P0336

Tests 661 - 666

TEST	ACTION	APPLICABILITY
661	Ignition On, Engine Not Running. With the DRB, read DTC's. Is the DTC SPECIFIC GOOD TRIPS displayed and equal to 0? Yes → Go To 664 No → Go To 662	ENGINE- 5.9L DIESEL
662	Ignition On, Engine Not Running. Determine if the DTC matches the Freeze Frame DTC. Is the DTC equal to Freeze Frame DTC? Yes → Go To 663 No → Repair the DTC with the DTC data.	ENGINE- 5.9L DIESEL
663	With the DRB, read DTC's. Read the Freeze Frame Data. Try to duplicate the conditions in Freeze Frame. Did the Specific Good Trips change to 0? Yes → Go To 664 No → Go To 675	ENGINE- 5.9L DIESEL
664	Ignition Off. Disconnect the Crankshaft Position Sensor. **Note: Check connectors - Clean/repair as necessary.** Ignition on, engine not running. Using a voltmeter, measure the voltage of the 5-Volt Supply Circuit. Is the voltage 5.0 +/- 0.25 volts? Yes → Go To 665 No → Go To 670	ENGINE- 5.9L DIESEL
665	Ignition Off. Disconnect the Crankshaft Position Sensor. **Note: Check connectors - Clean/repair as necessary.** Using a 12 volt test light, connected to B(+), check the Ground Circuit at the Crankshaft Position Sensor Connector. Is the test light bright? Yes → Go To 666 No → Repair open or high resistance of ground circuit. Perform Diesel Verification Test VER-5A.	ENGINE- 5.9L DIESEL
666	Ignition Off. Disconnect the Crankshaft Position Sensor. **Note: Check connectors - Clean/repair as necessary.** Ignition on, engine not running. With a jumper wire scratch the 5-Volt and Crankshaft Position Signal Circuits together while watching the Crankshaft Position Sensor RPM on the DRB. Did the Crankshaft Position Sensor RPM change? Yes → Replace the Crankshaft Position Sensor. Perform Diesel Verification Test VER-5A. No → Go To 667	ENGINE- 5.9L DIESEL

Tests 667 - 670

TEST	ACTION	APPLICABILITY
667	Ignition Off. Disconnect the Crankshaft Position Sensor. **Note: Check connectors - Clean/repair as necessary.** Disconnect the Engine Control Module. **Note: Check connectors - Clean/repair as necessary.** Using an ohmmeter, measure the Crankshaft Position Signal Circuit from Crankshaft Position Sensor Connector to the Engine Control Module Connector. Is the resistance below 5.0 ohms? Yes → Go To 668 No → Repair open or high resistance problem with Crankshaft Position Sensor Signal Circuit. Perform Diesel Verification Test VER-5A.	ENGINE- 5.9L DIESEL
668	Ignition Off. Disconnect the Crankshaft Position Sensor. **Note: Check connectors - Clean/repair as necessary.** Disconnect the Engine Control Module. **Note: Check connectors - Clean/repair as necessary.** Using an ohmmeter, measure the resistance of the Crankshaft Position Sensor Signal Circuit from the Crankshaft Position Sensor Connector to ground. Is the resistance below 5.0 ohms? Yes → Repair the Crankshaft Position Sensor Signal Circuit shorted to ground. Perform Diesel Verification Test VER-5A. No → Go To 669	ENGINE- 5.9L DIESEL
669	Ignition Off. If there are no other possible causes remaining the Engine Control Module is assumed to be defective. View repair options. Repair Replace the Engine Control Module. Perform Diesel Verification Test VER-5A.	ENGINE- 5.9L DIESEL
670	Ignition Off. Disconnect the Crankshaft Position Sensor. **Note: Check connectors - Clean/repair as necessary.** Using a 12 volt test light, connected to B(+), check the Ground Circuit at the Crankshaft Position Sensor Connector. Is the test light bright? Yes → Go To 671 No → Repair open or high resistance of ground circuit. Perform Diesel Verification Test VER-5A.	ENGINE- 5.9L DIESEL

Tests 671 - 675

TEST	ACTION	APPLICABILITY
671	Ignition Off. Disconnect the Crankshaft Position Sensor. **Note: Check connectors - Clean/repair as necessary.** Ignition on, engine not running. With a jumper wire scratch the 5-Volt and Crankshaft Position Signal Circuits together while watching the Crankshaft Position Sensor RPM on the DRB. Did the Crankshaft Position Sensor RPM change? Yes → Replace the Crankshaft Position Sensor. Perform Diesel Verification Test VER-5A. No → Go To 672	ENGINE- 5.9L DIESEL
672	Ignition Off. Disconnect the Crankshaft Position Sensor Connector. **Note: Check connectors - Clean/repair as necessary.** Disconnect the Engine Control Module. **Note: Check connectors - Clean/repair as necessary.** Using an ohmmeter measure the 5-Volt Supply Circuit from Crankshaft Position Sensor Connector to ground. Is the resistance below 5.0 ohms? Yes → Repair the 5-Volt Supply Circuit shorted to ground. Perform Diesel Verification Test VER-5A. No → Go To 673	ENGINE- 5.9L DIESEL
673	Ignition Off. Disconnect the Crankshaft Position Sensor. **Note: Check connectors - Clean/repair as necessary.** Disconnect the Engine Control Module. **Note: Check connectors - Clean/repair as necessary.** Using an ohmmeter, measure the 5-Volt Supply Circuit from the Crankshaft Position Sensor Connector to the Engine Control Module Connector. Is the resistance below 5.0 ohms? Yes → Go To 674 No → Repair open or high resistance problem with 5-Volt Supply Circuit. Perform Diesel Verification Test VER-5A.	ENGINE- 5.9L DIESEL
674	Ignition Off. If there are no other possible causes remaining, the Engine Control Module is assumed to be defective. View repair options. Repair Replace the Engine Control Module. Perform Diesel Verification Test VER-5A.	ENGINE- 5.9L DIESEL
675	Engine Running. With the DRB, monitor the Crankshaft Position Sensor RPM. Wiggle the Wiring Harness, Crankshaft Position Sensor to the Engine Control Module. Did the Crankshaft Position Sensor RPM ever go to 0? Yes → Repair Harness as necessary. Perform Diesel Verification Test VER-5A. No → Test Complete.	ENGINE- 5.9L DIESEL

SYMPTOM

P-0336 CRANKSHAFT POSITION SENSOR SIGNAL

WHEN MONITORED

Engine running.

SET CONDITION

The crankshaft position sensor indicates no engine speed or position signal to ECM.

POSSIBLE CAUSES

- DTC not = To freeze frame DTC
- Ckp sensor ground circuit open
- Ckp wiring harness intermittent defect

- **5-volt** supply circuit open
- **5-volt** supply circuit shorted to ground
- Ckp sensor signal circuit open
- Ckp sensor signal circuit shorted to ground
- Crankshaft position sensor def
- Engine control module defective
- Engine control module defective