V1.0 12/28/25

USER MANUAL

DIGITIG 225GD AC/DC MIX
INVERTER WELDER

Sherman®

CE

WARNING!
Read this manual before installing and starting up the device

1. GENERAL NOTES

The device may only be started up and operated after thoroughly reading this User Manual.

Due to the continuous technical development of the device, its external appearance and certain functions may be subject to modification, and their operation may differ in detail from the descriptions in the manual and on the packaging. This is not a device malfunction, but a result of progress and ongoing modifications to the device. The standard equipment of the device may also be subject to change.

Damage to the device caused by improper use voids the warranty. Any modifications to the charger are prohibited and will void the warranty.

2. SAFETY

Personnel operating the device must possess the necessary qualifications to perform welding work:
- they should hold an electric welder's certification for welding with coated electrodes and in gas shielded environments,
- be familiar with health and safety rules for operating electrical power equipment, such as welding machines and electrically powered auxiliary equipment,
- be familiar with health and safety rules for handling cylinders and compressed gas (argon) systems,
- be familiar with the contents of this manual and operate the equipment in accordance with its intended use.

WARNING

Welding may pose a safety hazard to the operator and others in the vicinity. Therefore, special precautions must be taken during welding. Before starting welding, familiarize yourself with the health and safety regulations applicable at the workplace.
The following hazards exist during MMA and TIG welding:
- **ELECTRIC SHOCK**
- **HARMFUL EFFECTS OF THE ARC ON THE EYES AND SKIN**
- **POISONING FROM FUMES AND GASES**
- **BURNS**
- **EXPLOSION AND FIRE HAZARDS**
- **NOISE**

Prevention of electric shock:
- Connect the device to a technically sound electrical system with proper protection and effective grounding (additional protection against electric shock); also check and properly connect other devices at the welder's workstation to the power supply,
- Install power cables with the device turned off.
- Do not simultaneously touch uninsulated parts of the electrode holder, the electrode, and the workpiece, including the device housing,
- Do not use holders or power cables with damaged insulation.
- in conditions of particular risk of electric shock (work in high-humidity environments and enclosed spaces), work with an assistant who supports the welder and monitors safety, wear clothing and gloves with good insulating properties,
- if any irregularities are noticed, contact qualified personnel to have them rectified,
- It is prohibited to operate the device with the covers removed.

Preventing the harmful effects of the electric arc on the eyes and skin:
- Wear protective clothing (gloves, apron, leather boots),
- Use protective shields or face shields with an appropriately selected filter,

- Use protective screens made of non-flammable materials and select appropriate colors for walls that absorb harmful radiation.

Preventing poisoning from fumes and gases emitted during welding from electrode coatings and metal vaporization:

- Use ventilation equipment and exhaust systems installed at workstations with limited air exchange,
- Supply fresh air when working in enclosed spaces (tanks),
- Use masks and respirators.

Prevention of burns:

- Wear appropriate protective clothing and footwear to protect against burns from arc radiation and spatter,
- Avoid getting clothing contaminated with greases and oils that could cause it to ignite.

Prevention of explosions and fires:

- It is prohibited to operate the equipment or weld in areas at risk of explosion or fire.
- The welding station should be equipped with fire extinguishing equipment,
- The welding station should be located at a safe distance from flammable materials.

Prevention of adverse effects of noise:

- Use earplugs or other noise protection measures,
- Warn people in the vicinity of the danger.

 **WARNING**!

Do not use the power source to thaw frozen pipes.

Before starting the device, you must:

- Check the condition of electrical and mechanical connections. Do not use handles or power cords with damaged insulation. Improper insulation of handles and power cords poses a risk of electric shock,
- Ensure proper working conditions, i.e., maintain appropriate temperature, humidity, and ventilation at the work site. When used outdoors, protect the unit from precipitation,
- Place the rectifier in a location that allows for easy operation.

Persons operating the welder should:

- be certified to perform electric welding with coated electrodes and the TIG method,
- be familiar with and comply with the health and safety regulations applicable to welding work,
- use appropriate, specialized protective equipment: gloves, an apron, rubber boots, and a welding shield or helmet with a properly selected filter,
- be familiar with the contents of this user manual and operate the welder in accordance with its intended use.

Any repairs to the device may only be performed after unplugging the power cord from the outlet.
When the device is connected to the power supply, it is prohibited to touch any components forming part of the welding circuit with bare hands or through damp clothing.
It is prohibited to remove the external covers while the device is connected to the power supply.
Any unauthorized modifications to the rectifier are prohibited and may compromise safety.
All maintenance and repair work may be performed only by authorized personnel in compliance with the safety regulations applicable to electrical equipment.
It is prohibited to operate the welder in areas at risk of explosion or fire! The welding station must be equipped with fire extinguishing equipment.
After finishing work, disconnect the device's power cord from the power source.

The hazards and general health and safety rules outlined above do not cover all aspects of a welder's workplace safety, as they do not take into account the specific conditions of the workplace. They are effectively supplemented by workplace-specific health and safety instructions, as well as training and guidance provided by supervisors.

3. GENERAL DESCRIPTION

The DIGITIG 225 AC/DC MIX digital welder is a state-of-the-art device designed for professional applications. It is built using IGBT technology and features digital control via a microcontroller (MCU). It is used for manual TIG welding of steel and non-ferrous metals with both direct and alternating current. Additionally, the welder features an innovative mixed-current welding capability—combining direct current (DC) and alternating current (AC)—which significantly increases its versatility and enables exceptional weld quality in challenging applications. The device is equipped with an MMA (stick) welding option.

The welder enables full digital adjustment and control of welding parameters for arc characteristics and pulse, as well as selection of the AC current waveform. In the TIG method, the device allows for arc ignition both by friction (TIG Lift) and using an ionizer (TIG HF). It features VRD, HOT START, and ARC FORCE functions, as well as the ability to operate in two-stroke and four-stroke modes and perform spot welding. The unit can store 10 sets of pulse and welding current parameter settings. The Fan Stop function turns off the fan when the unit is not under full load, significantly improving working comfort. The set includes a TIG welding torch, an electrode cable, and a ground cable.

4. TECHNICAL SPECIFICATIONS

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	23 V (VRD) / 59 V
Maximum current draw	MMA: 36.5 A, TIG 26.8 A
Mains protection	25 A
Weight (without accessories)	18.5 kg
Dimensions	455 x 195 x 415 mm
Protection rating	IP21

4.1.1 Parameter adjustment ranges

ARC FORCE	0 – 100 A
HOT START	0 – 50 A
Pre-flow	0.1 – 3 s
Post-gas flow	0 – 15 s
Current rise	0 – 15 s
Current decay	0 – 25 s
Initial current	5–200 A
Inrush current duration	0–10 s
Welding current	MMA: 20–180 A; TIG DC: 5–200 A; TIG AC: 10–200 A
Base current	5–95% of welding current
Crater current	10–200 A
Crater current duration	0.1 – 10 s
Pulse frequency	0.5 – 200 Hz
Pulse width	10 – 90 %
AC frequency	20 – 200 Hz
AC balance	20–80%
Mixed current frequency (MIX)	0.1 – 10 Hz
Mixed current balance (MIX)	10 – 90 %
Spot welding time	0.1 – 10 s
Pause time during spot welding	0 – 10 s

4.2 TIG torch

Torch type	T-26
Maximum current capacity	200 A
Gas flow	10–20 L/min
Arc ignition	Non-contact (HF)
Length	4 m

Duty cycle
The duty cycle is based on a 10-minute period. A 60% duty cycle means that after 6 minutes of operation, a 4-minute break is required. A 100% duty cycle means that the device can operate continuously, without breaks.
Note! Heating tests were conducted at ambient air temperature. The duty cycle at 40°C was determined by simulation.

Degree of protection
IP specifies the degree to which the device is resistant to the ingress of solid and liquid 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 of the welder's power conversion system consists of electronic circuits manufactured using IGBT technology, enabling operation at frequencies above 200 kHz. The operating principle involves rectifying the single-phase mains voltage to DC, converting the resulting DC voltage into a high-frequency square-wave signal, transforming the voltage to the range required by the welding process, and rectifying the resulting voltage back to DC.
The welder is equipped with a supply voltage compensation system, which allows it to operate with voltage fluctuations in the power supply network of up to 10%.

6. CONNECTION TO THE POWER SUPPLY

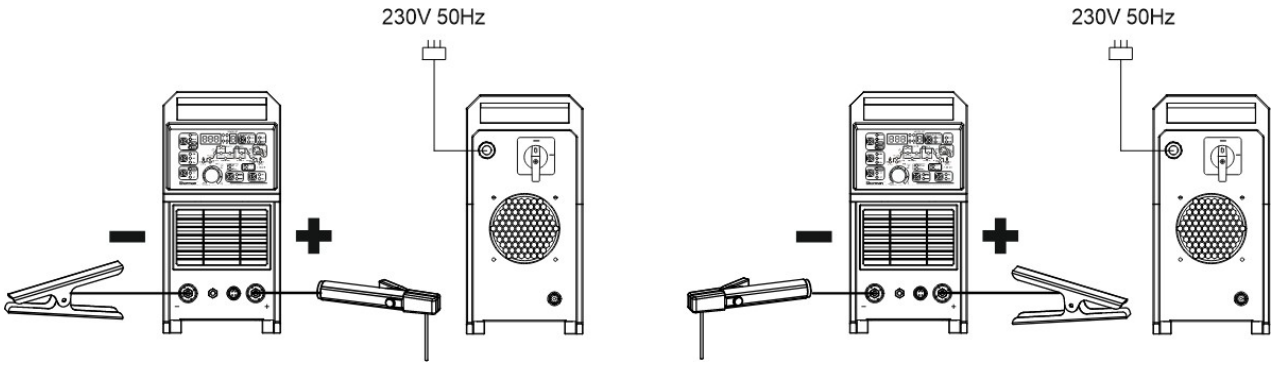
1. The device should be used exclusively in a single-phase, three-wire power supply system with a grounded neutral point.
2. DIGITIG 225GD ACDC MIX inverter rectifiers are designed to operate on a 230V 50Hz power supply protected by 25 A slow-blow fuses. The power supply should be stable, without voltage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

7. PREPARING THE DEVICE FOR OPERATION

If the device has been stored or transported at low temperatures, allow it to reach the proper operating temperature before starting work!

7.1 MMA Method

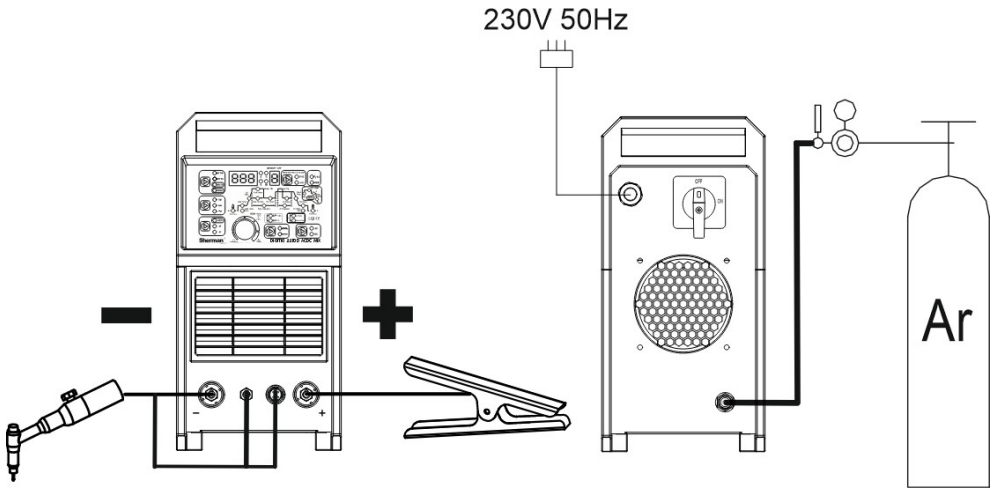
Connect the ends of the welding cables to sockets (3) and (6) located on the front panel so that the correct polarity for the given electrode is on the electrode holder. The polarity of the welding cable connection depends on the type of electrode used and is indicated on the electrode packaging (negative polarity DCEN or positive polarity DCEP). Securely attach the ground cable clamp to the workpiece. Plug the device into a 230V 50Hz power outlet.



DCEP DCEN

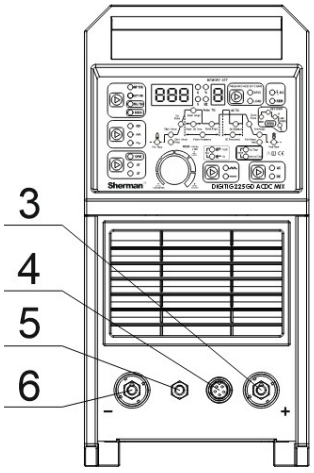
7.2 TIG Method

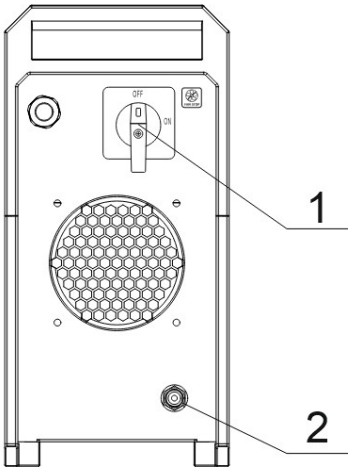
Connect the torch's current terminal to the negative polarity socket (6), carefully screw the torch's control plug into the socket (4), and connect the gas line to the quick-connect fitting (5). Route the gas hose from the regulator and secure it to the gas connection (2) located on the rear panel of the housing. Connect the positive terminal of the power source (3) to the workpiece using a cable with a clamp. Plug the device into a 230V 50Hz power outlet.



8. DESCRIPTION OF SWITCH AND KNOB FUNCTIONS

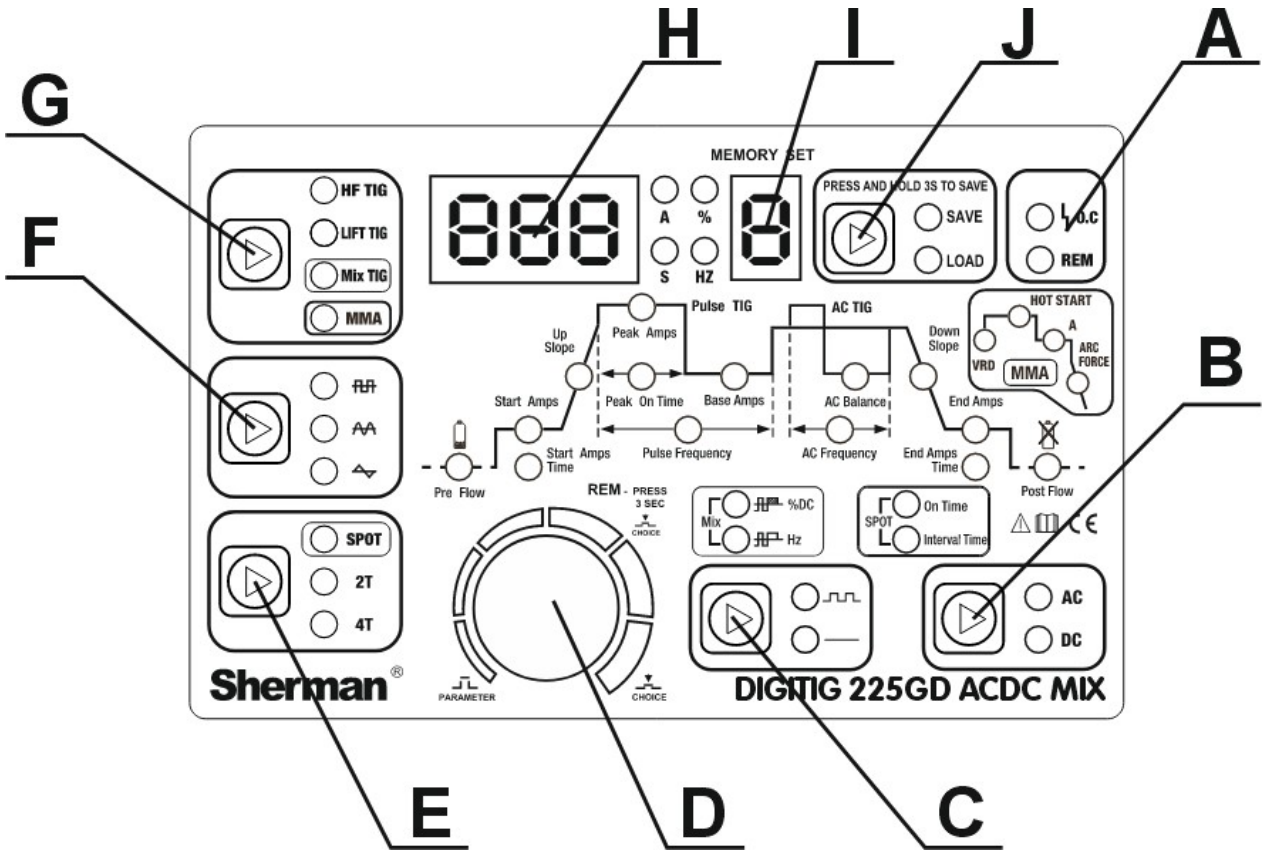
8.1 Front and rear panels



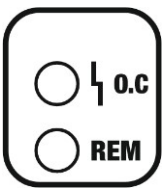


1. Main switch
2. Inert gas port
3. Positive polarity socket
4. TIG torch control socket
5. Shielding gas port
6. Negative polarity socket

8.2 Control panel

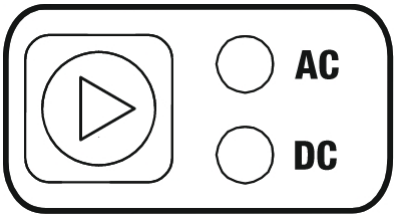


A – Indicator LEDs



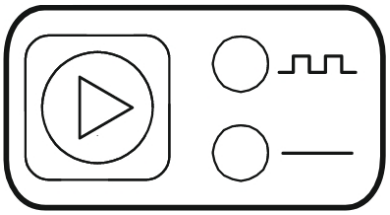
If the O.C. LED lights up, it indicates that the device is overheating or that the welder is malfunctioning. The REM LED indicates that remote control is available. To enable or disable remote control, press the adjustment knob (D) and hold it for 3 seconds.

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



Pressing the button changes the welding current type. The selection is confirmed by the corresponding LED lighting up. AC – alternating current, DC – direct current

C – Pulse on/off button



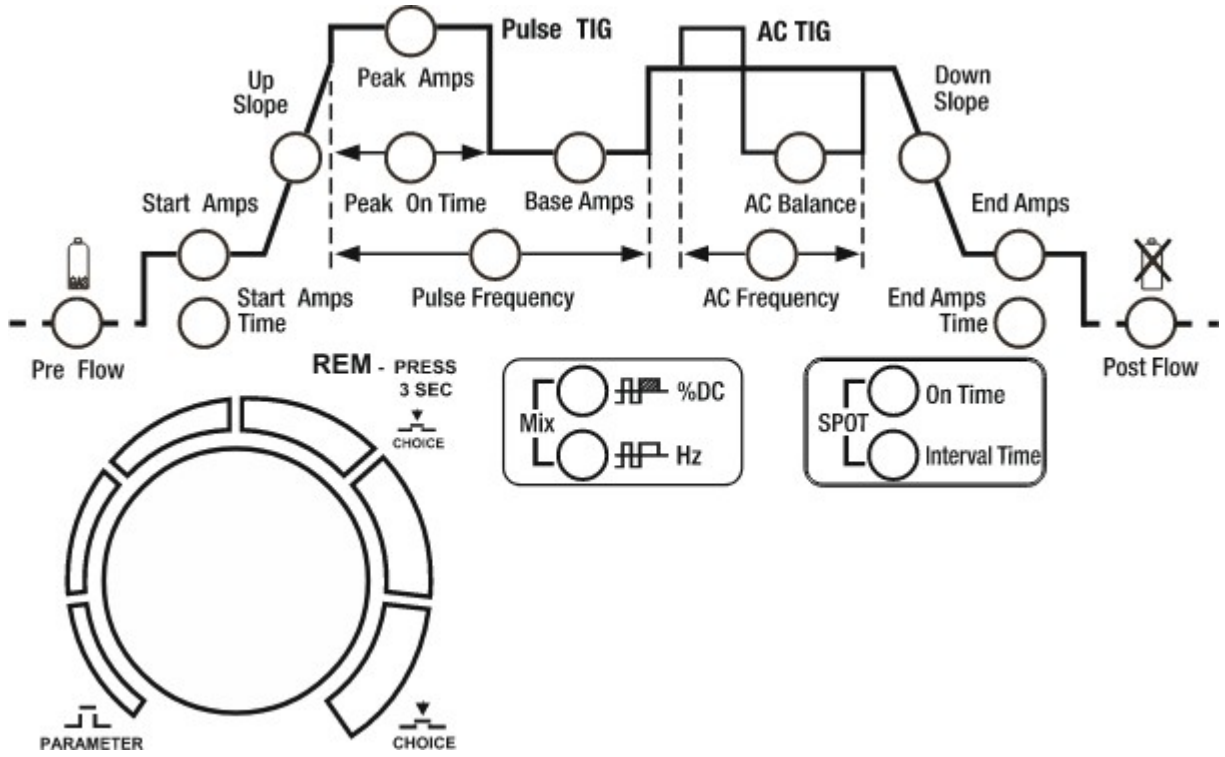
This button is active only during TIG welding. The selected mode is indicated by the corresponding LED lighting up.⎍⎍⎍ – pulsed welding,__ – non-pulsed welding.

D – Control knob

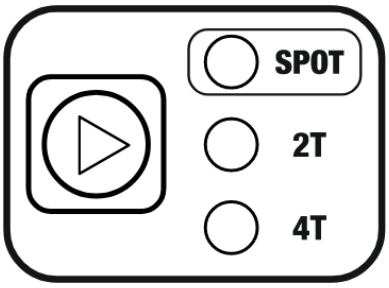
The adjustment knob is used to change welding parameters and to enable or disable remote control.

Briefly pressing the knob cycles through the adjustable parameters. The currently adjustable 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 the parameter value, while turning it to the right increases it. Pressing the knob again saves the parameter value and moves to the next parameter.

Pressing and holding the knob for 3 seconds enables or disables remote control. Enabling remote control is confirmed by the REM LED lighting up.



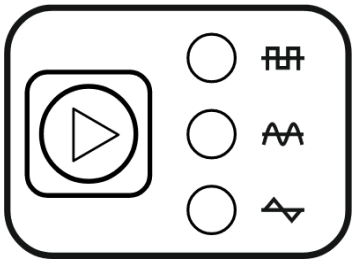
E – Source operating mode selection button (two-stroke/four-stroke/spot welding)



This button is used to select the device control mode:

SPOT	Spot welding
2T	Two-stroke mode. In this mode, pressing the switch on the handle will activate ionizer and ignite the arc. Welding is performed with the switch held down. Releasing the switch stops welding.
4T	Four-stroke mode. In this mode, pressing the switch on the handle will cause the ionizer to turn on and the arc to ignite; then release the switch and continue welding with the switch released. Pressing the switch again will end welding.

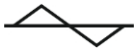
F – AC waveform selection button



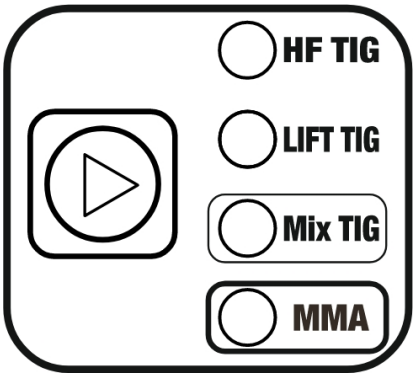
This button is active only during TIG welding with alternating current and mixed (MIX) current.
Used to select the AC waveform:

 Square wave. A universal, most commonly used waveform for welding any material. It generates more heat in the weld zone and greater penetration than other waveforms.

 Sine wave. A classic waveform, similar to transformer-based welders, preferred by experienced welders.

 Triangular wave: Preferred especially for welding thin materials.

G – Welding method selection button



This button is used to select the welding method. The selected method is indicated by the corresponding LED lighting up.
HF TIG – TIG welding (tungsten electrode in an inert gas shield) with high-frequency (HF) ignition. This ignition method eliminates the risk of electrode contamination by preventing contact with the workpiece and allows for immediate arc ignition even at low starting currents.

LIFT TIG – TIG welding (tungsten electrode in an inert gas shield) with friction ignition. This ignition method does not generate high-frequency pulses, which is advantageous in interference-sensitive environments (e.g., electronics, CNC controllers) and is used in auto repair shops for welding vehicles.

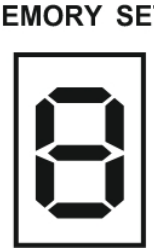
Mix TIG – TIG welding (tungsten electrode in an inert gas shield) using a mixed AC and DC current. This method produces a smooth, clean weld, reduces electrode wear, and achieves deeper penetration while simultaneously cleaning the surface, which is particularly effective when welding aluminum and its alloys.

MMA – Shielded metal arc welding.

H – Welding Parameter Display

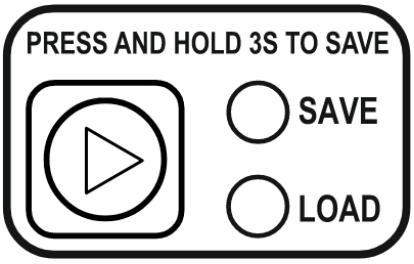
The display shows the parameters during setup and while welding. When the corresponding LED on the side of the display lights up, it indicates the parameter unit. When the welder is started, the message “LL” appears on the display. The message “Err” indicates overheating or improper operation of the device.

I – Parameter set memory display



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

J – Settings memory



The device has a memory for the last setting, meaning that after it is turned off and back on, the last set parameters are restored. It is also possible to save 10 sets of settings. To save the current settings, press and hold the button until the “SAVE” LED lights up (approximately 3 seconds). Once the “SAVE” LED lights up, the memory display (I) will show a flashing set number under which the settings will be saved. This number can be changed using the dial. Pressing the button again will save the settings under the selected number and turn off the “SAVE” LED.
To recall a saved set of settings, briefly press the button. After the
“LOAD” LED lights up, use the knob to select the number of the settings set to be recalled. Pressing the button briefly again will load the settings and turn off the “LOAD” LED.
After the settings set is loaded, the number of the loaded parameter set will appear on the display (I). If any of the parameters are changed during operation, a dash will appear on the memory display. To save the changes made, proceed as with standard saving of settings.
If, after entering the settings loading mode and the “LOAD” or “SAVE” LED lights up for about 10 seconds, the control knob is not turned or the button is not pressed again, the device will return to normal parameter adjustment mode.
If the device is turned off while a parameter set is loaded in memory, the last-used set will be automatically loaded upon restart, and its number will appear on

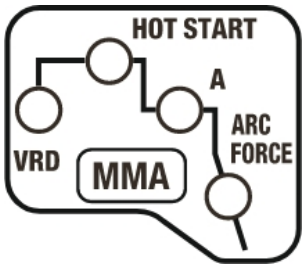
display. If no parameter set is loaded into memory and the device is turned off, the last-used parameters will be restored upon power-up and a dash will appear on the display (I).
If, after a parameter set has been loaded, any of the parameters are changed and the device is turned off, the last-used parameters will be restored upon power-up 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, automatic overload circuit breaker. If the welder's temperature becomes too high, the protection will cut off the welding current, the O.C. LED will light up, and "Err" will appear on the display. Once the temperature drops, the circuit breaker will automatically reset.

9. PARAMETER SETTINGS

9.1 MMA Method



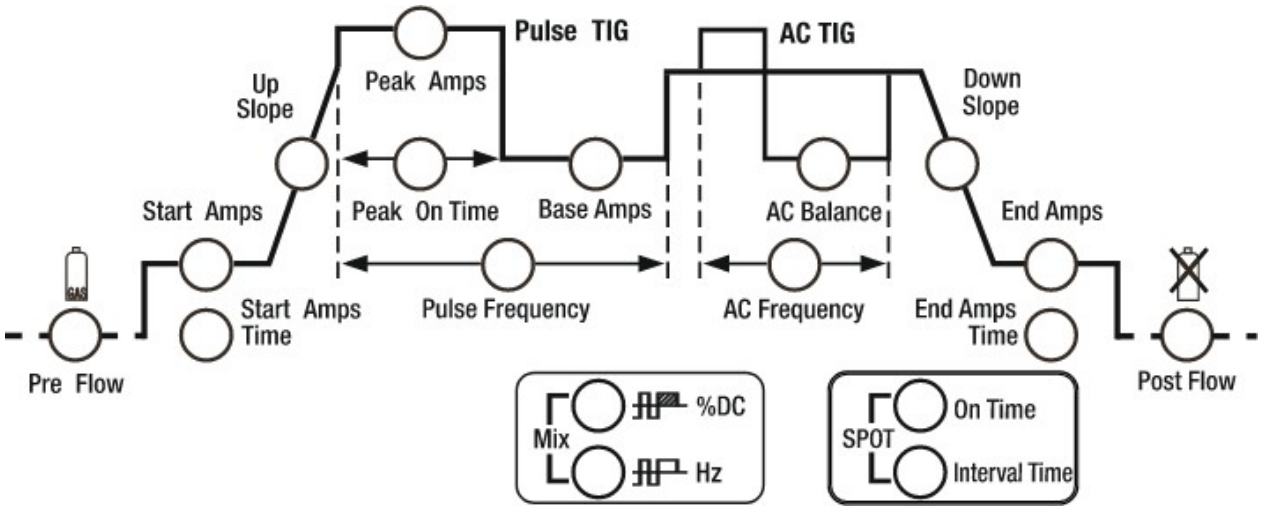
After selecting the MMA method, you can adjust the welding current, select the VRD function, and adjust the HOT START and ARC FORCE functions.

VRD Function
The VRD function reduces the voltage in the no-load state. The correct voltage value is restored only just before the arc is struck. This minimizes the risk of electric shock, but in some cases may make it difficult to strike the arc.

HOT START function
The HOT START function is commonly referred to as a hot start. It activates when the arc is struck, causing a temporary increase in welding current above the value set by the welder. HOT START is designed to prevent the electrode from sticking to the material and greatly facilitates arc striking. When welding small components, it is recommended to disable this function, as it may cause the weld material to burn through.
Adjustment range: 0 – 50 A

ARC FORCE function
The ARC FORCE function allows you to adjust the dynamics of the welding arc. Shortening the arc length is accompanied by an increase in welding current, which stabilizes the arc. Reducing the value results in a soft arc and shallower penetration, while increasing the value results in deeper penetration and the ability to weld with a short arc. With a high ARC FORCE setting, you can weld while maintaining a minimum arc length and high electrode melting speed
Adjustment range: 0 – 100 A

9.2 TIG Method



Pre-Flow
Pre-flow time – the time from pressing the button on the torch handle until the arc is struck. It should typically be longer than 0.5 s to deliver shielding gas to the torch nozzle outlet to shield the welding start point and the tungsten electrode. For longer gas supply hoses from the cylinder, the pre-flow time should be longer.
Adjustment range: 0.1 – 3 s

Start Amps
Start current – the current that appears in the circuit after pressing the button on the torch handle. The higher the start current, the easier it is to strike the arc. However, when welding thin sheets, a start current that is too high can cause the sheet to burn. In some welding modes, the current does not increase to heat the workpiece.
Adjustment range: TIG DC 5 – 200 A, TIG AC 10 – 200 A

Start Amps Time
Start current duration – the time during which welding with the start current continues. In 4T mode, this time is adjusted by holding down the button on the handle. Releasing the button will trigger the current ramp-up phase.
Adjustment range: 0.1 – 10 s

Up Slope
Current rise time – the time it takes for the welding current to rise from the start current to the set welding current value.
Adjustment range: 0 – 10 s

Peak Amps
Welding current – the welding current value during welding without a pulse generator, or the peak current during pulsed welding.
Adjustment range: TIG DC 5 – 200 A, TIG AC 10 – 200 A

Peak On Time
Pulse width – the duration of the pulse, which allows for adjustment of the penetration depth. Increasing the width increases the penetration depth; decreasing it reduces the amount of heat introduced into the material, thereby reducing the risk of burning through thinner sheets or smaller components.
Lower pulse width values should be used for higher currents. A wider pulse width should be used for low currents; for example, a width above 50% should be used for currents below 100 A.
Adjustment range: 10 – 90 %

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

Pulse Frequency
Pulse frequency – the frequency at which the pulse current value alternates between the welding current and the base current.
Adjustment range: 0.5 – 200 Hz

AC Frequency
AC frequency – a feature 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 positive current phase duration to the negative phase duration. Reducing the balance introduces more heat into the material, resulting in a narrower weld and deeper penetration, while simultaneously reducing the thermal load on the tungsten electrode. Increasing the balance introduces less heat into the material, resulting in better cleaning, a wide weld, and shallower penetration, but significantly stresses the tungsten electrode.
Adjustment range: 20–80%

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

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

End Amps Time
Crater current duration – the time during which the crater is filled. In 4T mode, this time is adjusted by holding down the button on the handle. Releasing the button will extinguish the arc.
Adjustment range: 0 – 10 s

Post Flow
Post-flow time – the time from when the arc is extinguished until the gas valve closes to shield the solidifying weld pool from the air and to cool the tungsten electrode. Too short a post-flow time may result in weld oxidation. 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 current duration to AC current duration during mixed current welding. Increasing the DC current proportion results in a more stable, concentrated arc with greater penetration, higher heat input, a narrower weld, and better control when welding thin materials. Increasing the AC current proportion 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 currents alternate during mixed current welding. A higher frequency results in a more stable arc, a narrower weld, deeper penetration, and less spatter.
Adjustment range: 0.1 – 10 Hz

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

SPOT Interval Time
Interval time during spot welding – the interval between spot welding cycles.
Adjustment range: 0 – 10 s

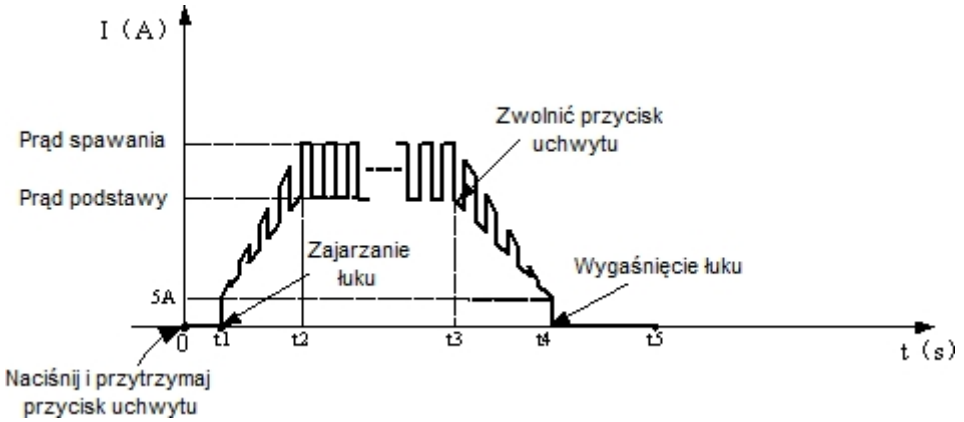
10. WELDING

10.1 Manual Metal Arc Welding (MMA)

Arc initiation in shielded metal arc welding involves touching the electrode to the workpiece, briefly rubbing it, and then lifting it away. When initiating the arc with electrodes whose coating forms non-conductive slag upon solidification, the electrode tip must be pre-cleaned by tapping it several times against a hard surface until metallic contact with the workpiece is achieved.

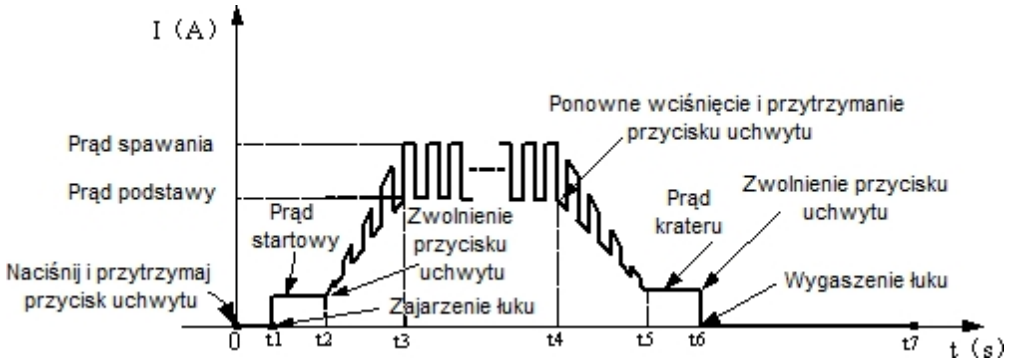
10.2. Gas-shielded welding (TIG method).

10.2.1 TIG welding in 2T mode:



- 0: Press and hold the torch button. The shielding gas flow begins;
- 0–t1: Gas purge;
- t1 ~ t2: Arc ignition; the welding current increases from the minimum value to the set welding current value. If the pulse function is enabled, the current is modulated.
- t2 ~ t3 : The torch trigger must remain depressed during welding;
  Note: If the pulse function is enabled, the welding current pulses; if the pulse function is disabled,
  the welding current remains constant
  t3: Release the torch button; the welding current begins to decrease. If the pulse function is enabled, the decreasing current is modulated;
- t3 ~ t4 : The welding current drops to its minimum value, and the arc is extinguished;
- t4 ~ t5 : Gas purge.
- t5: The solenoid valve shuts off the gas flow; welding ends.

10.2.2 TIG welding in 4T mode:



- 0: Press and hold the torch button. Shielding gas flow begins;
- 0–t1: Pre-flow time. Adjustable range: 0–1.0 s;
- t1: Arc ignition; the starting current is set;
- t2: Release the torch trigger; the current begins to rise to the set welding current value. If the pulse function is enabled, the current is modulated;
- t2 ~ t3 : Current rise time;
- t3 ~ t4 : Welding process;
  Note: If the pulse function is enabled, the welding current pulses; if the pulse function is disabled,
  the welding current remains constant;
- t4 : Press the torch button. The welding current begins to drop to the crater current value. If the pulse function is enabled, the falling current is modulated;
- t4 ~ t5 : Current decay time;
- t5 ~ t6 : Crater current;
- t6 : Release the trigger. The arc is extinguished, and shielding gas flows out;
- t7: The solenoid valve shuts off the gas flow; welding is complete.

11. BEFORE CALLING SERVICE

If the device malfunctions, check the list of common faults and try to resolve them yourself before sending the welder to a service center.
Any repairs to the device may only be performed after unplugging the power cord from the outlet.
Note! The device is not sealed, and the user may remove the welder's housing to fix minor malfunctions.
CAUTION! The welder is equipped with a Fan Stop function that turns off the fan a few minutes after welding is completed and the device has cooled down. The fan restarts under load.

Symptoms	Cause	Action
No power, fault signal, or malfunction	No connection or loose plug inside the device	Check and secure all electrical connections inside the device
	Dirty interior of the device	Remove the housing and clean the inside of the device by blowing compressed air to remove dust and metal filings from the control boards and wires and electrical connections.
After turning on the power, the displays and LEDs do not light up	No power supply	Check the fuses on the power connection
The control panel is lit, the fan is running, but the welder does not strike an arc	No connection in the welding circuit	Check the terminals and ensure proper electrical conductivity of the electrode and ground cables
		Check the connection of the TIG torch to the machine; make sure the pins in the socket are are broken or jammed.
		Unscrew the TIG torch handle and check if the switch in the handle is working
The control panel is lit, the fan is running, and the LED is lit ϟ o.c	The device has overheated.	Wait a few minutes. Do not turn off the power. Once the LED goes out, continue welding.

The fan is not running	The fan is blocked by a bent cover	Straighten the fan guard
Unsatisfactory weld quality when welding with the MMA method; the electrode sticks to the welded material	Incorrect polarity of the welding cables	Connect the welding cables correctly
	Damp electrode.	Replace the electrode
	The welder is powered by a or via a long extension cord with insufficient cable cross-section	Connect the device directly to the power supply
Unsatisfactory weld quality when TIG welding	Check the quality of the materials and consumables used, especially the and shielding gas	Replace consumables; switch to a higher-quality shielding gas
	The shielding gas is not flowing or is flowing at an insufficient rate	Check the cylinder regulator and the gas supply hose; ensure the hose connections are secure and inspect the condition of the quick-connect fittings

12. OPERATING INSTRUCTIONS

The DIGITIG 225GD ACDC MIX device should be operated in an environment free of corrosive substances and heavy dust. Do not place the device in dusty areas or near operating grinders, etc. Dust and contamination of control boards, cables, and internal connections with metal filings can lead to an electrical short circuit and, consequently, damage to the welder.
Avoid operating the device in high-humidity environments, and especially in situations where dew forms on metal components.
If dew forms on metal parts, e.g., after bringing a cold unit into a warm room, wait until the dew has disappeared. When operating the welder outdoors, it is recommended to place it under a roof to protect it from adverse weather conditions.
The DIGITIG 225GD ACDC MIX device should be operated under the following conditions:

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

of consumable parts for the TIG T-26 torch:

No.	Name
1	Tungsten electrode
2	T-26 collet
3	T-26 current connector
4	T-26 gas nozzle

A complete list of consumables and spare parts is available on the website www.tecweld.pl and from TECWELD. These parts can be purchased directly.

13. MAINTENANCE INSTRUCTIONS

Daily Maintenance

1. Visual inspection:
   - Check welding against welding cables, TIG for mechanical damage. TIG and connectors at
2. Cleaning:
   - Remove dust and metal filings from the housing and ventilation openings using compressed air (low pressure to avoid damaging the electronics).

Weekly maintenance

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

Monthly maintenance

1. Testing the welder's parameters:
    - Perform a test weld and check the arc stability and operation of the HF function.
2. Cleaning:
    - Remove the housing, and use compressed air to remove dust and metal filings from the control boards, wires, and electrical connections inside the unit. (Use low pressure to avoid damaging the electronics.)

Semi-annual maintenance

1. Inspection of electrical connections:
    - Check the condition of the electric shock protection, insulation, safety system, and the tightness of hoses and quick-connect fittings.

Annual maintenance (or every 1,000 operating hours)

1. Electronics inspection:
    - Inspect IGBT modules, capacitors, and control boards for dirt and corrosion.

Additional recommendations

- Store the welder in a dry, well-ventilated place, away from dust and moisture.

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

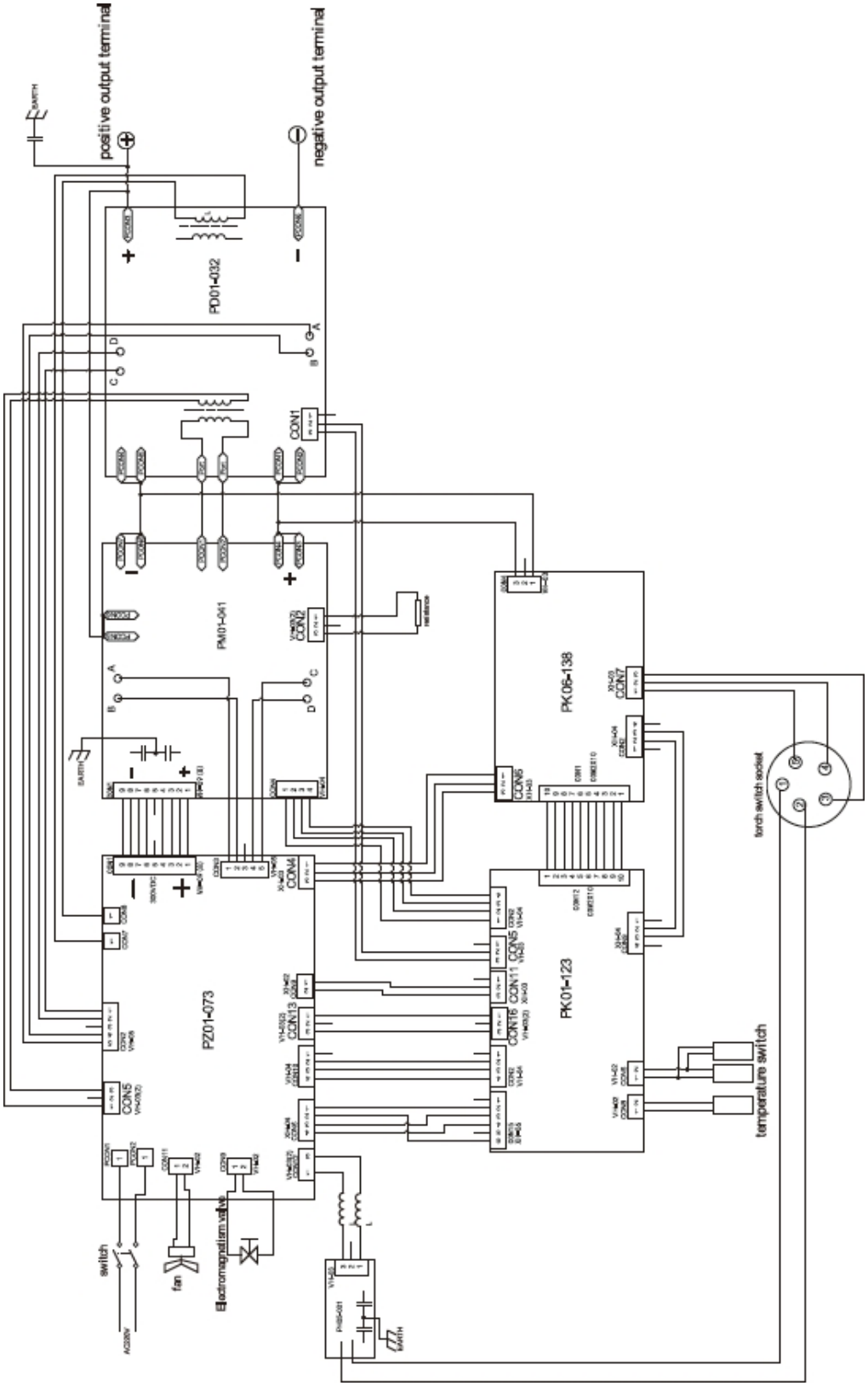
14. STORAGE AND TRANSPORT INSTRUCTIONS

The device should be stored at temperatures between –10°C and +40°C and relative humidity up to 80%, free from corrosive fumes and dust. Transport of packaged devices should be carried out using covered means of transport. During transport, the packaged device must be secured against shifting and positioned correctly.

15. KIT SPECIFICATIONS

1. DIGITIG 225GD ACDC MIX Power Supply	1 pc.
2. TIG welding torch	1 pc.
3. Ground cable with clamp	1 pc.
4. User manual	1 pc.
5. Packaging	1 pc.

16. WIRING DIAGRAM



17. WARRANTY

The warranty is valid for 12 months for business entities, excluding claims related to the warranty of quality, or 24 months for consumers from the date of sale.
The warranty will be honored upon presentation by the claimant of proof of purchase (invoice or receipt) and a warranty card bearing the product name, serial number, date of sale, and stamped by the point of sale.
To request a warranty repair, please fill out the form available at www.tecweld.pl under the SERVICE tab. Based on your request, the device will be shipped to the service center via a courier company. Devices sent by other means at TECWELD's expense will not be accepted!
The welder must be delivered together with the welding torch. Claims for devices without a welding torch will not be processed.
The device sent for a complaint must be packed in the original box and secured with the original styrofoam inserts. TECWELD is not liable for damage to the welder resulting from transport.

If you intend to dispose of this product, do not throw it away with regular household waste. According to the WEEE Directive (Directive 2002/96/EC) in force in the European Union, used electrical and electronic equipment must be disposed of separately.
In Poland, pursuant to the provisions of the Act of July 1, 2005, on Waste Electrical and Electronic Equipment, it is prohibited to dispose of equipment marked with the crossed-out wheeled bin symbol together with other waste.
A user who intends to dispose of this product is required to take the waste electrical and electronic equipment to a collection point for such equipment. Collection points are operated, among others, by wholesalers and retailers of this equipment, as well as by municipal entities engaged in waste collection activities.
These statutory obligations were introduced to reduce the amount of waste generated from waste electrical and electronic equipment and to ensure an adequate level of collection, recovery, and recycling of such equipment. Proper fulfillment of these obligations is particularly important when the waste equipment contains hazardous components that have a particularly negative impact on the environment and human health.

TECWELD Piotr Polak
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DECLARATION OF CONFORMITY 01/DIGITIG225GDMIX/2025

Authorized representative of the manufacturer:

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

branch:
41-909 Bytom,
ul. Krzyżowa
1G, POLAND

We declare that the product listed below:

Inverter welder

Trade name: **DIGITIG 225GD ACDC MIX**

Type: **TIG ACDC 200GD**

Manufacturer's trademark: Sherman®

to which this declaration refers complies with the requirements of the following European Union directives and national regulations implementing these directives:

Low Voltage Directive LVD 2014/35/EU

Electromagnetic Compatibility (EMC) Directive 2014/30/EU

RoHS II Directive 2011/65/EU

and complies with the following standards:

PN-EN IEC 60974-1:2018-11/A1:2019-06 Arc welding equipment -- Part 1: Welding power sources,

PN-EN 60974-10:2014-12 Arc welding equipment -- Part 10: Electromagnetic compatibility (EMC) requirements,

PN-EN IEC 63000:2019-01 Technical documentation for the assessment of electrical and electronic products with regard to the restriction of hazardous

substances. Year of CE marking on the device: 2016

Bytom, November 28, 2025

Piotr Polak
(signature of authorized person)