SKYRACK Installation Field Guide

hb solar canada inc.

Rev. 10Feb2015

Beginning SKYRACK - Layout

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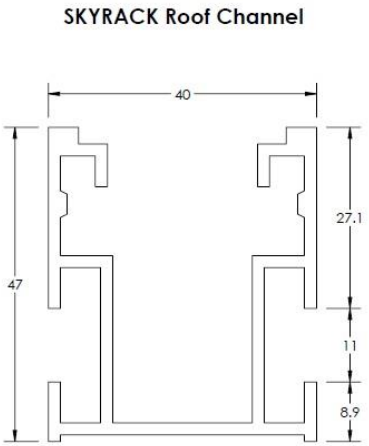
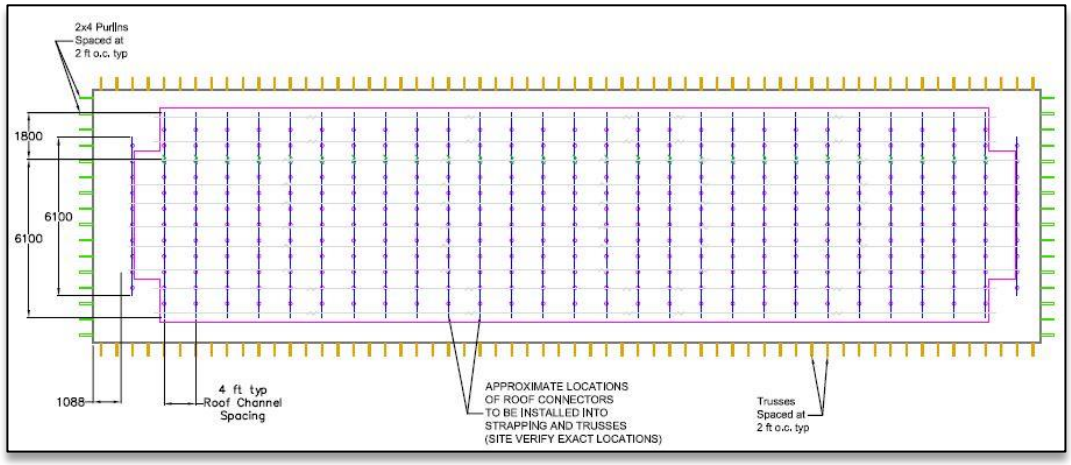
BEFORE YOU BEGIN MAKE SURE YOU HAVE THE CURRENT LAYOUT PLANS

Roof Channel

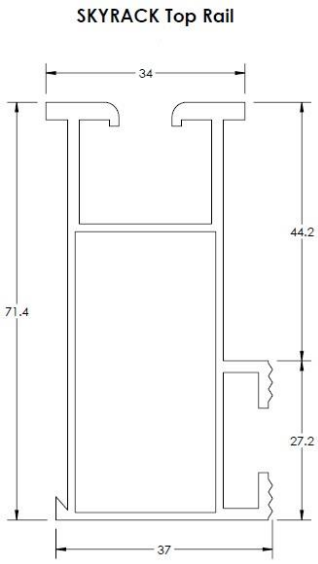
- Roof Channels are installed first.
- This layout will have the starting locations for Roof Channels, Roof Channel spacing, and Roof Channel lengths.

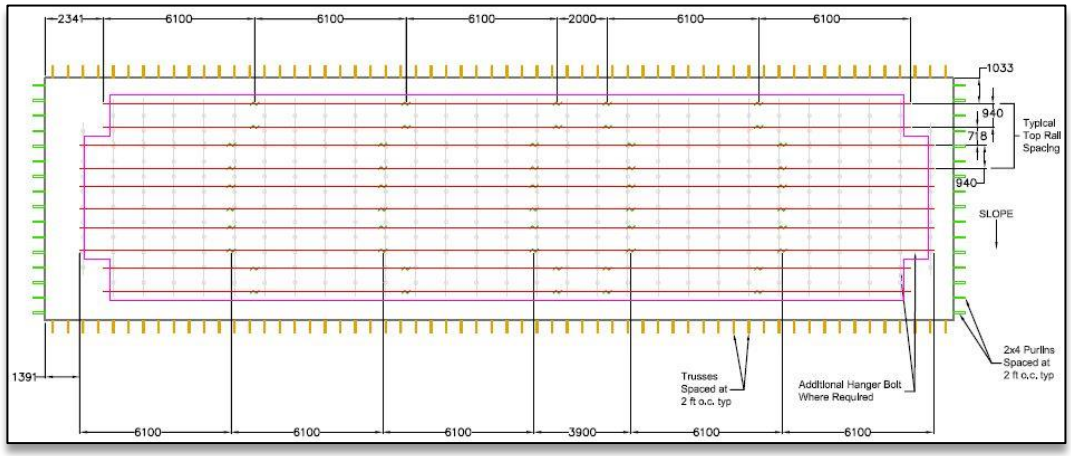




Top Rail

- Top Rails are installed on top of the Roof Channels.
- This layout will have the starting locations for Top Rails, Splice locations, Rail spacing, Rail lengths, and the max cantilever off of the Roof Channels.





Roof Channel – Attachment

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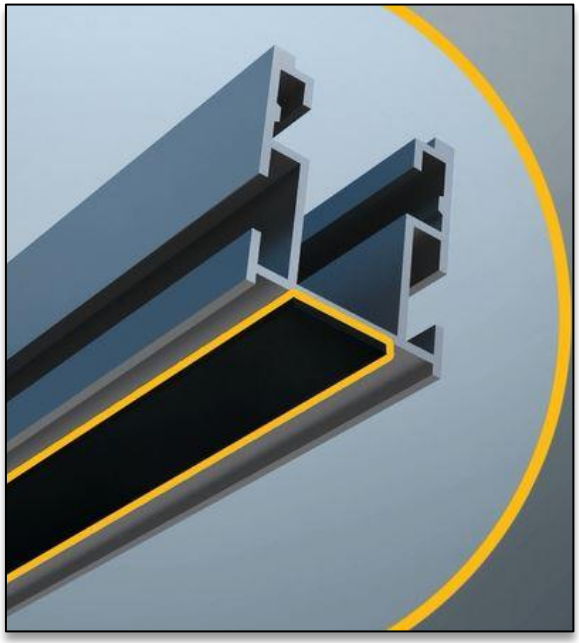
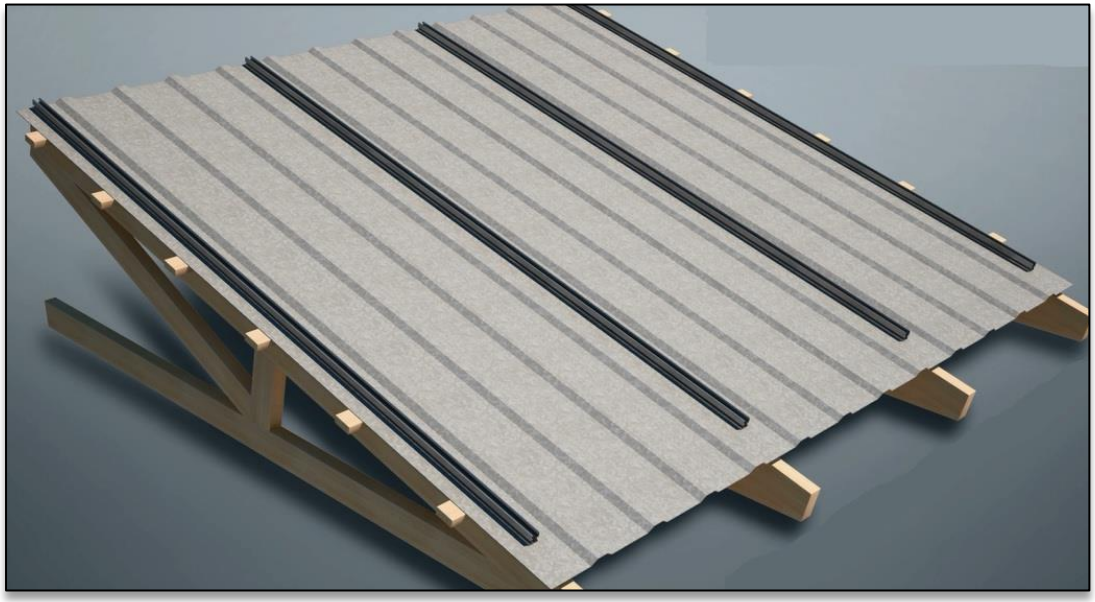


- Butyl tape is pre-assembled to the underside of the Roof Channel.
- Peel the paper off of the Butyl Tape.



- Space the Roof Channels according to the layout. They should be sitting over the trusses and on the low flute of the roof deck.

Roof Channel – Attachment Cont.

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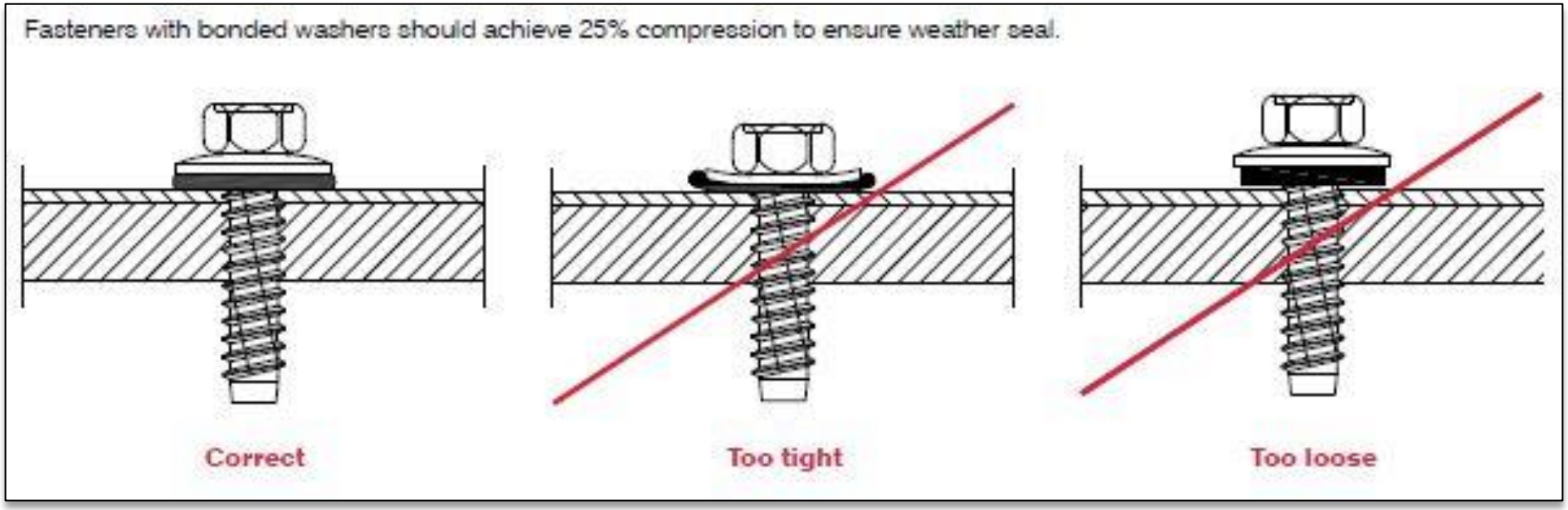
- Fasten the Roof Channel to every Purlin with a self drilling EJOT.



L-Feet and Top Rail *(17-23N·m, 13-17ft·lb)*

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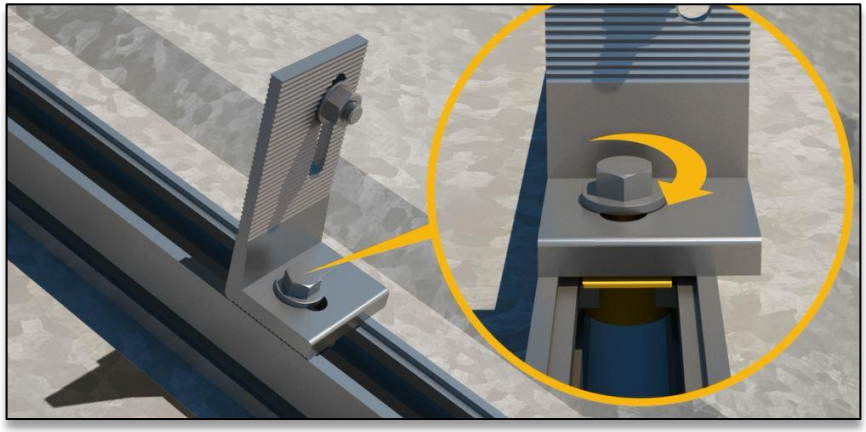
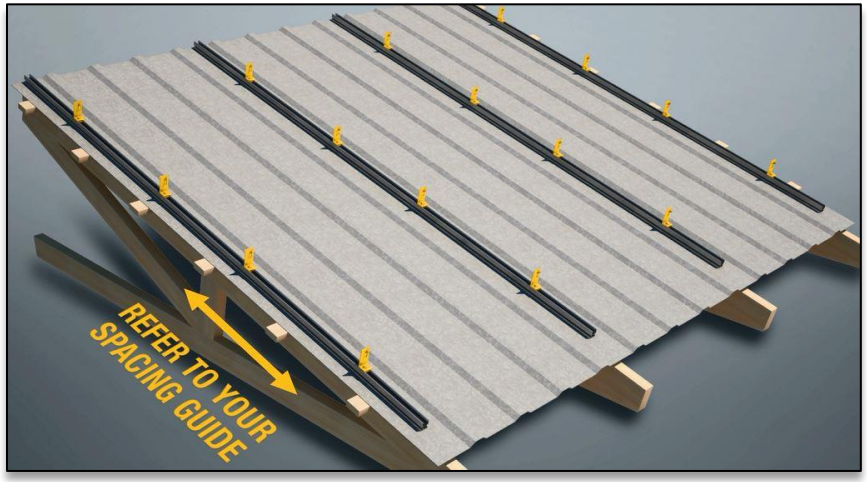
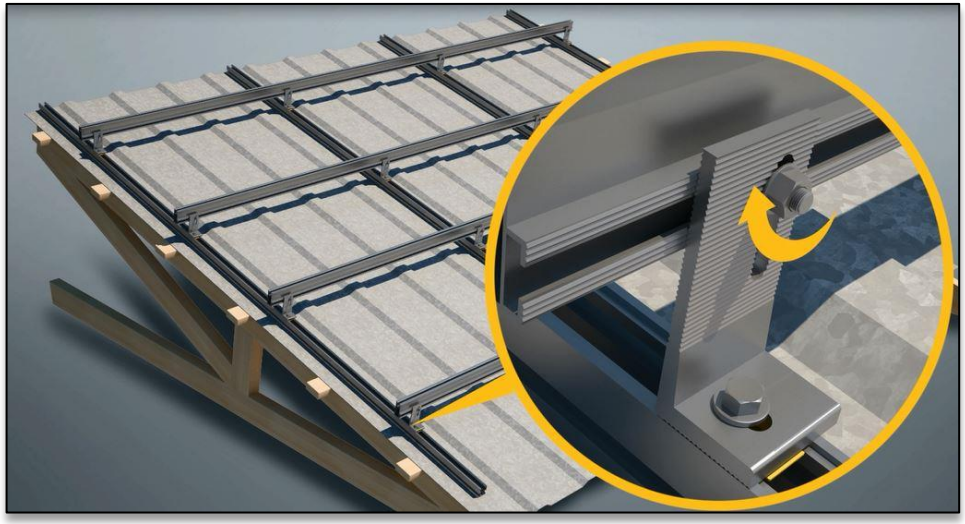


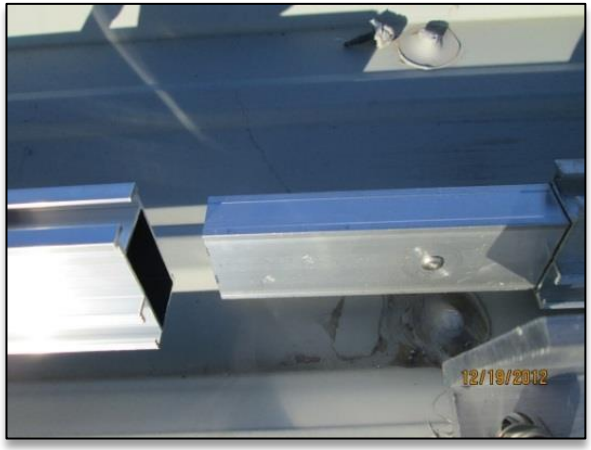
- Use the Top Rail layout to determine the start location and spacing of the L-Feet.



- Install the L-Feet in a straight line. Ensure the Slide Nut is secure in the Roof Channel.



- Place the Top Rail on the L-Feet and secure with the pre-assembled T-Bolt. Ensure the Top Rail dimensions match those on the layout.



- Slide a Splice Bar into the end of the Top Rail where it is indicated on the layout.

Placing Solar Modules – Clic Loc *(8-10N·m, 6-8ft·lb)*

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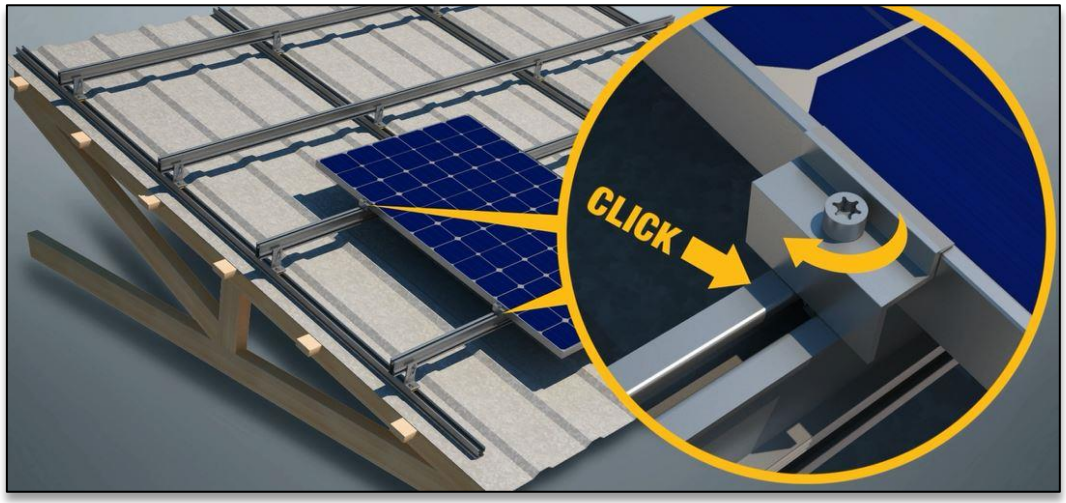
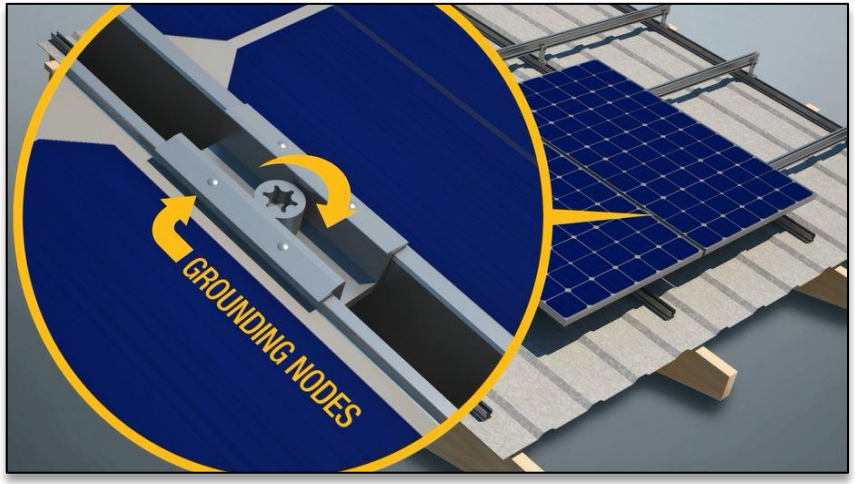
NOTE: All clamps use Torx 40 bit



- Consult the Installation Layout when placing the first PV Module. Ensure there is enough space on the Top Rail to fit all required Modules and Clamps, otherwise you may run out of space .
- Snap the End Clic Loc Clamp into the rail by pushing downwards. Tighten once the Clamp is flush with the Module.
- Once the End Clic Loc Clamp is secure and the Module is in place, snap the Mid Clic Loc Clamp into the rail flush against the Module.
- Make sure that Modules are flush with the Clamps. If you take the time to get the first PV Module square, all the following PV Modules will line up easily.
- Ensure the first row is square before installing too many PV Modules.



- The drawing shows the Middle Clic Loc Clamp and outlines the integrated grounding nodes.
- These nodes ground the Modules to the Top Rail upon installation.

- If a 20mm gap is required between PV Modules, use the Middle Clic Loc Clamps as spacers between Modules.

General Arrangement

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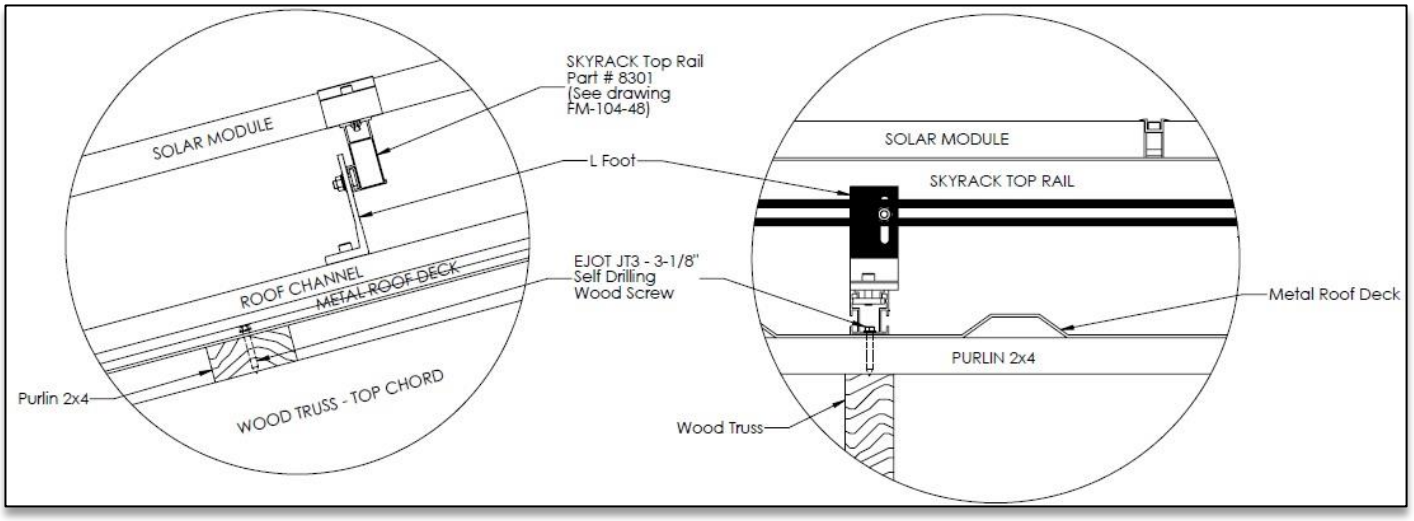

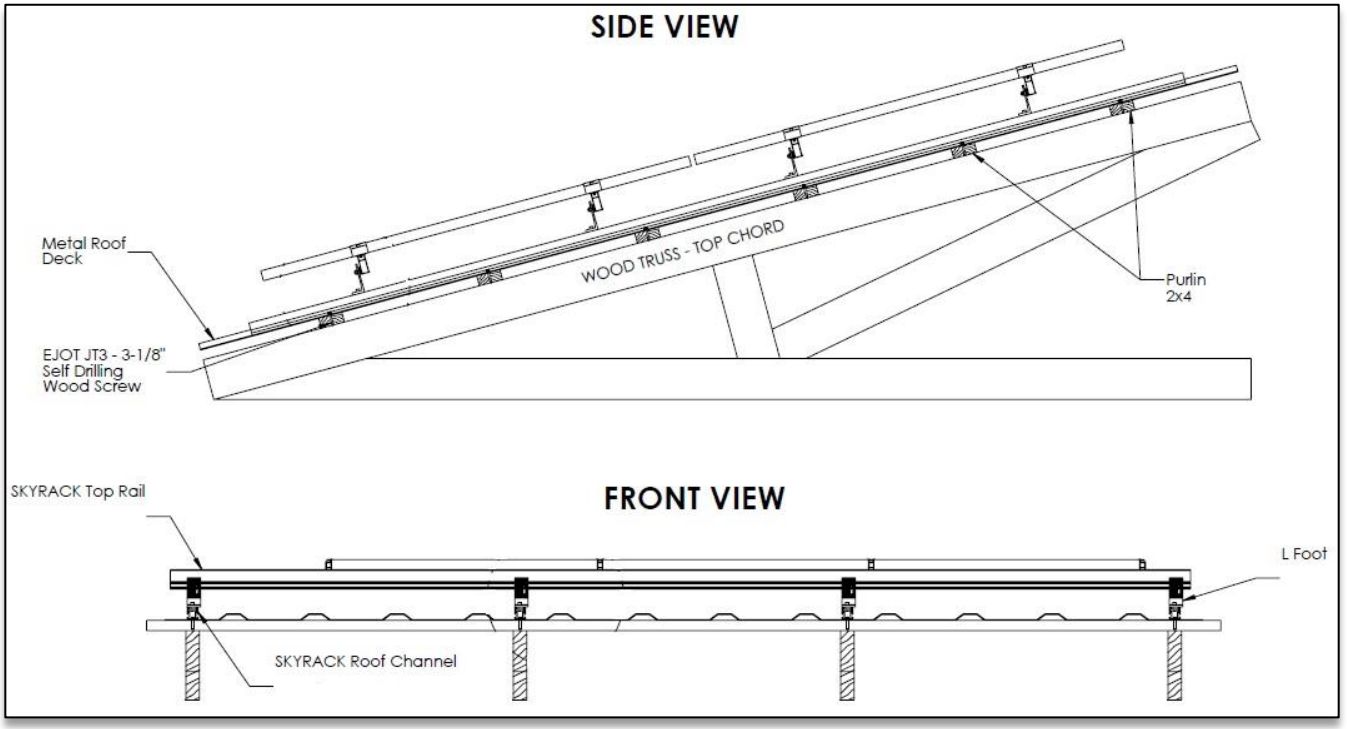

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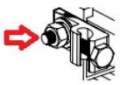
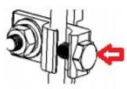
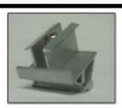
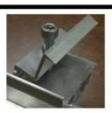
Torque Requirements*

Photo	Component	Nm	Inch-lbs	Foot-lbs	Photo	Compenent	Nm	Inch-lbs	Foot-lbs
	S-5! U Mini Set Screw	14 to 17	130 to 150	10 to 13		Flange nut, ballast strap to front foot	17 to 23	150 to 203	13 to 17
	S-5! U Mini Hex Bolt	17 to 23	150 to 200	13 to 17		Flange nut, ballast strap to rear panel	17 to 23	150 to 203	13 to 17
	S5! R465 on: 24ga 22ga	15-17 18-20	130-150 on 24ga 160-180 on 22ga	11-12.5 13-15	Note for S5! R465, Tighten each side to touch roof and then alternate tightening each side to proper torque				
	S5-S S5-E S5-B (and Mini's)	15-17 18-21	130-150 on 24ga and other 160-180 on 22ga	11-12.5 13-16		Ballast Bracket	17 to 23	150 to 203	13 to 17
	Ilsco SGB-4	4	35	2.9		Row Connector to Front or Rear Foot	17 to 23	150 to 203	13 to 17
	Wiley Lug 8.0	13.5	120	10		Row Connector T-Bolt Connection	17 to 23	150 to 203	13 to 17
	Wiley Lug 8.0 Set Screw	10	88	7		Mid Saddle clamp	17 to 23	150 to 203	13 to 17
	Wiley Bond Jumper 8.0	13.5	120	10		East+West Saddle End Clamps	17 to 23	150 to 203	13 to 17
	Rail Bracket on S5	17 to 23	150 to 203	13 to 17		Saddle Support Clamps	17 to 23	150 to 203	13 to 17
	"L" Foot to Rail	17 to 23	150 to 203	13 to 17		Clic-Loc Clamps	8 to 11	70 to 97	6 to 8
						Nutenstein	8 to 11	70 to 90	6 to 8

*All components from hb solar Inc. have a torque rating of 17 to 23 NM unless otherwise stated in the chart.