

# Technical Bulletin



Model(s)	Year	Eng. Code	Trans. Code	VIN Range From	VIN Range To
All	2008-2013	2.0L (CCTA, CBFA)	All	All	All

## Condition

**10 12 01** September 18, 2012 **2025501** Supersedes T. B. V101101 dated February 14, 2011 to include additional model year and additional diagnostic assistance.

### Crankcase Breather Diagnosis

Rough running, noise from engine, or MIL ON with DTCs P0300, P0301, P0302, P0303, P0304, P2279, P1297, P1093, or P2187 stored in ECM.

DTC	Description
P0300	Random/Multiple Cylinder Misfire Detected
P0301	Cylinder 1 Misfire Detected
P0302	Cylinder 2 Misfire Detected
P0303	Cylinder 3 Misfire Detected
P0304	Cylinder 4 Misfire Detected
P2279	Intake Air System Leak
P1297	Charger Throttle Connection, Drop in Pressure
P1093	Bank 1 Fuel Measuring System 2 Malfunction
P2187	System Too Lean at Idle, Bank 1



#### Tip:

A faulty PCV valve will allow pressurized intake air back into the valve cover/crankcase. This pressurized air can blow out of several openings. The oil filler cap, air filter and dipstick should first be checked for evidence of oil blow out.

- With the engine OFF, remove the engine cover and locate the hose connecting the intake manifold to the crankcase. Disconnect the hose from the intake manifold side and clean off any residue with a cloth. Blow into the hose and if there is some air resistance then the check valve is operating correctly. If there is no resistance, then the PCV valve should be replaced.
- With the engine running, disconnect the hose from the valve cover. Plug the hose and check idle quality. If the idle quality improves, replace the PCV valve.
- With the engine running, remove the dipstick. If the idle quality improves, replace the PCV valve.
- Remove the cap from the oil filler hole on the valve cover. Place a stiff piece of paper over the opening. The paper should be sucked against the hole within a couple of seconds if the PCV is operating properly.

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## Using VAS tester

The best measurable way to ensure the functionality of the system is fuel trim readings in MVB32. If faults pertaining to this part are found, do not erase the faults. Proceed with the steps as outlined within this bulletin, prior to following the GFF test plan to avoid erasing fuel trim readings.

1. Using VAS tester read current fuel trim level in MVB 32 field 1 (idle fuel trim) and 2 (part throttle).  
Nominal values are  $0 \pm 3$  in both fields.
2. Replace original valve with a "test" part. A known good test part is to be kept by the service center for further cases.
3. Make sure no additional loads such as A/C and heated seats are turned on during test.
4. If noise goes away or engine is no longer running rough, valve replacement is recommended.
5. Using VAS tester run basic settings 32 for at least 5 minutes.
6. While running basic settings 32 for 5 minutes we can monitor fields 1 and 2 for fuel trim readings.
7. If fuel trim values improve and move closer to 0, valve replacement is recommended.
8. If values do not improve, re-install original part. Use of the GFF is permitted at this point.

## Technical Background

Incorrect diagnosis has caused excessive crankcase breather replacement.

## Production Solution

Not applicable.

## Service

Information only.

## Warranty

Information only.

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## Required Parts and Tools

No Special Parts required.

Tool Description	Tool No:
Midtronics Battery Tester/Charger	InCharge 940 (INC-940)
VAS Diagnostic Tool	VAS-PC, 5051B, 5052A, 6150X (Base CD V19.01.00 and Brand DVD V19.17.00 or higher)

## Additional Information

All part and service references provided in this Technical Bulletin are subject to change and/or removal. Always check with your Parts Dept. and Repair Manuals for the latest information.