SELECTION SHE

INSTRUCTION SHEET 1982-87 CHEVROLET CAVALIER STYLE #1603-42

PIN LEADER OF BRIEF

NOTICE

- This Tow Bar is designed to be <u>parallel</u> to the <u>ground</u> when it is attached to both the towed and towing vehicles. <u>If</u> the Tow Bar is at an angle, there is a risk of damage or accident.
- 2. This Tow Bar has been designed to tow a manual transmission car or an automatic which has been equipped with a transmission pump, drive shaft disconnect or half shaft disconnect.
- The transmission should be placed in neutral when towing.
- 4. Unlock the steering wheel to allow the front wheels of the towed vehicle to "track".
- 5. Be sure the car being towed is properly aligned.
- 6. <u>USE SAFETY CABLE OR CHAIN</u> (see sketch). Blue Ox Style #8805 (5ft) or #8806 (6ft) Safety Cable Kit is recommended. The shorter #8805 is normally best.
- 7. Adjust the coupler for proper fit to the ball (see coupler adjustment). For added security, place a lock, pin or bolt through the hole provided in the coupler locking lever.
- 8. Check the vehicle to vehicle clearance in a turning situation.
- 9. Most states require lighting at the rear of the towed car. A Blue Ox Style #8811 Wiring Kit or Style #8813 Light Bar is recommended.
- 10. Prior to starting on a towing trip, check to be sure all towing accessories and attachment points are secure; ie. all bolts tight and no cracked welds. This is important on all occasions but particularly on a new installation. All bolted connections and weldments on a new installation should be checked just prior to initial towing and again after 100-200 miles of towing.
- 11. <u>Do Not Back Up</u> when towing. Backing up may damage the Tow Bar assembly or the towed car's chassis.
- 12. Avoid sharp turns and rough terrain. Check installation after any unusual event and periodically on a long trip.
- 13. Do not use towed vehicle for storing luggage, etc.; you may exceed the towing capacity of the Tow Bar.

Parts List

		Part	Description	
	_			Tool List
			Weldment, Baseplate, BX1603	3/4 Socket
			Weldment, Lower Brkt, Left	13mm Socket
			Weldment, Lower Brkt, Right	
4	2	200-1316		19mm Socket
5	4	201-0051	1/2-13 x 1 1/2 Hex Bolt, Grade 5	Block of Wood
6	4	201-0438		Jack
7	6	202-0118	8mm-1.25 Hex Nut	Loctite Blue
8	6	203-0003		

SPECIAL NOTICE

Blue Ox Towing products and accessories are intended to be

installed by professional installers with experience, proper equipment, and knowledge of how to do "fit" work. Installers with this background will normally be found in Hitch Shops or RV/Automotive Service Centers.

- 2. If the car to be towed has been in an accident, the chassis may be damaged in an area where the Base Plate attaches. It may no longer be suitable for towing. Extreme caution and careful examination are required in such a situation. It is also likely, even from a minor accident, that the installation will be more difficult due to hole alignment problems.
- 3. Many Blue Ox Base Plates are designed to use existing holes and hardware to mount the Base Plate to the towed vehicle. Even though the bolt is there however, do not assume it is adequate for mounting the Base Plate. Manufacturers make many changes in hardware both within and between model years. Be sure the bolt is long enough to protrude past the nut a distance no less than 1/2 the diameter of the bolt, after the Base Plate is mounted. The threads should be in "as new" condition. It is recommended that "Locktite Blue" be used. If a new bolt is required, be sure it is SAE Grade 5 or Metric 8.8.

INSTALLATION

- The Tow Bar assembly consists of a permanently mounted Base Plate and a detachable Tow Bar.
- The Base Plate mounts to the front underside of the vehicle using ten bolts (six existing and four provided); five on each side.
- 3. The Base Plate is mounted using the three bolts at the front, on each side, which attach the bumper shock absorber to the chassis and the two bolts at the front, underneath, which attach the two sub-frame braces to the front of the chassis.
- Remove the plastic air dam located under the bumper.
- 5. Remove the ten bolts identified in step 4. The sub-frame braces <u>must</u> be supported from below <u>before</u> the four bolts are removed. It is also helpful to support the front bumper in position. Any shims between the bumper shock absorber and the chassis will come out when the bolts are removed. Save them for reinstallation.
- 6. <u>'82-'84 Models Only</u>

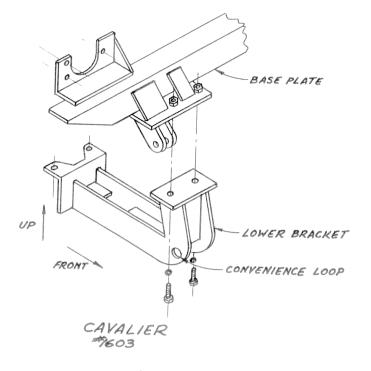
First remove the headlight cowlings and then the turn signal assemblies by opening the hood and removing the screws directly above each piece. Tip the top of each piece forward enough to disengage the pins holding the bottom of the assemblies in place, then pull the part straight forward and out.

- 7. <u>'85 and Later Models Only</u>
 The plastic grill is held in place by five (5) plastic expanding fasteners, one in each corner and one in the middle. Remove these fasteners by pulling on the flat tab sticking out from the center of the fastener. Remove the grill.
- 8. All Models

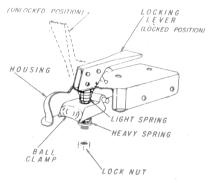
 Position the Base Plate such that its upper brackets are in front of the bumper shock absorber brackets and check the hole alignment by hand starting all six previously removed bolts. Access to the two inboard bolts is gained from the topside of the bumper where the grill or light assemblies

were removed. Use Locktite on all bolts but do not tighten yet.

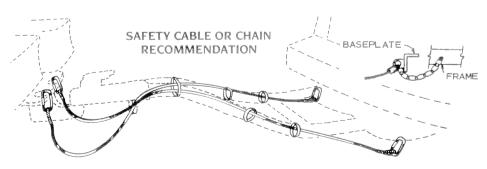
- Reinstall the air dam
- 10. Position the two lower brackets such that their rear holes align with the holes in the sub-frame braces and hand start the 12mm bolts with lock washers provided. Note that the rear of the Passengers side bracket is at an angle to match the car.
- 11. Assemble the lower brackets to the Base Plate with the 1/2" bolts and lockwashers provided.
- 12. The dimensional variations between otherwise identical cars can be considerable. While the location and size of the holes in the Base Plate were designed to facilitate easy installation, it may be necessary to file or drill a hole slightly to allow a bolt to clear.
- 13. With all bolts aligned tighten a little at a time in rotation until very <u>firm</u>. (See Special Notice)
- 14. The six flat washers and six 8mm nuts supplied with the Base Plate are back up strength and support for the six bolts which attach the Base Plate to the chassis (around the bumper shock absorbers). After completing Step 13, place the washers over the threaded end of the bolt and weld nut where they are visible, up behind the front chassis sheet metal. Thread the nuts over each bolt end and tighten firmly. (See Special Notice)
- 15. Remove jack.
- 16. Replace the grill or light assemblies.
- 17. With all bolts properly installed, you are ready to install the Tow Bar. Hold the Two Bar in position with the tabs aligned inside the tabs on the Base Plate and insert the pins. Slide the hairpin clips through the holes in the pins.
- 18. INSTALL A SAFETY CABLE OR CHAIN AND ADJUST THE COUPLER. (SEE SKETCHES)
- 19. Do Not Substitute other devises if the pin and clip are lost.



COUPLER FIT ADJUSTMENT



- Using a 3/4" socket adjust the coupler to the ball by turning the nut. Tighten or loosen the nut until firm contact between coupler and ball is established.
- Check ball to housing tension periodically and tighten if necessary.
- Lightly lubricate the ball.



- "X" pattern below Tow Bar solidly connected to the frame of the towing car and to the Base Plate convenice loops.
- Permanent chains connected to the convenience loops and to the frame of the towed car.
- Use cable or chain with at least the load rating that is on the coupler.