

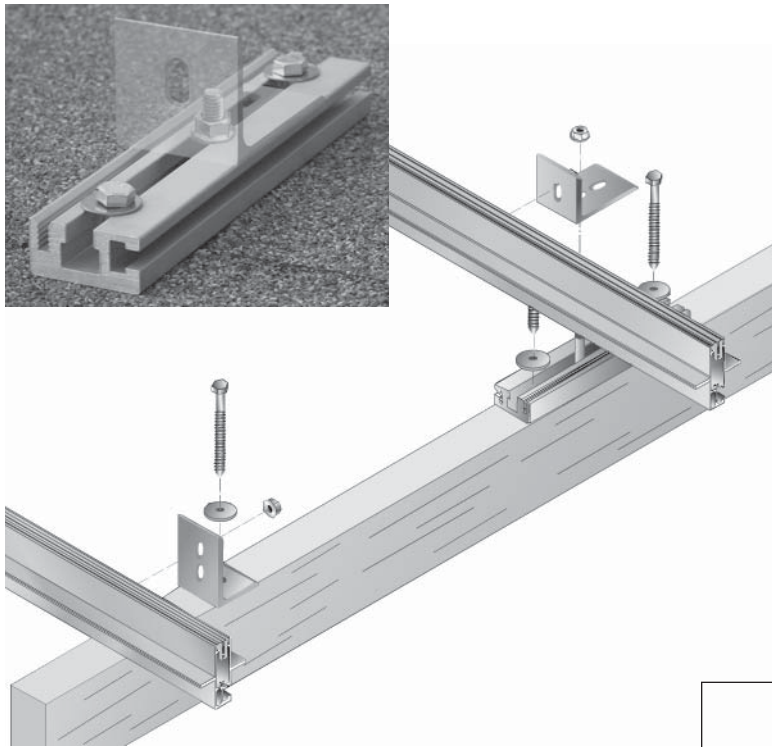
# SUNFRAME®

## L-Foot Adjusting Slider

### Installation Manual 807

Thank you for purchasing a UniRac product. Please review this manual completely before proceeding.

L-foot adjusting sliders allow easier alignment of the L-feet that secure SunFrame rails to pitched roofs. Use this manual in conjunction with the *SunFrame Code-Compliant Planning and Assembly* manual appropriate to your building code.



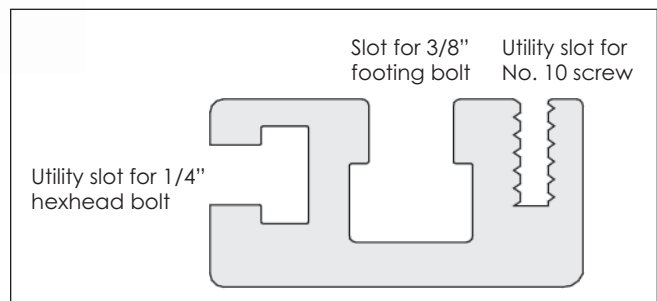
### Installer responsibility

The installer is solely responsible for:

- Complying with all applicable local or national building codes, including any that may supersede this manual;
- Ensuring that UniRac and other products are appropriate for the particular installations and are designed for the installation environment;
- Using only UniRac parts and installer-supplied parts as specified by UniRac (substitution of parts will void the warranty);
- Ensuring that lag bolts have adequate pullout strength and shear capacities as installed;
- Maintaining the waterproof integrity of the roof, including selection of appropriate flashing; and
- Ensuring safe installation of all electrical aspects of the PV array.

#### Parts List (per slider)

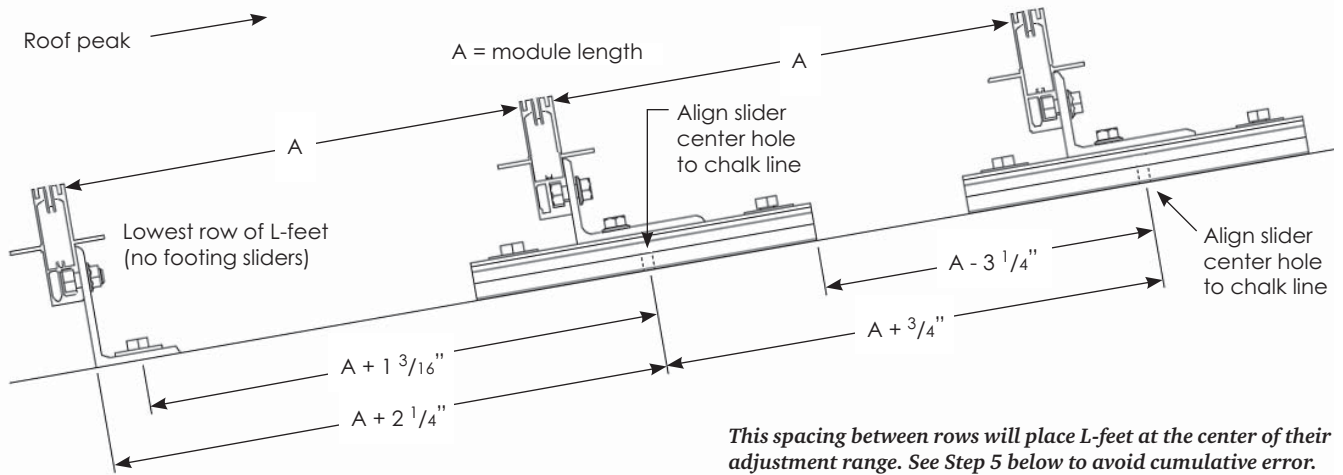
Part	Qty.	Wrench size	Recommended torque (ft-lbs)
Slider	1		
Footing bolt, 3/8" x 1 1/4"	1	9/16"	30
Flange nut, 3/8"	1		
Lag bolt, 5/16" x 3 1/2"	2		
Flat washer, 5/16"	2		



Slider cross section: Utility slots provide an easy means to secure module wiring, combiner boxes, or other system components. If desired, turn sliders end-to-end to reverse position of utility slots.



Stainless steel hardware can seize up, a process called galling. To significantly reduce its likelihood, (1) apply lubricant to bolts, preferably an anti-seize lubricant, available at auto parts stores, (2) shade hardware prior to installation, and (3) avoid spinning on nuts at high speed. See Installation Supplement 910, *Galling and Its Prevention*, at [www.unirac.com](http://www.unirac.com).



## Basic installation sequence

1. Align, attach, and seal the lowest row of L-feet with long side up. Sliders are unnecessary in this row.
2. Use a chalk line to mark the position of the slider center holes of the next row. The illustration above provides spacing guidelines. The length of the module (A in the illustration) includes any protrusions, such as lips or round-head bolts in its frame.
3. Attach and seal L-foot adjusting slider: Install lower lag first, footing bolt next, and upper lag last. Attach an L-foot with its short side up to each slider.
4. Install rails on first and second rows of L-feet. Verify spacing by placing a module onto the rails at several points along the row. Adjust L-foot positions as needed.



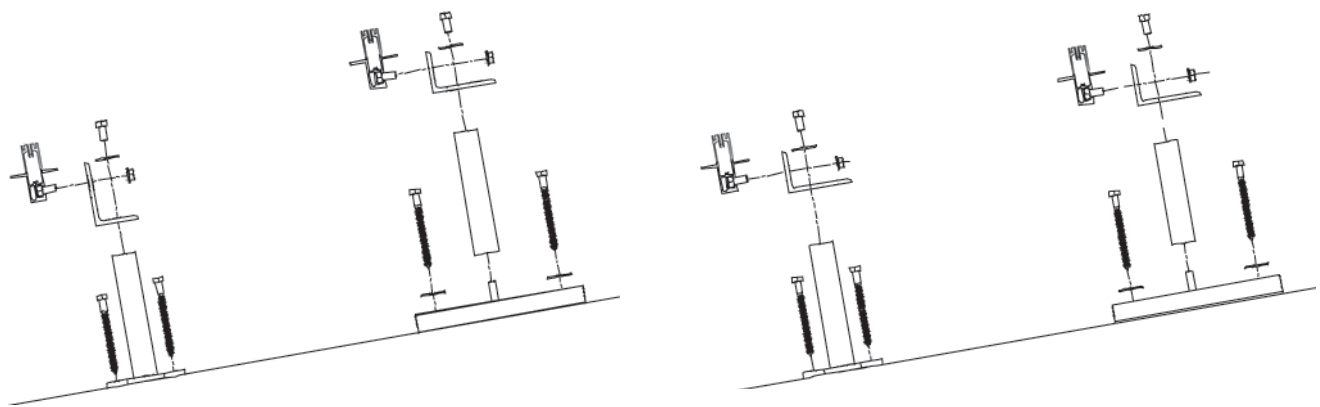
5. **Prevent cumulative error:** After adjusting one row of L-feet on the sliders and positioning the rail, check to see if the L-feet are now significantly closer to the lower or upper lag bolts. If the L-feet are, on average, away from the center of their range of motion, adjust the spacing to the next row of sliders.

For example, if a row of L-feet is half an inch below the center of its adjustment range, compensate by reducing the spacing to the next row of sliders by the same amount.

## Installation variations

### Standoffs

Two-piece aluminum standoffs may be used with footing sliders, although flashings may not be available to cover the entire length of the slider. Use the bases of the standoffs only in the lowest row. In subsequent rows, attach the shaft of each standoff to the slider using the slider's  $\frac{3}{8}$ -inch hexhead bolt. Note that L-feet are positioned long side up on the lowest rows and with long side down in subsequent rows—in the same manner as an installation with no standoffs.



*With standoffs of equal length, orient L-foot to compensate for height difference.*

*If the standoff supporting the lowest rail is 1 inch taller than the standoffs on the footing sliders, place both L-feet in the same orientation—either both long side up or both short side up.*

### Shims

Use shims under the sliders to smooth out any roof irregularities. They may also be used under the L-feet or in conjunction with the utility slots.



**Do not use shims between sliders and standoffs.**

## 10 year limited Product Warranty

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UniRac, Inc., warrants to the original purchaser ("Purchaser") of product(s) that it manufactures ("Product") at the original installation site that the Product shall be free from defects in material and workmanship for a period of ten (10) years, from the earlier of 1) the date the installation of the Product is completed, or 2) 30 days after the purchase of the Product by the original Purchaser. This Warranty does not cover damage to the Product that occurs during its shipment, storage, or installation.

This Warranty shall be VOID if installation of the Product is not performed in accordance

with UniRac's written installation instructions, or if the Product has been modified, repaired, or reworked in a manner not previously authorized by UniRac IN WRITING, or if the Product is installed in an environment for which it was not designed. UniRac shall not be liable for consequential, contingent or incidental damages arising out of the use of the Product by the Purchaser under any circumstances.

If within the specified Warranty period the Product shall be reasonably proven to be defective, then UniRac shall repair or replace the defective Product, or any part thereof,

in UniRac's sole discretion. Such repair or replacement shall completely satisfy and discharge all of UniRac's liability with respect to this limited Warranty. Under no circumstances shall UniRac be liable for special, indirect or consequential damages arising out of or related to use by Purchaser of the Product.

Manufacturers of related items, such as PV modules and flashings, may provide written warranties of their own. UniRac's limited Warranty covers only its Product, and not any related items.