

Technical Service Bulletin

Mazda North American Operations
Irvine, CA 92618-2922



Subject: CHECK ENGINE LIGHT ON WITH DTC P0456	Bulletin No.: 01-005/19
	Last Issued: 01/10/2019

BULLETIN NOTES

This bulletin supersedes the previously issued bulletin(s) listed below. The changes are noted in Red text.

Previous TSBs:	Date(s) Issued:
01-013/18	05/11/2018
01-008/15	05/15/2015
01-014/14	06/10/2014

APPLICABLE MODEL(S)/VINS

2016-2019 CX-3
2013-2019 CX-5
2007-2019 CX-9
2011-2019 Mazda3
2014-2019 Mazda6

DESCRIPTION

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 leak and turns DTC P0456 on.

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

CONSUMER NOTICE: The information and instructions in this bulletin are intended for use by skilled technicians. Mazda technicians utilize the proper tools/equipment and take training to correctly and safely maintain Mazda vehicles. These instructions should not be performed by "do-it-yourselfers." Customers should not assume this bulletin applies to their vehicle or that their vehicle will develop the described concern. To determine if the information applies, customers should contact their nearest authorized Mazda dealership. Mazda North American Operations reserves the right to alter the specifications and contents of this bulletin without obligation or advance notice. All rights reserved. No part of this bulletin may be reproduced in any form or by any means, electronic or mechanical---including photocopying and recording and the use of any kind of information storage and retrieval system ---without permission in writing.

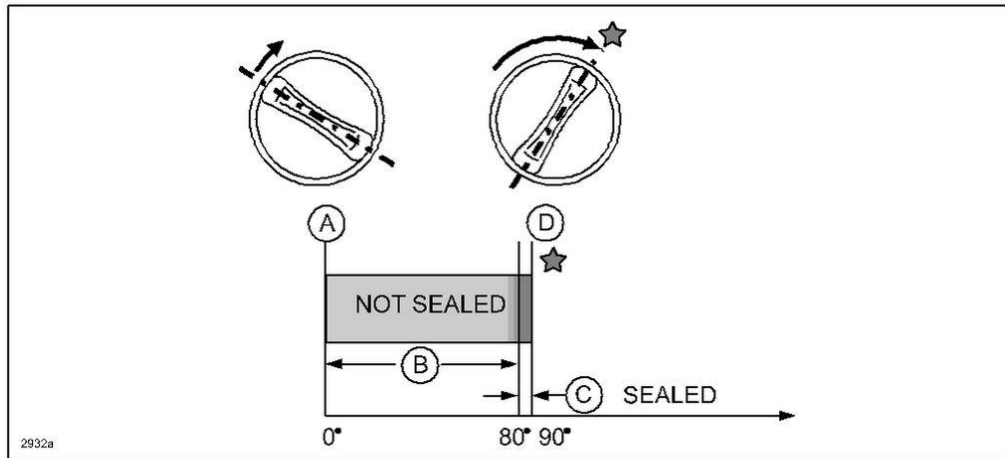
REPAIR PROCEDURE

1. Verify the customer concern (and that DTC P0456 is stored in the PCM memory).
2. Perform the MGSS diagnosis procedures for DTC P0456.
 - If a leak is detected, repair it according to the instructions on MGSS online.
 - If no leak is detected, the most probable cause is the fuel cap was not completely sealed (B).

2011-2013 MAZDA3 and 2007-2015CX-9:

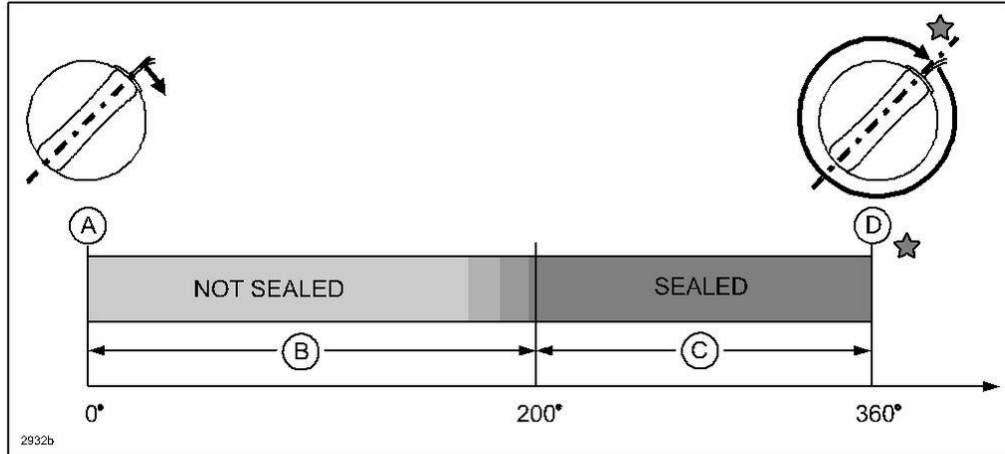
NOTE:

- **DO NOT** replace any parts without detecting a leak using MGSS diagnostics.
- 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.



2016-2019 CX-3, 2013-2019 CX-5, 2016-2019 CX-9, 2014-2019 MAZDA3 and 2014-2019 MAZDA6:

- 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	
	2011-2013 Mazda3 and 2007-2015 CX-9		2016-2019 CX-3, 2014-2019 Mazda3, 2014-2019 Mazda6, 2013-2019 CX-5 and 2016-2019 CX-9
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 is stopped within this range.
C	80 - 90 (small range)	200 - 360 (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).

WARRANTY INFORMATION

NOTE: This repair is not warrantable.

CONSUMER NOTICE: The information and instructions in this bulletin are intended for use by skilled technicians. Mazda technicians utilize the proper tools/equipment and take training to correctly and safely maintain Mazda vehicles. These instructions should not be performed by "do-it-yourselfers." Customers should not assume this bulletin applies to their vehicle or that their vehicle will develop the described concern. To determine if the information applies, customers should contact their nearest authorized Mazda dealership. Mazda North American Operations reserves the right to alter the specifications and contents of this bulletin without obligation or advance notice. All rights reserved. No part of this bulletin may be reproduced in any form or by any means, electronic or mechanical---including photocopying and recording and the use of any kind of information storage and retrieval system ---without permission in writing.