

Composite Contour Railing

LEVEL Installation Instructions

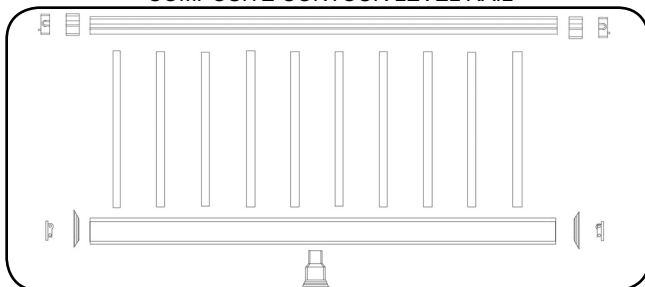


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- I** It is the responsibility of the installer to meet or exceed all code and safety requirements, and to obtain all required building permits. These instructions are only a guide and may not address every circumstance. The deck and railing installer should determine and implement appropriate installation techniques for each situation.

FAIRWAY Vinyl Systems shall not be held liable for improper or unsafe installations.

COMPOSITE CONTOUR LEVEL RAIL



Contour Kit Includes:

- 1 ea. - Composite Contour Top Rail
- 1 ea. - 2" x 3½" Composite Bottom Rail
- 1 ea. - Contour Aluminum Insert (Top Rail)
- 2 ea. - Contour Mounting Brackets (Two Piece)
- 2 ea. - 2" x 3½" Composite Standard Level Mounting Brackets (Two Piece)
- 1 ea. - Pack S.S. Mounting Screws
- 1 ea. - Foot Block

Composite Balusters Included in Kits:

- 6' Kit - 13 Balusters
- 8' Kit - 18 Balusters

Step 1 Check Local Code Requirements

- a) Check all local building codes for design and load requirements for your railing application. Fairway Composite Railing meets or exceeds IBC International Building Code, IRC International Residential Code (one or two family dwellings), BOCA 1999 and ASCE 7-02 – minimum design loads for building and other structures.
- b) Always use safety equipment when installing our maintenance-free railing.

NOTE: Composite Railing is a pre-finished product. Always work with material on a non-abrasive surface such as cardboard.

Step 2 Mounting Surface Preparation

NOTE: Make sure all mounting surfaces are plumb. Fairway Vinyl Systems offers the following composite post options:

4¼" Composite Post - will slide over 4" x 4" wood posts.

5" Composite Post - will slide over 4" x 4" wood posts.

Use base trim ring at bottom of composite post or vinyl post sleeve. For bottom rail height of 2" to 2½" use a universal post "SLEEVE" trim ring (4pc); more than 2½" will accommodate a classic trim ring. Allow enough height for railing post to be cut down after rail height is determined.

Step 3 Mounting Bottom Brackets

- a) Determine level placement of bottom rail. This should be no greater than 3½" and no less than 2½" from bottom of lower rail to floor or deck surface for 36" high railing and no greater than 2" for 42" high railing. Make a pencil mark between finished deck and bottom of rail.
- b) Measure up 3/8" above previous mark and square and center bottom of black mounting bracket. Mark screw mounting holes in four corners of black mounting bracket and pre-drill four (4) 5/32" holes.
- c) Screw into place with four (4) # 12 x 1¼" pan head screws. **NOTE:** Do not over-tighten mounting screws. Repeat on opposite post.

Step 4 Mounting Top Brackets

- a) After bottom mounting bracket is in place, measure from bottom of black mounting bracket up 31¼" for 36" high Contour Rail or 38-7/8" for 42" high Contour Rail and mark with pencil. This will be the mark for the bottom of the top bracket.
- b) Square and center black mounting bracket and pre-drill four 5/32" holes and install four (4) #10 x 1½" pan head screws. Repeat on opposite post.

Step 5 Cutting Rail to Length

- a) Measure span from inside black mounting brackets for bottom rail length. Next mark bottom rail for cutting. Make sure you have equal amount of spacing and maximum distance between baluster and post on each end of bottom rail.
- b) Cut rail squarely with a power miter box or hacksaw. (See saw blade manufacturer's specs for proper blade.)

Step 6 Installing Foot Block

- a) Find the center of the bottom rail and mark.
- b) Compress foot block to 2" height and mount foot block to the bottom center of bottom rail. Align foot block on center of rail, pre-drill a 1/8" hole and screw in place. Slide bottom rail into black mounting brackets and rest base of foot block on finished deck.
- c) Square up foot block with rail and trace around foot block base.
- d) Remove bottom rail from black mounting brackets.
- e) Where foot block is marked, draw an "X" from corner to corner to find center.
- f) Drill a 1/8" hole into decking where lines intersect.
- g) Screw four prong foot block mounting plate in place with prongs facing up.
- h) **NOTE: With bottom of rail facing up, drill 2 or 3 weep holes (¼") evenly spaced through bottom and middle walls of rail to allow for draining of condensation build up. (Bottom rail only.)**

Step 7 Mounting Bottom Rail

- a) With foot block base plate mounted to deck, slide trim ring bracket covers, wide side out, over ends of bottom rail. Set bottom rail into black mounting brackets and line up with mark for rail height. (You should have 3/8" of bottom rail above and below black mounting bracket.)
 - b) Pre-drill a 1/8" hole through side hole provided on black mounting bracket into bottom rail (one screw per side) and insert #10 x 1" self-tapping pan head screws (four screws per rail). Push trim ring covers towards black mounting bracket and snap in place.
 - c) With bottom rail in place, pull foot block down in place and snap fast to base plate.
 - d) With foot block in place, insert screw into side of foot block (1-5/8" up from base) and install white screw cover.
- NOTE:** Do not install screw in catch side of foot block.

Step 8 Installing Balusters & Mounting Top Rail

- a) Measure distance from bracket to bracket where rail will mount. Cut top rail to length. You may cut both aluminum and composite top rail at the same time. (If post is plumb, top rail should be same length as bottom rail.)
- b) Make sure distance from post to baluster is the same both top and bottom. Place a baluster in each hole. Slide bracket trim ring on both ends of top rail (flat side towards end of rail). From one end, start to place top of baluster into holes in top rail.
- c) Once all balusters are in place, top rail will rest in black mounting bracket. Using #10 x 1" self-tapping pan head screw, install screw through slot on side of black mounting bracket into rail. One (1) screw per side is needed. Slide trim rings onto black mounting bracket.

Step 9 Cutting Post Sleeve to Height

After your railing is installed, you may need to trim the top of the post sleeves before installing post caps. We recommend measuring up 2½" to 3½" from the top of the mounting bracket trim cover and making a pencil mark prior to cutting. **NOTE:** Finished post height with post cap may be adjusted for personal preference and appearance. Once all marks are satisfactory, cut the sleeve using a hand or power saw. (Be sure to cut top of post square.) You are now ready to install your post cap. Apply a small amount of PVC glue or silicone caulk to the inside lip of the cap and mount in place.

Step 10 Cleanup

If cleaning becomes necessary, use a water hose, mild detergent and soft cloth. If stains or scuff marks appear, use Fairway Cleaner and #0000 steel wool. The surface can be sanded with a fine sand paper such as 200 grit followed by 400 or 600 grit to polish and restore original finish. Touch-up paint is available if needed.

Composite Contour Railing

STAIR Installation Instructions

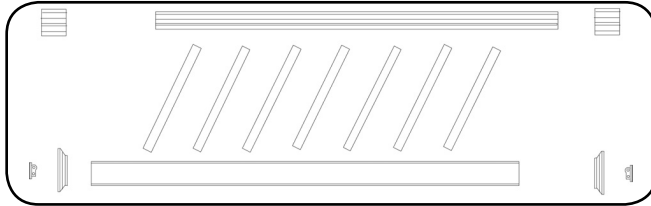


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COMPOSITE CONTOUR STAIR RAIL



8' Contour Stair Kit Includes:

- 1 ea. - 8' Composite Contour Top Rail
- 1 ea. - 8' 2" x 3/2" Composite Bottom Rail
- 1 ea. - 8' Composite Contour Aluminum Insert
- 2 ea. - Contour Stair Rail Mounting Brackets
- 2 ea. - 2" x 3/2" Composite Standard Stair Brackets (Two Piece)
- 17 ea. - 1 1/4" x 1 1/4" Square Balusters
- 1 ea. - Pack S.S. Mounting Screws

Step 1 Safety Precautions

- a) Check all local building codes for design and load requirements for your railing application. Fairway Composite Railing meets or exceeds IBC International Building Code, IRC International Residential Code (one or two family dwellings), BOCA 1999 and ASCE 7-02 – minimum design loads for building and other structures.
- b) Always use safety equipment when installing our maintenance-free railing.
NOTE: Composite Railing is a pre-finished product. Always work with material on a non-abrasive surface such as cardboard.

Step 2 Mounting Surface Preparation

NOTE: Make sure all mounting surfaces are plumb. Fairway Vinyl Systems offers the following composite post options:

4 1/4" Composite Post - will slide over 4" x 4" wood posts.

5" Composite Post - will slide over 4" x 4" wood posts.

Use base trim ring at bottom of composite post or vinyl post sleeve. For bottom rail height of 2" to 2 1/2" use a universal post "SLEEVE" trim ring (4pc); more than 2 1/2" will accommodate a classic trim ring. Allow enough height for railing post to be cut down after rail height is determined.

Step 3 Bottom Rail Preparation

- a) With posts and mounting surfaces prepared, you are now ready to mark and cut bottom rail to length. First, rest the bottom rail on the deck surface and other end on the last stair tread (*baluster pockets up*).
- b) Check the distance from the mounting surface to the first baluster. Make sure you have maximum and equal distance at both ends of the bottom rail. With the bottom rail set in the proper location, make a vertical pencil mark on the inside of the mounting surface where post and rail meet.
- c) With bottom rail marked, deduct 1/4" from each rail end to allow for black mounting bracket. You may cut composite with a power miter box or hack saw. (*See saw blade manufacturer's specs for proper blade.*)

Step 4 Mounting Bottom Rail & Top Rail Preparation

- a) With bottom rail cut to length, slide the black mounting brackets onto the ends of the bottom rail and center on end of rail. Set rail with brackets between posts. Set to proper height off of deck and bottom tread nosing (*check with local building code for height requirements*) and mark the top of black mounting brackets on post.
- b) Remove the black mounting brackets from the ends of bottom rail and square and center brackets with the mark on the posts. Mark the screw holes in the four (4) corners of the black mounting brackets. Pre-drill four (4) 5/32" holes. Install brackets with four (4) #12 x 1 1/4" pan head screws.
- c) With both black mounting brackets screwed to mounting surfaces, slide trim covers on ends of rail, flat side towards mounting surface.
(TIP: If pitch is greater than 32° cut along marks on inside of bracket.) Set bottom rail into black mounting brackets, making sure rail is centered.
(TIP: You may want to cut blocks to proper height for rail to rest on.) Make sure mounting screws are not over-tightened. (*This may prevent trim covers from snapping onto black mounting plate.*) With bottom rail set in place, you will now install a #10 x 1" self-tapping pan head screw in one of the holes along the side of the black mounting bracket. Only one (1) screw per side is needed.
- d) Insert a baluster in the baluster pocket closest to the post at each end of stair. Set top rail in place over balusters. With top rail in place, measure the distance from baluster to post at bottom rail and adjust the top rail to match. Make vertical pencil mark on top rail where mounting surface and top rail intersect to denote stair angle. (*If you wish to adjust the height of the top rail by cutting balusters, you may do this now.* **NOTE: Always check your local building codes for rail height requirements.**)

Step 5 Cutting Top Rails

- a) With both ends of top rail marked, place the bottom (*baluster pocket side*) against the back stop of the miter box. Match up miter cut with line marked on top rail and cut. You may cut composite with a power miter box or hack saw. (*See saw blade manufacturer's specs for proper blade.*)

Step 6 Cutting Stair Bracket

- a) With top rail cut to length, measure the distance from end of rail to baluster pocket (*so mounting bracket will not cover baluster pocket*).
- b) Mark bottom of bracket with this measurement. Make sure mounting screws are facing towards balusters. Slide bracket onto a piece of scrap contour rail and cut at same angle as top rail. (**TIP: Use another bracket to hold railing level in miter box for a correct angle cut.**)

Step 7 Installing 3/16" S.S. Pins

- a) With both brackets cut to match top rail, you will need to install pins. (*Pins keep rail from pulling out of bracket while under load.*) Slide bracket onto top rail and hold flush with end of top rail. With bracket flush with end of top rail, make a mark on both sides of bracket.
- b) With top rail marked, remove bracket. Measure from marks toward the end of the top rail 1/2" and down 1/8" from bottom of bead on side of top rail. Where two lines intersect, drill a 7/32" hole through both sides of top rail. Slide bracket onto top rail, insert 3/16" S.S. pin and engage pin into the bracket.

Step 8 Installing Balusters & Top Rail

With top rail brackets mounted to top rail, install all balusters into bottom rail. Start at the bottom of stair run and one by one insert balusters into the top rail. With balusters inserted in top rail, set rail in place and center on mounting surface. Insert two (2) #10 x 4" pan head screws into bracket. While keeping bracket square and centered on mounting surface, start screw in enough to mark mounting surface. Push top rail to one side and pre-drill a 5/32" hole at the same angle as mounting screw. Set rail in place and install mounting screws. With screws in place, insert fill plugs (two (2) per bracket) using PVC glue or silicone caulk to hold in place.

Step 9 Cutting Post Sleeve to Height

After your railing is installed, you may need to trim the top of the post sleeves before installing post caps. We recommend measuring up 2 1/2" to 3 1/2" from the top of the mounting bracket trim cover and making a pencil mark prior to cutting. **NOTE:** Finished post height with post cap may be adjusted for personal preference and appearance. Once all marks are satisfactory, cut the sleeve using a hand or power saw. (*Be sure to cut top of post square*) You are now ready to install your post cap. Apply small amount of PVC glue or silicone caulk to the inside lip of the cap and mount in place.

Step 10 Cleanup

If cleaning becomes necessary, use a water hose, mild detergent and soft cloth. If stains or scuff marks appear, use Fairway Cleaner and #0000 steel wool. The surface can be sanded with a fine sand paper such as 200 grit followed by 400 or 600 grit to polish and restore original finish. Touch-up paint is available if needed.