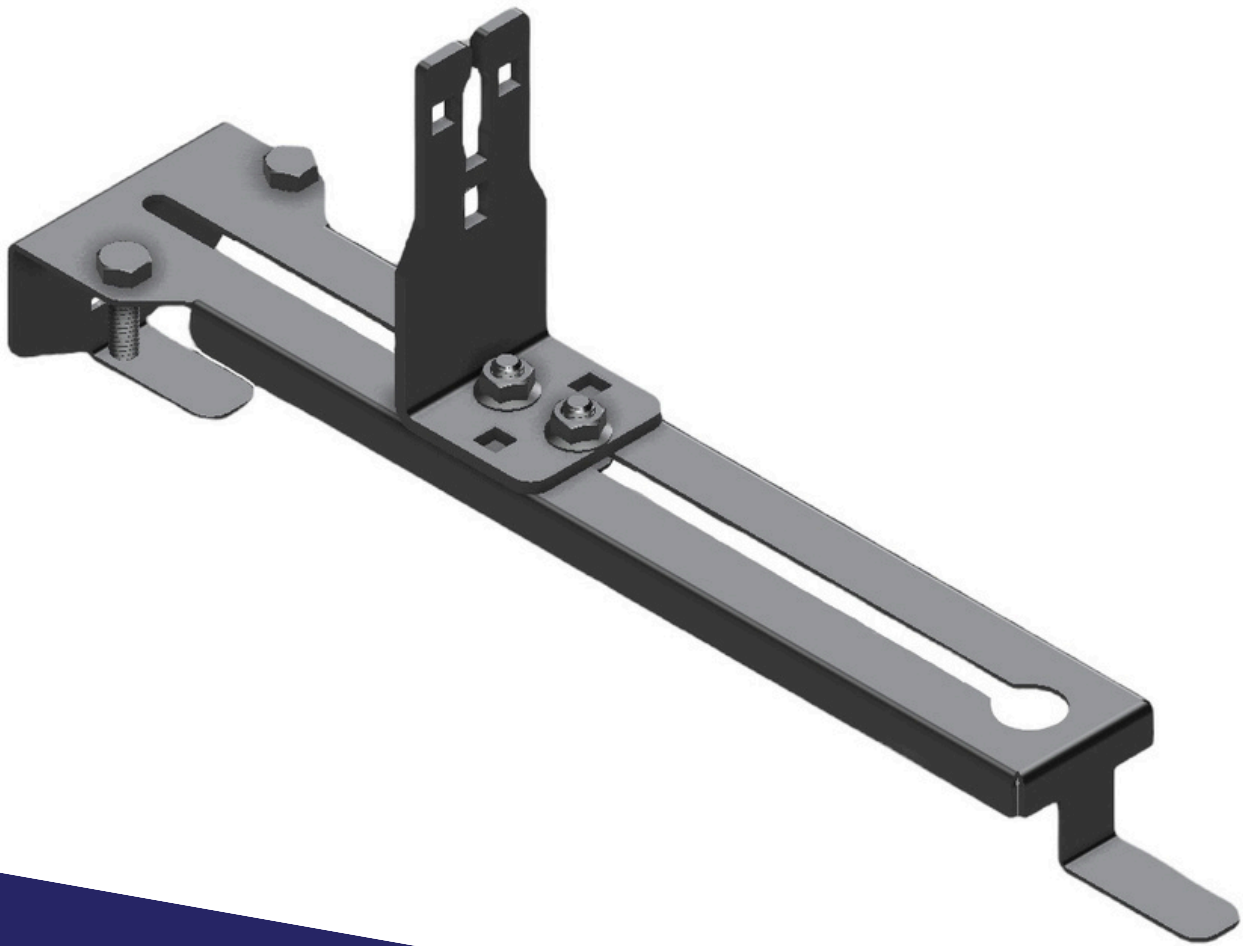


INTEGRARACK®

Revolutionary Solar Racking Systems



IR-T1

INSTALL INSTRUCTIONS



IntegraRack® backs all of its products with a 25 year limited product warranty. We fully stand by the quality and guarantee that they will hold up under the harshest conditions when properly installed.

Disclaimer

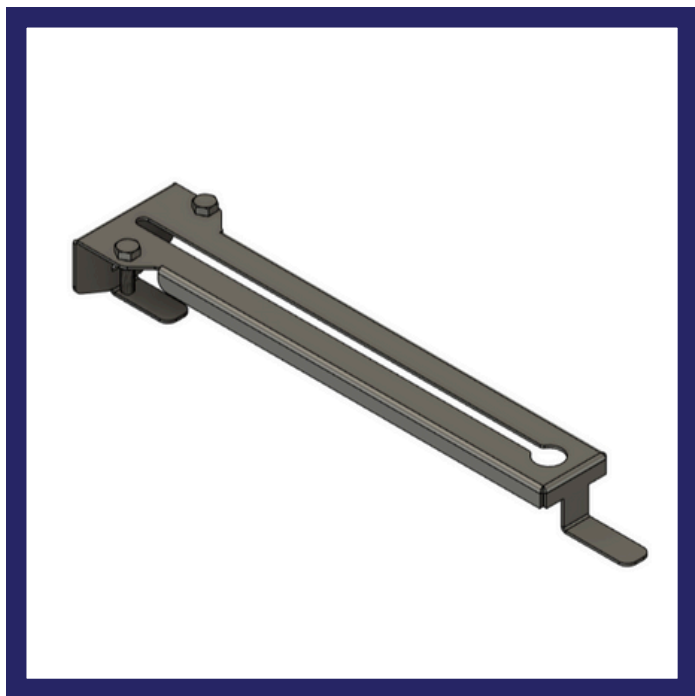
The instructions detailed in this manual will provide the knowledge and requirements necessary for proper installation of the given product. Be sure to read them thoroughly and make sure that you fully understand them before proceeding with installation. Any improper use or installation of these products will void any and all warranty coverage, and may cause failure, property damage or personal injury. IntegraRack is not responsible for any damages caused by improper use.

IT IS THE RESPONSIBILITY OF THE INSTALLER TO:

- Comply with any and all applicable local or national codes and regulations.
- Ensure all products are appropriate for the installation according to the environmental and loading conditions.
- Ensure roof structure is in good condition prior to installation
- Disconnect AC power before servicing or removing modules, micro-inverters or power optimizers.
- Review manufacturer's documentation for compatibility and compliance for solar modules and 3rd party systems.
- If loose components or loose fasteners are found during periodic inspection, re-tighten immediately. Any components showing signs of corrosion or damage that compromise safety shall be replaced immediately.
- Provide an appropriate method of direct-to-earth grounding according to the latest edition of the National Electrical Code, including NEC 250: Grounding and Bonding, and NEC 690: Solar Photovoltaic Systems.
- Ensure safe installation of all electrical aspects of the solar system (All electrical installation and procedures should be conducted by a licensed and bonded electrician or solar contractor). Regular maintenance of a module or panel shall not involve breaking or disturbing the bonding path of the system. All work must comply with national, state and local installation procedures, product and safety standards.
- Ensure bare copper grounding wire does not contact aluminum and zinc-plated steel components, to prevent risk of galvanic corrosion.
- Ensure provided information is accurate. Issues resulting from inaccurate information are the installer's responsibility.

INCLUDED COMPONENTS

- (1) IR-T1 Tile Roof Bracket
- (1) IR-L1 Universal L-Foot Bracket
- (2) M8-1.25x24mm Black Tile Tension Bolts
- (2) M8-1.25x16mm Carriage Bolts
- (2) M8-1.25 Serrated Nuts



IR-T1 Tile Roof Bracket



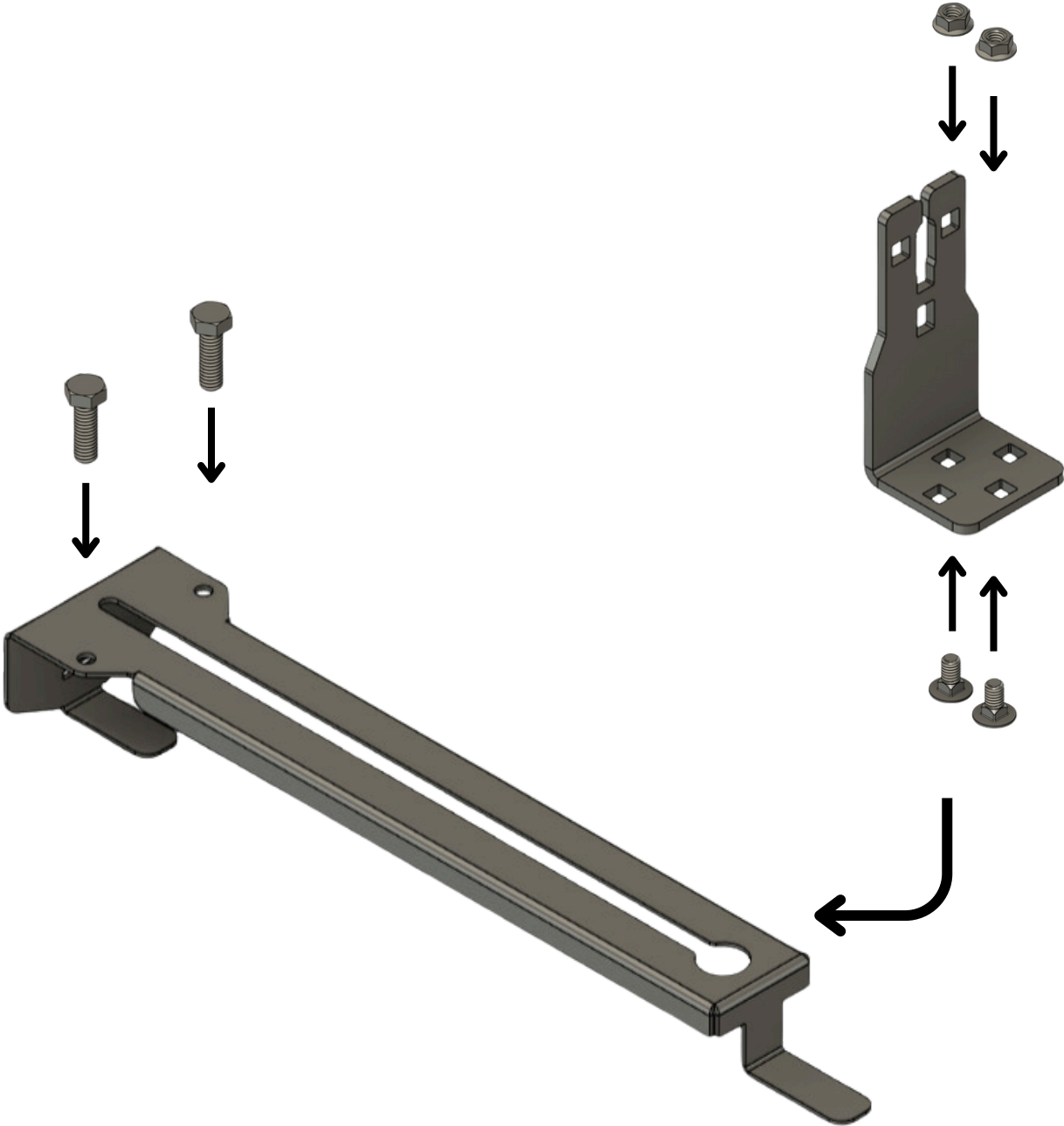
IR-L1 Universal L-Foot Bracket

Required Tools

Tools Needed

- 1/2" Wrench or Screw Gun
- Loctite PL® Premium Max High-Strength Concrete Polyurethane Adhesive (Approximately one tube for every (8) IR-T1 Brackets)
- Caulk Gun
- Claw Hammer
- Tape Measure
- Carpenter's Pencil / Permanent Marker (for marking adhesive locations)
- Small Brush/Microfiber Rag (for cleaning under tiles)

Assembly & Fastener Locations





1. Plan Layout

The IR-T1 is designed to replace traditional tile roof hooks used with rail based solar module mounting. The IR-T1s must be spaced no less than 6 feet apart and no less than 4 feet apart (See our datasheets for detailed snow and wind load requirements).

2. Assembling IR-T1 Brackets

Assemble all IR-T1 with the included IR-L1 L-Foots using the *Assembly & Fastener Locations Diagram* (See Page 3). Make sure that all L-Foots are in the same position along the adjustable slot to maintain a uniform height across the system. When attaching the L-Foots, slide the heads of both carriage bolts into the large opening at the top of the IR-T1 and slide it to the desired position. You can then push both of the carriage bolts up into the slot and tighten the nuts by hand, before tightening them down with a screw gun or a wrench.



3. Mark Tiles For Adhesive Bonding Areas

Once layout is planned and IR-T1 placement is marked, use a pencil or permanent marker to draw a line where the upper tile rests on the lower tile for both locations where the IR-T1 tabs will be inserted under the tiles. This will bond the three tiles around that the IR-T1 being ballasted with.



4. Apply Our Test Proven Adhesive

First, make sure the adhesive area is clean of any dust and debris before applying adhesive. Using the claw end of a hammer, lift the upper tile and use a caulk gun to apply a bead of the high-strength concrete adhesive above the penciled line and all areas where upper tile makes contact with the upper tile.

**Approximately (1) Tube of adhesive needed for every (8) IR-T1 Brackets. It is important to install each IR-T1 directly after applying adhesive.*





5. Install IR-T1 Bracket

Slide the tabs of the IR-T1 under the upper and lower tiles of the roof where the two beads of adhesive were applied. The IR-T1 may need to be lightly tapped into place. Repeat this until all brackets are in place.



6. Tighten Tension Bolts

The two tension bolts will provide sufficient strength to install solar modules before adhesive has fully cured. Once all IR-T1 Brackets are in place, tighten both tension bolts.

**The IR-T1 is designed with a flex point to prevent the tension bolts from cracking the tiles. The flat plate at around the tension bolts will flex up when proper tension is applied instead of breaking the tiles.*



7. Attach Rails

Attach rails to the IR-L1 brackets using the T-Bolts included with the rails. The IR-L1 has an open slot that makes it compatible with all rail systems. Attach all rails before proceeding to next step.



8. Install Solar Modules

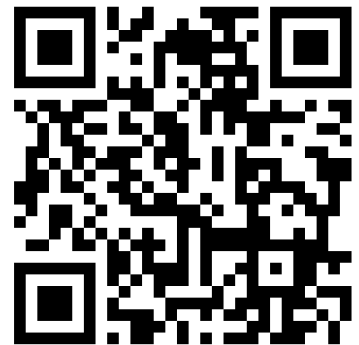
Now that all rails are in place, install micro-inverters and solar modules in accordance with the manufactures' specifications for the rail system.



View Installation Video



**See Our Other
Revolutionary Products**



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