

[Manuals.plus](#) /

› [Optronics](#) /

› Optronics MCL32RS LED Fusion Tail Light Kit (TLL211XRTMK) Instruction Manual

Optronics TLL211XRTMK

Optronics MCL32RS LED Fusion Tail Light Kit (TLL211XRTMK) Instruction Manual

1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of your Optronics MCL32RS LED Fusion Tail Light Kit (Model TLL211XRTMK). Please read this manual thoroughly before installation and use to ensure proper function and safety.

2. PRODUCT OVERVIEW

The Optronics TLL211XRTMK kit includes two STL211XRB 6-inch oval LED Fusion lights designed for stop, turn, tail, and back-up functions. These lights feature patented FUSION light technology, are DOT-compliant, sonically sealed, and waterproof, ensuring durability and reliable performance.

Included Components:

- 2 x STL211XRB 6" Oval Fusion Stop/Turn/Tail/Back-up Lights
- 2 x A70GB Grommets
- 2 x A45PB 3-Wire Pigtails
- 2 x A45CB 2-Wire Pigtails
- 1 x A30AW5BLB 5-Way Wiring Harness



Figure 2.1: Front view of the Optronics STL211XRB LED Fusion Tail Light. This image shows the red lens for stop/turn/tail functions and the clear section for the back-up light.



Figure 2.2: Rear view of the Optronics STL211XRB LED Fusion Tail Light. This image displays the two electrical connection ports for the 3-wire and 2-wire pigtails.

3. SAFETY INFORMATION

- Always disconnect the vehicle's battery before performing any electrical work to prevent electrical shock or damage.
- Ensure all wiring connections are secure and properly insulated to prevent short circuits.
- Verify that the lights are correctly oriented and securely mounted to prevent detachment during vehicle operation.
- Consult local regulations and vehicle codes for proper tail light installation and functionality requirements.
- Wear appropriate personal protective equipment (PPE) such as safety glasses during installation.

4. INSTALLATION

Follow these steps for proper installation of your LED Fusion Tail Light Kit.

4.1 Mounting the Lights

1. Determine the desired mounting location for the tail lights. Ensure sufficient space for the oval light and grommet.
2. Using the provided hole cut-out dimensions, create an oval opening in the mounting surface. The recommended dimensions are approximately 6-3/4 inches long by 2-1/2 inches high, with 1-1/4 inch radius corners.
3. Insert the A70GB grommet into the prepared opening. Ensure it is seated firmly.

- Carefully push the STL211XRB LED light into the grommet until it is securely seated.

4.2 Wiring Instructions

The kit includes 3-wire pigtails (A45PB) for stop/turn/tail/ground and 2-wire pigtails (A45CB) for back-up/ground, along with a 5-way wiring harness (A30AW5BLB). Refer to the wiring diagram below for connections.

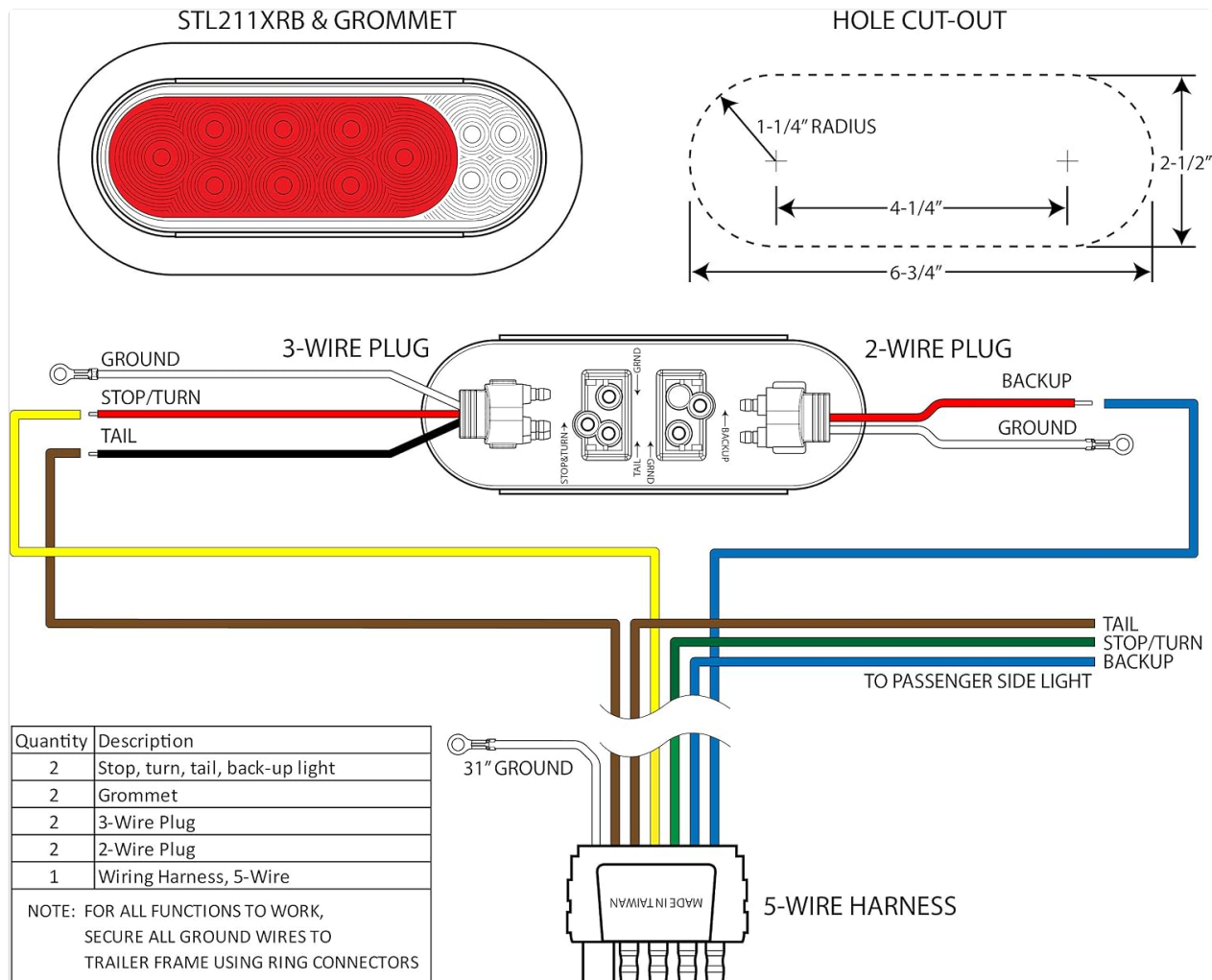


Figure 4.1: Wiring diagram for the Optronics LED Fusion Tail Light Kit. This diagram illustrates the connections for the 3-wire and 2-wire pigtails to the 5-way harness and the vehicle's electrical system, including ground, stop/turn, tail, and backup functions.

- Connect the 3-wire pigtail (A45PB) to the corresponding port on the back of the STL211XRB light.
- Connect the 2-wire pigtail (A45CB) to the remaining port on the back of the STL211XRB light.
- Identify the wires from the 5-way wiring harness (A30AW5BLB):
 - Brown:** Tail Light
 - Yellow:** Stop/Turn (Left Side)
 - Green:** Stop/Turn (Right Side)
 - White:** Ground
 - Blue:** Back-up Light
- Connect the wires from the 3-wire pigtail to the 5-way harness as follows:
 - Black wire (from pigtail):** Connect to the appropriate Stop/Turn wire (Yellow for left, Green for right) from the 5-way harness.
 - Red wire (from pigtail):** Connect to the Brown (Tail Light) wire from the 5-way harness.
 - White wire (from pigtail):** Connect to the White (Ground) wire from the 5-way harness.

5. Connect the wires from the 2-wire pigtail to the 5-way harness as follows:
 - **Red wire (from pigtail):** Connect to the Blue (Back-up Light) wire from the 5-way harness.
 - **White wire (from pigtail):** Connect to the White (Ground) wire from the 5-way harness.
6. **Important:** For all functions to work correctly, secure all ground wires to the trailer frame using ring connectors or other suitable grounding methods. A 31-inch ground wire is provided on the 5-way harness.
7. Repeat the wiring process for the second tail light, ensuring correct left/right stop/turn signal connections.
8. Once all connections are made, reconnect the vehicle's battery and test all light functions (tail, stop, turn, back-up).

5. OPERATION

The Optronics LED Fusion Tail Lights operate in conjunction with your vehicle's electrical system to provide essential lighting functions:

- **Tail Lights:** Illuminate when the vehicle's headlights or parking lights are on, providing rear visibility.
- **Stop Lights:** Brighten significantly when the brake pedal is pressed, signaling deceleration.
- **Turn Signals:** Flash when the turn signal lever is activated, indicating a turn or lane change.
- **Back-up Lights:** Illuminate when the vehicle is shifted into reverse, providing illumination and signaling reverse movement.



Figure 5.1: Optronics LED Fusion Tail Light illuminated. This image shows the red stop/tail/turn section brightly lit, along with the white back-up light section illuminated.

6. MAINTENANCE

These LED lights are designed for minimal maintenance. Follow these guidelines to ensure longevity:

- **Cleaning:** Clean the light lenses periodically with a soft cloth and mild soap and water to remove dirt and debris. Avoid abrasive cleaners that could scratch the lens.
- **Inspection:** Regularly inspect the lights for any physical damage, loose wiring, or corrosion. Address any issues promptly.
- **Waterproof Design:** The lights are sonically sealed and waterproof. Avoid disassembling the light unit, as this may compromise its waterproof integrity and void the warranty.

7. TROUBLESHOOTING

If you encounter issues with your LED Fusion Tail Light Kit, refer to the following troubleshooting guide:

Problem	Possible Cause	Solution
Light does not illuminate	No power to the light; faulty wiring connection; poor ground connection; damaged light unit.	Check power supply to the harness. Verify all wiring connections are secure. Ensure ground wire is properly connected to the vehicle frame. Test the light with a known good power source.
Incorrect light function (e.g., tail light flashes with turn signal)	Incorrect wiring connections; poor ground connection.	Review the wiring diagram (Figure 4.1) and re-check all connections, especially for stop/turn and tail wires. Ensure a solid ground connection.
Dim or flickering light	Low voltage; poor connection; corrosion.	Check vehicle's electrical system voltage. Inspect all connections for corrosion or looseness. Clean terminals if necessary.

8. SPECIFICATIONS

Feature	Specification
Model Number	TLL211XRTMK
Light Source Type	LED
Functions	Stop, Turn, Tail, Back-up
Voltage	12 Volts
Special Features	Waterproof, Sonically Sealed, FUSION lighting technology
Auto Part Position	Rear
Lens Material	ABS, Acrylic, Plastic
Item Dimensions (L x W x H)	10.16 x 8.9 x 3.23 inches
Compatible Vehicle Type	Car (Universal Fit)
Manufacturer Part Number	TLL211XRTMK

9. WARRANTY AND SUPPORT

The Optronics MCL32RS LED Fusion Tail Light Kit (TLL211XRTMK) comes with a **Lifetime LED Warranty**. For warranty claims, technical support, or further assistance, please contact Optronics customer service directly. Refer to the official Optronics website or product packaging for current contact information.