PM1379 REV. 0
E. 12-08-2021

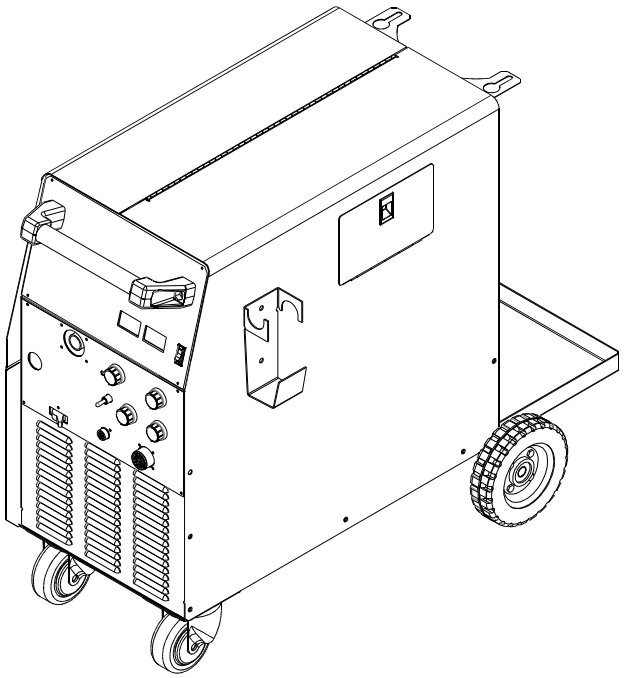
COMPARC™

OWNER´S MANUAL

MM 300 - ES

DC ARC WELDING POWER SOURCE

WIRE FEEDER



PROCESSES

MIG (GMAW).

DESCRIPTION

CONSTANT VOLTAGE (CV).

DC TYPE OUTPUT.

SINGLE PHASE.

GIVE THIS MANUAL TO THE OPERATOR

OWNER´S MANUAL

TABLE OF CONTENTS

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.

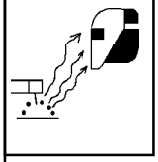
- Only qualified persons should install, operate, maintain, and repair this unit.

- 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 equiment 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.

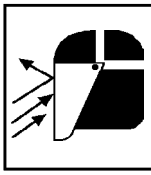
Arc rays from the welding process produce intense heat and strong ultraviolet rays that can burn eyes and skin. Noise from some processes can damage hearing.

1.- Wear a welding helmet fitted with a proper shade of filter (see ANSIZ49.1 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 glade; warn others not to watch the arc.
4.- Wear protective clothing made from durable, flame- resistant mate rial (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 breath 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 surch 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.

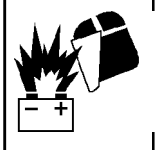
Engine fuel is highly flammable.

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 stating 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.

STEAM AND PRESSURIZED HOT COOLANT can burn face, eyes, and skin.

The coolant in the radiator can be very hot and under pressure.

1.- Do not remove radiator cap when engine is hot. Allow engine to cool.

2.- Wear gloves and put a rag over cap area when removing cap.

3.- Allow pressure to escape before completely removing cap.

- Additional Symbols For Installation, Operation, And Maintenance

NOISE can damage hearing.

Noise from some processes or equipment can damage hearing.

- Wear approved ear protection if noise level is high.

FALLING EQUIPMENT can injure

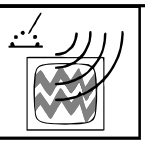
- Use lifting eye to lift unit and properly installed accessories only, NOT gas cylinders. Do not exceed maximum lift eye weight rating (see Specifications).
- Use equipment of adequate capacity to lift and support unit.
- If using lift forks to move unit, be sure forks are long enough to extend beyond opposite side of unit.
- Keep equipment (cables and cords) away from moving vehicles when working from an aerial location.

OVERUSE can cause OVERHEATING

- Allow cooling period; follow rated duty cycle.
- Reduce current or reduce duty cycle before starting to weld again.
- Do not block or filter airflow to unit.

STATIC (ESD) can damage PC boards.

- Put on grounded wrist strap BEFORE handling boards or parts.
- Use proper static-proof bags and boxes to store, move, or ship PC boards.



ARC WELDING can cause interference.

- Electromagnetic energy can interfere with sensitive electronic equipment such as microprocessors, computers, and computer-driven equipment such as robots.
- Be sure all equipment in the welding area is electromagnetically compatible.
- To reduce possible interference, keep weld cables as short as possible, close together, and down low, such as on the floor.
- Locate welding operation 100 meters from any sensitive electronic equipment.
- Be sure this welding machine is installed and grounded according to this manual.
- 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.

-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.

- Definitions

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

SECTION 1 SAFETY SIGNALS AND WORDS

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

WARNING **WARNING statements identify procedures or practices which must be followed to avoid seriuos personal injury or loss of life.**

CAUTION **CAUTION statements identify procedures or practices which must be followed to avoid minor personal injury or damage to this equipment.**

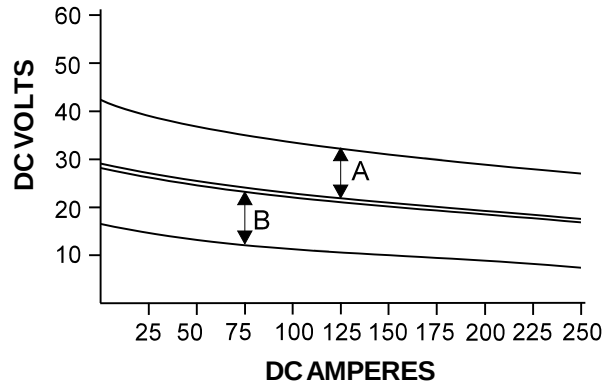
IMPORTANT: Statements identify special instructions necessary for the most efficient operation of this equipment.

SECTION 2 SPECIFICATIONS

Power supply	Output Current Duty cycle			Current range	Welding voltage range	Open circuit voltage	Input at Rated load, 60 Hz		Dimensions in (mm)	Weight lb (kg)
	Nominal 60%	Continue 100 %	Maximum 40 %				A	kW		
230 V ac	250 A @ 26.5 V dc	190 A @ 23.5 V dc	300 A @ 28 V dc	30 A - 300 A	10 - 28 V dc	32 V dc	43	7.7	Heigh: 31.2 (794) Width: 14.2 (362) Length: 38 (965)	Net: 264.5 (120) Ship.: 271 (123)
460 V ac							21.5			
575 V ac							17.2			

RECOMMENDED GUN	
Rated Weld Amperage	250 Amperes
Duty Cycle	60 % With CO_2
Wire Diameter	.035" to .045" (0.89 to 1.14 mm)
Length	10 ft. (3 m.)
Cooling System	Air

2-1 VOLT-AMPERE CURVES.



A= HIGH RANGE

B= LOW RANGE

The volt-ampere curves show the minimum and maximum voltage and amperage output capabilities of the welding source. Curves of other settings fall between curves shown.

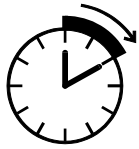
FIGURE 2-1 VOLT-AMPERE CURVES.

2-2 DUTY CYCLE.

CAUTION **WELDING LONGER THAN RATED DUTY CYCLE can damage unit and void warranty.**
Do not weld at rated load longer than shown below.

Definition

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



MINUTES

60% Duty Cycle At 250 Amperes

6 Minutes Welding

4 Minutes Resting

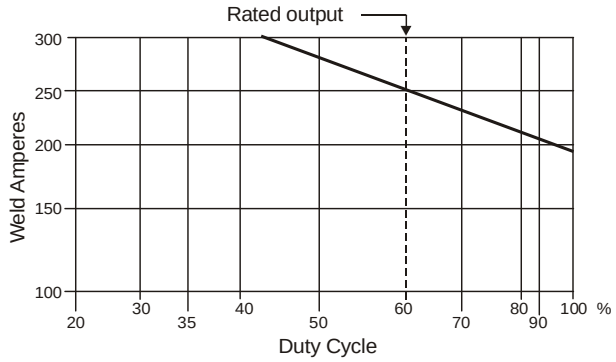


FIGURE 2-2 DUTY CYCLE CURVES.

SECTION 3 INSTALLATION

3-1. GUN INSTALLATION

1 MIG GUN OPENING.
2 TRIGGER RECEPTACLE.
3 WIRE FEEDER MECHANISM.
4 LOCKING KNOB.
5 GUN END.
Loosen locking knob and insert gun end through access hole into gun adapter. Tighten locking knob.
6 GUN TRIGGER PLUG.
Insert plug into receptacle, and tighten threated collar.

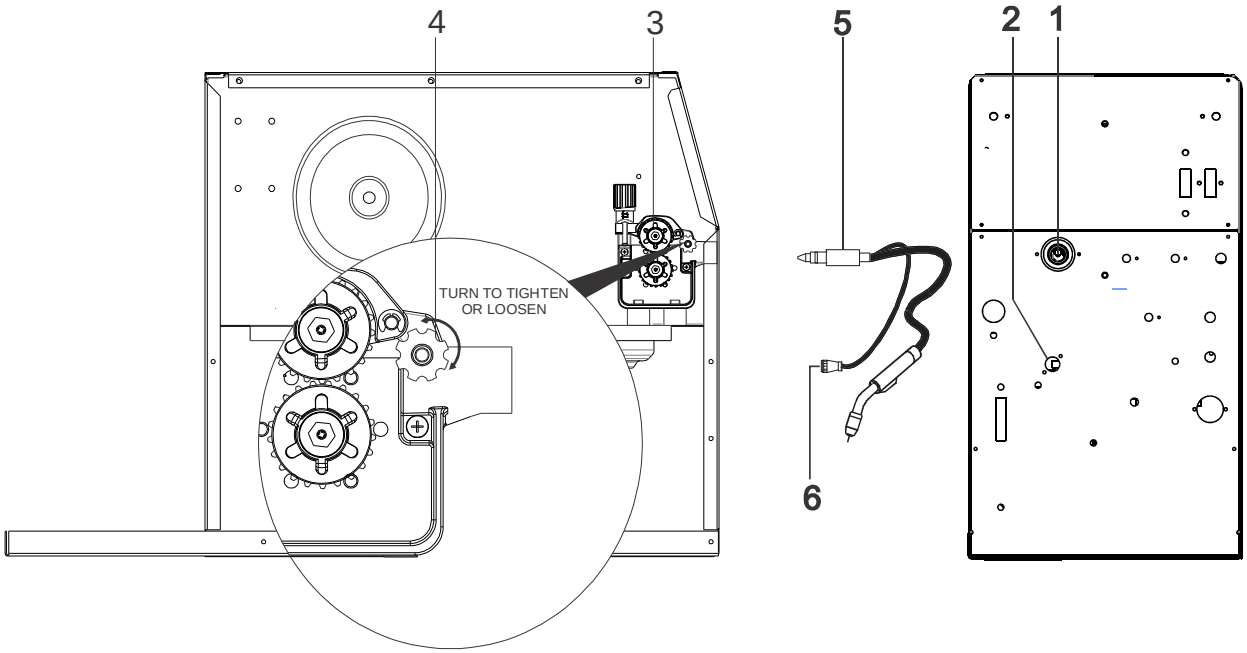
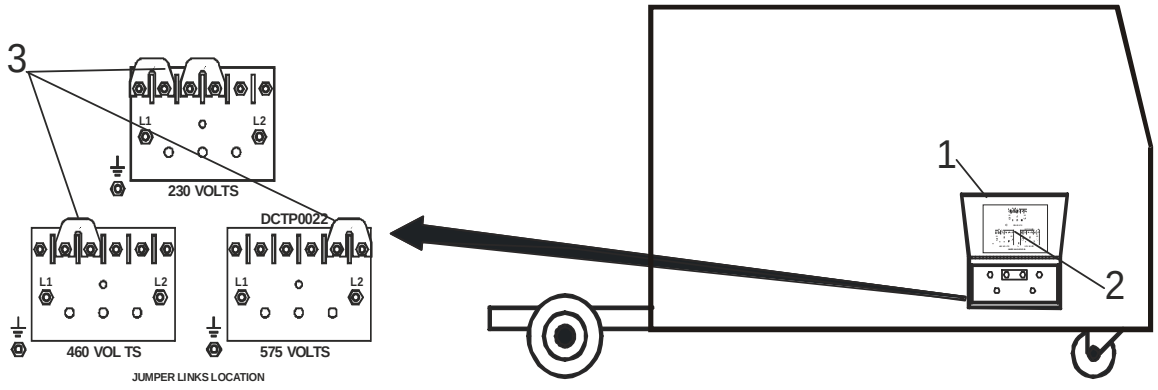


FIGURE 3-1. GUN INSTALLATION

3-2. POSITIONING JUMPER LINKS.

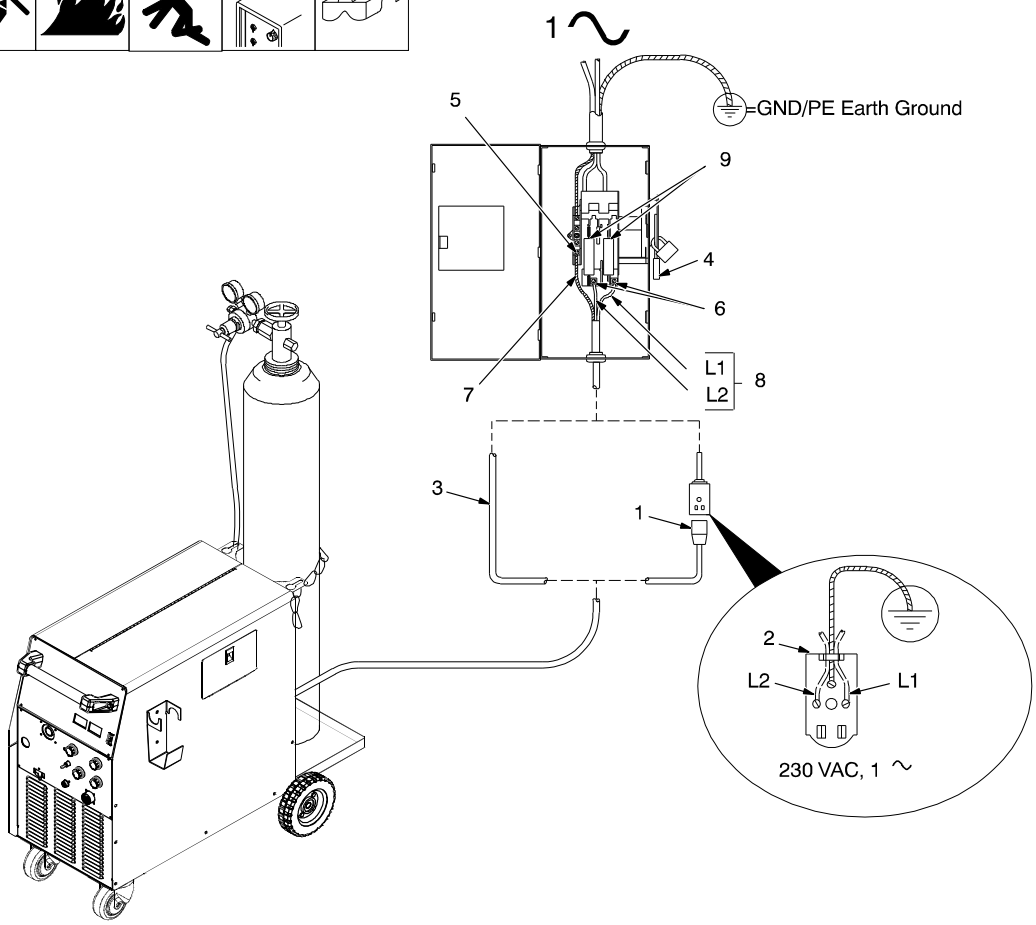
Check input voltage available at site.
1.- Jumper Links Access Door
Open door.
2.- Jumper Link Label
Check label - only one is on unit.
3.- Input Voltage Jumper Links
Move jumper links to match input voltage.
Close and secure access door.



3-3 ELECTRICAL SERVICE GUIDE

Input Voltage	220	440
Input Amperes (A) At Rated Output	45	22.5
Max Recommended Standard Fuse Rating In Amperes 1		
Time-Delay Fuses 2	50	25
Normal Operating Fuses 3	60	30
Min Input Conductor Size In AWG 4	8	12
Max Recommended Input Conductor Length In Feet (Meters)	127 (39)	206 (63)
Min Grounding Conductor Size In AWG 4	10	12

3-4 CONNECTING INPUT POWER



⚠Installation must meet all National and Local Codes - have only qualified persons make this installation.

⚠Disconnect and lockout/tagout input power before connecting input conductors from unit.

⚠Always connect green or green/yellow conductor to supply grounding terminal first, and never to a line terminal.

See rating label on unit and check input voltage available at site.

1 Plug (NEMA Type 6-50P)

2 Receptacle [NEMA Type 6-50R (Customer Supplied)]

3 Input Power Cord.

Connect directly to line disconnect device if hard wiring is required.

4 Disconnect Device (switch shown in the OFF position)

5 Disconnect Device Grounding Terminal

6 Disconnect Device Line Terminals

7 Green Or Green/Yellow Grounding Conductor

8 Black and White Input Conductor (L1 and L2)

Connect green or green/yellow grounding conductor to disconnect device grounding terminal first.

Connect input conductors L1 and L2 to disconnect device line terminals.

9 Over-Current Protection

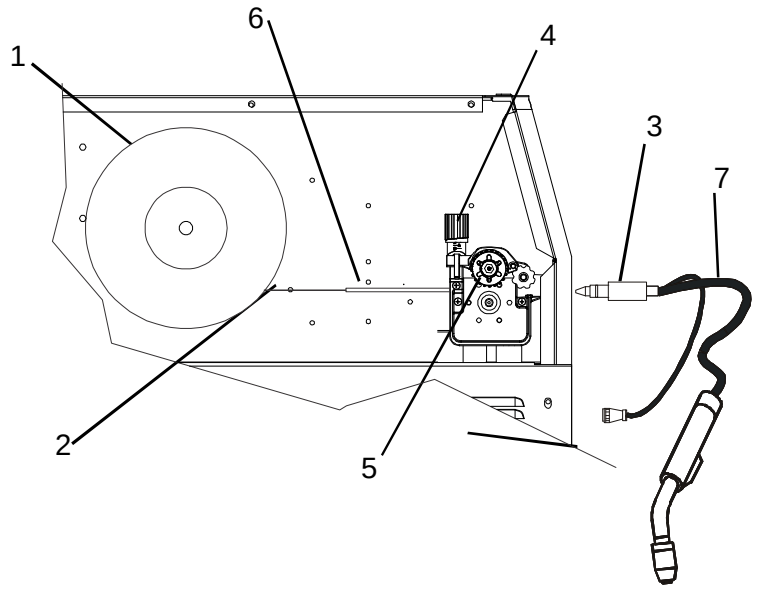
Select type and size of over-current protection using Section 3.3 (fused disconnect switch shown).

Connect plug to receptacle if hard wiring method is not used.

Close and secure door on disconnect device.

Remove lockout/tagout device, and place switch in the On position.

3-5 WIRE WELDING INSTALLATION.



1.- WIRE SPOOL / REEL.

2.- WELDING WIRE.

3.- GUN END.

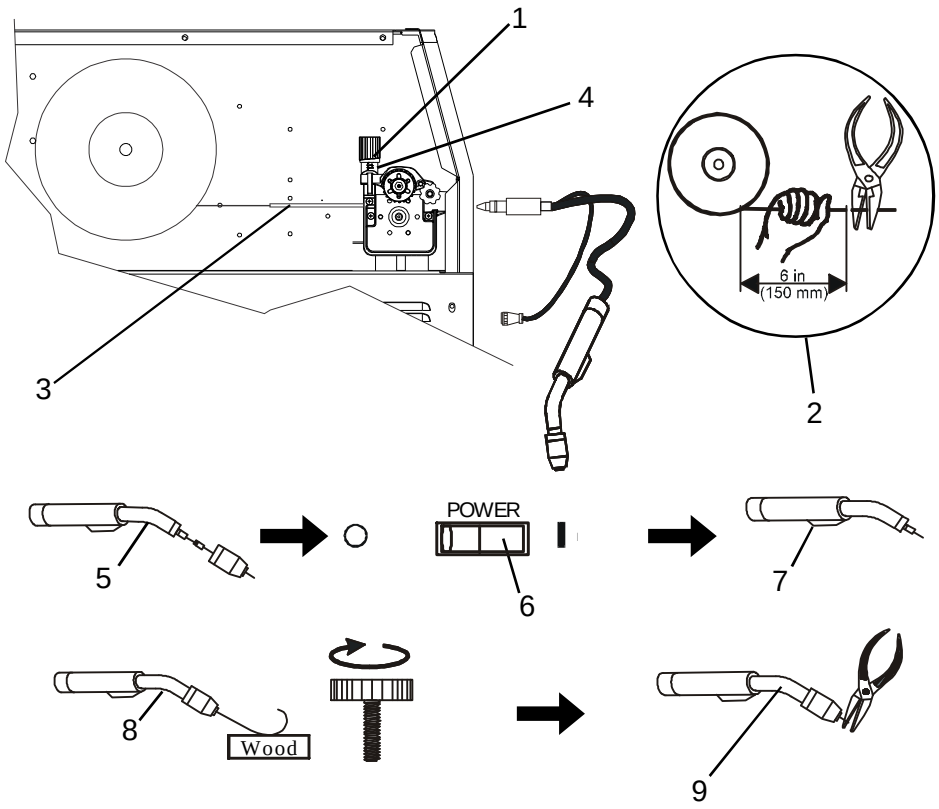
4.- PRESSURE ADJUSTMENT KNOB.

5.- DRIVE ROLL.

6.- INLET WIRE GUIDE.

7.- GUN CONDUIT CABLE. Try to keep straight gun conduit when you going to install welding wire.

Hold Wire Tightly to Keep It From Unraveling.



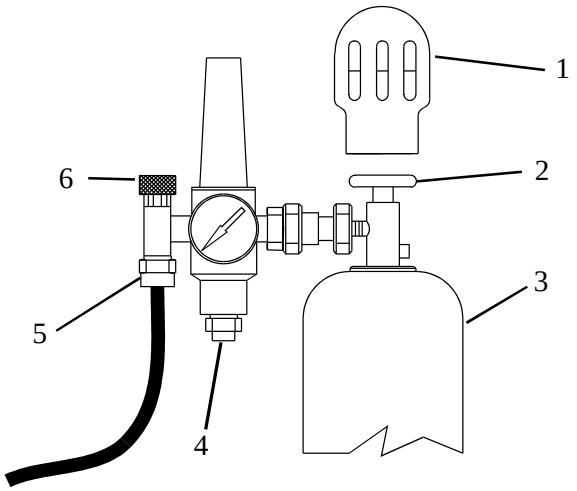
1.- PRESSURE GEAR ASSEMBLY. Release pressure knob.
2.- PULL AND HOLD WIRE. Cut off end.
3.- PUSH WIRE THROUGH GUIDES INTO GUN. Continue holding wire.
4.- CLOSE AND LATCH pressure gear assembly and let go wire. Install gun into receptacle and tighten locking screw.
5.- REMOVE CONTACT TIP and nozzle.
6.- PLACE SWITCH in "ON" position.
7.- PRESS TRIGGER until wire comes out of MIG gun.
Reinstall contact tip and nozzle on MIG gun.
8.- FEED WIRE TO CHECK DRIVE ROLLS pressure, tighten knob enough to prevent slipping.
9.-CUT OFF END OF WIRE.

Close and latch door.

FIGURE 3-5. WIRE INSTALLATION.

3-6 SHIELDED GAS CONNECTIONS.

WARNING *SEE SAFETY SIGNAL AT THE BEGINING THIS MANUAL*



Obtain gas cylinder and chain to running gear, wall, or other stationary support so cylinder can not fall and break off valve.

1.- CAP.

2.- CYLINDER VALVE.

Remove cap, stand to side of valve, and open valve slightly. Gas flow blows dust and dirt from valve. Close valve.

3.- CYLINDER.

4.- REGULATOR /FLOWMETER.

5.- GAS HOSE CONNECTION.

6.- FLOW ADJUST.

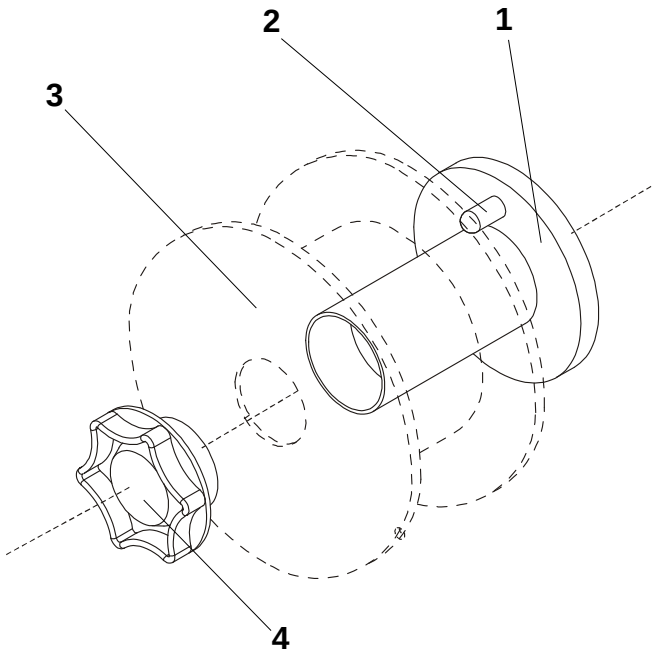
Typical flow rate is 20 cfh (Cubic Feet per Hour).

Tools Needed

28.5, 15.8mm (1-1/8",5/8")

FIGURE 3-6 SHIELDED GAS CONNECTIONS.

3-7 SPOOL WIRE INSTALLATION.



For 8" and 12" (standard) wire spools turn unit off and disconnect it.

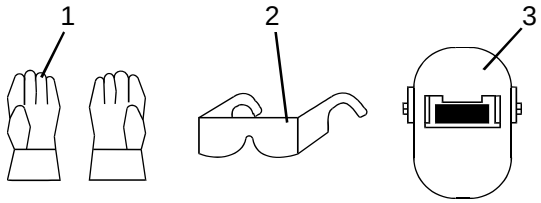
1.- Hub spool.
2.- Pin of Hub spool.
3.- Wire spool / Reel.
4.- Hud spool cap.

Turn the hub spool cap clockwise and remove it. Install the wire spool, be sure the hub spool´s pin enters one of the holes of the wire spool. Reinstall the hub spool cap.

FIGURE 3-7 SPOOL WIRE INSTALLATION.

SECTION 4 FUNCTION OF CONTROLS

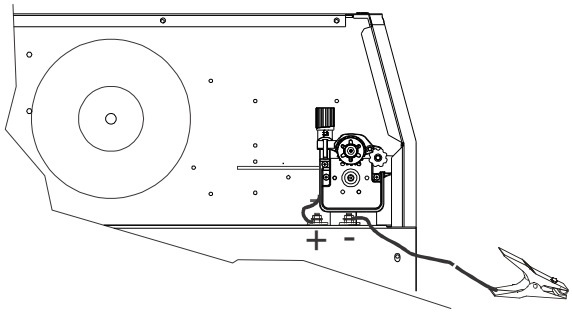
CAUTION *SEE SAFETY SIGNAL AT THE BEGINING THIS MANUAL*



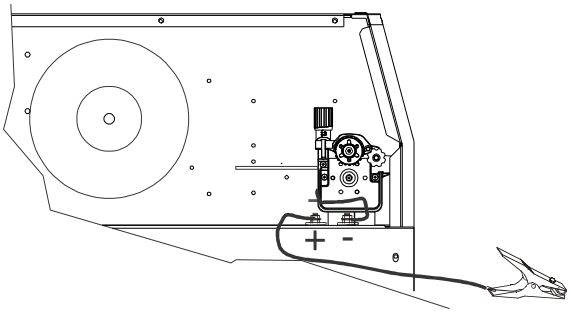
1- Insulating Gloves.
2- Safety Glasses With Side Shields.
3- Welding Helmet. Wear dry insulating gloves, safety glasses with side shields, and a welding helmet with a correct shade of filter (see ANSI Z49.1).

FIGURE 4-1 SAFETY EQUIPMENT.

GUN POLARITY



REVERSE POLARITY
(ELECTRODE POSITIVE)



STRAIGHT POLARITY
(ELECTRODE NEGATIVE)

Tools Needed

14.3mm, 19mm
(9/16", 3/4")

FIGURE 4-2 GUN POLARITY.

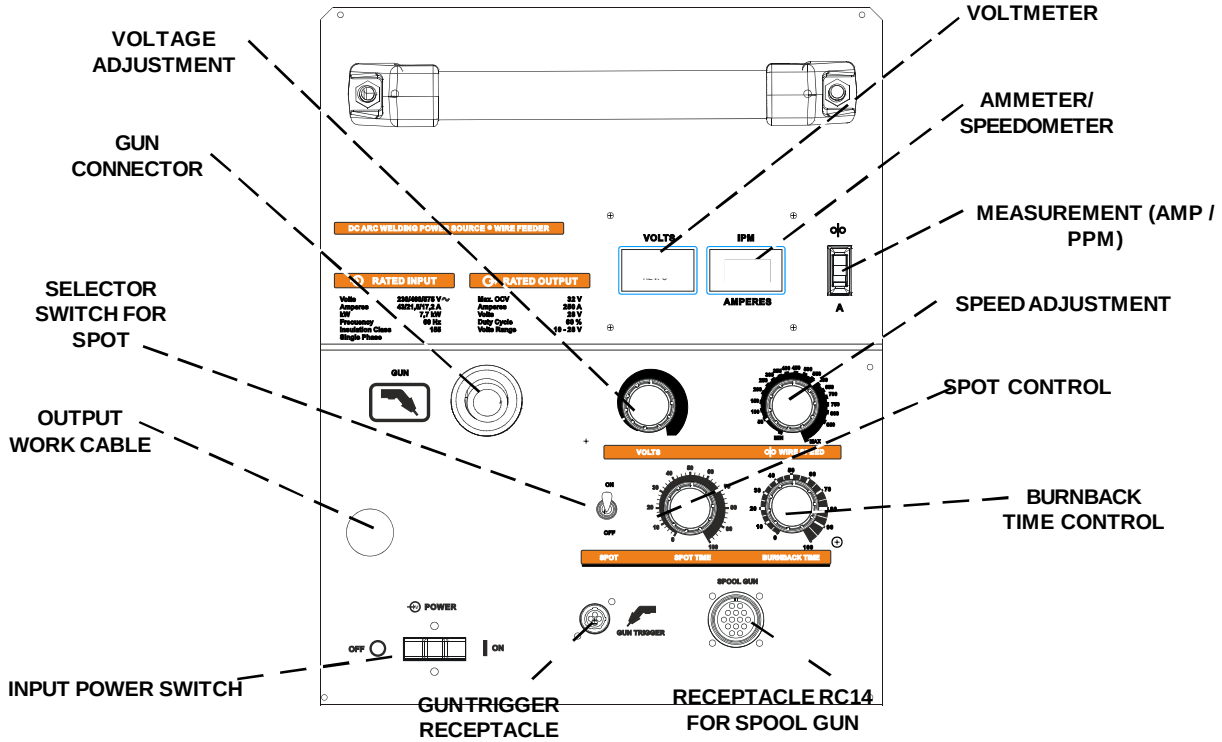


FIGURE 4-3. FRONT OF THE MACHINE

Gun Connector. Connect gun into gun receptacle until bottom and be sure be perfectly tighten.

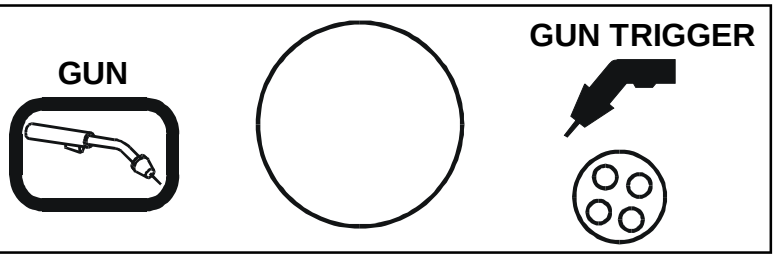
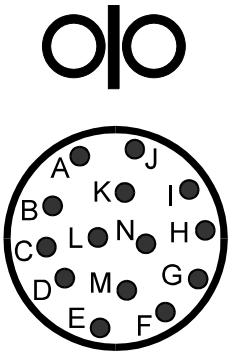


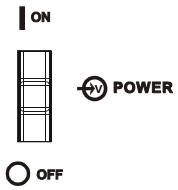
FIGURE 4-4 GUN CONNECTOR.



RC14 RECEPTACLE. This connector is a receptacle for a gun spool. To connect this receptacle, align keyway, insert plug, and tighten threaded collar.

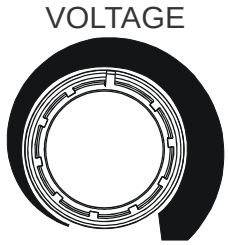
Socket Information:
SOCKET A: 24 Volts AC, 10 Amperes, 60 Hz., respect G socket (common).
SOCKET B: Contact closure to pin A completes 24 Volts AC contactor control circuit
SOCKET G: Circuit common for 24 and 120 VAC circuit.
SOCKET I: 120 VAC respect socket G.
SOCKET J: Contact closure to pin I completes 120 VAC contactor control circuit.
SOCKET K: Common .
REMAINING SOCKETS ARE NOT USED.

FIGURE 4-5 RECEPTACLE RC14.



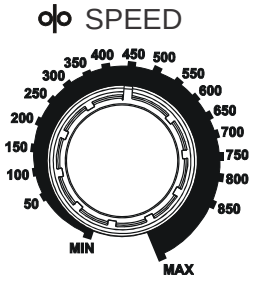
INPUT POWER SWITCH. Placing the power switch in ON position energizes the welding power source. Placing the power switch in the OFF position the unit shuts down.

FIGURE 4-6. INPUT POWER SWITCH



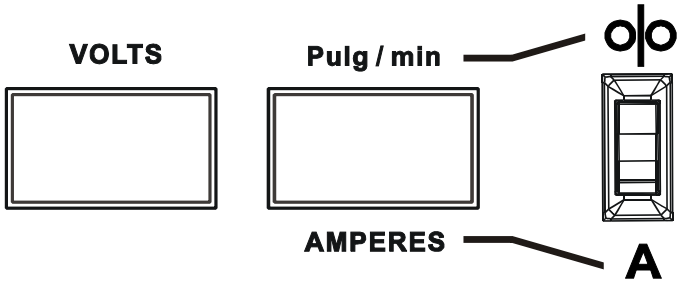
VOLTAGE ADJUSTMENT CONTROL.
With this knob the same arc voltage (PRESET) that is displayed on the " voltmeter " is selected when the output of the machine is not operating

FIGURE 4-7. VOLTAGE ADJUSTMENT CONTROL



Wire Speed Control
Use control to select a wire feed speed. As Voltage switch setting increases, wire speed range also increases. The numbers around the control are not a wire feed speed and are for reference only

FIGURE 4-8 WIRE SPEED CONTROL



DIGITAL METERS

DIGITAL VOLTMETER

When the trigger of the gun is not activated the preset voltage value (Preset) is displayed.
When the trigger of the gun is activated, the real voltage value that exists between the output terminals of the machine is shown, which depending on the situation, can open circuit, arc voltage or short circuit

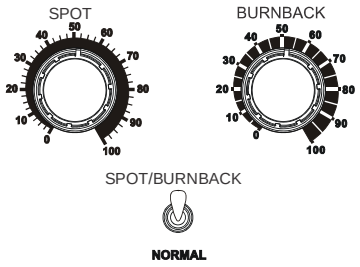
AMPERMETER / DIGITAL SPEEDMETER

This meter has two functions to select by means of the switch located on the right of it:

1.- DIGITAL AMPERMETER. During the welding process, the value of the output current is shown. When it is extinguished, the last value shown is retained for approximately 4 seconds and then the display goes off (it remains off while the current is zero).

2.- DIGITAL SPEEDOMETER. The value of the wire feed speed is shown during the welding process. When the arc current is extinguished, the last displayed speed value is retained for approximately 4 seconds and then the preset or desired speed (Preset) value is displayed and remains so as long as the current is zero.

FIGURE 4-9. DISPLAY

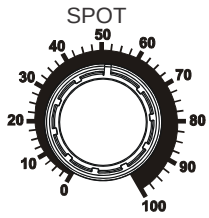


FUNCTION SELECTOR TIP / TRIM. Placing the switch in the "PUNTEE / TRIM" position activates two functions:

1.- Dotting: Welding by time intervals, the duration of each interval (from when the torch trigger is pressed) will depend on the position pre-set in the control of the spot time.

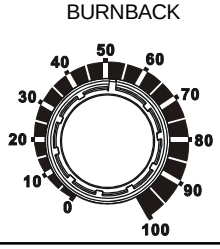
2.- Burnback: As soon as the torch trigger is deactivated, the wire feed is suspended while the electrode (wire) is kept energized for a period of time (established by the trimming control).

FIGURE 4-10. SELECTOR OF SPOT/BURNBACK



CONTROL OF SPOT TIME. This control allows you to adjust the tapping time (duration of the operation or welding interval) from 0.5 to 4 seconds. Turning the knob clockwise increases the time. The scale of the control is calibrated in percentage and does not indicate the interval time.

FIGURE 4-11. SPOT



BURNBACK. The time control for the wire trimmer allows to select the time that the electrode remains energized after the feeding of the wire has been suspended.
The appropriate time is that which allows the electrode to be free of the weld bead. If the time of the trimmer is very long the electrode can be fused with the torch contact tube. Turning the knob of the control clockwise increases the time from 0 to 0.25 seconds. The scale is calibrated in percentages and does not indicate the operating time of the wire cutter.

FIGURE 4-12. BURNBACK

FIGURE 4-12 SECUENCE FOR SOLID WIRE AND FLUX CORED ARC WELDING.

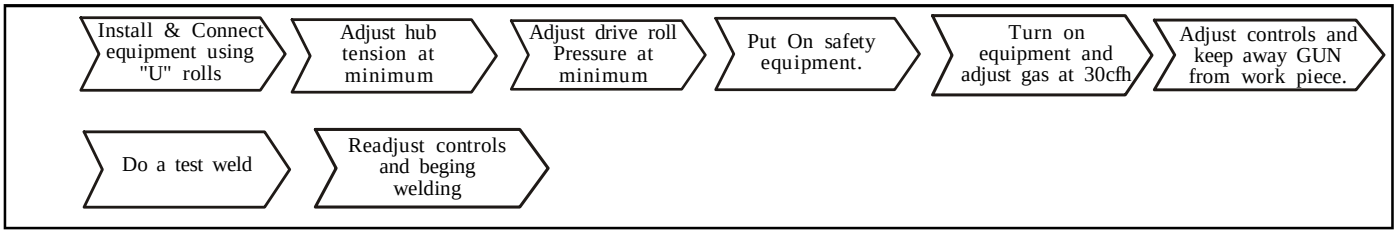


FIGURE 4-13. SECUENCE FOR ALUMINUM WIRE WELDING.

SECTION 5 MAINTENANCE & TROUBLESHOOTING

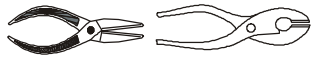
WARNING		***SEE SAFETY PRECAUTIONS SECTION***

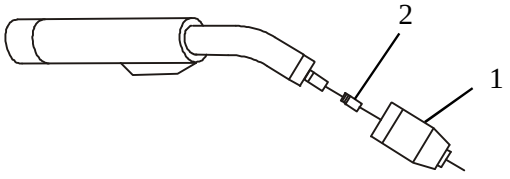
5-1 ROUTINE MAINTENANCE.

TIME	MAINTENANCE
Each 3 Months	Replace unreadable Labels ; Clean And Tighten Weld Terminals; Tape Or Replace Cracket Weld Cable; Replace Cracket Parts (such as 14-Pin Cord,Gas Hose, Gun Cable).
Each 6 Months	Blow Out Or Vacuum Inside; During Heavy Service Clean Monthly; Clean Drive Rolls.

5-2 CHANGING CONTACT TIP.

Tools Needed

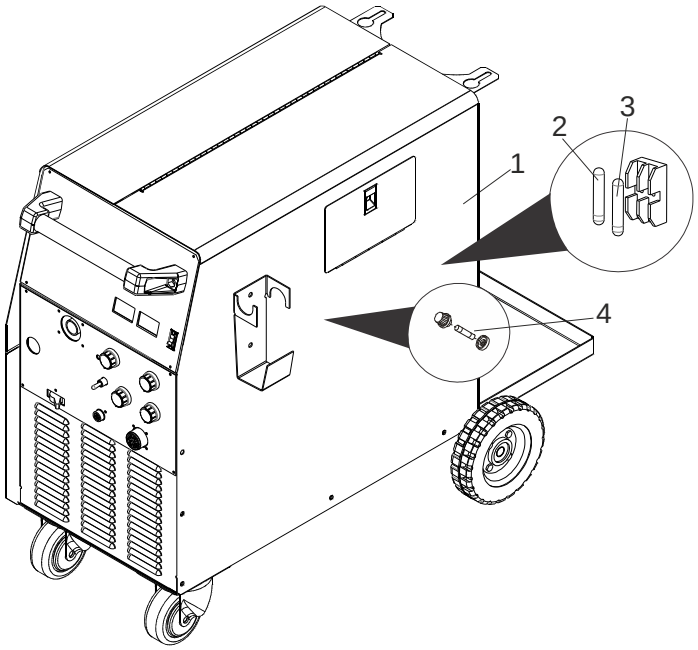




Turn off and disconnect the unit.
1.- NOZZLE.
2.- CONTACT TIP. Cut wire remaining of the contact tip, remove Nozzle, remove the contact tip and install one new. Reinstall nozzle.

FIGURE 5-1. CHANGING CONTACT TIP.

5-3. OVERLOAD PROTECTION.



Disconnect the unit from the power supply before removing the left side cover.

1.- Left cover.
2.- Fuse F4.
3.- Fuse F5.

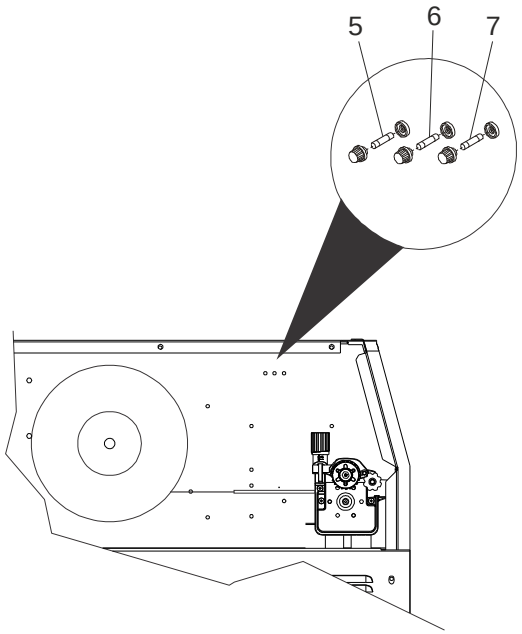
If fuses F4 and F5 are open, there will be no energy in the fan motor.

4.- Fuse F6.
Protect at control transformer from overload, if F6 open, output unit stops.

5.- 10 A fuse. F1.
The fuse F1 protects the control card PC3 against short circuits or overloads produced in the remote receptacle 14.

6.- Fuse F2
7.- Fuse F3

The fuses F2 and F3 protects the control card PC1 against short circuits.



Using incorrect fuses may damage the unit or the power supply network. Use only original fuses (same type, size and rating).

Replacing a fuse.

1.- Remove the left side cover.
2.- Replace the open or damaged fuse.
3.- Reinstall the side cover.

Figure 5-2 Overload protection.

5-4 TROUBLESHOOTINGS.

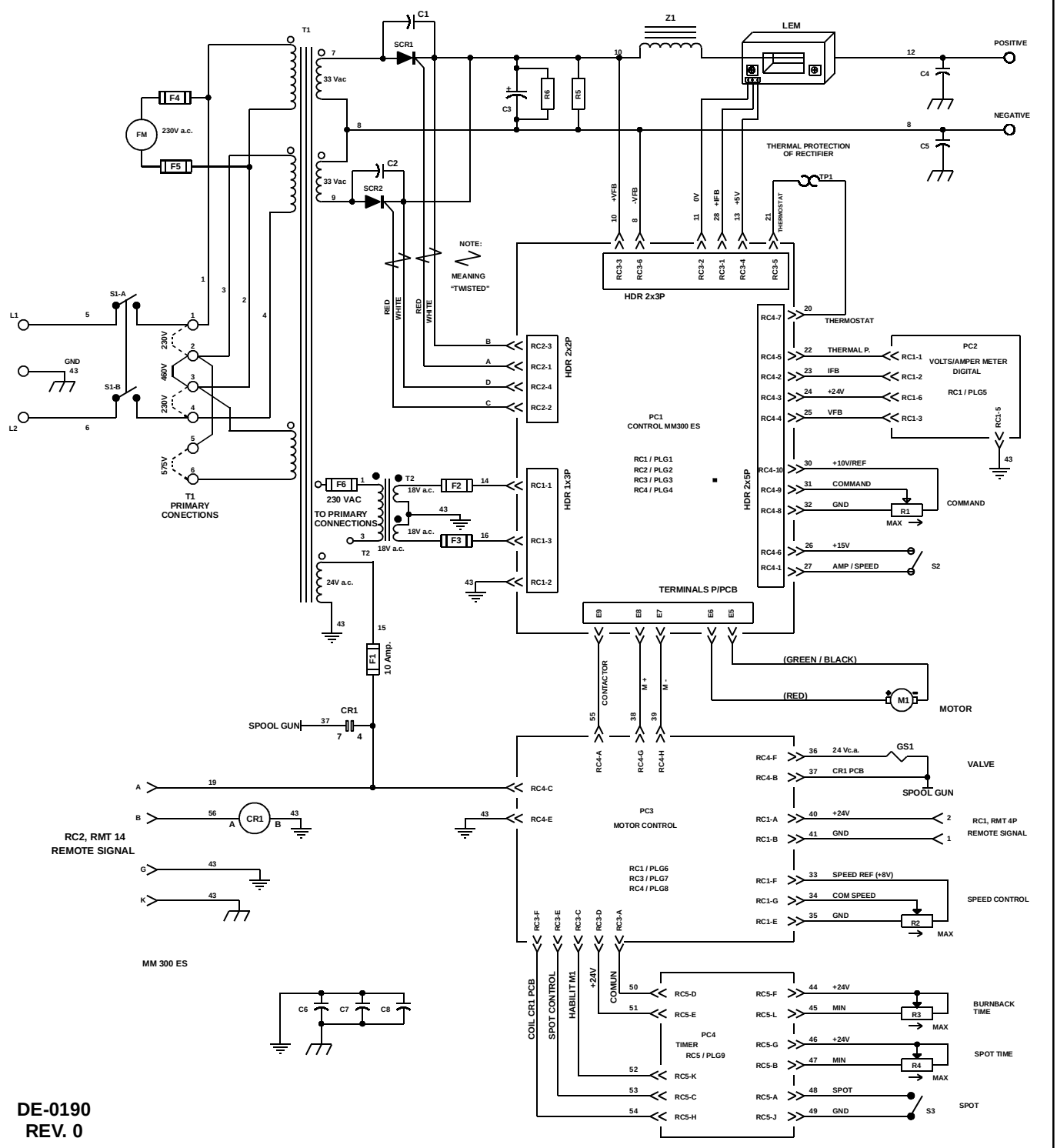
Table 5-1. Welding Trouble

TROUBLE	RECOMENDED ACTION
No weld output; wire does not feed; fan does not run.	Secure power cord plug in receptacle. Replace building line fuse or reset circuit breaker if open. Secure gun trigger plug in receptacle. Power switch in On position.
No weld output; wire does not feed; fan motor continues to run.	Have Factory Authorized Service Station/ Service Distributor check all board connections and shut down PC1 board.
No weld output; wire feeds.	Connect work clamp to get good metal to metal contact. Replace contact tip. Check for proper connections at polarity changeover board.
Low weld output.	Connect unit to proper input voltage or check for low line voltage Place voltage switch in desired position.

Table 5-2. Wire Drive/Gun Trouble

TROUBLE	RECOMMENDED ACTION
Wire feeding stops during welding	Straighten gun cable and/or replace damaged parts. Adjust drive roll pressure. Change to proper groove. ---------- ---------- ---------- ---------- Replace contact tip if blocked Clean or replace wire inlet guide or liner if dirty or plugged. Replace drive roll or pressure bearing if worn or slipping. Secure gun trigger plug in receptacle. Check and replace motor fuse F1. Check and clear any restrictions at drive assembly and liner. Have nearest Factory Authorized Service Station/Service Distributor check drive motor.

SECTION 6. ELECTRICAL DIAGRAM



DE-0190
REV. 0

SECTIÓN 7. PARTS LIST

Ref.	Part No.	I.D.	Description	Quantity
1	PC1802		Chasis.	1
2			Front assembly (fig. 7-2)	1
3	PR0815	SR1	Main rectifier. Consisting of:	1
	MT08386	SCR1, 2	Tyristor	2
4	PR0587		Wheel, rear assembly.	1
5	PT3684	T1	Transformer, main assembly. Consisting of:	1
	PB2412		Coil	1
	PC1807		Head core	1
	PN0161		Core	1
6	MT08939	T2	Transformerof control. Consisting of:	1
7	PE0706	Z1	Stabilizer assembly. Consisting of:	1
	PB2044		Coil	1
	PN0160		Core	1
	PC1806		Head core	1
8	PC3352		Cover	1
9	PC3351		Mobile covel	1
10	PC1803		Panel, cover complement	1
11	MV01110		Fan motor	1
12	PB0967	C3	Capacitor bank. Consisting of:	1
	MC00698		Capacitor 27000uF, 50V	5
13	MV00768	GS1	Válve solenoid	1
14	PT2255	PC1	Pc control board	1
15	PT3636	PC3	Pc control of motor	1
16	PT3605	PC4	Pc burnback	1
17	PM0406	M1	Wire feeder mechanism. (fig. 7-3)	1
18	MT08758	CT1	Sensor Hall	1
19	PB1925		Baffle	1
20	PR0464		Bracket, bottle retainer	1
21			Overload protection . Consisting of:	
	MF02310	F1	Fuse 10A	1
	MF02311	F2, F3	Fuse 2A	2
	MP00014		Fuse holder 15A 250V	3
22	MR05740		Wheel, rotatory front	2
23	MR09534	CR1	Relay 2P2T 24 Vac.	1
24	PT2923		Cover rear	1
25	PT3612		Terminal, input connections	1
26	PS2180		Gun support	1
27	PP3658		Spool wire	1
28	MR01495		Resistor 5 ohm 300W	1
29	PT0923		Terminal power, black.	
30	PT0924		Terminal power, red	1
31	MF02313	F4, F5	Fuse, 2.5A	2
	MB05896		Fuse base	1
32	MF02311	F6	Fuse 2A	1
	MB05897		Fuse base	1

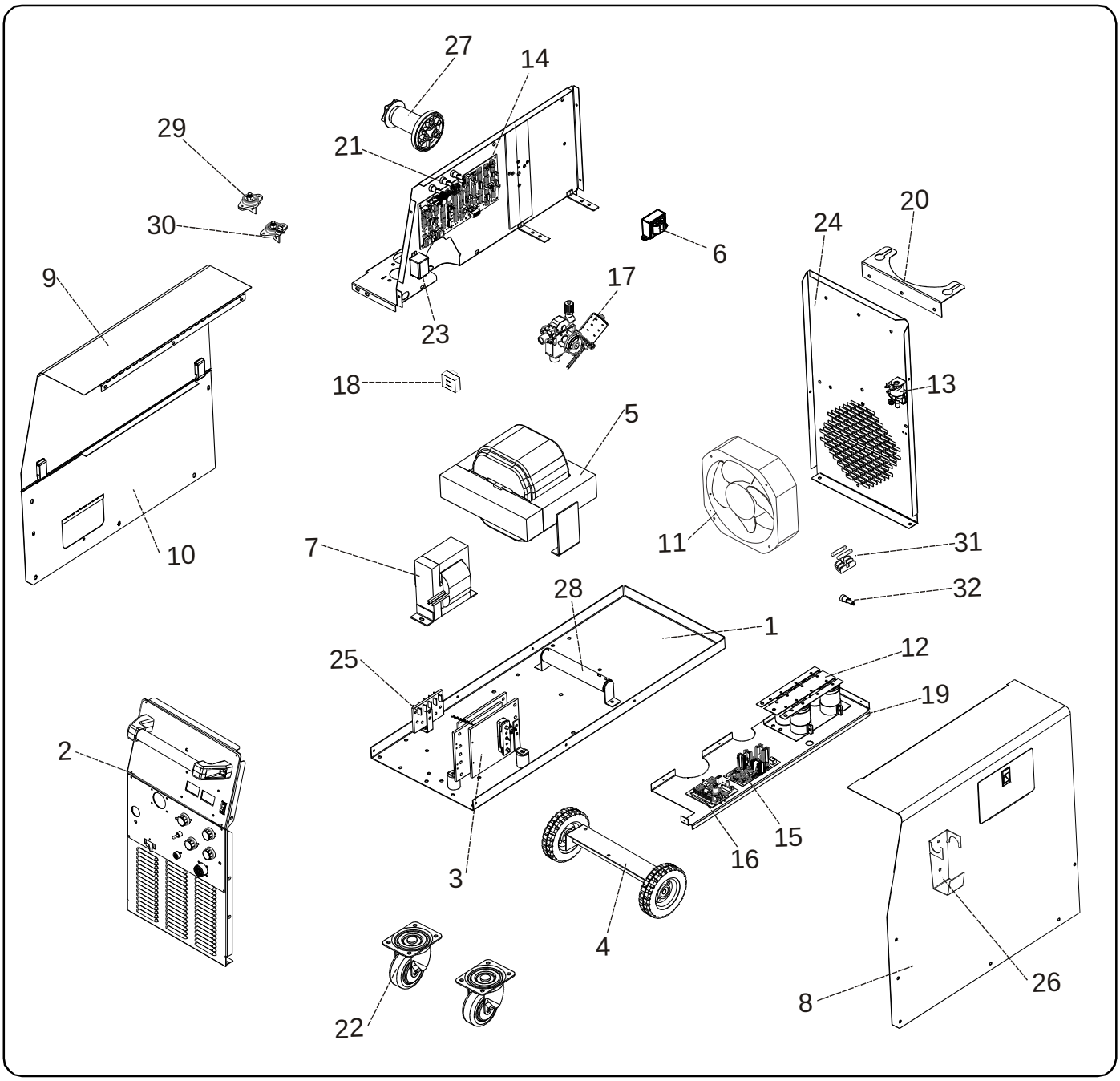


FIGURE 7-1 MAIN ASSEMBLY.

Ref.	Part No.	I.D.	Description	Quantity
1	PF0955		Front panel	1
2	PP4656		Nameplate, upper	1
3	PP4655		Nameplate, lower	1
4			Handle assembly. Consisting of:	1
	MS03936		Handle support	2
	MT08195		Handle	1
5	MI01178	S2	Switch 15A 1P 1T	1
6	MP08416		Knob	4
7	MI00110	S3	Switch 1P1T.	1
8	PT1826	PC2	PC voltmeter/ammeter	1
9	MP02512	R1, 2	Potentiometer 10KOhms, 2W	2
10	MP03020	R3, 4	Potentiometer 500KOhms, 2W	2
11	MR00503	RC1	4 sockets, receptacle	1
12	MR02583	RC2	14 pin, receptacle	1
13	MI01288	S1	Switch, power.	1

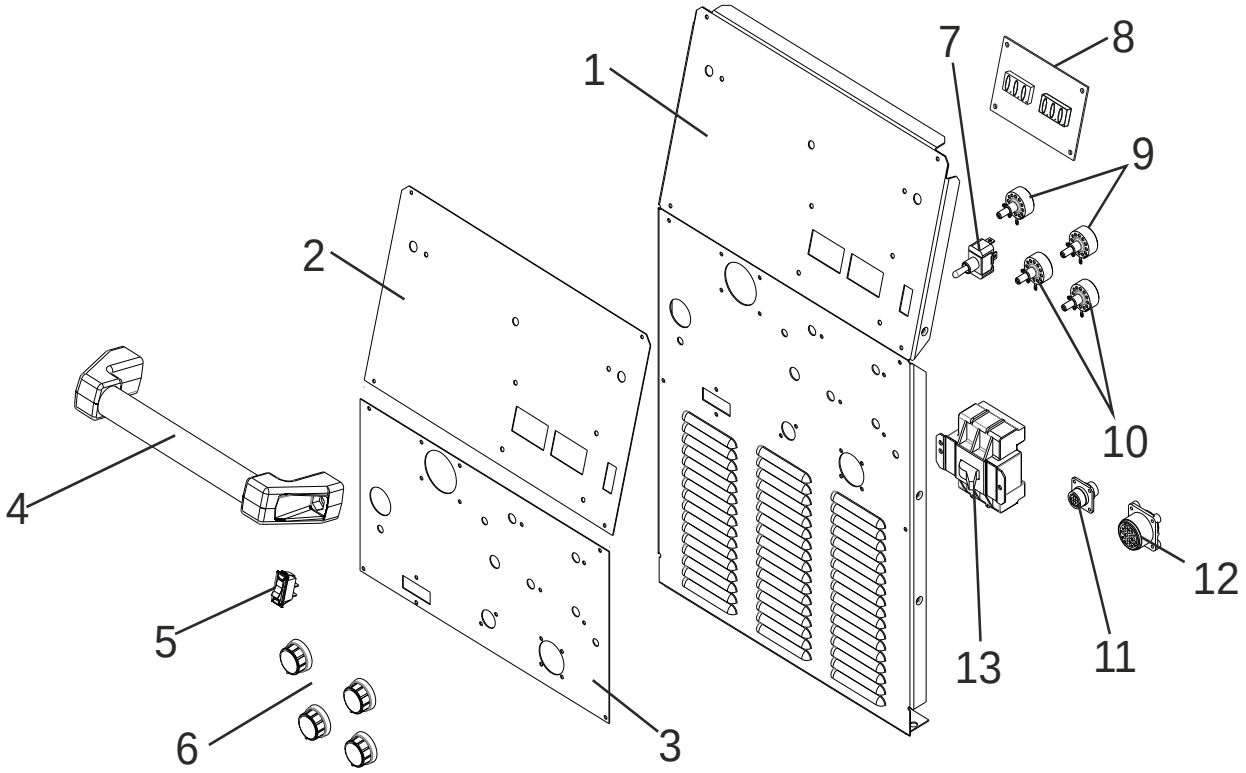


FIGURE 7-2. FRONT ASSEMBLY

IT. No	PART No.	DESCRIPTION	QUANTITY
1	PB2303	Feed plate with groove	1
2	MB06011R	Arm compl (With central gear)	1
3	MF02408R	Shaft	1
4	MB06013R	Wire pressure knob	1
5	ME02417R	Drive gear	1
6	-----	Roll (Ask to your distributor)	2
7	MM04283	Inlet guide tube	1
8	PP4429	Fix knob (Gun loking tab)	1
9	MT08685R	Fix bolt	1
10	PS2098	Gun loking tab	1
11	ME02451	Moving arm central gear	1

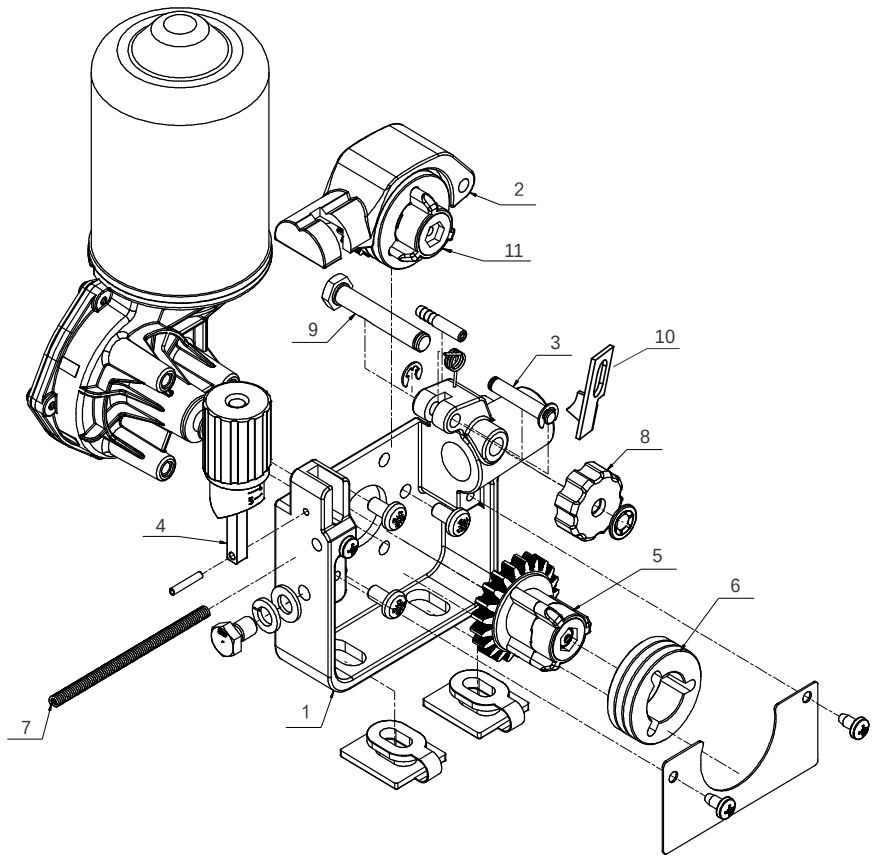


FIGURE 7-3 Assembly of Feeder Mechanism

NOTES

NOTES

WARRANTY POLICY

UNIFORM WARRANTY FOR SIISA MACHINES.

SOLDADORAS INDUSTRIALES INFRA, S.A. DE C.V. (SIISA), Warants 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
WATTER RECYCLER	3 MONTHS
RECTIFIER	1 YEAR
CIRCUIT CARDS	3 MONTHS
ALL ELECTRICAL PARTS	30 DAYS

UNDER THE FOLLOWING CONDITIONS.

1°.- For making efective 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 adquired in the address attached to this policy.

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

IN THE FOLLOWING CASES THIS WARRANTY IS NOT VALID:

a).- The warranty will not validin the case machines have been repaired or altered its perfomance 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).- Ouput power terminals has not warranty when terminals lug usednot 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 recomended you write down this information and sending it to disribution 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 previus form be filled by the Service Center Technician.

Customer Name: _____

Adress: _____

Model: _____

Serial No: _____

Date of Purchase: _____

Invoice No: _____

NOTES