

AWithZ UKF10

AWithZ UKF10 Super Capacitor Spot Welder Instruction Manual

Model: UKF10

1. SAFETY INFORMATION

Please read all safety instructions carefully before operating the AWithZ UKF10 Super Capacitor Spot Welder. Failure to follow these instructions may result in electric shock, fire, or serious injury.

- **Eye Protection:** Always wear appropriate eye protection (safety glasses or goggles) to shield against sparks and molten metal during welding operations.
- **Ventilation:** Ensure adequate ventilation in your workspace to disperse fumes and gases produced during welding.
- **Electrical Safety:** Do not operate the welder in wet conditions. Keep the unit and all accessories dry. Avoid touching live electrical parts.
- **Material Compatibility:** Only weld materials specified in this manual. Do not attempt to weld copper, gold, silver, aluminum, or jewelry, as this unit is not designed for these materials.
- **Battery Safety:** The unit features **Dynamic Balance Protection** for enhanced battery safety and **Intelligent Stop-Charging** to prevent overcharging. However, always handle batteries with care and avoid short-circuiting.
- **Children and Pets:** Keep the spot welder and all accessories out of reach of children and pets.

Easily repair electronics.

Supports soldering:
Pure nickel 0.2mm, nickel-plated 0.35mm.

Spot welds:
Electric vehicle batteries,
power tool batteries, cylindrical batteries.

Various button batteries, mobile phone lithium batteries,
cylindrical batteries, such as 14500 \ 18650 \ 21700 \ 32650, etc



Various electric hardware tools,
battery maintenance and assembly



Note: Cannot spot weld:
Copper, gold, silver, jewelry.



Figure 1: Smart Safety & Protection features of the UKF10, highlighting its super capacitors, dynamic balance protection, and auto charge-stop functionality.



Figure 2: The UKF10 utilizes Super Farad Capacitors, designed for over 500,000 charge/discharge cycles, ensuring superior longevity.

2. PRODUCT OVERVIEW AND COMPONENTS

The AWithZ UKF10 is a professional super capacitor spot welder designed for battery pack assembly and repair. It offers powerful and versatile welding performance with advanced safety features.

2.1 Package Contents

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

- AWithZ UKF10 Spot Welder Unit
- Welding Pens (WP120-6 + WP110-6)

- Replacement Electrode Tips (x2)
- Foot Pedal Switch
- USB-C Charging Cable
- Nickel Strip Roll
- Sandpaper
- User Manual



Figure 3: The AWithZ UKF10 Spot Welder and its complete set of included accessories.

Everything Included. Ready to Use Out of the Box.



Warm tips:

For Pure Nickel: Use special flux for best results.
Not for welding: Copper, Gold, Silver, Aluminum, Jewelry

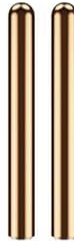
Farah Spot welder x1



Welding pens x2 (WP120-6 + WP110-6)



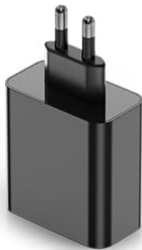
Replacement needles x2



Foot pedal x1



EU Power Plug x1



C-C Power Cables x1



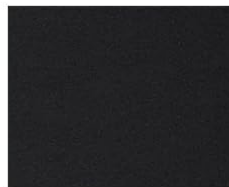
A-C Power Cables x1



Nickel-plate sheet x1



Sandpaper x1



Multilingual instruction manual x1



Figure 4: All items included in the UKF10 package, ready for immediate use.

2.2 Unit Features

- **Multi-Function Control Knob:** For adjusting settings and navigating the menu.
- **Color Display:** Provides clear visual feedback on current settings, mode, and battery status.
- **Welding Pen Ports:** Connect the welding pens securely.
- **Foot Pedal Port:** For connecting the external foot pedal for precise control.
- **Charging Port:** USB-C for convenient charging.
- **Non-Slip Base:** Ensures stability during operation.

Multi-Dimensional Precision Control Fine-Tune Every Weld



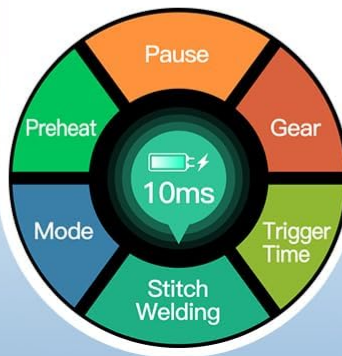
01

Color Display



02

Settings: Multi-Tap Preheat / Trigger / Interval



03

Multi-Language UI



Figure 5: Multi-Dimensional Precision Control interface, detailing the control knob, color display, and connection ports.

3. SETUP

Follow these steps to prepare your AWithZ UKF10 spot welder for use:

1. **Charge the Unit:** Connect the provided USB-C charging cable to the charging port on the unit and to a suitable USB power adapter (not included). The display will indicate charging status. Ensure the unit is fully charged before first use for optimal performance.
2. **Connect Welding Pens:** Insert the connectors of the welding pens firmly into the designated

welding pen ports on the top of the unit. Ensure a secure connection.

3. **Connect Foot Pedal (Optional):** If using the foot pedal mode, plug the foot pedal cable into the foot pedal port on the front of the unit.
4. **Prepare Electrodes:** Ensure the electrode tips are clean and sharp. Use the included sandpaper to gently clean the tips if necessary. Replace worn tips with the spare ones provided.
5. **Power On:** Long-press the multi-function control knob to power on the unit. The color display will illuminate.

4. OPERATION

The AWithZ UKF10 offers three distinct welding modes and adjustable settings for precise control.

4.1 Welding Modes

Rotate the multi-function knob to navigate to the 'Mode' setting and press to select. Rotate again to choose your desired mode:

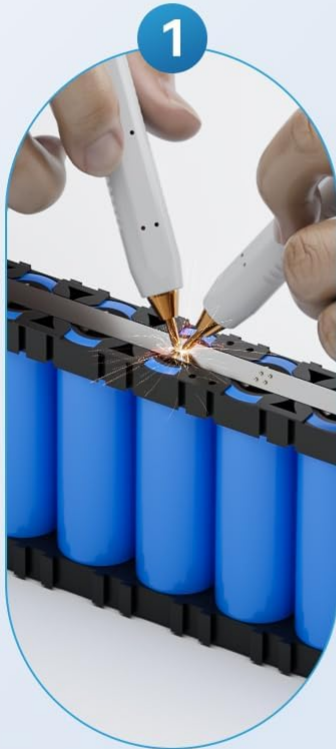
- **Automatic Mode:** The welder automatically triggers a weld when both electrode tips make contact with the material. Ideal for quick, repetitive tasks.
- **Smart Pen Mode:** Utilizes the button on the smart welding pen to manually trigger a weld. Provides precise control for delicate repairs.
- **Foot Pedal Mode:** The weld is triggered by pressing the external foot pedal. This mode allows for optimal positioning of the welding pens before initiating the weld, suitable for high-efficiency batch assembly.

3 Spot Welding Modes

All in one, from precision repair to mass assembly

Auto Mode:

Simple operation.
Perfect for
beginners & fast jobs



Smart Pen Mode:

Precision control.
Ideal for
delicate repairs



Foot Pedal Mode:

Focus on positioning,
suitable for
high-efficiency batch assembly



Model: AWithZ UKF10

Fully meet professional needs in all aspects



Figure 6: The three available spot welding modes: Automatic, Smart Pen, and Foot Pedal, catering to various user preferences and tasks.

4.2 Adjusting Settings

Use the multi-function knob to adjust the following parameters:

- **Gear (Power Level):** Adjusts the welding power from 1 to 100. Higher numbers indicate more power. Start with lower settings and gradually increase to find the optimal power for your material thickness.
- **Cont Welds (Continuous Welds):** Sets the number of welds performed with a single trigger (1 to multiple). Useful for creating stronger bonds with multiple spot welds in quick succession.
- **Trigger (Delay Time):** In Automatic Mode, this sets the delay before a weld is triggered after contact. Adjust as needed for precise timing.



Figure 7: The color display provides clear access to settings such as Gear (power), Trigger Time, and Mode selection.

4.3 Welding Guidelines

The UKF10 is capable of welding:

- **0.2mm Pure Nickel Strips**
- **0.35mm Nickel-Plated Steel Strips**

Procedure:

1. Place the nickel strip firmly onto the battery terminal or material to be welded.
2. Position the welding pen tips onto the nickel strip, ensuring they are parallel and apply even pressure. The distance between the tips affects weld heat; closer tips generally result in hotter welds.
3. Initiate the weld according to your selected mode (Automatic, Smart Pen, or Foot Pedal).
4. Inspect the weld. A good weld should be strong and secure, without excessive scorching or weak adhesion. Adjust the 'Gear' setting as needed.

Farad Capacito Spot Welder

10.2KW Massive Power

Power Battery Welding Expert
Powerful & Stable | 0 Cell Damage



Model: AWithZ UKF10

Figure 8: The UKF10 supports welding of 0.2mm pure nickel and 0.35mm nickel-plated steel strips.

4.4 Applications

The AWithZ UKF10 is suitable for a variety of applications, including:

- Electric tool battery repair
- Home appliance battery maintenance
- Small to medium battery pack assembly
- Button cell welding
- Mobile phone battery repair

Ultimate Tool for Pro Repairs & DIY Battery Packs

Revive Old Devices | Save Money & Reduce Waste



Power Tools battery

Replace batteries in drills, angle grinders, lawn mowers



Appliances battery

Fix vacuums, fans, robot cleaners



DIY Packs

Build power banks, RC/device batteries, portable power stations



Metal splicing

Welding and assembling different metals together



Precision Work

Weld phone, laptop, or coin cell batteries

Figure 9: The UKF10 is a versatile tool for professional repairs and DIY battery pack creation across various devices.

5. MAINTENANCE

Proper maintenance ensures the longevity and optimal performance of your spot welder.

- **Electrode Tips:** Regularly inspect the welding electrode tips for wear or oxidation. Clean them with the provided sandpaper or a fine file to maintain good conductivity. Replace tips when they become too short or severely worn.
- **Unit Cleaning:** Keep the main unit clean and free from dust and debris. Use a soft, dry cloth to wipe

the exterior. Do not use abrasive cleaners or solvents.

- **Charging:** Charge the unit regularly, especially if it will be stored for an extended period, to maintain battery health.
- **Storage:** Store the spot welder in a cool, dry place, away from direct sunlight and moisture.

6. TROUBLESHOOTING

Refer to this section for common issues and their solutions.

Problem	Possible Cause	Solution
Weak or inconsistent welds	Low power setting (Gear) Dirty or worn electrode tips Insufficient pressure on welding pens Incorrect material thickness	Increase the 'Gear' setting. Clean or replace electrode tips. Apply firm, even pressure to the welding pens. Ensure material is within specified thickness (0.2mm pure nickel, 0.35mm nickel-plated steel).
No spark or weld	Unit not powered on Low battery Loose connections (pens, foot pedal) Incorrect mode selected	Long-press the knob to power on. Charge the unit. Check and secure all cable connections. Verify the correct welding mode is selected.
Excessive sparking	Power setting too high Dirty electrode tips Tips too far apart	Decrease the 'Gear' setting. Clean electrode tips. Ensure tips are positioned appropriately for the material.
Unit not charging	Faulty charging cable or adapter Loose connection	Try a different USB-C cable and power adapter. Ensure the cable is securely plugged into the unit and adapter.

7. SPECIFICATIONS

Feature	Specification
Model Number	UKF10
Manufacturer	AWithZ
Item Weight	2.55 pounds (approx. 1.16 kg)
Package Dimensions	7.52 x 5 x 4.53 inches (approx. 19.1 x 12.7 x 11.5 cm)
Power Source	Battery Powered
Batteries	2 Lithium Polymer batteries (included)
Battery Cell Type	Lithium Polymer
Welding Capability (Pure Nickel)	Up to 0.2mm thickness
Welding Capability (Ni-Plated Steel)	Up to 0.35mm thickness
Capacitor Lifespan	500,000+ charge/discharge cycles

8. WARRANTY AND SUPPORT

For warranty information, technical support, or service inquiries, please contact AWithZ customer service through your original point of purchase or visit the official AWithZ website. Please have your product model number (UKF10) and purchase details ready when contacting support.