

PRORAIL™ STAIR INSTALLATION INSTRUCTIONS

TIP: Building codes are specific as to angles, steepness and dimensions of stair installations. Typical stair angles are usually 32 degrees (7" rise and 11" run). Check with your local building code official as you plan your stair layout.

Pay particularly close attention to angle cuts to ensure a tight fit.

ProRail stair brackets work only with a stair slope from 26 degrees to 38 degrees, optimal at 32 degrees. ProRail stair kits top and bottom rails are routed to allow installations up to 32 degrees. A stair installation beyond 32 degrees will require additional routing of the rails by the installer.

Step 1: Install Post Sleeves and Base Trim.

- 1.1: Trim Stair Post Sleeve to desired length. In most cases, the stair post and stair post sleeve will need to be longer than posts on the deck on the lower side of the stair rail section to accommodate stair angles. (41" is recommended for a typical 36" rail height and 32 degree stair angle.)
- 1.2: Make sure the top and bottom posts for stairs are installed so the base trims are installed at the nose of each tread.
- 1.3: Slide post sleeve and base trim over wood 4 x 4. Plastic post spacers are included in 5 x 5 ProRail post sleeves and fit tight over 4 x 4 wood post.

OR

- 1.4: Slide post sleeve and base trim over steel Post Install Kit (model #73003575, sold separately) - See separate post install kit instructions for details.

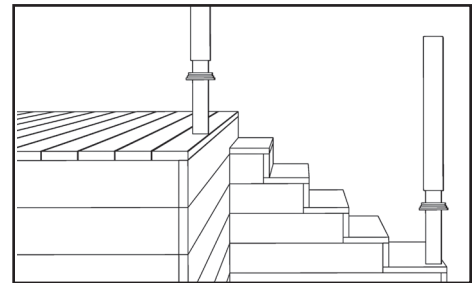


Figure 1.2

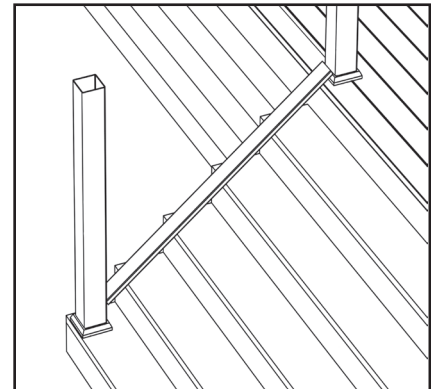


Figure 2.1

Step 2: Cut Rails to Length:

- 2.1: Place a temporary spacer board (5/4" deck board) on top of stair nosing for proper spacing underneath rails.
- 2.2: Set bottom rail on top of temporary spacer board making sure to leave equivalent space on both ends from post to first routed hole for balusters. Clamp to posts.
- 2.3: Mark angled line on bottom rail at intersection of rail and posts.

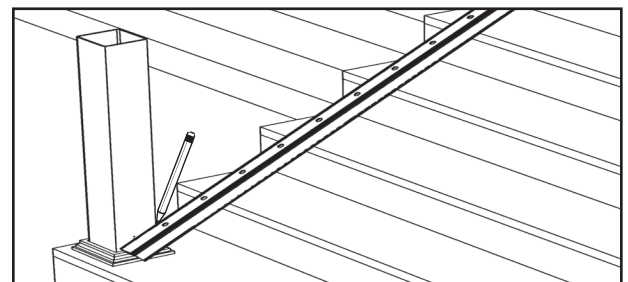


Figure 2.3

- 2.4:** Assuming posts are plumb, align top rail with bottom rail and cut both rails at the marked angles and lengths. Like the bottom rail, be sure to leave equivalent space on both ends of top rail from post to first routed hole.

Prior to cutting rails: Ensure proper fit by cutting a test piece of wood to the previously determined length and angle to fit into the opening between the posts.

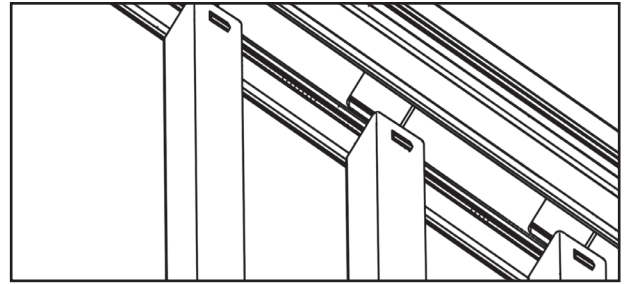


Figure 3.1

Step 3: Install Balusters:

- 3.1:** Assemble stair rail section by snapping balusters into routed holes. All lock tabs on balusters must face outer edge of routed holes in rails.

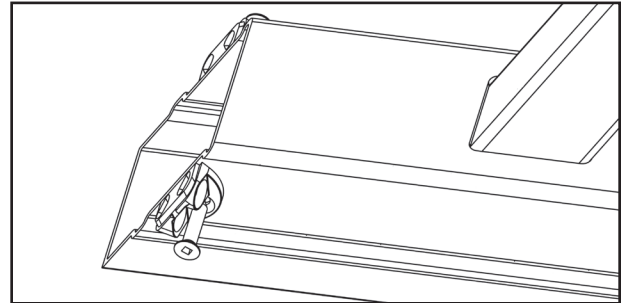


Figure 4.1

Step 4: Install Stair Section

- 4.1:** Attach bottom rail bracket to bottom rail with one #10 x 1" flat head screw. Brackets should align flush to the angled edge/cut of the bottom rail. Repeat on both ends of bottom rail, each side.

- 4.2:** Carry assembled stair rail section and place between installed posts and directly on top of temporary 5/4" spacer board.

- 4.3:** On each post, mark under top rail cross rib where cross rib meets the post. This will aid in the proper placement of the top rail brackets.

- 4.4:** Remove the stair section from between posts.

- 4.5:** Place the top of the top rail bracket along the previously marked post lines (2 screw side faces up). Install the two top rail brackets into posts with three #10 x 2-1/2" screws each.

- 4.6:** Re-carry assembled stair rail section and place between installed posts, making sure top rail fits snug over the installed top rail brackets. Bottom rail should be resting directly on top of temporary 5/4" spacer board.

- 4.7:** To locate side screw placement for top rail brackets, (included in bracket packaging) tape side screw template to side of top rail. Using 1/8" drill bit, predrill through marked hole into rail and bracket. Screw #10 x 1" pan head screw through hole.

- 4.9:** Using #10 x 1" flat head screws, attach the bottom rail brackets to both the top and bottom stair posts. (2 screws per bracket)

- 4.10:** Snap bottom rail bracket covers over each bottom rail bracket to hide screws.

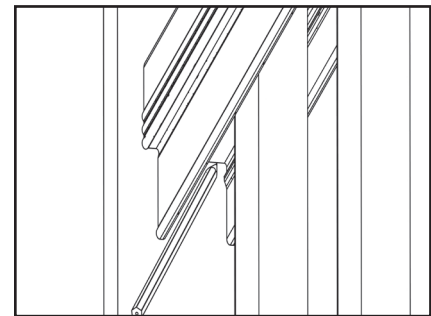


Figure 4.3

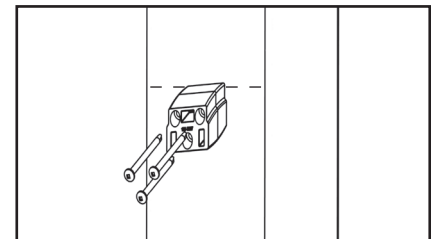


Figure 4.5

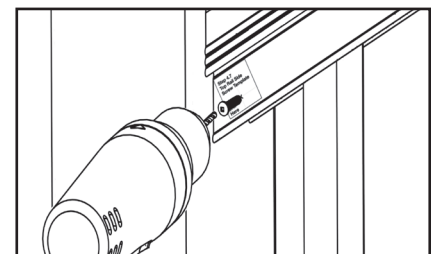


Figure 4.7

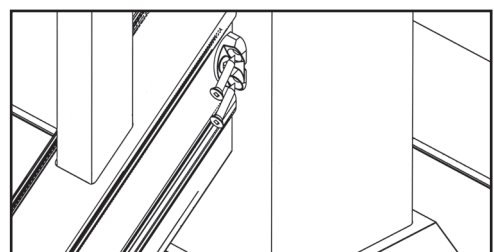


Figure 4.9