

# USER MANUAL

## 7-WAY TRAILER WIRING KIT



### WARNING

Read all instructions for this and any vehicle specific instructions. Incorrect wiring on trailer/towed-vehicle and/or misuse of this product may result in fire, damaged electrical system and wiring, blown fuses, or bodily injury. LATCH.IT is not and will not be responsible for any personal property damage, or bodily injury caused by incorrect wiring or misuse of this product.

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# PRODUCT WIRING DIAGRAM

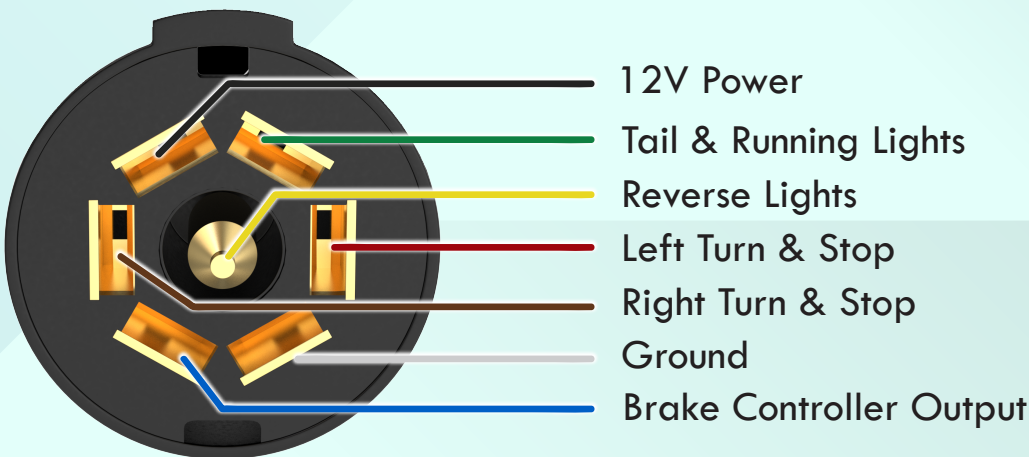


NOT ALL WIRE COLORS ARE BUILT THE SAME.  
CHECK WIRE COLOR DIAGRAM **BEFORE** INSTALLING

## TRAILER SIDE 7-WAY PLUG COLOR CONFIGURATIONS

### 7-WAY RV STANDARD (SAE)

(5th Wheel/Travel Trailer/Camper)



**THIS IS HOW  
THIS PRODUCT  
IS WIRED**

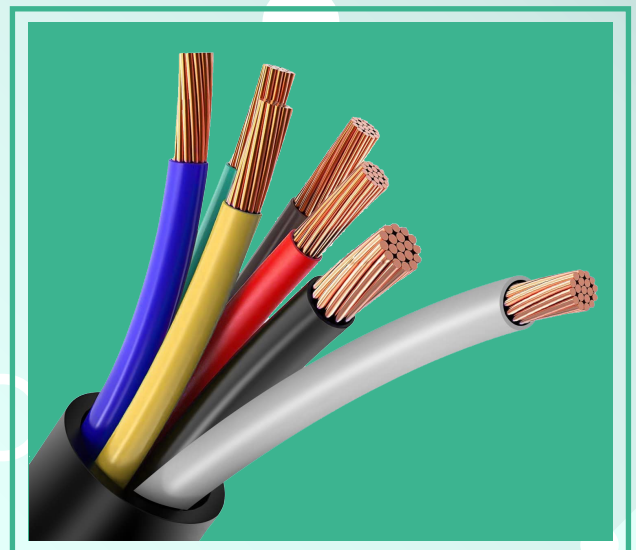


#### FUNCTION

- 1.....12V Power
- 2.....Tail & Running Lights
- 3.....Reverse Lights
- 4.....Left Turn & Stop
- 5.....Right Turn & Stop
- 6.....Ground
- 7.....Brake Controller Output

#### COLOR

- Black
- Green
- Yellow
- Red
- Brown
- White
- Blue

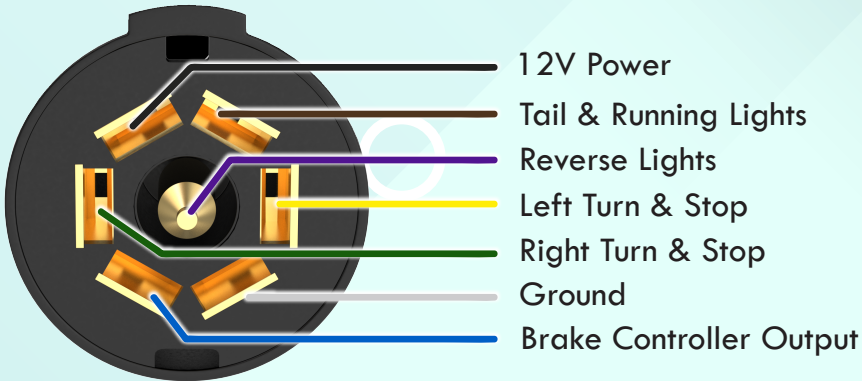


# PRODUCT WIRING DIAGRAM

## OTHER COMMON TRAILER WIRING COLORS

### 7-WAY TRADITIONAL

(Utility/Equipment/Cargo/Trailer)



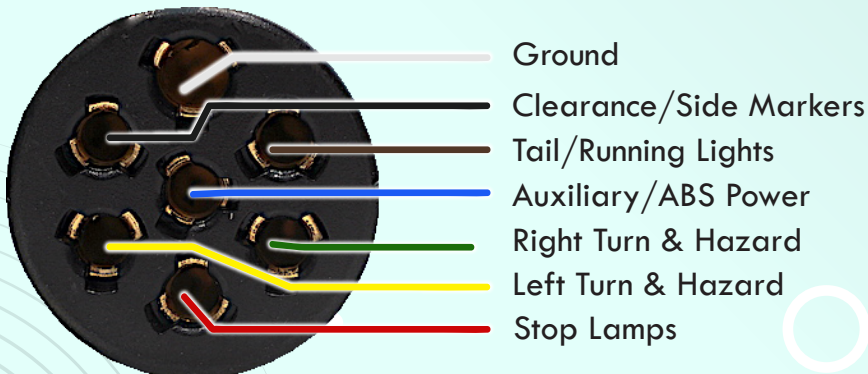
#### FUNCTION

#### COLOR

|                               |        |  |
|-------------------------------|--------|--|
| 1.....12V Power               | Black  |  |
| 2.....Tail & Running Lights   | Brown  |  |
| 3.....Reverse Lights          | Violet |  |
| 4.....Left Turn & Stop        | Yellow |  |
| 5.....Right Turn & Stop       | Green  |  |
| 6.....Ground                  | White  |  |
| 7.....Brake Controller Output | Blue   |  |

### 7-WAY HEAVY-DUTY

(Commercial/Agriculture Trailers)

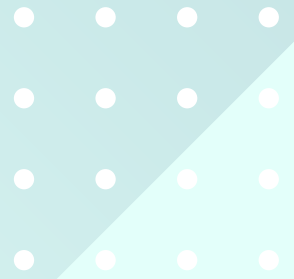


#### FUNCTION

#### COLOR

|                              |        |  |
|------------------------------|--------|--|
| 1.....Ground                 | White  |  |
| 2.....Clearance/Side Markers | Black  |  |
| 3.....Tail/Running Lights    | Brown  |  |
| 4.....Auxiliary/ABS Power    | Blue   |  |
| 5.....Right Turn & Hazard    | Green  |  |
| 6.....Left Turn & Hazard     | Yellow |  |
| 7.....Stop Lamps             | Red    |  |

# TRAILER SIDE INSTALL



## TRAILER SIDE INSTALL

1. Save time by ensuring you have everything needed to wire your trailer such as:

- a. A junction box to organize and fully protect your wiring connection
- b. A wire stripper tool to help you with any wires
- c. Any metal cable connectors

2. Ensure all batteries for cables in questions are unplugged and there is no power running through it – this applies to external battery sources powering the wires in question.

## INSTALL JUNCTION BOX

1. Locate junction box on your trailer, generally it is towards the front of your trailer.

- a. Remove the screws holding the cap on the junction box and remove cap
- b. Back away each nut for each terminal by twisting counter-clockwise to allow access to each terminal.

2. If you do not have a pre-installed junction box, after acquiring one, install it towards the front of your trailer. Securely fasten it somewhere that allows all wires to reach but it does not interfere with anything else. Ensure it's a water-proof junction box such as the one sold by latch.It brand for the best component longevity.

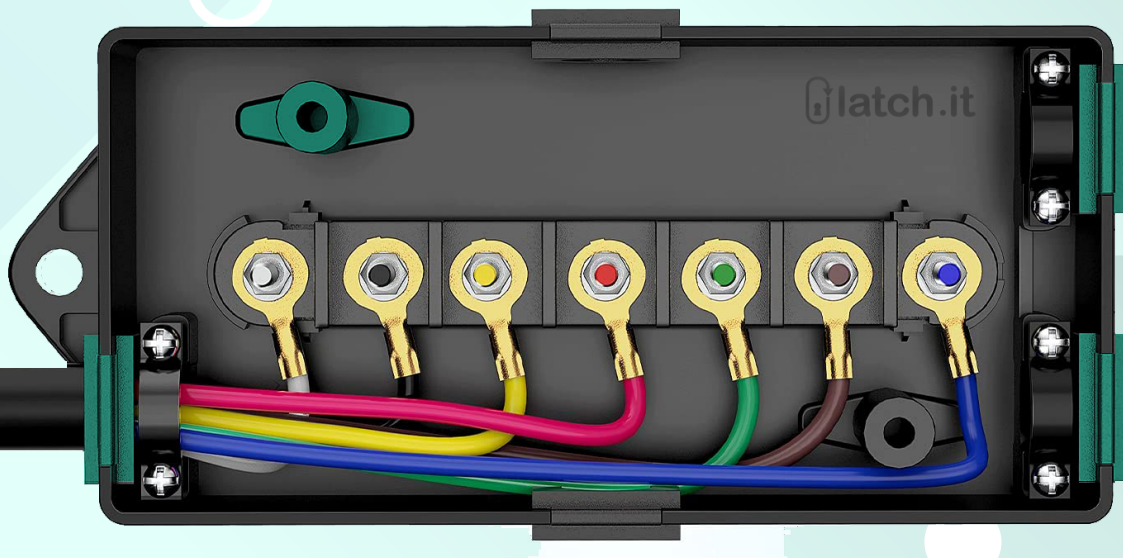
- a. Ensure all weather-proofing grommets are fully seated for a full seal.

3. If you are not using a junction box, simply wire it according to the wiring color diagram on page 1. Although the colors may not match up, ensure the same type of signal is on each mated wire.

# TRAILER SIDE INSTALL

## CONNECT TO TRAILER USING A JUNCTION BOX

1. In the junction box, remove terminal nuts from each terminal.
2. If you are replacing old wiring:
  - a. Remove each terminal connector from each terminal in the junction box.
  - b. Clean the terminals as required to get a good contact surface.
3. Once the terminals in the junction box are free, install each color wire according to the wire color diagram on page 1 and based on your application.



## CONNECT TO TRAILER WITHOUT A JUNCTION BOX

1. If you decide not to use a junction box, there are several safe ways to connect both wires together such as using:
  - a. Butt connectors
  - b. Push-in wire connectors
  - c. Seal Connectors
2. Choose one that is safe and best fits your application.

# TROUBLESHOOTING

## VEHICLE SIDE INSTALL

### (IF YOU HAVE A 7-WAY CONNECTOR & PLUG)

1. Simply plug in the 7-way connector into the plug, make sure it is fully mated for a solid connection.

## TROUBLESHOOTING

### PROBLEM - LIGHTS ARE DIM AND/OR ACTIVATE ANOTHER LIGHT

#### POSSIBLE CAUSES/SOLUTIONS:

- A. Bad, loose or faulty ground on either or both vehicles. Check grounds!
- B. Short circuit on either or both vehicles.
- C. Towing vehicle alternator too small and not enough current.
- D. Towing vehicle wiring is faulty or not robust enough to handle extra power load.

### PROBLEM - LIGHTS (BLINKER, TAILLIGHTS OR BRAKES) DO NOT WORK

#### POSSIBLE CAUSES/SOLUTIONS:

- A. Wiring error to the bulb and sockets.
- B. Bad, loose or faulty ground on either or both vehicles. Check grounds!
- C. Check fuse on towing vehicle. Possible short circuit, check continuity of all wires to ground.
- D. Check female and male plugs are fully mated for good connection.

# WARNINGS

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Route the wiring to avoid moving parts, sharp edges, or hot components such as the engine or exhaust system.



Wiring exposed to moving parts, sharp edges or hot components may be damaged and cause a short circuit, which can result in damage to the vehicle's electrical system as well as other consequential damage.



Failure to establish a good ground could cause to malfunctions; such as, damage to both vehicle's electrical systems, and other consequential damage.



Read, understand and follow all manufacturer or dealership vehicle specific instructions before using this product. LATCH.IT is not and will not be responsible for any damages caused by misuse of this product.



# CONTACT US

Scan with your smart phone camera to contact  
LATCH.IT Support via the Official Website

[www.latchit.org](http://www.latchit.org)



Email us at [info@latchit.org](mailto:info@latchit.org) with any questions  
or concerns, our support team is always available!

