weldcote

Quick Guide Manual

TIG STRIKER 200 AC

INVERTER AC/DC PULSED TIG WELDER

WELDING FOR WELL-BEING

PFC Inside

3 YEARS WARRANTY

⚠ SAFETY WARNING

On the process of welding or cutting, there will be possibility of injury, so please take protection into consideration during operation. For more details please review the Operator Safety Guide, which complies with the preventive requirements of the manufacturer.

Electric shock - May lead to death!!

• Set the earth fitting according to applying standard.
• Do not touch the bare electric parts and electrode with uncovered skin, wet gloves or clothes.
• Make sure you are insulated from the ground and the workshop.
• Make sure you are in safe position.

Gases and fumes - May be harmful to health!!

• Keep your head out of the gases and fumes.
• When arc welding, ventilators or air extractors should be used to avoid breathing gases.

Arc rays - Harmful to your eyes, burn your skin

• Wear suitable protective mask, light filter and protective garment to protect eyes and body.
• Prepare suitable protective mask or curtain to protect looker-on.

Fire

• Welding sparks may cause a fire, make sure there are no flammable objects or chemicals nearby.

Noise - Excessive noises will be harmful to hearing

• Use haring protection or others means to protect ear.
• Warn looker-on that noise is harmful to hearing.

Having trouble? Connect with authorized professionals

• If trouble happens during installation and operation, please follow this manual instruction to check up.
• If you fail to fully understand the manual, or fail to solve the problem with the instruction, you should contact the suppliers or the service center for professional help.

WARNING!

Thermal Magnetic Auto Circuit Breaker protecting switch should be used with the machine.

2.0 SUMMARY

2.1 BRIEF INTRODUCTION

TIG STRIKER 200 AC welding machine adopts the latest pulse width modulation (PWM) technology and insulated gate bipolar transistor (IGBT) power module, which can change work frequency to medium frequency so as to replace the traditional hulking work frequency transformer with the cabinet medium frequency transformer. Thus, it is characterized with portable, small size, light weight, low consumption etc.

TIG STRIKER 200 AC CHARACTERISTICS:

- **MCU control system,** responds immediately to any changes.
- **The newest PFC technology,** power factor more than 0.98
- **High frequency and high voltage** for arc igniting to ensure the success ratio of igniting arc, the reverse polarity ignition ensures good ignition behavior in TIG-AC welding.
- **Avoid AC arc-break** with special means, even if arc-break occurs the HF will keep the arc stable.
- **TIG/DC operation,** If the tungesten electrode touches the workpiece when welding, the current will drop to short-circuit current to protect tungsten.
- **Intelligent protection:** over-voltage, over-current, and over heat indication light on the front panel will turn on and the output current will be cut off. It can self-protect and prolong the life of the machine.
- **Double purposes:** AC inverter TIG/STICK and DC inverter TIG/STICK, Excellent performance on Al-alloy, carbon steel, stainless steel, titanium.
  According to the front panel functions, the following six welding modes can be performed:
  - DC STICK
  - DC TIG
  - AC STICK
  - AC TIG

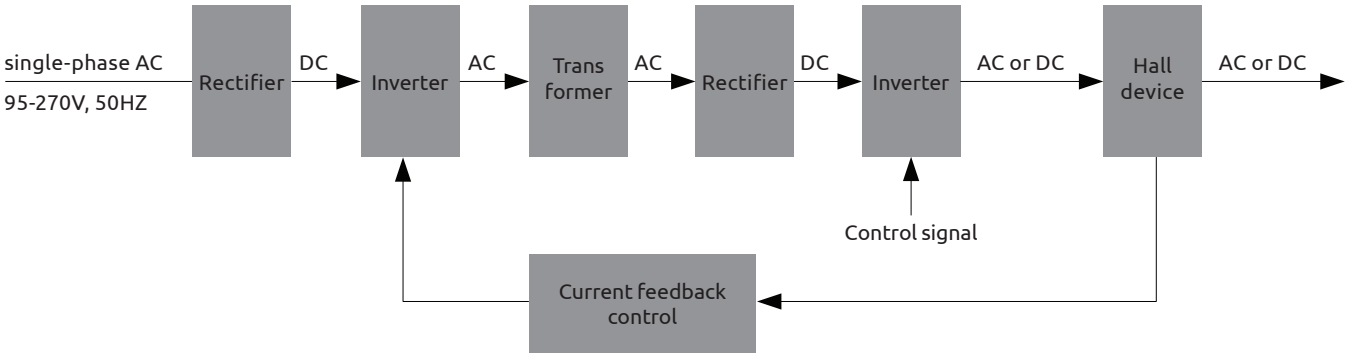
  1. For DC STICK, polarity connection can be chosen according to different electrodes, please refer to 3.5;
  2. For AC STICK, magnetic flow caused by invariable DC polarity can be avoided;
  3. For DC TIG, DCEN is used normally (workpiece connected to positive polarity, while torch connected to negative polarity). This connection has many advantages, such as stable welding arc, low tungsten pole loss, more welding current, narrow and deep weld;
  4. For AC TIG (rectangle wave), arc is more stable than Sine AC TIG. At the same time, you can not only obtain the max penetration and the min tungsten pole loss, but also obtain better cleaning effect.

TIG STRIKER 200 AC welding machine is suitable for all positions welding for various plates made of stainless steel, carbon steel, alloyed steel, titanium, aluminum, magnesium, cuprum, etc., which is also applied to pipe installment, mold mend, petrochemical, architecture decoration, car repair, bicycle, handicraft and common manufacture.

MMA ⟶ Manual Metal Arc welding;
PWM ⟶ Pulse-Width Modulation;
IGBT ⟶ Insulation Gate Bipolar Transistor
TIG ⟶ Tungsten Insert Gas welding

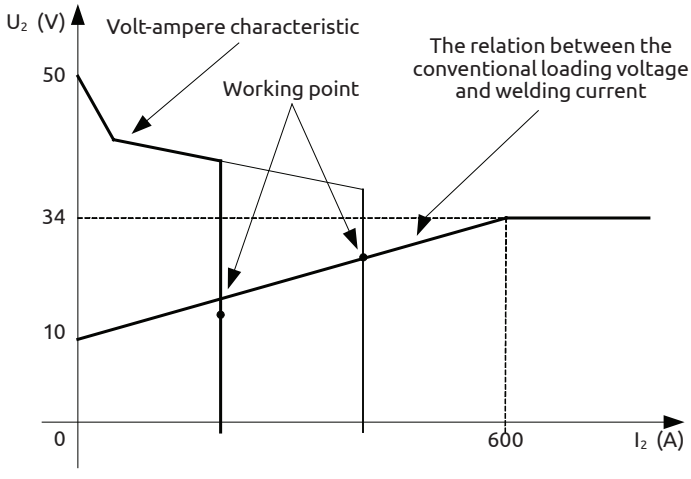
2.2 WORKING PRINCIPLE

The working principle of TIG STRIKER 200 AC welding machines is shown as the following figure. single-phase 115V/230V work frequency AC is rectified into DC (about 380V), then is converted to medium frequency AC (about 44K Hz) by inverter device (IGBT module), after reducing voltage by medium transformer (the main transformer) and rectifying by medium frequency rectifier (fast recovery diodes), then is outputted DC or AC by selecting IGBT module. The circuit adopts current feedback control technology to insure current output stably. Meanwhile, the welding current parameter can be adjusted continuously to meet with the requirements of welding craft.



2.4 VOLT-AMPERE CHARACTERISTIC

When $I_2 \leq 600A$, $U_2 = 10 + 0.04I_2(V)$; When $I_2 > 600A$, $U_2 = 34(V)$.



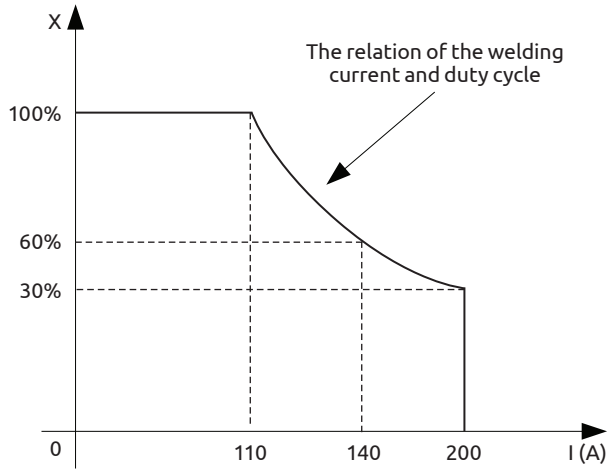
3.0 SUMMARY

3.1 PARAMETERS

<table>
<tr><th>PARAMETERS</th><th colspan="8">TIG STRIKER 200 AC</th></tr>
<tr><td>Rated Input Voltage (V)</td><td colspan="4">1~120±10%, 50Hz</td><td colspan="4">1~230±10%, 50Hz</td></tr>
<tr><td rowspan="3">Rated Input Current (A)</td><td colspan="2">TIG</td><td colspan="2">STICK</td><td colspan="2">TIG</td><td colspan="2">STICK</td></tr>
<tr><td colspan="2">30.3 (AC)</td><td colspan="2">31.9 (AC)</td><td colspan="2">23.7 (AC)</td><td colspan="2">27.3 (AC)</td></tr>
<tr><td colspan="2">29 (DC)</td><td colspan="2">29.5 (DC)</td><td colspan="2">23.3 (DC)</td><td colspan="2">25.1 (DC)</td></tr>
<tr><td rowspan="2">Rated Input Power (KW)</td><td colspan="2">3.7 (AC)</td><td colspan="2">3.7 (AC)</td><td colspan="2">5.0 (AC)</td><td colspan="2">5.8 (AC)</td></tr>
<tr><td colspan="2">3.4 (DC)</td><td colspan="2">3.4 (DC)</td><td colspan="2">4.7 (DC)</td><td colspan="2">5.3 (DC)</td></tr>
<tr><td>No Load Voltage (V)</td><td colspan="8">45 (52)</td></tr>
<tr><td rowspan="2">Welding Current Range (A)</td><td colspan="2">TIG</td><td colspan="2">STICK</td><td colspan="2">TIG</td><td colspan="2">STICK</td></tr>
<tr><td>AC</td><td>DC</td><td>AC</td><td>DC</td><td>AC</td><td>DC</td><td>AC</td><td>DC</td></tr>
<tr><td>Start Current Range (A)</td><td>10~140</td><td>5~140</td><td>10~100</td><td>5~100</td><td>10~200</td><td>5~200</td><td>10~170</td><td>5~170</td></tr>
<tr><td>Crater Current Range (A)</td><td>10~140</td><td>5~140</td><td>10~100</td><td>5~100</td><td>10~200</td><td>5~200</td><td>10~170</td><td>5~170</td></tr>
<tr><td>Up Slope Time (S)</td><td colspan="8">0~10</td></tr>
<tr><td>Down Slope Time (S)</td><td colspan="8">0~10</td></tr>
<tr><td>Pre Flow (S)</td><td colspan="8">0.1~10</td></tr>
<tr><td>Post Flow (S)</td><td colspan="8">1~10</td></tr>
<tr><td>Pulse Frequency (Hz)</td><td colspan="8">0.5~200</td></tr>
<tr><td>Pulse Width Range (%)</td><td colspan="8">5~100</td></tr>
<tr><td>AC Frequency (Hz)</td><td colspan="8">50~250</td></tr>
<tr><td>Clearance Effect (%)</td><td colspan="8">15~50</td></tr>
<tr><td>Are Force</td><td colspan="8">0~10</td></tr>
<tr><td>Hot Start</td><td colspan="8">0~10</td></tr>
<tr><td>Are Length</td><td colspan="8">0~10</td></tr>
<tr><td rowspan="3">Duty Cycle
(40°C/104°F 10min)</td><td colspan="2">40% 140A</td><td colspan="2">DC 35% 100A
AC 40% 100A</td><td colspan="2">DC 25% 200A
AC 30% 200A</td><td colspan="2">DC 30% 170A
AC 35% 170A</td></tr>
<tr><td colspan="2">60% 110A</td><td colspan="2">DC 60% 75A
AC 60% 80A</td><td colspan="2">DC 60% 130A
AC 60% 140A</td><td colspan="2">DC 60% 120A
AC 60% 130A</td></tr>
<tr><td colspan="2">100% 85A</td><td colspan="2">100% 60A</td><td colspan="2">DC 100% 100A
AC 100% 110A</td><td colspan="2">DC 100% 90A
AC 100% 110A</td></tr>
<tr><td>Protection Class</td><td colspan="8">IP23</td></tr>
<tr><td>Insulation Class</td><td colspan="8">F</td></tr>
<tr><td>Machine Figure Size
(length×width×height)</td><td colspan="8">17.7"×6.7"×10.6"</td></tr>
<tr><td>Net Weight</td><td colspan="8">24.7lb</td></tr>
</table>

3.2 DUTY CYCLE & OVER HEAT

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 in the figure to the right.



If the welding machine is over-heated, the IGBT over-heat protection unit inside will output an instruction to cut the output welding current, and turn on the over-heat pilot lamp on the front panel. At this time, the machine should be left to cool down for 15 minutes. When operating the machine again, the welding output current or the duty cycle should be reduced, to avoid overheat problems.

3.3 MOVEMENT AND PLACEMENT

Please take care for the welder when moving it, and avoid dropping, hitting or damaging it.
It also can be moved by the handle on the top of the welder. Place the welder well when moving it to the right position. When the machine gets to the destination, it needs to be fixed up to avoid gliding.

The movement may result in the potential danger or substantive hazard, so please make sure that the machine is on the safe position before using it.

3.4 POWER SUPPLY INPUT CONNECTION

TIG STRIKER 200 AC welding machines’ power supply connects to single-phase 95- 270V
When the power supply voltage is over the safe work voltage, there are over voltage and under voltage protection inside the welder, the alarm light will on, at the same time, the current output will be cut off.
If the power supply voltage continually goes beyond the safe work voltage range, it will shorten the welder life-span. The below measures can be used:

- Change the power supply input net. Such as, connect the welder with the stable power supply voltage of distributor;
- Induce the machines using power supply in the same time;
- Set the voltage stabilization device in the front of power cable input.

3.5 POLARITY CONNECTION (STICK)

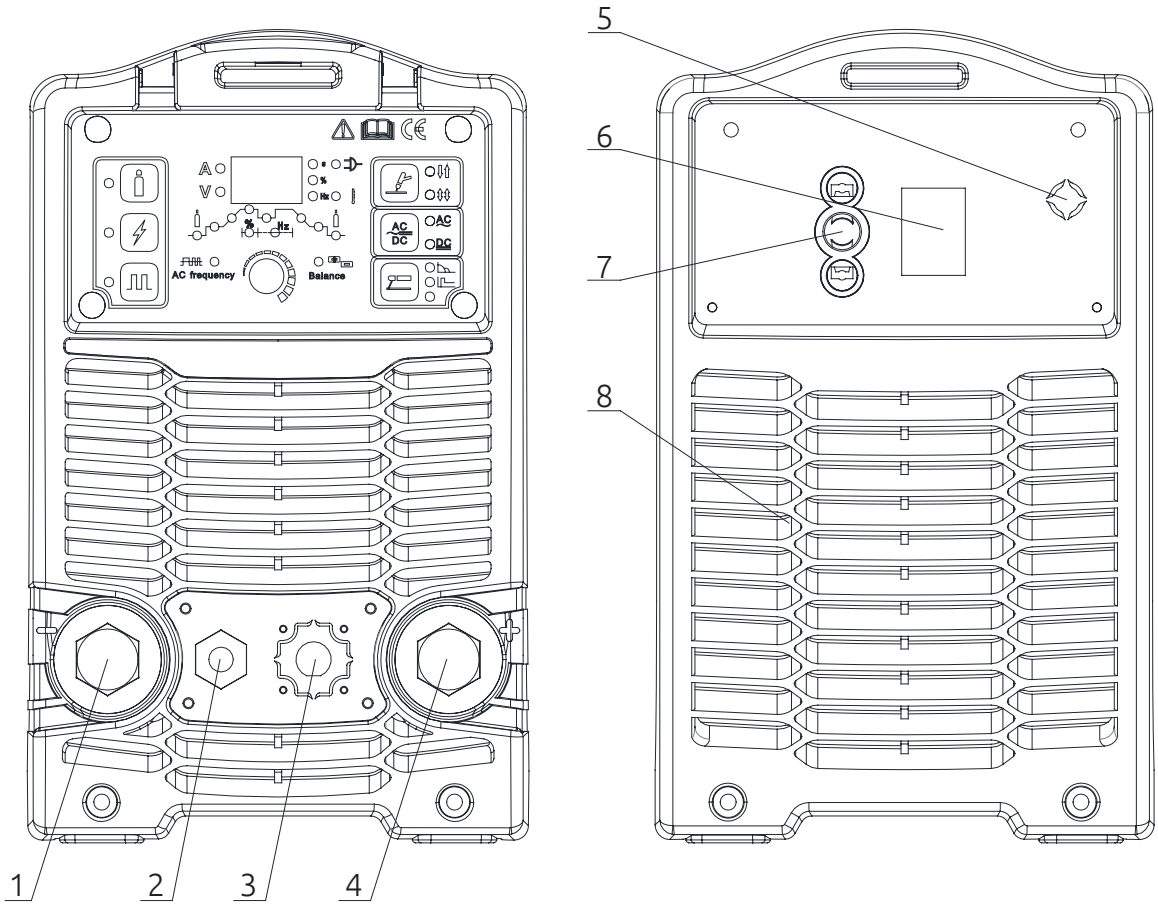
STICK (DC): Choosing the connection of DCEN or DCEP according to the different electrodes. Please refer to the electrode manual.
STICK (AC): No requirements for polarity connection.

3.6 ASSEMBLING THE EQUIPMENT (TIG)

- Workpiece is connected to the positive electrode of welding machine, and welding torch is connected to the negative electrode, which is called DCEN; otherwise, that is called DCEP. Generally, it is usually operated in DCEN in TIG welding mode.
- The control cable of torch switch consists of 2 wires, and the aero socket has 14 leads.
- Consumable parts for TIG torch, such as tungsten electrode, tip, gas nozzle, electrode shield (short/long), and can be supplied according to the accessory codes.
- When TIG STRIKER 200 AC welding machine is 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.

4.0 OPERATION

4.1 LAYOUT FOR THE PANEL



1 NEGATIVE OUTPUT The welder's negative polarity output.

2 SHIELD GAS CONNECTOR Is connected to the gas input pipe of torch.

3 AERO SOCKET Is connected to torch switch control wire.
(It has 8 leads and lead 2 - lead 3 are connected to torch switch control wire).

4 POSITIVE OUTPUT The welder's positive polarity output.

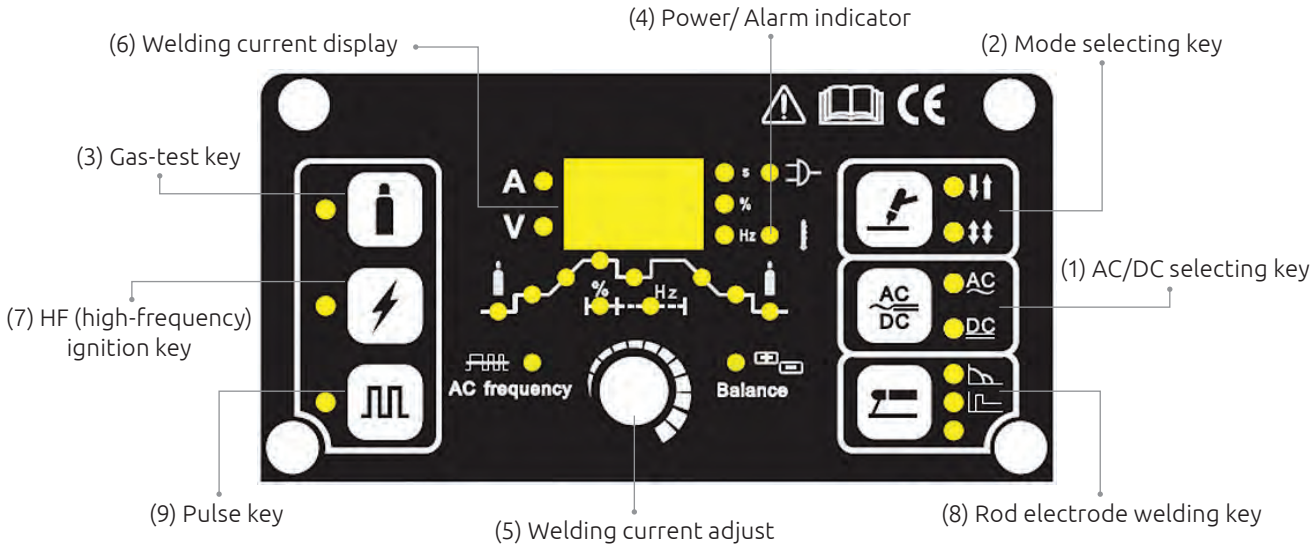
5 SHIELD GAS INPUT JOINT To connect to the gas regulator on top of the argon gas cylinder.

6 POWER SOURCE SWITCH Switch to "ON"/"OFF", to turn the welder on and off.

7 POWER SOURCE INPUT To connect power source (power grid or generator).

8 FAN When the electric welding machine heats up, the fan turns on.
It is used for cooling the components and parts inside the welder.

4.2 CONTROL PANEL



OVERVIEW

The key benefit of the control panel is the logical, easy to understand way in which the controls are arranged.

You will find a detailed description of these settings in the following section.

(1) AC/DC selecting key

(2) Mode selecting key

(4) Power/ Alarm indicator

Light up when the power switch is turned on

Light up when the welder protection for overheat, over-voltage or over-current is activated. At the same time, display Err 001.

(5) Welding current adjust

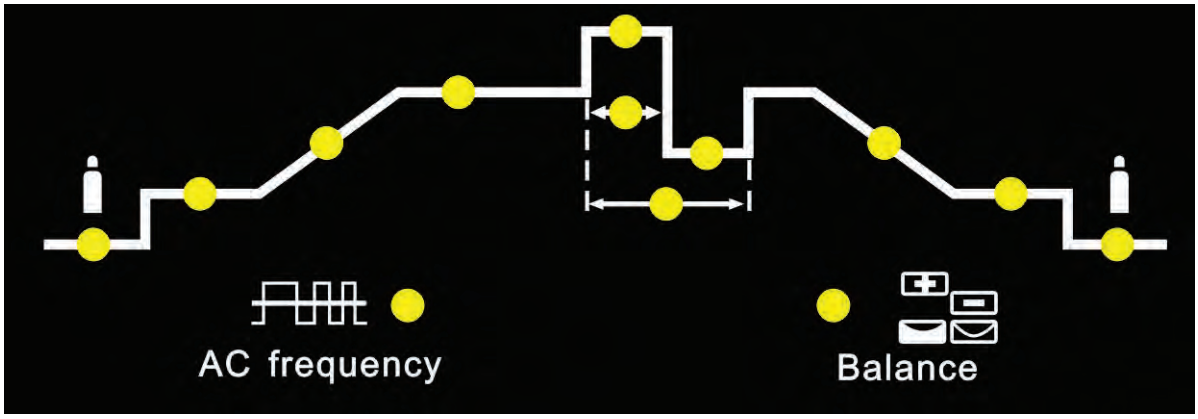
Before the start of welding, you can use this potentiometer to adjust welding current

(6) Welding current display

Display the pre-set or the actual welding current value.
Before the start of welding, it shows the pre-set current value
After the start of welding, it shows the present actual value of the welding current.

(7) Adjusting dial

If the parameter indicator lights up, then the selected parameter can be altered on adjusting dial.



AVAILABLE PARAMETERS WHERE 2T AND 4T MODE HAVE BEEN SELECTED:

Tpr	**Gas pre-flow time**
Unit	S
Setting range	0.1—10
Factory setting	0.3
Is	**Starting current (only with 4T)**
Unit	A
Setting range	5—100%of main current Iw (DC); 10—100%of main current Iw (AC)
Factory setting	5
Tup	**Upslope time**
Unit	S
Setting range	0—10
Factory setting	0
Iw	**Welding current**
Unit	A
TIG STRIKER 200 AC	5—200 (DC); 10—200 (AC)
Ib	**Base current**
Unit	A
TIG STRIKER 200 AC	5—200 (DC); 10—200 (AC)
Important! Only selectable when “pulse key” has been pressed.	
Dcy	**Ratio of pulse duration to base current duration**
Unit	%
Setting range	5—100
Factory setting	5
Important! Only selectable when “pulse key” has been pressed.	
Fp	**Pulse frequency**
Unit	Hz
Setting range	0.5—200
Factory setting	0.5
Important! Only selectable when “pulse key” has been pressed.	
Tdown Downslope time	
Unit	S
Setting range	0—10
Factory setting	0

Ic	**Crater arc current (only with 4T)**
Unit	S
Setting range	5—100% of main current Iw (DC); 10—100% of main current Iw (AC)
Factory setting	5
Tpo	**Gas post-flow time**
Unit	S
Setting range	1—10.0
Factory setting	3

AC frequency (only with TIG-AC)

Unit	Hz
Setting range	50—250 (Iw<70A) 50—200 (70A≤Iw<100A) 50—150 (100A≤Iw<140A) 50—120 (140A≤Iw<170A) 50—100 (170A≤Iw)

Balance (only with TIG-AC)

Balance adjustment is mainly used to set the adjustment of eliminating metal-oxide (such as Aluminium, Magnesium and its alloy) while AC output.

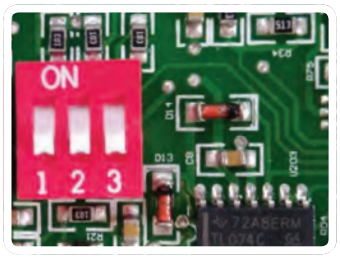
Unit	%
Setting range	15—50
Factory setting	15

(8) Rod electrode(STICK) welding key

Parameter	Setting range
Arc force	0-10
Hot start	0-10
Arc length	0-10

4.3 REMOTE CONTROL

1-2: They are factory set, can't be changed. If they are changed, the welder may be damaged.



1-2: They are factory set, can't be changed. If they are changed, the welder may be damaged.

3 Foot Remote Box Select: When it is ON, the pedal control can be used; When it is OFF, the remote box can be used. Gun switch control current can be used both ON and OFF.

4.3.1 PEDAL SWITCH CONTROL

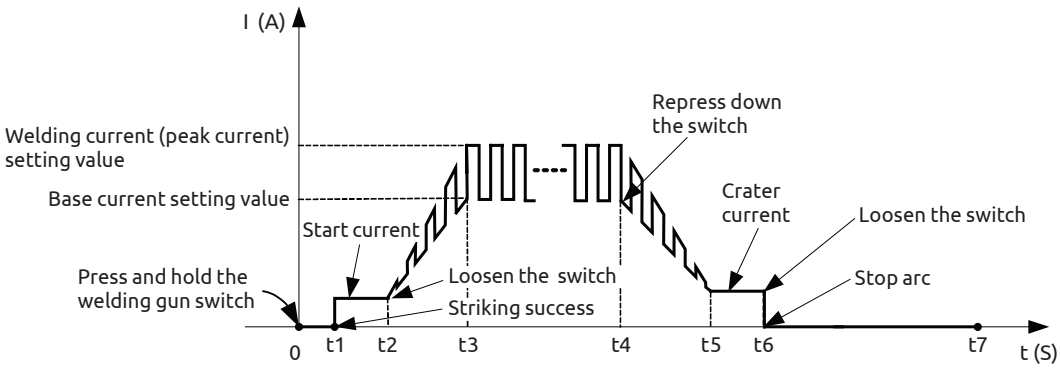
- When the 14 pin foot control is installed the welder will recognize it. The Amp control #5 on the front panel will no longer be used. To set maximum output use the amp selector on the side of the foot control.
- Pins 1 & 2 are Short Circuit, Pins 3,4 & 5 are Pedal Adjustment and Pins 8 & 9 Are Torch Switch.
-

4.3.2 GUN SWITCH CONTROL CURRENT

4.4 ARGON ARC WELDING OPERATION

4.4.1 TIG WELDING (4T OPERATION)

The start current and crater current can be pre-set. This function can compensate the possible crater that appears at the beginning and end of the welding.
Thus, 4T is suitable for the welding of medium thickness plates.
Pulsed TIG long welding (4T):



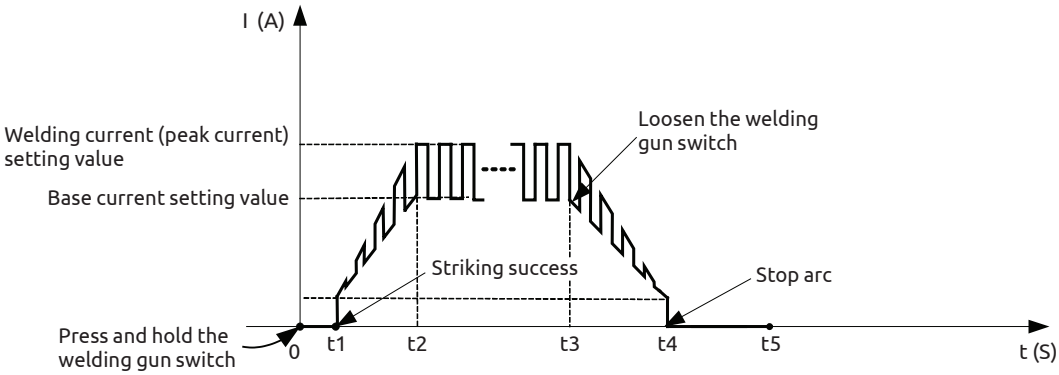
Introduction:

- 0: Press and hold the gun switch, Electromagnetic gas valve is turned on. The shielding gas starts to flow;
- 0~t1: Pre flow time, adjustment range of pre flow time :0.1~10.0S;
- t1: Striking success, adjustment range of start current: 5~200A;
- t2: Loosen the gun switch, the output current slopes up from start current; if the output pulse function is turned on, the output current is pulsed;
- t2~t3: Output current slopes up to the setting current value; adjustment range of up slope time 0~10.0S;
- t3~t4: Welding process. During this period the torch switch in not held down; Note: If the output pulse function is turned on, the output current is pulsed. If the output pulse function is turned off, the output current is DC current;
- t4: Repress down the gun switch, the output current slopes down to crater current; if the output pulse function is turned on, the slope down current is pulsed;
- t4~t5: Down slope time, adjustment rang of down slope time: 0~10.0S;
- t5~t6: Crater current holds time; adjustment range of crater current: 5~200A;
- t6: Loosen the gun switch, stop arc, and keep on argon flowing;
- t6~t7: Post flow time, adjustment range of post flow time: 1.0~10.0S;
- t7: Electromagnetic valve is closed and stop argon flowing. Welding is finished.

Remarks: Repeat welding function;
In 4T mode, when you press the second time to stop the arc, if your press in a very short time, the output current will reduce to half firstly, then the customer can weld in small current as you want without ignite again, if you press the trigger again for stop the arc; But if press in more than 0.5 seconds, the arc will stop at your second press.

4.4.2 TIG WELDING (2T OPERATION)

This function without the adjustment of start current and crater current is suitable for the Re-tack welding, transient welding, thin plate welding and so on.
Pulsed TIG short welding (2T):



Introduction:

- 0: Press and hold the gun switch, Electromagnetic gas valve is turned on. The shielding gas starts to flow;
- 0~t1: Pre flow time, adjustment range of pre flow time :0.1~10.0S;
- t1~t2: Striking success, the output current slopes up to the setting current from minimum current (5A); if the output pulse function is turned on, the slope up current is pulsed;
- t2~t3: During the whole welding process, the gun switch is pressed and held without releasing; Note: If the output pulse function is turned on, the output current is pulsed. If the output pulse function is turned off, the output current is DC current;
- t3: Loosen the gun switch, the output current slopes down; if the output pulse function is turned on, the slope down current is pulsed;
- t3~t4: The output current slopes down to minimum current (5A), stop arc; adjustment range of down slope time: 0~10S;
- t4~t5: Post flow time, adjustment range of post flow time: 0.1~10.0S;
- t5: Electromagnetic valve is closed and stop argon flowing. Welding is finished.

Short circuit protect function:

① TIG /DC/LIFT: If the tungesten electrode touches the workpiece when welding, the current will drop to 20A, which can reduce the tungsten spoilage farthestly, prolong the using life of the tungsten electrode, and prevent tungsten clipping.

② TIG /DC/HF: If the tungesten electrode touches the workpiece when welding, the current will drop to 0 within 1s, which can reduce the tungsten spoilage farthestly, prolong the using life of the tungsten electrode, and prevent tungsten clipping.

③ STICK operation: if the electrode touches workpiece over two seconds, the welding current will drop to the 0 automatically to protect the electrode.
Prevent arc-break function: TIG operation, Avoid arc-break with special means, even if arc-break occurs the HF will keep the arc stable

④ TIG: If the TIG torch is pressed quickly, the welding current will drop a half, then if the TIG torch is pressed quickly again, the welding current will resume.

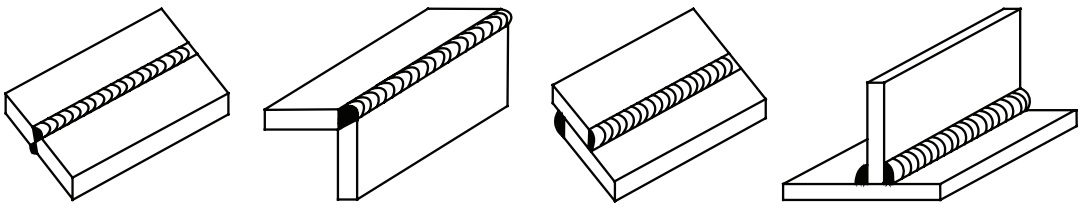
Notices:

- 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 3mm distance from the workpiece to the tungsten electrode during the ignition.

Note: When select AC output, the current and the wave form are as same as the above, but output polarity changes alternately.

4.5 WELDING PARAMETERS

4.5.1 JOINT FORMS IN TIG/STICK



a butt joint b lap joint c coner joint d T joint

4.5.2 THE EXPLANATION OF WELDING QUALITY

The relation of welding area color & protect effect of stainless steel

Welding area color	argent, golden	blue	red-grey	grey	black
Protect effect	best	better	good	bad	worst

The relation of welding area color & protect effect of Ti-alloy

Welding area color	bright argent	orange-yellow	blue-purple	caesious	white powder of titanium oxide
Protect effect	best	better	good	bad	worst

4.6 OPERATION ENVIRONMENT

- Height above sea level is below 1000m.
- Operation temperature range: -10°C~+40°C.
- Relative humidity is below 90% (20°C), relative humidity is below 50% (40°C).
- The inclination of the power source does not exceed 10°.
- Protect the machine against heavy rain or in hot circumstance against direct sunshine.
- The content of dust, acid, corrosive gas in the surrounding air or substance can not exceed normal standard.
- Take care that there is sufficient ventilation during welding. There is at least 30cm free distance between the machine and wall.

4.7 OPERATION NOTICES

- Read carefully before attempting to use this equipment.
- Connect the ground wire with the machine directly, and refer to 3.5.
- In case closing the power switch, no-load voltage may be exported. Do not touch the output electrode with any part of your body.
- Before operation, make bystanders aware and do not watch arc without eye and face protection.
- Ensure good ventilation of the machine to improve duty ratio.
- Turn off when the operation finished to save energy.
- When power shuts off because of failure. Don’t restart it until problem is resolved.

5.0 MAINTENANCE & TROUBLESHOOTING

5.1 MAINTENANCE

In order to ensure the arc welding machine works efficiently and safely, it must be maintained regularly. Maintenance items in detail are in the following table.

Warning: For safety while maintaining the machine, please shut off the supply power and wait for 5 minutes, until capacity voltage drops.

TIME	MAINTENANCE ITEM
Daily examination	Observe that whether panel knob and switch in the front and at the back of arc welding machine are flexible and put correctly in place. If the knob has not been put correctly in place, please correct; If you can't correct or fix the knob , please replace immediately; If the switch is not flexible or it can't be put correctly in place, please replace immediately; Please get in touch with maintenance service department if there are no accessories. After turn-on power, watch/listen to that whether the arc welding machine has shaking, whistle calling or peculiar smell. If there is one of the above problems, find out the reason to get rid of; if you can't find out the reason, Please contact local this area agent or the branch company. Observe that whether the display value of LED is intact. If the display number is not intact, please replace the damaged LED. If it still doesn't work, please maintain or replace the display PCB. Observe that whether the min/max value on LED accords with the set value. If there is any difference and it has affected the normal welding craft, please adjust it. Check up that Whether fan is damaged and is normal to rotate or control. If the fan is damaged, please change immediately. If the fan does not rotate after the arc welding machine is overheated , observe that whether there is something blocked in the blade, if it is blocked, please get rid of ; If the fan does not rotate after getting rid of the above problems, you can poke the blade by the rotation direction of fan. If the fan rotates normally, the start capacity should be replaced ; If not, change the fan. Observe that whether the fast connector is loose or overheated. if the arc welding machine has the above problems, it should be fastened or changed. Observe that Whether the current output cable is damaged. If it is damaged, it should be wrapped up, insulated or changed.
Monthly examination	Using the dry compressed air to clear the inside of arc welding machine. Especially for clearing up the dusts on radiator, main voltage transformer, inductance, IGBT module, the fast recover diode and PCB, etc. Check up the bolt in arc welding machine, if it is loose, please screw down it. If it is skid, please replace. If it is rusty, please erase rust on bolt to ensure it works well.
Quarter- yearly examination	Whether the actual current accords with the displaying value. If they does not accord, they should be regulated. The actual current value can be measured by the adjusted plier-type ampere meter.
Yearly examination	Measure the insulating impedance among the main circuit, PCB and case, if it below 1MΩ, insulation is thought to be damaged and need to change , and need to change or strengthen insulation.

5.2 TROUBLESHOOTING

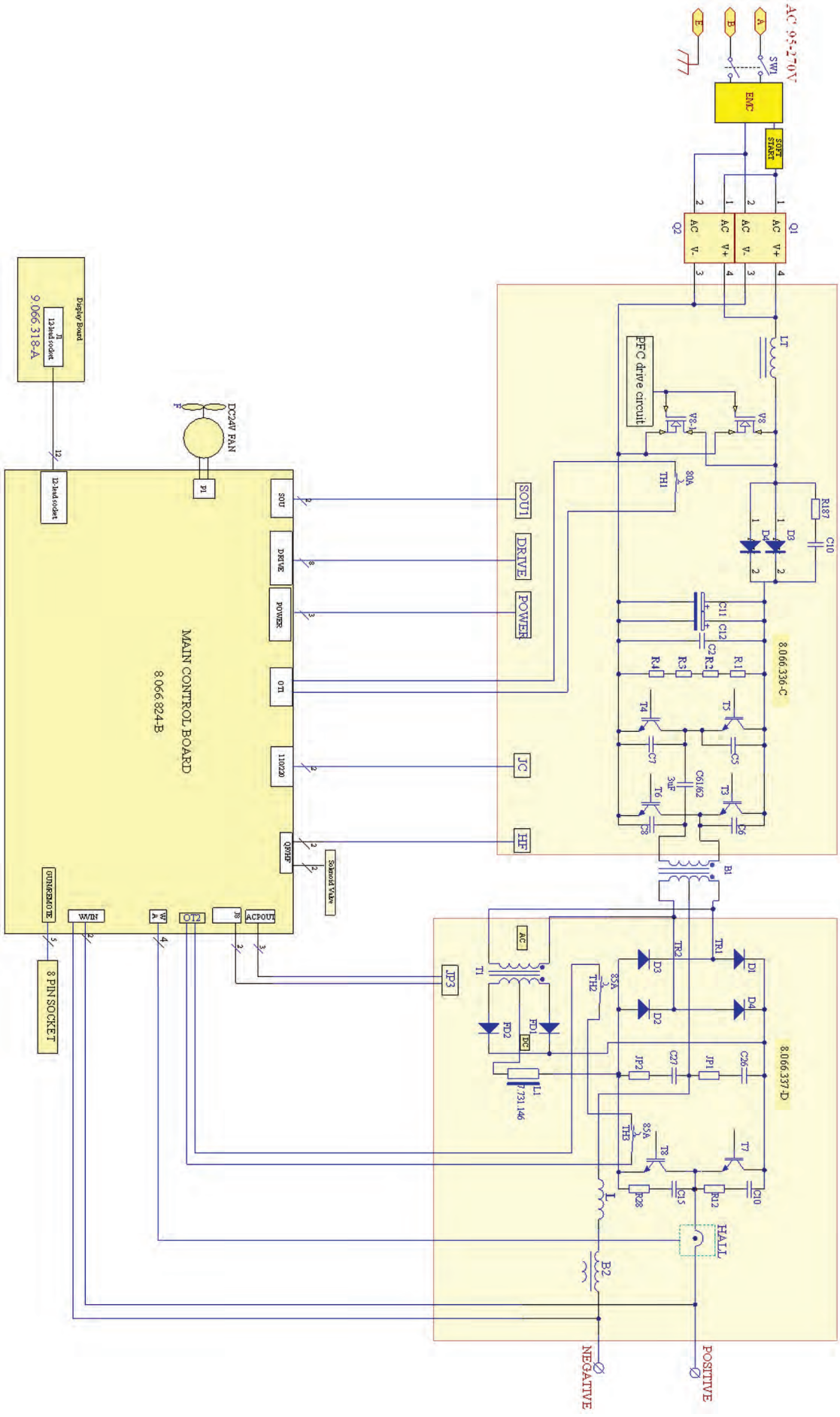
- Before arc welding machines are dispatched from the factory, they have already been debugged accurately. So forbid anyone who is not authorized by us to do any change to the equipment!
- Maintenance course must be operated carefully. If any wire becomes flexible or is misplaced, it maybe potential danger to user!
- Only professional maintenance personal who is authorized by us could overhaul the machine!
- Guarantee to shut off the arc welding machine's power before turn on the outline of the equipment!
- If there is any problem and has no the authorized professional maintenance personal, please contact local agent or the branch company!

If there are some simple troubles of WSME-series welding machine, you can consult the following overhauling chart:

S/N	TROUBLES		REASONS	SOLUTION
1	Turn on the power source, and fan works, but the power pilot lamp is not on		The power light damaged or connection is not good	Check and repair Pr7
			The transformer of power is broken	Repair or change the transformer
			Control PCB failures	Repair or change the control Pr4
2	Turn on the power source, and the power lamp is on, but fan doesn't work		There is something in the fan	Clear out
			The start capacitor of fan damaged	Change capacitor
			The fan motor damaged	Change fan
3	Turn on the power source, the power lamp is not on, and fan doesn't work		No power supply input	Check whether there is power supply
			The fuse inside the machine damaged	Change it (3A)
4	The number on the display is not intact		The LED in the display is broken	Change the LED
5	The max and min value displayed doesn't accord with the set value		The max value is not accordant (refer to 3.1)	Adjust potentiometer Imin on the power board
			The min value is not accordant (refer to 3.1)	Adjust potentiometer Imaxin the current meter
6	No no-load voltage output (STICK)		The machine is damaged	Check the main circuit and the Pr4
7	Arc can not be ignited (TIG)	There is spark on the HF igniting board	The welding cable is not connected with the two output of the welder	Connect the welding cable to the welder's output
			The welding cable damaged	Repair or change it
			The earth cable connected unstably	Check the earth cable
			The welding cable is too long	Use an appropriate welding cable
			There is oil or dust on the workpiece	Check and remove it
		There is not spark on the HF igniting board	The HF igniting board does not work	Repair or change Pr8
			The malfunction of the welding gun switch	Check the welding gun switch, control cable and aero socket

S/N	TROUBLES	REASONS		SOLUTION
8	No gas flow (TIG)	Gas cylinder is close or gas pressure is low		Open or change the gas cylinder
		Something in the valve		Remove it
		Electromagnetic valve is damaged		Change it
9	Gas always flows	The gas-test on the front panel is on		The gas-test on the front panel is off
		Something in the valve		Remove it
		Electromagnetic valve is damaged		Change it
		The adjustment knob of pre-gas time on the front panel is damaged		Repair or change it
10	The welding current cannot be adjusted	The welding current potentiometer on the front panel connection is not good or damaged		Repair or change the potentiometer
11	No AC output while selecting “AC”	The power PCB is in trouble		Repair or change it
		The AC drive PCB damaged		Change it
		The AC IGBT module damaged		Change it
12	The welding current displayed isn’t accordant with the actual value	The min value displayed isn’t accordant with the actual value. (Please refer to 3.1)		Adjust potentiometer Imin on the power board
		The max value displayed isn’t accordant with the actual value. (Please refer to 3.1)		Adjust potentiometer Imax on the power board
13	The penetration of molten pool is not enough	The welding current is adjusted too low		Increase the welding current
		The arc is too long in the welding process		Use 2T operation
14	The alarm lamp on the front panel is on	Over heat protection	Two much welding current	Reduce the welding current output
			Working time too long	Reduce the duty cycle (work intermittently)
		Over-voltage protection	Power supply fluctuates	Using the stable power supply
		Low-voltage protection	Power supply fluctuates	Using the stable power supply
			Too many machines using power supply in the same time	Reduce the machines using power supply in the same time
		Over-current protection	Unusual current in the main circuit	Check and repair the main circuit and drive Pr6

5.3 ELECTRICAL PRINCIPLE DRAWING



WARRANTY CARD

3 years warranty weldcote

Customer Name: _____

Address: _____

Email: _____

Tel Number: _____

Date Of Purchase: _____

Serial Number:

Model Number: _____

Dealers Name: _____

Dealers Signature And Stamp:

WARRANTY TERMS:

1. The warranty is valid for three years for any manufacturing defect.
2. This warranty is canceled if this certificate is not sent immediately upon purchase with tax invoice attached.
3. This warranty is canceled if the machine opened or disassemble not in the company labs.
4. The warranty is not valid if the equipment is maliciously damaged, or by negligence or accident.
5. In any case of use other than according to instructions the manufacturer's warranty is not valid.

Customer Name: _____

Address: _____

Email: _____

Tel Number: _____

Date Of Purchase: _____

Serial Number:

Model Number: _____

Dealers Name: _____

Dealers Signature And Stamp:

weldcote

Please send this attachment within 14 days of purchase!

Weldcote Metals
842 Oak Grove Road,
Kings Mountain, NC 28086 USA.
Phone: **704-739-4115**
www.weldcotemetals.com

DEAR CONSUMER:
Read before you turn on your device - keep this page

GENERAL INSTRUCTIONS:

We recommend that you attach your warranty card showing date of purchase, to the product and keep for your reference.

Warranty coverage terms:

1. Warranty covers any manufacturing technical defects excluding breakage.
2. Warranty is void if repaired without our consent.
3. The warranty does not cover damage resulting from wrong operation, careless handling, accidents, misuse, entry of water, slurry, powder and other particles inside the machine, wrong installation by using wrong voltage, or in any way tampered with.
4. Only electronic components inside can be repaired for any manufacturing defects during warranty period.

The warranty is valid under the following conditions:

- Stamped and signed by the seller.
- The warranty certificate arrived at the WELDCOTE offices within 14 days of the purchase, together with an invoice.

Weldcote Metals
842 Oak Grove Road,
Kings Mountain, NC 28086 USA.
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www.weldcotemetals.com