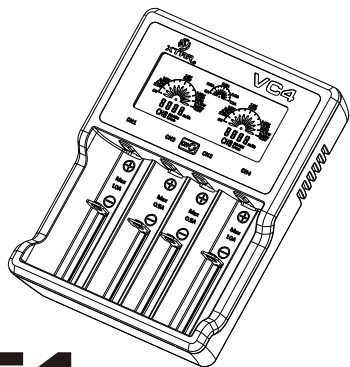




Shenzhen XTAR Electronics Co., Ltd



VC4

INTELLIGENT USB LCD CHARGER MANUAL

Shenzhen XTAR Electronics Co., Ltd
Address: 5th Floor, No.77 Xinhé Rd,
Shangmang District, Shenzhen, Guangdong, China
Zip Code: 518111
Web site: www.xtarlight.com
Email: sales@xtarlight.com
Tel: +86-755-25507076

ABOUT XTAR

The name XTAR, derived from X-STAR, representing the innumerable unknown stars, brings us an infinite imagination and expectation. XTAR logo consists of spherical figure and characters, implying the modest spirit of our company, XTAR being tolerant to diversity and our aspirations towards continuing development and innovation.

XTAR brand came into conception and determined to make high quality chargers, flashlights and batteries in 2006. In 2007, Shenzhen Winner Bros Import & Export Co., Ltd was established in Shenzhen, China. Two years later, Hong Kong XTAR Co., Ltd was established for the international market. With the concept and the determination of making China's Got Quality and 8 years' hard working, we finally have made our concept a reality. A reality that XTAR is known worldwide and distributors are all over the world. With the rapid development of XTAR, our own factory was set up and in the meantime, Shenzhen XTAR Electronics Co., Ltd was founded in 2014.

XTAR products obtain more than 30 patents and are selling well in 120 countries including USA, Germany, Australia, Japan, Korea, Russia and so on. The high quality of XTAR products make it possible not only to pass CE, ROHS and other major certificates, but also certificates like UL, PSE, SAA, MEPS, C-Tick etc.

XTAR team dedicate themselves to creative design, high quality control and wholehearted after-sale service to make it an enjoyment when people are using XTAR products or talking with XTAR team.

XTAR always believe in China's Got Quality.

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INTRODUCTION

XTAR VC4 is a premium USB 4-bay LCD charger and compatible with Li-ion and Ni-MH batteries. VC4 is well designed with informative display and ability of identify input power. It indicates the charging current, voltage and the capacity having been charged to each battery. With the VC4, safety is paramount.

FEATURES & SPECIFICATIONS

■ FEATURES:

- Apply to 10440/14500/14650/16340/17670/18350/18490/18500/18650/18700/22650/25500/26650/32650 3.6V/3.7V lithium-ion type battery also AAAA/AAA/A/SC/C/D Ni-MH type battery.
- Each channel is independent. It can charge two completely different types of battery at once by automatically identifying the battery type and the charging mode.
- Intelligent. Automatically choose TC/CC/CV which is the best charging method to charge Li-ion battery.
- Optional charging currents, 0.5 A and 1.0 A selected by placement of the batteries.
- 0V activation function. It can wake up over discharged(voltage \leq 2.0V) batteries.
- Smartly identify bad batteries and notify the users.

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- Intelligently identify input power.
- Soft-start function avoids damage from large current while charging.
- Suitable for IMR battery, small capacity battery and flat top battery.
- Slot #1 and #4 have wider bays which can handle 26650/flat 32650 without any problems.
- Protections for overcharge, reverse polarity and short circuit.
- The screen can be turned off for energy saving and environmental protection.
- Fireproof ABS casing.

■ SPECIFICATIONS:

Input	DC 5.0V 2.1A
Charge current options	500mA x 4
	1000mA x 2
Cut Off Voltage for Li-ion Battery	4.2 V \pm 0.05V
Cut Off Voltage for Ni-MH Battery	1.45V \pm 0.1V
Activation/TC Current	100mA
Operating Temperature	0-40 c
Net weight	210g
Size	L149*W115*H35mm

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LCD DISPLAY INSTRUCTION

■ Current Instrument Display:

- Current Instrument scales from 0A - 1.0A.
- Dial pointer to default 0.5A when standby.
- Dial pointer readout represents the charging current gear.

■ Voltage Instrument Display:

- Voltage Instrument scales from 0V-4.2V or 0V-1.55V .
- Dial pointer to certain readout while battery at CC/CV charging stage or charged. Each channel has an independent dial to display the real time voltage.
- Dial reading is corresponding to battery voltage range, and it changes as battery voltage increasing while charging. 0V dial readout under below circumstances:
 - Standby, no battery inserted;
 - Short-circuit occurs between the channel poles;
 - Battery voltage less than 2.90V;
 - Battery polarity reversed or unconnected (not being charged).

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Intelligent charge current parameter:

Charge current \ Slot	CH1	CH2	CH3	CH4
0.50A	■	■	□	□
	□	□	■	□
	□	■	■	□
	■	□	□	□
	■	■	■	□
	□	■	■	■
	□	□	□	■
	□	□	□	■
	□	□	□	■
	□	□	□	■
1.0A	■	□	□	■
	□	□	□	□
	□	□	□	□
	□	□	□	■

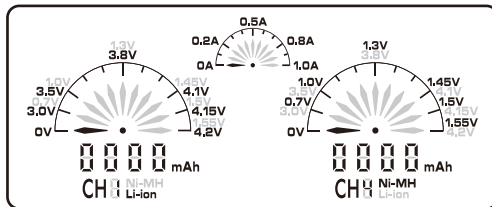
Note: ■Slot with battery; □Slot without battery.

LED indication:

- **Red on:** Charger is being self-check (all lights on) or Battery is being charged
- **Green on:** Any of the following conditions:
 - Charge is complete
 - No battery is inserted
 - Over-discharged battery is being activated
 - Battery polarity is reversed, short circuit
 - Poor connection.

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LCD display indication:



USAGE

- Use a standard USB port power adaptor, plug the USB cable DC connector into the VC4 charger. Plug the other end of the power adaptor into an applicable outlet. When power is connected, the charger will run a quick self-check, and LCD screen displays all contents for around 2s, three dial pointers drop from max reading to 0, current dial pointer jumps back to **0.5A**, charged capacity indicator shows "8888mAh" from "0000mAh", charger gets ready and standby.

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- Insert rechargeable Li-ion batteries or Ni-MH batteries with correct polarity, the LCD will display the battery type "**Li-ion**" or "**Ni-MH**" and channel (CH) number. Then the charging is beginning, the LED indicators turn Red. The dial pointer will point at the real voltage, charging current gear and calculating the capacity volume having been charged, the forth number of volume indicator is flashing.
- On the top of the charger there is a switch button to select displaying charging channels CH1&CH4 or CH2&CH3.

- If the charger is left to stand for 2 minutes without inserting any battery or pressing the switch button, it will start the energy-saving function as brightness of LCD screen decreased.

- By holding the switch button down the LCD display screen can be turned off/on, this will not affect any function in the charger.

- Charger will stop charging automatically when batteries are fully charged, dial pointer point at 4.2V for li-ion battery or 1.45V for Ni-MH battery. LCD screen shows "FULL" notice alternately with charged capacity readout. And at the same time the LED indicators turn green. Please remove the batteries after finishing charge.

- Voltage Dial pointer to "0V" after taking out the batteries, and charged volume clears to zero, charger now back to standby.

- Disconnect outer power while charger not in use.

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TIPS

- The slots are clearly marked with charge current. There is no switch to select charge current, it depends on the battery placement. If a battery is placed in one or both of the two center slots the charge current will be 0.5A for all slots. If only the outer #1 and #4 slots are used the charge current will be 1A.

- How to test your batteries mAh capacity:

Step 1: Insert your discharged battery (at a discharge cut-off voltage generally below 3.0V)

Step 2: Let the battery charge and notice the 0000mAh displayed on the screen. Do not remove the battery until the charge is complete.

Step 4: The mAh on the screen should now give you the batteries actual capacity.

Step 3: When the battery is fully charged, the screen will show "FULL" and the LED indicators turn from red to green.

- Intelligently identify input power and automatically adjust the most suitable charge current.

- During 0V activation, dial pointer to 0V and 0.5A, the forth number of charged volume indicator gets flickering. VC4 has powerful 0V activation function to inspire over discharged li-ion batteries back to life in a short time. If battery voltage is still showing 0V after charging 10min, LCD will show "Full" notice, meaning that the battery is over discharged badly and can't be activated.

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- VC4 has self-protection function to avoid damage during standby mode. All channels will not charge if short-circuit occurs or batteries been inserted reversely, voltage dial pointer to 0V, charged capacity readout shows "Err". When problems (short-circuit or reverse inserted batteries) corrected, charger will start charging and screen will show cumulative charged capacity.

- The voltage dial pointer readout is the real time voltage that the charger detects. The voltage is combined by battery's internal resistance and charging is also calculated into the readout.

NOTICE

- The VC4 has integrated short-circuit protection which only protects the charger, it does not prevent batteries from short-circuiting internally.

- A short circuit of battery is dangerous. Please do not charge this battery again.

- Please do not charge a battery which is worn out.

- Please do not over discharge a battery.

- Because of different battery types, capacities and over-discharge conditions, the battery revive time may vary. Badly over discharged batteries will not be able to be woken up.

- Keep the charger away from water and excessive dust.

- Children should be supervised by an adult when using the charger.

- Do not disassemble or modify the charger.

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WEBSITE & ANTI-FAKE INQUIRY

- Welcome to visit our company website to get more information.

<http://www.xtarlight.com>

- Follow us on Facebook:

www.facebook.com/ShenzhenXTAR

- Anti-fake inquiry: A group of eighteen-digit number could be gained by scraping the anti-counterfeiting label on our product or package. Then, input it to the corresponding query window in our service column of our official website to distinguish the product's authenticity. The serial number does the same work.

- Thank you for choosing our excellent products, your satisfaction and feedbacks are essential to our progress.

CE RoHS

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