

FAIRWAY RAILING™

BY  **Envision™**
OUTDOOR LIVING PRODUCTS

P310 CPVC RAILING INSTALLATION QUICK GUIDE



GLASS BALUSTERS

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

LEVEL INSTALLATION

BEFORE STARTING

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

FINISHED RAIL HEIGHT:

36" with Glass Balusters = 39-1/8"

42" with Glass Balusters = 45-1/8"

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.
- Transfer this measurement to bottom rail making certain that there is equal and maximum distance from each end to the first baluster. The rail should be as symmetrical as possible.
- Bottom rail, bottom aluminum insert, sub-rail, and top rail can all be cut to same length. Top aluminum insert should be cut 1/4" shorter.

STEP 4 - INSTALL RAIL MOUNTING BRACKETS & RAIL SUPPORT

- Place bottom rail on work surface with aluminum insert in place. Place bottom bracket on aluminum insert with 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.
 - 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:** The aluminum insert for the sub-rail needs to be 1/4" shorter than the sub-rail. With the pre-drilled holes on the sub-rail facing upward and the aluminum insert on the work surface, place one mounting bracket on each end of the aluminum insert with the flange facing downward towards the work surface. Pre-drill 1/8" hole in each mounting bracket. Install one #10 x 3/4" screw for each bracket.
- NOTE:** Be sure to slide the sub-rail back to allow installation of brackets.

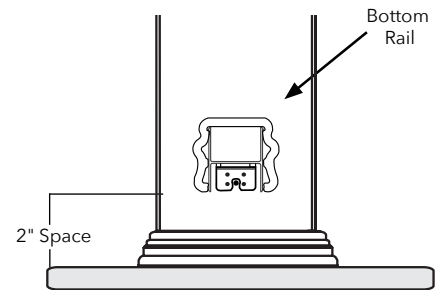
STEP 5 - ASSEMBLE & INSTALL RAIL SECTION

- Place rails on non-abrasive work surface with pre-drilled baluster holes facing you.
- Screw glass baluster connector shoes to rail in pre-drilled locations using provided hardware.
- With bottom rail on non-abrasive work surface, set 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 each mounting bracket into post/mounting surface. Install two #10 x 1-1/4" screws in each bracket at both ends.

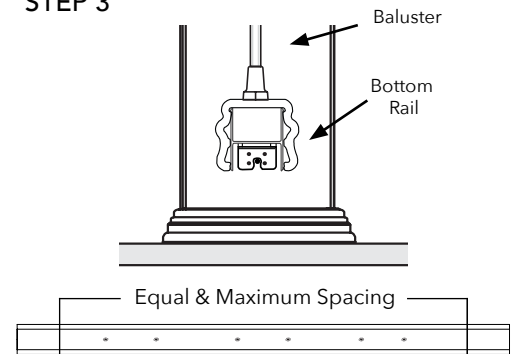
STEP 6 - FINISHING STEPS

- With top rail cut to proper length, snap top rail over aluminum insert.
- 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.

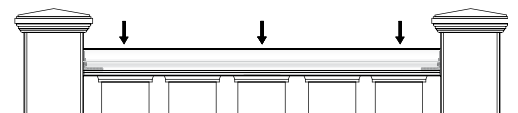
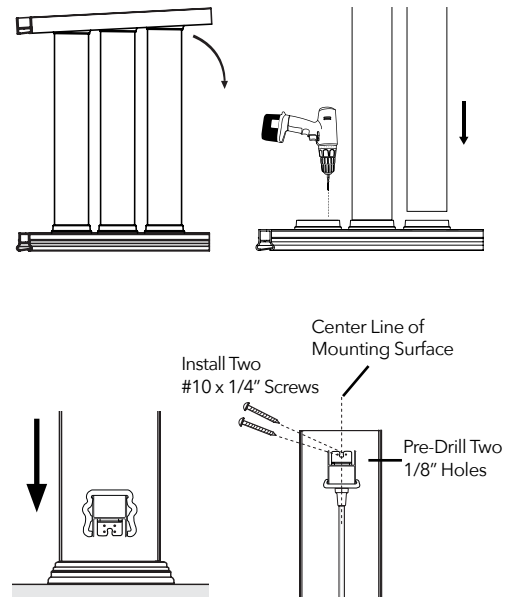
STEP 2



STEP 3



STEP 5



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 with a rise/run of 30-34°.

STEP 1 GETTING STARTED

- Plumb all posts or mounting surfaces. Install post trim at this time.
- Determine bottom rail height off stair tread nosing to bottom of bottom rail based on local code requirements.

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 glass baluster connector shoes.

- Lay bottom rail on stair nosing and against side of posts. Making 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, and top 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

- **Bottom Rail Brackets:** Working on a secure surface, and with the aluminum insert in the correct position, turn the rail upside down and place the bottom rail bracket onto the aluminum insert with the flange facing upward towards you. Flange should be flush with the end of the rail. Mark and drill a 1/8" hole in the center of aluminum insert. Install #10 x 3/4" mounting screw through bracket.
- **Top Rail Brackets:** Working with the top aluminum insert and the deeper side facing you, position bracket on end of aluminum with flange facing downward away from you. Find center of elongated slots. With bracket flange facing down, drill 1/8" hole and install #10 x 3/4" mounting screw on each end.
- 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 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. **NOTE:** For glass balusters, two rail supports are required.

STEP 4 - ASSEMBLE RAIL SECTION

NOTE: From here, we recommend installation become a two-person job.

- Place rails on non-abrasive work surface. With pre-drilled baluster connector 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 rail in place starting at one end working towards opposite end.

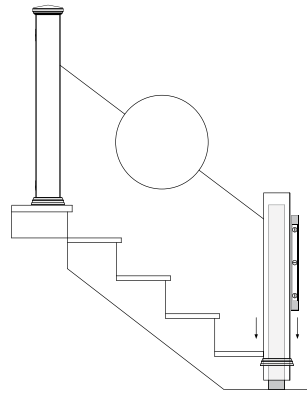
STEP 5 - INSTALL RAIL SECTION

- With sub-rail in place, install top rail aluminum insert onto sub-rail with bracket flanges facing up towards you. Gently tap aluminum insert into position with rubber mallet. The aluminum insert will snap 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.
- With all screws installed, carefully snap top rail over aluminum insert.

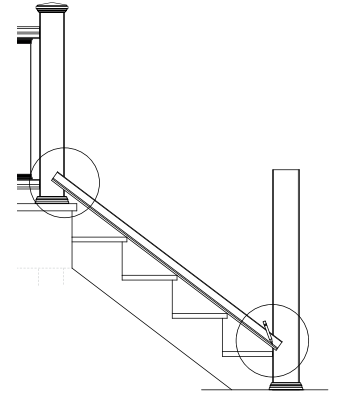
STEP 6 - FINISHING STEPS

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

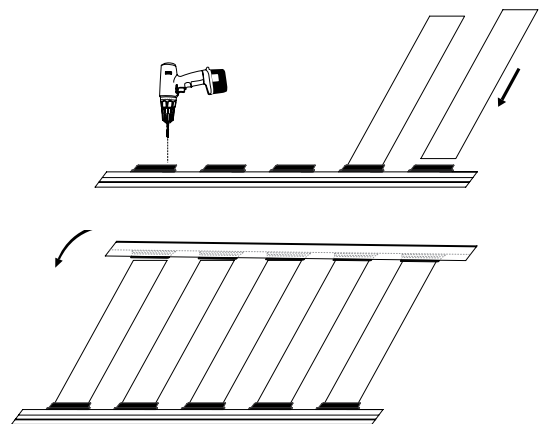
STEP 1



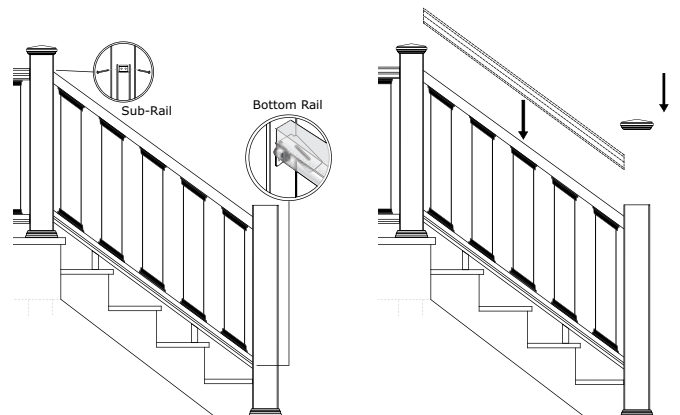
STEP 2



STEP 4



STEP 5



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.

