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**Aluminum Profile Triangle Bracket**  
**M1D-W1200**  
**Installation Instructions**

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## Section 1 - Safety Instruction



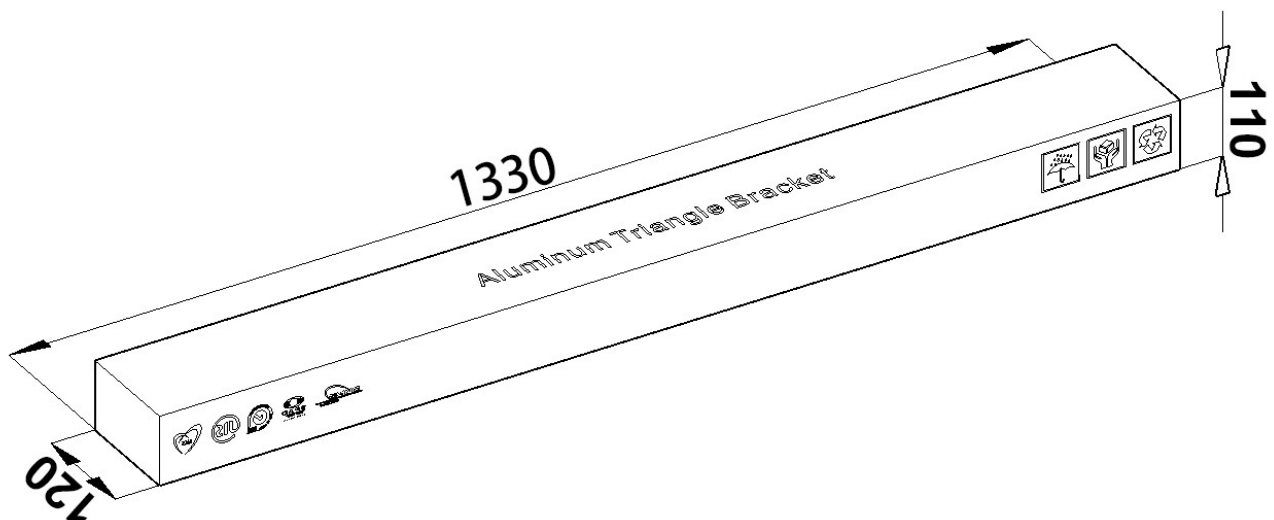
### Warning

- 1) Need 2 persons to install the products together with the solar panels and hang on ground or roof
- 2) The products have sharp edge. Please wear gloves and protective clothing in order to prevent injury.
- 3) Check the components in the carton. Do not proceed in case shortage of components, ask your distributor for help.
- 4) Please follow up the steps, otherwise you might need to rework.
- 5) Fasten the bolts and clamps tightly in each step, otherwise the components and solar panels might fall.
- 6) Put the screws & nuts on clean place during installation. Clean them in case falling to ground.
- 7) After the installation and during daily using, should check the status of bolts/nuts after strong wind weather, and fasten them in case loosen.

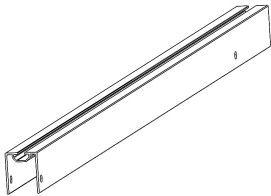
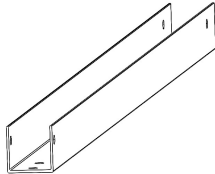
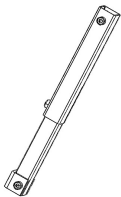
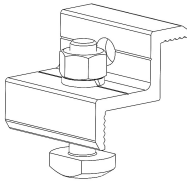
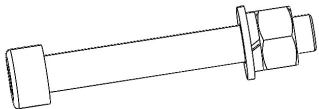

## Section 2 - Introduction of Triangle Bracket

Product	Aluminum Profile Triangle Bracket (M1D-W1200)
Application	Ground/Roof
Tilt Angle	18°-30°
Material	AL6005-T5/SUS304
Panel Layout	Landscape
Suitable Panel Width	≤1150mm
Design Standard	AS/NZS 1170, DIN 1055, JIS C8955: 2017, International Building Code IBC 200
G.W.	6.7kg

### Package



## Parts List

Item	Spec	Qty	Item	Spec	Qty
Slope beam	1300mm	2 pcs	Bottom beam	1250mm	2 pcs
					
Telescopic rod set	340mm	2 pcs	Side clamp	30/35mm adjustable	4 pcs
					
Bolt set	M8 * 55	2 set	Self-tapping screws	St 6.3 * 25	2 pcs
					

\*Some accessories that are pre-installed on the product are not listed above.

M1D-W1200 does not include Ballast Plate (T1-W300), if necessary, can be purchased separately as needed.

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## Effect Drawing



Front view

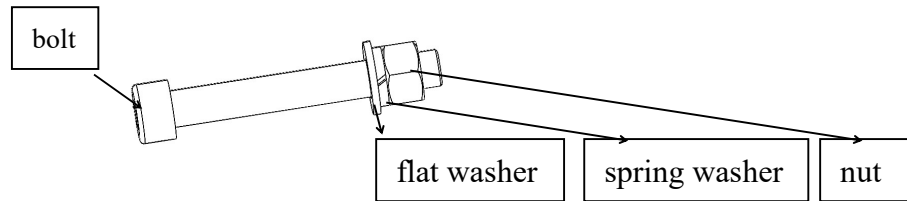


Back view

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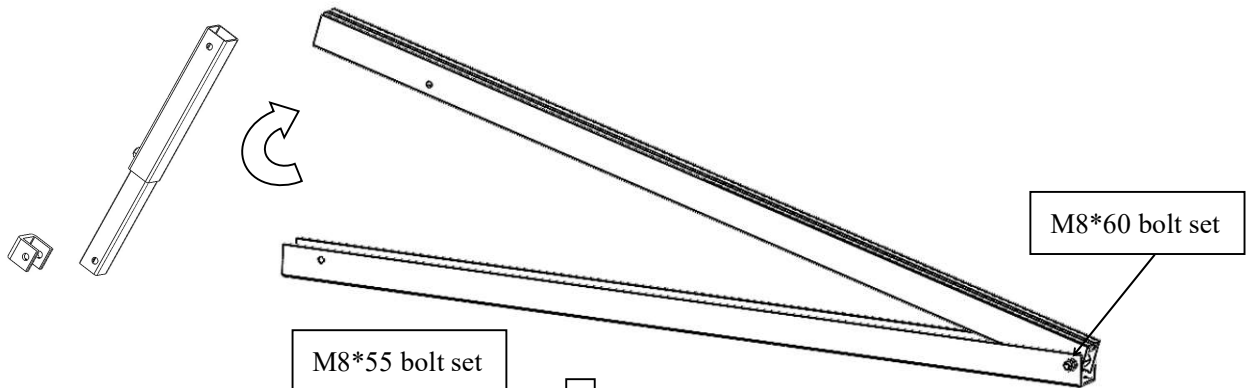
## Section 3 - Installation Procedures

- ◆ All bolt groups are installed as a screw on one side, and a flat washer, spring washer, and nut on the other side.

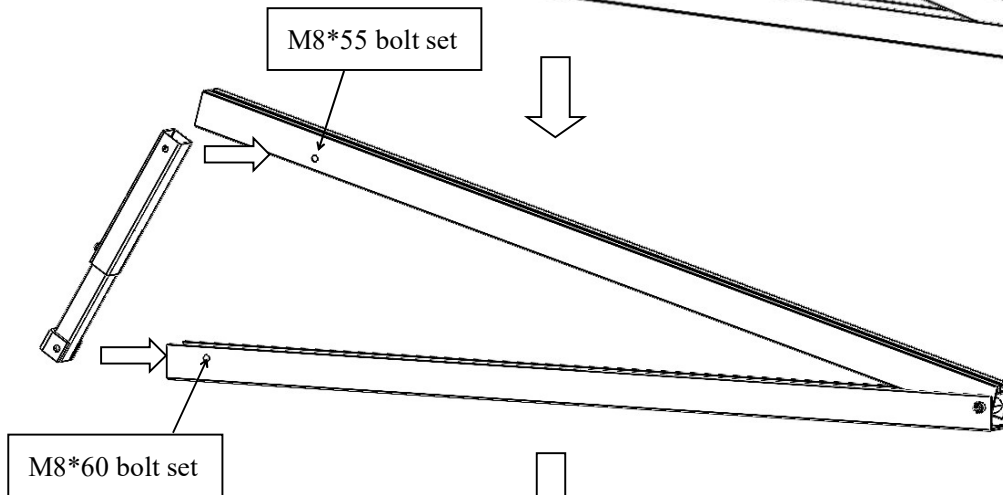


### Installation Diagram

A.

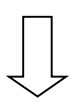
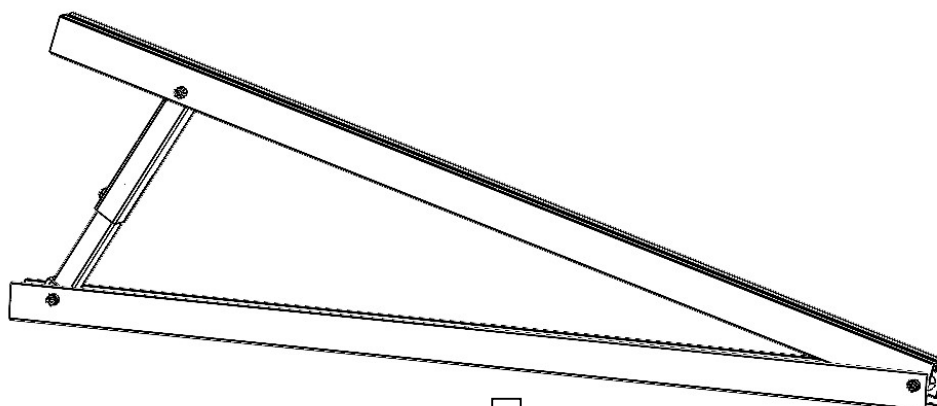


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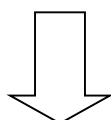
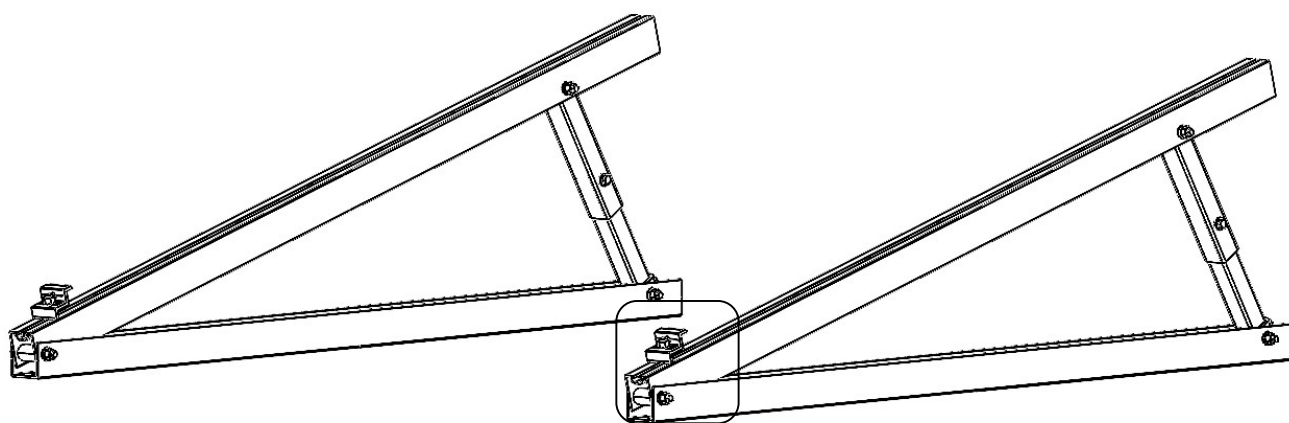


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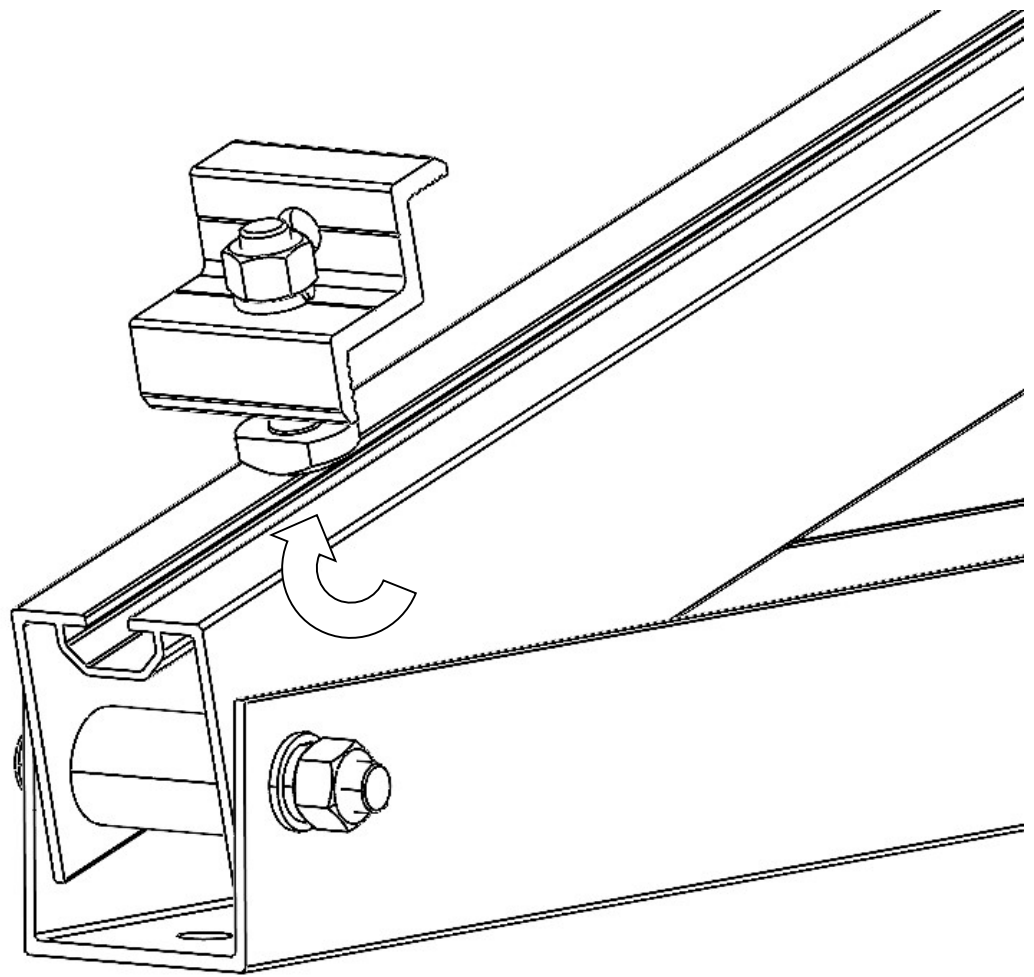




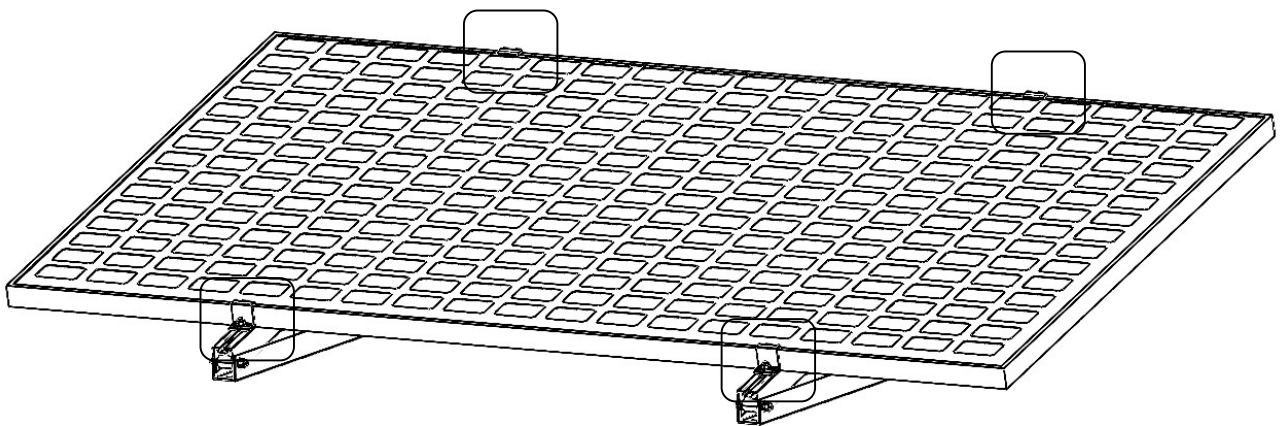
D.





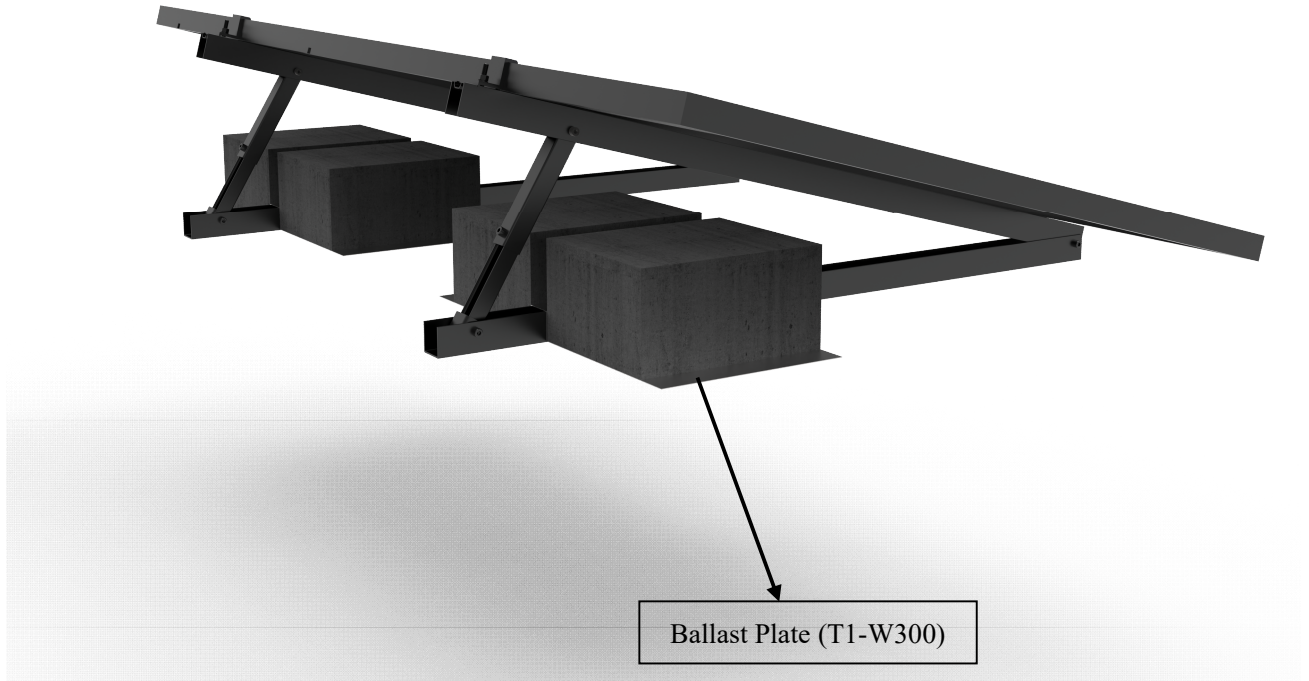


E.



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## Optional Installation



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## Section 4 - Tips for Bolt Installation

Precautions for engineering installation dimensions

1. The specific dimensions of the engineering installation are subject to the engineering construction drawings. These installation instructions are for the purpose of explaining the installation method of the product only.

Precautions when installing stainless steel fasteners

1. Because stainless steel has good ductility, it is essentially different from carbon steel; improper use will cause the bolt and nut to be unscrewed after being matched. That is, "locking" is commonly known as "biting to death". The prevention of lockup mainly includes the following aspects:

Reduce friction coefficient:

1. Ensure that the thread surface is clean (such as no sand, debris);
2. It is recommended to coat the surface with water wax or add lubricant (such as butter, 40# engine oil) during installation;

Correct operation method:

1. It must be screwed perpendicular to the axis of the thread, and must not be inclined;
2. During the tightening process, the force must be uniform, and the tightening torque cannot exceed the specified safe torque value;
3. Use a torque wrench or socket wrench as much as possible, and avoid using an adjustable wrench or an electric wrench; when using an electric wrench, try to reduce the speed as much as possible.
4. Avoid using at high temperature, do not rotate quickly when using, avoid the temperature rising rapidly and cause locking; (such as using an electric wrench, etc.)

### Bolt torque

SS304 (A2-70) Bolt torque recommendation table	
Bolt Specifications	Recommended torque value (N.M)
M8	8-10
M10	18-20
M12	50-55
M14	70-75
M16	90-95

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## Section 5 - After Installation

### Check After Installation

It needs to check the condition of all the components and parts after finishing assembling of fixed mounting system:

- Check if there is damage
- Check if there is anything forget to assemble
- Check if all the bolts locked tightly
- Check if all the solar modules assembled in accordance
- Clean the project site after assembling



**Warning: It needs to check structure condition of mounting system before wiring.**

Before installing the micro inverters, connecting the cable or any other electric equipments, the solar bracket and solar panels shall be mounted to the guardrail safely.

### Daily Maintenance

- Maintenance of connected bolts
- Check every bolt junctions once a year, tighten them if the junction is loosen