

Subject: MIL ILLUMINATION, P0171 / P0172 / P0441 / P0442 / P0455 / P0456 / P2177 / P2178 / P2187 / P2188	Bulletin No: 01-052/06
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BULLETIN NOTE

This bulletin supersedes the previous bulletin 01-025/05, issued on 09/21/05. The PART(S) and WARRANTY INFORMATION has been revised.

APPLICABLE MODEL(S)/VINS

2004 - 2006 MAZDA3

2004 - 2006 MAZDA6 2.3L

DESCRIPTION

Some vehicles may experience MIL illumination with DTC P0171 / P0172 / P0441 / P0442 / P0455 / P0456 / P2177 / P2178 / P2187 / P2188 stored in PCM memory.

P0171: Fuel trim system too lean. (Federal Spec.)

P0172: Fuel trim system too rich. (Federal Spec.)

P0441: Evaporative emission control system incorrect purge flow.

P0442: Evaporative emission control system leak detected (small leak)

P0455: Evaporative emission control system leak detected (gross leak)

P0456: Evaporative emission control system leak detected (very small leak) (Calif. Spec.)

P2177: Fuel system too lean at off idle. (Calif. Spec.)

P2178: Fuel system too rich at off idle. (Calif. Spec.)

P2187: Fuel system too lean at idle. (Calif. Spec.)

P2188: Fuel system too rich at idle. (Calif. Spec.)

This may be due to a stuck opened purge solenoid valve.

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

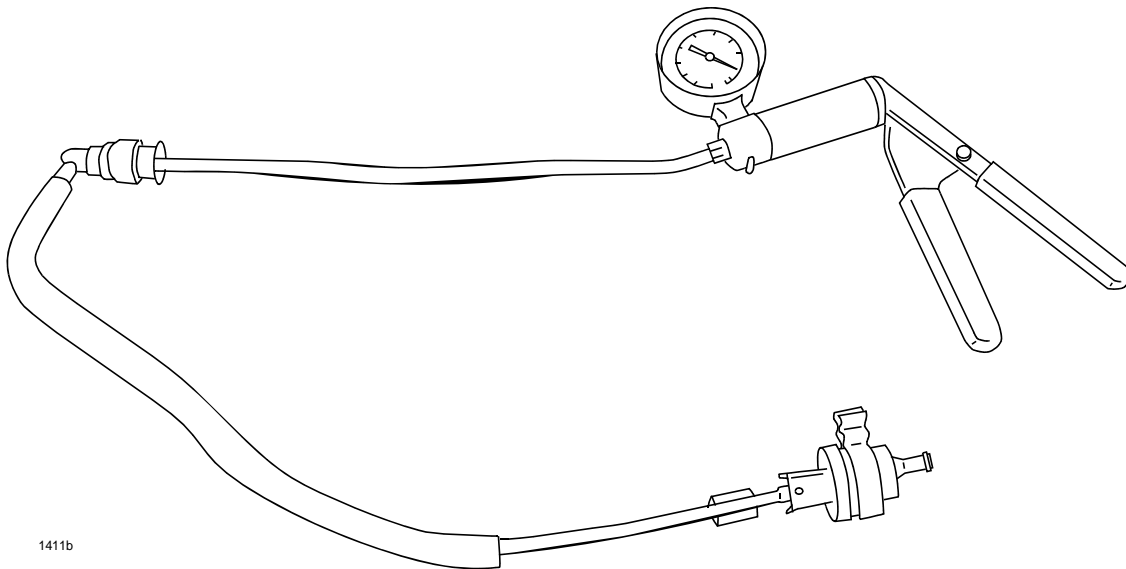
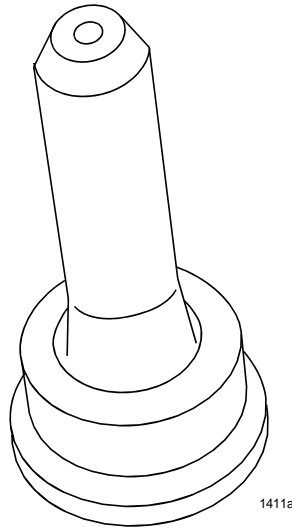
REPAIR PROCEDURE

1. Verify concern.
2. Capture freeze frame data then clear all DTCs.

3. Inspect the airflow sealing of the purge solenoid valve by using the Purge Solenoid Test Cap (MT04-F2-001) and vacuum pump below. Apply vacuum to at least 20". The vacuum reading should hold indefinitely.
 - If the vacuum reading does not hold, replace the purge solenoid valve.
 - If the vacuum reading holds, go to next step.

NOTE: Make sure the Purge Solenoid Test Cap (MT04-F2-001) does not leak at the fitting before testing purge solenoid valve.

MT04-F2-001
PURGE SOLENOID
TEST CAP



4. Cycle purge solenoid valve a few times to check for intermittent sealing issues. Refer to page 01-16-14 Airflow Inspection of 2004 Mazda3 Workshop Manual and page 01-16-15 Airflow Inspection of 2004 Mazda3 Workshop Manual.

TOOL(S) INFORMATION

Tool Number	Description	Qty.	Note
MT04-F2-001	Purge Solenoid Test Cap	1	All dealers received one tool at no cost. Additional tools can be ordered through MStore if needed.

PART(S) INFORMATION

Model	Part Number	Description	Qty.
2004-06 Mazda3	LF66-20-360J	Purge Solenoid Valve with Hose	1
2004-05 Mazda6 2.3L	L391-18-740B	Purge Solenoid Valve with Hose	1
2006 Mazda6 2.3L	L3P9-18-740A	Purge Solenoid Valve with Hose	1

WARRANTY INFORMATION

NOTE:

- This warranty information applies only to verified customer complaints on vehicles eligible for warranty repair. Refer to the Warranty Wizard for warranty term information.
- Additional diagnostic time cannot be claimed for this repair.

	Purge Solenoid Valve Test - Good	Purge Solenoid Valve Test - Failed (Mazda6)	Purge Solenoid Valve Test - Failed (Mazda3)
Warranty Type	A	A	A
Symptom Code	6X	6X	6X
Damage Code	9W	9W	9W
Part Number Main Cause	LF66-20-360J (Mazda3) L391-18-740B or L3P9-18-740A (Mazda6)	L391-18-740B or L3P9-18-740A	LF66-20-360J
Quantity	0	1	1
Operation Number / Labor Hours: Valve Test Purge Solenoid Valve (R & R)	XX814XRX / 0.4	XX814XRX / 0.4 F0621XRX / 0.2	XX814XRX / 0.4 F0621XRX / 0.3