

**ATTENTION:**

GENERAL MANAGER   
 PARTS MANAGER   
 CLAIMS PERSONNEL   
 SERVICE MANAGER

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


© 2022 Subaru of America, Inc. All rights reserved.



QUALITY DRIVEN® SERVICE

## SERVICE BULLETIN

**APPLICABILITY:** 2020-22MY Legacy & Outback 2.5L  
 2021-22MY Crosstrek 2.5L

**NUMBER:** 09-101-23

**DATE:** 01/17/23

**SUBJECT:** Engine Misfire(s) DTCs P0300-P0304, & P0116

### INTRODUCTION:

This bulletin announces availability of reprogramming files developed for the Engine Control Module (ECM) to optimize the fuel injection system's fuel spray pattern and engine block heater detection. These files will provide enhanced logic to improve engine misfire(s) detection. If any of the faults listed above are found stored within the ECM, refer to the reprogramming information outlined below.

### PRODUCTION CHANGE INFORMATION:

These new reprogramming files were incorporated into vehicle production as per the table below:

Model	Starting VIN
Legacy	N3023300
Outback	N3248890
Crosstrek	N8276040

### PAK FILE APPLICABILITY:

MY	Model	File Description	Keyword	New CID
20	Legacy	22765AN20F.pa2	1A48F810	XE1J401m00G
	Outback	22765AP54F.pa2	045D68BB	XE1J401n00G
21	Legacy	22765AR18D.pk2	0BFF0158	XE1P501m00G
	Outback	22765AR19D.pa2	0AD21DBF	XE1P501n00G
	Crosstrek	22765AP813 pak	609021DE	XE1P501G00G
22	Crosstrek	22765AS343 pak	8686CA4B	XE1R201G00G
	Legacy	22765AS22D.pa2	E1EE5B66	XE1Q201m00G
	Outback	22765AS23D.pk2	DB317AFF	XE1Q201n00G

These files have been included in the November 2022 SSM software update.

**CAUTION: VEHICLE SERVICING PERFORMED BY UNTRAINED PERSONS COULD RESULT IN SERIOUS INJURY TO THOSE PERSONS OR TO OTHERS.**

Subaru Service Bulletins are intended for use by professional technicians ONLY. They are written to inform those technicians of conditions that may occur in some vehicles, or to provide information that could assist in the proper servicing of the vehicle. Properly trained technicians have the equipment, tools, safety instructions, and know-how to do the job correctly and safely. If a condition is described, DO NOT assume that this Service Bulletin applies to your vehicle, or that your vehicle will have that condition.

**Subaru of America, Inc. is ISO 14001 Compliant**

ISO 14001 is the international standard for excellence in Environmental Management Systems. Please recycle or dispose of automotive products in a manner that is friendly to our environment and in accordance with all local, state and federal laws and regulations.

*Continued...*

## SERVICE PROCEDURE / INFORMATION:

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

- Reprogram the ECM following the normal FlashWrite procedure.

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 in 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 will take 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.
- 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 FlashWrite 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.

*Continued...*

**VERY IMPORTANT:**

This information is applicable to the Subaru Midtronics DCA-8000 Dynamic Diagnostic Charging System and the Subaru Midtronics GR8-1100 Diagnostic Battery Charger **ONLY**. It does not apply to any other brand / type of “generic” battery charger whatsoever. **ONLY** the DCA-8000 and the GR8-1100 and their Power Supply Mode feature have been tested and approved by SOA.

**WARRANTY / CLAIM INFORMATION:**

For vehicles within the Basic New Car Limited Warranty period, 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) the vehicle came in with on the repair order **before** reprogramming and, make sure to list the **NEW CID** for any newly-installed programming (as confirmed from the actual control module **AFTER** installation). The **NEW CID MUST** also be noted on the repair order as this information is required for entry in the Miscellaneous Detail field during claim submission.

**NOTE:** The PAK 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 FlashWrite. If a newer CID is shown as available in FlashWrite, 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.