

PV-ezRack[®] SolarTerrace II[™]

Code-Compliant Planning and Installation
Complying with AS/NZS1170.2:2011 Amdt 3 2013



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1. Introduction

Clenergy PV-ezRack[®] SolarTerrace II[™] is a pre-assembled ground mount system suitable for large scale commercial and utility scale installations. This product has been developed to fit universal PV installations. The innovative and patented SolarTerrace II[™] T-Rails simplify and improve the accuracy of the installation. Using high quality engineered components SolarTerrace II[™] saves developers and installers time and money when delivering large scale projects.

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

SolarTerrace II[™] products, when installed in accordance with this guide, will be structurally adequate and will meet the local standards. During the installation and especially when working on the roof inform yourself about the appropriate safety regulations, and please also 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 Australia 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 supersede this manual;
- Ensuring that ezRack and other products are appropriate for the particular installation and the installation environment;
- Using only ezRack parts and installer-supplied parts as specified by ezRack (substitution of parts may void the warranty and invalidate the letter of certification on page 2);
- Ensuring that the ground condition are suitable;
- How to recycle: according to the local relative statute.
- How to disassemble: reverse installation process.
- Ensure that there are no less than two professionals working on the panel installation.
- Ensure the installation of the electrical equipment is performed by a professional and accredited electrician.
- Ensuring safe installation of all electrical aspects of the PV array.

2. Installation tools & components

1. Installation tools

- Hydraulic Pile Driver
- Allen Key
- Power Tool

Maximum torque:



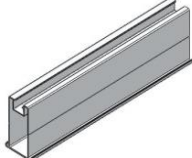
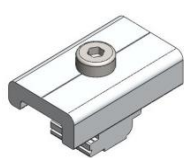



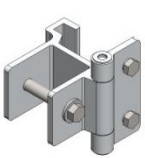
M8 = 20N*m

M10 = 30N*m

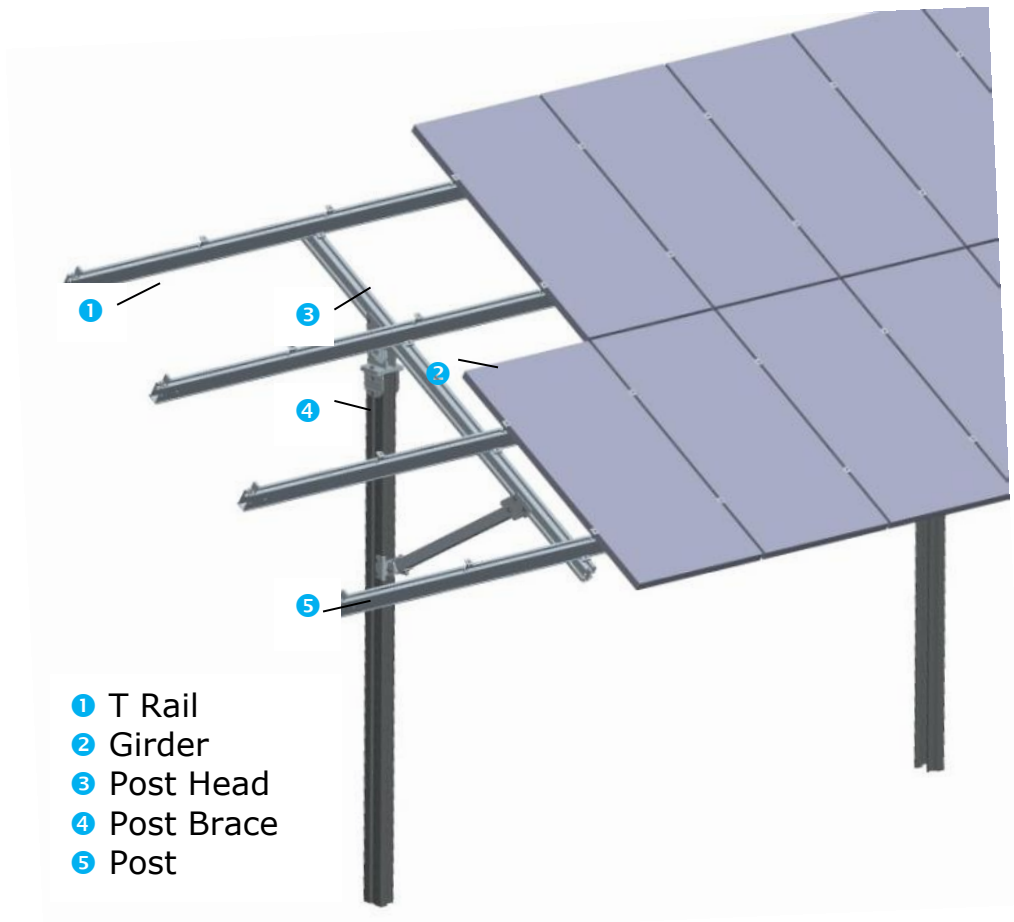
M12 = 50N*m

- Adjustable Spanner
- String

2. Components list

Overview of system components			
			
End Clamp	Middle Clamp	T-Rail	Rail Clamp
			
Girder	Post Head	C-Post	Post Brace

3. Overview of system components



4. Mounting of the single assembly groups

Step 1: Pole grounding



Step 2: Mounting top and side brackets



Step 3: Fixing the structure



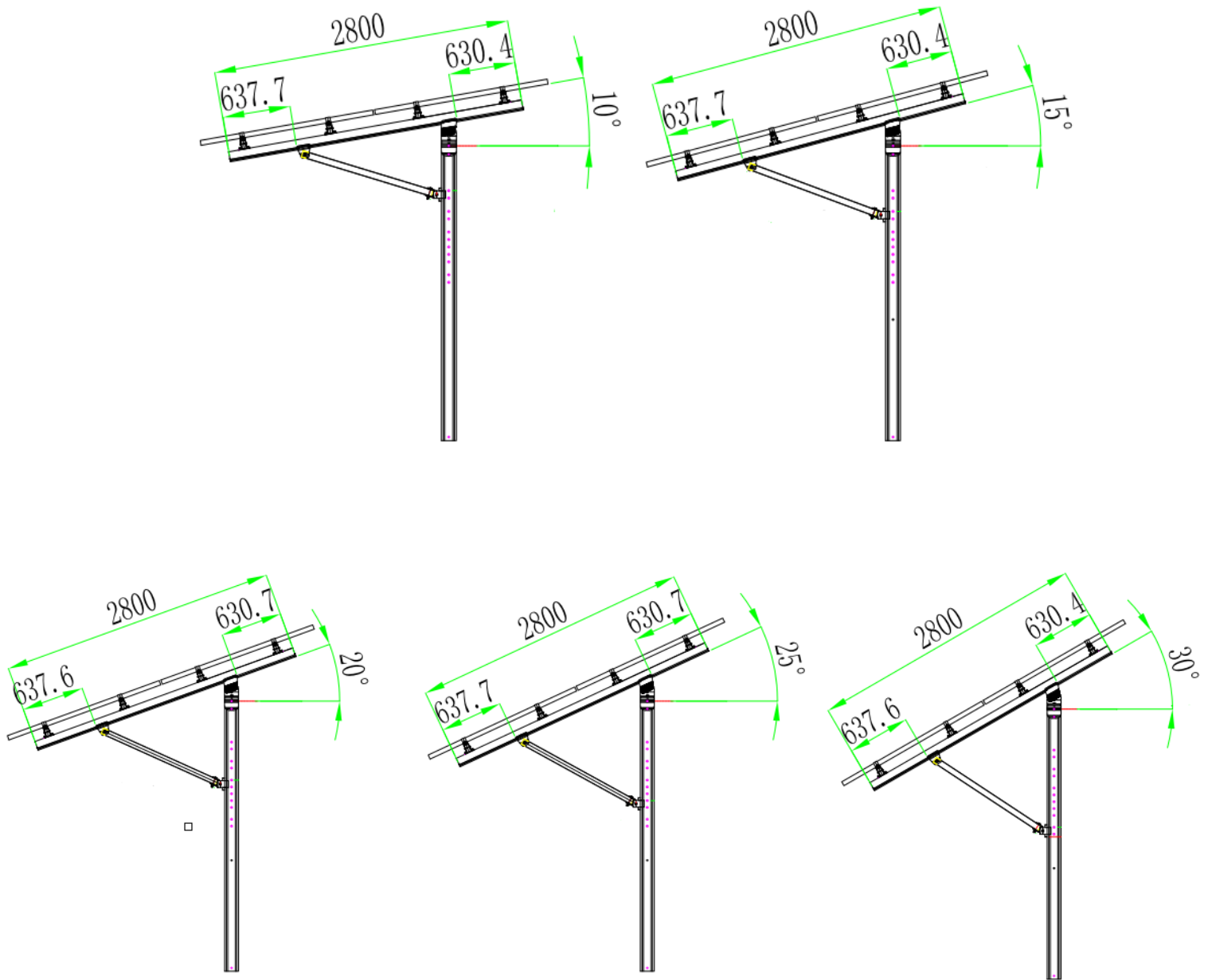
Step 4: Mounting the T-Rails



Step 5: Module mounting



Angle positioning



STII – Panel dimension up to 1.7m

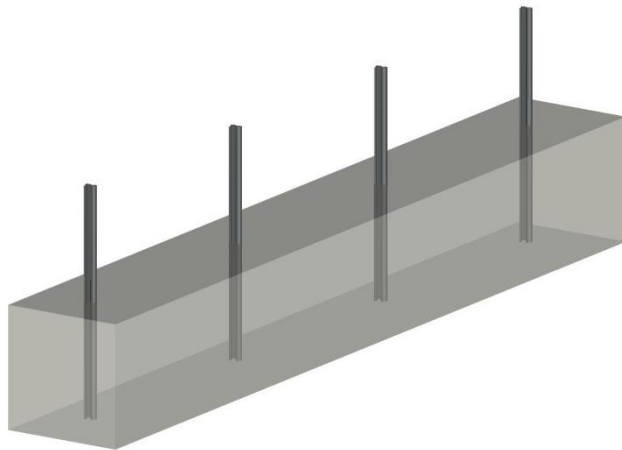
Wind Zone	Region A	Region B	Region C	Region D
Wind Speed (m/s)	41	48	56	66
Leg Spacing (m)	3.3	2.85	2.05	1.45

3. Six steps installation Instruction

1. Install the Open Post

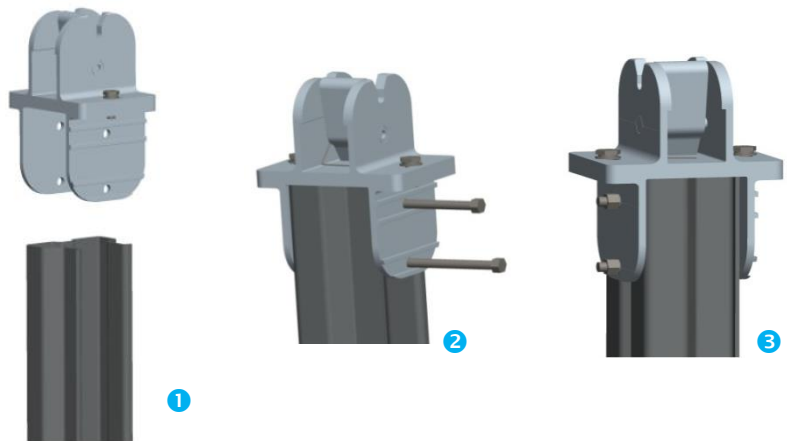
Before the installation, prepare all the products and installation tools that will be needed. Confirm the hydraulic pile driver can be used at the site.

Mark the Open Posts array perimeter. Drive the piles into the earth. Use a string to make sure all the piles are in a same line and height.



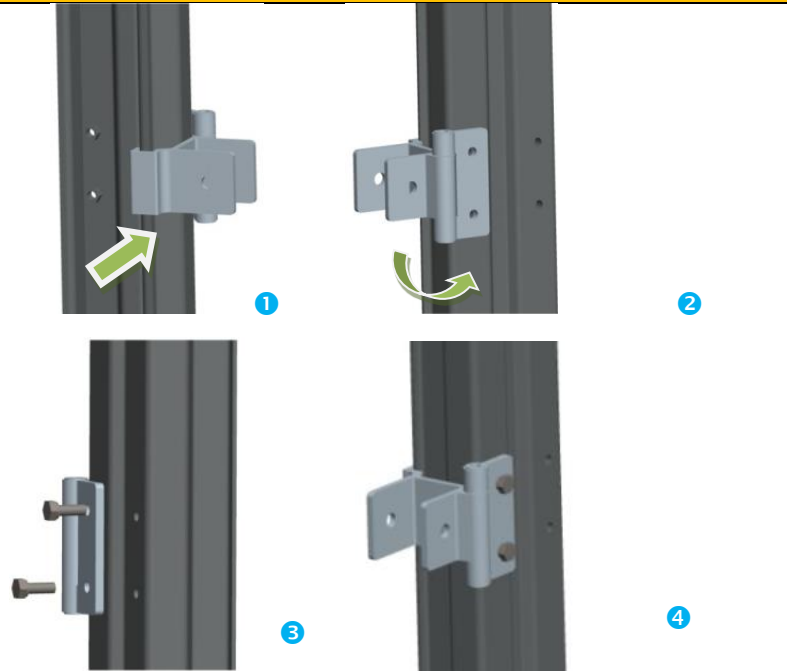
2. Mount Post Head

Install the Post Head, fix with Hexagonal Bolt and Nut.



3. Mount Post Brace

Insert the Post Brace on one side of Post. Then fold it and fix it to the post with Hexagonal Bolt and Nut.



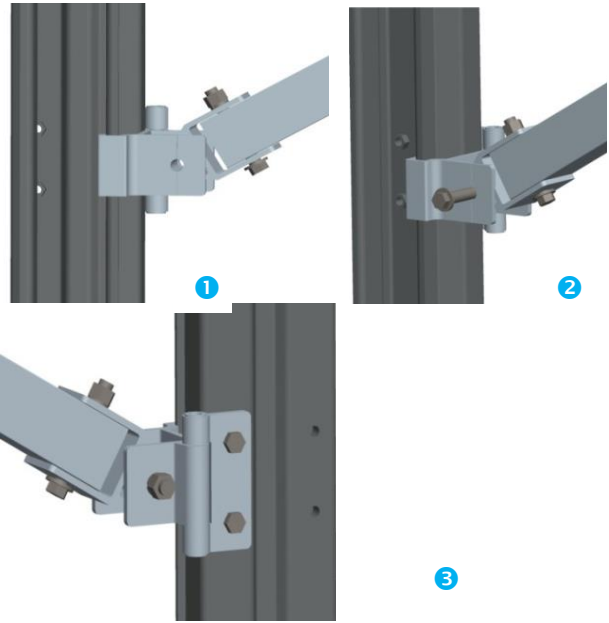
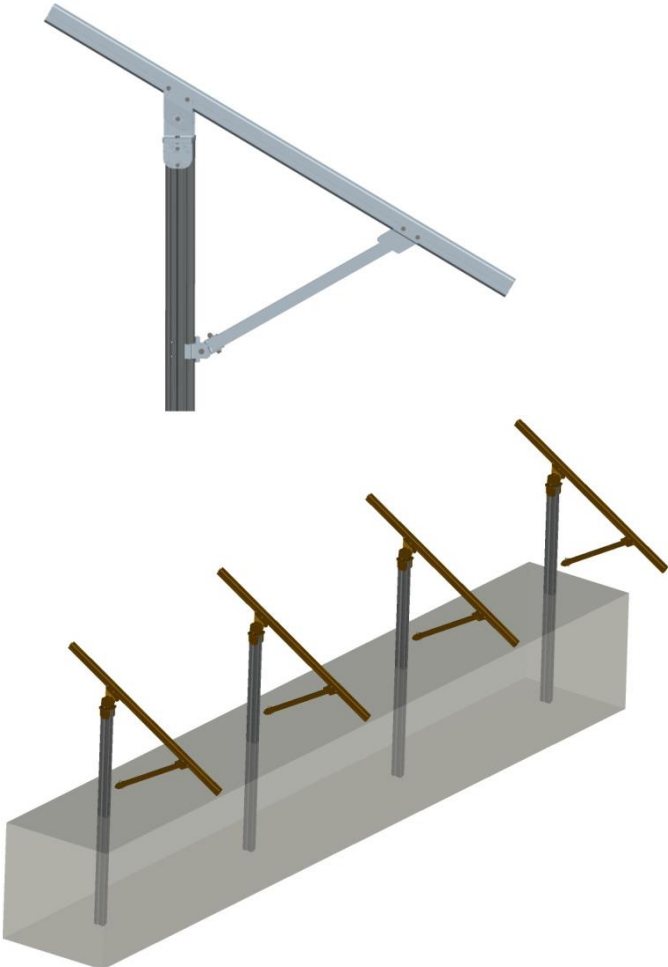
4. Attach the Girder

Attach the Girder on to the Post Head. The fixing arm in the Post head will click on to the bolt on the Girder.



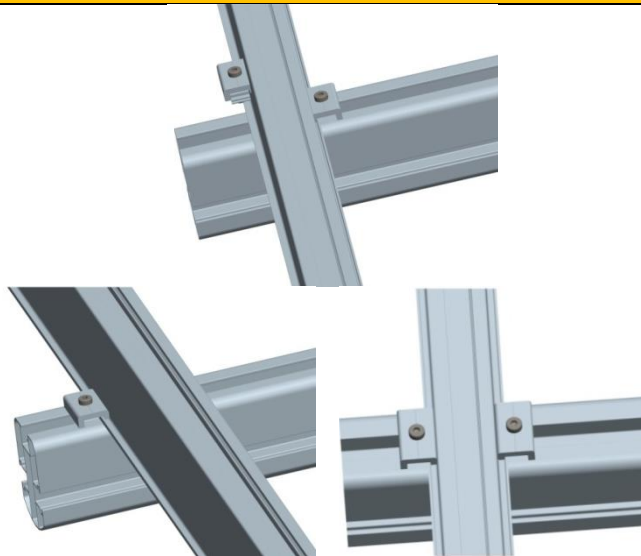
Connect the Support Tube to the Post Brace and fix using Hexagonal Bolt and Nut.



	
<p>After installing the Girder, adjust the system to make sure all the Tri-groove Beams are in a same line and height.</p> <p>Notes: Make sure the Tri-groove Beams are all positioned the same before installing the T-Rail.</p>	

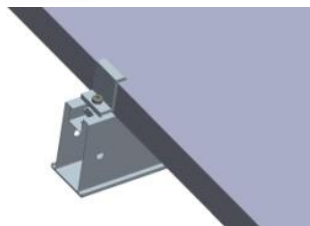
5. Mount the rails

Mark the panel array perimeter and attach the T-Rail to Tri-groove Beam with one T-Rail Clamp on each side.

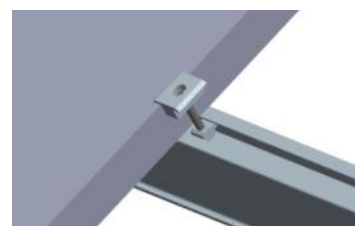


6. Mount the panels

Install the panels by using the patented Clenergy End Clamps and Inter Clamps. Fasten them by Hexagonal Bolt using 15-20Nm torque.

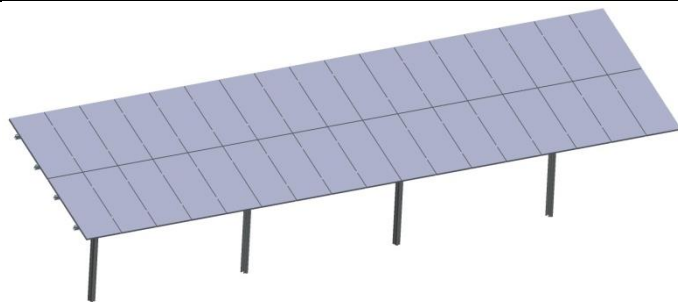


End Clamp



Middle Clamp

The installation of the panels is completed.



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 Aluminium" (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.