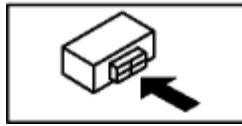
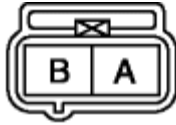


## 2012 - Mazda6 - Engine

### OIL CONTROL VALVE (OCV) INSPECTION [MZR 2.5]

#### Coil Resistance Inspection

1. Disconnect the negative battery cable.
2. Remove the plug hole plate. (See [PLUG HOLE PLATE REMOVAL/ INSTALLATION \[MZR 2.5\]](#).)
3. Disconnect the OCV connector.
4. Measure the resistance between terminals A and B using an ohmmeter.
  - If not as specified, replace the OCV. (See [OIL CONTROL VALVE \(OCV\) REMOVAL/ INSTALLATION \[MZR 2.5\]](#).)

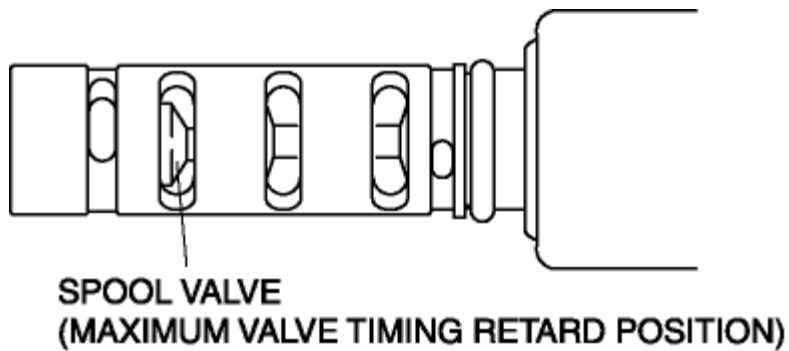


#### Coil resistance

- 6.9—7.9 ohms [20°C {68°F}]
5. Connect the OCV connector.
  6. Install the plug hole plate. (See [PLUG HOLE PLATE REMOVAL/ INSTALLATION \[MZR 2.5\]](#).)
  7. Connect the negative battery cable.

#### Spool Valve Operation Inspection

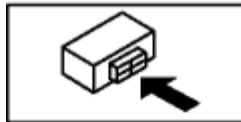
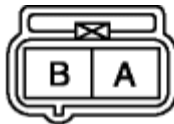
1. Remove the OCV. (See [OIL CONTROL VALVE \(OCV\) REMOVAL/ INSTALLATION \[MZR 2.5\]](#).)
2. Verify that the spool valve in the OCV is in the maximum valve timing retard position as indicated in the figure.
  - If not as specified, replace the OCV. (See [OIL CONTROL VALVE \(OCV\) REMOVAL/ INSTALLATION \[MZR 2.5\]](#).)



3. Verify that the battery is fully charged. (See [BATTERY INSPECTION \[MZR 2.5\]](#).)
  - If not as specified, recharge the battery. (See [BATTERY RECHARGING \[MZR 2.5\]](#).)

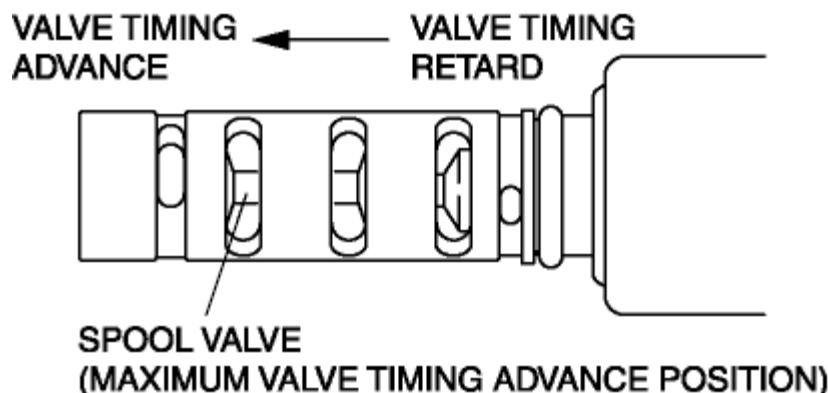
**NOTE:**

- When applying battery positive voltage between the OCV terminals, the connection can be either of the following:
  - Positive battery cable to terminal A, negative battery cable to terminal B
  - Positive battery cable to terminal B, negative battery cable to terminal A



4. Apply battery positive voltage between the OCV terminals and verify that the spool valve operates and moves to the maximum valve timing advance position.

- If not as specified, replace the OCV. (See [OIL CONTROL VALVE \(OCV\) REMOVAL/ INSTALLATION \[MZR 2.5\]](#).)



5. Stop applying battery positive voltage and verify that the spool valve returns to the maximum valve timing retard position.

- If not as specified, replace the OCV. (See [OIL CONTROL VALVE \(OCV\) REMOVAL/ INSTALLATION \[MZR 2.5\]](#).)

6. Install the OCV. (See [OIL CONTROL VALVE \(OCV\) REMOVAL/ INSTALLATION \[MZR 2.5\]](#).)

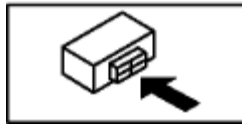
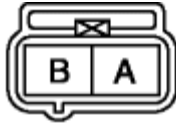


## 2012 - Mazda6 - Engine

### OIL CONTROL VALVE (OCV) INSPECTION [MZR 2.5]

#### Coil Resistance Inspection

1. Disconnect the negative battery cable.
2. Remove the plug hole plate. (See [PLUG HOLE PLATE REMOVAL/ INSTALLATION \[MZR 2.5\]](#).)
3. Disconnect the OCV connector.
4. Measure the resistance between terminals A and B using an ohmmeter.
  - If not as specified, replace the OCV. (See [OIL CONTROL VALVE \(OCV\) REMOVAL/ INSTALLATION \[MZR 2.5\]](#).)

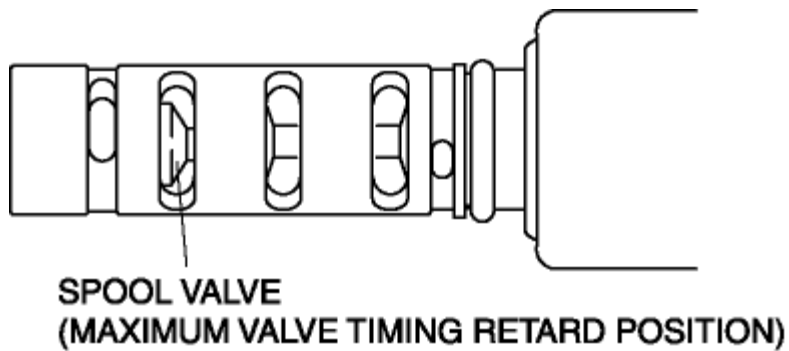


#### Coil resistance

- 6.9—7.9 ohms [20°C {68°F}]
5. Connect the OCV connector.
  6. Install the plug hole plate. (See [PLUG HOLE PLATE REMOVAL/ INSTALLATION \[MZR 2.5\]](#).)
  7. Connect the negative battery cable.

#### Spool Valve Operation Inspection

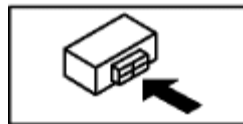
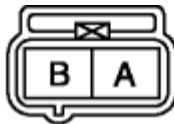
1. Remove the OCV. (See [OIL CONTROL VALVE \(OCV\) REMOVAL/ INSTALLATION \[MZR 2.5\]](#).)
2. Verify that the spool valve in the OCV is in the maximum valve timing retard position as indicated in the figure.
  - If not as specified, replace the OCV. (See [OIL CONTROL VALVE \(OCV\) REMOVAL/ INSTALLATION \[MZR 2.5\]](#).)



3. Verify that the battery is fully charged. (See [BATTERY INSPECTION \[MZR 2.5\]](#).)
  - If not as specified, recharge the battery. (See [BATTERY RECHARGING \[MZR 2.5\]](#).)

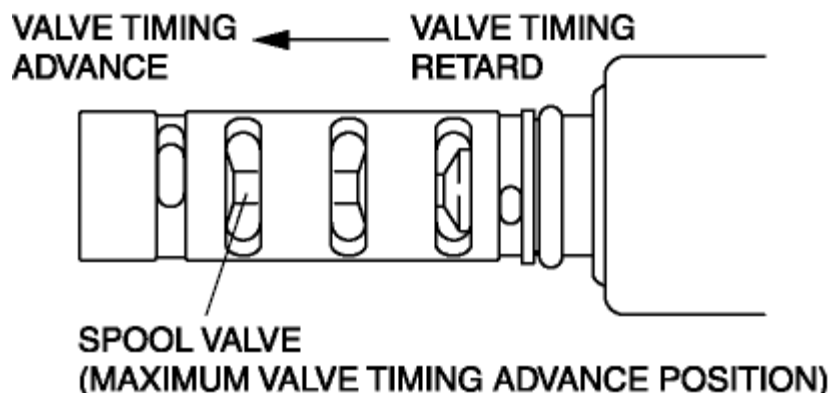
**NOTE:**

- When applying battery positive voltage between the OCV terminals, the connection can be either of the following:
  - Positive battery cable to terminal A, negative battery cable to terminal B
  - Positive battery cable to terminal B, negative battery cable to terminal A



4. Apply battery positive voltage between the OCV terminals and verify that the spool valve operates and moves to the maximum valve timing advance position.

- If not as specified, replace the OCV. (See [OIL CONTROL VALVE \(OCV\) REMOVAL/ INSTALLATION \[MZR 2.5\]](#).)



5. Stop applying battery positive voltage and verify that the spool valve returns to the maximum valve timing retard position.

- If not as specified, replace the OCV. (See [OIL CONTROL VALVE \(OCV\) REMOVAL/ INSTALLATION \[MZR 2.5\]](#).)

6. Install the OCV. (See [OIL CONTROL VALVE \(OCV\) REMOVAL/ INSTALLATION \[MZR 2.5\]](#).)

