



BX3301 Installation Instructions  
1991-92 Saturn SL2  
1991-94 Saturn SC1  
1991-97 Saturn SL, SL1, SW1

Utilization of Blue Ox baseplates with any tow bar not approved by Automatic Equipment Mfg. Company invalidates the limited warranty.

Installation of this baseplate requires removing the headlight assemblies, plastic belly pan, and the air dam. Several slits must be cut in the lower lip of the front bumper. Both the air dam and the belly pan must also be cut.

1. Read the General Instruction Sheet included with this baseplate.
2. The baseplate mounts to the front underside of the car using ten bolts; two existing and eight supplied.
3. The principal areas of attachment are at the two clamp type sway bar brackets and at the rectangular tube like chassis sections located just below the headlight assemblies.
4. Remove the headlight assemblies. These are accessed through the engine compartment. Each assembly is attached with three screws. Use a 10mm socket. Unplug the wiring and set the assembly aside until the installation is complete. Note that each headlight has two plug connectors with snap catches and one twist out socket/bulb.
5. Note the horizontal angle piece which serves as the lower mount for the headlight assembly. Using a 10mm socket, remove these brackets.
6. Look directly below the headlight mount areas. Note the fabricated sheet metal rectangular tubular assemblies which come forward on each side. The ends of these tubes serve as the attachment points for the silver colored internal aluminum bumper channel. The left and right vertical mount brackets will be attached to these tubes in a later installation step.
7. On cars with A/C, there is a small (approx. 2" diameter) silver canister outside the driver's side tube. The bracket for this canister will be loosened in a later step to improve mounting access.
8. Remove the plastic belly pan. It is attached to the chassis below the engine by screws and plastic punch pins. Use a 10mm socket and a flat screw driver. The air dam, which is attached to the belly pan, should be removed from it by unhooking the mounting springs.
9. Using a 15mm socket, remove the upper bolt on the sway bar mount on both sides of the car.
10. Looking up from beneath the driver's side of the car, note the small silver canister identified in step #7. To gain access to the mount bracket for this canister, a plastic shield must be partially removed by popping out a plastic push pin. Using a 10mm socket, remove the single nut which attaches the canister bracket to a threaded stud on the frame. Gently pull the bracket free.

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11. Position the main baseplate assembly under the front of the car such that the tow bar attachment tabs are facing forward and up and the heavy rear bolt tabs are approximately below the sway bar bracket bolt holes.
12. With a helper, lift the main baseplate assembly up and hand start the sway bar bracket bolts removed in step #9 through the rear most heavy tabs and back into the threaded chassis holes. Tighten the bolts sufficient to remove all slack in the assembly but do not finish tightening. Note that the lower lip on the front bumper interferes with the front of the unit coming up to full horizontal. cut a slit in this lip at four locations to allow the unit to be tightened. Do not cut through. Allow the resulting tab to flatten. Position a jack to support the front cross tube of the main baseplate assembly.
13. The vertical mount brackets are left and right handed. They have a two hole plate on one end and two straps with three holes that form a "C" shape on the other end. The "C" straps will be attached to the fabricated rectangular tubes identified in step #6 by drilling three holes per side into the tube. The open side of the "C" faces outward and encompasses three sides of the tube. The two hole plates attach to corresponding plates welded to each arm of the main baseplate assembly.
14. Visualize the approximate position of the vertical mount brackets and note that there is a small hole (approx. 3/8" dia.) on the lower wall of the fabricated tube structure which approximately corresponds with the 17/32" diameter hole in the lower arm of the "C" strap.
15. Work the vertical mount brackets in to position and loosely assemble them by hand to the main baseplate assembly using 3/8" bolts and nuts. Do not finish tightening. The "C" straps should approximately fit over the rectangular tubes with the lower hole near the hole identified in step #14.
16. Being spot welded sheet metal fabrications, the tubes are not all precisely the same. It is extremely important that the final position of the vertical leg of the "C" strap be flush to the inside vertical wall of the tube. It should also be located just to the rear of the dimples/bulges (crush initiators) in the tube. Using a "C" clamp or clamping style vise grip and a small hammer, if necessary, move the "C" strap into position and hold it there. The two holes on the top leg of the "C" strap will be used as a template to drill holes into the tube. Note that the smaller outside hole aligns with the spot welded flange of the tube. Using 13/32 and 17/32 transfer punches, center punch each hole. Pilot drill each hole with a smaller drill bit (1/8" would be a good choice) and then finish drill to 13/32 and 17/32" respectively. Use the 17/32 hole in the bottom of the "C" strap as a template and drill the bottom hole in both sides.
17. Hand assemble the small outer hole of the "C" strap using 3/8-16 bolts, nuts, lock washers and flat washers. place a lock washer on each 1/2-13 bolt. Take the 1/2-13 nut plates and check assemble them to the 1/2-13 bolts to be sure they assemble easily. If there is any binding, run a 1/2-13 tap through the nut or run a die over the bolt. Now fish the nut plates into position, one at a time, through the large openings in the sides of the tubes. Manipulate the wires to properly locate and hold them in position. Note, the plate side of the nut plate must be against the wall of the tube. Hand start the 1/2-13 bolts with washers. This takes some patience and an assistant may be helpful when doing the underside bolts. Be extremely careful not to cross thread the nuts. It is a critical part of properly installing this baseplate that all six upper bolts and nuts on the vertical mount brackets be able to be fully tightened. Note: Loctite should be applied to these bolts before final tightening.
18. The baseplate is now basically in position with the exception of the two flanges at the rear which are adjacent to the sway bar brackets. These will be addressed later.
19. 1991 & 1992's Measure seven inches from either end of the air dam. Mark and cut each end off at this point perpendicular to the edge of the dam. 1993's Hold the air dam up underneath the car. Note where the baseplate interferences with the air dam. Notch the air dam to clear the baseplate and install the air dam. On some cars the mount holes may not align as they did originally. You may need to make new mount holes farther out on the air dam.

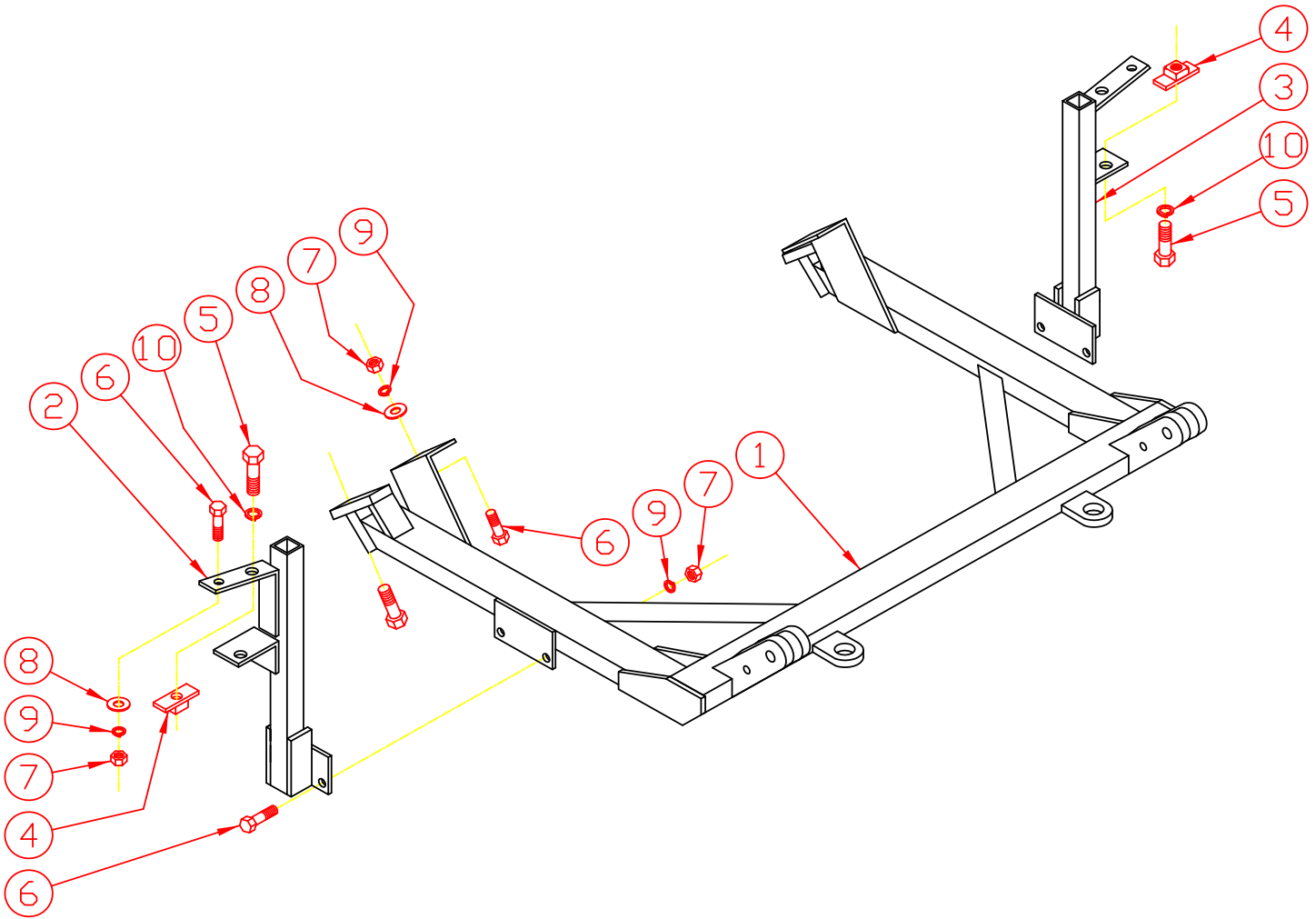
20. Hold the belly pan in position. In the final arrangement, the belly pan will be above the main base plate assembly as it was originally positioned. Note that, in that position, there are interference points with the base plate. Mark the interfering areas on the belly pan for cutting. Remove and cut the belly pan.
21. Remove the main baseplate assembly only (not the vertical mount brackets) and remount the belly pan. Hold the main baseplate assembly in position and check for interference. Do not be concerned that the belly pan touches the baseplate and some vertical compression is required to attach to the vertical mount brackets.
22. With the belly pan notched and mounted, replace the main baseplate assembly. Starting with the sway bar bracket bolts, then going to the "C" strap bolts, and finally to the attachment bolts between the vertical brackets and the main baseplate assembly, fully tighten all hardware. Make sure all hardware is fully seated; particularly the sway bar bracket bolts.
23. The final step is to drill the holes to attach the two angle brackets which are to the rear of the unit adjacent to the sway bar bracket mounts. Using a 13/32" transfer punch, center punch the chassis sheet metal, using the baseplate angle brackets as a template. Pilot drill the holes and then finish drill to 13/32" diameter.
24. Install 3/8" bolts, nuts, flat washers and lock washers through the holes drilled in step #23. Finish tightening.
25. Reinstall the canister bracket removed in step #8 and reattach the shield. Reinstall the air dam. Reinstall the headlight assemblies.
26. Recheck the tightness and seating on all bolts and nuts. For this type of installation, which relies on multiple attachments to sheet metal panels to achieve strength, all hardware must be in place and firmly tightened. Loctite Blue must be used.
27. 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 easy installation, it may be necessary to file a hole slightly to allow a bolt to clear.
28. Install the tow bar and safety cables according to the instructions included in their packages.
29. Do not substitute other devices if the tow bar pin and clip are lost.
30. DEALERS AND INSTALLERS: BE CERTAIN THE USER RECEIVES THE INSTRUCTION SHEET.

#### Tools Required

7mm socket	10mm socket	15mm socket
3/4 socket	9/16 socket	9/16 open end wrench
17/32 transfer punch	13/32 transfer punch	17/32 drill bit
13/32 drill bit	Pilot hole drill bit	Medium flat screw driver
Small hammer	Loctite Blue	Jack
		"C" clamp or clamping vise grip

## Parts List

Ref. No.	Qty.	Part No.	Description
1	1	61-3796	Main Baseplate Assembly
2	1	61-3797	Vertical Mount, P-Side
3	1	61-3798	Vertical Mount, D-Side
4	4	61-3799	1/2-13 Nut Plate with fish wires
5	4	201-0051	1/2-13 x 1 1/2 Bolt, Grade 5
6	8	201-0440	3/8-16 x 1 1/2 Bolt, Grade 5
7	8	202-0003	3/8-16 Hex Nut
8	4	203-0003	3/8 Flat Washer
9	8	203-0010	3/8 Lock Washer
10	4	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)



# General Information

1. Ensure that your product(s) are registered online at [www.blueox.com](http://www.blueox.com). It is crucial to register your product(s) so that you may be alerted of product offerings, updates, upgrades, maintenance and safety bulletins, and/or recalls.
2. **It is the owner's responsibility to inspect all towing equipment for cracked welds, missing or worn parts and loose bolts before each towing trip.** Be sure to use Loctite® Red on all bolts and tighten to the recommended specifications.
3. **It is the owner's responsibility to hook up all towing equipment per manufacturer's instructions/recommendations.**
4. Remove the attachment tabs when not in use (if applicable).

## Notice To Baseplate Installer

### 1. It is YOUR responsibility to watch for:

- Oil cooler and air conditioner lines
- Electrical wires and hoses
- Missing parts or attaching points on the frame

\*\* If the baseplate is improperly installed and is against a wire or hose, it could cause fluid leaks or electrical shorts some time after the actual baseplate installation.

## Permanent Baseplate Safety Cable Installation

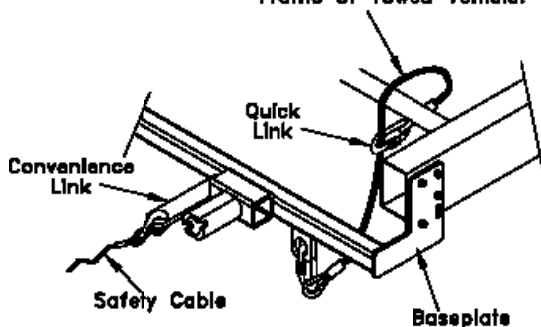
Permanent baseplate safety cables are strongly recommended when towing a vehicle with a tow bar. The principle function of the permanent baseplate safety cables is to prevent the towed vehicle from breaking loose in the event the connection between the frame of the towed vehicle and the baseplate fails or becomes disconnected. The cables must be connected from the baseplate to the frame rail or cross member of the vehicle's frame. The illustrations below show the possible arrangements recommended by Blue Ox®. Each permanent baseplate safety cable must have an adequate weight rating for the towing system. The weight rating of the two (2) cables together will not qualify.

***Do not mount the permanent baseplate safety cables against wires, hoses or brake lines.***

These permanent baseplate safety cables should remain installed as long as the baseplate is installed on the vehicle. Permanent baseplate safety cables are to be used in conjunction with, and NOT a replacement for legally required safety cables attaching the towed vehicle to the towing vehicle.

### OPTION #1

Permanent Baseplate Safety Cables to Cross Member or Frame of Towed Vehicle.



### OPTION #2

Permanent Baseplate Safety Cables to Cross Member or Frame of Towed Vehicle.

