

**ATTENTION:**

- GENERAL MANAGER
- PARTS MANAGER
- CLAIMS PERSONNEL
- SERVICE MANAGER

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


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**QUALITY DRIVEN® SERVICE**

**SERVICE BULLETIN**

**APPLICABILITY:** 2020-2022MY Outback & Legacy  
 2022-2023MY BRZ  
 2022-2023MY WRX

**NUMBER:** 15-270-20R

**DATE:** 8/19/2020

**REVISED:** 04/30/24

**SUBJECT:** FOTA (Firmware Over-The-Air) Reprogramming for DENSO Gen 4 Audio / Navigation Infotainment Systems

**INTRODUCTION:**

This bulletin provides instruction for use of a new reprogramming procedure to optimize the Denso Gen 4 Audio and Navigation system utilized in the models listed above. Firmware-over-the-air (FOTA) is a process where remote devices can receive updates to their operating firmware. This process has become second nature with smartphones, tablets and many other connected devices. FOTA for automotive infotainment systems was designed with an emphasis on customer convenience. FOTA updates provide regular enhancements along with software patches as needed to enhance the customer experience. The convenience factor comes not only with the supply of regular updates and the enhancements they provide, but through customer control of when these updates are downloaded and installed. The only requirement is a secure Wi-Fi connection through a home network or the use of a secure Wi-Fi hotspot to create a connection to the update server. Once connected, customers can easily obtain and install any available FOTA update to their infotainment system. FOTA operation is conducted in two steps: download (from the server to the vehicle via Wi-Fi) and installation (internal to CP1 system in the vehicle). This bulletin will focus on FOTA for Denso Gen 4 audio systems (MID) and audio-navigation systems (HIGH) which utilize the 11.6-inch touch-screen display. Models with 7-inch dual screen display (Base) are not FOTA capable.

This bulletin outlines the procedure for performing FOTA updates successfully. These procedures involve:

- Assisting customers with FOTA -related concerns if they have been unsuccessful in performing the FOTA by themselves. (Possible vehicle or system concern.) \*
- Performing the FOTA update for customers who are not comfortable or need assistance with performing it themselves but have requested the Retailer install it\*
- Updating the firmware using a USB flash drive by following the steps outlined in TSB 15-261-20R “Reprogramming File Availability for Optimization of Gen 4 Denso CP1 Infotainment Systems” when FOTA cannot be performed due to the setup difficulties\*.

**CAUTION: VEHICLE SERVICING PERFORMED BY UNTRAINED PERSONS COULD RESULT IN SERIOUS INJURY TO THOSE PERSONS OR TO OTHERS.**

Subaru Service Bulletins are intended for use by professional technicians ONLY. They are written to inform those technicians of conditions that may occur in some vehicles, or to provide information that could assist in the proper servicing of the vehicle. Properly trained technicians have the equipment, tools, safety instructions, and know-how to do the job correctly and safely. If a condition is described, DO NOT assume that this Service Bulletin applies to your vehicle, or that your vehicle will have that condition.

**Subaru of America, Inc. is ISO 14001 Compliant**

ISO 14001 is the international standard for excellence in Environmental Management Systems. Please recycle or dispose of automotive products in a manner that is friendly to our environment and in accordance with all local, state and federal laws and regulations.

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\* **NOTE:** If a customer is simply requesting help with how to perform FOTA, NEVER share a copy of this bulletin. Instead, provide a copy of the appropriate customer instructions for FOTA available on Subarunet: Service Operations & Technical > Forms/Downloads page. See **Appendix A** later in this bulletin for more information.

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

**NOTES:**

- **REMINDER:** FOTA is available for MID and HIGH (Navi) systems with 11.6-inch display only.
- The currently available FOTA firmware version is not the same version available to Retailers for USB updating use. However, a system updated using FOTA can be further updated by using the USB update procedure. For additional details clarifying the scope of FOTA updates, review the 20MY Legacy/Outback Owner’s Manual Supplement’s additional information for the Center Information Display. The information is also be downloadable from: <https://www.subaru.com/owners/index.html> See **Appendix B** below for more information.
- FOTA updates are for the system firmware ONLY. Map updates are a separate function which the customer may update on their own by using either USB download or Map Over the Air Update (MOTA). Go to: [subaru-maps.com](http://subaru-maps.com) for more information.

Reference photos of each system faceplate are supplied below:



**SERVICE PROCEDURE / INFORMATION:**

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

The FOTA update process involves downloading and installing the update firmware therefore, time duration depends on signal strength and transfer rate performance. During installation, the infotainment system’s functionality will be restricted.

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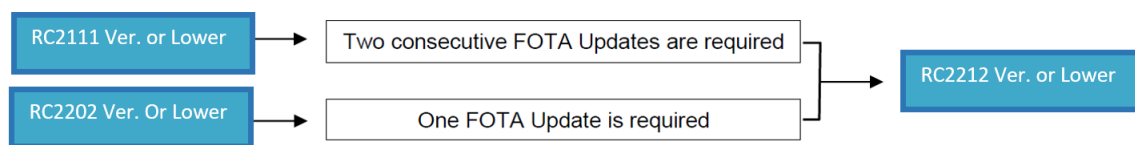
## Set-Up Instructions and CAUTIONS:

- Move the vehicle to an outside location where the engine can be safely started and kept idling during the update process.
- Never idle the vehicle in a closed space such as a garage, even if the garage door is kept open.
- Once the vehicle is in a safe location, be sure the vehicle is in Park (CVT) or Neutral (MT) and the parking brake is fully engaged.
- Open one or more windows to ensure fresh air is available.
- **Stay with the vehicle** until the update is completed.
- We suggest adjusting the climate controls to your desired settings in case they become unavailable during the update process.
- Unplug any devices, chargers, cables or other USB drives from the vehicle's USB and power ports.

**VERY IMPORTANT:** Before proceeding with the updating procedure, the currently installed version ID **MUST** be confirmed (Firmware Version Check) by following the steps below:

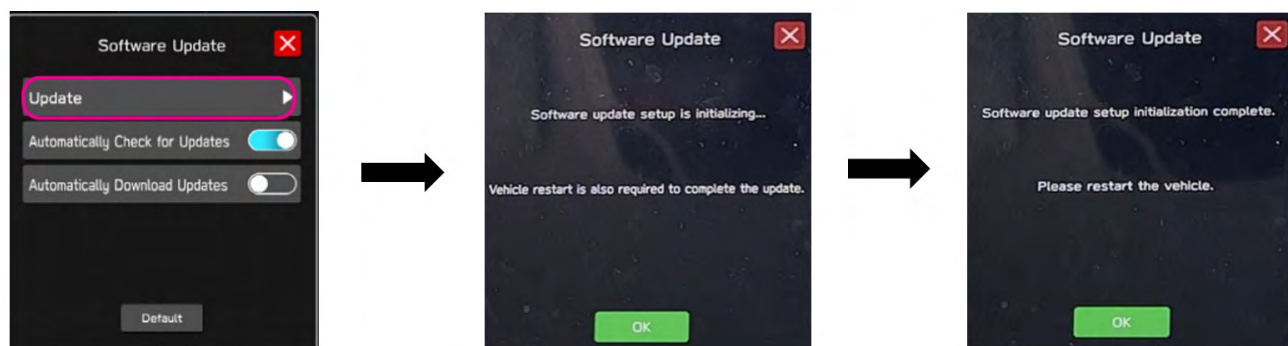
For vehicles on software versions prior to Ver. RC2202 (i.e., RC2111 or lower ), achieving a final target version of RC2212 via FOTA may require an additional FOTA software update. Due to limitations in the RC2212 FOTA's upgrade path, two consecutive FOTA updates will be prompted.

- The first FOTA update will bring the vehicle software to a compatible intermediate version between RC2111/lower and RC2212 (likely RC2202 or RC2208).
- Upon completion of the first FOTA, the system will automatically prompt for the second FOTA (Version RC2212) during the next ignition cycle (engine off to on transition ).



Please reference Software Version Table below for additional information.

Please take note: If you are required to perform another FOTA update as outlined above, the following pop-up will appear if the Second FOTA is Performed after the first step FOTA . For additional assistance, please see “APPENDIX D” of this TSB.



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



2) 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 (9xxx-xxx) signify the software version number. Examples:

- F11GHMxxx-xxx (**High** model software)
- F11GMMxxx-xxx (**Mid** model software)

If on a Legacy and Outback, the software version number

20MY Model

F11GHMxxx-xxx(**High** model software)

F11GMMxxx-xxx(**Mid** model software)

21MY Model

F31BHMxxx-xxx(**High** model software)

F31BMMxxx-xxx(**Mid** model software)

22MY Model

FB1SHMxxx-xxx(**High** model software)

FB1SMMxxx-xxx(**Mid** model software)

WILDERNESS F51XHMxxx-xxx(**High** model software)

WILDERNESS F51XMMxxx-xxx(**Mid** model software)

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Trim/Grade	MY	Installed Software Versions	Available Software Version
<b>HIGH/MID</b>	2020	042-380 (RC2011) 122-370 (RC2202)	<b>142-370 (RC2212)</b>
		072-582 (RC2105) 122-570 (RC2202)	<b>142-570 (RC2212)</b>
		112-680 (RC2111) 122-670 (RC2202)	<b>142-670 (RC2212)</b>
		122-780 (RC2202)	<b>142-770 (RC2212)</b>
		132-880 (RC2208)	<b>142-870 (RC2212)</b>
		142-980 (RC2212) 153-080 (RC2304)	<b>Not eligible for FOTA</b>
<b>HIGH/MID</b>	2021	040-980 (RC2011) 120-970 (RC2202)	<b>140-970 (RC2212)</b>
		071-182 (RC2105) 121-170 (RC2202)	<b>141-170 (RC2212)</b>
		111-280 (RC2111) 121-270 (RC2202)	<b>141-270 (RC2212)</b>
		121-380 (RC2202)	<b>141-370 (RC2212)</b>
		131-480 (RC2208)	<b>141-470 (RC2212)</b>
		141-580 (RC2212) 151-680 (RC2304)	<b>Not eligible for FOTA</b>
<b>HIGH/MID</b>	2022	060-781 (RC2103) 120-770 (RC2202)	<b>140-770 (RC2212)</b>
		070-882 (RC2105) 120-870 (RC2202)	<b>140-870 (RC2212)</b>
		110-980 (RC2111) 120-970 (RC2202)	<b>140-970 (RC2212)</b>
		121-080 (RC2202)	<b>141-070 (RC2212)</b>
		131-180 (RC2208)	<b>141-170 (RC2212)</b>
		141-280 (RC2212) 151-380 (RC2304)	<b>Not eligible for FOTA</b>
<b>Outback Wilderness HIGH/MID</b>	2023	060-981 (RC2103) 120-970 (RC2202)	<b>140-970 (RC2212)</b>
		071-082 (RC2105) 121-070 (RC2202)	<b>141-070 (RC2212)</b>
		111-180 (RC2111) 121-170 (RC2202)	<b>141-170 (RC2212)</b>
		121-280 (RC2202)	<b>141-270 (RC2212)</b>
		131-380 (RC2208)	<b>141-370 (RC2212)</b>
		141-480 (RC2212) 151-580 (RC2304)	<b>Not eligible for FOTA</b>

If on a WRX, the software version number:

2022-2023MY Model

F21SHMxxx-xxx(**H**igh model software)

F21SMxxx-xxx(**M**id model software)

*Continued...*



Trim/Grade	MY	Installed Software Versions	Available Software Version
<b>HIGH</b>	2022-2023	101-770 (RC2202)	141-770 (RC2212)
		121-980 (RC2202)	141-970 (RC2212)
		132-080 (RC2208)	142-070 (RC2212)
		142-180 (RC2212)	Not eligible for FOTA
<b>MID</b>	2022-2023	101-770 (RC2202)	141-770 (RC2212)
		121-980 (RC2202)	141-970 (RC2212)
		132-080 (RC2208)	142-070 (RC2212)
		142-180 (RC2212)	Not eligible for FOTA

If on a BRZ, the software version numbers:

22MY Model

F41CMMxxx-xxx(Mid model software)

23MY Model

FG1CMMxxx-xxx(Mid model software)

Trim/Grade	MY	Installed Software Versions	Available Software Version
<b>MID</b>	2022	121-770 (RC2202)	141-770 (RC2212)
		122-080 (RC2202)	141-870 (RC2212)
		121-870 (RC2202)	
		132-180 (RC2208)	142-170 (RC2212)
		142-280 (RC2212)	Not eligible for FOTA
<b>MID</b>	2023	120-580 (RC2202)	140-570 (RC2212)
		130-680 (RC2208)	140-670 (RC2212)
		140-780 (RC2212)	Not eligible for FOTA

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.

## FOTA REPROGRAMMING PROCEDURE

### Step 1- Connect the vehicle Subaru to an active, secure Wi-Fi connection:

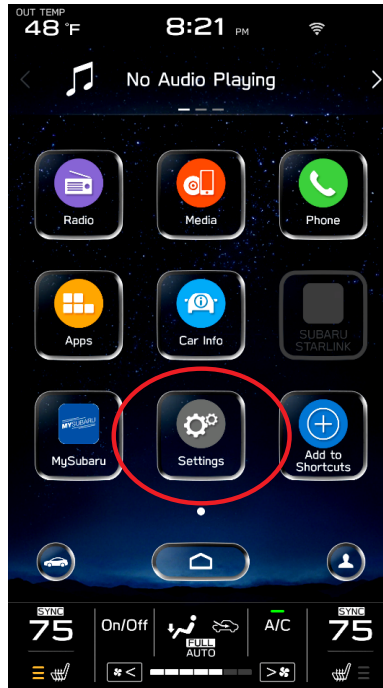
- You can use one of two Wi-Fi sources:
  - The retailer’s secure Wi-Fi (if it reaches the vehicle)
  - A cellphone’s Wi-Fi hotspot (if the phone and data plan are capable).

**NOTE:** This update uses at least 100MB of data so, choose a Wi-Fi connection with no data restrictions. Wi-Fi connections requiring acceptance or login to a web page (such as a coffee shop or hotel) cannot be used.

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- To connect to the preferred Wi-Fi source, follow these steps:

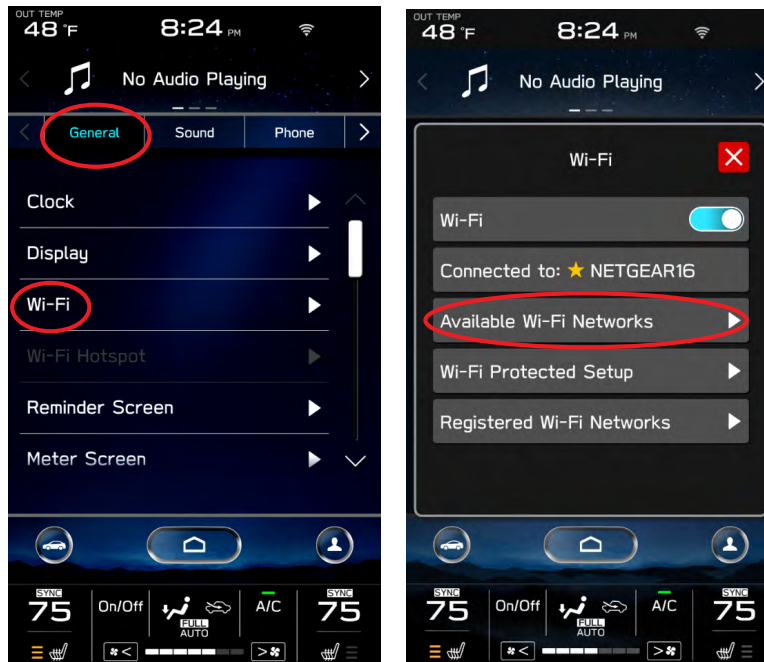
1. Go to **Settings** on vehicle display screen.



2. Select **General**.

3. Select **Wi-Fi**.

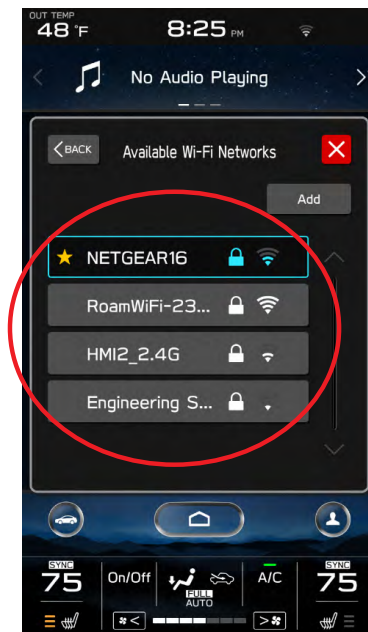
4. Ensure Wi-Fi is turned on and then select **Available Wi-Fi Networks**.



5. Select the Wi-Fi network of choice (and enter the password if required).

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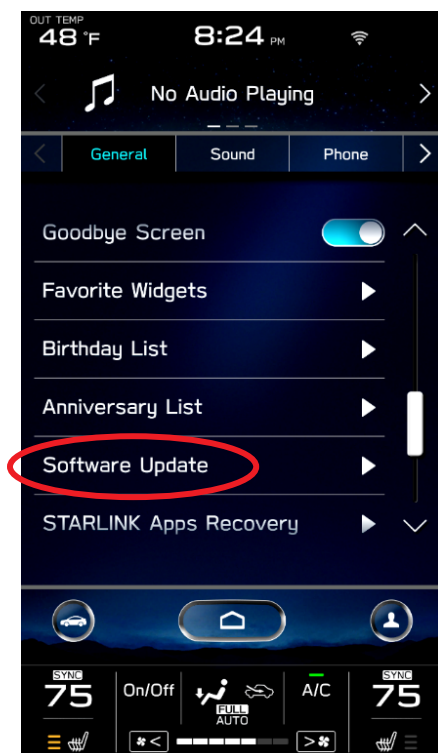
**NOTE:** Take note of the Wi-Fi signal strength in the top right corner of the screen. If only 1-2 bars are displayed with the selected network, download speeds will likely be slow. Choose a stronger network if possible or move the vehicle closer to the Wi-Fi source.



**NOTE:** See **Appendix C** for troubleshooting tips in case an error is displayed.

## STEP 2– DOWNLOADING AND INSTALLING UPDATES

1. Next, update the STARLINK system.
2. Go back to the **General** screen under **Settings**,
3. Scroll down and select **Software Update**.

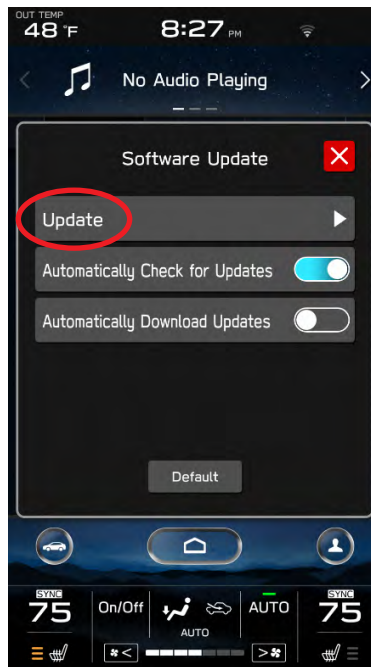


**NOTE:** At this point, the user can choose to enable “**Automatically Check for Updates**” and “**Automatically Download Updates**” so in the future, the vehicle will advise the customer when an update is available.

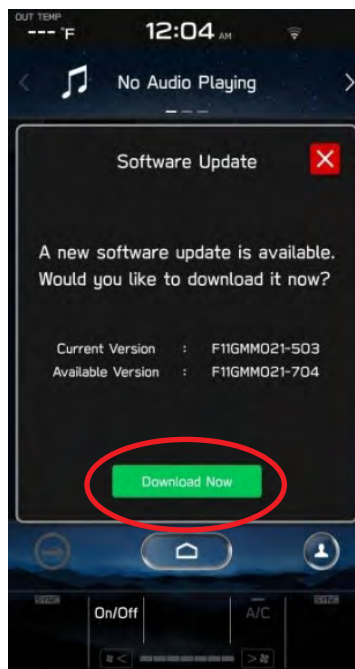
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4. For this update procedure, select **Update**.



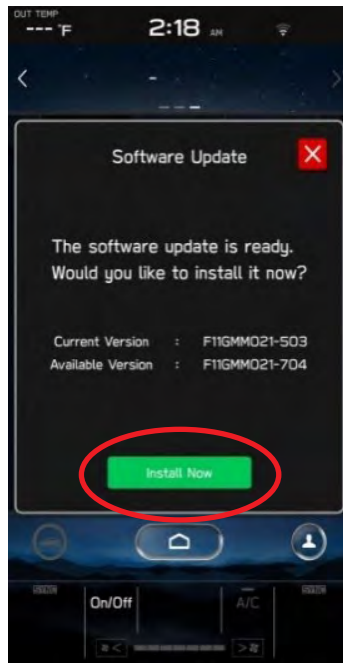
5. If an update is available, select **Download Now**.



Once the download is complete, **it is recommended to adjust the climate controls to the desired settings** in case they become unavailable during the update process.

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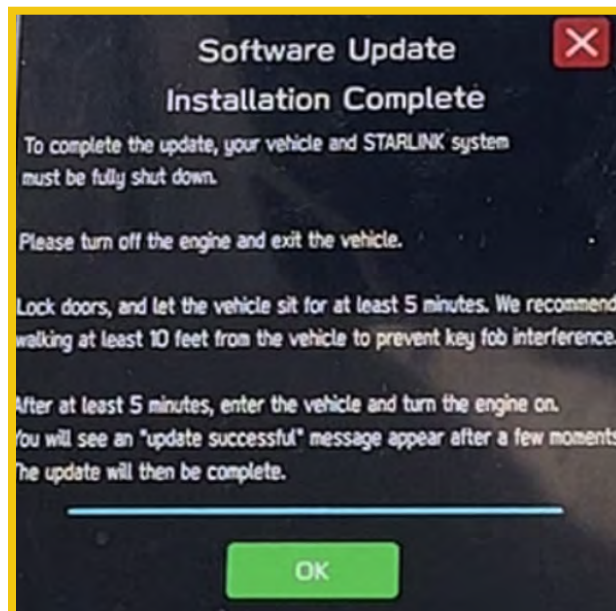
6. When ready, select **Install Now**.



7. The install process can take up to 40 minutes.

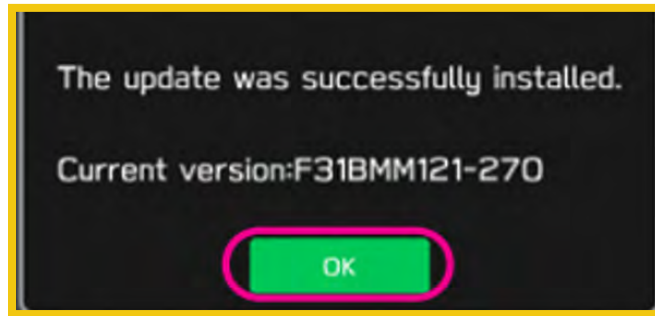
If the display screen goes blank during the installation process, leave the vehicle on, and allow the system to restart. After up to two minutes, you will receive the message: “The software update is ready. Would you like to install it now?”. Press OK to continue.

**IMPORTANT:** Once complete, the below pop up will be displayed. Press OK then, switch the vehicle OFF, exit the vehicle, lock all doors including the rear gate (if equipped) and **move the key fob away from the vehicle at least 10 feet to enable affected systems to go to sleep. WAIT AT LEAST 5 MINUTES before proceeding to 8. below.**



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8. After 5 minutes, restart the vehicle. A “**software update complete**” message should be displayed signifying the successful update is now complete. If this message is not displayed, try switch the car OFF again and waiting another 5 minutes before restarting.



9. Switch the engine OFF then open the driver’s door to turn the system off and complete the procedure.

**NOTE:** See **Appendix C** below for troubleshooting tips if any errors are encountered.

**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 Code
DENSO CP1 VERSION CHECK ONLY	A031-178	0.2	ZTZ-48 (MID)
DENSO CP1 FOTA / USB UPDATE	A031-173	0.6	ZTZ-48 (HIGH)

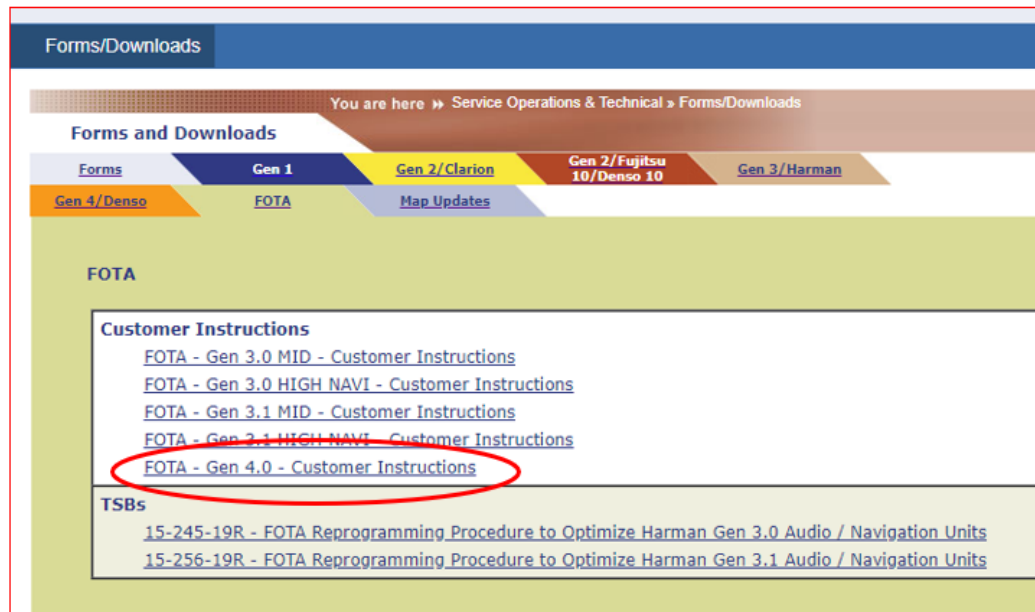
**IMPORTANT REMINDERS:**

- SOA strongly discourages the printing and/or local storage of service information as previously released information and electronic publications may be updated at any time.
- Always check for any open recalls or campaigns anytime a vehicle is in for servicing.
- Always refer to STIS for the latest service information before performing any repairs.

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## Appendix A

Links to Customer self-install instructions for FOTA Customer Instructions will be added to the Subarunet Service Operations & Technical > Forms/Downloads page when they become available. Once the links are available and to enhance customer satisfaction, consider providing customers with a copy of the appropriate instructions for their specific system along with access to the retailer's secure customer Wi-Fi network. Doing so will enable customers to try performing the FOTA update on their own while at the retailer.



**REMINDER:** Retailers performing these updates are to follow the Service Procedures outlined in this bulletin ONLY. Always follow the applicable service procedures as outlined in this and other Service Bulletins. The additional steps and requirements supplied in Service Bulletins support a Subaru Technician's proper diagnosis and repair of any customer concern.

## Appendix B

The currently available FOTA software version is not the same version available to Retailers for USB updating use. However, the system which has been updated via the FOTA can be further updated using USB update. To clarify the differences, both the USB contents and FOTA contents are described together in the list below. USB update is including all items and those items included only in the USB (but not in the FOTA) updates are described as "USB ONLY."


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**List of Conditions, Symptoms and improvements Addressed By this update**

**USB ONLY** update method:


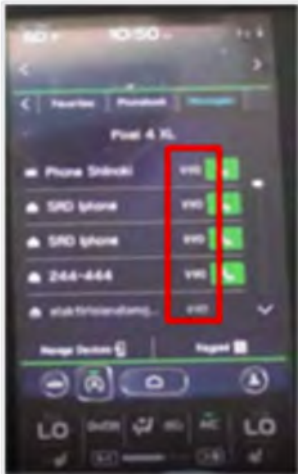

Please note any symptoms listed below would require USB update due to the limitations of FOTA update process.

**Symptoms to be addressed by Update RC2212:**



No.	Conditions/Symptoms to be improved
1	Unexpected CP1 system reboot resulting from an inter reset to sync internal communication with Bluetooth module.
2	CID restarts itself right after engine is started.
3	CID resets and reboots.
4	<p>4 Right after starting up, the CID is blank only displaying the background without icons.</p> 
5	Loss of audio output for AM/FM
6	Loss of audio output from all sources. Voice from telematics, meter buzzer or beep sound are not affected
7	Sound is lost when playing Bluetooth audio even though the screen is displayed without problem. It can occur when the audio source is switched repeatedly between the Bluetooth and others.
8	SXM radio output is lost after terminating a handsfree phone call.
9	No audio played back when using CarPlay.
10	Sound volume control does not work while using Android Auto.
11	Cyclic short noise like a drilling or vibration is heard from speakers.
12	After the engine is started, a message of “Loading Navigation...” continues to be displayed, but the map is not displayed.
13	Vehicle position on navigation map erroneously moves to zero degrees latitude and zero degrees longitude (0°N 0°E or west of Africa in the Atlantic ocean)

*Continued...*



No.	Conditions/Symptoms to be improved
14	<p>Navigation map scale is changed to the lowest setting (globe is displayed).</p> 
15	<p>When “Call” button is pressed in “Confirm Destination” screen of Navigation system (to call the destination site,) the call can be made but the screen does not transit to phone call screen.</p>
16	<p>When selecting “Phone-&gt;”Message,” message received time is displayed incorrectly as “1/1/0.” It can occur with an Android phone with a specific Android OS (Pixel 6, Pixel4a, Pixel4XL, Xperia etc. ) in which time zone data is attached to the message receiving time.</p> 
17	<p>Even when using the same mobile device that was paired previously, a message of “Are you sure you want to activate this profile?” is prompted and confirmation is needed to activate the device.</p>
18	<p>Cover art of previous music is displayed when playing music without cover art in USB audio. It can occur when music with and without cover art is mixed and stored together a single USB.</p> 

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No.	Conditions/Symptoms to be improved
19	Command “Play Artist ” to play all music of particular artist in USB music mode, only the first item listed for the artist is played.
20	<p>While playing music from USB, the music title displayed on the screen differs from what is being played. It can occur by the following sequence of operation:</p> <ol style="list-style-type: none"> <li>1. Display a list of music on the USB audio screen.</li> <li>2. Change the screen to other screen than the music list.</li> <li>3. The music play is continued and moved on to a music in a different music list.</li> <li>4. Change the screen back to the music list in the USB audio screen.</li> </ol>
21	<p>In USB music mode, some music is skipped and the music in the next folder is started. Under following condition</p> <ol style="list-style-type: none"> <li>1. Play USB music in “Folder” mode with repeat mode setting “Repeat All.”</li> <li>2. Turn Ignition Switch off then open/close door and keep it locked for more than 5 minutes.</li> <li>3. Turn Ignition Switch on and operate “Track Up/Down” on the audio system.</li> </ol>
22	The mode does not switch to Media, after “Media” icon is selected.
23	<p>When selecting shortcut for SXM channel on “Home” screen, the screen is changed to SXM but no sound is coming or no channel name is displayed.</p> 
24	<p>When using FOTA service to update the software by selecting “Setting” &gt; “Software Update,” a message of “A new software update is available. Would you like to download it now?” is displayed but the downloading does not start after pressing “OK.” When this symptom occurs, it comes back to the “Software Update” screen. The downloading can be started by pressing the “Update” on the “Software Update” screen. (Temporary solution.)</p> 
25	When Pre-Collision Braking System is activated, a message of “Obstacle Detected” is displayed on the information bar and does not go away
26	Preset SXM channel cannot be selected by satellite switch on the steering wheel.

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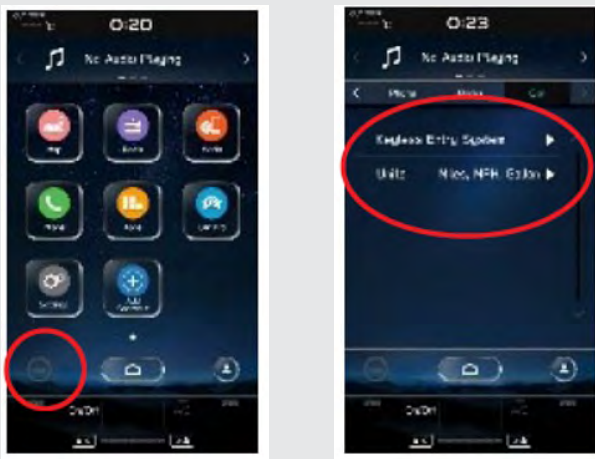
No.	Conditions/Symptoms to be improved
27	Even after setting the date of next scheduled maintenance in Reminder screen, the date is displayed as "--". It can occur when only the date of schedule maintenance is set without entering distance.
28	When pop up screen (like suggestion of taking a rest) is displayed on CarPlay screen, the screen does not transit to proper screen (like destination search screen) and goes back to CarPlay screen even after pressing "Yes."
29	<p>When selecting a music by or using voice recognition system, a wrong music that had been played at the end of previous time is played. It can occur by the following sequence of operation:</p> <ol style="list-style-type: none"> <li>1. Play music in USB audio mode.</li> <li>2. Change the source from USB to another one.</li> <li>3. Turn Ignition Switch off then on.</li> <li>4. Start to play music by pronouncing or though voice recognition system.</li> </ol>
30	<p>A wrong search location is used on TravelLink function. Example of the symptom</p>

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**List of New Functions and Enhancements Included in Update RC2212:**

No.	Conditions/Symptoms to be improved
1	<p>New shortcut button(s) are added in button bar of “Home” screen.</p> <p>1. AVH (Auto Vehicle Hold) ON/OFF Button.</p> <p>2. Auto Start Stop ON/OFF Button. (If equipped)</p> <p>For vehicle equipped with AVH and Auto Start stop:</p>  <p>For vehicle equipped with AVH (only):</p> 
2	<p>Air conditioner control interface is changed to that of 23MY.</p> <p>Current ( -22MY) screen transition:</p>  <p>23MY screen transition:</p> 

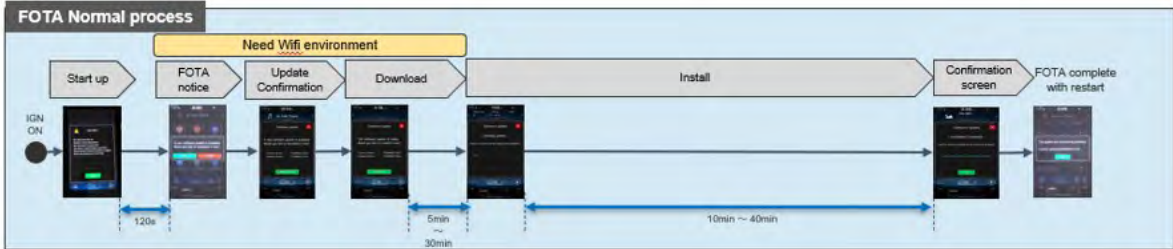
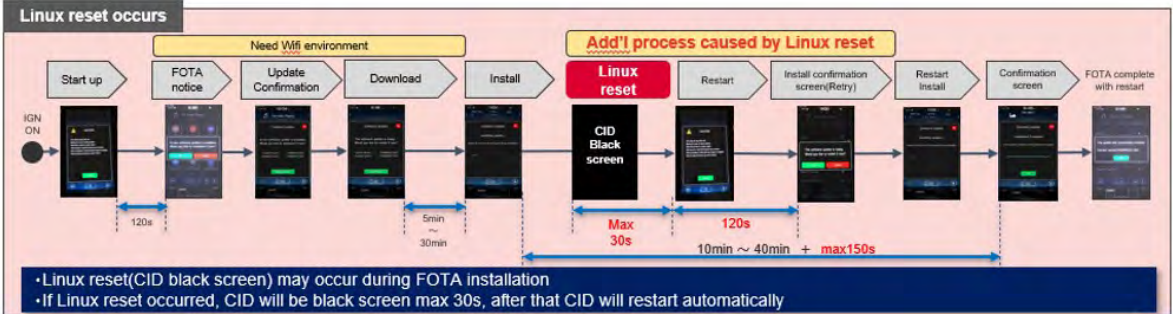

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No.	Conditions/Symptoms to be improved	Update Method
1	<p><b>No image on CID (Center Information Display) or Black display condition followed by CP1 reboot resulting from CCU (Cockpit Control Unit) internal communication error or due to listed below actions:</b></p> <ul style="list-style-type: none"> <li>• CP1 forced reboot by pressing the “Vol” button continuously or by performing factory reset operation</li> <li>• LCD in the combination meter goes blank (black) momentarily during driving</li> <li>• LCD in the combination meter goes blank (black) after battery repair</li> </ul> <p><b>NOTE:</b> Rear View Camera function is not impacted by this condition.</p>	USB ONLY
2	CP1 system and combination meter reboot again following a forced reboot, when smart phone connected via USB port.	USB ONLY
3	No sound after ignition-on or CP1 reboot	USB ONLY
4	Vehicle location is not displayed correctly in Navigation screen.	USB ONLY
5	Ring tones and the voice from the other end on the hands-free phone call cannot be heard	USB ONLY
6	Android Auto does not function. “Android Auto is Disconnected” is displayed with Launch Error message.	USB ONLY
7	Time setting is not possible in Manual mode	USB ONLY
8	<p>Vehicle Setting Icon in &lt;Home&gt; menu is grayed out. Menu list in the “Car” tab in the Setting Menu is not displayed.</p> 	USB ONLY
9	Incorrect translation for X-Mode in Spanish language	USB ONLY

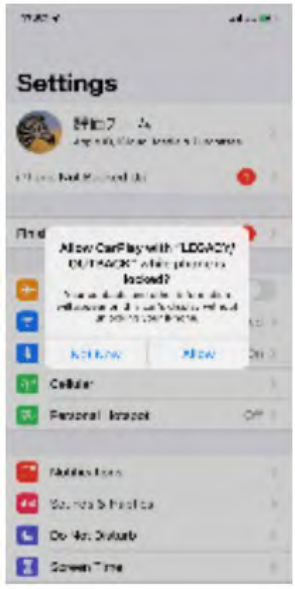
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**USB or FOTA update method:**

No.	Conditions/Symptoms to be improved
1	<p>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.</p>  <p>However, in rare case, the CCU restarts itself* during installation.</p>  <p><b>Note*)</b> 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.</p> 


*Continued...*

No.	Conditions/Symptoms to be improved
2	<p><b>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:</b></p> <ul style="list-style-type: none"> <li>• Loss of Bluetooth or Wi-Fi connection</li> <li>• Application crash during Bluetooth audio streaming</li> <li>• Launching CarPlay or Android Auto application, after the smart phone is connected</li> <li>• Removing USB connection between the iPhone's and CP1 during active CarPlay session</li> <li>• STARLINK application crash</li> <li>• Performing USB map update using Bluetooth connection with a smart phone carrying STARLINK Companion App map update data</li> <li>• When ACC is turned OFF and ON, while STARLINK Companion App map update is being performed</li> <li>• Navigation application crash</li> <li>• "Service Appointment Scheduler" application crash due to a communication error between DCM and CCM</li> <li>• Re-inserting USB Flash drive within 2-3 seconds</li> <li>• Removing USB Flash drive while playing back the data from the USB Flash drive</li> <li>• CID display loses images (black screen) and reboots itself after ACC (or Ignition) is turned OFF and ON.</li> </ul> <p><b>NOTE:</b> Rear View Camera function is not impacted by this condition.</p>
3	Cannot finish registration, DMS user registration
4	Cannot select Wi-Fi to ON, button is gray out
5	Intermittent loss of Bluetooth connection
6	Phone contacts transfer fails, when pairing iPhone with Bluetooth
7	Blank display when connecting CP1 to Wi-Fi network with long name (over 32 characters)
8	<p>While using Apple CarPlay, "SUBARU" is displayed on the iPhone Setting menu instead of vehicle name &lt;LEGACY/OUTBACK&gt;</p> 
9	CarPlay stopped working after hanging up a hands-free phone call

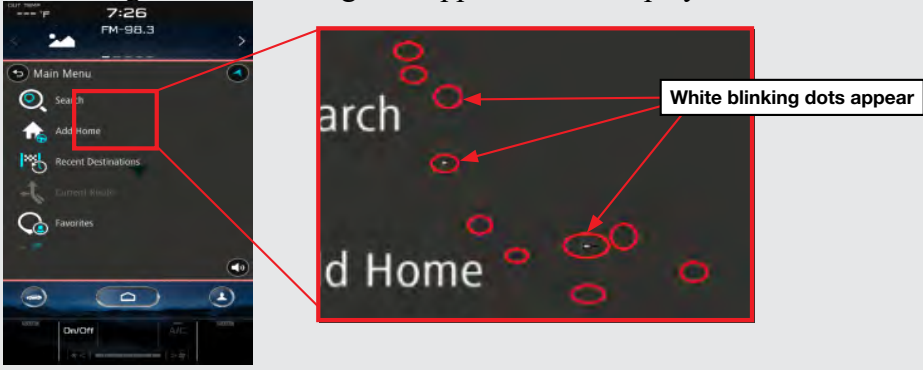
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No.	Conditions/Symptoms to be improved
10	Screen is no changed to Composer or Album screen, iPhone /iPod connected as iPod mode
11	<p>CID shows multiple images simultaneously</p> 
12	Flickering screen on Climate control screen
13	<p>CID freezes/locks after startup  <b>NOTE:</b> Rear View Camera function is not impacted by this condition</p>
14	The CID (Center Information Display) freezes/locks during Wi-Fi configuration
15	Move (push ▲ ▼ repeatedly) and Select in Map list, then freeze and restart itself
16	Map freezes while Navigation guidance is being provided
17	Navigation operation restarts while driving
18	Reboot in Factory diag. mode, when removing USB drive or changing to other USB drive
19	CP1 system and combination meter reboot again following a forced reboot, when smart phone connected via USB port
20	CP1 system reboots following ignition OFF and ON
21	Switching to Navigation demo mode after CP1 reboots during Bluetooth pairing
22	CP1 system reboots, while selecting or using Map feature to configure the driving route
23	CarPlay does not function with USB connection
24	Cannot select Mute ON/OFF, when paused music in CarPlay
25	Sound is muted after hanging up a hands-free phone call.
26	Android Auto has no sound, after phone call with Google voice recognition, while Android Auto music is playing.
27	No sound in SXM, following low or dead battery
28	SXM playing start delays (around 50 seconds), after starting the system
29	When playing AM/FM Radio station, try to change to SXM channel (registered by Parental Control) by using steering switch, No SMX cannel is displayed.
30	Replay function of SXM, right position of Slider bar cannot be moved
31	Audio has no sound, when select display off mode
32	Cannot change Audio volume or Audio source
33	Navigation guidance directions are not spoken
34	When iPhone phone book transfer fails, system repeats Bluetooth disconnection and connection
35	<Media> button does not function in <Home> menu
36	<Home> cannot be selected
37	Radio station moves unexpectedly due to momentary flick or brush of the touch screen

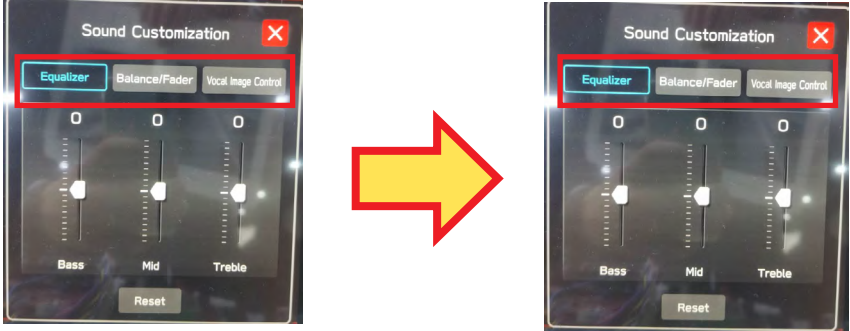
*Continued...*

No.	Conditions/Symptoms to be improved
38	Temperature setting cannot be controlled by Voice Recognition in Canadian (C*) specification
39	Preset outline is not shown following station selection using steering switch 
40	When restart Engine, while downloading map data through Wi-Fi, <Major Update>and/or <Up to Date> button is not displayed
41	If destination set by voice recognition, after restart Engine, Navigation screen not displayed
42	Steering switch button doesn't work to select preset station or control music playback
43	Preset station isn't selected on the screen, when using steering switch button
44	USB replay following system reboot doesn't start from the same file
45	Sorting criteria is changed in USB music. Folders, title change to file name. Albums, title change to trac number
46	Audio source will change to Android Auto, while music is playing in USB
47	Cannot display music list in USB audio
48	Songs list is not displayed in USB (around 5000 music and more)
49	Others. Improvement in button design & location and Icon display pattern, etc.

**List of Conditions, Symptoms and improvements Addressed By past updates**

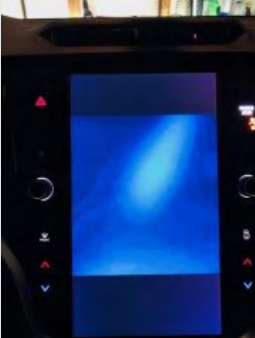
No.	Symptom to be improved	FOTA
1	Several minutes after Engine start, Center Information Display (CID) reboots itself	Yes
2	After extended usage, white blinking dots appear on the display. 	USB ONLY

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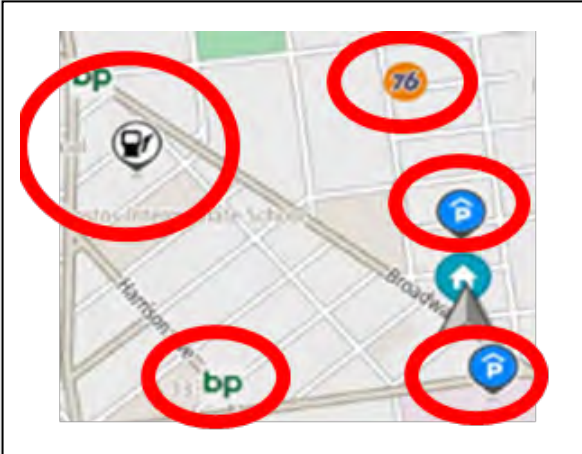
No.	Symptom to be improved	FOTA
3	The screen freezes or becomes blank (black screen,) after a CD is inserted. This symptom occurs when a CD with over 99 characters of Artist Name Data is used.	Yes
4	CID is rebooted. In case the system was shut down with the SMX being selected as an audio source previously, the CID is rebooted after the next start up.	Yes
5	SXM does not resume playing instantly. In case the system was shut down with the SMX being selected as an audio source previously, the SMX does not play instantly after the next start up. (It takes more than 20 seconds until the SMX resumes after the opening screen has appeared, whereas it takes approx. 5 seconds normally.)	Yes
6	Radio station does not resume playing. In case the system was shut down with the Radio being selected as an audio source previously, the sound does not come back at the next start up. Once the audio source is changed to SXM, the SXM plays normally but, if it is changed back to the Radio, the sound does not still come back.	Yes
7	Equalizer setting returns to default setting. After ignition switch is turned Off and ON, the equalizer returns to default setting.  	Yes
8	The media source cannot be changed. Even if the <Radio> or the <Media> is selected, the media source does not change. Also, voice recognition stops functioning at the same time. It occurs when the volume setting is continuously changed during the specific process of booting the CID.	USB ONLY
9	Navigation screen goes blank (black screen) after disclaimer display. In case the system was shut down with the Navigation map being displayed, the Navigation goes to blank (black screen) soon after the disclaimer has been displayed.	Yes
10	CID repeats rebooting. After setting a destination on the Navigation system, the CID repeats rebooting.	Yes
11	CID rebooting while using CarPlay. Using Pandora App via CarPlay, the CID is rebooted.	Yes

*Continued...*





No.	Symptom to be improved	FOTA
12	Bluetooth cannot be reestablished (on certain smart phones.) With Android Auto the Bluetooth connection cannot be reestablished automatically once it is disconnected (depending on smartphone device.)	Yes
13	CarPlay connection cannot be established. When connecting iPhone via USB, "CarPlay Unavailable" is displayed and the CarPlay does work.	Yes
14	HOME screen goes to blank When the screen is switched from Camera mode to HOME, no item is displayed (as shown in the photo.) 	USB ONLY

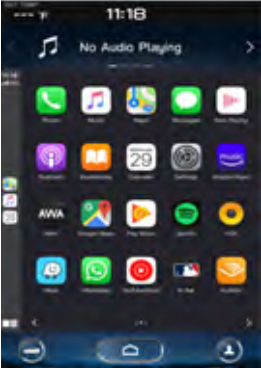
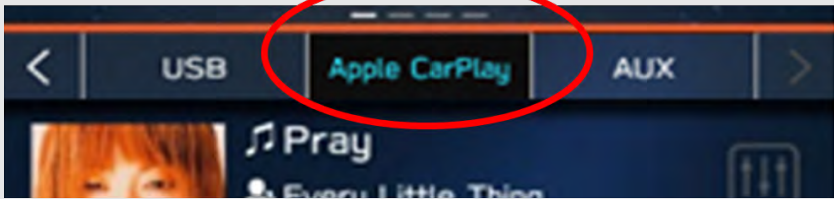
**List of New Functions and Improvements Included In past updates**

No.	New Function / Improvement:	FOTA
1	The last time customized map orientation setting is memorized even with ignition off/on. Once the customer changes the orientation setting of the map, the system automatically resumes the setting even after the ignition has been turned off/on.	Yes
2	Pin display of POI is available. 	Yes

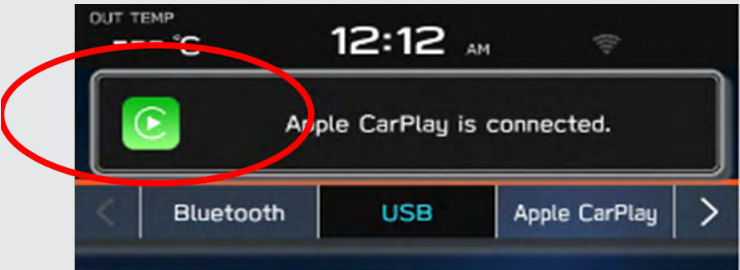
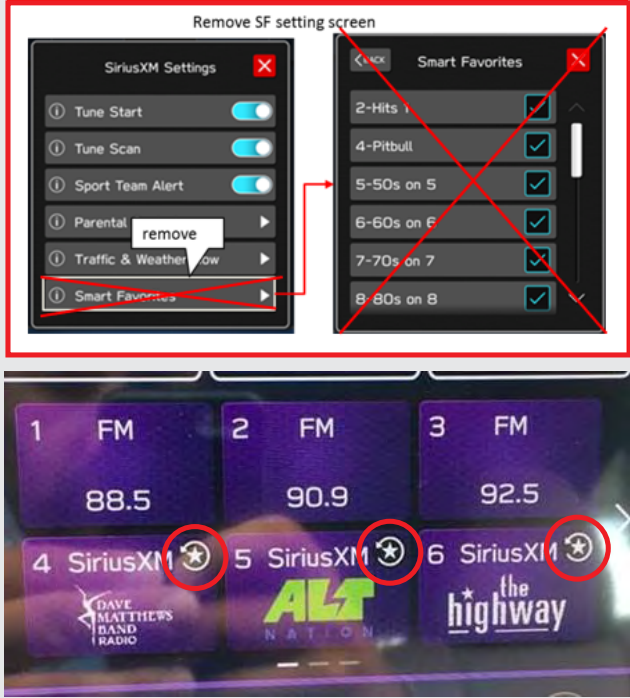
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No.	New Function / Improvement:	FOTA
3	<p>In the 2D and 3D HU display mode, the own vehicle position icon on the Navigation map is easier to be recognized.</p> <p>Icon size: 9mm(0.35in) &lt;instead of 7mm(0.28in)&gt;  Icon color: Dark blue &lt;instead of Blue&gt;  Icon position (with route guidance): The icon stays at the same position as that without route guidance. The position is located 9mm(0.35in) higher than that of previous version.  Icon position (without route guidance): The icon stays at the same position as that with route guidance whereas the previous version icon was displayed lower position than that with route guidance.</p>	Yes
4	<p>ISS (Auto start stop) button is moved to upper layer in the Car Setting menu. By touching the “Car Setting” icon, Auto Start Stop setting menu and the Cruise Control Acceleration Characteristics selection menu can be accessed immediately, whereas the previous version needed to select “Others” in the Car Setting screen to access these menus.</p> 	USB ONLY
5	<p>HVAC control buttons of base grade are displayed larger and easy to see.</p> 	USB ONLY
6	<p>Time zone and Summertime are automatically selected. Default setting of clock setting is Auto (Time zone is changed according to the vehicle location, and the Summertime is automatically set according to the calendar)</p>	Yes

Continued...

No.	New Function / Improvement:	FOTA
7	<p>Direct selection of clock setting.  Clock setting can be selected by touching the clock display in the status bar.</p>	Yes
8	<p>Hold displaying Album Art even with vehicle in motion.  The Album Art that is displayed whenever music is played on the audio system keeps displaying even after the vehicle is in motion (the speed signal is inputted.)</p>	Yes
9	<p>CarPlay screen is extended to full screen.  CarPlay screen is expanded from half size (horizontal) to full screen (vertical.)</p> 	Yes
10	<p>Add new CarPlay or Android Auto tab to Music screen  When using CarPlay or Android Auto, “CarPlay” or “Android Auto” tab will appear on the Media tab bar. By selecting this tab, music data and metadata can be browsed.</p> 	Yes
11	<p>&lt;Turn by Turn&gt; is added to information and meter.  When using route guidance with CarPlay navigation, &lt;Turn by Turn&gt; descriptions will be displayed both in the Information bar of CID and in the MID located in the center of the combination meters.</p>	Yes

*Continued...*

No.	New Function / Improvement:	FOTA
12	<p>Direct select CarPlay button is available in the Information bar.            Buy touching the CarPlay button located in the upper part of CID, the CarPlay menu can be accessed easily.</p> 	Yes
13	<p>CarPlay connection status can be retained even after Ignition off/on.            In case the system was shut down with the CarPlay being connected previously, the system automatically resumes the connection at the next start up.</p>	Yes
14	<p>Improvement in the &lt;Siri&gt; Voice Recognition            The starting of &lt;Siri&gt; Voice Recognition function can be ready faster.</p>	USB ONLY
15	<p>Gracenote database update            Up to Nov 2019 database</p>	USB ONLY
16	<p>1. Sirius XM Smart Favorites menu has been removed from SiriusXM Settings</p>  <p>2. Going forward, the first 10 set Sirius XM presets are now smart favorites by default            3. Smart favorite channel has “star” added to the preset button</p>	USB ONLY

Continued...

## Appendix C

### TROUBLESHOOTING:

#### 1. What if a secure Wi-Fi connection cannot be established?

Tips:

- a. Go back to **Step 1** instructions in this document and confirm correct information is being used for the following items:
  - i. Wi-Fi device name (SSID)
  - ii. Wi-Fi password
- b. Confirm user has not reached the maximum allowance for the number of connected devices
- c. Confirm Wi-Fi signal is strong
- d. Confirm other devices can be connected to the Wi-Fi network being used.

#### 2. If you receive one of the following two messages during the update process:



**Tips:**

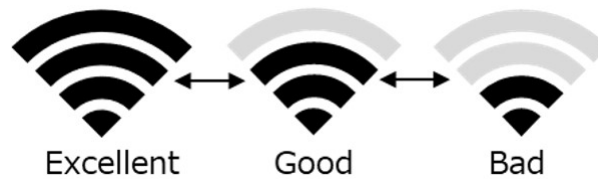
- a. Check the internet connection to ensure it is active and shows full signal strength.
  - i. Select General tab under “Setting” screen and change the “Wi-Fi” to Off once then turn it back to On again.



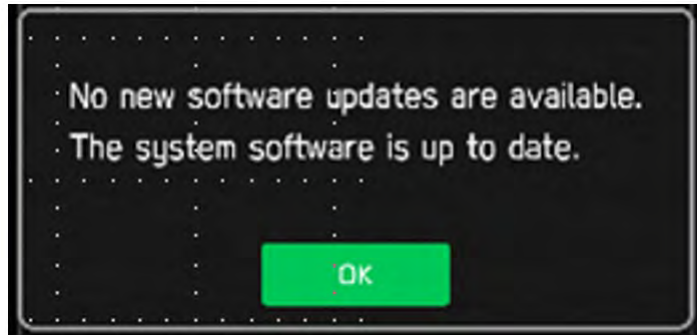
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- b. Try moving the vehicle closer to the WiFi source or if not possible, try a different WiFi connection such as a mobile hotspot.



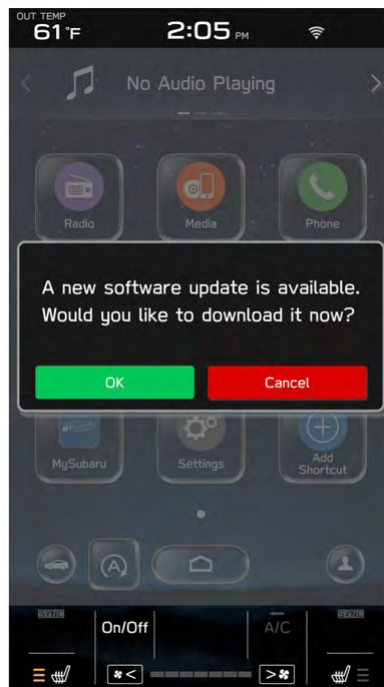
3. If the system says I'm up to date when checking for updates:



*Tips:*

- a. If current software version is the latest, you don't need an update and no action is necessary.  
b. If the software version is not the latest, you are likely not eligible for FOTA update at this time. Please proceed with USB update following TSB 15-261-20.

4. If the "OK" button does not respond when I begin the update process:



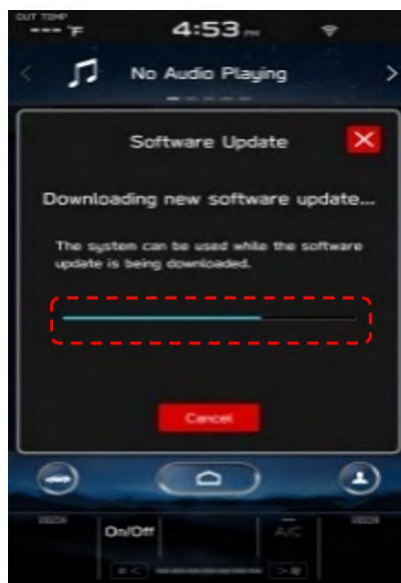
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**Tips:**

- a. If CarPlay application is running at the time the pop-up screen comes up, the screen is being disabled for OK operation. Please press the home button on the display, go to Settings, Software Updates, Update, and begin again.
  
- b. If this version is not shown, ensure the clock time is correct. b) The same steps are followed for other cases. Please press the home button on the display, go to Settings, Software Updates, Update, and begin again.



**5. If the “progress bar” does not progress after selecting “Download” or, if you receive a “Connect to Wi-Fi” popup while downloading:**

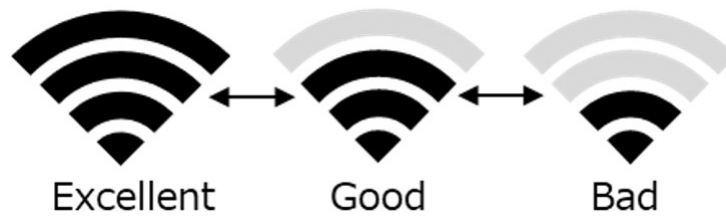


**Tips:**

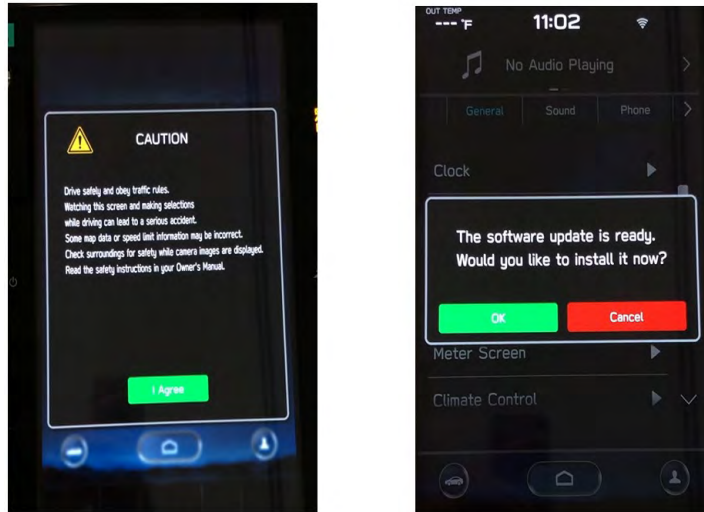
- a. Check your internet connection to ensure its active and shows full bars of connectivity.
- b. Try moving the vehicle closer to the Wi-Fi source. If that is not possible, try a different Wi-Fi

***Continued...***

connection such as a phone hotspot.



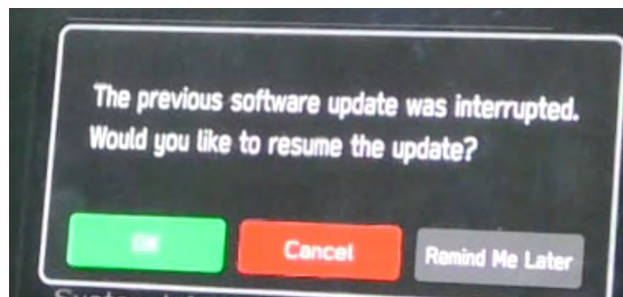
**. 6. If you encounter a blank screen and the update restarts during the installation process:**



**Tips:**

- a. If the display screen goes blank during the installation process, leave the vehicle on and allow the system to restart. After up to two minutes, you will receive the message: “The software update is ready. Would you like to install it now?”. Press OK to continue.

**7. If you receive the following message during the update:**



**Tips:**

- a. The above message will display if the vehicle is turned off during the software update process. Select “OK” to resume the process.

*Continued...*

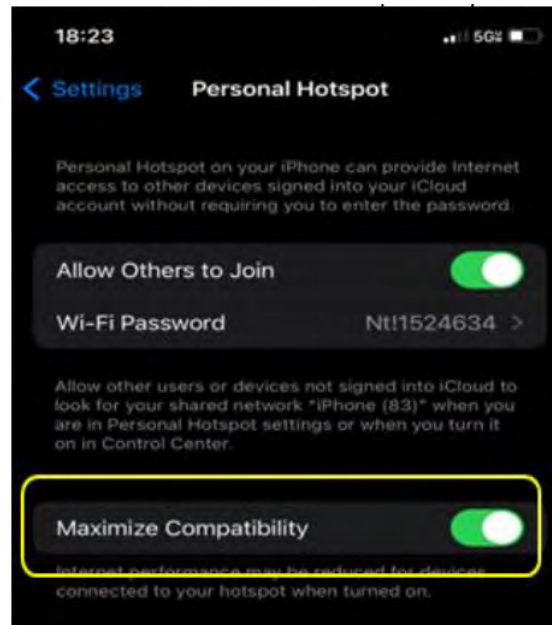
## 8. CP1 connectivity issues observed when tethered via iPhone hotspot (Phone as Modem/Wi-Fi Hotspot).

iPhone hotspot, particularly in iPhone 12 and later models, prioritizes 5 GHz Wi-Fi connections, while CP1 is designed for 2.4 GHz networks. This mismatch can lead to connectivity problems.

Resolution:

1. iPhone Settings: Advise the customer to adjust their iPhone hotspot settings as follows:

- Navigate to Settings > Personal Hotspot.
- Enable Maximize Compatibility.

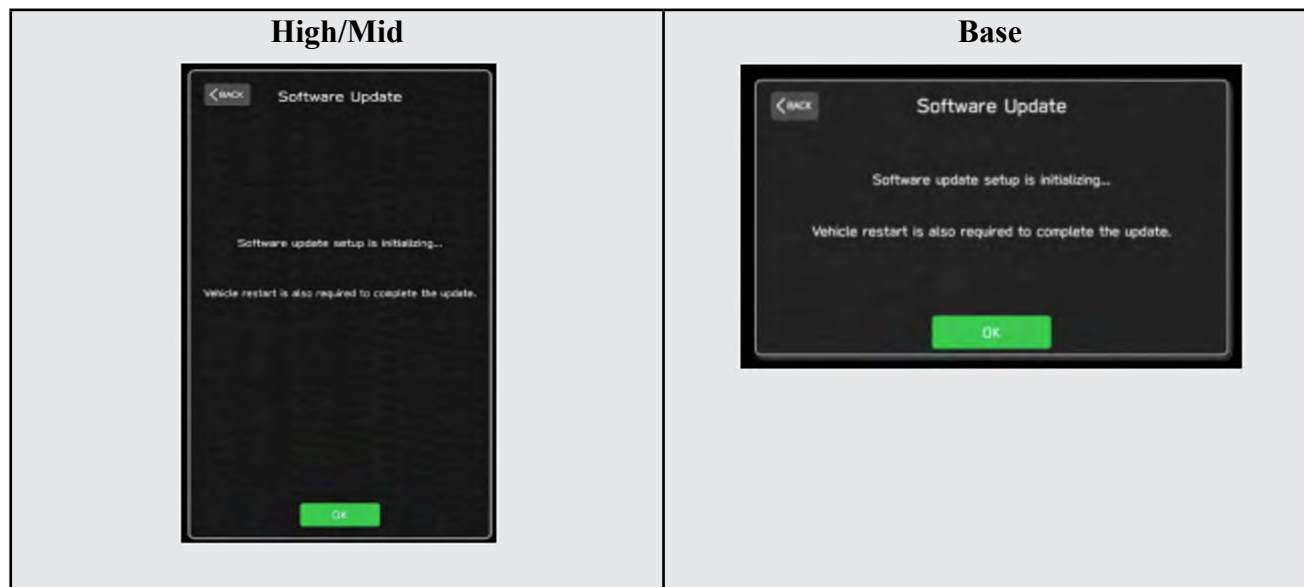


2. Frequency Confirmation: Verify the connected network on the CP1. Ensure it's operating on the 2.4 GHz band. If not, manually select the 2.4 GHz network option on the CP1, if available.

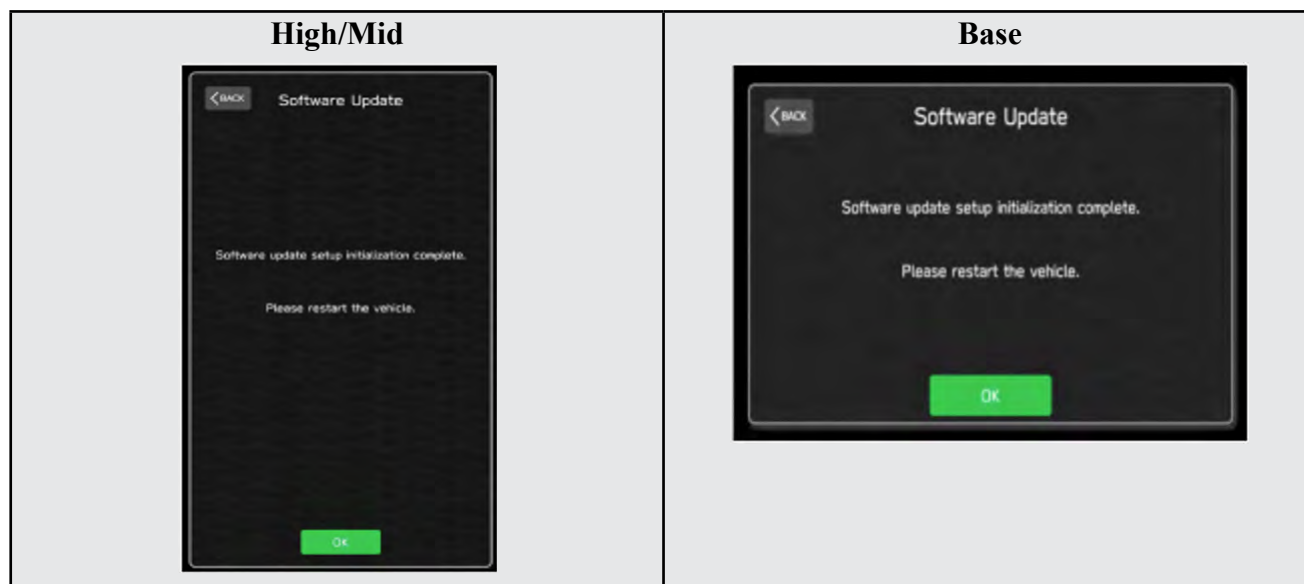
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## Appendix D

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).



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. Please proceed with USB Update following TSB 15-261-20.

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