

2012 - Mazda6 - Transmission/ Transaxle

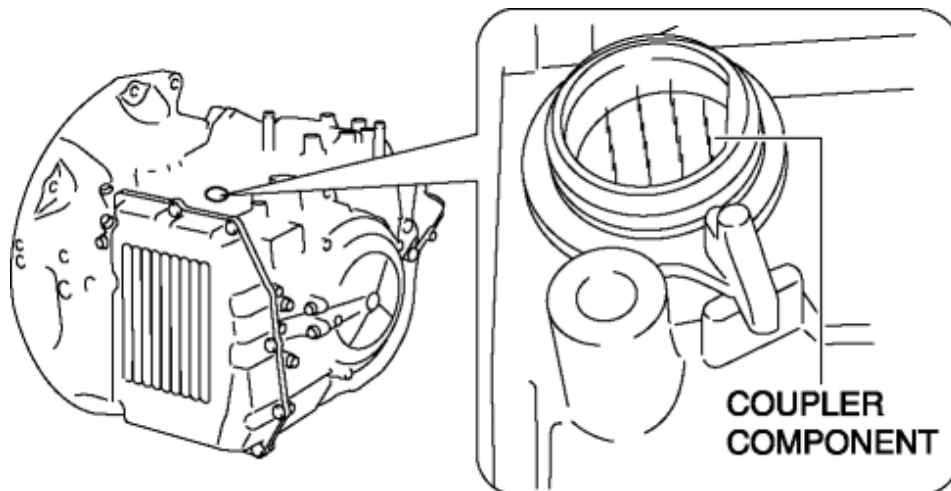
COUPLER COMPONENT INSPECTION [AY6A-EL]

CAUTION:

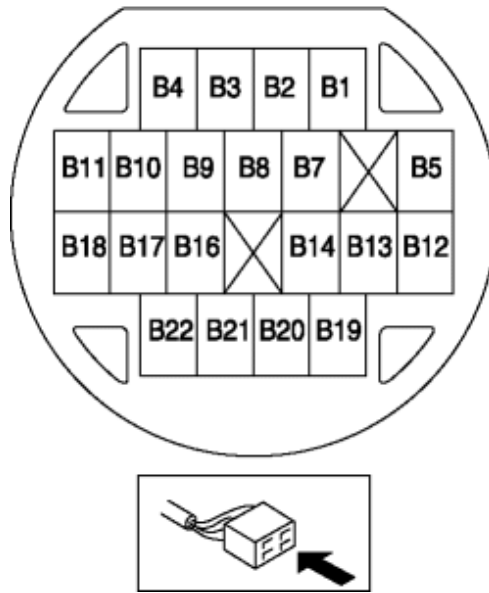
- Water or foreign objects entering the connector can cause a poor connection or corrosion. Be sure not to drop water or foreign objects on the connector when disconnecting it.
- Do not damage the terminals.

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 coupler component continuity.



COUPLER COMPONENT



- If there is any malfunction, perform an off-vehicle inspection of coupler component. (See [Off-Vehicle Inspection.](#))

Coupler component specification

Terminal	Continuity
B1—GND	No continuity
B2—GND	Continuity
B3—GND	No continuity
B4—GND	No continuity
B5—GND	Continuity
B7—GND	No continuity
B8—GND	No continuity
B9—GND	No continuity
B10—GND	No continuity
B11—GND	No continuity
B12—GND	No continuity
B13—GND	No continuity

B14—GND	No continuity
B16—GND	No continuity
B17—GND	No continuity
B18—GND	No continuity
B19—GND	No continuity
B20—GND	No continuity
B21—GND	No continuity
B22—GND	No continuity
B1—B3	Continuity
B4—B9	Continuity
B7—B8	Continuity
B10—B11	Continuity
B12—B13	Continuity
B14—B22	Continuity
B16—B21	Continuity
B17—B18	Continuity
B19—B20	Continuity

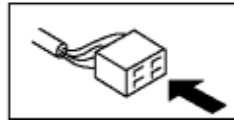
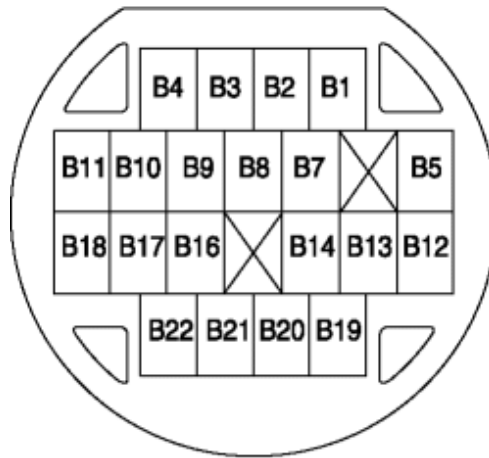
Off-Vehicle Inspection

1. Measure the coupler component continuity.
 - If there is any malfunction, replace the coupler component.

TFT sensor circuit

- Measure the continuity between coupler component terminals B7 and B8

COUPLER COMPONENT



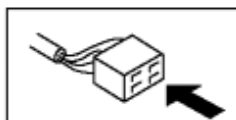
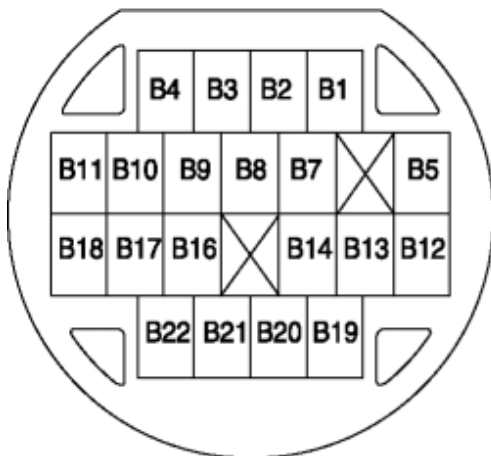
TFT sensor specification

Terminal	Continuity
B7—B8	Continuity

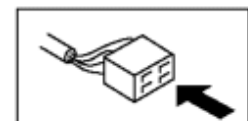
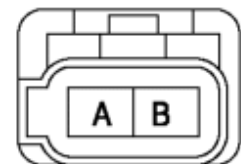
Input/ turbine speed sensor circuit

- Measure the continuity between coupler component terminal B12 and input/turbine speed sensor terminal A.
- Measure the continuity between coupler component terminal B13 and input/turbine speed sensor terminal B.

COUPLER COMPONENT



INPUT/TURBINE SPEED SENSOR

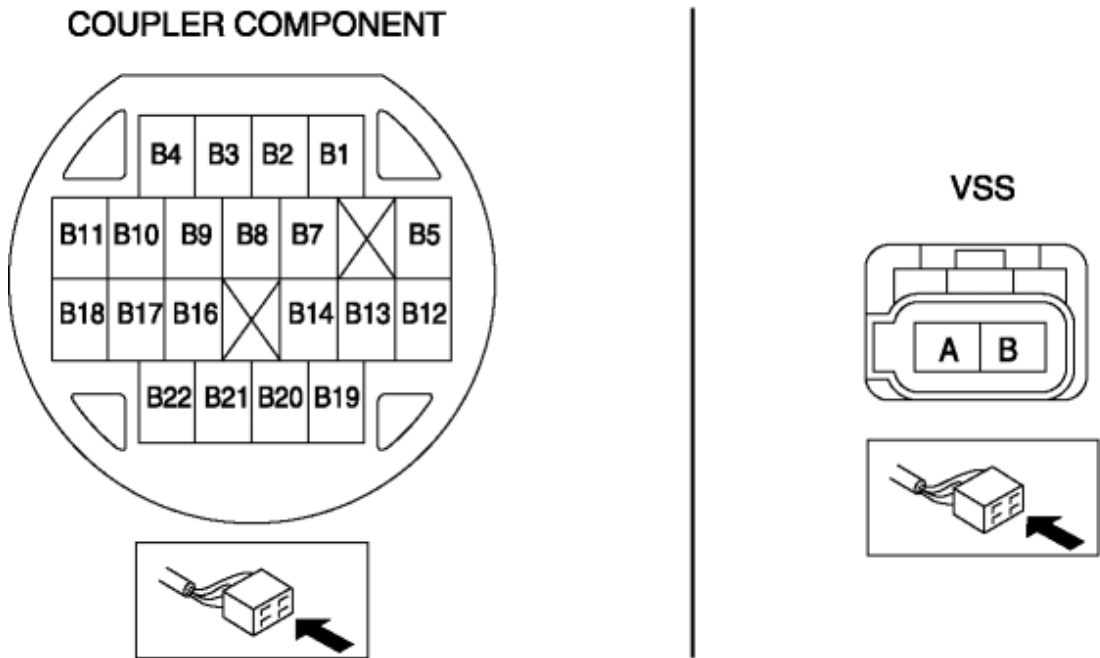


Input/ turbine speed sensor specification

Terminal	Continuity
Coupler component terminal B12—input/turbine speed sensor terminal A	Continuity
Coupler component terminal B13—input/turbine speed sensor terminal B	Continuity

VSS circuit

- Measure the continuity between coupler component terminal B19 and VSS terminal A.
- Measure the continuity between coupler component terminal B20 and VSS terminal B.



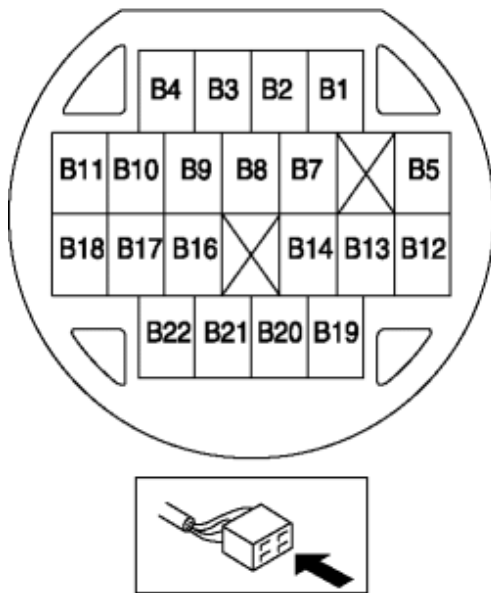
VSS specification

Terminal	Continuity
Coupler component terminal B19—VSS terminal A	Continuity
Coupler component terminal B20—VSS terminal B	Continuity

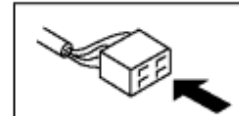
Line pressure control solenoid circuit

- Measure the continuity between coupler component terminal B1 and line pressure control solenoid terminal A.
- Measure the continuity between coupler component terminal B3 and line pressure control solenoid terminal B.

COUPLER COMPONENT



LINE PRESSURE CONTROL SOLENOID



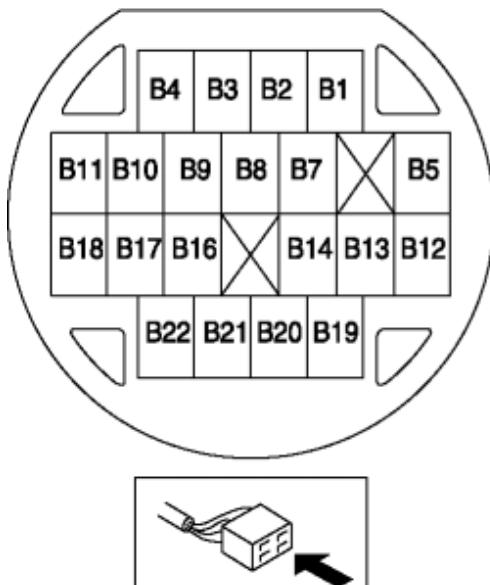
Line pressure control solenoid specification

Terminal	Continuity
Coupler component terminal B1—line pressure control solenoid terminal A	Continuity
Coupler component terminal B3—line pressure control solenoid terminal B	Continuity

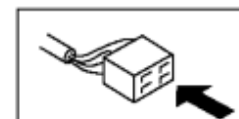
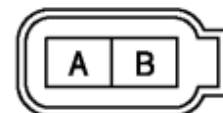
Shift solenoid A circuit

- Measure the continuity between coupler component terminal B5 and shift solenoid A terminal B.

COUPLER COMPONENT



SHIFT SOLENOID A

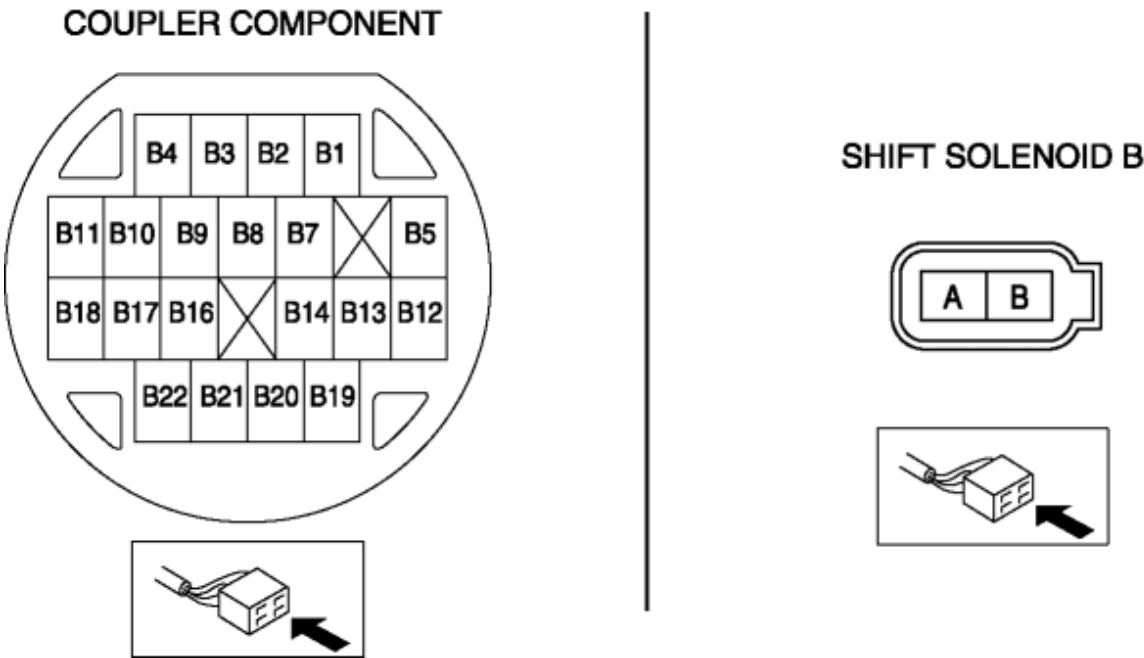


Shift solenoid A specification

Terminal	Continuity
Coupler component terminal B5—shift solenoid A terminal B	Continuity

Shift solenoid B circuit

- Measure the continuity between coupler component terminal B2 and shift solenoid B terminal B.



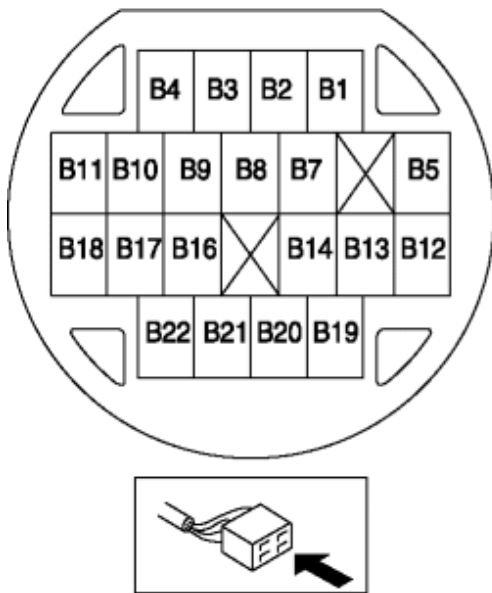
Shift solenoid B specification

Terminal	Continuity
Coupler component terminal B2—shift solenoid B terminal B	Continuity

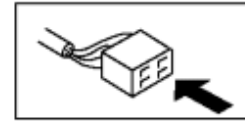
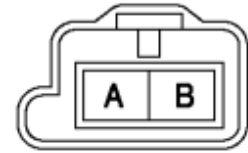
Shift solenoid C circuit

- Measure the continuity between coupler component terminal B10 and shift solenoid C terminal A.
- Measure the continuity between coupler component terminal B11 and shift solenoid C terminal B.

COUPLER COMPONENT



SHIFT SOLENOID C



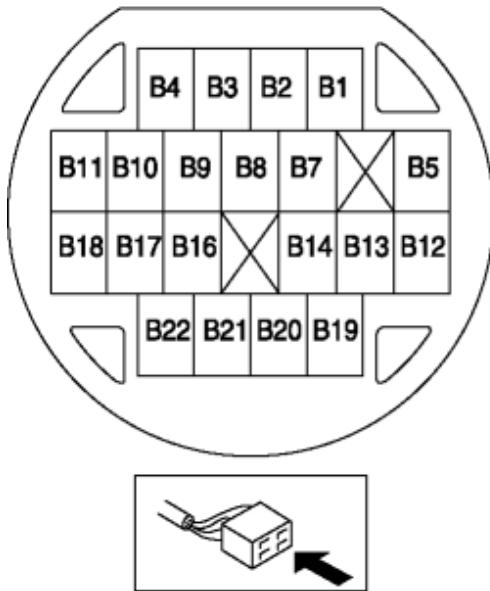
Shift solenoid C specification

Terminal	Continuity
Coupler component terminal B10—shift solenoid C terminal A	Continuity
Coupler component terminal B11—shift solenoid C terminal B	Continuity

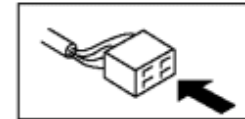
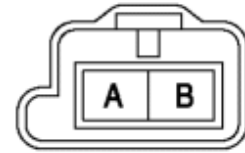
Shift solenoid D circuit

- Measure the continuity between coupler component terminal B17 and shift solenoid D terminal B.
- Measure the continuity between coupler component terminal B18 and shift solenoid D terminal A.

COUPLER COMPONENT



SHIFT SOLENOID D



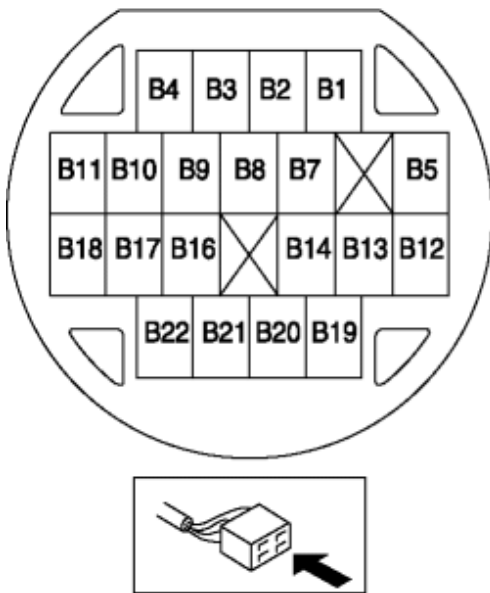
Shift solenoid D specification

Terminal	Continuity
Coupler component terminal B17—shift solenoid D terminal B	Continuity
Coupler component terminal B18—shift solenoid D terminal A	Continuity

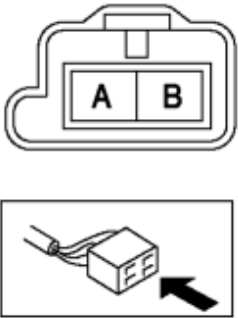
Shift solenoid E circuit

- Measure the continuity between coupler component terminal B14 and shift solenoid E terminal B.
- Measure the continuity between coupler component terminal B22 and shift solenoid E terminal A.

COUPLER COMPONENT



SHIFT SOLENOID E



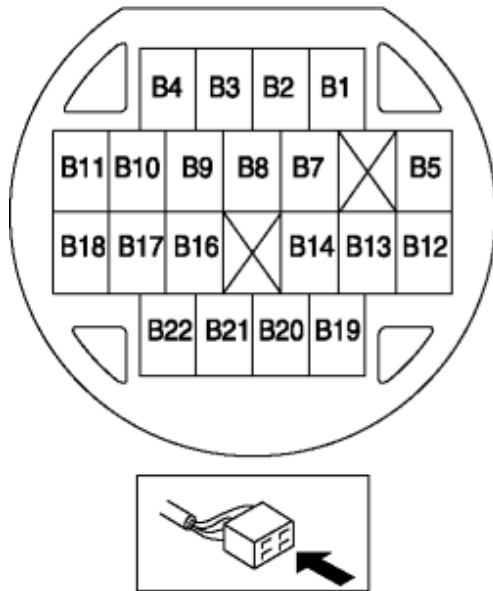
Shift solenoid E specification

Terminal	Continuity
Coupler component terminal B14—shift solenoid E terminal B	Continuity
Coupler component terminal B22—shift solenoid E terminal A	Continuity

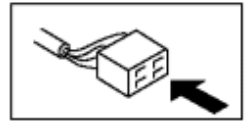
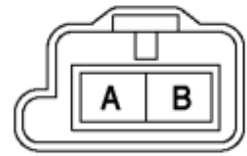
Shift solenoid F circuit

- Measure the continuity between coupler component terminal B16 and shift solenoid F terminal A.
- Measure the continuity between coupler component terminal B21 and shift solenoid F terminal B.

COUPLER COMPONENT



SHIFT SOLENOID F



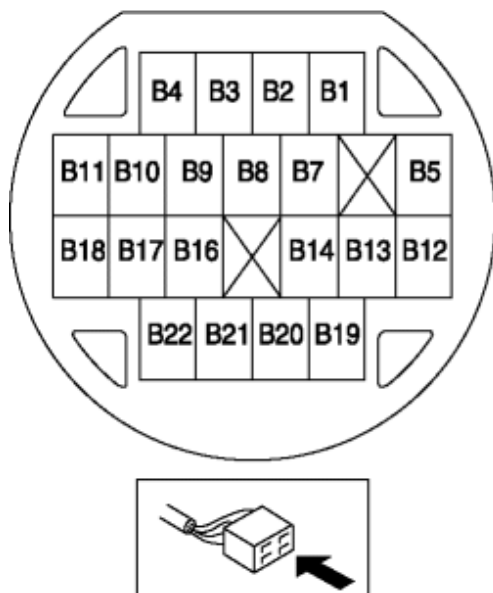
Shift solenoid F specification

Terminal	Continuity
Coupler component terminal B16—shift solenoid F terminal A	Continuity
Coupler component terminal B21—shift solenoid F terminal B	Continuity

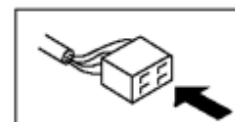
TCC control solenoid circuit

- Measure the continuity between coupler component terminal B4 and TCC control solenoid terminal A.
- Measure the continuity between coupler component terminal B9 and TCC control solenoid terminal B.

COUPLER COMPONENT



TCC CONTROL SOLENOID



TCC control solenoid specification

Terminal	Continuity
Coupler component terminal B4—TCC control solenoid terminal A	Continuity
Coupler component terminal B9—TCC control solenoid terminal B	Continuity

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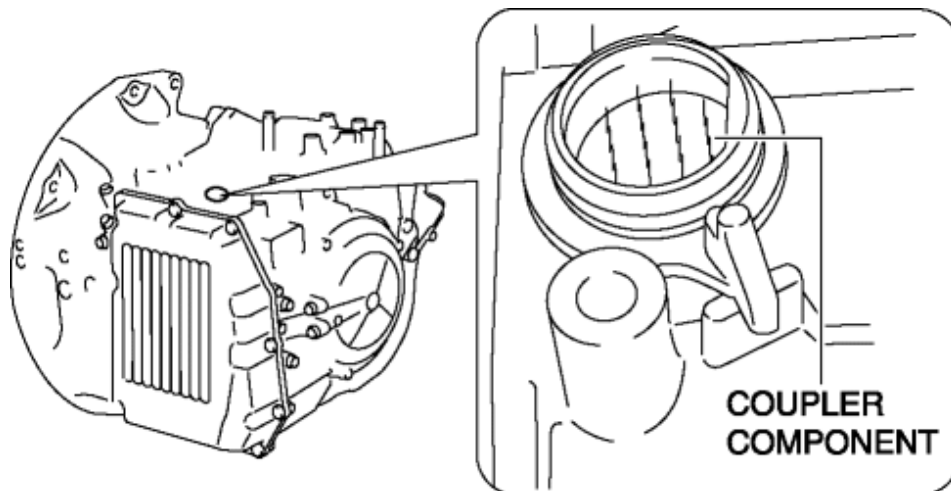
COUPLER COMPONENT INSPECTION [AY6A-EL]

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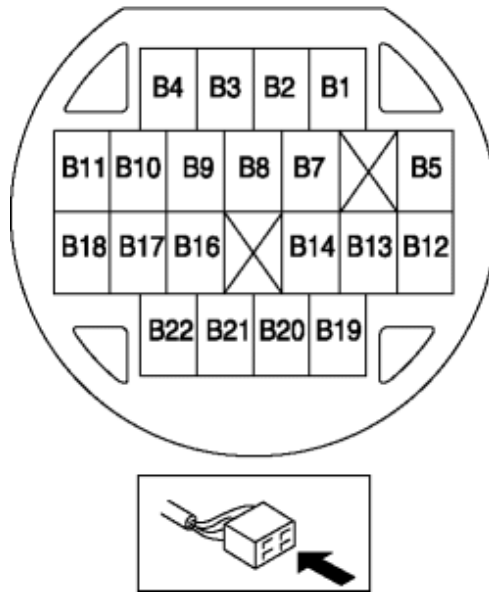
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- Do not damage the terminals.

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 coupler component continuity.



COUPLER COMPONENT



- If there is any malfunction, perform an off-vehicle inspection of coupler component. (See [Off-Vehicle Inspection.](#))

Coupler component specification

Terminal	Continuity
B1—GND	No continuity
B2—GND	Continuity
B3—GND	No continuity
B4—GND	No continuity
B5—GND	Continuity
B7—GND	No continuity
B8—GND	No continuity
B9—GND	No continuity
B10—GND	No continuity
B11—GND	No continuity
B12—GND	No continuity
B13—GND	No continuity

B14—GND	No continuity
B16—GND	No continuity
B17—GND	No continuity
B18—GND	No continuity
B19—GND	No continuity
B20—GND	No continuity
B21—GND	No continuity
B22—GND	No continuity
B1—B3	Continuity
B4—B9	Continuity
B7—B8	Continuity
B10—B11	Continuity
B12—B13	Continuity
B14—B22	Continuity
B16—B21	Continuity
B17—B18	Continuity
B19—B20	Continuity

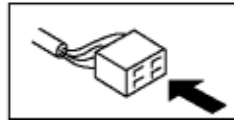
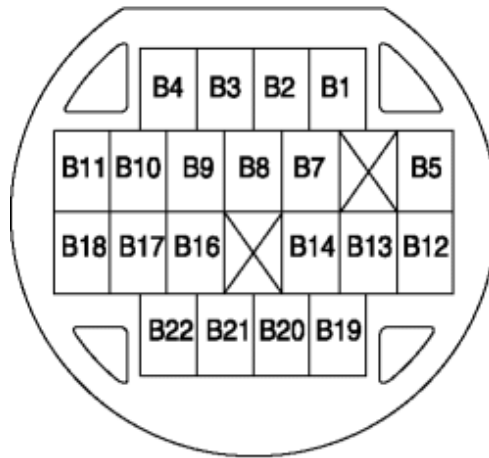
Off-Vehicle Inspection

1. Measure the coupler component continuity.
 - If there is any malfunction, replace the coupler component.

TFT sensor circuit

- Measure the continuity between coupler component terminals B7 and B8

COUPLER COMPONENT



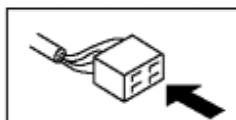
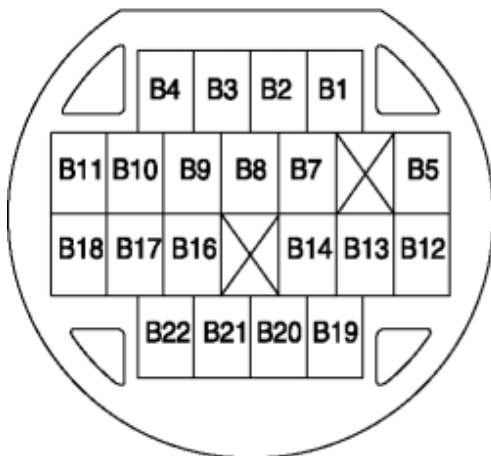
TFT sensor specification

Terminal	Continuity
B7—B8	Continuity

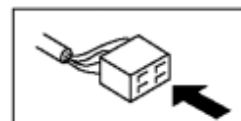
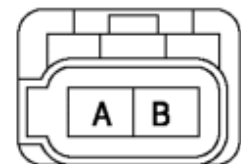
Input/ turbine speed sensor circuit

- Measure the continuity between coupler component terminal B12 and input/turbine speed sensor terminal A.
- Measure the continuity between coupler component terminal B13 and input/turbine speed sensor terminal B.

COUPLER COMPONENT



INPUT/TURBINE SPEED SENSOR

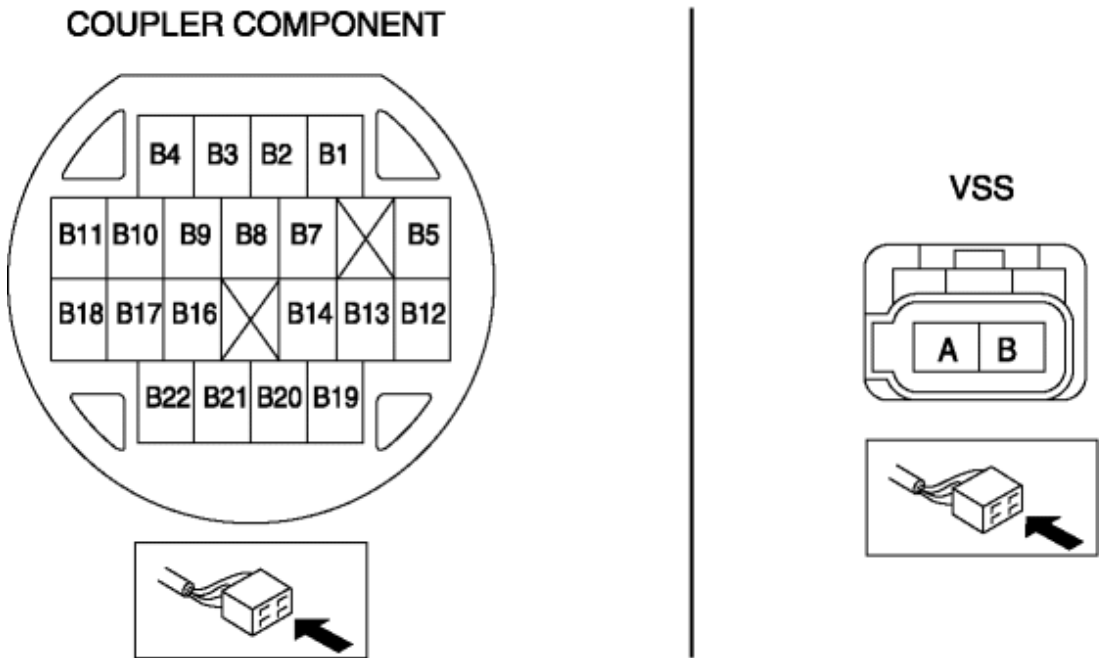


Input/ turbine speed sensor specification

Terminal	Continuity
Coupler component terminal B12—input/turbine speed sensor terminal A	Continuity
Coupler component terminal B13—input/turbine speed sensor terminal B	Continuity

VSS circuit

- Measure the continuity between coupler component terminal B19 and VSS terminal A.
- Measure the continuity between coupler component terminal B20 and VSS terminal B.



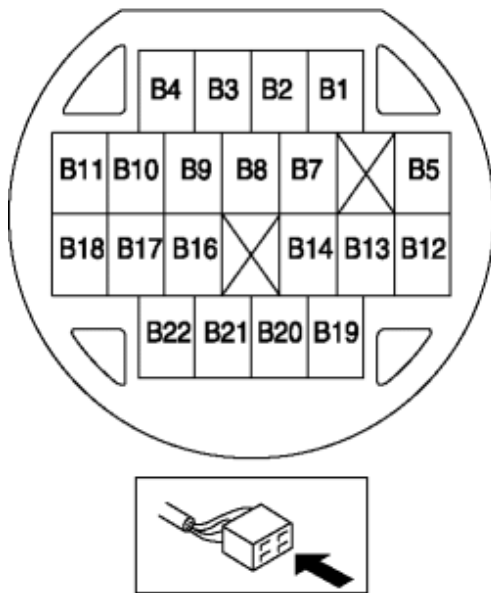
VSS specification

Terminal	Continuity
Coupler component terminal B19—VSS terminal A	Continuity
Coupler component terminal B20—VSS terminal B	Continuity

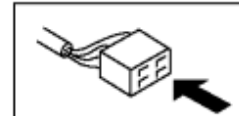
Line pressure control solenoid circuit

- Measure the continuity between coupler component terminal B1 and line pressure control solenoid terminal A.
- Measure the continuity between coupler component terminal B3 and line pressure control solenoid terminal B.

COUPLER COMPONENT



LINE PRESSURE CONTROL SOLENOID



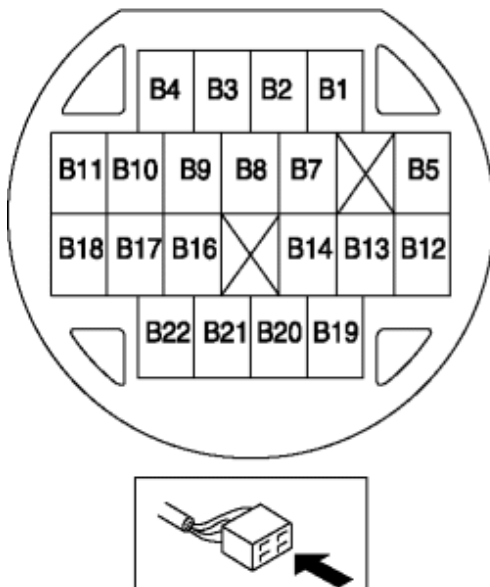
Line pressure control solenoid specification

Terminal	Continuity
Coupler component terminal B1—line pressure control solenoid terminal A	Continuity
Coupler component terminal B3—line pressure control solenoid terminal B	Continuity

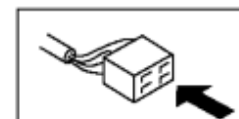
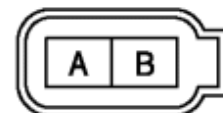
Shift solenoid A circuit

- Measure the continuity between coupler component terminal B5 and shift solenoid A terminal B.

COUPLER COMPONENT



SHIFT SOLENOID A

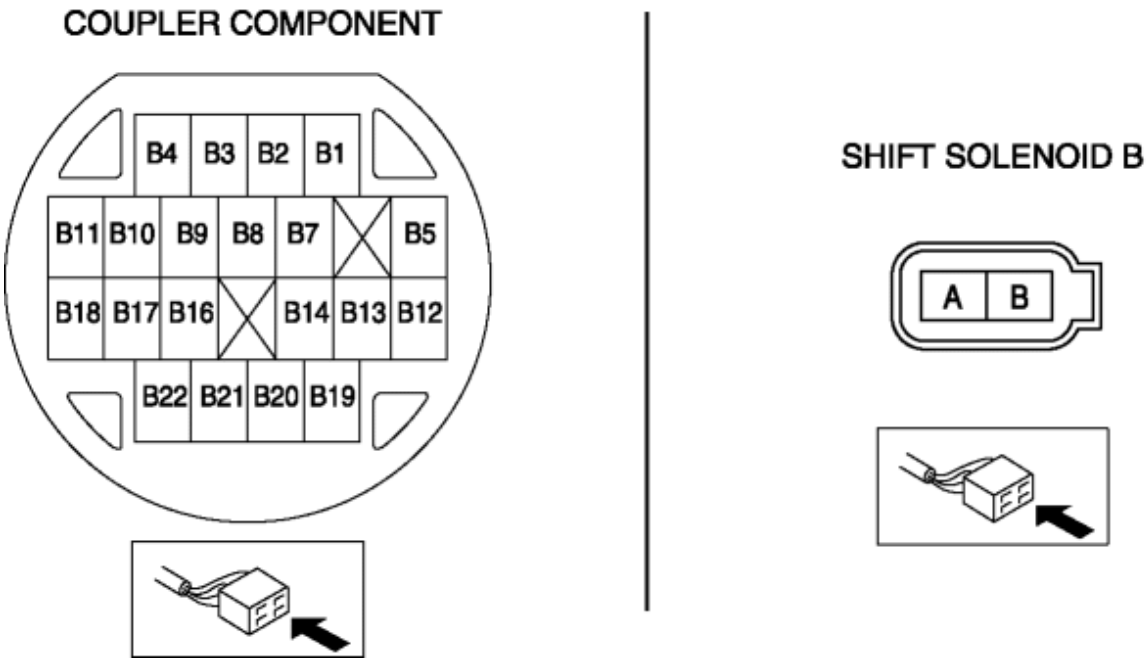


Shift solenoid A specification

Terminal	Continuity
Coupler component terminal B5—shift solenoid A terminal B	Continuity

Shift solenoid B circuit

- Measure the continuity between coupler component terminal B2 and shift solenoid B terminal B.



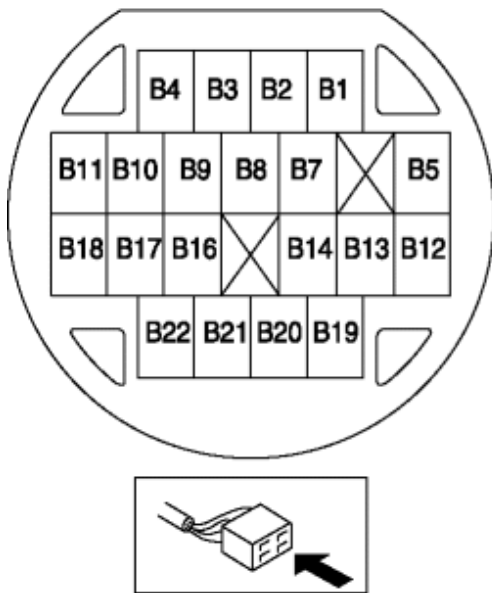
Shift solenoid B specification

Terminal	Continuity
Coupler component terminal B2—shift solenoid B terminal B	Continuity

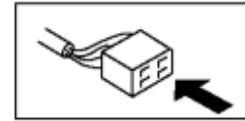
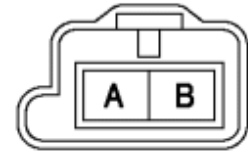
Shift solenoid C circuit

- Measure the continuity between coupler component terminal B10 and shift solenoid C terminal A.
- Measure the continuity between coupler component terminal B11 and shift solenoid C terminal B.

COUPLER COMPONENT



SHIFT SOLENOID C



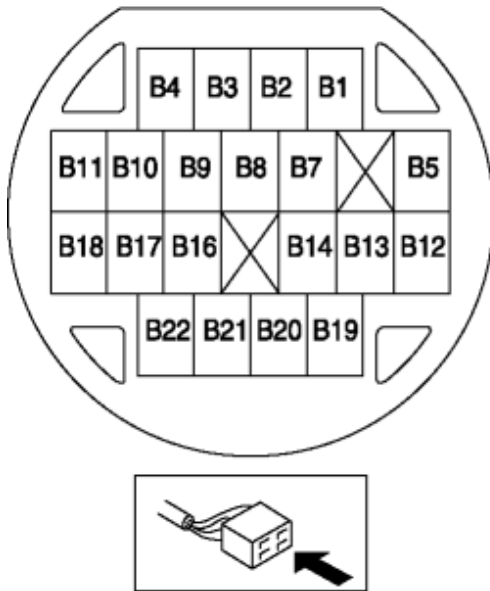
Shift solenoid C specification

Terminal	Continuity
Coupler component terminal B10—shift solenoid C terminal A	Continuity
Coupler component terminal B11—shift solenoid C terminal B	Continuity

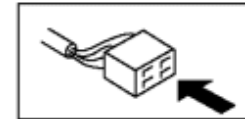
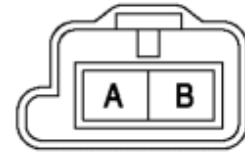
Shift solenoid D circuit

- Measure the continuity between coupler component terminal B17 and shift solenoid D terminal B.
- Measure the continuity between coupler component terminal B18 and shift solenoid D terminal A.

COUPLER COMPONENT



SHIFT SOLENOID D



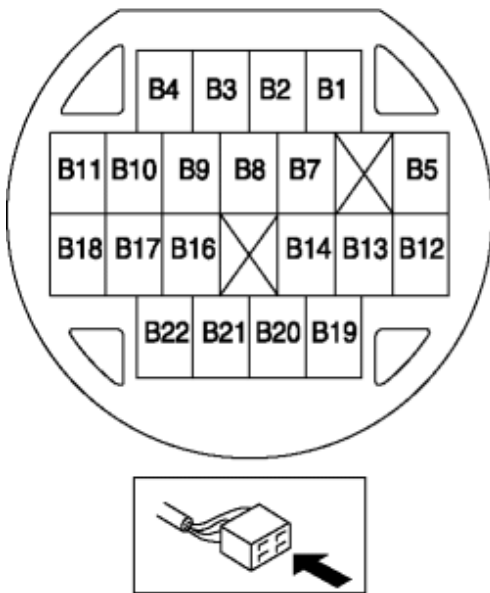
Shift solenoid D specification

Terminal	Continuity
Coupler component terminal B17—shift solenoid D terminal B	Continuity
Coupler component terminal B18—shift solenoid D terminal A	Continuity

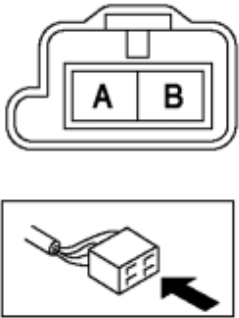
Shift solenoid E circuit

- Measure the continuity between coupler component terminal B14 and shift solenoid E terminal B.
- Measure the continuity between coupler component terminal B22 and shift solenoid E terminal A.

COUPLER COMPONENT



SHIFT SOLENOID E



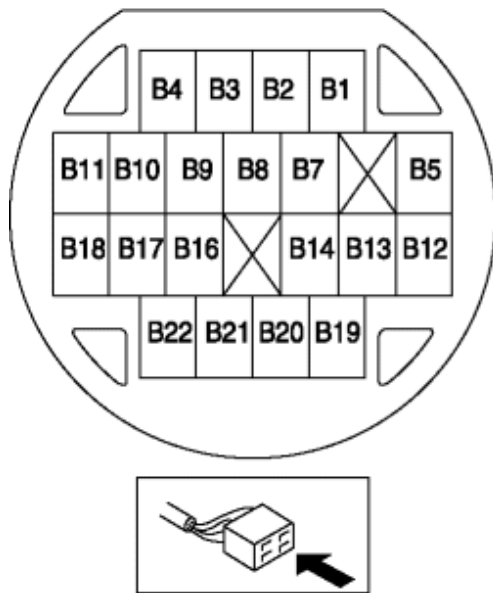
Shift solenoid E specification

Terminal	Continuity
Coupler component terminal B14—shift solenoid E terminal B	Continuity
Coupler component terminal B22—shift solenoid E terminal A	Continuity

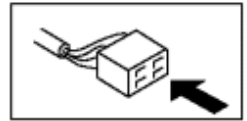
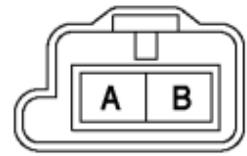
Shift solenoid F circuit

- Measure the continuity between coupler component terminal B16 and shift solenoid F terminal A.
- Measure the continuity between coupler component terminal B21 and shift solenoid F terminal B.

COUPLER COMPONENT



SHIFT SOLENOID F



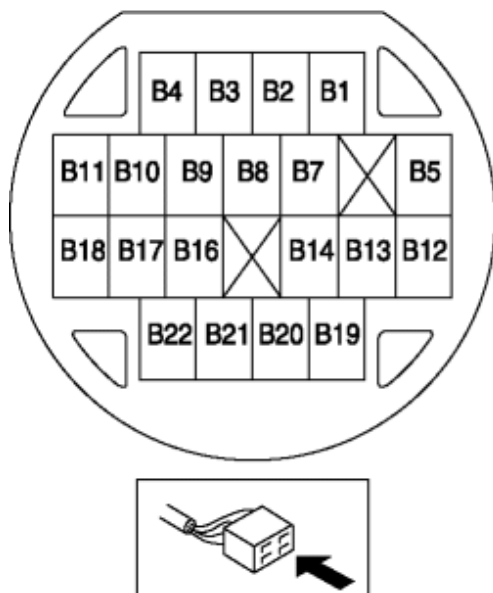
Shift solenoid F specification

Terminal	Continuity
Coupler component terminal B16—shift solenoid F terminal A	Continuity
Coupler component terminal B21—shift solenoid F terminal B	Continuity

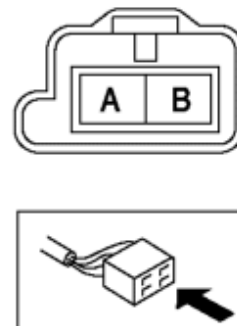
TCC control solenoid circuit

- Measure the continuity between coupler component terminal B4 and TCC control solenoid terminal A.
- Measure the continuity between coupler component terminal B9 and TCC control solenoid terminal B.

COUPLER COMPONENT



TCC CONTROL SOLENOID



TCC control solenoid specification

Terminal	Continuity
Coupler component terminal B4—TCC control solenoid terminal A	Continuity
Coupler component terminal B9—TCC control solenoid terminal B	Continuity

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