

- ATTENTION:**
- GENERAL MANAGER
 - PARTS MANAGER
 - CLAIMS PERSONNEL
 - SERVICE MANAGER

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

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QUALITY DRIVEN® SERVICE

SERVICE BULLETIN

APPLICABILITY: 2014-2016MY Crosstrek Hybrid (HEV) Models **NUMBER:** 11-180-18
SUBJECT: DTCs P0A78 and P1C2A- ECM Reprogramming **DATE:** 05/30/18
 File Availability

INTRODUCTION:

This bulletin announces the availability of reprogramming files to optimize the ECM and address DTCs P0A78 and P1C2A. When either of these DTCs is stored, the Hybrid / HEV functions are inoperative. The new logic will prevent damage to the drive motor by adding a fail-safe feature for improved current level control.

PACK FILE APPLICABILITY:

NOTE: These files were included in the April 2018 SMM / Flashwrite software update.

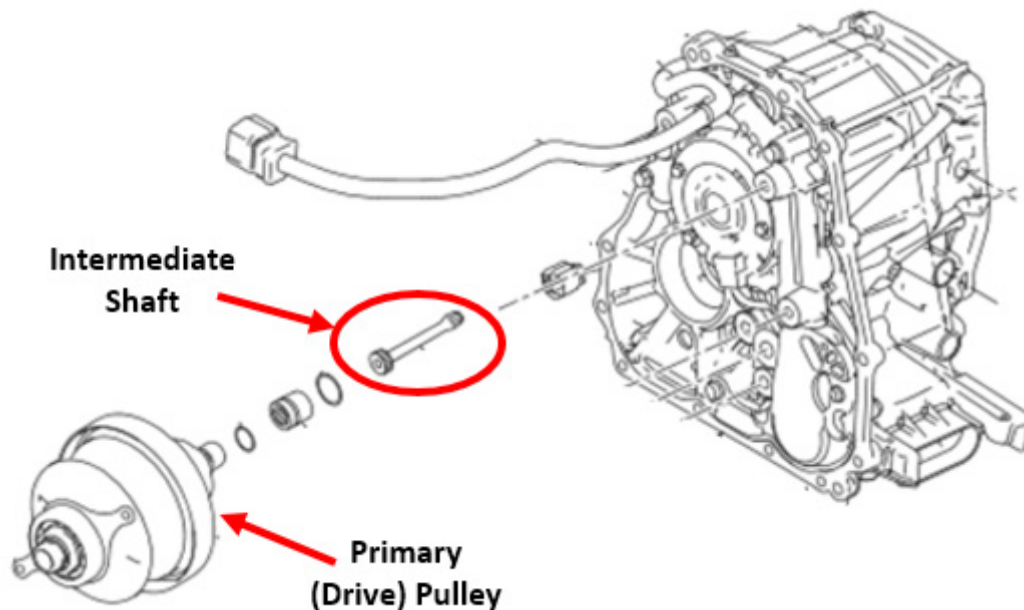
| Model | Model Year | PAK File Name | New ECM Part Number | Old ECM Part Numbers | Decryption Keyword | New CID Number |
|---------------|---------------|----------------|---------------------|-------------------------------------------|--------------------|----------------|
| Crosstrek HEV | 2014 | 29071AA006.pak | 29071AA006 | 29071AA000, 001, 002, 003, 004, 005 & 006 | 94FAF214 | 01D1088500 |
| | 2015 and 2016 | 29071AA012.pak | 29071AA012 | 29071AA010 & 011 | 48EE1090 | 02D1088100 |

SERVICE PROCEDURE / INFORMATION:

In the event of a Drive Motor and / or Inverter malfunction, DTC P0A78 AND P1C2A may set at the same time. This is a RARE occurrence. As a result, the drive motor could be supplied with a higher than specified level of current and damage (twist from over-torque) the CVT's Intermediate Shaft (see below) which is located inside the primary (drive) pulley.

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| <p>CAUTION: VEHICLE SERVICING PERFORMED BY UNTRAINED PERSONS COULD RESULT IN SERIOUS INJURY TO THOSE PERSONS OR TO OTHERS.</p> <p>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.</p> | <p style="text-align: center;">Subaru of America, Inc. is ISO 14001 Compliant</p> <p>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.</p> |
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VERY IMPORTANT: In the unlikely event DTC P0A78 **AND** P1C2A are detected and set at the same time, follow the diagnostic procedures for **BOTH** DTCs to determine the fault **BEFORE** proceeding with reprogramming the ECM. In this case, the following 4 components must be replaced together **as a set** following the procedures supplied in the applicable Service Manual.

NOTE: See TSB **16-94-15R** for more information and helpful hints to use and precautions to follow if performing these component replacements is necessary.

- Drive Motor Control Module (DMCM)
- Inverter Assembly
- Inverter wiring harness (between the DMCM and the Inverter)
- CVT Intermediate Shaft.

After the component replacement repairs are complete, proceed with reprogramming the ECM following the normal FlashWrite procedure.

Subaru of America, Inc. (SOA) highly recommends connecting the Subaru Midtronics GR8 Diagnostic Battery Charger to the vehicle and utilizing the Power Supply Mode feature anytime a vehicle control module is being reprogrammed. Follow the procedure as outlined in document GR8-1100 on STIS for use of the GR8's Power Supply Mode:

- Confirm all electrical loads such as lights, audio, HVAC, seat heaters, and rear defroster are all switched OFF before setting up for Power Supply Mode.
- Select the correct battery type (Flooded, AGM or AGM Spiral).
- Select the CCA which matches the vehicle's battery (**NOTE:** OE and replacement batteries have different CCA ratings. Always confirm the battery rating before proceeding.)
- If the "Charge Battery" **WARNING** appears, the battery **MUST** be charged before attempting reprogramming.
- **DO NOT** connect the DSTi or SDI until the GR8 Power Supply mode has completed its battery test mode and the Charging Voltage has dropped to a steady 13.5 Volts on the display.

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- If the GR8 “beeps” or the Status Light flashes, a diagnostic charge should be performed on the battery before proceeding further.
- Once Power Supply Mode reaches a steady 13.5 volts, connect the DSTi or SDI to the OBD connector and initiate the reprogramming process.
- Amperage will fluctuate based upon the vehicle’s demand for power. **NOTE:** If the voltage rises beyond 14V 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.

IMPORTANT:

This information is applicable to the Midtronics GR8 Diagnostic Battery Charger **ONLY**. It does not apply to any other brand / type of “generic” battery charger whatsoever. **ONLY** the GR8 and its Power Supply Mode feature has been tested and approved by SOA.

Once the GR8 is connected to the vehicle, **as long as the battery is fully charged**, it takes less than 3 minutes to boot-up the charger, select Power Supply Mode, and have the battery voltage stabilized and ready for reprogramming.

REMINDER: If the GR8 indicates the vehicle’s battery must be charged, charge the battery using the GR8 before proceeding to reprogram the vehicle.

NOTE: Control module failures as a result of 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, an applicable Emission Warranty period or covered by an active Subaru Added Security 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) 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 pack 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.

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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.