

Troubleshooting

Steering Angle Sensor

Diagnostic Trouble Code (DTC) 2-1: Steering angle sensor

NOTE: The TCS control unit performs the self-diagnosis for the steering angle sensor when the average speed of the two rear wheels exceeds 10 mph (16 km/h). The TCS indicator light comes on if a yaw rate is generated and the steering angle signal that corresponds to this yaw rate is not inputted when the steering wheel is turned, while there is no input from the STOP (brake light signal) and PARK (parking brake signal).

Start the engine.

1.
Push the TCS switch 3 times within 3 seconds.

NOTE: Steps 1 through 4 are the steering angle sensor check procedures for actual vehicle operating conditions. This will be called the "steering angle sensor system check" in the following sections.

2.
Turn the steering wheel slowly clockwise more than 1.5 turn.

NOTE:

- Restart the check from the beginning if the steering wheel is turned counterclockwise.
- Turn the steering wheel slowly, no faster than one turn in 4 seconds.

3.
Push the TCS switch 2 times within 3 seconds.

4.
Return the steering wheel counterclockwise slowly, check the number of times the TCS indicator light flashes after the wheel has moved approximately one turn.

NOTE:

- Restart the check from the beginning if the steering wheel is turned counterclockwise.
- Turn the steering wheel slowly, no faster than one turn in 4 seconds.

Does the light flash properly?
A/T: 1 time
M/T: 4 times

YES

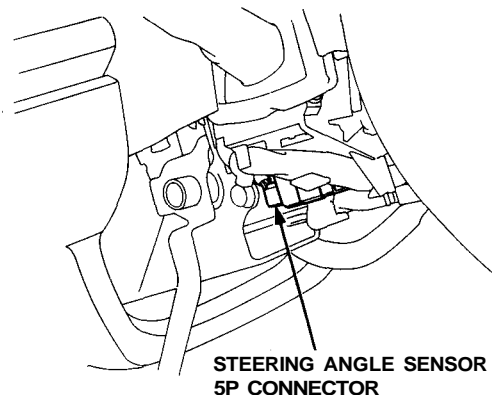
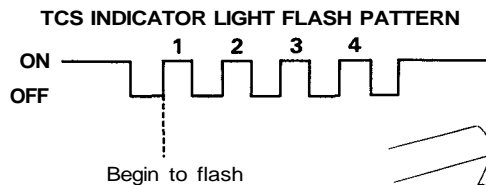
The tire pressures are incorrect or the wrong diameter tires are installed. The steering angle sensor is OK.

NO

Turn the ignition switch OFF.

Remove the steering column lower cover.

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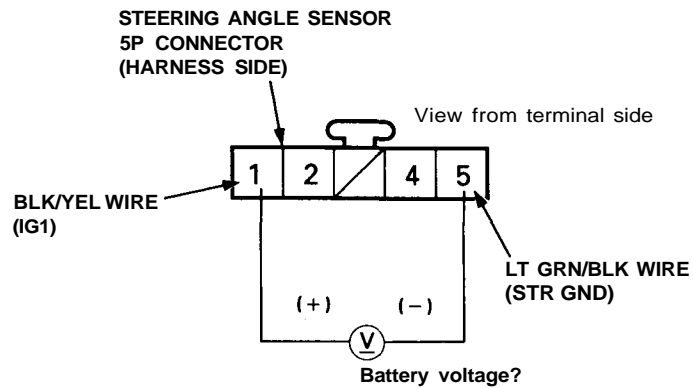




(From page 19-110)

Turn the ignition switch ON.

Measure the voltage between the No. 1 (+) and No. 5 (–) terminals of the steering angle sensor.



Is there battery voltage?

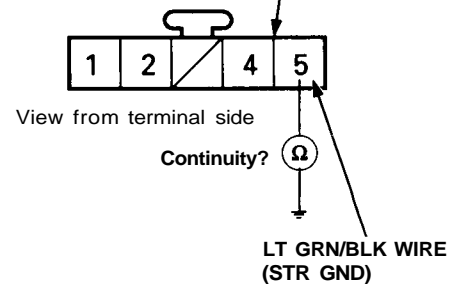
NO

Turn the ignition switch OFF.

Disconnect the 5P connector from the steering angle sensor.

Check for continuity between the No. 5 terminal and body ground.

STEERING ANGLE SENSOR
5P CONNECTOR
(HARNESS SIDE)



YES

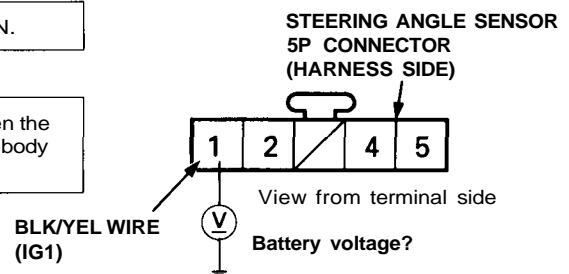
NO

Repair open in the LT GRN/BLK wire between the steering angle sensor and TCS control unit.

YES

Turn the ignition switch ON.

Measure the voltage between the No. 1 terminal (+) and body ground.



Is there battery voltage?

NO

Repair open or short in the BLK/YEL wire between the underdash fuse/relay box and steering angle sensor.

YES

Replace the steering angle sensor (see page 19-154).

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(cont'd)

Troubleshooting

Steering Angle Sensor (cont'd)

(From page 19-111)

Connect the voltmeter between the steering angle sensor terminals:

No. 2 (+) and No. 5 (-): STR B
No. 4 (+) and No. 5 (-): STR A

Turn the steering wheel slowly one revolution.

Does the needle pulse
4.5 V → 0 V → 4.5 V → 0 V
repeatedly?

YES

- Check for poor connections or loose wires.
- Substitute a known-good TCS control unit and recheck.

NO

Turn the ignition switch OFF.

Disconnect the 5P connector from the steering angle sensor.

Turn the ignition switch ON.

Measure the voltage between the steering angle sensor connector terminals (+) and body ground:
No. 2: STR B
No. 4: STR A

Is there more than 4.5 V?

YES

Check for a poor connection. If the connection is OK, replace the steering angle sensor (see page 19-154).

NO

Measure the voltage between the TCS control unit terminals (+) and body ground:
No. 15B: STR B
No. 11B: STR A

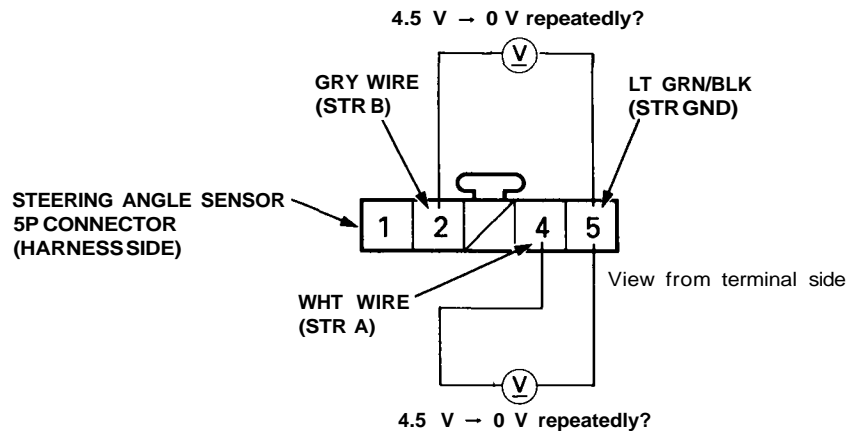
Is there more than 4.5 V?

YES

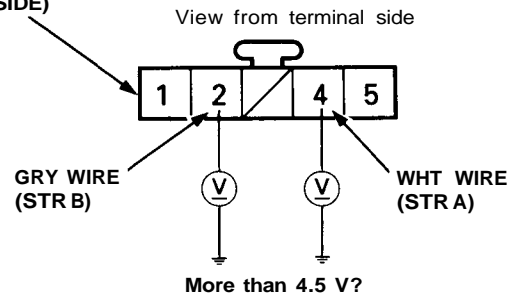
Repair open in the wire between the TCS control unit and steering angle sensor:
GRY: STR B
WHT: STR A

NO

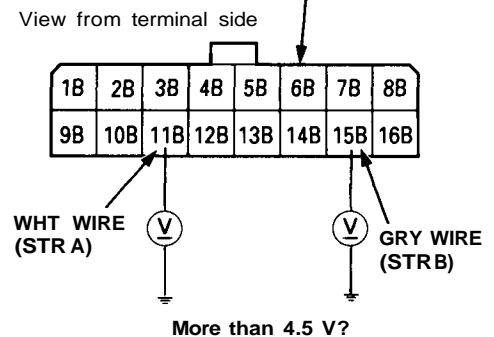
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STEERING ANGLE SENSOR
5P CONNECTOR
(HARNESS SIDE)



TCS CONTROL UNIT
16P CONNECTOR
(HARNESS SIDE)





(From page 19-112)

Turn the ignition switch OFF.

Disconnect the 16P connector from the TCS control unit.

Check for continuity between the 16P connector terminals and body ground:
No. 15B: STR B
No. 11B: STR A

Is there continuity?

YES

Repair short in wire between the TCS control unit and steering angle sensor:
GRY: STR B
WHT: STR A

NO

- Check for poor connections or loose wires.
- Substitute a known-good TCS control unit and recheck.

