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Installation Instructions
Sunspot 36 Equinox Series

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Approval	Name	Intent	
Author	Jennifer Blanchfield	Installation and operation instructions for the Sunspot 36 Equinox series lights	
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Quality	Mark McCormack		
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REVISION RECORD

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1 System Description

SunSpot™ 36 Equinox series dual-function landing and taxi lights, are designed as LED drop-in replacements for existing PAR36 light configurations. The AeroLEDs SunSpot™ lights are designed to provide a wide beam pattern at an increased intensity with full-scale color rendering. The SunSpot™ 36 is a two terminal light, including additional wires for integrated Pulse/WigWag mode to significantly increase recognition.

2 Model Numbers

Model	Part Number	Description	Voltage (V)	Current (Amps)	Power (W)	Weight (oz)
SunSpot 36 Equinox	01-1030-LT-12	Landing	14	7.1	100	11.6
		Taxi		5.4	75	
	01-1030-LT-24	Landing	28	3.5	100	
		Taxi		3.5	100	

Table 1

3 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 additional airworthiness limitations.

4 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	Inspection	Remedy	Notes
Pre-Flight	• Perform a functional check and observe that all LEDs are illuminated	• If all LEDs are not illuminated replace light as soon as is practicable	• Lights are not use 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	• Perform a functional check and observe that all LEDs are illuminated • Check mounting, connections, and wire integrity	• If all LEDs are not illuminated, the light must be replaced • Adjust or replace wiring, and connectors as required	

Table 2

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4.1 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.

4.2 Installation Procedures

1. Reference the airframe manufacturer's maintenance manual to complete the following steps
2. If the AeroLEDs light(s) chosen for installation are higher wattage than the light(s) being removed, ensure the Electrical Load is not appreciably affected and ensure that all circuit components (circuit breaker, wire, switches, relays, etc., as applicable) are appropriate for the light(s) being installed
3. Prepare aircraft for maintenance:
   a. Disconnect aircraft power and ground
   b. Ensure all switches are in the OFF position
   c. Attach maintenance warning tags
   d. Pull landing/taxi light circuit breakers
   e. Remove light covers to gain access to lamp assembly(s) and bracket(s)
   f. Remove existing lamp(s) from brackets, mark and retain hardware
   g. Record weight of removed lamps
4. This installation procedure is for single or multiple light installations. Wiring diagrams are provided for single and dual light installations.
5. **Built in 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. If pulse mode is not required, cap and stow yellow wire.
6. 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
7. Mount LED light with a minimum 4-inch clearance to exhaust system components unless adequate heat shielding is utilized to block radiant heat.
8. Reference airframe manufacturer's current maintenance manual and install LED light(s) in brackets using retained hardware
9. Ensure alignment key is fitted to bracket
10. Install suitable aircraft approved connecters or splices to connect landing light assemblies to wires routed from switch in accordance with wiring diagram(s).
11. Screw terminals are not polarity sensitive

    a. Yellow wire is used to enable pulse mode
    b. Blue and green wires are low current signals for synchronization in multiple light installations
    c. 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.

12. Placard switches appropriately.
13. Verify proper operation of LED light(s), in both pulsing and steady functions (as appropriate to installation)
14. Using appropriate aircraft maintenance manual, verify light angle has not changed, and is oriented & aimed in accordance with manufacturer's instructions

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15. Reinstall associated light hardware IAW aircraft maintenance manual
16. Perform an operational check of the light(s) to determine that the installed light(s):
    a. Generate no objectionable glare to the pilot
    b. Do not adversely affect the pilot by halation
    c. Provide enough light for night operations, including hovering and landing
    d. Will not adversely affect any installed systems or equipment with EMI/RFI interference
17. 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.

4.3 Troubleshooting

If light is not functioning properly, not fully powering up, or not staying powered on, try the following steps to correct problem:
    a. Check for proper voltage at power input wire to light
    b. Ensure light is adequately grounded
    c. Check for continuity in wiring and connections
    d. 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.

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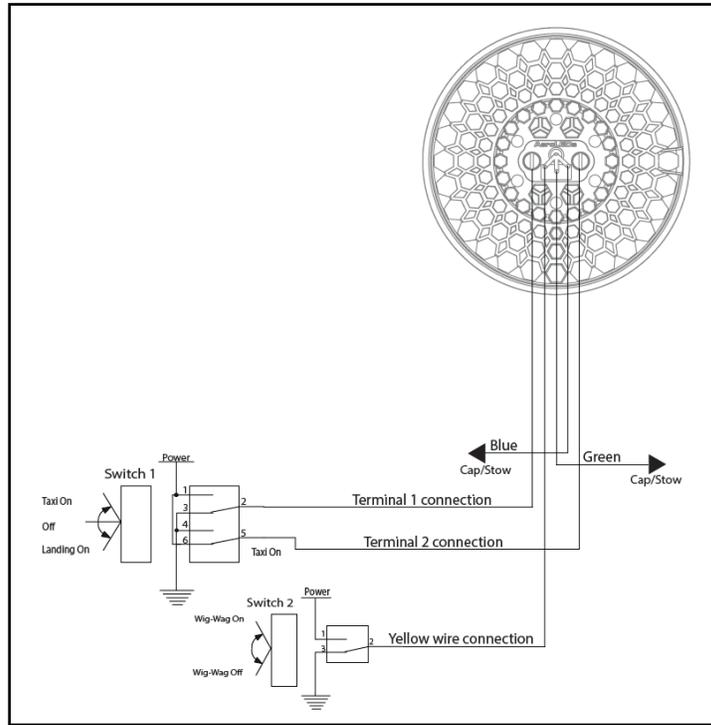
5 Wiring Diagrams

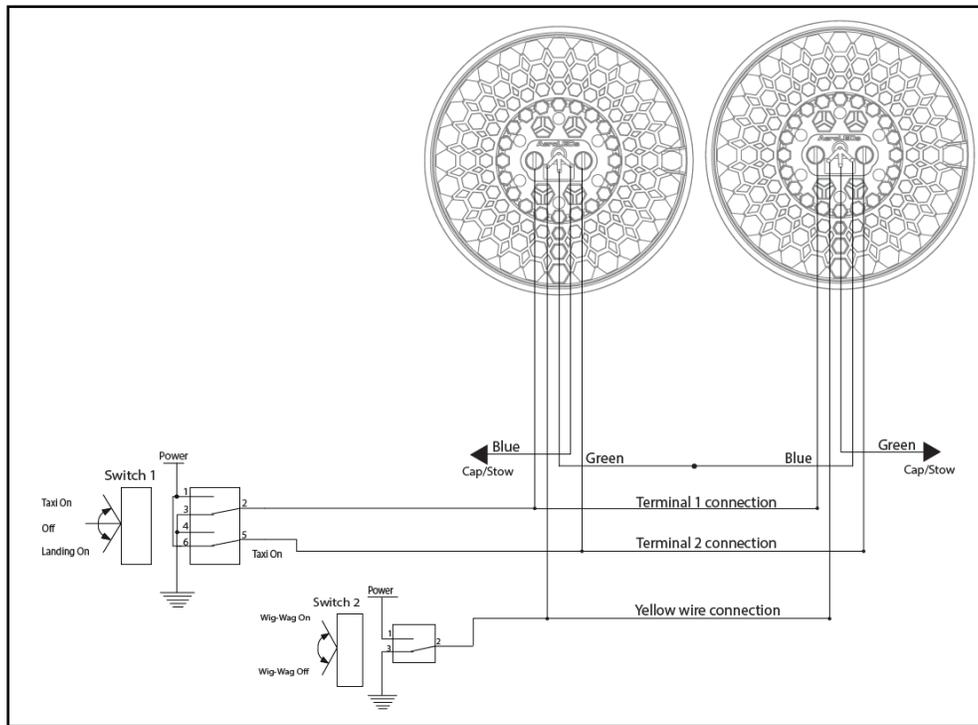## 5.1 Single light

Figure 5-1

5.2 Dual light

Figure 5-2