INSTRUCTION MANUAL FOR WIRE WELDING MACHINE

IMPORTANT: BEFORE STARTING THE EQUIPMENT, READ THE CONTENTS OF THIS MANUAL, WHICH MUST BE STORED IN A PLACE FAMILIAR TO ALL USERS FOR THE ENTIRE OPERATIVE LIFE-SPAN OF THE MACHINE. THIS EQUIPMENT MUST BE USED SOLELY FOR WELDING OPERATIONS.

1 SAFETY PRECAUTIONS

WELDING AND ARC CUTTING CAN BE HARMFUL TO YOURSELF AND OTHERS. The user must therefore be educated against the hazards, summarized below, deriving from welding operations. For more detailed information, order the manual code 3.300.758

ELECTRIC SHOCK - May be fatal.
- Install and earth the welding machine according to the applicable regulations.
- Do not touch live electrical parts or electrodes with bare skin, gloves or wet clothing.
- Isolate yourselves from both the earth and the work-piece.
- Make sure your working position is safe.

FUMES AND GASES - May be hazardous to your health.
- Keep your head away from fumes.
- Work in the presence of adequate ventilation, and use ventilators around the arc to prevent gases from forming in the work area.

ARC RAYS - May injure the eyes and burn the skin.
- Protect your eyes with welding masks fitted with filtered lenses, and protect your body with appropriate safety garments.
- Protect others by installing adequate shields or curtains.

RISK OF FIRE AND BURNS
- Sparks (sprays) may cause fires and burn the skin; you should therefore make sure there are no flammable materials in the area, and wear appropriate protective garments.

NOISE
- This machine does not directly produce noise exceeding 80dB. The plasma cutting/welding procedure may produce noise levels beyond said limit; users must therefore implement all precautions required by law.

ELECTRIC AND MAGNETIC FIELDS - May be dangerous.
- Electric current following through any conductor causes localized Electric and Magnetic Fields (EMF). Welding/cutting current creates EMF fields around cables and power sources.
- The magnetic fields created by high currents may affect the operation of pacemakers. Wearers of vital electronic equipment (pacemakers) should consult their physician before beginning any arc welding, cutting, gouging or spot welding operations.
- Exposure to EMF fields in welding/cutting may have other health effects which are now not known.

- All operators should use the following procedures in order to minimize exposure to EMF fields from the welding/cutting circuit:
  - Route the electrode and work cables together - Secure them with tape when possible.
  - Never coil the electrode/torch lead around your body.
  - Do not place your body between the electrode/torch lead and work cables. If the electrode/torch lead cable is on your right side, the work cable should also be on your right side.
  - Connect the work cable to the workpiece as close as possible to the area being welded/cut.
  - Do not work next to welding/cutting power source.

EXPLOSIONS
- Do not weld in the vicinity of containers under pressure, or in the presence of explosive dust, gases or fumes.
- All cylinders and pressure regulators used in welding operations should be handled with care.

ELECTROMAGNETIC COMPATIBILITY
This machine is manufactured in compliance with the instructions contained in the standard IEC 60974-10 (CL.A), and must be used solely for professional purposes in an industrial environment. There may be potential difficulties in ensuring electromagnetic compatibility in non-industrial environments.

DISPOSAL OF ELECTRICAL AND ELECTRONIC EQUIPMENT
Do not dispose of electrical equipment together with normal waste! In observance of European Directive 2002/96/EC on Waste Electrical and Electronic Equipment and its implementation in accordance with national law, electrical equipment that has reached the end of its life must be collected separately and returned to an environmentally compatible recycling facility. As the owner of the equipment, you should get information on approved collection systems from our local representative. By applying this European Directive you will improve the environment and human health!

IN CASE OF MALFUNCTIONS, REQUEST ASSISTANCE FROM QUALIFIED PERSONNEL.

2 GENERAL DESCRIPTIONS

The machine Sound Mig 3240/T Pulse is a multi-process system suitable for pulsed synergic MIG/MAG, MIG/MAG non-pulsed synergic, and conventional MIG/MAG welding, Tig (Dc) with scratch starting and MMA, developed with inverter technology. The welding machine is supplied with 4-roller gearmotor. This welding machine must not be used to defrost pipes.

2.1 POWER SOURCE

2.1.1 Explanation of technical specifications
EC 60974-1 The welding machine is manufactured according to these international standards. N° . Serial number, which must be indicated on any request regarding the welding machine.
Three-phase static frequency converter
Transformer - rectifier.

MIG Suitable for MIG-MAG welding.

TIG Suitable for TIG welding.

MMA Suitable for welding with covered electrodes.

U0. Secondary open-circuit voltage.

X. Duty cycle percentage. The duty cycle expresses the percentage of 10 minutes during which the welding machine may run at a certain current without overheating.

I2. Welding current.

U2. Secondary voltage with current I2.

U1. Rated supply voltage.

3~ 50/60 50- or 60-Hz three-phase power supply.

I1 Max Max. current absorbed at the corresponding current I2 and voltage U2.

I1 eff. This is the maximum value of the actual current absorbed, considering the duty cycle. This value usually corresponds to the capacity of the fuse (delayed type) to be used as a protection for the equipment.

IP23 Protection rating for the housing.

Grade 3 as the second digit means that this equipment may be stored, but it is not suitable for use outdoors in the rain, unless it is protected.

Suitable for use in high-risk environments.

NOTE: The welding machine has also been designed for use in environments with a pollution rating of 3. (See IEC 664).

3 DESCRIPTION OF POWER SOURCE (Fig. 1)

A – Socket (+): In MIG/MAG and MMA welding, connect the mass cable connector and in Tig welding, connect the Tig welding torch connector.

B – Central adapter: Connect the welding torch.


D – Socket (+): in Tig welding, connect the mass cable connector.

E – Fitting: Connect the gas hose leaving the Tig welding torch.

F – Connector: Connector type DB9 (RS232 serial line) to use for updating the microprocessor programs.

G – Pressure switch socket: Socket which receives the cable from the pressure switch located inside the cooling unit Art.1683 (optional).

H – Fuse holder.

I – Socket: Socket which receives the power supply cable of the cooling unit Art.1683 (optional).

L – ON/OFF switch.

M – Power cable.

N – Gas hose.

O – Cylinder support.

P – Cylinder support straps.
3.1 COOLING UNIT. Art.1683 (optional).
This cooling unit was designed to cool the welding torches used for TIG and MIG/MAG welding. It must be used exclusively with this power source.

3.2 DESCRIPTION OF PROTECTIVE DEVICES.

3.2.1 Coolant pressure protective device.
This protection is achieved by means of a pressure switch, inserted in the fluid delivery circuit, which controls a microswitch. Low pressure is indicated by the abbreviation H2O flashing on the display AM.

3.2.2 Fuse (T 2A/250V - Ø 5x20).
This fuse is inserted to protect the motor pump, and is located on the rear panel of the welding machine H.

3.2.3 Positionning on sloping planes.
Since this welding machine is equipped with wheels without brake, make sure the machine is not positioned on sloping planes, to avoid tilting or noncontrolled motion of the machine itself.

4 DESCRIPTION OF CONTROL PANEL (Fig. 2)

AE selection key.
Each brief pressure selects the size, adjustable via the Al knob. The values that may be selected are in relation to the type of welding process selected, and are displayed on the LEDs AA/AB/AC/AD.

LED AA PRG.
Indicates that the display AL shows the set program number. Active only in MIG processes.

LED AB Thickness.
The AL display shows the recommended thickness based on the set current and wire speed. Active only in synergic MIG processes.

LED AC Wire speed.
Indicates that the display AL shows the wire speed in welding. Active only in MIG processes.

LED AD Current.
Indicates that the display AL shows a welding current. During welding always shows the measured current; with the machine at a standstill, if AG is OFF, shows the set current.

LED AF - Globular position.
May not be selected. Active in synergic MIG process. When lit, this signals that the pair of values chosen for welding may give unstable arcs and splatters.

LED AG - Hold.
May not be selected. It activates in MIG, MMA and TIG welding and it signals that the values shown on the displays AL and AM (normally Amperes and Volts) are those used during last welding. Activated at the end of each welding session.

LED AH - Voltage.
In all MIG welding processes, it indicates that the display AM shows the re-set welding voltage or, if in combination with LED AG lit, the last measured voltage.

Knob Al.
The following values are set according to the process type:
Welding current A, wire speed ( ), thickness ( ), program number PRG.

Knob AN.
The following values are set according to the process type:
In synergic MIG the arc length, in conventional MIG the welding voltage.

LED AG lit, the actual welding voltage.
In MMA and TIG welding processes is always ON and may not be selected. Ii indicates that the display AM shows the open-circuit voltage or, if in combination with LED AG lit, the actual welding voltage.

Display AL.
In all welding processes, it numerically displays the selections made via the selection key AE and adjusted via the knob AI.

For the welding current (LED AD) it displays the amperes.
For the wire speed (LED AC) it displays the meters per minute.
For the thickness (LED AB) it displays the millimeters.
For (LED AA) it displays the set program number.

In MIG welding processes, the service functions select the abbreviations: H2O, TRG, SP, HSA, CrA, PrF, PoF, Acc, bb, L, Dp, Ito, Fac.

In MMA welding processes, the service functions select the abbreviations: HS, AF, SP, Fac.

In MIG synergic processes when a value is adjusted the other values are adjusted as well. All these values are shown on the display AL.

Display AM.
In all welding processes, the service functions select the abbreviations: H2O, TRG, SP, HSA, CrA, PrF, PoF, Acc, bb, L, Dp, Ito, Fac.

For the welding current (LED AD) it displays the amperes.
For the wire speed (LED AC) it displays the meters per minute.
For the thickness (LED AB) it displays the millimeters.
For (LED AA) it displays the set program number.

In MIG welding processes, the service functions select the abbreviations: H2O, TRG, SLD, PrF, PoF, Fac.

In MMA welding processes, the service functions select the abbreviations: HS, AF, SP, Fac.

For the parameters within the service functions that are shown on the display AM, see the paragraph on service functions.
When the machine is in the warning mode, it displays a flashing warning (example: OPN if the lateral panel is open. When the machine is in the error mode it displays Err.
Display AM.
In all welding processes displays by the number: in synergic MIG the arc length and in conventional MIG the welding voltage.
For the welding voltage (LED AH) it displays the Volts. For the arc length (LED AO) it displays a number between 9.9 and +9.9, 0 being the recommended value.
For the parameters in the MIG service function, that are shown on the display AM, see the paragraph on service functions.
For the parameters in the MMA and TIG service function, that are shown on the display AM, see the paragraph on service functions.
When the machine is in error mode it displays the corresponding error code between 1 and 99.

Selection key AO.
Each time this key is pressed, the selected process is shown by LED AP/AQ/AR/AS/AT.

LED AP  Pulsed MIG.
Shows that the selected process is the synergic MIG Pulsed.

LED AQ  SYNERGIC MIG.
Shows that the selected process is synergic MIG.

LED AR  CONVENTIONAL MIG.
Shows that the selected process is conventional MIG.

LED AS  TIG.
Shows that the selected process is TIG.

LED AT  MMA.
Shows that the selected process is MMA.

Selection key AU.
Each brief pressure selects 2 stages mode (MANUAL) and the 4 stages mode (AUTOMATIC), the selection is shown on the display AL.
In the 2 stages mode the machine begins welding when the welding torch trigger is pressed, and stops when released.
In the 4 stages mode to begin welding press and release the welding torch trigger; to interrupt, you must press and release it again.

Selection key AV. (JOB)
Saving and restoring of the stored processes.
To save a working condition (JOB), just hold down for at least 3 seconds the key AV, the LED AZ glows, on the display AL the abbreviation STO flashes and on display AM the number of the first available position flashes.
Knob AN is used to select the saving position; press again key AV until a sound will confirm that it has been saved and the selected number stops flashing.
To restore the saved number just briefly press key AV and restore the number by means of knob AN. Up to 99 pairs of current/voltage values may be saved.
To delete a saved number, press for at least 3 seconds key AV, turn knob AI until the display AL shows the abbreviation DEL and press the key again AV for 3 more seconds.
A current/voltage parameter may be restored outside saving for both using or changing it. To restore it press for 3 seconds key AV, display by means of knob AI the number to be restored and show on display AL, with knob AN the abbreviation rcl; now just press for at least 3 seconds key AV.
LED AZ JOB.
Shows that you are inside the saving menu of the saved working points.

Selection key AY.
Gas Test .
When this key is pressed gas stars flowing; to stop it press the key again.
If the second press does not takes place the gas output is interrupted after 30 seconds.

Selection key AW.
Wire test.
Allows the wire feed with no current or voltage present.
When this key is held down, during the first 5 seconds the wire advances at the speed of 1 meter per minute and then the speed increases up to 8 meters per minute.
When this key is released the motor stops immediately.

5. SERVICE FUNCTIONS.
Press the key AE, and hold it down for at least 3 seconds to enter the submenu. Turning the knob AI you select the function, shown on the display ALand turning the knob AN you select the type of operation or the value, shown on the display AM. To return to the normal display, press and release the key AE immediately.

5.1. MIG PROCESS.

1- H2O (Cooling unit, optional).
Turning the knob AN you select the type of operation: OFF = shut off, ON C = always on, ON A = automatic start-up.
When the automatic mode is selected the pump begins working immediately at each welding start command and stops 3 minutes after the welding is completed. At each power source start-up a short pump test takes places for 15 seconds.
If an insufficient pressure is detected the machine goes into warning mode and H2O flashes on display AM. If the low pressure condition persists for more than 30 seconds, the pump is disactivated and the machine goes to error mode (ERR 75).

2- TRG.
Activated in MIG welding. Choice between 2- or 4- stages, 3 levels, the selection 2t or 4t with the selection key AU, without entering the service functions. 2t the machine begins welding when the welding torch trigger is pressed, and stops when released. 4t to begin welding press and release the welding torch trigger; to interrupt, you must press and release it again. 3L this procedure is active in the synergic processes. Specially well suited to weld aluminum.
3 currents are available that can be used in welding by means of the welding torch start button. The current and the slope values are set as follows:
SC = starting current (Hot Start). With the possibility of adjusting from 1 to 200% of the welding current, a value adjusted using the knob AN.
Slo slope. Possibility of adjusting from 1 to 10 seconds. Defines the connection time between the first current SC with the welding current and the second current with the third current CrC (crater filler current), a value set by means of knob AN.
CrC = «Crater filler» current. With the possibility of adjusting from 1 to 200% of the welding current, a value adjusted using the knob AN.
Welding starts at the welding torch button pressure, the named pressure will be the starting pressure SC. This current is kept as long as the welding torch button is held down; when the welding torch trigger is released the first current connects to the welding current, set by means of knob AI, and is kept as long as the welding torch button is held down. When the welding torch trigger is pressed again the welding current connects to the third current CrC, and is kept as long as the welding torch trigger is held down. When the welding torch trigger is released welding stops.

3- SP (spot-welding).
Off/ON activates and disables the spot function. The spot welding time tSP is set from 0.3 to 5 seconds. The interval between two spots tIN is set from 0.3 to 5 seconds.
This function is blocked when function 3L is activated.

4- HSA (Automatic Hot Start).
This function is blocked when function 3L is activated and works only with the synergic processes. Once the function has been enabled using the AN knob, the operator may adjust the level of the starting current SC (Hot Start), with the possibility of adjusting from 1 to 200% of the welding current, a value adjusted using the knob AN.
The duration tHS (default 130%) of this current may also be adjusted from 0.1 to 10 seconds.) (default 0.5 sec.). The switching time Slo between the SC current and the welding current may also be adjusted from 0.1 to 10 seconds.(default 0.5 seconds).

5- CrA (final crater filler).
This function may be selected by means of key AI and is working during welding 2t or 4t and also in combination with function HSA, if so requested. After activating function «On» by means of knob AN, rotate knob AI to display the abbreviations:
Slo = Fitting time between the welding current and the crater filling time. Default 0.5 sec.
Range 0.1 – 10 seconds.
CrC = crater filling time expressed as a percentage of the welding wire speed. Default 60%. Range from 10 to 200%.
TCr = duration of the filling current time. Default 0.5 sec. Range 0.1 – 10 seconds.

6- PrF (Pre-gas).
The adjustment may range from 0 to 3 seconds.

7- Pof (post-gas).
The adjustment may range from 0 to 30 seconds.
8- Acc (soft-start).
The adjustment may range from 0 to 100%.
It is the wire speed, expressed as a percentage of the
speed set for the welding, before the wire touches the
workpiece.
This adjustment is important in order to always achieve
good starts.
Manufacturer setting «Au»: automatic.
The value can be changed using the knob AN. If, once
changed, you wish to return to the original settings,
press the key AV until the abbreviation «Au» reappears
on the display AM.

9- BB (Burn-back).
The adjustment may range from 4 to 250ms. Serves to
adjust the length of the wire leaving the contact tip after
welding. The higher the number, the more the wire burns.
Manufacturer setting «Au» automatic.
If, once changed, you wish to return to the original set-
tings, press the key AV until the abbreviation «Au» reap-
pears on the display N.

10- L (impedance).
The adjustment may range from -9.9 to +9.9. Zero is the
number set by the manufacturer: if the number is negative,
the impedance decreases and the arc becomes harder; if
increased, it becomes softer.

11- dP (Double pulse, optional)
This type of welding varies the current intensity between
two levels and may be included in all synergic processes.
Before setting, it is necessary to make a short bead to
determine the speed closest to the type of welding that
you will be doing. This determines the reference speed.
To activate the function proceed as follows:
A) Activate the function by turning knob AN until the abbrevi-
ation On reappears on the display AM.
B) Turn knob AI fino unit if the abbreviation Fdp reap-
pears (double pulse frequency) on the display AL. The
display AM reads the abbreviation OFF.
Turn the knobAN to select the working frequency (adjust-
ment from 0.5 to 5 Hz). The selected value is shown on
the display AM.
C) Turn knobAl until the abbreviation ddP (difference in
m/min of the double pulse) is displayed.
Turn the knob AN to select the meters per minute (range
from 0.1 to 3m/min) that will be added to and subtracted
from the reference speed (default 1min/m).
D) Turn the knob AI until the display shows the the abbrevi-
ation tfP. This is the duration of the highest wire
speed, thus the highest current. It is expressed as a per-
centage of the time gained from the Fdp frequency (see
figure 3).
Turn knob AN to adjust the percentage. Range between
25 and 75% (default 50%).
E) Turn knobAl until the display shows the abbreviati-
on AdP (arc length of the highest current). Range between -9.9 and 9.9% (default 0).
When welding, check that the arc length is the same for
both currents; turn the AN knob to correct it if necessary.
Note: it is possible to weld within the double pulse functions.

Once these adjustments have been made, to return to the
timeout normal display briefly press key AE.
Should it be necessary to adjust the arc length of the low-
est current/lowest speed, adjust the arc length of the ref-
ence speed. When the reference speed moves, the pre-
nious settings must also be repeated for the new speed.

12- Ito. (Inching time out).
The purpose is to stop the welding machine if the wire
flows after starting with no passage of current.
The wire flow from the welding torch can be adjusted
from 5 to 50 centimeters by means of knob AN. When this
function is restored, it may be activated (On) or cut off
(Off).

13- Fac. (factory).
The purpose is to return the welding machine to the origi-
inal settings provided by the manufacturer. With the func-
tion selected, the display AM shows noP = restores the
welding machine to the original settings disregarding
the stored programs, Prg = deletes all stored programs and
ALL = restores the welding machine to the original set-
tings.
To save the desired function press the button AV, the
abbreviation shown on the display AM will begin flashing;
after a few seconds, a sound will confirm that it has been
saved.

5.2. TIG PROCESS

1- H2o (Cooling assembly OPTIONAL Art. 1683.
See point 1 of MIG process paragraph.
2- TRG.
See point 2 of MIG process paragraph.
The difference concerns the 3L and how the welding but-
ton is pressed.
Welding starts when the welding button is pressed and
immediately released, the recalled current will be the
starting current SC.
This current is kept until the welding button is pressed
and released; at this time the original current connects
to the wedding current, set by means of knob AI.
When the welding torch button is pressed and released
again, the welding current connects to the third current
CrC and is kept activated until the welding torch button is
pressed and released again; now welding is interrupted.
3- SLd (Slop Down).
Possibility of adjusting from 0 to 10 seconds. Defines the current slope down time from the welding value to the arc shutdown
4- PrF (Pre-gas).
See point 6 of MIG process paragraph.
5- Pof (post-gas).
See point 7 of MIG process paragraph.
6- Fac. (factory).
See point 13 of MIG process paragraph.

5.3. MMA PROCESS

1. HS (Hot Start).
You may adjust from 0 to 100%.
Adjusts the overcurrent dispensed at the arcing ignition, value adjusted by means of knob L.
2- LED AF – (Arc-force).
You may adjust from 0 to 100%.
Adjusts the dynamic characteristic of the arc, a value adjusted using the knob AN.
3- Fac. (factory).
See point 13 of MIG process paragraph.

6 INSTALLATION

The welding machine must be installed by skilled personnel. All connections must be made in full compliance with current safety laws.

6.1 PLACEMENT

The weight of the welding machine is approximately 80 Kg therefore for lifting it see Fig.4.

Position the unit in an area that ensures good stability, and efficient ventilation so as to prevent metal dust (grinding) from entering.

6.2 ASSEMBLY

Mount the rear wheels.
Mount the plug on the power cord, being especially careful to connect the yellow/green conductor to the earth pole. Make sure that the supply voltage corresponds to the rated voltage of the welding machine.
Size the protective fuses based on the data listed on the technical specifications plate.
Position the cylinder onto the support O fasten it with belts P and connect the gas hose to the pressure reducing valve. Mount the welding torch.
To make sure that the groove of the rollers matches the wire diameter used, open the mobile lateral side, remove the cover CA, release the wire press rollers by means of the pressure adjusting knob BN, replace the rollers and remount the cover CA. (See fig. 5).

Mount the wire coil and slip the wire into the feeder and welding torch sheath.
Block the wire press rollers with the knob BN and adjust the pressure.
Turn on the machine.
Adjust the gas by means of key AY and then feed the wire by means of key AW.

7 WELDING

Welding Synergic Pulsed Mig LED AP on.
Select the PRG number based on the wire diameter to be used, the type and quality of the material, and the type of gas, using the instructions located inside the wire feeder compartment.
Set the functions in the submenu according to the instructions under paragraph «Service functions».
5.2.3 The welding parameters are set by means of knob AI.
Synergic Mig Welding LED AQ on.
Select the PROG number based on the wire diameter to be used, the type and quality of the material, and the type of gas, using the instructions located inside the wire feeder compartment.
Set the functions in the submenu according to the
instructions under paragraph «Service functions». Adjust the wire speed and the welding voltage using the knob AI.

Conventional MiG Welding LED AR on. Select the PROG number based on the wire diameter to be used, the type and quality of the material, and the type of gas, using the instructions located inside the wire feeder compartment.

Set the functions in the submenu according to the instructions under paragraph «Service functions». Adjust the wire speed and the welding voltage using the knob AI and AN respectively.

TIG Welding LED AS ON.

Plug in the 19-pin connector of the TIG welding torch into socket 193, located on the front control panel and the power connector to the negative pole A. Connect the earth cable to the positive pole D.

Set the functions in the submenu according to the instructions under paragraph «Service functions». Adjust the welding current using the knob AI.

MMA Welding LED AT on. Connect the earth terminals and the cable terminals of the electrode clamp to terminals D and A observing the polarity stated by the electrode manufacturer. Set the functions in the submenu according to the instructions under paragraph «Service functions».

Adjust the welding current using the knob AI.

8 ACCESSORIES

8.1 CURRENT ADJUSTMENT TRAY ART. 187 (POTENTIOMETER) + EXTENSION CABLE (5m)(ART. 1192 + ADAPTER CABLE ART. 1191

Possible adjustments during welding processes:

MMA: The tray adjusts the current from a minimum value (10A) to the current set on knob AI on the control panel.

TIG: The tray executes the same function as MMA.

8.2 FOOT ART. 193 + ADAPTER CABLE ART. 1191

To be used with TIG Process Welding.

The current is adjusted by this accessory while the start control is activated by means of the welding torch button. The current may be adjusted from a minimum value to the maximum value set by means of knob AI on the control panel.

8.3 TIG WELDING TORCH ART. 1256

BINZEL water-cooled TIG welding torch (450A) – m4. 4.

8.4 TIG WELDING TORCH ART. 1258

BINZEL water-cooled TIG welding torch (450A) – UP/DOWN mt. 4.

8.5 Connection ART. 1165 between the power source and the Binzel TIG welding torches.

8.6 MIG WELDING TORCH ART. 1242

Air-cooled CEBORA MIG welding torch 280 A 3,5.

8.7 MIG WELDING TORCH ART. 1239

Water-cooled CEBORA MIG welding Torch 280 A m 3,5.

8.8 MIG WELDING TORCH ART. 1241

Water-cooled CEBORA MIG welding Torch 380 A UP/DOWN m 3,5.

The U/D L.H control:
- With LED AA on selects the synergic curve.
- In synergic processes adjusts the welding parameters in the synergic curve.
- In Conventional MIG adjusts the wire feed speed.
- selects by the number the saved processes

The U/D R.H control:
- in synergic processes adjusts the arc length.
- in conventional MIG adjusts the voltage
- inside the saved processes it is not activated

8.9 PUSH-PULL UP/DOWN WELDING TORCH, water cooled, ART. 2008.

8.10 PUSH-PULL WELDING TORCH INTERFACE KIT ART. 106.

8.11 COOLING UNIT ART. 1683.

9 MAINTENANCE

Periodically make sure that the welding machine and all connections are in good condition to ensure operator safety.

After making a repair, be careful to arrange the wiring in such a way that the parts connected to the power supply are safely insulated from the parts connected to the welding circuit.

Do not allow wires to come into contact with moving parts or those that heat up during operation.

Mount the clamps as on the original machine to prevent, if a conductor accidentally breaks or becomes disconnected, a connection from occurring between power supply and the welding circuits.