

# MRac Steel Roof Installation Guide

## L Feet Hook



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## 1. Production Introduction

MRac L Feet system is suitable for installation in a variety of flat roofs, including small residential PV systems, large commercial and power station-level PV systems. The biggest advantage of the system is that its angle is 90°, and the support structure is easy to install. It also greatly saves the time and labor required for the system installation.

Please consult this installation guide carefully before installing the L Feet system. This manual provides the following:

- ( 1 ) Actual installation plan;
- ( 2 ) Product installation instructions

Please use the L-Feet system according to this installation instruction manual, which complies with building codes such as AS/NZS1170. Please pay attention to safety when installing this product, and please follow the relevant local safety regulations. If necessary, the latest version of the installation guide can be confirmed at [www.mbt-energy.com](http://www.mbt-energy.com)

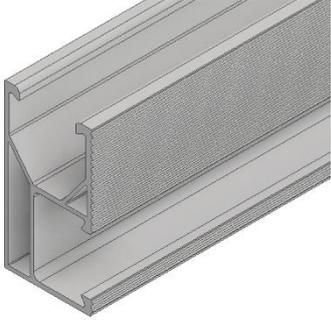
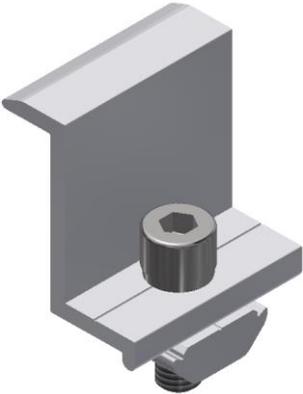
The installer is solely responsible for :

- Complying with all applicable local or national building codes, including any that may supersede this manual;
- Ensuring that MRac and other products are appropriate for the particular installation and the installation environment ;
- Ensure that the roof, purlin, main beam and other supporting structures can firmly support the PV modules. (These are all considered as roof mounts installation);
- Using only MRac parts and installers-supplied parted as specified by MRac (Substitution of parts may void the warranty and invalidate the letter of certification on page 2) ;
- Ensure that the self-tapping screws and the L Feet have enough strength and shear during construction. ;
- Keep the roof waterproof system intact ;
- 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.

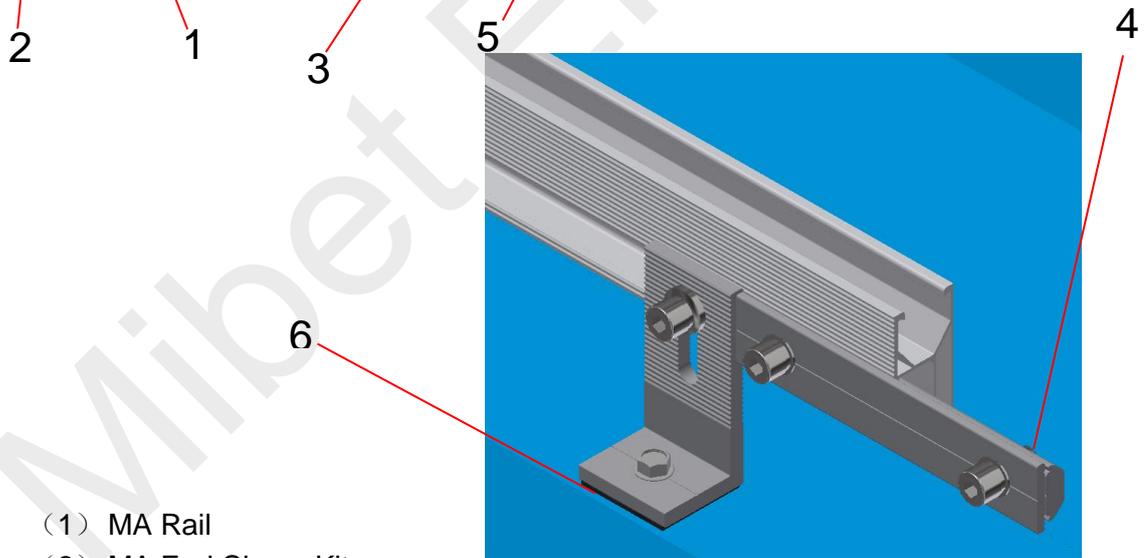
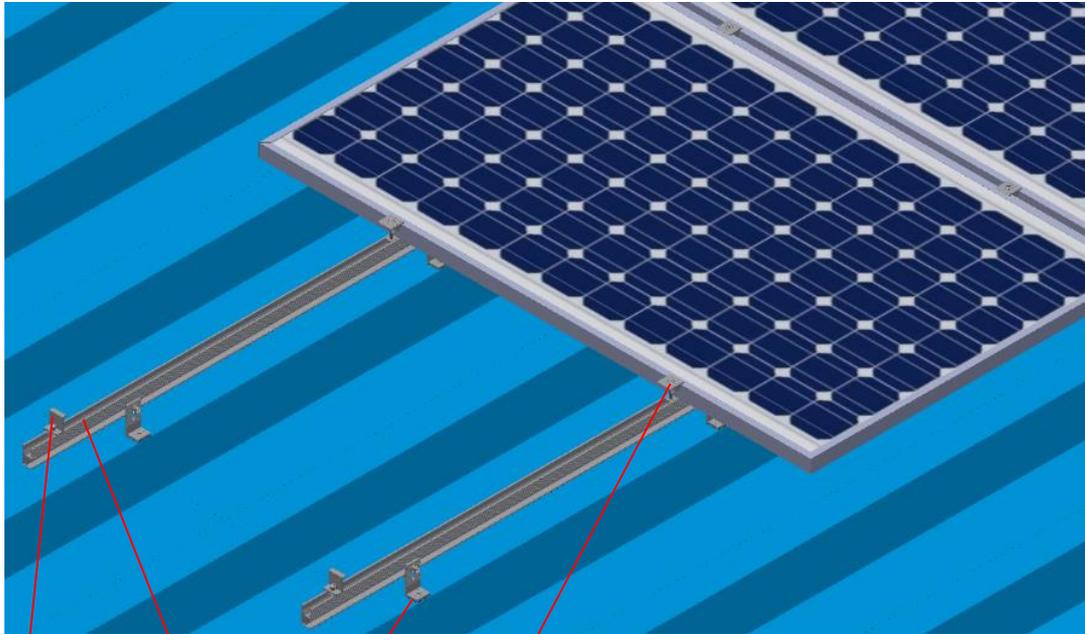
## 2. Installation Tools

- 6mm Inner hexagon spanner ;
- 0-8mm adjustable wrench ;
- electrical tools ;
- 5m tape measure ;
- Infrared calibrator

## 3. Components

Main Components		
		
<i>MA Rail</i>	<i>Splice for MA Rail</i>	<i>MA Inter Clamp Kit</i>
		
<i>MA End Clamp Kit</i>	<i>L Feet</i>	<i>Waterproof Plate</i>

## 4.Solution Overview

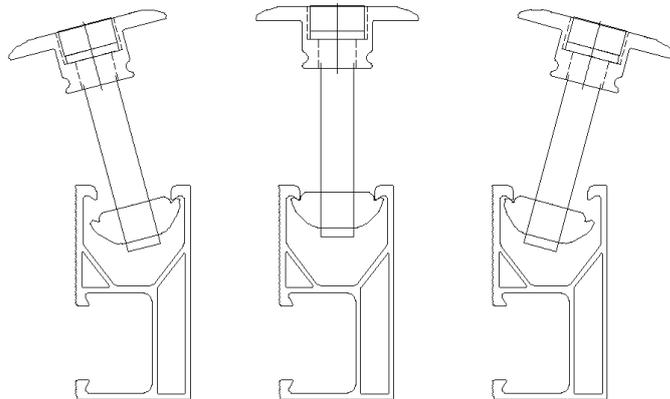


- (1) MA Rail
- (2) MA End Clamp Kit
- (3) L Feet
- (4) Splice for MA Rail
- (5) MA Inter Clamp Kit
- (6) Waterproof Plate

## 5. Installation Guide

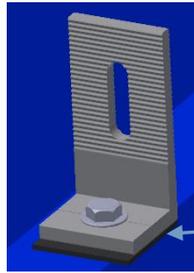
### 5.1 Installation of Clamp Kit

5.1.1 The picture on the right shows how to install the MA Clamp. You must ensure that the thread of the hexagon socket bolt does not pass through the bottom of the MA Clamp. Position the MA Clamp in the groove of the rail and gently screw the bolt 2 to 3 turns. At this point, the bolt can still slide freely in the rail, slide the bolt to the position where the Inter Clamp, End Clamp or hook is finally connected, screw the bolt and lock. (Recommended torque: 8 N·m).



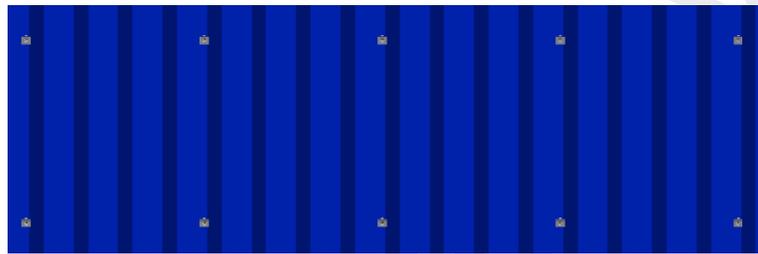
### 5.2 Installation of L Feet

5.2.1 According to the plan size of the drawing, install the L Feet on the metal roof and pre-lock it as shown in the figure.



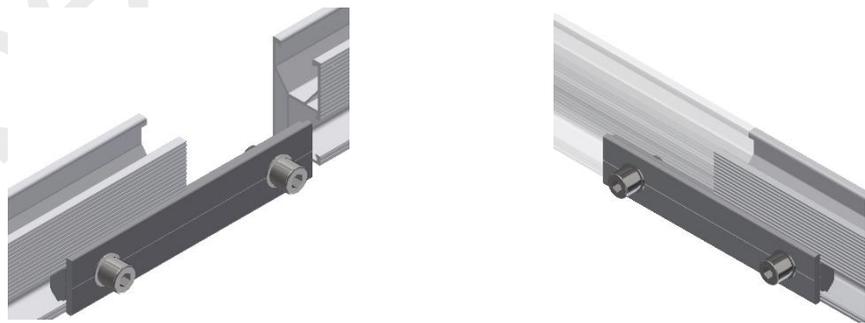
Waterproof plate

5.2.2 According to the installation plan, The L Feet is mounted on metal roof with a self-tapping screw as the picture shows.

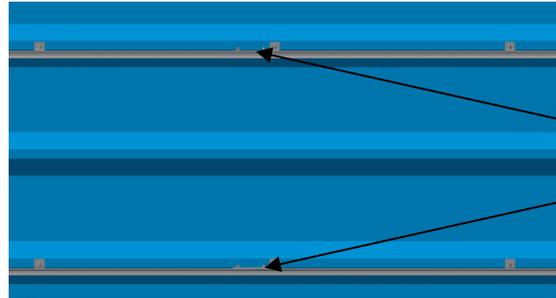
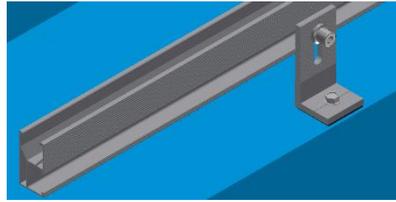


### 5.3 Installation of MA Rail

5.3.1 According to the plan, if the rail is not long enough, please connect the MA Rail with the Splice for MA Rail as shown on the right, and lock it with one M8x20 hexagon bolt on each side.

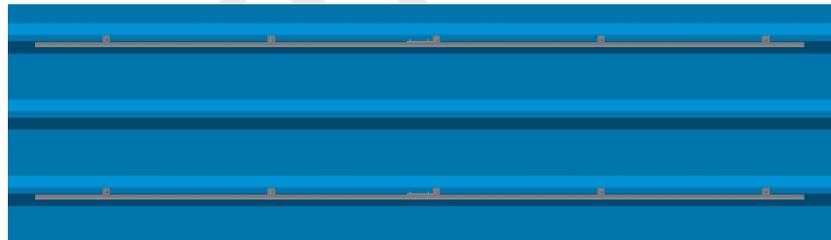


5.3.2 Place the MA rail on the side of the L Feet support and fasten them with the M8 bolt assembly. The rail connectors are on the same side, as shown on the right.  
(Recommended torque: 8 N-m)



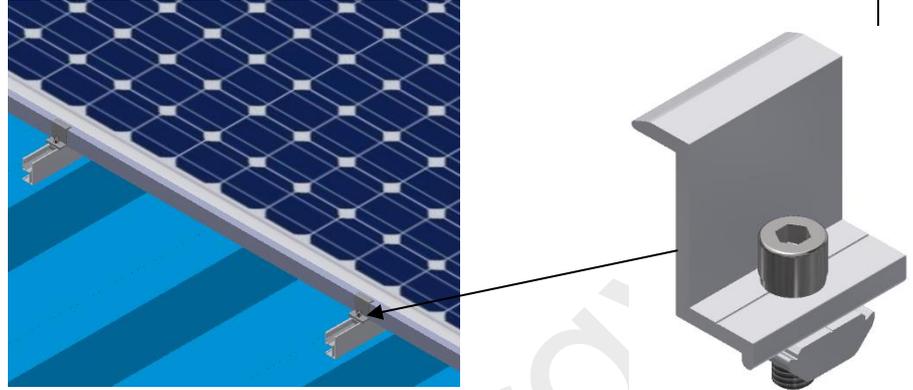
The rail connectors are on the same side

5.3.3 Install the planned location according to the engineering plan and install all the rails in step four to ensure that the bolts are locked.

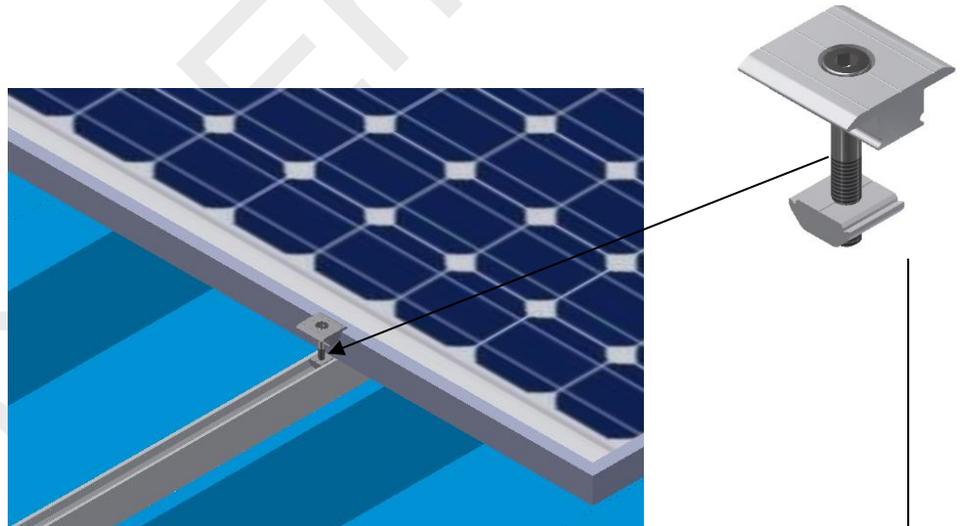


#### 5.4 Install the panels

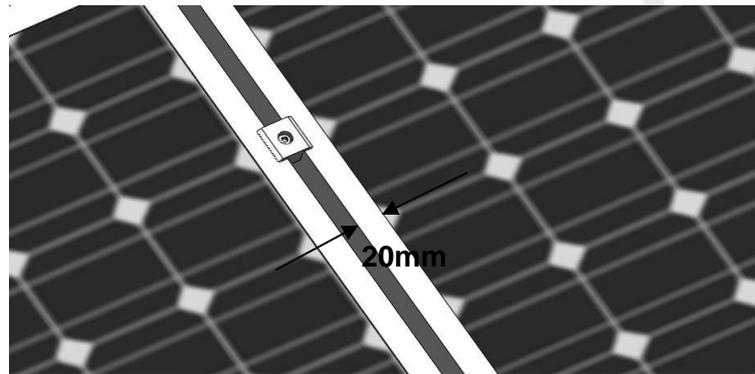
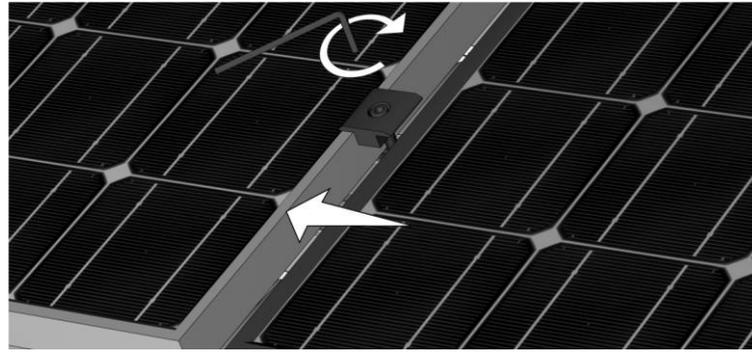
5.4.1 According to the plan, put the panel flat on the rail, slide the End Clamp Kit, tightly attach the solar panel assembly, and then tightly lock the bolt (recommended torque: 8N·m)



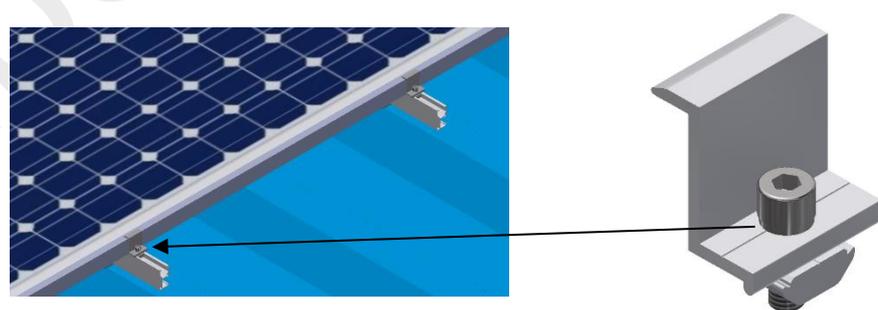
5.4.2 Put the pre-installed Inter Clamp Kit from the top and bottom into the rails, and firmly attach the solar panel assembly, then gently tighten (about 2-3 turns), as shown on the right.



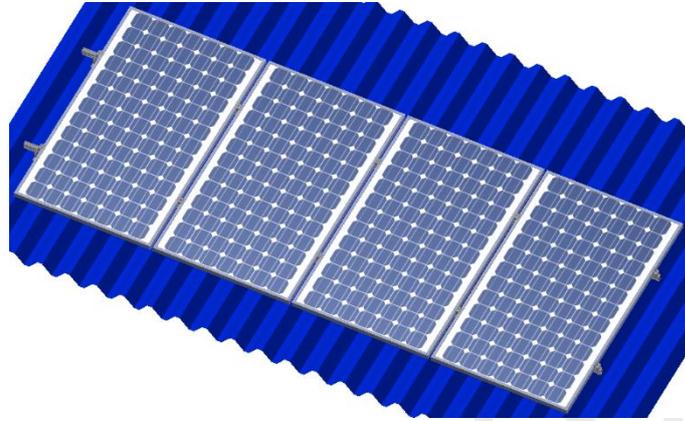
5.4.3 Then slide another solar panel assembly to the side of the previously installed solar panel assembly and lock the inter clamp assembly (recommended torque: 8 N·m). Please note that the anti-skid protection device should fall in the middle of the slot of the bottom row rail. As shown on the right.



5.4.4 Place the last solar panel assembly in each row on the rail and lock it with the End Clamp Kit (recommended torque: 8N·m).



5.4.5. Slide the first row of solar panel assemblies from top to bottom to the next row of the corresponding solar panel assembly. Because of the illumination, the solar panel assembly of the bottom row can be kept separated. The Inter Clamp Kit can be used as a separator to align the vertical and horizontal spacing of the solar panel assembly. Continue to install the solar panel assembly in steps until all solar panel components have been installed and the installation is complete.





## 10 Years Warranty Declaration, 5 Years Customers Service

Mibet (Xiamen) New Energy Co., Ltd. (hereinafter as “Mibet Energy”) 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 anodized finish which shall be free from visible peeling, or cracking or chalking under normal atmospheric conditions.

Warranties and guarantees can only be claimed if the installation and commissioning of the photovoltaic system was done by professional personnel, as can be proved. We guarantee a 10 year warranty for the durability of all our MRac PV mounting products that are correctly mounted, installed and used as our Installation Guide says.

Mibet Energy 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 Mibet Energy shall repair or replace the defective Product, or any part thereof, in Mibet Energy’s sole discretion. Such repair or replacement shall completely satisfy and discharge all of Mibet Energy’s liability with respect to this Limited Warranty. Under no circumstances shall Mibet Energy 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. Mibet Energy’s Limited Warranty covers only its Product, and not any related items.

The warranty period begins from the delivery or pick up date from Mibet Energy factory or warehouse. The replacement or repair of defective components does not extend the warranty period.