



CLENERGY

➤ **PV-ezRack Grounding System**

Installation Instructions for PV-ezRack SolarRoof

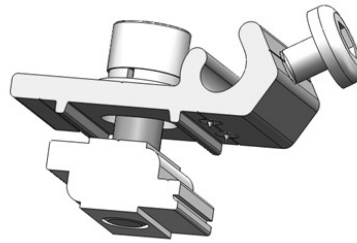
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> 1. Introduction



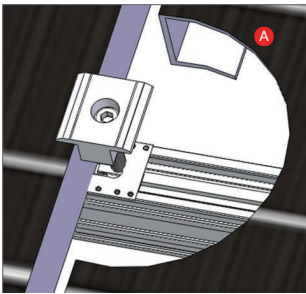
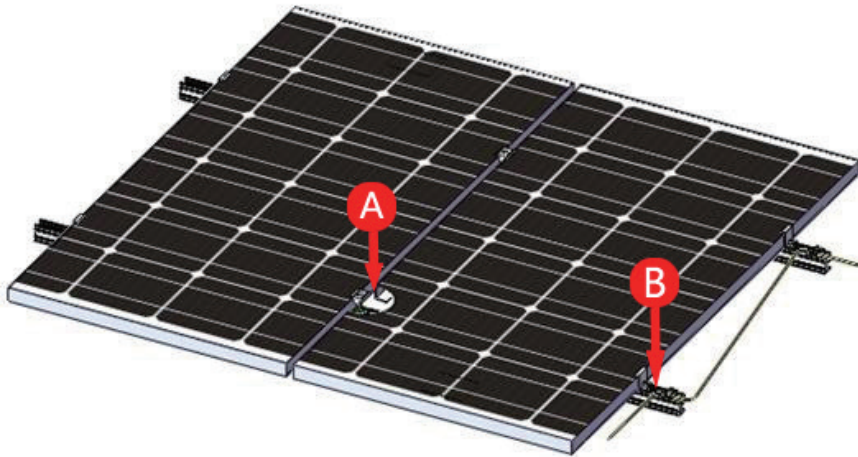
EZ-GC-ST Grounding Clip



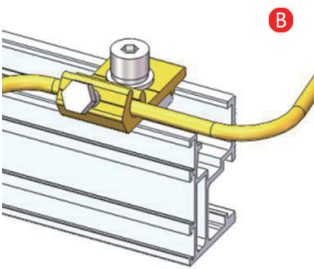
CEZ-GL-ST Grounding Lug

The Clenergy PV-ezRack Grounding system has been developed as a universal earthing system to work with all Clenergy PV-ezRack products. It has been designed in accordance with UL 467 standards. This installation manual applies only to PV-ezRack SolarRoof (Tin, Tile and Tilt).

➤ 2. System Overview



Grounding Clips are used to bond the modules to the rails

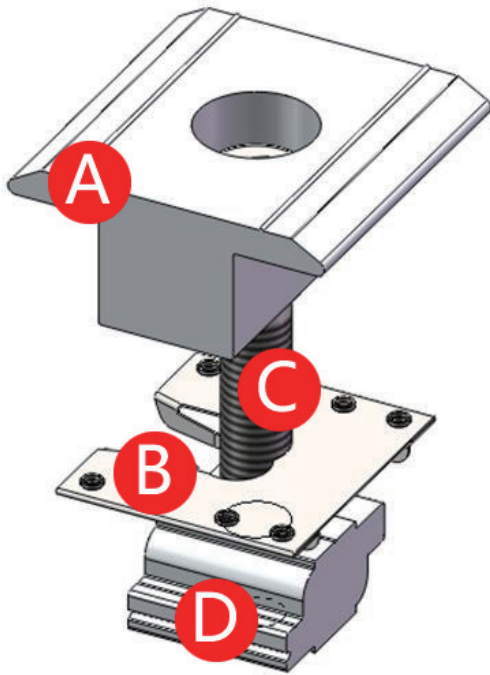


Grounding Lugs are used to connect the rails together and bond the system

Important Note:VC

Use geneCral purpose anti-seize compound on fastener threads when installing Grounding Clips and Lugs. Grounding Clips and Lugs are intended for SINGLE USE ONLY. Functionality will not be guaranteed if reused. The Grounding System can be used to bond anodized aluminium, galvanized steel, steel and other electrically conductive metal structures.

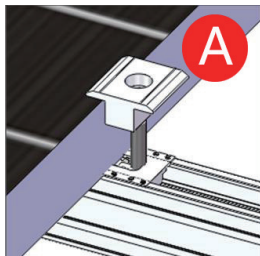
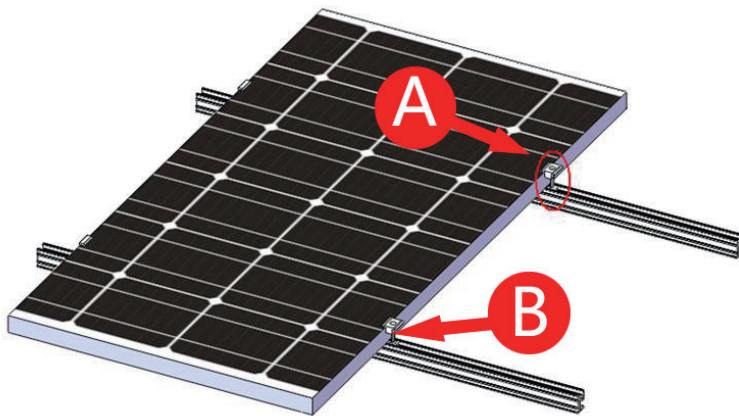
➤ 3. EZ-GC-ST Assembly



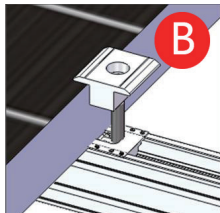
- A. Inter Clamp
- B. Grounding Clip
- C. Patented Z Module
- D. M8 Bolt

- Pre-assemble the Grounding Clip with the inter clamp assembly as shown.

➤ 4. EZ-GC-ST installation instruction



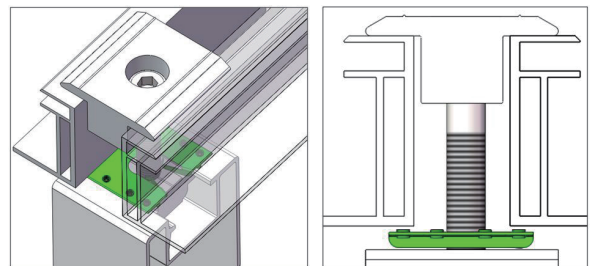
Slide pre-assembled Grounding Clip and inter clamp assembly into position as shown, opening under the first



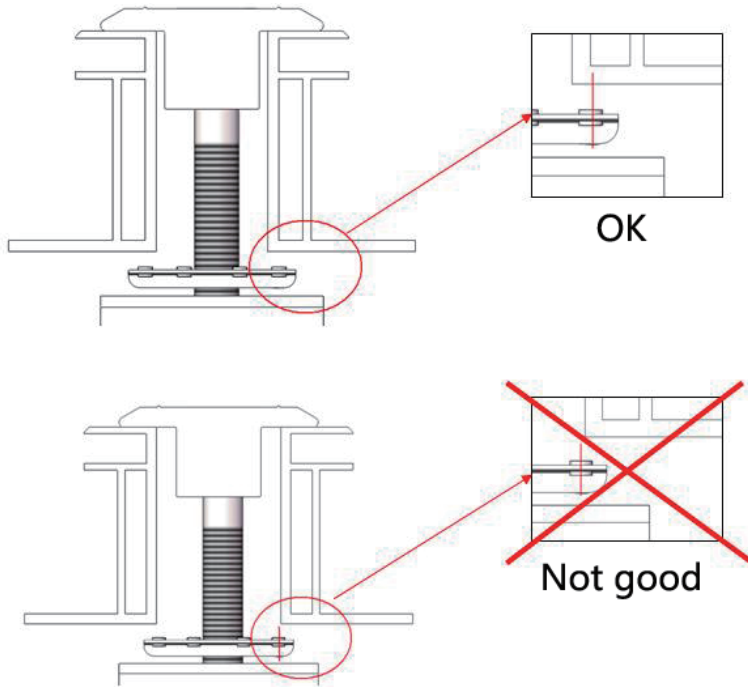
Slightly lift the solar module and slide the Grounding Clip and inter clamp assembly into position. The Clip's teeth will automatically be aligned under the edge of the module when the inter clamp assembly is correctly installed.

Important Note:

To correctly install the EZ-GC-ST, ensure that the solar modules are fully in contact with the inter clamp. Visually check that the EZ-GC-ST is properly positioned, teeth fully covered by the frame of the panel.

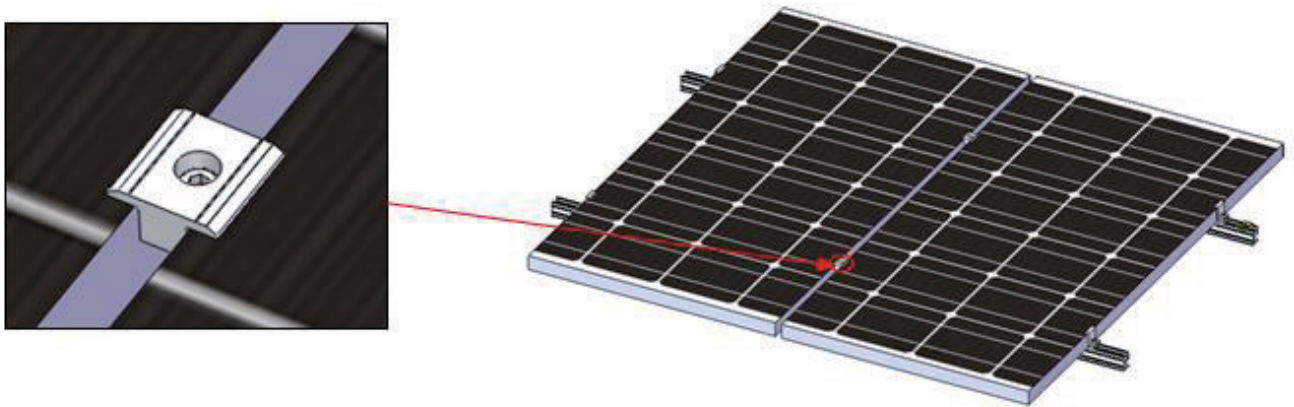


➤ 4. EZ-GC-ST installation instruction

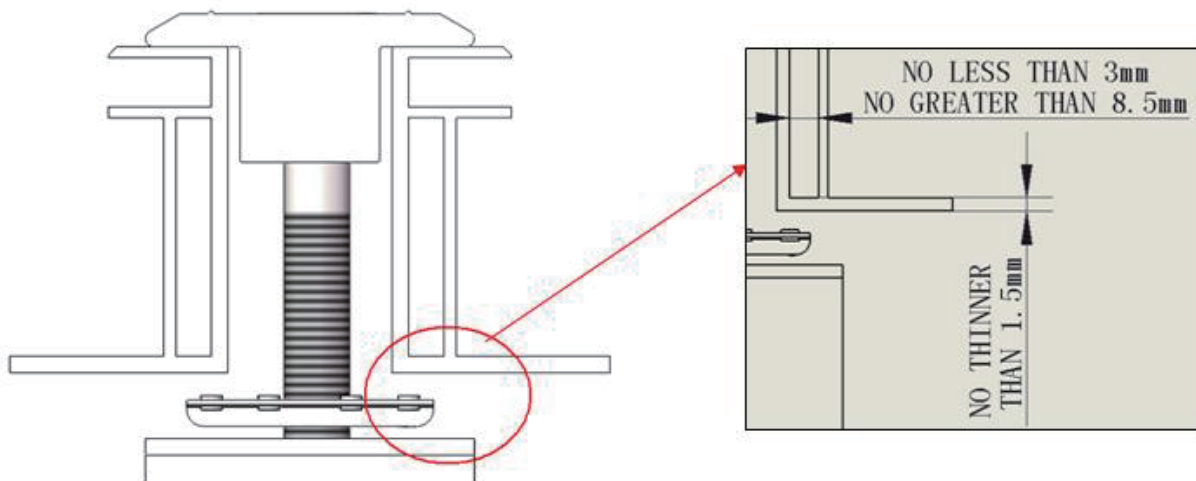


- Do not use a module with a frame that prevents the Grounding Clip teeth from embedding fully.
- The EZ-GC-ST is designed for SINGLE USE ONLY! Do not tighten fasteners down if the position of solar modules is not finalized. Only slightly tighten fasteners to keep modules in place.

➤ 4. EZ-GC-ST installation instruction



- When the positioning of the solar modules is finalized, tighten the fasteners to 15ft-lb/20.5N-m torque using general purpose anti-seize compound

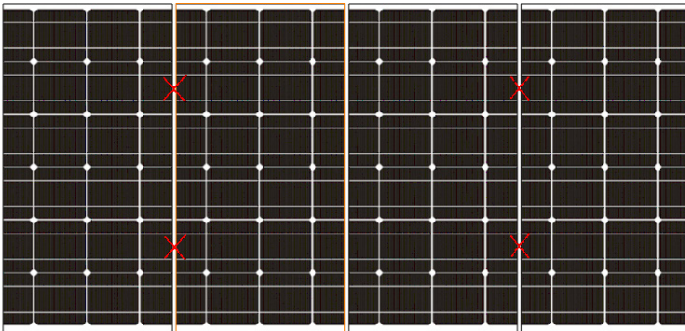


- Certain module frames do not have enough structural strength to withstand the force required to embed a Clip. These frames will deform and therefore not allow sufficient penetration of the Clip teeth. The general requirements for minimum module frame thickness of 'boxed' type module frames are illustrated below.

➤ 5. EZ-GC-ST Layout

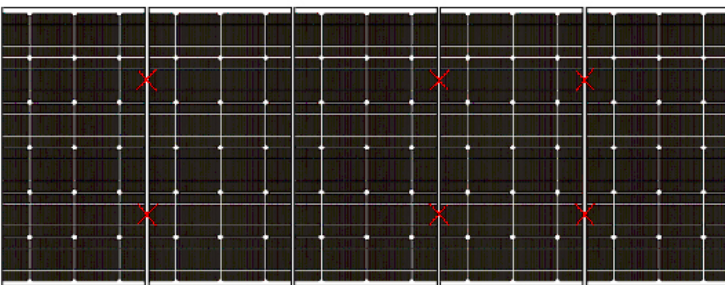
To ensure that all the modules are correctly bonded to the rails you need to use 1 grounding clip per panel and per rail.

- Even number of modules in a row



X DENOTES PLACES TO INSTALL Grounding Clip
Number of Grounding Clip = Number of modules

- Odd number of modules in a row

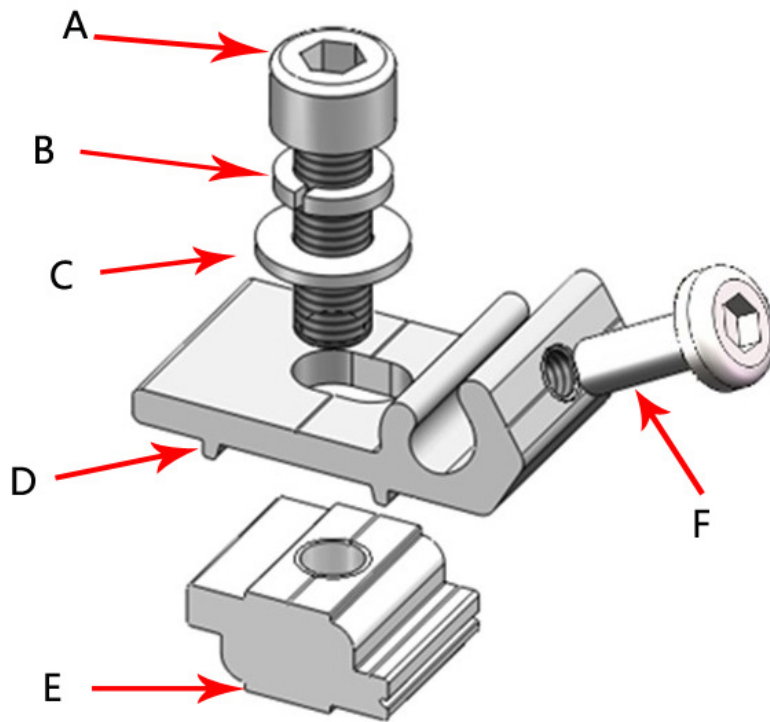


X DENOTES PLACES TO INSTALL Grounding Clip
Number of Grounding Clip = Number of modules +1

Note:

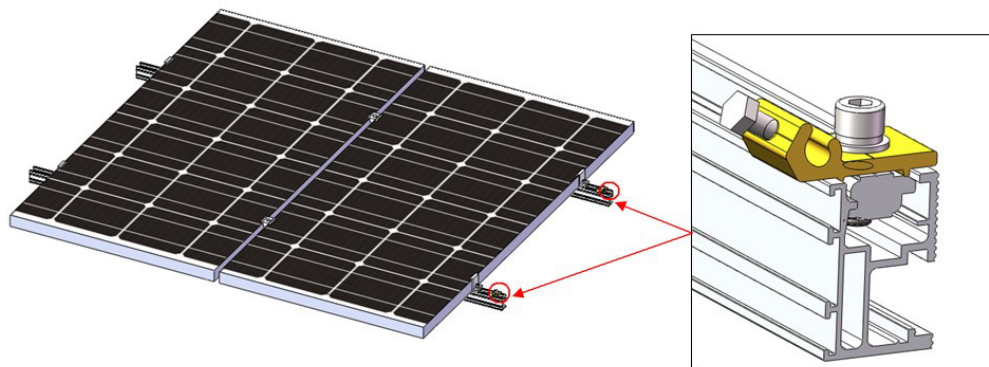
When replacing a single faulty module, also remove the adjacent module which contacts the same Grounding Clip as the faulty module. This will ensure that there are never ungrounded modules in the array.

➤ 6. EZ-GL-ST Assembly



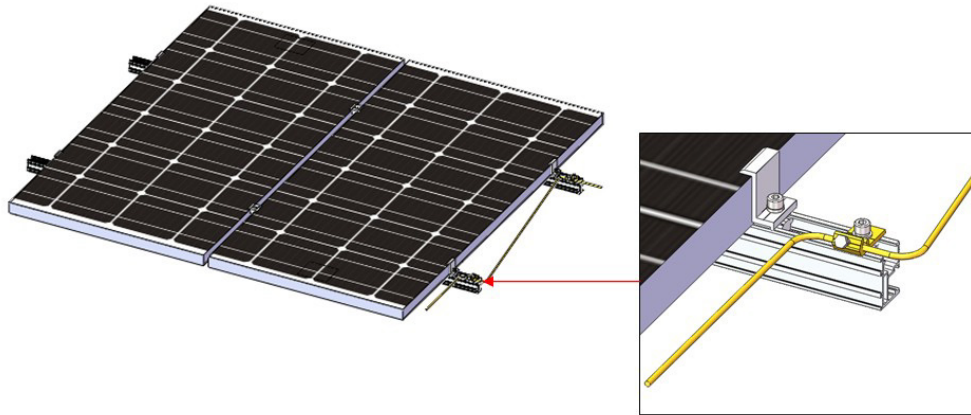
- A: M8 Bolt
- B: CSpring
- C: Flat Washer
- D: Grounding
- E: Z Module
- F: M8 bolt

➤ 7. EZ-GL-ST installation instruction



Tighten fasteners to 10ft-lb/13.5N-m

➤ 8. Ground Conductor Assembly



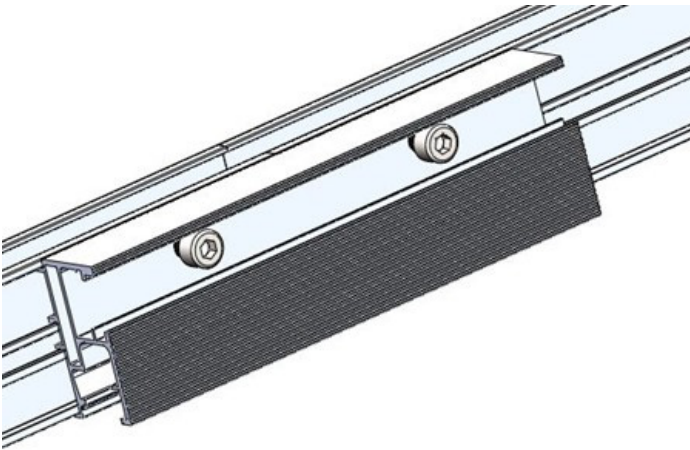
Lay in copper wire and torque bolt to 7 ft-lb/10N-m

- **Important Note:**

Ensure that the position is correCct before tightening.

The Lug may be used with a ground wire of maximum 6AWG.

➤ 9. Connecting rails



- Cleenergy splice kit provides the electrical connection between the 2 rails through the pressure bolts. This eliminates the need of using a jumper or 2 lugs.



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