

UM20 User Manual USB Management and Charging System

Features

- USB powered Li-ion battery charger
- · High definition LCD displays real time charging status
- · Features USB output charging
- · Integrated intelligent power management system
- · Intelligently detects input power
- · Intelligently distributes charging power
- · Priority Mode offers either battery or USB charging
- Enables data transfer via USB
- · Intelligently selects charging current based on battery capacity
- Features rear USB cable winder and grooves to accommodate 2.5mm/3.0mm USB cables
- · Constructed from fire retardant materials
- · Features reverse polarity protection
- Designed for optimal heat dissipation
- · Certified by RoHS, CE, FCC and CEC
- Insured worldwide by Ping An Insurance (Group) Company of China, Ltd.

Specifications

Input voltage: Micro USB DC 5V Output voltage: 4.2V ±1% / 5V Output current: 1000mA / 500mA

Compatible with: Li-ion / IMR:

18650, 18490, 18350, 17670, 17500, 16340(RCR123), 14500, 10440

 Dimensions:
 3.94"×2.20"×1.38" (100mm× 56mm×35mm)

 Weight:
 2.72oz (77.2 gram)(without batteries or power cord)

Standard Function

1. Connecting: Unwind the USB cable, lift the rear panel and draw out the cable as instructed. Plug one end of the included USB cable to the UM20's input port and the other end to a power supply (adapter, PC or other standard USB output port). Upon powering up, the UM20's LCD will display the power level indicator (hollow) and battery percentage (0%).







- 2. Inserting Batteries: Insert batteries as instructed. Incorrectly inserted batteries will prevent the UM20 from functioning.
- 3. Battery Test: After battery installation, the UM20 will run a quick battery test before charging. If a problem is detected (for example the batteries are installed backwards), the UM20 will stop charging and display "EE" on the LCD to notify the user.
- 4. Charging: During the charging process, charging current will adjust automatically based on the detected battery type, power level and internal battery resistance. For example, when charging batteries of smaller capacities such as 14500 and 16340, charging current will automatically be set to 500mA, ensuring safe use and preserving battery longevity.
- 5. Charging Progress: The UM20 will indicate battery status and charging progress When batteries are fully charged, 5 power level indicator bars and "100%" will illuminate steadily on the LCD display.

Advanced Functions USB Output Charging

1. As illustrated, lift the rear panel and plug an USB cable to the charging port underneath.

2. Connect the other terminal of the USB cable with an external device that needs to be powered / recharged. ($\frac{1}{4}$) will start flashing on the LCD to indicate the UM20 is connected with a USB cable. After the device is fully charged, the ($\frac{1}{4}$) icon stops flashing and remains on constantly.



Priority Mode

When there is a power deficit for the UM20 to charge both batteries and USB device simultaneously, the UM20 will prioritize the charging of the batteries or the device following the user's preference.

When the top switch is set to BATTERY, battery priority mode will be activated. In this mode, the UM20 will charge the batteries first. When batteries are fully charged or removed, the UM20 will then charge / power the USB device automatically.

When the top switch is set to USB, USB priority mode will be activated. In this mode, the UM20 will charge / power the USB device first. When the USB device is fully charged or disconnected, the UM20 will charge the batteries automatically. NOTE: A small electrical current will keep passing through to the external device connected to maintain the device in its full power state when it is charged.

Battery Activation

The UM20 is capable of activating over discharged protected Li-ion batteries. After battery installation, the UM20 will test and activate the batteries before charging. Batteries detected as damaged cannot be activated by the UM20 and "EE" will be displayed on the LCD to indicate an error.

NOTE: Nitecore does not recommend charging zero volt (0V) (over discharged) unprotected Li-ion batteries with the UM20 and doing so can result in battery leakage fire, or explosion,

Precautions

- 1. Nitecore recommends using only quality USB adapters with the UM20. Using poor quality adaptors may result in the LCD displaying "EE" to indicate an error.
- 2. The UM20 is restricted to charging Li-ion and IMR rechargeable batteries only. Never use the UM20 with other types of batteries as this could result in battery explosion, cracking or leaking, causing property damage and/or personal injury.
- The UM20 should only be used indoors or inside a motor vehicle and under no circumstances should it be exposed to water, high humidity and low or high ambient temperatures.
- 4. Do not disassemble or modify the UM20.
- 5. Children under the age of 18 should be supervised by an adult when using the UM20.
- 6. The UM20's safe operating temperature is between 0°C--40°C .
- 7. Do not use or store the UM20 near open flames, direct sunlight, heating devices or other high-temperature environments.

Warranty Service

All NITECORE® products enjoy a comprehensive after sale warranty service. A malfunctioning NITECORE® UM20 charger may be exchanged for a replacement by a local authorized distributor/dealer within the first 15 days of receipt by the end user. After 15 days and up to 12 months, the UM20 may be sent to an authorized distributor/dealer for repair. Beyond 12 months, the warranty covers labor costs and maintenance with the exclusion of accessories or replacement parts.

The warranty is nullified in any of the following situations:

- 1. The product(s) is/are broken down, reconstructed and/or modified under unauthorized conditions.
- 2. The product(s) is/are damaged through improper use.
- 3. The product(s) is/are damaged by leakage of batteries.

For further details of Nitecore's warranty service, please contact a regional distributor/dealer or send an email to service@nitecore.com

NOTE: The Nitecore official website shall prevail in case of any product data changes.



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Worldwide Warranty Service

Model number	Serial number
Date of purchase	Store Stamp

This is the certificate of authenticity of this item and we confirm that it has been subjected to the most exacting quality controls by SYSMAX Industry Co.,Ltd.

NOTE: Please ensure this warranty card is fully completed by the distributor or retailer after purchasing the product. Should the product fail to operate correctly during the warranty period, it may be returned with the completed warranty card and original sales receipt to the retailer or local distributor for replacement or repair.