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> MECMO Multi-Tow Trailer Wiring Harness Adapter Instruction Manual

## MECMO B0CNSM45K2

# MECMO Multi-Tow Trailer Wiring Harness Adapter Instruction Manual

Model: B0CNSM45K2

## INTRODUCTION

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This manual provides detailed instructions for the installation, operation, and maintenance of your MECMO Multi-Tow Trailer Wiring Harness Adapter. This adapter is designed to convert a vehicle's 4-way flat connector to a combination 7-way RV blade and 4-way flat outlet, offering versatile towing options for various trailers. Please read this manual thoroughly before installation and use to ensure proper function and safety.

## SAFETY INFORMATION

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- Always ensure the vehicle's ignition is off and the parking brake is engaged before performing any electrical work.
- Disconnect the vehicle's battery before making electrical connections to prevent short circuits.
- Verify all wiring connections are secure and properly insulated to prevent corrosion and electrical issues.
- Do not exceed the maximum towing capacity of your vehicle or trailer.
- Regularly inspect the wiring harness and connectors for signs of wear, damage, or corrosion. Replace damaged components immediately.
- Ensure all trailer lights (tail, brake, turn signals) are functioning correctly before towing.

## PRODUCT OVERVIEW

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The MECMO Multi-Tow Trailer Wiring Harness Adapter provides a robust and flexible solution for connecting your vehicle to various trailers. It features a 7-way RV blade connector, a 4-way flat female end, and a 4-way flat vehicle-side plug, along with additional leads for brake, reverse, and power functions.



Figure 1: The MECMO 16-foot trailer-side 7-pin RV blade plug, designed for heavy-duty and weatherproof performance.

# 7-WAY RV STANDARD

**Green 14 AWG**

Running/Tail Lights

**Black 10 AWG**

12V Power

**Yellow 14 AWG**

Reverse Lights

**Brown 14 AWG**

Right Turn/Stop

**Blue 12 AWG**

Electric Brakes

**White 10 AWG**

Ground

**Red 14 AWG**

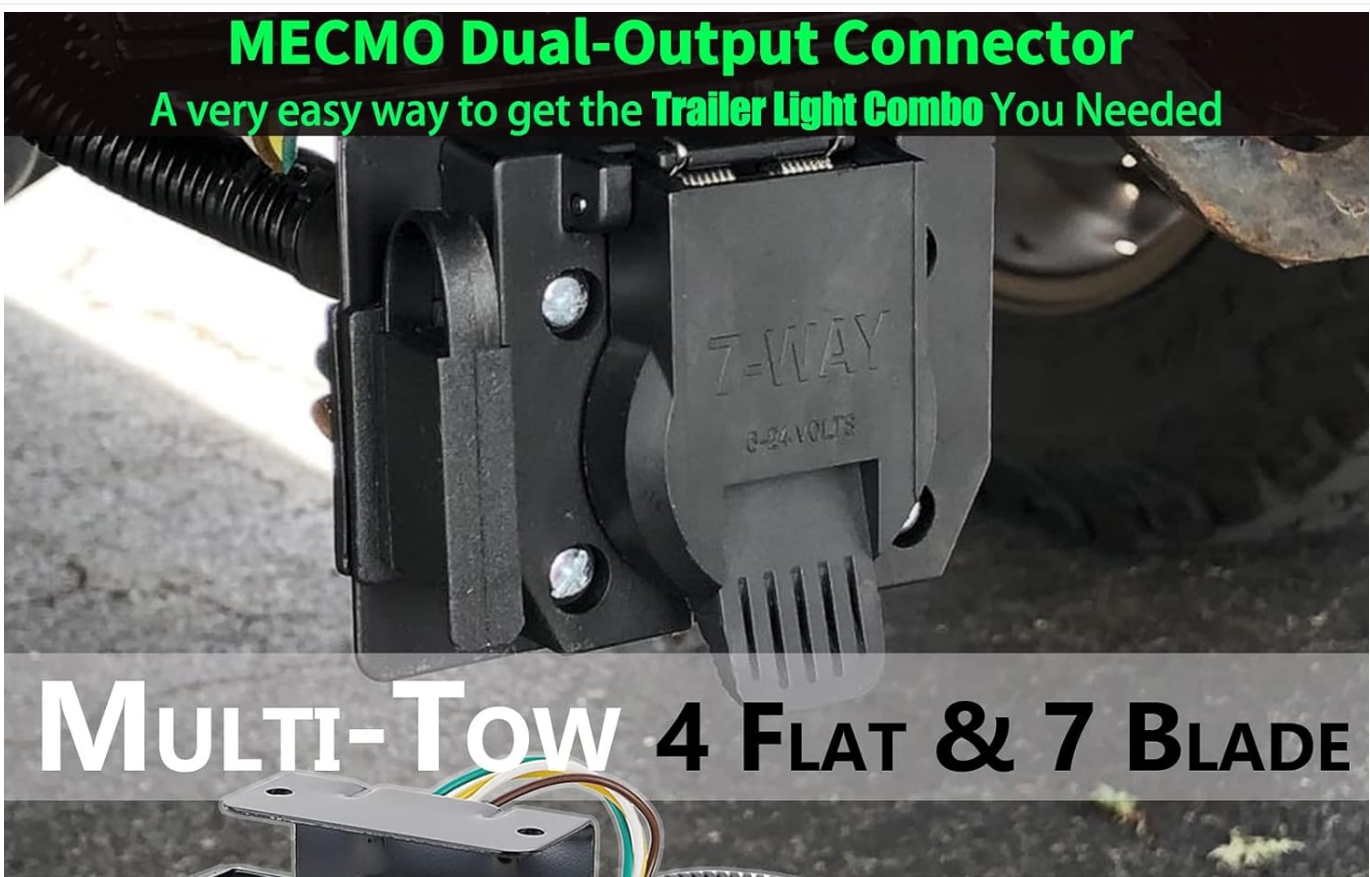
Left Turn/Stop



**Figure 2:** Detailed wiring diagram for the 7-way RV standard connector, showing color codes and their corresponding functions: Green (Running/Tail Lights), Black (12V Power), Yellow (Reverse Lights), Brown (Right Turn/Stop), Blue (Electric Brakes), White (Ground), and Red (Left Turn/Stop).

# MECMO Dual-Output Connector

A very easy way to get the **Trailer Light Combo** You Needed



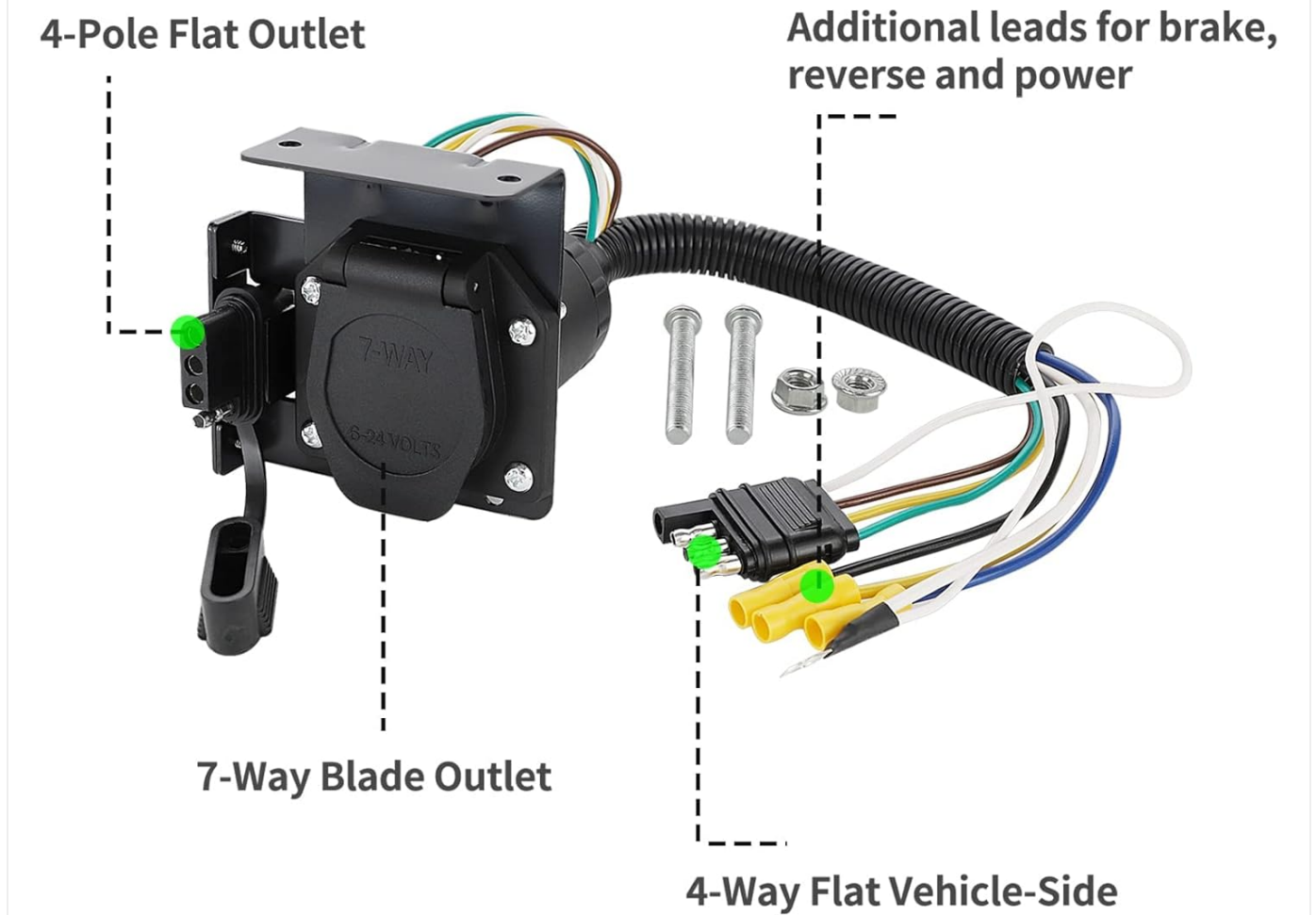
**MULTI-TOW 4 FLAT & 7 BLADE**



Figure 3: The MECMO Dual-Output Connector, featuring both a 4-way flat and a 7-way blade outlet for versatile trailer light connections.

# MULTI-TOW TRAILER CONNECTOR ADAPTER

## Adapt 4-Way to 7-Way RV & 4-Way Flat



**Figure 4:** Diagram illustrating the Multi-Tow Trailer Connector Adapter, highlighting the 4-pole flat outlet, 7-way blade outlet, and the 4-way flat vehicle-side connection with additional leads for brake, reverse, and power functions.

## SETUP AND INSTALLATION

This section details the steps for installing the MECMO Multi-Tow Trailer Wiring Harness Adapter. The kit includes a sturdy bracket and screws for mounting.

### 1. Preparing for Installation

- Ensure your vehicle's existing 4-way flat connector is clean and free of corrosion.
- Identify a suitable mounting location near your vehicle's hitch for the adapter bracket. This location should be secure and protect the adapter from road debris and excessive moisture.

### 2. Mounting the Adapter

# **FULL READY KIT, EASY INSTALLATION**

**Come with sturdy bracket & screws, easy to be mounted in the right place**



**Figure 5:** The complete installation kit, including the adapter, mounting bracket, and screws, designed for straightforward setup.

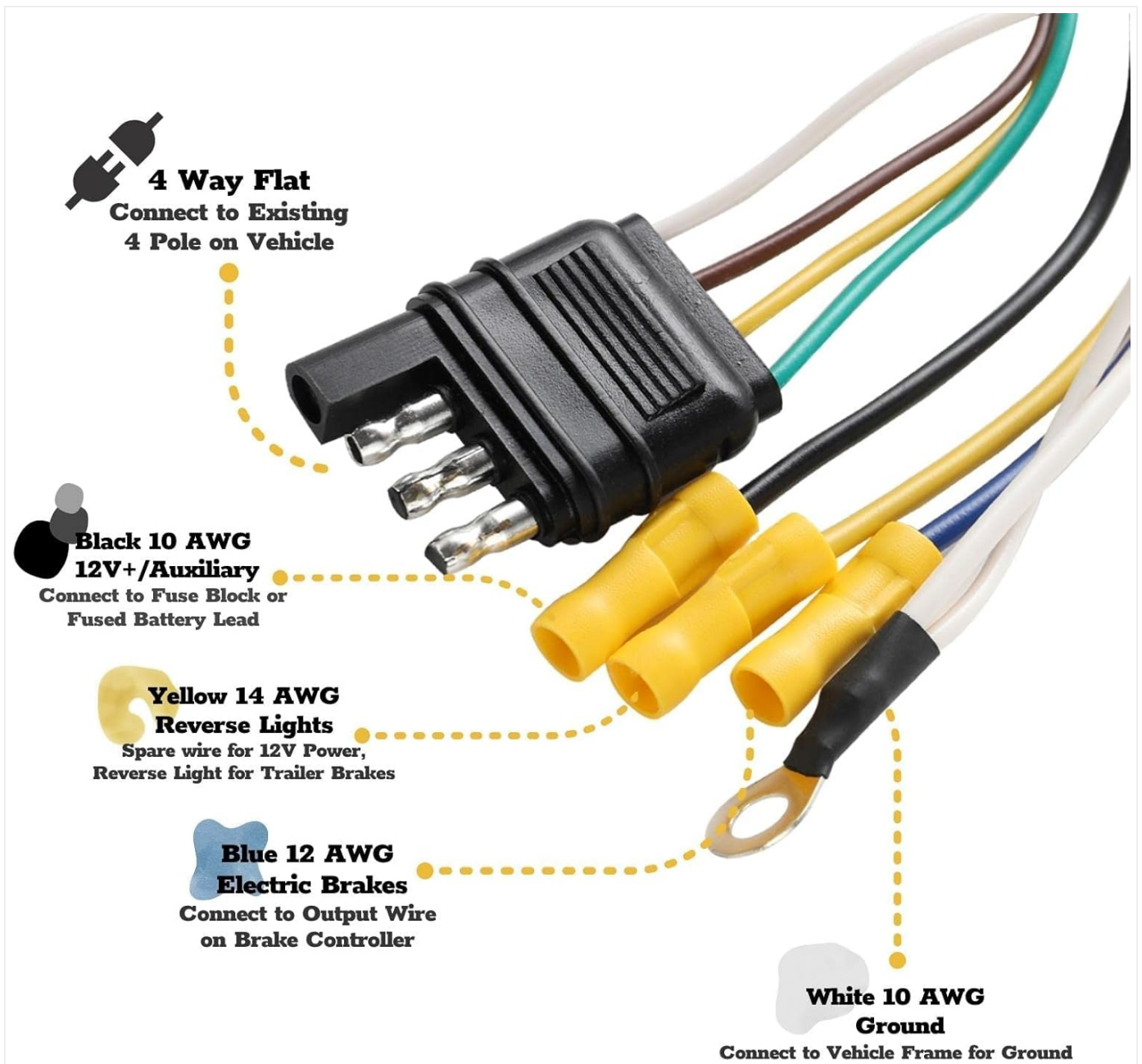
1. Attach the provided mounting bracket to your vehicle using the included screws. Ensure it is firmly secured.
2. Secure the adapter unit to the mounted bracket.

### **3. Connecting the 4-Way Flat Plug**

- Connect the 4-way flat plug from the MECMO adapter to your vehicle's existing 4-way flat socket. Ensure a snug and secure connection.

### **4. Wiring Additional Functions (if applicable)**

The adapter includes additional leads for specific functions. These connections are necessary if your trailer requires electric brakes, reverse lights, or auxiliary 12V power beyond what a standard 4-way flat connection provides.



**Figure 6:** Detailed wiring connections for the 4-way flat vehicle-side, showing how to connect 12V+ (Black 10 AWG), Reverse Lights (Yellow 14 AWG), Electric Brakes (Blue 12 AWG), and Ground (White 10 AWG).

- **Black 10 AWG (12V+ Auxiliary):** Connect this wire to your vehicle's fuse block or a fused battery lead to provide constant 12V power to the trailer.
- **Yellow 14 AWG (Reverse Lights):** Connect this wire to your vehicle's reverse light circuit. This provides power for trailer reverse lights.
- **Blue 12 AWG (Electric Brakes):** Connect this wire to the output wire of your vehicle's brake controller. This enables electric trailer brakes.
- **White 10 AWG (Ground):** Ensure this wire is securely connected to a clean, unpainted metal surface on your vehicle's frame to establish a proper ground connection.

## 5. Connecting the Trailer-End Plug

# TRAILER END 7-WAY RV-STYLE

Trailer-end connector plugs into the 7-way socket at your truck



## 7-WAY

### MOLDED PRE-WIRED

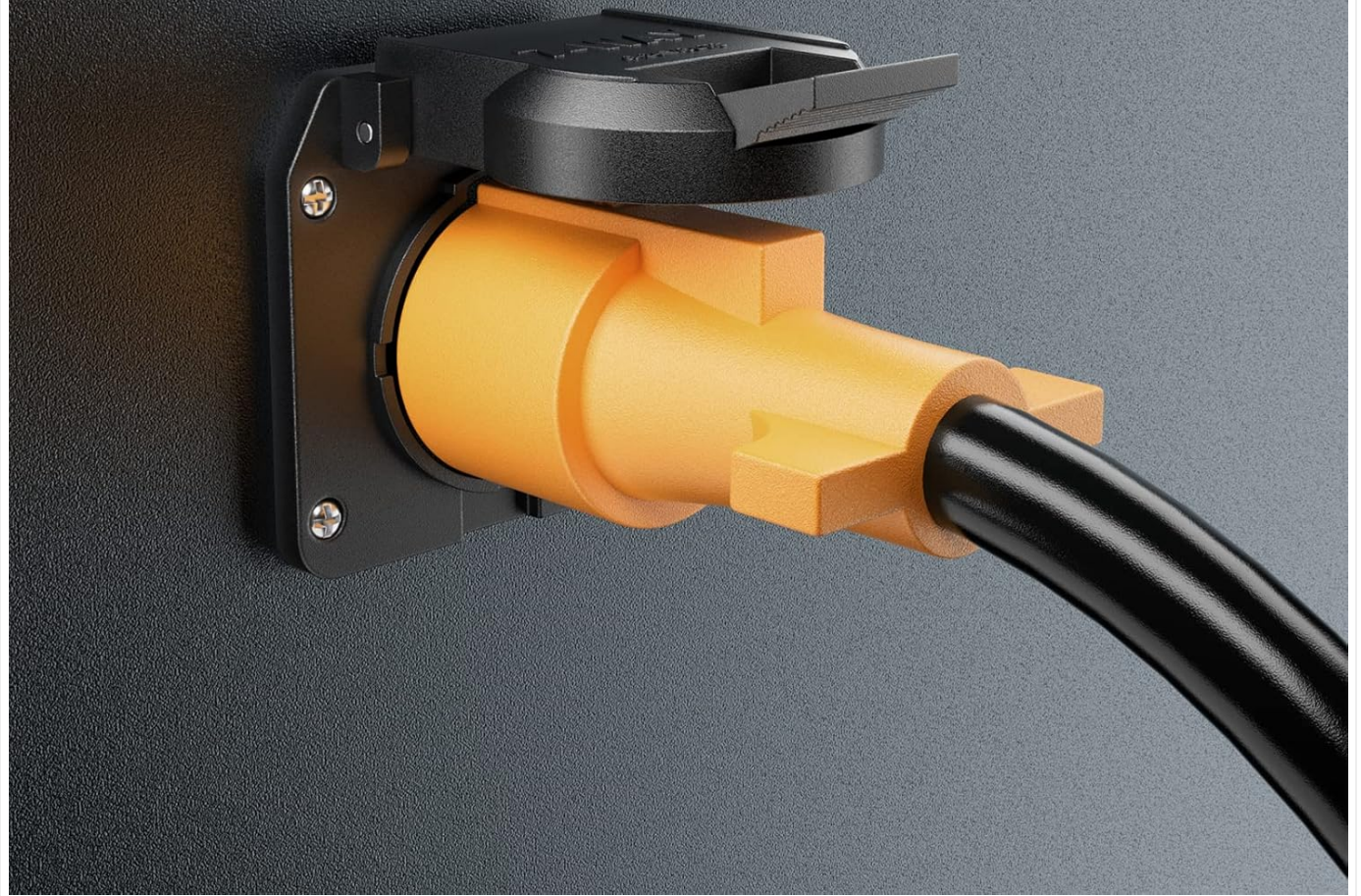


**Figure 7:** Illustration of the trailer-end 7-way RV-style connector being plugged into the 7-way socket on the truck, establishing the electrical connection for towing.

If you are replacing an existing 7-way plug on your trailer, the MECMO 16-foot trailer cord with a pre-installed 7-pin plug can be used. Simply connect the color-coded wires to the corresponding wires on your trailer.

# PAINLESS REPLACEMENT

Easily upgrade the corroded old 7-Way Plug on your trailer, RV, food truck, or tow truck.



**Figure 8:** Demonstrates the ease of upgrading or replacing a corroded old 7-way plug on a trailer, RV, food truck, or tow truck with the new MECMO plug.

## OPERATING INSTRUCTIONS

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Once the MECMO Multi-Tow Trailer Wiring Harness Adapter is installed, operating it is straightforward.

1. **Connect Trailer:** Plug your trailer's 7-way RV blade connector or 4-way flat connector into the corresponding outlet on the MECMO adapter. Ensure the connection is firm and secure.
2. **Verify Lights:** Before driving, always check that all trailer lights are functioning correctly. This includes tail lights, brake lights, and turn signals. If your trailer has reverse lights or electric brakes, verify these functions as well.
3. **Disconnect Trailer:** When disconnecting, firmly grasp the connector and pull it straight out. Avoid pulling on the wires.

## MAINTENANCE

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Regular maintenance ensures the longevity and reliable performance of your trailer wiring harness adapter.

- **Inspect Connections:** Periodically check all electrical connections for corrosion, loose wires, or damage. Clean any corrosion with a wire brush and electrical contact cleaner.
- **Lubricate:** Apply dielectric grease to the electrical contacts of the 7-way and 4-way connectors to prevent corrosion and ensure good conductivity.
- **Cable Management:** Ensure the wiring harness is not dragging on the ground or susceptible to pinching or abrasion. Use cable ties to secure loose wiring.
- **Storage:** When not in use, keep the adapter's connectors covered with their protective caps to prevent dirt and moisture ingress.

## TROUBLESHOOTING

If you encounter issues with your MECMO Multi-Tow Trailer Wiring Harness Adapter, refer to the following troubleshooting guide:

Problem	Possible Cause	Solution
No trailer lights or intermittent lights	Loose or corroded connections; Blown fuse; Damaged wiring.	Check all connections for tightness and corrosion. Clean contacts. Inspect vehicle and trailer fuses. Check for visible damage to wiring.
Trailer turn signals not working	Incorrect wiring for turn signals; Faulty vehicle flasher relay; Blown fuse.	Verify the yellow (reverse/aux) and brown (right turn/stop) or red (left turn/stop) wires are correctly connected. Check vehicle's turn signal fuse and flasher.
Electric trailer brakes not engaging	Blue wire not connected to brake controller; Faulty brake controller; Loose connection.	Ensure the blue 12 AWG wire is properly connected to the brake controller's output. Check brake controller functionality. Verify all connections are secure.
No 12V auxiliary power to trailer	Black wire not connected to fused power source; Blown fuse.	Confirm the black 10 AWG wire is connected to a fused 12V power source. Check the fuse for the 12V auxiliary circuit.
Adapter does not fit vehicle/trailer	Incompatible connector types.	Ensure your vehicle has a 4-way flat connector and your trailer requires a 7-way RV blade or 4-way flat connection. This adapter is designed for these specific configurations.

## SPECIFICATIONS

- **Product Type:** Multi-Tow Trailer Wiring Harness Adapter
- **Vehicle Side Connection:** 4-Way Flat
- **Trailer Side Outputs:** 7-Way RV Blade, 4-Way Flat Female End
- **Cable Length (7-Way Plug):** 16 Feet (for replacement cord)
- **Wire Gauge (7-Way Plug):** Green/Yellow/Brown/Red (14 AWG), Black/White (10 AWG), Blue (12 AWG)
- **Material:** Heavy-duty, weatherproof construction
- **Compliance:** UL Listed (for 7-way copper blade)
- **ASIN:** B0CNSM45K2
- **Date First Available:** November 22, 2023

## WARRANTY AND SUPPORT

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For warranty information or technical support, please refer to the MECMO official website or contact your retailer. Keep your purchase receipt for warranty claims.

