

# 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)
- Round Aluminum Balusters

### TOOLS NEEDED:

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



ROUND ALUMINUM BALUSTERS  
W/ DECK BOARD CAP RAIL

# LEVEL INSTALLATION

## BEFORE STARTING

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

### FINISHED RAIL HEIGHT:

36" with Aluminum Balusters = 38-3/8"  
42" with Aluminum Balusters = 42-3/8"

## 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.

## 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 holes on both ends of bottom rail and inverted top rail. Cut deck board cap rail, sub-rail and inverted top rail to the same length, making sure that the pre-drilled baluster connector holes line up with each other. **NOTE:** The top aluminum insert should be cut 1/4" shorter than the inverted top rail.

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

- Place bottom rail on work surface with underside facing up and aluminum insert in place. The deeper channel should face the baluster connector holes. Place bottom bracket on aluminum insert with flange facing upward and flange even with end of insert. Mark and pre-drill 1/8" hole. 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: At this time the top aluminum insert will need to be cut a 1/4" shorter than the sub-rail and inverted top rail. With the deeper side of the aluminum insert facing upward place mounting brackets on each end of aluminum insert with the flange facing down towards work surface. Install two #10 x 3/4" mounting screw for each bracket.

## STEP 5 - ASSEMBLE RAIL SECTION

- Place rails on non-abrasive work surface with pre-drilled baluster connector holes facing you.
- Screw baluster connectors to rail in pre-drilled locations using provided hardware.
- With bottom rail on non-abrasive work surface, set balusters in place over connectors using a rubber mallet.
- Install top rail aluminum insert into inverted top rail. Deeper channel should face baluster connector holes and bracket flanges should be facing upward towards you. Aluminum insert should snap into inverted top rail.
- With balusters in place in bottom rail, set inverted top rail in place over balusters. Starting at one end, work towards opposite end and, while using a rubber mallet, gently tap the inverted top rail into place.

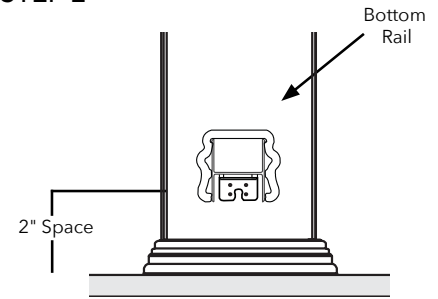
## STEP 6 - RAIL INSTALLATION

- Place assembled rail section in place between posts, just above bottom screw. Slide section down to engage bottom mounting bracket with installed screw.
- Find the center of post/mounting surface and center the top mounting bracket.
- Pre-drill two 1/8" holes through mounting bracket into post/mounting surface and install two "non painted" #10 x 1-1/4" screws in each bracket at both ends. Do this in each top bracket.
- Sub-Rail: Place deck board cap rail on a non-abrasive work surface. With flat side of sub-rail on the deck board cap rail, center sub-rail along length of the deck board cap rail. Using the hardware provided, install two #20 x 3/4" screws, side by side, at quarter points along deckboard.
- With the sub-rail installed onto deck board, carefully snap sub-rail over top aluminum insert. Ensure that the top rail is seated entirely.

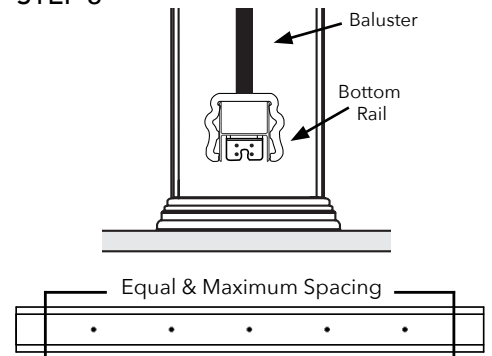
## STEP 7 - FINISHING STEPS

- 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.

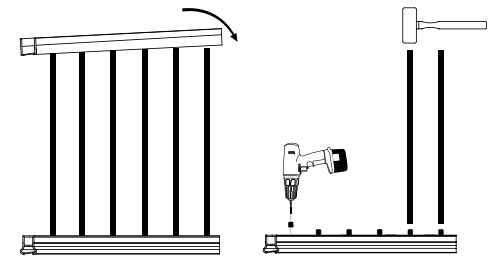
## STEP 2



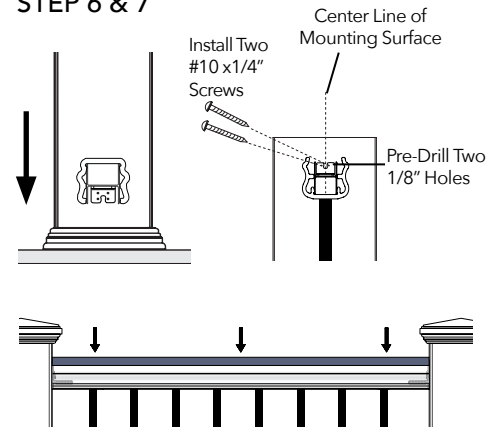
## STEP 3



## STEP 5



## STEP 6 & 7



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

## 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 equidistant 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. Again, 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

- **Bottom Rail Brackets:** Place bottom rail bracket on underside of bottom rail aluminum insert with mounting flange facing upward. Flange should be flush with the end of the rail. Mark and drill 1/8" hole in aluminum. Install #10 x 3/4" mounting screw through bracket on each end.
- **Top Rail Brackets:** Since the mounting brackets will be installed on the top rail aluminum insert, cut the top rail aluminum insert 1/4" shorter than the top rail. With bracket flange facing down, drill 1/8" hole and install #10 x 3/4" mounting screw through bracket on each end.
- Adjust bracket angles to stair rise/run, if necessary.
- Find center of post/mounting surface (Example 4.25" post = 2/18"). Mark vertical center line. Now determine distance between bottom of bottom rail and stair tread. Add 3/8" and mark on vertical line. Drill 3/8" hole at this mark and install #14 x 1" screw to within 1/8" of surface. Check screw clearance by using bottom rail bracket. Fit should be snug.
- Set bottom rail in place and locate center of rail. 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

- Place rails on non-abrasive work surface. With predrilled baluster connector holes facing up, screw baluster connectors in pre-drilled locations using supplied hardware.
- Attach aluminum balusters onto bottom rail using a rubber mallet.
- With balusters in place on bottom rail, set inverted top rail in place over balusters. Starting at one end, using a rubber mallet, tap in place and work your way down until rail is set properly over all balusters.
- With bracket flanges facing up, snap the top rail aluminum insert into inverted top rail.

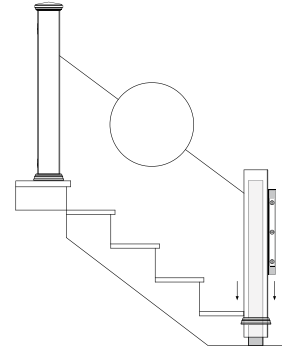
## STEP 5 - INSTALL RAIL SECTION

- Place assembled rail sections between posts and slide down over installed bottom screws, ensuring that it is properly seated.
- 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 cap rail on a non-abrasive surface and, with flat side down, center sub-rail along length of the deck board cap rail. Using the provided hardware, install two #10 x 3/4" screws, side by side, at quarter points along sub-rail.
- With the deck board cap rail installed, carefully snap top rail over top aluminum insert. Ensure that the top rail is seated entirely.

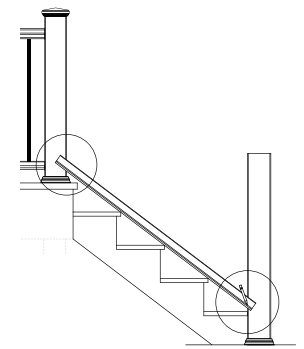
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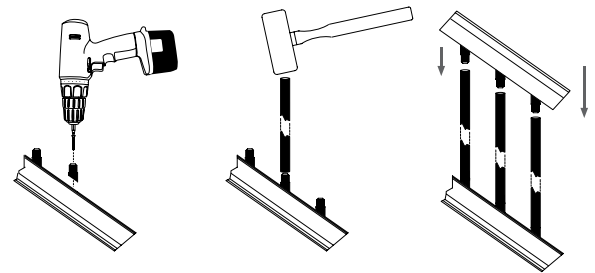
STEP 1



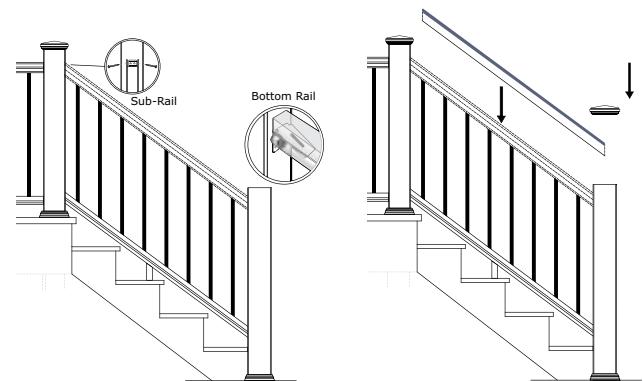
STEP 2



STEP 4



STEP 5



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