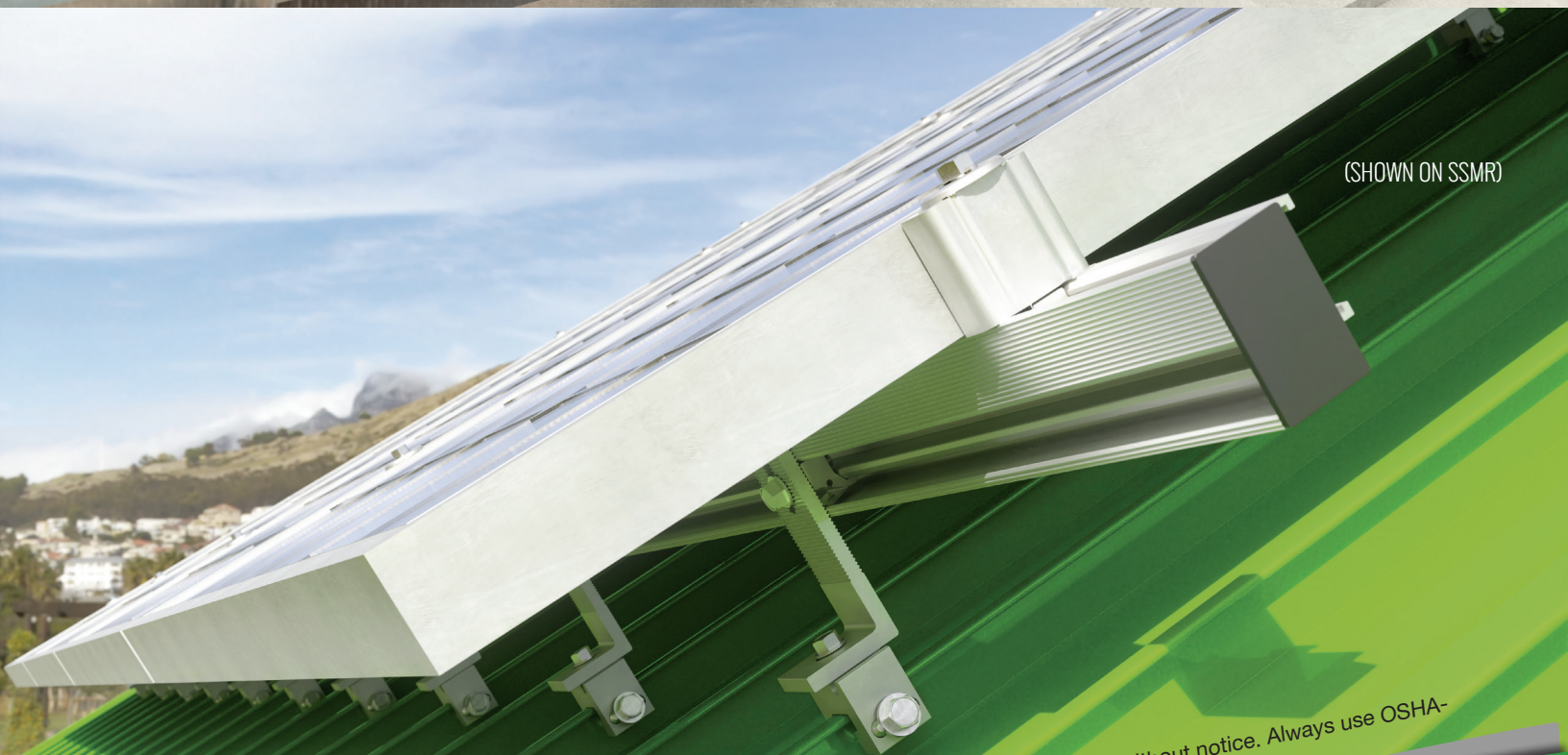
INSTALLATION INSTRUCTIONS

Solar S.nap™

SNAP, SLIDE & SECURE®

(SHOWN ON ISLAND STYLE ROOF)



(SHOWN ON SSMR)

*Photos shown are for representative purposes only. The actual product may vary. Design is subject to change without notice. Always use OSHA-approved safety equipment and procedures when working on a roof. Not responsible for typographical errors.

ACECLAMP® SOLAR™

87 Spring Lane Plainville, CT 06062 • P: 860.351.0686 F: 860.351.0689

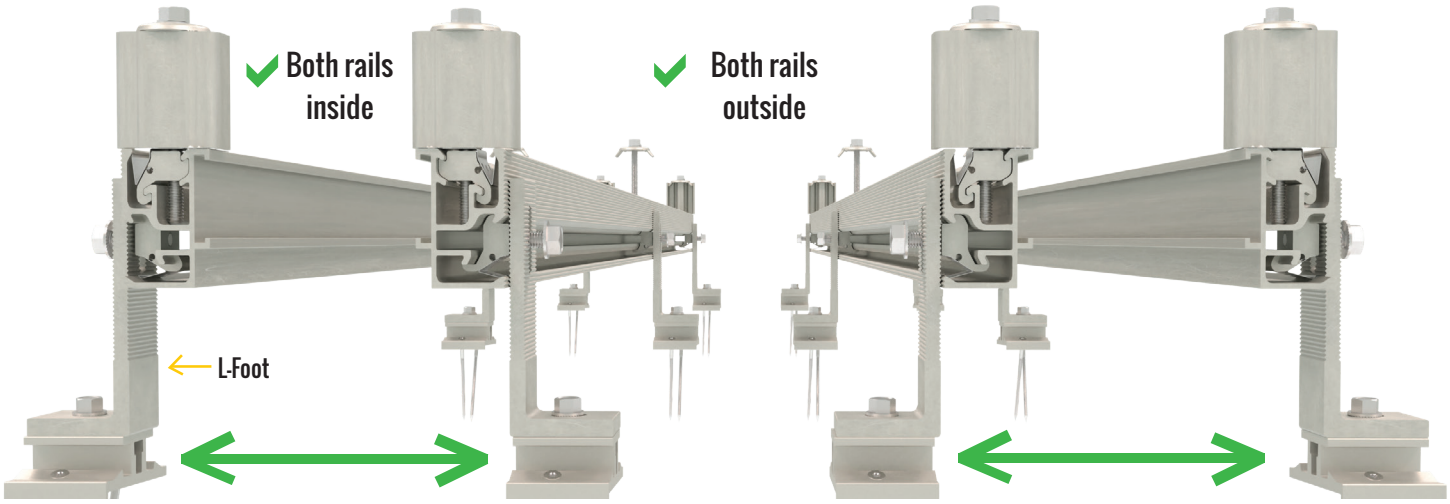
V041422

SOLAR SNAP™ INSTALLATION

IMPORTANT FOR STABILITY!

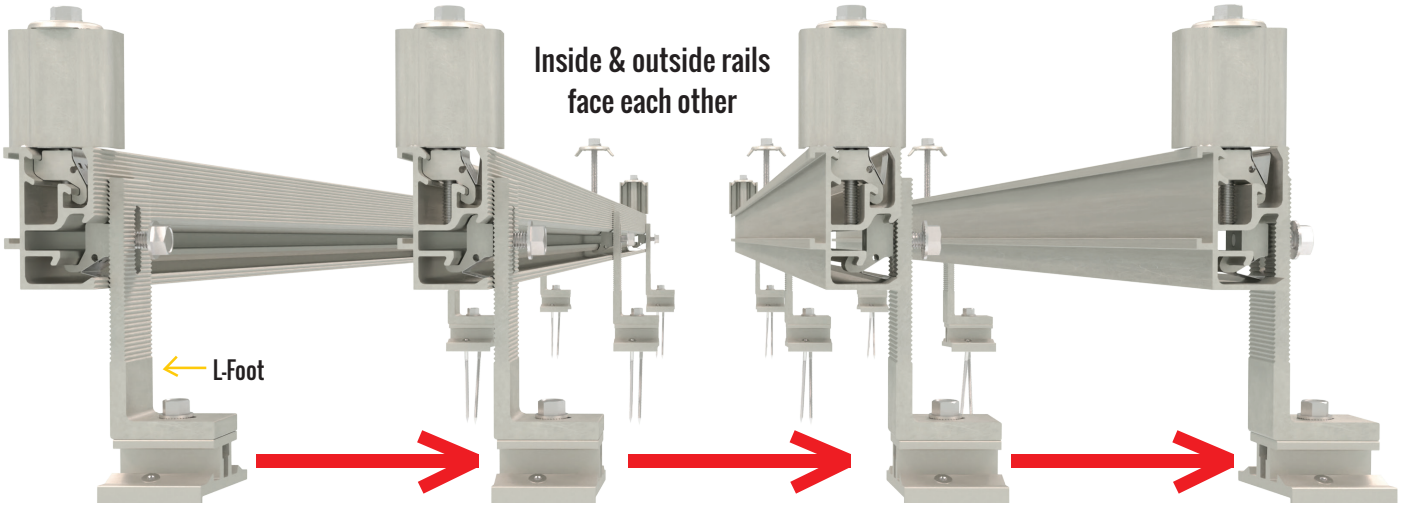
Adjacent L-Foots MUST be installed opposite the previous row, and rails must be installed with the grooved side facing the L-Foot. You know it's installed correctly if adjacent rails are either both inside or both outside.

Correct L-Foot Installation



(Base mounts vary)

Incorrect L-Foot Installation



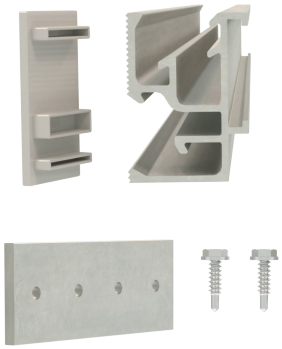
(Base mounts vary)

Incorrect installation (L-Foots facing the same direction) may result in failure due to instability in extreme weather conditions.

REQUIRED COMPONENTS

Solar Snap™ L-Foot w/Base Support
(*fully assembled and ready to install*)

Solar Snap™ Rail
(*Available in 14' lengths*)



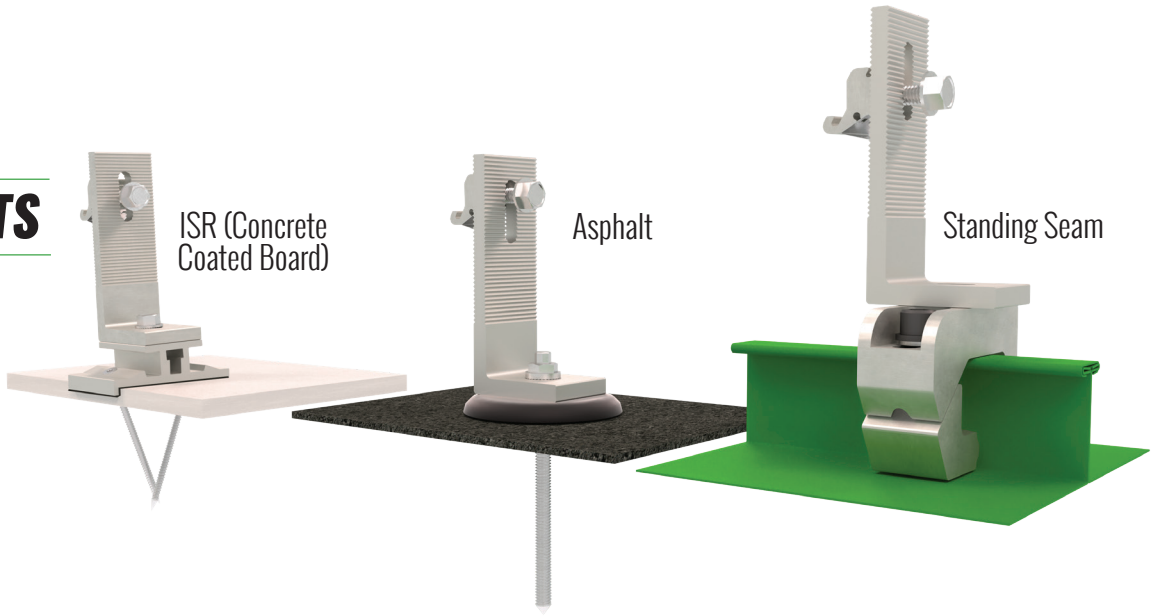
Solar Snap™ Mid Clamp
(*sized for your specific PV panel thickness*)

Solar Snap™ End Clamp
(*sized for your specific PV panel thickness*)

Solar Snap™ Grounding Lug

BASE SUPPORTS

ASSURE YOU HAVE THE CORRECT BASE



REQUIRED TOOLS


Caulk Gun


Chalk Line


Torque Wrench

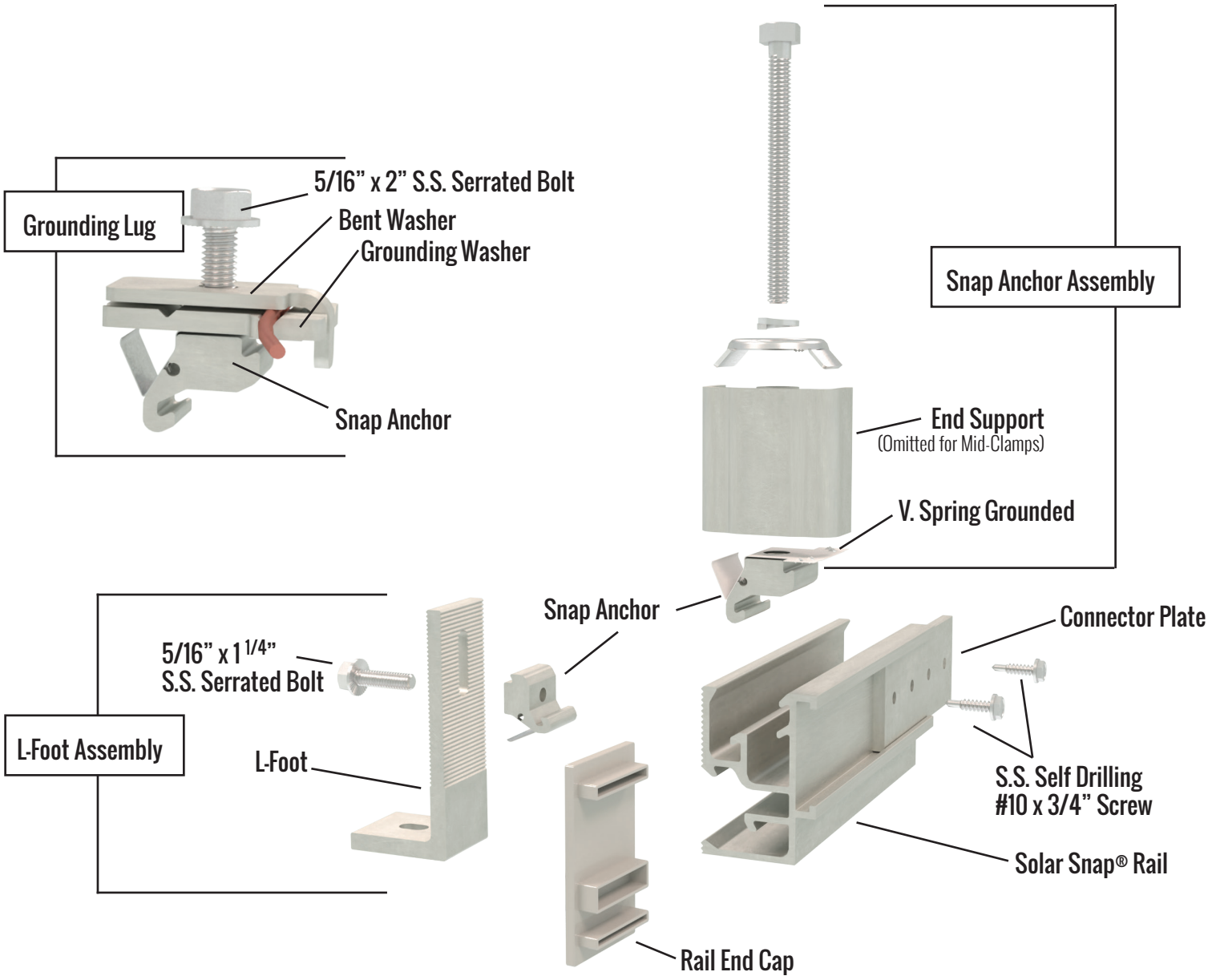

1/2" Wrench


Power Drill & 1/2" & 5/16" sockets


Saw


Tape Measure

PARTS IDENTIFICATION

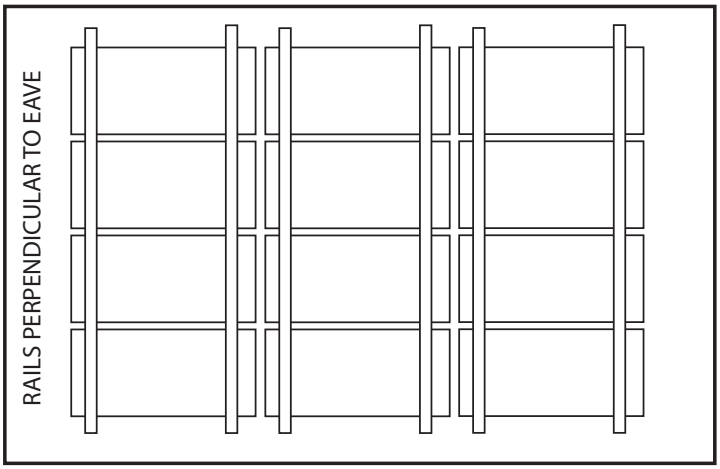


*Product shown may vary from actual. Not shown to scale.

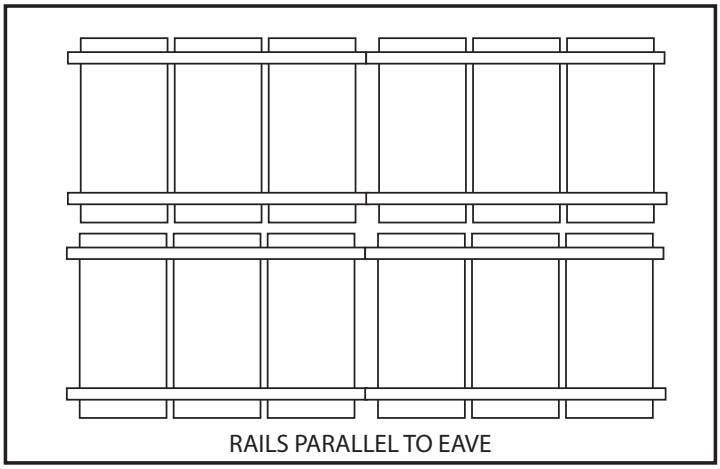
HELPFUL TIPS

- With an appropriate mounting layout (portrait or landscape) from the design engineer, start the process of laying out your array. Refer to SEIA's guidelines for distances from obstructions, edges, and eves before marking roof structures.
- Allow for walkways if local building codes or fire department guidelines are required.
- Ensure roof structure is sound and has a minimum of 1/2" CDX Plywood. The preferred installation would be directly over structural rafters, when building codes permit.
- All ISR base supports are supplied with an approved EPDM membrane seal. (Base mounts may vary)
- Indicate the panel thickness, and we will ship End Clamps made to fit.

HOW TO PLAN YOUR LAYOUT



PANELS IN LANDSCAPE



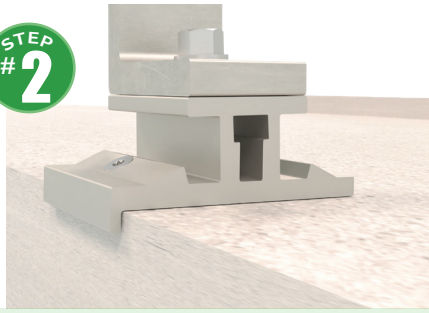
PANELS IN PORTRAIT

SOLAR SNAP™ INSTALLATION

Base Support Installation

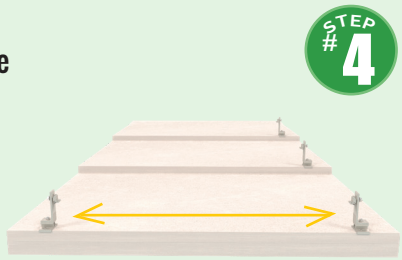
Determine the location for the first column (vertical distance eve to ridge) of Base Supports. Snap a level line top to bottom on the roof structure to indicate the side edge of Base Support.

Be sure to position the bottom edge of the Base Support to the edge (lip) of the roof. Repeat Step #2 for all Base Supports. (ISR only)



Start the installation from bottom to top and use S.S. screws appropriate for the specific substrate. (ISR only)

Proceed to install the second column of Base Supports. Ensure that the distances between the Solar Snap™ Rails match the requirements of the PV Panel.



Repeat steps #1-3 for the second column of Base Support and L-Foots.

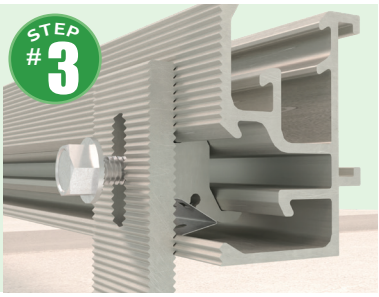
Then follow up with flash or caulk around the perimeter of the Base Support with an approved color matching elastomeric type sealant. (ISR only)

Solar Snap™ Rail Assembly Installation

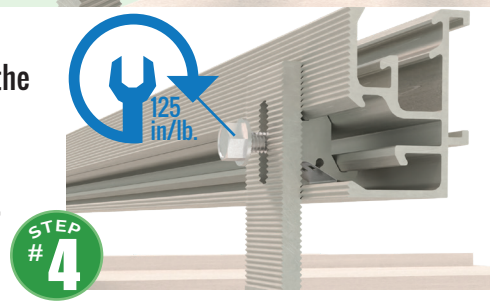
Assure all Base Supports installed are oriented with the Snap Anchor on the L-Foot facing inward. Adjust all L-Foot and Snap Anchors as required.

With two people holding both ends of the Solar Snap Rail, bring rail towards Snap Anchor and snap the rail into Snap Anchor at each end, then proceed to snap-in remainder of Snap Anchors.

Proceed to hand-tighten all L-Foots to Base Supports, then hand-tighten all Snap Anchors.



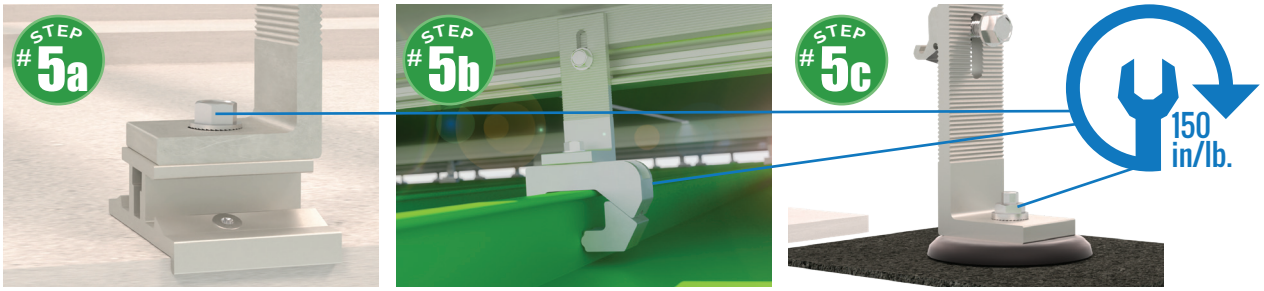
Align Solar Snap Rail to the desired height and tighten the first and last Snap Anchor. Continue to tighten the remainder of Snap Anchors. Repeat for the second Solar Snap Rail.



MADE IN THE USA

The management at PMC Industries, Inc. is committed to providing you, our customer the fastest, easiest and safest attachment devices for your snow retention system. We welcome suggestions that will make your job easier.

Finally, tighten all L-Foots assuring the Solar Snap™ Rail stays parallel to Base Supports to recommended specs.



(shown: 5a - ISR Base Support, 5b - SSMR Base Support, 5c - Asphalt Base Support)

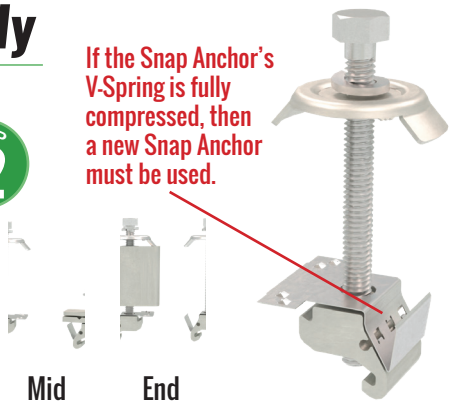
Photovoltaic Panels Assembly

With a ruler or snap line, determine the location of the first row of Photovoltaic Panels.

STEP #1

Insert Snap Anchor with End Support into the rail with V. Spring grounded towards the thin side of the rail until you hear an auditable click.

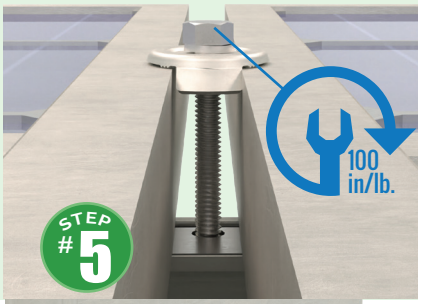
STEP #2



Thread bolt loosely. Repeat this step for the second Top Snap Anchor with End Support.

Insert bottom edge of PV Panel so it fits against the End Support. Thread bolt until snug.

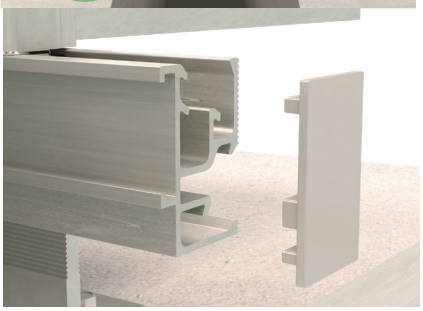
Proceed to the top of the Photovoltaic Panel and repeat the process with (2) Mid-Clamps. Repeat for all arrays in a row finishing with the last (2) End Clamps.



Once the first column of Photovoltaic Panels are installed, you can repeat the process for the complete array.

STEP #7

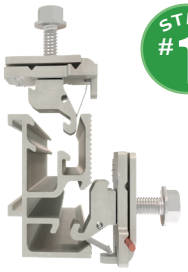
Attach End Cap to finish off the solar array.



Solar Snap™ Grounding Lug Installation

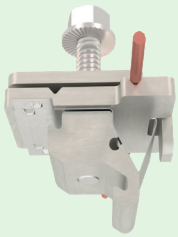
Check to ensure that the Top Cover Plate is oriented correctly with the Solar Rail for installation. Tab portion of Cover Plate prevents Cover Plate from rotating when tightened. Cover Plate with tab assembly will lock onto either side of Solar Rail for top installations and bottom of the rail for sidewall mounting.

STEP #1



Ensure that the threaded bolt is backed out so no threads are visible on the bottom side.

STEP #2



Firmly snap Grounding Lug assembly in place, ensuring that the Snap Anchor Hook locks into the center of the Rail Mating Hook.

STEP #3

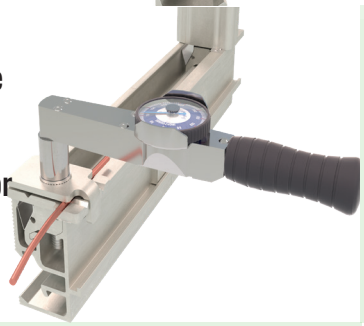
Lightly tighten the bolt until the Snap Anchor is snug with the locking hook inside the rail (do not over-tighten; ensure adequate space to insert the ground wire.

STEP #4

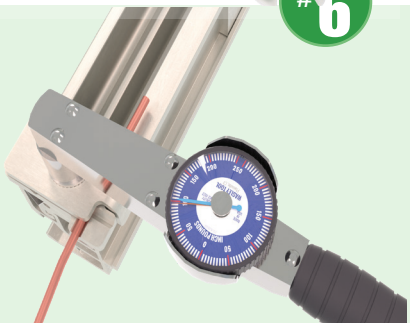
STEP #6

Insert one proper gauge solid copper wire into the appropriate slot under the cap. The smaller groove is for number 10 gauge wires, and the larger groove is for 6/8 gauge wire.

STEP #5

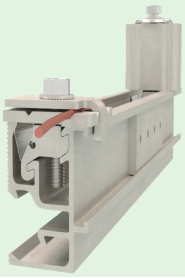


Tighten the bolt to 150 in lbs. ensuring that the wire lies directly in the grooved slot.



The Grounding Lug Hook should be secure in the rail. Check to be sure that the ground wire is also securely laying in the groove.

STEP #7

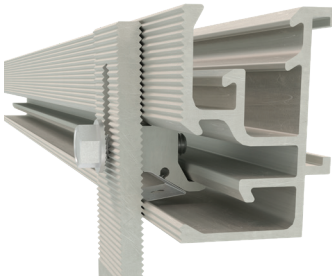


⚠ The installer/end-user is responsible for assuring that all engineering studies and data are complete for the installation and that all structural and electrical code requirements have been met. DO NOT use the AceClamp as any part of your fall protection apparatus.

Splice Bar Attachment *(only for standard rails)*

Ensure L-Feet are loosely attached for the first rail section.

STEP #1



Insert Connector Plate into slot on the first rail and slide to center on the second length of the rail.

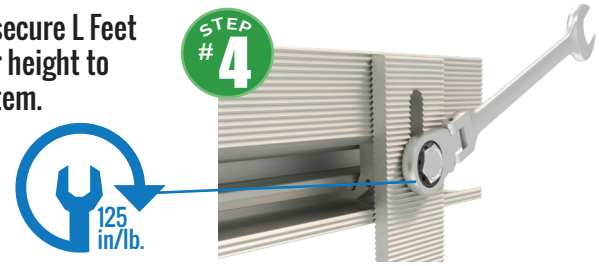
STEP #2

Center Connector Plate between both rails, leaving a minimum 1/8" gap and fasten with self-drilling stainless steel screws.

STEP #3

Continue to secure L Feet to the proper height to level the system.

STEP #4

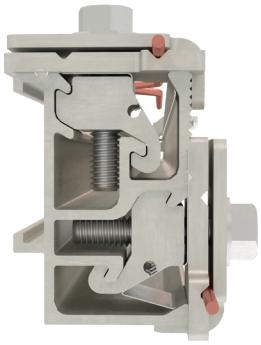


⚠ Note: Splices are structural but still should be supported a minimum of 12" to 16" in from each side of the splice. No splice is allowed outside the cantilever.

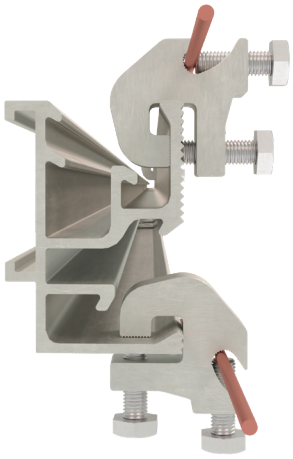
Alternate Grounding Option: Expansion Joint *(used as a Thermal Break)*

Attach AceClamp's Solar Grounding Lug with an appropriate copper wire sized for your application.

ACECLAMP® SOLAR™
6000-GL

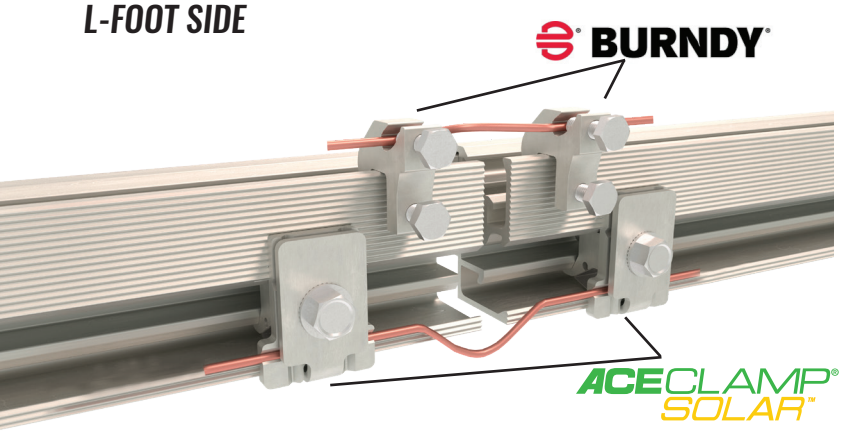


Use of an alternate Burndy Bonding Grounding Connector.



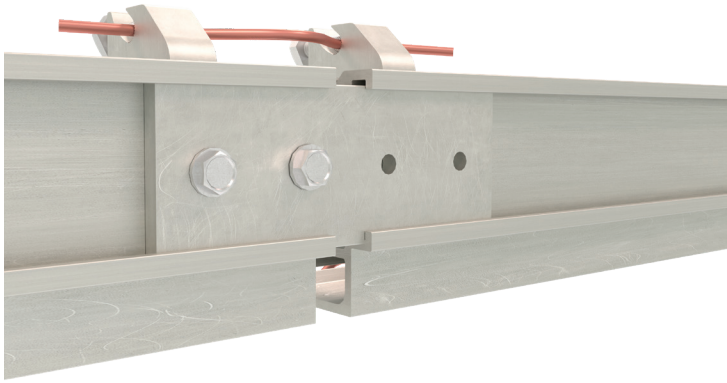
BURNDY®
BTCGC4SS

L-FOOT SIDE



The above image shows two options for expansion joints.

RAIL-CONNECTION SIDE



Use two screws on one side of the rail only for expansion joints.

IMPORTANT SAFETY ALERTS

⚠ Thermal breaks control the amount of expansion for several consecutive lengths of Solar Rail. The expansion rate will be directly related to hot and cold temperatures changes.

⚠ Every 50' to 100' will require a ½" to 1" expansion joint. Please refer to a structural engineer to clarify proper gaps for your particular application.

⚠ No Photovoltaic Panels should span a Thermal Break.