



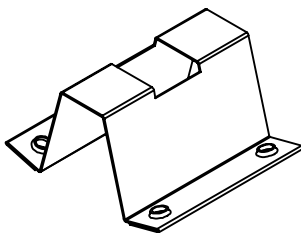
Washer, Electrical Equipment Bond

WEEB

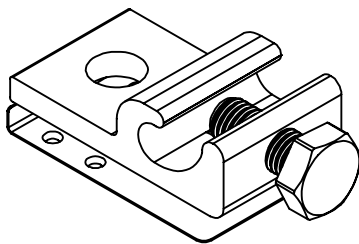
INSTALLATION INSTRUCTIONS

***For NCP Solar
Mounting System only***

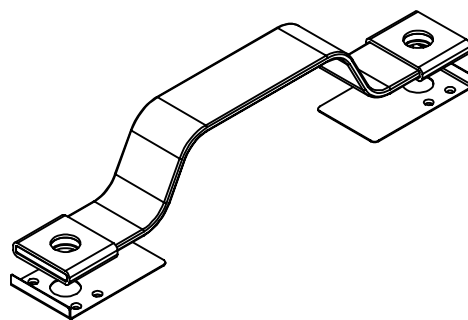
Please read carefully before installing



WEEB - DPF



WEEBLug 8.0



WEEB Bonding Jumper - 8.0

Products are tested to UL 467, CAN/CSA-C22.2 No. 41
US/Canadian standards for safety grounding and bonding equipment



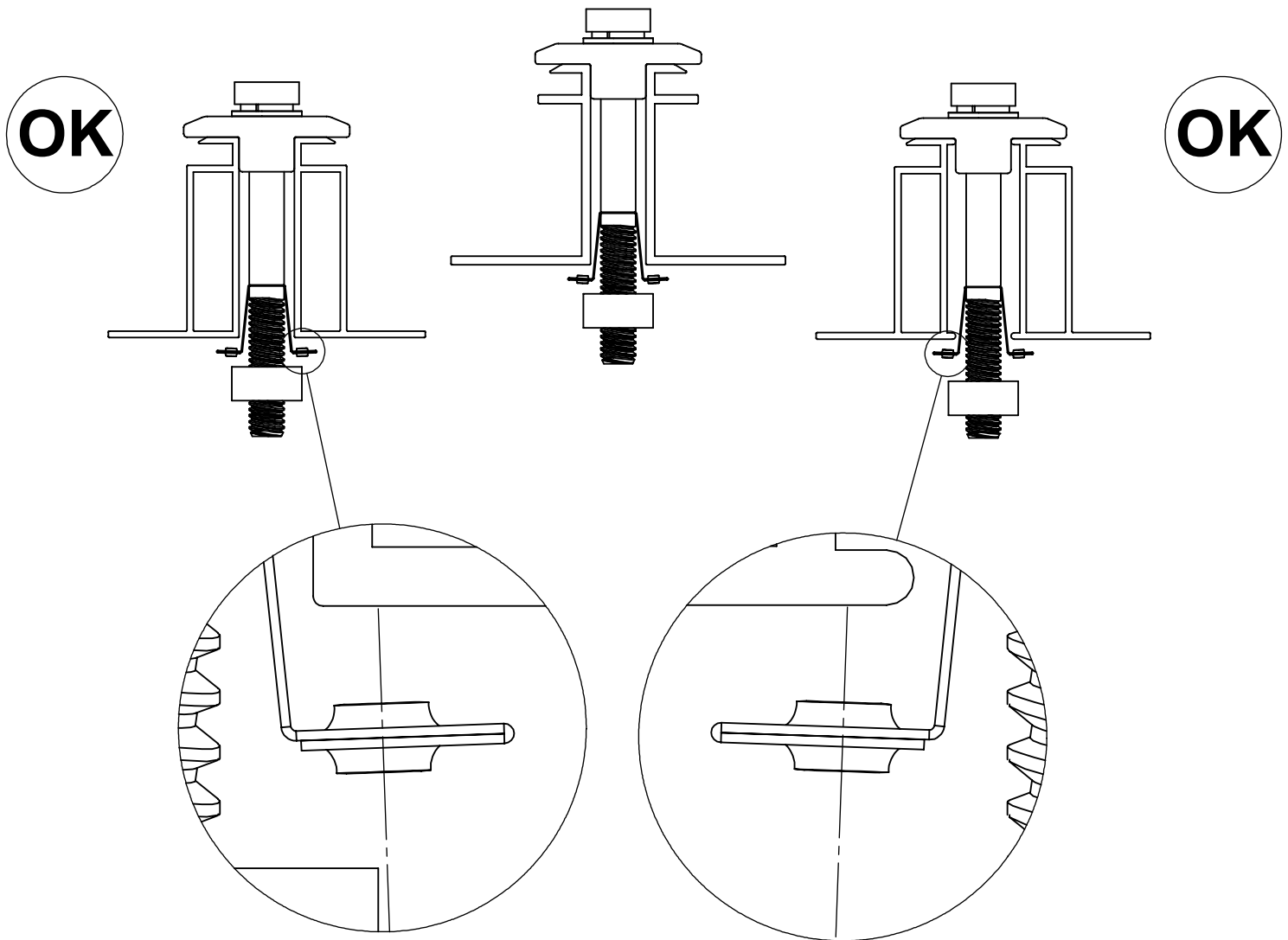
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WEEB COMPATIBILITY

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.



Important Note:

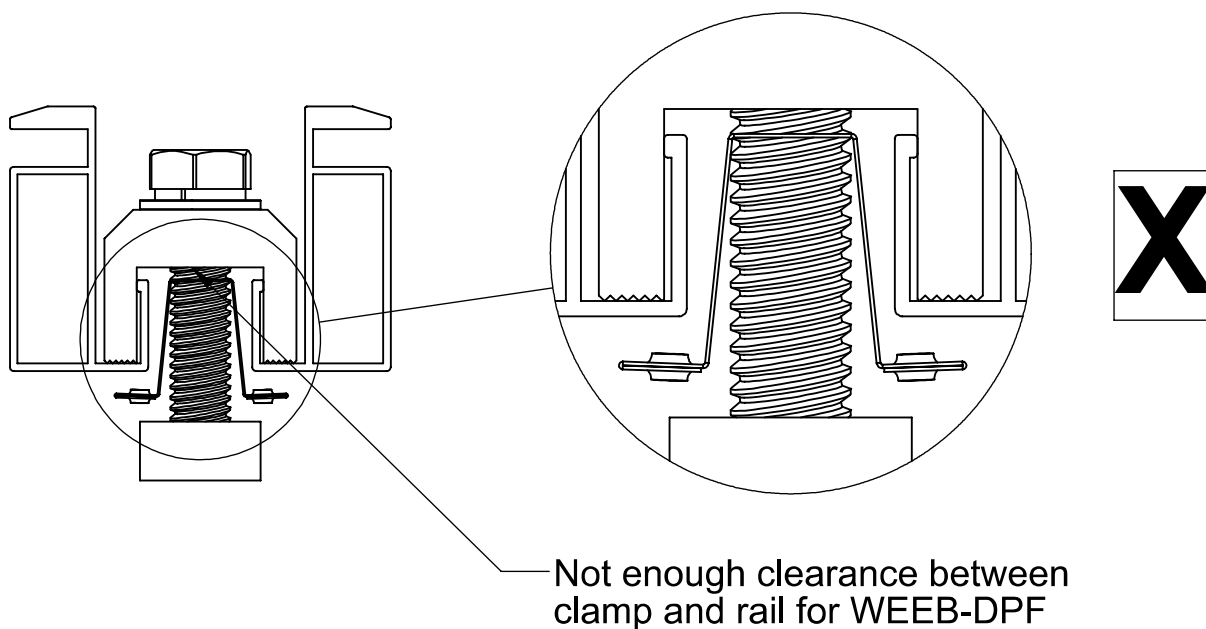
Inspect each module frame used with a WEEB to ensure that the bottom mounting face of the frame is flat, and that there are no hinderances to embedding WEEB teeth. Do not use a module with a frame that prevents the WEEB teeth from embedding fully.

Top Down Clamps for Lipped Modules

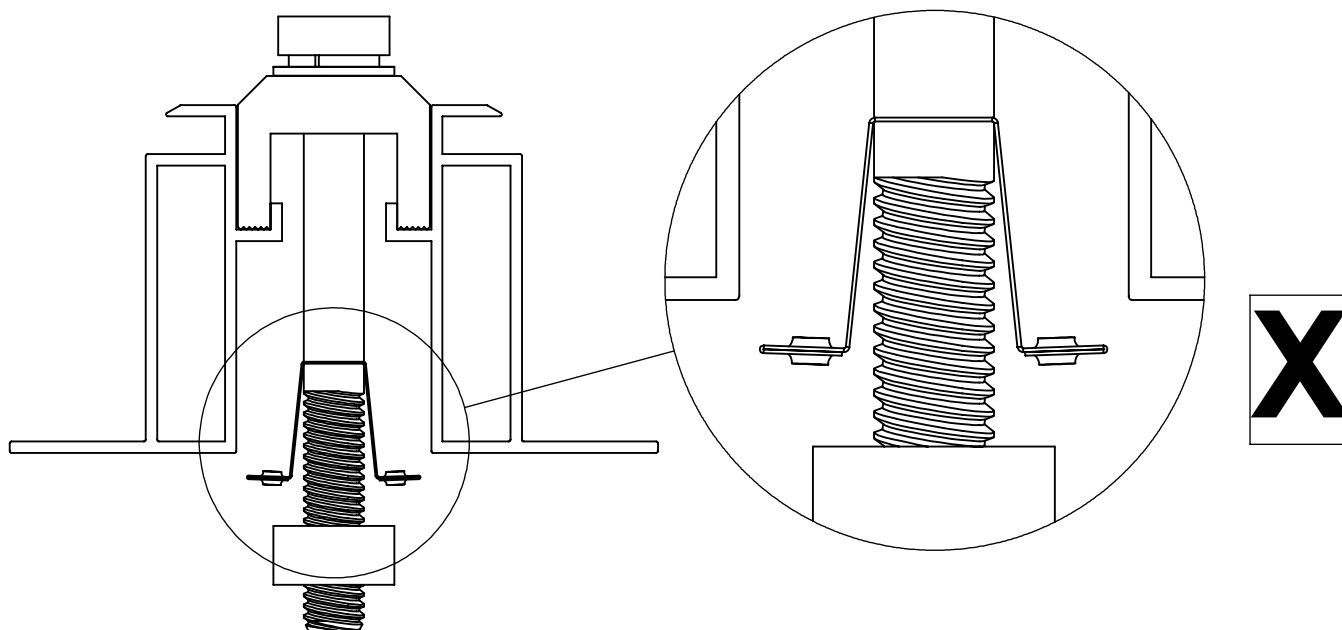
The WEEB DPF is not compatible with the following lipped solar modules mounted with inverted U-shaped clamps.

Notice that the WEEB DPF is taller than the space between the clamp and the mounting rail.

Low-Lipped Module

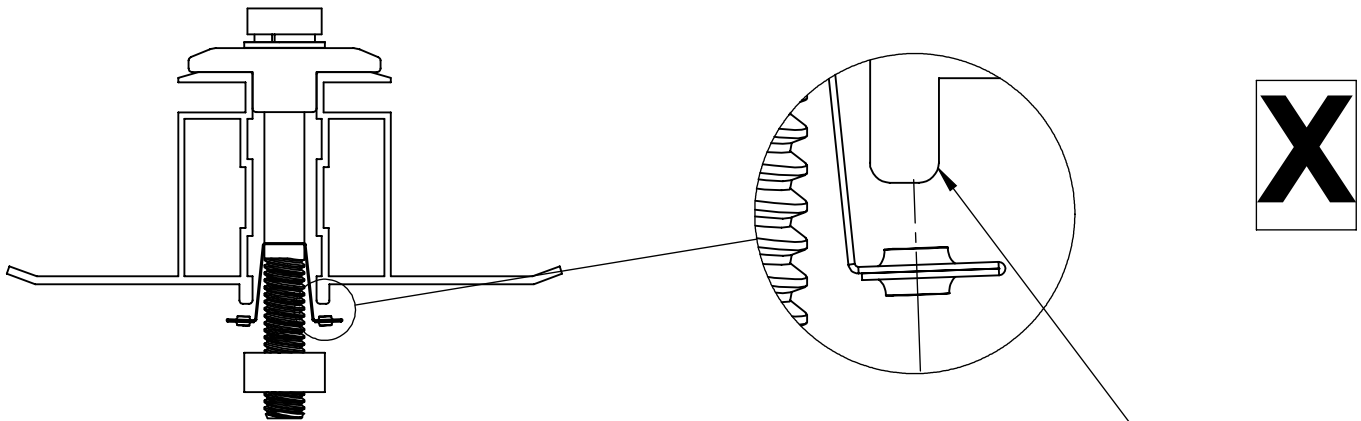


High-Lipped Module

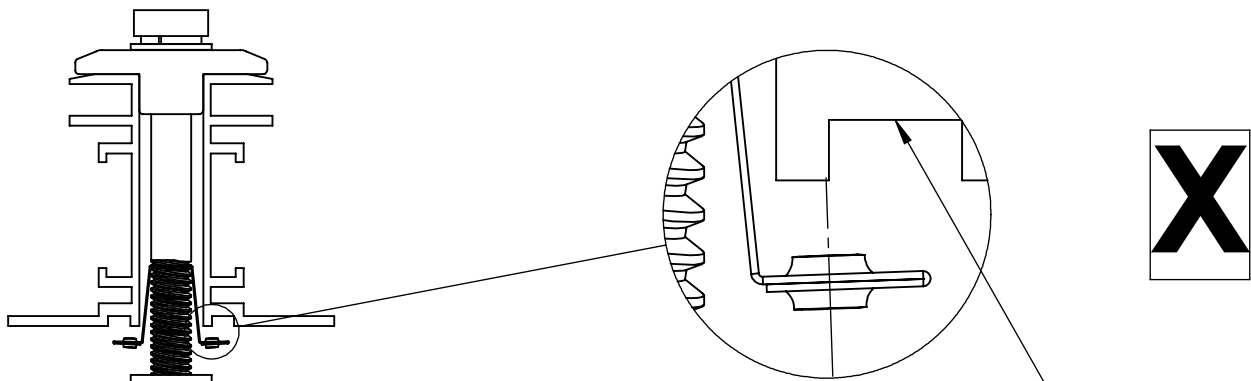


WEEB COMPATIBILITY

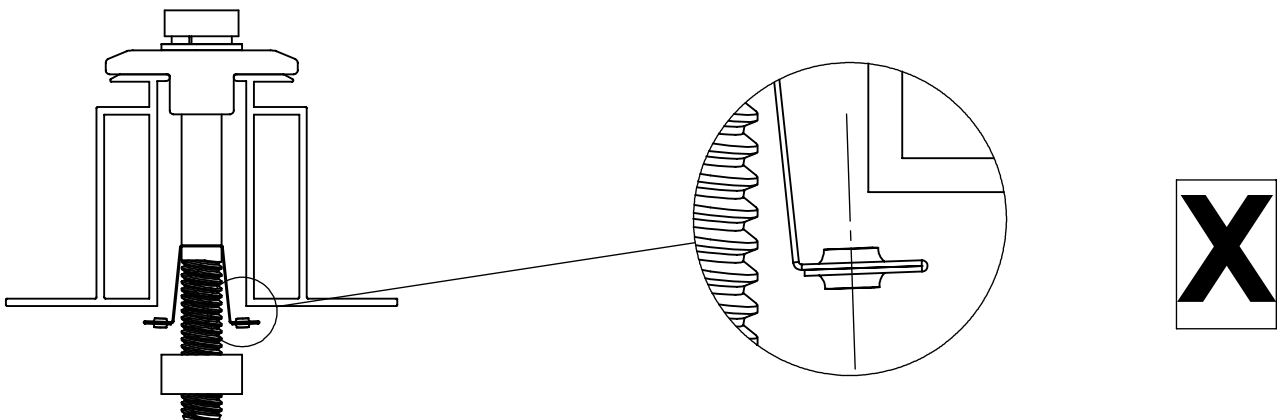
The following are examples of module frames that are incompatible with the WEEB-DPF.



Shown here is an example of a lip that will prevent the WEEB teeth from properly penetrating the module frame. This type of frame is not compatible with the WEEB.



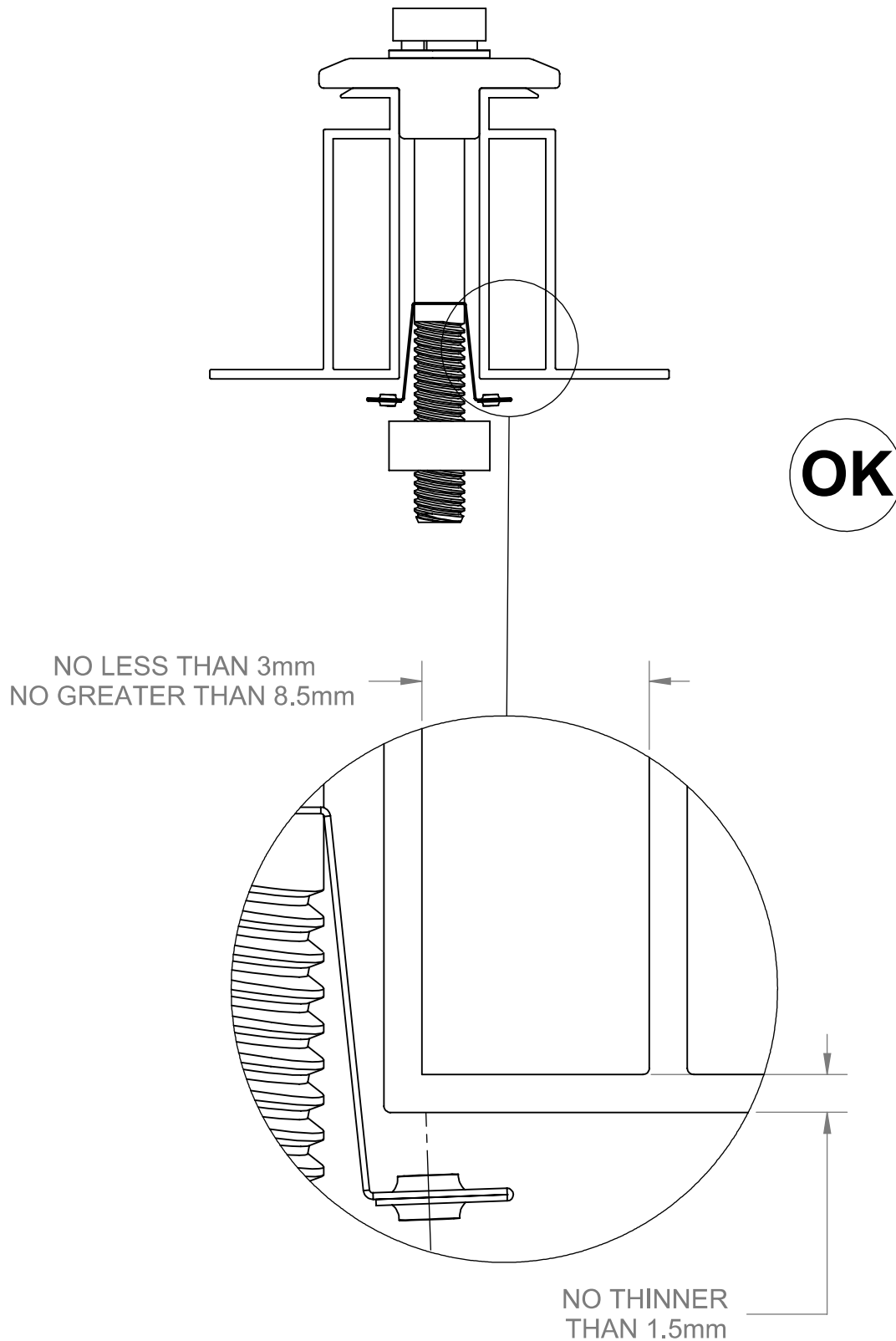
Shown here is an example of a groove that will prevent the WEEB teeth from properly penetrating the module frame. This type of frame is not compatible with the WEEB.



Here the WEEB teeth are positioned only partially under the edge of the module due to the lip on the top edge of the module frame. This type of frame is not compatible with the WEEB.

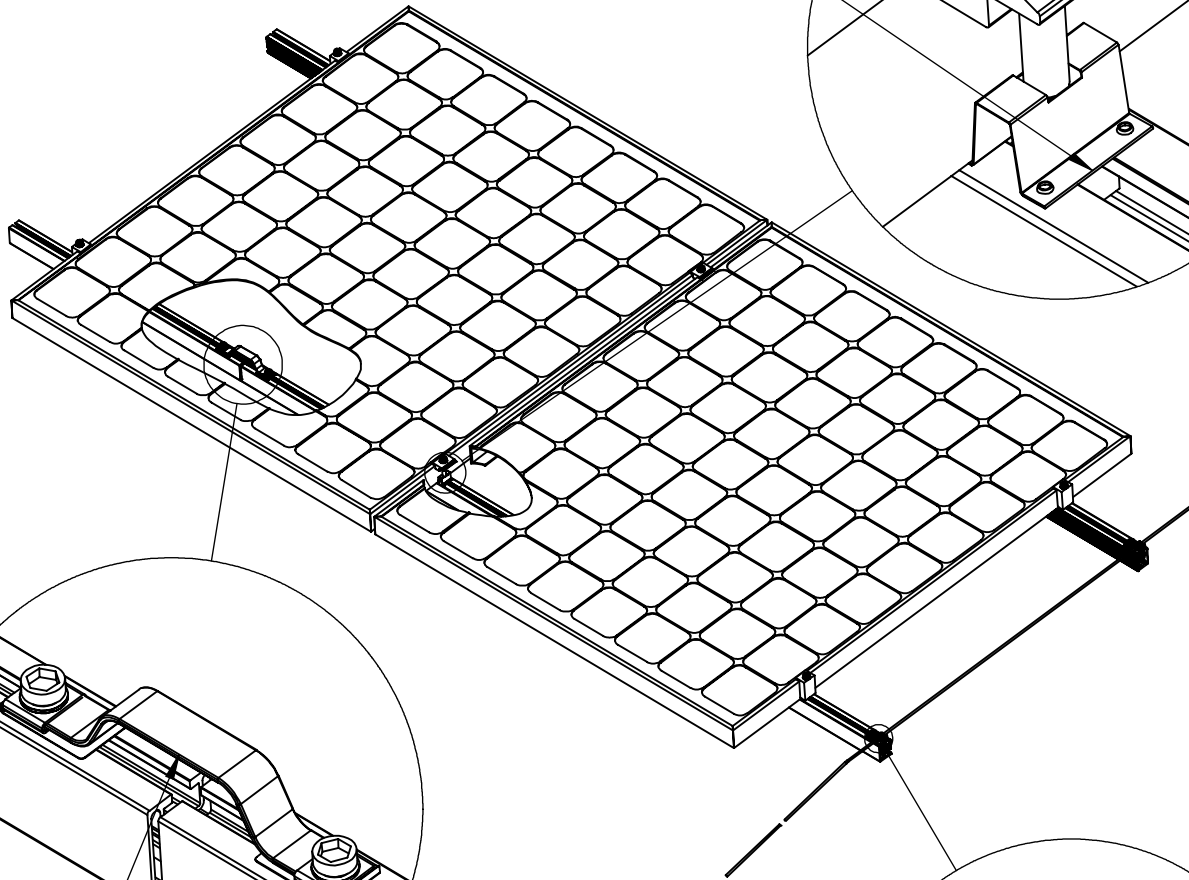
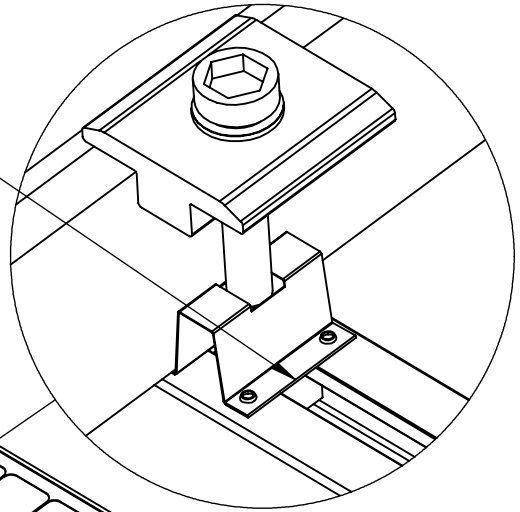
WEEB-DPF and Boxed Module Frames

Due to the spacing of the WEEB teeth, boxed module frames must meet the following specifications to be compatible with the WEEB-DPF.

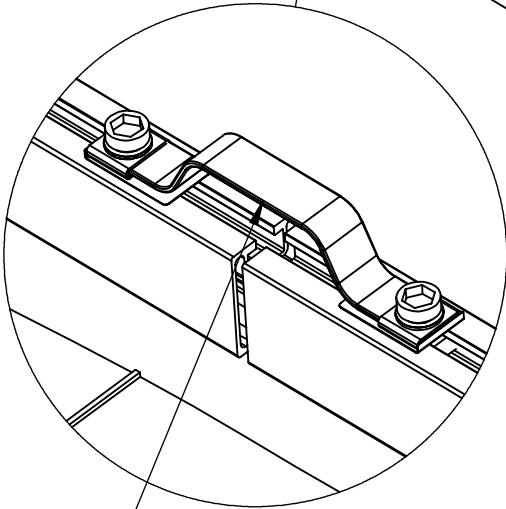


SYSTEM OVERVIEW

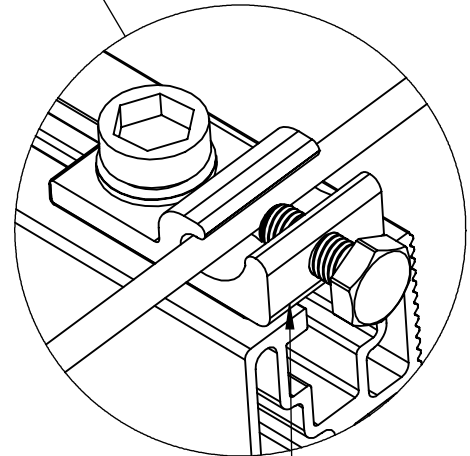
Use WEEB-DPF to bond solar modules to module mounting rail.



Use WEEB Bonding Jumper-8.0 to electrically connect mechanically spliced rails.



Use one WEEBLug-8.0 assembly per rail to connect system to equipment ground conductor.

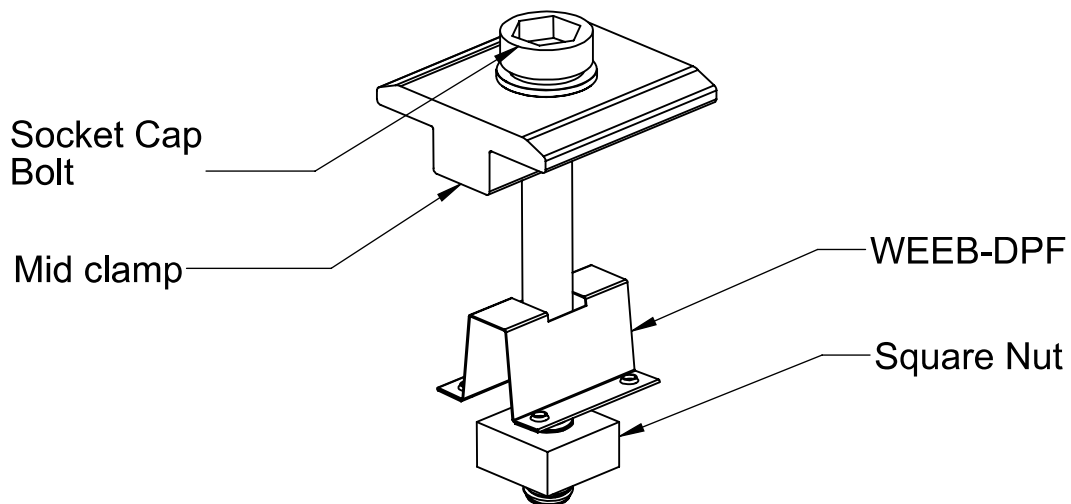


Important notes

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.

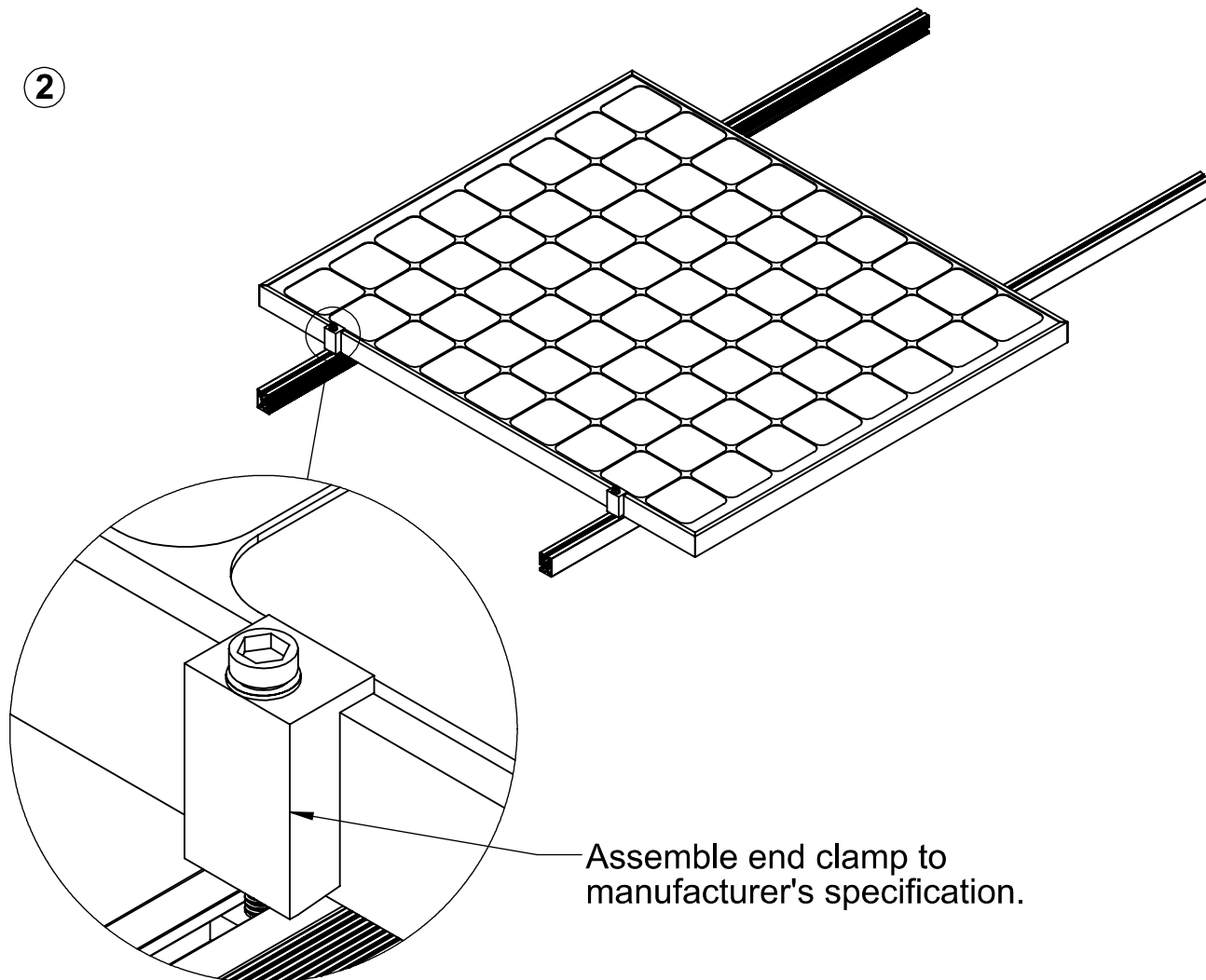
WEEB-DPF ASSEMBLY

①



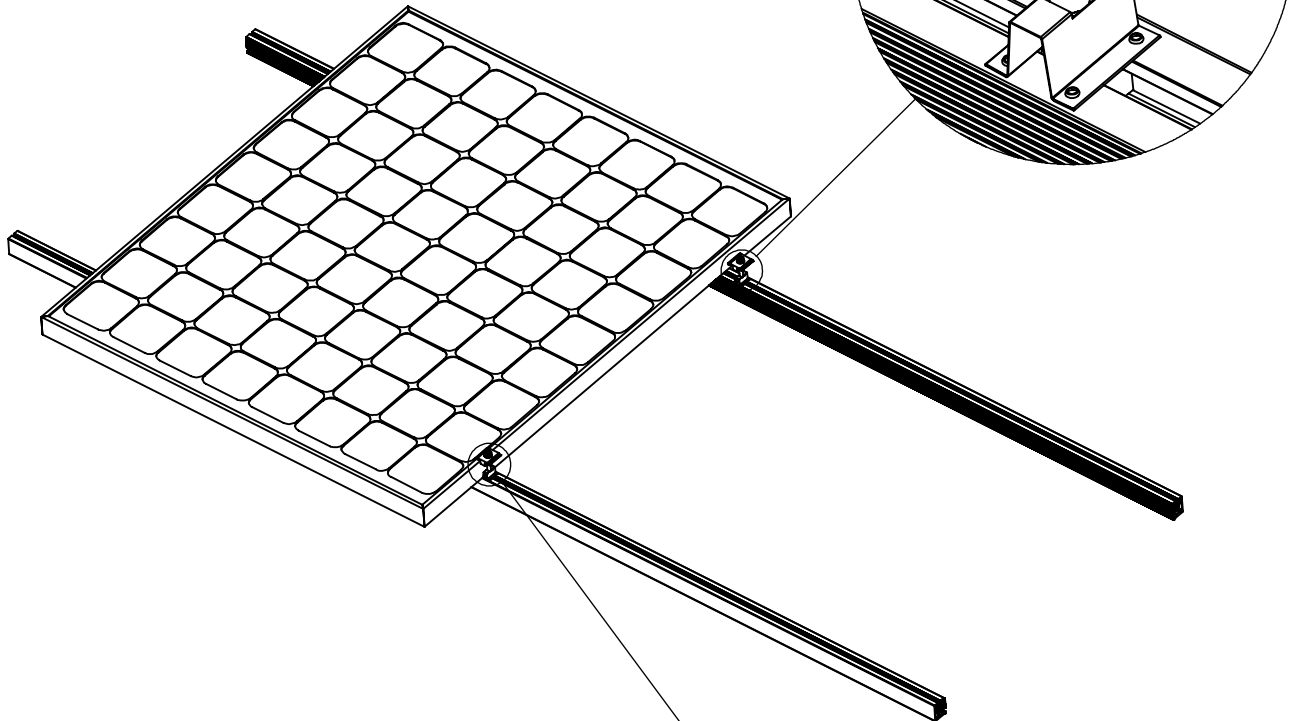
Pre-assemble WEEB-DPF to mid-clamp assembly as shown. Pre-assembling WEEB-DPF to mid-clamp assembly will contain the small individual parts, reducing the possibility of losing parts during installation.

②

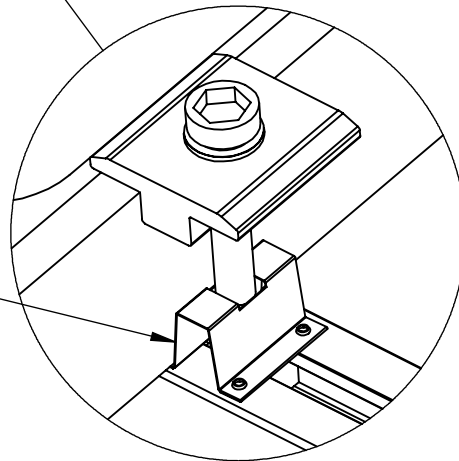


3

Slide pre-assembled
WEEB-DPF and mid clamp
assembly into position.



Slightly lift solar module and
slide WEEB-DPF 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.



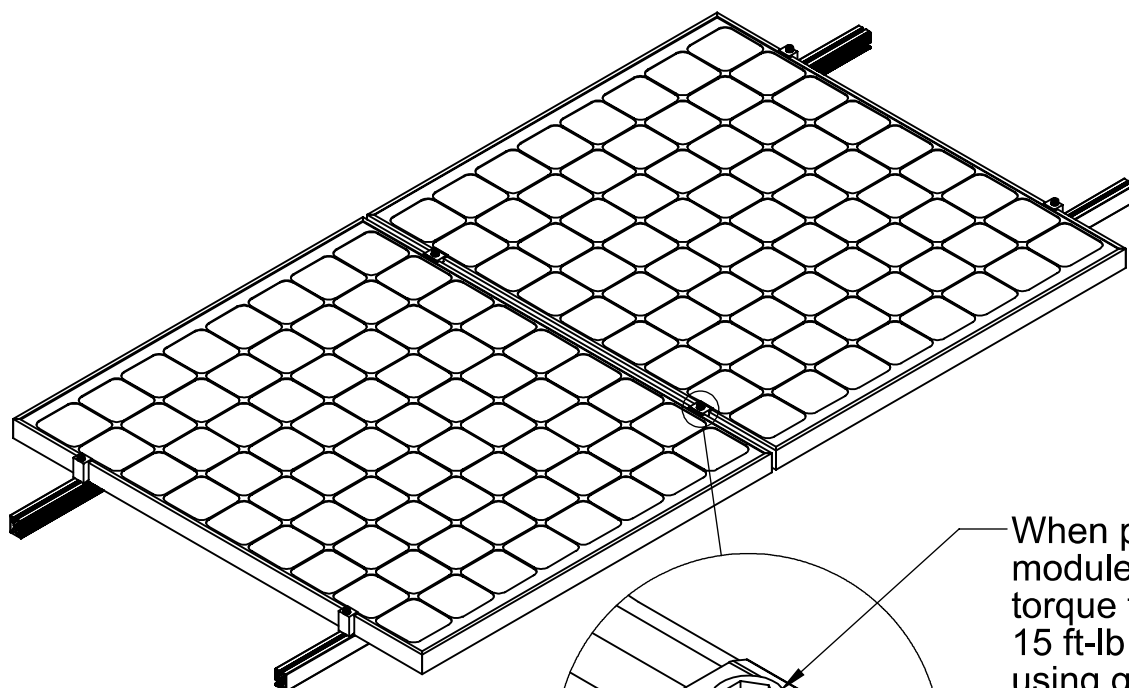
Important Note:

To correctly install WEEB-DPF, ensure the modules fully cover the WEEB teeth. If the module frame does not fall flat on the teeth then the WEEB may not create a safe and proper bond. Check with module manufacturer for any additional installation requirements.

④

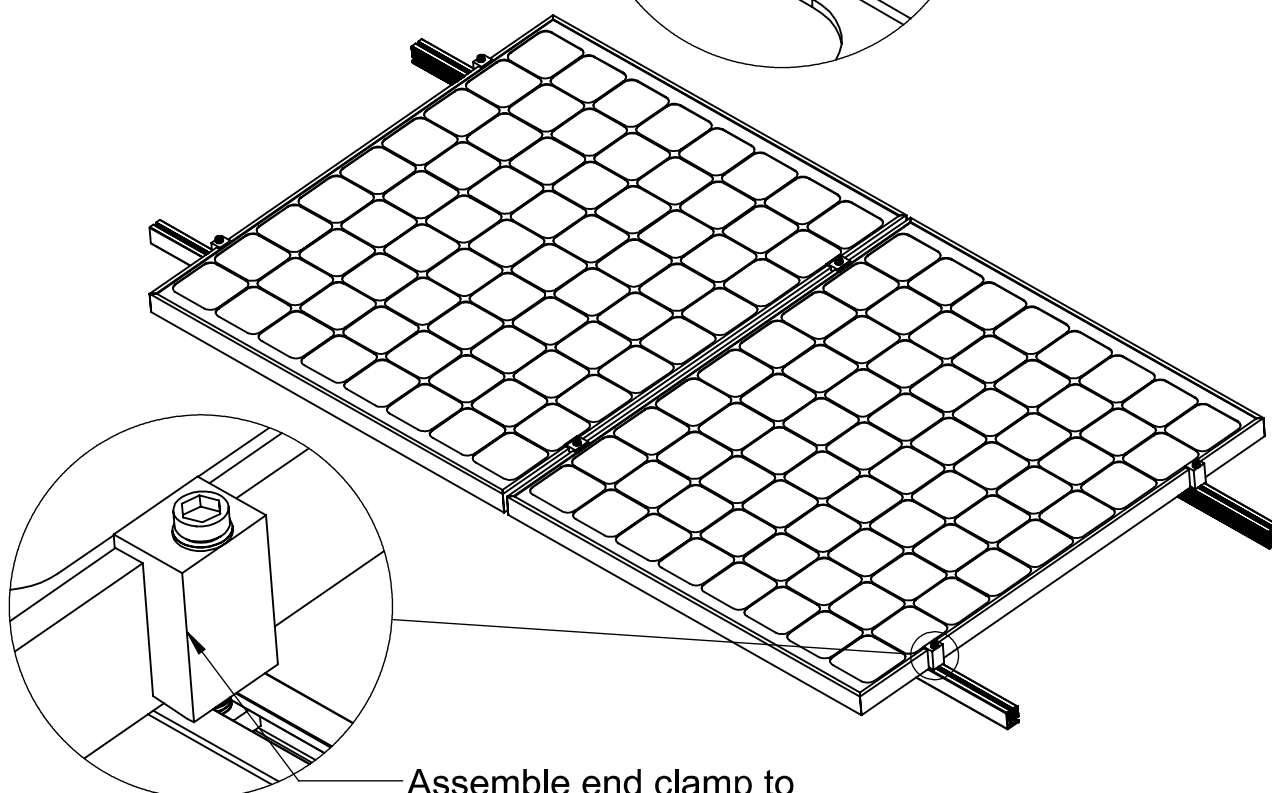
Important note:

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 are finalized, torque fasteners to 15 ft-lb / 20.5 N-m using general purpose anti-seize compound on threads.

⑤

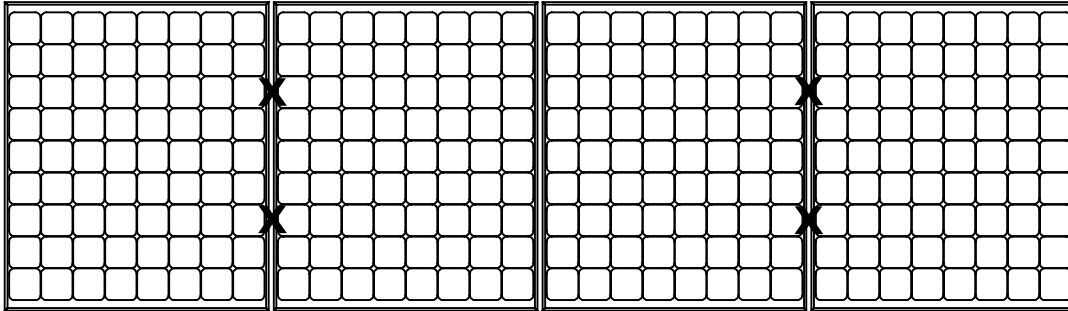


Assemble end clamp to manufacturer's specifications.

WEEB-DPF LAYOUT

⑥

EVEN NUMBER OF MODULES IN ROW

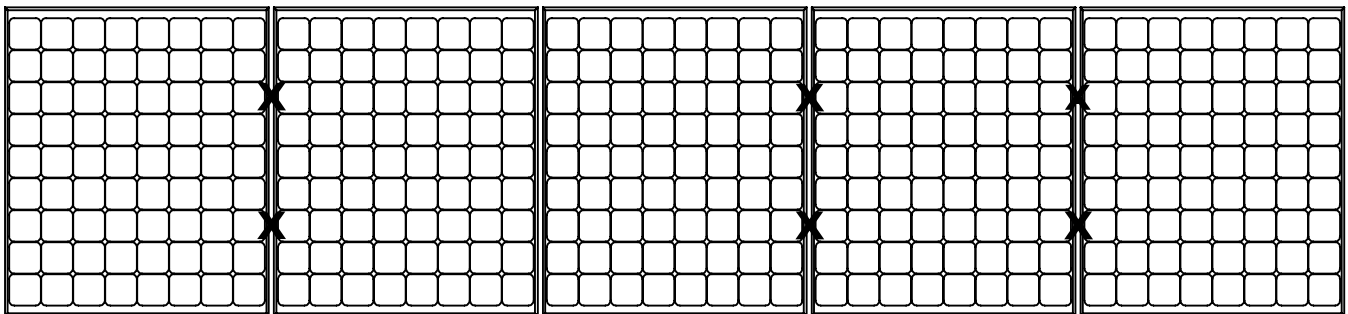


X DENOTES PLACES TO INSTALL WEEB-DPF

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

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

ODD NUMBER OF MODULES IN ROW



X DENOTES PLACES TO INSTALL WEEB-DPF

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

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

Note:

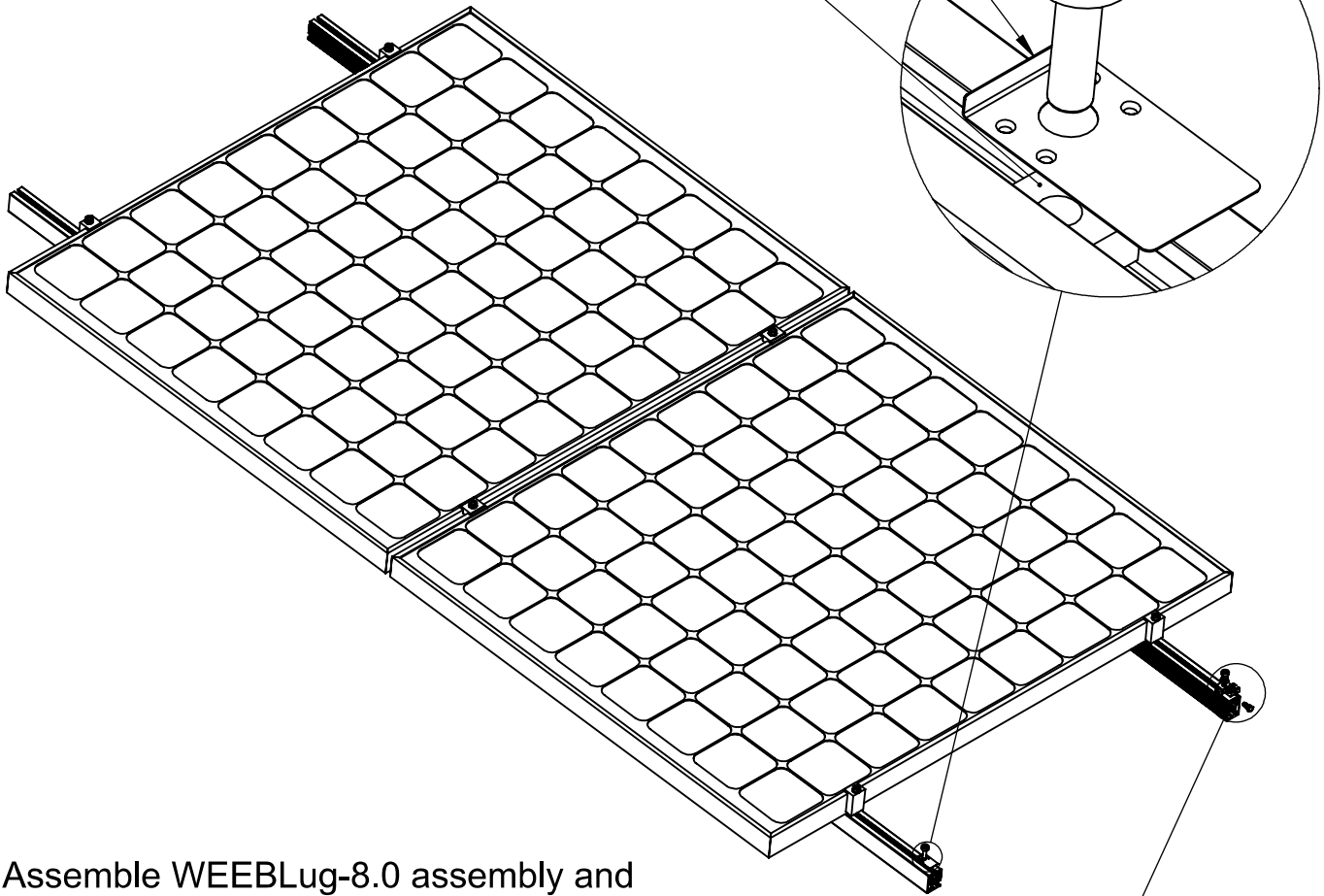
When replacing a single faulty module, also remove the adjacent module which contacts the same WEEBs as the faulty module. This will ensure that there are never ungrounded modules in the array.

WEEBLUG ASSEMBLY

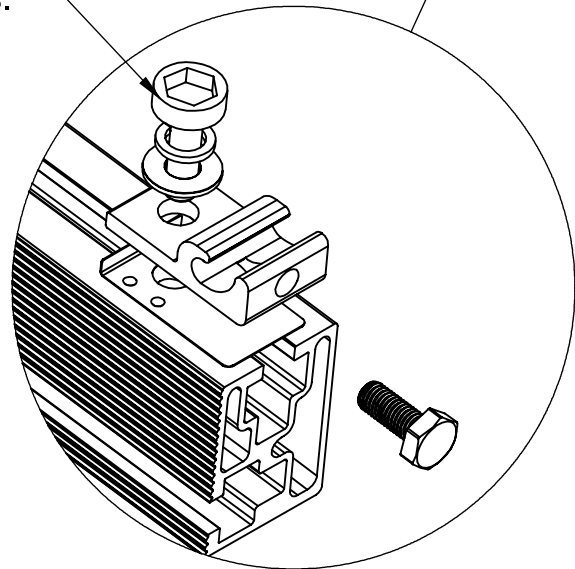
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WEEB teeth towards rail

Slide nut to desired position
for socket cap bolt.



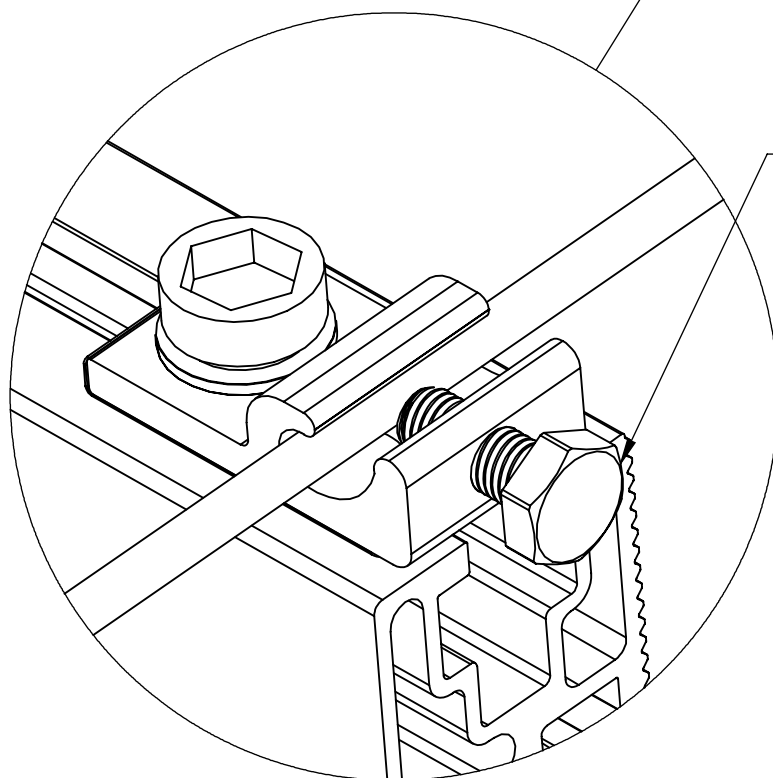
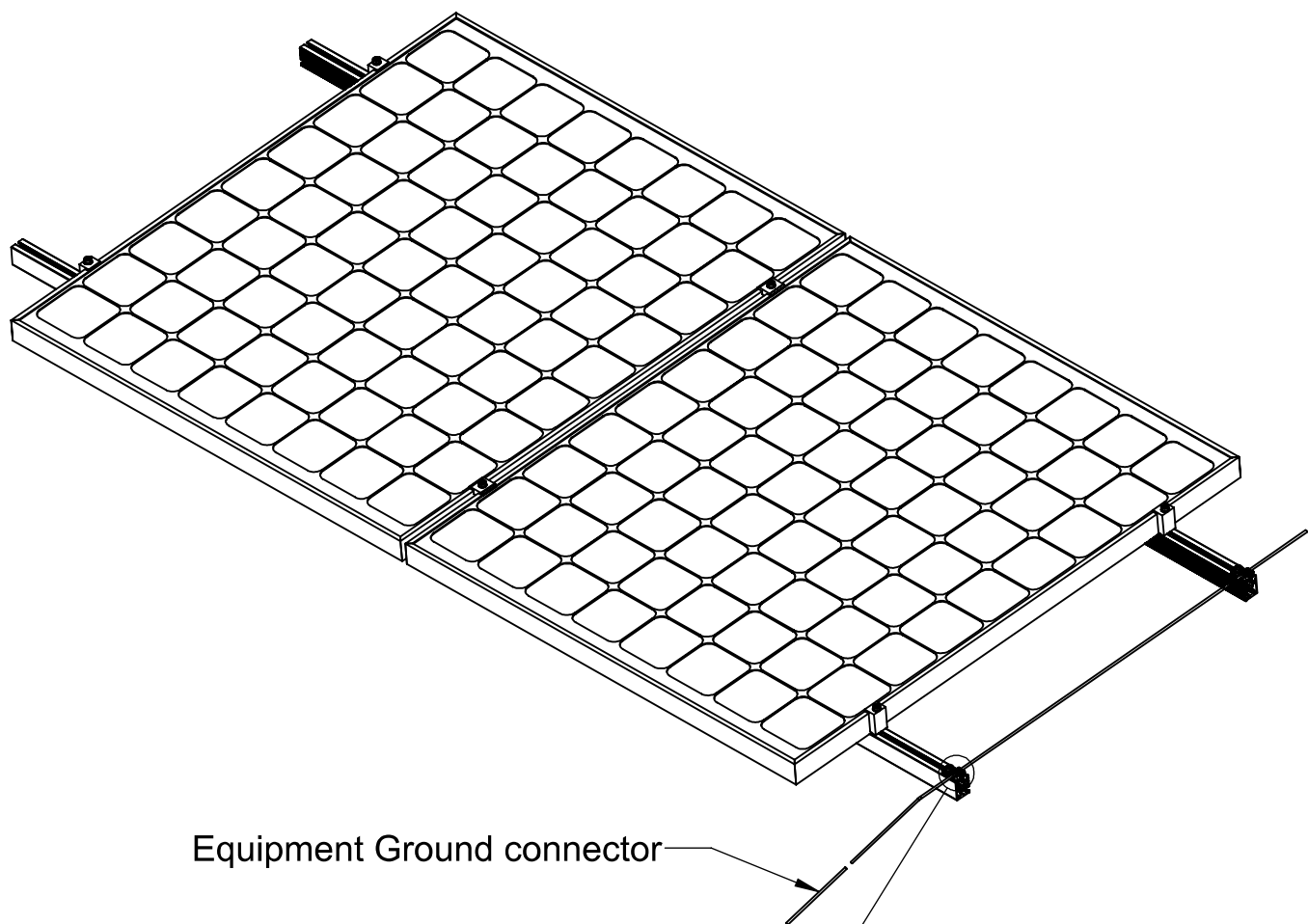
Assemble WEEBLug-8.0 assembly and
tighten fasteners to 10 ft-lb / 13.5 N-m,
using general purpose anti-seize on threads.



Important note:

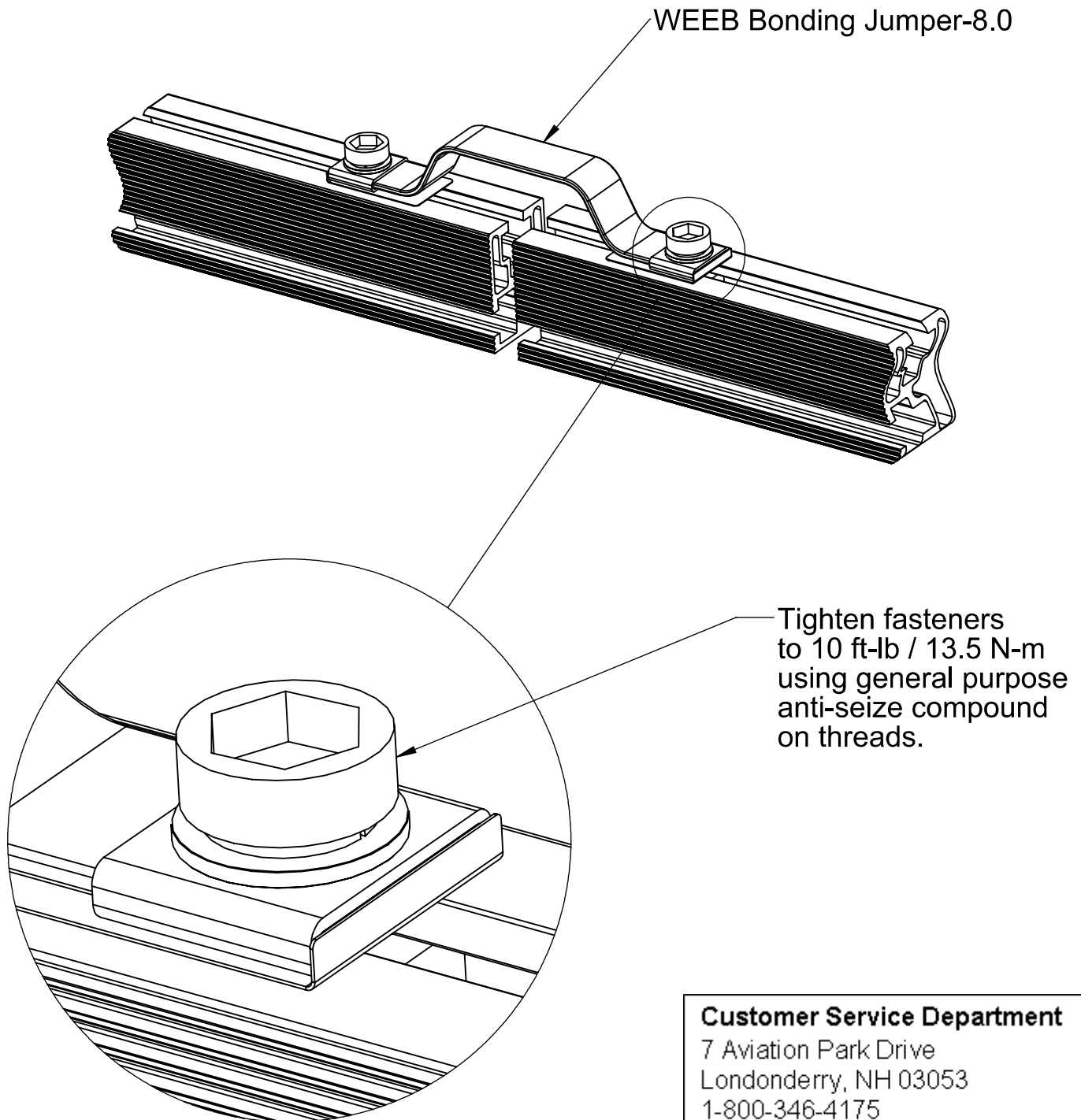
WEEB-8.0 that sits under the WEEBLug is for SINGLE USE ONLY!
Ensure position is correct before tightening.

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WEEB BONDING JUMPER ASSEMBLY

- ⑨ WEEB Bonding Jumper can be used for all rail splices including expansion joints.



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