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## Kerpu CP01

# Kerpu CP01 18650 Pocket Spot Welder Instruction Manual

Model: CP01

## 1. PRODUCT OVERVIEW

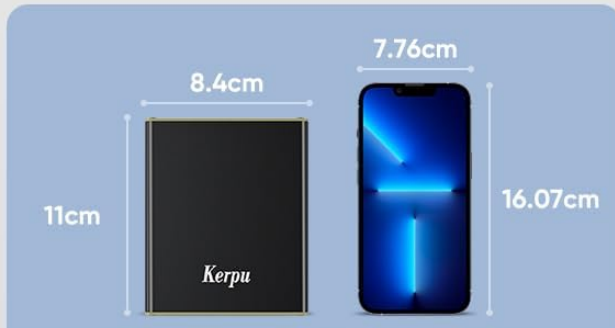
The Kerpu CP01 is a compact, portable spot welder designed for welding nickel strips to various battery types, including cylindrical lithium batteries, NI-MH batteries, and 18650 nickel-cadmium batteries. It features 11 adjustable gear settings and an automatic trigger mode for precise welding.



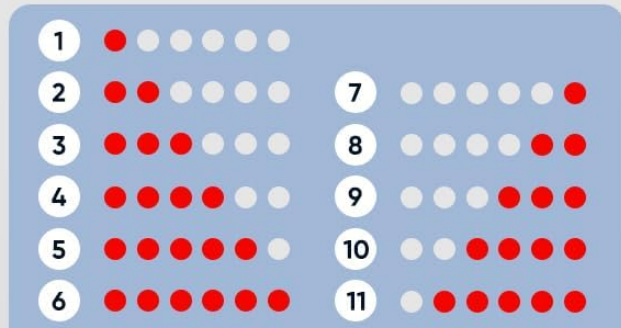
Image 1.1: Kerpu CP01 Pocket Spot Welder with welding pens, nickel strip, battery holders, metal file, and USB-C charging cable.

# Battery Spot Welder

## Kerpu CP01



**Pocket-sized spot welder**



**11 Power Gear Adjustable**



**Auto Trigger**



**5000mAh Battery**

Image 1.2: Overview of the Kerpu CP01, showing its pocket-sized dimensions, 11 power gear adjustment indicator, auto-trigger feature, and 5000mAh battery capacity.

## 2. PACKAGE CONTENTS

Verify that all items are present in your package:

- 1x Kerpu CP01 Pocket Spot Welder (5000mAh built-in battery)
- 2x Spot Welding Pens (line length 30cm + pen head 9cm)
- 1x Nickel-plated Foil (2 meters long, 0.9cm wide, 0.1mm thickness)
- 4x 18650 Battery Holders
- 1x Metal File
- 1x USB to Type-C Charging Cable (1 meter long)

# 5000mAh Mini Power Bank

Portable & compact size. support charging for your smartphone



Image 2.1: Visual representation of the Kerpu CP01 spot welder and all included accessories.

## 3. SETUP

- 1. Initial Charging:** Before first use, fully charge the spot welder using the provided USB to Type-C charging cable. Connect the Type-C end to the welder's INPUT port and the USB end to a compatible 5V/2.4A power adapter (not included). The power indicator lights will show the charging status. It is recommended to maintain the battery level at 50% or higher for optimal welding performance.
- 2. Connect Welding Pens:** Insert the two spot welding pens into the P- and P+ ports on the top of the device. Ensure they are securely connected.
- 3. Power On:** Press and hold the ON/OFF button for a few seconds to power on the device. The power indicator lights will illuminate.

Video 3.1: This video demonstrates the physical comparison of the Kerpu CP01 with another device, highlighting its compact size, and shows the connection of the welding pens and charging process.

## 4. OPERATING INSTRUCTIONS

- 1. Adjusting Gear Settings:** The Kerpu CP01 features 11 adjustable power gears. Short press the ON/OFF

button to cycle through the gear settings. The gear indicator lights (red LEDs) will show the currently selected gear. Higher gear numbers correspond to higher welding power.

## 2. Preparing for Welding:

- Ensure the nickel strip and battery terminals are clean and free of oxidation. Use the provided metal file or fine sandpaper (600-800 grit recommended) to clean the welding pen tips if they become dirty or oxidized.
- Place the nickel strip firmly onto the battery terminal.

## 3. Performing a Spot Weld:

- Hold one welding pen firmly against the nickel strip, then bring the second welding pen into contact with the nickel strip, close to the first pen.
- The device will automatically detect contact and trigger a weld. You will hear a distinct 'pop' sound and see a small spark, indicating a successful weld.
- Apply firm, consistent pressure to both welding pens during the welding process.
- Repeat the process for each desired weld point.

4. **Recommended Welding Thickness:** The CP01 is designed for welding nickel strips with a thickness of less than 0.2mm. Do not attempt to weld thicker materials as this may damage the device or result in poor welds.

# Support 11 Gears Adjustable

## Auto Trigger spot welding

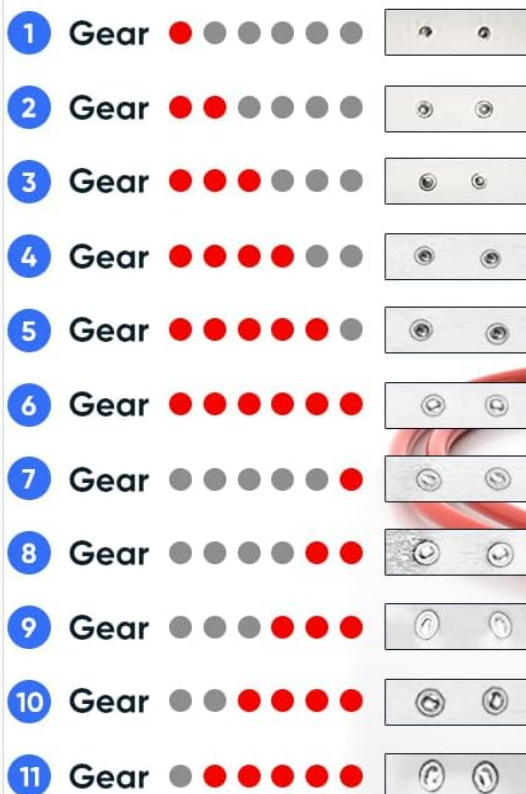
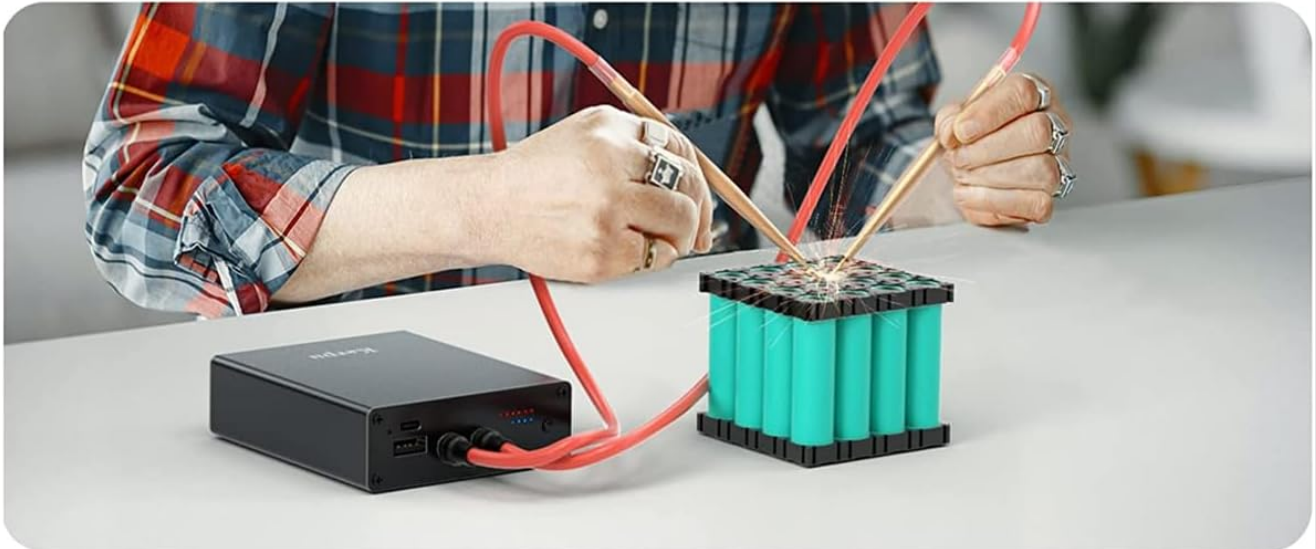


Image 4.1: Detailed view of the 11 power gear settings indicated by red LED lights on the Kerpu CP01.

# Welding of Nickel Sheets of Battery



**Cylindrical lithium**

**Cadmium nickel batteries**

**Nickel-metal hydride**

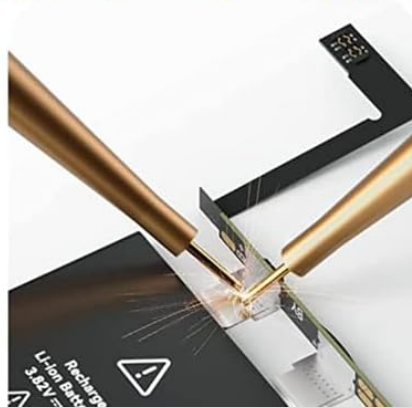


Image 4.2: The Kerpu CP01 being used to weld nickel sheets onto cylindrical batteries, demonstrating the auto-trigger spot welding function.

Video 4.3: This video showcases the Kerpu CP01 spot welder in action, demonstrating its ease of use and effectiveness for battery pack assembly.

## 5. MAINTENANCE AND SAFETY

### 5.1 Maintenance

- **Cleaning Welding Tips:** Regularly inspect and clean the copper welding tips. Use the provided metal file or fine sandpaper (600-800 grit) to remove any carbon buildup or oxidation. Clean tips ensure optimal conductivity and consistent welds.
- **Battery Care:** For best performance and longevity, store the device with approximately 50% battery charge. Avoid fully discharging the battery for extended periods.

### 5.2 Safety Features and Precautions

The Kerpu CP01 is equipped with several safety features:

- **Overcharge Protection:** Prevents damage from excessive charging.
- **Safety Temperature Control:** The device will automatically pause operation if its internal temperature exceeds 60°C to prevent battery damage and fire hazards. Allow the device to cool down before resuming use.

- **Load Detection:** Ensures proper operation and prevents accidental discharges.
- **Short Circuit Detection:** Protects against short circuits during operation.

#### General Safety Precautions:

- Always wear appropriate personal protective equipment, such as safety glasses, when operating the spot welder.
- Ensure adequate ventilation in your workspace.
- Do not attempt to weld materials thicker than 0.2mm nickel strip.
- Keep the device away from flammable materials.
- Do not disassemble or modify the device.



Image 5.1: Illustration of the temperature protection feature, indicating automatic shutdown if the device temperature exceeds 60°C.

## 6. TROUBLESHOOTING

This section addresses common issues you might encounter with your Kerpu CP01 Spot Welder.

- **Poor Welds or No Weld:**
  - Ensure welding tips are clean. Clean them with the metal file or fine sandpaper.
  - Increase the gear setting (welding power).
  - Apply more consistent pressure to the welding pens.
  - Check battery charge level; recharge if low.
  - Ensure the nickel strip is not too thick (maximum 0.1mm recommended for optimal results).
- **Device Shuts Down During Use:**
  - The device may have overheated. Allow it to cool down. This is a built-in safety feature.
  - Battery charge may be critically low. Recharge the device.
- **Power Indicator Lights Not Working:**
  - Ensure the device is powered on by pressing and holding the ON/OFF button.
  - If charging, ensure the charging cable and power adapter are functioning correctly.

If you encounter issues not covered here, please refer to the support section for contact information.

## 7. SPECIFICATIONS

<b>Model Number</b>	CP01
<b>Manufacturer</b>	Kerpu
<b>Material</b>	Aluminum Alloy
<b>Power Source</b>	Battery Powered
<b>Battery Type</b>	1x Lithium Polymer (included)
<b>Battery Capacity</b>	5000mAh (built-in)
<b>Adjustable Gears</b>	11 Gears
<b>Product Dimensions</b>	9 x 2 x 5.99 inches
<b>Item Weight</b>	0.012 ounces
<b>Included Components</b>	Spot Welder, 2x Spot Welding Pens, 2M Nickel-plated Foil, 4x Battery Holders, Metal File, 1M USB Type-C Charging Cable

## 8. WARRANTY AND SUPPORT

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### 8.1 Warranty Information

Specific warranty details are not provided in the product information. Please retain your proof of purchase for any warranty claims.

### 8.2 Customer Support

For any questions, concerns, or technical assistance regarding your Kerpu CP01 Pocket Spot Welder, please contact Kerpu customer support. Your satisfaction is important to us.

Contact information for support is typically found on the product packaging, official website, or through your retailer.