Sherman®

V1.1 18-09-2026

USER MANUAL

INVERTER WELDER
DIGITIG 225GD AC/DC MIX



CE



WARNING!
Before installing and starting the appliance, please refer to this manual

1. GENERAL COMMENTS

The device can only be commissioned and operated after carefully reading these Operating Instructions.

Due to the continuous technical development of the device, the external appearance and some of its functions may be modified and their operation may differ in detail from the descriptions in the manual and on the cardboard. This is not a fault of the device, but the result of progress and continuous modification work of the device. The standard equipment of the device may also change.

Damage to the device caused by improper operation will void your warranty rights.
Any modifications to the welder are prohibited and will void the warranty.

2. SAFETY

Employees operating the device should have the necessary qualifications to perform welding work:
- they should have an electric welder license in the field of welding with coated electrodes and in gas shields,
- know the health and safety rules in the operation of electric power equipment, such as welding equipment and auxiliary equipment powered by electricity,
- know the rules of health and safety when operating cylinders and installations with compressed gas (argon),
- Be familiar with the contents of this manual and operate the appliance for its intended purpose.



WARNING



Welding can endanger the safety of the operator and other people in the vicinity. Therefore, special precautions should be taken when welding. Before welding, you should familiarize yourself with the health and safety regulations of the workplace.
The following hazards exist during MMA and TIG electric welding:
- **ELECTRIC SHOCK**
- **NEGATIVE EFFECTS OF THE BOW ON HUMAN EYES AND SKIN**
- **VAPOR AND GAS POISONING**
- **BURNS**
- **EXPLOSION AND FIRE HAZARDS**
- **NOISE**

Electric shock prevention:
- connect the device to a technically efficient electrical installation with proper protection and zeroing efficiency (additional protection against electric shock); check and correctly connect other devices at the welder's workplace to the network,
- install power cables when the device is switched off,
- Do not touch the non-insulated parts of the electrode holder, electrode and welded object at the same time, including the device housing,
- do not use torch and power cords with damaged insulation,
- in conditions of particular risk of electric shock (work in environments with high humidity and closed tanks), work with an assistant supporting the welder's work and watching over safety, use clothing and gloves with good insulating properties,
- if you notice any irregularities, you should contact competent people to remove them,
- It is forbidden to operate the device with the covers removed.

Preventing the negative effects of the electric arc on the eyes and skin of a person:
- Wear protective clothing (gloves, apron, leather shoes),
- Use protective shields or visors with a properly selected filter,
- Use protective curtains made of non-flammable materials and properly choose the colors of the walls that absorb harmful radiation.

Prevention of poisoning by vapours and gases emitted during welding from the electrode coating and metal evaporation:
- Use ventilation devices and exhausts installed in positions with limited air exchange,
- Blow fresh air when working in confined spaces (tanks),
- Use masks and ventilators.

Burn prevention:
- Wear appropriate protective clothing and footwear to protect against burns caused by arc radiation and spatter,
- Avoid staining the garment with greases and oils that may lead to its inflammation.

Explosion and fire prevention:
- It is forbidden to operate the device and weld in rooms at risk of explosion or fire,
- The welding station should be equipped with fire-fighting equipment,
- The welding station should be located at a safe distance from flammable materials.

Preventing the negative effects of noise:
- Use earplugs or other noise protection equipment,
- Warn of danger to people nearby.



WARNING!

Do not use a power source to defrost frozen pipes.

Before starting the device, you should:
- Check the condition of the electrical and mechanical connections. It is forbidden to use torch and power cables with damaged insulation. Improper insulation of torch and power cables may result in electric shock,
- Take care of proper working conditions, i.e. ensure proper temperature, humidity and ventilation in the workplace. Protect against precipitation outside closed spaces,
- Place the welder in a place that allows it to be easily operated.

Welding machine operators should:
- be licensed to weld electrically with coated electrodes and the TIG process,
- know and comply with health and safety regulations applicable when performing welding work,
- use appropriate, specialized protective equipment: gloves, apron, rubber shoes, welding shield or visor with a properly selected filter,
- Know the contents of this instruction manual and operate the welding machine as intended.

Any repairs to the appliance may only be carried out by unplugging the plug from the power socket.
When the appliance is connected to the mains, it is not allowed to touch any components that make up the welding current circuit with your bare hand or through damp clothing.
It is forbidden to remove the external covers when the device is plugged in.
Any modifications to the welder on your own are prohibited and may impair safety conditions.
All maintenance and renovation work may only be carried out by authorized persons in compliance with the occupational safety conditions applicable to electrical equipment.
It is forbidden to operate the welding machine in rooms with a risk of explosion or fire!
The welding station should be equipped with fire-extinguishing equipment.
When you have finished working, the power cord of the appliance must be unplugged.

The hazards and general OHS rules presented above do not exhaust the issue of welder's work safety, as they do not take into account the specifics of the workplace. They are an important complement to on-the-job OHS instructions and training and instruction provided by supervision employees.

3. GENERAL DESCRIPTION

The DIGITIG 225 AC/DC MIX digital welding machine is a device of the latest generation, designed for professional applications. It is made in IGBT technology and equipped with digital control using a microcontroller (MCU). It is used for manual TIG welding of steel and non-ferrous metals using direct and alternating current. In addition, the welding machine has an innovative possibility of welding with mixed current – combining direct current (DC) and alternating current (AC), which significantly increases its versatility and allows to obtain exceptional weld quality in difficult applications. The device is equipped with the option of MMA welding (coated electrode).

The welding machine allows full digital adjustment and control of welding parameters of arc and pulse characteristics, as well as selection of the AC current waveform. In the TIG process, the device allows you to ignite the arc both by rubbing (TIG Lift) and with the help of an ionizer (TIG HF). It has VRD, HOT START and ARC FORCE functions, the ability to control in two-stroke and four-stroke mode, and spot welding. The device has the ability to store 10 sets of settings for pulse and welding current parameters. The Fan Stop function turns off the fan when the device is not fully loaded, which significantly improves the comfort of work. The set includes a TIG welding torch, an electrode cable and a work clamp cable.

4. TECHNICAL PARAMETERS

4.1 Welding Machine

Supply Voltage	AC 230V ±10% 50Hz
Maximum power consumption	MMA: 6,6 kVA, TIG: 4,2 kVA
Rated welding current / duty cycle	MMA: 180 A / 60% TIG 200 A / 60%
Rated no-load voltage	23V (VRD) / 59 V
Maximum input current	MMA: 36,5 A, TIG 26,8 A
Fuse protection	25 A
Weight (without attachments)	18.5 kg
Dimensions	455 x 195 x 415 mm
Degree of protection	IP21

4.1.1 Parameter control ranges

ARC FORCE	0 – 100 A
HOT START	0 – 50 A
Gas pre-outflow	0.1 – 3 s
Gas post-outflow	0 – 15 s
Up slope	0 – 15 s
Down slope	0 – 25 s
Starting current	5 – 200 A
Duration of initial current	0 – 10 s
Welding Current	MMA: 20-180 A; TIG DC: 5-200 A; TIG AC: 10-200 A
Base Current	5 – 95 % welding current
Crater current	10 – 200 A
Duration of crater current	0.1 – 10 s
Pulse Rate	0.5 - 200 Hz
Pulse width	10 – 90 %
AC Frequency	20 – 200 Hz
Balance AC	20 – 80 %
Mixed Current Frequency (MIX)	0.1 - 10 Hz
Mixed Current Balance (MIX)	10 – 90 %
Spot welding time	0.1 – 10 s
Break time during spot welding	0 – 10 s

4.2 TIG Torch

Torch Type	T-26
Maximum current carrying capacity	200 A
Gas Flow	10-20 l/min
Ignition of the arc	Non-contact (HF)
Length	4 m

Duty cycle
The duty cycle is based on a 10-minute period. A 60% duty cycle means that a 4-minute break is required after 6 minutes of operation of the machine. A 100% duty cycle means that the unit can operate continuously, without interruptions.
Attention! The heating tests were carried out at the ambient air temperature. The duty cycle at 40ºC was determined by simulation.

Degree of protection
IP determines the extent to which the device is resistant to the ingress of solid and water contaminants. IP21 means that the device is suitable for indoor use and is not suitable for use in the rain.

5. CONSTRUCTION AND OPERATION

The basis for the construction of the welding machine's electrical energy conversion system are electronic circuits made in IGBT technology that allow operation in the frequency range above 200 kHz. The principle of operation is to rectify the voltage of a single-phase power supply network to DC voltage, convert the obtained DC voltage into a high-frequency rectangular waveform, transform the voltage into the range required by the welding process and re-rectify the obtained voltage to DC voltage.
The welding machine is equipped with a supply voltage compensation system, which allows them to be operated with voltage fluctuations in the supply network of up to 10%.

6. CONNECTION TO THE POWER SUPPLY

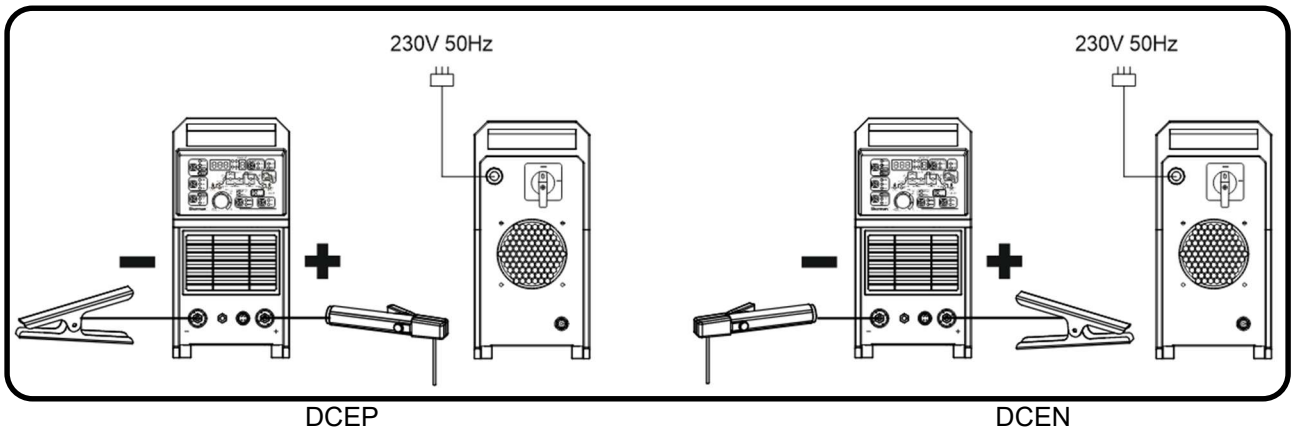
1. The appliance should only be used in a single-phase, three-wire, grounded zero point power supply system.
2. DIGITIG 225GD ACDC MIX inverter rectifiers are designed to work with a 230V 50Hz network protected by 25 A delayed fuses. The power supply should be stable, without voltage drops.
3. Before connecting the power supply, make sure that the power switch (1) is in the OFF (off) position.

7. PREPARING THE DEVICE FOR OPERATION

If you store or transport the device at low temperatures, bring the device to the correct temperature before starting work!

7.1 MMA process

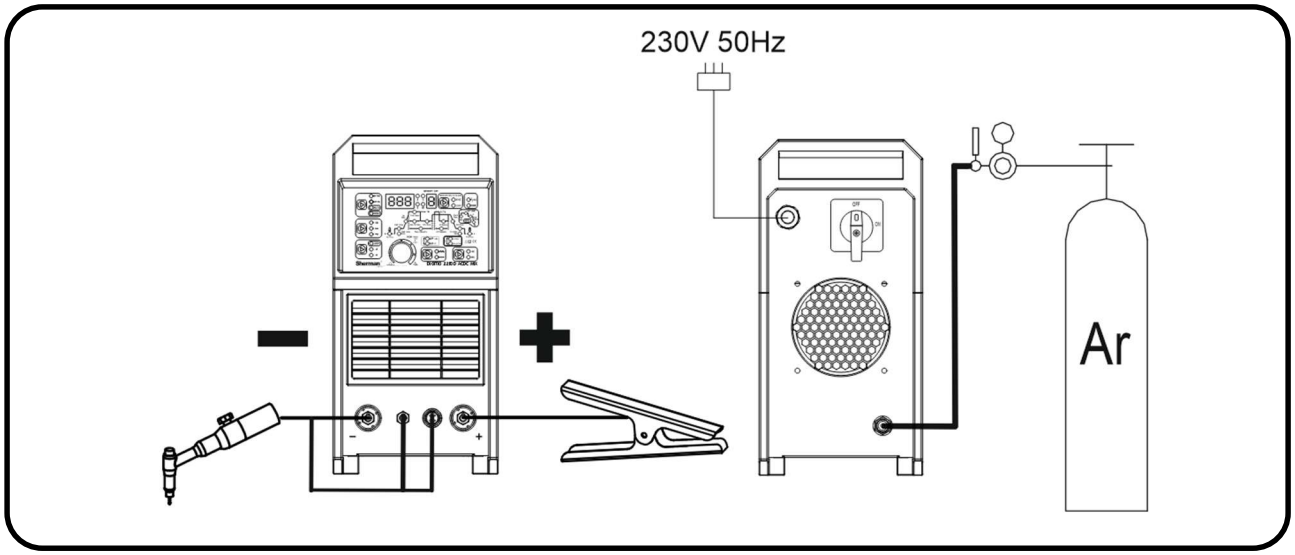
Connect the ends of the welding wires to the sockets (3) and (6) located on the faceplate so that the electrode holder has the correct pole for the electrode. The polarity of the connection of the welding wires depends on the type of electrode used and is indicated on the electrode packaging (DCEN negative polarity or DCEP positive polarity). The work clamp cable terminal must be carefully fixed to the welded material. Connect the appliance plug to a 230V 50Hz mains socket.



DCEP DCEN

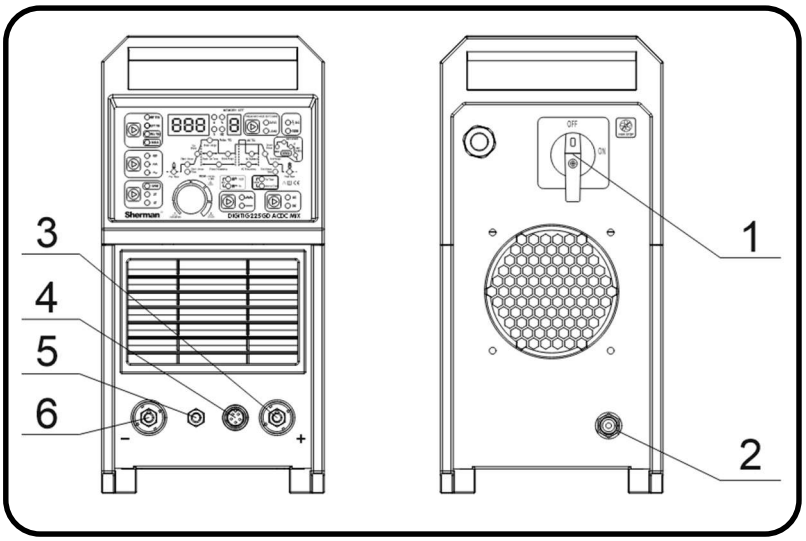
7.2 TIG process

Connect the current terminal of the torch to the negative bias socket (6), screw the control plug of the torch to the socket (4) and the gas connection to the quick connector socket (5). The gas cable from the reducer must be connected and fixed to the gas connector (2) located on the back wall of the housing. Connect the positive pole of the source (3) to the welded material using a cable with a clamp terminal. Connect the appliance plug to a 230V 50Hz mains socket.



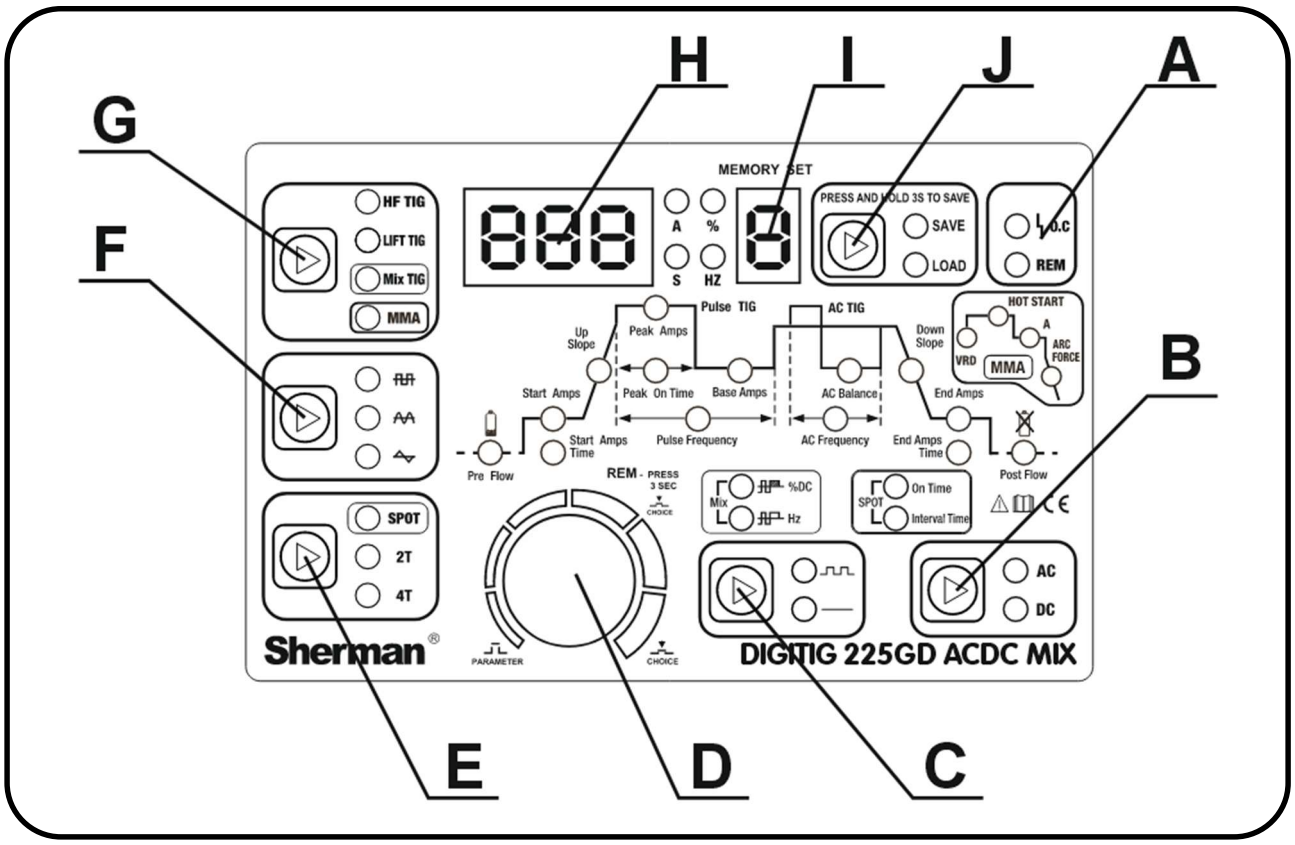
8. DESCRIPTION OF THE FUNCTION OF SWITCHES AND KNOBS

8.1 Front and Rear Panel

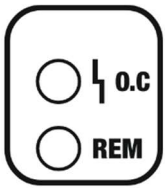


1. Main switch
2. Shielding Gas Connector
3. Positive polarity socket
4. TIG torch control socket
5. Shielding gas connector
6. Negative polarity socket

8.2 Control Panel

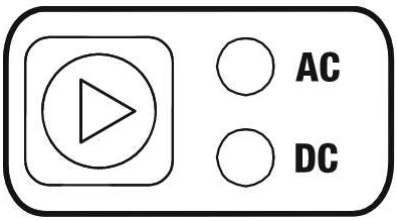


A – Status LEDs



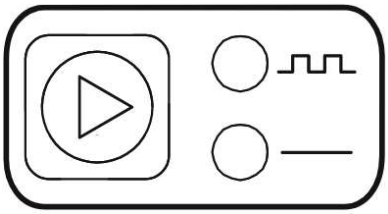
If the O.C. LED lights up, the device is overheating or the welding machine is not working properly. The REM LED indicates the possibility of remote control. To turn the remote control option on or off, press the adjustment knob (D) and hold it for 3 seconds.

B – Welding current type selection button (AC/DC)



Pressing the button changes the type of welding current. The selection of the type of current is confirmed by the lighting of the appropriate diode. AC – alternating current, DC – direct current

C – Pulse on/off button



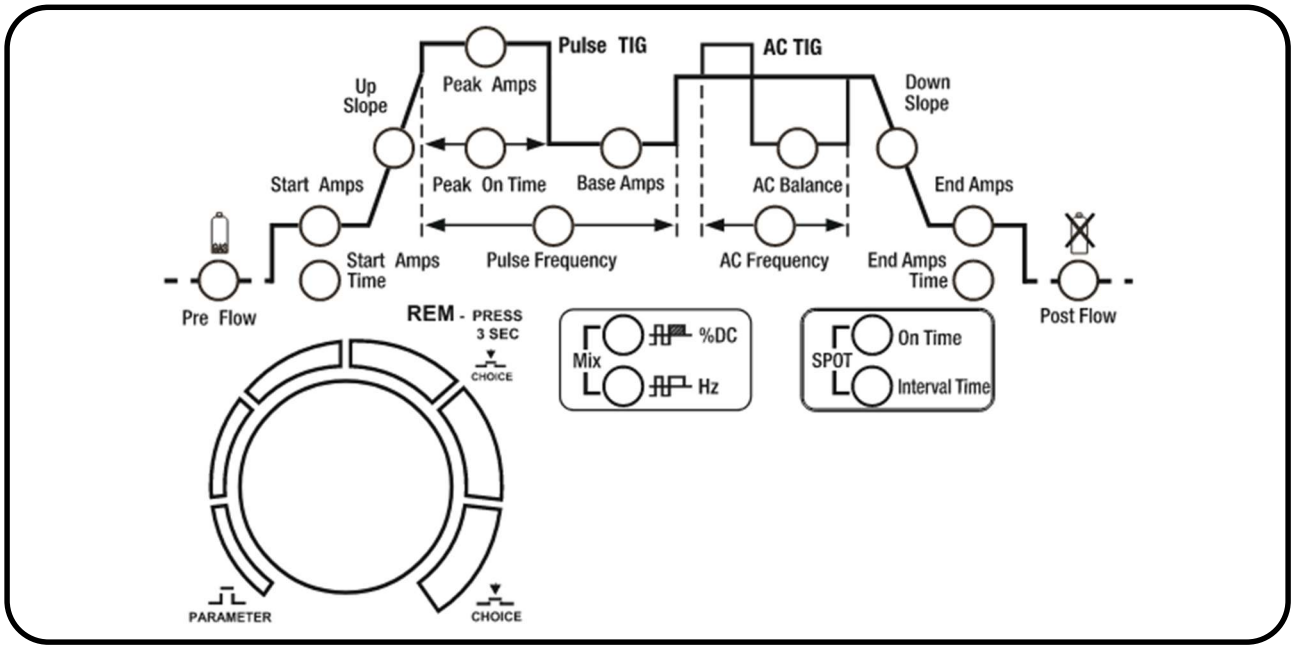
The button is active only for TIG welding. The mode selection is indicated by the corresponding LED lighting up. ⎍⎍⎍ - pulse welding, ——— - pulse welding.

D – Adjustment knob

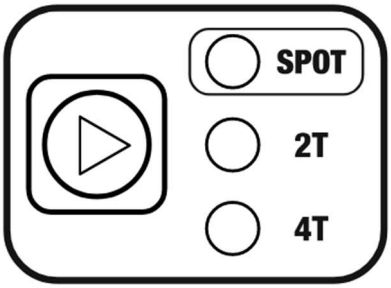
The control knob is used to change the welding parameters and to turn the remote control capabilities on and off.

Pressing the knob for a short time switches between the set parameters. The currently adjusted parameter is indicated by the corresponding LED lighting up, and the current parameter value appears on the parameter display (H). Turning the knob to the left decreases and turns to the right increases the parameter value. Pressing the knob again will remember the parameter value and move to the next parameter.

Pressing the knob and holding it for 3 seconds turns the remote control option on or off. Turning on the remote control option is confirmed by the REM LED lighting up.



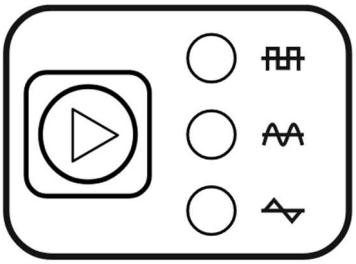
E – Source mode selection button (two-stroke/four-stroke/spot welding)



The button is used to select the control mode of the device:

SPOT	Spot welding
2T	Two-stroke mode. In this mode, pressing the switch in the torch of the torch trigger will turn on the ionizer and ignite the arc. Welding is carried out with the switch pressed. Releasing the switch will end the welding.
4T	Four-stroke mode. In this mode, pressing the switch in the torch of the torch trigger will turn on the ionizer and ignite the arc, then release the switch and perform welding with the switch released. Pressing the switch again will end welding.

F – AC waveform selector button



The button is active only during TIG welding with alternating current and mixed current (MIX). Used to select the AC waveform:



Square wave. Universal, most commonly used waveform for welding any material. Generates more heat in the welding zone, more penetration than other shapes.

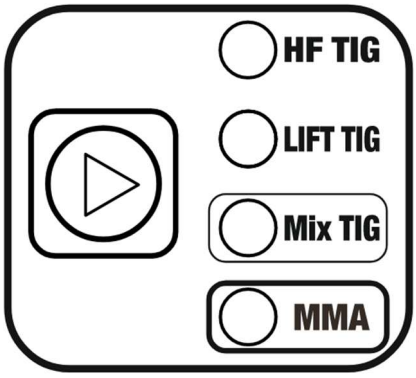


Sine wave. A classic wave, similar to transformer welders, preferred by older welders.



Triangular wave: Preferred especially when welding thin materials.

G – Welding process selection button



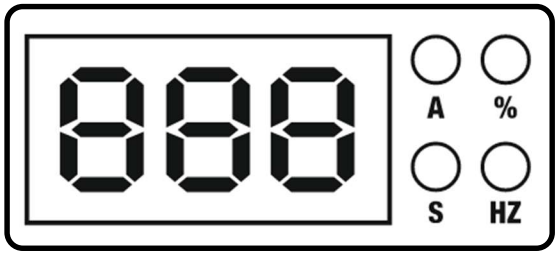
The button is used to select the welding process. The process selection is indicated by the corresponding LED lighting up.
HF TIG – TIG welding (tungsten electrode in inert gas shielding) with ionization ignition (HF). This process of ignition eliminates the risk of contamination of the electrode due to its lack of contact with the welded material and allows for immediate ignition of the arc even at low initial current.

LIFT TIG – TIG welding (tungsten electrode in inert gas shielding) with Lift arc ignition. This process of ignition does not generate high-frequency pulses, which is advantageous in environments sensitive to interference (e.g. electronics, CNC controllers) and is used in car workshops for vehicle welding.

Mix TIG – TIG welding (tungsten electrode in inert gas shielding) with mixed AC and DC current. This process allows you to obtain a smooth, clean weld, reduce the load on the electrode, as well as obtain a deeper penetration while cleaning the surface, which is especially useful when welding aluminum and its alloys.

MMA – welding with a coated electrode.

H – welding parameter display



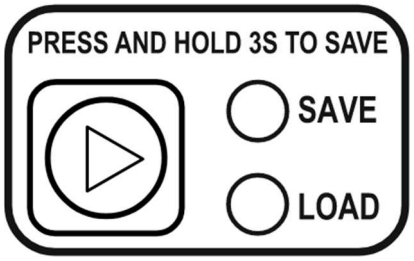
The display indicates the parameters during their setting and during welding. When the corresponding LED on the side of the display lights up, it indicates the parameter unit. When the welding machine is started, the inscription "LL" appears on the display. The message "Err" indicates overheating or improper operation of the device.

I – Parameter set memory display



The display indicates the number of the parameter set that has been loaded or under which the current set will be stored.

J – Settings Memory



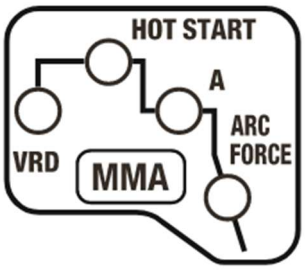
The device has a memory of the last setting, i.e. after turning it off and on again, the last set parameters are restored. It is also possible to remember 10 sets of settings. To remember the current settings, press the button and hold it until the "SAVE" LED lights up (about 3 seconds). When the "SAVE" LED lights up, a flashing set number will appear on the memory display (I), under which the settings will be saved. With the help of a knob, this number can be changed. Pressing the button again will save the settings under the selected number and turn off the "SAVE" LED.
To call up the stored set of settings, press the button briefly. When the "LOAD" LED lights up, use the knob to select the number of the set of settings to be called. A short press of the button again will load the settings and turn off the "LOAD" LED.
When a set of settings is loaded, the number of the loaded set of parameters will appear on the display (I). If any of the parameters are changed during operation, a dash will appear on the display of the memory. To save the changes you have made, proceed as if you were saving the settings in a standard way.
If the control knob is not moved or the button is pressed again after entering or loading the save settings and the "LOAD" or "SAVE" LED is lit for approximately 10 seconds, the unit will return to the normal parameter control mode.
If the device is switched off while a set of parameters is loaded in the memory, the last used set will be automatically loaded when it is switched on again, and its number will appear on the display. If no set of parameters is loaded into the memory and the device is switched off, the last used parameters will be restored when it is switched on and a dash will appear on the display (I).
If any of the parameters changes after loading a set of parameters and the device is turned off, then when it is turned on, the last used parameters will be restored, without loading the last set, and a dash will appear on the display (I).

8.3 Overheating Protection

The power source is equipped with a thermal, self-acting overload switch. If the temperature of the welding machine is too high, the protection will disconnect the welding current, the O.C LED will light up and the display will show "Err". When the temperature drops, the circuit breaker will be automatically reset.

9. PARAMETER SETTINGS

9.1 MMA process



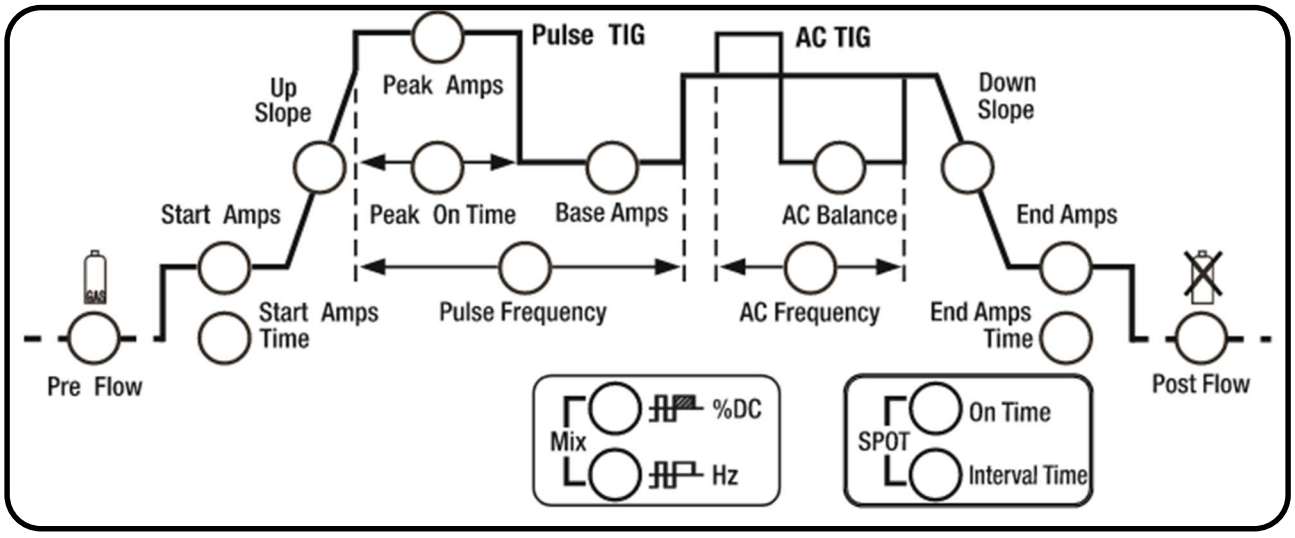
After selecting the MMA process, it is possible to adjust the welding current, select the VRD function, and adjust the HOT START and ARC FORCE functions.

VRD function
The VRD function lowers the voltage in the no-load state. The correct voltage value is only restored just before the arc is ignited. This minimizes the risk of electric shock, but in some cases it can make it difficult to ignite the arc.

HOT START function
The HOT START function. It works when the arc is ignited, causing a temporary increase in the welding current above the value set by the welder. HOT START is designed to prevent the electrode from sticking to the material and is a great convenience when igniting the arc. In the case of welding small components, it is recommended to disable this function, as it may cause the welded material to burn out.
Adjustment range: 0 – 50 A

ARC FORCE function
The ARC FORCE function allows you to adjust the arc dynamics. The shortening of the arc length is accompanied by an increase in the welding current, which stabilizes the arc. A decrease in the value results in a soft arc and a shallower penetration depth, while an increase in the value results in a deeper penetration and the possibility of short arc welding. With a high value of the ARC FORCE function, it is possible to weld while maintaining a minimum arc length and a high electrode melting speed
Adjustment range: 0 – 100 A

9.2 TIG process



Pre Flow
Gas pre-flow time - the time from pressing the button in the torch trigger to the moment the arc is ignited. It should usually be longer than 0.5 s to deliver shielding gas to the outlet of the torch nozzle to cover the welding start point and the tungsten electrode. In the case of a longer gas supply line from the cylinder, the pre-flow time should be longer.
Adjustment range: 0.1 – 3 s

Start Amps
Initial current - the current that appears in the circuit when a button is pressed in the torch of the torch. The higher the initial current, the easier it is to ignite the arc. However, when welding thin sheets, too much of the starting current can lead to burning of the sheet. In some welding modes, the current does not increase to heat the workpiece.
Control range: TIG DC 5 – 200 A, TIG AC 10 – 200 A

Start Amps Time
Initial current duration – the time for which the initial current welding lasts. In 4T mode, this time is regulated by holding the button in the holder. Releasing the button will move to the current build-up phase.
Adjustment range: 0.1 – 10 s

Up Slope
Current Rise Time - the time of rise of the welding current from the initial current to the set value of the welding current.
Adjustment range: 0 – 10 s

Peak Amps
Welding current – the value of the welding current during pulsator welding or the peak current during pulse welding.
Control range: TIG DC 5 – 200 A, TIG AC 10 – 200 A

Peak On Time
Pulse width – the duration of the pulse, allows you to adjust the depth of the penetration. Increasing the width increases the depth of penetration, decreasing reduces the amount of heat introduced into the material, reducing the risk of burning through thinner sheets or smaller elements.
Lower pulse width values should be used for higher currents. A larger pulse width should be used for small currents, for example, a width above 50% should be used for currents below 100A.
Adjustment range: 10 – 90 %

Base Amps
Base current – the current responsible for maintaining the welding process, the lower value of the current pulse. It facilitates the control of the amount of heat introduced into the material.
Base current adjustment is only possible during pulse welding
Adjustment range: 5 – 95 % welding current

Pulse Frequency
Pulse frequency – the frequency with which the pulse value of the current changes between the welding current and the base current.
Control range: 0.5 – 200 Hz

AC Frequency
AC current frequency – a function useful for welding aluminum. The higher the frequency, the better the weld quality and the better the arc focus
Adjustment range: 20 – 200 Hz

AC Balance
AC current balance – The ratio of the duration of the positive phase of the current to the negative phase. Reducing the balance causes more heat to be introduced into the material, resulting in a narrower weld and deeper penetration, while reducing the heat load on the tungsten electrode. Increasing the balance introduces less heat into the material, resulting in better cleaning, a wide weld seam, and a shallower penetration, but puts a significant strain on the tungsten electrode.
Adjustment range: 20 – 80 %

Down Slope
Current Drop Time - The time it takes for the welding current to drop from the set value to zero or the crater current value.
Adjustment range: 0 – 25 s

End Amps
Crater current - the current used in some welding modes when the arc is not extinguished immediately after the descent phase of the welding current. It allows the crater to be filled at the end of the weld.
Control range: TIG DC 5 – 200 A, TIG AC 10 – 200 A

End Amps Time
Crater current duration – the time for which the crater is filled. In 4T mode, this time is regulated by holding the button in the holder. Releasing the button will extinguish the arc.
Adjustment range: 0 – 10 s

Post Flow
Gas discharge time - the time from arc extinguishment to closing of the gas valve to shield the solidifying weld pool from air and to cool the tungsten electrode. Too short a discharge time may result in oxidation of the weld. When welding in TIG AC (alternating current) mode, this time should be longer.
Adjustment range: 1 – 15 s

Mix % DC
Mixed current balance – the ratio of DC duration to AC duration during mixed current welding. Increasing the proportion of DC current results in a more stable, concentrated arc with greater penetration, greater penetration, greater thermal efficiency, a narrower weld seam, and better control when welding thin components. An increase in AC current results in a wider arc, less penetration, and better surface cleaning.
Adjustment range: 10 – 90 %

Mix Hz
Mixed current frequency – the frequency at which DC and AC change during mixed current welding. A higher frequency results in a more stable arc, a narrower weld, deeper penetration, and less spatter.
Control range: 0.1 – 10 Hz

SPOT On Time
Spot welding time – the time after which welding will be completed.
Adjustment range: 0.1 – 10 s

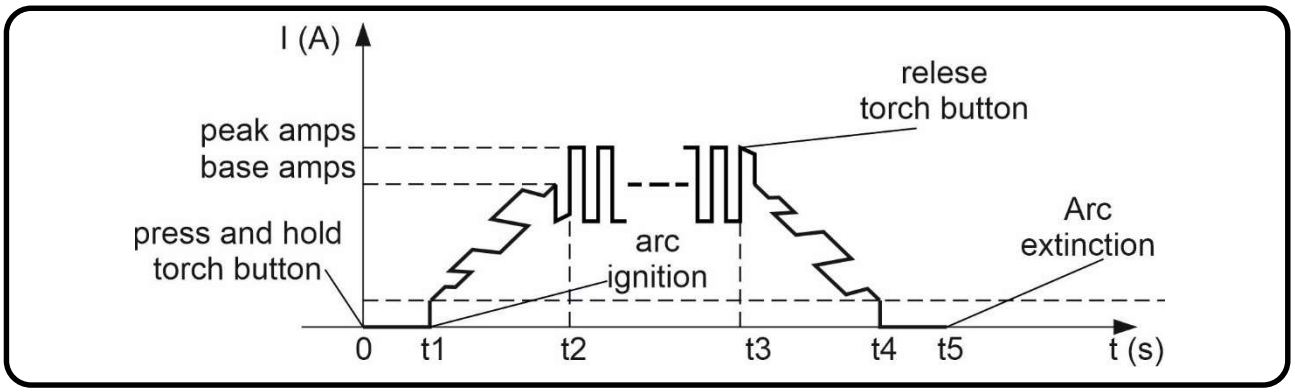
SPOT Interval Time
Spot welding break time – the time of the break between spot welding cycles.
Adjustment range: 0 – 10 s

10. WELDING

10.1 Welding with a coated electrode (MMA)
Arc initiation when welding with a coated electrode consists in touching the electrode to the welded material, rubbing it briefly and tearing it off. In the case of arc initiation with electrodes, the coating of which forms non-conductive slag after solidification, the tip of the electrode must be pre-cleaned by hitting the hard surface several times until metallic contact with the welded material is achieved.

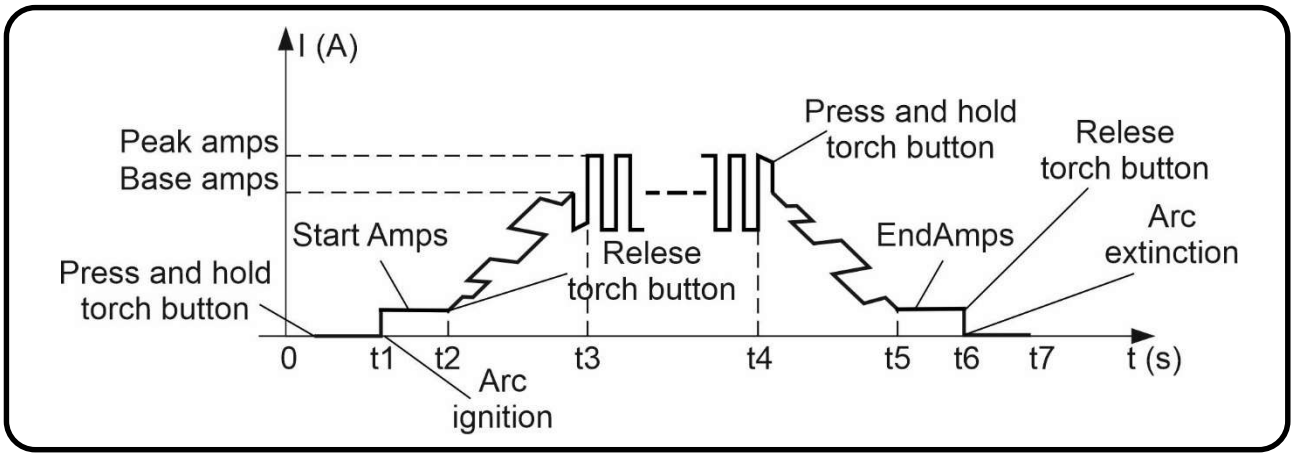
10.2. Shielded gas welding (TIG process).

10.2.1 TIG welding in 2T mode:



- 0 : Press and hold the torch button. The protective gas flow begins;
- 0~t1: Gas pre-outflow;
- t1~t2: Arc ignition, welding current increases from the minimum value to the set value welding current. If the pulsator is turned on, the current is modulated.
- T2~T3: During welding, the torch trigger button should remain pressed;
  Note: If the pulsator is turned on, the welding current pulses if the pulsator is off, welding current has a constant value
  T3: Release the torch trigger button, the welding current begins to decrease. If the pulsator is turned on,
  the falling current is modulated;
- T3~T4: The welding current drops to the minimum value, the arc is extinguished;
- T4~T5: Gas outflow.
- T5: The solenoid valve closes the gas outflow, the end of welding.

10.2.2 TIG welding in 4T mode:



- 0 : Press and hold the torch button. The protective gas flow begins;
- 0~t1: Gas pre-discharge time. Adjustable in the range of :0~1.0s;
- T1: ignition of the arc, the starting current is determined;
- T2: Release the torch button, the current builds up to the set current value welding. When the pulsator is switched on, the current is modulated;
- T2~T3: Current rise time;
- T3~T4: Welding process;
  Note: If the pulsator is turned on, the welding current pulses, if the pulsator is off, the welding current has a constant value;
- T4: Press the torch trigger button. The welding current begins to drop to the crater current. If the pulsator is turned on, the descending current is modulated;
- T4~T5: Current drop time;
- t5~t6: Crater current;
- T6: Release the torch button. The arc is extinguished, shielding gas flows out;
- T7: The solenoid valve closes the gas outflow, the end of welding.

11. BEFORE YOU CALL FOR SERVICE

In the event of malfunction of the device, before sending the welding machine for service, you should check the list of basic failures and try to fix them yourself.
Any repairs to the appliance may only be carried out by unplugging the plug from the power socket.
Attention! The appliance is not sealed and the user can remove the welding machine housing to remove minor malfunctions.

NOTE! The welding machine is equipped with a Fan Stop function that shuts off the fan a few minutes after welding is finished and the device has cooled down. The fan restarts under load.

Symptoms	Cause	Procedure
Lack of power, malfunction signal, or malfunction of the device	No connection or loose plug inside the device	Check and correct the connections of all electrical plugs inside the device
	Dirty interior of the device	Remove the housing and clean the unit inside by blowing with compressed air to remove dust and metal filings from the control boards and wiring and electrical connections.
When the power is turned on, the displays and LEDs do not light up	No supply voltage	Check the fuses on the mains connection
The control panel lights up, the fan is running, the welding machine does not ignite the arc	No connection in the welding circuit	Check the terminals and the correct electrical conductivity of the electrode and work clamp cable
		Check the connection of the TIG mount to the device, pay attention to whether the pins in the socket are not broken or jammed.
		Unscrew the torch of the TIG torch and check that the switch in the torch is working
The control panel lights up, the fan is running, the LED is on ϟ o.c	The device has overheated.	Wait a few minutes. Do not turn off the power. After the LED goes out, continue welding.
Fan not working	The fan has been blocked by a bent cover	Straighten the fan cover
Unsatisfactory weld quality in MMA welding, the electrode sticks to the welded material	Incorrect polarity of the connection of welding cables	Connect the welding wires correctly
	Damp electrode.	Replace the electrode
	The welding machine is powered by a generator or through a long extension cord with too small a cable cross-section	Connect the device directly to the mains
Unsatisfactory weld quality in TIG welding	Check the quality of the materials and consumables used, especially the tungsten electrode and shielding gas	Replace consumable parts, replace shielding gas with higher quality
	Shielding gas does not flow out or flows out with insufficient intensity	Check the cylinder reducer, gas supply hose, improve the connection of the hose with the fittings and the condition of the quick connectors

12. OPERATING INSTRUCTIONS

The operation of the DIGITIG 225GD ACDC MIX should take place in an atmosphere free of corrosive components and high dust. Do not place the device in dusty places, near running grinders, etc. Dust and metallic filing contamination of control plates, cables and connections inside the device can lead to an electrical short circuit and consequently damage to the welding machine.
Avoid use in environments with high humidity, especially in situations where dew occurs on metal components. In the event of dew on metal components, e.g. after introducing a cool device into a warm room, wait until the dew disappears. It is recommended that the welding machine be placed under a roof in order to protect it from adverse weather conditions if the welding machine is operated outdoors.
The DIGITIG 225GD ACDC MIX should be operated under the following conditions:

- changes in the rms value of the supply voltage not greater than 10%
- ambient temperature from –10°C to +40°C
- atmospheric pressure 860 to 1060 hPa
- relative humidity of atmospheric air not exceeding 80%
- altitude up to 1000m above sea level

List of consumable parts of the T-26 TIG torch:

L.p.	Name
1	Elektroda wolframowa
2	T-26 Clamping Sleeve
3	T-26 Current Connector
4	T-26 gas nozzle

A full list of consumable parts and spare parts is available on the www.tecweld.pl website and from TECWELD. It is possible to purchase these parts directly.

13. MAINTENANCE INSTRUCTIONS

Daily maintenance

1. Visual Inspection:
   - Inspect the welding wires, TIG torch and connectors for mechanical damage.
2. Cleaning:
   - Remove dust and swarf from the housing and air vents with compressed air (low force so as not to damage the electronics).

Weekly maintenance

1. Checking the electrical connections:
   - Check that all connectors are securely tightened and there are no signs of overheating.

Monthly maintenance

1. Welding Machine Parameter Test:
   - Perform test welding and check the stability of the arc and the operation of the HF function.
2. Cleaning:
   - Remove the housing, remove dust and swarf from the control boards and wiring and electrical connections from inside the device with compressed air. (low force so as not to damage the electronics).

Six-month maintenance

1. Checking the condition of electrical connections:
   - Check the condition of the electric shock protection, insulation, protection system, tightness of hoses and quick couplings.

Annual maintenance (or every 1000 hours of operation)

1. Electronics Overview:
    - Inspect IGBTs, capacitors, and control boards for dirt and corrosion.

Additional recommendations

- Store the welding machine in a dry, ventilated place, away from dust and moisture.

Damage resulting from operating the welding machine under improper conditions and failure to follow maintenance recommendations are not covered by warranty repairs.

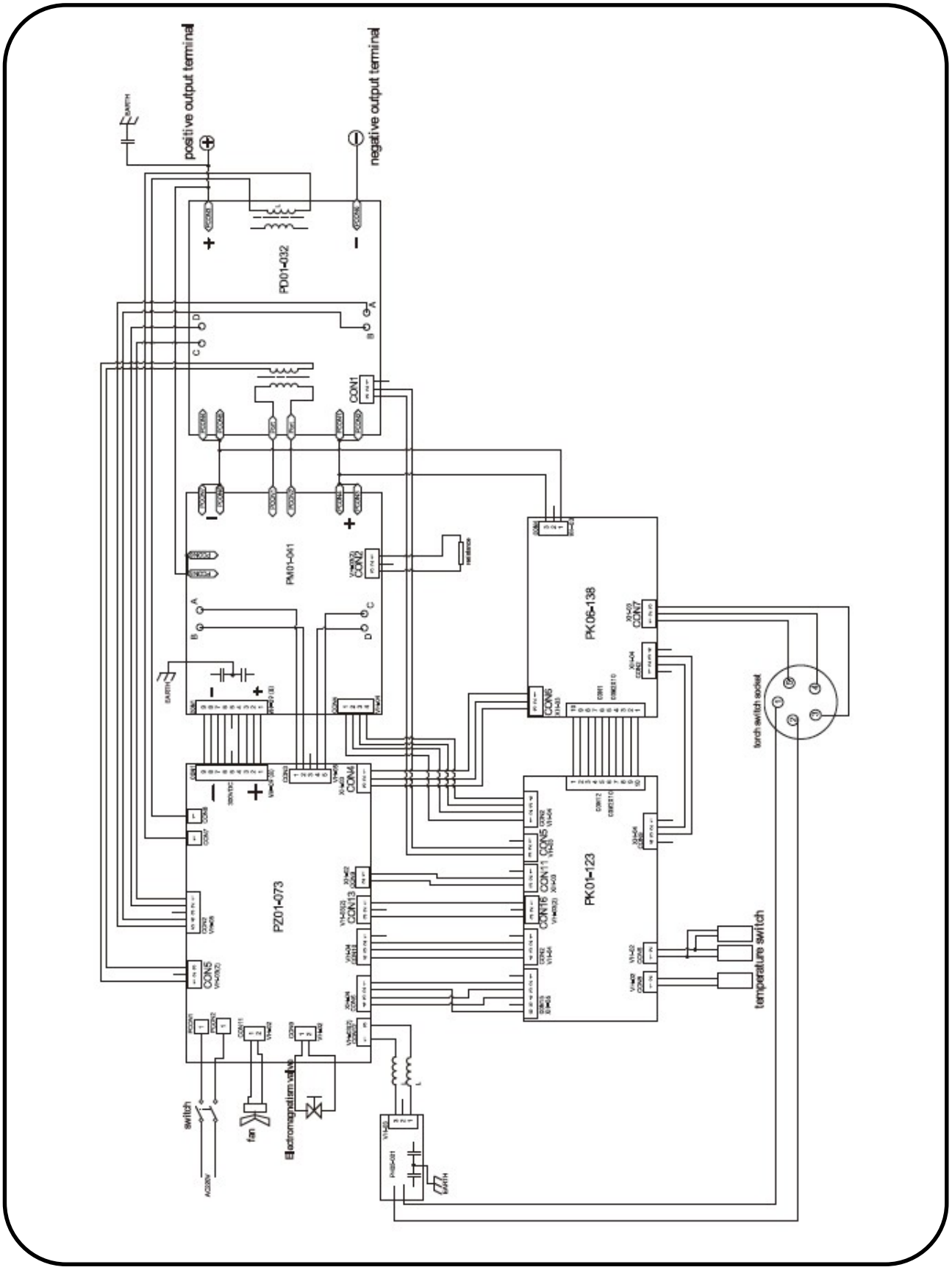
14. STORAGE AND TRANSPORT INSTRUCTIONS

The device should be stored at a temperature of –10°C to +40°C and a relative humidity of up to 80% free of corrosive fumes and dust. Transport of packaged devices should be carried out by covered means of transport. During transport, the packaged device must be protected against movement and provided with the correct position.

15. SET SPECIFICATION

1. DIGITIG 225GD ACDC MIX source	1 pc.
2. TIG welding torch	1 pc.
3. Clamp Clamp Ground Cable	1 pc.
4. User Manual	1 pc.
5. Packaging	1 pc.

16. ELECTRICAL DIAGRAM



17. WARRANTY

The warranty is granted for a period of 12 months for business entities, but excluding warranty claims, or 24 months for consumers from the date of sale.
The warranty will be respected upon presentation by the complainant of proof of purchase (invoice or receipt) and a warranty card with the product name, serial number, date of sale and stamped point of sale.
To order a warranty repair, please fill in the form located on the www.tecweld.pl website in the SERVICE tab. On the basis of the notification, the device will be transported to the service by a courier company. Devices sent in any other way at the expense of TECWELD will not be accepted!
The welding machine must be supplied with the welding torch. Complaints about the appliance without the welding torch will not be considered.
The device sent for complaint must be packed in the original cardboard box secured with original polystyrene fittings. TECWELD is not responsible for damage to the welding machine resulting from transport.



If you intend to dispose of this product, do not dispose of it with normal household waste. According to the WEEE Directive (Directive 2002/96/EC) in force in the European Union, separate disposal process must be used for used electrical and electronic equipment.
In Poland, in accordance with the provisions of the Act of 1 July 2005 on Waste Electrical and Electronic Equipment, it is prohibited to place waste equipment marked with the crossed-out bin symbol together with other waste.

The user who intends to dispose of this product is obliged to hand over waste electrical and electronic equipment to a waste equipment collection point. Collection points are operated, m.in, by wholesalers and retailers of this equipment and by municipal organisational units operating in the field of waste collection.
The above statutory obligations have been introduced in order to reduce the amount of waste generated from waste electrical and electronic equipment and to ensure an appropriate level of collection, recovery and recycling of waste equipment. The proper implementation of these obligations is particularly important when waste equipment contains hazardous components that have a particularly negative impact on the environment and human health.

TECWELD Piotr Polak
41-943 Piekary Śląskie, 21/3/6 Szmaragdowa St.

Branch:
41-909 Bytom, 1G Krzyżowa Street
Tel. +48 32 386 94 28
Email: info@tecweld.pl www.tecweld.pl