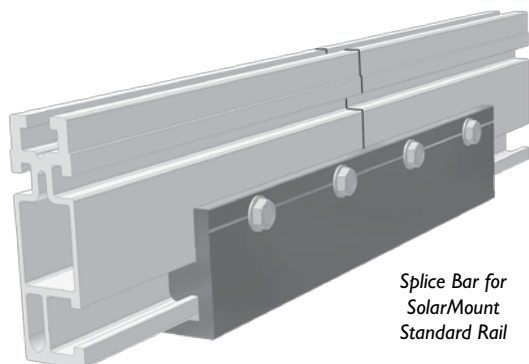


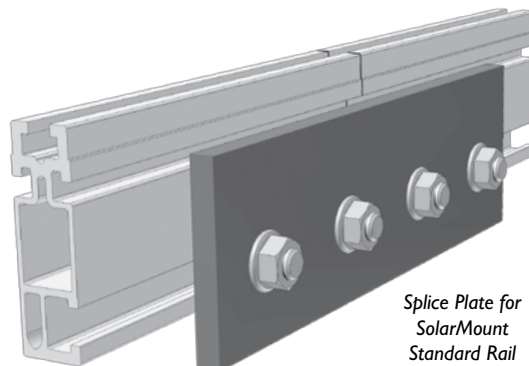
Splices/Expansion Joints

Installation Manual 908.3

Unirac Installation Manual



Splice Bar for
SolarMount
Standard Rail



Splice Plate for
SolarMount
Standard Rail

[1] Installer responsibility:



The installer is solely responsible for:

- Complying with all applicable local or national building codes, including any that may supercede this manual;
- Ensuring that Unirac and other products are appropriate for the particular installation and the installation environment;
- Ensuring that the roof, its rafters, connections, and other structural support members can support the array under all load conditions;
- Using only Unirac parts and installer-supplied parts as specified by Unirac (substitution of parts may void the warranty);
- Maintaining the waterproof integrity of the roof;
- Ensuring safe installation of all electrical aspects of the PV array.

[2] Applications:

Splice bars are structural elements that may be used to join together lengths of one of the extruded aluminum rails used in Unirac products: SolarMount™ standard, SolarMount™ HD (heavy duty), or SunFrame™.

Splice plates are also structural and may be used only with the products specified in this manual.

Although structural, neither type creates a joint that is as strong as the rail itself. A rail should always be supported by **more than one** footing on **both** sides of the splice. (Manuals for code compliant planning and installation for SolarMount and SunFrame can be downloaded at the respective product pages at www.Unirac.com.)

Because of these support requirements, **never** use either type of splice in conjunction with the following applications:

- PV PoleTops™
- PV PoleSides™
- SolarMount arrays with high profile tilt legs
- U-LA large arrays



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A thermal break is required every 40 feet of continuously connected rail. For additional concerns on thermal breaks in your specific project, please consult a licensed structural engineer.

Runs of rail less than 40 feet in length, with more than two pairs spliced together, are an acceptable installation for the SolarMount and SunFrame systems. As long as installations conform to the standard methods outlined in the Installation Manual 227 (SolarMount) and 809 (SunFrame), it will not void the Unirac warranty.

Expansion Joints Used As Thermal Breaks:

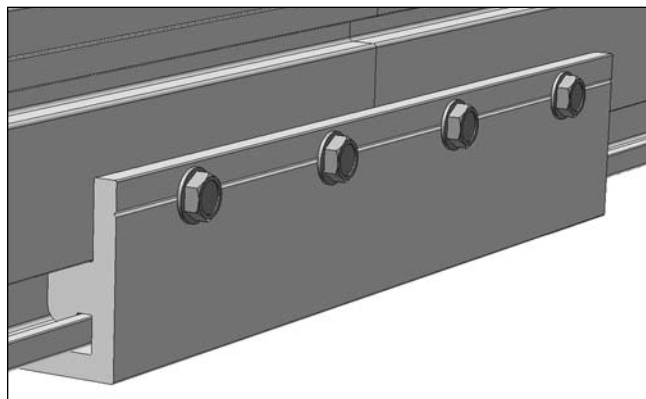
Expansion joints prevent buckling of rails due to thermal expansion. Splice bars, not splice plates, may be used for thermal expansion joints.

To create a thermal expansion joint, slide the splice bar into the footing slots of both rail lengths. Leave approximately 1/2" between the rail segments. Secure the splice bar with two screws on one side only. Footings (such as L-feet or standoffs) should be secured normally on both sides of the splice. No PV module or mounting hardware component should straddle the expansion joint.

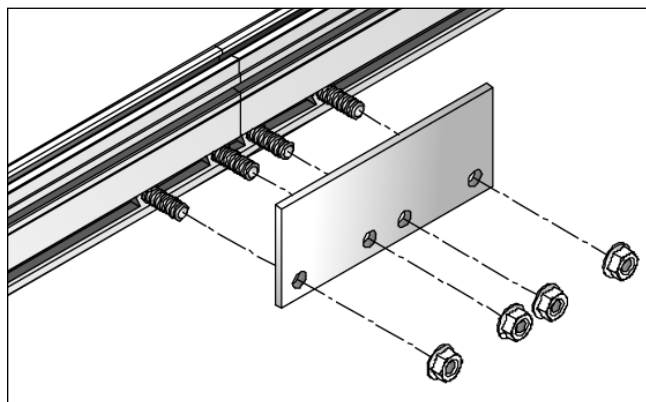
Modules must clearly end before the joint with mounting hardware (top mount clamps or bottom up clips) terminating on that rail. The next set of modules would then commence following the splice with mounting hardware beginning on the next rail.

Caution

Stainless steel hardware can seize up, a process called galling. To significantly reduce the likelihood of galling, apply a small drop of anti-seize lubricant to the threads of all bolts before installation. Anti-seize lubricants are readily available in any auto parts and some hardware stores. In their absence, any lubricant will reduce chances of galling. Do not use anti-seize on self-drilling screws.



Splice bars slide into the footing bolt slots of SolarMount or SunFrame footing bolt slots. They are secured by No. 10 x 3/4-inch stainless steel, self-drilling screws. Expansion joints are secured on one side only.



Splice plates are for use with SolarMount standard and HD rails only. Hexhead bolts slide into the footing slots of the rails. Flange nuts secure the plate.

Warranty Information

See <http://www.unirac.com> for current warranty documents and information.