

 Preview Solution CBR-2598-2

Injector Widget to Assist in Proper Diagnostic / Injector Repair caused by offset learning max and misfire - AN(4) - PR - VN(4)

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Valid For

Mack Chassis - AN (4) - PR

Volvo Chassis - VN (4)

Model Year - 2024 to Current

The purpose of this CBR is to provide steps on how to utilize the injector widget (within workshop tool box) to aid with injection system issues

Version 4 Products Fuel Injector Offset Learning Max or Misfire Detected Faults Codes

Symptoms: Malfunction Indicator Lamp (MIL), Rough Engine Idle, Engine Stumble Light Load Conditions, Engine Miss, Inaccurate Fuel Economy Reporting

DTC List:

P02CD-00	Cylinder 1 Fuel Injector Offset Learning at Max Limit
P02CF-00	Cylinder 2 Fuel Injector Offset Learning at Max Limit
P02D1-00	Cylinder 3 Fuel Injector Offset Learning at Max Limit
P02D3-00	Cylinder 4 Fuel Injector Offset Learning at Max Limit
P02D5-00	Cylinder 5 Fuel Injector Offset Learning at Max Limit
P02D7-00	Cylinder 6 Fuel Injector Offset Learning at Max Limit
P0300-00	Random Misfire Detected
P0301-00	Cylinder 1 Misfire Detected
P0302-00	Cylinder 2 Misfire Detected
P0303-00	Cylinder 3 Misfire Detected
P0304-00	Cylinder 4 Misfire Detected
P0305-00	Cylinder 5 Misfire Detected
P0306-00	Cylinder 6 Misfire Detected

Note: For any other fuel system faults not listed or all injectors indicated as a “Good” status, perform normal diagnostic steps for the relevant DTC or open E-service case for assistance.

Diagnostic Steps:

1. Connect Workshop Toolbox
2. Select the Diagnostic Application
3. Select the Operations Tab
4. Perform 2103-08-03-02 Cylinder Compression Test –

Note: if unable to perform operation 2103-08-03-02 due to truck equipped with push button start. Confirm no excessive blow-by or oil leaking from the CCV tube to rule out base engine failure.

Passing result – Continue to step 5

Failing results – Perform diagnostics for low compression / Failing results

5. Select the Component Tab
6. Select the Injector Widget
7. **Print / Save results (Required to be attached to injector warranty claim)**
8. Repair per recommendation of “Replace” specified injectors (example below)

The image is for reference only, actual engine type may vary.
FUEL INJECTORS

Number	Status
1	 Replace
2	 Good
3	 Replace
4	 Good
5	 Replace
6	 Good

9. After injector(s) replacement / trim code programming, perform operation 1700-08-03-33 Function Parameter Reset for ONLY the injector(s) replaced

10. Clear all EMS DTC's

11. Perform operation 2387-08-03-01 Enhanced Cylinder balancing after repair has been completed

Cylinder balancing < +/- 50% – Repair complete

Cylinder balancing > +/- 50% - Open E-service case

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