

USER MANUAL

**INVERTER WELDING MACHINE
DIGITIG 200 VISION AC/DC**

Sherman





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, some of its functions may be modified and their operation may differ in detail from the descriptions in the manual. 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 is subject to change.

Damage to the device caused by improper operation will void your warranty rights.
Any modifications to the welding machine 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,
- be familiar with health and safety regulations for operating electrical 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 manual and operate the device only as intended.



WARNING



Welding may endanger the safety of the operator and other people in the vicinity. Therefore, special precautions must be taken when welding. Before starting welding, you should familiarize yourself with the health and safety regulations applicable at the workplace.

The following hazards exist during MMA and TIG electric welding:

- **ELECTRIC SHOCK**
- **NEGATIVE EFFECTS OF THE ARC ON EYES AND SKIN**
- **VAPOR AND GAS POISONING**
- **BURNS**
- **EXPLOSION AND FIRE HAZARDS**
- **NOISE**

Electric shock prevention:

- connect the device to a technically efficient electrical system with proper protection and zeroing grounding (additional protection against electric shock); other devices at the welder's workplace should also be checked and correctly connected 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 torches 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 respirators.

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 electrical and mechanical connections. It is forbidden to use torches and power cords with damaged insulation. Improper insulation of torches and power cables may result in electric shock,
- Ensure proper working conditions, i.e. ensure proper temperature, humidity and ventilation in the workplace. When used outdoors, protect the machine from rain and moisture.
- Place the welding machine 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 method,
- 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 welding machine 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 health and safety 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. An important complement to them are workplace health and safety instructions as well as training and instructions provided by supervision employees.

3. GENERAL DESCRIPTION

The DIGITIG 200 VISION AC/DC digital welding machine is a modern device made in IGBT technology with digital control. It enables TIG welding of steel and non-ferrous metals with direct and alternating current, as well as MMA. The welding machine provides full adjustment of welding parameters, including arc, pulse and AC current characteristics. It has a function of recording up to 50 sets of parameters (10 for each operating mode).

4. TECHNICAL PARAMETERS

4.1 Welding Machine

Power voltage	AC 230V $\pm$ 10% 50Hz
Rated welding current / duty cycle	MMA: 160 A / 60% TIG 200 A / 60%
No-load voltage	68 V (8.8 V VRD)
Maximum input current	MMA: 31 A, TIG 20 A
Fuse	16 A
Weight (without attachments)	11.35 kg
Dimensions	530 x 230 x 400 mm
Housing protection class	IP21

4.1.1 Parameter control ranges

VRD	ON/OFF
ANTI STICK	ON/OFF
ARC FORCE	0 – 60 A
HOT START	0 – 60 A
Gas pre-flow	0 – 10 s
Gas postflow	0 – 10 s
Up-slope time	0 – 10 s
Down-slope time	0 – 10 s
Starting current	10 – 200 A
Welding current (Peak)	MMA: 30-160 A TIG: 10-200 A
Base current	10 – 200A
End current	10 – 200 A
Pulse frequency	TIG DC:0.1 – 99.9 Hz TIG AC:0.5-99.9 Hz
Pulse width	10 – 90 %
AC frequency	20 – 200 Hz
AC balance width	20 – 80 %
AC balance depth	50 – 150%
Spot welding time	0.01 - 9.99 s
Spot pause time	0.01 - 9.99 s

4.2 TIG Torch

Torch type	T-26
Maximum load capacity	200 A
Gas flow	10-20 l/min
Arc starting method	Non-contact (HF)
Length	4 m

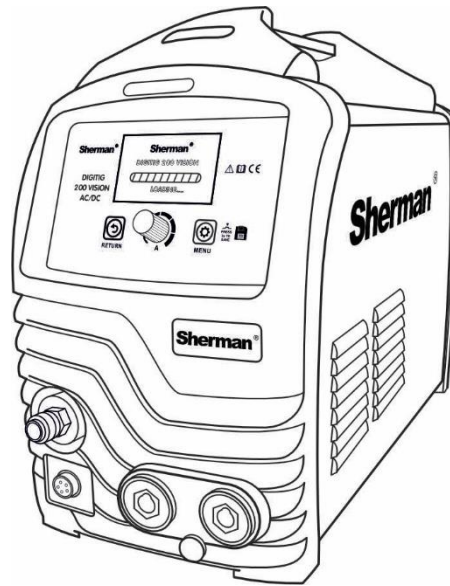
Duty cycle

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 device. A 100% duty cycle means that the device can operate continuously, without interruptions.

Attention! Heating tests were carried out at the temperature of the surrounding air. The duty cycle at 40°C was determined by simulation.

Protection class

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, enabling 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 resulting voltage to DC voltage.

6. CONNECTION TO THE POWER SUPPLY

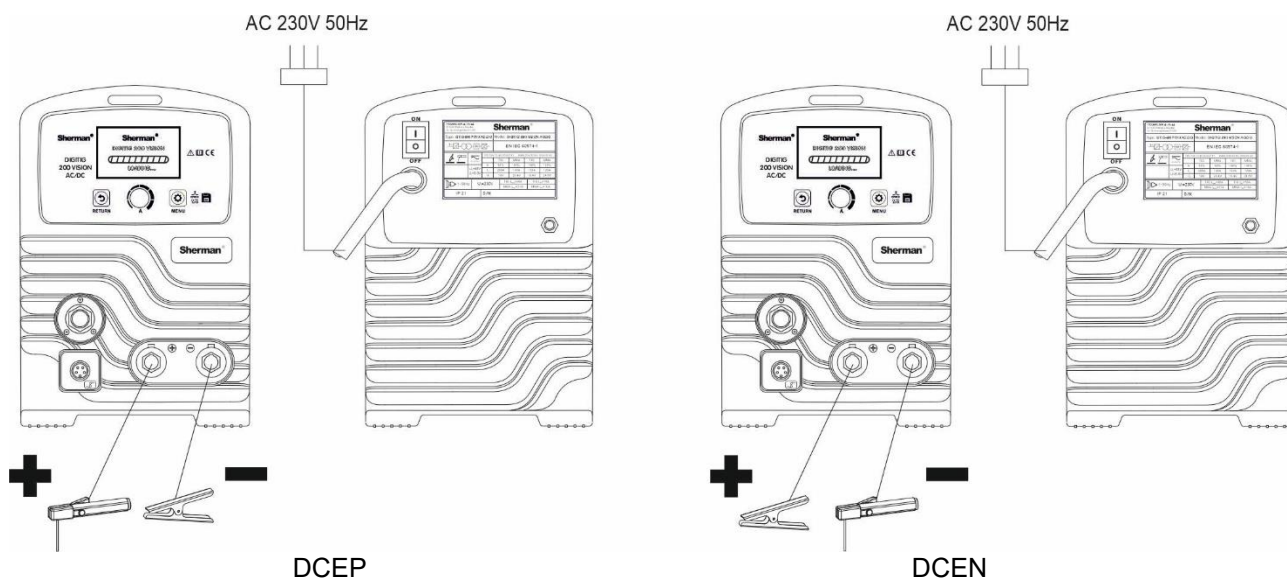
1. The appliance should only be used in a single-phase, three-wire, grounded zero point power supply system.
2. The DIGITIG 200 VISION AC/DC inverter rectifiers are designed to work with a 230V 50Hz network protected by 16 A delay-acting fuses. The power supply should be stable, with no voltage drops.
3. Before connecting the power supply, make sure that the power switch (5) is in the OFF position.

7. PREPARING THE DEVICE FOR OPERATION

If the appliance is stored or transported at low temperatures, bring the appliance to the correct temperature before starting operation!!

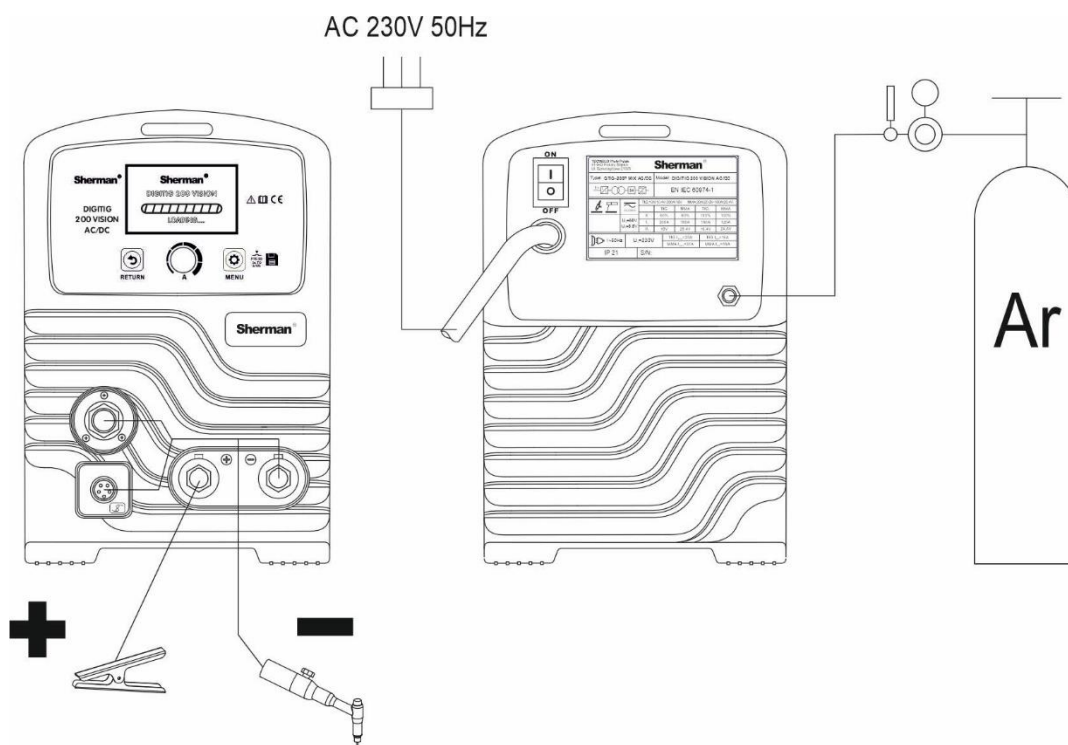
7.1 MMA method

Connect the ends of the welding cables to the sockets (3) and (4) on the faceplate so that the electrode holder has the correct pole for the electrode. The polarity of the connection of the welding cables depends on the type of electrode used and is indicated on the electrode packaging (DCEN negative polarity or DCEP positive polarity). The ground wire clamp must be carefully fixed to the welded material. Connect the appliance plug to a 230V 50Hz mains socket.



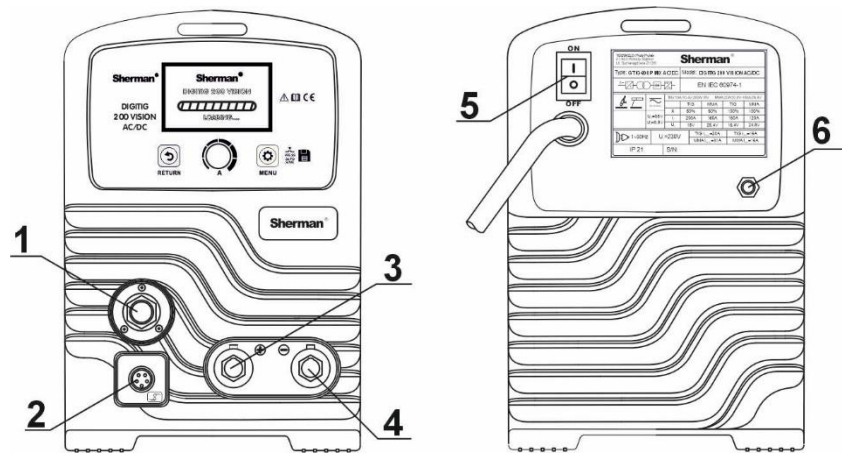
7.2 TIG method

Connect the torch current terminal to the negative bias socket (4), screw the torch control plug to the socket (2) and the gas connection to the quick connector socket (1). The gas line from the reducer must be routed and attached to the gas connector (6) located on the back wall of the housing. Connect the positive pole of the source (3) to the welded material using a clamp cable. Connect the appliance plug to a 230V 50Hz mains socket.



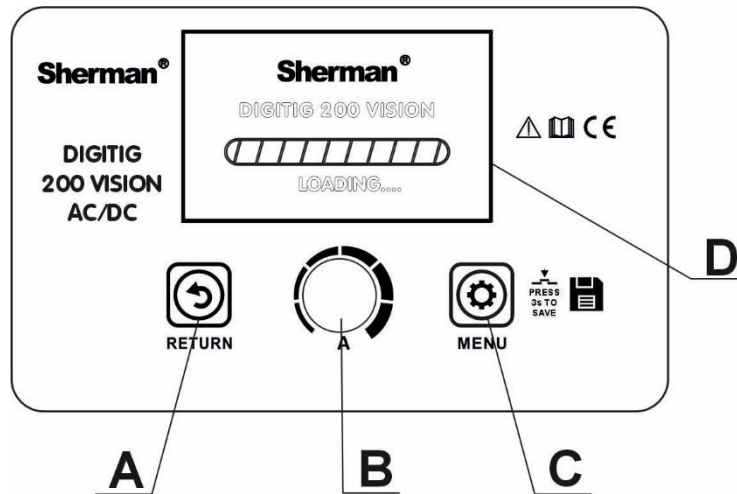
8. DESCRIPTION OF THE FUNCTION OF SWITCHES AND KNOBS

8.1 Front and Rear Panel

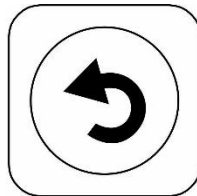


1. Shielding gas outlet connection
2. Control socket
3. Positive polarity socket
4. Negative polarity socket
5. On/off switch
6. Shielding gas inlet connection

8.2 Control Panel



A – RETURN button



RETURN

The button is used to return to the start menu and select the welding method:



MMA welding



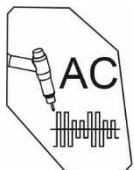
Direct Current (DC) TIG Welding



Alternating current (AC) TIG welding



DC pulse TIG welding

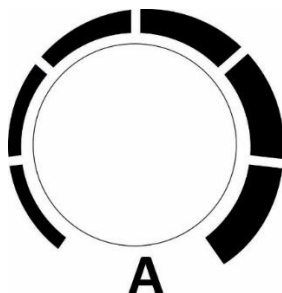


AC pulse TIG welding

To change the welding mode, press the "RETURN" button (A) while in the start menu of the machine. After pressing it, the user has the option to choose one of the five available welding modes. The "RETURN" button

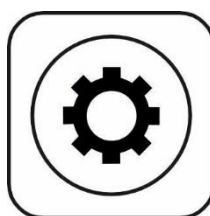
(A) also has a navigation function – when viewing or editing settings, it allows you to return to the start menu of the device.

B – Control Knob



The control knob is used to set the welding parameters and operate the functions and tools of the welding machine. It acts as a regulator and a button at the same time, which means that the user can rotate and press them. Turning the knob allows you to change the parameter values and function selection, while pressing it confirms the selected option and the settings you have entered.

C – MENU button

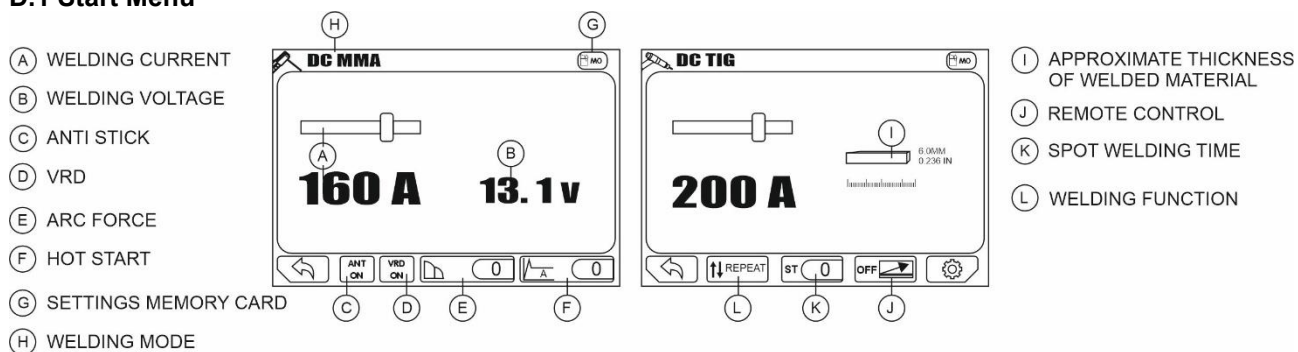


MENU

The button is used to switch the view of the welding cycle and access the device record library. To display the welding cycle, press the "MENU" button (C) once. To access the library of saved programs, hold down the "MENU" button (C) for about 3 seconds.

D – LCD screen

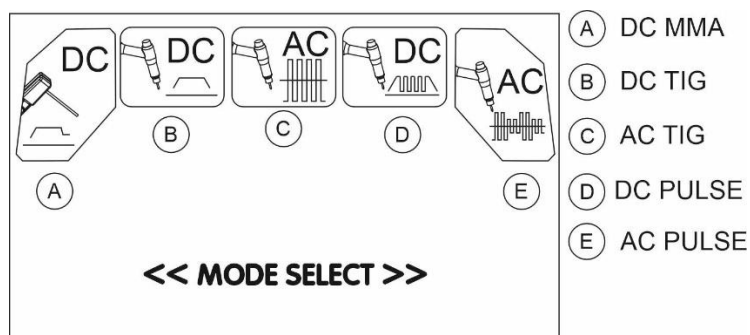
D.1 Start Menu



The start menu depends on the selected welding mode (MMA or TIG). The available options and parameters can be changed using the control knob (B). Turning the knob allows you to move between individual options and parameters. Pressing the control knob (B) confirms the selected setting. Pressing the "RETURN" button (A) allows you to exit the setting mode and return to the start menu of the device.

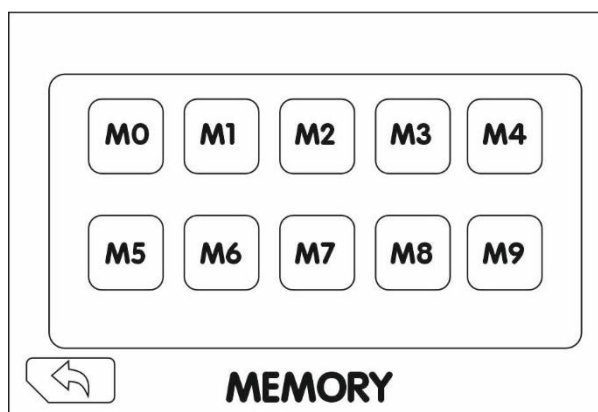
The option is highlighted during selection, which allows the user to preview the currently selected item and makes it easier to navigate through the device's menu.

D.2 Welding Mode Menu



The welding mode menu allows you to select the welding method. To switch modes, press the **"RETURN"** button (A) in the start menu. When pressed, the device enters the welding mode selection menu. Changing the mode is done using the control knob – turning the knob allows you to select one of the available modes, while pressing it confirms the selected option.

D.3 Saving Settings Menu



The DIGITIG 200 VISION AC/DC, thanks to the function of saving settings, allows you to conveniently and quickly switch between previously stored welding parameters.

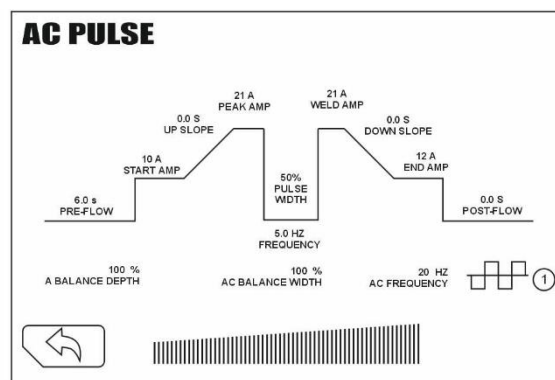
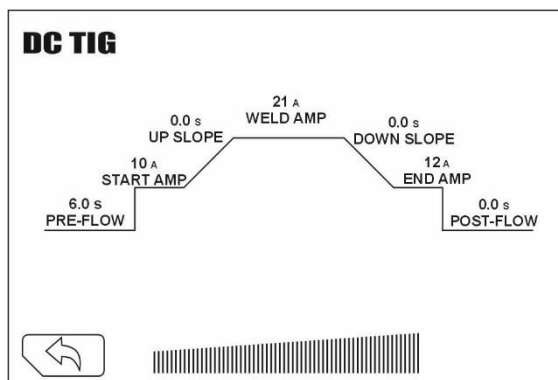
Parameters are automatically saved for each of the five welding modes on one of ten setting memory cards (G), allowing 50 different configurations to be stored.

To start the save settings menu, hold down the **"MENU"** button (C) for 3 seconds. Once you have entered the save menu, you can turn the control knob to choose between records marked M0 to M9.

To confirm the selected program, press the control knob.

The settings save tab (G) is numbered and visible in the upper right corner of the start menu.

D.4 Welding Parameter Adjustment Menu

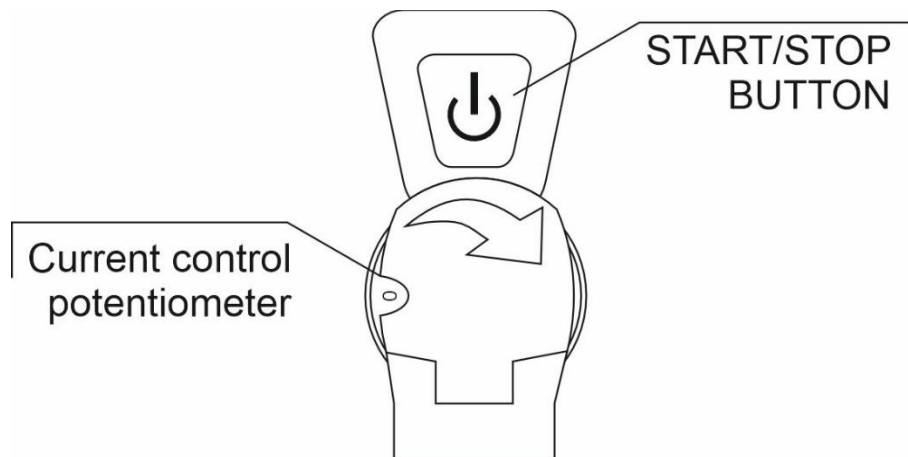


The welding parameter adjustment menu allows you to adjust the TIG welding parameters. The range of available functions and parameters depends on the selected welding mode, so the appearance of the menu may vary.

To enter the welding parameter adjustment menu, press the "MENU" button. When you view the welding cycle diagram, you can edit individual components. To change the value of the selected parameter, turn the control knob (B), then press the knob to confirm the change and automatically move to the next parameter. The currently edited parameter is highlighted for easy identification and adjustment. To exit the welding parameter adjustment menu, scroll through all parameters or press the "RETURN" button (A), which will return to the start menu.

8.3 TIG Torch Control

The TIG torch is equipped with the ability to remotely adjust the current using buttons in the torch.



When the 5-pin control plug of the TIG torch is connected to the socket (2), the welding current can be adjusted both by the control knob (B) on the welding machine panel and by the knob in the TIG torch.

8.4 Overheating Protection

The device is equipped with an overheating protection, which turns off the power supply to the welding machine if the permissible temperature is exceeded. A warning symbol then appears on the display:



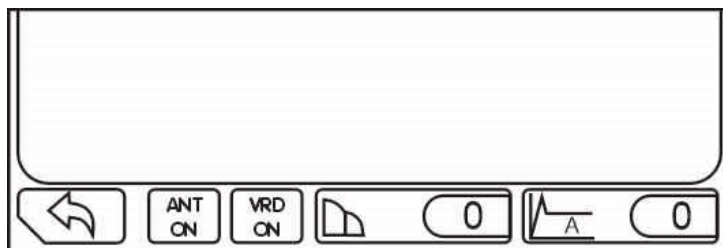
Do not disconnect the power supply during this time, as the continuously running fan cools the internal heatsinks of the device to reduce the temperature faster.

When the temperature is lowered to a safe level, the device automatically returns to standby mode. The warning symbol disappears and the display moves to **the main start screen**.

After restarting, remember to limit the welding parameters in order to continue to operate the device continuously.

9. PARAMETER SETTINGS

9.1 MMA welding



After selecting the MMA method, it is possible to adjust the welding current, select the VRD function, Anti Stick function, and adjust the Hot Start and Arc Force functions.

A Welding Current

Adjustment range: 3 – 160 A



Hot Start Function - It operates when the arc ignites, causing the welding current to temporarily increase 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 weld material to burn out.

Adjustment range: 0 – 60 A



Arc Force function - This function allows you to adjust the dynamics of the arc. The shortening of the arc length is accompanied by an increase in the welding current, which stabilizes the arc. A decrease in value results in a soft arc and a shallower penetration depth, while an increase in value results in deeper penetration and the possibility of short arc welding. With a high value of the Arc Force function, you can weld while maintaining a minimum arc length and a high electrode melting speed

Adjustment range: 0 – 60 A



VRD Function - This 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.



Anti Stick Function – This function prevents the electrode from sticking to the material during welding. In the event of a short circuit between the electrode and the material, the device automatically lowers the welding current, which makes it easier to detach and prevents the electrode and the holder from overheating.

9.2 TIG welding

9.2.1 Device Control Modes.

2T – Pressing the control button on the torch or control pedal initiates the arc ignition and the welding process begins, while releasing the arc trigger moves to the arc blanking phase and finishes welding.

4T – Pressing the control button on the torch, initiates the ignition of the arc without the need to hold the button all the time.

SPOT – Pressing the control button on the torch or pedal ignites the arc and holds for a pre-set amount of time, after which it automatically expires.

The duration of the point is adjusted in the settings in the start menu, under the "ST" icon . When you start the settings, the following appear:

- **SPOT TIME** - by setting from 0.01 to 9.99, select the spot welding time in seconds
- **INTERVAL TIME** (spot welding interval time) - by setting from 0.01 to 9.99, select the break time in seconds

REPEAT - Pressing and holding the torch button ignites the arc and starts welding with the initial current. When the button is released, the current goes to the peak current level. Pressing and holding the button again initiates the current to descend and stabilize it at the level of the crater current. Releasing the button will cause the current to rebuild up to the peak current value. The cycle repeats with successive button presses and releases, without extinguishing the arc.

9.2.2 Welding Parameters

PRE-FLOW - the time from pressing the button in the torch to the moment the arc is ignited. It should usually be longer than 0.5 s to deliver shielding gas to the torch nozzle outlet 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 – 10 s

POST-FLOW - the time from arc extinguishing to closing of the gas valve to shield the solidifying weld pool from air and to cool the tungsten electrode. Too short a run-out time can result in oxidation of the weld. When welding in TIG AC (alternating current) mode, this time should be longer. Adjustment range: 0 – 10 s

START AMP - the current that appears in the circuit when the button in the torch torch is pressed. The higher the initial current, the easier it is to ignite the arc. However, when welding thin sheets, too high a value of the initial current can lead to burning. Adjustment range: 10 – 200 A

END AMP - the current used in some welding modes when the arc is not extinguished immediately after the phase of decreasing welding current. It allows the crater at the end of the weld to be filled. Adjustment range: 10 – 200 A

UP SLOPE - 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

DOWN SLOPE - the time of the welding current from the set value to the crater current value. Adjustment range: 0 – 25 s

PEAK AMP (Peak Current) – The peak value of the current during pulse welding, responsible for the melting of the material and the ignition of the arc. Adjustment range: 10 – 200 A

WELD AMP – The lower value of the current during pulse welding responsible for maintaining arc stability and limiting the amount of heat supplied. Adjustment range: 10 – 200 A

PULSE WIDTH - the duration of the pulse, allows you to adjust the depth of the intake. Increasing the width increases the depth of embedding, reducing reduces the amount of heat introduced into the material, reducing the risk of burning through thinner sheets or smaller components. 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 %

FREQUENCY – the frequency at which the pulse value of the current changes between the welding current and the base current.

Adjustment range: 0.1 – 99.9 Hz

AC BALANCE DEPTH – the offset of the zero point of the AC current waveform relative to the axis, i.e. the change in the average value of the current in the cycle.

Adjustment range: 50 – 150 % The zero point corresponds to 100%.

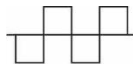
AC BALANCE WIDTH – the ratio of the duration of the positive phase of the current to the negative phase. Reducing the balance causes more heat to be introduced into the material, resulting in a narrower weld and deeper embedding, while reducing the heat load on the tungsten electrode. Increasing the balance introduces less heat into the material, resulting in better cleaning, a wide weld seam and a shallower embedding, but puts a significant strain on the tungsten electrode.

Adjustment range: 20 – 80 %

AC FREQUENCY – a function useful for welding aluminum. At low values, the arc is wider with less embedding, at higher frequencies the arc is more focused and the infusion is deeper.

Adjustment range: 20 – 200 Hz

9.2.3 Types of AC current waves in the device:

- | | |
|---|------------------------------|
|  | ① SQUARE WAVE |
|  | ② SINUSOIDAL WAVE |
|  | ③ TRIANGULAR WAVE |
|  | ④ SINUSOIDAL-SQUARE WAVE |
|  | ⑤ TRIANGULAR-SQUARE WAVE |
|  | ⑥ SQUARE-SINUSOIDAL WAVE |
|  | ⑦ SQUARE-TRIANGULAR WAVE |
|  | ⑧ TRIANGULAR-SINUSOIDAL WAVE |
|  | ⑨ SINUSOIDAL-TRIANGULAR WAVE |

10. CONTROL PEDAL (OPTIONAL)

The device has the possibility of remote control using the control pedal (additional equipment). When the pedal control plug is connected to the jack and the (ON) option  on the menu screen is activated, the unit will enter pedal control mode.

11. WELDING

11.1 MMA welding

11.1.1 Arc starting

Arc initiation in shielded metal arc welding (MMA) consists of touching the electrode to the workpiece, briefly scratching it across the surface, and then lifting it away to establish the arc. For electrodes whose coating forms a non-conductive slag after solidification, the electrode tip should first be cleaned by tapping it several times against a hard surface until metallic contact with the workpiece can be achieved.

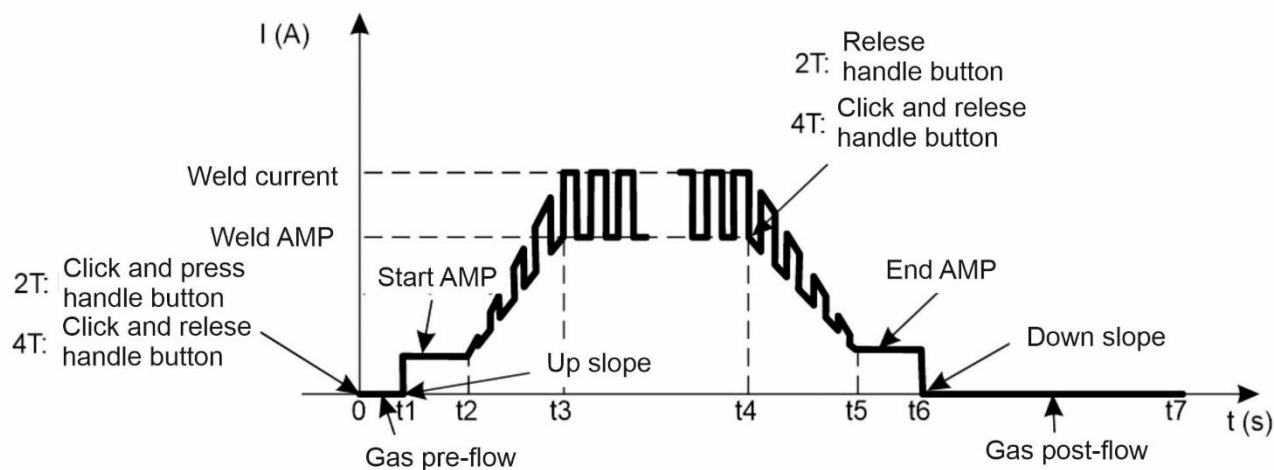
11.2. Shielded Gas Welding (TIG Method).

11.2.1 Arc starting

The DIGITIG 200 VISION AC/DC welding machine enables TIG welding with arc ignition using non-contact high-frequency (HF) arc starting.

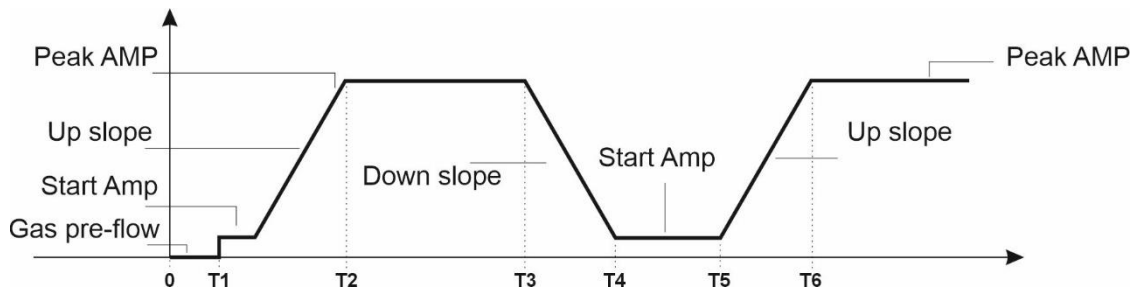
To initiate the arc, bring the electrode close to the workpiece and press the button on the torch handle. The arc will be established without the electrode coming into contact with the workpiece.

11.2.2 TIG welding in 2T and 4T mode:



- 0 : 2T: Press and hold the torch button. 4T: Press and release the torch button.
The outflow of protective gas begins;
- 0~t1: Gas pre-flow time. Adjustable range: 0~10.0s;
- T1: Ignition of the arc;
- t1~t2: Initial current time;
- T2: Current build-up to the set current value begins welding. When the pulse 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: 2T: Release the torch button. 4T: Press and release the torch button The
welding current begins to drop to the value of the crater current. If the pulsator is turned on,
the falling current is modulated;
- T4~T5: Current drop time;
- t5~t6: Crater current time;
- t6 : The arc is extinguished, shielding gas flows out;
- T7: The solenoid valve closes the gas outflow, the end of welding.

12.2.3 TIG Welding in Repeat Mode



- 0: Press and hold the torch button.
Gas outflow occurs
- T1~T2: Ignition of the arc and start of welding with initial current
- T2: Release the torch button.
- T2~T3: The current builds up to the peak current level.
- T3~T4: Keep the torch button released.
Peak Current Welding.
- T4: Press and hold the torch button.
- T4~T5: The current drops to the level of the end current.
- T5~T6: Keep the torch button pressed.
The end current is maintained
- T6~T7: Release the torch button.
Current builds up to peak current level

Peak current, end current and rise and fall time can be shortened by pressing the torch button

13. BEFORE YOU CALL FOR SERVICE

In the event of malfunction, open the housing and remove dust and metallic deposits from the inside of the welder with dry, compressed low-pressure air before sending the welder for service. Then 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 device is not sealed and the user can remove the welding machine housing to remove minor malfunctions.

ATTENTION! The welding machine is equipped with a Fan Stop function that turns 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 display does 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 ground wire
		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 displays a warning sign ⚠ the fan is running,	The device has overheated.	Wait a few minutes for the appliance to cool down. Do not turn off the power. When the warning sign disappears, the start menu will be displayed.
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 cables 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

14. OPERATING INSTRUCTIONS

The operation of the DIGITIG 200 VISION AC/DC should take place in an atmosphere free of corrosive components and high dust. Do not place the appliance in dusty areas, near running grinders, etc. Dust and metallic swarf contamination of control boards, cables and connections inside the device can lead to an electrical short circuit and, as a consequence, 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 elements, 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.

The DIGITIG 200 VISION AC/DC 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 $+40^{\circ}\text{C}$
- 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:

Lp.	Name
1	Tungsten electrode
2	T-26 Collet
3	T-26 Collet body
4	T-26 Gas nozzle

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

15. MAINTENANCE INSTRUCTIONS

Before each start-up

- Check the power cord for abrasions and loose plug
- Inspect the enclosure – pay attention to signs of overheating in the area of the ventilation openings, Make sure that the air inlet and outlet are not obstructed
- Check the correct ground cable connection (MMA/TIG)
- Check the condition of the tungsten electrode and other consumable parts of the chuck

Post-work activities

- Allow the fan to cool down completely (do not disconnect the power supply before if the fan is still running)
- Unplug the welding machine from the panel and disconnect it from the mains
- Close the gas cylinder valve and depressurize the reducer
- Clean the TIG torch of tungsten dust and metallic coating
- Put down cables without tight turns – especially the TIG torch

Every week or every approx. 20-30 hours of work

- Clean the ventilation grilles with dry, low-pressure compressed air
- Check the HF ignition operation – the ignition should be immediate and repeatable
- Inspect power outlets – no backlash or burns

Monthly maintenance

- Open the housing and remove dust and metallic deposits from the inside of the welding machine with compressed air
- Check the fan – no noise, clear airflow
- Check the internal cables and connectors (whether they are loose due to vibrations)
- Check Gas Solenoid Valve – Flow Test in Purge Mode
- Check the tightness of the quick couplings and reducer

Maintenance every 6 months

- Perform functional test of all modes: – TIG DC / TIG AC / MMA
- Check that programs are stored and played back correctly in the device's memory
- Check the device's response to thermal protection
- Check the insulation condition of the power cord (especially when working in the workshop)

Maintenance once a year

- Recommended inspection at a Sherman authorized service center
- Diagnostics of control electronics (digital panel, HF, AC control)
- Checking the current output parameters
- Condition control of power components and cooling systems
- Replacement of TIG consumables if they show wear

Symptoms requiring immediate service response

- Unstable HF ignition despite working torch
- Automatic switch-off of the welding machine under normal load
- Burning smell or a marked increase in fan volume
- Irregular gas flow in TIG
- No arc stability in AC despite correct settings

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

16. STORAGE AND TRANSPORT INSTRUCTIONS

Store the appliance at a temperature of -10°C to $+40^{\circ}\text{C}$ and a relative humidity of up to 80% free of corrosive fumes and dust. Transport of packaged equipment should be carried out by covered means of transport. During transport, the packaged device should be protected against movement and provided with the correct position.

17. SET SPECIFICATION

1. Source: DIGITIG 200 VISION AC/DC	1 pc.
2. TIG welding torch T-26	1 pc.
3. Ground cable with clamp clamp	1 pc.
4. Electrode Wire	1 pc.
5. Shielding gas hose	1 pc.
6. User Manual	1 pc.
7. Packaging	1 pc.

18. ELECTRICAL DIAGRAM

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, you need to fill in the form 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 TECWELD's expense will not be accepted!

The welding machine must be supplied with the welding torch. Complaints about a device without a 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 are going to dispose of this product, do not throw it away with ordinary household waste. According to the WEEE Directive (Directive 2012/19/EU) in force in the European Union, separate disposal methods must be used for used electrical and electronic equipment.

In Poland, in accordance with the provisions of the Act of 11 September 2015 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 take the waste electrical and electronic equipment to a waste equipment collection point. Collection points are run, m.in., by wholesalers and retailers of this equipment and by municipal organizational units conducting waste collection activities.

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 correct implementation of these obligations is especially important when there are hazardous components in used equipment that have a particularly negative impact on the environment and human health.

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