The Harman Kardon Gen 3 Audio and Navigation systems introduced in the 2017 Impreza release are now found in 2017-18 Impreza, 2018 Crosstrek and 2018 Legacy and Outback models.

This new system has significantly more functionality than any past system ever released. As with any complex computer based system, while extensive pre-launch testing was completed, every possible use case and outcome can never be fully anticipated during development.

Post launch conditions may occur where certain combinations of inputs result in undesirable outputs. As such it is critical to gather all the details surrounding these events to allow SBR and Harman the ability to duplicate and then evaluate what is needed and then improve the system accordingly to prevent the undesired outcome in the future. This is no different than concerns commonly found and addressed with updates for Smartphones, Apps, and related peripherals for which updates and improvements are released regularly.

Required Actions and Best Practices:

1. Effective immediately retailers must complete this Investigation Guide / Questionnaire every time a customer presents with any concern(s) related to a Harman Kardon Gen 3 audio / navigation head unit.

   Important Note: *The questionnaire does provide for documentation of multiple conditions. To avoid confusion, reduce follow up questions, and clearly communicate each concern, it is best to complete a separate questionnaire for <u>each</u> concern.*

2. When requested, the Investigation Guide / Questionnaire must be supplied to Techline or attached to a related QMR.
3. All data collected through these questionnaires will be shared with Harman for possible future quality improvements.
4. The best chance of capturing this information is during the initial customer interview at the time of write up with the Service Advisor.
5. SOA highly recommends that retailers have a supply of these Investigation Guide/ Questionnaire readily available for use by the Service Advisor when these discussions occur during customer write-up. This will greatly reduce, but cannot fully eliminate, the possibility of follow up questions in the future.
6. Videos (preferred) or photos of the condition and most importantly showing how the condition is duplicated are strongly encouraged and requested whenever possible
7. All completed forms must be emailed or faxed to SOA. Email completed forms to FQA@subaru.com (This is not an interactive mailbox. It only receives the completed forms.) or Fax to (856)-254-1305 as outlined on footer of the Investigation Guide / Questionnaire.

SOA recognizes that completion of this questionnaire takes time and effort on the part of our retailer partners. We truly appreciate those efforts and THANK YOU in advance for partnering with us in improving this infotainment product for all our customers.

New flat rate times have been established to help compensate retailers for the additional time necessary to complete these documents. Please claim these as needed whenever these forms have been <u>fully completed</u> and supplied to SOA as outlined on the form itself and in the instructions below.

Labor Description	Labor Operation #	Labor Time**		Fail Code
		Legacy / Outback	Impreza / Crosstrek	
COMPLETION OF HARMAN G3 QUESTIONNAIRE ONLY, NO REPAIRS REQUIRED OR MADE (Admin. Expenses)	A101-113	0.3		ZSR-98
OR				
AUDIO UNIT R&R (w/ **Navigation**)	B031-103	0.3	0.5	ZRO-43 (HIGH)
COMPLETION OF HARMAN G3 QUESTIONNAIRE	C101-228	0.3		
OR				
AUDIO UNIT R&R (w/out Navigation) Use with **Base** and / or **Plus**-level Audio Units	B031-101	0.3	0.5	ZRM-43 (BASE) or ZRN-43 (MID)
COMPLETION OF HARMAN G3 QUESTIONNAIRE	C101-228	0.3		

See the Subaru Labor Time Guide for any additional applicable claim coding options.

User Instructions

1. Retailers must complete this Investigation Guide / Questionnaire every time a customer presents with any concern(s) related to a Harman Kardon Gen 3 audio / navigation head unit.
2. Download/Save the Harman Investigation Guide-Questionnaire from Subarunet under Service Operations & Technical >> Forms/Downloads to a designated location on your computer such as the Desktop or My Documents.
3. Complete the form by answering all the questions related to the customer complaints with as much detail as possible. The more detail the better to increase the possibility of duplication by the vendor and possible future quality improvement.
4. Please print clearly or type within the form (Typing within the form may require use of Google Chrome or another browser depending upon your current IE version).
5. Use the comments space at the end of the form or attach additional sheets, when more space is needed.
6. After filling in all fields related to the customer's concerns, email the completed form to FQA@subaru.com or fax all completed forms to (856)-254-1305 as outlined on footer of the questionnaire.
7. In lieu of emailing or faxing in the form, it is highly encouraged to submit it attached to a QMR and at the same time share any videos or photos of the condition.
8. Always print or save a copy of the completed form for the vehicle file. Refer to section 13.2 Record Retention of the Claims Policies Guidelines & Procedures for full details on required record retention.
9. IMPORTANT NOTE: **There is no requirement for a Techline case**. A Techline case is only necessary when/ if immediate repair assistance is needed. If you need to discuss the concerns or desire feedback, please contact SOA's Technical Helpline to open a case. Once the case is opened, they will request the completed form be shared with them by fax or email so it may be added to the case as this is a separate process. Again, there is no requirement for a Techline case. Techline case is only necessary when/ if repair assistance or feedback is requested.

For urgent customer cases, please complete an URFCA and contact Customer/ Retailer Services.

The following is a Investigation Guide / Questionnaire to help collect information and, in some cases, address customer concerns with the Harman Gen3 Infotainment System. The following pages below are organized into common reports from field issues. To help collect this pertinent information, please complete as much information as possible in as much detail as possible and follow the steps provided.

NOTE: Some of these investigative guides will require the Technician to provide detailed feedback while the system is experiencing the concern. Others will require specific information from the customer. In all cases, the Questionnaire Pages at the start of this document must be completed at the time of write-up to gather as much detail from the customer as possible.

Always request and retain any pictures or videos (preferred) of the condition and any data gathered from the system. Once the form is completed it may be emailed (preferred) or faxed as outlined at the end of this document.

If the condition can be duplicated, try to gather as much information as possible regarding steps required to recreate the issue.

For example:

1. Unlock car

2. Start engine

3. Shift to reverse while the "STARLINK" screen is displayed. FM audio is playing in the background

4. Connect an iPhone via USB hub for CarPlay

5. Shift to drive
   ...and so on. This information helps with being able to recreate the issue.

Subaru Retailer Questionnaire – Harman Gen 3 Audio Concerns

Retailer Name:	Retailer Code:	Repair Order Date:
City: State:	Mileage:	Repair Order No:
Vehicle Identification Number (VIN):		Techline Case Number (if available):

INSTRUCTIONS for COMPLETION:

ALWAYS COMPLETE: General questions **1-17** with customer and have Technician complete **37-45**
BASED ON SYMPTOM(S)- Complete the following for each concern mentioned by the customer.

A. Blank screen concern, please make sure items **18-20** are answered

B. Freeze* concern, please make sure item **21-24** is answered

C. Rear View Camera, please make sure item **25-26** is answered

D. Mobile application (App- Includes: CarPlay, Android Auto, Pandora and others) concern, please make sure items **27-29** are answered

E. Unusual Sound concern, please make sure items **30-31** are answered

F. Clock concern, please make sure items **32-33** are answered

G. Audio sound volume or quality concern, please make sure items **34-36** are answered

H. **ALWAYS COMPLETE** Technician Inspection Results, please make sure items **37-45** are answered

*Freeze definition: Freeze is defined condition where inputs from hard keys, soft keys (touch screen), knobs or steering wheel remote controls do NOT result in any change to the head unit function. Always test for and note rear view camera function when this or any condition occurs.

1. Detailed symptom description
   (list all concerns here):

2. Is the vehicle currently at the retailer?   **NO:**   **YES:**
   If yes, how long will it be there:
   (Example: Is customer a waiter? Is the
   car there overnight or longer? How long?)

3. Can the concern be duplicated?   **NO:**   **YES:**   If yes, how often**:**

4. Has the Tech witnessed/verified the concern?   **NO:**   **YES:**

5. Specific time/place/temperature when the concern happens?

6. Were the steering wheel controls functional for head unit control ?   **NO:**   **YES:**

7. Does ignition off/on cycle correct the concern?   **NO:**   **YES:**

8. Was there any audio output coming from the Head Unit?   **NO:**   **YES:**

9. Last 5 actions performed before symptom occurred. *(list 1 to 5 in order – for example: **a.** listened to FM for ~5 minutes,*
   ***b.** Switched to CD using steering controls, **c.** Pressed seek forward hard key 3 times…etc.)*

   a.

   b.

   c.

   d.

   e.

10. Did the condition occur right after start up?   **NO:**   **YES:**
    Did the condition occur right after putting the gear into reverse (drive) after start up?   **NO:**   **YES:**

    If driving, how long after starting out?

11. Any Genuine Subaru or aftermarket accessories installed?   **NO:**   **YES:**
    (i.e. remote start? If YES, was the Remote Engine
    Starter used when the symptom occurred?)

12. Is anything plugged in to the media hub when concern occurs?   **NO:**   **YES:**
    If music files on USB, what
    type of files are being used?

13. Are there any phones or other devices paired to the unit and if so, what type of phone/software/cell phone carrier?
    NO: **YES:**
    List all phones/ devices paired **Note: To verify if a compatible phone follow this link:** http://www.subaru.com/owners/index

14. Does unpairing and pairing the phone correct the concern?   **NO:**   **YES:**

15. Is an aftermarket or genuine cable used to connect the phone?   **NO:**   **YES:**
    Verify brand:

16. Is it possible to capture a video recordings of the concern?   **NO:**   **YES:**

17. If concern is related to Navigation System operation:
    a. What are the exact To: and From: addresses?
    b. Is the head unit or the phone application being used for navigation?   **NO:**   **YES:**
        i.   If Android Auto, what App is being used?
        ii.   If iPhone, what App is being used?
        iii. If iPhone, is CarPlay also being used or is CarPlay inactive?   **NO** (Inactive):   **YES (CarPlay in use):**
    Continue to A, B, C, D, E, F, G or H depending on customer's concern(s). Complete all that apply.

A.	**Blank screen concern, please make sure items 18-20 are answered**

18.	Is the screen blank or frozen? **NO:** **YES:**
19.	Were the hard keys/buttons illuminated ON solid? Or blinking? Or OFF? **ON:** **OFF:** **BLINKING:**
20.	Did you turn off the Head Unit by holding the volume knob followed by the ignition turn OFF? **NO:** **YES:**

<div align="center">Continue to section H</div>

B.	**Freeze* concern, please make sure item 21-24 is answered**

21.	At which screen did the system freeze?
22.	Was the unit frozen at start up? **NO:** **YES:** If not, how long during use before the freeze was noticed?
23.	When the unit is frozen, are any hard keys (Volume, radio, map, etc) or steering wheel controls operational? **NO:** **YES:**
24.	Do any touch screen buttons highlight when pressing on them? **NO:** **YES:**

<div align="center">Continue to section H</div>

C.	**Rear View Camera, please make sure item 25-26 is answered**

25.	How soon do you put the car in reverse after starting the engine? *(For example: right after engine start-up, after idling for ? min, etc.)*
26.	Was the Rear View Camera functional, while the symptom was observed (ex: black screen or display freeze)? **NO:** **YES:**

<div align="center">Continue to section H</div>

D.	**Mobile application concern, please make sure items 27-29 are answered**

27.	Please check off which application was launched from the phone prior the issue and how the phone was linked to the Head Unit? **Mirror Link CarPlay Android Auto Aha Radio Pandora Subaru STARLINK None** **Paired w/Bluetooth Tethered by USB**** **Genuine or Aftermarket cable used for Tethering? **Genuine Aftermarket**
28.	Is the issue specific to phone application (ex. Pandora, Aha, CarPlay etc.)? **NO:** **YES:** If yes, which one is it and what is the version of the application? **Version** **Mirror Link CarPlay Android Auto Aha Radio Pandora Subaru STARLINK None**
29.	How was Siri function used? **Push talk switch on the steering wheel Press the home button on iPhone**

<div align="center">Continue to section H</div>

E.	**Noise concern, please make sure items 30-31 is answered**

30.	Is the noise (buzz, static, pop etc.) coming from the speaker(s)? **NO:** **YES:** (If YES, which speaker(s)) or from the Head Unit?
31.	Note the selected station for AM-related problems with noise?

<div align="center">Continue to section H</div>

F.	**Clock concern, please make sure items 32-33 are answered**

32.	Was the clock set manually? Or auto? **MANUALLY:** **AUTO:**
33.	If the time changes, when does it change? *(For example, when ignition key is cycled off/on)*

<div align="center">Continue to section H</div>

G. Audio sound concern, please make sure items 34-36 are answered

34. What audio source is the head unit on when the concern occurs: Carplay or other audio source?

35. Is vehicle equipped with an external amplifier?   **Harman   Rockford   Other:**

36. For volume/audio concerns - Has the amplifier been checked and proper operation confirmed?   **NO: YES:**
Continue to section H

H. Technician Inspection Results), please make sure items 37-45 are answered

37. All Head Unit wiring harness connectors fully seated in the unit?   **NO: YES:**
Inspect for bent/loose pins?   **NO: YES:**

38. Have any DTCs been set?   **NO: YES:**

39. Subaru Head Unit part number?

40. Head Unit software version?

    Is the software version the most current available?

41. Is there any physical damage/tampering present?   **NO: YES:**

42. In cases where multiple software updates have been
performed, did you use different USB Flash drives for
each BASE, MID, and HIGH? Or the same USB Flash drive?

43. If the screen turned blank and the install was reinitiated,
how long did you wait to remove the power to the Head Unit?

44. Was a capacitive discharge already performed?   **NO: YES:**
NOTE: If NOT performed, Do NOT attempt it right now.

    If yes, what was the outcome?

45. Could you determine the amount of dark current draw the amplifier has on the battery?   **NO: YES:**
**NOTE: Dark current measurements to be performed within 20 minutes of entering
standby/sleep mode. Allow 5 minutes for Electical System to enter standby/sleep mode.**   **Measurement:**

General / Additional Comments on Conditions:

Continue to the next pages and complete every section that is related to the customer's concerns. If the customer's condition is not listed, choose the one(s) that are closest to it for example if App related follow CarPlay/ Android Auto.

Freeze Related Concerns

Please answer the following for concerns in which the customer has described experiencing unresponsiveness when using the system.

1.	Can the freeze be reproduced? **NO:** **YES:** If so, please note the steps taken which lead up to the system freeze. 1. 6. 2. 7. 3. 8. 4. 9. 5. 10.
2.	Describe the behavior seen during the freeze: is audio present? **NO:** **YES:** What screen is the system stuck on (e.g. STARLINK Splash screen, Home Screen, Phone Screen, Map, etc.)?
3.	How long was the system running for before the freeze was observed? Was it frozen immediately at start up? **NO:** **YES:** After using the system for an extended period of time? **NO:** **YES:** Approximately how long:
4.	Try using the Hard Keys (see image below), Does the system respond when pressing these? **NO:** **YES:**
5.	Try using the Steering Wheel Controls (Volume, source, VR, etc. - see image below). Does the system respond when pressing any of these? **NO:** **YES:**

⬇ **If the system responds to hard keys and/or steering controls.** ⬇

Try swapping head units with a known good setup. Is the issue reproducible? **NO:**   **YES:**
*CAUTION: **DO NOT** swap DCMs between vehicles. Disconnect/ remove the DCM in each vehicle.*

⬇ **If swapped unit does not reproduce issue.** ⬇

Request component exchange.

Radio Hard Keys - 2017 Impreza
(design will vary by model and vehicle line)

Steering wheel controls - 2017 Impreza
(design will vary by vehicle line)

If the swapped unit duplicates the same condition, check for vehicle side concern, concern with connected item (Phone, USB Device, or other), or other outside influence.

Audio Related Concerns

Please answer the following for concerns in which the customer has described experiencing issues dealing with audio output.

Is the concern regarding no audio output? If yes, answer the following, but if not, skip this section and proceed to the next section below.

1.	What source(s) do not have audio output? **CD** **AM** **FM** **SXM** **Aux** **USB** **BT-A**	Audio Source Widget
2.	Can the no audio concern be reproduced? **NO:** **YES:** If so, please note the steps followed to duplicate the condition. 1. 2. 3. 4. 5. 6. 7. 8. 9. 10.	
3.	When selecting an audio source, does the audio widget in the top right corner of the screen show the correct source? (See screenshot to the right) **NO:** **YES:**	Volume Indicator
4.	Does the system display the volume indicator when the volume knob (or volume steering switch) is adjusted? (See screenshot to the right) **NO:** **YES:**	

5.	Does the system show indication when playback is occurring? **NO:** **YES:** For example, if using a media device (CD, iPod, USB, etc), does the playback timer update? **NO:** **YES:** If using tuner (AM, FM, SXM), is there station data displayed and is it updating? **NO:** **YES:**
6.	Is the vehicle equipped with a Harman/Kardon amplifier? **NO:** **YES:**

⬇ **If the vehicle is equipped with an HK amplified system** ⬇

|	
a.	Confirm connections are proper between head unit and amplifier.
b.	Does disconnecting and reconnecting the amplifier address the concern? **NO:** **YES:**
c.	Does disconnecting and reconnecting the head unit address the concern? **NO:** **YES:**

⬇ **If concern does not resolve after these steps** ⬇

|	
7.	Perform a swap of each component with a known good amplifier and head unit. Swap the amplifier first then check if the concern is addressed. If the condition persists, swap the head unit. Was the concern addressed by swapping one (or both) of the components? **NO:** **YES:** *CAUTION: DO NOT swap DCMs between vehicles. Disconnect/ remove the DCM in each vehicle.*

⬇ **If component swap addressed concern.** ⬇

Request exchange for suspect component.

01/15/18
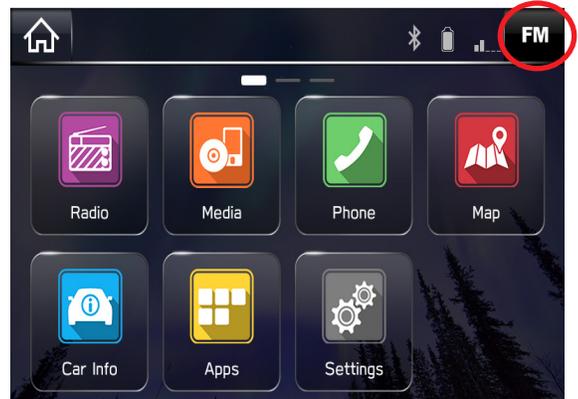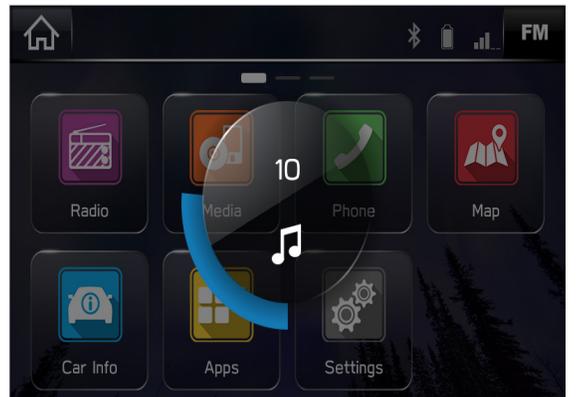
Audio Related Concerns

Is the concern regarding audio quality? If yes, answer the questions below. If not, skip this section and proceed to the next section below.

1. What source(s) have the audio quality concern? Describe the concern and attach a video (preferred) or pictures if possible.

For concerns regarding audio quality on specific source(s):

a. For tuner - related issues (AM/FM/SXM/DAB), is the concern on a specific frequency/channel? Please list the frequencies/channels here:

b. For media (USB, BTSA, CD, etc), list the devices used, file type (mp3, mp4, cda, aac, etc).

2. Can the no audio concern be reproduced? **NO:**   **YES:**
If so, please note the steps followed to duplicate the condition:

1.	6.
2.	7.
3.	8.
4.	9.
5.	10.

3. Is the concern heard in each audio channel? **NO:**   **YES:**
Adjust balance and fade to confirm. (See further instruction below).

Balance and fade can be adjusted by going to
Home Screen -> Settings -> Sound -> EQ.
Drag the crosshair to each corner of the vehicle to check for output from each audio channel.
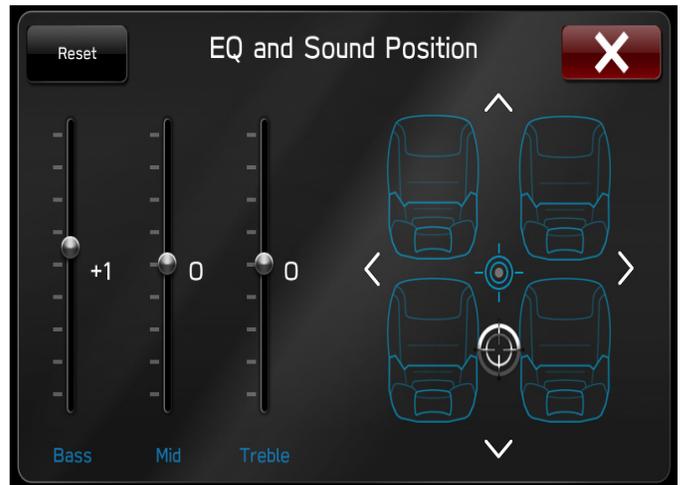
EQ and Sound Position Screen

If the concern is only observed while listening to certain audio channel(s):

a. Confirm connections from head unit to speakers are not damaged.

b. If the vehicle comes equipped with an Harman/Kardon amplifier, confirm connections between amplifier and speakers are not damaged.

c. If the issue persists, try to reproduce it in a like vehicle. If issue is not reproducible, swap out head unit and/ or amplifier. If the concern is no longer present after swapping components, was the concern addressed by swapping components? **NO:**   **YES:**

*CAUTION: **DO NOT** swap DCMs between vehicles. Disconnect/ remove the DCM in each vehicle.*

If component swap addressed concern.

Request exchange for suspect component.

Audio Related Concerns

Is the concern regarding buzzing noise? If yes, answer the questions below. If no, skip this section.

1. Is the vehicle equipped with an Harman/Kardon amplifier? **NO:**   **YES:**

⬇ **If the vehicle is equipped with HK amp and the issue is reproducible:** ⬇

  a. Does the buzzing noise occur even when the vehicle is shut off? **NO:**   **YES:**

  b. Swap the amplifier with a known good amplifier, is the concern still present? **NO:**   **YES:**

  c. If swapping the amp, addresses the issue, order a replacement amplifier.

2. Can the buzzing noise be reproduced? **NO:**   **YES:**
   If so, please note the steps followed to duplicate the condition. Capture and attach a video (preferred) or pictures of the issue if possible.

1.	6.
2.	7.
3.	8.
4.	9.
5.	10.

3. What source(s) can the noise be heard on?   CD   AM   FM   SXM   Aux   USB   BT-A

4. Compare the same source(s) and, if applicable, use the same devices in a like vehicle. Does the concern transfer to the like vehicle? **NO:**   **YES:**

5. If the buzzing noise is noticed when using certain media devices (USB, iPod, CD, etc), try a similar device.
   Is the concern still reproducible? **NO:**   **YES:**
   If not, gather details on the suspect device such as model, device software version (if applicable), device content such as file types, if this is a CD, is it a copied CD? **NO:**   **YES:**
   Data disc? **NO:**   **YES:**
   Commercially sold CD? **NO:**   **YES:**

For other audio concerns please fill out the information below.

1. Clearly describe the concern below:

2. Can the concern be reproduced? **NO:**   **YES:**
   If so, please list the steps to reproduce it below. Attach a video (preferred) or pictures if possible showing the steps and the issue observed.

1.	6.
2.	7.
3.	8.
4.	9.
5.	10.

Comments:

Clock Related Concerns

Please answer the following for concerns in which the customer has described experiencing issues dealing with the clock.

For issues with clock not updating/incorrect date and time, answer the questions in following section. If other clock related concern, skip to next section.

1. Check the clock setting being used.

Clock setting can be found under:
Settings -> Vehicle -> Clock Adjustment.

Clock Adjustment Setting

2. If Clock Adjustment setting is set to Manual, the clock must be set using the Multi-Function Display (MFD). Base MFD is set using the +/- buttons. Color (Mid and High) MFD is set using the steering wheel controls.

If the "Manual" setting is selected

3. If vehicle is equipped with color MFD, press the INFO button until MFD displays the "Hold SET button" screen. Hold the Set steering wheel button to enter the settings menu. Date and time setting is located in this menu.

If the "Auto" setting is selected

2. Is the head unit a high grade or a mid/base grade unit?

For high grade head units:	For mid/base grade units:
3. Open the Navi System Sensor screen. Press and hold the Home hard key and press the Tune Knob 6 times, then release the home button. In the dealer menu select **"Function check" -> "Navi System Sensor"** (See screenshot below).	3. Mid and base grade units require a phone paired via Bluetooth for automatic clock setting. Is a phone paired to the head unit? **NO:** **YES:**

Clock Related Concerns
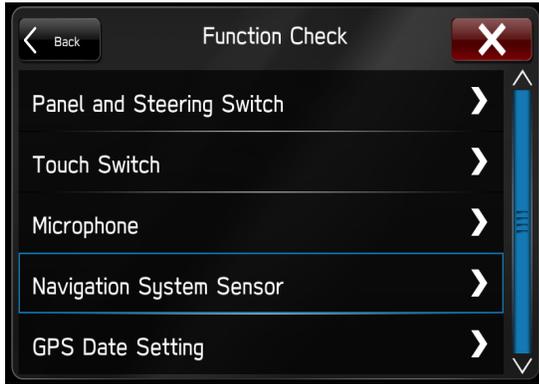
Navi System Sensor

Are SMS messages synced and downloaded to the head unit?

NO: **YES:**

4. The system requires access to phonebook AND SMS messages to update the correct date and time. Messages should be available under **Phone > Messages**. If the button is gray, then message access from the phone was most likely not accepted.

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4. Does the screen show correct date and GMT time?
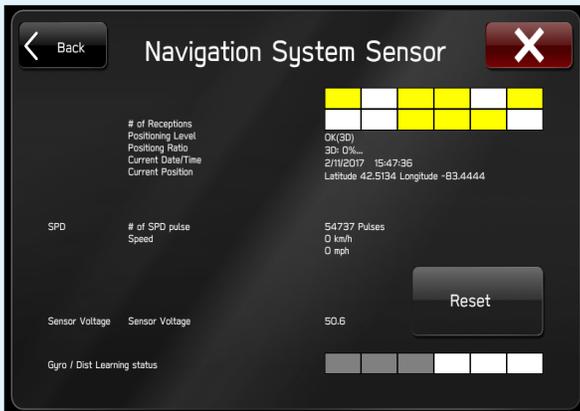
NO: **YES:**

Note the number of satellites acquired, if none, move the vehicle to an area with access to open sky.

5. If the messages button is grey, delete the phone pairing and repair the phone. The next section describes the access procedure for the most common types of devices: Apple iPhones and Android phones. **NOTE:** This procedure could vary between device models.

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5. If system does not show correct time while parked in open sky, investigate GPS antenna. Confirm the GPS antenna is connected and fully seated into the grey fakra connector on the head unit. Also, make sure there is no damage to the cable/antenna.

|	Android Phones	iPhone
Navi System Sensor	**6.** Once the phone is paired to the head unit, the phone will display a pop-up prompting the user to accept access to Phonebook. Select "Allow". You may receive follow up messages for phone history and messages, make sure to allow access to all of them.	After pairing, access must be enabled on the phone. To do this, go to **Settings -> Bluetooth -> Select the paired head unit labeled "Subaru BT"** and make sure both Sync Contacts and Show Notifications are enabled.

Clock Related Concerns
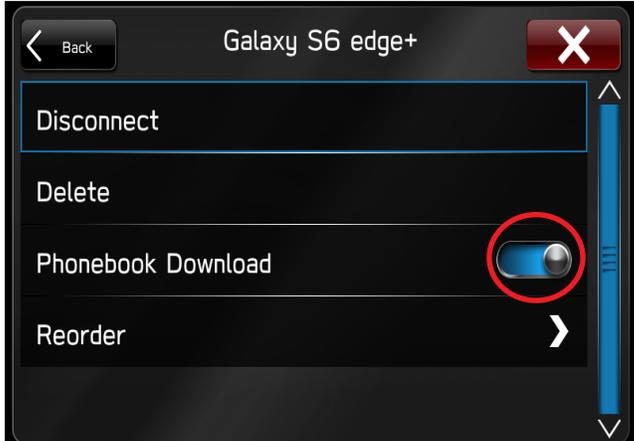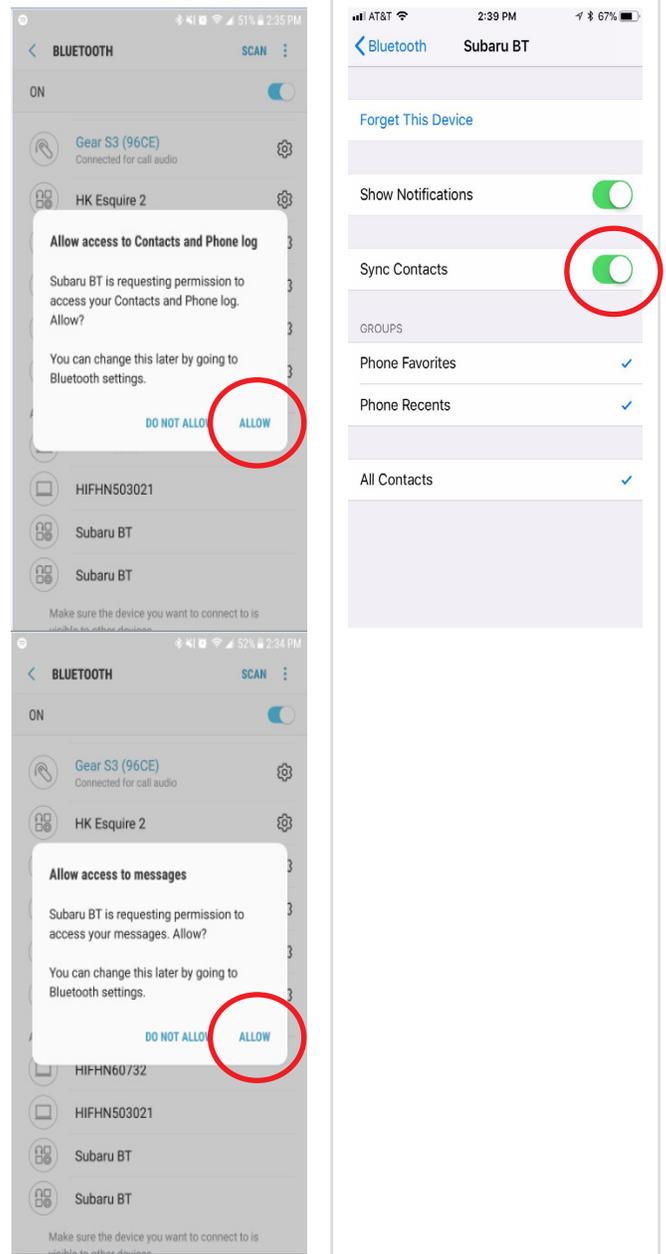
After these items are enabled, disconnect the device from the head unit then reconnect.

Clock Related Concerns

For other clock issues please fill out the information below.

1. Clearly describe the issue below:

01/15/18

2. Can the concern be reproduced? **NO:**   **YES:**
If so, please list the steps to duplicate it below. Attach video (preferred) or pictures if possible showing the steps and the issue observed.

1.		6.
2.		7.
3.		8.
4.		9.
5.		10.

Comments:

GPS/Navigation Concerns

Please answer the following for concerns in which the customer has described experiencing issues dealing with the navigation feature.

For issues with GPS accuracy please answer the questions below. If not, skip this section and move on to the next applicable section.

1. Can the concern be reproduced? **NO:**   **YES:**
   If so, please provide steps to duplicate it, and if possible, attach a video (preferred) or pictures showing the steps and concern.

1.	6.
2.	7.
3.	8.
4.	9.
5.	10.

2. Is the concern observed in a specific location? **NO:**   **YES:**

   If GPS accuracy is always poor regardless of route.

3. Open the Navi System Sensor screen. Press and hold the Home hard key and press the Tune Knob 6 times, then release the home button. In the dealer menu select **"Function check" -> "Navi System Sensor"** (see screenshot below).

Navigation System Sensor
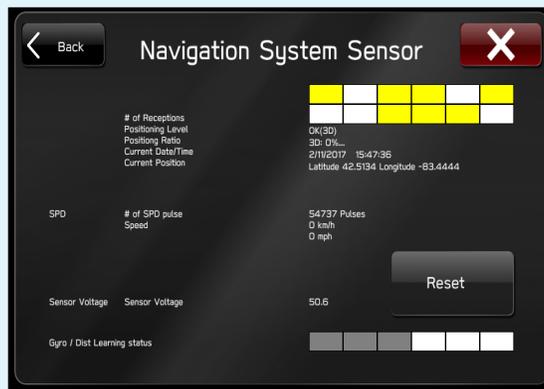
If the "Auto" setting is selected

4. Verify the system has aqcuired satellite signal as indicated by the "# of Receptions" field. Yellow markers indicate number of satellites acquired. If possible, capture/attach a picture of this screen as well.

3. Please note the start and end point of the route along with where along the route the concern is observed. Include a video (Preferred) or pictures showing the steps and the issue observed.

5. If no signal is observed, ensure the vehicle is in clear sky. If the vehicle is still does not have signal, investigate GPS antenna. Confirm the GPS antenna is connected and fully seated into the grey fakra connector on the head unit. Also, confirm there is no damage to cable/antenna.

6. If issue persists after checking GPS antenna, try swapping head units with a known good vehicle. Is the concern resolved? **NO:**   **YES:**

   If the "Auto" setting is selected

   Request exchange for suspect component.

CarPlay/Android Auto Concerns

Please answer the following for concerns in which the customer has described experiencing issues dealing with the phone projection feature.

<table>
<tr><td colspan="2">For issues with CarPlay or Android Auto connections, please answer the questions below. If not, skip this section and move on to the next one.</td></tr>
<tr><td>1.</td><td>Can the concern be reproduced? NO: YES:
If so, please provide steps to duplicate it, and if possible, attach a video (preferred) or pictures showing the steps and concern.

1.   6.
2.   7.
3.   8.
4.   9.
5.   10.</td></tr>
<tr><td>2.</td><td>Verify the USB cable used is certified Apple cable (in the case of CarPlay), and is not damaged. Try another cable if possible.</td></tr>
<tr><td>3.</td><td>Ensure Android Auto or CarPlay is enabled without any restrictions on the phone.</td></tr>
</table>

For CarPlay	For Android Auto
Ensure Restrictions for CarPlay is disabled under **Settings -> General -> Restrictions.** If the slider is green as shown below then CarPlay is **NOT** restricted (CarPlay is operational). If the slider is to the left then CarPlay is restricted. If CarPlay is restricted either move the slider to the right or press **"Disable Restrictions"**	Ensure Android Auto is set to accept new car connections. Open **Android Auto -> Open the menu on the top left -> Settings -> Connected Cars -> Enable "Add new cars to Android Auto"** as shown below.
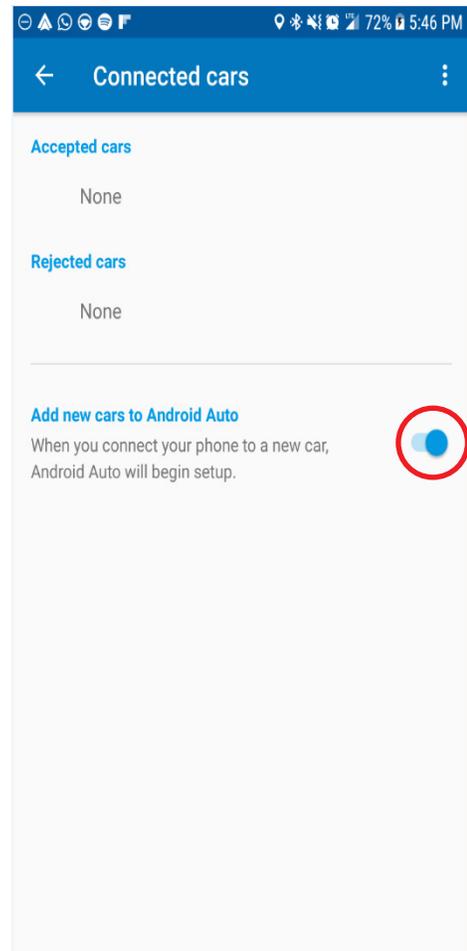
CarPlay/Android Auto Concerns

4. Verify the phone OS version is up to date and the app (CarPlay or Android Auto) is up to date. Please note the version number of the device and the app.

Device Make   **Device Model**   **Device Software Version**

Cell Provider (if applicable)   **App Name**   **App Version**

5. Try the device with a known good vehicle. If the application launches successfully, swap USB hubs and hub cables. If the issue still persists, try swapping the head unit. Was the concern addressed by addressing one or more of these components? **NO:**   **YES:**

If so, request exchange of suspect component.

⬇   If the issue still occurs.   ⬇

6. Try a similar device, does the issue still occur? **NO:**   **YES:**
Verify the user's device is a compatible device.

Device Make   **Device Model**   **Device Software Version**

Cell Provider (if applicable)

For other concerns with CarPlay or Android Auto, please answer the questions below.

1. Clearly describe the issue below.

2. Can the concern be reproduced? **NO:**   **YES:**
If so, please list the steps to duplicate it below. Include a video (preferred) or pictures showing the steps and the issue observed.

1.	**6.**
2.	**7.**
3.	**8.**
4.	**9.**
5.	**10.**

3. Note the device model, version, and app version information below.

Device Make   **Device Model**   **Device Software Version**

Cell Provider (if applicable)   **App Name**   **App Version**

Comments:

Bluetooth Concerns

Please answer the following for concerns in which the customer has described experiencing issues dealing with Bluetooth connections, functionality (calls, phonebook, SMS, etc.).
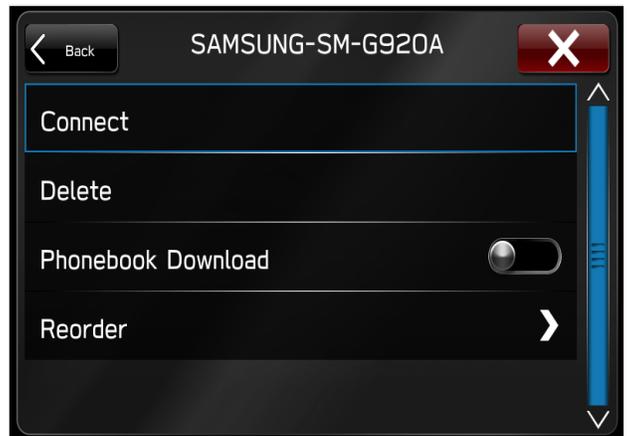
For issues with Bluetooth connections, please answer the questions below. If not, skip this section and move on to the next one.

1	Can the concern be reproduced? **NO:**　　**YES:** If so, please provide steps to reproduce it and if possible, a video (preferred) or pictures showing the steps and concern. 1. 2. 3. 4. 5. 6. 7. 8. 9. 10.

Settings 〉 Phone   FM

+ Add Device

SAMSUNG-SM-G920A　❯

JAY S5　❯

John's iPod　❯

General　Sound　Phone　Navigation　Vehicle

Paired Device List

2.	**a)** Is the connection made at start up? **NO:**　　**YES:** **b)** Is the connection dropped at some other point of operation? **NO:**　　**YES:** **If No, Other (List):**

〈 Back　SAMSUNG-SM-G920A　✕

Connect

Delete

Phonebook Download　　◯

Reorder　❯

Connect Device

3.	What is the phone model and OS version? Is the device listed in the compatible phones list on **Subaru.com > For Owners > Bluetooth Compatibility**?
4.	Is the device still paired to the head unit? **NO:**　　**YES:** Confirm the device is in the paired device list located under **Settings -> Phone**.
5.	Is the head unit still listed as a paired device on the phone? **NO:**　　**YES:**
6.	Can the phone be manually reconnected through the phone settings menu? **NO:**　　**YES:** **Settings -> Phone -> Select the paired phone** and select **Connect.**
7.	If possible, try with a similar model phone. Is the concern reproducible? **NO:**　　**YES:** **Phone Make**　　　　　　　　**Phone Model** **Cell Provider**　　　　　　　　**iOS/ OS Version**

Bluetooth Concerns

For issues with Bluetooth, Phonebook, or SMS sync please answer the questions below. If not, skip this section and move on to the next one.

1.
Can the concern be reproduced? **NO:**   **YES:**

If so, please provide steps to reproduce, and if possible, a video (preferred) or pictures showing the steps and concern. Please note the model and OS version of phone.

1.	6.
2.	7.
3.	8.
4.	9.
5.	10.

2.
Pair the phone if not already done.
Was the phonebook/SMS access request granted when phone was paired to head unit?
**NO:**   **YES:**

Once the pairing procedure is performed and the device is connected, the phone may prompt the user to accept access for Phonebook. Head unit display will prompt to initiate Phonebook download. **ACCEPT** this pop up.
NOTE: Phone behavior may differ between models and OS versions.
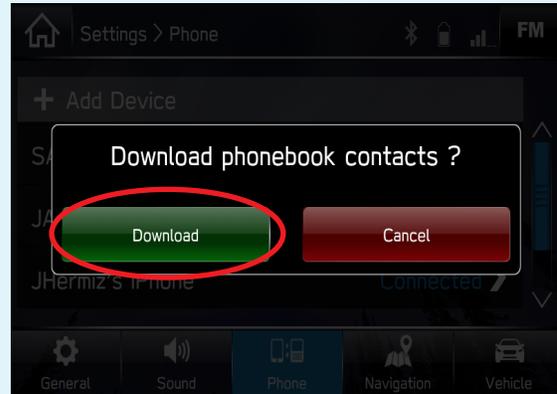
If the device is already paired and connected:

Confirm the Phonebook Download option is enabled. To do this, go to **Settings -> Phone, select the paired phone and enable Phonebook Download** as shown below.
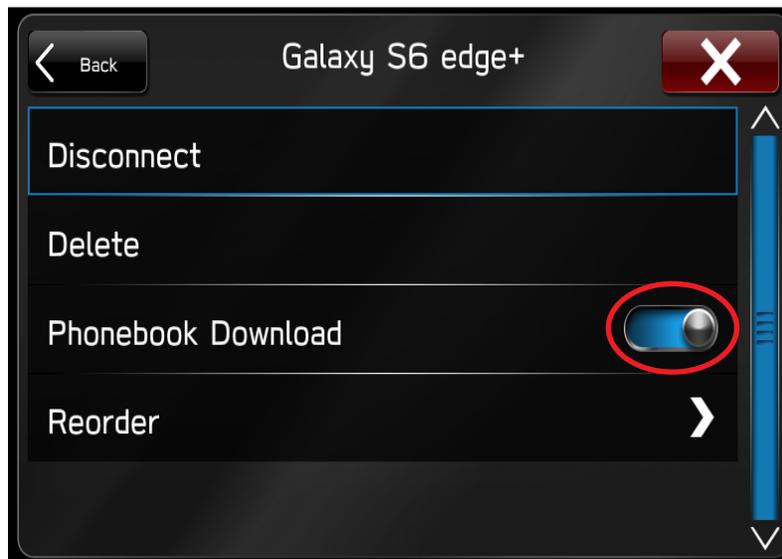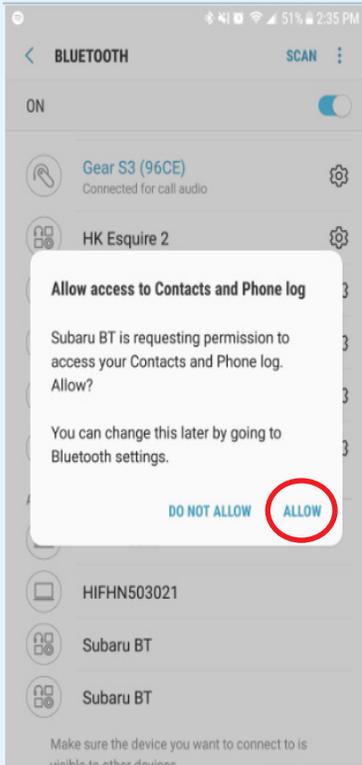
Device may still require the following steps after enabling Phonebook Download on head unit.
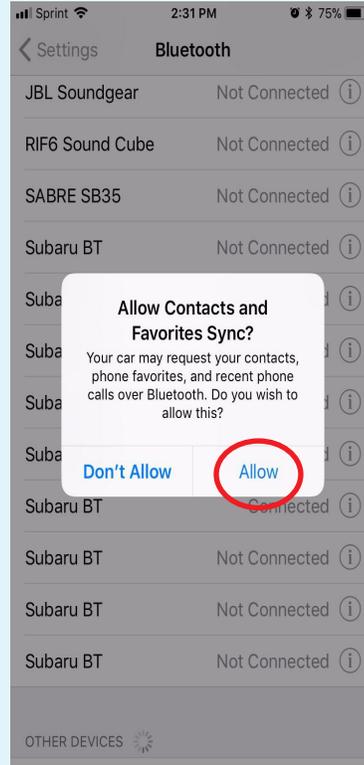
Bluetooth Concerns

Android Phones	Apple iPhone
Android phones will prompt user on phone for phonebook access, as shown below.	iPhones will download phonebook after pressing download on the head unit if the Sync Contacts option is enabled. **NOTE:** Some versions of iOS will prompt the user for phonebook access as shown below.
In the case of Android phones, a second pop up will appear requesting access to SMS messages.	For iPhones, after pairing, access must be enabled on the phone for SMS. To do this, go to **Settings -> Bluetooth -> Select the paired head unit labeled "Subaru BT"** and make sure both Sync Contacts and Show Notifications are enabled.
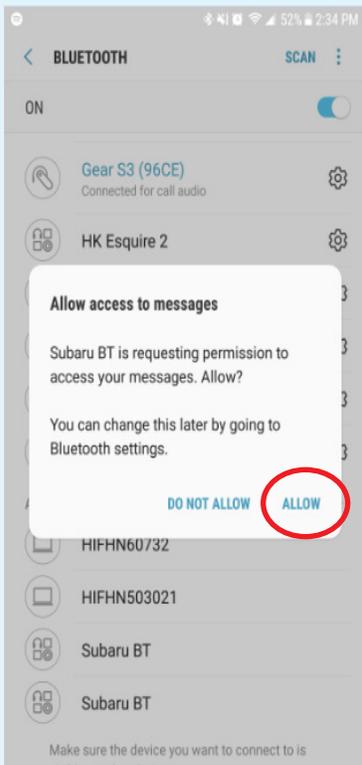
Bluetooth Concerns

Once enabled, the iPhone must be disconnected then reconnected for the changes to apply for SMS download **ONLY**.
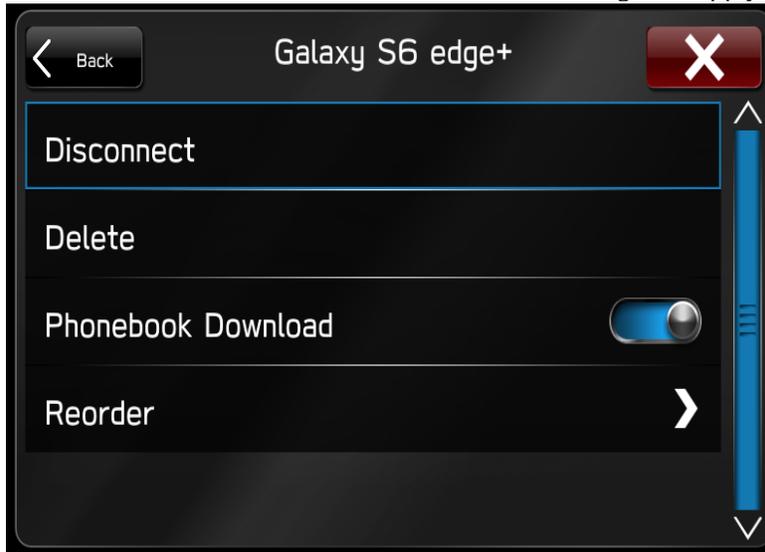
3. Regarding phone favorites: The head unit's favorite contacts list is not the same as the favorites listed internally on the phone. iPhone indicates transferring favorites, but this is not supported at this time. Head unit contact favorites can be set by selecting the contact on the head unit and selecting the star icon next to the number you want stored as a favorite.
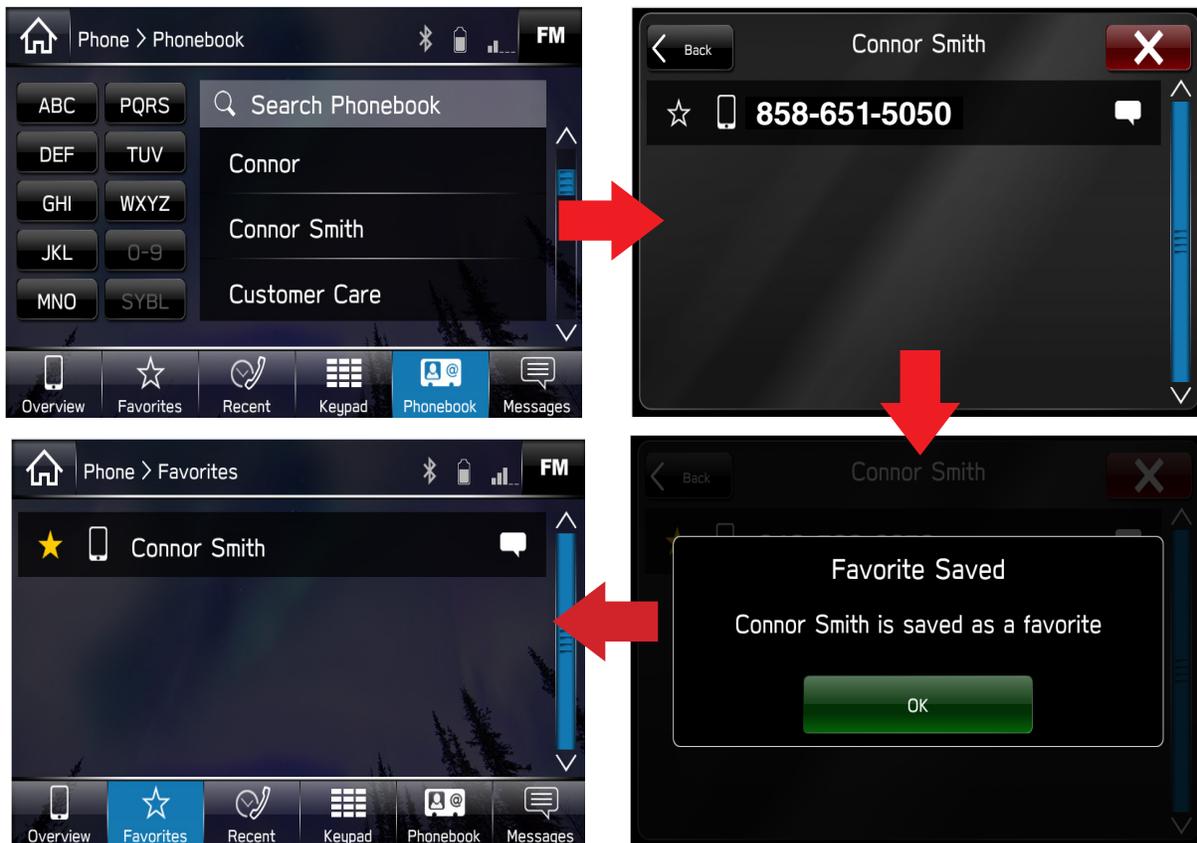
Bluetooth Concerns

For issues with Bluetooth phone call handling, please answer the questions below. If not, skip this section and move on to the next one.

1. Can the concern be reproduced? **NO:** **YES:**

If so, please provide steps to reproduce it and if possible, a video (preferred) or pictures showing the steps and concern. Please note the model, OS version, and service carrier of phone.

1.	6.
2.	7.
3.	8.
4.	9.
5.	10.

2. For concerns regarding holding calls and swapping calls: **NOTE:** CDMA networks do not support this functionality. Some phones may have the ability to perform these actions internally but in general, CDMA carriers (such as Sprint or Verizon) do not support these features.

For other concerns with Bluetooth, please answer the questions below.

1. Clearly describe the issue below.

2. Can the concern be reproduced? **NO:** **YES:**

If so, please list the steps to reproduce it below. Attach a video (preferred) or pictures if possible showing the steps and the issue observed.

1.	6.
2.	7.
3.	8.
4.	9.
5.	10.

3. What is the phone model and OS version?

Phone Make   **Phone Model**

Cell Provider   **iOS/ OS Version**

Is the device listed in the compatible phones list on **Subaru.com > For Owners > Bluetooth Compatibility**?
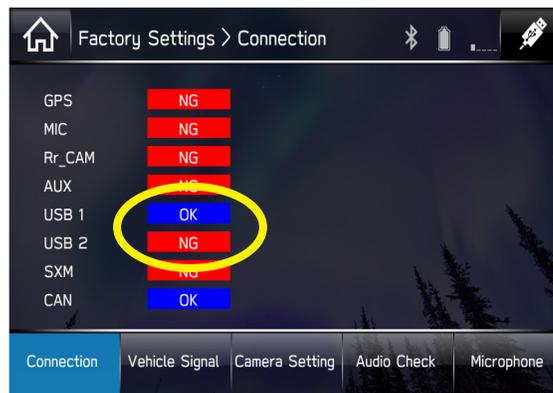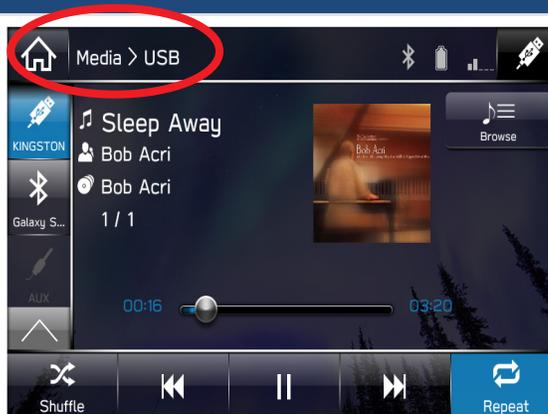**NO:** **YES:**

Comments:

USB Concerns

Please answer the following for concerns in which the customer has described experiencing issues dealing with USB functionality.

For issues with USB detection, please answer the questions below. If not, skip this section and move on to the next one.

1.	Can the concern be reproduced? **NO:** **YES:** If so please provide steps to reproduce it and if possible, a video (preferred) or pictures showing the steps and concern. 1. 2. 3. 4. 5. 6. 7. 8. 9. 10.	 Media screen with USB source available
2.	Is the USB recognized in the Media screen as shown? **NO:** **YES:**	
3.	Is the USB recognized in the connection check screen as shown? **NO:** **YES:** (Hold Home hard key and press the Tune Knob 6 times, then release the Home hard key).	 Connection Check screen
4.	Confirm the USB hub connections are proper and confirm there is no damage to the USB cable or power harness (where applicable).	
5.	Does the USB device work in a like vehicle? **NO:** **YES:** Do other USB devices work in the suspect vehicle? **NO:** **YES:**	

For other issues with USB, please answer the questions below.

1.	Can the concern be reproduced? **NO:** **YES:** If so please provide steps to reproduce it and if possible, a video (preferred) or pictures showing the steps and concern. 1. 6. 2. 7. 3. 8. 4. 9. 5. 10.
2.	Does the USB device work in a like vehicle? **NO:** **YES:** If YES list: **Vehicle Model Year** **Make** **Model** Do other USB devices work in the suspect vehicle? **NO:** **YES:**
3.	Please provide detailed information regarding the USB device (Brand, device type, file system, types of files on device, etc.).

Radio Preset Concerns

Please answer the following for concerns in which the customer has described experiencing issues dealing with Radio presets.

For issues with Radio Presets missing/deleted, please answer the questions below. If not, skip this section and move on to the next one.

1.	Can the concern be reproduced? **NO:** **YES:** If so please provide steps to reproduce it and if possible, a video (preferred) or pictures showing the steps and concern. 1. 6. 2. 7. 3. 8. 4. 9. 5. 10.
2.	Are all the presets missing? **NO:** **YES:** Is it only on a specific source? AM FM SXM OTHER Is it only a specific preset page?
3.	Do the missing presets now say "initializing", "hold", blank, or something else?
4.	Do all the presets return after performing an ignition cycle? **NO:** **YES:** (Note ignition cycle process is **ignition off > door open / door close > wait 2 minutes > ignition on**).

For other issues with Radio Presets concerns please answer the questions below.

1.	Clearly describe the issue below.
2.	Can the concern be reproduced? **NO:** **YES:** If so, please list the steps to reproduce it below. Attach a video (preferred or pictures if possible showing the steps and the issue observed. 1. 6. 2. 7. 3. 8. 4. 9. 5. 10.

Comments:

WARRANTY / CLAIM INFORMATION:

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

Labor Description	Labor Operation #	Labor Time**		Fail Code
		Legacy / Outback	Impreza / Crosstrek	
COMPLETION OF HARMAN G3 QUESTIONNAIRE ONLY, NO REPAIRS REQUIRED OR MADE (Admin. Expenses)	A101-113	0.3		ZSR-98
OR				
AUDIO UNIT R&R (w/ **Navigation**)	B031-103	0.3	0.5	ZRO-43 (HIGH)
COMPLETION OF HARMAN G3 QUESTIONNAIRE	C101-228	0.3		
OR				
AUDIO UNIT R&R (w/out Navigation) Use with **Base** and / or **Plus**-level Audio Units	B031-101	0.3	0.5	ZRM-43 (BASE) or ZRN-43 (MID)
COMPLETION OF HARMAN G3 QUESTIONNAIRE	C101-228	0.3		

See the Subaru Labor Time Guide for any additional applicable claim coding options.

IMPORTANT: E-mail/fax completed forms to FQA@subaru.com (this is not an interactive mailbox) or fax this form to e-mail/fax (856) 254-1305 when completed. This fax is for quality assurance purposes only. You will NOT receive any response from this fax. If you need assistance, please contact the SOA Techline. Techline MUST be contacted and a case opened BEFORE emailing or faxing in this form and/or any related documents. Include the case number on all documents then email or fax them to Techline at (856)-254-1423. Always attach a copy to the customer's service file or the repair order hard copy for your records.