

2012 - Mazda6 - Body and Accessories

INSTRUMENT CLUSTER INSPECTION

Speedometer

Using a speedometer tester

- 1. Adjust the tire pressure to the specification.
- 2. Using a speedometer tester, verify that the tester reading is as indicated in the table below.

Speedometer tester indication (km/h)	Allowable range (km/h)
20	17—23
40	38—43
60	57—63
80	77—83
100	97—103
120	116—124
140	136—144

Speedometer tester indication (mph)	Allowable range (mph)
10	9—11
20	19—21
30	29—31

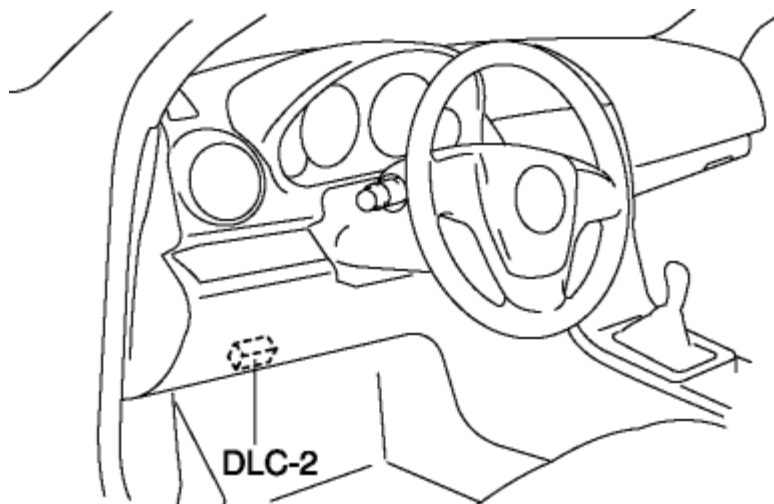
40	39—41
50	48—52
60	58—62
70	68—72
80	78—82

3. Verify that the speedometer reading is within the range indicated in the table.

- If the speedometer does not move or the indication is not within the allowable range, inspect the PCM, TCM, and related wiring harnesses.
 - If the PCM, TCM, and related wiring harnesses are normal, replace the instrument cluster.

Using the M-MDS

1. Connect the M-MDS (IDS) to the DLC-2.



2. After the vehicle is identified, select the following items from the initialization screen of the IDS.

- When using the IDS (laptop PC)
 - Select "DataLogger".
 - Select "Modules".
 - Select "IC".

3. Verify that it is displayed according to the table using "SPDMTR".

- If the speedometer does not move or the indication is not within the allowable range, inspect the related wiring harnesses.

- If the related wiring harnesses are normal, replace the instrument cluster.

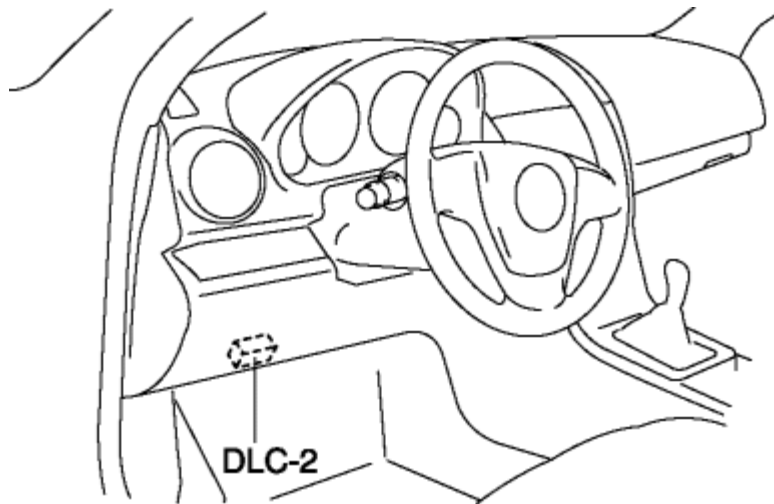
M-MDS display	Instrument cluster display
60 km/h	Speedometer gauge needle moves to approx. 60 km/h {37 mph}
120 km/h	Speedometer gauge needle moves to approx. 120 km/h {75 mph}
Off	Speedometer gauge needle moves to 0 km/h {0 mph}

Tachometer

CAUTION:

- If the engine speed exceeds the allowable range, the engine could be damaged. Therefore, when inspecting the tachometer, do not allow the engine speed to exceed the allowable range indication on the tachometer.

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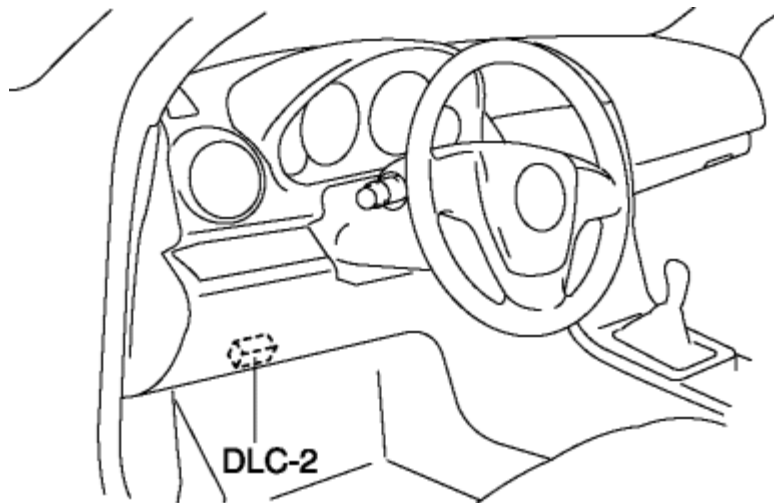
range, inspect the related wiring harnesses.

- If the related wiring harnesses are normal, replace the instrument cluster.

M-MDS display	Instrument cluster display
3,000 RPM	Tachometer gauge needle moves to approx. 3,100 rpm
6,000 RPM	Tachometer gauge needle moves to approx. 6,200 rpm
Off	Tachometer gauge needle moves to 0 rpm

Fuel gauge

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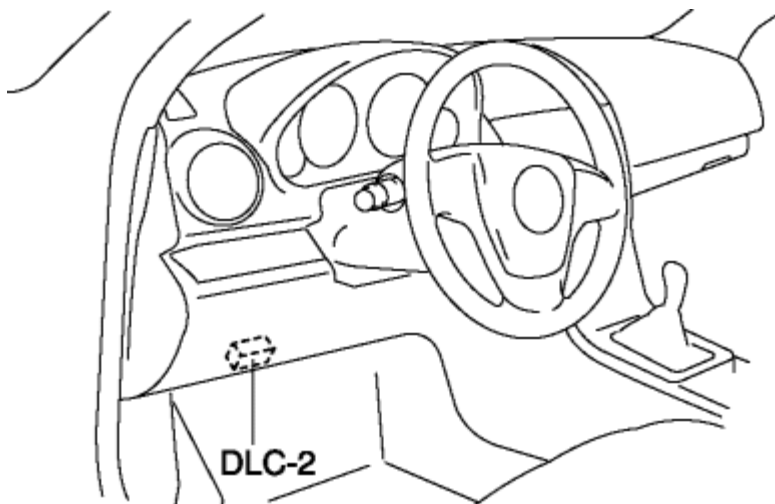
3. Verify that it is displayed according to the table using "FUEL_GAUGE".

- If the fuel gauge does not move or the indication is not within the allowable range, inspect the related wiring harnesses.
 - If the related wiring harnesses are normal, replace the instrument cluster.

M-MDS display	Instrument cluster display
E	Fuel gauge needle moves to E
1/2	Fuel gauge needle moves to 1/2
F	Fuel gauge needle moves to F

Water temperature gauge

1. Connect the M-MDS (IDS) to the DLC-2.



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- When using the IDS (laptop PC)
 - Select "DataLogger".
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 - Select "IC".

3. Verify that it is displayed according to the table using "ECT_GAUGE".

- If the water temperature gauge does not move or the indication is not within the allowable range, inspect the related wiring harnesses.
 - If the related wiring harnesses are normal, replace the instrument cluster.

M-MDS display	Instrument cluster display
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C (50 DegC)	Engine coolant temperature gauge needle moves to C
H (128 DegC)	Engine coolant temperature gauge needle moves to H
Off	Engine coolant temperature gauge needle moves to lower area

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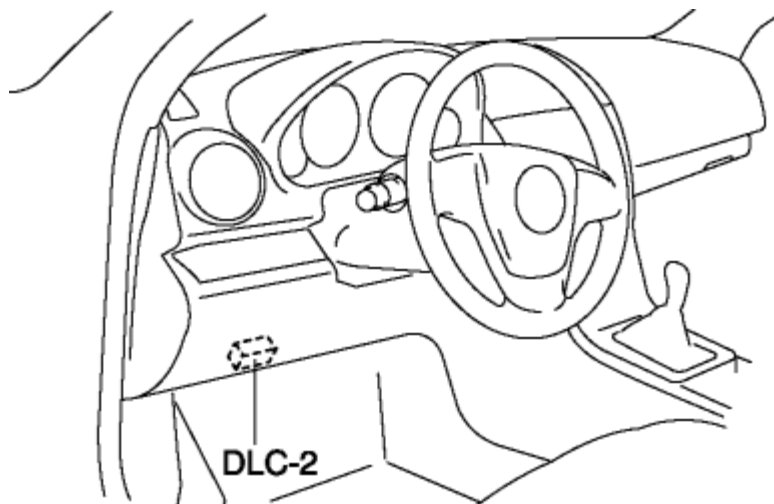
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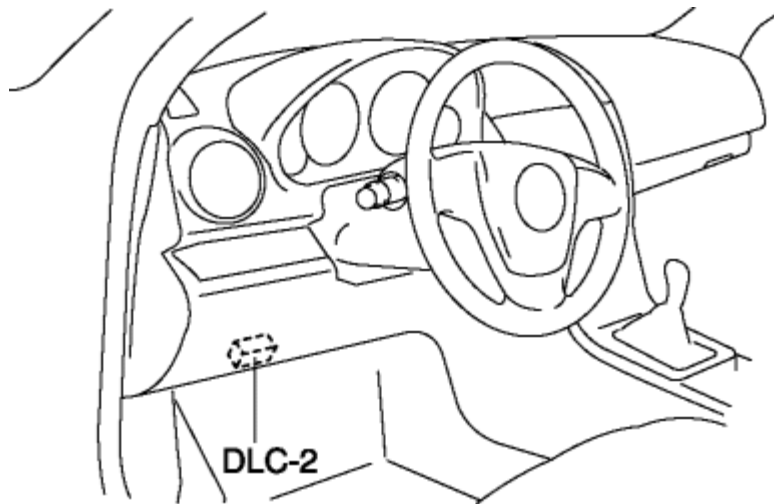
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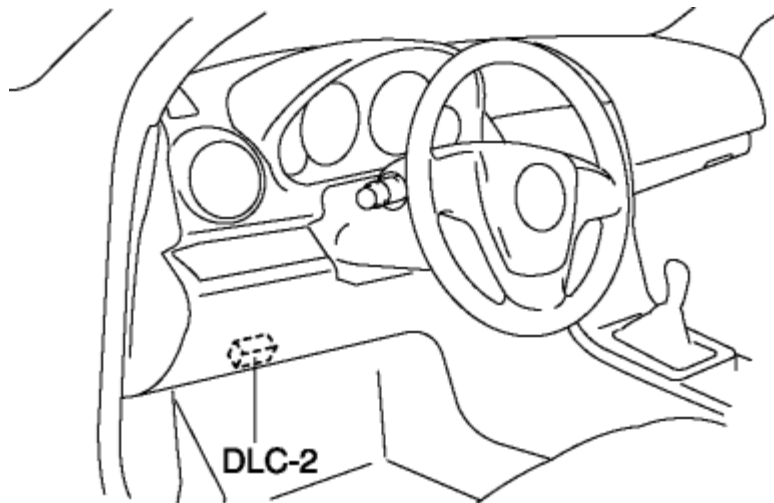
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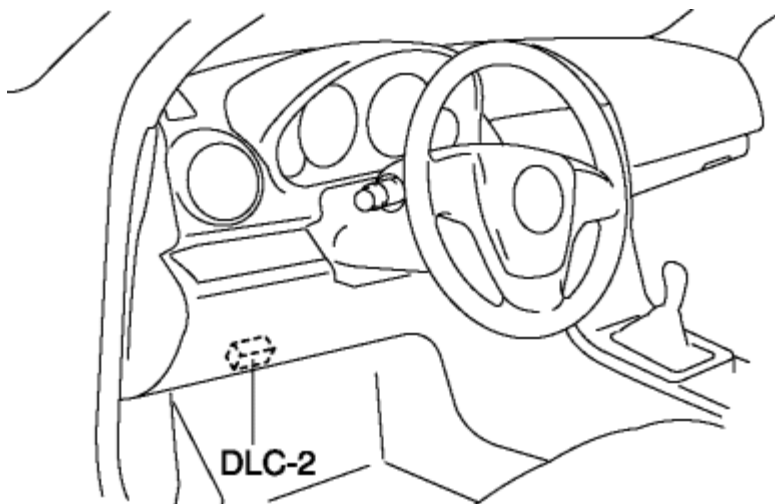
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