# **Automatic Battery Charger**

### PCH-101/102





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Please read all warnings and safety guide before operating PCH-102. 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.

### 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-102 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-101/102. Attempting to repair may risk of fire and electrical shock.
- 6. PCH-101/102 contains residual power even after removed from the battery and AC power.
- 7. Please make sure the AC ground wire from PCH-101/102 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. If high pitch noise occurred, please turn off PCH-101/102 immediately.
- 10. Please do not use damaged or low grade wires.
- 11. 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.
- 12. Please do not press and hold the forced output button for a long period of time. Fuse should only be replaced with same specification.



#### 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-101/102 is equipped with short circuit, over load, and reverses polarity protections.
- 4. When the battery is below minimum charging voltage, it ceases the output. Pressing the forced output button, the PCH-101/102 starts charging regardless of battery voltage. If error LED is ON, the overload or reverse polarity is present, please check the wire connections.
- 5. Only supply AC input between 80~250 VAC 50-60Hz, exceeding the range might cause error or damage the charger.
- 6. The minimum charging voltage of a 24V battery must be greater than 6V, otherwise the PCH-101/102 detects as battery error and cease the output.
- 7. PCH-101/102 automatically switches between float and equalized mode according to the battery condition.
- 8. To maintain the best performance of the charger, please keep the environment between -25°C to 35°C, cooler the better.
- 9. 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: 110VAC voltage range 90~130 ACV Frequency: 50/60 Hz

220VAC voltage range 190~250 ACV Frequency: 50/60 Hz

DC adjustable range: Model: PCH-101 PCH-102

Float:  $12.5 \sim 14.5 \text{VDC}$   $25.6 \sim 27.6 \text{ VDC}$ 

Default: 13.6 VDC 26.6 VDC

Equalized: 13.5~15.5VDC 26.6~28.6 VDC

Default: 14.4 VDC 27.6 VDC

DC output: 10A

Mode : Float and equalized

Protection: Over load, short, reverse polarity

Warning : AC/DC high voltage \( AC/DC \) low voltage \( \cdot \) over temperature

Charging error \( \cdot \) equalized \( \cdot \) float \( \cdot \) power

Equalized mode timer:

ON - ON 4 minutes
OFF - ON 3 hours
ON - OFF 6 hours
OFF - OFF 8 hours

Efficient: >75 %

Working temperature:  $-30 \sim 60 \,^{\circ}\text{C}$ Storage temperature :  $-40 \sim 85 \,^{\circ}\text{C}$ Humidity : Max 90 %

Dimension: 278 mm(L)\* 152mm (W) \* 169mm (H)

Weight:  $3200 \text{ g} \pm 20 \text{ g}$ 

## 3 · Panel Description





#### PCH-102:

- (1) Handle
- (2) DC/AC voltage
- (3) DC current/Temperature
- (4) LEDs:
  - Float
  - Equalized
  - Power
  - Charging error
  - AC high voltage
  - AC low voltage
  - DC high voltage
  - DC low voltage
  - Over temperature
  - Reverse Polarity
- (5) AC volt/Temperature
- (6) Forced equalize mode
- (7) Remote monitoring

Output 1: Charging Error

Output 2: DC Error

Output 3: AC Error

- (8) DC Output
- (9) AC Plug
- (10) Power switch
- (11) Resettable Fuse
- (12) Force output
- (13) Cooling fan
- (14) DC volt/Equalized mode adjustment





## 4. Dimensions

