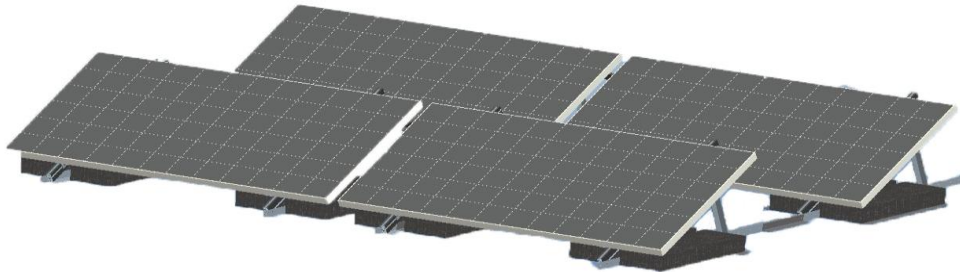


# Tri-Flat Installation Manual



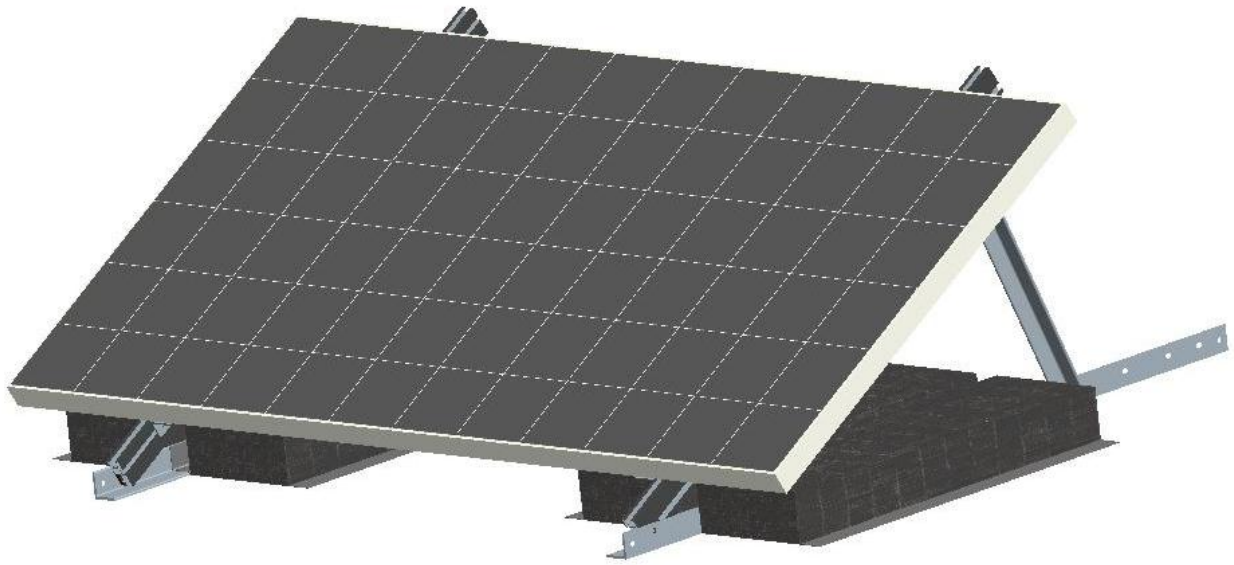
Tri-Flat is a triangular supporting frame mounting system, which suits any photovoltaic modules with the frame, and is a universal solution for flat roofs. The Tri-Flat mounting system consists of a triangular support system, and concrete bricks which are needed for wind safety protection.

Fixing rails directly onto the tilt legs and the bottom beam decreases materials and saves installation time. Four tilt angles of  $15^\circ$  ,  $20^\circ$  ,  $25^\circ$  and  $30^\circ$  , and any size of triangular support is available to optimize your PV system and to meet your needs.

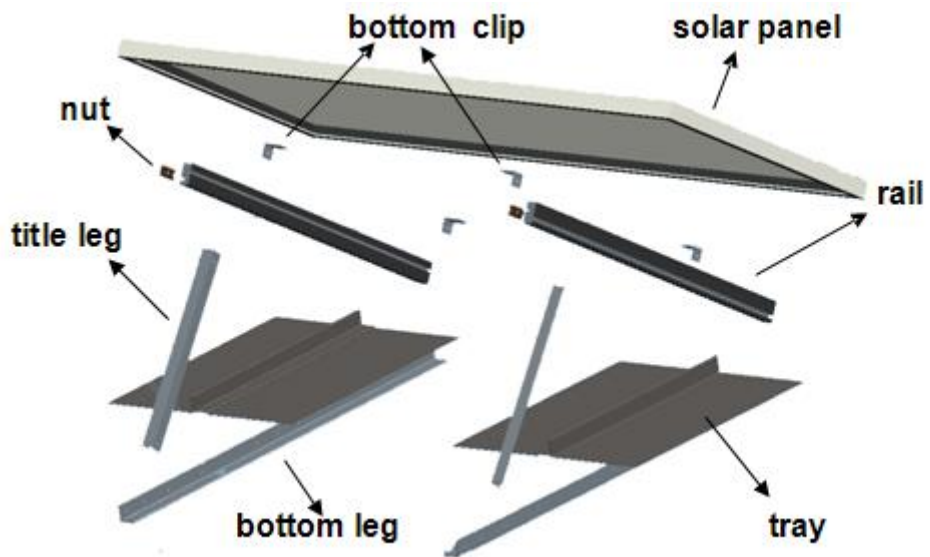
## Benefits

- \* All of the triangular support frames can be folded and pre-assembled.
- \* There are four angles to choose from —  $15^\circ$ ,  $20^\circ$ ,  $25^\circ$  and  $30^\circ$  — to optimize the system.
- \* Each component is made from high quality materials and according to strict quality controls to guarantee the safety and longevity of the mounting system.

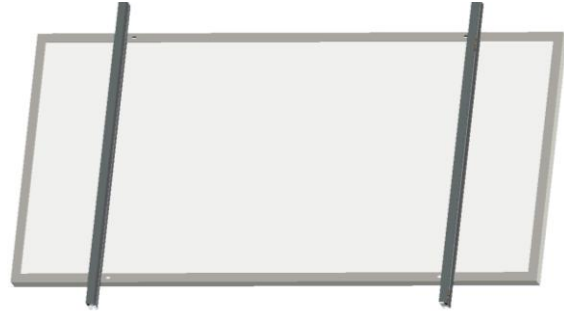
## Single triangle mounting unit



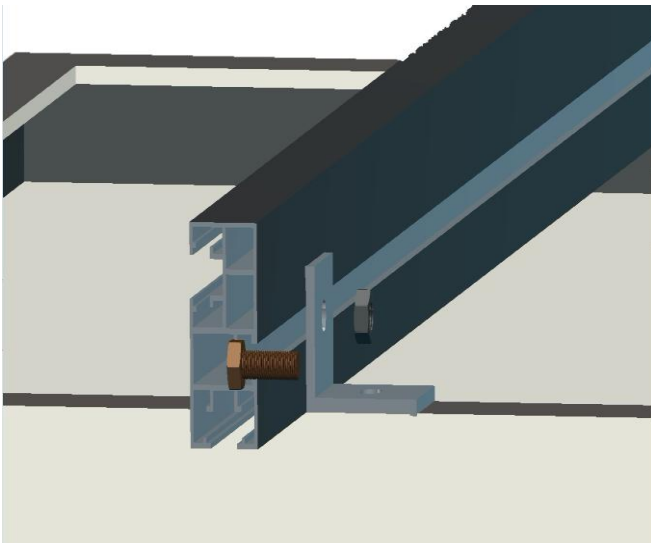
## Components



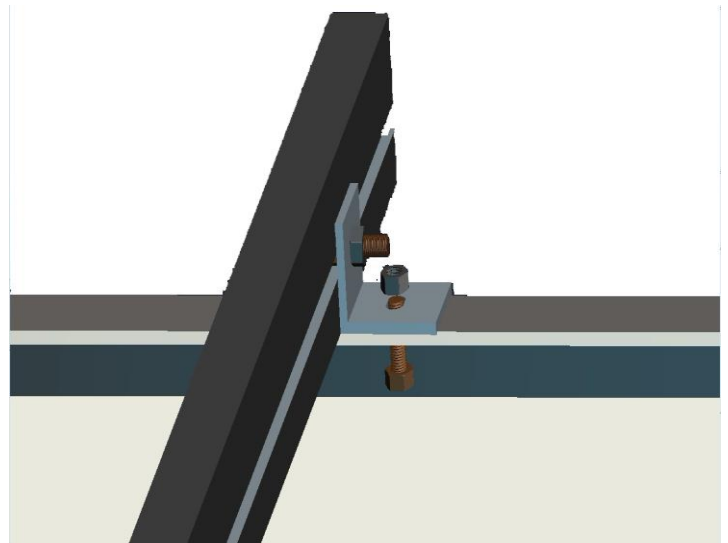
## Installing procedures



1, Put two rails on the backside of the solar panel.



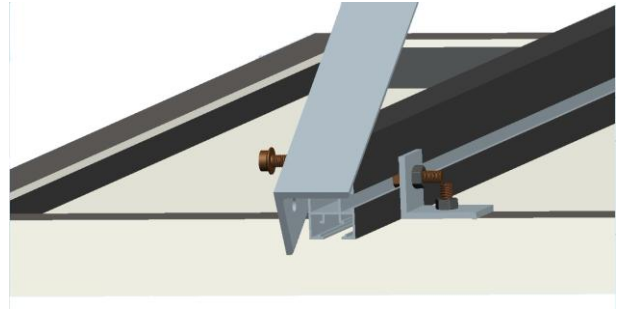
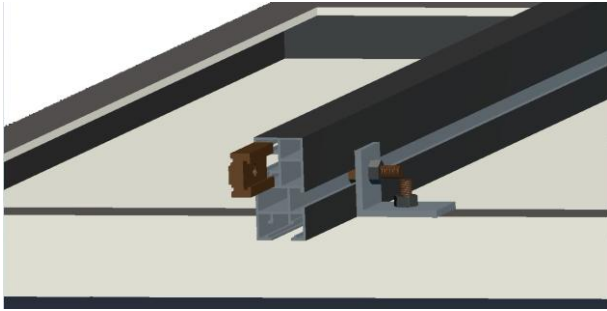
2, Insert the bolt into the channel of the rail about 5cm from the edge and fasten the short side of the bottom clip onto the rail.



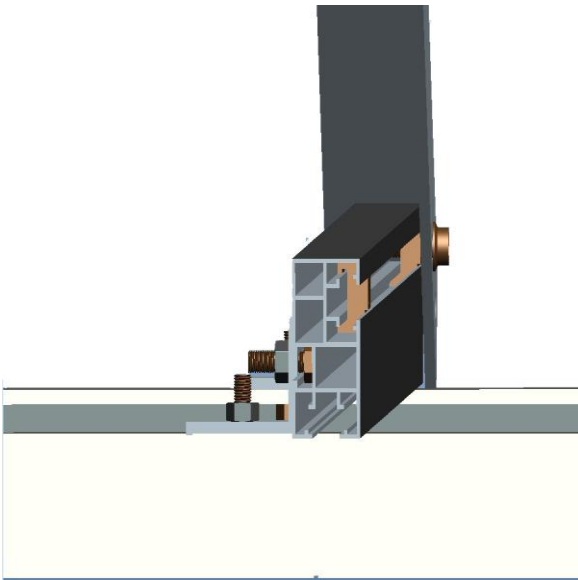
3, Insert a bolt into the mounting hole, and then fasten the other side of the bottom clip onto the solar panel to secure the attachment of the rail to the back side of the solar panel.



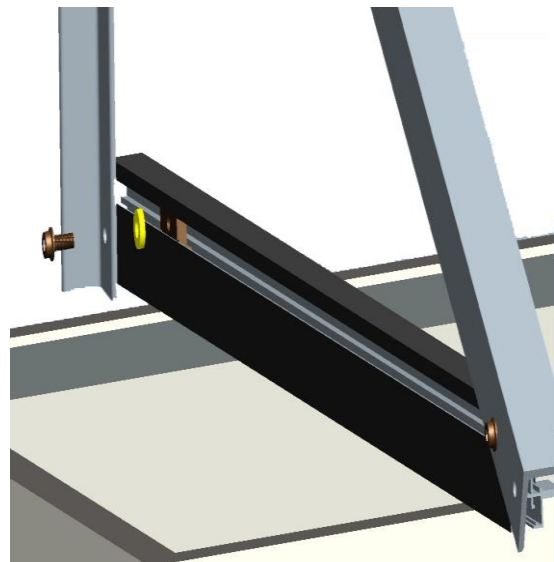
4, Fasten another bottom clip on the other side of the rail. Repeat the above steps to attach the other rail to the solar panel.



5, Insert the nut into the groove of the rail, and fasten the bolt to attach the bottom beam to the rail. (Notice: there are eleven holes in the bottom beam, choose hole 10 to insert the bolt. Please check the last page.)



6, Insert another nut into the groove of the rail on the other side.



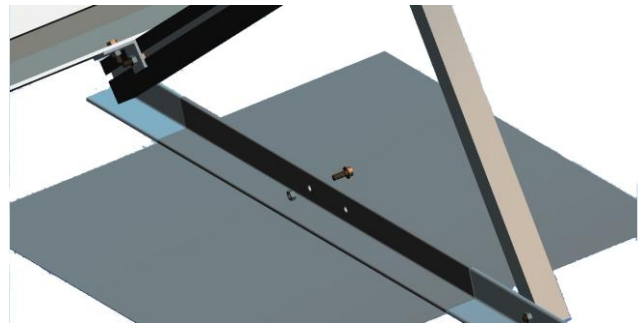
7, Insert a bolt into the tilt leg and through a gasket on the other side before screwing in the nut.



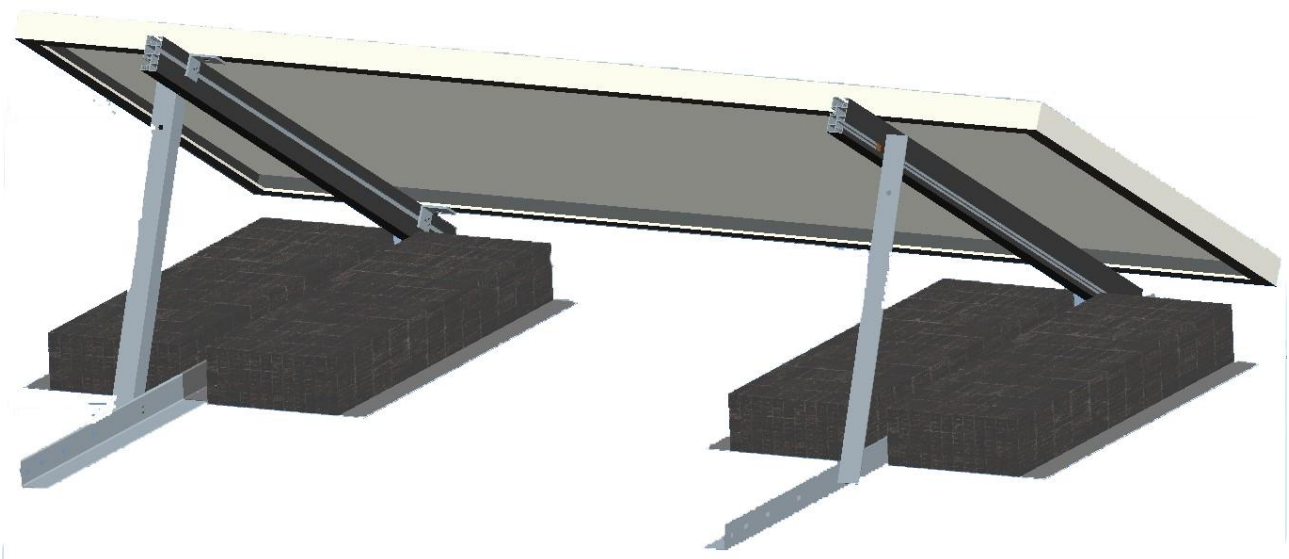
8, Screw the bolt to fasten the bottom beam and the tilt leg. There are four holes (hole 2, hole 3, hole 4, hole 5) to choose which can be used to adjusted the tilt-angle to 15°, 20°, 25° or 30°. (Note: choose the best triangle to optimize you PV system, please check the last page)



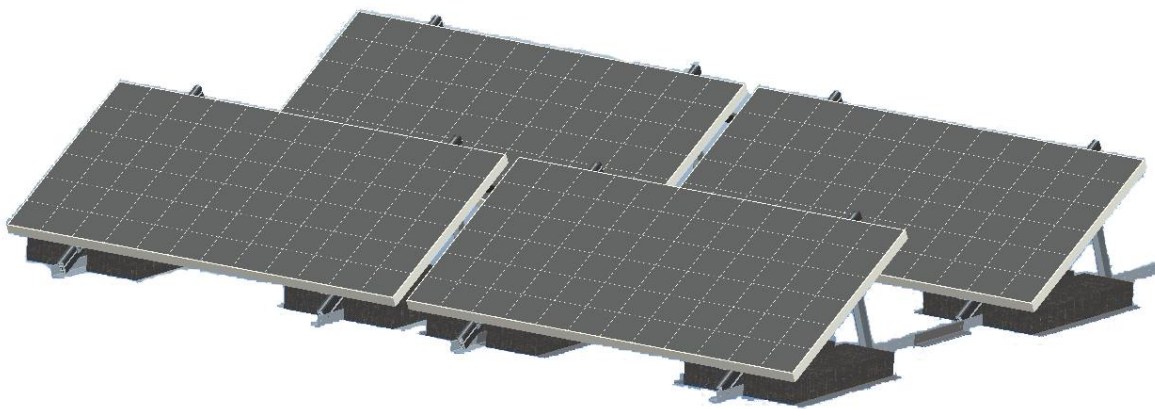
9, Place the supporting system upside down.



10 Put the tray onto the bottom beam, and fasten it with a bolt.

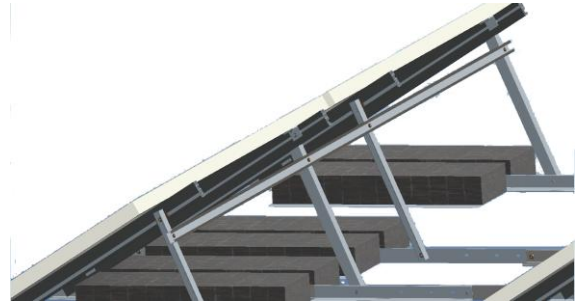
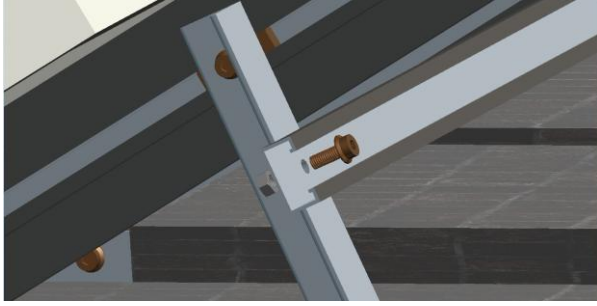


11 Put the concrete bricks on the tray to protect the unit from wind and severe weather.

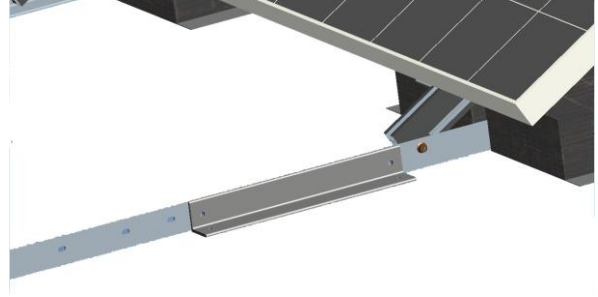
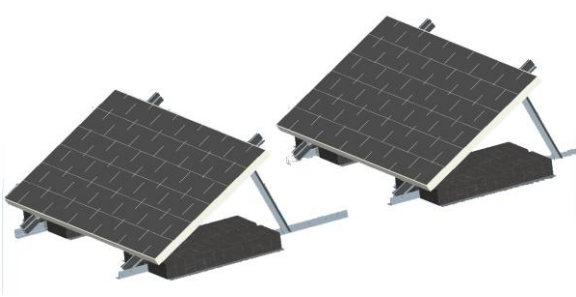


After installing every single mounting unit, you can fasten them together to strengthen the whole system. North-south connect bars and east-west beam are used to connect units together. The procedures are as follows:

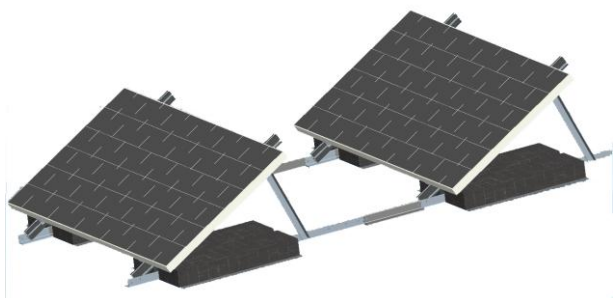
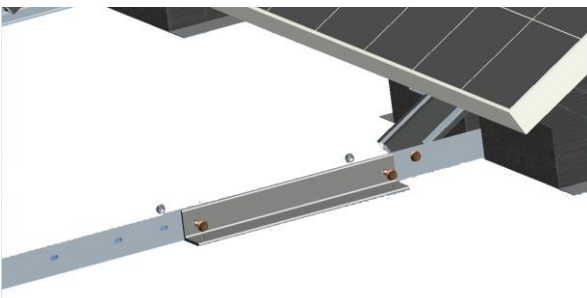




1, Place the first row in a line, and then put the east-west connect beam on the tilt leg, screw the bolts to fasten the east and west triangle systems.



2, Put the north-south connect bar between the south triangle system and the north triangle system.



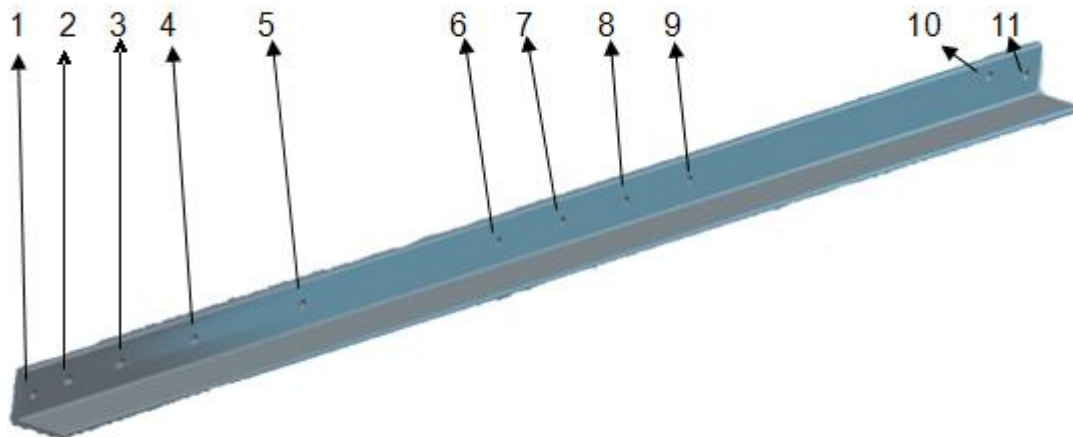
3, Screw two bolts on the north-south connect bar to fasten the north triangle system and the south triangle system.



4, Repeat the above steps to connect all the bottom beams together.

#### Notice

1 There are 11 holes in the bottom beam which have different uses .Please check their specific function before installation.



- Hole 1: used for installation of the north-south connect bar
- Hole 2: used for installation of tilt leg for a tilt-angle of 15°
- Hole 3: used for installation of tilt leg for a tilt-angle of 20°
- Hole 4: used for installation of tilt leg for a tilt-angle of 25°
- Hole 5: used for installation of tilt leg for a tilt-angle of 30°
- Hole 6: used for installation of tray for 15° triangle mounting unit



Hole 7: used for installation of tray for a 20° triangle mounting unit

Hole 8: used for installation of tray for a 25° triangle mounting unit

Hole 9: used for installation of tray for a 30° triangle mounting unit

Hole 10: used for installation of the rail

Hole 11: used for installation of the north-south connect bar

2 All support triangles can be adjusted to a tilt-angle of 15, 20°, 25° or 30°.

