drivers behind the towed vehicle will not be alerted when the motorhome stops, which may cause a collision.

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.

4. Bend the spring-loaded tabs that encircle the sockets outward slightly, then snap the 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 the butt connectors to attach the four-wire electrical harness to the sockets. Figure 1 is ROADMASTER’s recommended wiring schematic.

Attach the appropriate wires to either one of the sockets. Then separate the wires, peel back the appropriate wire(s) to the other side and attach them in the same manner.

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

6. Use the ring terminal and the self-tapping screw to continued on next page
ground the towed vehicle, as shown in Figure 1.

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.

7. Route the other end of the wiring harness to the front of the vehicle. Use a route that avoids the possibility of fraying or melting the wiring against moving parts, sharp edges, the fuel lines or hot components. (If the OEM wiring harness is accessible, consider routing the harness alongside it.)

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

**WARNING**

Route the wiring 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.

8. If it was necessary to drill a hole, seal it with silicone sealant after you have routed the harness through.

9. After you route the wiring harness to the front of the vehicle, you will connect the 4-wire harness to the power cord’s electrical socket. First, you must choose a mounting point for the included socket—

   If the towed vehicle has a Roadmaster Series 4 or 5 EZ Twistlock™ baseplate, you will attach the socket to the built-in mounting posts on the main cross brace.

   Otherwise, choose a suitable point to attach the socket bracket (mounting hardware not included) at the front of the vehicle, near the center, on the driver’s side.

   Attach the socket mounting bracket.

10. Remove the rubber boot at the back of the 6-way socket and route the wire harness through the socket bracket and boot.

   Attach the wiring to the back of the 6-way socket, according to the 6-wire diagram.

   *Note: leave a 12-inch service loop at the socket for future modifications. Secure the service loop with one of the wire ties.*

   Apply a clear silicone sealant around each wire entry and set screw indentation to help weatherproof the socket and secure the set screws.

   Reattach the boot.

11. Use the included ½" machine screws and Nylock nuts to attach the socket to the socket bracket.

12. If the tow bar has channel guides, route the 6- to 7-wire power cord through the driver’s side channel guide. Using the wiring diagram as a reference, attach the 6-wire plug to the power cord.

   As with the socket, apply a clear silicone sealant around each wire entry and set screw indentation.

13. Plug the power cord into the motorhome and towed vehicle; test for proper lighting function.
Wiring diagrams

Both of the plugs on the power cord have been wired to standard electrical codes. To ensure that their wiring matches the sockets...

• …use the 6-wire diagrams to wire the towed vehicle's socket and plug; and
• …before towing, use a circuit tester to confirm that the wiring on the motorhome's 7-way socket matches the diagram of the 7-way socket below.

---

**Socket Pin Number** | **Circuit**
---|---
1 | Brake light (not used)
2 | Auxiliary (not used)
3 | Right turn
4 | Taillight
5 | Ground
6 | Left turn

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**Socket Pin Number** | **Circuit**
---|---
1 | Brake light (not used)
2 | Auxiliary (not used)
3 | Right turn
4 | Taillight
5 | Ground
6 | Left turn

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**Socket Pin Number** | **Circuit**
---|---
1 | Ground
2 | Brake light (for separate-to-separate systems only)
3 | Taillight
4 | Charge line (not used)
5 | Left turn
6 | Right turn
7 | Auxiliary (not used)