

Troubleshooting

TCS Control Valve (θ TCV) Sensor Signal

Diagnostic Trouble Code (DTC) 3-7: TCS Control Valve (θ TCV) Sensor Signal Diagnosis

- With engine running, TCS indicator light is ON.
- MIL is OFF.
- With the SCS service connector connected (see page 19-159), DTC 3-7 is indicated.

NOTE: When both the TCS indicator light and the MIL are ON, troubleshoot the PGM-FI system first.

Check for an open in the VCC2 circuit:

1. Disconnect the TCS control valve sensor connector.
2. Turn the ignition switch ON (II).
3. Measure the voltage between terminal No. 3 and body ground.

Is there about 5V?

NO

Repair open in the wire between the PCM and TCS control valve sensor.

YES

Check for an open in the SG2 circuit:

Measure the voltage between the TCS control valve sensor connector terminal No. 1 and No. 3.

Is there about 6V?

NO

Repair open in the wire between the PCM and TCS control valve sensor.

YES

Check for a short to body ground in the θ TCV circuit:

1. Turn the ignition switch OFF.
2. Disconnect the TCS control valve sensor unit 14P connector.
3. Turn the ignition switch ON (II).
4. Check for continuity between the TCS control valve sensor connector terminal No. 2 and body ground.

Is there continuity?

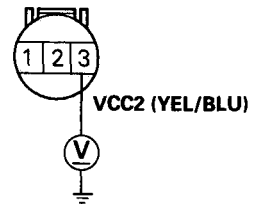
YES

Repair short to body ground in the wire between the TCS control unit and TCS control valve sensor.

NO

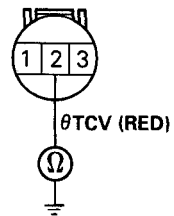
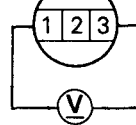
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TCS CONTROL VALVE SENSOR CONNECTOR



Wire side of female terminals

SG2 (GRN/BLK) VCC2 (YEL/BLU)



From page [19-180](#)

Check the TCS control valve sensor:

1. Remove the intake air duct (see page [19-192](#)).
2. Turn the ignition switch ON (II).
3. Connect the battery and TCS control valve actuator (see page [19-189](#)).
4. Measure the voltage between the TCS control unit HP connector terminal No. 6 and body ground.

Is the voltage as specified?

- Fully closed: about 0.5 V
- Fully open: about 4.5 V

NOTE: There should be a smooth transition from about 4.5 V and 0.5 V as the TCS control valve is closed.

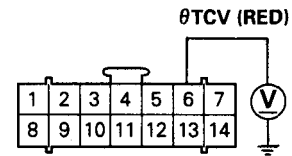
NO

Check for an open in the wire between the TCS control unit and TCS control valve sensor.
If the wire is OK, replace the TCS control valve assembly (faulty TCS control valve sensor) and recheck.

YES

- The system is OK at this time.
- If the problem recurs, replace the TCS control unit.

TCS CONTROL UNIT 14P CONNECTOR



Wire side of female terminals