Service Information Bulletin

May 23, 2023

General Electrical Systems

B61 15 23

2023 QUICK-REFERENCE GUIDE FOR NEW VEHICLE BATTERIES

☐	THIS REPAIR IS MOBILE FRIENDLY

MODEL

E-Series	Model Description
ALL	ALL (new vehicles in BMW center inventory)

SITUATION

BMW centers are responsible for the care and storage of new vehicles in their inventory. The condition of vehicles at the time of delivery is a direct reflection of the dealership and the level of care its service department will provide in the future. Handing over the best vehicle possible at customer delivery can increase the number of customers in your showrooms and service departments. Special attention should be taken to properly maintain and store your new vehicle inventories by sustaining a high level of quality. The steps below will assist you in keeping your vehicle inventory protected and ready for customer delivery.

INFORMATION

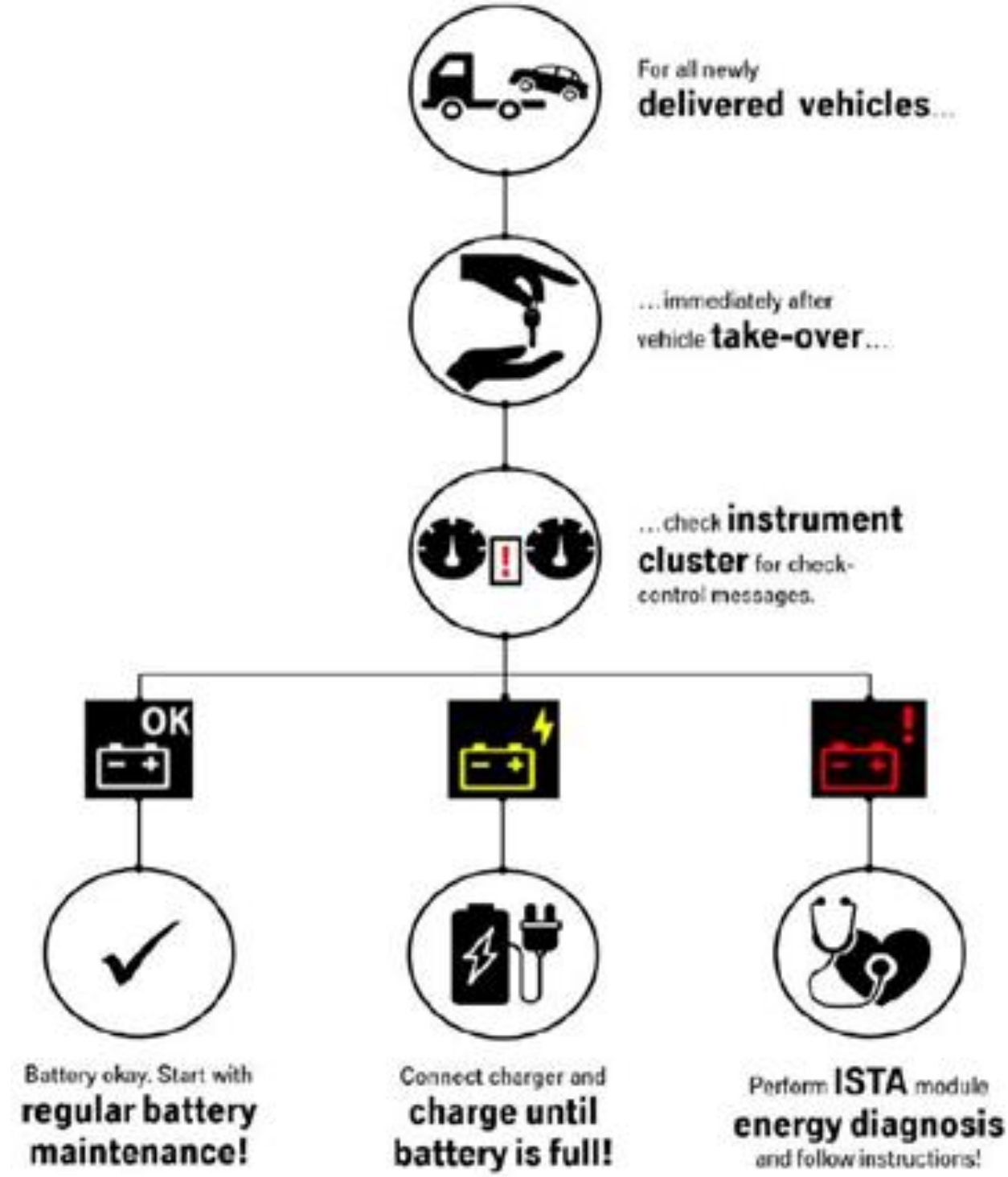
The following is a list of topics included in this bulletin:

- **TRANSPORT MODE AND CHECK OF BATTERY CONDITION**
- **QUALITY CERTIFICATION 1 (QC1)**
- **12 VOLT BATTERY IDENTIFICATION**
- **APPROVED VEHICLE CHARGERS**
- **SHOWROOM, BATTERY CHARGER CABLE ROUTING**
- **SHOWROOM, VEHICLE CHARGING**
- **SHOWROOM, 48 VOLT VEHICLES (Mild Hybrid Electric Vehicle MHEV)**
- **SHOWROOM, HIGH VOLTAGE VEHICLES (Battery Electric Vehicle/Plug-in Hybrid Electric Vehicle BEV/PHEV)**
- **SHOWROOM MODE**
- **DEEP SLEEP MODE (DSM)**
- **FINAL PREPARATION OF THE VEHICLE FOR CUSTOMER DELIVERY**

TRANSPORT MODE AND CHECK OF BATTERY CONDITION:

Transport mode is an operating condition of the vehicle with the aim of reducing energy consumption. It is intended to enable longer stationary periods and avoid battery damage before the delivery to the customer.

- Transport mode is activated at the vehicle’s manufacturing plant and should normally still be active when the vehicle is received at your center
- To keep energy consumption low, your facility should leave transport mode activated for as long as possible

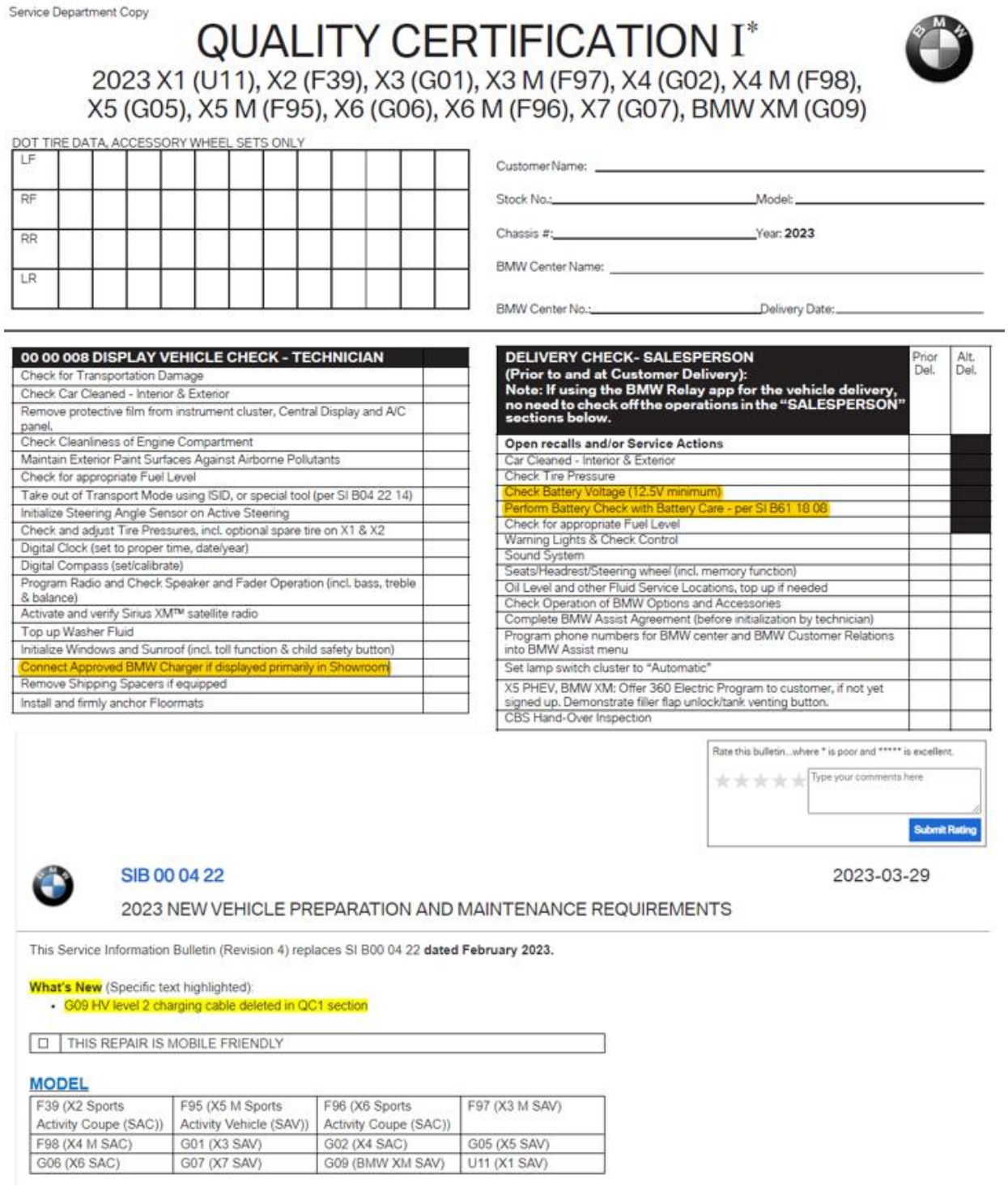


A check of the battery condition can be completed by taking a quick look at the instrument cluster. A discharged battery is indicated there by a yellow message; a totally discharged battery by a red one.

- If a yellow CCM is displayed, the battery charge state is too low. In this case, you must connect a battery charger and fully charge the battery.

- If a red CCM is displayed, this means the battery has been totally discharged and is damaged. In this case, you must perform an energy diagnosis via ISTA and follow the instructions there to exchange the battery.

Quality Certification 1 (QC1):



Service Department Copy

QUALITY CERTIFICATION I*

2023 X1 (U11), X2 (F39), X3 (G01), X3 M (F97), X4 (G02), X4 M (F98), X5 (G05), X5 M (F95), X6 (G06), X6 M (F96), X7 (G07), BMW XM (G09)

DOT TIRE DATA, ACCESSORY WHEEL SETS ONLY

LF												
RF												
RR												
LR												

Customer Name: _____

Stock No.: _____ Model: _____

Chassis #: _____ Year: **2023**

BMW Center Name: _____

BMW Center No.: _____ Delivery Date: _____

00 00 008 DISPLAY VEHICLE CHECK - TECHNICIAN	
Check for Transportation Damage	
Check Car Cleaned - Interior & Exterior	
Remove protective film from instrument cluster, Central Display and A/C panel.	
Check Cleanliness of Engine Compartment	
Maintain Exterior Paint Surfaces Against Airborne Pollutants	
Check for appropriate Fuel Level	
Take out of Transport Mode using ISID, or special tool (per SI B04 22 14)	
Initialize Steering Angle Sensor on Active Steering	
Check and adjust Tire Pressures, incl. optional spare tire on X1 & X2	
Digital Clock (set to proper time, date/year)	
Digital Compass (set/calibrate)	
Program Radio and Check Speaker and Fader Operation (incl. bass, treble & balance)	
Activate and verify Sirius XM™ satellite radio	
Top up Washer Fluid	
Initialize Windows and Sunroof (incl. toll function & child safety button)	
Connect Approved BMW Charger if displayed primarily in Showroom	
Remove Shipping Spacers if equipped	
Install and firmly anchor Floormats	

DELIVERY CHECK- SALESPERSON (Prior to and at Customer Delivery): Note: If using the BMW Relay app for the vehicle delivery, no need to check off the operations in the "SALESPERSON" sections below.	Prior Del.	Alt. Del.
Open recalls and/or Service Actions		
Car Cleaned - Interior & Exterior		
Check Tire Pressure		
Check Battery Voltage (12.5V minimum)		
Perform Battery Check with Battery Care - per SI B61 18 08		
Check for appropriate Fuel Level		
Warning Lights & Check Control		
Sound System		
Seats/Headrest/Steering wheel (incl. memory function)		
Oil Level and other Fluid Service Locations, top up if needed		
Check Operation of BMW Options and Accessories		
Complete BMW Assist Agreement (before initialization by technician)		
Program phone numbers for BMW center and BMW Customer Relations into BMW Assist menu		
Set lamp switch cluster to "Automatic"		
X5 PHEV, BMW XM: Offer 360 Electric Program to customer, if not yet signed up. Demonstrate filler flap unlock/tank venting button.		
CBS Hand-Over Inspection		

Rate this bulletin...where * is poor and ***** is excellent.

Type your comments here

Submit Rating

SIB 00 04 22 2023-03-29

2023 NEW VEHICLE PREPARATION AND MAINTENANCE REQUIREMENTS

This Service Information Bulletin (Revision 4) replaces SI B00 04 22 **dated February 2023.**

What's New (Specific text highlighted):

- G09 HV level 2 charging cable deleted in QC1 section

☐ THIS REPAIR IS MOBILE FRIENDLY

MODEL

F39 (X2 Sports Activity Coupe (SAC))	F95 (X5 M Sports Activity Vehicle (SAV))	F96 (X6 Sports Activity Coupe (SAC))	F97 (X3 M SAV)
F98 (X4 M SAC)	G01 (X3 SAV)	G02 (X4 SAC)	G05 (X5 SAV)
G06 (X6 SAC)	G07 (X7 SAV)	G09 (BMW XM SAV)	U11 (X1 SAV)

The Quality Certification 1 (QC1) is a reference checklist for various operations needed in different possible scenarios to prepare vehicles for customer delivery. Additionally, for the Service Department supervisors to print out and train new QC1 technicians on the operations.

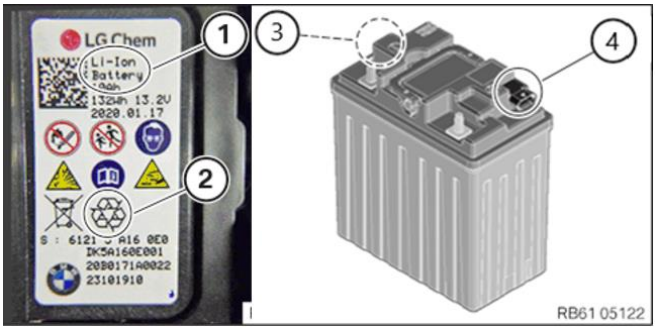
- The above images are for the Model Year 2023 Sports Activity Vehicles. Other models per other SIBs are similar.
- The QC1 checklist can be found on TIS; please reference SIB "NEW VEHICLE PREPARATION AND MAINTENANCE REQUIREMENTS" for product updates and other useful attachments
- BMW provides QC1 checklist images, and Battery log forms to help care for and manage vehicles at your facility

Note: The traditional 4-page QC1 checklist was discontinued with the start of the 2019 model year (refer to SI B00 01 18) and is not available to be order via ATLAS. The showroom display, the road

test; or the spot delivery must be successfully completed for all individual QC1 operations before submission of the warranty claim.

12 VOLT BATTERY IDENTIFICATION:

Identifying the utilized vehicle battery is crucial in selecting the proper charger settings for a specific battery. Check battery labels for identifying nomenclature. Most BMW vehicles are delivered with an Absorbent Glass Mat (AGM) battery as vehicle battery. Lithium-ion starter batteries are installed in some vehicle models (particularly M models).



12-V lithium-ion batteries can be identified by the following characteristics:

- Notes on the label
  - Lithium-ion battery, Li-Ion (1)
  - Recycling note (2)
- Large venting connector in the lid (3)
- LIN bus connection in the lid (4)

APPROVED VEHICLE CHARGERS:

Various battery chargers, optimally adapted to the respective situation, are available to ensure that the starter batteries are always charged sufficiently. BMW currently recommends the devices from the companies Deutronic and Akkuteam *(refer to SI B04 23 10 dated May 2023 or later/newer).

BMW recommended showroom chargers for vehicles with heavy use/traffic: (50+ A)
*(Heavy use/traffic = vehicles left open on the showroom floor and are seeing consistent activity – doors/trunk opened/closed, key cycled on/off, vehicle in showroom mode, etc.)

- Akkuteam SL501 showroom charger – P/N 81 39 5 A19 C82
- Deutronic SC750 showroom charger - 81 XX X XXX XXX (will be available shortly)

BMW recommended showroom chargers for vehicles with light use/traffic: (35 A)
*(Light use/traffic = vehicles normally locked and only opened/displayed once or twice a week)

- Deutronic SC500 showroom charger - 81 39 5 A19 C81

How to properly setup the battery charger: (Li vs. Pb (lead) batteries)

Check what type of 12 V battery the vehicle has – Li or Pb – before connecting a charger (See above for identification process).

- Akkuteam SL501:
  1. Connect charging cable (red) to positive pole (+) and then charging cable (black) to negative pole (-).
  2. Connect power cable to charger and then plug power cable into power outlet.
  3. Select desired charging mode AGM (Pb) or LFP (Li) by pressing the relevant button.
  4. Charging begins automatically after approx. 2 seconds *(To stop/interrupt or restart charging, press the power button).

- Deutronic SC500/SC750:
    1. Connect charging cable (red) to positive pole (+) and then charging cable (black) to negative pole (-).
    2. Connect power cable to charger and then plug power cable into power outlet.
        - Ensure charger is in Standby mode (all 3 battery LEDs flashing simultaneously) using the Start/Stop button.
    3. Press the Mode button until the Status LED shows either solid orange (PB) or solid blue (Li).
    4. Press Start/Stop button – charging will begin after a few seconds (battery LEDs will alternate in 1 second intervals, or battery full LED will be solid).

SHOWROOM, BATTERY CHARGER CABLE ROUTING:

It is recommended to first disconnect the charging cables from the battery charger and then route them from above through the engine compartment. The gap next to the engine is recommended for this purpose. Position the battery charger at the front, centrally under the vehicle.

Cable routing through the engine compartment is illustrated in this example of an X5.

Some vehicles have a service flap in the wheel arch which can be used to route the charging cables into the engine compartment.

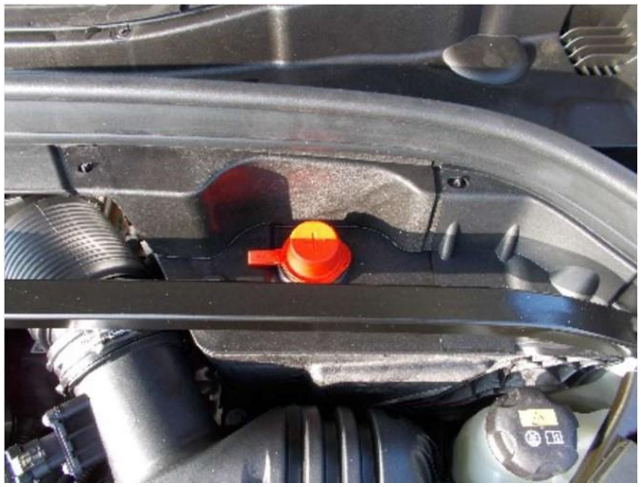
Cable routing via a service flap is illustrated in this example of an M850i.

One exception is the Z4 (G29, from model year 2019). To close the hood completely with charging cables connected, the black charging clamps for terminal 31 (ground) must be connected elsewhere.

Lift the design cover of the engine slightly and secure the black charger clamp to the solid engine hoist bracket.

SHOWROOM, VEHICLE CHARGING:

Always connect an approved battery charger to the jump post terminals located under the hood. DO NOT connect the charger directly to the battery.



Vehicles whose batteries are installed in the luggage compartment have a connection point with a **red** protective cap featuring a “+” in the engine compartment. The positive lead of the charger must be connected to this.

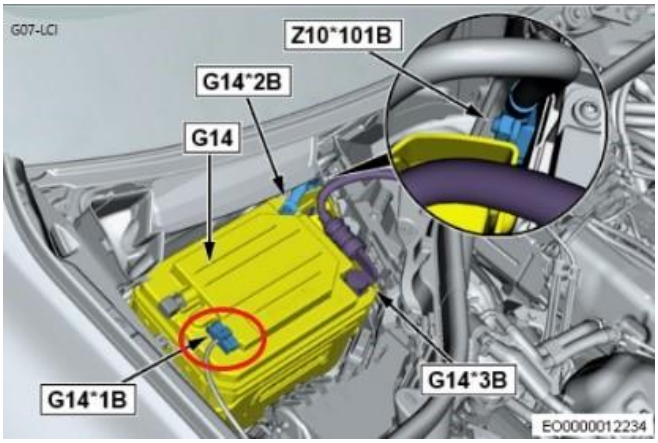
The negative lead must be connected to the jump-start connection point or to the hook for removing the engine. The batteries must be fully recharged.

After connecting the charger to the under hood jump terminals, ensure the correct charger for the use case is utilized AND that the device is active as per user manual specifications.

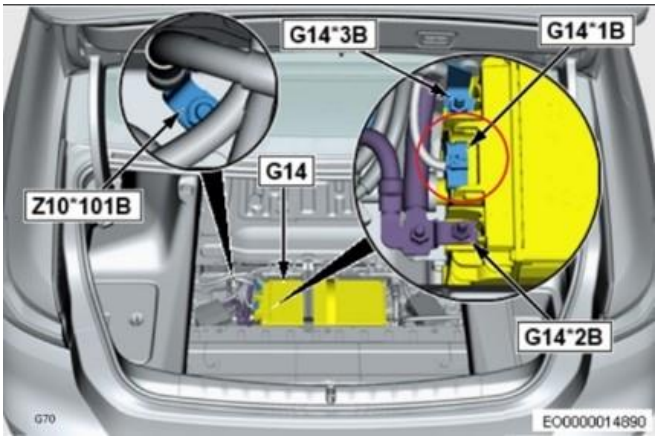
SHOWROOM, 48-VOLT VEHICLES (MHEV):

48 V vehicles with option code **1CE** can be easily identified by purple cabling in the engine bay or the printed sheet attached to the windshield. The 12 V vehicle battery is maintained by the 48 V battery, during periods of continuous use {showroom traffic) the 48 V battery will become depleted.

In order to prevent total discharge and damage of the 48 V battery the following steps can be taken:



- **Option 1:** An external battery charger connected to the under hood jump posts with the **hood open**. (open/unlatched)
- **Option 2:** Disconnection of the mains/signal connector (**G14*1B)** at the BATT48, BATT15 and BATTFAR
- **Option 3:** Activation of showroom mode with ISTA or via instrument cluster settings.



Key Facts regarding Option1:

- **The 48 V battery does NOT charge when using a 12 V battery charger with the hood closed**
- Trickle chargers and solar chargers will not be able to properly maintain the 48 V battery
- When charging the vehicle using a 12 V battery charger, the 48 V battery is ONLY able to charge when the hood is **open/unlatched**

NOTE: NEVER CONNECT A 12 V BATTERY CHARGER DIRECTLY OR INDIRECTLY TO A 48 V BATTERY!

SHOWROOM, HIGH VOLTAGE VEHICLES (BEV/PHEV):

High-voltage vehicle batteries (HVB) are **not** fully charged at the plant and require regular upkeep.

- HVBs of electric vehicles are required to be charged every 6 weeks
- HVBs of plug-in hybrid vehicles are required to be checked every 6 weeks and charged if required

If the state of charge is not sufficient or the last scheduled charging interval was not completed, the vehicle must be immediately charged. It is prohibited to use the provided customer charging cable for vehicle charging during distribution. In this case, it is the dealer's responsibility to procure suitable chargers incl. charging cables.

Note: Electric vehicles with transport mode active can only charge the high voltage battery (HVB) to a maximum of 30%.

Charge status indicator

A multicolor LED light in the high voltage (HV) charging socket is used to indicate the status of the charging process. Please reference the attached image below for descriptions of the indicator light status. When the vehicle is locked, the charge state indicator goes out after a certain period of time.

HV charge settings through the CID

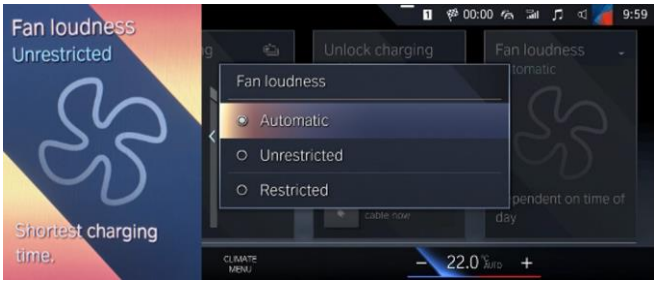
With the growing options of HV chargers, our vehicles have the ability to manage the HVB's rate of charge through CID settings. All vehicles leave the plant with default settings which may not be optimal during heavy showroom traffic. The setting listed below will charge the HV battery fully in the least amount of time.

Navigate in the Headunit (OS8) menu:

- Open the application Menu
- Select the "Charging" application
- Set "charging mode" to Immediately
- Set "charging target" to 100%
- Set "AC limit" to highest (A) amperage setting available

Fan loudness

The fan noise occurring during the charging process can be adjusted via the 'fan loudness' settings.



The **"automatic"** setting limits the noise depending on the time of day.

The **"unrestricted"** setting allows for maximum cooling power, thus enabling the shortest possible charging time and maximum noise level.

The **"restricted"** setting offers maximum acoustic comfort but increases the charging time.

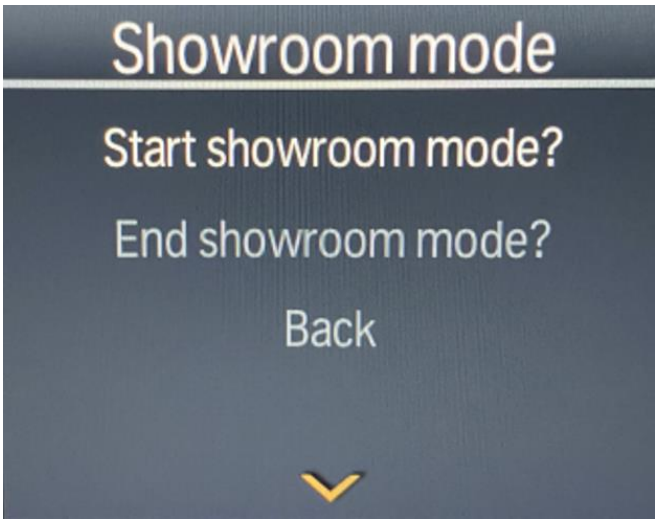
SHOWROOM MODE:

To enhance the customer experience, Showroom Mode can display a life-like impression of vehicle functions while still standing in the showroom. Anyone can activate or deactivate this feature through the instrument cluster Test function following the steps below.

To activate/deactivate Showroom mode:

- Press the START/STOP button 3x quickly, entering PAD mode
- Depending on your model and operating system (OS), press and hold the “select media” or “display settings” button until the Test function menu appears in the instrument panel
- Utilize the same button throughout the remaining steps

- Navigate the Test function menu (MAIN MENU) with short button presses until “Showroom mode” is highlighted
- Press and hold the button until the Showroom mode menu appears



- Navigate the Showroom mode menu with short button presses
- When the desired setting is highlighted press and hold the button to start or end the feature
  - Start showroom mode? (Activate)
  - End showroom mode? (Deactivate)

Once active, a selection for Showroom mode will appear in the Settings of the Head unit.

In the CID menu navigate to (OS8):

- Open the “Menu/Application” menu
- Select the “System settings” application
- Under Vehicle settings select “Showroom mode”

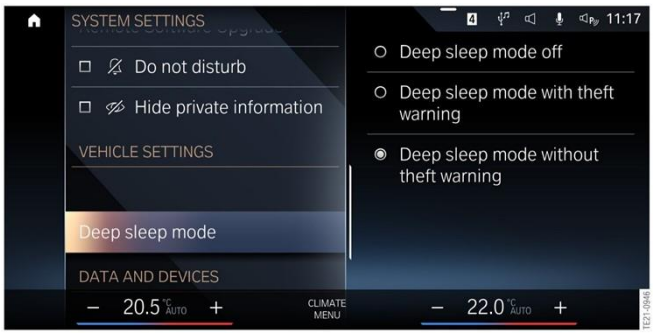
Showroom mode gives you the ability to display simulations and/or functional presentations. Demonstrations will automatically begin after 3 minutes of inactivity, or they can be manually started by unselecting then reselecting the option. Securing the safety belt buckle can be utilized to keep vehicles awake. **Always connect an approved battery charger to properly maintain the vehicles battery**.

Note: Vehicles may not be delivered with the Showroom mode feature active.

DEEP SLEEP MODE (DSM):
According to the BMW standard, transport mode must be activated until handover to the customer, however a vehicle can only be demonstrated after transport mode has been deactivated. For this reason, Deep sleep mode was implemented to reduce the risk of a battery defect. The vehicle can be woken up via the trunklid/tailgate button and used normally. As soon as the vehicle switches back to the PWF status PARK, it also switches back to deep sleep mode. Deep sleep mode can be fully deactivated through CID settings or after an engine is start.

If the vehicle is parked for a longer period, the 12 V battery must be recharged at certain intervals. Depending on the battery’s state of charge, deep sleep mode can extend the standby time. DSM has been available for all Service pack 2021 vehicles without a high-voltage battery since November 2022.

Deep sleep mode can be activated and deactivated via the system settings in the CID-



In the CID menu navigate to (OS8):

- Open the “Menu/Application” menu
- Select the “System settings” application
- Under Vehicle settings select “Deep sleep mode”

Key Points:

- To activate deep sleep mode, the ID transmitter (aka remote control key) or smartphone with BMW Digital Key or BMW Digital Key Card must be in the vehicle
- The parking lights and hazard warning lights must also be switched off
- Vehicle battery analysis calculates possible stationary times in the sub-menu
- The vehicle can be awoken at any time by pressing the tailgate button
- If the vehicle is not started and is locked again, deep sleep mode will be reactivated
- As soon as the engine is started, deep sleep mode is fully deactivated

FINAL PREPARATION FOR CUSTOMER DELIVERY:
The customer's first impression of their new BMW counts. A vehicle that is handed over in a technically and optically perfect condition speaks certainly for the center.

Key points to consider for vehicle delivery preparation:

- Removal of surface protection
- Inspection of surface after removal of protective film
- Check for technical campaigns and delivery blocks
- Service work prior to delivery (e.g., installation of accessories)
- Handling of surface imperfections
- QC1
- Vehicle registration including fitting a front license plate and bracket (optional / state-specific)
- Facility requirements for detailing and final vehicle assessment area
- Detailing
- Final key read for battery care (can be performed via remote key read)

FEEDBACK REGARDING THIS BULLETIN

Technical Feedback	To submit feedback for the technical topic of this bulletin: Submit your feedback in the rating box at the top of this bulletin
Warranty Feedback	To submit feedback for the CLAIMS section of this bulletin: Submit an IDS ticket to the Warranty Department, or use the chat available in the Warranty Documentation Portal
Parts Feedback	To submit feedback for the PARTS section of this bulletin: Submit an IDS ticket to the Parts Department