



NUMBER: 18-001-22

GROUP: 18 - Vehicle Performance

DATE: January 5, 2022

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This bulletin supersedes Technical Service Bulletin (TSB) 18-029-21, date of issue March 26, 2021, which should be removed from your files. All revisions are highlighted with **asterisks**** and include a new clean date, additional Diagnostic Trouble Codes (DTCs), converting to an Rapid Response Transmittal (RRT)/Rapid Service Update (RSU), additional symptoms/conditions, repair steps and LOP.**

This Technical Service Bulletin (TSB) has also been released as a Rapid Response Transmittal (RRT)/Rapid Service Update (RSU) 22-001, date of issue January 5, 2022. All applicable Sold and Un-Sold RRT/RSU VINs have been loaded. To verify this RRT/RSU service action is applicable to the vehicle, use VIP or perform a VIN search in DealerCONNECT/Service Library. All repairs are reimbursable within the provisions of warranty. This RRT/RSU will expire 18 months after the date of issue.

SUBJECT:

Flash: Powertrain Control Module (PCM) Updates

OVERVIEW:

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

MODELS:

2021 (JL) Jeep Wrangler

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

NOTE: This bulletin applies to vehicles built on or before **September 30, 2021 (MDH 0930XX)**** 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:

- ****P04DB** - Crankcase Ventilation System Disconnected.
- P040F - EGR Temperature Sensor A-B Correlation.
- P225D - Nox Sensor 1/1 Performance - Signal Stuck Low.
- P0088 - Fuel Rail Pressure Too High.
- P0404 - EGR "A" Control Circuit Range/Performance.
- P20C6 - Reductant Heater 4 Control Circuit Performance.
- P208B - Reductant Pump 1 Control Performance.******
- P0524 - Low oil pressure (during start up in cold ambient temps).
- P249C-00 - Excessive Time To Enter Closed Loop Reductant Injection Control.
- P02E8-00 - Diesel Intake Air Flow Position Sensor Circuit Low.
- P20FB-00 - Reductant Pump 2 Control Performance.
- P065A-00 - Generator System Performance.

Customers may experience one or more of the following:

- **Slow acceleration.
- Reduced vehicle speed & torque in high and 4 low.
- Poor cold idle stability.
- Poor idle quality with AC on.
- Excessive engine speed oscillations at tachometer red-line.
- Following a long key-on situation, poor cold start and idle stability.
- Cold hard start/extended crank.
- Block heater not providing a proper cold start and stable idle.
- High idle speeds at altitude when remote start is active.**
- The cruise control and speed limited set speed doesn't match the speedometer. It could be up to 2.5 kph (1.5 mph) difference.

Other Software enhancements:

- **Corrects instances of vehicles restarting once SRC Inducement is active, and the mileage countdown has expired.
- Reduce engine delay during cold start garage shifts.
- Improve idle stability, Improvement of cold start and combustion stability after start during cold ambient temperatures.
- Eliminate turbocharger surge on tip-out.
- Eliminate idle oscillation in park and drive.**
- Speedometer accuracy improvement(s).
- Cruise control updates.
- Battery durability improvements in hot ambient temperatures.

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 a customer's VIN is listed in VIP or your RRT/RSU VIN list, perform the repair. If any vehicle not on the VIN list exhibits the symptom/condition or DTC, perform the repair.

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. ** Is the vehicle on the RRT/RSU VIN list?
 - YES>>> Proceed to [Step 2](#).
 - NO>>> Proceed to [Step 3](#).
2. Is the PCM software at the latest version?
 - YES >>> This bulletin has been completed, use inspect LOP (18-19-04-ST) to close the active RRT/RSU. Normal diagnosis should be performed
 - NO >>> Proceed to [Step 3](#). **
3. Reprogram the PCM with the latest software. Detailed instructions for flashing control modules using the wiTECH Diagnostic Application are available by selecting the application's "HELP" tab.
4. 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.

NOTE: The following routines need to be performed after the flash. No part replacement is required when running these routines.

5. Using wiTECH, navigate to the PCM "Misc Functions" and perform the "Reset Zero Fuel Quantity Calibration" routine. Follow all onscreen prompts.
6. Using wiTECH, navigate to the PCM "Misc Functions" and perform the "Reset of O2 Values" routine. Follow all onscreen prompts.
 - a. From the routine menu, select "Reset O2 Values when Rail Pressure Sensor or Injectors are Replaced".
 - b. Follow remaining onscreen prompts.
7. Turn the ignition off for five minutes.

POLICY:

Reimbursable within the provisions of the warranty.

TIME ALLOWANCE:

Labor Operation No:	Description	Skill Category	Amount
18-19-04-ST	Module, Powertrain Control (PCM) - Inspect (0 - Introduction)	10 - Diesel	0.2 Hrs.
18-19-04-SU	Module, Powertrain Control (PCM) - Inspect and Reprogram (0 - Introduction)	10 - Diesel	0.3 Hrs.

NOTE: The expected completion time for the flash download portion of this procedure is approximately 9 minutes. Actual flash download times may be affected by vehicle connection and network capabilities.

FAILURE CODE:

The dealer must choose which failure code to use depending on if this is a Rapid Response Transmittal (RRT) / Rapid Service Update (RSU) or Service Bulletin.

- The “RF” failure code is required for essential module flash/reprogramming and can only be used after confirmation that the VIN is included on the RRT/RSU.
- The failure code “RF” (Required Flash) can no longer be used on Service Bulletin flashes. **The “RF” failure code must be used on an RRT/RSU.**
- 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 must be supplied.

RF	Required Flash - RRT/RSU
CC	Customer Concern