

# NITECORE®

The New Benchmark in Intelligent Chargers

# F1 User Manual

## Flexible Power Bank

## Features

- Compatible with cylinder rechargeable Li-ion batteries of various sizes
- Intelligent USB charging management system
- Up to 1000mA fast charging through Micro-USB input port
- 1000mA fast charging through USB output port
- Optimized design for IMR battery charging circuit
- Three power indicators to indicate charging/discharging status
- Automatic power level detection
- Instant battery voltage indication upon battery installation
- Automatic battery detection and appropriate charging voltage/mode selection
- Battery reversed polarity protection and short circuit prevention
- Made from durable PC material (fire retardant/flame resistant)
- 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 :** DC 5V, ≥500mA

**Output voltage:**

4.2V ± 1% (slot)/5V ± 5% (USB), 1000mA MAX (slot)/1000mA (USB)

**Compatible with: Li-ion /IMR:**

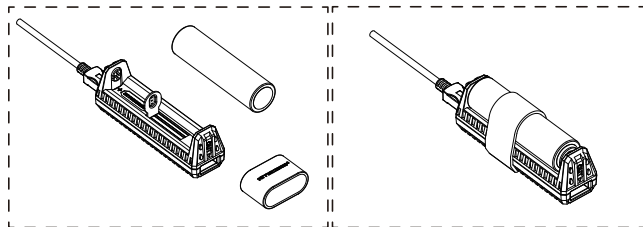
26650/18650/17670/18490/17500/17335/16340(RCR123)/14500/10440

**Size:** 3.43 inches × 0.94 inches × 1.15 inches (87.2mm×24mm×29.3mm)

**Weight:** 1.07oz (30.4g, without cord)

## Standard Charging

1. Install a battery inside F1's charging slot and fix it with the included rubber band. F1 will indicate the battery voltage with power indicator blinks.
2. Connect F1's USB input port to an external power source via a USB cord to charge the battery.
3. Connect an external device (i.e. a mobile phone) to F1's USB output port via a USB cord to charge this device.



F1 battery installation

## The Intelligent Charging

1. F1 can automatically identify the type of the installed battery. Under sufficient input power, F1 will charge a battery of large capacity in the slot with 1000mA current, or a battery of small capacity in the slot with 500mA current.
2. F1 features intelligent USB charging management system. Under sufficient input power, F1 can simultaneously charge a battery in the slot and a connected external device (with 1000mA current). With lower input power, F1 can charge the battery with 500mA current, and charge the external device with 1000mA current.
3. With the input power insufficient to support charging two items simultaneously, F1 will charge the battery only with 500mA current. After battery charging completed, F1 will proceed to charge the connected external device.

### Note:

1. A battery must be placed in the slot in order to charge an external device through USB.
2. If the battery is installed with polar reversed, F1's indicators will not turn on.

## Charging Process Indication

F1 uses three LEDs to indicate the power levels and charging progress of the battery in its slot. 2Hz fast blinks stand for charging with 1000mA current, 1Hz blinks for charging with 500mA current. The numbers of solid on indicators denote charging progress. The three indicators solid on indicate charging completion.

## Power Bank Function

Without an external power source, F1 can charge an external device connected to its USB output port with the large capacity battery in its slot.

1. Install a large capacity battery inside F1's charging slot and fix it with the included rubber band.
2. Connect an external device to F1's USB output port via a USB cord.
3. F1's intelligent USB charging system identifies the external device and begins charging.

### Note:

1. During charging, the power indicators will indicate the power levels of the battery in the slot with blinks. When power levels are below 3.3V, the three indicators will blink to alarm the user. When power levels are below 2.8V, F1 terminates charging to protect the battery.
2. When F1 detects a small capacity battery (e.g. 16340, RCR123, 14500, 10440) in its slot, the three indicators will blink to alarm the user and F1 terminates charging after five seconds to protect the battery.
3. Without an external device connected to F1, it automatically turns off the three indicators and enters sleep mode.

## Battery Activation

The F1 is capable of activating depleted Li-ion batteries with protective circuit. After battery installation, F1 will test and activate the battery before charging. When a battery is detected as damaged, the LED goes off, and the user should stop charging. Such damaged battery cannot be activated by F1.

**NOTE:** Nitecore does not recommend charging 0V (depleted) unprotected Li-ion batteries with F1 and doing so can result in battery fire or explosion.

## Power Tips

1. When a battery is installed inside F1's charging slot, its power indicators will blink to indicate the battery's voltages. For example, when a 4.2V battery is installed, the top indicator blinks four times, followed by two blinks from the indicator in the middle.
2. After voltage indication, the three indicators will blink to indicate battery power levels. Three indicators on stand for power levels above 81%;

Two indicators on stand for power levels between 41% and 80%;  
One indicator on stands for power levels between 1% and 40%.

## Sleep Mode

If neither an external power source nor an external device is connected, F1 will enter sleep mode in 10 seconds upon battery installation. In this mode, F1 will resume normal functions once an external power source and/or an external device is connected.

## Precautions

1. The charger is restricted to charging Li-ion and IMR rechargeable batteries only. Never use the charger with other types of batteries as this could result in battery explosion, cracking or leaking, causing property damage and/or personal injury.
2. The safe operation temperature for the charger is between -10-40°C, and the safe storage temperature is -20-60°C.
3. Please charge batteries in accordance with the specifications on the back. Do not charge a battery pack with the charger.
4. Observe polarity diagrams located on the charger. Always place the battery cells with positive tip facing the top.
5. Never leave the charger unattended when it is connected to power. If any malfunction is found, terminate the process at once and refer to the operation manual.
6. The charger is for use of adults above 18 years old. Children under this age must be supervised by an adult when using the charger.
7. Please make sure the correct program and settings are chosen and set. Incorrect program or setting may damage the charger or cause fire or explosion.
8. Never attempt to charge primary cells such as Alkaline, Zinc-Carbon, Lithium, CR123A, CR2, or any other unsupported chemistry due to risk of explosion and fire.
9. Do not charge a damaged IMR battery as doing so may lead to charger short-circuit or even explosion.
10. Never charge or discharge any battery having evidence of leakage, expansion/swelling, damaged outer wrapper or case, color-change or distortion.
11. Use the original adapter and cord for power supply. To reduce the risk of damage to the power cord, always pull by connector rather than the cord. Do not operate the charger if it appears damaged in any way.
12. Do not expose the device to direct sunlight, heating devices, open flames; avoid extreme high or extreme low ambient temperatures and sudden temperature changes.
13. Please operate the charger in a well-ventilated area. Do not operate or store it in damp area. Keep all the inflammable volatile substances away from operating area.
14. Avoid mechanical vibration or shock as these may cause damage to the device.
15. Do not short-circuit slots or other parts of the device. Do not allow metal wires or other conductive material into the charger.
16. Do not touch hot surfaces. The rechargeable batteries or the device may become hot at full load or high power charging/discharging.
17. Do not overcharge or over discharge batteries. Recharge drained batteries as soon as possible.
18. Remove all batteries and unplug the charging unit from the power source when not in use.
19. Opening, disassembling, modifying, tampering with the unit may invalidate its guarantee, check warranty terms.
20. Do not misuse in any way! Use for intended purpose and function only.

## Disclaimer

This product is globally insured by Ping An Insurance (Group) Company of China, Ltd. Nitecore shall not be held responsible or liable for any loss, damage or claim of any kind incurred as a result of the failure to obey the instructions provided in this user manual.

## Warranty Details

Our authorized dealers and distributors are responsible for warranty service. Should any problem covered under warranty occurs, customers can contact their dealers or distributors in regards to their warranty claims, as long as the product was purchased from an authorized dealer or distributor. NITECORE's Warranty is provided only for products purchased from an authorized source. This applies to all NITECORE products.

Any DOA / defective product can be exchanged for a replacement through a local distributor/dealer within the 15 days of purchase. After 15 days, all defective / malfunctioning NITECORE® products can be repaired free of charge for a period of 12 months (1 year) from the date of purchase.

Beyond 12 months (1 year), a limited warranty applies, covering the cost of labor and maintenance, but not the cost of accessories or replacement parts.


The warranty is nullified if the product(s) is/are

1. broken down, reconstructed and/or modified by unauthorized parties
2. damaged from wrong operations (i.e. reserve polarity installation, installation of non-rechargeable batteries), or
3. damaged by batteries leakage.

For the latest information on NITECORE® products and services, please contact a local NITECORE® distributor or send an email to service@nitecore.com.

※All images, text and statements specified herein this user manual are for reference purpose only. Should any discrepancy occurs between this manual and information specified on www.nitecore.com, information on our official website shall prevail. Sysmax Industry Co., Ltd. reserves the rights to interpret and amend the content of this document at any time without prior notice.

**Validation code and QR code on package can be verified on Nitecore website.**

**WARNING: F1 IS RESTRICTED TO CHARGING LI-ION AND IMR RECHARGEABLE BATTERIES. NEVER USE F1 WITH OTHER TYPES OF BATTERIES AS THIS COULD RESULT IN BATTERY EXPLOSION, CRACKING OR LEAKING, CAUSING PROPERTY DAMAGE AND/OR PERSONAL INJURY.**

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Thanks for purchasing NITECORE!