



Revolutionary Solar Racking Systems



IR-T1 TileBallast 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. All IntegraRack products are only intended to be installed by professional, licensed installers.

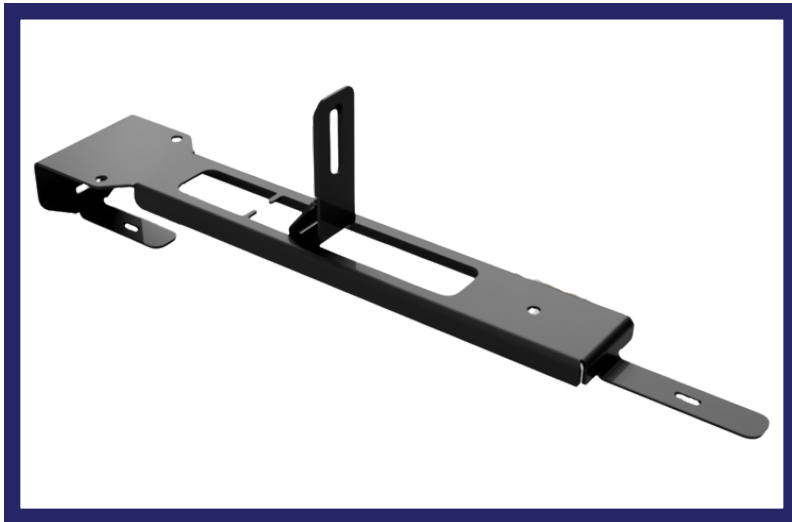
IT IS THE RESPONSIBILITY OF THE INSTALLER TO:

- 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.

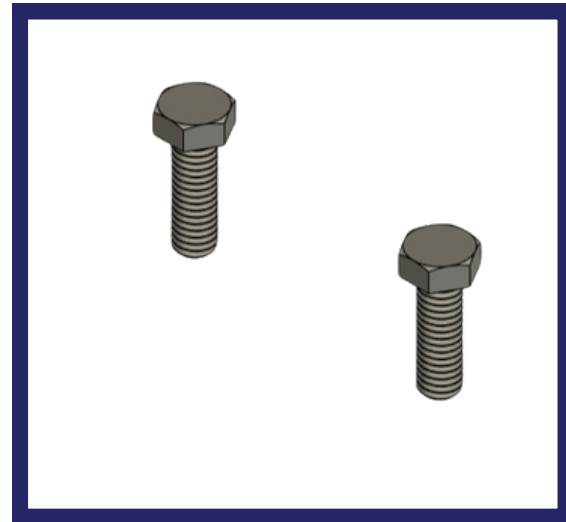
Included Components

Included Components (Per Kit)

- (1) IR-T1 TileBallast Brackets
- (2) Black Tile Tension Bolts



IR-T1 TileBallast Solar Mounting Bracket



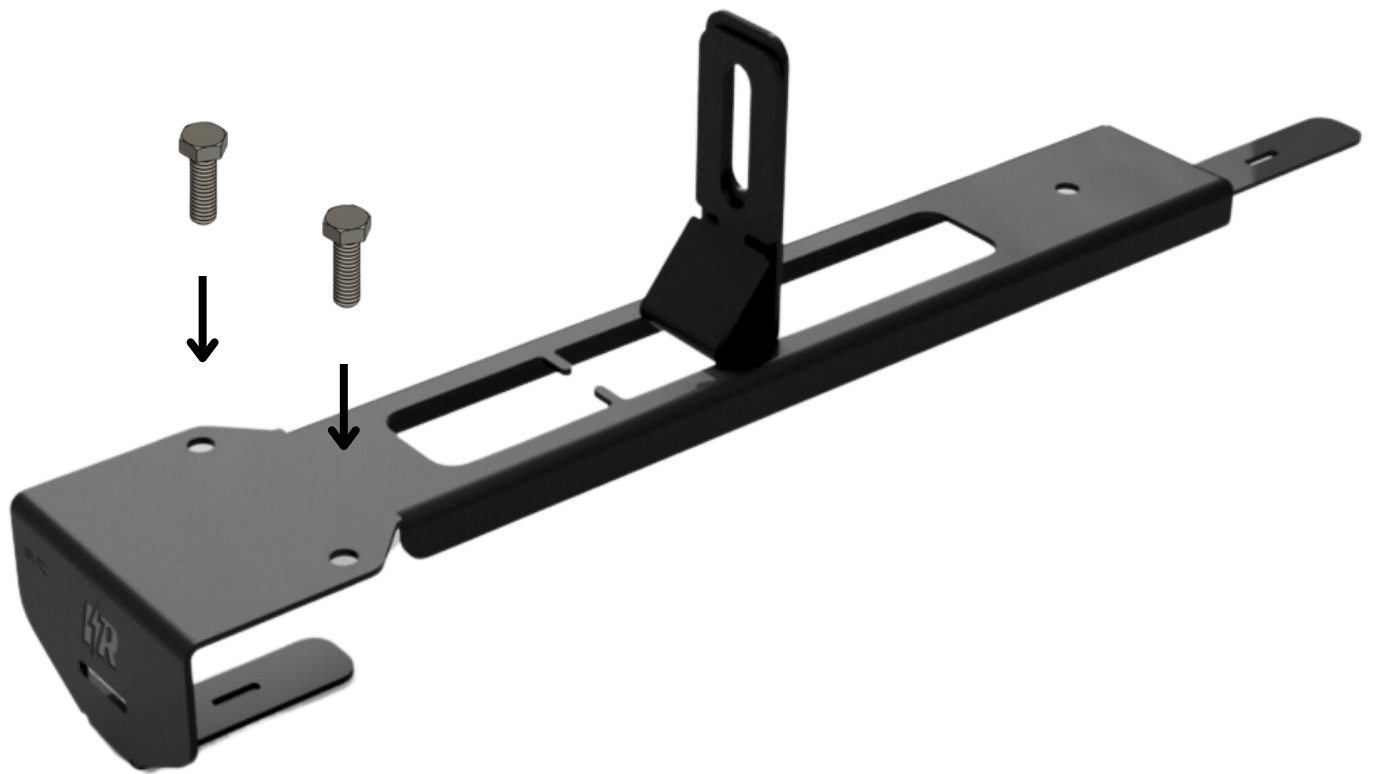
Black Tension Bolts

Required Tools

- 1/2" Wrench or Screw Gun
- Caulk Gun
- Claw Hammer
- Tape Measure
- Chalk
- Small Brush/Microfiber Rag (for cleaning under tiles)

Required Components

- IntegraRack IntegraGel™ Fast Setting Industrial Strength Epoxy (one tube for every **TEN** IR-T1 mounts)



IMPORTANT

- Each IR-T1 needs to be spaced 4-6 feet apart depending on wind and snow load requirements. Please see our Engineering & Datasheets for specific ratings.
- IntegraGel Fast Setting Industrial Strength Epoxy is required for every ten IR-T1 mounts.

WORKING TIME

20 Minutes at 70°F (21°C)

FULL CURE

3 Days at 70°F (21°C)

MINIMUM WORKING TEMP

40°F (4°C)



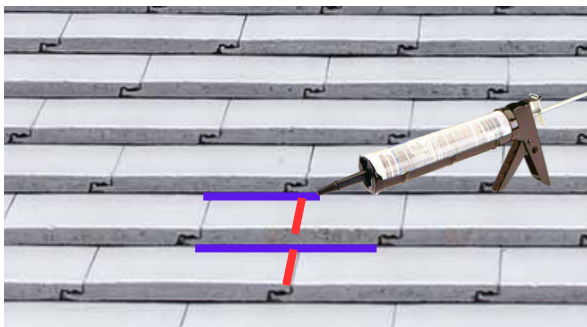
1. Plan Layout

The IR-T1 is designed to take the place of traditional tile roof hooks and works with all rail-based solar mounting systems. Each mount must be spaced 4-6 feet along the length of the rails (See our datasheets for detailed snow and wind load requirements).



2. Mark Tiles For Adhesive Bonding Areas

Use chalk to draw vertical lines marking the placement of each IR-T1. Then, draw horizontal lines along the bottom edge of both tiles where the mount will be installed. This line should be drawn where the upper tile makes contact with the lower tile and will mark where the epoxy will be applied on the tiles.



3. Apply IntegraGel Epoxy

Use a rag or brush to clean underneath the tiles before applying the epoxy. Then, use the claw end of a hammer to lift the upper tile and use a caulk gun to apply a bead of IntegraGel Epoxy just above the drawn line. Each bead should extend 4 inches on either side of the center line and should bond all of the tiles together around each IR-T1.

IMPORTANT

- Some photos show the IR-T1A with adjustable Slider-Foot attachment. Functionality and installation steps are still the same.



4. Install IR-T1 Mounts

Slide the tabs of the IR-T1 on the drawn center line under the upper and lower tiles of the roof where the two beads of adhesive were applied. You may need to lightly tap it into the wet epoxy with a hammer or rubber mallet. Repeat this until all mounts are in place.

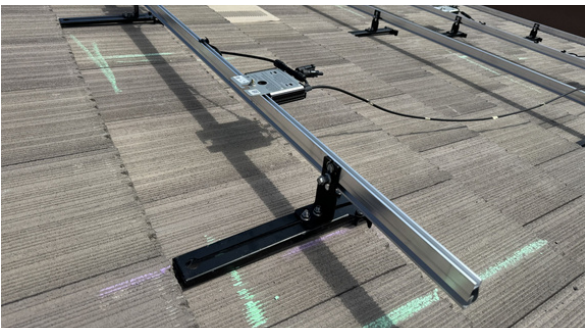


5. Tighten Tension Bolts

The two tension bolts will provide sufficient strength to install solar modules before adhesive has fully cured. Once all IR-T1 Brackets are in position, 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 around the tension bolts will flex up when proper tension is applied instead of breaking the tiles.*

The IntegraGel Epoxy can take up to 1 hour to set up.



6. Attach Rails

Using the hardware provided with your rail system, attach the rail to the integrated upright by inserting the bolt through the open slot. The height of the rail can be adjusted along this slot.



7. Install Solar Modules

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



View Installation Video



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Revolutionary Products**



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