

# 40I User's Manual



## SAFETY INSTRUCTIONS

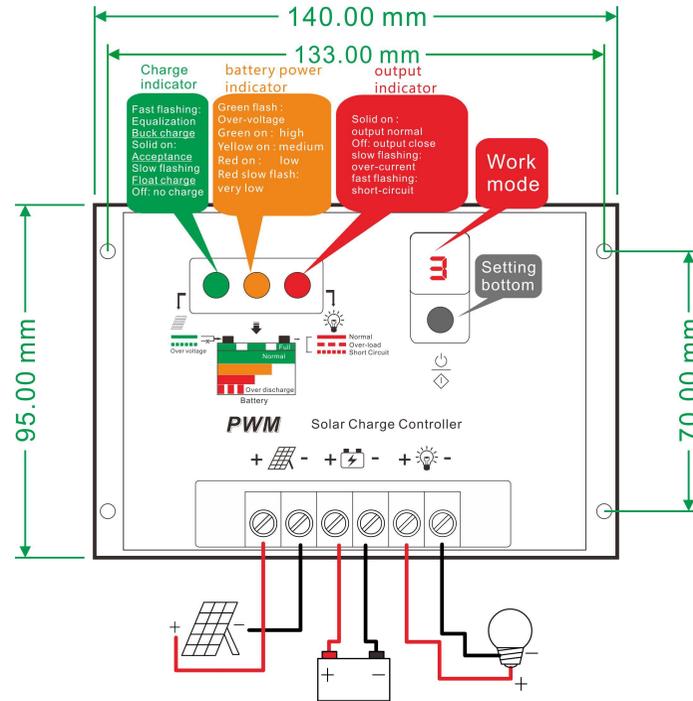
1. Make sure your battery has enough voltage for the controller to recognize the battery type before first installation.
2. The battery cable should be as short as possible to minimize loss.
3. The regulator is only suitable for lead acid batteries: OPEN, AGM, GEL it is not suited for nickel metal hydride, 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.

## PRODUCT FEATURES

1. Build-in industrial micro controller.
2. One-key setting, digital display, auto memory function.
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.

## SYSTEM CONNECTION

1. Connect the battery to the charge regulator - plus and minus. It will show "1" if it detects 12V battery, "2" for 24V battery, and "4" for 48V.
  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 uninstalls!
- An improper sequence order can damage the controller!



## SETTING/SYSTEM MODE

Press the setting button to activate the mode display, press the button for 3 seconds, and select the desired mode.

display	mode	description
0	Charge only	Only use the charge function of the controller. Load output is forever closed
1-3.	Light-open +delay	Load on after sunset and closed after 1-13hour
L	D2D	Dusk to Dawn ( have delay )
C	System	Load always output (unless battery is low )
H	Hand	Open the load manually
d	debug	Dusk to Dawn ( no delay )

## TROUBLE SHOOTING

Situation	Probable cause	Solution
Charge LED not on when sunny	Solar panel opened or reversed	Reconnect
Load LED off	Mode setting wrong	Set again
	Battery low	recharge
Load LED slow flashing	Over load	Reduce load watt
Load LED slow flashing	Short circuit protection	Auto reconnect
Power off	Battery too low/reverse	Check battery/connection

## TECHNICAL PARAMETER

MODEL	40I
Batt voltage	12V/24V auto
Charge current	40A
Discharge current	40A
Max Solar input	36V
Charge drop	<0.2V
Discharge drop	<0.25V
Equalization	14.8V
Bulk	14.5V
Acceptance	14.2V PWM
Float	13.8V
Charge reconnect	13.0V
Discharge stop	11.2V
Discharge reconnect	12.6V
Self-consume	<10mA
Voltage of open light	Solar panel 8V ( delay 10s )
Voltage of close light	Solar panel 8V ( delay 60s )
Temperature compensation	N/C
Operating temperature	-35~+60 °C
Size/Weight	140*90*38mm /225g

\*all red color voltage X2 while using 24V system.

\*Product specifications are subject to change without prior notice.