

Baileigh BW-200S

Baileigh BW-200S 120/230V 200A Dual Voltage Inverter Stick Welder

Instruction Manual

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1. INTRODUCTION

The Baileigh Industrial BW-200S is an industrial-grade 200 amp arc welder designed for robust performance and portability. This inverter stick (SMAW) welder is suitable for various welding applications, offering reliable operation in demanding environments. Its compact design and dual voltage capability make it a versatile tool for professionals.

Key Features:

- **Dual Voltage Capability:** Operates on both 120V and 230V single-phase power, adapting to different power sources.
- **Smart Voltage Sensing:** Automatically detects the input voltage (120V or 230V) and adjusts output accordingly, limiting current when connected to 120V.
- **Stepless Current Adjustment:** Provides infinite current settings for precise control over the welding process, without predefined steps.
- **Anti-Stick Hot Start:** Automatically increases output current at the beginning of a weld to preheat the weld puddle and electrode, preventing sticking.
- **Thermal Overload Protection:** Automatically shuts down the welder if its internal temperature exceeds safe operating limits, protecting the machine from damage.

2. SAFETY INFORMATION

Always prioritize safety when operating welding equipment. Failure to follow safety guidelines can result in serious injury or death. Read and understand all instructions before use.

General Welding Safety:

- Wear appropriate personal protective equipment (PPE), including a welding helmet with proper shade, flame-resistant clothing, welding gloves, and safety shoes.
- Ensure adequate ventilation to avoid inhaling welding fumes.
- Keep a fire extinguisher nearby and know how to use it.
- Clear the work area of flammable materials.
- Do not weld near combustible gases or liquids.
- Protect bystanders from arc rays and sparks.

Electrical Safety:

- Ensure the welder is properly grounded.
- Inspect power cords and cables for damage before each use. Do not use damaged equipment.
- Never operate the welder in wet conditions or with wet hands.
- Disconnect power before performing any maintenance or changing electrodes.
- Use only approved extension cords of adequate gauge.

3. UNPACKING AND CONTENTS

Carefully unpack the Baileigh BW-200S welder and inspect all components for any shipping damage. If any damage is found, contact your supplier immediately.

Included Components:

- (1) Baileigh BW-200S Inverter Stick Welder Unit
- (1) Electrode Holder with Cable
- (1) Ground Clamp with Cable
- (1) 6-50P 250V Plug
- (1) 120V Plug Adapter



Figure 3.1: Electrode Holder with Cable. This component holds the welding electrode and delivers current to the arc.



Figure 3.2: Ground Clamp with Cable. Used to complete the electrical circuit by clamping to the workpiece.



Figure 3.3: 120V Plug Adapter. Allows the welder to connect to a standard 120V power outlet.

4. SETUP

Proper setup is crucial for safe and effective welding. Follow these steps to prepare your BW-200S welder for operation.

4.1 Power Connection:

1. Ensure the welder's power switch is in the "OFF" position.
2. Determine the available power supply (120V or 230V).
3. For 230V operation, connect the included 6-50P 250V plug to a compatible 230V outlet.
4. For 120V operation, attach the 120V plug adapter to the welder's power cord, then plug it into a standard 120V outlet. The welder's Smart Voltage Sensing feature will automatically adjust output.
5. Ensure the power outlet is properly grounded and capable of supplying the required amperage.



GROUND CLAMP

Figure 4.1: Rear Panel with Power Input. The power cord connects here, and the ON/OFF switch controls the unit's power.

4.2 Electrode Holder and Ground Clamp Connection:

1. Connect the electrode holder cable to the positive (+) terminal on the front panel of the welder.
2. Connect the ground clamp cable to the negative (-) terminal on the front panel of the welder.
3. Ensure connections are tight and secure to prevent arcing and overheating.
4. Attach the ground clamp firmly to the workpiece or a clean, bare metal portion of the welding table. A good ground connection is essential for stable arc and safe operation.



120V PLUG ADAPTER

Figure 4.2: Front Panel Connections. The positive and negative terminals for the electrode holder and ground clamp are clearly marked.

5. OPERATING INSTRUCTIONS

Once the welder is set up, you can begin the welding process. Always wear appropriate PPE and follow safety guidelines.

5.1 Controls and Indicators:



INTELLIGENT VOLTAGE SENSING

Figure 5.1: Control Panel. Features a digital display for current, and a stepless adjustment knob.

- **Digital Display:** Shows the set welding current in Amperes (A).
- **Current Adjustment Knob:** Rotate to increase or decrease the welding current. This is a stepless adjustment, allowing for fine-tuning.
- **Power Indicator Light:** Illuminates when the welder is powered on.
- **Alarm/Overload Indicator Light:** Illuminates if the thermal overload protection is activated, indicating the machine has overheated.

5.2 Welding Process:

1. Turn the welder ON using the power switch on the rear panel. The power indicator light will illuminate.
2. Select the appropriate electrode for your material and application. Insert the electrode into the electrode holder.
3. Adjust the welding current using the adjustment knob on the front panel. Refer to electrode manufacturer recommendations for optimal current settings.
4. Position yourself comfortably and safely. Lower your welding helmet.
5. Strike an arc by lightly scratching the electrode against the workpiece or by tapping it. The Anti-Stick Hot Start feature will assist in initiating the arc.
6. Maintain a consistent arc length and travel speed to create a uniform weld bead.

7. When finished, lift the electrode from the workpiece to break the arc.
8. Turn the welder OFF and allow it to cool before storing.

6. MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your Baileigh BW-200S welder.

General Maintenance Tips:

- **Cleaning:** Periodically clean the exterior of the welder with a dry, soft cloth. Use compressed air to blow out dust and debris from the cooling vents. Ensure the welder is unplugged before cleaning.
- **Cable Inspection:** Regularly inspect all welding cables, power cords, electrode holder, and ground clamp for cuts, abrasions, or loose connections. Replace damaged components immediately.
- **Cooling System:** Ensure the cooling fan and vents are free from obstructions. The fan-cooled design helps maintain optimal operating temperature.
- **Storage:** Store the welder in a clean, dry environment, away from excessive dust, moisture, and extreme temperatures.



FAN COOLED

Figure 6.1: Fan Cooled System. The rear vents facilitate airflow for cooling the internal components.

7. TROUBLESHOOTING

This section provides solutions to common issues you might encounter during operation. For problems not listed here, contact customer support.

Problem	Possible Cause	Solution
Welder does not power on.	No power supply; Power switch off; Damaged power cord.	Check power outlet and circuit breaker; Ensure power switch is ON; Inspect and replace damaged power cord.
No arc or weak arc.	Poor ground connection; Incorrect current setting; Wet or old electrodes; Damaged cables.	Ensure ground clamp is on clean metal; Adjust current; Use dry, fresh electrodes; Inspect and replace cables.
Welder shuts down during operation (Alarm light on).	Thermal overload activated; Insufficient ventilation; Exceeding duty cycle.	Allow welder to cool down; Ensure vents are clear; Reduce welding time or current to stay within duty cycle.
Electrode sticks to workpiece.	Low current setting; Improper arc striking technique; Cold workpiece.	Increase current; Practice arc striking; The Anti-Stick Hot Start feature should help.

8. SPECIFICATIONS

Technical specifications for the Baileigh BW-200S Inverter Stick Welder.

Feature	Detail
Model Number	BW-200S
Part Number	1021967
Manufacturer	JPW Industries
Power Source	AC
Input Voltage	120 Volts / 230 Volts (Dual Voltage)
Max Output Current	200 Amps
Welder Type	Inverter Stick (SMAW)
Color	Black
Product Dimensions (L x W x H)	60.96 x 30.48 x 45.72 cm (24 x 12 x 18 inches)
Item Weight	7.89 kg (17.4 lbs)
Batteries Required	No

9. WARRANTY AND SUPPORT

9.1 Warranty Information:

The Baileigh BW-200S Inverter Stick Welder is covered by a **1-Year Limited Warranty** from the date of purchase. This warranty covers defects in materials and workmanship under normal use. It does not cover damage resulting from misuse, abuse, unauthorized modifications, or normal wear and tear. Please retain your proof of purchase for warranty claims.



Figure 9.1: 1 Year Warranty. Indicates the duration of the product's limited warranty.

9.2 Customer Support:

For technical assistance, warranty claims, or to order replacement parts, please contact Baileigh customer support:

- **Website:** www.baileigh.com
- **Email:** support@baileigh.com

- **Phone:** (Toll-Free) 1-800-XXX-XXXX *(Placeholder, refer to official Baileigh website for current contact numbers)*

When contacting support, please have your model number (BW-200S) and purchase date available.

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ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

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After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details.](#)

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question