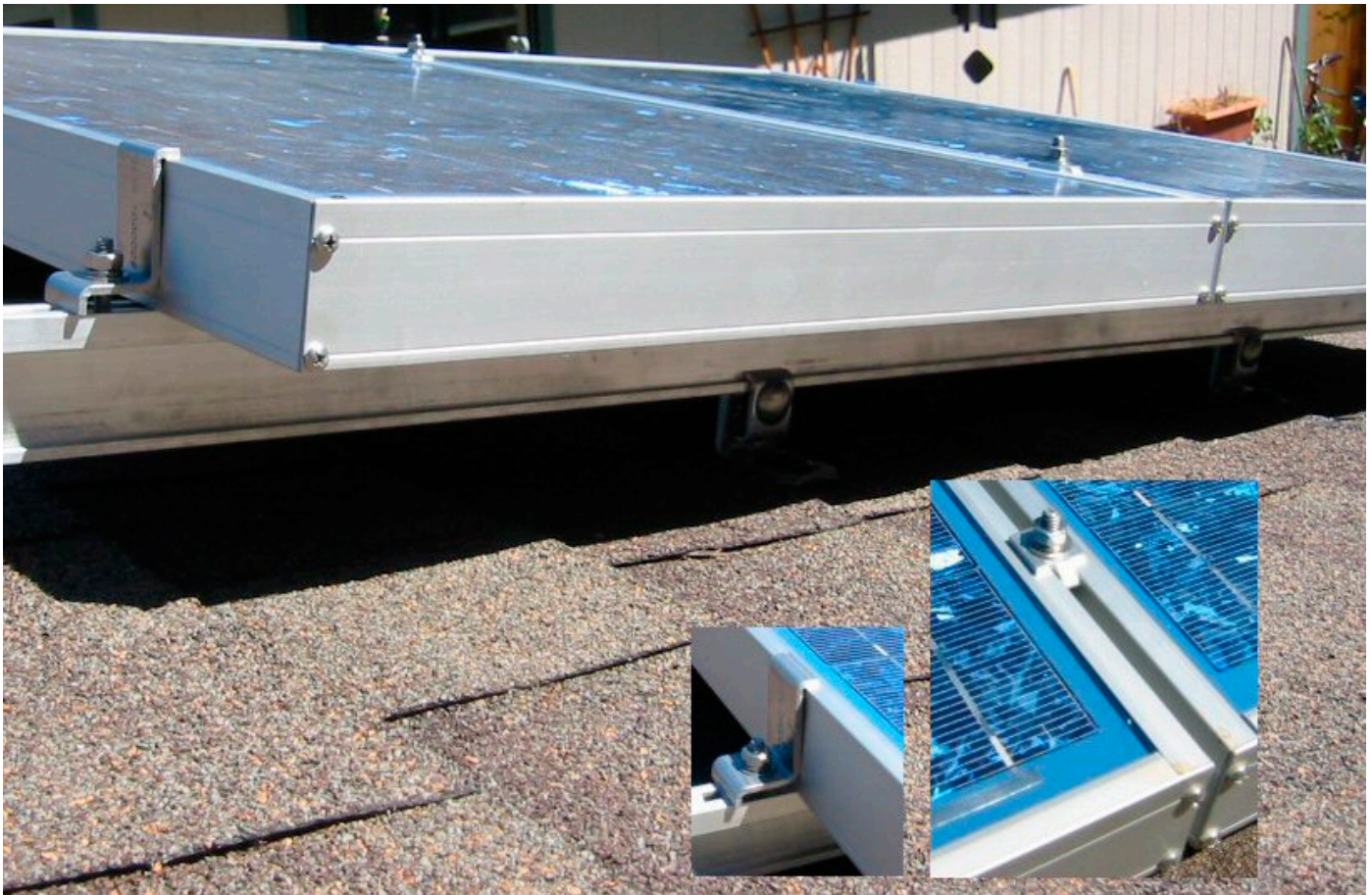




Installation Manual

Genesis Pro Flush Mount

GPS



Solar Mounting Solutions

Introduction

The Genesis Pro Flush Mount GPS is a flexible and straightforward roof mounting solution for a wide variety of solar photo voltaic (PV) needs. Due to its modular design, it can easily handle a wide variety of panel sizes and quantities.

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 IronRidge and other products are appropriate for the particular installation and the installation environment
- ◆ Ensuring that the selected mount can support the array under live load conditions
- ◆ Using only IronRidge parts and installer-supplied parts as specified by IronRidge. Substitution parts may void the warranty
- ◆ Ensuring safe installation of all electrical aspects of the PV array.

2. Customer Support

IronRidge makes every effort to ensure your mounting kit is easy to install. If you need assistance at any point with your installation or have suggestions on how we can improve your experience, call IronRidge customer support: (800) 227-9523

3. Tools Required For Assembly

The following tools are required to assemble the Genesis Pro Flush Mount:

Tool	Use for
Wrenches Open-end wrench, Box-end wrench, or 3/8" or greater socket drive with sockets to support the following size hex heads: <ul style="list-style-type: none"> ◆ 3/8" ◆ 1/4" 	<ul style="list-style-type: none"> ◆ 3/8 cap-end screws, 3/8 bolts ◆ 1/4 cap-end screws, 1/4 bolts

4. Component List

The Genesis Pro Flush Mount GPS kit contains the following parts:

Note: The component list indicated here is for reference only. The actual component quantities will vary according to the quantity and make of modules that the mount is configured for. Please check the packing list that ships with every mount for a confirmation of the items that are intended to ship with the specific product on your order.

<p>Foot (51-6000-002) x6 Attaches to the roof and is the anchor point for the rest of the panel assembly</p> 	<p>Foot Clamp (51-6000-003) x6 Attaches to the foot, providing the clamping force to hold the rails</p> 
<p>Extruded Rail (51-6000-048) x4 Attaches to the foot via the foot clamp and provides support for the PV modules</p> 	<p>End Clamp (51-6000-004) x4 Clamps the outside ends of the PV modules to the rails</p> 
<p>Center Clamp (51-6000-005) x4 Clamps the inside edges of the PV modules to the rails</p> 	<p>Splice Plate (51-6000-006) x2 Ties the extrusion rails together, extending their length</p> 

Component List continued...

Part	Qty	Part Number
Splice Kit	1	29-7000-000
1/4-20 x 3/4" SS hex-cap bolt	4	23-2520-050
1/4 flat washer, SS	8	25-2502-000
1/4 split lock washer, SS	4	24-2501-000
1/4-20 fin hex nut, SS	4	24-2520-440
Foot Assembly Kit	1	29-5010-000
3/8 flat washer, Zinc	6	27-3702-001
3/8 split lock washer, Zinc	6	27-3701-001
3/8 hex nut, Zinc	6	24-3716-441
Center Clamp Kit	1	29-7000-104
1/4-20 x 1" SS hex-cap bolt	4	23-2520-050
1/4 flat washer, SS	4	25-2502-000
1/4 split lock washer, SS	4	24-2501-000
1/4-20 fin hex nut, SS	4	24-2520-440
End Clamp Kit	1	29-7000-204
1/4-20 x 1" SS hex-cap bolt	4	23-2520-100
1/4 flat washer, SS	4	25-2502-000
1/4 split lock washer, SS	4	24-2501-000
1/4-20 fin hex nut, SS	4	24-2520-440
GPS Spares Kit	1	29-7000-001

5. Assembly

Step 1 - splicing and marking the extruded rails

Parts Required	Qty	Part Number
Extruded Rail	4	51-6000-048
Splice Plate	2	51-6000-006
1/4-20 x 3/4" SS hex-cap bolt	4	23-2520-050
1/4 flat washer, SS	8	25-2502-000
1/4 split lock washer, SS	4	24-2501-000
1/4-20 fin hex nut, SS	4	24-2520-440

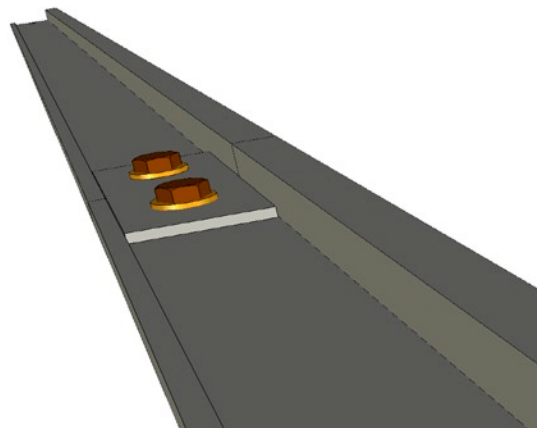
1. Lay out the entire length of the two sets of extruded rails end to end on the ground. Lay out all the rails needed. You can set them on the discarded PV boxes.



2. Splice up to 24 feet of rail together by lining up the holes in the splice plate with the holes in the ends of the rails and bolting them together using the supplied hardware.

If longer lengths than 24 feet of rail are needed, make the final splice on the roof. (It's difficult to carry more than 24 feet of rail to the roof).

Tighten to 7 ft-lbs.



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3. Measure the width of the PV panels.
 4. Starting at one end of the extruded rail, make a mark 2 inches in, and then make another mark for every width of PV panel.
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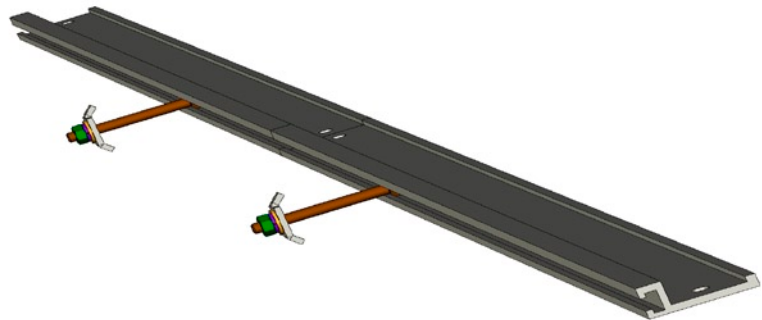
Step 2 - attaching the spacer clamps to the rails

Parts Required	Qty	Part Number
Spacer Clamp	4	51-6000-005
1/4-20 x 1" SS hex-cap bolt	4	23-2520-050
1/4 flat washer, SS	4	25-2502-000
1/4 split lock washer, SS	4	24-2501-000
1/4-20 fin hex nut, SS	4	24-2520-440

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1. Assemble all of the spacer clamps into units as shown, using a bolt, PV spacer, washer, lock washer and nut for each one.



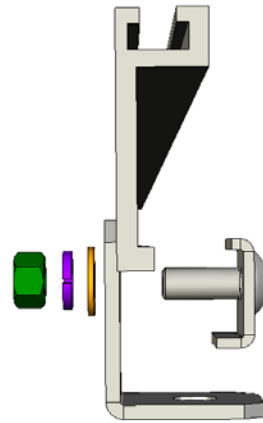
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2. Slide all of the spacer clamps onto the extruded rails to the locations of the marks you made in the previous step.



Step 3 - attaching the feet to the rails

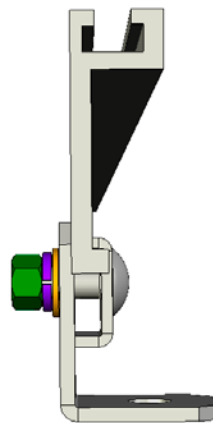
Parts Required	Qty	Part Number
Foot	6	51-6000-002
Foot Clamp	6	51-6000-003
3/8 flat washer, Zinc	6	27-3702-001
3/8 split lock washer, Zinc	6	27-3701-001
3/8 hex nut, Zinc	6	24-3716-441

1. Clamp the feet to the rails as shown, making sure the lip of the clamp goes over the lip on the rail.

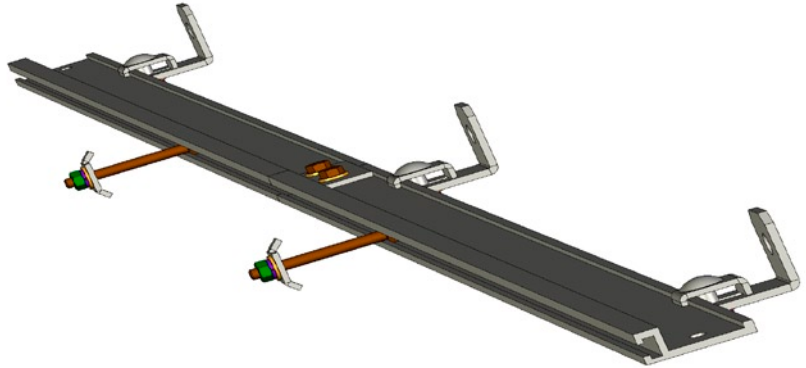


2. Note the following:

- ◆ Make sure the feet don't clamp within 5 inches of any rail splice locations.
- ◆ The maximum supported distance between feet attach points is 46 inches.



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3. Tighten the bolts to 12 ft-lbs.



Step 4 - mounting the rails on the roof

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1. Take the rail assemblies up to the roof.
 2. If the rails need to be longer than 24 feet, splice the remaining rails together.

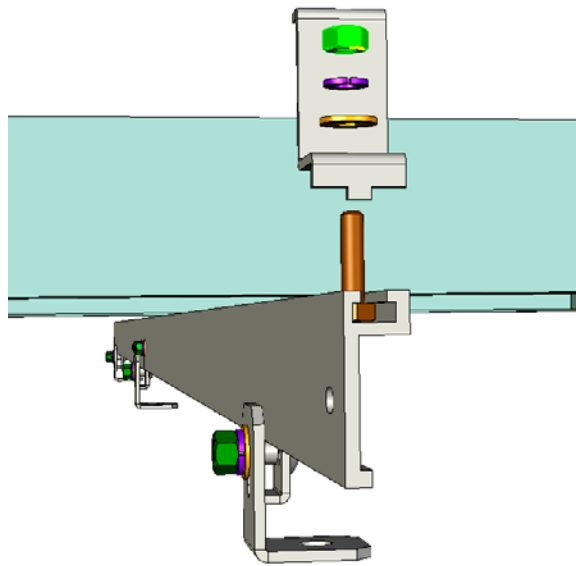
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3. Mount the rails on the roof using the appropriate lags and sealant:
 - ◆ Make sure that the rails are PARALLEL - the same distance apart for the entire running distance of rail.
 - ◆ The distance between the rails should be approximately 1/2 the length of the panel (e.g. 62-inch long panels would sit on a set of rails that are spaced 31 inches apart).



Step 5 - clamping the panels to the rails

Parts Required	Qty	Part Number
End Clamp	4	51-6000-004
1/4-20 x 1" SS hex-cap bolt	4	23-2520-050
1/4 flat washer, SS	4	25-2502-000
1/4 split lock washer, SS	4	24-2501-000
1/4-20 fin hex nut, SS	4	24-2520-440

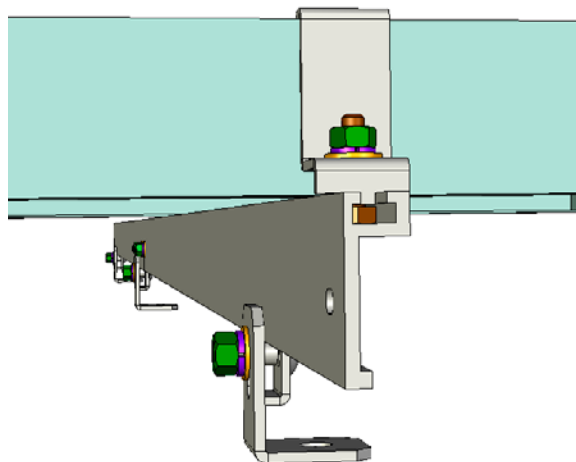
1. Lay the first PV module in position on the rails.
2. Slide the head of a bolt into the slot on the top of the rail.
3. Then slip the end clamp over the bolt, making sure it is firmly hooked over the side of the module.



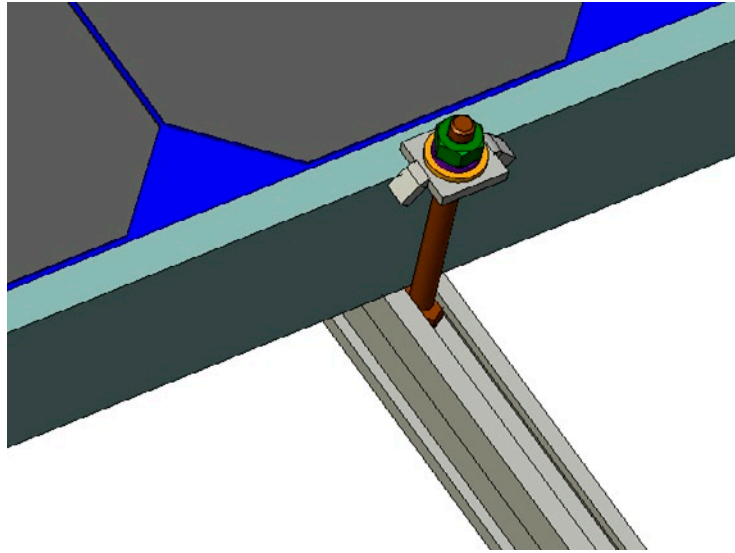
4. Complete the clamp assembly with a washer, lock washer and nut as shown.

Tighten to 7 ft-lbs.

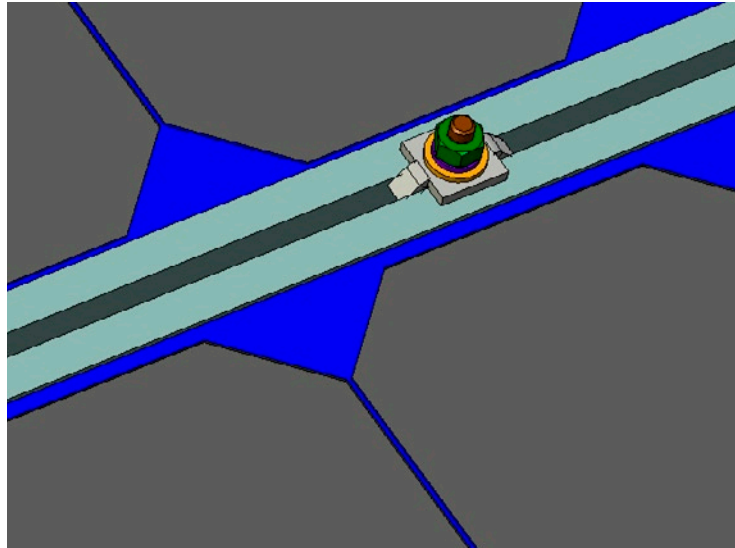
5. Repeat with the other clamp.



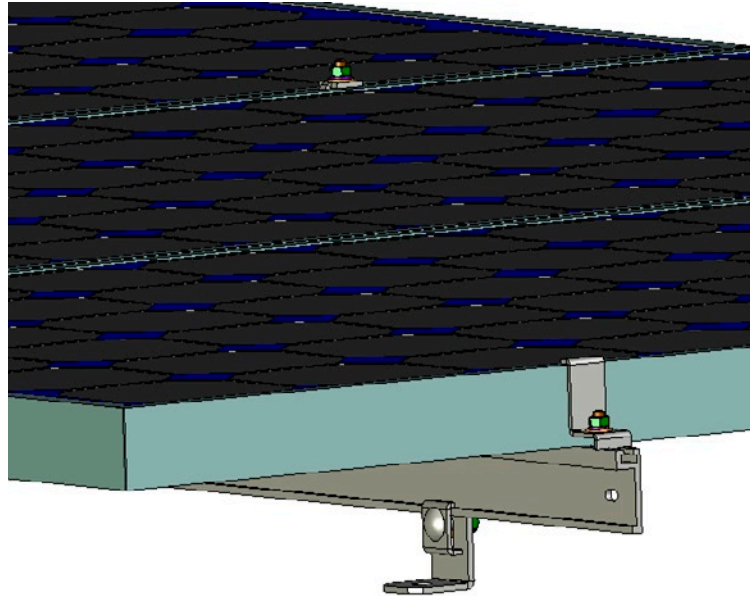
6. Now, work from the opposite side of the PV module. Place the second PV Module into position on the rails, sliding it against the first so the center clamps are in contact with the edges of both panels.



7. Tighten to 7 ft-lbs.



8. Repeat the procedure using center clamps to secure each successive module.
9. Secure the last module at the end of the rails using the other set of end clamps.



IronRidge 20-Year Warranty

IronRidge warrants each Mounting Structure to be free from defects in materials and workmanship for twenty years from the date of first purchase when installed properly and used for the purpose for which it is designed. The warranty covers the replacement cost of parts to repair the product to proper working condition. Transportation and incidental costs associated with warranty items are not reimbursable. The warranty does not cover normal wear, or damage resulting from misuse, abuse, improper installation, negligence, or accident. Furthermore, it does not cover units that have been altered, modified or repaired without written authorization from the manufacturer or its authorized representative, or units used in a manner or for a purpose other than that specified by the manufacturer.