

Part III. Installing SolarMount

The Unirac Code-Compliant Installation Instructions support applications for building permits for photovoltaic arrays using Unirac PV module mounting systems.

This manual, SolarMount Planning and Assembly, governs installations using the SolarMount and SolarMount HD (Heavy Duty) systems.

[3.1.] SolarMount[®] rail components

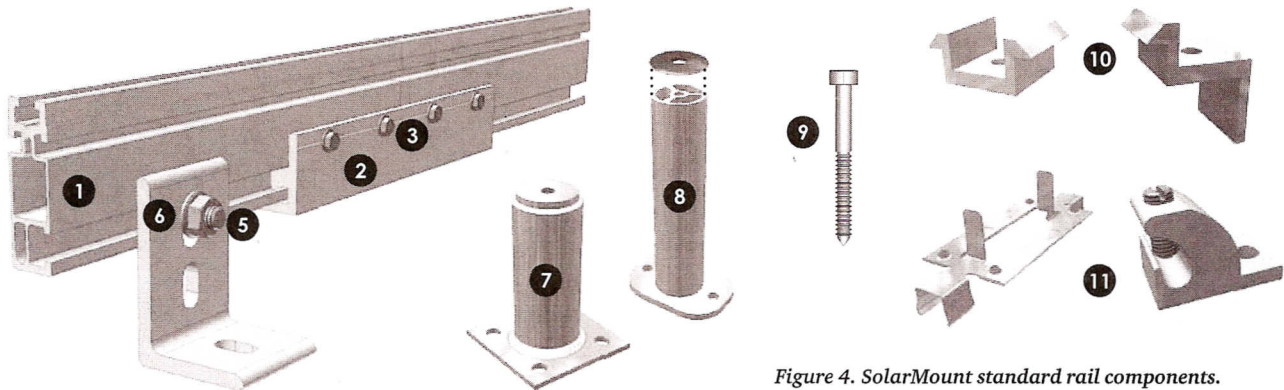


Figure 4. SolarMount standard rail components.

- 1 **Rail** – Supports PV modules. Use two per row of modules. 6105-T5 aluminum extrusion, anodized.
- 2 **Rail splice** – Joins and aligns rail sections into single length of rail. It can form either a rigid or thermal expansion joint, 8 inches long, predrilled. 6105-T5 aluminum extrusion, anodized.
- 3 **Self-drilling screw** – (No. 10 x 3/4”) – Use 4 per rigid splice or 2 per expansion joint. Galvanized steel.
- 4 **L-foot** – Use to secure rails either through roofing material to building structure or standoffs. Refer to loading tables for spacing. Note: Please contact Unirac for use and specification of double L-foot.
- 5 **L-foot bolt** (3/8” x 3/4”) – Use one per L-foot to secure rail to L-foot. 304 stainless steel.
- 6 **Flange nut** (3/8”) – Use one per L-foot to secure rail to L-foot. 304 stainless steel.
- 7 **Flattop standoff** (optional) (3/8”) – Use if L-foot bolt cannot be secured directly to rafter (with tile or shake roofs, for example). Sized to minimize roof to rail spacing. Use one per L-foot. One piece: Service Condition 4 (very severe) zinc-plated-welded steel.

Includes 3/8” x 1/4” bolt with lock washer for attaching L-foot. Flashings: Use one per standoff. Unirac offers appropriate flashings for both standoff types.

Note: There is also a flange type standoff that does not require an L-foot.

- 8 **Aluminum two-piece standoff** (4” and 7”) – Use one per L-foot. Two-piece: 6105-T5 aluminum extrusion. Includes 3/8” x 3/4” serrated flange bolt with EPDM washer for attaching L-foot, and two 5/16” lag bolts.
- 9 **Lag screw for L-foot** (5/16”) – Attaches standoff to rafter.
- 10 **Top Mounting Clamps**
- 11 **Top Mounting Grounding Clips and Lugs**

Installer supplied materials:

- **Lag screw for L-foot** – Attaches L-foot or standoff to rafter. Determine the length and diameter based on pull-out values. If lag screw head is exposed to elements, use stainless steel. Under flashings, zinc plated hardware is adequate.
- **Waterproof roofing sealant** – Use a sealant appropriate to your roofing material. Consult with the company currently providing warranty of roofing.