



## BX8847 Installation Instructions Towed Vehicle Wiring Kit

**Overview:** Run the four wire harness from the front of the car to the back seat of the car. Identify the proper wires on the car wire harness under the back seat and splice in the diode modules. Hook the four wire harness into the diodes.

**NOTE:** Some motorcoach's have separate turn signals and brake lights, identified by amber turn signals and red brake lights (a 4-wire tail light system). This type of system requires the use of a additional tail light converter that converts the 4-wire system to a 3 wire system (combines turn signals and brake lights). The converter is not supplied in the kit but is available through a local supply center.

**NOTE:** The following instructions are written for Saturn cars. This kit will also work on other makes of vehicles. The procedure will be similar, but, the color and number of wires will likely be different.

1. Decide where you want to install a 4-wire or 6-wire trailer plug at the front of the towed vehicle. This is where you will run the wire harness supplied with the kit. 4-wire and 6-wire plugs are available at most Blue Ox dealers.
2. On the driver's side under the front of the dash there is a large rubber grommet where the main wire harness enters the passenger compartment. The wiring kit harness will also enter the passenger compartment through this grommet. The grommet is located directly behind the steering wheel and dash in the passenger compartment.
3. Route the wiring from the plug location back to the grommet under the front of the dash. Be sure to keep the wire away from moving parts and areas that will get hot while the car is running.
4. Using a utility knife or a sharp pocket knife, cut a slit in the grommet just big enough to push the end of the wire through into the passenger compartment. The smaller the slit the better, so don't make it any bigger than needed.
5. Push about 12" of wire through into the passenger compartment. Locate the wire behind the dash and pull the rest of the wire through into the passenger compartment, leaving plenty of slack in the engine compartment to tie the wire harness down and still leave the plug in the desired position.
6. Along the threshold of the driver's side door there is a piece of plastic that holds the carpet down. The plastic snaps into the metal frame. Starting near the center post, pull up the plastic and unsnap it from the metal frame. The plastic narrows and continues up around the door. Do not pull this part of the plastic loose.
7. The carpet ends behind and above the brake pedal. Feed the wire harness behind the carpet and down to the threshold of the door. Pull all the wire down to this point. Spot taping the wire to the existing harness as you go.
8. The bottom of the back seat is held down by two steel clips. The clips are located along the front of the seat and would be between your legs if you were sitting in the seat. Slide your finger or a small screwdriver along the seam between the seat and the floor to locate the exact position. To release the clip push in on the clip with a screwdriver. With both clips released, pull the front of the seat up and remove the seat.

9. The back door threshold is similar to the front. Pull up the threshold to gain access under the carpet. Run the wire harness around the center post (you may need a piece of stiff wire to help push the wire through) and along the back door and into the back seat area. Replace the carpet and thresholds.
10. Under the driver's side of the back seat there is a plastic loom. Open the loom and pull out the wires. You will find several light blue colored wires. These wires are used for the brake lights. Have someone step on the brakes and use a needle point tester to determine which blue wires are used for the brakes. The other wires may be "hot" when the stereo is on, so the stereo system must be shut off while you are identifying wires.
11. To identify the left and right brake wires you will have to cut the wires one at a time and see which light goes out. If you cut the center brake light wire splice it back together. When you have identified either the right or left wire, strip the ends and crimp on female spade terminals. Plug the female terminal from the front of the car into the "in" side of the diode block and the female terminal from the rear of the car into the "out" side of the diode. Repeat the process for the other brake wire. When both diodes are installed, test the brakes to make sure they work again.
12. Cut any excess wire off of the four wire harness. Leave about 6 to 8 inches of slack. Separate the four wires. Start on the outside and carefully peel each wire back about 6 inches. Cut off the white wire you peeled back, it will not be used under the seat. Inspect each wire to make sure there aren't any bare spots showing. Wrap any bare spots with electrical tape. Strip each wire and crimp a female spade terminal on each wire. Plug the green wire into the right brake diode block. Plug the yellow wire into the left brake diode block.
13. There are several brown wires in the loom. Depending on your model, there will be 2 to 4 of these used for the tail lights. Turn on the tail lights and use the needle point tester to identify the tail light wires. (Remember, stereo must be off.) When all are identified, cut all the wires, strip them, and twist them together. Crimp on a female spade terminal. Plug the female terminal from the front of the car into the "in" side of the third diode block and the female terminal from the rear of the car into the "out" side of the third diode.
14. Plug the brown wire from the four wire harness into the "in" side of the diode block. Test the car tail lights to make sure they work.
15. The last part of the wiring is to ground the four wire harness. The white wire is the ground. In the engine compartment find a bolt near the wire harness that will provide a metal-to-metal contact. Carefully cut just the white wire and peel back enough wire to reach the selected bolt. Strip and crimp the ring terminal on the wire. Remove the bolt and place the ring terminal under it and tighten. NOTE: If you are installing a 4-wire or 6-wire trailer plug on the front of the towed vehicle, then you may insert the ground into one of these terminals to provide a ground for the system.
16. Secure the four wire harness several places between the grill and **the front of dash** to keep the harness from getting tangled up in moving parts or touching engine parts that will get hot.
17. Hook up the towing vehicle to the wire harness and test the installation by operating the tail lights, turn signals, and brake lights. If the wiring on the towing vehicle does not match, you will need to change either the wires in the back seat or on the towing vehicle to match.
18. When the installation is working properly, **replace wires back into the plastic loom in the back seat**. Use electrical tape to secure the rest of the wires together. Lay the diode blocks and wiring as flat as possible against the floor under the seat. Replace the rear seat. Be sure to feed all the seat belt straps and buckles through the holes in the seat as you replace it.

## Tools Required

Electrical Tape	Standard Screwdriver	Wire cutter
Wire Stripper	Terminal Crimper	Utility Knife
12 volt DC Continuity tester with needle point prod 5 ft. Stiff Wire		

## Parts List

Ref. No.	Qty.	Part No.	Description
1	3	294-0660	Diode Module, 6 amp
2	1	294-0562	Wire Harness, 26 ft., 4 wire
3	1	294-0187	Ring Terminal, 5/16 Stud, 16-14 Ga
4	9	294-0398	Term. Coup., Female, 22-18 Ga

Saturn diagram shown. Other makes of vehicles will be similar. Colors of wires on other makes and models will likely be different than those depicted below. Use needle point tester to identify wires.

