INVERTER PROFESSIONAL TIG WELDING MACHINE

LONGRUN® 350PA, 500PA

OPERATION MANUAL

DO NOT INSTALL, OPERATE OR MAINTAIN THIS MACHINE WITHOUT READING THIS MANUAL AND PLEASE ALWAYS THINK BEFORE YOU ACT.

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<CONTENTS>

■ TECHNICAL SPECIFICATIONS

Model	UNIT	350PA		350PA	
Rated Input Voltage	V	220V		380V	
		1 Phase	3 Phase	1 Phase	3 Phase
Input Current	A	65A	33A	37A	18A
Input Capacity	KVA	14KVA	13KVA	14KVA	12KVA
Rated Input Cable	MM^2	Min $12mm^2$	MIN $6mm^2$	MIN $8mm^2$	MIN $4mm^2$

Process		—	TIG	ARC	TIG	ARC
No load Voltage		V	74V		74V	
Rated Output Voltage		V	24V	29V	24V	29V
Rated Output Current		A	5~350A	5~230A	5~350A	5~230A
Duty Cycle		%	60%			
Pulse Width		%	5%~95%			
Pulse Frequency	Low	Hz	0.5~30Hz			
	High		30~500Hz			
Pre-flow		sec	0.5 ~ 5(SEC)			
Post-flow		sec	0.5 ~ 15(SEC)			
Slope Down/Up		sec	0.1 ~ 5(SEC)			
Cleaning Rate		%	10 ~ 60%			
AC Frequency		Hz	10 ~125Hz			
Weight		kg	56.5Kg		56.5Kg	
Dimension (W×D×H)		mm	350*715*560mm			

ITEM	UNIT	500PA		500PA	
Rated Input Voltage	V	220V		380V	
		1 Phase	3 Phase	1 Phase	3 Phase
Input Current	A	115A	54A	68A	30A
Input Capacity	KVA	23KVA	20KVA	26KVA	20KVA
Rated Input Cable	MM^2	MIN 22mm^2	MIN 10mm^2	MIN 12mm^2	MIN 6mm^2

Process		—	TIG	ARC	TIG	ARC
No load Voltage		V	74V		74V	
Rated Output Voltage		V	30V	33V	30V	33V
Rated Output Current		A	5~500A	10~330A	5~500A	10~330A
Duty Cycle		%	60%			
Pulse Width		%	5%~95%			
Pulse Frequency	Low	Hz	0.5~30Hz			
	High		30~500Hz			
Pre-flow		sec	0.5 ~ 5(SEC)			
Post-flow		sec	0.5 ~ 15(SEC)			
Slope Down/Up		sec	0.1 ~ 5(SEC)			
Cleaning Rate		%	10 ~ 60%			
AC Frequency		Hz	10 ~125Hz			
Weight		kg	60Kg		60Kg	
Dimension (W×D×H)		mm	350*715*560			

■ General Safe Practices

· Wear approved safety glasses with side shields under your welding helmet or face shield and at all times in the work area.
· When working above floor level, use a safety belt to protect yourself from a fall should you get a shock.
· Do not install or place machine on or over combustible surfaces.
· Be sure that all installation, operation, maintenance and repair procedures are performed only by qualified persons.

● Electric shock can kill.

· Wear Dry, hole-free insulating gloves and body protection. Do not touch electrode with bare hand. Do not wear wet or damaged gloves.
· Do not touch live electrical parts.
· Never dip the electrode in water for cooling.
· Properly install and ground all equipment.
· Protect yourself from electric shock by insulating yourself from work and ground. Use non-flammable, dry insulating material if possible, or use dry rubber mats, dry wood or plywood, or other dry insulating material big enough to cover your full area of contact with the work or ground, and watch for fire.
· Turn off input power using the disconnect switch at the fuse box before working on the equipment.
· Frequently inspect input power cord for damage or bare wiring and repair or replace cord immediately if damaged.

● Fumes and gases can be dangerous.

· Welding may produce fumes and gases hazardous to health. Avoid breathing these fumes and gases. When welding, keep your head out of the fume. Use enough ventilation and/or exhaust at the arc to keep fumes and gases away from the breathing zone.
· Use enough forced ventilation or local exhaust (forced suction) at the arc to remove the fumes from your breathing area.
· Use a ventilating fan to remove the fumes from the breathing zone and welding area.

● Arc rays can burn eyes and skin.

· Use welding helmet with correct shade of filter to protect your eyes from sparks and the rays of the arc.
· Wear welders cap and safety glasses with side shields. Use ear protection when welding out of position or in confined spaces. Button shirt collar.
· Wear complete body protection. Wear oil-free protective clothing such as leather gloves, heavy shirt, cuffless pants and high boots.

· Remove fire hazards from the welding area. If this is not possible, cover them to prevent the welding sparks from starting a fire. Remember that welding sparks and hot materials from welding can easily go through small cracks and opening to adjacent areas. Avoid welding near hydraulic lines.
· When not welding, make certain no part of the electrode circuit is touching the work or ground. Accidental contact can cause overheating and create a fire hazard.
· Do not weld on drums, tanks, or any closed containers unless a qualified person has tested it and declared it or prepared it to be safe.
· Connect the work cable to the work as close to the welding area as practical. Work cables connected to the building framework or other locations away from the welding area increase the possibility of the welding current passing through lifting chains, crane cables or other alternate circuits. This can create fire hazards or overheat lifting chains or cables until they fail.

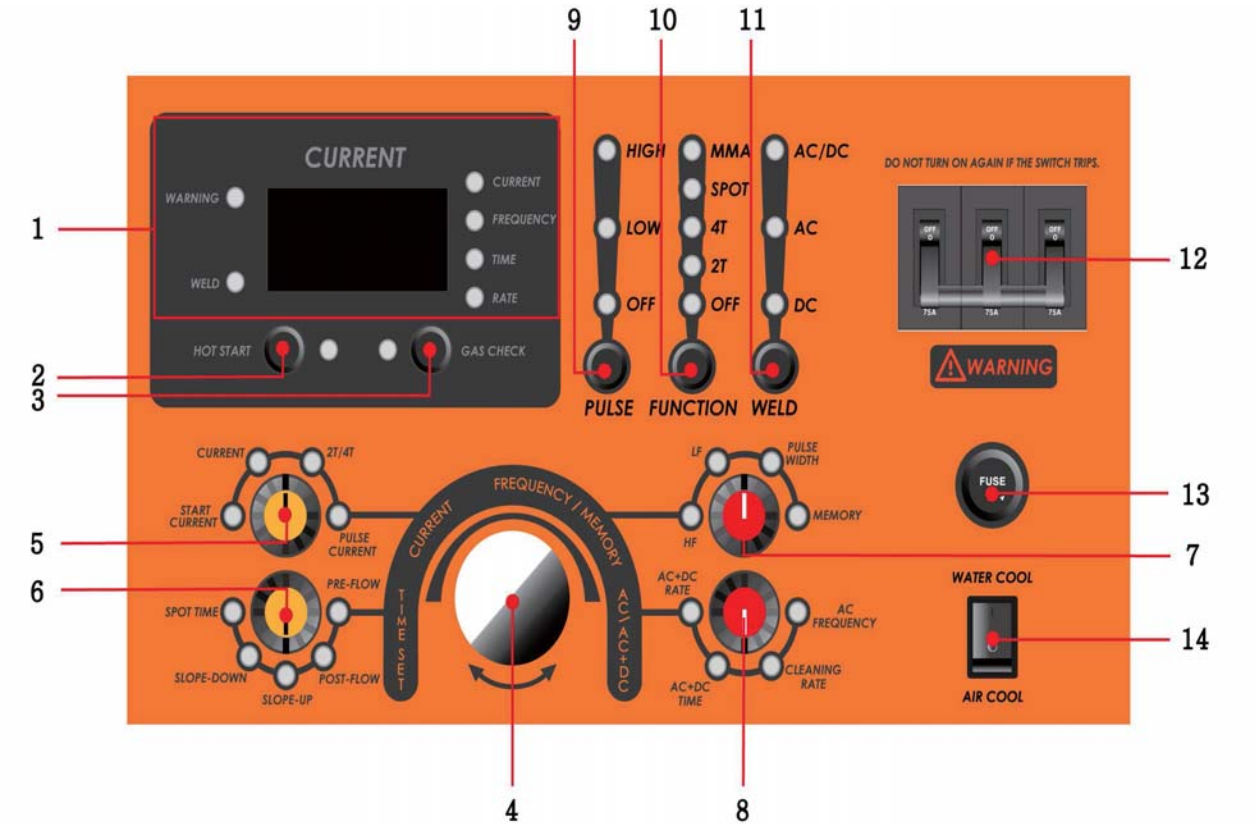
■ INSTALLATION

● The welding machine shall be installed at a place ;

· free from the inflammables
· less humidity, dirt and dust
· protecting from influence of direct sunlight, wind and rain
· not generated oil vapor and corrosive gas
· operating temperature range is from -10℃ to 40℃
· least 30㎝ away from wall and other welding machine

■ FUNCTIONAL DESCRIPTION

FRONT TOP PANEL



1. DISPLAY

A variety of information about the PA series appears here.

Current	It indicates the welding current	**Frequency (pulse) lamp**	It indicates that now is on frequency adjusting.
Warning lamp	It indicates that the welding machine has any problems.	**Time lamp**	It indicates that now is on time adjusting.
Weld lamp	It indicates that now is on welding.	**Rate lamp**	It indicates that now is on AC/AC+DC rate adjusting.
Current lamp	It indicates that now is on current adjusting.		

2. HOT START

Turns the HOT START on and off

* HOT START : When you start arc, you can start high current than setting current when arc starting.

* DIFFERENCES OF HOT START BETWEEN AC/DC

DC	AC
· HOT START CURRENT flows when under 35A · Possible to HOT START function off · HOT START CURRENT TIME - 0.08(sec)	· HOT START CURRENT flows when under 50A · Impossible to HOT START function OFF · HOT START CURRENT TIME - 0.15(sec)
* Bad arc start or high pressure lasting problem may arise in long distance usage, if HOT START function is off	

3. GAS CHECK

It is for gas check. When you press this button, gas will emit without pressing welding torch switch.

MEMO

For the purpose of Gas checking button,

1) Checkiing up a gas leak, time and pressure.

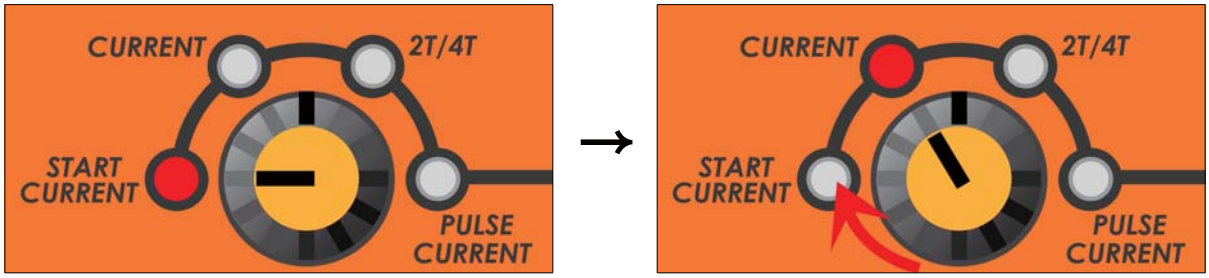
2) For emitting Gas-Air mixture from line before start welding which help more stable start in Automaion system welding.

4. CONTROL VOLUME

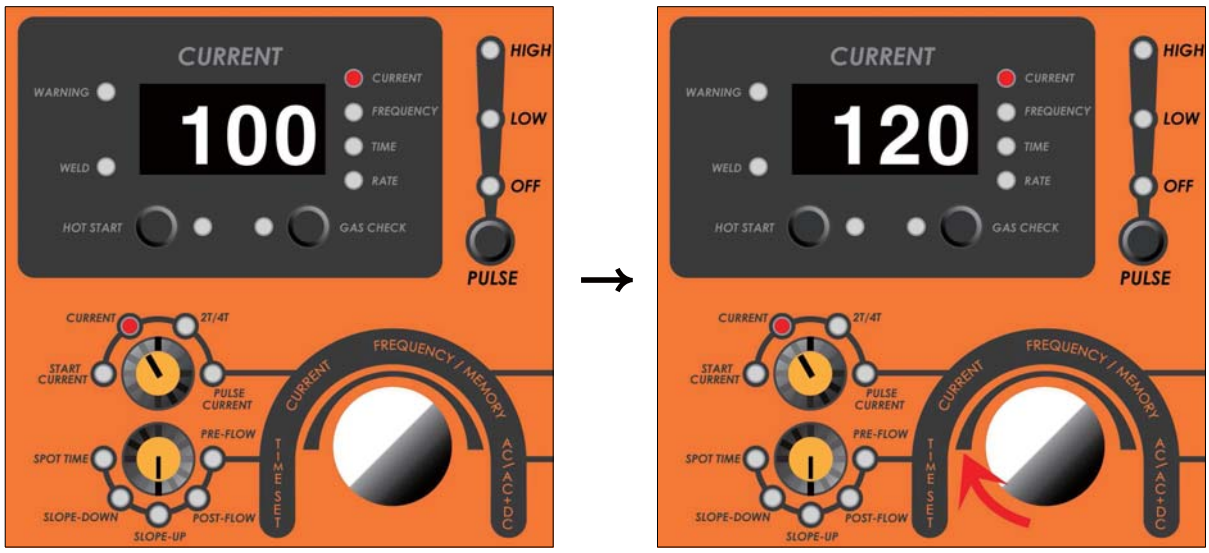
It adjust the values of setting in each volume knobs.

5. CURRENT KNOB

This mode knob will help you set up current, start current, 2T/4T functions and pulse current.



Place mode where to adjust. Then, use control volume to adjust value.

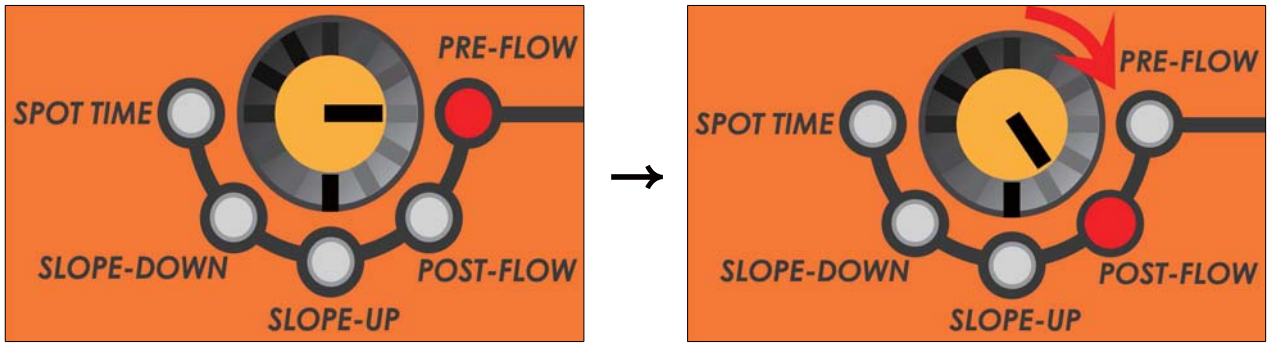


* CURRENT PARAMETERS

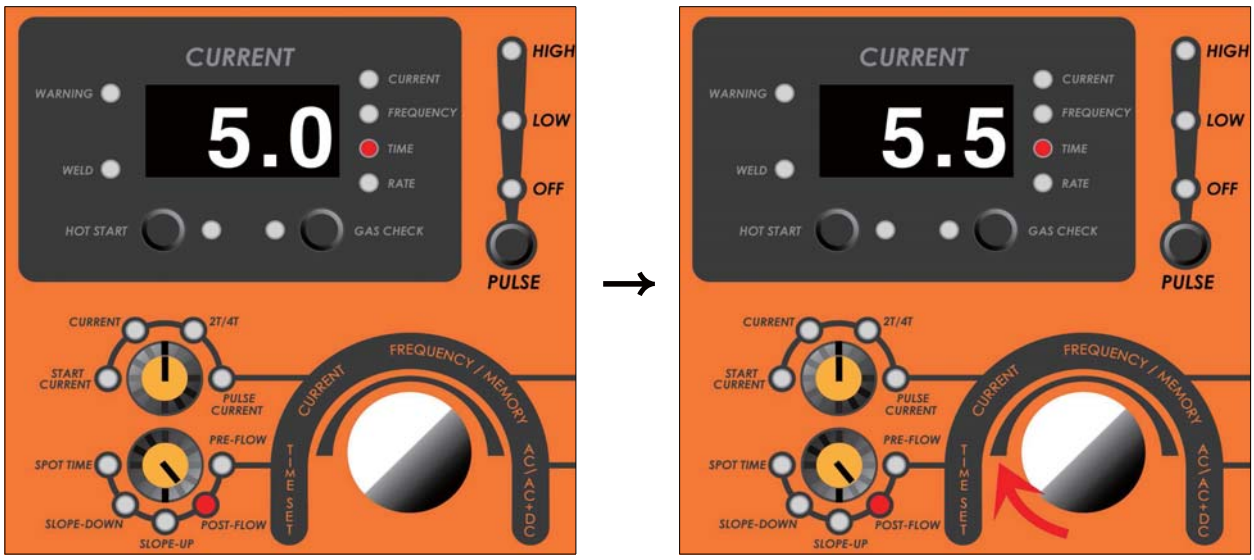
MODEL	MIN	MAX
350PA	5A	350A
500PA	5A	500A
* If not change a value in ten seconds, mode will be off automatically.		

6. TIME SET KNOB

This mode knob will help you set up pre-flow, post-flow, slope-up, slope-down and spot time.



Place mode where to adjust. Then, use control volume to adjust value.

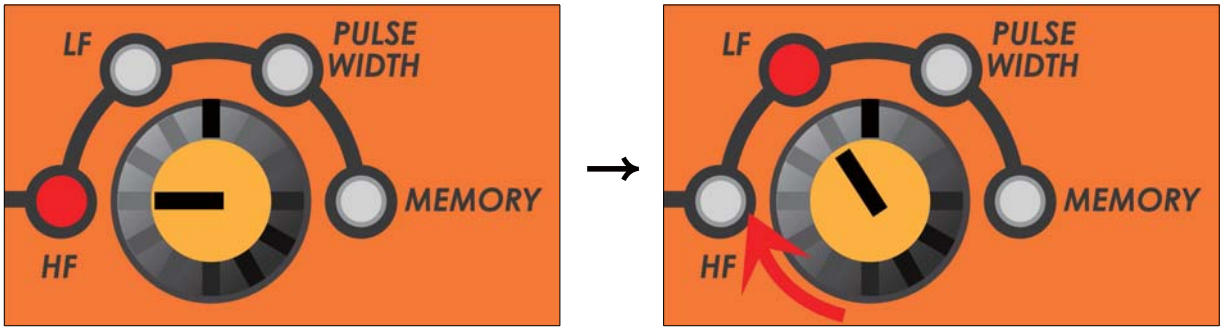


* TIME SET PARAMETERS

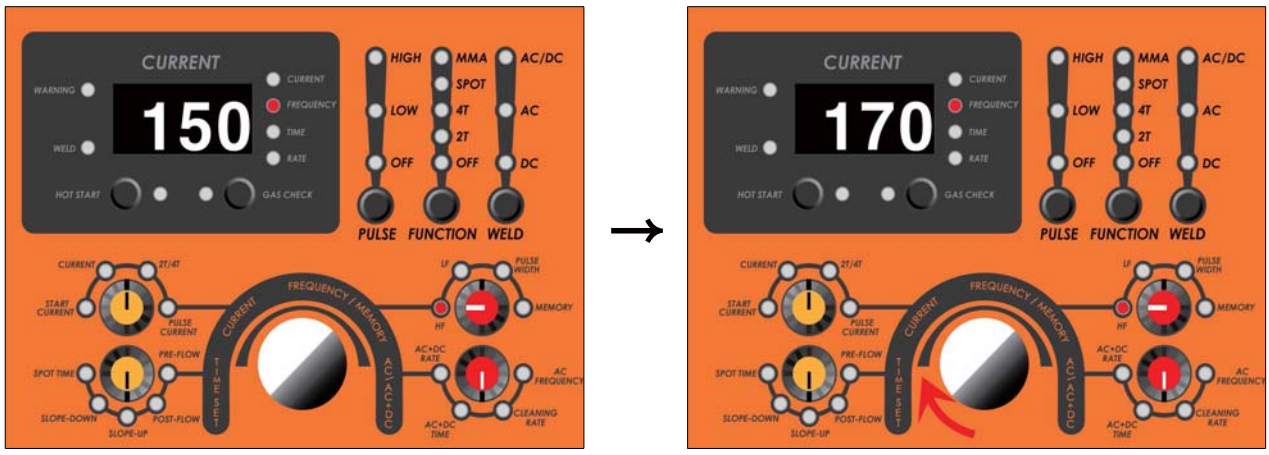
SUBJECT	RANGE	UNIT
PRE-FLOW	0-5(sec)	0.1(sec)
POST-FLOW	0-15(sec)	0.1(sec)
SLOPE-UP	0-5(sec)	0.1(sec)
SLOPE-DOWN	0-5(sec)	0.1(sec)
SPOT TIME	0-5(sec)	0.1(sec)
* If not change a value in ten seconds, mode will be off automatically.		

7. FREQUENCY(PULSE) / MEMORY KNOB

This mode knob will help you set up HF, LF, pulse width, memory.



Place mode where to adjust. Then, use control volume to adjust value.

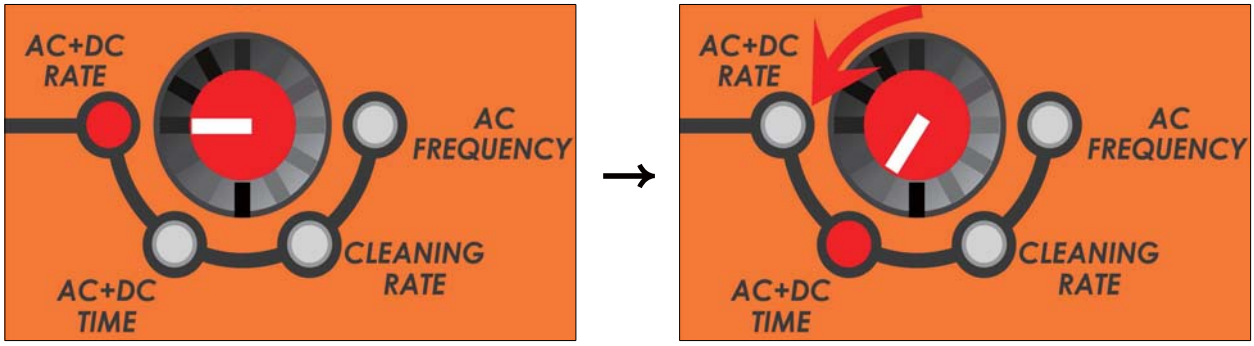


* FREQUENCY(PULSE) / MEMORY PARAMETERS

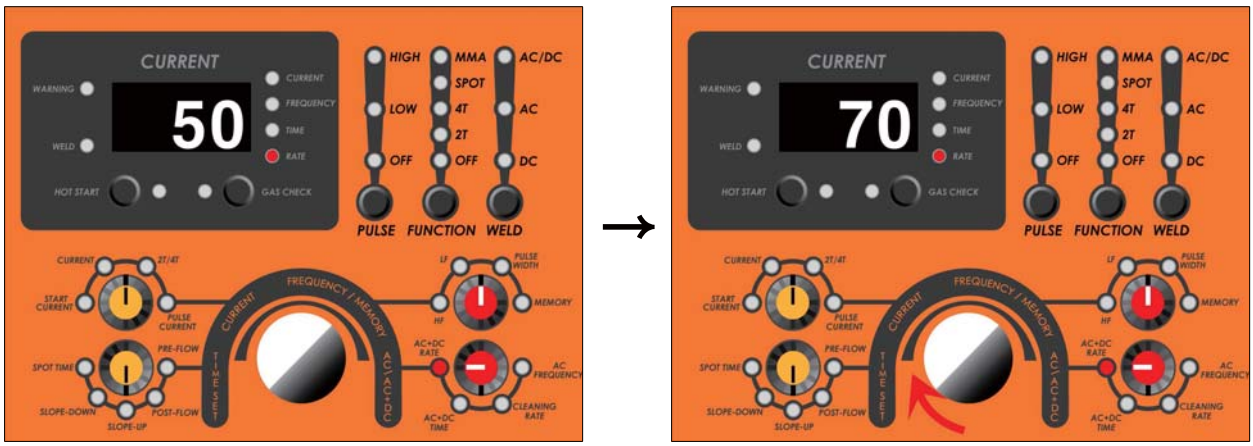
SUBJECT	RANGE	UNIT
HF (PULSE)	30Hz - 500Hz	1Hz
LF (PULSE)	0.5Hz - 0.9Hz	0.1Hz
	1Hz - 30Hz	1Hz
PULSE WIDTH	5% - 95%	1%
MEMORY	P0 - P9	
* If not change a value in ten seconds, mode will be off automatically.		

8. AC / AC+DC KNOB

This mode knob will help you set up pre-flow, post-flow, slope-up, slope-down and spot time.



Place mode where to adjust. Then, use control volume to adjust value.



* AC / AC+DC PARAMETERS

SUBJECT	RANGE	UNIT	NOTE
AC FREQUENCY	10Hz - 125Hz	1Hz	Preferable frequency range is 50-80Hz. The higher frequency, the better welding quality for thin plate.
CLEANING RATE	10% - 60%	1%	The high cleaning rate, the better result. But tungsten consumption will be quicker.
AC+DC TIME	0.1(sec) - 5(sec)	0.1(sec)	
AC+DC RATE	5% - 95%	1%	Rate means DC's rate. For instance, 20% means DC rate is 20%, AC is 80%.
* If not change a value in ten seconds, mode will be off automatically.			

9. PULSE BUTTON

This button will help you set up pulse mode like High, Low and Off.

MEMO

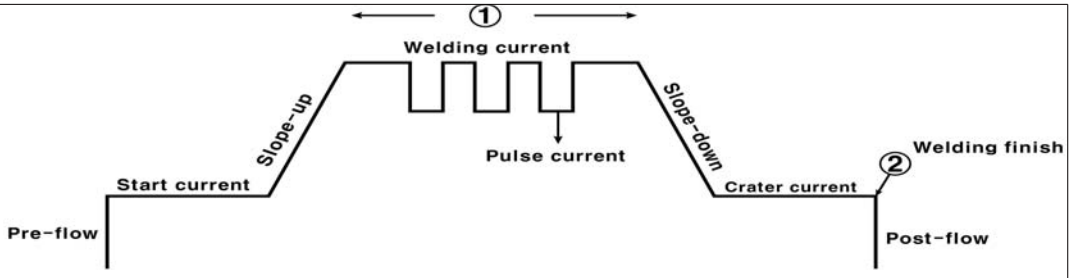
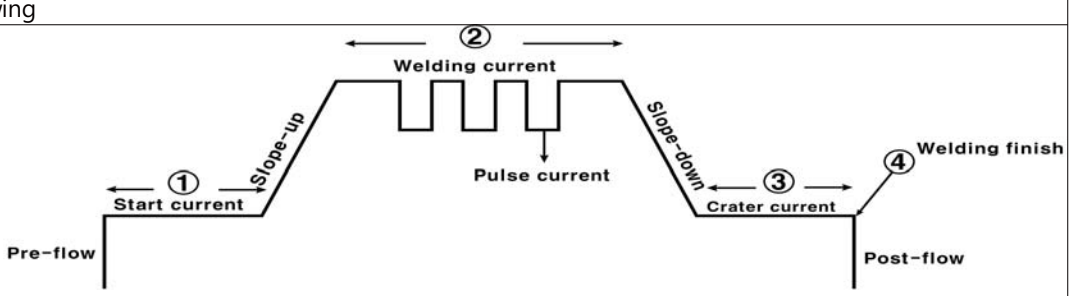
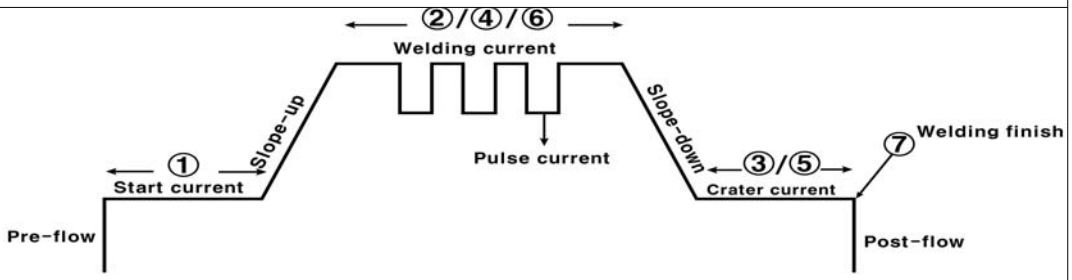
· Pulse function works in slope-up and down range but not in starting and crater current condition.

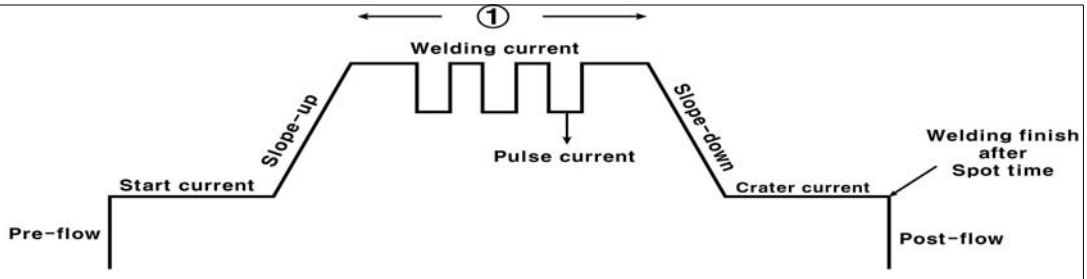
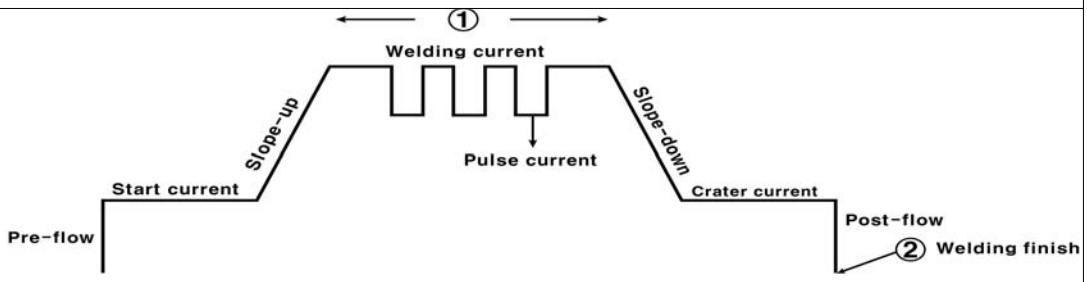
· Pulse functions do not work in flowing the HOT START CURRENT.

10. FUNCTION BUTTON

Use this when switching functions as CRATER OFF, 2T/4T, SPOT, MMA for the welding purpose.

* FUNCTION BUTTON IN GRAPH

CRATER OFF	
When holding torch switch[①], welding will be started with Arc as welding current after flowing pre-gas as the time as set. Once releasing torch switch[②], welding will be ended flowing post-gas as the time as set flowing	
2T	
For starting when holding torch switch [①], welding will be started with Arc as start current after flowing pre-gas. By releasing torch switch[②], welding will be going as welding current through slope-up. For ending when holding torch switch again[③], welding current will convert to crater current through slope-down, then release the switch when you finish [④]. Arc will be ended and post-gas will flow as set.	
4T	
For starting when holding torch switch [①], welding will be started with Arc as start current after flowing pre-gas. By releasing the switch [②], welding will be going as welding current through slope-up. Until this process is the same as 2T function. From now on, the difference comes out. When holding torch switch again[③], welding current will convert to crater current. When releasing the switch[④], it will change to welding current again. And repeat this process as much as need [⑤],[⑥]. If you finish welding, just detach torch away from material [⑦]. By which welding will end flowing post-gas.	

SPOT	
When holding torch switch[①], welding will be started with Arc after flowing pre-gas, which will keep going as long as set. Then automatically will end flowing post-gas.	
MMA	
[①]For getting started welding, attach electrode to material by which welding current will come out. [②]For ending, just detached electrode from material, by which Arc will finished.	

MEMO

Please choose weld mode selection on remote controller not on power source when remote connected. The button will work only on remote controller.

11. WELD BUTTON

Weld button will help you to set up what welding current will be used like AC, DC and AC+DC.

*Please refer to page 28 how to set following various materials.

12. POWER SWITCH

Turn the power on and off

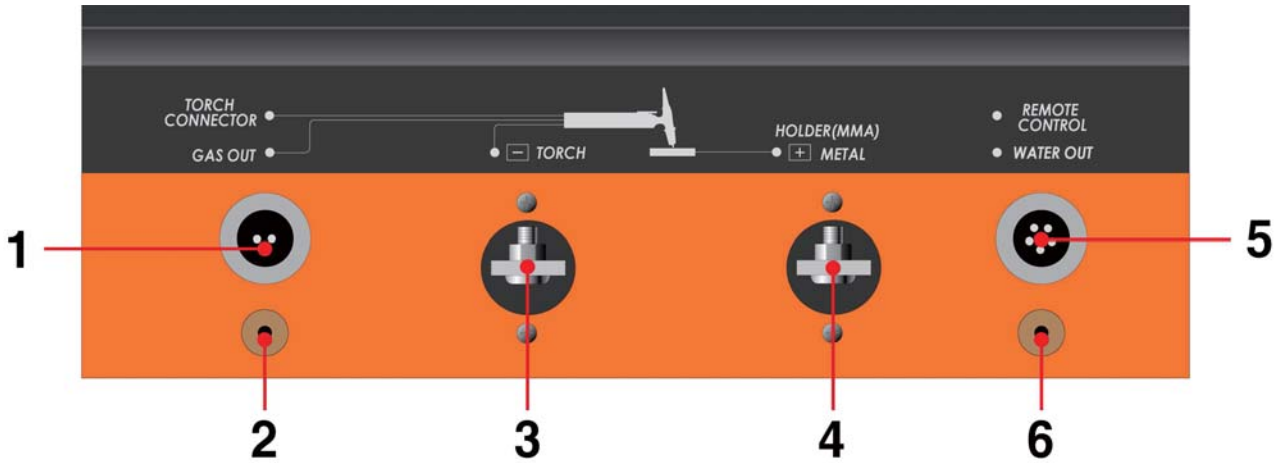
13. FUSE

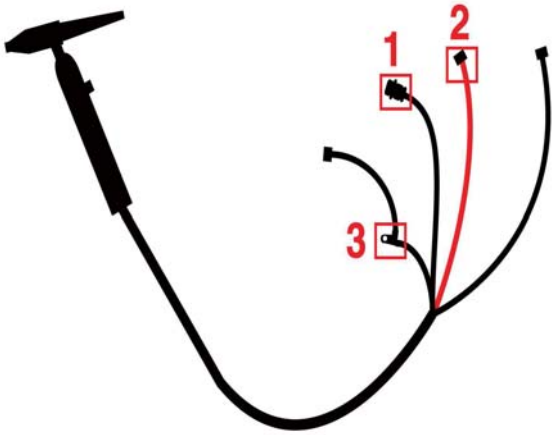
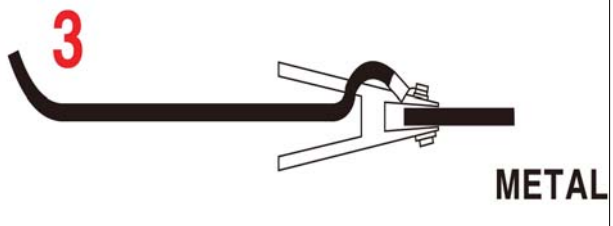
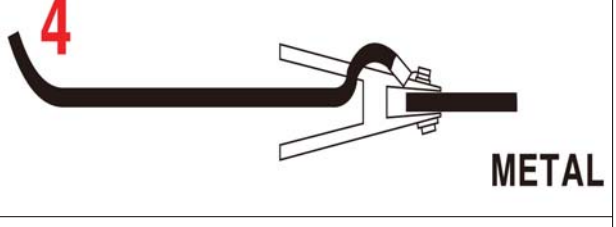
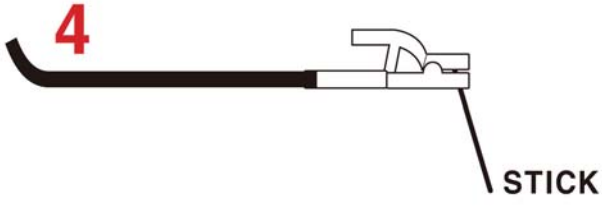
It protects the FAN, Main transformer in AC line from wrong input voltage.

14. WATER / AIR COOL SWITCH

When using the water cooler, switch to the water cool.

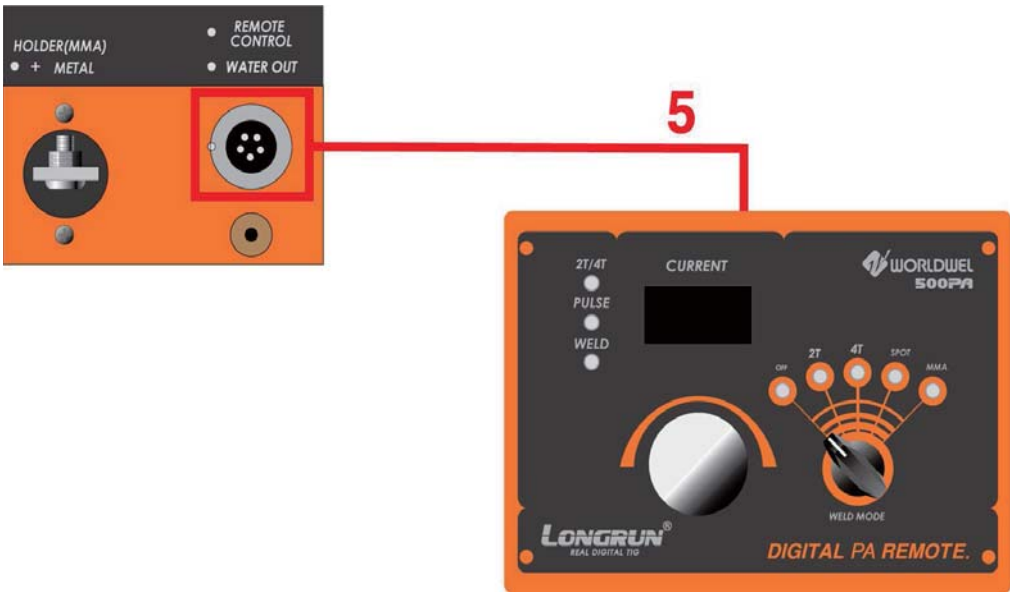
FRONT BELOW PANEL



1. TORCH CONNECTOR Connect the torch switch connector.	
2. GAS OUT Connect the gas connector to the gas out.	
3. - TORCH **By TORCH** Connect the electrode cable to the ⊟ Torch terminal.	
3. - TORCH **By MMA** Connect the work cable (which is connected to the work clamp) to ⊟ Torch terminal.	
4. + METAL / HOLDER **By TORCH** Connect the work cable which is connected to the work clamp to the ⊞ Metal terminal.	
4. + METAL / HOLDER **By MMA** Connect the electrode cable (which is connected to the electrode holder) to the ⊞ Metal terminal.	

5. REMOTE CONTROL

Connect remote controller to the remote controller terminal as below drawings.

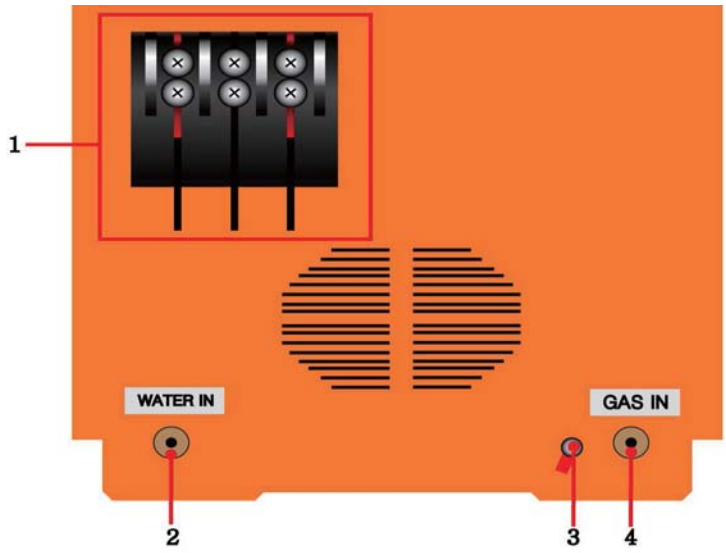


6. WATER OUT

Connect the water hose A of the water cooled torch to the water out A of power source.

(Refer to drawing at 18 page)

REAR PANEL



1. POWER INPUT TERMINAL

Open the cover of terminal plate and connect the power cable to the power input terminal. For single phase connection, connect two cables on left and right side only without center.

2. WATER IN

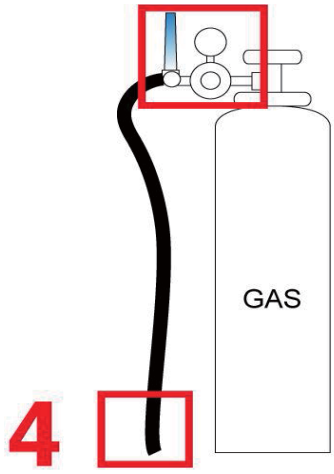
Connect the water cooler outlet to water in.
(refer to drawing at page 18)

3. GROUND TERMINAL

Connect the ground wire to this ground terminal to prevent electric shock just in case.

4. GAS IN

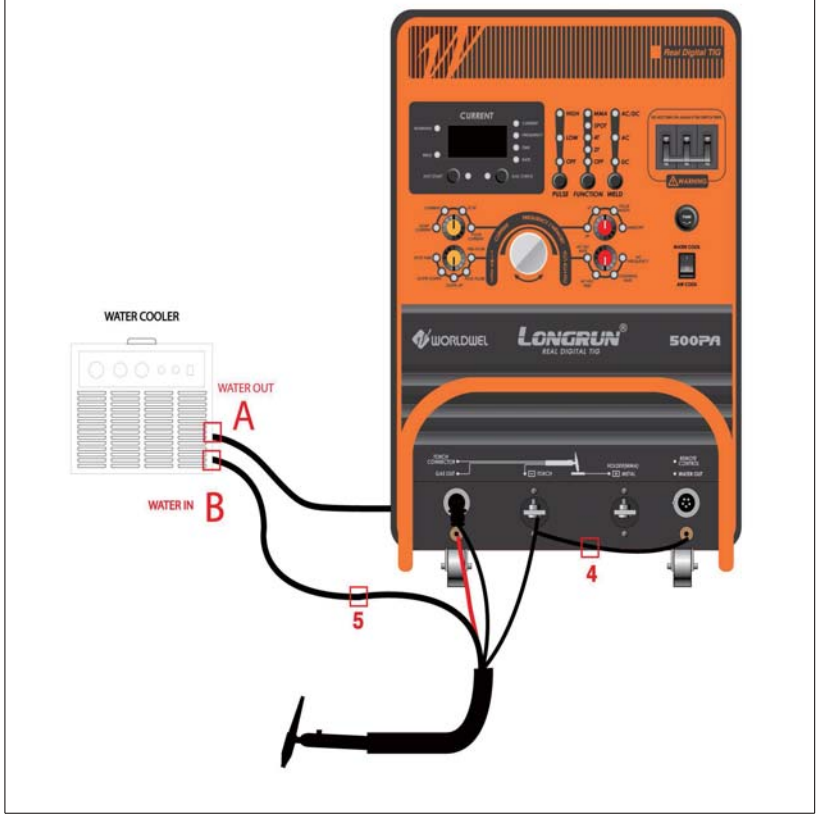
Connect the gas regulator to the gas bottle.
Then, connect the gas hose to the gas input terminal.



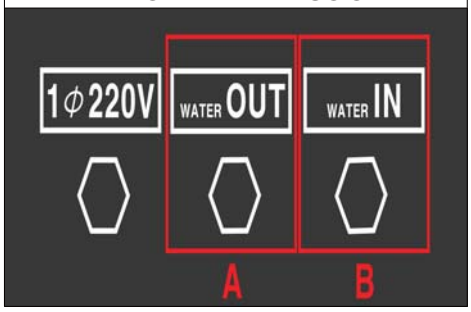
* Keep main power down and switch off of welding machine during connection of input cable. Otherwise electric shock can kill you.	
* Before power switch on, check again whether right voltage is on the conncetion or not.	

WATER COOLER (WHEN USING WATER COOLER)

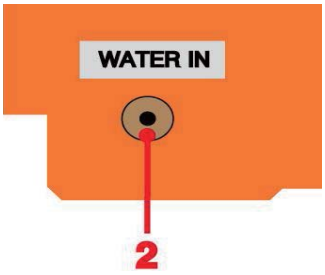
WATER COOLER CONNECTION



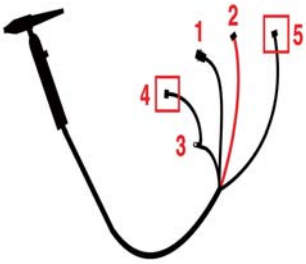
REAR OF WATER COOLER

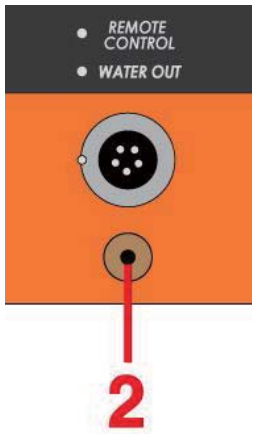


1. If you want to use the water cooler, connect the "water out" hose[A] to "water in"[2] terminal.



2. Then, connect "the water hose [4]" of the water cooled torch to "the WATER OUT [6]" of the welder. And, connect "the water hose [5]" of the water cooled torch to "the WATER IN [B]" of the water cooler.





REMOTE CONTROLLER

1. DISPLAY	A variety of information about the remote controller appears here.
CURRENT	It indicates the welding current.
2T/4T LAMP	It indicates that now is on adjusting the 2T/4T current.
PULSE LAMP	It indicates that now is on adjusting the pulse current.
Weld LAMP	It indicates that now is on adjusting the welding current
2. CONTROL VOLUME	·Adjust the value of current settings. ·Press this volume when switching the current setting such as the crater current(2T/4T), pulse current, welding current.
3. WELD MODE SWITCH	This is same function with the "function button" in the main welding machine. You can switch functions for welding purpose such as CRATER OFF, 2T/4T, SPOT, MMA

*HOW TO USE THE REMOTE CONTROLLER

1) Adjust the values of setting.
2) All values of setting can be sent at once. You do not need to save separately.
4) Once saved settings will not be changed even if the remote controller separated.

*Adjusting setting with the remote controller does not work during welding. Please set after finishing welding.

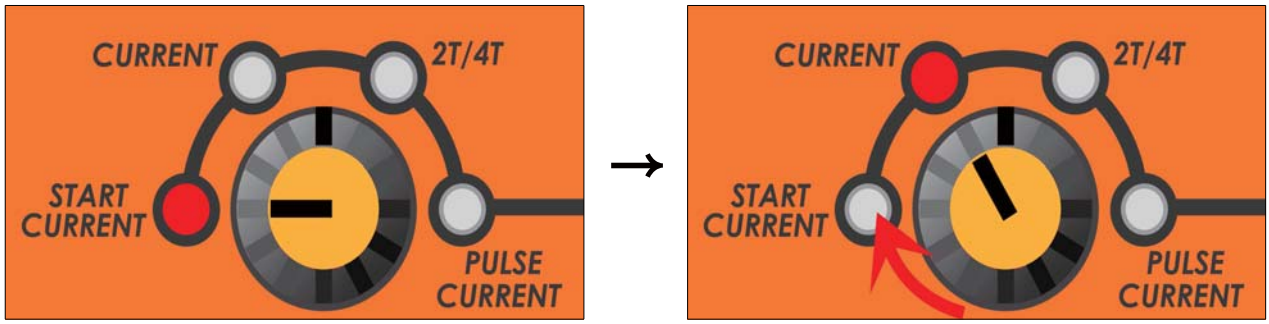
*You can use the remote controller up to 20M. If the distance is longer, however, it may not be sent.

*Please separate the remote controller cable from the earth cable and torch cable.

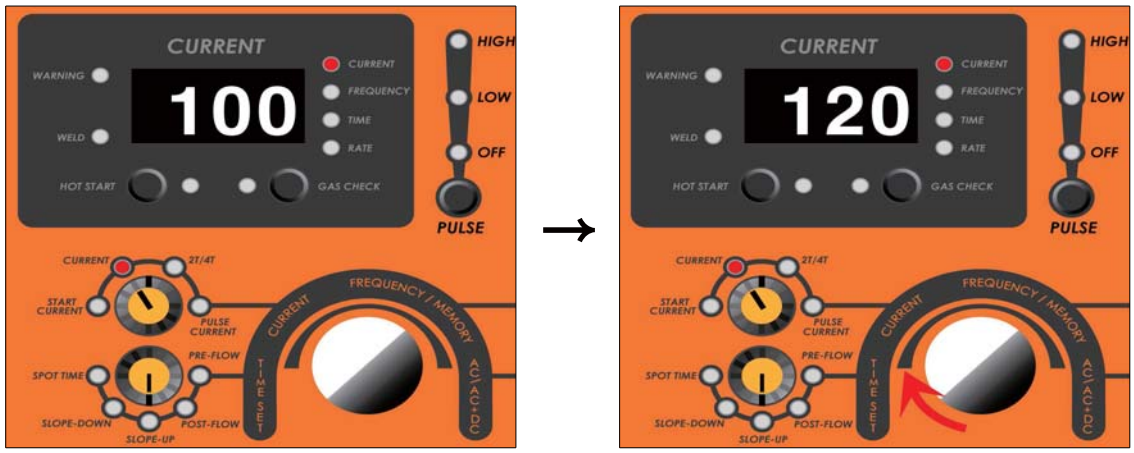
■ HOW TO USE THE WELDING MACHINE

HOW TO SET

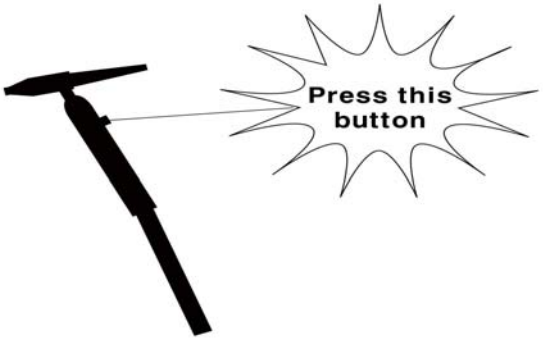
1) Turn LED ON which you want to adjust by turning the knob.
(Start current → Current)



2) Adjust the value of setting by turning the control volume.
(100A → 120A)



3) Press the torch switch in order to save in the main memory.



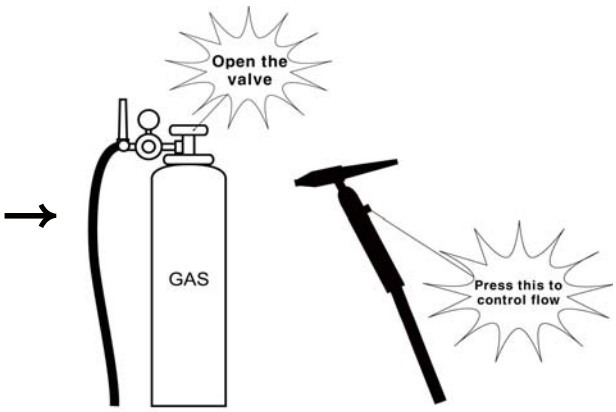
MEMO

·If you turn the power off without saving, it will not be saved.
·If you did not save after adjusting the value of setting in 10 seconds, LED is off.

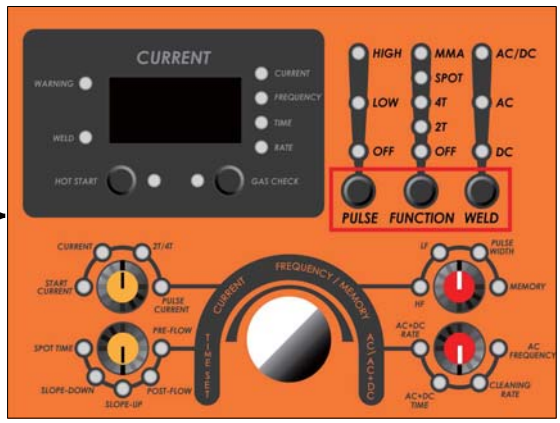
HOW TO OPERATE

1) Select the water / air cooling switch to suit cooling system.

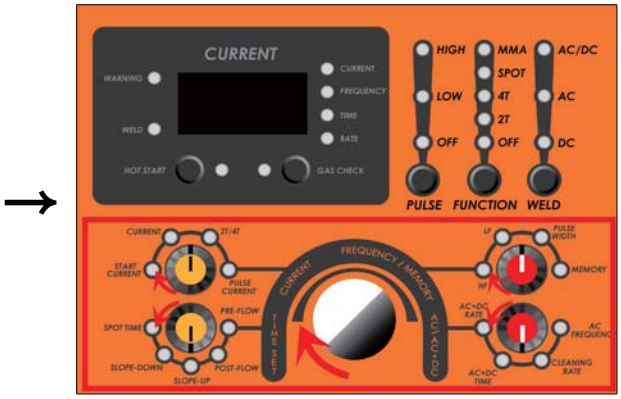
2) Power on and check that the fan works.



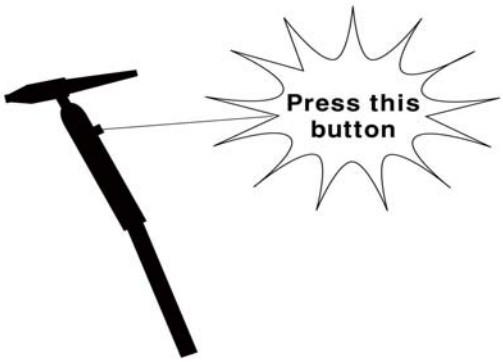
3) Open the valve of Argon gas bottle. Then, adjust the flow of argon gas by pressing the torch switch. (5~10L/min)



4) Set the welding condition by using pulse button, function button, welding button.



5) Adjust the pulse frequency, pulse width, start current, post-flow, etc by using each knobs.

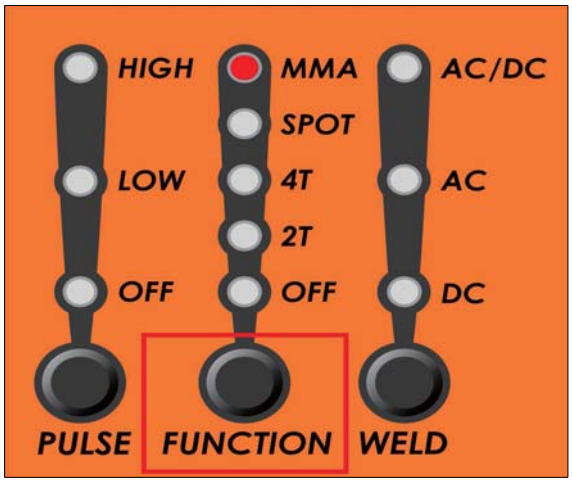


6) Press the torch switch in order to save.

If you turn the power off without saving, it will not be saved.

HOW TO OPERATE MMA

1) Power on and check that the fan works.

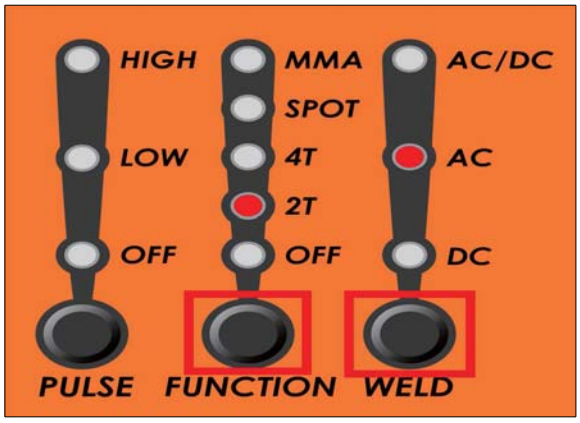


2) Select the MMA by using the function button.

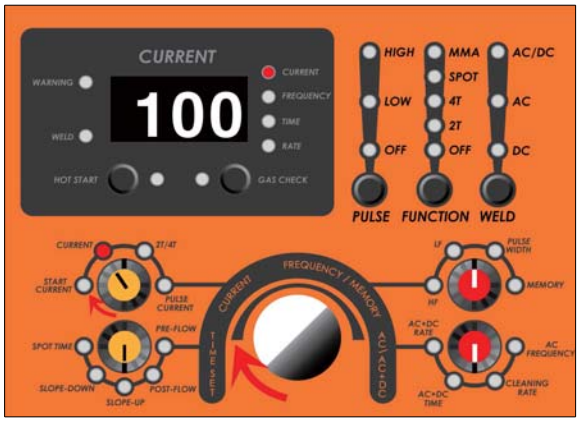
3) Select the welding current by using the current knob. Then, adjust the current properly.

HOW TO SET UP VARIOUS SETTINGS 1. (EX. For Welding thin aluminum)

AC, 2T, CURRENT 100, PRE-FLOW 0.2, POST-FLOW 3, HF 100HZ



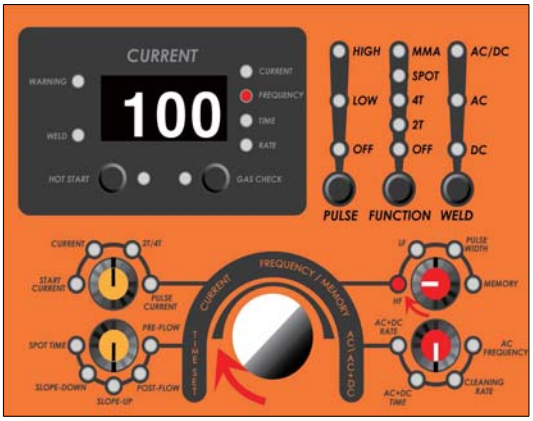
1) Select the AC by pressing the weld button. Then, select the 2T by pressing the function button.



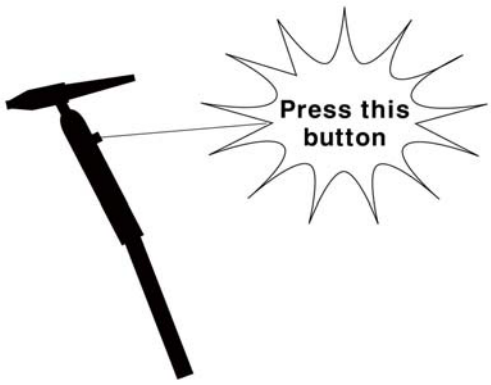
2) Select the current by turning the current knob. Then, set the 100A by the control volume.

3) select the pre-flow by turning the time set. Then, set 0.2 sec by control volume.

4) Select the post-flow by turning the time set knob. Then, set 3 sec by control volume.



5) Select the HF by turning the frequency / memory knob. Then, set 100Hz by control volume.

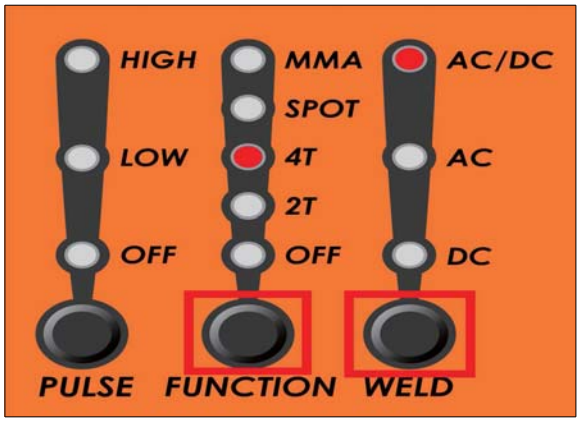


6) Press the torch switch in order to save.

*** You do not need to save all the settings one by one. Just press the torch switch to save after finishing all the settings.**

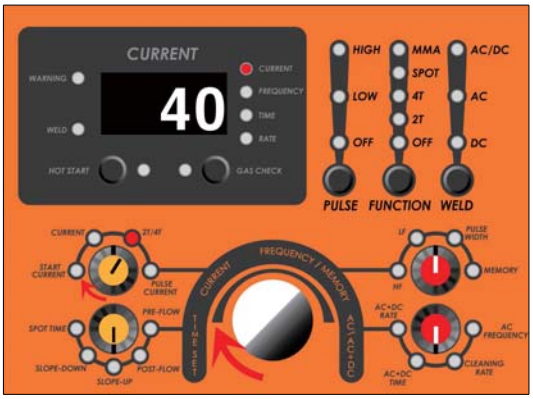
HOW TO SET UP VARIOUS SETTINGS 2. (EX. For Welding thick aluminum)

AC/DC, 4T, CURRENT 250, PRE-FLOW 0.2, POST-FLOW 3, HF 100HZ



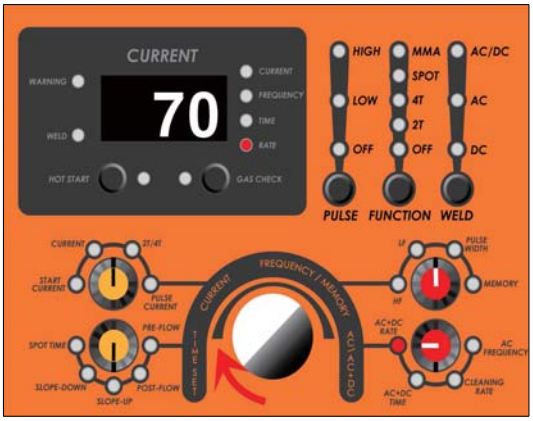
1) Select the AC/DC by pressing the weld button. Then, select the 4T by pressing the function button.

2) select the current by turning the current knob. Then, set the 250A by the control volume.

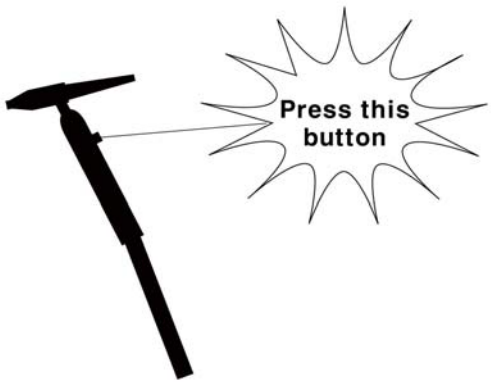


3) select the 2T/4T by turning the current knob. Then, set 40A by control volume.

4) Select the pre-flow, post-flow by turning the time set knob. Then, set 0.2, 3 sec each by control volume.



5) Select the AC+DC RATE by turning the AC/AC+DC knob. Then, set 70% by control volume.



6) Press the torch switch in order to save.

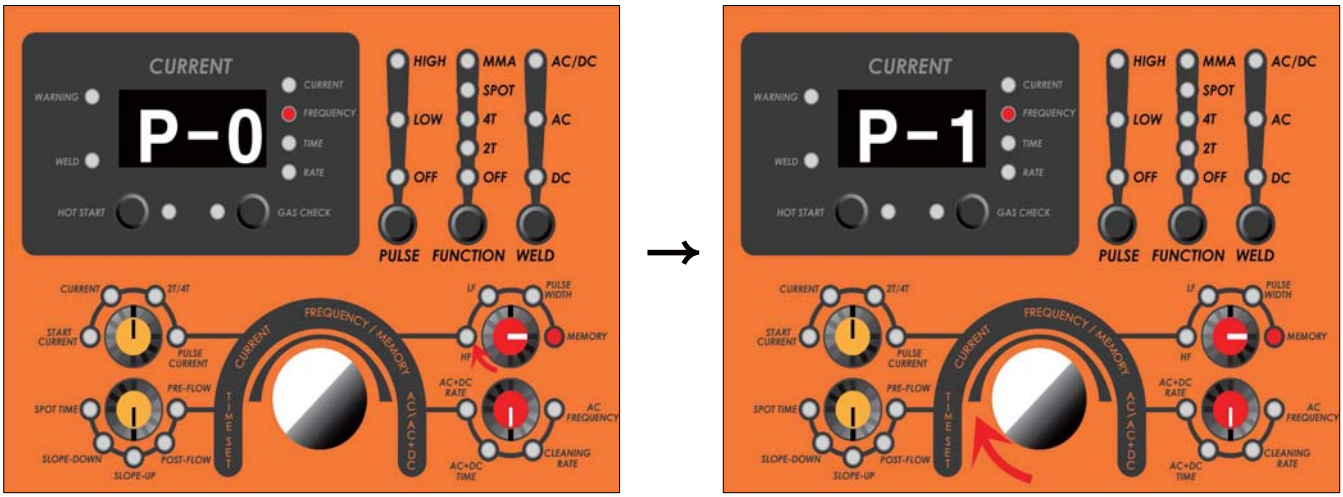
*** You do not need to save all the settings one by one. Just press the torch switch to save after finishing all the settings.**

MEMORY BANK

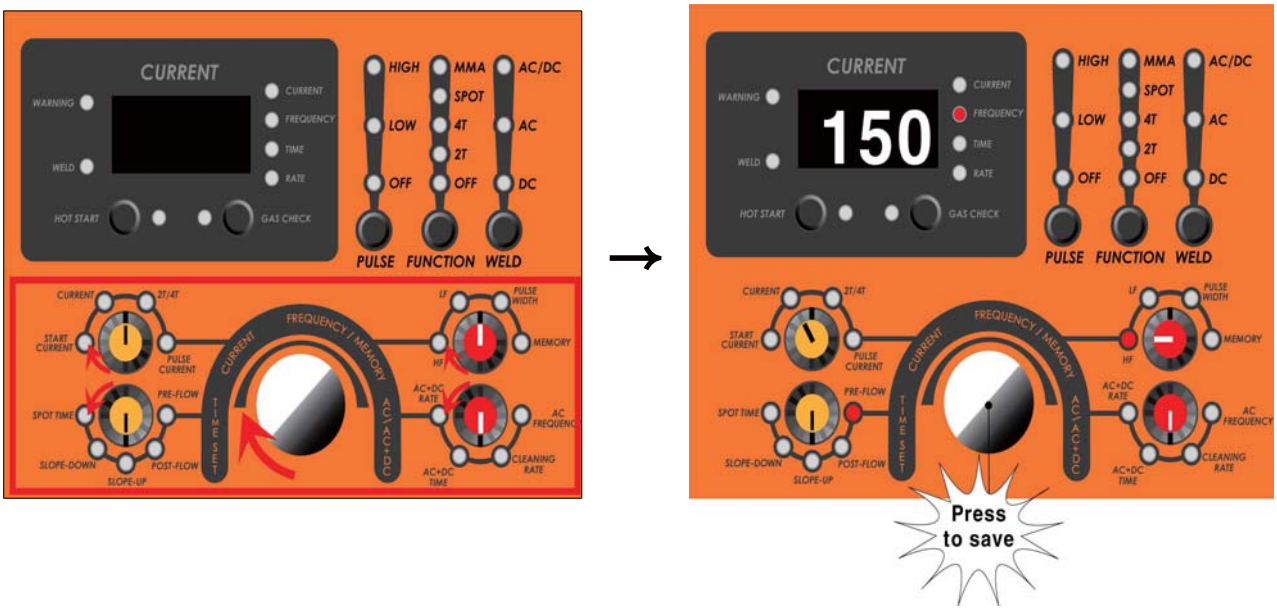
You can save in the memory bank from P-1 TO P-9 without the main memory(P-0).

① How to save in the memory

1) Turn the frequency / memory knob to the memory. Then, P-0 will be displayed. And then, select the memory which you want by turning the control volume (select P-1 memory in following pictures)

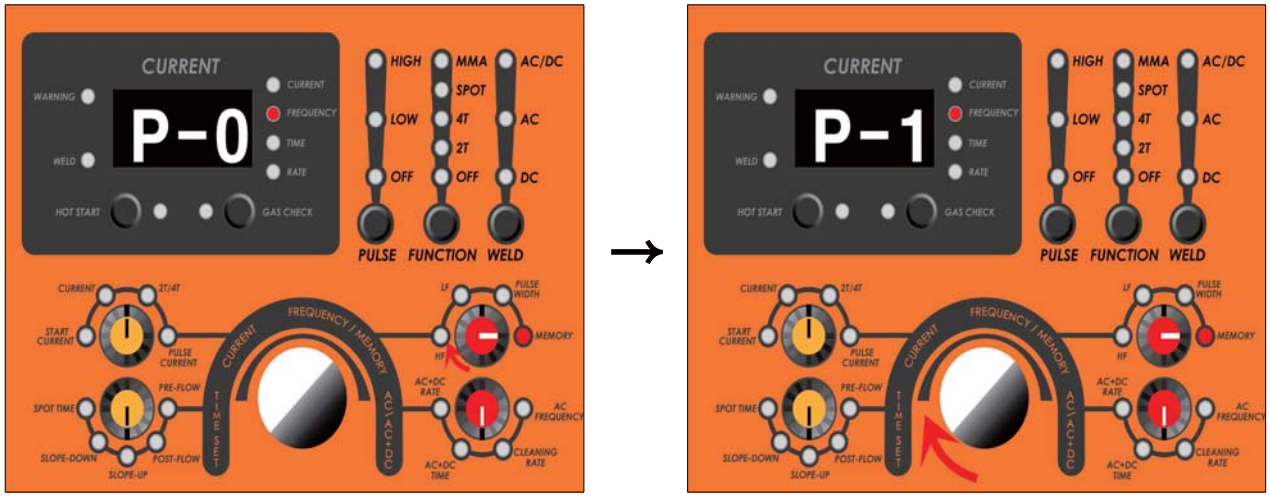


2) Adjust other values of setting which you want. And, press the control volume to save after all the settings finished.

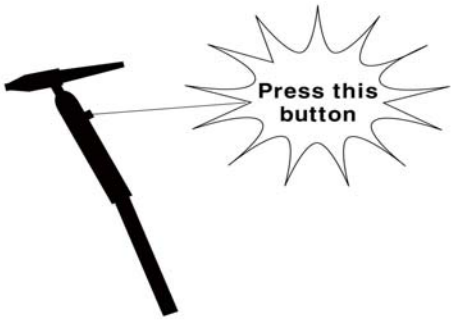


② HOW TO LOAD THE MEMORY

1) Turn the frequency / memory knob to the memory. Then, P-0 will be displayed. And then, load the memory which you want by turning the control volume. (load P-1 memory in following pictures)



2) Press the torch switch in order to save in the main memory.



3) You can adjust the memory that you loaded. After adjusting, please press the control volume to save.

MEMO

Please press the torch switch in order to save in the main memory when loading memory.

■ FACTORY SETTING

350PA

CURRENT		TIME SET		FREQUENCY / MEMORY		AC/AC+DC	
Start current	10A	Pre-flow	0.2sec	HF	350Hz	AC+DC Rate	50%
Current	250A	Post-flow	0.3sec	LF	20Hz	AC+DC Time	0.1sec
2T/4T	10A	Slope-up	0.2sec	Pulse width	50%	Cleaning rate	40%
Pulse current	10A	Slope-down	0.2sec	Memory	P-0	AC Frequence	80Hz
		Spot time	0.5sec				

500PA

CURRENT		TIME SET		FREQUENCY / MEMORY		AC/AC+DC	
Start current	16A	Pre-flow	0.2sec	HF	350Hz	AC+DC Rate	50%
Current	200A	Post-flow	0.3sec	LF	20Hz	AC+DC Time	0.1sec
2T/4T	16A	Slope-up	0.2sec	Pulse width	50%	Cleaning rate	40%
Pulse current	16A	Slope-down	0.2sec	Memory	P-0	AC Frequence	80Hz
		Spot time	0.5sec				

■ WELDING CONDITION

METAL TYPE \ WELDING		MMA	DC TIG	AC TIG
Soft steel	BELOW 2.3㎜	○	□	
	ABOVE 2.3㎜	□	□	
Stainless steel	BELOW 2.3㎜	□	○	
	ABOVE 2.3㎜	○	○	
Chrome-molybdenum steel		○	□	
Titanium steel			○	
Copper		□	□	○
Yellow brass		□	□	○
Aluminium				○

○: BEST □: SUITABLE

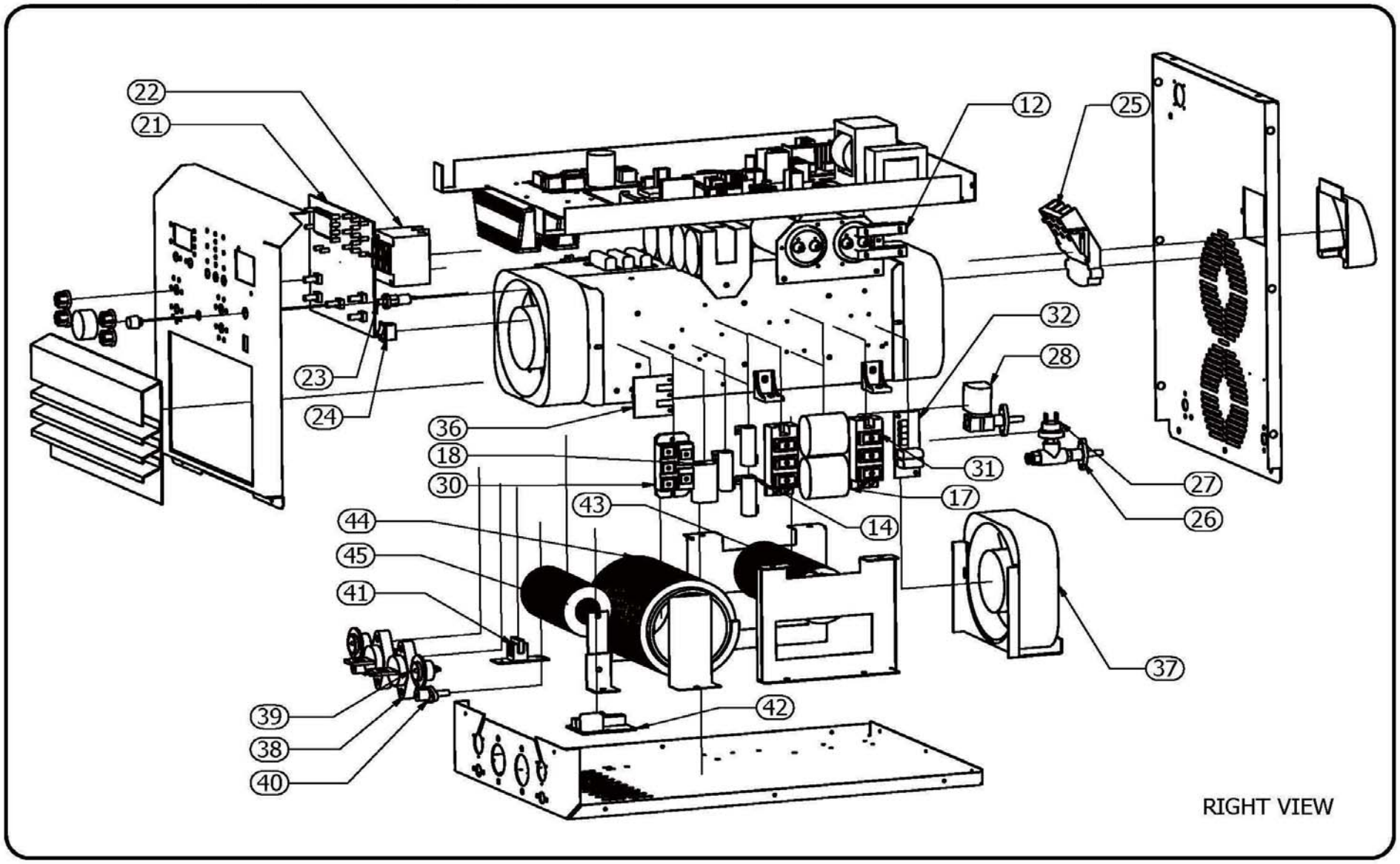
GAS AND ELECTRODE CONDITION OF TIG WELDING (STAINLESS WELDING)

WORK PIECE THICKNESS (㎜)	TUNGSTEN ROD (㎟)	CURRENT (A)	GAS FLOW (ℓ/min)	ELECTRODE (㎟)
0.6	1.0-1.6	20 ~ 40	4	0 ~ 1.6
1.0		30 ~ 60		
1.6	1.6-2.4	60 ~ 100		
2.4		100 ~ 120		1.6 ~ 2.6
3.2	2.4-3.2	120 ~ 150	5	2.4 ~ 3.2
4.0		130 ~ 180		2.4 ~ 4.0
5.0	2.4-4.0	150 ~ 220		3.2 ~ 5.0
6.0	3.2-4.8	180 ~ 250		
8.0		200 ~ 300	6	4.0 ~ 5.0
12.0	4.0-6.4	300 ~ 500	7	

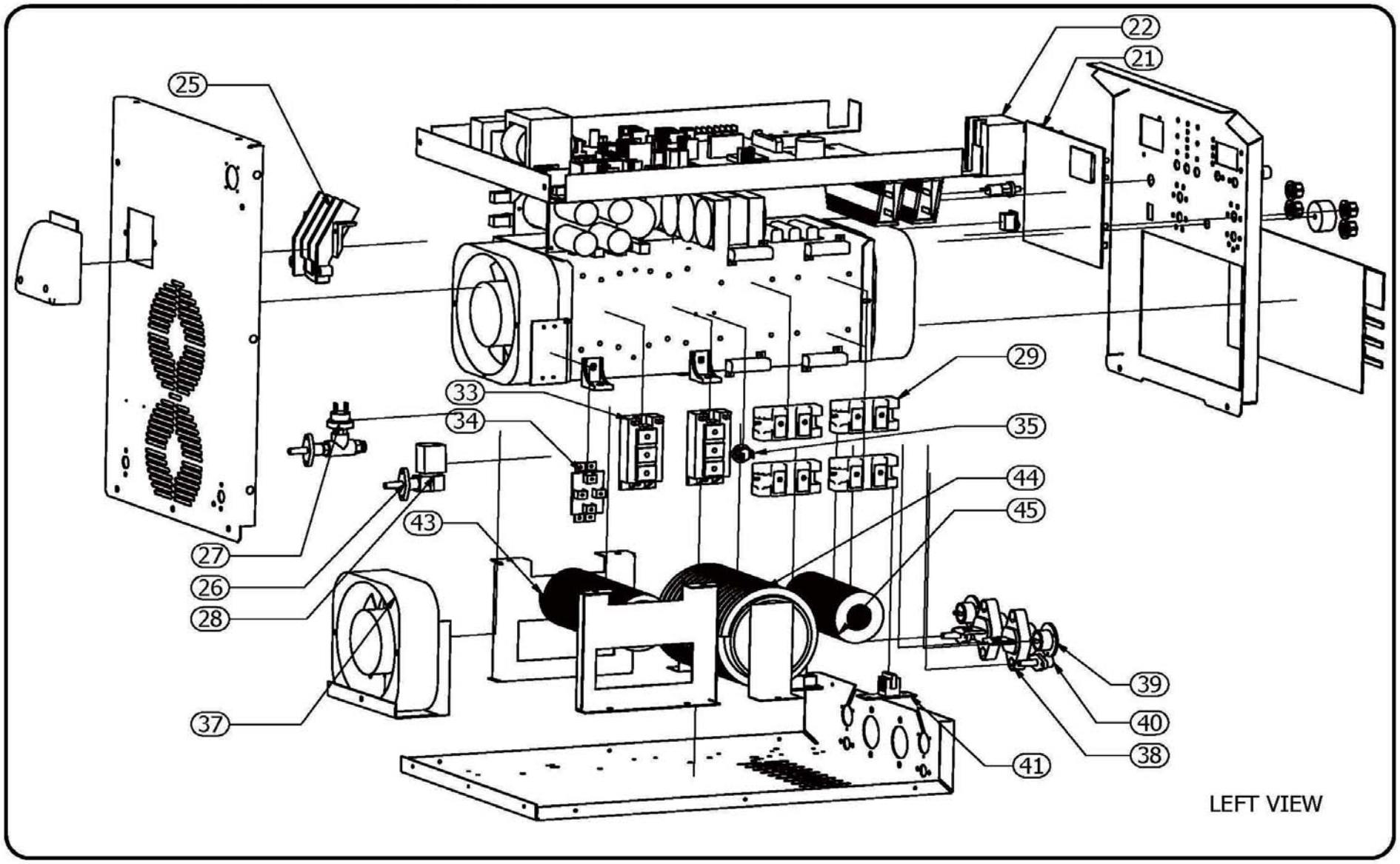
THE ELECTRODE CONDITION OF MMA

ELECTRODE (㎟)	CURRENT (A)
2.0	40 ~ 80
2.6	50 ~ 100
3.2	80 ~ 150
4.0	150 ~ 250
5.0	250 ~ 500

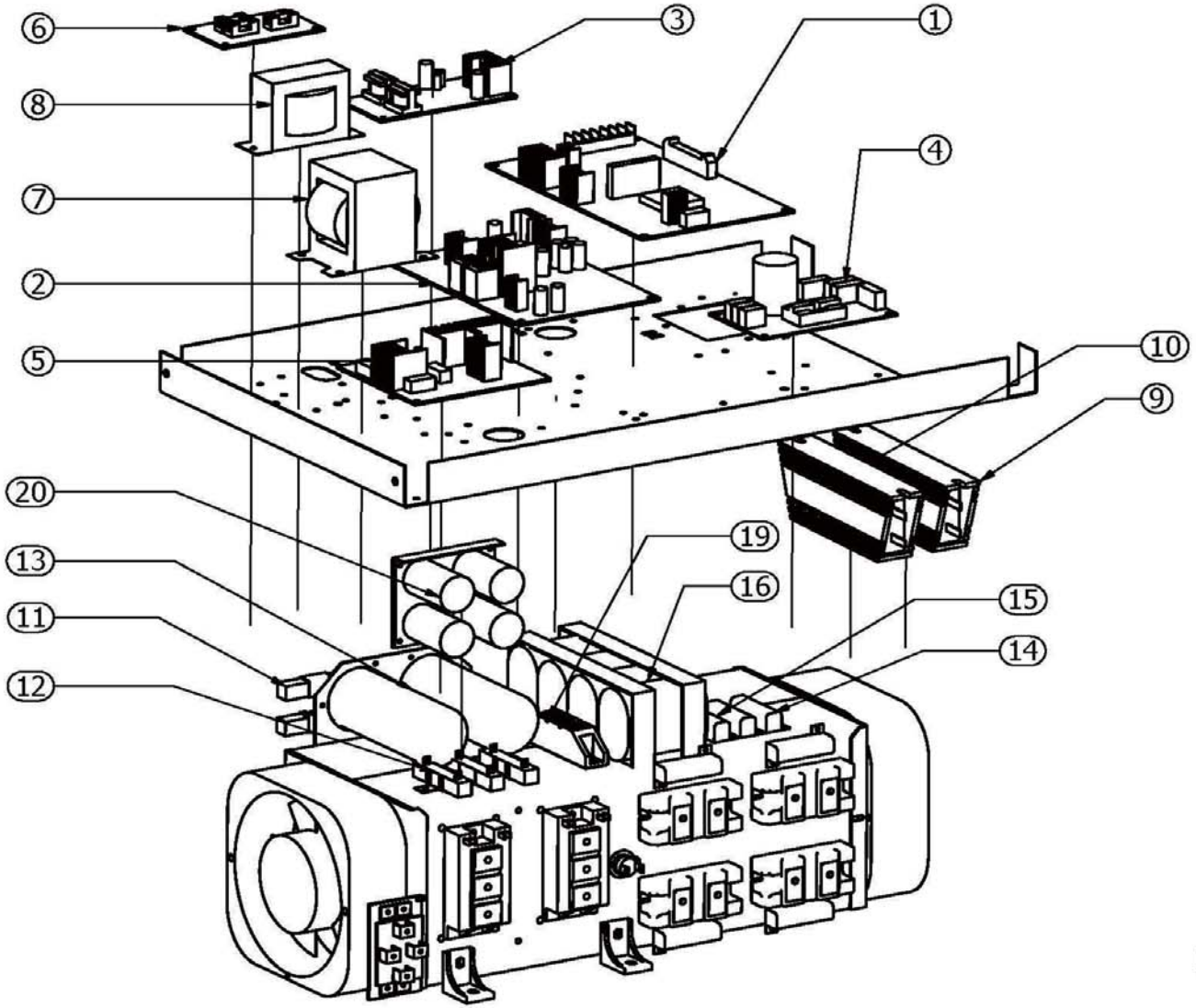
INVERTER AC/DC TIG 350,500PA



INVERTER AC/DC TIG 350,500PA



INVERTER AC/DC TIG 350,500PA



350,500PA PARTS LIST

NO.	PART NAME	DESCRIPTION	QTY.
1	Main PCB	AC/DC TIG BD-14DP VR2.6	1
2	Relay PCB	14DP-AC	1
3	Power Drive PCB	WAPD-01	1
4	HF PCB	TMD-45A89	1
5	Stabilizing PCB	MLS-14DP-CL	1
6	Control Transformer PCB	VAC-02	1
7	Control Transformer	9640	1
8	Control Transformer	6628	1
9	Metal,Discharge	200W50Ω	1
10	Metal,Discharge	200W20Ω	1
11	Resistor, Discharge	20W1KΩ	2
12	Resistor, Discharge	20W20KΩ	3
13	Condensor	2700MF/400V	2
14	RHW,Discharge	50W10Ω	5
15	RHW,Discharge	50W5Ω	5
16	MF Condenser	20MF/1000V	4
17	MF Condenser	10MF/800V[Small]	2
18	MF Condenser	10MF/800V[Large]	1
19	Diode	MDD-9516	1
20	Condensor PCB	680㎌/400V	1
21	Front PCB	CMLS-14DP-D2	1
22	NFB	3P-80A	1
23	FUSE	5A	1
24	Switch	KCD-202	1
25	Input Terminal	6M/M	1
26	Nipple	9/16*1/4	2
27	Pressure Sensor	DP-07	1
28	Solenoid Valve	DC24V, 3.0Φ	1
29	Output Diode	300A60V	1
30	Input Bridge Diode	PT100SN8	4
31	IGBT [1]	2MBI200U2A-012(220V) 2MBI150U2A-012(380V)	2
32	IGBT Snubber PCB	WSB-01	1
33	IGBT [2]	2MBI300U2A-060	1
34	Diode PCB	WPA-FRD-4206	1
35	Temp. Switch	N85	1
36	Input Surge PCB	WPA1-01	1
37	FAN	150T	3
38	Output Terminal	MID	2
39	Connector	K25-2R,K25-6R	2
40	Nipple	9/16* 6Φ	2
41	Noise Filter PCB	WTF-02	1
42	Surge PCB	WPAS-01	1
43	Main Transformer	350,500PA	1
44	Choke Transformer	350,500PA	1
45	Induction coil	350,500PA	1

Thank you very much for choosing our machine

Please record your machine identification information below for future reference. This information can be found on the nameplate of your machine.

Product Name	INVERTER PROFESSIONAL TIG WELDING MACHINE
Model Number	
Date Manufactured	
Serial Number	
Date Purchased	
Where Purchased	
Where you use	

Whenever you request replacement parts or information on this machine, always supply the information you have recorded above. The date number is especially important when identifying the correct replacement parts.

Complete this form, please fax it to our selling agency in your country or us for warranty statement.

Worldwel Co., Ltd.

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