



SHORT GUIDE
BOOSTER2 130 - 150

REHM WELDING TECHNOLOGY



Product identification

Name Electrodes welding unit

Type

BOOSTER2	130	Order No.: 150 3113
BOOSTER2	140	Order No.: 150 3114
BOOSTER2	150	Order No.: 150 3115

Manufacturer:
REHM GmbH u. Co. KG Schweißtechnik
Ottostr. 2
D-73066 Uhingen

Telephone: +49 (0)7161/3007-0
Telefax: +49 (0)7161/3007-20
e-mail: rehm@rehm-online.de
Internet: <http://www.rehm-online.de>

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The manufacture based on these documents is not allowed.

Subject to change.

1 Important user instructions

Dear Customer,

You have purchased a REHM welding inverter and thereby a renowned German brand name. We thank you for the confidence you have placed in our quality products.

The BOOSTER2 is a professional welding unit for the electrode welding of all commercially available electrodes (electrode welding corresponds to manual arc welding according to DIN1910). The digital processor control and the highly dynamic power section with its cycle frequency of 100 kHz offer you the best welding properties. All you have to do is select the right welding current. The low weight of only 2.3kg and the extremely compact size enable easy handling. With its robust plastic housing, the BOOSTER2 is the ideal companion in the workshop and also for tough outdoor use on the construction site.

Technical data:

- Max. Output current 130,140,150A at a duty cycle of 35,25,20% (40°C)
- Output current 100 A at a duty cycle of 100% (40°C)
- High open circuit voltage of 91V
- Hot start functionality
- Continuous electronic mains voltage monitoring range 150V...250Vac
- Anti-stick function - no burn-out of the electrode if it accidentally sticks
- Protection type IP23

The BOOSTER2 can be used universally for all welding tasks on stainless steels, high-alloyed and low-alloyed steels as well as on non-ferrous metals and therefore makes an excellent all-round partner.

This operating and function manual must be carefully and completely studied before starting the unit for the first time.

The information given in this manual is believed to be correct, however REHM does not accept any liability for its use.

REHM GmbH & Co. KG Schweißtechnik reserves the right to adapt and change the design of these welding units at any time.

If any points in this operating and functional manual are affected, then this is corrected in the appendix to this manual under "Amendments and extensions".

2 Safety instructions

The following safety instructions must be observed:

- Wear dry protective clothing, the eyes and face must be protected with a welding visor or welding helmet (see VGB15).
- The unit is plugged into an earthed power outlet and is connected to power cables with a properly grounded outlet.
- The unit switches off automatically in case of excessive temperature and automatically switches back on after cooling down.
Caution: Put the electrode holder away in a safe place or hang it up so that the electrode cannot strike and arc whilst in the thermal shutdown phase.
Alternatively: Remove the electrode
Caution: Non-observance may lead to a fire hazard.
- The unit may only be maintained by trained specialists

If you have any problems, please contact REHM Customer Service at +49 7161 3007-85.
When operating this unit, the accident prevention regulations for welding, cutting and related processes (VGB 15) must be observed.

The main dangers are:

- Fire and explosion
- Hazardous substances (gases, vapours, smoke/dust)
- Optical radiation
- Electrical hazard
- Handling errors

The units are designed for welding electrodes.

3 Functional description

3.1 The Rehm control panel

The BOOSTER2 is operated via the REHM control panel shown in figure 3.1.





Figure: Front panel with controls and welding sockets

The control panel is divided into the following zones:

- ① Control lamps for operation and excess temperature
- ② Rotary knob for preselecting the welding current
- ③ Label for identifying the BOOSTER2 version B130 / B140 / B150



The symbols on the control panel have the following meanings:

	LED lamps	Indicator function
	Lights up	Open-circuit voltage at the torch or electrode holder.
	Flashes quickly	The unit is in fault mode Switch the unit off and back on again
	Flashes once per second	The unit is in test mode Switch the unit off and back on again
	Temperature indicator. The LED (yellow) lights up when the maximum permissible unit temperature is exceeded. The output current is switched off for as long as this LED is lit. Once the unit has cooled the LED goes out and welding can commence automatically. Use CAUTION with the electrode!	

3.2 Electrode welding

The unit is suitable for welding all commercially available electrodes, whereby the maximum current corresponds to the maximum output current of the unit. This current can be used to weld standard electrodes up to 3.25 mm in diameter.

The polarity and current setting for the individual electrodes can be taken from the manufacturer's specifications of the electrodes. The electrode holder is plugged into the welding current socket that has the polarity specified for the electrode (see sections 3.3 and 3.4).

All you need to do is select the correct welding current and polarity for the welding task at hand and the electrode selected for the task. Booster2 does the rest for you. The following functions automatically ensure good welding work:

3.2.1 Hot start

BOOSTER2 delivers a higher current than the set welding current for approx. ½ second when starting to weld. The increase is limited by the maximum output current. This ensures good ignition characteristics and a fast stable arc.

3.2.2 Arc force

BOOSTER2 monitors the welding current and welding voltage during welding. If BOOSTER2 detects that a droplet transition occurs in short circuit, it supplies a higher current than the set welding current for a short time to quickly release the short circuit. This prevents the BOOSTER2 from dropping out or the electrode sticking during welding.

3.2.3 Anti stick function

If a permanent short-circuit is present during electrode welding, then after 1.0 s the anti-stick function initiates which limits the output voltage and in turn the current to 5 volts. This prevents the electrode from burning-out and the permanent short circuit can be easily released by lifting the electrode.

3.3 The weld sockets

Connection for ground and electrode cables of Ø16 mm² and 9mm plug. Maximum current 200A.

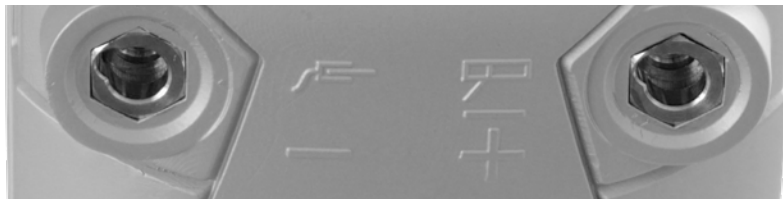


Figure: Welding cable connecting sockets

Connections: Rutile electrodes
"-" Electrode holder
"+" Ground cable

Basic electrodes
"-" Ground cable
"+" Electrode holder

Accessories: Ground cable Rehm item number **7810107**
Electrode cable Rehm item number **7810205**

4. Mains connection

The welding unite is equipped with a safety plug.

The unit is operated on fuses or circuit breakers with a rated current of at least 16A. The unit can be operated with welding power that can trigger a 16A fuse via the thermal melt integral.

The operating status ON is indicated by the power switch on the rear of the unit. BOOSTER2 permanently monitors the mains voltage. If values that are too high (above 255V~) or too low (below 180V~) are detected during operation, the unit switches off automatically and goes into a protective function.

Once the mains voltage is correct, working is continued by switching the unit off and on again.

5 Installation

When installing the unite, ensure that the ventilation slots are not covered and that the environment complies with protection class IP23.

When working in dusty environments, the cooling channel of the unit may become dirty and limit the unit capacity. The air duct is cleaned in a service workshop by blowing out.

6 Restrictions on use

The unit can be used in all environmental conditions that comply with protection class IP23 or lower. For welding in certain environments (e.g. stables), special demands are placed on the welding unit protection class. The possibility of using the unit in such an environment must be checked in detail. The unit is not intended for multi-shift operation.

7 Maintenance

The unit is maintenance-free, but the condition of the electrical connection cables must be checked regularly.

8 Electro-magnetic fields (EMF)

Electric current passing through any conductor created local electric and magnetic fields (EMF). Welding current generates an electromagnetic field around the welding current circuit and the welding equipment.

Electromagnetic fields can interfere with some medical implants such as cardiac pacemakers. Measures must be taken to protect persons with medical implants. This includes for example limiting access for passers by or individual risk assessments for welders.

All welders should use the following measures to minimise their exposure to electromagnetic fields generated by the welding circuit.

- Keep your head and body as far away as possible from the welding current circuit
- Do not place your body between the welding cables
- Both welding cables must run on the same side of the body
- Connect the return cable to the workpiece as close as possible to the site being welded.
- Never wind the welding cables around your body
- Never work in the vicinity of the welding current source, never sit on or lean against it
- Never perform welding when carrying the welding current source or the wire feed unit
- Power supply grid filter
- Shielding such as the use of shielded cables

- Keep welding cables as short as possible
- Grounding the workpiece
- Potential equalisation
- Lay welding cables together and secure with adhesive tape if necessary

The user is responsible for malfunctions in the surrounding environment of the welding unit. For more information and recommendations, see, inter alia, DIN EN60974-10: 2008-09, Annex A.

9 Generator suitability

The unit can be operated with a 1-phase generator, the full welding current can be drawn from 5 kVA generator power. Generators with lower output switch off if the welding current settings are too high.

The 1-phase Booster cannot be operated on three-phase generators due to the excessive asymmetric load (exception: special generators for fire brigade use).

If these units use a Schuko socket the booster can be used up to the power limit of this socket (usually 10 or 16A). If the welding current is set too high a circuit breaker on the generator will drop out.

10 Disposal



Only for EU countries.

Do not dispose of electric appliances in domestic waste!

In accordance with the European Directive 2002/96/EC concerning old electrical and electronic devices and its transposition into national law, used electrical appliances must be collected separately and recycled in an environmentally friendly manner.



EC declaration of conformity

For the following named products

BOOSTER2 130/140/150

it is hereby confirmed that they comply with the essential protection requirements which are laid down in the Directive 2004/108/EU (EMC Directive) of the council on the approximation of the laws of the Member States relating to electromagnetic compatibility and in the Directive 2006/95/EU relating to electrical equipment designed for use within certain voltage limits.

The above products comply with the requirements of this directive and comply with the safety requirements for arc welding units in accordance with the following product standards:

EN 60 974-1: 2013-06

Arc welding equipment - Part 1: Welding power source

EN 60 974-3: 2014-09

Arc welding equipment - Part 3: Arc striking and stabilizing devices

EN 60974-10: 2008-09

Arc welding equipment - Part 10: Electromagnetic compatibility (EMC) requirements

according to the EC. Directive 2006/42/EC article 1, paragraph 2 the above mentioned products fall exclusively within the scope of the directive 2006/95/EC relating to electrical equipment designed for use within certain voltage limits.

This declaration is given for the manufacturer:

REHM GmbH u. Co. KG Schweißtechnik
Ottstr. 2 · 73066 Uhingen

Uhingen, 03.07.2018
submitted by

R. Stumpp
Managing Director

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 - INVERTIG.PRO TIG welding unit
 - INVERTIG.PRO TIG welding unit
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REHM WELDING TECHNOLOGY – German Engineering and Production at its best

Research, development and production, all under one roof in our factory in Uhingen.

Thanks to this central organisation and our forward-thinking policies, new discoveries can be rapidly incorporated into our production. The wishes and requirements of our customers form the basis for our innovative product development. A multitude of patents and awards represent the precision and quality of our products.

Customer proximity and competence are the principles which take highest priority in our consultation, training and service.

WEEE-Reg.No. DE 42214869

REHM Service Hotline: Tel.: +49 (0) 7161 30 07-77
Fax.: +49 (0) 7161 30 07-60

REHM online: www.rehm-online.de

Please contact your local distributor:

REHM GmbH u. Co. KG Schweißtechnik

Ottostraße 2 · D-73066 Uhingen

Telephone: +49 (0) 7161 30 07-0

Telefax: +49 (0) 7161 30 07-20

E-Mail: rehm@rehm-online.de

Internet: <http://www.rehm-online.de>

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