2012 - Mazda6 - Transmission/ Transaxle

SHIFT SOLENOID A INSPECTION [AY6A-EL]

WARNING:

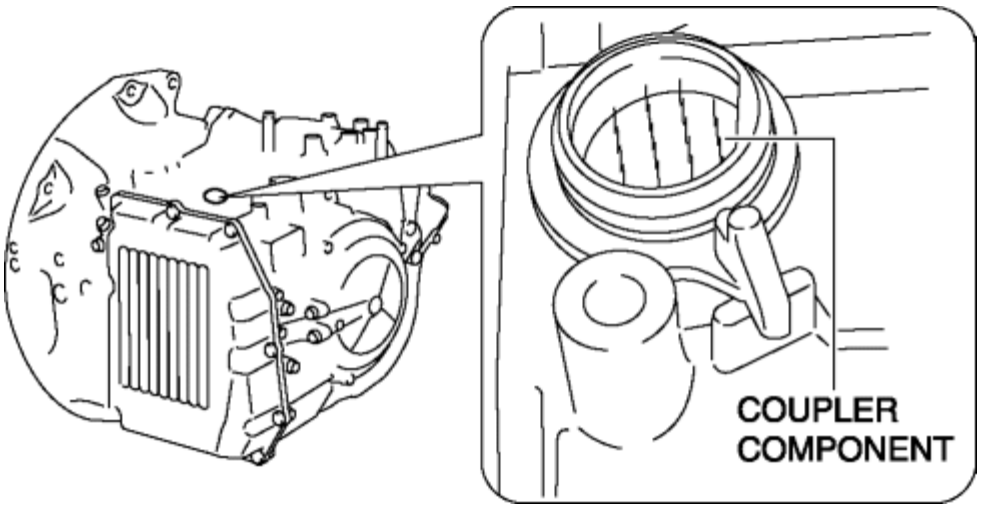
- Using compressed air can cause dirt and other particles to fly out, causing injury to the eyes. Wear protective eyeglasses whenever using compressed air.

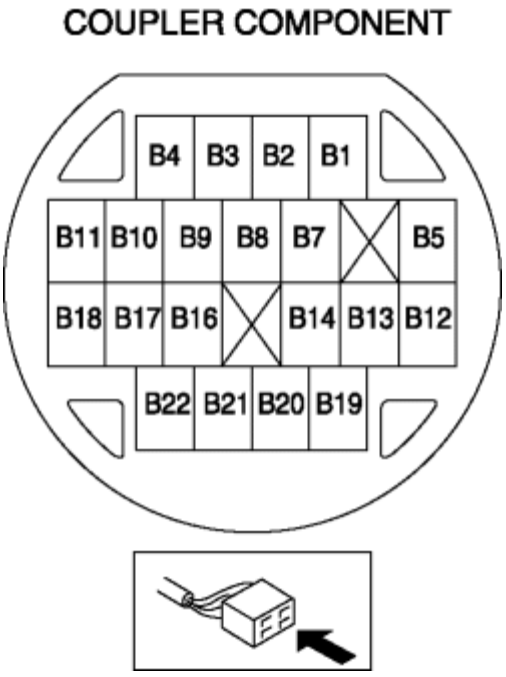
CAUTION:

- 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 resistance between coupler component terminal B5 and GND.





- If there is any malfunction, inspect the coupler component for continuity. (See **COUPLER COMPONENT INSPECTION [AY6A-EL]**.)
- If coupler component has no malfunction, perform the "Off-vehicle inspection". (See **Off-Vehicle Inspection**.)

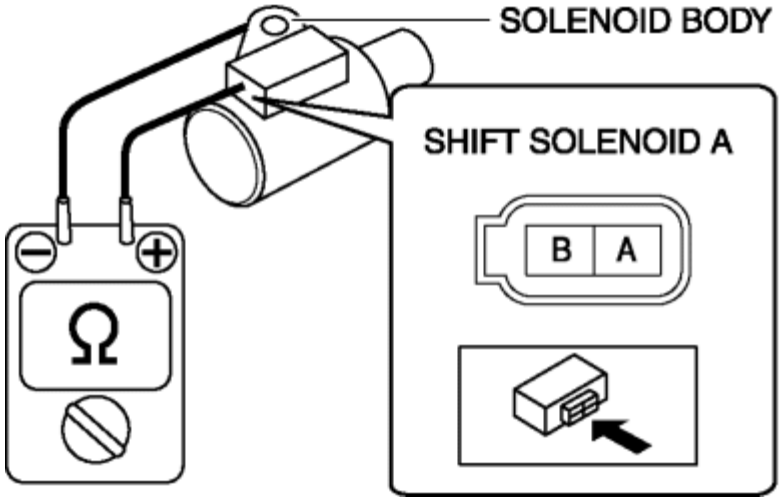
Shift solenoid A specification

ATF temperature (°C {°F})	Resistance (ohm)
20 {68}	11—15

Off-Vehicle Inspection

Resistance inspection

1. Measure the resistance between shift solenoid A terminal B and solenoid body.



- If there is any malfunction, replace the shift solenoid A.

Shift solenoid A specification

Ambient temperature (°C {°F})	Resistance (ohm)
20 {68}	11—15

Operation inspection

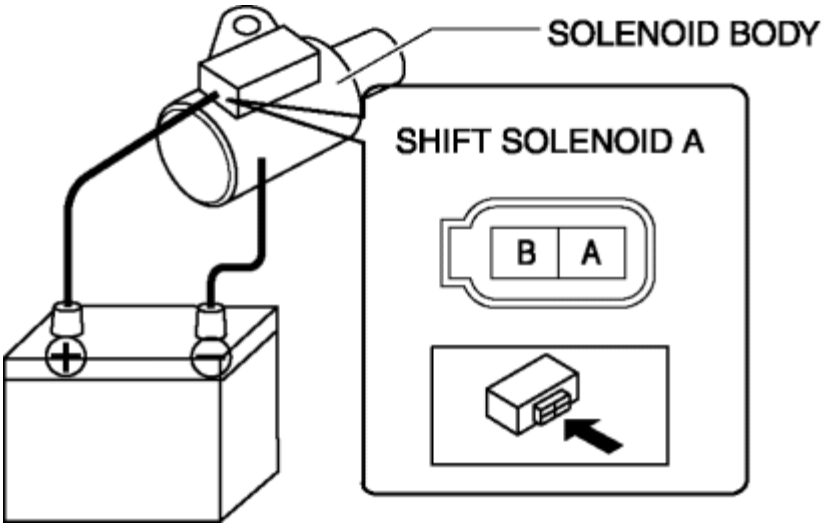
CAUTION:

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

NOTE:

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

1. Connect the shift solenoid A terminal B to the battery positive terminal, connect the battery negative terminal to solenoid body.



CAUTION:

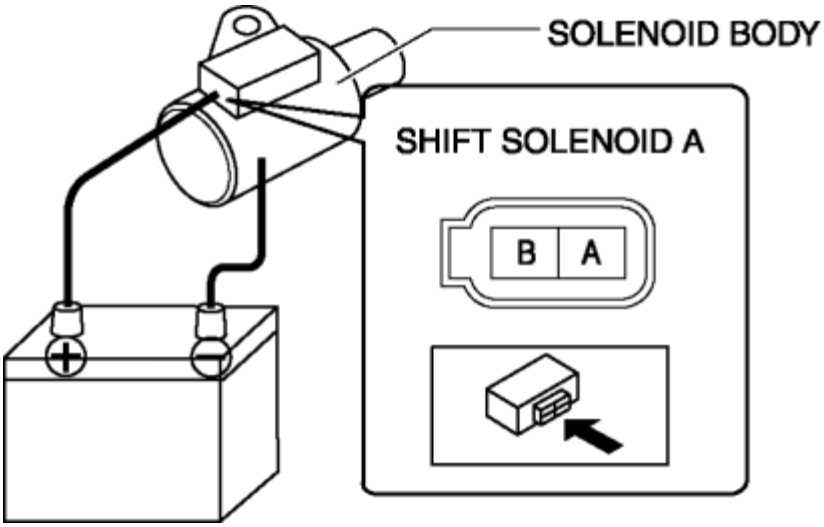
- Do not apply impact to shift solenoid A.
- Do not damage the terminals.

2. Verify that operating sound is heard from the shift solenoid A.

- If there is any malfunction, replace the shift solenoid A.

Airflow inspection

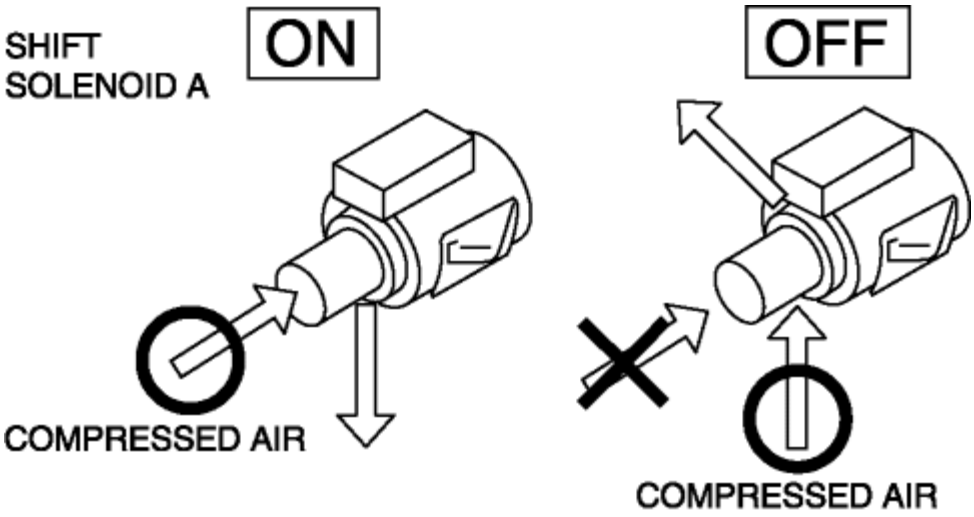
1. Connect the shift solenoid A terminal B to the battery positive terminal, connect the battery negative terminal to solenoid body.



CAUTION:

- Do not apply impact to shift solenoid A.
- Do not damage the terminals.

2. Blow compressed air to inspect the condition of the airflow shown in the figure.



- If there is any malfunction, replace the shift solenoid A.

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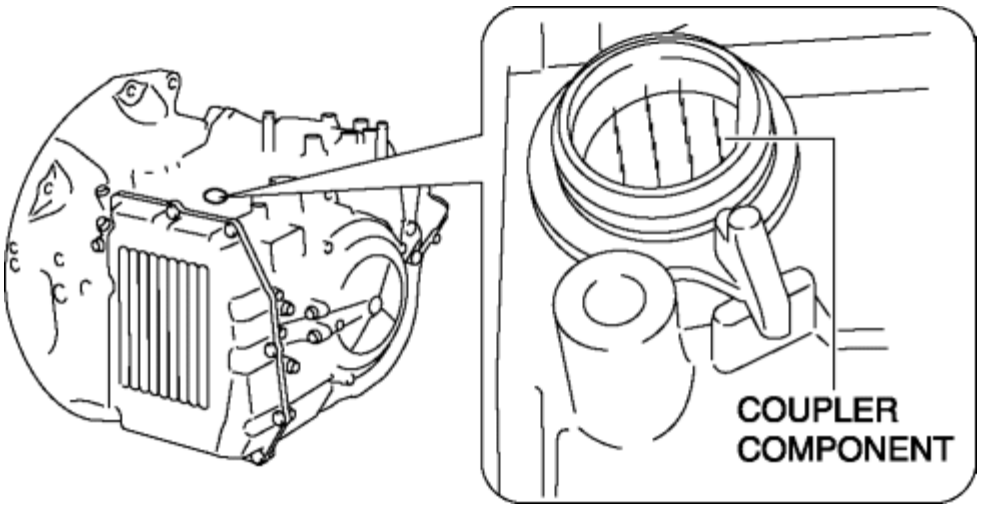
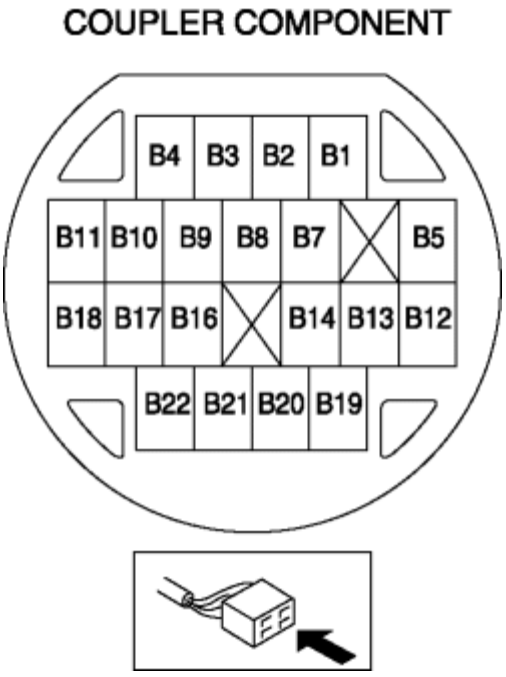




- If there is any malfunction, inspect the coupler component for continuity. (See **COUPLER COMPONENT INSPECTION [AY6A-EL]**.)
- If coupler component has no malfunction, perform the "Off-vehicle inspection". (See **Off-Vehicle Inspection**.)

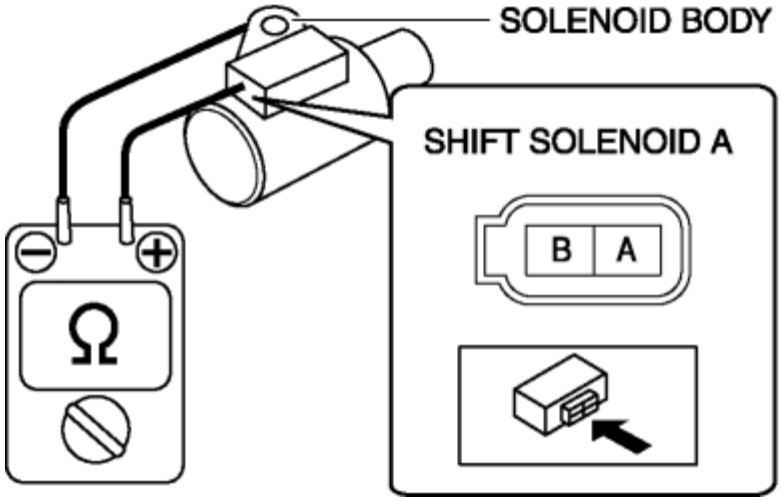
Shift solenoid A specification

ATF temperature (°C {°F})	Resistance (ohm)
20 {68}	11—15

Off-Vehicle Inspection

Resistance inspection

1. Measure the resistance between shift solenoid A terminal B and solenoid body.



- If there is any malfunction, replace the shift solenoid A.

Shift solenoid A specification

Ambient temperature (°C {°F})	Resistance (ohm)
20 {68}	11—15

Operation inspection

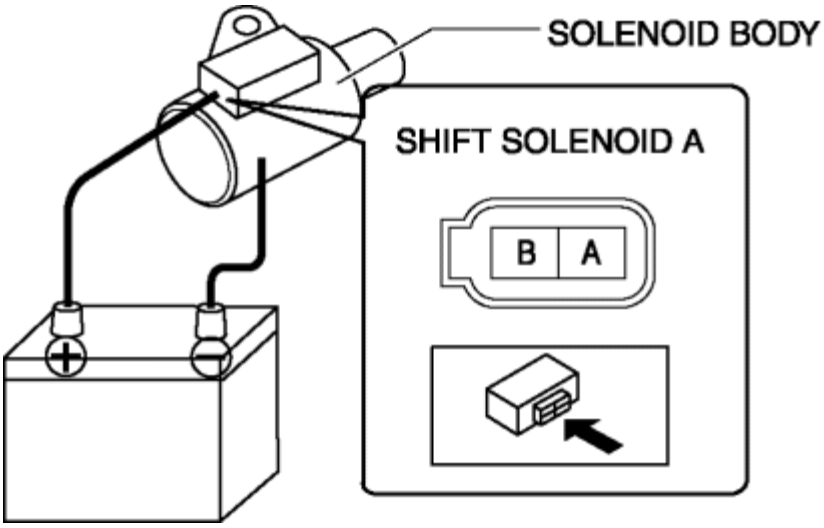
CAUTION:

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

NOTE:

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

1. Connect the shift solenoid A terminal B to the battery positive terminal, connect the battery negative terminal to solenoid body.



CAUTION:

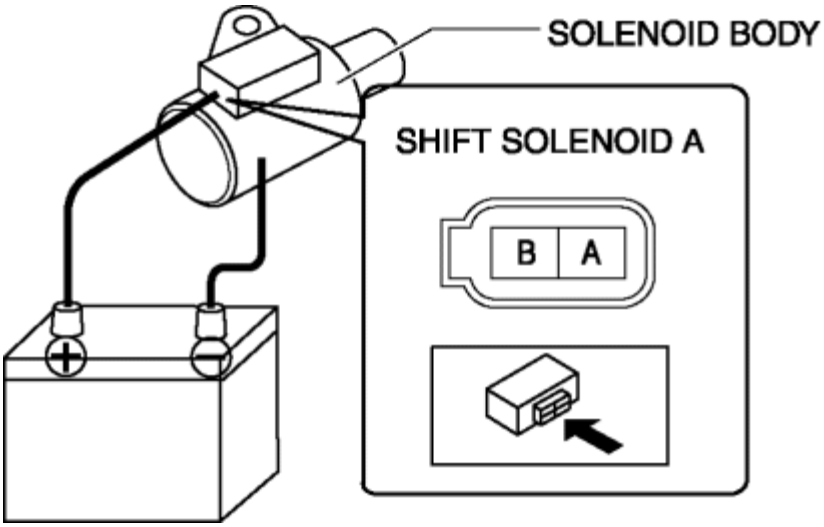
- Do not apply impact to shift solenoid A.
- Do not damage the terminals.

2. Verify that operating sound is heard from the shift solenoid A.

- If there is any malfunction, replace the shift solenoid A.

Airflow inspection

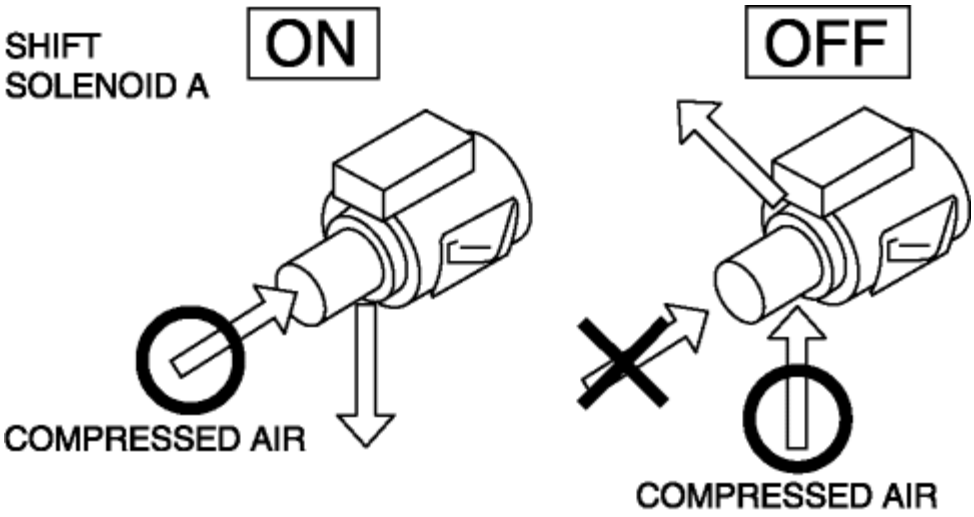
1. Connect the shift solenoid A terminal B to the battery positive terminal, connect the battery negative terminal to solenoid body.



CAUTION:

- Do not apply impact to shift solenoid A.
- Do not damage the terminals.

2. Blow compressed air to inspect the condition of the airflow shown in the figure.



- If there is any malfunction, replace the shift solenoid A.