

SnapNrack™

Solar Mounting Solutions



New Products for 2018



New Products for 2018

- S100 Tile Replacement
- Junction Box XL
- Universal Wire Clamp
- RL
- MLPE Frame Attachment

S100 Tile Replacement

New!

- Superior Mounting Solution for Tile Roofs



Current Tile Solutions

- Tile Hooks
 - Fitment Issues
 - Grinding Tiles
- Standoffs
 - Time consuming process
 - Cutting/Drilling Tiles
- OSHA regulations - (Sept 2017)
 - Grinding/Cutting Tiles - Silica dust exposure – lung cancer, respiratory failure, kidney disease
 - Employers must implement a written control plan inclusive of medical exams, chest x-rays, and lung tests every 36 months
 - Mandate cutting equipment with integrated water delivery system



The Cost of Broken Tiles

- Broken tiles contribute up to \$0.035/Watt to solar installations on tile roofs
 - Cost of replacement tiles
 - Time and labor involved with sourcing correct tiles
 - Additional labor to install replacements for broken tiles
 - Mobilization costs – going back out in the field after the job is done to replace broken tiles



The SnapNrack Tile Replacement Solution

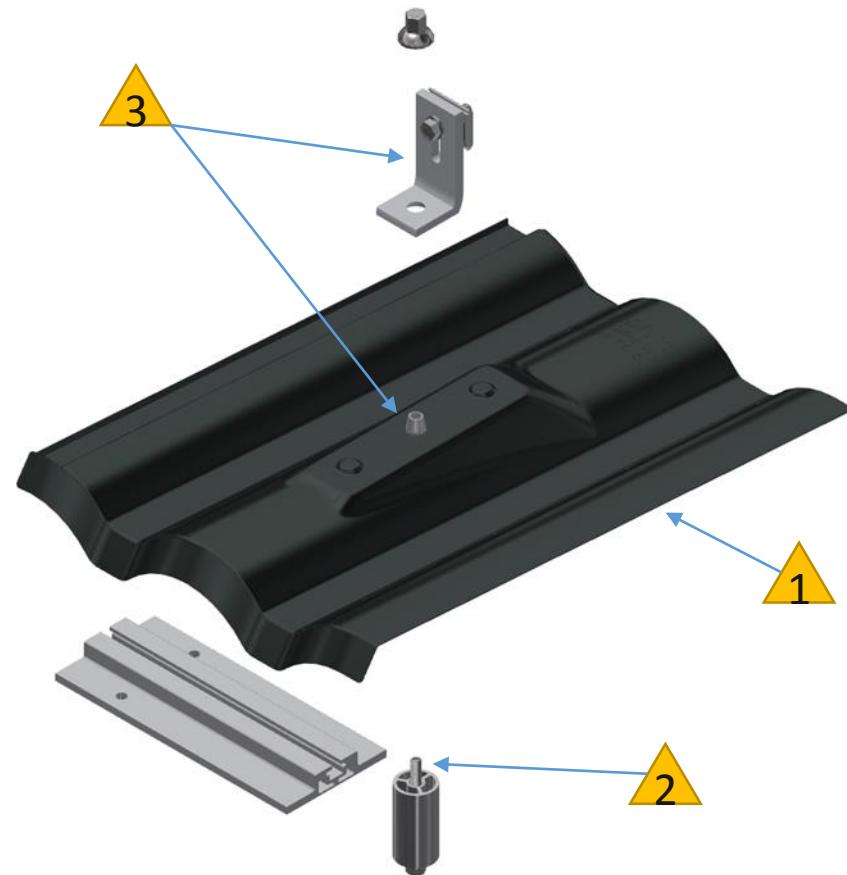
- Eliminates grinding/cutting of Tiles
- Net positive tile consumption
 - Tiles that are removed can be used to replace those broken over the course of install
- Labor Savings



Features and Benefits

- 1 Soft aluminum flashing material is easily formed for the best fit yet withstands harsh environments
- 2 Standoff with threaded stud provides the simplest operation without any loose parts
- 3 Patent pending umbrella technology maintains a weatherproof seal

■ Priced competitively with Universal tile products on the market



Tile Types

- S100 Flat Tile Replacement Kit
 - 242-01110
- S100 W Tile Replacement Kit
 - 242-01112
- S100 S Tile Replacement Kit
 - 242-01114



Junction Box XL



- New Larger Junction Box
 - 75% more working room
 - Multiple arrays and accessories

Overall Dimensions [in]:
10.7 L x 9.4 W x 3.5 H
vs.
8.9 L x 6.4 W x 3.5 H

Junction Box Portfolio



242-01104 J-Box R for Rail

Mounting features that Snap-In to SnapNrack rail without the need for additional roof penetrations



242-92120 J-Box XL for Rail

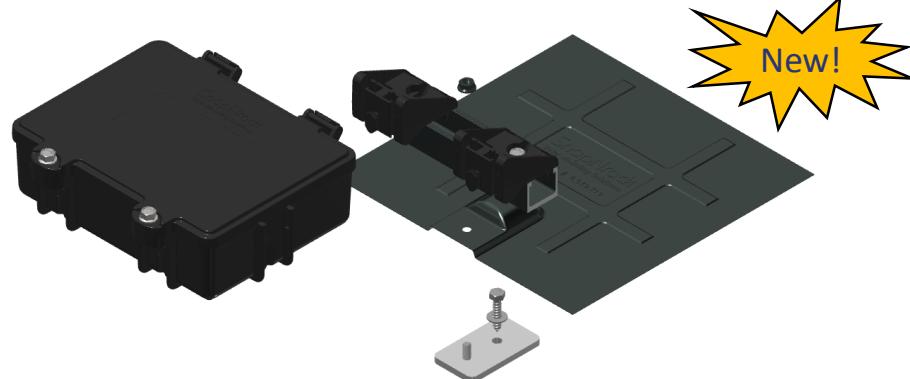
Extra Large Junction Box with mounting features that Snap-In to SnapNrack rail without the need for additional roof penetrations



242-01113

J-Box S w/Comp Kit

Standard size box with a SnapNrack base track and Comp Shingle Flashing for use with Railless systems



242-92121 J-Box XL w/Comp Kit

Provided with a SnapNrack base track and Comp Shingle Flashing for use with Railless systems

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Universal Wire Clamp

- 242-02150 Universal Wire Clamp R
 - Leverages existing features of the clamps for rail
 - Combines existing trunk cable and 4-wire clamps into a single clamp
 - Compatible with any combination of PV wires, Engage cables and Q cables



TRUNK CABLE CLAMP &
4-WIRE CLAMP FOR RAIL
242-02103
242-02102



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Mounting System



SnapNrack RL Component Overview - Simple as ABC



A Mounts



B Mounts

Complete System Solution
Industry Leading 20 Year Warranty

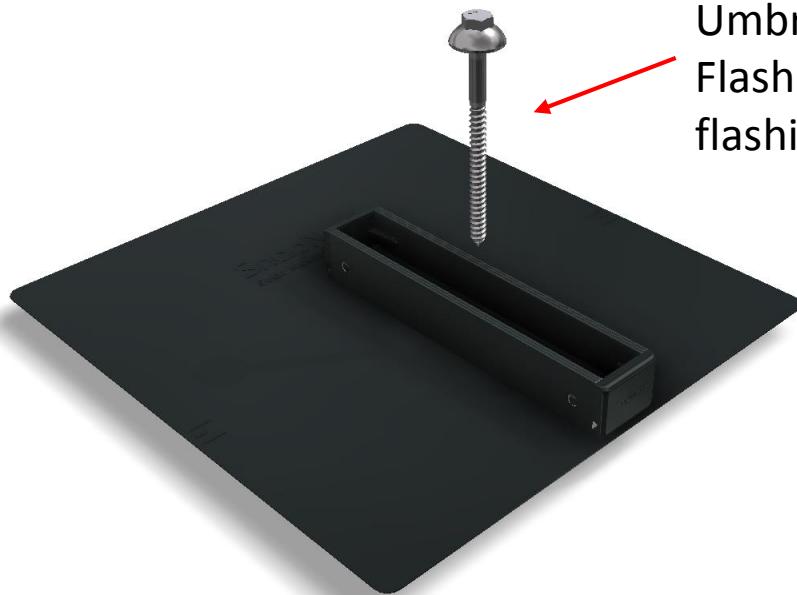
C Link Clamp



Umbrella Bolt Sealing



SnapNrack RL Components – Flash Track

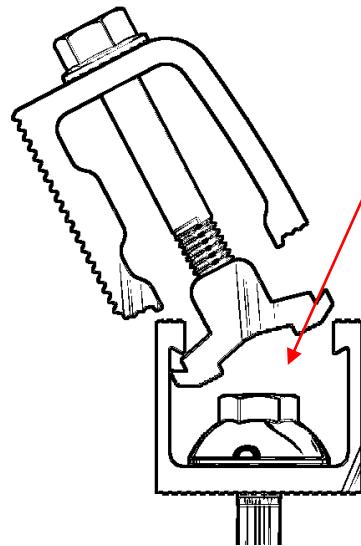


Umbrella Lag secures Flash Track and flashing to the roof.

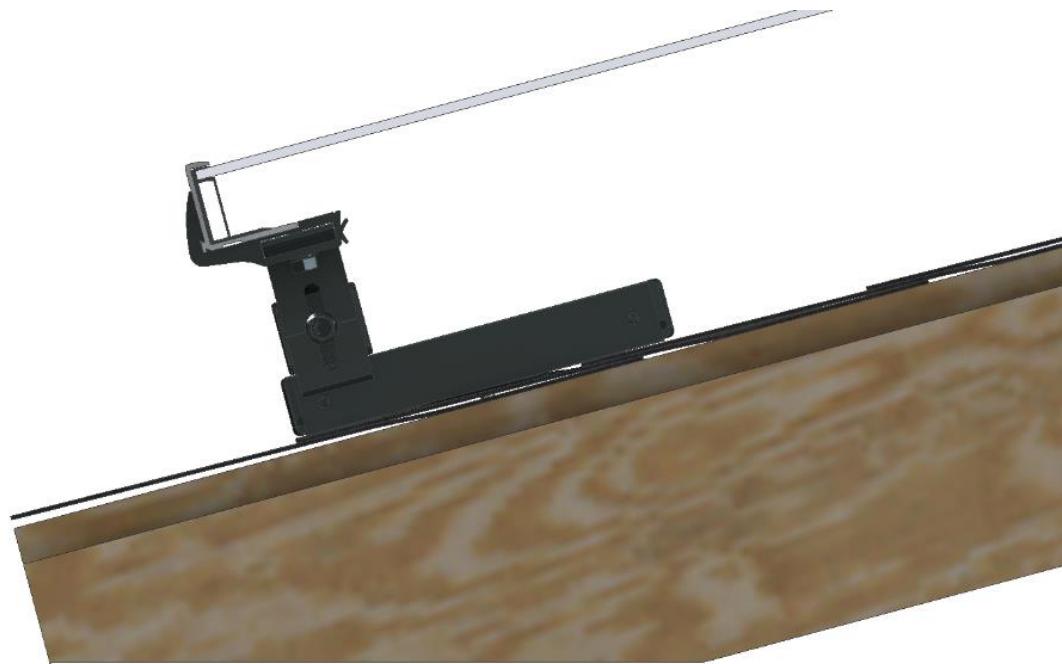


- Single lag screw secures flashing, base, and mount assembly to the roof.
- Patent Pending Umbrella Bolt technology provides 20 year weatherproofing
 - Flashing protrudes into cavity underneath lag

SnapNrack RL Components – A and B Mounts

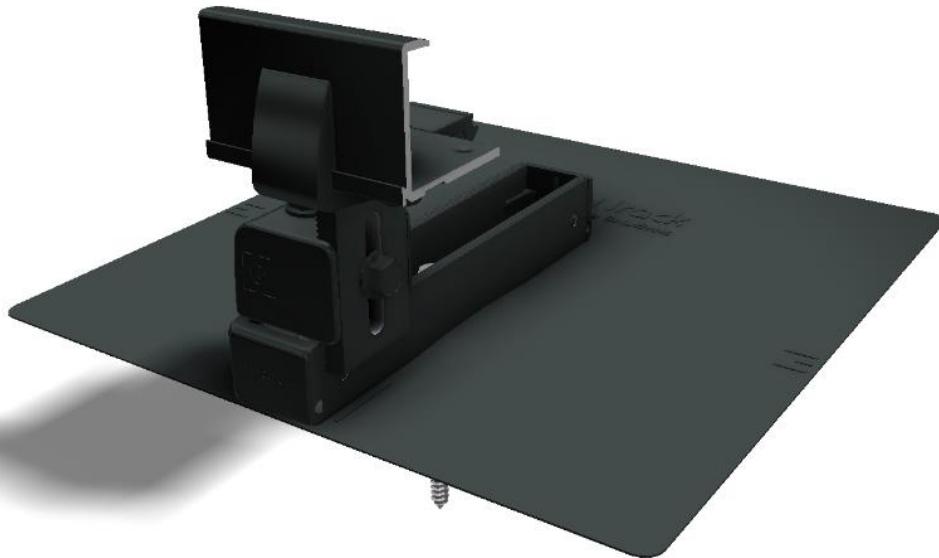


Mounts snap into Flash
Track channel



- Flash Track allows for a full 6 inches of North-South adjustability

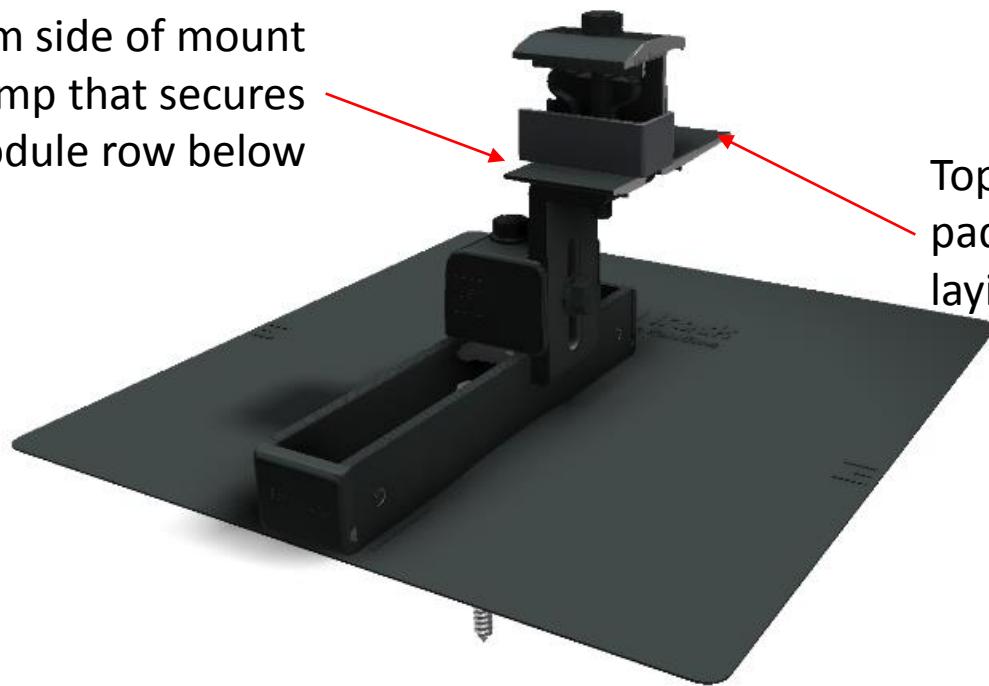
SnapNrack RL Components – A Mounts



- Top of the line aesthetics without the need for a skirt
- A Mounts provide a secure sleeve-in module attachment
 - No need to reach over the module
 - No bottom-side fastening of modules required
- 1.5" of vertical adjustability with string line feature for easy levelling
- A mounts are module frame height specific (32mm, 35mm, 38mm, 40mm)

SnapNrack RL Components – B Mounts

Bottom side of mount provides clamp that secures the module row below

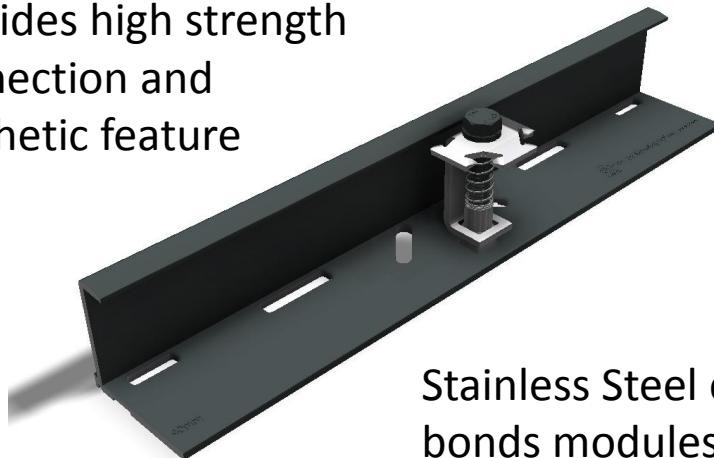


Top of mount provides landing pad and drop in sleeve for laying modules down above

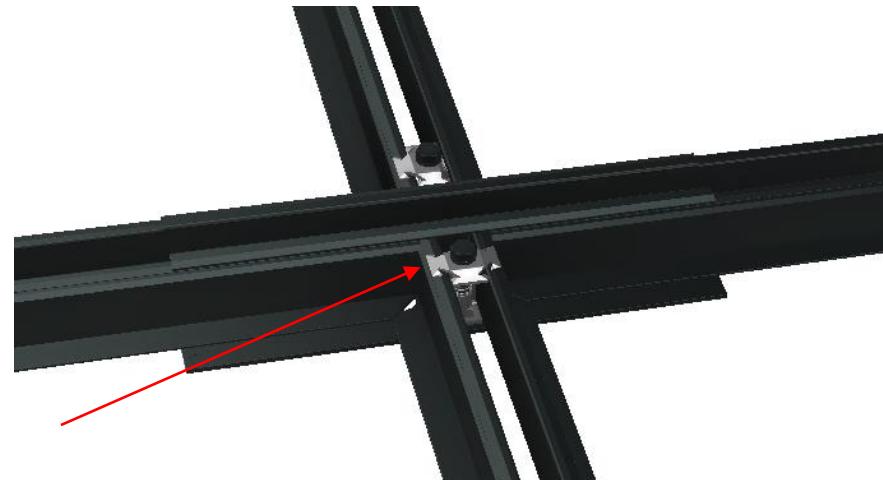
- B Mount provides clamping to secure top edge of module prior to installing next row up the roof
- B Mounts are module frame height specific (32mm, 35mm, 38mm, 40mm)
- Landing pad on top provides space to sleeve next row of modules with no need for additional clamping
- All mechanical fastening is done along the top of the row

SnapNrack RL Components – C Links

Aluminum sleeve provides high strength connection and aesthetic feature



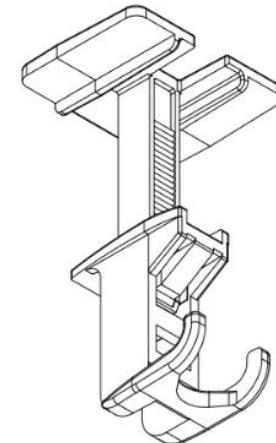
Stainless Steel clamp bonds modules and creates rigid structure



- C Links provide bonding and structural connection between two modules in a row
- C Links are module frame height specific (32mm, 25mm, 38mm, 40mm)
- C Links can be installed independently or in conjunction with A Mounts and/or B Mounts

Wire Management

- New Smartclip provides wire management at any point along the module
 - 232-01170 Smart Clip I
 - 232-01173 Smart Clip II
- Easily tucks wires away within the module envelope to avoid any unintended removal over time
- Wire Saver provides the ability to secure loose wires post module install
 - 242-92262 Wire Saver
- Perfect for last minute wire management

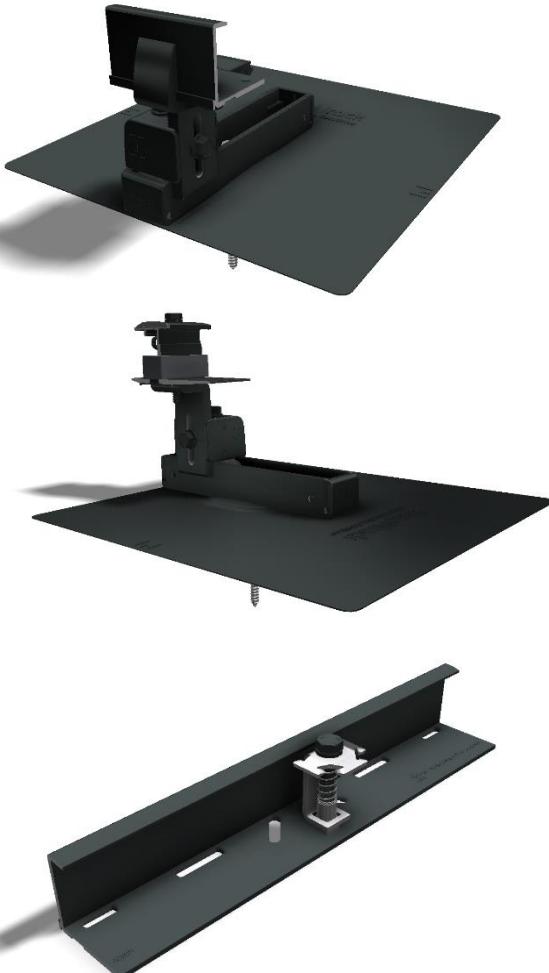


Optional Ridge Mount

- Extended B mount for use where jurisdictions do not require setbacks from the peak of the roof



SnapNrack RL Component Overview - Simple as ABC



RL Railless System

| | |
|-------------------------|-----------|
| RL Comp Flash Track Kit | 242-92250 |
| RL A Mount, 32mm | 242-92332 |
| RL A Mount, 35mm | 242-92335 |
| RL A Mount, 38mm | 242-92338 |
| RL A Mount, 40mm | 242-92340 |
| RL B Mount, 32mm | 242-92432 |
| RL B Mount, 35mm | 242-92435 |
| RL B Mount, 38mm | 242-92438 |
| RL B Mount, 40mm | 242-92440 |
| RL C Link, 32mm | 242-92532 |
| RL C Link, 35mm | 242-92535 |
| RL C Link, 38mm | 242-92538 |
| RL C Link, 40mm | 242-92540 |
| RL Ridge Mount, 32mm | 242-92632 |
| RL Ridge Mount, 35mm | 242-92635 |
| RL Ridge Mount, 38mm | 242-92638 |
| RL Ridge Mount, 40mm | 242-92640 |
| RL Mount Sleeve, 32mm | 232-01532 |
| RL Mount Sleeve, 35mm | 232-01535 |
| RL Mount Sleeve, 38mm | 232-01538 |
| RL Mount Sleeve, 40mm | 232-01540 |
| RL Flash Track Spacer | 242-92254 |

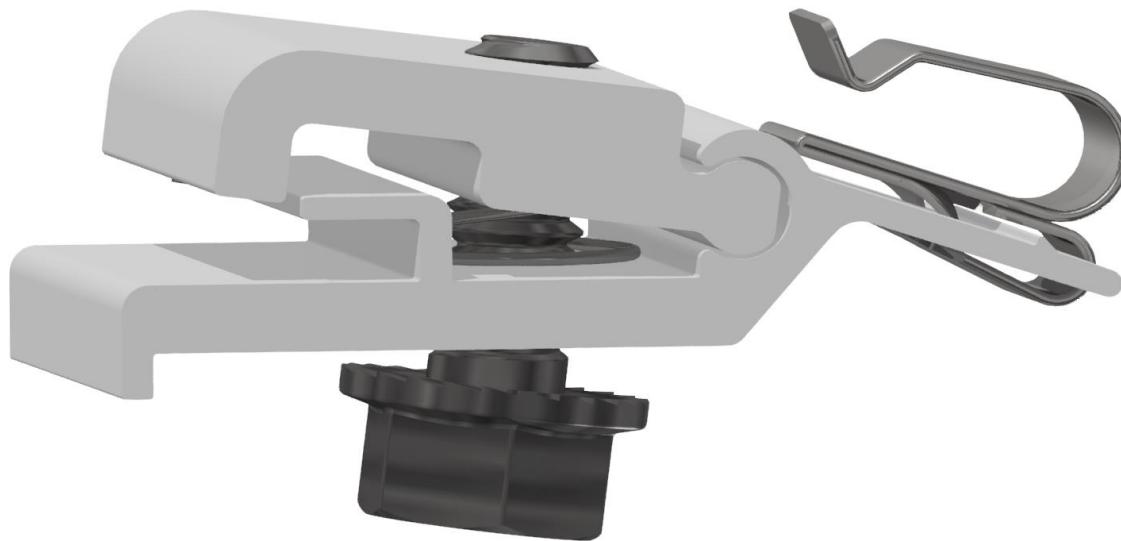
RL Features and Benefits

- Elimination of rail provides cost-saving benefit for entire system
- Smaller individual components means easier logistics to get parts on the roof
- Unique A Mount design provides a sleek finish to front of array without needing a skirt (though it is optional)
- Pre-assembled mounts and single tool installation make job fast and easy
- System design requires only securing module on top side meaning less steps during install



MLPE Frame Attachment

- 242-02151 MLPE Frame Attachment Kit
 - Secures to inside of module frame with alignment features to prevent rotation and ensure proper attachment
 - Single bolt clamps onto MLPE device and module frame using standard $\frac{1}{2}$ " socket
 - Includes Smart Clip for managing wires from MLPE device securely



Availability

- Universal Wire Clamp
 - Order Now, material stocked in most locations, available with standard lead time
- RL, Tile Replacements, and J-Box-XL
 - Product is available for order now
 - Lead time dependent on order volume
 - Standard package quantities
 - RL – A Mount, B Mount, C Link, Wire Saver, MLPE attachment – 20 pcs
 - RL – Ridge Mount – 10 pcs
 - RL Smart Clips – 100 pcs
 - Tile Replacements – 10 pcs
 - J-Box – 1 pc



Questions?

Appendix Deck Level Flashing for S100

