

WIRE FEEDER INSTRUCTION MANUAL

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 workpiece.
- 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.

PACEMAKERS

- 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.

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 harmonized standard EN50199, 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.

IN CASE OF MALFUNCTIONS, REQUEST ASSISTANCE FROM QUALIFIED PERSONNEL.

2 GENERAL DESCRIPTION

2.1 SPECIFICATIONS

The wire feeder unit Art. 1447 controls the power source Art. 508 via its 50-meter connection Art. 1195. This unit allows MIG-MAG, MMA and TIG welding. In MIG-MAG mode you may weld all ferrous, stainless steel and aluminum materials, using both solid wires with gas protection and flux-cored wires; in MMA mode you may weld all types of electrodes except cellulosic; and in TIG mode all metals except aluminum.

This manual has been prepared for the purpose of educating personnel assigned to install, operate and service the welding machine.

Upon receiving the machine, make sure there are no broken or damaged parts.

The purchaser should address any complaints for losses or damage to the vendor. Please indicate the article and serial number whenever requesting information about the wire feeder.

3 INSTALLATION

- Only skilled personnel should install the machine.
- All connections must be carried out according to current regulations, and in full observance of safety laws.

4 DESCRIPTION OF THE EQUIPMENT

4.1 CONTROLS ON THE FRONT AND REAR PANELS.

A - Setting knob

This knob adjusts the welding gas flow in liters per minute. The setting is shown by a metal ball inside the graded flow meter column.

B - Central adapter

This adapter may be connected to either a MIG-MAG wire welding torch or a TIG welding torch. To activate TIG welding, after connecting the torch and using the key **H** to select the LED **M**, press the trigger for at least 10 seconds. The LED **M** flashes to show that the connection has been successfully made.

The LED **M** continues to flash during TIG welding.

C - Output terminal

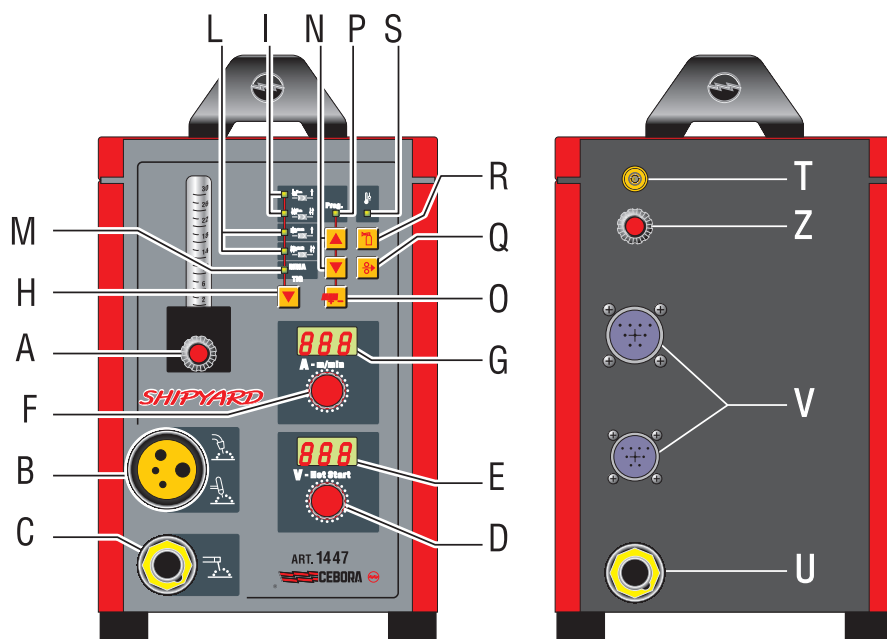
This connects to the electrode clamp for MMA welding.

D - Setting knob

This knob adjusts the welding voltage for MIG-MAG welding, the HOT START (starting current) from a minimum of 60A to a maximum of 150A in MMA and TIG welding, and adjusts the post gas time in TIG mode.

The voltage, Hot Start and post gas values are shown on the display **E**.

In MIG-MAG welding, this knob may adjust the set voltage by 5 VOLTS up or down, within a previously constructed synergic curve. This variation is shown on the display **E**.



E - Display

This instrument indicates both the preset and welding voltage for MIG-MAG welding. In addition, in MIG-MAG welding in 2 or 4 times switching synergic mode, the display alternately shows the set voltage and the correction value in Volts compared to the set value. In MMA and TIG welding, indicates the welding voltage; the knob **D** displays a Hot Start value (starting current) ranging from H1 (60A) to H10 (150A). In TIG welding, this instrument also displays the post gas time.

F - Setting knob

This knob adjusts the welding current in MMA and TIG welding from 10A to 400A, and the wire speed from 0 to 20 meters per minute in MIG-MAG welding.

In addition, in MIG-MAG welding in 2 or 4 times switching synergic mode, the knob simultaneously adjusts the wire speed and the working voltage.

G - Display

When the power source is turned on, the instrument indicates the current software version.

This instrument indicates the welding current in MIG-MAG, MMA and TIG welding. In MIG-MAG welding, it also displays the welding wire speed in meters per minute.

The instrument also displays the synergic program number set via the selection keys **N**.

H - Selector key

This key selects the welding mode.

I - LED

The LED indicates 2 and 4 times switching synergic mode.

In 2 times switching synergic mode, the machine begins welding when the trigger is pressed, and stops when it is released. In 4 times switching synergic mode, the machine begins welding when the torch trigger is pressed; you may release the trigger once welding has begun. Press and release the trigger again to stop welding. This setting is suitable for long-term welding, where the welder may tire of holding down the torch trigger.

L - LED

The LED indicates 2 and 4 times switching manual mode.

Follow the same operating principle as 2 and 4 times switching synergic mode.

M - LED

The LED indicates whether welding is set to MMA or TIG mode.

The LED flashes to indicate TIG welding.

To activate TIG welding, see point **B** (central adapter).

N - Selection key

These 2 keys are used to select the first free program for saving, or one of the 10 programs previously saved.

O - Save key

This key serves to save a synergic curve or to delete a previously saved curve.

This function may be activated only in synergic mode, and you may save from a minimum of 1 parameter of voltage in Volts and wire speed in meters per minute for each curve, up to a maximum of 10 pairs of values.

To program the first curve, select any free program using the keys **N**. The LED **P** flashes to indicate a free program.

To save a curve, proceed as follows:

use the 2 knobs **F** and **D** to find a speed in meters per minute and a voltage in Volt suitable for welding; press the save key **O** to save this first condition. A curve may be programmed with a single pair of values, or with a number of pairs ranging from 2 to 10. The synergic curve will obviously be more precise the more pairs of voltage and wire speed values that are saved. In any case, during welding the operator may correct the working voltage at any time by adjusting the setting knob **D**.

To finish programming, simply hold down the key **O** for 3 seconds.

After the curve is saved, the LED **P** remains lit without flashing.

Once the curve has been saved, to use it simply adjust the parameters via the setting knob **F**.

Follow the same procedure to save the other 9 programs available. To delete a program, select the curve to be deleted and hold the key **O** down for at least 10 seconds. After this time has elapsed, the LED will begin flashing again, indicating that the program is free.

If you exit this procedure before saving a synergic curve, you will lose all previously set parameters.

P - LED

The LED indicates whether a program is without data or already programmed.

A steadily lit LED indicates a programmed synergic curve, while a flashing LED indicates a free program.

Q - Wire test key

Holding this key down causes the welding wire to move forward, without any gas leaving the torch and without power on.

In TIG welding, after pressing this key for 3 seconds, you may use the setting knob **D** to adjust the **post gas** from 1 (P1) to 20 seconds (P20). The times are shown on the display **E**.

R - Gas test key

Holding down this key checks the flow of gas on the flow meter, without unwinding the welding electrode. This function is active in MIG-MAG and TIG modes.

S - LED

LED indicating that the power source thermostat is tripped, the coil compartment is open, or that the short-circuited connector on the rear panel of the power source is missing.

T - Fitting

Fitting to connect the gas hose of connection Art. 1195.

U - Input terminal

Plug to connect the power cable of the connection Art. 1195.

V - 14- and 10-pin connectors

Connectors to which to connect the patch cords of the connection Art. 1195.

Z - Terminal

Connect the wire provided between the terminal **Z** and the workpiece, at the point closest to the weld.

Without using the wire, the voltage shown on the display **E** is the one at the ends of the power source; this value does not take into account the voltage drop due to the length of the connection.

5 INSTALLATION

The unit must be installed by skilled personnel. All connections must be carried out according to current regulations, and in full observance of safety laws.

Since the 1447 unit may function at up to 50 meters away from the power source, it is essential that the earth cable from the power source be connected as close as possible to the workpiece.

NOTE: The unit 1447 may be connected only to the Cebora power source ISO MIG 5002, Art. 508.

When using the wire feeder 1447, you may not use the synergic curves available on the power source. The controls on the power source control panel are not active, and the two displays show the same values as that of the unit 1447.

6 ACCESSORIES

ART. 1195 50-meter connection.

Connection between the power source and wire feeder unit.

ART. 1278 50-meter extension .

Earth cable extension.

ART. 1265 4-meter TIG torch.