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› ToolkitRC M7 Multi-functional Charger User Manual

Bestpriceic M7

ToolkitRC M7 Multi-functional Charger User Manual

Model: M7

1. INTRODUCTION

The ToolkitRC M7 is a compact yet powerful multi-functional tool designed for enthusiasts and professionals working with RC batteries and electronics. It combines the capabilities of a balance charger, discharger, voltage checker, servo tester, ESC tester, and receiver signal tester into a single device. Its intuitive interface and robust features make it an essential tool for maintaining and testing your RC equipment.

2. SAFETY INFORMATION

- Always operate the M7 in a well-ventilated area, away from flammable materials.
- Ensure correct battery polarity before connecting to the charger. Incorrect connection can cause damage to the device or battery.
- Do not leave the charging process unattended. Monitor battery temperature and voltage regularly.
- Keep the device dry and away from moisture.
- This device is not a toy. Keep out of reach of children. Recommended age for use is 14 years and up.
- Use only power sources within the specified input voltage range (7.0-28.0V @MAX 12A).

3. PACKAGE CONTENTS

Verify that all items are present in your package:

- 1x ToolkitRC M7 Charger
- 1x Quick Manual

Note: A power cord is not included and must be purchased separately.



Image: The ToolkitRC M7 charger, its retail box, and the included quick manual.

4. PRODUCT OVERVIEW

The M7 features a clear IPS LCD display and intuitive controls for easy navigation. Familiarize yourself with the device's components:

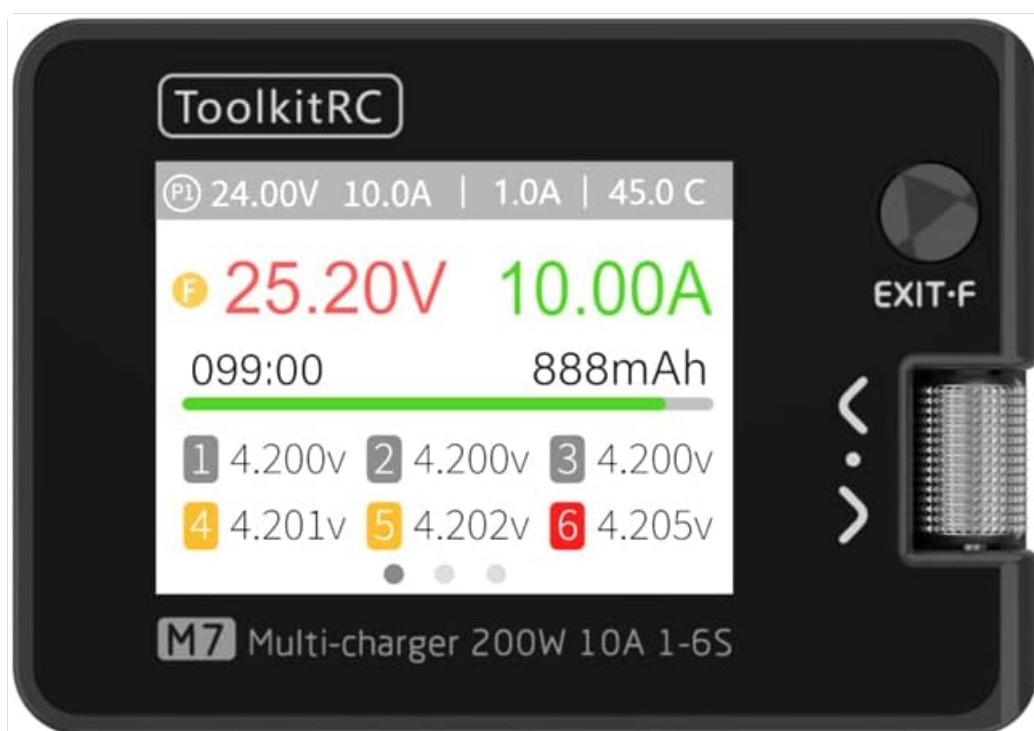
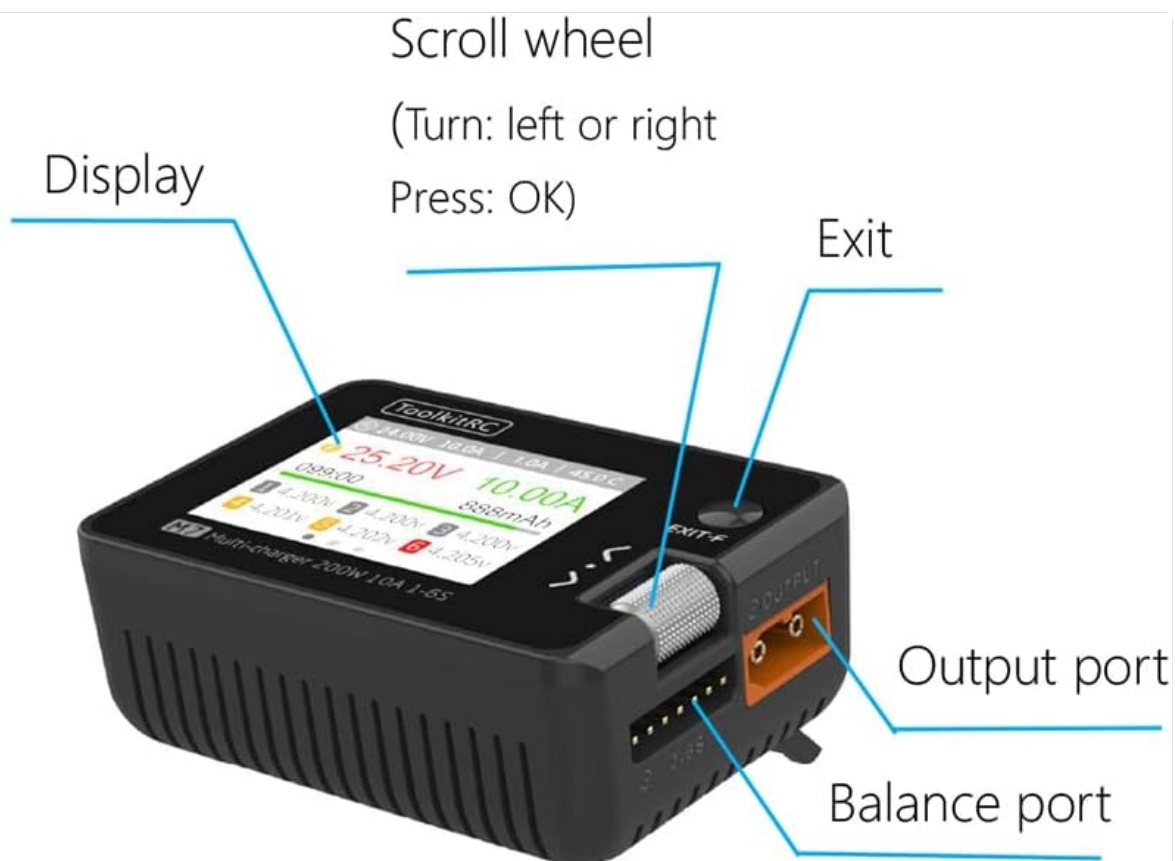
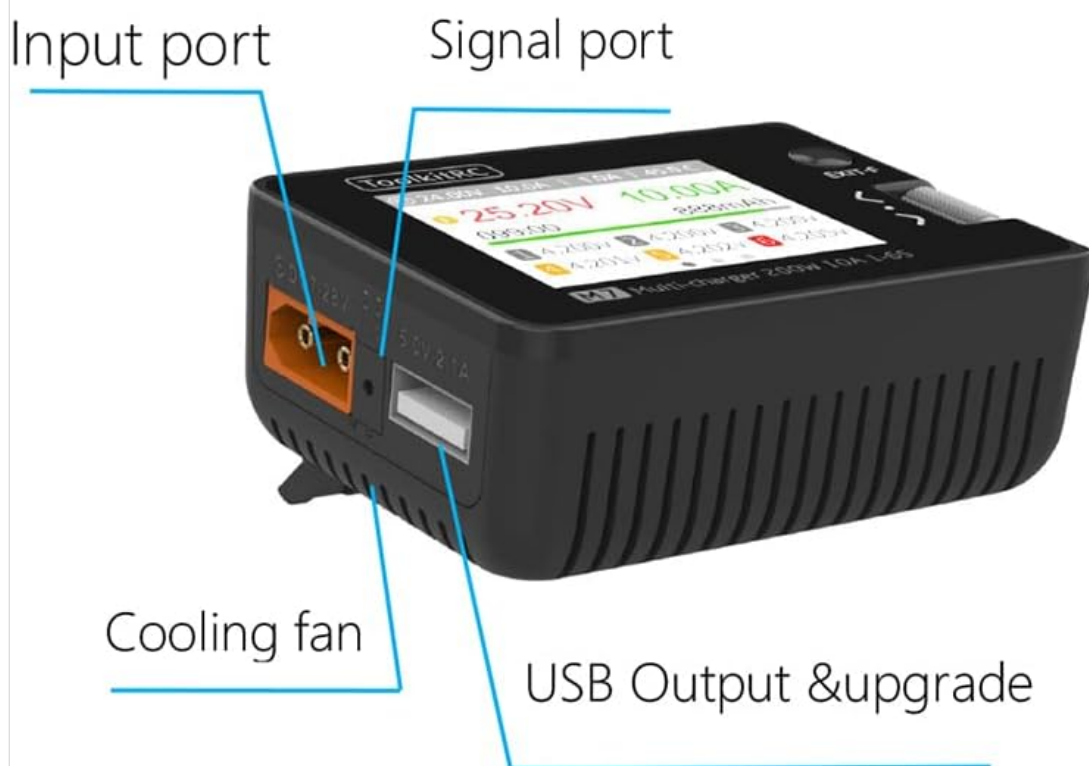


Image: Close-up of the M7's 2.0-inch IPS LCD display, showing battery voltage, current, capacity, and individual cell voltages during

a charging process.



Front



Back

Image: Diagram illustrating the various ports and controls on the ToolkitRC M7. The front side shows the display, scroll wheel (for navigation and OK), Exit button, Output port, and Balance port. The back side shows the Input port (DC 7-28V), USB Output & Upgrade port (5V 2.1A), Cooling fan, and Signal port.

Controls and Ports:

- **Display:** 2.0-inch IPS LCD (320*240 Pixel) for clear information display.
- **Scroll Wheel:** Used for navigating menus (turn left/right) and confirming selections (press OK).
- **EXIT-F Button:** Used to go back in menus or exit current operations.
- **Input Port (DC 7-28V):** Connect your DC power source here.
- **Output Port:** Main XT60 output for charging/discharging batteries.
- **Balance Port (2-6S):** Connect your battery's balance lead for cell balancing.
- **USB Output & Upgrade Port (5V 2.1A):** Provides 5V USB power for charging devices and for firmware upgrades.
- **Signal Port:** Used for PWM, PPM, and SBUS signal testing and output.
- **Cooling Fan:** Dissipates heat during operation.

5. SETUP

1. **Connect Power Source:** Connect a DC power supply (7.0-28.0V) to the M7's input port. Ensure the power supply can provide sufficient current for your charging needs (up to 12A).
2. **Power On:** The M7 will automatically power on once connected to a power source.
3. **Initial Settings:** Upon first use, you may need to configure basic settings such as language and system preferences. Use the scroll wheel to navigate and select.

6. OPERATING INSTRUCTIONS

6.1. Battery Charging/Discharging

1. **Select Battery Type:** From the main menu, navigate to the 'Charger' or 'Battery' function. Select the correct battery type (Lipo, LiHV, LiFe, Lion, NiMh, Pb) and cell count (1-6S for Lipo/LiHV/LiFe/Lion, 1-16S for NiMh, 1-10S for Pb).
2. **Connect Battery:** Connect the battery's main discharge lead to the M7's Output port (XT60). For LiPo/LiHV/LiFe/Lion batteries, also connect the balance lead to the balance port.
3. **Set Parameters:** Set the desired charge current (MAX 10A) and mode (Charge, Balance Charge, Storage, Discharge).
4. **Start Operation:** Confirm settings and start the process. The display will show real-time charging/discharging data.

6.2. Voltage Checker

The M7 can measure individual cell voltages and total pack voltage for 1-6S batteries.

1. **Connect Battery:** Connect the battery's balance lead to the M7's balance port.
2. **Select Voltage Function:** Navigate to the 'Voltage Checker' or 'Battery Info' section.
3. **Read Values:** The display will show the voltage of each cell and the total pack voltage.

6.3. Servo/ESC/Receiver Signal Tester

The M7 can test PWM, PPM, and SBUS signals.

1. **Connect Device:** Connect your servo, ESC, or receiver to the M7's Signal port.
2. **Select Test Mode:** Navigate to the 'Signal Tester' function. Choose between PWM, PPM, or SBUS.
3. **Adjust Parameters:** For PWM output, you can set the pulse width (500-2500us) and frequency (20-1000Hz). For PPM/SBUS, the M7 can output 8CH/16CH signals.
4. **Observe Results:** Monitor the behavior of the connected device or the signal readings on the M7's display.

7. MAINTENANCE

- **Cleaning:** Use a soft, dry cloth to clean the device. Do not use solvents or abrasive cleaners.
- **Storage:** Store the M7 in a cool, dry place when not in use.
- **Firmware Updates:** Periodically check the ToolkitRC official website for firmware updates. Updates can be performed via the USB port.
- **Ventilation:** Ensure the cooling fan is not obstructed during operation to prevent overheating.

8. TROUBLESHOOTING

Problem	Possible Cause	Solution
Device does not power on.	No power input or incorrect voltage.	Check power supply connection and ensure input voltage is within 7.0-28.0V.
Charging error message.	Incorrect battery type/cell count selected, poor connection, or battery fault.	Verify battery type and cell count settings. Reconnect battery. Check battery health.
Screen is blank or frozen.	Software glitch or power issue.	Disconnect and reconnect power. If issue persists, check for firmware updates.
Fan is noisy or not spinning.	Dust accumulation or fan malfunction.	Ensure fan vents are clear. If fan is faulty, contact support.

9. SPECIFICATIONS

Feature	Specification
Product Size	73 x 51 x 27 mm (2.87 x 2.0 x 1.06 inches)
Product Weight	90g (3.17 oz)
LCD Display	IPS 2.0 inch LCD, 320*240 Pixel
Input Voltage	7.0-28.0V @MAX 12A
Supported Battery Types	Lipo, LiHV, LiFe, Lion (1-6S); NiMh (1-16S); Pb (1-10S)
Balance Current	400mA @2-6S
Charger Power	200W @MAX 10A
Discharge Power	200W @MAX 10A (Recycle mode); 10W@3A (Normal mode)

Feature	Specification
USB Output	2.1A @5.0V (also for upgrade)
PWM Input	880-2200us @20-400Hz
PPM Input	880-2200us*8CH @20-50Hz
SBUS Input	880-2200us*16CH @20-100Hz
Voltage Input (Checker)	1.0-5.0V @1-6S
Internal Resistance	1-99mR @1-6S
ESC Output	200W@10A PWM Output
PWM Output	500-2500us @20-1000Hz
PPM Output	880-2200us*8CH @20-50Hz
SBUS Output	880-2200us*16CH @20-100Hz
Power Supply Output	1.0-28.0V @1.0-10A (CC+CV mode)
OverCurrent Cutoff Time	<5ms
Certifications	IEC 61326, CE, IEC 61010-1:2000-1, FCC

10. WARRANTY AND SUPPORT

For warranty information, technical support, and the latest firmware updates, please refer to the official ToolkitRC website or contact your authorized dealer. Keep your purchase receipt as proof of purchase for warranty claims.