



# Technical Service Information

## THM 4T80-E DTC 76 AND 84 1995 AURORA OR 1995 CADILLAC

**COMPLAINT:** Before and/or after rebuild or transaxle replacement, some vehicles may set DTC 76 and DTC 84 at the same time, *and set the very instant that the key is turned on* and before the engine is started. The definition for DTC 76 is, "Pressure Control Solenoid Circuit". There is **NO** DTC 84 listed in the OEM manuals for 1995 model vehicles, however, the Snap-On scanners say DTC 84 is set, and Snap-Ons definition for 84 is the same as the OEM manuals definition of DTC 83 which is, "No 4X or 24X Crank Position Signal from IC Module".

**CAUSE:** ATSG has found this concern to be, a defective Powertrain Control Module (PCM).

**CORRECTION:** First, we must verify that we have no problems in the Pressure Control Solenoid Circuit. To do this, disconnect the external wire harness from the transaxle connector and verify that there is no oil present and the pin cavities look good. Using a DVOM with Ohms selected on the meter and DVOM leads across terminals C and D, as shown in Figure 1, and verify that we have a reading of 3-6 ohms resistance. If this is correct reconnect the external harness to the transaxle.

Second, disconnect the PCM "C2" connector which is "White" in color. Place the DVOM leads across pin cavities C15 (Lt. Blue/White) wire and C16 (Red/Black) wire, as shown in Figure 1, and verify that we have a reading of 3-6 ohms resistance. We have now verified the pressure Control Solenoid Circuit all the way back to the Powertrain Control Module, *and PCM replacement will now be necessary.*

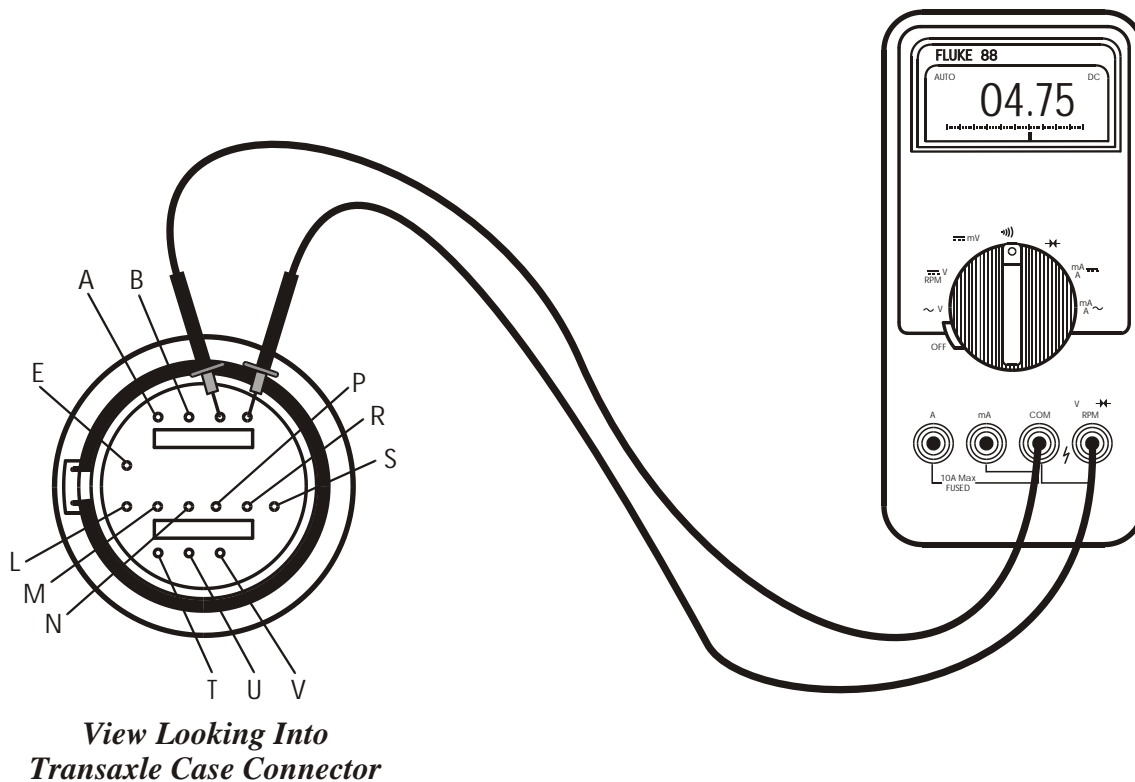
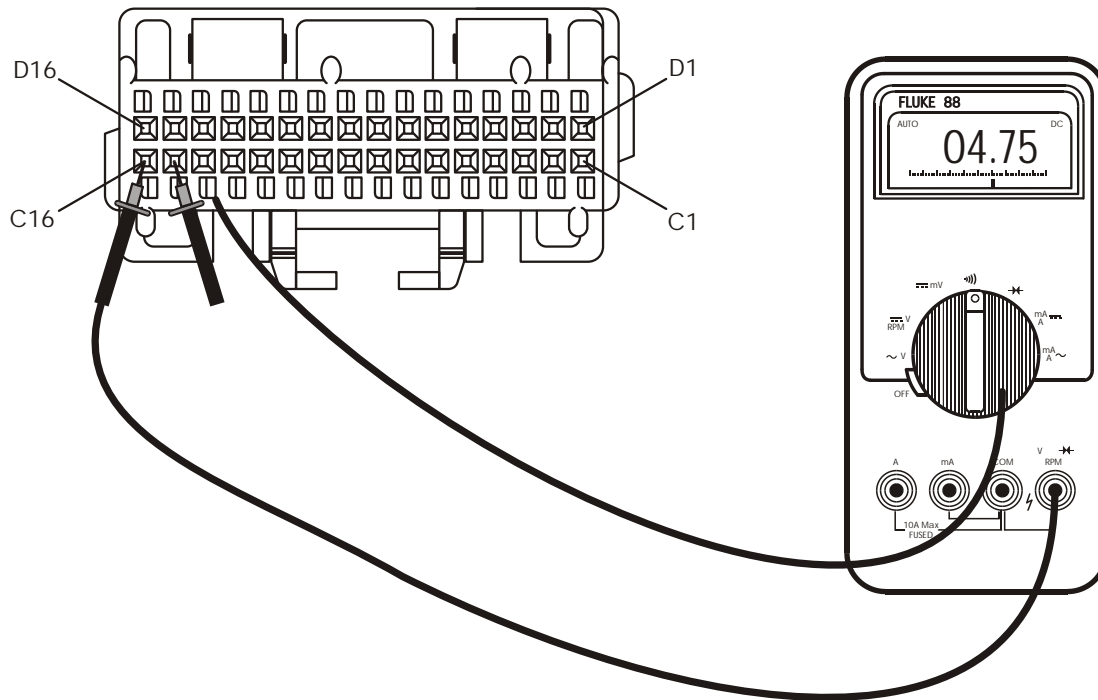
**Special Note:** After PCM replacement, there may be a Current DTC 80 set, which is "TPS/IDLE RELEARN NOT COMPLETE". The 1995 Aurora *requires* the TECH 1 ISC SYSTEM relearn procedure in the MISC. TESTS.

**NOTICE:** *While performing the "TPS/IDLE LRN" procedure on the Aurora, ensure that nothing touches or interferes with the accelerator pedal. Also ensure that the A/C is "Off" and there is no load on the Power Steering while performing the procedure.*

**NOTICE:** *The Cadillac "TPS/IDLE LRN" procedure is totally different than the Aurora and does not require a scanner. The Cadillac procedure is described in detail in Figures 2 and 3.*

## PCM CONNECTOR C2

*"White" In Color*



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Figure 1

**THM 4T80E, 1995 CADILLAC****CODE P080, TP SENSOR IDLE RELEARN NOT COMPLETE**

**COMPLAINT:** Some 1993-95 Cadillacs equipped with the THM 4T80-E transaxle may illuminate the "Service Engine Soon" lamp and store P080 as a current code. After attempting to clear the code, it continues to remain as a "*hard code*".

**CAUSE:** This complaint occurs when the PCM has **NO** Throttle Position Sensor or Idle Learn values stored and may be caused by one or more of the following:

- (1) A loss of power to the PCM such as a prolonged battery disconnect.
- (2) PCM replacement.
- (3) High electrical loads such as headlamps, rear defogger, high HVAC blower operation or high speed cooling fan operation.
- (4) Rough or unstable idle conditions.

**Note:** If high electrical loads are the cause of this complaint, turn off the above mentioned items and momentarily run the engine above 1000 rpm to clear the high loads. Since cooling fans cannot be manually controlled, it will be necessary to have engine coolant temperature below 220°F (105°C) and A/C refrigerant temperature below 124°F (51°C).

If rough or unstable idle is the cause, this condition **must** be corrected before the relearn procedure is performed.

**IMPORTANT:** *Because of engine load differences with A/C on versus off, the idle relearn MUST be performed under both A/C on and off conditions!*

**CORRECTION:** A TP Sensor/Idle Relearn procedure must be performed, as shown in Figure 3. This will then allow you to clear the code and extinguish the Service Engine Soon Light. If the relearn procedure has been successful, code P080 will become a historical code, at which time, it can be cleared.

If after the relearn procedure has been performed, the code **still** remains current and the Service Engine Soon Lamp is **still** illuminated, the following reasons may be at fault:

- (1) Throttle Position Sensor
- (2) Throttle Position Switch
- (3) Vehicle Speed Sensor
- (4) Transaxle Range Switch
- (5) Power Steering Pressure Switch
- (6) Brake Switch

**IMPORTANT:** *Before performing the relearn procedure make certain of the following:*

- (1) *Nothing is interfering with the accelerator or brake pedals.*
- (2) *The heated windshield is turned off.*
- (3) *There is NO load on the power steering.*

*If these conditions are not met, the PCM will NOT be able to perform the relearn routine.*



## THM 4T80E, 1995 CADILLAC CODE P080, TP SENSOR IDLE RELEARN NOT COMPLETE

### TP SENSOR IDLE RELEARN PROCEDURE

- (1) Turn ignition to "ON", engine "OFF".
- (2) Enter diagnostics by pressing the "Off" and "Warmer" buttons on the Climate Control Center.
- (3) Turn ignition "OFF".
- (4) Wait a minimum of 20 seconds.
- (5) Turn ignition "ON", Engine "OFF".
- (6) Enter diagnostics by pressing the "Off" and "Warmer" buttons on the Climate Control Center.
- (7) Turn ignition "OFF".
- (8) Wait a minimum of 20 seconds.
- (9) Turn ignition "ON", Engine "OFF".
- (10) Enter diagnostics by pressing the "Off" and "Warmer" buttons on the Climate Control Center.
- (11) Turn ignition "OFF".
- (12) Wait a minimum of 20 seconds.

**IMPORTANT NOTE:** Make certain that the outside air temperature is at least 50°F (10°C) so that the A/C compressor will turn "ON".

- (13) Start the engine.
- (14) Allow the engine to idle continuously until the coolant temperature is 176°F (80°C), then let the engine idle an additional 5 minutes.
- (15) Apply the brakes and place the transmission in "DRIVE".
- (16) Turn the Climate Control Center (CCC) to "OFF" and allow the engine to idle for 30 seconds.
- (17) Turn the CCC to "AUTO" and allow the engine to idle for another 30 seconds.
- (18) Place the transmission in "PARK" and turn ignition "OFF".
- (19) Clear codes and verify proper operation.

Figure 3