Parts Catalog

2014 Edition v1.65

This catalog includes parts and accessories for IronRidge's Mounting Systems.

We've been designing and manufacturing solar mounting products since 1996. Although we aren't the largest racking provider, based on sheer volume, our products are outstanding and our customers consistently rank us as #1 in both customer service and technical support. If you haven't already experienced why, please contact our customer service team at 800-227-9523 or via email at service@ironridge.com.

Overview

The **IronRidge Roof Mount System** components complement both IronRidge XR Rail assemblies, while supporting virtually any commercial or residential roof mount installation, regardless of roof type or pitch.

The **IronRidge Ballasted Roof Mount System** is compact, easy to ship, light on the roof and is engineered for quick and intuitive installation. This system works with most solar panels and, because it is a rail-less system, handles uneven and obstructed roofs with ease.

The **IronRidge Ground Mount System** scales to support a wide range of site and terrain challenges. This system consists of components that allow for installer-supplied steel pipe to combine with our XR1000 Rail assembly for simple, rapid, cost effective ground mounting.

The **IronRidge Pole Mount System** offers user-adjustable tilt angle settings and accommodates a wide range of solar applications; including off-grid backup systems, roadside signals, moderate load remote systems and call boxes.

Rail Assemblies Overview

Our product development team strives to keep things simple and intuitive for installers while accommodating a wide range of mounting scenarios. As a result, we offer three complementary types of rail within the XR Rail Family. Please refer to our website or contact our customer service team so that we can best assist in determining which rail assembly is best for you and your specific project.
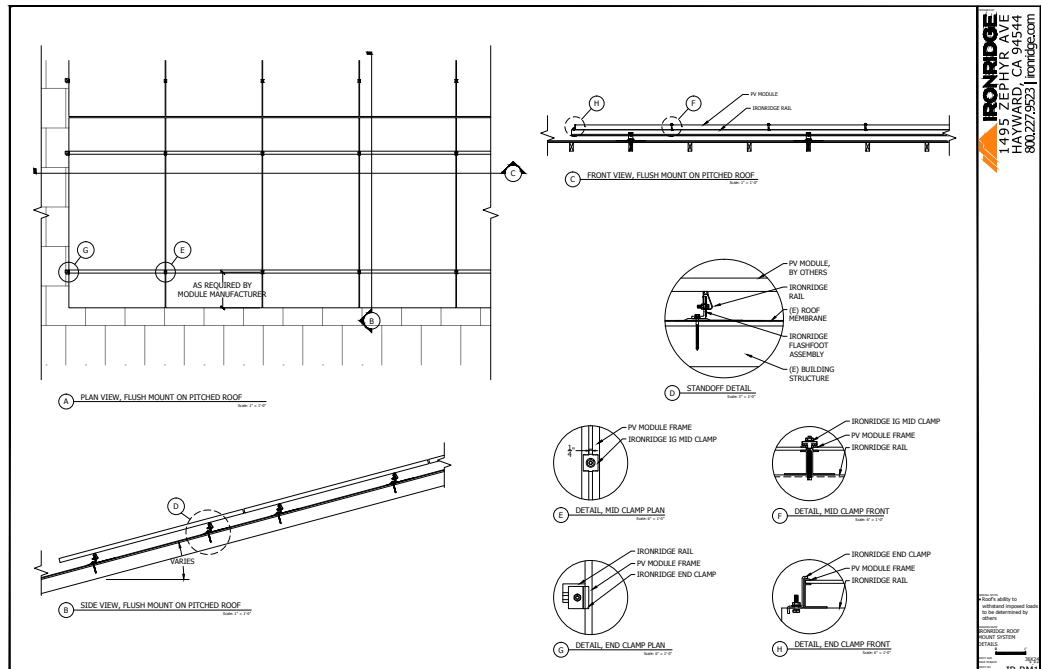

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XR Rail
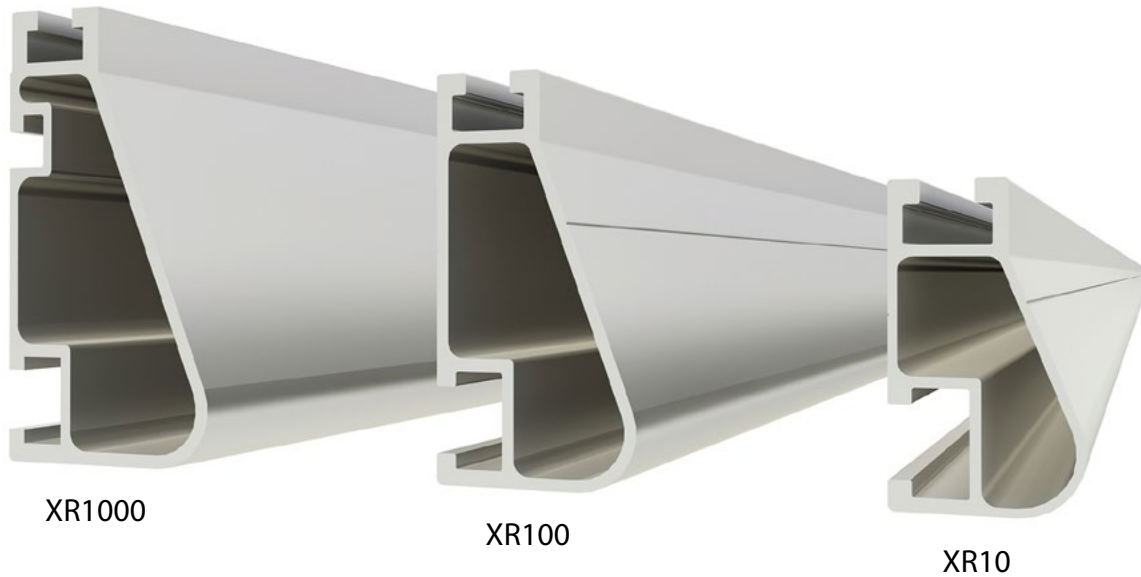
XR1000

XR100

XR10

Item Number	Description	Item Number	Description
XR-1000-132A	XR1000, Rail 132" (11 Feet) Clear	XR-100-132A	XR100, Rail 132" (11 Feet) Clear
XR-1000-168A	XR1000, Rail 168" (14 Feet) Clear	XR-100-132B	XR100, Rail 132" (11 Feet) Black
XR-1000-204A	XR1000, Rail 204" (17 Feet) Clear	XR-100-168A	XR100, Rail 168" (14 Feet) Clear
XR-10-132A	XR10, Rail 132" (11 Feet) Clear	XR-100-168B	XR100, Rail 168" (14 Feet) Black
XR-10-168A	XR10, Rail 168" (14 Feet) Clear	XR-100-204A	XR100, Rail 204" (17 Feet) Clear
XR-10-204A	XR10, Rail 204" (17 Feet) Clear	XR-100-204B	XR100, Rail 204" (17 Feet) Black

The XR Rail Family offers the strength of a curved rail in three targeted sizes. Each size supports specific design loads, while minimizing material costs. Depending on your location, there is an XR Rail to match. XR1000 is a heavyweight among solar mounting rails. It's built to handle extreme climates and spans 12 feet or more for commercial applications. XR100 is the ultimate residential mounting rail. It supports a range of wind and snow conditions, while also maximizing spans. XR10 is a sleek, low-profile mounting rail, perfectly matched to regions with light or no snow. It achieves 6 foot spans, while also staying light and economical.

Internal Rail Splices

XR1000   XR100   XR10
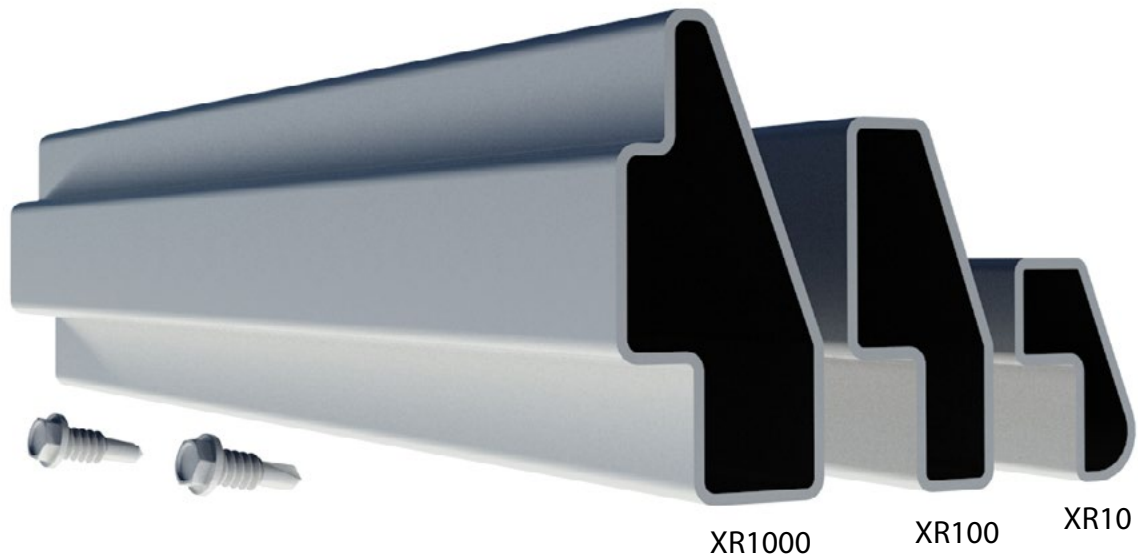
Item Number	Description
XR-1000-SPLC	Splice, XR1000, 12", Mill
XR-100-SPLC	Splice, XR100, 12", Mill
XR-10-SPLC	Splice, XR10, 12", Mill

XR Rails can be easily extended with our patented internal splice bars. The internal splice bars do not interfere with clamping or with mounting, and offer a near seamless appearance. XR Rail Splices are made with extruded 6000 series aluminum. 12-14 x 5/8" self-drilling screws are included.

Mid Clamps
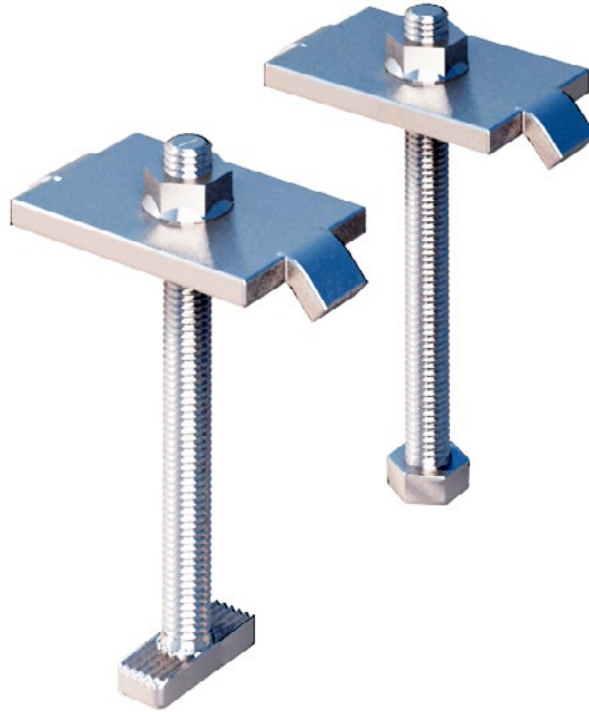
Item Number	Description (Mill Finish)	Item Number	Description (Black Finish)
29-7000-105	Kit, 4pcs, Mid Clamp A/B/I, 2.00", Hex	29-7000-105B	Kit, 4pcs, Mid Clamp A/B/I, 2.00", Hex
29-7000-101	Kit, 4pcs, Mid Clamp C/D/J/E, 2.25", Hex	29-7000-101B	Kit, 4pcs, Mid Clamp C/D/J/E, 2.25", Hex
29-7000-108	Kit, 4pcs, Mid Clamp F/K/G, 2.50", Hex	29-7000-108B	Kit, 4pcs, Mid Clamp F/K/G, 2.50", Hex
29-7000-104	Kit, 4pcs, Mid Clamp H 2.75", Hex	29-7000-104B	Kit, 4pcs, Mid Clamp H 2.75", Hex
29-70TB-105	Kit, 4pcs, Mid Clamp A/B/I, 2.00", Tbolt	29-70TB-105B	Kit, 4pcs, Mid Clamp A/B/I, 2.00", Tbolt
29-70TB-101	Kit, 4pcs, Mid Clamp C/D/J/E, 2.25", Tbolt	29-70TB-101B	Kit, 4pcs, Mid Clamp C/D/J/E, 2.25", Tbolt
29-70TB-108	Kit, 4pcs, Mid Clamp F/K/G, 2.50", Tbolt	29-70TB-108B	Kit, 4pcs, Mid Clamp F/K/G, 2.50", Tbolt
29-70TB-104	Kit, 4pcs, Mid Clamp H, 2.75", Tbolt	29-70TB-104B	Kit, 4pcs, Mid Clamp H, 2.75", Tbolt

Mid Clamps are used when top-mounting modules to the top slot of XR Rails. These clamps are not dependent upon the module's mounting holes. These Mid Clamps may be ordered with Hex bolts or with T-bolts. Mid Clamps require .25" between modules thus maximizing the total number of modules per set of rails. Available in clear or black anodized finish.

Grounding Mid Clamps

Item Number	Description (Clear Finish)	Item Number	Description (Black Finish)
RS-GD-MCL-200	Kit, 4pcs, 2.00", Tbolt	RS-GD-MCL-200B	Kit, 4pcs, 2.00", Tbolt
RS-GD-MCL-225	Kit, 4pcs, 2.25", Tbolt	RS-GD-MCL-225B	Kit, 4pcs, 2.25", Tbolt
RS-GD-MCL-250	Kit, 4pcs, 2.50", Tbolt	RS-GD-MCL-250B	Kit, 4pcs, 2.50", Tbolt
RS-GD-MCL-275	Kit, 4pcs, 2.75", Tbolt	RS-GD-MCL-275B	Kit, 4pcs, 2.75", Tbolt

Grounding Mid Clamps are used when top-mounting modules to the top slot of XR Rails. Each Grounding Mid Clamp pierces through the anodized coatings of both the module frame and the mounting rail to form secure electrical bonds, which are repeated throughout the array. These clamps are not dependent upon the module's mounting holes. These Mid Clamps may be ordered with T-bolts. Mid Clamps require .25" between modules thus maximizing the total number of modules per set of rails. Available in clear or black finish. Black Grounding Mid Clamps come with black clamps and clear hardware.

End Clamps

Item Number	Description	Item Number	Description
29-7000-125	Kit, 4pcs, End Clamp I 1.25" Mill	29-7000-125B	Kit, 4pcs, End Clamp I, 1.25" Black
29-7000-134	Kit, 4pcs, End Clamp A 1.34" Mill	29-7000-134B	Kit, 4pcs, End Clamp A, 1.34" Black
29-7000-224	Kit, 4pcs, End Clamp B 1.41" Mill	29-7000-224B	Kit, 4pcs, End Clamp B, 1.41" Black
29-7000-157	Kit, 4pcs, End Clamp C 1.57" Mill	29-7000-157B	Kit, 4pcs, End Clamp C, 1.57" Black
29-7000-165	Kit, 4pcs, End Clamp J 1.65" Mill	29-7000-165B	Kit, 4pcs, End Clamp J, 1.65" Black
29-7000-171	Kit, 4pcs, End Clamp E 1.71" Mill	29-7000-171B	Kit, 4pcs, End Clamp E, 1.71" Black
29-7000-214	Kit, 4pcs, End Clamp F 1.81" Mill	29-7000-214B	Kit, 4pcs, End Clamp F, 1.81" Black
29-7000-187	Kit, 4pcs, End Clamp K 1.87" Mill	29-7000-187B	Kit, 4pcs, End Clamp K, 1.87" Black
29-7000-204	Kit, 4pcs, End Clamp G 1.97" Mill	29-7000-204B	Kit, 4pcs, End Clamp G, 1.97" Black
29-7000-230	Kit, 4pcs, End Clamp H 2.30" Mill	29-7000-230B	Kit, 4pcs, End Clamp H, 2.30" Black

End clamps are used when top-mounting modules to the top slot of XR Rails. These clamps are not dependent upon the module's mounting holes. IronRidge End Clamps require 1.5" of rail on each end and vary in height depending on the module being mounted. Please use the sizing chart on the next page to determine the right part for your project. Also available in black anodized finish. Black is special order, call for additional details.

Under Clamps

Item Number	Description
29-7000-117	Kit, 4pcs, Under Clamp, Clear

Under clamps are typically used when it is difficult to access the top of the panel and install a top-down bolted clamp or when you do not want clamps visible from the top. Under clamps can be installed only into the XR1000 rail and utilizes the upper slot on the back side of the rail. Four (4) clamps are required per panel and replaces end and mid clamps. Under clamps are sold in 4 packs with required hardware.

Calculating Rail Length

Calculate total required mounting widths as follows:
Add module widths + .25" space between modules for mid clamps + 1.5" to each end for end clamping. This formula will provide you with total width of rails. *If rail splices are needed, see page 6.

For example, to mount five modules that are each 40" wide, the calculations are as follows:

- 5 x 40" = 200" (account for width of modules in portrait mode)
- 4 x .25" = 1" (account for width of mid clamps between the five modules)
- 2 x 1.5" = 3" (account for two end clamps on ends of rail)
- 200" + 1" + 3" = 204" (total length of one rail)
- Two 18' rails will be required to mount these five modules

*IronRidge stock rails lengths: 11', 14', 17'. Custom lengths available via special order, contact IronRidge Customer Support for additional details at 800-227-9523, or support@IronRidge.com.

Calculating Panel Clamp Size

Module Clamp size depends on the module thickness. Use the table below to determine which Module Clamp will fit your projects module thickness.

| Module Thickness | | Clamp Info | | Part Numbers | | | |
Mm	Inches	Type	Bolt Height	End Clamp	Hex Mid Clamp	T-bolt Mid Clamp	Grounding Mid Clamp
31.0 - 32.5	1.22 - 1.28	I	2.00"	29-7000-125	29-7000-105	29-70TB-105	RS-GD-MCL-200
33.3 - 34.8	1.31 - 1.37	A	2.00"	29-7000-134	29-7000-105	29-70TB-105	RS-GD-MCL-200
34.8 - 36.8	1.37 - 1.45	B	2.00"	29-7000-224	29-7000-105	29-70TB-105	RS-GD-MCL-225
39.0 - 41.0	1.53 - 1.61	C	2.25"	29-7000-157	29-7000-101	29-70TB-101	RS-GD-MCL-225
41.1 - 42.7	1.62 - 1.68	J	2.25"	29-7000-165	29-7000-101	29-70TB-101	RS-GD-MCL-250
42.7 - 44.2	1.68 - 1.74	E	2.25"	29-7000-171	29-7000-101	29-70TB-101	RS-GD-MCL-250
45.0 - 47.0	1.77 - 1.85	F	2.50"	29-7000-214	29-7000-108	29-70TB-108	RS-GD-MCL-250
46.7 - 48.3	1.84 - 1.90	K	2.50"	29-7000-187	29-7000-108	29-70TB-108	RS-GD-MCL-275
49.0 - 51.1	1.93 - 2.01	G	2.50"	29-7000-204	29-7000-108	29-70TB-108	RS-GD-MCL-275
57.4 - 58.9	2.26 - 2.32	H	2.75"	29-7000-230	29-7000-104	29-70TB-104	Unsupported

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End Caps

XR1000   XR100   XR10

Item Number	Description
XR-1000-CAP	XR1000 End Cap (Bag of 20)
XR-100-CAP	XR100 End Cap (Bag of 20)
XR-10-CAP	XR10 End Cap (Bag of 20)

End Caps provide a finished look to rails, while protecting the collection of water and debris inside the rail. End Caps are molded from black polycarbonate with UV protection.

Wire Clips

Item Number	Description
29-4000-077	Wire Clip (Bag of 20)

Wire Clips fit XR Rails, and accommodate up to ten 5mm panel wires, or one MC4, one Enphase wire and one dual Enphase wire. Molded from black polycarbonate with UV protection.
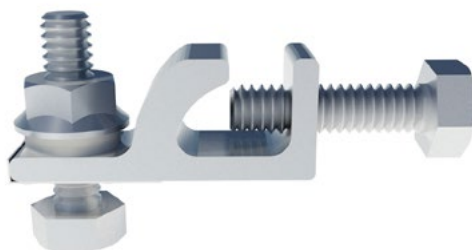
Grounding Straps

Item Number	Description
RS-GDST-001	Grounding Strap (Qty 2)
RS-GDXP-001	Grounding Strap Expansion Joint (Qty 1)

Grounding Straps are used to bond rail-to-rail connections. They are only required on the rail with the grounding lug. Grounding Straps include 18-8 x 1/4" star washers.

Grounding Lugs

RS-GDLG-001 29-4000-002 RS-GDLG-002

Item Number	Description
RS-GDLG-001	IronRidge Grounding Lug, Compatible with XR1000 Only (Qty 2)
29-4000-002	WEEB Grounding Lug
RS-GDLG-002	IronRidge Grounding Lug, Integrated Grounding, T-Bolt (Qty 2)

A single Grounding Lug connects an entire row of PV modules to the grounding conductor.

Approved 3rd Party Accessories

Tilt Mount Standoffs

Aluminum Tilt Mount Standoffs, manufactured by QuickMount PV, are ideal for tilt-mounted applications and integrate seamlessly with QuickMount PV flashings. These standoffs are available in 3.75", 7" and 9" lengths. Flashing not included.

| Item Number	Description
RF-TLT-SO-375	Kit, Low Slope Mount, 3.75"
RF-TLT-SO-700	Kit, Low Slope Mount, 7.00"
RF-TLT-SO-900	Kit, Low Slope Mount, 9.00"

Grounding

Wiley grounding clips (WEEB DMC), grounding lugs, and bonding jumpers are all available. Order one grounding clip for every two top mounting clamps, one grounding lug for every rail segment, and one bonding jumper for each splice.
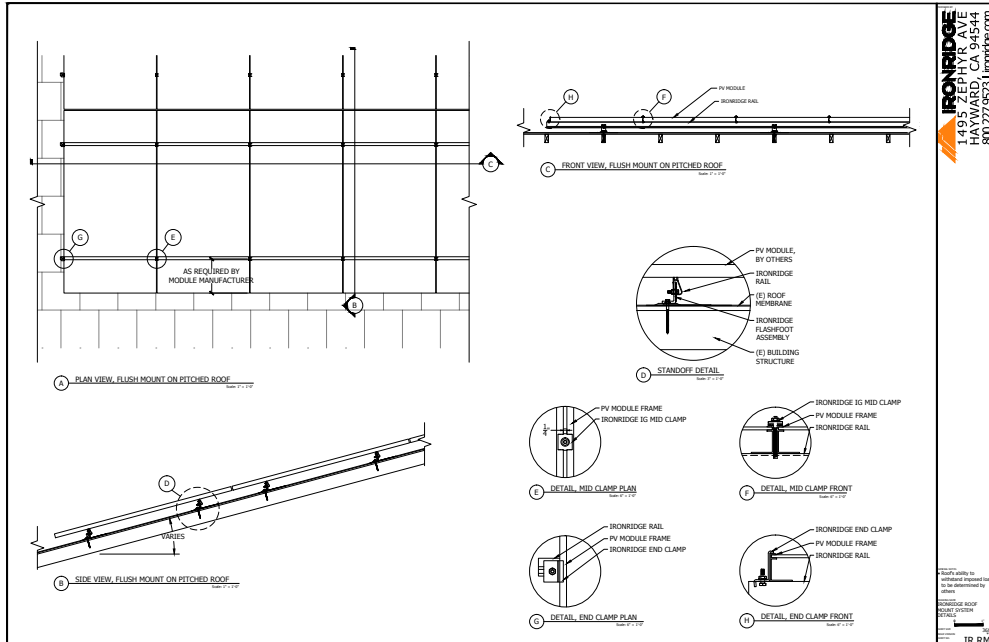
Item Number	Description
29-4000-001	WEEB DMC Compression Clip
29-4000-002	WEEB Grounding Lug
29-4000-003	WEEB Bonding Jumper
29-4000-005	WEEB 9.5NL Grounding Clip

Roof Mounting Overview
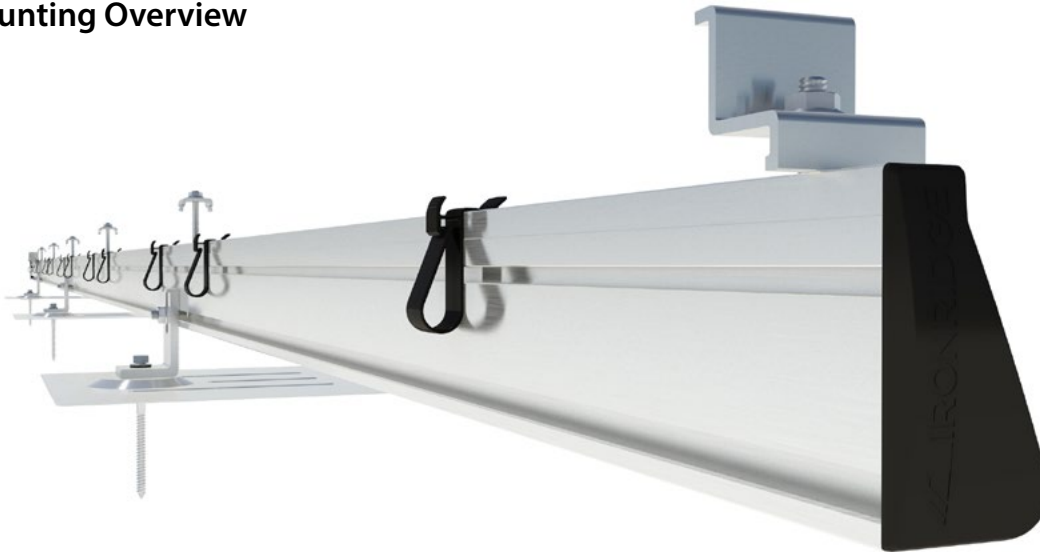
The IronRidge Roof Mount components are engineered to complement our rail assemblies, making IronRidge XR Rails roof mountable. When combined, the resulting system will support virtually any commercial or residential roof mount installation, regardless of roof type or pitch. To better serve the needs of installers, we engineer components across system categories that utilize our XR rail assemblies.

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Slotted L-Foot

Item Number	Description
RS-LFT-001	Kit of 4, Slotted L-Foot (Mill Finish)
RS-LFT-001B	Kit of 4, Slotted L-Foot (Black Finish)

Our Slotted L-feet are engineered for most roof mounting applications. Vertical slots allow for easily dropping in rails with pre-attached hardware and provide adjustability to account for roof irregularities. Our L-feet are manufactured using 6000 series aluminum and are also available in black anodized finish. Hardware is included.

FlashFoot™

Item Number	Description
RF-FLSH-001	Kit, 6-pack, IronRidge FlashFoot (Mill) (L-foot Included)
RF-FLSH-001B	Kit, 6-pack, IronRidge FlashFoot (Black) (L-foot Included)

IronRidge FlashFoot™ is an all-in-one solar mounting product for composition shingle roofs that eliminates the need for separate standoffs, flashings, and L-feet. FlashFoot incorporates a number of structural and waterproofing features to securely attach IronRidge XR Rails to roof structures, while also protecting against water intrusion and weather damage. Comes with flashing, lag bolt, and L-Foot.

Flush Mount Standoffs

Item Number	Description
51-6003-500L	Kit, Standoff 3", Flush Mount, Mill
51-6004-500L	Kit, Standoff 4", Flush Mount, Mill
51-6006-500L	Kit, Standoff 6", Flush Mount, Mill
51-6007-500L	Kit, Standoff 7", Flush Mount, Mill

Our flat top Flush Mount Standoffs are ideal for flush-mounted applications and are sized to integrate easily with any conical-type flashing. IronRidge Aluminum Standoffs are available in four lengths ranging from 3" to 7". They ship pre-assembled, as shown. Lag bolts not included.
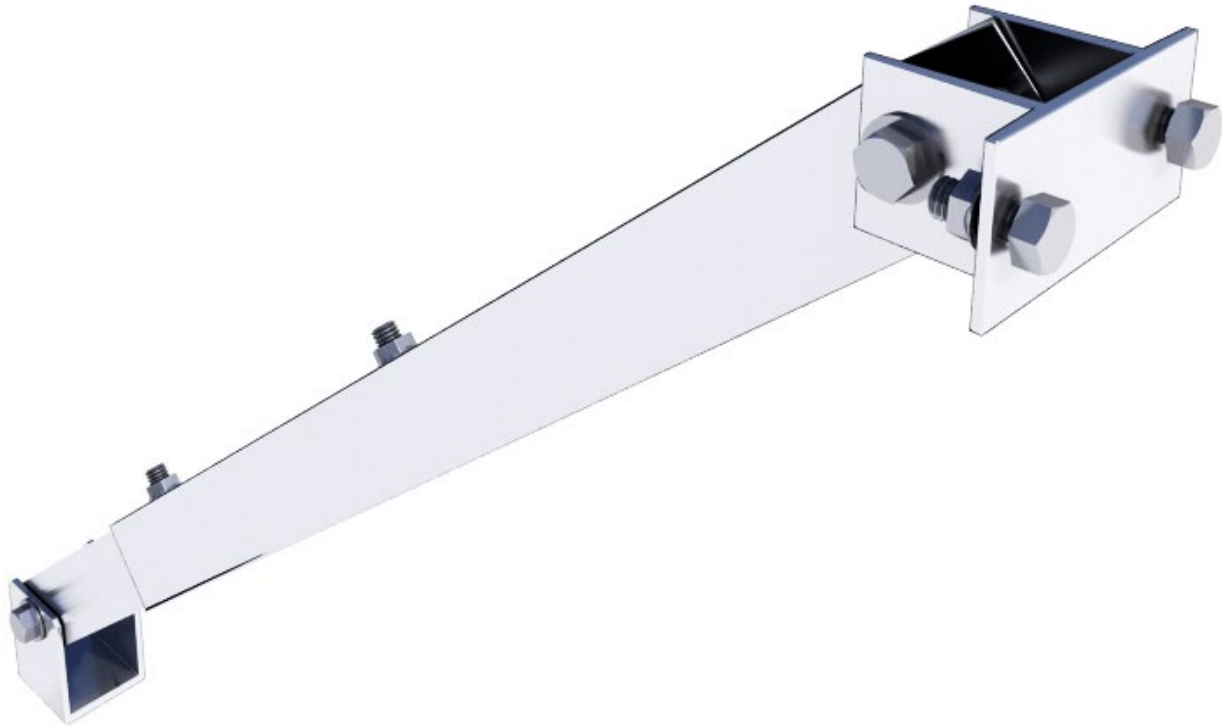
Fixed Tilt Legs
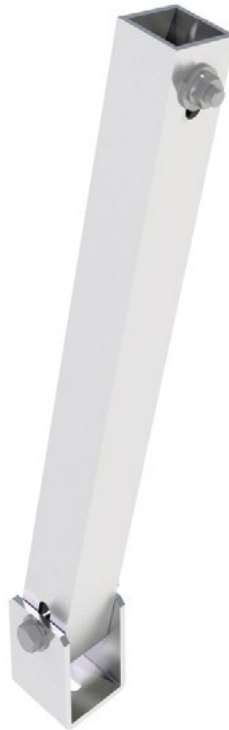
Item Number	Description
51-7210-010	Tilt Leg Kit, 10" Mill
51-7215-015	Tilt Leg Kit, 15" Mill
51-7220-020	Tilt Leg Kit, 20" Mill
51-7225-025	Tilt Leg Kit, 25" Mill
51-7230-030	Tilt Leg Kit, 30" Mill
51-7240-040	Tilt Leg Kit, 40" Mill

Tilt Legs attach directly to IronRidge XR Rails. This simple design provides adjustability in all 3 axes, and a variety of lengths cover most angles. Each tilt leg kit comes with the 6" front leg, the longer rear leg, mounting brackets and hardware. Tilt Angle varies between 0 and 45 degrees on the roof. Our tilt legs are manufactured using 6000 series aluminum.

Adjustable Tilt Leg Assembly Kits

Item Number	Description
51-7516-016H	Adjustable Tilt Leg, 16 inches (18-22")
51-7528-028H	Adjustable Tilt Leg, 28 inches (30-46")
51-7556-056H	Adjustable Tilt Leg, 56 inches (58-94")

Just like the Fixed Tilt Legs, these Adjustable Tilt Legs attach directly to the IronRidge XR Rails. Each Tilt Leg Assembly Kit comes with the 6" front leg, the longer adjustable rear leg, and all the necessary hardware. Tilt Angle varies between 0 and 45 degrees on the roof. The Tilt Legs are manufactured using 6000 series aluminum.

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Microinverter Mounting Kit
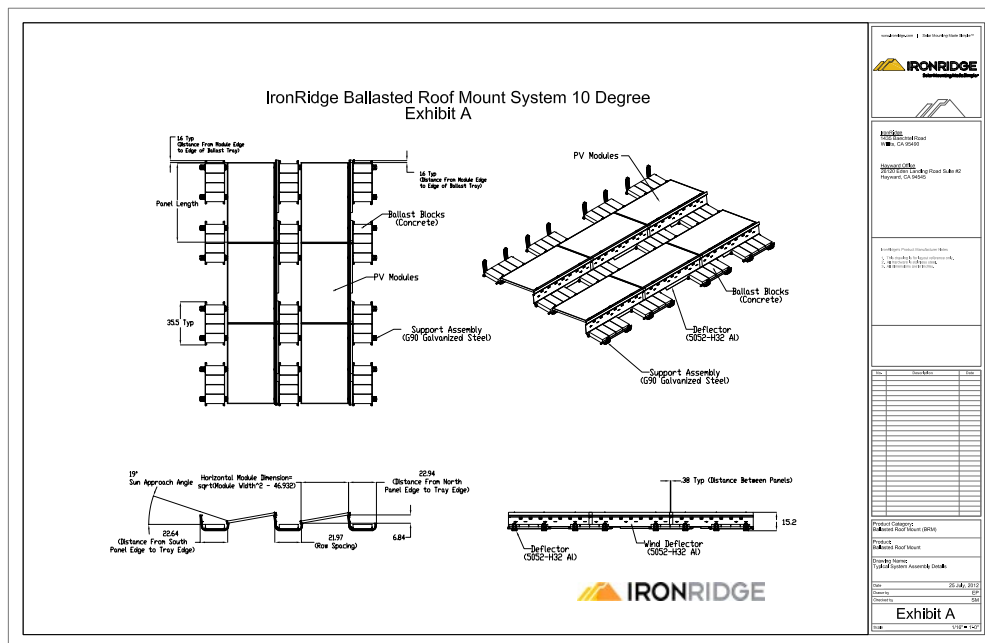
Item Number	Description
29-50TB-005	Kit, 1/4 x 3/4 Microinverter Mounting, T-Bolt
29-5003-005	Kit, 1/4 x 3/4 Microinverter Mounting, Hex

Contains hardware to mount either one or two Enphase inverters, depending on model. Each kit includes two ¼ " bolts and associated hardware.

Ballasted Roof Mounting Overview

The IronRidge Ballasted Roof Mount System is compact, easy to ship, light on the roof, and engineered for quick and intuitive installation. This system works with most solar panels and, because it is a rail-less system, handles uneven and obstructed roofs with ease.

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Ballast Tray

Item Number	Description
BRM-10BT-G	Ballast Tray, Galvanized Steel (10 degree)

The IronRidge Ballast Tray is a high strength and durable module support frame constructed of G90 Galvanized Steel and Stainless Steel hardware. The entire tray arrives at the job site preassembled as shown above and attaches to modules 12" from each edge leaving a 3/8" gap between modules. The Ballast Tray is designed to accommodate standard size solid concrete blocks.

Module Clamps

Item Number	Description	Item Number	Description
BRM-MCL-31	Module Clamp (fits 30.5mm - 31.4mm)	BRM-MCL-41	Module Clamp (fits 40.5mm - 41.4mm)
BRM-MCL-32	Module Clamp (fits 31.5mm - 32.4mm)	BRM-MCL-42	Module Clamp (fits 41.5mm - 42.4mm)
BRM-MCL-33	Module Clamp (fits 32.5mm - 33.4mm)	BRM-MCL-43	Module Clamp (fits 42.5mm - 43.4mm)
BRM-MCL-34	Module Clamp (fits 33.5mm - 34.4mm)	BRM-MCL-44	Module Clamp (fits 43.5mm - 44.4mm)
BRM-MCL-35	Module Clamp (fits 34.5mm - 35.4mm)	BRM-MCL-45	Module Clamp (fits 44.5mm - 45.4mm)
BRM-MCL-36	Module Clamp (fits 35.5mm - 36.4mm)	BRM-MCL-46	Module Clamp (fits 45.5mm - 46.4mm)
BRM-MCL-37	Module Clamp (fits 36.5mm - 37.4mm)	BRM-MCL-47	Module Clamp (fits 46.5mm - 47.4mm)
BRM-MCL-38	Module Clamp (fits 37.5mm - 38.4mm)	BRM-MCL-48	Module Clamp (fits 47.5mm - 48.4mm)
BRM-MCL-39	Module Clamp (fits 38.5mm - 39.4mm)	BRM-MCL-49	Module Clamp (fits 48.5mm - 49.4mm)
BRM-MCL-40	Module Clamp (fits 39.5mm - 40.4mm)	BRM-MCL-50	Module Clamp (fits 49.5mm - 50.4mm)

The Module Clamp secures PV modules to the Ballast Tray Mounting Plates and arrives at the job site preassembled, as shown above. The Module Clamp is sized for the specific module thickness. Our Clamps are independent upon the module's mounting holes and attached to the edge of the module frame. Includes Hardware and WEEB.

Wind Deflectors
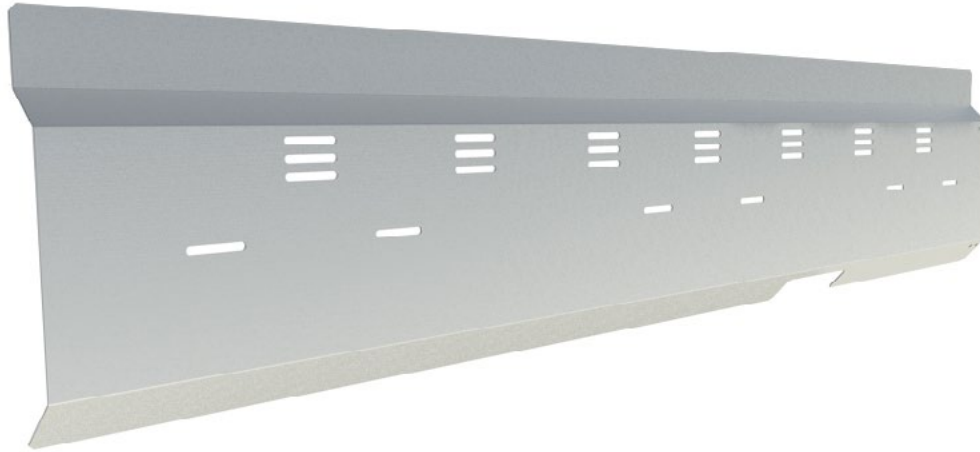
Item Number	Description
BRM-DF-61-06A	Deflector Assembly, Mill (fits >60"-62" modules)
BRM-DF-63-06A	Deflector Assembly, Mill (fits >62"-64" modules)
BRM-DF-65-06A	Deflector Assembly, Mill (fits >64"-66" modules)
BRM-DF-67-06A	Deflector Assembly, Mill (fits >66"-68" modules)
BRM-DF-69-06A	Deflector Assembly, Mill (fits >68"-70" modules)
BRM-DF-71-06A	Deflector Assembly, Mill (fits >70"-72" modules)
BRM-DF-73-06A	Deflector Assembly, Mill (fits >72"-74" modules)
BRM-DF-75-06A	Deflector Assembly, Mill (fits >74"-76" modules)
BRM-DF-77-06A	Deflector Assembly, Mill (fits >76"-78" modules)
BRM-DF-79-06A	Deflector Assembly, Mill (fits >78"-80" modules)

The Wind Deflector links adjacent Ballast Trays together into a continuous structural member and wind dam to help distribute and reduce loading on roof structure. The Wind Deflector is sized for the specific module length with a 2" module range (See sizing and part number table for details). The Wind Deflector comes standard with all mounting hardware for most applications.

High Wind Deflector Kit

Item Number	Description
BRM-DFK	High Wind Deflector Hardware Kit (2 tek screws)

Additional hardware may be required for some high wind cases. This is automatically calculated for you in IronRidge's online Design Assistant software. Examples of high wind cases are below. High Wind Site Examples (Module Size = 40" x 78"/ Importance Factor= 1.0):

A. Exposure B Wind Speed ≥ 120mph Building Height ≥ 30ft
B. Exposure C Wind Speed ≥ 100mph Building Height ≥ 30ft

C. Exposure B Wind Speed ≥ 110mph Building Height ≥ 60ft
D. Exposure C Wind Speed ≥ 90mph Building Height ≥ 60ft

Roof Pads
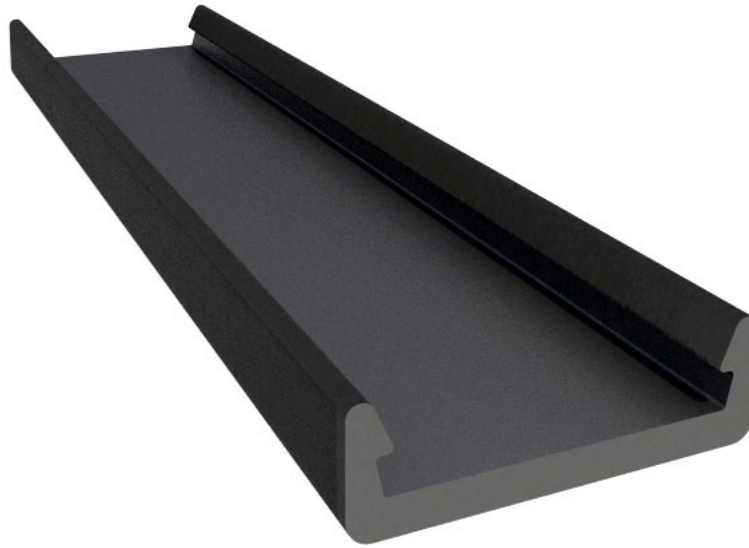
Item Number	Description
BRM-RP-01	Thick Roof Pads (Qty 2, Extruded 100% Recycled Rubber, 3/8" Thick)
BRM-RP-02	Thin Roof Pads (Qty 2, Extruded 100% Recycled Rubber, 1/8" Thick)

The Roof Pads are to be used as a protective barrier between the Ballast Tray and the roofing material. The Roof Pads simply snap onto the Ballast Tray, two per tray. Please consult the roofing manufacturer as the Roof Pads may or may not be required.

Wire Management

Item Number	Description
BRM-WCL-EW	E/W Wire Management Clips, UV Resistant Nylon (Snap-in Cable Ties, 100 Clips/bag)

The EW Wire Clip is a simple and easy snap-in cable tie that attaches to the Ballast Tray and can hold wire bundles from 1/16"-1" in size, up to 50 lbs. The Wire Clips are made of durable UV Resistant Nylon.

Seismic Anchor

Item Number	Description
BRM-ANC-06	Seismic Anchor (Includes Ballast Tray Attachment Hardware) (6")

The Seismic Anchor uses the EcoFasten Eco44R to attach to the roof structure and our custom bracket to securely attach to the Ballast Tray. Both the Seismic Anchor and Ballast Tray contain slots to accommodate for placement variances, up to +/- 4 inches of travel in every direction. The Anchor should be installed by a certified roofing representative and placed after the modules are installed and secure.

Microinverter Bracket

Item Number	Description
BRM-MIB-01	Microinverter Bracket (Includes Hardware)

The IronRidge Microinverter Bracket attaches to Ballast Tray and secures the microinverter. The bracket accommodates Enphase, SolarEdge and DirectGrid microinverters and includes hardware for mounting bracket to ballast tray and microinverter to bracket.

Grounding

Item Number	Description
29-4000-010	WEEB-UMC Compression Clip
29-4000-002	WEEB Grounding Lug

Wiley grounding clips (WEEB-UMC) are used in conjunction with the Module Clamps for grounding PV modules to the Ballast Tray. WEEB's are included in the Module Clamp Assembly and quantities are automatically determined by our online Design Assistant software. Wiley grounding lugs are used in conjunction with copper wire to provide a continuous ground for each row of Ballast Trays.

Ballast Blocks

Item Number	Description
N/A	Not currently sold by IronRidge. Our recommended 3rd-Party supplier is Oldcastle.

The Ballasted Roof Mount System is intended to be used with standard 4"x8"x16" solid concrete blocks weighing 35lbs (whole) or standard 2"x8"x16" solid concrete blocks weighing 13.5lbs (half). It is recommended that these solid concrete blocks have minimum compressive yield strength of 3000 psi or greater or comply with ASTM Designation C1491. Our recommended 3rd-Party supplier is Oldcastle. Visit us online for locations and contact information.

Ground Mounting Overview

The IronRidge Ground Mount System scales to support a wide range of site and terrain challenges. This system consists of components that allow for installer-supplied steel pipe to combine with the XR1000 rail assembly for simple, rapid, cost effective ground mounting.
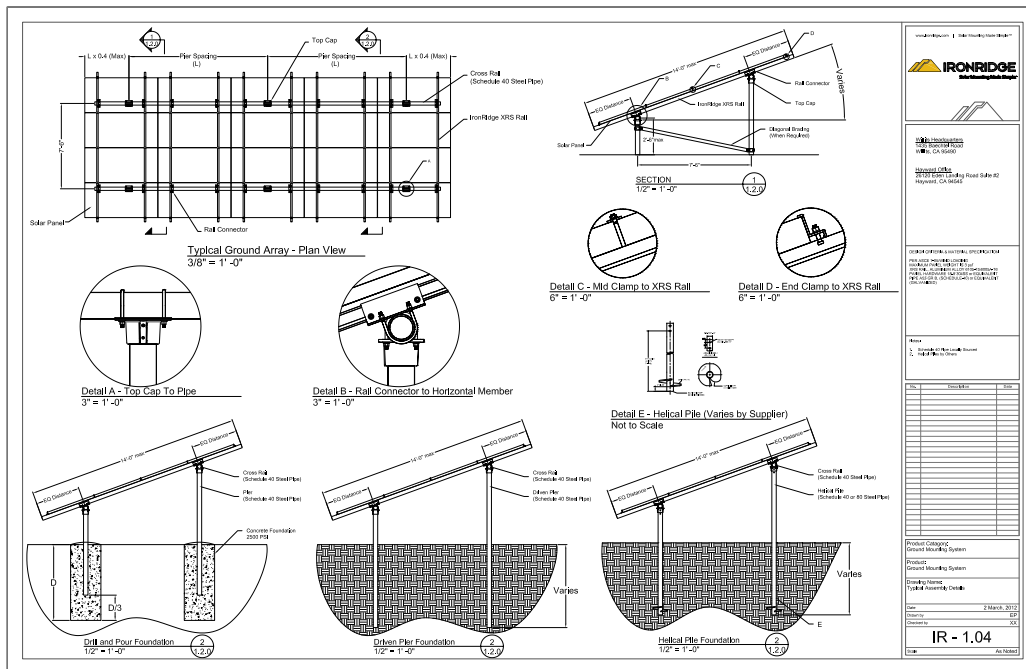
Download AutoCAD File
Download PDF Preview

Top Caps

Item Number	Description
70-0200-SGA	SGA Top Cap at 2", Mill
70-0300-SGA	SGA Top Cap at 3", Mill

Our heavy duty cast aluminum IronRidge Top Caps secure quickly and easily to schedule 40 pipe with 2 set screws. Available in sizes that fit either 2" or 3" schedule 40 pipe, this Top Cap supports cross (schedule 40) piping with U-bolt hardware. The top caps are manufactured using cast aluminum ALMAG 535 and come with a mill finish. As a reminder, schedule 40 pipe not included.

2" schedule 40 pipe outside diameter = 2.375" (2 3/8")
3" schedule 40 pipe outside diameter = 3.5"

Rail Connectors

Item Number	Description
29-7001-001	SGA Rail Connector at 2"
29-7001-000	SGA Rail Connector at 3"

Our Rail Connectors secure XR1000 Rails to the schedule 40 horizontal cross pipes. Each rail requires two connectors to create a secure attachment. Available for both 2" and 3" sizes, these Rail Connectors are manufactured using extruded 6000 series aluminum. Review the images on the section overview for added context.

Diagonal Brace Assembly Kit

Item Number	Description
70-0200-CBR	SGA 2" (7.5') Brace Assembly (bulk)
70-0300-CBR	SGA 3" (7.5') Brace Assembly (bulk)
70-0205-CBR	SGA 2" (9') Brace Assembly, 5-Panel (bulk)
70-0305-CBR	SGA 3" (9') Brace Assembly, 5-Panel (bulk)

This optional assembly kit is for installations that require extra support. This Diagonal Brace Kit includes the brace, sleeves, and hardware for installation between one north and south pair of support legs.

Schedule 40 Pipe Summary

To save installers money, we have engineered the use of locally sourced 2" or 3" schedule 40 steel pipe as the primary structural element of our Ground Array System. By allowing customers to source this pipe locally, installers benefit from reduced shipping, product and inventory costs, and shortened delivery times. We provide intuitive online tools that will help you quickly and easily craft a bill of materials to simplify local pipe costing and purchasing. When additional assistance is needed to address ground mounting your array, please contact our customer service team at 800-227-9523, or at service@ironridge.com. Many IronRidge customers prefer to use our online Ground Array Configurator application found by clicking the 'Tools' tab at www.ironridge.com

A soils report is widely considered the most reliable and accurate method for determining the type and depth of piers for any ground array system. Soils reports can be obtained through a Geotechnical Engineer. A commonly relied upon alternative to obtaining a site-specific soils report is to use the IBC 2006 Table 1804.2. The advantage of purchasing a site specific soils report is that the information provided often results in shorter embedment depths, thus lowering both material and installation cost.

In many cases installers rely on our easy to use PE stamped certification and post/pier installation guides that our engineering staff has made available for download. You will find these and other IronRidge Ground Array System documents located at ironridge.com/products/groundmounting/systemsupport.

ASTM A53 Grade B standard weight (schedule 40) steel pipes or structural equivalent, with minimum geometry and material properties of:

•   3" pipe: OD 3.5", wall thickness 0.216", 35ksi yield strength

•   2" pipe: OD 2.38", wall thickness 0.154", 35ksi yield strength

*Always check local building codes for pier mounting requirements specific to your location.

Pole Mounting Overview

The IronRidge Pole Mount System offers a choice of three distinct pole mounting options, each engineered for a specific mounting scenario. The three systems include the Top of Pole Mount, Side of Pole Mount and Single Arm Mount. Each assembly comes in a variety of sizes, and supports a varying number of panels.

To configure based on your specific pole mounting needs, please use the IronRidge online Pole Mount Configurator located by clicking on the 'Tools' tab at www.ironridge.com or contact our customer service team at: 1-800-227-9523, or at service@IronRidge.com.
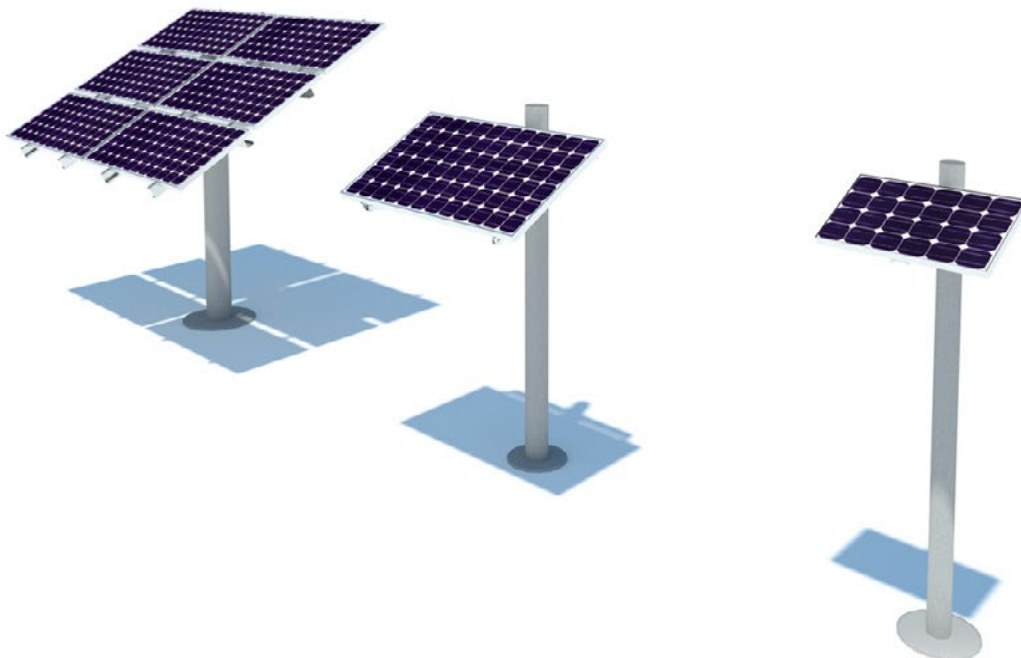
Top of Pole Mount

Item Number	Description
UNI-TP/02	Pole Top, (4") Single Row 45" (Comes in 2 boxes)
UNI-TP/02A	Pole Top, (4") Single Row 55", (Comes in 2 boxes)
UNI-TP/03	Pole Top, (4") Single Row 70", (Comes in 2 boxes)
UNI-TP/04	Pole Top, (4") Single Row 90", (Comes in 2 boxes)
UNI-TP/04A	Pole Top, (4") Single Row 110", (Comes in 2 boxes)
UNI-TP/06	Pole Top, (6") Dual Row 70", (Comes in 3 boxes)
UNI-TP/06LL	Pole Top, (6") Dual Row 70", (Comes in 3 boxes)
UNI-TP/08	Pole Top, (6") Dual Row 90", (Comes in 3 boxes)
UNI-TP/8LL	Pole Top, (6") Dual Row 90", (Comes in 3 boxes)
UNI-TP/10	Pole Top, (6") Dual Row 115", (Comes in 4 boxes)
UNI-TP/10LL	Pole Top, (6") Dual Row 115", (Comes in 5 boxes)
UNI-TP/12	Pole Top, (6") Dual Row 140", (Comes in 4 boxes)
UNI-TP/12LL	Pole Top, (6") Dual Row 140", (Comes in 5 boxes)

Top of Pole Mounts are a heavy duty mounting system ideal for single pole, multi panel arrays. Mounted atop either 4" or 6" poles, this system supports modules from most manufacturers with ease. These mounts are manufactured using powder coated steel and heavy-duty corrosion-resistant 5000 series aluminum. To figure out specifically what you will need, please visit us online or use the contact info provided at the bottom of the page. Schedule 40 pipe not included.

Side of Pole Mount

Item Number	Description
UNI-SP/01	Side Pole Mount 25"
UNI-SP/01A	Side Pole Mount 27.5"
UNI-SP/01XH	Side Pole Mount 27.5"
UNI-SP/01XX	Side Pole Mount 30"
UNI-SP/02	Side Pole Mount 45"
UNI-SP/02A	Side Pole Mount 55"
UNI-SP/02X	Side Pole Mount 55"
UNI-SP/03	Side Pole Mount 70"

IronRidge Side of Pole Mounts support pole diameters of 2" to 4" and modules with center-center distribution of 19" to 39". Side of Pole Mounts are manufactured using heavy-duty corrosion-resistant 5000 series aluminum. To figure out specifically what you will need, please visit us online or use the contact info provided at the bottom of the page. Schedule 40 pipe not included.

Single Arm Mount
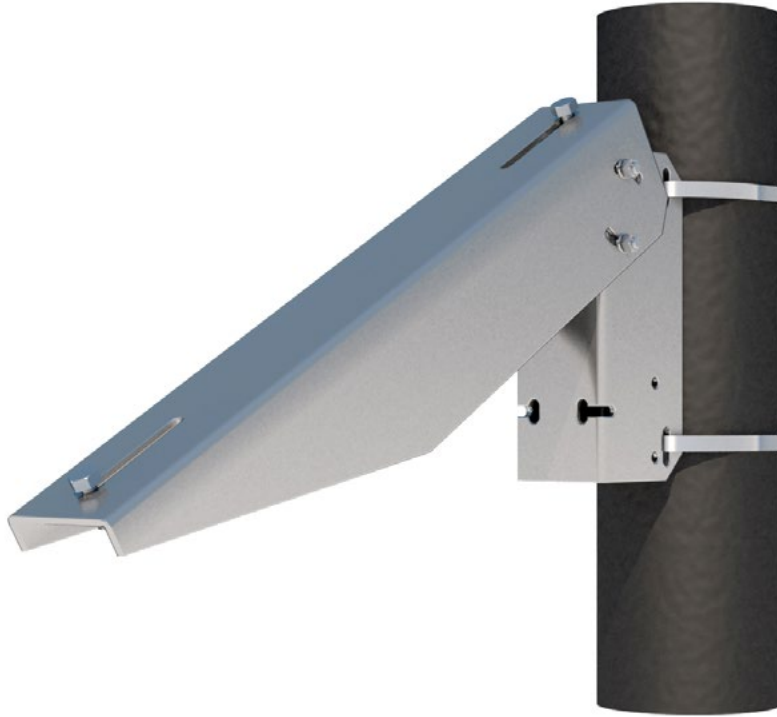
Item Number	Description
UNI-SA/14.0	Single Arm, Side Pole 14"
UNI/SA/21.5	Single Arm, Side Pole 21.5"
UNI-SA/26.0	Single Arm, Side Pole 26"

Our Single Arm Mount is a simple mounting solution for poles, walls and other flat surfaces. This system mounts to poles of 2" to 4" diameter, and module widths between 5.26 and 25.5 inches. Our Single Arm Mounts are manufactured using heavy-duty corrosion-resistant 5000 series aluminum. To figure out specifically what you will need, please visit us online or use the contact info provided at the bottom of the page. Schedule 40 pipe not included.