ATTENTION:
GENERAL MANAGER ❑
PARTS MANAGER ❑
CLAIMS PERSONNEL ❑
SERVICE MANAGER ❑

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

© 2023 Subaru of America, Inc. All rights reserved.

SUBARU

QUALITY DRIVEN® SERVICE

SERVICE BULLETIN

APPLICABILITY: 2019-23MY Ascent

SUBJECT: DTC P2404 / Reprogramming Files

NUMBER: 09-107-23R
DATE: 07/18/23
REVISED: 10/30/26

INTRODUCTION:

This bulletin the announces diagnostic procedures and availability of new Engine Control Module (ECM) reprogramming files to address DTC P2404 (Evap System Leak Detection Pump Sense Circuit Range/Performance) detection. In rare cases, the internal pump for the Evaporative Leak Check Module (ELCM) system can seize temporarily. The new files contain enhanced logic to prevent the ELCM pump from seizing. If P2404 is found in the fault memory, follow the diagnostic procedures outlined below.

PFC FILE INFORMATION:

Model	MY	File Name	Old Part Number	New CID #
Ascent	23	22765AS631.pfc	22765AS630	LHBK240Y00G

Detailed information regarding the SSM5-R reprogramming procedures can be found in TSB 14-28-21.

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...

PAK FILE APPLICABILITY:

Model	MY	File Name	Old Part Number	Decryption Key-word	New CID #
Ascent	19	22765AL739.pak	22765AL730 22765AL731 22765AL732 22765AL733 22765AL734 22765AL735 22765AL736 22765AL737 22765AL738	0DDE2284	LT8DB00A
	20	22765AN506.pak	22765AN500 22765AN501 22765AN502 22765AN503 22765AN504 22765AN505	D0E053B2	LT8F600C00G
	21	22765AP824.pak	22765AP820 22765AP821 22765AP822 22765AP823	B681D094	LT8H600D00G
	22	22765AS003.pak	22765AS000 22765AS001 22765AS002	C3D40F22	LT8J500F00G

These reprogramming files have been included in the April 2023 SSM software update.

Continued...

SERVICE PROCEDURE / INFORMATION:

STEP 1: Perform TSB 09-142-26. Did TSB 09-142-26 provide a repair recommendation?

YES - Repair complete

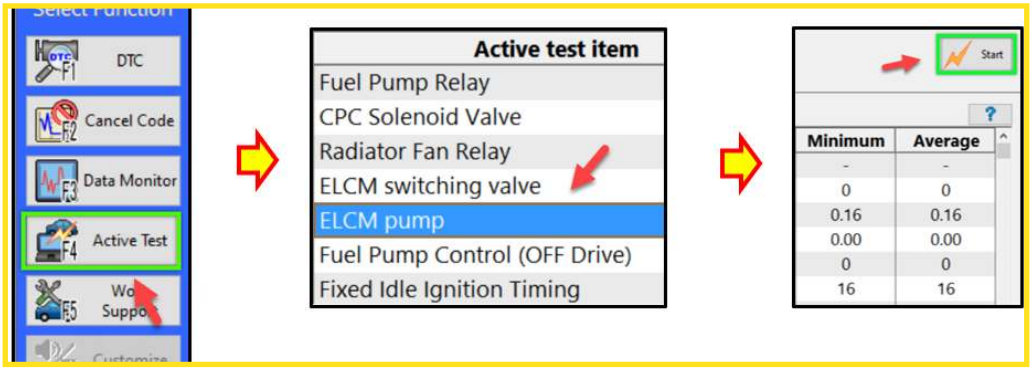
NO - Go to Step 3.

STEP 2: Was the Forced Evap result from 09-142-26 lower than -0.26 psi?

YES - Go to Step 5.

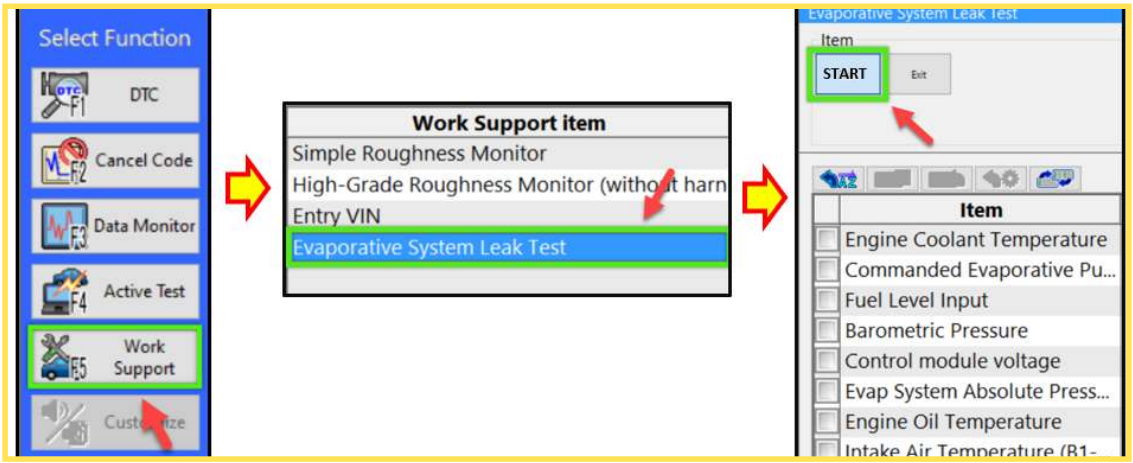
NO - Go to Step 3.

STEP 3: Using SSM, perform the ELCM Pump Active Test for a period of 35 minutes or more. See **APPENDIX A** for additional information regarding power supply.



Step 4: Connect the vehicle to a recommended power supply. See APPENDIX A for additional information regarding power supply. Using SSM, perform the Evaporative System Leak Test. Collect and save all data.

Note: Ensure the power supply is connected and battery voltage remains between 12-13.5V.



Was the Forced Evap leak test result lower than -0.26 psi?

YES - Go to Step 5.

NO - Replace the Evaporate Leak Check Module and go to Step 5.

Continued...

STEP 5: Reprogram the ECM following the normal SSM5-R procedure then proceed to Step 6. See **APPENDIX A** for addition information regarding power supply.

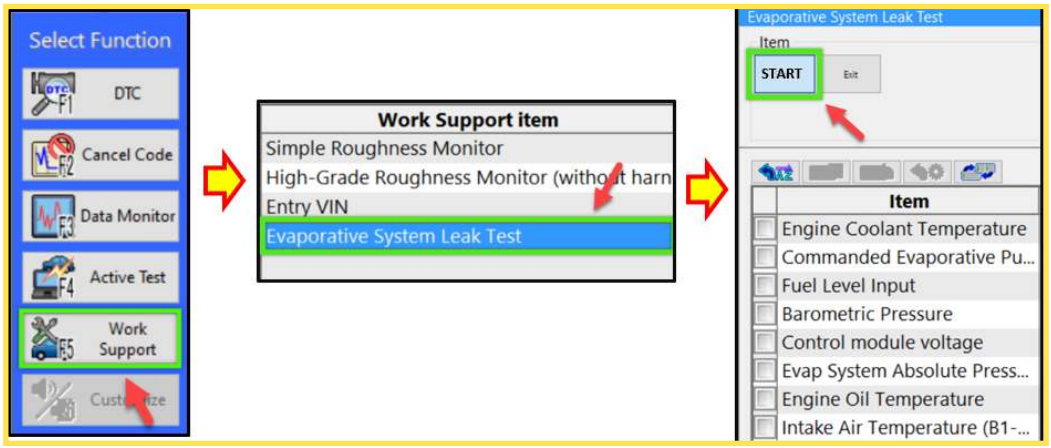
STEP 6: Connect the vehicle to a recommended power supply. See APPENDIX A for additional information regarding power supply. Using SSM, perform the Evaporative System Leak Test. Collect and save all data.

Note: Ensure the power supply is connected and battery voltage remains between 12-13.5V.

Did any DTCs return?

YES - Diagnose the condition according to the applicable Service Manual.

NO - Repair is complete.



STEP 7: Reprogram the ECM following the normal FlashWrite procedure. See **APPENDIX A** for addition information regarding power supply recommendations.

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 #	Labor Time	Fail Code
*ECM REPROGRAMMING & DRAIN TUBE CLEAN / EVAP TESTING	A455-223	1.8H	UPG-48
*LEAK CHECK MODULE R&R AND ECM REPROGRAMMING	A455-244	2.7H	

* This includes the work performed from TSB 09-142-26

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 claim specific data 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.

Continued...

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.

Continued...

APPENDIX A

Subaru of America, Inc. (SOA) highly recommends connecting 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.

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.