

[Manuals.plus](#) /

› [Exell Battery](#) /

› Exell Battery 1.2V 40mAh NiMH Flat Top Rechargeable Cell User Manual

Exell Battery H40_10QTY

Exell Battery 1.2V 40mAh NiMH Flat Top Rechargeable Cell User Manual

Model: H40_10QTY

1. INTRODUCTION

This manual provides essential information for the safe and effective use of your Exell Battery 1.2V 40mAh NiMH Flat Top Rechargeable Cells. These high-quality Nickel Metal Hydride (NiMH) button cells are designed for various applications, particularly for building custom battery packs. They offer a long cycle life, allowing for 500-1000 recharge cycles.



This image displays a set of ten Exell Battery 1.2V 40mAh NiMH Flat Top rechargeable button cells, highlighting their compact, circular design with a green insulating ring.

2. SAFETY INFORMATION

Please read and understand all safety instructions before using these batteries. Failure to follow these guidelines may result in fire, personal injury, or property damage.

- **Do not** short-circuit the battery terminals.
- **Do not** expose batteries to extreme temperatures (above 60°C / 140°F or below -20°C / -4°F).
- **Do not** incinerate or dispose of batteries in fire.
- **Do not** puncture, damage, or disassemble the batteries.
- Use only chargers specifically designed for NiMH batteries. Overcharging can damage the battery and pose a safety risk.
- Keep batteries out of reach of children and pets.
- If a battery leaks, avoid contact with the fluid. If contact occurs, wash thoroughly with water and seek medical attention.
- Dispose of used batteries according to local regulations. Do not discard with household waste.

PLEASE CHECK when selecting batteries:

✓ Size

✓ Terminal

✓ Chemistry



This diagram serves as a reminder to verify the size, terminal configuration, and chemical composition of batteries to ensure compatibility and safe operation. It shows examples of different battery types.

3. SPECIFICATIONS

The Exell Battery 1.2V 40mAh NiMH Flat Top Rechargeable Cells feature the following technical specifications:

Feature	Specification
Battery Type	Nickel Metal Hydride (NiMH)
Voltage	1.2V
Capacity	40mAh
Terminals	Flat Top (no raised button)
Height	0.2165 inches (5.5 mm)
Diameter	0.4567 inches (11.6 mm)
Recharge Cycles	500-1000 times
Item Weight (per cell)	Approximately 0.016 ounces (0.45 grams)



A detailed top-down view of a single Exell Battery NiMH button cell, showing the flat positive terminal and the green insulating material around its edge.

4. SETUP AND FIRST USE (CHARGING)

These NiMH cells are rechargeable and may not come fully charged. It is recommended to fully charge them before their first use.

Charging Instructions:

1. **Use a Compatible Charger:** Always use a charger specifically designed for Nickel Metal Hydride (NiMH) batteries. Ensure the charger supports the 1.2V voltage and is suitable for button cells.
2. **Insert Batteries Correctly:** Place the batteries into the charger according to the polarity markings (+ and -).
3. **Monitor Charging:** Follow the charger's instructions for charging times. Avoid overcharging, as this can reduce battery life and potentially cause damage. Many modern NiMH chargers have automatic shut-off features.
4. **Initial Charge:** For the first charge, allow the batteries to charge fully. This helps to condition the batteries for optimal performance.

5. OPERATING INSTRUCTIONS

These 40mAh NiMH cells are ideal for applications requiring compact, rechargeable power, especially for custom battery pack assembly.

Usage Guidelines:

- **Custom Battery Packs:** These cells are designed for easy soldering, allowing you to create custom battery packs with various shapes and voltages. Ensure proper soldering techniques to avoid overheating the cells.
- **Polarity:** Always observe correct polarity when connecting batteries in series or parallel. Incorrect polarity can damage the batteries or the device they power.
- **Discharge:** Avoid deep discharge whenever possible. While NiMH batteries are less prone to memory effect than NiCd, regular deep discharges can still impact their lifespan.
- **Temperature:** Operate batteries within their recommended temperature range. Extreme cold can reduce performance, and extreme heat can cause damage.

6. MAINTENANCE

Proper maintenance ensures the longevity and performance of your NiMH rechargeable cells.

- **Storage:** Store batteries in a cool, dry place, away from direct sunlight and extreme temperatures. Ideally, store them at approximately 50% charge if storing for extended periods.
- **Cleaning:** If battery terminals become dirty, gently clean them with a dry cloth or cotton swab to ensure good electrical contact.
- **Avoid Short Circuits:** When storing loose cells, ensure they do not come into contact with metal objects that could cause a short circuit. Use battery cases or insulating tape if necessary.

7. TROUBLESHOOTING

If you encounter issues with your Exell Battery NiMH cells, consider the following common troubleshooting steps:

- **Battery Not Charging:**
 - Ensure the charger is functioning correctly and plugged in.
 - Verify batteries are inserted with correct polarity.
 - Check for dirt or corrosion on battery terminals and charger contacts.
 - Confirm the charger is compatible with NiMH batteries.
- **Short Run Time / Poor Performance:**
 - Ensure batteries are fully charged before use.
 - Batteries may be nearing the end of their life cycle (after 500-1000 charges).
 - Check if the device drawing power is functioning correctly or has excessive power consumption.
 - Extreme temperatures can affect performance.
- **Overheating During Charge/Discharge:**
 - Discontinue use immediately.

- Ensure the charger is appropriate for NiMH batteries and not overcharging.
- Check for short circuits in the battery pack or device.

8. WARRANTY AND SUPPORT

Exell Battery products are manufactured to high standards. For specific warranty information or technical support, please refer to the official Exell Battery website or contact their customer service directly. Keep your purchase receipt as proof of purchase.

For further assistance, you may visit the [Exell Battery Store on Amazon](#).