



Uniquely shaped for flat roofs.

IronRidge BX delivers superior power density and design flexibility to flat roof solar arrays. Made of a glass-reinforced composite, the BX Chassis is engineered for extreme structural loading, yet is also shaped to be roof-friendly and easy to install.

Certified BX plan sets can be obtained instantly through an online Design Assistant or by contacting IronRidge Commercial Services.



Glass-Reinforced Composite

Corrosion-free and engineered for long-term structural performance.



Commercial Services

Engineering support to optimize system design.



Class A Fire Rating

Certified to maintain the fire resistance rating of the existing roof.



Design Assistant

Online software makes it simple to create, share, and price projects.



UL 2703 Listed System

Entire system and components meet newest effective UL 2703 standard.



25-Year Warranty

Products guaranteed to be free of impairing defects.

Chassis

5° Chassis



Ballasted mounting for 5 degree tilt angle.

- Max load spreading design
- Fully encloses ballast
- 360 degree drainage

10° Chassis



Ballasted mounting for 10 degree tilt angle.

- Max load spreading design
- Fully encloses ballast
- 360 degree drainage

Top Clamp



Combines with Bottom Clamp for top-bottom module grip.

- Secures above module
- One-tool attachment
- Mill aluminum 6000 series

Bottom Clamp



Combines with Top Clamp to up structural connection.

- Secures below module
- One-tool attachment
- Mill aluminum 6000 series

Grounding

8" Mod Bonding Jumper



Bond adjacent modules in the array.

- Press-on installation
- Tin-plate copper wire
- Factory crimped connection

38" Row Bonding Jumper



Complete row-to-row bonding in the array.

- Press-on installation
- Tin-plate copper wire
- Factory crimped connection

MLPE Mounting Hardware



Optional mounting hardware for MLPE devices.

- Cap screw and cage nut
- 5/16" socket install
- Stainless steel 300 series

PV Mod Grounding Lug



Connect arrays to equipment ground.

- Low profile
- Mounts to module frame
- One per continuous array

Accessories

Cable Tie



Complete wire management with weatherproof ties.

- UV stabilized polyamide
- 12" length, bundle of 100
- Black finish

Edge Clip Cable Tie



Manage wires underneath module and Chassis flange.

- Clips to module & Chassis
- UV stabilized polyamide
- Black finish

String Inverter Mount Kit



Create mounting platform for inverters.

- Chassis, XR10 rail, hdw
- Up to 4' inverter base
- Raises inverter off deck

Flat Roof Attachment Kit



Add anchors to ballasted system.

- Includes hardware
- For ballast-attached hybrid
- Uses locally-sourced strut

Resources



Design Assistant

Go from rough layout to fully engineered system in minutes.

[Go to IronRidge.com](http://GoToIronRidge.com)



Chassis Display #7 Recycle Label

Like most glass-filled nylons, it is 100% recyclable—usually living on in furniture.

Find more info at epa.gov/recycle

Strong, Light, and Ready for Anything

The IronRidge BX System is designed to meet the needs of commercial solar—navigating complex roof layouts, while also handling the most extreme environmental conditions.

At the core of BX is the Chassis, a ballasted mount made of BASF Ultramid polyamides. They are exceptional for their high mechanical strength, rigidity and thermal stability (and are 100% recyclable).

Moreover, Ultramid polyamides afford good impact resistance even at low temperatures as well as UV protections for long life. Chassis come in 5° and 10° options and are backed by IronRidge's 25-year warranty.



Top & Bottom Clamp

The multi-directional grip on the module from above and below ensures a strong connection regardless of force direction.



360° Reinforcement

A flange around the entire perimeter helps to reinforce and stiffen the Chassis in all directions—alongside wide bends to reduce point loading and braced corners to increase rigidity.



Roof-Friendly Design

Wide base spreads weight and reduces point pressure, while openings along the bottom and corners prevent pooling and reduce ballast weathering.

Inter-Row Spacing & Edge Clearances

5° Chassis



10° Chassis



With 10-13" inter-row spacing, BX provides an **8-10% increase** in power density compared with other ballasted systems—that's a **capacity increase of 20%** in a typical 50kW system. The BX Chassis geometry also offers more than 5" of clearance in the 10-degree configuration and 8" in the 5-degree configuration, enabling the system to avoid drain domes, roof saddles, and conduit supports.

Flat Roof Attachment Anchors

BX Systems can be fully ballasted, fully anchored, or a hybrid optimized for the site.

Combine BX with an IronRidge Flat Roof Attachment Kit to eliminate hundreds of pounds of required ballast weight and achieve configurations as light as 3 PSF.

The placement and fastening method can be optimized for existing roof structures, and pre-approved membranes are offered to maintain membrane roof warranties.



Testing & Certification

Design Assistant

Automated design software provides an accurate bill of materials, using a simple drag-and-draw interface to generate a complete system plan—also generate a ballast map showing the required ballast for each Chassis.

Permit Documentation

Design Assistant project reports are backed with a ASCE/PE stamp and Commercial Services are also available to assist with more complex projects. Visit our website or contact an IronRidge sales representative.

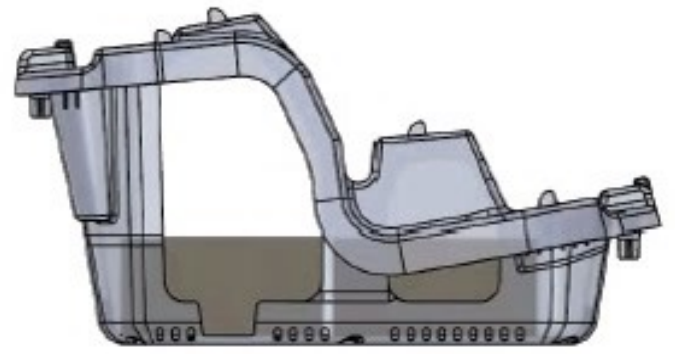
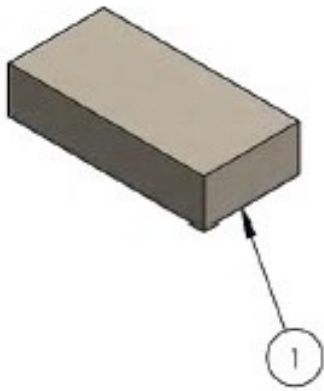
UL 2703

Certification for the BX System conforms to the latest requirements and includes 1) Mechanical, 2) Bonding, and 3) Class A Fire Ratings (without wind deflectors). Ninety percent of solar modules are fully supported.

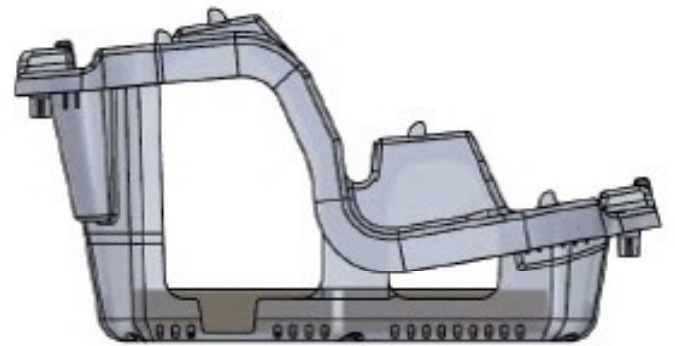


Blocks specified for BX projects must meet the following specifications:

- Manufactured per ASTM C 1491
- If required per local site conditions, manufactured to resist freeze-thaw per ASTM C1262
- Weight: 14-17 lbs +/- 2 lbs for Half Blocks and 28-34 lbs +/- 2 lbs for Full Blocks
- Compressive Strength Requirement: 3000 PSI

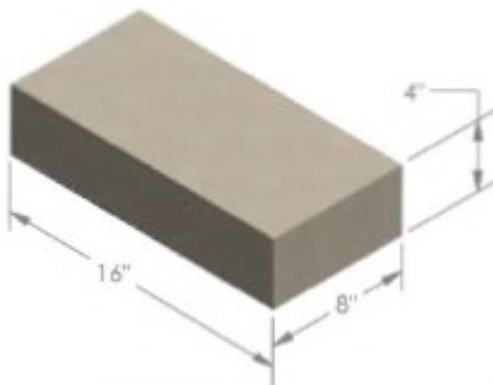


Full Block



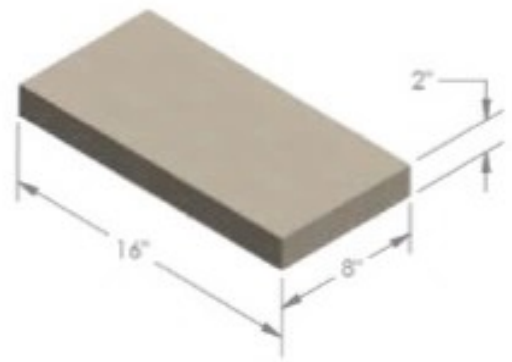
Half Block

ITEM NO	DESCRIPTION
1	Full Block - 8"x16"x4" Nominal
2	Half Block - 8"x16"x2" Nominal



Full Block

All Dimensions Nominal



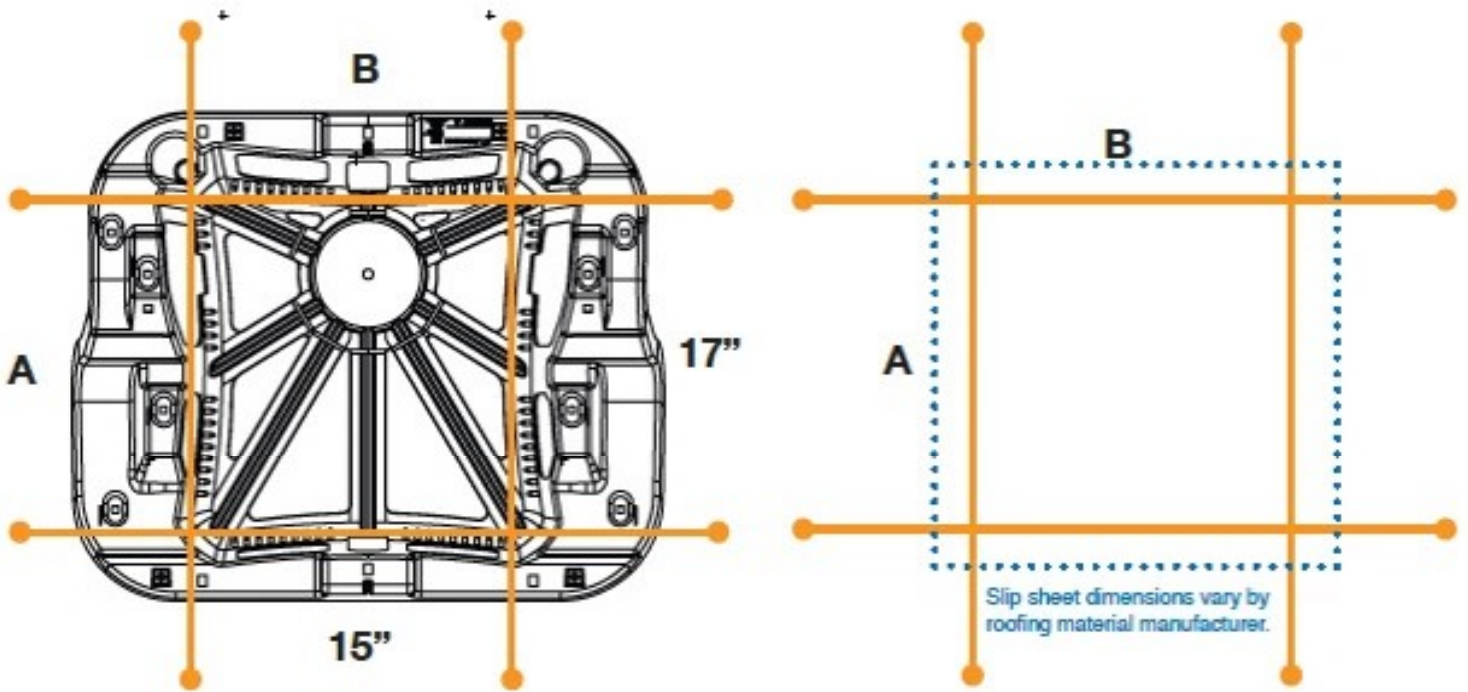
Half Block

TECH SUPPORT
800-227-9523

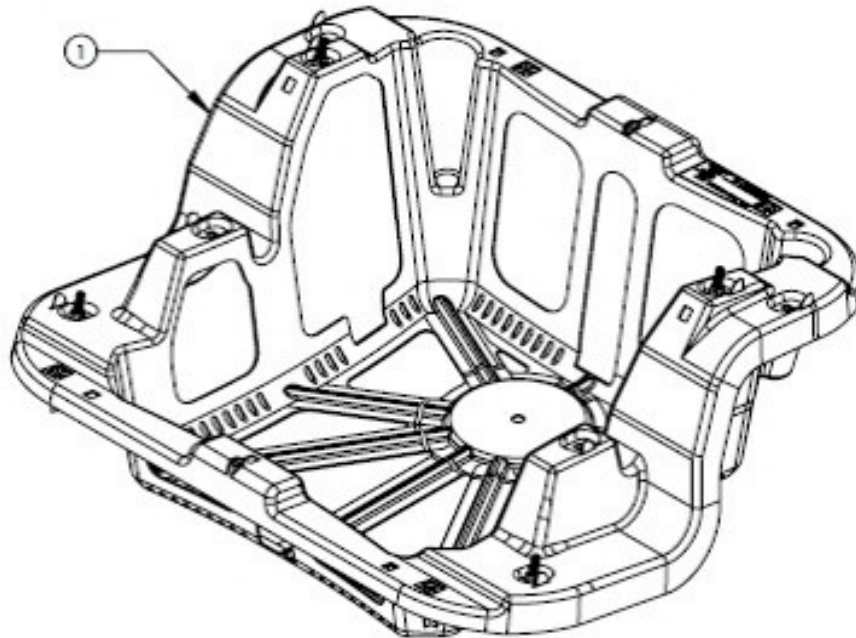
Slip sheet requirements will vary based on the roofing material, manufacturer and project location. The specified dimensions below are for the actual interface between BX Chassis and the roof.

Please consult the roofing manufacturer to determine if slip sheets are required, and if so, the appropriate dimensions, as slip sheets will need to be larger than the interface dimensions.

BX/ROOF INTERFACE



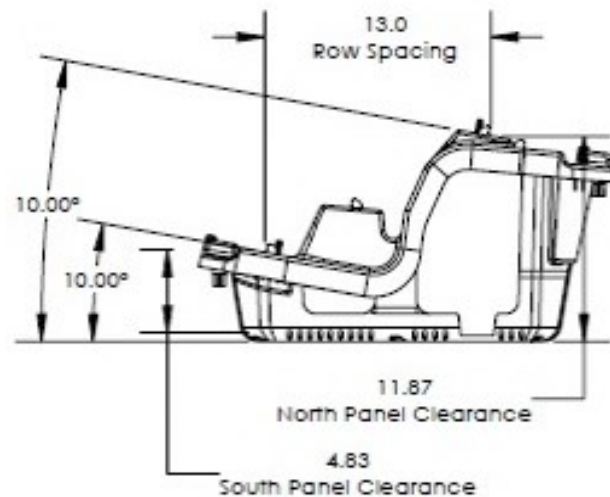
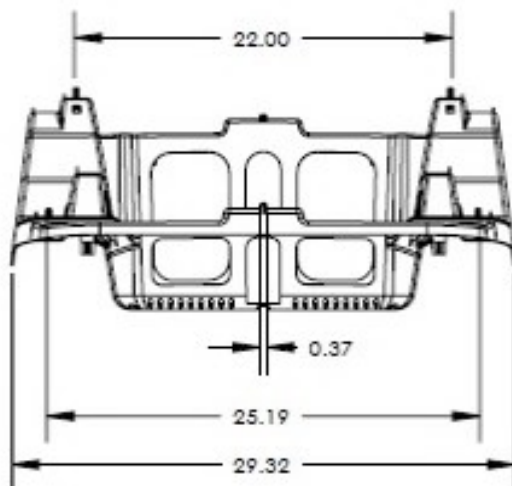
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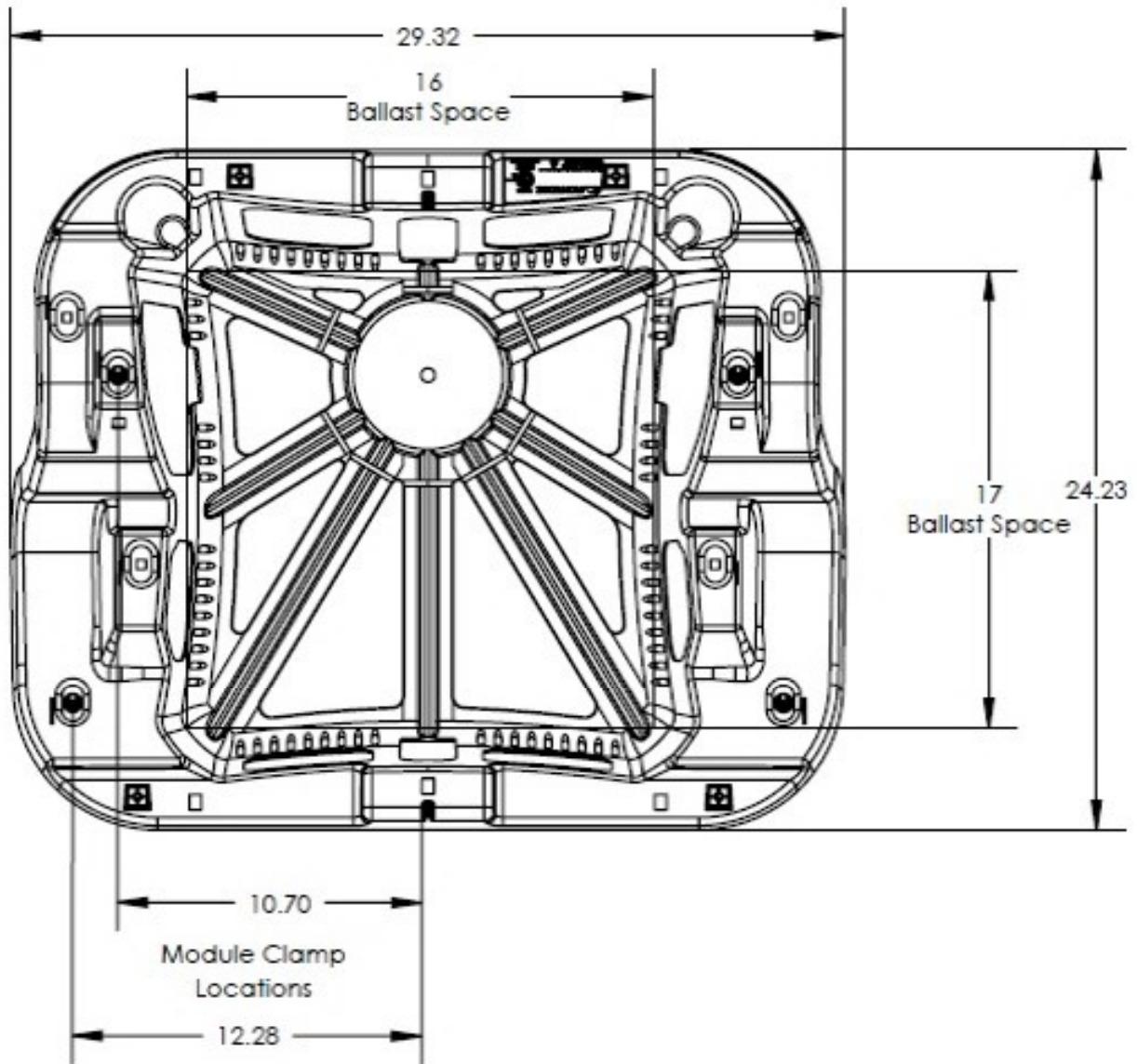
ITEM NO	DESCRIPTION	Qty in Kit
1	BX CHASSIS 10DEG ASSEMBLY	1

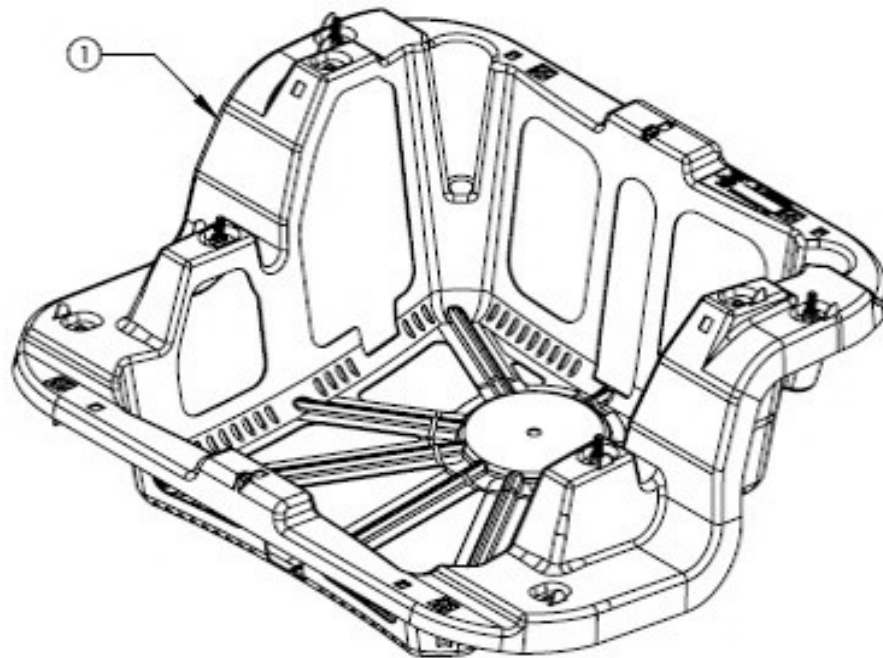
Part Number	Description
BX-10D-510	BX Chassis 10 deg

1) BX CHASSIS 10 DEG ASSEMBLY



Property	Value
Material	BASF ULTRAMID 8233GHS
Finish	Black

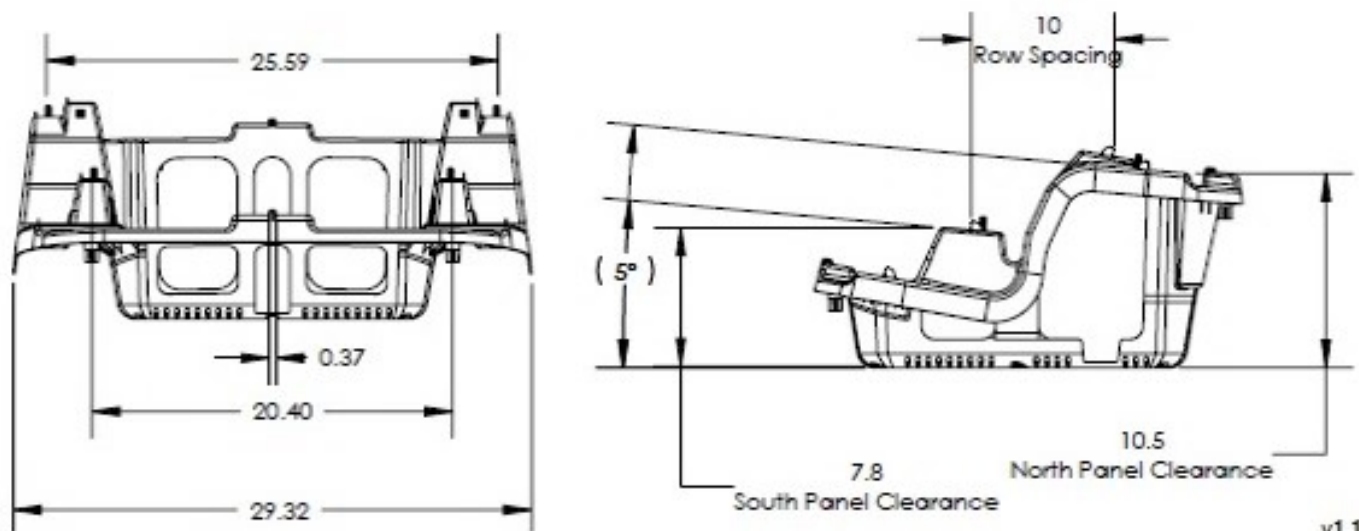




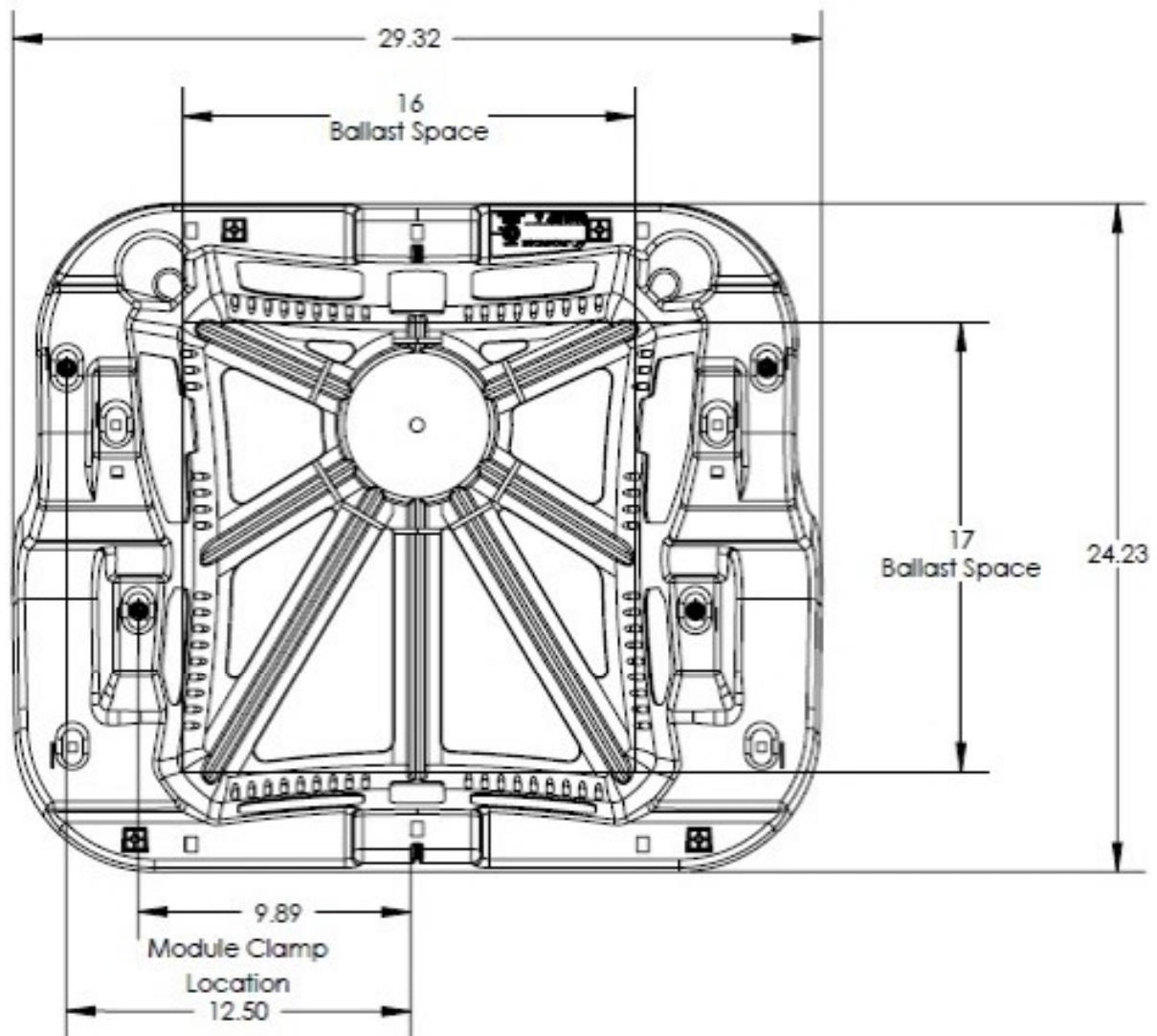
ITEM NO.	DESCRIPTION	Qty. in Kit
1	BX CHASSIS 5 DEG ASSEMBLY	1

Part Number	Description
BX-5D-510	BX Chassis 5 deg

1) BX CHASSIS 5 DEG ASSEMBLY



Property	Value
Material	BASF ULTRAMID 8233GHS
Finish	Black



BX BALLASTED SYSTEM UTILIZES GLASS-REINFORCED COMPOSITE POLYMER

BX Made With Ultramid® by BASF

BX Chassis utilize a heat-stabilized, weather-resistant, and 33% glass-fiber-reinforced PA6 injection molding compound (Ultramid® 8233G HS BK-106)—offering great strength, stiffness, high-temp performance, and stability.

First developed in the mid 1930's, Glass Fiber Reinforced Plastic (GFRP) has become a staple in the building industry. Originally used for the construction of industrial parts, the architectural advantages were discovered in 1967 with the attempted destruction of Disneyland's "House of the Future." Having stood for 10 years, the futuristic house was made entirely of fiberglass, and when

the attraction was no longer deemed necessary, it was scheduled for destruction. Amazingly, the wrecking ball merely bounced off the structure, and the possibilities for GFRP were recognized and began to grow. By 1994, nearly 600 million pounds of composite was being used in building materials.

Ultramid excels in uses where external parts are exposed to the elements—being used in applications such as tools, gears, automotive window mechanisms, electrical components, coil bobbins and heavy duty automotive rear axle cross beams (details below).

Ultramid Use Case: Rear Axle Cross Beams in Luxury Sedans*

- Designed for high stressing and torque from engine-transmission unit
- Reduced the weight of the part by 50% compared to aluminum
- Improved vibration damping and long-term mechanical stability



*Products mentioned use an alternative grade of Ultramid polyamide. This material is not used by all luxury sedan manufacturers not in all models.

BX CHASSIS


Chassis Display #7 Recycle Label
 Like most glass-filled nylons, it is 100% recyclable—typically ground up and living on in furniture.
 Find more info at epa.gov/recycle

High Strength

GFRP has a very high strength to weight ratio.

Lightweight

Low weights of 2 to 4 lbs. per square foot means faster installation, less structural framing, and lower shipping costs.

Resistance

Resists salty water, chemicals, and the environment—unaffected by acid rain, salts, and most chemicals.

Able to Mold Complex Shapes

Virtually any shape or form can be molded.

No Maintenance Required

Corrosion resistant, with research showing minimal loss of laminate properties after 20+ years.

Durability

Stromberg GFRP stood up to category 5 hurricane Floyd with no damage, while nearby structures were destroyed.

Tested, Certified, and Warrantied

25-Year Warranty

Products are guaranteed to be free of impairing defects.

Every component in the IronRidge BX Ballasted System has been tested to the limit and proven to endure.

Our rigorous approach includes unique structural features, such as multi-dimensional clamps, 360° reinforcement, and a roof-friendly design.

All of our products are fully-certified, code-compliant, listed to UL 2703, and backed by our 25-year warranty.

BASF® and Ultramid® are registered trademarks of BASF SE.

ASCE® is a registered trademark of American Society of Civil Engineers.

Engineering stamp above is for example purposes only.