

Contact Information

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BATTERY SPOT WELDER

USS-BSW00006

User Manual



Thank you for choosing U.S. Solid battery spot welder.

Please check the product to make sure it is not damaged in transit before use. For questions, please contact us at service@ussolid.com or 1-800-243-5428(Monday -Friday: 9 am - 5 pm EST) for help.

For optimal user experience, please read the user manual carefully and keep it for future reference.

Product Introduction

The newly designed U.S. Solid battery spot welder is equipped with two super capacitors for energy storage and power supply for pulse welding. Compared to a traditional AC spot welder, it does not interfere with the electric circuit, which means no more tripping problems. The machine's super energy-gathered pulse technology combines with a max welding power of 12 KW to provide a reliable welding effect.

The welder's small size and light weight make it more portable compared to a bulky traditional spot welder. The aluminum alloy housing also provides a more powerful and reliable machine.

Equipped with the 73B intelligent spot welding pen/73S handle-push welding arm and 'AT/MT' two welding modes, this machine allows you to work easily and efficiently. The low power consumption technology enables you to use the machine efficiently for 12 hours with no heating problems.



The actual pulse time(welding power) grade, capacitor voltage and welding current are displayed on the LED screen. And you can set the welding power grade at '0-99t' level conveniently via two adjusting buttons. 0.4mm nickel plated and 0.35mm pure nickel can be easily welded with the 238 J max energy.

Usage Scenario

Widely used in battery pack building&maintenance and common metal welding.

1. Fast welding&maintenance of lithium iron phosphate battery packs or ternary lithium battery packs for electric bicycle, hoverboard, swing car, electric tool, home appliance, etc.
2. Fast welding of Ni-MH battery(nickel metal hydride battery).
3. Fast welding&maintenance of small battery packs for mobile power supply, flashlight, etc.
4. Fast welding of polymer batteries for model airplane, bluetooth earphone, cellphone, laptop, automobile data recorder, bluetooth tire pressure monitor, etc.
5. Fast welding of circuit board, battery connect strip(nickel/nickel plated), electronic components, hardware parts, lead wires, etc.
6. Suitable for nickel, stainless steel, iron, brass, titanium, molybdenum, etc.

Product Parameters

- Model: USS-BSW00006
- Power Adapter Input: AC 100-240 V 50/60 Hz
- Power Adapter Output: 15 V 2-3 A

- Machine Input: DC 15 V 2-3 A
- Machine Charging Time: 10-20 minutes
- Output Welding Voltage: 5-6 V
- Output Welding Current: 500-2000 A(pulse)
- Maximum Welding Power: 12 KW
- Maximum Welding Energy: 238 J
- Pulse Time: 0.2-20 ms
- Pulse Time(Welding Power) Adjustment Range: 0-99t
- Welding mode: AT/MT
- Pulse delayed time: 20-50ms
- Welding Thickness of Nickel Plated: 0.05-0.4 mm
- Welding Thickness of Pure Nickel: 0.05-0.35 mm
- Product Size: 6.5x16.2x12.85 cm/2.6x6.4x5.1 inches
- Product Weight: 2.1 kg/4.6 lbs
- Package Size: 22.5x19x17 cm/8.9x7.5x6.7 inches
- Package Weight: 3.5 kg/7.6 lbs

Packing List

- Main machine x 1
- Power adapter x 1
- 73B intelligent welding pen x 1
- 73S handle-push welding arm x 1
- Replacing welding pins for 73B x 1pair
- Replacing welding pins for 73S x 2 pairs
- Foot pedal switch x 1
- Six-cells battery clamp x 1
- Nickel strips x 100pcs



How to Use

- I. Plug the power adapter into the 'power interface' on the side of the machine.
- II. Plug the power adapter into a 100-240V AC power supply to charge the welder.
- III. Press the 'PWR/SET' button to turn on the machine. The top half of the LED screen will display the 'CH-' signal and the actual capacitor voltage alternately and intermittently. When the capacitor voltage is up to 5.4-5.8V, charging is completed and you can start welding.
- IV. Install the 73B welding pen or 73S welding arm according to specific welding requirements, ensuring the connection is tight and secure.
- V. Press the 'PWR/SET' button first time to select the 'tens place' of the power grade number(the 'place' will blink once selected), you can adjust it between '0-9' via 'UP/DOWN' two buttons. Press the 'PWR/SET' button second time to select the 'ones place' of the power grade number, in the same way, you can adjust it between '0-9' via 'UP/DOWN' buttons. Press the 'PWR/SET' button third time to select the 'AT/ MT' two welding modes, you can switch the mode via 'UP/ DOWN' buttons. Press the 'PWR/SET' button finally to save all settings and quit the adjustment.
- VI. When welding work is finished, press the 'PWR/SET' button for 2 seconds to shut down the machine and unplug it.

Usage Diagram



Plug the power adapter into the 'power interface' on the side of the machine.



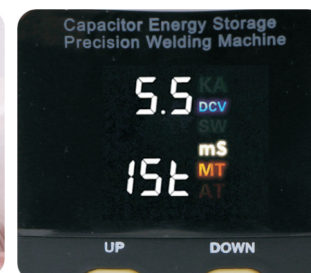
Plug the power adapter into a 100-240V AC power supply and charge the welder.



Press the 'PWR/SET' button to turn on the machine. The top half of the LED screen will display the 'CH-' signal and the actual capacitor voltage alternately and intermittently. Machine is in charging state.



Install the 73B or 73S according to specific requirements.



When 'CH-' signal disappears and actual capacitor voltage is up to 5.4-5.8V, welding work can be started.



Press the 'PWR/SET' button first time to select the 'tens place' of the power grade number(the 'place' will blink once selected), you can adjust it between '0-9' via 'UP/ DOWN' two buttons.



Press the 'PWR/SET' button second time to select the 'ones place' of the power grade number, in the same way, you can adjust it between '0-9' via 'UP/DOWN' buttons.

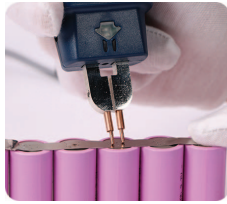


Press the 'PWR/SET' button third time to select the 'AT/ MT' two welding modes, you can switch the mode via 'UP/DOWN' buttons. Press the 'PWR/SET' button finally to save all settings and quit the adjustment.



When welding work is finished, press the 'PWR/SET' button for 2 seconds to shut down the machine and unplug it.

'AT' Mode - Automatic Welding Mode

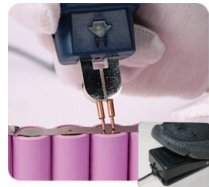


1. Select the 'AT' welding mode

2. Press welding pins on the welding pieces with a certain pressure, welding pulse is released automatically after about 20ms

3. Welding work is finished

'MT' Mode - Foot Pedal Switch Controlling Mode



1. Select the 'MT' welding mode

2. Plug in the foot pedal switch

3. Press welding pins on the welding pieces with a certain pressure, step the foot pedal switch, welding pulse is released instantly

4. Welding work is finished

Tips:

- The 73B/73S are both compatible with 'AT/MT' modes.
- 'MT' welding mode is recommended for new users of this battery spot welder, after getting familiar with the welding operation (such as welding power setting and welding pressure adjustment), you can switch to 'AT' welding mode to finish welding work quickly and efficiently.

Installation of Machine Base



The machine's should be inserted Into the base Vertically.

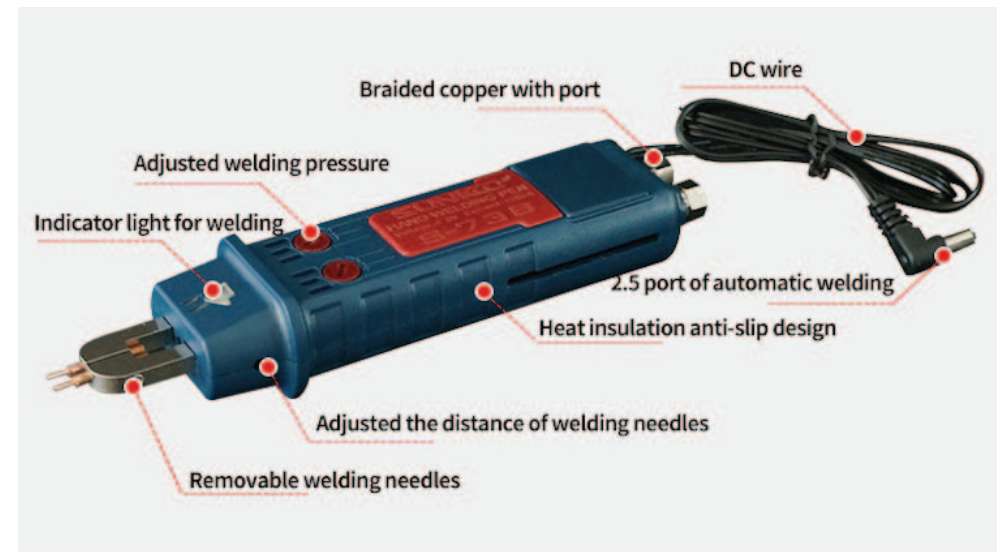


Machine with 73B positioned in the base.

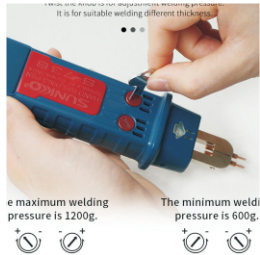


The machine base helps to prevent movement during welding work.

73B Intelligent Welding Pen Diagram



73B Product Features



Welding pressure can be adjusted by rotating the knob. The adjustment Range is 600-1200g.



Spot welding indicator light

Replacement of 73B's Welding Pins



1. Unscrew the head



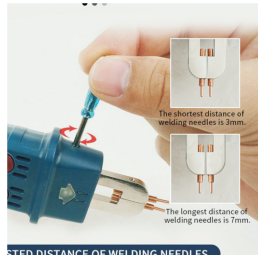
2. Take down used pins



3. Replace new pins.



4. Screw the head



Distance of two welding pins can be easily adjusted by turning the screws. The adjustment range is 3-7mm.



Push-down welding function - Plug the wire to the 'Power Supply Interface' of machine, set the welding mode to 'MT' welding mode. Push down the welding pen to trigger the output pulse.



The level of two welding pins can also be adjusted easily by turning the screws.



16/25 square two types copper wires can be selected. The default type is 16 square copper wire.

73S Handle-push Welding Arm



- Welding Pressure Adjustment
- Handle-push Downward Welding
- Easy Operation
- ✓ Reliable Welding Effects
- ✓ Improve the Welding Efficiency



Installation of 73S Welding Arm



1. Install the handle



2. Unscrew the lid



3. Take down the lid



4. Tighten the retaining screws



5. Recover the lid

Replacement of 73S' Welding Pins



1. Unscrew the welding head



2. Take down the welding pins



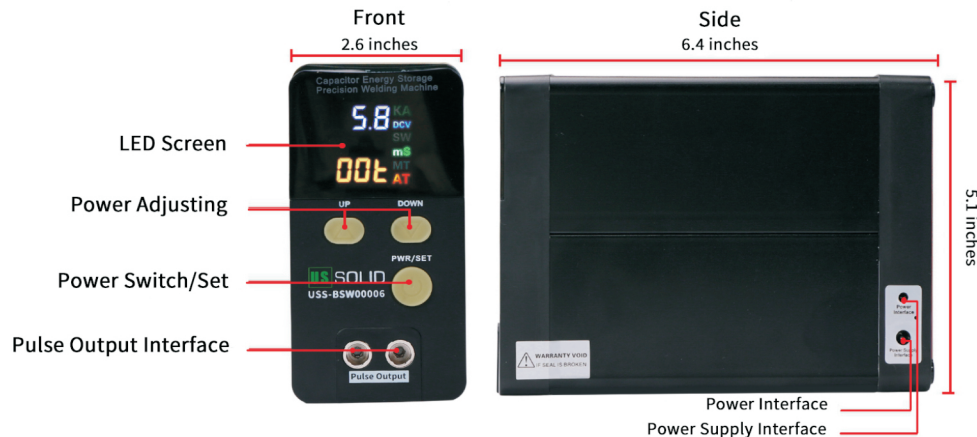
3. Replace the new welding pins



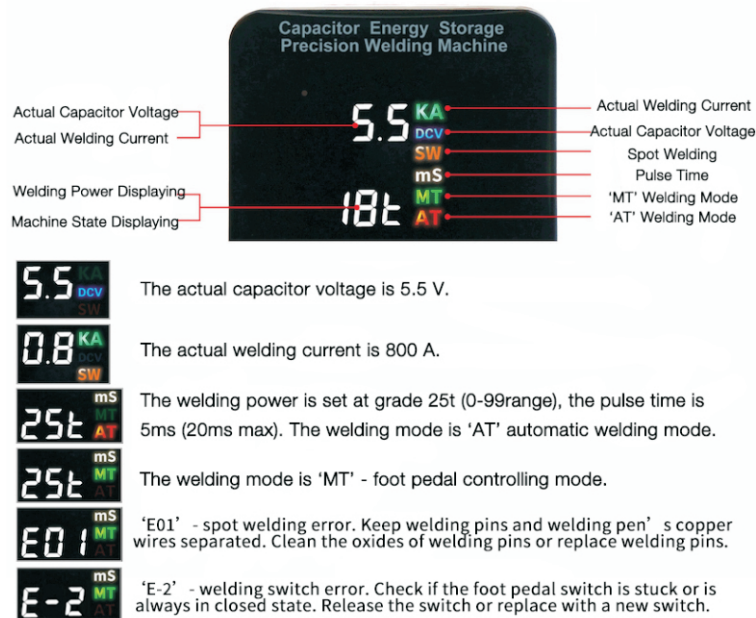
4. Screw the welding head

Tips: Regular replacements of welding pins are needed for optimal welding effects.

Product Diagram



Panel Diagram



Notice

- Do not use the product in inflammable, explosive or wet environments.
- When not using the machine for a long time, please disconnect the power, and place the machine in an upside-down position. Red lights will be on in the 'power interface' position, which means the machine is discharging automatically.
- For safe transport, the machine has been discharged to the lowest voltage before leaving the factory. Prior to the first use, please charge the machine for 10-20 minutes, when voltage is up to 5.4-5.8 V, welding work can be started.
- The machine needs to be kept plugged in for welding work.
- Only charge the machine with the original power adapter, otherwise the machine may not be charged or may break.
- It is normal for some sparks to occur during welding work, so please wear goggles and keep a safe distance.
- Clean the oxides on the electrode pins of welding pen regularly or replace the pins. This ensures good electric conductivity and welding effect.
- Keep welding pieces clean (no oil stain, oxides, etc.) to avoid bad welding effects.
- Do not take part and modify the machine. Doing so may cause a short circuit and fire danger.
- Keep out of reach of children.

One Year Limited Warranty

U.S. Solid warrants your battery spot welder to be free from defects in materials or workmanship under normal use and service for one year from the date of original purchase. All defective devices under normal use will be repaired or replaced for free. All parts, except for consumable welding pins, will be covered under this warranty. This warranty shall not apply to any U.S. Solid battery spot welder that :

- is defective due to misuse, neglect or accident.
- is used for a purpose that the device is not designed for.
- has been repaired or altered in a way that adversely affect its performance and reliability.
- is serviced by unauthorized parties.
- is intended for commercial or professional use.

This warranty is only applicable to the original purchaser. U.S. SOLID would not assume or authorize any person to assume any other liability in connection with its product. No responsibility is assumed for any consequential damages that may result from the use of a U.S. SOLID product, nor for damages due to accident, abuse, lack of care, affixing of unauthorized attachment, loss of parts or subjecting this unit to any but the specified voltage.

If your product is broken and meets the warranty requirements, please email us to service@ussolid.com with the original receipt showing the purchase date and the description of the problem for customer service. Please note should any return or replacement be incurred, transportation and packing costs are the responsibility of the consumer. This warranty gives you specific legal rights, you may have other rights that may vary from state to state.

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