STAMOS® | WELDING GROUP

BEDIENUNGSANLEITUNG

USER MANUAL | INSTRUKCJA OBSŁUGI | MANUEL D'UTILISATION | ISTRUZIONI D`USO | MANUAL DE INSTRUCCIONES

S-MMA200.IGBT UK
S-MMA250.IGBT UK

USER MANUAL

SYMBOLS

	The operation manual must be read carefully.
	Never dispose of electrical equipment together with household waste.
CE	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.

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

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

1. SAFETY OF USE

1.1 GENERAL NOTES

- Take care of your own safety and that of bystanders by reviewing and strictly following the instructions, 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.

1.2 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.

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- 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.

1.3 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 another hearing protection to protect against excessive noise and to avoid spatter entering the ears.
- Bystanders should be warned to not look at the arc.

1.4 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 must not be touched.
- Electrical power must be shut down prior to cleaning or electrode replacement.
- It must be checked if the earthing cable is properly connected and the pin is correctly connected to the earthed socket. Incorrect connection of the earthing can cause life or health hazard.
- Power cables must be regularly checked for damage 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 not in use.
- 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.
- From the moment of turning on the release, the handle end must be kept away from the body.
- The chassis ground must be mounted to the welded element or as close to it as possible (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.

1.5 GASES AND FUMES

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

- Attention must be paid to proper ventilation in the work area, concurrently avoiding gas inhalation.
- Chemical substances (lubricants, solvents) must be removed from the surfaces of welded details as they burn and emit toxic smokes under the influence of temperature.
- Welding galvanised details is permitted only when efficient ventilation is provided with filtration and access to fresh air. Zinc fumes are highly toxic, an intoxication symptom is so-called metal fever.

2. TECHNICAL SPECIFICATIONS

Product name	Welding machine	
Model	S-MMA 200.IGBT UK	S-MMA 250.IGBT UK
Voltage / frequency	230V~ 50 Hz	
No load voltage	56 V	
MMA welding current	20-200 A	20-250 A
Duty cycle	60 %	
Welding current [A] at duty cycle 100%	155 A	193 A
IP protection class	IP21	

3. OPERATION

3.1 GENERAL NOTES

- The device must be used 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

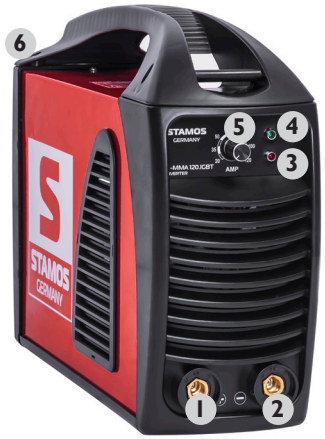
3.3.1 Connecting the power

- Connection of the device must be performed by a qualified person. In addition, a person with required qualifications should check if the earthing or electrical installation with protection system is in line with the safety regulations and if they operate correctly.
- The device must be placed near the work station.
- 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

Covers all models:



1.	Mass conduit connector
2.	MMA = electric arc welding (MMA) is one of the earliest methods of metal objects welding; it is also in use nowadays. Welding energy is generated by the electric arc between the consumable electrode and welded element.
3.	ERROR INDICATOR = The indicator lights in the following two situations: a) If the machine has malfunctioned and cannot be operated. b) If the cutting device has exceeded the standard working time the protection mode is initiated and the machine will stop functioning. This means that the machine is now being cooled in order to be able to restore temperature control again after the device has overheated. Therefore the machine is stopped. During this process, the red warning light on the front panel lights up. In this case it is not necessary to remove the power plug from the socket. The ventilation system may be left on in order to enhance the cooling of the machine. When the red light goes dark, this means that the temperature is now down to the normal level and the unit can be put back into operation.
4.	Power supply indicator
5.	CURRENT = main current adjustment
6.	On/off switch– at the back of the device

5. CABLE CONNECTIONS

Each unit is equipped with a main power cable, which is responsible for providing current and voltage to the device. If the device is connected to power which exceeds the required voltage, or if the wrong phase is set, it may lead to severe damage to the unit. This is not covered by the warranty for the equipment and the user will be responsible for such situations.

- Connect the MMA conduit to the negative pole (-).
- Set the current intensity regulator at the proper intensity (the impulse current intensity regulator is in lower position). Select current in accordance with empirical formula: I=40d, where d is the electrode diameter.
- The welder has to be connected to the electric supply socket. Then turn main switch on. The control lamp will light.
- Please pay attention to the relative intensity of the welding current and the welder's relative duty cycle.
- Overloading may result in damages and should be avoided.
- After finishing the device operation, it is necessary to leave the device on for cooling and then switch off the supply.

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 transported. Store it in a properly ventilated surrounding with dry air and without any corrosive gas.

8. CLEANING AND MAINTENANCE

- Disconnect from electricity when cleaning equipment.
- Use cleaner without corrosive substances to clean surface.
- Dry all parts well after cleaning, before the device is used again.
- Store the unit in a dry, cool location, free from moisture and direct exposure to sunlight.

9. REGULAR CONTROL OF 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 solve 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!

10. TROUBLESHOOTING

Problem	Troubleshooting
Electric source indicator doesn't light. Fan doesn't run. No welding output	1. Check power switch. 2. Check input wires.
Electric source indicator lights but the fan doesn't run or stop for a while. No welding output.	1. Connected with wrong electric source. Change the connection into single 230V. 2. 230V power system is unstable. 3. Power off and power on continuously in a short time and cause the over-voltage protection. 4. Wire which connects switch and electrical source is loose. Fix it.
Fan is running but output current is unstable or cannot been controlled by potentiometer.	1. Problems with the potentiometer; 2. Some connecting terminals aren't fixed correctly.
Fan runs but problem indicator doesn't light. No welding output.	1. Check all plug-ins are in good connection. 2. Check if the output terminals are open or loosely connected.
The problem indicator light and fan are running, but no welding output.	1. Over-current protection activated. Power off first then power on again. 2. Overheat protection activated. Normal operation will resume after waiting for 2 minutes to 3 minutes

STAMOS® | WELDING GROUP

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).

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

CONTACT

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