ATTENTION: IMPORTAN GENERAL MANAGER I Service Pe PARTS MANAGER I Initial in th CLAIMS PERSONNEL I provided, r SERVICE MANAGER I © 2016 S

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QUALITY DRIVEN® SERVICE

SERVICE INFORMATION BULLETIN

APPLICABILITY: 2015-2017MY Legacy and Outback 2015-2016 Impreza 2015-2017 Crosstrek 2016-2018MY Forester 2016-2018MY WRX NUMBER:15-205-16RDATE:11/21/16REVISED:12/28/18

SUBJECT: Reprogramming File Availability to Address Operational Concerns with "Gen 2.0" and "Gen 2.1" Fujitsu-TEN (F10) Navigation and 7" Display Audio Units

INTRODUCTION:

This bulletin announces new reprogramming file availability and the software installation procedure to address additional operational concerns received from the field and listed below involving "Gen 2" F10 Navigation and Display Audio units with 7" display. The procedure will involve downloading the applicable software update files then loading them onto two flash drives for audio unit installation. It is important to read through and understand this information completely before proceeding. These latest software updates contain new logic to address the following concerns:

- Incomplete SXM channel list displayed
- Thumbnail images included with phone contacts are not displayed (iPhone only)
- Quick Message is grayed out and cannot be selected for a reply message
- Head Unit does not respond to touch panel (soft key) commands

In addition to updates for above conditions, each of the new files listed in the table below contain ALL of the previous updates for conditions referenced in prior TSBs 15-182-15R, 15-183-15R and 15-198-16R which this TSB replaces. An overview of conditions addressed in the three prior TSBs is provided in Appendix section on page 19.

PRODUCTION CHANGE INFORMATION:

(see **Step 1** on page 3). Compare the result to the updated table shown below. If the current version number is PRIOR to the version number listed in the table, continue with the updating procedure.

Continued...

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.

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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.

	Model	NAVI	Faceplate ID	Update Softw	<mark>are File Name</mark>	
Model	Year	/ DA	Number	Update File #1 Name	Update File #2 Name	Subarunet Link Title
		ΝΑΥ	FB644US		NUI0001 LICE and eve	BF4_MY15_LEG_OUT NAVI #1
	0015	NAVI	FB664US	NU9021_USB_1st.exe	NU9021_USB_2nd.exe	BF4_MY15_LEG_OUT NAVI #2
	2015	DA	FB644UM			BF4_MY15_LEG_OUT DISPLAY AUDIO #1
		DA	FB664UM	OU9020_USB_1st.exe	OU9020_USB_2nd.exe	BF4_MY15_LEG_OUT DISPLAY AUDIO #2
			FB685US			BE5_MY16_LEG_OUT NAVI #1
Legacy		NAVI	FB695US	NU9313_USB_1st.exe	NU9313_USB_2nd.exe	BE5_MY16_LEG_OUT NAVI #2
& Outback	2016		FB685UM			BE5_MY16_LEG_OUT DISPLAY AUDIO #1
Outback		DA	FB695UM	OU9312_USB_1st.exe	OU9312_USB_2nd.exe	BE5_MY16_LEG_OUT DISPLAY AUDIO #2
			FB876US			BD6_MY17_LEG_OUT NAVI #1
		NAVI	FB856US	C_NU9510_USB_1st.exe	C_NU9510_USB_2nd.exe	BD6_MY17_LEG_OUT NAVI #2
	2017		FB856UM			BD6_MY17_LEG_OUT DISPLAY AUDIO #1
		DA	FB876UM	C_OU9509_USB_1st.exe	C_OU9509_USB_2nd.exe	BD6_MY17_LEG_OUT DISPLAY AUDIO #2
			1007001			
		NAVI	FM634US	NU9115(US)_USB_1st.exe	NU9115(US)_USB_2nd.exe	MC4_MY15_IMP_CROS NAVI #1 MC4 MY15 IMP CROS NAVI #2
	2015					
		DA	FM664UM	OU9114(US)_USB_1st.exe	OU9114(US)_USB_2nd.exe	MC4_MY15_IMP_CROS DISPLAY AUDIO #1
						MC4_MY15_IMP_CROS DISPLAY AUDIO #2
		NAVI	FM655UH	NU9411_USB_1st.exe	NU9411_USB_2nd.exe	MB5_MY16_IMP_CROS NAVI #1
Impreza &	2016		FM675UH			MB5_MY16_IMP_CROS NAVI #2
Crosstrek		DA	FM705UM	OU9410_USB_1st.exe	OU9410_USB_2nd.exe	MB5_MY16_IMP_CROS DISPLAY AUDIO #1
			FM685UM			MB5_MY16_IMP_CROS DISPLAY AUDIO #2
		NAVI	FM666US	NU9510_USB_1st.exe	NU9510_USB_2nd.exe	MA6_MY17_IMP_CROS NAVI #1
	2017	10.01	FM686US		NOOD IO_DOD_EIId.0x0	MA6_MY17_IMP_CROS NAVI #2
	2017	DA	FM685UM	OU9410_USB_1st.exe	OU9410_USB_2nd.exe	MA6_MY17_IMP_CROS DISPLAY AUDIO #1
		DA	FM705UM	003410_000_131.000	000410_000_210.000	MA6_MY17_IMP_CROS DISPLAY AUDIO #2
		NAVI	FF667US	NU9915_USB_1st.exe	NU9915_USB_2nd.exe	FK7_MY16_FOR NAVI #1
	2016	NAVI	FF687US	N09915_03D_15Lexe	N09915_05B_210.exe	FK7_MY16_FOR NAVI #2
	2010	DA	FF667UM		OU0014 USB and eve	FK7_MY16_FOR DISPLAY AUDIO #1
		DA	FF687UM	OU9914_USB_1st.exe	OU9914_USB_2nd.exe	FK7_MY16_FOR DISPLAY AUDIO #2
		NI A) /I	FF868US		NUO444 UOD Ord out	FJ8_MY17_FOR NAVI #1
E	0047	NAVI	FF878US	NU9411_USB_1st.exe	NU9411_USB_2nd.exe	FJ8_MY17_FOR NAVI #2
Forester	2017		FF678UM			FJ8_MY17_FOR DISPLAY AUDIO #1
		DA	FF698UM	OU9410_USB_1st.exe	OU9410_USB_2nd.exe	FJ8_MY17_FOR DISPLAY AUDIO #2
			FF629US			FH9_MY18_FOR NAVI #1
		NAVI	FF639US	NU9610_USB_1st.exe	NU9610_USB_2nd.exe	FH9_MY18_FOR NAVI #2
	2018		FF689UM			FH9_MY18_FOR DISPLAY AUDIO #1
		DA	FF679UM	OU9609_USB_1st.exe	OU9609_USB_2nd.exe	FH9_MY18_FOR DISPLAY AUDIO #2
						VK1_MY16_WRX NAVI #1
		NAVI	FV631US	NU9212_USB_1st.exe	NU9212_USB_2nd.exe	
	2016					VK1_MY16_WRX DISPLAY AUDIO #1
		DA	FV651UM	OU9211_USB_1st.exe	0U9211_USB_2nd.exe	VK1 MY16 WRX DISPLAY AUDIO #2
						VJ2_MY17_WRX NAVI #1
		NAVI	FV642US	NU9510_USB_1st.exe	NU9510_USB_2nd.exe	VJ2 MY17 WRX NAVI #2
WRX & WRX STI	2017		FV662UM			VJ2_MY17_WRX DISPLAY AUDIO #1
		DA	FV672UM	OU9509_USB_1st.exe	OU9509_USB_2nd.exe	VJ2_MT7_WRX DISPLAY AUDIO #2
						VH3_MY18_WRX NAVI #1
		NAVI	FV673US	NU9610_USB_1st.exe	NU9610_USB_2nd.exe	VH3_MY18_WRX NAVI #1
	2018		E//042LIM			
		DA	FV843UM	OU9609_USB_1st.exe	OU9609_USB_2nd.exe	VH3_MY18_WRX DISPLAY AUDIO #1
			FV833UM			VH3_MY18_WRX DISPLAY AUDIO #2

NOTE: Software Version Numbers (as referenced in the Service Procedure below) are included in the Update Software File names. Example: NU9017 and OU9106 are Version Numbers.

MATERIALS REQUIRED:

2 empty 2GB, USB 2.0 storage devices (flash drives) will be needed to perform these updates. The drives should be dedicated to storing and transferring these updating files only. They also need to be no more than 4GB in size and contain a FAT32 file format before downloading update files onto them. Do **NOT** use any USB drives which contain or require the use of file management, encryption, file backup or other software to function.

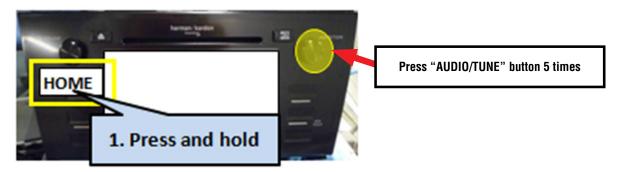


SERVICE PROCEDURE / INFORMATION:

IMPORTANT REMINDER: Read through and understand this procedure **COMPLETELY** before proceeding further.

Step 1: Version Check Procedure

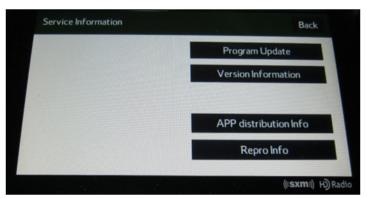
Before proceeding with any updates, the currently installed software version must be determined. If the latest software version (or later) is already installed, no updates are necessary. The Version ID numbers for this procedure are found in the Update File Applicability / Information table shown above. If the Version ID numbers identified during the Version Check procedure are prior to (or lower than) those shown on the table, proceed with the remainder of the software update beginning with **Step 3**.



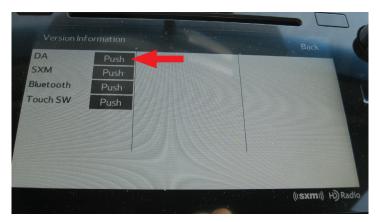
• Switch the unit into "Diagnosis Mode" by pressing and holding the HOME button while pressing the "AUDIO/TUNE" button 5 (five) times.



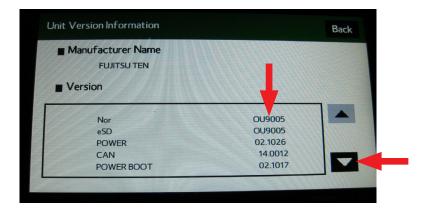
• Press "Service Information"



Press "Version Information"



• Press "Push" next to DA (or AVN for Navigation units)



- Verify the current versions according to the Update File Applicability / Information table shown table shown on page 7. Use the down arrow to scroll to the bottom of the list for complete verification.
- If the software version is current, press and HOLD the HOME button to exit the Diagnostic Mode and complete the procedure as no updates are necessary. If no updates are necessary, continue your diagnosis of the customer concern. If the Version ID numbers are prior to (lower than) those shown in the table above, proceed with **Step 2**, preparing the USB memory (Flash Drives) then **Step 3**, the software update procedure.

NOTE: If updates are necessary, the Version Check procedure will need to be performed again after each update installation to confirm the procedure was successful.

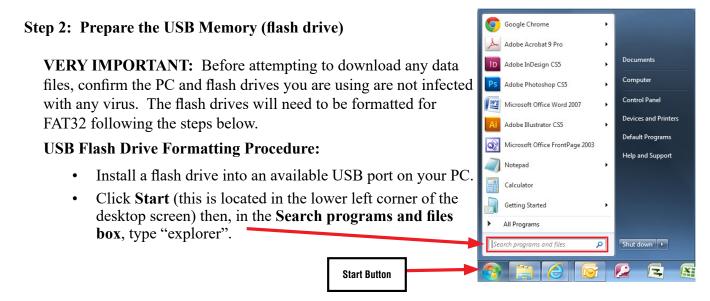
After performing the Version Check procedure, if updates are determined to be necessary, the 2 USB flash drives will be needed to download the Update Files onto. All the F10 update files are accessible for downloading from Subarunet under: Service>>Forms / Downloads>>Downloads for Audio/Navi page then clicking on the applicable hyperlink:



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

IMPORTANT NOTE: As of 12/28/2018, these latest update files have not been sent to Retailer SDS systems. **Follow procedure "A" above in the interim to perform this latest update.** This TSB will be revised after the latest files have been successfully sent to Retailers.

In addition, these files have also been sent to Retailer SDS systems by Nuspire and can be found in My Documents listed as: "F10Software Updates Gen 2.0 and 2.1Audio and Navi Head Units". The Subarunet page shown above will display which contains links to the update files 1 & 2 for each model head unit. Do not download any files at this point. The file download procedures are supplied later in this bulletin. The 2 flash drives must be formatted before the Update Files can be downloaded onto them as outlined in **Step 2** below.



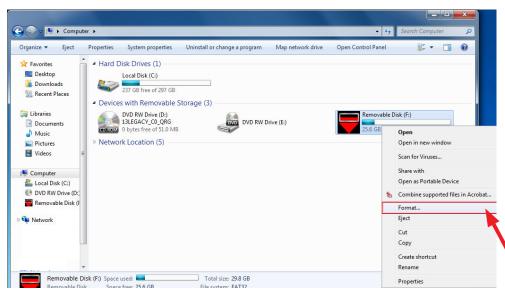
NOTE: On SDS Notebook you may also press the My Documents button on the GUI Home Screen.

• As you type the word "explorer", search results will start to appear. In the results, click on the "Windows **Explorer**" option under the **Programs** section.



• In the next window, choose the Computer section on the left. Locate "Removable Disk"

Organize 🗸 System pro		Map network drive Open Control Par	
 ★ Favorites ➡ Desktop ➡ Downloads ➡ Recent Places ➡ Libraries ➡ Documents ➡ Music ➡ Pictures ➡ Victures ➡ Computer ■ Computer ■ Computer ■ Computer ■ Computer ■ Computer ■ Removable Disk (F 	 Hard Disk Drves (1) Loal Disk (C:) 237 GB free of 297 GB Devices with Removable Storage Dro RW Drive (D:) Network Location (5) 		Removable Disk (F:) 25.6 GB free of 29.8 GB
D50001420 M71WIN7v3 base	Domain: soa.soaad.com l e image Processor: Intel(R) Pentium(R) CP	Memory: 4.00 GB	



NOTE: Always confirm the device you are formatting is the USB Flash Drive. This drive may have various names assigned to it by the manufacturer of the device and may not reflect the drive name given in this example.

Right click the picture for "Removable Disk" then select "Format".

Continued...

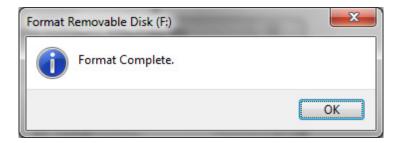
• When the "Format" dialog box appears, make sure that the option labeled "File System" is set to **FAT32** and the **Quick Format** box is checked as well. Then, click the "**Start**" button.

							X
🕽 🕞 🗢 🖳 🕨 Compu	ter 🕨					Search Computer	P
Organize 🔻 Eject	Properties	System properties	Uninstall or change a program	Map network drive	Open Control Panel	₩ -	0
Favorites Desktop Desktop Downloads Recent Places Documents Music Pictures Videos Computer Coal Disk (C:) Removable Disk (F Network	 Device 	Disk Drives (1) Local Disk (C:) 236 GB free of 297 GB s with Removable S DVD RW Drive (D:) rk Location (5)	torage (3)	rive (E:)	Removable Disk (F:) 25.6 GB free of 29.8 GI Format Removable Disk (F:) Capacity: (29.8 GB File system [FA132 (Default) Allocation unit size 15 kilobytes Restore device defaults		
Removable Di	D <mark>isk (F:)</mark> Space sk Space	used: 🔜 e free: 25.6 GB	Total size: 29.8 GB File system: FAT32		Volume label		
11					Format options V Quick Format Create an MS-DOS startup d Start	sk Cose	

• Click "**OK**" when the following window appears.

Format	Removable Disk (F:)
	WARNING: Formatting will erase ALL data on this disk. To format the disk, click OK. To quit, click CANCEL.
	OK Cancel

• The drive will start formatting and display this window when it is finished. Click "**OK**" to complete the process.



• Repeat the procedure above for the second flash drive

Step 3: File Download Procedures

After formatting the 2 flash drives is complete, the two Update Files must be downloaded from either the Subarnet links or from the My Documents section of the SDS system when using the files sent by Nuspire, one to each flash drive. Label them Drive "1" and Drive "2". The updates must be installed in order, Drive "1" first followed by Drive "2".

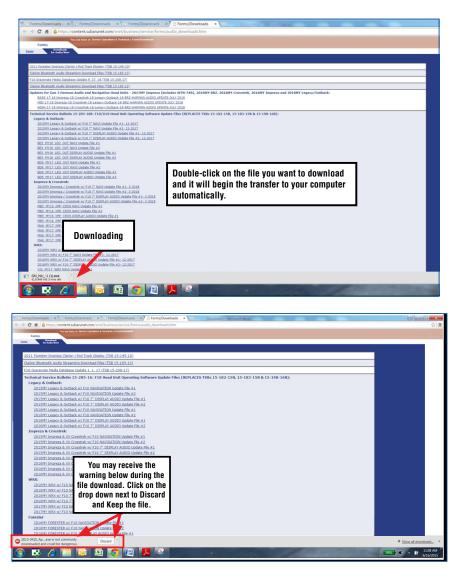
Follow "A" when using files downloaded from Subarunet. **Follow "B"** when using the files sent directly to the SDS notebook from Nuspire (page 12).

IMPORTANT NOTE: As of 12/28/2018, these latest update files have not been sent to Retailer SDS systems. **Follow procedure "A" above in the interim to perform this latest update.** This TSB will be revised after the latest files have been successfully sent to Retailers.

"A" When using update files downloaded from Subarunet:

NOTE: Update File #1 contains 1 file. Update File #2 contains 3 files. The Subarunet screenshots below will take you through the steps required to get the selected Update Files onto the flash drives and ready to use. Update File sizes are quite large and depending on the speed capabilities of the computer, it may take some time to complete the downloads.

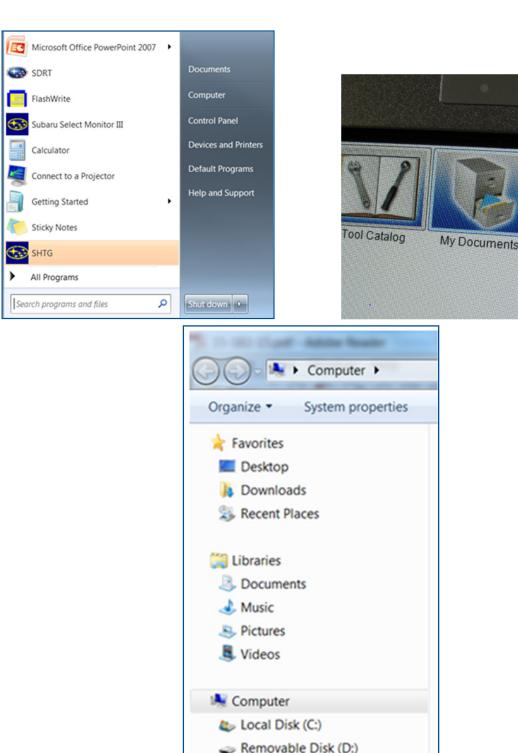
PLEASE BE PATIENT!



Continued...

Once the downloads are complete, locate the Update Files (reference the chart on page 7 for the file names) in the Downloads Folder. Once you locate each file, unzip them one at a time to transfer their contents to the appropriate USB flash drive. As an example, update NU9020_USB_1st.zip for a 2015 Legacy would be unzipped to USB #1 and NU9020_USB_2nd.zip would be unzipped to USB #2. **NOTE:** If not already done, follow the procedure (**Step 2**) for formatting (removing any existing files) your flash drives. Plug the "clean" flash drive into your computer.

• Go to your Windows Start screen, select "Computer" (or click on My Documents if you are using the SDS notebook) and click on "Downloads".

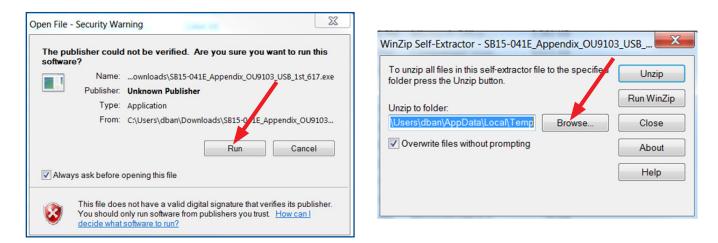


Print

• Once your list of downloaded files opens, locate and click on the downloaded Update Files (in this example, "OU9103_USB...") you are looking for. **TIP:** If you click on Date Modified you can sort the downloaded files by the date they were added which will bring the newest file to the top.

a Boundarde			
ru + Downloads			
			54 11.3915
	fe in library • Dhare with • New Folder New SISTS OF IF, Appendix, OUR203, USB, Str.	Name Date modified	

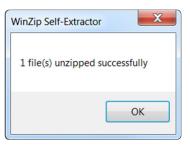
- Double clicking the Update File will bring up a dialogue box with a security warning, click on "Run" to continue.
- Click on "Browse"



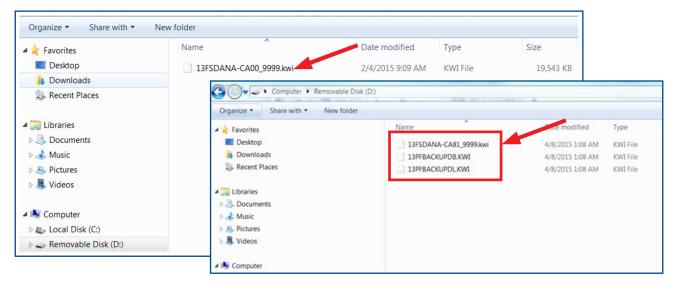
• As shown below, click on "Removable Disk" which is your USB flash drive where you want the unzipped file(s) to be saved. Click "OK" then click on "Unzip".

Browse for Folder	
Unzip to Folder: Desktop Network Computer Computer E Computer E Computer E E Computer E Computer E Computer E Computer E Computer E Computer E Computer Computer E Computer Compute	WinZip Self-Extractor - SB15-041E_Appendix_OU9_03_USB To unzip all files in this self-extractor file to the specified folder press the Unzip button. Unzip Unzip to folder. Run WinZip D:\ Browse Close Image: Overwrite files without prompting About

The Update File will unzip and be saved to your flash drive.



• Confirm the Update File (and flash drive) is ready to use by going back to Start > Computer and double clicking on "Removable Disk" to display the drive's contents as shown in the examples below. All of the files will have a ".kwi" extension at the end of their file name. If OK, proceed with **Step 4: Update Software Installation** starting on page 18.



REMINDER: There can only be **ONE** Update File stored on each flash drive or the update procedure will not work. If you see more than one Update File stored, start over by re-formatting the flash drive again and reloading the Update File you are trying to install.

IMPORTANT REMINDERS:

- Do not change the Update File names after downloading them.
- Do not save any other version Update Files onto the flash drives.

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

REMINDER: As of 12/28/2018, these latest update files have not been sent to Retailer SDS systems. **Follow procedure "A" above in the interim to perform this latest update.** This TSB will be revised after the latest files have been successfully sent to Retailers.

• From the GUI screen, open My Documents to display the list of available files shown below.

+ +	> This	s PC	Documents > F10 Software Updates Gen 2.0 and 2.1 Audio and Navi P	Head Units >		
Ouick access			Name	Date modified	Туре	Sizi
Desktop	* *		2015MY Impreza Crosstrek w F10 7 DISPLAY AUDIO Update -3-2018 2015MY Impreza Crosstrek w F10 7 NAVI Update -3-2018 2015MY Legacy & Outback w F10 7 DISPLAY AUDIO Update -12-2017	7/25/2018 2:24 PM 7/25/2018 2:24 PM 7/25/2018 2:24 PM	File folder	
 Documents Pictures 	* *		2015MY Legacy & Outback w F10 7 NAVI Update -12-2017 2016MY Forester w F10 7 DISPLAY AUDIO Update -12-2017	7/25/2018 2:25 PM 7/25/2018 2:25 PM	File folder	
ConeDrive			2016MY Forester w F10 7 NAVI Update -12-2017 2016MY Impreza Crosstrek w F10 7 DISPLAY AUDIO Update -7-2018 2016MY Impreza Crosstrek w F10 7 NAVI Update -7-2018	7/25/2018 2:25 PM 7/25/2018 2:25 PM	File folder	
- NELWOIK			2016MY Impreze Crossitiek w F10 / NAVI Opdate -7-2018 2016MY Legacy & Outback w F10 7 NAVI Update -7-2018 2016MY Legacy & Outback w F10 DISPLAY AUDIO Update -7-2018	7/25/2018 2:25 PM 7/25/2018 2:26 PM 7/25/2018 2:26 PM		
			2016MY WRX w F10 7 DISPLAY AUDIO Update -12-2017 2016MY WRX w F10 7 NAVI Update -12-2017	7/25/2018 2:26 PM 7/25/2018 2:26 PM	File folder File folder	
			2017MY Forester w F10 7 DISPLAY AUDIO Update -7-2018 2017MY Forester w F10 7 NAVI Update -7-2018 2017MY Impreza Crosstrek w F10 7 DISPLAY AUDIO Update -7-2018	7/25/2018 2:27 PM 7/25/2018 2:27 PM 7/25/2018 2:27 PM	File folder File folder File folder	
			2017MY Impreza Crosstrek w FIO 7 DISPLAY ADDIO Opdate -7-2018 2017MY Impreza Crosstrek w FIO 7 NAVI Update -7-2018 2017MY Legacy & Outback w FIO 7 NAVI Update -7-2018	7/25/2018 2:27 PM 7/25/2018 2:27 PM 7/25/2018 2:28 PM	File folder File folder File folder	
			2017MY Legacy & Outback w F10 DISPLAY AUDIO Update -7-2018 2017MY WRX w F10 7 DISPLAY AUDIO Update -7-2018	7/25/2018 2:28 PM 7/25/2018 2:28 PM	File folder File folder	
			2017MY WRX w F10 7 NAVI Update -7-2018 2018MY Forester w F10 7 DISPLAY AUDIO Update -7-2018 2018MY Forester w F10 7 NAVI Update -7-2018	7/25/2018 2:28 PM 7/25/2018 2:28 PM 7/25/2018 2:29 PM	File folder File folder File folder	
			2018MY WRX w F10 7 DISPLAY AUDIO Update -7-2018 2018MY WRX w F10 7 NAVI Update -7-2018	7/25/2018 2:29 PM 7/25/2018 2:29 PM	File folder File folder	

- Insert a "clean" USB flash drive (Drive 1) into the computer being used for the download.
- For these F10 updates, after clicking on the file for the vehicle being updated, 2 files will be displayed as shown below. Like the files downloaded from Subarunet, they too are .zip files and need to be "unzipped" before they can be used.

reame	nents > F10 Software Updates Gen 2.0 and 2.1 Audio and Mar	Head Units > 3017M
	Date modified Type Size	
TNNU9409_US8_tvt	12/15/2017 Scill PM Application INLA	66.12
a menoperations and	12/15/2017 5:10 PM Application 387,9	0.0
		100000000000000000000000000000000000000
	WinZip Self-Extractor - ININUSACE_USE	Juter X
	To usup at ties in FNINU9409_USB_ter	atota Q.
	specified folder press the Unity bullion.	Ser Vinite
	Unage to folder:	NIN DOW
	<u></u>	
	Overwrite files without prompting	Road
		Help
	Dispong 10/December	H 9977 Low

- Click on the first file (file name ends with 1st). A WinZip Self-Extractor dialog box will appear.
- Click on "Browse" and select the USB flash drive as the destination ("D:\" in this example)
- Click on Unzip.
- When file transfer to the USB flash drive is complete (a "unzipped successfully" box will appear), click on "OK", remove Drive 1 and replace it with Drive 2.
- Repeat the above steps and transfer the contents from the second file (ending with _2nd) to Drive 2.
- Confirm both USB flash drive and files are ready to use by double clicking on each ("D:\" in this example) to display their contents. Drive 1 will have just 1 file while the Drive 2 will have 3.
- Unplug Drive 2 and proceed to **Step 4** below.

Step 4: Update Software Installation

NOTE: Because of the time it takes to perform these updates, Subaru of America, Inc. (SOA) highly recommends connecting the Subaru Midtronics GR8 Diagnostic Battery Charger to the vehicle and utilizing the Power Supply Mode feature anytime a vehicle control module is being reprogrammed. Follow the procedure as outlined in document GR8-1100 on STIS for use of the GR8's Power Supply Mode:

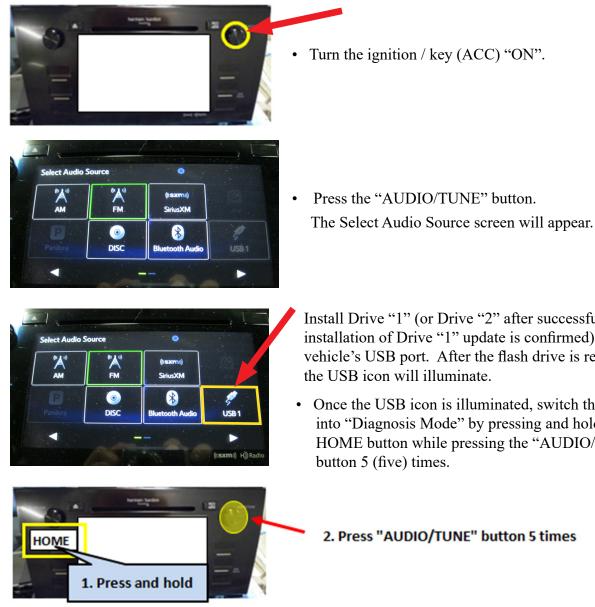
- Confirm all electrical loads such as lights, audio, HVAC, seat heaters, and rear defroster are all switched **OFF** before setting up for Power Supply Mode.
- Select the correct battery type (Flooded, AGM or AGM Spiral).
- Select the CCA which matches the vehicle's battery (**NOTE:** OE and replacement batteries have different CCA ratings. Always confirm the battery rating before proceeding.)
- If the "Charge Battery" **WARNING** appears, the battery **MUST** be charged before attempting reprogramming.
- **DO NOT** connect the DSTi or SDI until the GR8 Power Supply mode has completed its battery test mode and the Charging Voltage has dropped to a steady 13.5 Volts on the display.
- If the GR8 "beeps" or the Status Light flashes, a diagnostic charge should be performed on the battery before proceeding further.
- Once Power Supply Mode reaches a steady 13.5 volts, connect the DSTi or SDI to the OBD connector and initiate the reprogramming process.
- Amperage will fluctuate based upon the vehicle's demand for power. **NOTE:** If the voltage rises beyond 14V while programming is in process, the procedure will abort. This can indicate a need to test or charge the vehicle battery before any further attempt at programming.

IMPORTANT:

This information is applicable to the Midtronics GR8 Diagnostic Battery Charger ONLY. It does not apply to any other brand / type of "generic" battery charger whatsoever. ONLY the GR8 and its Power Supply Mode feature has been tested and approved by SOA.

Once the GR8 is connected to the vehicle, as long as the battery is fully charged, it takes less than 3 minutes to boot-up the charger, select Power Supply Mode, and have the battery voltage stabilized and ready for reprogramming.

REMINDER: If the GR8 indicates the vehicle's battery must be charged, charge the battery using the GR8 before proceeding to reprogram the vehicle.

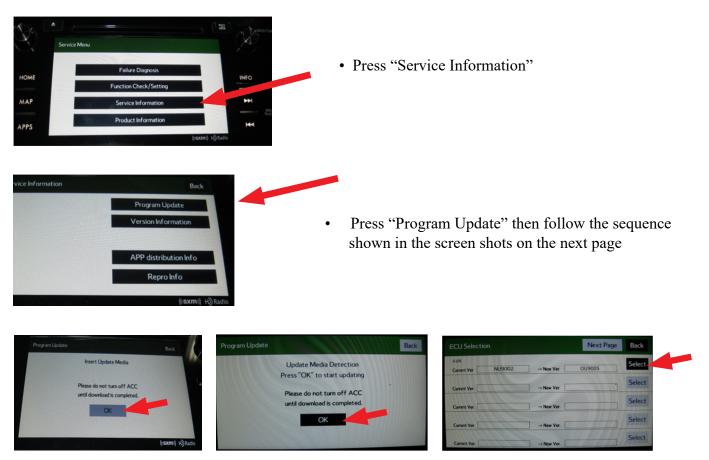


Version Update Procedure

Install Drive "1" (or Drive "2" after successful installation of Drive "1" update is confirmed) into the vehicle's USB port. After the flash drive is recognized,

Once the USB icon is illuminated, switch the unit into "Diagnosis Mode" by pressing and holding the HOME button while pressing the "AUDIO/TUNE"

2. Press "AUDIO/TUNE" button 5 times



Wait for "OK" to activate (turn black)

Press "OK"

Press "SELECT"

CAUTION: Confirm the intended new version is displayed before clicking Select.

NOTE: The "**OK**" button will not activate (turn black) if the wrong Update File(s) are on the flash drive. Re-format the flash drive and reload the proper Update Files starting from the beginning of **Step 2**.



and could take up to about 15 minutes.

If "Update Error" screen	is displayed as shown	below:
ECU Update Update Error Update Error ECU Program Ver: Update Sconpleted. OK CANCEL	Program Update Complete Please turn off ACC and restart.	Perform the Version Update again from Step 3.
Select "OK".	ACC OFF then back ON again	

If the progress bar stops, please wait 15 minutes. If the progress bar does not change even if after 15 minutes, turn ACC OFF and back ON again then, restart the update procedure from **Step 4**.

IMPORTANT: Do not turn the ACC (ignition / key) off or disconnect the flash drive from the USB port during updating.

- Once the update completes successfully, turn the ACC off,
 WAIT 30 SECONDS then turn it back on again.
- After the unit boots back up, the "Updating software" screen and its status bar will be displayed. This update may take up to 5 minutes to complete.



When the Software Updates complete, the unit will restart automatically. Once the STARLINK opening screen is displayed, remove the flash drive from the USB port and turn the ignition off. **CRITICAL STEP:** Before proceeding further, perform **Step 1** (Version Check Procedure) again to confirm the updated software installation from Drive "1" was successful. When the update is successful, the new software version number will be displayed. If OK, proceed with installation of the Drive "2" update (repeat **Step 4**, Update Software Installation). If the updated versions are not displayed, **Step 4** using Drive "1" must be repeated. Once the software and CAN version updates are confirmed, insert Drive "2" and repeat **Step 4**.

Step 5: Version Check Procedure

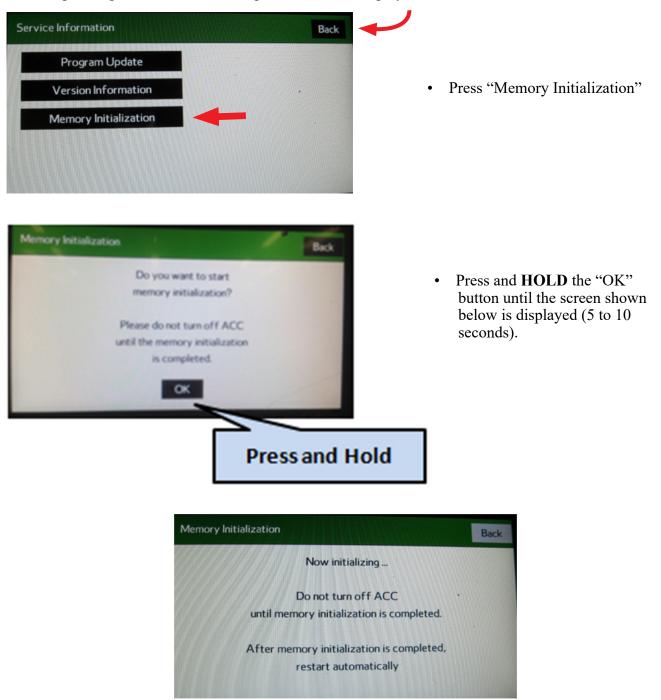
As mentioned earlier, once both update software installations are complete, the Version Check procedure (**Step 1**) must be performed again to confirm all of the updates have been installed successfully.

Step 6: Memory Clear Procedure

After confirming both software updates have been installed successfully, the Memory Clear procedure must be performed to complete the update procedure.

NOTE: All presets will likely be lost and will need to reset after performing this procedure.

After pressing "Back", the following screen will be displayed:



This screen will be displayed for about 1 minute while the unit restarts. After restart, the Loading screen and its status bar will be displayed. After the status bar completes, the Main Menu screen will be displayed. To complete the updating procedure, you must go through the series of Initial Setup screens, reset the radio station presets and re-pair any mobile devices (where applicable).

NOTE: After confirming the updates are complete, remove the labels and re-format both flash drives to clear any remaining files so they are ready for use the next time. This reduces the chances of inadvertently combining files the next time the drives are used. It also ensures that every repair receives the very latest software as these files will be updated from time to time whenever a newer version is released.

WARRANTY / CLAIM INFORMATION:

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

CRITICAL Claim Processing Update: When completing this TSB procedure the post-update software version number MUST be entered in the Miscellaneous Detail field when submitting the claim.

LABOR DESCRIPTION	LABOR	FAIL	LABOR
	OPERATION #	CODE	Time
F10 AUDIO/NAVIGATION HEAD UNIT UPDATE	A031-128	ZQL-48	1.0

NOTE: Up to \$12.00 may be claimed ONE TIME in sublet to cover the cost for the 2 USB Flash Drives (\$6.00 each).

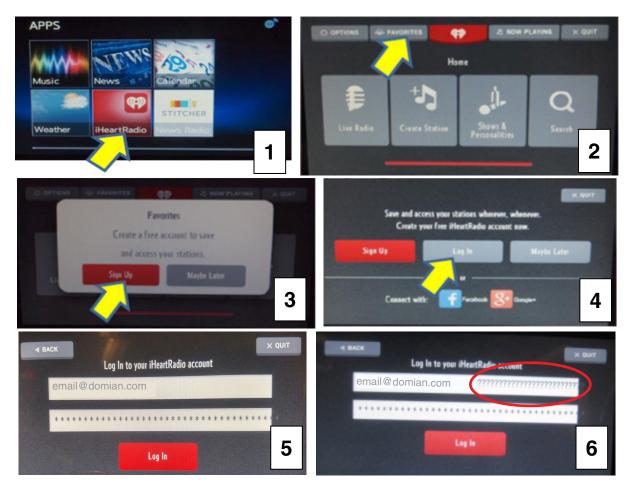
IMPORTANT REMINDERS:

- 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

VERY IMPORTANT: In addition to updates for conditions listed on page 1, each of the new files listed in the table on page 2 contain ALL of the previous updates for conditions referenced in prior TSBs 15-182-15R, 15-183-15R and 15-198-16R which this TSB replaces. An overview of conditions addressed in the three prior TSBs is provided below.

- SXM channels higher than 256 cannot be selected using the voice command feature.
- Additional characters appear (in this example, question ??? marks) after entering an e-mail address and password using the software keyboard when attempting to log in to an iHeart radio account as shown in the screen shot sequence below.



• The Navigation system re-boots from the Loading screen (not the STARLINK screen) when utilizing the remote engine starter (RES) feature (if equipped).



- The Navigation system freezes when rerouting if traffic information is supplied by SXM is used.
- Mirrorlink 1.1 updates
- Enable Mute function for Navigation guidance
- Incomplete display of intersection names in combination meter
- Increased accuracy of the XM Traffic information displayed
- Intermittent delay (approximately 1 minute) in display of map information after initial start-up of Navigation function (2015MY Legacy and Outback only).

Symptoms addressed in TSB 15-182-15R and 15-183-15R dated 8/11/2015:

Symptom 1: Audio output is lost after a few minutes when listening to SXM satellite radio. **Change:** Logic update to provide proper SXM satellite radio operation.

Symptom 2: Bluetooth feature becomes inoperative.Change: Logic update to provide proper Bluetooth feature operation.Symptom 3: HD Radio "freezes" after a few minutes of play.Change: Logic update to provide proper SXM satellite radio operation.

Symptom 4: Back-Up Camera "help lines" do not appear. **Change:** Logic change to have the assist lines appear 8 seconds from engine start.

Symptom 5: Map location is inconsistent between Navigation display and iPhone when using the iPhone's Google Maps with the phone connected to the USB port in console. **Change:** Logic update to show correct vehicle location on iPhone.

Symptom 6: Roads or interchanges have the same name displayed multiple times. **Change:** Logic update to show only one road or interchange name at the same time.



Symptom 7: Navigation function is slow to start when selected. **Change:** Logic change to eliminate Navigation system slow-starting condition.

Symptom 8: No map display with key or ignition in "ACC" (accessory) position. **Change:** Logic change to allow Navigation system operation in accessory ACC mode.

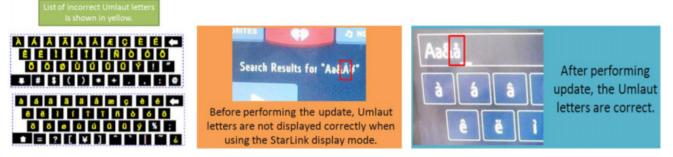
Symptom 9: No voice guidance provided from Navigation system after selecting a route unless the ignition is cycled off and back on again.

Change: Logic change to stop voice guidance "Mute" function from defaulting to "ON".

Symptom 10: Steering wheel switch controls inoperative with iPod (MP3) player connected to the USB.

Change: Logic change to allow proper steering wheel (satellite) switch functionality.

Symptom 11: Incorrect Umlaut characters are shown on STARLINK display. **Change:** Logic change to allow proper display of Umlaut letters.



Symptom 12: No response from the soft touch keys on display.

Change: Logic change to improve communication between display and internal CPU.

Symptom 13: Back-Up Camera is displayed with shifter in positions other than Reverse. **Change:** Logic change to allow display with shifter in Reverse only.

Symptom 14: "Line Diag" screen is intermittently displayed while driving. **Change:** Logic change to prevent display of the "Line Diag" screen.

	Connec	tivity Check	Vehicle Sig	nal Check
GPS	OK		ILL+	OFF
MIC	NG	Contraction of the second second	NG SPD	OFF
Rr_CAM	NG	CAN	NG PKB	ON
AUX	NG		REV	OFF
U581	NG		IGN	OFF

Symptom 15: "LIST" soft touch key is not displayed on Bluetooth Audio screen while using Bluetooth audio feature with an Apple device utilizing iOS8 software version. **Change:** Logic change to enhance compatibility with iOS8 software.



Symptom 16: "Beep" sound heard when touching the bottom of the display screen where no function soft touch keys are displayed.

Change: Logic change to eliminate beeping sound from inactive soft touch key screen areas.

Traffic Summary	2:++0	P
Y Traffic Settings		
	/	
When touching the bottom portion of the screen, a "Beep" sound is heard.	_	

Symptom 17: SXM caution message screen is displayed in English even when French language operation settings are selected.

Change: Logic change to make all messages display in the selected operating language.



Symptoms 18-23: The following symptoms are all related to the inability of the software to properly load. One or all of these 5 conditions may occur at the same time.

Change: Logic updates included where applicable to address each of the following conditions:

Symptom 18: Repeated display of the "Loading" screen at initial unit start-up.

Symptom 19: Bluetooth device pairing failure.

Symptom 20: Inoperative steering wheel (satellite) switches.

Symptom 21: Voice recognition feature inoperative.

Symptom 22: SXM radio feature inoperative.



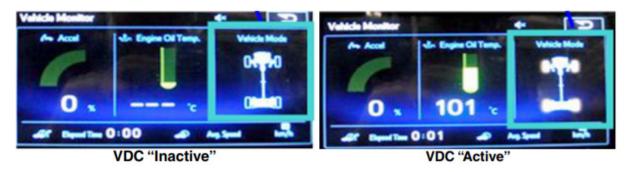
Loading Screen

NOTE: The July 2018 update includes a single enhancement to Gen 2.1 audio units ONLY and contain all previous enhancements along with **Symptom 23** as described below. See the revised update file application table on pg. 2. The July 2018 update does not include any NEW enhancements for these Gen 2.0 equipped models.

Symptom 23: Unable to access SXM source or switch to SXM channels by using the preset buttons on the display.

Symptom and updates outlined in SB 15-198-16R dated 7/8/2016:

- Logic change to provide a "_" (underscore) character on the keyboard.
- Logic change to match engine oil maintenance remaining mileage on the maintenance reminder screen to the odometer meter value on the combination meter when mileage unit is set to read in "KM" (kilometers).
- Logic change to insure the Vehicle Mode indicator on the Vehicle Monitor screen matches the actual vehicle status. Example: The wheel indicators on the vehicle monitor screen no longer stay illuminated indicating VDC is "active" after VDC activation is complete.



- Logic change to address improper calculation used by the head unit to determine Average Lifetime Fuel Consumption displayed on the ECO monitor.
- Logic change to address Voice Recognition error when user says "Radio" or "Music".
- Logic change to address the radio (audio) not resuming play automatically after ending a Bluetooth call.
- Logic change to address FM radio station presets resetting to 87.5MHz intermittently when cycling the ignition OFF to ON.
- Logic change to address AM radio station presets resetting to 513KHz intermittently and possible switch from AM to FM if a 513KHz preset is selected.

PRODUCTION CHANGE INFORMATION:

All of the above updates were incorporated into production at various times based on model. For this reason and to reduce confusion, the recommendation is to always perform the Version Check procedure to verify the currently installed software version before attempting to reprogram any audio unit.