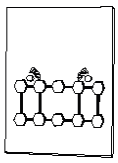
SOLAR SLATE PLATE

Solar on slate made easy

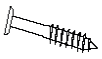
Solar Slate Plate fitting instructions

Materials list
Materials for each Solar Slate Plate



A) 1 X Solar Slate Plate.

B) 1 X Stainless steel roof hook.
L roof Hook or Z roof hook.



C) 2X M6 stainless steel roof screw (90mm).

D) 2 X M8 30mm stainless steel hex head bolt.

E) 2 X M8 stainless steel nyloc flanged nut.

F) 2X Rubber o'ring.

G) 2X EPDM washer.

H) 2X EPDM bonded washer small.

I) 2X Stainless steel torsion spring left and right.

J) 2 X 25mm self drilling wafer head screw.

Solar Slate Plate are made in 13 different sizes.
Please make sure you have the correct size before you proceed.

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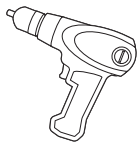
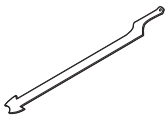
Required tools list



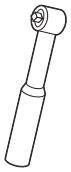
Cordless drill with t25 bit for M6 screw and ph2 bit for wafer head screw.



Slate ripper for removing slates.

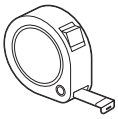
Hammer.

String line.



Socket wrench with 13mm socket.

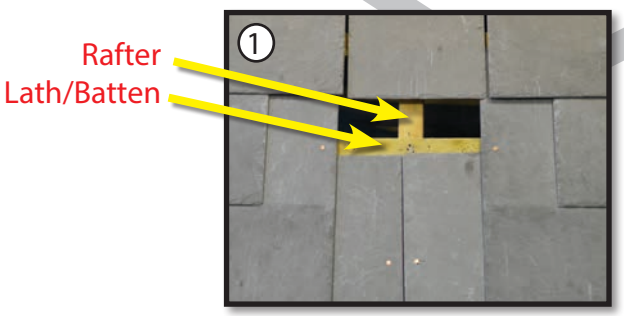
Cobalt tipped drill bit size 6mm & 8mm.



Measuring tape.

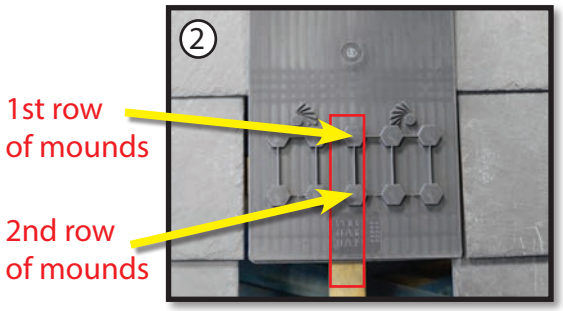
Assembly instructions

1) Locate rafter and remove the slate to be replaced by Solar Slate Plate and the 2 overlapping slates directly above. (3 slates in total).

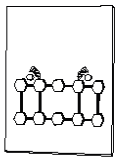


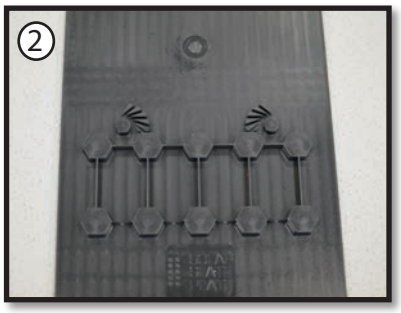
2) Find rafter location on Solar Slate Plate (A) by placing the Solar Slate Plate onto the roof and noting which 2 mounds are closest to being over the rafter. This will determine which 2 mounds will be used to attach the stainless steel roof hook. The roof hook (B) should always be attached to the mounds that are closest to the rafter. (see to the right).

Always use the first and second row of mounds to attach the stainless roof hook.

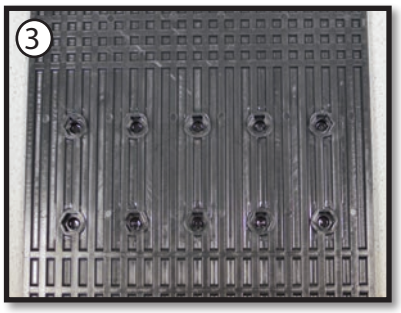


A





3) Use an 8mm cobalt (D) tipped hss drill bit (Do not use a masonry drill bit) , and drill from the underside of the Solar Slate Plate, the 2 mounds that will be used to attach the stainless roof hook. Remove any burrs from the topside face of the Solar Slate Plate mounds.



4) Push rubber o'rings (F) over the thread of the M8, 30mm (D) Stainless steel hex head bolts. (1 per bolt).

F x2 D x2

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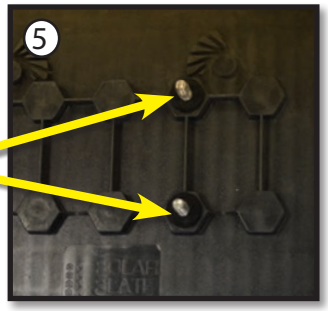
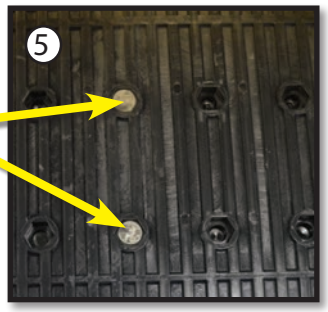
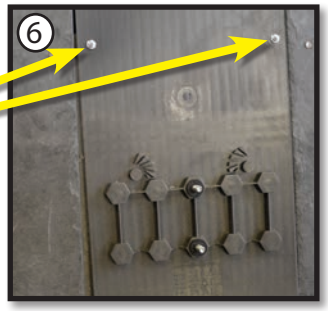
5) Push M8 bolts through the underside of the Solar Slate Plate. Push the large EPDM rubber washers (1 per bolt), over the protruding threads of the M8 bolts (D) on the topside face of the Solar Slate Plate. (shown on right).





G x2 D x2

6) Fix the 2 flat head 25mm self drilling screws to hold the Solar Slate Plate into position. These screws are to be fixed into the roof batten/lath, where the slate would normally be fixed. (shown on right).

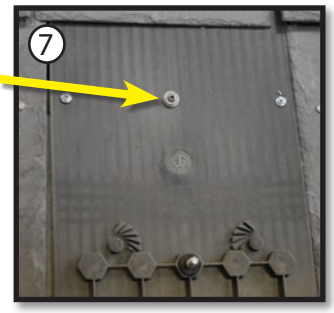


J x2

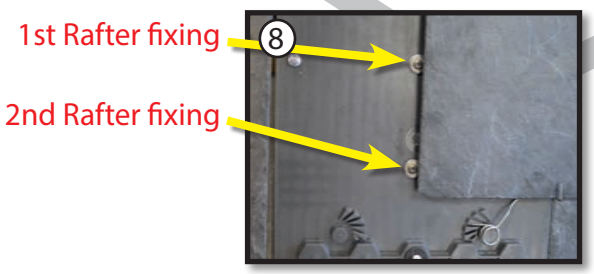
7) 1st Rafter fixing - Use 90mm stainless steel roof screw with the small bonded EPDM rubber washer, where the roof batten/lath crosses over the rafter (a minimum of 50mm embedment into the rafter is required).
DO NOT OVERTIGHTEN. The EPDM rubber washer must be slightly compressed and rest on the entire surface of the Solar Slate Plate.

C x1 H x1

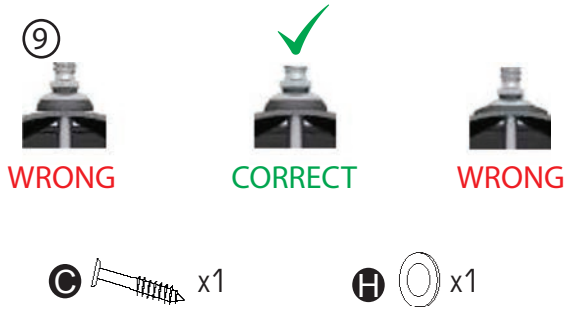
The 1st rafter fixing should be pre drilled using a 6mm hss cobalt tipped drill bit (Do not use a masonry drill bit and do not use hammer setting on drill). 1st rafter fixing (shown on right) going into the timber batten / lath and rafter, which is in line with the two 25mm flat head screws previously fixed.



8) 2nd rafter fixing - The 2nd rafter fixing should be directly below the first fixing, and should be 25-30mm above the overlapping slate line (shown on right).

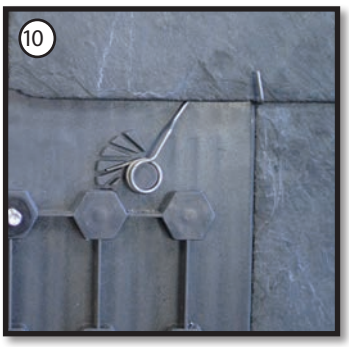


9) The 2nd rafter fixing should be pre drilled using a 6mm hss cobalt tipped drill bit (Do not use a masonry drill bit). (Do not use hammer setting on drill). Drill through the Solar Slate Plate at required position and through the slate underneath until contact with the rafter is made. Fix 90mm M6 stainless steel roof screw with bonded EPDM rubber washer into place. (A minimum of 50mm embedment into the rafter is required). DO NOT OVERTIGHTEN. The EPDM rubber washer must be slightly compressed and rest on the entire surface of the Solar Slate Plate).

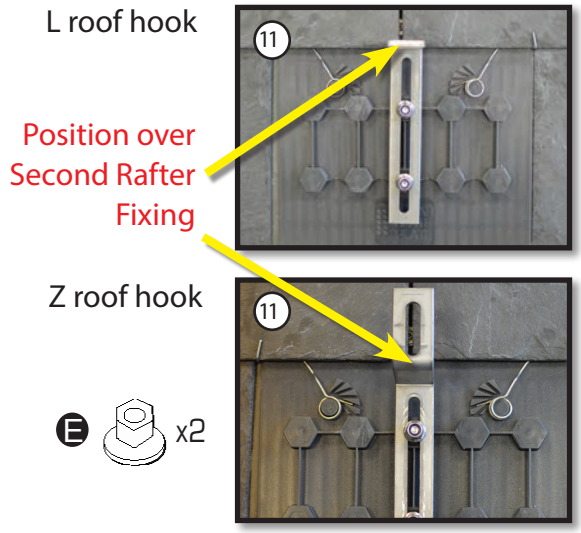


10) Re install the 2 previously removed slate's onto the roof, and use the torsion springs to hold in place. A left and right torsion spring is provided. The torsion spring can be adjusted via the notches on the Solar Slate Plate. Always use the appropriate setting to allow the covering slate to be held firmly in place. (see image to the right).

I x1 Left x1 Right



11) Place the stainless steel roof hook over the protruding M8 bolts. Adjust roof hook by sliding back and forth. Position arm of roof hook over second stainless steel rafter fixing, (Only fit roof hook as shown on right). Use M8 nyloc stainless steel flanged nut to secure roof hook into position, (1 per bolt, shown on right).



B or x1 E x2

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12) Repeat steps 1-11 with the next Solar Slate Plate and so on.
Allow a maximum of 1200mm between Solar Slate Plates.

13) When all of the Solar Slate Plate's have been installed onto the roof, attach a string line to the roof hook's at both ends of each individual row and adjust the stainless steel roof hooks in between so that they are running in a straight line. Connect preferred rail system to the stainless roof hooks and fix chosen modules, to manufacturer's recommendations. (see below).

Warranty

Please be aware that Solar Slate Plate assembly instructions must be adhered to at all times.
The following regulations apply;

- The Solar Slate Plate may only be used and installed by people who can be deemed as being competent and are technically suitable to carry out the work in a safe and practical manner, eg (appropriate training or occupation), and/or experience of having prior knowledge of working on slated/tiled roof's.
- Before installation can take place, it is a requirement that the Solar Slate Plate meets the local static requirements. For pitched roof systems the load bearing capacity of the roof must be checked in principle.
- All relevant building regulations, standards and environmental regulations must be adhered to. Working in a safe manner is of great importance and all relevant standards and regulations of occupational associations are to be adhered to at all times, eg working at height, loler etc. The assembly instructions of the rail and module manufacturer are to be adhered to.
- An up to date copy of the assembly instructions must be available on site to refer to for correct installation.
- In the event of non adherence to our regulations, and if competitors parts or components are used in place of supplied parts/components, Solar Slate Plate Limited reserves the right to refuse liability.
- Disregarding our regulations/requirements and assembly instructions and not using all mounting components/assemblies supplied by us, and when components are used which are not supplied by us (rails, modules), Solar Slate Plate Limited will not be held liable for any resulting defects and/or damages. The warranty will be excluded in such cases.
- If all relevant regulations/requirements and installation instructions are adhered to and the Solar Slate Plate is correctly installed, there is a product warranty of 10 years.
- Solar Slate Plate Limited will always try to improve its products. Assembly instructions/processes may change due to this. Before installation it is important to check the up to date assembly instructions provided or telephone our office.

Solar Slate Plate Ltd guarantees its components (all steel, aluminium, plastic and stainless steel parts), that under normal application, installation, operation and maintenance conditions they are free from material and manufacturing failures for a period of ten (10) years. In the case that the quality of a component does not meet the stated guarantee conditions, Solar Slate Plate Ltd will within the period of ten (10) years from date of sale by Solar Slate Plate Ltd, of their own choice either repair the product or deliver a replacement. Repair and replacement delivery are the only and exclusive options this guarantee provides for and are confined to the specified duration of ten (10) years. Costs for the dismantling of a defective component, return transport to Solar Slate Plate Ltd or the authorised seller as well as reassembly are excluded from this guarantee. Statutory warranty rights of the buyer remain unaffected.

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Exclusion from guarantee

The existing guarantee does not apply in the event of Solar Slate Plate Ltd, after their own tests, establishing that a mounting system was incorrectly operated or negligently used, involved in an accident or damaged as a result of improper use, modification, incorrect installation or application, or as a result of carelessness in storage, transport or handling, or where repairs to the component were undertaken in any way or manner by persons other than Solar Slate Plate Ltd or specifically authorized third parties of Solar Slate Plate Ltd. This guarantee will not be applicable to defects of components - due to forces of nature, force majeure and other unforeseeable circumstances outside the control of Solar Slate Plate Ltd, as well as, for example, earthquakes, typhoons, whirlwinds, volcanic eruptions, floods, lightning strikes, snow damage, nuclear events etc.

- due to improper maintenance and inappropriate tests, flying objects or external loads.
- with loads that are higher than the named design load in Eurocode EC 1,

Limits of the Guarantee

The present guarantee replaces any previously given guarantees. Solar Slate Plate Ltd are not liable for additional, secondary or other, however caused, damage.

Claims on the Guarantee

In the case that you have a justified guarantee claim, please promptly notify the authorised seller or Solar Slate Plate Ltd. You will then be given information on how you can enter a claim.

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