



STAR ONLINE PUBLICATION



Case Number: S2018000014

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Symptom/Vehicle Issue: Customer complaint includes Mil/Check Engine light on and possibly experiencing engine running rough for 60-90 seconds following a cold start. Upon further investigation there may be a fault code for P0300 - Multiple Cylinder Misfire DTC pending, stored, or active in the Powertrain Control Module (PCM).

Discussion: If the conditions mentioned above are observed, please follow the procedure below:

- **Save a Vehicle Scan Report before any diagnosis is started.**
- Start the engine cold (engine coolant temperature within 5 deg F of ambient temp). With WiTech, monitor misfire counts on each cylinder for the first 90 seconds. Record number of misfires for each cylinder and total misfires at the end of this 90 second period.
- Replace the injector on the cylinder with the highest count - or two cylinders if there are two cylinders that have significantly higher counts than the other two cylinders. **Do not replace all of the injectors. See Item 1 on page 2 for more details.**
- Make sure to replace the injector tip (combustion) seals on **ALL** injectors when reassembling.
- Clear the fault codes and retest for cold start misfires. Monitor misfires for the first 90 seconds. Record the number of misfires for each cylinder and total misfires at the end of this 90 second period.
- Verify that misfires are substantially reduced on the cylinder(s) that had injectors replaced, and that P0300, P0301, P0302, P0303 or P0304 DTCs are no longer setting in the PCM.

This document does not authorize warranty repairs. This communication documents a record of past experiences. STAR Online does not provide any conclusions about what is wrong with the vehicle. Rather, it captures all previous cases known that appear to be similar or related to the vehicle symptom / condition. You are the expert, and you are responsible for deciding on the appropriate course of action.

Contact STAR Center, or your Technical Assistance Center Via TechCONNECT or eCONTACT ticket if no solution is found



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Item 1

Below is an example of WiTech misfire data. In this example, Cylinder 1 (11 counts) and 3 (37 counts) injectors should be replaced.

ECM

Switch ECU

Engine Control Module

Data

Type: All Record Units: Imperial Filter

Graph Data Clear Mis

NAME	VALUE	UNIT	TYPE
Cranking enable from Transmission Control Module	Yes		Bussed Inputs
Total misfire counter for cylinder 1 in this trip	11		Bussed Inputs
Total misfire counter for cylinder 2 in this trip	1		Bussed Inputs
Total misfire counter for cylinder 3 in this trip	37		Bussed Inputs
Total misfire counter for cylinder 4 in this trip	3		Bussed Inputs
Total misfire counter since cranking	52		Bussed Inputs

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