

PV-ezRack SolarMatrix Pro

Planning and Installation Guide



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1. Introduction

PV-ezRack SolarMatrix Pro is a non-penetrating mounting system for commercial flat roof and square installations. It has been developed as a universal PV module mounting system suitable for tilt angles of 10 to 25 degrees. SolarMatrix Pro is specially designed to meet your requirements of safety performance and quick easy installations.

Please review this manual thoroughly before installing your SolarMatrix Pro™ system. This manual provides (1) supporting documentation for building permit applications relating to PV-ezRack SolarMatrix Pro™ Universal PV Module Mounting system, and (2) planning and installation instructions for SolarMatrix Pro™.

SolarMatrix Pro™ products, when installed in accordance with this guide, will be structurally adequate and will meet the local standards. During installation, and especially when working on the roof, be sure to observe the appropriate safety regulations and please pay attention to the relevant regulations of your local region. Please check that you are using the current version of the installation manual by contacting Clenergy by email on sales@clenergy.com.au, or your local representative.

The installer is solely responsible for:









- Complying with all applicable local or national building codes, including any that may superseded this manual;
- Ensuring that PV-ezRack and other products are appropriate for the particular installation and the installation environment;
- Ensuring that the flat roof and other structural support members can support the array under building live load conditions (this total assembly is hereafter referred to as the roof rafter assembly);
- Using only PV-ezRack parts and installer-supplied parts as specified by PV-ezRack (substitution of parts may void the warranty and invalidate the letter of certification on page 2);
- Ensuring that lag screws have adequate pullout strength and shear capacities as installed;
- Maintaining the waterproof integrity of the roof, including selection of appropriate flashing; and
- How to recycle: according to the local relative statute.
- How to disassemble: countermove with installation.
- Ensure that there are no less than two professional workers in panel installation.
- Ensure the installation of relative electrical equipment is performance by professional electrician.
- Ensuring safe installation of all electrical aspects of the PV array.

2. Installation tools & components

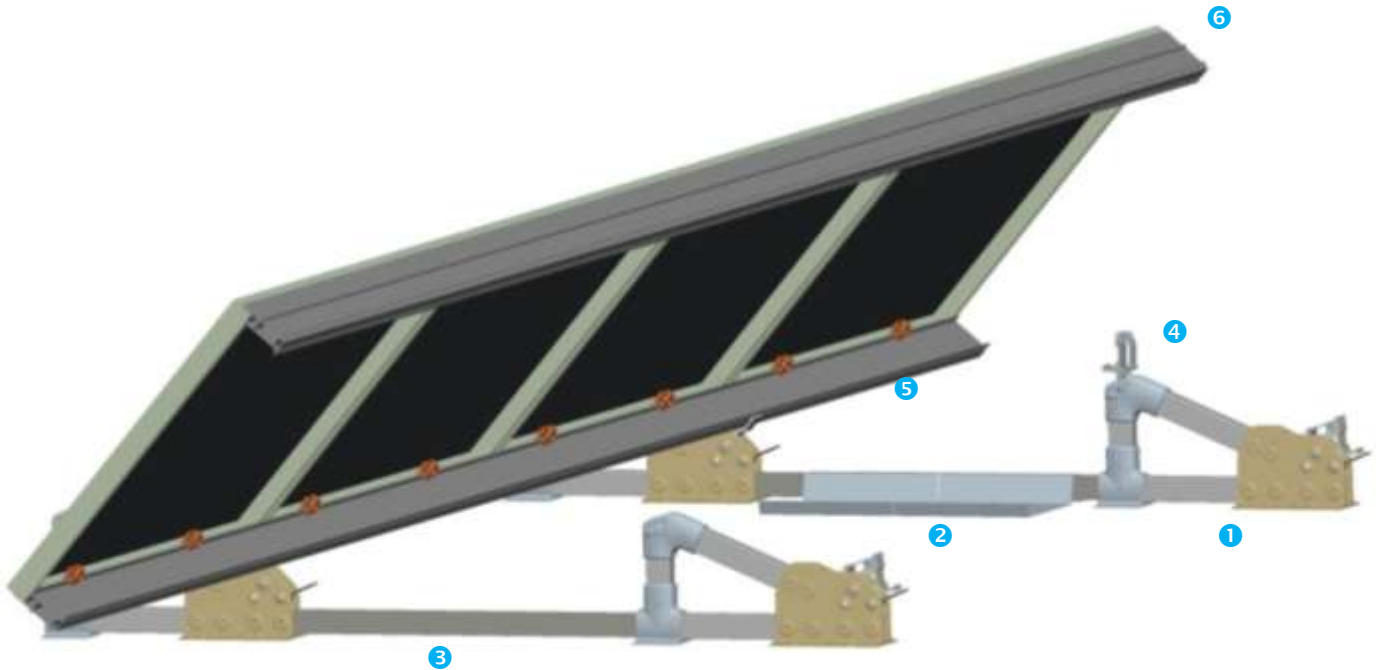
1. Installation tools

- 5, 6mm Hexagon Key
- Electrical Drill
- 17mm Open Wrench
- Torque Wrench with 5, 6mm Hexagon Key (adjustable to 25 N • m)

2. Components list

Overview of system components			
			
Box Pro	Rail Pro	Rail Clamps Pro	
			
Rectangular Tube	Clamp Pro 30/40	Interval Clamp Pro	Ballast Tray Pro
			
Wind deflector Pro			

3. Overview of system components



- ① Box Pro
- ② Ballast Tray Pro
- ③ Rectangular Tube
- ④ Rail Clamps Pro
- ⑤ Clamp Pro
- ⑥ Rail Pro

3. Installation Instruction

1. Structure Assembly

Connect the Box Pro with the Rectangular Tube_Pro using 2 bolts. At this point, please note that the direction of each Box Pro must be same.



2. Front Rail Installation

Align two pairs of Box Pro as shown in the drawing. The horizontal space between two pairs is 2 times the module length plus 100mm.

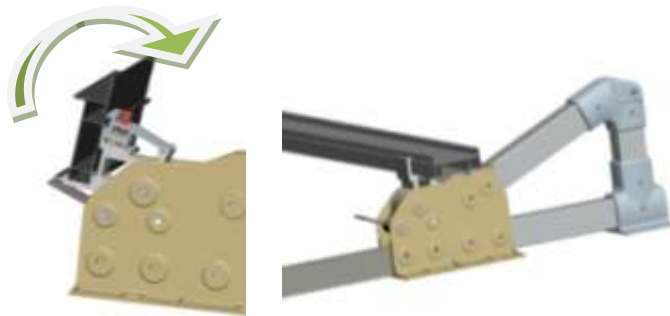


Place the front rail in position and secure it using the front rail clamp. Please see the picture provided herein for the details on how to secure the Rail Pro with the rail clamp.



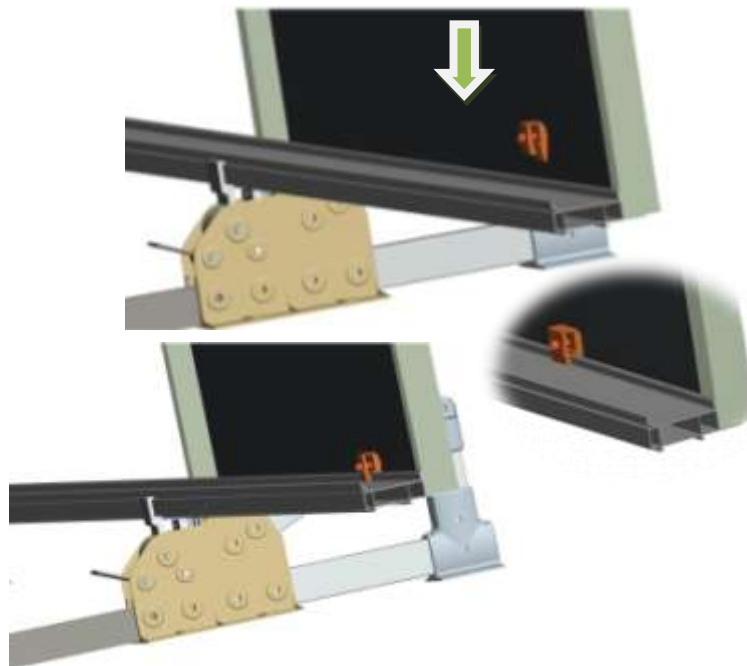
3. Panels Installation

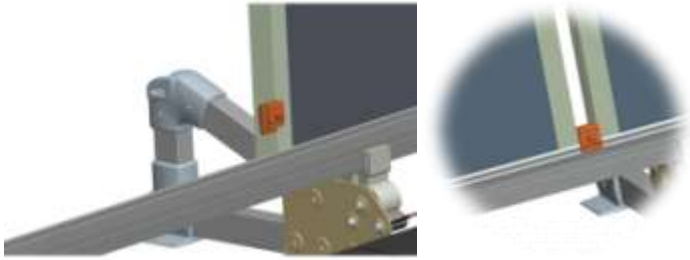
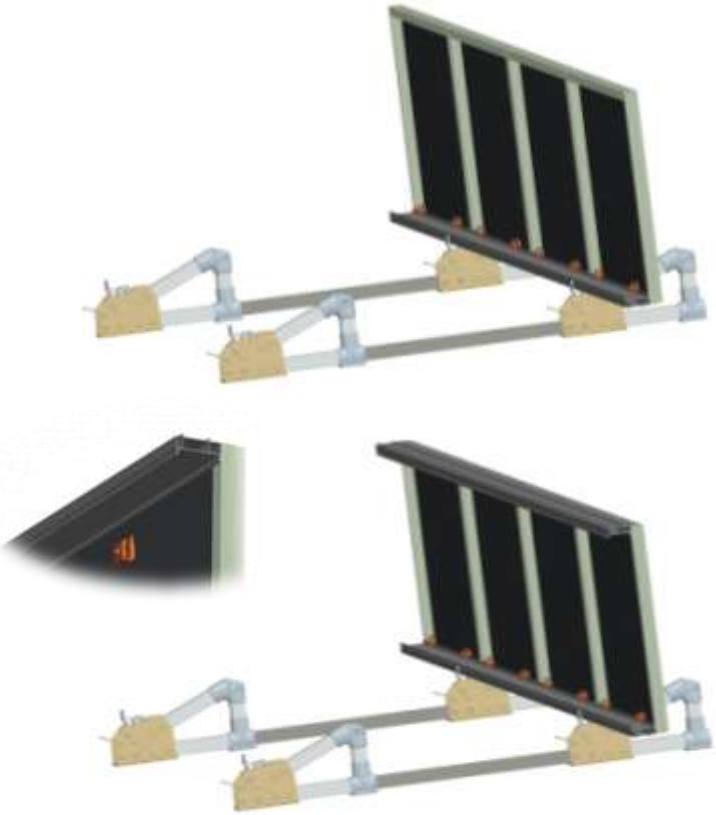
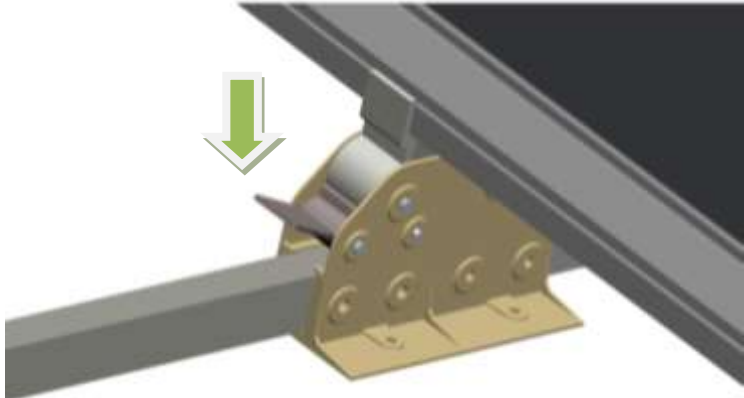
After the Rail Pro is secured, turn it by 90 degree to install the panels.



Place the four modules in the slot of Rail Pro and attach it to the rail using 2 Clamps Pro per panel.

Between two modules you can insert an Interval Clamp Pro.

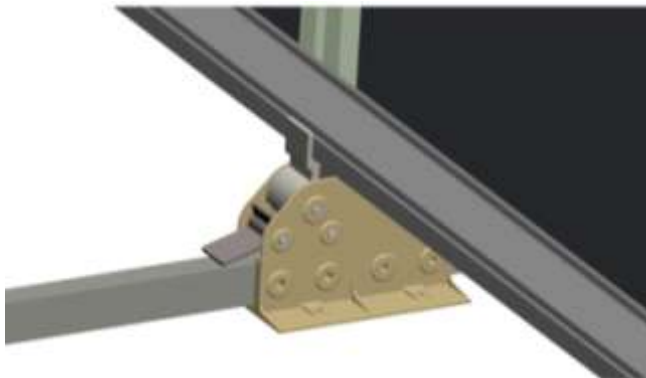


<p>Insert the Interval Clamp Pro to rail between panels and attach.</p>	
<p>When all the panels are secured to the bottom rail install the top rail using the Clamps Pro.</p>	
<p>4. System Lock</p>	
<p>Press down the Pedal Pro to release the panel and complete the installation.</p>	

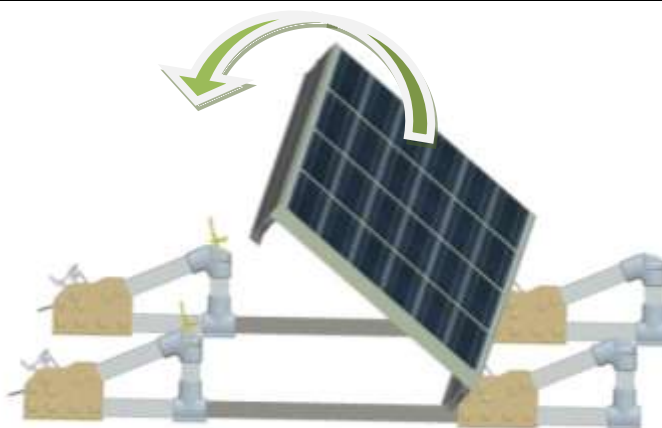


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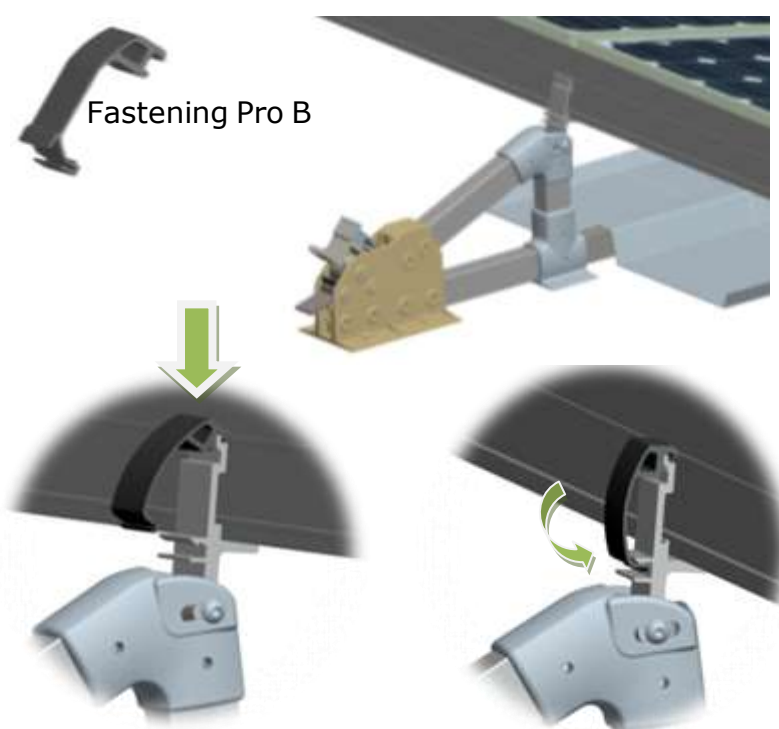
Note that you can take advantage of that to do the cabling easily.



Insert the top Rail Pro into the Box Pro



Then you can secure the top rail using the top rail clamp.



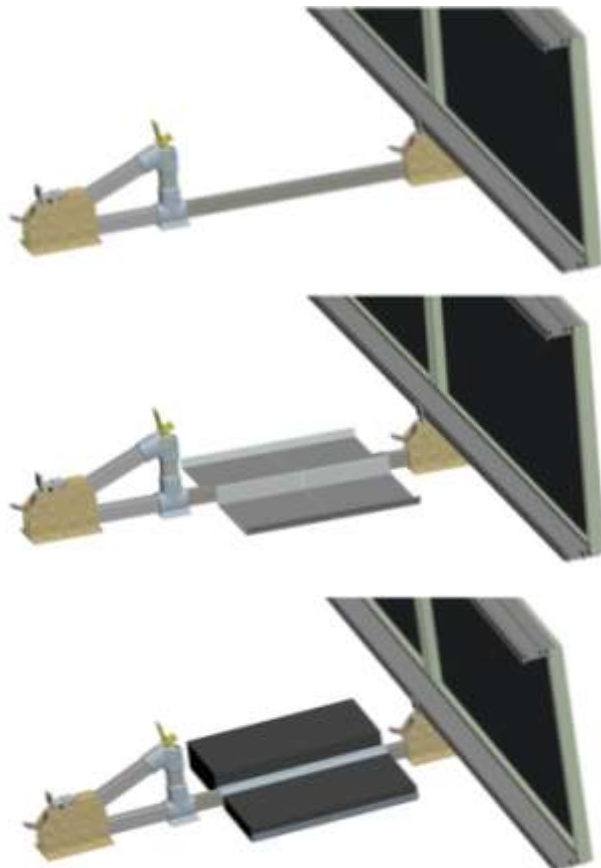
The installation is now completed



Accessory installation

Tray Installation

Place the Ballast Tray Pro on the Rectangular Tube and add the specified quantity of ballast blocks on the tray to your plan.

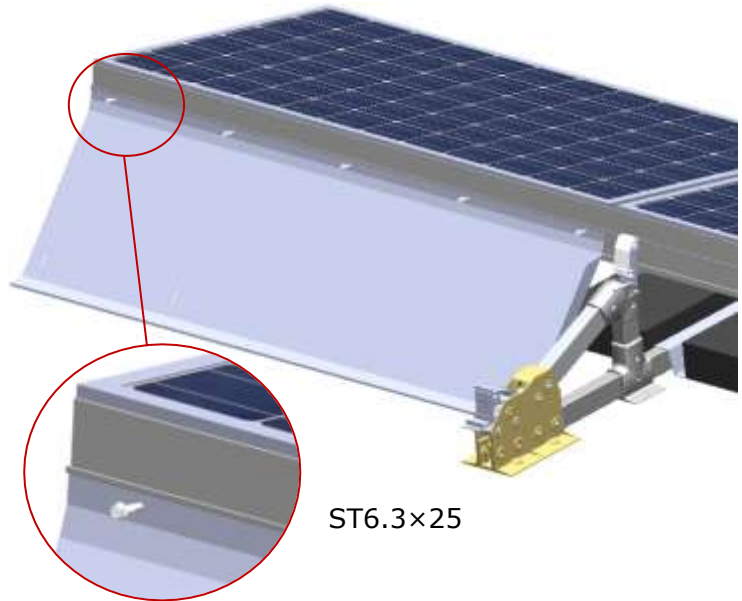


Wind Deflector Installation

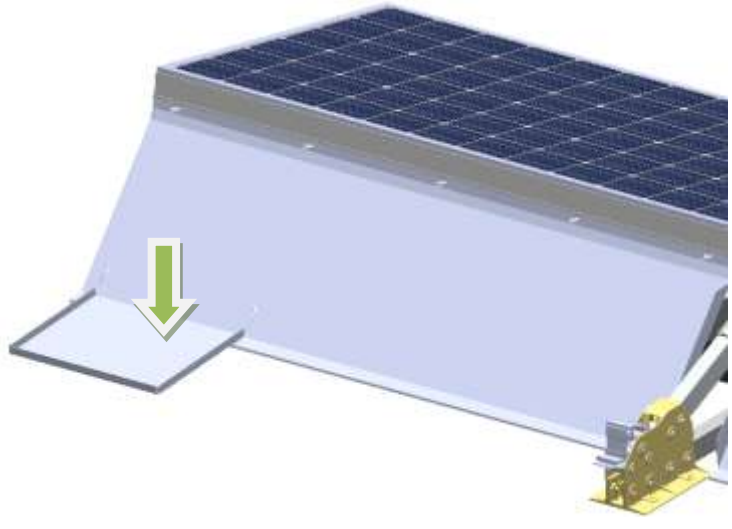
Wind deflectors are attached to the back of the row of modules.

Step 1

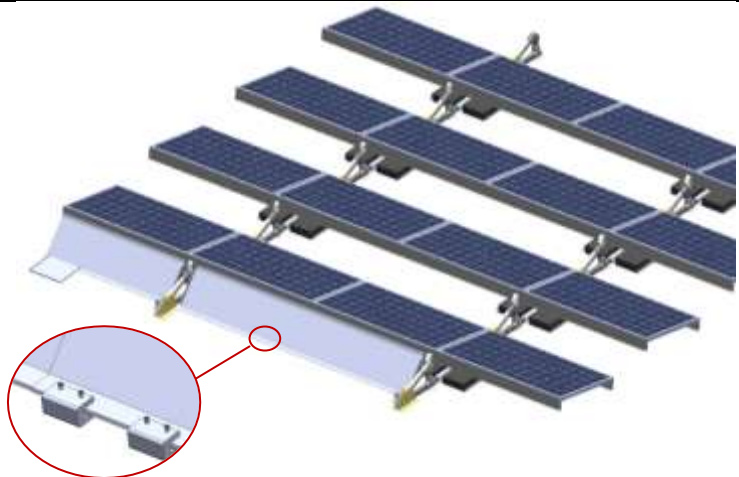
Attach Wind Deflector Left-side to the left side of the rail, fastened it with 5 Self-tapping Screws ST6.3×25.



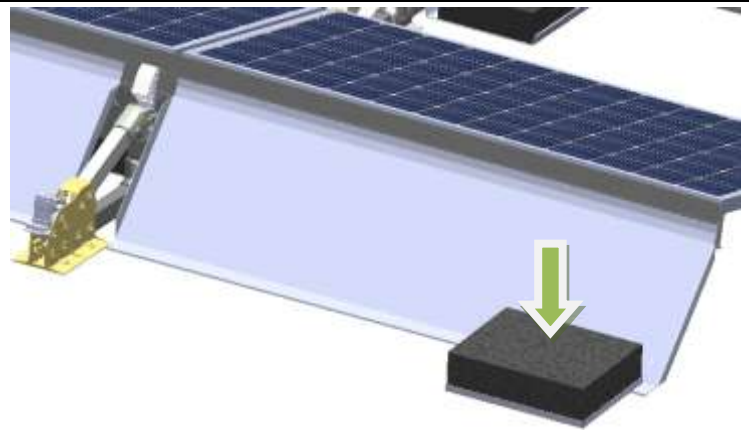
Attach MatrixPro Wind Deflector Tray to the Wind Deflector Left-side.



Attach Wind Deflector Left-inter and Wind Deflector Right-inter between the 2 Box pro. Use 5 screws for each wind deflector. Fix them together with two MatrixPro Wind Deflector Clip.



The install the Wind Deflector Right-side following the same procedure as for the left-side





4. Service

10 Years Standard Warranty Terms and Conditions, 20 Year Designed Service Life

Clenergy international co. Ltd warrants to the original purchaser ("Purchaser") of product(s) that it manufactures ("Product") at the original installation site that the Product shall be free from defects in material and workmanship for a period of ten (10) years, except for the anodised finish, which finish shall be free from visible peeling, or cracking or chalking under normal atmospheric conditions for a period of five (5) years, from the earlier of 1) the date the installation of the Product is completed, or 2) 30 days after the purchase of the Product by the original Purchaser ("Finish Warranty").

The Finish Warranty does not apply to any foreign residue deposited on the finish. All installations in corrosive atmospheric conditions are excluded. The Finish Warranty is VOID if the practices specified by AAMA 609 & 610-02 – "Cleaning and Maintenance for Architecturally Finished Aluminum" (www.aamanet.org) are not followed by Purchaser. This Warranty does not cover damage to the Product that occurs during its shipment, storage, or installation.

This Warranty shall be VOID if installation of the Product is not performed in accordance with Clenergy's written installation instructions, or if the Product has been modified, repaired, or reworked in a manner not previously authorized by Clenergy IN WRITING, or if the Product is installed in an environment for which it was not designed. Clenergy shall not be liable for consequential, contingent or incidental damages arising out of the use of the Product by Purchaser under any circumstances.

If within the specified Warranty periods the Product shall be reasonably proven to be defective, then Clenergy shall repair or replace the defective Product, or any part thereof, in Clenergy's sole discretion. Such repair or replacement shall completely satisfy and discharge all of Clenergy's liability with respect to this limited Warranty. Under no circumstances shall Clenergy be liable for special, indirect or consequential damages arising out of or related to use by Purchaser of the Product. Manufacturers of related items, such as PV modules and flashings, may provide written warranties of their own. Clenergy's limited Warranty covers only its Product, and not any related items.