

## Whelen P46FLC

# Whelen PAR-46 Super-LED Spot Light User Manual

Model: P46FLC

### INTRODUCTION

This manual provides essential information for the proper installation, operation, and maintenance of your Whelen PAR-46 Super-LED Steady Burn 8-DEGREE Spot Light. Please read this manual thoroughly before using the product to ensure safe and efficient operation.

The Whelen PAR-46 Replacement LED Lighthead is specifically designed as a direct drop-in replacement for traditional halogen lamps in Unity Spotlights. It offers a lightweight, low-current, and water-resistant solution, engineered for stable light output over an extended operational lifespan.

### SAFETY INFORMATION

Always observe the following safety precautions to prevent injury or damage to the product:

- Ensure the vehicle's power is disconnected before installation or maintenance.
- Do not look directly into the light when it is illuminated, as it can cause eye strain or damage.
- Verify correct polarity during wiring to prevent damage to the LED unit.
- Use appropriate personal protective equipment (PPE) during installation.
- Refer to local and national electrical codes for proper wiring practices.

### PRODUCT OVERVIEW



*This image displays the front of the Whelen PAR-46 Super-LED light, featuring its clear, durable lens and the array of individual LED elements designed for optimal light output. The black housing is visible around the perimeter.*

The PAR-46 Super-LED light is engineered for high performance and durability. Key features include:

- **High Brightness:** 1600 Lumens output.
- **Easy Installation:** Designed for quick drop-in replacement.
- **EMI Certified:** SAE J1113-42 Class 5 EMI certified.
- **Low Power Consumption:** Operates at 12 VDC, drawing only 2.3 amps (30 Watts).
- **Long Lifespan:** Rated for 50,000 hours of operation.
- **Durable Construction:** Features a heavy-duty black powder coated die-cast aluminum heatsink.

## SETUP AND INSTALLATION

The Whelen PAR-46 Super-LED light is designed for a straightforward drop-in installation.

1. **Preparation:** Ensure the vehicle's power system is completely turned off and disconnected to prevent electrical shock or

damage.

2. **Remove Old Light:** Carefully remove the existing PAR-46 halogen lamp from its housing, typically found in Unity Spotlights.
3. **Connect Wiring:** Connect the wiring of the new Whelen PAR-46 Super-LED light to the vehicle's power supply. Observe correct polarity: typically, red wire for positive (+) and black wire for negative (-). Secure all connections.
4. **Insert New Light:** Gently insert the Whelen PAR-46 Super-LED light into the housing. Ensure it seats properly and is securely fastened.
5. **Test Functionality:** Reconnect the vehicle's power and test the light's operation. Verify that the light illuminates correctly and consistently.

*Note:* Professional installation is recommended if you are unfamiliar with automotive electrical systems.

## OPERATING INSTRUCTIONS

The Whelen PAR-46 Super-LED Spot Light operates as a steady burn light.

- **Power On/Off:** The light is controlled by the vehicle's existing spotlight switch or a dedicated push-button switch connected to its power source. Activate the switch to turn the light on, and deactivate to turn it off.
- **Beam Direction:** Adjust the spotlight housing as needed to direct the 8-degree spot beam to the desired area.

*Note:* This light is designed for steady illumination and does not feature flashing or pattern modes.

## MAINTENANCE

The Whelen PAR-46 Super-LED light is designed for minimal maintenance due to its long lifespan and durable construction.

- **Cleaning:** Periodically clean the lens with a soft, damp cloth and mild soap solution to remove dirt and debris. Avoid abrasive cleaners or solvents that could damage the lens.
- **Inspection:** Regularly inspect the wiring and connections for any signs of wear, corrosion, or damage. Ensure all connections remain secure.
- **Heat Management:** The integrated heatsink is designed to dissipate heat. Ensure the area around the light housing allows for adequate airflow.

No user-serviceable parts are inside the sealed LED unit. Do not attempt to disassemble the light.

## TROUBLESHOOTING

Problem	Possible Cause	Solution
Light does not illuminate.	No power to the light; incorrect wiring; faulty switch; blown fuse.	Check power connections and ensure they are secure. Verify correct polarity. Test the switch and vehicle fuse.
Light flickers or is dim.	Loose connection; insufficient voltage; damaged wiring.	Inspect all wiring connections for tightness. Ensure the vehicle's electrical system provides stable 12 VDC. Check for any damaged wires.
Light housing feels excessively hot.	Restricted airflow around heatsink; prolonged operation in high ambient temperatures.	Ensure the heatsink is not obstructed. While designed for heat dissipation, prolonged use in extreme conditions may cause warmth. This is generally normal for high-power LEDs.

If troubleshooting steps do not resolve the issue, contact Whelen customer support or a qualified technician.

SPECIFICATIONS

Model Number	P46FLC
Brand	Whelen
Light Source Type	LED
Brightness	1600 Lumens
Voltage	12 VDC
Current Draw	2.3 Amps
Wattage	30 Watts
Lifespan	Rated for 50,000 hours
Material	Aluminum (Heatsink)
Finish	Powder Coated (Black)
Water Resistance	Water Resistant
Installation Type	Drop-in
Certifications	SAE J1113-42 Class 5 EMI certified
Item Weight	1 pound
Package Dimensions	6 x 5.3 x 1.9 inches

WARRANTY INFORMATION

The Whelen PAR-46 Super-LED Spot Light comes with a **5-year warranty**. This warranty covers defects in materials and workmanship under normal use.

For detailed warranty terms and conditions, or to make a warranty claim, please refer to the official Whelen website or contact their customer support directly. Keep your proof of purchase for warranty validation.

CUSTOMER SUPPORT

For technical assistance, product inquiries, or support, please contact Whelen Engineering customer service.

- **Manufacturer:** Whelen Engineering
- **Website:** [www.whelen.com](http://www.whelen.com) (Please visit the official website for the most current contact information.)

