

# FAIRWAY RAILING™

BY  **Envision™**  
OUTDOOR LIVING PRODUCTS

## P315 CPVC RAILING INSTALLATION QUICK GUIDE

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### LEVEL & STAIR KIT INCLUDES:

- Top Rail with Aluminum Insert
- Top Sub Rail



- Bottom Rail with Aluminum Insert



- Mounting Brackets with Screws
- Rail Support(s)
- Glass Balusters

### TOOLS NEEDED:

- Drill with #2 Square Drive Bit
- Circular Saw
- Speed Square
- Tape Measure
- Drill Extension



GLASS BALUSTERS  
W/ DECK BOARD CAP RAIL

# LEVEL INSTALLATION

## BEFORE STARTING

- Review all local building codes.
- Wear proper safety equipment.

## STEP 1 - GETTING STARTED

- Plumb all posts or mounting surfaces. Install post trim at this time.
- Determine required bottom rail height off deck surface to underside of rail based on local code requirements.

## STEP 2 - INSTALLATION OF BOTTOM RAIL MOUNTING SCREW

- Find the center of post/mounting surface. (example; 4.25" post = 2-1/8") Mark vertical center line on post.
- Determine your finished height off deck surface to bottom of bottom rail. Add 3/8" and mark on vertical center line. Drill a 3/16" hole at this mark. Install #10 x 1" screw within 1/8" of surface. Check screw clearance by using bottom rail bracket. Fit should be snug.

## STEP 3 - CUT RAILS TO LENGTH

- Making sure that posts are plumb, measure the distance between posts.
- Ensure there is equal and maximum distance from pre-drilled baluster connector shoe holes on both ends of bottom rail and sub-rail. Cut bottom rail with aluminum insert inside to length. Cut sub-rail and deck board cap rail the same length, making sure that the pre-drilled baluster connector shoe holes line up with bottom pre-drilled baluster connector shoe holes.

**NOTE:** The top aluminum insert should be inserted with DEEP SIDE of the channel facing the pre-drilled hole side of the rail and should be cut 1/4" shorter than the sub-rail. The bottom aluminum insert should be inserted into the bottom rail with DEEP SIDE of channel facing the pre-drilled holes side of the rail.

## STEP 4 - INSTALL RAIL MOUNTING BRACKETS & RAIL SUPPORT

- Place bottom rail on work surface with underside facing up and aluminum insert in place. Place bottom bracket on aluminum insert with post flange facing upward and flange even with end of insert. Mark pre-drill 1/8" hole and install one #10 x 3/4" mounting screw for each bracket. Adjust bracket if necessary.
- Find the center of the bottom rail, pre-drill 1/8" hole and install rail support with one #10 x 3/4" screw. **Rail support length equals the distance from deck surface to bottom rail + 3/4".**
- **NOTE:** Two rail supports are required for 10' rail lengths.
- **Sub-Rail:** With the pre-drilled baluster connector shoe holes facing upward and aluminum insert on work surface, place mounting brackets on each end of aluminum insert with the flange facing down towards work surface. Install one #10 x 3/4" mounting screw for each bracket.
- **NOTE:** Be sure to slide the sub-rail back to allow installation of brackets.

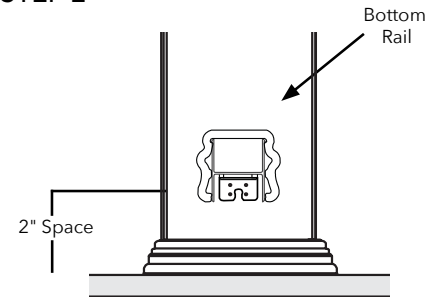
## STEP 5 - ASSEMBLE & INSTALL RAIL SECTION

- Place rails on non-abrasive work surface with pre-drilled baluster connector holes facing you.
- Screw baluster connector shoes to rail in pre-drilled locations using provided hardware. With bottom rail on non-abrasive work surface, set glass balusters in place over connectors.
- Place bottom rail in position between posts ensuring that the bracket flange is over the bottom screws.
- At this point, it is recommended that the installation becomes a two-person job. Insert glass balusters into connector shoes. With glass balusters in place, set sub-rail with aluminum insert in place by starting at one end working towards the other with glass balusters inserted in sub-rail shoes.
- Find center on the post/mounting surface and center the top mounting bracket. Pre-drill two 1/8" holes through top mounting bracket holes into post/mounting surface and install #10 x 1-1/4" screws in both ends of rail.
- Place deck board (not supplied), top side down, on a non-abrasive surface. With flat side down, center top rail along length and width of the deck board. Using the provided hardware, install two #10 x 3/4" screws, side by side, at quarter points along top rail.
- With the deck board cap rail installed, carefully snap top rail over top aluminum insert. Ensure that the top rail is seated entirely.

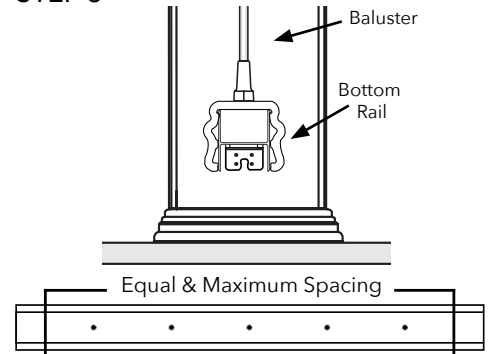
## STEP 6 - FINISHING STEPS

- Apply a small bead of silicone to the inside edge of post cap and install on top of post sleeve. Let set for 12 hours for adhesive to cure.

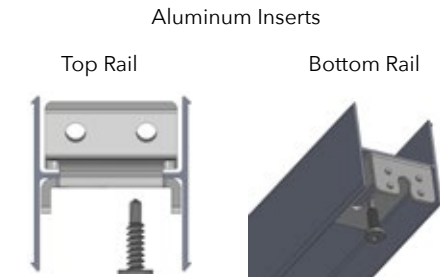
### STEP 2



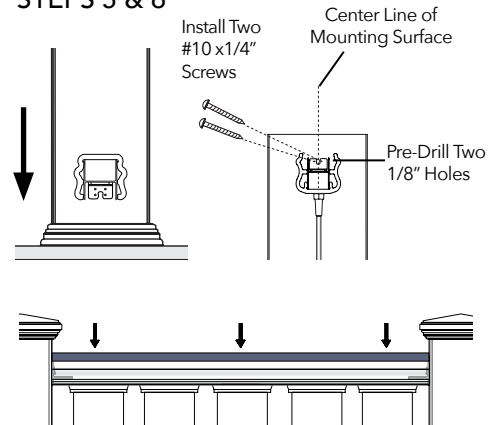
### STEP 3



### STEP 4



### STEPS 5 & 6



Fairway Architectural Railing Solutions will not be held liable for incorrect or unsafe installations by the installer. It is the installer's responsibility to secure proper building permits, review local codes and safety needs and meet or exceed them. The instructions provided by Fairway are a guide and may not account for every special circumstance. The installer must identify and execute the installation approach that is appropriate for every application.

# STAIR INSTALLATION

**NOTE:** Glass stair balusters are designed to work strictly with a rise/run of 30°-34°.

## STEP 1 - GETTING STARTED

- Plumb all posts or mounting surfaces. Install post trim at this time.
- Based on local code requirements, determine required bottom rail height off deck surface to underside of rail.

**NOTE:** Due to the rise, or the height between consecutive treads, a longer post or mounting surface will be required to maintain proper installations on stairs on the downward slope of the stair. Example, a 39" post sleeve on a stair with a 7" rise will not leave enough surface to mount a 36" rail. A post that is 44" or longer is recommended.

## STEP 2 - CUTTING RAILS

**NOTE:** Before cutting rails make sure that the aluminum inserts are properly positioned within the rail. The deeper channel should always face the pre-drilled baluster connector holes.

- Lay bottom rail on stair nosing and against side of posts. Make sure that the baluster spacing is equal distant from posts on each end. Mark the rails where it intersects with the posts.
- If posts are plumb, the bottom rail, bottom aluminum insert, sub-rail, top rail and deck board cap rail can be cut to the same length with the same angle. Make sure you are equidistant from each end.

**NOTE:** Cut the top aluminum insert a 1/4" shorter for bracket installation.

## STEP 3 - INSTALL BRACKETS, BALUSTERS, & RAIL SUPPORTS

- Place bottom rail inverted on work surface with aluminum insert facing up.
- **Bottom Rail Brackets:** Place bottom rail bracket on bottom of aluminum insert with post mounting flange facing upward. Flange should be flush with the end of the rail. Mark and drill 1/8" hole in center of aluminum insert. Install #10 x 3/4" mounting screw through bracket.
- **Top Rail Brackets:** With mounting flanges pointing down on end of top aluminum insert, (deep part facing baluster) find center of elongated slot and drill a 1/8" pilot hole. Install two #10 x 3/4" screws. Adjust bracket angles if necessary.
- Find center of post/mounting surface and mark center line (Example 4.25" post= 2/18"). Determining your distance off tread nose, lay bottom rail in position and center the rail with the center line and mark elongated flange slot on post. Drill a 3/16" hole and install #14x1" screw to within 1/8" of surface.
- Cut rail support (foot block) at one end to match stair pitch. Set bottom rail in place with slotted flange over screw. Measure distance between tread and bottom of rail. Add 3/4" and cut rail support, cutting one end to match stair angle. Remove bottom rail and install support through aluminum using #10 x 3/4" screw.

## STEP 4 - ASSEMBLE RAIL SECTION

**NOTE:** At this point it is recommended that the installation becomes a two-person job.

- Place rails on non-abrasive work surface. With pre-drilled baluster connector shoe holes facing upward, screw baluster connector shoes in pre-drilled locations using supplied hardware.
- Set bottom rail in place and install glass balusters into shoes.
- With bottom rail in position and glass balusters installed in bottom rail, install top sub-railing in place starting at one end working towards opposite end.

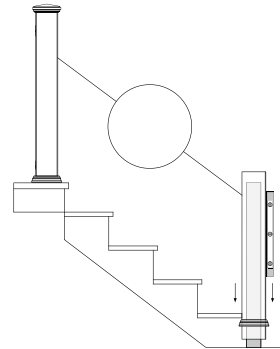
## STEP 5 - INSTALL RAIL SECTION

- With sub-rail in place, now install top rail aluminum insert onto sub rail with bracket flanges facing upward towards you. Gently tap aluminum insert into position with rubber mallet. Aluminum insert snaps into sub rail.
- Find center of post at top rail aluminum insert, pre-drill two 1/8" holes through top rail brackets into posts and install two #10 x 1-1/4" screws into posts.
- Place deck board (not supplied), top side down, on a non-abrasive surface. With flat side down, center top rail along length and width of the deck board. Using the provided hardware, install two #10 x 3/4" screws, side by side, at quarter points along top rail.
- With deck board cap rail installed, carefully snap top rail over aluminum insert. Ensure that the top rail is seated entirely.

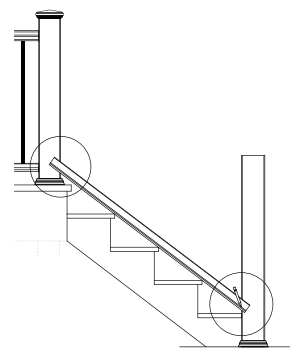
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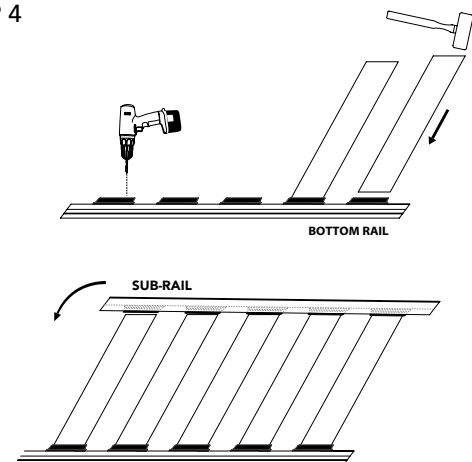
STEP 1



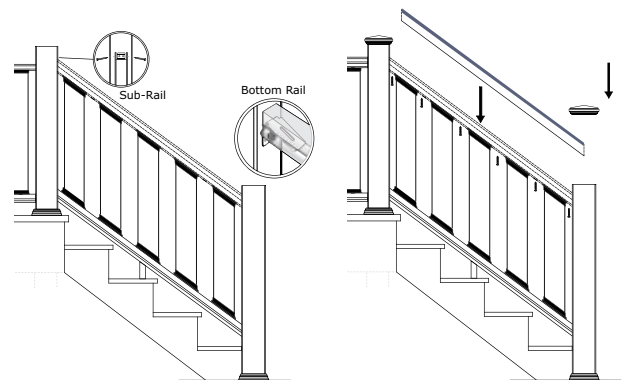
STEP 2



STEP 4



STEPS 4 &amp; 5



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