



Flat Roof Fixing Guide

Solar Limpets are warranted for the life of the system they support, providing the following installation instructions are complied with, and the roof has been surveyed as suitable for PV installation.

To maintain the Solar Limpets product warranty, Solar Limpets must **ONLY** be installed by persons trained and certificated by Solar Limpets.

Important Information

Allow a maximum of 1.2m between Limpet roof hooks depending on site conditions using only screw fixings seals and CTI sealant supplied by Solar Limpets.

For flat roof application, panels must be installed in landscape orientation only.

Fixing Components Supplied



- 1 24x Limpet Base Plate *SL-BP00001* 2 12x Limpet Adjustable Bracket *SL-AB00001* 3 12x Adjustable Bracket to Base Plate Bolt *SL-ABBPB01*
4 12x Adjustable Bracket to Base Plate Nut *SL-ABBPNO1* 5 12x Adjustable Bracket to Base Plate Washer *ABBPW01*
6 50x 50mm Screws *SL-BPFS50* 7 50x Base Plate Fixing Screw Washers *SL-BPFSW01* 8 12x Limpet Flat Roof Bracket *SL-ABFR001*
9 12x 60mm Hammer Bolt *SL-FRBB60* 10 50x Base Plate Seals *SL-BPS0001* 11 1x CT1 Sealant *SL-CT10001*

Additional Fixing Components Required but Not Supplied

M8 flange nuts and rail manufacturers' standard rail-to-roof hook connecting bolts are not supplied.

Rail Compatibility and Fixing

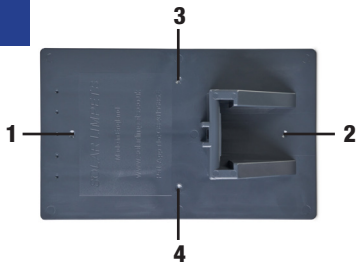
For flat roof application, Solar Limpets are only compatible with side fix type rails which utilise an M8 T bolt and flange nut to connect the rail to the roof hook. These fixings must be sourced from your rail supplier.

The longer 60mm M8 T bolts required for the Limpet flat roof bracket are supplied by Solar Limpets.

Fixing Instructions

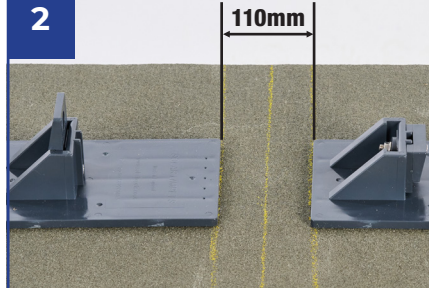
For flat roof application Limpets are used in pairs with differing brackets, the standard adjustable bracket, and the flat roof bracket. Refer to the Roof Layout Guide on page 4

1



Pre-drill the fixing points 1 & 2 and if required optional fixing points 3 & 4 using a 7mm drill.

2



Position the Limpets as shown, 110mm apart with the shorter Flat Roof Bracket facing the light source

3



Mark the Limpet final fixing positions relative to the 110mm gap lines.

4



Lift both limpets and note/mark the general seal fixing areas. If you have opted for 4 fixings also note/mark the optional side fixing areas as well. These areas must be clean, reasonably smooth and dry before attempting to fix the Limpet to the roof.

5



You may be able to simply wipe and dry the roof surface and or lightly buff the surface with a rotary wire brush to clean and dry each fixing point.

6



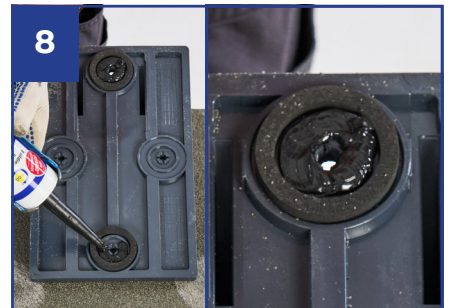
Or you may have to clear a larger area such as on asphalt type roofs with stone chippings and or a lot of moss growth etc. Ensure the area is made reasonably smooth and dry before proceeding.

7



Ensure the EPDM seals have been fitted to the 2 or optionally 4 fixing points. If you are opting to use 4 seals, additional seals, fixing screws, and washers will be required.

8



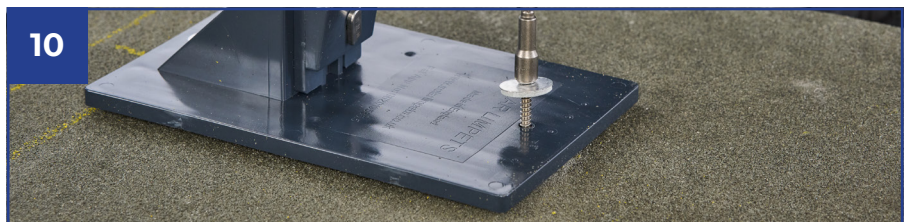
Apply the CT1 sealant to the 2 or optional 4 inner seal housings. Ensure sufficient CT1 is applied as illustrated. Do not over fill.

9



Realign both Limpets into the positions previously marked in step 3.

10

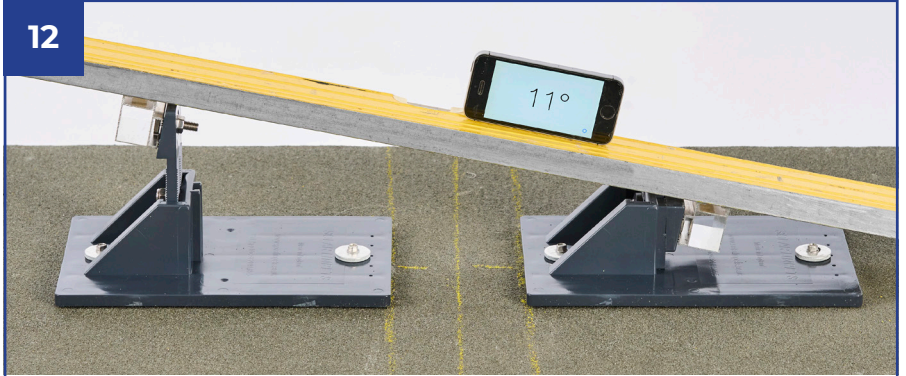


Insert and tighten one of the fixing screws about halfway home. Insert the next screw and tighten **ONLY UNTIL THE ALUMINIUM EPDM BONDED WASHER STARTS TO CRUSH.** Return and tighten the second fixing accordingly. If four fixings have been opted for insert and tighten the remaining two screw fixings as above. **OVERTIGHTENING MAY RESULT IN THE SCREWS STRIPPING THEIR THREADS IN THE TIMBER REDUCING THE LIMPET'S PULL OUT LOAD RESISTANCE. DO NOT USE IMPACTORS.**



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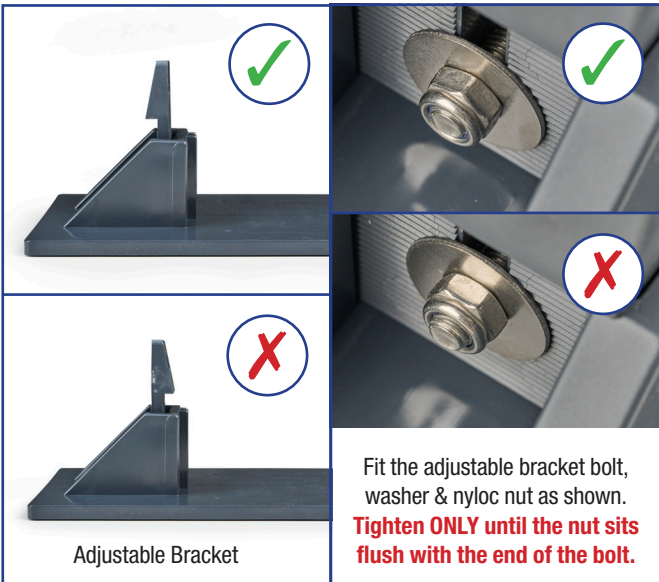
Applied correctly, the CT1 sealant will fill the inner seal housing and screw penetration as illustrated.



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With the rails fitted to the angled sides of each bracket & the adjustable vertical bracket extended fully and locked in place, the PV panels when clamped to the rails achieve a 10-11° pitch.

Adjustable and Flat Roof Bracket Installation



Adjustable Bracket

Fit the adjustable bracket bolt, washer & nyloc nut as shown. **Tighten ONLY until the nut sits flush with the end of the bolt.**



Flat Roof Bracket

The angled plastic washer is fitted with the snap-off point pointing towards the baseplate.

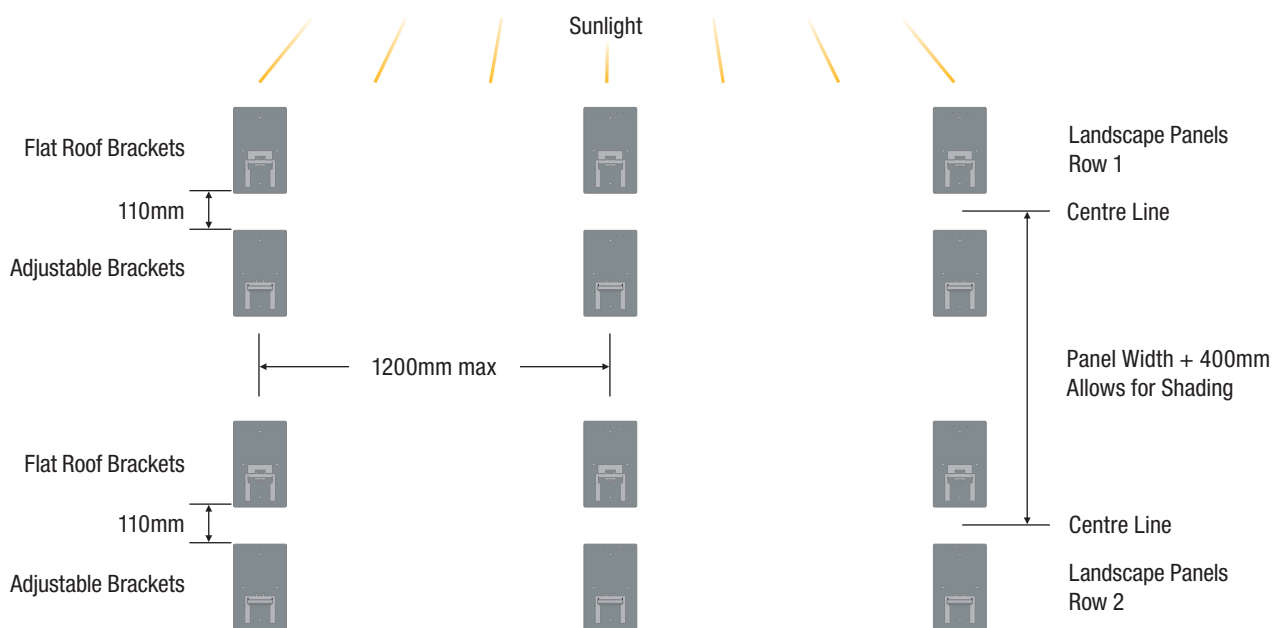
Connecting the Rails



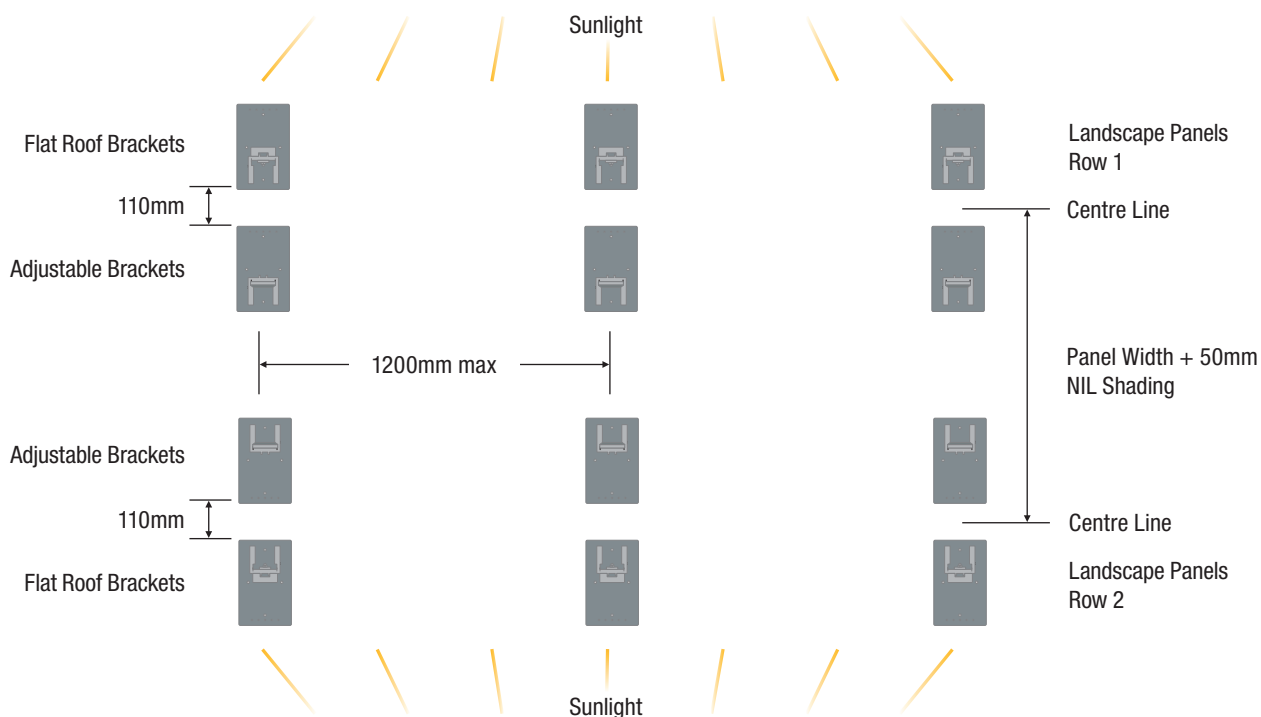
When fixing the rail to the Adjustable Bracket and the Flat Roof Bracket, tightening until the nut bites & then another quarter to one third turn is sufficient. **DO NOT OVERTIGHTEN.**

Roof Layout Guide

Panels in a N, S, E or W Orientation



Panels in a N, S or E, W Orientation



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