

 Preview Solution CBR-2128-7

Engine Control Module (EMS) Software Information - Improvement List (Change Log), US21+OBD2021 Emissions ONLY

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Valid for all vehicles model year 2022

Information about Engine Control Module (EMS) Software content. This document lists issues (DTCs, Fault Codes) mitigated or resolved in specific EMS software. The newest EMS Main Software (MSW) part number typically includes improvements from previous EMS software releases and updating to the latest part number will most often cover items listed for older software releases.

This software applies to all vehicles, and both VGT and TC engines.

Software Release Table (Latest information at top)

Date Available Via PTT	VGT MSW Part #	TC MSW Part #
November 2025 (Current)	24800015	24800030
March 2023	24419456	24419459
June 2021	23972412	23972419
December 2020	23992327	23992337

EMS software improvements with MSW Part Number

24800015 / 24800030. Available from November 2025.

All Vehicles

VGT and TC EMS Software

Reduces fault frequency of following fault codes

After parked regeneration, Improves California Clean Truck Check Readiness compliance.

Aftermarket Routine Update. Improves EGR system test (2939-08-03-03)

Reduces fault frequency of following fault codes

P204C-00 – Aftertreatment Reagent Pressure Sensor Circuit Low

P2042-01 – Reductant Temperature Sensor

P2002-00 – Diesel Particulate Filter Efficiency Below Threshold (Bank 1)

P02FA-00 – Intake Throttle Valve Calibration error

P208E-00 – Aftertreatment Reagent Dosing Valve Clogged

TC EMS Software Only

P047F-00 – Exhaust Pressure Control Valve “A” Stuck Open

EMS software improvements with MSW Part Number

23972412 / 23972419. Available from June 2021.

All Vehicles

VGT and TC EMS Software

Reduction of false faults on the following NOx Sensor faults:

P225C-00 - NOx Sensor Performance - Signal Stuck High Bank 1 Sensor 1

P225E-00 - NOx Sensor Performance - Signal Stuck High Bank 1 Sensor 2

Improvement in fuel filter plugging detection

Once engine ECU SW is updated, parameter ‘TAU’ set to ‘True’ to make instrument cluster display message as needed.

AHI Nozzle

VGT EMS Software Only

Improved diagnostic function routines for EGR System Checks

Test, 2939-08-03-01 – Exhaust Gas Recirculation Function has been replaced with 2939-08-03-03 – Exhaust Gas Recirculation System Analysis. New test, 2939-08-03-03 is more capable in detecting issues with EGR system.

Use TT2.8.51 or newer and update product information to run this operation with new engine ECU software.

TC EMS Software Only

Reduction of false faults on the following:

P0471-64 - Engine Exhaust Back Pressure Circuit Range/Performance

Reduction of fault occurrence

P0402-00 - Engine Exhaust Gas Recirculation 1 Valve Position Flow Excessive Detected

Improvement in Engine Speed stability during idle

Reduction of false fault occurrence

P2002-00 - Diesel Particulate Filter Efficiency Below Threshold (Bank 1)

Related links and attachments

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