SUBARU

QUALITY DRIVEN® SERVICE

SERVICE BULLETIN

APPLICABILITY:	23MY Outback/Legacy Models	**NUMBER:** 15-305-22
		DATE: 11/30/22
SUBJECT:	Reprogramming File Availability for Optimization of Gen 4 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 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.

Continued...

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 must 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.

Continued...

- 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.

Continued...

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)

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| MY	Carline	Trim/Grade	Older Software Versions	Latest Software Versions
23MY	Outback/Legacy	BASE	013-280	023-580
		MID	013-280	023-580
		HIGH	013-280	023-580

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. Proceed to the **WARRANTY / CLAIM INFORMATION** section of the TSB and process a claim for **Version Check Only**.

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.
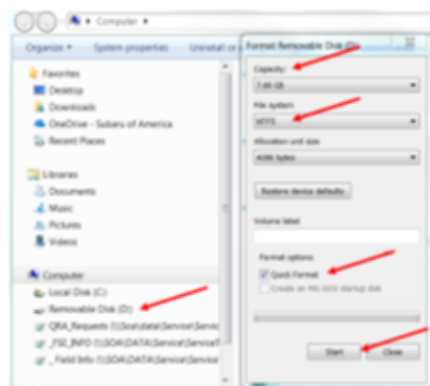
STEP 3- Download the Update Files to the USB:

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).
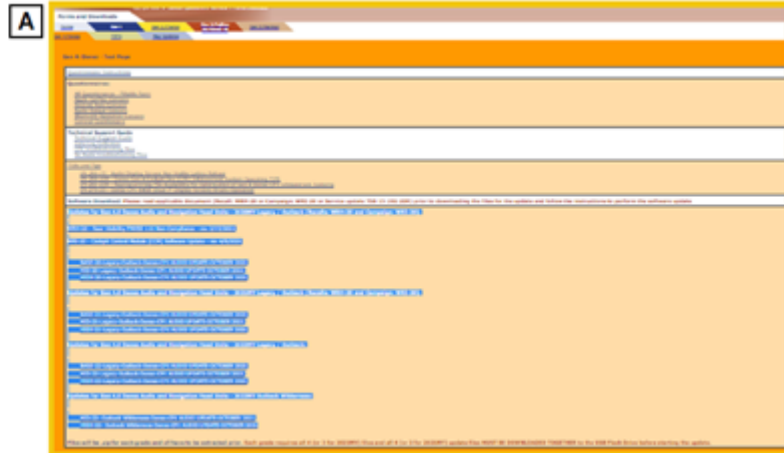
Follow "A" when using files downloaded from Subarunet.

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

Continued...

"A" When using update files downloaded from Subarunet:

Click Here to Access the Downloads
for Audio/Navigation
Information on 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 4.0 Denso Audio and Navigation Head Units - 2023MY Legacy/Outback:

23-Legacy-Outback-Denso-CP1 AUDIO UPDATE-November 2022

- 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".
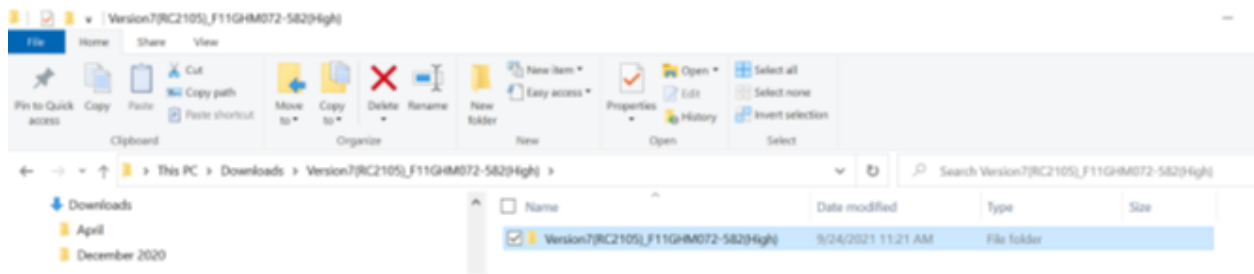
- Click on "Extract All Files".
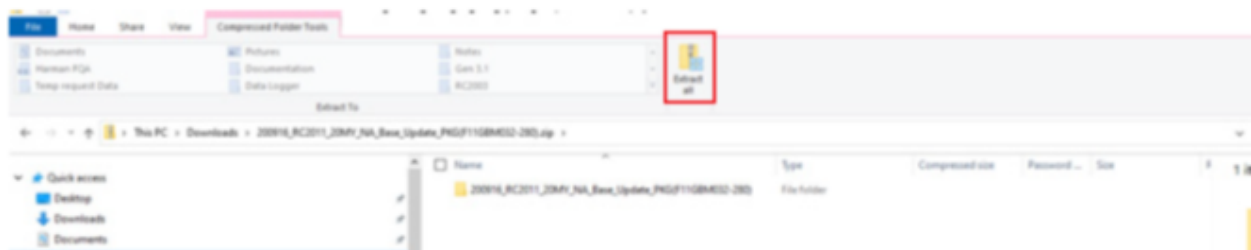
Continued...

- The screen below will appear to set a destination for the extracted file.
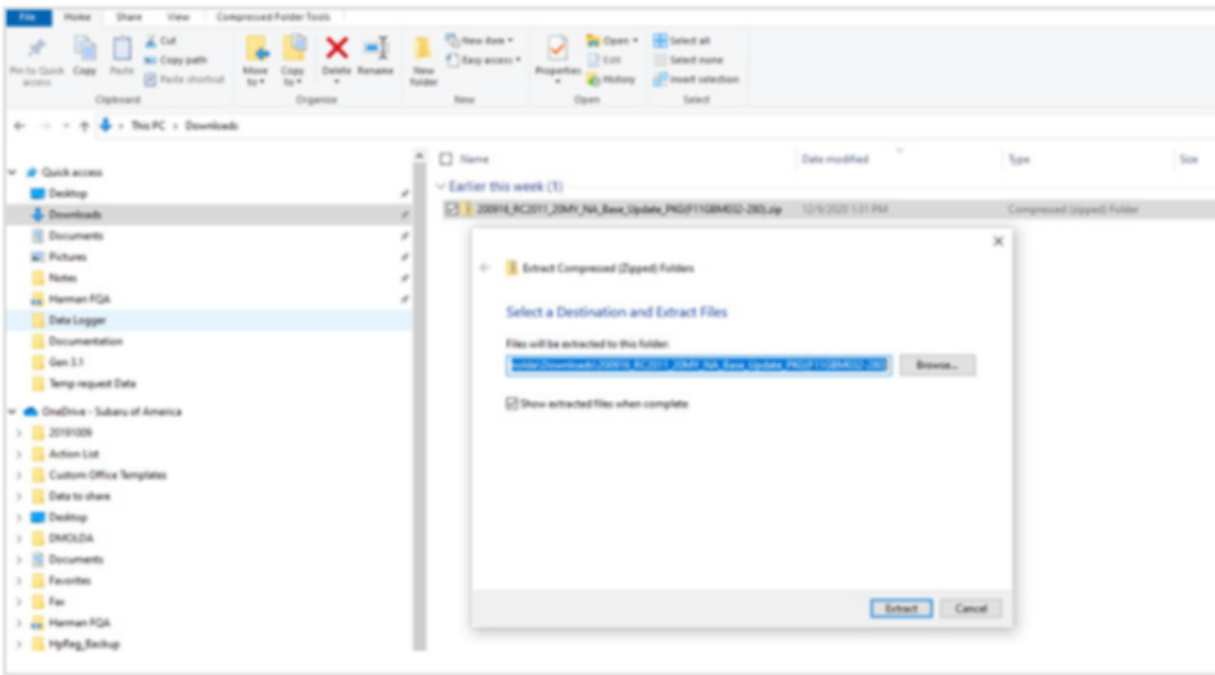
- Double-click on the required folder (for this example, used folder titled "Version7(RC2105)_ F11GHM072-582(High)").

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

Name	Date modified	Type	Size
MSOC	10/27/2022 4:42 PM	File folder	
REPRO_MNG.csv	10/27/2022 4:38 PM	Microsoft Excel C...	1 KB

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.

Continued...

- To avoid confusion, use a permanent marker to label the flash drive with the file contents (e.g. Denso CP1 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."
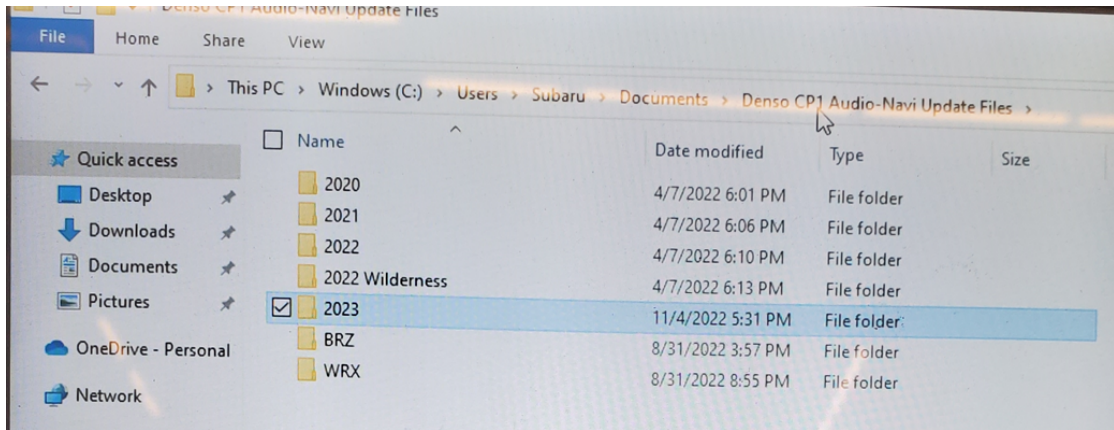
- **CAUTION:** After download is complete, **NEVER** change the file or folder names.

- Double-click on the required folder (for this example, select the file entitled "2023") and the update file will display as shown.
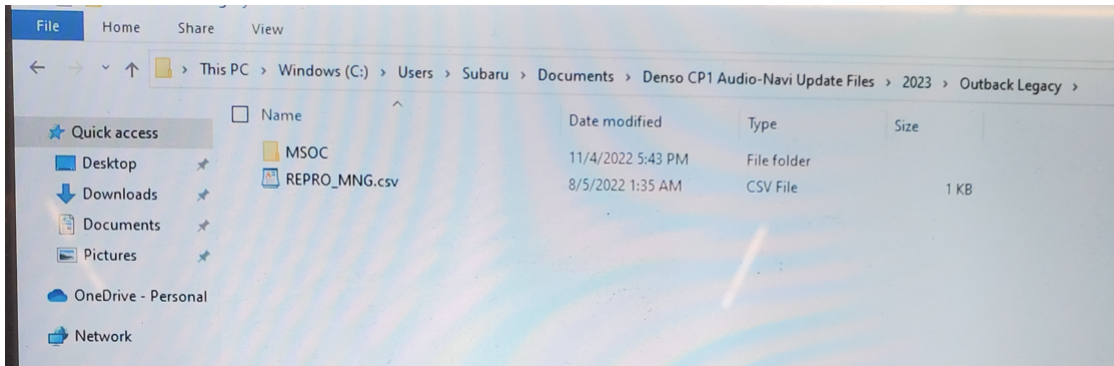
Select all folders and files and either copy / paste or click / drag them to the USB flash drive.

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.

Continued...

- 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 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.
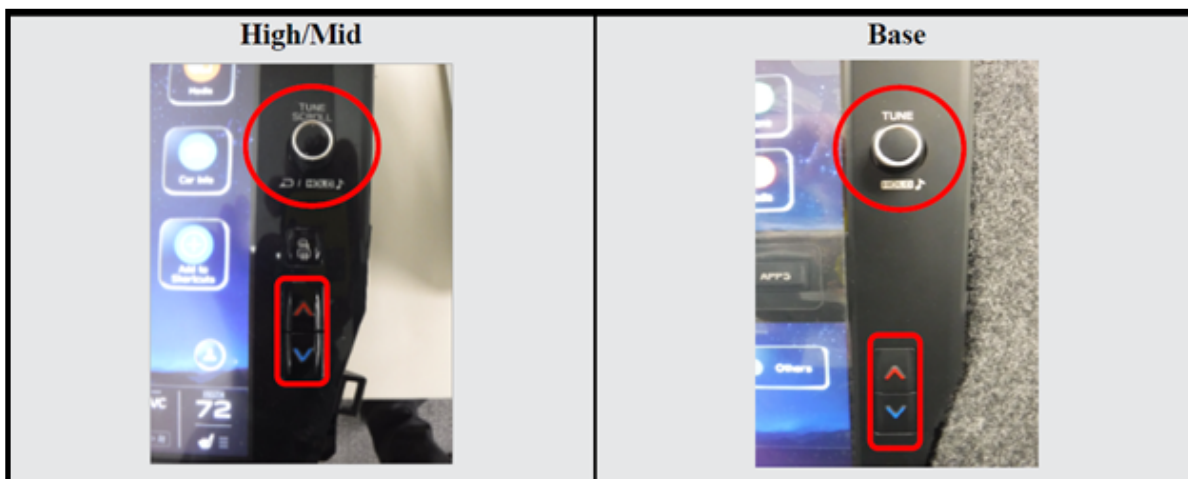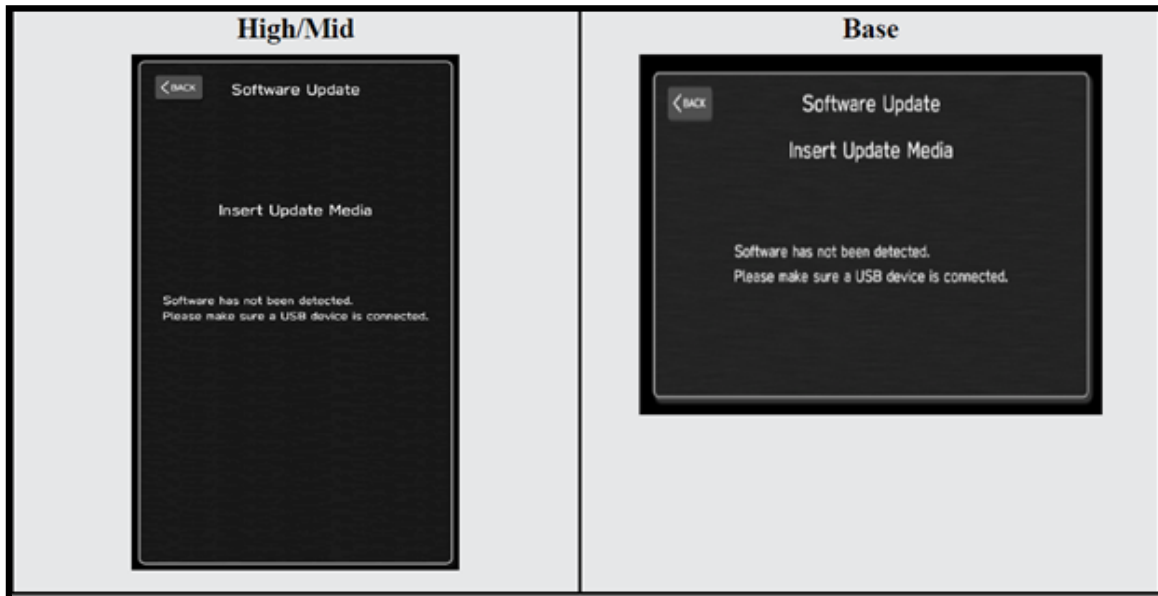

Continued...

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.
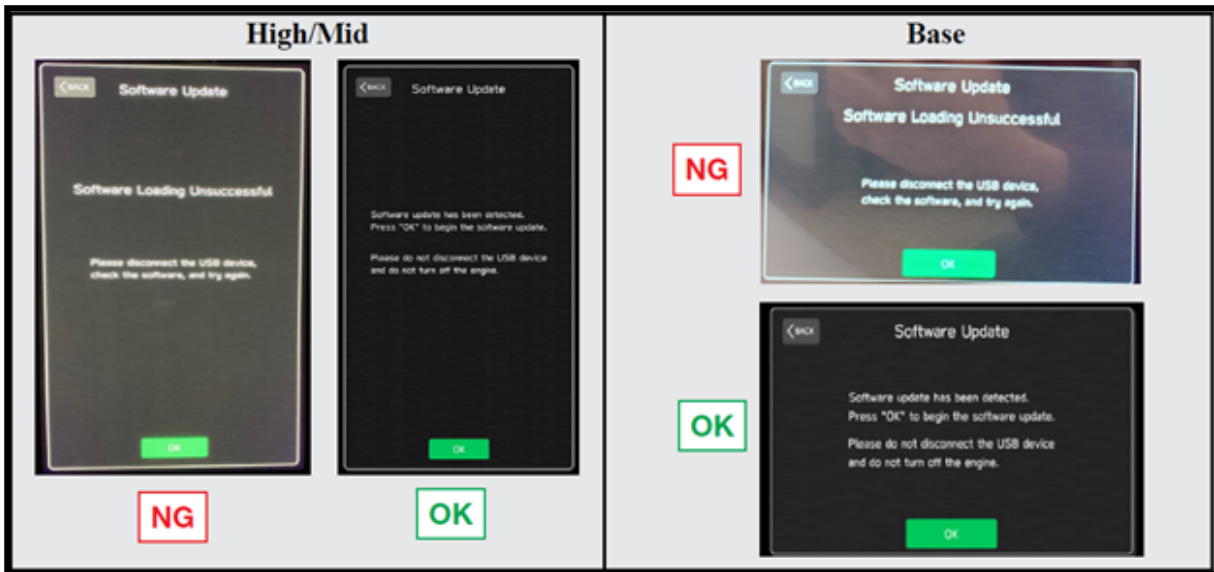
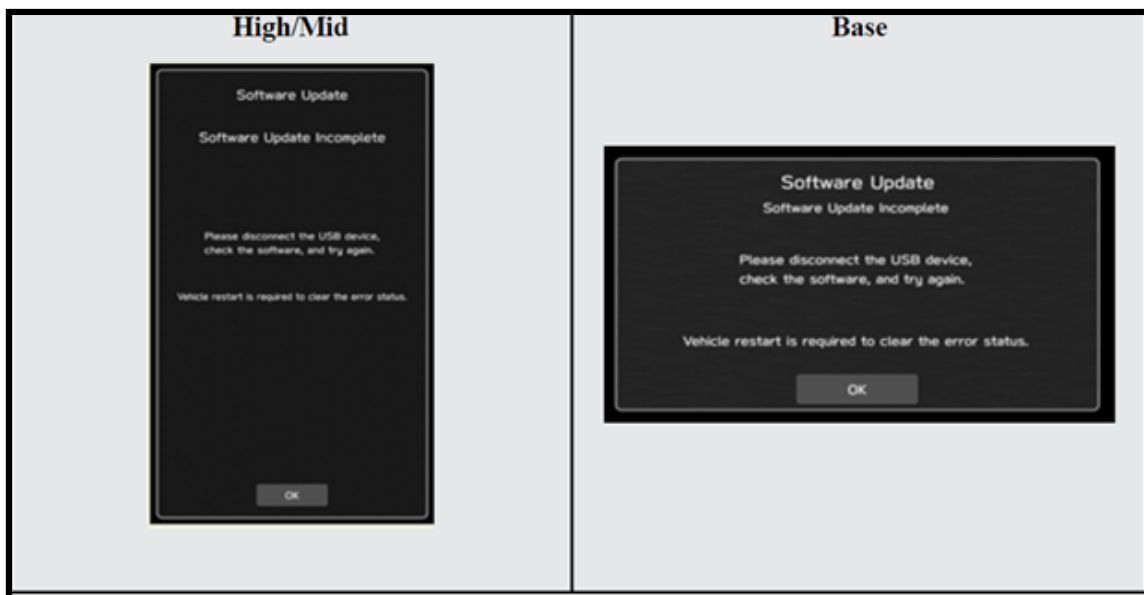**4d)** The screen below will be displayed.

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.

Continued...

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

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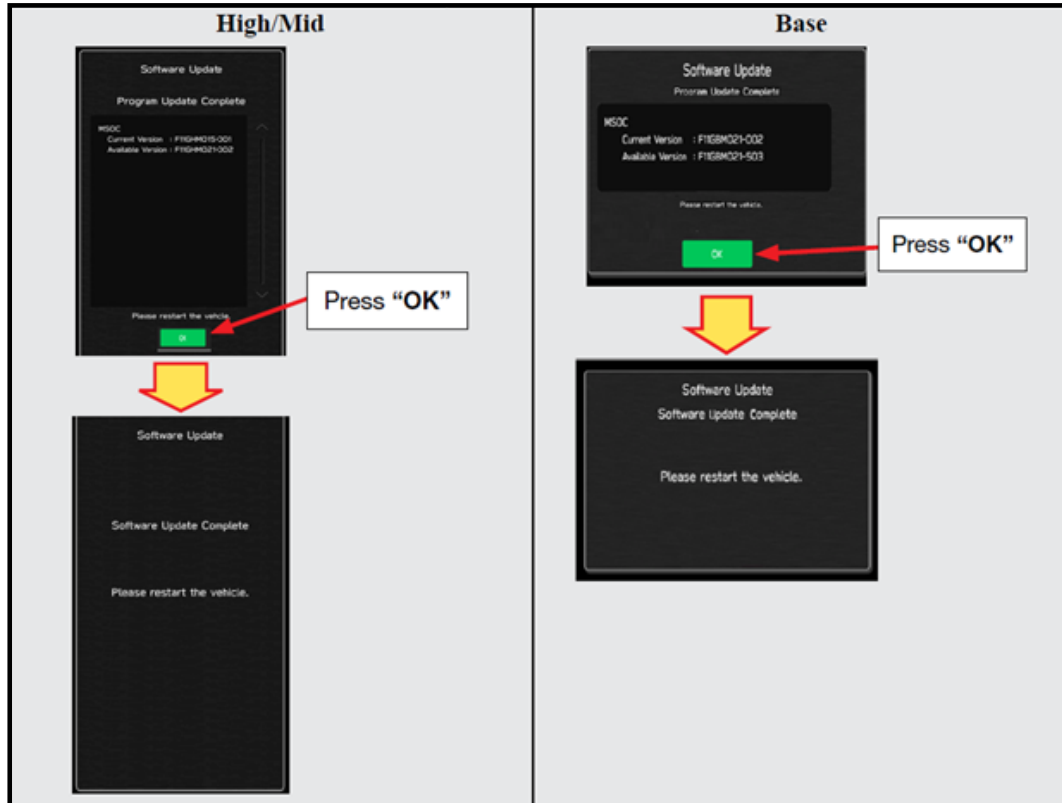
4g) Once the update begins, the screen below will be displayed with a progress bar. It takes about 15 to 20 minutes for the update to complete.

VERY IMPORTANT: NEVER turn off the ignition while the software update is in process.
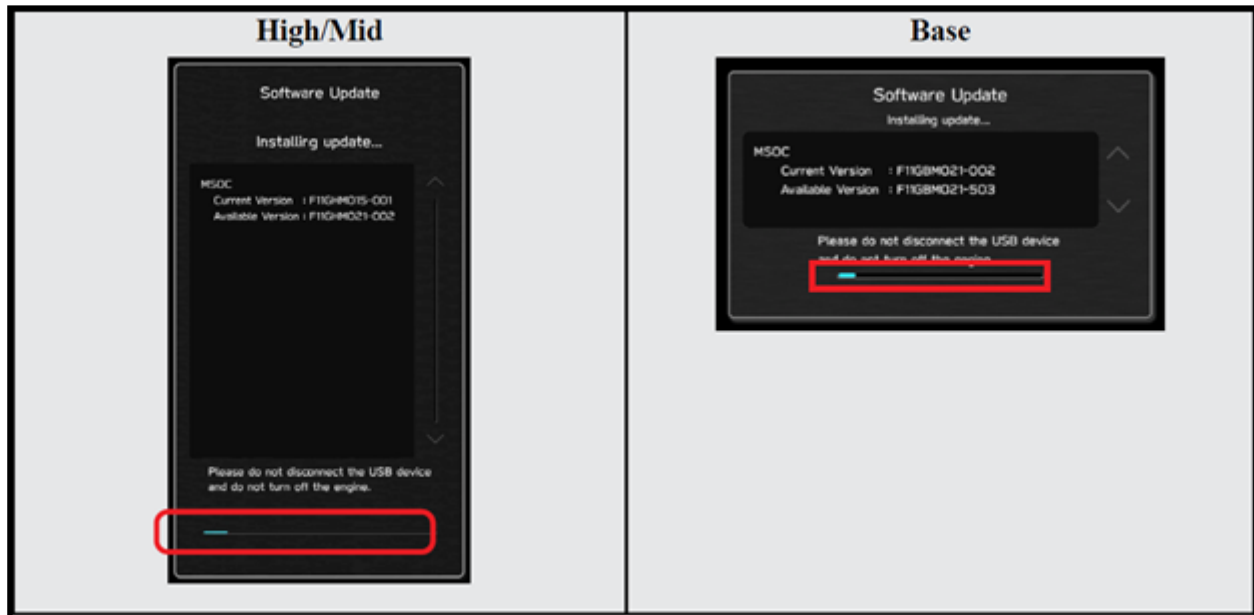
4h) When the software update is complete, the following screen will be displayed (the actual software version will be different).

Continued...

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.

4l) 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 23MY	Model	MSOC Version		Version Table 23MY	Model	MSOC Version
	High	F61WHM023-580			Base	F61WBM023-580
	Mid	F61WMM023-580			Model	DSP Version
	Model	DSP Version			Base	02.54.11
	High/Mid	02.54.11			Model	VCPU Version
	Model	VCPU Version			Base	F61WHV011-780
	High/Mid	F61WHV011-780				

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.

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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.

Continued...

"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.

High/Mid	Base
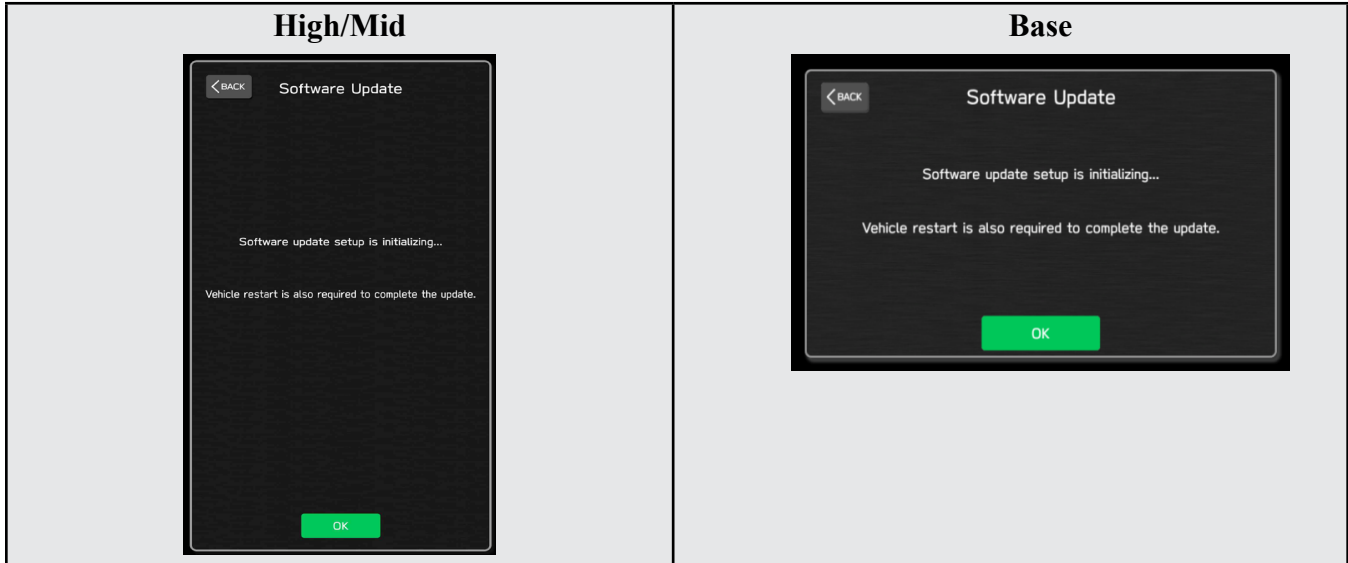
- The screens shown below will be displayed when the process completes.

High/Mid	Base
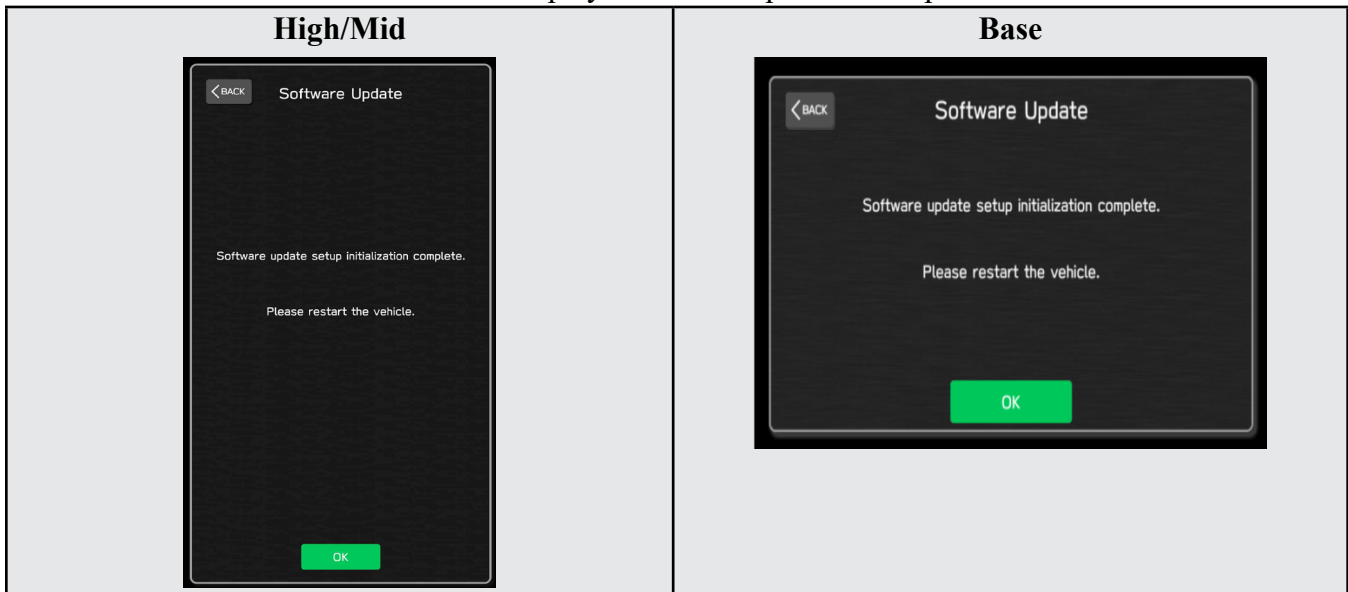
1. Turn the ignition OFF, open the driver's door, close the driver's door and **WAIT** for 3 or more minutes before proceeding further.

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.

Continued...

"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

High/Mid	Base
Software Update Software Update Incomplete Please disconnect the USB device, check the software, and try again. Vehicle restart is required to clear the error status. OK	Software Update Software Update Incomplete Please disconnect the USB device, check the software, and try again. Vehicle restart is required to clear the error status. OK

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.

High/Mid	Base
Software Update Software Update Incomplete Please restart the vehicle.	Software Update Software Update Incomplete Please restart the vehicle.
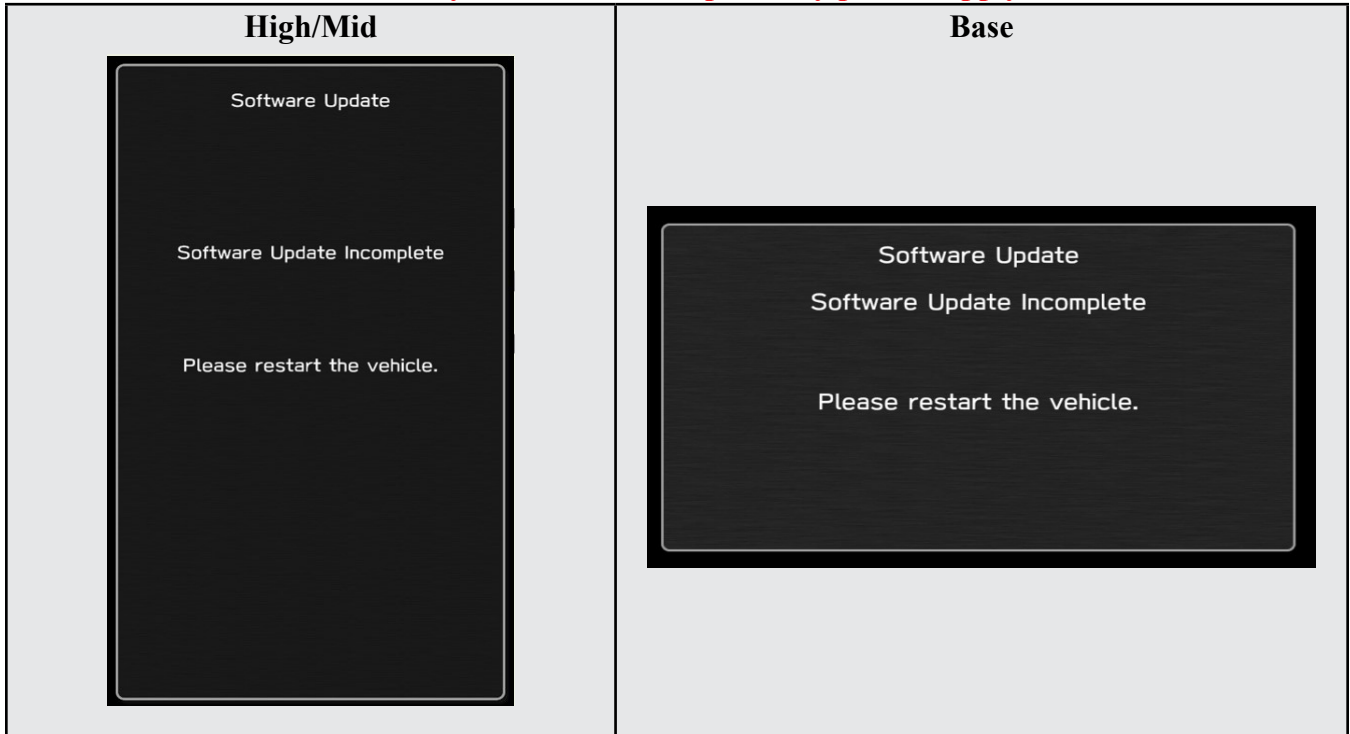
Continued...

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

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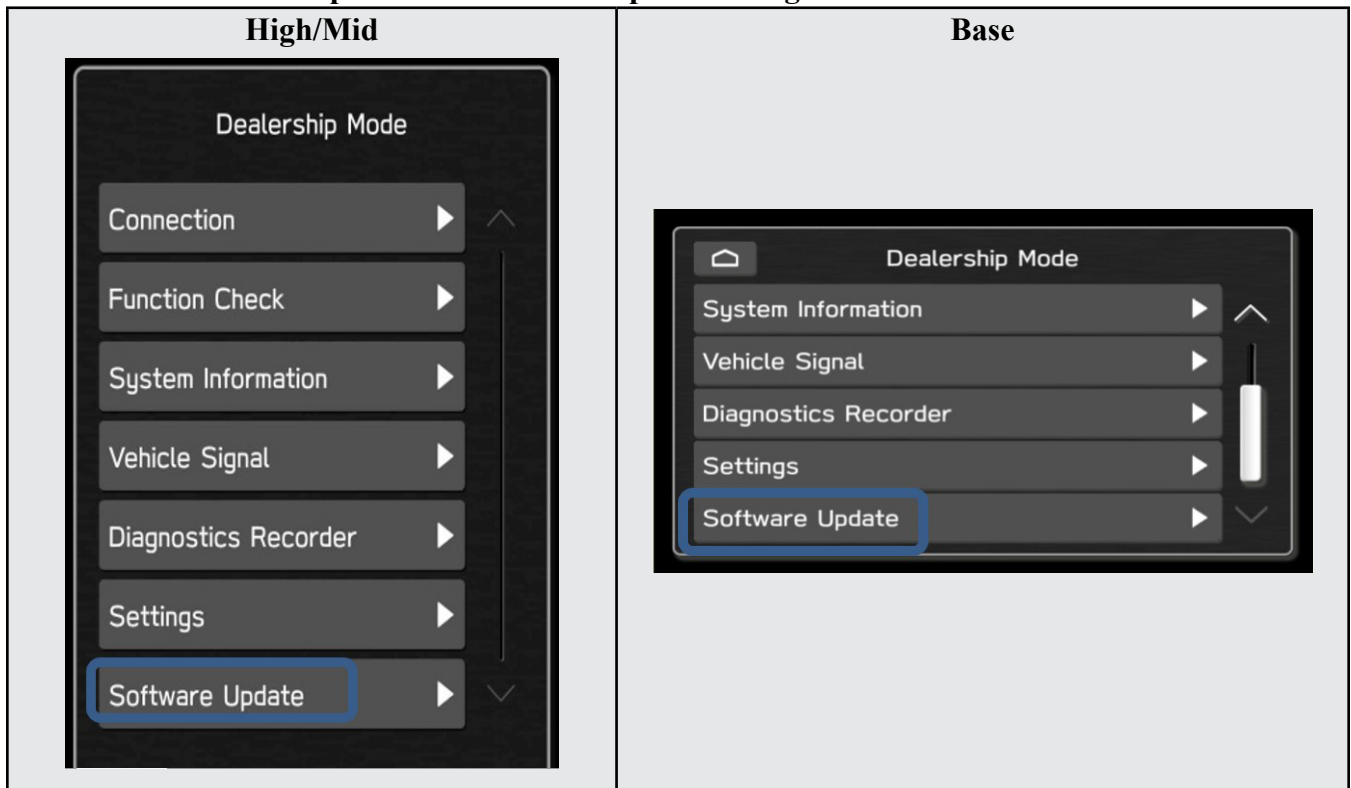
1-4. When you see the screen below, wait for approx. 15 minutes until the initialization is complete

High/Mid	Base
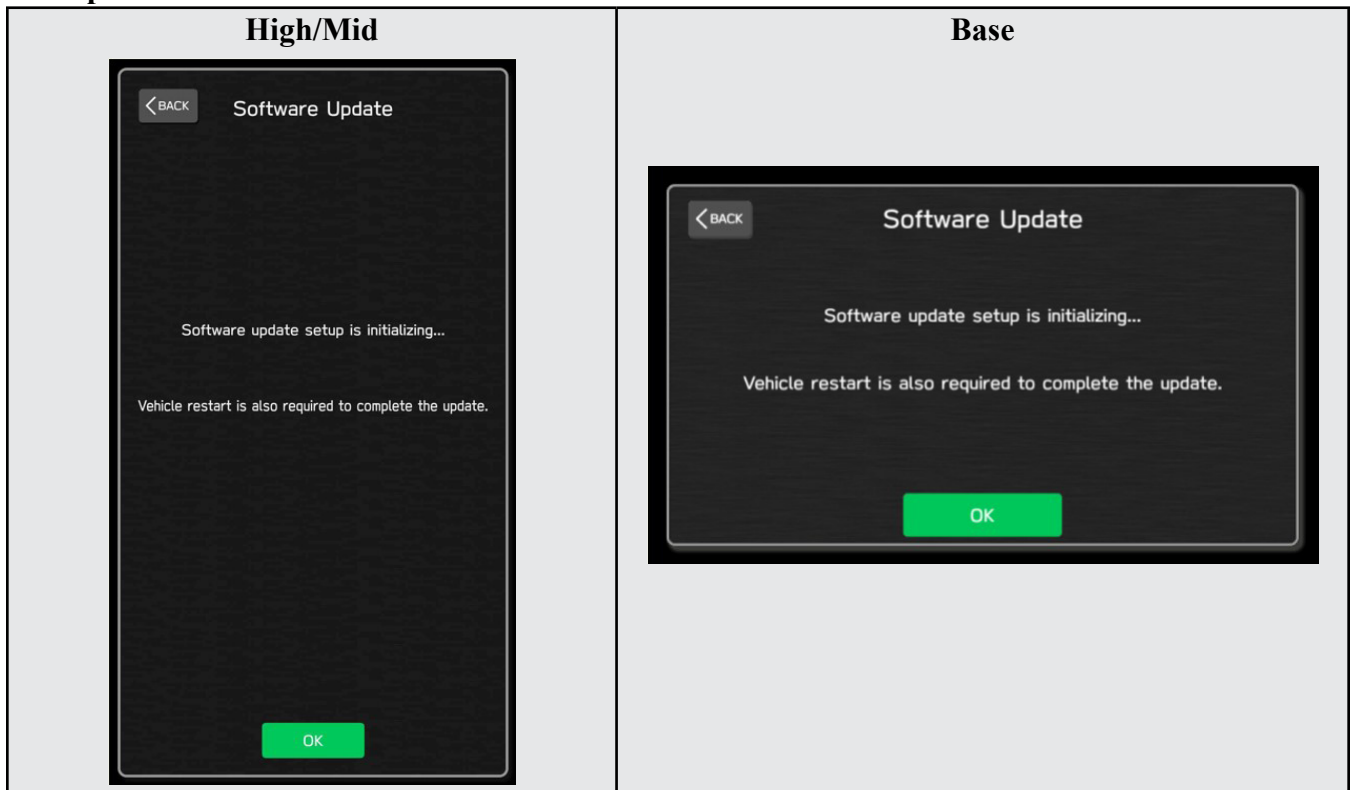
Continued...

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

High/Mid	Base
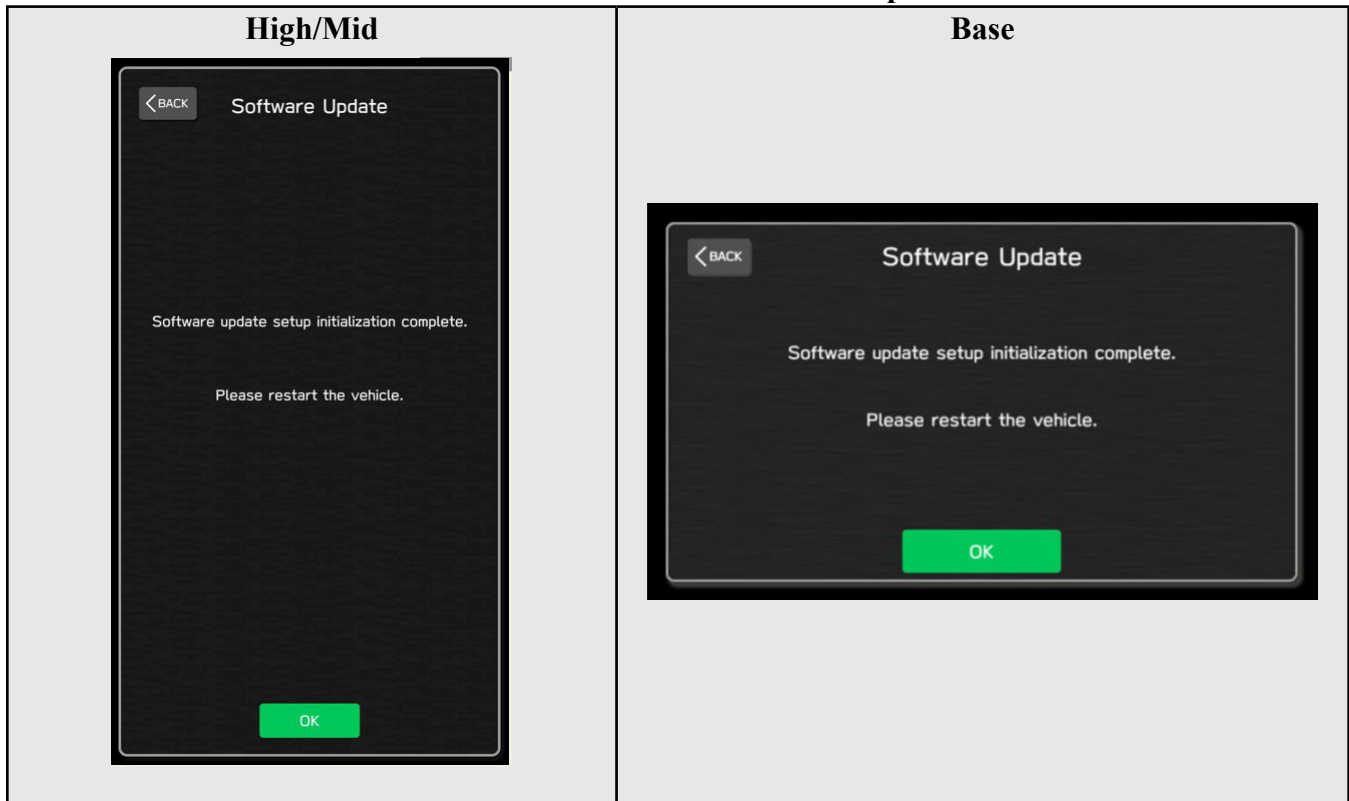
1-6. Turn the ignition switch or the engine OFF, open the driver side door and close the door then wait for 3 minutes.

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.

Continued...

"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.

High/Mid	Base
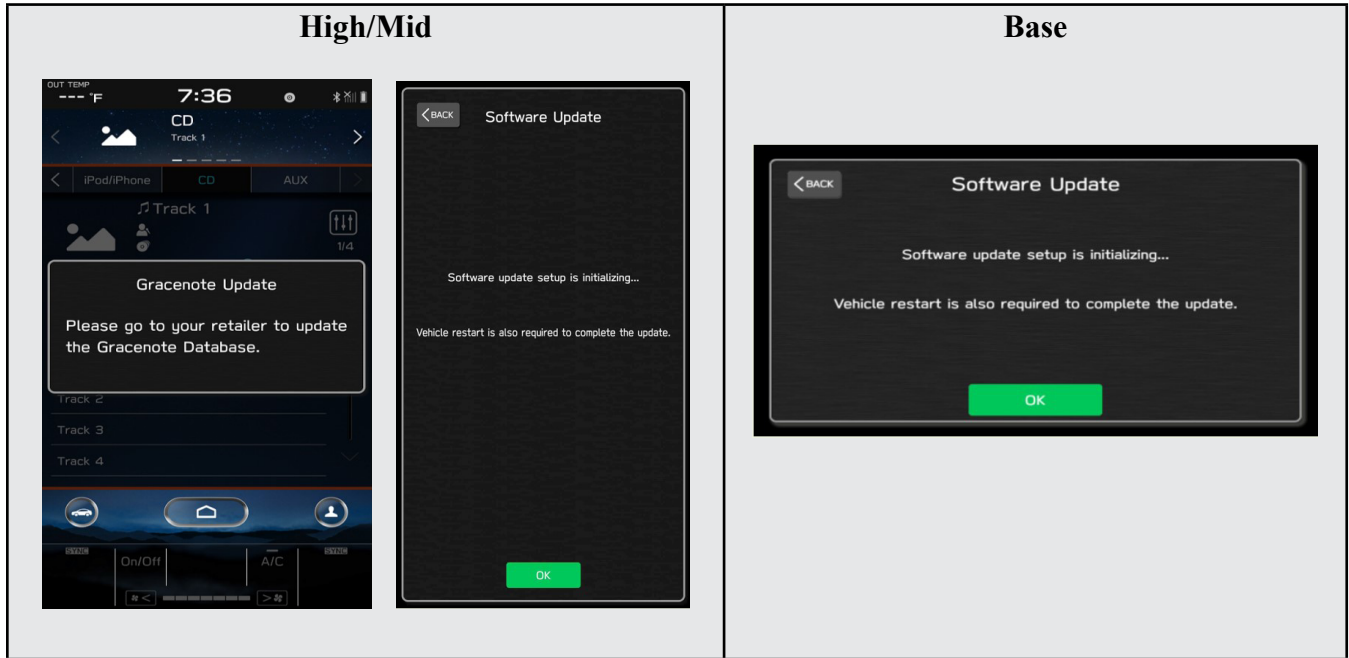
2-1. Select "Settings" in the Dealership Mode diagnostics screen.

High/Mid	Base
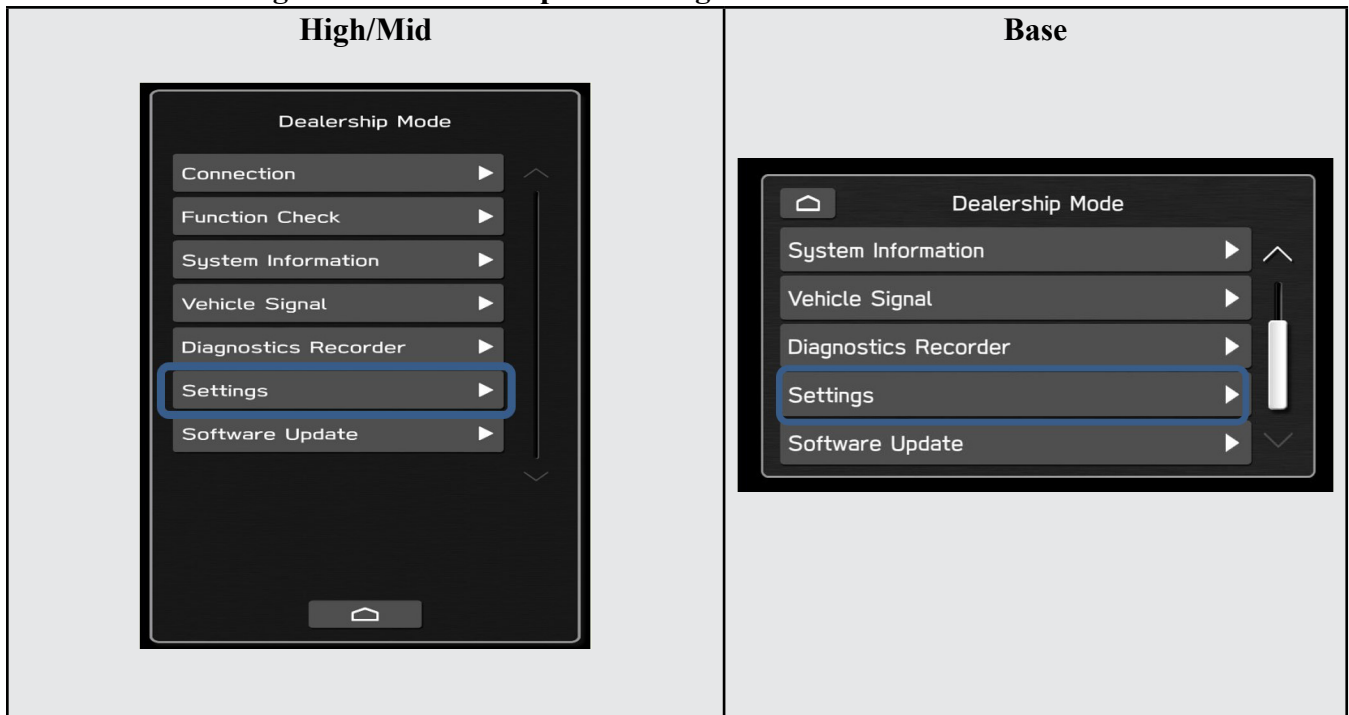
Continued...

2-2. Select "Memory Initialization"

High/Mid	Base
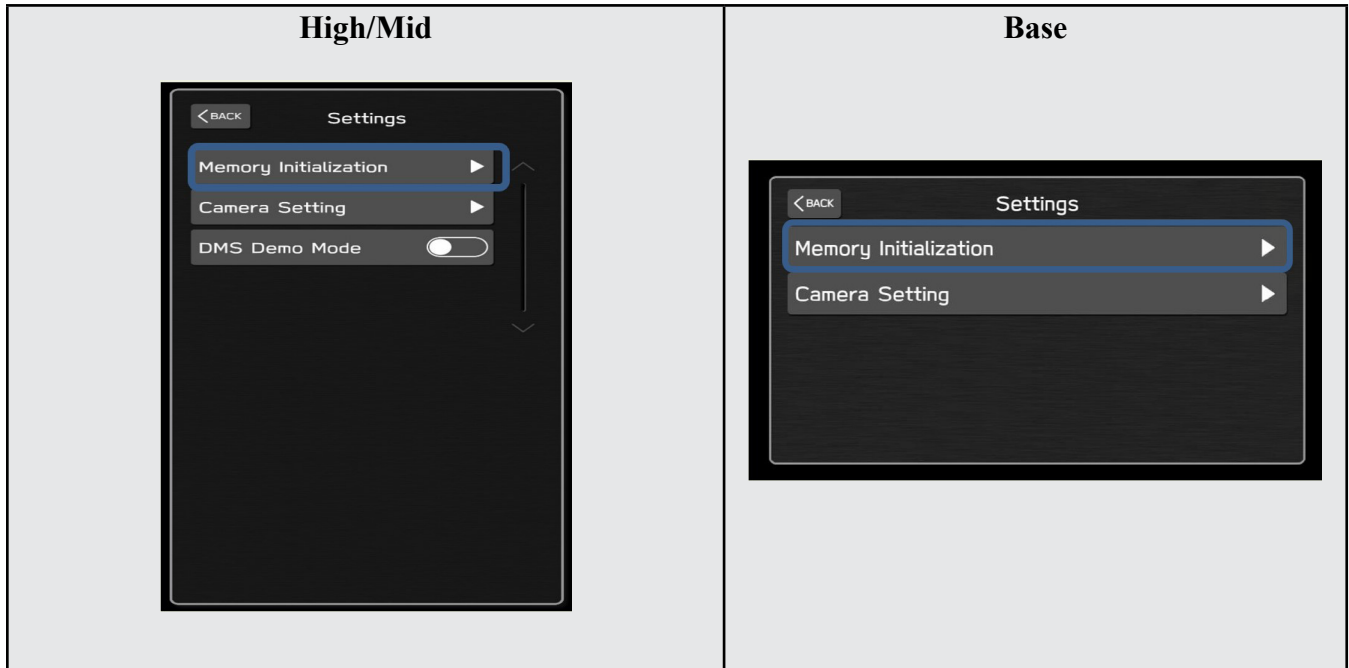
2-3. Select "OK"
After Memory Initialization, all settings are reset to factory default.

High/Mid	Base
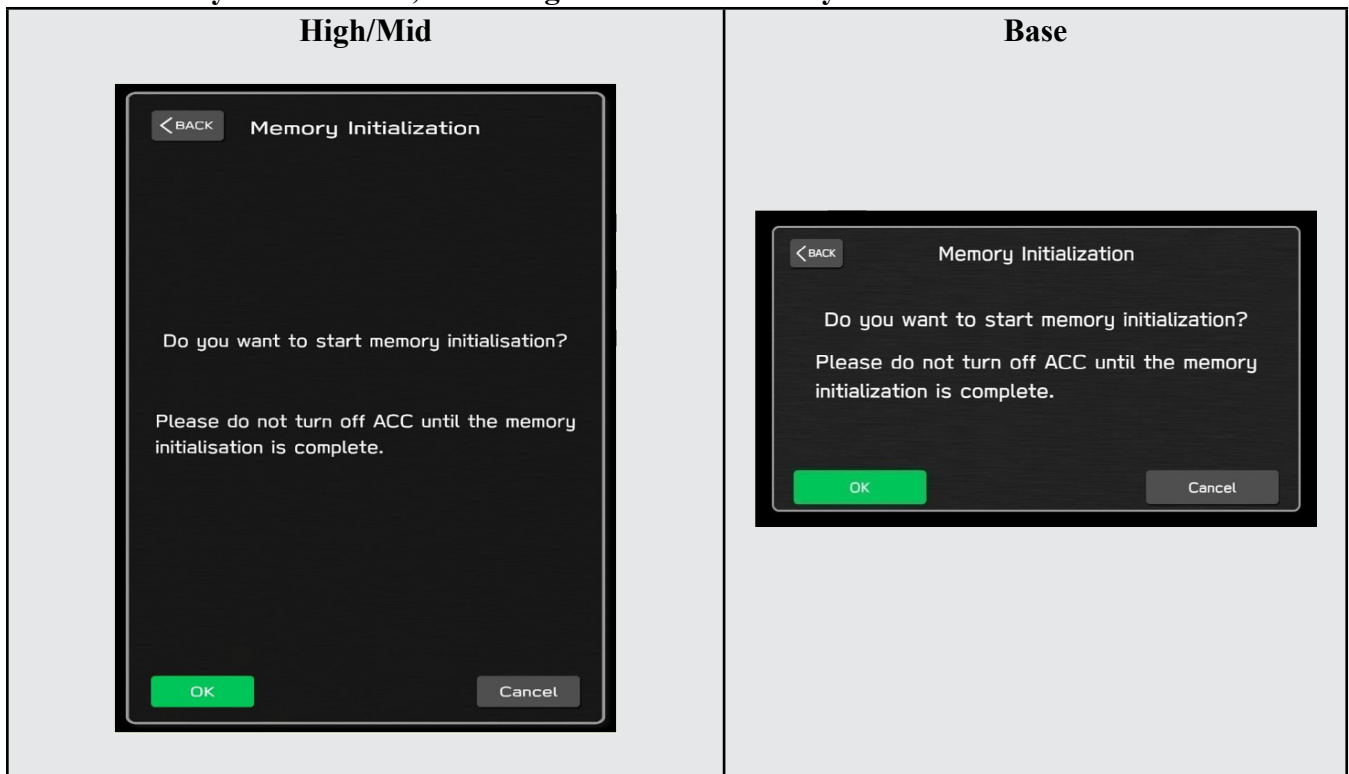
Continued...

2-4. You will see the following screen

High/Mid	Base
Memory Initialization Memory initializing... Please do not turn off ACC until the memory initialization is complete. When initialization is complete, it will restart automatically.	Memory Initialization Memory initializing... Please do not turn off ACC until the memory initialization is complete. When initialization is complete, it will restart automatically.

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

High/Mid	Base
Dealership Mode Connection ▶ Function Check ▶ System Information ▶ Vehicle Signal ▶ Diagnostics Recorder ▶ Settings ▶ Software Update ▶	Dealership Mode System Information ▶ Vehicle Signal ▶ Diagnostics Recorder ▶ Settings ▶ Software Update ▶
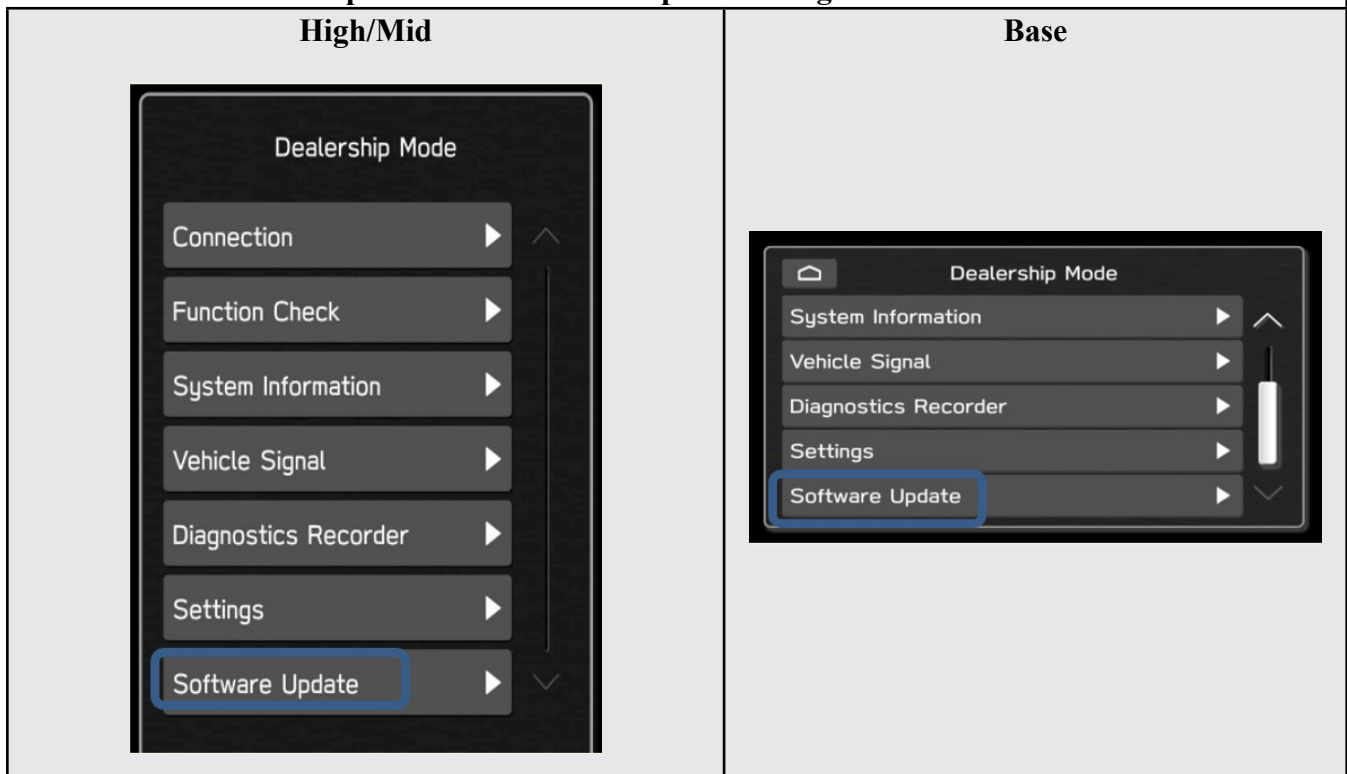
Continued...

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

High/Mid	Base
‹BACK Software Update Software update setup is initializing... Vehicle restart is also required to complete the update. OK	‹BACK Software Update Software update setup is initializing... Vehicle restart is also required to complete the update. OK

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

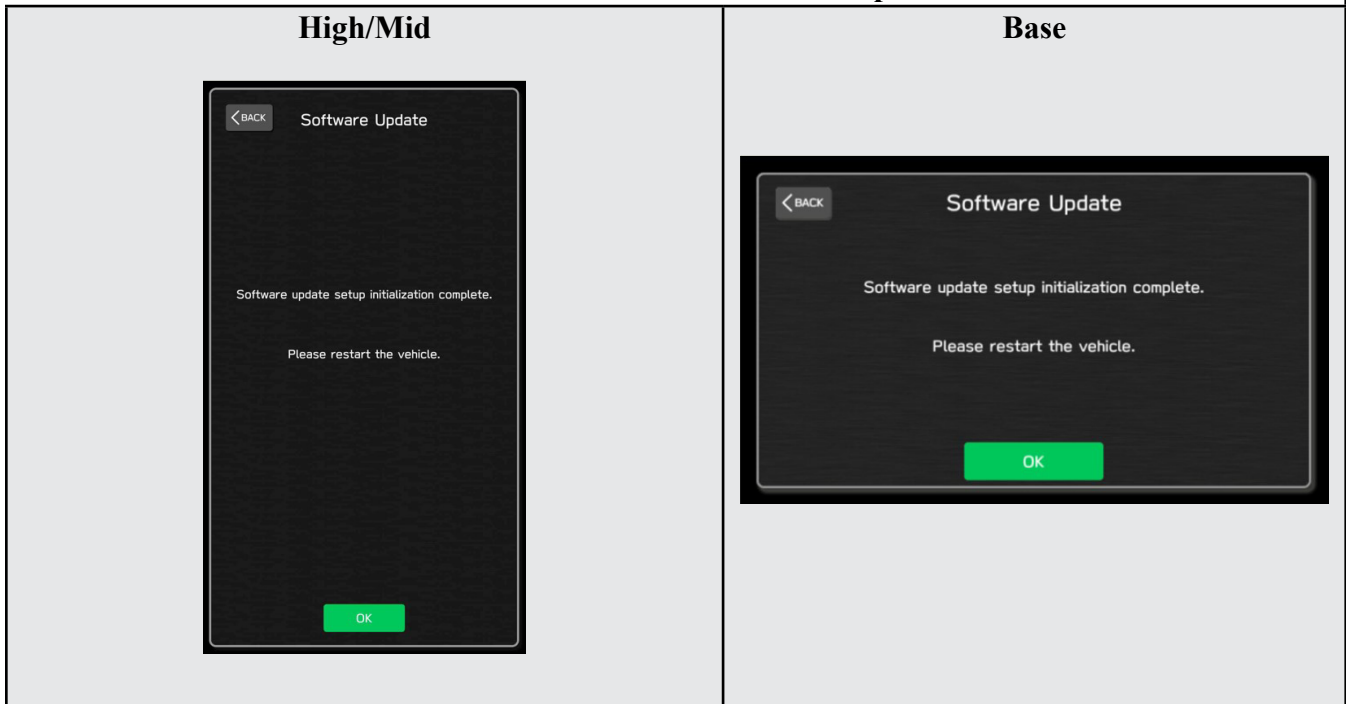| High/Mid	Base
‹BACK Software Update Software update setup initialization complete. Please restart the vehicle. OK	‹BACK Software Update Software update setup initialization complete. Please restart the vehicle. OK

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.

Continued...

"APPENDIX D"

Denso Gen 4 Software Update Timeline (*TSB Number: 15-305-22*)

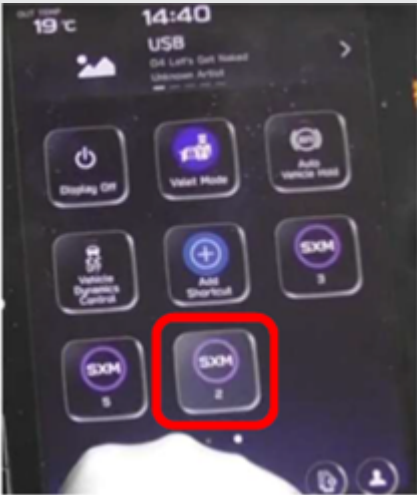| Update #	MY	Version	Release Date:	NEW Version ID #:	Conditions Addressed:
0	2023	0	9/1/2022	F61WHM013-280 (High model software) F61WMM013-280 (Mid model software) F61WBM013-280 (Base model software)	SOP for 23MY Outback/Legacy
1	2023	RC1	11/11/2022	F61WHM023-580 (High model software) F61WMM023-580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

Continued...

Symptoms Addressed By Update #1:

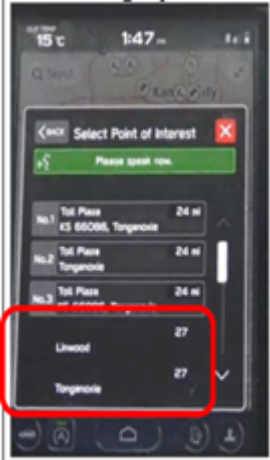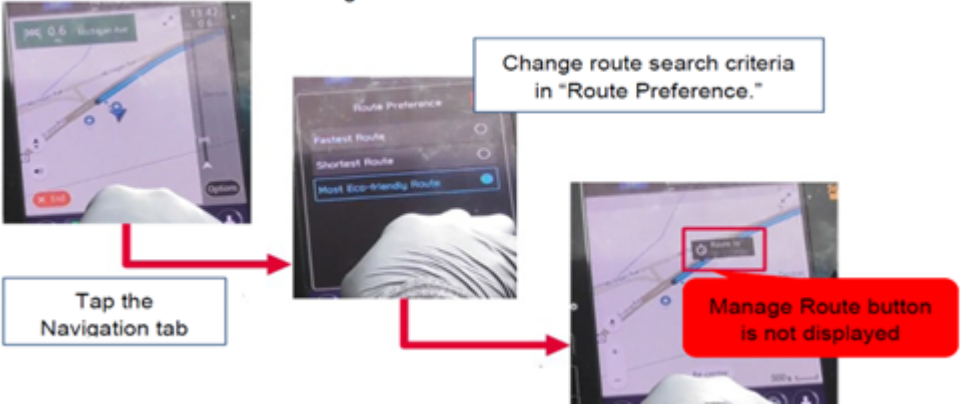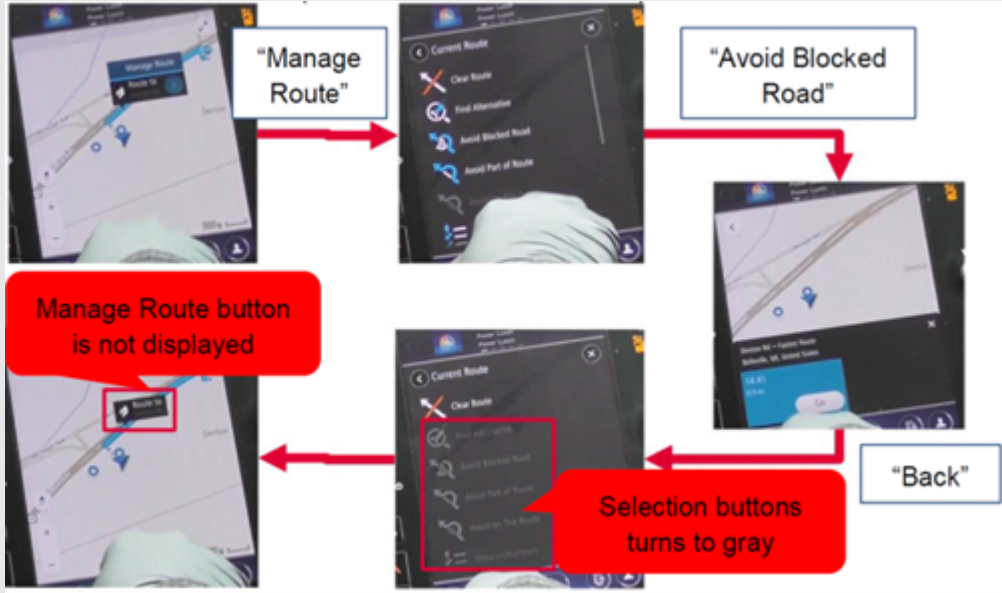| Number	Symptoms to be Improved:
1	iPod/iPhone tab in Media screen cannot be selected, when connected by USB. The symptom occurs when the iPhone is connected to CP1.5 via Bluetooth in parallel to USB connection by error. (It is supposed to be connected either via Bluetooth or by USB.)
2	On the "Manage Devices" screen Bluetooth cannot be selected as connection preference.
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.
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.

Continued...

Number	Symptoms to be Improved:
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.
7	Manage Device Screen becomes dark and inoperative when Ignition Switch is turned Off and On while starting CarPlay by CID operation.
8	Cannot connect to CarPlay via wireless connection. This symptom possibly occurs after the Ignition Switch was turned Off and On abruptly.

Continued...

Number	Symptoms to be Improved:
9	POI Search Result shows only city names and distances (without unit) when voice recognition POI search with Category name like "Find toll gate" is used.
10	Navigation restarts itself, when the letters are rashly entered or deleted using keyboard function to search destination.
11	"Manage Route" button is not displayed when touching the route line on Navigation system, when the route search criteria got changed in the Route Preference Screen after a route had been searched.

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."
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"