

# hydraBOND<sup>®</sup>

## WELDING

# HB200

DC ARC WELDING POWER SOURCE

### PROCESS



STICK (SMAW)



TIG (GTAW)

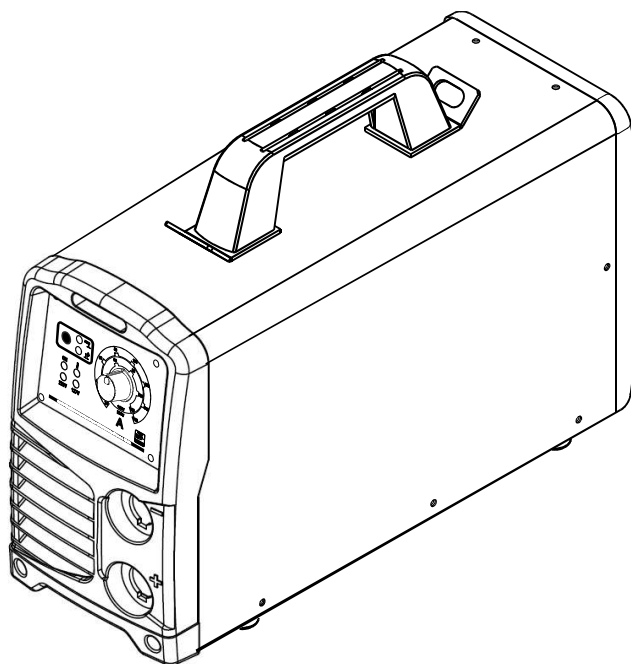
### DESCRIPTION



DIRECT CURRENT OUTPUT



SINGLE PHASE



READ THE MANUAL BEFORE OPERATING THE UNIT



GIVE THIS MANUAL TO THE OPERATOR

# OWNER'S MANUAL

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# SAFETY PRECAUTIONS - READ BEFORE USING



## WARNING

## ARC WELDING can be hazardous.

- **DANGER!** - Indicates a hazardous situation which, if not avoided, will result in death or serious injury. The possible hazards are shown in the adjoining symbols or explained in the text

- Indicates a hazardous situation which, if not avoided, could result in death or serious injury. The possible hazards are shown in the adjoining symbols or explained in the text.

- The symbols shown below are used throughout this manual to call attention to and identify possible hazards. When you see the symbol, watch out, and follow the related instructions to avoid the hazard. The safety information given below is only a summary of the more complete safety information found in the Safety Standards.

- Only qualified persons should install, operate, maintain, and repair this unit.

- During operation, keep everybody, especially children, away.

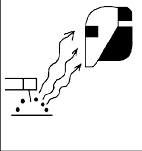


### ELECTRIC SHOCK can kill.

Touching live electrical parts can cause fatal shocks or severe burns. The electrode and work circuit is electrically live whenever the output is on. The input power circuit and machine internal circuits are also live when power is on. In semiautomatic or automatic wire welding, the wire, wire reel, drive roll housing, and all metal parts touching the welding wire are electrically live. Incorrectly installed or improperly grounded equipment is a hazard.

- 1.- Do not touch live electrical parts.
- 2.- Wear dry, hole-free insulating gloves and body protection.
- 3.- Insulate yourself from work and ground using dry insulating mats or covers.

- 4.- Disconnect input power or stop engine before installing or servicing this equipment.
- 5.- Properly install and ground this equipment according to this Owner's Manual and national, state, and local codes.
- 6.- Turn off all equipment when not in use.
- 7.- Do not use worn, damaged, undersized, or poorly spliced cables.
- 8.- Do not wrap cables around your body.
- 9.- Ground the workpiece to a good electrical (earth) ground.
- 10.- Do not touch electrode while in contact with the work (ground) circuit.
- 11.- Use only well-maintained equipment. Repair or replace damaged parts at once.
- 12.- Wear a safety harness to prevent falling if working above floor level.
- 13.- Keep all panels and cover securely in place.



### ARC RAYS can burn eyes and skin; NOISE can damage hearing.

Arc rays from the welding process produce intense heat and strong ultraviolet rays that can burn eyes and skin. Noise from some processes can damage hearing.

- 1.- Wear a welding helmet fitted with a proper shade of filter (see ANSI Z49.1 listed in Safety Standards) to protect

- your face and eyes when welding or watching.
- 2.- Wear approved safety glasses. Side shields recommended.
- 3.- Use protective screens or barriers to protect others from flash and glaze; warn others not to watch the arc.
- 4.- Wear protective clothing made from durable, flame-resistant material (wool and leather) and foot protection.
- 5.- Use approved ear plugs or ear muffs if noise level is high.

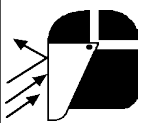


### FUMES AND GASES can be hazardous to your health.

Welding produces fumes and gases. Breathing these fumes and gases can be hazardous to your health.

- 1.- Keep your head out of the fumes. Do not breathe the fumes.
- 2.- If inside, ventilate the area and / or use forced ventilation at the arc to remove welding fumes and gases.
- 3.- If ventilation is poor, use an approved air-supplied respirator.
- 4.- Read the Material Safety Data Sheets (MSDSs) and the manufacturer's instruction for metal, consumables, coatings, and cleaners.

- 5.- Work in a confined space only if it is well ventilated, or while wearing an air-supplied respirator. Shielding gases used for welding can displace air causing injury or death. Be sure the breathing air is safe.
- 6.- Do not weld in locations near degreasing, cleaning, or spraying operations. The heat and rays of the arc can react with vapors to form highly toxic and irritating gases.
- 7.- Do not weld on coated metals, such as galvanized, lead, or cadmium plated steel, unless the coating is removed from the weld area, the area is well ventilated, and if necessary, while wearing an air-supplied respirator. The coatings and any metals containing these elements can give off toxic fumes if welded.



### FLYING SPARK AND HOT METAL can cause injury

Chipping and grinding cause flying metal. As welds cool, they can throw off slag.

- 1.- Wear approved face shield or safety goggles. Side shields recommended.
- 2.- Wear proper body protection to protect skin.



### **WELDING can cause fire or explosion.**

Sparks and spatter fly off from the welding arc. The flying sparks and hot metal, weld spatter, hot workpiece, and hot equipment can cause fires and burns. Accidental contact of electrode or welding wire to metal objects can cause sparks, overheating, or fire.

- 1.- Protect yourself and others from flying sparks and hot metal.
- 2.- Do not weld where flying sparks can strike flammable material.
- 3.- Remove all flammables within 35ft (10.7 m) of the welding arc. If this is not possible, tightly cover them with approved covers.

- 4.- Be alert that welding sparks and hot materials from welding can easily go through small cracks and openings to adjacent areas.
- 5.- Watch for fire, and keep a fire extinguisher nearby.
- 6.- Be aware that welding on a ceiling, floor, bulkhead, or partition can cause fire on the hidden side.
- 7.- Do not weld on closed containers such as tanks or drums.
- 8.- Connect work cable to the work as close to the welding areas as practical to prevent welding current from traveling long, possibly unknown paths and causing electric shock and fire hazards.
- 9.- Do not use welder to thaw frozen pipes.
- 10.- Remove stick electrode from holder or cut off welding wire at contact tip when not in use.
- 11.- Wear oil-free protective garments such as leather gloves, heavy shirt, cuffless trousers, high shoes, and a cap.



### **CYLINDERS can explode if damaged.**

Shielding gas cylinders contain gas under high pressure. If damaged, a cylinder can explode. Since gas cylinders are normally part of the welding process, be sure to treat them carefully.

- 1.- Protect compressed gas cylinders from excessive heat, mechanical shocks, and arcs.
- 2.- Install and secure cylinders in an upright position by chaining them to a stationary support or equipment cylinder rack to prevent falling or tipping.
- 3.- Keep cylinders away from any welding or other electrical circuits.

- 4.- Never allow a welding electrode to touch any cylinder.
- 5.- Use only correct shielding gas cylinders, regulators, hoses, and fittings designed for the specific application; maintain them and associated parts in good condition.
- 6.- Turn face away from valve outlet when opening cylinder valve.
- 7.- Keep protective cap in place over valve except when cylinder is in use or connected for use.
- 8.- Read and follow instructions on compressed gas cylinders, associated equipment, and CGA publication P-1 listed in Safety Standards.



## **WARNING**

## **ENGINES can be hazardous.**



### **ENGINE EXHAUST GASES can kill.**

Engines produce harmful exhaust gases.

- 1.- Use equipment outside in open, well-ventilated areas.

- 2.- If used in a closed area, vent engine exhaust outside and away from any building air intakes.



### **ENGINE FUEL can cause fire or explosion.**

Engine fuel is highly flammable.

- 1.- Stop engine before checking or adding fuel.

- 2.- Do not add fuel while smoking or if unit is near any sparks or open flames.
- 3.- Allow engine to cool before fueling. If possible, check and add fuel to cold engine before beginning job.
- 4.- Do not overfill tank - allow room for fuel to expand.
- 5.- Do not spill fuel. If fuel is spilled, clean up before starting engine.

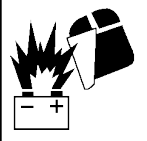


### **MOVING PARTS can cause injury.**

Moving parts, such as fans, rotors, and belts can cut fingers and hands and catch loose clothing.

- 1.- Keep all doors, panels, covers, and guards closed and securely in place.
- 2.- Stop engine before installing or connecting unit.
- 3.- Have only qualified people remove guards or covers for maintenance and troubleshooting as necessary.

- 4.- To prevent accidental starting during servicing, disconnect negative (-) battery cable from battery.
- 5.- Keep hands, hair, loose clothing, and tools away from moving parts.
- 6.- Reinstall panels or guards and close doors when servicing is finished and before starting engine.




### **SPARKS can cause BATTERY GASES TO EXPLODE; BATTERY ACID can burn eyes and skin.**



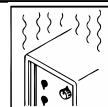


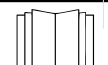
Batteries contain acid and generate explosive gases.

- 1.- Always wear a face shield when working on a battery.
- 2.- Stop engine before disconnecting or connecting battery
























- cables.
- 3.- Do not allow tools to cause sparks when working on a battery.
- 4.- Do not use welder to charge batteries or jump start vehicles.
- 5.- Observe correct polarity (+ and -) on batteries.

	<p><b>STEAM AND PRESSURIZED HOT COOLANT can burn face, eyes, and skin.</b></p> <p>The coolant in the radiator can be very hot and under pressure.</p>	<p>1.- Do not remove radiator cap when engine is hot. Allow engine to cool.</p> <p>2.- Wear gloves and put a rag over cap area when removing cap.</p> <p>3.- Allow pressure to escape before completely removing cap.</p>
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## - Additional Symbols For Installation, Operation, And Maintenance

	<p><b>NOISE can damage hearing.</b></p> <p>Noise from some processes or equipment can damage hearing.</p> <ul style="list-style-type: none"> <li>- Wear approved ear protection if noise level is high.</li> </ul>
	<p><b>FALLING EQUIPMENT can injure</b></p> <ul style="list-style-type: none"> <li>- Use lifting eye to lift unit and properly installed accessories only, NOT gas cylinders. Do not exceed maximum lift eye weight rating (see Specifications).</li> <li>- Use equipment of adequate capacity to lift and support unit.</li> <li>- If using lift forks to move unit, be sure forks are long enough to extend beyond opposite side of unit.</li> <li>- Keep equipment (cables and cords) away from moving vehicles when working from an aerial location.</li> </ul>
	<p><b>OVERUSE can cause OVERHEATING</b></p> <ul style="list-style-type: none"> <li>- Allow cooling period; follow rated duty cycle.</li> <li>- Reduce current or reduce duty cycle before starting to weld again.</li> <li>- Do not block or filter airflow to unit.</li> </ul>
	<p><b>STATIC (ESD) can damage PC boards.</b></p> <ul style="list-style-type: none"> <li>- Put on grounded wrist strap BEFORE handling boards or parts.</li> <li>- Use proper static-proof bags and boxes to store, move, or ship PC boards.</li> </ul>
	<p><b>ARC WELDING can cause interference.</b></p> <ul style="list-style-type: none"> <li>- Electromagnetic energy can interfere with sensitive electronic equipment such as microprocessors, computers, and computer-driven equipment such as robots.</li> <li>- Be sure all equipment in the welding area is electromagnetically compatible.</li> <li>- To reduce possible interference, keep weld cables as short as possible, close together, and down low, such as on the floor.</li> <li>- Locate welding operation 100 meters from any sensitive electronic equipment.</li> <li>- Be sure this welding machine is installed and grounded according to this manual.</li> <li>- If interference still occurs, the user must take extra measures such as moving the welding machine, using shielded cables, using line filters, or shielding the work area.</li> </ul>
	<p><b>-Read and follow all labels and the Owner's Manual carefully before installing, operating, or servicing unit. Read the safety information at the beginning of the manual and in each section.</b></p>

## - Definitions

 <p>Stop Engine</p>	 <p>Fast (Run, Weld/Power)</p>	 <p>Fast/Slow (Run/Idle)</p>	 <p>Slow (Idle)</p>
 <p>Start Engine</p>	 <p>Read Operator's Manual</p>	<p><b>A</b> Amperes</p>	<p><b>V</b> Volts</p>
 <p>Engine Oil</p>	 <p>Fuel</p>	 <p>Battery (Engine)</p>	 <p>Engine</p>
 <p>Temperature</p>	 <p>Check Valve Clearance</p>	 <p>Do not switch while welding</p>	 <p>Work Connection</p>
<p><b>+</b> Positive</p>	<p><b>-</b> Negative</p>	 <p>Alternating Current (AC)</p>	 <p>Output</p>
 <p>Welding Arc (Electrode)</p>	 <p>MIG (GMAW), Wire</p>	 <p>Stick (SMAW)</p>	 <p>TIG (GTAW)</p>
<p><b>h</b> Hours</p>	<p><b>s</b> Seconds</p>	 <p>Time</p>	 <p>Protective Earth (Ground)</p>
 <p>Circuit Protector</p>			

# SECTION 1 SAFETY SIGNALS AND WORDS

The following safety alert symbol and signal words are used throughout this manual to call attention and to identify different levels of hazard and special instructions.

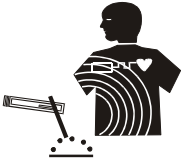
	<b>WARNING</b>	<b>WARNING</b> statements identify procedures or practices which must be followed to avoid serious personal injury or loss of life.
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	<b>CAUTION</b>	<b>CAUTION</b> statements identify procedures or practices which must be followed to avoid minor personal injury or damage to this equipment.
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**IMPORTANT:** Statements identify special instructions necessary for the most efficient operation of this equipment.

## DESCRIPTION

The design of this machine is based on Inverter Technology. This allows an arc dynamical time response extremely low (around 0.5 microseconds), approaching excellent characteristics of weld, with any electrode type. The high frequency of INVERTER system eliminates totally any annoying hum caused by the traditional power supplies.

	<b>WARNING</b>	ELECTRIC AND MAGNETIC FIELDS can affect pacemakers. - Pacemakers wearers keep away. - Wearers should consult their doctor before going near arc welding, gouging, or spot welding operations.
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## SECTION 2. SPECIFICATIONS

Output Type	Process	Input Voltage (V a.c.)	Nominal output (A@V)	Duty cycle (%)	Current range (A)	Open Circuit Voltage (V)	Input current at nominal load		
							A	Kva	Kw
D.C.	STICK	127	120 @ 22.8	40	15- 120	68-85	33.6	4.2	3
		220	160 @ 24.4		15 - 160		38.4	8.5	5.3
	TIG	127	120 @ 14.8	40	15-120	68-85	25	3.1	2.2
		220	160 @ 16.4		15-160		30	6.6	4.1

**Weight, kg (lb): 5.8 (12.7)**

**Lading weight, kg (lb): 9.6 (21.2)**

**Dimensions, mm (pulg):**

High: 220 (8.6) without handle, 260 (10.2) with handle

Width: 130 (5.1)

Long: 353 (13.9)

**Table 2-1. Source Power**

## 2-1. VOLT-AMPERE CURVES

The Volt-Ampere curves show the minimum and maximum voltage and amperage output capabilities of the welding power source. Values of other settings fall between curves shown.

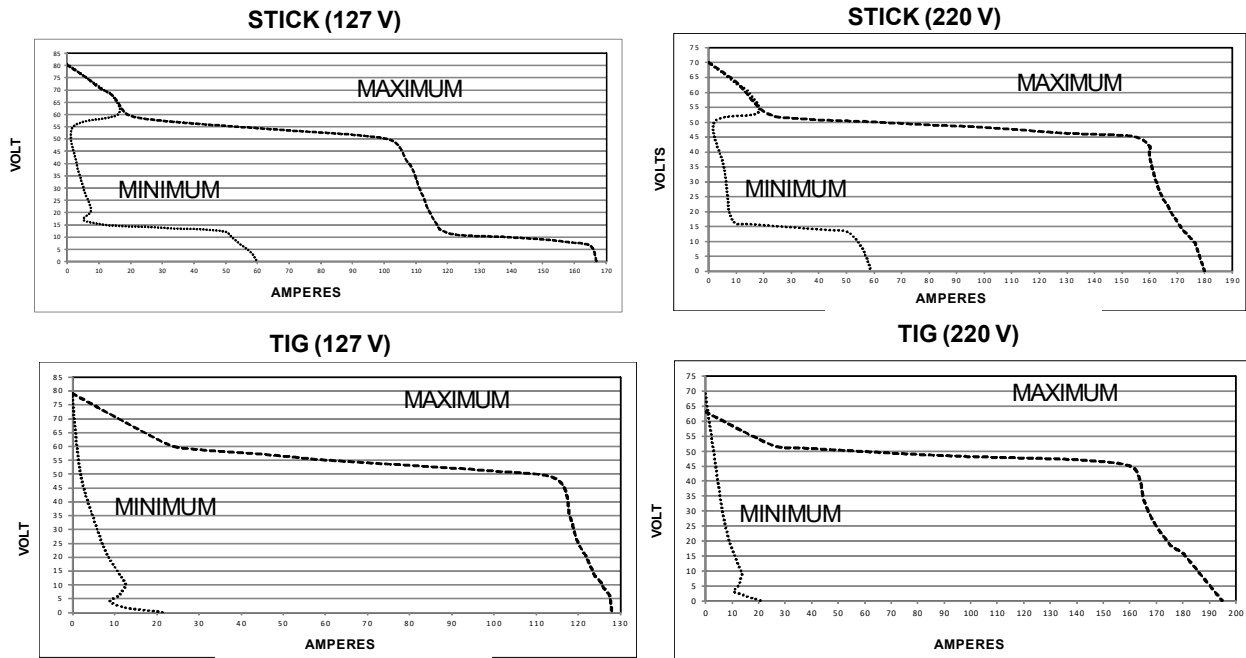


Figure 2-1. Volt-Ampere Curves

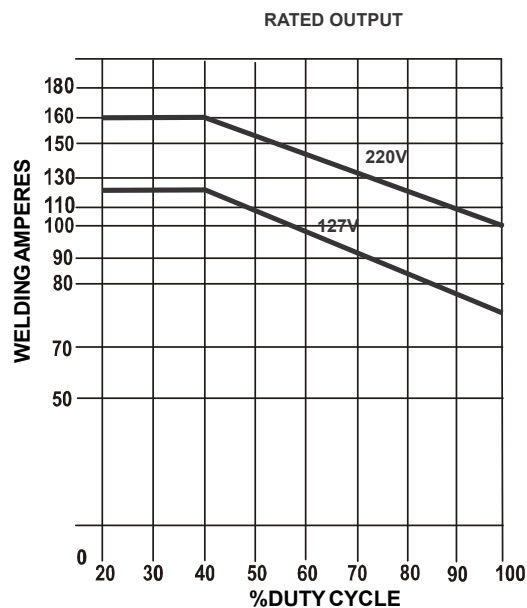
## 2-2 DUTY CYCLE



### CAUTION

**EXCEEDING DUTY CYCLE, CAN DAMAGE UNIT**

Do not exceed indicated duty cycles.



Duty cycle is percentage of 10 minutes that unit can weld at rated load without overheating.

This machine has been designed to work at 40% Duty Cycle at Nominal Output Current. This means that machine can be operating without risk during 4 minutes and letting it to rest for cooling the next 6 minutes. As the output current is reduced, duty cycle grows as the figure shows.

Figure 2-2 Duty Cycle Chart.

# SECTION 3 INSTALLATION

## 3-1 LOCALIZATION AND INPUT CONNECTIONS



**WARNING**



SEE SAFETY SIGNALS AND WORDS AT BEGINNING OF MANUAL

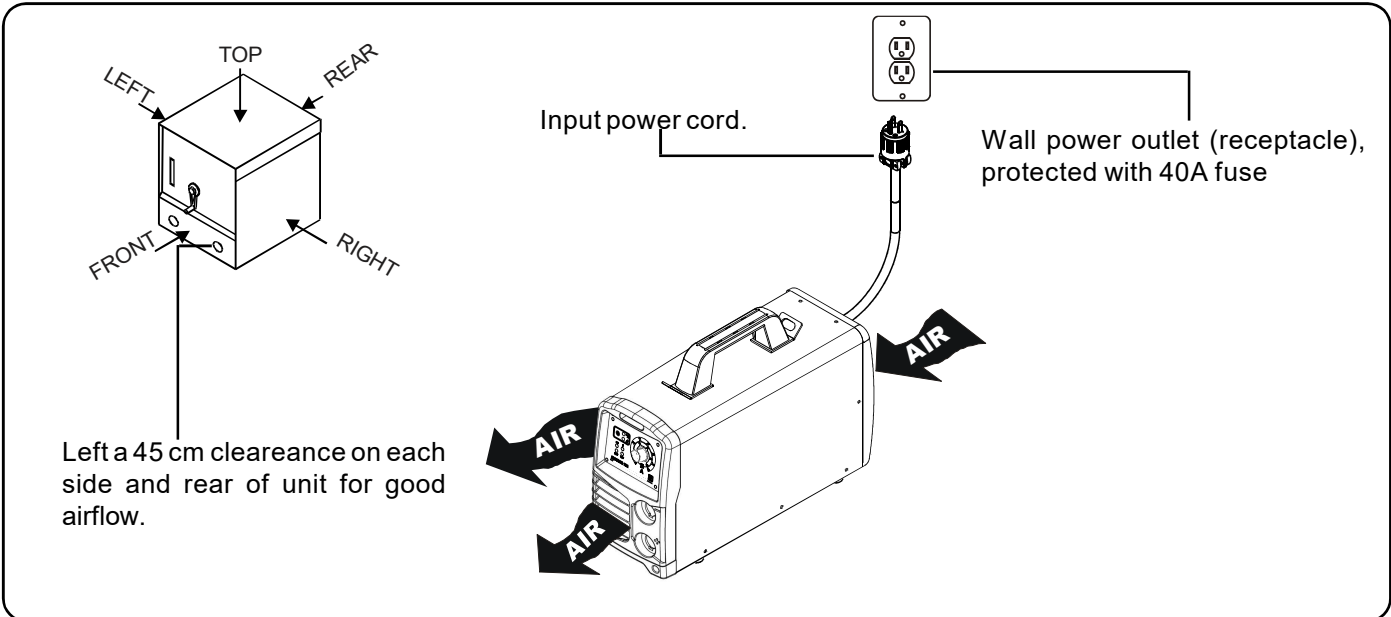


Figure 3-1. Localization and input connections.

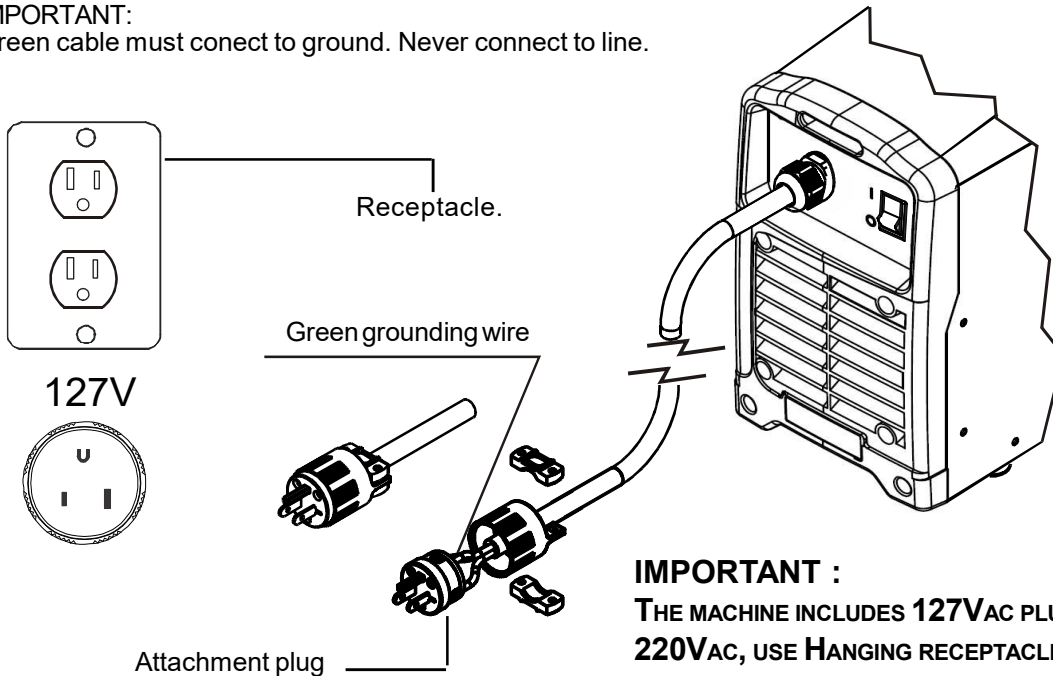
## 3-2. INPUT CABLE AND ATTACHMENT PLUG

### IMPORTANT

- For welding currents at or below face value the receptacle must be grounded and protected with fuses or circuit breaker of 40 A.
- For currents higher than the rated current welding firmly connect the unit to the mains cable. Use fuses or circuit breakers of suitable capacity.

#### IMPORTANT:

Green cable must connect to ground. Never connect to line.



### IMPORTANT :

THE MACHINE INCLUDES 127VAC PLUG . TO CONNECT 220VAC, USE HANGING RECEPTACLE (MC11108)

### 3-3. WELD OUTPUT CABLES.

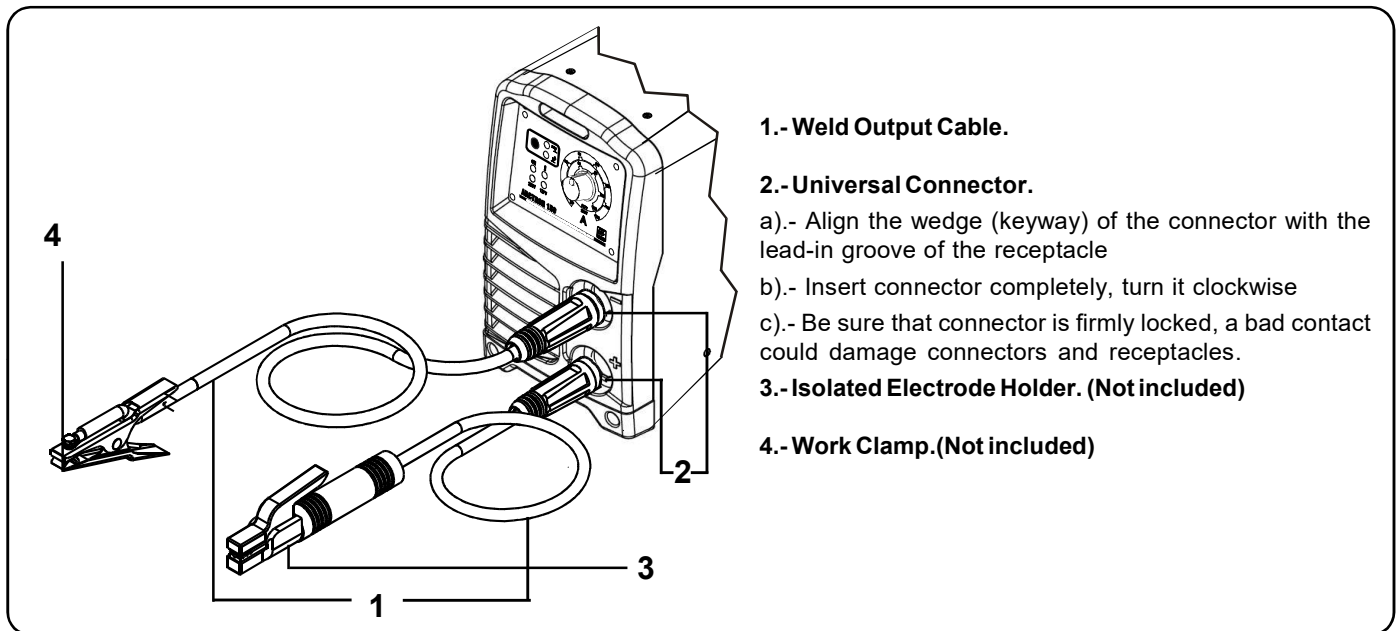


Figure 3-2. Weld Output Cables

## SECTION 4 FUNCTION OF CONTROLS



**WARNING**



SEE SAFETY SIGNALS AND WORDS  
AT BEGINNING OF MANUAL

### 4.1 CONTROLS

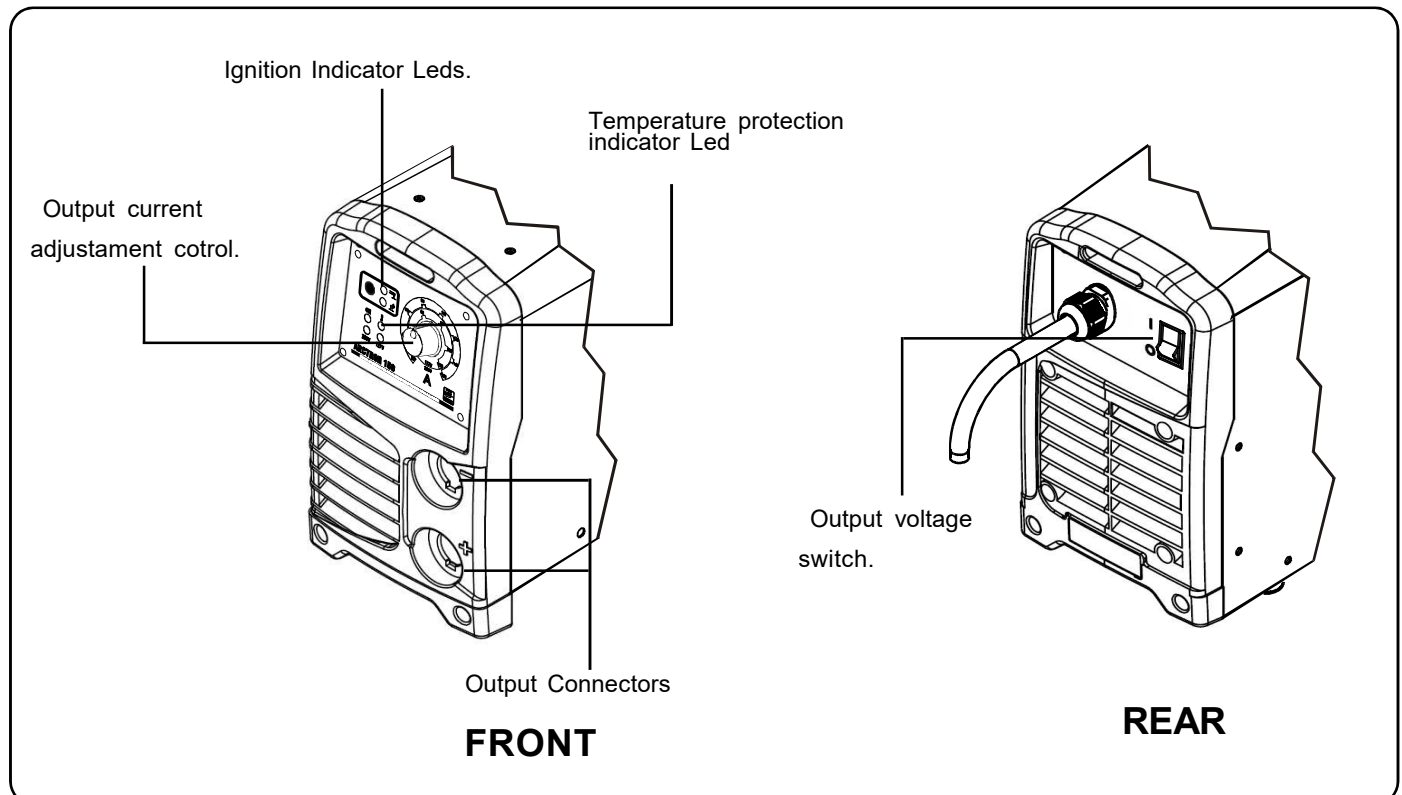


Figure 4-1. Controls

## 4.2 AMPERAGE ADJUSTMENT

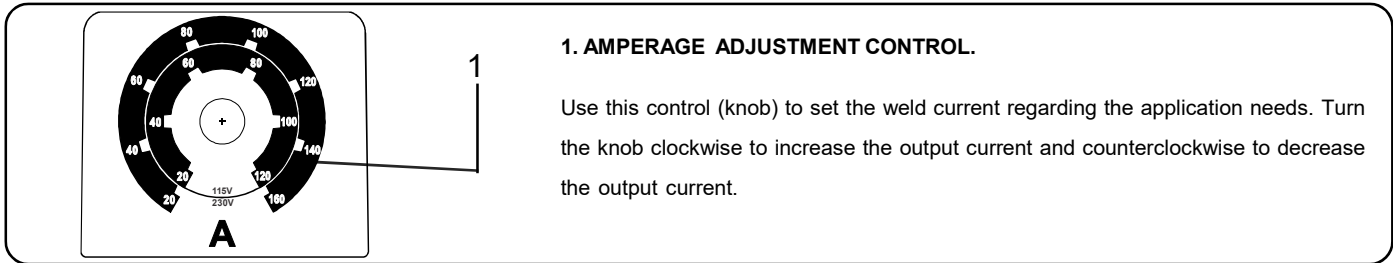


Figure 4-2 Current scale.

## 4.3 INDICATORS FRONT PANEL

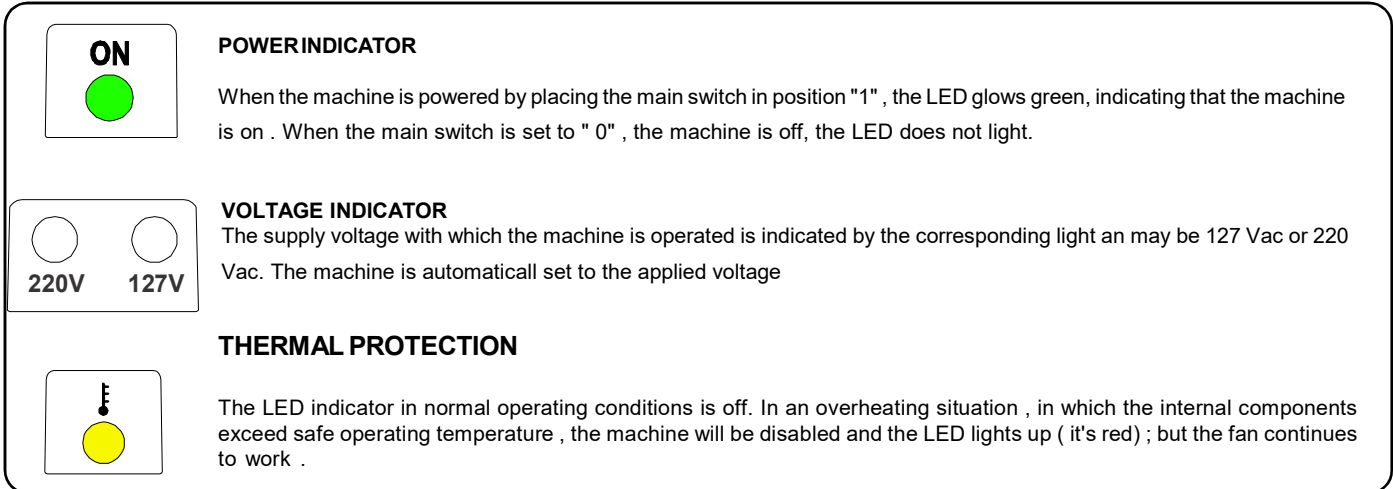


Figure 4-3. Indicators front panel

## 4-4 PROCESS PROCEDURE

### WELDING IN STICK PROCESS (SMAW)



#### WARNING



SEE SAFETY SIGNAL AT THE BEGINING THIS MANUAL

- 1 — Verify aviable line voltage at site is adequate
- 2 — Plug the output (weld) cables.
- 3 — Plug the input cable into a correct wall outlet
- 4 — Wear safety clothes gloves an face shield
- 5 — Adjuste amperage for choosen electrode.
- 6 — Turn power switch on.
- 7 — Set output voltage switch at "1" (position).
- 8 — Make a sample weld.
- 9 — Readjust current if needed
- 10 — Start to Weld

\* When connected to a wall receptacle , be sure that as the receptacle as the fuses or protections of eletric network are rated appropriately and the green conductor of the power cord connects to the GROUND terminal.

## WELDING APPLICATION PROCESS CONTACT-TIG (GTAW)



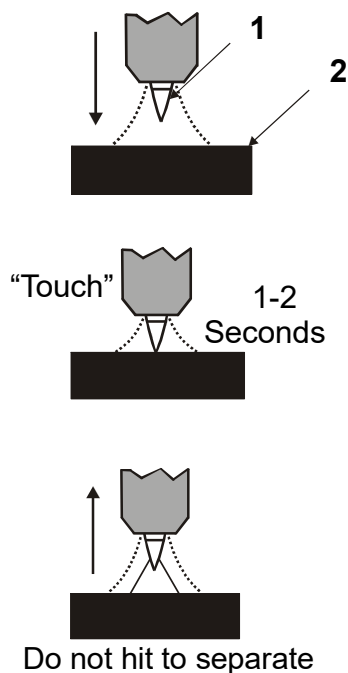
### WARNING



Make sure that the machine switch is in the off position (OFF).

- 1 — Install and connect the equipment
- 2 — Install and prepare the system of gas ( usually argon or mixture of argon )
- 3 — Select the tungsten electrode
- 4 — Install the electrode in the torch
- 5 — Wear safety equipment
- 6 — Turn on the machine and open the gas valve
- 7 — Press the Select button until the LED process indicator lights for CONTACT-TIG .
- 8 — Adjust current
- 9 — Start the arc as the procedure for call - Tig
- 10 — Reset the stream if necessary
- 11 — Start welding.

### PROCEDURE CONTACT-TIG.



With the selector in the position below:



must strike the arc as shown

1. TUNGSTENELECTRODE
2. WORKPIECE.

Touch the workpiece with the tungsten electrode at the point where you are starting the weld . Keep " glued " to the workpiece for a period of 1-2 second electrode. Slowly lift the electrode. The arc will be formed when the electrode is lifted .

The normal open circuit voltage is not present before the electrode touches the workpiece. Only a low voltage "sensor" will be present between the electrode and the workpiece .

The output contactor solid state , not energize until after electrode touches the workpiece . This allows the electrode touches the workpiece without overheating or contaminate the tungsten electrode.

# SECTION 5

## MAINTENANCE AND TROUBLESHOOTING



**CAUTION**



READ SAFETY RULES AT THE BEGINNING OF THIS MANUAL

### 5-1. ROUTINE MAINTENANCE

TIME	MAINTENANCE
EACH MONTH	NORMAL USE: NONE; MORE THAN NORMAL USE: REPAIR ANY DAMAGED (CRACKED) CABLE, CLEAN AND TIGHTEN CABLE CONNECTIONS.
EACH 3 MONTHS	REPAIR ANY DAMAGED INSULATION OR REPLACE HOLDER OR WORK CABLES IF NEEDED. CLEAN AND TIGHTEN CABLE CONNECTIONS.
EACH 6 MONTHS	REPLACE ANY DAMAGED OR UNREADABLE LABEL. BLOW OUT OR VACUUM INSIDE TO REMOVE DUST AND DIRT.

### 5-2. TROUBLESHOOTING GUIDE

PROBLEM	REMEDY
ERRATIC WELD CURRENT	<ul style="list-style-type: none"> <li>CHECK FOR LOOSE CONNECTIONS.</li> <li>CHECK FOR DEFECTIVE OR WET ELECTRODES.</li> </ul>
FAN DOES NOT WORK	<ul style="list-style-type: none"> <li>CHECK MAINS SWITCH FUSES.</li> <li>POWER SWITCH DEFECTIVE - VERIFY AND REPAIR.</li> <li>VERIFY THE FAN MOTOR.</li> </ul>
CURRENT CANNOT BE CONTROLLED OR IT IS TOO LOW	<ul style="list-style-type: none"> <li>VERIFY CABLES ARE NOT TOO LONG OR HAVE IMPROPER GAUGE.</li> <li>CHECK FOR LOOSE CONNECTIONS.</li> </ul>
FAN IS RUNNING WELL, BUT THERE IS NOT OUTPUT CURRENT	<ul style="list-style-type: none"> <li>CHECK ELECTRODE AND WORK CABLES HAVE NOT LOSE CONNECTIONS.</li> </ul>
LED ILLUMINATED IN RED COLOR	<ul style="list-style-type: none"> <li>VERIFY CONNECTION FOR PROPER INPUT VOLTAGE (MACHINE IS DISABLED IF INPUT VOLTAGE IS MORE OR LESS THAN 10% OF RATED VALUE)</li> <li>OVERHEATING: LET MACHINE TURNED ON DURING 15 MINUTES WITHOUT WELD, TO ALLOW FAN TO COOL IT.</li> </ul>

# SECTION 6. ELECTRICAL DIAGRAM

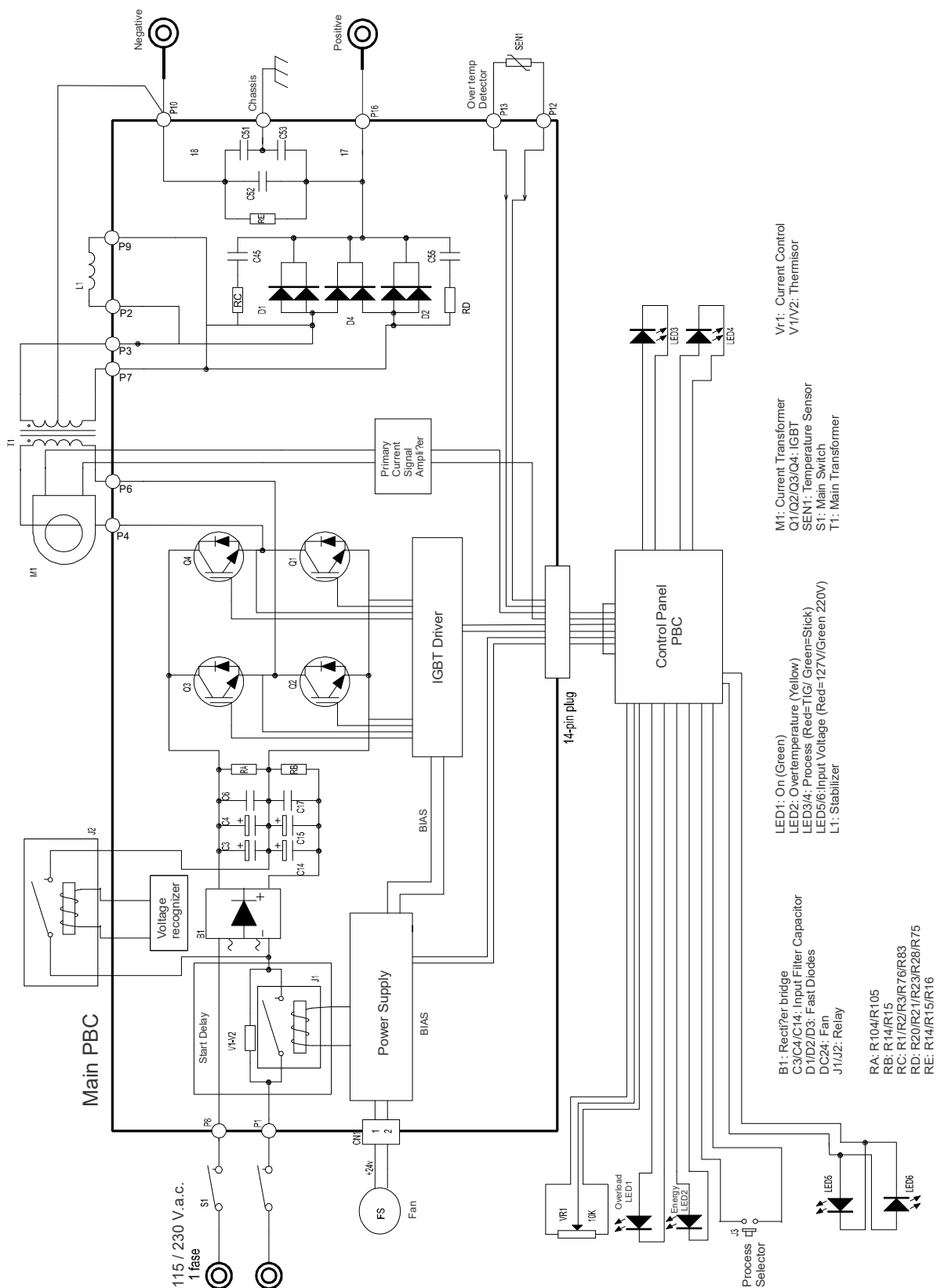


Figure 6-1. Electrical Diagram

## SECCIÓN 7. PARTS LIST

Reference	Part	I.D.	Description	Quantity
1	MP08480	.....	Front frame	1
2	PC3277	.....	Case cover	1
3	MA03389	.....	Handle	1
4	PK0050	Q1,Q2,Q3,Q4	IGBT	4
5	PT2541	.....	PCB panel	1
6	MT08647	T1	Main Transformer	1
7	PC2082	.....	Work cable	2m
8	PC2132	.....	Weld cable	2m
9	MC11153	.....	Plug conector, Dinse Type	2
10	MP03173	.....	Electrode holder	1
11	PP2046	.....	Work clamp	1
12	MD01908	.....	Heat sink	1
13	MV01107	MV	Fan	1
14	MA03940	.....	Power cable	1.7m
15	MP08478	.....	Rear frame	1
16	PT2540	PCB6	Main PCB	1
17	MC11089	D1, D2, D3, D4	Capacitor	4
18	MT08648	.....	Current transformador	1
19	MP08479	.....	Strain relief bushing	1
20	MI01243	.....	Auxiliary Inductor	2
21	MR10159	.....	Rectifier	1
22	MC11763	.....	Panel Label	1
23	MP08481	.....	Knob	1
24	MC11323	.....	Output receptacle	2
25	PC2760	.....	Plug	1
26	MC11148	.....	Strap	1
27	MI01253	.....	Switch	1

### ACCESSORIES INCLUDED

QUANTITY	DESCRIPTION
1	POWER SUPPLY CABLE
1	WORK CABLE WITH CLAMP
1	CABLE WITH ELECTRODE HOLDER
1	BELT
1	USER MANUAL

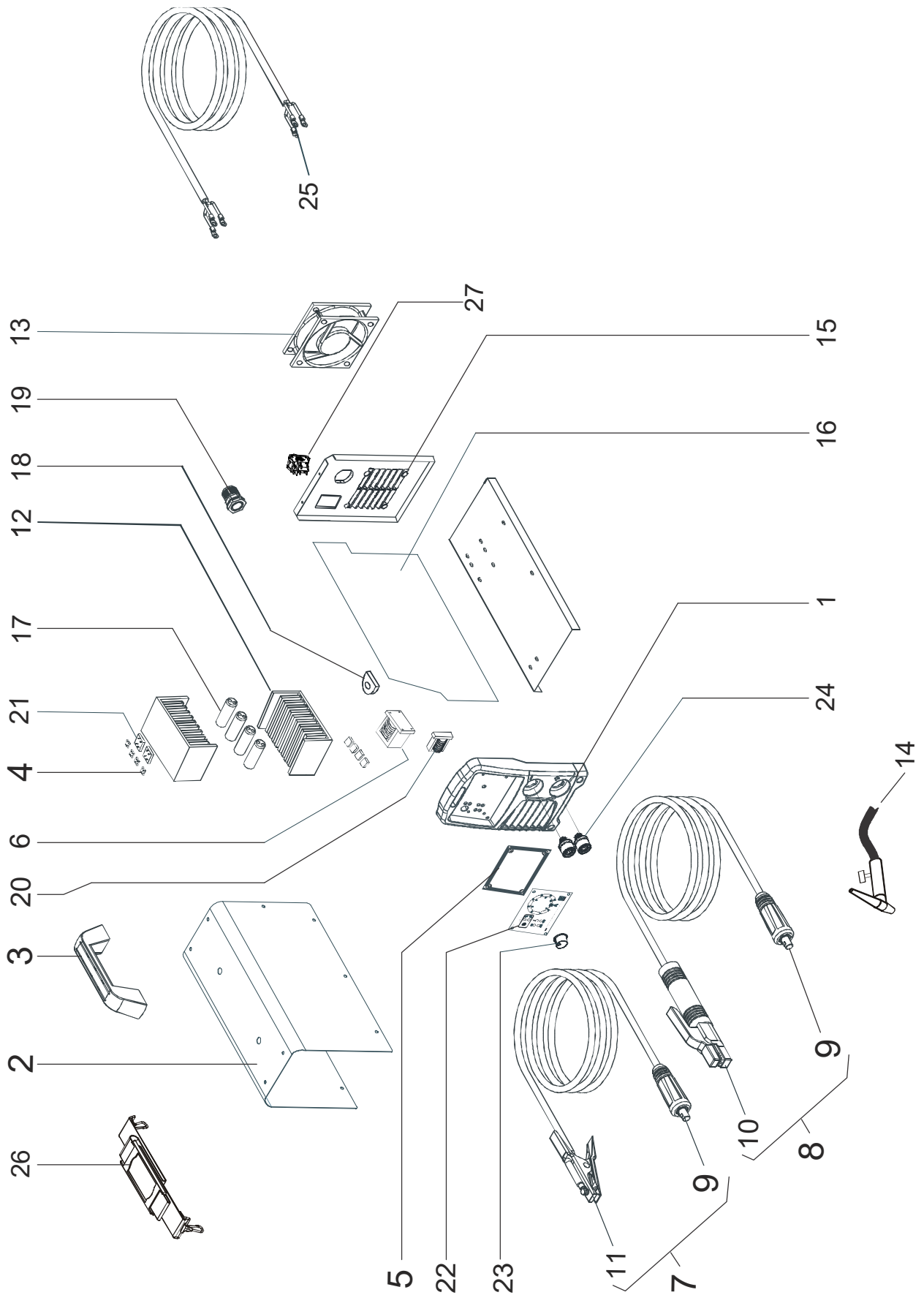


FIGURE 7-1 MAIN ASSEMBLY.

## NOTES

[illegible]

# WARRANTY POLICY

## UNIFORM WARRANTY FOR SIISA MACHINES.

**SOLDADORAS INDUSTRIALES INFRA, S.A. DE C.V. (SIISA)**,  
Warrants his equipments (welding power sources, plasma cutting and accessories), from the delivery date to the customer within the warranty periods listed below, the manufacturer will repair or replace any warranted parts or components that fail due to such defects in material or workmanship on factory or service centers.

## STATIC WELDING MACHINES AND PLASMA CUTTING

TRANSFORMER 3 YEARS

## PORTABLE INVERTER TYPE WELDING MACHINES

PORTABLE INVERTER WELDING MACHINE 2 YEARS

## ENGINE DRIVEN WELDING MACHINES

RANGE AND POLARITY SWITCH 1 YEAR

STATOR 3 YEARS

ROTOR 3 YEARS

KOHLER ENGINE 3 YEARS

(Manufacturer of engine "KOHLER" gives the warranty period).

## ACCESSORIES

WIRE FEEDER (Wire feed Mechanism) 1 YEAR

TORCHS AND GUN TORCHS(MIG/TIG Process) 3 MONTHS

PLASMA CUTTING TORCHES 3 MONTHS

REMOTE CONTROL 3 MONTHS

WATER RECYCLER 3 MONTHS

RECTIFIER 1 YEAR

CIRCUIT CARDS 3 MONTHS

ALL ELECTRICAL PARTS 30 DAYS

## UNDER THE FOLLOWING CONDITIONS.

1°.- For making effective this warranty you should just have to show this policy with the product to the nearest service center or workshop throughout the country.

2°.- **SOLDADORAS INDUSTRIALES INFRA S.A. DE C.V.** warranty will be F.O.B. Factory at Naucalpan México, or F.O.B. at an authorized service facility as determined by manufacturer. Therefore no compensation or reimbursement for transportation costs of any kind will be allowed.

3°.- Repair time should not be more than 30 days starting from the reception of the product.

4°.- Spare parts could be acquired in the address attached to this policy.

5°.- The customer could ask the store where he bought the product to make effective this policy.

## IN THE FOLLOWING CASES THIS WARRANTY IS NOT VALID:

a).- The warranty will not valid in the case machines have been repaired or altered its performance order by a non-authorized person by **SOLDADORAS INDUSTRIALES INFRA S.A. DE C.V.** or has been used out of specifications of the same, abuses negligence or suffered any accident.

b).- This warranty is not applied to: contacts tubes, nozzles, electrodes, insulators, adapters contact tips, etc.

c).- in case the routine maintenance has not been applied.

d).- Output power terminals has not warranty when terminals lug used not according to amperage to use and has not been tighten.

NOTE: In case this warranty is lost during the warranty period, **SOLDADORAS INDUSTRIALES INFRA S.A. de C.V.** will supply another one to the customer, presenting the purchasing bill or invoice.

It is recommended you write down this information and sending it to distribution center where you bought the product and sent it to **SOLDADORAS INDUSTRIALES INFRA S.A. de C.V.** Calle Plasticos no. 17 Naucalpan de Juárez Estado de México.

Also when your equipment requires any repair, demand the previous form be filled by the Service Center Technician.

**The warranty does not cover: damage caused by misuse, negligence, accidents, alterations, unauthorized modifications or repairs performed by unauthorized personnel.**

Customer Name: \_\_\_\_\_

Address: \_\_\_\_\_

Model: \_\_\_\_\_

Serial No: \_\_\_\_\_

Date of Purchase: \_\_\_\_\_

Invoice No: \_\_\_\_\_

## NOTES

[illegible]

## NOTES

[illegible]



**BHG IMPORT EXPORT IN**  
715 N CENTRAL AVE. SUITE 213.  
GLENDALE, CALIFORNIA.