



GM CARS WITH 4L60E

FAIL-SAFE WITH DTC 84

COMPLAINT: 1994-1995 General Motors B,D,F and Y body cars come to the shop with the transmission stuck in a limp or fail-safe mode and a hard fault code 84 (3-2 control solenoid) is stored that can not be cleared. Only 3rd gear is available with the shifter in the OD or D positions and 2nd gear in the 2 or 1 positions. No automatic up or down shifting will occur.

CAUSE: The 3-2 control solenoid circuit has been traced and checked O.K. in it's entirety from the transmission to the PCM and the correct 3-2 solenoid is installed in the transmission. The Powertrain Control Module (PCM) may have an internally shorted circuit driver.

CORRECTION: Verify the 10th VIN digit is either an R or S regardless of body type. This is the model year code. Verify the 8th VIN digit is either a P or W for B body cars. The 8th VIN digit must only be a P for D,F and Y body vehicles. This is the engine code. Locate the PCM (See figures 1,2&3) and find the black connector B. All 4 PCM connectors have 32 terminal locations but only one connector is black. (Figure 4) Identify terminal 13 in the black connector. There will be a brown wire at this location in B and D body cars or a white wire for F and Y bodies. This is the 3-2 solenoid ground wire between the trans and the computer. Make sure that all circuits are complete. Nothing may be unplugged or disconnected. Set your multi-meter to Volts D/C and place the negative meter lead to a known good ground and leave it there. Back probe the wire at the B13 location with the positive meter lead. Turn the key on engine OFF. Battery voltage should be seen.

(Scenario 1)

If battery voltage is **NOT** present.

Turn the key off. Unplug the black connector from the PCM, then turn the key on engine OFF and recheck the wire while unplugged. If battery voltage is present now then the computer is the problem.

If there is still no battery voltage on the wire then the circuit is open or shorted to ground somewhere between the transmission and computer.

(Scenario 2)

If battery voltage **IS** present.

Have an assistant start the engine and while the brakes are applied place the shifter into the OD position. If battery voltage disappears when the engine is started or the shifter is placed into a drive position with 0 vehicle speed then the computer is the problem.

This solenoid does not get switched until an automatic up shift to 2nd gear has occurred.

Body designations:

*B = Caprice, Roadmaster. D = Fleetwood.
F = Camaro, Firebird. Y = Corvette.*

Special Note:

New replacement PCM's must be flashed according to the VIN or the engine will not run. Also, if a used PCM from a 1995 vehicle is installed into a 1994 vehicle then a code 83 will be set because earlier vehicles do not have the TCC/PWM solenoid.

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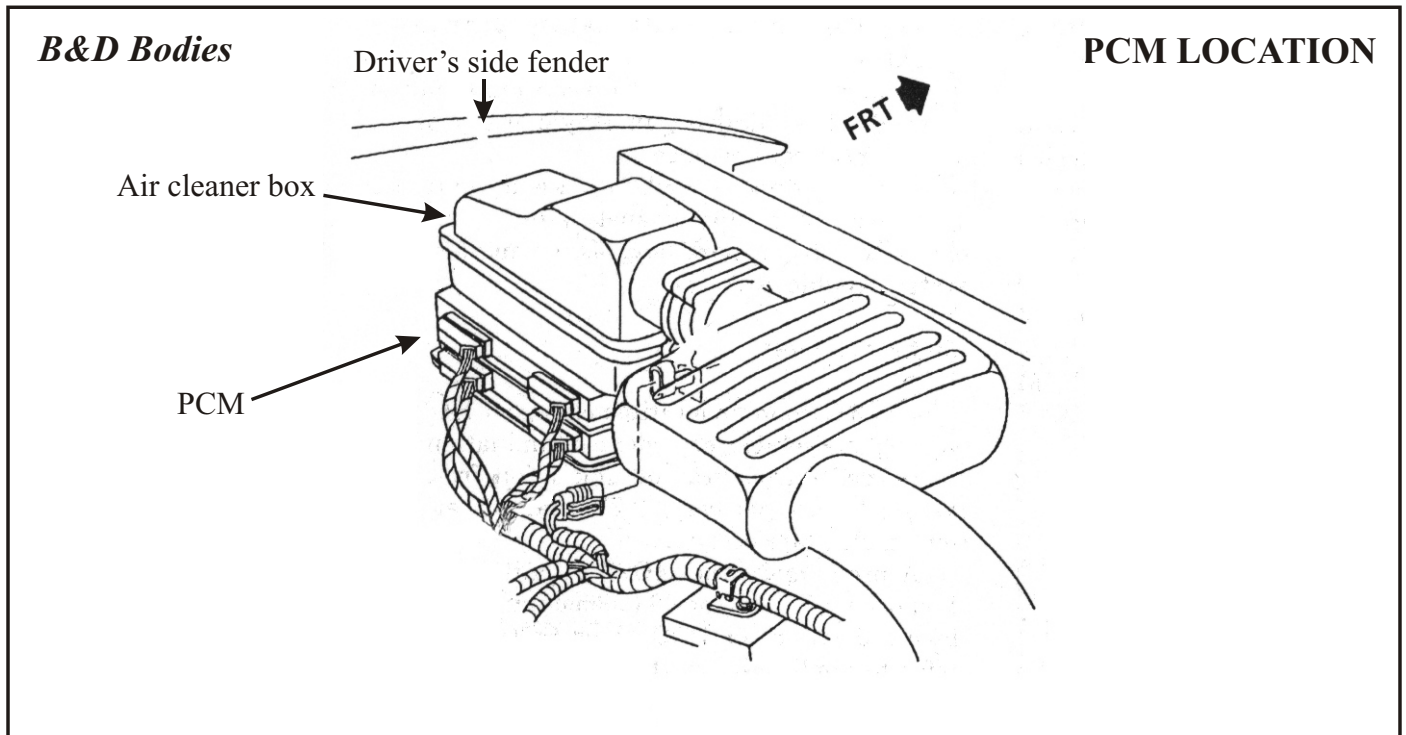


Figure 1

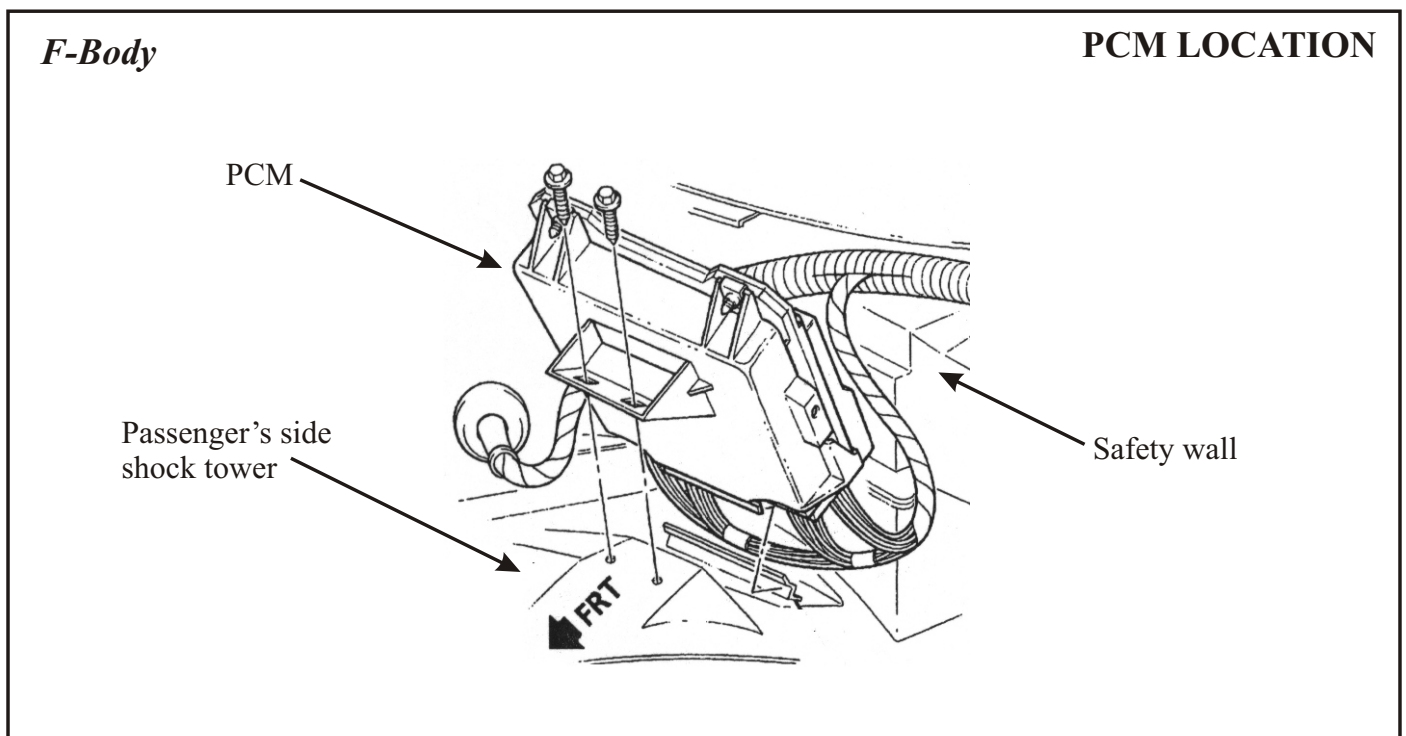


Figure 2

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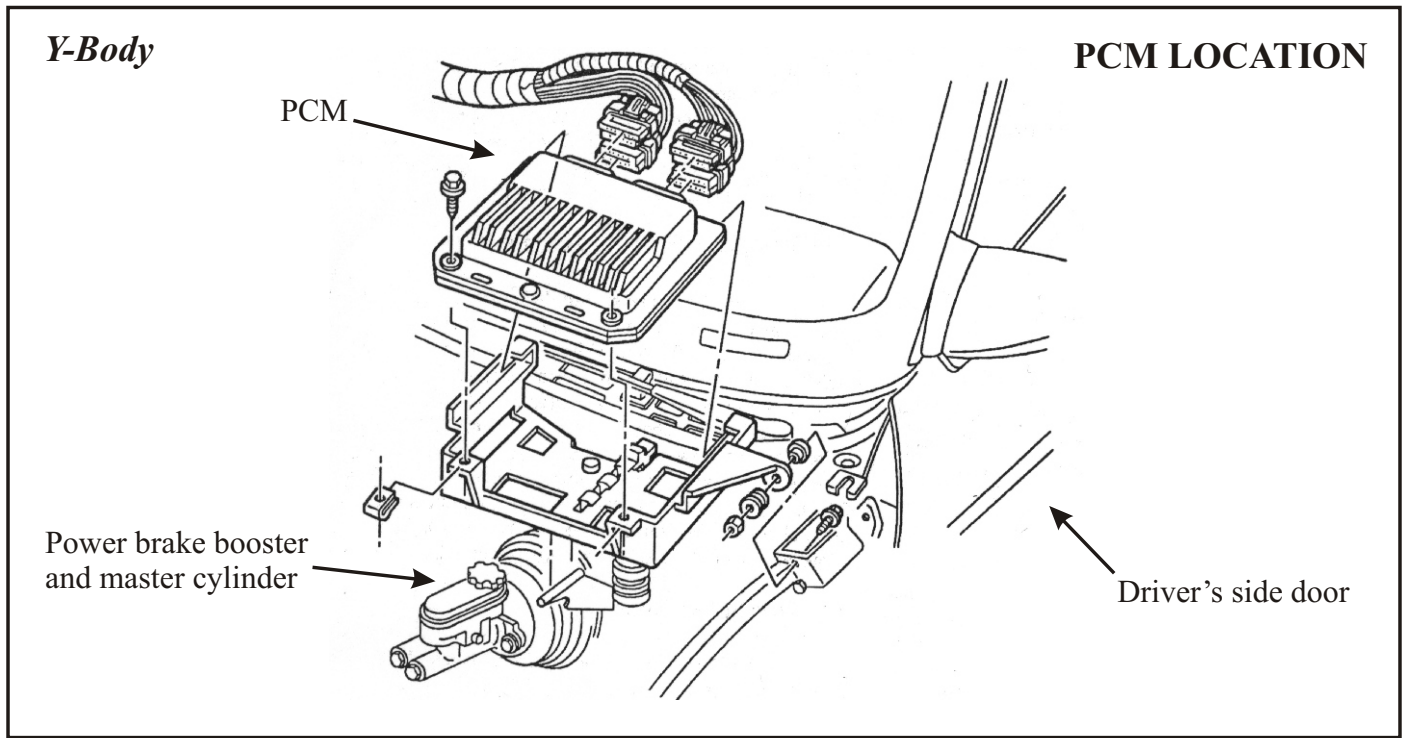


Figure 3

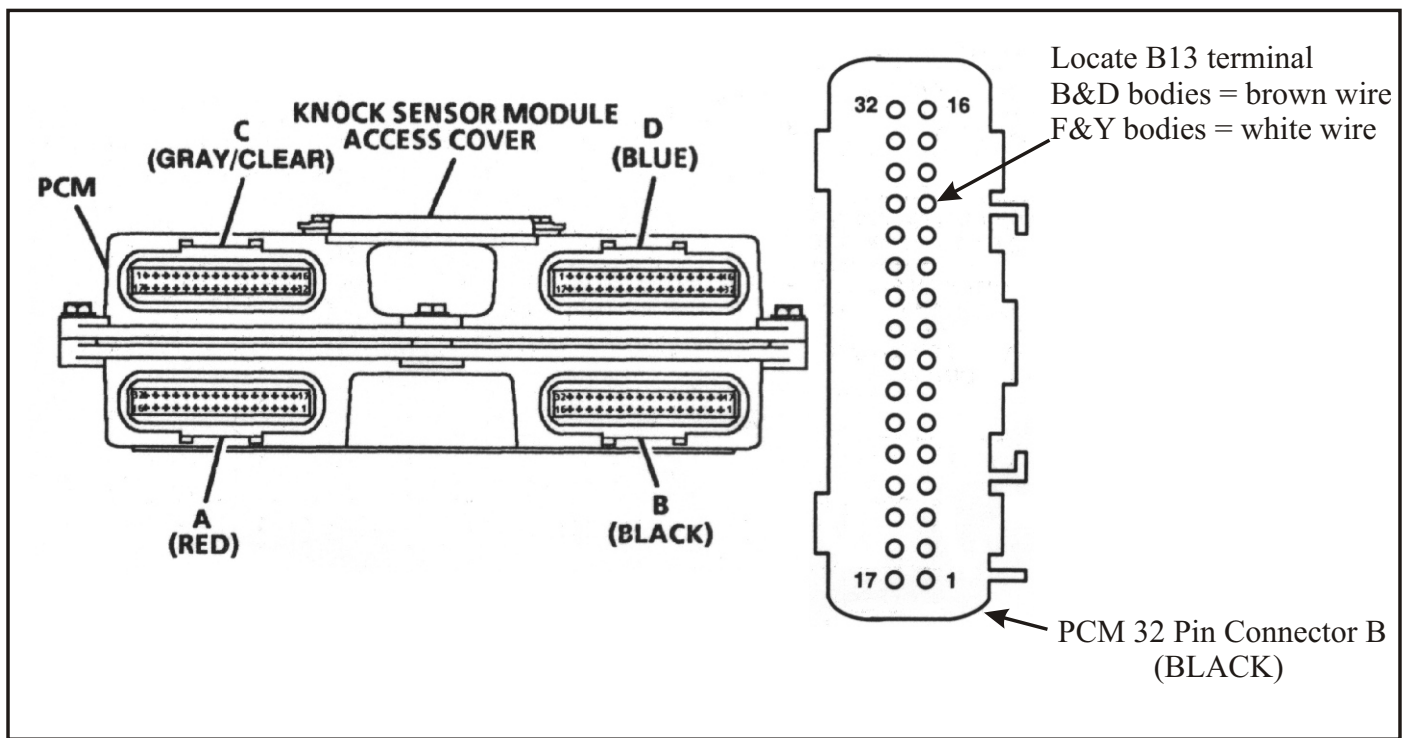


Figure 4