ATTENTION:
GENERAL MANAGER ❑
PARTS MANAGER ❑
CLAIMS PERSONNEL ❑
SERVICE MANAGER ❑

IMPORTANT - All Service Personnel Should Read and Initial in the boxes provided, right.

SUBARU

QUALITY DRIVEN® SERVICE

SERVICE BULLETIN

APPLICABILITY:	2020-22MY Legacy and Outback Models	**NUMBER:** 15-261-20R
SUBJECT:	Reprogramming File Availability for Optimization of Gen 4 Denso CP1 Infotainment Systems	**DATE:** 03/10/20 **REVISED:** 05/02/22

INTRODUCTION:

The following information announces reprogramming file availability and provides a software update installation procedure to optimize the new Gen 4 Denso CP1 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 time line 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: For 2020-22MY the update contains four (4) files. When performing an update, the USB must contain the matching number of 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.

NEW: Be aware that Wilderness Edition has a separate and unique update version. Never attempt to put a Wilderness edition update in an Outback or an Outback update in a Wilderness edition.

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

ATTENTION

The software in the STARLINK® Multimedia system on this vehicle has been recently updated. The current "STARLINK® Multimedia Owners Manual" and the "Getting Started Guide" in the vehicle, may not reflect the latest changes in features and functionality of the STARLINK® Multimedia system.

Subaru of America will have an updated electronic supplement to your "STARLINK® Multimedia manual" and "Getting Started Guide" available on-line as of June 30th.

You can download the electronic supplements by visiting us at:
https://www.subaru.com/owners/index.html

You can also request a printed copy of the supplements by writing us at:
https://www.subaru.com/customer-support.html

Also, you can contact us at 1-800-SUBARU3 (1-800-782-2783)

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 **16GB** 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

Continued...

- 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: For 2020-<mark>22MY</mark> the update contains four (4) files. When performing an update, the USB must contain the matching number of 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.

NEW: Be aware that Wilderness Edition has a separate and unique update version. Never attempt to put a Wilderness edition update in an Outback or an Outback update in a Wilderness edition.

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.

Continued...

1b) Press the **General** button. Use the down arrow to scroll to **System Information** then press to display the System Information / Version information.
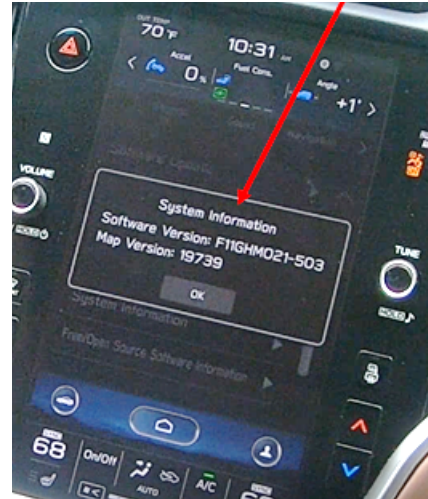
The examples below identify the head unit model and the last 6 digits signify the software version number. Examples:

- F11G**H**Mxxx-xxx (**High** model software)
- F11G**M**Mxxx-xxx (**Mid** model software)
- F11G**B**Mxxx-xxx (**Base** model software)

If on a Legacy and Outback, the software version number

	F11G**H**Mxxx-xxx(**High** model software)
20MY Model	F11G**M**Mxxx-xxx(**Mid** model software)
	F11G**B**Mxxx-xxx(**Base** model software)
	F31B**H**Mxxx-xxx(**High** model software)
21MY Model	F31B**M**Mxxx-xxx(**Mid** model software)
	F31B**B**Mxxx-xxx(**Base** model software)
	FB1S**H**Mxxx-xxx(**High** model software)
22MY Model	FB1S**M**Mxxx-xxx(**Mid** model software)
	FB1S**B**Mxxx-xxx(**Base** model software)
WILDERNESS	F51X**H**Mxxx-xxx(**High** model software)
WILDERNESS	F51X**M**Mxxx-xxx(**Mid** model software)

Continued...

MY	Carline	Trim/Grade	Older Software Versions	Latest Software Version
20MY	Outback/Legacy	BASE	020-501 020-502 021-503 022-504 032-280 072-582 112-680	122-780
		MID	020-501 020-502 020-704 021-503 021-704 022-504 042-380 072-582 112-680	122-780
		HIGH	020-501 020-502 020-704 021-503 021-704 022-504 042-380 072-582 112-680	122-780
21MY	Outback/Legacy	BASE	008-500 030-880 071-182 111-280	121-380
		MID	008-500 040-980 071-182 111-280	121-380
		HIGH	008-500 040-980 071-182 111-280	121-380
22MY	Outback/Legacy	BASE	060-781 070-882 110-980	121-080
		MID	060-781 070-882 110-980	121-080
		HIGH	060-781 070-882 110-980	121-080
22MY Wilderness	Outback	MID	060-981 071-082 111-180	121-080
		HIGH	060-981 071-082 111-180	121-080

STEP 2- Prepare the USB:

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

Continued...

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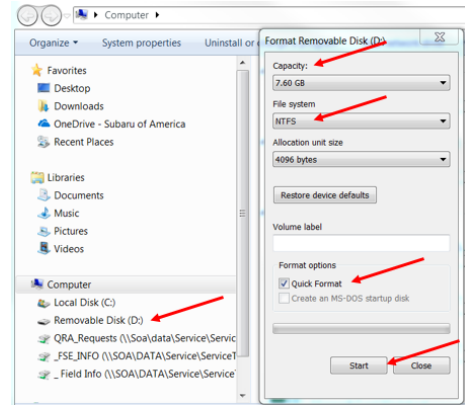
STEP 3- Download the Update Files to the USB:

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:
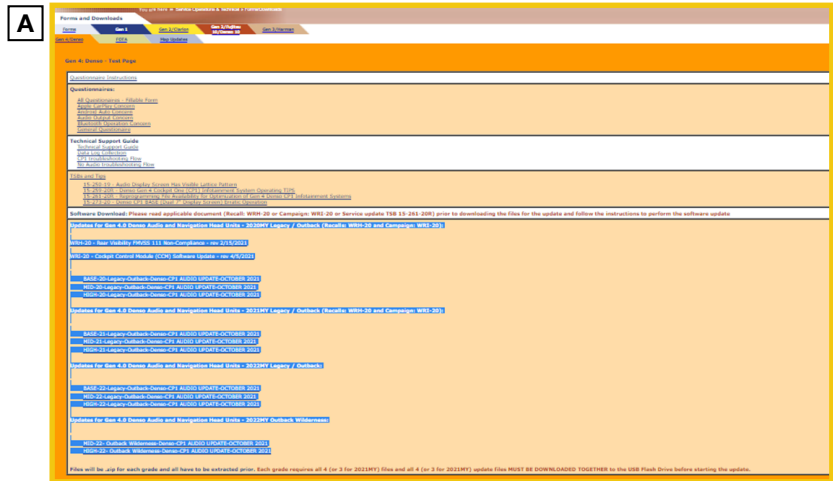
*Click Here to Access the Downloads
for Audio/Navigation
Information on Subarunet*

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 - 2020MY Legacy / Outback:

BASE-20-Legacy-Outback-Denso-CP1 AUDIO UPDATE-April 2022

MID-20-Legacy-Outback-Denso-CP1 AUDIO UPDATE-April 2022

HIGH-20-Legacy-Outback-Denso-CP1 AUDIO UPDATE-April 2022

Continued...

Updates for Gen 4.0 Denso Audio and Navigation Head Units - 2021MY Legacy / Outback:

BASE-21-Legacy-Outback-Denso-CP1 AUDIO UPDATE-<mark>April 2022</mark>

MID-21-Legacy-Outback-Denso-CP1 AUDIO UPDATE-<mark>April 2022</mark>

HIGH-21-Legacy-Outback-Denso-CP1 AUDIO UPDATE-<mark>April 2022</mark>

Updates for Gen 4.0 Denso Audio and Navigation Head Units - 2022MY Legacy / Outback:

BASE-22-Legacy-Outback-Denso-CP1 AUDIO UPDATE-<mark>April 2022</mark>

MID-22-Legacy-Outback-Denso-CP1 AUDIO UPDATE-<mark>April 2022</mark>

HIGH-22-Legacy-Outback-Denso-CP1 AUDIO UPDATE-<mark>April 2022</mark>

Updates for Gen 4.0 Denso Audio and Navigation Head Units - 2022MY Outback Wilderness:

MID-22-Outback Wilderness-Denso-CP1 AUDIO UPDATE-<mark>April 2022</mark>

HIGH-22-Outback Wilderness-Denso-CP1 AUDIO UPDATE-<mark>April 2022</mark>

- 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".
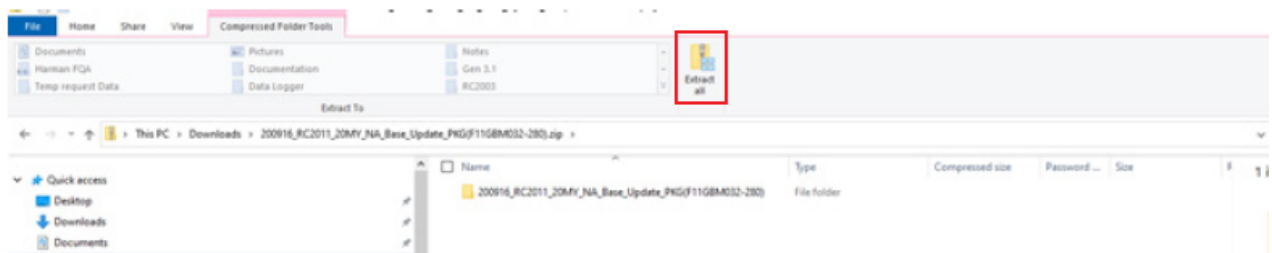
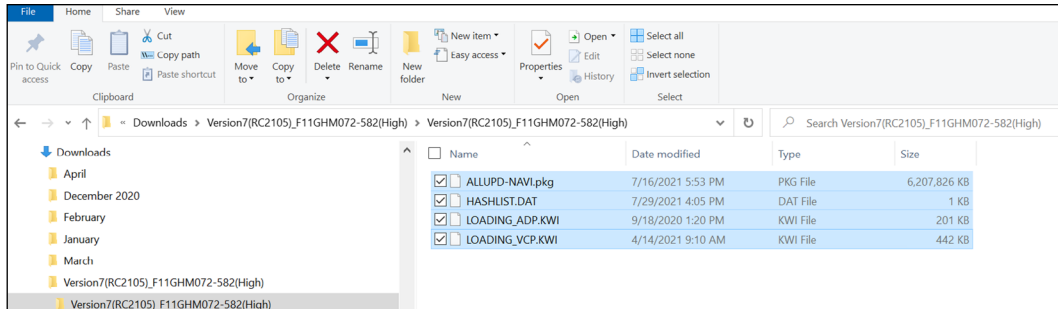- The screen below will appear to set a destination for the extracted file.
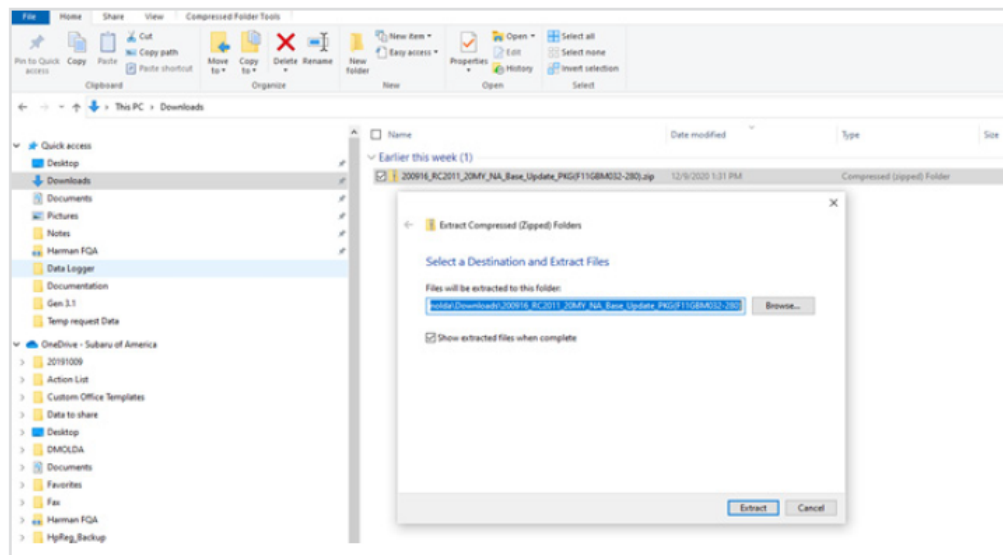
Continued...

- Double-click on the required folder (for this example, used folder titled "Version7(RC2105)_F11GHM072-582(High)").
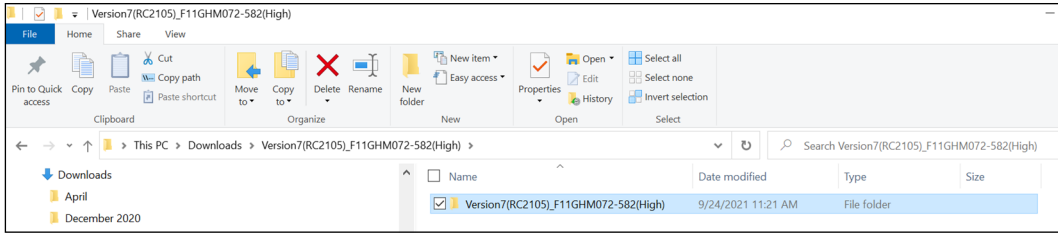
- Copy **all files** then paste (or click / drag) it to the "clean" USB flash drive as listed (Removable Disk) in the directory.

IMPORTANT NOTE: For 2020-22MY the update contains four (4) files. When performing an update, the USB must contain the matching number of files and all files must be replaced. ALWAYS use the latest files together as a set.
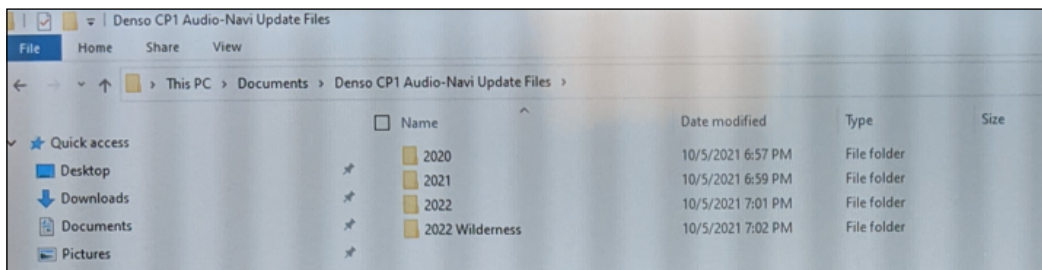
NEVER reuse or combine files from a prior update with a newer version.

NEW: Be aware that Wilderness Edition has a separate and unique update version. Never attempt to put a Wilderness edition update in an Outback or an Outback update in a Wilderness edition.

- To avoid confusion, use a permanent marker to label the flash drive with the file contents (e.g. BASE Denso CP1 2020MY, MID Denso CP1 2020MY or HIGH Denso CP1 2020MY).
- 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 are four folders as shown below, "2020" ,"2021", "2022"and "2022 Wilderness". 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 "BASE") and the update file will display as shown.
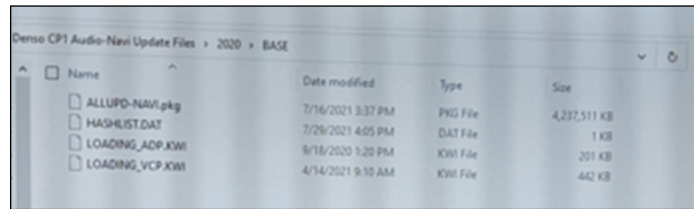
- Select all 4 files and either copy / paste or click / drag them to the USB flash drive.

IMPORTANT NOTE: For 2020-22MY the update contains four (4) files. When performing an update, the USB must contain the matching number of 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.

NEW: Be aware that Wilderness Edition has a separate and unique update version. Never attempt to put a Wilderness edition update in an Outback or an Outback update in a Wilderness edition.

- 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 (BASE Denso CP1 in this example).
- Repeat the above steps to create the BASE Denso CP1 or MID Denso CP1 or HIGH Denso CP1 USB flash drives as needed using a separate USB drive for each update folder.
- 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.

Continued...

Best practice is to prevent USB software update conflicts with FOTA software update. Please confirm "Automatically Check for Update" setting is turned off following the steps below, prior to starting the software update via USB.


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.

High/Mid	Base
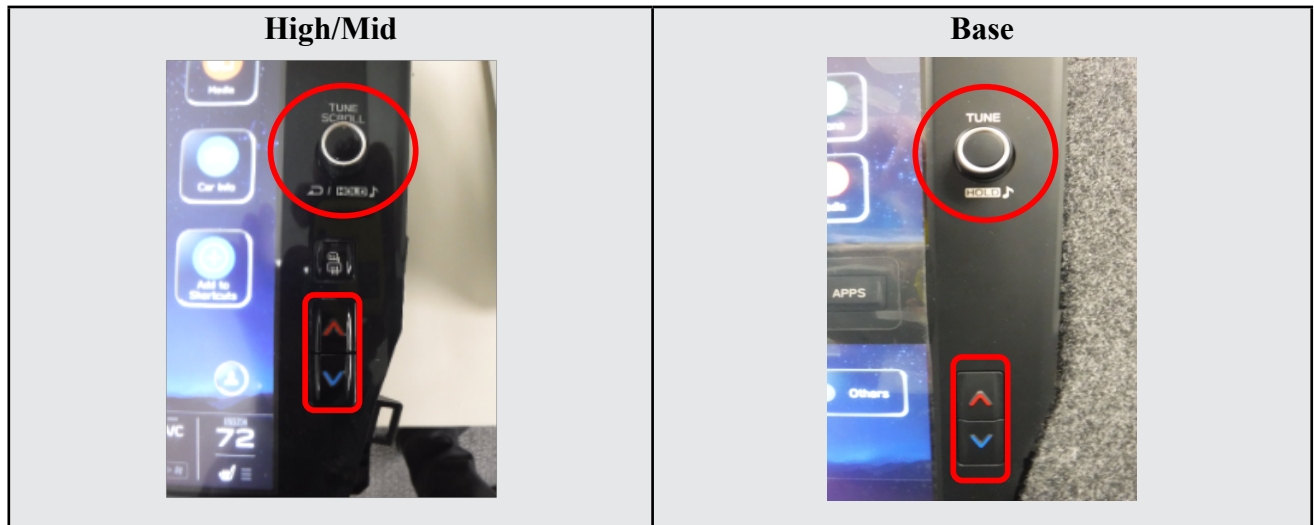
4c) Select **Software Update** from the Dealership Mode menu.

| High/Mid	Base
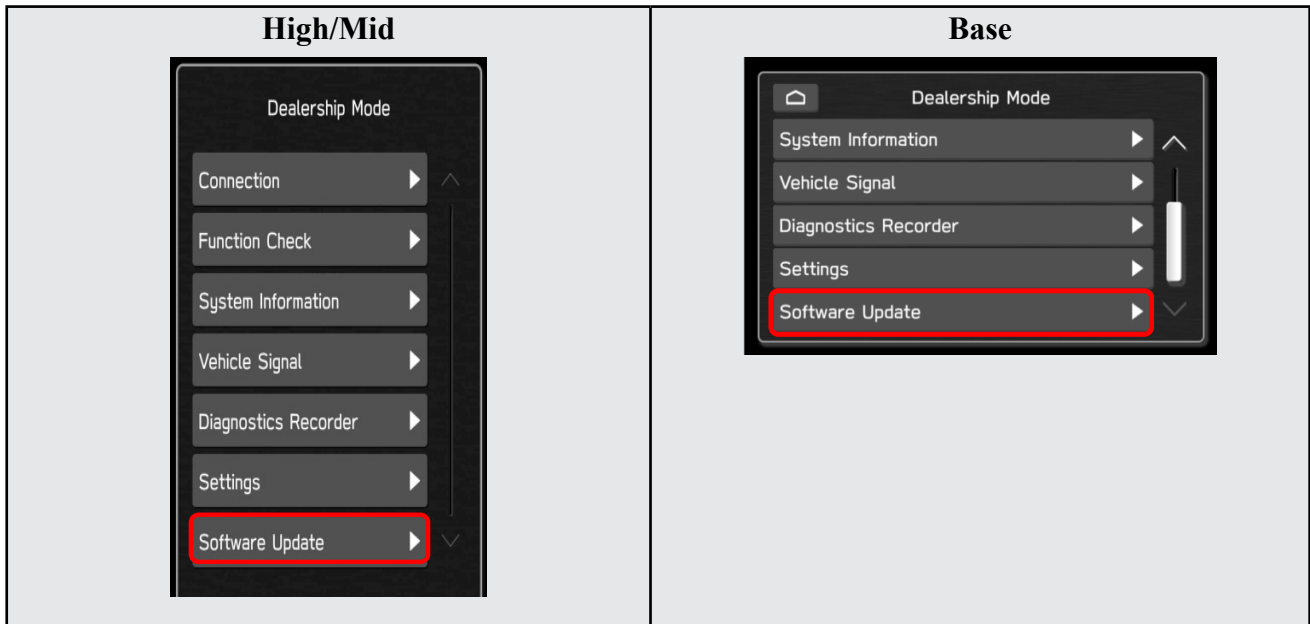
IMPORTANT NOTE: On a RARE occasion, the message "Software update setup is initializing…" may be displayed. Should this occur, proceed to "**Appendix A**" starting on pg. 20 of this bulletin for further instruction.
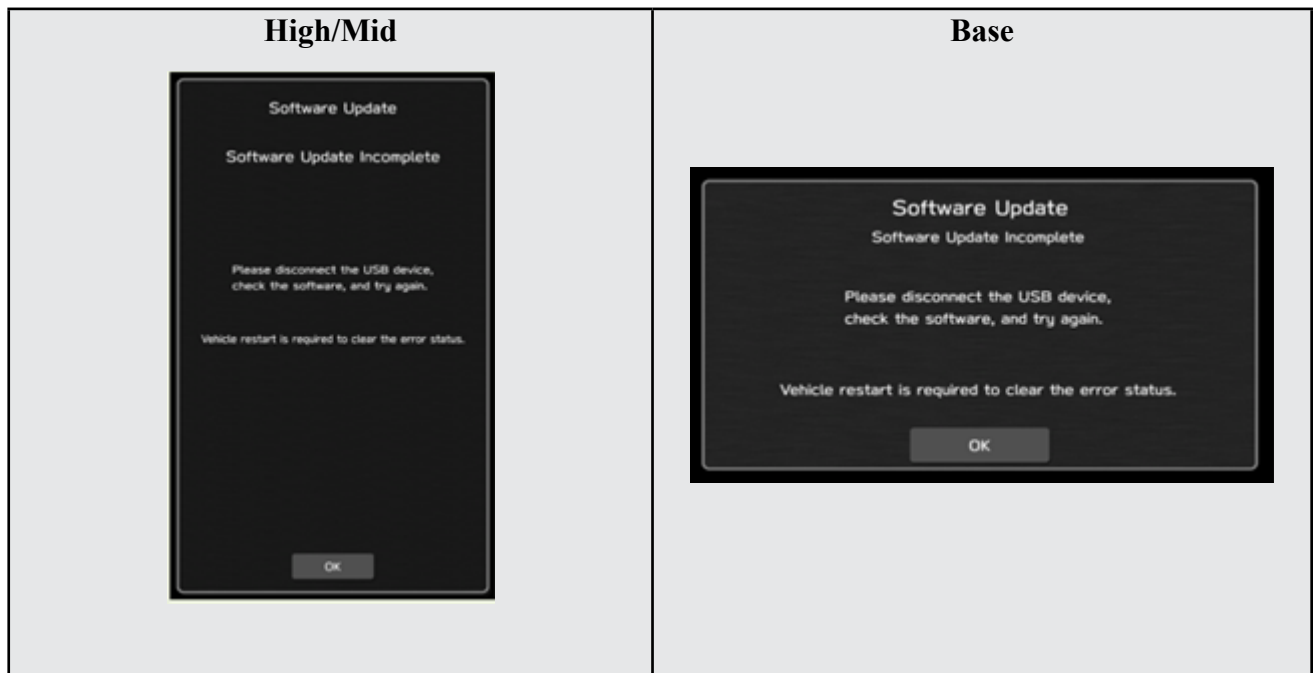
4d) The screen below will be displayed.

High/Mid	Base
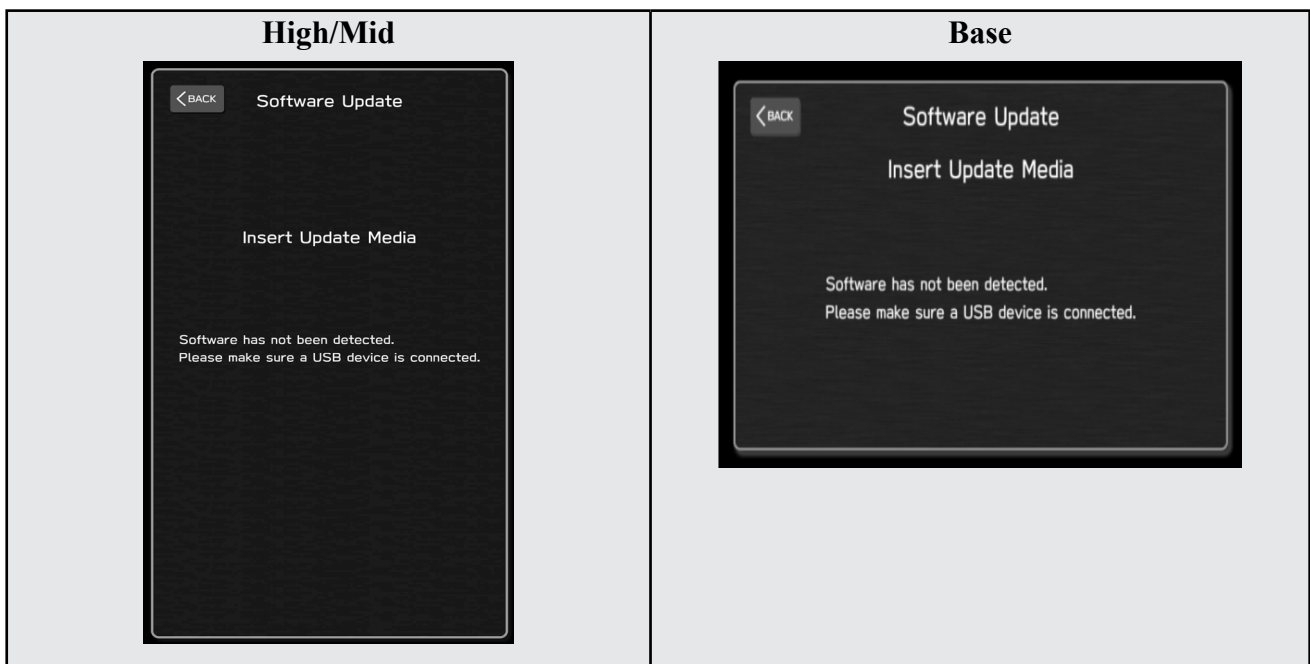
Continued...

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 the software on the device matches the system being reprogrammed (example: Base software is being used to update a Base system) and retry.
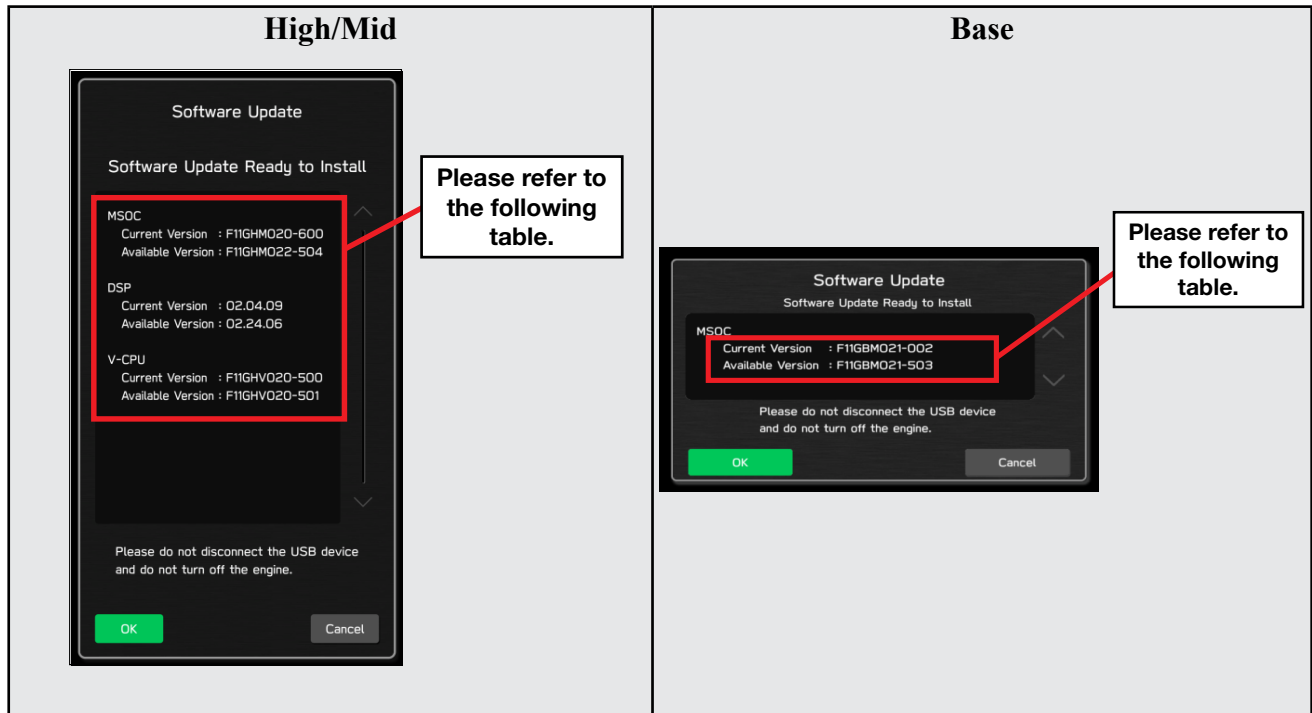
High/Mid	Base
NG / **OK**	**NG** / **OK**
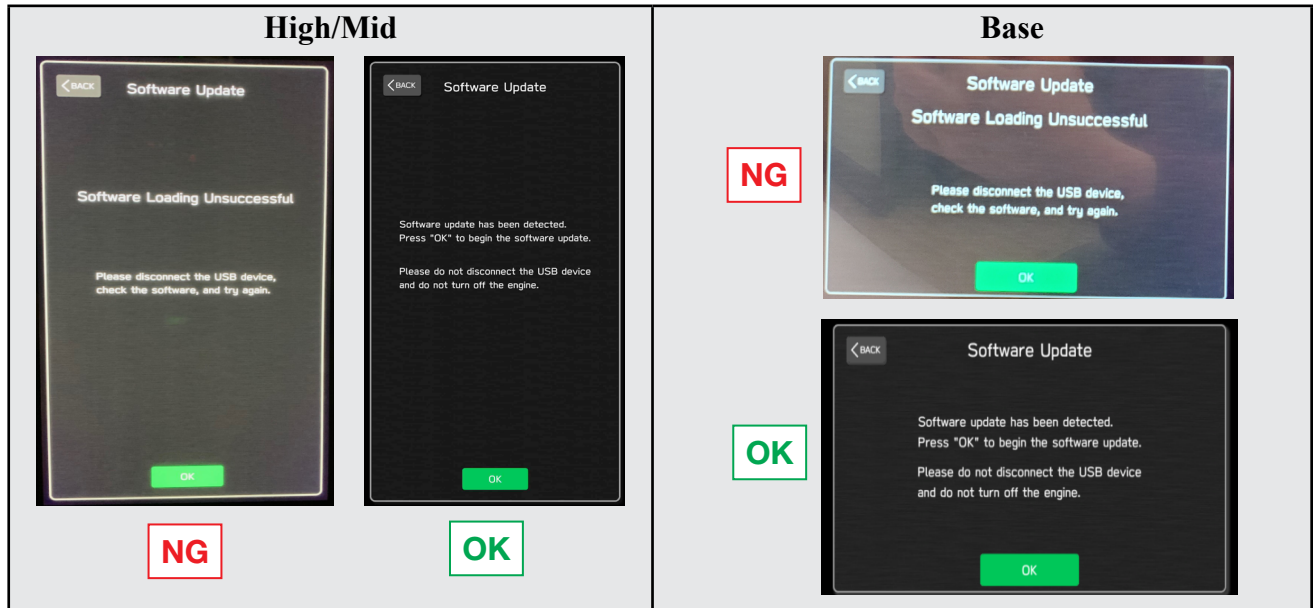
If you get the message Software Update Incomplete as shown below, please don't replace the hardware but retry updating the software according to the instructions in "Appendix B " on pg. 21.

High/Mid	Base

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.

High/Mid	Base

Software Update
 	
Software Update Ready to Install
 	
MSOC
  Current Version : F11GHM020-600
  Available Version : F11GHM022-504
 	
DSP
  Current Version : 02.04.09
  Available Version : 02.24.06
 	
V-CPU
  Current Version : F11GHV020-500
  Available Version : F11GHV020-501
 	
Please refer to the following table.
 	
Please do not disconnect the USB device and do not turn off the engine.
 	
OK   Cancel
	Please refer to the following table.
	
	Software Update
	Software Update Ready to Install
	
	MSOC
	  Current Version : F11GBM021-002
	  Available Version : F11GBM021-503
	
	Please do not disconnect the USB device and do not turn off the engine.
	
	OK Cancel

Continued...

Software Version Table

Version Table 20MY

＜MSoC＞

Current Version

Model	MSOC Version
High	F11GHM020-501 or F11GHM020-502 or F11GHM021-503 or F11GHM022-504 or F11GHM020-704 and F11GHM021-704 or F11GHM022-504 or F11GHM042-380 or F11GHM072-582 or F11GHM112-680
Mid	F11GMM020-501 or F11GMM020-502 or F11GMM021-503 or F11GMM022-504 or F11GMM020-704 and F11GMM021-704 or F11GMM022-504 or F11GMM042-380 or F11GMM072-582 or F11GMM112-680

Available Version

Model	MSOC Version
High	F11GHM122-780
Mid	F11GMM122-780

＜DSP＞

Current Version

Model	DSP Version
High/Mid	02.04.03 or 02.24.06 or 02.26.08

Available Version

Model	DSP Version
High/Mid	02.26.08

＜VCPU＞

Current Version

Model	VCPU Version
High/Mid	F11GHV020-500 or F11GHV020-501 or F11GHV072-280

Available Version

Model	VCPU Version
High/Mid	F11GHV072-280

Version Table 20MY

＜MSoC＞

Current Version

Model	MSOC Version
Base	F11GBM020-501 or F11GBM020-502 or F11GBM021-503 or F11GBM022-504 or F11GBM032-280 or F11GBM072-582 or F11GBM112-680

Available Version

Model	MSOC Version
Base	F11GBM122-780

＜DSP＞

Current Version

Model	DSP Version
Base	02.04.03 or 02.24.06 or 02.24.08

Available Version

Model	DSP Version
Base	02.26.08

＜VCPU＞

Current Version

Model	VCPU Version
Base	F11GHV020-500 or F11GHV020-501 or F11GHV072-280

Available Version

Model	VCPU Version
Base	F11GHV072-280

Version Table 21MY

＜MSoC＞

Current Version

Model	MSOC Version
High	M008-500 or F31BHM040-980 or F31BHM071-182 or F31BHM1
Mid	M008-500 or F31BMM040-980 or F31BMM071-182 or F31BMM1

Available Version

Model	MSOC Version
High	F31BHM121-380
Mid	F31BMM121-380

＜DSP＞

Current Version

Model	DSP Version
High/Mid	02.24.06 or 02.26.08

Available Version

Model	DSP Version
High/Mid	02.26.08

＜VCPU＞

Current Version

Model	VCPU Version
High/Mid	F31BHV003-500 or F31BHV070-580

Available Version

Model	VCPU Version
High/Mid	F31BHV070-580

Version Table 21MY

＜MSoC＞

Current Version

Model	MSOC Version
Base	BM008-500 or F31BBM030-880 or F31BBM071-182 or F31BBM11

Available Version

Model	MSOC Version
Base	F31BBM121-380

＜DSP＞

Current Version

Model	DSP Version
Base	02.04.06 or 02.24.08

Available Version

Model	DSP Version
Base	02.26.08

＜VCPU＞

Current Version

Model	VCPU Version
Base	F31BHV003-500 or F31BHV070-580

Available Version

Model	VCPU Version
Base	F31BHV070-580

Continued...

Software Version Table

Version Table
22MY
＜MSoC＞
Current Version

Model	MSOC Version
High	FB1SHM060-781 or FB1SHM070-882 or FB1SHM110-980
Mid	FB1SMM060-781 or FB1SMM070-882 or FB1SMM110-980

Available Version

Model	MSOC Version
High	FB1SHM121-080
Mid	FB1SMM121-080

＜DSP＞
Current Version

Model	DSP Version
High/Mid	02.26.08

Available Version

Model	DSP Version
High/Mid	02.26.08

＜VCPU＞
Current Version

Model	VCPU Version
High/Mid	FB1SHV060-280 or FB1SHV070-380

Available Version

Model	VCPU Version
High/Mid	FB1SHV070-380

Version Table
22MY
＜MSoC＞
Current Version

Model	MSOC Version
Base	FB1SBM060-781 or FB1SBM070-882 or FB1SBM110-980

Available Version

Model	MSOC Version
Base	FB1SBM121-080

＜DSP＞
Current Version

Model	DSP Version
Base	02.26.08

Available Version

Model	DSP Version
Base	02.26.08

＜VCPU＞
Current Version

Model	VCPU Version
Base	FB1SHV060-280 or FB1SHV070-380

Available Version

Model	VCPU Version
Base	FB1SHV070-380

Version Table
22MY Wilderness
＜MSoC＞
Current Version

Model	MSOC Version
High	F51XHM060-981 or F51XHM071-082 or F51XHM111-180
Mid	F51XMM060-981 or F51XMM071-082 or F51XMM111-180

Available Version

Model	MSOC Version
High	F51XHM121-280
Mid	F51XMM121-280

＜DSP＞
Current Version

Model	DSP Version
High/Mid	02.06.28

Available Version

Model	DSP Version
High/Mid	02.26.08

＜VCPU＞
Current Version

Model	VCPU Version
High/Mid	F51XHV060-480 or F51XHV070-580

Available Version

Model	VCPU Version
High/Mid	F51XHV070-580

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.

High/Mid	Base

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

High/Mid	Base
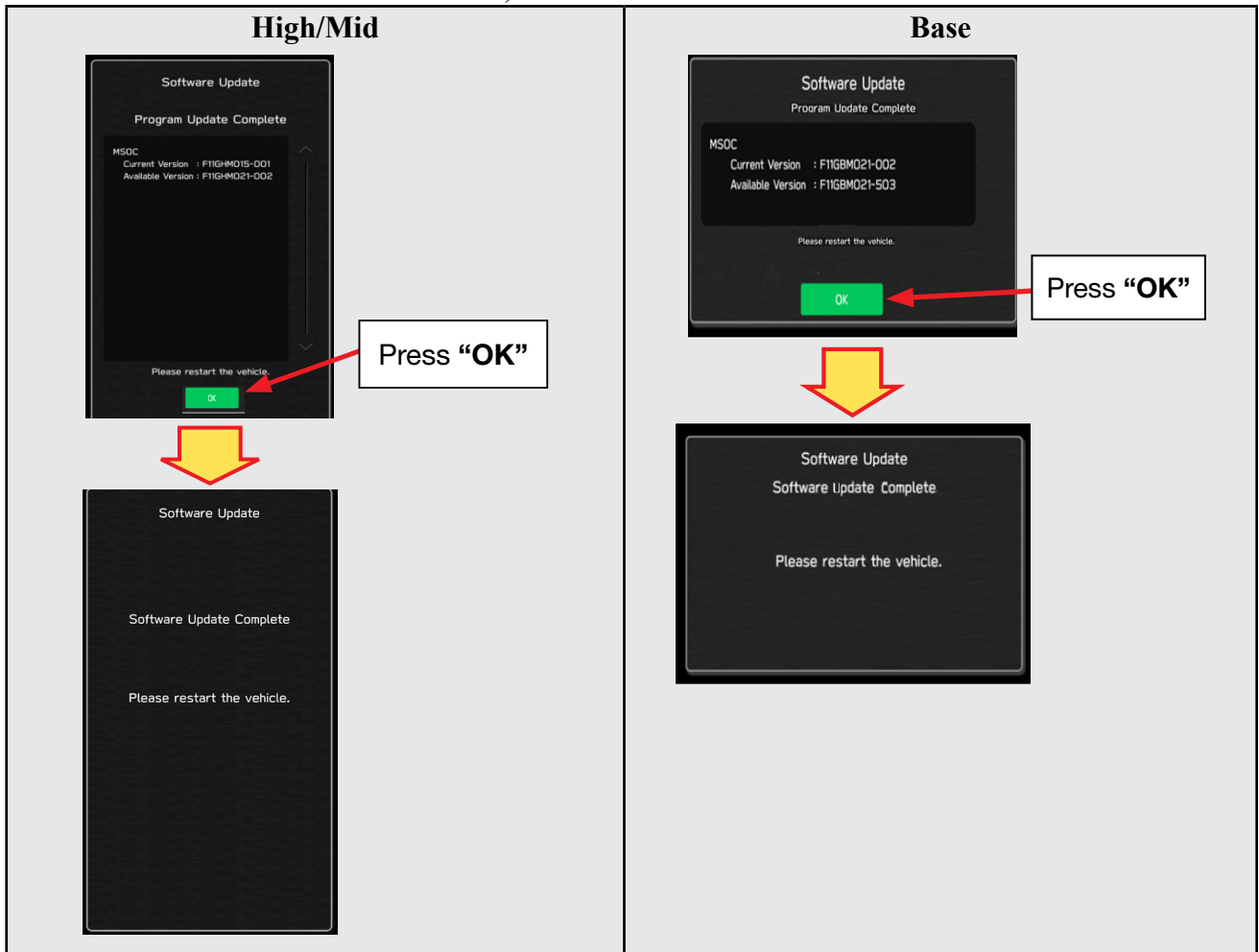
Continued...

IMPORTANT NOTE:

On a 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 20MY

Model	MSOC Version
High	F11GHM122-780
Mid	F11GMM122-780
Model	**DSP Version**
High/Mid	02.26.08
Model	**VCPU Version**
High/Mid	F11GHV072-280

Version Table 20MY

Model	MSOC Version
Base	F11GBM122-780
Model	**DSP Version**
Base	02.26.08
Model	**VCPU Version**
Base	F11GHV072-280

Version Table 21MY

Model	MSOC Version
High	F31BHM121-380
Mid	F31BMM121-380
Model	**DSP Version**
High/Mid	02.26.08
Model	**VCPU Version**
High/Mid	F31BHV070-580

Version Table 21MY

Model	MSOC Version
Base	F31BBM121-380
Model	**DSP Version**
Base	02.26.08
Model	**VCPU Version**
Base	F31BHV070-580

Version Table 22MY

Model	MSOC Version
High	FB1SHM121-080
Mid	FB1SMM121-080
Model	**DSP Version**
High/Mid	02.26.08
Model	**VCPU Version**
High/Mid	FB1SHV070-380

Version Table 22MY

Model	MSOC Version
Base	FB1SBM121-080
Model	**DSP Version**
Base	02.26.08
Model	**VCPU Version**
Base	FB1SHV070-380

Version Table 22MY WILDERNESS

Model	MSOC Version
High	F51XHM121-280
Mid	F51XMM121-280
Model	**DSP Version**
High/Mid	02.26.08
Model	**VCPU Version**
High/Mid	F51XHV070-580

Continued...

4m) Enable the setting "Automatically Check for Updates" as shown in the steps below.
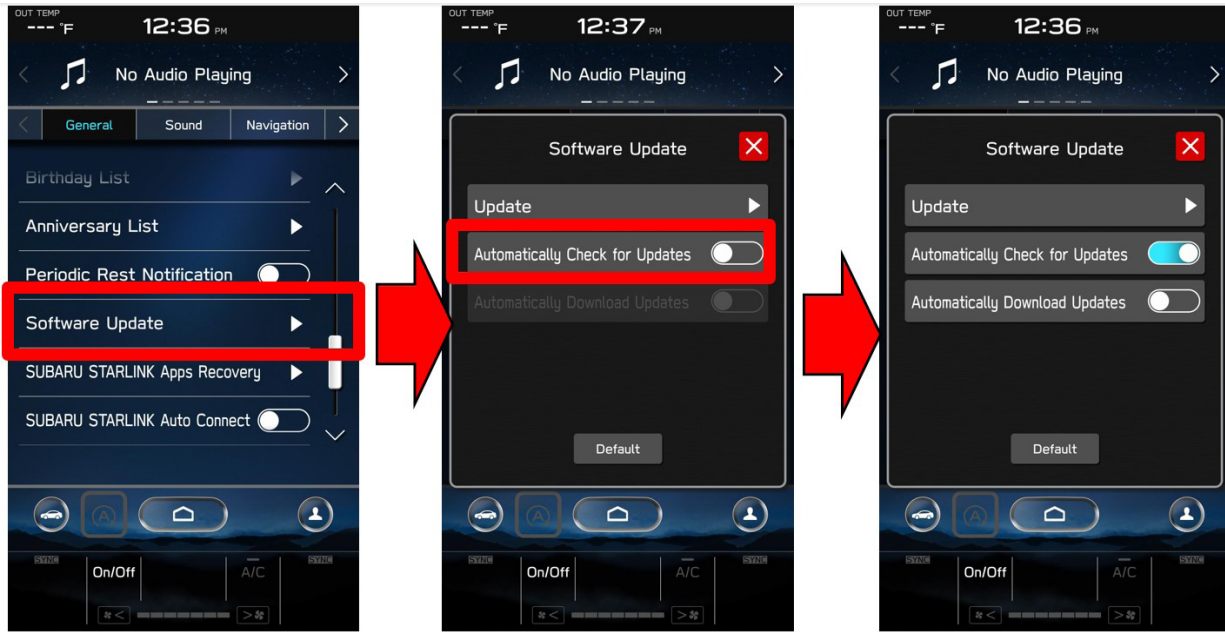
4n) Turn the ignition OFF, open the driver's door then close the driver's door to complete the procedure.

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:

CAUTION: VEHICLE SERVICING PERFORMED BY UNTRAINED PERSONS COULD RESULT IN SERIOUS INJURY TO THOSE PERSONS OR TO OTHERS.	Subaru of America, Inc. is ISO 14001 Compliant
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.	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.

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.

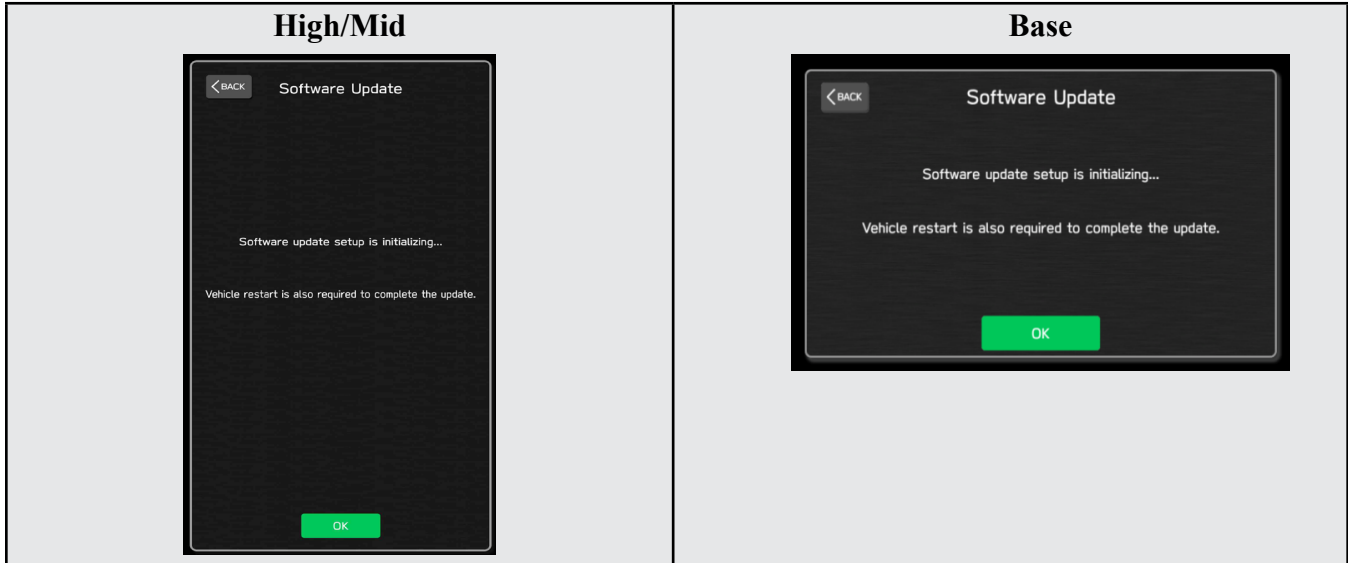*Continued...*

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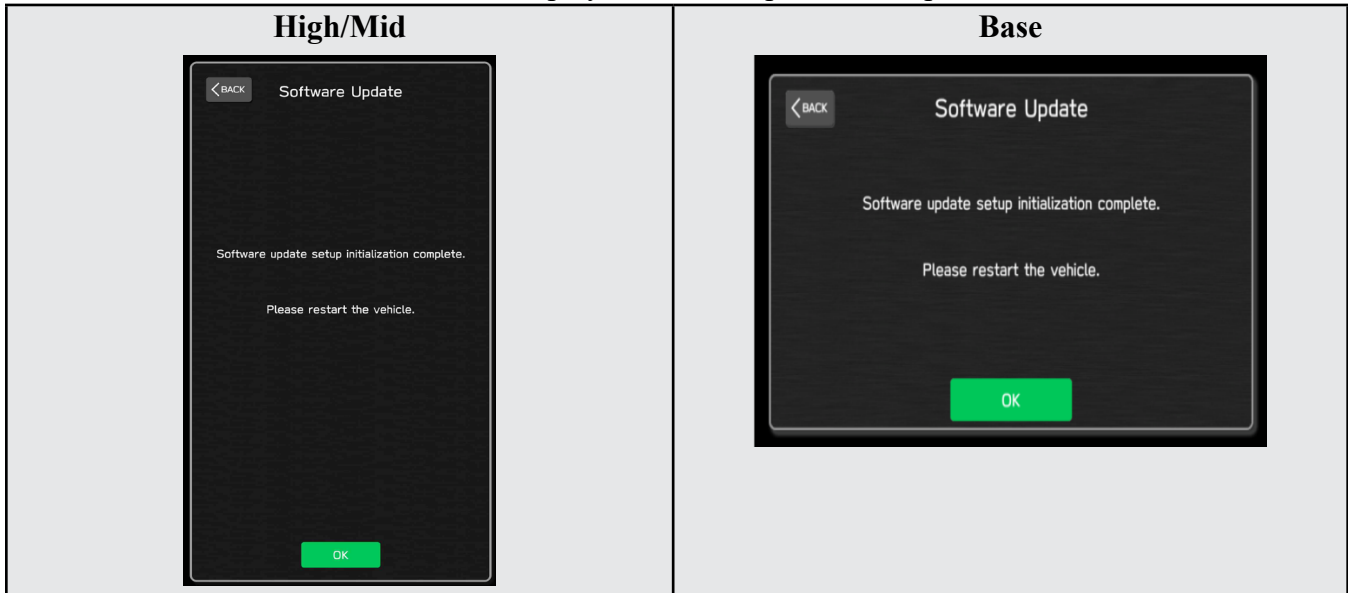
Follow this procedure in the RARE case of "**Software update setup is initializing…**" message is displayed:

- 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.

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

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

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

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. 11.

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

Continued...

"APPENDIX B"

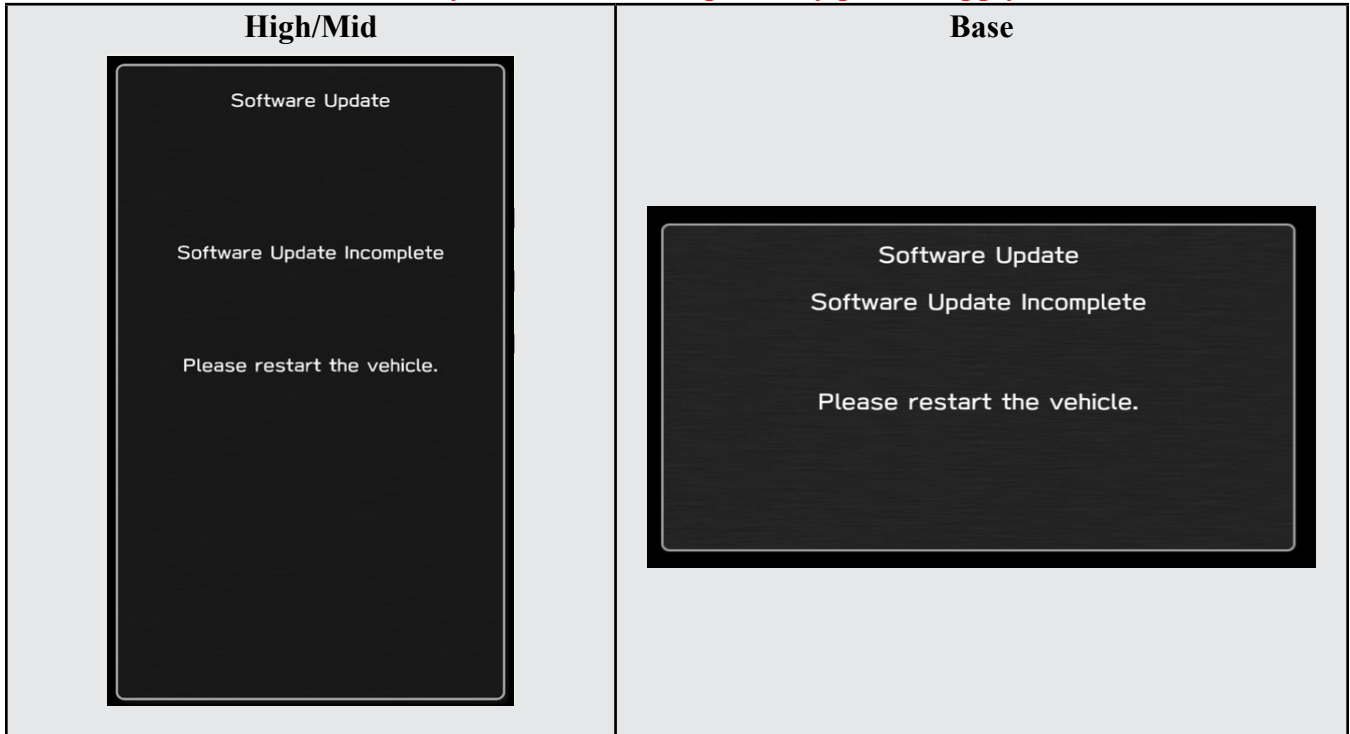In case of retrying the software update after the first attempt of update fails.

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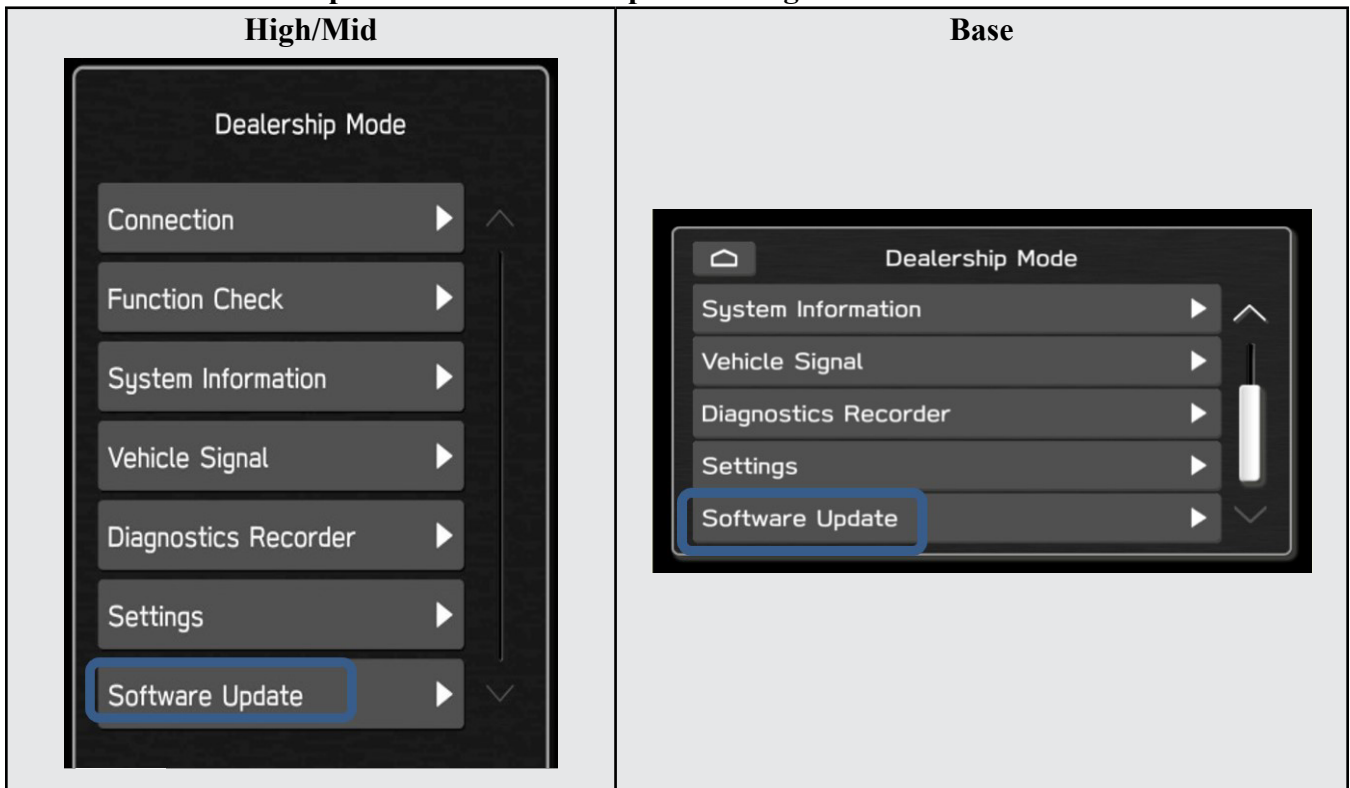
1-4. When you see the screen below, wait for approx. 15 minutes until the initialization is complete

High/Mid	Base
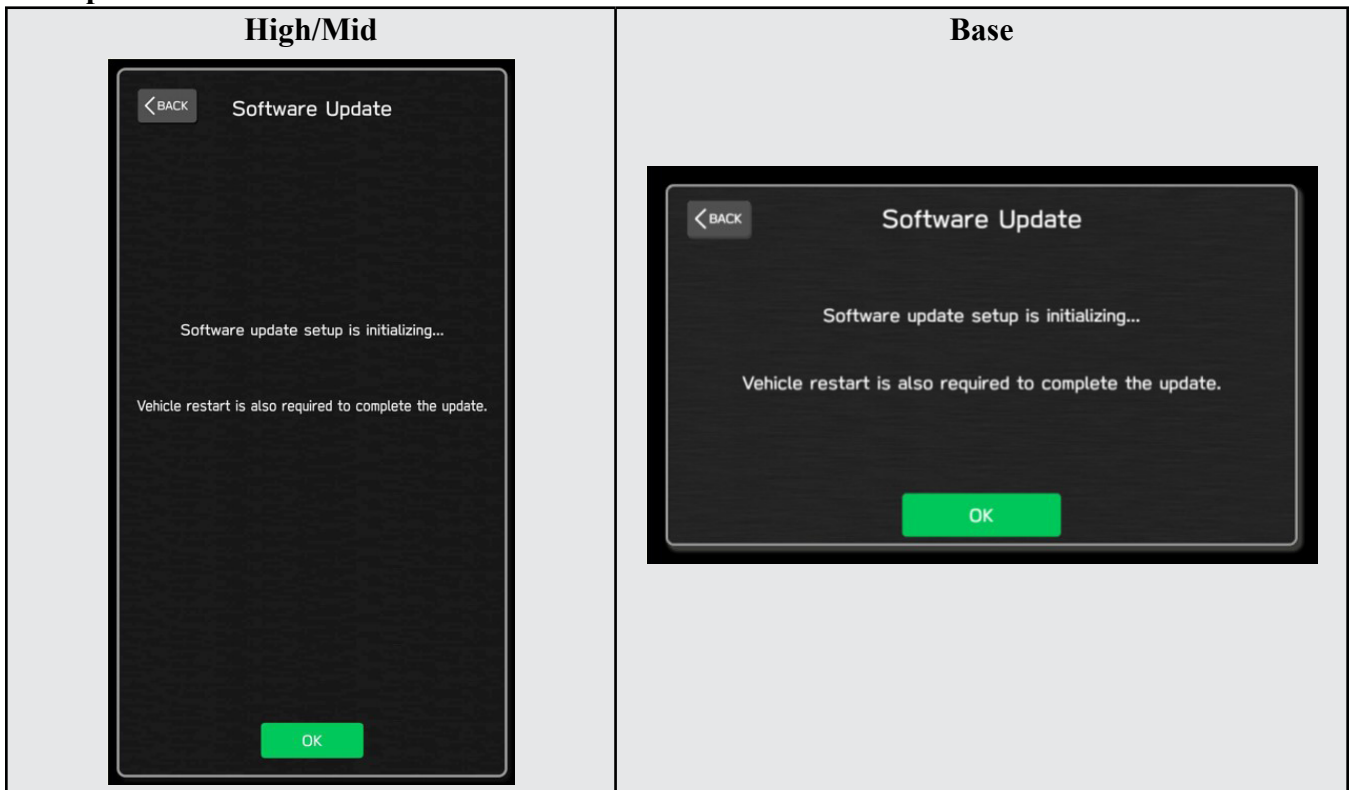
Continued...

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

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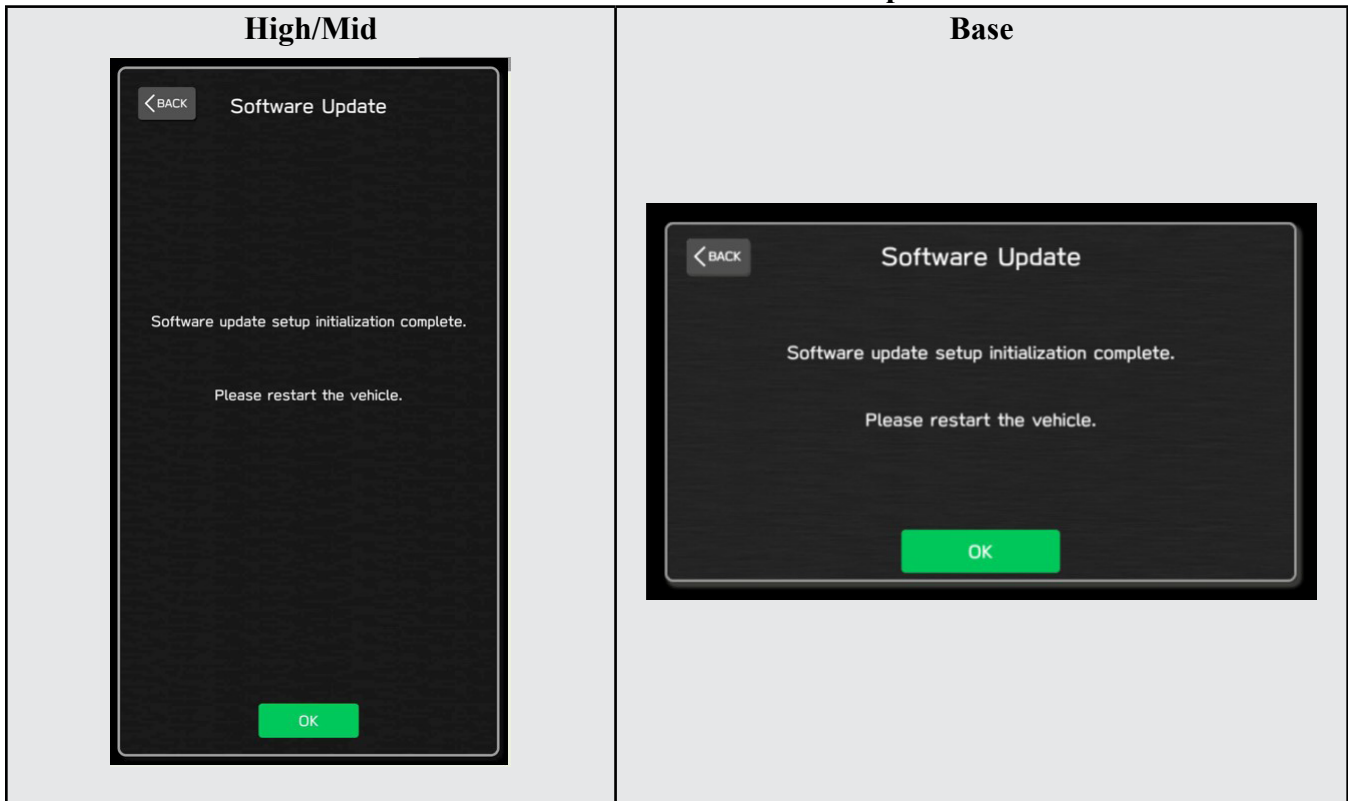
1-6. Turn the ignition switch or the engine OFF, open the driver side door and close the door then wait for 3 minutes.

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. 11.
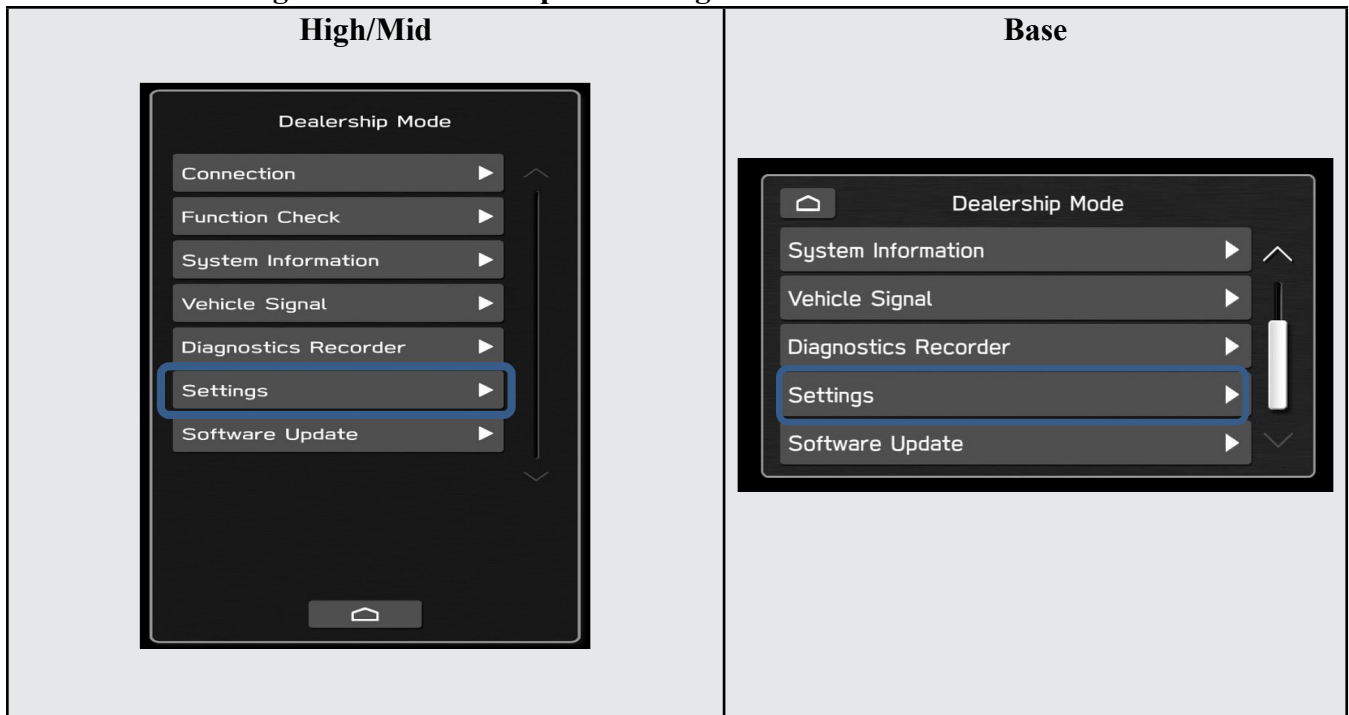
Continued...

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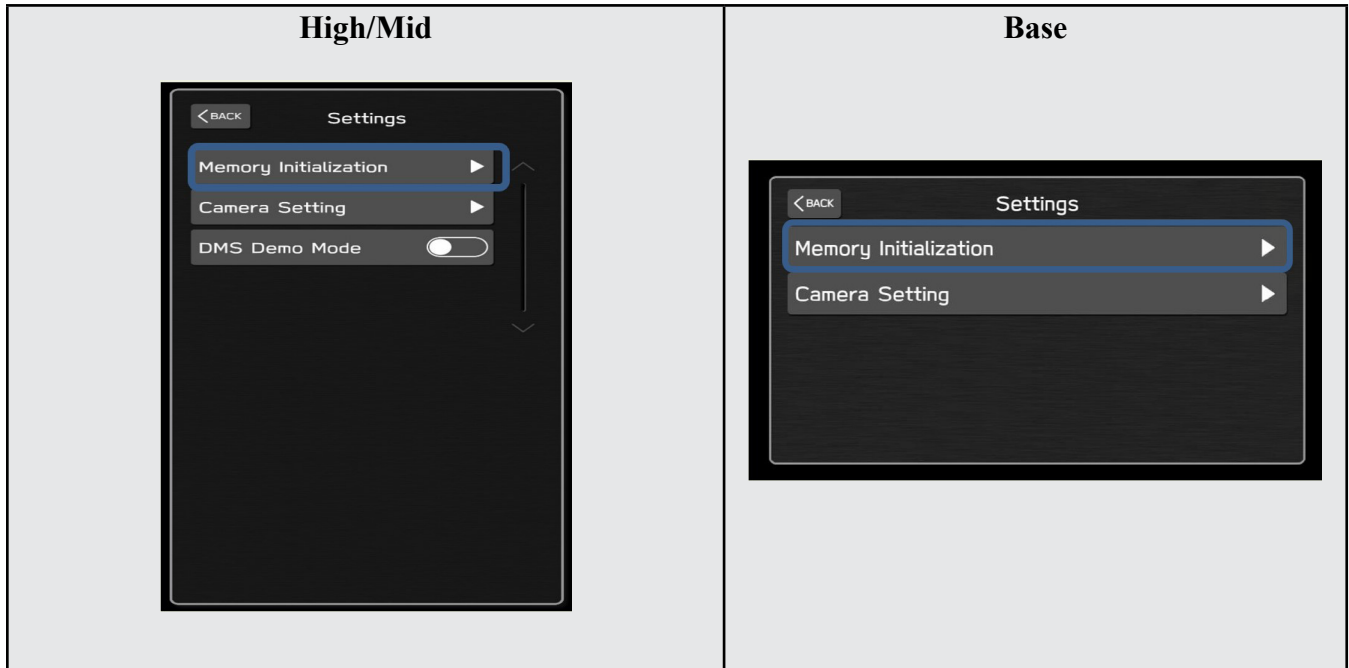
High/Mid	Base
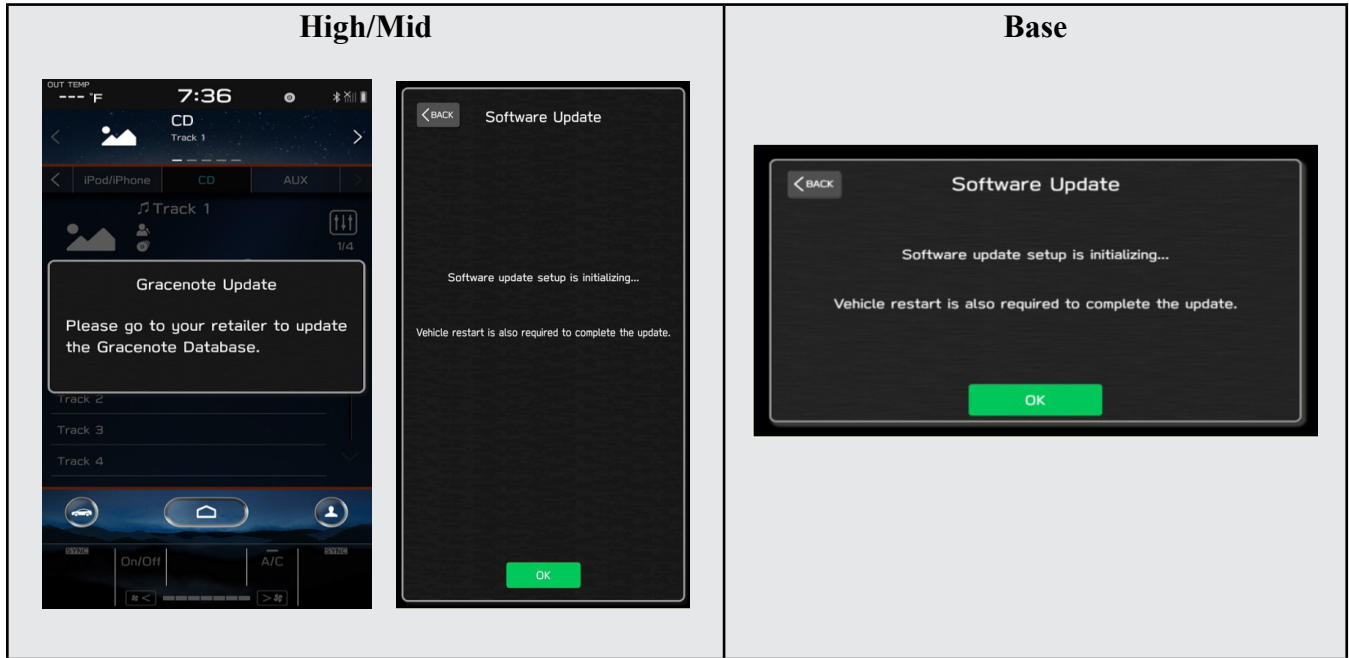
2-1. Select "Settings" in the Dealership Mode diagnostics screen.

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
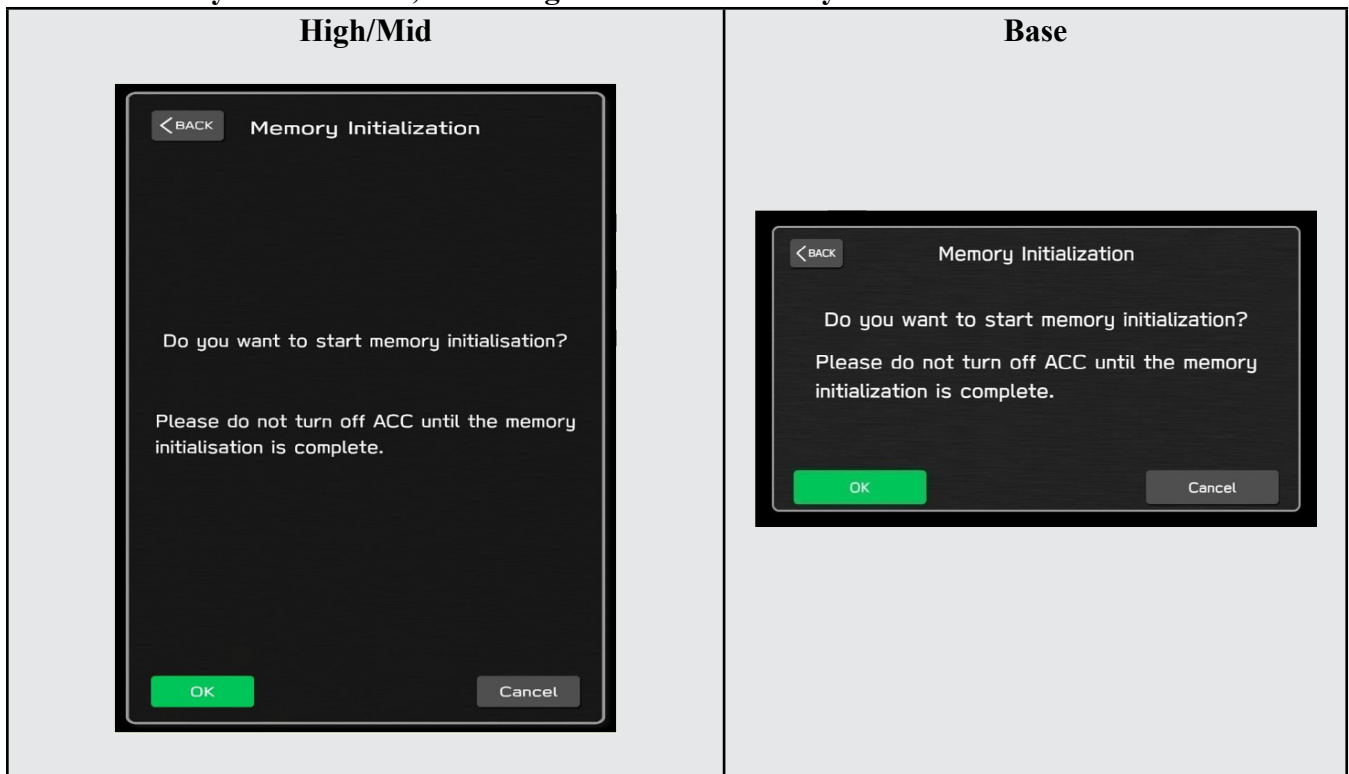
Continued...

2-4. You will see the following screen

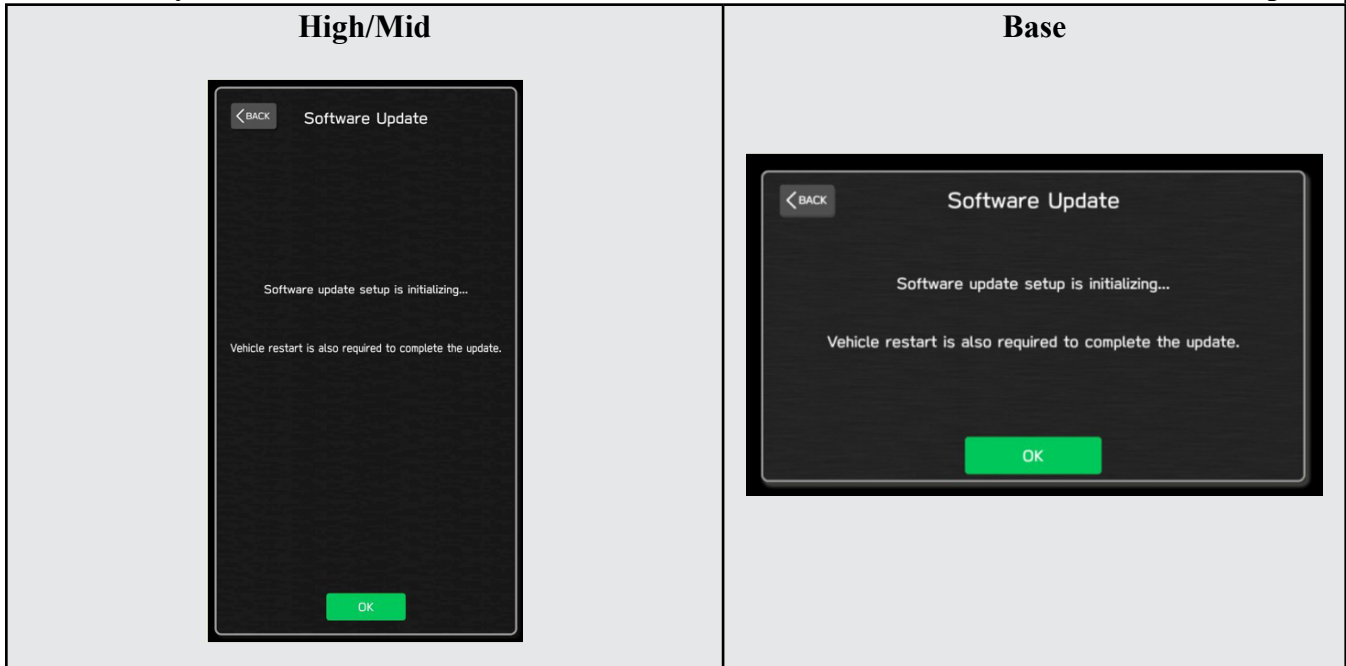| High/Mid	Base
Memory Initialization Memory initializing... Please do not turn off ACC until the memory initialization is complete. When initialization is complete, it will restart automatically.	Memory Initialization Memory initializing... Please do not turn off ACC until the memory initialization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

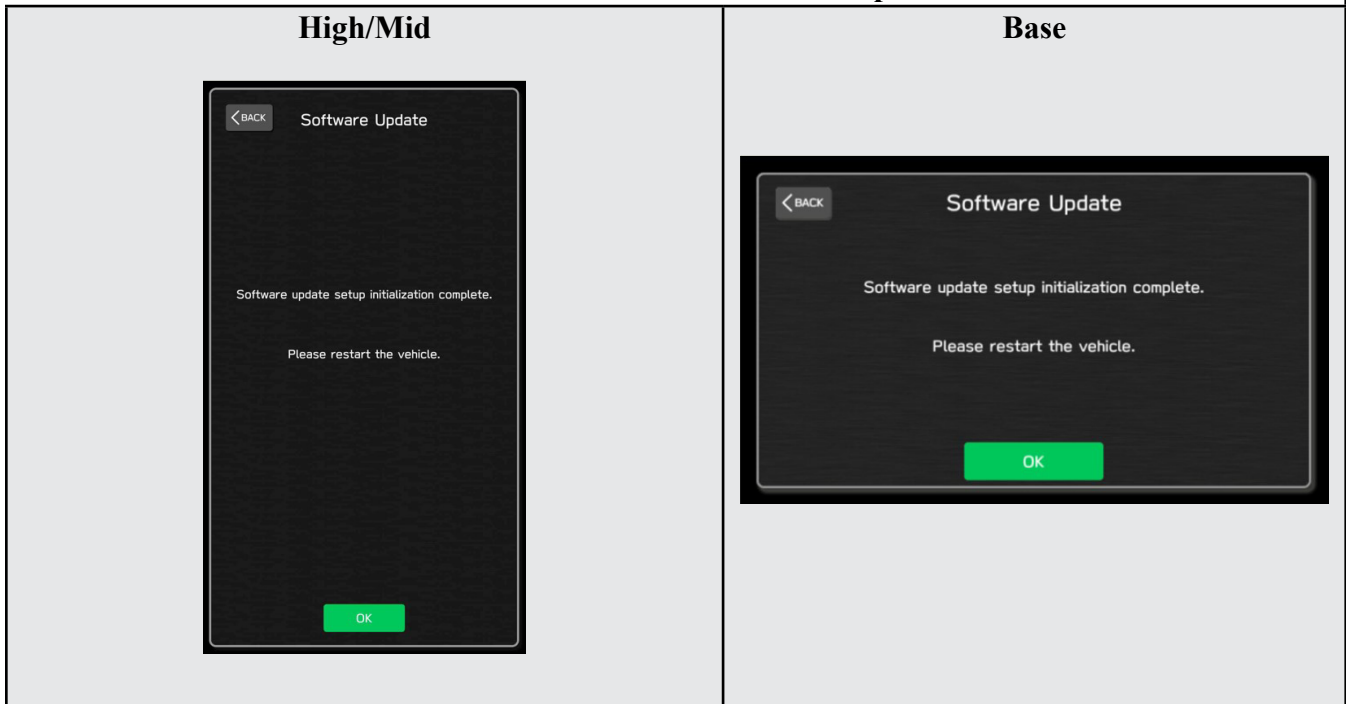| High/Mid	Base
Dealership Mode Connection ▶ Function Check ▶ System Information ▶ Vehicle Signal ▶ Diagnostics Recorder ▶ Settings ▶ Software Update ▶	Dealership Mode System Information ▶ Vehicle Signal ▶ Diagnostics Recorder ▶ Settings ▶ Software Update ▶
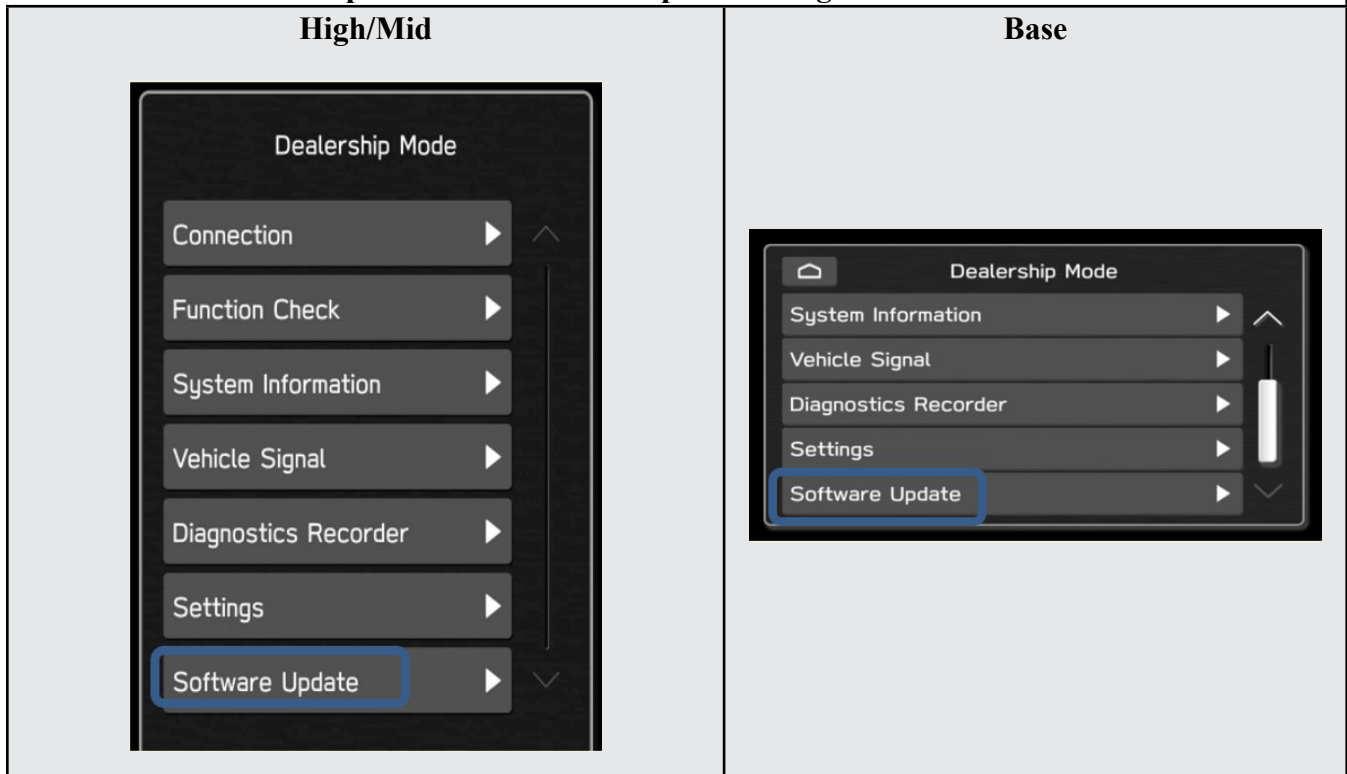
Continued...

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. 11.

Continued...

Denso Gen 4 Software Update Timeline (*TSB Number: 15-261-20*)

Update #	Model Year:	Version	Release Date:	NEW Software Version ID #:	Conditions Addressed:
0	2020	0	9/1/2019	F11GHM020-501/502 (High model software) F11GMM020-501/502 (Mid model software) F11GBM020-501/502 (Base model software)	- Start of Production for 20MY Outback/Legacy
1	2020	RC1912	2/24/2020	F11GHM021-503 (High model software) F11GMM021-503 (Mid model software) F11GBM0021-503 (Base model software)	- See **"Conditions Addressed by Update #1"** as outlined in "Appendix C" below.
2	2020	RC2003	6/24/2020	F11GHM022-504 (High model software) F11GMM022-504 (Mid model software) F11GBM022-504 (Base model software)	See **"Conditions Addressed by Update #2"** as outlined in "Appendix C" below.
3	2020 2021	RC2011	12/14/2020	F11GHM042-380 (High model software) F11GMM042-380 (Mid model software) F11GBM032-280 (Base model software) F31BHM040-980 (High model software) F31BMM040-980 (Mid model software) F31BBM030-880 (Base model software)	See **"Conditions Addressed by Update #3"** as outlined in "Appendix C" below
4	2020 2021 2022 2022 Wilderness	RC2105	10/15/2021	F11GHM072-582 (High model software) F11GMM072-582 (Mid model software) F11GBM072-582 (Base model software) F31BHM071-182 (High model software) F31BMM071-182 (Mid model software) F31BBM071-182 (Base model software) FB1SHM070-882 (High model software) FB1SMM070-882 (Mid model software) FB1SBM070-882 (Base model software) F51XHM071-082 (High model software) F51XMM071-082 (Mid model software)	See **"Conditions Addressed by Update #4"** as outlined in "Appendix C" below
5	2020 2021 2022 2022 Wilderness	RC2111	1/28/202	F11GHM112-680 (High model software) F11GMM112-680 (Mid model software) F11GBM112-680 (Base model software) F31BHM111-280 (High model software) F31BMM111-280 (Mid model software) F31BBM111-280 (Base model software) FB1SHM110-980 (High model software) FB1SMM110-980 (Mid model software) FB1SBM110-980 (Base model software) F51XHM111-180 (High model software) F51XMM111-180 (Mid model software)	See **"Conditions Addressed by Update #5"** as outlined in "Appendix E" below

Continued...

6	**2020**			F11GHM122-780 (High model software) F11GMM122-780 (Mid model software) F11GBM122-780 (Base model software)	See **"Conditions Addressed by Update #6"** as outlined in "Appendix E" below
	2021			F31BHM121-380 (High model software) F31BMM121-380 (Mid model software) F31BBM121-380 (Base model software)	
	2022	**RC2202**	**4/22/2022**	FB1SHM121-080 (High model software) FB1SMM121-080 (Mid model software) FB1SBM121-080 (Base model software)	
	2022 Wilderness			F51XHM121-280 (High model software) F51XMM121-280 (Mid model software)	

Continued...

Symptoms Addressed By Update #6:

Number	Symptoms to be Improved:
1	**System restarts itself during FOTA (Firmware Over The Air) update. FOTA operation is conducted in two processes: downloading (from the server to the Cockpit Control Unit via Wi-Fi) and installation (inside the Cockpit Control Unit). During the FOTA operation, after the new software has been downloaded to the Cockpit Control Unit (CCU) customer is to push "Install Now" on the Center Information Display (CID) to start installation of the software.**

However, in rare case, the CCU restarts itself* during installation.

Note* Even if this symptom occurs, after approximately 2 minutes, the system resumes, and the CID comes back to the below screen. Customer can then push the "Install Now" to proceed with the installation.
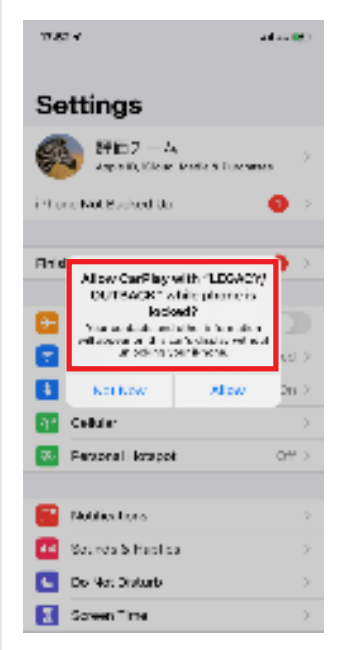
Symptoms Addressed By Update #5:

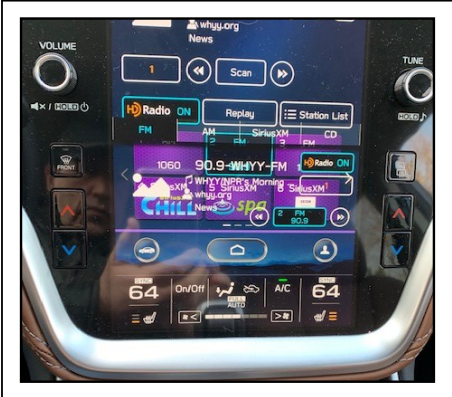| Number	Symptoms to be Improved:
1	**No image on CID (Center Information Display) or Black display condition followed by CP1 reboot resulting from CCU (Cockpit Control Unit) internal communication error or due to listed below actions:** • CP1 forced reboot is performed by pressing the "Vol" button continuously or by performing factory reset operation • Loss of Bluetooth or Wi-Fi connection • Application crash during Bluetooth audio streaming • Launching CarPlay or Android Auto application, after the smart phone is connected • Removing USB connection between the iPhone's and CP1 during active CarPlay session • STARLINK application crash • Performing USB map update using Bluetooth connection with a smart phone carrying STARLINK Companion App map update data • When ACC is turned OFF and ON, while STARLINK Companion App map update is being performed • Navigation application crash • "Service Appointment Scheduler" application crash due to a communication error between DCM and CCM • Re-inserting USB Flash drive within 2-3 seconds • Removing USB Flash drive while playing back the data from the USB Flash drive • CID display loses images (black screen) and reboots itself after ACC (or Ignition) is turned OFF and ON.
2	**No image on CID (Center Information Display) or Black display condition and HVAC function becomes inoperative due to listed below actions:** • Failure to complete CP1 software update via USB port * • After the failure, Ignition Switch is turned off and on then an initializing process is started with "Software update setup is initialing……" message on the display, which requires about 15minutes to complete. During this message is displayed, power supply of CCM is cut off like disconnecting battery terminals. • Performing CP1 software update via USB port using the same software version **Note*** In case this USB update failure occurs, retry updating according to the instructions in "Appendix B "
3	Intermittent loss of Bluetooth connection

Continued...

Number	Symptoms to be Improved:
4	"Software update setup is initializing ..." message displayed for an extended period of time (over 30minutes), after a follow-up attempt for CP1 software update via USB port is performed to recover a failure ** Note** In case this USB update failure occurs, retry updating according to the instructions in "Appendix C"
5	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"

Symptoms Addressed By Update #4:

Number	Symptoms to be Improved:
1	Momentary Black Display; The CID (Center Information Display) and in rare case together with the LCD in the combination meters go blank (black) momentarily. This condition might be followed by CP1 reboot. **NOTE:** Rear View Camera function is not impacted by this condition.
2	Blank display when connecting CP1 to Wi-Fi network with long name (over 32 characters).
3	While using Apple CarPlay, "SUBARU" is displayed on the iPhone Setting menu instead of vehicle name <LEGACY/OUTBACK>.

Continued...

Number	Symptoms to be Improved:
4	Vehicle Setting Icon in <Home> menu is grayed out. Menu list in the "Car" tab in the Setting Menu is not displayed.
5	CarPlay stopped working after hanging up a hands-free phone call.
6	CID shows multiple images simultaneously.
7	CID shows multiple images simultaneously.
8	CID freezes/locks after startup. **NOTE:** Rear View Camera function is not impacted by this condition.
9	Move (push ▲ ▼ repeatedly) and Select in Map list, then freeze and restart itself.
10	The CID (Center Information Display) freezes/locks during Wi-Fi configuration
11	Map freezes while Navigation guidance is being provided.
12	Navigation operation restarts while driving.
13	Reboot in Factory diag. mode, when removing USB drive or changing to other USB drive.
14	CP1 system and combination meter reboot again following a forced reboot, when smart phone connected via USB port.
15	CP1 system reboots following ignition OFF and ON
16	Switching to Navigation demo mode after CP1 reboots during Bluetooth pairing
17	CP1 system reboots, while selecting or using Map feature to configure the driving route
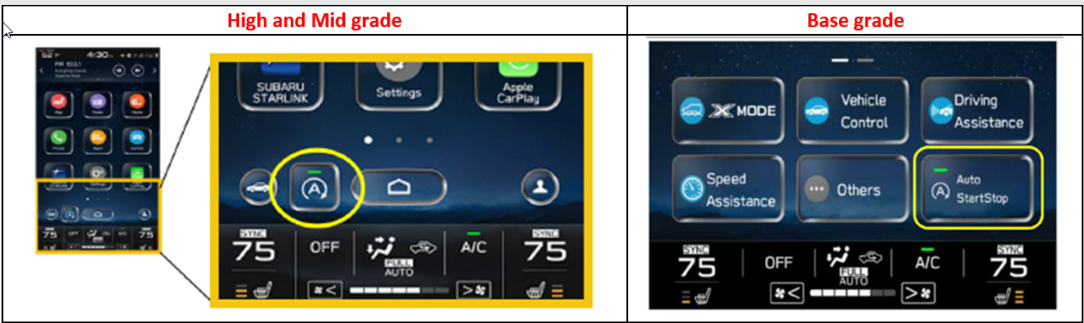
Continued...

Number	Symptoms to be Improved:
18	Android Auto does not function. "Android Auto is Disconnected" is displayed with Launch Error message.
19	CarPlay does not function with USB connection.
20	Sound is muted after hanging up a hands-free phone call.
21	Ring tones and the voice from the other end on the hands-free phone call cannot be heard
22	No sound in SXM, following low or dead battery.
23	Navigation guidance directions are not spoken.
24	When iPhone phone book transfer fails, system repeats Bluetooth disconnection and connection.
25	<Media> button does not function in <Home> menu.
26	Vehicle location is not displayed correctly in Navigation screen.
27	Radio station moves unexpectedly due to momentary flick or brush of the touch screen.
28	Temperature setting cannot be controlled by Voice Recognition in Canadian (C*) specification.
29	Preset outline is not shown following station selection using steering switch Correct display Incorrect display
30	Others. Improvement in button design & location and Icon display pattern, etc.
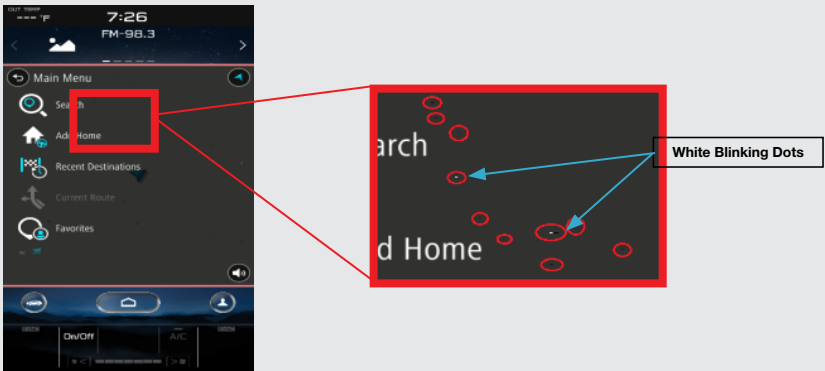
Symptoms Addressed By Update #3:

Number	Symptoms to be Improved:
1	Enable Firmware Over The Air (FOTA) functionality
2	Clarification of the post-FOTA procedure instructions required to complete the update. The screenshot below will appear and explain what must be done to complete the update installation. **Software Update Installation Complete** To complete the update, your vehicle and STARLINK system must be fully shut down. Please turn off the engine and exit the vehicle. Lock doors, and let the vehicle sit for at least 5 minutes. It is recommended to walk at least 10 feet from the vehicle to prevent key fob interference. After waiting at least 5 minutes, enter the vehicle and turn the engine on. An "Update Successful" message will appear after a few moments. The update will then be complete.

Continued...

Number	Symptoms to be Improved:
3	Currently, the microphone level indication is incorrect. The indicator level has been corrected. More microphone level indication information is included in TSB **15-275-20**.
4	A reduced (low) volume (-6db) concern during handsfree conversation when using CarPlay has been addressed to make the volume level consistent.
5	Voice recognition (VR) has been enhanced to improve recognition of short words (e.g. YES).
6	The program has been corrected to prevent repeated rebooting and system freeze-up immediately after activation of Android Auto.
7	Eliminate CP1 MOTA update error message "Something went wrong. The system is unable to install any map updates. Contact your dealer for more information."
8	The Auto Stop-Start On/Off function button has been moved from the bottom to top layer of the system for easier use. A screenshot of how the button will appear is shown below.
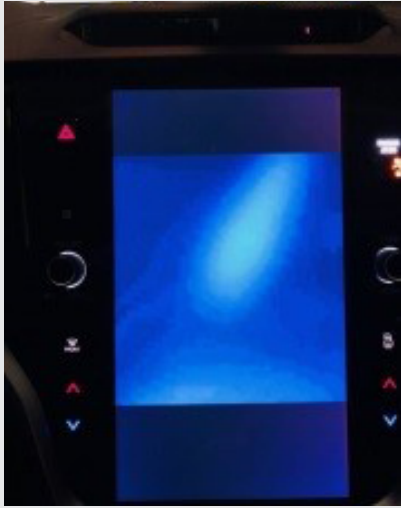
Symptoms Addressed By Update #2:

Symptom #	Description of Symptom:
1	Several minutes after Engine start, the Center Information Display (CID) reboots.
2	After an extended period of usage, some white blinking dots appear on the display.
3	The display screen freezes or becomes blank (black screen) after a CD is inserted. This symptom occurs when a CD with over 99 characters of Artist Name Data is used.
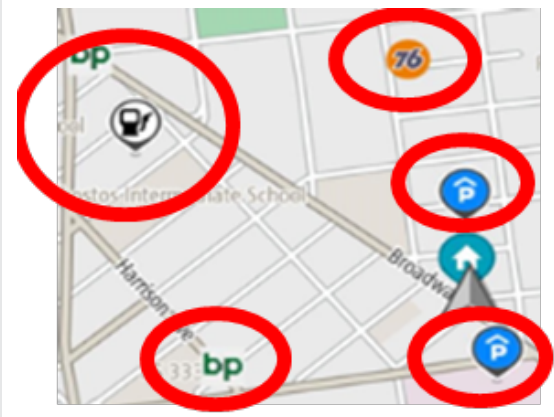
Continued...

Symptom #	Description of Symptom:
4	CID reboots. In a case where the system was shut down with SXM selected as the audio source, the CID reboots after the next start up.
5	SXM does not resume playing instantly. In a case where the system was shut down with SXM selected as the audio source, SXM takes more than 20 seconds to resume play after the opening screen is displayed (when it normally only takes approximately 5 seconds.)
6	Radio station does not resume playing (no audio output). In a case where the system was shut down with Radio being selected as the audio source, audio output does not resume at the next start up. Once the audio source is changed to SXM, SXM plays normally but, if the source is changed back to the Radio, audio does not return and the radio display is also lost.
7	Customer-selected Equalizer settings are lost. Equalizer returns to the default settings after ignition switch is turned OFF and back ON.
8	The media source cannot be changed. Even if <Radio> or <Media> is selected, the media source does not change. In addition, Voice Recognition stops functioning at the same time. This condition occurs when the volume setting is continuously changed while the CID is booting.
9	In a case where the system was shut down while the Navigation map screen was being displayed, the display goes blank (black screen) soon after the Disclaimer screen is displayed after restarting.
10	CID reboots repeatedly after setting a destination using the Navigation system.
11	CID reboots while using the Pandora application via CarPlay.
12	Bluetooth connection cannot be reestablished when using certain smart phones. When using Android Auto on certain smartphones, a Bluetooth connection cannot be reestablished automatically once it has been disconnected.
13	CarPlay connection cannot be established. When connecting an iPhone via USB, "CarPlay Unavailable" is displayed and CarPlay does work.
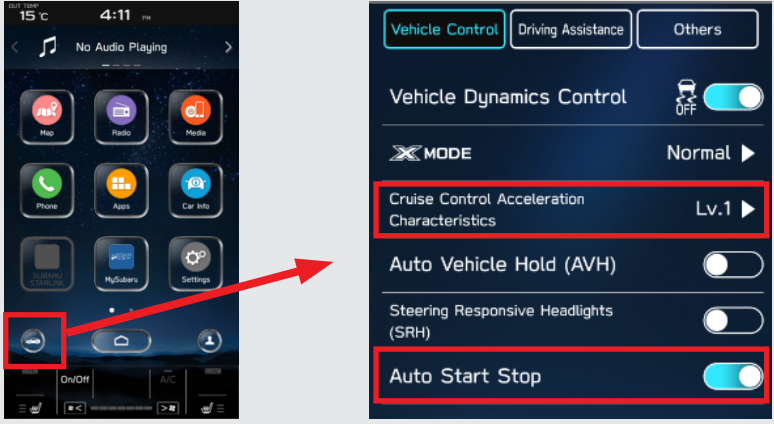
Continued...

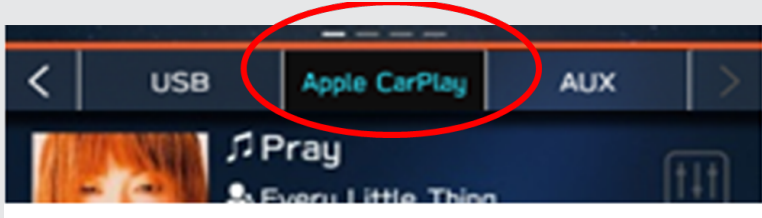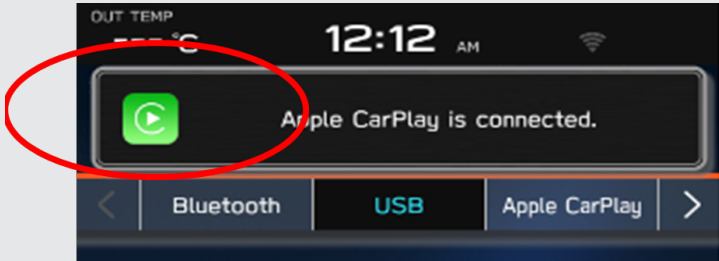| Symptom #	Description of Symptom:
14	The HOME screen goes blank. When the screen is switched from Camera mode to HOME, no icons are displayed as shown below.

List of New Functions and Enhancements Included in Update #2:

Number	New Functions and Improvements:
1	The previously selected customized map orientation setting is memorized even after ignition OFF / ON. If the customer changes the map orientation setting, the change is automatically retained.
2	Pin display of POI is now available.

3	In the 2D and 3D HU display mode, the vehicle position icon on the Navigation map is easier to identify:
	   • Icon size increased from 7mm to 9mm.
	   • Icon color has been changed to Dark Blue.
	   • Icon position (when using route guidance) stays at the same position as when not using route guidance.
	   • Icon has been re-positioned 9mm higher on the display.
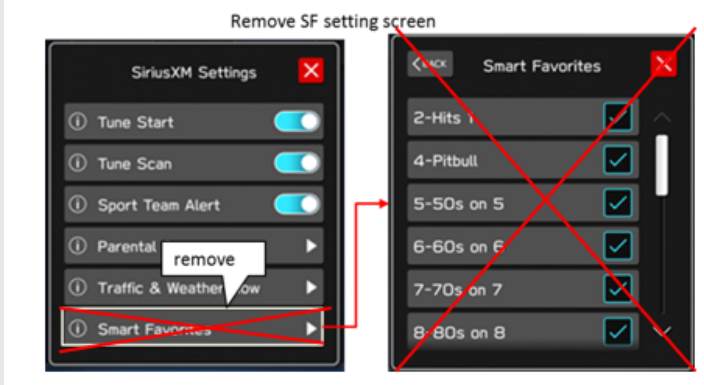
Number	New Functions and Improvements:
4	The ISS (Auto Start Stop) button has been moved to the upper layer in the Car Setting menu. By touching the "Car Setting" icon, the Auto Start Stop and Cruise Control Acceleration Characteristics menus can be accessed immediately, whereas selecting "Others" in the Car Setting screen was required to access these menus.
5	HVAC control buttons of base grade are now larger and easier to see.
6	Time zone and Summertime are now automatically selected. Default setting of clock setting is Auto. The time zone is changed according to the vehicle location, and Summertime is automatically set according to the calendar.
7	Clock setting can be selected by touching the clock display in the status bar.
8	AlbumArt is displayed when music is played and now continues to be displayed when the vehicle is in motion.
9	CarPlay screen is now expanded from half size (horizontal) to full screen (vertical).

Continued...

Number	New Functions and Improvements:
10	When using CarPlay or Android Auto, a "CarPlay" or "Android Auto" tab will now appear on the Media tab bar. By selecting this tab, music data and metadata can be browsed.
11	When using route guidance with CarPlay navigation, \<Turn by Turn> descriptions will be displayed both in the Information bar of CID and in the MID located in the center of the combination meter.
12	By touching the new CarPlay button located at the top of the CID, the CarPlay menu can be accessed easily.
13	In a case where the system is shut down while is CarPlay connected, the system automatically resumes the connection at the next start up.
14	\<Siri> Voice Recognition function is ready to use faster than with previous version.
15	Gracenote Media Database updated to November 2019.

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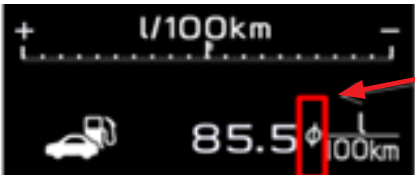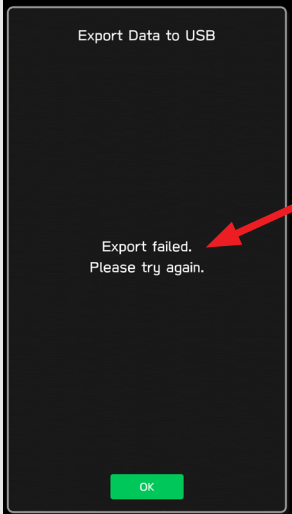
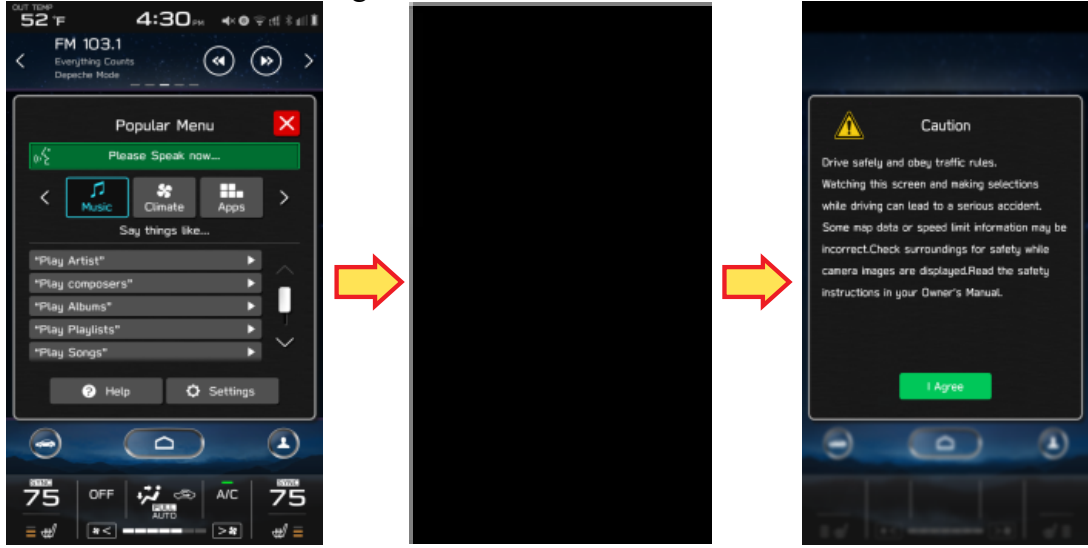| Number	New Functions and Improvements:
16	1. Sirius XM Smart Favorites menu has been removed from SiriusXM Settings 2. Going forward first 10 set Sirius XM presets are now smart favorites by default 3. Smart favorite channel has "star" added to the preset button

Conditions Addressed By Update #1:

Symptom #	Description of Symptom:
1	The CP1 display and/or center Combination Meter display freezes. No response from touch screen or voice guidance. After switching the ignition off and opening the driver's door, the system does not recover**. **NOTE:** After switching the ignition off and leaving the driver's door open more than 70 seconds, the system *may* recover after switching the ignition back on.

Continued...

Symptom #	Description of Symptom:
2	Delayed response of rear view camera guide lines. When the rear view camera is activated and the steering wheel is turned, there is a delay before the steering-responsive guide lines respond to the steering wheel input.
3	Fuel consumption display has unnecessary 'Φ' mark when changing mileage unit to Km.
4	Diagnostics Recorder Data cannot be exported to the USB memory device. When the diagnostic log data is being downloaded (by selecting: Dealership Menu > Diagnostics Recorder > Export Data to USB), it fails after the progress bar reaches almost 90% with an error message of Export failed. Please try again.

Continued...

Symptom #	Description of Symptom:
5	When using Voice Recognition to search for a 'Nearby POI' (Point of Interest) in Canada with FRENCH language selected, the CP1 display turns black and displays a Caution / disclaimer message. **Voice Recognition** **Black Screen** **Caution / Disclaimer Message**