ToolkitRC Q6AC

ToolkitRC Q6AC Quad Smart Charger Instruction Manual

Model: Q6AC
Brand: ToolkitRC

1. Introduction

The ToolkitRC Q6AC is a versatile and powerful quad smart charger designed for a wide range of RC battery types, including LiPo, LiHV, Life, Lion, LTO, NiMh, and Pb batteries. It features both AC and DC input modes, four independent charging channels, and multiple smart functions to ensure efficient and safe battery management. This manual provides essential information for the proper setup, operation, and maintenance of your Q6AC charger.



Figure 1.1: ToolkitRC Q6AC Quad Smart Charger in operation.

2. Safety Information

Please read and understand all safety warnings and instructions before using the Q6AC charger. Improper use can lead to fire, property damage, or personal injury.

- Always operate the charger in a well-ventilated area, away from flammable materials.
- Never leave the charger unattended while in use.
- Ensure the battery type and cell count selected on the charger match the battery being charged. Incorrect settings can cause severe damage.
- Do not charge damaged, swollen, or leaking batteries.
- Keep the charger away from moisture, dust, and direct sunlight.
- Use only original or approved accessories and cables.
- Keep out of reach of children.

3. Package Contents

Verify that all items are present in your package:

- ToolkitRC Q6AC Quad Smart Charger
- AC Power Cable
- DC Input Cable (XT90)
- USB-C to USB-C Cable
- Quick Manual



Figure 3.1: Included items in the ToolkitRC Q6AC package.

4. Product Features and Components

The Q6AC charger is equipped with advanced features for comprehensive battery management:

- **AC/DC Dual Input Mode:** Supports AC 400W internal power supply and DC 1000W with XT90 input.
- **4 Channels Independent Charging:** Each of the four ports can operate independently, allowing simultaneous charging or discharging of different battery types and sizes. Maximum 15A per channel.
- **Switchable XT30/XT60 Ports:** Unique design allows easy switching between XT30 and XT60 output ports without external adapters.
- **Multi-Protocol Wireless Charging:** Integrated wireless charging pad for compatible devices.
- **USB-C/USB-A Fast Charging:** Max 65W output for USB-C and 30W for USB-A, covering various devices.
- **Automated Fan Speed:** Intelligent cooling system adjusts fan speed based on real-time heat demand to maintain optimal operating temperature.
- **One-Touch Intuitive UI Design:** User-friendly interface provides full details for single channels and a comprehensive view of all four channels simultaneously.



Figure 4.1: Overview of Q6AC key features.



Figure 4.2: Four independent charging channels.

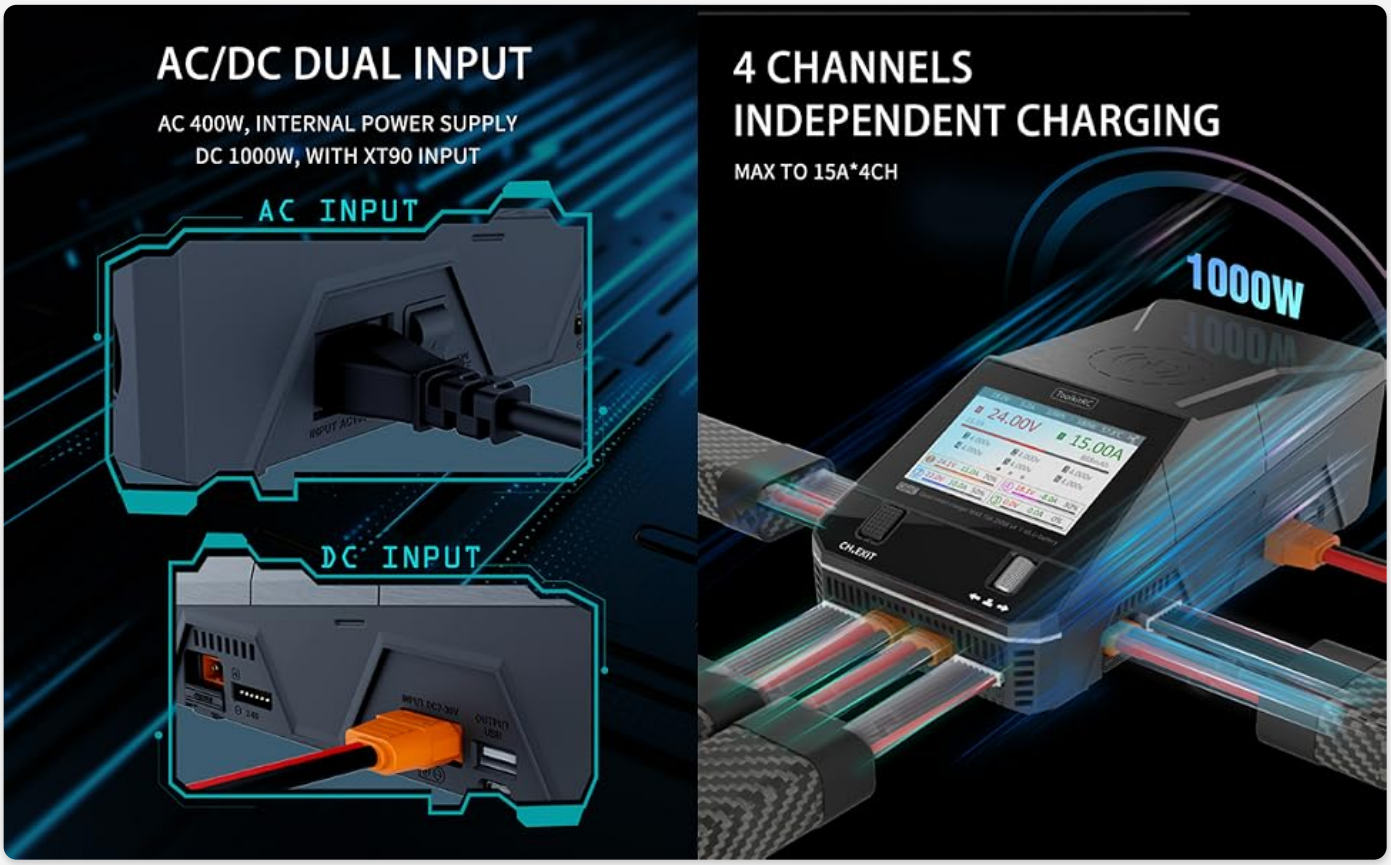


Figure 4.3: AC/DC Dual Input options.



Figure 4.4: Wireless charging capability.



Figure 4.5: USB-C and USB-A fast charging ports.



Figure 4.6: Automated fan speed for efficient cooling.



Figure 4.7: Easily switchable XT30 and XT60 ports.

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Video 4.1: Official product video showcasing the ToolkitRC Q6AC Smart Charger's features and capabilities.

5. Setup

Follow these steps to set up your Q6AC charger:

1. **Power Connection:**
    - For AC input, connect the provided AC power cable to the charger's AC input port and then to a wall outlet.

    - For DC input, connect the XT90 DC input cable to the charger's DC input port and to a compatible DC power source (e.g., a power supply or car battery). Ensure correct polarity.
2. **Power On:** Flip the power switch to the 'ON' position. The charger display will illuminate.
3. **Initial Setup:** The charger may prompt you for initial settings such as language or system preferences. Use the dial wheel and buttons to navigate and confirm.

6. Operating Instructions

This section outlines the basic operation for charging and discharging batteries.

6.1. Charging a Battery

1. **Connect Battery:** Connect your battery to one of the charger's output ports (XT30 or XT60, depending on your battery connector). Ensure the balance lead (if applicable) is also connected to the corresponding balance port.
2. **Select Channel:** Use the navigation controls to select the desired charging channel on the display.
3. **Choose Battery Type:** Select the correct battery chemistry (e.g., LiPo, LiHV, NiMh) from the menu.
4. **Set Parameters:** Adjust the cell count (e.g., 3S, 4S), charging current (Amps), and charging mode (e.g., Balance Charge, Fast Charge, Storage Charge).
5. **Start Charging:** Confirm the settings and initiate the charging process. The display will show real-time charging status.
6. **Monitor Progress:** Regularly monitor the charging process. The charger will automatically stop when the battery is fully charged.

6.2. Discharging a Battery

To discharge a battery, follow steps 1-3 from the charging instructions, then:

4. **Select Discharge Mode:** Choose 'Discharge' or 'Storage' mode from the menu.
5. **Set Parameters:** Adjust the discharge current and target voltage. For storage, the charger will discharge or charge to the optimal storage voltage.
6. **Start Discharging:** Confirm settings and begin the discharge process.

6.3. Using Wireless and USB Charging

- **Wireless Charging:** Place a compatible device (e.g., smartphone) on the wireless charging pad located on top of the charger. Ensure the device is centered for optimal charging.
- **USB Charging:** Connect your device to the USB-C or USB-A output port using a suitable cable. The charger will automatically detect and provide power.

7. Maintenance

Proper maintenance ensures the longevity and optimal performance of your Q6AC charger:

- **Cleaning:** Regularly wipe the charger with a soft, dry cloth. Do not use abrasive cleaners or solvents. Ensure no dust or debris accumulates in the fan vents.
- **Storage:** Store the charger in a cool, dry place away from direct sunlight and extreme temperatures when not in use.
- **Firmware Updates:** Check the ToolkitRC official website periodically for firmware updates. Updating the firmware

can improve performance and add new features. Refer to the website for specific update instructions.

8. Troubleshooting

If you encounter issues with your Q6AC charger, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
Charger not powering on	No power supply; Power switch off; Faulty cable	Check power connections; Ensure switch is ON; Try a different cable.
Battery not detected	Incorrect connection; Damaged battery; Incorrect settings	Ensure main and balance leads are securely connected; Check battery health; Verify battery type and cell count settings.
Overheating during operation	Poor ventilation; Excessive current; Faulty fan	Ensure adequate airflow around the charger; Reduce charging/discharging current; Contact support if fan is not operating.
Charging process stops prematurely	Battery full; Safety cutoff triggered; Connection issue	Check battery voltage; Review error messages on display; Re-connect battery and restart.

If the problem persists after trying these solutions, please contact customer support.

9. Specifications

Detailed technical specifications for the ToolkitRC Q6AC charger:

Specification	Value
Product Dimensions	8.6 x 4.5 x 3.2 inches (21.8 x 11.4 x 8.1 cm)
Item Weight	2.47 pounds (1120 Grams)
Input Voltage (AC)	100-240V AC
Input Voltage (DC)	7-36V DC
Charge Power (AC)	400W
Charge Power (DC)	1000W
Charge Current	0.1-15A x 4 channels
Discharge Power	15W x 4 channels
Output Voltage	16.67 Volts (Max)
Battery Types Supported	LiPo/LiHV/Life/Lion (1-6S), NiMh (1-16S), Pb (1-10S)
Balance Current	1000mA x 4 channels

Specification	Value
Wireless Charging Output	Max 15W
USB-C Output	Max 65W
USB-A Output	Max 30W
Safety Certifications	RoHS, UL, FCC

10. Warranty and Support

For warranty information and technical support, please refer to the documentation included with your product or visit the official ToolkitRC website. Keep your purchase receipt as proof of purchase for any warranty claims.

If you require assistance with troubleshooting or have questions not covered in this manual, please contact ToolkitRC customer service or the retailer from whom you purchased the product.

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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.

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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