

	P0301 to P0304		
P1314	Misfire rate catalyst damage, Left-hand cylinders. NOTE. This DTC will flag only when accompanied by a random or individual cylinder misfire DTC; P0300 to P0308		
P1316	Misfire excess emission. NOTE. This DTC will flag only when accompanied by an individual cylinder misfire DTC; P0300 to P0308		
P1367	Ignition monitor (ignition module 1)	<ul style="list-style-type: none"> ● Ignition module 1 disconnected ● Ignition module 1 to ECM circuits open circuit, short circuit to ground or short circuit to B+ voltage ● Ignition module 1 ground circuit fault ● Ignition coil relay failure ● Ignition coil open/short circuit ● Ignition module 1 failure 	For ignition circuit tests,GO to Pinpoint Test A...
P1368	Ignition monitor (ignition module 2)	<ul style="list-style-type: none"> ● Ignition module 2 disconnected ● Ignition module 2 to ECM circuits open circuit, short circuit to ground or short circuit to B+ voltage ● Ignition module 2 ground circuit fault ● Ignition coil relay failure ● Ignition coil open/short circuit ● Ignition module 2 failure 	For ignition circuit tests,GO to Pinpoint Test A...

Pinpoint Tests

PINPOINT TEST A : DTC P0300, P0351, P0352, P0353, P0354, P0355, P0356, P0357, P0358; RANDOM MISFIRE DETECTED, COIL PRIMARY/SECONDARY CIRCUIT MALFUNCTION	
• NOTE: Unless multiple cylinder misfires are apparent, only one circuit will normally need to be tested. The DTC set will indicate which cylinder is misfiring.	
TEST CONDITIONS	DETAILS/RESULTS/ACTIONS
A1: CHECK COIL FUNCTION BY SUBSTITUTION	
	<ol style="list-style-type: none"> 1 Swap the suspect coil for a known good unit. 2 CLEAR the DTC. TEST the system for normal operation.
	Does the same DTC reoccur? The DTC will indicate if the same cylinder is misfiring.
	Yes GO to A2.
	No INSTALL a new coil. REFER to: Ignition Coil-On-Plug LH (303-07 Engine Ignition, Removal and Installation) / Ignition Coil-On-Plug RH (303-07 Engine Ignition, Removal and Installation). CLEAR the DTC. TEST the system for normal operation.
A2: CHECK THE IGNITION COIL SUPPLY VOLTAGE	
	<ol style="list-style-type: none"> 1 Disconnect the relevant ignition coil electrical connector(s). 2 Turn the ignition switch to the ON position. 3 Measure the voltage between: <ul style="list-style-type: none"> ● Cyl 1 PI18, pin 1 (PW) and GROUND ● Cyl 2 PI22, pin 1 (PW) and GROUND ● Cyl 3 PI19, pin 1 (PW) and GROUND ● Cyl 4 PI23, pin 1 (PW) and GROUND ● Cyl 5 PI20, pin 1 (PW) and GROUND ● Cyl 6 PI24, pin 1 (PW) and GROUND ● Cyl 7 PI21, pin 1 (PW) and GROUND ● Cyl 8 PI25, pin 1 (PW) and GROUND
	Is the voltage less than 10.5 volts?
	Yes REPAIR the relevant ignition coil supply voltage circuit. This circuit includes the ignition coil relay and ignition modules. For additional information, refer to the wiring diagrams. CLEAR the DTCs. TEST the

	<p>system for normal operation.</p> <p>No</p> <p>GO to A3.</p>
A3: CHECK THE IGNITION COIL GROUND CIRCUIT FOR HIGH RESISTANCE	
	<p>1 Turn the ignition switch to the OFF position.</p> <p>2 Disconnect the relevant ignition module electrical connector(s), EM27 and EM29.</p> <p>3 Measure the resistance between:</p> <ul style="list-style-type: none"> ● Cyl 1 PI18, pin 2 (GU) and EM27, pin 08 (GU) ● Cyl 2 PI22, pin 2 (GB) and EM29 pin 08 (GB) ● Cyl 3 PI19, pin 2 (GR) and EM29, pin 11 (GR) ● Cyl 4 PI23, pin 2 (GS) and EM27, pin 07 (GS) ● Cyl 5 PI20, pin 2 (GO) and EM29, pin 07 (GO) ● Cyl 6 PI24, pin 2 (GK) and EM27, pin 12 (GK) ● Cyl 7 PI21, pin 2 (GW) and EM27, pin 11 (GW) ● Cyl 8 PI25, pin 2 (GP) and EM29, pin 12 (GP) <p>Is the resistance greater than 5 ohms?</p> <p>Yes</p> <p>REPAIR the high resistance circuit. This circuit includes in-line connector, PI01. For additional information, refer to the wiring diagrams. CLEAR the DTCs. TEST the system for normal operation.</p> <p>No</p> <p>GO to A4.</p>
A4: CHECK THE POWER SUPPLIES TO THE IGNITION MODULES	
	<p>1 Turn the ignition switch to the ON position.</p> <p>2 Measure the voltage between EM27, pin 10 (PW) and GROUND.</p> <p>3 Measure the voltage between EM29, pin 10 (PW) and GROUND.</p> <p>Are both voltages greater than 10 volts?</p> <p>Yes</p> <p>GO to A5.</p> <p>No</p> <p>REPAIR the circuit between EM27, pin 10 (PW) and/or EM29, pin 10 (PW). This circuit includes the ignition coil relay, and the harness splice, EMS22. For additional information, refer to the wiring diagrams.</p>
A5: CHECK THE GROUNDS TO THE IGNITION MODULES	
	<p>1 Turn the ignition switch to the OFF position.</p> <p>2 Measure the resistance between EM27, pin 09 (B) and GROUND.</p> <p>3 Measure the resistance between EM29, pin 09 (B) and GROUND.</p> <p>Is either resistance greater than 5 ohms?</p> <p>Yes</p> <p>REPAIR the high resistance circuit. This circuit includes the harness splice, EMS04. For additional information, refer to the wiring diagrams. CLEAR the DTCs. TEST the system for normal operation.</p> <p>No</p> <p>GO to A6.</p>
A6: CHECK THE CIRCUIT BETWEEN THE IGNITION MODULES AND THE ECM FOR HIGH RESISTANCE	
	<p>1 Disconnect the battery negative terminal.</p> <p>2 Disconnect the ECM electrical connector, EM13.</p> <p>3 Measure the resistance between the following:</p> <ul style="list-style-type: none"> ● Cyl 1 EM27, pin 02 (LGU) and EM13, pin 26 (LGU) ● Cyl 2 EM29, pin 02 (LGP) and EM13, pin 34 (LGP) ● Cyl 3 EM29, pin 05 (LGW) and EM13, pin 25 (LGW) ● Cyl 4 EM27, pin 03 (LGS) and EM13, pin 33 (LGS) ● Cyl 5 EM29, pin 03 (LGO) and EM13, pin 24 (LGO) ● Cyl 6 EM27, pin 06 (LGR) and EM13, pin 32 (LGR) ● Cyl 7 EM27, pin 05 (LGK) and EM13, pin 23 (LGK) ● Cyl 8 EM29, pin 06 (LGY) and EM13, pin 31 (LGY) <p>Is the resistance greater than 5 ohms?</p> <p>Yes</p> <p>REPAIR the high resistance circuit. For additional information, refer to the wiring diagrams. CLEAR the DTCs. TEST the system for normal operation.</p> <p>No</p> <p>INSTALL a new ignition module for the affected cylinder(s). CLEAR the DTCs. TEST the system for normal operation. If the DTC is repeated, contact dealer technical support for advice on possible ECM failure.</p>

PINPOINT TEST B : CHECK SPARK PLUG	
TEST CONDITIONS	DETAILS/RESULTS/ACTIONS
B1: CHECK SPARK PLUG	
• NOTE: Some spark plug types cannot be regapped and must be replaced.	
	<p>1 Remove the suspect spark plug(s). REFER to: Spark Plugs (303-07 Engine Ignition, Removal and Installation).</p>
	<p>2 Visually inspect the spark plug for cracks, damage, carbon buildup or wet fouling, check the condition of the ground electrode, the center electrode tip and the spark plug HT contact and confirm that the spark plug gap is correctly set using a wire gauge taking care not to cause damage to the center or ground electrode tips. REFER to: Specifications (303-07 Engine Ignition, Specifications).</p>
	<p>Is the spark plug condition good, and the spark plug gap correct ?</p> <p>Yes Check ignition coil and circuits. See possible sources list for misfire.</p> <p>No Install a new spark plug(s) as required. REFER to: Spark Plugs (303-07 Engine Ignition, Removal and Installation). CLEAR the DTC. TEST the system for normal operation.</p>