



**NUMBER:** 18-049-21

**GROUP:** 18 - Vehicle Performance

**DATE:** May 20, 2021

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**This bulletin supersedes Technical Service Bulletin (TSB) 18-109-20, date of issue December 11, 2020, which should be removed from your files. All revisions are highlighted with **\*\*asterisks\*\*** and include additional Diagnostic Trouble Codes (DTCs), Symptom/Conditions, Repair Procedure steps and LOP.**

**SUBJECT:**

Flash: Powertrain Control Module (PCM) Updates

**OVERVIEW:**

This bulletin involves reprogramming the PCM with the latest available software.

**MODELS:**

2020 (JL) Jeep Wrangler

**NOTE: This bulletin applies to vehicles within the following markets/countries: North America.**

**NOTE: This bulletin applies to vehicles equipped with a 3.0L V6 Turbo Diesel Engine W/ESS (Sales Code EXJ).**

**SYMPTOM/CONDITION:**

Customers may experience a Malfunction Indicator Lamp (MIL) illumination. Upon further investigation, a technician may find one or more of the following DTCs have been set:

- **\*\*P225D-00 - Nox Sensor 1/1 Performance - Signal Stuck Low.**
- P249C-00 - Excessive Time To Enter Closed Loop Reductant Injection Control.
- P065A - Generator System Performance.
- P00F4-00 - Humidity Sensor Circuit Low.
- P00AF-00 - Turbocharger Boost Control Module "A" Performance.
- P0106-00 - Manifold Absolute Pressure Sensor Performance.
- P20FB-00 - Reductant Pump 2 Control Performance.
- P200A-00 - Intake Manifold Runner Performance - Bank 1.
- P200B-00 - Intake Manifold Runner Performance - Bank 2.
- P2610 - PCM Internal Engine Off Timer Performance.**\*\***
- P0087-00 - Fuel Rail Pressure Too Low (with rapid apply and release of accelerator pedal).
- P015E-00 - Excessive Time To Enter Closed Loop Fuel Timing Control.
- P01CB-00 - Cylinder 1 Injection Timing Performance - Over Retarded.
- P01CC-00 - Cylinder 1 Injection Timing Performance - Over Advanced.
- P01CD-00 - Cylinder 2 Injection Timing Performance - Over Retarded.
- P01CE-00 - Cylinder 2 Injection Timing Performance - Over Advanced.
- P01CF-00 - Cylinder 3 Injection Timing Performance - Over Retarded.
- P01D0-00 - Cylinder 3 Injection Timing Performance - Over Advanced.
- P01DL-00 - Cylinder 4 Injection Timing Performance - Over Retarded.
- P01D2-00 - Cylinder 4 Injection Timing Performance - Over Advanced.

- P01D3-00 - Cylinder 5 Injection Timing Performance - Over Retarded.
- P01D4-00 - Cylinder 5 Injection Timing Performance - Over Advanced.
- P01D5-00 - Cylinder 6 Injection Timing Performance - Over Retarded.
- P01D6-00 - Cylinder 6 Injection Timing Performance - Over Advanced.
- P0534-00 - A/C Refrigerant System "A" Charge Loss.
- P204F-00 - Reductant System Performance.
- P2199-00 - Intake Air Temperature Sensor 1/2 Correlation.
- U0100-00 - Lost Communication With ECM/PCM "A".
- P0300-00 - Multiple Cylinder Misfire.
- P0301-00 - Cylinder 1 Misfire.
- P0302-00 - Cylinder 2 Misfire.
- P0303-00 - Cylinder 3 Misfire.
- P0304-00 - Cylinder 4 Misfire.
- P0305-00 - Cylinder 5 Misfire.
- P0306-00 - Cylinder 6 Misfire.
- P020A-00 - Cylinder 1 Injection Timing.
- P020B-00 - Cylinder 2 Injection Timing.
- P020C-00 - Cylinder 3 Injection Timing.
- P020D-00 - Cylinder 4 Injection Timing.
- P020E-00 - Cylinder 5 Injection Timing.
- P020F-00 - Cylinder 6 Injection Timing.
- P04DB - Crankcase Ventilation System Disconnected.
- P204F - Reductant System Performance.
- P0524 - Low Oil Pressure (during start up in cold ambient temps).

Customers may experience one or more of the following:

- \*\*Unstable idle in high altitudes.
- Remote start idle instability.
- Cluster flashes erroneous message "Press Brake and Push Button to Start" during unstable idle.\*\*
- "Oil Change Required" message remains on after resetting the oil life monitor.
- Loud fan noise heard at low speeds during Diesel Particulate Filter (DPF) regeneration.

In addition, the following software enhancements are also available:

- \*\*Cruise set speed displays differently than the speed cruise was set to.
- Eliminate battery overcharging / gassing risk.
- Improvements to remote start idle instability.
- Improvement of combustion stability for cold start drive offs.
- Air control optimization to avoid turbo surge during high idle maneuver.\*\*
- Engine starting / cranking / idle / shutdown performance.
- Cruise control updates.
- Drivability improvements at sea level and at altitude.
- Improvements to engine shutdown performance Engine Stop/Start (ESS).
- After-treatment (Selective Catalytic Reduction (SCR) / DEF) system.
- Turbocharger performance.

**DIAGNOSIS:**

Using a Scan Tool (wiTECH) with the appropriate Diagnostic Procedures available in DealerCONNECT/Service Library, verify all related systems are functioning as designed. If DTCs or symptom conditions, other than the ones listed above are present, record the issues on the repair order and repair as necessary before proceeding further with this bulletin.

If the customer describes the symptom/condition listed above or if the technician finds the DTC, perform the Repair Procedure.

**REPAIR PROCEDURE:**

**NOTE: Install a battery charger to ensure battery voltage does not drop below 13.2 volts. Do not allow the charging voltage to climb above 13.5 volts during the flash process.**

**NOTE: If this flash process is interrupted/aborted, the flash should be restarted.**

1. \*\*Obtain a VSR and save it for your records.
2. Reprogram the PCM with the latest available software. Detailed instructions for flashing control modules using the wiTECH Diagnostic Application are available by selecting the application's "HELP" tab.
3. Cycle ignition off for three minutes to properly complete the PCM update.
4. Check the VSR collected in Step 1 and verify if the DTCs below are present:
  - P01CB-00
  - P01CC-00
  - P01CD-00
  - P01CE-00
  - P01CF-00
  - P01D0-00
  - P01D1-00
  - P01D2-00
  - P01D3-00
  - P01D4-00
  - P01D5-00
  - P01D6-00
  - P020A-00
  - P020B-00
  - P020C-00
  - P020D-00
  - P020E-00
  - P020F-00
5. Were any of the listed DTCs found?
  - YES>>> Proceed to [Step 6](#).
  - NO>>> No further action required, proceed to [Step 7](#).\*\*
6. Perform the "Reset Zero Fuel Quantity Calibration" routine in the PCM Misc Functions.
7. Clear any DTCs that may have been set in any modules due to reprogramming. The wiTECH application will automatically present all DTCs after the flash and allow them to be cleared.

**POLICY:**

Reimbursable within the provisions of the warranty.

**TIME ALLOWANCE:**

| Labor Operation No: | Description                                                           | Skill Category | Amount     |
|---------------------|-----------------------------------------------------------------------|----------------|------------|
| **18-19-04-MU       | Module, Powertrain Control (PCM)<br>- Reprogram<br>(0 - Introduction) | 10 - Diesel    | 0.3 Hrs.** |

**NOTE:** The expected completion time for the flash download portion of this procedure is approximately 8 minutes. Actual flash download times may be affected by vehicle connection and network capabilities.

**FAILURE CODE:**

The dealer must use failure code CC with this Service Bulletin.

- If the customer's concern matches the SYMPTOM/CONDITION identified in the Service Bulletin, failure code CC is to be used.
- When utilizing this failure code, the 3C's (customer's concern, cause and correction) must be provided for processing Service Bulletin flash/reprogramming conditions.

|    |                  |
|----|------------------|
| CC | Customer Concern |
|----|------------------|