



SIB 61 10 21

2021-07-19

CHARGERS FOR LITHIUM (LI-ION) HP M BATTERY - CUSTOMER AND WORKSHOP

This Service Information Bulletin replaces SI 64606814-01 **dated March 2019** and PuMa Measure 64606814-04 **dated February 2021**.

MODEL

Model
Models with optional or standard Li-ion battery

SITUATION

This bulletin describes the chargers that can be used to charge the new HP or M Lithium-ion batteries.

HP and/or M battery is available as a Li-ion battery from BMW, series for HP4 (K60) and for other models as optional equipment 0531 / 053B.

1) The BMW battery charger, part number: 77 02 8 551 897, has no special gentle charge curve for Li-ion batteries and is therefore not recommended to use with Li-ion batteries, either BMW or non-BMW.



2) BMW Battery Charger Plus with additional special, gentle charge curve for Li-ion batteries is now available. The BMW part number is: 77 02 2 470 951.

This tool is suitable for customers as well as workshops for recharging and maintaining batteries. This tool is NOT suitable for programming or extended diagnosis.



See product information "7702 2470950 Battery charger device plus expansion.pdf", attached.

3) The "Deutronic SmartCharger Lithium 35" was developed as a workshop battery charger for the BMW Li-ion battery, BMW part number: 81 39 5 A08 1B7.



Deutronic SmartCharger Lithium 35

See attachment "81 39 5A081B7_SmartCharger_BMW-Lithium-35.pdf"

This charger charges all original BMW Motorrad lithium-ion, AGM and lead-acid batteries and has preset lithium charge and power-up modes which do not exceed the maximum charge parameters set by the battery manufacturer.

The power-up mode regenerates totally discharged Li-ion batteries with an open relay and a terminal clip voltage of 0V. If the Li-ion battery cannot be regenerated with the power-up mode, it has failed and must be replaced.

The operating instructions can be downloaded from the manufacturer's website in all languages using the QR code on the flyer.

Notice: For programming and diagnosing, other workshop battery chargers may only be used if the voltage constant mode is set with a voltage of less than 14.0V and a sufficient Amperage rating of 30A can be achieved.

Caution: An empty BMW Li-ion battery switches off the battery terminal before it is totally discharged as a protective measure. The terminal clips then have a voltage of ~ 0V.

This does not mean the battery has failed. It can still be charged with the "BMW battery charger plus" and the "Deutronic SmartCharger Lithium 35".

In the "BMW battery charger plus" the display reads "no battery", but current pulses continue to flow. It may take several hours for the terminals to be reactivated and the battery fully charged.

Warning: Only install Lithium-Ion batteries into motorcycles that are approved for them – SEE the Electronic Parts Catalog (EPC).

PARTS INFORMATION

Part Numbers for Current Chargers

81 39 5 A08 1B7	Deutronic SmartCharger Lithium 35
77 02 2 470 951	BMW Motorrad battery charger Plus

QUESTIONS REGARDING THIS BULLETIN

Technical inquiries	Contact the BMW Technical Support Group via TSARA
Warranty inquiries	Submit an IDS ticket to the Warranty Department
Parts inquiries	Submit an IDS ticket to the Motorrad Parts Department

Supporting Materials

[picture_as_pdf 61 10 21 Li-ion battery \(HP M battery\) Battery charger for customer or workshop.pdf](#)

[picture_as_pdf 81 39 5A081B7_SmartCharger_BMW-Lithium-35_eng.pdf](#)

[picture_as_pdf 7702 2470950 Battery Charger Plus Extension.pdf](#)

Service Information Bulletin

General Electrical Systems

July 19, 2021

61 10 21

CHARGERS FOR LITHIUM (LI-ION) HP M BATTERY - CUSTOMER AND WORKSHOP



**BMW
MOTORRAD**

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77 02 2 470 951	BMW Motorrad battery charger Plus

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Deutronic SmartCharger Lithium 35

+Universal:

Charges all BMW motorcycles lithium ion and lead batteries

+Safety:

Intelligent safety features: short-circuit protection, inverse-polarity protection, battery protection, self-protection and rejection of electric sparks

+User-friendly:

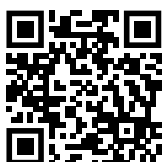
Preset, error minimized and visible mode for all current applications in workshops

+Inverse-polarity protection:

Automatic detection of charging voltage and direction of current flow

+Occupational safety:

Predetermined breaking point charging cable – stumble protection, robust aluminum case, carrying handle, retaining clip for power plug



„recommended by BMW Motorrad“

DEUTRONIC 
EDWANZ group

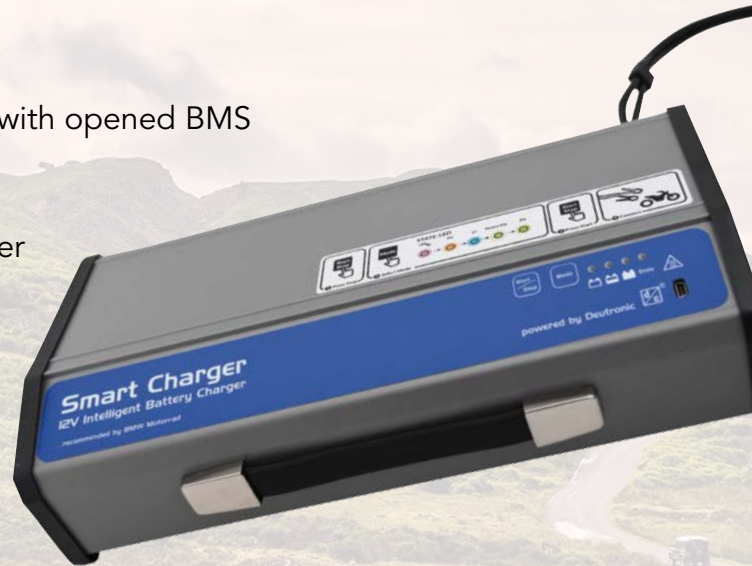
Deutronic SmartCharger Lithium 35

Battery types/Charging modes

- Charging PB (Lead-acid battery)
- Charging LiFe (Lithium-Ferrum battery)
- Power UP LiFe (regeneration of lithium batteries with opened BMS without damage of cells)

With the help of diverse measuring methods, the strength of discharge is identified in the power Up mode or rather if a permanent damage of the battery is deflected. If the automatic inspection (30 sec.) by circumspect energy input is successful, the battery is charged with reduced charging current of 0.75 A for 20 min. It is assumed that the integrated electronics do not interrupt the charging process.

- Power supply while diagnosis without installed battery)
- Cable compensation (only necessary when change length of charging cable)



Other Features

- Certificate for Japan, Korea, Australia, New Zealand, Russia, Kazakhstan, USA and Canada
- Optional use as power supply while diagnosis and programming
- Brief instruction for faultless implementing in all required languages
- Cooling with natural convection, no fan necessary
- Regulated output voltage (no voltage peaks to automotive electronics)
- Over temperature protection, overvoltage protection, short-circuit protection and inverse-polarity protection

„recommended by BMW Motorrad“



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Deep-discharged lithium-ion batteries

Safety instructions



Charging a deep-discharged lithium-ion battery

Risk of fire

- Have deep-discharged lithium-ion batteries checked and charged by a specialist workshop. ◀

Lithium-ion batteries require particularly careful charging, because they can overheat and cause serious damage or fire.

Always keep lithium-ion batteries under observation at all times when charging and check the temperature at regular intervals. If the lithium-ion battery reaches a temperature higher than 40 °C while charging, disconnect it immediately from the Plus battery charger and remove the lith-

ium-ion battery from inside residential rooms, garages or other enclosed spaces. Move the lithium-ion battery to a hazard-free location.

Information about charging

The lithium-ion battery has a self-protection function that shuts down the battery management system if voltage is below a certain limit. If this self-protection function has tripped, the Plus battery charger will not recognise the battery. Under these circumstances the display shows **No battery**. If it is left connected, the Plus battery charger will charge the battery slowly until the battery's management system goes active again. When this happens the charging process is started automatically and progress is indicated. It can take up to 24 hours for the battery management system to go act-

ive. If the charging process has not started after 24 hours, the lithium-ion battery has to be tested and charged by a specialist workshop, preferably an authorised BMW Motorrad retailer.

When the Plus battery charger is in charging mode 2, ambient temperature is checked continuously. If ambient temperature is lower than 0 °C, the Plus battery charger reduces the charging current to 0.5 A and does not increase it again until ambient temperature is above 0 °C.

Motorcycle does not start

ChargingComplete Battery mainten. appears in the display, but the motorcycle cannot be started. The Plus battery charger is not a battery tester. The battery might be defective.