

ATTENTION:

GENERAL MANAGER

PARTS MANAGER

CLAIMS PERSONNEL

SERVICE MANAGER

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

© 2021 Subaru of America, Inc. All rights reserved.



QUALITY DRIVEN® SERVICE

SERVICE BULLETIN

APPLICABILITY: 2016-18MY Legacy/Outback
 2016-18MY Impreza
 2016-18MY Crosstrek
 2016-18MY Forester
 2017-18MY WRX

NUMBER: 15-280-21R

DATE: 03/18/21

REVISED: 06/17/21

SUBJECT: Gen1 Telematics Reprogramming for 3G Sunset

APPLICABILITY:

Applicable Vehicle	Specification	MY
LEGACY / OUTBACK	Telematics equipped with active subscription	2016 – 18
IMPREZA	Telematics equipped with active subscription, except MT with Push-Button Start*	2016 - 18
CROSSTREK	Telematics equipped with active subscription	2016 - 18
FORESTER	Telematics equipped with active subscription	2016 - 18
WRX/STI	Telematics equipped with active subscription, except MT with Push-Button Start*	2017 - 18

*See Notes on Model Applicability below for important information.

Notes on Model Applicability:

- Vehicles equipped with manual transmission and push-button start will follow DCM replacement procedure as outlined in TSB 15-279-21: **Gen1 Telematics DCM Replacement for 3G Sunset** which is applicable to manual transmission vehicles with push-button start ONLY.
- A vehicle which is part of the affected Gen1 Telematics population and **currently subscribed** to any STARLINK Telematics Services level is eligible for this no-charge DCM software update. **Unsubscribed vehicles are not included in this no-charge DCM reprogramming update.** NEVER attempt this update on any unsubscribed vehicle.
- **In the event a DCM replacement is required on a vehicle with a MANUAL transmission and Key start OR a CVT with push-button start, refer to TSB 15-279-21R for the related Service Procedures.**

IMPORTANT: Vehicle Coverage and an active subscription for all affected cars must be confirmed using the Vehicle Coverage Inquiry function on subarunet.com.

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...

OVERVIEW OF CUSTOMER CONSIDERATION:

NOTE: A copy of the Customer Letter is supplied for reference at the end of this bulletin.

IMPORTANT WARNINGS:

- **NEVER** release the vehicle back to the customer until the **GREEN** Telematics LED is illuminated and the Telematics System passes all functional and operational checks. The only exception to this requirement would be an external concern affecting DCM operation which the customer has been informed of but elects not to correct prior to receiving this update.
- 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 proper operation of the Telematics system has been confirmed.

Before Beginning the No-Charge DCM Reprogramming Service:

Vehicles affected by this reprogramming service may also have an open Service Campaign WQZ-61R. 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 reprogramming service are indicated as open, **perform this 3G Sunset update procedure ONLY**, and both the WQZ-61R campaign and the 3G Sunset service programs will close.
2. The vehicle is **not currently subscribed** to Telematics: WQZ-61R campaign and 3G Sunset update procedure are indicated as open, **perform WQZ-61R ONLY**. Refer to the WQZ-61R campaign bulletin for full details.

IMPORTANT Subscription and Update Procedure Applicability Information:

Vehicles eligible to receive this DCM update procedure **MUST HAVE A CURRENTLY ACTIVE SUBSCRIPTION** to any level of Telematics services. **Coverage and confirmation of an active subscription must be confirmed using the Vehicle Coverage Inquiry function on subarunet.com.**

The screenshot example below shows the Telematics Subscription portion of the Vehicle Coverage Inquiry page. Here, the subscription can be confirmed as "Active" and also confirm the need to complete the DCM update procedure. The red outlined box highlights additional STARLINK information now included in this section of Vehicle Coverage Inquiry.

If the subscription status is not "Active", the vehicle is NOT ELIGIBLE for the DCM update procedure.



The screenshot shows a web interface for 'Telematics Subscription'. At the top, it displays 'WIFI Subscription Not Enrolled', 'Commchecked Yes - 01/15/2020', and 'DCM Version Number DCM_23.00.16_20190315'. Below this is a red-bordered box with the text: '3G STARLINK/Telematics DCM Status DCM Update Date: XX/XX/XXXX; DCM Update Required *active STARLINK Subscription is required prior to completing update. Reference TSB XXXXX for procedure.' The main table has columns for Product Start Date, Product End Date, Status, Product Name, Subscriber Name, and Terms. Two rows are shown, both with 'Active' status and 'STARLINK Safety Plus - Corporate' and 'STARLINK Security Plus - Corporate' product names. A red box highlights the 'Status' column, and a yellow box highlights the 'Product Name' column.

Product Start Date	Product End Date	Status	Product Name	Subscriber Name	Terms
02/21/2020	02/20/2021	Active	STARLINK Safety Plus - Corporate		12 month(s)
02/21/2020	02/20/2021	Active	STARLINK Security Plus - Corporate		12 month(s)

Continued...

Reprogramming File Information:

Filename	Keyword	Starting DCM software version
86229DCM01-1.pak	4F3D5B8E	DCM_05.00.10 or 05.00.17
86229DCM01-2.pk2	3B7ED9D2	DCM_05.00.22 or 05.00.30
86229DCM02.pk2	D0F868F1	DCM_06.03.17_20191029

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. <i>Do not proceed with DCM software update until root cause is determined, and Telematics LED is GREEN</i>
Flashing Green or Red		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. <i>Vehicle not eligible for DCM software update until subscription verified.</i>
Solid Green and Red		SUBARU STARLINK service is currently having communication problems <i>Do not proceed with DCM software update until root cause is determined, and Telematics LED is GREEN</i>

SERVICE PROCEDURE FOR 3G SUNSET REFLASH:

NOTE: Flow Charts to support the procedures below are provided starting on page 36.

CRITICAL:

- **REFER TO APPENDIX A: 12V BATTERY / POWER SUPPLY PREPARATIONS ON PAGE 31 BEFORE PROCEEDING FURTHER!**
- **Due to the duration of each reprogramming procedure and consecutive reprogramming file transfers required to complete this 3G Sunset reprogramming update successfully, the use of a Subaru- approved Denso SSM4 cable is STRONGLY recommended. Cables sourced from other manufacturers may not meet data transfer rate and / or interference shielding requirements to ensure error-free data transmission during reprogramming.**

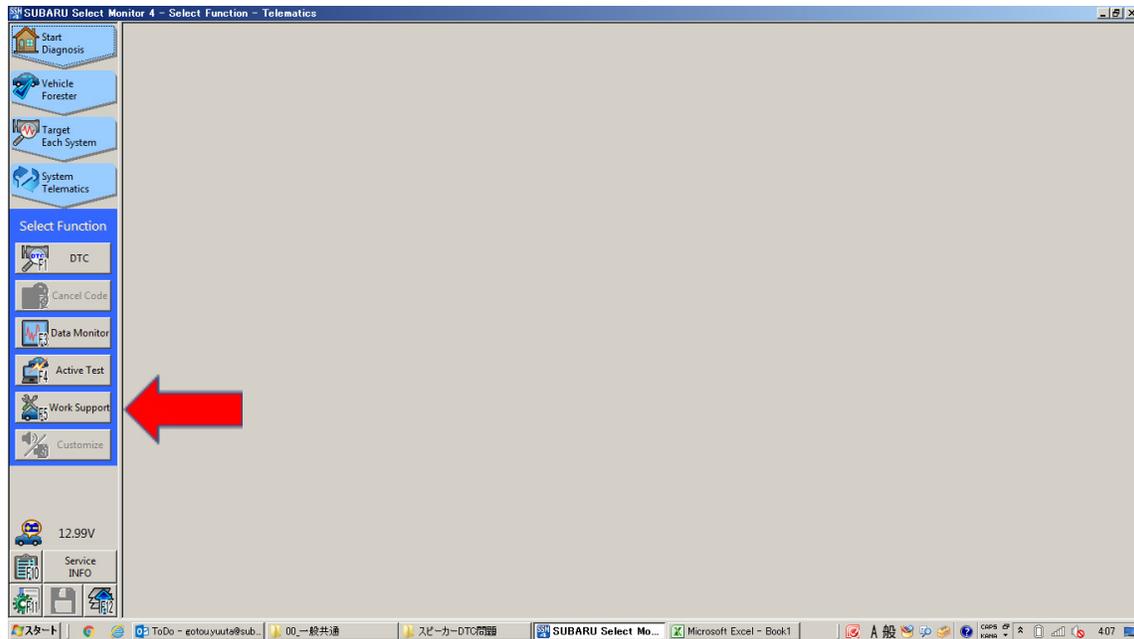
Vehicle Preparation:

1. Enter the vehicle and observe the Telematics LED status. (See chart above as reference).
 - a) Is the STARLINK Telematics **GREEN** LED on?
 - **NO**, proceed to **APPENDIX B: TROUBLESHOOTING CONCERNS FOUND PRIOR TO UPGRADE** on page 33.
 - **YES**, continue to **Step 2** below.
2. **Caution:** Perform a functional check of the Telematics system by pushing the red SOS button. When the STARLINK operator answers, request the VIN and LOCATION of the vehicle.

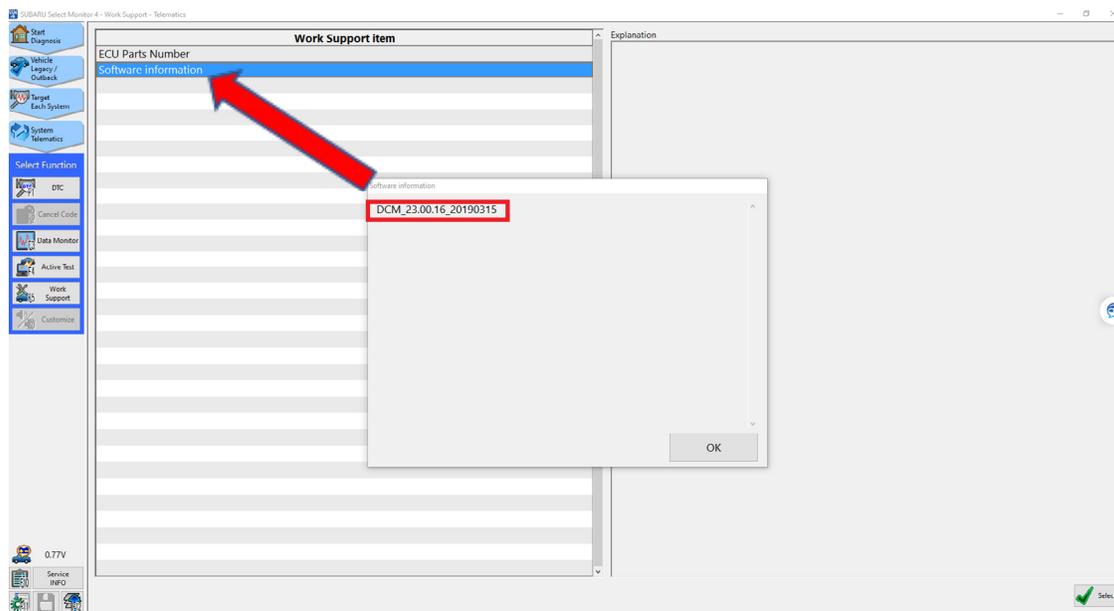
CHECK: Was the red SOS button call **Successful**?

Continued...

c. Click “Work Support” on the left-hand menu.



d. Select “Software Information” from the Work Support Items list.



e. Record the current version of software on RO for reference.

The DCM version verification procedure is now complete. Proceed to **Step 5**.

5. If the current DCM software version is **DCM_06.00.17_20190816**, the vehicle already has the most recent software version installed. **STOP**, proceed to the **Claim Reimbursement, and Entry Procedures** section and process a Version Check Only claim.

Continued...

6. If the current DCM software version is other than **DCM_06.00.17_20190816**, disconnect the DSTi and continue to **APPENDIX A: 12V BATTERY / POWER SUPPLY PREPARATIONS** on page **31** to ensure the vehicle battery is connected to the required Midtronics charger set to Power Supply Mode.
7. With the vehicle connected to Midtronics charger in Power Supply mode and the battery voltage stabilized:
 - a) If the current software version is **DCM_05-00-22 or 05-00-30** proceed to **Step 8**.
 - b) If the current software version is **DCM_05-00-10 or 05-00-17**, proceed to **Step 9**.
 - c) If the current software version is **DCM_06.03.17_20191029** proceed to **Step 10**.
8. If the current version of DCM software from **Step 6** above is 05.00.22 or 05.00.30, proceed to **Step 1, Phase 1: Flashing intermediate 86229DCM01-2.pk2** on Page 8.
 - a) **WARNING: USING THE WRONG FILE FOR REFLASHING WILL IRREPARABLY DAMAGE THE DCM.** NOTE: DCMs damaged as a result of using the wrong update files are not covered under warranty and resulting claims may be subject to debit. Always confirm the starting DCM software version and follow the corresponding update path.
 - b) If the update procedure fails at any time during the initial reprogramming attempt, refer to the **DCM REPROGRAMMING RETRY- APPENDIX C** on page **38** and follow the applicable retry procedure.
 - c) **If the procedure fails at any time during the reprogramming and DCM communication cannot be reestablished, proceed immediately to DCM replacement.** Reference TSB **15-279-21**: "Gen1 Telematics DCM Replacement for 3G Sunset" beginning with **Step 4** for the DCM replacement procedure.
9. If the current version of DCM software from **Step 6** above is **05.00.10** or **05.00.17**, proceed to **Step 1 Phase 1: Flashing intermediate 86229DCM01-1.pak** on page 15.
 - a) **WARNING: USING THE WRONG FILE FOR REFLASHING WILL IRREPARABLY DAMAGE THE DCM.** NOTE: DCMs damaged as a result of using the wrong update files are **not covered** under warranty and resulting claims may be subject to debit. Always confirm the starting DCM software version and follow the corresponding update path.
 - b) If the update procedure fails at any time during the initial reprogramming attempt, refer to the **DCM REPROGRAMMING RETRY- APPENDIX C** on page **38** and follow the applicable retry procedure.
 - c) **If the procedure fails at any time during the reprogramming and DCM communication cannot be reestablished, proceed immediately to DCM replacement.** Reference TSB **15-279-21**: "Gen1 Telematics DCM Replacement for 3G Sunset" beginning with **Step 4** for the DCM replacement procedure.

Continued...

10. If the current DCM software version from **Step 6** above is **DCM_06.03.17_20191029**, Phase 1 flashing is complete. Proceed to **Phase2: Flashing Gen1 VoLTE 86229DCM02.pk2** on page 23. (**NOTE:** It is unlikely a vehicle will present on arrival at the retailer with this software version. This version should be present after the Phase1 reflashing procedure only.)
- a) If the update procedure fails at any time during the initial reprogramming attempt, refer to the **DCM REPROGRAMMING RETRY- APPENDIX C** on page **38** and follow the applicable retry procedure.
 - b) **If the procedure fails at any time during the reprogramming and DCM communication cannot be reestablished, proceed immediately to DCM replacement.** Reference TSB **15-279-21**: "Gen1 Telematics DCM Replacement for 3G Sunset" beginning with **Step 4** for the DCM replacement procedure.

Continued...

Phase 1: Flashing intermediate 86229DCM01-2.pk2 (current software version of DCM is 05.00.22 or 05.00.30):

REMINDER: Due to the duration of each reprogramming procedure and consecutive reprogramming file transfers required to complete this 3G Sunset reprogramming update successfully, the use of a Subaru- approved Denso SSM4 cable is **STRONGLY** recommended. Cables sourced from other manufacturers may not meet data transfer rate and / or interference shielding requirements to ensure error-free data transmission during reprogramming.

WARNING: Ensure the Midtronics GR8 / Midtronics DCA-8000 set to Power Supply Mode is connected to the vehicle, the parking brake is engaged, ignition is in the “ON” position, the engine is OFF, the shift selector in NEUTRAL and the wheels are blocked. The reason this must be done is to ensure the power supplied to the DCM is not turned off. If this step is not performed, the CAN will power down the DCM during the reflash and the reflashing will fail resulting in irreparable damage to the DCM.



For Key Start vehicles:

1. Turn the ignition key ON (engine OFF).
2. Depress the brake pedal and move the Shift Lever into NEUTRAL.
3. Leave the ignition ON.

For vehicles equipped with Keyless Access and Push-Button Start:

1. Without touching the brake pedal, press the Push Button Ignition Switch twice to put the ignition system into IG ON mode (Engine OFF).
2. Depress the brake pedal and move the Shift Lever into NEUTRAL.
3. Leave the ignition ON.

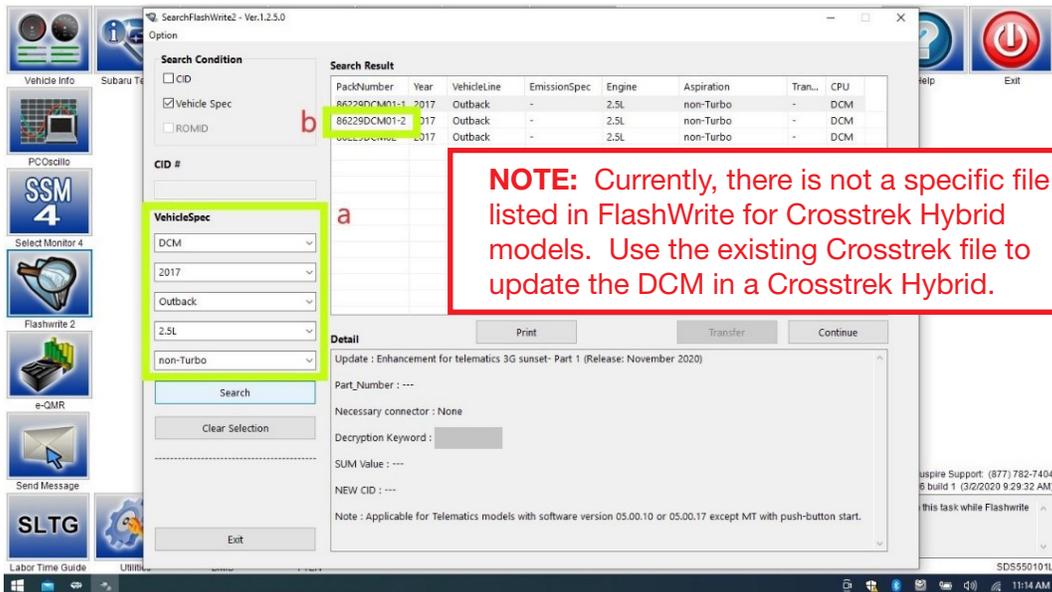
CRITICAL: ATTEMPTING THIS REPROGRAMMING WITH THE VEHICLE IN PARK WILL DAMAGE THE DCM REQUIRING REPLACEMENT.

Continued...

1. Connect the SDS Notebook and DSTi. Select **FlashWrite2** from the SDS Notebook GUI screen.

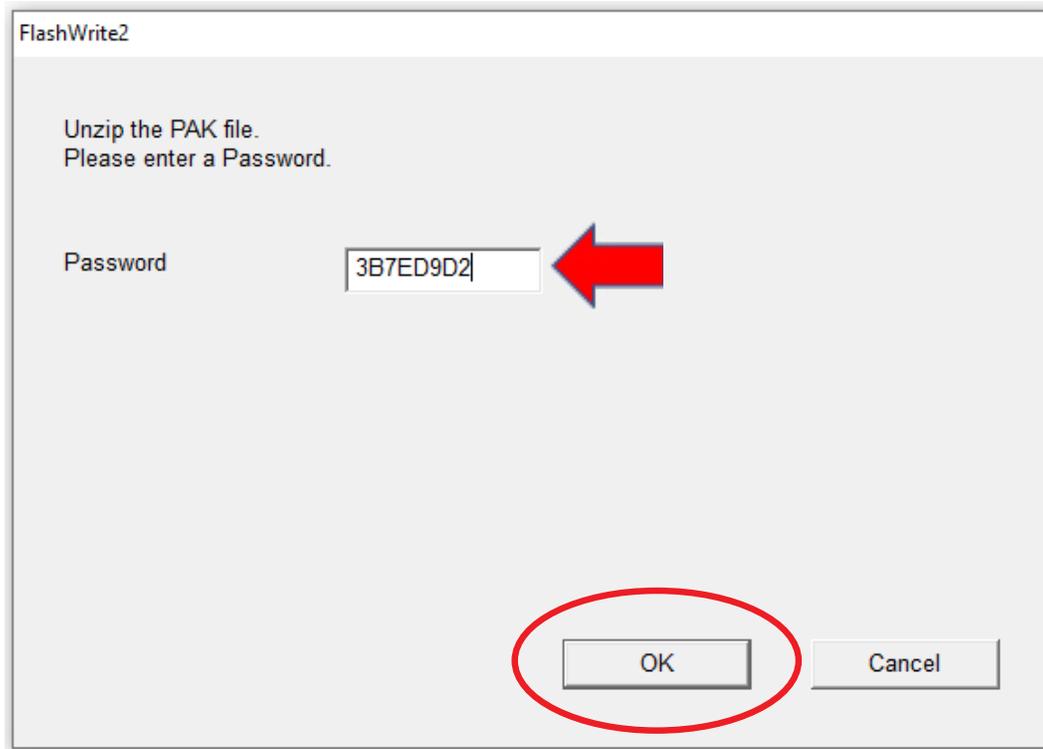


2. Once FlashWrite 2 opens, select DCM from the VehicleSpec drop down.
 - a) Complete entering the Vehicle Spec information.
 - b) Click and select the PK2 file **86229DCM01-2.pk2** intermediate image in FlashWrite.

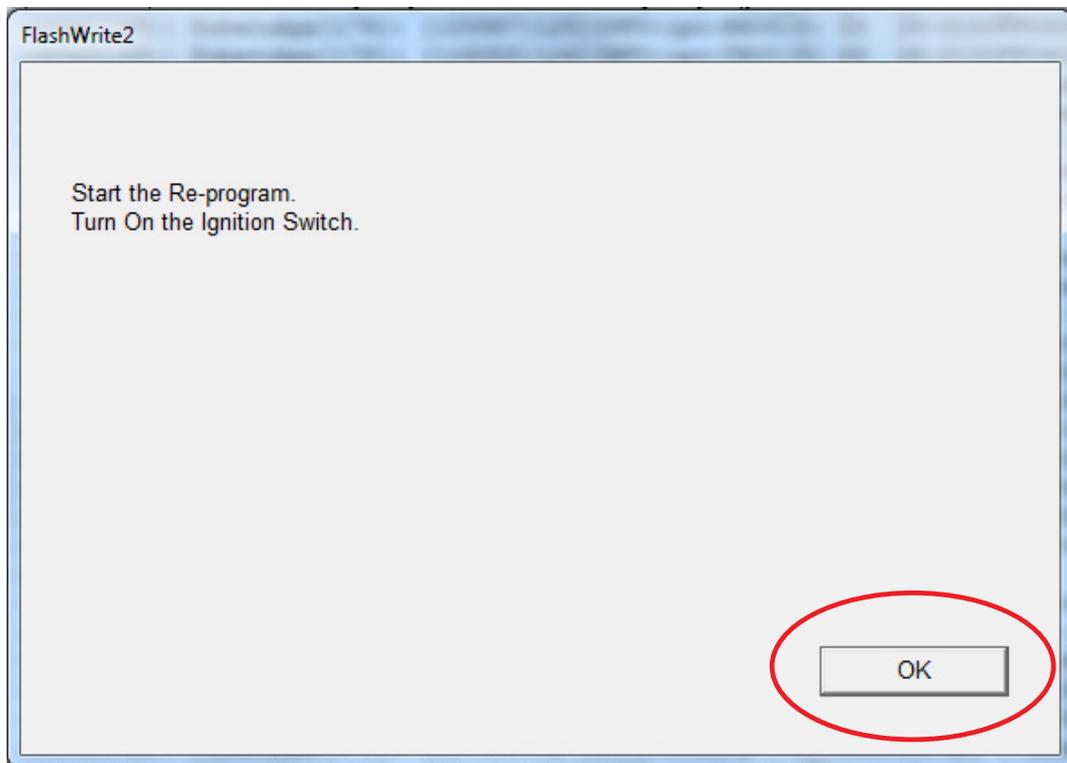


Continued...

3. Enter the Decryption Keyword from the table above (3B7ED9D2) and click “**OK**.”

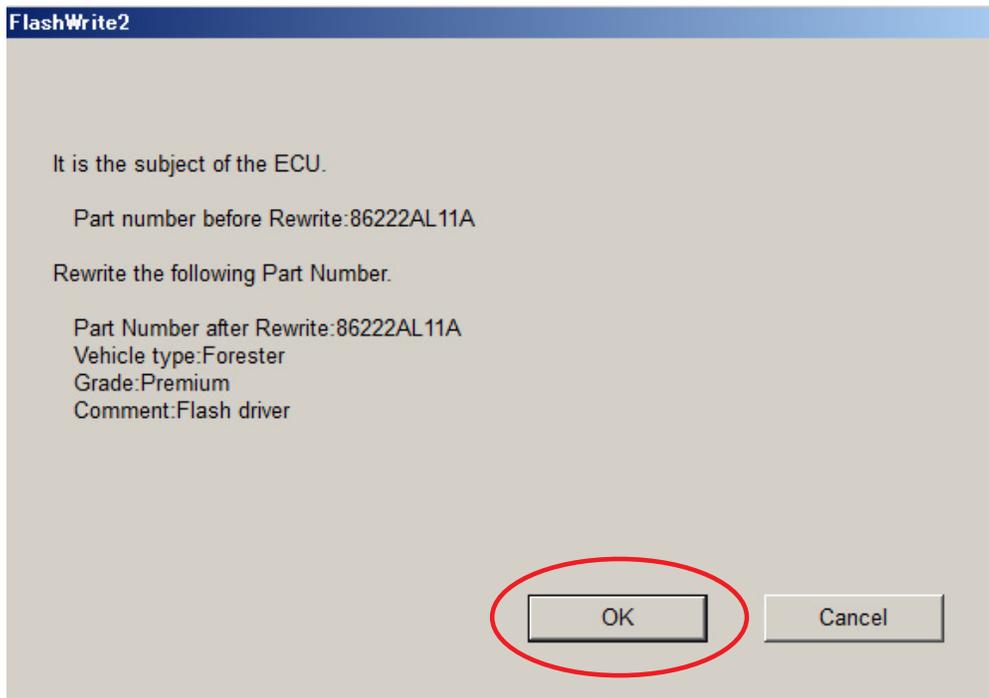


4. Turn the ignition ON and Click on ‘**OK**’ to start the reprogram.



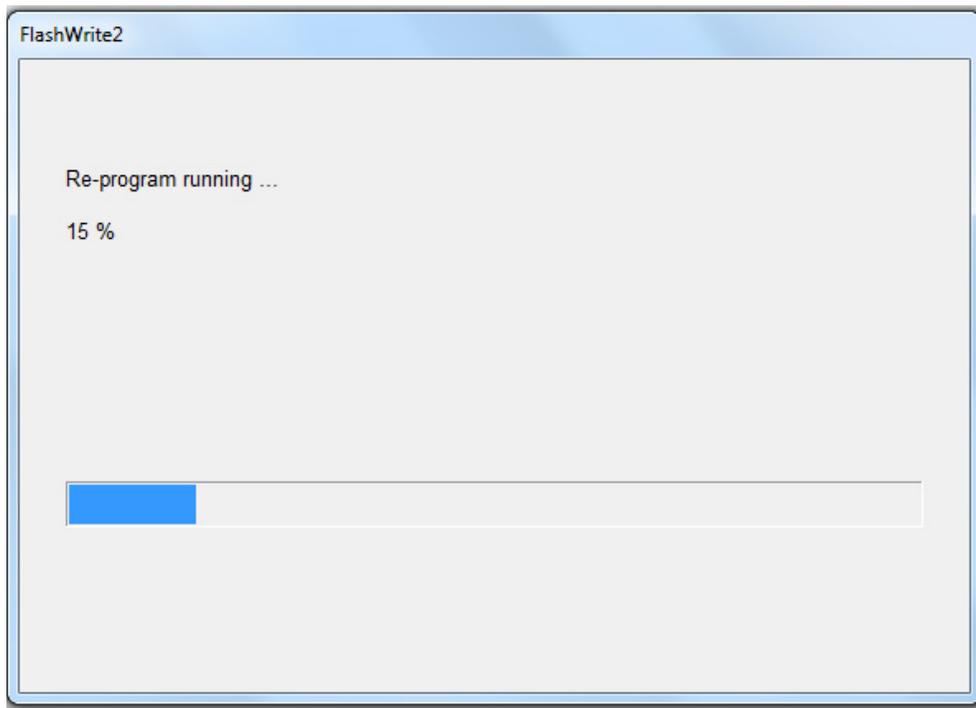
Continued...

- a) Part number before and after reflash will be displayed. Click 'OK'.



(NOTE: This screen image is an EXAMPLE and may not represent the installed part number. These values will be the same before and after reflashing. The Screen will always indicate “Forester” no matter what model or model year is being reflashed.)

- b) A CAN flashing progression bar will appear and start incrementing toward 100%. The update may take up to 60 minutes to complete.

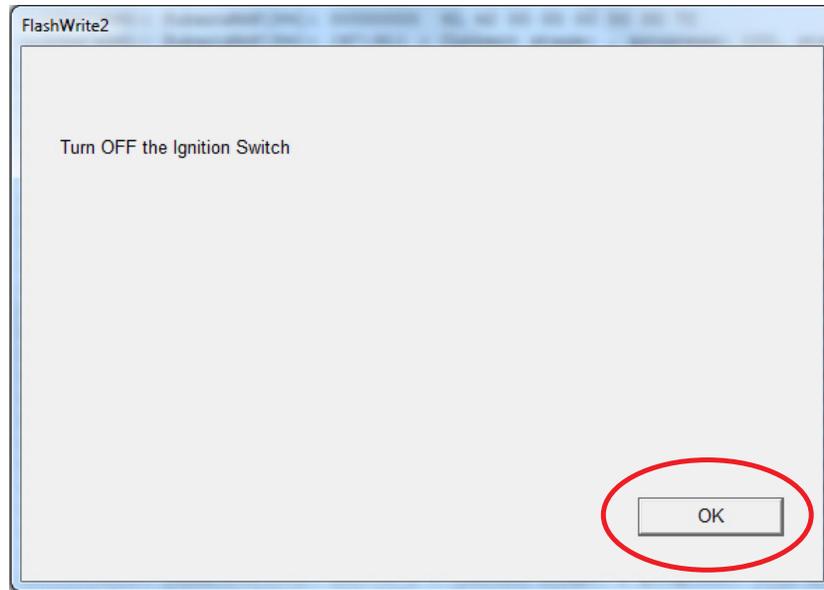


Continued...

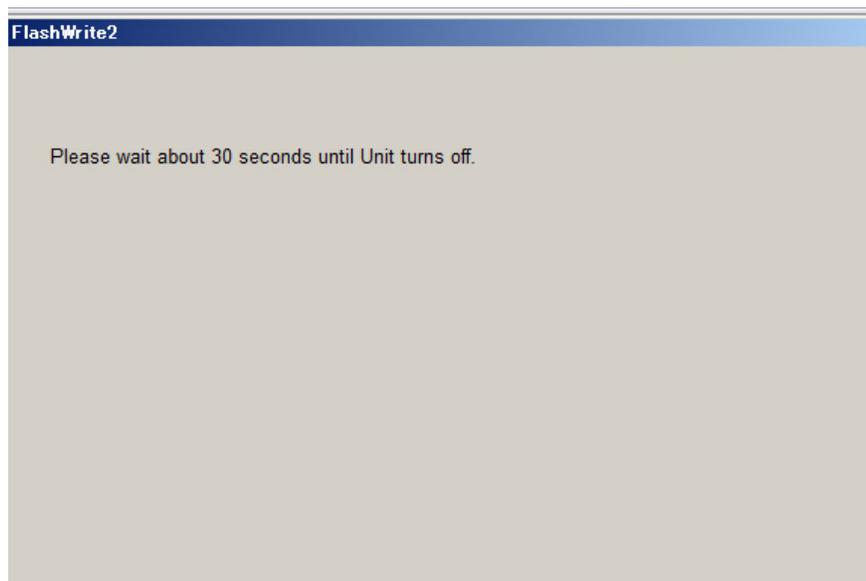
- c) **CRITICAL STEP:** After the reprogramming is finished, always put a CVT equipped vehicle in PARK and ensure the ignition is turned OFF. A prompt to switch the ignition OFF will be displayed. **DO NOT CLICK OK UNTIL THE VEHICLE IS IN PARK AND IGNITION IS SWITCHED OFF.**

NOTE: for CVT -equipped vehicles with push-button start:

- **WITHOUT TOUCHING THE BRAKE PEDAL,** push the start button (once).
- Move the selector into Park.
- Push the start button again to switch the vehicle OFF.
- **WAIT 30 SECONDS** and click OK.

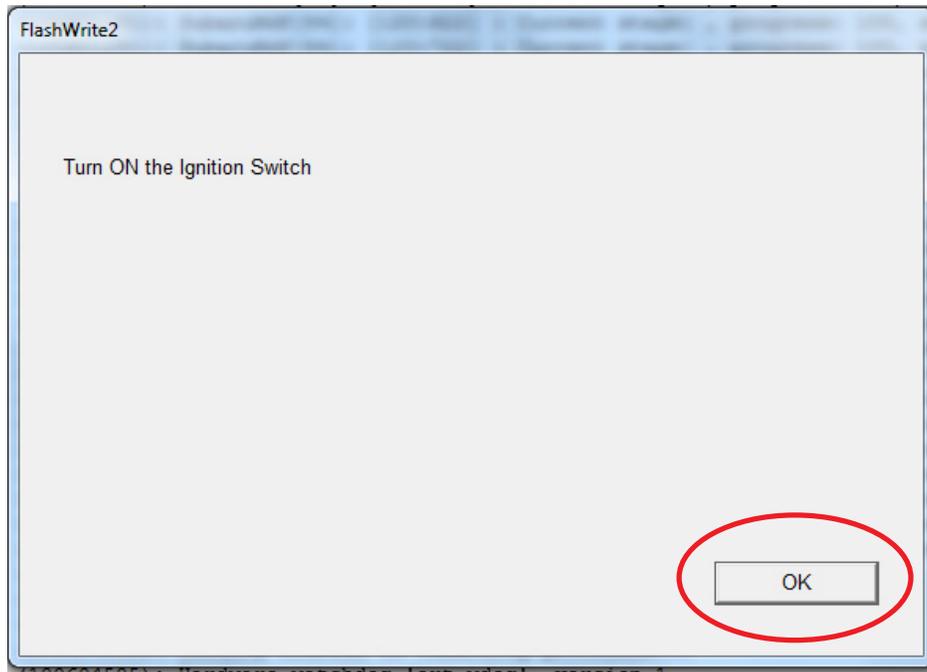


- d) **CRITICAL STEP:** FlashWrite will display the banner message “Please wait about 30 seconds until Unit turns off”. This banner page has a timer built in and will NOT continue until 30 seconds have passed and the DCM has safely shutdown. There is no way to verify the DCM has shutdown except waiting to ensure the full 30 seconds has passed. The next screen, e) shown below will display automatically.

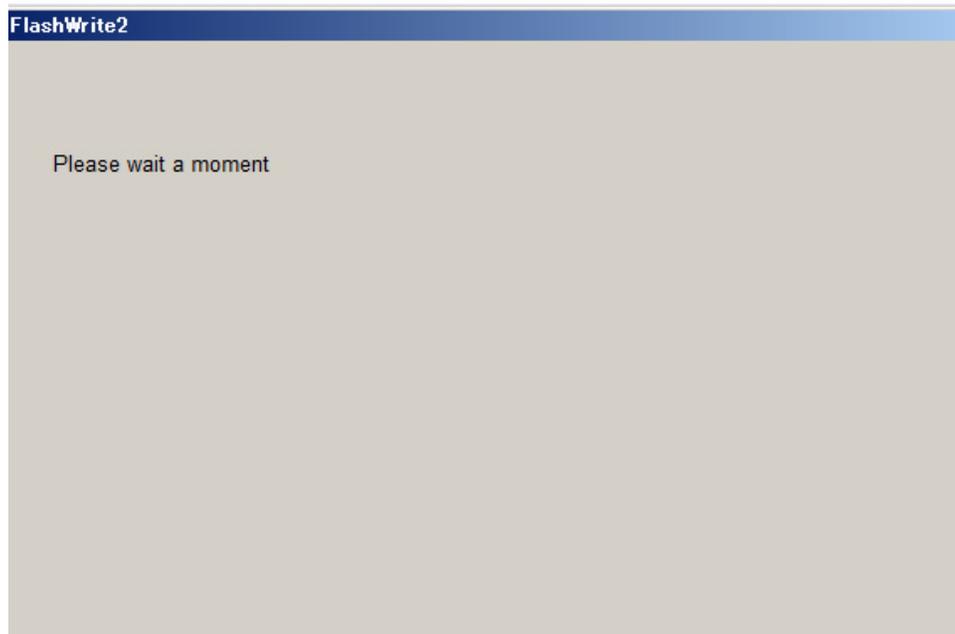


Continued...

- e) A prompt for toggling ignition to ON will be displayed. Click on 'OK'



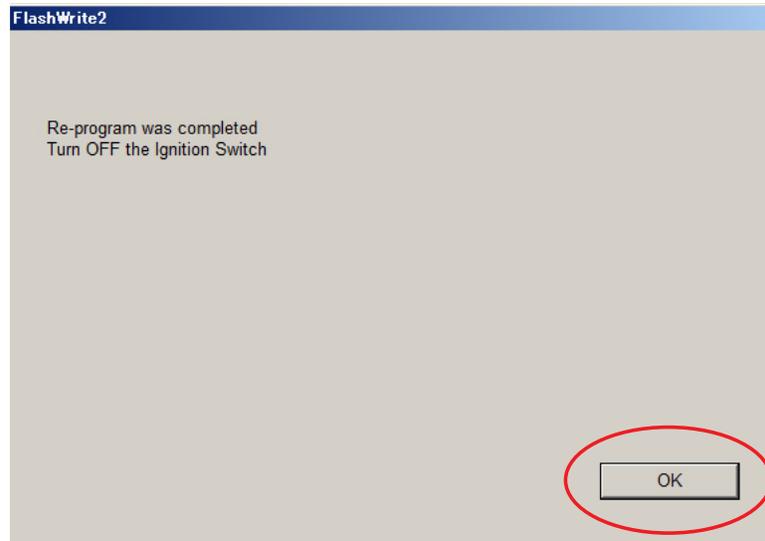
- f) FlashWrite will display the banner message "Please wait a moment."



CRITICAL: WAIT AT LEAST A FULL 5 MINUTES BEFORE PROCEEDING FROM THIS POINT. DURING THIS WAITING PERIOD, "REPARTITIONING" IS TAKING PLACE IN THE DCM AND CANNOT BE INTERRUPTED. DO NOT ATTEMPT ANY OTHER FUNCTIONS DURING THIS TIME (E.G. SWITCHING THE IGNITION OFF, STARTING ANOTHER UPDATE, USING THE SSM TO CHECK DCM STATUS, OPENING THE DOOR(S), ETC.).

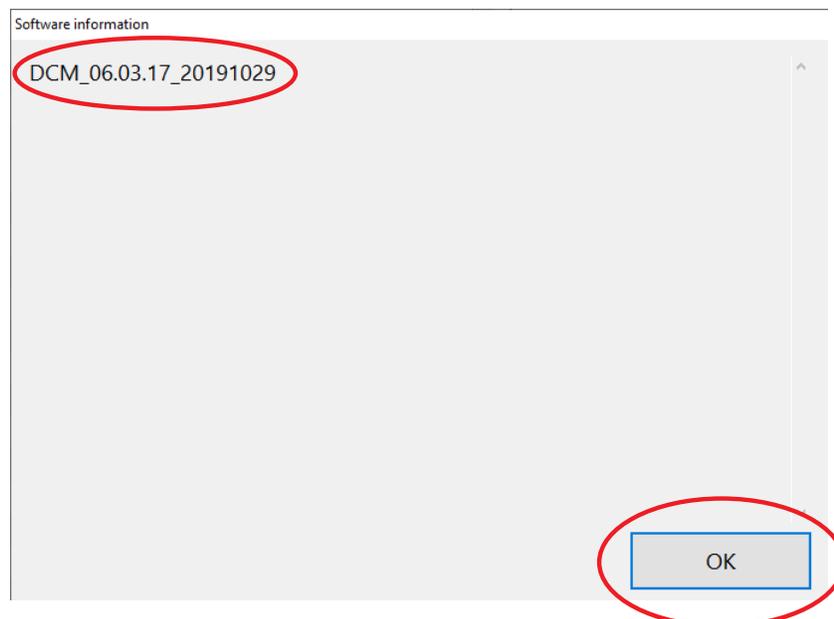
Continued...

- g) FlashWrite will display the banner message “Re-program was completed. Turn OFF the Ignition Switch.”



5. Verify the new DCM software version:

- a) Confirm SSM4 and DCM communication by retrieving the current software version.
- b) Click “Each System” on the left-hand menu.
- c) Select “Telematics” from the Systems List.
- d) Click “Work Support” on the left-hand menu.
- e) Select “Software Information” from the Work Support Items List.
- f) Record the current version of software on the RO for reference.
 - i. Successful retrieval of DCM software version? Proceed to **Step 6 below**.
 - ii. If SSM4 cannot communicate with DCM, DCM has current DTC(s), or the DCM software version cannot be retrieved, contact Techline for assistance before proceeding.



6. END OF PHASE 1 REFLASHING. Proceed to **Step 1: Phase 2: Flashing Gen1 VoLTE 86229DCM02.pk2** on page 23.

Continued...

Phase 1: Flashing intermediate **86229DCM01-1.pak** (If the OE Software Version is **05.00.10** or **05.00.17**):

REMINDER: Due to the duration of each reprogramming procedure and consecutive reprogramming file transfers required to complete this 3G Sunset reprogramming update successfully, the use of a Subaru- approved Denso SSM4 cable is **STRONGLY** recommended. Cables sourced from other manufacturers may not meet data transfer rate and / or interference shielding requirements to ensure error-free data transmission during reprogramming.

WARNING: Ensure the Midtronics GR8 / Midtronics DCA-8000 in Power Supply Mode is connected to the vehicle, the parking brake is engaged, ignition is in the “ON” position, the engine OFF, the shift selector in NEUTRAL and the wheels blocked. The reason this must be done is to ensure the power supplied to the DCM is not turned off. If this step is not performed, the CAN will power down the DCM during the reflash and the reflashing will fail resulting in irreparable damage to the DCM.



For Key Start vehicles:

1. Turn the ignition key ON (engine OFF).
2. Depress the brake pedal and move the Shift Lever into NEUTRAL.
3. Leave the ignition ON.

For vehicles equipped with Keyless Access and Push-Button Start:

1. Without touching the brake pedal, press the Push Button Ignition Switch twice to put the ignition system into IG ON mode (Engine OFF).
2. Depress the brake pedal and move the Shift Lever into NEUTRAL.
3. Leave the ignition ON.

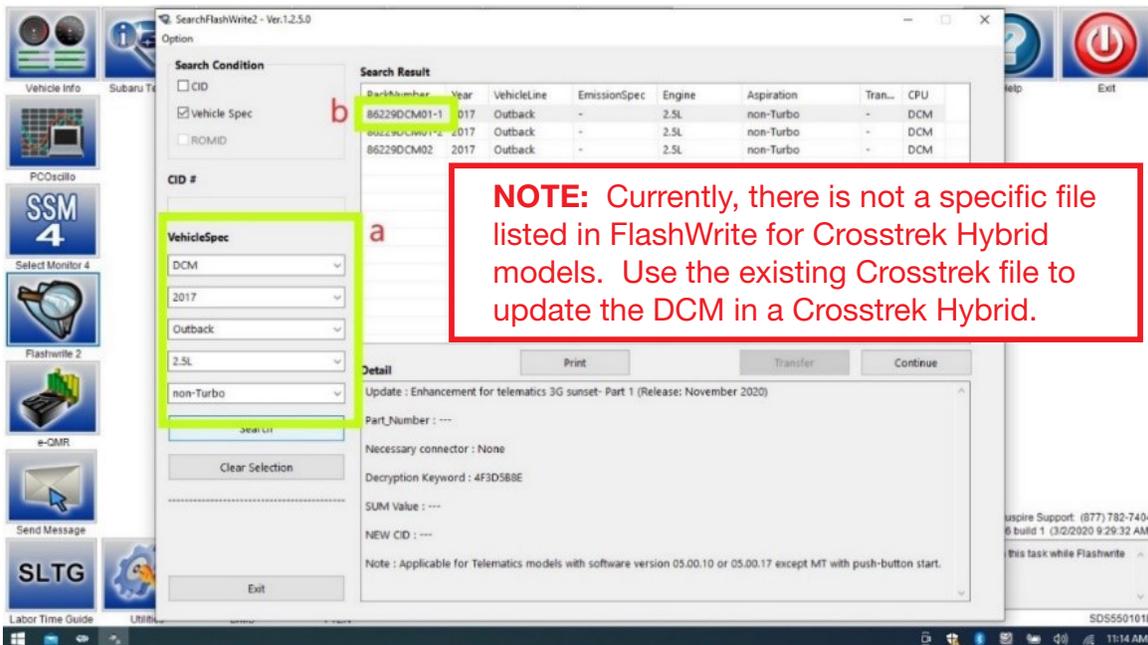
CRITICAL: ATTEMPTING THIS REPROGRAMMING WITH THE VEHICLE IN PARK WILL DAMAGE THE DCM REQUIRING REPLACEMENT.

Continued...

1. Connect the SDS Notebook and DSTi. Select **FlashWrite2** from the SDS Notebook GUI screen.

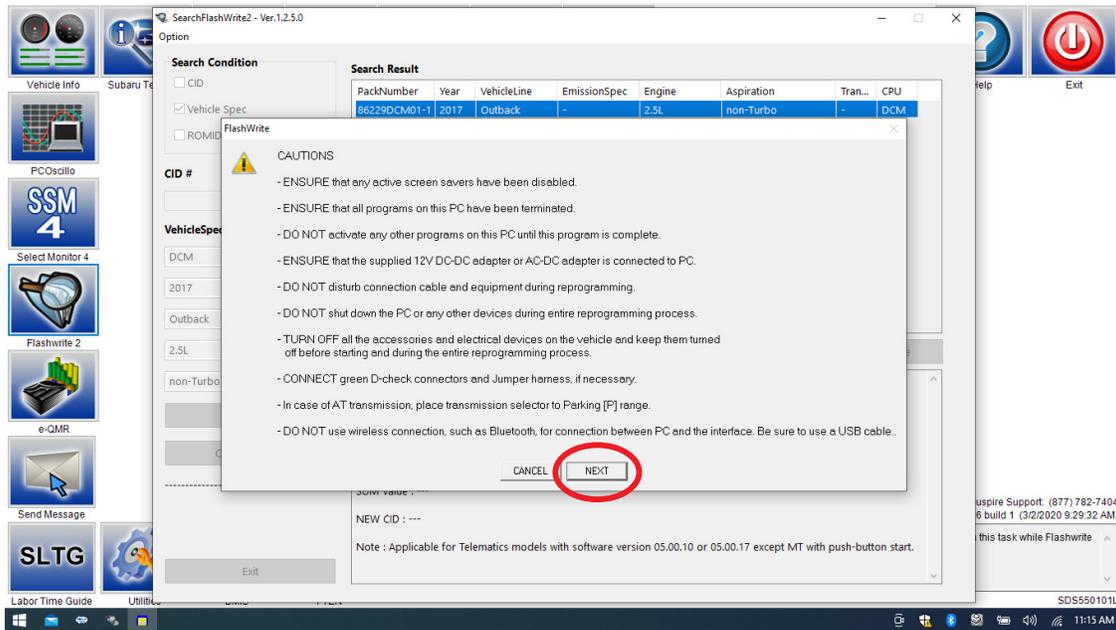


2. Once FlashWrite 2 opens, select DCM from the VehicleSpec drop down.
 - a) Complete entering the Vehicle Spec information.
 - b) Click and select the Pak file **86229DCM01-1.pak** intermediate image in FlashWrite.



Continued...

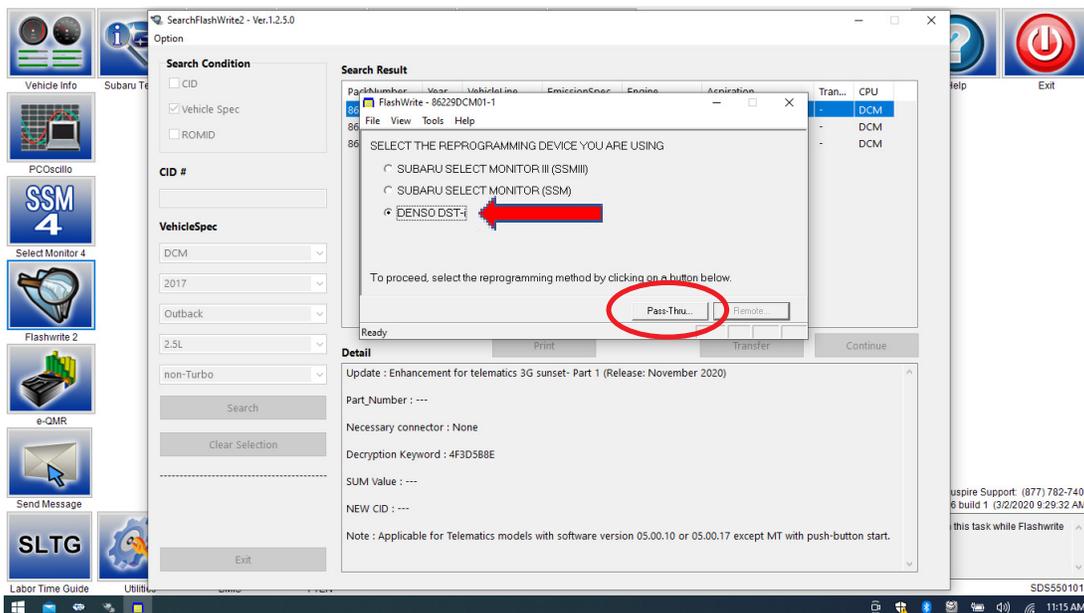
3. CAUTIONS will be displayed. Check the notices and click on “NEXT.”



WARNING: In the screenshot above, the on-screen directions indicate to leave the vehicle in PARK, doing this will cause the reflash procedure to FAIL. The vehicle **MUST BE LEFT IN NEUTRAL** for the entire reflash procedure. Reference **Step 1** above for all the vehicle conditions required for reprogramming.

4. Select the reprogramming device and click “OK”.

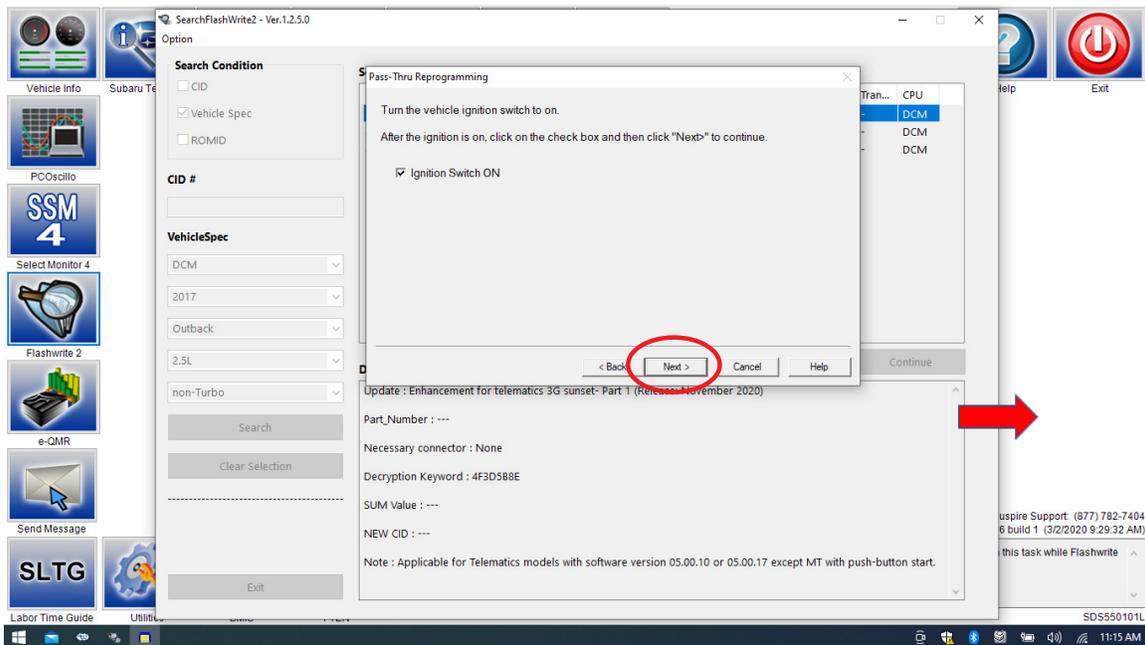
5. Click on “Pass Thru.”



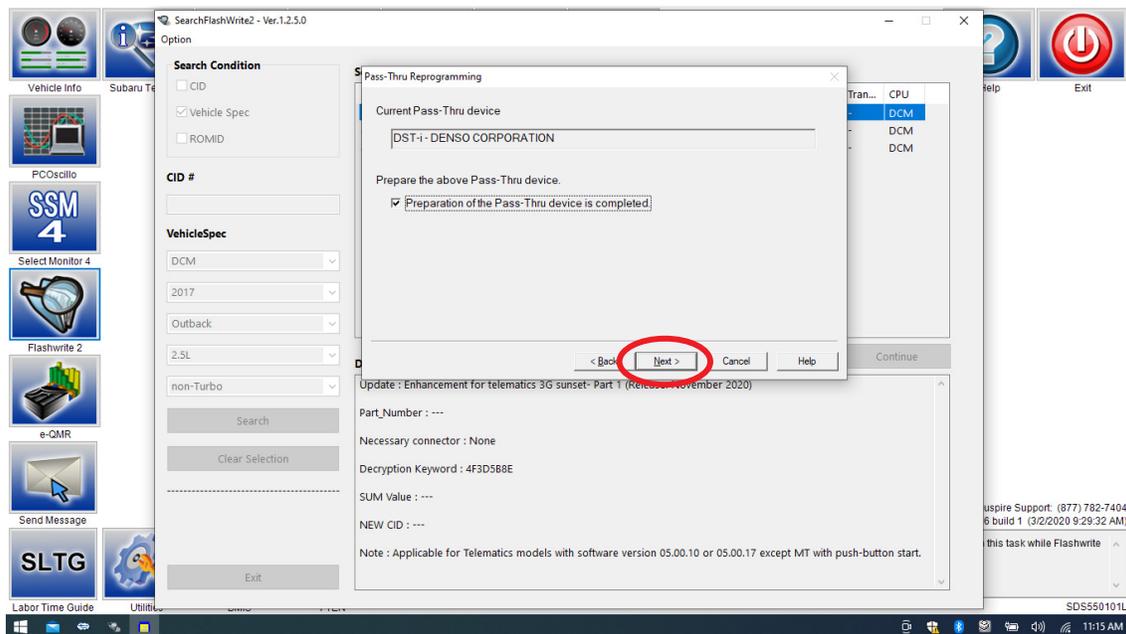
Continued...

6. Confirm the ignition is “ON” and the shift selector is in **NEUTRAL**.

a) Turn on the ignition switch and click on ‘Next’.

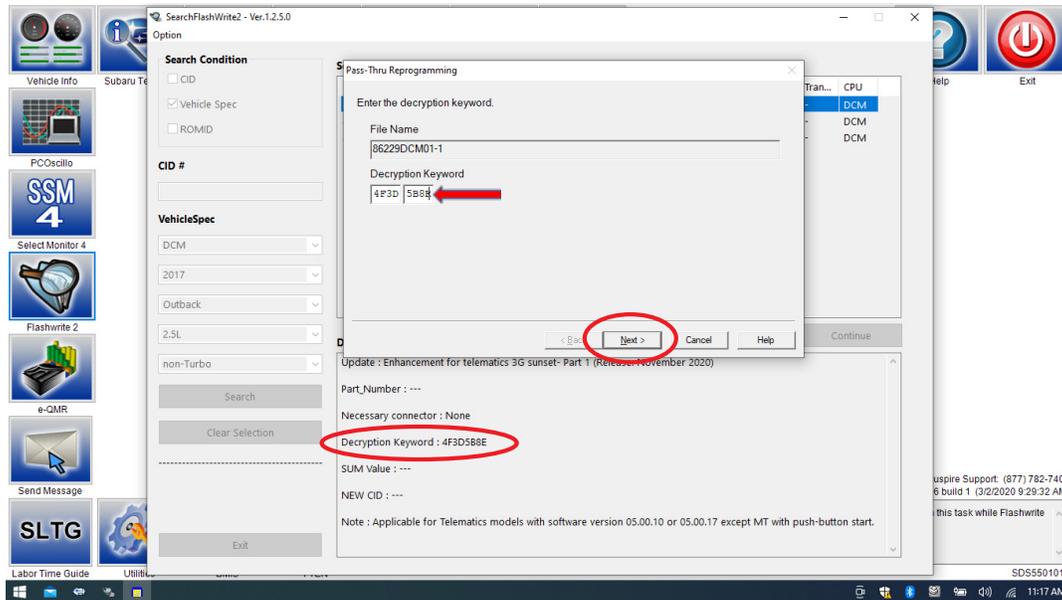


b) Pass-Thru preparation completed, click on Next to continue.

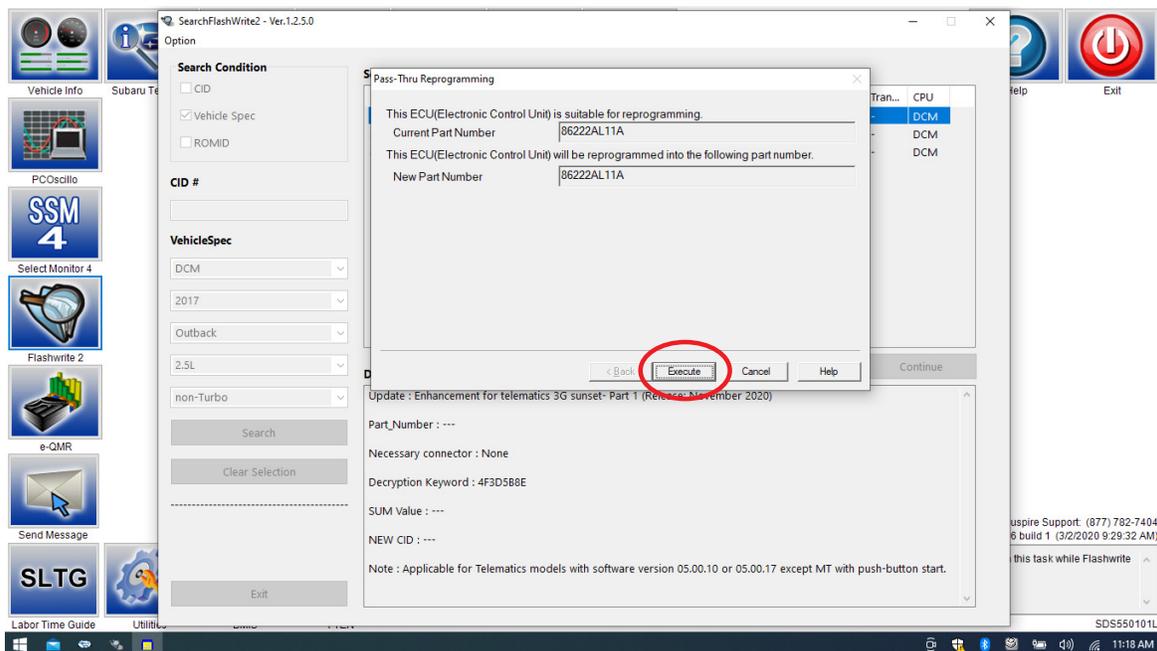


Continued...

7. Enter the Decryption Keyword from the table above (4F3D5B8E) and click on “Next”.

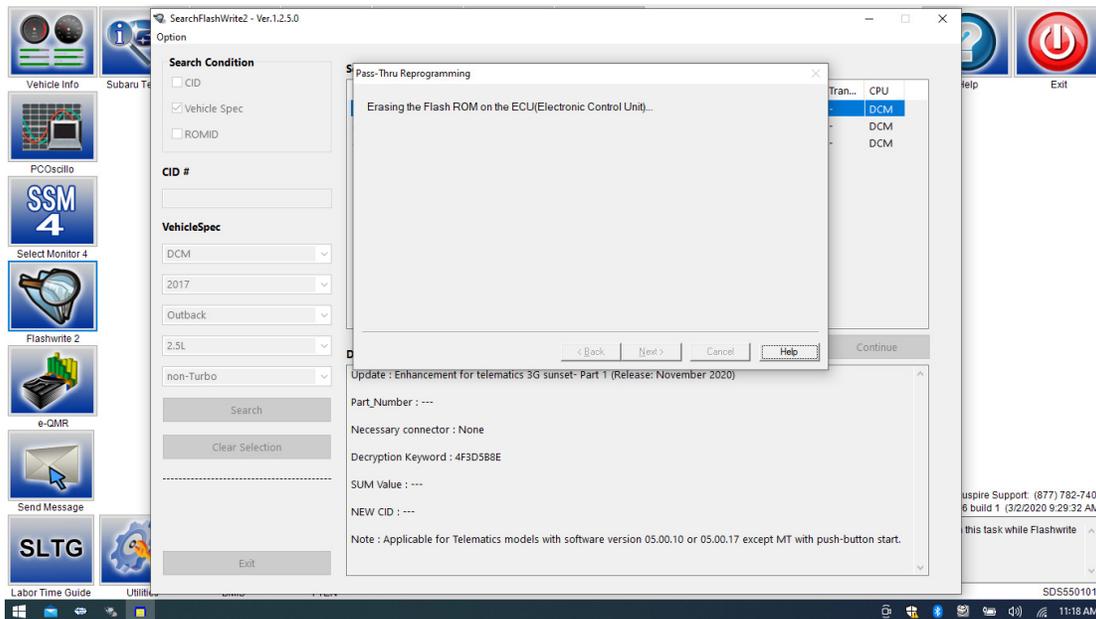


8. Click on “Execute.”

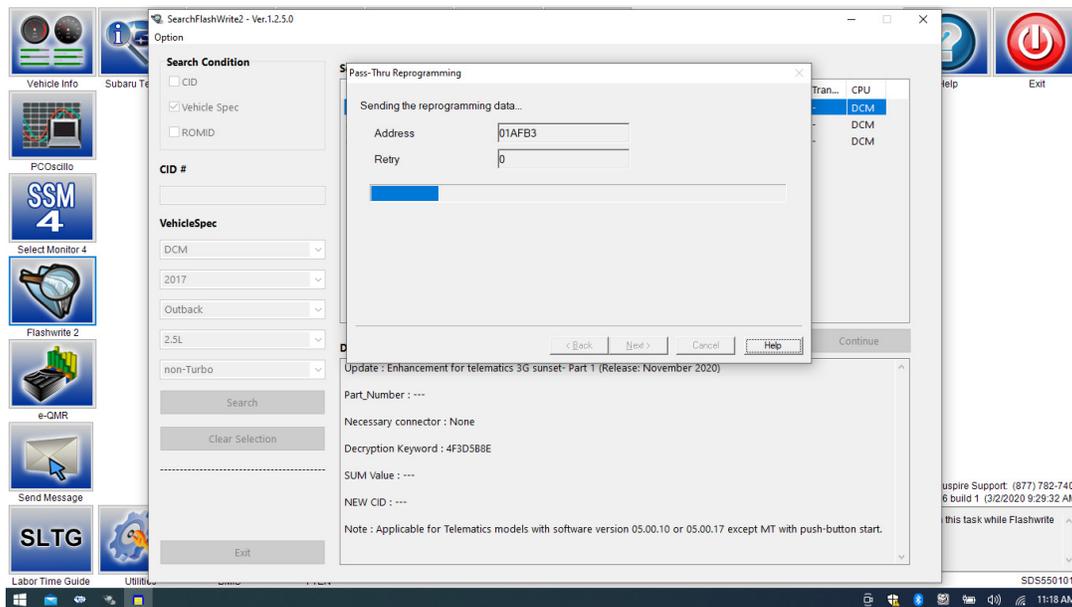


Continued...

9. Reprogramming will begin. Please wait.



NOTE: Pay close attention to the start of the status bar progression. Failures may occur at the beginning of the procedure. Once progress is at 5%, reprogramming should continue trouble-free until 100% complete. The update may take up to 60 minutes to complete.

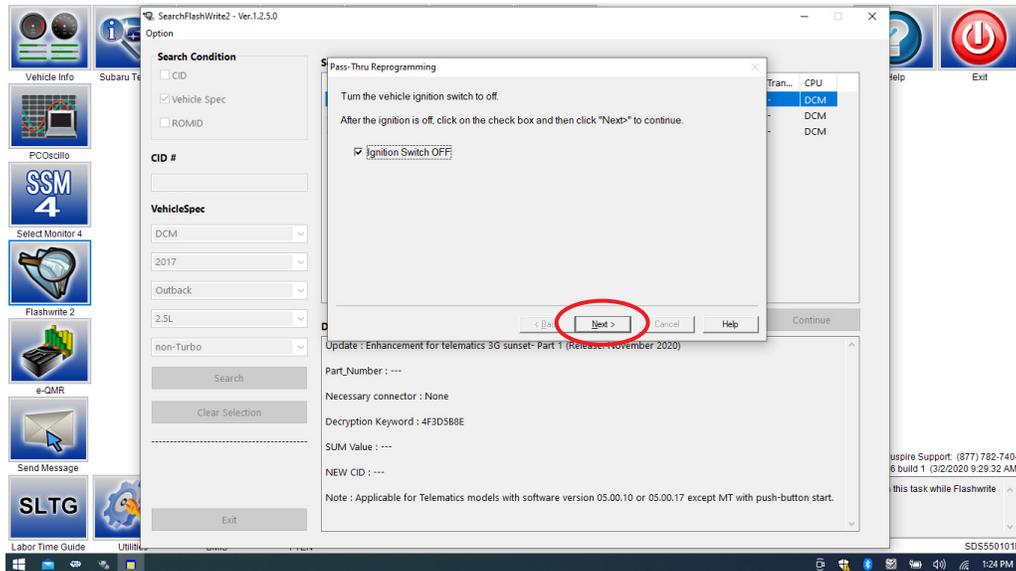


10. **CRITICAL STEP:** After the reprogramming is finished, always put a CVT equipped vehicle in PARK and ensure the ignition is turned OFF. A prompt to switch the ignition OFF will be displayed. DO NOT CLICK OK UNTIL THE VEHICLE IS IN PARK AND IGNITION IS SWITCHED OFF.

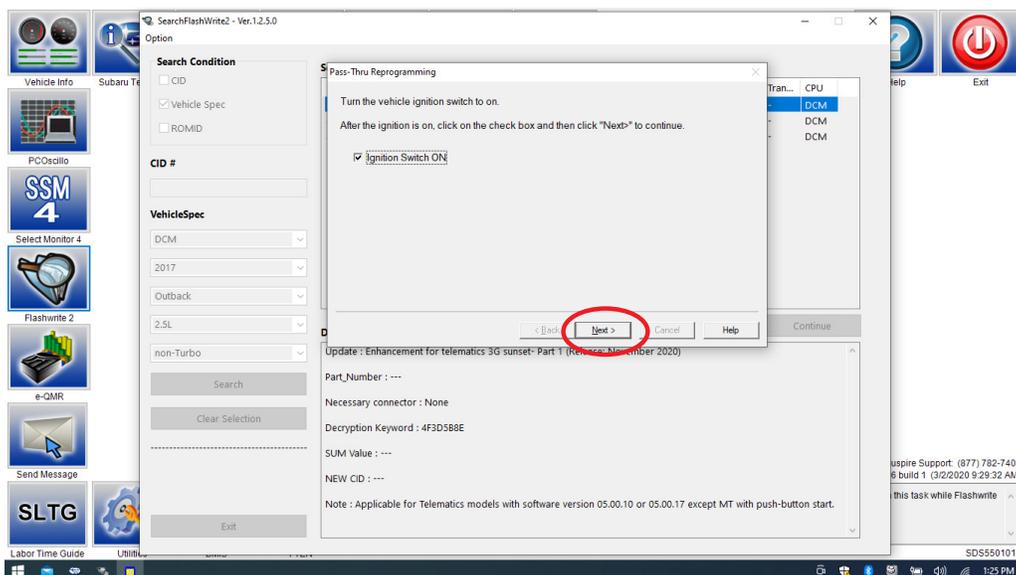
Continued...

NOTE: for CVT -equipped vehicles with push-button start:

- **WITHOUT TOUCHING THE BRAKE PEDAL**, push the start button (once).
- Move the selector into Park.
- Push the start button again to switch the vehicle OFF.
- **WAIT 30 SECONDS** and click OK.



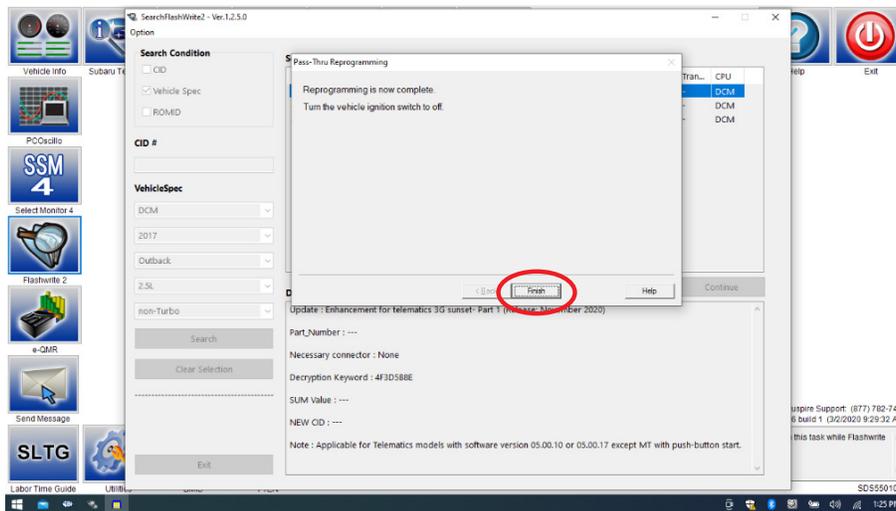
11. CRITICAL STEP: WAIT 30 seconds, cycle the ignition key or push-button start from OFF to ON then click “Next.”



CRITICAL: WAIT AT LEAST A FULL 5 MINUTES BEFORE PROCEEDING FROM THIS POINT. DURING THIS WAITING PERIOD, “REPARTITIONING” IS TAKING PLACE IN THE DCM AND CANNOT BE INTERRUPTED. DO NOT ATTEMPT ANY OTHER FUNCTIONS DURING THIS TIME (E.G. SWITCHING THE IGNITION OFF, STARTING ANOTHER UPDATE, USING THE SSM TO CHECK DCM STATUS, OPENING THE DOOR(S), ETC.).

Continued...

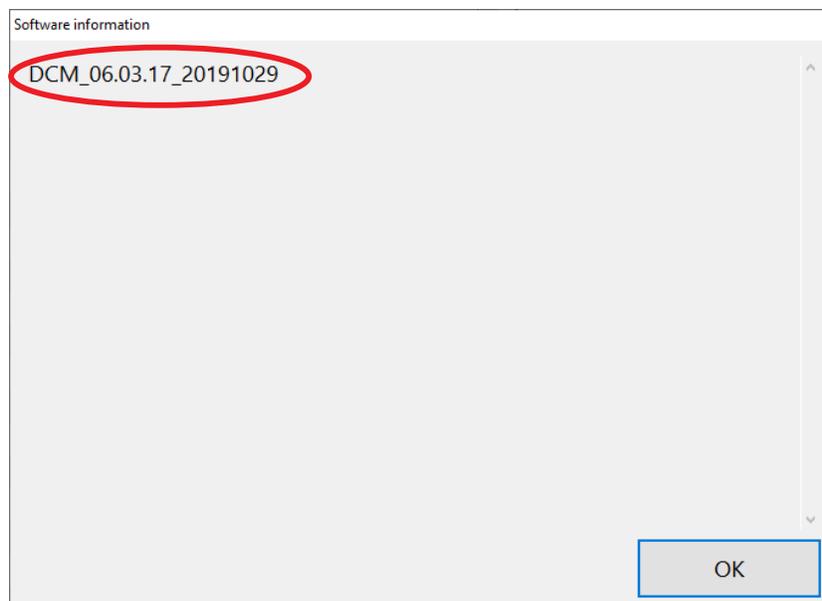
12. “Reprogramming is now complete” is displayed. Click on “Finish”.



13. With the vehicle in Park and the ignition on:

- a) Confirm SSM4 and DCM communication by retrieving the current software version.
- b) Click “Each System” on the left-hand menu.
- c) Select “Telematics” from the Systems List.
- d) Click “Work Support” on the left-hand menu.
- e) Select “Software Information” from the Work Support Items List.
- f) Record the current version of software on RO for reference.
 - i. After successful retrieval of the software version, proceed to **Step 14**.

NOTE: If SSM4 cannot communicate with DCM, DCM DTCs are current, or the DCM software version cannot be retrieved, contact Techline for assistance before proceeding.



14. END OF PHASE 1 REFLASHING. Proceed to **Step 1: Phase 2: Flashing Gen1 VoLTE 86229DCM02.pk2** on page 23.

Continued...

Phase 2: Flashing Gen1 VoLTE 86229DCM02.pk2 (if intermediate flash DCM version is DCM_06.03.17_20191029):

REMINDER: Due to the duration of each reprogramming procedure and consecutive reprogramming file transfers required to complete this 3G Sunset reprogramming update successfully, the use of a Subaru- approved Denso SSM4 cable is **STRONGLY** recommended. Cables sourced from other manufacturers may not meet data transfer rate and / or interference shielding requirements to ensure error-free data transmission during reprogramming.

WARNING: Ensure the Midtronics GR8 / Midtronics DCA-8000 in Power Supply Mode is connected to the vehicle, the parking brake is engaged, ignition is in the “ON” position, the engine OFF, the shift selector in NEUTRAL and the wheels blocked. The reason this must be done is to ensure the power supplied to the DCM is not turned off. If this step is not performed, the CAN will power down the DCM during the reflash, the update will fail and result in irreparable damage to the DCM.



For Key Start vehicles:

1. Turn the ignition key ON (engine OFF).
2. Depress the brake pedal and move the Shift Lever into NEUTRAL.
3. Leave the ignition ON.

For vehicles equipped with Keyless Access and Push-Button Start:

1. Without touching the brake pedal, press the Push Button Ignition Switch twice to put the ignition system into IG ON mode (Engine OFF).
2. Depress the brake pedal and move the Shift Lever into NEUTRAL.
3. Leave the ignition ON.

CRITICAL: ATTEMPTING THIS REPROGRAMMING WITH THE VEHICLE IN PARK WILL DAMAGE THE DCM REQUIRING REPLACEMENT.

Continued...

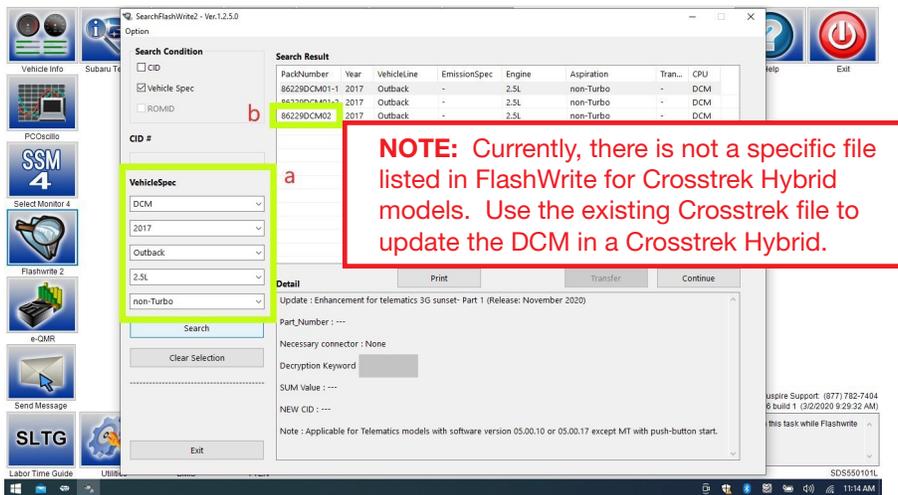
1. Connect SDS Notebook and DSTi. Select **FlashWrite2** from the SDS Notebook GUI screen.



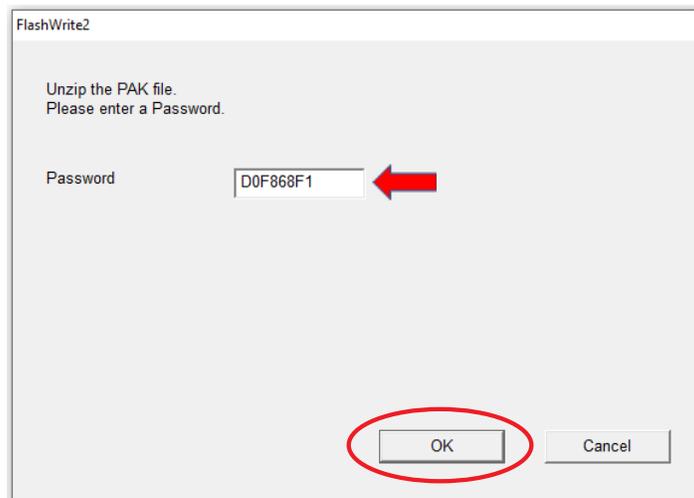
2. Once FlashWrite 2 opens, select DCM from the VehicleSpec drop down.

a) Complete entering the Vehicle Spec information.

b) Click and select the PK2 file **86229DCM02.pk2** intermediate image in FlashWrite.

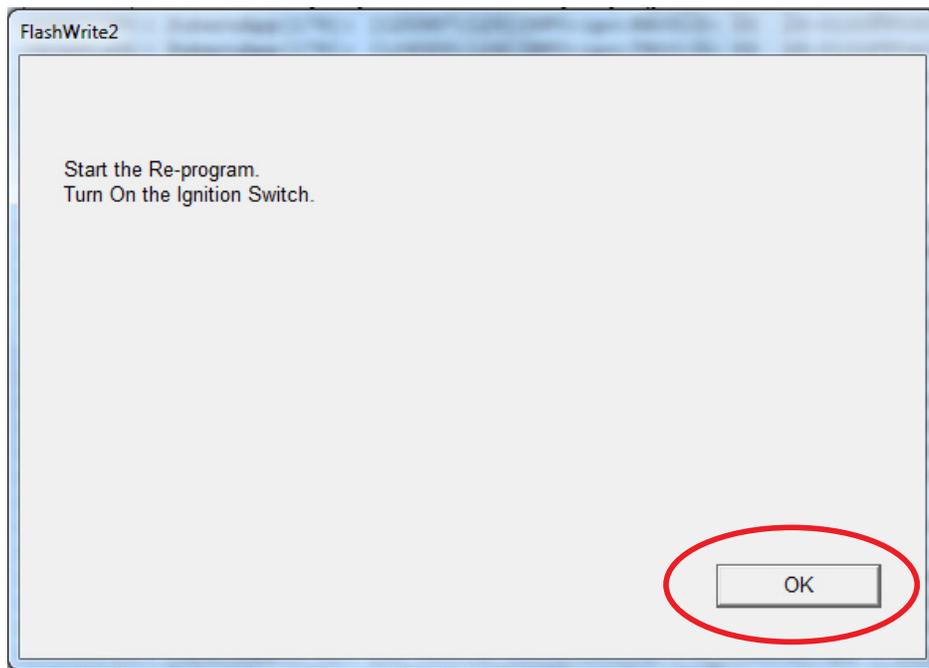


3. Enter the Decryption Keyword from the table above (D0F868F1) and click “OK”.

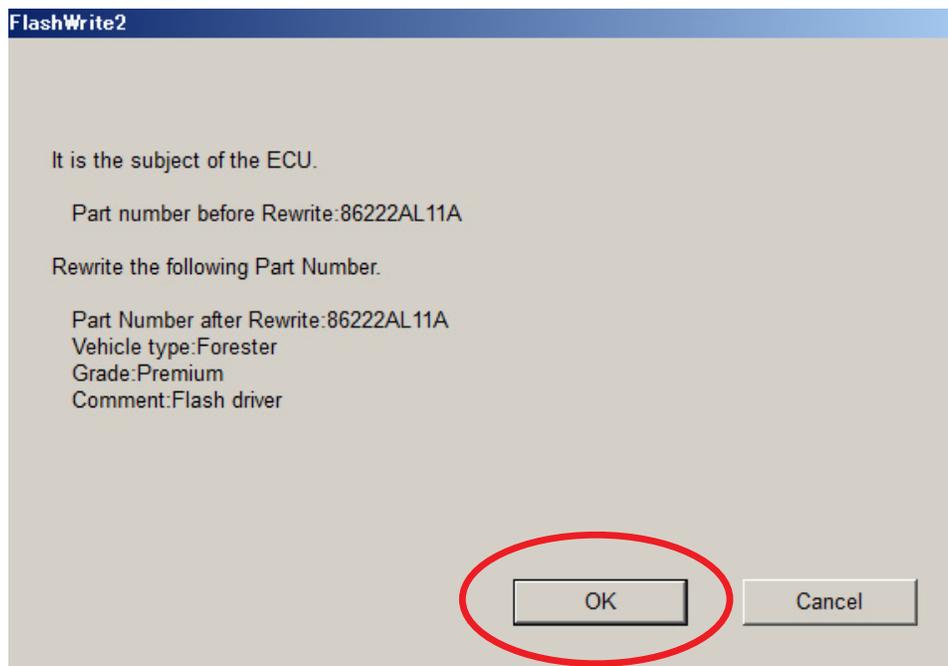


Continued...

- a) Turn the ignition switch ON and Click on 'OK' to start the reprogram.



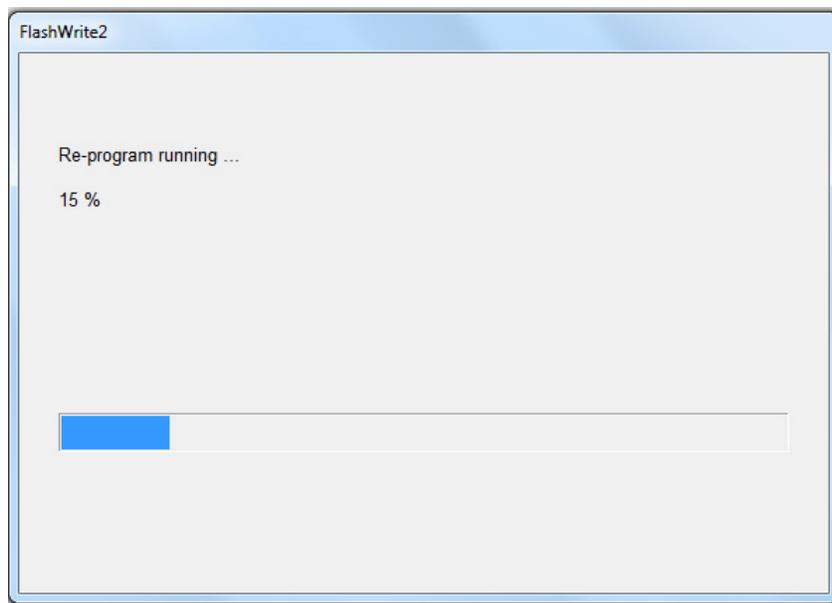
- b) Part numbers before and after reflash will be displayed. Click 'OK'.



(NOTE: This screen image is an EXAMPLE and may not represent the installed part number. These values will be the same before and after reflashing. The Screen will always indicate “Forester” no matter what model or model year is being reflashed.)

Continued...

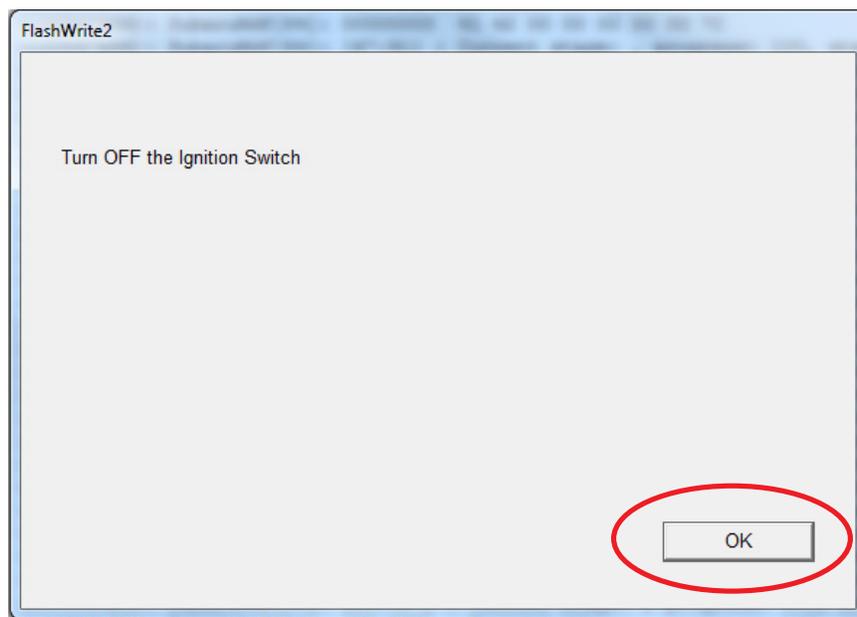
A CAN flashing progression bar will appear and start incrementing toward 100%. The update may take up to 60 minutes to complete.



- c) **CRITICAL STEP:** After the reprogramming is finished, always put a CVT equipped vehicle in PARK and ensure the ignition is turned OFF. A prompt to switch the ignition OFF will be displayed. **DO NOT CLICK OK UNTIL THE VEHICLE IS IN PARK AND IGNITION IS SWITCHED OFF.**

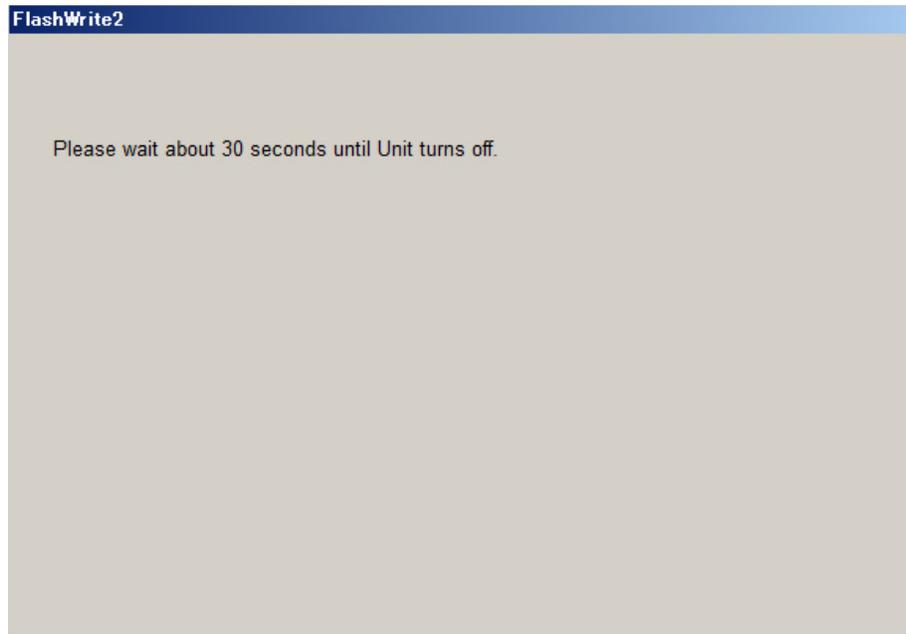
NOTE: for CVT -equipped vehicles with push-button start:

- **WITHOUT TOUCHING THE BRAKE PEDAL**, push the start button (once).
- Move the selector into Park.
- Push the start button again to switch the vehicle OFF.
- **WAIT 30 SECONDS** and click OK.

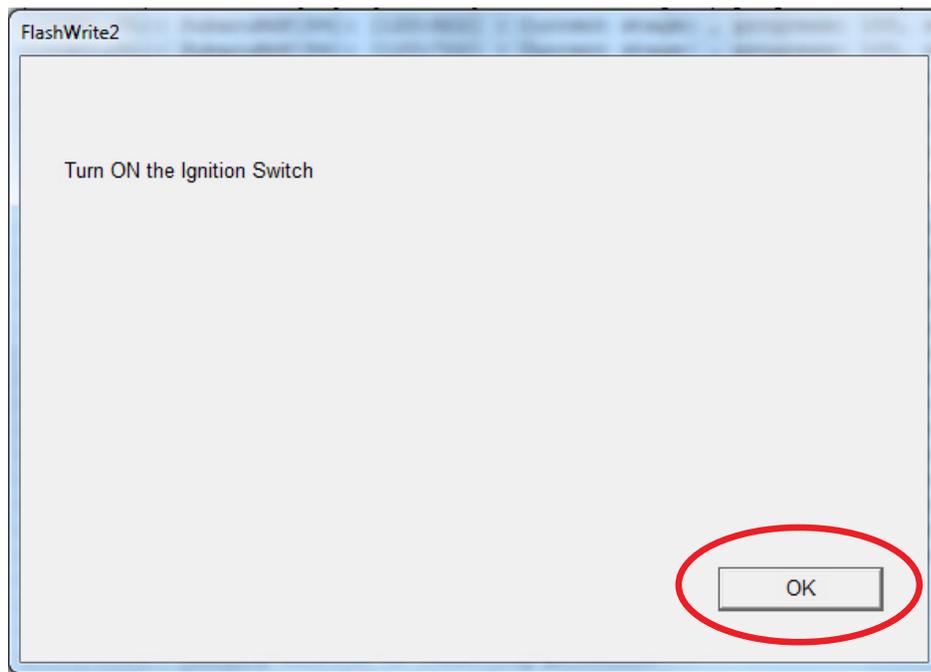


Continued...

- d) **CRITICAL STEP:** FlashWrite will display the banner message “Please wait about 30 seconds until Unit turns off”. This banner page has a timer built in and will NOT continue until 30 seconds have passed and the DCM has safely shutdown. There is no way to verify the DCM has shutdown except **waiting to ensure the full 30 seconds has passed**. The next screen, e) shown below will display automatically.

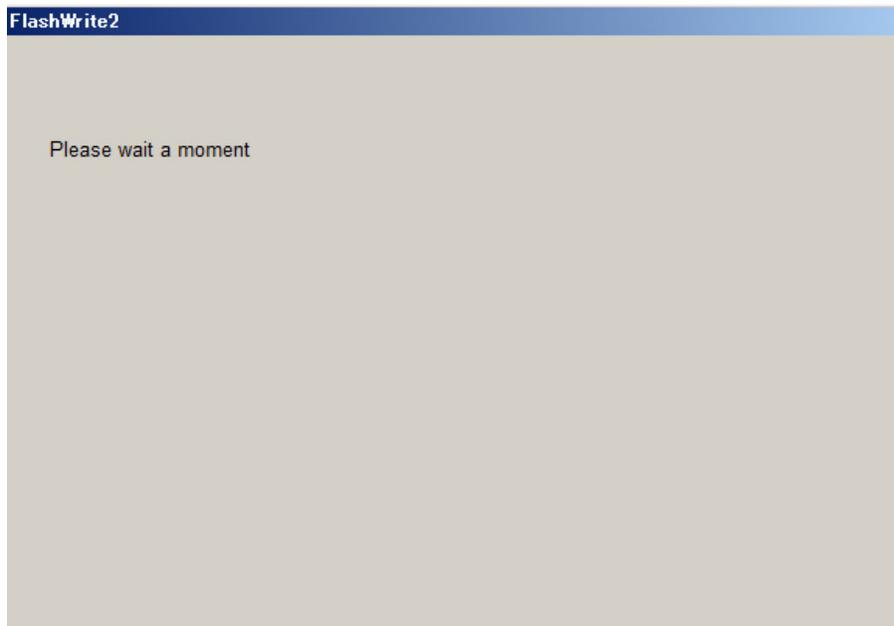


- e) The prompt for **switching the** ignition to ON will be displayed. Click on ‘OK.’



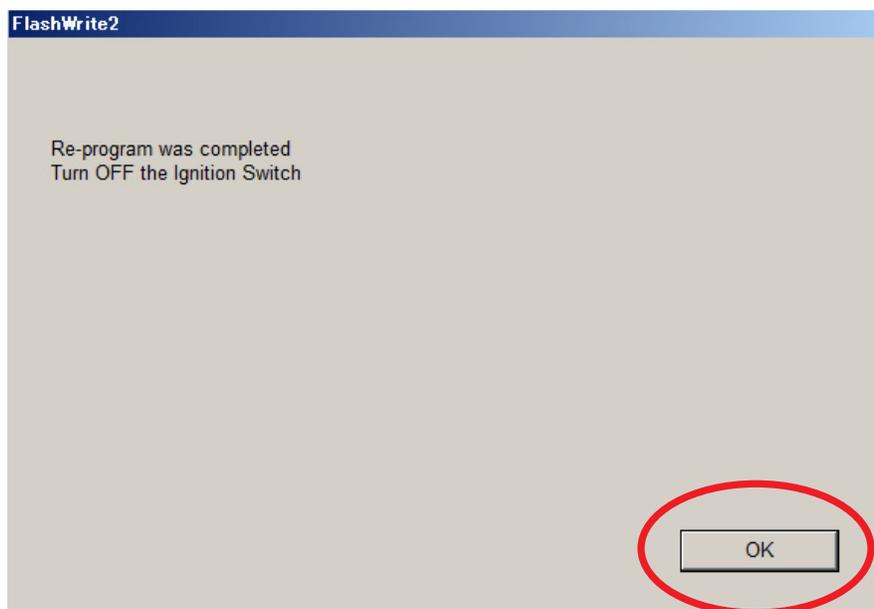
Continued...

- f) FlashWrite will display the banner message “Please wait a moment.”



CRITICAL: WAIT at least a FULL 5 MINUTES before proceeding from this point. During this waiting period, “Repartitioning” is taking place in the DCM and CANNOT be interrupted. DO NOT attempt any other functions during this time (e.g. switching the ignition off, starting another update, using the SSM to check DCM status, opening the door(s), etc.).

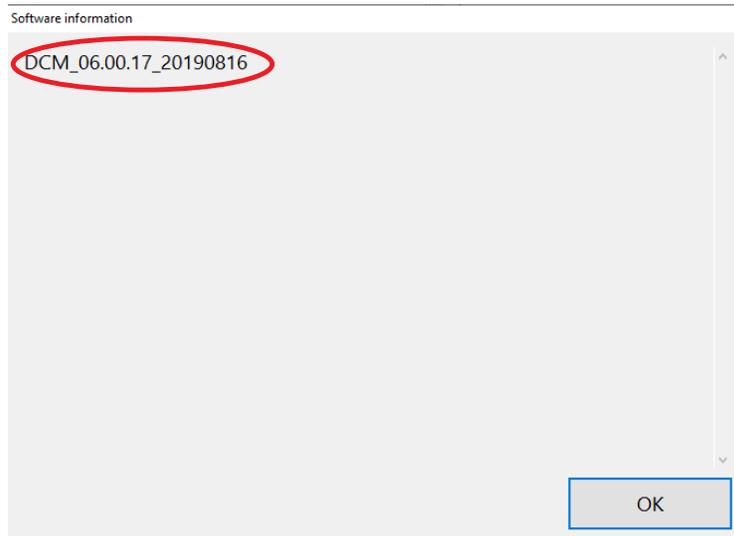
- g) FlashWrite will display the banner message “Re-program was completed. Turn OFF the Ignition Switch.”



4. Verify the new DCM software version.
a) Click “Each System” on the left-hand menu.

Continued...

- b) Select “Telematics” from the Systems List.
- c) Click “Work Support” on the left-hand menu.
- d) Select “Software Information” from the Work Support Items List.
- e) Record the current version of software on the RO for reference.
 - i. The final version of DCM software should be **DCM_06.00.17_20190816**.
 - 1. If the final version is correct, proceed to **Step 5**.
 - 2. If the final version is not correct, record the DCM software version and contact Techline.



END OF PHASE 2 REFLASHING.

- 5. Start the vehicle. Observe and confirm if the overhead console or stereo camera cover assembly’s Telematics **GREEN** LED is illuminated. If the **GREEN** LED is illuminated, proceed to **Step 6**.
 - 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 Techline for further assistance.
 - b) The presence of **RED** and **GREEN** LEDs indicates a problem. **STOP** and do not proceed. Follow appropriate STIS, TSB, or TechTIPs information to resolve **RED** Telematics LED. Contact Techline for further assistance.

6. **CAUTION:** For all vehicles perform a functional check of the Telematics system:

- a) Push the red SOS button and connect to the STARLINK call center. Have the operator confirm the VIN and location of the vehicle.

NOTE: For Vehicles subscribed to **STARLINK Safety Plus**, there are no remote services to test with this level of service.

- i. SOS button call **Successful:** Perform **Step 7** if the vehicle is subscribed to STARLINK Safety Plus and Security Plus as the function of remote services must be confirmed. Otherwise, the update process is complete.

Continued...

- ii. SOS button call **Unsuccessful**: Move the car to a new location and try again. If still unsuccessful in completing the SOS button call and reaching an operator, collect at least 30 seconds of Telematics DCM data 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 **Step 5** (and where applicable **Step 6**) as final confirmation of functionality.

NOTE: If the Telematics LED changes to **RED** after pushing the red SOS button, but the Technician was still able to reach an operator and 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.

- 7. If the vehicle is equipped with a **STARLINK Safety Plus 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.
 - a) Remote service request is **Successful**: Update is complete, and the vehicle can be released to the customer.
 - b) 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.

Continued...

APPENDIX A: 12V BATTERY / POWER SUPPLY PREPARATIONS:

CRITICAL: USE of a DCA-8000 or GR8 -1100 charger in Power Supply Mode is required to maintain a stable battery float voltage during the reflash procedure. A battery in a condition where POWER SUPPLY MODE is insufficient to maintain the necessary level of battery voltage due to battery maintenance needs and / or charging is outside the scope of the reprogramming service. Customers must be informed immediately of the inability to perform the reprogramming service due to needed battery maintenance which is outside this reprogramming service's coverage scope and have repairs completed prior to attempting the update.

- This information applies to the Subaru Midtronics DCA-8000 Dynamic Diagnostic Charging System and GR8-1100 Diagnostic Battery Charger ONLY. It does not apply to any other brand/type of “generic” battery charger whatsoever. ONLY the DCA-8000 and GR8-1100 and their Power Supply Mode features have been tested and approved by SOA.
- Once the DCA-8000 or GR8-1100 is connected to the vehicle, it takes less than 3 minutes to boot-up the charger, select Power Supply Mode, and have the battery voltage stabilized and ready for reprogramming.
- A battery in a condition where POWER SUPPLY MODE is insufficient to maintain the necessary level of battery voltage due to battery maintenance needs (Examples: presence of terminal corrosion, low electrolyte level, age, or any other factors preventing steady power supply) and / or extensive charging needed due to state of charge is outside the scope of the reprogramming service.
- If the battery cannot be recovered enough to proceed using power supply mode within a reasonable time, the customer must be informed immediately of the inability to perform the reprogramming service due to needed battery maintenance or charging which is outside this service program’s coverage scope in order to have the condition resolved prior to attempting this update.
- Amperage will fluctuate based upon the vehicle’s demand for power.
- Confirm all electrical loads such as lights, audio, HVAC, seat heaters, and rear defroster are all switched to OFF before setting up the charger for Power Supply Mode.
- If using a DCA-8000 Dynamic Diagnostic Charging System, set the power supply voltage to 13.5 volts.
- Input the Cold Cranking Amperage (CCA), which matches the vehicle’s battery.
- **NOTE:** OE and replacement batteries have different CCA ratings. Always confirm the battery’s CCA rating before proceeding.
- Select the correct battery type (Flooded, EFB, Gel, AGM, or AGM Spiral).
- For more instructions on using the Power Supply Mode, reference the applicable User Manual for the Midtronics DCA-8000 Dynamic Diagnostic Charging System and / or the Midtronics GR8-1100 Diagnostic Battery Charger on STIS.

Continued...

IMPORTANT NOTES:

- **NEVER** connect the DST-i until the Power Supply Mode function has completed its battery test mode and the Charging Voltage has dropped to a steady 13.5 Volts on the display.
- Once Power Supply Mode reaches a steady 13.5 volts, connect the DST-i to the OBD connector.
- **If the battery voltage rises above 14V while the reprogramming is in process, the procedure will abort.** Charging voltage above 14V can indicate a need to test or charge the vehicle battery before any further reprogramming attempt is made.



CRITICAL: Power Supply Mode voltage must be stabilized at **13.5** Volts before proceeding.

Return to page 6 **Step 7** only after the Midtronics equipment is connected in Power Supply Mode and the voltage has stabilized.

Continued...

APPENDIX B: TROUBLESHOOTING CONCERNS FOUND PRIOR TO UPGRADE:

1. If the Telematics LED is **RED**, **STOP THE UPGRADE PROCESS**. The customer must be notified of this condition before any work begins. DTC repair is not included in the scope of work for this no-charge upgrade. The reprogramming service cannot be attempted until the Telematics system is DTC free and the Telematics LED is **GREEN**.
2. If the Telematics LED is **RED** and Telematics a DTC(s) (other than B2A0E) is current: **STOP THE UPGRADE PROCESS**. The customer must be notified of this condition before any work begins. DTC repair is not included in the scope of work for this no-charge upgrade. The reprogramming service cannot be attempted until the Telematics system is DTC free and the Telematics LED is **GREEN**.
3. Telematics LED is NOT **GREEN** and no DTC(s) is 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. DTC repair is not included in the scope of work for this no-charge upgrade. The reprogramming service cannot be attempted until the Telematics system is DTC free and the Telematics LED is **GREEN**.

NOTE: DTC EXCEPTION CASES:

DTC B2A0E: MUTE LINE CIRCUIT may be found in many older DCMs without a current hard fault. Clear the DTC B2A0E and see if it resets after an ignition cycle.

- a. If DTC B2A0E resets as current, it should be considered a “hard” DTC. Follow **Step 2** above.
 - b. If B2A0E does not reset as current after an ignition cycle, it is not considered a hard fault. Proceed with **Step 2** on page 3.
4. If the customer approves needed repairs, the Telematics system now displays a **GREEN** LED and no other DTCs are present, proceed to **Step 2** on page 3.
 5. If the customer declines needed repairs, **STOP THE UPGRADE PROCESS**. Document the Technician’s findings on the repair order before returning the vehicle to the customer. **END OF PROCEDURE, RETURN CAR TO CUSTOMER.**

Continued...

PARTS INFORMATION (SUPPLIED FOR REFERENCE ONLY):

New TELEMATICS UNIT Part # (VOLTE)	Old 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 or RPM supersession to determine the correct NEW DCM part number to install only if DCM arrives failed or fails during update procedure. If DCM replacement is required, refer to the applicable Service Manual for procedures and bulletin **15-266-20R** for provisioning confirmation. Never install any of the OLD part numbers listed.

CLAIM REIMBURSEMENT AND ENTRY PROCEDURES:

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

IMPORTANT NOTE: IMPORTANT NOTES:

- All claims must be submitted using Policy Adjustment (PA) Claim Type ONLY. Submissions using any other Claim Type will be rejected.

Continued...

- ONLY these Labor Operation numbers and Fail Code are to be used when submitting the claim for this reprogramming 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 reprogramming service.

Labor Description	Labor Operation #	Labor Time	Fail Code	Claim Type
3G SUNSET VOLTE SOFTWARE VERSION CHECK ONLY	A067-938	0.2	ZTX-43	PA
3G SUNSET VOLTE SOFTWARE DCM SOFTWARE UPDATE	A067-928*	1.9		
RETRY, 3G SUNSET VOLTE DCM SOFTWARE UPDATE	C067-919**	S.T.		
3G SUNSET VOLTE SOFTWARE DCM SOFTWARE UPDATE FAILURE / DCM REPLACEMENT	B067-904*	2.3		
RETRY, 3G SUNSET VOLTE DCM SOFTWARE UPDATE	C067-919**	S.T.		

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

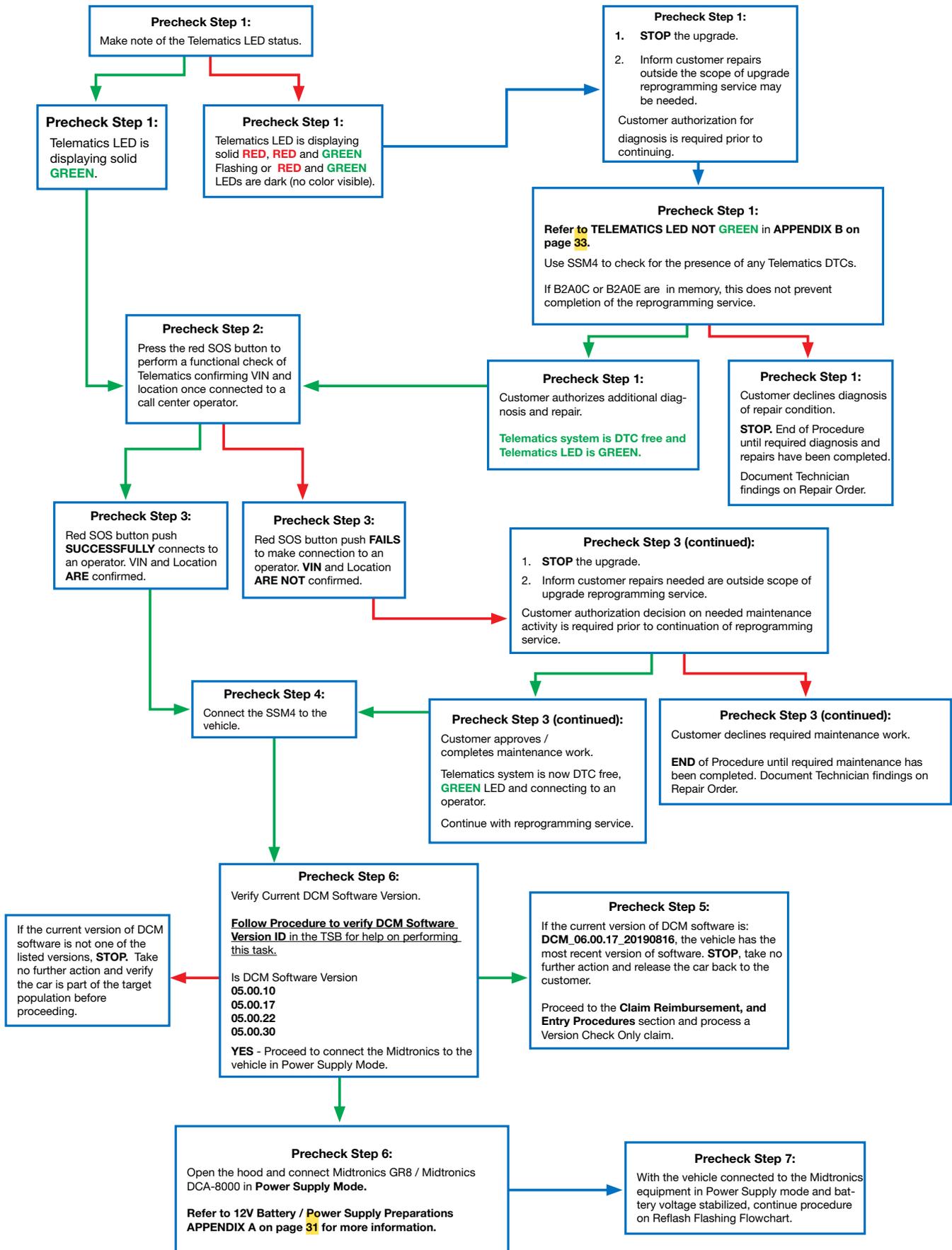
** This operation number can only be claimed when a software update retry is performed / attempted. For all software update retry work, an accurate punch count must be recorded. **The Straight Time (S.T.) Labor Time for operation number C067-919 is not to exceed 2.0 hours.**

IMPORTANT REMINDERS:

- SOA strongly discourages the printing and/or local storage of service information as previously released news 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.

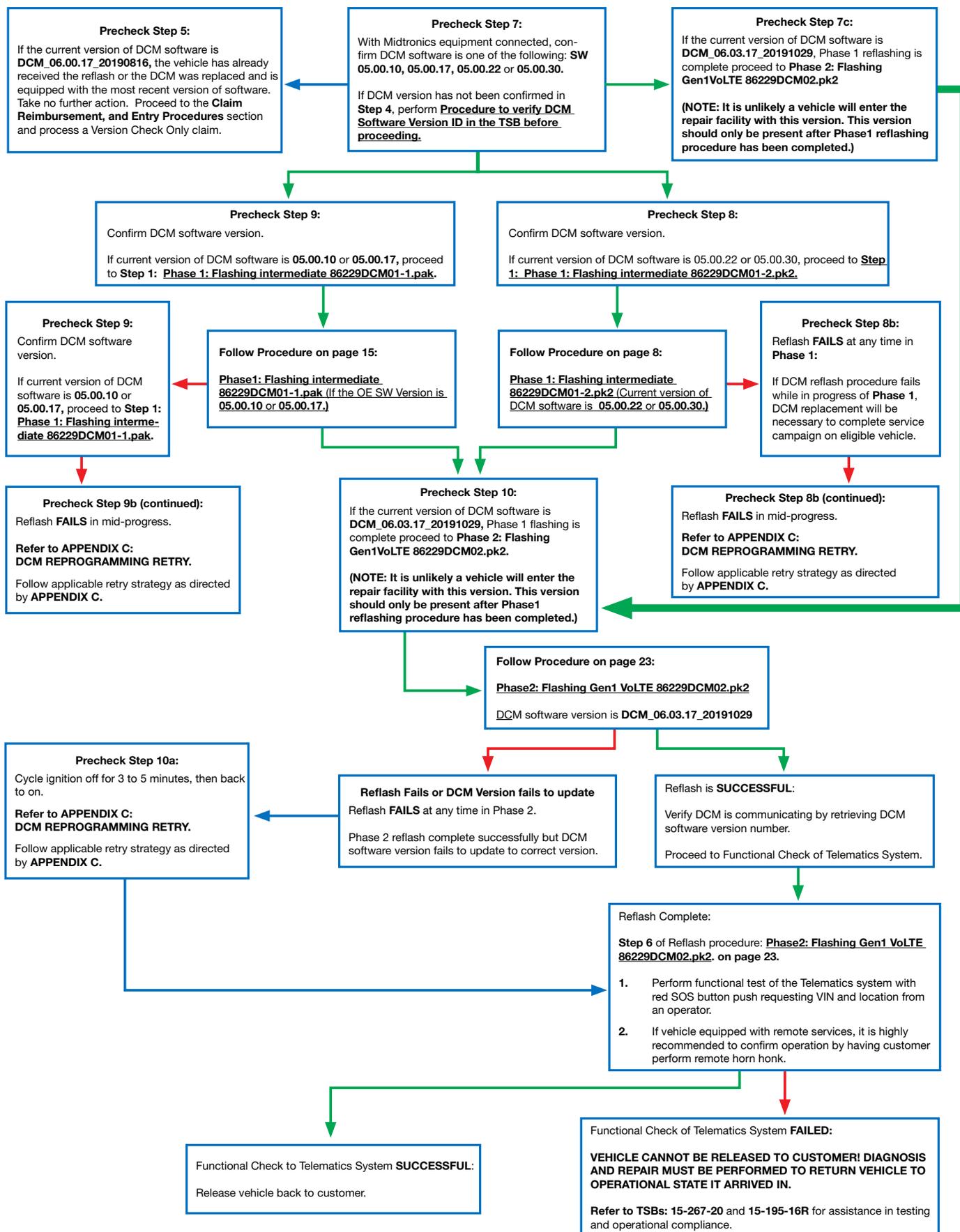
Continued...

Reflash Precheck Flow



Continued...

Reflash Flashing Flow



Continued...

APPENDIX C: DCM Reprogramming Retry Strategies

DCM Reprogramming Retry Strategy for Reprogramming Failures Occurring During Update Completion:

REMINDER: Due to the duration of each reprogramming procedure and consecutive reprogramming file transfers required to complete this 3G Sunset reprogramming update successfully, the use of a Subaru- approved Denso SSM4 cable is STRONGLY recommended. Cables sourced from other manufacturers may not meet data transfer rate and / or interference shielding requirements to ensure error-free data transmission during reprogramming.

If either of the reprogramming updates fail (update completion is less than 100%), make another attempt to reprogram using the last file attempted from the beginning of that file's procedure after confirming the correct file was being used. It does not matter if the reprogramming failure occurs on the first or second update file installation attempt. If it was the second update file installation that failed and installation of it fails again, an attempt should be made to start over from the beginning of the entire procedure and try to install the first update pak file again. The following three retry procedures are intended to prevent unnecessary DCM replacement. Each retry procedure should be attempted up to three times with a **five minute** pause between each.

Retry Procedure 1 is to be used when either the first or second file installation failed- Try up to one additional time after the initial failed attempt on either file. For example: 86229DCM01-1.pak fails in the middle of reprogramming. The Technician would perform Appendix C Retry Procedure 1 (Attempt 2).

Retry Procedure 2 is to be used following Retry Procedure 1 (Attempt 2) in a case where the file installation of Appendix C Retry Procedure 1 (Attempt 2) failed. The Technician should now perform Appendix C Retry Procedure 2 (Attempt 3) to make one final effort to complete reprogramming with that file. If reprogramming is successful, continue the procedure as outlined in the TSB. If the second reprogramming file is the next step, understand that it may be necessary to perform this same process again with the second file should an initial reprogramming attempt fail. If, after a total of three (3) attempts, DCM recovery is still unsuccessful, proceed with DCM replacement. Refer to TSB 15-279-21R "Gen1 Telematics DCM Replacement for 3G Sunset," starting with Step 4 of the DCM replacement procedure.

Retry Procedure 3 is to be used in a case when both files appear to have successfully completed, but the DCM version does not match the intended final version as listed in the bulletin. In this case, the Technician should attempt another reprogramming of the DCM, starting over again with the first file. Follow the TSB as if it was the first time the procedure is being performed on the vehicle. If, after a total of two (2) complete reprogramming attempts, DCM recovery is still unsuccessful, proceed with DCM replacement. Refer to TSB 15-279-21R "Gen1 Telematics DCM Replacement for 3G Sunset," starting with Step 4 of the DCM replacement procedure.

IMPORTANT STEPS:

- Ensure the vehicle is connected to the Midtronics DCA8000 in power supply mode and voltage has stabilized.
- Ensure the reprogramming is being performed with the CVT selector in **Neutral** with the parking brake set.
- As each update file is completed, **ALWAYS:**

Continued...

1. Move the CVT selector into Park.
2. Turn the ignition to OFF and remove the ignition key or, confirm the START button LED is OFF.
3. **WAIT A FULL 30 SECONDS** before turning the ignition ON again.

Retry Procedure 1 (attempt #2):

1. Ensure the vehicle has been powered OFF with the selector in Park and the ignition key has been removed for 5 minutes before starting the next reprogramming attempt.
2. Confirm the correct file was applied based on Repair Order notes. Re-attempt to install the file which failed again from the beginning of that file's procedure.
 - a. If the retry attempt is successful, continue to follow the TSB and proceed to the next steps as instructed.
 - b. If the first retry attempt is unsuccessful, move the selector to Park and the ignition to OFF in preparation of continuing with Retry Procedure 2 (attempt #3) below.

Retry Procedure 2 (attempt #3):

1. Ensure the vehicle has been powered off for at least 5 minutes before the next reprogramming attempt.
2. Perform the reprogramming from the beginning of the TSB procedure. If that file installation is successful, continue to follow the TSB procedure and move ahead to the next steps as instructed.
 - a. IF the file installation is not successful, move the selector to Park and switch the ignition to OFF. DCM replacement is now necessary.
 - b. Refer to TSB **15-279-21**: "Gen1 Telematics DCM Replacement for 3G Sunset" starting with **Step 4** of the DCM replacement procedure.

DCM Reprogramming Retry Strategy for Reprogramming Failures Resulting in DCM Software Failing to Update to Version DCM_06.00.17_20190816:

In a case where both the first and second reprogramming file updates complete successfully BUT, the DCM Software Version fails to update to DCM_06.00.17_20190816, another reprogramming attempt must be made beginning with the first reprogramming file and application procedure.

IMPORTANT STEPS:

- Ensure the vehicle is connected to the Midtronics DCA8000 in power supply mode and voltage has stabilized.
- Ensure the reprogramming is being performed with the vehicle in **Neutral** with the parking brake set.
- Ensure once reprogramming has completed the selector is moved to Park and the vehicle is turned OFF for at least **A FULL 30 SECONDS** before switching the ignition back on for any reason.

Continued...

Retry Procedure 3 (attempt #2):

1. Ensure the vehicle has been switched OFF for **5 MINUTES** before beginning the next reprogramming attempt.
2. The original DCM software version was recorded on the Repair Order in **Step “e”** on page 5 of the TSB. Reference this version and proceed with **Step 7a** or **7b** as applicable to the recorded **ORIGINAL** DCM software version.
3. Continue following the TSB in its entirety from this point as if it is the first time the procedure is being attempted.

NOTES:

Following a single file’s reprogramming failure, it may be necessary to refer to **Retry Procedure 1** and **Retry Procedure 2** above to continue attempting successful reprogramming.

Should the reprogramming complete a second time without the DCM Software Version updating to DCM_06.00.17_20190816, DCM replacement is necessary. Reference TSB **15-279-21**: “Gen1 Telematics DCM Replacement for 3G Sunset” starting with **Step 4** of the DCM replacement procedure.

Continued...

Get the Latest Software Update for your STARLINK Infotainment 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 we'll be sure to land in your inbox! You may [manage your preferences](#) or [unsubscribe here](#).



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
[Go to website](#)

Keeping you connected,
— Your friends at Subaru.

[SCHEDULE SERVICE](#)

[FIND A SUBARU RETAILER](#)

Disclaimer:

*Remote vehicle features require a Security Plus subscription.

¹Participating US Retailers only.

²Active STARLINK subscription is required at the time of the system update to be eligible for a complimentary update.

³The system update requires a minimum of 2 hours to complete from the time the Retailer begins working on your vehicle. See your Retailer for more information.

Please do not reply to this message. To obtain information on how to contact Subaru of America, Inc., visit our website at [subaru.com/contactus](#), or call (800) 792-2763.

You received this message because you opted in to receive communications from Subaru of America, Inc.

We respect your privacy and if you prefer not to receive any future email messages from us, please [manage your preferences](#) or [unsubscribe here](#).

Subaru of America, Inc., PO Box 9103, Camden, NJ 08101-0877

© Subaru of America, Inc.