INSTALLATION INSTRUCTIONS CHEVROLET/GMC #600 & #800



PRE-INSTALLATION INSTRUCTIONS

These instructions have been designed for unaltered vehicles. Before you start, check for any variations. Each vehicle may dictate it's own control mount and cable routing. Therefore, you will need to study the pictures and use your good judgement or seek professional help. Lift kits may govern how and where the cable is routed. **Always keep the cable away from heat (exhaust) and rough or sharp edges.** If you are concerned about lower cable damage or abrasion, we recommend cutting a length (about 3 feet) of 5/8" ID plastic or rubber hose (garden or heater) to be slid over the cable before assembly. Please keep in mind, **the warranty is void** on heat damaged or abused cables. Before drilling, check for any electrical wires, hoses, etc.

LIMITED WARRANTY

4x4 Posi-Lok company warrants to the original retail purchaser that the 4x4 Posi-Lok is free from defects in material and/ or workmanship for one (1) year from the purchase date when used under normal operating conditions on light trucks and SUV's. The warranty does not apply to 4x4 Posi-Lok Products that have been improperly engaged or installed. The consumer will be responsible for removing from the vehicle and returning to 4x4 Posi-Lok any defective item(s) with shipping costs prepaid. A copy of the original sales receipt is required for all warranty claims.

LIMITATION OF WARRANTIES

The loss of use of the product or vehicle, loss of time, inconvenience, commercial loss or consequential damages are not covered. 4x4 Posi-Lok reserves the right to change the design of any product without assuming any obligation to modify any product previously manufactured.

This warranty gives you specific legal rights and you may also have other rights which may vary from state to state. Some states do not allow limitations on how long an implied warranty lasts or allows the exclusion or limitation of incidental or consequential damages, the above limitation or exclusion may not apply to you.

There are no warranties, expressed or implied, including any implied warranties of merchantability and fitness, which extend beyond the face hereof. Seller disclaims implied warranty of merchantability.

LIMITATION OF LIABILITY

4x4 Posi-Lok's liability hereunder shall not exceed the purchase price of the product. 4x4 Posi-Lok shall not be liable for any incidental or consequential damages, whether direct or indirect, including, but not limited to, personal injury, property damage, economic loss, loss of profit, or the like. 4x4 Posi-Lok shall not be liable for any damages or defects of any kind whatsoever after installation of the 4x4 Posi-Lok, unless the purchaser has complied with any and all installation instructions. The limitation of liability as set forth above shall apply even to claims of negligence or strict liability against 4x4 Posi-Lok.

OPERATING INSTRUCTIONS

Engagement: Relax the throttle - no acceleration or deceleration. Shift the transfer case to desired 4x4 mode. Press the button and pull the cable into full engaged position. (Light on-off throttle action while pulling on the handle will help align gears for smooth engagement.) Release the button.

Disengagement: Place transfer case in 2WD mode. Press the button, push the cable into full disengaged position, and release the button. If moving, light on-off throttle action will help to relax the drive train. Disengagement may be easier with some models if the vehicle is stopped and put into reverse for a few inches while pushing the cable in.

Notes:

2WD Lo-range–Place the transfer case in 4WD Lo range, but do not engage the 4x4 Posi-Lok system. Warning: Do not apply excessive torque in this mode.

If a differential gear locker is used in the <u>front axle</u>, the driver can manually unlock the front axle to make very tight right turns on hard ground, then re-lock to continue.



4X4 POSI-LOK SYSTEM

- 1. Bell Crank Support (PSL800)
- 2. Bell Crank Support (PSL600)
- 3. Dash Bracket (88-94)
- 4. Dash Bracket (95-up)
- 5. 8.5" Push Rod (PSL600)
- 6. 7" Push Rod (PSL800)
- 7. Clevis
- 8. Actuator Adapter Housing
- 9. Cowl Grommet
- 10. Dust Boot
- 11. Cable Bracket
- 12. Bell Crank
- 13. Cable Clamp

INSTALLATION INSTRUCTIONS

Carefully read all instructions before starting. Always check before drilling to avoid possible electrical wire damage.

- 1. Park vehicle on clean, flat surface and block the rear wheels for safety.
- 2. Raise the front of the vehicle so the tires are off the ground. Place jack stands under the frame rails for safety.
- 3. Drain the front differential fluid.

1988-1994 Models

- 4. Using the cable dash bracket as a guide, (with 1/8" hole to passenger's side) locate the left hole 5/8" to the right of the removable panel and 3/4" from the back edge of the dash plastic (Fig 1). Square and mark the center of both holes.
- Take care to drill into the metal dash support. Check for electrical wiring. Drill two 5/32" holes at the marks. Counter-drill 3/16" into the plastic only. Install the cable dash bracket with two #10 x 1" screws.

1995-1998 Models

 Using the cable dash bracket without a 1/8"hole, remove the lower dash support nut and install the bracket in the same manner as shown in Figure 1. Fasten the bracket with the OE nut and tighten securely. Note: On some 1995 and up diesels with electronic throttles it may be necessary to mount the cable bracket on the other side of the steering column.

All Models

7. Trim the cowl insulation away from above the left accelerator mounting screw. Drill a 9/16" hole (a Unibit works well) approximately 1-1/4" above the left accelerator mounting screw (Fig 1). Install the supplied rubber grommet in the hole. **Note: Try not to drill out a spot weld.**



- 8. Thread the Posi-Lok cable through the dash bracket, lock washer, nut, and then through the grommet in the cowl. Continue to feed the cable through the cowl until the handle is seated in the dash bracket. Secure the cable with the lock washer and nut. Do not tight over 10 ft-lbs or unrepairable cable damage will result. Note: It may be necessary to bend the dash bracket to allow for smooth cable movement.
- 9. From inside the engine compartment, route the cable over the steering column and down to the front axle (Fig 2,3). Loosely tie off the cable to the master cylinder. Be sure to route the cable away from hot and/or rotating components.





UNDER THE VEHICLE

- 10. Locate the OE differential actuator. Remove the axle tube bolt and 2 mounting nuts and along with the OE actuator.
- 11. Install the short clevis pin in the bell crank support. Install the bell crank support with the long leg to the rear and move the support out-board in the slots. Install the OE nuts and washers and tighten to OE specs.
- 12. Install the L-shaped cable bracket using a 7/16" lock washer as a spacer between the bracket and the axle tube, if needed.
- 13. Install the clamp on the cable so that metal cable end will just be hanging over the edge of the bracket (Fig. 4,5). Install the 3/16" bolt through the clamp and attach the cable and clamp to one of the two 3/16" holes in the bracket. The cable should be located between the two holes in the bracket. Secure the clamp bolt with a 3/16" washer and lock nut.
- 14. Assemble the 4x4 Posi-Lok actuator. Lube the internal o-ring and the push rod. Install the bullet nose end of the push rod into the Posi-Lok actuator housing.
- 15. Add a moderate amount of grease in the dust boot. This will ensure that the push rod stays lubricated and will guard against moisture. Slide the dust boot over the push rod and onto the actuator housing. Install the lock nut then clevis on the push rod.

- 16. Install the actuator to the axle housing using RTV on the threads and tighten to OE specs.
- 17. Install the bell crank on the pivot pin using 5/16" washer to center the bell crank in the clevis. Install the longer pin through the clevis and bell crank. Install the cotter keys as shown.
- 18. Adjust the bell crank action at or near the angles shown in the locked position and unlocked position (Fig 4,5). Make sure that there is no binding and full release in the unlocked position. Approximately 1" of push rod travel is required. Note that the front drive shaft may need to be rotated manually to secure full locked position. When adjustments are complete, tighten lock nut against clevis.

FIG. 4 LOCKED POSITION



FIG. 5 UNLOCKED POSITION



- Push cable handle in and install the cable and cable stop in the bell crank. Place the bell crank in the unlocked position. Cut the cable off approximately 2" from the cable stop and form a loop on the end. Tighten the cable stop and align the cable bracket for smooth operation. Tighten cable bracket securely.
- 20. Fill the front differential to the proper fluid level and road test.
- 21. Check all fasteners for proper torque.