

# BX2302 Installation Instructions 1990-92 Hyundai Excel

- 1. 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.
- 3. The transmission should be placed in neutral when towing.
- 4. Uhlock 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 BX88196 Safety Cable Kit is recommended.
- 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 BX8811 Wiring Kit or Style BX8813 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.
- 13. Do not use towed vehicle for storing luggage, etc.; you may exceed the towing capacity of the Tow Bar.

### **PARTS LIST**

- 1. 1 Tow Bar (purchased separate)
- 2. 1 Base Plate
- 3. 2 1/2" diameter pins
- 4. 2 hairpin clips
- 5. 1 center mount channel
- 6. 2 1/2"-13 x 1 bolts, grd 5
- 7. 2 1/2" lockwashers
- 8. 2 1/2"-13 nuts
  - 2 Quicklink, 3/8, ZP
  - 2 Baseplate Safety Cable, 36" CL III

#### TOOLS

3/4" socket (for coupler adjustment)

Phillips Screwdriver

10mm Socket

14mm socket

14mm Wrench

Jack

Locktite Blue

### **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 Htch 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

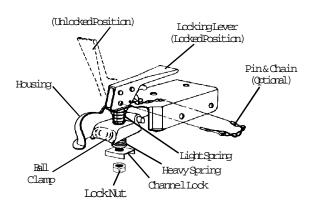
Automatic

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

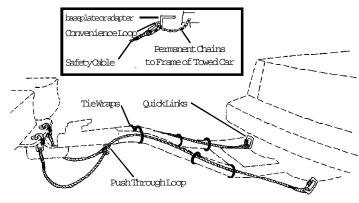
- 1. The Tow Bar assembly consists of a permanently mounted Base Plate and a detachable Tow Bar.
- 2. The Base Plate mounts to the front underside of the vehicle using six existing bolts; two from each tie down bracket and two from the front of the engine/transaxel support beam.
- 3. Using a phillips head screwdriver, remove two screws on each side which attach the bellypan/ wheel well in the area of the "tie down" brackets (metal stampings with an oval hole on each side).
- 4. Remove the "tie down" brackets using a 14mm socket and a 14mm open end wrench. Save the bolts (see Special Notice). The lower bolts on the plastic water bottle located on the drivers side must be removed using a 10mm socket to gain access to the "tie down" bracket.
- 5. Place a jack under the engine/transaxel beam and apply modest upward pressure to provide support.
- 6. Remove the two front bolts which hold the engine/transaxel beam using a 17mm socket. <u>Do not remove the steel</u> spacer spools or the rubber "grommet like" beam mounts. The bolts are long and have a captive washer. They will be used again. Do not remove the washer.
- 7. With an assistant, position the Base Plate up under the front of the car aligning the two holes on each side plate to the "tie down" bracket holes. Hand start the 4 bolts removed in Step 4. (See Special Notice 3. regarding Locktite).
- 8. 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.
- 9. Place the Center Mount Channel under the front center and hand start the bolts removed in Step 6. (Note, the Channel is symmetrical).
- 10. Attach the other end of the Center Mount Channel to the Base Plate Assembly using the two 1/2"-13 bolts, nuts, and lockwashers provided. Do not tighten.
- 11. Tighten fully the front beam bolts hand started in Step 9.
- 12. Tighten the side plate bolts hand started in Step 7.
- 13. Tighten the Center Mount Channel/Base Plate bolts/nuts started in Step 10.
- 14. 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 on the Base Plate and insert the pins.
- 15. INSTALL A SAFETY CABLE OR CHAIN AND ADJUST THE COUPLER. (SEE SKETCHES)
- 16. Do Not Substitute other devises if the pin and clip are lost.

#### **COUPLER FIT ADJUSTMENT**



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

## SAFETY CABLE INSTALLATION



- Arrange the cables in an "X" pattern below the tow bar.
- Solidly connect the cablest othe chassis of both the towing and the towed vehicles or baseplate convenience loops on unibody cars. NOTE: Permanent chains will need to be installed between the loops and the towed car's frame if the loops are to be used.
- Do not allow too much or too little slack in the cables.
- If BX88196 cables are not used, be sure each cable or chain used has at least the load rating of the coupler.