

Nitecore UMS4

Nitecore UMS4 Intelligent USB Four-Slot Quick Battery Charger Instruction Manual

Model: UMS4

1. INTRODUCTION

The Nitecore UMS4 is an intelligent USB four-slot quick battery charger designed for a wide range of rechargeable batteries. It features an LCD display for real-time charging information, automatic battery type detection, and optimized charging programs. This manual provides essential information for safe and efficient use of your UMS4 charger.



Image: The Nitecore UMS4 charger in front of a dark background with lightning.

2. SETUP

To begin using your Nitecore UMS4 charger, follow these steps:

1. **Connect Power:** Connect the charger to a power source using a USB cable. The UMS4 is compatible with various mobile power sources, including USB adapters, power banks, and solar panels. For optimal performance and quick charging, use a Quick Charge (QC) 3.0 enabled adapter.



Image: The top of the UMS4 where various input sources can be plugged in, including USB adapter, power bank, and solar panel.

Additional Accessory



QC3.0 Charging Adapter

Image: A LumenTac QC3.0 Charging Adapter, recommended for quick charging.

3. OPERATING INSTRUCTIONS

3.1. Battery Insertion

Insert your rechargeable batteries into the available charging slots. The charger is designed to accommodate various battery sizes and types. Ensure correct polarity when inserting batteries.



Image: The UMS4 with four batteries correctly inserted into its charging slots.

3.2. Automatic Detection and Intelligent Charging

The UMS4 automatically detects the battery type (Li-ion, IMR, LiFePO4, Ni-MH, Ni-Cd) and selects the appropriate charging current and voltage. It features an intelligent charging system that applies the correct charging mode (CC, CV, and -dV/dt) based on the battery's characteristics.



Image: The UMS4's screen displaying the current charging mode as CV (Constant Voltage).

3.3. LCD Display Information

The bright LCD display provides real-time charging information for each slot. You can view:

- **Charging Status:** Indicates if the battery is charging, fully charged, or has an error.
- **Battery Health:** Displays 'Good' or 'Poor' based on internal resistance.
- **Charging Mode:** Shows CC (Constant Current), CV (Constant Voltage), or -dV/dt.
- **Voltage:** Current battery voltage.
- **Current:** Current charging current in mA.
- **Charged Volume:** Total mAh charged.
- **Charging Time:** Elapsed charging time.

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UMS4

Intelligent USB Four-Slot
Superb Charger



Charging Program Specially Optimized for IMR Batteries

UMS4 incorporates an optimized IMR battery charging program, which is able to monitor the entire charging process, ensuring that the cut-off voltage is always within safe limits to extend the lifespan of the batteries.



These images are for guide purpose only, actual result may vary depending on ambient factors.
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Image: The LCD display of the UMS4 providing real-time charging information.

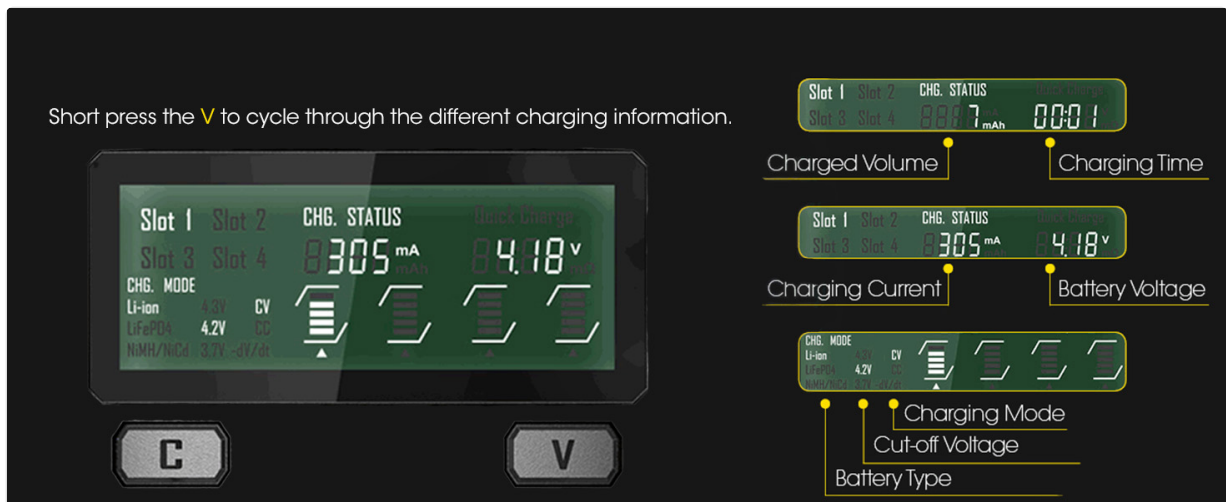


Image: Examples of different information screens available on the UMS4 display.

3.4. Manual Charging Settings

While the UMS4 is intelligent enough to handle most batteries automatically, you can manually adjust charging parameters if needed:

1. **Enter Setting Mode:** Long press the 'C' button to enter the Charging Setting Mode.
2. **Cycle Options:** Tap the 'C' button again to cycle between charging current and charging voltage selection.
3. **Adjust Settings:** When the desired setting is flashing, press the 'V' button to adjust the value (e.g., Charging Voltage Selection: 3.7V / 4.2V / 4.3V; Charging Current Selection: 300mA - 3000mA).
4. **Exit Setting Mode:** Long press the 'C' button again to return to charging.

Charging Voltage Selection: 4.3V / 4.2V / 3.7V
Charging Current Selection: 300 mA - 3000mA



Image: The UMS4 screen showing voltage selection options (4.3V, 4.2V, 3.7V) for manual adjustment.

3.5. Quick Charge Functionality

When connected to a Quick Charge (QC) enabled power adapter, the UMS4 can achieve high-speed charging. It can reach a single slot maximum output of 3000mA, allowing a 3,500mAh battery to charge to 80% in approximately 55 minutes.

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UMS4
Intelligent USB Four-Slot
Superb Charger

Single Slot Max Output of
3,000 mA

55 Minutes
55 Minutes to Charge 80%
of a 3,500mAh battery

The stated data is tested according to relevant standards and for references only.
Non QC Input: The default charging current for Li-Ion batteries is 1A/2A according to the battery type and capacity. The max charging current can be set to 2A. The voltage of the battery is 4.2V when fully charged.

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Image: The UMS4 demonstrating a single slot maximum output of 3000mA, charging a 3,500mAh battery to 80% in 55 minutes.

3.6. IMR Battery Optimization

The UMS4 incorporates a specially optimized IMR battery charging program. This program monitors the entire charging process to ensure the cut-off voltage remains within safe limits, thereby extending the lifespan of IMR batteries.

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LCD Display for Real-Time Charging Information

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Image: The UMS4 charging IMR batteries, highlighting its optimized charging program.

3.7. Compatible Battery Types

The Nitecore UMS4 is compatible with a wide range of rechargeable batteries:

Battery Type	Compatible Sizes
Li-ion / IMR / LiFePO4	10440, 14500, 14650, 16500, 16340 (RCR123), 16650, 17350, 17500, 17650, 17670, 18350, 18490, 18500, 18650, 18700, 20700, 21700, 22500, 22650, 25500, 26500, 26650, 26700
Ni-MH / Ni-Cd	AA, AAA, C, D

4. MAINTENANCE

To ensure the longevity and optimal performance of your Nitecore UMS4 charger:

- Keep the charger clean and dry. Avoid exposure to water or excessive humidity.
- Clean the charging contacts periodically with a dry, soft cloth to ensure good electrical connection.
- Store the charger in a cool, dry place when not in use.
- Do not attempt to disassemble or modify the charger, as this will void the warranty and may cause damage or injury.

5. TROUBLESHOOTING

If you encounter issues with your UMS4 charger, refer to the following common problems and solutions:

- **"EE EE" Error Display:** This error message indicates that an IMR battery is over-discharged or the

battery is damaged.

When a over-discharged IMR battery is inserted, the screen will show "EE EE"

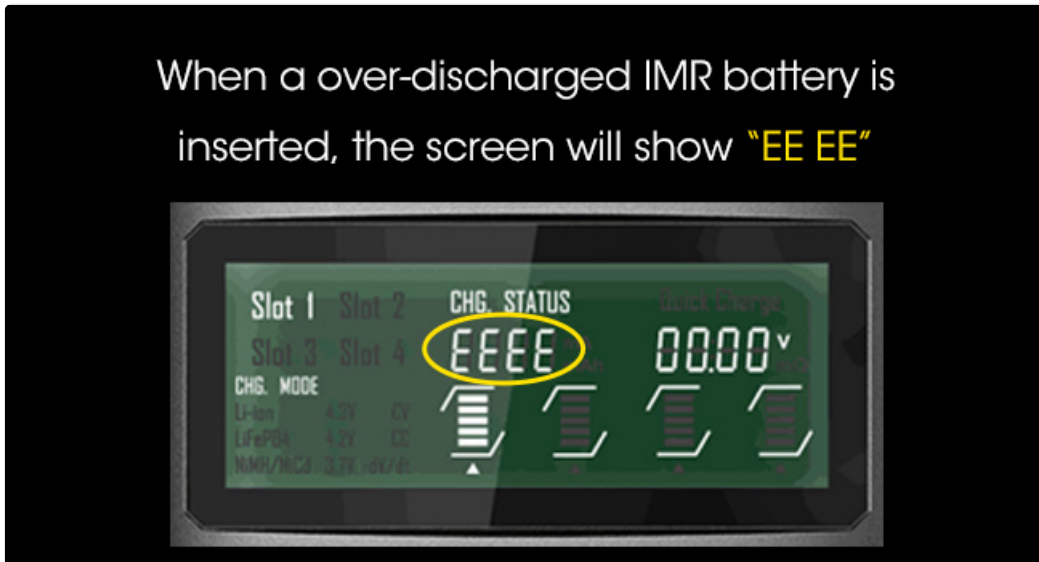


Image: The UMS4 display showing the "EE EE" error for an over-discharged IMR battery.

When a battery is detected as damaged, the screen will show "EE EE"



Image: The UMS4 display showing the "EE EE" error for a damaged battery.

- **Charger Not Powering On:** Ensure the power adapter is securely connected to both the charger and a working power outlet. Try a different USB cable or power adapter if available.
- **Battery Not Charging:** Verify that the battery is inserted with correct polarity. Ensure the battery type is compatible with the UMS4. Clean battery contacts if dirty.

6. SPECIFICATIONS

Feature	Detail
Brand	Nitecore
Model Number	UMS4
Color	Black
Product Dimensions	1.61"D x 4.21"W x 6.26"H
Item Weight	9.01 Ounces
Input Voltage	12 Volts
Output Voltage	4.35 Volts (DC)
Current Rating	4000 Milliamps
Amperage	4000 Milliamps
Connector Type Used on Cable	USB, QC3.0
Number of Ports	4
Manufacturer	NITECORE

7. SAFETY INFORMATION

The Nitecore UMS4 charger is designed with safety in mind and is certified by various international standards:

- Certified by RoHS, CE, FCC, and CEC.
- Insured worldwide by Ping An Insurance (Group) Company of China, Ltd.
- Features reverse polarity protection and short circuit protection.
- Automatic termination upon charging completion to prevent overcharging.
- Constructed from durable and fire-retardant PC materials.

Always use the charger in a well-ventilated area and avoid covering it during operation. Do not charge non-rechargeable batteries.

8. PRODUCT VIDEO DEMONSTRATION

Your browser does not support the video tag.

Video: Official product demonstration of the NITECORE UMS4 Four-Slot Digital USB Charger by Lumen Tactical. This video provides a visual guide on the charger's features and operation.