



## SERVICE ACTION: PROGRAM OR REPLACE DUAL STORAGE SYSTEM BATTERY

Please perform the procedure outlined in this Service Information on all affected vehicles before customer delivery. In the event the customer has already taken delivery of the vehicle, please perform the procedure the next time the vehicle is in the shop.

This Service Information bulletin replaces SI B61 03 19 dated **April 2019**

### What's New:

- Procedure updated based on technician feedback

### MODEL

G05 (X5 Sports Activity Vehicle)	G07 (X7 SAV)	G20 (3 Series Sedan)	G29 (Z4 Roadster)

### AFFECTED VEHICLES

This Service Action involves G05, G07, G20 and G29 models produced from August 2018 to March 2019.

Vehicles which require this Service Action to be completed will show it as "Open" when checked either in AIR, the "Service Menu" of DCSnet (Dealer Communication System) or with the Key Reader.

### SITUATION

A software error intermittently causes a continuous resetting of the microcontroller in the power management system. This causes the red Check Control Message (CCM) "Replace Battery" to be illuminated.

### CAUSE

Software error in Dual Storage System Battery

### CORRECTION

Reprogram battery with Flash Tool or replace battery if red CCM is illuminated.



### PROCEDURE

1. Is the red CCM ID 2152 "Battery Faulty. You can continue driving" stored? This can be read out using the key reader.

Additionally the following fault codes may be stored in the DME if the CCM 2152 is active:

- 030DA1 - Lithium Ion Battery: BMS communication loss
- CD8C1E - 2. LIN, communication (dual memory): missing



**Note:** Other CCM ID's such as 460 or 229 indicate a problem with the main vehicle battery and should be diagnosed separately.




**Yes:** Replace 10 Ah Lithium Ion battery as per Repair Instructions RA6121004 "Replacing 12-V dual storage system- including registering battery change-"



**Note:** A TC case is not need to replace the battery. The replacement batteries already have the new software and do not need to be flashed. Please register the new battery using ISTA.

**No:** Proceed to next step.

2. Make sure the key is off and connect the battery charger to the vehicle.
3. Remove the passenger side rear engine compartment cover.

 <p style="text-align: right; font-size: small;">GRUSB6119-03</p>	<p>4. Obtain the flashing tool with adapter cable.</p>
 <p style="text-align: right; font-size: small;">GRUSB6119-04</p>	<ol style="list-style-type: none"> <li>5. Remove the 4-pin connector from the battery and connect the 4-pin adapter from the tool.</li> <li>6. Connect the power and ground from the tool directly to the battery terminals.</li> </ol>
 <p style="text-align: right; font-size: small;">GRUSB6119-05</p>	<ol style="list-style-type: none"> <li>7. Place the flashing tool away from any engine heat.</li> <li>8. Once connected, the flashing tool amber LED (Pwr &amp; Status) will be lit up.</li> </ol>
	<p>9. Press the start button and the amber LED will flash indicating the DSS battery is being programmed.</p>



10. After about 10-20 minutes the OK LED turns green indicating a successful programming.
11. If the Error LED lights up red, refer to the troubleshooting guide that came with the tool.
12. Remove the flashing tool and connect the 4-pin vehicle harness back to the battery.
13. Reinstall the battery cover.

## PARTS INFORMATION

Part Number	Description	Quantity
61 21 9 857 095 or 61 21 9 857 516	Dual Storage System Battery	1 only if battery is faulty
07 14 7 483 888	Hexagon screw (only G20 with SA02VF and/ or SA0704)	4 only if battery is replaced
07 11 9 905 147	Hexagon screw with washer (only G20 with SA02VF and/ or SA0704)	4 only if battery is replaced



### Note:

Other small parts such as screws, nuts and seals, which must be replaced according to the repair instructions, must be selected from the Electronic Parts Catalogue according to the respective vehicle type and invoiced under the special defect code.

## WARRANTY INFORMATION

Reimbursement for this Service Action will be via normal claim entry utilizing the following information:

<b>Defect Code:</b>	<b>0061980400</b>	
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Completion "before" the first vehicle delivery to a customer or the vehicle is already in the workshop

Labor Operation:	Labor Allowance:	Description:
00 67 864	6 FRU	Programming of the Dual Storage System with the Flash Tool (Plus work)
Or:		
00 67 865	10 FRU (G05) / 9 FRU (G07) / 3 FRU (G20) / 12 FRU (G29)	Replacement of the dual storage system battery (Plus work)
And, if applicable:		

00 67 866	8 FRU	Additional work with strut brace (only G20 if dual storage system is replaced) (associated work)
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Or:

**The vehicle arrives at your center and this Service Action shows open (No other Main work will be performed/claimed during this workshop visit)**

Labor Operation:	Labor Allowance:	Description:
00 67 278	8 FRU	Programming of the Dual Storage System with the Flash Tool (Main work)
Or:		
00 67 279	12 FRU (G05) / 11 FRU (G07) / 5 FRU (G20) / 13 FRU (G29)	Replacement of the dual storage system battery (Main work)
And, if applicable:		
00 67 866	8 FRU	Additional work with strut brace (only G20 if dual storage system is replaced) (A associated work)

And, as applicable:

#### **Alternative Mobility Solutions (AMS) for Vehicle Owners**

This Service Action repair qualifies for Alternative Mobility Solution (AMS) expense reimbursement, claim this item under the Defect Code noted above as follows:

- Sublet Code 2 - Itemize the AMS sublet amount on the repair order and in the claim comment section.

Please refer to [SI B01 29 16](#) for additional information.

## **ATTACHMENTS**

View PDF attachment [B610319 Troubleshooting Manual](#).

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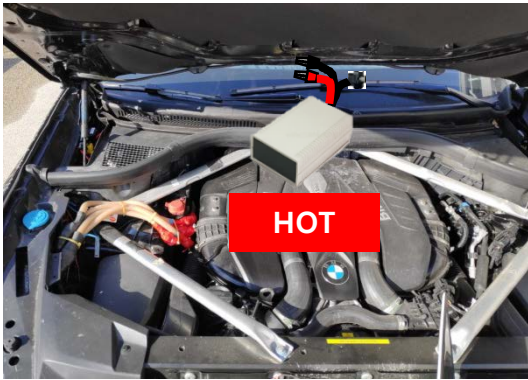
# Instructions & Trouble Shooting - 1

## ※ Caution

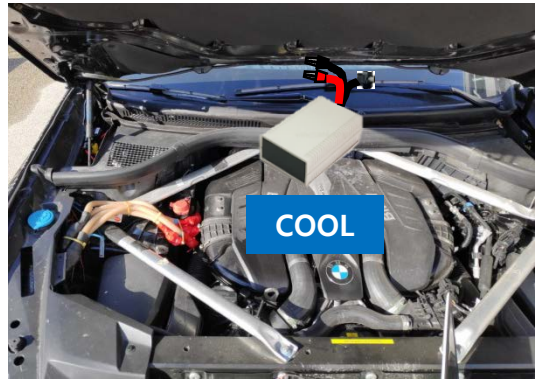
1) Engine compartment may be hot after driving. Wait until enough time to cool down and **DO NOT** put this flashing kit over **HOT** components during the software update.

2) **DO NOT START THE ENGINE** until software update is done.

\* Check that the KIT connector is firmly attached and there is no missing/broken part from the KIT before starting software update.



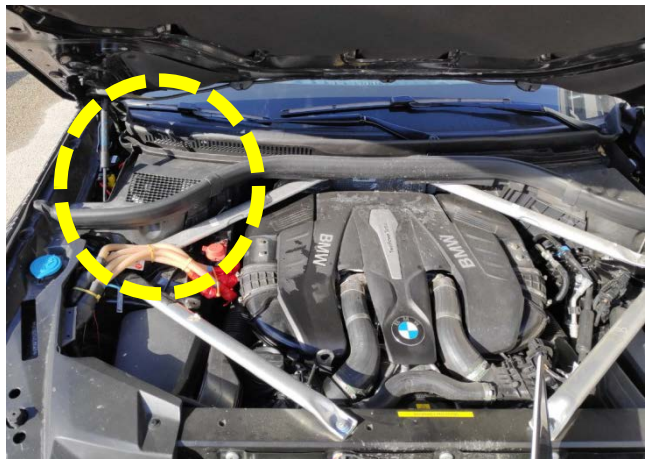
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### Step 1

Engine "OFF"  
Open vehicle hood  
&  
Remove battery panel



### Step 2

Replace vehicle  
connector with KIT  
connector

1) Remove vehicle connector from Li-12V Battery

2) Connect KIT connector to Li-12V Battery



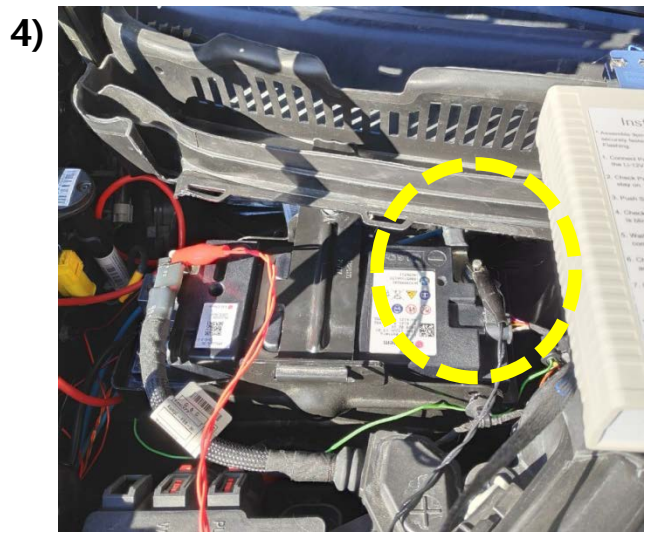
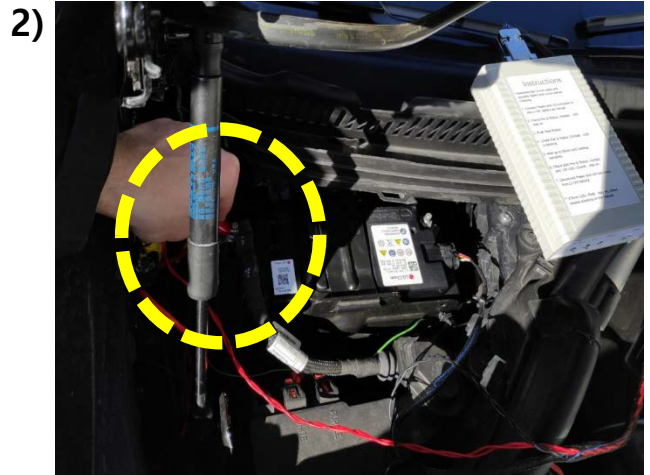
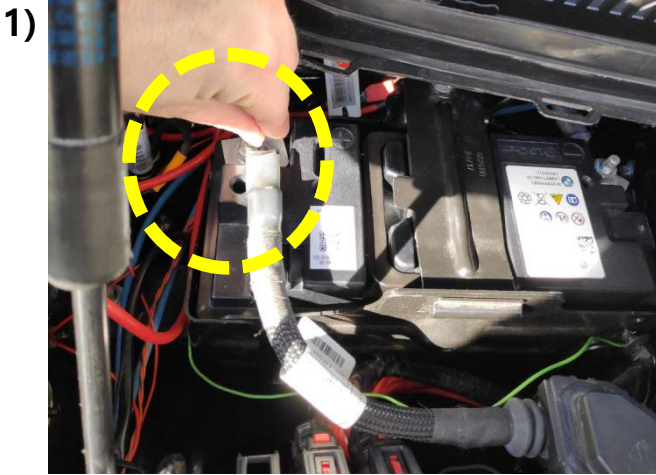


# Instructions & Trouble Shooting - 2

Step 3

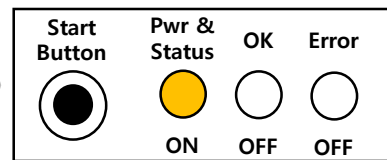
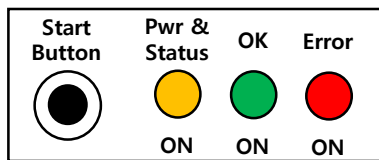
Supply power to KIT

- 1) Remove **positive** pole protection
- 2) Attach a **RED** alligator clip to positive pole
- 3) Remove **negative** pole protection
- 4) Attach a **BLACK** alligator clip to negative pole



Step 4

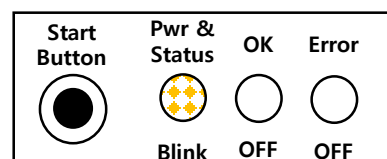
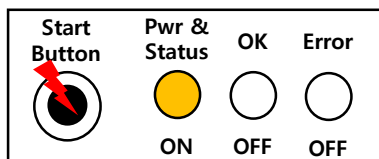
Check ALL LED "ON" for 2 seconds & Check Amber LED "ON"



Wait 2 seconds

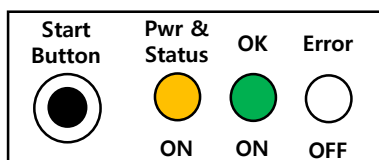
Step 5

Push the Start Button to start reprogram & Check Amber LED "Blinks"



Step 6

Wait up to 20 minutes until Amber, Green LED "ON"

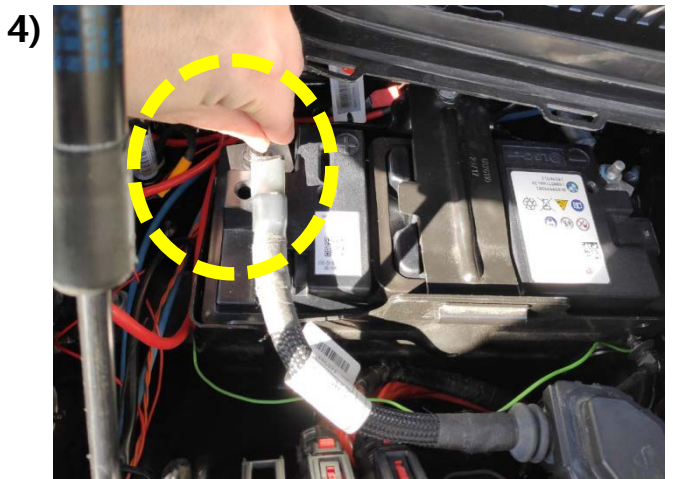
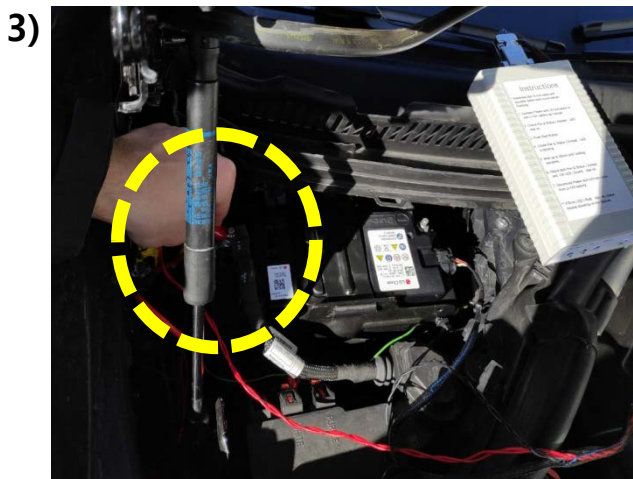


※ If the LED does not appear as shown above, Refer to trouble shooting

# Instructions & Trouble Shooting - 3

**Step 7** Remove power to KIT

- 1) Remove a **BLACK** alligator clip from negative pole
- 2) Attach **negative** pole **protection**
- 3) Remove a **RED** alligator clip from positive pole
- 4) Attach **positive** pole **protection**



**Step 8** Replace KIT connector with vehicle connector

- 1) Disconnect KIT connector from Li-12V Battery
- 2) Connect vehicle connector to Li-12V Battery



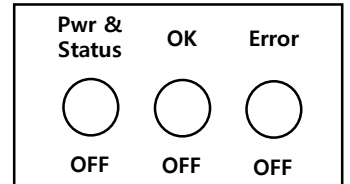
**Final** Close a vehicle hood



## Trouble shooting

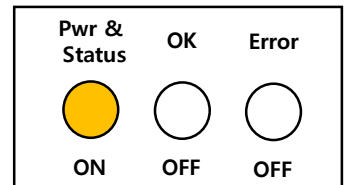
1. No Pwr & Status LED(Amber) after connection

→ Check positive(+) and negative(-) power connection. Red alligator clip should be attached positive(+) pole of Li-12V battery.



2. No Pwr & Status LED(Amber) blinking with in 5sec after pushing Start button

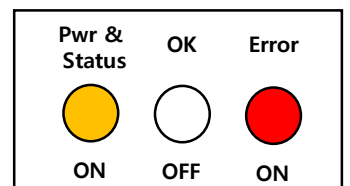
→ Check LIN connector(Black) is securely attached to the Li-12V Pack. Remove this connector then reconnect securely.



3. Error LED(Red) Stay On

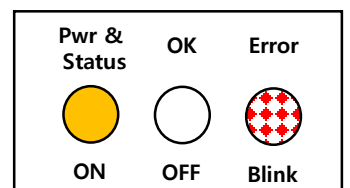
→ Flashing failed. Remove red alligator clip(+) from Li-12V pack then wait for 5sec . Attach red alligator clip(+) back on to Li-12V positive pole(+) then check power & Status LED(Amber) stay on. Push Start button then check power & Status LED(Amber) is blinking.

Try above sequence 4 times but if still failed, replace Li-12V battery.



4. Error LED(Red) Blinking

→ Flashing aborted because of Low voltage. Remove all connections and charge Li-12V and Li-PB battery up to enough level then retry flashing.



5. All LED Blinking

→ Flashing failed because of critical diagnosis for Li-12V battery. Remove all connections and replace Li-12V battery.

