ATTENTION:

GENERAL MANAGER ☐
PARTS MANAGER ☐
CLAIMS PERSONNEL ☐
SERVICE MANAGER ☐

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

SUBARU

QUALITY DRIVEN® SERVICE

SERVICE BULLETIN

APPLICABILITY: 2016-18MY Crosstrek 2016-18MY Forester 2016-18MY Impreza 2016-18MY Legacy & Outback 2017-18MY WRX	**NUMBER:** 15-312-23R **DATE:** 06/26/23 **REVISED:** 06/28/23

SUBJECT: Data Control Module (DCM)
Dark Current Diagnosis

INTRODUCTION:

This bulletin announces repair procedures to be used when diagnosing dark current draw (parasitic draw) on vehicles equipped with Gen 1 Data Control Modules. A software-based DCM Factory Mode Tool has been developed to assist in the diagnosis. Refer to the work procedures outlined in this bulletin when performing dark current diagnosis on vehicles equipped with Gen 1 DCMs.

DCM Factory Mode Tool:

This tool runs as a separate application outside the standard suite of SSM4 applications. It will be loaded to the Technician's notebook desktop and accessed from that location for all future use. The DST-i or DST-010 works in conjunction with the Factory Mode Tool to put the DCM subscription status back into "Factory" status. If the DCM is determined to be the root cause of an excessive dark current (parasitic draw), the total dark current draw will be reduced below Subaru STIS diagnostic limits by disabling the DCM functions.

NOTE: This tool is not to be used if there are current DTCs stored in the DCM or if there is no communication with the DCM.

SERVICE PROCEDURE / INFORMATION:

The following requirements MUST be met prior to performing the diagnostic procedures.

1. The customer is **NOT SUBSCRIBED** to Starlink Telematics

2. The vehicle is listed in the applicability section of this bulletin.

3. There are no current telematics DTCs.

4. The SSM4 can communicate with the DCM, and the subscription status is **UNSUBSCRIBED.**
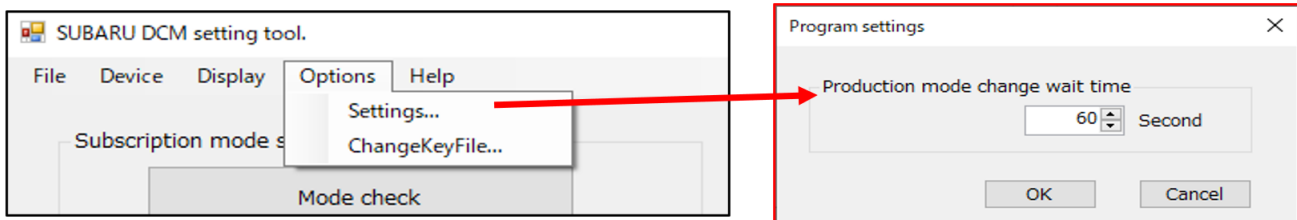
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CAUTIONS:

1. Performing the following procedures on vehicles with a subscribed DCM will cause functions of the telematics services to not operate. If this occurs, the telematics operation can only be restored by contacting Subaru Techline (VIN and subscription status will be required). This will cause excessive downtime and repair expense.

2. DCMs with software version DCM_06.00.17_20190816 should not be subject to the conditions this service procedure attempts to repair. If a dark current is detected on a DCM with this software version, this service procedure may not fix the concern. Additional parasitic draw testing is necessary post-repair to ensure that the total battery dark current is within Subaru specification before releasing the car back to the customer.

3. Any current Telematics DTC can keep the DCM awake more prolonged than expected, contributing to the parasitic draw. All telematics DTCs should be resolved before deciding that the DCM is the root cause of the parasitic draw.

TOOL SETUP:

1. From the Toughbook, go to the the button on the desktop for: MyDocuments, then from the file window, go to > Subaru > DCM Setting Tool, and click on the shortcut marked **DcmSettingTool.**

2. Upon the initial opening of the factory mode tool or when the configuration file is not specified, an error message will appear on the screen. Click on **OK** and ignore this error. A window will pop up to then specify the key file. Confirm the appearance matches the example image below and click **Open**. If the pop up does not appear or match the example, proceed to Step 6 below.

3. ONLY use the menu and button on the left side of the window with the "subscription mode setting" at the top of the window.

4. Before using the tool, ensure that under the Device menu that, DENSO CORPORATION - DST-i or DST-010 is selected.
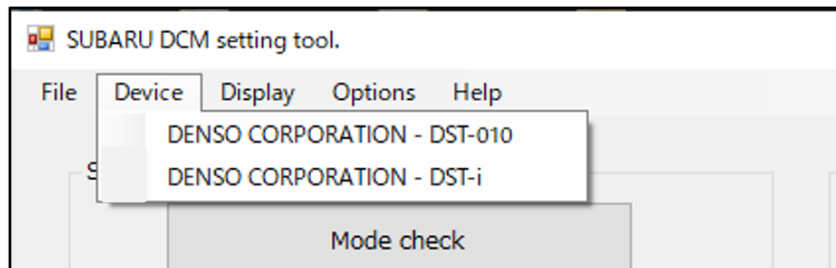
5. Before using the tool, ensure that under the Options menu sub-menu Settings, the Production mode change wait time setting is set to 60 second.

6. Before using the tool, ensure that the key.enc is confirmed under the Options menu sub-menu ChangeKeyFile selection.

   A. If not already presented, navigate to MyDocuments > Subaru > DCM Setting Tool > Data Files to specify the Key.enc file.

   B. If you cannot navigate to this location or the Key.enc file is not there you will need to work with Nuspire (877-435-1640) to ensure that the file is loaded locally and specified as outlined in Step 5 above.

USING THE FACTORY MODE TOOL:

1. Click the Mode Check button.

   A. If any mode is displayed other than Factory, continue with the mode change procedure.

   B. If Factory mode is already indicated, there is no need to continue this procedure. The Technician must re-evaluate his parasitic draw test results to determine how to resolve that concern best.

2. Ensure that the Factory Mode button is clicked.

3. Click the Submit button. The message box under the Submit button should indicate that the "Mode setting was executed."
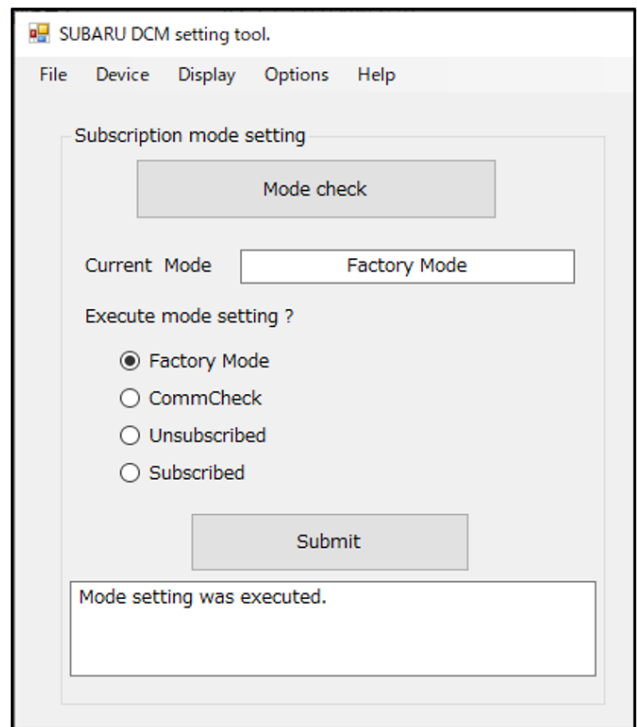
4. Click the Mode Check button to ensure the Current Mode is Factory Mode.

   A. If any mode is displayed other than Factory, attempt the Mode Setting again to see if it is successful on a second attempt.

   B. If, after multiple Mode Setting attempts, the Current Mode is not Factory Mode or the error message below is displayed, then the DCM must be replaced to correct the excessive parasitic draw.
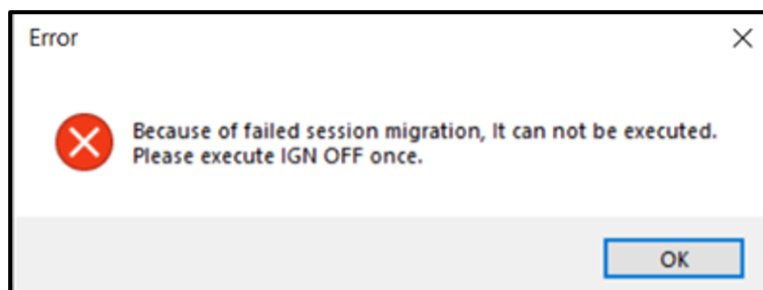
C. A DCM successfully moved to Factory Mode will have the Green Telematics LED illuminated whenever the key is on. This Green indicator LED does not indicate a valid subscription, it indicates a non-comm checked DCM in Factory Mode. **DO NOT** perform a comm check to a DCM in Factory Mode.

5. Once the Current Mode is confirmed as Factory Mode, remove the overhead trim panel and disconnect the SOS / i-Button switch so it is not accidentally depressed.

6. Wrap the switch assembly connector using a tape that can be written on, leaving a pigtail piece accessible to write the TSB number on. Use a permanent marker like a "Sharpie" to indicate this TSB number for future reference. This tape will prevent any unwanted electrical connections and identify the TSB that indicates why it should remain disconnected. See the example image below.

7. Once the Current Mode is confirmed as Factory Mode, recheck for the presence of parasitic draw and act accordingly. **DO NOT RELEASE THE VEHICLE BACK TO THE CUSTOMER WITHOUT VERIFYING THAT THE PARASITIC DRAW IS WITHIN SUBARU SPECIFICATIONS.**

NOTE: This Factory Mode Setting is not permanent because pushing the iButton will be interpreted as a comm check attempt and will change the subscription status. If this occurs, the DCM may again exhibit excessive dark current draw. It is important to disconnect the telematics switch assembly, so this does not happen.

REACTIVATION PROCEDURE:

1. Inspect the vehicle for the presence of a taped electrical connection at the telematics switch assembly. Remove the tape and reconnect.

2. If the switch is not disconnected and taped, the Technician can also confirm by using the SSM4 and verifying that the Telematics Subscription Status PID is set to "Factory."

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3. To restore Telematics operation to the vehicle, the Technician will

   A. Reconnect the Telematics LED/Button assembly.

   B. Replace the DCM.

   C. Complete the Comm Check.

   D. Confirm telematics operation by placing an iButton call and, if necessary remote services operation by asking the customer to request telematics services using the MySubaru App.

WARRANTY / CLAIM INFORMATION:

For vehicles outside a Warranty period, this repair may be submitted using a Policy Adjustment claim type. 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
FACTORY MODE INSTALL & DARK CURRENT DIAGNOSIS	A067-905	1.0	ZQQ-42

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.