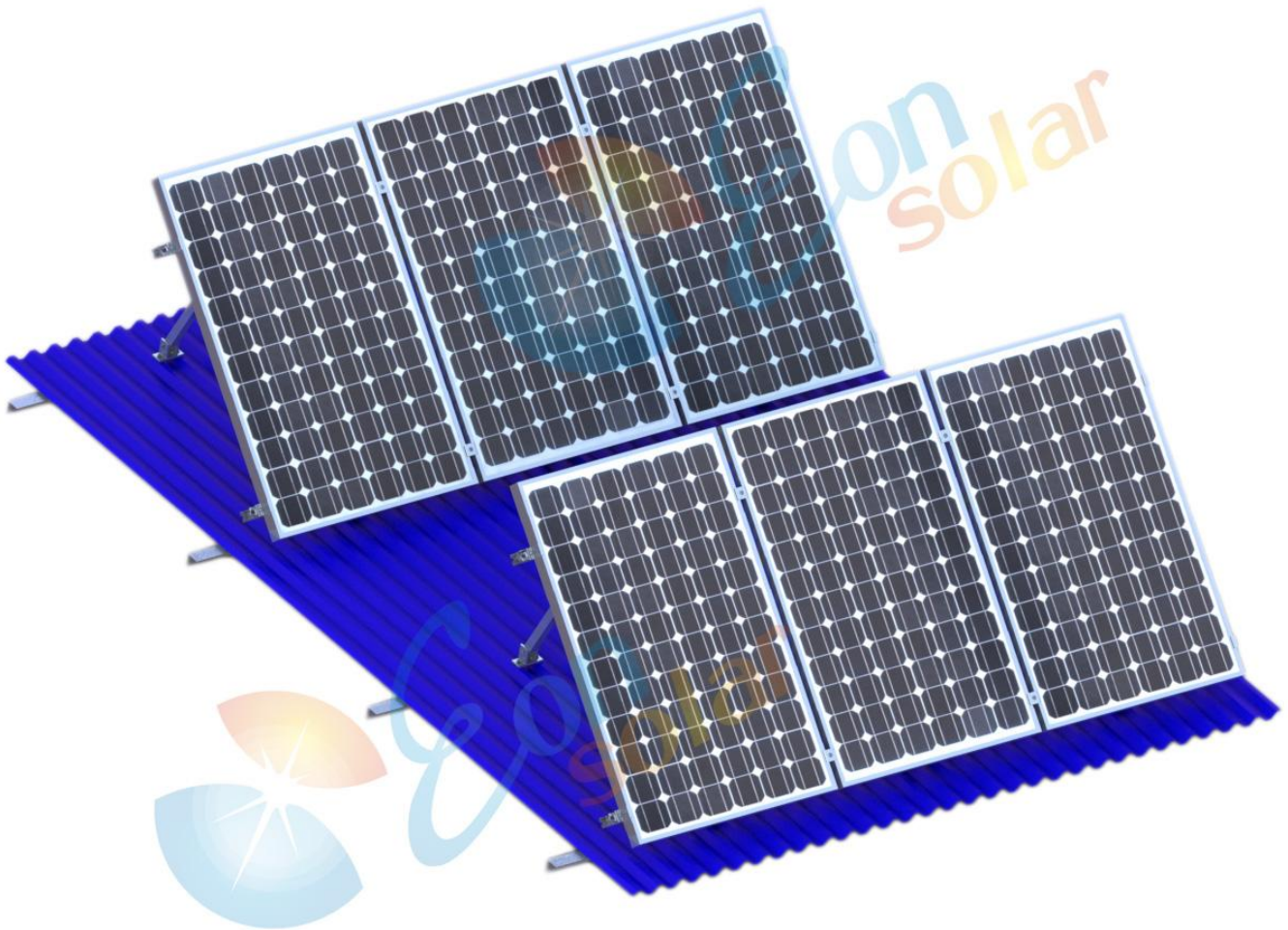




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EON Solar Adjustable mounting System Installation Manual

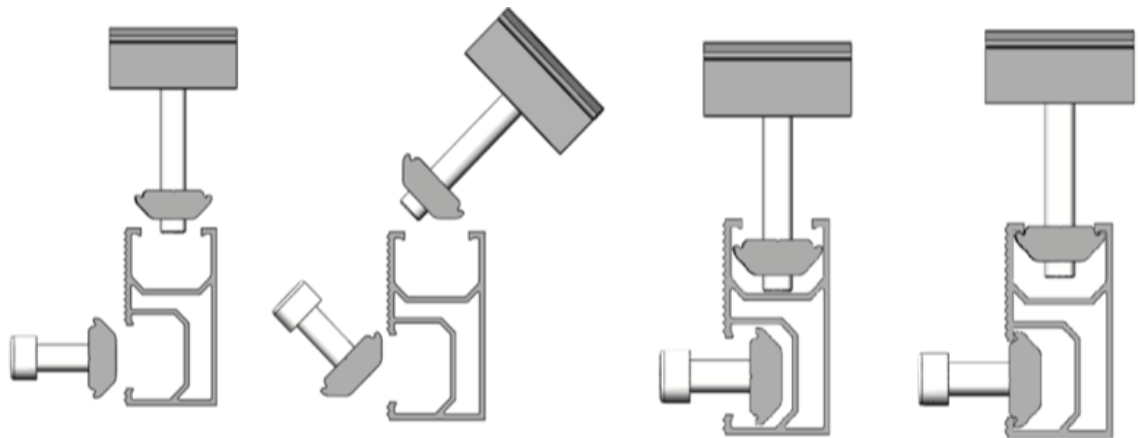




Adjustable Mounting System Installation Manual

1. General Information

Thanks for choosing EON Solar roof mounting System. Our EON solar innovative design can be easily installed and it saves your labor cost and time. Our aluminum fixing nuts can be put into rail on any position directly and screw tightly with rails. All our mountings comply with AS/NZS1170.2 with 10 years warranty and 20 years service life.



2. Technical Specification

2.1. Features

- 6005-T5 Aluminum extrusion
- EON solar innovative design can be easily installed and it can save your labor cost and time.
- Suitable for different conditions and most of solar panels at present market.
- Complies with Australian/New Zealand Standard on Wind Actions AS/NZS1170.2.2011
- Anodized finish

2.2. Installation condition

- Install site : Low profile roof or flat roof
- Tilt Angle : Flushed with the roof (10~60 deg)
- Building Height: Up to 20 m
- Max Wind Speed: <60m/s
- Snow Load: <1.4KN/m²
- Standard : AS/NZS 1170 and other international Standard
- Material : High Class Aluminum alloy Al6005-T5 & Stainless steel 304
- Color: Natural or Customized
- Anticorrosive: anodized aluminum & stainless steel



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- Warranty: 10 years warranty and 20 years service life

3. Installation Tools

<p>6 mm Allen key or hexagonal driver bit.</p> <p>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</p>	
<p>Cordless drill;</p> <p>Drill or impact driver for driving roof material fixings</p>	
<p>Angle grinder;</p> <p>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</p>	
<p>Gloves;</p> <p>Protect the hazard of the sharp corners.</p>	
<p>Cord or color pen;</p> <p>Mark the installation position;</p>	

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Spirit level	
Rule	
If necessary, timber to shim the legs	



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4. Component list

Item	Component	Description	3D drawing
1	Aluminum Rail	<ul style="list-style-type: none"> ● EON-R-2560 EON Standard 2560mm rail ● EON-R-3405 EON Standard 3405mm rail ● EON-R-4200 EON Standard 4200mm rail ● Customized length 	
2	EON Rail Splice Kit	For connecting 2 pieces of base rail, with 2 pcs of M8*20mm hexagon screws	
3	EON Mid Clamp Kits	<ul style="list-style-type: none"> ● Material AL6005-T5 & SUS304 bolt ● Standard pre-assembly for the usual panels with thickness of 30, 35, 40, 45, 50mm ● Including 1pc of A2-70 M8 Hexagon screw, 1pc of aluminum fixing nut 	
4	EON End Clamp Kits	<ul style="list-style-type: none"> ● Material AL6005-T5 & SUS304 bolt ● Standard pre-assembly for the usual panels with thickness of 30, 35, 40, 45, 50mm ● Including 1pc of A2-70 M8 Hexagon screw, 1pc of aluminum fixing nut 	



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5	Ajustable Roof Front Support Leg	<ul style="list-style-type: none"> Two pcs of $\Phi 6.3\text{mm} \times 80\text{mm}$ wooden Screws One piece of aluminum Fixing nuts Two pcs of A2-70 M8 Hexagon screw One piece of M8 antiskid gasket One piece of M8 spring gasket Two pcs of EPDM waterproof gasket 	
6	Adjustable Roof Rear Support Leg	<ul style="list-style-type: none"> Two pcs of $\Phi 6.3\text{mm} \times 80\text{mm}$ wooden Screws One piece of aluminum Fixing nuts Four pcs of A2-70 M8 Hexagon screws One piece of M8 antiskid Gasket One piece of M8 spring Gasket Two pcs of EPDM waterproof gasket We offer three types of adjustable roof rear support leg for your selection: 10-15 deg, 15-30 deg, 30-60 deg, 	
7.	Anchoring Screws or Double-end screws	Used on some special tin roof, it can only use one anchoring screw or double-end screw on the middle hole, the distance between front leg and back leg is the same as use by two screws, see page 7(Panel Array Layout).	



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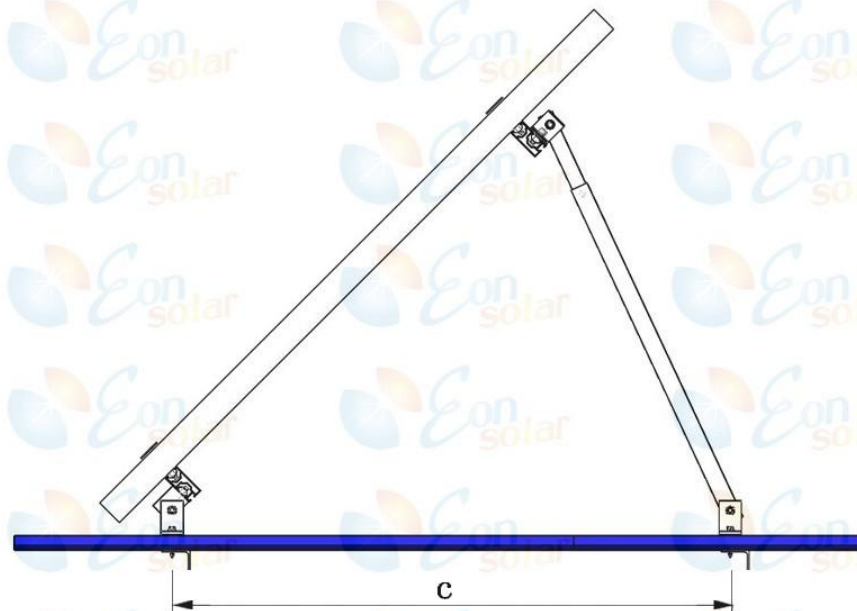
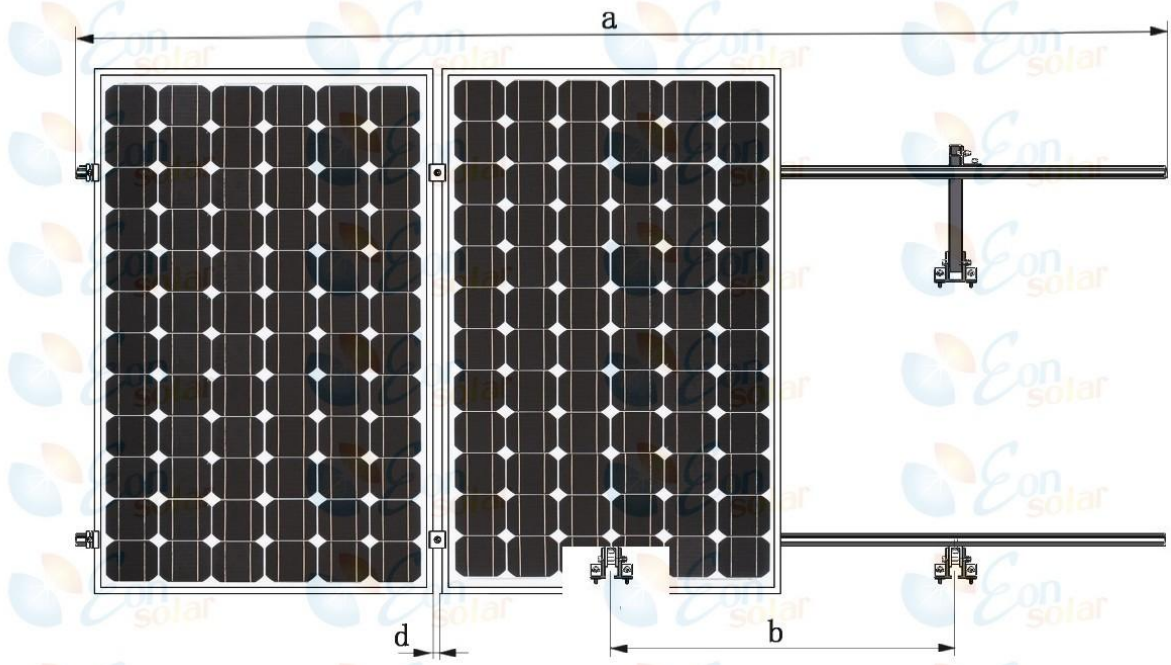
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5. Panel Array Layout



- a) Array width = number of modules in horizontal direction x (module width + 11/16 in (18 mm)) + 1-1/4 in (32 mm)
- b) Distance between the adjacent modules = module width + 11/16 in (18 mm)
- c) Distance of front support leg and rear support leg = 1250mm ~ 1400mm, the distance of front and rear support legs should be consistent on the same mounting array.
- d) Distance between the modules: 11/16 in (18 mm)

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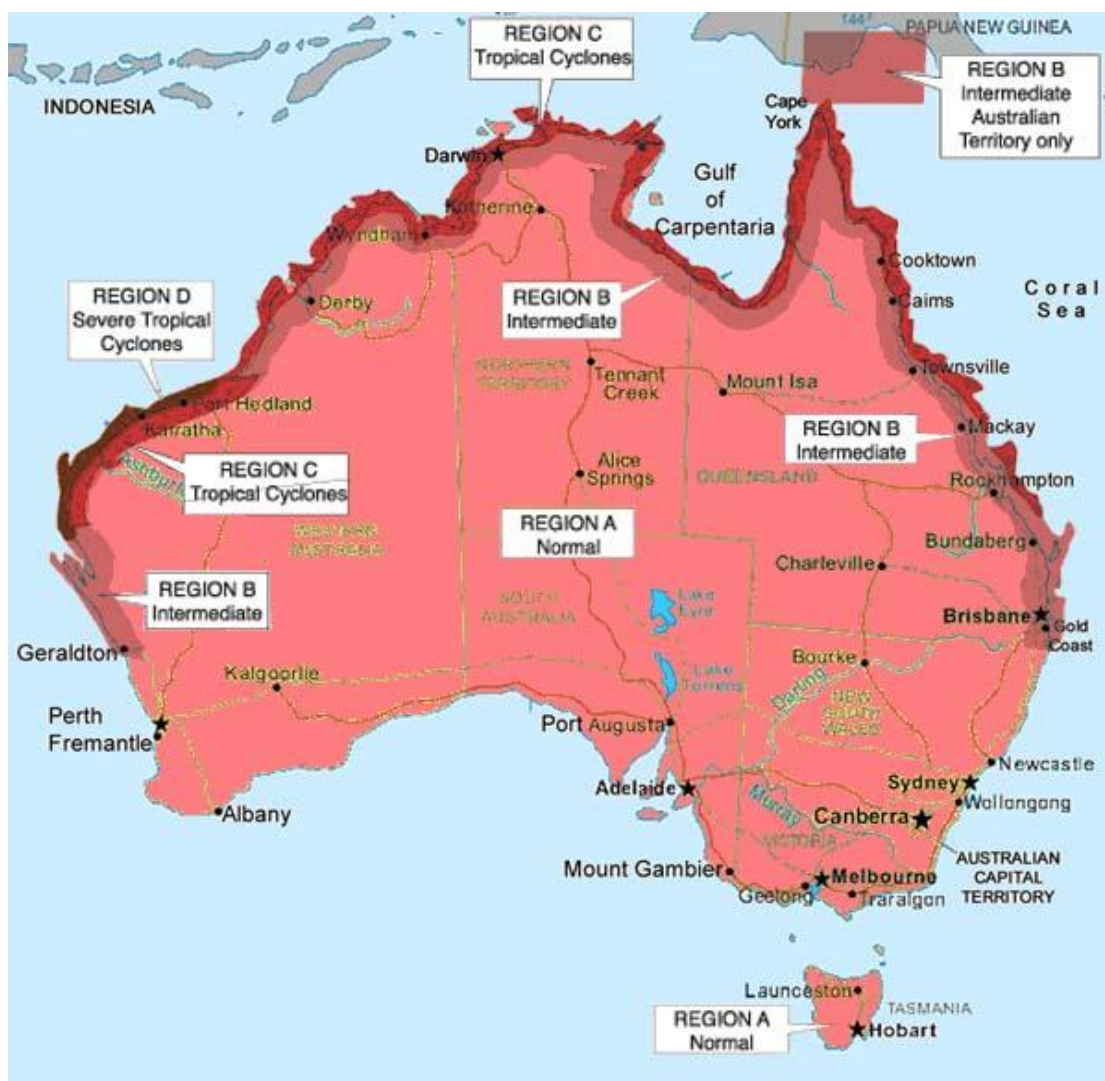
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6. Region Definition



Please use the following table to determine the base rail support spacing when using Tilt Roof Mounting kit.

a. 10 to 15 deg

Installation Height	Region A & B (mm/in)	Region C & D (mm/in)
5 Meters(16ft)	1210/47.64	690/21.16
10 Meters(32ft)	1120/44.1	640/25.2
15 Meters(48ft)	1050/41.34	590/23.23
20 Meters(64ft)	980/38.58	550/21.65

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b. 15 to 30 deg

Installation Height	Region A & B (mm/in)	Region C & D (mm/in)
5 Meters(16ft)	1190/46.85	672/26.45
10 Meters(32ft)	1070/42.12	610/24
15 Meters(48ft)	1000/39.37	570/22.44
20 Meters(64ft)	920/36.22	520/20.47

c. 30 to 60 deg

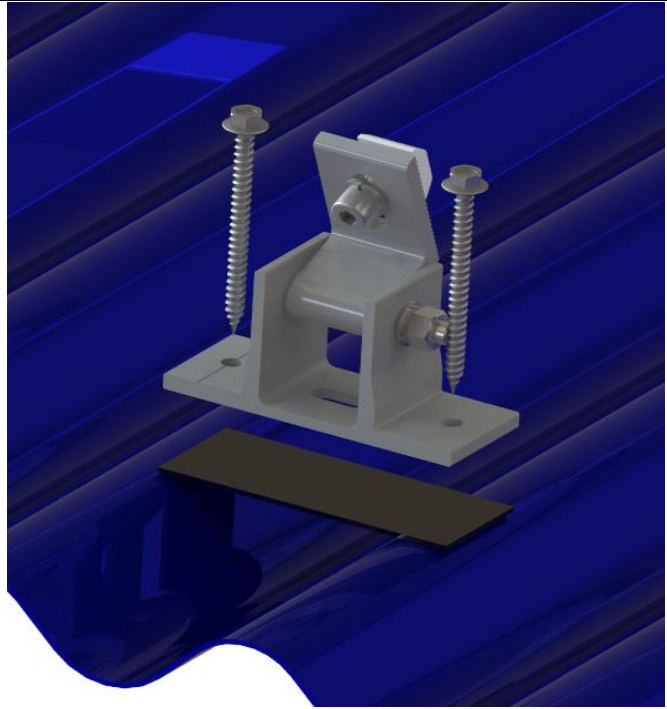
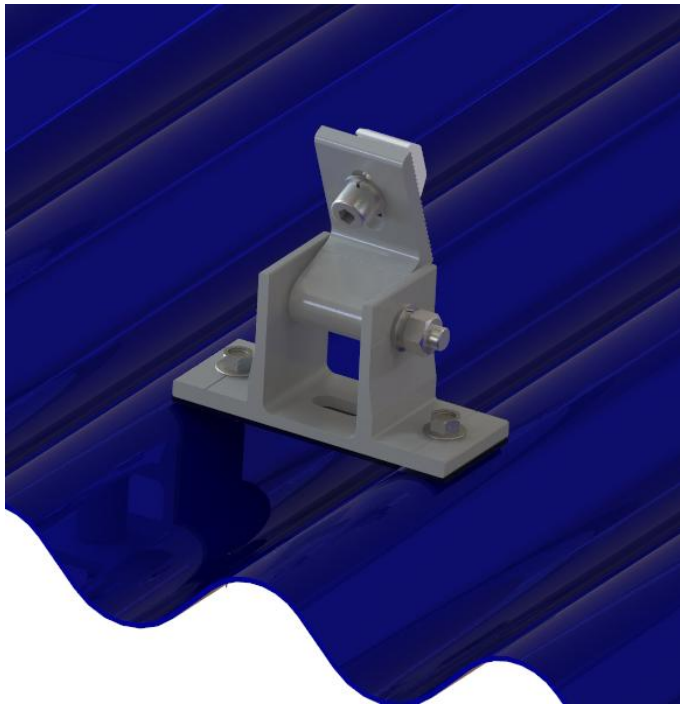
Installation Height	Region A & B (mm/in)	Region C & D (mm/in)
5 Meters(16ft)	1100/43.3	626/24.65
10 Meters(32ft)	1000/39.37	570/22.4
15 Meters(48ft)	970/38.19	535/20.87
20 Meters(64ft)	878/34.56	500/19.7

- The above figures are based on modules lengths of up to 1690mm, maximum weight is 15Kg/m²
- The above spacing applies for fixing through thin sheet purlins (greater than 0.75mm thickness) or a minimum embedment of 50mm into timber purlins.
- For 35mm min embedment into timber or fixing into 0.55mm thickness sheet purlins the max length of module should be reduce to 1700mm the max spacing reduced by 20%





7. Installation Steps

Steps	Instructions	3D drawing
1	Find the spacing based on the requirements in part 6 and then install the Adjustable Roof Rear Support Leg Assemble on the roof as shown in the 3D drawing, the assemblies should be kept in line.	 



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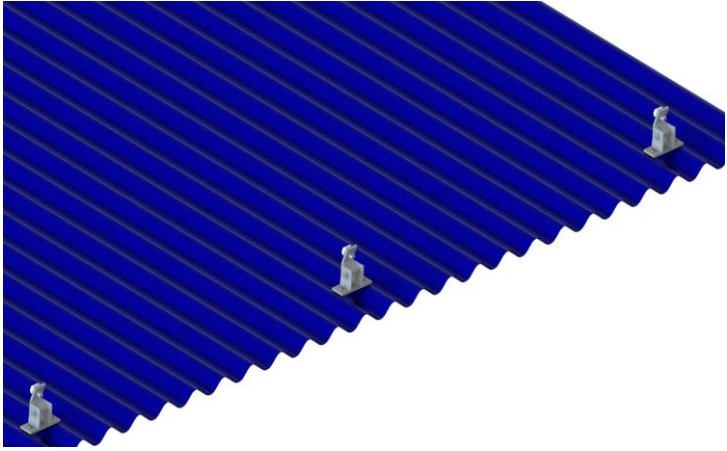
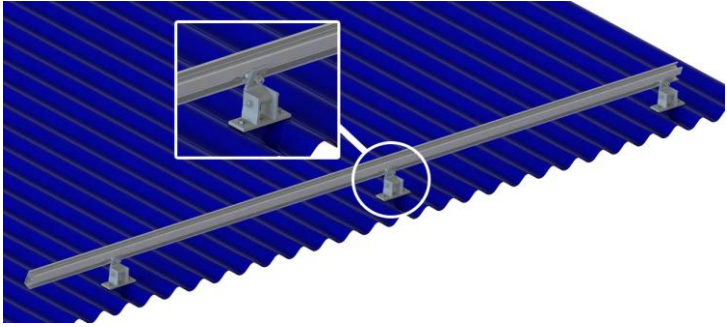
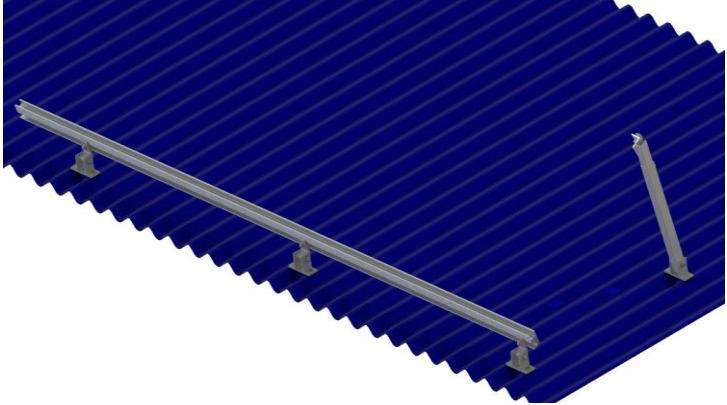


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2	Install the Aluminum Rail to the adjustable front support leg, using M8 hexagon screw	
3	Install Adjustable Roof Rear Support Leg assemblies on the roof as shown in the 3D drawing; they should be kept in line. Also, each rear support leg should be aligned with each front support leg.	

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4	Install the adjustable angel bar to the rear support leg with fastener A2-70 M8.	
5	Install the aluminum rail to the adjustable rear support leg with fastener A2-70 M8.	



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		A 3D perspective diagram showing two parallel aluminum rails mounted on a blue corrugated metal roof. The rails are supported by several vertical brackets. An inset image shows a close-up of a bracket being secured with a screw.
6	If the aluminum rail is not long enough, connect the rails by splice kits as shown in below figures.	A series of four diagrams illustrating the process of connecting aluminum rails. The first shows two separate rails. The second shows a splice kit being placed between them. The third shows the rails joined together. The fourth shows a completed long rail. A separate detail diagram shows a cross-section of the splice kit and how it fits into the rail's channel.



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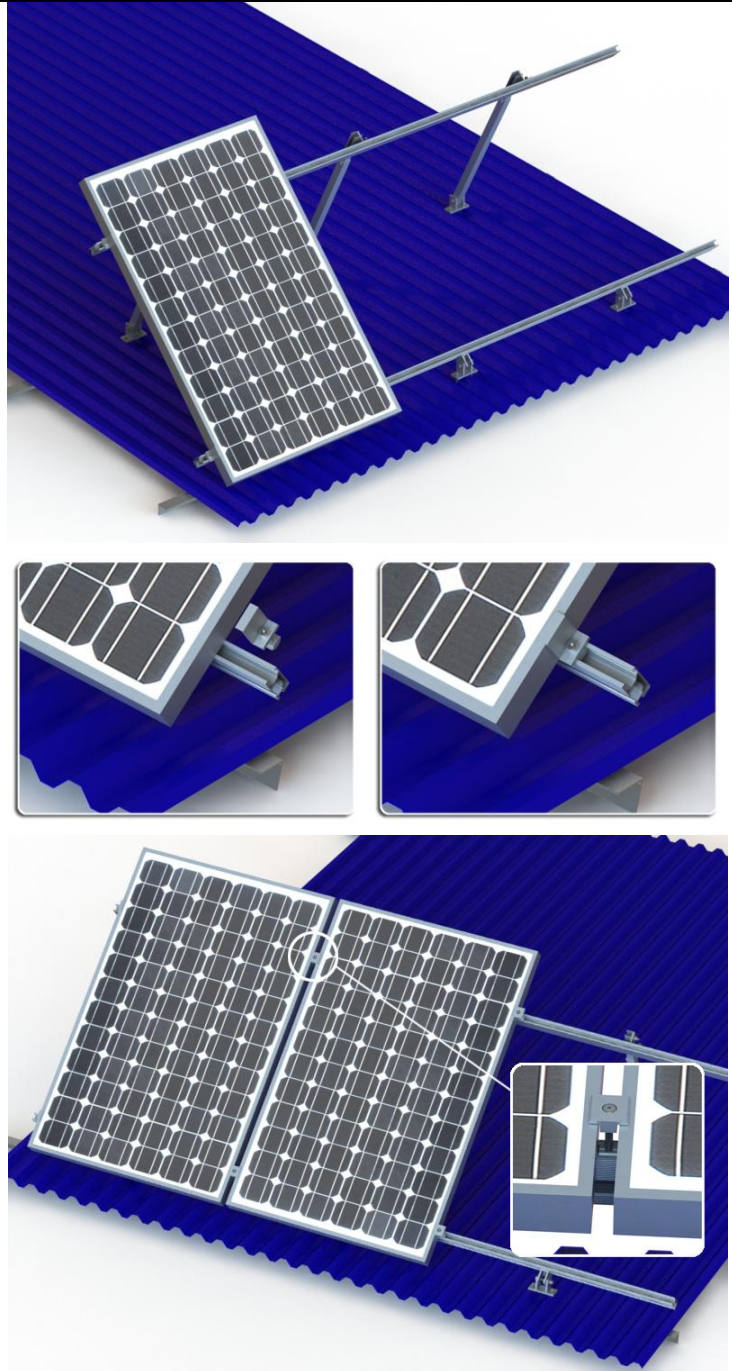
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7

Place the solar panels on adjustable front and rear support legs rails, and then install the solar panels with end clamps and middle clamps.



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		A photograph showing three solar panels mounted on a blue corrugated metal roof. The panels are tilted at an angle.
8	The adjustable mounting system and adjustable mounting system with solar panel installed	A photograph showing three solar panels mounted on a blue corrugated metal roof. The panels are tilted at an angle, and the adjustable mounting system is visible.



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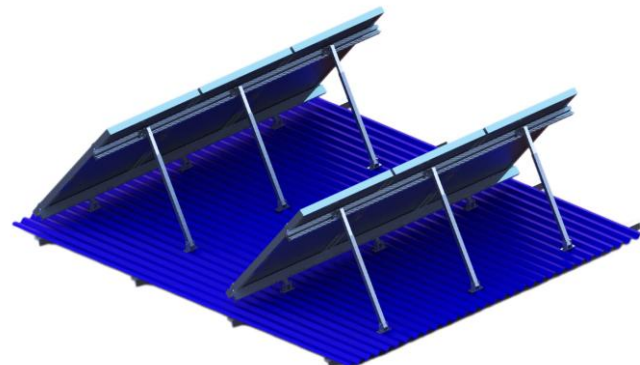
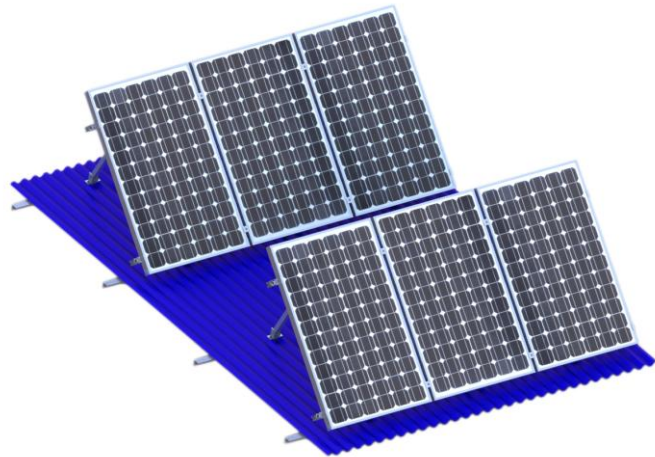
10-15° adjustable mounting



15-30° adjustable mounting



30-60° adjustable mounting





8. Warranty

8.1 Scope of Warranty

EON Solar guarantees a 10-year warranty for the durability of the components provided that they are correctly mounted, installed and used under normal service conditions. Within the warranty period, EON Solar guarantees that it will replace or repair the defective components immediately or fund the cost of replacement of its discretion provided that expenses are limited to the original sales price.

This warranty is limited to the repair, replacement delivery or refund up to the sales price. These are the exclusive and only services provided by this warranty. The costs for examination and dismantling of the defective component, returning it to EON Solar and re-installation or compensation are excluded from this Warranty. Financial shortfalls resulting from any form of lost payment, in particularly from feed-in-tariffs for the electricity generated, are not covered by this warranty.

The Warranty is only valid if the mounting system has been treated as recommended and/or remained in the photovoltaic system originally installed, or if the PV system has been verifiably dismantled company during a change of location and subsequently got reinstalled in a professional manner.

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

8.2 Exclusion of Warranty

This warranty is invalid if EON Solar, on the conducting its own inspection, establishes that the mounting system was incorrectly installed, put into operation, maintained or was used negligently, was subject to an accident, was damaged through misuse, modification, unsuitable installation or use or was damaged as a result of carelessness during storage, transport or handling. Or mounting system was repaired or changes made in any way by person other than EON Solar or third parties.

Warranty does not apply:

1. Improper installation, maintenance, repair or use of the system
2. Shipment or storage of the system
3. Misuse, modification or unsuitable installation.
4. Damage caused by chemicals, weathering, corrosion and/or other deposits or foreign matter.
5. In the event of damage caused by forces of nature, force majeure and other unforeseeable circumstances such as earthquakes, hurricanes, flooding, volcano eruptions, lighting strikes, snow damage, fires and explosions
6. In the event of vandalism, any other deliberate damage to the mounting frame, or as a result of damage caused by animals.





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