

Taillight Wiring Kit

part number 155

Installation Instructions

All specifications are subject to change without notice.

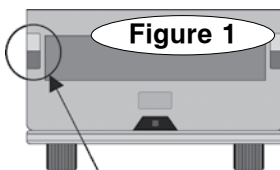
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Read all instructions before installing the kit components. Failure to understand how to properly install the kit could result in property damage, personal injury or even death.



Before you begin the installation...

- This kit uses four-prong connectors to conduct lighting signals from the motorhome to the towed vehicle. If you would prefer electrical sockets at both vehicles, optional kits with sockets, mounting brackets and straight or Flexo-Coil™ electrical cords are available from ROADMASTER.



Separate brake and turn signals – there are amber or red turn signals which are separate from the brake lights.

- If the motorhome has separate brake and turn signals (Figure 1), an optional Brite-Lite™ 3-to-2 wiring converter is required.

Installation instructions for these accessories are included with the kits.

Required Tools

- 1" hole saw or rotary cutting tool
- drill
- wire stripper
- wire crimper
- test light

Parts List

- a 30-foot four-wire electrical harness
- a six-foot four-wire electrical cord
- (2) bulb and socket assemblies
- (2) ring terminals
- (3) yellow butt connectors and (3) blue butt connectors
- (1) self-tapping screw
- (13) wire ties
- three feet of ½" split loom

Installation Instructions

1. The bulb sockets are installed into the back of both taillight assemblies. Gaining access to the taillights varies

from vehicle to vehicle, but for many vehicles you can accomplish this by removing an interior trim panel; for many pickup trucks and SUVs you must unbolt the taillight from the outside.

2. Look for a location to mount the bulb sockets inside the taillight housings. The mounting point should be as flat as possible, and must meet the following conditions: 1) the bulb sockets must be installed underneath red lenses; and 2) there must be at least ¼" clearance between the bulbs and the lenses.

WARNING

Install the bulb sockets underneath red lenses. If the sockets are installed under amber or clear lenses, drivers behind the towed vehicle will not be alerted when the motorhome stops, which may cause a collision.

Failure to follow these instructions may result in property damage, personal injury or even death.

CAUTION

Unless there is at least ¼" of clearance between the bulb and the lens, the lens will melt and/or discolor.

3. Drill one-inch circular holes through the back of the taillight housings at the mounting points you have selected.

The holes must be circular, in order to hold the sockets in place. A hole saw works best, but the shape and location of some taillights may require a rotary cutting tool.

WARNING

Be certain not to cut into any wires or other components. Severe electrical damage or injury may result.

4. Bend the spring-loaded tabs that encircle the sockets

continued on next page

IMPORTANT NOTICE!

Safety Definitions

These instructions contain information that is very important to know and understand. This information is provided for **safety** and to **prevent equipment problems**. To help recognize this information, observe the following symbols:

WARNING

WARNING indicates a potentially hazardous situation which, if not avoided, could result in property damage, serious personal injury or even death.

CAUTION

CAUTION indicates a potentially hazardous situation which, if not avoided, may result in property damage, or minor or moderate personal injury.

CAUTION

CAUTION used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, may result in property damage.

NOTE

Refers to important information and is placed in italic type. It is recommended that you take special notice of these items.

continued from preceding page

outward slightly, then snap the bulb sockets into the holes.

If the tabs are not bent, road vibrations will cause the sockets to fall out of the holes. For this reason, make certain the sockets are securely attached before continuing.

Note: if one of the holes is not completely circular, bend one or more of the tabs farther to accommodate the shape of the hole.

5. Use one of the included wire ties to attach one end of the 30-foot electrical harness at the front of the vehicle.

Note: the harness must be routed through the rear of the vehicle on the opposite side of the exhaust system. It may be more efficient to attach the wire on that side as well.

Allow enough slack so that the female connector at the end of the harness can be easily connected and disconnected from the matching male connector on the six-foot electrical cord.

Cut the female connector from the other end of the harness. Leave three feet of wire attached – the connector and wiring will be used at the motorhome.

6. Run the harness from the front of the vehicle back to the taillights.

WARNING

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

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

Wiring which is attached in close proximity to the fuel lines may ignite the fuel.

Failure to follow these instructions may cause property damage, personal injury or even death.

Use one or more of the included wire ties to secure the harness in place. Where sharp edges cannot be avoided, use a section of the included wire loom to protect the wiring.

7. At the rear of the vehicle, route the harness to whichever taillight is on the opposite side of the exhaust system, then across to the other taillight. If it is necessary to drill a hole to route the harness to the taillights, seal the hole with silicone sealant after you have run the harness through.

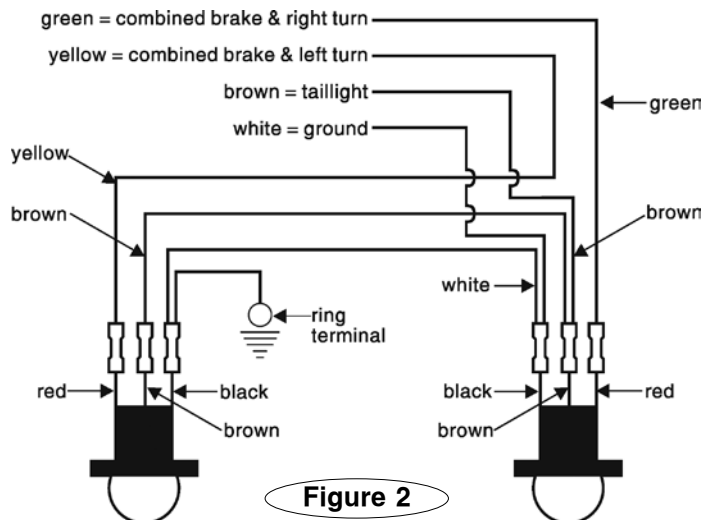
Trim any excess wiring. Then separate the bonded wires in the harness and, depending on the lighting systems in both vehicles, peel back the appropriate wire to the other side.

8. Use the included butt connectors to attach the electrical harness to the taillights. Figure 2 is ROADMASTER's recommended wiring schematic.

Note: use the larger yellow connectors for two-wire connections; use the smaller blue connectors for single-wire connections.

Note: the wiring schematic applies to the majority of vehicles. However, applications vary. Before wiring, refer to the owner's manual, or ask the dealership or manufacturer for vehicle-specific information. (Wiring information for many vehicles is available at www.roadmasterinc.com, under 'Vehicle-Specific Info.')

9. Use one of the included ring terminals and the self-



tapping screw to ground the towed vehicle, as shown in the schematic.

To avoid grounding problems, attach the wire to any good chassis ground, preferably directly to the frame.

CAUTION

Failure to establish a good ground between the towed vehicle and motorhome could cause aftermarket accessories to malfunction, damage to both vehicle's electrical systems, and other consequential damage.

10. Choose an attachment point at the rear of the motorhome for the three feet of electrical harness and the female connector you removed in step 5. Look for a mounting point away from pre-existing components, close to the center.

Note: attach the connector close to the center. If the harness is attached too far to either side, it may be pulled away when the motorhome turns.

11. Attach the connector with one of the included wire ties. Allow enough slack so that it can be easily connected and disconnected from the matching male connector on the six-foot electrical cord.

12. With a test light, identify the wires conducting the brake, turn signal, taillight and ground signals from the motorhome. Connect the appropriate wires to the electrical harness with butt connectors (not supplied).

Use the second ring terminal to ground the motorhome, preferably directly to the frame.

13. Test for proper operation before reinstalling the taillight assemblies. Connect the six-foot electrical cord between the two vehicles and test each turn signal, the running lights and the brake lights.

If the lights do not work properly, there could be a loose connection, an improper ground or a wiring error.

Note: if the park light is brighter than the brake light, remove the bulb and reverse the brown and red wires in the base of the socket, then reinstall the bulb.

14. It is the owner's responsibility to check the lights for proper operation each time before towing. Do not tow the vehicle if the lighting system is not functioning properly.