

## 2012 - Mazda6 - Transmission/ Transaxle

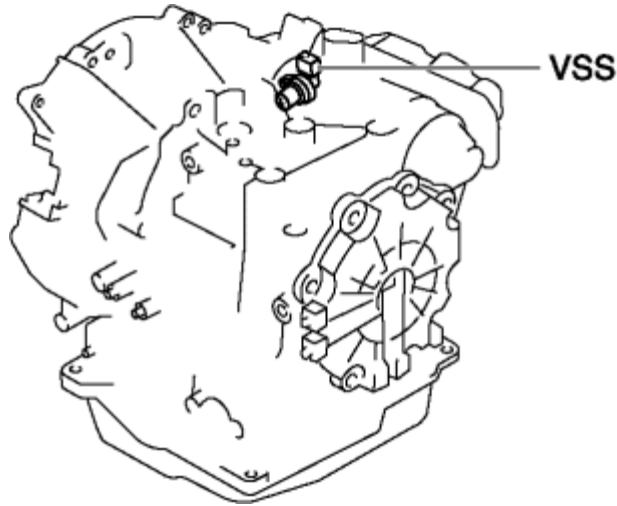
### VEHICLE SPEED SENSOR (VSS) INSPECTION [FS5A-EL]

#### CAUTION:

- Water or foreign objects entering the connector can cause a poor connection or corrosion. Be sure not to drop water or foreign objects on the connector when disconnecting it.

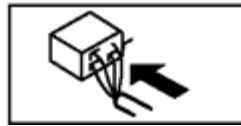
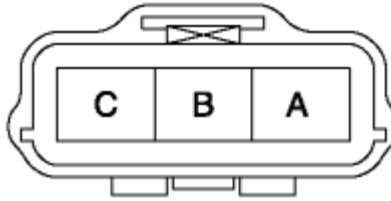
#### On-Vehicle Inspection

1. Inspect the power supply circuit for the VSS.
  - a. Remove the aerodynamic under cover NO.2. (See [AERODYNAMIC UNDER COVER NO.2 REMOVAL/ INSTALLATION](#).)
  - b. Disconnect the VSS connector.



- c. Switch the ignition to ON (engine off).
- d. Measure the voltage at VSS connector terminal A (harness-side).

## VSS HARNESS-SIDE CONNECTOR



- If there is any malfunction, repair wiring harness between VSS and TCM.

### VSS specification

- B+

e. Switch the ignition to off (LOCK).

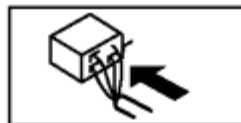
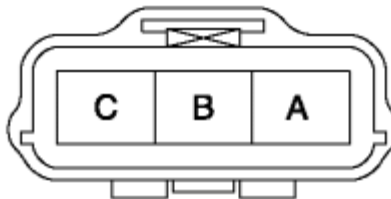
f. Connect the VSS connector.

2. Inspect the GND circuit for the VSS.

a. Switch the ignition to off.

b. Measure the voltage at VSS connector terminal C (harness-side).

## VSS HARNESS-SIDE CONNECTOR



- If there is any malfunction, repair wiring harness between VSS and TCM.

### VSS specification

- Below 1.0 V

3. Inspect the signal circuit for the VSS.

a. Connect the oscilloscope to the following TCM connector terminals and set it as below.

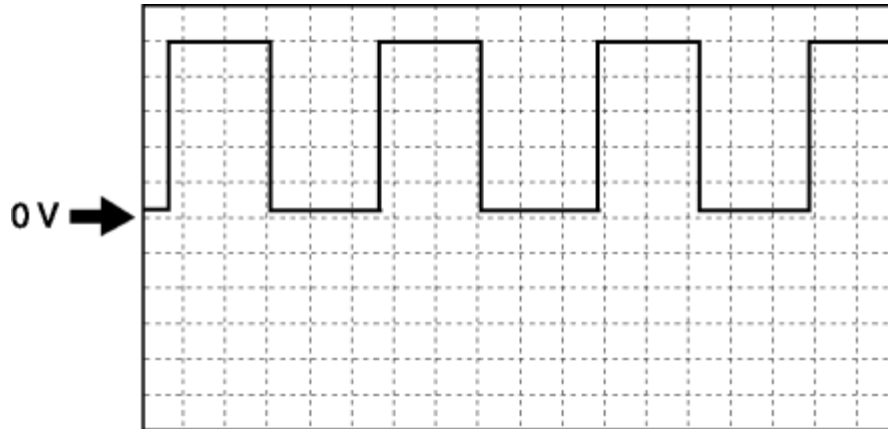
- (+) lead: TCM terminal 2P

- (-) lead: battery negative terminal
- Oscilloscope setting: 1 V/DIV (Y), 2 ms/DIV (X), DC range

b. Start the engine.

c. Measure the wave form when the following conditions are met.

- Vehicle speed: **30 km/h { 19 mph }**
- Gear position: 3 GR



- If there is any malfunction, replace the VSS. (See [VEHICLE SPEED SENSOR \(VSS\) REMOVAL/ INSTALLATION \[FS5A-EL\]](#) .)

[< Previous](#) [Next >](#)

[Back to Top](#)

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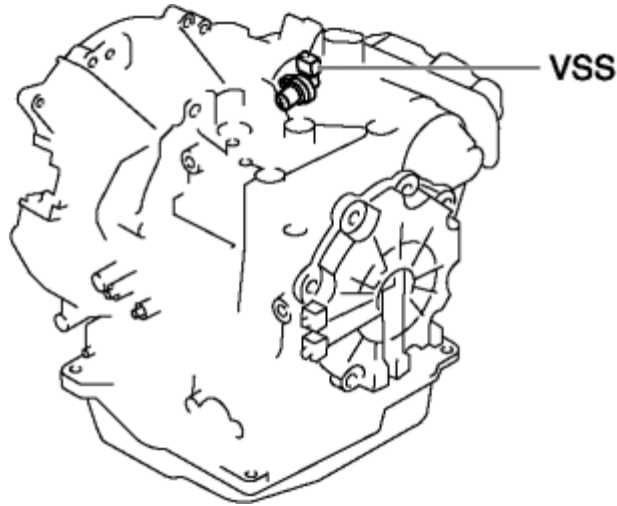
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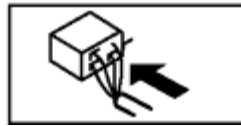
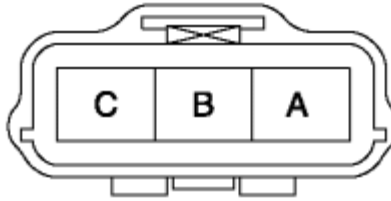
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  - a. Remove the aerodynamic under cover NO.2. (See [AERODYNAMIC UNDER COVER NO.2 REMOVAL/ INSTALLATION](#).)
  - b. Disconnect the VSS connector.



- c. Switch the ignition to ON (engine off).
- d. Measure the voltage at VSS connector terminal A (harness-side).

## VSS HARNESS-SIDE CONNECTOR



- If there is any malfunction, repair wiring harness between VSS and TCM.

### VSS specification

- B+

e. Switch the ignition to off (LOCK).

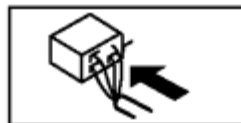
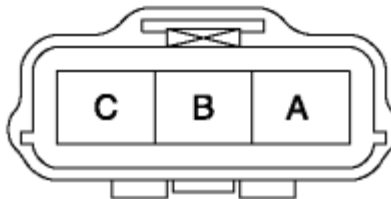
f. Connect the VSS connector.

2. Inspect the GND circuit for the VSS.

a. Switch the ignition to off.

b. Measure the voltage at VSS connector terminal C (harness-side).

## VSS HARNESS-SIDE CONNECTOR



- If there is any malfunction, repair wiring harness between VSS and TCM.

### VSS specification

- Below 1.0 V

3. Inspect the signal circuit for the VSS.

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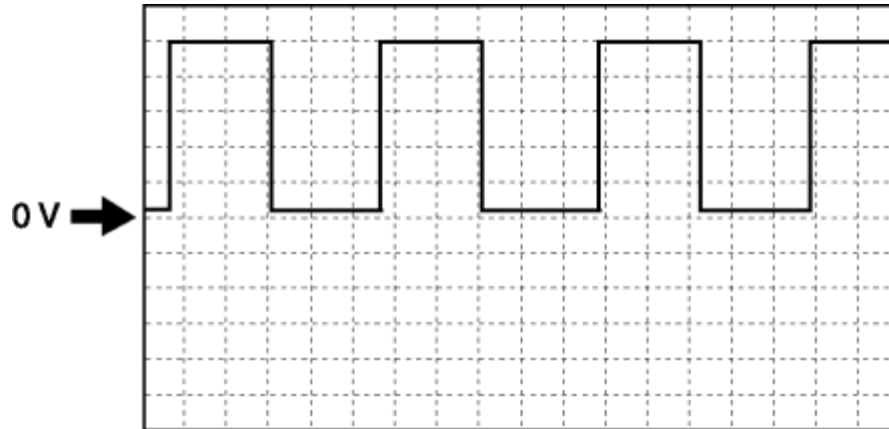
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[< Previous](#)   [Next >](#)

[Back to Top](#)