Saved from manuals.plus.
Open the live page for links to other documents and user manuals.

SKYRC SK-100083

SKYRC MC3000 Universal Battery Charger User Manual

Model: SK-100083

Official SKYRC Brand Logo

1. Introduction

The SKYRC MC3000 is an advanced universal battery charger designed for a wide range of cylindrical rechargeable batteries. It offers precise control, comprehensive monitoring, and multiple operating modes to optimize battery performance and lifespan. This manual provides essential information for safe and effective use of your MC3000 charger.



Image 1.1: Front view of the SKYRC MC3000 charger, showing the display, control buttons, and four battery slots.

2. Safety Instructions

Please read and understand all safety instructions before using the charger. Failure to follow these instructions may result in electric shock, fire, or damage to the charger or batteries.

- Use the charger only with compatible rechargeable batteries. Do not attempt to charge non-rechargeable batteries.
- Ensure correct battery polarity (+/-) when inserting batteries into the charging slots.
- Do not expose the charger to rain, moisture, or extreme temperatures.
- Operate the charger in a well-ventilated area, away from flammable materials.
- Do not disassemble or modify the charger. Refer all servicing to qualified personnel.
- Keep the charger out of reach of children and pets.
- Unplug the charger from the power source when not in use or before cleaning.
- Monitor batteries during charging, especially for the first few cycles. Discontinue charging if batteries become

excessively hot, swell, or show other signs of damage.

3. Product Features

- **Universal Compatibility:** Supports Li-ion, LiFePO, Li-polymer, NiCd, NiMH, NiZn, and RAM battery types.
- **Multiple Battery Sizes:** Accommodates various cylindrical battery sizes including 10440, 14500, 16340, 16650, 17500, 17670, 18490, 18500, 18650, 22650, and more.
- **Six Operating Modes:** Charge, Discharge, Cycle, Refresh & Test, Storage, and Brake-In.
- **Smart Control:** Microprocessor-controlled charging with automatic current adjustment.
- **Connectivity:** Bluetooth 4.0 for smartphone/tablet app control and USB for PC software (ChargeMaster) connectivity.
- **USB Output:** Integrated 5V USB port for charging compatible devices.
- **Safety Mechanisms:** Comprehensive protection features for both the charger and batteries.
- **LCD Display:** Clear display for menu navigation and real-time charging information.

4. Setup

1. **Power Connection:** Connect the provided power adapter to the DC INPUT port (12-18V) on the rear of the charger. Plug the adapter into a suitable AC power outlet. The charger will power on and display the main interface.
2. **Battery Insertion:** Carefully insert one or more compatible rechargeable batteries into the charging slots. Ensure the positive (+) and negative (-) terminals of the battery align with the markings in the slot. The spring-loaded contacts will secure the battery.
3. **Initial Display:** Upon battery insertion, the charger will typically detect the battery type and display initial information.



Image 4.1: Side view of the SKYRC MC3000 charger, highlighting the DC Input, PC Link (USB), 5V USB output, and Bluetooth indicator.

5. Operating Modes

The MC3000 offers six distinct operating modes, accessible via the menu system on the charger or through the mobile/PC application.

5.1. Charge

This is the standard charging mode. You can set a specific charging current or allow the charger to automatically determine the optimal current for safe and efficient charging.

- **Function:** Recharges the battery to its full capacity.
- **Usage:** Ideal for regular battery charging.

5.2. Discharge

This mode discharges the battery at a user-defined current. It can be used to prepare batteries for storage or to measure their actual capacity.

- **Function:** Drains the battery's energy.
- **Usage:** Capacity testing, preparing for storage.

5.3. Cycle

The Cycle mode performs a series of charge and discharge cycles (up to 99 times). This is particularly useful for NiCd/NiMH batteries to reduce or eliminate the "memory effect" and for evaluating battery consistency.

- **Function:** Repeated charge/discharge cycles.
- **Usage:** Eliminating memory effect, battery conditioning.

5.4. Refresh & Test

This mode is designed for batteries that have been unused for extended periods or are showing reduced performance. It attempts to restore the battery's original capacity and power through a controlled charge/discharge process.

- **Function:** Revitalizes "tired" batteries.
- **Usage:** Restoring capacity of underperforming batteries.

5.5. Storage

Specifically for Lithium-based batteries, this mode charges or discharges the battery to an optimal voltage level for long-term storage. This helps to preserve battery health and extend its overall lifespan.

- **Function:** Prepares Lithium batteries for long-term storage.
- **Usage:** Maximizing lifespan of Lithium batteries not in active use.

5.6. Brake-In

An innovative mode for new batteries or those unused for over three months. It performs a specific full charging cycle to activate the battery and bring it to its maximum potential performance.

- **Function:** Activates and optimizes new or long-stored batteries.
- **Usage:** Initial conditioning for new batteries or re-activating dormant ones.

6. Using the App and PC Software

The SKYRC MC3000 can be controlled and monitored remotely via a mobile application (Bluetooth) or PC software (USB).

6.1. Mobile App Control (Bluetooth)

Utilizing BLE 4.0 technology, the dedicated mobile application allows you to:

- Configure charging programs and parameters.
- View real-time charging data and graphs for each channel.
- Start and stop charging processes.
- Update the charger's firmware directly from the app.

Download the official SKYRC app from your device's app store. Pair your device with the MC3000 via Bluetooth to establish a connection.

6.2. PC Software Control (ChargeMaster)

Connect the MC3000 to your computer using a USB cable via the "PC LINK" port. The ChargeMaster software provides advanced functionalities, including:

- Detailed data logging and analysis of charging/discharging cycles.
- Custom profile creation and management.
- Firmware updates.
- Comprehensive control over all charger functions.

Visit the official SKYRC website to download the latest ChargeMaster software and drivers.

7. Maintenance

- **Cleaning:** Disconnect the charger from power before cleaning. Use a soft, dry cloth to wipe the exterior. Do not use abrasive cleaners or solvents.
- **Storage:** Store the charger in a cool, dry place away from direct sunlight and extreme temperatures when not in use.
- **Inspection:** Periodically inspect the power cable and charger for any signs of damage. Do not use if damaged.

8. Troubleshooting

Problem	Possible Cause	Solution
Charger does not power on.	No power supply; faulty adapter; loose connection.	Check power outlet; ensure adapter is securely connected; try a different outlet.
Battery not detected / Error message.	Incorrect battery insertion; incompatible battery; damaged battery.	Re-insert battery with correct polarity; ensure battery type is supported; inspect battery for damage.
Charging is slow or incomplete.	Low charging current setting; battery degradation.	Increase charging current (if safe for battery); use Refresh & Test mode; consider battery replacement.
Bluetooth connection fails.	Bluetooth not enabled on device; charger too far; interference.	Ensure Bluetooth is on; move device closer to charger; restart both devices.

9. Specifications

Brand	SKYRC
Model Number	SK-100083
Color	Black
Dimensions (L x W x H)	20 cm x 12.4 cm x 6.9 cm
Weight	1301 Grams
Input Voltage	DC 12-18V
USB Output	5V
Compatible Battery Types	Li-ion, LiFePO, Li-polymer, NiCd, NiMH, NiZn, RAM
Connectivity	Bluetooth 4.0, USB (PC Link)
Certifications	CE

10. Warranty and Support

For warranty information, technical support, or service inquiries, please refer to the documentation provided with your purchase or visit the official SKYRC website. Keep your proof of purchase for warranty claims.

Official Website: www.skyrc.com (This is a placeholder link, please verify the actual official website for SKYRC)

© 2023 SKYRC. All rights reserved.

Ask a question about this manual

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. Privacy details.

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question

Open the live page

https://manuals.plus/asin/B07M7SCQT7

More documents and user manuals: **https://manuals.plus/**