INSTRUCTION SHEET

ING LIGHT TO THE PARTY OF THE P 1987-90 Dodge Shadow (2-1/2 mph bumper only, not Shelby CEX) 1897-90 Plymouth Sundance (2-1/2 mph bumper only) STYLE #1912-42

NOTICE

- This Tow Bar is designed to be parallel to the ground when 1 . it is attached to both the towed and towing vehicles. 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.
- 3. 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. USE SAFETY CABLE DR CHAIN (see sketch). Blue Ox Style #8805 (5ft) or #8806 (6ft) Safety Cable Kit is recommended. 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. Do Not Back Up 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.
- Do not use towed vehicle for storing luggage, etc.; you may 13. exceed the towing capacity of the Tow Bar.

PARTS LIST

- 1 . 1 - Tow Bar (purchased separate)
- 2. 1 - Base Plate tube
- 3. 2 - 1/2" diameter pins
- 4. 2 - hairoin clips
- 1 Drivers upper bracket 5
- 6. 1 - Passengers upper bracket
- 7. 1 - Drivers lower bracket
- 8. 1 - Passengers lower bracket
- 9. 1 - Center lower bracket
- 10. 2 Nut plates
- 11. 13 1/2"-13 X 1-1/2" bolts
- 12. 13 1/2" Lockwashers
- 13. 4 1/2-13 Nuts

3/4" socket (for coupler adjustment)

11mm socket

13mm socket

15mm socket

3/8" socket

3/4" end wrench

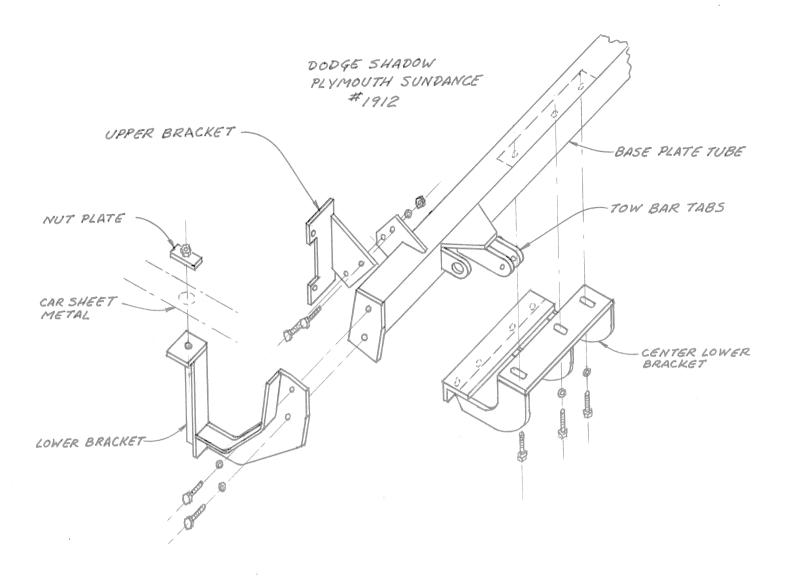
SPECIAL NOTICE

- 1. 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.

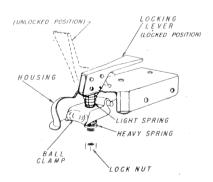
INSTALLATION

- 1. 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 car using ten bolts; three on each side and four in the center of the car.
- Remove the two bolts on each side which hold the bumper brackets to the chassis and inspect for reuse. (See special notice).
- Remove the screw on each side at the bottom rear corner of the air dam which fastens it to the body.
- 5. With a helper, pull the rear edges of the air dam/bumper assembly outward enough to clear the plastic wheel well liner and pull the assembly forward approximately four inches.
- 6. With a helper, hold the Base Plate tube under the car with the Tow Bar tabs facing up and the tab braces toward the rear of the car.
- 7. Lift the tube up behind the air dam while rotating it forward to insert the tabs through the opening in the air dam. Note that the tab braces will end up on the <u>top</u> side of the tabs.
- 8. Push the bumper/air dam assembly back into its normal location making sure to engage the headed pins on each side.
- Position the two upper brackets in front of the bumper mounting brackets such that their holes align and the angled plates of the upper brackets are on the inboard side of the bumper mounting brackets. Hand start the previously removed bolts to check alignment. Use Locktite on all bolts but do not tighten yet.
- 10. 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 a hole slightly to allow a bolt to clear.

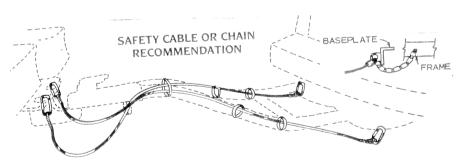
- 11. Position the Base Plate tube to align its upper tabs inboard of the upper brackets and loosely attach them with 1/2" bolts, lockwashers, and nuts.
- 12. Remove the four nuts which are in a straight line along the bottom center motor mount and remove the metal strip which holds the pressed in studs the nuts were on.
- 13. Position the center lower bracket in front of the sheet metal where the motor mount bolts were and install the bolt strip through the center lower bracket and motor mount. Loosely secure with the nuts previously removed.
- 14. Loosely secure the center bracket to the Base Plate tube with 1/2" bolts and lockwashers.
- 15. On the outside of the engine compartment, just behind the bumper brackets there is a plastic shield screwed to the sheet metal which covers an opening. Remove the front most screw so that the plastic can be moved to gain access to the opening in the sheet metal.
- 16. Insert a nut plate through the opening, nut side up, and align it with the one inch round hole in the bottom of the sheet metal which is just rearward of the opening.
- 17. With the flanges facing outward, align the lower bracket holes with the nut plates and hand start a 1/2" bolt and lockwasher.
- 18. Loosely assemble the lower brackets to the base plate tube with 1/2" bolts and lockwashers.
- 19. When all bolts align, tighten them in a two step procedure. First snug up the bumper bracket bolts while holding the bumper up in its correct position, then snug up the center bracket bolts and the lower bracket bolts. When all bolts are snug, go back through and tighten all bolts securely.
- 20. Reinstall the bolts in the lower rear corner of the air dam.
- 21. Reinstall the screws in the plastic shields.
- 22. With all bolts properly installed, you are ready to install the Tow Bar. Hold the tow bar in position with the tabs aligned inside the tabs of the base plate and insert the pins. Slide the hairpin clips through the holes in the pins.
- 23. 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.
- 24. INSTALL A SAFETY CABLE OR CHAIN AND ADJUST THE COUPLER. (SEE SKETCHES)
- 25. Do Not Substitute other devises if the pin and clip are lost.







- 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.