

**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:** 2015-2017MY Legacy and Outback  
 2015-2017MY Impreza and XV Crosstrek  
 2015-2018MY Forester  
 2016-2018MY WRX  
 2015-2017MY BRZ

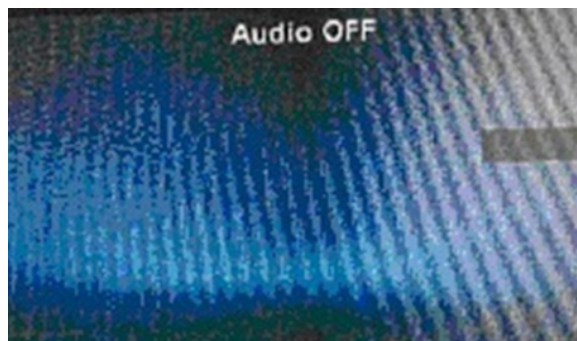
**NUMBER:** 15-199-16R  
**DATE:** 05/05/16  
**REVISED:** 02/19/20

**SUBJECT:** Reprogramming File Availability to Address Operational Concerns with 6.2” Clarion Display Audio Unit

**INTRODUCTION:**

This bulletin announces reprogramming file availability and the software installation procedure to address a group of operational concerns received from the field and listed below involving the Clarion Display Audio unit with 6.2” display. The procedure will involve downloading the applicable software update files from Subarunet then loading them onto a flash drive for audio unit installation.

- Audio unit freezes and restarts when inserting and removing USB memory (flash drive).
- CD player stops playing audio and / or elapsed time display freezes.
- While talking on a paired phone and using the Bluetooth feature, audio unit restarts when shifting into Reverse.
- Audio unit restarts when receiving a Bluetooth phone call. The display goes black and may be accompanied by a “popping” sound.
- White stripes or streaks appear on the display as shown below.



- Some earlier versions of iPod will not connect or operate through the audio unit.
- Deezer Music application inoperative, audio unit cannot connect to server.

*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.

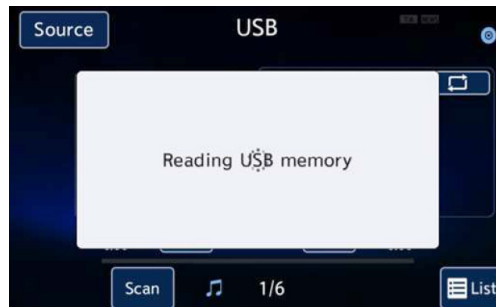
**SUBARU OF AMERICA, INC. IS ISO 14001 COMPLIANT**

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.

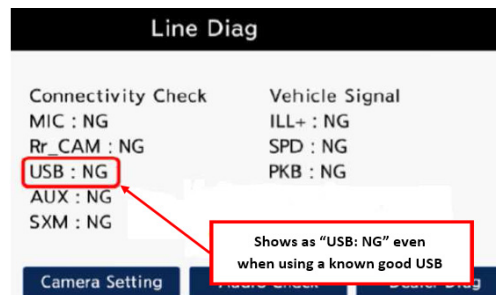
- When listening to music from a USB drive, the elapsed play time counter stays at 0:00.



- When listening to music from a USB drive, the music plays normally but the screen display shows “Reading USB Memory”.

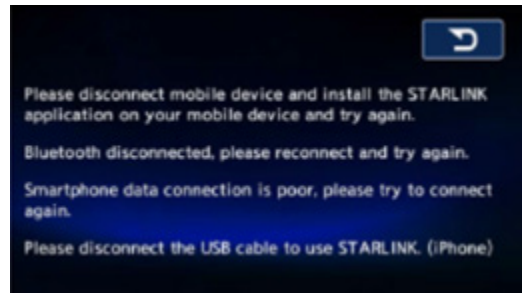


- In diagnostic mode, “USB: NG” is displayed even though a known good USB drive is plugged in.

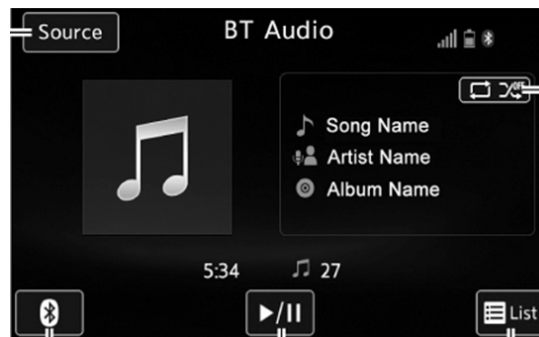


- A black (blank) screen is displayed with only the EJECT button available. Normal operation is restored after cycling the ignition off and back on.

- When using the Magellan Navigation smartphone application (Release date 11/1/2016) for approximately 6 hours, the Bluetooth disconnects and the route guidance screen freezes. An error message screen displays asking the user to disconnect their mobile device, install the STARLINK application on their mobile device and try again along with three other connection-related messages.

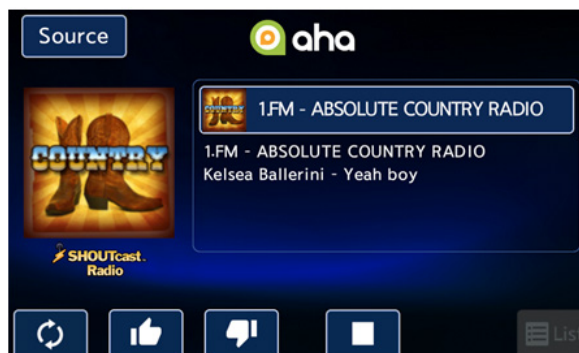


- All the function keys such as the steering switch, hard keys on the head unit and touch panel (display) become inoperative after playing music for 3-4 hours using a Bluetooth-connected device and no input from any of the keys on that connected device. When this occurs, music continues to play normally but the display screen freezes.



**NOTE:** The following three conditions **DO NOT** occur when the voice command feature is switched off.

- ✓ When making a hands-free call using the voice command function, the ring-back tone is not heard from the speakers.
- ✓ When making a hands-free call using the voice command function, the user enters the number using the phone's buttons but, a dial tone is not heard from the speakers.
- ✓ When receiving a call using the hands-free and voice command functions, the ringtone is not heard from the speakers.
- When using the ahaRadio feature, song title and artist information does not update after the previous song ends.



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## PRODUCTION CHANGE INFORMATION:

New audio units with updated software were incorporated into production per the table below:

Vehicle / Model	Faceplate ID Number	Starting VIN
Legacy	CB604UL, CB624UL, CB725UL, CB826UL	H*052498
Outback		H*352361
Forester	CF617UL, CF658UL, CF759UL	H*495732
Impreza / Cross-trek	CM644UL, CM654UL, CM615UL, CM695UL, CM615UL, CM695UL	H*225334
WRX / STI	CV641UL, CV682UL, CV693UL	H*827200
BRZ	CA634UL, CA645UL	H*600913

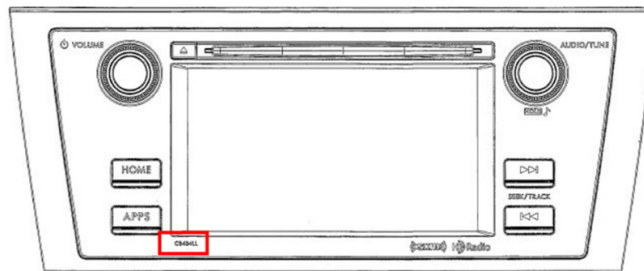
## SERVICE PROCEDURE / INFORMATION:

### Step 1- Audio Unit, Software Version Number and Update File Identification

Use the table below to:

- Identify the audio unit Faceplate ID Number and corresponding Reprogramming File Name
- Determine the Current and New (After Update) Software Version Numbers

The faceplate ID number is displayed near the lower left corner of the display as shown below.



Model	Model Year	Faceplate ID Number	Software Version		Reprogramming File Name	Subarunet Link Title:
			Target (Current)	New (AFTER Update)		
Legacy & Outback	2015	CB604UL	Ver. 103 and below	Ver. 104	86201AL60A	2015MY Leg / Obk Clarion DA CB604UL Update File
		CB624UL			86201AL62A	2015MY Leg / Obk Clarion DA CB624UL Update File
	2016	CB725UL	Ver. 203 and below	Ver. 204	86201AL72A	2016MY Leg / Obk Clarion DA CB725UL Update File
	2017	CB826UL	Ver. 403 and below	Ver. 404	86201AL82A	2017MY Leg / Obk Clarion DA CB826UL Update File
Impreza / Crosstrek	2015	CM644UL	Ver. 038 and below	Ver. 039	86201FJ640	2015MY Impreza / XV Clarion DA CM644UL Update File
		CM654UL			86201FJ650	2015MY Impreza / XV Clarion DA CM654UL Update File
	2016-17	CM615UL	Ver. 214 and below	Ver. 215	86201FJ610	2016-17MY Impreza / XV Clarion DA CM615UL Update File
		CM695UL			86201FJ690	2016-17MY Impreza / XV Clarion DA CM695UL Update File
		CM785CL				
Forester	2016	CF617UL	Ver. 038 and below	Ver. 039	86201SG610	2016MY Forester Clarion DA CF617UL Update File
	2017	CF658UL	Ver. 214 and below	Ver. 215	86201SG650	2017MY Forester Clarion DA CF658UL Update File
		CF759UL			86201SG750	2018MY Forester Clarion DA CF759UL Update File
WRX	2016	CV641UL	Ver. 037 and below	Ver. 038	86201VA640	2016MY WRX Clarion DA CV641UL Update File
	2017	CV682UL	Ver. 214 and below	Ver. 215	86201VA680	2017MY WRX Clarion DA CV682UL Update File
		CV693UL			86201VA690	2018MY WRX Clarion DA CV690UL Update File
BRZ	2016	CA634UL	Ver. 013 and below	Ver. 014	86201CA630	2016MY BRZ Clarion DA CA634UL Update File
	2017	CA645UL	Ver. 214 and below	Ver. 215	86201CA640	2017MY BRZ Clarion DA CA645UL Update File

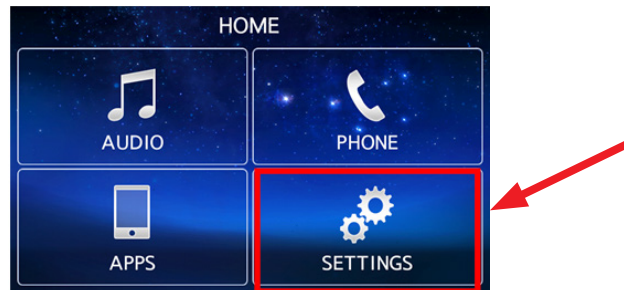
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## Step 2- Software Version Number Check

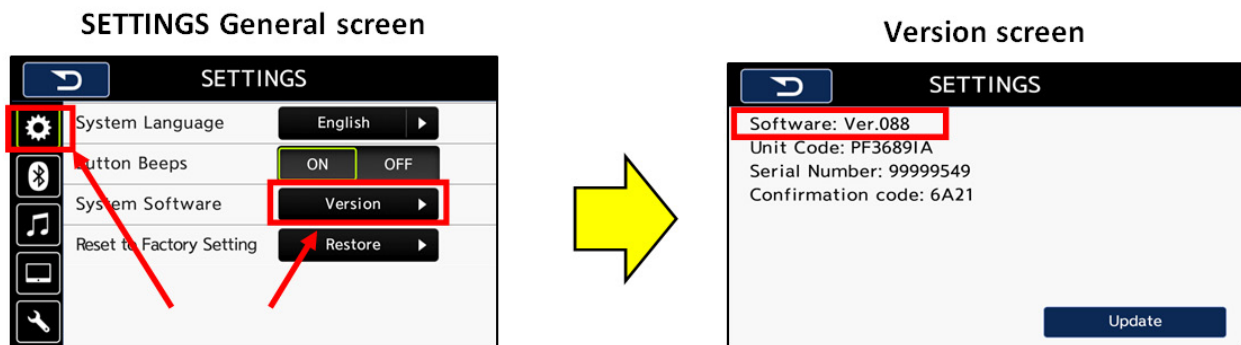
2-1: Switch the ignition and audio unit ON.

2-2: Press the **HOME** button.

2-3: Touch “SETTINGS” soft key on the HOME screen.



2-4: From the SETTINGS screen, check the Software Version number.



If a different SETTINGS screen appears, touch the "General" tab. Otherwise press the Version soft key on the screen to display the unit's current software version.

Compare the current software version number to the table shown above in [Step 1](#). If the audio unit is eligible for an update, proceed to [Step 3](#) below.

## Step 3- Preparing the USB flash drive

### Materials Required:

1 empty, USB 2.0 (do not use USB 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 2GB in size and contain a FAT32 file format before downloading the update files onto it. The following recommended and readily-available devices include: Verbatim® model# 97002, PQI® model# U273 and Kingston® model# DTSE9.



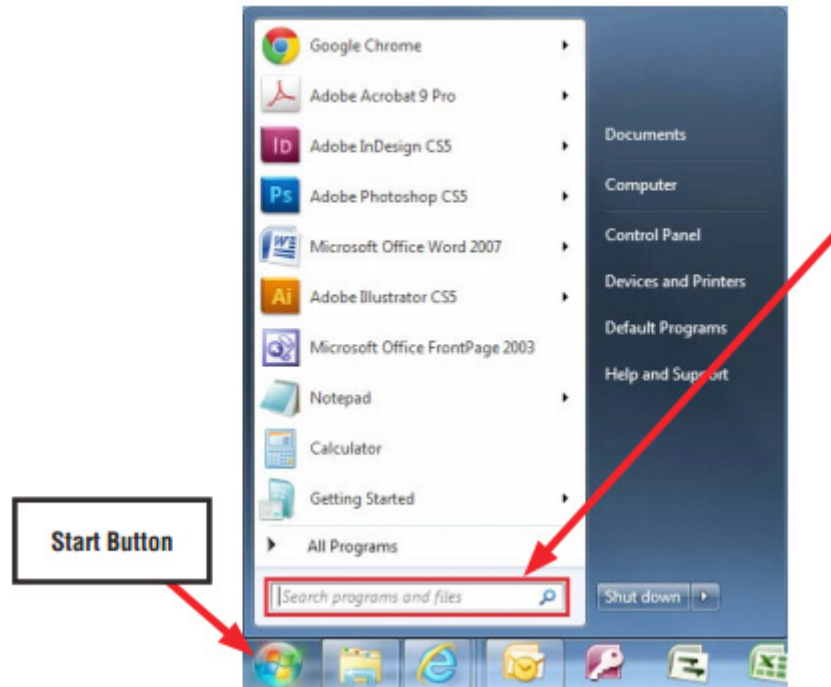
**VERY IMPORTANT:** Before attempting to download any data files, confirm the PC and flash drive you are using are not infected with any virus. The flash drive **MUST** be formatted for FAT32 following the steps below.

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## USB Flash Drive Formatting Procedure:

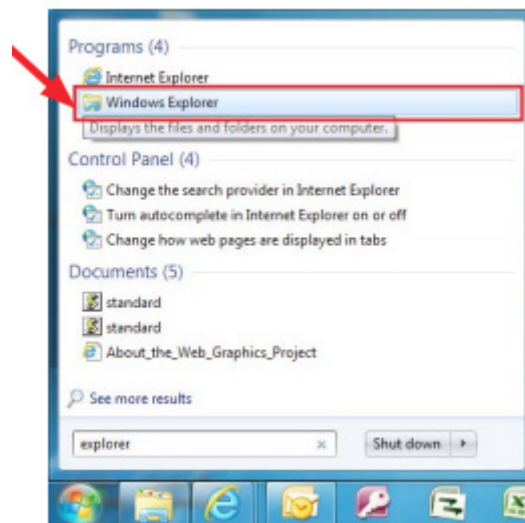
**3-1:** Install a flash drive into an available USB port on your PC (2GB minimum size).

**3-2:** Click Start (this is located in the lower left corner of the desktop screen) then, in the Search programs and files box, type “explorer”.

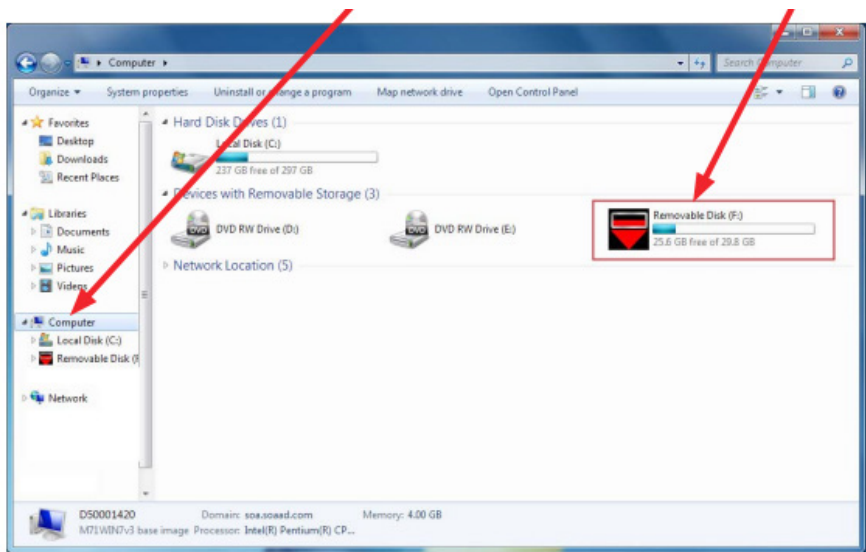


**NOTE:** On the SDS Notebook, press the My Documents button on the GUI Home Screen.

**3-3:** As the word “explorer” is typed, search results will start to appear. In the results, click on the “Windows Explorer” option under the Programs section.

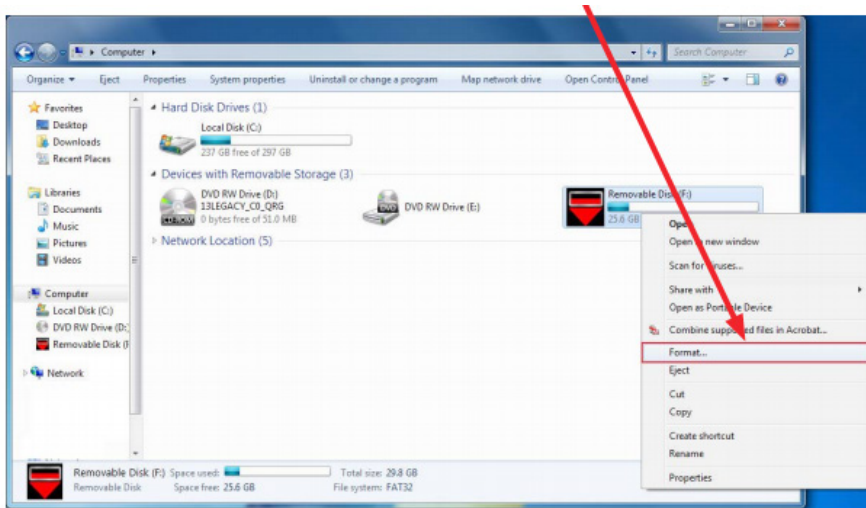


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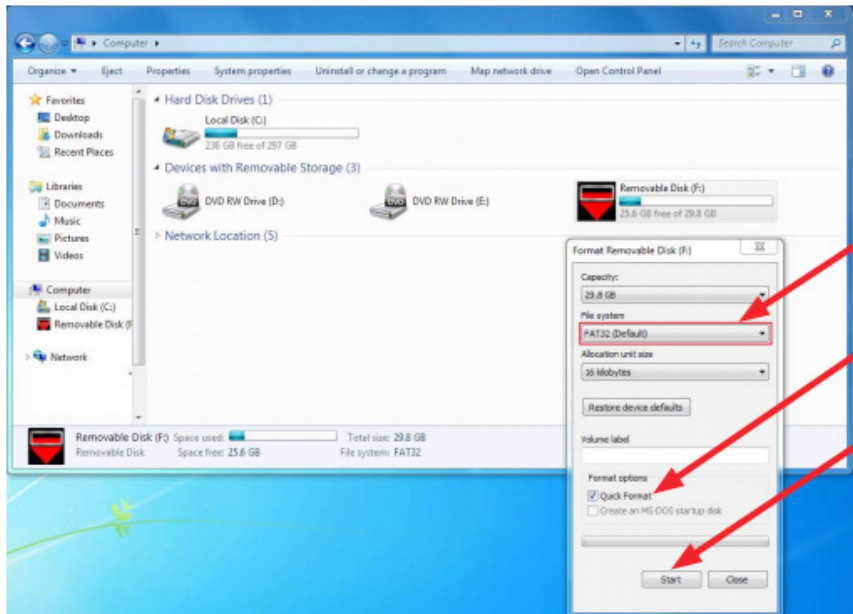
**3-4:** In the next window, choose the Computer section on the left. Locate “Removable Disk”

**NOTE:** Always confirm the device being formatted 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.



**3-5:** Right click the picture for “Removable Disk” then select “Format”.

**3-6:** 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.

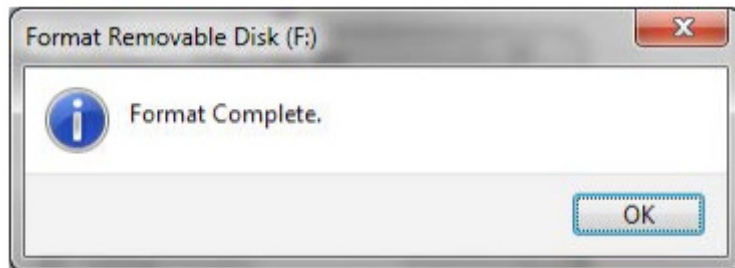


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3-7: Click “OK” when the following window appears.



3-8: The drive will start formatting and display this window when it is finished. Click “OK” to complete the process.

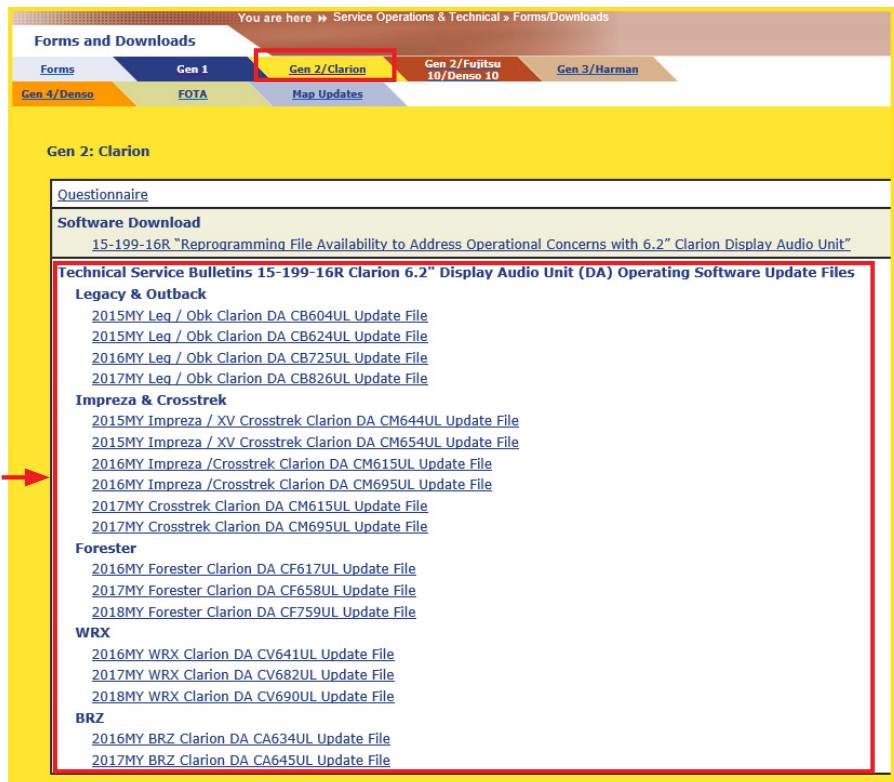


#### Step 4- File Download Procedure

All the Clarion update files are accessible for downloading from Subarunet under: **Service Operations & Technical>>Forms /Downloads>> Gen2/Clarion** click on the Downloads for Audio/Navi tab or by clicking on the following hyperlink:

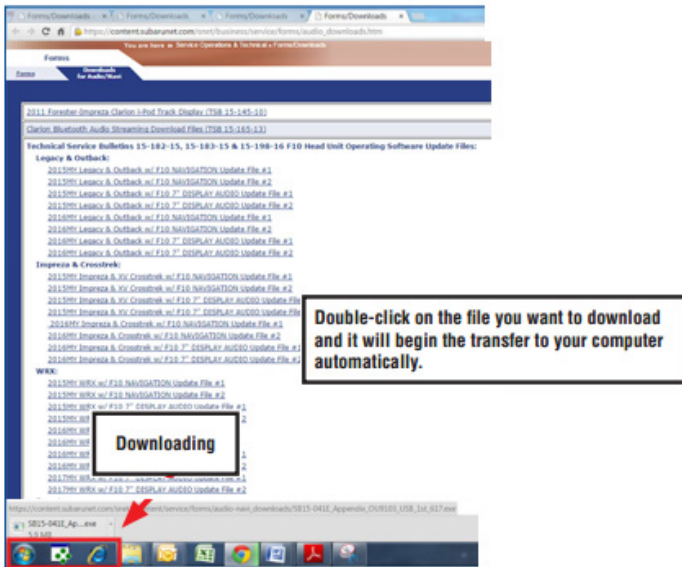
[Click Here to Access the Downloads for Audio/Navigation Information on Subarunet](#)

The Subarunet page shown to the right will display containing links to all the Clarion update files.



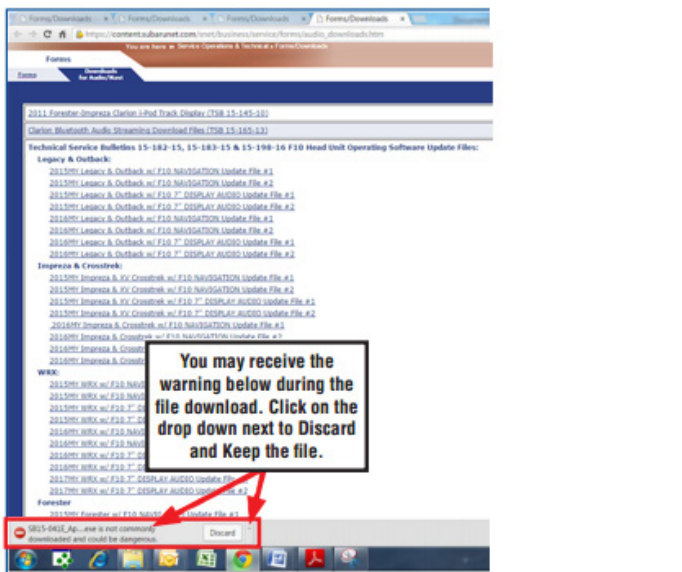
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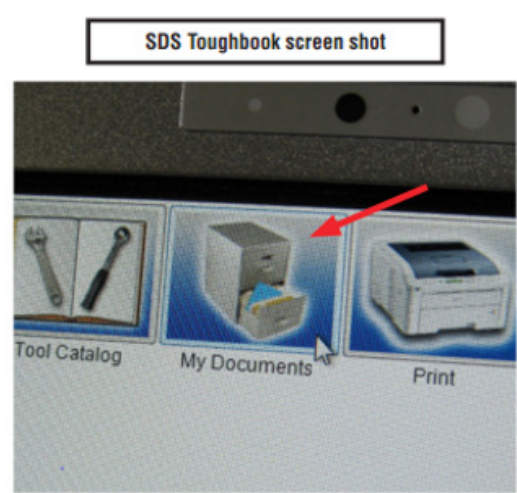
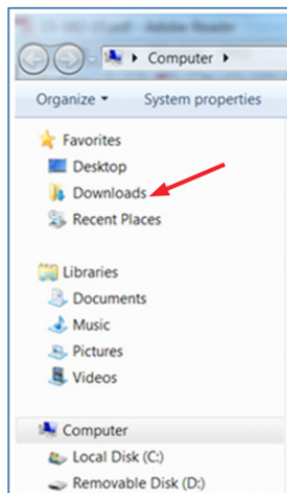
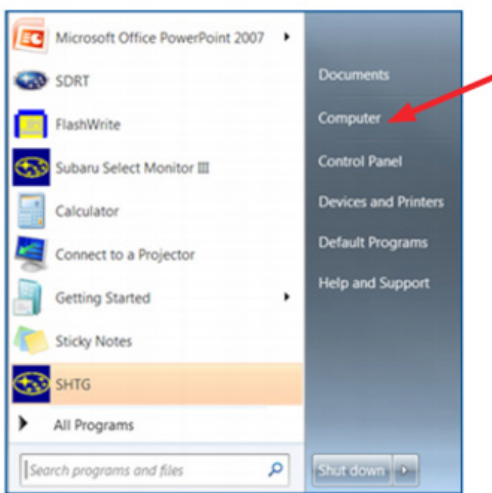


**4-1:** After the USB flash drive has been formatted, the update file must be downloaded. Download the update file to your PC (or SDS Toughbook) from the Subarunet links. The screenshots below will take you through the steps required to get the selected update file onto your flash drive and ready to use.

**NOTE:** The radio station presets are retained during these updates.



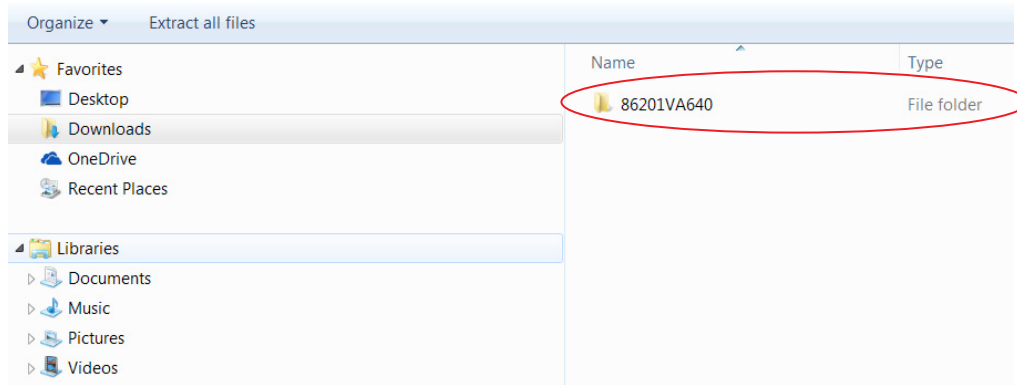
**4-2:** Once the download is complete, locate the update file. If using a PC, go to the Windows Start screen, select “Computer” then click on “Downloads” (or press the “My Documents” button on the GUI home screen if you are using the SDS Toughbook). **TIP:** When the list of downloads is displayed, click on Date Modified and you can sort the list by the date they were added which will bring the most recently downloaded file to the top.



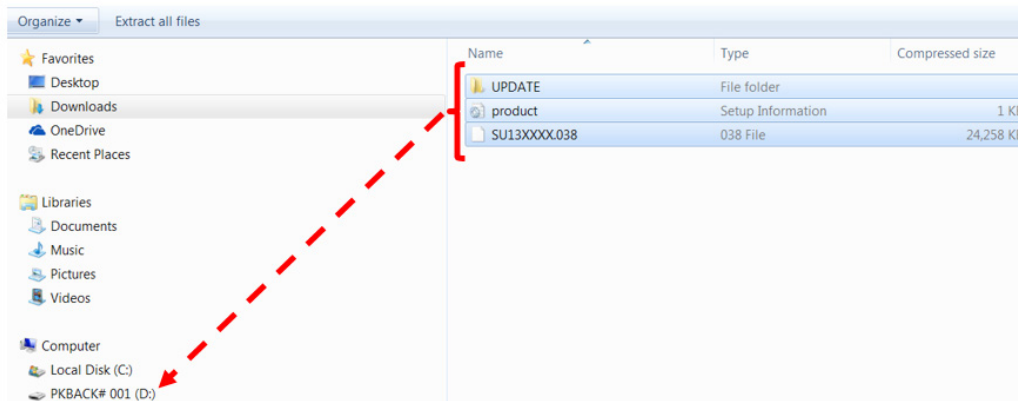
**4-3:** Plug the “clean” USB flash drive into the computer.

**4-4:** Double-click on the downloaded file. A file folder containing 3 update files will be shown using a part number as shown below.

*Continued...*



**4-5:** Double-click on the part number (folder) to display the folder’s contents. Select all 3 files then either copy / paste or click / drag them over to the “clean” flash drive. In the example shown below, the flash drive is shown as: PKBACK# 001 (D:). Depending on the speed of the computer being used, this data transfer may take a few minutes. BE PATIENT.



**4-6:** Once the files have been successfully loaded onto the flash drive, proceed to **Step 5**.

**IMPORTANT NOTES:**

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

**Step 5- Software Updating Procedure**

**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 when performing these updates. 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

*Continued...*

- 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.

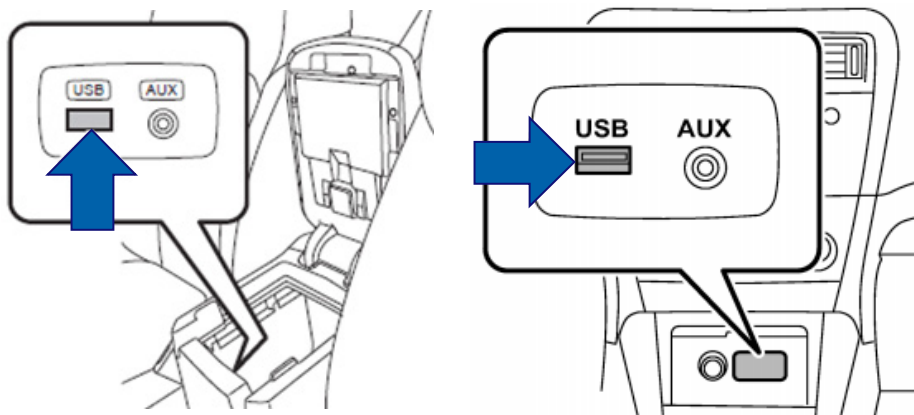
**NOTE:** If a GR8 is unavailable, this audio unit reprogramming procedure can also be done with the engine idling.

**5-1:** Switch the ignition and the audio unit OFF.

**5-2:** Insert the USB drive into the USB port.

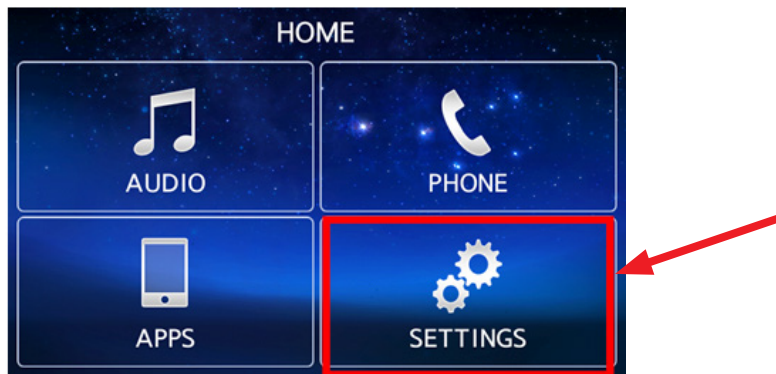
**5-3:** Switch the ignition and the audio unit ON.

**5-4:** Press the **HOME** button.



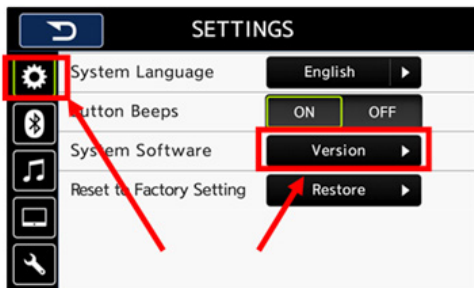
**5-5:** Touch “SETTINGS” soft key on the HOME screen. The soft key may be inactive at first and take a few extra seconds to illuminate like the others.

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5-6:

SETTINGS General screen

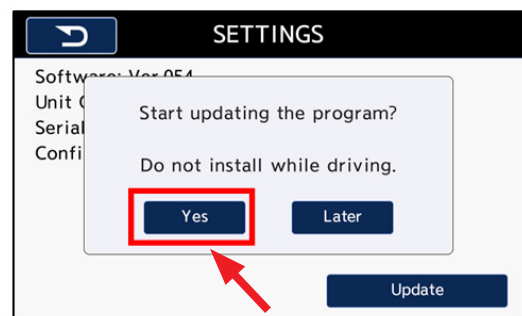
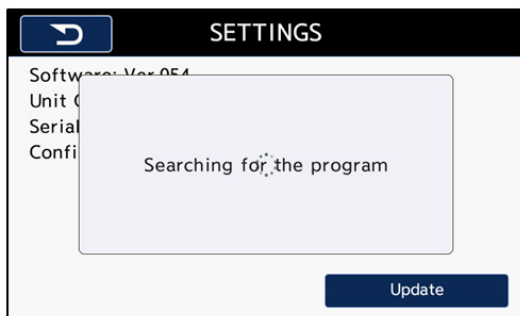


If a different SETTINGS screen appears, touch the "General" tab. Otherwise press the Version soft key on the screen to display the Update soft key.

Version screen



Press the Update soft key. A "Searching for the program" screen will appear.



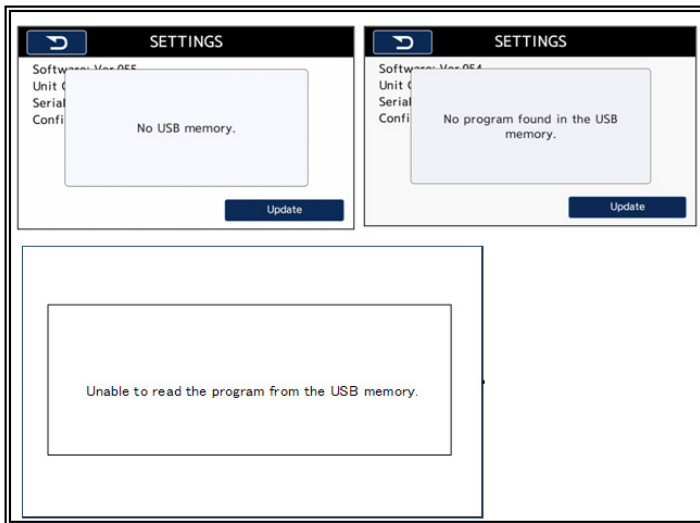
- After the "Searching" screen changes to the "Start updating the program?" screen, press Yes to begin the updating process.

**NOTE:** If any of the three error screens shown below should appear after the "Searching" screen instead of the "Start updating" screen, check the USB flash drive by:

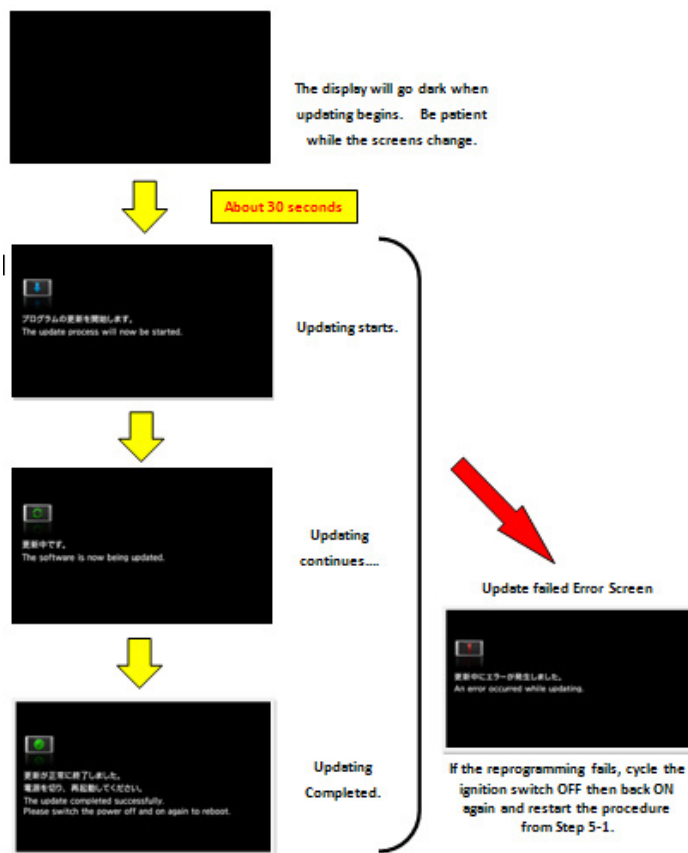
- o confirming there are no other files on the USB flash drive other than the 3 update files
- o the USB flash drive is at least 2GB in size.

If there is no problem found with the USB flash drive, start over from 5-1.

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### 5-7: Updating (File Transfer from USB Flash Drive)



- **IMPORTANT:** Do not remove the USB flash drive or turn the ignition off while software is updating. The updating procedure will take approximately 10-12 minutes to complete.

**5-8:** When the “Update Completed Successfully” screen is displayed, switch the ignition off and remove the USB flash drive. The newly-installed software will activate automatically the next time the ignition is switched ON.

**5-9:** Press the **HOME** button.

**5-10:** Touch “**SETTINGS**” soft key on the HOME screen.

**Step 6- Software Version Number Check**

To complete the procedure, perform **Step 2** again confirming the Version Number is now the New (AFTER Update) number (or higher) shown in the table provided above in **Step 1**.

**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 #	Fail Code	Labor Time
CLARION DISPLAY AUDIO UNIT- SOFTWARE UP-DATE (INCLUDES VERSION CHECK)	A031-148	ZQT-48	0.6
CLARION DISPLAY AUDIO UNIT- SOFTWARE VERSION CHECK PROCEDURE ONLY	A031-145		0.2

**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.