



S300

Electronic Pinbrazing and Safebond unit.



SAFETRACK BAAVHAMMAR AB
L.Mölleberga, 245 93 Staffanstorp, Sverige
Phone. +46 (0)40 44 53 00, Fax: +46 (0)40 44 55 53
Sales@safetrack.se www.safetrack.se

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GENERAL

Read the instructions carefully before using the S300 unit.
Check that all parts are received.



S300

SAFE 9380

S300 Unit	SAFE 93901
2 x 3M Power cables	SAFE 93909
S15 Gun	SAFE 91015
Gun cable	SAFE 9230-300
Tool kit	SAFE 91250
Ground device	SAFE 80732
1 x Power cord	

Technical specification

Voltage	115V/230V AC
Unit weight	6,4 Kg
Dimensions LxWxH (mm)	300x210x170
Temperature range	-20 °C - +60 °C

The S300 requires a welding machine capable to deliver 250 to 300 Amp.
Open circuit voltage of max 80V. (not supplied by Safetrack).

Guarantee:

Units 12 months, Valid only when using original parts, supplied or approved by **SAFETRACK®**.

The guarantee will expire if the equipment was used or has been used with non-original spare parts, consumables or not used in accordance with the instructions.

SETUP

Connect and setup the unit:

- Connect the mains cable.
Make sure the switch is set for the correct voltage 115 or 230V.
- Connect the power cables to the unit and to a welding machine.
Set the current to 250-260A. MAX 280A
The open circuit voltage of the welder is Max 80V, voltage over this may cause damage to the unit.
- Setup the welding machine for stick welding.



- Connect the brazing gun, power and trigger cable to the unit.
- Connect the ground device to the unit.
- Select the right pintyp.

Setting

P1	8mm Std
P2	8mm Extra and M8,M10,M12
P3	9,5mm



Warning!

Always use eye protectors when grinding and brazing!

NOTICE!

Note, use only SAFETRACK's grinding wheel specially made for brazing, other type of wheels will leave a surface not suitable for brazings. Keep the grinding wheel clean and free from oil etc.

- Grind the brazing and ground area until you have an even and clean surface.

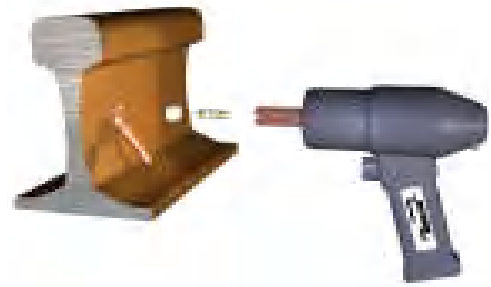


- Attach the ground magnet on the same rail/work piece where the pinbrazing should be done.
- Try to attach the magnet within 0,5m from brazing area.

PINBRAZING

Operation.

- Turn on the unit..
- Load the gun with brazing pin and ferrule.



- Make sure to braze in the top of the hole when brazing to a vertical surface.



- Hold the gun firmly with both hands as shown and pull the trigger just once. The electronic will by itself finish the brazing process.
- Hold the gun in place for 3-4 sec after the brazing while the braze freezes.
- **Remove the gun *straight* backwards without pulling the trigger!**
- Knock off the shank of the brazing pin.



The brazing is completed.



PIN HOLDERS

Squeeze the fingers on the pin holder together each time you feel that the brazing pin goes in too easy when mounting them into the pin holder.

This is important since all the current goes thru the pin holder to the brazing pin.

If the fingers are too loose the pin holder will be damaged and must be replaced.

CHANGE PIN HOLDER.

- Separate the ring holder from the gun with your hands.
- Hold the nut closest to the pin holder with a 10mm key.
- Screw the pin holder off.
- When replacing the new pinholder, hold the nut, closest to the pinholder even now.



Warning! Never rotate the shaft, it can damage the gun.

EQUIPMENT

- Check the cables from time to time, so damages have not arise.
- Even the contact surface on the ground magnet with a file from time to time.
- Make sure that the brazing pin with the ferule passes easily in the gun, centered.

BRAZING PINS AND FERRULES

- Keep them dry.

RAILBONDS AND CABLE LUGS

- Keep them free from oxidation.
- Keep them free from contamination like: Grease, oil.
- Make sure that there are no damages on them.

SETTING RIGHT LIFT HEIGHT

The S15 brazing gun self adjust to the same lift height every time.

See seperate instruction for the gun.

Replace the fuses:

Push and unscrew anti-clockwise to remove fuse holder.

Replace fuse and mount fuse holder.

NOTE!

- Main: 1.6AT/250V fuse.
- Control: 1.6AT/250V fuse.
- Gun: 5.0AT/250V fuse.



MAINTENANCE

Periodically maintenance of S15 automatic gun

IN-039-01



B.1. Check that all cables and lugs are without damages and properly tighten in gun and unit.

B.2. Check that the right pinholder is fitted in the gun.

SAFE No.	For brazing pin	Mark
9211	8-9,5 mm	A
9213	M8 threaded	B
9215	M10 threaded	C
9217	M12 threaded	D



Make sure that pinholder is tight to the gun, use spanners as the figure shows. Otherwise a spark can destroy the axle. Use one spanner 8mm and one 10mm for 8-9,5 mm and M8 pinholders. Two pcs of spanner 10mm for M10 and M12 pinholders.

Make sure, never twist the axle when mounting the pinholder!

The brazing pin shouldn't go too loose in the pinholder, when it does push together with your fingers. Otherwise you can have a contact fault or a spark can arise.

B.3. Check that the ringholder is the right type. You can dismount it by hand otherwise adjust with the small screw on the side of the gun.

B.4. Load the gun with a 8mm pin and ferrule. Check that the axle move easily with the pin and ferrule fitted when moving back and forward.

If not, change either pinholder or ringholder. If it still doesn't move easily the axle is damaged and must be sent for repair.



Lift level tool

SAFE 91245

2002-09-05

IMPORTANT! The normal liftheight is 2mm.
This is very important for the arc and energy amount.
Too high liftheight increase the risk of a “coldbrazing”,
too low liftheight reduce the time and increase misfires.

B.5.1. Insert this
end in to the gun.



B.5.2. Turn on the unit and select P1. The welding machine must be connected and on.

**Important! Press the tool completely against the gun then pull the trigger.
Otherwise the gun may be damaged!**

Important! Hold the gun so the tool is horizontal.

B.5.3. The lift level is calibrated when the inner rod, made of brass, on the tool is in same level as the outer plastic sleeve. Tolerance $\pm 0,2$ mm.

If the gun is not calibrated see seperate instruction for adjusting of the gun.

Advanced maintenance work Adjusting the lifthevel.

B.6. Reset correct liftheight at a S15 gun.
Only when to reset a maladjusted gun.

Fit the instrument SAFE 91245 on the gun as in B.5.

B.6.2. Connect the cables to the pinbrazing unit and switch on the power.
The welding machine must be connected and on.

B.6.3. Take off the plastic plug with the needle in the upper small hole in the front of the gun.

IMPORTANT, never adjust in the hole where the big plug is!

B.6.4. When liftheight is **too low**.
Use the 3mm hexagon spanner and adjust the screw in the small hole **anti-clockwise** about 1/4 of a turn then check with the instrument as in B.5.

B.6.5. When liftheight is **too high**.
Use the 3mm hexagon spanner and adjust the screw in the small hole **clockwise** about 1/4 of a turn then check with the instrument as in B.5.

If all is ok, fit the plug in the hole again.

If not ok, send for repair.



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NOTICE

In addition to the Safetrack Precautions in this manual, observe the following for equipment protection and care.

- Check that the pin holder is not burnt or not holding the pin tightly. If not, remove the ring holder, clean all the parts and squeeze the fingers of the pin holder together.
- Check the cables on the gun from time to time for damage. Replace as required.
- Check that the lift level is correct with lift the level tool.
- Always store the tool in a clean dry space, safe from damage or pilferage.
- Always keep critical equipment markings, such as warning stickers and tags legible.
- Equipment repair should be performed by experienced personnel only.
- Do not use the equipment for applications for which it was not intended.

