



Installation Instructions

MicroSun Series



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REVISION RECORD

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B	Updating format; Adding -A light part number, images, and information	10/29/2020	J. Blanchfield
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1 System Description

The MicroSun Series LED taxi/recognition lights consume less power, produce more lumens, and provide a much longer service life when compared to incandescent lighting. The MicroSun Series optics are designed to provide a wider beam pattern without sacrificing beam intensity which provides a better 'site picture' for the pilot during taxi and takeoff. 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.

2 Model Numbers

Model	Part Number	Description	Voltage (V)	Current (Amps)	Power (W)	Weight (oz)
MicroSun	01-1170	Taxi	14	1.7	24	3.6
MicroSun	01-1170-A	Taxi (external mount)				2.2

3 Instructions for Continued Airworthiness

MicroSun series LED 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 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 provided).
3. 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).
 - 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.
9. Placard switches appropriately.
10. Verify proper operation of LED light(s), in both pulsing and steady functions (as appropriate to installation)
11. Using appropriate aircraft maintenance manual, verify light angle has not changed, and is oriented & aimed in accordance with manufacturer's instructions
12. Reinstall associated light hardware IAW aircraft maintenance manual
13. 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 MicroSun with Pulse

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

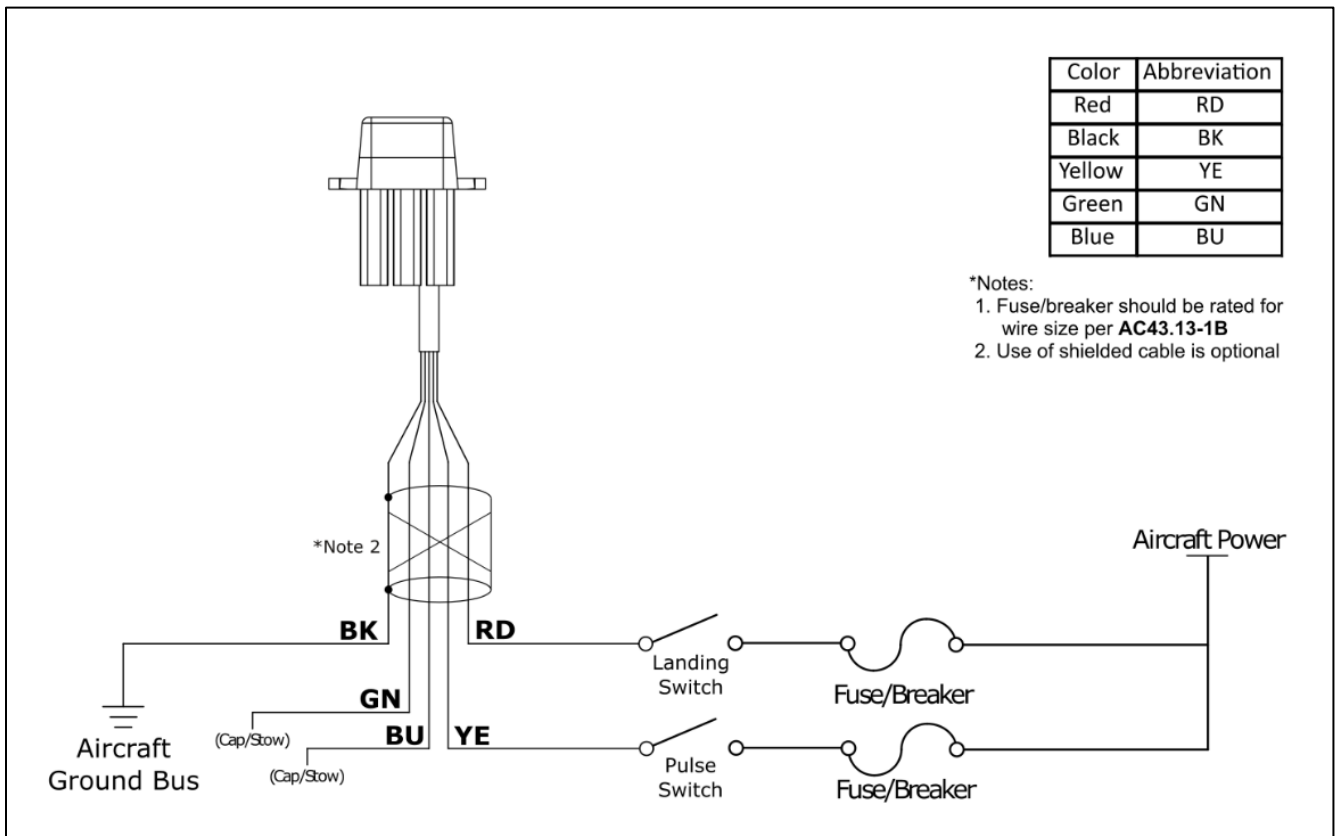


Photo 5-1

5.2 Wiring Diagram for Dual MicroSuns with Pulse (WigWag)

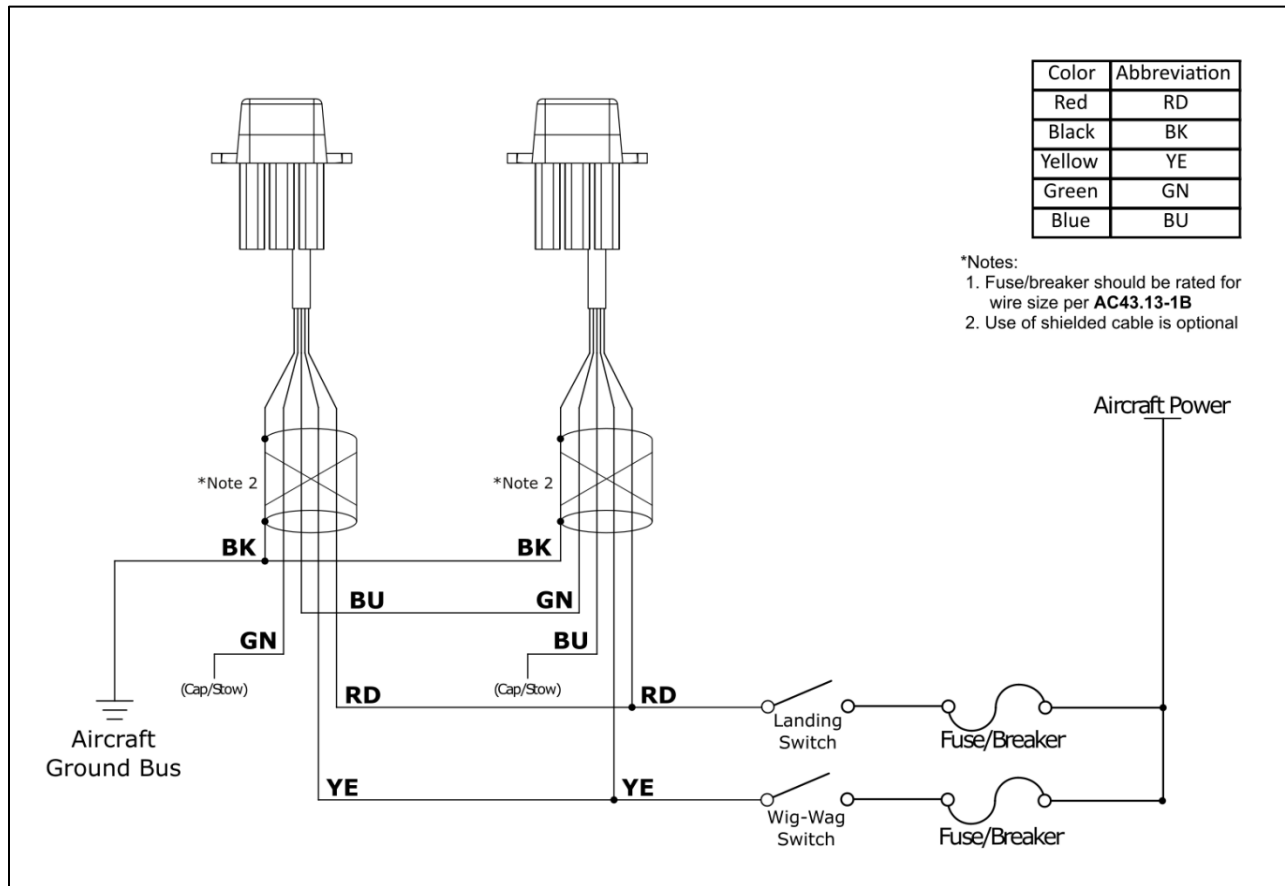


Photo 5-2

Note: If lights installed in close approximation, within two feet, then use AeroLEDs synch circuit (00-8120).

5.3 Wiring Diagram for Four MicroSuns with Pulse (WigWag)

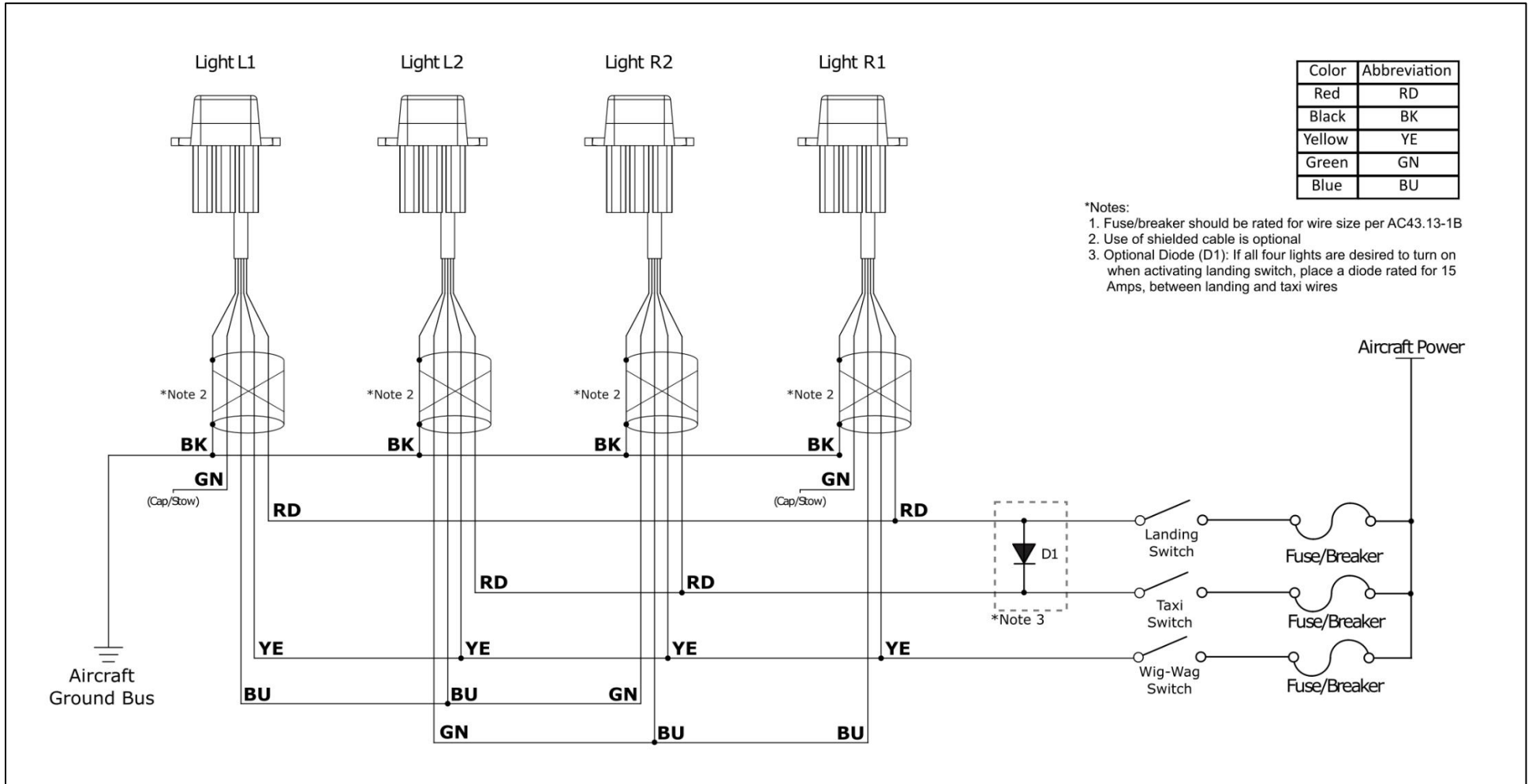


Photo 5-3