

# PV-ezRack PostMount 1-A Installation Guide

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## 1.Introduction





Clenergy's PV-ezRack PostMount System delivers flexible and durable designs to mount from two to eight panels per post. This guide will focus on the PostMount 1-A System which supports a panel. It's ideal for remote off-grid applications such as water pumps, or small residential and commercial systems. The panel tilt is easily adjustable between 0° and 60° throughout the year and comes with hassle-free mounting thanks to patented components such as the PV-ezRack rails and clamps. The combination of high quality aluminium, stainless steel and galvanised steel components make this a robust, reliable system with excellent corrosion resistance.

Please review this manual thoroughly prior to installing PV-ezRack PostMount 1-A. This manual provides supporting documentation for building permit applications relating to PV-ezRack PostMount 1-A Mounting system.

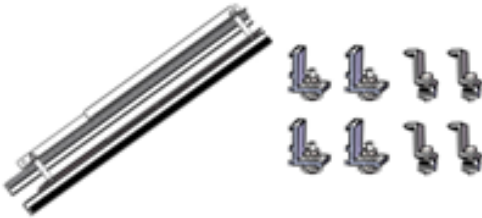

The PV-ezRack PostMount 1-A parts, when installed in accordance with this guide, will be structurally adequate and will meet the AS/NZS1170.2:2011 Amdt 3-2012 standard. During installation and especially when working on the ground please comply with the appropriate occupational health and safety regulations. Please also pay attention to other relevant regulations of your local region. Please check that you are using the latest version of the installation manual, which you can do by contacting Clenergy via email on [sales@clenergy.com](mailto:sales@clenergy.com), or contacting your local distributor.

## 2、 Tools & Components

### 2.1 Tools

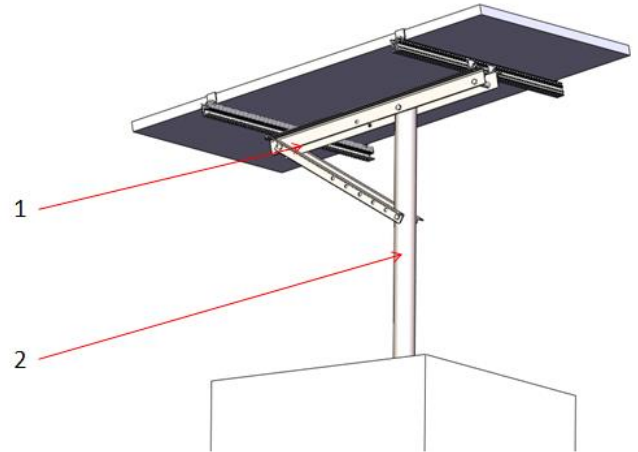
			
Allen key 6mm	Spanner (14 - 22mm) adjustable	Torque Wrench (with socket and also 14, 17 and 22mm Hex key attachment)	Tape Measure (5m)

### 2.2 Components List

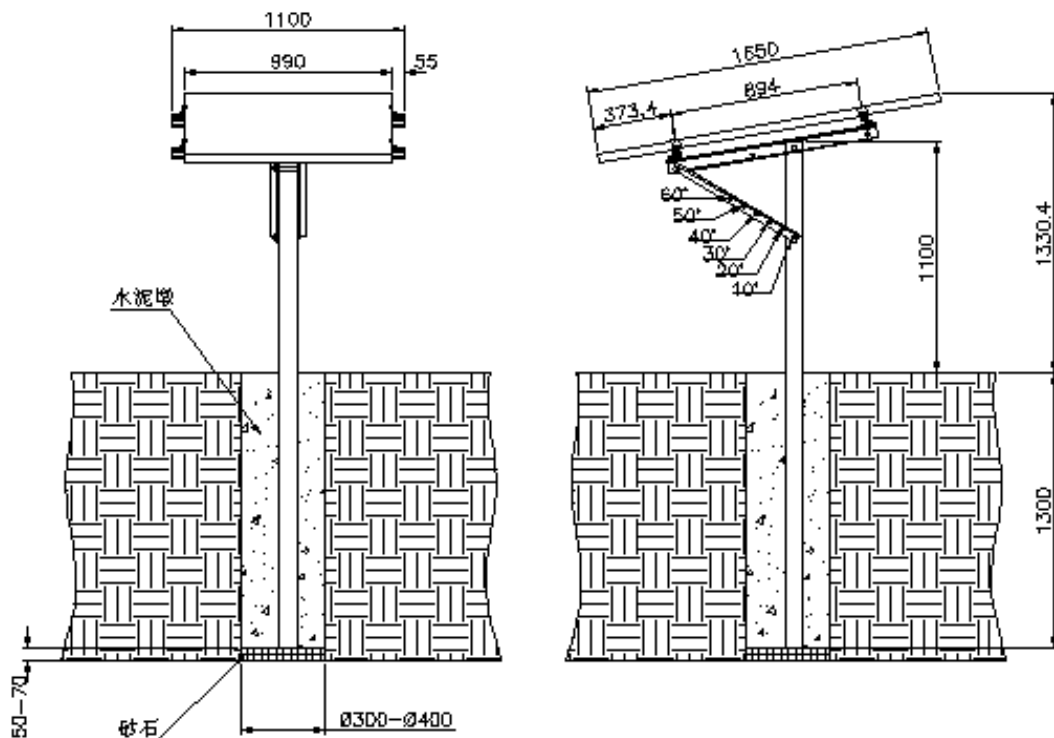
Part list	
	
PM1-A Accessory Package	Pole for PostMount 1-A, Ø83x2400mm

### 3. System Overview

- 1) PM1-A Accessory Package
- 2) Pole for PostMount 1-A,  $\text{Ø}83 \times 2400 \text{mm}$



### 4. Planning



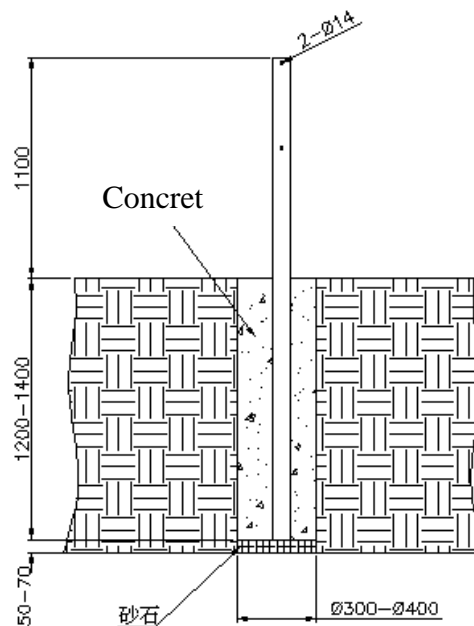
## 5. Installation Guide

### 5.1 Pole Installation 83\*2400

#### Pole Pre-buried.

Dig a hole to the diameter 300-400mm and depth 1200-1400mm highlighted in the PM1-A engineering letter. Cover the bottom of the hole with 50-70mm gravel.

Place the pole into the middle of the hole and fill it with concrete. Maintain the position of the post to an allowed vertical tolerance of  $\pm 2^\circ$ . Keep the axle of the 2x  $\varnothing 14$  holes parallel to east-west, and the angle deviation within  $\pm 5^\circ$ . For more than one system on one site maintain all the axles of 2-  $\varnothing 14$  holes aligned.



### 5.2 Accessory Package Installation

#### 5.2.1

As show on figure, with M12 \* 120 hex bolts and nuts to lock Angle Steel 63 \* 40 \* 1010 on the pipe column.

And then use M12 \* 120 hex bolts and nuts to lock supporting rod 40 \* 40 \* 682 on the pipe column.

Note: supporting rod around multiple holes which can be adjusted by adjusting the mounting, adjustable angle of 10 °, 20 °, 30 °, 40 °, 50 ° and 60 °.

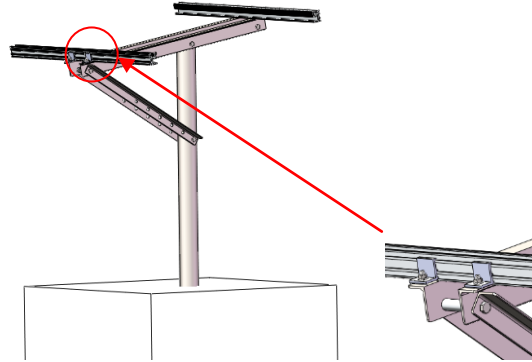
M12 bolts recommended torque values: 40-45 N.m



### 5.2.2

As show on figure, place the standard Rail on Angle Steel. Use the Cross connection clamp to lock on the Angle Steel 40 \* 40 \* 682.

M8 bolts recommended Torque: M8: 18~20N.m



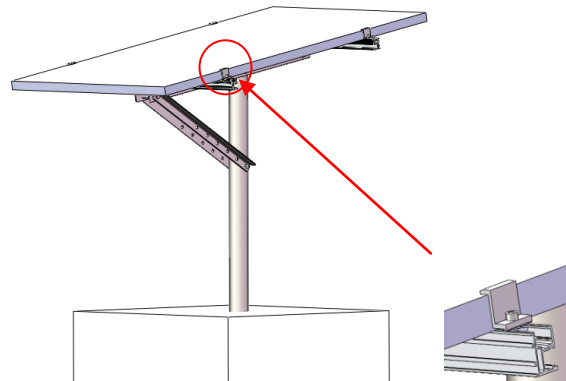
### 5.2.3

Position the PV Panels landscape by aligning the centre line with the Master Tube. Attach the PV panels to the rails, using the End Clamps. Start at the two lower end clamps and work your way up.

Note:

Make sure that the clamps are flush to the sides of the panels (no gap)

Recommended Torque: M8: 18~20Nm



## 6. Notices and Safety Precautions

### 6.1 Notices during Stainless Steel Fasteners Installation

Improper operation may lead to deadlock of unlocking Bolts and Screws.

#### 6.1.1. Reduce the friction coefficient:

- (1) Ensure the surface clean and smooth ( no dirt or contaminant )
- (2) Apply lubricant(grease or 40# engine oil) to fasteners prior to tightening;

#### 6.1.2. Proper instruction:

- (1) Apply force to fasteners in the direction of thread;
- (2) Apply force uniformly, keep eyes on safe torque;
- (3) Professional tools are recommended;
- (4) Avoid working at high temperature, or electric tools for tightening;

#### 6.1.3. Safe Torques

Please refer to safe torques defined in the guide;

6.1.4. If deadlock occurs, you can cut off, meanwhile, please keep mounting structures safe with no destroy of aluminium anodization.

### 6.2 Installation Dimensions

All of drawings and dimensions in this installation guide are for reference. The Clenergy STIII-A is optimized to site- specific conditions. As a result, major components of the Clenergy STIII-A may be provided in section sizes and lengths that vary from those shown in this guide. The installation process detailed herein remains the same regardless of component size. Provide marked up drawings for Clenergy's review, comment and approval prior to attempting any field modifications.

## 7. Service

### **10 year limited Product Warranty, 5 year limited Finish Warranty**

Clenergy 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](http://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.