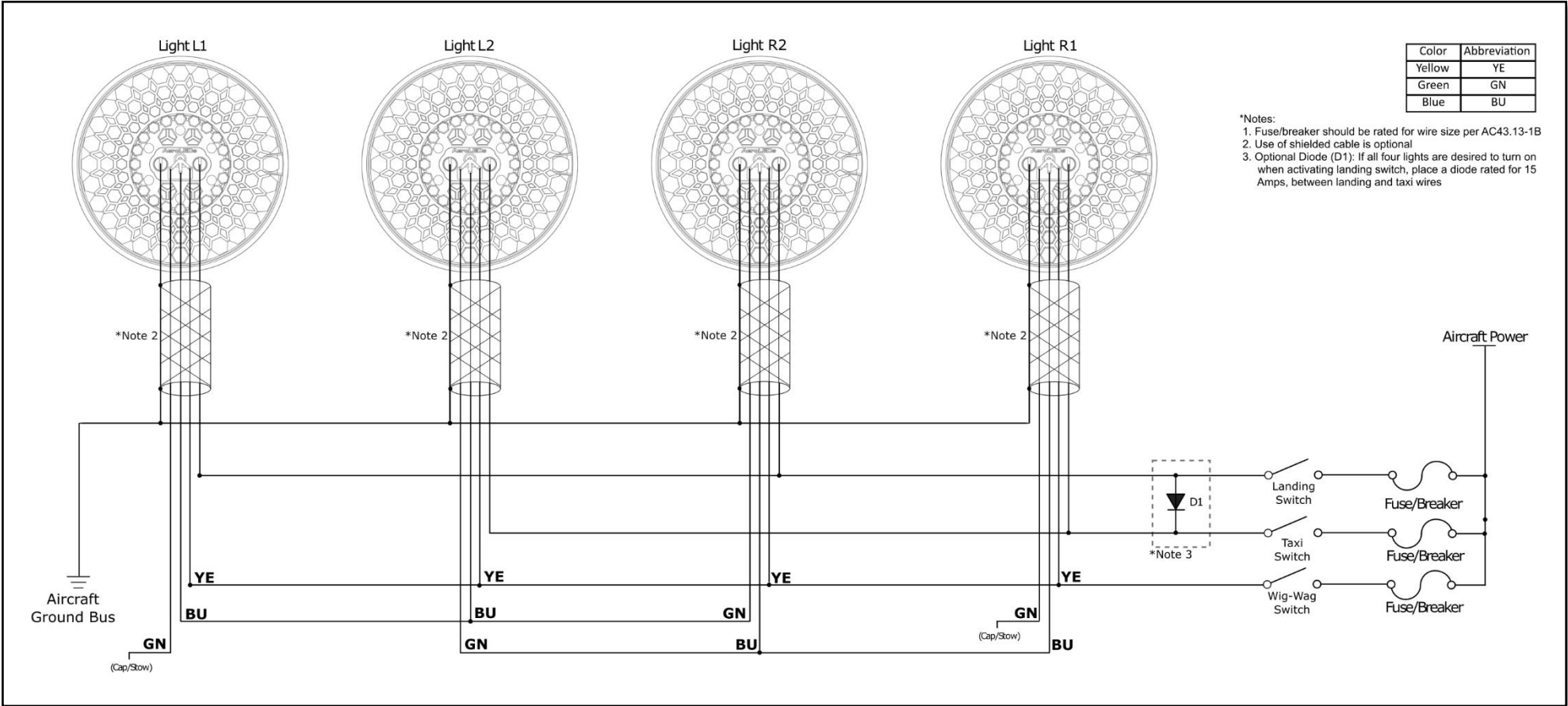


Photo 5-4