



# BX8869 Bulb and Socket Tail Light Wiring Kit Installation Instructions

## BX8869 Installation Instructions

### Bulb and Socket Tail Light Wiring Kit

**NOTE:** Some motorhomes have amber turn signals and red brake lights which requires the use of a tail light converter to change from a 5 wire to a 4 wire system. A tail light converter is not supplied with the Tail Light Wiring Kit.

**WARNING:** Incorrect wiring may result in blown fuses, damaged wiring, fire, or bodily injury. Blue Ox recommends installation of this kit by a trained professional. Blue Ox will not be responsible for any personal property damage, or bodily injury caused by incorrect wiring or misuse of this product.

#### Tools Required

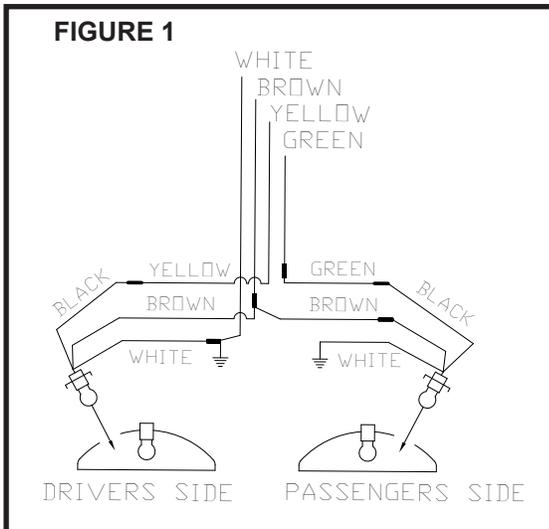
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|-----------------------|-----------------------|
| Wire Terminal Crimper | Wire Stripper         |
| Small Wire Cutter     | Phillip Screw Driver  |
| Electrical Tape       | 1" Hole Saw and Drill |

#### Parts List

Ref. No.	Qty.	Part No.	Description
1	1	294-0562	Wire Harness, 26 Ft., 4-Wire Loom
2	2	294-0774	3 Wire Automotive Socket
3	2	293-0244	2357 Bulb, 40 Watt
4	6	294-0250	Butt Connector, 16-14 Gauge, Insulated
5	2	201-0654	#10-16x1 Self Drilling Screw
6	2	294-0194	Ring Terminal, 10 Std- 10 to 12 gauge
7	1	229-0540	Brown 16 Ga. Wire, 12 ft.
8	1	229-0541	Green 16 Ga. Wire, 12 ft.

## Installation

1. Starting in the engine compartment of the towed vehicle, run the 26 ft. harness through the fire wall, under the driver's side door sill plate, under the back seat, into the trunk area or run harness through engine compartment and beside frame rail to the back of vehicle. Depending on the motorhome set up, the wire at the front of the engine compartment should be wired into either a 4-wire or 6-wire trailer plug that is mounted to the front of the towed vehicle.
2. The bulb and sockets are installed into the back of the vehicles tail light assemblies. The location should be as flat as possible, with enough clearance for the bulb on the inside and the socket on the back side. Using a 1" hole saw, drill a hole into each housing at the selected location.



3. The black wire is the **brake/ turn signal** wire and the brown is the **tail light** wire. The white wire is used for the **ground** wire.
4. Insert the bulb and socket into the 1" holes by gently pushing them into place. Seal socket to tail light housing with a good silicone caulk.
5. Run the black and brown wires from the passenger's side socket to the drivers side where the four wire loom is.
6. Crimp the three brown wires together. Now crimp the green (turn signal/ brake) wire from the four wire loom, the green 8 foot wire and the black (brake/turn signal) wire from the passenger's side together. The white (ground) wires should be grounded to the frame with ring terminals and self tapping screws. The white wire from the four wire loom should be connected with the white wire from the driver's side socket then grounded. Refer to Figure 1.
7. At the driver's side socket connect the black (brake/turn signal) wire and the yellow (brake/turn signal) wire from the four wire loom. See Figure 1.
8. Place the wires out of the way. Test the system before attaching the tail light assemblies back onto the vehicle. To test the system, a 4-wire or 6-wire trailer plug must be installed on the front of the towed vehicle using the 4-wire harness installed. Once installed, plug the vehicles together with coach and test each turn signal and the brake lights. If lights do not work properly, there must be a loose connection, or a wiring error. Recheck to assure all connections were made correctly, especially the ground connections.

**NOTE:** If the towing vehicle is equipped with separate amber turn signals and red brake lights, a tail light converter (not included in wiring kit) is needed to convert the amber/red 5-wire system to the standard "red only" 4-wire system.

**NOTE:** A heavy duty flasher unit may be required in the towing vehicle to power the added circuit load of a towed vehicle.

## TROUBLE SHOOTING

### PROBLEM - LIGHTS WORK CORRECTLY BUT DIM AND/OR ACTIVATES ANOTHER LIGHT .

#### POSSIBLE CAUSES/SOLUTIONS

- A) Bad, loose or faulty ground on either or both vehicles.
- B) Short circuit in the system on either or both vehicles.
- C) Towing vehicle alternator too small.
- D) Towing vehicle wiring is too light to handle extra power requirements.
- E) Towing vehicle may require a heavy duty flasher unit to handle the extra load.

### PROBLEM - DOESN'T WORK WHEN ACTIVATING BLINKER, TAIL LIGHTS OR BRAKES.

#### POSSIBLE CAUSES/SOLUTIONS

- A) Wiring error to the bulb and sockets.
  - B) Bad ground on either or both vehicles.
  - C) Fuse in towing vehicle is blown. Check continuity of all wires to ground to assure harness is not short circuited.
  - D) Bad connection between female and male plugs. Check for solid connection.
- \* Clean both four way connections.

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