4L30E

VARIOUS INTERNAL ELECTRICAL COMPONENT CODES STORED

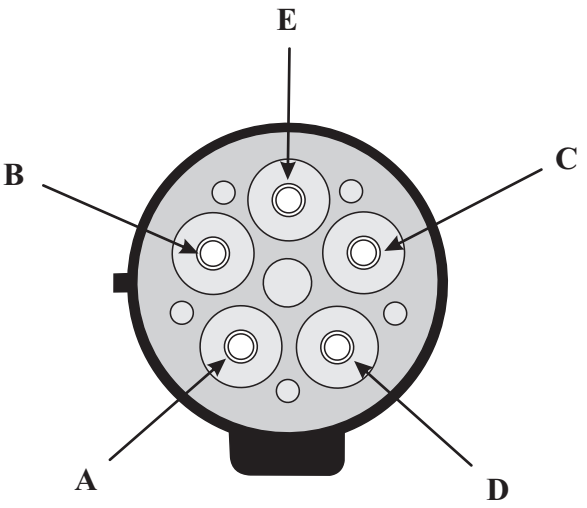
COMPLAINT: After overhaul, Pressure Control and/or TCC Solenoid and/or TFT codes are stored and a no reverse condition could exist.

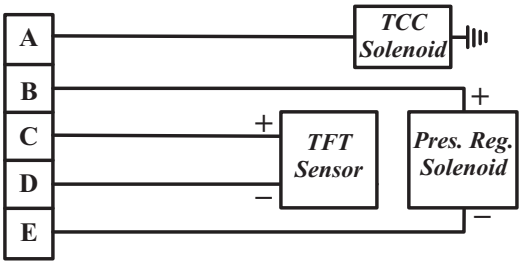
CAUSE: Case configurations changed depending on year of manufacture and make of vehicle.1990 to 1999 Isuzu vehicles equipped with the 4L30E used the round case connector in the overdrive housing in the front and the square case connector in the main case in the rear. The same locations were used for the Honda Passport starting with the 1994 model year.
In 1997 when the Cadillac Catera was introduced, these case connectors reversed positions. Now, the square case connector was up front in the overdrive housing and the round case connector was located in the main case in the rear of the unit. Isuzu and Honda adopted this same arrangement beginning with the 2000 model year. This can lead to cross connect situations which will result in the setting of the solenoid codes, (Refer to Figures 1 and 2).
Another problem area that can cause the above mentioned complaints has to do with the case connector locating tabs. These tabs become brittle over a period of time and break off. When this happens the case connectors can be plugged into the vehicle wire harness plug incorrectly, (Refer to Figure 3).

When the reverse lockout valve was added to the center support, (See Figure 4), another problem was produced. If the TCC and Pressure Control Solenoids are cross connected, the Pressure Control Solenoid signal will activate the TCC solenoid which in turn will stroke the reverse lockout valve, and a no reverse condition will exist. Refer to the hydraulic schematics in Figure 5 for TCC and reverse lockout valve operation.

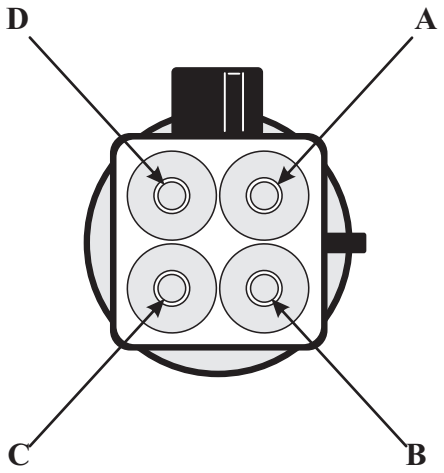
CORRECTION: Replace the internal wire harness if the locating tabs are broken and insure that the correct case connector/internal harness assembly is in the correct location.

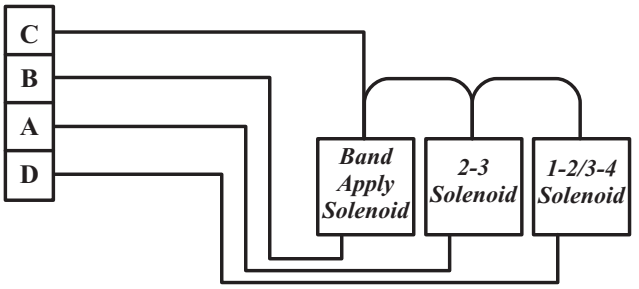
The Original Round Front Case Connector Terminal I.D.

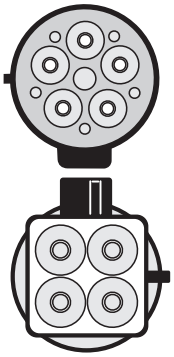




The Original Square Rear Case Connector Terminal I.D.



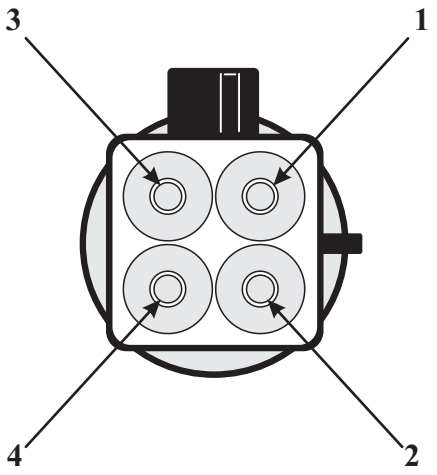


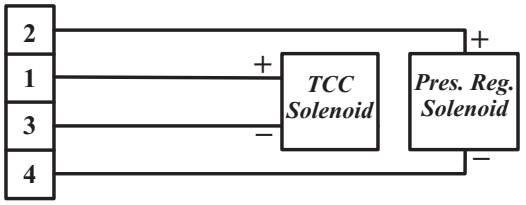


Solenoid	*Case Connector Terminal I.D.*	*Resistance In Ohms*
TCC	*A and case gnd*	*17.5 - 18.5*
Press. Sol.	*B and E*	*3.7 - 4.7*
TOT	*C and D*	*20K @ 70ºF*
Band Apply	*C and B*	*9.5 - 10.5*
2-3 Sol.	*C and A*	*17.5 - 18.5*
1-2/3-4 Sol.	*C and D*	*17.5 - 18.5*

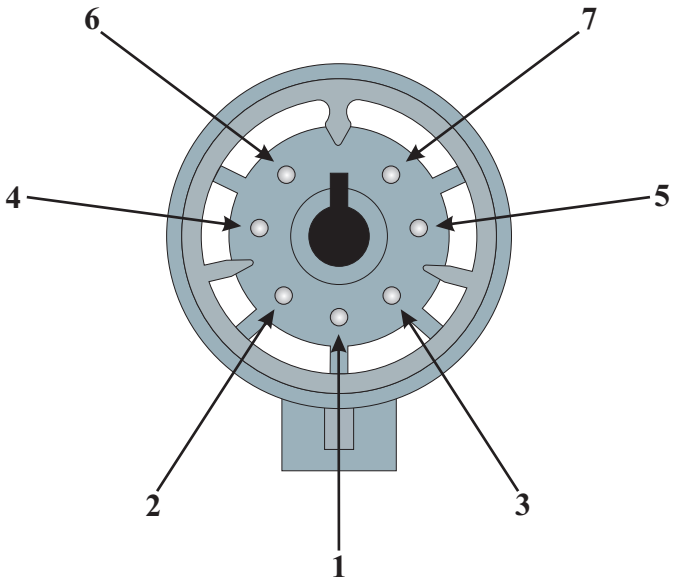
Figure 1

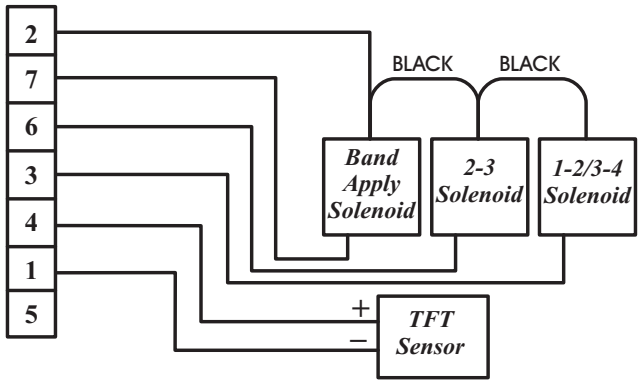
The Square Front Case Connector Terminal I.D.

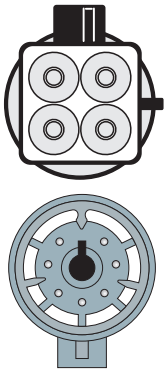




The Round Rear Case Connector Terminal I.D.







Solenoid	Case Connector Terminal I.D.	Resistance In Ohms
Press. Sol.	2 and 4	3.7 - 4.7
TCC	1 and 3	17.5 - 18.5
TOT	1 and 4	20K @ 70°F
1-2/3-4 Sol.	2 and 3	17.5 - 18.5
2-3 Sol.	2 and 6	17.5 - 18.5
Band Apply	2 and 7	9.5 - 10.5

Figure 2

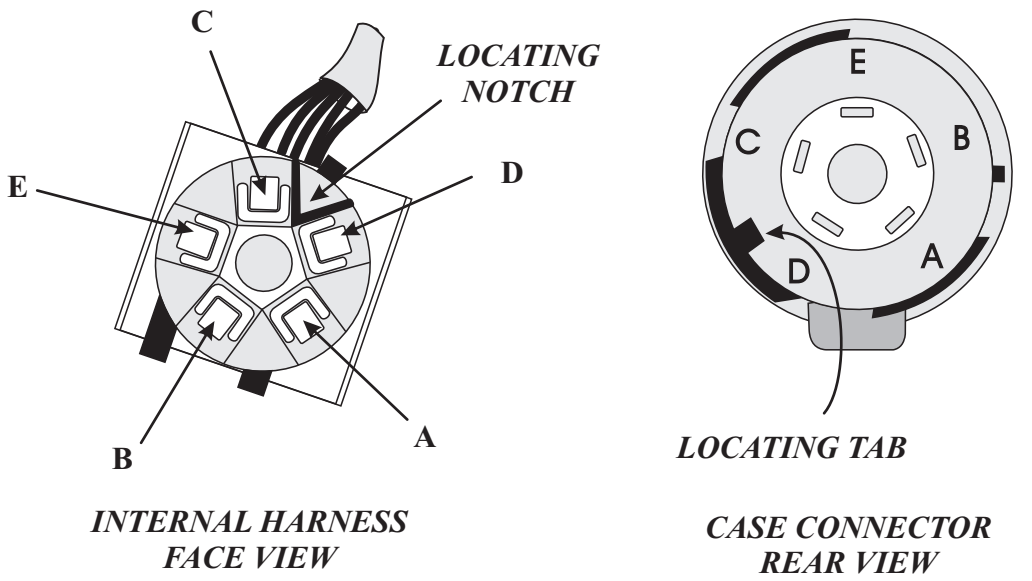


Figure 3

4L30E CENTER SUPPORT WITH REVERSE LOCKOUT VALVE

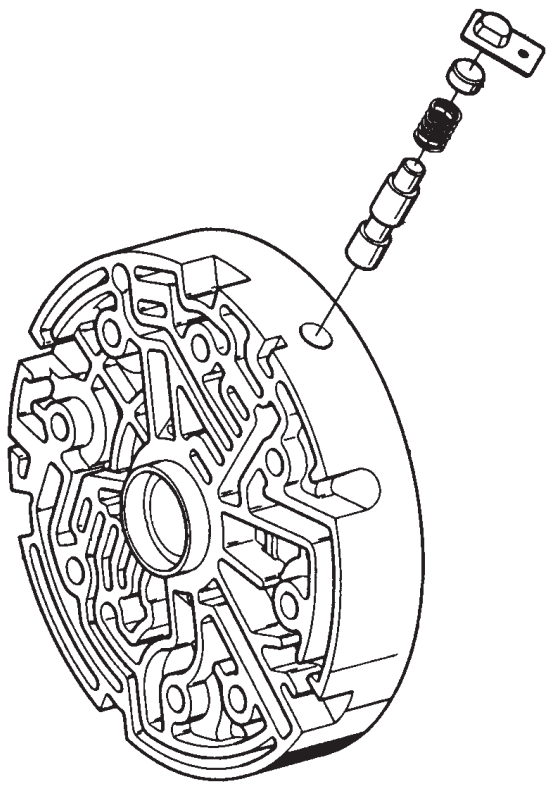
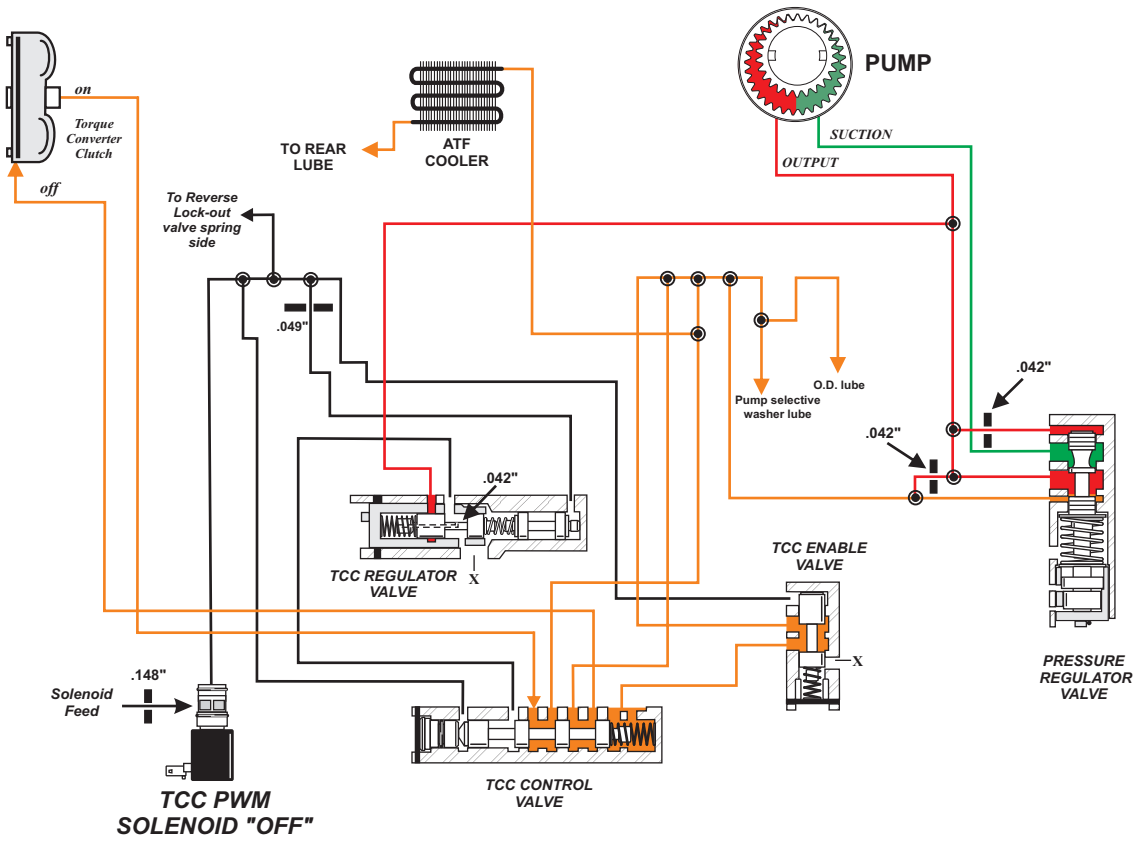


Figure 4

PWM TCC "OFF" PARTIAL SCHEMATIC



PWM TCC "ON" PARTIAL SCHEMATIC

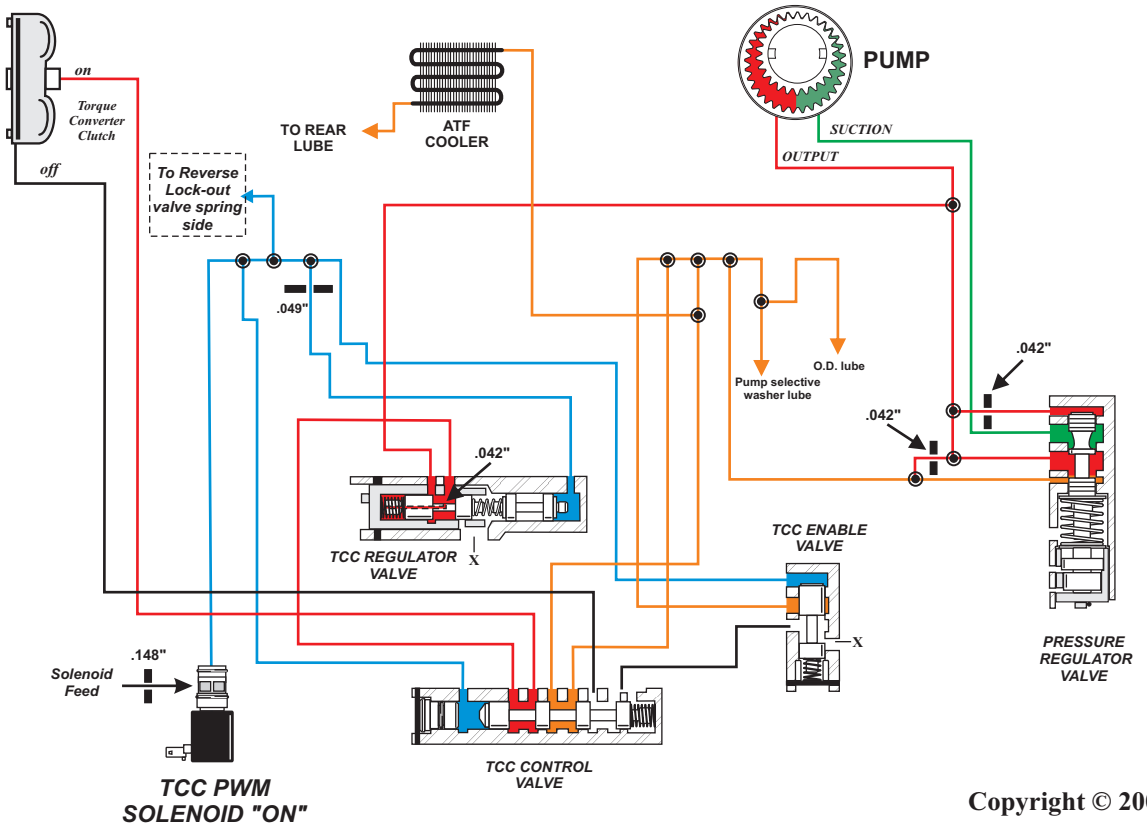


Figure 5