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## ABOUT XTAR

Hong Kong XTAR Co., Ltd. ("XTAR") is a company established in 2007, with a focus on charger, flashlight, and battery research and development. Over the years, XTAR has experienced rapid development and growth, and is currently utilizing its acquired professional skills towards advanced research in charger and flashlight technology. To date, XTAR has obtained more than 30 patents, and XTAR products are used in over 120 countries, including the USA, UK, Japan, Germany, France, Norway, and Australia.

The name XTAR, derived from "X-STAR", representing the innumerable unknown stars in the universe, brings to mind a vision of infinite imagination. The XTAR logo, a trademark of Hong Kong XTAR Co., Ltd., contains a spheroidal figure and character that together represent the modest spirit of our company, XTAR being tolerant to diversity and our aspirations towards continuing development and innovation.

Battery chargers and flashlights may be common, everyday items, but the traits that make XTAR and XTAR products unique are our creative designs, high quality, and dedicated after-sales support. XTAR strives to earn your trust by exceeding your expectations in all these areas.

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## INTRODUCTION

XTAR MC2 is a professional portable intelligent lithium-ion battery charger with two slots charging independently. It's compatible with 14500/14650/16340/17500/17670/ 18350/18500 /18650/18700/26650 3.6V/3.7V rechargeable Li-ion batteries.

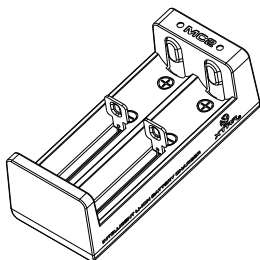
With a three-stage charge algorithm, 0V activation of batteries, and real-time detection of battery state, MC2 charges batteries intelligently and safely. Meanwhile, the built-in reverse-polarity and short-circuit protection are great insurance for safely charging.

MC2 charger applies to all kinds of Micro USB interface for power supply. The function of intelligently identifying input power and automatically shifting charge current creates more convenience and flexibility for charging.

With over-heat protection function, when operate in high temperature, MC2 will automatically lower charge current to prevent over-heating burns. In addition, MC2 adopts soft start function to avoid damage from surge charge current.

MC2 has under voltage lockout and self-start function.

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# MC2

INTELLIGENT CHARGER MANUAL

Besides, MC2 has activation function, which helps to repair the over-discharged batteries.

## CHARGE PARAMETER

### ■ Charging parameter:

Input Power: 5.0V DC/1000mA  
 CC Current: 500mA or 250mA  
 Cut-Off Voltage: 4.20V  
 Operation Temperature: 0-40°C

## PERFORMANCE

### ■ LED Indicators:

**Red on:** Battery is being charged, activated or channels are performing short circuit.

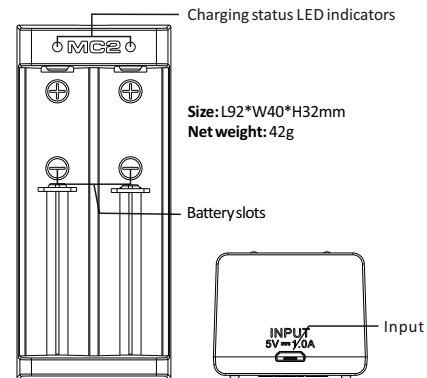
**Green on:** Any of the following conditions:

- Charge is complete
- No battery is inserted
- Poor connection
- Standby mode

**Lights off:** Battery polarity is reversed

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## THE MC2 CHARGER



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## USAGE

- MC2 is compatible with two 14500/14650/16340/17500/17670/18350/18500/18650/18700 and one 26650 3.6V/3.7V rechargeable lithium-ion batteries. Attempting to charge other battery types may be hazardous, and can damage the batteries and charger.
- Connect the adaptor (5V/1A) to MC2, indicators turn green, MC2 performs standby mode.
- When MC2 is in standby mode, insert over discharged battery( battery voltage  $\leq$  around 2.0V) into the channel properly, MC2 shifts to activated state. When battery recovery finished, battery starts being charged.
- MC2 can intelligently identify the input power and automatically adjust the charge current:
  - When input power is 5VDC/1.0A, the constant charge current would be 500mA.
  - When input power is 5VDC/0.5A with two batteries simultaneously charging, the current through both channels would be 250mA, while with only one battery being charged, the charge current would be 500mA.

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## WARRANTY

- 15 days free replacement. We will repair or replace a charger within 15 days of purchase if it is afflicted with a manufacturing defect. If the problem calls for a replacement, we will replace the charger with the same model as the one you bought. If the model has been discontinued, customers will receive a product with similar or improved performance.
- 24 months free repair. We offer free repair within 24 months of purchase if problems develop with normal use.
- Limited lifetime warranty. If problems develop after 24 months of the purchase date, we will charge for parts. The total repair fee will assess according to the cost of the replaced materials. If damage to the charger is grave, XTAR will contact distributors with a quote who should contact the customers to decide whether to exchange the parts or not. Freight should be paid by distributors or customers.
- (This warranty is not applicable for damages cause by artificial damage or intentional force.)

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- When complete charging, indicators are green on. It's recommended to remove the batteries after batteries being fully charged.

## NOTICE

- Please charge compatible batteries with MC2. Attempting to charge other battery types may be hazardous, and can damage the batteries and charger.
- MC2 has integrated short-circuit protection to protect the charger if a short circuit occurs in a battery. Note that this short-circuit protection protects the charger; it does not prevent batteries from short-circuiting internally.
- When in standby mode, if the channel is of short circuit, the indicator would be red on. It will do no harm to the charger.
- Keep MC2 away from water and excessive dust.
- Do not disassemble MC2. Damage may result.
- Do not operate the charger if it appears damaged in any way.

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## WEBSITE & ANTI-FAKE INQUIRY

- Welcome to visit our company website to get more information. <http://www.xtarlight.com>
- 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.**

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## TIIPS

- Because of different battery types, capacities, and over-discharge depths, the battery-revive time may vary; heavily over-discharged batteries may not be able to be revived.
- When charge battery with voltage higher than 4.0V, please insert the battery into slot first, then connect the adaptor.
- When charging completed, MC2 will stop supplying power to the batteries, it's recommended to remove the batteries. When system detects the batteries' voltage is lower than 4.1V, MC2 will automatically restart charging if batteries are left in slots for a long time after charge complete.
- If this manual description has differences with the official website, please refers to official website.

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