

Taurus 3.7L	190-PIN	B67, B68 B56, E49, T41 B60 B44 E61 B52, B61, B66, E35, E57 B61 B45 E57	VPWR SIGRTN APPRTN2 APPRTN1 ETCRTN VREF APPVREF2 APPVREF1 ETCREF
Transit 3.5L	198 PIN	B101, B102, B103 B18, E20, E53 B35 B36 E31 B11, E8 B10 B12 E7	VPWR SIGRTN APPRTN2 APPRTN1 ETCRTN VREF APPVREF2 APPVREF1 ETCREF
Transit 3.7L	190-PIN	B67, B68 B41, B56, E49 B60 B44 E61 B11 B61 B45 E57	VPWR SIGRTN APPRTN2 APPRTN1 ETCRTN VREF APPVREF2 APPVREF1 ETCREF
All other vehicles	190-PIN	B67, B68 B56, E49 B60 B44 E61 B52, B66 B61 B45 E57	VPWR SIGRTN APPRTN2 APPRTN1 ETCRTN VREF APPVREF2 APPVREF1 ETCREF

PINPOINT TEST C: REFERENCE VOLTAGE (VREF) > TEST PROCEDURE

C1 CHECK THE REFERENCE VOLTAGE TO SIGNAL RETURN



NOTE: Diagnostic trouble codes (DTCs) P0642, P0643, P06A6, P06A7 and P06A8 are set due to VREF circuit concerns only. DTCs P0652 and P0653 are set due to ETCREF circuit concerns only. When diagnosing DTC P0642, P0643, P06A6, P06A7 or P06A8, follow the path for VREF concerns. When diagnosing DTC P0652 or P0653, follow the path for ETCREF concerns.

Ignition OFF.

Suspect Sensor connector disconnected.

Ignition ON, engine OFF.

For ETCREF concerns.

Measure the voltage between:

(+) ETBTPS Connector, Harness Side	(-) ETBTPS Connector, Harness Side
ETCREF	ETCRTN

For APPVREF concerns.

Measure the voltage between:

(+) APP Sensor Connector, Harness Side	(-) APP Sensor Connector, Harness Side
APPVREF1	APPRTN1
APPVREF2	APPRTN2

For VREF concerns.

Measure the voltage between:

(+) Suspect Sensor Connector, Harness Side	(-) Suspect Sensor Connector, Harness Side
VREF	SIGRTN

Is the voltage between 4.5 - 5.5 V?

Yes	No
GO to C30.	GO to C2 .

C2 CHECK THE REFERENCE VOLTAGE TO GROUND

For ETCREF concerns.

Measure the voltage between:

(+) ETBTPS Connector, Harness Side	(-)
ETCREF	Ground

For APPVREF concerns.

Measure the voltage between:

(+) APP Sensor Connector, Harness Side	(-)
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APPVREF1	Ground
APPVREF2	Ground

For VREF concerns.

Measure the voltage between:

(+) Suspect Sensor Connector, Harness Side	(-)
VREF	Ground

Is the voltage between 4.5 - 5.5 V?

Yes	No
GO to C29.	GO to C3 .

C3 CHECK THE REFERENCE VOLTAGE WITH ALL SENSORS DISCONNECTED

 **NOTE:** Refer to the Sensors Connected To Reference Voltage Chart at the beginning of this pinpoint test and the Wiring Diagrams Manual Electronic Engine Controls Cell to identify the sensors connected to VREF, ETCREF and APPVREF.

Ignition OFF.

Disconnect all of the sensors connected to the reference voltage circuits.

Ignition ON, engine OFF.

Measure the voltage at the sensor disconnected in C1.

For ETCREF concerns.

Measure the voltage between:

(+) ETBTPS Connector, Harness Side	(-)
ETCREF	Ground

For APPVREF concerns.

Measure the voltage between:

(+) APP Sensor Connector, Harness Side	(-)
APPVREF1	Ground
APPVREF2	Ground

For VREF concerns.

Measure the voltage between:

(+) Suspect Sensor Connector, Harness Side	(-)
VREF	Ground

Is the voltage between 4.5 - 5.5 V?

Yes	No
For APPVREF or ETCREF circuit concerns, GO to C8. For all other VREF concerns, GO to C10.	GO to C4 .

C4 CHECK THE REFERENCE VOLTAGE CIRCUIT FOR AN

Ignition OFF.

PCM connector disconnected.

For ETCREF concerns.

Measure the resistance between:

(+) ETBTPS Connector, Harness Side	(-) PCM Connector, Harness Side
ETCREF	ETCREF

For APPVREF concerns.

Measure the resistance between:

(+) APP Sensor Connector, Harness Side	(-) PCM Connector, Harness Side
APPVREF1	APPVREF1
APPVREF2	APPVREF2

For VREF concerns.

Measure the resistance between:

(+) Suspect Sensor Connector, Harness Side	(-) PCM Connector, Harness Side
VREF	VREF

Is the resistance less than 5 ohms?

Yes	No
GO to C5 .	REPAIR the open circuit. Clear the PCM DTCs. REPEAT the self-test.

C5 CHECK THE REFERENCE VOLTAGE CIRCUIT FOR A SHORT TO GROUND

For APPVREF or ETCREF concerns.

Measure the resistance between:

(+) PCM Connector, Harness Side	(-) PCM Connector, Harness Side
ETCREF	ETCRTN
APPVREF1	APPRTN1
APPVREF2	APPRTN2
APPVREF1	APPRTN2
APPVREF2	APPRTN1

Measure the resistance between:

(+) PCM Connector, Harness Side	(-)
ETCREF	Ground
APPVREF1	Ground
APPVREF2	Ground

For VREF concerns.

Measure the resistance between:

(+) PCM Connector, Harness Side	(-) PCM Connector, Harness Side
VREF	SIGRTN

Measure the resistance between:

(+) PCM Connector, Harness Side	(-)
VREF	Ground

Are the resistances greater than 10K ohms?

Yes	No
GO to C6 .	REPAIR the short circuit. Clear the PCM DTCs. REPEAT the self-test.

C6 CHECK THE REFERENCE VOLTAGE CIRCUIT FOR A SHORT TO VPWR

For ETCREF concerns.

Measure the resistance between:

(+) PCM Connector, Harness Side	(-) PCM Connector, Harness Side
ETCREF	VPWR

For APPVREF concerns.

Measure the resistance between:

(+) PCM Connector, Harness Side	(-) PCM Connector, Harness Side
APPVREF1	VPWR
APPVREF2	VPWR

For VREF concerns.

Measure the resistance between:

(+) PCM Connector, Harness Side	(-) PCM Connector, Harness Side
VREF	VPWR

Is the resistance greater than 10K ohms?

Yes	No
GO to C7 .	REPAIR the short circuit. Clear the PCM DTCs. REPEAT the self-test.

C7 CHECK THE REFERENCE VOLTAGE CIRCUIT FOR A SHORT TO VOLTAGE

Ignition ON, engine OFF.

For ETCREF concerns.

Measure the voltage between:

(+) PCM Connector, Harness Side	(-)
ETCREF	Ground

For APPVREF concerns.

Measure the voltage between:

(+) PCM Connector, Harness Side	(-)
APPVREF1	Ground
APPVREF2	Ground

For VREF concerns.

Measure the voltage between:

(+) PCM Connector, Harness Side	(-)
VREF	Ground

Is any voltage present?

Yes	No
REPAIR the short circuit. Clear the PCM DTCs. REPEAT the self-test.	GO to C31.

C8 CHECK THE REFERENCE VOLTAGE WITH THE ETBTPS CONNECTED



*NOTE: If this sensor was used for the measurement in C3, GO to **C9** .*

Ignition OFF.

ETBTPS connector connected.

Ignition ON, engine OFF.

Measure the voltage between:

(+) APP Sensor Connector, Harness Side	(-)
APPVREF1	Ground
APPVREF2	Ground

Are the voltages between 4.5 - 5.5 V?

Yes	No
The concern is intermittent. GO to PINPOINT TEST Z .	INSTALL a new ETBTPS. REFER to the service information , Fuel Charging and Controls or Section 303-14, Electronic Engine Controls. Clear the PCM DTCs. REPEAT the self-test.

C9 CHECK THE REFERENCE VOLTAGE WITH THE APP SENSOR CONNECTED

Ignition OFF.

APP Sensor connector connected.

Ignition ON, engine OFF.

Measure the voltage between:

(+) ETBTPS Connector, Harness Side	(-)
ETCREF	Ground

Is the voltage between 4.5 - 5.5 V?

Yes	No
The concern is intermittent.	INSTALL a new APP sensor. REFER to the service information , Acceleration Control.

GO to PINPOINT TEST
Z .

Clear the PCM DTCs. REPEAT the self-test.

C10 CHECK THE REFERENCE VOLTAGE WITH THE MAP SENSOR CONNECTED

 **NOTE:** If the vehicle is not equipped with a MAP sensor or if this sensor was used for the VREF measurement in C3, GO to **C11** .

Ignition OFF.

MAP Sensor connector connected.

Ignition ON, engine OFF.

Measure the voltage between:

(+) Suspect Sensor Connector, Harness Side	(-)
VREF	Ground

Is the voltage between 4.5 - 5.5 V?

Yes	No
For additional sensors disconnected, GO to C11 . For no additional sensors disconnected, GO to PINPOINT TEST Z .	INSTALL a new MAP sensor. REFER to the service information , Electronic Engine Controls. Clear the PCM DTCs. REPEAT the self-test.

C11 CHECK THE REFERENCE VOLTAGE WITH THE TCBP/CACT SENSOR CONNECTED

 **NOTE:** If the vehicle is not equipped with a TCBP/CACT sensor or if this sensor was used for the VREF measurement in C3, GO to **C12** .

Ignition OFF.

TCBP/CACT Sensor connector connected.

Ignition ON, engine OFF.

Measure the voltage between:

(+) Suspect Sensor Connector, Harness Side	(-)
VREF	Ground

Is the voltage between 4.5 - 5.5 V?

Yes	No
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For additional sensors disconnected,
GO to **C12** .
For no additional sensors
disconnected, GO to PINPOINT TEST
Z .

INSTALL a new TCBP/CACT sensor. REFER to the
service information , Electronic Engine Controls.
Clear the PCM DTCs. REPEAT the self-test.

C12 CHECK THE REFERENCE VOLTAGE WITH THE MAP/IAT2 SENSOR CONNECTED

 **NOTE:** If the vehicle is not equipped with a MAP/IAT2 sensor or if this sensor
was used for the VREF measurement in C3, GO to **C13** .

Ignition OFF.

MAP/IAT2 Sensor connector connected.

Ignition ON, engine OFF.

Measure the voltage between:

(+) Suspect Sensor Connector, Harness Side	(-)
VREF	Ground

Is the voltage between 4.5 - 5.5 V?

Yes	No
For additional sensors disconnected, GO to C13 . For no additional sensors disconnected, GO to PINPOINT TEST Z .	INSTALL a new MAP/IAT2 sensor. REFER to the service information , Electronic Engine Controls. Clear the PCM DTCs. REPEAT the self-test.

C13 CHECK THE REFERENCE VOLTAGE WITH THE FRP SENSOR CONNECTED

 **NOTE:** If the vehicle is not equipped with a FRP sensor or if this sensor was
used for the VREF measurement in C3, GO to **C14** .

Ignition OFF.

FRP Sensor connector connected.

Ignition ON, engine OFF.

Measure the voltage between:

(+) Suspect Sensor Connector, Harness Side	(-)
VREF	Ground

Is the voltage between 4.5 - 5.5 V?

Yes	No
For additional sensors disconnected, GO to C14 . For no additional sensors disconnected, GO to PINPOINT TEST Z .	INSTALL a new FRP sensor. REFER to the service information , Electronic Engine Controls. Clear the PCM DTCs. REPEAT the self-test.

C14 CHECK THE REFERENCE VOLTAGE WITH THE CRANKCASE PRESSURE SENSOR CONNECTED

 **NOTE:** If the vehicle is not equipped with a crankcase pressure sensor or if this sensor was used for the VREF measurement in C3, GO to **C15** .

Ignition OFF.

Crankcase Pressure Sensor connector connected.

Ignition ON, engine OFF.

Measure the voltage between:

(+) Suspect Sensor Connector, Harness Side	(-)
VREF	Ground

Is the voltage between 4.5 - 5.5 V?

Yes	No
For additional sensors disconnected, GO to C15 . For no additional sensors disconnected, GO to PINPOINT TEST Z .	INSTALL a new Crankcase Pressure sensor. REFER to the service information , Engine Emission Control. Clear the PCM DTCs. REPEAT the self-test.

C15 CHECK THE REFERENCE VOLTAGE WITH THE IMRC1 SENSOR CONNECTED

 **NOTE:** If the vehicle is not equipped with an IMRC1 sensor or if this sensor was used for the VREF measurement in C3, GO to **C16** .

Ignition OFF.

IMRC1 Sensor connector connected.

Ignition ON, engine OFF.

Measure the voltage between:

(+) Suspect Sensor Connector, Harness Side	(-)
VREF	Ground

Is the voltage between 4.5 - 5.5 V?

Yes	No
For additional sensors disconnected, GO to C16 . For no additional sensors disconnected, GO to PINPOINT TEST Z .	INSTALL a new IMRC1 sensor. REFER to the service information , Engine. Clear the PCM DTCs. REPEAT the self-test.

C16 CHECK THE REFERENCE VOLTAGE WITH THE IMRC2 SENSOR CONNECTED

 **NOTE:** If the vehicle is not equipped with an IMRC2 sensor or if this sensor was used for the VREF measurement in C3, GO to **C17** .

Ignition OFF.

IMRC2 Sensor connector connected.

Ignition ON, engine OFF.

Measure the voltage between:

(+) Suspect Sensor Connector, Harness Side	(-)
VREF	Ground

Is the voltage between 4.5 - 5.5 V?

Yes	No
For additional sensors disconnected, GO to C17 . For no additional sensors disconnected, GO to PINPOINT TEST Z .	INSTALL a new IMRC2 sensor. REFER to the service information , Engine. Clear the PCM DTCs. REPEAT the self-test.

C17 CHECK THE REFERENCE VOLTAGE WITH THE CPP SENSOR CONNECTED

 **NOTE:** If the vehicle is not equipped with a CPP sensor or if this sensor was used for the VREF measurement in C3, GO to **C18** .

Ignition OFF.

CPP Sensor connector connected.

Ignition ON, engine OFF.

Measure the voltage between:

(+) Suspect Sensor Connector, Harness Side	(-)
VREF	Ground

Is the voltage between 4.5 - 5.5 V?

Yes	No
For additional sensors disconnected, GO to C18 . For no additional sensors disconnected, GO to PINPOINT TEST Z .	INSTALL a new CPP sensor. REFER to the service information , Electronic Engine Controls. Clear the PCM DTCs. REPEAT the self-test.

C18 CHECK THE REFERENCE VOLTAGE WITH THE ACP TRANSDUCER SENSOR CONNECTED

 **NOTE:** If the vehicle is not equipped with an ACP transducer sensor or if this sensor was used for the VREF measurement in C3, GO to **C19** .

Ignition OFF.

Air Conditioning Pressure (ACP) Transducer Sensor connector connected.

Ignition ON, engine OFF.

Measure the voltage between:

(+) Suspect Sensor Connector, Harness Side	(-)
VREF	Ground

Is the voltage between 4.5 - 5.5 V?

Yes	No
For additional sensors disconnected, GO to C19 . For no additional sensors disconnected, GO to PINPOINT TEST Z .	INSTALL a new Air Conditioning Pressure (ACP) Transducer Sensor. Clear the PCM DTCs. REPEAT the self-test.

C19 CHECK THE REFERENCE VOLTAGE WITH THE FUEL PRESSURE SENSOR CONNECTED

 **NOTE:** If the vehicle is not equipped with a fuel pressure sensor or if this sensor was used for the VREF measurement in C3, GO to **C20** .

Ignition OFF.

Fuel Pressure Sensor connector connected.

Ignition ON, engine OFF.

Measure the voltage between:

(+) Suspect Sensor Connector, Harness Side	(-)
VREF	Ground

Is the voltage between 4.5 - 5.5 V?

Yes	No
For additional sensors disconnected, GO to C20 . For no additional sensors disconnected, GO to PINPOINT TEST Z .	INSTALL a new Fuel Pressure Sensor. REFER to the service information , Fuel Tank and Lines. Clear the PCM DTCs. REPEAT the self-test.

C20 CHECK THE REFERENCE VOLTAGE WITH THE CKP SENSOR CONNECTED

 *NOTE: If the vehicle is not equipped with a CKP sensor or if this sensor was used for the VREF measurement in C3, GO to **C21** .*

Ignition OFF.

CKP Sensor connector connected.

Ignition ON, engine OFF.

Measure the voltage between:

(+) Suspect Sensor Connector, Harness Side	(-)
VREF	Ground

Is the voltage between 4.5 - 5.5 V?

Yes	No
For additional sensors disconnected, GO to C21 . For no additional sensors disconnected, GO to PINPOINT TEST Z .	INSTALL a new CKP sensor. REFER to the service information , Electronic Engine Controls. Clear the PCM DTCs. REPEAT the self-test.

C21 CHECK THE REFERENCE VOLTAGE WITH THE CMP SENSOR CONNECTED

 *NOTE: If the vehicle is not equipped with a CMP sensor or if this sensor was used for the VREF measurement in C3, GO to **C22** .*

 **NOTE:** Only measure the circuits that apply to the vehicle being diagnosed.

Ignition OFF.

CMP Sensor connector connected.

Ignition ON, engine OFF.

Measure the voltage between:

(+) Suspect Sensor Connector, Harness Side	(-)
VREF	Ground

Is the voltage between 4.5 - 5.5 V?

Yes	No
For additional sensors disconnected, GO to C22 . For no additional sensors disconnected, GO to PINPOINT TEST Z .	INSTALL a new CMP sensor. REFER to the service information , Electronic Engine Controls. Clear the PCM DTCs. REPEAT the self-test.

C22 CHECK THE REFERENCE VOLTAGE WITH THE TCIPT SENSOR CONNECTED

 **NOTE:** If the vehicle is not equipped with a TCIPT sensor or if this sensor was used for the VREF measurement in C3, GO to **C23** .

 **NOTE:** Only measure the circuits that apply to the vehicle being diagnosed.

Ignition OFF.

TCIPT Sensor connector connected.

Ignition ON, engine OFF.

Measure the voltage between:

(+) Suspect Sensor Connector, Harness Side	(-)
VREF	Ground

Is the voltage between 4.5 - 5.5 V?

Yes	No
For additional sensors disconnected, GO to C23 .	INSTALL a new TCIPT sensor. REFER to the service information , Electronic Engine Controls.

For no additional sensors disconnected,
GO to PINPOINT TEST Z .

Clear the PCM DTCs. REPEAT the self-test.

C23 CHECK THE REFERENCE VOLTAGE WITH THE WASTEGATE VACUUM SENSOR CONNECTED

 **NOTE:** If the vehicle is not equipped with a wastegate vacuum sensor or if this sensor was used for the VREF measurement in C3, GO to **C24** .

 **NOTE:** Only measure the circuits that apply to the vehicle being diagnosed.

Ignition OFF.

Wastegate Vacuum Sensor connector connected.

Ignition ON, engine OFF.

Measure the voltage between:

(+) Suspect Sensor Connector, Harness Side	(-)
VREF	Ground

Is the voltage between 4.5 - 5.5 V?

Yes	No
For additional sensors disconnected, GO to C24 . For no additional sensors disconnected, GO to PINPOINT TEST Z .	INSTALL a new Wastegate Vacuum Sensor. REFER to the service information , Electronic Engine Controls. Clear the PCM DTCs. REPEAT the self-test.

C24 CHECK THE REFERENCE VOLTAGE WITH THE MAPT SENSOR CONNECTED

 **NOTE:** If the vehicle is not equipped with a MAPT sensor or if this sensor was used for the VREF measurement in C3, GO to **C25** .

 **NOTE:** Only measure the circuits that apply to the vehicle being diagnosed.

Ignition OFF.

MAPT Sensor connector connected.

Ignition ON, engine OFF.

Measure the voltage between:

(+) Suspect Sensor Connector, Harness Side	(-)
VREF	Ground

Is the voltage between 4.5 - 5.5 V?

Yes	No
For additional sensors disconnected, GO to C25 . For no additional sensors disconnected, GO to PINPOINT TEST Z .	INSTALL a new MAPT sensor. REFER to the service information , Electronic Engine Controls. Clear the PCM DTCs. REPEAT the self-test.

C25 CHECK THE REFERENCE VOLTAGE WITH THE GENERATOR CURRENT SENSOR CONNECTED

 **NOTE:** If the vehicle is not equipped with a generator current sensor or if this sensor was used for the VREF measurement in C3, GO to **C26** .

 **NOTE:** Only measure the circuits that apply to the vehicle being diagnosed.

Ignition OFF.

Generator Current Sensor connector connected.

Ignition ON, engine OFF.

Measure the voltage between:

(+) Suspect Sensor Connector, Harness Side	(-)
VREF	Ground

Is the voltage between 4.5 - 5.5 V?

Yes	No
For additional sensors disconnected, GO to C26 . For no additional sensors disconnected, GO to PINPOINT TEST Z .	INSTALL a new Generator Current sensor. REFER to the service information , Battery, Mounting and Cables. Clear the PCM DTCs. REPEAT the self-test.

C26 CHECK THE REFERENCE VOLTAGE WITH THE MAP/CACT SENSOR CONNECTED

 **NOTE:** If the vehicle is not equipped with a MAP/CACT sensor or if this sensor was used for the VREF measurement in C3, GO to **C27** .

 **NOTE:** Only measure the circuits that apply to the vehicle being diagnosed.

Ignition OFF.

MAP/CACT Sensor connector connected.

Ignition ON, engine OFF.

Measure the voltage between:

(+) Suspect Sensor Connector, Harness Side	(-)
VREF	Ground

Is the voltage between 4.5 - 5.5 V?

Yes	No
For additional sensors disconnected, GO to C27 . For no additional sensors disconnected, GO to PINPOINT TEST Z .	INSTALL a new MAP/CACT sensor. REFER to the service information , Electronic Engine Controls. Clear the PCM DTCs. REPEAT the self-test.

C27 CHECK THE REFERENCE VOLTAGE WITH THE TCBP SENSOR CONNECTED

 **NOTE:** If the vehicle is not equipped with a TCBP sensor or if this sensor was used for the VREF measurement in C3, GO to **C28** .

 **NOTE:** Only measure the circuits that apply to the vehicle being diagnosed.

Ignition OFF.

TCBP Sensor connector connected.

Ignition ON, engine OFF.

Measure the voltage between:

(+) Suspect Sensor Connector, Harness Side	(-)
VREF	Ground

Is the voltage between 4.5 - 5.5 V?

Yes	No
For additional sensors disconnected, GO to	INSTALL a new TCBP sensor. Clear the PCM

C28 .

For no additional sensors disconnected, GO to PINPOINT TEST Z .

DTCs. REPEAT the self-test.

C28 CHECK THE REFERENCE VOLTAGE WITH THE FTP SENSOR CONNECTED

Ignition OFF.

FTP Sensor connector connected.

Ignition ON, engine OFF.

Measure the voltage between:

(+) Suspect Sensor Connector, Harness Side	(-)
VREF	Ground

Is the voltage between 4.5 - 5.5 V?

Yes	No
The concern is intermittent. GO to PINPOINT TEST Z .	INSTALL a new FTP sensor. REFER to the service information , Evaporative Emissions. Clear the PCM DTCs. REPEAT the self-test.

C29 CHECK THE SIGRTN OR ETCRTN CIRCUIT(S) FOR AN OPEN

Ignition OFF.

Disconnect the PCM.

For ETCRTN concerns.

Measure the resistance between:

(+) ETBTPS Connector, Harness Side	(-) PCM Connector, Harness Side
ETCRTN	ETCRTN

For APPRTN concerns.

Measure the resistance between:

(+) APP Sensor Connector, Harness Side	(-) PCM Connector, Harness Side
APPRTN1	APPRTN1
APPRTN2	APPRTN2

For SIGRTN concerns.

Measure the resistance between:

(+) Suspect Sensor Connector, Harness Side	(-) PCM Connector, Harness Side
SIGRTN	SIGRTN

Is the resistance less than 5 ohms?

Yes	No
GO to C31.	REPAIR the open circuit. Clear the PCM DTCs. REPEAT the self-test.

C30 CHECK THE SUSPECT SENSOR FOR AN INTERNAL SHORT

Clear the KOEO, KOER, and continuous DTCs.

Ignition OFF.

Connect the suspect sensor.

Ignition ON, engine OFF.

Carry out the PCM self-test.

Is the concern still present?

Yes	No
INSTALL a new sensor for the sensor in question. Clear the PCM DTCs. REPEAT the self-test.	The concern is intermittent. GO to PINPOINT TEST Z .

C31 CHECK FOR CORRECT PCM OPERATION

Disconnect all the PCM connectors.

Visually inspect for:

pushed out pins

corrosion

Connect all the PCM connectors and make sure they seat correctly.

Carry out the PCM self-test.

Verify the concern is still present.

Is the concern still present?

Yes	No
INSTALL a new PCM. REFER to FLASH ELECTRICALLY ERASABLE PROGRAMMABLE READ ONLY MEMORY (EEPROM) , Programming the VID Block for a Replacement PCM.	The system is operating correctly at this time. The concern may have been caused by a loose or corroded connector.