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## INTRODUCTION

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### READ INSTRUCTIONS COMPLETELY BEFORE STARTING INSTALLATION

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. Fortress Railing Products and its distributors shall not be held liable for improper or unsafe installations.

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

Pure View I-Support is required for Canadian Code Compliance.

#### Note

When cutting Fortress railing, it is very important to complete the following at cut points:

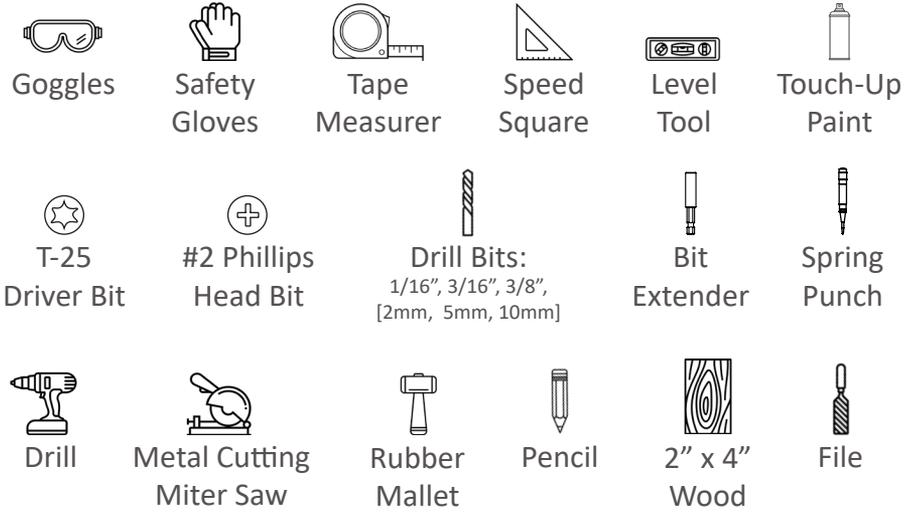
- Remove all metal shavings from the cut area.
- File any sharp edges left by cutting. Thoroughly wipe and remove any filings, grime, or dirt from the railing.
- Apply two coats of Fortress zinc based touch-up paint to the cut area. If touch up is at rail ends, allow paint to dry before connecting bracket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

#### Torx Safety Tips

- Always use the lowest speed setting on drill.
- To reduce chance of bit breakage, start tightening with drill on low torque setting and work up until screw is secured.

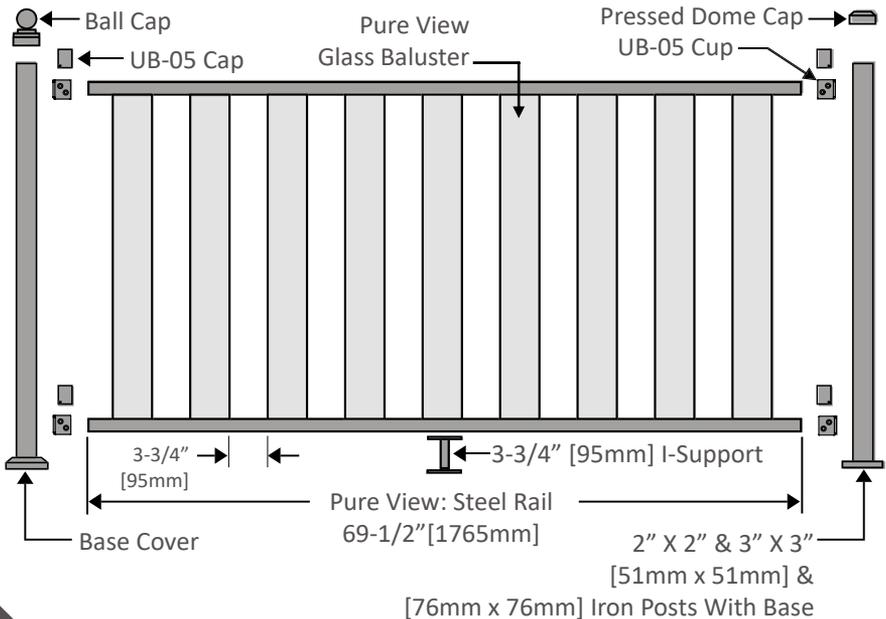
**Tip: Pre-drill holes with 3/16" [5mm] drill bit.**

## Required Tools



## UNIVERSAL BRACKET

### Pure View: Fe<sup>26</sup> Glass Baluster Universal (UB) Brackets Installation Option



## Universal Bracket (UB) Post Configuration

### Fe<sup>26</sup> Pure View Baluster Panel Height

34" [864mm]

40" [1016mm]

### Rail Panel

Installed Panel Height\*

38-1/16" [967mm]

43-7/8" [1114mm]

Required Post

39-1/2" [1003mm]

45-1/2" [1156mm]

\*Installed heights include a 3-3/4" [95mm] space between deck surface and bottom edge of bottom rail.

## POST MOUNTING

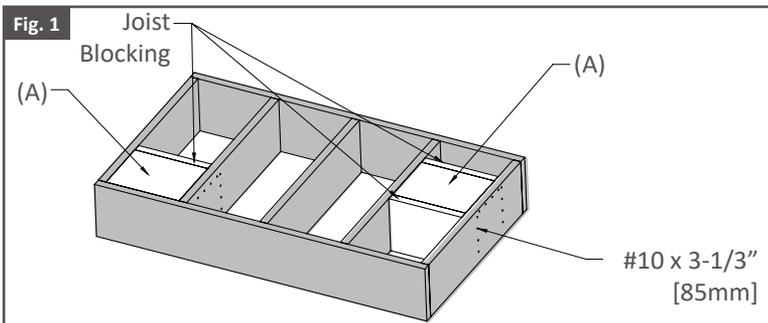
\*If using Fortress Evolution Framing, contact Fortress for instructions.

### Note:

It's recommended to install brackets into post before post mounting. Reference page 7 for bracket installation steps.

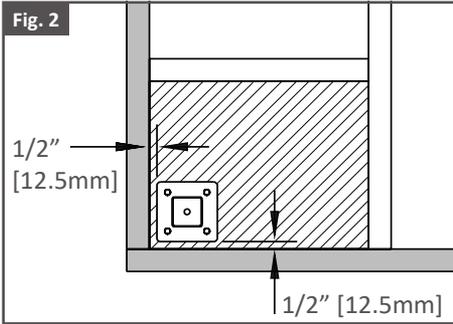
### Step 1: Install Wood Blocks

1. Install Wood Block level with top of joist. As shown in Fig.1(A)
  2. Secure Wood Block to blocking on all four sides with #10 X 3-1/2" [89mm] deck screws.
- Wood Block must be constructed with treated dimensional lumber with a minimum thickness of 1 1/2" [38mm].



## Step 2: Position Base Plate

1. Position the edge of AL<sup>13</sup> HOME base plate a minimum of 1/2" [12.5mm] from the inside edge of rim joist. As shown in Fig. 2.

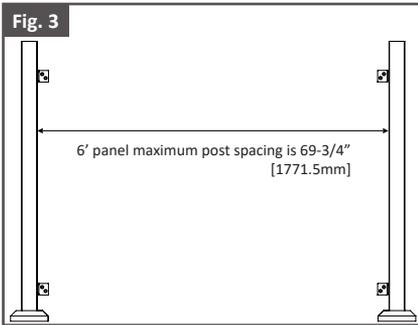


## Step 3: Max Post Spacing

- 6' panel maximum post spacing is 69-3/4" [1772mm].

### Note:

- **DO NOT** exceed the maximum post spacing.

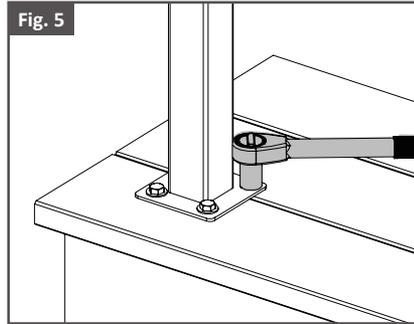
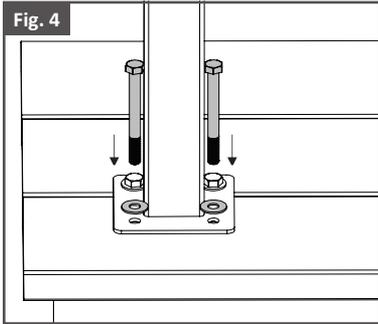


## Step 4: Mount Posts

1. Mark mounting hole locations and pre-drill a 3/8" [10mm] hole.
2. Insert 3/8" x 3-1/2" [10mm x 89mm] Hex Head galvanized bolts through 3/8" [10mm] galvanized washer and post base plate.

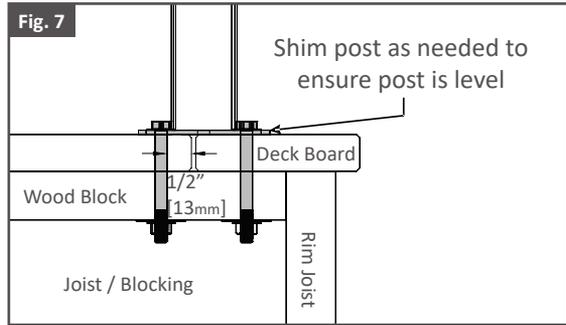
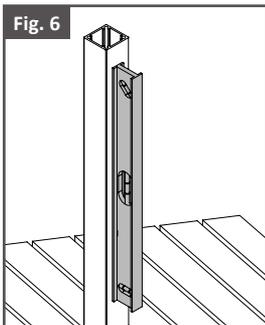
**Note:**

- Post Base Plate holes **MUST** be positioned a minimum 1/2" [13mm] from edge of deck board.
- Use only 3/8" [10mm] Hex Head Galvanized Bolts. Lag Screws should **NOT** be used. Secure each post with four bolts.



**Step 5: Check Mounted Posts**

1. Shim post as needed to ensure post is level.



**UNIVERSAL BRACKET: BRACKET INSTALLATION**

**Step 1: Mark Bracket Hole Locations**

1. Mark the centerline of each post with a pencil.
2. Take measurements used in Fig. 8 and 9 to mark bottom and top bracket hole locations onto posts.

**Tip:**

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

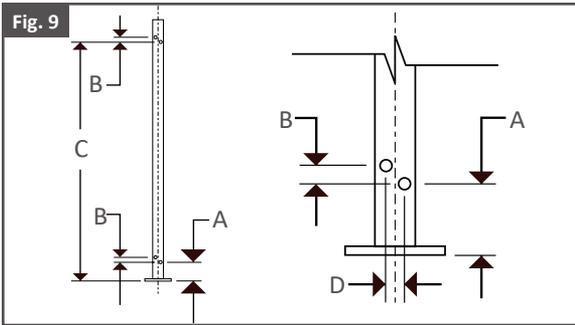
**Fig. 8****UB-05 Bracket Hole Locations**

Pre-drill Dimensions: Pre-drilling with a 5/32" [4mm] drill bit is required

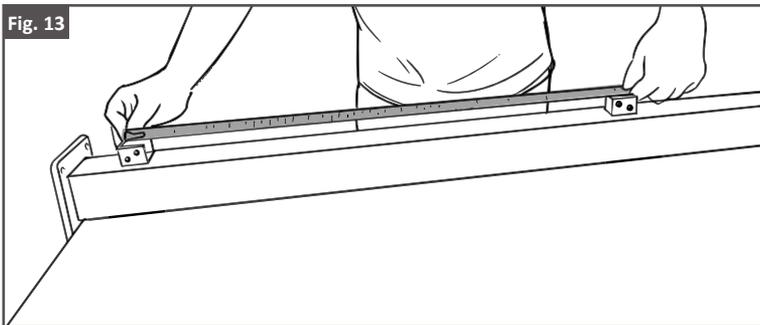
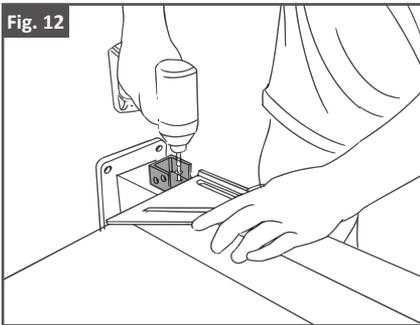
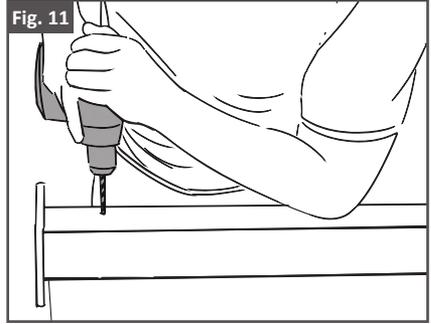
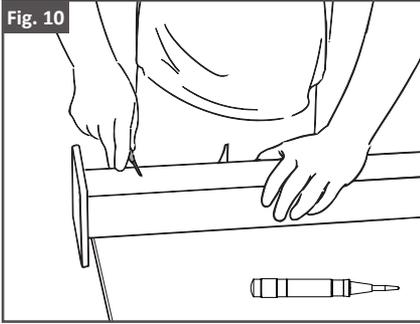
A*	B	C	D
<b>34" [864mm] Panel</b>			
4-1/16" [103mm]	5/8" [16mm]	37-1/8" [943mm]	5/8" [16mm]
<b>40" [1016mm] Panel</b>			
4-1/16" [103mm]	5/8" [16mm]	42-15/16" [1090mm]	5/8" [16mm]

\*Dimension A positions bottom edge of rail 3-3/4" [95mm] above deck surface.

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

**Fig. 9****Step 2: Pre-Drill and Install Brackets****Tip:**

- **It's important to double check dimensions to confirm accuracy of bracket hole locations before drilling.**
1. Use Spring Punch to mark the holes. As shown in Fig. 10.
  2. Pre-drill bracket holes with a 3/16" [89.5mm] drill bit. As shown in Fig. 11.
  3. Attach Bracket to the posts with supplied T-25 thread-cutting screws. Use two screws per bracket. Use low speed setting on drill. As shown in Fig. 12.
  4. Once top and bottom brackets are installed, remeasure bracket spacing to confirm dimensions used in Fig. 8 and 9 of step 1. As shown in Fig. 13.
  5. Remove all metal shavings from deck, post base cover, post, and panel before bracket is screwed to post to prevent corrosion.

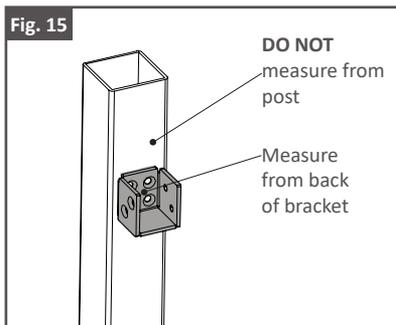
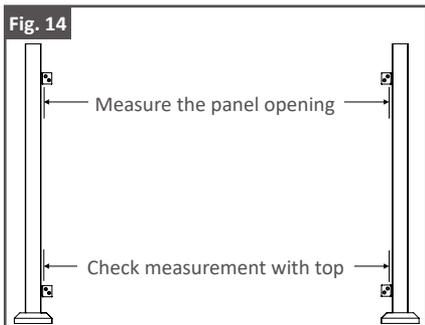


### Step 3: Measure The Panel Opening Length

1. Measure the distance of the panel opening.  
As shown in Fig. 14.
2. Confirm that the measurements for the top brackets are the same as the bottom brackets.

#### Note:

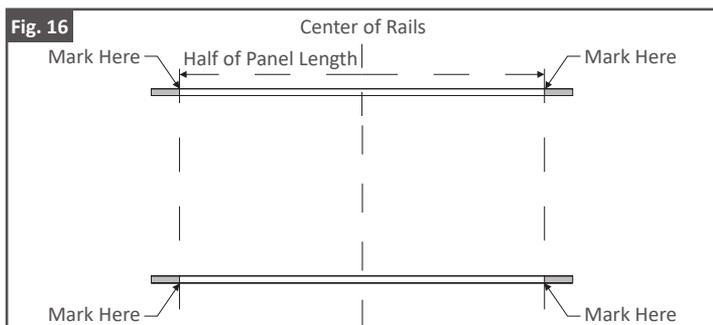
- **Measure from the back wall of the bracket to the back wall of the bracket on other post. As shown in Fig. 15.**



## UNIVERSAL BRACKET: CUTTING DOWN BOTTOM & TOP RAILS

### Step 1: Measure & Mark Rails Where Cuts Will Be Made

1. To ensure rails are symmetrical, take the measurement found on page 9, step 3 of Bracket Installation, and divide it in half. Then cut equal lengths from both ends.
2. Find the center of the rails and measure out half of the length each direction. As shown in Fig. 16.
3. Mark these locations with a pencil on the top and bottom rail.

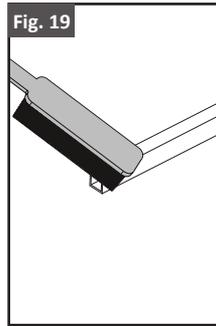
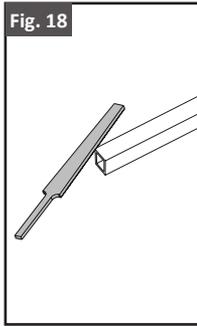
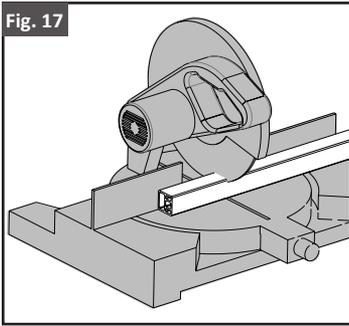


### Step 2: Cut & Clean Rails

1. Cut rails using a saw with a ferrous metal cutting blade.
2. Use file to smooth cut edges.
3. Remove any metal shavings and dust with a brush or rag.
4. Make sure surfaces to be painted are clean.

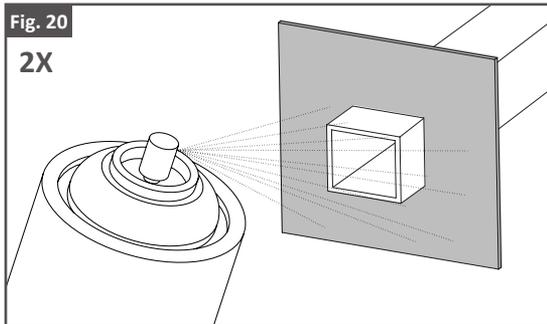
#### Note:

- Be sure not to cut Grommets in rails.



### Step 3: Apply Spray Paint To Cut Areas

1. Using a piece of cardboard as a mask, apply the 1<sup>st</sup> coat of Fortress zinc based touch-up paint.
2. Allow to dry before applying second coat.
3. Apply the 2<sup>nd</sup> coat of Fortress zinc based touch-up paint.
4. Allow to dry and install.



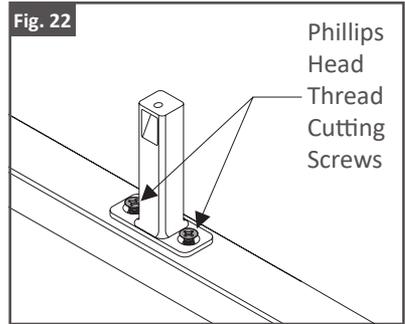
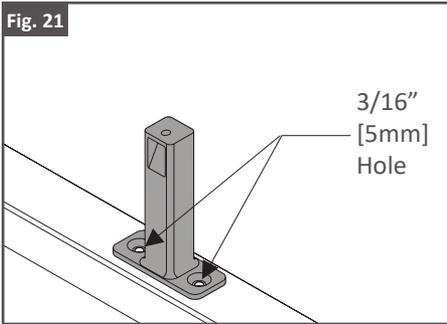
## UNIVERSAL BRACKET: BALUSTER INSTALLATION

### Step 1: Install I-Support On Bottom Rail

1. Measure and locate the center of the bottom rail. Using the I-Support as a guide, mark the center of the 2 screw holes. As shown in Fig. 21.
2. Using a 3/16" [5mm] drill bit, drill though the outside wall.
3. Install the I-Support with the provided T-25 Thread Cutting Screws. As shown in Fig. 22.

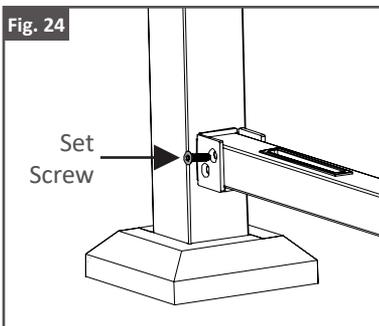
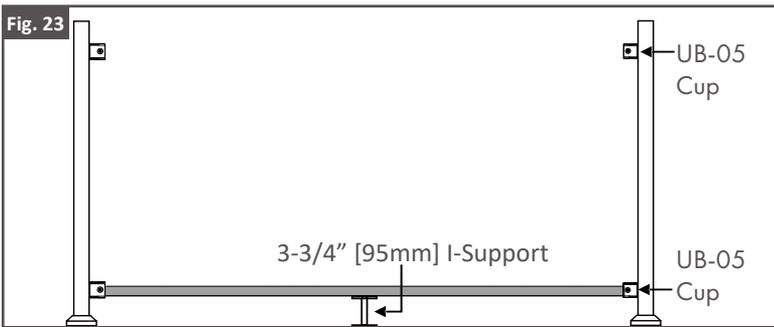
#### Note:

- Be sure to install I-Support on side of rail facing deck.



## Step 2: Install Bottom Rail

1. Install cut bottom rail into the lower installed brackets.
2. Pre-drill Bracket Cup holes for screws using a 3/16" [5mm] drill bit.
3. Secure rail to Bracket Cups with provided T-25 Drive Thread-Cutting Screws. Use low speed setting on drill.

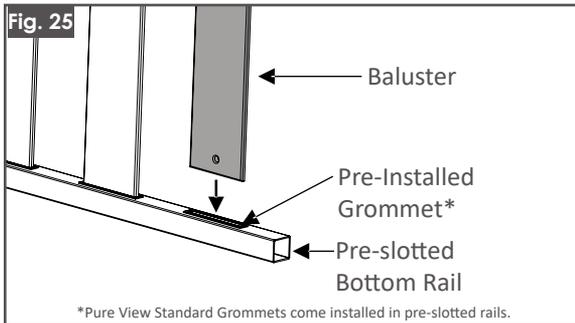


### Step 3: Install Balusters Into Bottom Rail

1. Carefully slip Balusters vertically into each slot of the bottom rail. Holes in balusters should not be visible after insertion of baluster into rail. As shown in Fig. 25.

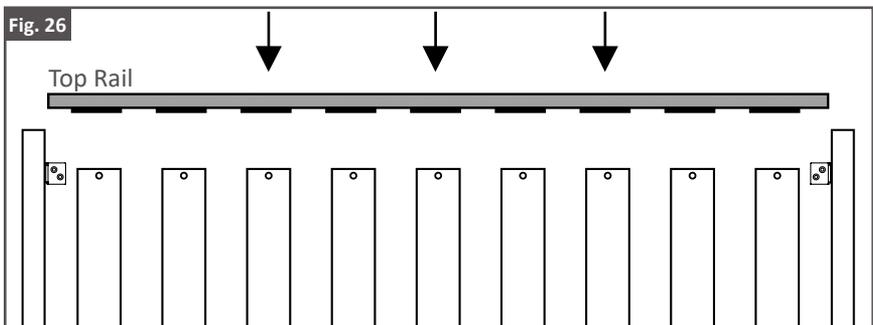
#### Tip:

- Be sure to wear safety gloves and goggles when handling Glass.



### Step 4: Install Top Rail

1. Carefully slip Top Rail over the top of the Balusters into the slots & top Bracket Cups.
2. Pre-drill Bracket Cup holes for screws using a 3/16" [5mm] drill bit.
3. Secure rail to Bracket Cups at this time with provided T-25 Drive Thread-Cutting Screws. Use low speed setting on drill.

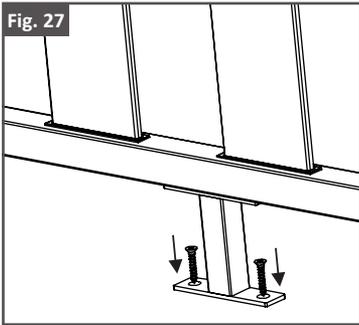


## Step 5: Attach I-Support To Deck

1. Fasten I-Support to deck surface with the supplied T-25 Wood Screw.

### Tip:

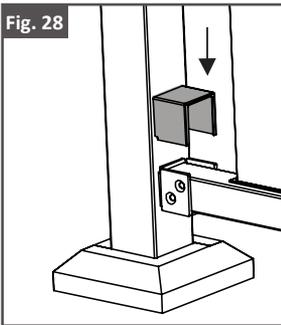
- Pre-drill with a 1/16" [2mm] drill bit.



## BRACKET CAP, PRESSED DOME/BALL CAP & POST BASE COVER INSTALLATION

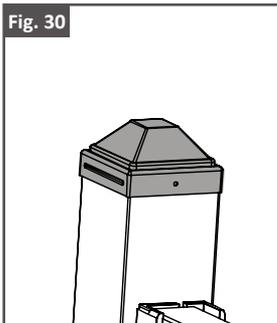
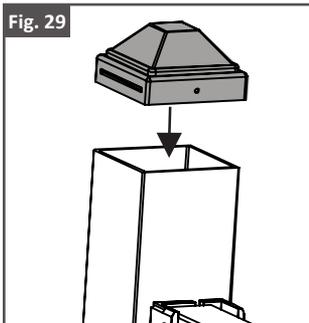
### Step 1: Install Bracket Caps

1. The Bracket Covers snap down into place.
2. Use a Rubber Mallet to snap the bracket covers in place.



### Step 2: Install Pressed Dome/Ball Cap

1. Pressed Dome Caps & Ball Caps are press fit into place.
2. Use a Rubber Mallet to snap the caps in place.



### Step 3: Install Post Base Covers

1. Separate the two-piece base plate cover. Hold one side parallel to the post base plate. As shown in Fig. 31.
2. Place 2nd half of the post base cover on the opposite side of the post. Hold 2nd piece slightly under the 1st piece. As shown in Fig. 32.
3. Twist the 2nd cover ¼ turn and move piece until both half's touch. As shown in Fig. 33.
4. Make sure one of the locking pins on the 2nd cover engage with the proper slot on the 1st cover piece. As shown in Fig. 34.
5. Once the first locking pin is started, turn the 2nd cover piece back parallel to the post base plate. One you have confirmed both locking pins have engaged with the opposing slots lower both half's over the post base plate. As shown in Fig. 35.

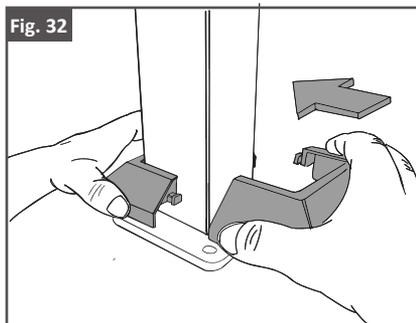
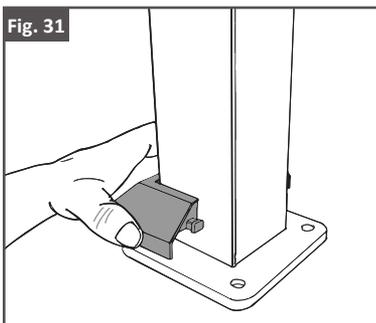


Fig. 33

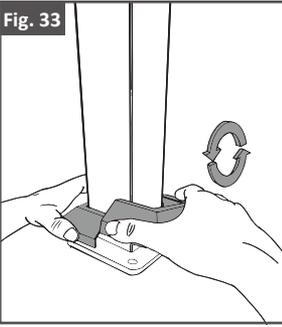


Fig. 34

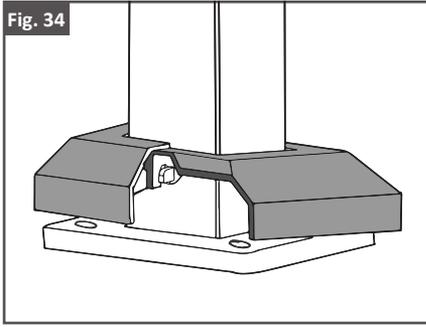
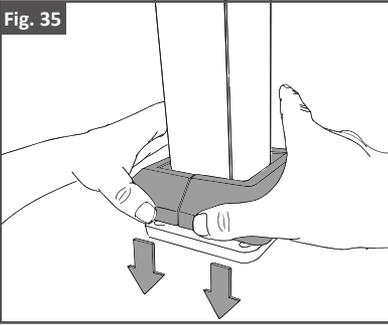
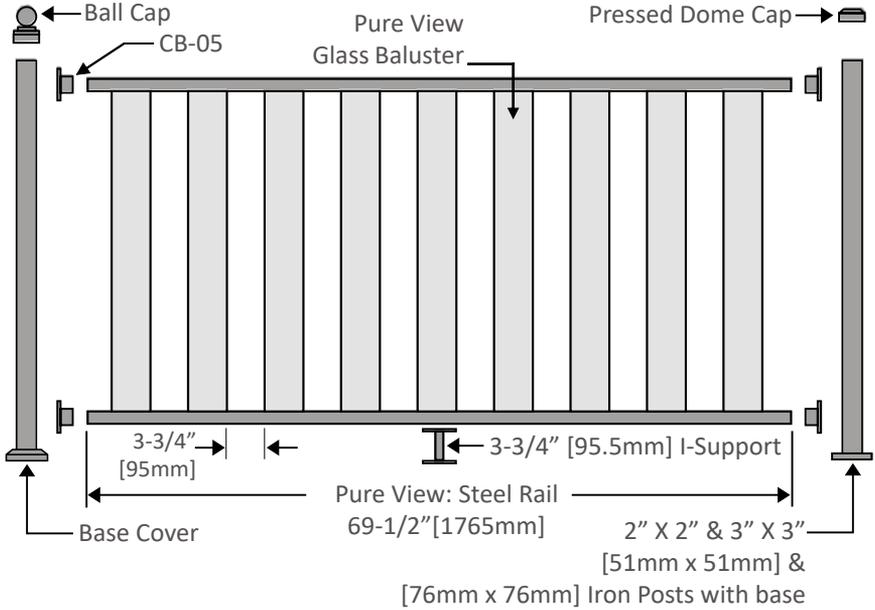


Fig. 35



## COLLAR BRACKET

### Pure View: Fe<sup>26</sup> Glass Baluster Collar Brackets (CB) Installation Option



#### Collar Bracket (CB) Post Configuration

Pure View Baluster Height	Rail Panel	
	Installed Panel Height*	Required Post
34" [864mm]	38-1/16" [967mm]	39-1/2" [1003mm]
40" [1016mm]	43-7/8" [1114mm]	45-1/2" [1156mm]

\*Installed heights include a 3-3/4" [95mm] space between deck surface and bottom edge of bottom rail.

## COLLAR BRACKET: POST MOUNTING

- Reference Post Mounting instructions on page 5.

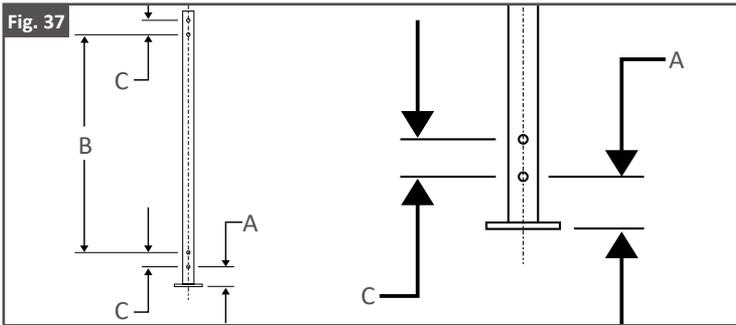
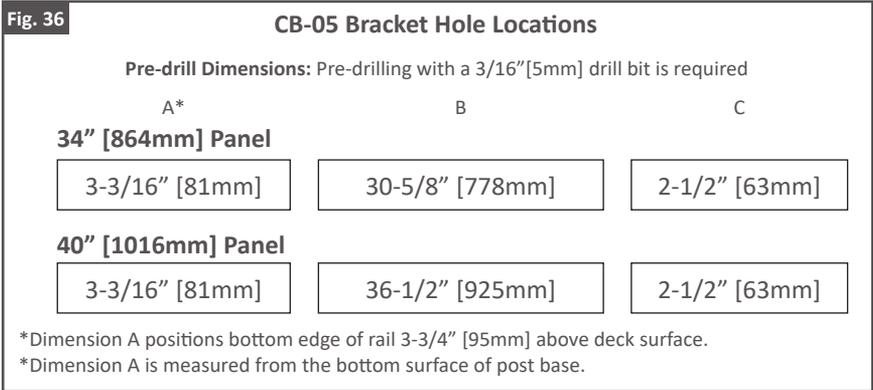
**Note:**

IT'S RECOMMENDED TO INSTALL BRACKETS ON TO POST BEFORE POST MOUNTING.

# COLLAR BRACKET: BRACKET INSTALLATION

## Step 1: Mark Bracket Hole Locations

- Reference Bracket hole marking instructions on page 7.



## Step 2: Pre-Drill Bracket Holes

- Reference Bracket hole pre-drilling instructions on page 8.

**Note:**

- **DO NOT** install Brackets in this step.

## Step 3: Measure The Panel Opening Length

- Reference Panel opening instructions on page 9.

# COLLAR BRACKET: CUTTING DOWN TOP & BOTTOM RAILS

- Reference pages 10 & 11 for rail cutting & spray painting steps.

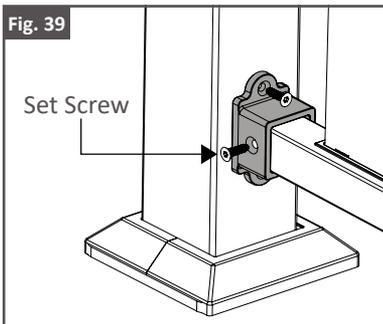
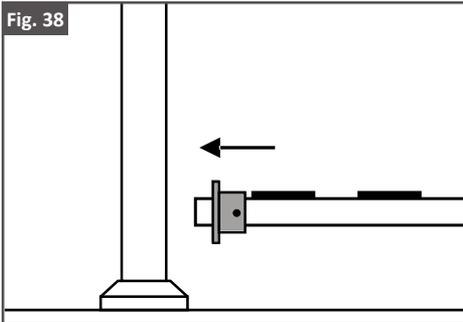
## COLLAR BRACKET: BALUSTER INSTALLATION

### Step 1: Install I-Support On Bottom Rail

- Reference I-support installation instructions on page 12.

### Step 2: Install Bottom Rail

1. Slide CB-05 Brackets over each end of the bottom rail. Make sure that all set screw holes face the desired direction. As shown in Fig. 38.
2. Secure Brackets into pre-drilled Bracket holes on post with provided T-25 Drive Thread-Cutting Screws.
3. Pre-drill Bracket Set Screw holes on bottom Rail using a 3/16" [5mm] drill bit.
4. Secure Bracket to Rail with provided T-25 Drive Thread-Cutting Screws. Use low speed setting on drill. As shown in Fig. 39.

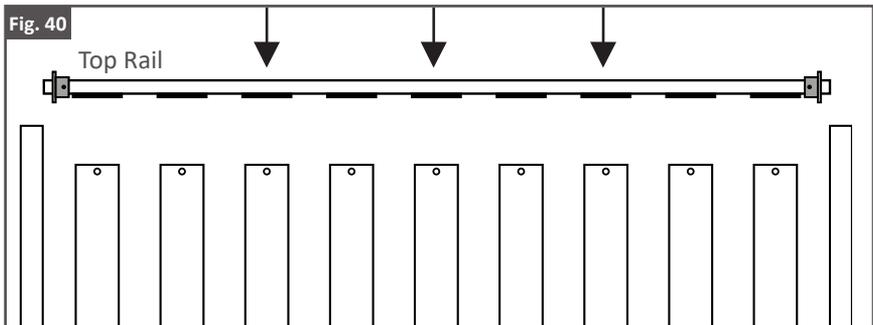


### Step 3: Install Balusters Into Bottom Rail

- Reference Baluster installation instructions on page 13.

### Step 4: Install Top Rail

1. Slide CB-05 Brackets over each end of the Top Rail. Make sure that all set screw holes face the desired direction. As shown in Fig. 1.
2. Carefully slip Top Rail over the top of the Balusters into the slots.
3. Secure Brackets into pre-drilled Bracket holes on post with provided T-25 Drive Thread-Cutting Screws.
4. Pre-drill Bracket Set Screw holes on bottom Rail using a 3/16" [5mm] drill bit.
5. Secure Bracket to Rail with provided T-25 Drive Thread-Cutting Screws. Use low speed setting on drill.



### Step 5: Attach I-Support To Deck

- Reference I-support mounting instructions on page 14.

## POST BASE COVER & PRESSED DOME/BALL CAP INSTALLATION

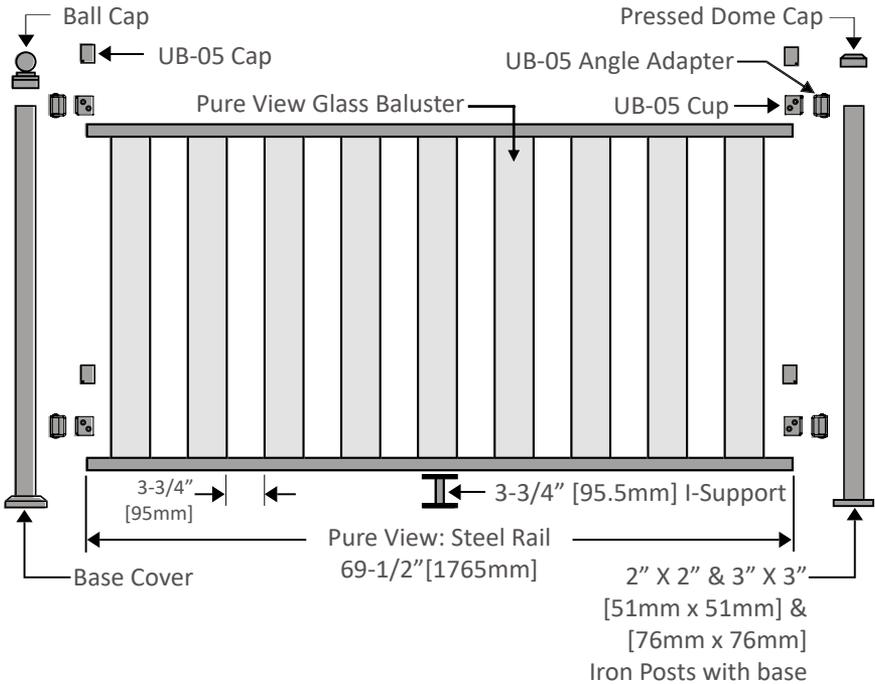
### Step 1: Post Base Cover & Pressed Dome/Ball Cap

- Reference Post Base Cover & Pressed Dome/Ball Cap instructions on pages 14 - 16.

# ANGLE BRACKET

## Pure View: Fe<sup>26</sup> Glass Baluster Angled Bracket Installation Options

### Universal Bracket (UB) Adapter



### Universal Bracket (UB) Adapter Post Configuration

**Fe<sup>26</sup> Pure View Baluster Panel Height**

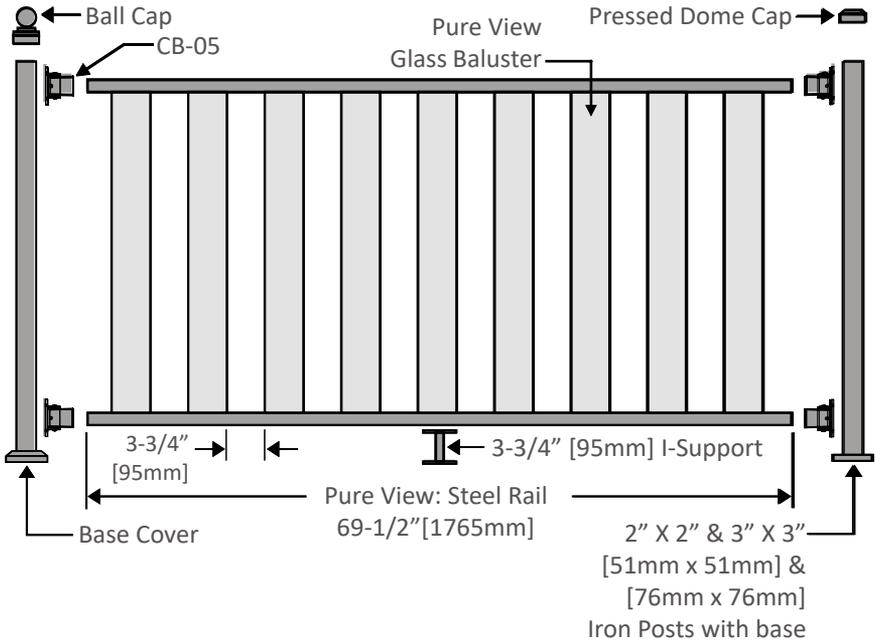
34" [864mm]
40" [1016mm]

**Rail Panel**

Installed Panel Height*	Required Post
38-1/16" [967mm]	39-1/2" [1003mm]
43-7/8" [1114mm]	45-1/2" [1156mm]

\*Installed heights include a 3-3/4" [95mm] space between deck surface and bottom edge of bottom rail.

## Collar Bracket (CB) Angled



### Collar Bracket (CB) Post Configuration

#### Pure View Baluster Height

34" [864mm]

40" [1016mm]

#### Rail Panel

##### Installed Panel Height\*

38-1/16" [967mm]

43-7/8" [1114mm]

##### Required Post

39-1/2" [1003mm]

45-1/2" [1156mm]

\*Installed heights include a 3-3/4" [95mm] space between deck surface and bottom edge of bottom rail.

## POST MOUNTING

- Reference Post Mounting instructions on page 5.

### Note:

IT'S RECOMMENDED TO INSTALL BRACKETS ON TO POST BEFORE POST MOUNTING.

## ANGLE BRACKET: BRACKET INSTALLATION (UB or CB)

**Note:**

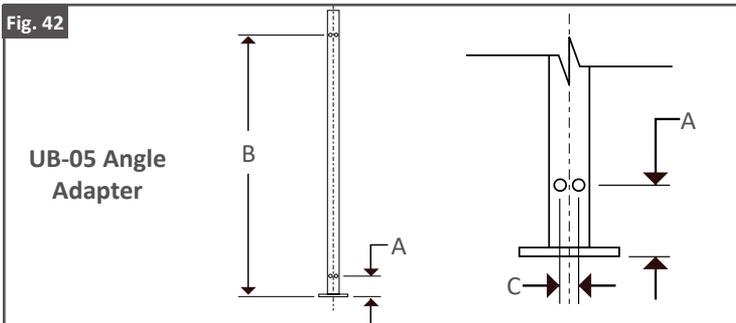
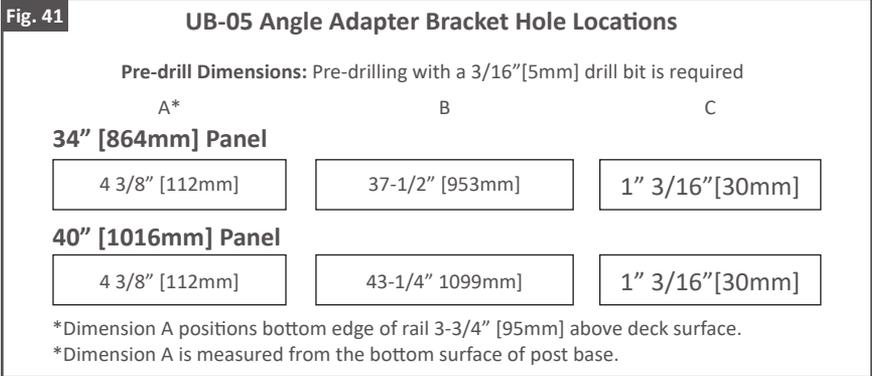
THE BRACKET INSTALLATION INSTRUCTIONS COVER BOTH UB & CB, ONLY USE STEPS SPECIFIC TO BRACKET BEING INSTALLED.

### Step 1: Mark Bracket Hole Locations (UB or CB)

1. Mark the centerline of each post with a pencil.
2. Take measurements used to mark bottom and top bracket hole locations onto posts. Reference Fig. 41 and 42 for UB and Fig. 43 and 44 for CB.

**Note:**

- Installed panel heights include space between the deck surface and underside of bottom rail. Fe<sup>26</sup> has a spacing of 3-3/4" [95mm] spacing.



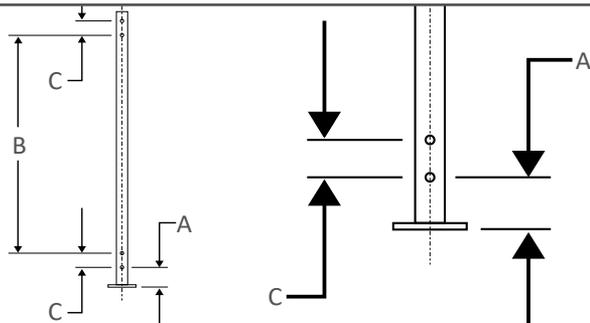
**Fig. 43****CB-05 Angled Bracket Hole Locations**

Pre-drill Dimensions: Pre-drilling with a 3/16" [4.5mm] drill bit is required

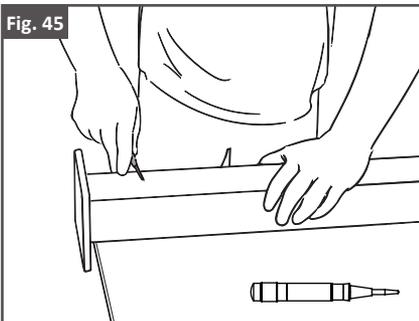
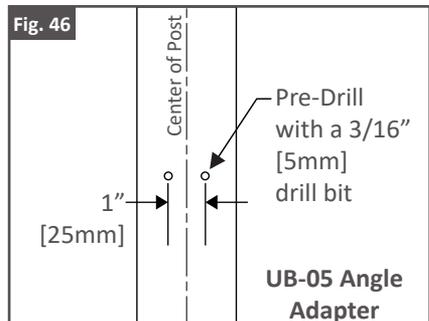
A*	B	C
<b>34" [864mm] Panel</b>		
3-3/16" [81mm]	30-1/2" [775mm]	2-1/2" [65mm]
<b>40" [1016mm] Panel</b>		
3-3/16" [81mm]	36-3/8" [924mm]	2-1/2" [65mm]

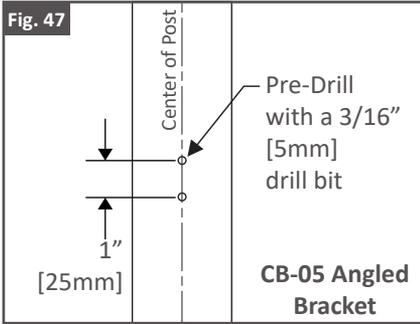
\*Dimension A positions bottom edge of rail 3-3/4" [95mm] above deck surface.

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

**Fig. 44****CB-05 Angled Bracket****Step 2: Pre-drill Angle Bracket Holes****Tip:**

- **It's important to double check dimensions to confirm accuracy of bracket hole locations before drilling.**
1. Use Spring Punch to mark the holes. As shown in Fig. 45.
  2. Pre-drill bracket holes with a 3/16" [5mm] drill bit. As shown in Fig. 46 & 47.
  3. Remove the bolt from the Angle Bracket Assembly.

**Fig. 45****Fig. 46**

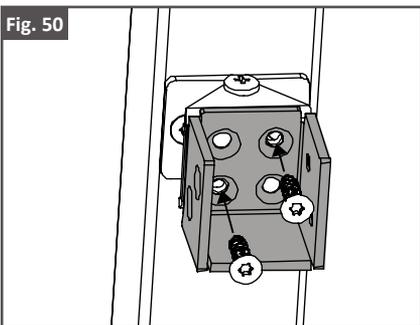
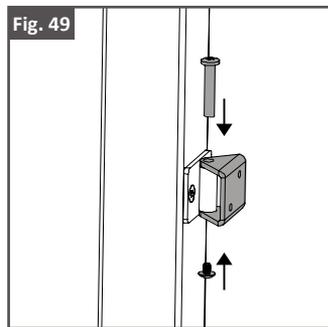
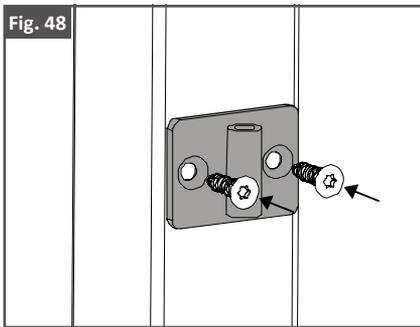


### Step 3: Install UB-05 Angle Adapter

1. Attach Angle Adapter Base piece to the posts with supplied T-25 thread-cutting screws. Use low speed setting on drill. As shown in Fig. 48.
2. Assemble Angle Adapter Body piece & Base piece. As shown in Fig. 49.
3. Attach UB-05 Bracket to Angle Adapter using T-25 thread-cutting screws. As shown in Fig. 50.

#### Tip:

- Use a Bit Extender for an easier drilling process.

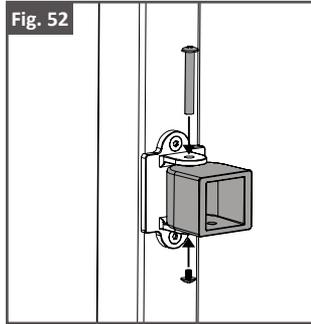
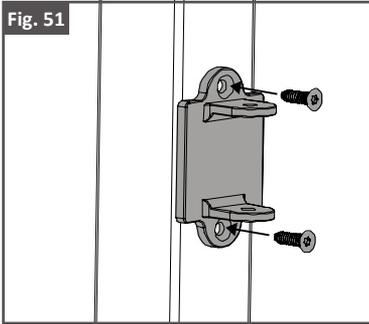


#### Step 4: Install CB-05 Angled Brackets

1. Attach Angle Bracket Base piece to the posts with supplied T-25 thread-cutting screws. Use low speed setting on drill. As shown in Fig. 51.
2. Assemble Angle Bracket Body piece & Base piece. As shown in Fig. 52.

#### Tip:

- Use a Bit Extender for an easier drilling process.



#### Step 5: Determine Panel Length

1. Check to ensure that all posts are square and straight. Shim posts as required.
2. Ensure that the Angle Bracket Cups are approximately aligned.
3. With another person's help, measure the distance from the inside back of one cup to the inside back of the other cup. This will be the panel length. As shown in Fig. 54 & 55.

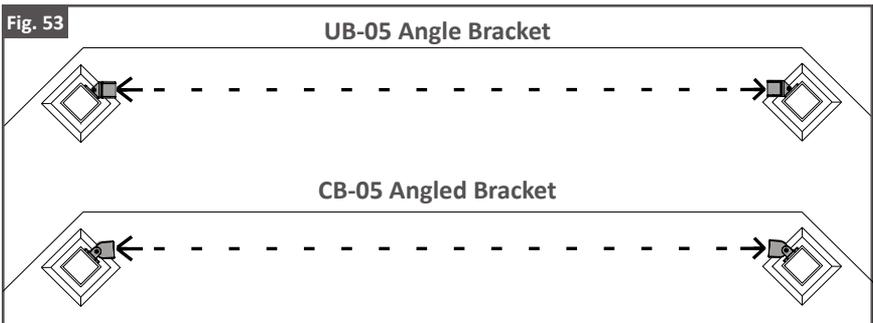
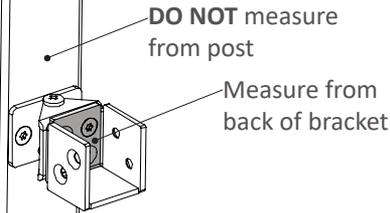
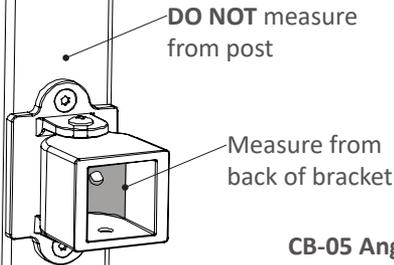


Fig. 54



UB-05 Angle  
Bracket

Fig. 55



CB-05 Angled  
Bracket

## ANGLE BRACKET: CUTTING DOWN TOP & BOTTOM RAILS

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- Reference pages 10 & 11 for rail cutting steps.

## ANGLE BRACKET: BALUSTER INSTALLATION

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- Reference Baluster installation instructions on pages 11 - 14.

## ANGLE BRACKET: BRACKET CAP, PRESSED DOME/BALL CAP & POST BASE COVER INSTALLATION

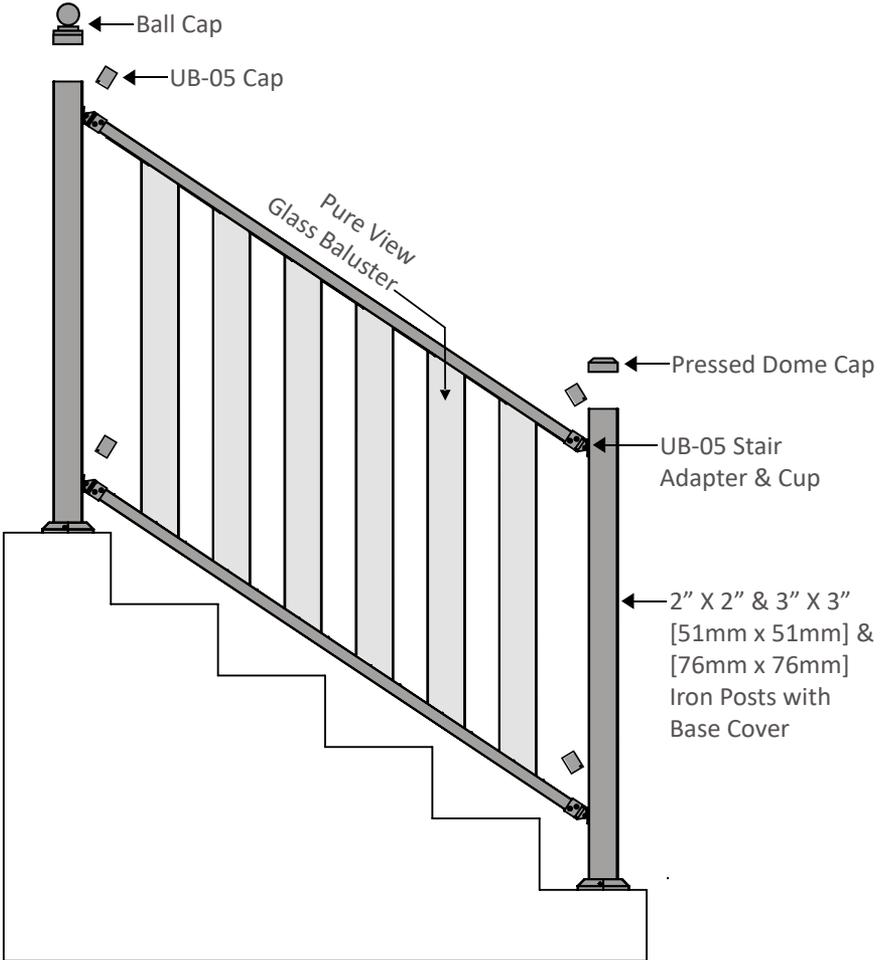
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- Reference Bracket Cap, Pressed Dome/Ball Cap & Post Base Cover installation instructions on pages 14 - 16.

# STAIR BRACKET

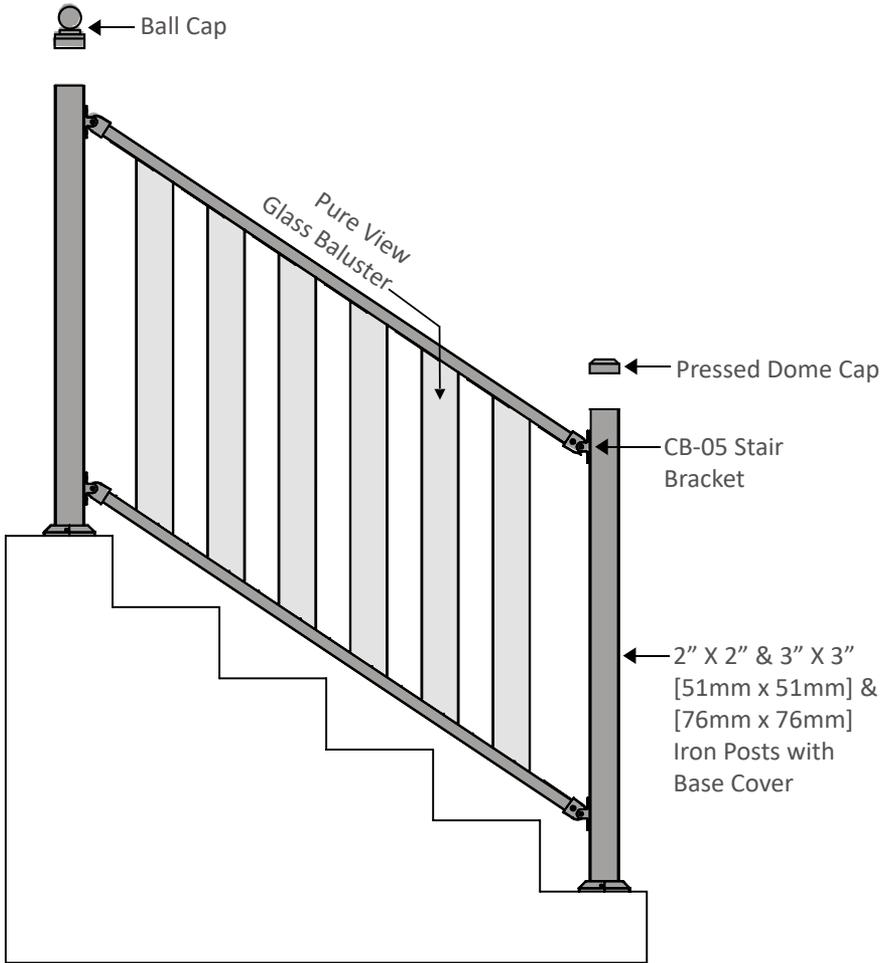
## Pure View: Fe<sup>26</sup> Glass Baluster Stair Bracket Installation Options

### Universal Bracket (UB) Stair Adapter



- Pure View Pre-slotted Rails for 6' [1829mm] stair sections (actual length 69-1/2" [1765mm])
- Available Heights 34" (864mm) and 40" (1016mm)
- Adjustable Range from 31° to 37°

## Collar Bracket (CB) Stair



- Pure View Pre-slotted Rails for 6' [1829mm] stair sections (actual length 69-1/2" [1765mm])
- Available Heights 34" (864mm) and 40" (1016mm)
- Adjustable Range from 31° to 37°

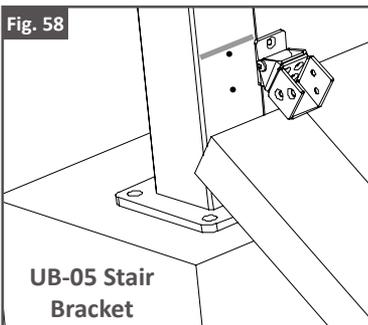
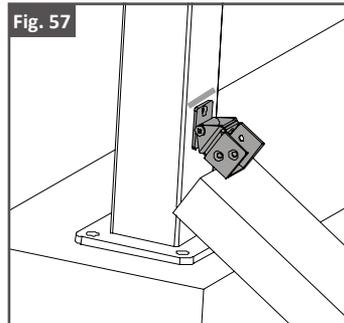
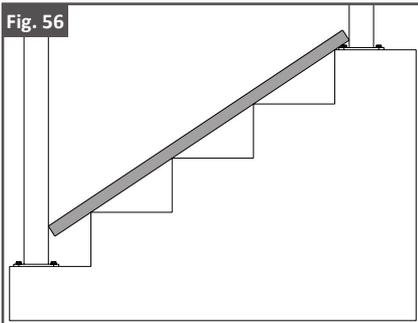
## STAIR BRACKET: BRACKET INSTALLATION

### Step 1: Bottom Bracket Installation (UB or CB)

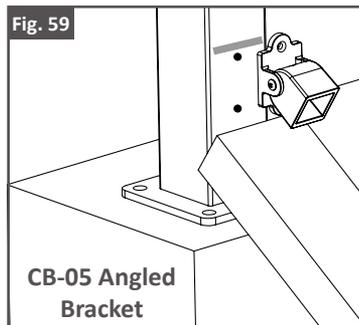
1. Position wood 2" x 4" [60mm x 101.5mm] between posts. As shown in Fig. 56.
2. Position bottom UB or CB bracket centered flat on post & wood 2" x 4" [60mm x 102mm]. Use pencil to mark top edge of bracket location on post. As shown in Fig. 57.
3. Place UB or CB bracket base on previous top edge mark. Center the base on the post and use pencil to add marks for two screw hole locations. As shown in Fig. 58 & 59.
4. Dis-assemble the bracket by removing the barrel and screw.

#### Note:

- For best results, be sure bracket base is centered on post when making marks.



UB-05 Stair  
Bracket



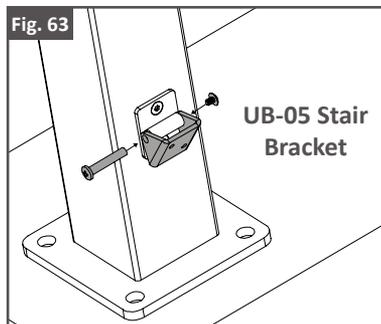
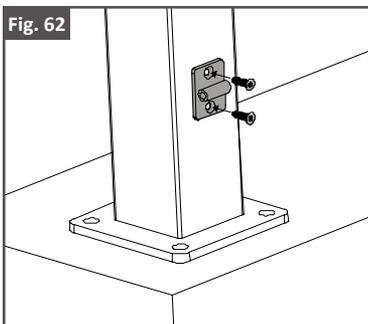
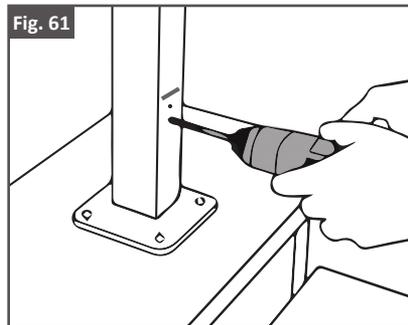
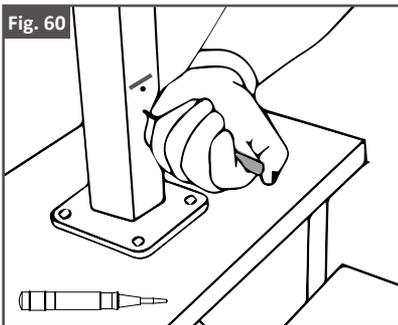
CB-05 Angled  
Bracket

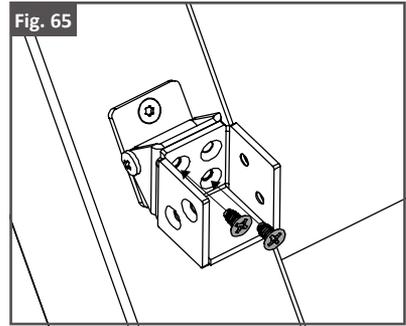
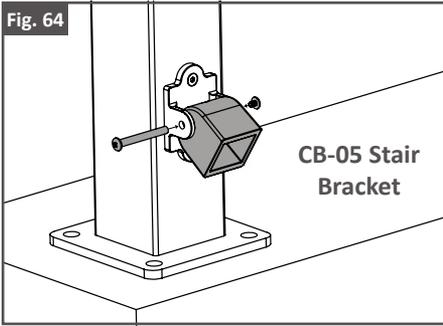
## Step 2: Bottom Bracket Installation Continued (UB or CB)

1. Use Spring Punch to mark the holes. As shown in Fig. 60.
2. Drill out bracket hole with a 3/16" [5mm] drill bit. As shown in Fig. 61.
3. Use T-25 screws to attach the UB or CB base to the post. Begin with top hole then bottom. As shown in Fig. 62.
4. Keep bracket base centered as you install second screw.
5. Insert barrel & screw to re-assemble bracket.
6. Tighten barrel & screw. As shown in Fig. 63 & 64.
7. Use T-25 screws to attach UB-05 Bracket to UB-05 Adapter. As shown in Fig. 65.

### Note:

- Lower Post may need to be unmounted to install bracket then remounted.





### Step 3: Top Bracket Installation (UB or CB)

1. Position wood 2" x 4" [60mm x 102mm] on stairs in line with bottom brackets.
2. Place bottom rail on top of wood 2" x 4" [60mm x 102mm] next to bottom brackets. As shown in Fig. 66.
3. Have bottom rail positioned as close to final installation position as possible.
4. Add two balusters to the bottom rail, add top rail, then clamp panel to post. As shown in Fig. 67.
5. Position UB or CB bracket parallel with top rail & flat centered on post.  
**Make sure inside bottom of bracket is flush with bottom of rail. As shown in Fig. 68.**
6. Use pencil to mark top edge of bracket location on post.
7. Dis-assemble the UB or CB bracket by removing the barrel and screw. As shown in Fig. 69 & 70.
8. Place UB or CB Bracket Base on previous top edge mark. Center the base on the post and use pencil to add marks for two screw hole locations. As shown in Fig. 71.

#### Note:

- **For best results, be sure bracket bases are centered on posts when making marks.**

Fig. 66

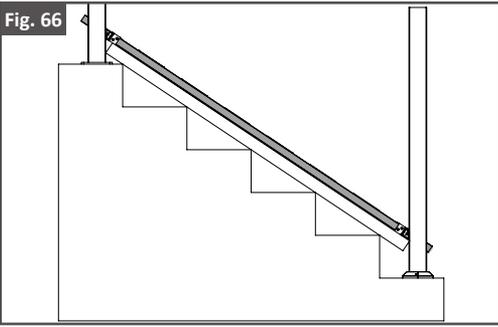


Fig. 67

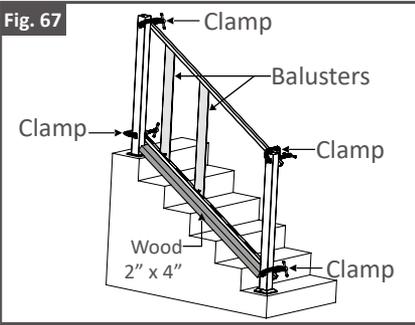


Fig. 67

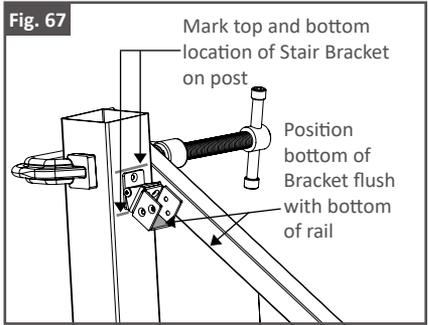


Fig. 69 Universal Bracket (UB) Stair Adapter

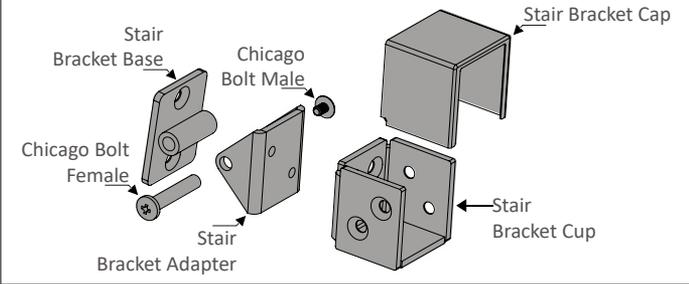


Fig. 70 Collar Bracket (CB) Stair

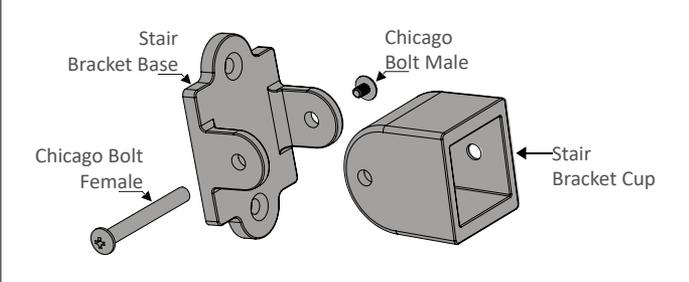
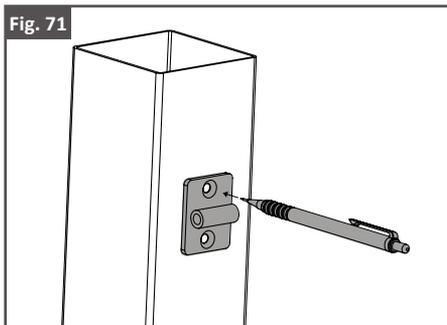


Fig. 71



#### Step 4: Top Bracket Installation Continued (UB or CB)

1. Use Spring Punch to mark the holes. As shown in Fig. 72.
2. Drill out holes with a 3/16" [5mm] drill bit. As shown in Fig. 73.
3. Use T-25 screws to attach the UB or CB base to the post. Begin with top hole then bottom. As shown in Fig. 74.
4. Keep bracket base centered as you install second screw.
5. Insert barrel & screw to re-assemble bracket.
6. Tighten barrel & screw. As shown in Fig. 75 & 76.
7. Use T-25 screws to attach UB Bracket to UB Adapter. As shown in Fig. 77.

Fig. 72

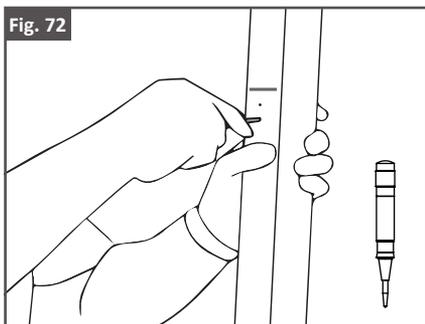


Fig. 73

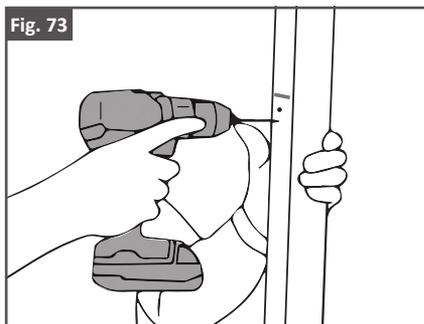


Fig. 74

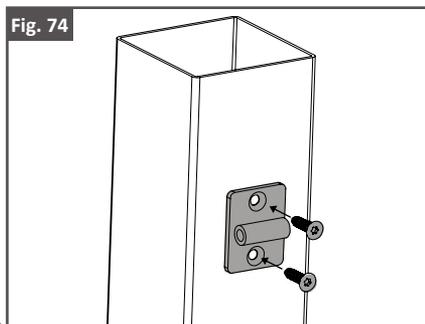
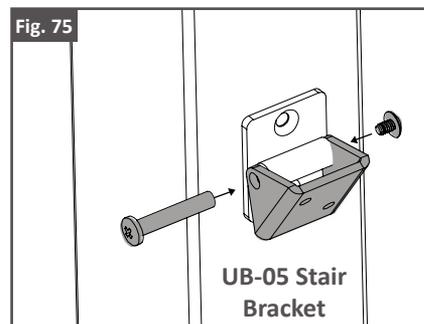
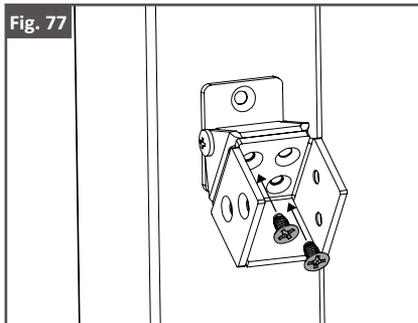
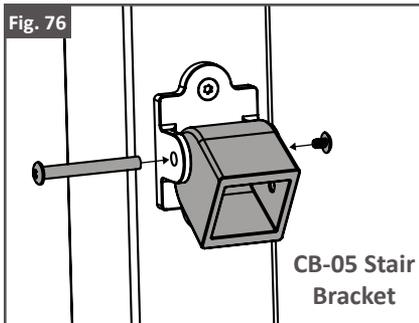


Fig. 75





## STAIR BRACKET: POST MOUNTING

- Reference Post Mounting instructions on page 5.

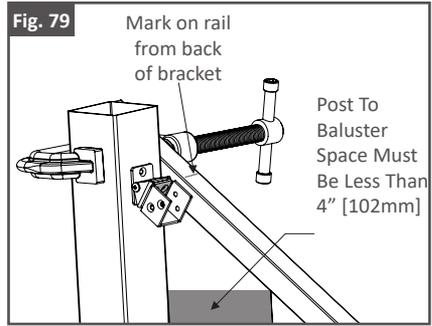
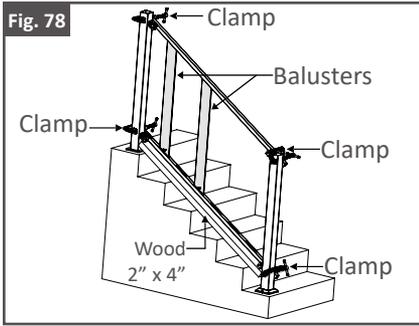
### Note:

IT'S RECOMMENDED TO INSTALL BRACKETS ON TO POST BEFORE POST MOUNTING.

## STAIR BRACKET: CUTTING DOWN TOP & BOTTOM RAILS

### Step 1: Measure & Mark Rails Where Cuts Will Be Made

1. Position wood 2" x 4" [60mm x 102mm] on stairs in line with bottom brackets.
2. Place bottom rail on top of wood 2" x 4" [60mm x 102mm] next to bottom brackets.
3. Have bottom rail positioned as close to final installation position as possible.
4. Add two balusters to the bottom rail, add top rail then clamp panel to post. As shown in Fig. 78.
5. Measure spacing from inside edge of post to the baluster space. Spacing **CANNOT** exceed 4" [102mm] on each end. As shown in Fig. 79.
6. Place cut marking on rails in line with the back of bracket opening. Be sure bottom of bracket and bottom of rail are flush. As shown in Fig. 79.
7. Use speed square to ensure markings are perpendicular to panel.

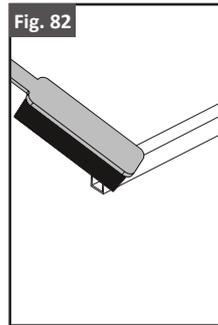
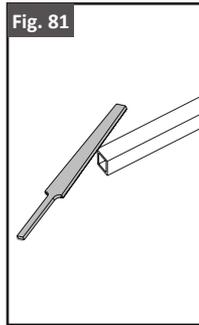
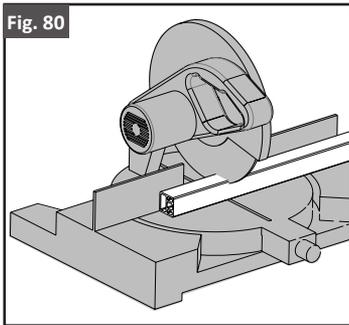


## Step 2: Cut & Clean Rails

1. Cut rails using a saw with a ferrous metal cutting blade.
2. Use file to smooth cut edges.
3. Remove any metal shavings and dust with a brush or rag.
4. Make sure surfaces to be painted are clean.

### Note:

- Be sure not to cut Grommets in rails.

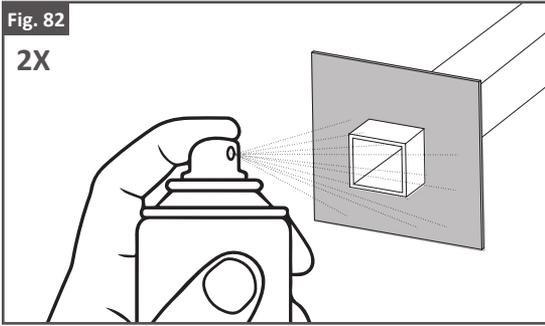


## Step 3: Apply Spray Paint To Cut Areas

1. Using a piece of cardboard as a mask, apply the 1<sup>st</sup> coat of Fortress zinc based touch-up paint.
2. Allow to dry before applying second coat.
3. Apply the 2nd coat of Fortress zinc based touch-up paint.
4. Allow to dry and install.

Fig. 82

2X



## STAIR BRACKET: BALUSTER INSTALLATION

### Step 1: Install Bottom Rail

1. Install cut bottom rail into the lower installed brackets. As shown in Fig. 83.
2. Pre-drill Bracket Cup holes for screws using a 3/16" [5mm] drill bit.
3. Secure rail to Bracket Cups with provided T-25 Drive Thread-Cutting Screws. Use low speed setting on drill. As shown in Fig. 84.

#### Note:

- Only one screw is needed to attached each bracket to the rail.

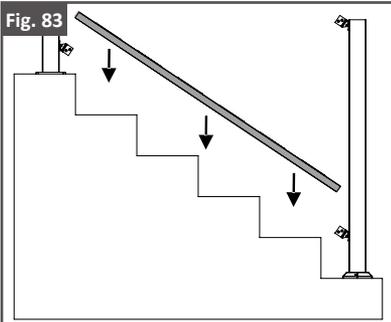


Fig. 83

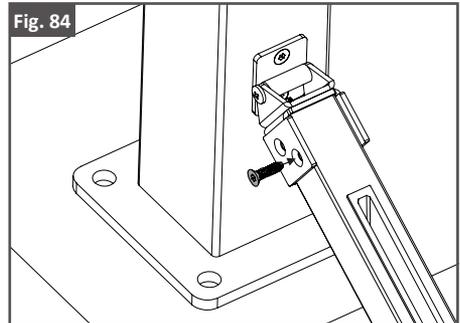


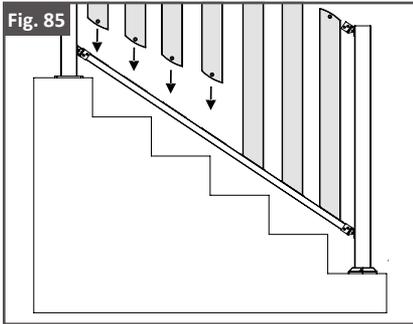
Fig. 84

### Step 2: Install Balusters Into Bottom Rail

1. Carefully slip Balusters vertically into each slot of the bottom rail. Holes in balusters should not be visible after insertion of baluster into rail. As shown in Fig. 85.

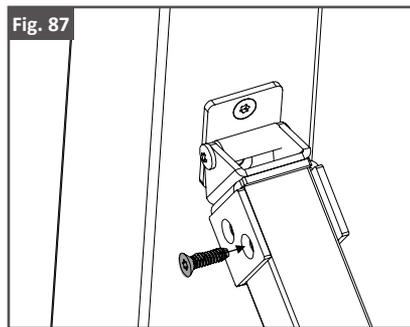
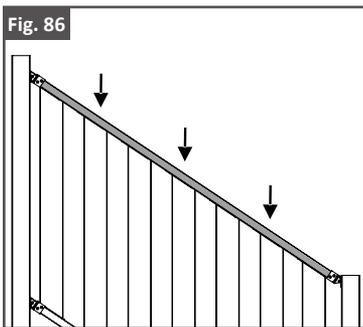
**Tip:**

- Be sure to wear safety gloves and goggles when handling Glass.



**Step 3: Install Top Rail**

1. Carefully slip Top Rail over the top of the Balusters into the top Bracket Cups.
2. A Rubber Mallet might be needed to complete installation. If using a Rubber Mallet, use a cloth to protect the Top Rail Cap and Top Rail Cap Spacer from damage.
3. Pre-drill Bracket Cup holes for screws using a 3/16" [5mm] drill bit.
4. Secure top rail to Bracket Cups with provided T-25 Drive Thread-Cutting Screws. Use low speed setting on drill.



**STAIR BRACKET: BRACKET CAP, PRESSED DOME/BALL CAP & POST BASE COVER INSTALLATION**

- Reference Bracket Cap, Post Cap & Post Base Cover installation instructions on pages 14 - 16.

## CARE & MAINTENANCE

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### Care And Maintenance Of Fortress Building Products Powder-Coated Products And Surfaces:

- After installation of your Fortress Building Product, clean powder-coated products and surfaces with a solution of warm water and non-abrasive, pH neutral detergent solution. Surfaces should be thoroughly rinsed after cleaning to remove all residues. All surfaces should be cleaned using a soft cloth or sponge. Examples of acceptable cleaners are Simple Green, dish soap and warm water.
- Ensure construction materials such as concrete, plaster, and paint splashes are removed immediately before they have a chance to dry. Failure to remove these materials may cause damage to the powder-coated surfaces.
- The frequency of cleaning depends in part on the standard of appearance and also the requirements to remove deposits that may cause damage to the powder coating after prolonged exposure. Fortress recommends cleaning in three to four monthly intervals all products and powder-coated surfaces. In areas where higher traffic, increased atmospheric substances, or other effects may occur, the time period between cleanings should be increased to monthly intervals.
- **WARNING: DO NOT use strong solvents such as thinners, or solutions containing chlorinated hydrocarbons, esters, or ketones. Abrasive cleaners or cutting compounds should not be used.**

## WARRANTY

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To obtain and review a copy of the warranty, please go to: <https://Fortressbp.com/warranties>. You can also contact: (844) 909-1999 or write to: Fortress Building Products Warranty, 1720 N 1st St, Garland, TX 75040 to obtain a copy of the warranty.



**JOIN THE REVOLUTION.**

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