RAPIDRAC™ G10

Installation Manual 601.2

Unirac Code-Compliant Installation Manual

UNIRAC®
Bright Thinking in Solar

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Unirac welcomes input concerning the accuracy and user-friendliness of this publication. Please write to **publications@unirac.com.**

[1] Installer responsibility

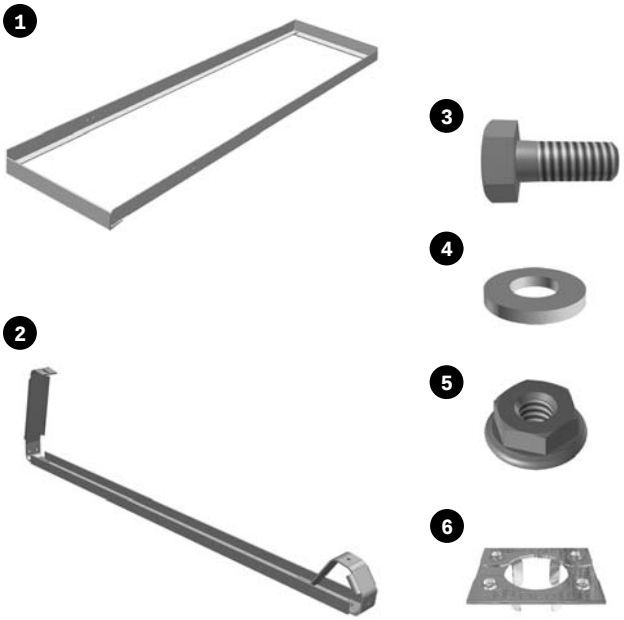
The installer is solely responsible for:

- 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 installation and the installation environment;
- Ensuring that the roof, its rafters, connections, and other structural support members can support the array under building live load conditions (this total assembly is hereafter referred to as the roof rafter assembly);
- Using only Unirac parts and installer-supplied parts as specified by Unirac (substitution of parts may void the warranty);
- Ensuring that lag screws 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.

[2.] Tools required for assembly

7/16 Wrench

[3.] Components list

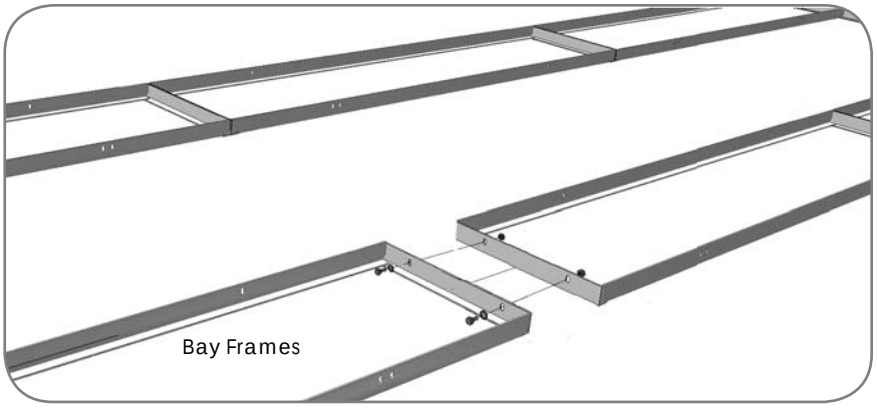


1. **Bay frame** – Module mounting frame for all modules south of north most row. 6105-T5 aluminum extrusion.
2. **Module bracket** – (No. 10 x ¾") – Used to secure module to 2-bay and 1-bay frame. 10° tilt angle. 6105-T5 aluminum extrusion. Integral PEM nuts for quick assembly
3. **Hex Bolt** (1/4" x 3/4") – Use with all components of RapidRac™ except bracket connections to module. 304 stainless steel.
4. **Flat Washer** (5/16") – Use with all components of RapidRac™. 304 stainless steel.
5. **Serrated Flange nut** (1/4") – Use one per hex bolt and washer during assembly. 304 stainless steel. Required torque: 5 min - 9 max foot-pounds.
6. **WEEB 9.5** – Use with per hex bolt and washer during assembly on frame holes facing in towards the array. 304 stainless steel.

[4.] Assembly

Step 1

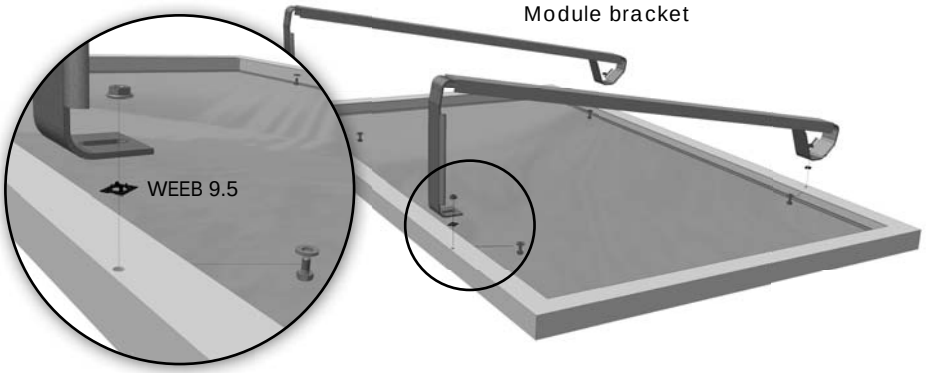
Lay bay frames on roof where array will be installed. Connect bay frames using bolts, washers and flange nuts. Consult RapidRac Code Compliance for proper uses of WEEB 9.5



Step 2

Attach 2 module brackets to each module using hex bolts, washers and flange nuts on all four connections points, using WEEB 9.5 on frame holes facing in towards the array.

Note: Make sure to use a piece of cardboard to protect the module from the surface of the roof.



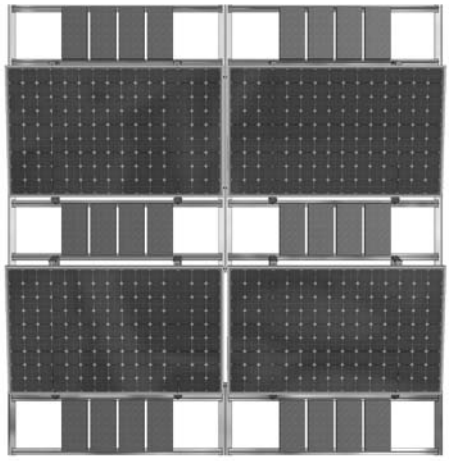
Step 3

Lower module with module brackets between rows of bay frames. Connect using hex bolts and washers on all six connections points. Pressed nuts have been attached to the inside of brackets to speed installation.

Step 4

Ballast requirements vary. Total amount of concrete blocks placed in frame depends on wind speed, exposure, building height and module dimensions. Refer to the ***RapidRac™ Code Compliance Documentation, Installation*** manual or download *RapidRac™ Estimator* at www.unirac.com.

Parts provided by installer:
Solid Cap Concrete Blocks
(4" x 8" x 16"), 26 lbs.

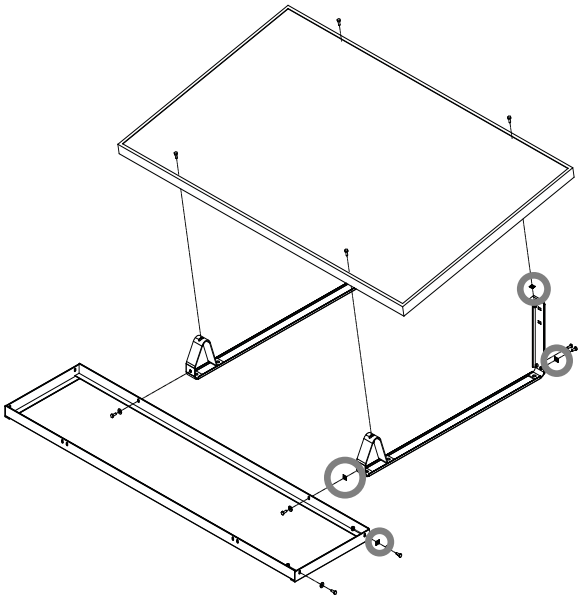


Note: *Unirac requires that all perimeter ballast blocks be adhered to the bay with Builder's Choice Subfloor and Construction adhesive (BC-490 or equal).*

WEEB 9.5 Instructions

Use 4 WEEB 9.5s per module bracket and bay frame. (Circles indicate where WEEB 9.5s can be placed to properly ground an array.)

Note: Make sure to use WEEB 9.5s on one side of the array. Refer to the ***RapidRac™ Code Compliance Documentation, Installation*** manual for more information.



10 year limited Product Warranty, 5 year limited Finish Warranty

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, except for the anodized finish, which finish shall be free from visible peeling, or cracking or chalking under normal atmospheric conditions for a period of five (5) 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 ("Finish Warranty"). The Finish Warranty does not apply to any foreign residue deposited on the finish. All installations in corrosive atmospheric conditions are excluded. The Finish Warranty is VOID if the practices specified by AAMA 609 & 610-02

– "Cleaning and Maintenance for Architecturally Finished Aluminum" (www.aamanet.org) are not followed by 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 Purchaser under any circumstances. If within the specified Warranty periods 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.

UNIRAC®
1411 Broadway Boulevard NE
Albuquerque NM 87102-1545 USA