

Wiley Electronics LLC

Washer, Electrical Equipment Bond

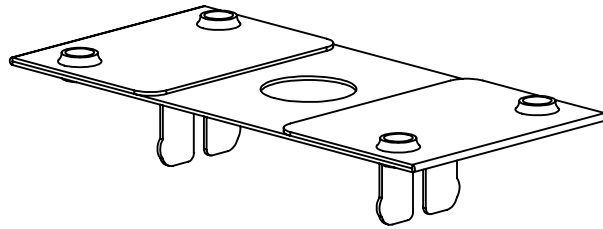
WEEB

Patent Pending

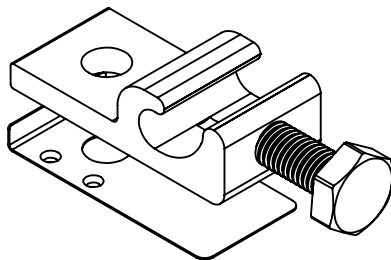
INSTALLATION INSTRUCTIONS

For Sunmodo EZ Helio System Only

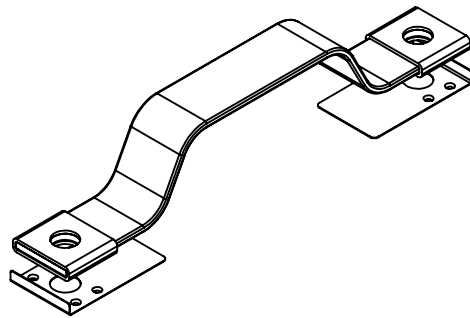
Please Read Carefully Before Installing.



WEEB-UMC



WEEBLug-6.7



WEEB Bonding Jumper-6.7



Products are tested to UL 467 3098177
UL standard for safety grounding and bonding equipment

Document Number 104-0404-000048-000

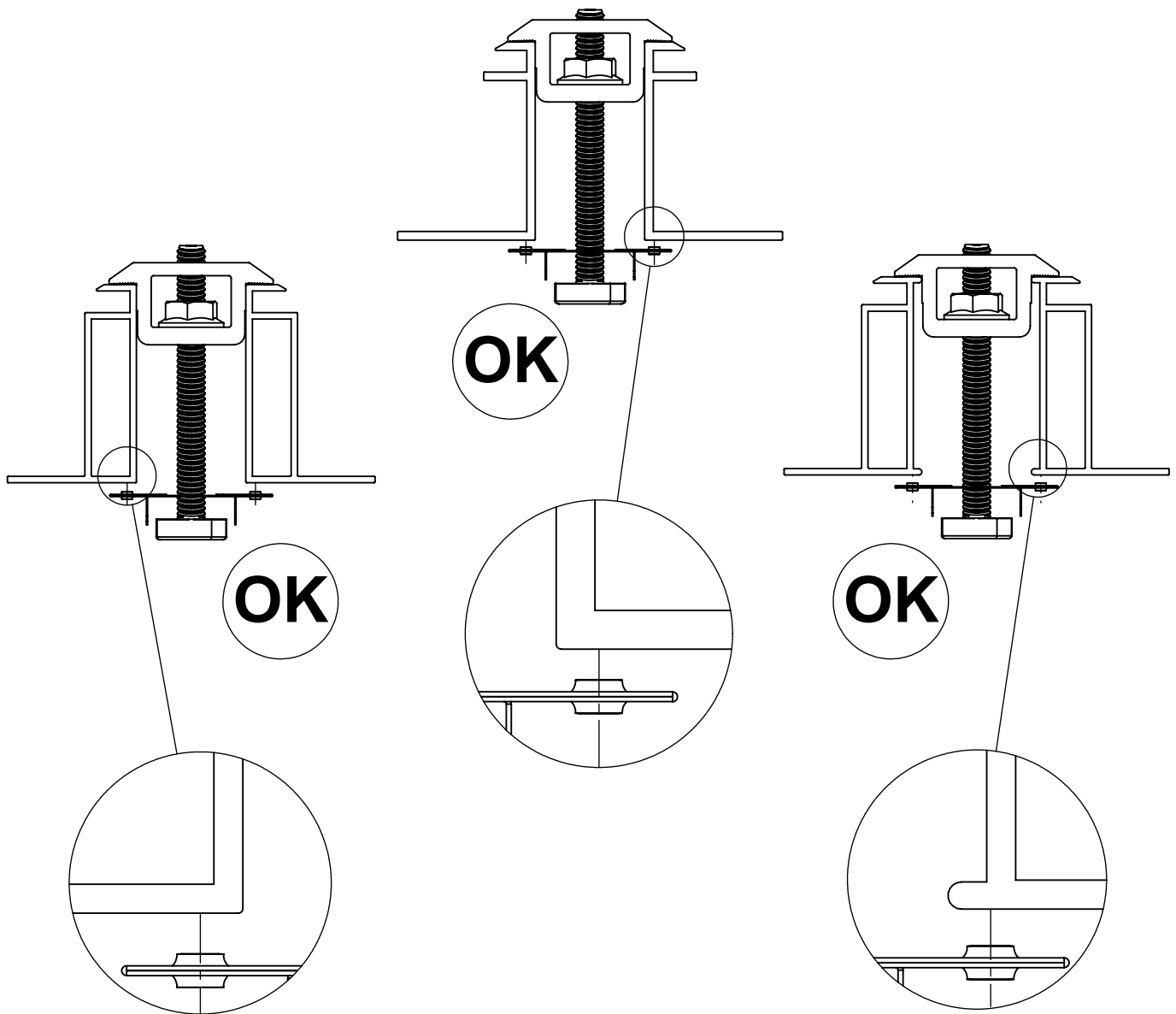
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WEEB COMPATIBILITY

The WEEB family of products can be used to bond anodized aluminum, galvanized steel, steel and other electrically conductive metal structures.

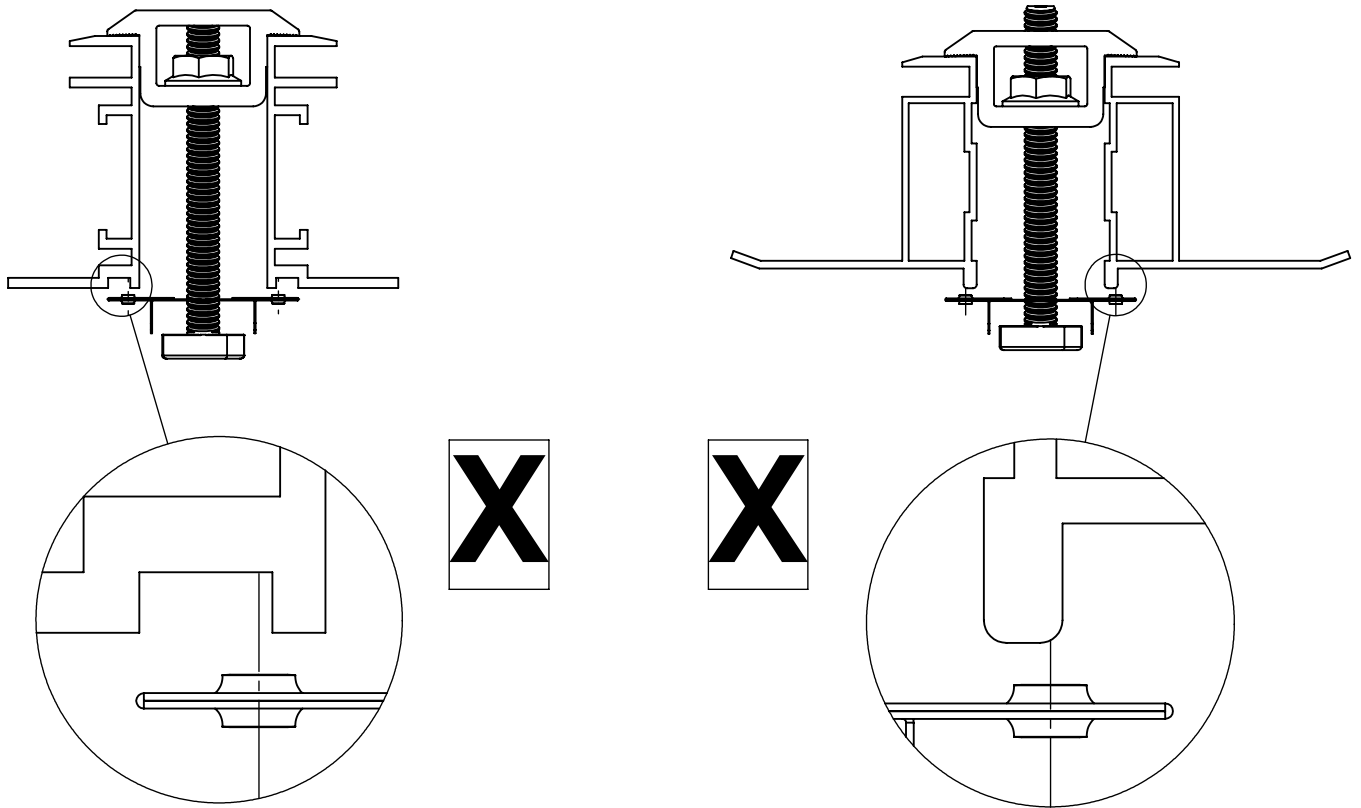
Standard Top Down Clamps

The WEEBs used for bonding the PV modules to the mounting rails are compatible with various cross-sections of module frames. The following are examples of module frames that are compatible. Notice that the WEEB teeth are positioned completely under the edge of the module frame.



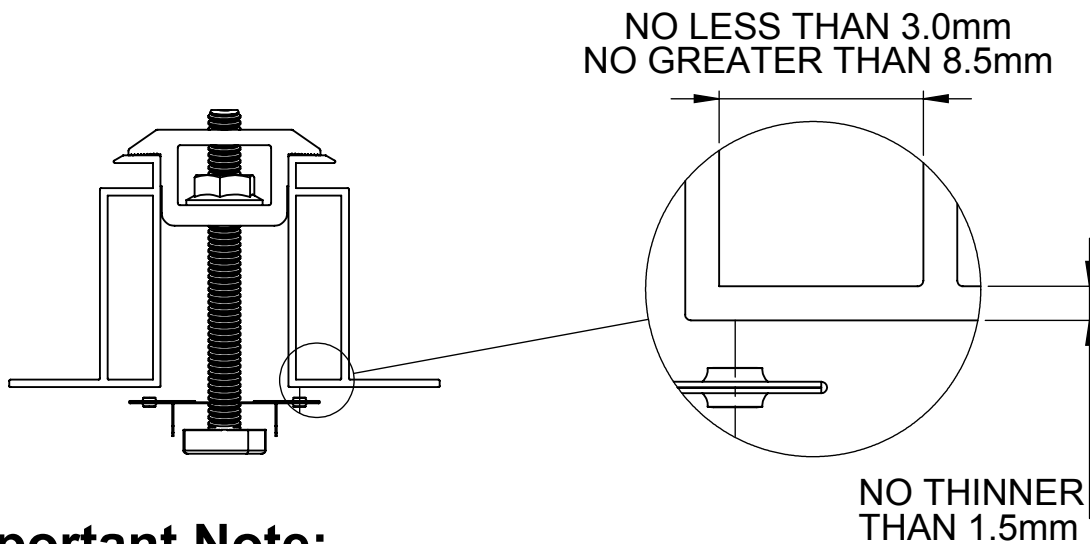
WEEB COMPATIBILITY

Module frames like those shown here may have a ridge or lip on the bottom edge of the frame that would prevent the WEEB teeth from fully embedding. These types of frames are not compatible with the WEEB.



Boxed Module Frames

Boxed module frames must meet the following specifications to be compatible with the WEEB-UMC.



Important Note:

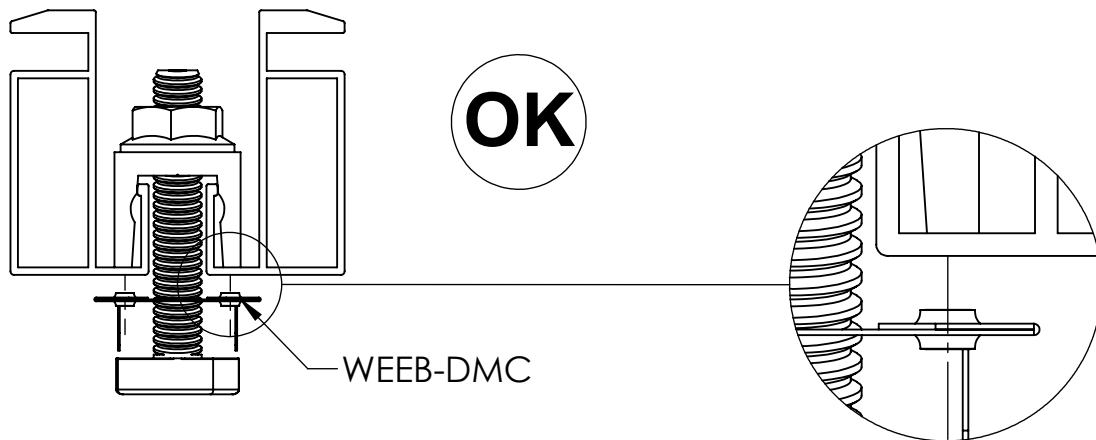
Inspect each module frame used with a WEEB to ensure that the bottom mounting face of the frame is flat, and that there are no hinderances to embedding WEEB teeth. Do not use a module with a frame that prevents the WEEB teeth from embedding fully.

Top Down Clamps for Lipped Modules

The following are variations of lipped solar modules mounted with inverted U-shaped clamps.

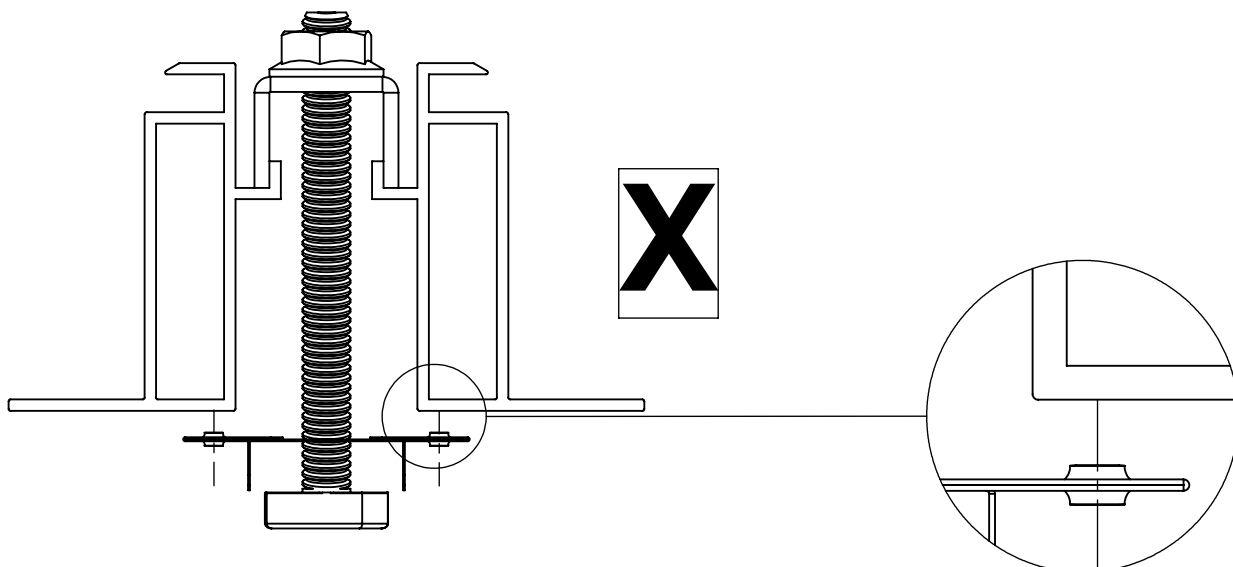
Low-Lipped Module

The WEEB-UMC is not compatible with low lipped modules. Instead, the WEEB-DMC should be used in it's place. Notice the force from the inverted U-shaped clamp is in line with the WEEB teeth.



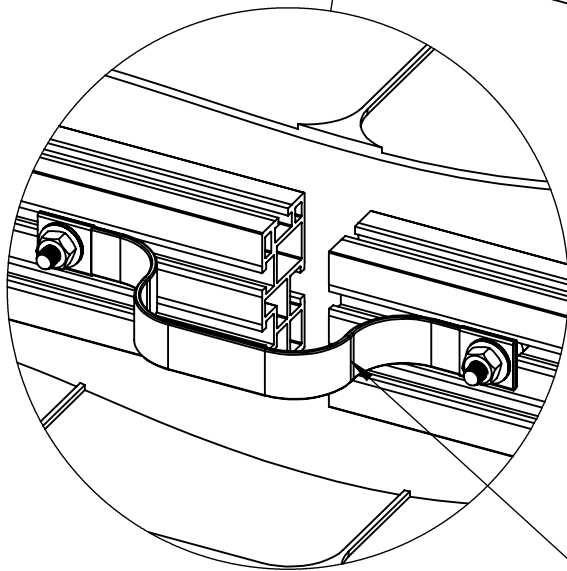
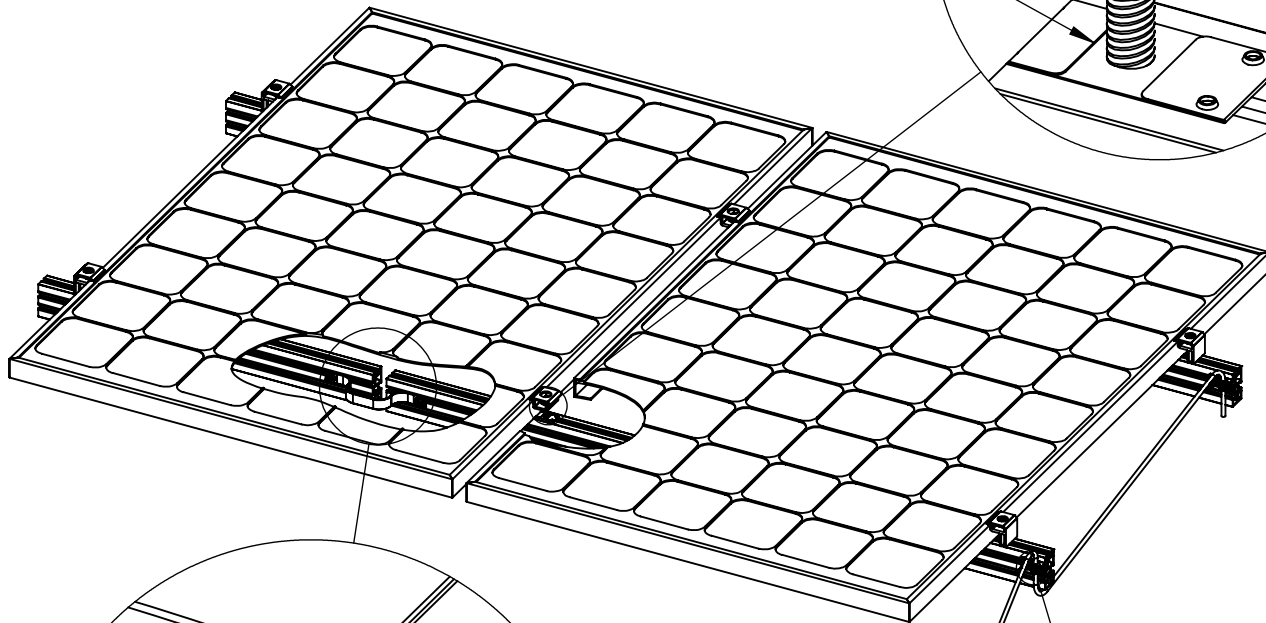
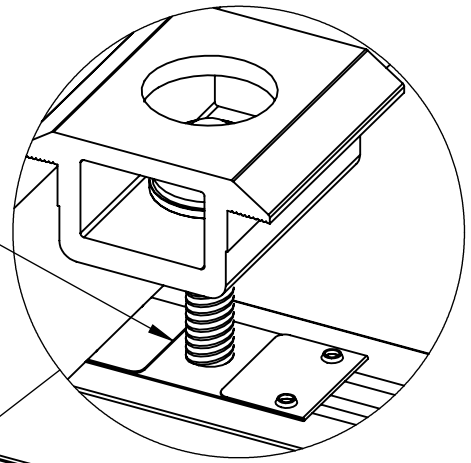
High-Lipped Module

The WEEB-UMC is not compatible with high lipped modules. The clamping force does not fall in line with the WEEB teeth.

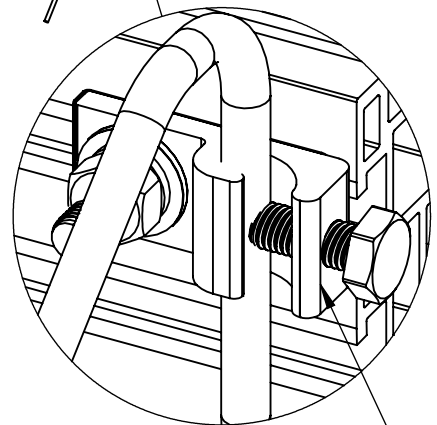


SYSTEM OVERVIEW

Use WEEB-UMC to bond solar module frames to module mounting rail.



Use the WEEB Bonding Jumper-6.7 to electrically connect mechanically spliced rails.



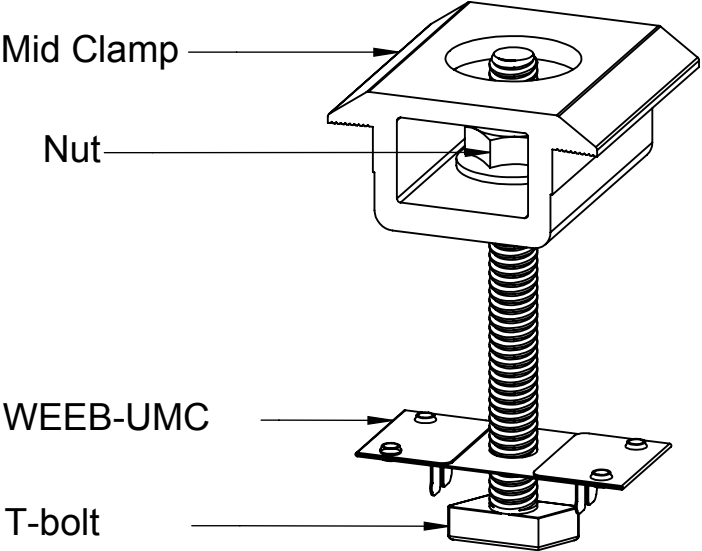
Use one WEEBLug-6.7 assembly per rail to connect system to equipment ground conductor.

Important notes

1. Use general purpose anti-seize compound on fastener threads when installing WEEBs.
2. WEEBs are intended for **SINGLE USE ONLY**. Functionality will not be guaranteed if reused.

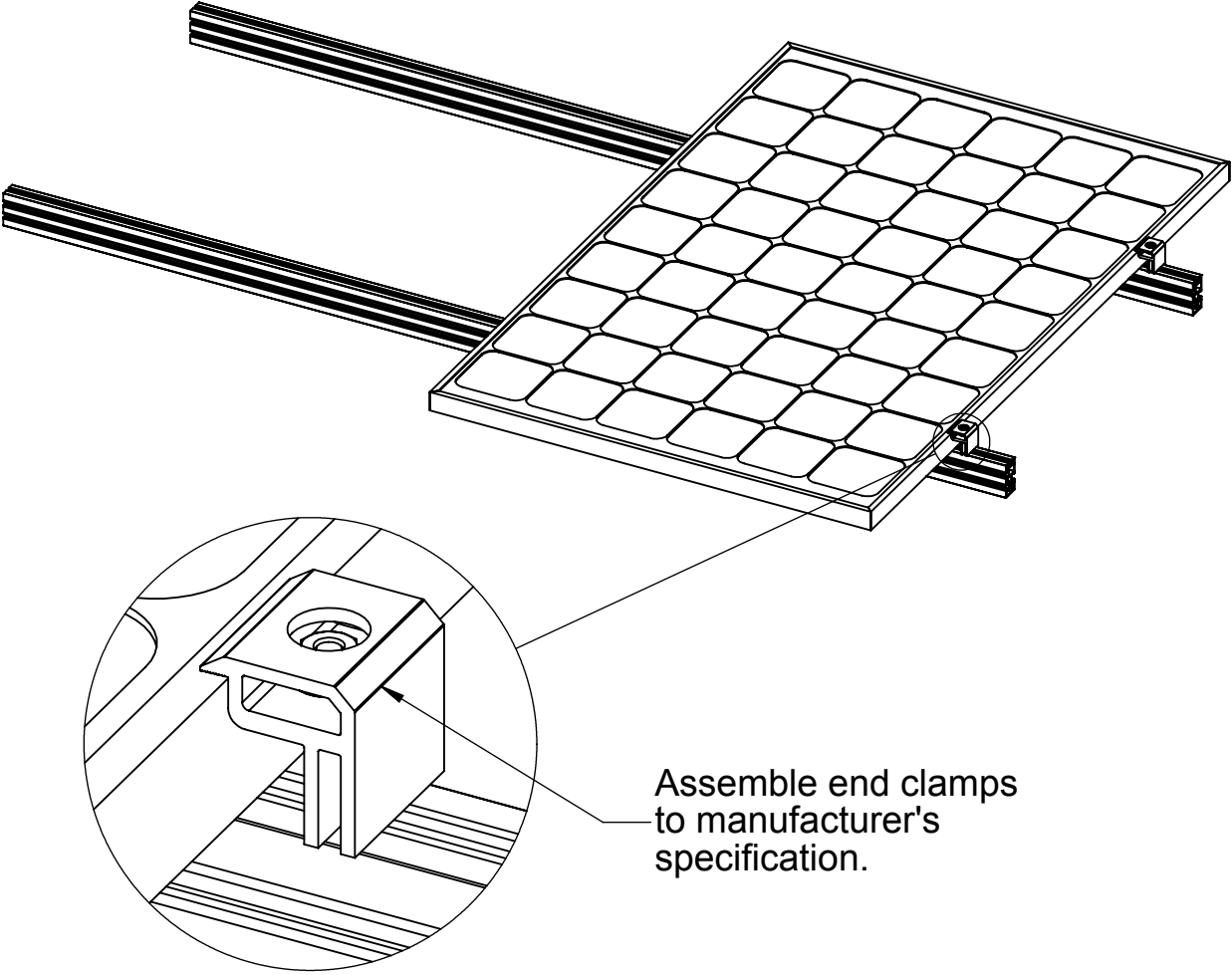
WEEB-UMC ASSEMBLY

1



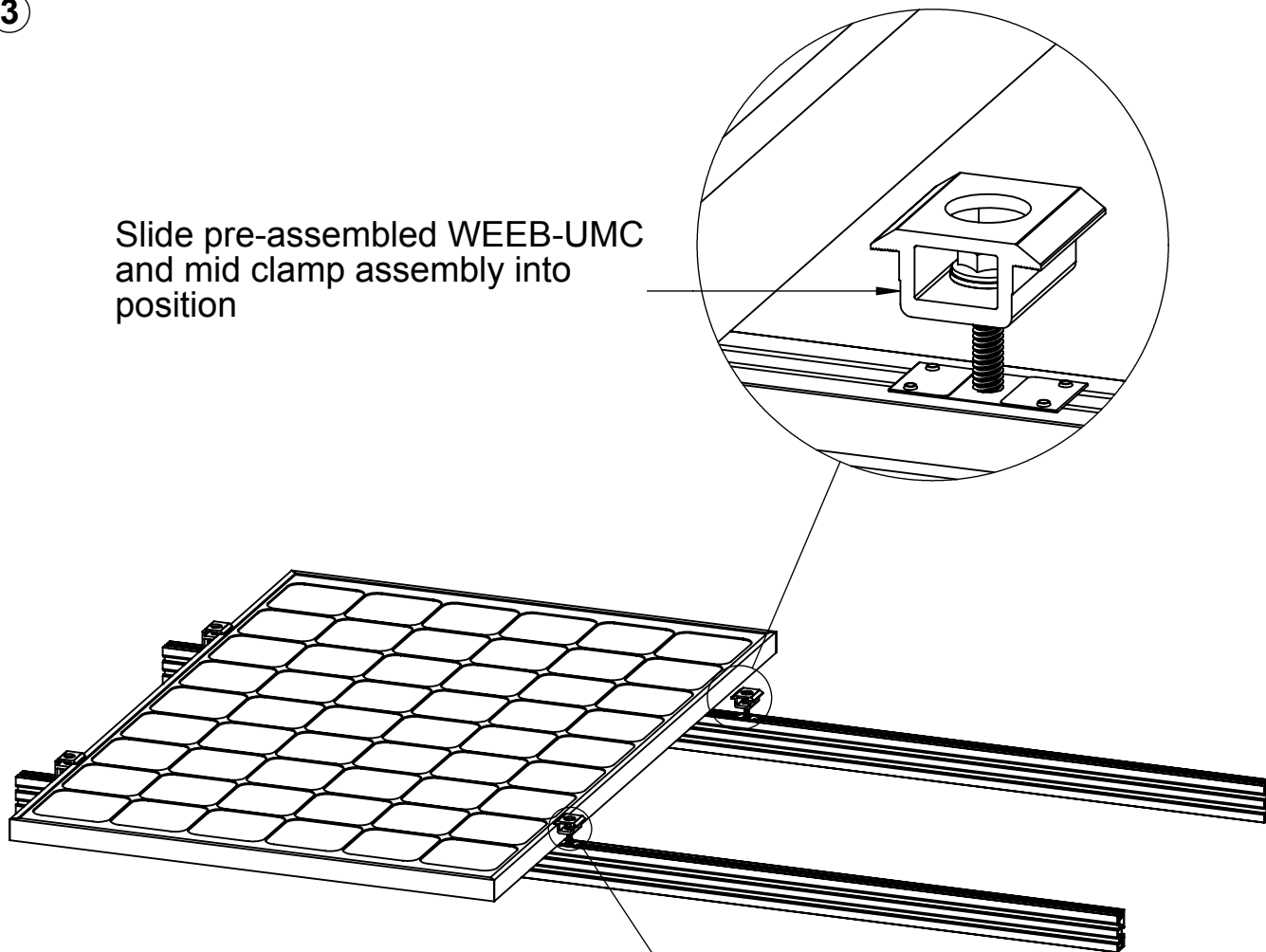
Pre-assemble WEEB-UMC to mid clamp assembly as shown. Pre-assembling WEEB-UMC to mid clamp assembly will contain the small individual parts, reducing the possibility of losing parts during installation.

2

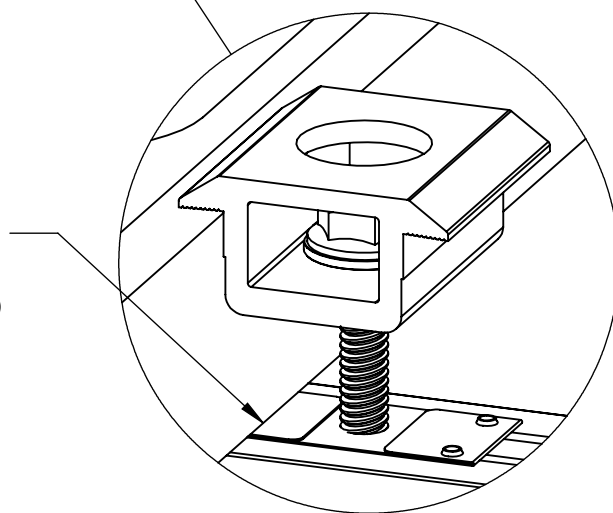


3

Slide pre-assembled WEEB-UMC and mid clamp assembly into position



Slightly lift solar module and slide WEEB-UMC and mid clamp assembly into position. WEEB teeth will automatically be aligned under the edge of the module when the mid clamp assembly is correctly installed.



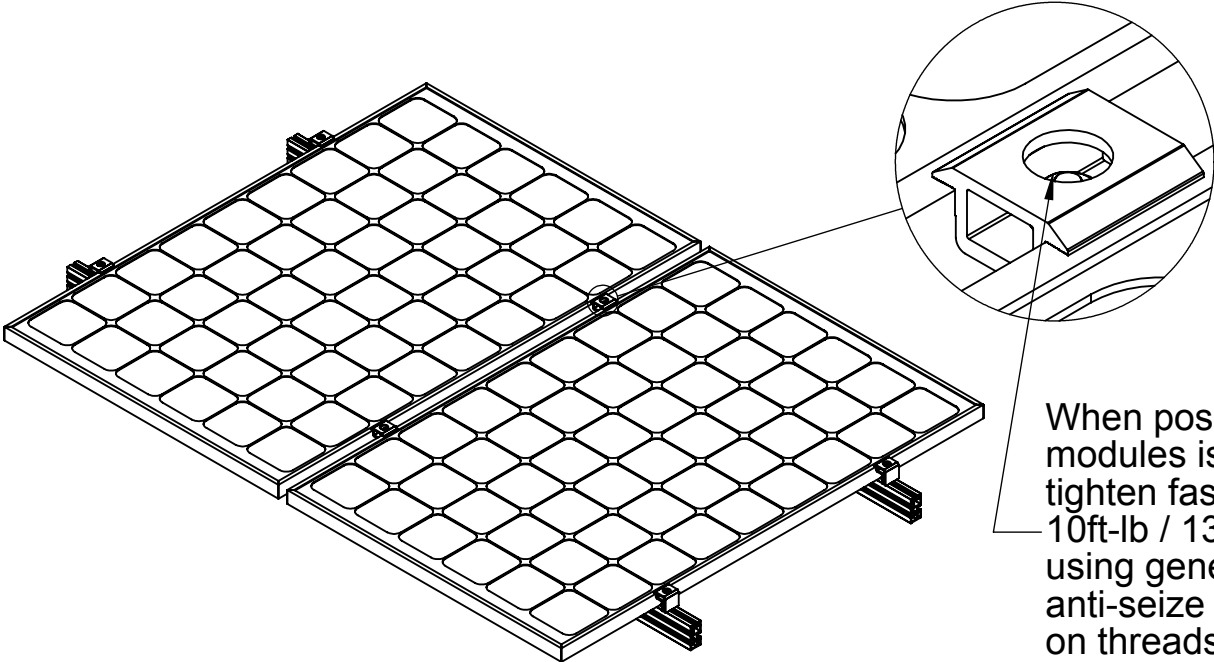
Important note:

To correctly install WEEB-UMC, ensure that both sides of the solar modules are completely positioned against the mid clamp. Refer to WEEB compatibility page for illustrations.

4

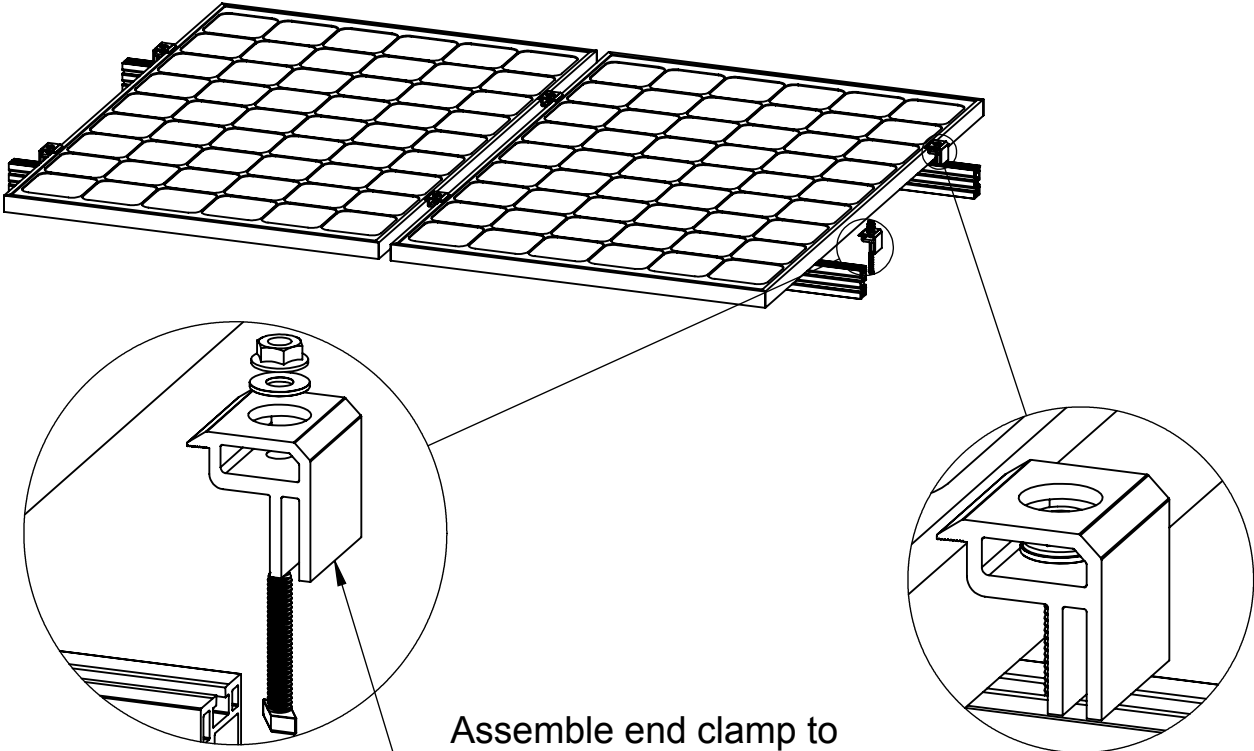
Important note:

WEEBs are for SINGLE USE ONLY! Do not torque fasteners down if position of solar modules is not finalized. Only slightly tighten fasteners to keep modules in place.



When position of solar modules is finalized, tighten fasteners to 10ft-lb / 13.5 N-m using general purpose anti-seize compound on threads.

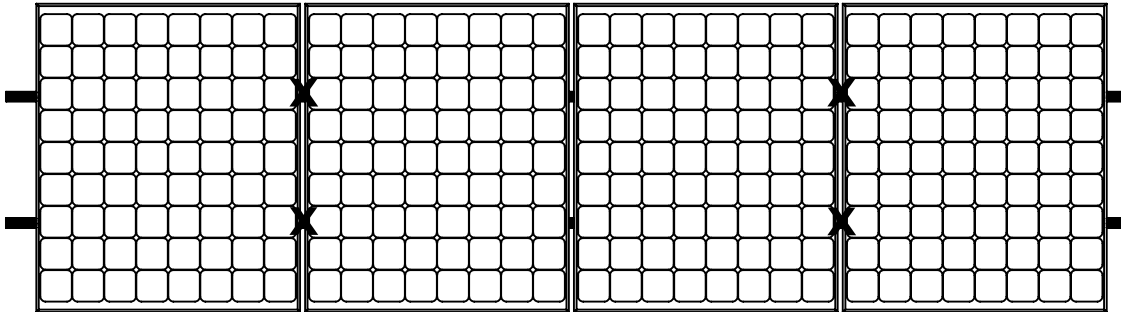
5



Assemble end clamp to manufacturer's specification.

WEEB-UMC LAYOUT

EVEN NUMBER OF MODULES IN ROW

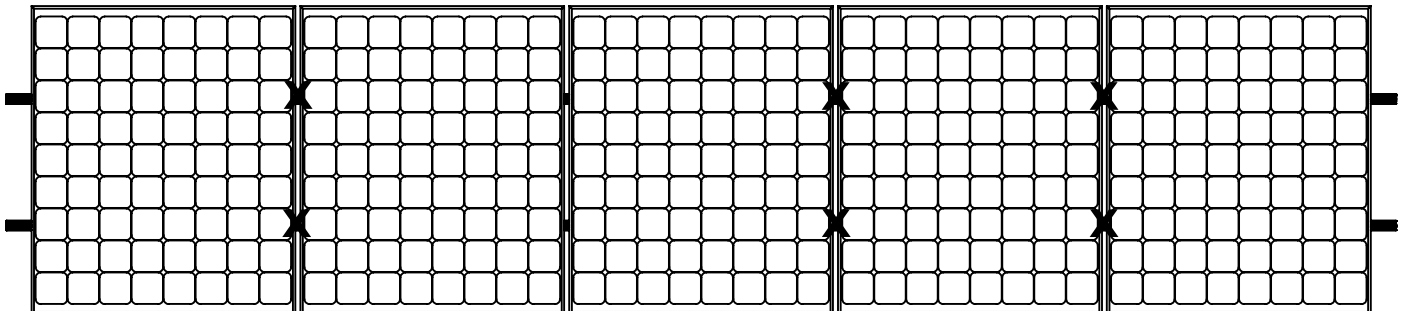


X DENOTES PLACES TO INSTALL WEEB-UMC

$$C \times R = 4 \times 1$$

$$\text{WEEB-UMC NEEDED} = C \times R = 4 \times 1 = 4$$

ODD NUMBER OF MODULES IN ROW



X DENOTES PLACES TO INSTALL WEEB-UMC

$$C \times R = 5 \times 1$$

$$\text{WEEB-UMC NEEDED} = [C+1] \times R = [5+1] \times 1 = 6$$

C = Number of columns in array

R = Number of rows in array

Note:

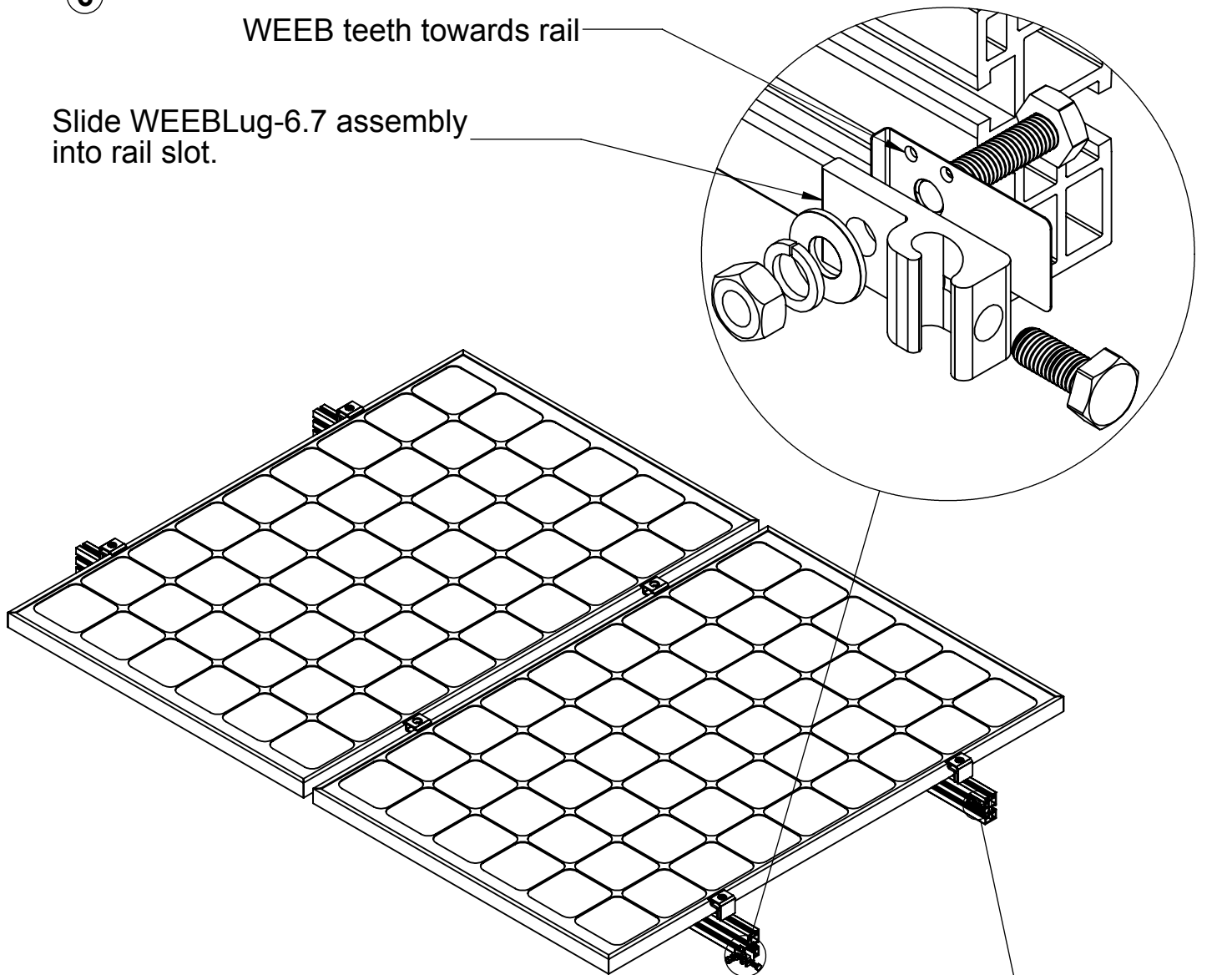
When replacing a single faulty module, also remove the adjacent WEEBs which contact the same faulty module. WEEBs are for single use only and must be replaced whenever the module frame is lifted.

WEEBLUG ASSEMBLY

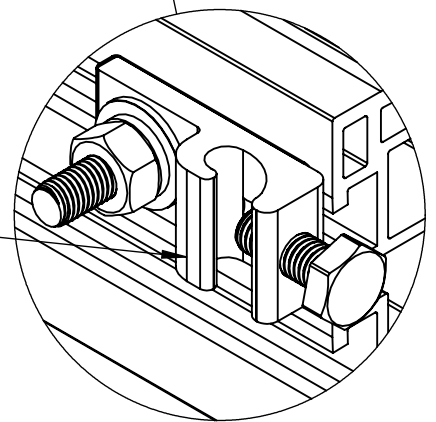
6

WEEB teeth towards rail

Slide WEEBLug-6.7 assembly into rail slot.



Assemble WEEBLug-6.7 assembly and tighten fasteners to 10 ft-lb / 13.5 N-m using general purpose anti-seize on threads.

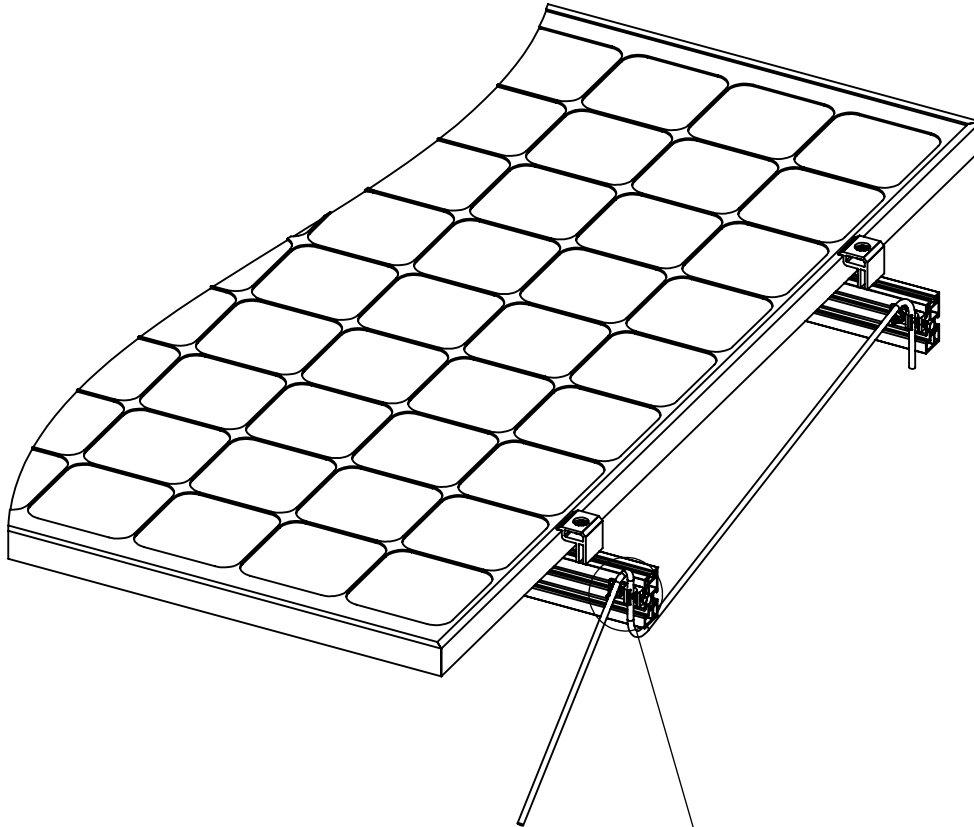


Important note:

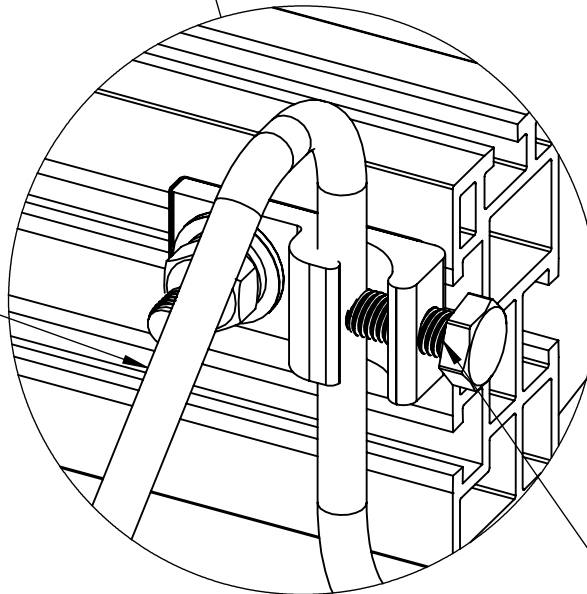
The WEEB-6.7 that sits under the WEEBLug is for **SINGLE USE ONLY!** Ensure position is correct before tightening.

Equipment Ground Connection

7



Equipment ground conductor

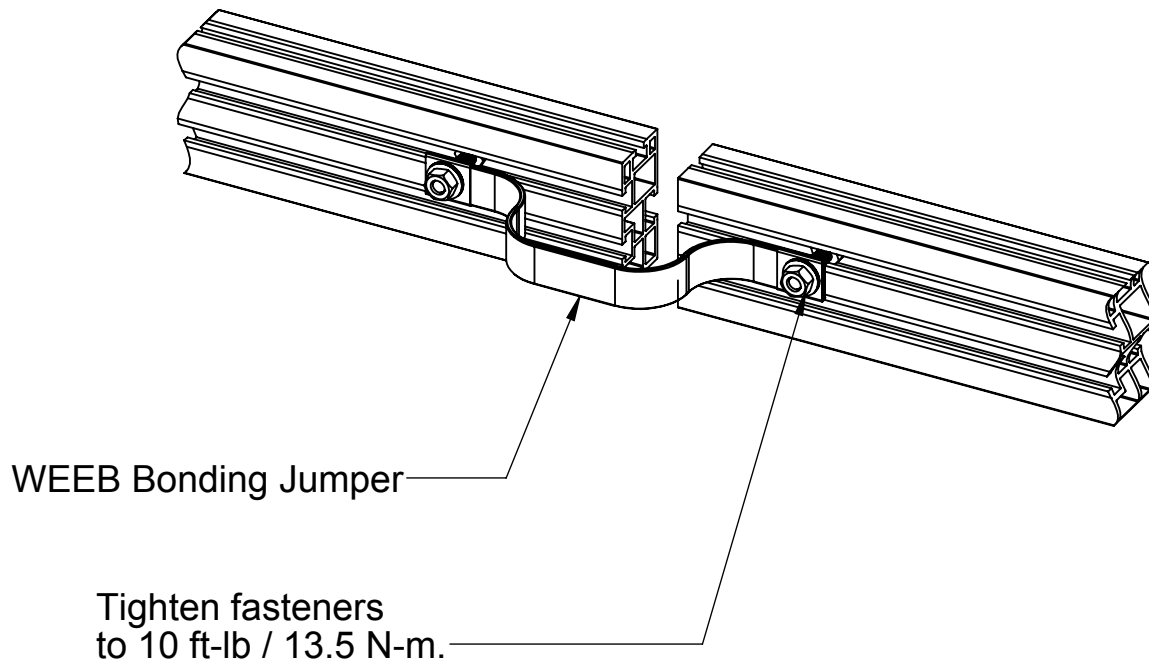


Lay in equipment ground conductor and torque bolt to 7 ft-lb / 10 N-m.

SPLICE KIT ASSEMBLY

8

WEEB Bonding Jumpers can be used for all rail splices including expansion joints.



NOTE:

Use general purpose anti-seize compound on fastener threads when installing WEEBs.