



Model: 737G+

Thank you for choosing Sunkko 737G+ battery spot welder, let's now make the building of Lithium battery pack for our projects more convenient and efficient.



Manual

Summary

737G+ is a big improvement on the basis of 737G. It is specifically designed for battery welding (18650, 14500 and any other lithium batteries, etc) and can be used to weld nickel strips with thickness between 0.05 and 0.35 mm for nickel plated steel or between 0.05 and 0.25 mm for pure nickel strip.



(**Attention:** When the foot pedal is plugged in, it's in MT mode, otherwise, it's in AT mode.)

There are three ways of welding:

- **Fixed welding head with foot pedal:** You can build your battery pack with the fixed welding head and foot pedal. Coordinating hands and feet at the same time will make the long-term welding process not so tiring, plus the use of foot pedal during battery welding improves the precision of spot welding. In this welding mode, you need to adjust the pressure adjustor to make the spots more reliable and elegant.

Welding range: 0.15~0.35mm for nickel plated steel, 0.12~0.25mm for pure nickel strip;

Preparation steps:

1. Fit the fixed welding head with copper welding rods before the machine powers on.
2. Plug in foot pedal.
3. Turn on the main power button, and then the welding power switch.
4. Adjust the pulse quantity and welding current level to make the spots more reliable and elegant.
5. Weld your batteries with fixed welding head along with the foot pedal.

- **Mobile welding pen with foot pedal(MT):** The mobile welding pen effectively extends your welding area, and this design is popular among electric hobbyist, because they can build large lithium battery packs for their e-bikes or other projects.

Welding range: 0.05~0.2mm for nickel plated steel, 0.05~0.15mm for pure nickel strip;

Preparation steps:

1. Insert mobile welding pen.(In this case, do not fit welding head with copper welding rods.)
2. Plug in foot pedal.
3. Turn on the main power button, and then the welding power switch.
4. Weld your batteries with mobile welding pen along with the foot pedal.

- **Mobile welding pen without foot pedal(AT):** In this mode, you need to unplug the foot pedal first. Once the welding pen attaches nickel strip, the welding pen will release the energy and weld automatically, you just need to give a little pressure to the pen just like you are writing.

Welding range: 0.05~0.2mm for nickel plated steel, 0.05~0.15mm for pure nickel strip;

Preparation steps:

1. Insert mobile welding pen. (In this case, do not fit welding head with copper welding rods.)
2. Turn on the main power switch, and then turn on the welding power button.
3. Adjust the pulse quantity and welding current level to make the spots more reliable and elegant.
4. Weld your batteries with mobile welding pen.

(Attention: In all the steps mentioned above, please make sure that the copper welding rods of the fixed head and the welding pins of the mobile welding pen are not in contact with each other to avoid short circuit. When users need to adjust the distance between welding pins on mobile welding pen or distance between copper welding rods of fixed head, please turn off the welder first, do not adjust the distance when the welder is on.)

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

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. A proper pressure between nickel strip and welding rods can also make the spots more elegant.

(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 welding part:

Input voltage: AC 110 V/220 V \pm 10%

Welding current: 120 ~ 1200 A

Single pulse time: 5ms

Max. pulse quantity: 18

Max. power output: 4.3 KW (instantaneous)

Fixed welding part:

Welding thickness for nickel plated steel: 0.15 ~ 0.35 mm

Welding thickness for pure nickel: 0.12 ~ 0.25 mm

Mobile welding part:

Welding thickness for nickel plated steel: 0.05 ~ 0.2 mm

Welding thickness for pure nickel: 0.05 ~ 0.15 mm

Specification for mobile welding pen:

Welding needle distance (adjustable): 2 - 7 mm

Total length: approx. 22.8"

Cable cross sectional area: 16mm²

Dimension of welding pins: 1.5x7mm

Others

Product dimension: 14x25x20cm

Item weight: 7kg

◆ Packing List:

737G+ main machine: 1 pc

S70BN mobile welding pen: 1pc

Copper welding rods: 2 pairs

Mini grinder with USB cable: 1pc

Copper welding pins for mobile pen: 1 pair

Battery fixture: 1 pc

Foot Pedal: 1 pc

Fuse: 2 pcs

Hexagon wrench: 1 pc

0.15 x 8 x 100 mm (nickel plated steel) 50 pcs

0.1 x 4 x 100 mm (nickel plated steel) 50 pcs

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◆ Notice

1. When building battery pack with Sunkko welders, if the home circuit system keeps tripping, please replace your Circuit Air Breaker. For 110V version machine, the Circuit Air Breaker in your circuit system should be higher than 40 A. 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 (Sparks may occur during welding process).
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 information](#)

1. What is covered?

This limited warranty covers defects in main machine.

2. What is not covered?

- ✓ The warranty does not cover any damage caused by the owner modifying, attempting to fix, or otherwise altering the machine.
- ✓ The consumable accessories are not in coverage, such as welding pen, cooper rods and nickel strips.

3. How long does this coverage last?

The warranty lasts one year since the date of original purchase of the product.

4. Who is covered?

This limited warranty covers only the original purchaser of the product on sunkko.net. If you need warranty service, please contact us at service@sunkko.net directly and provide us your order ID.

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.