ATTENTION.							
<u>ATTENTION:</u> GENERAL MANAGER	IMPORTANT - All Service Personnel						
Parts Manager Claims Personnel	Should Read and Initial in the boxes provided, right.						
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QUALITY DRIVEN® SERVICE

SERVICE BULLETINAPPLICABILITY:Manual Transmission Vehicles with
Push Button Start ONLYNUMBER: 15-279-21R
DATE: 03/18/21SUBJECT:Gen1 Telematics DCM Replacement
for 3G Sunset03/31/21

APPLICABILITY:

Applicable Vehicle	Specification	
IMPREZA	Telematics equipped with active subscription, with MT, with Push Button Start	16 - 18
WRX/STI	Telematics equipped with active subscription, with MT, with Push Button Start	17 - 18

OVERVIEW:

Subaru of America, Inc. (SOA) will be offering all active Gen1 STARLINK subscribers a complimentary Data Communication Module (DCM) update at any Subaru retailer for a predetermined period ending in February 2022. When the subscribed customer's vehicle is equipped with a **manual transmission with push-button start**, the DCM must be replaced due to an inability to keep the CAN system "awake" during the SSM4 update. A manual transmission vehicle equipped with ignition key start will follow the SSM4 / DCM update procedure as detailed in TSB **15-280-21**: Gen1 Telematics Reprogramming for 3G Sunset.

- Flow Charts to support the procedures below are provided starting on pg. 13.
- A copy of the Customer Letter is supplied for reference at the end of this bulletin.

SCOPE OF WORK:

Replacement DCMs will have the new software preinstalled. The new DCMs will NOT come with a backup battery (BUB). Technicians must transfer the existing BUB to the replacement DCM. If the BUB requires replacement due to failure (DTC B2A07) or, the repair date is five (5) years past the date stamp on the BUB (see image for decoding the BUB date stamp), the replacement BUB must be ordered and installed separately as a maintenance item. For the purpose of this TSB and the 3G Sunset reprogramming service TSB, a BUB replacement due to expiration cannot be claimed.

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. **THE TELEMATICS SYSTEM MUST BE DTC FREE AND DISPLAY A GREEN LED BEFORE ANY DCM REPLACEMENT IS COMPLETED.** Customers must be notified if their vehicle arrives at the retailer with a **RED** LED and any current DTCs. The presence of any DCM DTCs may prevent the completion of this no-charge DCM replacement service. Resolution of a **RED** Telematics LED possibly combined with active Telematics DTCs before DCM replacement is outside the scope of this update procedure if the DTCs are a result of a condition found outside of the DCM itself. Internal failures of the DCM, which would require DCM replacement to repair, would not preclude completion of this DCM replacement service.

PROCESS:

Technicians should never attempt a DCM replacement on any vehicle with a RED Telematics LED, any current Telematics DTCs, or the inability to complete a Telematics functional system check. Failure to follow this essential requirement may result in the failure of the new DCM, leaving it non-recoverable. Technicians are strongly urged to use an abundance of caution when preparing for DCM replacement procedure and keep strict adherence to the guidelines detailed in this document and related Service Manual procedures, cautions, and notes.

DCM REPLACEMENT POPULATION:

ONLY those vehicles which are part of the affected Gen1 Telematics population, equipped with manual transmission and push-button start, and currently subscribed to STARLINK Telematics services are eligible for the no-charge DCM replacement. **Unsubscribed vehicles are not included in this no-charge DCM replacement service.**

CUSTOMER CONSIDERATION:

All subscribed vehicles have Automatic Crash Notification (ACN) in all levels of subscription. Technicians and Retailers **MUST** make every effort to ensure ACN is functioning when the vehicle repair is complete. Strict adherence to the procedures outlined in this document is necessary to ensure ACN operation. If a vehicle enters the repair facility with a **GREEN** Telematics LED, working as expected, and some unforeseen condition causes the Telematics LED to become **RED** or not function as expected, the condition must be resolved **BEFORE** releasing the vehicle.

NEVER RELEASE THE VEHICLE BACK TO THE CUSTOMER UNTIL THE GREEN TELEMATICS LED IS ILLUMINATED AND THE TELEMATICS SYSTEM PASSES ALL FUNCTION AND OPERATIONAL CHECKS. The only exception to this requirement would be an external concern affecting DCM operation and, the customer has been informed but elects not to correct it to receive this update.

SUBSCRIPTION AND REPLACEMENT SERVICE INFORMATION:

Vehicles included in this replacement service <u>must</u> have a currently active subscription to any level of Telematics services. Coverage and an active subscription for all affected vehicles must be confirmed using the Vehicle Coverage Inquiry function on subarunet.com.

IMPORTANT: Before beginning the no-charge DCM Replacement Service:

Vehicles affected by this replacement service may also have an open service program WQZ-61R. The replacement DCM contains software which includes the WQZ-61R update. If the Vehicle Inquiry indicates WQZ-61R is open, proceed as follows:

- 1. The vehicle IS currently subscribed to Telematics: WQZ-61R and 3G Sunset replacement service are indicated as Open: <u>perform the 3G Sunset replacement service ONLY.</u> Both the WQZ-61R and 3G Sunset programs will close.
- 2. The vehicle IS NOT currently subscribed to Telematics: WQZ-61R and 3G Sunset service programs are indicated as Open: <u>perform the WQZ-61R ONLY</u>. Refer to the WQZ-61R program bulletin for full details and procedures.

VERY IMPORTANT: If the vehicle is equipped with a Manual Transmission and a physical ignition key / lock cylinder OR a CVT, THIS REPLACEMENT SERVICE DOES NOT APPLY. Refer to TSB 15-280-21 for cars requiring DCM reflash for how to proceed.

LED	Status	Situation		
Solid Green		System is normal. A subscription to the SUBARU STARLINK service has been established*.		
Solid Red		A system malfunction has occurred. Do not proceed with DCM software update until root cause is determined, and Telematics LED is GREEN		
Flashing Green or <mark>Red</mark>	SOS (((i))	SUBARU STARLINK service is currently communicating (e.g. Voice call, Stolen Vehicle Recovery, etc.).		
No Light		A subscription to the SUBARU STARLINK service has not been established. Vehicle not eligible for DCM software update until subscription verified.		
Solid Green and <mark>Red</mark>	SOS (((i))	SUBARU STARLINK service is currently having communication problems Do not proceed with DCM software update until root cause is determined, and Telematics LED is GREEN		

IMPORTANT REMINDER: Any Technician or other retailer personnel who, despite service documentation and training to the contrary performs a DCM swap on a subscribed vehicle must NEVER release the vehicle back to the customer until after successfully confirming operation of the Telematics system.

New TELEMATICS UNIT Part # (VOLTE)	OId TELEMATICS UNIT Part # (NON-VOLTE)
86229AL10B	86229AL00A 86229AL00B 86229AL00C
86229AL10B	86229AL10A
86229AL11B	86229AL01A 86229AL01B 86229AL01C
86229AL11B	86229AL11A
86229FL002	86229FL000 86229FL001
86229FL012	86229FL010 86229FL011
86229FL00C	86229FL00A 86229FL00B
86229FL01C	86229FL01A 86229FL01B
86229VA100	86229SG000 86229SG001 86229SG002
86229VA110	86229SG010 86229SG011 86229SG012

NOTE: The OLD part numbers listed above may not be an exact match to those installed in the vehicle as production part numbers are different from service/ repair part numbers. Always refer to the Electronic Parts Catalog (EPC) using the vehicle VIN to ensure the correct DCM replacement part is selected. Use the EPC part number and the chart above to determine the correct DCM part number to install. Never install the OLD part number.

VEHICLE PREPARATION:

- 1. Enter the vehicle and observe the Telematics LED status.
 - Is LED GREEN? If NO, proceed to Step 2. If YES, continue to Step 3 below.
- 2. If the Telematics LED is **RED** or NO LEDs are illuminated, DO NOT replace the DCM. Inform the customer of needed repair activity outside of the scope of this replacement service. DTCs must be retrieved from the Telematics system. A repair of the Telematics system may be required at the customer's expense if they wish to continue preparation for a no-cost 3G Sunset upgrade. See **NOTES:** below for some exceptional cases.
 - Connect the SSM4 and check the DCM's condition.
 - Are there any Telematics DTCs present?

- DTC B2A0E: Mute Line Circuit may be found in many older DCMs without a current hard <u>fault</u>. Clear DTC B2A0E and see if it resets after an ignition cycle.
 - If DTC B2A0E resets as current, it should be considered a "hard" DTC, and **Step i** below must be followed.
 - If B2A0E does not reset as current after an ignition cycle, it is not considered a hard fault. Proceed with **Step ii** below.
- The presence of DTC B2A0C does not affect the ability to complete the no-charge 3G Sunset DCM replacement service. If a vehicle is found to have a current DTC B2A0C only, proceed with the vehicle preparation and DCM replacement service procedures below.
 - i. YES, Telematics DTC(s) (Other than B2A0E or B2A0C-See NOTES above) is current: STOP THE UPGRADE PROCESS. The customer must be notified of this condition before any work begins. The repair of the DTC is not included in the scope of work for this no-charge upgrade. The replacement service cannot be attempted until the Telematics system is DTC free.
 - 1. If the customer approves repairs and the Telematics system now has a **GREEN** LED on, and no DTCs are present, proceed to **Step 3**.
 - 2. If the customer declines repairs, **STOP THE UPGRADE PROCESS.** Document the Technician's findings on the repair order before returning the vehicle to the customer.

ii. If the Telematics LED is NOT GREEN and NO DTCs current (other than B2A0E or B2A0C-See NOTES above): STOP THE UPGRADE PROCESS. The customer must be notified of this condition before any work begins. Repair of the root cause of the Telematics LED not illuminating GREEN is not included in the work scope for this no-charge upgrade. The replacement service cannot be attempted until the Telematics LED is GREEN.

- 1. Follow Diagnosis by Phenomenon in the Service Manual.
 - a. If the customer approves repairs and the Telematics system now has a **GREEN** LED on, and no DTCs are present, proceed to **Step 3**.
 - **b.** If the customer declines repairs, **STOP THE UPGRADE PROCESS.** Document the Technician's findings on the repair order before returning the vehicle to the customer.
- **3.** Perform a functional check of the Telematics system by pushing the blue iButton. When the STARLINK operator answers, request the VIN and LOCATION of the vehicle.

NOTE: This step may need to be performed outside with a clear view of the sky. It also may require multiple attempts to connect to an operator depending on available cellular coverage.

i. Was the iButton call successful? YES: Proceed to Step 3.

- **ii.** Was the iButton call successful? **NO: STOP THE UPGRADE PROCESS.** The customer must be notified of this condition before proceeding any further, as this condition must be diagnosed and corrected.
 - 1. If the customer approves repairs and the Telematics system now has a **GREEN** LED on, and no DTCs are present, proceed to **Step 3**.
 - 2. If the customer declines repairs, **STOP THE UPGRADE PROCESS.** Document the Technician's findings on the repair order before returning the vehicle to the customer.
- **3.** Connect the SSM4.
- 4. Verify DCM Software Version Number. Refer to **Procedure to verify DCM Software Version ID** below for information on how to perform this critical step.
 - If the current DCM software version is DCM_06.00.17_20190816, the vehicle already has the most recent software version. STOP and proceed to the Claim Reimbursement, and Entry Procedures section and process a Version Check Only claim.
 - If any other software version is shown, proceed to DCM Replacement Procedure.

PROCEDURE TO VERIFY DCM SOFTWARE VERSION ID:

a. Connect SSM4 and click "Each System" on the left-hand menu.



b. Select "Telematics" from the Systems list.

WSUBARU Select Mo	nitor 4 - Select System		_ @ ×
Start Diagnosis	System List		
	Engine	Transmission	-
Vehicle Forester	Brake Control	Tire Pressure Monitor	
	Body Control	Occupant Detection	
Target Each System	Impact Sensor	Airbag	
	Brake Vacuum Pump	Air Conditioner	
Select System	Power Steering	Keyless Access with Push Button Start	
	EyeSight	Combination Meter	
	Multi-function Display	Power Rear Gate	
	Headlight / Foglight	Blind Spot Detection/Rear Cross Traffic Alert(RH)	
	Blind Spot Detection/Rear Cross Traffic Alert(LH)	Power Seat Memory	
	Telematics	Reverse Automatic Braking	
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c. Click "Work Support" on the left-hand menu.



d. Select "Software Information" from the Work Support Items list.



e. ALWAYS record the current version of software on the Repair Order for reference.

DCM REPLACEMENT PROCEDURE:

- 1. Disconnect the ground terminal from the battery sensor. (STIS Refer to REPAIR CONTENTS > NOTE > BATTERY.)
- 2. Remove the center ventilation grille assembly. (STIS Refer to AIR CONDITIONER > Air Vent Grille > REMOVAL > CENTER GRILLE ASSEMBLY.)
- **3.** Remove the hazard switch assembly. (STIS Refer to STIS: LIGHTING SYSTEM > Hazard Switch > REMOVAL.)
- **4.** Remove the audio/navigation assembly. (Refer to STIS: ENTERTAINMENT & MONITORING > Audio > REMOVAL.)
- 5. Remove the backup unit. (Refer to STIS: SECURITY AND LOCKS > Backup Unit > REMOVAL.)
- 6. Remove the data communication module. (Refer to STIS ENTERTAINMENT & MONITORING > Data Communication Module > REMOVAL.)
 - a. CAREFULLY Disconnect the cable connected to the audio assembly.
 - **b.** Remove the screws and remove the DCM.

NOTE: The screws holding the DCM may require some extra effort to remove. **<u>TIP</u>**: Coat the Phillips screwdriver tip with a valve grinding compound. This grinding compound helps provide extra grip on the screw heads to reduce slippage. Supporting the head unit on a hard surface such as a worktable is also helpful.

7. Mark the removed DCM with a crayon or marker and remove the BUB.

CRITICAL: Be sure the BUB is transferred to the new DCM (or replaced where applicable).

- 8. Disconnect the connector and remove the BUB.
- 9. Visually inspect the date code on the outside of the BUB as shown below.
 - **a.** If the date code is over five (5) years old, the BUB has passed its life cycle and should be replaced before installing the new DCM. The customer must be informed of the expired date code and the need for a replacement since the BUB is a maintenance item. The replacement cost is not covered by this no-charge DCM replacement service.
 - **b.** If the BUB is less than four (4) years old and no related DTCs are present, no action is required.



NOTE: The photo above illustrates where the BUB production date is located.

- 10. Transfer the existing BUB (or new replacement BUB) into the new DCM.
- **11.** Reinstall the battery cover.
- **12**. Install the new DCM. (Refer to STIS: ENTERTAINMENT & MONITORING > Data Communication Module > INSTALLATION.)
- 13. Reinstall all remaining components and interior trim in the reverse order of removal.
- 14. Reconnect the ground (-) terminal at the battery sensor. (Refer to STIS: REPAIR CONTENTS > NOTE > BATTERY.) Always support the sensor and DO NOT OVER-TIGHTEN.

NOTE: After reconnecting the battery ground terminal, the following operations are automatically performed in the vehicle:

- Initial diagnosis of electronic throttle control.
- Learning control of brake pedal stroke sensor. Therefore, before starting the engine, be sure to place the selector lever in the "P" position, press the START button, and <u>WAIT</u> at least 10 seconds without depressing the brake pedal.
- Initialization operation of active grille shutter. **CAUTION:** Do not place hands, cloths, tools, or other items nearby because the active grille shutter opens approximately four (4) seconds after the battery is reconnected.
- **15.** Start the vehicle. Observe and confirm <u>none</u> of the overhead console or stereo camera cover assembly's Telematics LEDs illuminate until after the blue iButton has been pushed for the first time.
 - **a.** The presence of a **RED** LED indicates a problem. **STOP** and do not proceed until the presence of current DTCs has been verified. Follow appropriate STIS, TSB, or TechTIPs information to resolve the **RED** Telematics LED. Contact the FSE or Techline for further assistance.
 - **b.** The presence of **RED** and **GREEN** also LEDs indicates a problem. **STOP THE UPGRADE PROCESS**. Follow appropriate STIS, TSB, or TechTIPs information to resolve the **RED** Telematics LED. Contact the FSE or Techline for further assistance.
- **16.** Perform the DCM registration procedure by pressing and holding the blue i-button for 2 (two) seconds or until the LEDs illuminate and start to flash.

CAUTION: Do not press and hold the blue i-button for more than 2 seconds during the COMM CHECK or settings will return to factory mode in a low radio wave environment. If the settings have returned to factory mode, perform the communication check again. To check the mode status, see "Subscription Status" in the current data display on Subaru Select Monitor.

NOTE: Provisioning may take some time to complete. Once COMM CHECK is completed and BOTH LEDs are OFF, move the vehicle to an area with a good cellular signal and allow at least 20 minutes for provisioning to complete.

- **17.** Ensure the vehicle is parked in an area with adequate cellular signal strength. When provisioning is completed, the Telematics system will automatically activate and the **GREEN** LED will remain illuminated.
 - **a.** Provisioning can take considerable time to complete, up to an hour depending on cellular coverage and signal quality.
 - **b.** If 1 hour has passed and provisioning has not been completed and the **GREEN** LED is not illuminated, contact Techline for further assistance.

18. Confirm the **GREEN** Telematics LED is illuminated.

- a. If the Telematics LED is GREEN, proceed to Step 19: Telematics Functional Check.
- **b.** If the Telematics LED is **RED**, connect SSM4 and check for any Telematics DTCs.
 - 1. If ANY DTCs are present, follow the applicable Service Manual troubleshooting found on STIS to diagnose the DTC. Check for related TSBs or TechTIPS. If unable to resolve through available troubleshooting, contact the Techline for additional support.
 - 2. If NO current DTCs and the Telematics LED is **RED**, verify power supply and ground using the applicable Service Manual wiring diagrams found on STIS. Check for any related TSBs or TechTIPs. Contact the Techline if additional support is needed.

19. Perform a functional check of the Telematics system:

- **a.** Push the blue iButton and connect to the STARLINK call center. Have the operator confirm the VIN and location of the vehicle.
 - i. Successful: Perform Step 19 iii where applicable (see IMPORTANT NOTE: below); otherwise, the update process is now complete.

NOTE: If the Telematics LED changes to **RED** after pushing the blue iButton, but the Technician was still ABLE to reach the operator and have them confirm the vehicle's VIN and location, collect at least 30 seconds of Telematics DCM data and contact Techline for additional support. Provide details of all steps followed to this point and the collected Telematics data.

- **ii. NOT Successful:** Move the car to a new location and try again. If still unsuccessful, in completing the i-button call and reaching an operator, collect at least 30 seconds of Telematics DCM data and then contact Techline for additional support. Provide details of all steps followed to this point and the collected Telematics data. After diagnosis and repair, perform **Steps 16-19** as applicable based upon repair performed.
- **iii**. If the vehicle is equipped with a **Safety and Security Plus** subscription, have the customer verify remote services operation by performing a remote service request for a door unlock, or horn and light flash.
 - 1. Remote service request is **Successful:** Update is complete and the vehicle can be released to the customer.
 - 2. Remote Service request is **NOT Successful:** Move the vehicle to a new location and try again. If still unsuccessful, contact Techline for additional support. Collect at least 30 seconds of Telematics DCM data and contact Techline for additional support. Provide details of all steps followed to this point and the collected Telematics data.

IMPORTANT NOTE: For Vehicles subscribed to **STARLINK Safety Plus**, there are no remote services to test with this level of service. This subscription level does include the capability to test the blue i-Button operation enabling Technicians to confirm the STARLINK call center receives the vehicle VIN and location.

REMINDERS:

- Refer to TSB **15-267-20** for Telematics testing requirements to ensure proper operation of ACN.
- Refer to TSB **15-195-16R** for additional information on testing requirements following DCM replacement.

CLAIM REIMBURSEMENT AND ENTRY PROCEDURES

Credit to perform this replacement service will be based on the submission of adequately completed repair order information.

IMPORTANT NOTES:

- All claims must be submitted using Policy Adjustment (PA) Claim Type ONLY. Submissions using any other Claim Type will be rejected.
- ONLY these Labor Operation numbers and Fail Code are to be used when submitting the claim for this replacement service.
- NEVER use the Labor Operation numbers and Fail Code from the Labor Time Guide.
- Alternate transportation reimbursement (rental / loaner) or towing expenses may not be claimed for this replacement service.

Labor Description	Labor Operation #	Labor Time	Fail Code	Claim Type
3G SUNSET VOLTE SOFTWARE VERSION CHECK ONLY	A067-938	0.2	7TV 40*	PA
3G SUNSET VOLTE SOFTWARE DCM REPLACEMENT	A067-941*	0.5	211-43	

*Please note in the claim comments section if the vehicle had an open WQZ-61R service program and it will be closed with either of these submissions.

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.

PREPARATION FLOW



REPLACEMENT FLOW



Get the Latest Software Update for your STARLINK initiativenet System. Just a reminder that you're receiving this email because you have expressed an interest in Subaru of America. Don't forget to add us to your address book so well be sure to land in your index! You may manage your preferences or uraubscribe here.

SUBARU.



ATTENTION REQUIRED

Your vehicle is eligible for a complimentary STARLINK system update.

Hello Scott,

We're contacting you because your 2019 Forester will require an update to continue utilizing your STARLINK Safety and Security services. Effective February 2022, the current wireless provider has elected to retire the 3G network that connects your services such as Automatic Collision Notification, SOS Emergency Assistance, and remote vehicle features*. If your vehicle is not updated before the 3G network retirement date, your STARLINK Safety and Security subscription will be cancelled.

Beginning March 10, 2021, your Subaru Retailer¹ will offer a complimentary system update for vehicles like yours with an active STARLINK subscription². This will ensure you can continue to access important STARLINK Safety and Security services. This service visit will take a minimum of two hours³ and it may be necessary to leave your vehicle for a longer period of time to complete the necessary update. Please contact your Subaru Retailer for additional details and to schedule your complimentary system update.

READ THE FAQ

Your authorized Subaru Retailer:

Tonkin of the Gorge 2222 W 6th St, The Dalles, OR 97058 (541) 296-2166 <u>Go to website</u>

Keeping you connected, — Your friends at Subaru.

