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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SUBARU

QUALITY DRIVEN® SERVICE

SERVICE BULLETIN

APPLICABILITY: 2016-19MY Legacy & Outback

SUBJECT: DTC P2404 / Reprogramming Files

NUMBER: 09-109-23R
DATE: 07/25/23
REVISED: 10/30/26

INTRODUCTION:

This bulletin announces diagnostic procedures along with availability of new Engine Control Module (ECM) reprogramming files to address DTC P2404 (Evap System Leak Detection Pump Sensor Circuit Range/Performance) detection. In rare cases, condensation can accumulate within the internal pump for the Evaporative Leak Check Module (ELCM) causing improper operation. The new logic incorporates a cleaning mode for the ELCM pump to provide added protection. If P2404 is found stored in the ECM memory, follow the procedures outlined below.

PAK FILE APPLICABILITY:

Model	MY	Spec.	File Name	Old Part Number	Decryption Keyword	New CID #
Legacy & Outback	16	2.5L NA, MT	22765AJ13G.pak	22765AJ13A 22765AJ13B 22765AJ13C 22765AJ13D 22765AJ13E 22765AJ13F	81D16D74	EB4I360A
	16	2.5L NA, CVT	22765AJ14G.pak	22765AJ14A 22765AJ14B 22765AJ14C 22765AJ14D 22765AJ14E 22765AJ14F	9FBD8A92	EB4I360C
	16	2.5L NA, CVT	22765AJ15G.pak	22765AJ15A 22765AJ15B 22765AJ15C 22765AJ15D 22765AJ15E 22765AJ15F	3ADF94F5	EB4I360B
	16	3.6 L NA, CVT	22765AJ17F.pak	22765AJ17A 22765AJ17B 22765AJ17C 22765AJ17D 22765AJ17E	0601B6A4	DB4I360D

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.

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Model	MY	Spec.	File Name	Old Part Number	Decryption Keyword	New CID #
Legacy & Outback	17	2.5L NA, CVT	22765AK49H.pak	22765AK49A 22765AK49B 22765AK49C 22765AK49D 22765AK49E 22765AK49F 22765AK49G	6217255B	EB4I560A
	17	2.5L NA, CVT	82201AK48H.pak 22765AK48H.pak	22765AK48A 22765AK48B 22765AK48C 22765AK48D 22765AK48E 22765AK48F 22765AK48G	5F49B685	EB4I560C
	17	2.5L NA, CVT	22765AK50H.pak	22765AK50A 22765AK50B 22765AK50C 22765AK50D 22765AK50E 22765AK50F 22765AK50G	DAEEA764	EB4I560B
	17	3.6 L NA, CVT	22765AK31G.pak	22765AK31A 22765AK31B 22765AK31C 22765AK31D 22765AK31E 22765AK31F	82CDECD6	DB4I560D
	18	2.5L NA, CVT	82201AK85E.pak 22765AK89E.pak	22765AK85A 22765AK85B 22765AK85C 22765AK85D	DF9B30D7	EB4T800C
	18	3.6 L NA, CVT	22765AK89E.pak	22765AK89A 22765AK89B 22765AK89C 22765AK89D	E319774E	DB4T800D
	19	2.5L NA, CVT	22765AN06D.pak	22765AN06A 22765AN06B 22765AN06C	12D316B6	EB4VA00C
	19	3.6 L NA, CVT	82201AN11E.pak 22765AN11E.pak	22765AN11A 22765AN11B 22765AN11C	FB343B30	DB4VA00D

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

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

YES - Repair complete

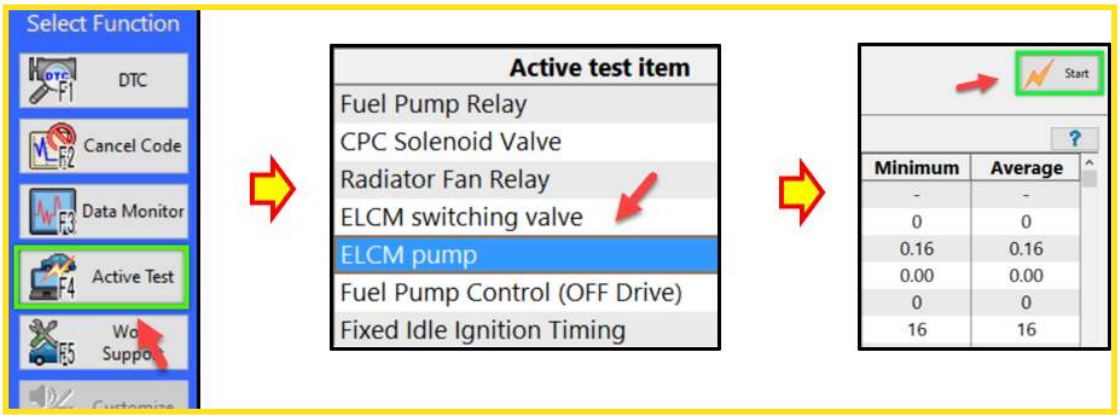
NO - Go to Step 3.

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

YES - Go to Step 5.

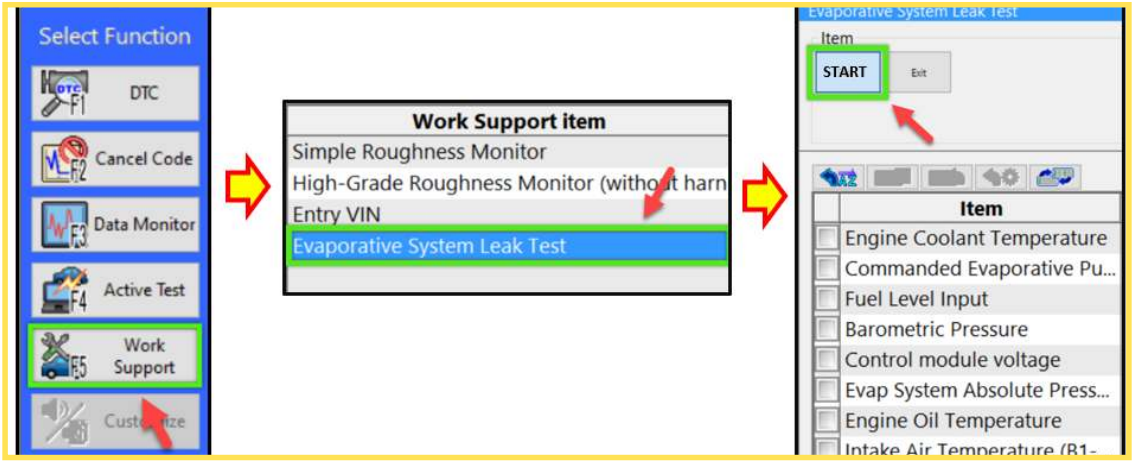
NO - Go to Step 3.

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.

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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.

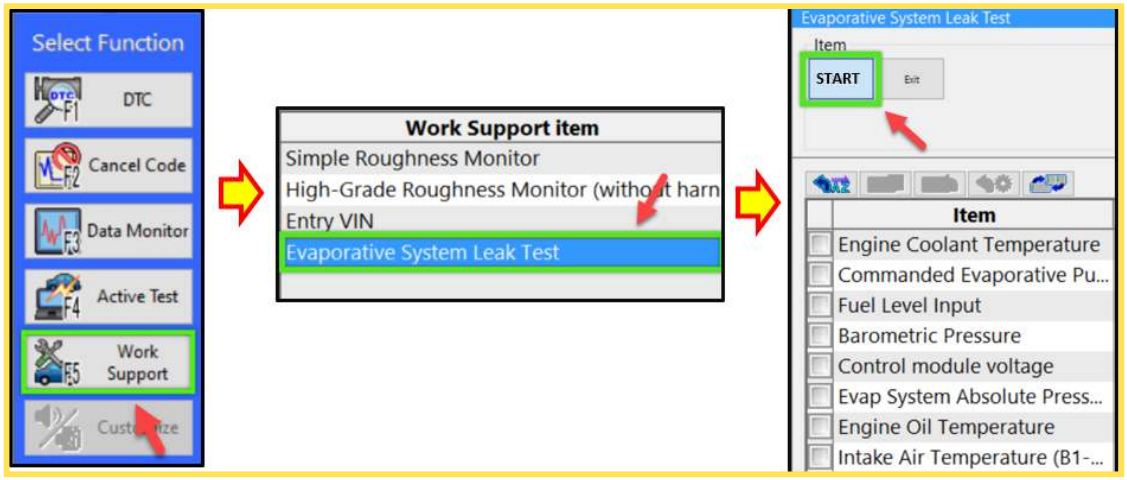
STEP 6: Connect the vehicle to a recommended power supply. See APPENDIX A for additional information regarding power supply. Using SSM, perform the Evaporative System Leak Test. Collect and save all data.

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 thefollowing 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	2.6H	

* 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.

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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.

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APPENDIX A

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.

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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.