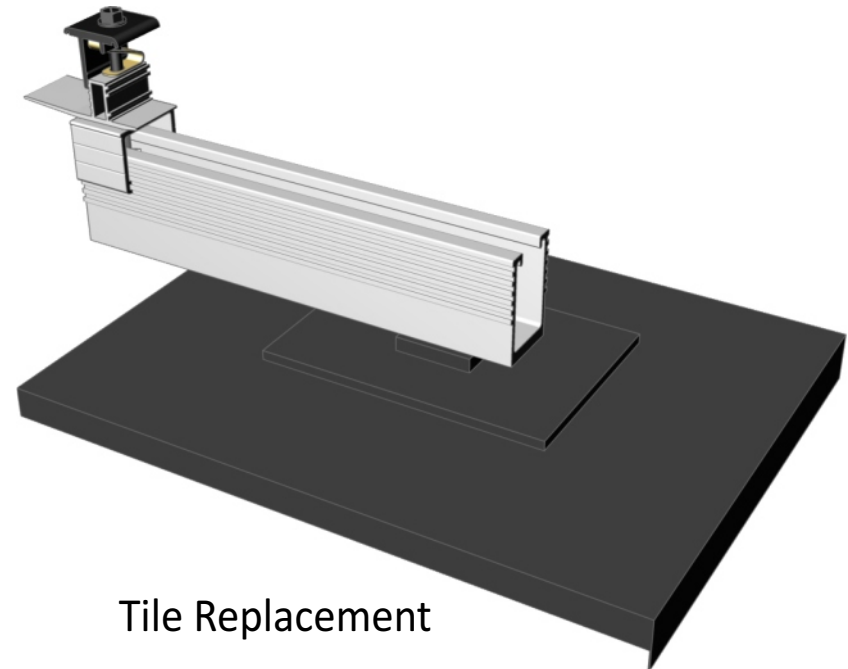


Tile Hook



Tile Replacement



Requirements

In order to achieve maximum allowable spans shown in the charts, the following requirements must be met when selecting a Tile Hook or Tile Replacement.

Load Rating(s)	Tile Hook*	Tile Replacement
	UP <ul style="list-style-type: none"> Ultimate: 1209 lbs Design: 605 lbs DOWN <ul style="list-style-type: none"> Ultimate: 674 lbs Design: 337 lbs 	<ul style="list-style-type: none"> Component under base at attachment must have an area of at least 2" x 2"
*EcoX Tile Hook Kit with Hardware recommended: Standard Height Part Number ES10462 Low Height, Part Number ES10460		

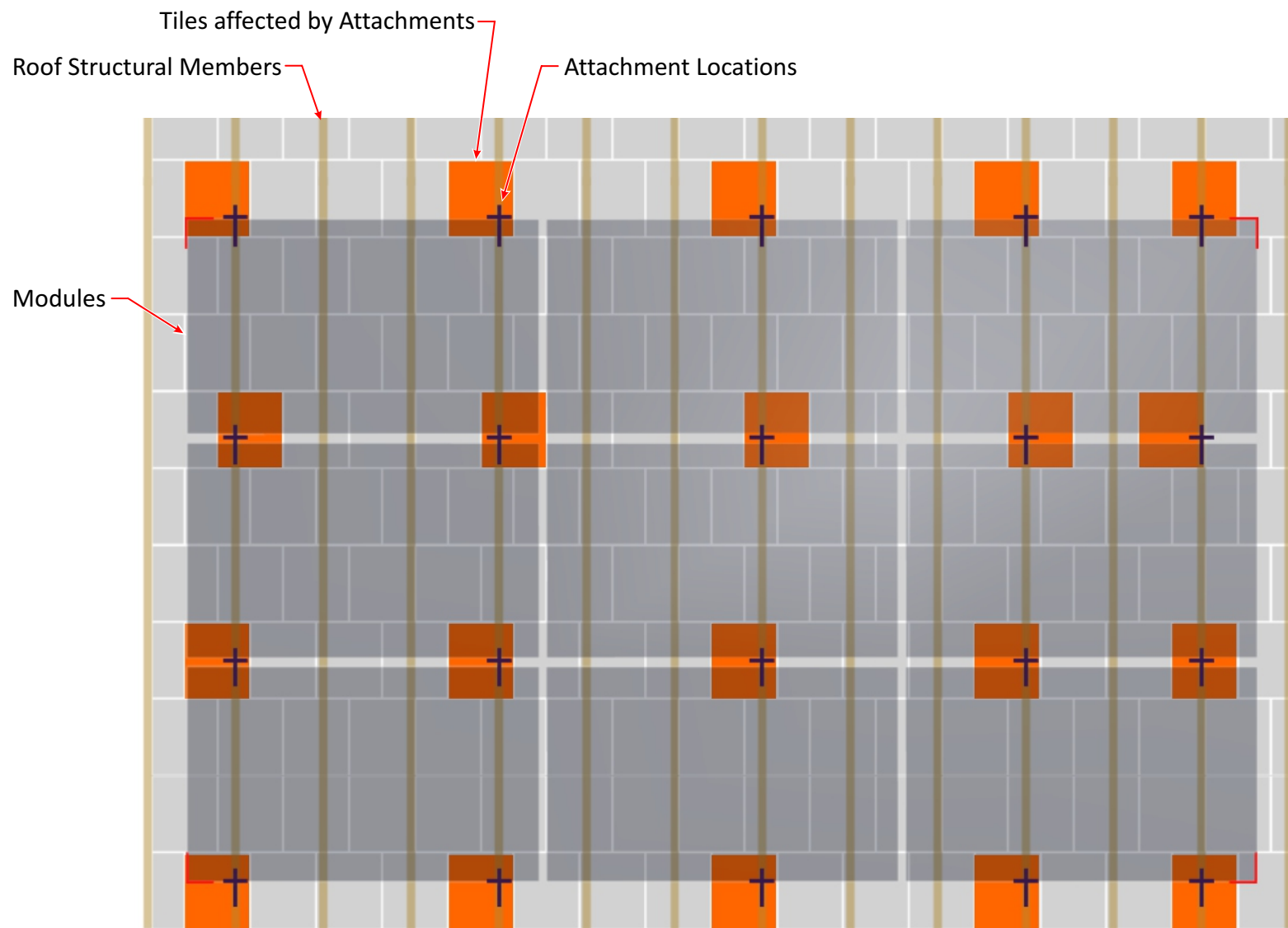
i Tile Hooks are available to purchase through Ecolibrium Solar.

Tile Replacements are available to purchase through third party distributors.

Tile Hook Attachment									
MAXIMUM ALLOWABLE SPAN (in)									
Roof Slope	LANDSCAPE				PORTRAIT				
	Gable		Hip		Gable		Hip		
	Ground Snow Load (psf)		Ground Snow Load (psf)		Ground Snow Load (psf)		Ground Snow Load (psf)		
	0	5	0	5	0	5	0	5	
10°-13°	64	32	64	32	32	24	32	24	
14°-19°		48		48		32		32	
20°-27°				32		24		24	
28°-30°	48	48	48	32	32	24	32	24	
31°-35°				48		32		24	24
36°-45°									
46°-85°									
WIND = 115 mph MAX (ASCE7-10)									
ROOF ZONE = Interior (Zone 1)									

Tile Replacement Attachment								
MAXIMUM ALLOWABLE SPAN (in)								
Roof Slope	LANDSCAPE				PORTRAIT			
	Gable		Hip		Gable		Hip	
	Ground Snow Load (psf)		Ground Snow Load (psf)		Ground Snow Load (psf)		Ground Snow Load (psf)	
	0	5	0	5	0	5	0	5
	10°-14°	72	64	72	64	48	32	48
15°-25°	72		32					
26°-30°	64							
31°-45°	72							
46°-85°	32							
WIND = 115 mph MAX (ASCE7-10)								
ROOF ZONE = Interior (Zone 1)								

Determine/Locate Tiles affected by Attachments

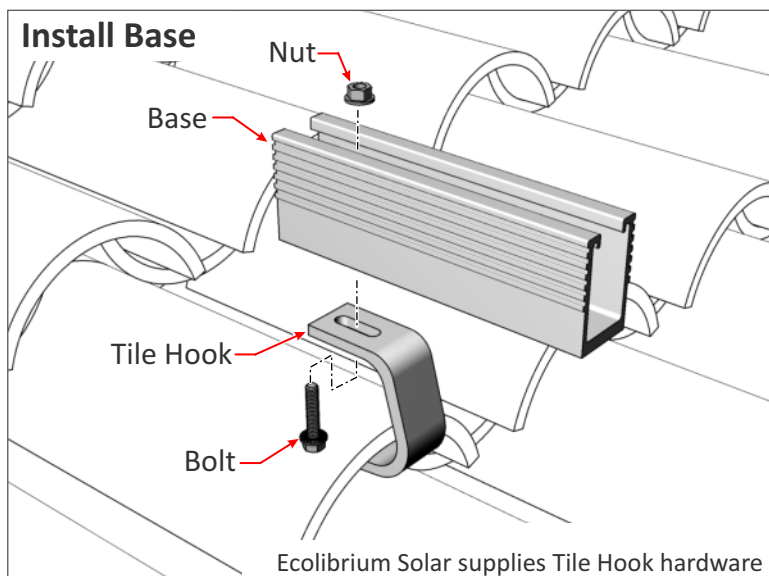


1. Using the array layout procedure from the EcoX Installation Guide, locate the tiles that will be affected by the Attachments.
2. Remove affected tiles and depending on tile type:
 - a. Install a Tile Hook Attachment at each location.
 - b. Replace each affected tile with a Replacement Tile Attachment.

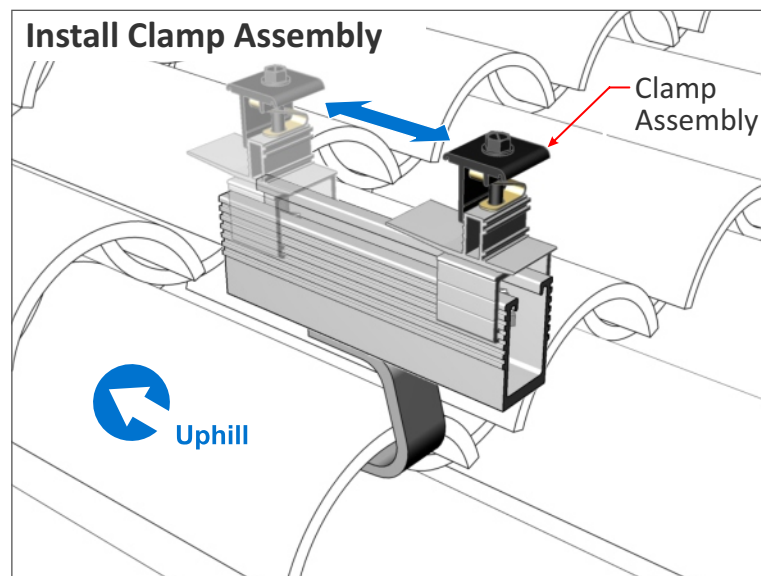
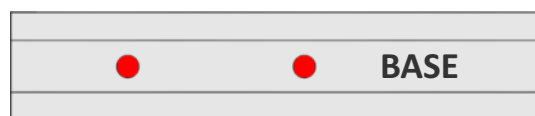
! Be sure to follow the Attachment manufacturer's installation instructions when installing either of the approved attachments - Tile Hook or Tile Replacement.

For the Tile Hook installation instructions, visit www.ecolibriumsolar.com/support/ecox-support

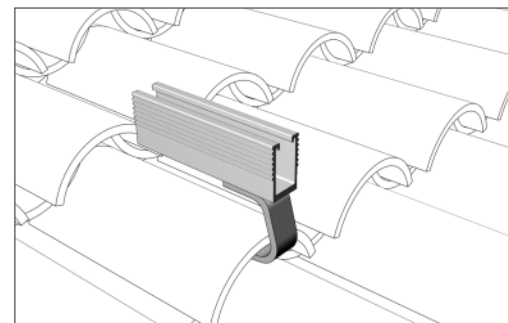
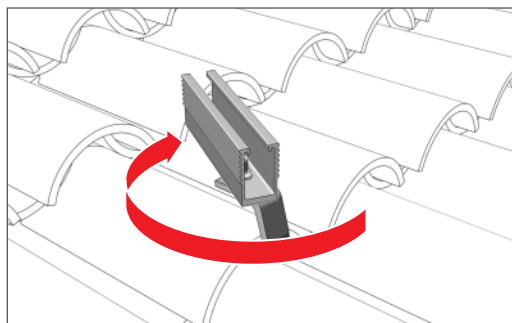
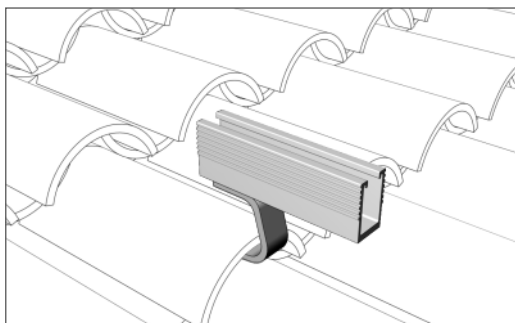
Tile Hook - Attaching the Base and Clamp Assembly



Use either Mounting Hole



Bases can be rotated 360 degrees to aid installation.



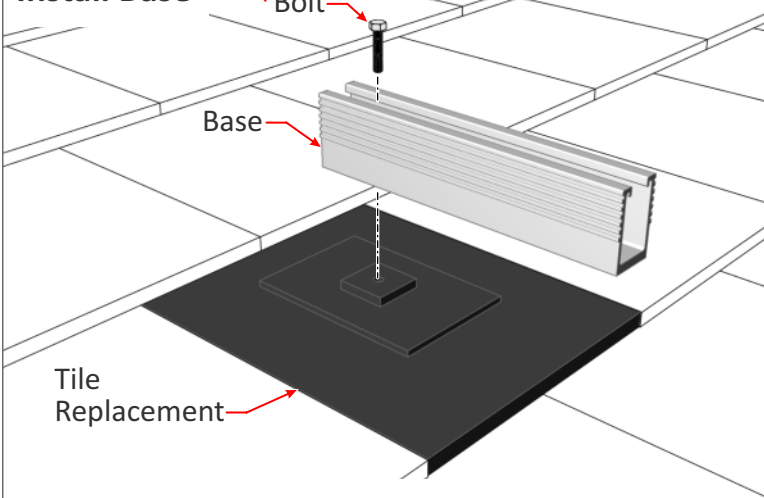
After the Tile Hook has been installed per the manufacturer's instructions, install the EcoX Base and Clamp Assembly.

- 1. Install the Base:**
Base includes two positioning options, 1) two mounting hole choices and, 2) the ability to rotate the Base 360 degrees. Select a mounting hole (if needed, rotate the Base) to establish the ideal positioning and alignment of the Base and Clamp Assembly to facilitate the Module installation. Use the Base hardware provided in the EcoX Tile Hook Kit to securely attach the Base to the Tile Hook.
- 2. Install the Clamp Assembly:**
Align and install the Glider with the engagements of the Base, sliding the Clamp Assembly onto the Base. The Clamp Assembly can reside anywhere on the Base as long as the entire Glider is located on the Base.

i For more detailed information see the EcoX Installation Guide.
For the Tile Hook installation instructions, visit www.ecolibriumsolar.com/support/ecox-support

Tile Replacement - Attaching the Base and Clamp Assembly

Install Base

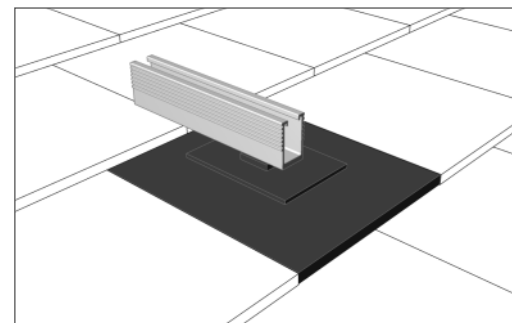
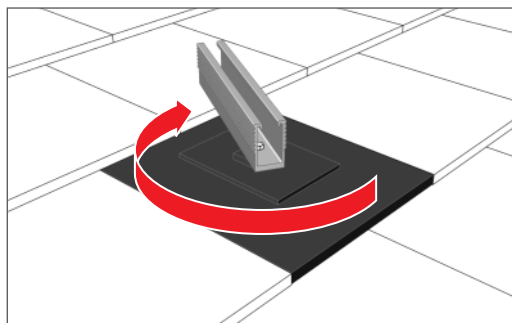
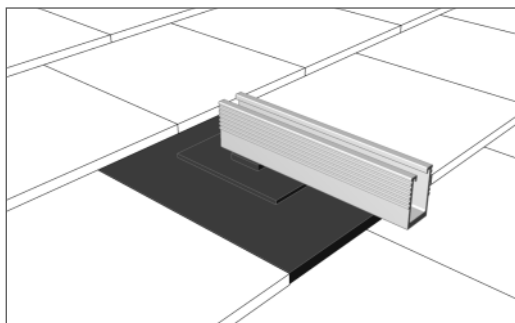


* Tile Replacement supplied hardware

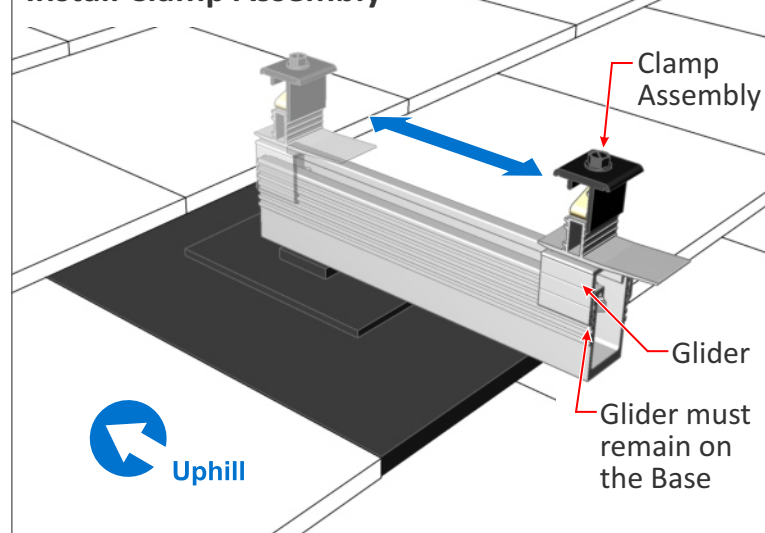
Use any of the 3-Mounting Holes



Bases can be rotated 360 degrees to aid installation.



Install Clamp Assembly



After the Tile Replacement has been installed per the manufacturer's instructions, install the EcoX Base and Clamp Assembly.

1. Install the Base:

Base includes two positioning options, 1) two mounting hole choices and, 2) the ability to rotate the Base 360 degrees. Select a mounting hole (and, if needed, rotate the Base) to establish the ideal positioning and alignment of the Base and Clamp Assembly to facilitate the Module installation. Use the hardware provided with the Tile Replacement to securely attach the Base to the Tile Replacement.

2. Install the Clamp Assembly:

Align and install the Glider with the engagements of the Base, sliding the Clamp Assembly onto the Base. The Clamp Assembly can reside anywhere on the Base as long as the entire Glider is located on the Base.

i For more detailed information see the EcoX Installation Guide.

For Tile Hook installation instructions, visit www.ecolibriumsolar.com/support/ecox-support