





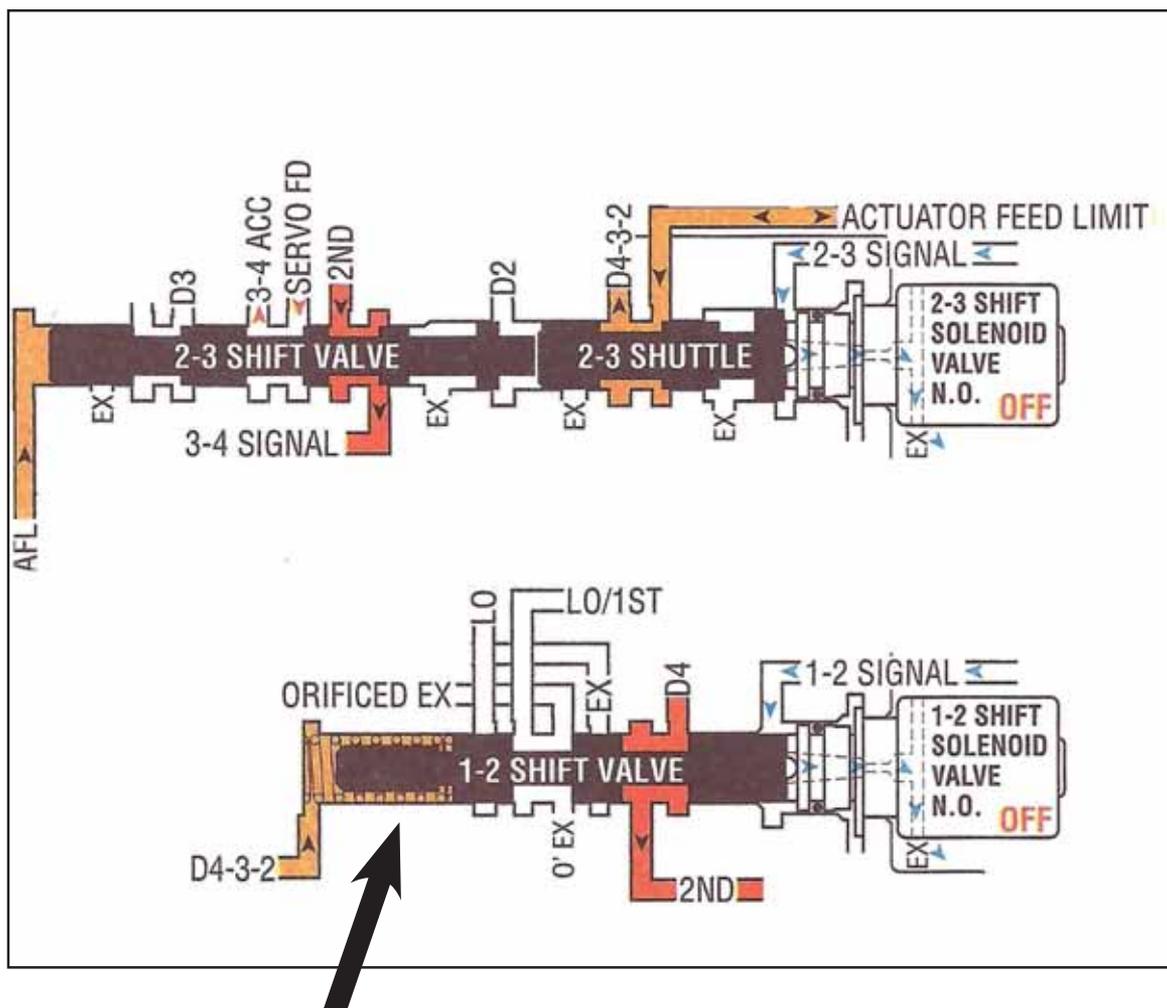
# 4L60E

## No 2nd Gear, Shifts 1-3-4 (continued)

When commanded to 3rd gear, the 1-2 shift valve must be in the 2nd gear position in order for the transmission to achieve 2nd and 3rd gear. If the 1-2 shift valve is held in the 1st gear position which inhibits 2nd gear. Then how does the 1-2 valve get into the 2nd position to allow 3rd gear?

The 3rd gear oil schematic reveals that when the 2-3 valve opens, actuator feed oil is routed to the spring end of the 1-2 valve. This oil forces the 1-2 valve into the 2nd gear position, even if the 1-2 signal oil has not been exhausted by the solenoid.

### 3rd Gear



# 4L60E

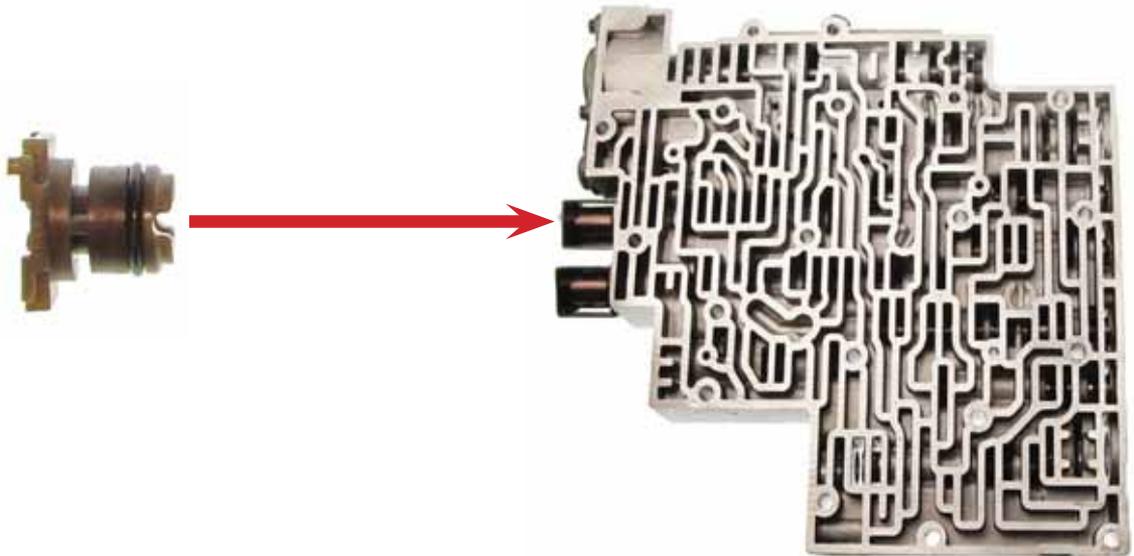
## No 2nd Gear, Shifts 1-3-4 (continued)

This test will verify if the solenoid or oil flow into the solenoid is the cause of no 2nd. Modify an old solenoid as shown below.

Enlarge hole in solenoid snout with .096" bit



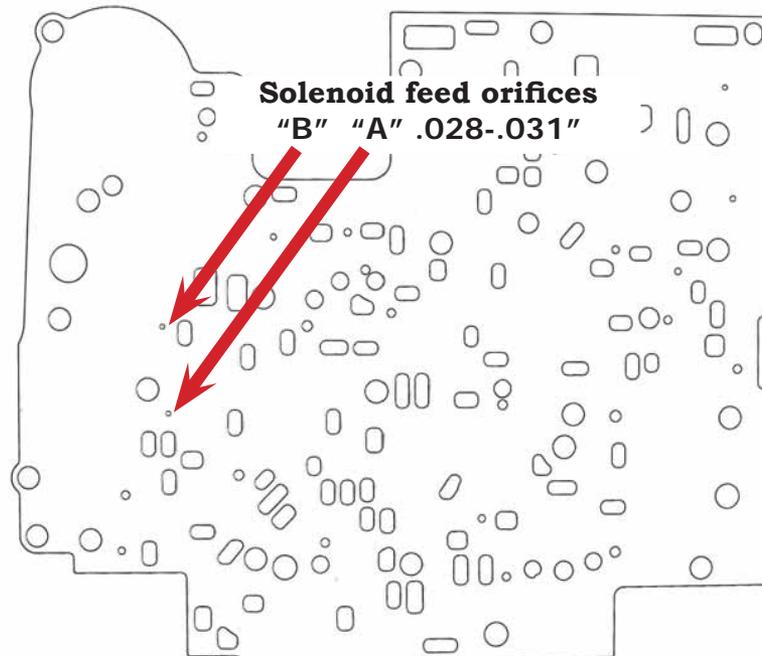
Install the modified solenoid snout and retainer clip into the "A" solenoid location. Leave internal harness plugged into the existing shift solenoid "A" so the ECM will not set a code and command both solenoids off (fail safe).



During the road test, the transmission should make 2nd gear starts in all forward positions. If transmission now has 2nd gear starts, there's no problem with the band or servo! This leaves either a defective shift solenoid "A" or a solenoid over feed problem. Corrective actions would be to: Install a new solenoid "A", measure solenoid "A" feed hole diameter, double up on valve body gaskets and check the case for warpage.

# 4L60E

## No 2nd Gear, Shifts 1-3-4 (continued)



If the transmission still has no 2nd with test snout installed. Inspect the servo pin length (too short), the band anchor hole for wear or an elongated anchor hole, a mismatch between 2nd gear piston and housing or the servo sealing rings are damaged or undersized.

