



A/T Gear Position Signal

Diagnostic Trouble Code (DTC) 6-1: A/T gear position signal

NOTE: When the back-up voltage is disconnected from the TCS control unit, the TCS control unit on an A/T model goes into the M/T mode. Once the engine is started, however, the TC SP signal switches the TCS control unit back to the A/T mode. The system mode can be confirmed by performing the "steering angle sensor system check".

Confirm the A/T system code (see [section 14](#)).

Is a code indicated? YES

Repair according to the PCM system troubleshooting guide (see [section 14](#)).

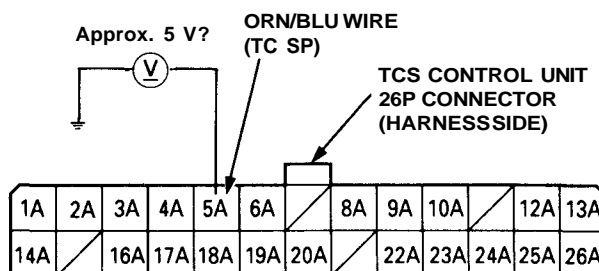
NO

Raise the car and support it with safety stands (see [section 1](#)).

Start the engine.

Shift the transmission into **P** **N** or **2**.

Measure the voltage between the TCS control unit 26P connector terminal 5A (+) and body ground.



View from terminal side

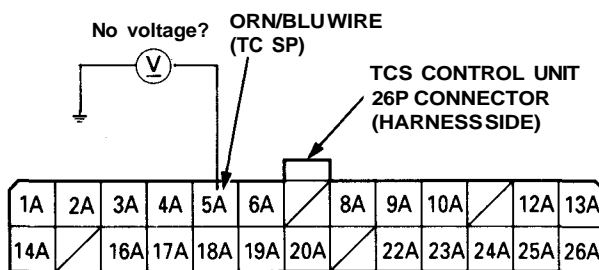
Is there approx. 5 V? NO

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YES

Shift the transmission into **1** or **R**.

Measure the voltage between the TCS control unit 26P connector terminal 5A (+) and body ground.



View from terminal side

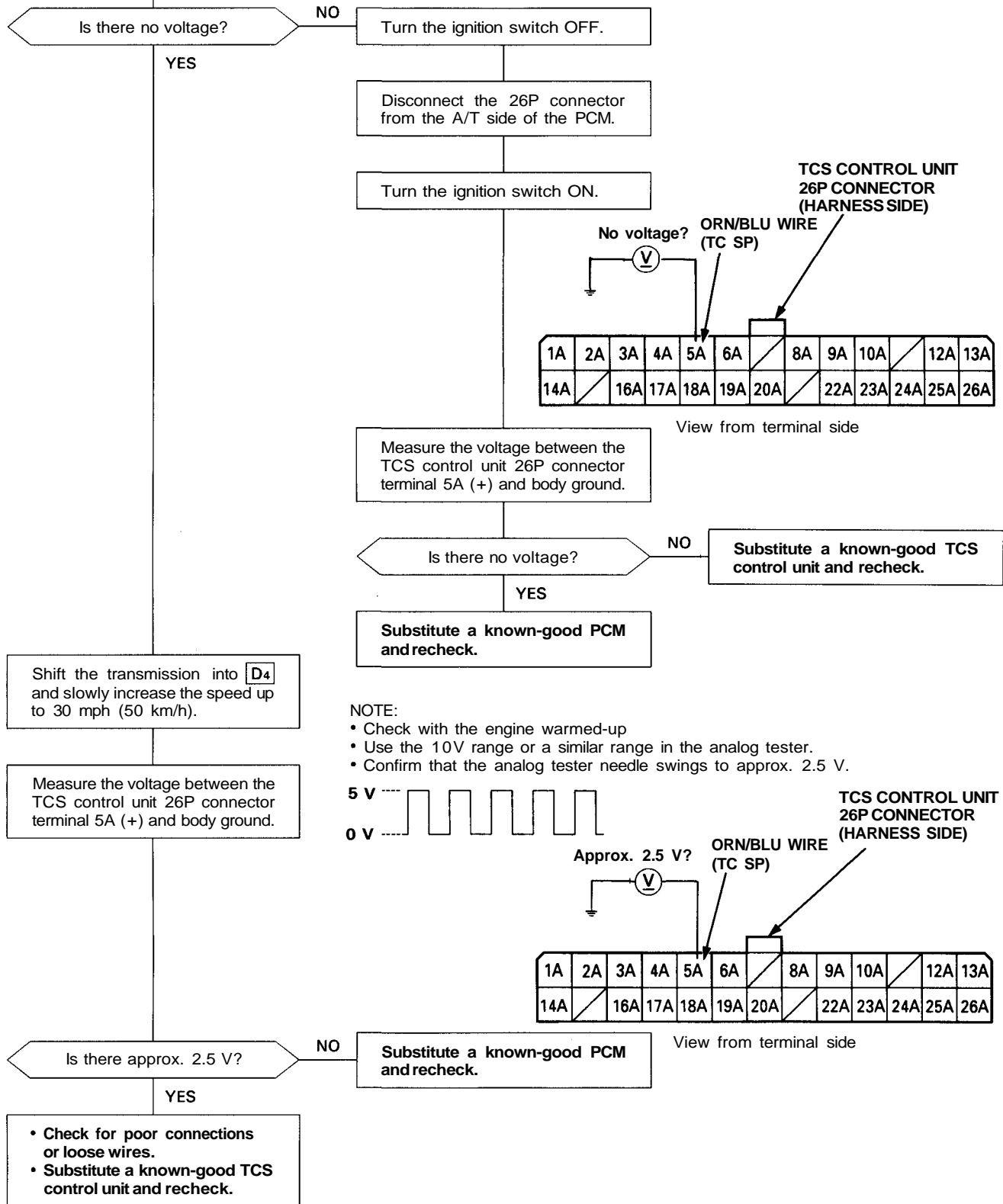
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Troubleshooting

A/T Gear Position Signal (cont'd)

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Turn the ignition switch OFF.

Connect the test harness with the adaptor to the A/T side of the PCM (see section 14).

Start the engine.

Shift the transmission into **P**, **N** or **2**.

Measure the voltage between the test harness No. A11 terminal (+) and body ground.

Is there approx. 5 V?

YES

Repair open in the ORN/BLU wire between the TCS control unit and PCM.

NO

Turn the ignition switch OFF.

Disconnect the 26P connector from A/T side of the PCM and the 26P connector from the TCS control unit.

Check for continuity between the TCS control unit 26P connector terminal 5A and body ground.

Is there continuity?

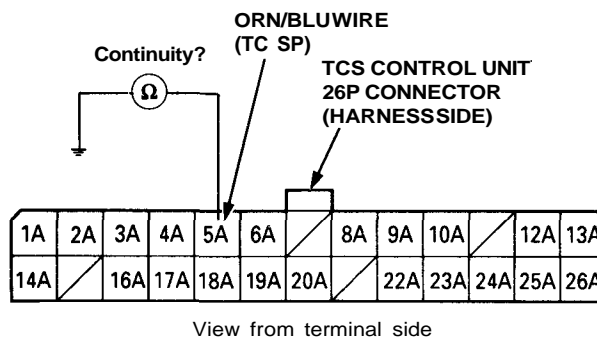
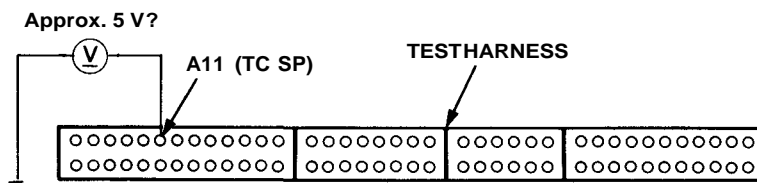
YES

Repair short in the ORN/BLU wire between the TCS control unit and PCM.

NO

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NOTE: Modify the test harness (07LAJ—PT3010A) connector by removing the bars from both ends of the A (26P) male connector block.



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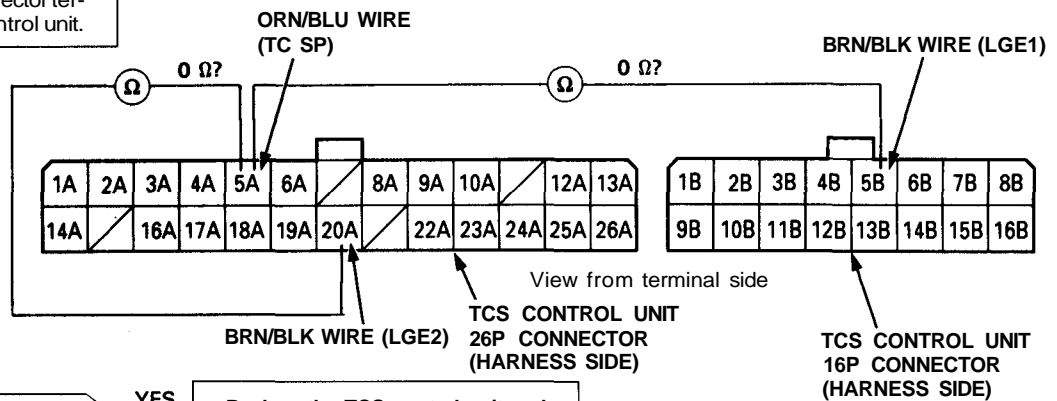
Troubleshooting

A/T Gear Position Signal (cont'd)

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Reconnect the 26P connector to the TCS control unit.

Measure the resistance between the 26P connector terminals 5A and 20A or the 16P connector terminal 5B of the TCS control unit.



Is there 0 Ω?

YES

Replace the TCS control unit and recheck.

NO

Substitute a known-good PCM and recheck.

NOTE: The normal resistance is approx. 12.5k Ω for reference.