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- GENERAL MANAGER
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  - CLAIMS PERSONNEL
  - SERVICE MANAGER

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


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QUALITY DRIVEN® SERVICE

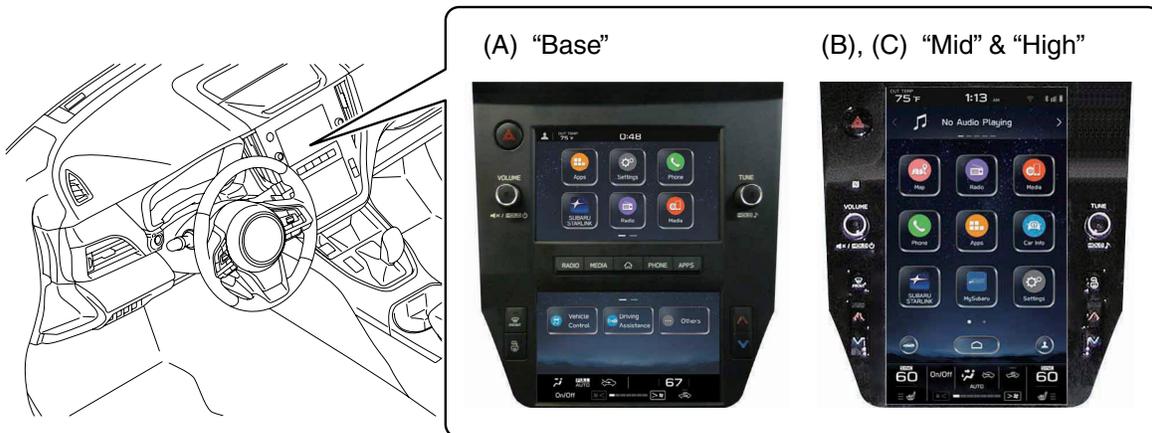
## SERVICE BULLETIN

**APPLICABILITY:** 2020MY Legacy and Outback  
**SUBJECT:** Denso Gen 4 Cockpit One (CP1) Infotainment System Operating TIPS

**NUMBER:** 15-259-20  
**DATE:** 02/19/20

### INTRODUCTION:

This bulletin provides helpful tips to use when diagnosing customer concerns which may arise when operating the new-generation Denso CP1 Multimedia Navigation (AVN) & Display Audio (DA) systems. This new Gen 4 head unit containing audio and navigation features, is also referred to as Cockpit One (CP1) Infotainment system. The new system consists of two modules: a Cockpit Control Unit (CCU) and, either a dual 7” display audio unit (“Base”), an 11.6” display audio (“Mid”) or 11.6” display audio / navigation (“High”) system also known as the Center Information Display (CID). Reference photos of each system are supplied below.



ID	Audio Unit Type
(A)	“Base” - Audio only
(B)	“Mid” - High-grade Audio only
(C)	“High” - High-grade Audio & Navigation

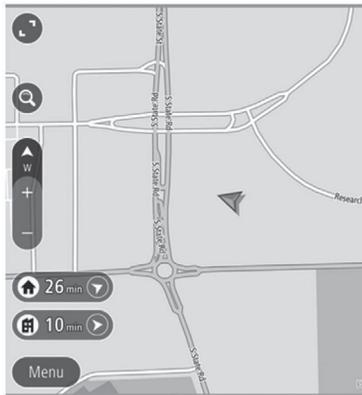
Audio systems used in previous models produced by Fujitsu- (Denso) TEN and Harman have similar “Operating TIPS” bulletins available on STIS. Both are “live” documents and get updated regularly with new information. This bulletin will continue along those same lines and format, receiving regular updates with the latest information as it is received.

<p><b>CAUTION: VEHICLE SERVICING PERFORMED BY UNTRAINED PERSONS COULD RESULT IN SERIOUS INJURY TO THOSE PERSONS OR TO OTHERS.</b></p> <p>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.</p>	<p style="text-align: center;"><b>Subaru of America, Inc. is ISO 14001 Compliant</b></p> <p>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.</p>
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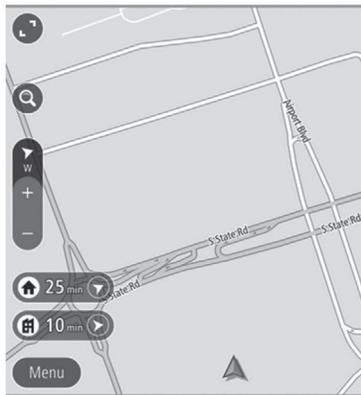
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**CONDITION #1:** During Navigation operation, the map orientation can be changed between 2D north-up, 2D heading-up and 3D.

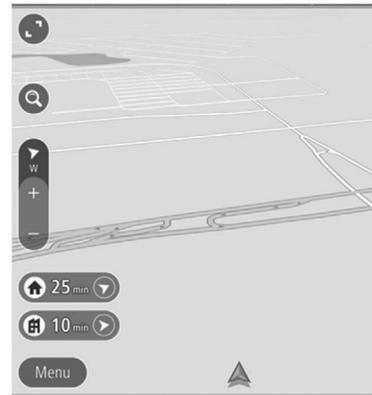
► **2D north-up**



► **2D heading-up**



► **3D heading-up**



**CAUSE:**

The map orientation defaults to 2D north-up, 2 mile scale whenever the ignition is cycled off-on.

**RECOMMENDATIONS:**

This is a normal operating characteristic.

**CONDITION #2:** NAVI screen does not show the correct location.

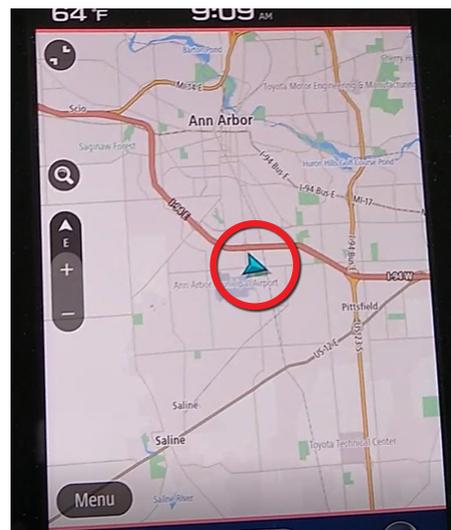
**CAUSE:**

It is possible during Delivery Mode for the NAVI GPS display to show Manhattan, NY location all the time. This is a default setting for GPS in this mode. Other indicators of Delivery Mode are:

- The arrow is gray in color
- The clock time displayed is inaccurate.

Following Delivery Mode or Memory Initialization  
(map arrow is gray).

Normal Operation (map icon is blue/green).



*Continued...*

**RECOMMENDATIONS:**

If a vehicle presents with this concern, inform the customer that the map icon will change to cyan (blue/green) and the clock will reset to the correct time as soon as the GPS module receives the current vehicle location. In a case where the vehicle location shown on the Navigation screen does not update to show the correct location and the clock remains inaccurate, perform the applicable diagnostics to confirm the GPS antenna integrity and secure harness connection.

**NOTE:** The synching process time varies depending on the available GPS signal strength. Driving the vehicle (while avoiding frequent direction changes) for a few miles will help to expedite the process.

**CONDITION #3:** Artwork appearance on the Center Information Display disappears.

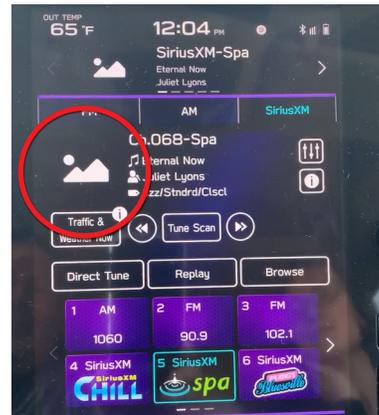
**CAUSE:**

It is a normal operating characteristic for the SXM station artwork to disappear from the CP1 / Gen 4 Infotainment system display whenever the vehicle is in motion. Artwork is restored when the vehicle stops.

Artwork is displayed when stopped or parked.



Artwork is NOT displayed when moving.



This behavior occurs when using all audio sources including Bluetooth streaming and Media.

**RECOMMENDATIONS:**

Explain to customers questioning this condition that it is a normal operating characteristic intended to reduce distraction. Replacing the head unit will not change this characteristic.

**CONDITION #4:** Engine Auto Start-Stop operation defaults to “ON” following the ignition cycle off-on.

**CAUSE:**

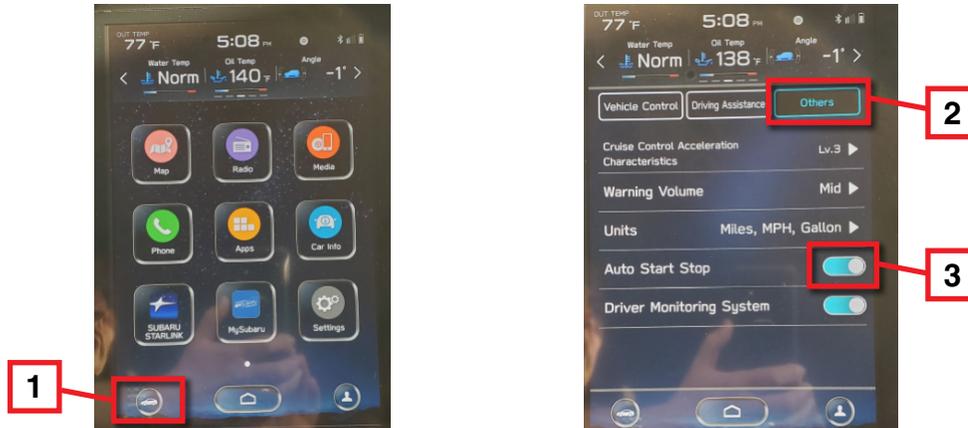
The Auto Start-Stop feature operates automatically to save gasoline and reduce emissions when the vehicle is stopped. By design, the Auto Start-Stop feature always defaults to ON whenever the ignition is cycled off-on.

*Continued...*

## RECOMMENDATIONS:

There may be times when this feature needs to be deactivated. Follow the sequence provided below to deactivate Auto Start-Stop:

1. Touch the Vehicle Icon on the Home screen
2. Touch the Others tab on top
3. Move the Auto Start-Stop slider to OFF.



**CONDITION #5:** Sound Output is delayed following the CP1 / Gen 4 Infotainment system reboot.

### CAUSE:

During the reboot function of the CP1 / Gen 4 Infotainment system (following ignition off-on), multiple functions are being configured: Telematics system, Audio system, HVAC system, Combination Meter Display, Center Information Display, mobile application functions and the Navigation system (where applicable). **NOTE:** Tasks and operations dedicated to safety are given the highest priority. This is the reason why operation of some controls like turning of the volume knob or touch display selections might appear out of sync and be delayed. The same applies to the sound output being delayed following a system reboot.

## RECOMMENDATIONS:

Explain to customers this is a normal operating characteristic.

**CONDITION #6:** Voice Recognition (VR) operation is inconsistent when using Apple CarPlay or Android Auto applications.

### CAUSE:

When using the CarPlay or Android Auto application, it is important to note using a *short* press (quick press/ release) of the Talk switch on the steering wheel to start the VR system invokes the native (vehicle) on-board VR application and *not* Siri or Google. This is a different behavior from the previous generation Harman Gen 3 head unit. This change allows the use of VR for HVAC or media control while using CarPlay or Android Auto.

*Continued...*

## RECOMMENDATIONS:

This detail is important to keep in mind when using the VR feature for functions like voice to call or voice to text. For example, due to CarPlay protocols, placing a call using the native on-board VR by speaking a contact name isn't possible. When CarPlay is active, a **long** press of the Talk button will activate Siri and allow calls to be made using the phone's contact list. Alternatively, calls can be made using the native on-board VR when prompted by speaking the desired phone number. To recap, when CarPlay or Android Auto are in use, placing handsfree phone calls by speaking contact names is not possible using the native VR system. In addition, when CarPlay or Android Auto are active, a **short** press of the Talk button activates only the native VR system which can be used for HVAC and other settings. When using CarPlay or Android Auto, a **long** press of the Talk button will activate Siri / Google Assistant to allow their use in making handsfree calls using the phone's contact list. The native VR can only be used to call contacts when CarPlay or Android Auto are NOT in use unless the customer chooses to dial by phone number rather than by contact.

**REMINDER:** To start Siri / Google Assistant, while using CarPlay / Android Auto press and HOLD (**long** press) the Talk switch on the steering wheel.

### On-board Voice Recognition Activated



### Siri Activated



The same is true when using the voice to text function. To start Siri/ Google Assistant, press and HOLD the Talk switch on the steering wheel. This will initiate change-over from the native on-board VR system to Siri / Google Assistant.

**CONDITION #7:** Intermittent volume adjustment concerns when using Android Auto application.

### CAUSE:

There are instances when using Android Auto, the audio volume cannot be adjusted intermittently even though notification of the adjustment by turning the volume control knob occurs as shown below on the display as shown here.

This condition occurs because Android Auto operation is being prioritized over the CP1 / Gen 4 Infotainment system.



*Continued...*

**RECOMMENDATIONS:**

This condition is temporary and will clear eventually. To expedite clearing and regain faster volume control for the audio source, there are some work arounds. One option is to relaunch Android Auto by disconnecting and reconnecting the phone to the CP1 / Gen 4 Infotainment system or, a short press of the Talk button on the steering wheel to start the native VR followed by saying “cancel” after the beep is heard. The procedure shown below copied from the Owner’s Manual regarding sound output can also be used.

**TROUBLESHOOTING ISSUES COMMON TO THIS SYSTEM**

Symptom	Cause	Action
The touch screen becomes unresponsive during operation.	An error has occurred in the system.	Press and hold the “VOLUME” knob for 10 seconds or longer to reset the system.
The sound suddenly stops working.		
Only the background is displayed on the screen and no icons appear.		

Always confirm the customer has the latest Android Auto and Google application updates installed on their device as regular enhancements are released to ensure the best experience.

**CONDITION #8:** Android Auto does not launch.

**CAUSE / NOTE:** The vehicle must be stopped and the electric parking brake (EPB) must be ON to complete the initial pairing process between the CP1 / Gen 4 Infotainment system and the phone using the Android Auto application. When connecting a phone to the USB port, follow the messages on both the CP1 display and the phone screen. See below an example.

**CP1 System**



**Android Phone**



**RECOMMENDATIONS:**

This is a normal operating characteristic. It is a good practice to confirm an undamaged, genuine cable is used to connect the phone as well as the making sure the phone is set to accept connection with a new vehicle.

*Continued...*

**CONDITION #9:** Android Auto connection failure is displayed.

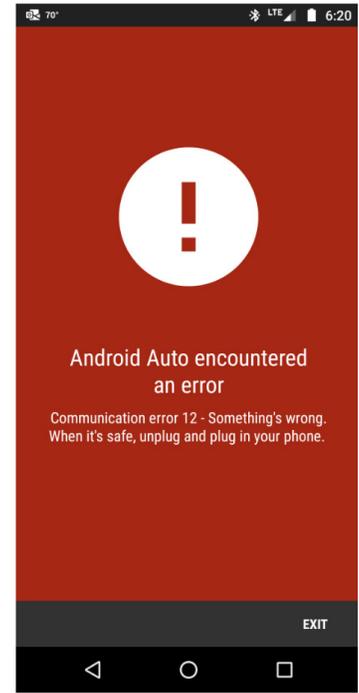
**CAUSE:**

Reports have been received regarding a communication error message displayed on the phone screen as shown here.

When this message is displayed on the phone after connection to the CP1 / Gen 4 Infotainment system, the Android Auto application fails to launch. Investigation has shown the source of this error is on the phone side and can be resolved by re-synching communication by disconnecting and reconnecting the phone. The communication error number (12 shown in the example) is irrelevant.

**RECOMMENDATIONS:**

When reviewing a similar issue, explain to the customer that replacing the head unit will not resolve this condition as it is not the root cause of the error. It is a good practice to confirm an undamaged, genuine cable is used to connect the phone as well as making sure the phone is set to accept connection with a new vehicle.



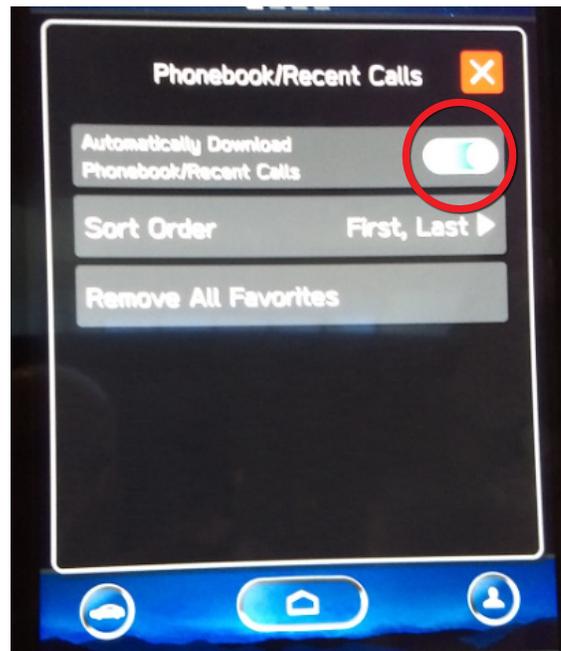
**CONDITION #10:** User is unable to download Phonebook Contacts.

**CAUSE:**

Confusion regarding the phone contact transfer process.

**RECOMMENDATIONS:**

When assisting with questions about the phonebook download process, start by verifying the option is enabled in the CP1 / Gen 4 Infotainment system using the following screen shot as a guide.



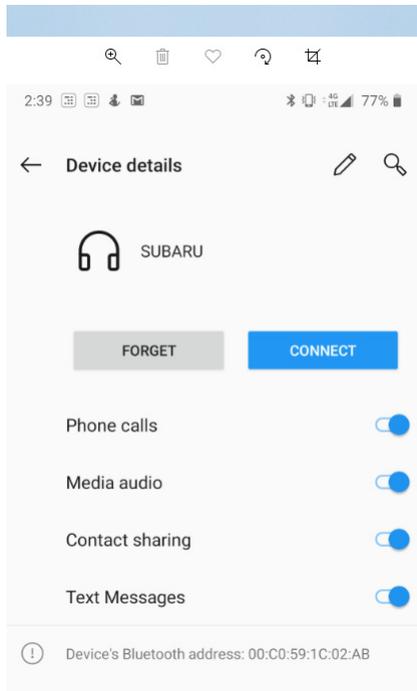
Home > Settings > Phone > Phonebook/Recent Calls

*Continued...*

If the customer still cannot access the phonebook or messages, check the phone's Bluetooth settings to ensure all related sharing settings are enabled.

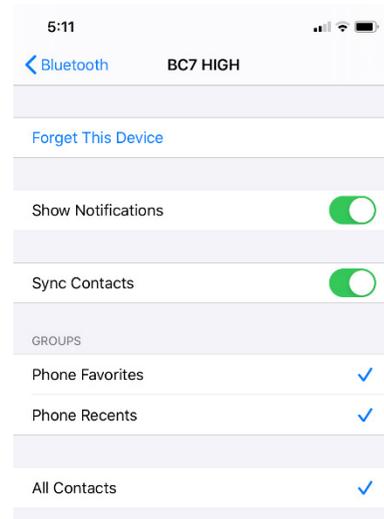
- **Android Device**

Select the gear icon next to your vehicle device name. Ensure all settings are enabled.



- **Apple Device**

Select Bluetooth setting, then under “MY DEVICES”, click on the “i” symbol next to connected device to confirm “Sync Contacts” and “Show Notifications” options are enabled as shown below. It is strongly recommended to restart the vehicle to finalize the pairing process and ensure all devices are properly synchronized.



**NOTE:** The system can store up to 2000 phone numbers. The total number of phonebook contacts transferred from the phone would be equal or less, because it depends on the amount of data each contact contains (multiple phone numbers, address, email, etc.).

**CONDITION #11:** Unable to transfer Phone Favorites to CP1 / Gen 4 Infotainment system.

**CAUSE:**

Keep in mind, the CP1 / Gen 4 Infotainment system's Favorites list and that of the paired phone are not synchronized. The Bluetooth phone's Favorites list will not be downloaded automatically, even after the phonebook data has been downloaded from the Bluetooth phone. The customer is required to manually register the contacts in the Favorite list. The maximum number of Favorite contacts is 15.

**RECOMMENDATIONS:**

Explain to customers this is a normal operating characteristic.

*Continued...*

**CONDITION #12:** Playback of audio files using a USB memory device does not work.

**CAUSE:**

There are no restrictions for the brand or size of the USB Memory device. All will work with the CP1 / Gen 4 Infotainment system as long as they meet following requirements:

- USB communication formats: USB 2.0 LS (1.5 Mbps) / FS (12 Mbps) / HS (480 Mbps)
- File format: FAT 32
- Supported file extensions: m4a / aac, mp3, wma, wav, flac, m4a **NOTE:** It is recommended to remove all files in formats not supported by the CP1 system from the USB memory device.

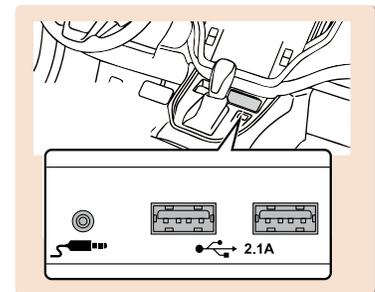
**NOTE:** Either front USB port can play back audio files. In case two USB memory devices are connected, the one connected first will be used by the system for playback operation. In case an Apple device is connected to one of the USB ports, only the Apple device (Carplay / Subaru STARLINK) can be used. During this time, USB Memory Device playback isn't available since the USB port operates in "Host mode" during Carplay or Subaru STARLINK operation.

**RECOMMENDATIONS:**

The USB audio playback screen can be accessed by pressing the Media icon on the home screen.

Always confirm the customer is using a correct port as well as following the guide lines for the media requirements. If the customer still can't play back their audio files using a USB memory device, confirm the device has not been damaged. Once the USB device is confirmed to be OK, follow the applicable Service Manual procedure to perform further diagnostics.

**CONNECTING A USB MEMORY DEVICE/  
PORTABLE DEVICE**



**CONDITION #13:** Even if a user follows the proper procedure, a "Notification Date" cannot be set and shows " - - / - - / - - - - / " as shown below after inputting a notification date and pressing "Set."

**CAUSE:**

Date and Time have not been set. The user must set a date and time prior to setting a "Notification Date."

**RECOMMENDATIONS:**

Two methods to set the date and time for the BASE model are listed below:

- 1) Synchronize with Phone: Pair a Bluetooth phone to synchronize the date and time from the phone.
- 2) Manual: Manually set the date and time using the Time Setting menu.

**NOTE:** On Mid and High models, once the system receives GPS data from the DCM (Mid/High model) or CCU (High model), the head unit will set the date and time automatically.

**▼ Maintenance**



Maintenance reminders can be set.

**Engine oil setting:**

1. Touch (Maintenance).
2. → (Engine Oil)
3. Select "Notification Date" or "Notification Distance" of the reminder.
4. → "Set"
5. →

**Oil Filter setting:**

The setting procedure is the same as "Engine Oil" setting, but touch the "Oil Filter" item in step 2.

**Tires setting:**

The setting procedure is the same as "Engine Oil" setting, but touch the "Tires" item in step 2.

**Maintenance Schedule setting:**

The setting procedure is the same as "Engine Oil" setting, but touch the "Maintenance Schedule" item in step 2.

**NOTE**

- Touch "Reset" to reset each setting.
- Touch "Update" to revert to the default value.



*Continued...*

**CONDITION #14:** Genuine Subaru accessory CD player does not play back “lossless” (listed as ALAC and FLAC in the table below) audio file formats although the Owner’s Manual shows CP1 does support these formats.

TIPS FOR OPERATING THE AUDIO SYSTEM

- For USA customers, please visit [www.subaru.com](http://www.subaru.com) for details. Outside of the USA customers, contact your local dealer to arrange a demonstration in order to confirm whether or not the phone can be paired with the vehicle.

**FILE INFORMATION**

Codec	Description	Channels	Container/Extension
MPEG-4 AAC LC	8-48 kHz sampling rate 8-320 kbps CBR, VBR	Mono and stereo	.m4a, .aac
MPEG-4 HE AAC	16-48 kHz sampling rate 8-320 kbps CBR, VBR	Mono and stereo	.m4a, .aac
MPEG-4 HE AAC v2	16-48 kHz sampling rate 8-320 kbps CBR, VBR	Mono and stereo	.m4a, .aac
MP3	8-48 kHz sampling rate 8-320 kbps CBR, VBR	Mono, Stereo, and Joint	.mp3
WMA2/7/8/9/9.1/9.2	16-48 kHz sampling rate 8-320 kbps CBR, VBR	Mono and stereo	.wma
PCMWAVE	8 bit and 16 bit 8000, 16000, and 44100 Hz sampling frequency	Mono and stereo	.wav
FLAC	44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz, 176.4 kHz, 192 kHz sampling rate 16 bit, 24 bit	Mono and stereo	.flac

Codec	Description	Channels	Container/Extension
ALAC	44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz, 176.4 kHz, 192 kHz sampling rate 16 bit, 24 bit	Mono and stereo	.m4a

- The player is compatible with VBR (Variable Bit Rate).
- MP3 (MPEG Audio Layer 3), WMA (Windows Media Audio) and AAC (Advanced Audio Coding) are audio compression standards.
- This system can play AAC/AAC+ v2/MP3/WMA files on CD-R\*, CD-RW discs\*, USB memory device, and Bluetooth device.
  - \*: If equipped
- This system can play disc recordings compatible with ISO 9660 level 1 and level 2 and with the Romeo and Joliet file system.\*
  - \*: If equipped
- When naming an AAC/AAC+ v2/MP3/WMA file, add an appropriate file extension (.mp3/.wma/.m4a).
- This system plays back files with .mp3/.wma/.m4a file extensions as AAC/AAC+ v2/MP3/WMA files respectively. To prevent noise and playback errors, use the appropriate file extension.
- This system can play only the first session when using multi-session compatible CDs.\*
  - \*: If equipped

**CAUSE:**

The information on page 178 of the Owner’s Manual shows “FILE INFORMATION” for Audio System but, this information is only applicable when using a USB Memory Device.

**RECOMMENDATION:**

As a work-around, use WMA/MP3/AAC file formats to play back audio CDs originally created in lossless formats.

**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.