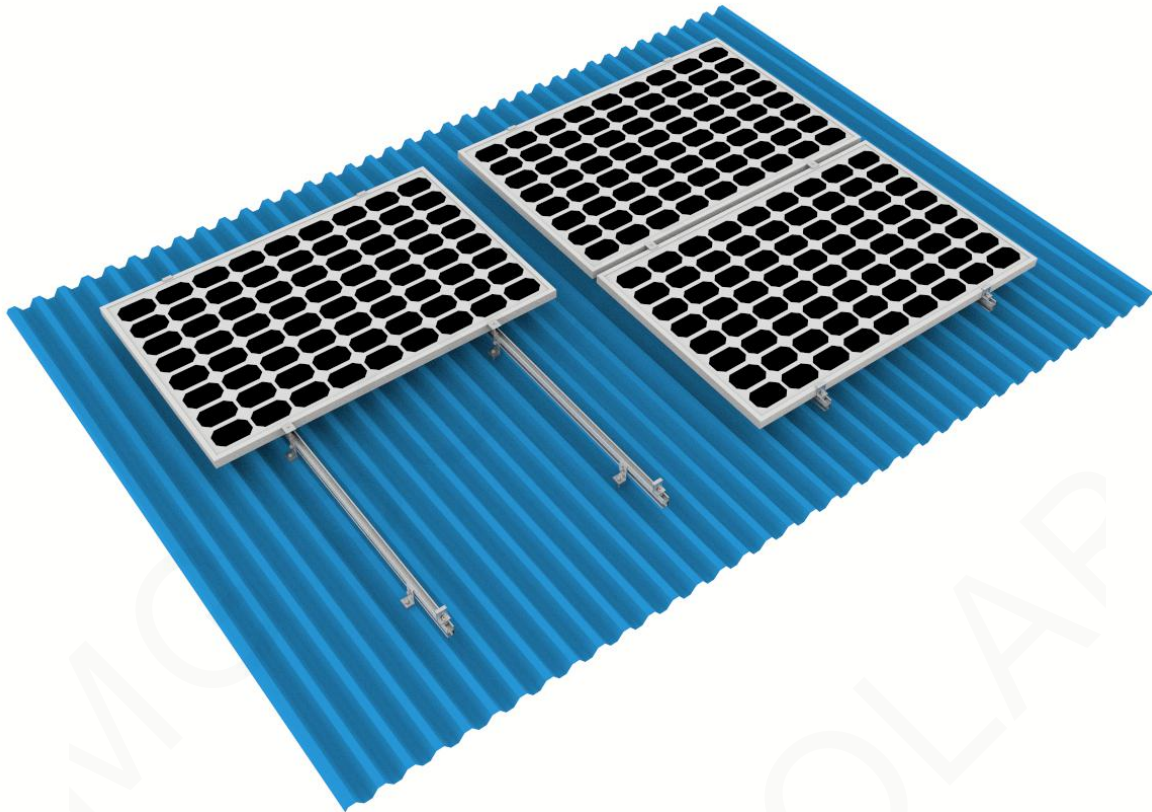


## Metal Roof (L-Foot Mount) Installation Manual





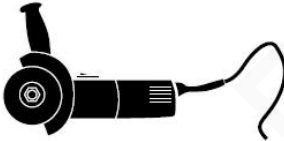



### **1. Instructions**

*MG Metal Roof Mount System consists of L-foot bracket, Aluminum Rail, Mid clamp and End clamp. This system is applicable to all kinds of metal roof. The special extruded aluminum rail, tilt-in module, clamps and L-foot bracket should be pre-assembled to make the installation easy and quick for saving your labor cost and time. Besides, the customized length of rail will not require onsite weld and cut, keeping the appearance entirety, structural strength and anticorrosive performance.*

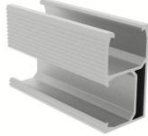







*The installations please follow the procedures and precautions in these instructions carefully. And it must be complied with the local construction acts and the safety laws.*

## 2. Tools for Installation

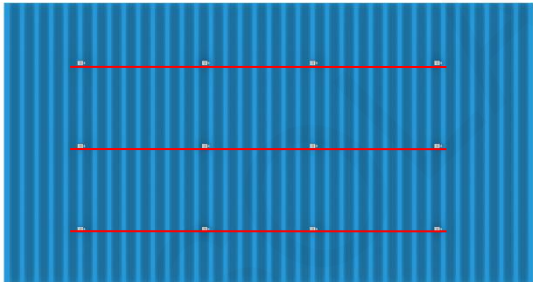
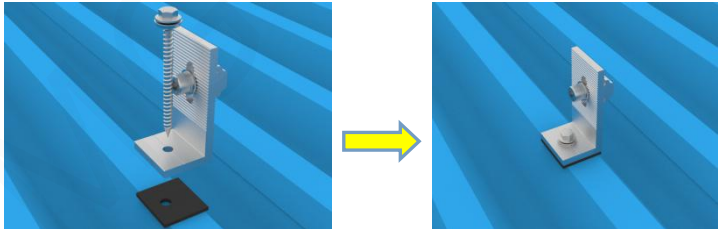
The following tools are required for the installation:

<p>✓ <b>6 mm Allen key or hexagonal driver bit.</b>  <i>If using a 6mm driver bit, make sure the cordless power tool used for the driving has a hand-tight clutch setting a fine (soft) impact drive to prevent damage to the fragile glass panels and threads on the Structure.</i></p>	
<p>✓ <b>Cordless drill;</b>  <i>Drill or impact driver for driving roof material fixings</i></p>	
<p>✓ <b>Angle grinder;</b>  <i>For terracotta tile roof installation, and angle grinder fitted with a continuous edge diamond tipped tile cutting blade; gloves, hearing protection, a face protection mask, and a suitably rated breathing protection mask for all people in proximity of grinding</i></p>	
<p>✓ <b>Gloves;</b>  <i>Protect the hazard of the sharp corners.</i></p>	
<p>✓ <b>Cord or color pen;</b>  <i>Mark the installation position;</i></p>	
<p>✓ <b>Spirit level</b></p>	
<p>✓ <b>Rule</b></p>	

### 3. Component List

Components				
				
MS-RR-CL2	MS-RRC-CA-02	MG-MC-C-F40	MG-EC-C-F40	GM-TR-LFM-01
				
MG-GS-GC	MG-GS-BCS	MG-GS-RGL-02		

### 4. Installation Guide

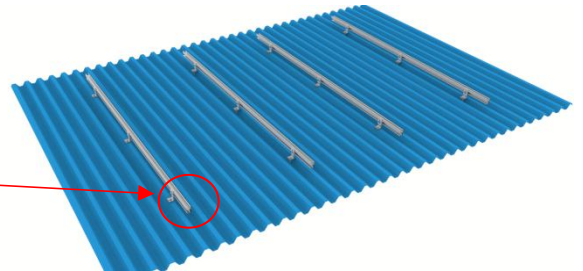
Installation Steps	Installation Diagram
<p><b>A. Installation Planning</b></p> <p>According to drawing and metal roof structure to fix the L-foot bracket position.</p>	
<p><b>B. L-foot bracket installation</b></p> <p>Put rubber under the L-foot bracket, and align the screw holes. Fix the L-foot kits to the roof with 6.5 x65 mm self-tapping screw, locked as right below picture shown.</p>	

### C. Roof Rail Installation

Put the L-foot on the rail groove.

Then lock screws.

(Lock Torque: 8N\*m)

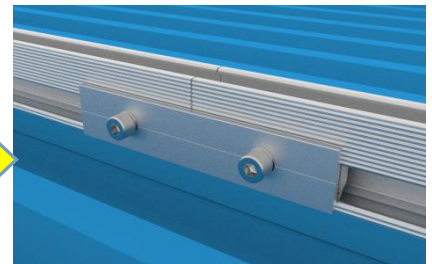
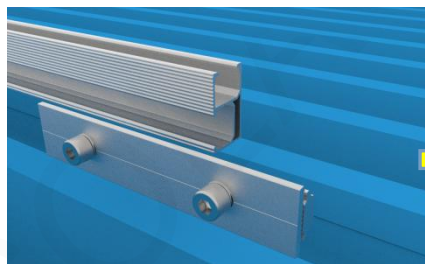


### Installation Steps

### Installation Diagram

### D. Rail Connector Installation

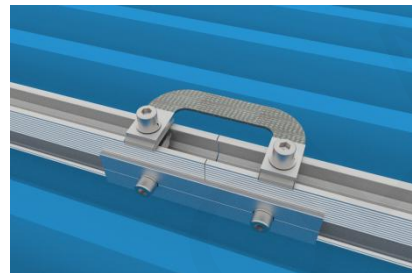
If planning to add solar panels with enough space on the roof, we can use rail connector to lengthen the rail, Connecting rail steps shown as right pictures, then locked the screw.



### E. Ground Lug Installation

At rail connector position, put the channel nut into the rail groove, then lock the screw.

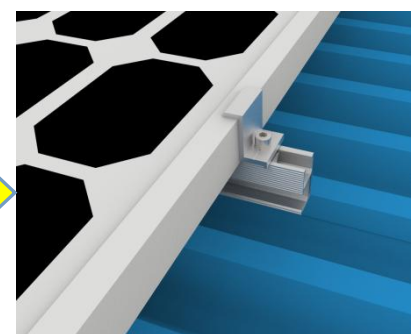
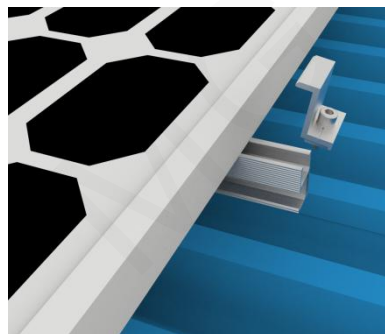
(Lock Torque: 8N\*m).



### F. End Clamp Installation

End clamps are designed to install at the end of each string panels. Tilt the end clamp into the upper groove of rails. After slightly locking the screw, put the panel on rails. Lock the end clamps after adjusting location of the panel.

(Lock Torque: 8N\*m)





**MG SOLAR**

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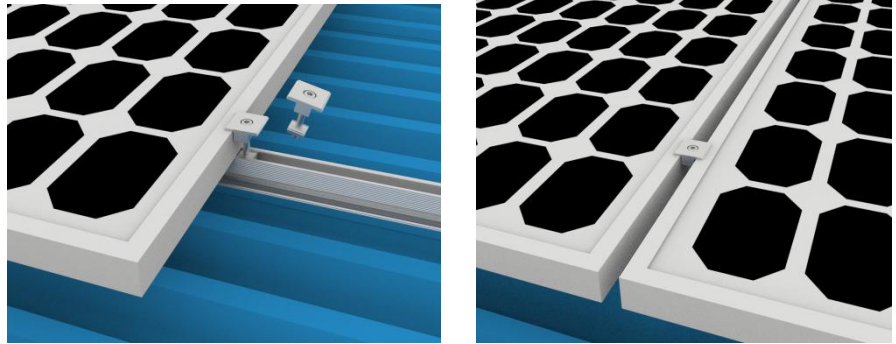
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## **G. Mid Clamp Installation**

Mid clamps are designed to fix between 2 solar panels. Tilt the mid clamp into the upper groove of rails. After slightly locking the screw, put another panel on rails. Lock the mid clamps after adjusting location of the panel. (Lock Torque: 8N\*m)

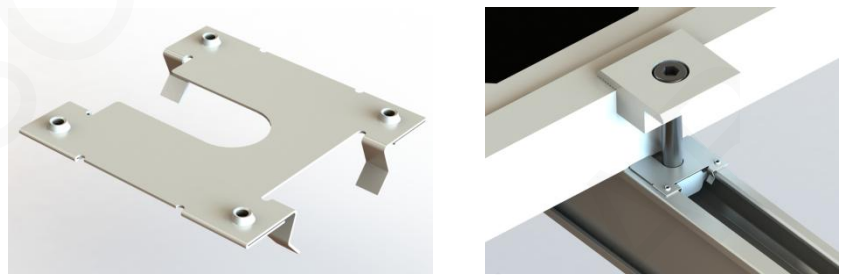


## **Installation Steps**

## **Installation Diagram**

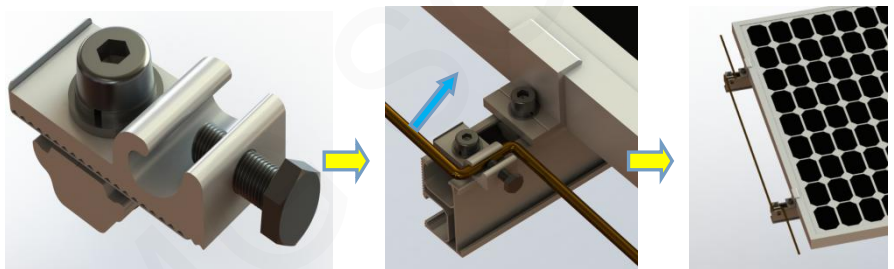
## **H. Grounding Clip Installation**

When we fix the solar panel by mid clamp and end clamp, put the grounding clip into the bolts of mid clamp. When we finished the grounding clip installation, all the solar panels surface can be electrified with each other.



## **I. Ground Lug Installation:**

Ground lugs were installed on the one side of rail in each row of solar panels. At the same side of rail, with a copper wire to connect all of grounding lugs and fix the copper wire by bolts. At last, made the end of the copper wire connected to the ground, and the installation of the grounding system is completed.





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*J. Finished Installation.*

