ATTENTION:

GENERAL MANAGER ❑
PARTS MANAGER ❑
CLAIMS PERSONNEL ❑
SERVICE MANAGER ❑

IMPORTANT - All Service Personnel Should Read and Initial in the boxes provided, right.

SUBARU

QUALITY DRIVEN® SERVICE

SERVICE BULLETIN

APPLICABILITY: 2023-24MY WRX

NUMBER: 09-124-24

DATE: 07/01/24

SUBJECT: DTCs P0890 (TCM Power Relay Sense Circuit Low) & P0420 (Catalyst System Efficiency Below Threshold Bank 1 (MT only))/ ECM Reprogramming File Availability

INTRODUCTION:

This bulletin announces availability of reprogramming files to optimize the Engine Control Module (ECM). The new files will address cased of DTCs P0890 (TCM Power Relay Sense Circuit Low) & P0420 (Catalyst System Efficiency Below Threshold Bank 1) detected by the ECM. While attempting a restart after a short drive cycle in low ambient temperatures (below 0 Degrees Celsius / 32 Degrees Fahrenheit), the starter motor may not operate. DTC P0890 will likely be stored in the ECM under this condition.

Also, in low ambient temperatures (below 0 Degrees Celsius / 32 Degrees Fahrenheit), condensed moisture in the ignition relay can cause the contact points to freeze under these conditions. DTC P0420 may become detected falsely due to an unstable combustion caused by a downshift (MT models ONLY). The new logic enhances the relay self-shutdown program along with more precise engine rotation monitoring, eliminating the possibility of frozen relay contacts.

If P0890 and/or P0420 are found to be detected by the ECM, perform the reprogramming procedure outlined in this bulletin.

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PFC FILE INFORMATION:

MY	Model	Transmission	File Description	Old Part Number	New CID/ROM ID
23	WRX	CVT	22765AU002.pfc	22765AU000 22765AU001	LHBKC31N00G
23	WRX	MT	22765AU012.pfc	22765AU010 22765AU011	LHBKC40M00G

PAK FILE INFORMATION:

MY	Model	Transmission	File Description	Old Part Number	Decryption Keyword	New CID/ROM ID
22	WRX	CVT	22765AR887.pk2	22765AR880 22765AR881 22765AR882 22765AR883 22765AR884 22765AR885 22765AR886	775FF306	LHBHC01C00G
22	WRX	MT	22765AR897.pk2	22765AR890 22765AR891 22765AR892 22765AR893 22765AR894 22765AR895 22765AR896	A5F61FE2	LHBHD00B00G

SERVICE PROCEDURE / INFORMATION:

REMINDER: Customer satisfaction and retention starts with performing quality repairs.

2022 MY: Reprogram the ECM Control Module following the normal FlashWrite procedure.

2023 MY: Reprogram the ECM Control Module following the normal SSM5-R procedure.

NOTE: Detailed information regarding the SSM5-R reprograming procedures can be found in TSB **14-28-21R**.

Subaru of America, Inc. (SOA) highly recommends utilizing either the Subaru Midtronics DCA8000 Dynamic Diagnostic Charging System or the Subaru Midtronics GR8-1100 Diagnostic Battery Charger to the vehicle and utilizing the Power Supply Mode feature anytime a vehicle control module is being reprogrammed. Once the Midtronics charger is connected to the vehicle, if the battery is fully charged, it takes less than three (3) minutes to boot-up the charger, select the Power Supply Mode, and have the battery voltage stabilized and ready for reprogramming.

NOTES:

- For instructions on using the Power Supply Mode, reference the applicable User Manual for the Midtronics DCA-8000 Dynamic Diagnostic Charging System and the Midtronics GR8-1100 Diagnostic Battery Charger on STIS.

- Confirm all electrical loads such as lights, audio, HVAC, seat heaters, and rear defroster are all switched OFF before setting up the charger for Power Supply Mode.

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- Select the correct battery type (Enhanced Flooded, Flooded, Gel, AGM or AGM Spiral).

- Input the CCA which matches the vehicle's battery. **NOTE:** OE and replacement batteries have different CCA ratings. Always confirm the battery's CCA rating before proceeding.

- If using a DCA-8000 Dynamic Diagnostic Charging System, set the power supply voltage to 13.5 Volts.

- DO NOT connect the DST-i or DST-010 until the Power Supply mode function has completed its battery test mode and the Charging Voltage has dropped to and shows a steady 13.5 Volts on the display.

- Once Power Supply Mode reaches a steady 13.5 Volts, connect the DST-i or DST-010 to the OBD connector and proceed with initiating the normal SSM5-R reprogramming process.

- Amperage will fluctuate based upon the vehicle's demand for power. **NOTE:** If the voltage rises beyond 14 Volts while programming is in process, the procedure will abort. This can indicate a need to test or charge the vehicle battery before any further attempt at programming is made.

- ALWAYS set the power supply voltage to 13.5 Volts when using Power Supply Mode. NEVER turn the ignition switch on when charging at voltages 15 Volts or higher.

REMINDER: If the DCA-8000 or GR8-1100 indicates the vehicle's battery must be charged, charge the battery fully before proceeding to reprogram the vehicle while using the Power Supply Mode.

NOTE: Control module failures resulting from battery discharge during reprogramming are not a matter for warranty. Should any DTCs reset after the reprogramming update is performed, diagnose per the procedure outlined in the applicable Service Manual.

WARRANTY / CLAIM INFORMATION:

For vehicles within the Basic New Car Limited or Powertrain Warranty period or covered by a Subaru Added Security Powertrain, Classic or Gold plan, this repair may be submitted using the following claim information:

Labor Description	Labor Operation #	Fail Code	Labor Time
MFI OBDII ECM Reprogramming	A455-288	UPG-48	0.4

IMPORTANT: Always note the original Calibration Identification number (CID) / ROMID the vehicle came in with on the repair order **before** reprogramming and, make sure to list the **NEW** CID / ROMID for any newly installed programming (as confirmed from the actual control module **AFTER** installation). The **NEW** CID / ROMID MUST also be noted on the repair order as this information is required for entry in the Miscellaneous Detail field during claim submission. These numbers can be read using SSM5-R.

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NOTE: The .pfc file listings provided in this bulletin are the latest available at the time of publishing. Updates are often released thereafter without revision to the original bulletin. For this reason, it is critical to always have the latest version of Select Monitor software installed on your system. You can confirm if a later version is available by entering the CID listed in this bulletin into SSM5-R. If a newer CID is shown as available in SSM5-R, reprogram using that file.

IMPORTANT REMINDERS:

- SOA strongly discourages the printing and/or local storage of service information as previously released information and electronic publications may be updated at any time.
- Always check for any open recalls or campaigns anytime a vehicle is in for servicing.
- Always refer to STIS for the latest service information before performing any repairs.