

# Automatic Battery Charger

PCH-202





Please read all warnings and safety guide before operating PCH-202. Operator is responsible for any regulations required by special applications. Please do not connect AC power before installation. Warranty voids if instructions are not followed and may risk of electrical shock, fire or injury.

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## Important Safety Guide

1. Do not place charger under rain, sunlight, dust condition, acidic or corrosive gas environment.
2. To prevent overheating, do not block ventilation fan.
3. PCH-202 is equipped with automatic charging loop detection. Charger does not need to be turned off or disconnected from the battery, it enters maintenance mode after the battery has been fully charged.
4. Please use only factory parts and suggested accessories. Unauthorized parts may risk of shock, fire, or injury.
5. Please do not disassemble PCH-202. Attempting to repair may risk of fire and electrical shock.
6. PCH-202 contains residual power even after removed from the battery and AC power.
7. Please make sure the AC ground wire from PCH-202 is properly installed. Improper connection may risk of electrical shock, fire, or injury.
8. Please remove ac power and battery first and then perform maintenance.
9. Please use supplied wires or same grade wires.
10. Due to the nature of lead acid battery, hydrogen and oxygen gas are been released during charging. Please operate charger in a well-ventilated area.
11. Please do not press DC start output button for a long period of time. DC start is designed as force output when battery is below 6V and charger cannot automatically start charging.

# 1、Installation

1. To prevent sparks during power up, please make sure the power switch is in off position before plug-in the ac power cord.
2. Connect positive and negative wires to the battery before switch the power to “ON” position.
3. PCH-202 is equipped with short circuit, over load, and reverses polarity protections.
4. When the battery is below minimum charging voltage, charger ceases the output. Press DC start button, PCH-202 starts charging regardless of battery voltage. If error LED is ON, the overload or reverse polarity is present, please check the wire connections.
5. The minimum charging voltage of a 24V battery must be greater than 6V, otherwise the PCH-202 detects as battery error and cease the output. Press DC start to force charge battery.
6. PCH-202 automatically switches between float and equalized mode according to the battery condition.
7. Only supply AC input between 110V (90~130V)/220V(190~240V), 50~60Hz, exceeding the range might cause error or damage the charger.
8. Avoid rain, sun light, dust, flammable material, and acidic gas.
9. To maintain the best performance of the charger, please keep the environment between -25°C to 35°C, cooler the better.
10. Please make sure the charger is installed in a well-ventilated area. To avoid bad circulation and prolong the life of charger, keep at least 10CM between wall and ventilation fan.

## 2、Specifications

AC input voltage:

PCH-202 -> AC 110V(90~130V) / 220V(190~240V) Auto switch. Frequency 50/60 Hz

DC output voltage:

24V(Lead Acid)	Float Mode	25.6~27.6 VDC	Default: 26.6 VDC
	Equalize Mode	26.6~28.6 VDC	Default: 27.6 VDC

DC Output current : 20A

Charging : Automatic switch between Equalize and float mode.

Protections : AC high / low voltage, DC high / low voltage, over load, short circuit, charger over temperature, and reverse polarity.

LED Indicator: Battery Low voltage, Battery High voltage, AC Low voltage, AC High voltage, Charger High Temperature, Reverse polarity, Equalize mode, Float mode, Charging error, Power

Buttons:

- ACV - °C -> Display amperage and charger internal temperature.
- EQUAL. START -> Enable equalize mode.
- DC START -> When battery is below 6VDC and charger cannot automatically start charging, press this button to manually start charging.

Equalize Timer: 3 Hours

Note: To extend the life of battery, PCH-202 switches back to float mode when 3 hours timer expired or charging current is less than 1 amp. The charger will switch back to equalize mode if current is greater than 1 amp for over 10 minutes.

Efficiency : >75 %

Working Temp : -30 ~ 60 °C

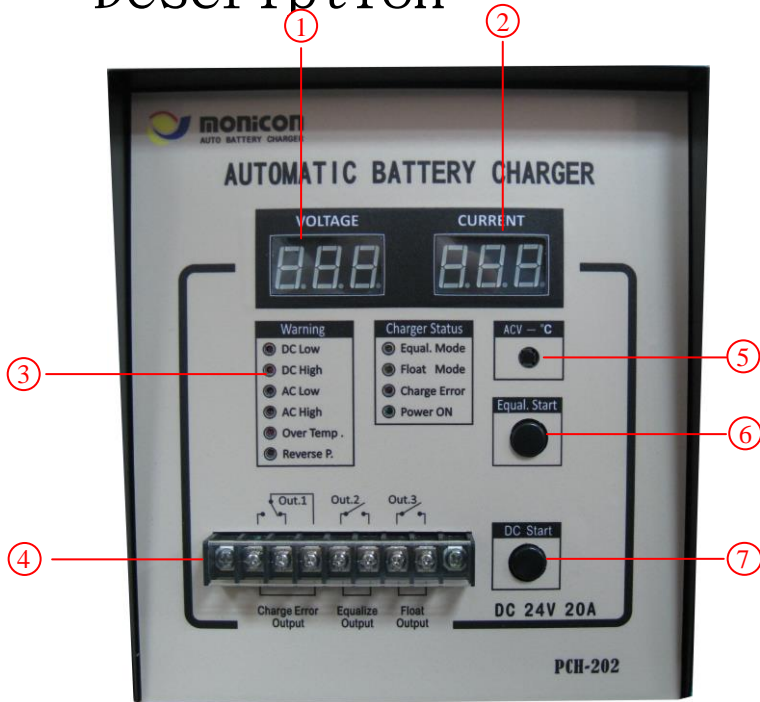
Storage Temp : -40 ~ 85 °C

Humidity : MAX 90 %

Dimension : 320 mm(L)\* 190mm (W) \* 229mm (H)

Weight : 5.5KG

# Description



## PCH-202 Functions :

- (1) Digital AC/DC Voltmeter
- (2) Digital Ammeter
- (3) LED Indicators:

- Battery Low voltage
- Battery High voltage
- AC Low voltage
- AC High voltage
- Charger High Temperature
- Reverse polarity
- Equalize mode
- Float mode
- Charging error
- Power

- (4) Remote Indicator Output (Dry contact)

Out 1: Charging Error (NC/NO)  
 NO:pin1、3  
 NC:pin2、3

Out 2: Equalize Mode (NO)

Out 3: Float Mode (NO)

- (5) ACV-°C : Press to display DC current and charger temperature
- (6) Press to enable equalize mode
- (7) Press to start charge when battery is less than 6V

- (8) Remote trigger equalize mode (close to trigger)

- (9) Buzzer

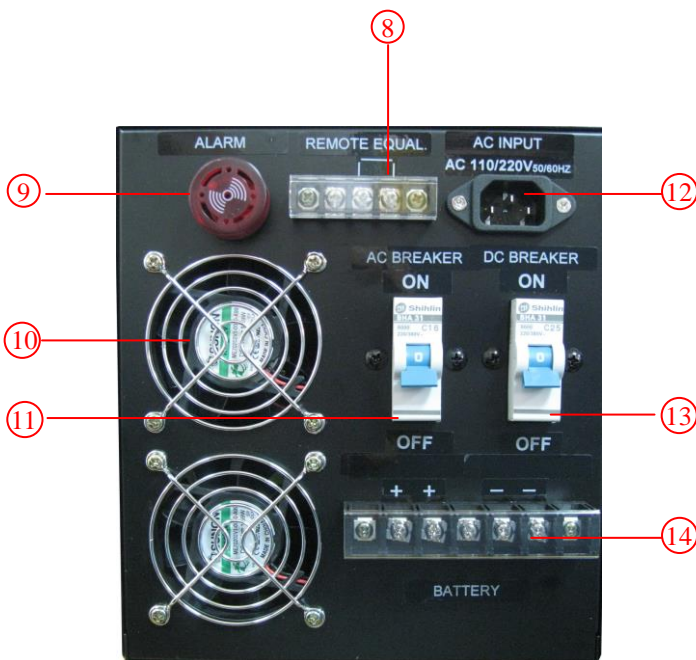
- (10) Cooling fan

- (11) No Fuse Breaker (AC)

- (12) AC Input

- (13) No Fuse Breaker(DC)

- (14) DC output to battery



### 3、 Dimension(unit:mm)

