

Manuals.plus /

› XTAR /

› Universal Battery Charger XTAR VC2SL LCD Display Speedy Smart Charger for Rechargeable Batteries Ni-MH Ni-Cd AA AAA Li-ion IMR

## XTAR xtar-vc2sl

# XTAR VC2SL Universal Battery Charger User Manual

Model: xtar-vc2sl | Brand: XTAR

## INTRODUCTION

The XTAR VC2SL is a versatile and intelligent battery charger designed for a wide range of rechargeable batteries. It features an LCD display that provides real-time charging information, multiple safety protections, and a convenient USB output function for charging external devices. This manual provides detailed instructions for the safe and efficient operation of your VC2SL charger.

## KEY FEATURES

- **Wide Compatibility:** Supports 3.6V/3.7V Li-ion (IMR/INR/ICR) batteries including 10440, 14500, 16340, 17335, 17500, 17670, 18350, 18490, 18650, 20700, 21700, 22650, 25500, 26650, and 1.2V Ni-MH/Ni-Cd batteries such as AAAA, AAA, AA, A, SC, C. Capable of charging protected 20700/21700 batteries.
- **Intelligent LCD Display:** Provides real-time information including charging capacity (CAP), real-time charging current (CCR), battery internal resistance (IR), and battery voltage.
- **Flexible Charging Currents:** Supports charging currents of 1x2A, 2x1A, and 2x0.5A.
- **USB Type-C Input:** Modern and convenient power input.
- **USB Output Function:** Can function as a power bank to charge external devices like smartphones, with power-path management.
- **Multiple Safety Protections:** Includes short circuit protection, overcharge protection, 0V activation for over-discharged batteries, reverse polarity protection, and temperature control.
- **Three-Stage Charging:** Ensures optimal battery health and longevity.

## PACKAGE CONTENTS

- 1 x XTAR VC2SL Battery Charger
- 1 x USB Type-C Cable
- 1 x User Manual

## Package Included

1x Charger, 1x USB Cable, 1x Manual



Image: The XTAR VC2SL charger, a USB Type-C cable, and the user manual, illustrating the complete package contents.

## SETUP

1. **Unpack:** Carefully remove the XTAR VC2SL charger, USB cable, and user manual from the packaging.
2. **Connect Power:** Insert the USB Type-C end of the provided cable into the charger's Type-C input port. Connect the other end of the USB cable to a compatible USB power adapter (e.g., 5V/2.1A or higher recommended for optimal performance, not included).
3. **Power On:** The LCD display will illuminate, indicating the charger is ready for use.



Image: The XTAR VC2SL charger shown with its USB Type-C input and USB output ports, alongside the included USB cable, demonstrating its connectivity.

## OPERATING INSTRUCTIONS

### Inserting Batteries

Gently insert the rechargeable batteries into the charging slots, ensuring the positive (+) and negative (-) terminals align correctly with the markings on the charger. The charger has two independent charging channels (CH1 and CH2).

Your browser does not support the video tag.

Video: A demonstration of inserting a battery into the XTAR VC2SL charger and observing the LCD display activate to show charging information. This video highlights the ease of use and immediate feedback provided by the charger.

### Understanding the LCD Display

The LCD display provides comprehensive real-time information for each charging channel:

- **Voltage (V):** Shows the current voltage of the battery.
- **Charging Capacity (mAh):** Displays the accumulated charging capacity.
- **Charging Current (A):** Indicates the current charging rate.
- **Internal Resistance (mΩ):** Shows the internal resistance of the battery.
- **Battery Type:** Identifies whether the battery is Li-ion or Ni-MH.

## Digital VA LCD Screen

Press the button to switch the display of CAP /CCR / IR



0.5A 1A 2A

Charging Current Gear

0V ~ 4.2V

Battery Voltage

8888 mAh

Charging Capacity

Li-ion Ni-MH

Battery Type

8888 mΩ

Battery Internal Resistance

Image: A detailed view of the XTAR VC2SL's digital VA LCD screen, highlighting the various data points displayed, including charging current gear, battery voltage, charging capacity, battery type, and battery internal resistance.

## Switching Display Modes

Press the button located between the two charging channels to cycle through the display modes: Capacity (CAP), Real-time Charging Current (CCR), and Internal Resistance (IR).

## USB Output Function (Power Bank)

The VC2SL can act as a power bank to charge external USB devices. Insert a charged Li-ion battery (or batteries) into the charger, then connect your device to the USB output port. The charger will prioritize discharging the battery in the left slot by default if two batteries are inserted.



Image: The XTAR VC2SL charger demonstrating its powerful USB output function, charging a smartphone and a tablet simultaneously, highlighting its versatility as a portable power source.

## SAFETY FEATURES AND PROTECTIONS

The XTAR VC2SL is equipped with multiple safety features to ensure safe charging and prolong battery life:

- **Short Circuit Protection:** Prevents damage from short circuits.
- **Overcharge Protection:** Automatically stops charging when batteries are full.
- **0V Activation:** Can revive deeply discharged (0V) batteries.
- **Reverse Polarity Protection:** Displays "Err" if a battery is inserted incorrectly, preventing damage.
- **Temperature Control:** Monitors and regulates internal temperature during charging.
- **Three-Stage Charging (TC/CC/CV):** Ensures optimal charging for different battery states.

## Multi-Protection More Safety



The image shows the XTAR VC25L battery charger, a black device with a digital display and two charging channels (CH1 and CH2). Two blue XTAR 500mAh batteries are inserted into the slots. The display shows two gauges for voltage and current, and the brand name 'XTAR VC25L' is visible at the top. The device is surrounded by a blue circular graphic with circuit-like patterns.

<b>Short circuit Protection</b>	<b>Overcharge Protection</b>
<b>0V Activation</b>	<b>Reverse Protection</b>
<b>Temperature Control</b>	<b>Three-stage Charging</b>

Image: An illustration highlighting the multi-protection features of the XTAR VC25L charger, including short circuit protection, overcharge protection, 0V activation, reverse protection, temperature control, and three-stage charging, ensuring enhanced safety.

- **Cleaning:** Use a soft, dry cloth to clean the charger. Do not use abrasive cleaners or solvents.
- **Storage:** Store the charger in a cool, dry place away from direct sunlight and extreme temperatures.
- **Handling:** Avoid dropping the charger or subjecting it to strong impacts.

## TROUBLESHOOTING

Problem	Possible Cause	Solution
Charger display is off / not powering on.	No power supply or faulty cable/adaptor.	Ensure the USB cable is securely connected to both the charger and a working USB power source. Try a different USB cable or power adapter.
"Err" displayed on screen.	Battery inserted with reverse polarity or short-circuited battery.	Remove the battery and re-insert it with correct polarity. If "Err" persists, the battery may be faulty or short-circuited.
Battery not charging.	Battery is fully charged, faulty, or incompatible.	Check the display for "Full" indication. Ensure the battery type is compatible with the charger. Try another known good battery.
USB output not charging external device.	Insufficient battery power in charger, or external device cable issue.	Ensure the Li-ion battery in the charger is sufficiently charged. Try a different USB cable for the external device.

## SPECIFICATIONS

Feature	Detail
Model	VC2SL
Input Voltage	5V DC
Input Current	2.1A
Cut-off Voltage (Li-ion)	4.2V ± 0.05V
Cut-off Voltage (Ni-MH)	1.45V ± 0.1V
Cut-off Current	≤ 150mA
Operating Temperature	0-40°C
USB Output	DC 5V / 1A
Dimensions (L x W x H)	136.5mm x 67.6mm x 33.5mm (5.37 x 2.66 x 1.32 inches)
Net Weight	115g (3.84 ounces)

## **WARRANTY AND SUPPORT**

XTAR provides customer support for their products. If you encounter any issues with your VC2SL battery charger, please contact XTAR customer service. They are committed to resolving issues within 8 hours.

For further assistance, please refer to the official XTAR website or contact their support channels as provided in your product packaging or on their official website.

*Note: Warranty terms and conditions may vary. Please refer to the official XTAR warranty policy for detailed information.*