

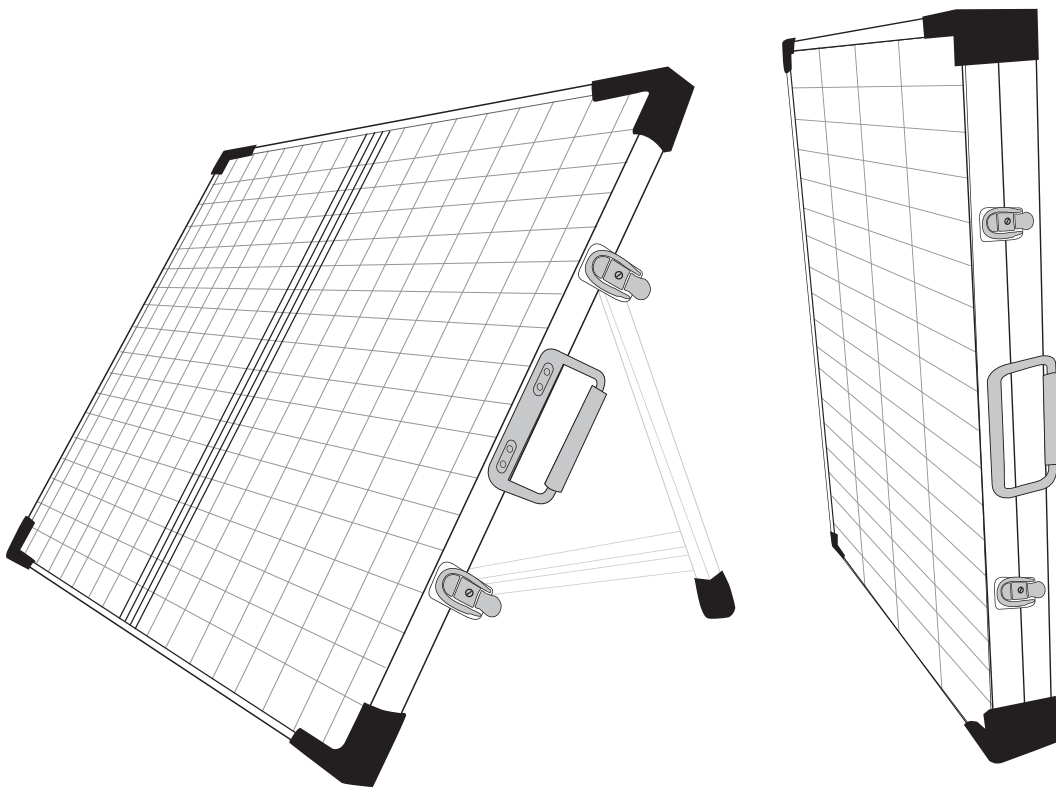
PORTABLE SOLAR KITS

User Manual

GP-PSK-90

GP-PSK-130

GP-PSK-200



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Worldwide Technical Support and Product Information gpelectric.com

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2. GENERAL INFORMATION

Welcome to the Go Power! Portable Solar Kit Installation Guide. Please read all instructions contained within this manual to gain a full understanding of how to install and use this product. Please visit gpelectric.com for the most current version of this manual.

Visit our Go Power! YouTube channel to watch a two minute video on setting up a portable solar kit.

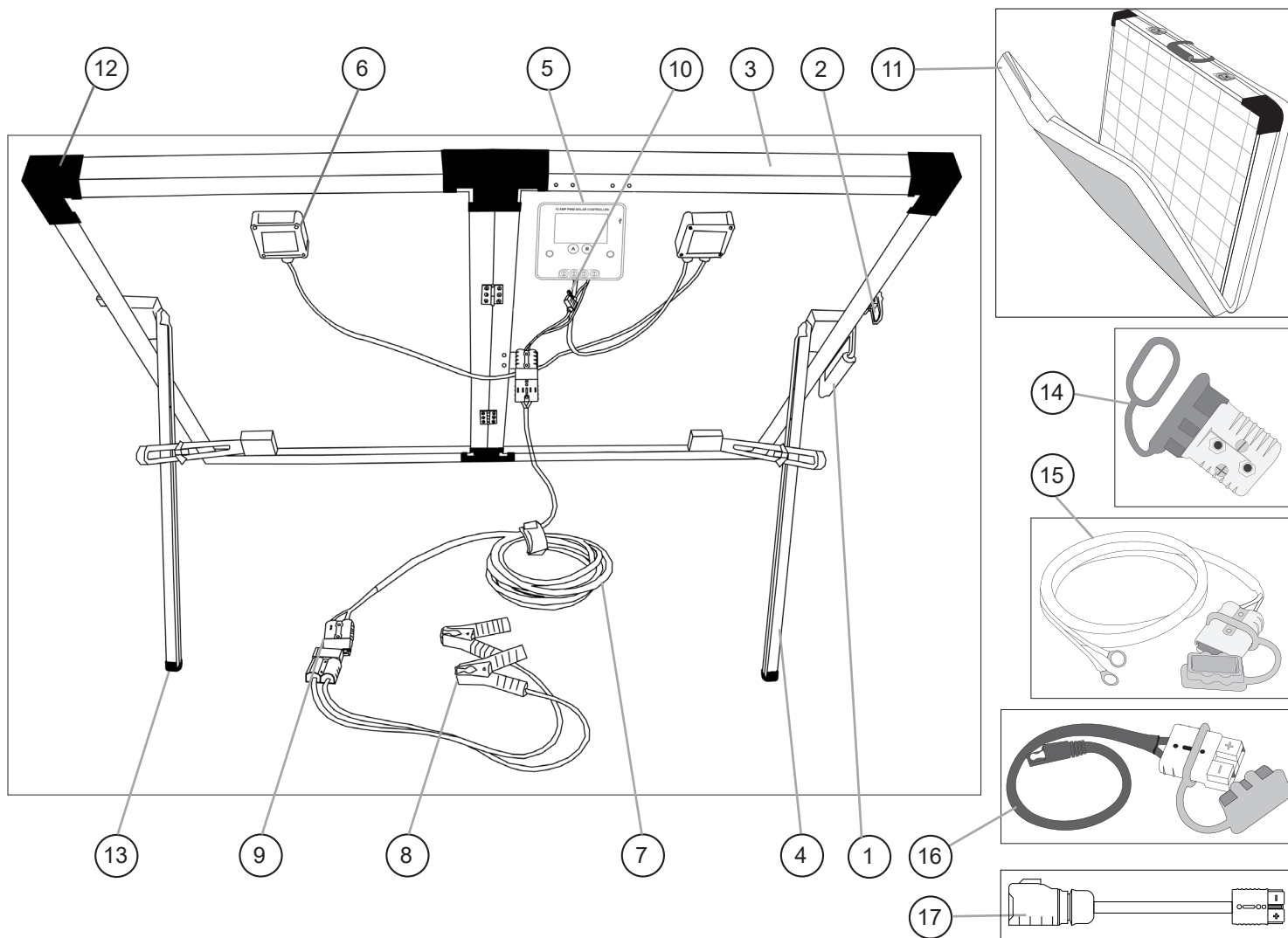
Veillez visiter gpelectric.com pour la version française de ce manuel de l'utilisateur | Visite gpelectric.com para la versión en español de este manual del usuario

2.1 WARNINGS

	Disconnect all power sources	Electricity can be very dangerous. Take appropriate caution when making connections.
	Battery and wiring safety	Observe all safety precautions of the battery manufacturer when handling or working around batteries. When charging, batteries produce hydrogen gas, which is highly explosive. Ensure batteries are in a well-ventilated space, away from sparks for open flames.
	Wiring connections	Ensure all connections are tight and secure. Loose connections may generate sparks and heat. Be sure to check all connections before using the portable solar kit.
	Observe correct polarity	Reverse polarity of the battery terminals and array will cause the controller to give a warning tone. The controller will not function unless battery terminals are connected to a battery with proper polarity. Failure to correct this fault could damage the controller.
	Do not exceed the Charge Controller current and voltage ratings	Refer to charge controller manual for details.
	Do not leave the device outside in inclement weather or rain, or unattended	This kit is not weatherproof. Never leave your Portable Solar Kit unattended, plugged in overnight, or subject to inclement weather.

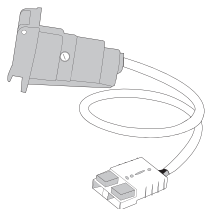
3. FEATURES AND ACCESSORIES

	Description	No	Description
1	Handle	10	Fuse
2	Latches	11	Protective carrying case
3	Aluminum frame	12	Corner protection
4	Aluminum support legs	13	Protective feet
5	Solar charge controller	14	Quick connect dust cover
6	Junction box	15	Ring terminals (for permanent mounting)
7	Cables	16	SAE Solar Plug (for connecting to RVs)
8	Battery clamps	17	2-Pin XLR Connector to Anderson Connector
9	Quick connect cable		



3.1 ADDITIONAL ACCESSORIES SOLD SEPARATELY

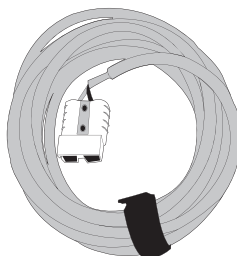
Visit gpelectric.com for product details.



GP-PSK-7PIN

7 Pin Trailer Plug Adapter

- Use your existing trailer plug to access your battery for charging



GP-PSK-X30

30' Extension Cable

- Park your RV in the shade and place your solar panel in the sun using this extension cable.



4. INSTALLATION

1. Locate a sunlit area, free from overhanging branches or obstructions.
2. Remove solar panel kit from carrying case.
3. Unclip the two latches on the side of the unit and fold the two panels outward.
Extend the two support legs to their maximum length and lock in position.
4. Place solar panel facing the sun.

Note

Avoid any shading no matter how small. An object as small as a broomstick held across the solar module may cause the power output to be reduced. Overcast days may also cut the power output of the module. To obtain maximum output it is suggested that the panel's direction be frequently adjusted to track the sun's movement throughout the day (southerly exposure).

5. Connect battery clamps to the positive (red, +) and negative (black, -) battery terminals. Ensure that the connection is secure. Connect the battery clamp cable to the rest of the solar panel cable using the quick connect cable.



Ensure the battery clamps do not come in contact with one another.

Do not let water come into contact with the controller.

5. GP-PWM-10-FM/GP-PWM-30-SB SOLAR CONTROLLER

5.1 INSTALLATION OVERVIEW

5.1.1 INTRODUCTION

A Solar Controller (or Charge Controller / Regulator) is an essential component of your photovoltaic solar system. The Controller maintains the life of the battery by protecting it from overcharging. When your battery has reached a 100% state of charge, the Controller prevents overcharging by limiting the current flowing into the batteries from your solar array.

The GP-PWM-10-FM AND GP-PWM-30-SB use Pulse Width Modulation (PWM) technology and a unique four stage charging system that includes an optional equalize setting to charge and protect your battery bank. Both controllers feature an LCD digital display that shows the charge current of the solar array, battery voltage and battery state of charge.

5.1.2 VOLTAGE AND CURRENT SYSTEM

The GP-PWM-10-FM and GP-PWM-30-SB are intended for use at 12 VDC nominal system voltage and is rated for a maximum continuous DC input current of 12.5A and input voltage of 35VDC.

Per the National Electric Code (NEC) article 690.7 and 690.8, PV module nameplate ratings at Standard Test Conditions (STC) must be multiplied by required values (typically 1.25 for both voltage and current) to obtain the true voltage and continuous current available from the module.

Applying the NEC factors, the maximum allowable nameplate PV Panel rated Isc is 10A ($10A \times 1.25 = 12.5A$), and the maximum voltage, Voc is 28VDC ($28VDC \times 1.25 = 35VDC$).

The voltage and current ratings of all equipment connected to PV panels must be capable of accepting the voltage and current levels available from PV panels installed in the field.



GP-PWM-10-FM/GP-PWM-30-SB SOLAR CONTROLLER

5.1.3 BATTERY TYPE

Both controllers are suitable for use with lead acid and lithium batteries (vented, GEL, LiFePO₄ (LFP) or AGM type).

5.1.4 LOW VOLTAGE DISCONNECT FUNCTION (USB PORT)

To protect the battery against over-discharge this function automatically switches off the USB output port when battery voltage is lower than 11.0 VDC. As soon as the battery reaches a voltage of 12.8 VDC the USB output port is switched on again.

5.1.5 REGULATORY INFORMATION



5.1.6 SPECIFICATIONS

DESCRIPTION	VALUE	DIMENSIONS (H X W X D):
Model	GP-PWM-10-FM	149 x 98 x 32 mm 5.87 x 3.86 x 1.26 in Weight: 260 g / 9.2 oz
Nominal System Voltage	12 VDC	
Range of Battery Input Voltage	9 – 15.5 VDC	Maximum Wire Gauge: #4 AWG
Maximum Solar Continuous DC Charge Current Input	12.5 ADC	Warranty: 5 years
Charging Output DC Voltage Range	9 – 14.9 VDC	• PWM Charging
Maximum Solar DC Input Voltage	35 VDC	• 4 Battery Charging Profiles
Maximum Series Fuse or Circuit Breaker Solar/Battery	15 A	• 4-Stage Charging
Operating Consumption (Display backlight on)	15 mA	• Monthly Equalize Option
Operating Consumption (Display backlight off)	6 mA	• Displays Charging Current, Battery Voltage, Battery State of Charge, and Amp Hours Charged Since Last Reset
Battery Types Supported	Vented & Sealed Lead Acid (GEL, AGM, Flooded, etc.). Lithium (LiFePO ₄)	• Reverse Polarity Protected
Bulk/Absorption Voltage (Sealed/GEL, AGM/LFP, Flooded)	14.1/14.4/14.4 VDC (25°C / 77°F), 30min / Day or 2hr if battery voltage < 12.3 VDC	• Temperature Compensated
Float Voltage	13.7V (25°C / 77°F), 14.0V (LFP)	• RoHS Compliant, Environmentally Safe
Equalization Voltage	14.9V (25°C / 77°F), 2h / 28 Days or if battery voltage < 12.1 VDC	• Accepts up to 160 Watts of Solar at 12 Volts
Temperature Compensation	- 24mV/°C / -13mV/°F	
USB charger	5V, 1500mA	



GP-PWM-10-FM/GP-PWM-30-SB SOLAR CONTROLLER

Low Voltage Disconnect (USB)	11.0 VDC - Reconnects once battery reaches 12.8 VDC	
Operating Temperature	- 40 to 85°C / - 40 to 185°F	
Display Operating Temperature	- 10 to 55°C / 14 to 131°F	
Humidity	99% N.C.	
Protection	Battery Reverse Polarity, Solar Array Reverse Polarity, Over Temperature, PV Short Circuit, Over Current	

DESCRIPTION	VALUE	DIMENSIONS (H X W X D):
Model	GP-PWM-30-SB	<div>149 x 98 x 32 mm 5.87 x 3.86 x 1.26 in Weight: 260 g / 9.2 oz</div> <div>Maximum Wire Gauge: #4 AWG</div> <div>Warranty: 5 years</div> <ul style="list-style-type: none">• PWM Charging• 4 Battery Charging Profiles• 4-Stage Charging• Monthly Equalize Option• Displays Charging Current, Battery Voltage, Battery State of Charge, and Amp Hours Charged Since Last Reset• Reverse Polarity Protected• Temperature Compensated• RoHS Compliant, Environmentally Safe• Accepts up to 510 or 540 Watts (for the 190watt Extreme) of Solar at 12 Volts
Nominal System Voltage	12 VDC	
Range of Battery Input Voltage	9 – 15.5 VDC	
Maximum Solar Continuous DC Charge Current Input	37.5 ADC	
Charging Output DC Voltage Range	9 – 14.9 VDC	
Maximum Solar DC Input Voltage	35 VDC	
Maximum Series Fuse or Circuit Breaker Solar/Battery	15 A	
Operating Consumption (Display backlight on)	15 mA	
Operating Consumption (Display backlight off)	6 mA	
Battery Types Supported	Vented & Sealed Lead Acid (GEL, AGM, Flooded, etc.). Lithium (LiFePO4)	
Bulk/Absorption Voltage (Sealed/GEL, AGM, Flooded)	14.1/14.4/14.4 VDC (25°C / 77°F), 30min / Day or 2hr if battery voltage < 12.3 VDC	
Absorption Voltage (LiFePO4)	14.4V 30min / Day	
Float Voltage (Sealed/Gel, AGM, Flooded)	13.7V (25°C / 77°F)	
Float Voltage (LiFePO4)	14.0V	
Equalization Voltage (Sealed Only)	14.9V (25°C / 77°F), 2h / 28 Days or if battery voltage < 12.1 VDC	
Temperature Compensation	- 24mV/°C / -13mV/°F	
USB charger	5V, 1500mA	
Low Voltage Disconnect (USB)	11.0 VDC - Reconnects once battery reaches 12.8 VDC for Sealed/Gel, AGM, Flooded 12.2V for LiFePO4	
Operating Temperature	- 40 to 85°C / - 40 to 185°F	
Display Operating Temperature	- 10 to 55°C / 14 to 131°F	
Humidity	99% N.C.	
Protection	Battery Reverse Polarity, Solar Array Reverse Polarity, Over Temperature, PV Short Circuit, Over Current	










GP-PWM-10-FM/GP-PWM-30-SB SOLAR CONTROLLER

5.2 IMPORTANT SAFETY INSTRUCTIONS

SAVE THESE INSTRUCTIONS

THIS MANUAL CONTAINS IMPORTANT INSTRUCTIONS FOR MODEL GP-PWM-10-FM and GP-PWM-30-SB THAT SHOULD BE FOLLOWED DURING INSTALLATION AND MAINTENANCE OF EITHER CONTROLLER.

	Disconnect all power sources	Electricity can be very dangerous. Installation should be performed only by a licensed electrician or qualified personnel..
	Battery and wiring safety	Observe all safety precautions of the battery manufacturer when handling or working around batteries. When charging, batteries produce hydrogen gas, which is highly explosive. Ensure batteries are in a well-ventilated space, away from sparks for open flames.
	Wiring connections	Ensure all connections are tight and secure. Loose connections may generate sparks and heat. Be sure to check all connections one week after installation to ensure they are still tight.
	Work safely	Wear protective eyewear and appropriate clothing during installation. Use extreme caution when working with electricity and when handling and working around batteries.
	Observe correct polarity	Reverse polarity of the battery terminals and array will cause the controller to give a warning tone. The controller will not function unless battery terminals are connected to a battery with proper polarity. Failure to correct this fault could damage the controller.
	Do not exceed the GP-PWM-10-FM Amp current and max voltage ratings	The maximum current of the solar system is the sum of parallel-connected PV module-rated short circuit Currents (Isc) multiplied by 1.25. The resulting system current is not to exceed 12.5A. If your solar system exceeds this value, contact your dealer for a suitable controller alternative.
	Do not exceed the GP-PWM-10-FM max voltage ratings	The maximum voltage of the array is the sum of the PV module-rated open-circuit voltage of the series connected modules multiplied by 1.25 (or by a value from NEC 690.7 provided in Table 690.7 A). The resulting voltage is not to exceed 35V. If your solar system exceeds this value, contact your dealer for a suitable controller alternative.



GP-PWM-10-FM/GP-PWM-30-SB SOLAR CONTROLLER

5.3 OPERATING INSTRUCTIONS

5.3.1 POWER UP

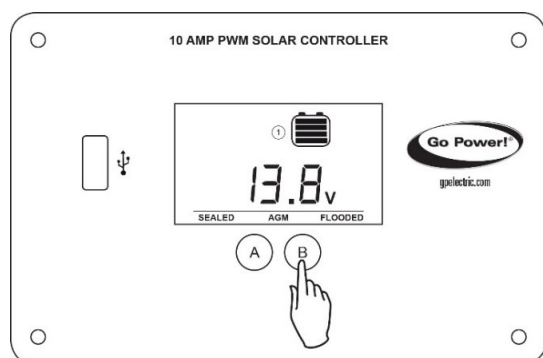
When the GP-PWM-10-FM or GP-PWM-30-SB are connected to the battery, the controller will go into Power Up mode.

Icons Displayed: All segments of the numerical display; backlight blinks.

(The diagrams on the following pages apply to both the GP-PWM-10-FM and the GP-PWM-30-SB).

Depending on the battery voltage when the controller Power Up occurs, the controller may do a Boost Charge or quickly go into Float Charge. The Charging Profile selected will commence the following day after a Power Up (refer to the Charging Profile Chart below for more details).

5.3.2 SETTING THE BATTERY CHARGING PROFILE



To select the battery charging profile, press and hold the **B Button**. This will cause the current battery type to flash.

Then, press the **B Button** to toggle through the profile options: Sealed/Gel, AGM/ LiFePO4 or Flooded.

To confirm the battery profile, press and hold the **A Button** for 3 seconds.

Non-volatile memory: Any settings made on the GP-PWM-10-FM will be saved even when the power has been disconnected from the controller.

Refer to the Battery Charge Profile Chart below for details on each profile.

5.3.3 BATTERY CHARGING PROFILE CHART

BATTERY TYPE	SEALED /GEL	AGM	FLOODED	LFP
Float Charge @ 25°C:	13.7V (+/- 0.1V)			N/A
Bulk/Absorption Charge @ 25°C: Set to 30 minutes every morning. Applied for 2 hours if the battery voltage drops below 12.3 volts.	14.1V (+/- 0.1V)	14.4V (+/- 0.1V)	14.4V (+/- 0.1V)	N/A
Equalization Charge @ 25°C: Applied for 2 hours every 28 days and if the battery voltage drops below 12.1 volts.	N/A	N/A	14.9V (+/-0.1V)	N/A
Absorption Charge voltage for LiFe-PO4: Set to 30 minutes every morning	N/A			14.4VDC
Float Charge voltage for LiFePO4:	N/A			14.0VDC
If a charging cycle is unable to complete in a single day, it will continue the following day. The terms SEALED/GEL, AGM, FLOODED and LFP are generic battery designations. Choose the charging profile that works best with your battery manufacturer's recommendations.				

Note

If PV power is insufficient or too many loads are drawing power from the battery, the controller will not be able to charge the battery to the target charging voltage.



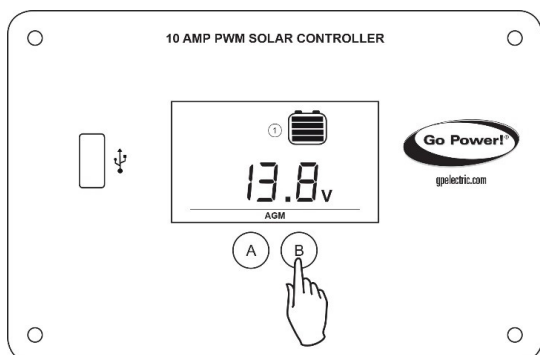
GP-PWM-10-FM/GP-PWM-30-SB SOLAR CONTROLLER

Auto Equalize: The GP-PWM-10-FM has an automatic equalize feature that will charge and recondition your batteries at least once a month at a higher voltage to ensure that any excess sulfation is removed.

Note This mode should not be entered unless you are using a flooded battery.

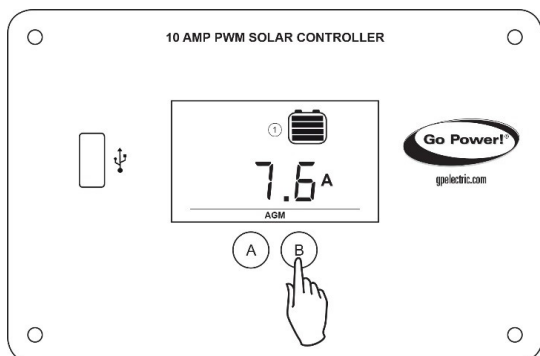
5.3.4 VIEWING THE CONTROLLER DISPLAY INFO

To toggle between Battery Voltage, PV Charging Current, Battery State of Charge (SOC), and ampere hours charged since last reset, press the **B Button**.



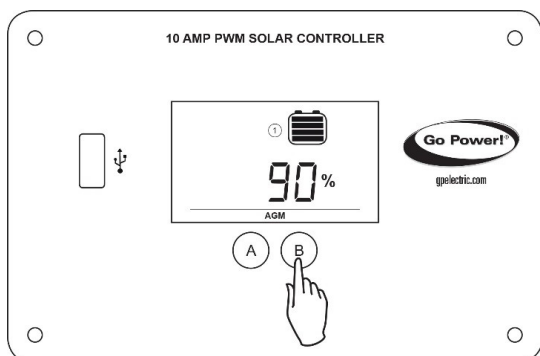
Push the **B Button** to show the battery voltage.

Icons Displayed: Battery SOC, Volt Symbol (V)



Push the **B Button** to show the PV charging current.

Icons Displayed: Ampere Symbol (A), Battery SOC



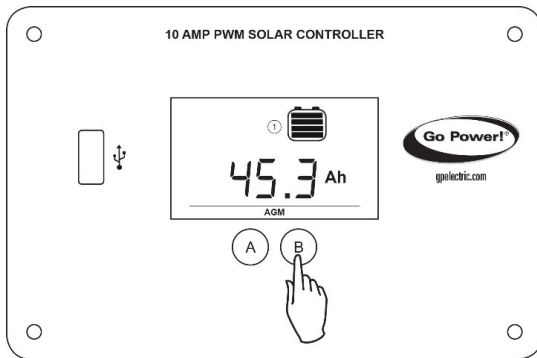
Push the **B Button** to show the battery state of charge (shown as a percentage).

Icons Displayed: Battery SOC, Percent Symbol (%)

A value of 100% will only be displayed after a Boost or Equalize charge completes.



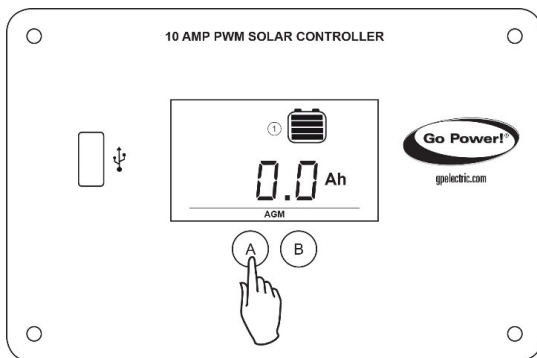
GP-PWM-10-FM/GP-PWM-30-SB SOLAR CONTROLLER



Push the **B Button** to show the number of amp hours charged since the last reset.

Icons Displayed: Amp hours charged, Amp hour symbol (Ah) or kiloamp hour symbol (kAh)

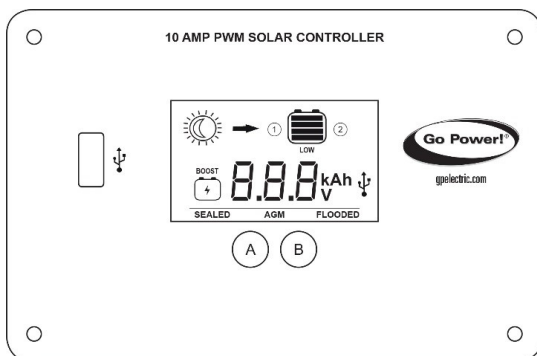
5.3.5 RESETTING THE AMPERE HOURS CHARGED



To reset the count of ampere hours charged, toggle to the ampere hours charged.

Press and hold the **A Button** for 6 seconds to reset the counter to zero.

5.3.6 ERRORS



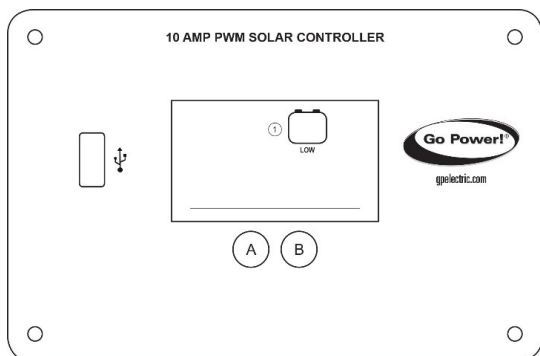
If the GP-PWM-10-FM experiences a battery over voltage (15.5V), the controller will stop operating, and the display will begin to flash with all icons. The controller will resume operating when the error is cleared.

Icons Displayed: All symbols



GP-PWM-10-FM/GP-PWM-30-SB SOLAR CONTROLLER

Low Voltage



If the battery voltage reaches 11 volts, the battery SOC symbol will show the text “LOW” beneath it. The controller will continue operating in this condition and will only stop operating if the voltage drops below 9 volts.






Icons Displayed: Battery SOC Symbol, LOW

5.4 DISPLAY SYMBOLS

SYMBOL	INDICATOR FOR:
	Day Time: PV Charge Current
	Night Time
	Battery Voltage
	Battery State of Charge
SEALED	Sealed/Gel
AGM	AGM/LFP
FLOODED	Flooded
OTHER SYMBOLS	
	USB charger on (When charger is off, no symbol will show)
LOW	Battery voltage is lower than 11.0 VDC
Whole display will start to blink	Battery voltage > 15.5 VDC



GP-PWM-10-FM/GP-PWM-30-SB SOLAR CONTROLLER

BATTERY STATE OF CHARGE	
SYMBOL	BATTERY VOLTAGE
	Shows only after full Boost or Equalization Cycle
	≥ 12.6 VDC
	$\geq 11.8 - 12.6$ VDC
	$> 11.0 - 11.8$ VDC
	≤ 11.0 VDC
 LOW	Shows only after full Boost or Equalization Cycle
90%	≥ 12.8 VDC
	< 12.8 VDC and > 11.0 VDC
$SOC = \frac{battery\ voltage - 11.0V}{1.8V} * 90\%$	≤ 11.0 VDC



GP-PWM-10-FM/GP-PWM-30-SB SOLAR CONTROLLER

5.5 USB CHARGING

The GP-PWM-10-FM and GP-PWM-30-SB offer a standard USB connector for delivering 5.0 VDC to small mobile appliances such as cell phones, tablets or small music players. This charging port is capable of supplying up to 1500 mA of current.

Remove the rubber cover of the USB terminal to access the terminal.

The USB charging port is always active when the **USB symbol** appears on the display.

The controller disables the USB charger automatically if the battery voltage drops below 11.0 VDC. If there is enough current from the PV panel/array available to charge the Battery to above 12.8 VDC, the USB terminal will be enabled again.



WARNING: Do not connect the charging device anywhere else! USB-Negative contact is connected to battery negative.

5.6 FREQUENTLY ASKED QUESTIONS

Before a problem is suspected with the system, read this section. There are numerous events that may appear as problems but are in fact perfectly normal. Please visit gpelectric.com/support for the most up-to-date FAQs.

Q. It seems like my flooded batteries are losing water over time.

A. Flooded batteries may need to have distilled water added periodically to replace fluid loss during charging. Excessive water loss during a short period of time indicates the possibility of overcharging or aging batteries.

Q. When charging, my flooded batteries are emitting gas.

A. During charging, hydrogen gas is generated within the battery. The gas bubbles stir the battery acid, allowing it to receive a fuller state of charge. Important: Ensure batteries are in a well-ventilated space.

Q. My voltmeter shows a different reading than the GP-PWM-10-FM display.

A. The meter value on the GP-PWM-10-FM display is an approximate reading intended for indication purposes only. There is an approximate 0.1 volt inherent error present that may be accentuated when compared with readings from another voltmeter.

There may be a slight difference between the battery voltage displayed on the GP-PWM-10-FM display and the battery voltage measured at the battery terminals. When troubleshooting using a voltmeter, check both the battery voltage at the GP-PWM-10-FM controller terminals and battery voltage at the battery terminals. If a difference of more than 0.5 volts is noted, this indicates a large voltage drop possibly caused by loose connections, long wire runs, small wire gauge, faulty wiring, a faulty voltmeter, or all the above.



GP-PWM-10-FM/GP-PWM-30-SB SOLAR CONTROLLER

Q. What causes a warning signal and when are the warnings triggered?

A.

CONNECTION	WARNING	NOTES	LCD
Battery reverse polarity	"POL" on LCD and constant audible alarm		POL
PV reverse polarity	"POL" on LCD and constant audible alarm	Battery must be connected with correct polarity	POL

Q. Why does the battery SOC% never reach 100%?

A. A 100% value will only appear after a 2 hour Boost or Equalize charge has completed. The charge voltage must be maintained for an extended period of time to replenish the energy in the battery bank back to its rated capacity.

If the charge voltage cannot be maintained continuously, then the actual time it takes to complete Boost or Equalize charging may take much longer than 2 hours, even more than 1 day.

If loads are consuming more power than the solar panels can supply, then the battery bank cannot be charged to 100%.

5.7 LIMITED WARRANTY

Go Power! warrants the both controllers for a period of five (5) years from the date of shipment from its factory. This warranty is valid against defects in materials and workmanship for the five (5) year warranty period. It is not valid against defects resulting from, but not limited to:

- Misuse and/or abuse, neglect, or accident
- Exceeding the unit's design limits
- Improper installation, including, but not limited to, improper environmental protection and improper hook-up
- Acts of God, including lightning, floods, earthquakes, fire, high winds, and hail.
- Damage in handling, including damage encountered during shipment

This warranty shall be considered void if the warranted product is in any way opened or altered. The warranty will be void if any eyelet, rivets, or other fasteners used to seal the unit are removed or altered, or if the unit's serial number is in any way removed, altered, replaced, defaced, or rendered illegible.

5.7.1 REPAIR AND RETURN INFO

Visit www.gpelectric.com to read the "frequently asked questions" section of our website to troubleshoot the problem. If trouble persists:

1. Fill out our online Contact Us form or Live Chat with us
2. Email techsupport@gpelectric.com
3. Return defective product to place of purchase



6. SPECIFICATIONS

TYPE	MODULE SIZE (CLOSED)	MODULE SIZE (OPENED)	NET WEIGHT	MAX POW- ER	MAX POWER VOLTAGE	MAX POWER CURRENT	OPEN CIRCUIT VOLTAGE	SHORT CIRCUIT CURRENT
Module	(H) x (W) x (D)	(H) x (W) x (D)	lbs / kg	W	V	A	V	A
90W (2x45W)	22.0 x 20.6 x 3.4 in 558 x 524 x 86 mm	22.0 x 40.7 x 3.4 in 558 x 1034 x 86 mm	20 lbs / 9 kg	90	19.8	4.4	23.6	4.6
130W (2x65W)	32.8 x 20.6 x 3.4 in 834 x 524 x 86 mm	32.8 x 40.7 x 3.4 in 834 x 1034 x 86 mm	33 lbs / 15 kg	130	19.7	6.74	23.8	7.12
200W (2x100W)	40.0 x 27.2 x 3.4 in 1015 x 691 x 86 mm	40.0 x 53.9 x 3.4 in 1015 x 1368 x 86 mm	51 lbs / 23 kg	200	17.6	11.43	21.1	12.34

7. FREQUENTLY ASKED QUESTIONS

Please visit gpelectric.com for the most up-to-date FAQs.

Q1. It seems like my flooded batteries are losing water over time.

A. Flooded batteries may need to have distilled water added periodically to replace fluid loss during charging. Excessive water loss during a short period of time indicates the possibility of overcharging or aging batteries.

Q2. When charging, my flooded batteries are emitting gas.

A. During charging, hydrogen gas is generated within the battery. The gas bubbles stir the battery acid allowing it to receive a more full state of charge. Ensure batteries are in a well-ventilated space.

Q3. My voltmeter shows a different reading than the charge controller display

A. The meter value on the charge controller display is an approximate reading intended for indication purposes only. There is an approximate 0.1 volt inherent error present that may be accentuated when compared with readings from another voltmeter.

There may be a slight difference between the battery voltage displayed on the charge controller display and the battery voltage measured at the battery terminals. When troubleshooting using a voltmeter, check both the battery voltage at the controller terminals and battery voltage at the battery terminals. If a difference of more than 0.5 volts is noted, this indicates a large voltage drop possibly caused by loose connections, long wire runs, small wire gauge, faulty wiring, a faulty voltmeter or all the above. Check all connections.



8. LIMITED WARRANTY

Go Power! warrants the solar panel of the Portable Solar Kit for 25 years, 1 year for the cable and components and 5 years for the solar controller. This warranty is valid against defects in materials and workmanship. It is not valid against defects resulting from, but not limited to:

- Misuse and/or abuse, neglect, or accident
- Exceeding the unit's design limits
- Improper installation, including, but not limited to, improper environmental protection and improper hook-up
- Acts of God, including lightning, floods, earthquakes, fire, and high winds
- Damage in handling, including damage encountered during shipment or installation

Visit **gpelectric.com** for additional product warranty information.

Visit www.gpelectric.com to read the "frequently asked questions" section of our website to troubleshoot the problem. If trouble persists:

1. Fill out our online Contact Us form or Live Chat with us
2. Email techsupport@gpelectric.com
3. Return defective product to place of purchase

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Worldwide Technical Support and Product Information gpelectric.com

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