

**BATTERY MAINTENANCE REQUIREMENTS: BATTERY CARE**

This Service Information bulletin (Revision 21) replaces SI B61 18 08 dated **September 2020**

What's New (Specific text highlighted):

- Models specified for Electric Vehicles' charging parameters
- Added Battery Log Form for 2022 Calendar Year
- Claim Information

MODEL

All (new vehicles in BMW center inventory)

SITUATION

Proper battery maintenance is vital when BMW vehicles are in your center's inventory. Allowing a vehicle's battery voltage to drop below 12.0 volts (12.0V) permanently reduces the battery life expectancy and can lead to premature failure of the battery. For vehicles, equipped with a high-voltage battery (hybrid/electric vehicles), failure to properly maintain this battery may lead to a greatly discharged HV battery, requiring replacement.

We provide a flexible battery maintenance system every BMW center can use to meet their particular needs. This bulletin explains the Battery Charging Calendar (see attachment), charging system categories and a simplified tool and battery voltage checking procedure below.

INFORMATION

Starting July 1st, the Battery Care key read is no longer needed.

Procedure - 12V Battery systems (including hybrid/ELECTRIC vehicles)

This procedure details the required battery care at the following points while the vehicle is at the dealership.

- During receiving inspection at dealership
- Assignment of vehicle usage (3 categories)
 - (1) Put on the lot (New vehicle display or supplemental inventory)
 - (2) Battery is disconnected, vehicle in storage
 - (3) Vehicle is put in display stock (showroom or show display)
- Vehicle battery is recharged
- Vehicle is delivered to customer

Delivery of vehicle to dealer

NOTE: The vehicle arrives marked with a **color-coded round sticker** on the windshield. Do not remove this sticker under any circumstance until the vehicle is retailed.

When a new vehicle arrives at the dealership, do the following-

- a. Remove the BATTERY LOG FORM (see attachment) from the glove compartment and complete **section "A."**
- b. Check if the car is due for charging according to **section "B"** in the charging calendar (is car assigned to the color of the current week?) on the BATTERY LOG FORM.
 - If YES, please check the State of Charge (SoC). If it is below 71% (12.5 V), recharge the car before it goes into storage. On hybrid/electric vehicles, the battery must be charged if the SoC is

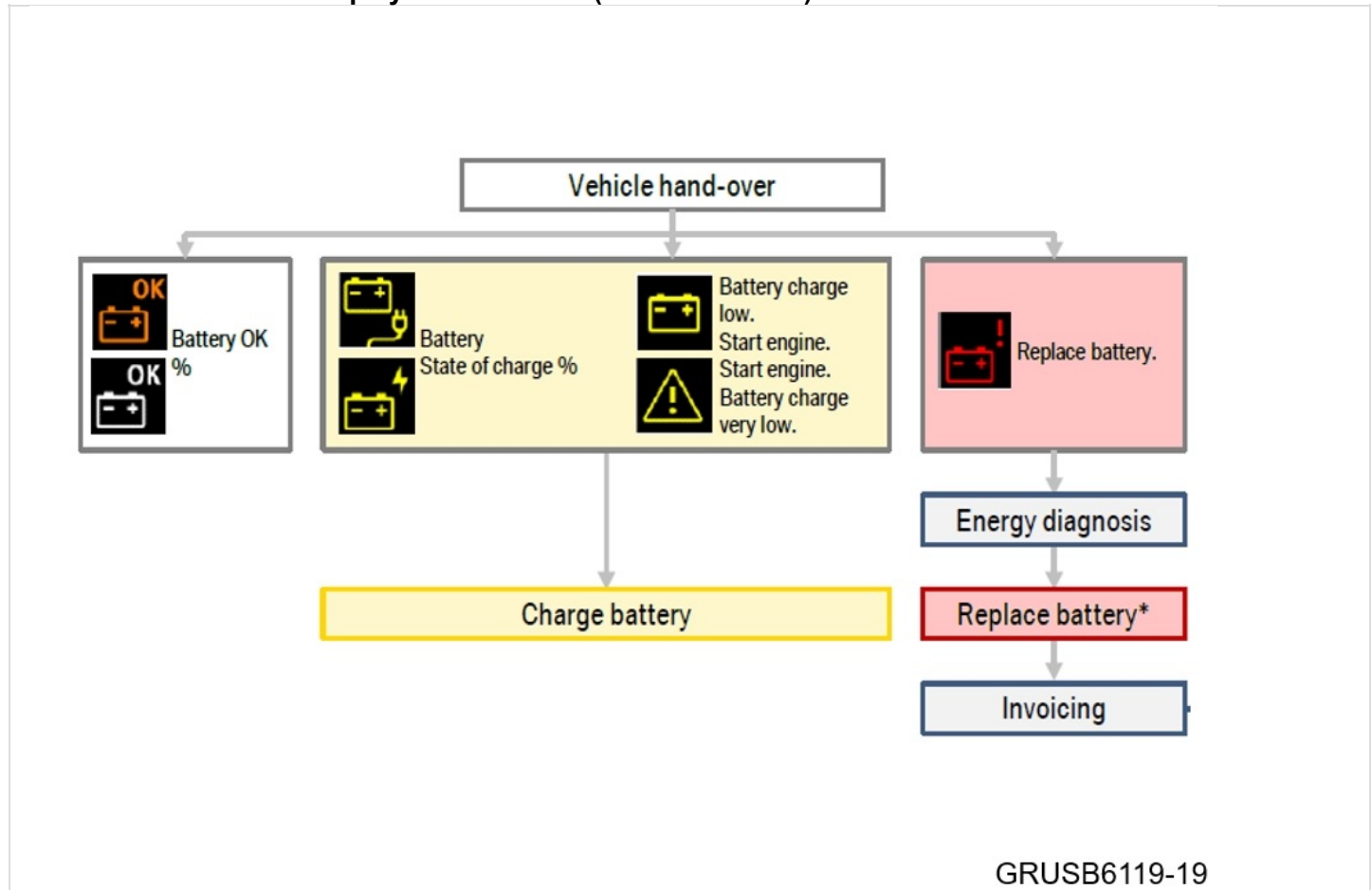
below 25% or one or fewer blue bars are present on the SoC display. This situation can occur because of delays in transporting the vehicle to the dealer. Go to step c.

- NOTE: The HV battery in the BMW i3 and i8 cannot be charged above 30% when transport mode is active.
- If NO, go to step c.

c. Check the instrument cluster for battery-related check control messages to determine the condition of the 12-volt battery. Refer to the chart below for all applicable check control messages.

d. Open the vehicle and make sure it is in transport mode. Press the Start/Stop button and wait until all check control messages are displayed. Refer to the updated chart below for all applicable check control messages pertaining to the 12V battery.

Vehicle Check Control Displays and Actions (new illustration)



If an indicator shows that the battery is less than 30% SoC (12 V), perform the following steps:

1. Enter a comment with the VIN in the Bill of Lading (Delivery Receipt).
2. Perform energy diagnosis to check if there is a vehicle malfunction.
3. Submit a warranty claim with the comment: "Battery was delivered heavily discharged."

NOTE: Using a multi-meter upon delivery is not recommended, because an accurate voltage value is only guaranteed after the 12V battery has been sitting for at least 4 hours.

Vehicle usage is assigned

The new vehicle battery maintenance tracking system provides for 3 distinct categories of vehicles while in dealer stock. Each category has different recommended actions:

1. Put on dealer lot

- The vehicle may be in storage (back lot) or in a new vehicle display (not in the showroom).
- The vehicle may or may not be in Transport Mode.
- A four-week charging cycle and calendar have been recommended for this category of vehicles.

a. The vehicle arrives marked with a color-coded round sticker on the windshield. Do not remove this sticker under any circumstance until the vehicle is retailed. The respective color dot on the windshield (four options) indicates when the vehicle's battery voltage must be checked in accordance with the section "B" of the BATTERY LOG FORM on a four-week cycle.

b. Recharge whenever the battery voltage is less than 12.5V or 71% SoC.

BMW recommends using the LED 12V Charging Indicator to determine if a certain vehicle has to be recharged (For testing and charging equipment, refer to [SI B04 23 10](#)).

This LED indicator has to be connected to the vehicle permanently, and eliminates the need to unlock the vehicle for measuring the SoC of the 12V battery. The colors below apply to the charging calendar's SoC thresholds, and are as follows:

Green: Voltage is > 12.5V (71% SOC)

Yellow: Voltage is between 12.0V and 12.5V => Recharge

Red: Voltage < 12.0V (30% SOC) => Replace battery on new vehicles

c. Every time a battery is checked, record the voltage in section "B" of the BATTERY LOG FORM. Additionally, if equipped, the HV battery SoC must also be checked at these intervals and charged if below 25% or one blue bar in the SoC display.

IMPORTANT: The LED indicator has to be connected to the car for at least 4 hours in order for it to indicate the correct battery condition!

2. The vehicle goes into the showroom, or a similar display area

- The electrical system is "Customer ready"
- The vehicle has been taken out of Transport Mode using the BMW Diagnosis System
- The color dot system is not applicable while assigned to this usage

When in the showroom display, energy consumption is frequent and unpredictable because of the showroom traffic. A four-week charging cycle will not suffice, due to the increased current draw imposed on the battery. This is because of frequent usage of the vehicle's electrical components (demonstrations, product familiarization, etc.).

a. To ensure the battery charge is maintained, connect the battery via the under-hood charging terminals to a suitable power supply (refer to [SI B04 23 10](#)). For hybrid/electric vehicles, the HV battery must still be maintained on the four-week charging cycle, since the power supply will NOT charge or maintain the HV battery.

b. If the showroom vehicle battery has to be disconnected due to state regulations, check the battery voltage on a regular basis to ensure the state of charge is maintained above 12.5V or 71% SoC. We recommend default charging every night.

c. Record when the battery is recharged in **section "C"** of the BATTERY LOG FORM.

Note: For those BMW centers which have established their own working battery maintenance procedure which fulfills BMW guidelines, Section C can be used to track the charging of those vehicles.

For BMW ActiveHybrid vehicles: Refer to [SI B61 37 12](#) for special High-voltage Battery care instructions when using an external 12 volt battery charger.

3. The battery draw has been minimized

- The vehicle battery has been disconnected.

With the battery draw minimized, a 12-week charging cycle can be followed. Use **section “D”** of the BATTERY LOG FORM to document when the charging has been performed.

The columns on the BATTERY LOG FORM are identified by the colors white, red and green of the 12-week charging calendar, designating the months when the vehicles are to be charged. The windshield labels can also be used to track these vehicles, with the exception of the 4th color, yellow. Therefore, vehicles received with a yellow label will need to be reassigned another color.

The 12 week charging cycle requires the battery to be recharged at every check.

Since BMW uses only maintenance-free or AGM (absorbent glass mat) batteries, **DO NOT ADD DISTILLED WATER!**

If, at any time, the battery open circuit voltage should drop below 12.0V, or a battery replacement is indicated during the CBS handover inspection, perform Energy Diagnosis (refer to [SI B61 13 05](#)) to determine the cause. Any necessary repairs should be carried out and the battery **MUST BE REPLACED**. The replacement battery must be registered using the service function in the diagnosis equipment.

Dispose of all batteries properly, observing legal regulations.

Charging Parameters:

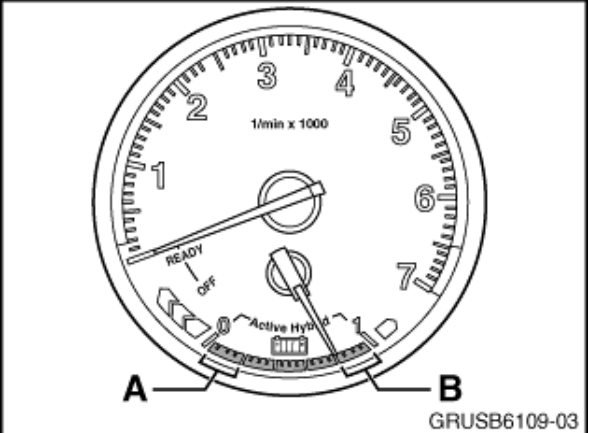
Battery charging must be performed using an approved battery charger (recommended charging voltage 14.8V). Refer to [SI B04 23 10](#) for recommended chargers.

For an optimized charging procedure, the ambient temperature should be **between 60°F and 75°F**. Under these conditions, the battery can be considered fully charged when the charging current **has fallen below 2.5 Amps**.

Charging below 60°F should be avoided if possible, since the capacity of the battery to take up current is reduced and the charging time is extended considerably. However, if provisional charging **below 60°F is performed, the charging voltage must be set to 14.8V**. Charging shall be discontinued no earlier than when the **charging current falls below 1.5 Amps**.

Procedure for high-voltage battery PACKS (hybrid Vehicles and electric vehicles)

High-voltage battery packs should be checked at the same maintenance intervals as for 12-volt batteries.

1. 	The charge status of the high-voltage battery pack is shown in the instrument cluster. If the charge indicator displays a state of charge below 25% or one blue bar on the gauge (A), the high-voltage battery pack must be recharged until the charge indicator displays a value in the upper quarter (B). On the battery log form, charge indicator positions A or B should be logged as follows: - A = 0 or 1/4 (depending on actual needle position) - B = 3/4 or F (depending on actual needle position)
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Hybrid vehicles:

- Charge the high-voltage battery pack by starting the engine and letting it idle until SoC > 75% has been reached (approximately 15 minutes). If the vehicle is inside a building, exhaust extraction must be used. If the vehicle is outside, the vehicle must be in a secure area.

Electric vehicles:

- Connect an approved 110 V or 220 V charging cable to the vehicle's charge port until SoC ≥ 30% (in transport mode, maximum SoC is limited to 30% (I01, I12, I15) or 20% (G26 BEV and I20)) has been reached.
- The 12V battery is very small. On an i3, it has a capacity of only 20Ah, but is permanently charged by the high-voltage battery.

Note: When the high-voltage battery goes to SoC of 0%, the 12V battery will discharge quickly.

New Vehicle Delivery

The CBS Handover Inspection must be performed as the last process step, immediately before delivery to the customer! Refer to Service Information bulletin “New Vehicle Preparation and Maintenance Requirements” for the affected vehicle model.

Other battery-related steps to be performed prior to customer delivery:

- BATTERY LOG FORM should be removed from the BATTERY CHARGE LOG (binder) and filed in the vehicle file, to be available for future reference.
- To be sure that the vehicle is be handed over with a fully charged battery (minimum state of charge of 12.5V or 71% SoC), start the engine before demonstrating the operation of components to the customer at the time of delivery.

GENERAL INFORMATION

Note that the procedures outlined above are meant to be guidelines to assist BMW centers in assuring a sufficient state of charge of vehicle batteries at all times. Following these procedures, however, will not **guarantee** a sufficient state of charge on all batteries. There may be exceptional cases (for example, frequent movement of back lot vehicles) of excessive current which may call for more frequent recharging than otherwise necessary.

The above guidelines for proper battery maintenance are meant to provide maximum flexibility for every BMW center. Regional BMW personnel will be happy to assist with setting up an effective charging and monitoring program.

PARTS INFORMATION

Refer to the attachment to this bulletin for the procedure flowchart.

Part Number	Description	Quantity
01 00 2 411 748	Windshield labels - white (reusable)	1 - 50 labels
01 00 2 411 749	Windshield labels - red (reusable)	1 - 50 labels
01 00 2 411 750	Windshield labels - green (reusable)	1 - 50 labels
01 00 2 411 751	Windshield labels - yellow (reusable)	1 - 50 labels

The pre-printed version of the Battery Log form will no longer be provided since the demand was very low.

CLAIM INFORMATION

Reimbursement for the battery maintenance step, one (1) FRU, is included to the applicable QC1 labor operation.

Please refer to the [SI B01 01 08](#): QC I Claim Payments for additional information.

QUESTIONS REGARDING THIS BULLETIN

Technical inquiries	Submit feedback at the top of this bulletin
Warranty inquiries	Please contact the Warranty department by either using the Live Chat that's available in the Warranty Documentation Portal or through IDS by selecting

	Coverage, Policy, Coding Questions and Mileage Corrections
Parts inquiries	Submit an IDS ticket to the Parts Department

Supporting Materials

[picture_as_pdf B611808_Battery_Log_Form_2022.pdf](#)

[picture_as_pdf B611808_BatteryCare_Process_Flyer.pdf](#)

Stock# _____

VDC USE: Chassis #: _____
 Battery (12V)/Kombi _____ Volts/SOC%
 Battery (Hybrid) _____ SOC%
 Date _____/_____/_____
 Inspector _____

Note: Failure to maintain batteries as recommended and documented with this form will be considered sufficient cause to reject warranty claims.

A	Vehicle Receipt	Model	Chassis#
Center #	Voltage as received	Inspected by	Date received

B Vehicle In Storage - Checked Every 4 Weeks													Color indicates battery is to be checked during the week of . . .							
Week Of	Voltage (12V)/ LED	Voltage Hybrid				Charged By	Week Of	Voltage (12V)/ LED	Voltage Hybrid				Charged By	Week Of	Voltage (12V)/ LED	Voltage Hybrid				Charged By
		0	1	2	3	F			0	1	2	3	F			0	1	2	3	F
Dec. 20							Dec. 27							Jan. 3						
Jan. 17							Jan. 24							Jan. 31						
Feb. 14							Feb. 21							Feb. 28						
Mar. 14							Mar. 21							Mar. 28						
April 11							April 18							April 25						
May 9							May 16							May 23						
June 6							June 13							June 20						
July 4							July 11							July 18						
Aug. 1							Aug. 8							Aug. 15						
Aug. 29							Sept. 5							Sept. 12						
Sept. 26							Oct. 3							Oct. 10						
Oct. 24							Oct. 31							Nov. 7						
Nov. 21							Nov. 28							Dec. 5						

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Battery Log Form

This form should be filled out when the vehicle is received and updated according to the proper procedure (display vs. storage vehicle). It should be placed in the vehicle history file when sold.

Note: Failure to maintain batteries as recommended and documented with this form will be considered sufficient cause to reject warranty claims.

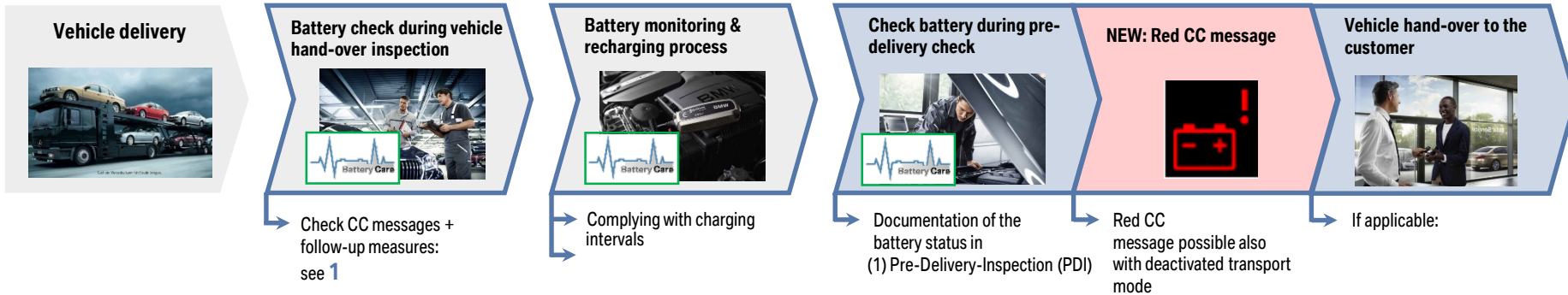
 Vehicle Receipt		Model		VIN	
Center #	Voltage as received		Inspected by		Date received

D Vehicle In Storage - Charged Every 3 Months

January	Date	February	Date	March	Date
Voltage Before Charge	Charged By	Voltage Before Charge	Charged By	Voltage Before Charge	Charged By
April	Date	May	Date	June	Date
Voltage Before Charge	Charged By	Voltage Before Charge	Charged By	Voltage Before Charge	Charged By
July	Date	August	Date	September	Date
Voltage Before Charge	Charged By	Voltage Before Charge	Charged By	Voltage Before Charge	Charged By
October	Date	November	Date	December	Date
Voltage Before Charge	Charged By	Voltage Before Charge	Charged By	Voltage Before Charge	Charged By

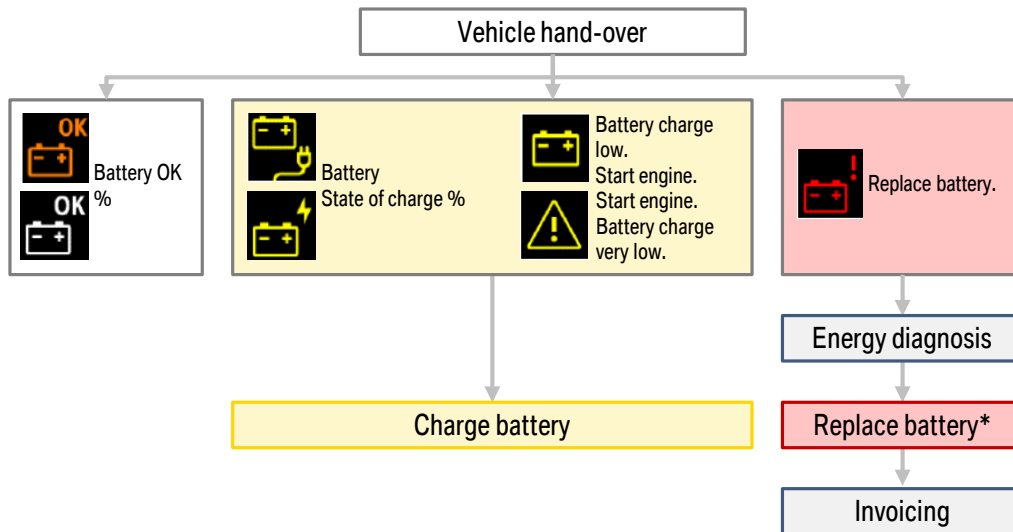
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BATTERY CARE FOR NEW VEHICLES (1/2).



1 VEHICLE HAND-OVER FROM THE TRANSPORTER.

As a dealer, you have the right to receive a vehicle with a serviced battery.
To check this is the case, you should carry out the following steps:



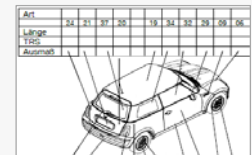
* Including initialising the battery

Invoicing

If you wish to exchange a battery because of a red CC message, you must first carry out the ISTA **Energy diagnosis** test module. A necessary battery exchange can be submitted within **24 hours** after vehicle hand-over as transport damage, with a refund claim. If available, use **Transport Quality Control (TQC)**. Under the "Damage" point, select the "Discharged battery" option.

Schäden	
Ursache *	10 TRANSPORTSCHADEN
Fahrzeugbereich *	I INNEN
Bauteil *	BATTERIE NICHT ABGESCHALTET
Schaden *	ENTLADENE BATTERIE
Hinzufügen Löschen	

If TQC is not available in your market, you must fill in the "Damage report" form.



Battery damage attributable to defective maintenance during transport must be submitted as transport damage – not as a warranty case level 4.

BATTERY CARE FOR NEW VEHICLES (2/2).

