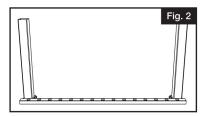


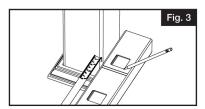
Level Railing Installation

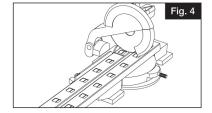
WARNING:

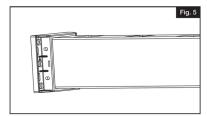
- Improper installation of this product can result in personal injury. Always wear safety goggles when cutting, drilling and assembling the product.
- Incorrect installation may cause harm to the product or individual.

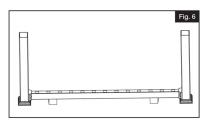


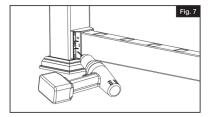












1

Cut Rails to Length:

- a. Place bottom rail across post opening leaving equivalent spacing from the last baluster and post on each end (Fig. 2).
- b. Mark 1/8" from end of post to allow room for expansion (Fig. 3).
- c. Align top rail with bottom rail and cut both rails with miter box or hacksaw (see saw blade manufacturer's specs for correct blade) (Fig. 4).

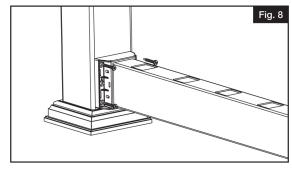
NOTE:

You will have to cut through an aluminum insert in each rail.



Installing Bottom Rail:

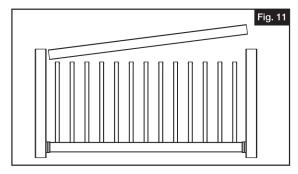
- a. Place brackets onto both ends of bottom rail (Fig. 5).
- b. Slide bottom rail in between posts
- c. Ensure bracket is centered to post.
- d. Drive the first #10 x $1\frac{1}{2}$ " screw through bottom bracket into post (Fig. 8).

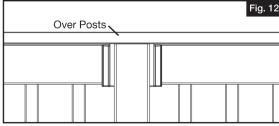


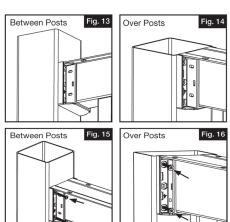


Level Railing Installation





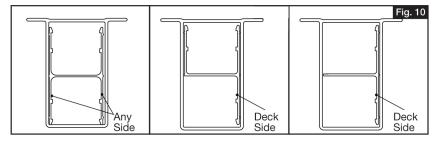




Snap Balusters Into Your Bottom Rail

Push all balusters into bottom rail (Fig. 9).

Aluminum Orientation



Installing Top Rail:

- a. Begin at one side of rail and align first baluster with first routed hole on bottom side of top rail and snap top rail into position (Fig. 11).
- b. Continue down the line of balusters installing balusters into top rail.
- c. If installing railing OVER the post (Fig. 12): Make sure rails are fully seated with balusters and level and centered to post sleeve. Mark the side of the post at the same point where the top corner of the top rail intersects the post sleeve. While leaning railing to side, cut the posts to the length marked.
- d. Install brackets:
 - i. Make sure rails are fully seated with balusters and level and centered to post sleeve. loosely install first #10 \times 1½" screw.
 - ii. Tightly install screws (Fig. 15 & 16).

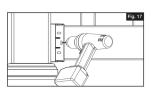
Install Side Bracket Screws And Covers

a. For each installed bracket, pre-drill in the center of each elongated hole with a 1/8" drill bit (Fig. 17).

NOTE:

In some cases you will be drilling though aluminum as well as the vinyl railing.

b. Install #10 x 1" screws in all pre-drilled holes (Fig. 18).



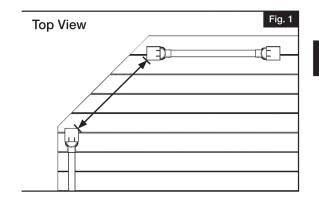


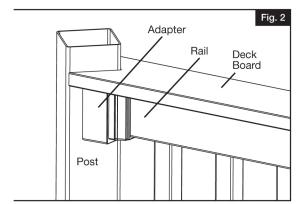




Level Railing Installation

- I. Using pre-molded adapters (at 22.5° or 45°)
- II. Using field cut angle brackets

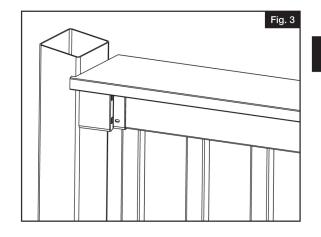




I. 22.5°/45° Pre-Molded Adapters:

- a. Measure distance between post from inside corners (Fig. 1) that will be using the pre-molded adapter and next post.
- b. Install railing as outlined in level rail section, noting the following:

 1).
 - Place adapter between brackets and posts.



II. Field cut angle bracket:

- a. Slide handrail bracket over ends of railing. Measure angle required and cut bracket and rail (and aluminum channel) to that angle.
- b. Repeat for bottom rail.
- c. Install railing per instructions for level railing.

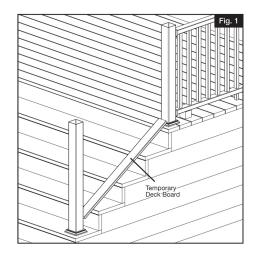
NOTE:

- the maximum cut angle should be no greater than 21.5 degrees to ensure the bracket/rail does not overhang the 4x4 post. If you use this bracket at an angle greater than 21.5 degrees, it is recommended to use a larger post sleeve. The deck board, if installed post to post (versus over the top) will extend beyond the width of the post (Fig. 3).
- You will want to cut the angle bracket enough to keep your spacing between your post and first baluster at a minimum (4" or less).
- Depending on how much the bracket has been cut, a shorter screw may be necessary (to ensure screw does not protrude through the post sleeve).



Stair Railing Installation

- I. Using pre-molded brackets
- II. Using field cut angle brackets

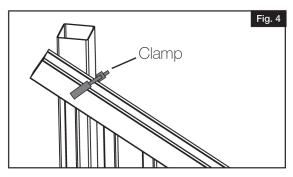


Post Installation:

Closely follow Post Install Kit installation instructions or use a Post Sleeve on an existing wood 4x4.

Determine Spacing:

Temporarily place a deck board (11/4") to your stair treads to determine the spacing between the nose of the stairs and your bottom rail (Fig. 1).



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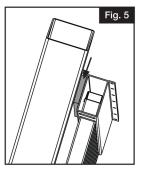
I. Using pre-molded brackets:

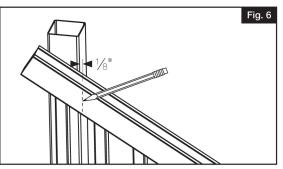
Stabilize Section:

a. Place assembled stair railing section adjacent to mounted stair posts, leaving equal distances from the ends of both balusters and clamp your stair railing section to the posts (Fig. 4).

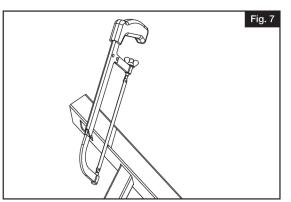
NOTE:

To allow the top rail to fit flush to the post for lamping purposes, use a spacer block (Fig. 5)





b. Trace the post onto each rail (both ends of top and bottom rails). Make four marks in total being sure to mark 1/8" shorter to allow for expansion (Fig. 6).

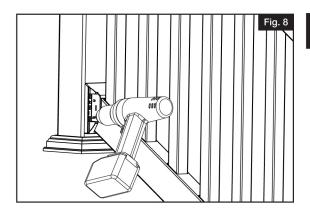


Cutting Rails:

Remove clamped stair kit from posts. Cut along all four angled marks on rails (Fig. 7).



Stair Railing Installation



Install bottom rail brackets: Place brackets onto both er

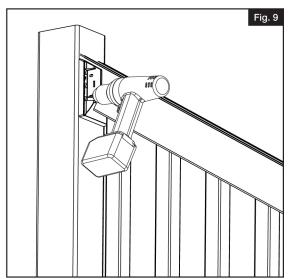
Place brackets onto both ends of bottom rail.

Ensure bracket is centered to post.

Drive the first #10 x $1\frac{1}{2}$ " screw through bottom bracket into post.

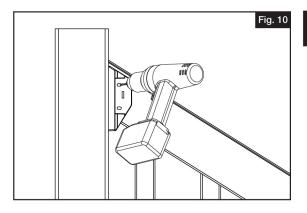
Repeat for the remaining three screws for the first bottom bracket.

Repeat for the second bottom bracket.



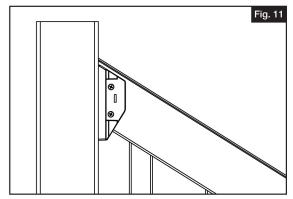
Install top rail brackets:

a. Make sure rails are fully seated with balusters and level and centered to post sleeve. While holding the top bracket snug to rail from underneath, and loosely install first #10 x 1½" SCrew. Screw in the remaining 3 screws and make sure to snug up that first screw.



Install side bracket screws and covers

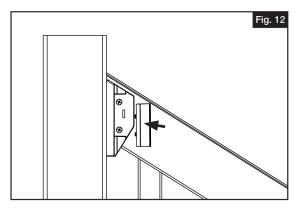
For each installed bracket, pre-drill in the center of each elongated hole with a $\frac{1}{8}$ " drill bit (Fig. 10).



6 Install #10 x 1" screws in all pre-drilled holes (Fig. 11).

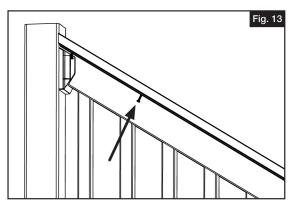


Stair Railing Installation





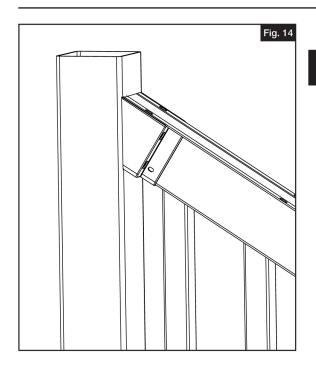
snap cover in place (Fig. 12). Repeat for all brackets.





Deck board top rails should be installed after all railing is assembled. If required

a. Cut deck board to desired length and place over railing.



II. Using Field Cut Angle Bracket:

- a. Slide handrail bracket over ends of railing (Fig. 14). Measure angle required and cut bracket and rail (and aluminum channel) to that angle.
- b. Repeat for bottom rail.
- c. Install railing per instructions for stair railing.