

# User's Manual

Model:RTD-10A/RTD-20A/RTD-30A



## Safety Instructions

1. Make sure your battery has enough voltage for the controller to recognize the battery type before first installation.
2. The battery cable should be as short as possible to minimize loss.
3. The regulator is only suitable for lead acid batteries: OPEN, AGM, GEL  
it is not suited for nickel metal hydride, lithium ions or other batteries.
4. The charge regulator is only suitable for regulating solar modules. Never connect another charging source to the charge regulator.

## Features

1. Build-in industrial micro controller.
2. Big LCD display, all adjustable parameter.
3. Fully 4-stage PWM charge management.

4. Build-in short-circuit protection, open-circuit protection, reverse protection, over-load protection.

5. Dual mosfet Reverse current protection, low heat production.

## Installation

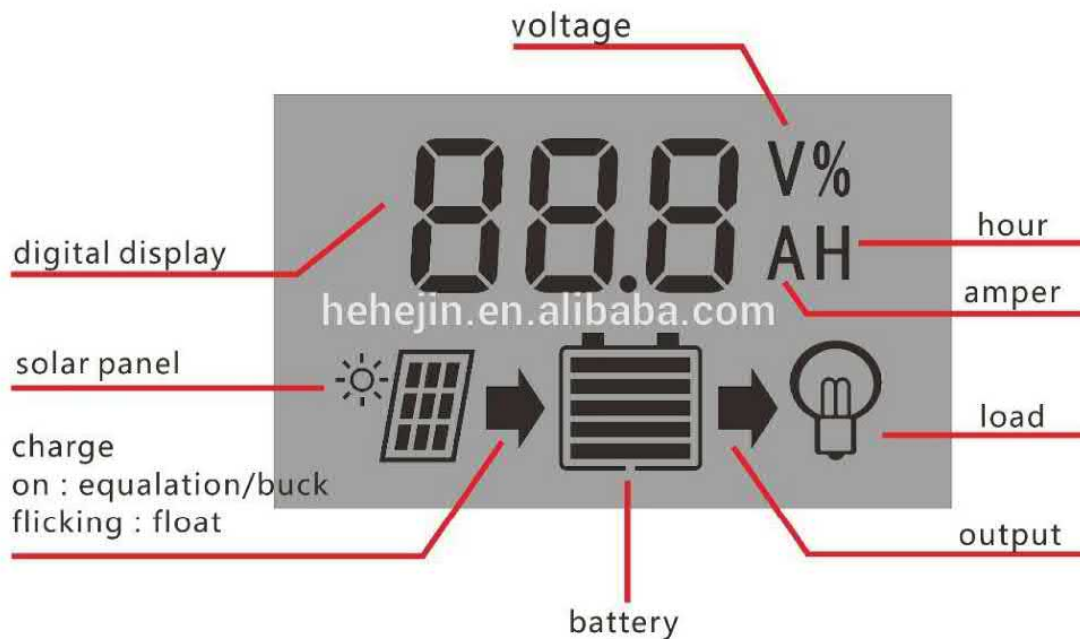
1. Connect the battery to the charge regulator - plus and minus.

2. Connect the photovoltaic module to the regulator - plus and minus.

3. Connect the consumer to the charge regulator - plus and minus.

The reverse order applies when stalling!

An improper sequence order can damage the controller!



the work mode is working as below:

[24H] load output 24hours

[1-23H] load on after sunset and closed after setting hours

[0H] Dusk to dawn

## Trouble shooting

Situation	Probable cause	Solution
Charge icon not on when sunny	Solar panel opened or reversed	Reconnect
Load icon off	Mode setting wrong	Set again
	Battery low	recharge

Load icon slow flashing	Over load	Reduce load watt
Load icon slow flashing	Short circuit protection	Auto reconnect
Power off	Battery too low/reverse	Check battery/connection

## Data sheet

MODEL	RTD-10A	RTD-20A	RTD-30A	RTD-2048	RTD-3048
Batt voltage	12V/24V auto			48V	
Charge current	10A	20A	30A	20A	30A
Discharge current	10A	20A	30A	20A	30A
Max Solar input	<50V			<80V	
Equalization	B01 sealed	B02 Gel		B03 flood	
	14.4V	14.2V		14.6V	
Float charge	13.7V(defaul,adjustable)				
Discharge stop	10.7V(defaul,adjustable)				
Discharge reconnect	12.6V(defaul,adjustable)				
USB output	5V/3A				
Self-consume	<10mA				
Operating temperature	-35~+60 °C				
Size/Weight	150*78*35mm /150g				