

- 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:** 2022-24MY Forester

**NUMBER:** 12-253-23R

**SUBJECT:** EyeSight Reprogramming Files /Before: E5 Error  
After: HALT Code E5 & DTC B28C7

**DATE:** 12/29/23

**REVISED:** 04/18/24

### INTRODUCTION:

This bulletin announces the availability of new reprogramming files developed to address the following two symptoms:

**SYMPTOM #1 : 2022-23MY ONLY:** After the EyeSight camera has been exposed to high humidity/temperature conditions without any operation, the cooling fans become inoperable, and DTC B28C7 is detected by the EyeSight Stereo Camera Assembly.

**SYMPTOM #2 : 2022-24MY ONLY:** The EyeSight system enters into a temporary halt mode with an E5 halt code detected by the EyeSight Stereo Camera Assembly.

The new files contain optimized logic providing a more precise detection of DTC B28C7 and halt code E5. If any of the two symptoms listed above are reported by a customer. Follow the diagnosis and reprogramming procedures outlined in this bulletin.

### PAK FILE APPLICABILITY:

Applicable Vehicle	File Description	Old Part Number	Decryption Keyword	New Control Software Version	New Recognition Software Version
22-23MY FORESTER	87501SJ411.pk2	87501SJ400 87501SJ410	8AA19437	04210802	07210803
24MY FORESTER	87501SJ422.pk2	87501SJ420 87501SJ421	5299A841	0D210801	0A210801

**NOTE:** There is no need to recalibrate the EyeSight camera after the reprogramming procedure.

**IMPORTANT:** These files have been incorporated into the Forester production as of VIN **RH478341**.

**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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**SERVICE PROCEDURE / INFORMATION:**

**SYMPTOM #1**

**2022-23MY ONLY:** After the EyeSight camera has been exposed to high humidity/temperature conditions without any operation, the cooling fans become inoperable, and DTC B28C7 is detected by the EyeSight Stereo Camera Assembly.

**STEP 1:** Is DTC B28C7 detected?

**YES:** Proceed to Step 2.

**NO:** Continue diagnosis as per the applicable Service Manual.

**STEP 2:** Check the Fault Freeze Frame Data (FFD).

Status	Code	Description/ Failure part	Time Stamp		Occurrence Date	FFD
Current	B28C7	Fan Motor Speed	xxx	xxx	2022/8/1	

**DTC B28C7 is detected**

Click

<b>Failure Detail Code</b>	00EB
<b>Failure Detail Code</b>	00EC

Is the Failure Detail Code (FDC) 00EC (FAN Speed is low) or 00EB (B28C7 detected during high temperature HALT)?

**YES:** Perform the reprogramming outlined in Step 3.

**NO:** Continue diagnosis as per the applicable Service Manual.

**STEP 3:** Review the prerequisites/battery charging information provided in the **APPENDIX A** section of this document. Install and turn on the power supply.

**STEP 4:** Using the Subaru Select Monitor (SSM), confirm the following EyeSight Stereo Camera Assembly information:

- **2022-23MY:** The current control software version is **0421011E** or **04210801**.
- **2024MY:** The current control software version is **0D210800** or **0D210801**.
- Confirm the Camera Temperature is less than 176°F (80°C).
- Confirm the battery voltage is 13.5 Volts.

**IMPORTANT:** If the current software version is the latest version available, reprogramming is not required.

	Item	Value	Unit	Maximum	Minimum	Average
<input type="checkbox"/>	Control Software Version	xxxxxxx		-	-	-
<input type="checkbox"/>	Battery Voltage	13.5	V	12.10	12.03	12.07
<input type="checkbox"/>	Camera Temperature (Current)	86.0	°F	86.0	86.0	86.0

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**STEP 4:** Reprogram the EyeSight Stereo Camera Assembly following the normal FlashWrite procedure and confirm the control software version has changed.

Was the reprogramming procedure successful?

**YES:** The procedure is completed. There is no need to recalibrate the EyeSight camera after the reprogramming procedure.

**NO:** Perform up to two more attempts. If the reprogramming procedure continues to be unsuccessful, replace the EyeSight Camera Stereo Assembly. **Check the software status. If required, perform reprogramming after replacement.**

**SYMPTOM #2**

**2022-24MY ONLY:** The EyeSight system enters into a temporary halt mode with an E5 halt code detected by the EyeSight Stereo Camera Assembly.

**STEP 1:** Does the Subaru Select Monitor data meet the criteria outlined below?

**YES:** Proceed to the next Step.

**NO:** Perform the HALT Code E5 diagnosis as per the applicable Service Manual. Refer to STIS: DIAGNOSTICS > EyeSight (DIAGNOSTICS) > EyeSight HALT Code > E5

SSM Data Monitor Item	Criteria (Range)	Criteria (Specific Value)
EyeSight Temporary 22 Count	More than 1 (one)	1, 2, 3 ...
EyeSight Temporary 23 Count	More than 1 (one)	1, 2, 3 ...
Camera Status Check 3	Within the range of 3C to 56	Any of the following values: 3C, 3D, 3E, 3F, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 4A, 4B, 4C, 4D, 4E, 4F, 50, 51, 52, 53, 54, 55, 56
	Within the range of FFC4 to FFAA	Any of the following values: FFC4, FFC3, FFC2, FFC1, FFC0, FFBF, FFBE, FFBD, FFBC, FFBB, FFBA, FFB9, FFB8, FFB7, FFB6, FFB5, FFB4, FFB3, FFB2, FFB1, FFB0, FFAF, FFAE, FFAD, FFAC, FFAB, FFAA
Camera Status Check 4	Within the range of 3C to 56	Any of the following values: 3C, 3D, 3E, 3F, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 4A, 4B, 4C, 4D, 4E, 4F, 50, 51, 52, 53, 54, 55, 56
	Within the range of FFC4 to FFAA	Any of the following values: FFC4, FFC3, FFC2, FFC1, FFC0, FFBF, FFBE, FFBD, FFBC, FFBB, FFBA, FFB9, FFB8, FFB7, FFB6, FFB5, FFB4, FFB3, FFB2, FFB1, FFB0, FFAF, FFAE, FFAD, FFAC, FFAB, FFAA

**STEP 2:** Review the prerequisites/battery charging information provided in the **APPENDIX A** section of this document. Install and turn on the power supply.

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**STEP 3:** Using the Subaru Select Monitor (SSM), confirm the following EyeSight Stereo Camera Assembly information:

- **2022-23MY:** The current control software version is **0421011E** or **04210801**.
- **2024MY:** The current control software version is **0D210800** or **0D210801**.
- Confirm the Camera Temperature is less than 176°F (80°C).
- Confirm the battery voltage is 13.5 Volts.

**IMPORTANT:** If the current software version is the latest version available, reprogramming is not required.

	Item	Value	Unit	Maximum	Minimum	Average
<input type="checkbox"/>	Control Software Version	XXXXXXXX		-	-	-
<input type="checkbox"/>	Battery Voltage	13.5	V	12.10	12.03	12.07
<input type="checkbox"/>	Camera Temperature (Current)	86.0	°F	86.0	86.0	86.0

**STEP 4:** Reprogram the EyeSight Stereo Camera Assembly following the normal FlashWrite procedure and confirm the control software version has changed.

Was the reprogramming procedure successful?

**YES:** The procedure is completed. There is no need to recalibrate the EyeSight camera after the reprogramming procedure.

**NO:** Perform up to two more attempts. If the reprogramming procedure continues to be unsuccessful, replace the EyeSight Camera Stereo Assembly. **Check the software status. If required,** perform reprogramming after replacement.

**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 #	Labor Time	Fail Code
EYESIGHT SYSTEM REPROGRAMMING	B067-728	0.8H	ZQW-48
REPROGRAMMING SECOND ATTEMPT	C455-299	0.4H	
EYESIGHT STEREO CAMERA R&R AND CALIBRATION/ADJUST	C067-713	1.4H	

**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.

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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.

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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.

### **PREREQUISITS:**

1. Confirm there are no faults within the EyeSight® system. If there are any faults, they must be diagnosed, repaired, and cleared prior to reprogramming. Fully exit SSM prior to starting FlashWrite
2. Apply the Electronic Parking Brake (EPB). Switch the ignition switch to the “ON” position (engine off). Using the gear selector lever, set the vehicle in the Neutral (N) range. Wait at least 5 minutes after complete.

### **CRITICAL:**

- If the gear selector is in the Park (P) range, it is possible for the ignition switch to turn off automatically while reprogramming after approximately 60 minutes. This will cause the reprogramming procedure to fail.
  - **DO NOT** operate SSM during reprogramming.
  - **DO NOT** have the engine running during reprogramming.
3. Confirm the PC being use for reprogramming is connected to a known good power source. Turn off any screen saver settings. Make sure the PC is not in power saving mode and is set to the normal power mode.
  4. Confirm all electrical loads are switched off such as climate control, seat heater, audio system, etc.
  5. Connect a Midtronics DCA-800 or GR8-100 battery charger to the vehicle, utilize the Power Supply Mode feature to supply a stable 13.5 volts.

### **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 allswitched OFF before setting up the charger for Power Supply Mode.
- Select the correct battery type (Enhanced Flooded, Flooded, Gel, AGM or AGM Spiral).

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- 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.
- 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.

**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.

**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.