MANUAL WELDING

WELDER FANTASY®
BI-PULSE 201
Before using this product, read all instructions with understanding and keep it for future use

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Clause:

Despite making every effort to ensure that the information contained in this manual was complete and in accordance with the actual situation, the company PROFESSIONAL FHW Zenon Świętek shall not be liable for any errors or omissions. We reserve the right to change the specifications of the products described at any time without prior notice.
1. SAFETY PRECAUTIONS SYMBOLS

It is essential to read these signs and safety precautions to protect the health and life of their own and other people.

Read instructions before starting the machine. Use only original accessories supplied by the manufacturer.

Some components may explode. Always use face shields and protective clothing with long sleeves.

Static electricity can damage electronic components.

Use approved face shields and welding shields. Always use protective clothing designed for welders. Metal splinters can injure your eyes. Always use safety glasses.

Electrical shock can result in death. Do not touch electrical components when the device is connected to the power supply. Use dry and complete protective gloves and protective clothing.

Gases and vapors can be hazardous to health. During the process of extracting welding gases and welding fumes. Inhalation of these substances can be dangerous to your health.

Eye protection welding filters. Depending on the current intensity, use shields with appropriate filters.

Moving parts can cause injuries unit.

Too long continuous operation may cause overheating. Wait until the device cool down. Follow the guidelines in the "efficiency and thermal protection."
Damaged cylinders with technical gases can explode. The bottled gas is accumulated under high pressure. Make sure the bottles are handled and stored in accordance with the requirements of safety and fire.

Welded components could burn.

Wire protruding from the burner is sharp and can cause skin puncture.

Risk of fire and explosion. During welding work may lead to a fire. Welding station must be separated and protected from flammable materials and explosives.

The magnetic field can disrupt the functioning of pacemakers. Before starting work, consult your physician.

Do not weld at height without adequate protection.

Overturning or falling unit can cause serious injury.

• Before starting work, you must specify the place where the device is to be operated.

• The device should be connected to the network so that all the time it can be freely manipulated. The power cord should not be tensioned during operation.

• Do not use the device on a surface, which may cause it to tip over.

• In order to move the equipment, use only the handle on the front. Do not pull the power cord or welding.

• Moving and transporting equipment and cylinders should be carried out separately. Device to transfer using only the original handles transport

• It is prohibited to the misuse
ATTENTION!

Heating test was carried out at ambient temperature and the duty cycle (ratio Load) at 40°C has been appointed by the simulations.

The device is designed to carry out welding work in professional conditions holding a valid certificate of qualification compatible with the applicable standards.

![Warning Symbol]

WARNING: This Class A equipment - is not intended for use in residential locations where electricity is supplied by system of public low-voltage network. There may be potential difficulties in ensuring electromagnetic compatibility in those locations, due to conducted and radiated disturbances.

The device should be used in accordance with the Regulation of the Minister of Economy of 27.04.2000r. on health and safety at work welding (Dz. U. No. 40 item. 470).

The behavior of this manual and following the guidelines set out in the will enable proper maintenance of equipment in the future. These warnings are intended to ensure user safety and operation in an environmentally friendly manner.

Before installation and use of the device, read carefully the contents of the entire instructions.

- After opening the package, make sure the device has not been damaged during transport.
  If in doubt, please contact our service department.
- Equipment should only use trained employee or consumer.
- During installation all activities related to electricity should a qualified electrician.
2. DESTINY

Welder apparatus Fantasy BI-201 Pulse MIG / MAG for manual arc welding GMAW (Gas Metal Arc Welding), GTAW (Gas Tungsten Arc Welding) and SMAW (Shielded Metal Arc Welding).

3. DESCRIPTION OF THE DEVICE

Fantasy device Welder PULSE BI-201 is a modern source inverter offering very high versatility of the welding work. Their main advantage is the possibility of welding using the current of a single or double-pulse mode MIG or MAG. Thanks to modern IGBT technology and high quality components, ideal for work associated with the automotive industry, steel structures, welding, aluminum alloys and others.

Reliability, a wide range of applications (carry out their work in three-four methods of welding MIG / MAG, TIG-LIFT DC MMA) make the device will satisfy even the most demanding users.

4. TECHNICAL DATA

<table>
<thead>
<tr>
<th>Data</th>
<th>Model</th>
<th>WF PULSE BI-201</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voltage [V]</td>
<td></td>
<td>~ 230V</td>
</tr>
<tr>
<td>Frequency [Hz]</td>
<td></td>
<td>50</td>
</tr>
<tr>
<td>Protection [A]</td>
<td></td>
<td>20</td>
</tr>
<tr>
<td>Welding current range [A]</td>
<td>MMA</td>
<td>30-200</td>
</tr>
<tr>
<td></td>
<td>TIG</td>
<td>10-200</td>
</tr>
<tr>
<td></td>
<td>MIG / MAG</td>
<td>40-200</td>
</tr>
<tr>
<td>The output voltage [V]</td>
<td>MMA</td>
<td>21.2-28</td>
</tr>
<tr>
<td></td>
<td>TIG</td>
<td>10.4-18</td>
</tr>
<tr>
<td></td>
<td>MIG / MAG</td>
<td>16-24</td>
</tr>
<tr>
<td>Efficiency [%] (at ambient temp. 40 about C)</td>
<td></td>
<td>30% 200 [A] 60% 142 [A] 100% 110 [A]</td>
</tr>
<tr>
<td>Power consumption [KVA]</td>
<td></td>
<td>6.5</td>
</tr>
<tr>
<td>The power factor cos</td>
<td></td>
<td>0.90</td>
</tr>
<tr>
<td>Cord diameter [mm²]</td>
<td></td>
<td>3G 2.5</td>
</tr>
<tr>
<td>type of feeder</td>
<td></td>
<td>2R</td>
</tr>
<tr>
<td>The diameter of the welding wire [mm]</td>
<td></td>
<td>0.8 / 1.0 / 1.2</td>
</tr>
<tr>
<td>insulation class</td>
<td></td>
<td>F</td>
</tr>
<tr>
<td>Enclosure</td>
<td></td>
<td>IP23S</td>
</tr>
<tr>
<td>Net weight [kg]</td>
<td></td>
<td>14</td>
</tr>
<tr>
<td>Dimensions of height / width / length [mm]</td>
<td></td>
<td>375/220/460</td>
</tr>
</tbody>
</table>
5. CONNECTION - SET polarity WELDING

MIG / MAG

To choose the correct polarity welding as shown above.

**Welding of the positive polarity +** (Solid wire welding in a shielding gas - MIG / MAG)

Plug current welders connected to the positive + (EURO) mass holder connected to the negative -

**Welding with negative polarity -** (Flux-cored arc welding powder - FCAW)

Plug current welders connected to the negative - (EURO) mass holder connected to the negative +

**ATTENTION!**

In order to start working with a wire samoosłonowegi should change the polarity inside the device - the wire feeder.
BEFORE WORK:

- Check voltage value, phase and frequency of the supply current before switching the machine to the mains.
- Parameters supply voltage are given in the section of the technical data and on the nameplate.
- Check the grounding wire connection device from the mains.
- Make sure that the power network may provide coverage of the requirements of input power for the device under its normal operation. Fuse size and parameters of the power cord are given in the technical data and on the nameplate. Connecting and sharing of the power cord and the plug should be made by a qualified electrician.
- Remove all flammable material from the welding area.
- Welding use suitable protective clothing: gloves, lab coat, shoes, helmet or mask having a corresponding certificate.

CONNECTION METHODS FOR MIG / MAG

To extend the life and ensure reliable operation, observe the following rules:

- The device should be placed in a well-ventilated room, where there is a free circulation of air.
- Do not place the device on a wet surface.
- Use filler wire diameter and weight of the reel according to the manufacturer’s instructions (D200, max. 5 kg). For up to the minute technical equipment and welding cables.

Installation of welding wire spool:

Welder Fantasy series devices PULSE BI-200 are equipped with a professional wire feeders. This model has a 2 roll feeder capable of operating with a handle max. 4MB for welding steel wire and 3m in the case of the welding wire of aluminum alloy. Holder for welding wire spools can be mounted with a diameter of 200 mm - 100 mm and 5 kg - 1 kg.
• Raise the housing cover side welding machine.
• Make sure that the roller mounted in the drive train and appropriate to the nature
  wire diameter used. For steel wire, use of rolls with grooves in the shape of a "V", whereas for aluminum
  wires grooved "U".
• Place the spool of welding wire spool mounting mechanism, paying attention to the direction of unwinding the
  wire was in line with the direction of the entrance to the wire drive unit Lock reels from slipping by tightening
  the nut on the body mounting a reel.
• End of the wire should be flat or cut off the bent section.
• In order to introduce the wire into the feeder release the pressure feed rollers.
• End of the wire inserted into the guide at the back of the tray and carry it over the driving roller introducing
  nozzle of the welding gun.
• Push the wire in the groove drive roll and tighten.
• Remove the gas burner nozzles, and unscrew the contact tip.
• Switch on the device.
• Open wire welding torch so that it is simple. ATTENTION! Do not direct the tip of the welding torch in the
  direction of the face or other people.
• Press welding the torch and hold until the wire for burner.

• When the end of the welding wire passes through a connector in the burner, a distance of approx. 5 cm and release the button
  to establish contact tip and gas nozzle.
• Adjust the pressing force by rotation of the knob to the right - increase the biasing force to the left - decrease the pressing
  force. Too little downforce, will cause slippage of the drive roller. Too high pressure causes an increase in resistance of
  administration and the deformation of the wire.

**Entering wire welding torch to suggest that you run closed valve on the cylinder of shielding gas. This will
reduce the unnecessary loss.**

The installation of shielding gas cylinders:

• The bottle with the appropriate shielding gas, should always be protected against tipping over. If it is
  possible to attach a certified welding carriage on which the MIG / MAG welding. Trolley is not a standard set
  of equipment.

• Connect with semiautomatic bottle with a suitable cable.
• Unscrew the regulator valve prior to welding. **After completion of welding, the cylinder valve should
  always turn off.**
6. WELDING PROCESS MIG / MAG

Welding gas-shielded arc (designated MIG / MAG) is one of the most widely used process for producing weldments. Abbreviation MAG (metal active gas) includes in its description of the active shielding gases. Abbreviation MIG (Metal Inert Gas), refers to inert gas shroud. Semi-automatic welding process involves melting the edge of the work piece and the material of the consumable electrode arc heat glowing between the electrode in the form of a solid wire and the welded workpiece, in inert gas or active.

Primary shielding gases for welding MIG inert gases such as argon, helium, and active gases in the MAG CO2, H2, O2, N2 and NO, used alone or as additives in an argon or helium.

The consumable electrode is in the form of the solid wire, typically having a diameter of 0.6 to 1.2 mm, and is fed continuously by a special supply system, a speed of 2.5 m / min and above. The welding may be water-cooled or gas shielding. Welding is carried out mainly constant current of positive polarity as a semi-automatic welding, mechanized, automated or robotic using specialized equipment. Glowing shield arc between the consumable electrode and the weld material for forming the weld in a very favorable thermal and chemical conditions. Welding of this type can be used to make high quality of the connections of all the metals which may be joined by arc welding. These include: carbon and low-alloy steels and corrosion resistant.

MIG SINGLE PULS

Pulse MIG welding is a sophisticated form, which utilizes the best form of the transfer of the molten electrode material on the work piece. In contrast to short-circuits, pulse welding spatter does not produce or threaten to cold "dociekiem." In pulse welding positions are limited, as are derivatives of globular or spray forms, and their use is far more efficient. With the cooling of the arc spray process, a pulsed MIG is able to expand the range of welding, a smaller heat input does not cause the problem of burn-through thin materials. MIG PULSE is one of the best welding processes for a wide range of applications and types of metal.
DOUBLE PULSE MIG

Welding MIG / MAG double pulse obtain a high level of the appearance of the face (due to scales). In addition, the use of an automatic wire feed affect the welding performance. MIG / MAG double pulse allows the adjustment of the pulsation current (balance pulse) and to adjust the wire feed speed. Thanks to improve weld appearance.

During MIG / MAG welding with a double pulse, the current pulses are in two ranges. The sequencer device automatically connects our two levels of pulses: hot and cold.

![Diagram](image)

The advantages of using MIG MAG double pulse is:

1. MIG / MAG double pulse is faster than TIG.
2. MIG / MAG double pulse reaches a high aesthetics TIG.
3. MIG / MAG double pulse causes less strain than TIG.
7. OPERATION WELDER FANTASY PULSE BI-201

**AND. Control Description**

*(Please also read the instruction film on our website and Youtube channel.)*

1. LCD display

2. Function key "left" during the selection of welding parameters.

3. Button to return to the previous menu. (Also hold for 5 seconds to return to the factory settings (RESET)).

4. Knob of welding parameters.

5. Authorizing the settings button and enter the next menu.

6. Function key "right" during the selection of welding parameters.
8. LANGUAGE SELECTION

Using the 2 or 6 select the menu language, and then confirm selection with 5.

The device allows you to set the following control languages: English, German, Polish and Russian.
C. SELECTION OF WELDING METHODS

Using the 2 or 6 select the desired method of welding, and then confirm by pressing 5.

- **AUTO mode** - setting synergistic. The user selects the basic welding parameters such as type of material, the plate thickness, the diameter of the welding wire. Other parameters of the device selects automatically uploaded using the base program.

- **MIG mode** - welding of individual students using the user's settings. The system prompts the selection of key welding parameters indicating the adjustment of the plate thickness. This information suggests the user to correct settings made.

- **Lift TIG mode** (arc ignition by friction) - welding the tungsten electrode in inert gas. In order to perform welding by this method it is necessary to retrofit device TIG adjustable shielding gas in the handle as in the following image. This handle is not a standard set of equipment.

- **MMA mode** - welding coated electrode. User-adjustable welding current can also set the ARC-FORCE, HOT START and enable or disable the protective system VRD.

  - **ARC FORCE** - stabilizes the arc regardless of variations in its length, reduces the amount of spatter.

  - **HOT START** - start function for easy welding. Upon ignition of the arc is temporarily increased welding current in order to heat the material and the contact point electrode and the proper formation of welds and weld face at the initial stage of welding.

  - **VRD** - the device has a system VRD (Voltage Reduction Device) which mode MMA Rutile and basic electrodes lowers the load voltage, which greatly enhances user safety. In special cases, the use of electrodes with high current arc ignition problems can occur at his initiation.
D. AUTO Mode (MIG / MAG)

In the AUTO mode, a user makes a selection of only the basic welding parameters such as type of material, the plate thickness, the diameter of the welding wire (available 0.8 mm, 1.0 mm and 1.2 mm). Other parameters of the device selects automatically uploaded using the base program. **AUTO mode only allows continuous welding current**

- there is no possibility of adjusting the settings mode and dual PULS PULS.

There is a possibility of manual adjustments to the synergistic.

**ATTENTION:** If you change the type of material and its thickness, the system returns with the other parameters to the factory defaults.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step 1 Choose material</strong></td>
<td>The user selects the welding material (wire and welding) from the list of alloys available in the program.</td>
</tr>
<tr>
<td><img src="image1" alt="Step 1 Choose material" /></td>
<td></td>
</tr>
<tr>
<td><strong>Step 2 Select the thickness of the welded material</strong></td>
<td>The user selects thickness of the welded material. The device on the ground automatically adjusts the welding current, arc voltage and welding speed of the feeder.</td>
</tr>
<tr>
<td><img src="image2" alt="Step 2 Select the thickness of the welded material" /></td>
<td></td>
</tr>
<tr>
<td><strong>Step 3 Select the diameter of welding wire</strong></td>
<td>The user selects the diameter of welding wire, which it plans to use. <strong>ATTENTION!</strong> The device automatically increases or reduces its maximum power depending on the diameter of the wire.</td>
</tr>
<tr>
<td><img src="image3" alt="Step 3 Select the diameter of welding wire" /></td>
<td></td>
</tr>
</tbody>
</table>
### Step 3 Select the diameter of welding wire

The user selects the diameter of welding wire, which it plans to use.

**ATTENTION!**

Device automatically decreases or increase its maximum power depending on the diameter of the wire.

According to the adopted values of the welding parameters in software user-selected diameter of the welding wire has a direct impact on the current and welding voltage and wire feed speed. For example, the choice of wire with a diameter of 0.8 mm will automatically limit the maximum welding current for example. 140A, the selection of wire 1.0mm allow welding current of 200A. These activities aim to optimize the welding process and avoid the problems associated with too fast of burning wire just behind the tip in the current situation where there is no further possibility of increasing the speed of the feeder.

Inability to set the maximum welding current is not a software error and results from selected diameter welding wire.
E. BASIC SETTINGS MIG / MAG

In MIG mode you yourself shall subsequently setting all welding parameters. The system prompts the selection of the optimum welding parameters indicating the adjustment of the plate thickness of the material (see table - set the wire feed speed). This information suggests the user to correct settings made. Depending on the style of welding (forced position, welding current rapidly with a higher intensity of slower or lower current density), the settings may require slight adjustment by the user.

<table>
<thead>
<tr>
<th>Plowing mode button on the torch 2-stroke and 4-stroke.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selection of welding current:</td>
</tr>
<tr>
<td>- constant (no pulse)</td>
</tr>
<tr>
<td>- a single pulse (see MIG / MAG welding with pulsing)</td>
</tr>
<tr>
<td>- double pulse (see MIG / MAG double pulse)</td>
</tr>
<tr>
<td>The choice of the diameter of welding wire</td>
</tr>
<tr>
<td>Image</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td><img src="image1.png" alt="Image 1" /></td>
</tr>
<tr>
<td><img src="image2.png" alt="Image 2" /></td>
</tr>
<tr>
<td><img src="image3.png" alt="Image 3" /></td>
</tr>
<tr>
<td><img src="image4.png" alt="Image 4" /></td>
</tr>
</tbody>
</table>
F. MIG / MAG Pulse

In order to start welding mode MIG / MAG PULSE be pre-made settings as in the previous chapter. Additional welding parameters in pulsed mode welding shown in the following tables:

<table>
<thead>
<tr>
<th>Selecting the welding current 2 - single pulse of the pulsed current function, is used mainly in welding of thin elements, metals having a low melting point, eg. lead, and in welding forced positions. Other advantages of pulsed welding is less heat-affected zone, the greater the stability of the welding arc and the greater the depth of penetration and improving the appearance of the weld face.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adjusting the frequency of the pulse. Changing this parameter results in lengthening or shortening the arc. ATTENTION! Frequency pulse selected is automatically on the basis of other welding parameters, there is no need for manual correction dokonowania her.</td>
</tr>
<tr>
<td>Setting cycle pulse. Control this parameter causes increasing or decreasing the amount of spatter during welding. ATTENTION! Value cycle pulse selected is automatically on the basis of other welding parameters, there is no need for manual correction dokonowania her.</td>
</tr>
</tbody>
</table>
G. MIG / MAG WITH DOUBLE PULSE

In order to start welding mode MIG / MAG PULSE be double pre-made settings as in Chapter BASIC SETTINGS MIG / MAG welding. Additional welding parameters in the welding mode, double-pulse current shown in the following tables:

<table>
<thead>
<tr>
<th>Image</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1" alt="Selecting the welding current 3 - double pulse" /></td>
<td>Selecting the welding current 3 - double pulse</td>
</tr>
<tr>
<td><img src="image2" alt="Setting the maximum speed wire feeder" /></td>
<td>Setting the maximum speed wire feeder. <strong>ATTENTION!</strong> When adjusting this parameter should pay particular attention to the box marked red trademarks &quot;X&quot; pointing suggested the plate thickness.</td>
</tr>
<tr>
<td><img src="image3" alt="Setting the frequency of the double pulse" /></td>
<td>Setting the frequency of the double pulse. In order to achieve optimum welding parameters is suggested to set the range of 1 to 2 Hz.</td>
</tr>
<tr>
<td><img src="image4" alt="Setting the cycle of the double pulse" /></td>
<td>Setting the cycle of the double pulse. In order to achieve optimum welding parameters is suggested that the setting in the range of from 30 to 40%.</td>
</tr>
</tbody>
</table>
Set the minimum speed of the wire feeder.

**ATTENTION!**
When adjusting this parameter should pay particular attention to the box marked red trademarks “X” pointing suggested the plate thickness. In order to achieve optimum welding parameters is suggested to set a value corresponding to from 70 to 90% of the maximum speed of the feeder.
TIG WELDING

In the method (TIG stands : Tungsten Inert Gas) strikes the electric arc inert gas (argon) between the work piece and the tungsten electrode made of pure tungsten or tungsten with additions.

TIG welding is especially recommended for aesthetically high quality joining metals without complicated machining after welding; however, it requires a suitable preparation and purification of the edges of the two welded elements. The mechanical properties of the additive material should be similar to those of the welded components. The role of the shielding gas always full of pure argon, fed in amounts depending on the set welding current.

TIG welding is an optional extra. You can only adjust the welding current.
POLARITY TIG WELDING

For most welding TIG apply a negative polarity. The welding gun is connected to the negative pole, while the mass holder to the positive pole. Is limited in this way, the consumption of the electrode increases, the heat buildup in the weld material.

Ignition in TIG LIFT

To ignite the welding arc in TIG LIFT unscrew the valve on the handle, press the button, and then gently rub the tungsten electrode of the welded part of the burner and lift slightly so that the arc ignition occurred.

Releasing the switch causes the end of the welding process (2T).

Example welding torch TIG lift valve in the burner.

ATTENTION!

TIG is not a standard set of equipment.
WELDING METHOD MMA - coated electrode

Arc welding with covered electrode is also called MMA (ang. Manual Arc Welding), which is the oldest and most universal method of arc welding. The method is used for MMA wrapped electrode consisting of a metal core coated with a padding. Between the end electrode and the weld material is produced an electric arc. The arc is created by touching the end of the electrode to the workpiece. Welder electrode threads as its fusion to the workpiece so as to keep the arc length constant and at the same time moves the end of melting along the welding line. The melting electrode coating forms a protective gas the molten metal from exposure to the ambient atmosphere, and then solidifies and forms a weld pool on the surface of the slag,

Welding cables and connect the mass to the corresponding output jacks welders, according to the manufacturer's recommended polarity of the electrodes, which intend to weld.
<table>
<thead>
<tr>
<th><strong>Setting the welding current.</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HOT START</strong> - start function for easy welding. At the time of ignition, the welding current is increased to heat the material and the contact point electrode, ensuring proper formation of welds and weld face at the initial stage of welding.</td>
<td></td>
</tr>
<tr>
<td><strong>ARC FORCE</strong> - stabilizes the arc regardless of variations in its length, reducing the amount of spatter.</td>
<td></td>
</tr>
<tr>
<td><strong>VRD</strong> - the device has a system VRD (Voltage Reduction Device) which lowers the load voltage, increasing security for the user. In special cases, the use of electrodes with high current arc ignition problems can occur at its initiation.</td>
<td></td>
</tr>
</tbody>
</table>
ERROR CODES

In special cases, the display may appear the following messages indicating a problem with the unit. Errors on the display will appear until you remove the resulting defect.

<table>
<thead>
<tr>
<th>Error Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Error 001 Overload</td>
<td>The device is operated in amounts exceeding its rated performance. The message may appear in the case of using the wrong diameter extension. After this message appears, turn off the unit for 5 minutes. If after restarting the display is still the statement, you should contact the service.</td>
</tr>
<tr>
<td>High temperature error 002</td>
<td>The device is equipped with protection against overheating. Where the installed sensors too high temperature (e.g., Fan failure or blocking), the device switches off automatically and the display will show the message.</td>
</tr>
<tr>
<td>Error 003 Lock wire feeder</td>
<td>This message appears when you lock the wire feeder. This can happen when using a wire with a diameter of 0.8 mm for welding of aluminum alloys.</td>
</tr>
</tbody>
</table>
8. CURRENT OPERATING UNIT

WORKING CONDITIONS

Optimum ambient temperature range from -10 °C to 40 °C.
Avoid welding in conditions of sunlight and the rain, do not allow the water to penetrate into the interior of the device.
Avoid working in the environment of flammable gas, dust and aggressive. Avoid strong winds, which can cause loss of protection gas.

WORK SAFETY

Actually the installed device with overvoltage protection, overcurrent protection and overtemperature switches off automatically under the conditions beyond the defined as the standard. However, long-term use (eg. Surges) can cause damage to the welder. Therefore, you should follow the instructions listed below:

PRECAUTIONS

1) Ensure good ventilation
Welding is a compact device, through which large electricity and natural ventilation does not provide the necessary cooling. Therefore, to maintain stability, welder equipped with an internal cooling system. The operator should check if the vent is not blocked. The distance between the welder and the welded object should not be less than 0,3m. The operator should always pay attention to ventilation devices, since they depend on it not only achieved welding quality and performance, but also the life of the device.

2) Preventing congestion
The operators should follow (load designated as the maximum permissible load for a given current) or the welding current exceeds the maximum permissible electric current to the load. Electrical overload can significantly shorten the life of welders, and even lead to the burning of its elements.

3) Preventing Surge
Keep values in the line supply voltage in the Table "Technical specifications". In normal operation, the automatic alignment circuit voltage ensures the maintenance of tension in the acceptable range. The supply voltage higher than the permissible value can damage the welding machine. Operators should be fully aware of this risk and be able to take appropriate steps.

4) If a standard load is exceeded, the welder can enter a protective mode and suddenly stop working. This means that the standard load is exceeded, the heat has launched a thermal switch, which caused the machine to stop. Lamp lights up on the operating panel welding machine. In such a situation, do not remove the power plug to allow the fan to cool the welding machine. Exclusion of the lamp indicates the temperature drop to a normal level. You can take further work.
MAINTENANCE

Regularly remove dust with clean compressed air. If the unit is in working conditions in the smoke, in the heavily polluted air every day remove accumulated dust.

Air pressure should be maintained at a level not to damage the small components inside the machine max. 2-4 bar.

Inspect the internal welder circuits, check the accuracy and reliability of connections (in particular equipment and parts). In the case of notice of rust and loosening of the connection remove rust and oxide coating with abrasive paper, and re-connect securely. Avoid situations where water or steam could get into the device. In the case of welding moisture should dry it, and then check the insulation of the device (also between calls and contacts). After checking that everything is in order, you can continue working.

ATTENTION!

When welding components which form an integral part of the vehicle it is essential to disconnect the battery or use special protection. Otherwise, the electronic parts of the vehicle can be permanently damaged. When welding to connect the handle mass close as possible to the weld site.

SET CONTAINS:

- Welder power source Fantasy PULSE model BI-201
- welding torch for MIG / MAG
- earth wire
- shielding gas conduit
- manual Eng

ATTENTION!

The content of this manual has been prepared by a team of engineers skilled in the art. Copying and distribution of the manual, in whole or in part, without the written consent of The skilled person is prohibited.

MADE FOR:
FHW FACHOWIEC Zenon Świętek Street.
Stefanski 29, 61-415 Poznan

www.fachowiec.com

Made in PRC
9. ELECTRICAL DIAGRAM
## 10. DECLARATION OF CONFORMITY

### DECLARATION OF CONFORMITY

**BP-19 / FC / 02**

The last 2 digits of the year in which the CE mark is applied: 19

<table>
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<tr>
<th>Name and address</th>
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<tr>
<td>PROFESSIONAL FHW Zenon Świętek Street.</td>
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<td>Stefanski 29, 61-415 Poznan</td>
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declares that the product:

<table>
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<tr>
<th>Name</th>
<th>The unit MIG / MAG double pulse</th>
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<tr>
<td>Type / model:</td>
<td>Welder Fantasy BI-pulse MIG 201</td>
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<tr>
<td>230V power supply</td>
<td></td>
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<tr>
<td>current of MIG / MAG welding current TIG</td>
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<tr>
<td>40-200 10-200 30-200 MMA current power</td>
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<tr>
<td>consumption of 6.2 kVA efficiency of 30%</td>
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<tr>
<td>Class F insulation mass 14 kg</td>
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<td>dimensions of 375/220 / 460mm</td>
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conforms with the following standards and standards harmonized:

1. EN 50445: 2008
2. EN 60974-1: 2012
4. EN 61000-3-11: 2000
5. EN 61000-3-12: 2011

and meets the essential requirements of the following directives:

1. 2014/35 / EU Low Voltage Directive (LVD)
2. 2014/30 / EU Electromagnetic compatibility (EMC)

This declaration of conformity is the basis for marking the product trademark

This declaration relates exclusively to the machine in the state in which it was introduced to the market, and excludes components which are added by the end user or carried out by his subsequent actions.

A person authorized to prepare and store technical documentation Zenon Świętek.

www.fachowiec.com

Poznan, 29/03/2019

Place and date of issue:
11. WARRANTY CARD

( Offered for sale after December 25, 2014)

IMPORTANT!

We offer you a professional product designed for use only by trained personnel and appropriate qualifications.

Each device, product distribution machine before it passes the initial quality control in our company. Before operating the device, please carefully read the attached instructions for proper start-up and read the requirements for the equipment!

WARNING - FAILURE!

Before sending equipment to use, contact our service to you and automated assistance in the receipt of the consignment!!!

http://pomoc.fachowiec.com

That allows technical support, contact our service to you and automated assistance in the receipt of the consignment !!!

NAME OF EQUIPMENT

3in1 WELDER

TYPE / MODEL

BI-201 PULSE

NO FACTORY

SALE DATE

COMMENTS

GENERAL TERMS OF WARRANTY

1. As a guarantor of quality facilities manufacturer, importer and distributor is: PROFESSIONAL Trading Company

   Multi-based Zenon Świętek Poland Poznan ul Stefanski 29 tel: + 48/61 66-15-151

   Guarantor declares that covered by this guarantee card subject of the guarantee has been issued free of defects and is made in accordance with applicable standards

2. Warranty covers the territory of the Polish Republic. Our products must be purchased abroad to provide service in Poland.

3. The company has skilled person is liable for physical defects in materials and workmanship inherent in the device for a period of: 12 months


   effective from 25.12.2014r.

5. The warranty on the goods sold does not exclude, limit or suspend the the buyer's rights under the provisions of the warranty for defects in the goods sold.

6. Disclosed during the warranty period defects will be corrected in no more than 14 days from the date of delivery faulty device to the Service Importer

7. Advertised within the warranty of the machine should be delivered to the Seller with a full standard equipment, clean and - if the device has - with a clear plate.
8. Advertised device must be returned in the box properly packed protected against damage in transit needs to be determined if required "up - down" or "glass carefully."

9. The company has skilled person does not accept complaints and returns sent to the address of the Company for downloading!

10. The guarantee document is valid if you have correctly completed entries regarding: the date of sale, the name equipment sold, stamp and signature of the seller and the customer acknowledges his signature.

11. The warranty does not cover the activities foreseen in the manual, for which execution
the user is required to own and at their own expense, for example. start-up, maintenance, replacement batteries, and other supplies.

12. Said faulty equipment and parts become the property of the Guarantor.

REFUSAL OF COMPLAINTS:

The guarantor may refuse to accept the complaint if:

- statement using the unit misused and instructions,
- delivery device dirty, no standard equipment, without nameplate and seals or hologram
- determine the cause of the fault other than manufacturing or material defect inherent in the device,
- formal defects associated with the sales documents, such as unfilled warranty card, lack of proof of purchase.

ARE NOT COVERED BY WARRANTY:

1. The parts which, when aligned with the recommendations of operation are subject to wear and tear within the warranty period, such as welding torches, handles mass nozzles, burners, batteries, belts, filters, oil, electrodes, gaskets, o-rings and other items directly related to the exploitation.

2. Disadvantages caused by mechanical damage, thermal or chemical plant and equipment.

3. Damage caused due to improper transport and storage,

4. Damage associated with working at too low or too high a temperature,

5. Damage caused by faulty electrical installation User, flooding or moisture components electric water,

6. Wrong connection to a power source (eg. Poor polarity, poor connection 230 or 400 V, there are no phases or too loose clamped connection cables)

7. Damage caused by overload device, overheating,

8. Incorrect setting welding parameters, interference in the control panel screw compressors,

9. Bad selection of the parameters in the supply pressure to the unit,

10. Damage due to lack of recommended maintenance procedures contained in this manual,

11. Cleaning with too high pressure or aggressive chemicals,

12. Damages caused by too strong a tightening or causing damage to the components niedokręcaniem or excessive bandwidth connections (spray guns)

13. Improper use.

LOSS OF WARRANTY AS FOLLOWS

Loss of warranty in the event;

1. non manual
2. improper operation
3. overloading the machinery
4. operation without lubricants
5. dismantling unauthorized
6. breaking holograms
MANUAL - WELDER Fantasy PULSE BI-201

WEBSITE ADDRESS

One skilled FHW Zenon Świętek 60-169 Poznań ul Grunwaldzka 390 phone: + 48/61 66-18-152
e-mail: serwis@fachowiec.com

important:

In the case of unjustified complaint the applicant must bear the costs of transport and a review in accordance with the service price list.

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