



**MP3772**

# **PWM Charge Controller**



**INSTRUCTION MANUAL**

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## GENERAL INFORMATION & SAFETY INSTRUCTIONS

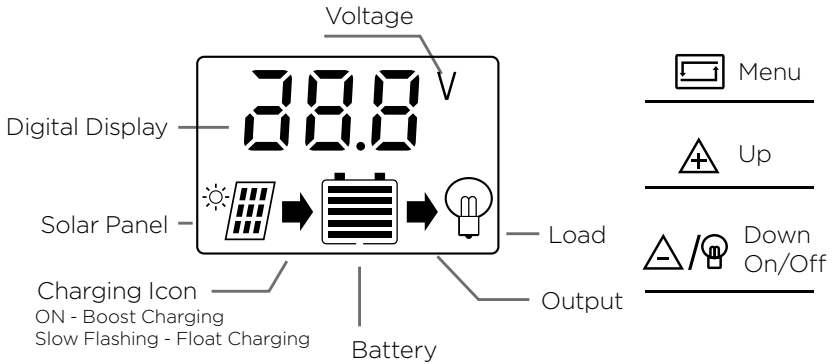
- Please read the entire manual before using your solar charge controller and retain this manual for future reference
- Inspect unit and all cables for any damage before each use
- No energy source other than solar panels should be connected to the solar charge controller
- Use only with 12V solar panel with a 12V battery or 24V solar panel with a 24 battery
- Do not attempt to disassemble or open the unit
- Keep children away from PV systems
- Never open the device
- Do not leave it outside with the solar panel. It is moisture-proof.

**WARNING: The manufacturer is not responsible for any potential injury from misuse**

## BOX CONTENTS

- 1 x 20A PWM solar controller
- 2 x High current fly leads
- 1 x 4.5m high current extension lead
- 1 x 0.5m high current connector to battery clips

## PRODUCT DIAGRAM



**Menu:** Switch between different display, or to enter/exit setting by long press.

**Up:** Press to increase value. **Down:** Press to decrease value.

## BEFORE FIRST USE

Prior to using your product, please read all the safety and operating instructions thoroughly. Please ensure you follow the steps below before using the product. We recommend you keep the original packaging for storing the product when not in use.

Please pay close attention to the section entitled General & Safety Information. Find a safe and convenient place to keep this instruction manual for future reference.

Unpack the product but keep all packaging materials until you have made sure your new product is undamaged and in good working order. Ensure you have all accessories listed in this manual. Plastic wrapping can be a suffocation hazard for babies and children so ensure all packaging materials are out of their reach.

**WARNING: The manufacturer is not responsible for any potential injury from misuse**

## WARNINGS & SAFETY INFORMATION

- Make sure your battery has enough voltage for the controller to recognize the battery type before first installation.
- The battery cable should be as short as possible to minimize voltage drop.
- The regulator is suitable for lead acid batteries (Flood, AGM, GEL) and lithium, (please set the controller to the correct battery type) it is not suited for any other battery type.
- The charge controller is only suitable for regulating solar panels. Never connect another charging source to the charge controller.
- The controller will heat up when in use, Please install the controller on a smooth, well ventilated surface.

## FEATURES

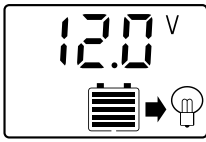
- Supports GEL, AGM, flooded & Lithium batteries
- PWM control technology
- 3-stage charging
- Backlit LCD screen
- Dual USB Ports

## SYSTEM CONNECTION

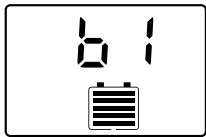
1. Connect the battery to the charge regulator-plus and minus.
2. Connect the solar module to the regulator-plus and minus..

**NOTE: The reverse order applies when disconnecting! An improper sequence order can damage the controller.**

## DISPLAY / SETTING



① Main Display



⑥ Battery Type

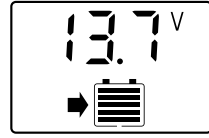


⑤ Work Mode



### Browsing Interface

Press menu to browse different interface.

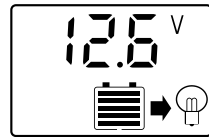


② Float or CV Voltage

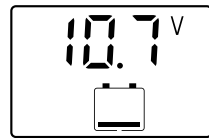


### Set Parameter

In interface 2-5, long press menu to enter setting and use [up] [down] to set the parameter, long press menu again to exit. Long press [down].



③ Discharge Reconnect



④ Discharge Stop



1. Press the [down] button to on/off load manually at main display.
2. The work mode is working as below:
  - [24H] Load output 24 hours
  - [1-23H] Load on after sunset and closed after setting hours
  - [0H] Dusk to dawn

## TROUBLESHOOTING

<b>Problem</b>	<b>Cause</b>	<b>Solution</b>
Charge icon not on when sunny	Solar Panel disconnected or polarity reversed	Reconnect solar panel, correct polarity
Load icon is off	Wrong mode setting	Reset
	Battery voltage low	Recharge battery
Load icon flashing slowly	Overload	Reduce load watt
Load icon flashing quickly	Short circuit prevention	Auto reconnect
Power off	Battery voltage low / polarity reversed	Check battery / connection

## CLEANING, CARE, STORAGE & MAINTENANCE

- While the controller is maintenance-free we strongly suggest that all components of the PV system are checked by a certified technician at least annually.
- Store in a cool dry place when not in use. Ensure all connections are kept free of dirt, grit and corrosion.
- If needed wipe clean with a lightly dampened cloth and allow all components to fully dry before use.

## SPECIFICATIONS

<b>System Voltage</b>	12V/24V Auto		
<b>Charge Current</b>	20A		
<b>Discharge Current</b>	20A		
<b>Max Solar Input</b>	<50V		
<b>Battery Voltage</b>	b1 (12/24V), 1b1 (12V), 2b1 (24V): lead-acid battery 14.4V		
<b>Float Charge</b>	13.7V (default, adjustable)		
<b>Discharge cut-off voltage</b>	10.7V (default, adjustable)		
<b>Discharge recovery voltage</b>	12.6V (default, adjustable)		
<b>Battery Type Ternary Lithium</b>	b2 (3.7V*3 / 6) 12/24V auto	1b2 (3.7V*3) 12V	2b2 (3.7V*6) 24V
<b>Battery Type LifePo4</b>	b3 (3.2V*4 / 8) 12/24V auto	1b3 (3.2V*4) 12V	2b3 (3.2V*8) 24V
<b>Constant Voltage</b>	(3*3.7V):12.6V (6*3.7V):25.2V (4*3.2V):14.4V (8*3.2V):28.8V		
<b>Discharge recovery voltage</b>	(3*3.7V):11V (6*3.7V):22V (4*3.2V):11.6V (8*3.2V):23.2V		
<b>Discharge cut-off voltage</b>	(3*3.7V):10V (6*3.7V):20V (4*3.2V):10.4V (8*3.2V):20.8V		
<b>USB output</b>	5V/2A		
<b>Self-consumption</b>	<10mA		
<b>Operating temperature</b>	-35 ~ +60°C		



## WARRANTY INFORMATION

Our product is guaranteed to be free from manufacturing defects for a period of 12 Months.

If your product becomes defective during this period, Electus Distribution will repair, replace, or refund where a product is faulty; or not fit for intended purpose.

This warranty will not cover modified product; misuse or abuse of the product contrary to user instructions or packaging label; change of mind and normal wear and tear.

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and failure does not amount to a major failure.

To claim warranty, please contact the place of purchase. You will need to show receipt or other proof of purchase. Additional information may be required to process your claim.

Any expenses relating to the return of your product to the store will normally have to be paid by you.

The benefits to the customer given by this warranty are in addition to other rights and remedies of the Australian Consumer Law in relation to the goods or services to which this warranty relates.

This warranty is provided by:

Electus Distribution

Address 46 Eastern Creek Drive, Eastern Creek NSW 2766

Ph. 1300 738 555