

Installation Instructions for Fortress Pure View Railing Panels with Universal (UB) Brackets and Iron Posts

It is the responsibility of the installer to meet all code and safety requirements, and to obtain all required building permits. The deck and railing installer should determine and implement appropriate installation techniques for each installation situation. The Fortress Company or its distributors shall not be held liable for improper or unsafe installations.

Fortress Iron Posts must always be secured to the deck framing. Fortress Iron Posts should never be attached to only the deck boards.

Note

When cutting Fortress railing, it is very important to complete the following at cut points. Not following the below steps will result in rust at the cut areas:

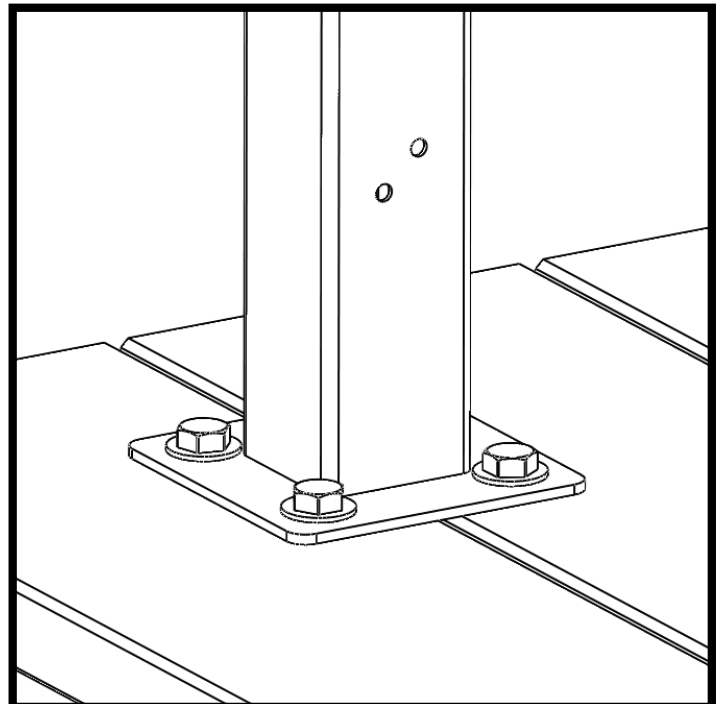
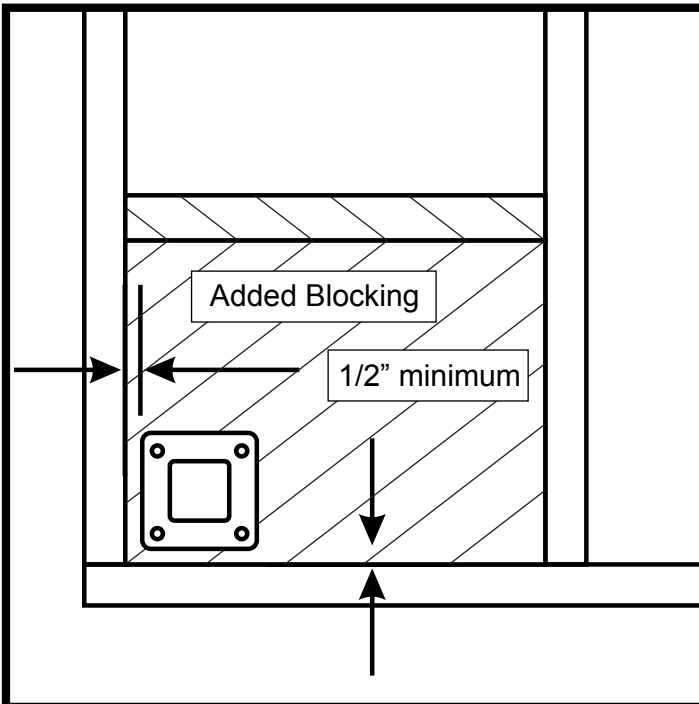
- Remove all metal shavings from the cut area
- File any sharp edges left by cutting. Thoroughly wipe and remove any filings, grime or dirt from the railing.
- Apply two coats of Fortress zinc based touch-up paint to the cut area. If touch up is at rail ends, allow paint to dry before connecting bracket to post.
- Be sure to remove any metal shavings from the surface of deck, patio or balcony to prevent rust on the surface.

Required Materials

Drill, Drill Bits, T-25 Driver Bit, Drill Bit Extender, Tape Measure, Wrenches, Speed Square, Center Punch, 3-3/4" Support and Hammer.

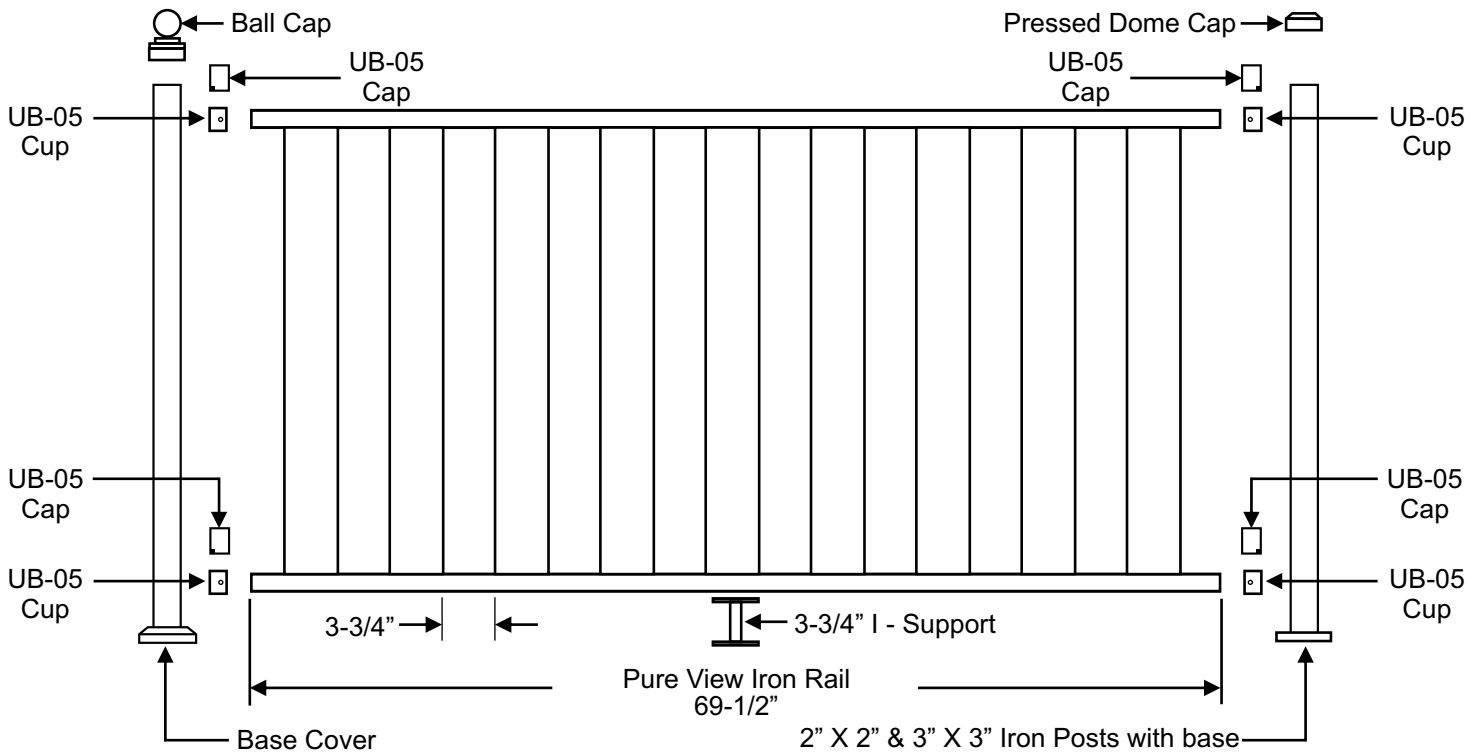
Mount Iron Posts*

- Wood Blocking tied to deck frame must be installed and constructed with treated dimensional lumber with a minimum thickness of 1/1/2".
- Position the edge of post base plate a minimum of 1/2" from the inside edge of rim joist.
- Mount posts at appropriate points based on panel length.
- Attach Iron posts with 3/8 X 3-1/2" Hex Head Galvanized Bolts.



*Reference Fortress iron post mounting instructions

Pure View Installation Options



Pure View Panel and Iron Post Configurations

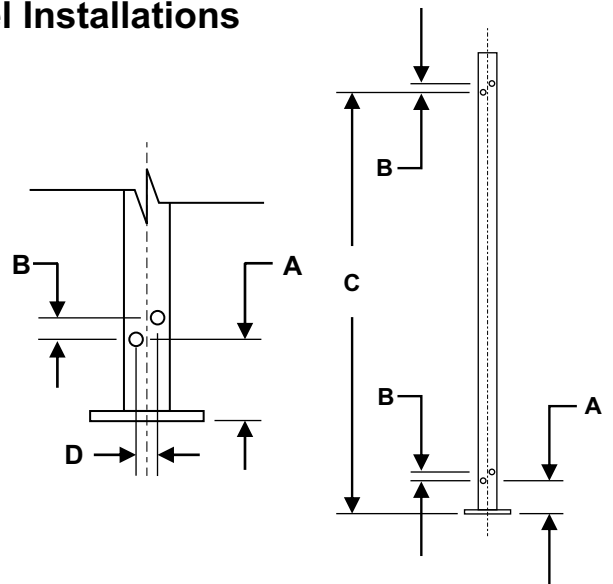
Rail Panel Height	Rail Panel Only	
	Installed Panel Height*	Required Post
26-5/16"	X	X
34-5/16"	38-1/16"	39-1/2"
40-1/8"	43-7/8"	45-1/2"

*Heights includes a 3-3/4" space between deck surface and bottom edge of bottom rail.

UB-05 Bracket Hole Locations for Pure View Panel Installations

Pre-Drilling with a 5/32" drill bit is required.

Rail Panel Height	Pre-Drill Dimensions			
	A*	B	C	D
26-5/16"	X	X	X	X
34-5/16"	3-11/16"	5/8"	37-1/8"	5/8"
40-1/8"	3-11/16"	5/8"	42-15/16"	5/8"



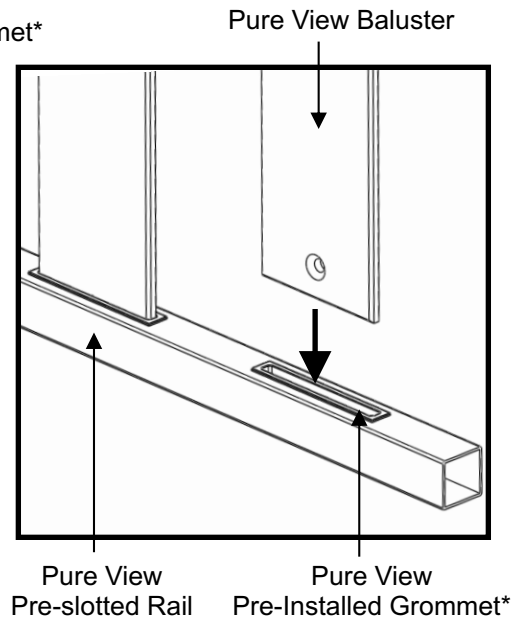
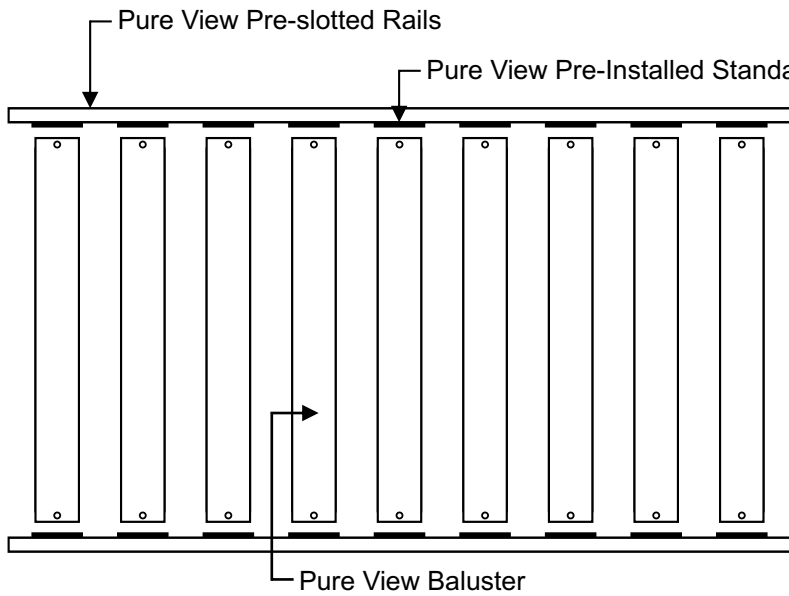
*Dimension A positions bottom edge of rail 3-3/4" above deck surface.

*Dimension A is measured from the bottom surface of post base.

Remove all metal shavings from deck, post base cover, post, and panel before bracket is screwed to post to prevent rust stains.

Pure View Baluster Pre-slotted Rail Assembly

- If pre-slotted rails were cut to length, file cut edges and coat with 2 coats of Fortress zinc based touch-up paint.
- Check fit of pre-slotted rail between installed posts.
- Insert ends of Pure View Balusters into the Pure View Pre-slotted rail and Grommet Assemblies.

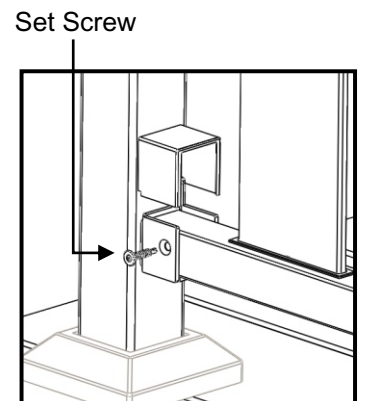
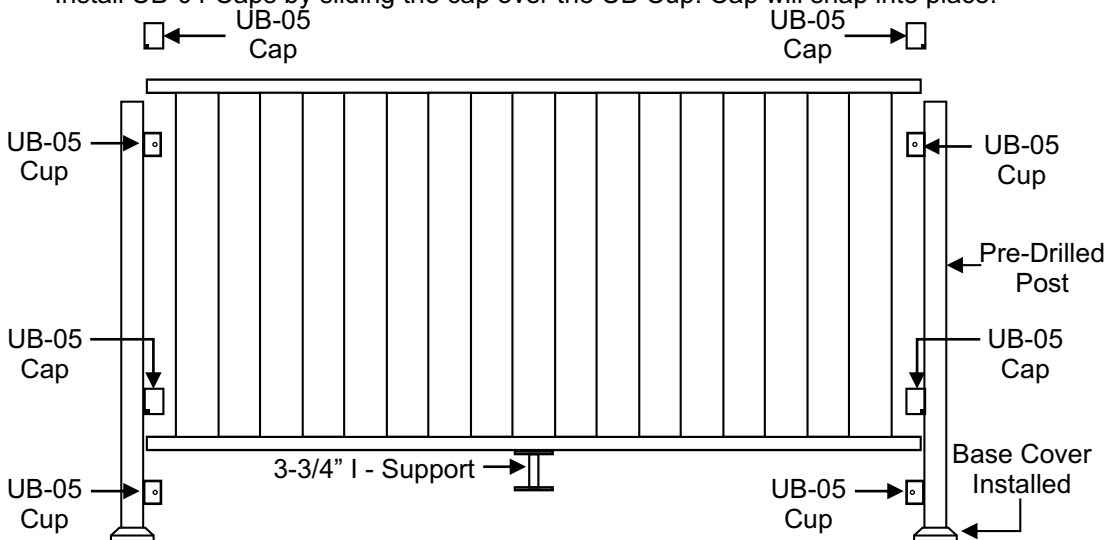


*Pure View Standard Grommets come installed in pre-slotted rails.

Pure View Panel Installation with UB-05

When using UB brackets rails MUST be cut 1/2" shorter than the distance between posts. 1/4" should be cut from the end of each rail to keep rail panel centered between posts.

- If rails were cut to length, file cut edges and coat with 2 coats of Fortress zinc based touch-up paint.
- Check fit of rail between installed posts.
- If using a Base Cover install it now by sliding over the top of Iron Post.
- Secure UB brackets to posts with provided metal screws. Use two screws per bracket. Use low speed setting on drill.
- Install 3-3/4" I-Support at mid point of bottom rail.
- Drop Pure View Panel into installed UB brackets.
- Secure rails with provided set screws at each UB bracket.
- Install UB-04 Caps by sliding the cap over the UB Cup. Cap will snap into place.



Installation Instructions for Fortress Pure View Railing with Collar Brackets (CB) Brackets and Iron Posts

It is the responsibility of the installer to meet all code and safety requirements, and to obtain all required building permits. The deck and railing installer should determine and implement appropriate installation techniques for each installation situation. The Fortress Company or its distributors shall not be held liable for improper or unsafe installations.

Fortress Iron Posts must always be secured to the deck framing. Fortress Iron Posts should never be attached to only the deck boards.

Note

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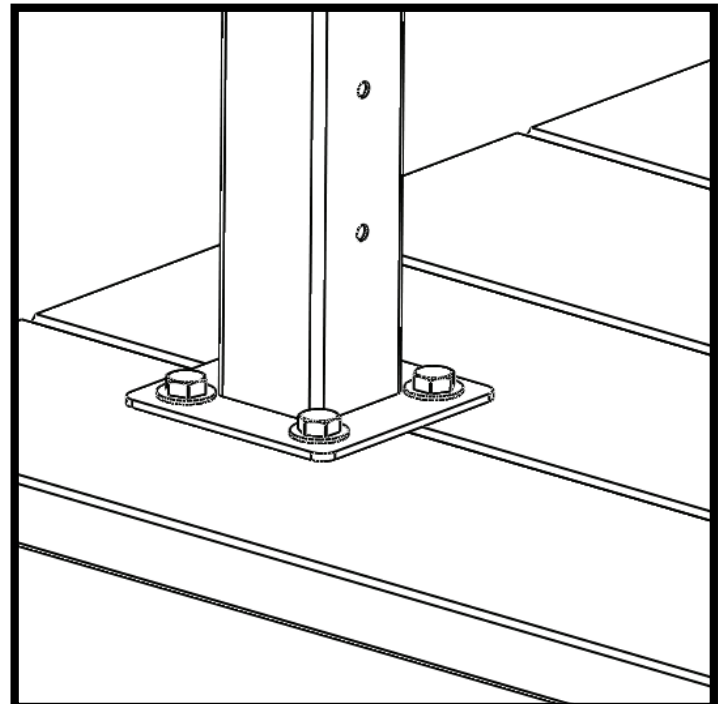
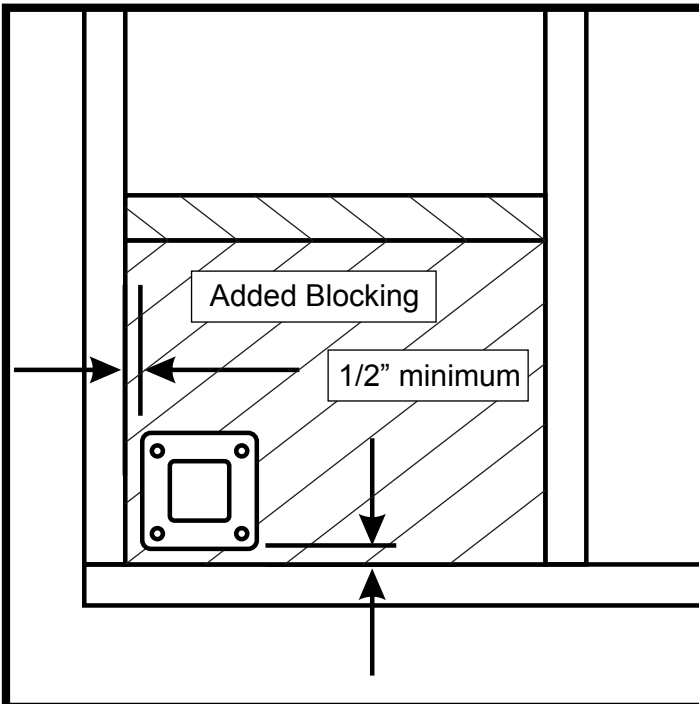
- Remove all metal shavings from the cut area
- File any sharp edges left by cutting. Thoroughly wipe and remove any filings, grime or dirt from the railing.
- Apply two coats of Fortress zinc based touch-up paint to the cut area. If touch up is at rail ends, allow paint to dry before connecting bracket to post.
- Be sure to remove any metal shavings from the surface of deck, patio or balcony to prevent rust on the surface.

Required Materials

Drill, Drill Bits, T-25 Driver Bit, Drill Bit Extender, Tape Measure, Wrenches, Speed Square, Center Punch, 3-3/4" Support and Hammer.

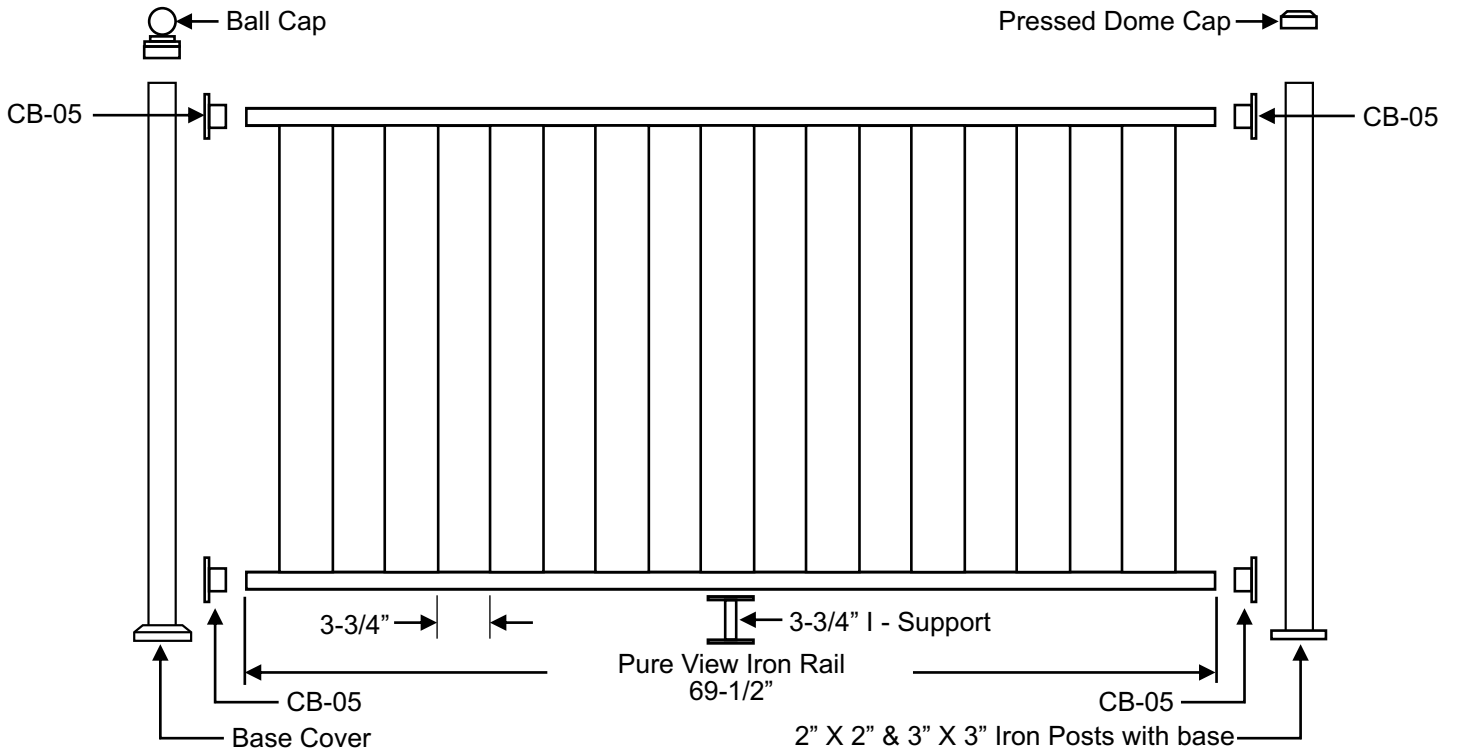
Mount Iron Posts*

- Wood Blocking tied to deck frame must be installed and constructed with treated dimensional lumber with a minimum thickness of 1/1/2".
- Position the edge of post base plate a minimum of 1/2" from the inside edge of rim joist.
- Mount posts at appropriate points based on panel length.
- Attach Iron posts with 3/8 X 3-1/2" Hex Head Galvanized Bolts.



*Reference Fortress iron post mounting instructions

Pure View Installation Options



Pure View Panel and Iron Post Configurations

Pure View
Baluster Height

34"
40"

Rail Panel
Height

34-5/16"
40-1/8"

Rail Panel Only

Installed Panel
Height*

38-5/16"
44-1/8"

Required
Post

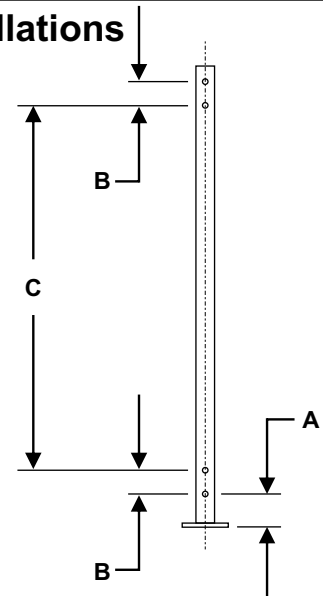
39-1/2"
45-1/2"

*Heights includes a 3-3/4" space between deck surface and bottom edge of bottom rail.

CB-05 Bracket Hole Locations for Pure View Rail Panel Installations

Pre-Drilling with a 5/32" drill bit is required.

Rail Panel Height	Pre-Drill Dimensions		
	A*	B	C
34-5/16"	3-3/16"	2-3/8"	30-11/16"
40-1/8"	3-3/16"	2-3/8"	36-1/2"



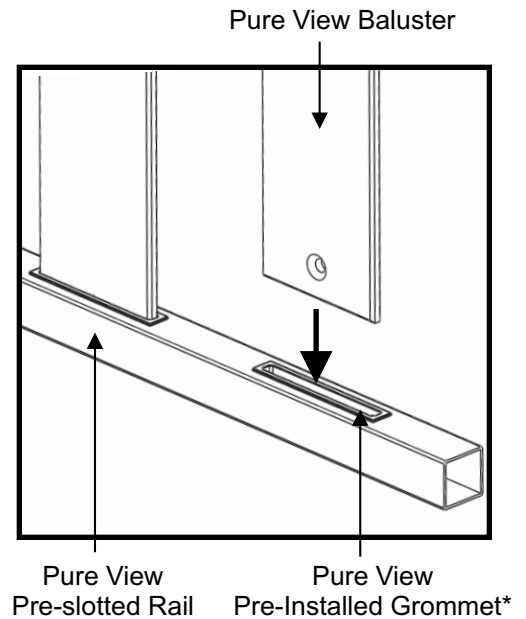
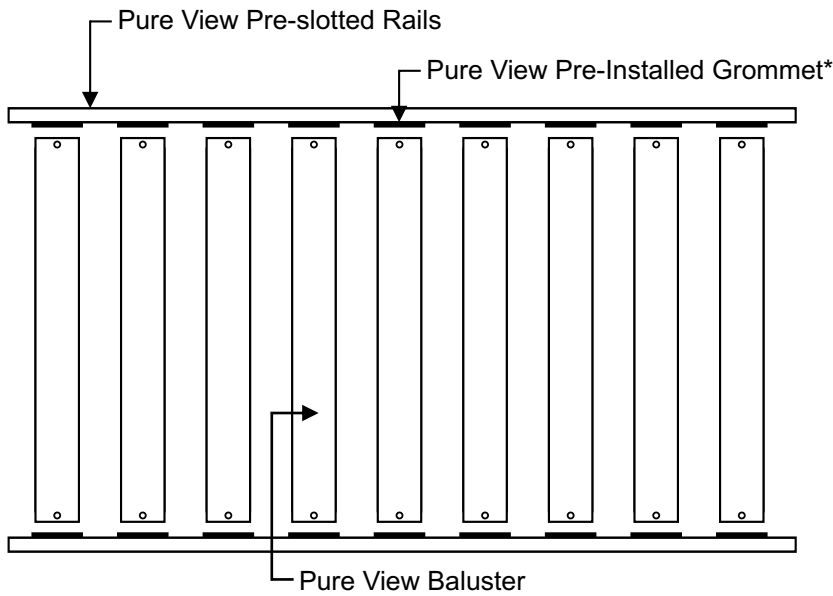
*Dimension A positions bottom edge of rail 3-3/4" above deck surface.

*Dimension A is measured from the Bottom surface of post base.

Remove all metal shavings from deck, post base cover, post, and panel before bracket is screwed to post to prevent rust stains.

Pure View Baluster Pre-slotted Rail Assembly

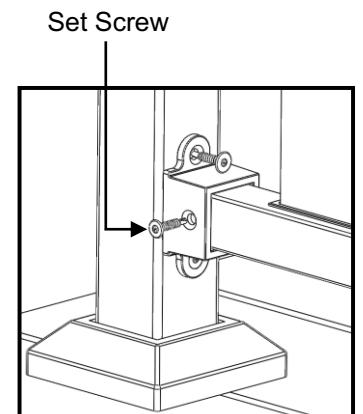
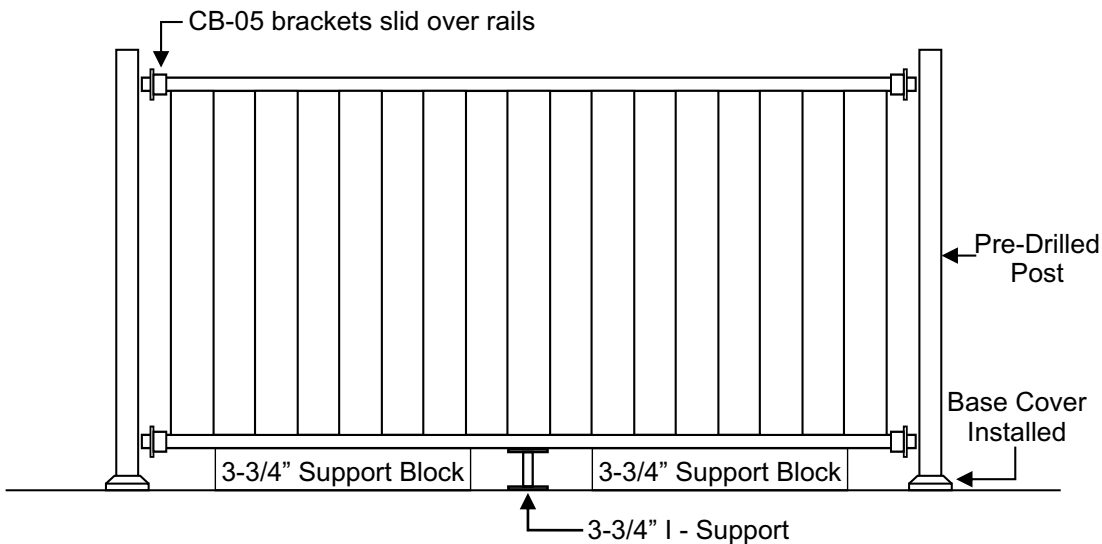
- If pre-slotted rails were cut to length, file cut edges and coat with 2 coats of Fortress zinc based touch-up paint.
- Check fit of pre-slotted rail between installed posts.
- Insert ends of Pure View Balusters into the Pure View Pre-slotted rail and Grommet Assemblies.



*Pure View Standard Grommets come installed in pre-slotted rails.

Pure View Panel Installation with CB-05

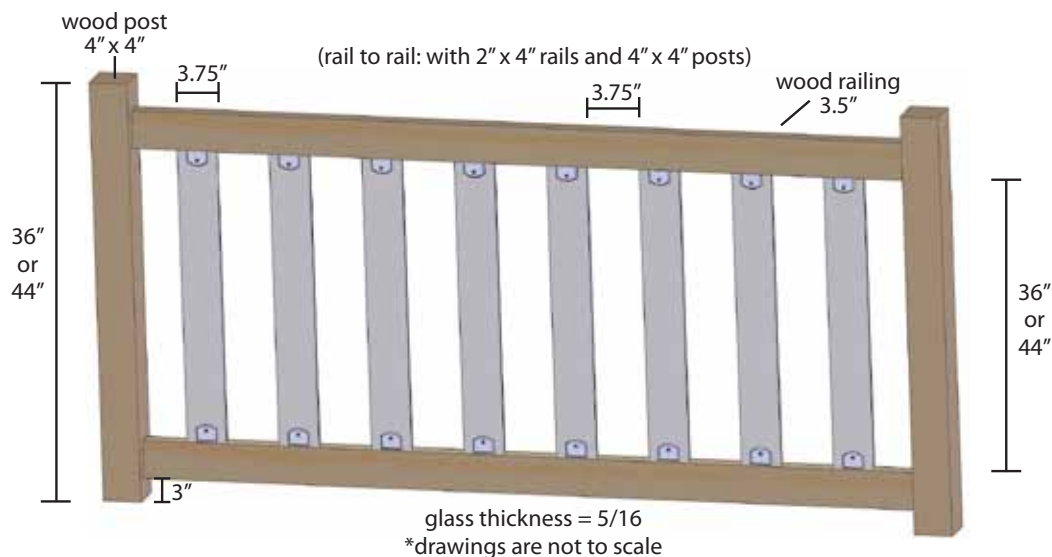
- If rails were cut to length, file cut edges and coat with 2 coats of Fortress zinc based touch-up paint.
- Check fit of rail between installed posts.
- If using a Base Cover install it now by sliding over the top of Iron Post.
- Slide a CB-05 bracket over the end of each rail. Make sure that all set screw holes face the desired direction.
- Install 3-3/4" I-Support at mid point of bottom rail.
- Place rail assembly on 3-3/4" support block between posts.
- Slide CB-05 brackets to post and secure with provided metal screws. Use low speed setting on drill.
- Secure rails with provided set screws at each CB-05 bracket.



Installation Instructions

Instructions d'installation / Instrucciones de instalación

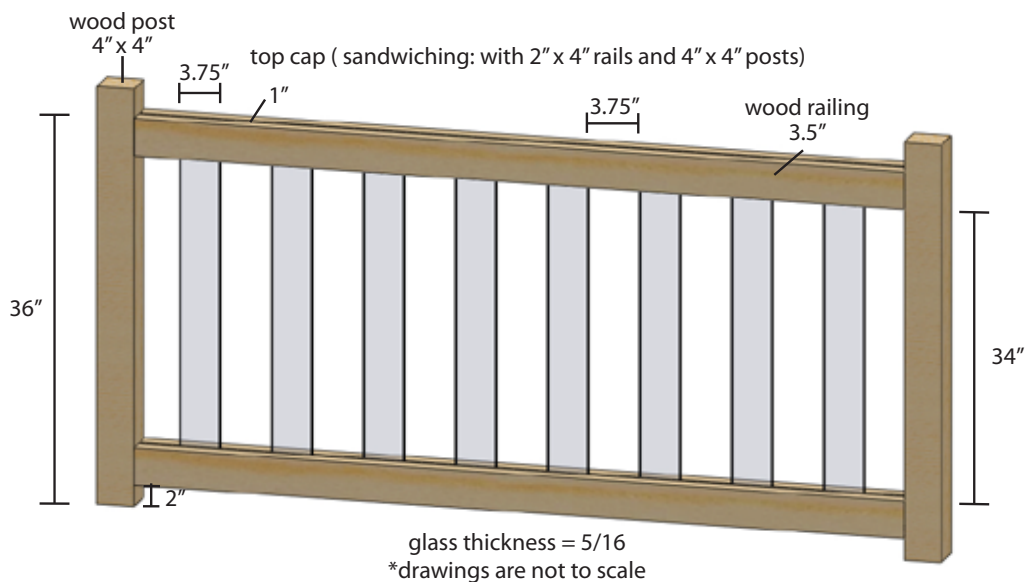
1. Choose appropriate glass baluster for straight or stair application.
2. Measure the opening from post to post to determine length of baluster rail section. Cut top and bottom 2x4 rails to appropriate length.
3. Place top and bottom 2x4 rails side by side for accurate placement of Fortress Glass Balusters. Cut a 4" block of 2x4 to use in measuring and creating the necessary 4" on-center gap. Mark a point at the center of top and bottom 2x4 rails. Place one end of the 4" block on the center point and mark your fastener point on other end of 4" block. Continue this through both ends of top and bottom rails.
4. Fasten Mounting Clip to top and bottom rails at marked points using the screws provided and a cordless drill.
5. Attach top rail to support posts on each end using Fortress Nylon Rail Bracket (sold separately).
6. Set each glass baluster into top rail Mounting Clips by placing provided bolt through holes on each side of Mounting Clip and hole in the glass baluster.
7. Once all glass balusters are set in top rail Mounting Clips, set the bottom rail by aligning and attaching the glass balusters and bottom rail Mounting Clips. Attach glass balusters into bottom rail Mounting Clips with the same process as used for the top rail.
8. Attach bottom rail to support posts on each end using Fortress Rail Bracket (sold separately).
9. Attach cap rail as desired for finished appearance.
10. Repeat process for each railing section.



Installation Instructions

Instructions d'installation / Instrucciones de instalación

1. Choose appropriate glass baluster for straight or stair application.
2. Measure the opening from post to post to determine length of baluster rail section. Cut top and bottom rails to appropriate length.
3. Place top and bottom rails side by side for accurate placement of Fortress Glass Balusters. Cut a 4" block to use in measuring and creating the necessary 4" on-center gap. Mark a point at the center of top and bottom rails. Place one end of the 4" block on the center point and mark your fastener point on other end of 4" block. Continue this through both ends of top and bottom rails.
4. Attach one bottom rail.
5. Attach one top rail.
6. Install glass baluster by attaching screws through pre-drilled holes of glass balusters then into top and bottom rail at marked points.
7. Repeat for all glass balusters in the section.
8. Attach another bottom rail to the other side of the bottom glass balusters to create the sandwich appearance for the bottom
9. Attach another top rail to the other side of the top glass balusters to create the sandwich appearance for the top.
10. Repeat process for each railing section.



Installation Instructions for Fortress Pure View Glass Balusters with Pure View Nylon Mounting Shoes and Wood Rails

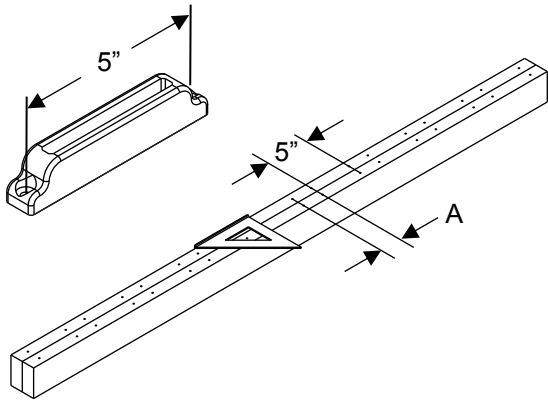
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Read Instructions Completely Before Starting Installation

Required Materials

Saw, Drill, 1/16" Drill Bit, Phillips Driver Bit, Tape Measure, Pencil, Speed Square, Safety Glasses

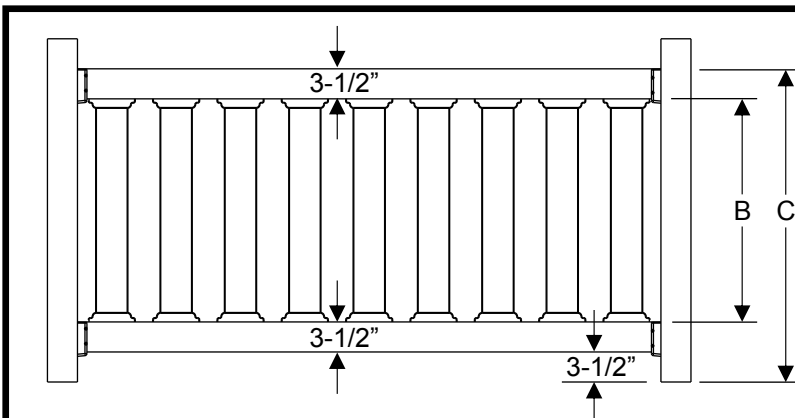
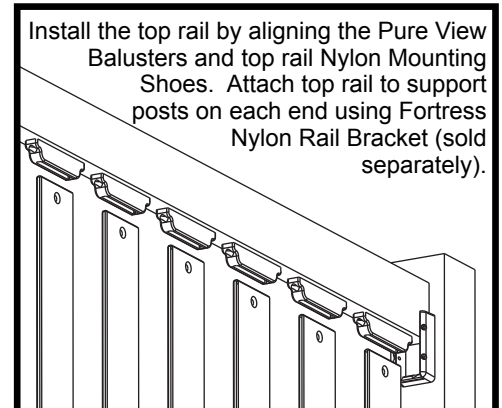
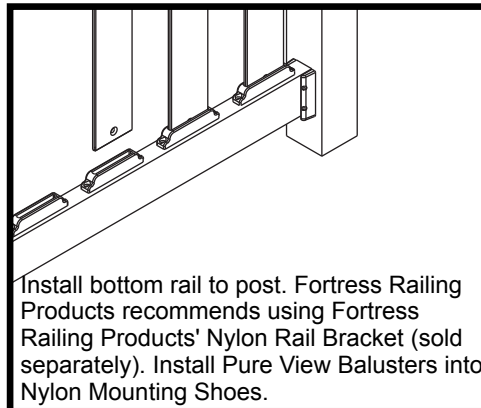
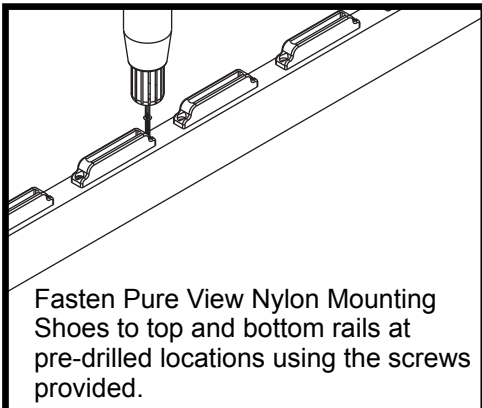
Pure View Shoe Hole Layout



Cut Rails to required length. Place top and bottom 2x4 rails side by side for accurate placement of Fortress Pure View Nylon Mounting Shoes. **Fortress Pure View Glass Balusters CANNOT EXCEED 4" SPACING between balusters.** Mark layout on rails so that there is an equal distance between the first Pure View Baluster and the end of rail at each end. Using a square mark the location of each Pure View Nylon Mounting Shoe and pre-drill with a 1/16" drill bit.

Pure View Baluster Spacing

Dimension "A"	Space Between Balusters
2-1/2"	3-3/4"
2-5/8"	3-7/8"
2-3/4"	4"



Pure View Installed Rail Heights

Dimension "B"	Dimension "C" Top Rail Height with 3-1/2" Rails
26"	36-1/2"
34"	44-1/2"
40"	50-1/2"