



USB port output

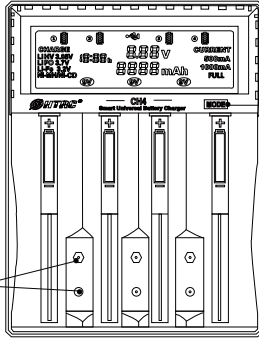


Micro USB



Type-C

9V(6F22) charging slot



### Button Function Introduction:

Short press the MODE button to select ①-④ to display the battery slot data on the LCD.

Press and hold the MODE button to cycle the charging current from low to high.

When the editing function is available, the current marker will flash to remind the user to operate under the following functions:

If "Li-ion 3.7V" become to blinking.

Press the MODE button twice to change the battery type 4.2V (lithium ion battery), 4.35V (lithium ion battery), LiFePO4 cycle switching.

### Introduction:

CH4 compatible with almost all type of rechargeable batteries like Li-ion/IMR/INR/ICR/Ni-MH/Ni-Cd/LiFePO4 batteries, as well as a high grade performance. With a large digital LCD display, easily to understand battery charging parameters and processes. CH4 has different charging features and modes according to different type battery charging. It use standard Li-ion battery charging mode when work with Li-ion/IMR/INR/ICR/LiFePO4 batteries; use - Δ V full charge mode for Ni-MH, Ni-Cd batteries charging process. 4 charging slots can work for different type batteries in power charging time, each charging slot Provides 500mA and 1000mA charge current, 3 charging slots 9V(6F22) provides 100mA charge current

### Features:

- Compatible with batteries of LiPo/ LiHV (4.2v/4.35v) 9V(6F22) LiFePO4(3.6v), Ni-MH/Ni-Cd(1.48v) 9V(6F22)
- Compatible with all different type of cylindrical rechargeable lithium battery
- Up to 1000mA charging speed I a single slot
- High precision Calibration of voltage source
- Automatically stops charging upon charging completion
- Reverse polarity protection and short circuit prevention
- Automatically detects battery power status and displays charging progress
- Detect battery capacity in charger
- Each battery slot controls and charges independently
- Support small capacity battery charging
- Support for lithium battery repair function
- Compatible with DC Type-C、Micro Charging function
- Designed by optimal heat dissipation
- Excellent circuit design

### Parameters:

Input voltage : Type-C/Micro DC 5V 2A

Output Voltage : 4.35 ± 0.1%/4.2V ± 0.1%/1.48V ± 0.1% 9V(6F22) ± 0.1%

Output Current: Li-ion: 1000mA\*2(High)/500mA\*4(Low)

Ni-MH/Ni-Cd: 1000mA\*2(High)/500mA\*4(Low) 9V(6F22):100mA\*3

Compatible with: Li-ion/IMR/INR/ICR/LiFePO4: 10340,10350,10440,10500,12340,12500,12650,13450,13500,13650,

14350,1443,0,14500,14650,16500,16340(RCR123), 16650, 17350,17500,17650,17670,18350,18490,18500,18650,

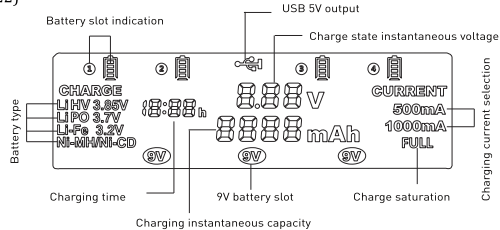
18700,20700,22500,22650,25500,26500,26650 9V(6F22)

NI-MH/Ni-Cd: AA, AAA, AAAA, C 9V(6F22)

Size: 126 mm\* 97 mm\* 32mm(L\*W\*H)

Weight: 150g

### LCD Display Introduction:



Large size LCD display states the voltage, Current, Charging time, mode, battery type, battery capacity data, let you understand the battery charging status easily. If not operated, LCD backlight will turn off after 2 minutes.

### Operating Instructions:

Connect one side of cable to CH4 Charger, the other side to DC 5V 2A charger.

When the power is on, LCD back-light will light up, and the charger will automatically detect the power condition, meanwhile LCD will show all the data, 3 second later, LCD will show NULL and the 3 9V symbols.

### Install Battery:

CH4 has 4+3 charging slots, each charging slot controlled independently, support single battery charging mode, mixed battery charging mode, User can put different type battery into slots with the correct polarity position according to the marking.

Three 9V charging jacks charging instructions: 9V battery is inserted into the charging port, the corresponding '9V' symbol will flash, indicating charging; 9V battery is full, '9V' symbol stops flashing, charging is completed.

### Battery Detection and Error Report:

Battery activation and Inspection	Error Report
Batteries inserted with polar reversed	The corresponding slot battery marking blink to notify the user of an "ERR"
Short circuit	
Battery will come into charging status if install with correct method	

## Default Charging Parameters:

The default charging parameter at beginning:

•Li-ion: Charging current 500mA, Fully voltage 4.2v •Ni-MH/NiCd: Charging current 500mA, Fully voltage 1.48v

•9V(6F22) Li-ion Fully voltage 8.4v & Ni-MH/NiCd Fully voltage 9.8v

Ni-MH/NiCd & 4.2V Li-ion battery can auto select the suitable recharging current 500mA or 1000mA .

LiFePO4 & 4.35V Li-ion Battery need manual select.

## Charging Voltage Setting:

CH4 smart charger compatible with: 4.2V(Li-ion)/4.35V(Li-ion)/3.6V(LiFePO4)/1.48V(Ni-MH/Ni-Cd) 9V (6F22)

Setting instruction:

LiFePO4 Battery:

Put battery in charging slot, When the charger detects that the battery (Li-ion 3.7V) is flashing, double-click the MODE button quickly, if LCD change batter type to LiFePO4, setting is finished.

Li-ion Battery (4.35V):

Put battery in charging slot, When the charger detects that the battery (Li-ion 3.7V) is flashing, double-click the MODE button quickly, if LCD change batter type to Li-ion 4.35V, setting is finished. IF put 4.2V & Ni-MH/Ni-Cd in charging slot, CH4 charger will automatically detect battery type, no need to manual set it.

## Charging Current Setting:

CH4 Smart charger has two current type mode for options(High & Low current)

**Note: high and low current selection can only be used when 1 or 2 channels are working at the same time. When more than 2 channels are working at the same time, it can only be charged at 500mA**

Setting as:

Put battery in charging slot, long press MODE button to change High/Low current. The default setting of V407 charger is "Low" current mode, if it work with High capacity battery, user change it to "High" current mode by hand. •Li-ion/IMR/INR/ICR/LiFePO4:

If Battery Capacity is larger than 1500 mAh, please choose High current mode (1000 mA)

If Battery Capacity is lower than 1500 mAh, please choose Low current mode (500 mA)

•Ni-MH/Ni-Cd:

If Battery Capacity is larger than 1500 mAh, please choose High current mode (1000 mA)

If Battery Capacity is lower than 1500 mAh, please choose Low current mode (500 mA)

## Battery Capacity Measurement:

Put battery in charging slot, the battery measurement function is on, CH4 charger Then charge it with constant current mode, calculate the battery capacity in real-time until battery is full charged And save the capacity data Stop charging

## Button Function Introduction:

Short press MODE button to select the battery slot data of ①--④ showing on LCD.

Long press MODE button to change charging current from low to high with a cyclic switching.

**When edit function is available, present marks will blink to remind users to operate below function:**

**If "Li-ion 3.7V" become to blink**

**Short press MODE button to change battery type 4.2V(Li-ion),**

**4.35V(Li-ion),LiFePO4 with a cyclic switching .**

## Battery Activation:

CH4 charger has an activation function for over discharged Lithium battery. When placed a battery in charging slot, auto detect the battery & activate it. If battery unable to be activated, charger will judge battery is damaged, the charging slot will display ERR and stop charging.

Lithium Battery Restoration

•If battery voltage cannot rise in a long time, charger will judge battery is damaged, the present charging slot will display "ERR"and stop charging.

Automatic Stop Charging

After the battery is fully charged, LCD will show "END" and All data completed for charging to remind user; then the charger will stop charging automatically to avoid the over charging that shorten the battery lifespan.

High Sensitive -  $\Delta V$  Judgment mode, Make sure Ni-MH/Ni-Cd battery real full charging.

According to Ni-MH & Ni-Cd battery charging mode, add  $\Delta V$  judgment to detect the battery status & judge to stop charging time more accurately, let the NIMH and NiCd battery can obtain the maximum charge capacity but not to overcharge.

## Precautions:

1. The charger is restricted to charging Li-ion, IMR, ICR, LiFePO4, Ni-MH/Ni-Cd rechargeable batteries only. Never use the charger with other types of batteries as this could result in battery explosion.
2. cracking or leaking, causing property damage and/or personal injury. The safe operation temperature for the charger is between -10-40 °C, and the safe storage temperature is -20-60 °C. Do not expose the device to direct sunlight, heating device, open flames; avoid extreme high or extreme low ambient temperatures and sudden temperature changes.
3. The charger is for use of adults above 18 years old. Children under this age must be supervised by an adult when using the charger
4. Never charge or discharge any battery having evidence of leakage, expansion/swelling, damaged outer wrapper or case, color-change or distortion.
5. Never attempt to charge primary cells such as Alkaline, Zinc-Carbon, Lithium, CR123A, CR2, or any other unsupported chemistry due to risk of explosion
6. Do not charge a damaged IMR battery as doing so may lead to charger short-circuit or even explosion.
7. Please make sure the correct program and settings are chosen and set. Incorrect program or setting may damage the charger, or cause fire or explosion
8. Do not leave a working charger unattended. If any malfunction is found, please terminate operation immediately, and turn to user manual for instruction.
9. Do not disassemble, assemble or modify the charger without authorization, which may cause the charger to damage or even explosion
10. Please operate the charger in a well-ventilated area. Do not operate or store it in damp area. Keep all the inflammable volatile substances away from operating area.
11. Remove all batteries and unplug the charging unit from the power source when not in use
12. Do not allow metal wires or other conductive material into the charger, which may cause short-circuit and explosion
13. Avoid mechanical vibration or shock as there may cause damage to the device.
14. Observe polarity diagrams located on the charger. Always place the battery cells with positive tip facing the top.
15. Do not overcharge or over discharge batteries. Recharge drained batteries as soon as possible.
16. Do not expose the charger to rain or snow
17. Do not touch hot surfaces. The rechargeable batteries or the device may become hot at full load or high power charging/discharging.

## Warranty

CH4 Warranty is provided only for products purchased from and authorized source.

This applies to all CH4 products. Any DOA/defective product can be exchanged for a replacement through a local distributor/dealer within the 15 days of purchase. After 15 days, all defective/malfunctioning CH4 products can be repaired free of charge for a period of 24 months (2 year) from the date of purchase. Beyond 24 months(2 year), a limited warranty applies, covering the cost of labor and maintenance, but not the cost of accessories or replacement parts.

The warranty is nullified if the product(s) is/are

1. Broken down, Reconstructed and/or Modified by unauthorized parties.
2. Damaged from wrong operations (i.e. Reserve polarity installation, Installation of non-rechargeable batteries, or violation warning operation)
3. Damaged by batteries leakage. For the latest information on CH4 products and services, please contact a local CH4 distributor

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