



ACCU CHARGER 150

Charging Unit

88-23-661



Operating Manual

After-sales service for Germany:

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**ACCU CHARGER 150 Operating Manual Issue 2023-01
Order No. E-BA 88-23-661**

Translation of the Original Operating Manual

Please keep the manual in a safe place for future reference.

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Dear Customer,

Many thanks for buying a charging unit from HBS Bolzenschweiss-Systeme.

We at HBS wish you success at all times when working with this product.

The high level of quality of our products is guaranteed by ongoing further development in the design, equipment and accessories. This may result in differences between the present operating manual and your product. No claims can therefore be derived from the data, illustrations and descriptions.

We have compiled the data and information in this reference work with the greatest care, and have made every effort to ensure that the information contained in this manual was correct and up-to-date at the time of delivery. We can nevertheless give no guarantee for an absolutely error-free document.

Should you discover any errors or unclear points when reading this operating manual, please do not hesitate to contact us.

We would also be grateful for any feedback should you have any suggestions or complaints to make about our product.

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1 Important Safety Precautions

The target group for this manual are qualified personnel who in view of their technical training, know-how and experience and their knowledge of the applicable regulations are able to assess the work assigned to them and to recognise potential hazards.



Danger from incorrect use

- ◆ Use the charger only for the purpose described in this manual.
Otherwise you may endanger yourself or damage the charger.
You endanger yourself and others if you operate the charger incorrectly or fail to observe the safety precautions and warnings. This can lead to serious injury or extensive material damage.
- ◆ When disconnecting the mains cable, pull the plug only and never the cable.
- ◆ Never place heavy objects on the mains cable.
- ◆ Do not bend the mains cable in a tight radius or around sharp corners.



Danger from moisture

The charger is intended for **use in dry and clean rooms**.

In the case of moisture condensation, an acclimatisation time of up to two hours is necessary.

The permissible ambient temperature (room temperature) must not drop below 0 °C (32 °F) or exceed 40 °C (104 °F) during operation.



Danger from fire and explosion

- ◆ Remove all inflammable materials and liquids from your working area.
- ◆ Ensure that there are no explosive materials in your working area.
- ◆ Make sure that adequate ventilation is provided during charging.



Electric shock hazard

- ◆ Connect the charger only to a mains supply with the same mains voltage as that indicated on the type plate.

Voltages other than those specified can destroy the charger and the battery.

Safety precautions for lithium-ion batteries



Danger due to improper use

If used incorrectly or improperly (disassembly, breakage, exposure to fire and high temperatures), lithium-ion batteries can catch fire, explode or cause fires.

Batteries contain combustible or caustic solutions and lithium salts, which, if they leak, can lead to irritation of the skin, eyes and mucous membranes. If batteries vent, released vapours could be hazardous to health.

- ◆ Avoid inhaling the vapours!
- ◆ In case of contact with leaking fluid, flush with water for at least 15 minutes and seek medical advice!



Danger due to highly reactive substances

Lithium is a highly reactive substance. Mechanical damage to batteries can cause internal short circuits and thereby lead to fires, explosions and injuries.

- ◆ Never work with damaged batteries.
- ◆ Before beginning work, check the condition of your battery.
- ◆ If possible, do not extinguish a burning battery with water, but rather with sand!



Danger due to improper storage

- ◆ Do not expose your battery to high temperatures or fire.

Contact with fire or temperatures in excess of 130 °C (265 °F) can cause explosions!

- ◆ Store your battery in a cool and dry place.

(Defective) lithium cells react violently with water, particularly when fully charged.

- ◆ Store your battery separately from other metallic objects, such as paper clips, coins, keys, nails, screws or other small metal objects, that could lead to bridging of the contacts.

A short circuit between the battery contacts can cause burns or a fire.

2 Symbols and Terms Used

The symbols used in this operating manual have the following meanings:



Danger

Warns you of hazards that can lead to **injury of persons** or to **considerable material damage**.



Caution

Problems with the operating procedures **can occur** if this information **is not observed**.



Forbidden for persons with heart pacemaker



Danger

Warns you of **electrical** hazards



Tip

Cross-reference to **useful information** on the use of the stud welding unit



Cross-references in this operating manual are marked with this symbol or *are printed in italics*



Work instruction

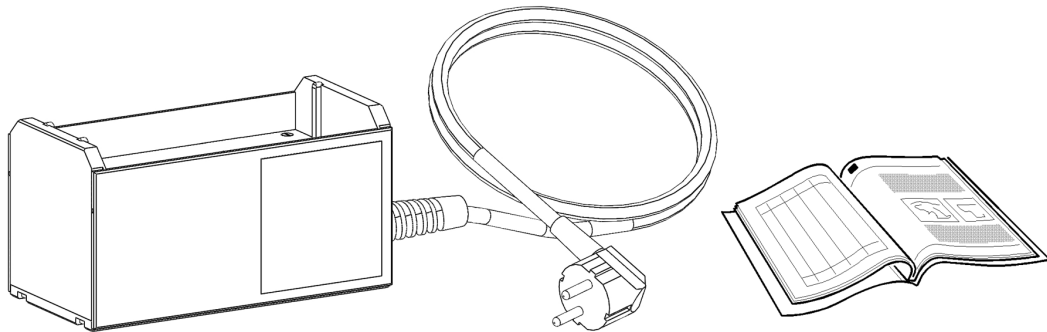


List

3 Scope of Supply

The **basic configuration** of your charging unit contains the following parts:

No. of pieces	Part	Type	Order No.
1	Charging unit	ACCU CHARGER 150	88-23-661
1	Operating manual	ACCU CHARGER 150	E-BA 88-23-661



- ◆ Inspect the shipment for visible damage and completeness immediately on receipt.
- ◆ Report any transport damage or missing components immediately to the delivering shipping agent or the dealer (address, see page 2).

4 Accessories

For the charger ACCU CHARGER 150 no additional accessories are required.



5 Technical Data

ACCU CHARGER 150

for charging HBS Accu 150 (type 7S2P INR18650 29E)

Current consumption	max. 1.5 A (at 100 V) max. 0.7 A (at 230 V)
Connection	100 V to 240 V, 50/60 Hz
IP-Code	IP 20 (protect against moisture)
Ambient temperature limits	0 °C to 45 °C (0 °C (32 °F to 113 °F)
Dimension L x W x H	180 x 90 x 90 mm (7.09" x 3.54" x 3.54") without mains cable 250 x 90 x 90 mm (9.84" x 3.54" x 3.54") with mains cable
Weight	1.10 kg (2.43 lbs) incl. mains cable

6 Intended Use

The HBS ACCU CHARGER 150 is intended for industrial use only.

The HBS ACCU CHARGER 150 is only intended for charging the HBS Accu 150 battery outside the stud welding unit.



Danger from moisture

The charger is intended for **use in dry and clean rooms**.

In the case of moisture condensation, an acclimatisation time of up to two hours is necessary.

The permissible ambient temperature (room temperature) must not drop below 0 °C (32 °F) or exceed 40 °C (104 °F) during operation.



Danger due to unsuitable batteries

- ◆ Unsuitable batteries can lead to injuries and to significant damage to property!

The HBS Accu 150 battery is a lithium-ion battery.



- ◆ **Observe the safety precautions for lithium-ion batteries!**



7 Warranty

Please refer to the latest "General Terms and Conditions" for the scope of the warranty.

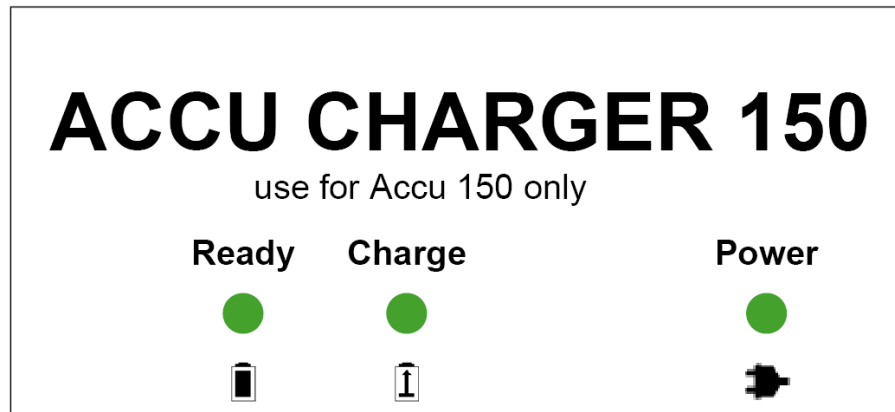
The warranty does not cover faults caused by e.g.

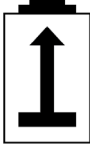
- Normal wear,
- Improper handling,
- Failure to observe the operating manual,
- Failure to observe the safety precautions,
- Use for other than the intended purpose, or
- Transport damage.

Warranty entitlement shall no longer be valid if modifications, changes or service and repair work is carried out by unauthorised persons or without the knowledge of the manufacturer. Invalidation of warranty entitlement shall also render the declaration of conformity invalid. The CE marking shall be declared invalid by the manufacturer.

We expressly point out that only spare parts and accessories or components approved by us may be used. The same applies likewise to installed units from our sub-suppliers.

8 Configuration of the Charger



Indicator	Colour	Meaning
Ready 	Green permanently lit	The battery is fully charged.
	Flashing green	A fault has occurred.
Batch 	Flashing green	The battery is charging; the charge level of the battery is indicated. Rapid flashing (every 0.1 s): The battery is discharged. Slow flashing (every 2 s): The battery is almost fully charged.
Power 	green	The charger is connected to a mains supply.



Type plate

The type plate contains the following information:

- Manufacturer
- Type
- Order no./Serial no.
- Connection
- Current consumption
- Protection class
- Permissible battery type
- Output current/voltage
- Fine-wire fuse type
- Date

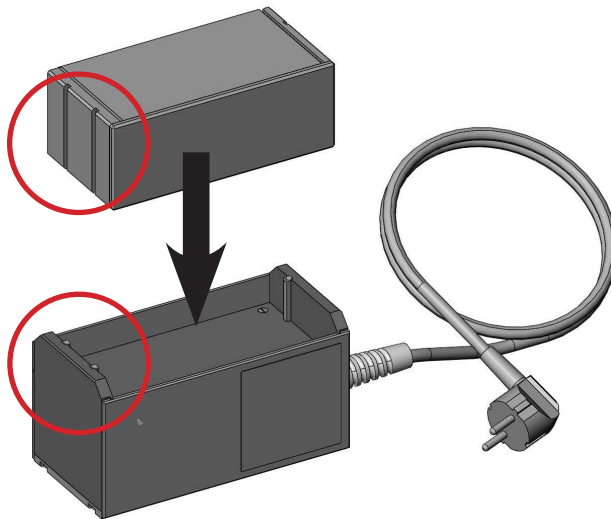
9 Functioning of the Charger



Danger from incorrect use

The charging characteristic (CC-CV) is intended for lithium-ion batteries of type HBS Accu 150.

Using this charging characteristic for other batteries can lead to unsatisfactory charging results and cause fires or explosions.



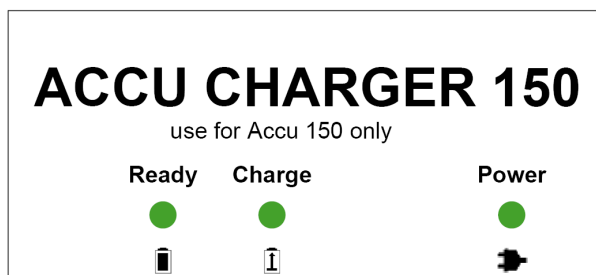
- ◆ Place the battery correctly in the charger.
- ◆ Then insert the mains plug into the plug socket.



Electric shock hazard

- ◆ Connect the charger only to a mains supply with the same mains voltage as that indicated on the type plate.

Voltages other than those specified can destroy the charger and the battery.



The "Power" LED lights up.

The "Charge" LED flashes while the battery is charging.

When the battery is fully charged, the "Charge" LED goes out and the "Ready" LED lights up.

10 Troubleshooting

Fault	Possible cause	Fault remedy	To be performed by
"Ready" LED  flashing green	Charging error	Disconnect the mains plug, remove the battery, reinsert the battery and restart the charging process. If the charging error occurs again, return the charger to the manufacturer for repair.	Trained personnel
"Power" LED  does not light up	Mains cable defective	Replace the mains cable*)	Qualified specialists
	Power supply interrupted	Check the plug socket*)	Qualified specialists
	Fine-wire fuse blown	Check the fine-wire fuse; visually inspect all components if necessary; change the fine-wire fuse.*) If the fault occurs again, return the charger to the manufacturer for repair.	Qualified specialists



Work marked with *) may only be carried out by qualified electricians!

- ◆ Please contact our Service department if none of the measures described remedies the situation.
- ◆ Please use the form „Service & Support“ in the annex to send in the charging unit.

11 Shutting Down

- ◆ Switch off the charging unit.
- ◆ Pull out the mains plug.
- ◆ Protect the charging unit against the ingress of liquids and foreign matter.
- ◆ If not used for a longer period of time, remove the battery.

Special storage instructions for lithium-ion batteries



Danger due to improper storage

- ◆ Do not expose your battery to high temperatures or fire.

Contact with fire or temperatures in excess of 130 °C (265 °F) can cause explosions!

- ◆ Store your battery in a cool and dry place.

(Defective) lithium cells react violently with water, particularly when fully charged.

- ◆ Store your battery separately from other metallic objects, such as paper clips, coins, keys, nails, screws or other small metal objects, that could lead to bridging of the contacts.

A short circuit between the battery contacts can cause burns or a fire.

12 Storage

- ◆ Store the charging unit in a safe and dust-free location when not in use.
- ◆ Protect the charging unit from moisture and metallic contamination.



- ◆ Store the stud welding unit and the components only under the following ambient conditions.

Storage temperature:

- 5° C to + 50° C (23 °F to 122 °F)

Relative humidity:

0 % - 50 % at +40 °C (104 °F)

0 % - 90 % at +20 °C (68 °F)

Special storage instructions for lithium-ion accumulators



Danger due to improper storage

- ◆ Do not expose your battery to high temperatures or fire.

Contact with fire or temperatures in excess of 130 °C (266 °F) can cause explosions!

- ◆ Store your battery in a cool and dry place.

(Defective) lithium cells react violently with water, particularly when fully charged.

- ◆ Store your battery separately from other metallic objects, such as paper clips, coins, keys, nails, screws or other small metal objects, that could lead to bridging of the contacts.

A short circuit between the battery contacts can cause burns or a fire.

EU Declaration of Conformity

in Accordance with Directive 2014/35/EU, Annex IV
(Original EU Declaration of Conformity)

Herewith the manufacturer

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declares for the following product

Machine information: Charging unit
Type: ACCU CHARGER 150
Order No: 88-23-611
Serial Nr: 88-23-611/235XXXX
Year of manufacture: 2023

that the machinery fulfils all the relevant provisions to this Directive, including changes to the Directive to be applied at the moment of this declaration.

The product is conform with following further EU Directives, including changes to the Directives to be applied at the moment of this declaration:

„EMC guideline“ 2014/30/EU

Following harmonised standards (or parts thereof) were applied:

DIN EN 60974-1 Arc welding equipment - Part 1:
Welding power sources

The following national standards and other specifications (or parts thereof) were applied:

Persons who are based in the European community and who are authorised to compile the technical documentation:

Name: Heike Otto Address: see manufacturer

Dachau, 02.01.2023

Place of issue, Date



Anja Bloch (CEO HBS)



Service & Support

With the return please attach a copy of the filled out form together with the repair number given by HBS! Repairs without repair number will not be processed.

Repair number
(given by HBS)

Company:	_____
Name / Surname:	_____
Street:	_____
City, State and ZIP/Postcode:	_____
Country:	_____
Phone & Fax:	_____
E-mail address:	_____
Unit / gun type of model:	_____
Serial number:	_____
Date of purchase:	_____
Purchased at distributor:	_____

Detailed descriptions of errors:

Service & Support may be done up to the value of EUR _____	☐ Ja	☐ Nein
without quotation:		
Could you find any damage	☐ Ja	☐ Nein
on the mains cable:		
Is there any other visual damage (e.g. cracks, dents):	☐ Ja	☐ Nein
If yes, which:		

Please e-mail or fax this form to post@hbs-info.de or fax: +49 8131 511-100.
In case a repair is necessary a repair number will be given

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