

TB: Transmission Control Switch (TCS)/ Transmission Control Indicator Lamp (TCIL)

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TB1 CHECK FOR DIAGNOSTIC TROUBLE CODES (DTCS)

Is DTC P1780 present?

Yes	No
GO to TB2 .	For TCIL never on, GO to TB10 . For TCIL always on, GO to TB8 .

TB2 DTC P1780: CHECK THE TCS FUNCTION

Note: Verify the TCS was cycled during self-test.

- Ignition ON, engine OFF.
- Access the PCM and monitor the TCS PID.
- Apply and release the TCS and then hold it applied for 3 seconds. Release the switch.

Does the TCS PID change from ON to OFF and does the PID indicate ON when the switch is applied?

Yes	No
REPEAT the KOER self-test and cycle the TCS during the test.	GO to TB3 .

TB3 CHECK THE TCS VOLTAGE

- Ignition OFF.
- PCM connector disconnected.
- Ignition ON, engine OFF.
- Measure the voltage between:

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

- Monitor the voltage while applying and releasing the TCS several times.

Does the voltage change states?

Yes	No
GO to TB12 .	GO to TB4 .

TB4 CHECK THE TCS CIRCUIT FOR A SHORT TO GROUND IN THE HARNESS

- Ignition OFF.
- TCS connector disconnected.
- Measure the resistance between:

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

Is the resistance greater than 10K ohms?

Yes	No
GO to TB5 .	REPAIR the short circuit. CLEAR the DTCs. REPEAT the self-test.

TB5 CHECK FOR VOLTAGE TO THE TCS

- Ignition ON, engine OFF.
- Measure the voltage between:

(+) TCS Connector, Harness Side	(-)
VPWR	Ground

Is the voltage greater than 10 V?

Yes	No
GO to TB6 .	REPAIR the open circuit. CLEAR the DTCs. REPEAT the self-test.

TB6 CHECK THE TCS CIRCUIT FOR AN OPEN CIRCUIT IN THE HARNESS

- Ignition OFF.
- Measure the resistance between:

(+) PCM Connector, Harness Side	(-) TCS Connector, Harness Side
TCS	TCS

Is the resistance less than 5 ohms?

Yes	No
GO to TB7 .	REPAIR the open circuit. CLEAR the DTCs. REPEAT the self-test.

TB7 CHECK THE TCS CIRCUIT FOR A SHORT TO VOLTAGE IN THE HARNESS

- Ignition ON, engine OFF.
- Measure the voltage between:

(+) TCS Connector, Harness Side	(-)
TCS	Ground

Is the voltage less than 1 V?

Yes	No
INSTALL a new TCS. REFER to the Workshop Manual Section 307-05, Automatic Transmission/Transaxle External Controls. CLEAR the DTCs. REPEAT the self-test.	REPAIR the short circuit. CLEAR the DTCs. REPEAT the self-test.

TB8 TCIL ALWAYS ON: CHECK THE TCIL FUNCTION

- Ignition ON, engine OFF.
- Apply and release the TCS.

Does the TCIL change state?

Yes	No
Unable to duplicate or identify the concern at this time. GO to Pinpoint Test Z .	GO to TB9 .

TB9 CHECK THE TCIL CIRCUIT(S) FOR A SHORT TO GROUND IN THE HARNESS

Note: The TCIL turns off when the PCM is disconnected.

- Ignition OFF.
- PCM connector disconnected.
- Ignition ON, engine OFF.

Does the TCIL change state?

Yes	No
GO to TB12 .	REPAIR the short circuit. CLEAR the DTCs. REPEAT the self-test.

TB10 TCIL NEVER ON: CHECK FOR KOER P1780

- Carry out the PCM KOER self-test.

Is DTC P1780 present?

Yes	No
REPAIR the DTC. CLEAR the DTCs. REPEAT the self-test. GO to TB2 .	GO to TB11 .

TB11 CHECK FOR VOLTAGE TO THE TCIL

- Ignition OFF.

- PCM connector disconnected.
- Ignition ON, engine OFF.
- Connect a 5 amp fused jumper wire between the following:

Point A PCM Connector, Harness Side	Point B Vehicle Battery
TCIL	Negative terminal

Does the TCIL illuminate?

Yes	No
GO to TB12 .	CHECK the indicator bulb and the fuse. If OK, the open is in the wiring between the ignition switch and the TCIL pin at the harness connector. REPAIR as necessary. CLEAR the DTCs. REPEAT the self-test.

TB12 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 and verify the concern is still present.

Is the concern still present?

Yes	No
INSTALL a new PCM. REFER to Section 2, 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.
