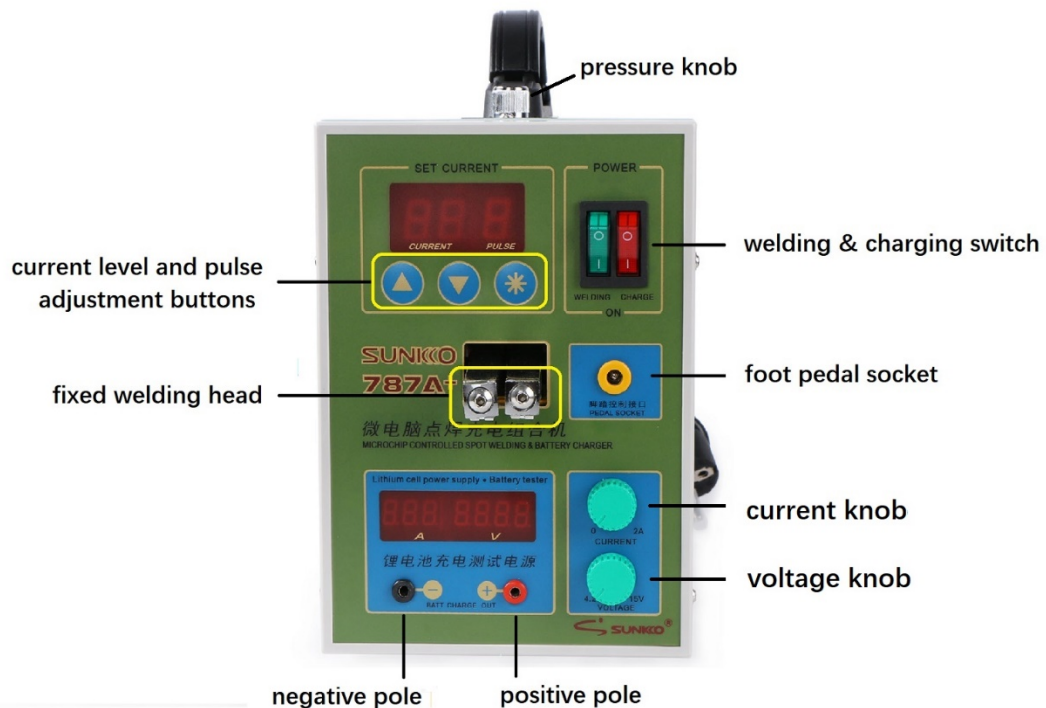




787A+

Battery Spot Welder with Lithium-ion Battery Pack Charging Function

Thank you for choosing Sunkko 787A+ battery spot welder, let's now make the building of Lithium battery pack more convenient and efficient.



Summary

787A+ is one of the most cost-effective model in sunkko products. It is specifically designed for battery welding (18650, 14500 battery, etc) and can be used to weld nickel strips with thickness between 0.05 and 0.15 mm for nickel plated steel or between 0.05 and 0.1 mm for pure nickel strip. With the built-in LED light, you can even work at night.

We understand that after the pack is done, the next step would be charging, which is why 787A+ is equipped with a fast charging port whose voltage and current are adjustable for your convenience.

◆ **Now let's talk about the welding part.**

1. The 787A+ welder can weld nickel strip with thickness under 0.15mm for nickel plated steel, or 0.05 - 0.1 mm for pure nickel strip.
2. Two ways of welding: fixed welding head; fixed welding head with foot pedal.
You can build your battery pack with the fixed welding head, in this case, you need to adjust the pressure adjustor to make the spots more reliable and elegant.
Different users may have different welding habits, so we added a foot pedal to 788H. Coordinating hands and feet at the same time will also make the long-term spot welding process not so tiring, plus the use of foot pedal during battery welding improves the precision of spot welding.

In general, there are three methods to improve the output power of spot welding: adjusting welding current, adjusting pulse quantity and adjusting power. You may need to play with them a bit to get the best combination for your specific use.

(Attention: This spot welder can be used to weld pure nickel, nickel plated steel, nickel plated iron, iron and other alloys. It CANNOT weld metal like copper and aluminum.)

Specification for the welding part:

Input voltage: AC 220 V \pm 10%

Welding current: 50 ~ 500 A

Single pulse time: 5 ms

Max. pulse quantity: 2

Welding thickness for nickel plated steel: 0.05 ~ 0.15 mm

Welding thickness for pure nickel: 0.05 ~ 0.1 mm

Preparation steps before welding:

1. Put on gloves and mask during your battery pack welding process to protect yourself.
2. Fit the fixed welding head with copper welding rods before the machine powers on.
3. Turn on the welding power switch.
4. Adjust the pulse quantity, welding current level and power level to make the spots more reliable and elegant.

How is the pressure knob works?

The pressure knob regulates the pressure between copper welding rods and nickel strip. Generally speaking, the thinner the nickel strip, the smaller the pressure.

◆ Battery charging part:

Specification:

Voltage output: 4.2 ~ 15 V

Current output: 0 ~ 2 A (Max)

Precision of constant current: $\pm 2.5\%$

Voltage stability: $\pm 1.5\%$

Charging mode: in this mode, you can charge your lithium-ion battery pack whose voltage is between 4.2 and 15 volts, and the charging current can be adjusted from 0 ~2 A.

When you plug in the charging cables and connect them to your battery pack, the LCD voltage display will show the battery pack's current voltage. Once the displayed voltage gets close to the rated voltage of the battery and the current decreases to the finishing rate, your charging process is done.

Things you need to know before charging your battery or battery pack:

✧ For battery or battery pack without BMS

- ✓ If you want to fully charge a battery or battery pack, you need to adjust the charging voltage based on the maximum charging voltage. For example, if you need to charge a 3.6 volts (nominal voltage) lithium battery whose maximum voltage is 4.2 volts, you should set the charging voltage to 4.2 volts. Only in this way can the battery be fully charged.

(787A+ can fully charge a battery pack with a nominal voltage of up to 12 volts, assuming this battery pack does not have a BMS.)

- ✓ In most instances, users should adjust the charging current according to the specific battery pack, the relationship between charging current and battery pack's capacity is generally 1 amperes per 2 Ah of rated capacity and it cannot exceed 1 ampere per Ah of rated capacity. For example, if the capacity of your battery pack is 2000 mAh, we should set the charging current between 1~2 A, and in general, we set the charging current to 1 A.

✧ For battery, battery pack or power bank equipped with BMS

- ✓ Users should adjust the charging voltage and current to match the standard of BMS. Otherwise the BMS and battery packs may be damaged.

- ✧ **Do NOT charge a battery pack if you do not know its capacity.**

◆ Packing List:

787A+ main machine: 1 pc

Copper welding rods: 2 pairs
18650 Battery fixture: 1 pc
Charging cables: 1 pair
Foot Pedal: 1 pc
20A Fuse: 2 pcs
Hexagon wrench: 1 pc
0.15 x 8 x 100 mm (nickel plated) 50 pcs
0.1 x 4 x 100 mm (nickel plated) 50 pcs
Manual: 1pc

◆ Notice

1. When building battery pack with Sunkko welders, if the home circuit system keeps tripping, please replace your Circuit Air Breaker. For 220V version machine, the Circuit Air Breaker in your circuit system should be higher than 30 A.
2. Please put on gloves and mask during your battery pack welding process to protect yourself.
3. Unplug the welder when you are not using the welder.
4. During your welding process, the instantaneous large current generated by the welder may cause the lighting equipment under the same power system flash and it is considered normal.
5. Do not short circuits during spot welding or charging.
6. Do not use Sunkko welders with a voltage transformer as Sunkko welders are not compatible with the common voltage transformers in the market.
7. Continuously spot weld too fast will speed up the loss of internal components of the spot welder. We recommend that the time between each spot welding should be 3 seconds or longer.

[Warranty!](#)

If you still have questions on sunkko products, please go to the [blog](#) category on <https://www.sunkko.net/> or email service@sunkko.net. We are happy to assist you.