



TOTAL CAR CARE SERVICES

TECHNICAL SERVICE BULLETINS

Manufacturer: Mazda (Bulletin# 01-014/14)

TCC Group: xx -xx -0714

Subject: Check Engine Light On with Diagnostic Trouble Code P0456

Model: 2007-2014 CX-9
2011-2013 Mazda3

Issue: Some vehicles may exhibit the check engine light on with DTC P0456 stored in the PCM memory.

- P0456: EVAP system leak detected (very small leak)

The concern is most likely the result of the customer not getting the fuel cap completely closed after fueling the vehicle. This causes a small fuel vapor to leak and turns DTC P0456 on.

Customers having this concern should have their vehicle repaired using the following repair procedure.

Service Procedure:

1. Verify the customer concern (and that DTC P0456 is stored in the PCM memory.)
2. Perform the diagnosis procedure for DTC P0456, refer to ALLDATA/ DirecTechPRO.
 - If a leak is detected, repair it according to the instructions in ALL-DATA/ DirecTechPRO
 - If no leak is detected, the most probable cause is the fuel cap was not completely seated (See figure 1)

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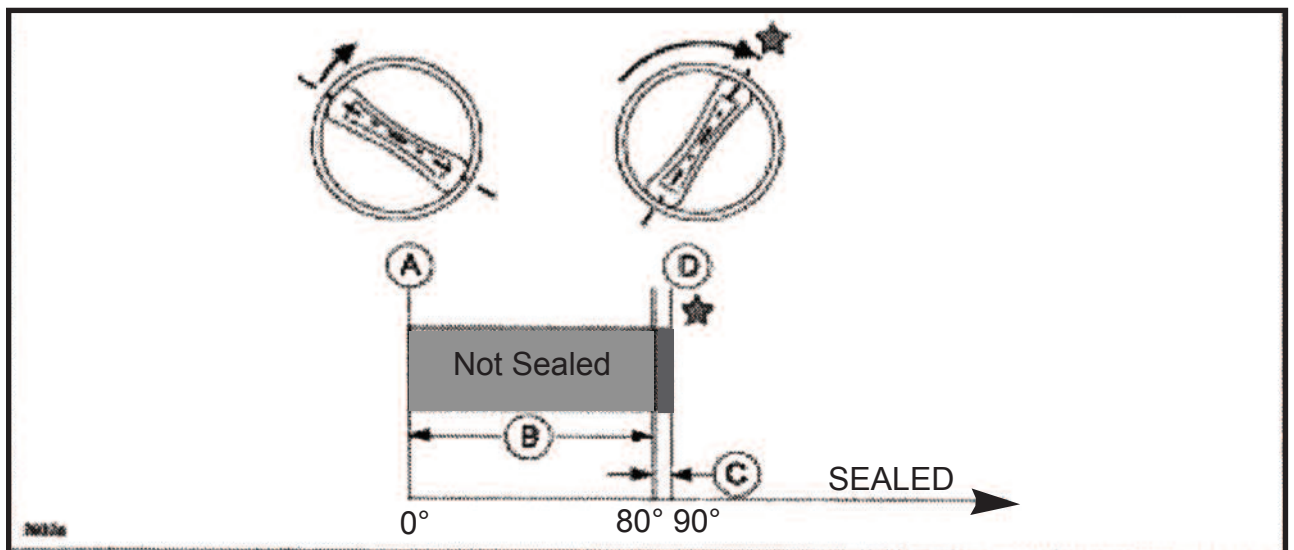
Manufacturer: Mazda (TSB01-014/14)
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Repair Procedure: (continued)

2011-2013 Mazda3, 2007-14 CX-9:

NOTE

- DO NOT replace any parts without detecting a leak,
- Explain to the customer that the fuel cap must be turned at least 80 degrees (C) or until two (2) or more click sounds are heard (D) to be properly sealed.
- If the fuel cap is not completely closed, it may stay in the B range (because the C range is so small) and will likely leak.



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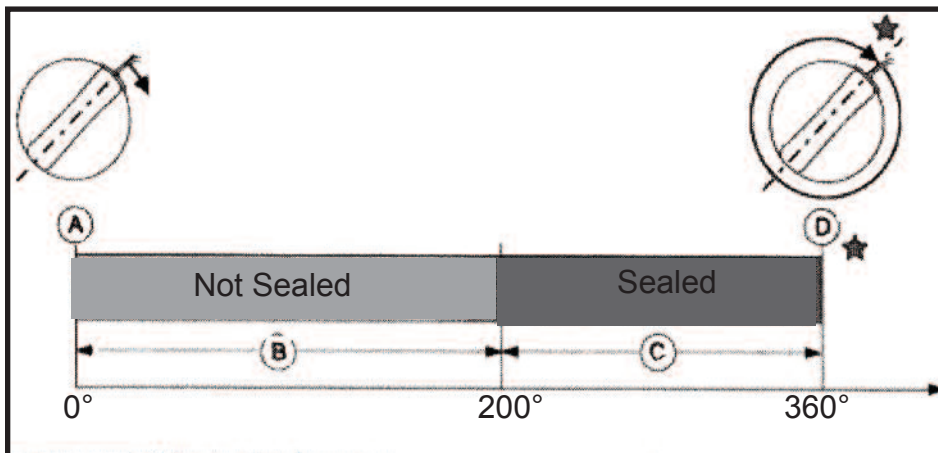
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Repair Procedure: (continued)

2014-2015 Mazda3, 2013-15-14 CX-5, 2014-2015 Mazda6:

NOTE

- If the fuel cap is turned less than 200 degrees (B), it is not sealed.
- If the fuel cap is turned between 200-360 degrees (C), it is sealed.
- If the fuel cap is turned 360 degrees or more, it is sealed and a clicking noise (D) is also heard.



NOTE

The fuel cap may stay within the (C) range, since it is a large range. A leak is unlikely to occur, even if the fuel cap was not closed completely (until clicking sound is heard (D)).

Range	Fuel cap turning angle (degrees)		Description
	2001-13 Mazda3 and 2007-14 CX9	2014-15 Mazda3 2013-2015 CX-5 and 2014-15 Mazda6	
A	0	0	Start fuel cap closing
B	0 - 80	0 - 200	Sealing is NOT complete. A small leak may occur if fuel cap closing stopped within this range.
C	80-90 (small range)	200-350 (large range)	Sealing is complete. A leak will not occur, even if fuel cap closing is stopped within this range.
D	>90	>360	Complete fuel cap closing (clicking sound is heard).