

VQP BSW380

VQP 5000W Battery Spot Welder Instruction Manual - Model BSW380

1. INTRODUCTION

Thank you for choosing the VQP 5000W Portable Battery Spot Welder. This device is designed for efficient and precise spot welding of battery packs, specifically compatible with 18650, 26650, and 32650 battery cells using 0.1-0.15mm nickel strips. This manual provides essential information for safe operation, setup, usage, maintenance, and troubleshooting to ensure optimal performance and longevity of your spot welder.



An overview of the VQP 5000W Battery Spot Welder kit, including the main welding unit, the foot pedal for precise control, two spot weld pens, a roll of nickel strip, and sandpaper for preparation.

2. SAFETY INFORMATION

Please read and understand all safety instructions before operating the spot welder. Failure to follow these instructions may result in electric shock, fire, or serious injury.

- **Eye Protection:** Always wear appropriate eye protection, such as welding goggles or a face shield, to protect against sparks and intense light.
- **Ventilation:** Operate the welder in a well-ventilated area to avoid inhaling fumes.
- **Electrical Safety:** Do not operate the welder with wet hands or in damp conditions. Ensure all connections are secure before use.
- **Material Compatibility:** This welder is designed for nickel strips and iron/stainless steel sheets. **DO NOT** attempt to weld copper or aluminum, as this can damage the machine and pose a safety risk.
- **Battery Safety:** Handle battery cells with care. Avoid short-circuiting batteries, and ensure they are not overcharged or damaged.
- **Children and Pets:** Keep the spot welder and all accessories out of reach of children and pets.

- **Heat:** Welding pens can become hot during prolonged use. Allow them to cool down or wear protective gloves.
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3. PACKAGE CONTENTS

Verify that all items listed below are included in your package:

- 1 x VQP 5000W Battery Spot Welder Unit
 - 1 x Power Adapter (AC 100-240V 50/60Hz)
 - 2 x Spot Weld Pens
 - 1 x Foot Pedal
 - 1 x Nickel Strip (sample roll)
 - 1 x Sandpaper
 - 1 x User Manual (this document)
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4. PRODUCT OVERVIEW

The VQP 5000W Battery Spot Welder features a compact design with robust capabilities for various battery welding tasks.

Key Features:

- **High Power Output:** 5000W for effective welding.
- **Integrated Battery:** 4000mAh/60C Li-ion battery for portability and continuous operation.
- **HD Digital Display:** Clear display for monitoring battery voltage and settings.
- **Adjustable Current:** 10-gear adjustable output for precise control over welding intensity.
- **Premium Weld Pens:** Two spot weld pens with good conductivity and low contact resistance, featuring replaceable tips.
- **Foot Pedal Control:** Ensures precise and controlled welding activation.



This image illustrates the core capabilities of the spot welder: a powerful 5000W output, an integrated 4000mAh lithium-ion battery, and a clear HD digital display for monitoring settings.

Welding Thickness 0.1mm-0.15mm

Great for welding 18650 26650 32650
battery packs, iron/ stainless steel sheets
(not copper or aluminum)



This visual emphasizes the adjustable current output for versatile welding, the inclusion of high-quality weld pens, and the safety features designed into the device.

Component Identification:



A clear diagram identifying the main components and ports of the spot welder, including the output adjuster, weld pen ports,

foot pedal port, charging port, light indicator, and the HD digital display.

- **Output Adjuster:** Rotary knob to select welding gear (1-10).
 - **Weld Pen Port:** Connect the spot weld pens here.
 - **Foot Pedal Port:** Connect the foot pedal for welding activation.
 - **Charging Port:** Connect the power adapter for charging.
 - **Light Indicator:** Provides status feedback.
 - **HD Digital Display:** Shows battery voltage and other operational information.
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5. SETUP

5.1 Initial Charging

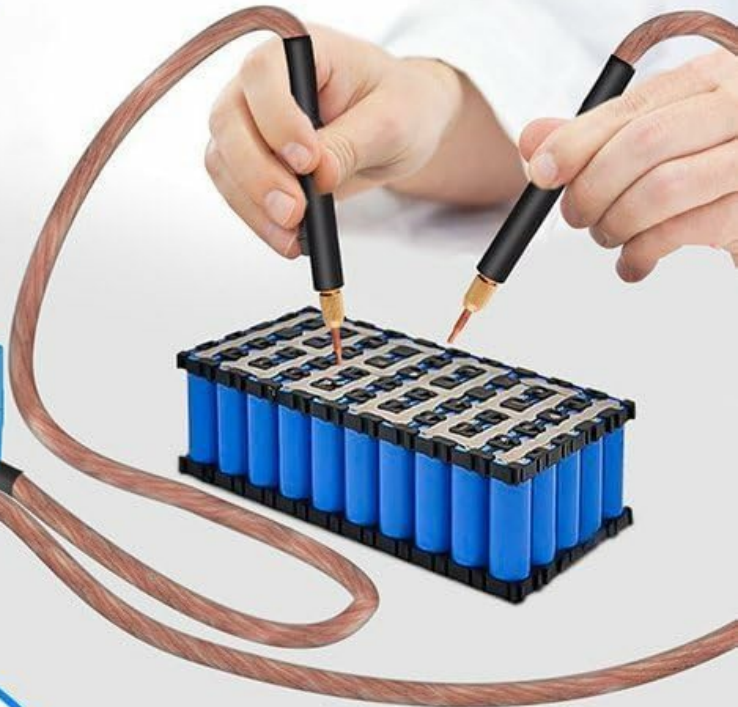
1. Before first use, ensure the spot welder is fully charged. Connect the provided power adapter to the charging port on the unit and plug it into a standard AC outlet (100-240V).
2. The HD digital display will indicate charging status. Charge the device when the battery voltage drops below 7.3V. The charging voltage is 8.4V/500mA.

5.2 Connecting Accessories

1. **Weld Pens:** Insert the two spot weld pens firmly into the designated weld pen ports on the front of the unit. Ensure a secure connection for optimal conductivity.
2. **Foot Pedal:** Connect the foot pedal cable to the foot pedal port. This allows for hands-free activation of the welding process.

Foot Pedal Control

Precise Welding



A detailed view of the two spot weld pens, highlighting their design for good conductivity and low contact resistance, with easily replaceable tips for soldering and desoldering.

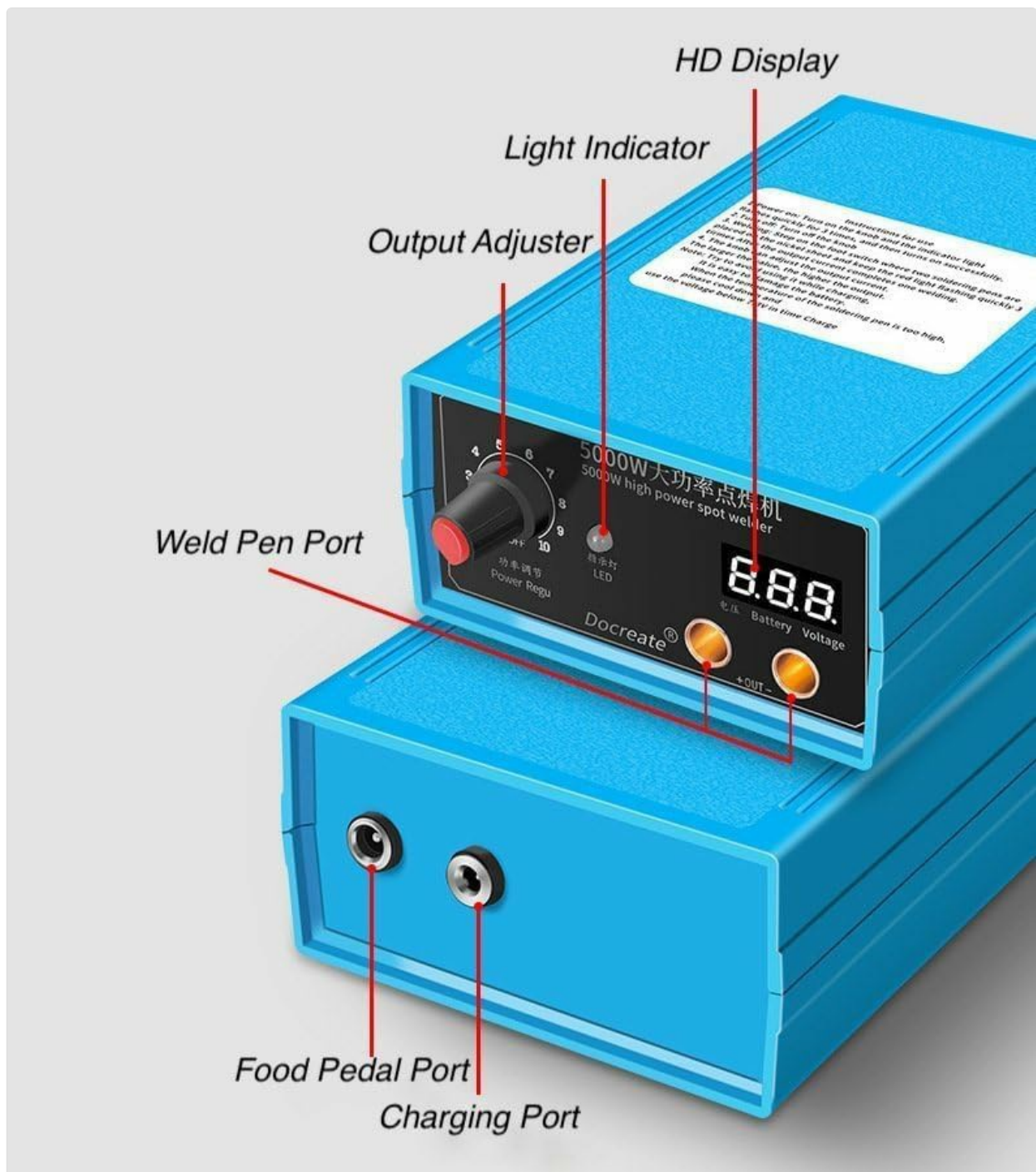
6. OPERATING INSTRUCTIONS

6.1 Power On/Off

To power on the device, turn the output adjuster knob clockwise. To power off, turn the knob counter-clockwise until it clicks.

6.2 Adjusting Welding Gear

1. The spot welder features 10 adjustable gear settings for output current. Turn the output adjuster knob to select the desired gear.
2. Start with a lower gear (e.g., 3-5) and perform test welds on similar material to determine the optimal setting for your specific task. Higher gears provide more power.



This image focuses on the adjustable current output knob, allowing users to select from 10 different gear settings to match the welding requirements for various materials and thicknesses.

6.3 Welding Process

1. **Preparation:** Ensure the nickel strip and battery terminals are clean. Use the provided sandpaper to lightly abrade surfaces if necessary for better contact.
2. **Placement:** Place the nickel strip firmly against the battery terminal where you intend to weld.
3. **Position Weld Pens:** Position the tips of the two spot weld pens onto the nickel strip, ensuring they are parallel and making good contact with the strip and the battery terminal underneath. Apply light, even pressure.
4. **Activate Weld:** Press the foot pedal to initiate the weld. The welder will automatically discharge, creating a spot weld. Release the foot pedal once the weld is complete.
5. **Inspect Weld:** Check the quality of the weld. A good weld will be strong and secure. Adjust the gear setting if the weld is too weak or too strong.

Spot Weld Pens

*Capable of soldering & desoldering
Easy to replace the tip*



This image demonstrates the spot welder's capability to weld 0.1-0.15mm thick nickel strips onto various battery types, including 18650, 26650, and 32650 cells, forming battery packs.



This image illustrates the use of the included foot pedal, which allows for precise control over the welding process, ensuring accurate and consistent spot welds.

Note: The welding thickness supported is 0.1-0.15mm. This welder is suitable for 18650, 26650, 32650 battery packs, iron, and stainless steel sheets. It is **not** suitable for welding copper or aluminum.

7. MAINTENANCE

7.1 Weld Pen Care

- Regularly inspect the tips of the weld pens for wear or oxidation. Clean them with fine sandpaper if necessary to maintain good conductivity.
- The weld pen tips are replaceable. If they become excessively worn, unscrew the old tips and replace them with new ones.

7.2 Battery Care

- Always charge the device when the battery voltage drops below 7.3V, as indicated on the HD digital display.
- For long-term storage, charge the battery to approximately 50-70% and store the unit in a cool, dry place. Avoid fully discharging the battery for extended periods.

7.3 General Cleaning

- Wipe the exterior of the unit with a dry, soft cloth. Do not use abrasive cleaners or solvents.
- Ensure no metal dust or debris accumulates around the ports or ventilation areas.

8. TROUBLESHOOTING

Problem	Possible Cause	Solution
Welder does not power on.	Battery is discharged; Power knob not fully turned.	Charge the battery; Ensure the output adjuster knob is turned clockwise past the 'off' position.
Weak or inconsistent welds.	Low battery charge; Incorrect gear setting; Dirty weld pen tips or materials; Insufficient pressure on weld pens.	Charge the battery; Increase the gear setting; Clean weld pen tips and materials; Apply firm, even pressure on weld pens.
Weld pens get too hot quickly.	Continuous welding without cooling; High gear setting for prolonged periods.	Allow weld pens to cool between welding sessions; Consider reducing the gear setting if appropriate for the material.
No weld when foot pedal is pressed.	Foot pedal not connected properly; Weld pens not making good contact; Device not powered on.	Check foot pedal connection; Ensure weld pens are firmly pressed against the nickel strip and battery; Power on the device.
Display shows low voltage warning.	Battery charge is low.	Connect the power adapter and charge the device until the voltage is above 7.3V.

If you encounter issues not listed here or if troubleshooting steps do not resolve the problem, please contact VQP customer support for assistance.

9. SPECIFICATIONS

Feature	Specification
Power Output	5000W
Battery Capacity	4000mAh/60C Lithium Ion
Charging Voltage	8.4V/500mA
Power Source	AC 100-240V 50/60Hz (Adapter)
Welding Thickness	0.1-0.15mm
Adjustable Gears	10 Gears

Feature	Specification
Screen Display	0.28 Inch Digital Tube
Working Temperature	10°C ~ 65°C
Body Material	ABS
Dimensions (L x W x H)	165 x 98 x 60mm (6.5 x 3.86 x 2.36in)
Item Weight	1.83 pounds
Model Number	BSW380

10. WARRANTY AND SUPPORT

This product is covered by a standard manufacturer's warranty. For specific warranty terms and conditions, please refer to the documentation provided with your purchase or contact VQP customer support directly. If you require technical assistance, have questions about operation, or need to report a defect, please reach out to our support team through the contact information provided on the product packaging or the official VQP website.
