



## **BX1620 Installation Instructions 1995-99 Chevrolet Cavalier**

Utilization of Blue Ox baseplates with any tow bar not approved by Automatic Equipment Mfg. Co. invalidates the limited warranty. Fog lights must be removed.

Installation of this baseplate requires removing the bumper, the long, plastic headlight cover, and the headlights. 17/32" holes need to be drilled into the vehicle's frame rails. The plastic grill on the bumper's front will need to be trimmed to allow for the clearance of the attachment tabs.

1. Read the General Instruction Sheet included with this baseplate.
2. The baseplate mounts to the vehicle behind the grill with twelve provided bolts.
3. The bumper will need to be completely removed for the installation. Open the hood and remove the four plastic push pins that connect the plastic bumper to the metal bumper. These pins are on the top center of the bumper. With a 7mm socket, remove the 14 bolts from the bottom and ends of the bumper. There will be three bolts on the bottom of each end of the bumper and four on the back ends of the bumper in front of the tires.
4. Pull the splash guard back and notice the two bolts on the inside of the bumper that attach the bumper to the fender on each end. Remove these four bolts with a long extension and 10mm socket.
5. Pull straight forward on the bumper and remove. Once the bumper is off of the vehicle, the parking light bulbs can be twisted out of their sockets and the bumper can be set aside.
6. Remove the long plastic piece that covers the headlights and hood latch. There are six plastic push pins that must be removed to accomplish this. Remove the two bolts on top of the headlights with a 13mm socket and remove the headlights. Unhook the wires from the back of the lights and set the lights aside. You may want to mark one of the wires to keep them separate.
7. Notice the open space at the front ends of the vehicle frame rails where the bumper mounts are located. The 1/2 x 1 1/4 bolt plate and 1/2 nut wire must be inserted through this space. The gap is probably not big enough to do this now. The four bolts that attach the bumper to the frame will have to be loosened so the bolt plate can be inserted. The top nuts can be accessed from the ends of the bumper with a 13mm wrench. Notice the "honeycombed" plastic riveted to the front of the bumper. There are basically three sections attached together by two flat pieces. These flat pieces cover a large hole in the front of the bumper. With a utility knife, cut away the plastic over the hole at each end. A 13mm socket and long extension can now be inserted through this hole and the inner nuts on the bumper can be loosened.
8. Loosen the nuts enough to allow the bolt plate into the frame rail. Bend the wire on the bolt plate so the bolt can be inserted through the large slot on the inside of the frame rails. After both bolt plates have been installed, the bumper bolts can be tightened. Make sure that the 1/2 nut wires can still be inserted through the opening.
9. Install each rear support on the appropriate side with the bolt plate and whiz nut. Leave the nut loose.
10. Notice the two small holes in the bottom of the metal bumper. The two 3/8 x 1 hex bolts need to be dropped into these holes from the inside of the bumper. The holes can be accessed through the square hole beside the round hole or through the large holes that were exposed in Step #7, whichever is easier.

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11. With the 13mm socket, remove the two bolts below the bumper that attach the bent rod to the frame rails on one end and the hood latch on the other. Remove these two bolts along with the nuts attached to the frame. These will not be used again.
12. With an assistant hold the baseplate up under the bumper and start the 3/8 bolts in the bottom of the bumper through the angles welded on the top of the baseplate. Apply Loctite to the threads on a 3/8 hex nut and start the nut and 3/8 lock washer on the two bolts. Do not tighten yet.
13. The dimensional variations between otherwise identical cars can be considerable. While the location and size of the holes in the baseplate were designed to allow for easy installation, it may be necessary to file a hole slightly to allow a bolt to clear.
14. The outside supports on the baseplate should line up with the holes in the bent rod and frame rails. Bend the 3/8 nut wires so the nuts can be inserted into the frame rail above the holes and lie flat over the back of the holes. Apply Loctite to the threads of the 3/8 x 1 1/4 bolts and start the bolt, along with a 3/8 lock washer, through the support, the bent rod, the frame rail, and into the whiz nut wire. Do not tighten yet.
15. The two holes on the front of the rear supports should line up with the holes and lay on the outside of the attachment pieces welded to the baseplate. Apply Loctite to the threads of four of the 1/2 x 1 1/4 hex bolts. Insert the four bolts and start a 1/2 lock washer and hex nut on each. Do not tighten these bolts yet.
16. Using a 9/16 socket, tighten the 3/8 bolts in the bottom of the bumper and then tighten the 3/8 bolts on the outside supports. You can then tighten the four 1/2 bolts on the front of the rear supports with a 3/4 wrench and socket. Tighten the 1/2 whiz nut that was installed in Step #9 with a 3/4 wrench.
17. When all bolts are tightened, use a 17/32 transfer punch to mark the hole in the top of the rear supports. Use a 17/32 bit to drill a hole through the top of the frame rails. Insert the 1/2 nut wires through the openings discussed in Step #8 and bend the wire so the whiz nut lies over the just drilled hole. Apply Loctite to the two remaining 1/2 x 1 1/4 bolts and start the bolt, along with a 1/2 lock washer, through the hole and into the whiz nut. Tighten the bolt and repeat on the other side.
18. Bend the wires out of the way and reinstall the bumper. The plastic grill on the front of the bumper will need to be trimmed to let the attachment tabs through. The slots should be about six inches from either end. Hold the bumper in front of the baseplate and mark the grill where the slots need to be. Use a hacksaw blade to cut a one inch slot in the bottom horizontal piece on the grill. You should be able to cut the horizontal piece out just inside the vertical piece without cutting the vertical piece. Cut as close as possible to the vertical piece and try installing the bumper. You may need to use a flat screwdriver to help pry the bumper over the tabs. Secure the bumper with all hardware discussed in Steps 3 & 4. Don't forget to plug the parking light bulbs back in. Reinstall the headlights and the plastic cover.
19. Install the tow bar and safety cables according to the instructions included in their packages.
20. Do not substitute other devices if the tow bar pin and clip are lost.
21. DEALER OR INSTALLER: BE CERTAIN THE USER RECEIVES THE INSTRUCTION SHEET.

### Tools Required

13mm Socket	10mm Socket	7mm Socket
Flat Screwdriver	3/4" Socket	3/4" Wrench
9/16" Socket	17/32" Transfer Punch	17/32" Drill Bit
Loctite Blue	Hacksaw Blade	

## Parts List

Ref. No.	Qty.	Part No.	Description
1	1	61-4592	Weldment, Baseplate, BX1620
2	2	61-4593	1/2 x 1 1/4 Bolt Plate and Wire
3	2	61-4029	Weldment, 1/2 Nut Wire
4	2	61-4902	Weldment, 3/8 Nut Wire
5	1	101-5392	Rear Support, DS, BX1620
6	1	101-5391	Rear Support, PS, BX1620
7	2	201-0368	3/8-16 x 1 1/4 Hex Bolt, Grd 5
8	2	201-0443	3/8-16 x 1 Hex Bolt, Grd 5
9	6	201-0011	1/2-13 x 1 1/4 Hex Bolt, Grd 5
10	2	202-0003	3/8-16 Hex Nut
11	4	202-0005	1/2-13 Hex Nut
12	2	202-0072	1/2-13 Hex Flange Whiz Lock Nut
13	4	203-0010	3/8 Lock Washer
14	6	203-0012	1/2 Lock Washer
	2	226-0046	Baseplate Safety Cable, 36" CL III Not Shown)
	4	229-0359	Quicklink, 3/8, ZP (Not Shown)

