Tenergy 6543873008

Tenergy 2200mAh Sub C NiCd Battery User Manual

Model: 6543873008

1. Introduction

This manual provides essential information for the safe and effective use of your Tenergy 2200mAh Sub C NiCd rechargeable batteries. Please read this manual thoroughly before using the batteries to ensure optimal performance and longevity.

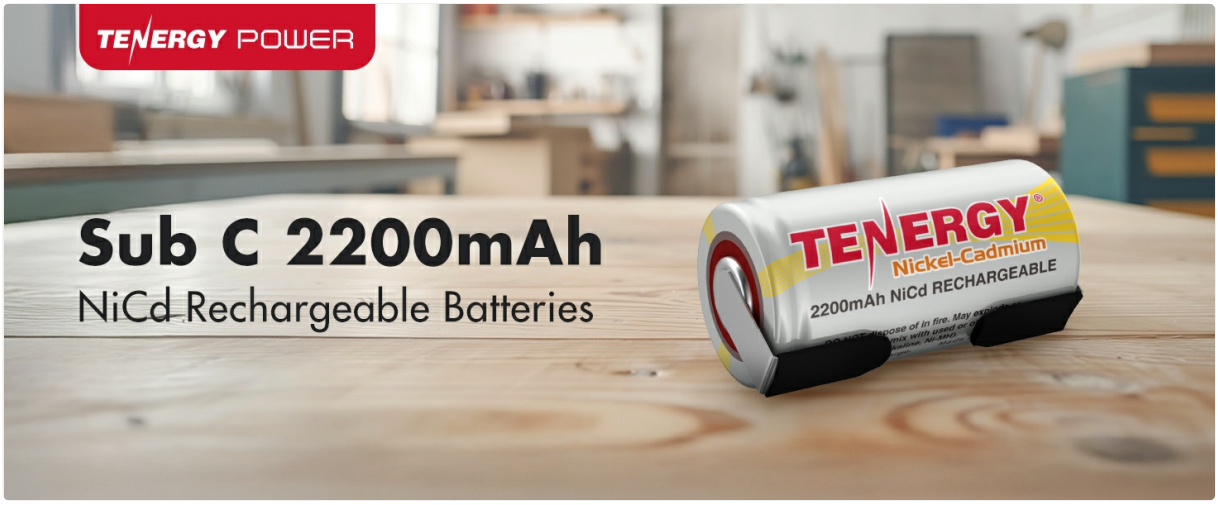

Image 1.1: Tenergy Sub C NiCd batteries are suitable for various power tools and devices.

2. Safety Information

Failure to follow these safety instructions may result in fire, electric shock, injury, or damage to the batteries or device.

- Do not dispose of batteries in fire. They may explode or leak.
- Do not mix new batteries with used batteries, or batteries of different types (e.g., NiCd with NiMH).
- Do not short-circuit the battery terminals.

- Do not disassemble, puncture, or modify the batteries.
- Keep batteries away from water, heat, and direct sunlight.
- Store batteries out of reach of children and pets.
- If a battery leaks, avoid contact with the fluid. If contact occurs, wash immediately with soap and water. Seek medical attention if irritation persists.
- Use only chargers specifically designed for NiCd batteries.

3. Product Overview

The Tenergy 2200mAh Sub C NiCd batteries are designed for high-drain applications, offering reliable and continuous power. These batteries feature a flat top design with pre-soldered tabs, making them ideal for custom battery pack assembly.

Image 3.1: Tenergy 2200mAh Sub C NiCd Battery 15-Pack.

Key Features:

- **High Capacity:** 2200mAh for extended runtime.
- **Voltage:** 1.2V per cell.
- **Rechargeable:** Can be recharged up to 500 times, reducing waste and cost.
- **Flat Top with Tabs:** Equipped with pre-soldered tabs for easy integration into custom battery packs.
- **NiCd Chemistry:** Provides consistent power output for high-drain devices.

Image 3.2: The 2200mAh capacity ensures continuous energy for your devices.

4. Applications

These Tenergy Sub C NiCd batteries are suitable for a wide range of high-drain electronic devices and custom battery pack applications, including:

- Power Tools (e.g., cordless drills, electric screwdrivers)
- Emergency Lighting
- Portable Devices (e.g., handheld vacuums, remote-controlled toys)
- DIY Battery Packs requiring Sub C cells with tabs

Image 4.1: These batteries are ideal for high-drain devices.

5. Setup and Installation

The Tenergy Sub C NiCd batteries come with pre-soldered tabs, simplifying the process of creating custom battery packs or replacing cells in existing packs.

Creating Custom Battery Packs:

1. **Plan Your Configuration:** Determine the required voltage and capacity for your device. This will dictate the number of cells and their series/parallel arrangement.
2. **Prepare Connections:** The pre-soldered tabs allow for easy soldering to connect cells in series or parallel. Ensure proper polarity (+ to - for series, + to + and - to - for parallel).

3. **Soldering:** Use appropriate soldering techniques to connect the tabs. Minimize heat exposure to the battery cell during soldering.
4. **Insulation:** After soldering, insulate all connections with heat shrink tubing or electrical tape to prevent short circuits.
5. **Testing:** Before final assembly, test the voltage and continuity of your custom pack to ensure correct wiring.

Image 5.1: Pre-soldered tabs facilitate easy assembly of custom battery packs.

6. Operating Instructions

Once installed in your device or custom pack, operate the batteries according to the device manufacturer's instructions. For optimal performance, follow these general guidelines:

- **Initial Charge:** Fully charge new batteries before their first use.
- **Charging Cycle:** For NiCd batteries, it is often recommended to fully discharge the battery before recharging to prevent the "memory effect."
- **Temperature:** Operate batteries within their recommended temperature range (typically 0°C to 45°C for charging, -20°C to 60°C for discharge).
- **Avoid Over-Discharge:** Do not allow batteries to discharge completely below their minimum voltage, as this can damage the cells.

7. Maintenance

Proper maintenance extends the lifespan and performance of your Tenergy NiCd batteries.

- **Regular Charging:** Recharge batteries promptly after use, especially if they have been heavily discharged.
- **Full Cycles:** Periodically perform a full discharge and recharge cycle to mitigate the NiCd memory effect and maintain capacity.
- **Cleaning:** Keep battery terminals clean and free of corrosion. Use a dry cloth to wipe them if necessary.
- **Storage:** For long-term storage, charge batteries to about 40-50% capacity and store them in a cool, dry place. Avoid extreme temperatures.
- **Disposal:** NiCd batteries contain cadmium, a toxic heavy metal. Do not dispose of them in household waste. Recycle them at designated battery recycling centers.

8. Troubleshooting

If you encounter issues with your Tenergy NiCd batteries, consider the following common solutions:

Problem	Possible Cause	Solution
Battery not charging	Faulty charger, poor contact, battery too hot/cold, deeply discharged battery.	Check charger functionality. Ensure clean contacts. Allow battery to reach room temperature. Some chargers have a refresh function for deeply discharged NiCd cells.
Reduced runtime/capacity	Memory effect, aging battery, incomplete charging.	Perform several full discharge/recharge cycles. Ensure charger is fully charging the battery. Consider battery replacement if cycles are exhausted.
Battery gets hot during charging/use	Overcharging, high current draw, internal short.	Use a charger with proper termination. Reduce load on the device. Discontinue use if excessive heat is observed and dispose of properly.

9. Specifications

Detailed technical specifications for the Tenergy 2200mAh Sub C NiCd Battery:

- **Battery Type:** Nickel-Cadmium (NiCd)
- **Cell Size:** Sub C
- **Nominal Voltage:** 1.2 Volts
- **Capacity:** 2200 Milliampere Hour (mAh)
- **Reusability:** Rechargeable (up to 500 cycles)
- **Configuration:** Flat Top with Tabs
- **Item Dimensions:** Approximately 0.91 x 0.91 x 1.69 inches (23mm x 23mm x 43mm)
- **Item Weight:** Approximately 1.8 Ounces (0.11 Pounds) per cell
- **Model Number:** 6543873008
- **UPC:** 844949016292

Image 9.1: Approximate dimensions of the Tenergy Sub C NiCd battery with tabs.

10. Warranty and Support

For warranty information, technical support, or further inquiries regarding your Tenergy products, please visit the official Tenergy website or contact their customer service directly.
You can also visit the Tenergy Store on Amazon for product details and support resources:

Visit the Tenergy Store