

2012 - Mazda6 - Transmission/ Transaxle

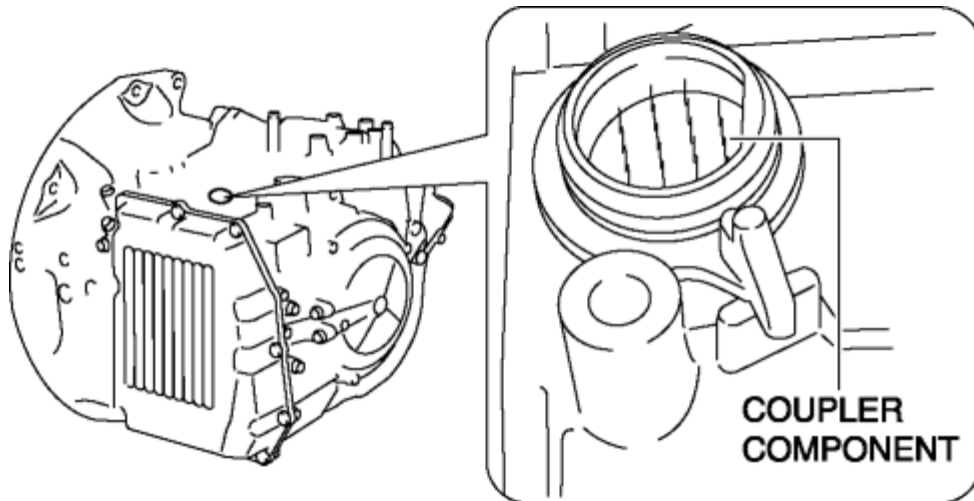
INPUT/ TURBINE SPEED SENSOR INSPECTION [AY6A-EL]

CAUTION:

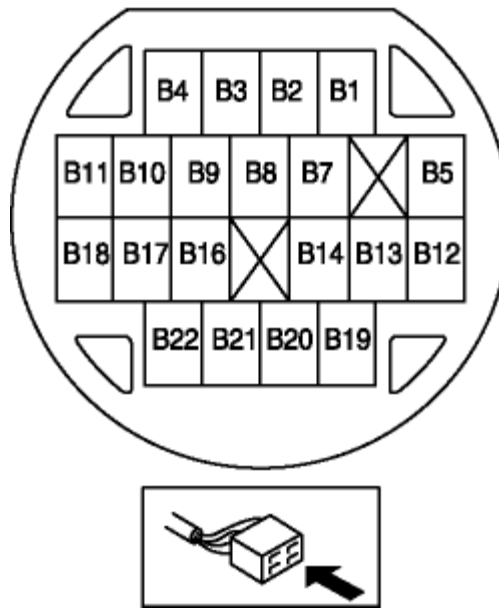
- Water or foreign objects entering the connector can cause a poor connection or corrosion. Be sure not to drop water or foreign objects on the connector when disconnecting it.
- Do not damage the terminals.

On-Vehicle Inspection

1. Disconnect the negative battery cable.
2. Remove the fresh-air duct and air cleaner component as a single unit. (See [INTAKE-AIR SYSTEM REMOVAL/ INSTALLATION \[MZI 3.7 V6\]](#) .)
3. Remove the TCM. (See [TCM REMOVAL/ INSTALLATION \[AY6A-EL\]](#) .)
4. Measure the no continuity between coupler component terminals B12 and GND, B13 and GND.



COUPLER COMPONENT

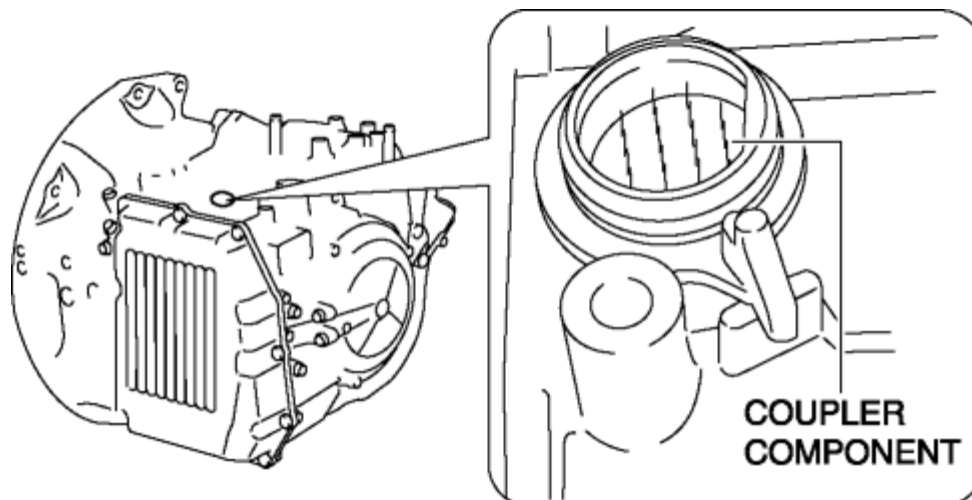


- If there is any malfunction, inspect the coupler component for continuity. (See [COUPLER COMPONENT INSPECTION \[AY6A-EL\]](#).)
- If the coupler component is normal, perform an off-vehicle inspection of input/turbine speed sensor. (See [Off-Vehicle Inspection.](#))

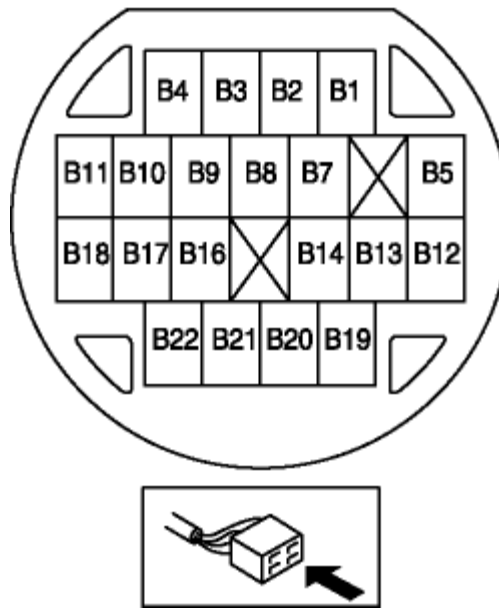
Input/ turbine speed sensor specification

Terminal	Continuity
B12—GND	No continuity
B13—GND	No continuity

5. Measure the continuity between coupler component terminals B12 and B13.



COUPLER COMPONENT



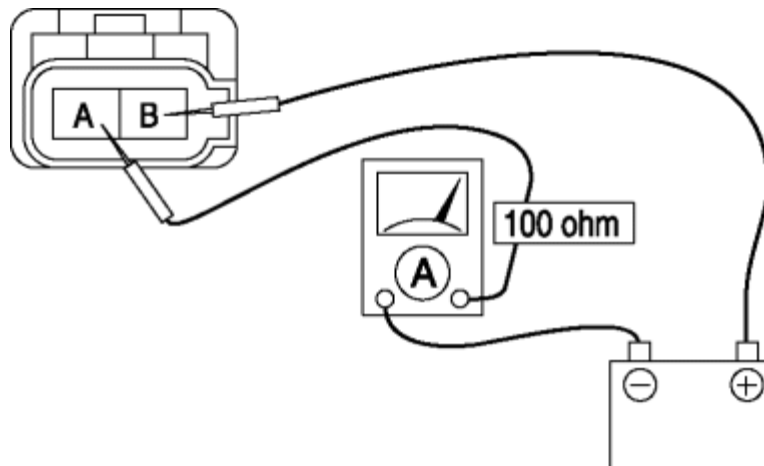
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Input/ turbine speed sensor specification

Terminal	Continuity
B12—B13	Continuity

Off-Vehicle Inspection

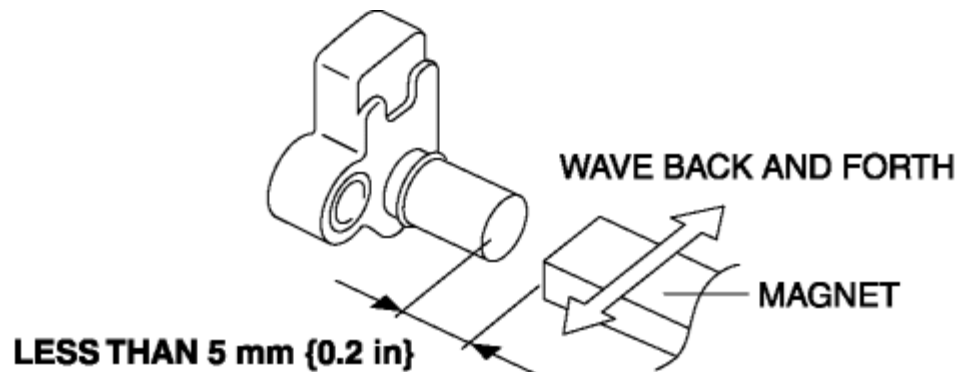
1. Connect the input/turbine speed sensor terminal 2 to the battery positive terminal, connect the battery negative terminal to input/turbine speed sensor terminal 1 through an ammeter set to a resistance of **100 ohm**.



NOTE:

- Inspect with a tester that can indicate **more than 10 megohms** and confirm that the value is **more than 1 megohm**.

2. Measure the current while waving a magnet back and forth over the top of the input/turbine speed sensor (**less than 5 mm { 0.2 in }**).



- If there is any malfunction, replace the input/turbine speed sensor.

Input/ turbine speed sensor specification

Signal	Current (mA)
High	12.0—16.0
Low	4.0—8.0

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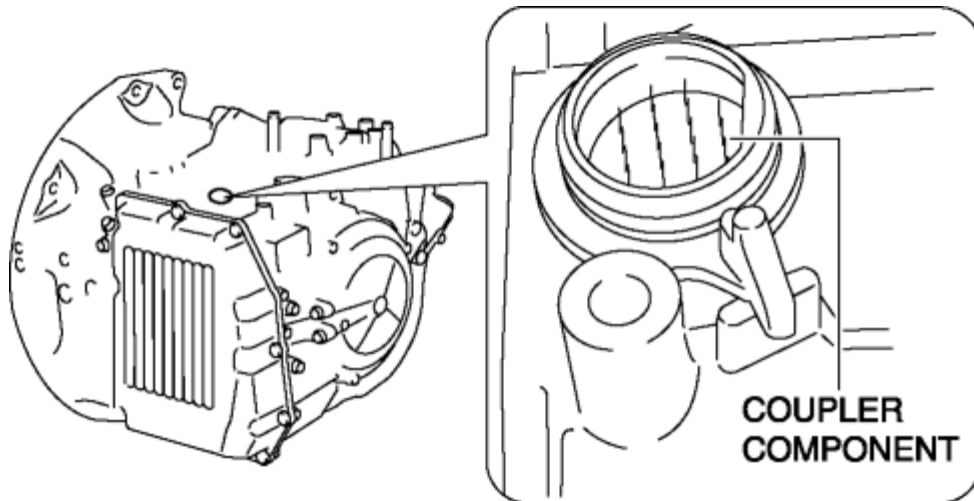
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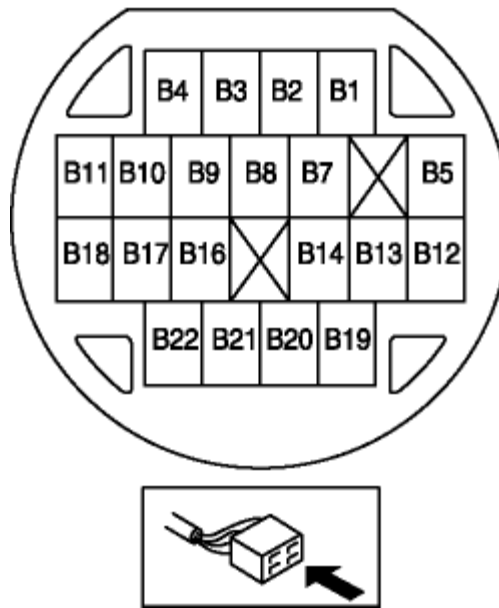
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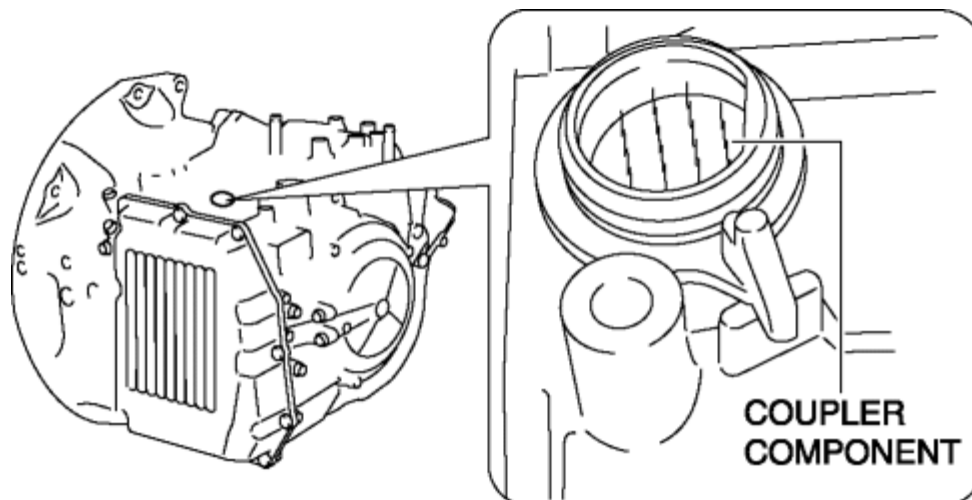


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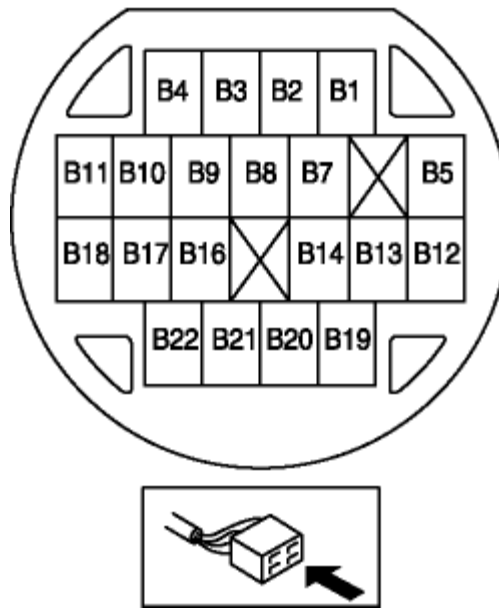
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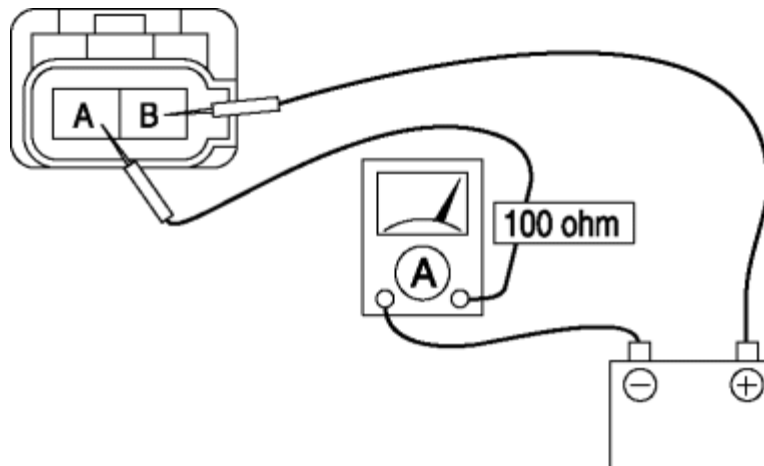
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Input/ turbine speed sensor specification

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B12—B13	Continuity

Off-Vehicle Inspection

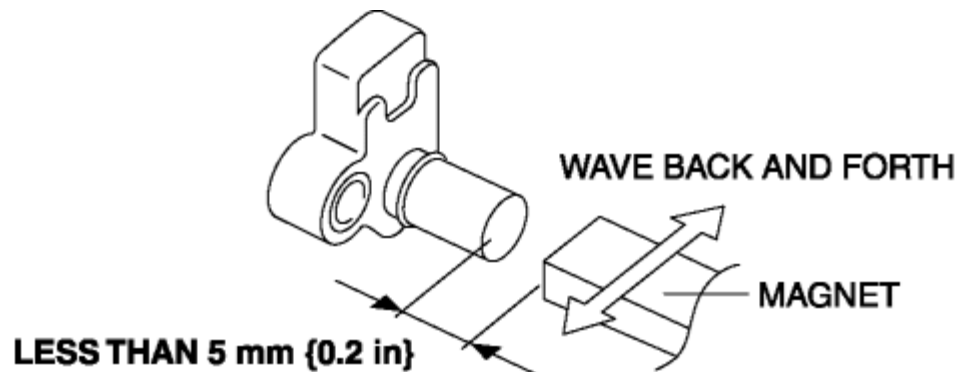
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