



STAIR INSTALLATION INSTRUCTIONS

- Please read all instructions completely before starting any installation of our railing systems.
- Rail sections come in 6ft and 8ft.
- Posts are available in RESIDENTIAL rated (2.5" and 3.0") and COMMERCIAL (3" .125 wall with 6 boss channels).
- Optimum railing should be installed using accepted building principles in accordance with local building codes and installation guidelines.
- Optimum has been tested by Intertek and meets the current testing standards for IRC and IBC construction codes.
- If you have any questions, please call us or check the website for more install details.
- **SAFETY:** Always be safe and follow all instructions when using power tools and always wear safety goggles!
- Any questions? Call 844-332-5338 and ask for your railing specialist.



TESTED AND EVALUATED



IMPORTANT: Consult your local building code official and check all code requirements
IMPORTANT: If installing post lighting, wiring must be installed prior to securing posts.

Optimum stair kits (37" & 43") are packaged for secure and safe shipment. Rails and balusters are separated by corrugated compartments. The bracket kit is packaged securely and placed in compartment of the box.

RECOMMENDED TOOLS

- Level
- Rubber Mallet
- 2-Speed Square
- Cordless Drill and Impact Driver
- Quick Clamp Grips
- Measuring Tape
- Miter Saw with High Tooth Count
- 13/64" Drill Bit
- #3 Screwdriver Bit
- Ratchet Set
- Portable Band Saw

HARDWARE AND PROFILES

Friction Fit Stairs Rack 30 to 38 degrees.

Optimum boxed railing kits include:

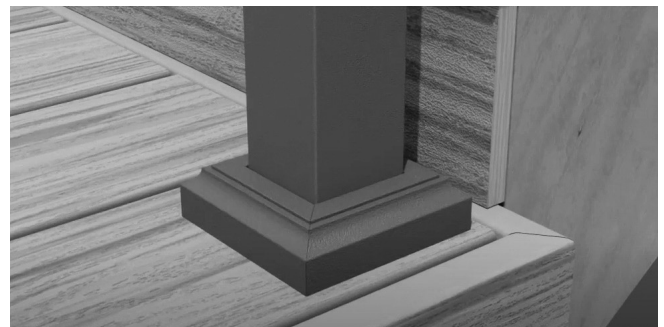
- Top Rail
- Bottom Rail
- 3/4" Square Balusters*
- 5 - #14 Tek Screws
- 2 - Top Rail Brackets & Backer Plates
- 2 - Bottom Rail Brackets & Backer Plates

* 15 Balusters with 6' Kit / 21 Balusters with 8' Kit

STEP 1 POST PLACEMENT AND INSTALLATION

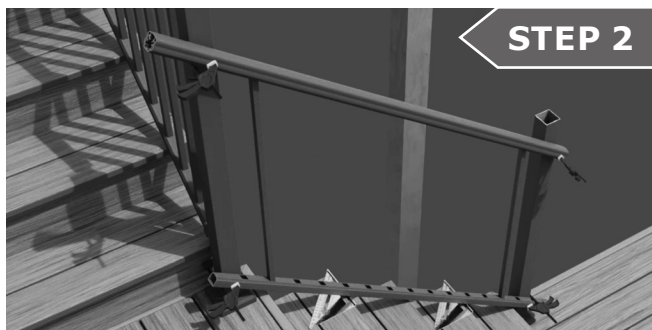


Snap on flange cover to the top and bottom posts.



Flange cover must be on post base to insure clearance of the bottom rail.

STAIR RAIL INSTALLATION



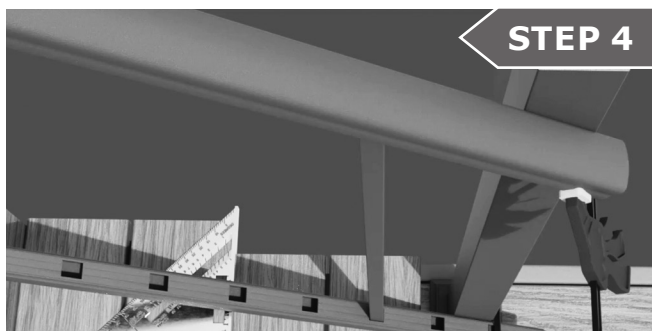
STEP 2

Use 2 speed squares on steps to keep bottom rail of the steps and allow for clearance of flange cover on top of post.



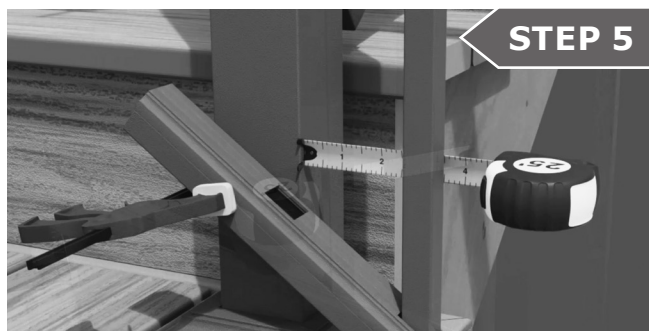
STEP 3

Mark your length of run by clamping your rails to the posts.



STEP 4

Insert a baluster at each end into bottom rail and center top rail so that balusters are plumb, then clamp top rails to posts.



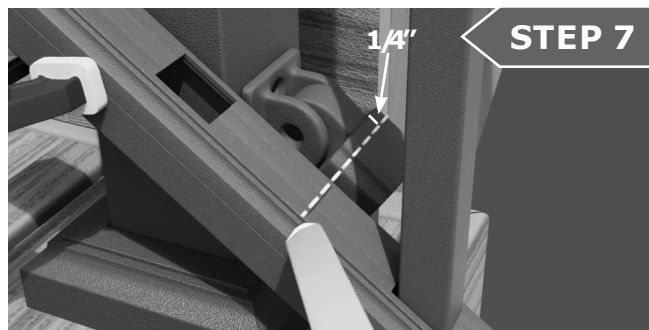
STEP 5

Measure the space between balusters and posts at both ends. Center railing panel so balusters are equally spaced.



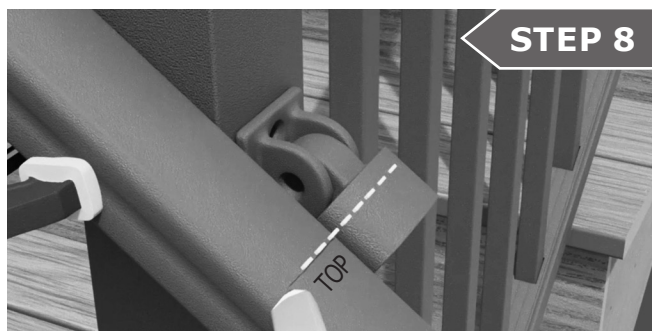
STEP 6

Loosen clamps and adjust panels as needed so that both balusters are plumb.



STEP 7

Holding the fasteners against the posts, align all 4 bracket cups matching the angle of the rails. Mark lines on both corresponding rails and deduct an additional 1/4" from back of bracket.



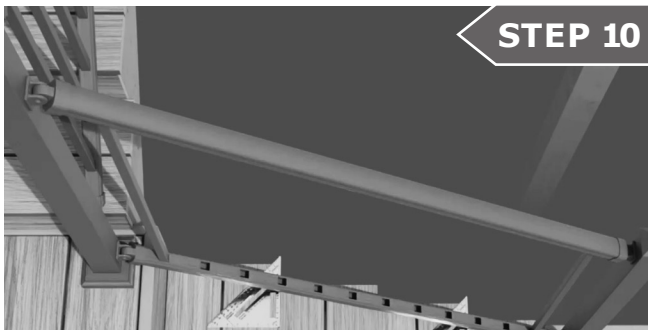
STEP 8

Indicate the TOP of each rail beneath the lines (towards the center of rail), so it will be covered by the cups.



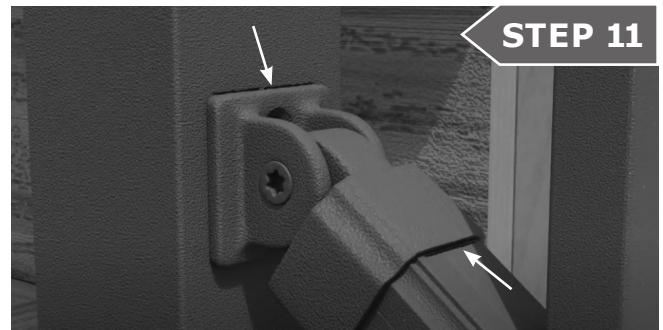
STEP 9

Cut the top and bottom rails along the cut lines using a chop saw. Be sure to use a high tooth count blade. Temporarily attach the bracket cups to the rail ends.



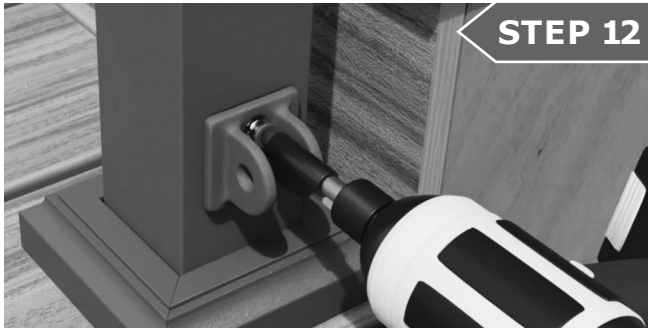
STEP 10

Temporarily position the bottom rail between the posts, resting on the speed squares. Insert a baluster at each end and double check that your panel is symmetrical and the rails are cut to the correct lengths.



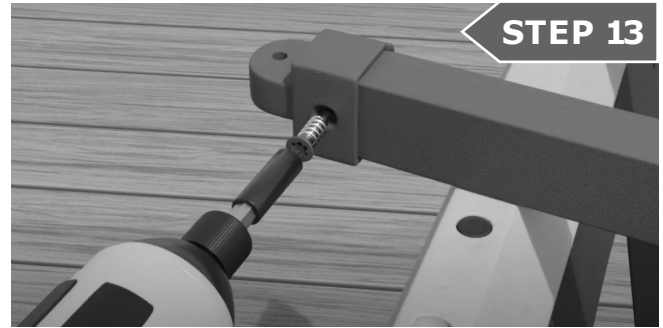
STEP 11

With the panel double checked and ideally positioned, mark the tops of each backer plate, drawing lines along the entire tops for exact placement. Also mark the cup ends on each rail.



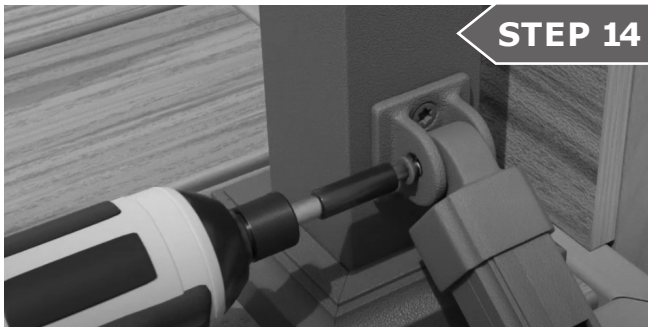
STEP 12

Detach the brackets from the cups. Now install the 4 backer plates, attaching them at the previously marked position on the posts with a #14 Tek screw.



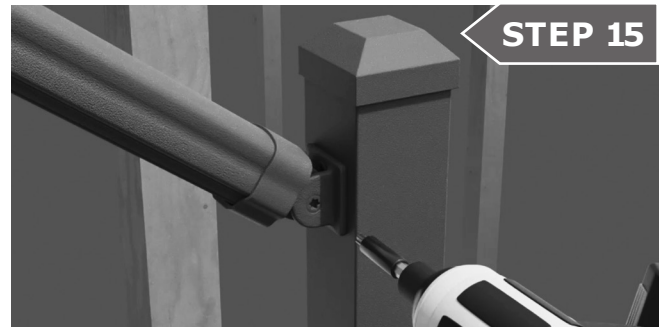
STEP 13

With the rails inserted into the cups up to the drawn lines, fasten each cup to the rail with a #14 Tek screw.



STEP 14

Position the bottom rail into the backer plates and fasten the cups to the backer plates.



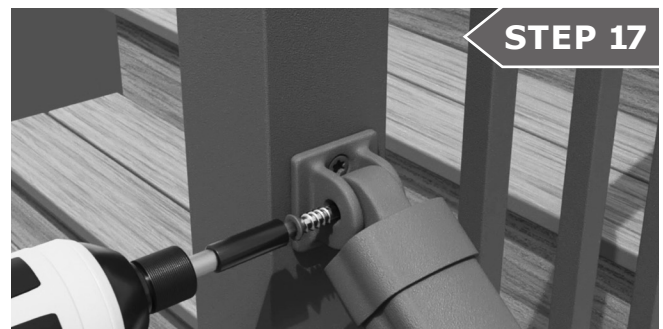
STEP 15

Set a #14 Tek screw on the TOP rail at the bottom of the stair run. This will allow the top rail to PIVOT UP and DOWN for baluster placement. Do not fully tighten the #14 screw at this time.



STEP 16

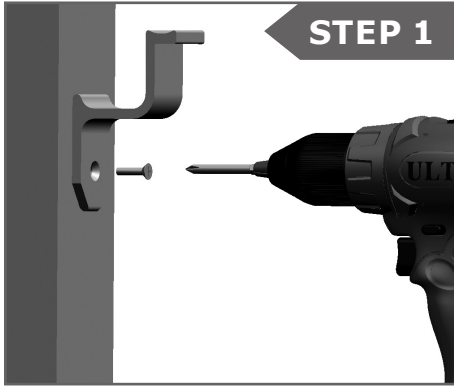
Starting at the bottom, insert balusters one at a time, using the pivoting action of top rail and hold them in place as the next is inserted.



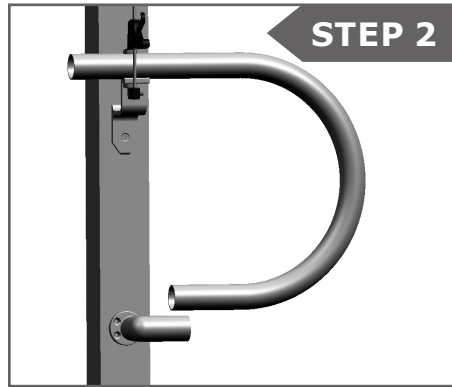
STEP 17

Continue inserting balusters. When all balusters are in position between the posts, secure the remaining #14 Tek screws into the stair brackets. Fully tighten the #14 screw from Step 15 at this time.

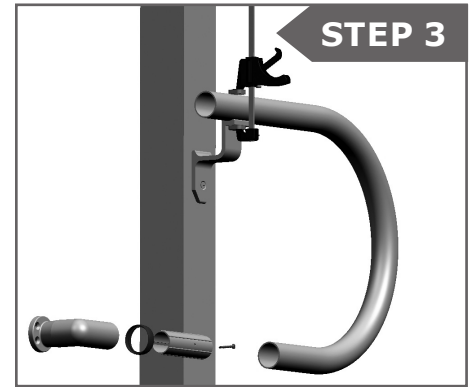
SECONDARY RAIL INSTALLATION INSTRUCTIONS



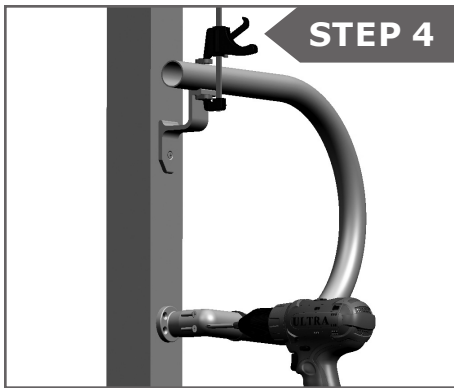
Attach Rail Bracket



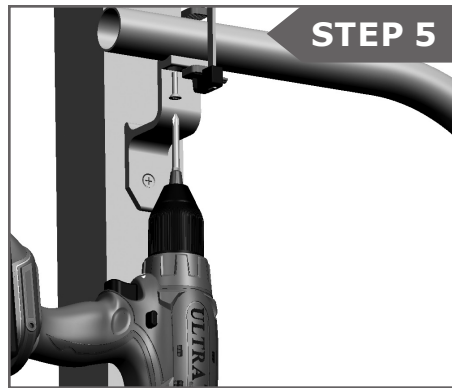
Align P-Loop



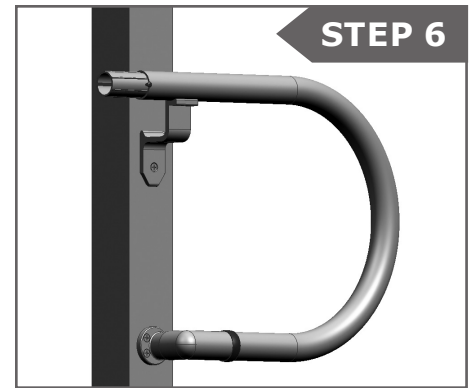
Position P-Loop 90 Degree



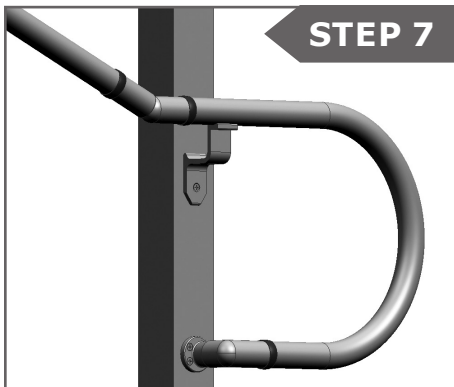
Attach P-Loop to the Post



Attach P-Loop to Hand Rail Bracket



Insert Coupling



Attach Remainder of Railing

OPTIMUM
ALUMINUM RAILING by **FDS**

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844-332-5338 | OptimumRailing.com