



NUMBER: 18-056-22 REV. A

GROUP: 18 - Vehicle Performance

DATE: May 24, 2022

This bulletin is supplied as technical information only and is not an authorization for repair. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, or otherwise, without written permission of FCA US LLC.

This bulletin supersedes Technical Service Bulletins (TSBs) 18-027-22, date of issue February 10, 2022 and 18-056-22, date of issue March 19, 2022, which should be removed from your files. This is a complete revision and no asterisks have been used to highlight revisions.

NOTE: This calibration update is only for vehicles that have had the updated CP3.3 design High-Pressure Fuel Injection Pump installed. All other calibrations to support the CP4 design pump have been deactivated. DO NOT perform this calibration update unless recall Y78 has been performed first.

SUBJECT:

Flash: Powertrain Control Module (PCM) Updates

OVERVIEW:

This bulletin involves reprogramming the Engine Control Module/Powertrain Control Module (ECM/PCM) with the latest available software.

MODELS:

2019	(DD)	RAM 3500 Cab Chassis
2019	(DP)	RAM 4500/5500 Cab Chassis

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

NOTE: This bulletin applies to vehicles equipped with a 6.7L I6 Cummins Turbo Diesel Engine (Sales Code ETN).

SYMPTOM/CONDITION:

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

- P0506-00 - Idle Control System RPM - Lower Than Expected.
- P0607-00 - ECU Internal Performance.
- P20E8-00 - Reductant Pressure Too Low.
- 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.
- P0299-00 - Turbocharger Underboost.
- P1D73-00 - AGS Performance.
- P0626 - Generator Field Control Circuit High.
- P218F - Reductant No Flow Detected.
- P2002 - Diesel Particulate Filter Efficiency Below Threshold.

- P24A5 - EGR Cooler Bypass Bank 1 Control Stuck.
- P0191 - Fuel Rail Pressure Sensor Circuit Performance.
- P0461 - Fuel Level Sensor 1 Performance.
- P0401 - EGR System Performance.
- P20EE - NOx Catalyst Efficiency Below Threshold.
- P061A - Level 2 Torque Performance.
- P061B - Internal Control Module Torque Calculation Performance.
- P061E - Internal Control Module Brake Signal Performance.
- P062C - Etc Level 2 MPH Performance.
- P0106 - Manifold Absolute Pressure Sensor Performance (In extreme cold ambient temperatures).
- P0116 - Engine Coolant Temperature Sensor Performance.
- P0420 - Catalyst System Efficiency Bank 1.
- P1507 - Crankcase Filter Restriction.
- P20E8 - (Diesel Exhaust Fluid) Reductant Pressure Too Low.
- P203F - (Diesel Exhaust Fluid) Reductant Level Too Low.
- P226C - Turbocharger Boost Control "A" Slow Response (In extreme cold ambient temperatures).
- P2579 - Turbocharger Speed Sensor Circuit.
- U0101 - Lost Communication with TCM.
- U02A3 - Lost of Communication with PM Sensor.
- U3017 - Control Module Timer/Clock Performance.

The customer may also notice one or more of the following:

- PTO Allows E-Stop to work in any gear.
- PTO that is remote started may prevent PTO cancellation in cab from disabling remote start.
- Harsh downshift clunk during exhaust brake deceleration.
- Diesel Exhaust Fluid (DEF) gauge erratic when DEF level is low.
- Stall when putting in reverse in cold ambient temps.
- Engine stumble during engine warm up.
- Unstable idle when AC compressor cycles.
- Oil life monitor resets after PCM flash.
- DEF level gauge inaccurate.
- Message "Regen in progress will take up to 70 Minutes" remains in Electronic Vehicle Information Center (EVIC) when aborting manual regeneration process.
- Excessive DEF consumption.
- Poor idle at times when engaging cab heat feature.

In addition, the following enhancements are included:

- Engine oil pressure switch modification.
- Cold Start improvements.
- Oil change monitor improvement for severe duty operation.
- Engine Warm up Protection Improvement to help promote better oil delivery to engine bearings during cold starts.
- Power Take Off (PTO) intermittently turns off with no DTCs.
- Transmission Overall Shift Schedule Improvements.
- wiTECH Fuel Injector Cutoff test fix.
- wiTECH Mass Air Flow (MAF) data parameter improvement.
- Enabling wiTECH Particulate Matter (PM) Sensor Regeneration Test in PCM "Misc Functions".
- wiTECH Fuel System Run-Up Test Improvement.
- wiTECH Fan Actuation Test Improvement.

- Smart exhaust brake operation improvement.
- Improved shift quality and engine performance when in 4LO.
- Idle shutdown timer system improvement.

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 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/conditions listed above or if the technician finds the DTCs, perform the Inspection Procedure.

INSPECTION:

NOTE: The only calibration available will be for the updated CP3.3 design High-Pressure Fuel Injection Pump (Fig. 1) . Please ensure that recall Y78 has been completed first before proceeding with this update.

1. Inspect the High-Pressure Fuel Injection Pump to see which pump is currently installed on the vehicle (Fig. 1) . Also review the vehicle VIP report to see if campaign Y78 has been performed.

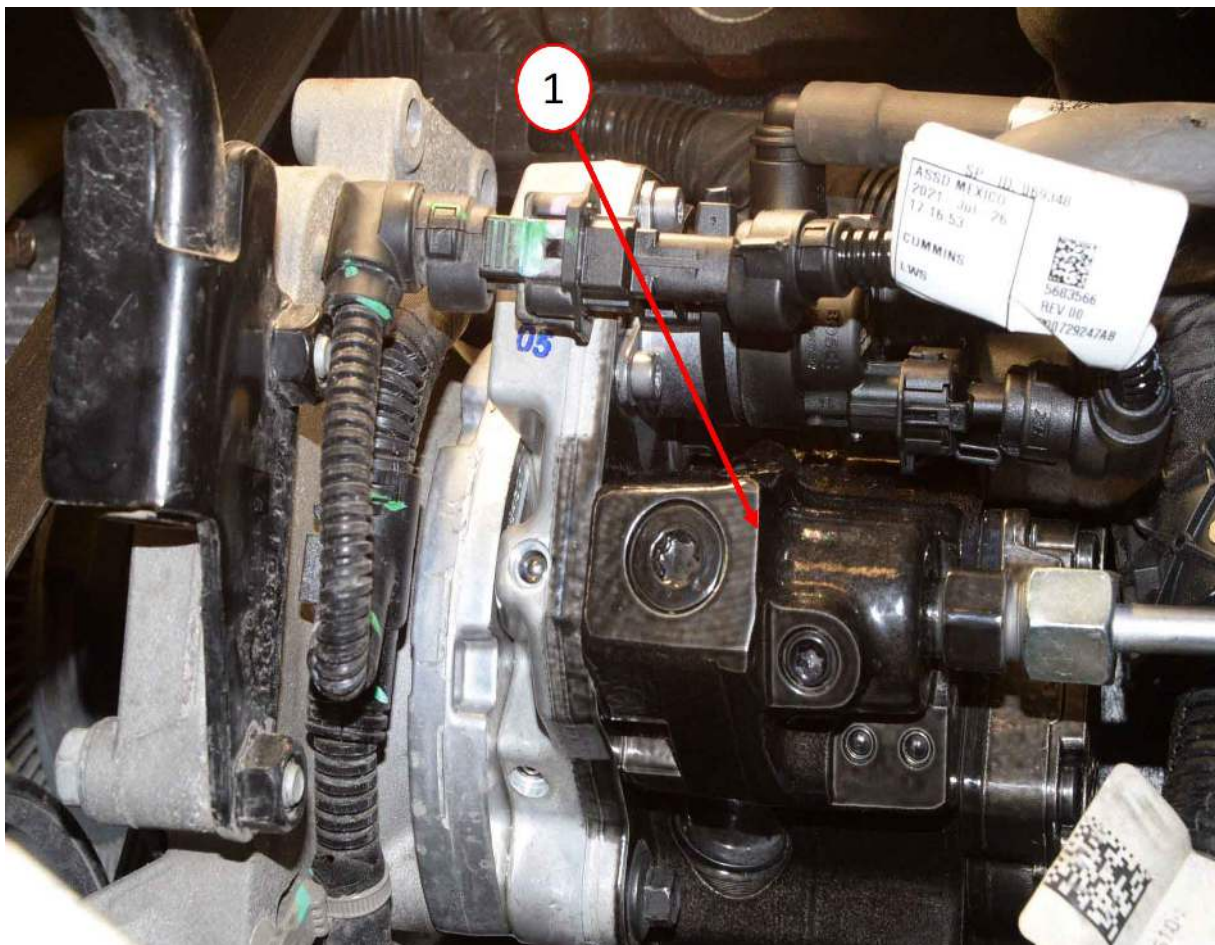


Fig. 1
CP3.3 Design Pump

2. Does the VIP report indicate that Y78 has been performed, and is the vehicle equipped with the new design fuel injection pump released under the campaign?
 - YES>>> Proceed to [Step 1](#).
 - NO>>> Perform the Y78 campaign first. Once the campaign is performed, new pump installed and PCM updated, the PCM will have all of the updates listed in this document. This Bulletin does not apply.

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. Reprogram the PCM/ECM with the latest software. Detailed instructions for flashing control modules using the wiTECH Diagnostic Application are available by selecting the application's "HELP" tab.
2. Clear all DTCs that may have been set in any module due to reprogramming. The wiTECH application will automatically present all DTCs after the flash and allow them to be cleared.
3. Using wiTECH, perform the "Oil Life Restore" procedure located in the ECM "Misc Functions".

POLICY:

Reimbursable within the provisions of the warranty.

TIME ALLOWANCE:

Labor Operation No:	Description	Skill Category	Amount
18-19-04-NF	Module, Engine Control (ECM) - Reprogram (0 - Introduction)	10 - Diesel	0.4 Hrs.

NOTE: The expected completion time for the flash download portion of this procedure is approximately 10 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 Technical Service Bulletin.

- If the customer's concern matches the SYMPTOM/CONDITION identified in the Technical 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 Technical Service Bulletin flash/reprogramming conditions.

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