

EBL 4AA+4AAA+LCD Charger

EBL AA AAA Rechargeable Battery Charger User Manual

Brand: EBL | Model: 4AA+4AAA+LCD Charger

1. PRODUCT OVERVIEW AND FEATURES

The EBL LCD Smart Charger is designed for charging 1.2V AA and AAA Ni-MH/Ni-CD rechargeable batteries. It features independent charging channels and a clear LCD screen to monitor charging status.

- **Individual Rechargeable Battery Charger:** Independent charging channels for 1 to 4 pieces of AA/AAA Ni-MH/Ni-CD rechargeable batteries.
- **High Definition LCD Screen:** Provides real-time charging status for each battery.
- **Safe Charging:** Advanced MCU control and ΔV function, with protection against over-heat, over-current, short-circuit, and detection for non-rechargeable or defective batteries.
- **Super Capacity Batteries:** Includes 2800mAh AA and 1100mAh AAA 1.2V Ni-MH rechargeable batteries for extended usage. Comes with a battery storage case for portability.
- **Low Self-Discharge:** EBL batteries retain approximately 80% of their charge after 3 years due to advanced low self-discharge technology.

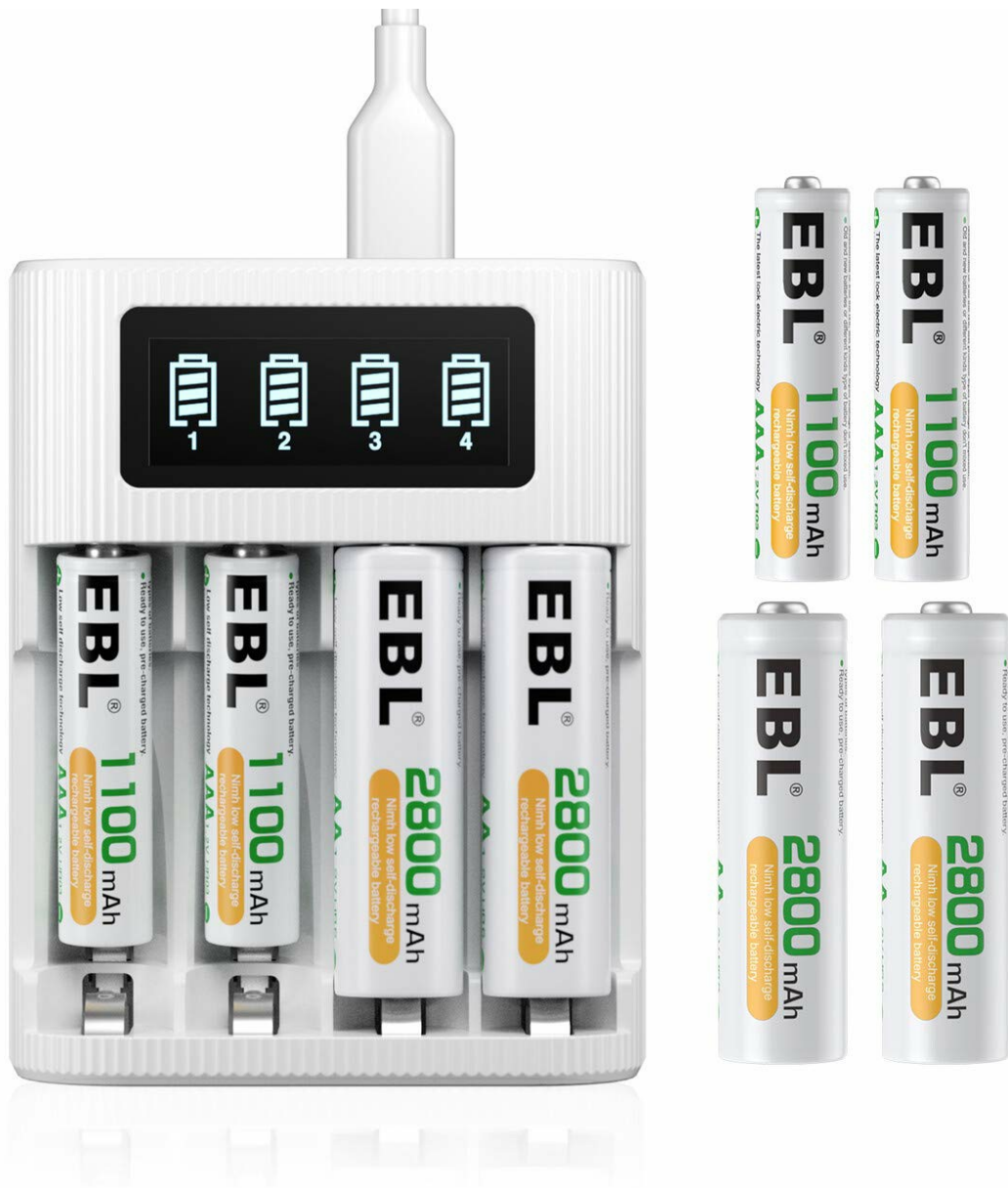


Figure 1: EBL LCD Smart Charger with included AA and AAA batteries.

This image shows the EBL LCD Smart Charger with four AA batteries inserted, along with four additional AAA batteries and two more AA batteries on the side, illustrating the complete package.

Individual Battery Charger - Freely for AA AAA NIMH NICD Batteries

The numbers on the screen make it easier for you to grasp the real-time charging status of the battery



Figure 2: The charger's LCD screen displays the real-time charging status for each individual battery slot.

This image highlights the individual charging capability of the EBL charger, showing different combinations of AA and AAA batteries being charged simultaneously, with the LCD screen indicating their status.

2. SETUP

2.1 Unpacking

Carefully remove the EBL LCD Smart Charger and all accessories from the packaging. Verify that all components are present: the charger unit, 4 AA rechargeable batteries, and 4 AAA rechargeable batteries.

2.2 Power Connection

Connect the charger to a 5V USB power source using either the Micro USB or Type-C input port. The LCD screen will illuminate, indicating the charger is ready for use.

Two Different Charging Ways - More Convenient

Powered by Micro USB or Type C input port, widely used by 5V USB enable devices, allows you to try more charging methods



Figure 3: The charger offers both Micro USB and Type-C input options for power.

This image illustrates the versatility of the EBL charger, showing both Micro USB and Type-C ports available for connecting to a 5V/2A power source.

3. OPERATING INSTRUCTIONS

3.1 Inserting Batteries

Insert AA or AAA Ni-MH/Ni-CD rechargeable batteries into the charging slots, ensuring correct polarity (+/-). The charger supports charging 1 to 4 batteries simultaneously in any combination of AA and AAA sizes.

3.2 Understanding the LCD Display

The LCD screen provides real-time information for each battery slot:

- **Battery Icon:** Displays the charging progress. Segments will fill up as the battery charges.
- **'CHG' (Charging):** Indicates that the battery is currently charging.
- **'FULL' (Fully Charged):** Indicates that the battery has reached full charge.

- **'ERR' (Error):** Indicates a non-rechargeable, defective, or incorrectly inserted battery.

3.3 Charging Process

Once batteries are correctly inserted, the charger will automatically begin charging. The LCD display will show the charging status for each slot. When a battery is fully charged, its corresponding display will show 'FULL'. Remove batteries once charging is complete.

4. MAINTENANCE

- Keep the charger and batteries in a dry, cool place away from direct sunlight and high temperatures.
- Clean the charger's contacts periodically with a dry cloth to ensure optimal connection.
- Do not disassemble the charger or batteries.
- Store batteries in the provided storage case when not in use to prevent short circuits and damage.

Real LSD Batteries - Low Self Discharge

Quality EBL rechargeable batteries holds 80% after 3 years, better performance on low-self-discharge function, quality 15% than other brand rechargeable batteries.



Figure 4: EBL batteries maintain a higher charge over time compared to standard batteries.

This image illustrates the low self-discharge capability of EBL rechargeable batteries, showing how they retain a significant percentage of their charge (e.g., 80% after 3 years) compared to other brands.

5. TROUBLESHOOTING

Problem	Possible Cause	Solution
Charger does not power on.	No power, or batteries inserted before power connection.	Ensure USB cable is securely connected to a 5V power source. For optimal startup, connect the charger to power first, then insert batteries. If unplugging, wait a few seconds before reconnecting.
LCD shows 'ERR'.	Non-rechargeable battery, defective battery, or incorrect polarity.	Check battery type (must be Ni-MH/Ni-CD). Reinsert battery ensuring correct +/- polarity. If error persists, the battery may be defective and should be replaced.
Batteries are not charging.	Poor contact, or charger issue.	Ensure batteries are firmly seated in the slots. Clean battery contacts and charger terminals. Try a different USB power adapter or cable.

Multiple Protection Technology

Advanced MCU control and $-\Delta V$ function, the charger turns to trickle charging automatically to prevent the batteries from over-voltage, over-charge, short-circuit, over-current and over-heat



Over-Voltage



Over-Charge



Short-Circuit



Over-Current



Over-Heat



Figure 5: The charger incorporates multiple safety features for reliable operation.

This image visually represents the multiple protection technologies integrated into the EBL charger, including safeguards against over-voltage, over-charge, short-circuit, over-current, and over-heat.

6. SPECIFICATIONS

Feature	Detail
Model	4AA+4AAA+LCD Charger
Compatible Battery Types	AA / AAA Ni-MH / Ni-CD Rechargeable Batteries
Input Voltage	5V / 2A (Micro USB or Type-C)
Output Voltage	1.2 Volts
Charging Channels	4 Independent Channels
Included AA Batteries	4 x 2800mAh Ni-MH
Included AAA Batteries	4 x 1100mAh Ni-MH
Safety Features	Over-heat, Over-current, Short-circuit Protection, Non-rechargeable/Defective Battery Detection
Dimensions	6.5 x 3.23 x 1.57 inches
Weight	10.86 ounces (approx. 0.68 lbs)
Manufacturer	EBL
Country of Origin	China

7. WARRANTY AND SUPPORT

EBL products are manufactured to high-quality standards. This product comes with a standard manufacturer's warranty. For specific warranty details, claims, or technical support, please refer to the warranty card included in your product packaging or visit the official EBL website. You may also contact EBL customer service through the retailer where the product was purchased.