

12 Volt Utility Controller for 4, 6 or 8 Brakes No. 1300-77

P-1379
819-0094

Installation Instructions



 **Warner**[®]
Electric

An Altra Industrial Motion Company

Introduction

The Warner Electric manually operated Utility Controller operates 4, 6, or 8 twelve-volt electric wheel brakes. Some of the features of this control are:

- Highly sensitive for accurate brake control
- Rated at 30 amperes
- Manually operated

Installation Instructions

These instructions provide for ease of installation. Please follow them carefully. The basic installation steps are:

1. Mount the controller inside the towing vehicle.
2. Connect the controller electrically.

⚠ WARNING Failure to follow these instructions may result in product damage, equipment damage, and serious or fatal injury to personnel.

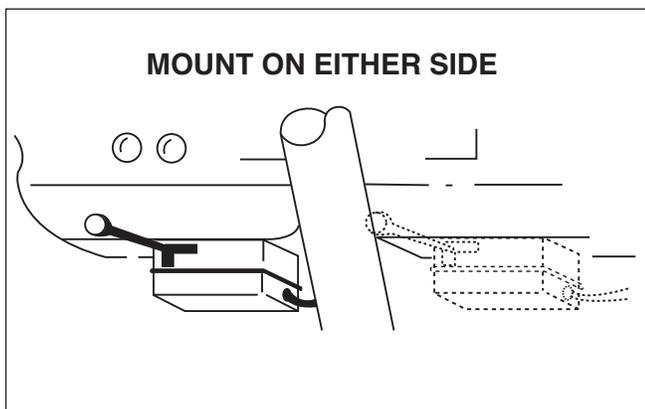


Figure 1

Mounting Under Instrument Panel

1. Position the controller under the instrument panel to the left or right of the steering column, based on available space and driver preference.
2. While sitting in a normal driving position, place the controller so its handle is within easy reach.
3. Remove the controller cover and, while holding the controller in place, select at least two holes through the case which best mount the controller. Mark the underside of the instrument panel through these holes.
4. Drill 3/16" diameter holes where marked, being careful not to damage anything under the instrument panel.
5. Attach the controller with 3/16" bolts, nuts and lockwashers, and tighten securely. Bolt heads are to be inside the controller.

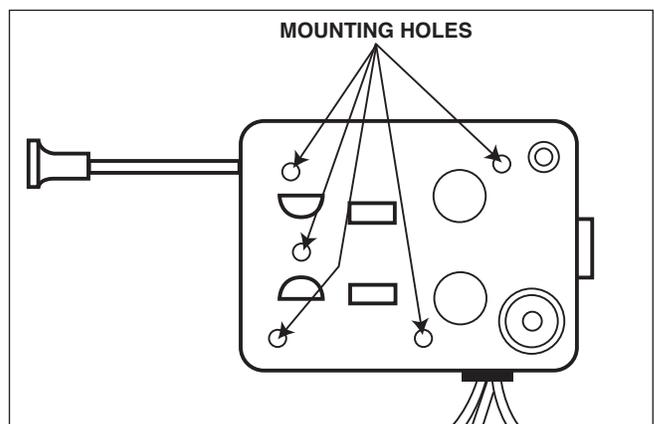


Figure 2

Electrical Connection

1. Electrical connection is required for all installations. Approximately 25 ft. of automotive-type multistranded 12 gauge or heavier single wire with tough, thermoplastic insulation meeting SAE standard J558a is required. **Note: When towing a trailer which will carry variable loads, or which is light weight when compared with its brake capacity, a Warner Electric Load Control, Part No. 1300-78, may be required to properly proportion braking force between the trailer and the towing vehicle. See Optional Equipment, page 4.**
2. An electrical socket which mates with the trailer power cable is to be installed in the rear of the towing vehicle. Strip one end of the hook-up wire and connect it to the brake terminal of this socket.
3. Secure a single length of wire from the brake connection of the socket to the underside of the towing vehicle and lead it to the engine firewall. Position the wire to insure maximum protection from scraping on the

road surface in rough terrain, flying stones, spray, etc. Also avoid attaching wires near mufflers and exhaust pipes. Wires should be clamped at frequent intervals.

4. Remove a knock-out plug or cut a hole in the firewall near the mounted controller.
5. Cut the wire to a proper length for reaching the controller. Strip the wire and feed it through the firewall hole.
6. Connect this wire to the blue brake lead wire extending from the back of the controller.

Note: Solder or crimp clamp connections will be required when connecting all three controller lead wires. Wrap electrician's tape around all bare wire joints. Do NOT use twist-type connectors.

7. Making a chassis ground connection is the next installation step. Strip one end of the remaining length of hook-up wire and connect it securely to the ground terminal of the socket at the rear of the towing vehicle.

Wiring Diagram

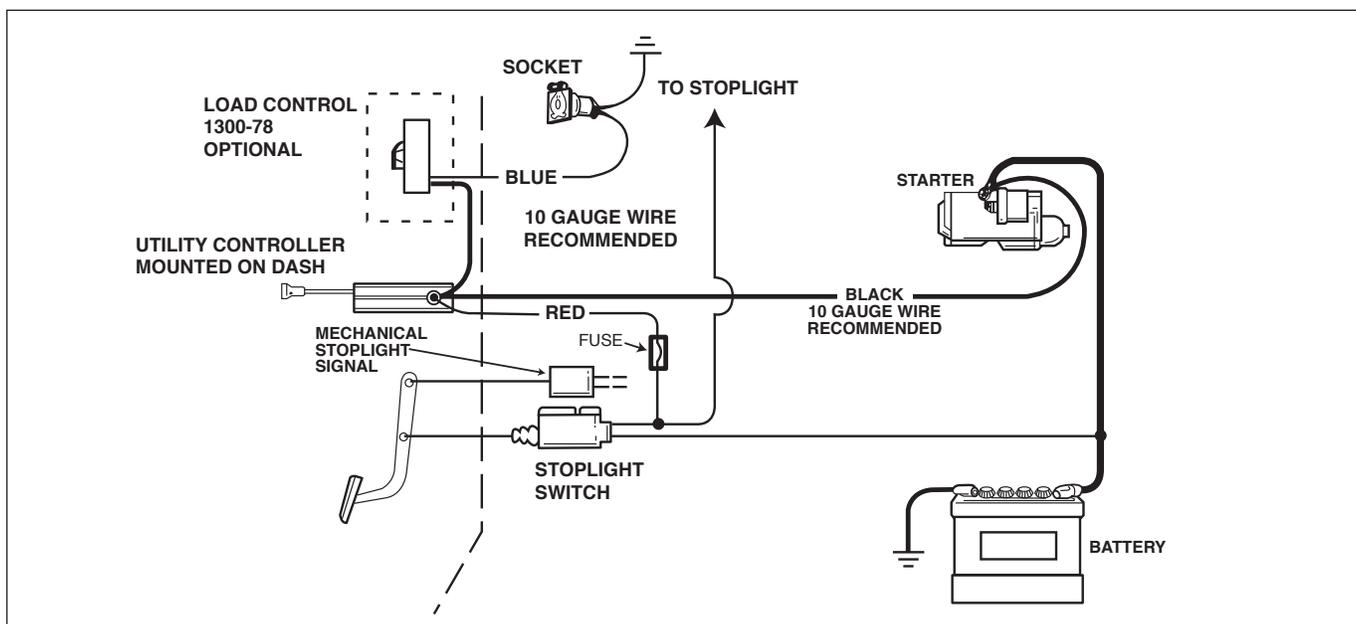


Figure 3

8. Feed the wire under the towing vehicle to a convenient chassis ground, such as a body or chassis nut and bolt, battery ground-post, etc. Cut and strip the wire and attach it securely to this ground. **A good ground connection is essential for proper operation.**
9. Two Utility Controller leads are still to be connected. The red lead actuates the stoplights when the controller is operated manually. An interrupted stoplight circuit for turn signals is used on most towing vehicles. Connect the controller's red lead to the output side of the towing vehicle stoplight switch. (This switch could be a pressure switch in the brake line or a limit switch activated by the brake pedal.) Connect an inline fuse in series between the red lead and the stoplight switch. This fuse should be the same type and rating as recommended for the tow vehicle's existing stoplight circuit. Splice a short length of hook-up wire to the red lead to reach the stoplight switch output. If your towing vehicle has some other system, consult your automotive dealer.
10. The black or power lead of the controller is last to be connected. Enough hook-up wire should remain to make this connection. Strip one end of this hook-up wire and feed it through a hole in the firewall from the engine side. Solder or crimp clamp this wire to the black controller lead.
11. Detach one of the power cables from the towing vehicle battery to prevent arcing.
12. Cut the hook-up wire to the proper length to attach it to the live terminal of the starter solenoid or relay, strip the wire and complete the connection. Attaching this lead completes your electrical connection. Re-connect the towing vehicle battery cable.
13. Tape together wires leading from the controller and secure them to the steering column or underside of the dash. Plug all holes in the firewall with sealant or rubber grommets to prevent exhaust gases from entering through the holes and to protect the wires from abrasion.

Optional Equipment

When the trailer load is variable or less than trailer brake capacity, a Warner Electric Load Control, Part No. 1300-78 should be added in series with the brake circuit. The Load Control provides the capability to properly proportion the braking power of the trailer brakes to the trailer weight. The Load Control is connected into the trailer brake wire connected to the blue lead from the controller. Its position is shown in the wiring diagram under the "Electrical Connection". The illustration shows the simplicity of adjusting this resistor to increase or decrease trailer brake torque. Contact your Warner Electric distributor or the factory if you require additional information.

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