

**Model Number: FarmTronics PWM-30A**  
**Firmware Version U3.5**

The **PWM30A** is a 30 Amp, full function intelligent 3 Stage PWM Solar Charge Controller complete with a Graphics LCD display.

The Solar Charge Controller is capable of charging the following types of batteries:

Lead Acid (Flooded, GEL and AGM) and Lithium Battery ( Li(LiCoMn)O<sub>2</sub> and LiFePO<sub>4</sub>)

All Battery settings are fully programmable for the type of battery chemistry being utilised.

Model Number	PWM-30A (U3.5)
IP Rating	IP32 Dustproof
Dimensions	H103mm x W160mm x D38mm
Terminal Connection Size	28AWG(0.30mm <sup>2</sup> ) to 10AWG(2.6 mm <sup>2</sup> ) Wire Size
Display Type	LCD Graphics Multiline Display
Solar Panel Input Specification	12 Volt DC, 390 Watts Maximum
Solar Panel Vmp Specification	Voltage at MAXIMUM POWER (Vmp) = 18 Volts DC (Maximum)
Solar Panel Voc Specification	Voltage at OPEN CIRCUIT (Voc) = 21 Volts DC (Maximum)
Solar Charge Controller TYPE	Pulse Width Modulated with a 3 Stage Charging Function
Battery Type Suitability	Lead Acid (Flooded, GEL & AGM) & Lithium (Li(LiCoMn)O <sub>2</sub> & LiFePO <sub>4</sub> )
Battery Type Default Setting	Lead Acid (Flooded, GEL & AGM)
Maximum Current via the Load Output Terminals	30 Amps
Temperature Compensation	YES Automatically adjusts Charge & Discharge based on Temperature
Float Voltage	13.8 Volts (Default Setting) Setting Range = 13 to 15 Volts
Low Voltage Disconnect (LVD)	10.5 Volts (Default Setting) Setting Range = 9 to 12 Volts
Low Voltage Reconnect (LVR)	12.0 Volts (Default Setting) Setting Range = 11 to 13.5 Volts
Battery Overvoltage Protection	16.5 Volts Non Adjustable
Reverse Connection Protection	YES
Load Over Current Protection	YES
USB Ports (2 Off)	Total Output is 2 Amps at 5.0 Volts DC
Working Temperature Range	-20.0 Celsius to +50.0 Celsius
Warranty	12 Months from date of purchase
Support Service	Phone Support 7 Days a week between 9am to 3pm

NB: The PWM-30A is factory set for Lead Acid (Flooded, GEL & AGM) type 12 Volt DC Batteries.

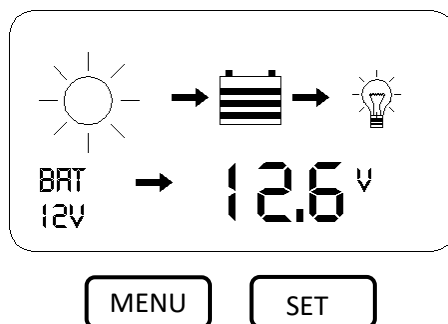


Always refer to your battery manufacturers specifications prior to making any changes to the Solar Charge Controllers settings.

Incorrect settings may damage your Battery and void your warranty.

## Programming Instructions

The PWM30A has an easy to use menu structure and uses only two buttons for programming.



### MENU

The MENU Button scrolls through various menu displays each time it is pressed.

When the desired parameter that requires adjustment is displayed, holding the MENU button down for 5 seconds will make that parameter flash.

While FLASHING the user can reprogram that setting as required.

In the FLASHING mode pressing the MENU Button increases the selected value by one increment and pressing the SET Button decreases the selected value by one increment.

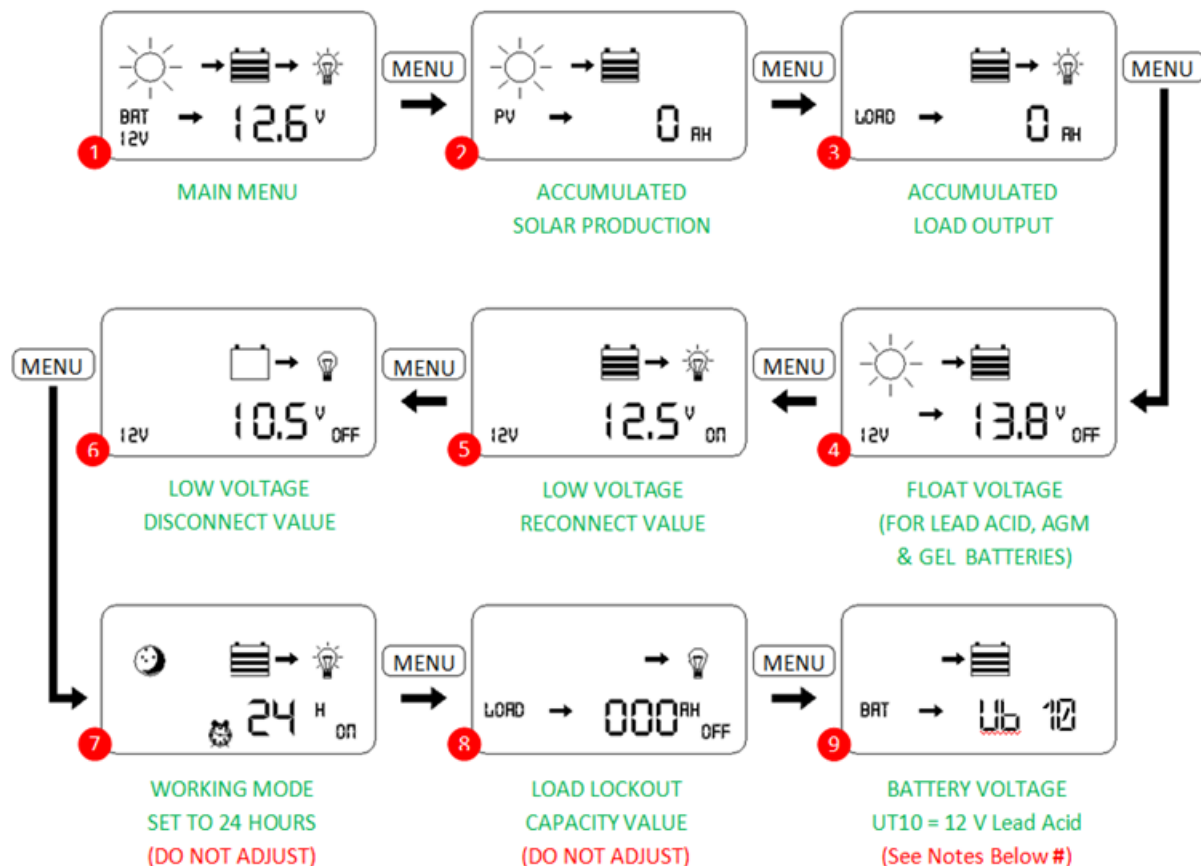
When the desired value is displayed holding the MENU Button down for 5 seconds will save the new value.

### SET

From the MAIN Screen pressing the SET Button once will SET the Load Output to OFF and pressing the button again will SET the Load Output back to ON.

The SET Button is also used in programming mode to decrease the selected value by one increment each time it is pressed

## Menu Screens and Descriptions



## Menu Screens and Descriptions (continued)

### 1 Main Menu Screen

This is the MAIN Menu and Automatically displays a variety of information every 2 seconds.

### 2 Accumulative Solar Production

Displays a TOTAL amount of AMPS produced by the Solar Panels since the initial system power up. This total can be RESET to zero by holding the MENU Button down for 5 Seconds.

### 3 Accumulative Load Output

Displays a TOTAL amount of AMPS drawn by the load since the initial system power up. This total can be RESET to zero by holding the MENU Button down for 5 Seconds.

### 4 Float Voltage

The Float Voltage default for Lead Acid (Flooded, AGM & GEL) Batteries is 13.8 Volts. If using batteries with a different chemistry such as Lithium please refer to the manufacturers recommendations prior to making any changes to this setting.

### 5 Low Voltage Reconnect Value (LVR )

The LVR default for Lead Acid (Flooded, AGM & GEL) Batteries is 12.5 Volts.

If using batteries with a different chemistry such as Lithium please refer to the manufacturers recommendations prior to making any changes to this setting.

## **6 Low Voltage Disconnect Value (LVD)**

The LVD default for Lead Acid (Flooded, AGM & GEL) Batteries is 10.5 Volts.

If using batteries with a different chemistry such as Lithium please refer to the manufacturers recommendations prior to making any changes to this setting.

## **7 Working MODE**

The Working Mode by default is set to 24 Hours, this setting will provide a 24 Hour continuous load output when required.

**Do NOT Adjust this value**

## **8 Load Lockout Capacity Value (LLC)**

The LLC default setting is 000 and is used to Lockout the Load output when the LLC Value is reached.

By setting this to zero means there is no limitation on the total amount of accumulated hours used.

**Do NOT Adjust this value**

## **9 # System Battery Voltage Value & Chemistry (Ub 10)**

The System Battery Voltage & Chemistry is set to 12 Volt DC Lead Acid by default.

If using a LifePO4 battery you can adjust this parameter to Ub 11.

DO NOT USE any of the Following Parameters otherwise you may damage the ChickenMaster PRO.

**Ub 00** Auto Detection 12V or 24V DC

**Ub 20** Lead Acid 24 Volts DC

**Ub 21** LifePO4 24 Volts DC