ATTENTION.							
ATTENTION:	IMPORTANT - All						
GENERAL MANAGER	Service Personnel						
PARTS MANAGER	Should Read and Initial in the boxes						
CLAIMS PERSONNEL	provided, right.						
SERVICE MANAGER	© 2022 Subaru of A	America	a Inc. /	\II riahte	recerv	ed.	



SERVICE BULLETIN

APPLICABILITY: 23MY Outback/Legacy Models

(including Wilderness models)

23MY Ascent Models

NUMBER: 15-305-22R

DATE: 11/15/22

REVISED: 03/09/23

SUBJECT: Reprogramming File Availability for Optimization

of Gen 4.5 Denso CP1.5 Infotainment Systems

INTRODUCTION:

The following information announces reprogramming file availability and provides a software update installation procedure to optimize the new Gen 4.5 Denso CP1.5 Audio and Navigation head units utilized in the models listed above. As in previous models, the procedure will involve either downloading the software update files from Subarunet or using those sent directly from Nuspire to the SDS Notebook and transferring them onto a USB flash drive for head unit installation.

It is **VERY IMPORTANT** to read and understand this information completely before proceeding.

CAUTION: VEHICLE SERVICE PERFORMED BY UNTRAINED PERSONAL COULD RESULT IN THE EQUIPMENT DAMAGE OR EVEN SERIOUS INJURY.

Service Bulletin is intended for use by trained technicians ONLY. It informs technicians of conditions, which may occur in some vehicles or provides information, which could assist with proper servicing of the vehicle. Properly trained technicians have the equipment, tools, safety instructions, and know-how to do the job correctly and safely.

A timeline chart along with a complete list of all the conditions addressed and enhancements included in this and previous Denso software updates are provided in "**Appendix D**" and "**Appendix E**" located at the end of this bulletin.

IMPORTANT NOTE: The update contains 1 folder and 1 file. When performing an update, the USB must contain the matching number of folders and files and all files must be replaced.

ALWAYS use the latest files together as a set.

NEVER reuse or combine files from a prior update with a newer version.

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...

Bulletin Number: 15-305-22R; Revised: 03/09/23 Page 1 of 30

PART INFORMATION:

NOTE: High Level unit is equipped with Navigation option

(Map icon on Home screen)



11.6-Inch Display, Mid and High Level Units



Dual 7.0-Inch Display, Base Level Unit

Materials Required:

An empty, USB 2.0 or 3.0 storage device (flash drive) will be needed to perform the update procedure. The device should be dedicated to storing and transferring these updating files only. It should be a minimum of **64GB** or more in size and contain a NTFS file format before downloading the update files onto it. Be sure to locate and re-format any existing USB drives used for updating audio units. They must be fully cleared before adding these new update files to them.

IMPORTANT NOTES:

- **NEVER** change the update file names after downloading them.
- **NEVER** save any other files on the same flash drive.

There are various types of USB flash drive available from many suppliers. If the head unit does NOT recognize the USB drive during the reprogramming process due to Controller IC type of USB drive or Compatibility with the head unit, confirm the flash drive format is NTFS. The flash drive must be formatted for NTFS. If a recognition problem persists, use a USB flash drive from another manufacturer.

• Kingston®:

DataTraveler G3 Series DataTraveler 100 G3 DT100G3
DataTraveler SE9 Series DataTraveler SE9 G2 3.0 DTSE9G2
Digital Data Traveler 3.0 USB Flash Drive - Violet DTIG4







• SanDisk®:

Ultra Series SDCZ48-064G-J57

Cruzer Blade Series

Cruzer Glide Series CZ60 SDCZ60-064G-B35







• Transcend®:

JetFlash 790 Series TS64GJF790KBE



• PNY®:

Retract USB 3.0 Flash Drive, black (P-FD64GTRTC-GE)



• Silicon Power®:

2 Pack USB 3.0/3.1 Gen1 USB Flash Drive Blaze B02



IMPORTANT NOTE: The update contains 1 folder and 1 file. When performing an update, the USB must contain the matching number of folders and files and all files must be replaced.

ALWAYS use the latest files together as a set.

NEVER reuse or combine files from a prior update with a newer version.

SERVICE PROCEDURE / INFORMATION:

REMINDER: Customer satisfaction and retention starts with performing quality repairs.

STEP 1- VERY IMPORTANT: Before proceeding with the software updating procedure, the currently installed software version ID **MUST** be confirmed by following the steps below:

1a) After starting the engine and system boot-up completes, from the HOME screen, touch the **Settings** button.



1b) Press the **General** button. Use the down arrow to scroll to **System Information** then press to display the System Information / Version information.





The examples below identify the head unit model and the last 6 digits signify the software version number. Examples:

- F61WHMxxx-xxx (High model software)
- F61WMMxxx-xxx (Mid model software)
- F61WBMxxx-xxx (Base model software)

MY	Carline	Trim/Grade	Older Software Versions	Latest Software Versions
		BASE	013- <mark>280</mark> <mark>023-580</mark>	033-680
23MY	Outback/Legacy (including Wilderness models)	MID	013- <mark>280</mark> <mark>023-580</mark>	033-681
		HIGH	013- <mark>280</mark> <mark>023-580</mark>	033-681
23MY	Accept	MID	023-580	033-681
	Ascent	HIGH	023-580	033-681

If the software version number matches "Older Software Versions" proceed to **STEP 2** below. If the software version is "**Latest Software Version**" as the unit already has the latest software version installed.

STEP 2- Prepare the USB:

CAUTION: Do not use any USB flash drive which utilizes file organizing software or an operating system.

VERY IMPORTANT: Before attempting to download any data files, confirm the PC and flash drive being used is not infected with any virus. The flash drive MUST be formatted for **NTFS**.

- Make sure the USB flash drive contains no other files.
- Right click on the corresponding "Removable Disk".
- Select "Format".
- From the File System drop-down menu, select "NTFS"
- Check the "Quick Format" box (if not already done).
- Click on "Start" to format the USB flash drive.



STEP 3- Download the Update Files to the USB:

The files are available for download on Subarunet (see "A" below).

The applicable reprogramming files have also been sent directly to retailers by Nuspire in the same way a Select Monitor Update would be pushed out. (see "B" below).

Follow "A" when using files downloaded from Subarunet.

Follow "B" when using the files sent directly to the SDS notebook from Nuspire.

"A" When using update files downloaded from Subarunet:



IMPORTANT: Files downloaded from Subarunet will be .zip files and must be unzipped before they can be used. Using the normal audio / navigation system file update download procedure: Go to Subarunet, select Service Operations and Technical>>Forms/Downloads>>Gen 4/Denso for Audio/ Navi then click on the applicable Hyperlink to download the file(s) to your SDS Notebook or PC:

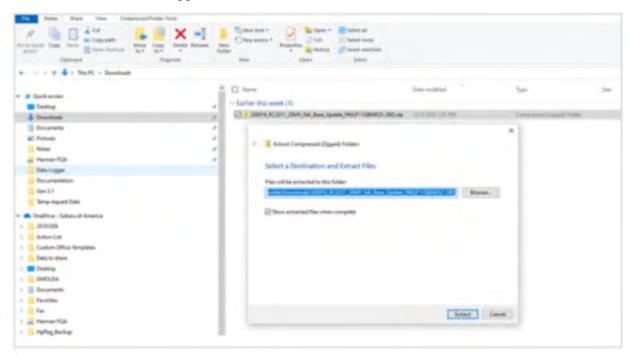
Updates for Gen 4.5 Denso Audio and Navigation Head Units - 2023MY Legacy/Outback and 2023MY Ascent:

23-Legacy-Outback-23-Ascent-Denso-CP1.5 AUDIO UPDATE- February 2023

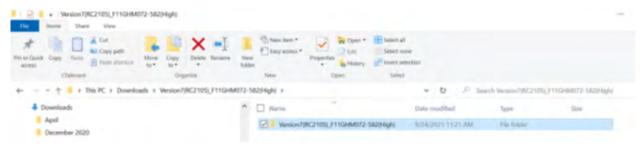
- Go to Downloads.
- CAUTION: After download is complete, NEVER change the file or folder names.
- Open / display the contents of File folder, for example: "File name TBD".
- Click on "Extract All Files".



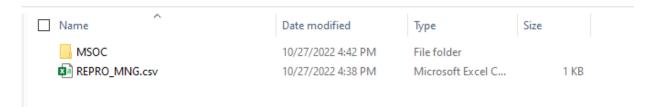
• The screen below will appear to set a destination for the extracted file.



• Double-click on the required folder (for this example, used folder titled "Version7(RC2105)_F11GHM072-582(High)").



Copy **all files** then paste (or click / drag) it to the "clean" USB flash drive as listed (Removable Disk) in the directory.



IMPORTANT NOTE: The update contains 1 folder and 1 file. When performing an update, the USB must contain the matching number of folders and files and all files must be replaced.

ALWAYS use the latest files together as a set.

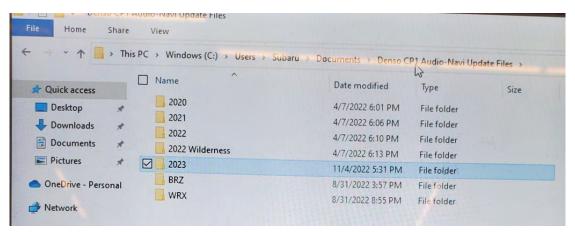
NEVER reuse or combine files from a prior update with a newer version.

- To avoid confusion, use a permanent marker to label the flash drive with the file contents (e.g. Denso CP1.5 2023MY ALL).
- Go to Step 4.

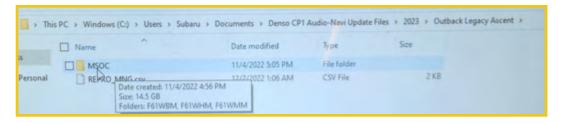
"B" When using update files sent directly from Nuspire:

• Go to My Documents on the GUI screen click on the folder "Denso CP1 Audio-Navi Update Files" to display the list of available update files shown below.

IMPORTANT: Always confirm there is a correct folder. If not, the SDS notebook hasn't been updated with the latest release. Please contact Nuspire to request they resend the update."



- CAUTION: After download is complete, NEVER change the file or folder names.
- Double-click on the required folder (for this example, select the file entitled "2023") and the update file will display as shown.



Select all folders and files and either copy / paste or click / drag them to the USB flash drive.

IMPORTANT NOTE: The update contains 1 folder and 1 file. When performing an update, the USB must contain the matching number of folders and files and all files must be replaced.

ALWAYS use the latest files together as a set.

NEVER reuse or combine files from a prior update with a newer version.

• Once all files have been loaded onto the USB flash drive, right click on the drive and select "Eject".

CAUTION: NEVER change the file names.

- Remove the USB flash drive after the prompt appears that says "Safe to Remove Hardware".
- Mark the USB to indicate the head unit it will update (Denso CP1.5 2023MY ALL in this example).
- Proceed to **STEP 4** below.

STEP 4- Perform the software update.

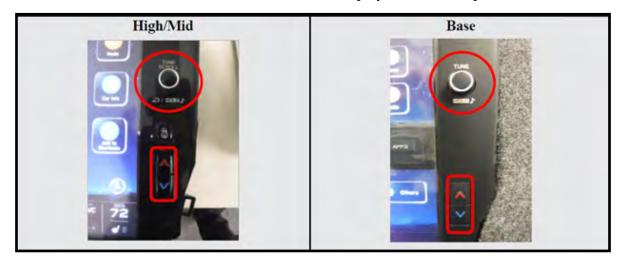
CAUTIONS:

NEVER attempt to install the software immediately following an exchange module installation. Let the system restart first and operate for 20 minutes.

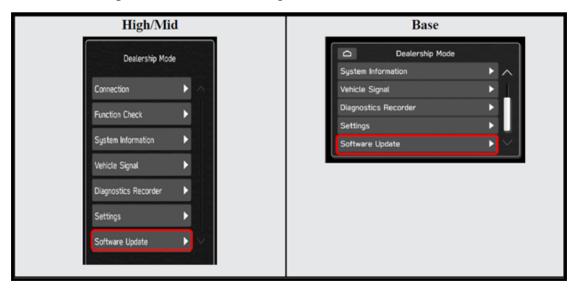
NEVER attempt to install the software a second time for 30 minutes following a previously unsuccessful software installation.

NEVER attempt to install the software for at least 30 minutes after completing a FOTA update.

- **4a)** Perform the update in a well ventilated location if updating with the engine running OR with the ignition ON and a battery charger connected.
- **4b)** PRESS and HOLD the RIGHT-side temperature control buttons (both up and down) and press the Tune / Scroll knob 6 times then release all to display the Dealership Mode Menu.



4c) Select Software Update from the Dealership Mode menu.



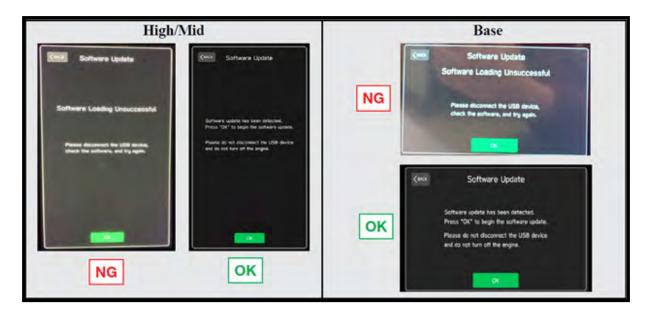
IMPORTANT NOTE: On a RARE occasion, the message "**Software update setup is initializing...**" may be displayed. Should this occur, proceed to "**Appendix A**" starting on pg. 16 of this bulletin for further instruction.

4d) The screen below will be displayed.



4e) Insert reprogramming USB into the USB port and press OK.

NOTE: If after plugging in the USB, the screen displays a **Software Loading Unsuccessful** message, confirm the USB device has been properly formatted and the software on the device matches the system being reprogrammed (example: Base software is being used to update a Base system) and retry.



If you get the message **Software Update Incomplete** as shown below, please don't replace the hardware but retry updating the software according to the instructions in "**Appendix B**" on pg. 17.

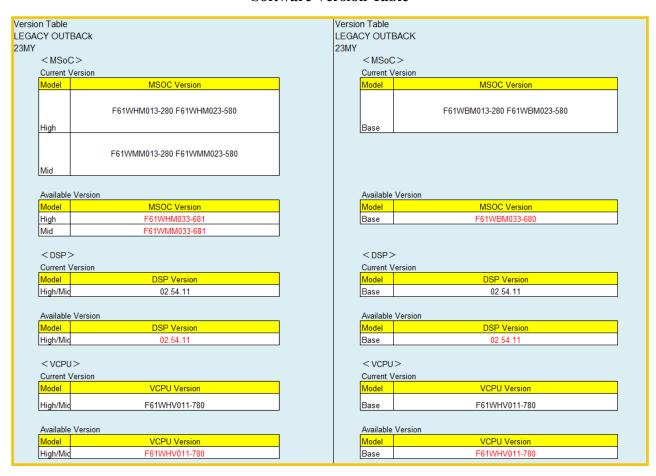


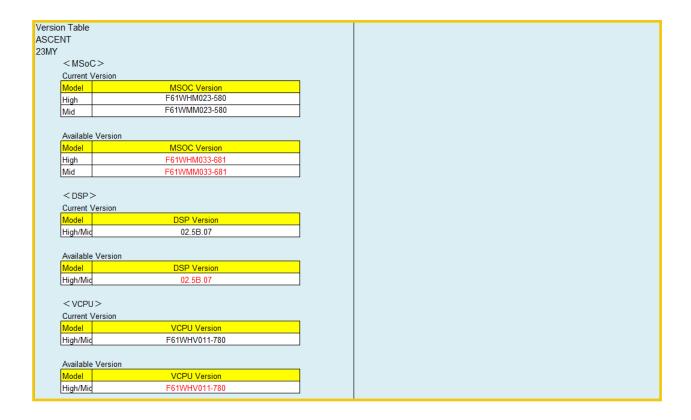
4f) The screen below will be displayed. Press **OK** to start the software update.

NOTE: The actual software version displayed will be different from the picture shown below.



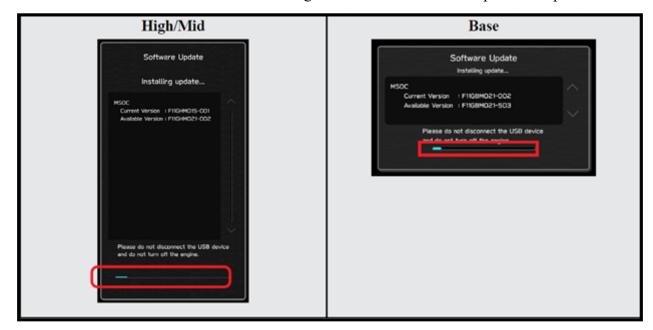
Software Version Table



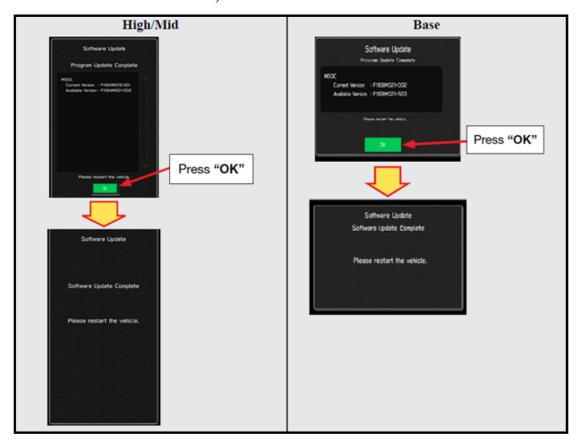


4g) Once the update begins, the screen below will be displayed with a progress bar. It takes about 15 to 20 minutes for the update to complete.

VERY IMPORTANT: NEVER turn off the ignition while the software update is in process.



4h) When the software update is complete, the following screen will be displayed (the actual software version will be different).



IMPORTANT NOTE:

On rare occasions a "Software Update Incomplete" message may appear in this step which occurs due to a bug in the software update procedure. Proceed to Step 4i below to confirm the software version has been updated to the latest version.

- 4i) Select **OK** in the screen above then remove the H/U reprogramming USB from the USB port.
- 4j) Turn the Ignition OFF, open the driver's door then close the driver's door.
- 4k) Wait for 3 minutes, then turn the ignition ON.
- **41)** Access Dealership Mode following steps provided item **4b** and using the tables below, confirm the software update completed successfully.

NOTE: The new Software Version number must be entered when prompted at claim entry.

Software Version Table

Version Table		
		(Including Wilderness)
3MY	Model	MSOC Version
	High	F61WHM033-681
	Mid	F61WMM033-681
	Model	DSP Version
	High/Mid	02.54.11
	Model	VCPU Version
	High/Mid	F61WHV011-780
ersio	n Table NT	
3MY	Model	MSOC Version
	High	F61WHM033-681
	Mid	F61WMM033-681
	Model	DSP Version
	High/Mid	02.5B.07
	Model	VCPU Version

4m) Turn the ignition OFF, open the driver's door then close the driver's door to complete the procedure.

WARRANTY / CLAIM INFORMATION:

For vehicles within the Basic New Car Limited Warranty period 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 Codes
DENSO CP1 SOFTWARE UPDATE-INCLUDES VERSION CHECK	A031-173	1.0	ZTZ-48 (BASE, MID, HIGH)

REMINDER: The new Software Version number must be entered when prompted at claim entry.

NOTE: Retailers are now permitted to claim up to \$5.00 per claim in Sublet to help offset the cost of replacement USB drives. Repeated re-formatting of the USB drives used for reprogramming can compromise their ability to operate properly. Over time, hardware connections can loosen and stored data files can become corrupted. Retailers are responsible for replacing any worn or otherwise inoperable USB drives as needed. This compensation is intended to help defray those costs.

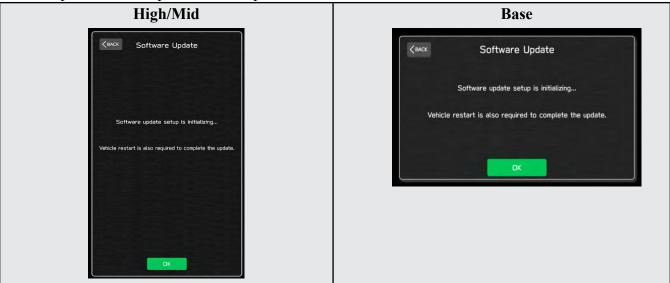
IMPORTANT REMINDERS:

- 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.

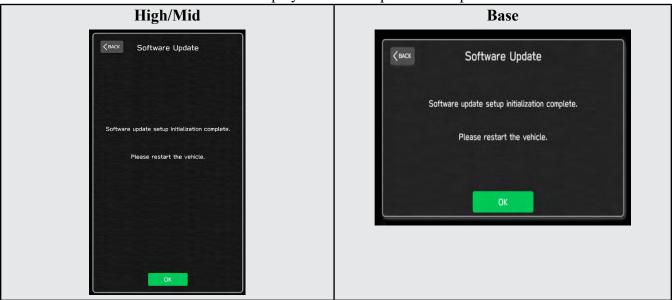
"APPENDIX A"

Follow this procedure in the RARE case of "Software update setup is initializing..." message is displayed:

• If the screen shown below appears, **WAIT** for approximately 30 minutes or as long as necessary (waiting for longer than 60 minutes might indicate system malfunction). In that case please perform recovery according to the instructions in "Appendix B" to allow the Software update setup initialization process to complete.



The screens shown below will be displayed when the process completes.



- 1. Turn the ignition OFF, open the driver's door, close the driver's door and WAIT for 3 or more minutes before proceeding further.
- 2. Open the driver's door again and either turn the ignition ON (if a charger is connected) or start the engine.
- **3.** Go to Dealership Mode menu again (PRESS and HOLD the RIGHT-side temperature control buttons (both up and down) and press the Tune / Scroll knob 6 times then release all to display the Dealership Mode) and select Software Update as in **STEP 4c** beginning on pg. 10.

IMPORTANT NOTE: If this procedure is required, contact Techline as additional action may be necessary.

"APPENDIX B"

In case of retrying the software update after the first attempt of update fails.

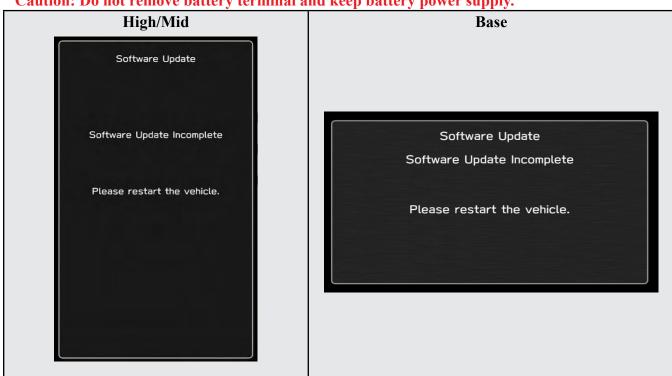
• If the first attempt of update fails with the message below, follow the steps described below 1-2 to 1-8 before retrying the software update.

1-1. Select OK in the screen below

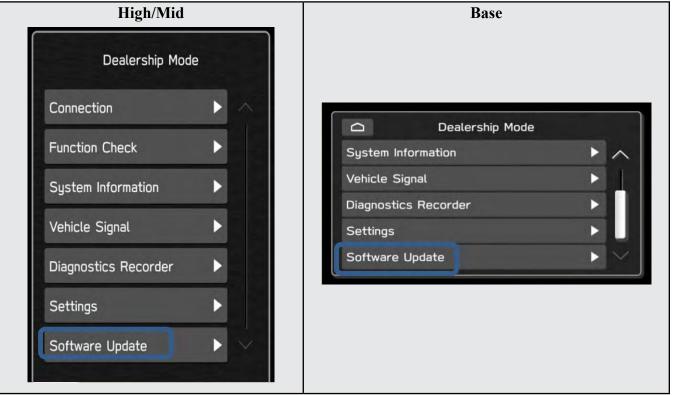


1-2. Turn the ignition switch or the engine OFF, and turn it ON again.

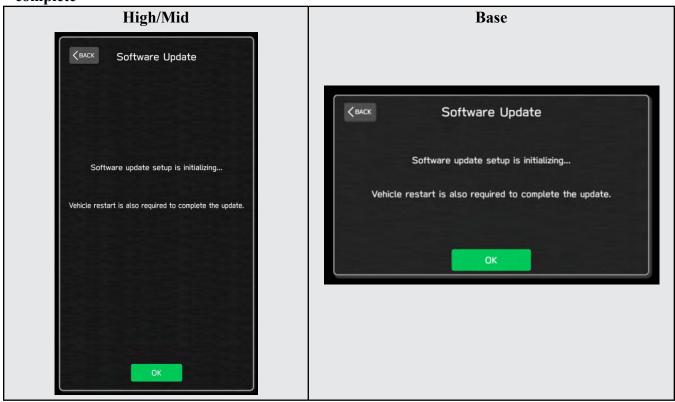
Caution: Do not remove battery terminal and keep battery power supply.



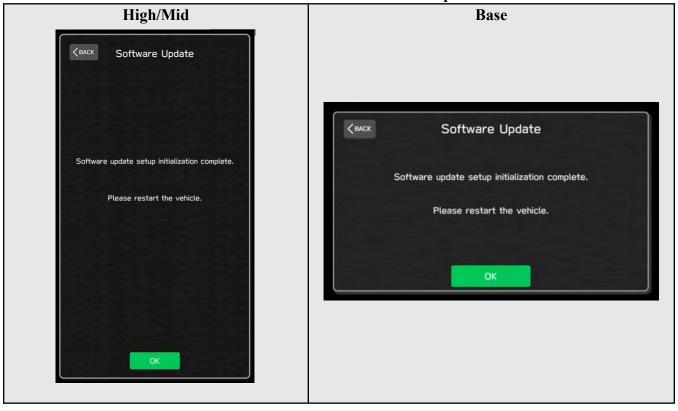
1-3. Select Software Update in the Dealership Mode diagnostics screen.



1-4. When you see the screen below, wait for approx. 15 minutes until the initialization is complete



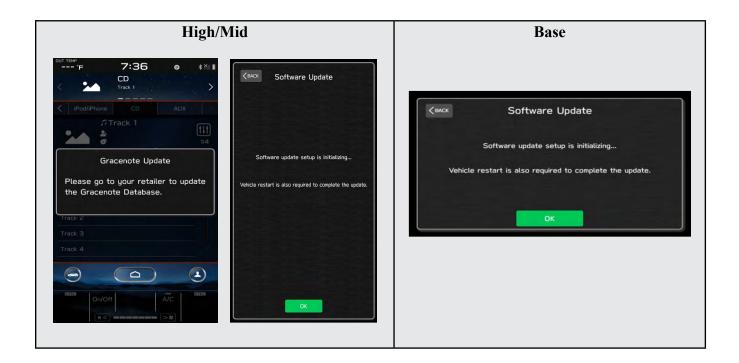
1-5. You will see the screen below when the initialization is complete.



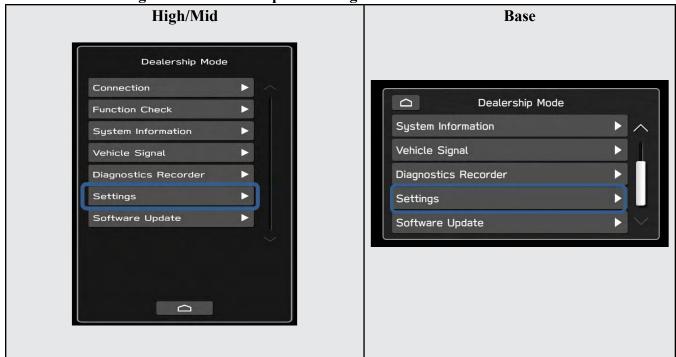
- 1-6. Turn the ignition switch or the engine OFF, open the driver side door and close the door then wait for 3 minutes.
- 1-7. Open the driver side door then turn the ignition switch or the engine ON.
- 1-8. Go to Dealership Mode menu again (PRESS and HOLD the RIGHT-side temperature control buttons (both up and down) and press the Tune / Scroll knob 6 times then release all to display the Dealership Mode) and select Software Update as in STEP 4c beginning on pg. 10.

"APPENDIX C"

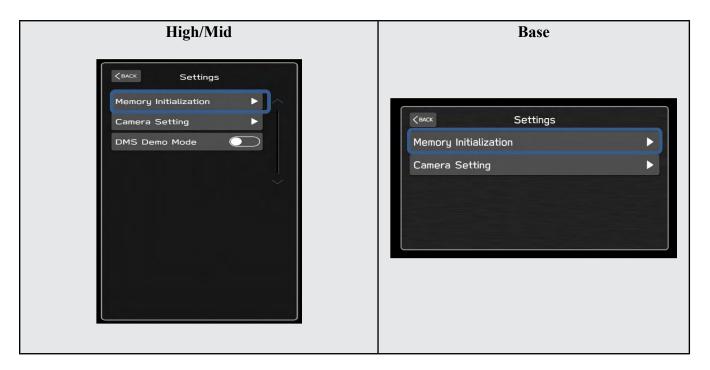
In case the Gracenote update popup screen appears or software initializing screen does not go away for more than 20 minutes, please perform steps 2-1 to 2-11.



2-1. Select "Settings" in the Dealership Mode diagnostics screen.

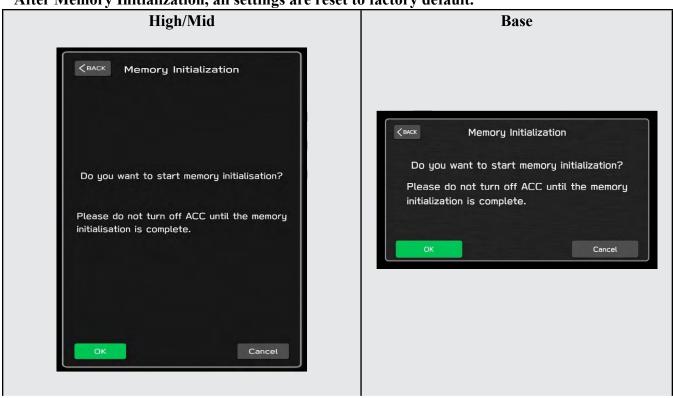


2-2. Select "Memory Initialization"

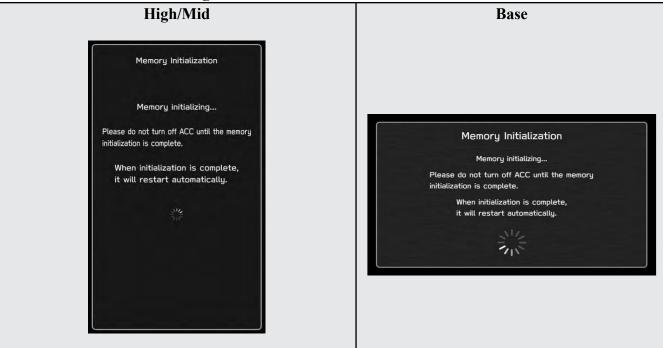


2-3. Select "OK"

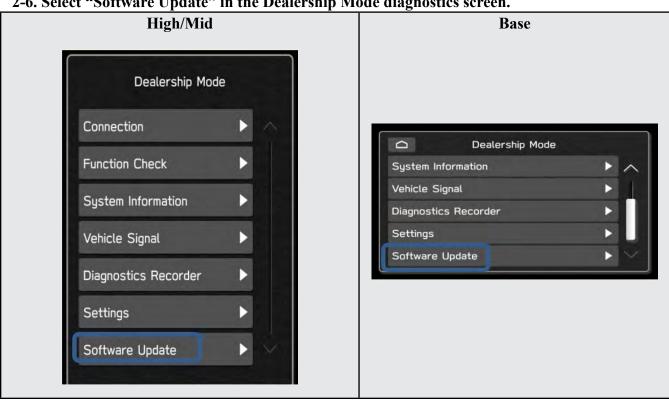
After Memory Initialization, all settings are reset to factory default.



2-4. You will see the following screen

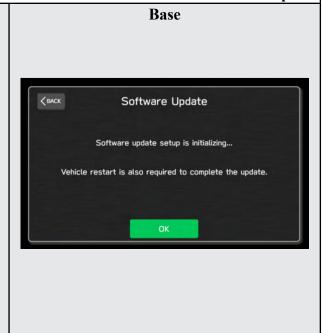


- 2-5. After a few seconds, system restarts itself.
- 2-6. Select "Software Update" in the Dealership Mode diagnostics screen.

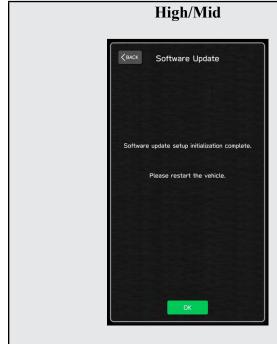


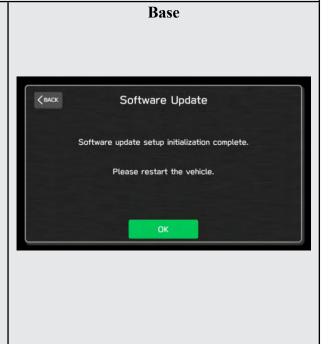
2-7. When you see the screen below, wait for about 15 minutes until the initialization is complete





2-8. You will see the screen below when the initialization is complete.





- 2-9. Turn the ignition switch or engine OFF, open the driver side door and close the door then wait for 3 minutes.
- 2-10. Open the driver side door then turn the ignition swatch or engine ON.
- 2-11. Go to Dealership Mode menu again (PRESS and HOLD the RIGHT-side temperature control buttons (both up and down) and press the Tune / Scroll knob 6 times then release all to display the Dealership Mode) and select Software Update as in STEP 4c beginning on pg. 10.

"APPENDIX D"

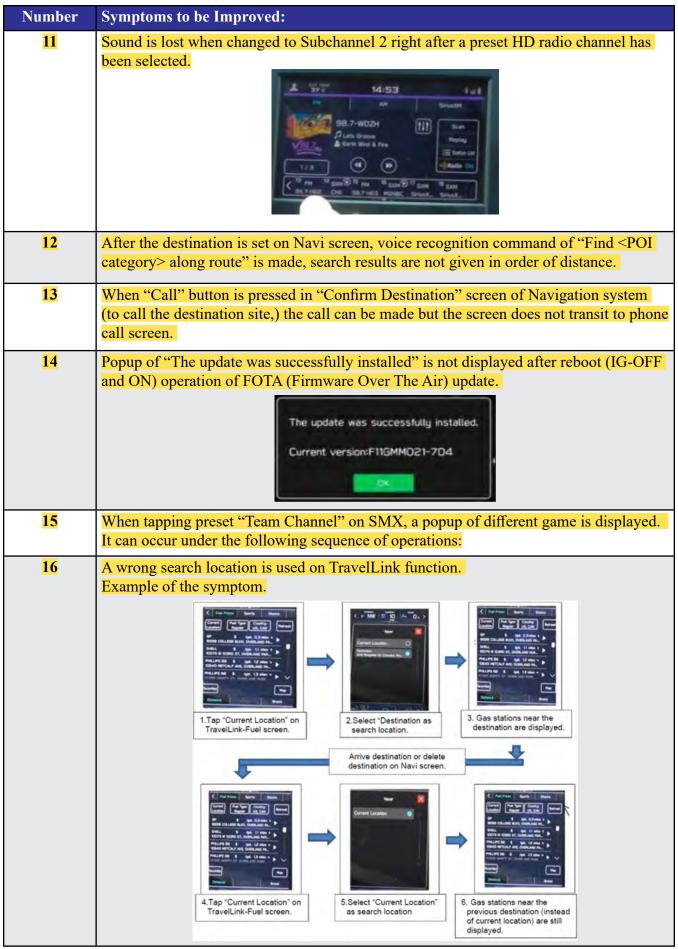
Denso Gen 4.5 Software Update Timeline (TSB Number: 15-305-22)

Update #	MY	Version	Release Date:	NEW Version ID #:	Conditions Addressed:
0	2023	0	9/1/2022	F61WHM013- <mark>280</mark> (High model software) F61WMM013- <mark>280</mark> (Mid model software) F61WBM013- <mark>280</mark> (Base model software)	SOP for 23MY Outback/Legacy
1	2023	RC1	11/11/2022	F61WHM023-580 (High model software) F61WMM023-580 (Mid model software) F61WBM023-580 (Base model software)	- See "Conditions Addressed by Update #1" as outlined in "Appendix E" below
2	<mark>2023</mark>	RC2	<mark>2/24/2023</mark>	F61WHM033-681 (High model software) F61WMM033-681 (Mid model software) F61WBM033-680 (Base model software)	- See "Conditions Addressed by Update #1" as outlined in "Appendix E" below

"APPENDIX E"

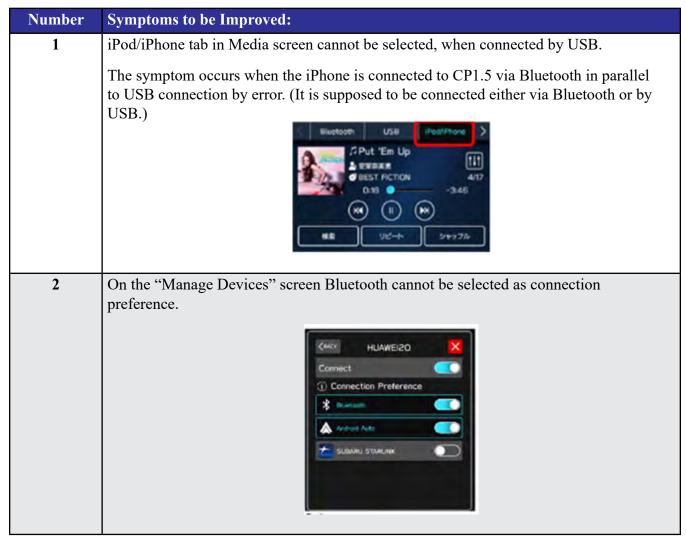
Symptoms Addressed By Update #2:

Number	Symptoms to be Improved:
1	CID goes black and does not accept any control.
2	CID reboots.
3	"Manage Devices" is grayed out and cannot establish Bluetooth connection.
4	When the Bluetooth connection is cancelled manually on the mobile phone side during hands-free calling, the Bluetooth connection is disabled for that particular mobile phone. Even when it occurs, the connection can be reestablished by deleting the device in "Manage Devices" and register the device again by adding operation.
5	Bluetooth connection fails against the device that was pared before and "Manage Devices" is grayed out.
6	Bluetooth connection is disabled with a discrepancy in the display of status bar (showing Bluetooth devices being connected) and the "Manage Devices" screen (showing no Bluetooth devices being connected.)
7	Android Auto Wireless (AAW) cannot be connected.
8	Android Auto Wireless (AAW) cannot be started from "Manage Devices" Screen.
9	Sound volume control does not work while using Android Auto. It is caused by data communication error between Android device and CCU.
10	Cyclic short noise like a drilling or vibration is heard from speakers.

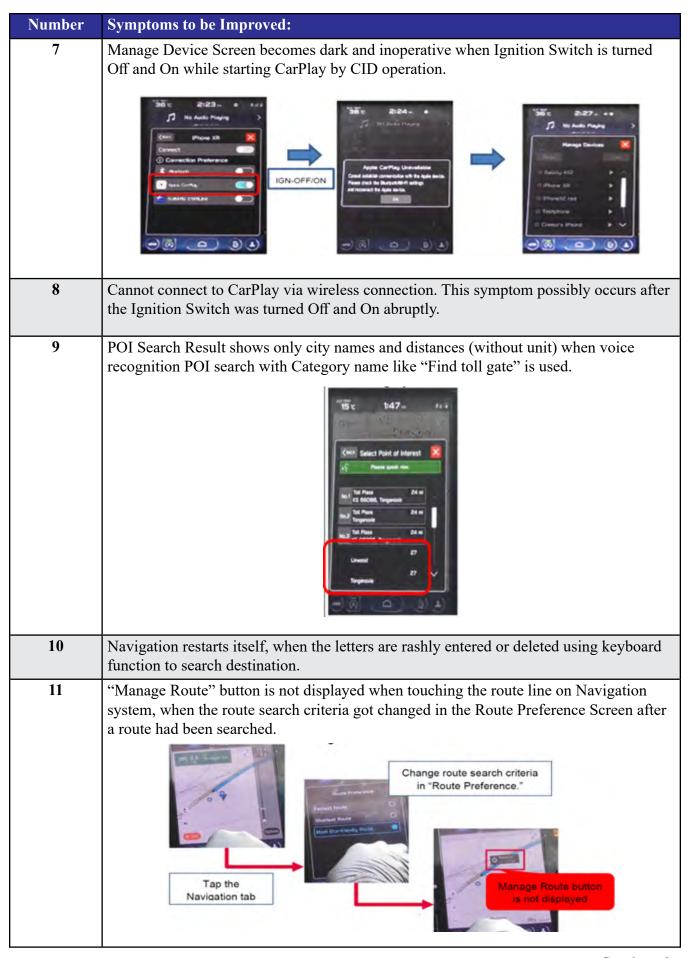


Number	Symptoms to be Improved:		
17	Music cannot be played sequentially when they are stored in different folders in a USB memory. The specifications are improved to enable music in different folders to be played sequentially.		
18	"Repeat All" is added as one of the play mode "Repeat All" "Repeat current album/folder" "Repeat current track" "Cancel repeat"	Old repeat mode "Repeat current album/folder" "Repeat current track" "Cancel repeat"	
19	"Track-up/down" can be used across folders	in "Repeat All" mode.	

Symptoms Addressed By Update #1:



Number	Symptoms to be Improved:
3	Status of Bluetooth on Manage Device screen is displayed as disconnect even though the Bluetooth Icon on top right of the screen is showing active.
	15/36 Carlot Sale Sale
4	Cannot pair new Bluetooth device or cannot connect paired Bluetooth device. This symptom possibly occurs after repeating IG OFF/ON operation while still pairing operation.
5	Cannot pair Bluetooth device, when Bluetooth device has long name including symbols.
6	SXM station shortcut created by the customer does not work when the SXM has not been used as audio source after the Ignition Switch was turned on in the ignition cycle.



Number	Symptoms to be Improved:
12	"Manage Route" button is not displayed and buttons on the Current Route Screen become unselectable (turns to grayish fill) when the Navigation system is operated in the sequence of "Manage Route" > "Avoid Blocked Road" (in the Current Route Screen) > "Back." Manage Route button is not displayed Selection buttons turns to gray Back"
13	After the FOTA is completed, the CCM does not send the confirmation data to the server even though it displays pop-up message of completion. The status is updated when the FOTA operation is made next time.
14	A pop-up message of "Connection Error" is displayed when the pop-up message of Service Appointment Scheduler Popup is displayed after the engine was turned on and the "Read Now" button is pressed immediately after that.
15	Pop-up message "Please go to your retailer to update the Gracenote Database" appears every time CP1 system is rebooted due to interruption of CP1 software update via USB port (ACC OFF or BATT power remove etc.) ***
	Note*** In case this USB update failure occurs, retry updating according to the instructions in "Appendix C"