

1800 Watt Solar Generator

Quick Installation Guide

(Refer to this Guide for ALL off-grid installations)

(Refer to Operator's Manual as a secondary tool for troubleshooting, FAQ's, specifications, precautions, and the hardwired on-grid installation method)



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Tools Required

- #2 Phillips screwdriver (Provided)
- Slotted screwdriver
- 3/8" crescent wrench or socket wrench
- Small hammer

Parts & Accessories

Item	Item Description	Item Quantity	Image
A	3/8" hex nut	4	
B	3/8" flat washer	4	
C	#2 Phillips screwdriver	1	
*D	#1/0 AWG Battery Cables	1 set	
*E	8' positive & negative inverter cable	1 each	
*F	50' positive & negative solar cable	1 each	
*G	10 amp charge controller	1	

**Items D,E,F,G only in box 2 of 2 solar panel package*

Installation Instructions

Step 1:

Determine which side of the inverter the battery box will attach to. Side 1 or side 2.



Step 2:

With a Phillips screwdriver, remove (2) 6x32 screws from the battery connection port cover.

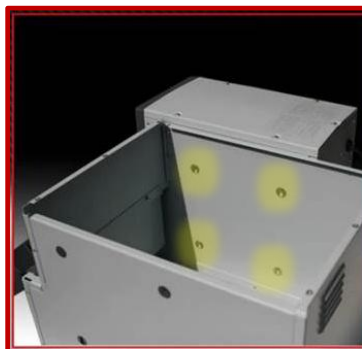


Step 3:

Secure the battery box to the inverter by aligning the key hole slots.

Tighten the four mounting screws.

(If you purchased an optional second battery box, mount to the opposite side of the inverter at this time.)



Installation Instructions

Step 4a:

Insert the battery(s) into the battery box.

(Up to 2 batteries can fit in each battery box.)



Step 4b:

Connect the negative and then positive cable. Tighten the cables onto the terminals using Item B (3/8" washer) and then item A (3/8" hex nut).

(If 2 batteries are used, connect item D (battery cables) from positive to positive and neg. to neg. and then attach washer and nuts over terminals)



Step 5:

Secure the top of the battery box with the included (6) 6x32 Phillips screws.



Installation Instructions

Step 6a:

Insert the Andersen Connector into the battery connection port, ensuring it's secure.



Step 6b :

Close the front panel of the battery box, gently pushing the lip under the lip of the battery box top.



Step 7:

Connect the charge controller to the inverter using the provided 8' positive and negative cables. Negative first, then positive.



Installation Instructions

Step 8:

Slide off the top of the inverter box by removing screws.



Step9a :

Remove the circular “knock-out” from the back of the inverter box with the gentle tap of a hammer.



Step 9b:

Thread the 8’ cables through the port.
Connect the negative cable to the 32 amp paired DC input terminal.
Connect the positive cable to the positive terminal.
Replace top cover, adding screws



Installation Instructions

Step 10a:

Connect the 50' solar cable to the charge controller. Negative first, then positive.



Step 10b :

Connect the opposite end of the solar cables to the 140 watt solar panel. Negative first, then positive.



Step 11:

Plug the AC receptacle into an outlet, now the solar generator is staged for future use. (This also ensures the battery(s) will contain a full charge when they are needed.)



Battery Information

Approved Batteries for 1800 Watt Solar Generator:

- 1) Exide RF31-D
- 2) Sunlyte 5000-X

*** Any battery other than listed above must be approved by Power G (Sumec Hardware & Tool Co) or the customer runs the risk of damaging the machine or causing serious risk to health and welfare. Unapproved batteries void all product warranties. Contact Customer Service: 1-866-902-9690

Battery Specifications / Requirements:

BCI Group Size	CCA at 0	CA at 32F	RC MIN at 25A	Approx Dimensions to Fit in Battery Box			Unit Value	Battery Terminal Type	Amp Hours	Voltage
				Length	Width	Height				
31	700	840	200	13	6 5/8	9 7/16	1.5	Threaded	100	12

Typical AC Appliances and Run Times:

AC Appliance	Watts ^a	Run Time (Hours) ^b 1 Battery Box (2 Batteries)	Run Time (Hours) ^c 2 Battery Boxes (4 Batteries)
Cordless telephone	5	396.00	792.00
Home security system	5	396.00	792.00
Clock Radio	8	217.80	435.60
Inkjet Printer	8	217.80	435.60
Stereo	14	145.00	290.40
Fireplace fan	20	64.35	128.70
Laptop computer	20	64.35	128.70
Table lamp (25W)	25	54.45	108.90
17" LCD Monitor	35	49.50	99.00
Table Light (40W)	40	43.00	86.00
Color TV – 13"	50	20.80	50.40
Table lamp (60 W)	60	26.40	53.00
8.8 cu. ft. freezer	80	19.80	39.60
18 cu ft. fridge	120	14.80	29.70
Sump Pump 300 W	300	4.29	8.58
20" LCD TV	370	2.80	5.50
Microwave 1000	1000	1.43	3.00
Coffee Maker	1300	1.00	2.86

a. Represents actual power consumption as measured on sample appliances.

b. Operating times assume (2) fully charged 100 Ah batteries and may vary based on model/brand of appliance.

c. Operating times assume (4) fully charged 100 Ah batteries and may vary based on model/brand of appliance.

Panel Information

Can I use multiple panels with this machine?

Yes, maximum of 4 panels per solar generator (See below, requires larger amp charge controller to handle multiple panels).

Do the panels have to be the same panel as provided, Phono Solar 140W?

Yes, you must use the same panel in order to ensure a smooth voltage transfer from panel to inverter and also to uphold the warranty.

How do I install multiple panels?

- 1) **Order a 12/24V 40 Amp Charge Controller from an electrical supply house**
- 2) **Attach each 50' solar cable to its corresponding solar panel**
- 3) **Attach the opposite ends from each cable all into the 40 amp charge controller**
- 4) **Attach one set of the 8' cable from the charge controller to the same terminals on the inverter as directed in the Quick Installation Instructions**

Specifications

Cells	Poly crystal Si 6.14 in × 6.14 in square
Number of cells	4 × 9 pieces in series
Typical application	12 V DC
Maximum voltage	600 V DC
Length	58.35 in
Width	26.61 in
Height	1.77 in
Weight	28.7 lbs
Front glass	0.126 in toughened glass
Frame	Anodized aluminium alloy



Electrical Values

Model	PS140P-12/G
Rated Power	140 W
Rated Current	8.05 A
Rated Voltage	17.4 V
Short Circuit Current	8.25 A
Open Circuit Voltage	22.0 V
Module Efficiency	13.97%

Tolerance

Parameter	Values
Operating temperature	From -40 to +85 °C
Hail Diameter @ 50 mph	Up to 25 in.
Surface Maximum Load Capacity	Up to 5400 Pa