

# fiberon® CitySide

## Aluminum Rail Installation with Balusters

**NOTE:** These instructions are applicable to each rail profile and SKU numbers listed below:



### TRADITIONAL

- 12296
- 12300
- 12298
- 12302



### CONTEMPORARY

- 13875
- 13887
- 13877
- 13886

### PRIOR TO INSTALLING:

Please consult local zoning laws in regards to load requirements, overall height requirements and bottom space requirements for rails. All supporting structures must be in accordance with applicable building codes. Neighborhood associations and / or historic districts may regulate size, placement and type of railing. Apply for permits if required by local authorities and codes. Ensure compliance prior to installation. Local building code requirements will always supersede any and all suggested procedures and measurements in the following installation. The following installation instructions are intended as a general guideline based on common building practices used in railing installation.

### TOOLS REQUIRED

- Power drill
- 1/8 in. drill bit (for optional pilot hole pre-drilling)
- 1/4 in. drill bit
- Snips or saw (for cutting plastic spacer clips)
- Tape measure
- Plumb bob or level
- Saw for cutting aluminum
- Screwdriver or power drill for T25 Torx screws (bit included)
- Safety glasses
- Wrench or ratchet (for post fasteners)
- Pencil
- Optional urethane caulk for high salt water content areas
- Optional PVC adhesive for baseplate cover
- Hearing protection (for saw)

### 6 FT. SECTION CONTENTS

- 6 ft. Top Rail
- 6 ft. Bottom Rail
- Crush Block
- (15) 5/8 in. Balusters
- (18) Spacer Clips
- (12) #10 x 3/4 in. Torx Screws (bit included)
- Instruction Sheet

### 8 FT. SECTION CONTENTS

- 8 ft. Top Rail
- 8 ft. Bottom Rail
- (2) Crush Blocks
- (20) 5/8 in. Balusters
- (23) Spacer Clips
- (12) #10 x 3/4 in. Torx Screws (bit included)
- Instruction Sheet

### TIPS

The most recent installation instructions can be found on our website. Please visit [fiberondecking.com](http://fiberondecking.com) or call customer service at 800-573-8841.

## RAIL INSTALLATION

Step 1: Measure top rail and cut as needed.

For rail installation, make sure all posts are plumb for rail measurements and loosely tightened. Measure the distance between the posts (for accuracy, take measurement between both posts near the bottom). Ensure equal hole distance from each side to end of top rail (Figure 2). Subtract 5/8 in. from the total measurement, and cut the top rail (Figure 1). There should be a 5/16 in. space between each end of the cut rail and the upright post (Figure 2).

NOTE: Do not fully tighten posts until all rails are installed.

NOTE: If posts are 69-1/2 in. from end to end, cutting may not be needed on 6 ft. rails.

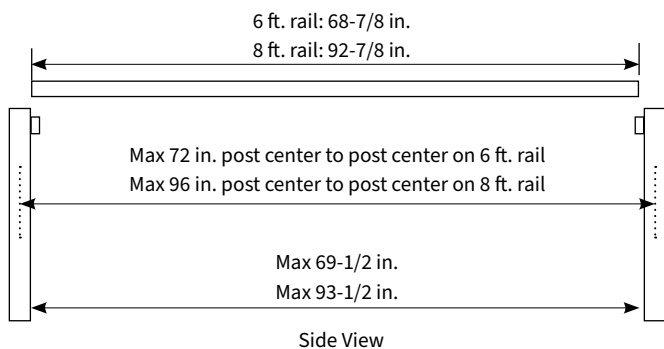


Figure 1

Same hole spacing as other end, minimum 1-1/2 in.

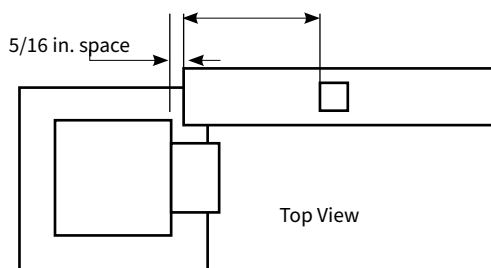


Figure 2

Step 2: Measure bottom rail and cut as needed.

Before cutting the bottom rail, center it along the cut top rail to ensure equal hole distance from each side to end of top rail (Figure 2 and 3). Mark the top of the bottom rail at each end in line with the cut top rail. The length of the cut bottom rail will be the same length as the cut top rail.

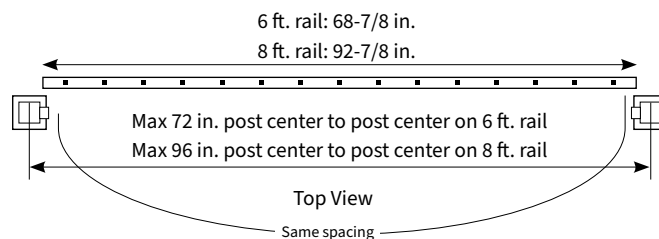


Figure 3

Step 3: Loosen post fasteners.

Loosen the posts to allow rail installation, leaving the post fastener heads approximately 1 in. above the baseplate (Figure 4).

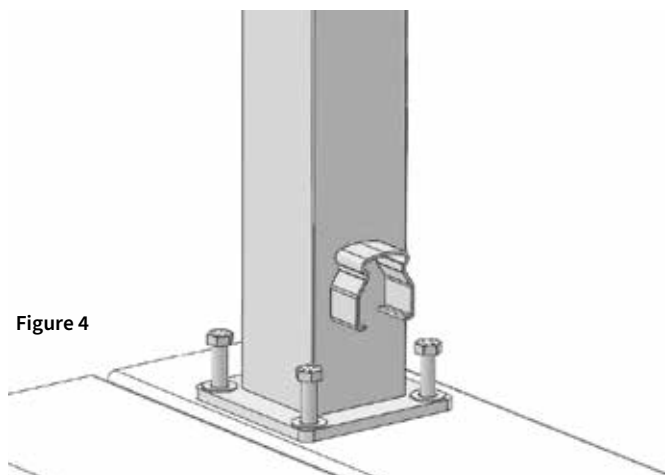


Figure 4

## RAIL INSTALLATION (CONTINUED)

Step 4: Fit rails to post.

Tilt the posts to allow the bottom rail to fit into the bottom post brackets (Figure 5). Do the same for the top rail. Repeat steps 2-4 for all remaining rail sections before continuing to step 5.

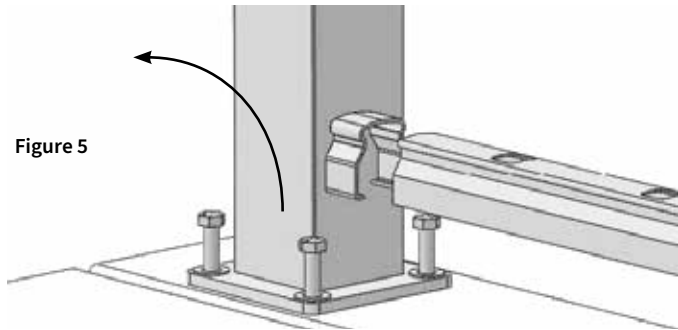


Figure 5

Step 5: Tighten posts and fasten rails.

After top and bottom rails for all rail sections are fitted into the post brackets, plumb and tighten the posts.

Using the two pre-drilled holes under the top post bracket, fasten the top rails to the top post bracket with two #10 x 3/4 in. screws (Figure 6).

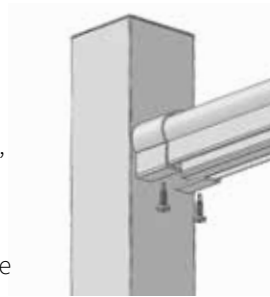


Figure 6

Optional: Using the end caps as a template, pre-drill holes into the top rail with a 1/8 in. drill bit.

Fasten bottom rails through the middle of the perpendicular sides of the bottom post bracket with two #10 x 3/4 in. screws (Figure 7).

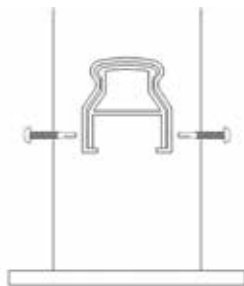


Figure 7

Optional: Pre-drill the holes with a 1/8 in. drill bit.

Step 6: Fasten bottom rail crush block.

Position the bottom rail crush block under the center of the bottom rail. Fasten bottom rail crush block to the bottom rail with one #10 x 3/4 in. screw (Figure 8).

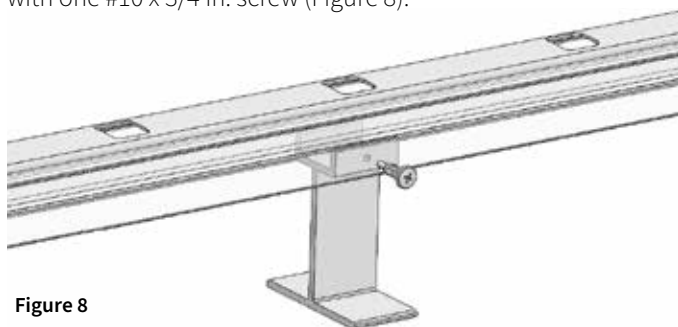


Figure 8

Step 7: Drill drain holes in bottom rail.

Drill three 1/4 in. drain holes from open holes in the top of the bottom rail through the underside of the bottom rail (Figure 9).

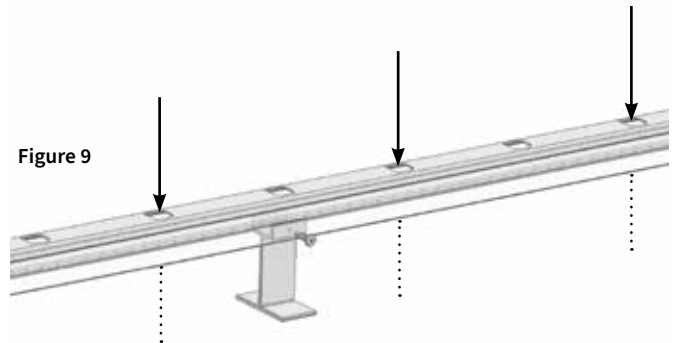


Figure 9

Step 8: Install rail balusters.

Starting at one end of the rail, install one baluster into the bottom rail so it is plumb with the post. Measure the opening size for the first spacer clip, cut and install into the underside of the top rail (Figure 10). Continue adding a baluster then a spacer clip, working to other end, until four holes are left (Figure 11). Insert the final four balusters as a group, then spread them out and secure with spacer clips. Measure the last opening, then measure, cut and install the final spacer clip.

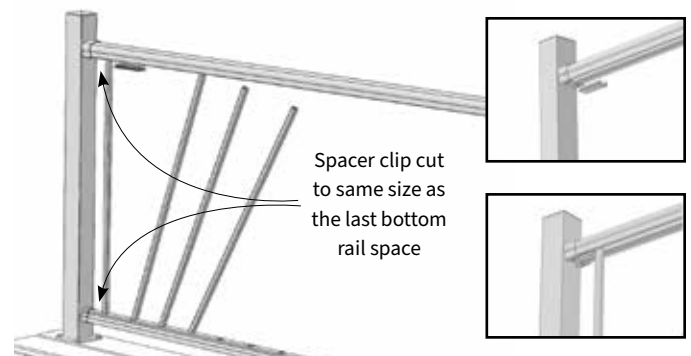


Figure 10

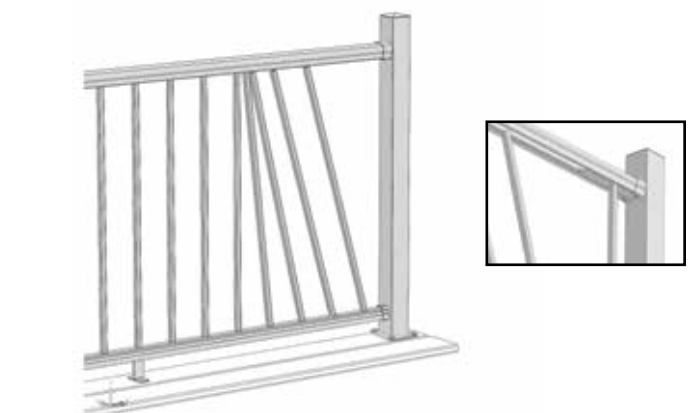


Figure 11

## RAIL INSTALLATION (CONTINUED)

Step 9: Attach post baseplate cover.

After the top and bottom rails and / or stairs have been installed, position both halves of the baseplate cover on either side of the post above the baseplate and below the bottom rail. Align the locking pins on one half to the matching holes on the other half and slide together. Optional: Apply PVC adhesive to the locking pins prior to sliding halves together for a secure fit (Figure 12).

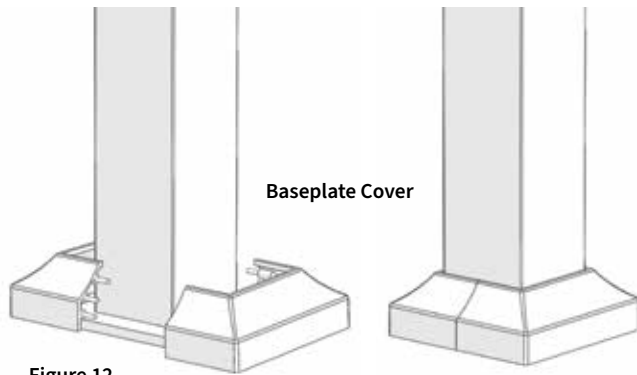
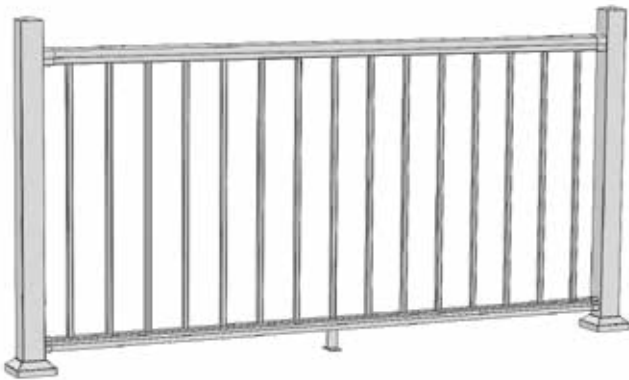


Figure 12



# fiberon® CitySide

## Aluminum Rail Installation with Composite Post Sleeves

**NOTE:** These instructions are applicable to each rail profile and SKU numbers listed below:



### TRADITIONAL

- 12296
- 12300
- 12298
- 12302
- 10101



### CONTEMPORARY

- 13875
- 13887
- 13877
- 13886
- 13878

### PRIOR TO INSTALLING:

Please consult local zoning laws in regards to load requirements, overall height requirements and bottom space requirements for rails. All supporting structures must be in accordance with applicable building codes. Neighborhood associations and / or historic districts may regulate size, placement and type of railing. Apply for permits if required by local authorities and codes. Ensure compliance prior to installation. Local building code requirements will always supersede any and all suggested procedures and measurements in the following installation. The following installation instructions are intended as a general guideline based on common building practices used in railing installation.

### TOOLS REQUIRED

- Power drill
- 1/8 in. drill bit for (optional pilot hole pre-drilling)
- 1/4 in. drill bit
- Tape measure
- Plumb bob or level
- Saw for cutting aluminum
- Screwdriver or power drill for T25 Torx screws
- Wrench or ratchet (for post fasteners)
- Safety glasses
- Pencil
- Speed Square

### STAIR/ANGLE BRACKET KIT CONTENTS

- Top Rail Bracket
- Bottom Rail Bracket
- (4) #10 x 3/4 in. Torx Screws
- (4) #12 x 2 in. pan head Torx Screws (for wood post)
- Instruction Sheet

### 6 FT. RAIL SECTION CONTENTS

- 6 ft. Top Rail
- 6 ft. Bottom Rail
- Crush Block
- (15) 5/8 in. Balusters
- (18) Spacer Clips
- (12) #10 x 3/4 in. Torx Screws (bit included)
- Instruction Sheet

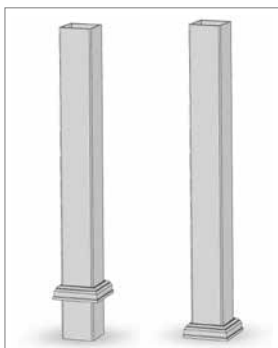
### 8 FT. RAIL SECTION CONTENTS

- 8 ft. Top Rail
- 8 ft. Bottom Rail
- (2) Crush Blocks
- (20) 5/8 in. Balusters
- (23) Spacer Clips
- (12) #10 x 3/4 in. Torx Screws (bit included)
- Instruction Sheet

**TIPS** The most recent installation instructions can be found on our website. Please visit [fiberondecking.com](http://fiberondecking.com) or call customer service at 800-573-8841.

**NOTE:** Make sure posts are plumb and level prior to installing the railing.

Cover 4 x 4 posts or Fiberon® surface mount bracket with 5 x 5 Fiberon composite post sleeve and verify spacing. Posts should be plumb in both directions. Place post sleeve base moulding over post sleeve and slide it down to the deck surface.



## RAIL ON COMPOSITE POST INSTALLATION

### Step 1: Install bottom angle / stair rail bracket.

Measure up 2-3/16 in. from the deck surface and mark this location with a pencil onto the post (Figure 1). Locate the bottom rail bracket against the post, aligning the BOTTOM of the bracket with the 2-3/16 in. marked line. Take care to ensure the bracket is centered on the post. Mark the center of the two mounting holes located inside the bracket against the post.

Pre-drill the marked holes with a 1/8 in. drill bit. Locate the bracket over the pre-drilled mounting holes, and install two #12 x 2 in. screws through the bracket and post sleeve and into the wood post. Do not overtighten screws.

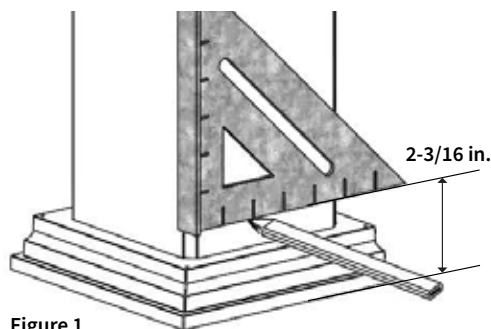


Figure 1

### Step 2: Install top angle / stair rail bracket.

Measure up 33-15/16 in., for 36 in. rail height, or 39-15/16 in., for 42 in. rail height, from the deck surface and make a horizontal line with a pencil onto the post (Figure 2). Locate the top rail bracket against the post, aligning the BOTTOM of the bracket with the marked line. Take care to ensure the bracket is centered on the post. Mark the center of the two mounting holes located inside the bracket against the post.

Pre-drill the marked holes with a 1/8 in. drill bit. Locate the bracket over the pre-drilled mounting holes, and install two #12 x 2 in. screws through the bracket and into the wood post. Do not overtighten screws.

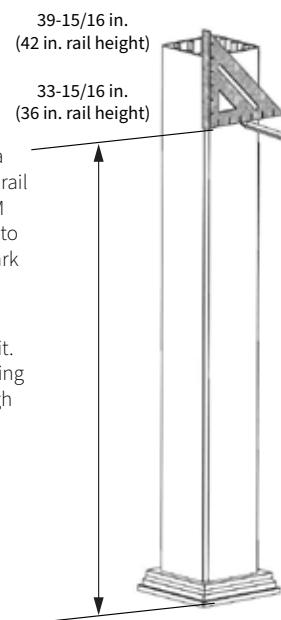


Figure 2

### Step 3: Cut top and bottom rails.

Measure between brackets and add 1-3/8 in. (11/16 in. per side) to this measurement for inserting the rail ends. Cut top rail to length. Before cutting the bottom rail to the same length as the top rail, make sure the hole pattern is centered with the pre-cut baluster hole an equal distance from each end.

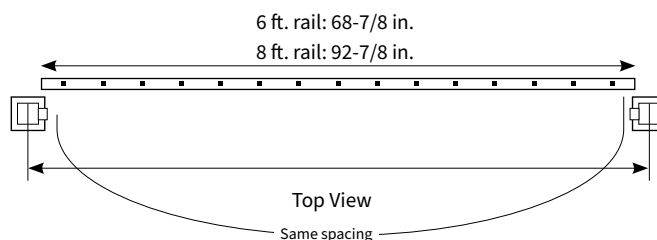
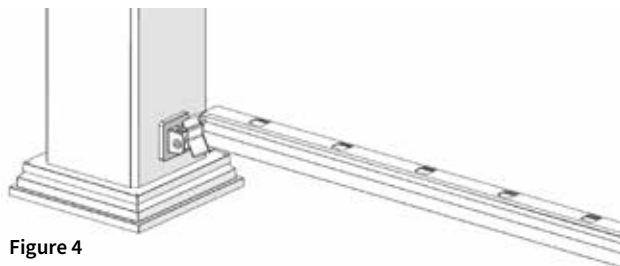


Figure 3

**Step 4: Install bottom rail into stair / angle brackets.**

Loosen the side screws locking the bracket end caps in place, and position the cut bottom rail inside them (Figure 4).

NOTE: It may be necessary to remove one or both bracket end caps completely. With the bottom rail in place, install the top rail into the top bracket end caps following the same methods as the bottom rail.

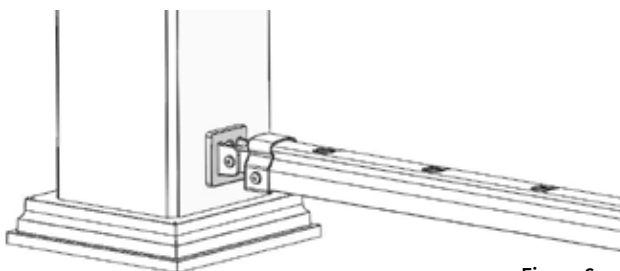
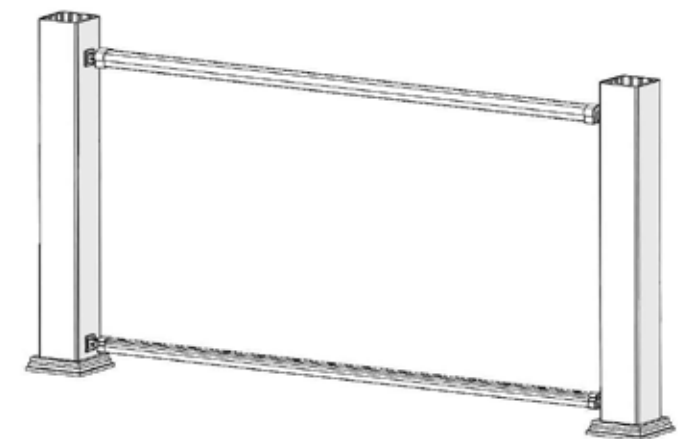
**Figure 4****Step 5: Fasten rails.**

Using the two pre-drilled holes under the top post bracket, fasten the top rail to the top post bracket end caps with two #10 x 3/4 in. screws (Figure 5).

Optional: Using the end caps as a template, pre-drill holes into the top rail with a 1/8 in. drill bit..

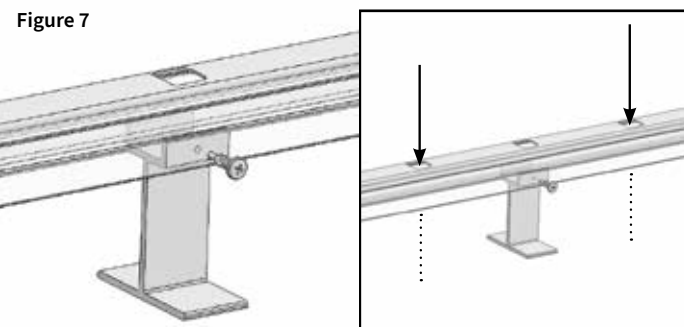
Fasten bottom rail through the middle of the perpendicular sides of the bottom post bracket end caps with two #10 x 3/4 in. screws (Figure 6).

Optional: Pre-drill the holes with a 1/8 in. drill bit.

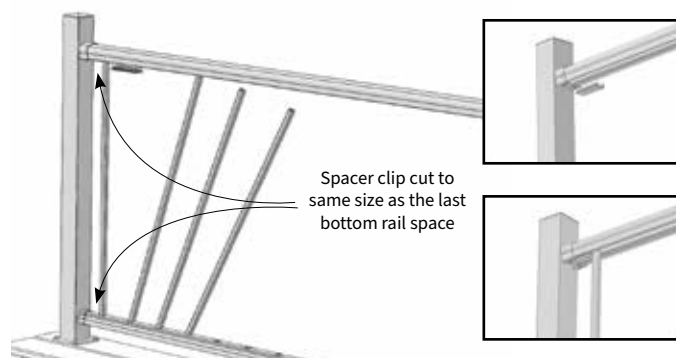
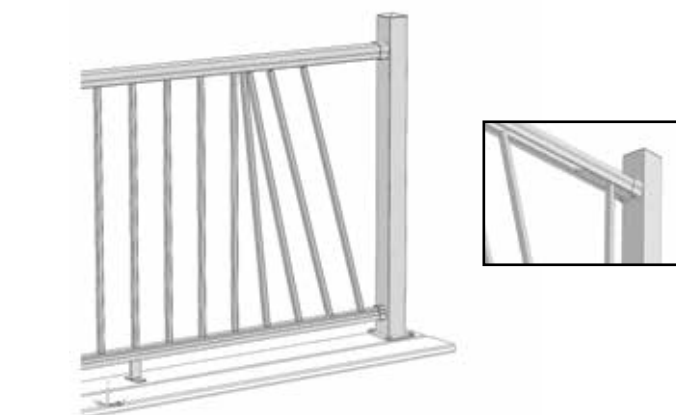
**Figure 5****Figure 6****Step 6: Fasten bottom rail crush block.**

Position the bottom rail crush block under the center of the bottom rail. Fasten bottom rail crush block to the bottom rail with one #10 x 3/4 in. screw. Drill three 1/4 in. drain holes from open holes in the top of the bottom rail through the underside of the bottom rail (Figure 7).

NOTE: Two crush blocks are required with guardrails over 6 ft. in length. Secure crush blocks at approximate 1/3 points of the bottom rail. Fasten bottom rail crush blocks to the bottom rail with one #10 x 3/4 in. screw per crush block.

**Figure 7****Step 7: Install rail balusters.**

Starting at one end of the rail, install one baluster into the bottom rail so it is plumb with the post. Measure the opening size for the first spacer clip, cut and install into the underside of the top rail (Figure 8). Continue adding a baluster then a spacer clip, working to other end, until four holes are left (Figure 9). Insert the final four balusters as a group, then spread them out and secure with spacer clips. Measure the last opening, then measure, cut and install the final spacer clip.

**Figure 8****Figure 9**

# fiberon® CitySide

## Aluminum Stair Installation with Balusters

**NOTE:** These instructions are applicable to each rail profile and SKU numbers listed below:



### TRADITIONAL

- 12297
- 12301
- 12299
- 10101



### CONTEMPORARY

- 13884
- 13873
- 13880
- 13878

### PRIOR TO INSTALLING:

Please consult local zoning laws in regards to load requirements, overall height requirements, and bottom space requirements for rails. All supporting structures must be in accordance with applicable building codes. Neighborhood associations and / or historic districts may regulate size, placement and type of railing. Apply for permits if required by local authorities and codes. Ensure compliance prior to installation. Local building code requirements will always supersede any and all suggested procedures and measurements in the following installation. The following installation instructions are intended as a general guideline based on common building practices used in railing installation.

### TOOLS REQUIRED

- Power drill
- 3/16 in. drill bit (for top rail installation)
- 1/8 in. drill bit (for optional pilot hole pre-drilling)
- Snips or saw (for cutting plastic spacer clips)
- Tape measure
- Plumb bob or level
- Saw for cutting aluminum
- Screwdriver or power drill for T25 Torx screws (bit included)
- Pencil
- Speed Square
- Safety glasses
- Wrench or ratchet (for post fasteners)
- Optional urethane caulk for high salt water content areas
- Optional PVC adhesive for baseplate cover
- Hearing protection (for saw)

**NOTE** If installing into a wood post, use two #12 x 2 in. pan head screws in Steps 2 and 3.

**TIPS** The most recent installation instructions can be found on our website. Please visit [fiberondecking.com](http://fiberondecking.com) or call customer service at 800-573-8841.

### 6 FT. SECTION CONTENTS

- 6 ft. Top Rail
- 6 ft. Bottom Rail
- Crush Block
- (12) 5/8 in. Balusters
- (15) Spacer Clips
- (12) #10 x 3/4 in. Torx Screws (bit included)
- Instruction Sheet

### 8 FT. SECTION CONTENTS

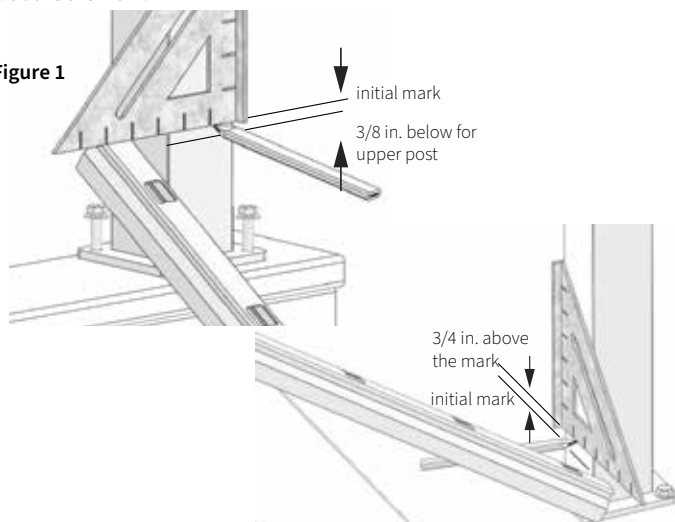
- 8 ft. Top Rail
- 8 ft. Bottom Rail
- (2) Crush Blocks
- (17) 5/8 in. Balusters
- (20) Spacer Clips
- (12) #10 x 3/4 in. Torx Screws (bit included)
- Instruction Sheet

## STAIR BRACKET INSTALLATION

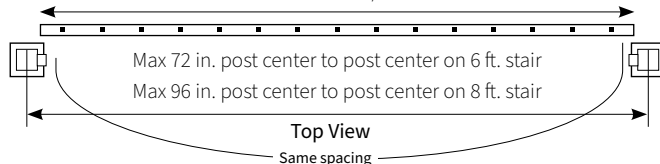
Step 1: Lay out stair posts and stair rails.

For stair installation, loosely mount the stair posts and set out the stair rails. To determine the stair bracket location, lay the bottom stair rail on top of the stairs / nosing and, using the top of the bottom stair rail as a guide, make an initial mark with a pencil onto the upper post and the lower post (Figure 1). From the mark you made on the UPPER post (the post at the top of the stairs), measure and draw a horizontal line 3/8 in. below the mark. From the mark you made on the LOWER post (the post at the bottom of the stairs), measure and draw a horizontal line 3/4 in. above the mark.

Figure 1



6 ft. stair: 68-7/8 in.  
8 ft. stair: 92-7/8 in.



Step 2: Install bottom stair bracket.

Locate the TOP edge of the backing plate for the bottom stair bracket along the lower horizontal line. Take care to ensure the backing plate is centered on the post, with the two mounting holes lined up on top of each other. Mark the center of the two mounting holes located inside the backing plate against the post (Figure 2).

Locate the backing plate over the marked mounting holes, and install two #10 x 3/4 in. screws through the backing plate and into the aluminum post (Figure 3). Do not overtighten screws.

**NOTE:** If installing into a wood post, use two #12 x 2 in. pan head screws. Pre-drill the marked holes with a 1/8 in. drill bit.

Slide the bottom rail end cap into the backing plate. Secure with two #10 x 1/2 in. screws through the backing plate holes and into the bottom rail cap's pre-drilled holes (Figure 4). A third #10 x 1/2 in. screw is supplied to fill the end cap's top pre-drilled hole, if so desired.

Figure 2

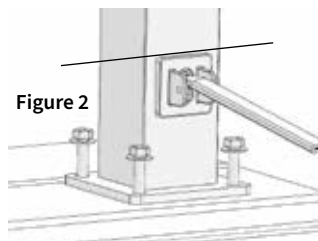


Figure 3

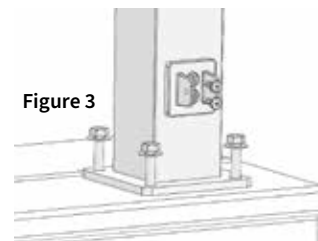
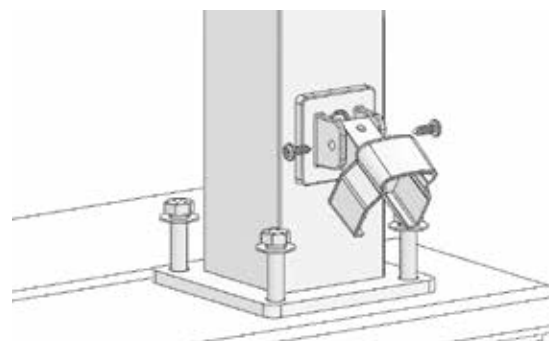


Figure 4



## STAIR INSTALLATION (CONTINUED)

### Step 3: Install top stair bracket.

Measure up 30-1/8 in., for 36 in. rail height, or 36-1/8 in., for 42 in. rail height, from the top of the installed bottom backing plate and make a horizontal line with a pencil onto the post (Figure 5). Locate the BOTTOM edge of the backing plate along the marked line. Take care to ensure the backing plate is centered on the post, with the two mounting holes lined up on top of each other. Mark the center of the two mounting holes located inside the backing plate against the post.

Locate the backing plate over the marked mounting holes, and install two #10 x 3/4 in. screws through the backing plate and into the aluminum post. Do not overtighten screws.

NOTE: If installing into a wood post, use two #12 x 2 in. pan head screws. Pre-drill the marked holes with a 1/8 in. drill bit.

Slide the top rail end cap into the backing plate. Secure with two #10 x 1/2 in. screws through the backing plate holes and into the top rail cap's pre-drilled holes (Figure 6). A third #10 x 1/2 in. screw is supplied to fill the end cap's top pre-drilled hole, if so desired.

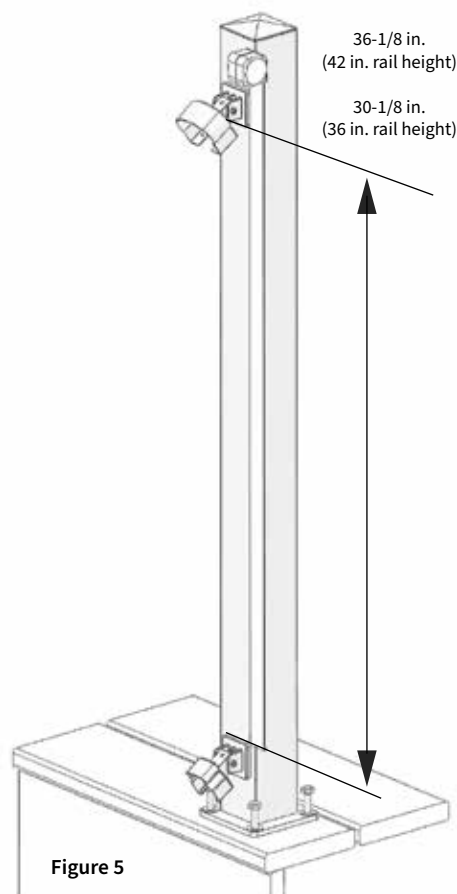


Figure 5

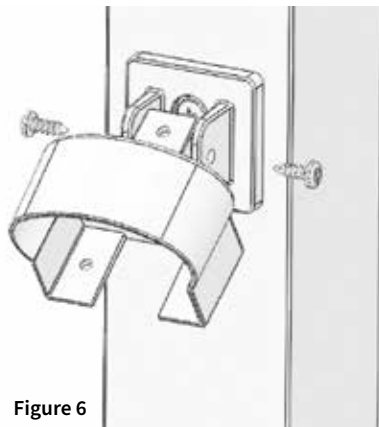


Figure 6

### Step 4: Cut top and bottom rails.

Following the stair angle and with posts held plum. Measure between brackets and add 1 3/8 in. (11/16 in. per side) to this measurement for inserting the rail ends. Cut top rail to length. Before cutting the bottom rail to the same length as the top rail, make sure the hole pattern is centered with the pre-cut baluster holes an equal distance from each end. Do not make cuts to match the stair angle; cut at 90 degree angle (Figure 7).

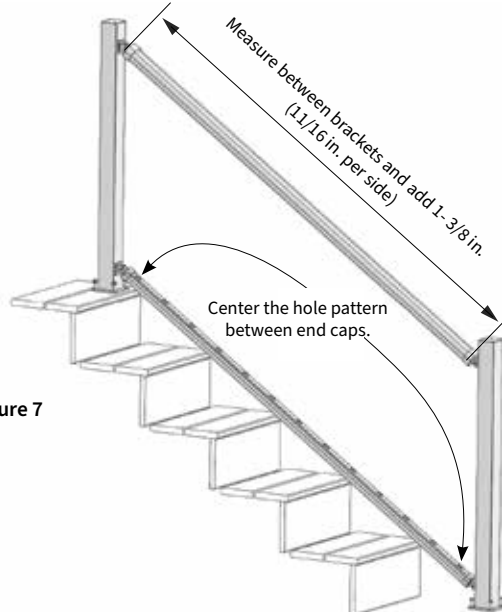


Figure 7

### Step 5: Install bottom and top rails into stair brackets.

Loosen posts to install bottom rail into bottom stair brackets (Figure 8). With bottom rail in place, install top rail into top stair brackets.. Plumb and tighten post. Secure stair rails with #10 x 3/4-in. screws (Figure 9).

Optional: Using the end caps as a template, pre-drill holes into the top rail with a 1/8 in. drill bit.

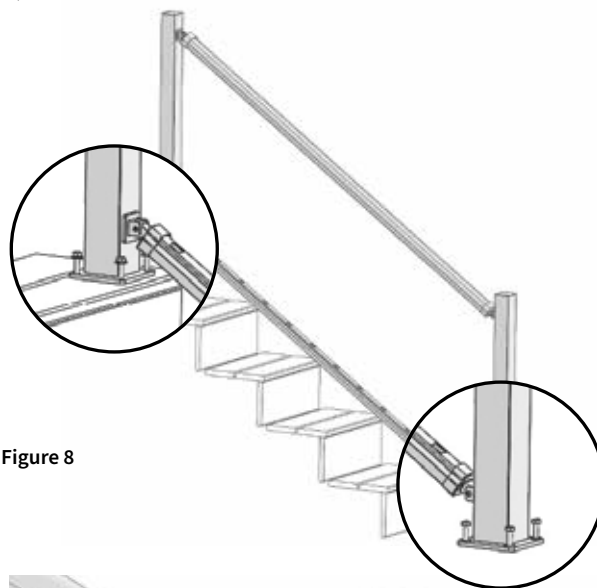


Figure 8

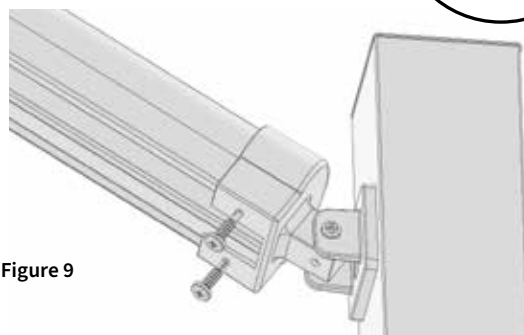


Figure 9

## STAIR INSTALLATION (CONTINUED)

### Step 6: Install stair balusters.

Starting from the bottom of the stairs, install one baluster into the bottom rail so it is plumb with the bottom post. Measure the opening size for the first spacer clip, cut it and install into underside of top rail (Figure 10). Continue adding a baluster then a spacer clip until you've installed the last baluster. Measure the last opening then measure, cut and install the last spacer clip (Figure 11).

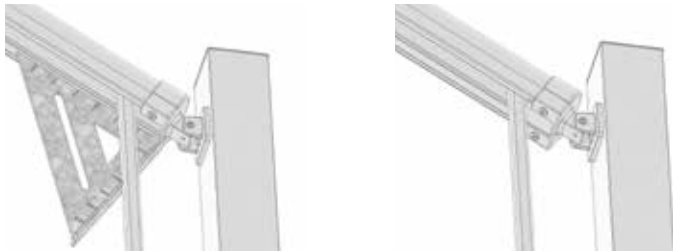


Figure 10

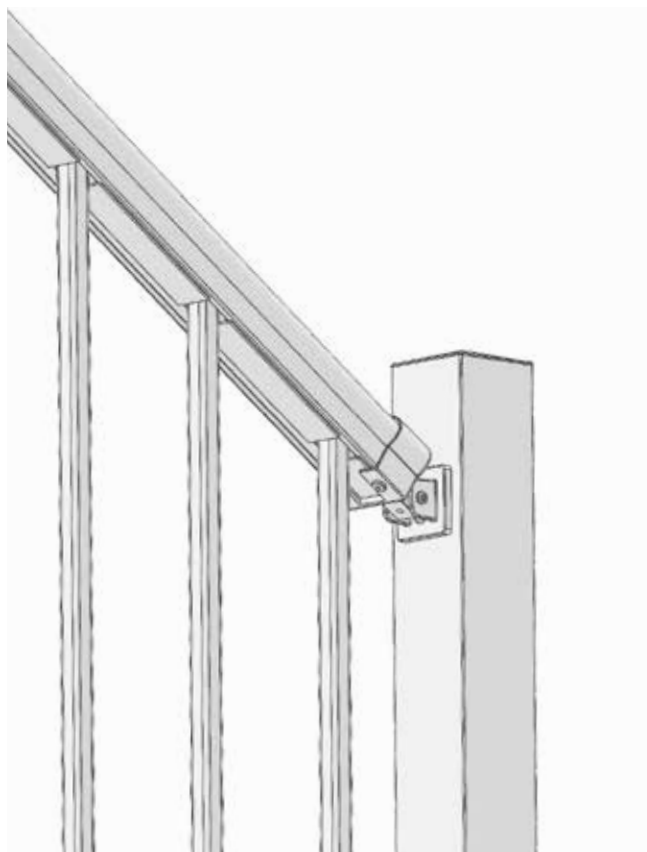


Figure 11

### Step 7: Fasten bottom rail crush block.

Fasten bottom rail crush block to the bottom rail with one #10 x 3/4 in. screw. The crush block needs to be installed as close to the mid-point of the rail length as possible.

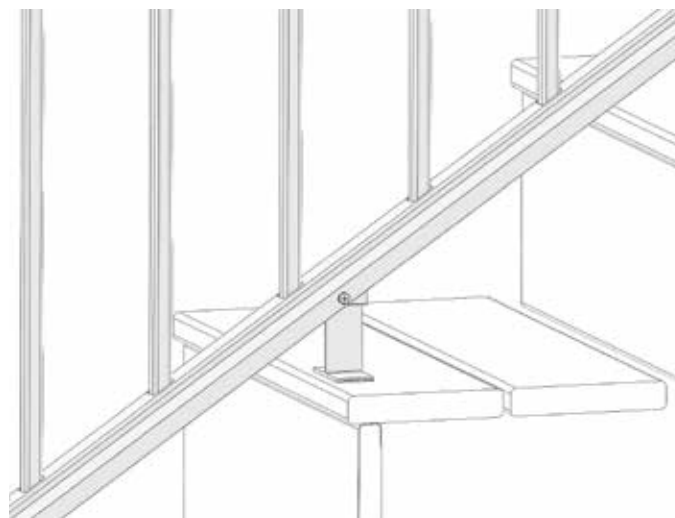


Figure 12

### Step 8: Attach post baseplate cover.

After the top and bottom rails and / or stairs have been installed, position both halves of the baseplate cover on either side of the post above the baseplate and below the bottom rail. Align the locking pins on one half to the matching holes on the other half and slide together.

Optional: Apply PVC adhesive to the locking pins prior to sliding halves together for a secure fit (Figure 13).

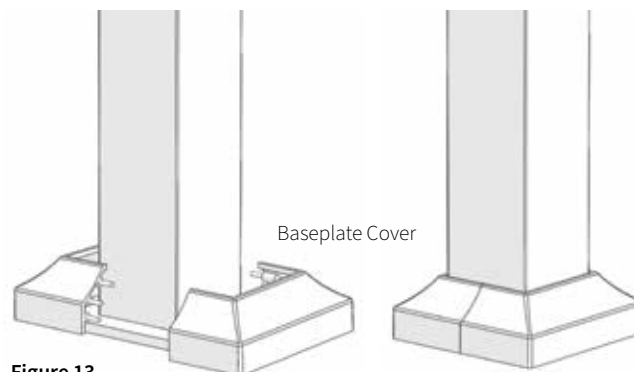
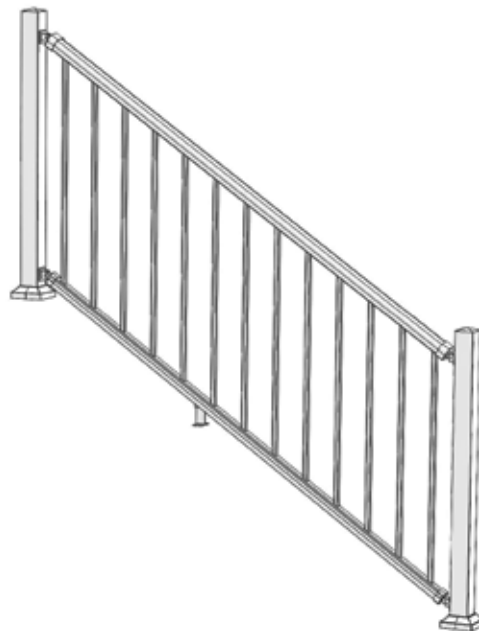


Figure 13





# CitySide

## Aluminum Post Installation

Creation Date: 06/23

**NOTE: These instructions are applicable to each rail profile and SKU numbers listed below:**



### TRADITIONAL

- 12168
- 12169
- 12170
- 12171
- 12172
- 12173



### CONTEMPORARY

- 13888
- 13883
- 13889
- 13874
- 13872
- 13882
- 10100

**NOTE:** 12174 and 12175 are compatible with both profiles.

### PRIOR TO INSTALLING:

Please consult local zoning laws in regards to load requirements, overall height requirements, and bottom space requirements for rails. All supporting structures must be in accordance with applicable building codes. Neighborhood associations and / or historic districts may regulate size, placement and type of railing. Apply for permits if required by local authorities and codes. Ensure compliance prior to installation. Local building code requirements will always supersede any and all suggested procedures and measurements in the following installation. The following installation instructions are intended as a general guideline based on common building practices used in railing installation.

### TOOLS REQUIRED

- Power drill
- 3/8 in. x 6 in. drill bit for installing to deck
- 1/4 in. x 4 in. masonry bit for installing to concrete
- Tape measure
- Plumb bob or level
- Safety glasses
- Wrench or socket (for post fasteners)
- Pencil or marker (for marking hole location)
- Optional PVC adhesive for baseplate cover

### CONTENTS

- Post
- Baseplate Cover
- Instruction Sheet

### TIPS

The most recent installation instructions can be found on our website. Please visit [fiberondecking.com](http://fiberondecking.com) or call customer service at 800-573-8841.

### NEED TO PURCHASE (PER POST)

#### For Wood Installation:

- (4) 5/16 in. - 18 x 6 in. Bolts Grade 5
- (4) 5/16 in. - 18 x 6 in. Hex Nuts Grade 5
- (4) 5/16 in. - Flat Washers, Small Series N
- (8) 5/16 in. - Fender Washers, Large 0.06 in. Thick, Stainless Steel

#### For Concrete Installation:

- (4) 1/4 in. x 3 in. Powers Wedge Bolts
- (4) 5/16 in. - Flat Washers, Small Series N

## POST INSTALLATION TO DECK

### Step 1: Position post on deck.

Locate posts at equal intervals along the outside of deck (up to 96 in. maximum on center for rails with balusters, up to 72 in. maximum on center for rails with glass), placing the edge of the baseplate 2 in. from the edge of the deck. If the deck edge has an overhang, add the overhang distance to the 2 in. (Figure 1).

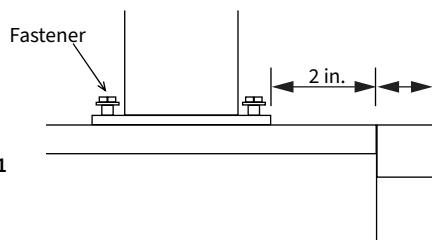


Figure 1

### Step 2: Mark post baseplate holes to be drilled.

Using the post baseplate as a template, mark the deck surface for drill locations for each of the four corner holes (Figure 2).

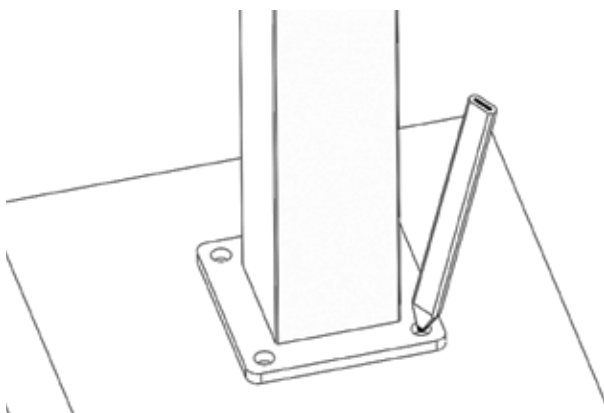
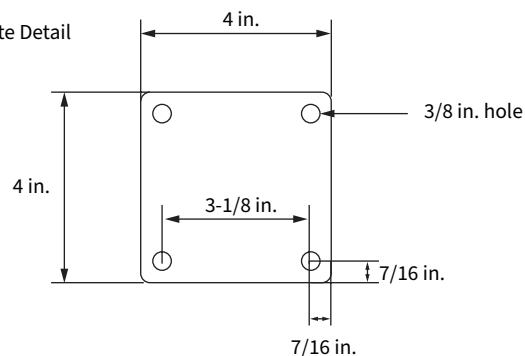


Figure 2

### Baseplate Detail



### Step 3: Drill baseplate holes through deck.

Ensure sufficient fasteners and wood reinforcement blocking are used for installation. A minimum of 4 in. of blocking depth is required. Using a 3/8 in. drill bit, drill four holes through the deck board and reinforcement blocking board.

### Step 4: Attach post with bolts, washers and nuts.

Place the post into position over the drilled holes and insert a 5/16 in. - 18 x 6 in. bolt with small 5/16 in. washer into each of the four holes. Attach two large 5/16 in. fender washers and one 5/16 in. - 18 hex nut to each of the four bolts under the deck (Figure 3).

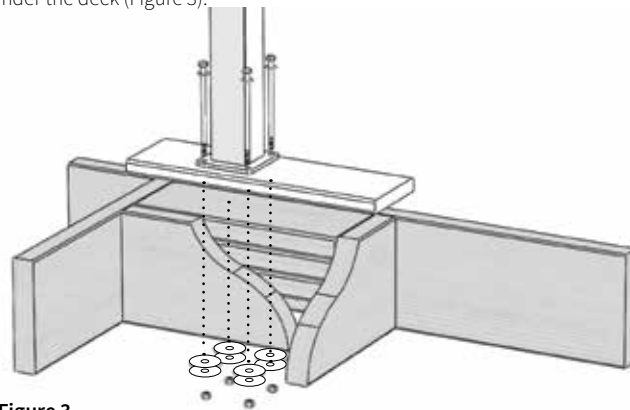


Figure 3

## POST INSTALLATION TO DECK (CONTINUED)

Step 5: Loosely tighten post nuts and bolts.

To allow rail and / or stair installation, loosely tighten the nuts, leaving the bolt heads approximately 1 in. above the baseplate (Figure 4).

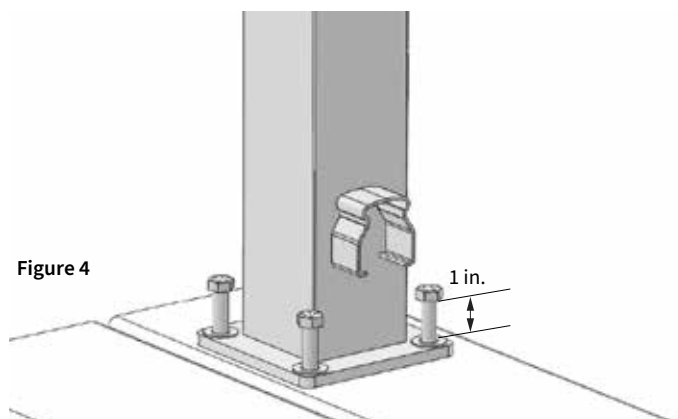


Figure 4

Step 6: Attach post baseplate cover.

After the rails and / or stairs have been installed, plumb and tighten the posts. Position both halves of the baseplate cover on either side of the post above the baseplate and below the bottom rail. Align the locking pins on one half to the matching holes on the other half and slide together.

Optional: Apply PVC adhesive to the locking pins prior to sliding halves together for a secure fit (Figure 5).

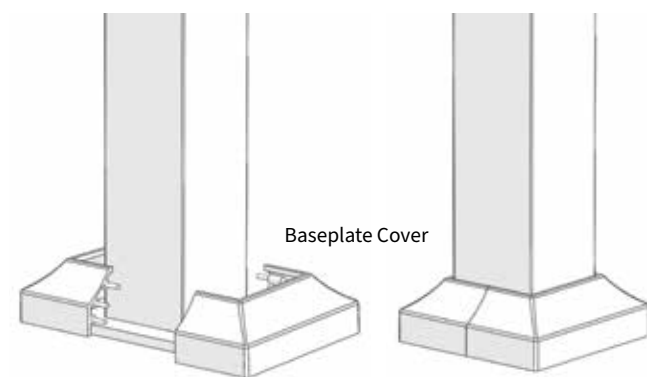


Figure 5

## POST INSTALLATION TO CONCRETE

Step 1: Position posts for concrete.

Locate posts at equal intervals along the outside of concrete (up to 96 in. maximum), placing the edge of the baseplate a minimum of 3-5/8 in. from the edge of the concrete (Figure 1).

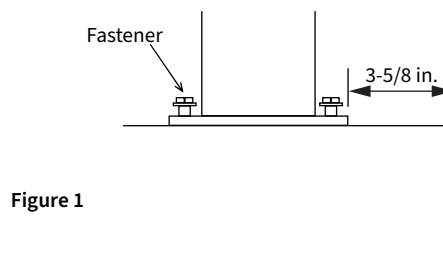


Figure 1

Step 2: Mark post baseplate holes to be drilled.

Using the post baseplate as a template, mark the concrete surface for drill locations for each of the four corner holes (Figure 2).

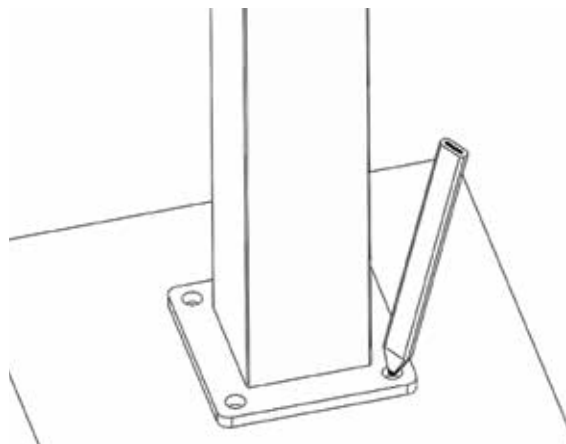
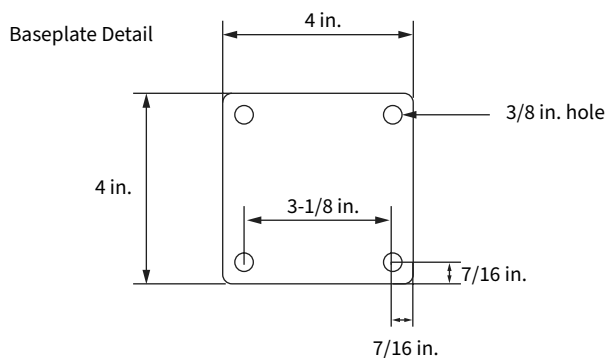


Figure 2

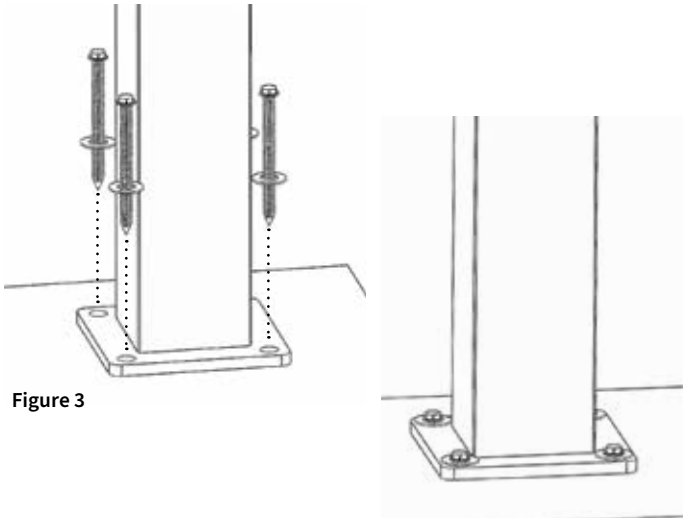


Step 3: Drill holes

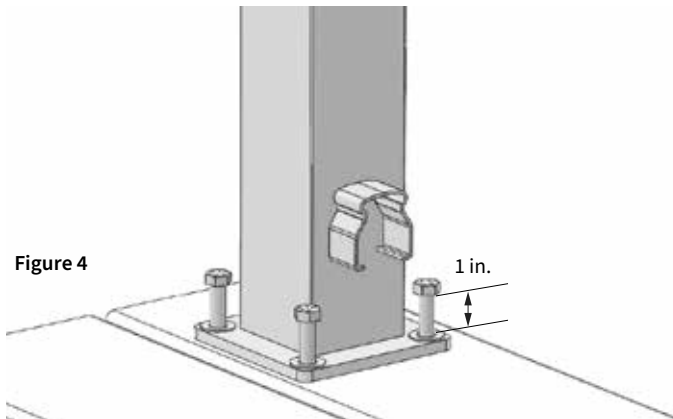
Using a 1/4 in. masonry drill bit, drill four holes into the concrete to a minimum depth of 3-1/2 in. Thoroughly clean the holes from all dust and debris.

**Step 4: Insert bolts with washers.**

Place the post into position over the drilled holes and insert a 1/4 in. x 3 in. concrete bolt with small 5/16 in. washer into each of the four holes (Figure 3).

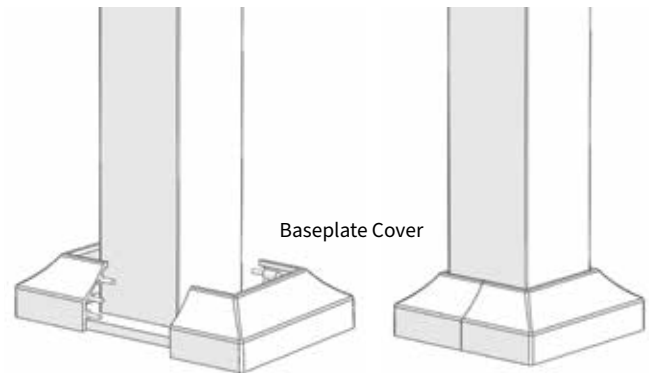
**Figure 3****Step 5: Loosely tighten post baseplate.**

To allow rail and / or stair installation, loosely tighten the bolts, leaving the bolt heads approximately 1 in. above the baseplate (Figure 4).

**Figure 4****Step 6: Attach post baseplate cover.**

After the rails and / or stairs have been installed, plumb and tighten the posts. Position both halves of the baseplate cover on either side of the post above the baseplate and below the bottom rail. Align the locking pins on one half to the matching holes on the other half and slide together.

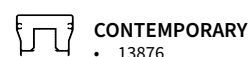
Optional: Apply PVC adhesive to the locking pins prior to sliding halves together for a secure fit (Figure 5).

**Figure 5**

# fiberon® CitySide

## Aluminum Rail Bracket Installation

**NOTE:** These instructions are applicable to each rail profile and SKU numbers listed below:



### PRIOR TO INSTALLING:

Please consult local zoning laws in regards to load requirements, overall height requirements, and bottom space requirements for rails. All supporting structures must be in accordance with applicable building codes. Neighborhood associations and / or historic districts may regulate size, placement and type of railing. Apply for permits if required by local authorities and codes. Ensure compliance prior to installation. Local building code requirements will always supersede any and all suggested procedures and measurements in the following installation. The following installation instructions are intended as a general guideline based on common building practices used in railing installation.

### TOOLS REQUIRED

- Power drill
- 1/8 in. drill bit (for optional pilot hole pre-drilling)
- Tape measure
- Screwdriver or power drill for T25 Torx screws
- Safety glasses
- Pencil
- Speed square

### KIT CONTENTS

- Top Rail Bracket
- Bottom Rail Bracket
- (4) #10 x 3/4 in. Torx Screws
- (4) #12 x 2 in. pan head Torx Screws (for backing plate into wood post)
- Instruction Sheet

### TIPS

The most recent installation instructions can be found on our website. Please visit [fiberondecking.com](http://fiberondecking.com) or call customer service at 800-573-8841.

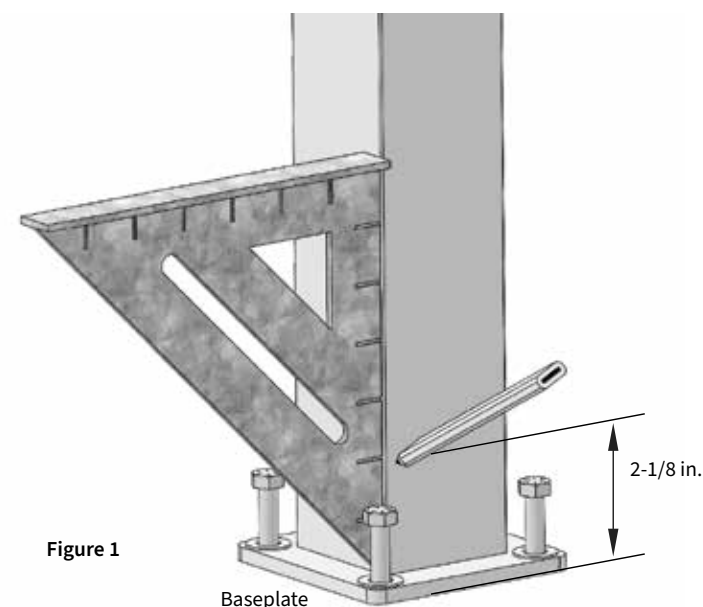
## RAIL BRACKET INSTALLATION ON ALUMINUM POST

### Step 1: Install bottom rail bracket.

Measure up 2-1/8 in. from the deck surface and make a horizontal line with a pencil onto the post (Figure 1). Locate the BOTTOM edge of the backing plate along the horizontal line. Take care to ensure the backing plate is centered on the post, with the two mounting holes side-by-side. Mark the center of the two mounting holes located inside the backing plate against the post.

Locate the bracket over the marked mounting holes, and install two #10 x 3/4 in. screws through the bracket and into the aluminum post. Do not overtighten screws.

NOTE: If installing into a wood post, use two #12 x 2 in. pan head screws. Pre-drill the marked holes with a 1/8 in. drill bit. See "Aluminum Rail Installation with Fiberon Composite Post Sleeves" for more detailed instructions when installing into a wood post.

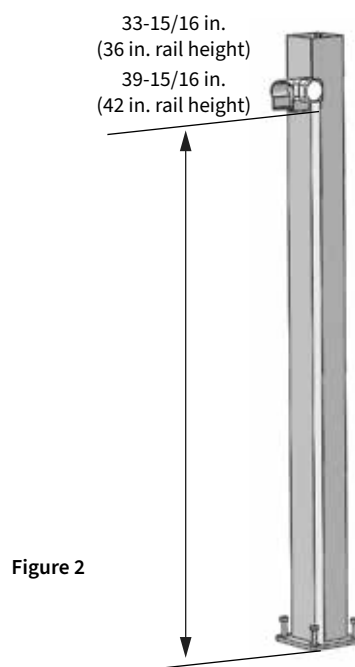


### Step 2: Install top rail bracket.

Measure up 33-15/16 in., for 36 in. rail height, or 39-15/16 in., for 42 in. rail height, from the top of the deck surface and make a horizontal line with a pencil onto the post (Figure 2). Locate the top rail bracket against the post, aligning the BOTTOM of the bracket with the marked line. Take care to ensure the bracket is centered on the post. Mark the center of the two mounting holes located inside the bracket against the post.

Locate the bracket over the marked mounting holes, and install two #10 x 3/4 in. screws through the bracket and into the aluminum post. Do not overtighten screws.

NOTE: If installing into a wood post, use two #12 x 2 in. pan head screws. Pre-drill the marked holes with a 1/8 in. drill bit. See "Aluminum Rail Installation with Fiberon Composite Post Sleeves" for more detailed instructions when installing into a wood post.

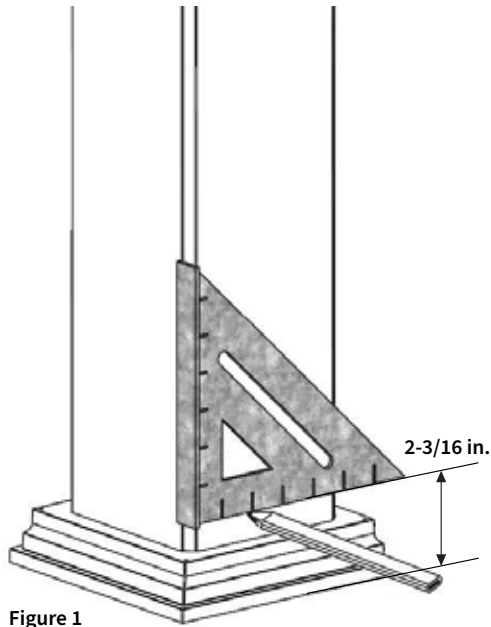


## RAIL BRACKET INSTALLATION ON COMPOSITE POST SLEEVE

### Step 1: Install bottom angle / stair rail bracket.

Measure up 2-3/16 in. from the deck surface and mark this location with a pencil onto the post (Figure 1). Locate the bottom rail bracket against the post, aligning the BOTTOM of the bracket with the 2-3/16 in. marked line. Take care to ensure the bracket is centered on the post. Mark the center of the two mounting holes located inside the bracket against the post.

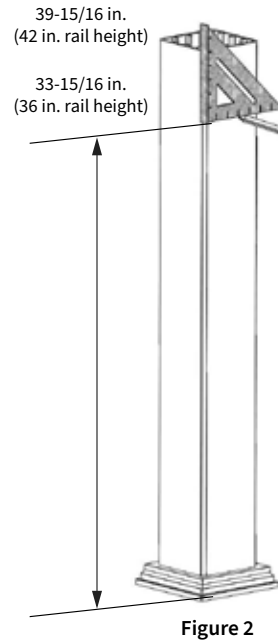
Pre-drill the marked holes with a 1/8 in. drill bit. Locate the bracket over the pre-drilled mounting holes, and install two #12 x 2 in. screws through the bracket and post sleeve and into the wood post. Do not overtighten screws.



### Step 2: Install top angle / stair rail bracket.

Measure up 33-15/16 in., for 36 in. rail height, or 39-15/16 in., for 42 in. rail height, from the deck surface and make a horizontal line with a pencil onto the post (Figure 2). Locate the top rail bracket against the post, aligning the BOTTOM of the bracket with the marked line. Take care to ensure the bracket is centered on the post. Mark the center of the two mounting holes located inside the bracket against the post.

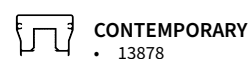
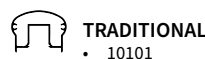
Pre-drill the marked holes with a 1/8 in. drill bit. Locate the bracket over the pre-drilled mounting holes, and install two #12 x 2 in. screws through the bracket and post sleeve and into the wood post. Do not overtighten screws.



# fiberon® CitySide

## Aluminum Stair Bracket Installation

**NOTE:** These instructions are applicable to each rail profile and SKU numbers listed below:



### PRIOR TO INSTALLING:

Please consult local zoning laws in regards to load requirements, overall height requirements, and bottom space requirements for rails. All supporting structures must be in accordance with applicable building codes. Neighborhood associations and / or historic districts may regulate size, placement and type of railing. Apply for permits if required by local authorities and codes. Ensure compliance prior to installation. Local building code requirements will always supersede any and all suggested procedures and measurements in the following installation. The following installation instructions are intended as a general guideline based on common building practices used in railing installation.

### TOOLS REQUIRED

- Power drill
- 1/8 in. drill bit for (optional pilot hole pre-drilling)
- Tape measure
- Screwdriver or power drill for T25 Torx screws
- Safety glasses
- Pencil
- Speed Square

### KIT CONTENTS

- Top Stair / Angle Bracket
- Bottom Stair / Angle Bracket
- (4) #10 x 3/4 in. Torx Screws
- (6) #10 x 1/2 in. Torx Screws (for end caps)
- (4) #12 x 2 in. pan head Torx Screws (for backing plate into wood post)
- Instruction Sheet

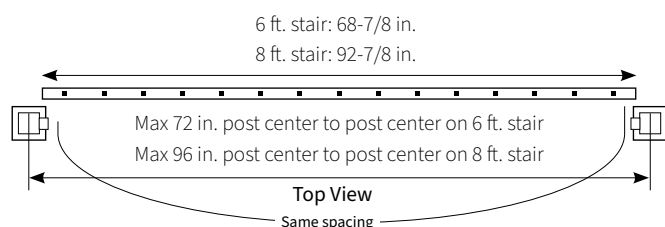
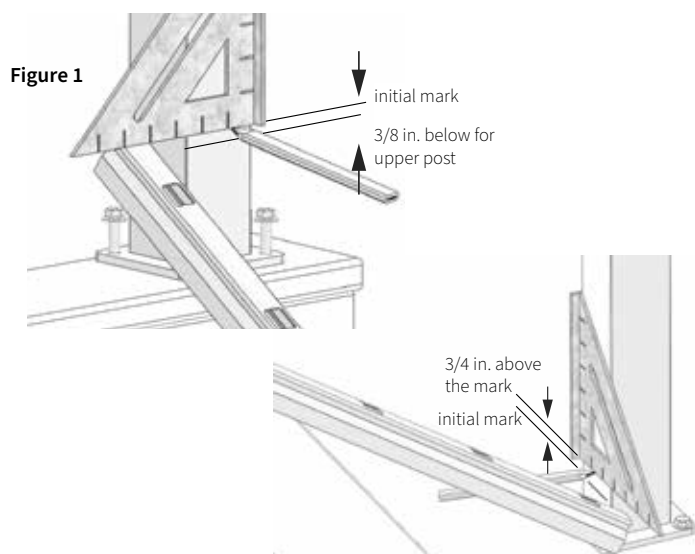
### TIPS

The most recent installation instructions can be found on our website. Please visit [fiberondecking.com](http://fiberondecking.com) or call customer service at 800-573-8841.

## STAIR BRACKET INSTALLATION

### Step 1: Lay out stair posts and stair rails.

For stair installation, loosely mount the stair posts and set out the stair rails. To determine the stair bracket location, lay the bottom stair rail on top of the stairs / nosing and, using the top of the bottom stair rail as a guide, make an initial mark with a pencil onto the upper post and the lower post (Figure 1). From the mark you made on the UPPER post (the post at the top of the stairs), measure and draw a horizontal line 3/8 in. below the mark. From the mark you made on the LOWER post (the post at the bottom of the stairs), measure and draw a horizontal line 3/4 in. above the mark.



### Step 2: Install bottom stair bracket.

Locate the TOP edge of the backing plate for the bottom stair bracket along the lower horizontal line. Ensure the backing plate is centered on the post, with the two mounting holes lined up on top of each other. Mark the center of the two mounting holes located inside the backing plate against the post (Figure 3).

Locate the backing plate over the marked mounting holes, and install two #10 x 3/4 in. screws through the backing plate and into the aluminum post (Figure 4). Do not overtighten screws.

NOTE: If installing into a wood post, use two #12 x 2 in. pan head screws. Pre-drill the marked holes with a 1/8 in. drill bit.

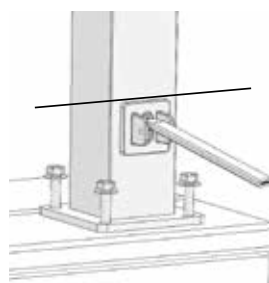


Figure 3

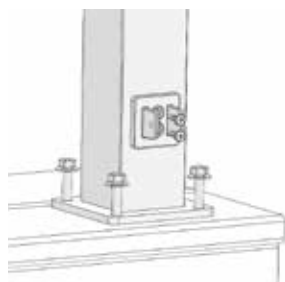


Figure 4

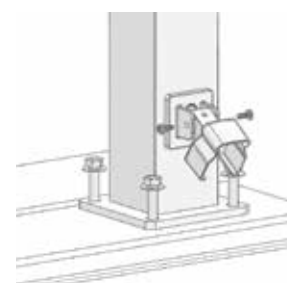


Figure 5

Slide the bottom rail end cap into the backing plate. Secure with two #10 x 1/2 in. screws through the backing plate holes and into the bottom rail cap's pre-drilled holes (Figure 5). A third #10 x 1/2 in. screw is supplied to fill the end cap's top pre-drilled hole, if so desired.

## STAIR INSTALLATION (CONTINUED)

Step 3: Install top stair bracket.

From the TOP of the installed bottom backing plate, measure up 30-1/8 in., for 36 in. rail height, or 36-1/8 in., for 42 in. rail height, and make a horizontal line with a pencil onto the post (Figure 6). Locate the BOTTOM edge of the backing plate along the marked line. Take care to ensure the backing plate is centered on the post, with the two mounting holes lined up on top of each other). Mark the center of the two mounting holes located inside the backing plate against the post.

Locate the backing plate over the marked mounting holes, and install two #10 x 3/4 in. screws through the backing plate and into the aluminum post. Do not overtighten screws.

NOTE: If installing into a wood post, use two #12 x 2 in. pan head screws. Pre-drill the marked holes with a 1/8 in. drill bit.

Slide the top rail end cap into the backing plate. Secure with two #10 x 1/2 in. screws through the backing plate holes and into the top rail cap's pre-drilled holes (Figure 7). A third #10 x 1/2 in. screw is supplied to fill the end cap's top pre-drilled hole, if so desired

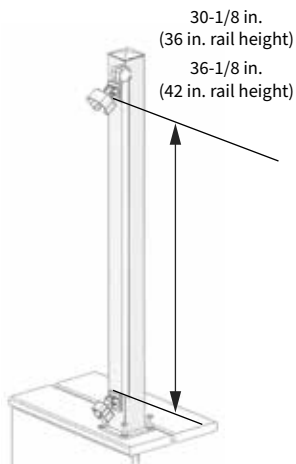


Figure 6

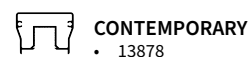
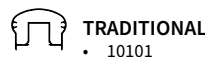


Figure 7

# fiberon® CitySide

## Aluminum Angle Bracket Installation

**NOTE: These instructions are applicable to each rail profile and SKU numbers listed below:**



### PRIOR TO INSTALLING:

Please consult local zoning laws in regards to load requirements, overall height requirements, and bottom space requirements for rails. All supporting structures must be in accordance with applicable building codes. Neighborhood associations and / or historic districts may regulate size, placement and type of railing. Apply for permits if required by local authorities and codes. Ensure compliance prior to installation. Local building code requirements will always supersede any and all suggested procedures and measurements in the following installation. The following installation instructions are intended as a general guideline based on common building practices used in railing installation.

### TOOLS REQUIRED

- Power drill
- 1/8 in. drill bit for (optional pilot hole pre-drilling)
- Tape measure
- Screwdriver or power drill for T25 Torx screws
- Safety glasses
- Pencil
- Speed Square

### KIT CONTENTS

- Top Stair / Angle Bracket
- Bottom Stair / Angle Bracket
- (4) #10 x 3/4 in. Torx Screws
- (6) #10 x 1/2 in. Torx Screws (for end caps)
- (4) #12 x 2 in. pan head Torx Screws (for backing plate into wood post)
- Instruction Sheet

### TIPS

The most recent installation instructions can be found on our website. Please visit [fiberondecking.com](http://fiberondecking.com) or call customer service at 800-573-8841.

## ANGLE BRACKET INSTALLATION

### Step 1: Install bottom angle bracket.

Measure up 2-1/8 in. from the deck surface and make a horizontal line with a pencil onto the post (Figure 1). Locate the BOTTOM edge of the backing plate along the horizontal line. Take care to ensure the backing plate is centered on the post, with the two mounting holes side-by-side. Mark the center of the two mounting holes located inside the backing plate against the post.

Locate the backing plate over the marked mounting holes, and install two #10 x 3/4 in. screws through the backing plate and into the aluminum post. Do not overtighten screws.

NOTE: If installing into a wood post, use two #12 x 2 in. pan head screws. Pre-drill the marked holes with a 1/8 in. drill bit. See "Aluminum Rail Installation with Fiberon Composite Post Sleeves" for more detailed instructions when installing into a wood post.

Slide the bottom rail end cap into the backing plate. Secure with two #10 x 1/2 in. screws through the backing plate holes and into the bottom rail cap's pre-drilled holes (Figure 2). A third #10 x 1/2 in. screw is supplied to fill the end cap's side pre-drilled hole, if so desired.

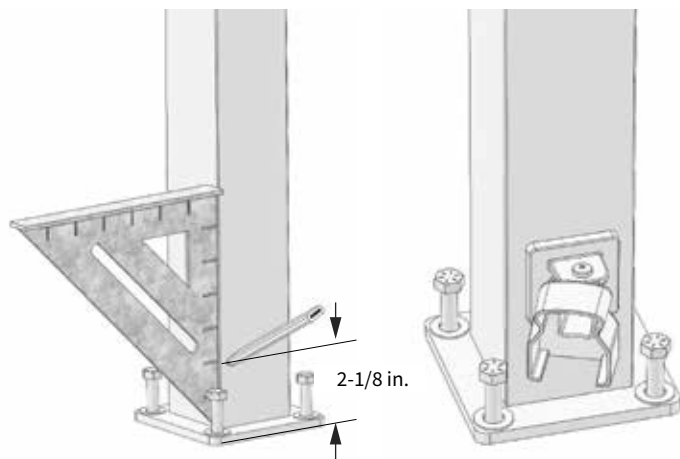


Figure 1

Figure 2

### Step 2: Install top angle bracket.

Measure up 30-1/8 in., for 36 in. rail height, or 36-1/8 in., for 42 in. rail height, from the top of the installed bottom backing plate and make a horizontal line with a pencil onto the post. Locate the BOTTOM edge of the backing plate along the horizontal line. Take care to ensure the backing plate is centered on the post, with the two mounting holes side-by-side (Figure 3). Mark the center of the two mounting holes located inside the backing plate against the post.

Locate the backing plate over the marked mounting holes, and install two #10 x 3/4 in. screws through the backing plate and into the aluminum post. Do not overtighten screws.

NOTE: If installing into a wood post, use two #12 x 2 in. pan head screws. Pre-drill the marked holes with a 1/8 in. drill bit.

Slide the top rail end cap into the backing plate. Secure with two #10 x 1/2 in. screws through the backing plate holes and into the top rail cap's pre-drilled holes (Figure 4). A third #10 x 1/2 in. screw is supplied to fill the end cap's side pre-drilled hole, if so desired.

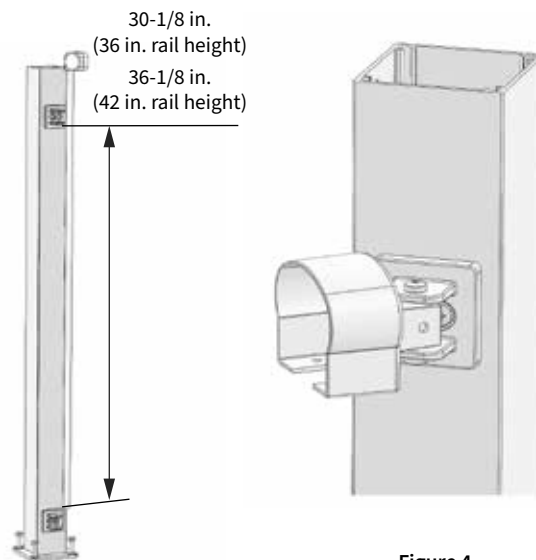


Figure 3

Figure 4



# fiberon® CitySide

## Aluminum Rail Installation with Glass

**NOTE:** These instructions are applicable to each rail profile and SKU numbers listed below:



**CONTEMPORARY**  
• 13879

### PRIOR TO INSTALLING:

Please consult local zoning laws in regards to load requirements, overall height requirements and bottom space requirements for rails. All supporting structures must be in accordance with applicable building codes. Neighborhood associations and / or historic districts may regulate size, placement and type of railing. Apply for permits if required by local authorities and codes. Ensure compliance prior to installation. Local building code requirements will always supersede any and all suggested procedures and measurements in the following installation. The following installation instructions are intended as a general guideline based on common building practices used in railing installation. **When Glass Railing is being used as a guardrail, do not exceed the 72 in. center-to-center post spacing as this is outside our engineering spec and is at the end users own risk and could result in a failed inspection. It is the sole responsibility of the home owner/contractor to comply with local building codes.**

**NOTE: GLASS PANELS ARE NOT AVAILABLE FOR PURCHASE THROUGH FIBERON. GLASS PANEL INFILL IS FOR USE IN LINE SECTIONS ONLY AND SHOULD NOT BE USED AS INFILL ON STAIR SECTIONS.**

### TOOLS REQUIRED

- Power drill
- 1/8 in. drill bit (for optional pilot hole pre-drilling)
- 1/4 in. drill bit
- Tape measure
- Plumb bob or level
- Saw for cutting aluminum
- Screwdriver or power drill for T25 Torx screws (bit included)
- Safety glasses
- Wrench or ratchet (for post fasteners)
- Pencil
- Optional urethane caulk for high salt water content areas
- Optional PVC adhesive for baseplate cover
- Hearing protection (for saw)
- Gloves and long pants for safe handling of glass

### 6 FT. SECTION CONTENTS

- 6 ft. Top Rail
- 6 ft. Bottom Rail
- Top Rail Gasket
- Bottom Rail Gasket
- (2) Rubber Block Spacers
- Crush Block
- (12) #10 x 3/4 in. Torx Screws (bit included)
- Instruction Sheet

### SPECS REGARDING GLASS:

Glass used in guards and handrails must meet all of the following:

- Laminated glass constructed of fully tempered or heat-strengthened glass,
  - Compliant with the safety glazing requirements of 16 C.F.R. 1201(Cat. II) or ANSI Z97.1 (Class A) including proper marking
  - 1/4 in. overall thickness.
- Glass should have arrised (smoothed) edges on all four sides.

### TIPS

The most recent installation instructions can be found on our website. Please visit [fiberondecking.com](http://fiberondecking.com) or call customer service at 800-573-8841.

## RAIL INSTALLATION

Step 1: Measure top rail and cut as needed.

For rail installation, make sure all posts are plumb for rail measurements and loosely tightened. Measure the distance between the posts (for accuracy, take measurement between both posts near the bottom). Subtract 5/8 in. from the total measurement, and cut the top rail (Figure 1). There should be a 5/16 in. space between each end of the cut rail and the upright post.

**NOTE:** Do not fully tighten posts until all rails are installed.

**NOTE:** If posts are 69 1/2 in. from end to end, cutting may not be needed on 6 ft. rails.

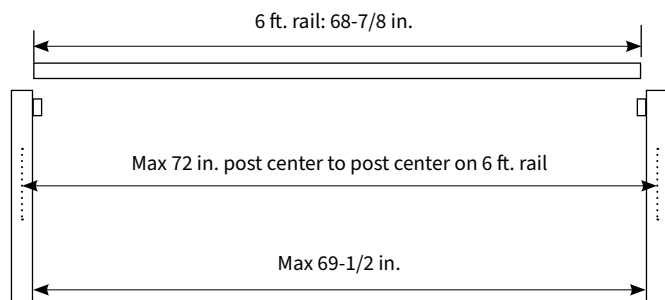


Figure 1

Step 2: Measure bottom rail and cut as needed.

Before cutting the bottom rail, center it along the cut top rail to ensure equal lengths. Mark the top of the bottom rail at each end in line with the cut top rail. The length of the cut bottom rail will be the same length as the cut top rail.

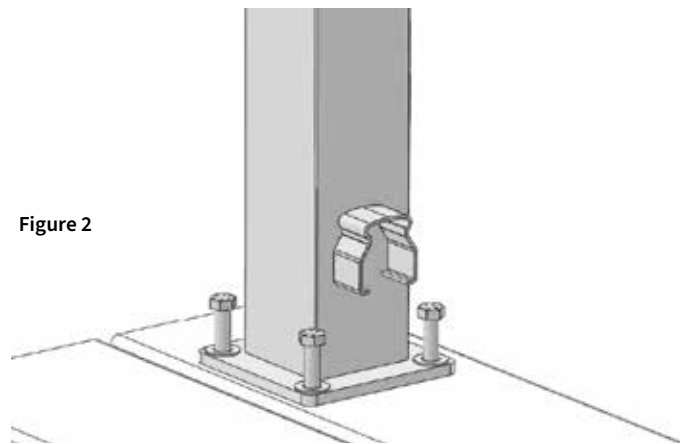


Figure 2

Step 3: Loosen post fasteners.

Loosen the posts to allow rail installation, leaving the post fastener heads approximately 1 in. above the baseplate (Figure 2).

## RAIL INSTALLATION (CONTINUED)

### Step 4: Fit rails to post.

NOTE: Make sure the rubber blocks, included in the package, have been installed into the bottom rail. Space rubber blocks evenly between the two posts in the bottom channel. Place rubber blocks long side up inside the rubber gasket.

Tilt the posts to allow the bottom rail to fit into the bottom post brackets (Figure 3). Do the same for the top rail. Repeat steps 1-4 for all remaining rail sections before continuing to step 5.

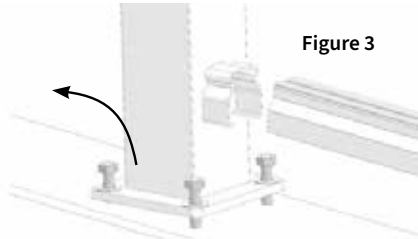


Figure 3

### Step 5: Tighten posts and fasten rails.

After top and bottom rails for all rail sections are fitted into the post brackets, plumb and tighten the posts.

Using the two pre-drilled holes under the top post bracket, fasten the top rails to the top post bracket with two #10 x 3/4 in. screws (Figure 4).

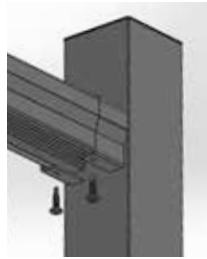


Figure 4

Optional: Using the end caps as a template, pre-drill holes into the top rail with a 1/8 in. drill bit.

Fasten bottom rails through the middle of the perpendicular sides of the bottom post bracket with two #10 x 3/4 in. screws (Figure 5).

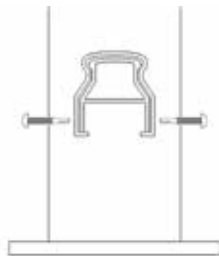


Figure 5

Optional: Pre-drill the holes with a 1/8 in. drill bit.

### Step 6: Fasten bottom rail crush block.

Position the bottom rail crush block under the center of the bottom rail. Fasten bottom rail crush block to the bottom rail with one #10 x 3/4 in. screw.

### Step 7: Drill drain holes in bottom rail.

Drill three 1/4 in. drain holes from open holes in the top of the bottom rail through the underside of the bottom rail.

### Step 8: Glass installation, measure the opening.

**Glass Height:** For a standard 36 in. rail height, the glass height dimension will be 31-5/16 in. (42 in. rail height has not been tested or approved by Fiberon). The thickness of the glass should be 1/4 in.

To determine the width of the glass panel needed, measure distance between inside of posts and deduct 3 in. from the total measurement. Example: post to post measurement = 69-1/2 in. minus 3 in. = 66-1/2 in. width for glass panel (1-1/2 in. space on either side between glass and post) (Figure 7).

Maintain a maximum of up to 72 in. spacing between center of posts. Do not exceed this.

NOTE: Glass cannot be cut once tempered.

NOTE: Glass panels may cause injury if mishandled. Gloves, long pants and safety glasses should be worn at all times.

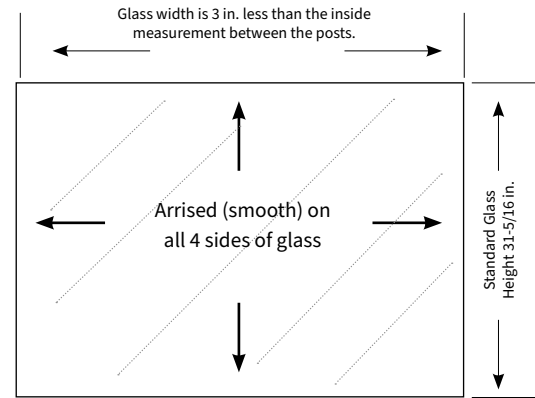


Figure 6

### Step 9: Inserting glass into rails.

Lubricate top and bottom rail glass insert with soapy water. Install glass by holding the 31-5/16 in. sides of the glass (for 36 in. rail) and insert into the top rail channel as far as possible. Swing the bottom of the glass over the bottom rail until it is centered over the bottom channel. Pull down on the glass until it slides into the bottom channel and is sitting on the two rubber blocks inserted previously. Center the glass between the two posts by sliding it left or right leaving approximately 1-1/2 in space on either side of the glass to the post (Figure 7).

NOTE: Glass panels may cause injury if mishandled. Gloves, long pants and safety glasses should be worn at all times.

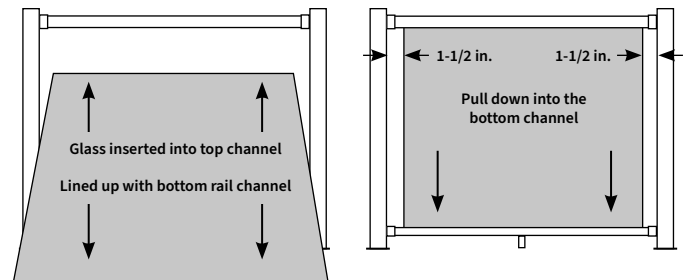


Figure 7

### Step 10: Attach post baseplate cover.

After the top and bottom rails have been installed, position both halves of the baseplate cover on either side of the post above the baseplate and below the bottom rail. Align the locking pins on one half to the matching holes on the other half and slide together. Optional: Apply PVC adhesive to the locking pins prior to sliding halves together for a secure fit (Figure 8).

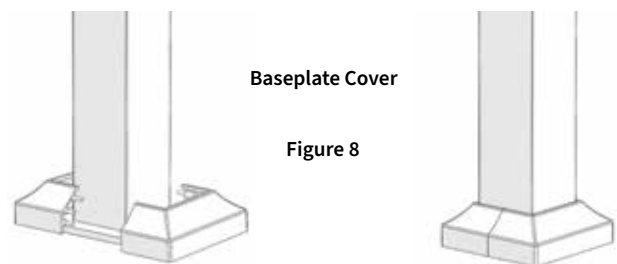


Figure 8

# fiberon® CitySide

## Over the Post Drink Rail Installation

**NOTE: These instructions are applicable to each rail profile and SKU numbers listed below:**



TRADITIONAL



CONTEMPORARY

13885 &amp; 13881

### PRIOR TO INSTALLING:

Please consult local zoning laws in regards to load requirements, overall height requirements and bottom space requirements for rails. All supporting structures must be in accordance with applicable building codes. Neighborhood associations and / or historic districts may regulate size, placement and type of railing. Apply for permits if required by local authorities and codes. Ensure compliance prior to installation. Local building code requirements will always supersede any and all suggested procedures and measurements in the following installation. The following installation instructions are intended as a general guideline based on common building practices used in railing installation.

**NOTE: DRINK RAILS ARE NOT TO BE USED WITH STAIR RAIL SECTIONS, AND ARE ONLY TO BE USED WITH THE DRINK RAIL ADAPTER KIT AND ALUMINUM POSTS. THIS EXCLUDES WOOD POSTS, COMPOSITE POST SLEEVES OR ANY OTHER TYPE OF POST.**

### TOOLS REQUIRED

- Rubber mallet
- Wooden blocks
- Utility knife
- Power drill
- 1/8 in. drill bit
- 1/4 in. drill bit
- Tape measure
- Plumb bob or level
- Pencil
- Speed Square
- Safety glasses

### KIT CONTENTS

- Over-the-Post Drink Rail Kit (6 ft. section)
- (1) Post Adapter
- (3) V-Bracket Supports
- Over-the-Post Drink Rail Extension Kit
- (2) V-Bracket Supports (for 8 ft. sections)
- Instruction Sheet

### TIPS

The most recent installation instructions can be found on our website. Please visit [fiberondecking.com](http://fiberondecking.com) or call customer service at 800-573-8841.

## DRINK RAIL INSTALLATION

### Step 1: Remove post cap.

Remove the pyramid top cap from posts using a mallet and a wooden block. If required, score the connection with a knife to aid release of top cap (Figure 1).

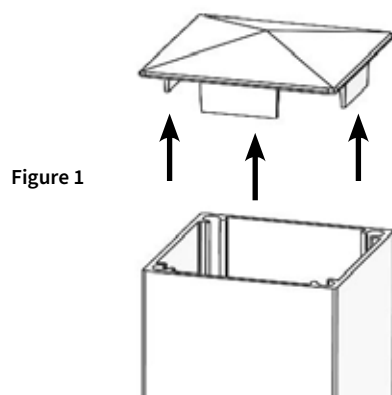


Figure 1

### Step 2: Place post adapters into post.

Place drink rail post adapters into 2.5 in. x 2.5 in. post. Next pre-drill two holes on opposite sides of the post using a 1/8 in. drill bit (Figure 2).

**PRO TIP:** use one hand to hold down the adapter and keep it secure from spinning in the post. Once the holes are pre-drilled, use two #10 x 3/4 in. CS50 Tek screws to keep adapter in place.

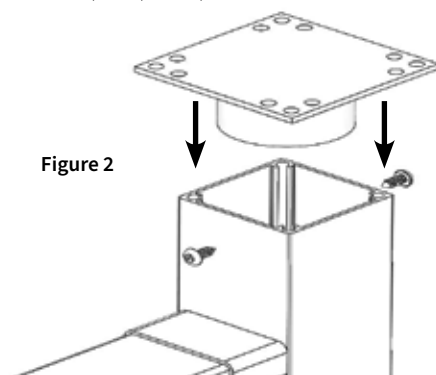


Figure 2

### STEP 3: Center V-Bracket Supports

Center the V-Bracket Support at the midspan of your railing section (Figure 3). Use a 1/8 in. bit to pre-drill a hole for the #10 x 3/4 in. CS50 Tek screw, carefully remove any shavings and fasten the 'V' bracket. Position the remaining V-Brackets in each direction from the center bracket with spacing between supports not to exceed 16 in.. Pre-drill and insert the remaining #10 x 3/4 in. CS50 Tek screws.

**NOTE:** 3 center V-Bracket Supports will be needed for a full 6 ft. rail section, 5 will be used for a full 8 ft. rail section. An additional kit of 2 V-Bracket Supports is available for the 8 ft. rail section.

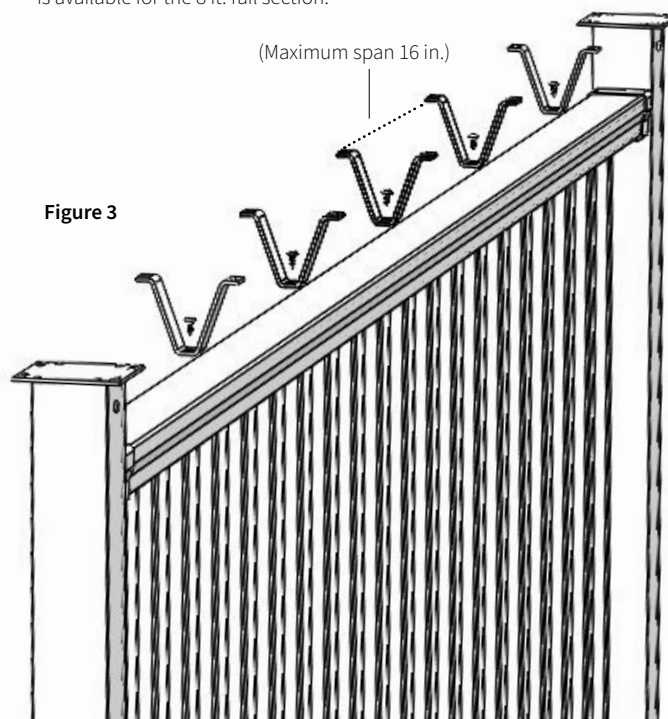


Figure 3

**NOTE:** Image shown above of an 8 ft. rail section with post adapters (on two posts) and (5) V bracket adapters.

## DRINK RAIL INSTALLATION (CONTINUED)

### Step 4: Attaching deck board to adapters.

Ensure board cut ends are placed over a post adapter. Cut ends should not be placed over a V-Bracket. Boards may be cut at a 45 degree for a 90 degree corner (Figure 4) or a butt joint cut (Figure 5) for a straight rail section.

Center the board, cut to length or mitered at 45 degree angle, on top of all brackets and mark all holes from the post adapter and the V-Bracket to the bottom of the board. Remove the board and pre-drill the marked holes not deeper than 1/8 in..

**WARNING:** When pre-drilling into the deck board from underneath be careful to not drill more than 1/8 in. into the deck board. Only a small 1/8 in. deep starter hole is needed.

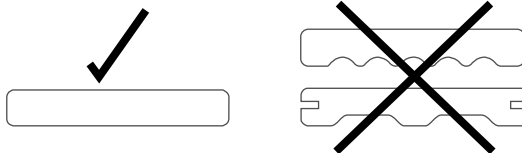
**Pro tip:** measure 1/8 in. from the tip of the drill bit and mark the depth with a piece of masking tape.

Clean any burrs that result from the pre-drilling. This will allow the screw head to sit flush with the bracket.

Once the holes are pre-drilled to 1/8 in. place the board onto the brackets and insert the #10 x 1/2 in. wood screws. Make sure to use all 12 fasteners for each post adapter (at least 10 screws at corners where screws are aligned with a joint in the drink rail - Figure 4) and 2 screws for each V-Bracket.

### HELPFUL TIPS:

- Hanging items such as flower boxes on the top board will void the warranty for that deck board.
- The Fiberon Drink Rail Adapter kit is not for use on CitySide stair sections.
- The Drink Rail Adapter kit may be used on either the Traditional or Contemporary railing profile design.
- Only full bottom composite, PVC or wood boards should be used. Scallop bottom boards must not be used.

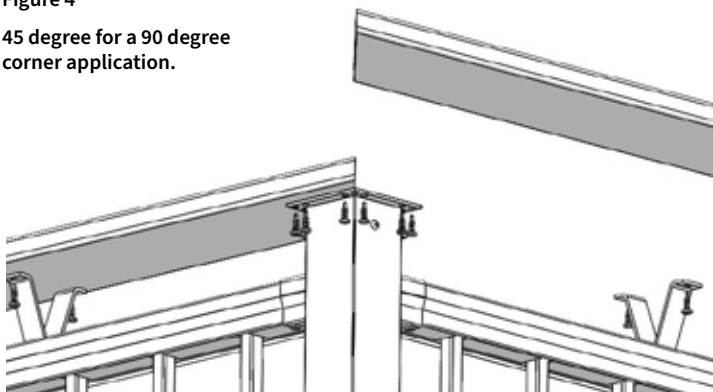


- Decking dimensions for Over-the-Post Drink Rail:

- Minimum width: 5-1/4 in.
- Maximum width: 5-1/2 in.
- Minimum thickness: 7/8 in.
- Maximum thickness 1 in.

**Figure 4**

**45 degree for a 90 degree corner application.**



**Figure 5**

**End joint cut for a straight rail section.**

