

USER MANUAL

S-MULTI 195 IGBT UK

SYMBOLS

	The operation manual must be read carefully.
	Never dispose of electrical equipment together with household waste.
	This machine conforms to CE declarations.
	Use full body protective clothes.
	Attention! Wear protective gloves.
	Safety goggles must be worn.
	Protective footwear must be worn.
	Attention! Hot surface may cause burns
	Attention! Risk of fire or explosion.
	Attention! Harmful fumes, danger of poisoning. Gases and vapours may be hazardous to health. Welding gases and vapours are released during welding. Inhalation of these substances may be hazardous to health.
	Use a welding mask with appropriate filter shading.
	CAUTION! Harmful radiation of welding arc.
	Do not touch part that are under voltage/power.



PLEASE NOTE! Drawings in this manual are for illustration purposes only and in some details it may differ from the actual product.

The original operation manual is in German. Other language versions are translations from German.

I. SAFETY OF USE

I.1 GENERAL NOTES

- Take care of your own safety, as well as the one of third parties by reviewing and strictly following the instructions which are included in the operating manual of the device.
- Only qualified and skilled personnel can be allowed to start, operate, maintain and repair the machine.
- The machine must never be operated contrary to its intended purpose.

I.2 PREPARATION OF WELDING WORK SITE

WELDING OPERATIONS MAY CAUSE FIRE OR EXPLOSION

- Strictly follow the occupational health and safety regulations applicable to welding operations and make sure to provide appropriate fire extinguishers at the welding work site.
- Never carry out welding operations in flammable locations posing the risk of material ignition.
- Never carry out welding operations in an atmosphere containing flammable particles or vapours of explosive substances.
- Remove all flammable materials within 12 meters from the welding operations site and if removal is not possible cover flammable materials with fire retardant covering.
- Use safety measures against sparks and glowing particles of metal.
- Make sure that sparks or hot metal splinters do not penetrate through the slots or openings in the coverings, shields or protective screens.
- Do not weld tanks or barrels that contain or have contained flammable substances. Do not weld in the vicinity of such containers and barrels.
- Do not weld pressure vessels, pipes of pressurised installations or pressure trays.
- Always ensure adequate ventilation.
- It is recommended to take a stable position prior to welding.

I.3 PERSONAL PROTECTION EQUIPMENT

ELECTRIC ARC RADIATION CAN DAMAGE EYES AND SKIN.

- When welding, wear clean, oil stain free protective clothing made of non-flammable and non-conductive material (leather, thick cotton), leather gloves, high boots and protective hood.
- Before welding remove all flammable or explosive items, such as propane butane lighters or matches.
- Use facial protection (helmet or shield) and eye protection, with a filter featuring a shade level matching the sight of the welder and the welding current. The safety standards suggest colouring No. 9 (minimum No. 8) for each current below 300 A. A lower colouring of the shield can be used if the arc is covered by the workpiece.
- Always use approved safety glasses with side protection under the helmet or any other cover.
- Use guards for the welding operations site in order to protect other people from the blinding light radiation or projections.
- Always wear earplugs or other hearing aids to protect against excessive noise and to avoid spatter entering the ears.
- Bystanders should be warned to not look at the arc.

I.4 PROTECTION AGAINST ELECTRIC SHOCK

ELECTRIC SHOCK CAN BE LETHAL

- The power cable must be connected to the nearest socket and placed in a practical and secure position. Positioning the cable negligently in the room and on a surface which was not checked must be avoided as it can lead to electrocution or fire.
- Touching electrically charged elements can cause electrocution or serious burns.
- Electrical arc and the working area are electrically charged during the power flow.
- Input circuit and inner power circuit of the devices are also under voltage charge when the power supply is turned on.
- The elements under the voltage charge must not be touched.
- Dry, insulated gloves without any holes and protective clothing must be worn at all times.
- Insulation mats or other insulation layers, big enough as not to allow for body contact with an object or the floor; must be placed on the floor.
- The electrical arc should not be touched.
- The electrical power must be shut down prior to cleaning the device or when performing an electrode replacement.
- It must be checked if the earthing cable is properly connected or the pin is connected correctly to the earthed socket. Incorrect connection of the earthing can cause life or health hazard.
- The power cables must be regularly checked for damages or lack of insulation. Damaged cables must be replaced. Negligent insulation repair can cause death or serious injury.
- The device must be turned off when it is not being used.
- The cable mustn't be wrapped around the body.
- A welded object must be properly grounded.
- Only equipment in good condition can be used.
- Damaged device elements must be repaired or replaced. Safety belts must be used when working at height.
- All fitting and safety elements must be stored in one place.
- When the device is switched on, the handle end must be kept away from the body.
- The ground cable should be connected as close as possible to the welded element (e.g. to a work table).

THE DEVICE CAN STILL BE UNDER VOLTAGE UPON FEEDER DISCONNECTION.

- Voltage in the input capacitor must be checked upon turning off the device and disconnecting it from the power source. One must make sure that the voltage value is equal to zero. Otherwise, the device elements must not be touched.

I.5 GASES AND FUMES

PLEASE NOTE! GAS MAY BE LETHAL OR DANGEROUS TO HUMAN HEALTH!

- Always keep a certain distance from the gas outlet
- When welding, ensure good ventilation. Avoid inhalation of the gas.
- Chemical substances (lubricants, solvents) must be removed from the surfaces of welded objects as they burn and emit toxic smokes under the influence of temperature.

- The welding of galvanised objects is permitted only when efficient ventilation is provided with filtration and access to fresh air. Zinc fumes are very toxic, an intoxication symptom is the so called zinc fever

2. TECHNICAL SPECIFICATIONS

Product name	WELDING MACHINE
Model	S-MULTI 195 IGBT UK
Voltage / frequency	230V~ / 50 Hz
Rated input current [A]:	15,3 (MMA)
	15 (TIG)
	15,2 (MIG)
No-load voltage [V]:	50 (MMA / TIG / MIG)
MMA welding current [A]:	10-195
TIG welding current [A]:	10-195
MIG welding current [A]:	30-195
Welding current at 15% duty cycle [A]:	195 (MMA)
	195 (TIG)
	195 (MIG)
Welding current at 35% duty cycle [A]:	98 (MMA)
	148 (TIG)
	112 (MIG)
Welding current at 20% duty cycle [A]:	76 (MMA)
	115 (TIG)
	87 (MIG)

3. OPERATION

3.1 GENERAL NOTES

- The device must be applied according to its purpose, with observance of OHS regulations and restrictions resulting from data included in the rating plate (IP level, operation cycle, supply voltage, etc.).
- The machine must not be opened, as it will cause warranty loss and, in addition, exploding, unshielded elements can cause serious injuries.
- The producer does not bear any responsibility for technical changes in the device or material losses caused by the introduction of the said changes.
- In case of incorrect device operation, contact the service centre.
- Louvers must not be shielded – the welder must be positioned at 30 cm distance from objects surrounding it.
- The welder must not be kept under your arm or near to your body.
- The machine must not be installed in rooms with aggressive environments, high dustiness and near devices with high electromagnetic field emission.

3.2 DEVICE STORAGE

- The machine must be protected against water and moisture.
- The welder must not be positioned on heated surfaces.
- The device must be stored in a dry and clean room.

3.3 CONNECTING THE DEVICE

3.3.1 CONNECTING THE POWER

- The power connection must be performed by a qualified person. In addition, a suitably qualified person should check whether the earthing and electrical system are in accordance with the safety regulations and if it works properly.
- The device must be placed near the work station.
- The connection of excessively long conduits to the machine must be avoided.
- One-phase welders should be connected to the socket fitted with an earthing prong.
- Welders powered from a 3-Phase network are delivered without a plug, the plug must be obtained independently and installation should be assigned to a qualified person.

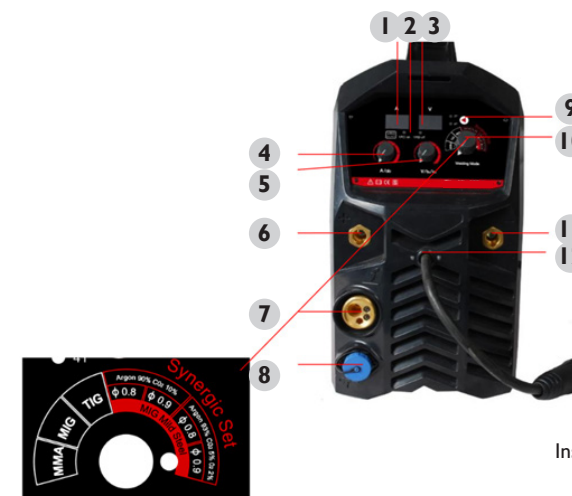
PLEASE NOTE! THE DEVICE MAY ONLY BE USED UPON CONNECTION TO AN INSTALLMENT WITH A PROPERLY FUNCTIONING FUSE

4. OPERATION

S-MULTI 195 IGBT UK WELDING MACHINE

Machine description:

Front view:



Rear view:



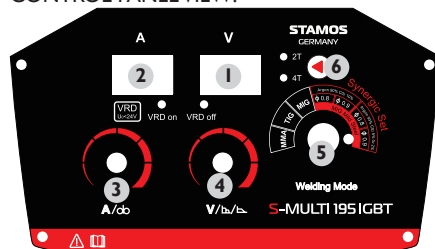
Inside view:



No.	Function and description:
1.	Welding current display
2.	Welding voltage display
3.	VRD indicator Safety function – only for MMA welding: This function allows to reduce the idling voltage to a user-safe value when the device is ready for welding. After commencing welding, the idling voltage automatically grows to the nominal value, and after finishing welding it drops back to the safe value again.

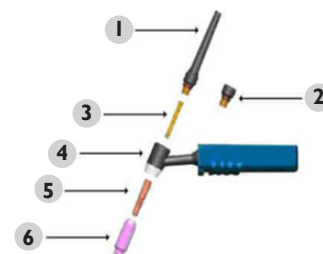
4.	Knob used to adjust filler wire feed rate and to adjust welding current.
5.	Knob used to adjust downslope current / voltage.
6.	„+“ lead output
7.	MIG connector
8.	TIG control connector / SpoolGun feeder power connector
9.	2T/4T SWITCH: 2T – press this button on the burner to start the metal welding/cutting process, release this button to end this process. 4T – press this button on the burner to start the metal welding/cutting process, releasing this button does not end this process. Press and release this button again to end the metal welding-cutting process
10.	Operation mode selection knob: MIG / TIG / MMA / SYNERGIC SET MIG Function
11.	„-“ lead output
12.	Polarisation change pin: Connected to the positive pole – MIG welding Connected to the negative pole – FLUX welding
13.	On/off switch
14.	Power cable
15.	Gas connector
16.	Operation mode switch: built-in feeder / SpoolGun
17.	Filler wire feed – once this button is pressed the welding machine begins feeding filler wire. Filler wire will continue to be fed until the button is released. It is used to control the feed rate, or to feed filler wire after a spool was changed.
18.	Filler wire guide

CONTROL PANEL VIEW:



No.	MMA	TIG	MIG	SYNERGIC SET MIG Function
1.	Arc Force display	Downslope current	Voltage display	
2.	Welding current display	Welding current display	Filler wire feed rate / welding current display	
3.	Welding current adjustment knob	Welding current adjustment knob	Filler wire feed rate adjustment knob	
4.	Arc Force adjustment knob	Downslope current adjustment knob	Voltage adjustment knob	
5.	Welding mode selection: MMA	TIG welding mode selection	MIG welding mode selection	SYNERGIC SET MIG welding mode selection
6.	Not applicable	2T / 4T switch		

TIG TORCH:



1.	Back cap, long
2.	Back cap, short
3.	Collet
4.	Torch handle
5.	Collet inside housing
6.	Ceramic nozzle

MIG TORCH:



1.	Nozzle
2.	Collet
3.	MIG welding torch

5. CONNECTING LEADS

INSTRUCTIONS FOR CONNECTING LEADS:

MMA WELDING MODE:

1. Set the switch (10) to MMA welding mode.
2. Connect the return lead to the socket marked with „+“ (6), and tighten the locking nut.
3. Then connect the welding lead to the correct socket, marked with the number 11 on the diagram and tighten the locking nut. **ATTENTION!** Polarization of the leads has to be different! All polarisation information should be shown on the packaging supplied by the electrode manufacturer.
4. Now you can connect the power lead and turn the power on, once the return lead is connected to the welded element, you can start working.

TIG WELDING MODE:

1. Set the switch (10) to TIG welding mode.
2. Connect the return lead to the socket marked with „+“ (6), and tighten the locking nut.
3. Then connect the TIG welding lead to the socket marked with the „-“ (11) sign and TIG welding control lead to connector no. 8 and tighten the locking nut. Connect the gas lead directly to the gas canister. Gas flow is adjusted using the knob on the welding torch.
4. Now you can connect the power lead and turn the power on, once the return lead is connected to the welded element, you can start working.

MIG WELDING MODE / SYNERGIC SET:

1. Set the switch (10) to MIG welding mode.
2. MIG WELDING:
 - a. Connect the return lead to the socket marked with „-“ (11), and tighten the locking nut.
 - b. Connect the polarisation change lead (12) to the socket marked with „+“ (6)
 - c. Connect the MIG welding lead to the socket marked with the number 7.
 - d. Insert the correct filler wire and connect the gas canister to the connector at the back of the machine.

1. FLUX WELDING:
 - a. Connect the return lead to the socket marked with „+“ (6), and tighten the locking nut.
 - b. Connect the polarisation change lead (12) to the socket marked with „-“ (11)
 - c. Connect the MIG welding lead to the socket marked with the number 7.
 - d. Insert the correct FLUX filler wire
2. Now you can connect the power lead and turn the power on, once the return lead is connected to the welded element, you can start working.

6. DISPOSING OF PACKAGING

The various items used for packaging (cardboard, plastic straps, polyurethane foam) should be kept, so that the device can be sent back to the service centre in the best possible condition in case of any problems!

7. TRANSPORTATION AND STORAGE

Shaking, crashing and turning upside down of the device should be prevented when it is transported. Store it in a properly ventilated surrounding with dry air and without any corrosive gas.

8. CLEANING AND MAINTENANCE

- Always unplug the device before cleaning it and when the device is not in use.
- Use cleaner without corrosive substances to clean surface.
- Dry all parts well before the device is used again.
- Store the unit in a dry, cool place, free from moisture and direct exposure to sunlight.

9. CHECK REGULARLY THE DEVICE

Check regularly that the device doesn't present any damage. If there is any damage, please stop using the device. Please contact your customer service to solve the problem.

What to do in case of a problem?

Please contact your customer service and prepare following information:

- Invoice number and serial number (the latter is to be found on the technical plate on the device).
- If relevant, a picture of the damaged, broken or defective part.
- It will be easier for your customer service clerk to determine the source of the problem if you give a detailed and precise description of the matter. The more detailed your information, the better the customer service will be able to answer your problem rapidly and efficiently!

CAUTION: Never open the device without the authorization of your customer service. This can lead to a loss of warranty!

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Umwelt- und Entsorgungshinweise

Hersteller an Verbraucher

Sehr geehrte Damen und Herren,

gebrauchte Elektro- und Elektronikgeräte dürfen gemäß europäischer Vorgaben **[1]** nicht zum unsortierten Siedlungsabfall gegeben werden, sondern müssen getrennt erfasst werden. Das Symbol der Abfalltonne auf Rädern weist auf die Notwendigkeit der getrennten Sammlung hin. Helfen auch Sie mit beim Umweltschutz. Sorgen Sie dafür, dieses Gerät, wenn Sie es nicht mehr weiter nutzen wollen, in die hierfür vorgesehenen Systeme der Getrenntsammlung zu geben.



In Deutschland sind Sie gesetzlich **[2]** verpflichtet, ein Altgerät einer vom unsortierten Siedlungsabfall getrennten Erfassung zuzuführen. Die öffentlich - rechtlichen Entsorgungsträger (Kommunen) haben hierzu Sammelstellen eingerichtet, an denen Altgeräte aus privaten Haushalten ihres Gebietes für Sie kostenfrei entgegengenommen werden. Möglicherweise holen die rechtlichen Entsorgungsträger die Altgeräte auch bei den privaten Haushalten ab.

Bitte informieren Sie sich über Ihren lokalen Abfallkalender oder bei Ihrer Stadt- oder Gemeindeverwaltung über die in Ihrem Gebiet zur Verfügung stehenden Möglichkeiten der Rückgabe oder Sammlung von Altgeräten.

- [1]** RICHTLINIE 2002/96/EG DES EUROPÄISCHEN PARLAMENTS UND DES RATES
 ÜBER ELEKTRO- UND ELEKTRONIK - ALTGERÄTE
- [2]** Gesetz über das Inverkehrbringen, die Rücknahme und die umweltverträgliche Entsorgung
 von Elektro- und Elektronikgeräten (Elektro- und Elektronikgerätegesetz - ElektroG).

Utylizacja produktu

Produkty elektryczne i elektroniczne po zakończeniu okresu eksploatacji wymagają segregacji i oddania ich do wyznaczonego punktu odbioru. Nie wolno wyrzucać produktów elektrycznych razem z odpadami gospodarstwa domowego. Zgodnie z dyrektywą WEEE 2012/19/UE obowiązującą w Unii Europejskiej, urządzenia elektryczne i elektroniczne wymagają segregacji i utylizacji w wyznaczonych miejscach. Dbając o prawidłową utylizację, przyczyniasz się do ochrony zasobów naturalnych i zmniejszasz negatywny wpływ oddziaływania na środowisko, człowieka i otoczenie. Zgodnie z krajowym prawodawstwem, nieprawidłowe usuwanie odpadów elektrycznych i elektronicznych może być karane!

For the disposal of the device please consider and act according to the national and local rules and regulations.

CONTACT

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