

- 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: 2022MY Forester

NUMBER: 07-209-22R

SUBJECT: EyeSight® Reprogramming
DTC B28A6 Internal Stereo Camera
Communication 1

DATE: 08/23/22

REVISED: 05/04/23

INTRODUCTION:

This bulletin announces new software available for the EyeSight® Stereo Camera Assembly. This new logic contains an enhanced self-diagnosis program to prevent any inaccurate detection of DTC B28A6 (Internal Stereo Camera Communication 1) within the fault memory. If this fault is detected, reprogram the EyeSight® Stereo Camera Assembly using the reprogramming procedure outlined within this bulletin.

PRODUCTION CHANGE INFORMATION:

The production change information is currently TBD.

PACK FILE APPLICABILITY:

Model	Model Year	File Name	Decryption Keyword
Forester	2022	87501SJ410.pk2	DC73A5C4

This file has been included in the July 2022 SSM software update.

SERVICE PROCEDURE / INFORMATION:

Reprogramming Preparation:

- A. 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.
- B. 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 completing this step before proceeding.

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.

<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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DO NOT operate SSM during reprogramming.

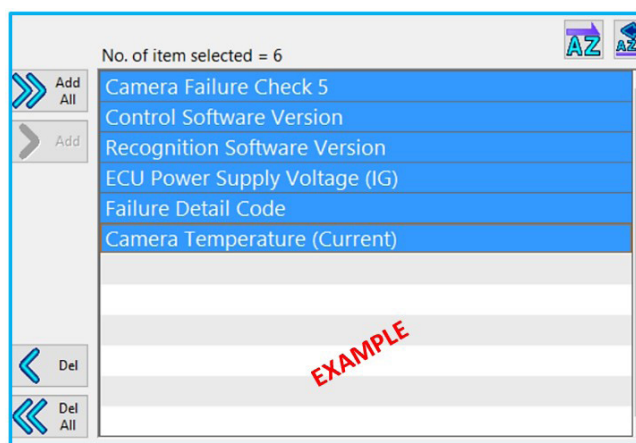
DO NOT have the engine running during reprogramming.

- D. 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.
- E. Confirm all electrical loads are switched off such as climate control, seat heater, audio system, etc.
- F. Connect Subaru Midtronics DCA8000 Dynamic Diagnostic Charging System or the Subaru Midtronics GR8-1100 Diagnostic Battery Charger to the vehicle set up to utilize the Power Supply Mode feature to supply a stable **13.5 volts**.

Reprogramming Prerequisites:

STEP 1: Confirm the EyeSight® Stereo Camera assembly is suitable for reprogramming. Using the Data Monitor feature within SSM, select the following signal items.

- 1. Camera Failure 5
- 2. Control Software Version
- 3. Recognition Software Version
- 4. ECU power Supply Voltage (IG)
- 5. Failure Detail Code
- 6. Camera Temperature



STEP 2: Confirm the following Data Monitor Values prior to any attempt to reprogram:

- 1. Camera Failure 5 is “**0000000B**”
- 2. Control Software Version is “**0421011E**”
- 3. Recognition Software Version is “**07210004**”
- 4. ECU Power Supply Voltage (IG) is **13.5 Volts**
- 5. Failure Detail Code is **C213**

NOTE: If Failure Detail Code C213 is not displayed, check the fault freeze frame data (FFD) of B28A6. If C213 is listed in the FFD, the parameter has been met.

- 6. Camera Temperature is **less than 176 degrees Fahrenheit (80 degrees Celsius)**

Item	Value	Unit	Maximum	Minimum	Average
<input type="checkbox"/> Camera Failure Check 5	0000000B		-	-	-
<input type="checkbox"/> Control Software Version	0421211E		-	-	-
<input type="checkbox"/> Recognition Software Version	7210004		-	-	-
<input type="checkbox"/> ECU Power Supply Voltage (IG)	13.5	V	14.3	14.2	14.3
<input type="checkbox"/> Failure Detail Code	C213		-	-	-
<input type="checkbox"/> Camera Temperature (Current)	89.6	°F	89.6	88.7	89.4

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Reprogramming Procedure:

- Reprogram the EyeSight® Stereo Camera assembly following the normal FlashWrite procedure.

Subaru of America, Inc. (SOA) highly recommends connecting either the Subaru Midtronics DCA-8000 Dynamic Diagnostic Charging System or the Subaru Midtronics GR8-1100 Diagnostic Battery Charger to the vehicle and utilizing 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 takes 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 (Flooded, EFB, 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, DST-010, or SDI 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, DST-010, or SDI 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 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 is made.

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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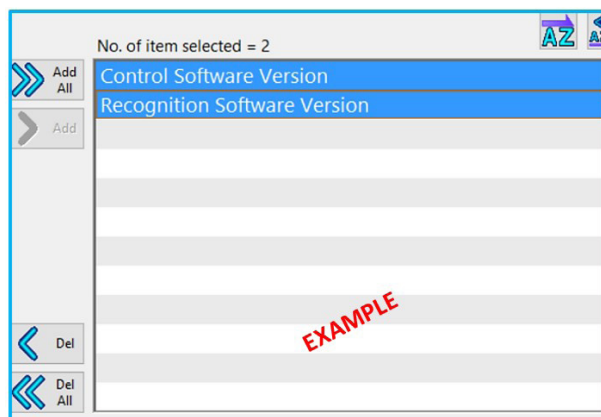
VERY IMPORTANT:

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.

Reprogramming Confirmation:

STEP 1: Confirm the EyeSight® Stereo Camera assembly reprogramming has been performed **SUCCESSFULLY**. Using the Data Monitor feature within SSM, select the following signal items.

7. Control Software Version
8. Recognition Software Version



STEP 2: Confirm the following Values:

1. Control Software Version is “04210801”
2. Recognition Software Version is “07210802”

	Item	Value	Unit	Maximum	Minimum	Average
<input type="checkbox"/>	Control Software Version	04210801		-	-	-
<input type="checkbox"/>	Recognition Software Version	07210802		-	-	-

A red watermark with the word 'EXAMPLE' is placed diagonally across the table.

IMPORTANT: If the reprogramming procedure is unsuccessful, **ONLY** one additional reprogramming attempt is to be made. Refer to the table below if an error code is displayed. If the reprogramming procedure is unsuccessful after **TWO** attempts, the EyeSight® stereo camera will require replacement.

Error Code Information:

In the event of an unsuccessful reprogramming attempt, an error code may be displayed. Pictured below is a description of the codes and the correct course of action if encountered.

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No	Error Code	Content	Procedure
1	00000001	Parameter Error	Confirm the software version has been updated. If the software has been updated successfully, ignore this error code, and clear the fault memory. If not, make ONE attempt to reprogram.
2	00000009	Communication Error	Turn ignition switch off and wait 10 seconds. Turn on the ignition switch. Resume the reprogramming work without exiting the FlashWrite2 at password entry screen.
3	00000281	Star Download Error	
4	00000282	Data Transfer Error	
5	00000283	Transfer Complete Error	
6	00000284	Checksum Error	
7	00000270	Unit Confirmation Error	Confirm the reprogramming precautions & requirements are fully meet. If there is no problem, turn ignition switch off and wait for 10 seconds. Turn on the ignition switch. Exit FlashWrite 2 and start it from the beginning.

PART INFORMATION:

REMINDER: Always order the most up-to-date replacement parts based on the specific VIN being repaired.

Part Description	Part Number
CAMERA ASSEMBLY	87501SJ410

WARRANTY / CLAIM INFORMATION:

For vehicles within the Basic New Car Limited, or covered by an active Subaru Added Security Gold plan, this repair may be submitted using the following claim information:

Labor Description	Labor Operation #	Labor Time	Fail Code
EYESIGHT SYSTEM REPROGRAMMING	B067-728	1.3	ZQW-48
REPROGRAMMING SECOND ATTEMPT	C455-299	.8	
EYESIGHT STEREO CAMERA R&R AND CALIBRATION/ ADJUST	C067-713	1.4	

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.

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.