XTAR VC4 PLUS

XTAR VC4 Plus 4-Bay Universal Battery Charger User Manual

Model: VC4 PLUS

1. INTRODUCTION

The XTAR VC4 Plus is an advanced 4-bay universal battery charger designed for various rechargeable battery types, including 3.6V/3.7V Li-ion (IMR/INR/ICR) and 1.2V Ni-MH/Ni-CD batteries. It features a smart LCD display, multiple charging modes, and comprehensive safety protections. This manual provides essential information for safe and efficient operation of your charger.

2. SAFETY INFORMATION

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

- Use the charger only for rechargeable batteries specified in this manual.
- Do not charge non-rechargeable batteries.
- Keep the charger away from water, moisture, and high temperatures.
- Do not disassemble or modify the charger.
- Ensure proper ventilation during charging.
- Unplug the charger from the power source when not in use.
- Keep out of reach of children.

3. PACKAGE CONTENTS

Verify that all items are present in your package:

- XTAR VC4 Plus Charger
- USB-C Cable
- US Quick Charge 18W Adapter
- User Manual

- Storage Pouch

Image: Contents of the XTAR VC4 Plus charger package.

4. PRODUCT FEATURES

The XTAR VC4 Plus charger offers a range of features for efficient and safe battery charging:

- **Wide Compatibility:** Supports 3.6V/3.7V Li-ion (10440 to 32650) and 1.2V Ni-MH/Ni-CD (AAAA, AAA, AA, A, SC, C) batteries.
- **Smart LCD Display:** Shows real-time charging current, battery voltage, charging capacity, internal resistance, and battery type.
- **Multiple Operation Modes:** Includes Charging, Grading (capacity testing), and Storing modes.
- **Adjustable Charging Current:** Selectable currents (3A, 2A, 1A, 0.5A, 0.25A) for optimal charging.
- **USB-C Input with QC3.0 Adapter:** Ensures fast and stable power delivery.
- **0V Activation Function:** Can revive over-discharged batteries.
- **Comprehensive Protections:** Over-charge, over-discharge, short-circuit, reverse polarity, and temperature protection.

- **Efficient Heat Dissipation:** Designed with stripe cracks for better heat loss and automatic temperature adjustment.

Image: The XTAR VC4 Plus charger's compatibility with a wide range of battery sizes, including Li-ion and Ni-MH types.
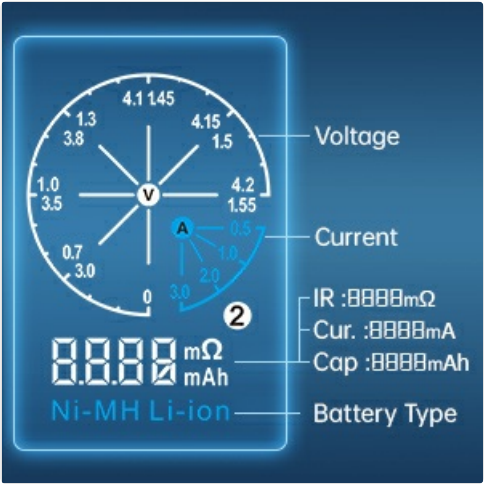

Image: An explanation of the information displayed on the charger's LCD screen, including voltage, current, internal resistance, capacity, and battery type.

Image: Visual representation of the various safety features integrated into the XTAR VC4 Plus charger.

5. SETUP

1. **Connect Power:** Plug the USB-C cable into the charger's input port and connect the other end to the provided 18W QC3.0 adapter. Plug the adapter into a suitable power outlet. The LCD screen will illuminate.

2. **Insert Batteries:** Carefully insert rechargeable batteries into the charging bays, ensuring correct polarity (+/-). The charger will automatically detect the battery type and begin charging.

Image: The XTAR VC4 Plus charger properly connected to a power source with batteries in its bays.
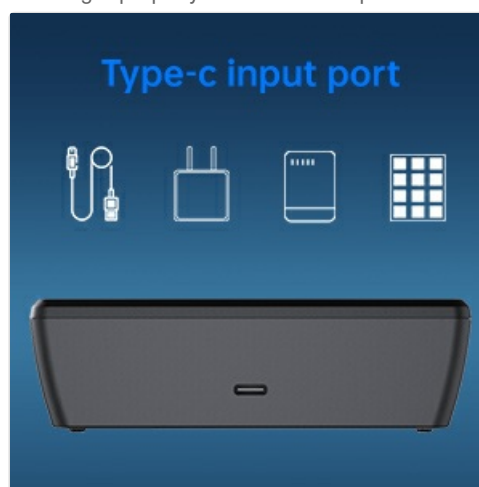

Image: The Type-C input port on the XTAR VC4 Plus charger.

6. OPERATING INSTRUCTIONS

6.1 Basic Charging

Once batteries are inserted, the charger will automatically detect their type and initiate charging. The LCD will display real-time information for each channel.

6.2 Understanding the LCD Display

The LCD screen provides detailed information for each of the four channels:

- **Voltage (V):** Current battery voltage.
- **Current (A):** Real-time charging current.
- **IR (mΩ):** Internal Resistance of the battery.
- **Cap (mAh/Wh):** Accumulated charging capacity or energy.
- **Battery Type:** Indicates Li-ion or Ni-MH.

6.3 Changing Charging Current

Press the 'Curr.' button to cycle through available charging currents (0.25A, 0.5A, 1A, 2A, 3A). The charger can deliver a maximum of 3A to a single slot, 2A to two slots simultaneously, or 1A to all four slots.

Image: Illustration of the maximum charging current distribution across the charger's slots.

6.4 Operation Modes

Press the 'Mode' button to switch between the three operation modes:

- **Charging Mode:** Standard charging of batteries.
- **Grading Mode:** Tests the real capacity of batteries by fully charging, discharging, and then recharging them. The final charge capacity is displayed.
- **Storing Mode:** Charges or discharges Li-ion batteries to their optimal storage voltage (typically 3.7V-3.8V) to maximize lifespan when not in use.

Triple Operation Modes

Charging Mode :
charge rechargeable batteries

Grading Mode :
Examine the real capacity of rechargeable batteries

Storing Mode :
Activate and motivate your rechargeable batteries

Image: The three distinct operational modes of the XTAR VC4 Plus charger.

Test Batteries Real Capacit

Charge >> Discharge >> Charge

Image: The sequence of operations performed during the Grading Mode to test battery capacity.

Image: The function of Storage Mode, preparing batteries for extended periods of non-use.

6.5 0V Activation

The VC4 Plus can attempt to revive deeply discharged Li-ion batteries (0V activation). Insert the battery, and the charger will automatically try to activate it. If successful, it will begin normal charging.

Image: The 0V activation feature of the charger, designed to revive over-discharged batteries.

6.6 LED Indicators

The charger features LED indicators for each channel:

- **Green:** Standby or fully charged.
- **Red:** Charging.
- **Grey/Off:** Power supply unconnected or error.

Image: A guide to understanding the LED indicator lights on the XTAR VC4 Plus charger.

7. MAINTENANCE

- Clean the charger regularly with a dry, soft cloth. Do not use abrasive cleaners or solvents.
- Ensure the charging bays are free of dust and debris.
- Store the charger in a cool, dry place when not in use.
- Avoid dropping or subjecting the charger to strong impacts.

8. TROUBLESHOOTING

- **Charger not powering on:**

  - Check if the power adapter is securely plugged into both the charger and the wall outlet.
  - Ensure the power outlet is functional.
  - Try a different USB-C cable or power adapter if available.

- **Battery not charging:**

  - Verify that the battery is inserted with correct polarity.
  - Ensure the battery is a compatible rechargeable type (Li-ion or Ni-MH/Ni-CD).
  - Check if the battery is severely over-discharged (0V activation might be needed).
  - Clean battery contacts and charger contacts.
  - If an error is displayed, the battery might be faulty or incompatible.

- **Inconsistent IR readings:**

  - Internal Resistance measurements can vary slightly. For critical applications, take multiple readings across different slots and average them.
  - Ensure good contact between battery and charger terminals.

9. SPECIFICATIONS

Parameter	Value
Model	VC4 PLUS

Input Voltage	5V
Output Voltage	5V
Compatible Battery Types	3.6V/3.7V Li-ion (IMR/INR/ICR), 1.2V Ni-MH/Ni-CD
Compatible Li-ion Sizes	10440, 14500, 14650, 16340, 17335, 17500, 17670, 18350, 18490, 18500, 18650, 18700, 20700, 21700, 22650, 25500, 26650, 32650
Compatible Ni-MH/Ni-CD Sizes	AAAA, AAA, AA, A, SC, C
Max Charging Current	3A x 1 slot, 2A x 2 slots, 1A x 4 slots
Product Dimensions	5.5 x 4.2 x 1.1 inches (140 x 107 x 28 mm)
Item Weight	13 ounces (368.5 grams)
Manufacturer	XTAR

10. WARRANTY AND SUPPORT

The XTAR VC4 Plus charger comes with a **30-day money-back guarantee** and a **24-month warranty** for friendly customer service. If you encounter any issues with your product, please contact XTAR customer support. We are committed to resolving any concerns within 24 hours.

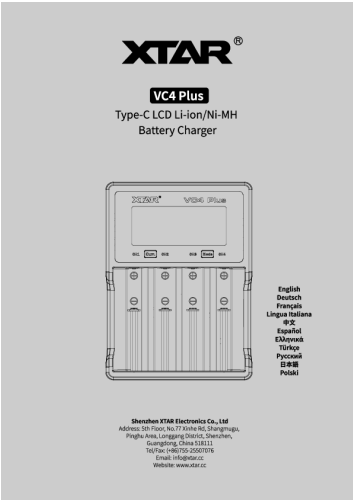For support, please refer to the contact information provided with your purchase or visit the official XTAR website.

Related Documents - VC4 PLUS

	XTAR C4-EVO Battery Charger User Guide Comprehensive user guide for the XTAR C4-EVO battery charger, detailing its features, operation, and specifications for various battery types.
	XTAR MC2 Portable Li-ion Battery Charger - User Manual & Specifications Comprehensive guide to the XTAR MC2 portable Li-ion battery charger, covering features, technical specifications, operation, supported batteries, LED indicators, customer service, and safety notices.

	XTAR PB2S Portable Power Bank Charger - User Manual Comprehensive user manual for the XTAR PB2S Portable Power Bank Charger, detailing its features, specifications, operation, warranty, and safety guidelines. Supports QC3.0 and PD3.0 charging.
	XTAR BC4 Type-C Battery Charger User Manual Comprehensive user guide for the XTAR BC4 Type-C battery charger, covering its features, specifications, operation for 1.5V Li-ion and 1.2V Ni-MH batteries, LED indicators, warranty information, and important safety warnings.
	Voice Caddie VC4 Aiming User Manual and Warranty Comprehensive user manual and warranty certificate for the Voice Caddie VC4 Aiming golf GPS device, detailing features, usage, charging, updates, and warranty information.
	Crestron Virtual Control Server Software: Product Manual for Server-Based Control Systems This product manual provides comprehensive details on Crestron Virtual Control Server Software (VC-4) and the VC-4-PC-3 micro computer. Learn about features, specifications, installation, configuration, and secure deployment of this enterprise-grade server-based control system.

Documents - XTAR – VC4 PLUS

[pdf] User Manual

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[pdf] Catalog

XTAR Charger Catalog 2021 Update v4 cecdn yun300 cn 100001 1903115277 |||

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