

2012 - Mazda6 - Transmission/ Transaxle

SOLENOID VALVE INSPECTION [FS5A-EL]

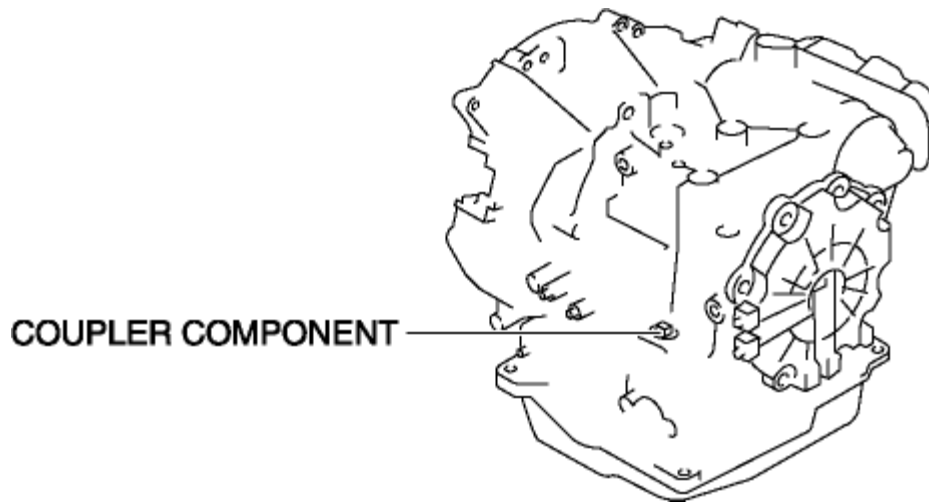
CAUTION:

- 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.

Primary Control Valve Body

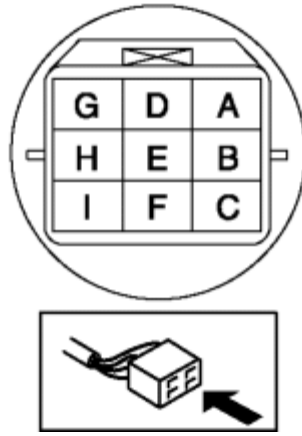
On-vehicle inspection

1. Disconnect the coupler component connector.
 - a. Disconnect the negative battery cable.
 - b. Remove the air cleaner component. (See [INTAKE-AIR SYSTEM REMOVAL/ INSTALLATION \[MZR 2.5\]](#).)
 - c. Disconnect the coupler component connector.



2. Measure the resistance between the coupler component terminals.

COUPLER COMPONENT



- If there is any malfunction, inspect the coupler component for continuity.
- If coupler component has no malfunction, perform the "Off-vehicle inspection". (See [Off-Vehicle inspection](#).)

Solenoid valve specification

Solenoid valve	Terminal	Resistance (ohm)
Pressure control solenoid A	D—I	2.4—7.3
Shift solenoid A	A—GND	1.0—4.2
Shift solenoid B	C—GND	1.0—4.2
Shift solenoid C	G—GND	1.0—4.2
Shift solenoid D	B—GND	10.9—26.2
Shift solenoid E	F—GND	10.9—26.2

Operating inspection

CAUTION:

- Do not apply battery positive voltage to terminals for more than 3 s.

NOTE:

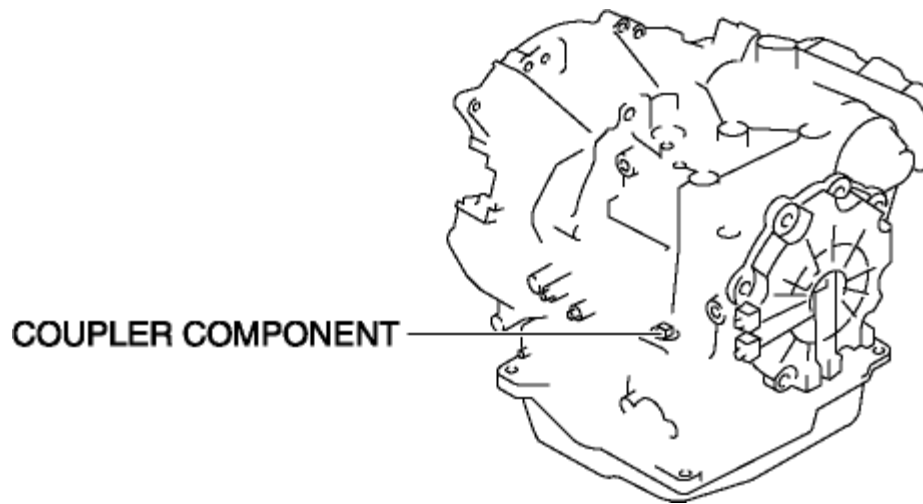
- Because the operation sound of the solenoid valve is small, perform inspection in a quiet place.

1. Disconnect the coupler component connector.

- a. Disconnect the negative battery cable.

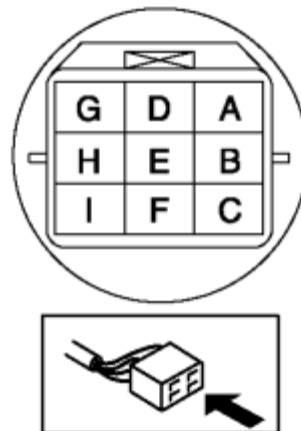
b. Remove the air cleaner component. (See [INTAKE-AIR SYSTEM REMOVAL/ INSTALLATION \[MZR 2.5\]](#).)

c. Disconnect the coupler component connector.



2. Apply battery positive voltage to the coupler component terminals A, B, C, F or G and battery negative voltage to GND, and verify that operating sound is heard from the solenoid valve.

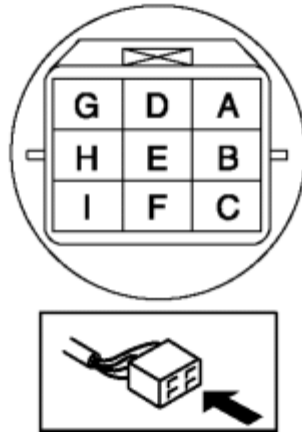
COUPLER COMPONENT



- If the operation sound is not heard, inspect the coupler component for continuity.
- If coupler component has no malfunction, perform the "Off-vehicle inspection". (See [Off-Vehicle inspection](#).)

3. Apply battery positive voltage to the coupler component terminal D and battery negative voltage to terminal I, and verify that operating sound is heard from the solenoid valve.

COUPLER COMPONENT

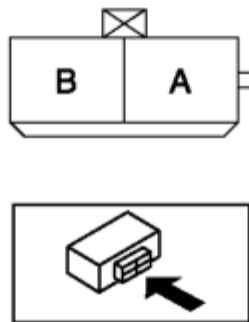


- If the operation sound is not heard, inspect the coupler component for continuity.
- If coupler component has no malfunction, perform the "Off-vehicle inspection". (See [Off-Vehicle inspection](#).)

Off-Vehicle inspection

1. Measure the resistance between the coupler component terminals.
 - If there is any malfunction, replace the solenoid valve.

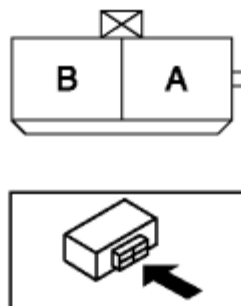
PRESSURE CONTROL SOLENOID A



Pressure control solneoid A specification

- 2.4—7.3 ohms

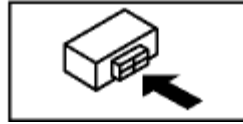
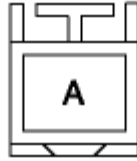
SHIFT SOLENOID A, B, C



Shift solneoid A, B, C specification

- 1.0—4.2 ohms

SHIFT SOLENOID D, E



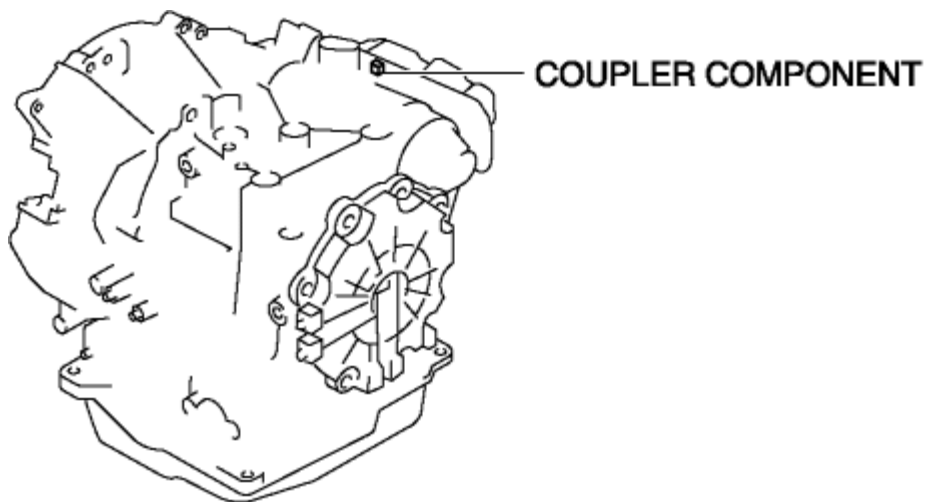
Shift solneoid D, E specification

- 10.9—26.2 ohms

Secondary Control Valve Body

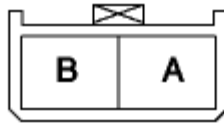
On-vehicle inspection

1. Disconnect the coupler component connector.
 - a. Disconnect the negative battery cable.
 - b. Remove the battery. (See [BATTERY REMOVAL/ INSTALLATION \[MZR 2.5\]](#).)
 - c. Remove the battery tray. (See [BATTERY REMOVAL/ INSTALLATION \[MZR 2.5\]](#).)
 - d. Disconnect the coupler component connector.



2. Measure the resistance between the coupler component terminals A and B.

COUPLER COMPONENT



- If there is any malfunction, inspect the coupler component for continuity.
- If coupler component has no malfunction, perform the "Off-vehicle inspection". (See [Off-Vehicle inspection](#).)

Solenoid valve specification

Solenoid valve	Terminal	Resistance (ohm)
Pressure control solenoid B	A—GND	1.0—4.2
Shift solenoid F	B—GND	8.4—21.8

Operating inspection

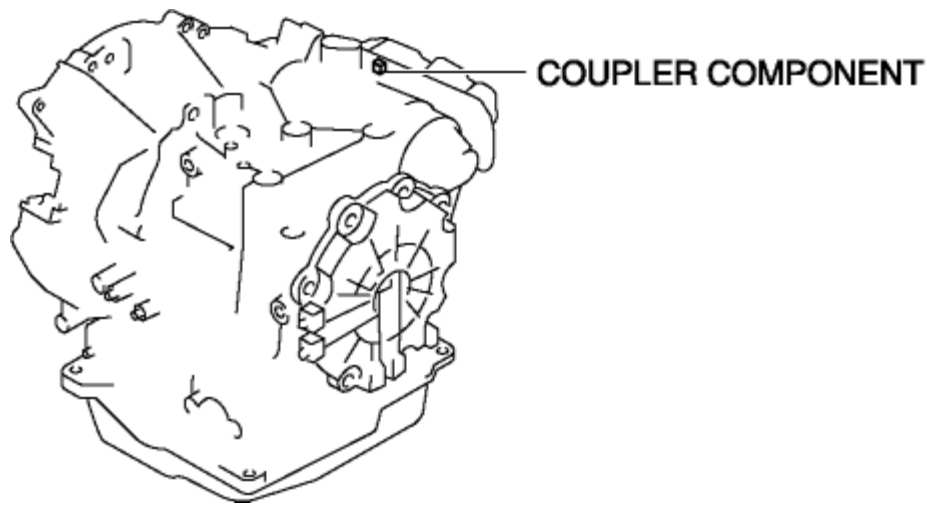
CAUTION:

- Do not apply battery positive voltage to terminals for more than 3 s.

NOTE:

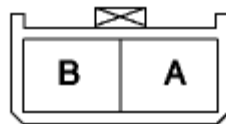
- Because the operation sound of the solenoid valve is small, perform inspection in a quiet place.

1. Disconnect the coupler component connector.
 - a. Disconnect the negative battery cable.
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 - c. Remove the battery tray. (See [BATTERY REMOVAL/ INSTALLATION \[MZR 2.5\]](#).)
 - d. Disconnect the coupler component connector.



2. Apply battery positive voltage to the coupler component terminals A, B and battery negative voltage to GND, and verify that operating sound is heard from the solenoid valve.

COUPLER COMPONENT



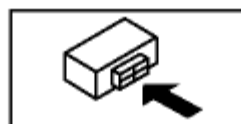
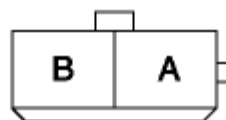
- If the operation sound is not heard, inspect the coupler component for continuity.
- If coupler component has no malfunction, perform the "Off-vehicle inspection". (See [Off-Vehicle inspection](#).)

Off-Vehicle inspection

1. Measure the resistance between the coupler component terminals.

- If there is any malfunction, replace the solenoid valve.

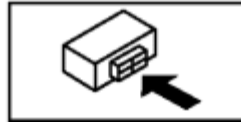
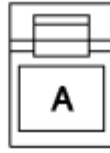
PRESSURE CONTROL SOLENOID B



Pressure control solneoid B specification

- 1.0—4.2 ohms

SHIFT SOLENOID F



Shift solneoid F specification

- 8.4—21.8 ohms

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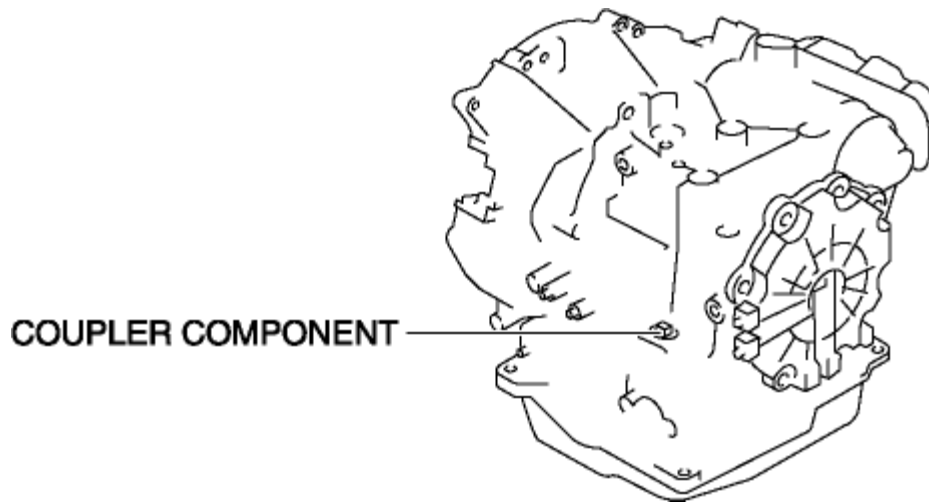
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Primary Control Valve Body

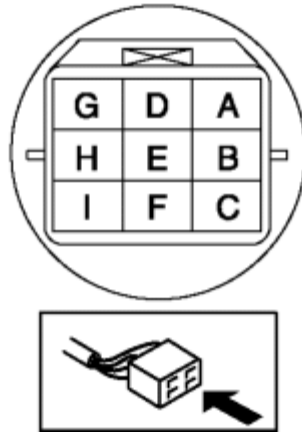
On-vehicle inspection

1. Disconnect the coupler component connector.
 - a. Disconnect the negative battery cable.
 - b. Remove the air cleaner component. (See [INTAKE-AIR SYSTEM REMOVAL/ INSTALLATION \[MZR 2.5\]](#).)
 - c. Disconnect the coupler component connector.



2. Measure the resistance between the coupler component terminals.

COUPLER COMPONENT



- If there is any malfunction, inspect the coupler component for continuity.
- If coupler component has no malfunction, perform the "Off-vehicle inspection". (See [Off-Vehicle inspection](#).)

Solenoid valve specification

Solenoid valve	Terminal	Resistance (ohm)
Pressure control solenoid A	D—I	2.4—7.3
Shift solenoid A	A—GND	1.0—4.2
Shift solenoid B	C—GND	1.0—4.2
Shift solenoid C	G—GND	1.0—4.2
Shift solenoid D	B—GND	10.9—26.2
Shift solenoid E	F—GND	10.9—26.2

Operating inspection

CAUTION:

- Do not apply battery positive voltage to terminals for more than 3 s.

NOTE:

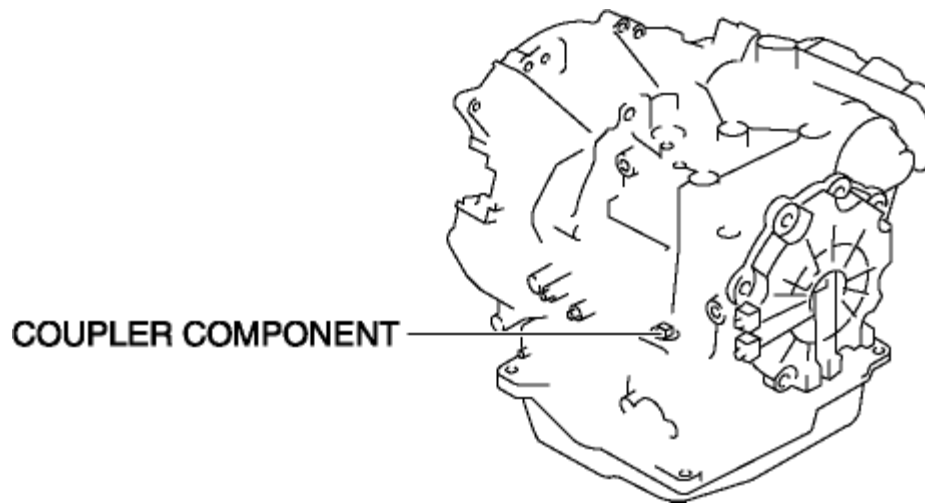
- Because the operation sound of the solenoid valve is small, perform inspection in a quiet place.

1. Disconnect the coupler component connector.

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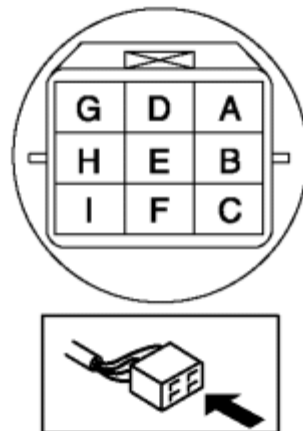
b. Remove the air cleaner component. (See [INTAKE-AIR SYSTEM REMOVAL/ INSTALLATION \[MZR 2.5\]](#).)

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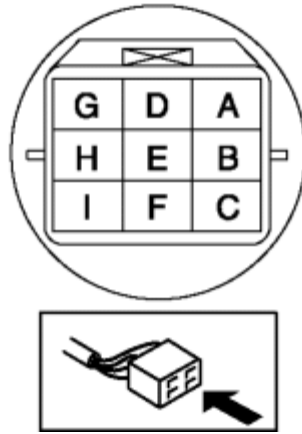
COUPLER COMPONENT



- If the operation sound is not heard, inspect the coupler component for continuity.
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3. Apply battery positive voltage to the coupler component terminal D and battery negative voltage to terminal I, and verify that operating sound is heard from the solenoid valve.

COUPLER COMPONENT

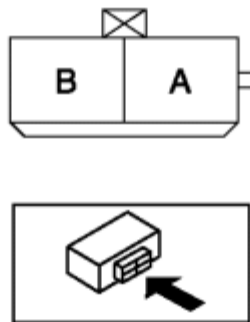


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- If coupler component has no malfunction, perform the "Off-vehicle inspection". (See [Off-Vehicle inspection](#).)

Off-Vehicle inspection

1. Measure the resistance between the coupler component terminals.
 - If there is any malfunction, replace the solenoid valve.

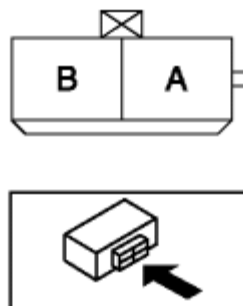
PRESSURE CONTROL SOLENOID A



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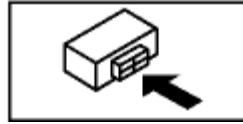
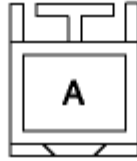
SHIFT SOLENOID A, B, C



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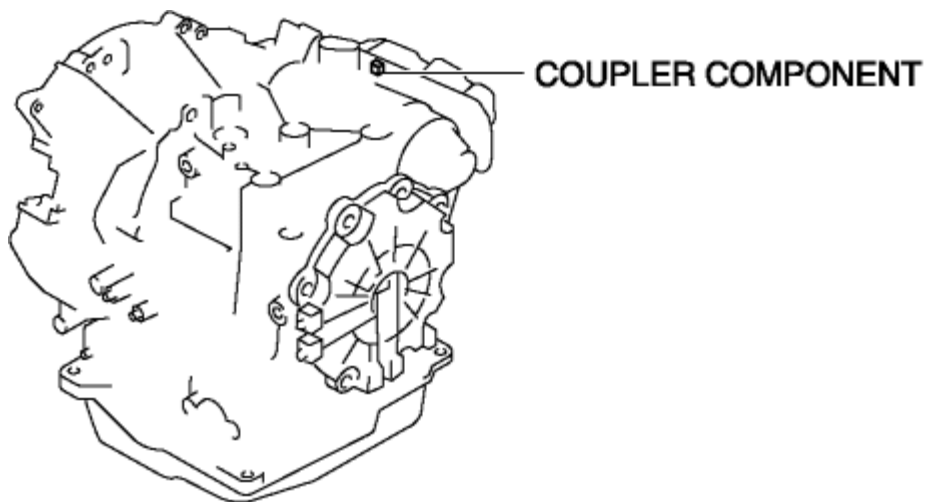
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Secondary Control Valve Body

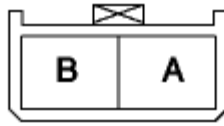
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 - b. Remove the battery. (See [BATTERY REMOVAL/ INSTALLATION \[MZR 2.5\]](#).)
 - c. Remove the battery tray. (See [BATTERY REMOVAL/ INSTALLATION \[MZR 2.5\]](#).)
 - d. Disconnect the coupler component connector.



2. Measure the resistance between the coupler component terminals A and B.

COUPLER COMPONENT



- If there is any malfunction, inspect the coupler component for continuity.
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Solenoid valve specification

Solenoid valve	Terminal	Resistance (ohm)
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Shift solenoid F	B—GND	8.4—21.8

Operating inspection

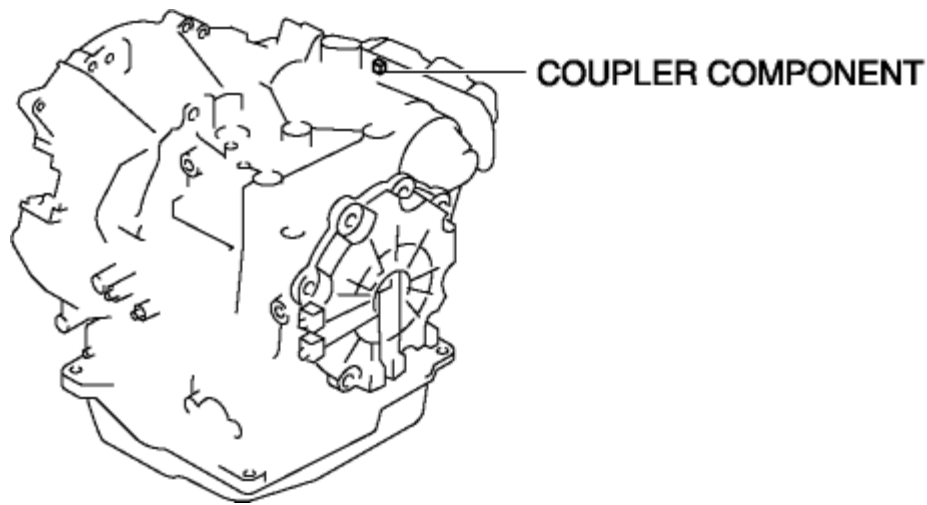
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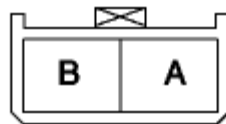
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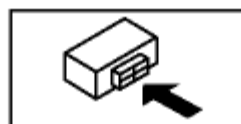
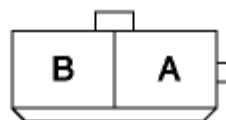


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Off-Vehicle inspection

1. Measure the resistance between the coupler component terminals.
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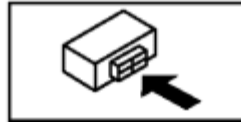
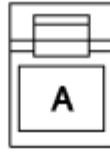
PRESSURE CONTROL SOLENOID B



Pressure control solneoid B specification

- 1.0—4.2 ohms

SHIFT SOLENOID F



Shift solneoid F specification

- 8.4—21.8 ohms

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