- Ignition OFF.
- Disconnect and inspect the PCM connectors.
- Repair:
  - corrosion (install new connector or terminals – clean module pins)
  - damaged or bent pins – install new terminals/pins
  - pushed-out pins – install new pins as necessary
- Reconnect the PCM connectors. Make sure they seat and latch correctly.
- Operate the system and determine if the concern is still present.

Is the concern still present?

Yes	CHECK OASIS for any applicable Technical Service Bulletins (TSBs). If a TSB exists for this concern, DISCONTINUE this test and FOLLOW TSB instructions. If no Technical Service Bulletins (TSBs) address this concern, INSTALL a new PCM. REFER to: Powertrain Control Module (PCM) (303-14B Electronic Engine Controls - 5.0L Ti-VCT V8 (308kW/418PS), Removal and Installation).
No	The system is operating correctly at this time. The concern may have been caused by module connections. ADDRESS the root cause of any connector or pin issues.

Oil Pressure Control Solenoid Faults

Refer to Wiring Diagrams Cell 24 for schematic and connector information.

Normal Operation and Fault Conditions

REFER to: Engine - Overview (303-01B Engine - 5.0L 32V Ti-VCT/5.0L Ti-VCT V8 (308kW/418PS), Description and Operation).

DTC Fault Trigger Condition-PCM

DTC	Description	Fault Trigger Conditions
P06DA	Engine Oil Pressure Control Circuit/Open	Sets when the PCM detects an open on the engine oil pressure control solenoid valve circuit.
P06DB	Engine Oil Pressure Control Circuit Low	Sets when the PCM detects a short to ground on the engine oil pressure control solenoid valve circuit.
P06DC	Engine Oil Pressure Control Circuit High	Sets when the PCM detects a short to voltage on the engine oil pressure control solenoid valve circuit.
P06DD	Engine Oil Pressure Control Circuit Performance/Stuck Off	Sets when the PCM detects the engine oil pressure control solenoid valve is stuck.

Possible Sources

- Engine oil pressure control solenoid valve
- PCM
- Wiring, terminals or connectors

PINPOINT TEST F : OIL PRESSURE CONTROL SOLENOID FAULTS

F1 CHECK THE ENGINE OIL PRESSURE CONTROL SOLENOID VALVE SUPPLY VOLTAGE

- Ignition OFF.
- Disconnect Engine oil pressure control solenoid valve C1924.
- Ignition ON.

Is the voltage greater than 11 volts?

Yes	GO to F2
No	VERIFY BJB fuse F42 (15A) is OK. If OK, REPAIR the open circuit. If not OK, REFER to the Wiring Diagrams manual to identify the possible causes of the circuit short.

F2 CHECK THE ENGINE OIL PRESSURE CONTROL SOLENOID VALVE CIRCUIT FOR A SHORT TO VOLTAGE

- Ignition OFF.
- Disconnect PCM C175E.
- Ignition ON.

Is any voltage present?

Yes	REPAIR the circuit.
No	GO to F3

F3 CHECK THE ENGINE OIL PRESSURE CONTROL SOLENOID VALVE CIRCUIT FOR AN OPEN

- Ignition OFF.

Is the resistance less than 3 ohms?

Yes	GO to F4
No	REPAIR the circuit.

F4 CHECK THE ENGINE OIL PRESSURE CONTROL SOLENOID VALVE CIRCUIT FOR A SHORT TO GROUND

Is the resistance greater than 10,000 ohms?

Yes	GO to F5
No	REPAIR the circuit.

F5 CHECK THE ENGINE OIL PRESSURE CONTROL SOLENOID VALVE OPERATION

- **NOTE:** *Engine oil level and contamination can affect the oil pressure reading.*

  Check the engine oil level and correct as necessary.

- Connect PCM C175E.

- Connect Engine oil pressure control solenoid valve C1924.

- Connect an EOP gauge to the oil pressure sender oil galley port. For more information, REFER to: Engine (303-00 Engine System - General Information, Diagnosis and Testing).
  Oil Pressure Test.

- Start the engine.

- Using a diagnostic scan tool, view the PCM Parameter Identifications (PIDs).

- Enable the engine oil pressure control solenoid valve using the PCM PID EOPDC_CMD.

- **NOTE:** *The PCM PID EOPDC_CMD may or may not be available in the diagnostic scan tool.*

  If the active command PCM PID EOPDC_CMD is available in the diagnostic scan tool, enable the engine oil pressure control solenoid valve using the PCM PID EOPDC_CMD.

- If the active command PCM PID EOPDC_CMD is **not** available in the diagnostic scan tool, with the engine running, wait for approximately 20 to 30 seconds, the PCM commands the pump state transition from high pressure mode to low pressure mode.

- A pressure drop of **8 psi** or greater is anticipated. If the engine coolant temperature is less than 100°F (38°C), a pressure drop of **15 psi** or greater is anticipated.

Is the expected engine oil pressure drop present?

Yes	GO to F6
No	INSTALL a new oil pressure control solenoid valve. REFER to: Engine Oil Pressure (EOP) Sensor (303-14B Electronic Engine Controls - 5.0L Ti-VCT V8 (308kW/418PS), Removal and Installation).

F6 VERIFY ENGINE OIL PRESSURE CONTROL SOLENOID VALVE CONNECTION AND WIRING

- Ignition OFF.
- Disconnect Engine oil pressure control solenoid valve C1924.
- Disconnect PCM connectors.
- Inspect connectors and wiring:
  - corrosion (install new connector or terminals – clean module pins)
  - damaged or bent pins - install new terminals/pins
  - pushed-out pins - install new pins as necessary
- Reconnect **all** connectors. Make sure they seat and latch correctly.
- Operate the system and determine if the concern is still present.

Is the concern still present?

Yes	REPAIR the circuit or connector as needed.
No	The system is operating correctly at this time. The concern may have been caused by loose module connections. ADDRESS the root cause of any connector or pin issues.

RH Tailpipe Actuator Faults

Refer to Wiring Diagrams Cell 26 for schematic and connector information.

DTC Fault Trigger Condition-PCM

DTC	Description	Fault Trigger Conditions
P26C5	Exhaust Flow Control Valve "A" Control Circuit/Open	This DTC sets when an open is detected on the RH tailpipe actuator control circuit.