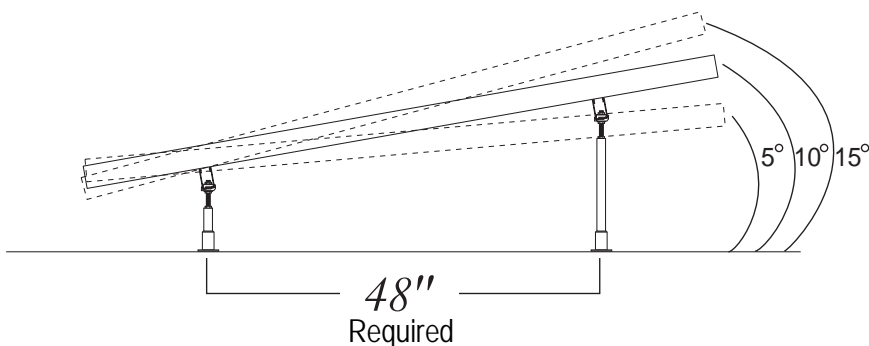


SolarWedge™

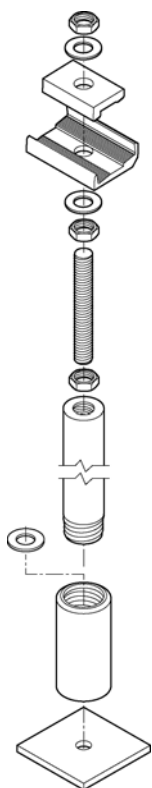
INSTALLATION GUIDE



SolarWedge™ by Professional Solar Products, Inc. is an innovative low profile commercial PV mounting system. The system provides an easy to install and economical solution for 5, 10 or 15 degree structural attachment. SolarWedge™ integrates with Professional Solar's patented "top-down" commercial RoofTrac® and Foam Jack® stanchion products. The system dramatically lowers installation and shipping costs while optimizing installed wattage on the roof.

This installation guide details how to install the SolarWedge™ attachment system in conjunction with the Roof Trac® Photovoltaic mounting system. It is required that the installation of the SolarWedge product follow this guide in order to comply with engineering conducted on this system. Be sure to follow this installation guide accurately and reference the engineering report for your specific module.

ITEMS INCLUDED IN THE SOLARWEDGE BOX:



- (12) SolarWedge Inner Rail supports (in 5, 10 or 15 degree angles)
- (12) SolarWedge Lower Rail supports (in 5, 10 or 15 degree angles)
- (6) Removable Posts—3" for lower
- (6) Removable Posts—5, 10 or 15 degree size
- (12) 1/2" x 4" SS Leveling Stud
- (36) 1/2" SS Jam Nuts
- (24) 1/2" SS Flat Washers
- (12) 3/8" SS Flat Washers
- (12) 1.5" Round Bases
- (12) Seal Plates

RECOMMENDED TOOL LIST

- Cordless Drill
- Cordless Impact Wrench
- 3/8" Carbide (masonry) bit
- 1/4" diameter, long drill bit
- 3/4" titanium plated self starting Unibit®
- 3/4" open end wrench
- Adjustable lock pliers
- 9/16" Deep socket
- 1/2" Box End
- Tape Measure
- String Line (chalk line)
- Lumber Crayon
- Sharpie pen
- Stiff paint brush
- Foam Jack™ drill guide

OTHER ITEMS TO PURCHASE IN ORDER TO COMPLETE THE INSTALLATION:

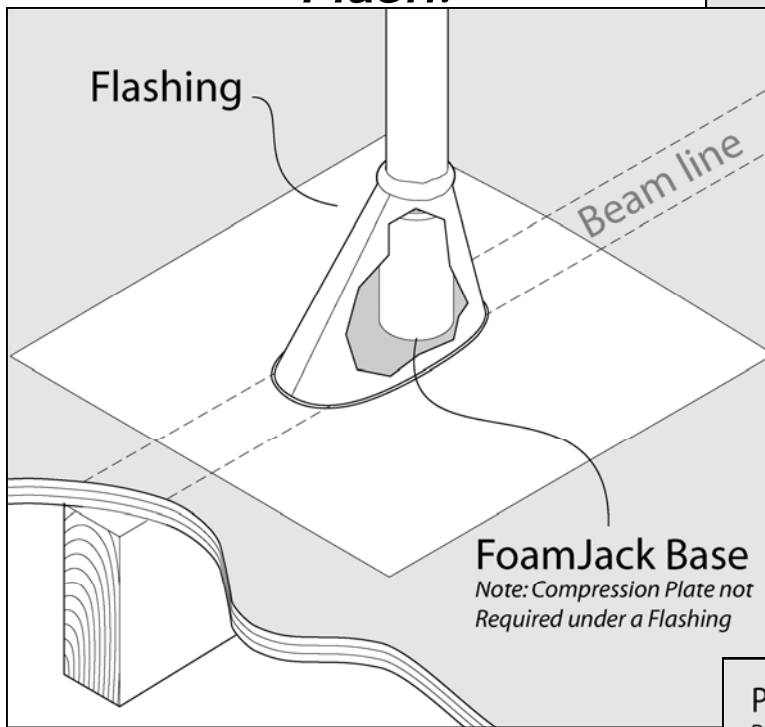
- Lag bolts—Tested with 3/8" x 6" (*not avail. Through Prosolar*)
- Roof Trac 2.5" Deep Channel Support Rails
- Professional Solar Products Clamping hardware
- Splice Kits
- FoamJack® Drill Guide
- Polyurethane sealant (Sikaflex™ 1a or equivalent)
- Silica Sand

SolarWedge™

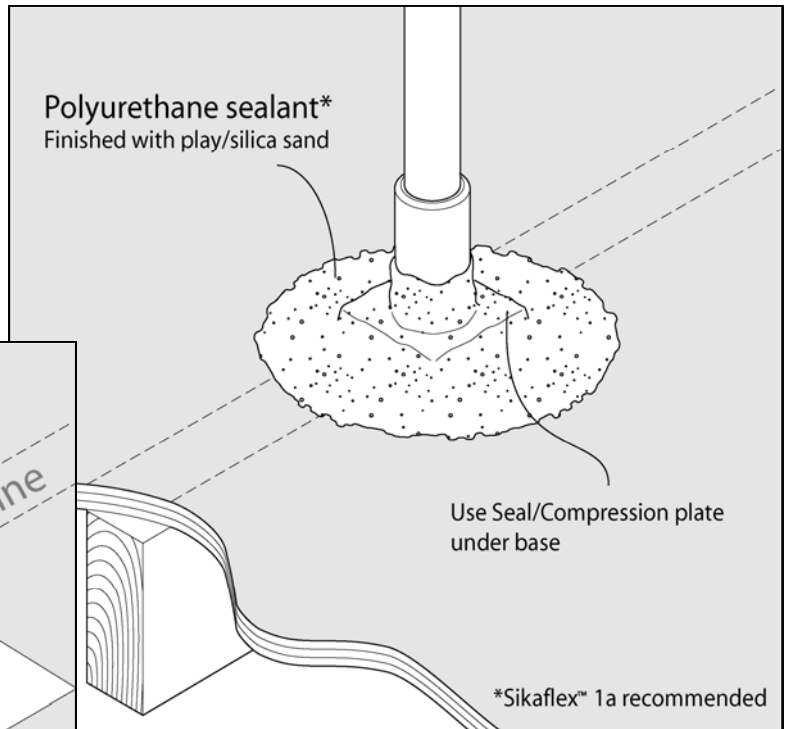
Waterproofing Methods

There are three ways to waterproof the system. Please be sure to obtain approval from your local building department before choosing your method of sealing.

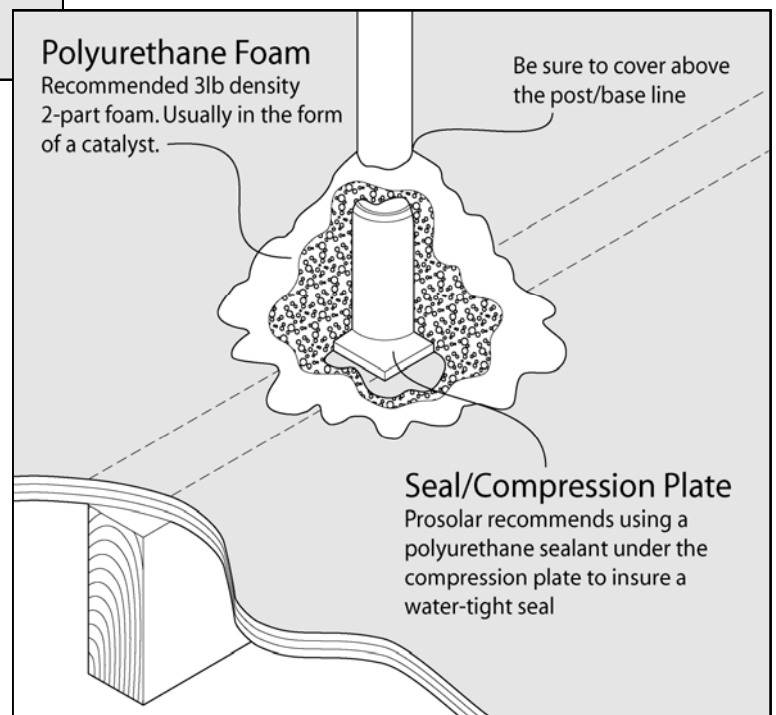
Flash:



Poly-Seal:



Foam:



IMPORTANT—PLEASE READ!

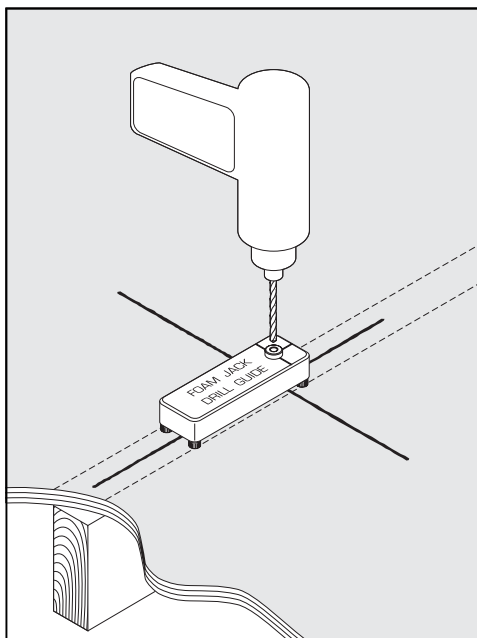
Before committing to a seal method, you must obtain all proper approvals from your local building department on their accepted forms of sealing methods for their county/city/municipality.

It is required that the installer THOROUGHLY cleans the surface of the roof where the seal/foam will be placed for proper adhesion.

CAUTION: Do not install leveling hardware and/or SolarWedge angle components until ready to install the support rail. Exposed studs should be covered until rail is installed.

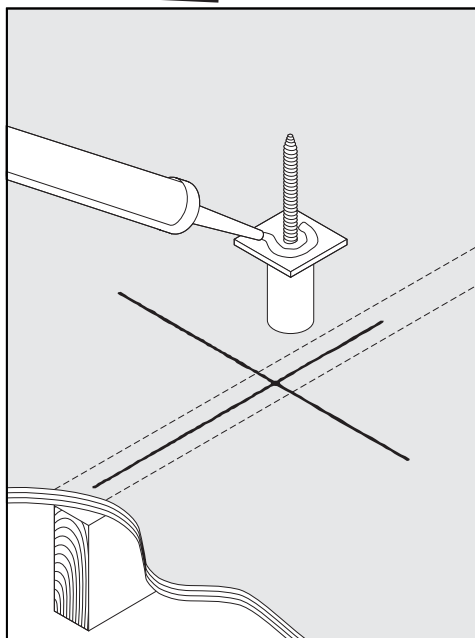
SolarWedge™

Step-by-Step Installation

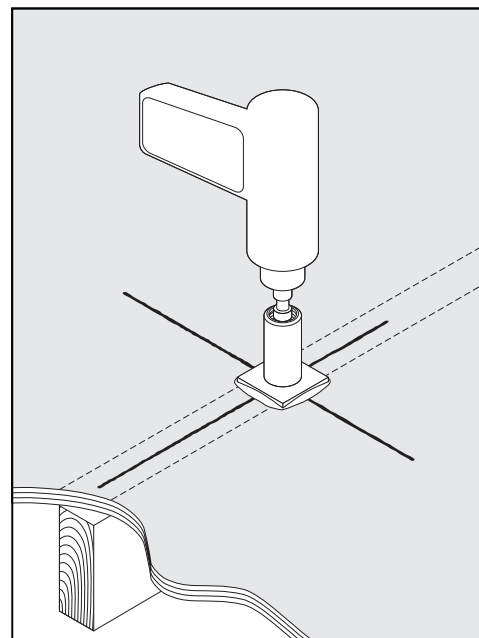


STEP 1a: Using a 3/8" Carbide (Masonry) bit to break through the cap sheet.

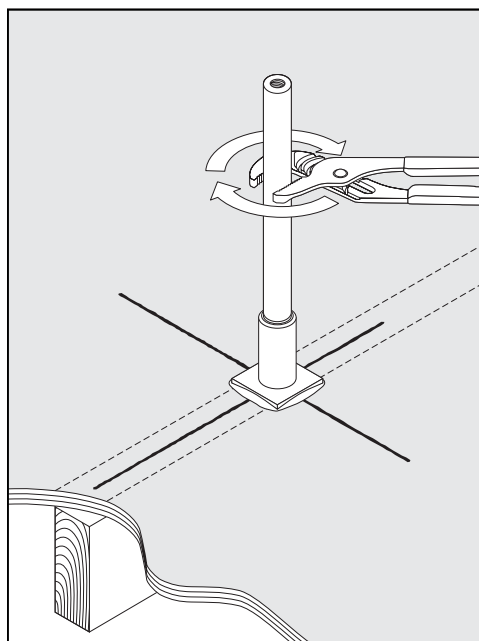
STEP 1b: Using the FoamJack drill guide and a 1/4" dia. Long drill bit drill a hole in the center of the joist



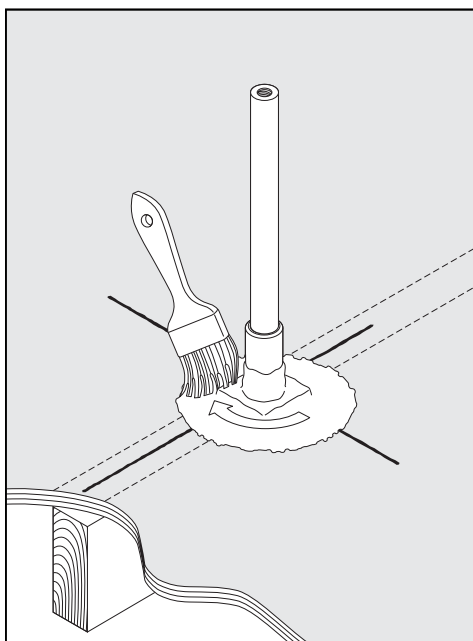
STEP 2: Apply a generous amount of Polyurethane sealant (Sikaflex™ 1A or equivalent) to the bottom of the seal plate of the FoamJack™ creating a circle around the lag bolt hole.



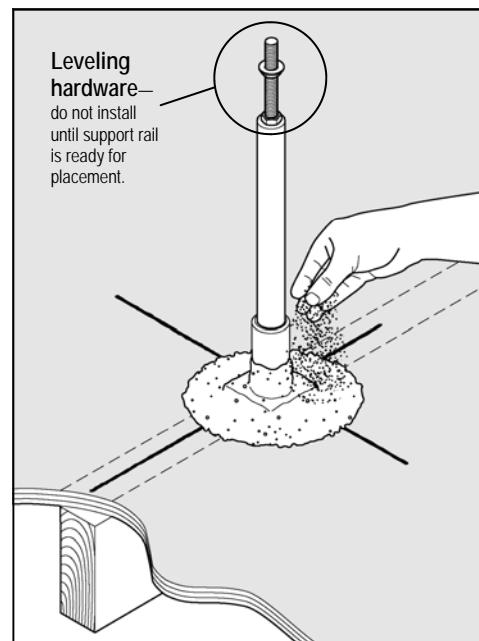
STEP 3: Using a cordless impact and a 9/16" deep socket, install the bolt into the FoamJack™ base. Be sure to allow the sealant to flow outward around the edges of the seal plate.



STEP 4: Install post using an adjustable wrench turning clockwise until fully secured. Avoid twisting the base while tightening.



STEP 5: Seal the top of the seal plate with a layer of Sikaflex™ using a stiff paintbrush. Be sure to cover the entire base plate, at least half the post and about 1-1/2" around the plate.

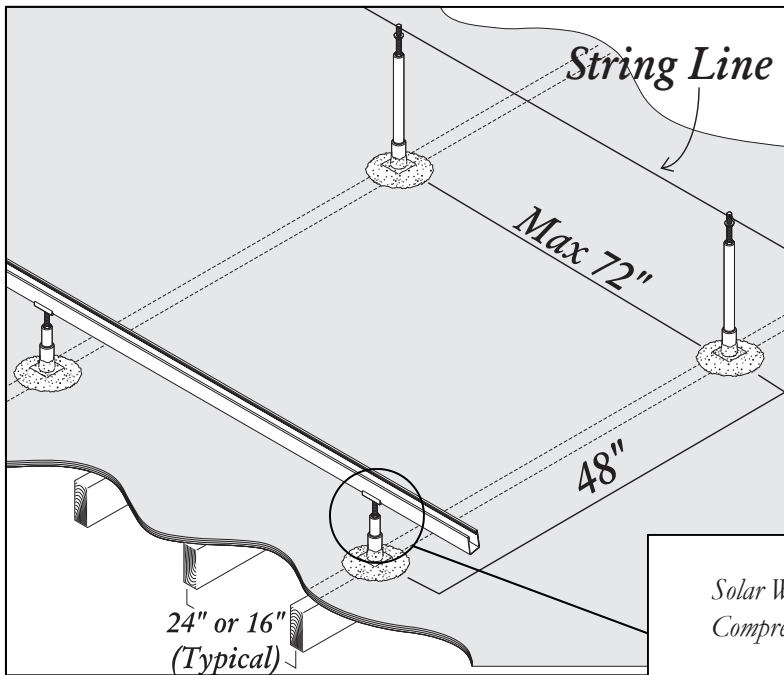


STEP 6: Using Play/Silica sand, cover the sealant. This step prevents debris from sticking to the sealant while drying and gives it a clean, finished appearance.

IMPORTANT: Do not install leveling kit hardware until support rails will be installed.

SolarWedge™

Step-by-Step Installation



STEP 7: Using a string line from each end of the array, level studs to desired position on roof (must have at least 1" threaded into post).

STEP 8: Measure and mark hole placement on support rails by placing support rail upside down over studs—use a Sharpie (or other permanent ink marker) to mark where drill holes should be placed.

STEP 9: Using the titanium plated 3/4" self starting Unibit (sold separately) drill holes at stud centers along support rail.

STEP 10: Install support rail and splice kits using the SolarWedge components as illustrated below: (Maximum 3 lengths of 136" support rails in a continuous connected array. Please refer to the splice kit installation guide for details)

STEP 11: Install clamps and modules

After the support rails have been installed to the attachments, you are now ready to install the solar modules. There are two sets of clamps; the outside clamps (end clamp) and the inter-module clamps that install between the modules. For convenience, it is advisable to pre-thread or start the bolt, lock washer and clamp into the sliding insert prior to bringing them up to the roof. Slide the two end clamps near the end of the support rail and install your end module (first). Carefully square the module to the frame and tighten the clamps using a 1/2" box wrench or drive socket. **DO NOT OVER-TIGHTEN**, we recommend a maximum torque of 18 foot pounds to prevent damage to the module glass.

After the first module is secured, slide two inter-module clamp sets onto the first module. They are designed to stay in place freeing you up to slide and align the next module into place. Repeat this procedure until all modules are installed onto the support rail. Upon installation of the last module in the panel, install the module end clamp to complete the installation.

Please note that all module end clamps are proprietary and specially extruded to fit a specific brand of module. Since many of these tolerances are very small, we install a die line (marker) to differentiate the correct die per module frame. Please refer to the price list/ordering guide to verify that you have the correct clamp.

