

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: 2020MY Legacy and Outback

SUBJECT: Denso Gen 4 Cockpit One (CP1)
Infotainment System Operating TIPS

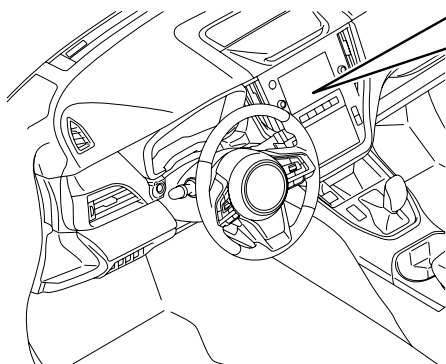
NUMBER: 15-259-20R

DATE: 02/19/20

REVISED: 06/28/21

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.



(A) "Base"



(B), (C) "Mid" & "High"



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.

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.

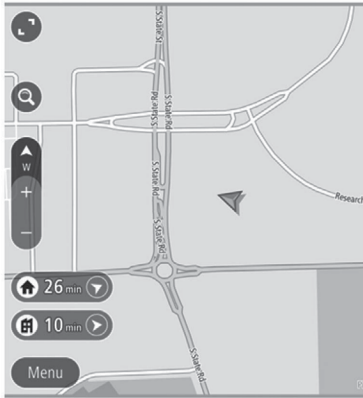
Subaru of America, Inc. is ISO 14001 Compliant

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.

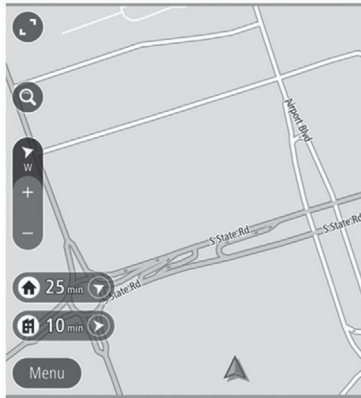
Continued...

CONDITION #1a: During Navigation operation, the map orientation can be changed between 2D north-up, 2D heading-up and 3D.

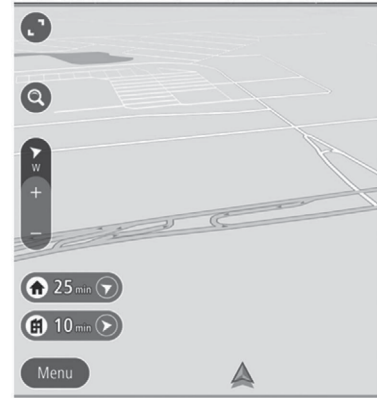
► 2D north-up



► 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 #1b: Navigation issues due to street names not shown.

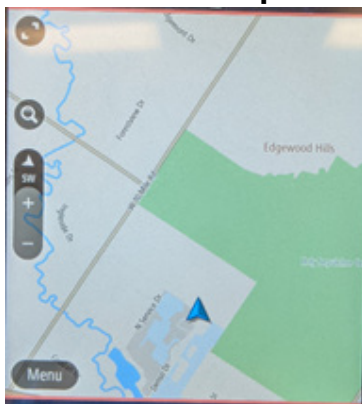
CAUSE:

Street names are not shown.

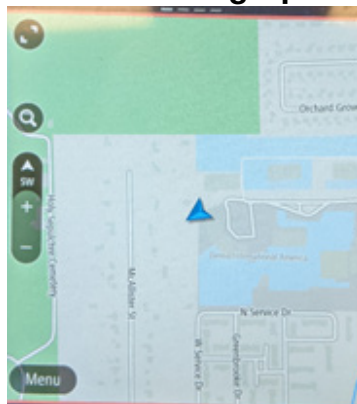
RECOMMENDATIONS:

Just a reminder there are three map orientation modes: 2D north-up, 2D heading-up and 3D heading-up.

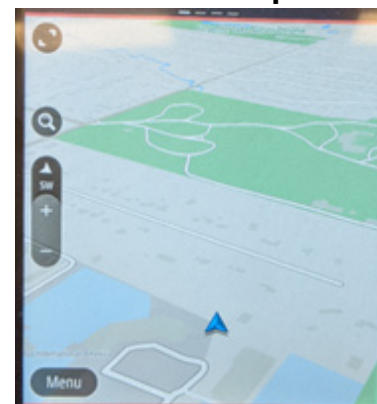
2D north-up



2D heading-up



3D north-up



Please note street names only appear in 2D north-up and 2D heading-up. **Street names are not shown in 3D heading-up map orientation mode.** This is TomTom User Interface constraint for CP1.0 system. So this operation is characteristic.

Continued...

CONDITION #1c: Navigation issues due to no match for the address

CAUSE:

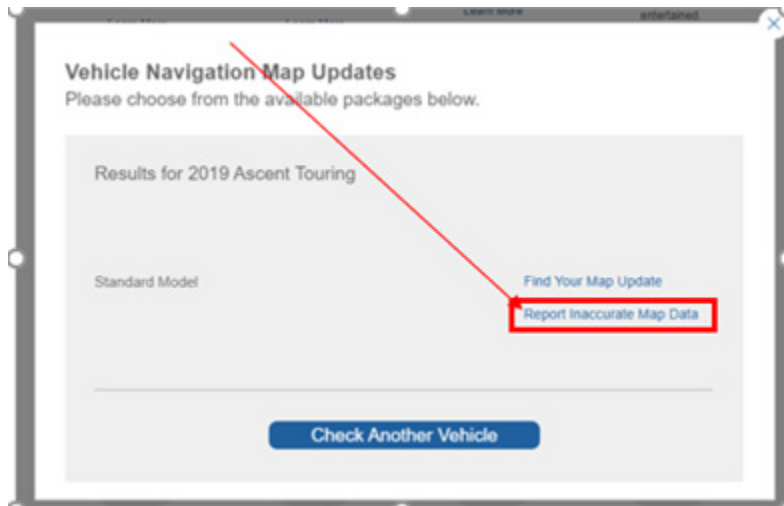
Unable to find an address using on-board navigation typing or speaking the address.

RECOMMENDATIONS:

Occasionally we see reports of an address or POI not able to be found in the navigation system. Please keep in mind the TomTom data base used with NAVI feature requires regular updates to stay current due to bug fixes as well as information revisions. When assisting with such cases, first duplicate the issue and document the address in question. Then ensure the system has the latest software update and the latest map version. Bringing system up to date offers operation improvement as well as helps to establish a baseline to perform diagnostic.

If even after the map is updated , there is still a concern about inaccurate map data (no match for street name, no match for town/city name, address not found etc.) we appreciate the feedback reported using the link from SOA website <https://www.subaru.com/owners/index.html>.

Select “Navigation” and the vehicle of interest using pulldown menus, click command button “Search for Updates” button and use the link “Report Inaccurate Map Data”.

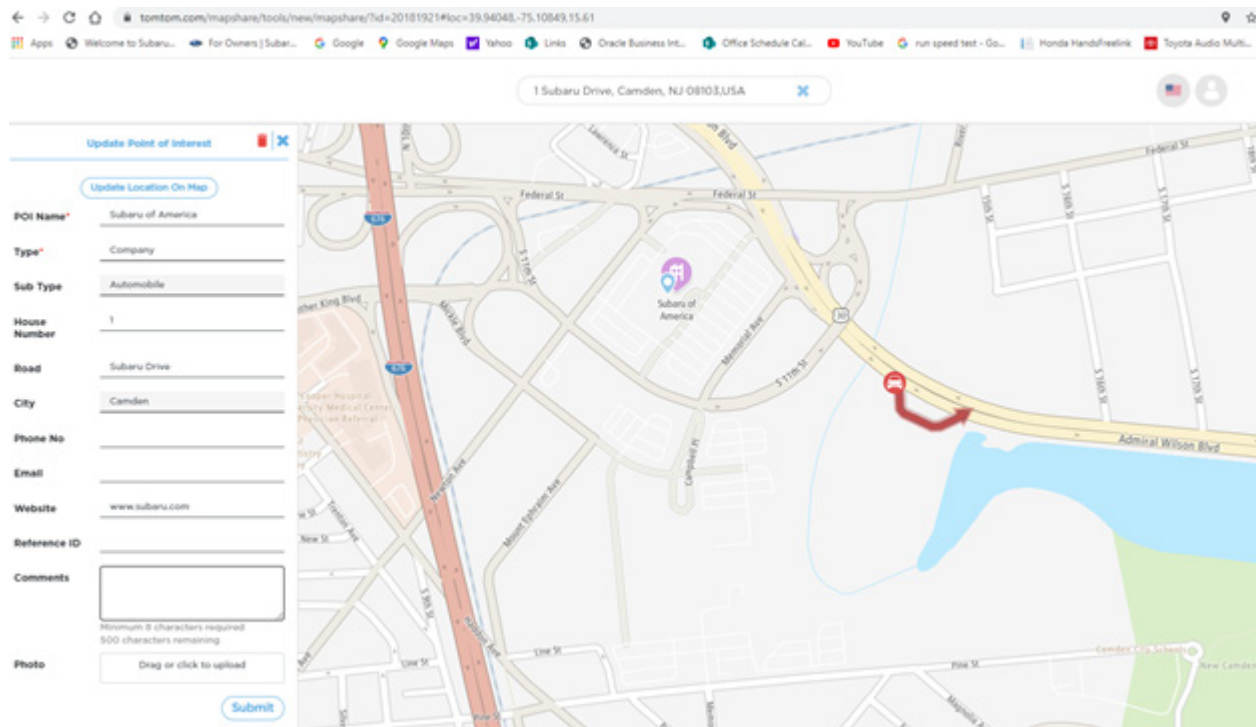


You would get redirected to the map share tool page following the link: <https://www.mapsharetool.com/external-iframe/external.jsp?CustomerId=20181921>

Note: they need to choose a Facebook, Google or Yahoo account to submit your report, so it has something to tie it to.

Continued...

See below for an example of reporting a map error.



Please keep in mind the TomTom database will always be less up to date vs smart phone navigation applications, since it isn't connected to the cloud using real time information.

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

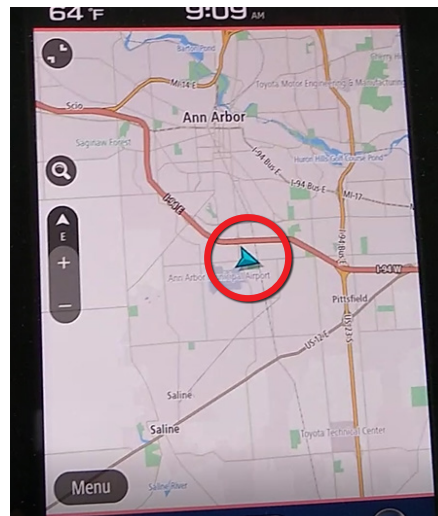
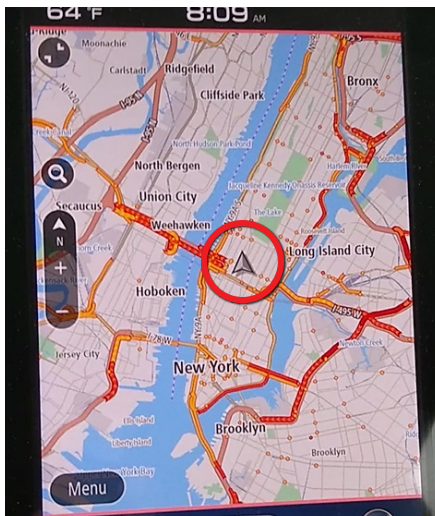
CAUSE:

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.

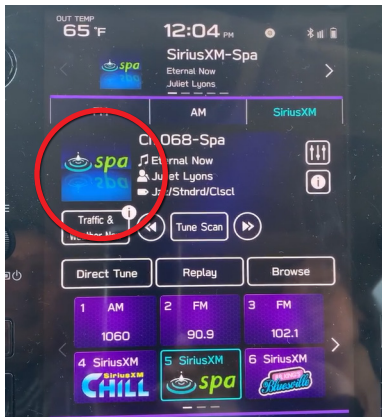
NOTE: The synching process time varies depending on the available GPS signal strength. Driving the vehicle (while avoiding frequent direction changes) for a few miles will help to expedite the process.

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

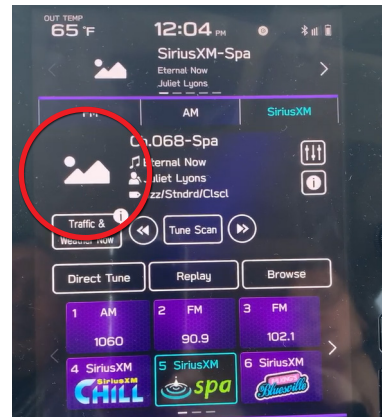
CAUSE:

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:

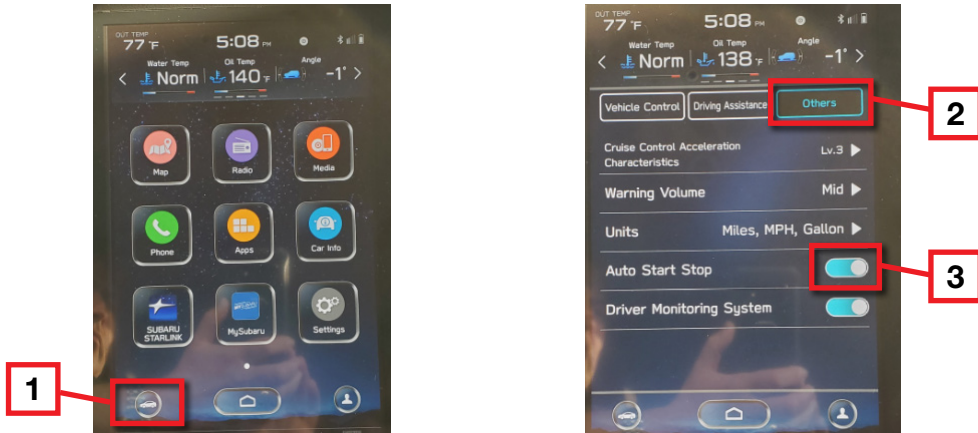
The Auto Start-Stop feature operates automatically to save gasoline and reduce emissions when the vehicle is stopped. By design, the Auto Start-Stop feature always defaults to ON whenever the ignition is cycled off-on.

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.

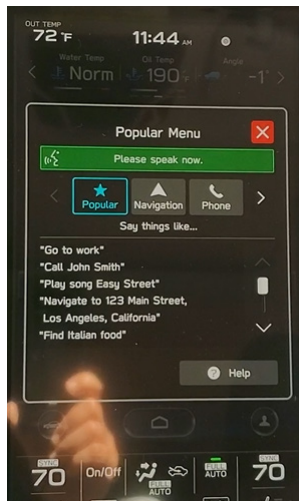
Continued...

RECOMMENDATIONS:

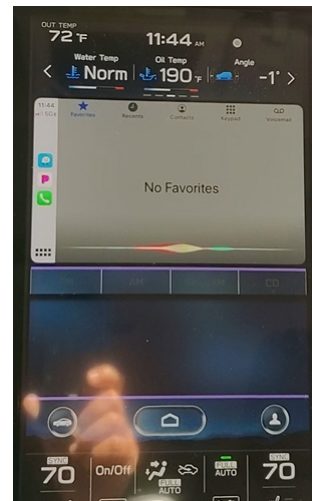
This detail is important to keep in mind when using the VR feature for functions like voice to call or voice to text. For example, due to CarPlay protocols, placing a call using the native on-board VR by speaking a contact name isn't possible. When CarPlay is active, a **long** press of the Talk button 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

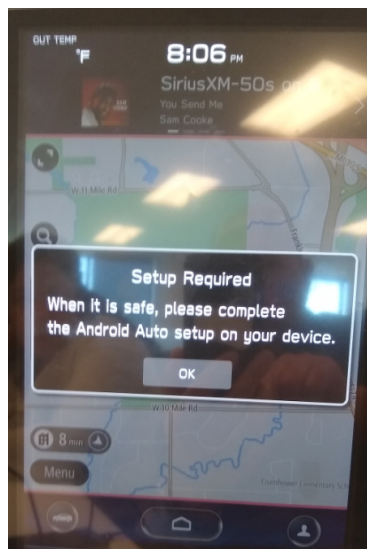
Symptom	Cause	Action
The touch screen becomes unresponsive during operation.	An error has occurred in the system.	Press and hold the “ VOLUME ” knob for 10 seconds or longer to reset the system.
The sound suddenly stops working.		
Only the background is displayed on the screen and no icons appear.		

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.

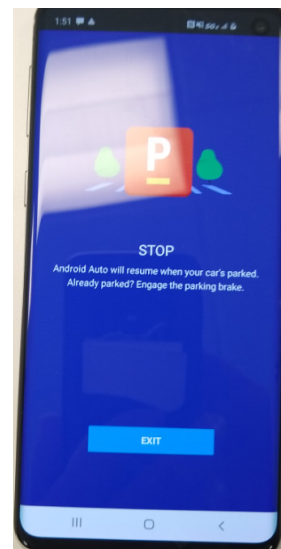
CONDITION #8: Android Auto does not launch.

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.

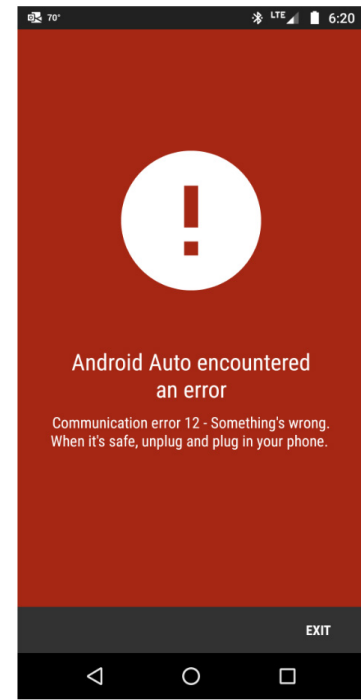
CAUSE:

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.

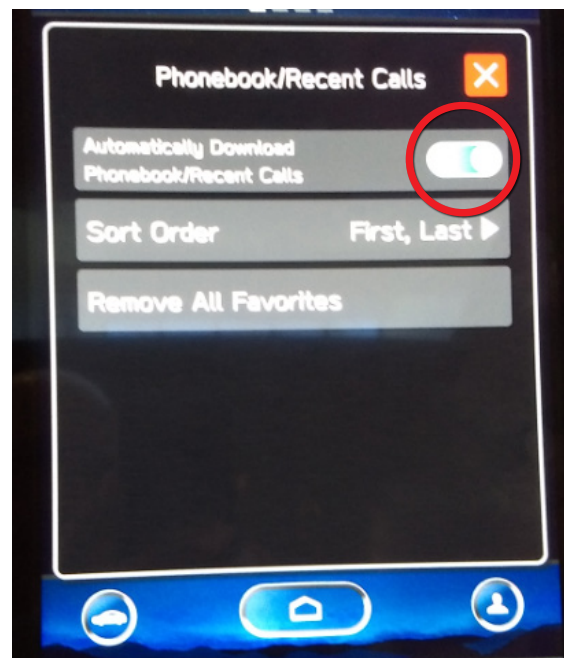
CAUSE:

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

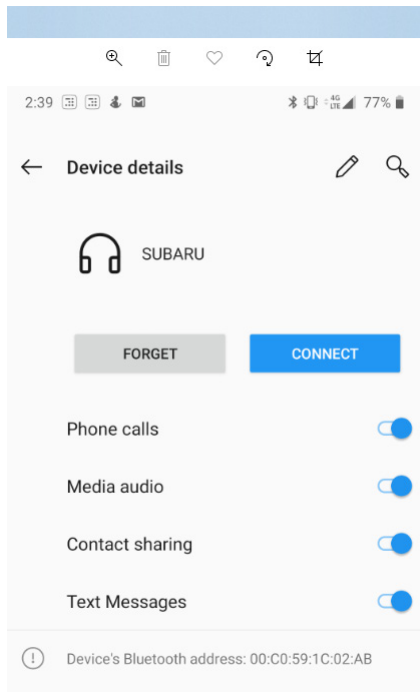


Continued...

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

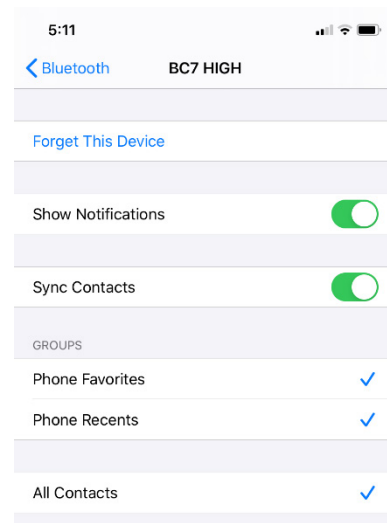
- **Android Device**

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.

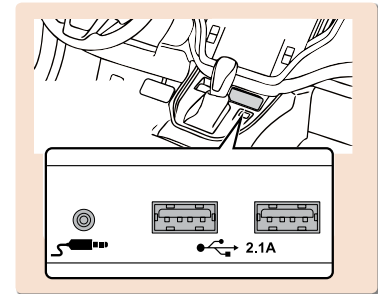
NOTE: Either front USB port can play back audio files. In case two USB memory devices are connected, the one connected first will be used by the system for playback operation. In case an Apple device is connected to one of the USB ports, only the Apple device (Carplay / Subaru STARLINK) can be used. 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.

**Vehicle Owner's Manual for
Maintenance (Page 238)**

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 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
PCM WAVE	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.

CONDITION #15: Microphone test anomaly

When performing the diagnostic checks for microphone operation using DIAGNOSTICS MODE (Dealership Mode/ Function Check/Microphone), the level gauge reading may appear weaker than expected or what may have been seen during prior testing. In some cases, a time lag or no or just one bar may be displayed when speaking into the microphone. This can occur both input levels and does not necessarily indicate a concern with the microphone.

Continued...



Lower Display Screen on
"Base" Models



Display Screen on "Mid"
and "High" Models

CAUSE:

There is a known bug with the RC2003 software update released in June 2020. See Appendix B in TSB **15-261-20R** to confirm if the software of the unit being repaired is impacted by this bug. This bug affects only the display of the microphone test and in no way impacts actual microphone operation.

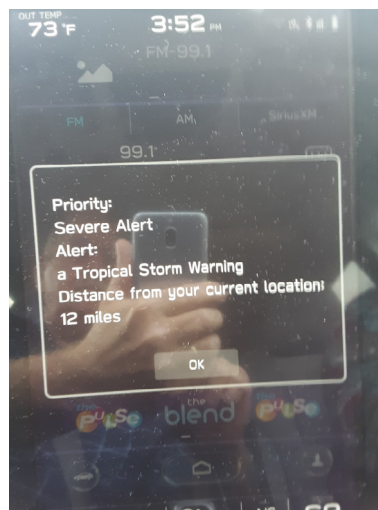
RECOMMENDATIONS:

With the microphone display being impacted, it is recommended to use other diagnostic methods. Alternatively, troubleshoot the microphone operation using the Voice Recognition feature to confirm the unit receives voice input correctly or, make a voice call. If concerns remain, perform continuity and voltage drop testing to confirm if a poor contact or connection may exist. Reference the applicable Service Manual for related wiring diagrams for the Cockpit Control Module and microphone wiring diagrams, with or without Telematics depending upon the vehicle.

CONDITION #16: Weather Alert message

CAUSE:

The Denso CP1 system is designed to receive severe weather alert information from Sirius XM (SXM) and display a pop-up window with the alert message as shown below.

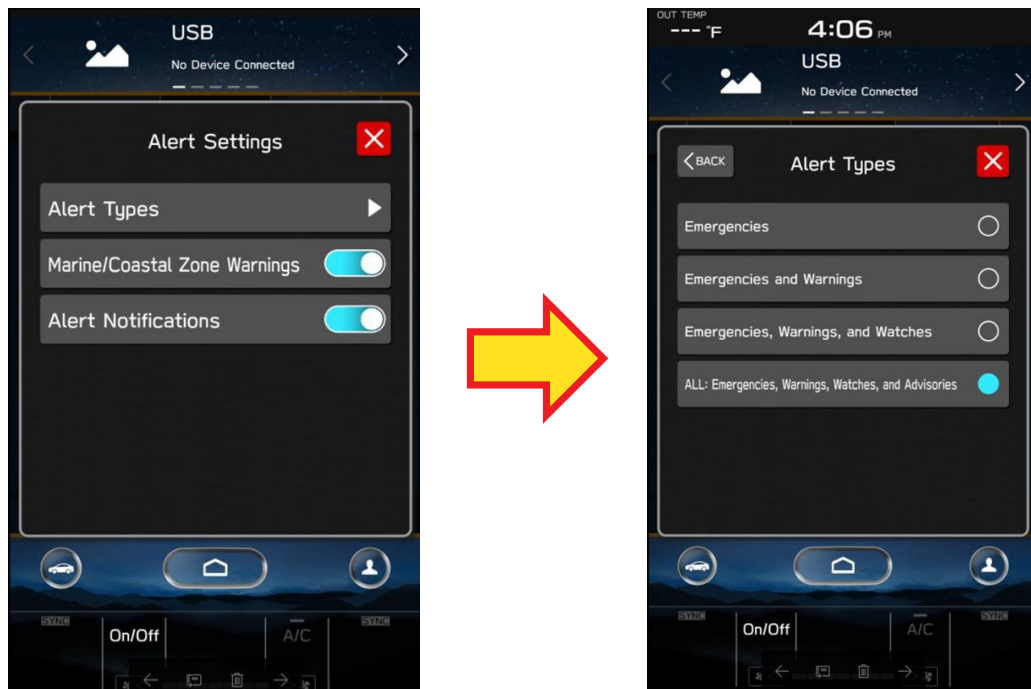


Weather alert

Continued...

RECOMMENDATIONS:

Denso implemented SXM Weather Alert settings within the Gen 4 CP1 controls. These settings control all alert types as well as the ability to completely turn the alerts off. Unlike Gen 3 Harman, the settings for Weather Alert in Gen 4 Denso are in the SiriusXM Travel Link menu (Applications). See the Gen 4 screenshots below.



SIRIUSXM Travel Link

DISPLAYING WEATHER ALERT

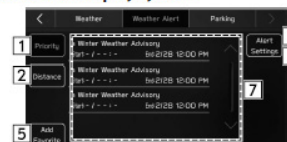
Weather alert can be displayed.

1. Select **Travel Link** (Travel Link) on the Apps screen. (→P.27, 56)
2. → **Weather Alert** (Weather Alert)

3. Check that weather alerts is displayed.
▶ 11.6-inch display system/11.6-inch display with Navi system



- ▶ Dual 7.0-inch display system



Continued...

CONDITION #17: CarPlay operation hints

CAUSE:

There have been several reports received related to Apple CarPlay operation resulting in unnecessary head unit replacement while the root cause of the condition was any or all of following:

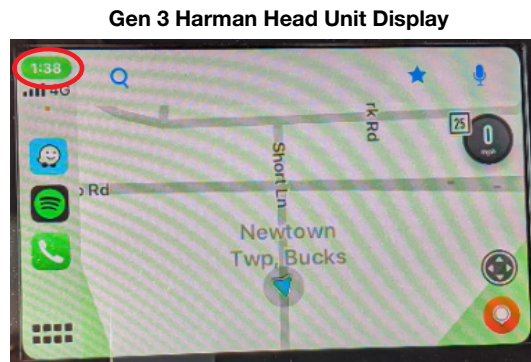
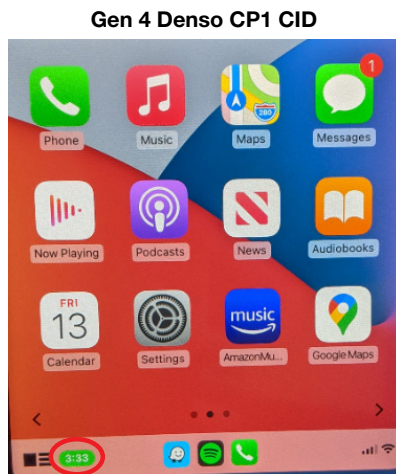
- the iPhone used to control the application
- the USB cable (non-Genuine Apple cable)
- the USB Hub (Aux port- damaged or other).

The iPhone is a “master” supervising the Apple CarPlay application projected on the system.

RECOMMENDATIONS:

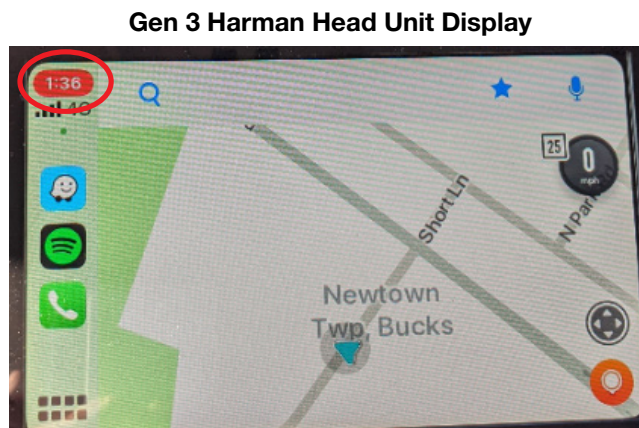
Any time communication is interrupted between these devices, it will impact Apple CarPlay functionality. The hints below are intended to help interpret the data shared by the customer.

- *Handsfree call in progress (clock with green background)*



NOTE: This information may be beneficial if the customer asks about the clock background color changing at random or, how to confirm a handsfree call was in progress when the condition occurred. Diagnostic hint: Check the phone screen when the condition occurs to see what is active on it or if any error messages are displayed.

- *iPhone MIC is enabled by another application (clock with red background)*



Continued...

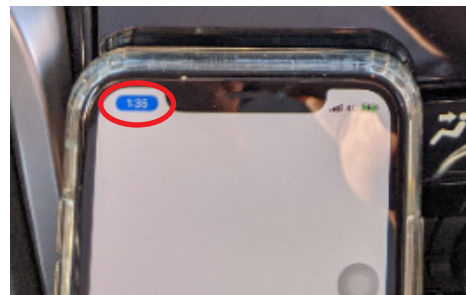
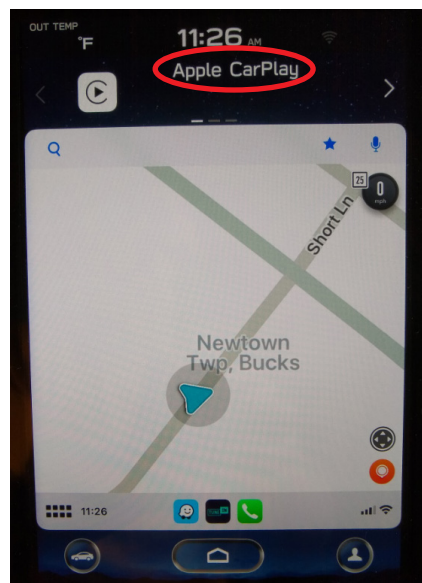
NOTE: A report was received with a customer concern of the audio streaming app stopping at random. It turned out, the Camera application (video) has been accidentally started on the iPhone and was interfering with the audio streaming application. It was determined by using clock background attribute showing the MIC was enabled each time the streaming stopped. Replacing the hardware in the vehicle would not have had any effect or resolved this case but, helping the customer to understand how the phone works will likely prevent future concerns.

HINT: Always check the phone screen when the condition occurs to see what app is active and if any error messages may be displayed.

If any issue duplicates consistently, or if only intermittent, always perform a complete diagnosis to eliminate the **iPhone, the cable and / or the USB Hub being the root cause**. Intermittent concerns are always more challenging and might require consistently collecting information from the customer over a period of time to understand the steps required to duplicate the concern.

NOTE: Observing the iPhone screen is as important as monitoring the head unit display. See the examples below which illustrate this point.

- **WAZE application has started on iPhone (iPhone clock with blue background to indicate enabled notification mode with the vehicle audio source forced to switch to Apple CarPlay):**



NOTE This information will be helpful when explaining why the radio or CD stop playing when the Waze app was started. The head unit projects what the iPhone is pushing to it. Hardware replacement will NOT fix the concern of a crashing phone app. In cases like this, frequent iPhone reboots or restarts (especially after recent iOS update) or updating or reinstalling the application on the phone were suggested. Check the comments in iTunes store as this may be a known concern with the app.

Hopefully, the information above is helpful. Always check for those types of details as well as utilization of any reference material available on SubaruNet ([Service Operations & Technical/ Forms and Downloads](#)) including TSGs, TSBs, Operating Tips etc.

Continued...

CONDITION #18: No Audio during CarPlay

CAUSE:

A number of reports have been received stating the Audio Output (radio, CD, USB etc.) gets interrupted when the Apple CarPlay app is launched or a Navigation app (e.g. Waze) or audio streaming application is (e.g. TuneIn) is started from the Apple CarPlay environment.

Gen 4 Denso CP1 CID



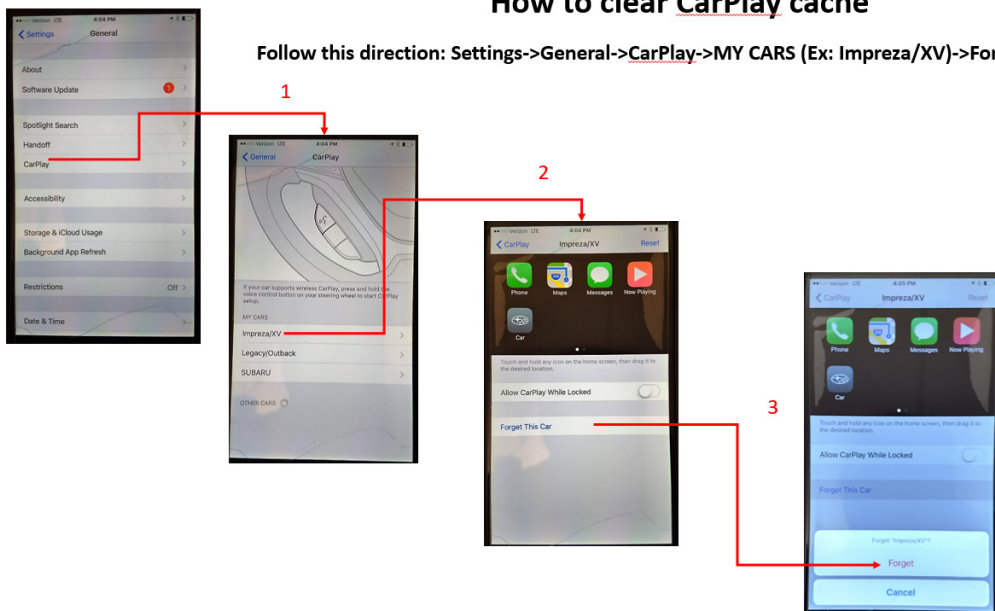
RECOMMENDATIONS:

This is a normal operating characteristic as the iPhone takes control. This may also occur when the phone is used for other purposes while CarPlay is active such as: texting, replying to e-mails or other phone-side actions.

Restore the audio playback by switching the source back to Radio or Media as applicable using the touch display or steering switch. Another work-around is to clear the iPhone's CarPlay cache. Steps to do this are supplied below.

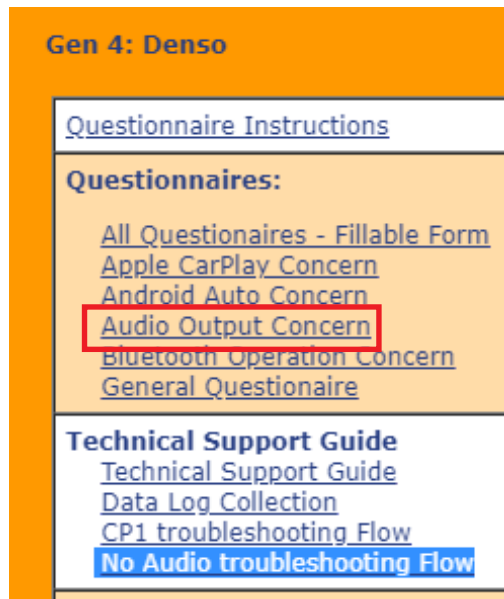
How to clear CarPlay cache

Follow this direction: Settings->General->CarPlay->MY CARS (Ex: Impreza/XV)->Forget This Car



Continued...

In case the audio output is not restored, follow the troubleshooting flowchart using the link on Subarunet ([Service Operations & Technical/ Forms and Downloads](#)) and document the results in the applicable questionnaire.



CONDITION #19: SXM Functions

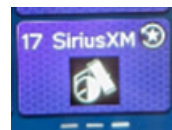
CAUSE:

Several reports have been received of normal operation being mistaken as a failed behavior resulting in corrective actions leading to unnecessary hardware replacement.

RECOMMENDATIONS:

As an example, based on enabled SXM settings, the information displayed on the CID can vary during SXM playback or when changing between SXM channels. Below are some definitions from the Owner's Manual to help with the terminology:

Smart Favorites: *The first 10 channels which are registered to a preset button will automatically be registered to Smart Favorites. Channels registered to Smart Favorites can be cached and played back as desired within a certain amount of time. Smart Favorites channels would have a designation symbol appearing in preset button in the upper right corner (*



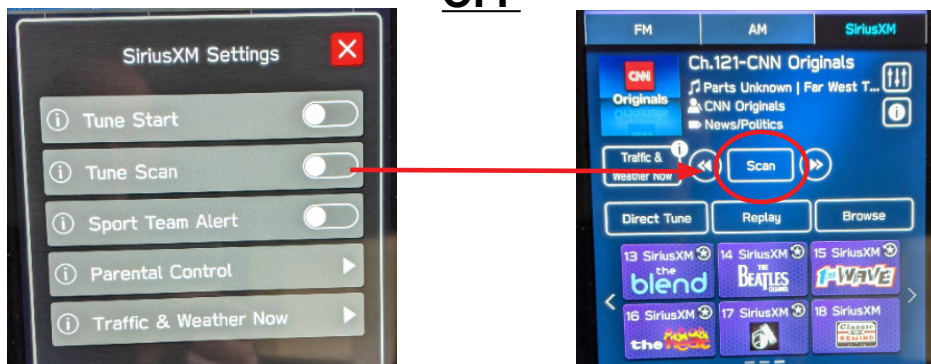
Smart Favorites allows the head unit to buffer up to 1 hour of audio content.

Continued...

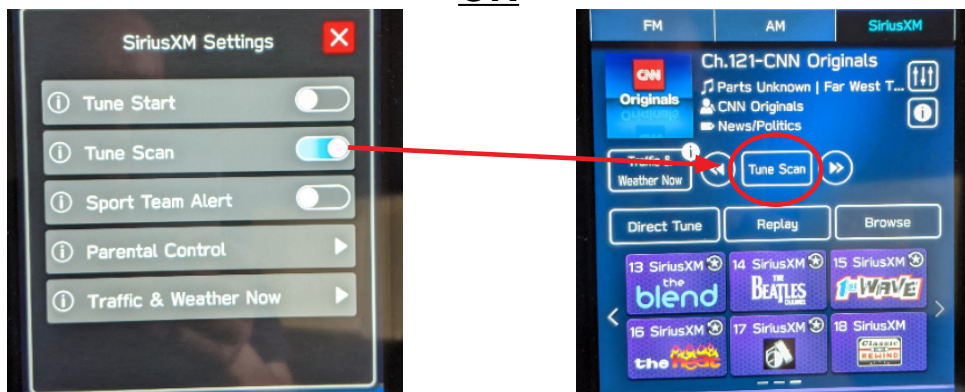
Tune Scan: Channels registered to Smart Favorites can be scanned to find a desired channel. If Tune Scan setting is ON, the “Scan” button changes to “Tune Scan”.

The screenshots below show how to control SXM functions and what it looks like on the Home screen.

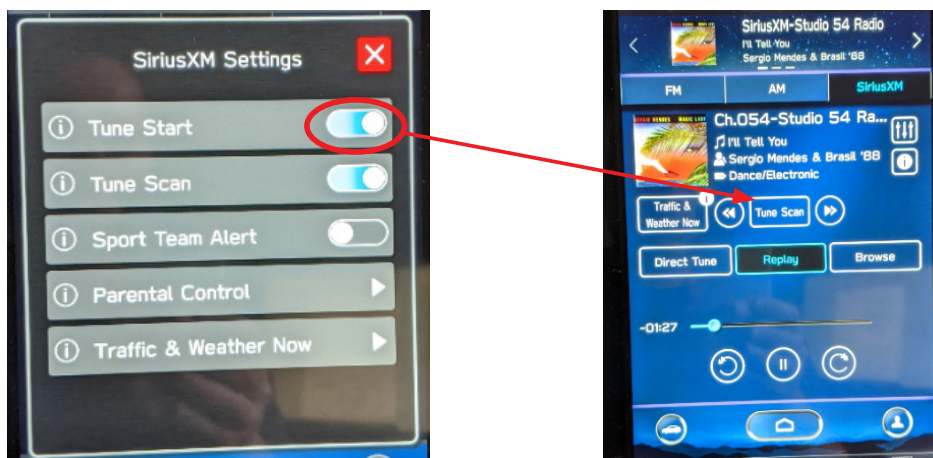
OFF



ON



Tune Start: When this function is on, channels registered as Smart Favorites will be cached and when the channel is changed, the song on that channel can be listened to from the beginning. Reports have been received where the customer is not sure how to bring back the display of the preset buttons once the cache / song replay screen has popped up. Touching the “Replay” soft button will remove the cache / song replay screen.

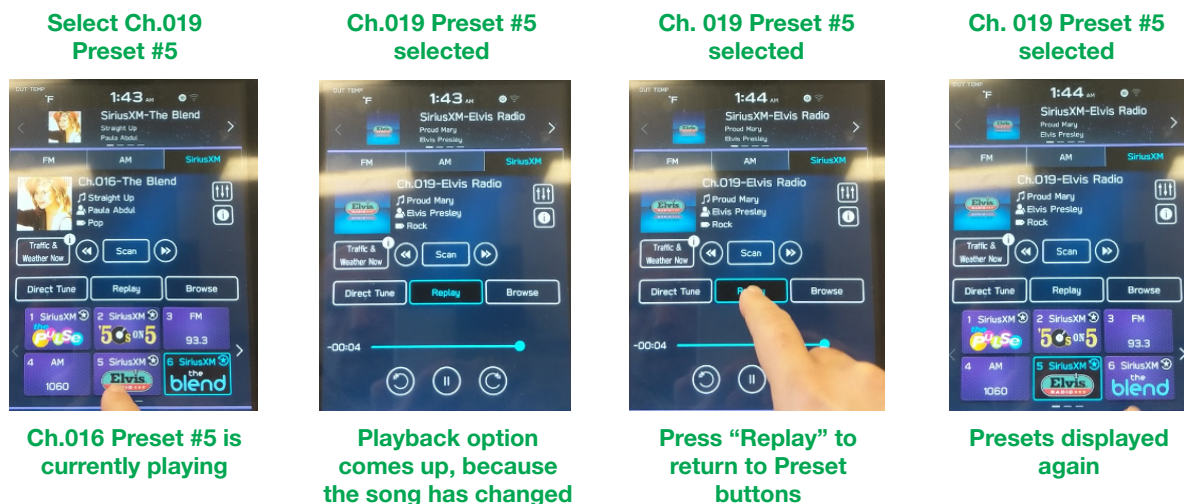


Continued...

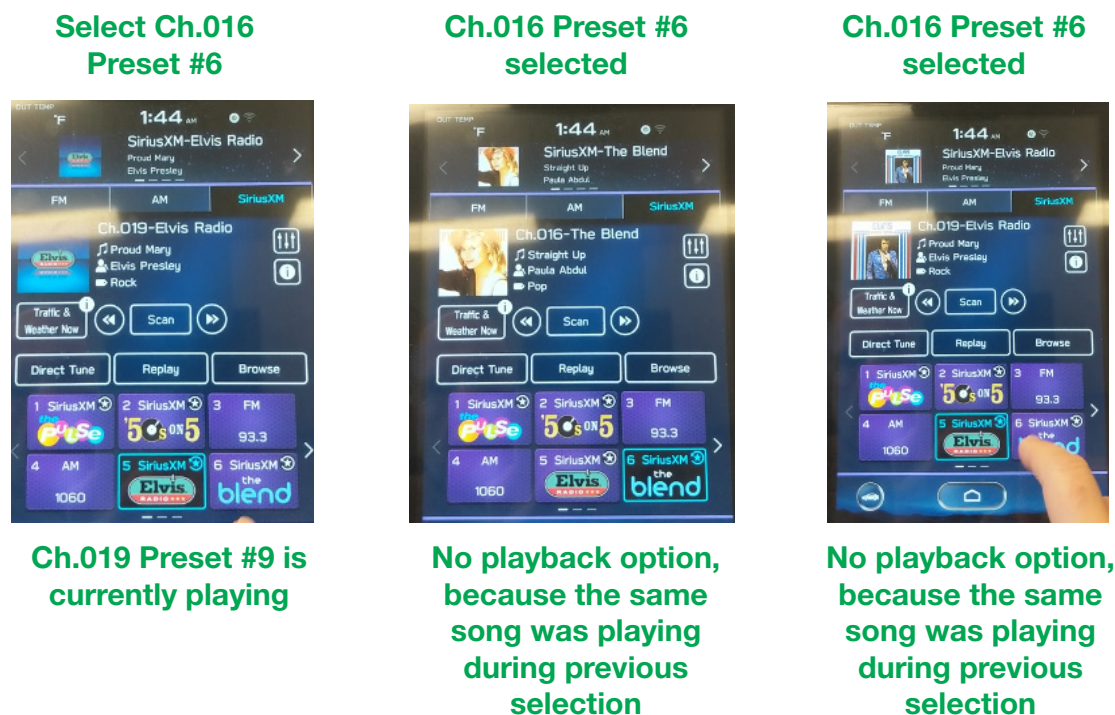
NOTE: This playback option automatically appears for Smart Favorites when the “Tune Start” setting is ON and based on when the smart favorite channel is selected. Tune Start causes the module to start playing from the start of the most recent buffered song with each station selection change. This operation is a normal operating characteristic. Do NOT replace hardware to stop getting the replay screen following Smart Favorite channel selection. If the customer wants to stop the playback option from automatically appearing for Smart Favorites, turn “Tune Start” setting to OFF using SiriusXM Setting options.

Below are some screenshots of these conditions:

- Playback option appears, when the channel selected playing a new song:*



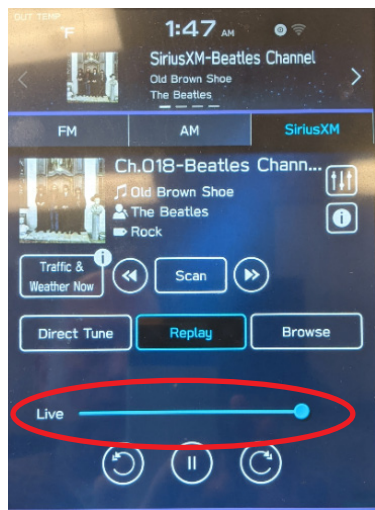
- Playback option does not appear, when the channel selected playing the same song*



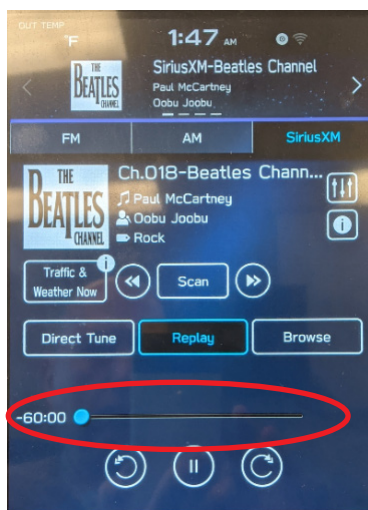
Continued...

Observing the time bar is useful in understanding the replay feature and why it doesn't start each time Smart Favorite channel is chosen with Tune Start setting enabled.

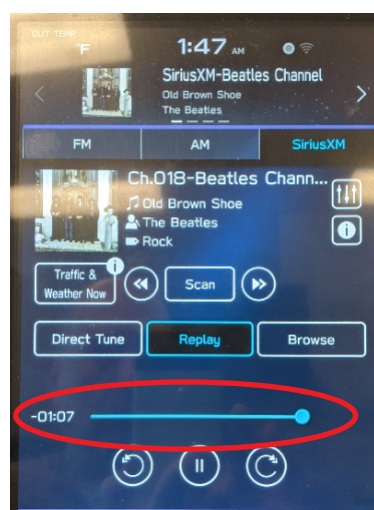
Reply button selected
(cache is full)



Playing out of cache from
the start of backup
(up to 60 min)



Smart Favorite reply from
the beginning of song
(1min7sec)



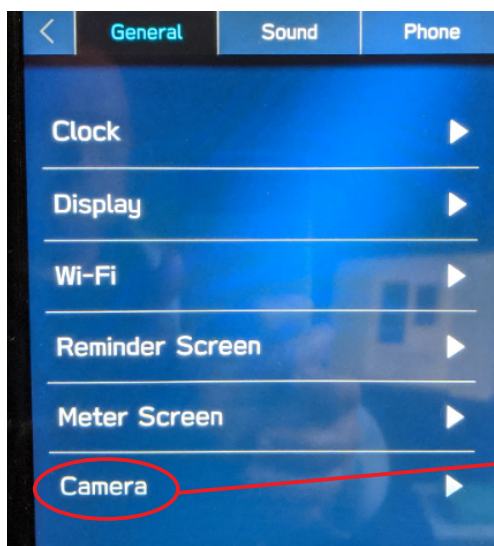
REMINDER: Always confirm the concern the customer is reporting is not related to characteristic SXM Features which may be controlled by changing settings prior to any hardware replacement.

CONDITION #20: Missing “Camera” setting

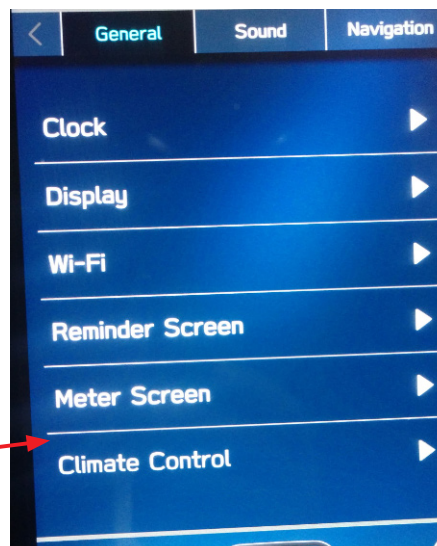
CAUSE:

A report was received describing a missing “Camera” setting in Settings/General menu:

Camera setting PRESENT



Camera setting MISSING



Continued...

RECOMMENDATIONS:

After further investigation, it was determined to be a result of a needed process not being followed during replacement of the combination meter. The new combination meter was installed but not programmed properly by completing the required Variant Work. Always follow the applicable Service Manual instructions on STIS and confirm completion of all the necessary steps before condemning a possibly related system or hardware component. The Service Manual image below is an *example* of the VARIANT WORK procedure required for Combination Meter System replacement. Always follow the applicable procedure for the vehicle being repaired.

The screenshot displays the Subaru Service Manual interface. On the left is a navigation menu with categories like 'Body & Electrical/WIRING SYSTEM', 'BODY STRUCTURE', 'INSTRUMENTATION/DRIVER INFO', 'WIRING DIAGRAM', 'OPERATION', 'INSPECTION', 'NOTE', 'Driver Monitoring System', 'Combination Meter', 'Driver Monitoring Unit', 'Switches and Harness', 'ATS', 'SECURITY AND LOCKS', 'BODY INTERCOMUNICATION SYSTEM', and 'General Description'. The main content area is titled 'INSTRUMENTATION/DRIVER INFO > Combination Meter System' and 'OPERATION'. It includes '1. VARIANT WORK' with a note about communication with the Subaru Select Monitor, a 'Caution' section, and 'OPERATION PROCEDURE A' and 'B' with detailed steps for reading and writing ECU settings and replacing the combination meter assembly.

CONDITION #21: SXM reception outage

CAUSE:

This issue could happen due to signal loss or subscription status change.

RECOMMENDATIONS:

Start diagnostic by confirming no warning messages are displayed to indicate reception issues: antenna malfunction or signal loss. It is also a good practice to tune to **Ch. 001-XM Preview** and verify there is audio (sound) present. Also use built-in SERVICE DIAGNOSTICS MODE as described in the service manual to verify SXM antenna status (**SXM-> OK**). Unless there are issues with receiving the signal due SXM antenna, harness failures or internal system malfunction, most likely a simple signal refresh will restore normal operation. Please use the link www.siriusxm.com/ refresh and follow the steps outlined by SXM. Remember to allow enough time for the system to sync the data by keeping the system powered up after the signal refresh is initiated. During the trial period, an SXM representative might engage with the customer to let them know about their trial and when it is going to expire. If the SXM service provider does not hear from the customer or receive some type of payment, they assume the customer is not interested and **deactivate SXM radio after**

Continued...

the trial period is over. SXM service provider offers free listening campaigns, which run several times each year. Whenever there is a concern about SXM service outside the trial period, always confirm the customer's subscription is active and current before condemning the head unit. Radio ID is displayed when tune to **Ch.0**. If needed, feel free to contact SXM Advance Technical Support at 1-866-463-5326 (Monday – Friday: 8am – 8pm EST, Saturday – Sunday: Closed to perform).

CONDITION #22: Travel Link Application greyed out or Traffic information not available

CAUSE:

This issue could happen due to signal loss or subscription status change.

RECOMMENDATIONS:

When you are investigating a case for the Travel Link Application icon remaining grey or for Traffic information not being available, please confirm the Travel Link Application or Traffic information have been operational previously. Next please confirm SXM reception is not compromised and the customer is still subscribed for SXM services. Please also review information in the item SXM reception outage covered in CONDITION #21.

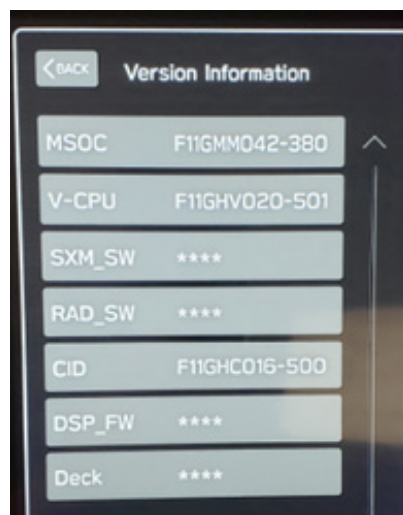
CONDITION #23: CP1 software version verification

CAUSE:

CP1 software update might be performed incorrectly.

RECOMMENDATIONS:

When you confirm CP1 system software version information, please assure the system has been running long enough to finish boot-up process. We don't have a spec for how long to wait. Good practice might be to wait around 3 minutes. If you don't wait long enough some versions would be missing or asterisk symbols (****) as shown below.



By the way it is correct to see Deck version as asterisk symbols (****), when CD Player is not installed. With that said please don't confuse the case with no "RAD_SW" version and "DSP_FW" version displayed or showing asterisk symbols (****), even after waiting long enough for the system to complete boot-up. That would be a sign for the failed software update. For more details see Subarunet message ***"Recall WRH-20 / WRI-20 Denso Gen 4 CP1 software update. Critical points to avoiding unnecessary hardware replacement"*** posted January 5, 2021.

Continued...

CONDITION #24: CD and Rockford Fosgate amp installation

CAUSE: how to combine installation of CD Player accessory and Rockford Fosgate Audio Upgrade accessory.

RECOMMENDATIONS: Please note accessory CD player can be installed with the accessory Rockford Fosgate system.

2020MY Legacy & Outback (GC7) CD Player Installation Part Number H621SAN000

Ensure the VIN matches the work order and the vehicle date is in the lock period and there are no "Holds" on the vehicle for any reason. Ensure the vehicle calls for the accessory installation. Inspect the area where the accessory is to be installed and the vehicle for damages, etc. prior to all work.

10-02-2019
C. Rohler

Note: The accessory CD Player can be installed with the accessory Rockford Fosgate Audio Upgrade and the accessory Cell Phone Charger.

Ensure Proper interior protection is in place especially during infotainment radio unit removal and reinstallation to prevent damages to the infotainment unit, dash area, console and all areas where the Audio Upgrade accessory is installed.

CAUTION: ACCESSORY INSTALLATIONS PERFORMED BY UNTRAINED PERSONS COULD RESULT IN SERIOUS INJURY TO THOSE PERSONS OR TO OTHERS.
Subaru Work Instructions are intended for use by professional accessory installers ONLY. They are written to provide step by step accessory installation instruction for a fast paced production environment. Properly trained accessory installers have the equipment, tools, safety instructions and know-how to do the job correctly and safely. Included in this information are the use of "special" accessory installation fixtures and templates that are not available to the Retailers or general public. Please refer to the Retailer Installation Instructions found in Subaru Tech Info System (STIS).

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2020MY Legacy & Outback (GC7) CD Player
Work Instructions Issue Date: 10/02/2019 Revision: B

Advanced Quality Assurance

In order to do so, you should use the harness from Rockford Fosgate Audio Upgrade kit instead of Power Harness from CD Player Installation Kit

2020MY Legacy & Outback (GC7) CD Player Installation Part Number H621SAN000

Inspect the Audit Upgrade Kit parts to ensure no missing parts or part defects:

KIT CONTENTS:			
CD Player		Side Panels	
Power Bracket		Interior Console	
Power Harness		Star Tron (Qty 1)	
Audio Harness		Clips (Qty 2)	
Scissors (Qty 1)		Bushes (Qty 2)	
Spring Clips (Qty 1)		Console Mount	

Stop: Damage may occur to the vehiclepart. Do not proceed until process has been completed with.

Work Hazard Analysis (SHA): Operator safety-use caution to avoid risk of injury.

Caution: A process that must be carefully observed in order to reduce the risk of damage to the accessoryvehicle and to ensure a quality installation.

Revision Mark/Highlight: This mark highlights a change in installation with respect to the previous issue.

Work Instruction Training (WIT): This point that designates an important step to ensure the quality of the installation.

Recycle: Item to be recycled.

Safety Torque: This mark indicates that a torque is required to install.

Note: use the harness from Rockford Fosgate Audio Upgrade kit instead of Power Harness from CD Player Installation Kit, when combined with Rockford Fosgate Audio Upgrade kit installation

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2020MY Legacy & Outback (GC7) CD Player
Work Instructions Issue Date: 10/02/2019 Revision: B

Advanced Quality Assurance

Continued...

CONDITION #25: Volume adjustment isn't available and Audio isn't playing

CAUSE: There have been many reports for audio playback and volume adjustment issue following CP1 reboot. Please keep in mind it might be a normal operation, if you see a message “**No Audio**

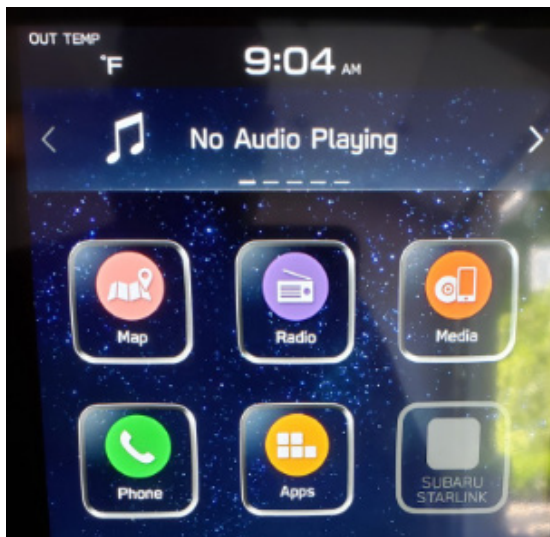
Playing” in the status bar area.



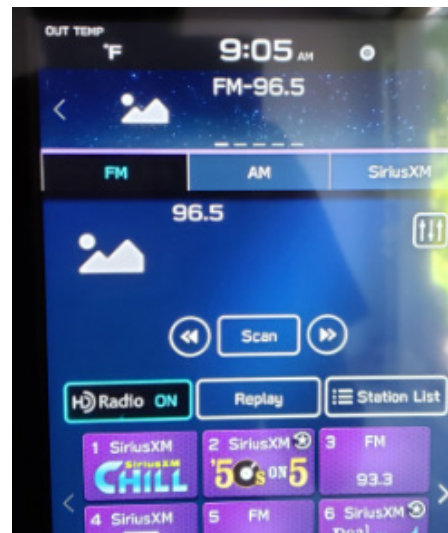
The message “No Audio Playing” in the status bar area indicates no audio source was selected for CP1 following reboot. Likely resulted from CP1 running projection application or streaming audio prior its shutdown. This is not a failure and the customer should not be alarmed.

RECOMMENDATIONS: please select the audio source (SXM, AM, FM, Media etc.) to enable playback (audio output)

FROM



TO



Please keep in mind, Telematics service and VR features are still available regardless “No Audio” source selected. By pressing talk button on steering switch would allow to hear voice prompt for voice command, which verifies the audio playback is operational. Adjusting volume while “No Audio Playing” isn't advised, because there is no audio source available.

Continued...

It is also ***advised to wait for CPI to complete its setup process*** (configure applicable settings: pair accessory, load SXM lineup, find NAVI satellites etc.), prior to entering command using CID soft buttons. This action could overload command buffer delaying completion of boot process, which might also get confused with CPI malfunction.

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.