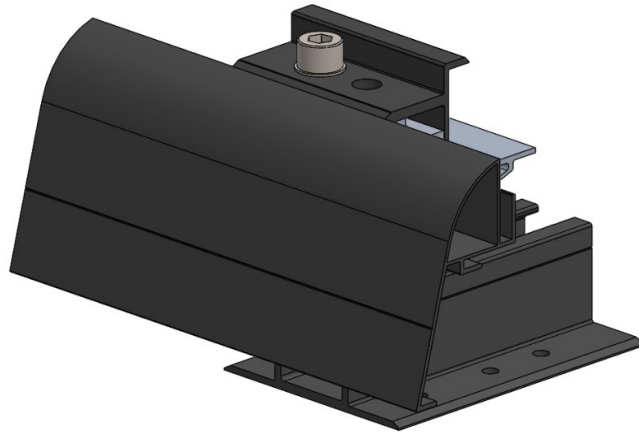


RT-APEX

Quick Installation Guide



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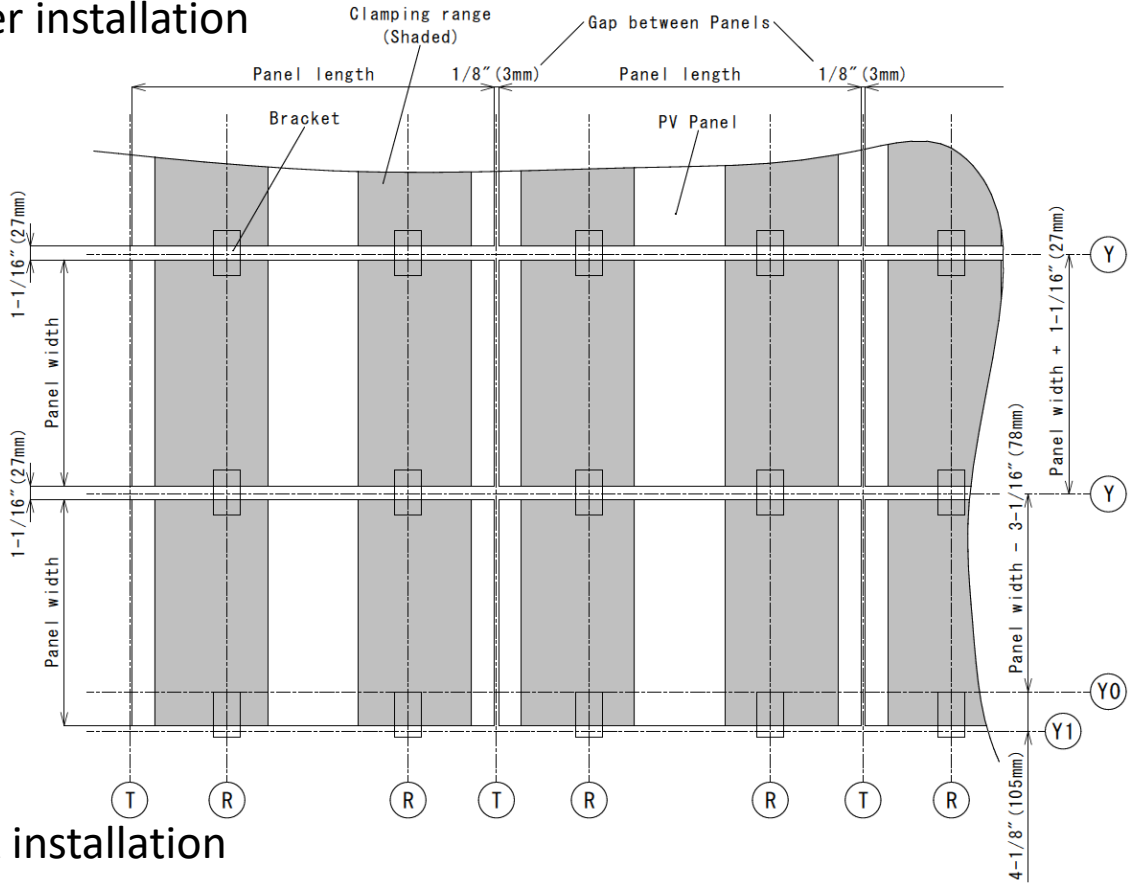
-----2021MAY ver.5-----

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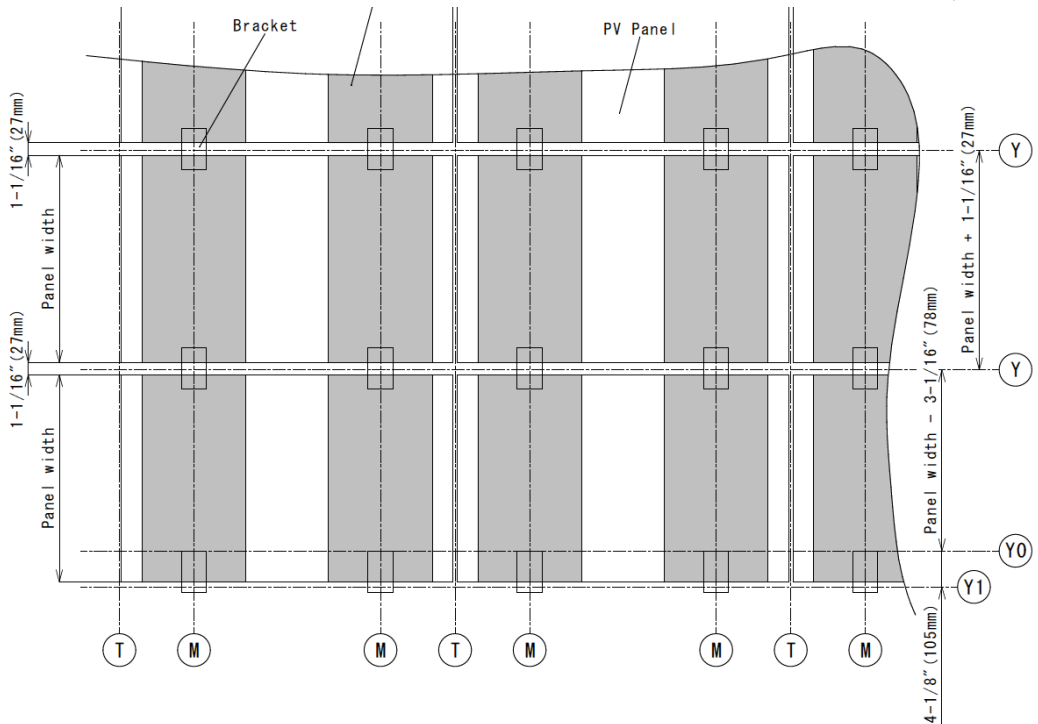
RT-APEX INSTALLATION GUIDE

APEX installation diagram

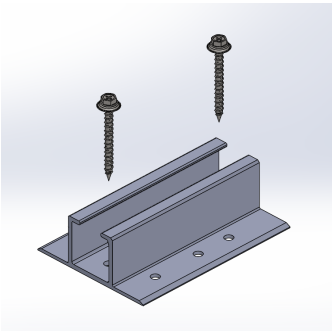
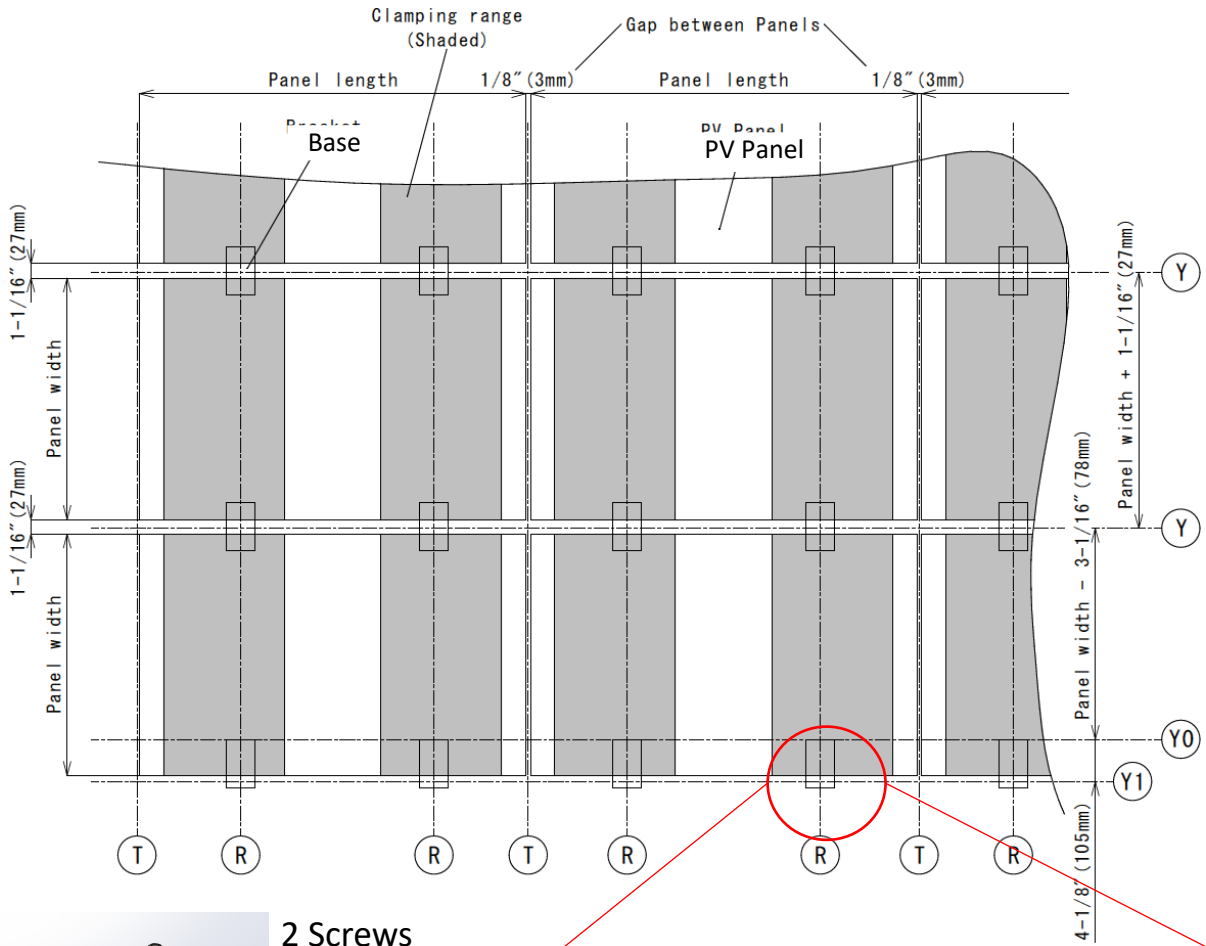
Rafter installation



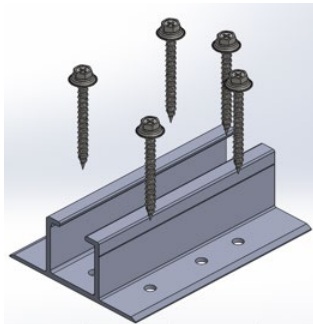
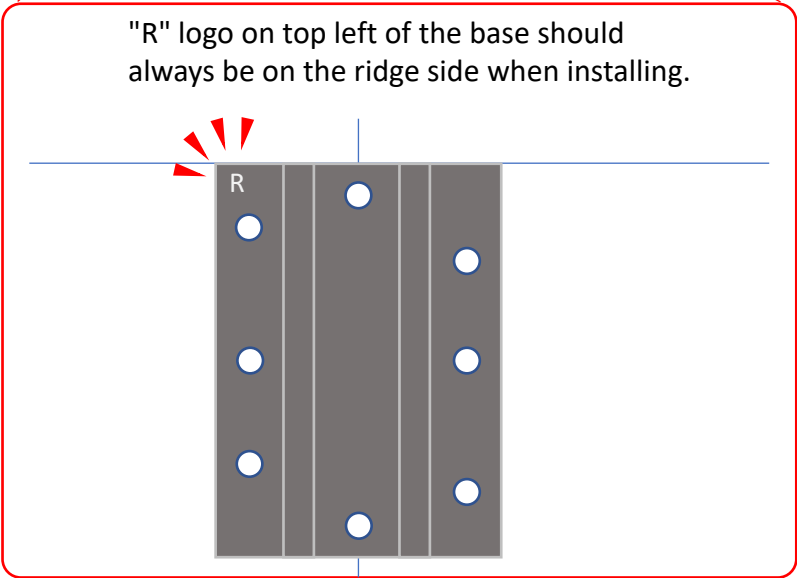
Deck installation



APEX Base installation

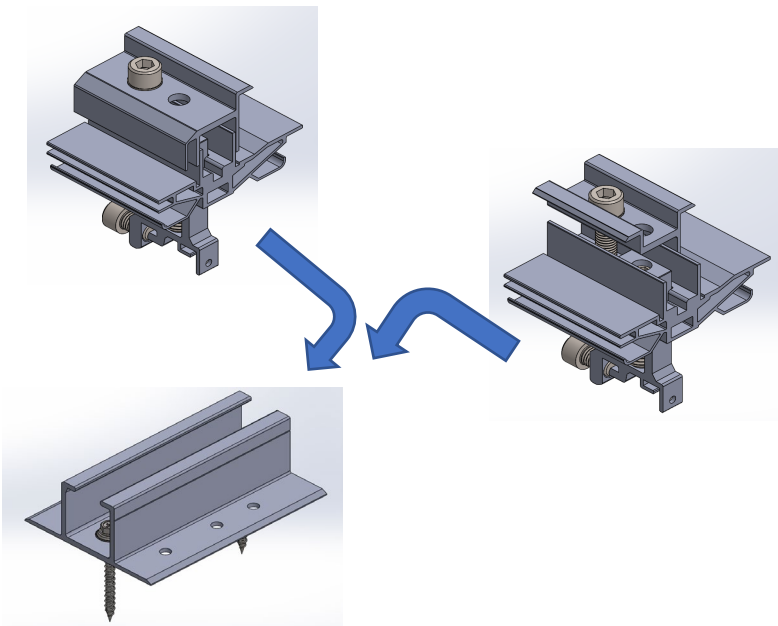
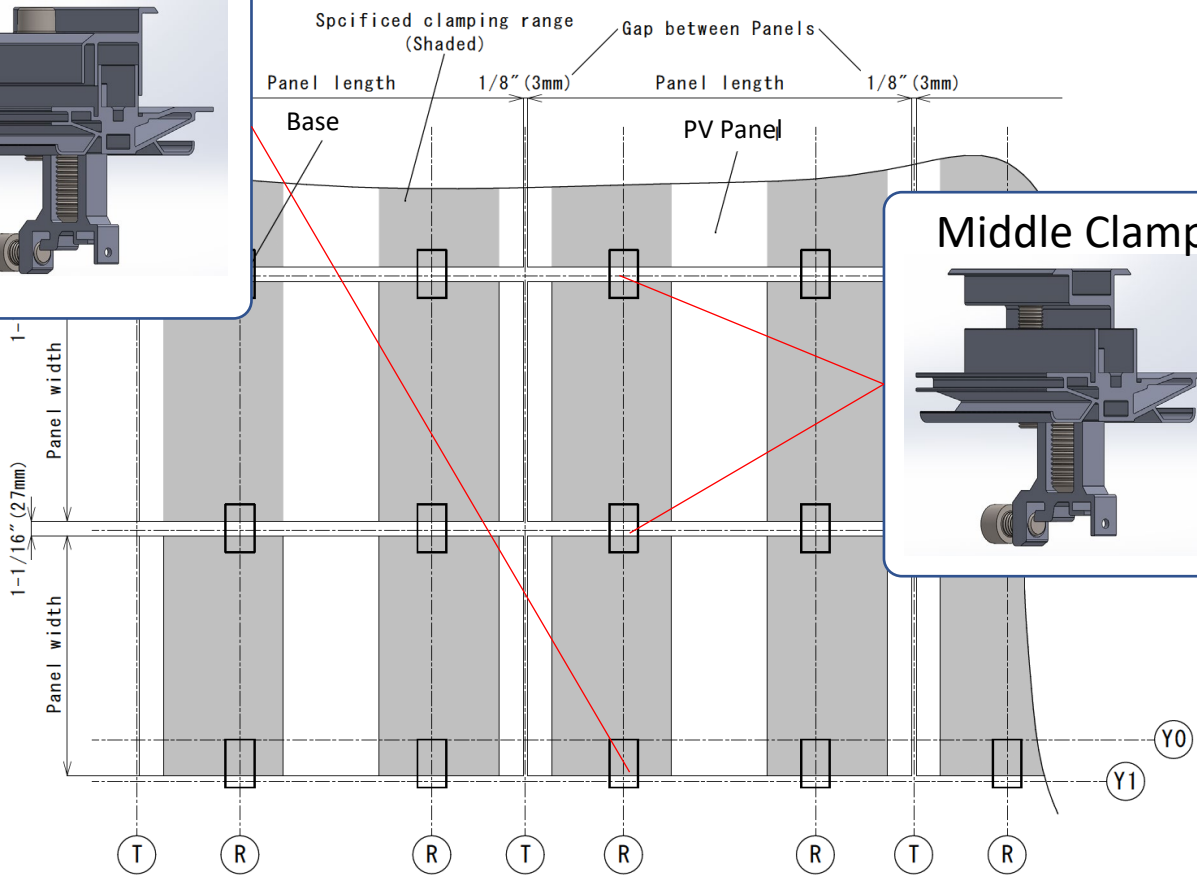
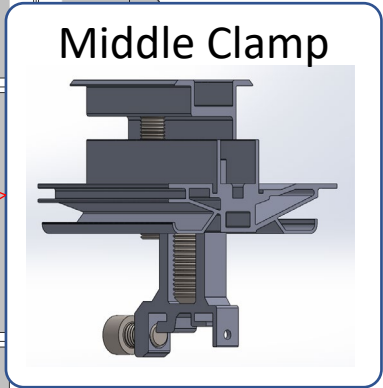
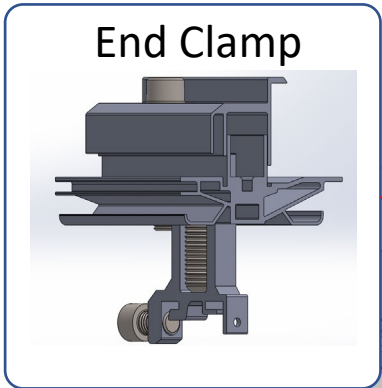


2 Screws for Rafter installation

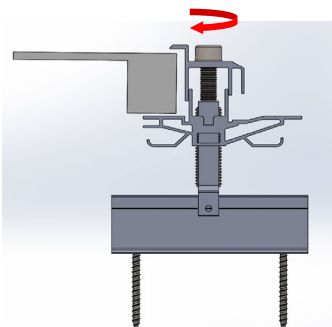


5 Screws for Deck installation

APEX Clamp location



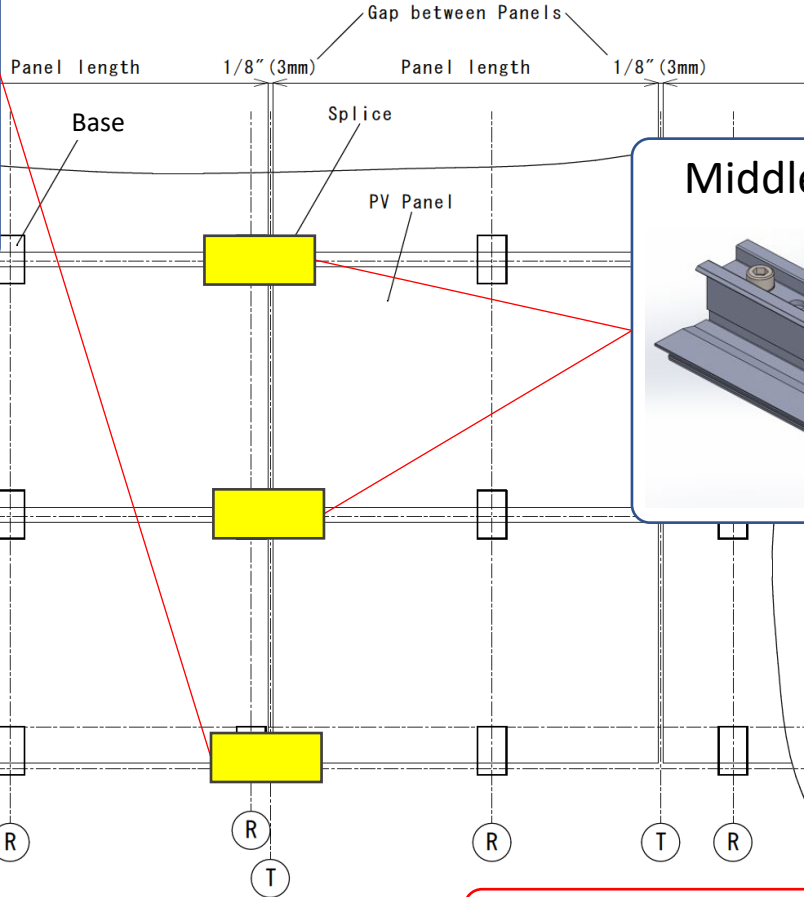
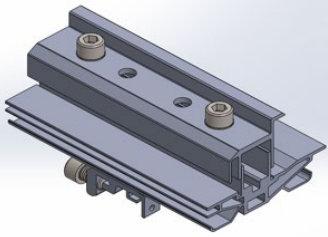
Note; Installation on Ridge side
End clamp must be un-tighten and rotated 180 degrees to fix panels on the ridge side



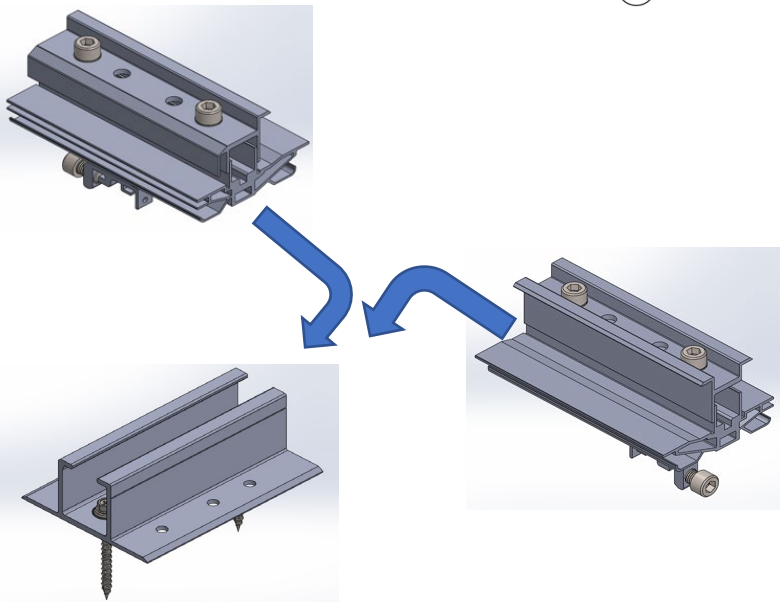
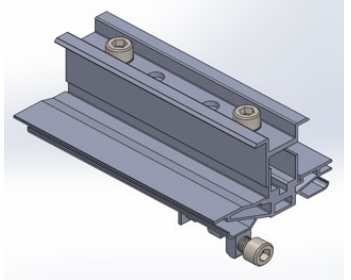
* Bottom clamp stays in the same position. Only the end clamp needs to be turned.

APEX Splice location

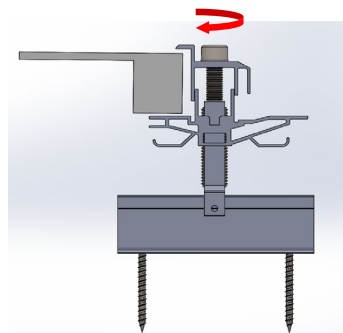
End Splice



Middle Splice

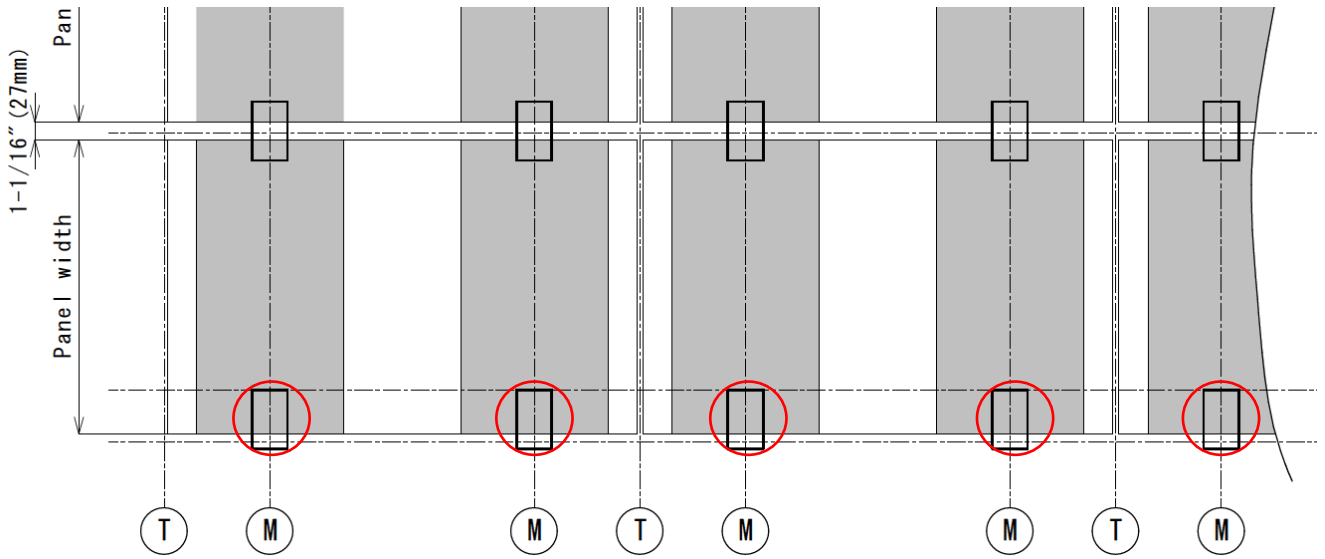


Note; End splice must be un-tighten and rotated 180 degrees to fix panels on the ridge side

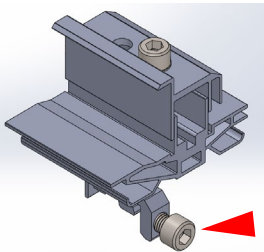
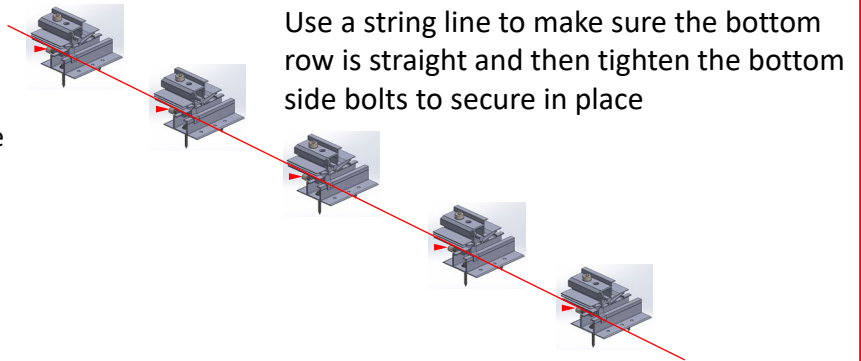
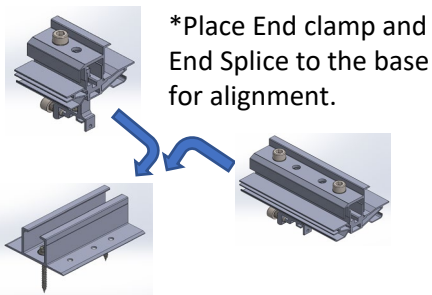


* bottom clamp stays in the same position. Only the end splice needs to be turned.

APEX First row installation



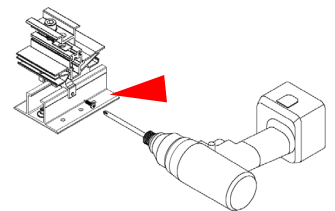
First row alignment



IMPORTANT!!

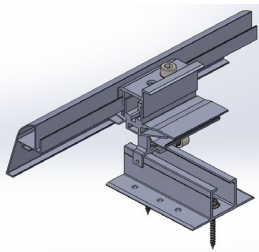
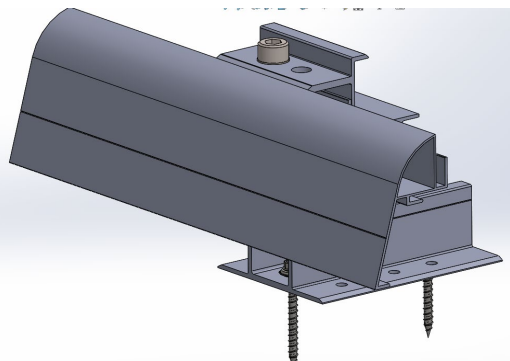
Please tighten slide bolt to the base before installing panel or when making alignment for straight line. Torque M8x9 bolt with 106 in-lbs. (12N.m).

Option ; Use tapping screw from the other side on pillar for Snow area and or more span to install brackets based on the PE report.



Tech note

A 6.0 mm stainless steel set screw SHCS attaches the Base to the Pillar with an installation torque of 9.0 ft-lb. A 12.0 mm stainless steel set screw stud attaches the Pillar to the U-D Bracket, and is field adjustable up and down. A 8.0 mm stainless steel SHCS and conical stainless steel star washer attaches either the End or Mid Clamp to the U-D Bracket with the higher of either a minimum installation torque of 12.0 ft-lb or the minimum installation torque indicated in the Roof Tech Installation manual for the specific PV panel being installed.



RT-APEX End Clamp

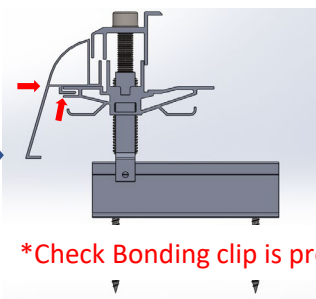
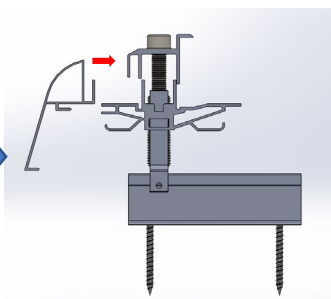
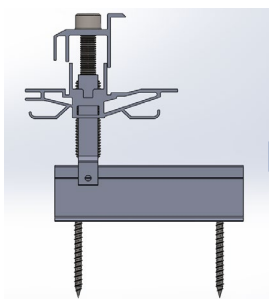
- Universal End clamp
- Up to 1 3/8" inch height adjustment
- Integrated cable holder tray

Skirt installation steps

At End clamp location

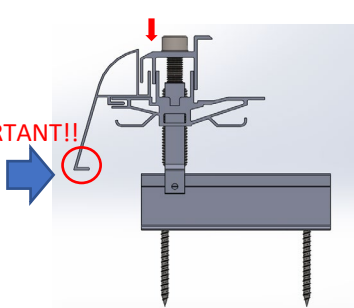
Slide in skirt to End clamp

Place skirt all the way in

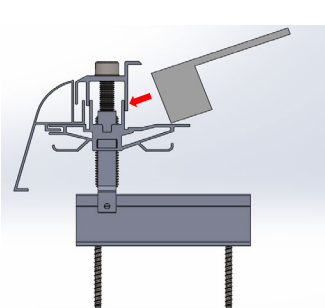


*Check Bonding clip is pre-installed

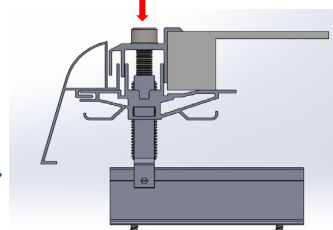
IMPORTANT!!



Push down End clamp



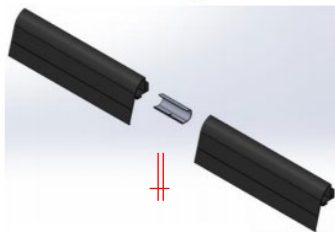
Place PV panel into End clamp



Fix End clamp to place skirt and panel at same time. Tighten the end clamp to 142in-lbs (16N.m) or 159.31in-lbs (18N.m)

IMPORTANT!!

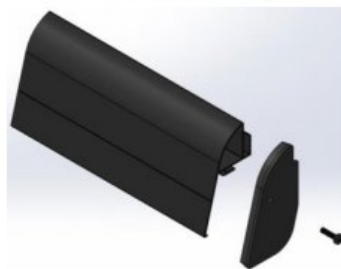
Skirt Bonding

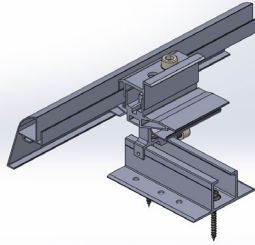
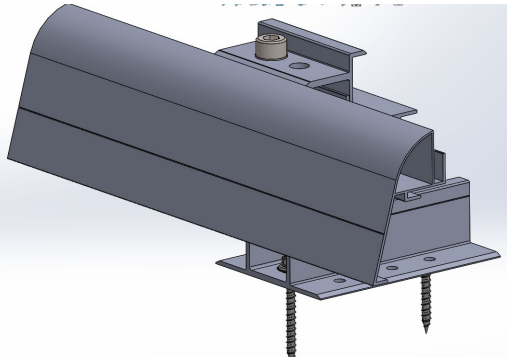


*1/8 inch (3mm)

Skirt bonding clip must be installed between each skirt to make a bonding connection. The space between each skirt must be 1/8 inch (3mm).

Skirt Cap (Option)

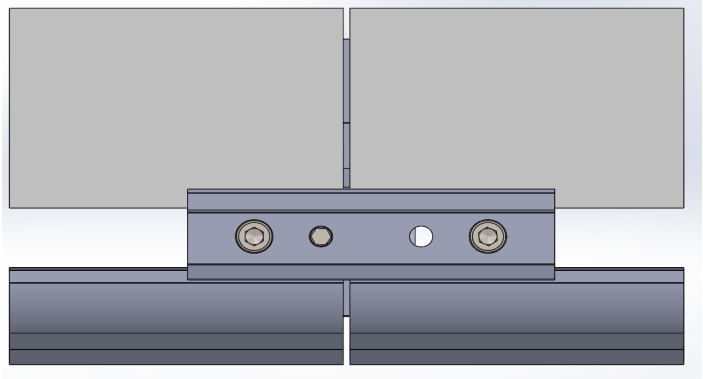
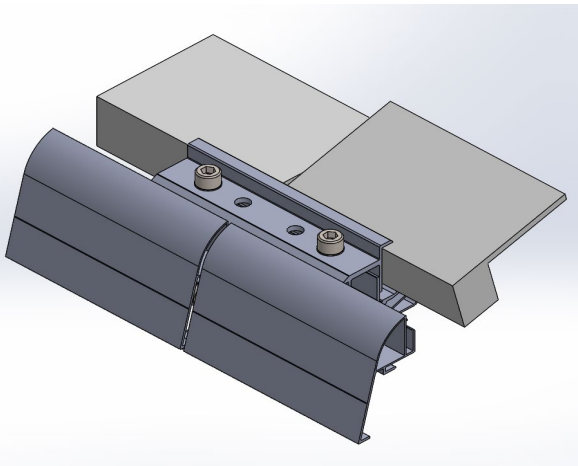




RT-APEX End Splice

- Universal End clamp
- Up to 1 3/8" height adjustment
- Integrated cable holder tray
- Bonding

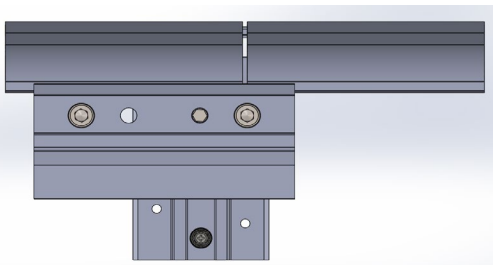
Skirt & Splice installation note



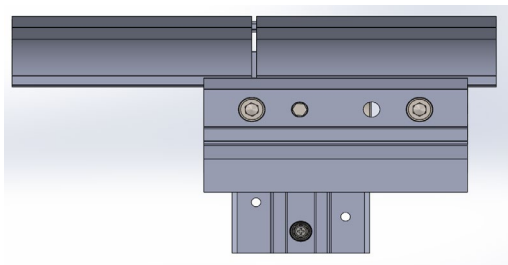
End Splice shall be fixed with PV panels at the same time,.

IMPORTANT!!

End Splice shall be installed between 2 Skirts, and fixing location shall be A or B location to fix skirt tight.



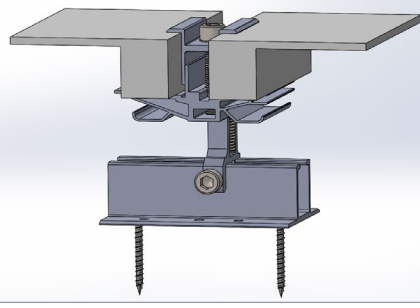
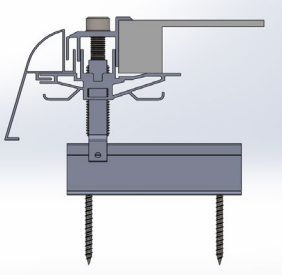
A location



B location

APEX Second & Middle Row Installation 8

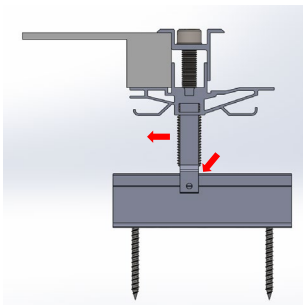
First row installation



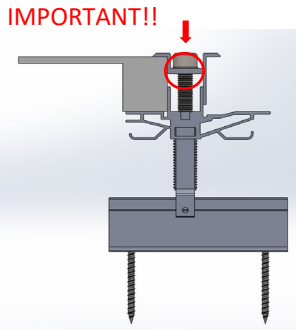
RT-APEX Middle Clamp

- Universal Middle clamp
- Up to 1 3/8" height adjustment
- Integrated cable holder tray

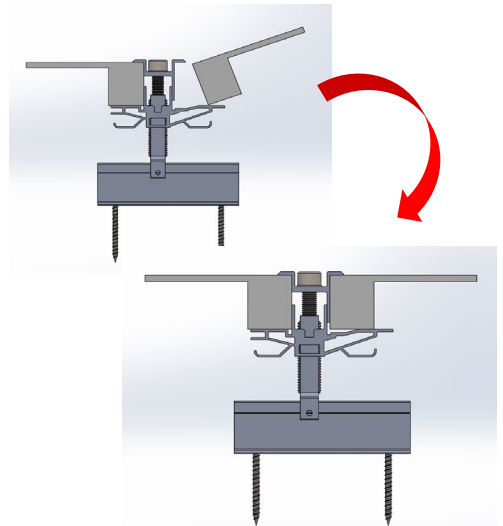
Middle clamp installation



Slide middle clamp toward to PV Panel frame. And tighten side **M8x9mm** bolt to fix base and clamp.

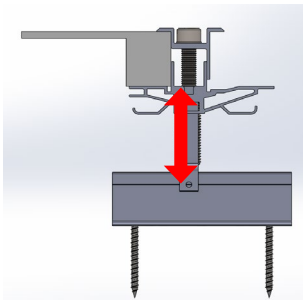


IMPORTANT!!
Torque middle clamp. Tighten the end clamp to 142in-lbs (16N.m) or 159.31in-lbs (18N.m)

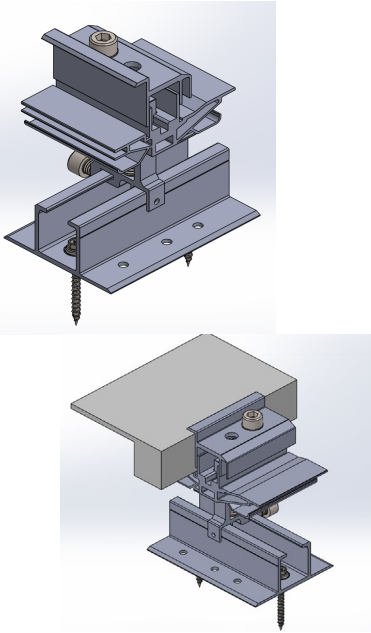


Place the PV panel in to the middle clamp. NO need to un-tighten clamps after PV Panel is placed.

IMPORTANT!!



Height adjustment shall be done after panels are fixed or lower rows are fixed.

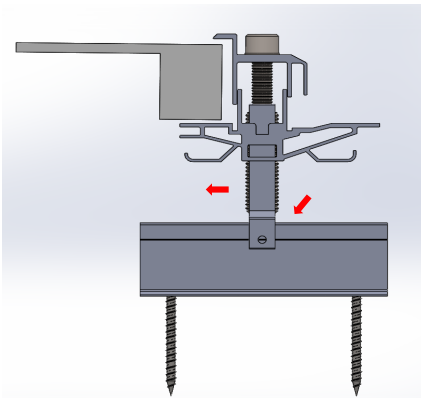


IMPORTANT!!

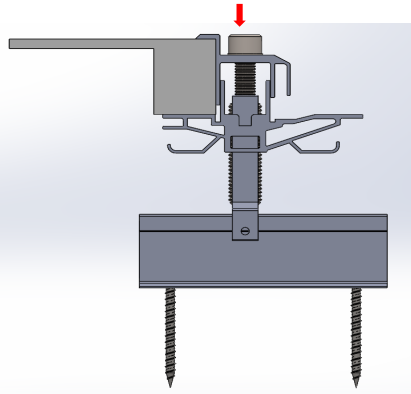
The end clamp must be un-tighten and rotated 180 degrees to fix the panels. Bottom bracket and pillar shall be installed same as other clamps.

Option (see illustration) : By rotating the base 180° (R on bottom right) as shown on Pg. 25 of Manual, there is no need to rotate the top clamp.

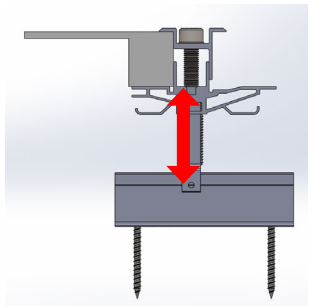
End clamp installation



Slide End clamp toward to PV Panel frame. And tighten Side bolt to fix base and clamp.

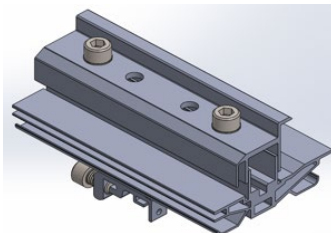


Tighten End clamp and PV panel. Tighten the end clamp to 142in-lbs (16N.m) or 159.31in-lbs (18N.m)

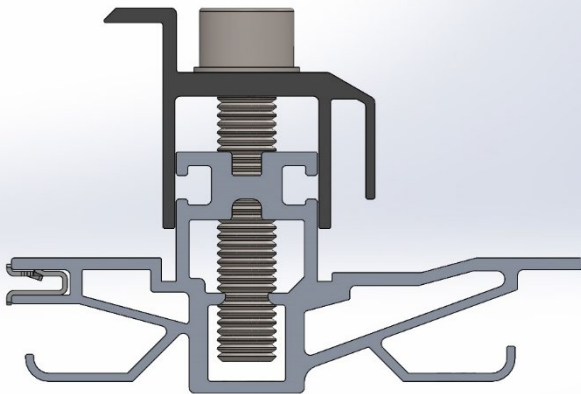
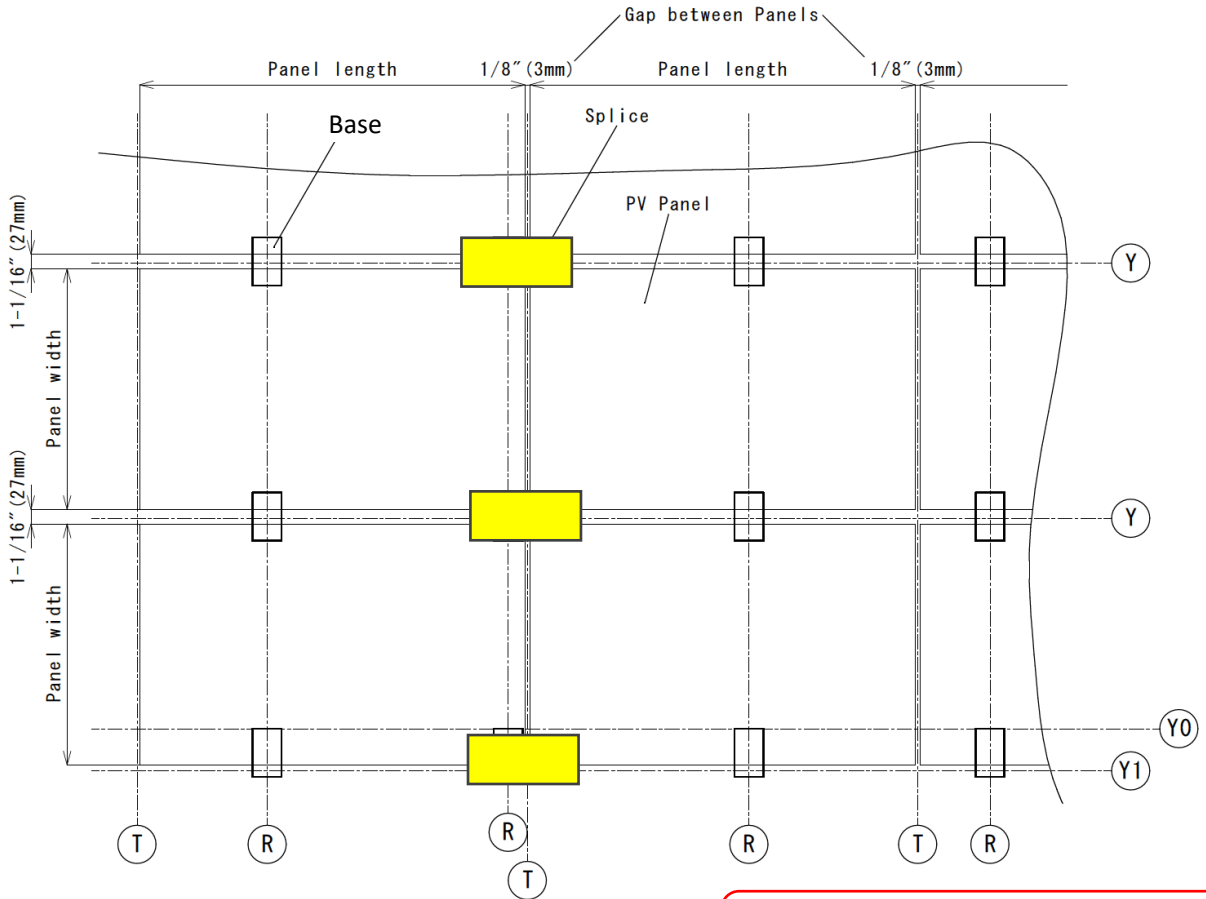


Height adjustment shall be done after panels are fixed.

Note; End Splice clamp shall be installed same as regular End clamp. Change the side of the clamp and install as instructed above. (seen eaves side row)



APEX Floating End Splice installation



IMPORTANT!! : Option of base rotation not applied on ridge side with floating splices.

Note; The top splice clamp must be un-tightened and rotated 180 degrees to install the ridge floating splice panels on the ridge side.

* this rotation only applies when using the end splice clamp on the ridge (top row clamps)
* On the eaves side, always use a base with the end splice clamp.

A Floating splice may be used once a skirt is installed between two adjacent PV modules. Verify the PV module Installation Manual specifications for the “floating Splice”. The maximum span between bases must be verified with the PE Stamped Letters and the max. grd. snow allowed for the skirt is 40 PSF.

