CUTTING EDGE WELDING

USER'S MANUAL

TIG/MMA dual function
AC/DC pulse welding inverter

GORILLA SUPER**TIG 200** AC/DC

INDEX

EN

Introduction

First of all, thank you for choosing an IWELD welding or cutting machine!

Our mission is to support your work with the most up-to-date and reliable tools both for DIY and industrial application.

We develop and manufacture our tools and machines in this spirit.

All of our welding and cutting machines are based on advanced inverter technology, reducing the weight and dimensions of the main transformer.

Compared to traditional transformer welding machines the efficiency is increased by more than 30%.

As a result of the technology used and the use of quality parts, our welding and cutting machines are characterized by stable operation, impressive performance, energy efficient and environmentally friendly operation.

By activating the microprocessor control and welding support functions, it continuously helps maintain the optimum character of welding or cutting.

Read and use the manual instructions before using the machine please!

The user's manual describes the possible sources of danger during welding, includes technical parameters, functions, and provides support for handling and adjustment but keep in mind it doesn't contain the welding knowledge!

If the user's manual doesn't provide you with sufficient information, contact your distributor for more information!

In the event of any defect or other warranty event, please observe the „General Warranty Terms".

The user manual and related documents are also available on our website at the product data sheet.

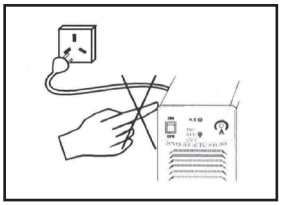
IWELD Kft.
2314 Halásztelek
II. Rákóczi Ferenc street 90/B
Tel: +36 24 532 625
info@iweld.hu
www.iweld.hu

EN

WARNING!

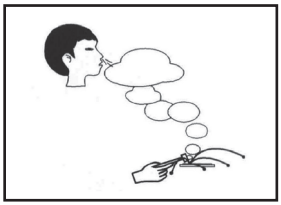
Welding is a dangerous process! The operator and other persons in the working area must follow the safety instructions and are obliged to wear proper Personal Protection Items. Always follow the local safety regulations! Please read and understand this instruction manual carefully before the installation and operation!

- The switching of the machine under operation can damage the equipment.
- After welding always disconnect the electrode holder cable from the equipment.
- Always connect the machine to a protected and safe electric network!
- Welding tools and cables used with must be perfect.
- Operator must be qualified!



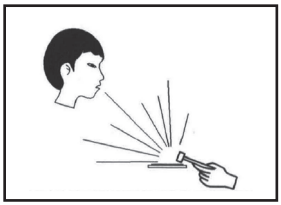
ELECTRIC SHOCK: may be fatal

- Connect the earth cable according to standard regulation.
- Avoid bare hand contact with all live components of the welding circuit, electrodes and wires. It is necessary for the operator to wear dry welding gloves while he performs the welding tasks.
- The operator should keep the working piece insulated from himself/herself.



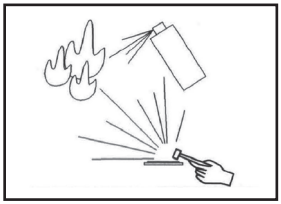
Smoke and gas generated while welding or cutting can be harmful to health.

- Avoid breathing the welding smoke and gases!
- Always keep the working area good ventilated!



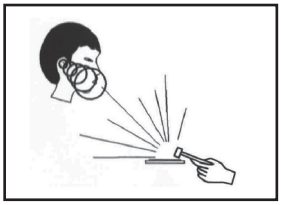
Arc light-emission is harmful to eyes and skin.

- Wear proper welding helmet, anti-radiation glass and work clothes while the welding operation is performed!
- Measures also should be taken to protect others in the working area.



FIRE HAZARD

- The welding spatter may cause fire, thus remove flammable materials from the working area.
- Have a fire extinguisher nearby in your reach!

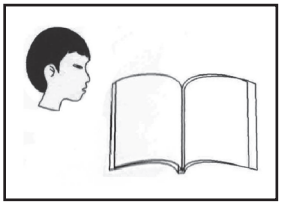


Noise can be harmful for your hearing

- Surface noise generated by welding can be disturbing and harmful. Protect your ears if needed!

Malfunctions

- Check this manual first for FAQs.
- Contact your local dealer or supplier for further advice.



EN

PRECAUTIONS TO ELECTROMAGNETIC COMPATIBILITY

1 General

Welding may cause electromagnetic interference.

The interference emission of arc welding equipment can be minimized by adopting proper installation method and correct use method.

The products described in this manual belong to the limit of class A equipment (applies to all occasions except the residential areas powered by public low-voltage power system).

Warning: Class A equipment does not apply to the residential areas powered by public low-voltage power system. Because the electromagnetic compatibility cannot be guaranteed in these areas owing to conducted and radiated disturbances.

2 Environmental assessment suggestions

Before installing the arc welding equipment, user shall assess the potential electromagnetic disturbance problems in the surrounding environment. The following matters shall be considered:

- Whether there are other service cables, control cables, signal and telephone wires, etc. above, under or around the welding equipment;
- Whether there are radio and television transmitting and receiving devices;
- Whether there are computers and other control equipment;
- Whether there are high-security level equipment, such as industrial protective equipment;
- Consider the health of staff at the site, for example, where there are workers wearing hearing aid or pacemaker;
- Whether there are equipment used for calibration or inspection;
- Pay attention to the noise immunity of other equipment around. The user should ensure that the equipment is compatible with the surrounding equipment, which may require extra protective measures;
- Time for welding or other activities;

The range of environment shall be determined according to the building structure and other possible activities, which may exceed the boundary of building.

3 Methods to reduce emission

- Public power supply system

The arc welding equipment shall be connected to the public power supply system according to the method recommended by the manufacturer. If there is interference, additional preventive measures shall be taken, such as access with filter in the public power supply system. For fixed arc welding equipment, the service cables shall be shielded by metal pipe or other equivalent methods. However, the shield shall ensure electrical continuity and shall be connected with the case of welding source to ensure the good electrical contact between them.

- Maintenance of arc welding equipment

The arc welding equipment must be regularly maintained according to the method recommended by the manufacturer. When the welding equipment is running, all entrances, auxiliary doors and cover plates shall be closed and properly tightened. The arc welding equipment shall not be modified in any form, unless the change and adjustment are permitted in the manual. Particularly, the spark gap of arc striker and arc stabilizer shall be adjusted and maintained according to the manufacturer's suggestions.

- Welding cable

The welding cable shall be as short as possible and close to each other and to the ground line.

- Equipotential bonding

Pay attention to the bonding of all metal objects in surrounding environment. The overlapping of metal object and workpiece can increase the risk of work, as operators may suffer from electric shock when touch the metal object and electrode simultaneously. Operators shall be insulated from all these metal objects.

- Grounding of the workpiece

For electrical safety or workpiece location, size and other reasons, the workpiece may not be grounded, such as the hull or structural steelwork. Grounding of workpieces sometimes can reduce the emission, but it is not always the case. So be sure to prevent the increasing risk of electric shock or damage of other electrical equipment caused by grounded workpieces. When necessary, the workpiece should be directly connected with the ground. But direct grounding is forbidden in some countries. In such case, use appropriate capacitor in accordance with regulations of the country.

- Shielding

Selectively shield the surrounding equipment and other cables to reduce the electromagnetic interference. For special applications, the whole welding area can be shielded.

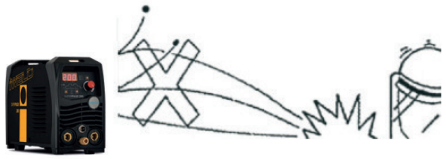
1. Main Features and Parameters

			SUPER**TIG 200 AC/DC**
	Art. Nr.		8TIG200SPRACDC
FUNCTIONS	GENERAL	Inverter type	IGBT
		Digital display	✓
		Plastic case	✗
	MIG/MAG	Reverse Polarity - FCAW	
		2T/4T	
		Number of Wire Feeder Rolls	
	TIG	Arc ignition	HF
		DC TIG	✓
		Pulse DC TIG	✓
		AC AWI	✓
		Pulse AC TIG	✓
		2T/4T	✓
		SPOT	✓
	MMA	Arc Force	✓
		Adjustable Arc Force	✓
		Hot Start	✗
		Anti Stick	✗
PARAMETERS	Accessories Welding Torch		IGrip SR26
	Phase number		1
	Rated input Voltage		230 V AC±10% 50/60 Hz
	Max./eff. input Current	MMA	35.4A/27A
		MIG/TIG	32.7A/25A
	Power Factor (cos φ)		0.93
	Efficiency		≥85%
	Duty Cycle (10 min/20 °C)*		**200A@60%* 155A@100%***
	Welding Current Range	MMA	10A-160A
		MIG/TIG	5A-200A
	Output Voltage	MMA	20.4V-26.4V
		MIG/TIG	10.2V-18V
	No-Load Voltage		62V
	Insulation		F
	Protection Class		IP23
	Welding Wire Diameter		-
	Size of Coil		-
	Weight		9 kg
	Dimensions (LxWxH)		426X162X326mm

EN

2. Installation

2-1. Installation Place

Place the welding machine in the rainproof room with no direct sunshine, low humidity and little dust! (room temperature 10 °C -40 °C). 	Any conductive foreign object can not enter the welding power supply! 
Keep the welding power supply over 20 cm away from the wall! Two welding machines should be over 30 cm apart when placed in parallel. 	Conduct the welding at the place without wind (use the wind shield, etc.)! 

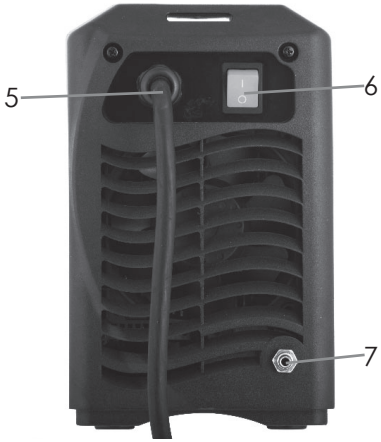
CAUTION	This product should be used indoor; it's recommended not to use it in the place which may suffer from rain!
In case this product is soaked with rain, raindrops may fall into power supply inside; at this time, a serious accident may occur. therefore, ask professional personnel to related check maintenance.	

2-2. Notices

- The line voltage of the 1 phase power supply should be within 200-250V!
- The earth cable of the welding machine should be connected correctly and reliably!
- Be sure to check all connection cables regularly. If finding the connector is loose, be sure to screw it tight; otherwise, it may be burnt and cause unstable welding!
- After the welding is over, be sure to power off in time!
- For outdoor use, be sure to cover the machine in rainy or snowy day; but do not obstruct its ventilation!
- Regularly check if the insulated skin of all cables is broken if yes, bind up or replace such cable!
- Regularly check if all electric connections inside the machine are loose. Be sure to taste the loose one!
- Take care of all devices and do not let them suffer artificial damages!

EN

2-3. Front and Rear Panel Structure and Description



1	Positive output terminals - AC and DC	5	Power source input
2	Shield gas output connector	6	Power switch
3	TIG Torch connector	7	Shield gas input joint
4	Negative output terminal		

2-4. Installation in TIG mode

Workpiece is connected to the positive electrode of welding machine, and welding torch is connected to the negative electrode, which is called DC POSITIVE CONNECTION; otherwise, that is called DC NEGATIVE CONNECTION. Generally, it is usually operated in DC POSITIVE CONNECTION in TIG welding mode.

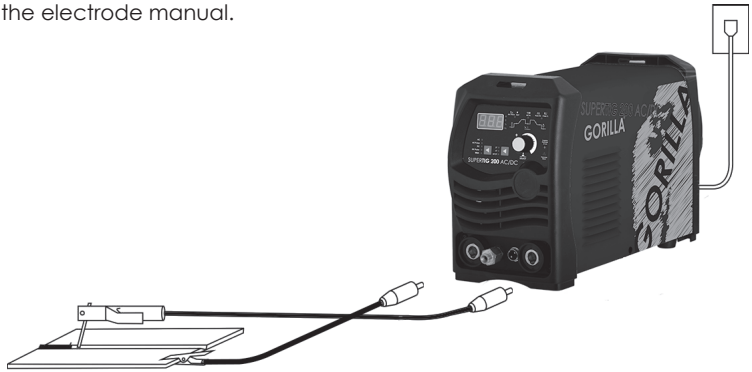
The control cable of torch switch consists of 2 wires, pedal control of 3 wires and the aero socket has 14 leads. Consumable parts for TIG torch, such as tungsten electrode, tip, gas nozzle, electrode shield(short/long) , please enquire us by mail or phone according to the accessory codes.

When the welding machines are operated in HF ignition method, the ignition spark can cause interferences in equipment near the welding machine. Be sure to take specially safety precautions or shielding measures.

EN

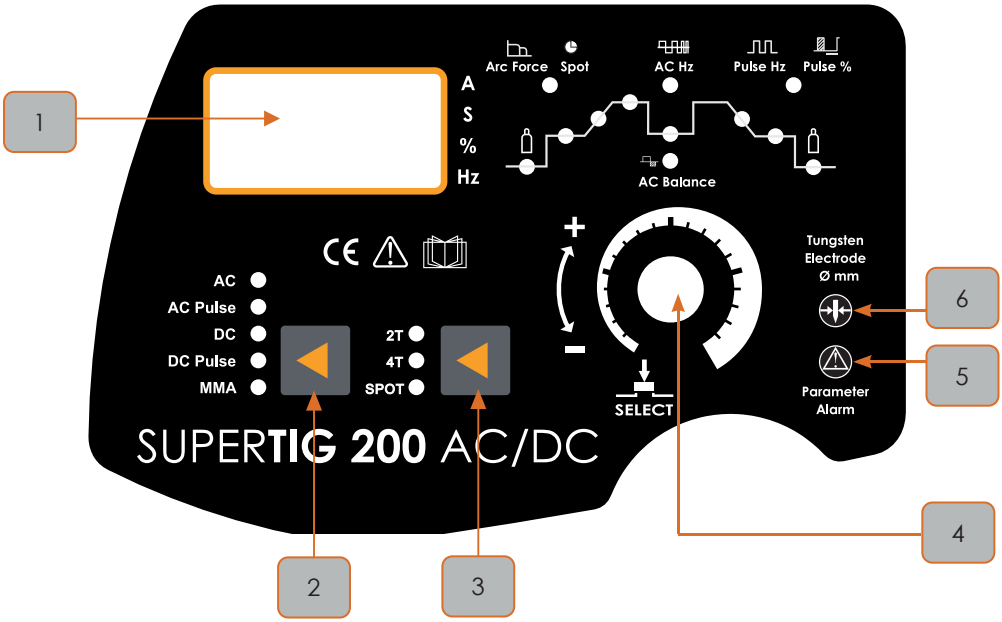
2-5. Installation in MMA mode

MMA: Choosing the connection of DCEN or DCEP according to the different electrodes. Please refer to the electrode manual.

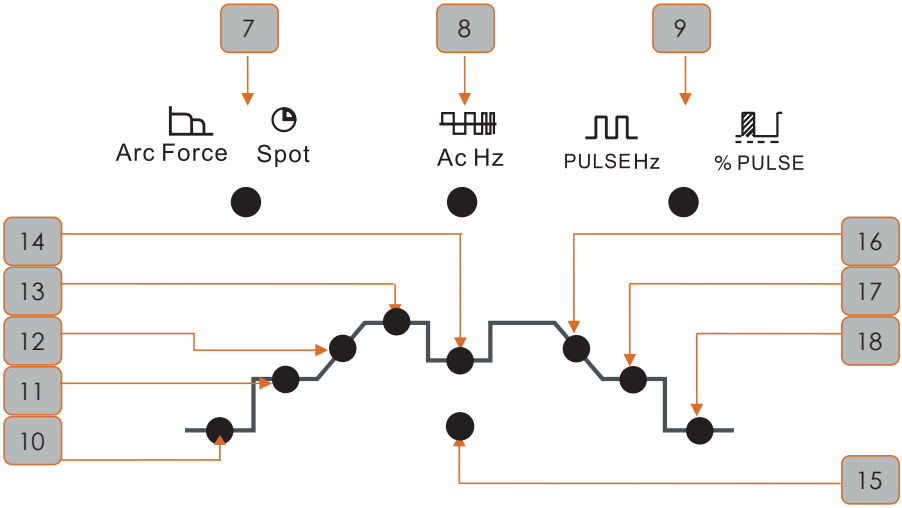


3. Operation Instruction

3-1. Control Panel



EN

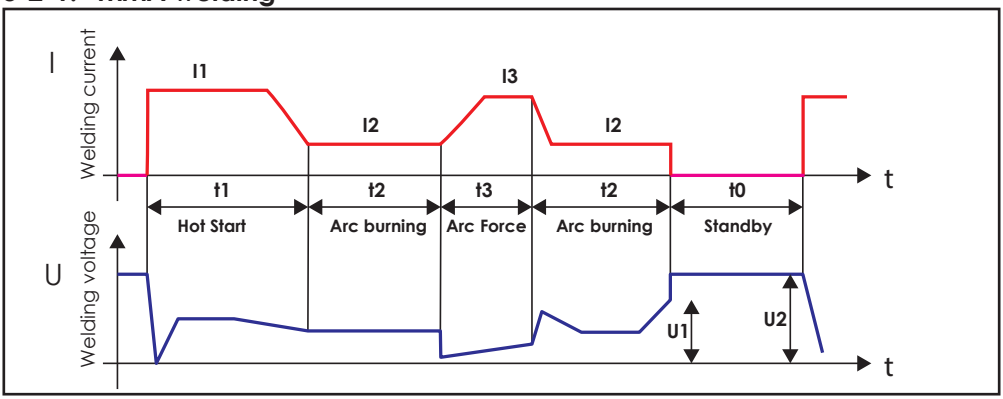


1	Current/parameter display	Display of welding parameters and error codes
2	Function key 1	Welding mode selection button: AC/AC pulse/DC/DC pulse/MMA
3	Function key 2	Torch switching mode selection 2T/4T/SPOT
4	Adjustment knob	Press to parameter selection, rotate to adjusting parameter
5	Parameter Alarm	Electrode selection function is for choosing a suitable welding parameter; If the selected electrode does not match the welding parameters, it will illuminating yellow
6	Tungsten electrode diameter	1.0-3.2 mm
7	Arc Force or Spot time	In MMA mode adjusting the Arc Force 0-40A In TIG mode adjusting the spot welding time 0.5-10 sec
8	AC frequency	20-250 Hz
9	Pulse frequency	0,2-20 Hz (step 0,1Hz)
		20-200 Hz (step 1Hz)
	Pulse duty factor	0.2-10 Hz @ 1-99%
		11-200 Hz @ 10-90%
10	Pre-flow time	0.1-10 sec
11	Initial current	5A-200A
12	Up slope time	0-10 sec
13	Peak current	TIG: 5A-200A; MMA:10A-160A
14	Base current	5-200 Hz
15	AC Balance	15-85%
16	Down slope time	0-15 sec
17	End current	5A-200A
18	Post-flow time	0,5-15 sec

EN

3-2. Welding Modes Desription

3-2-1. MMA welding



Current and Voltage Change during MMA

Note:
t0: Standby: No welding current; output voltage is the no-load voltage (U2).
t1: Hot Start - Arc ignition phase: the value of arc ignition current is pre-programmed (I1).
t2: Arc burning: Welding current is the recommended, preset current (I2).
t3: Arc Force (Short-circuit transfer): the current value is the pre-set Arc Force current (I3).

In MMA mode, 3 parameters that can be adjusted directly. Describe them as below.

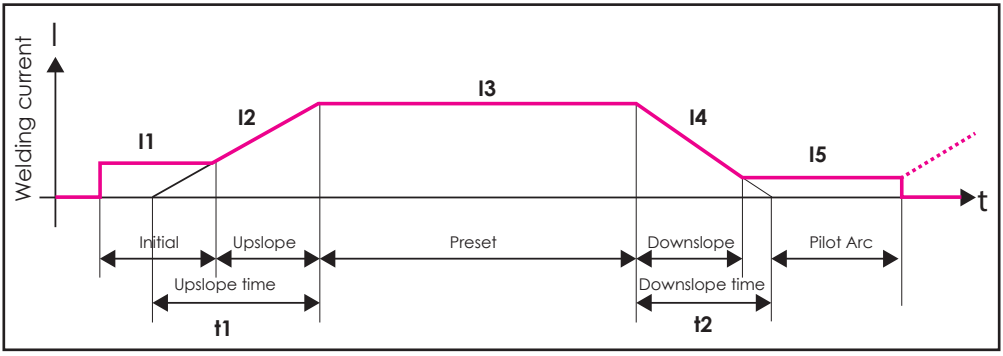
- **Hot Start** - **Arc ignition current** (I1) and **Arc ignition time** (t1): Arc ignition current is the output current of the machine when the arc is ignited. Arc ignition time is the time the arc ignition current lasts. When in non-contact ignition mode, neither parameter makes sense.
- **Welding current** (I2): This is the welding current when arc is burning, and users can set it according to heir own technical requirements.
- **Arc force:** It refers to the ascending slope of the current in short circuit, and it is set as the amperage increased per millisecond in this machine. The current will ascend from the preset value by this slope after short circuit occurs. (E.g. When the preset current is 100A and the arc force is 20, the current will be 120A 5ms after short circuit occurs.) If it is still under short circuit when the current increases to the allowable maximum value 160A, the current will not ascend any more. If the short circuit status lasts for 0.8s or more, the machine will enter into **Anti Stick** process: to wait the disconnection of the electrode under low current. Arc Force should be set according to the electrode diameter, preset current and the technical requirement. If the arc force is big, the molten drop can be transferred quickly, and electrode sticking seldom occurs. However, too big Arc Force may lead to excessive spatter. If the Arc Force is small, there will be little spatter, and the weld bead will be shaped well. However, too small Arc Force may lead to soft arc and electrode sticking. Therefore, the Arc Force should be increased when welding with thick electrode under low current. In general welding, the Arc Force may be set at 5~50.

- Electrode selection:

Electrode diameter (mm)	Recommended Welding Current I2 (A)	Welding Voltage U1 (V)
1.6	30-60	21-23
2.0	50-90	22-24
2.5	80-120	23-25
3.2	100-140	24-26
4.0	140-160	26-28

EN

3-2-2. DC TIG Welding



DC TIG - Change of current during welding process

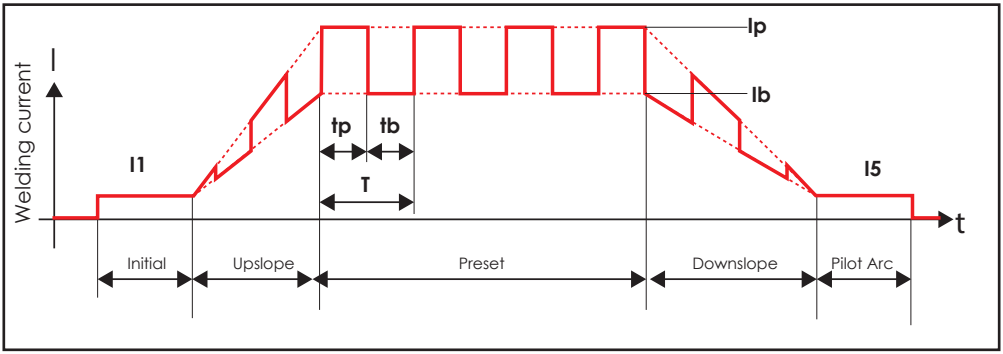
In DC TIG mode, 8 adjustable parameters are available for this machine. Describe them as below.

- **Current (I3):** This parameter can be set according to users' own technical requirements.
- **Initial current (I1)**: It is the current when arc is ignited by pushing the torch trigger, and it should be set according to users' own technical requirements. If the initial current is high enough, arc is easier to ignite. However, it should not be too high when welding thin plate, so as to avoid burn through the workpiece during arc ignition. In some operation modes, the current does not rise but stay at the initial current value to preheat the workpiece or illuminate.
- **Pilot arc current (I5):** In some operation modes, the arc does not stop after current down-slope but stay in the pilot arc state. The working current in this state is called pilot arc current, and it should be set according to users' technical requirements.
- **Pre-flow time:** It indicates the time from the torch trigger being pushed to arc being ignited in non-contact mode. Commonly it should be longer than 0.5s to make sure that the gas has been delivered to the welding torch in normal flow before arc ignition. The pre-flow time should be increased if the gas hose is long.
- **Post-flow time:** It indicates the time from the welding current being cut off to the gas valve inside the machine being closed. If it is too long, it will lead to a waste of argon gas; if it is too short, it will result in the oxidation of weld bead. When in AC TIG or for special materials, the time should be longer.
- **Up-slope time (t1):** It indicates the time spent on current rising from 0 to the preset value, and it should be set according to users' technical requirements.
- **Down-slope time (t2):** It indicates the time spent on current dropping from the preset value to 0, and it should be set according to users' technical requirements.
- **Tungsten electrode diameter selection** (recommendation):

Ø1.0mm	5-30A
Ø1.6mm	20-90A
Ø2.0mm	45-135A
Ø2.5mm	70-180A
Ø3.2mm	130-200A

EN

3-2-3. DC PULSE TIG Welding



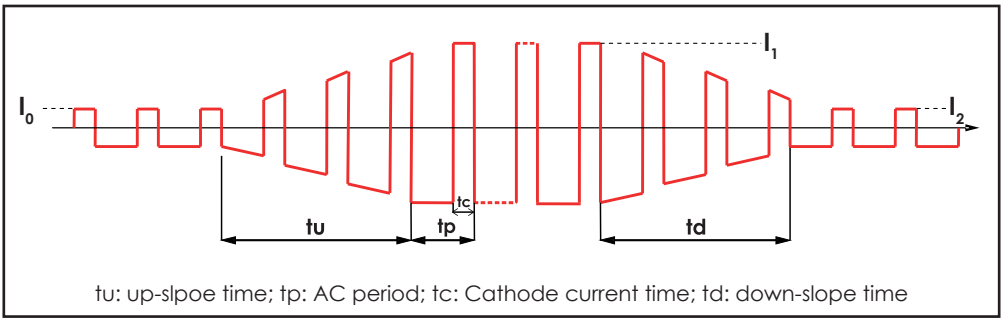
In pulsed TIG mode, all DC TIG parameters except current (I3) and another 4 adjustable parameters are available for this machine. Describe them as below.

Values must be adjusted according to the current technical requirements.

It should be adjusted according to users' technical requirements.

- **Peak current (Ip):** The highest current within a pulse.
- **Base current (Ib):** The lowest current within a pulse.
- **Pulsed frequency** (1/T): T=Tp+Tb. The number of impulses per min
- **Pulse duration ratio** (100%xTp/T): The percentage peak current time holding in pulse period.

3-2-4. AC square wave TIG Welding



tu: up-slpoe time; tp: AC period; tc: Cathode current time; td: down-slope time

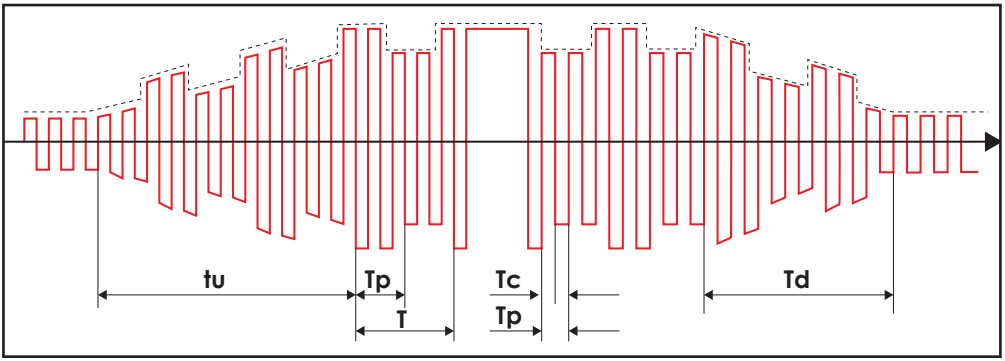
AC square wave TIG welding - Current change during welding process

In AC TIG welding, the pre-flow time and post-flow time are the same with those in DC TIG **welding, and others are described as below.**

- **Initial current (I0), welding current (I1) & pilot arc current (I2):** The preset value of the three parameters is approximately the absolute average of the practical welding current, and can be adjusted according to users' technical requirements.
- **Pulse frequency (1/tp):** It can be adjusted according to users' technical requirements.
- **AC Balance - Cleaning effect (100%xTc/Tp):** Generally, in AC welding, when taking the electrode as anode, the current is called cathode current. Its main function is to break up the oxidized layer of the workpiece, and the cleaning strength is the percentage cathode current holding in the AC period. This parameter is 10~40% commonly. When the value is smaller, arc is concentrative, molten pool is narrow and deep, and when it is bigger, arc is dispersive, molten pool is wide and shallow.

EN

3-2-5. AC PULSE TIG Welding

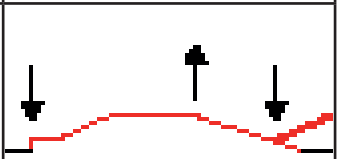
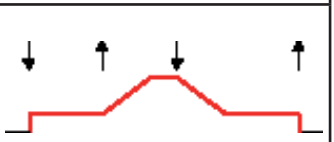


AC Pulse TIG welding Current Change during welding process

AC pulsed TIG welding is almost the same as AC square wave TIG welding, and what makes them different is that in AC pulsed TIG welding, the welding current varies with the pulse and peak current and base current are generated because the welding current is controlled by a low frequency pulse. The preset peak current and base current are the low frequency pulse peak value (average value) and base value (average value) respectively. For the AC square wave parameter selecting and setting, please refer to the corresponding contents in AC square wave TIG welding. For the pulse frequency and pulse duration ratio, users may refer to the corresponding contents in DC pulsed TIG welding.

3-3. Operation in TIG mode

TIG operation mode should be selected according to users' technical requirements and operating habits. All the TIG operation modes for this machine are listed in the table TIG operation modes below

Operation mode	Operation	Torch trigger operation and current curve
1T/Spot	1 Push the torch trigger: arc is ignited and current rises to the preset value. 2 When the spot welding time is up, current drops gradually, and arc stops. Note: Upslope time is 1/10 of the Spot welding time.	
2T	1 Push the torch trigger: arc is ignited and current rises gradually. 2 Release the torch trigger: current drops gradually, and arc stops. 3 If push the torch trigger again before arc stops, the current will gradually rise again, and then turn to	
4T	1 Push the torch trigger: arc is ignited and current reaches the initial value. 2 Release it: current rises gradually. 3 Push it again: current drops to pilot arc current value. 4. Release it: arc stops.	

EN

- Connect the ground cable to the positive (+) pole!
- Use a TIG torch connected to the negative pole (-)!
- Set the machine in to TIG-2T or TIG-4T mode!
- Set the welding current.
- Adjust the gas post flow and down slope time on the control panel.
- Keep the distance between tungsten and workpiece between 2 and 4 mm , press the gun button , you will hear the voice of high-frequency ignition, after the arc penetrates through the splash disappears and you can start the work.

Notices:

• Check the condition of welding and connection units firstly, otherwise there will be malfunction such as ignition spark, gas leakage, out of control and so on.

• Check that whether there is enough Argon gas in the shield gas cylinder, you can test the electromagnetic gas valve through the switch on the front panel.

• Do not let the torch aim at your hand or else of your body. When you press the torch switch, the arc is ignited with a high-frequency, high-voltage spark, and the ignition spark can cause interferences in equipment.

• The flow rate is set according to the welding power used in the job. Turn the regulation screw to adjust the gas flow which is shown on the gas hose pressure meter or the gas bottle pressure meter.

• The spark ignition works better if you keep the 3 mm distance from the workpiece to the tungsten electrode during the ignition.

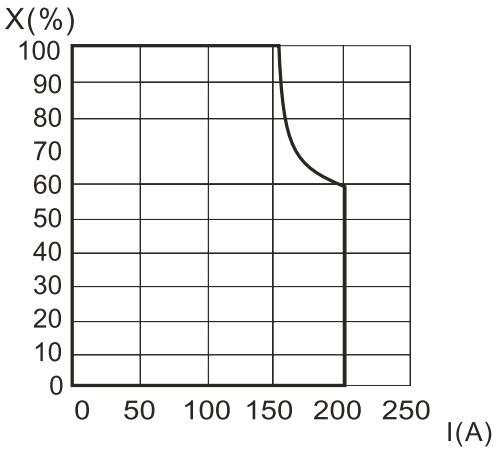
3-4. Operation in MMA mode

- Connect the output cables
- Turn on the welding machine to the power switch, the fan starts to work!
- Select the mode to switch to MMA.
- Set the desired welding current and Arc-Force according to the welding task.
- Start the work.

3-5. Duty Cycle Curve

The letter "X" stands for duty cycle, which is defined as the proportion of the time that a machine can work continuously within a certain time (10 minutes). The rated duty cycle means the proportion of the time that a machine can work continuously within 10 minutes when it outputs the rated welding current.
The relation between the duty cycle "X" and the output welding current "I" is shown as the right figure.

If the welder is over-heat, the IGBT over-heat protection unit inside it will output an instruction to cut output welding current, and brighten the over-heat pilot lamp on the front panel. At this time, the machine should be relaxed for 15 minutes to cool the fan. When operating the machine again, the welding output current or the duty cycle should be reduced.



Warning: Work in Overload is Harmful to the Welding Machine

EN

4. Troubleshooting

WARNING **The following operation requires professional knowledge on electric application and comprehensive safety knowledge. Operators should be licensed with related qualification certificates (still in validation) which can prove their skills and knowledge. Make sure the power supply is cut off before uncovering the welding machine.**

Common Malfunction Analysis and Solution

The failures listed below may be related to your accessories, gas, working environment, power supply conditions. Please try to improve the above so that to avoid similar failures.

	Malfunction	Cause	Solutions
Fan doesn't work or has abnormal revolving speed after power on		Temperature is too low or fan is broken.	When the temperature is too low, please operate welder for a while and wait till the internal temperature is increased; if the fan is still not working, change the fan.
MMA	Difficult arc ignition	Low arc ignition current or short ignition time.	Adjust (increase) the arc ignition current and time.
	Over arc ignition or oversize molten pool	Ignition current is too big or ignition time is too long.	Adjust (decrease) the arc ignition current and time.
	Abnormal arc	Poor power cable connection	Make sure the well connection of power cable.
	Sticking electrode	Low arc force current	Adjust(increase) the arc force current
	Burning electrode holder	Electrode holder rated current is too low	Change a larger current electrode holder.
	Easy arc breaking	Network voltage is too low	Please operate when network voltage is back to normal.
TIG	No output current when torch switch is on.	Some TIG function allows welding ending while torch switch is still on.	Release torch switch and restart welding
		Welding disconnection circuit	Check the circuit and reconnect
	When it's under HF arc ignition mode, no arc ignition when turn on the torch switch.	Poor connection of welding torch switch.	Reconnect and tighten the welding torch
		Over-wide spark gap.	Adjust the spark gap(about 0.8mm)
	Over burning of tungsten electrode.	Reverse connection of welding torch and ground cable	Exchange the two plugs' position
		Cleaning intensity is too big	Decrease the cleaning intensity
	Black welding spot.	Welding spot is poorly protected and has oxidation	1. Make sure the argon cylinder valve is open and has enough pressure. If the internal pressure is lower than 0.5Mpa, please refill the gas. 2. Please check if the argon flow is normal or not. You may choose different flow according to different welding current. But under-volume gas flow may result in incomplete coverage of welding spot. We suggest the min argon flow of 5L/min no matter how small the welding current is. 3. Please make sure the well sealing of all gas circuit as well as gas purity. 4. Please check if there is strong airflow in the working environment.
	Difficult arc ignition, easy arc breaking	Poor quality tungsten electrode or severe oxidation of tungsten electrodes	1. Change good quality tungsten electrodes 2. Remove the oxidation layer. 3. Prolong the post-flow time so that to avoid tungsten oxidation 4. Adjust the spark gap(around 0.8mm)
	Unstable welding current during welding	Big fluctuation of network voltage or poor connection with power grid. Interference from other equipment	1. Make sure the power grid is normal and well connection of power source connector. 2. Use different power cables for those severe interference equipments

Alarm Codes and Solutions

Type	Alarm	Error code	Machine reaction	Reason	Solution
Overheating	Overheat indicator lights up and there is alarm sound	**E-1**	Temporary close of main circuit	Overloading of main circuit	Do not power off; restart welding when the overheat indicator stop lighting up.
Undervoltage	Display error code and there is alarm sound	**E-2**	Permanently close main circuit and need to restart the machine	Power grid undervoltage (lower than 160V AC)	Please restart the welder; if warning still remains, If there is a continuous power grid undervoltage, please wait and restart welder when the power grid is back to normal voltage. If power grid voltage is normal but with undervoltage warning, please contact professional maintenance personnel.
Overvoltage	Display error code and there is alarm sound	**E-3**	Permanently close main circuit and need to restart the machine	Power grid overvoltage (more than 270V AC)	Please shut off the welder and restart. If there is a continuous power grid overvoltage, please wait and restart welder when the power grid is back to normal. If power grid voltage is normal but with overvoltage warning, please contact professional maintenance personnel.
Abnormal internal circuit	Display error code and there is alarm sound	**E-4**	Permanently close main circuit	Load current is too big or main power device is under overcurrent protection.	Pleas restart welder. If the warning still remains, please contact professional maintenance personnel.

EN

Precautions

Workspace

1. Welding equipment free of dust, corrosive gas, non-flammable materials, up to 90% humidity for use!
2. Avoid welding outdoors unless protected from direct sunlight, rain, snow, work area temperature must be between -10 °C and +40°C.
3. Wall to position the device at least 30 inches away.
4. Well-ventilated area to perform welding.

Safety requirements

Welding provides protection against overvoltage / overcurrent / overheating. If any of the above events occurs, the machine stops automatically. However, over- stress damage to the machine , keep the following guidelines :

1. Ventilation . When welding a strong current going through the machine , so the machine is not enough natural ventilation for cooling . The need to ensure adequate cooling, so the distance between the plane and any object around it at least 30 cm . Good ventilation is important to normal function and service life of the machine.
2. Continuously , the welding current does not exceed the maximum allowable value. Current overload may shorten its life or damage to the machine .
3. Surge banned ! Observance of tension range follow the main parameter table . Welding machine automatically compensates for voltage , allowing the voltage within permissible limits of law. If input voltages exceed the specified value , damaged parts of the machine .
4. The machine must be grounded! If you are operating in a standard, grounded AC pipeline in the event of grounding is provided automatically . If you have a generator or foreign , unfamiliar , non-grounded power supply using the machine , the machine is required for grounding connection point earth to protect against electric shock .
5. Suddenly stopping may be during welding when an overload occurs or the machine overheats . In this case, do not restart the computer , do not try to work with it right away, but do not turn off the power switch , so you can leave in accordance with the built-in fan to cool the welding machines .

WARNING!

If the welding equipment is used with the welding parameters above 180 amperes, the standard 230V electrical socket and plug for 16 amp circuit breaker is not sufficient for the required current consumption, it is necessary to use the welding equipment with 20A, 25A or even to the 32A industrial fuses! In this case, both the plug and the plug socket fork have to be replaced to 32A single phase fuse socket in compliance with all applicable rules. This work may only be carried out by specialists!

Maintenance

1. Remove power unit before maintenance or repair!
2. Ensure that proper grounding!
3. Make sure that the internal gas and electricity connections are perfect and tighten, adjust if necessary, if there is oxidation, remove it with sandpaper and then reconnect the cable.
4. Hands, hair, loose clothing should be kept away under electric parts, such as wires, fan.
5. Regularly dust from the machine clean, dry compressed air, a lot of smoke and polluted air to clean the machine every day!
6. The gas pressure is correct not to damage components of the machine.
7. If water would be, for example. rain, dry it in the machine and check the insulation properly! Only if everything is all right, go after the welding!

8 When not in use for a long time, in the original packaging in a dry place.

CERTIFICATE OF EUROPEAN STANDARD

Manufacturer:	IWELD Ltd. 2314 Halásztelek II. Rákóczi Ferenc street 90/B Tel: +36 24 532-625 info@iweld.hu www.iweld.hu
Item:	**GORILLA SUPERTIG 200 AC/DC** TIG/MMA dual function AC/DC pulse welding inverter
Applied Rules (1):	EN 60204-1:2005 EN 60974-10:2014, EN 60974-1:2013

(1) References to laws, rules and regulations are to be understood as related to laws, rules and regulations in force at present.
Manufacturer declares that the above specified product is complying with all of the above specified rules and it also complying with the essential requirements as specified by the Directives 2014/35/EU, 2014/30/EU, 2006/42/EU and 2011/65/EU

Serial No.:

CE

Halásztelek (Hungary), 14/03/20

Managing Director:
András Bódi