# INSTALLATION INSTRUCTIONS CHEVROLET/GMC 500



# **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. The consumer must contact 4x4 Posi-Lok at (517) 278-7453 in order to receive a Returned Goods Authorization prior to shipping.

## 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 front axle, the driver can manually unlock the front axle to make very tight right turns on hard ground, then re-lock to continue.

Save these instructions and place with owner's manual.

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### 4X4 POSI-LOK SYSTEM

- 1. Handle
- 2. Cable

- 5. Dash Brace
- 6. Firewall grommet
- 3. Dash bracket
- 7. Allen Wrench
- 4. Dash bracket (94-up Pickups & 95-up SUV's)

# **BOLT PACK**

#### **Qty Description**

- 2 #10-24 x 5/8" slotted hex head machine screw
- 2 #10 x 1" slotted head sheet metal screw
- 2 #8 SAE washer
- 1 6mm-1.00 x 35mm bolt
- 1 #10 standard single thread U-nut
- 1 Rubber Grommet
- 1 9/64" Allen Wrench

# SPECIAL TOOLS

- T-30 and T-40 torx male drivers (required only on 1994 or newer vehicles)
- Unibit #3 for 11/16" hole
- 7mm and 10mm socket drivers
- 3/32 Allen wrench

## JACKING

Support the vehicle frame with the front wheels off of the ground and at full travel. Use jack stands and all safety precautions. Failure to raise the vehicle so that the front axle fully drops will void the warranty and may cause cable damage.

### **INSTALLATION INSTRUCTIONS** DASH INSTALLATION INSTRUCTIONS

### 94-UP S-10 & S-15 PICKUP & 95-UP BLAZER/JIMMY

1. Remove the air cleaner assembly and the front skid plate to allow easy access for cable routing.

\*Note\*

Due to variances in the the interiors, dash mounting will vary on some vehicles. If your vehicle does not match the following description use your best judgment for the dash mount location based on where the cable is best routed through the firewall. This is determined by available space and where it will not cause any sharp bends, nor be close to any hot components. Once the firewall position is determined, line up the dash bracket and mount accordingly.

- 2. Remove the three screws from the left side of the center dash lower panel and the screws from the front (dash edge) of the left foot panel to allow access to the torx headed screw.
- 3. Remove the torx bolt and replace with a longer 6mm-1.00 x 35mm bolt and washer. Install the cable dash mounting bracket with the open slot under the bolt and washer, then tighten the bolt.
- 4. With the dash mounting bracket as a guide, drill 5/32" hole through the dash support. Install a #10 x 1" sheet metal screw and tighten. Reinstall the panel screws. If you miss the dash metal brace you can cut the length of the multi-hole strap and install the u-nut to secure the left side using a #10 x 1" sheet metal screw.
- 5. Cut a large hole in the firewall insulation 3" below the steering column and 2" to the right of the wire. Use a unibit to drill an 11/16" hole through the firewall.
- 6. Remove the nut and washer from the cable. Route the cable through the dash bracket and install the washer and nut before sliding the cable through the firewall hole.
- Cut the provided rubber grommet on one side to form a "C" and thread it in the firewall hole around the cable. Tighten the cable nut to 10 ft-lbs.

### 83-93 S-10 & S-15 PICKUP & 83-94 BLAZER/JIMMY

1. Remove the lower dash kick panel and the steering column panel from the dash.

#### \*Note\*

Due to variances in the the interiors, dash mounting will vary on some vehicles. If your vehicle does not match the following description use your best judgment for the dash mount location based on where the cable is best routed through the firewall. This is determined by available space and where it will not cause any sharp bends, nor be close to any hot components. Once the firewall position is determined, line up the dash bracket and mount accordingly.

- 2. Locate and mark for the hole in the throttle mounting bracket centered 1-1/4" above the two upper triangular mounting bolts.
- 3. Drill a pilot hole through the throttle mount and firewall, and finish with a 11/16" hole in the firewall, and the same or larger in the throttle mount. Install the grommet in the firewall.

- 4. Using one #10 x 1" sheet metal screw and two 3/16" flat washers as spacers (if needed), install the dash bracket on the right side (inboard) of the existing right side kick panel u-nut, and align the cable through the firewall. Tighten the screw. Note: The 1/8" hole in the dash bracket should go to the passenger's side.
- 5. Use the cable dash bracket as a drill guide to drill a 3/16" hole through the dash.
- Pre-bend a 90-degree twist at the center of the dash brace and install the u-nut on the end. Align with the hole just drilled and install with a #10 x 1" sheet metal screw. Bolt a #10-24 x 5/8" machine screw to the other end of the throttle lever shield.
- Without moving the cable bracket, remove the screw and install the steering column cover. Now drill the cover only and reinstall a #10 x 1" sheet metal screw. Tighten both screws.
- 8. Remove the nut and washer from the cable. Route the cable through the dash bracket and install the washer and nut before sliding the cable through the firewall hole.
- Cut the provided rubber grommet on one side to form a "C" and thread it in the firewall hole around the cable. Tighten the cable nut to 10 ft-lbs.

### ACTUATOR BESIDE THE BATTERY

- Locate the vacuum actuator and twist the OE cable end retaining spring located on the actuator shaft to release the cable from the actuator. Squeeze the plastic retaining tabs on the cable to remove the cable from the actuator bracket.
- 2. The OE actuator can remain intact in its original location or it can be removed. This part of the original actuating system is not reused with this kit.

### ACTUATOR UNDER THE BATTERY

- 3. Before removing the battery, review the battery removal procedures according to GM service manuals. Remove the battery and support tray to allow access to the OE actuator and bracket.
- Twist the OE cable end retaining spring located on the actuator shaft to release the cable from the actuator. Squeeze the plastic retaining tabs on the cable to remove the cable from the actuator bracket.
- 5. The OE actuator can remain intact as is on the fender or it can be removed. This part of the original actuating system is not reused with this kit.
- 6. Reinstall battery tray and battery.

#### AT DIFFERENTIAL

7. Locate the actuator housing under the vehicle at the differential. Pull the rubber cable grommet back off of the steel cable fitting. (Fig. 1)



- 8. Disconnect the steel cable fitting from the actuator housing.
- 9. Disconnect the wires from the housing wire clamp.
- 10. Disconnect the electrical connector from the housing switch.
- 11. Disconnect the housing from the differential by removing the three mounting bolts. (Fig. 2) Retain bolts.



12. Pull the housing away from the differential. Until the internal spring clip is exposed (like the one on the actuator). Twist the spring to release the cable end and remove the assembly from the differential. (Fig. 3) The housing will be reused, the OE cable will not.



- 13. Loosely install the OE housing on the new cable end by threading the fitting into the housing a couple of turns.
- 14. Ensure that the cable button is in all the way. Install the housing and cable by aligning the cable end in the differential shaft until the cable end is engaged in the retaining spring. Pull on the cable/housing to ensure that the cable end is engaged.
- 15. Reattach the housing to the differential with the OE bolts and torque to 25 ft-lbs.
- 16. Tighten the cable fitting into the housing until the cable is completely seated. This is indicated by wiggling the cable while tightening the fitting. When the cable stops moving it is seated. Do not over-tighten. (Fig. 4)



17. Reattach the electrical wires and connector to the housing.

**Note:** The new Posi-Lok cable handle in most cases will not completely collapse when the differential is complete disengaged. Do to the OE actuator design, a tolerance was built into the cable to ensure that the cable can achieve the full range of travel from the engaged to disengaged positions. Typically the cable handle will be 1/16" to 1/8" from fully bottoming out when the differential is fully disengaged. Do not force the cable handle to the fully collapsed position or the internal cable member can be damaged. (Fig. 5)



# REMOVING THE POSI-LOK FROM THE DIFFERENTIAL

If it becomes necessary to remove the Posi-Lok cable from the differential, an L-shaped hex wrench (provided in the kit) will be needed to release the OE retaining spring. Follow these instructions for cable removal.

- 1. Put the cable in the disengaged position.
- 2. With the housing bolts removed, pull the housing free of the differential. Gently pull on the cable/housing while rotating the front drive shaft to engage the internal splines. When they engage the housing will move out approximately ½".
- 3. While holding the housing in this position, insert the hook end of the provided tool between the front side of the differential actuator shaft and the housing. (Fig. 6) Pull down across the surface on the shaft in order to catch the end of the retaining spring (Fig. 3) to release the cable end. When the spring is released, the housing and cable will pull free.

