



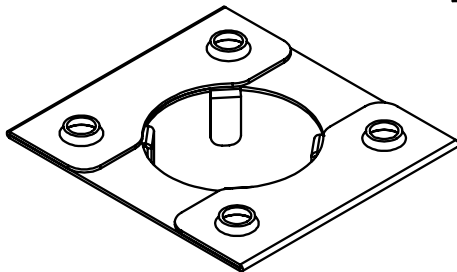
Washer, Electrical Equipment Bond

# WEEB® WASHER

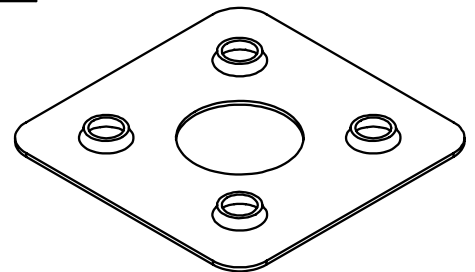
## INSTALLATION INSTRUCTIONS For RBI Solar Groundmount Only

Burndy LLC recommends that the sufficient details of the installation be submitted to the AHJ for approval before any work is started.

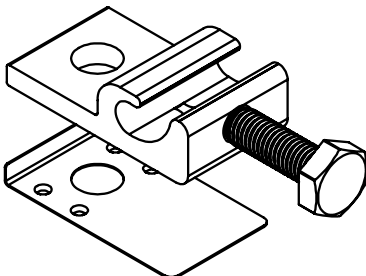
NOTICE	
	PLEASE READ CAREFULLY BEFORE INSTALLING



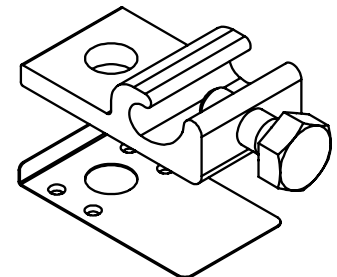
WEEB-11.5



WEEB-UIR



WEEB-LUG-6.7



WEEB-LUG-8.0



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



Intertek  
4004188



# Contents:

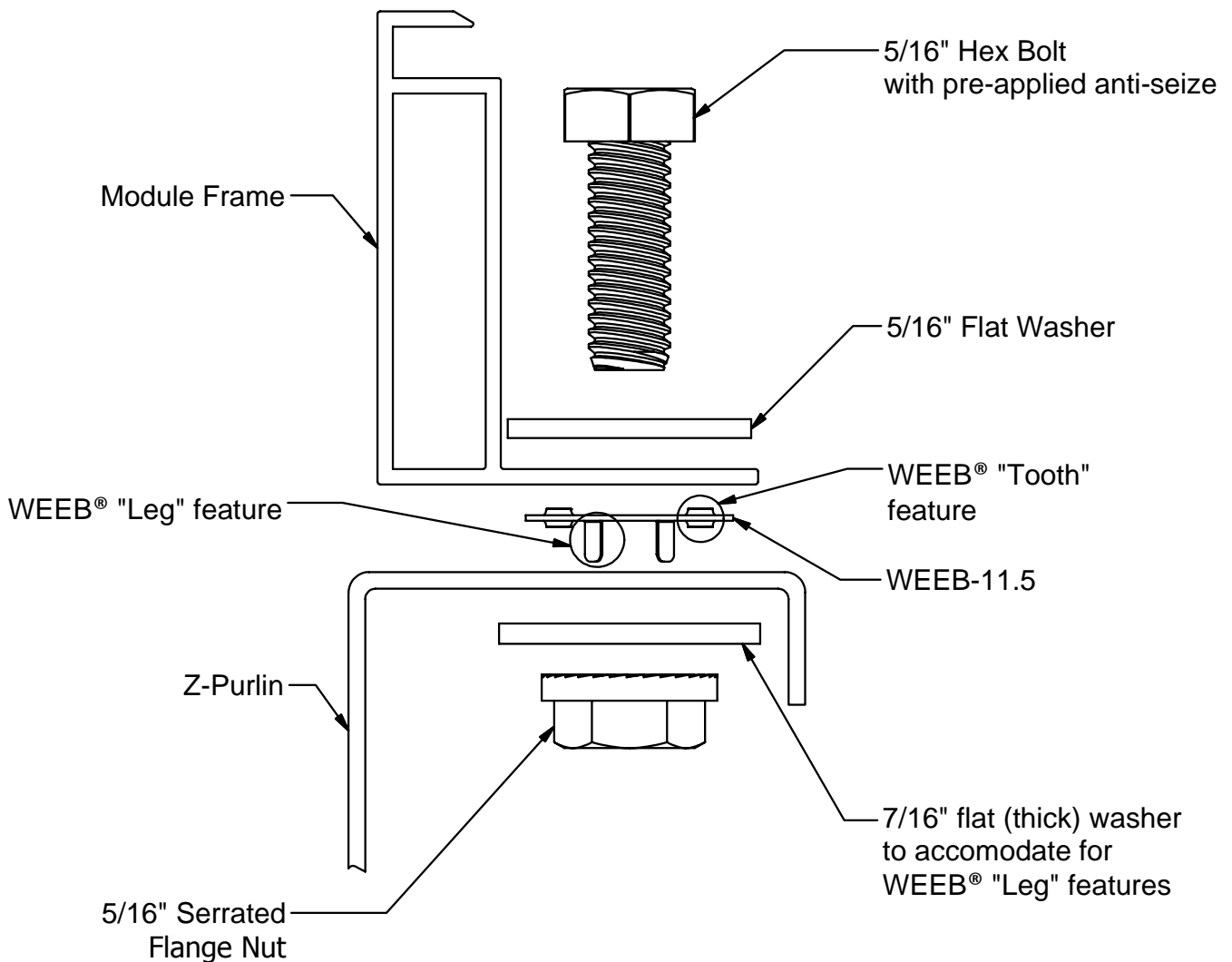
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# WEEB-11.5 COMPATIBILITY

The WEEB® washer family of products can be used to bond anodized aluminum, galvanized steel, steel, and other electrically conductive metal structures. Metal racking components conforming to ASTM A653, A1046, and A792 standards have been evaluated and may be used in systems utilizing the WEEB® washer family of products. All installations shall be in accordance with NEC requirements in the USA and with CSA C22.1 in Canada. The WEEB® washers are for use with modules that have a maximum fuse rating of less than 25A.

## Bottom Mounting Modules requiring 5/16" Hardware

The WEEB® washers used for bonding the PV modules to the mounting rails are compatible with various cross-sections of module frames. The following is an example of a module frame that is compatible. Notice that the WEEB® washer teeth are positioned completely under the edge of the module frame.

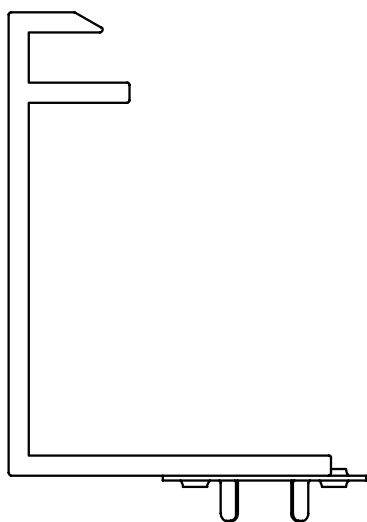
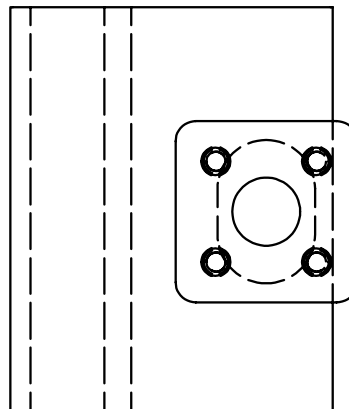
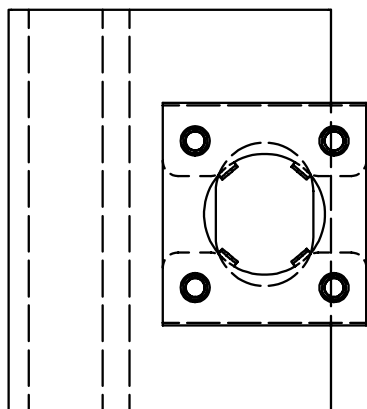


### Note:

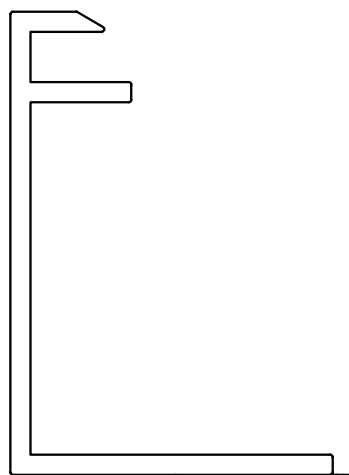
Inspect each module frame used with a WEEB® device to ensure that the bottom mounting face of the frame is flat, and that there are no hindrances to embedding WEEB® washer teeth. Do not use a module with a frame that prevents the WEEB® washer teeth from embedding fully.

# WEEB® WASHER COMPATIBILITY

## WEEB-11.5 and WEEB-UIR BOTTOM MOUNT SCENARIO FOR SLOTTED MODULE MOUNTING HOLE



**ONLY (1) WEEB-11.5  
NEEDED PER MODULE**



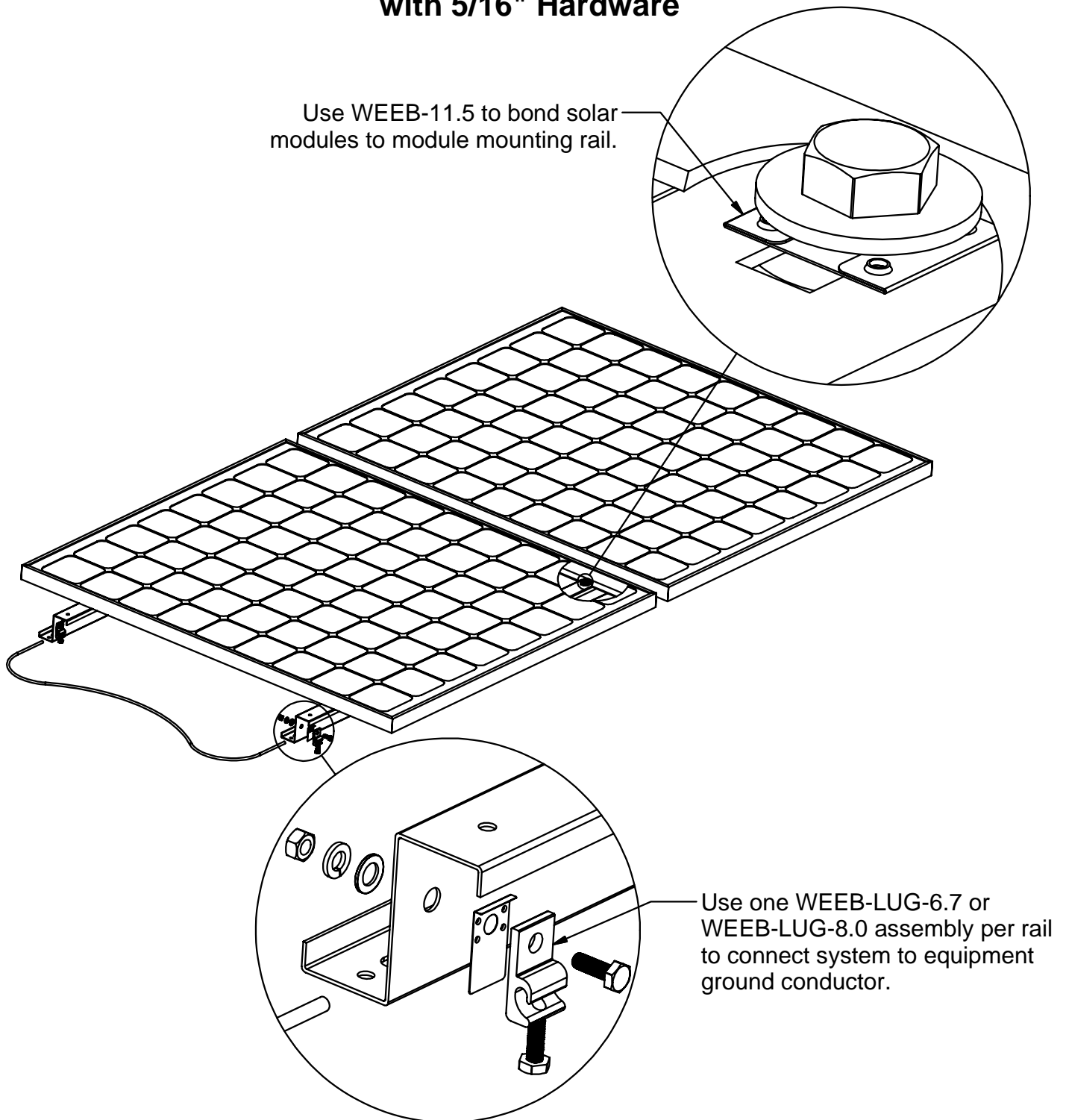
**ONLY (1) WEEB-UIR  
NEEDED PER MODULE**

### Note:

At least two teeth of WEEB-11.5 must embed to the module frame.  
At least two teeth of WEEB-UIR must embed to the module frame.

# SYSTEM OVERVIEW

## WEEB-11.5 AND MODULES IN PORTRAIT CONFIGURATION with 5/16" Hardware



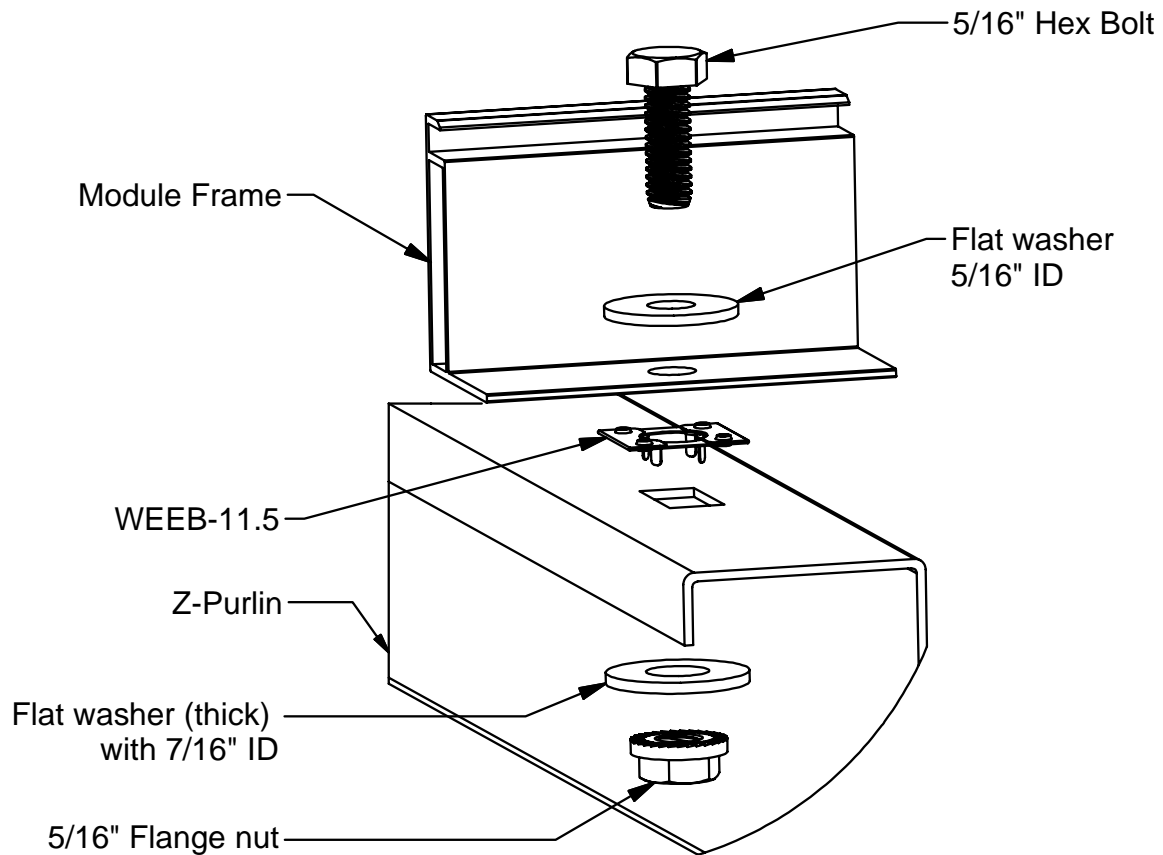
### Important notes:

1. Use general purpose anti-seize compound on fastener threads when installing WEEB® washers (unless already pre-applied).
2. The NEC section 690.43 states “Exposed non-current carrying metal parts of module frames, equipment, and conductor enclosures shall be grounded in accordance with 250.134 or 250.136(A) regardless of voltage”.

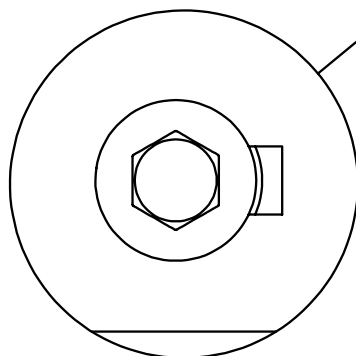
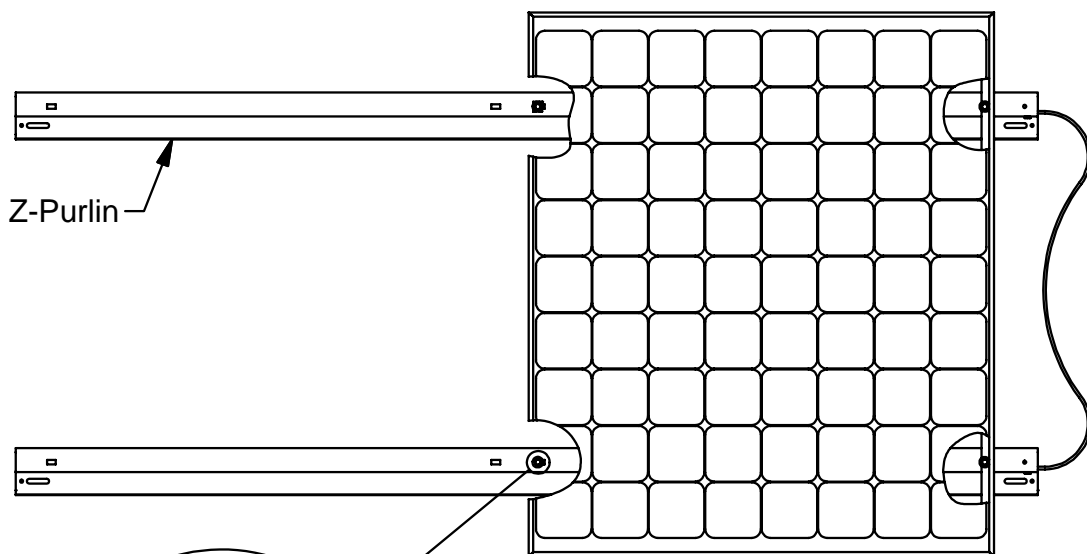
# WEEB-11.5 ASSEMBLY

## Modules in Portrait Configuration with 5/16" Hardware

1



2

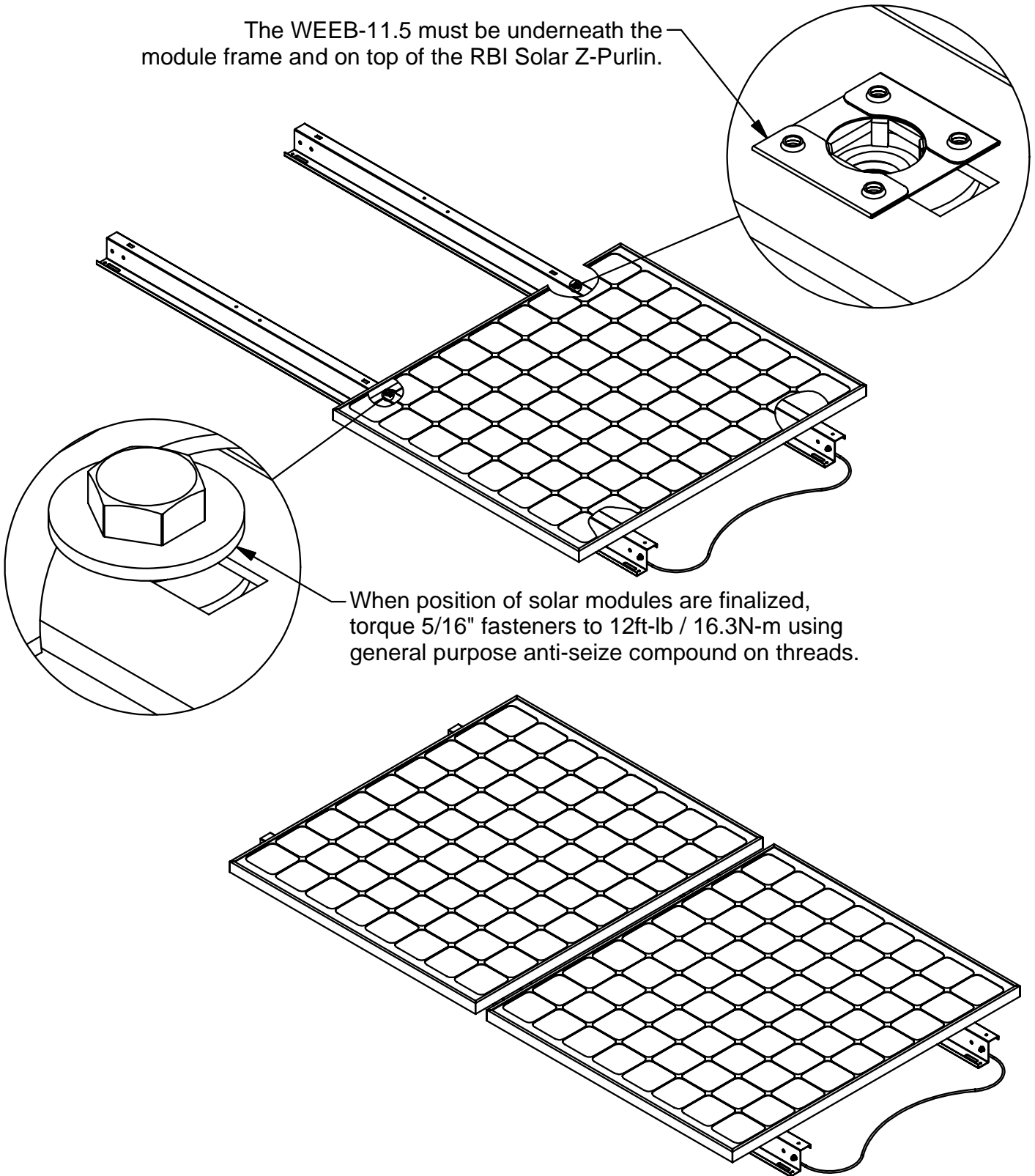


Each module requires one (1) WEEB-11.5 in order to be properly bonded to the rail. The modules are secured with four (4) 5/16" bolts located at the module mounting holes. The WEEB-11.5 must be placed at one of these locations on each module.

# WEEB-11.5 ASSEMBLY

## Modules in Portrait Configuration with 5/16" Hardware

The WEEB-11.5 must be underneath the module frame and on top of the RBI Solar Z-Purlin.



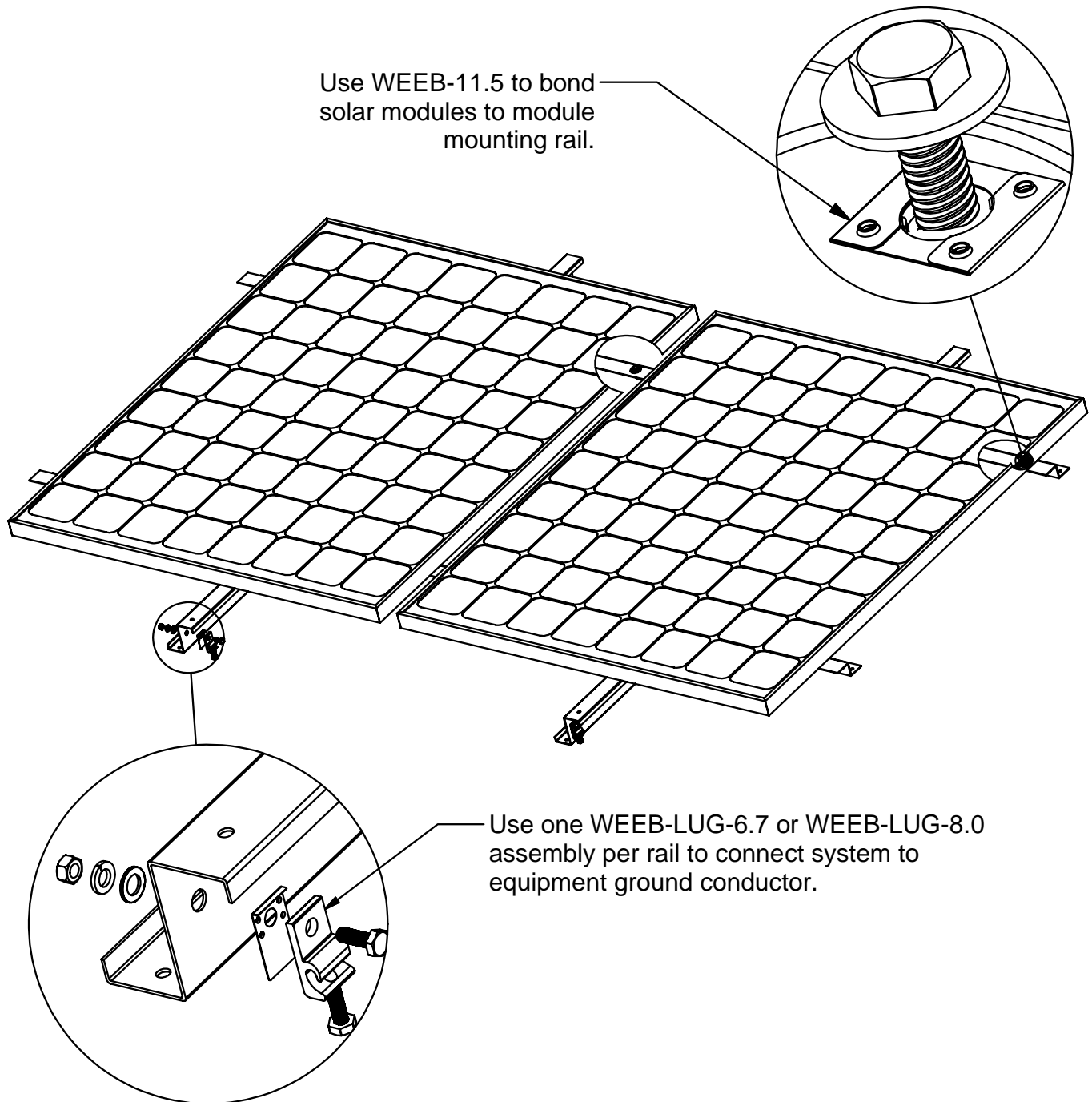
When position of solar modules are finalized, torque 5/16" fasteners to 12ft-lb / 16.3N-m using general purpose anti-seize compound on threads.

### Important note:

Do not torque fasteners down if position of solar modules is not finalized.  
Only slightly tighten fasteners to keep modules in place.

# SYSTEM OVERVIEW

## WEEB-11.5 and Modules in Landscape Configuration with 5/16" Hardware



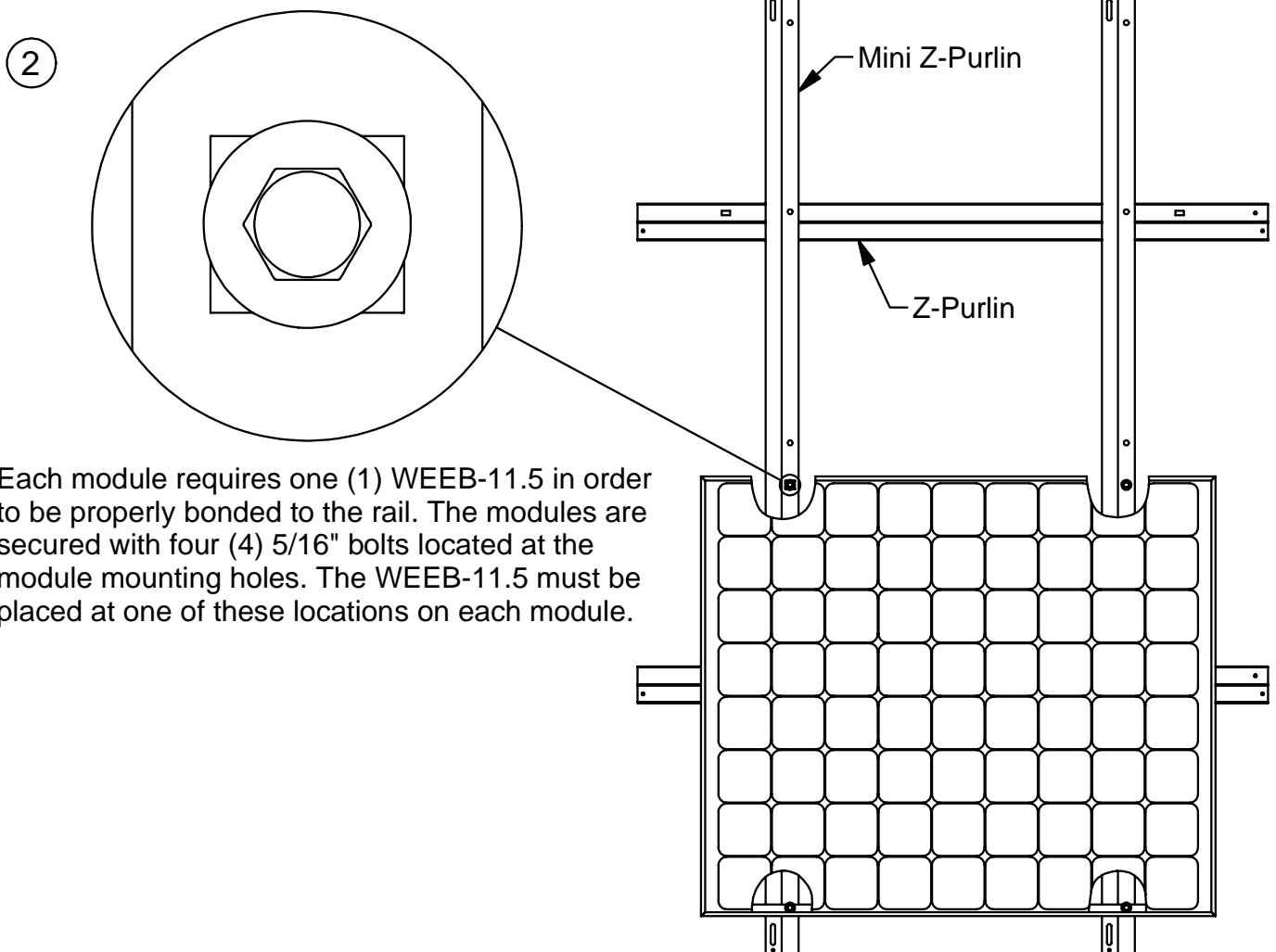
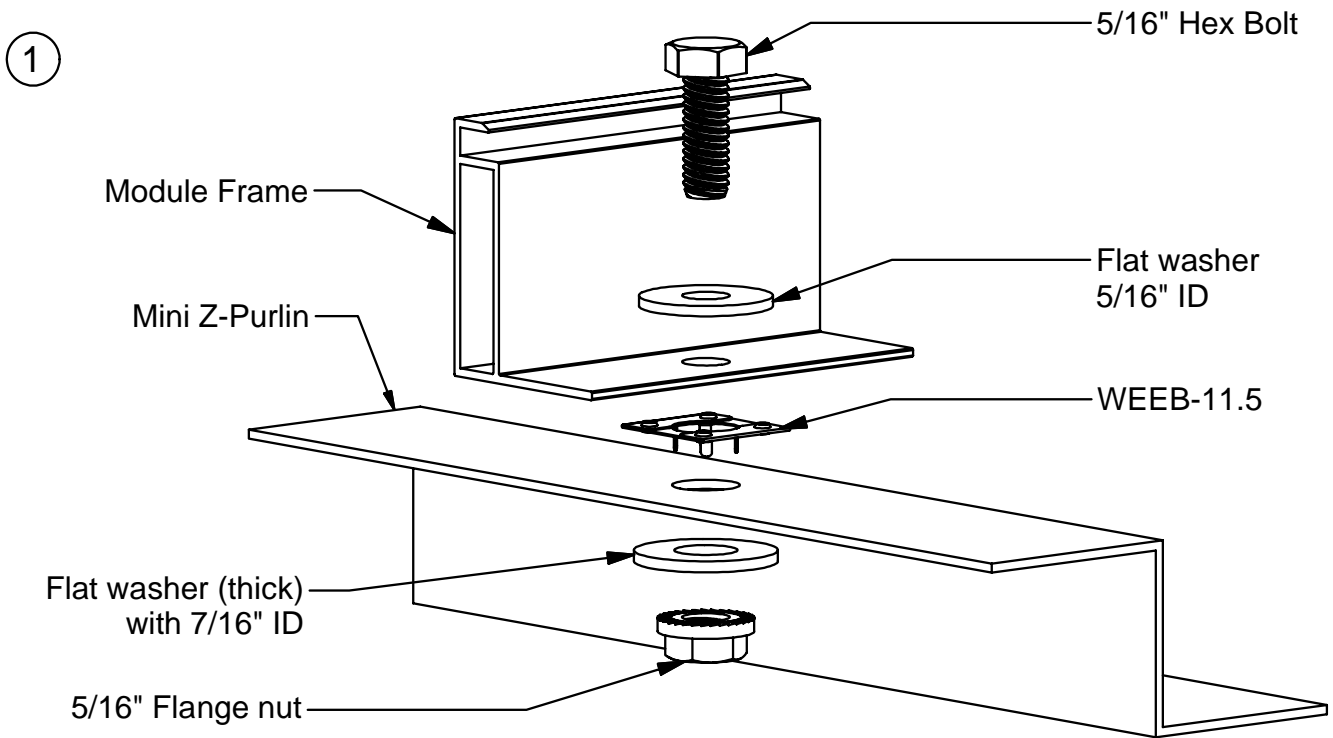
### Important notes:

1. Use general purpose anti-seize compound on fastener threads when installing WEEB® washers (unless already pre-applied).
2. The NEC section 690.43 states “Exposed non-current carrying metal parts of module frames, equipment, and conductor enclosures shall be grounded in accordance with 250.134 or 250.136(A) regardless of voltage”.



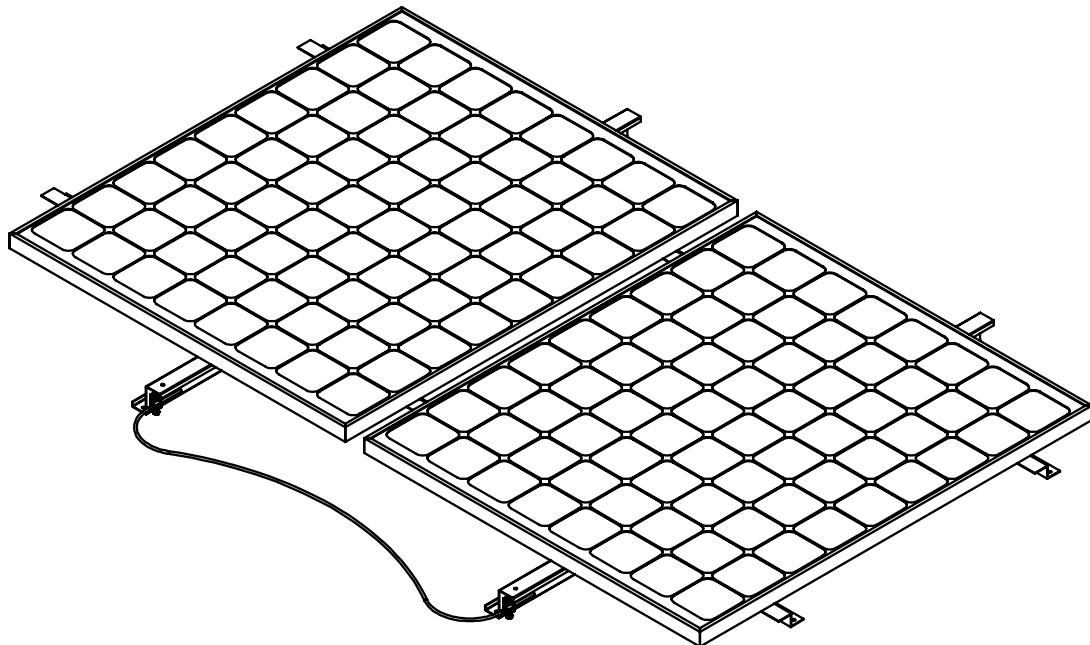
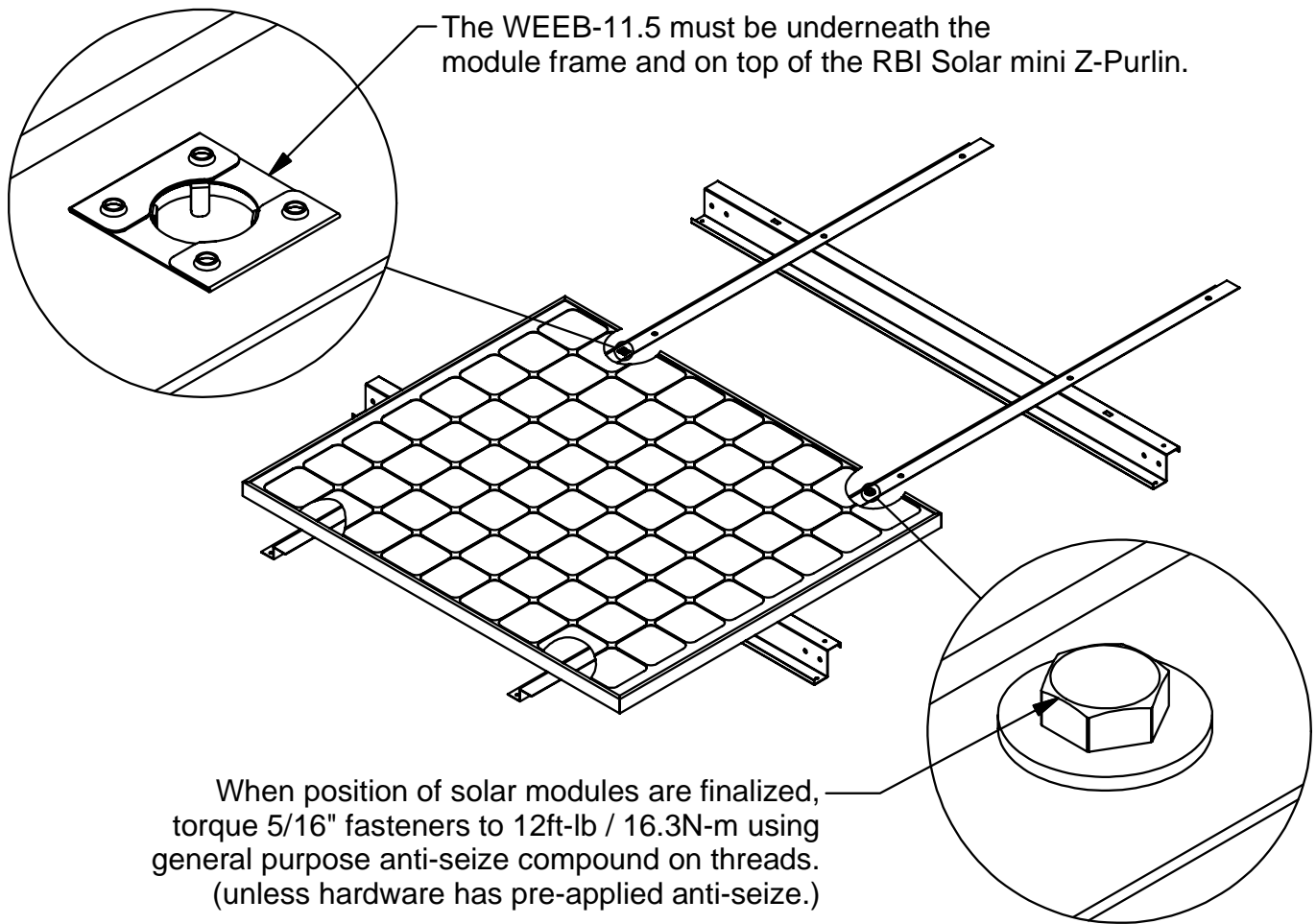
# WEEB-11.5 ASSEMBLY

## Modules in Landscape Configuration with 5/16" Hardware



# WEEB-11.5 ASSEMBLY

## Modules in Landscape Configuration with 5/16" Hardware



### Important note:

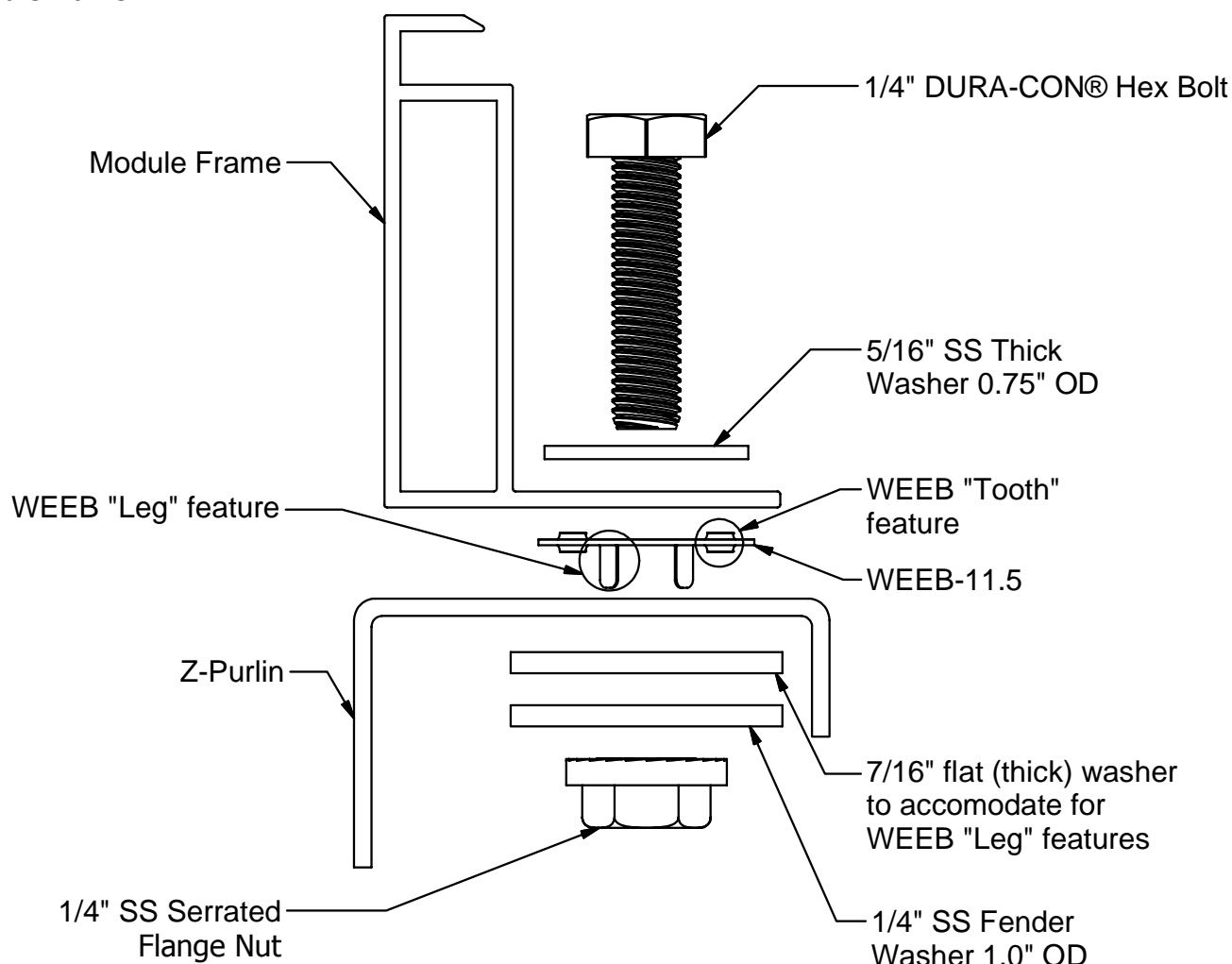
Do not torque fasteners down if position of solar modules is not finalized.  
Only slightly tighten fasteners to keep modules in place.

# WEEB-11.5 COMPATIBILITY

The WEEB® washer family of products can be used to bond anodized aluminum, galvanized steel, steel, and other electrically conductive metal structures. Metal racking components conforming to ASTM A653, A1046, and A792 standards have been evaluated and may be used in systems utilizing the WEEB® washer family of products. All installations shall be in accordance with NEC requirements in the USA and with CSA C22.1 in Canada. The WEEB® washers are for use with modules that have a maximum fuse rating of less than 25A.

## Bottom Mounting Modules requiring 1/4" Hardware

The WEEB® washers used for bonding the PV modules to the mounting rails are compatible with various cross-sections of module frames. The following is an example of a module frame that is compatible. Notice that the WEEB® washer teeth are positioned completely under the edge of the module frame.

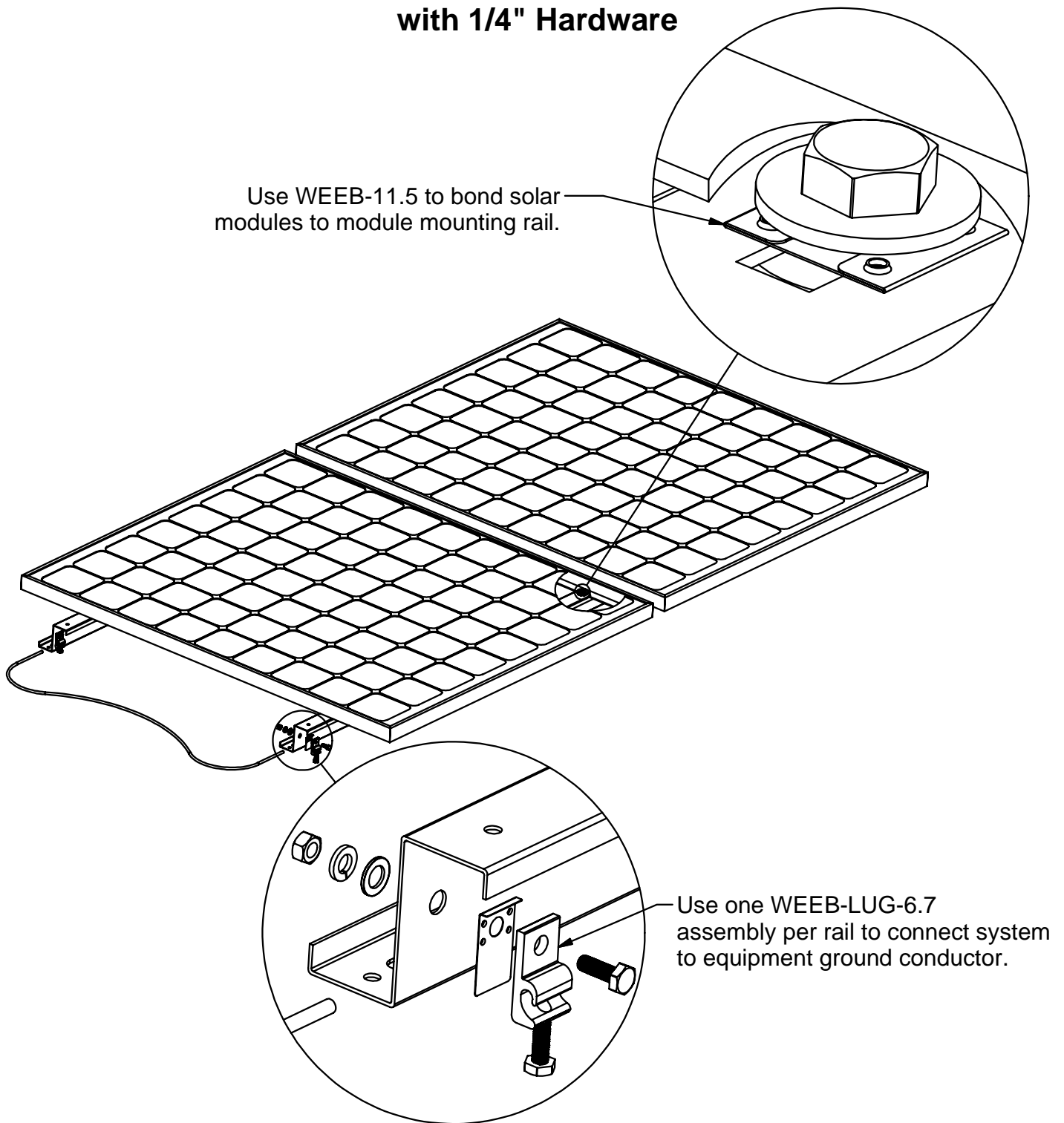


### Note:

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

# SYSTEM OVERVIEW

## WEEB-11.5 AND MODULES IN PORTRAIT CONFIGURATION with 1/4" Hardware

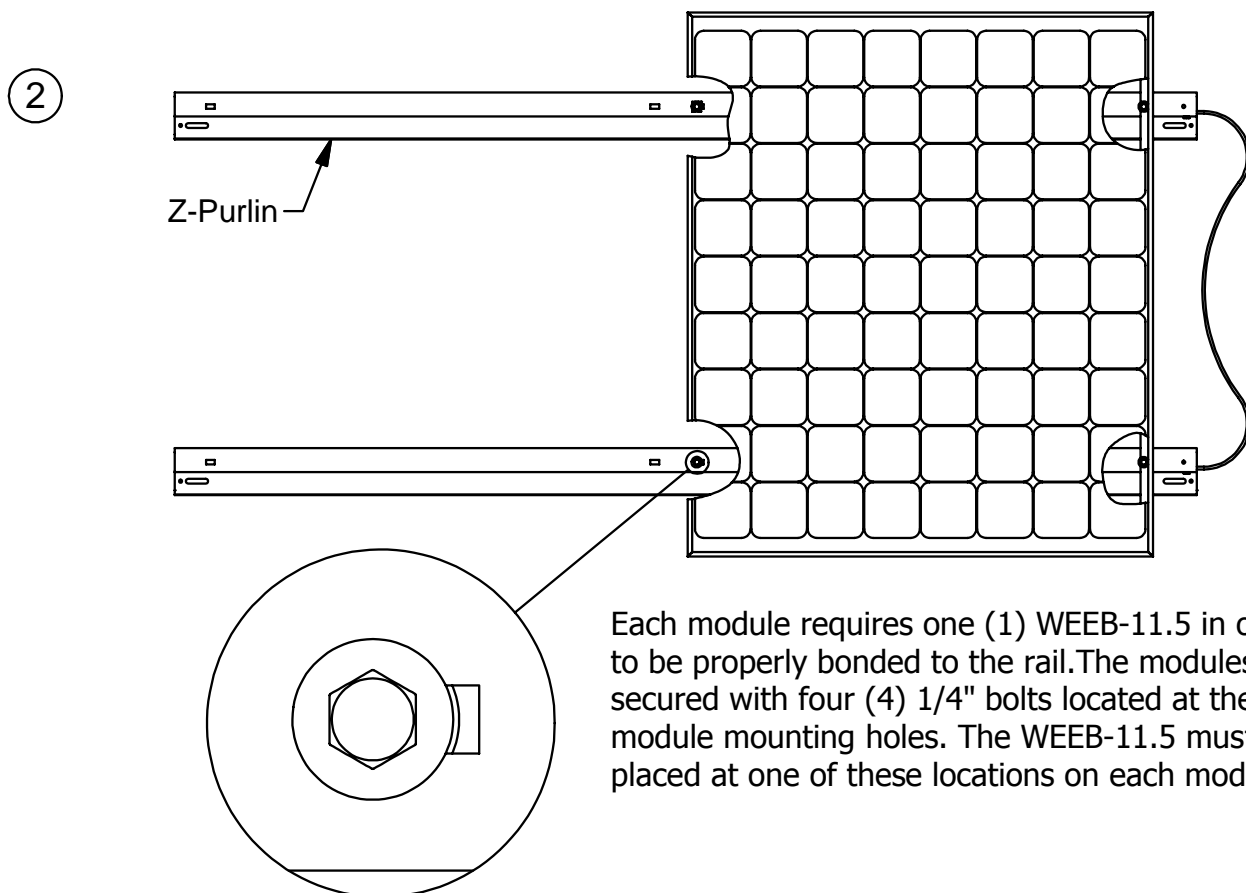
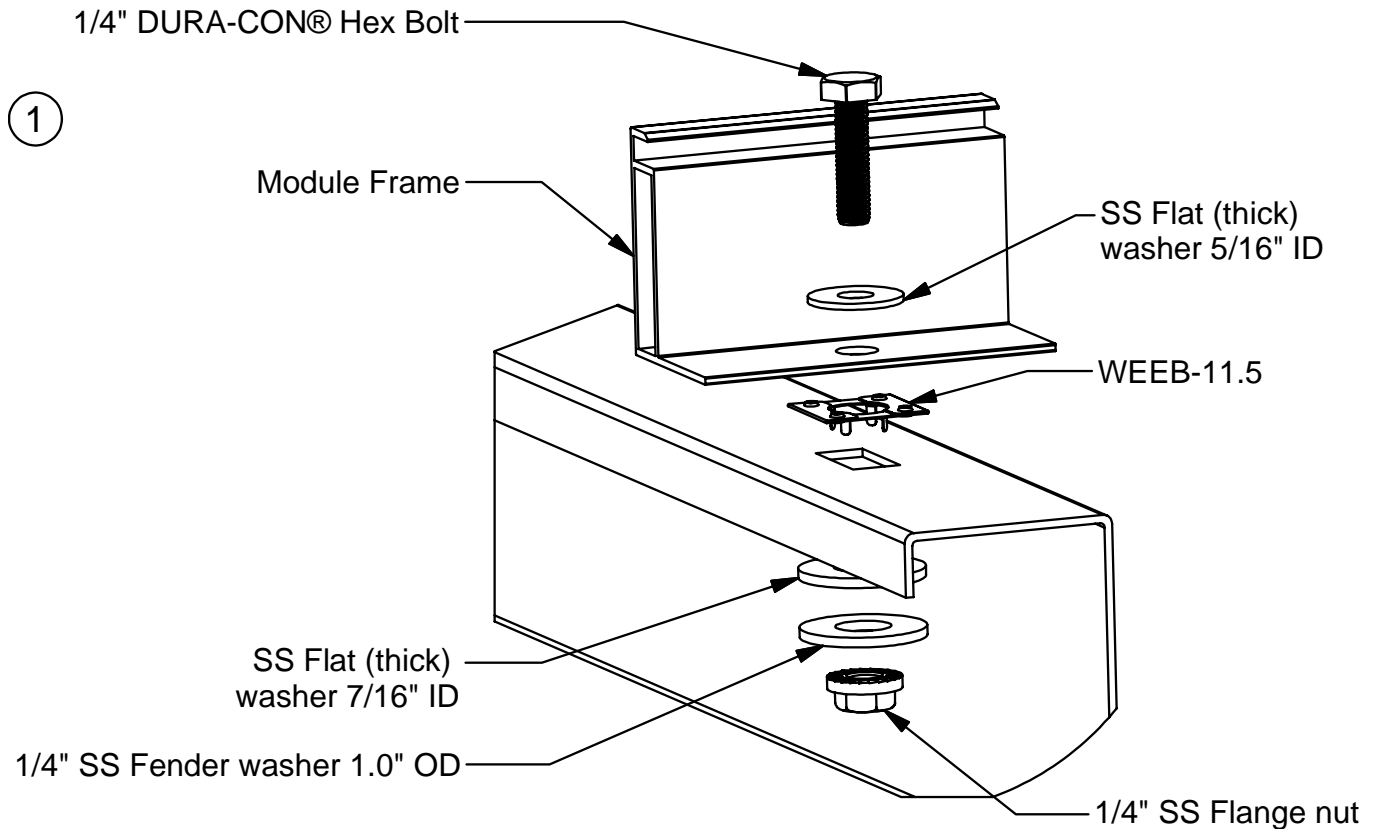


### Important notes:

1. Use general purpose anti-seize compound on fastener threads when installing WEEB® washers. (unless anti-seize is pre-applied. Note: DURA-CON® fasteners do not require anti-seize compound.)
2. The NEC section 690.43 states “Exposed non-current carrying metal parts of module frames, equipment, and conductor enclosures shall be grounded in accordance with 250.134 or 250.136(A) regardless of voltage”.

# WEEB-11.5 ASSEMBLY

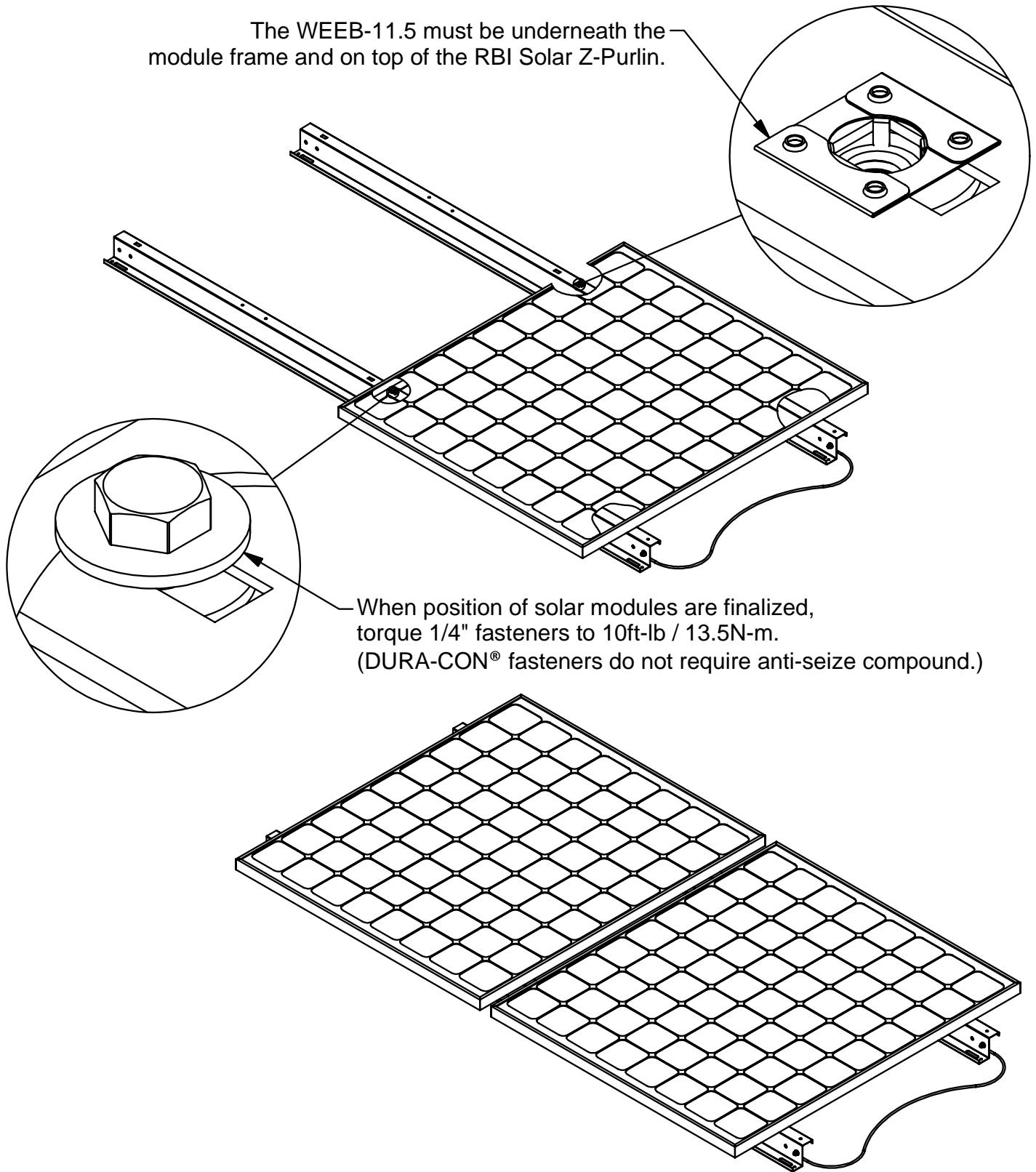
## Modules in Portrait Configuration with 1/4" Hardware



# WEEB-11.5 ASSEMBLY

## Modules in Portrait Configuration with 1/4" Hardware

The WEEB-11.5 must be underneath the module frame and on top of the RBI Solar Z-Purlin.



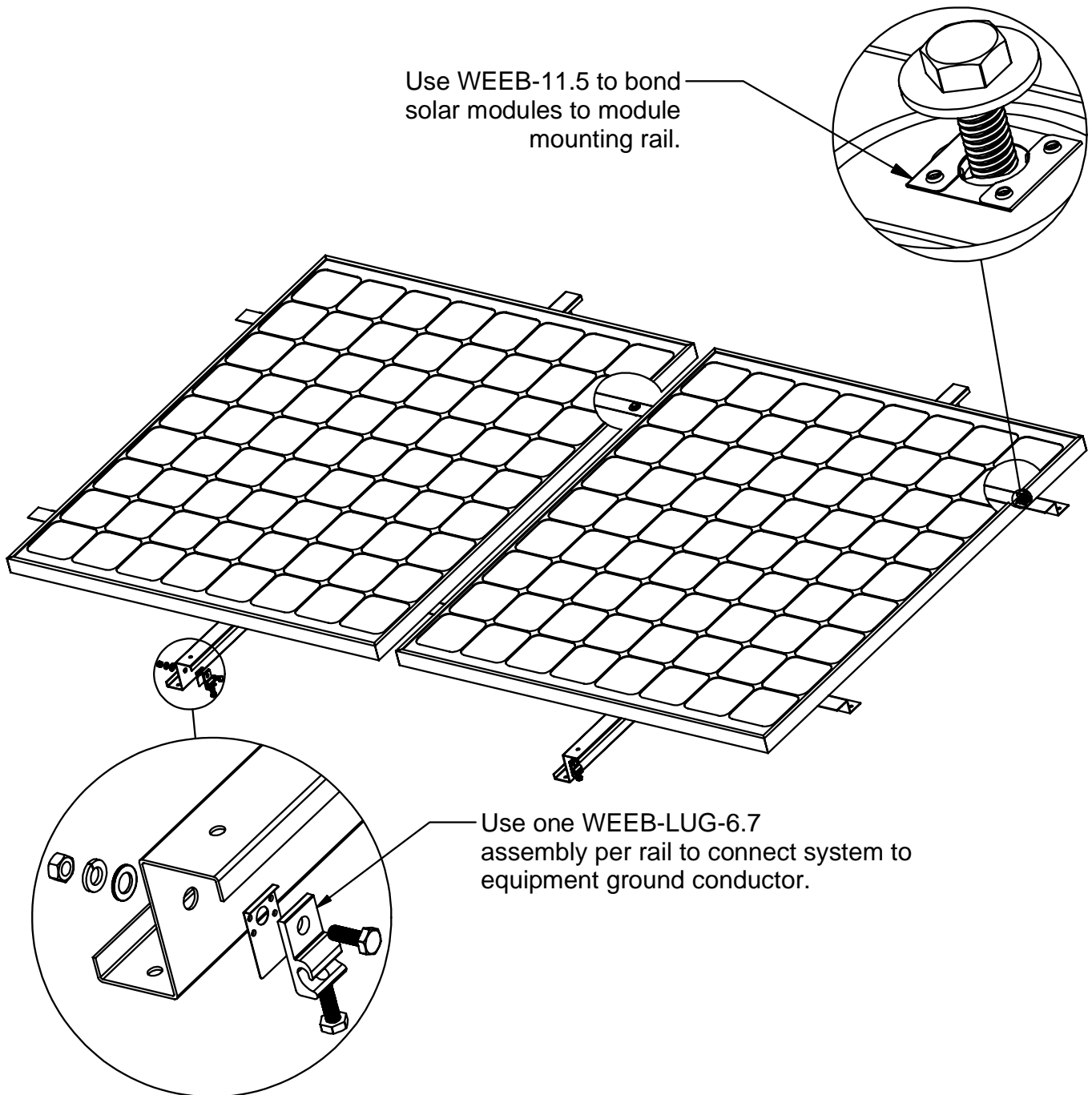
When position of solar modules are finalized,  
torque 1/4" fasteners to 10ft-lb / 13.5N-m.  
(DURA-CON® fasteners do not require anti-seize compound.)

### Important note:

Do not torque fasteners down if position of solar modules is not finalized.  
Only slightly tighten fasteners to keep modules in place.

# SYSTEM OVERVIEW

## WEEB-11.5 AND MODULES IN LANDSCAPE CONFIGURATION with 1/4" Hardware

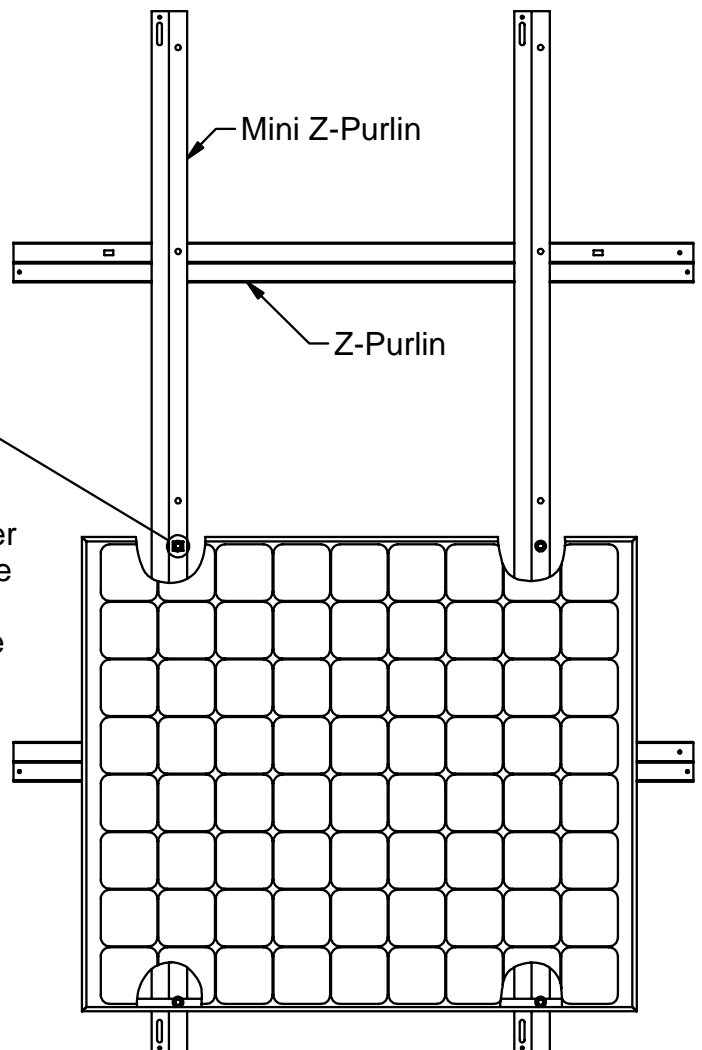
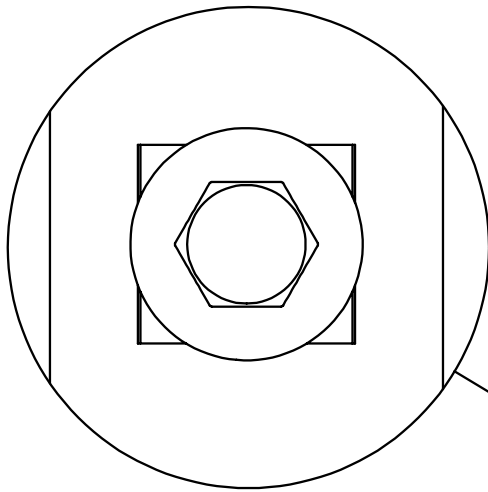
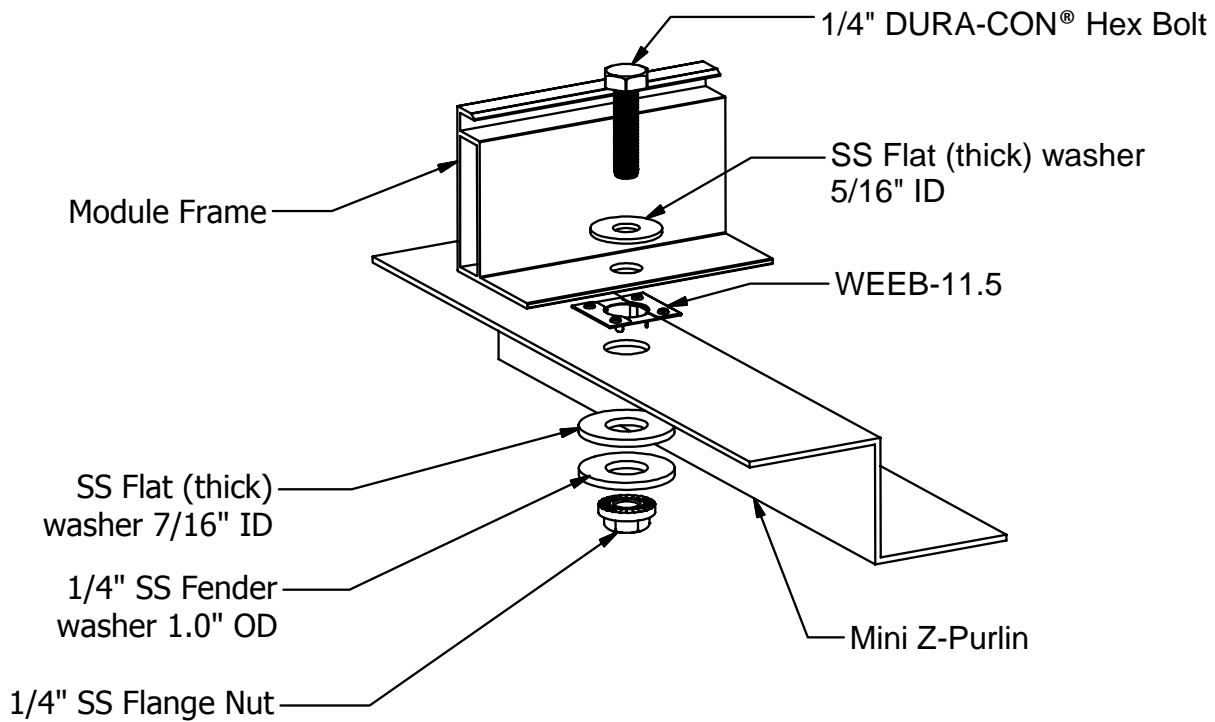


### Important notes:

1. Use general purpose anti-seize compound on fastener threads when installing WEEB® washers. (unless anti-seize is pre-applied. Note: DURA-CON® fasteners do not require anti-seize compound.)
2. The NEC section 690.43 states “Exposed non-current carrying metal parts of module frames, equipment, and conductor enclosures shall be grounded in accordance with 250.134 or 250.136(A) regardless of voltage”.

# WEEB-11.5 ASSEMBLY

## Modules in Landscape Configuration with 1/4" Hardware

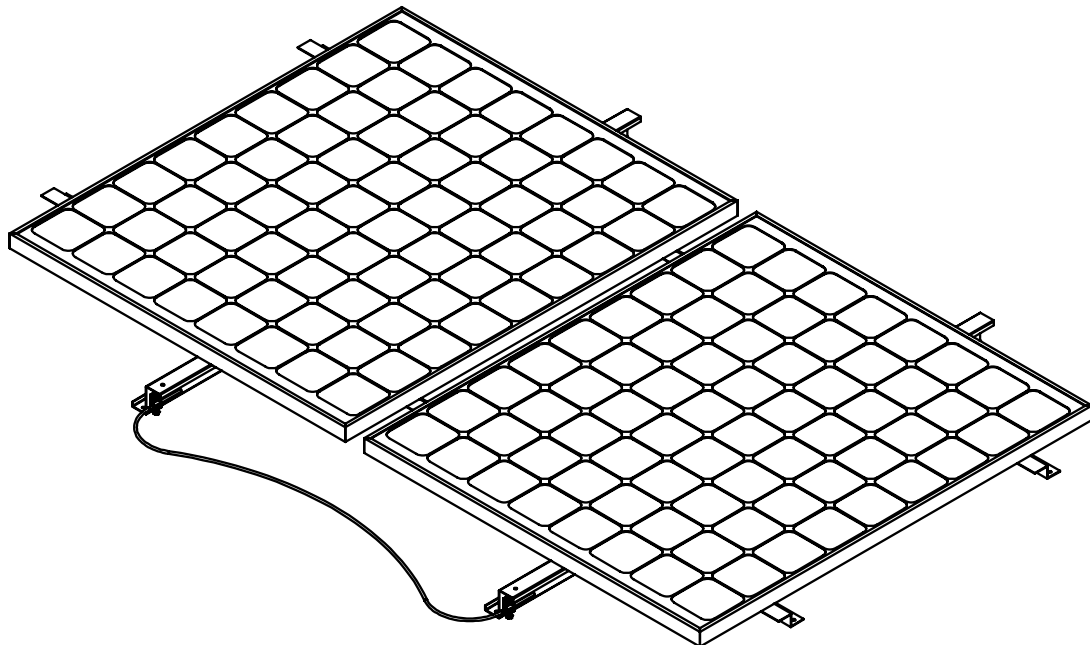
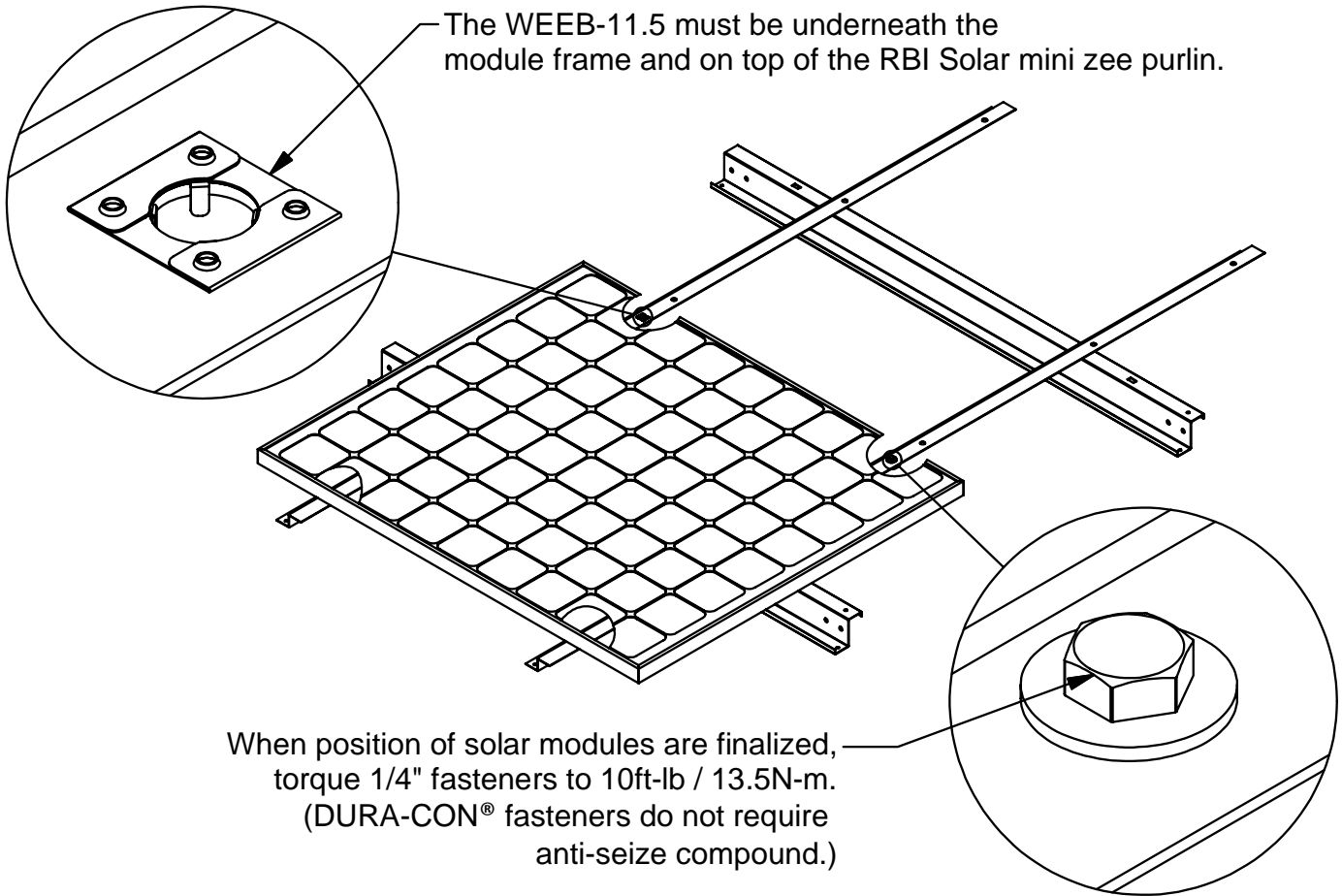


Each module requires one (1) WEEB-11.5 in order to be properly bonded to the rail. The modules are secured with four (4) 1/4" bolts located at the module mounting holes. The WEEB-11.5 must be placed at one of these locations on each module.



# WEEB-11.5 ASSEMBLY

## Modules in Landscape Configuration with 1/4" Hardware



### Important note:

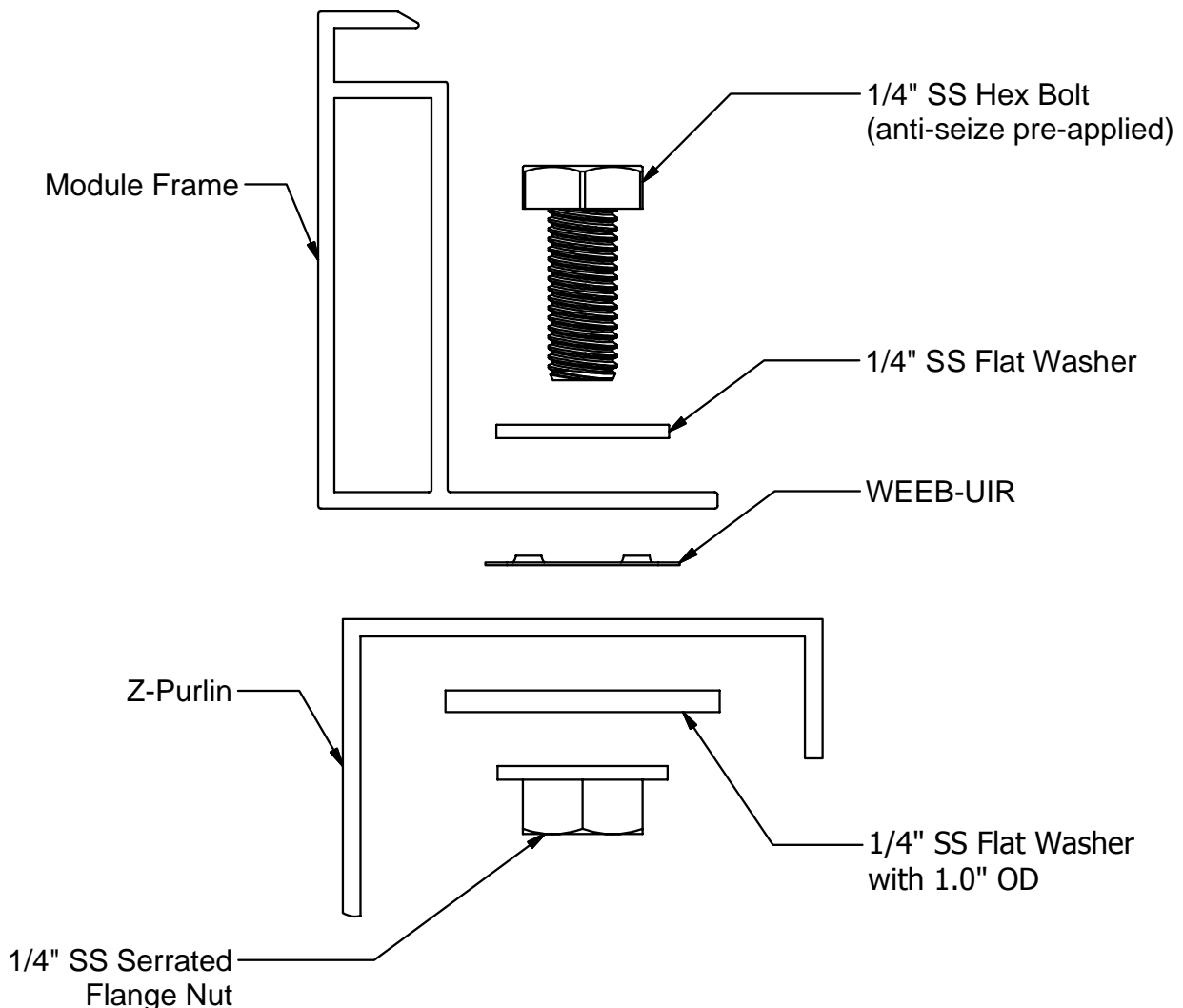
Do not torque fasteners down if position of solar modules is not finalized.  
Only slightly tighten fasteners to keep modules in place.

# WEEB-UIR COMPATIBILITY

The WEEB® washer family of products can be used to bond anodized aluminum, galvanized steel, steel, and other electrically conductive metal structures. Metal racking components conforming to ASTM A653, A1046, and A792 standards have been evaluated and may be used in systems utilizing the WEEB® washer family of products. All installations shall be in accordance with NEC requirements in the USA and with CSA C22.1 in Canada. The WEEB® washers are for use with modules that have a maximum fuse rating of less than 25A.

## Bottom Mounting Modules requiring 1/4" Hardware

The WEEB® washers used for bonding the PV modules to the mounting rails are compatible with various cross-sections of module frames. The following is an example of a module frame that is compatible. Notice that the WEEB® washer teeth are positioned completely under the edge of the module frame.

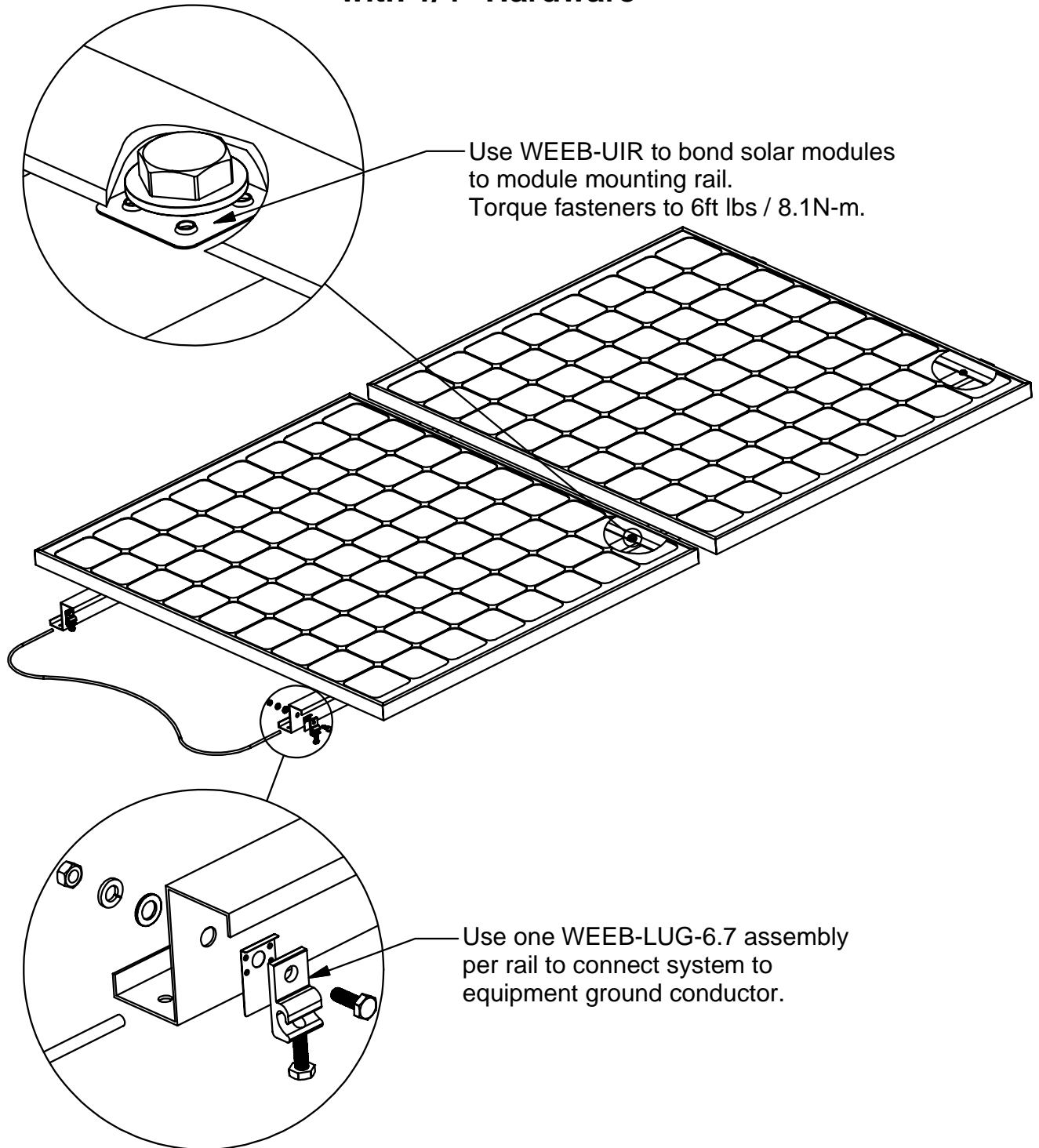


### Note:

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

# SYSTEM OVERVIEW

## WEEB-UIR AND MODULES IN PORTRAIT CONFIGURATION with 1/4" Hardware

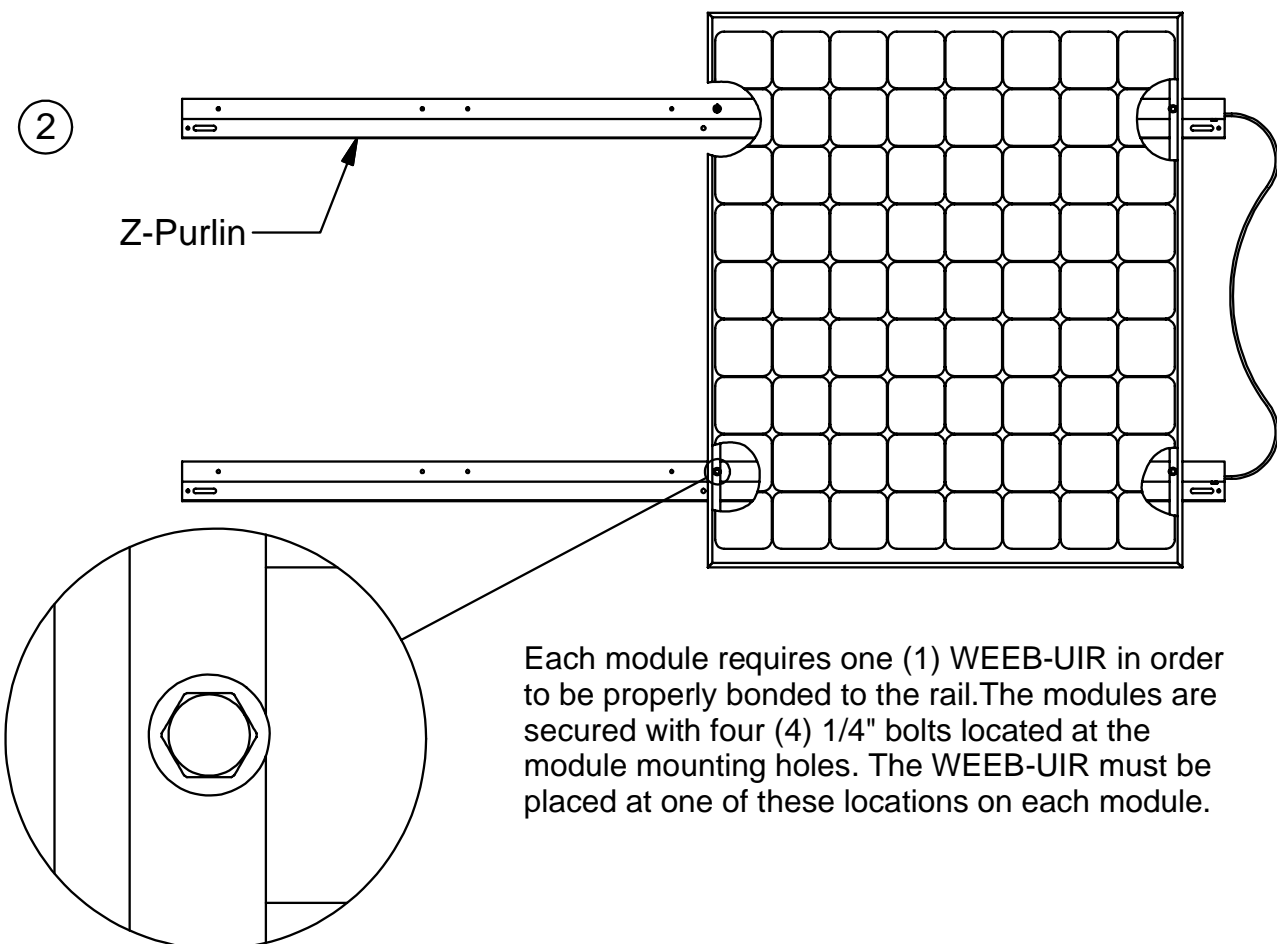
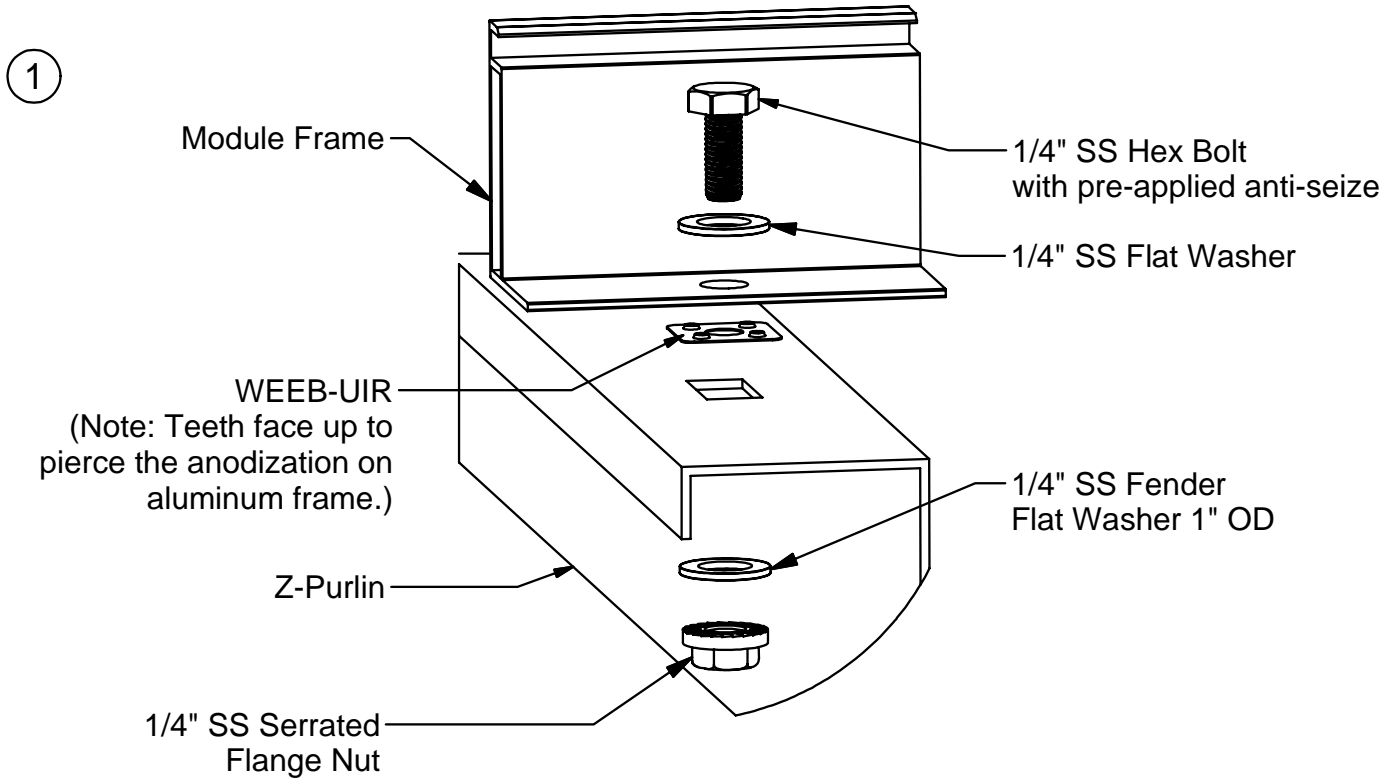


### Important notes:

1. Use general purpose anti-seize compound on fastener threads when installing WEEB® washers (unless already pre-applied).
2. The NEC section 690.43 states “Exposed non-current carrying metal parts of module frames, equipment, and conductor enclosures shall be grounded in accordance with 250.134 or 250.136(A) regardless of voltage”.

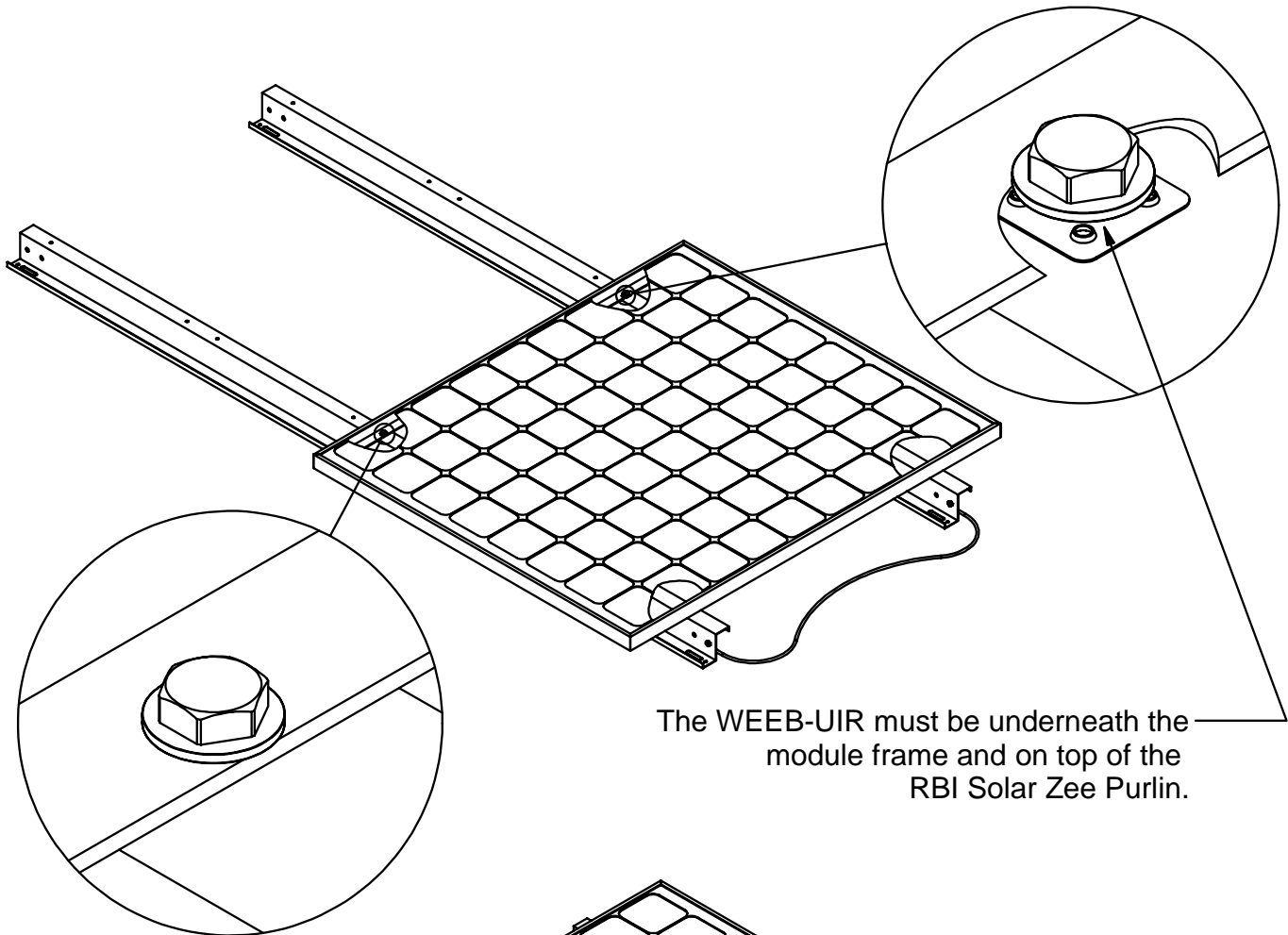
# WEEB-UIR ASSEMBLY

## Modules in Portrait Configuration with 1/4" Hardware

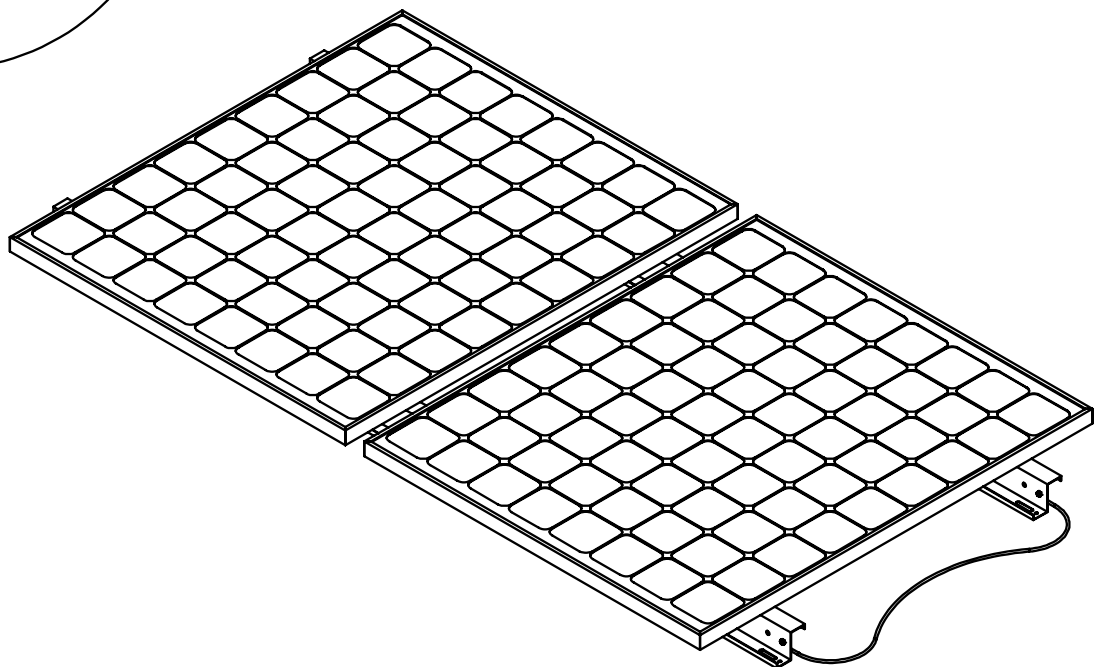


# WEEB-UIR ASSEMBLY

## Modules in Portrait Configuration



The WEEB-UIR must be underneath the module frame and on top of the RBI Solar Zee Purlin.



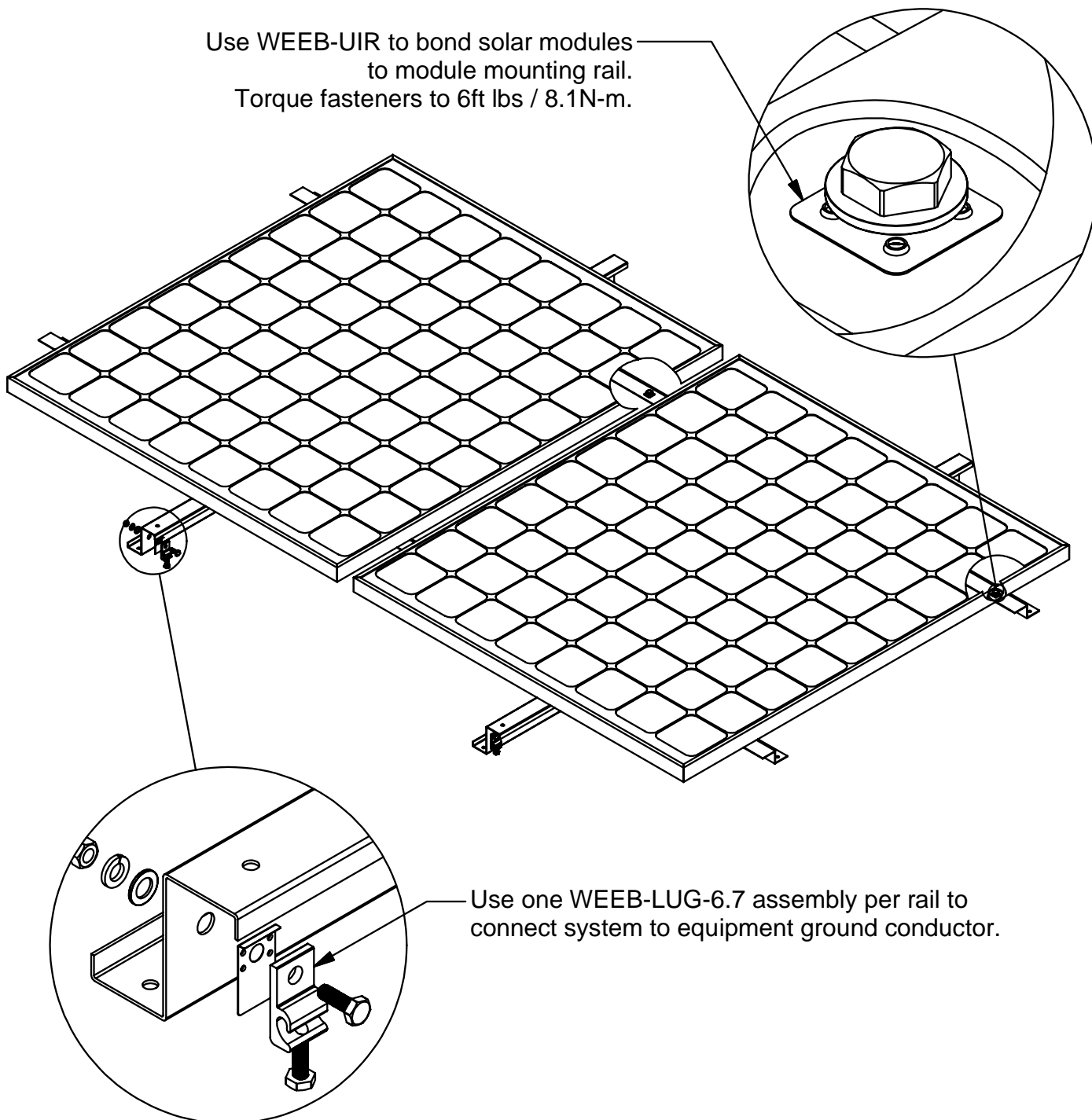
### Important note:

Do not torque fasteners down if position of solar modules is not finalized.  
Only slightly tighten fasteners to keep modules in place.

# SYSTEM OVERVIEW

## WEEB-UIR AND MODULES IN LANDSCAPE CONFIGURATION with 1/4" Hardware

Use WEEB-UIR to bond solar modules  
to module mounting rail.  
Torque fasteners to 6ft lbs / 8.1N-m.



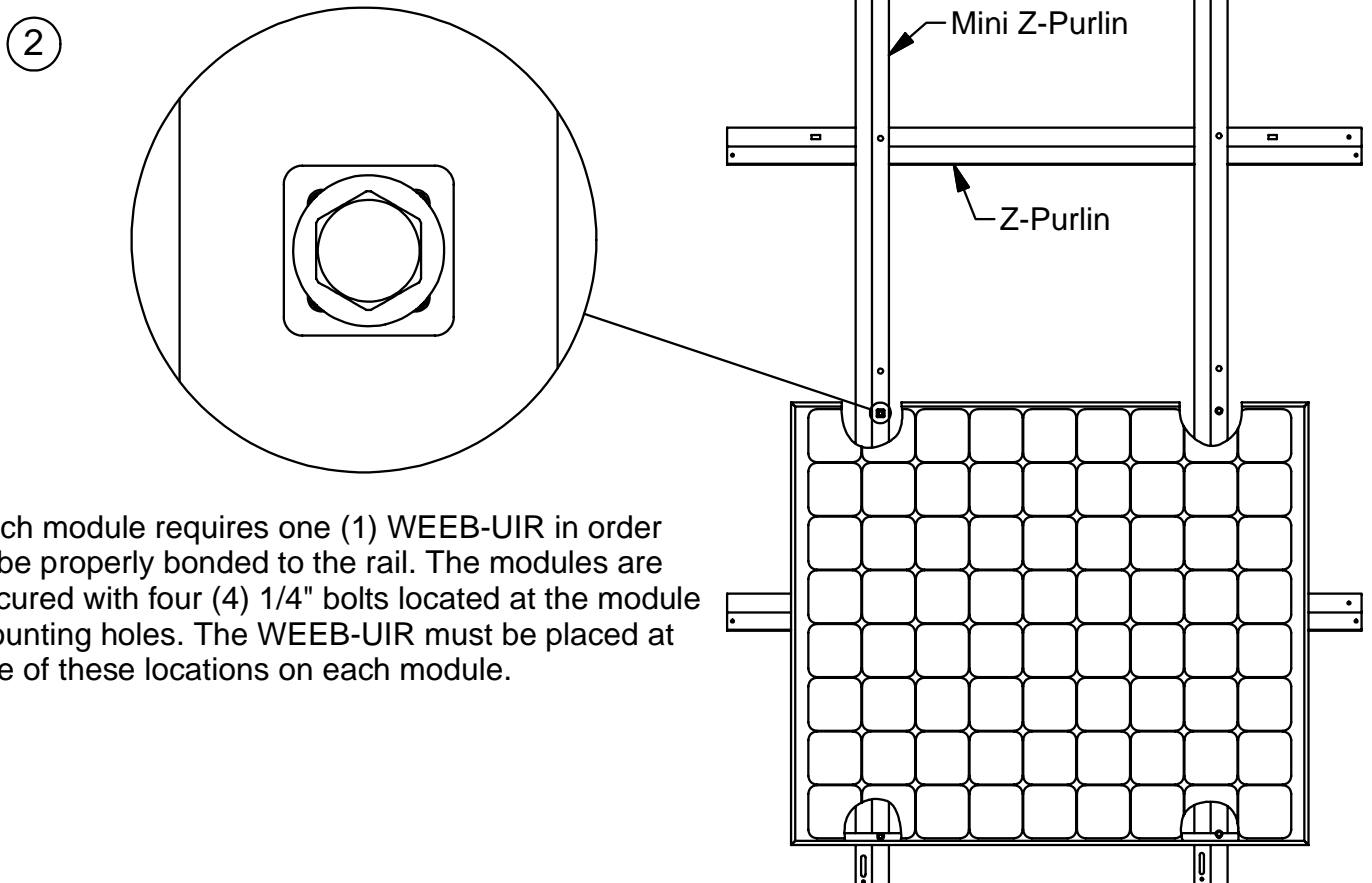
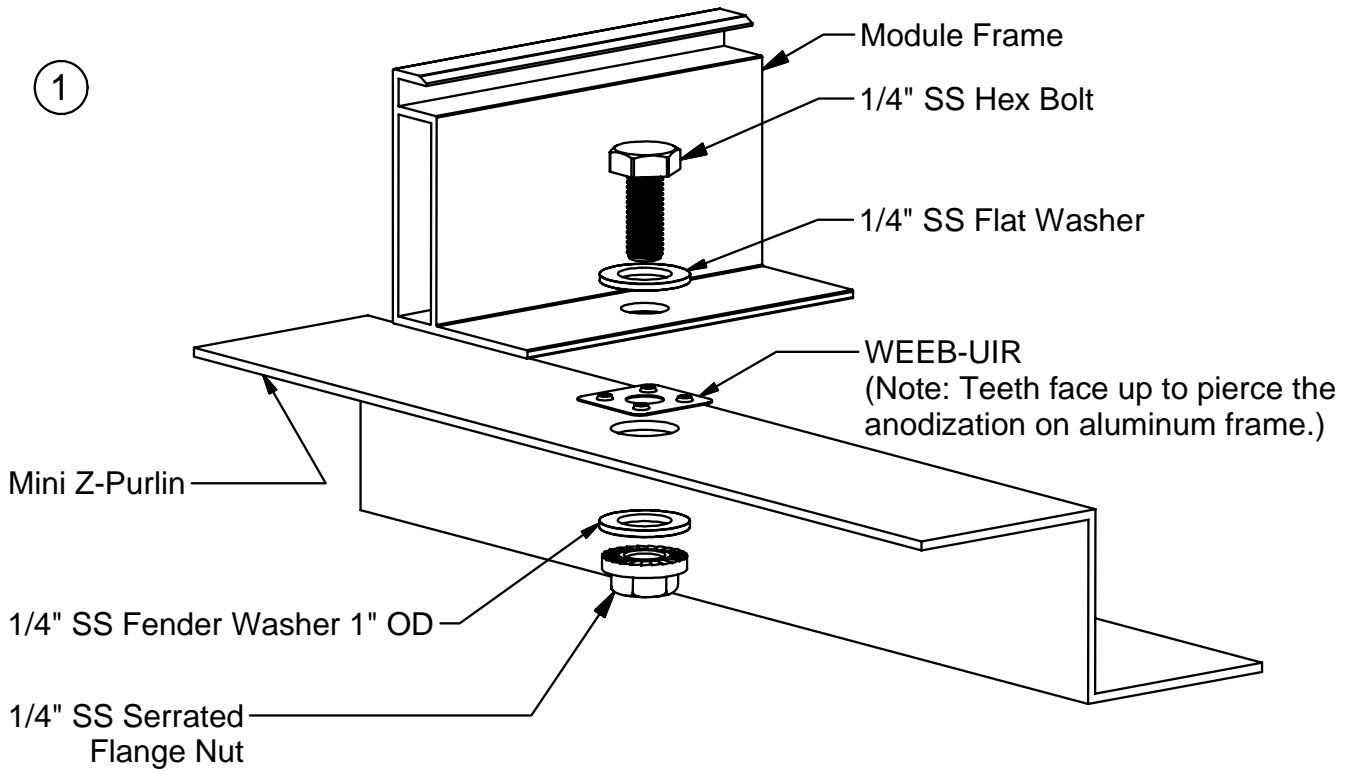
Use one WEEB-LUG-6.7 assembly per rail to  
connect system to equipment ground conductor.

### Important notes:

1. Use general purpose anti-seize compound on fastener threads when installing WEEB® washers (unless already pre-applied).
2. The NEC section 690.43 states “Exposed non-current carrying metal parts of module frames, equipment, and conductor enclosures shall be grounded in accordance with 250.134 or 250.136(A) regardless of voltage”.

# WEEB-UIR ASSEMBLY

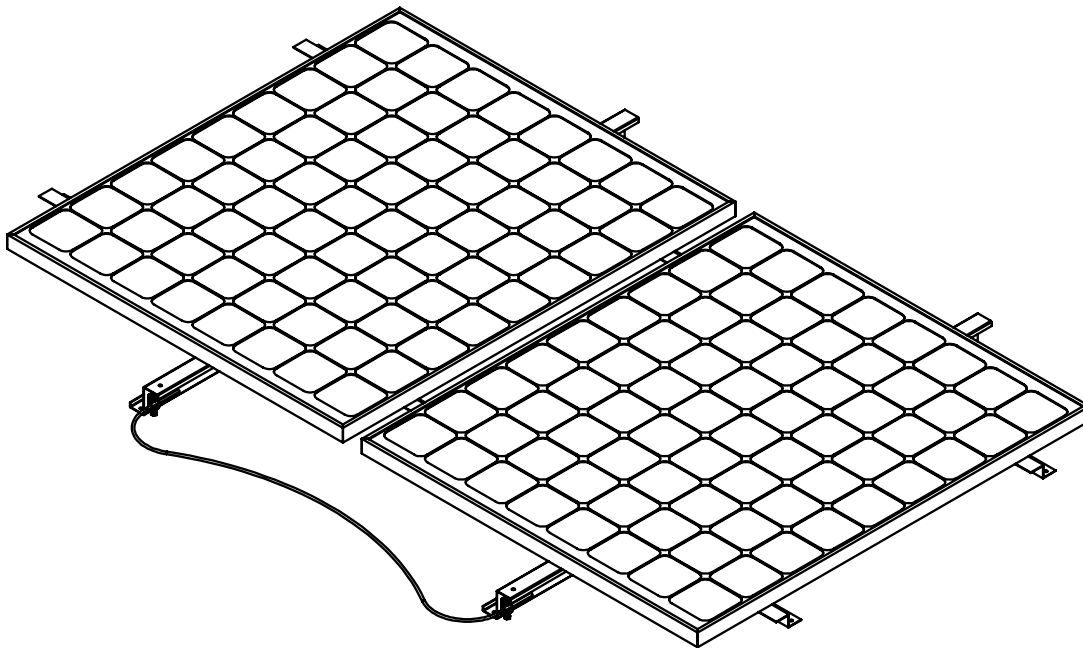
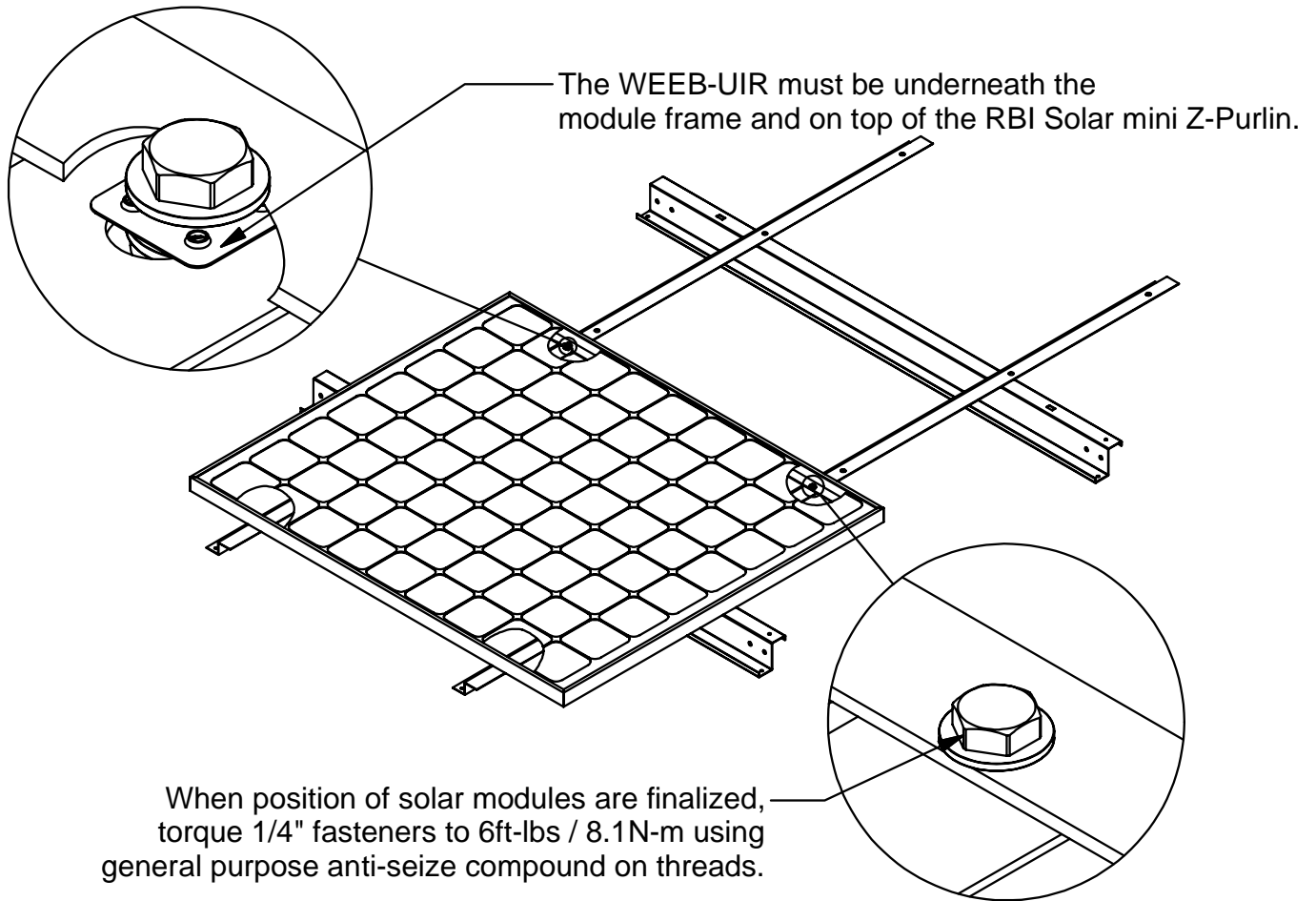
## Modules in Landscape Configuration with 1/4" Hardware



Each module requires one (1) WEEB-UIR in order to be properly bonded to the rail. The modules are secured with four (4) 1/4" bolts located at the module mounting holes. The WEEB-UIR must be placed at one of these locations on each module.

# WEEB-UIR ASSEMBLY

## Modules in Landscape Configuration



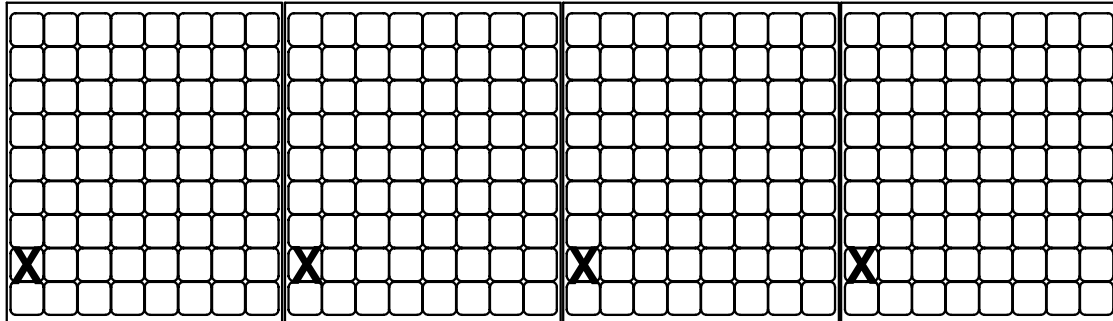
### Important note:

Do not torque fasteners down if position of solar modules is not finalized.  
Only slightly tighten fasteners to keep modules in place.



# WEEB-11.5 OR WEEB-UIR LAYOUT

## EVEN NUMBER OF MODULES IN ROW

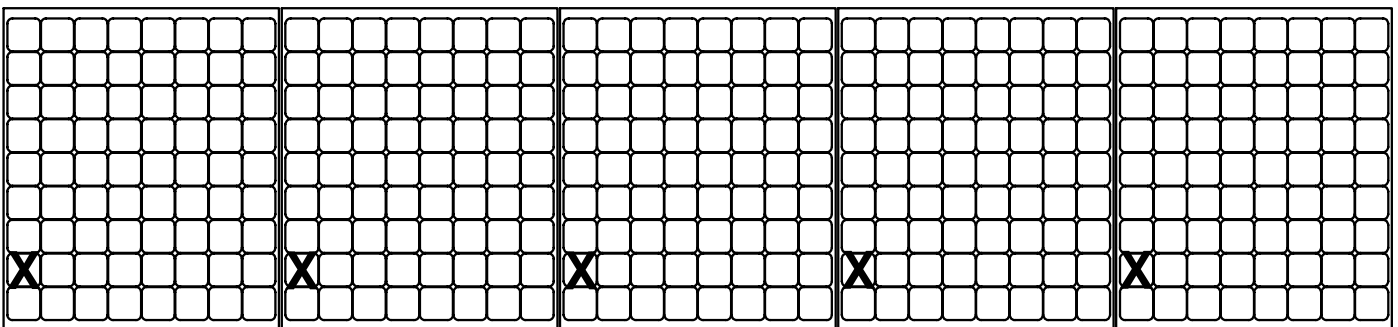


**X** DENOTES PLACES TO INSTALL WEEB-11.5 OR WEEB-UIR

$$\text{COLUMN X ROW} = C \times R = 4 \times 1 = 4$$

$$\text{WEEB-11.5 OR WEEB-UIR NEEDED} = 4$$

## ODD NUMBER OF MODULES IN ROW



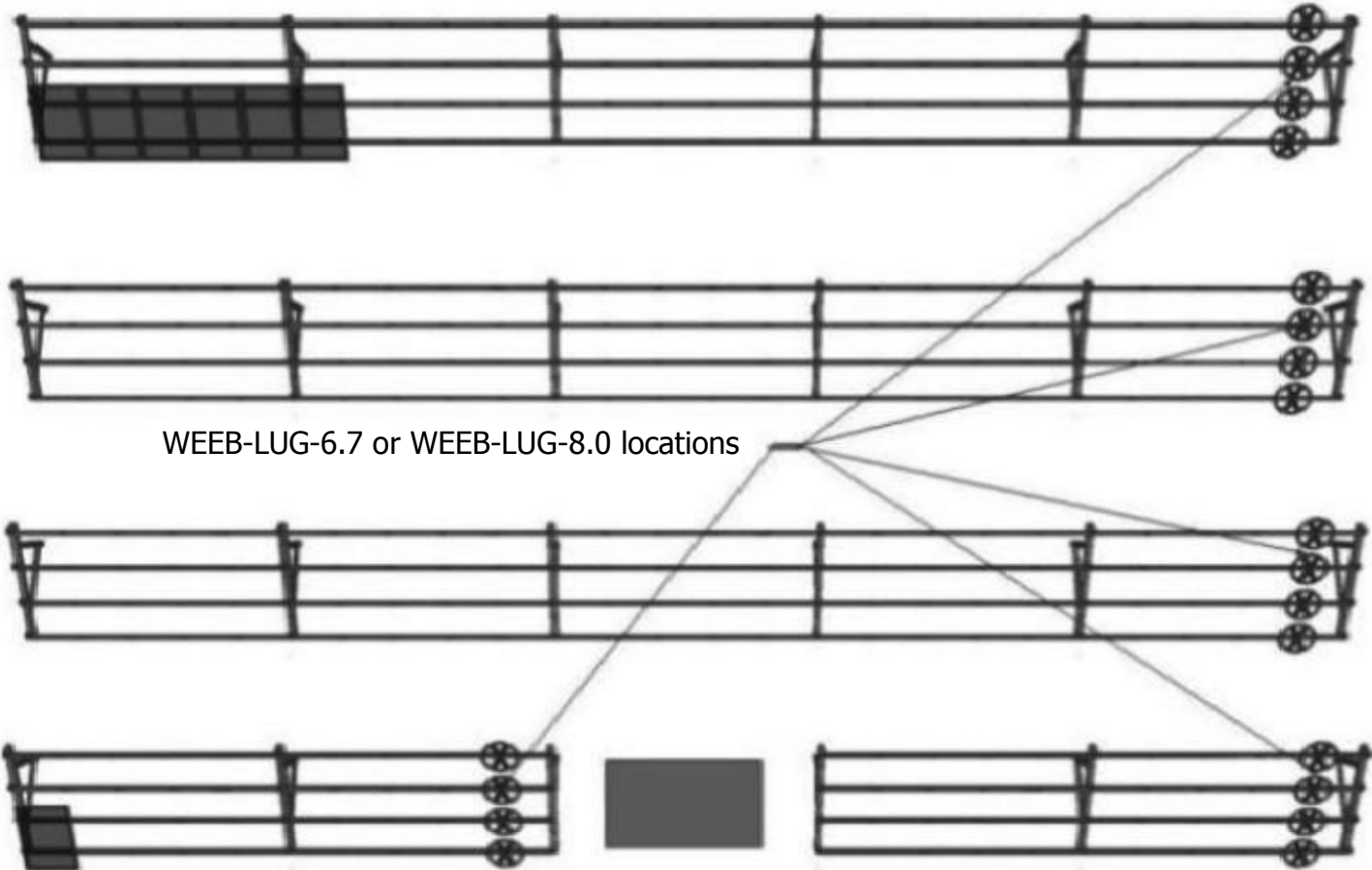
**X** DENOTES PLACES TO INSTALL WEEB-11.5 OR WEEB-UIR

$$\text{COLUMN X ROW} = C \times R = 5 \times 1 = 5$$

$$\text{WEEB-11.5 OR WEEB-UIR NEEDED} = 5$$

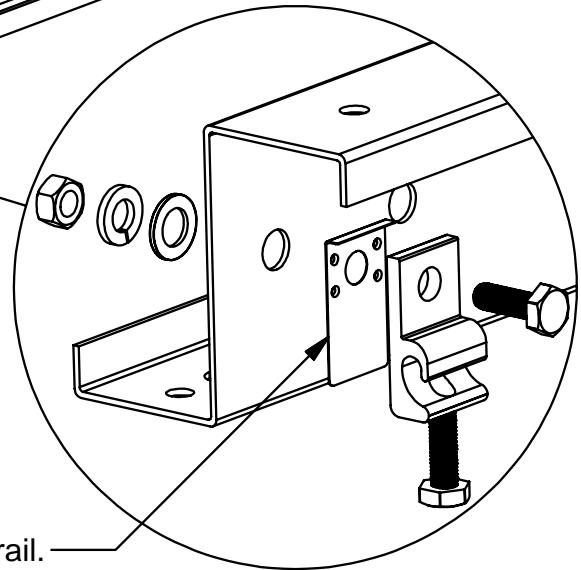
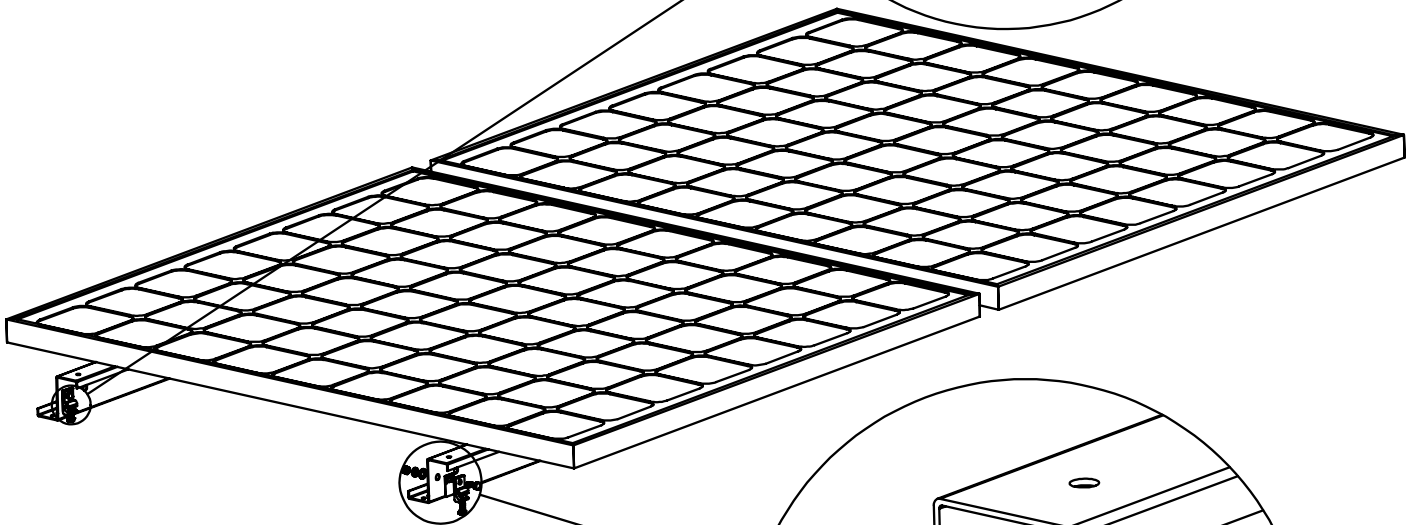
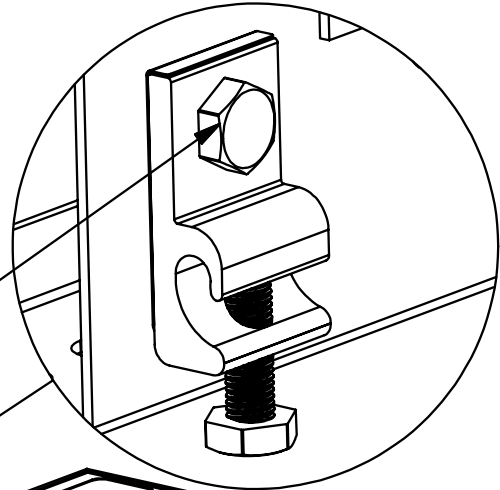
# WEEB-LUG-6.7 or WEEB-LUG-8.0 LOCATIONS

Install WEEB-LUG-6.7 or WEEB-LUG-8.0 at the following marked locations.



# WEEB-LUG ASSEMBLY

Assemble WEEB-LUG-6.7 or WEEB-LUG-8.0 assembly and torque fasteners to 10ft-lb / 13.5N-m using general purpose anti-seize compound on threads.

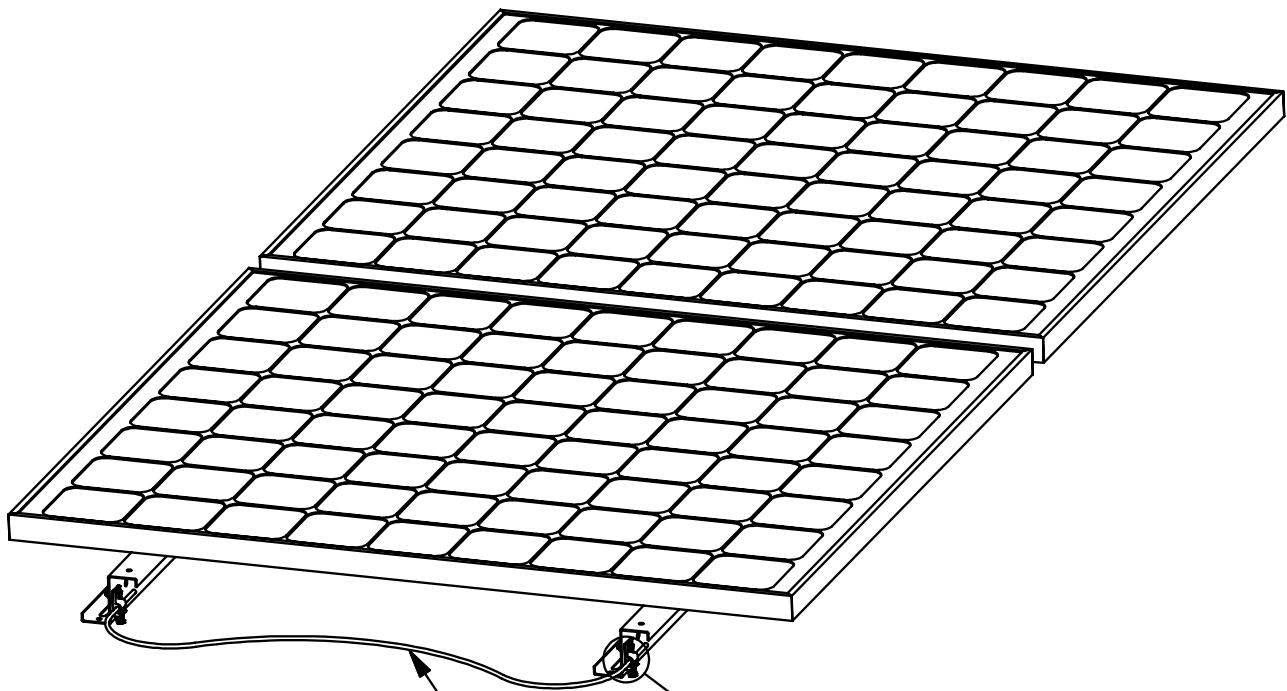


WEEB teeth towards rail.

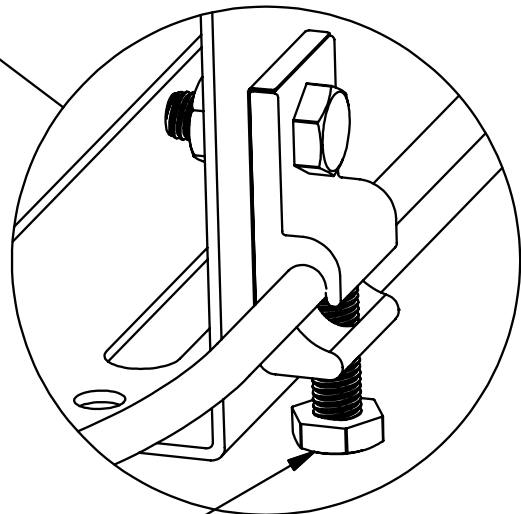
## Important notes

1. The location of the WEEB-LUG-6.7 or WEEB-LUG-8.0 is the same regardless of module orientation.
2. The WEEB-6.7 and WEEB-8.0 that are located underneath the WEEB-LUG-6.7 and WEEB-LUG-8.0 respectively. Ensure position is correct before tightening the hardware.
3. The WEEB-LUG-6.7 may be used with a maximum equipment ground wire of 6 AWG.

# GROUND CONDUCTOR ASSEMBLY



Equipment Ground  
Conductor



Lay in equipment ground conductor  
(6-14 AWG, material CU only)  
and tighten bolt to 7ft-lb / 10N-m.

**Customer Service Department**  
7 Aviation Park Drive  
Londonderry, NH 03053  
1-800-346-4175  
1-603-647-5299 (International)