

## 1. Identification complète du véhicule

The screenshot shows the ISTA+ software interface. At the top, there is a navigation bar with icons for home, list, print, tools, help, and other functions. Below the navigation bar, the title "ISTA+" is displayed. The main area is divided into several sections:

- VIN**: A section for entering the vehicle's VIN.
- Vehicle**: A section for selecting the vehicle type and configuration.
- Operations**: A section for selecting the operation to perform.
- Vehicle information**: A section for displaying vehicle details.
- Vehicle management**: A section for managing vehicle data.
- Service plan**: A section for managing service plans.
- Favourites**: A section for saving favourite vehicles.
- Workshop/Operating fluids**: A section for managing workshop and operating fluids.
- Measuring devices**: A section for managing measuring devices.

Below these sections, there are instructions for connecting the vehicle interface and switching on the ignition. At the bottom right, there are two buttons: "Identification without vehicle test" and "Complete identification".

## 2. Indispensable : lecture des défauts et effacement des défauts

The screenshot shows the ISTA+ software interface for reading and clearing faults. The top navigation bar is the same as in the previous screenshot. Below the navigation bar, the title "ISTA+" is displayed. The main area is divided into several sections:

- VIN**: E504613
- Vehicle**: Z/E89/Roadster/Z4 sDrive23i/N52/MANUAL/ECE/LL/2011/03
- KL 15**: --
- KL 30**: --

Below these sections, there are tabs for "Operations", "Vehicle information", "Vehicle management", "Service plan", "Favourites", "Workshop/Operating fluids", and "Measuring devices". The "Vehicle information" tab is selected, showing a "Control unit tree" view. This view displays a hierarchical structure of control units, including:

- KOMBI
- CAS
- FZD
- KLIMA\_0x78
- CTM
- MRS
- FRM
- RAD
- JBE
- DSC
- DME
- EPS
- EKPS
- EMF

At the bottom of the interface, there is a legend for fault memory status:

- K-CAN (blue line)
- PT-CAN (black line)
- Fault memory 3
- Ecu without fault memory (green square)
- Ecu with fault memory (yellow square)
- Ecu not responding (red square)
- Ecu with programming abort (blue square)

At the bottom right, there are three buttons: "Start vehicle test", "Call up ECU functions", and "Display fault memory".

ISTA+

VIN E504613 Vehicle Z/E89/Roadster/Z4 sDrive23i/N52/MANUAL/ECE/LL/2011/03 KL 15: -- KL 30: --

Operations	Vehicle information	Vehicle management	Service plan	Favourites	Workshop/ Operating fluids	Measuring devices
Repair/ maintenance	Troubleshooting	Service functions	Software update	Control Unit Replacement	Vehicle modification	
Fault memory	Fault patterns	Function Structure	Component Structure	Text Search	SAE fault code input	

Code	Description	Mileage	Existent	Class
S 0085	No communication possible with: Dynamic Stability Control	90510	yes	
S 0117	No communication possible with: Heating and air conditioning system	90510	yes	
S 0180	No communication possible with: Safety module/restraint system	90510	yes	

Number of fault memories: 3 / 3 No. fault patterns: 0 Filter: Default

Show fault code Delete fault memory Filter fault memory Delete filter Show completely Calculate test plan

(à noter : si vous avez ces erreurs, mettez la latence et le timeout du périphérique USB à 1)

- Allez dans Vehicle Management -> Service functions -> Body -> Voltage Supply -> Battery -> Register battery replacement, et sélectionnez la procédure ABL « Register battery exchange », puis cliquez sur Display

ISTA+

VIN E504613 Vehicle Z/E89/Roadster/Z4 sDrive23i/N52/MANUAL/ECE/LL/2011/03 KL 15: -- KL 30: --

Operations	Vehicle information	Vehicle management	Service plan	Favourites	Workshop/ Operating fluids	Measuring devices
Repair/ maintenance	Troubleshooting	Service functions	Software update	Control Unit Replacement	Vehicle modification	
Service Functions						

Body / Voltage supply / Battery / Register battery replacement

Type	Title
ABL	Register battery exchange
FUB	Register battery replacement

Hits: 2 / 2 Filter: Default

not called performed minimized canceled suspected

Filters Add to test plan Display

4. Cliquez sur Continue jusqu'à arriver à l'étape 2 « Register battery exchange »

ISTA+

VIN E504613 Vehicle Z/E89/Roadster/Z4 sDrive23i/N52/MANUAL/ECE/LL/2011/03 KL 15: -- KL 30: --

ABL-WAR-B6130\_60020 - Register battery exchange - V.4

Procedure

What do you wish to do?

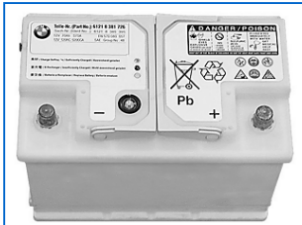
- 1 Display battery exchange history
- 2 Register battery exchange.
- 3 End service function

Help

- Battery capacity (for example 90 Ah)
- Battery type: AGM battery or normal lead-acid battery.

For a battery replacement, the standard installed battery capacity may be used as standard. When installing a battery with a higher or lower capacity or when installing an AGM battery instead of a normal lead-acid battery, the CAS must therefore be reencoded using ISTA/P:

- With ISTA/P, run the retrofit "Battery" (select battery capacity of the fitted battery).
- Register additional battery replacements with the corresponding service function.



**Battery: battery capacity and battery type**

The battery capacity can be read from the label with the technical data. The safety information is found on the other label. The cycle-proof AGM batteries are used for especially heavy loads on the vehicle electrical system depending on equipment and requirements.

**Notice! Determination of state of charge after a battery replacement**

After a battery replacement, the vehicle must be left standing for at least 3 hours with its new battery. It is not possible to establish with any reliability the state of charge of the new battery until that time. Possible Check Control messages about total discharge of the battery are then no longer displayed.

Back Measuring devices Keyboard Full Screen Continue

5. Là, vous pouvez choisir si vous faites un échange de même capacité, de capacité différente, ou si vous avez changé le type de batterie. Ici, je sélectionne le 1 (même type et même capacité) et je clique sur continue.

ISTA+

VIN E504613 Vehicle Z/E89/Roadster/Z4 sDrive23i/N52/MANUAL/ECE/LL/2011/03 KL 15: -- KL 30: --

ABL-WAR-B6130\_60020 - Register battery exchange - V.4

Procedure

The battery exchange is entered in the DME/DDE in the next test step!

Produce the following state:

- Engine off
- Terminal 15 ON

**Notice!**

Entry cannot be cancelled!

Currently registered battery capacity: 80Ah AGM

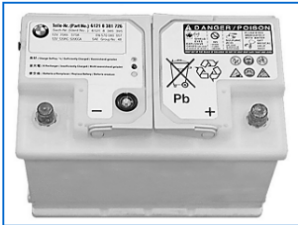
- 1 Enter battery exchange: Same capacity
- 2 Enter battery exchange: Higher/lower capacity
- 3 Enter battery exchange: change from normal lead-acid battery to AGM battery
- 4 End service function

Help

- Battery capacity (for example 90 Ah)
- Battery type: AGM battery or normal lead-acid battery.

For a battery replacement, the standard installed battery capacity may be used as standard. When installing a battery with a higher or lower capacity or when installing an AGM battery instead of a normal lead-acid battery, the CAS must therefore be reencoded using ISTA/P:

- With ISTA/P, run the retrofit "Battery" (select battery capacity of the fitted battery).
- Register additional battery replacements with the corresponding service function.



**Battery: battery capacity and battery type**

The battery capacity can be read from the label with the technical data. The safety information is found on the other label. The cycle-proof AGM batteries are used for especially heavy loads on the vehicle electrical system depending on equipment and requirements.

**Notice! Determination of state of charge after a battery replacement**

After a battery replacement, the vehicle must be left standing for at least 3 hours with its new battery. It is not possible to establish with any reliability the state of charge of the new battery until that time. Possible Check Control messages about total discharge of the battery are then no longer displayed.

Back Measuring devices Keyboard Full Screen Continue

6. Choisir batterie non d'origine BMW et cliquer sur Continue

ISTA+

VIN E504613 Vehicle Z/E89/Roadster/Z4 sDrive23i/N52/MANUAL/ECE/LL/2011/03 KL 15: -- KL 30: --

ABL-WAR-B6130\_60020 - Register battery exchange - V.4

Procedure

Is the newly installed battery an original BMW part?

1 Yes

2 No

Help

In order to identify the battery unambiguously, there is a data matrix code on the label of the battery. For the purpose of retraceability, which battery has been fitted in which vehicle is logged at the plant.

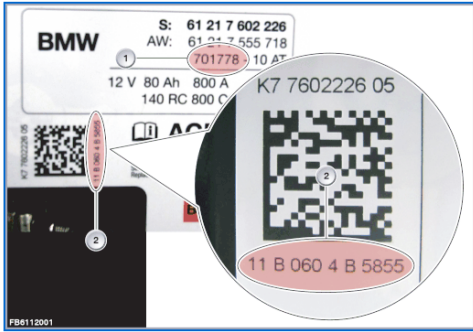
If the battery is replaced in Service, a part of data matrix code must be entered within the framework of service function to record the battery replacement.

If a scanner is present, the data matrix code no longer needs to be manually entered and can be completely scanned in with the scanner. The scanner must first be connected to the ISiD.

This ensures the retraceability of the newly fitted battery.

**Battery sticker**

The data matrix code is located on the battery label.



Item	Explanation
	Qualifications (if applicable)

Back Measuring devices Keyboard Full Screen Continue

7. ISTA nous dit que la procédure a été effectuée avec succès, mais ce n'est pas fini ! Cliquez sur Continue, ISTA vous demandera de modifier la date et l'heure. **Une fois effectué, vous devez laisser la voiture au repos pendant 3 heures**

ISTA+

VIN E504613 Vehicle Z/E89/Roadster/Z4 sDrive23i/N52/MANUAL/ECE/LL/2011/03 KL 15: -- KL 30: --

FUB-HIL-BLB0506HI-612100 - Register battery replacement - V.6

Procedure

The following date and time were set successfully in the vehicle:

- Date: 15.03.2023
- Time: 11:41

**Notice!**

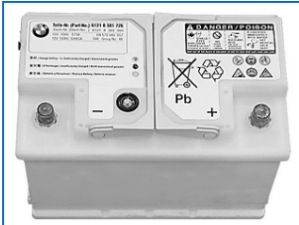
If the set date and time are not correct or if the values are implausible, then the date and time of the vehicle may need to be set manually.

Help

- Battery capacity (for example 90 Ah)
- Battery type: AGM battery or normal lead-acid battery.

For a battery replacement, the standard installed battery capacity may be used as standard. When installing a battery with a higher or lower capacity or when installing an AGM battery instead of a normal lead-acid battery, the CAS must therefore be reencoded using ISTA/P:

- With ISTA/P, run the retrofit "Battery" (select battery capacity of the fitted battery).
- Register additional battery replacements with the corresponding service function.



**Battery: battery capacity and battery type**

The battery capacity can be read from the label with the technical data. The safety information is found on the other label. The cycle-proof AGM batteries are used for especially heavy loads on the vehicle electrical system depending on equipment and requirements.

**Notice! Determination of state of charge after a battery replacement**

After a battery replacement, the vehicle must be left standing for at least 3 hours with its new battery. It is not possible to establish with any reliability the state of charge of the new battery until that time. Possible Check Control messages about total discharge of the battery are then no longer displayed.

Back Measuring devices Keyboard Full Screen Continue