

APPLICATIONS

1988-1998 Pickup
1992-1998 Suburban
1992-1998 Tahoe and Yukon

Note: With Thermal Linear Actuator (TLA)



SECTION 1

SLOW ENGAGEMENT OF FRONT AXLE

Owners of Chevrolet/GMC vehicles will comment that the colder the temperature, the longer it takes for the front axle to engage.

Function

The front axle actuator is a temperature controlled plunger. It is located on the passenger side (right) axle tube. The solenoid threads into the differential [Fig. 1]. After engaging the transfer case, electrical current heats the solenoid plunger [Fig. 2], which extends approximately one (1) inch. The solenoid plunger slides the shift fork and collar, connecting the freewheeling right front axle to the driven left front axle [Fig. 3].

Cause

- Temperatures below 30 degrees Fahrenheit causes engagement to take up to 30 seconds. Per GM Service Bulletin #76-43-01 dated April 1997, engagement of up to 30 seconds is within the design parameters.
- Defective TLA.

Correction

1. Replace the TLA with one of the following:
 - OEM P/N 26013495
2. Or Install 4x4 Posi-Lok
 - P/N PSL 600 or PSL 800 (See App. Guide)

SECTION 2

NO ENGAGEMENT

Cause

If the 4-wheel drive will not engage, one of the following may be the cause: a defective TLA, spline and axle damage, or wiring issues with the transfer switch.

Correction

1. Remove TLA. Insert six (6) inch dowel rod and push the fork until it stops. Check for free movement of the fork and shift collar [Fig. 3]. (To ensure spline alignment, slight rotation of one axle may be necessary.) If the shift fork and collar slide freely, reinstall the TLA and see step 2. If the shift fork and collar do not slide freely, there may be internal differential damage due to incomplete actuator engagement. Major differential service is required and must be repaired before proceeding.
2. Check for electrical current to the TLA using a test light. If present, remove TLA [Fig. 2]. Replace the TLA with one of the following:
 - OEM P/N 26013495 (first series)
 - Or Install 4x4 Posi-Lok P/N PSL 600 or P/N PSL 800 (See App. Guide)

FIGURE 1

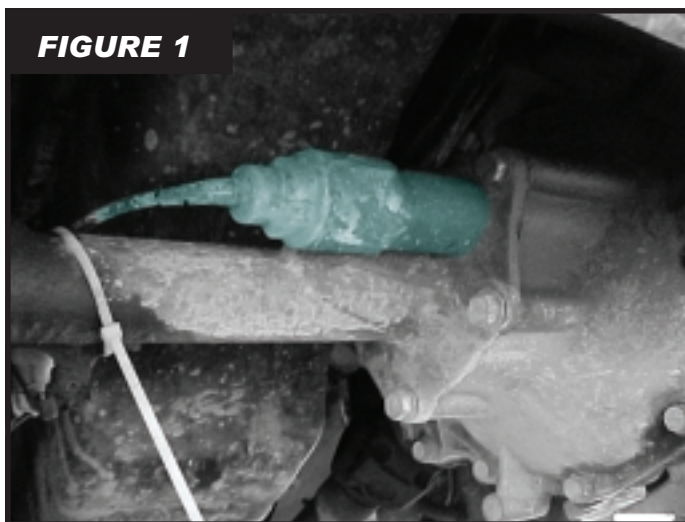
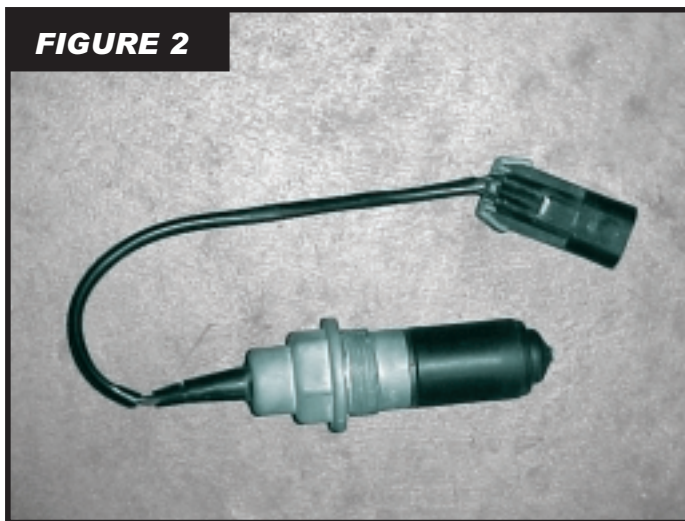


FIGURE 2



K SERIES



Note: If electrical current is not present, check wiring continuity and transfer case switch. See service manual for details.

SECTION 3 DISENGAGEMENT WHILE IN 4-WHEEL DRIVE

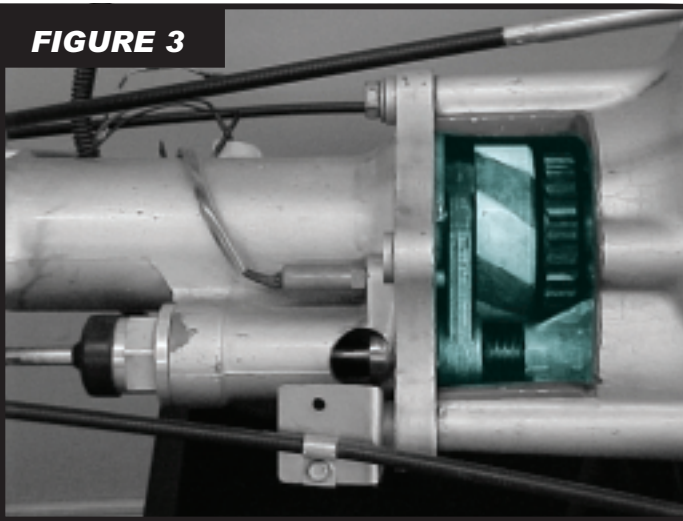
Cause

- If front differential is submerged in snow or water, the TLA unit will cool and allow disengagement.
- If the ignition is turned off, the TLA unit will disengage due to no electrical current. Upon restarting, the TLA unit may take up to 30 seconds to engage.

Correction

The only solution is to install 4x4 Posi-Lok P/N PSL 600 or P/N PSL 800 (See App. Guide.) The 4x4 Posi-Lok is a cable operated system not affected by cold weather or lack of electrical current. [Fig. 3]

FIGURE 3



ALSO AVAILABLE: PERM LOK

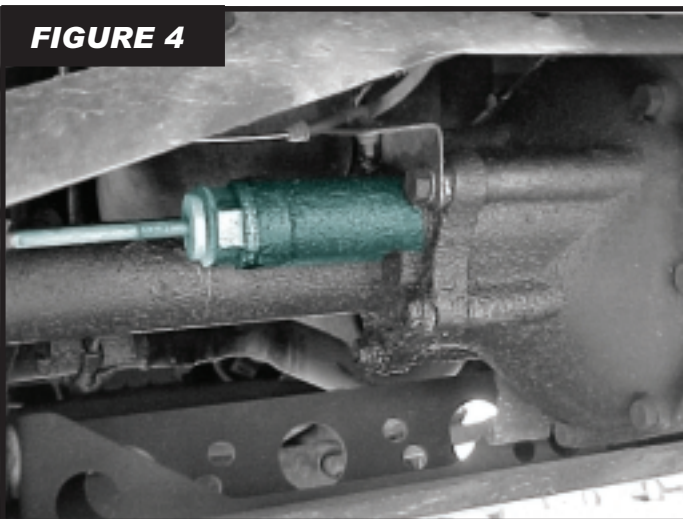
4x4 Posi-Lok P/N PSL 1000 (See App. Guide)

The Perm Lok permanently engages the Central Axle Disconnect (CAD) system and couples both front axles. Once installed, the front axles will not pull until the transfer case is engaged. This application is ideal for fleet operators or emergency vehicles. Installation is easy and can be completed in approximately 10 minutes.

HOW 4X4 POSI-LOK WORKS

The failure prone thermal linear actuator is replaced with the cable operated 4x4 Posi-Lok system [Fig. 4]. The thermal linear actuator is replaced with a cable actuated rod. The cable's T-handle is conveniently routed under the dash. Placing the vehicle's transfer case in 4-wheel drive and pulling the Posi-Lok cable handle slides the shift fork and collar to connect the freewheeling right axle to the driven left axle. Both front wheels are now engaged and pulling the vehicle. 4x4 Posi-Lok can be easily installed in one to two hours with basic hand tools.

FIGURE 4



DID YOU KNOW: Posi-Lok will not disengage when the engine is turned off or front differential is submerged.