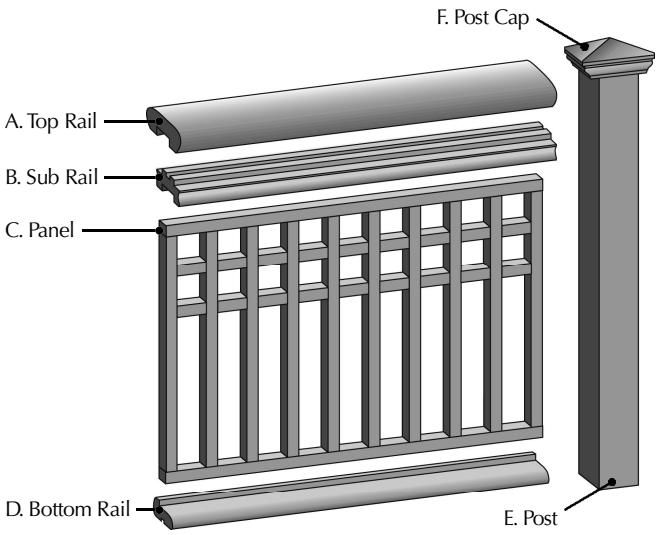
WOODWAY ARCHITECTURAL
DECKRAIL
Installation Instructions

PLEASE READ THROUGH BEFORE STARTING ASSEMBLY

Architectural Deckrail Series Products Required

A. Top Rail B. Sub Rail C. Panel
D. Bottom Rail E. Post F. Post Cap



Check for These Contents with Every Packaged Panel

- Pre-assembled panel
- 4" stainless steel lag-eye rail fasteners (rail to post) (4)
- 1" stainless steel wood screws (4)
- Instructions

Note: Failure to use the lag-eye rail fasteners provided may compromise the structural integrity of this product.

Items You Will Need

- Electric drill/driver with lag-eye driver bit, hex bit and phillips bit
- Hand saw
- Tape measure
- Chop saw
- 2 1/2" non-corrosive trim-head self-tapping wood screws **(not provided)**

Introduction

Woodway's Architectural Deckrail Series is a complete deck railing system for residential and commercial applications. This instruction sheet covers the installation of this railing system. Please note that rails, posts and panels are sold separately.

Helpful hints!

- Always consult local building codes prior to installation (see back page for further reference to building codes).
- Always use non-corrosive fasteners.
- We recommend pre-finishing rails and panels prior to installation (see page 4 for finishing recommendations).

Installing Posts

Step 1

Install posts at desired intervals, making sure posts are plumb. Posts should be bolted and blocked to joist frame.

Note: See Step 5 for trimming panels when considering placement of posts.

Rail Fasteners to Posts Installation

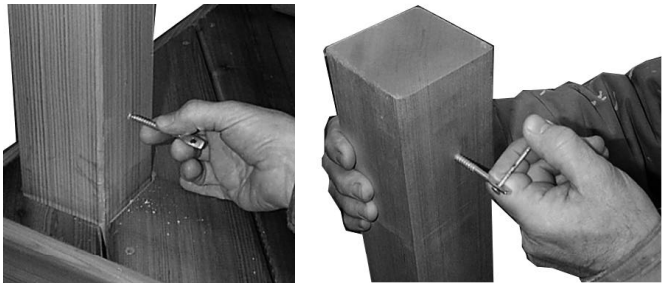
Step 2

Using a 3/16" drill bit, pre-drill the posts for the lag-eye rail fasteners. We recommend that the bottom hole be centered on the post at 3 1/2" above the deck. The second hole should be 35 1/2" above deck surface for residential height railings and 41 1/2" for commercial height applications.

Note: This will put the top of the railing at 36 1/2" or 42 1/2" above the deck surface. Verify local building code requirements.

Step 3

Install the special 4" stainless steel lag-eye rail fasteners into the pre-drilled holes in the post to a depth of at least 1 1/2". Rotate the flat shank of the lower rail fastener to a vertical position and the upper fastener to a horizontal position.



Trimming Rails and Panels

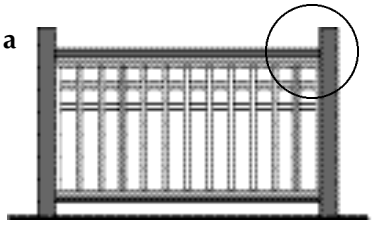
Step 4

Measure the distance between plumb posts, then cut top, sub and bottom rails to length.

Step 5

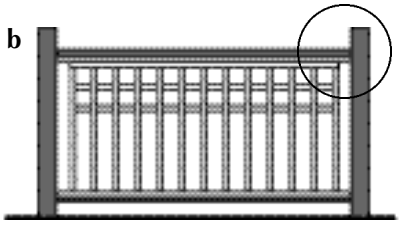
Choose one of these three ways to trim the panels to fit the openings:

a



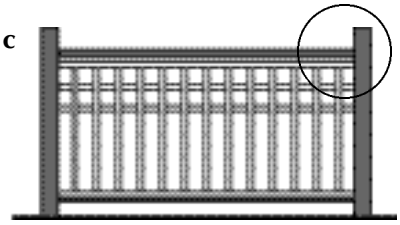
Trim panel to exact fit of opening.

b



Trim panel at appropriate vertical 2x2, allowing no more than a 7" total opening between panel size and post opening. Then center panel between posts.

c

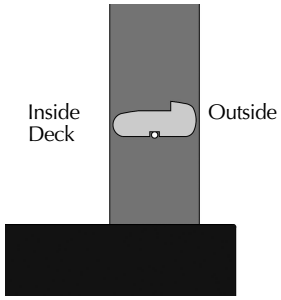


Trim and center panel to exact fit of opening, leaving the horizontals to be pin-tailed to post.

Rails and Panel Installation

Step 6 - Installing Bottom Rail

Place the groove of the bottom rail over the vertically aligned lag-eye rail fasteners. Be sure the thicker side of the rail will be to the outside of the deck. Attach the bottom rail to the lag-eye rail fasteners using the 1" stainless steel screws. Rotate the attached rail back into a horizontal position.



Step 7 - Attaching Sub Rail to Panel

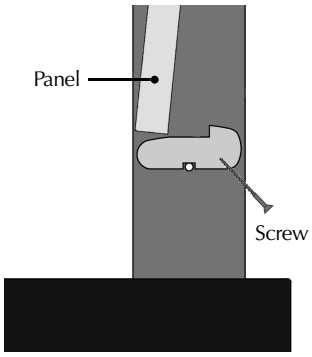
Install the sub rail to the top of the panel using 2 1/2" non-corrosive trim-head self-tapping wood screws. Drive the screws through the center of the groove and into the panel at the balusters. Repeat at every third baluster.

Step 8 - Installing Panels

A. Install panel/sub rail assembly by lifting the panel on a slight angle and placing the groove on top of the sub rail under the upper lag-eye rail fasteners.
B. Swing lower edge of panel assembly in over the bottom rail, into and against the rabbeted face.
C. Once the panel is in place and plumb, secure at an angle a 2 1/2" non-corrosive trim-head self-tapping wood screw through the outside edge of the rail into the panel. Secure at 16" intervals.

A.

B.



C.

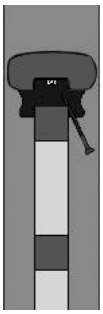
Panel and Upper Rail Installation

Step 9

Placing 1" stainless steel screws through the holes of the lag-eye rail fasteners, attach the panel assembly to the upper rail fasteners.

Step 10

Fit the top rail snugly over the sub rail and then secure at an angle a 2 1/2" non-corrosive trim-head self-tapping wood screw from underneath the lip of the sub rail up into the top rail. Secure at 16" intervals. Alternate both sides of sub rail.



Screw

Finishing Recommendations

We recommend applying a high-quality stain or paint prior to installation. For painting, we recommend a stain-blocking solvent-based primer applied generously to seal all joints and the end-grain of all parts prior to applying the finish paint coat(s). For staining, clear finishes will protect and enhance the natural color but may need more frequent applications to prevent the sun's natural silvering of wood. A semi-transparent stain that complements the wood color may also be used to retain the color with less maintenance and is available in most major brands. Please consult with a local paint or hardware retailer for more detailed information or go to our website at www.woodwayproducts.com.

Building Codes

The Woodway Architectural Deckrail Series Product line has been independently tested by a registered engineer to satisfy or exceed all known building code strength requirements for Handrails and Guardrails. The building codes referenced are the 1997 Uniform Building Code (UBC), the 1999 Standard Building Code (SBC), and the 2000 International Building Code (IBC). Always consult your local building codes prior to installation.

Warranty

LWO Corporation, manufacturer of the Woodway Architectural Deckrail product line ("Woodway product"), warrants that ten (10) years from the date of purchase, Woodway product will be free from defects in material or workmanship, if installed according to instructions.

All component parts of the Woodway Architectural Deckrail Series system must be utilized, properly installed according to instructions, and used for the purpose intended. The sole obligation of LWO Corporation under this warranty is limited to replacement of defective product. The customer is responsible for any transportation costs. No other charges will be paid by Woodway.

Warranty Continued

This warranty specifically excludes any expense involved in the installation or finishing of any replacement products, or any other incidental or consequential damages of any kind. Any changes or improvements to the Woodway product are not covered by this warranty. Woodway does not warrant architecture, engineering, insufficient waterproofing or workmanship of other building components connected to Woodway materials.

Woodway makes no other warranties, express or implied, with respect to the product except as specifically stated here. WOODWAY DOES NOT MAKE ANY WARRANTY OF MERCHANTABILITY WITH RESPECT TO WOODWAY PRODUCT, OR THE APPLICATION OF WOODWAY PRODUCT. WOODWAY MAKES NO WARRANTY THAT THE MATERIALS ARE FIT FOR ANY PARTICULAR PURPOSE.

This warranty will be void if the buyer fails to use the Woodway component system, fails to properly install according to instructions, fails to maintain the Woodway product, or misuses or overloads the Woodway product. In the event of a warranty claim, proof of purchase (including date of purchase) is required. For more information please call (800) 459-8718.

STAIR RAIL

Panel Construction and Installation Instructions

PLEASE READ THROUGH BEFORE STARTING ASSEMBLY

Hardware You Will Need

- 4" stainless steel lag-eye rail fasteners
  Call (800) 459-3718 to order
- 1" stainless steel wood screws
- 3" stainless steel wood screws
- 2" corrosion-resistant wood screws

Note: Failure to use the stainless steel lag-eye rail fasteners may compromise structural integrity of this product.

Items You Will Need

- Phillips screwdriver
- Electric drill
- 1/4" socket wrench
- Tape measure
- Construction adhesive
- Bevel gauge
- Air compressor
- Pin nailer
- Miter saw

Components and Recommendations

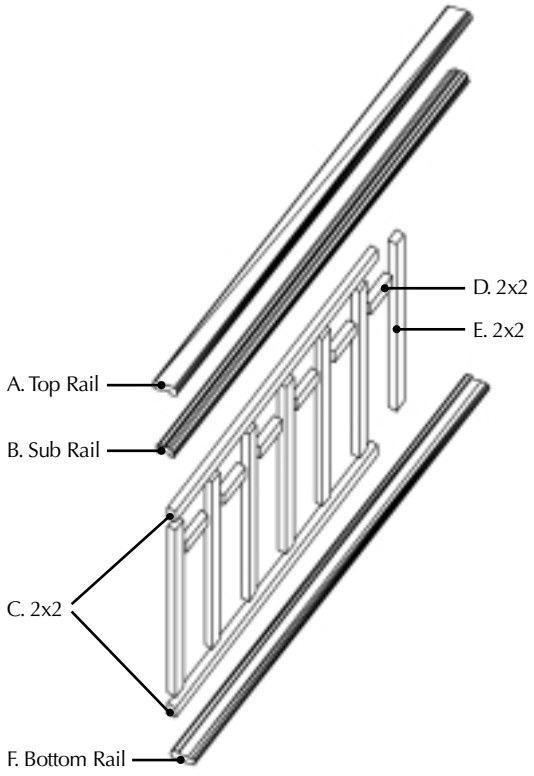
A. Top Rail B. Sub Rail C., D. & E. 2x2s
F. Bottom Rail

Woodway® offers a complete pre-assembled deckrail panel and rail system. This instruction sheet is provided as a guide for fabrication and installation of a stair rail panel using components from our Woodway Architectural Deckrail Series. The responsibility for safe and appropriate installation and adherence to national and local building codes is entirely up to the applicator.

We recommend pre-finishing rails and parts prior to installation.

Helpful Hint
Make sure your posts are plumb (perfectly vertical) to ensure easier rail and panel installation. If posts are not plumb, separate measurements must be taken for bottom and top rails.

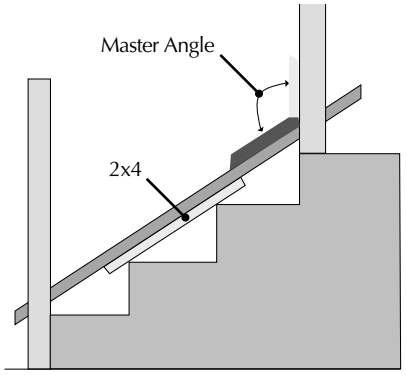
Note: Stair panels are not intended to take the place of grab rails. Depending on specific needs, and/or local codes, grab rails may be desired or required in addition to the rail panel. If needed, grab rails may be attached to the posts or panels with conventional grab rail hardware.



Panel Assembly

Step 1

Lay a straight 2x4 across the top of the steps (see illustration). Lay a bottom rail section on top of the 2x4. This is an easy way to get the *master angle* set on the bevel gauge and determine the rail length. With the bottom rail in place, scribe a line on either end of the rail where it crosses the upright posts. After transferring the *master angle* to the miter saw, cut the bottom rail to length on scribed lines. As long as posts are plumb, this will be the same length for all rails, e.g., top, bottom, sub, and 2x2 panel rails. (See Helpful Hint #2 below to check for post alignment and correct top and bottom rail lengths.)

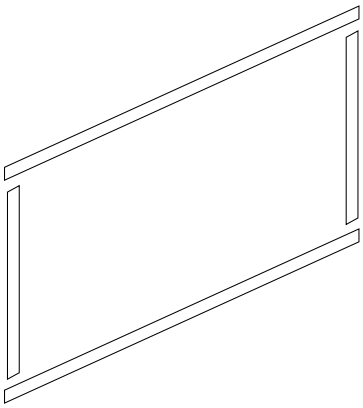


Helpful Hints

1. All cuts on baluster, rail, and spacer blocks will be cut with the miter saw angle set at the same *master angle*.
2. If your posts are not perfectly plumb, you will need to take separate measurements for the top, bottom, sub, and 2x2 rails. To check, cut your bottom rail and lift it up between the posts at the top rail height and verify that it fits. At this point, you can note slight length adjustments for the top rails if necessary.

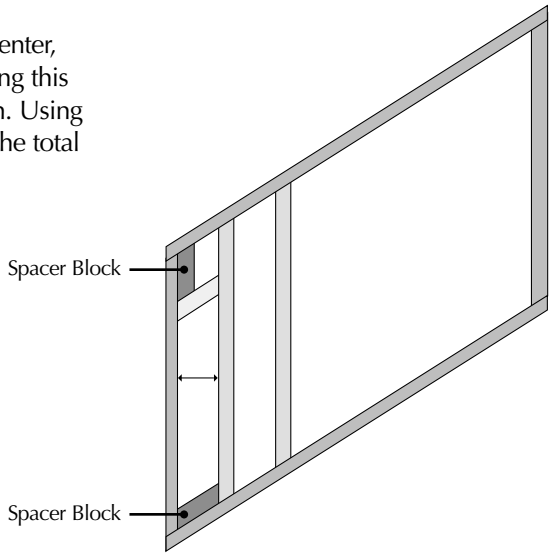
Step 2

Determine rail lengths as explained in Step 1. Using the miter saw with the angle set on the *master angle* determined in Step 1, cut the 2x2 top and bottom panel rails to length. Determine the desired length of the 2x2 balusters. Using a stop on the miter saw, precut all balusters to the same length. Assemble perimeter balusters and top and bottom 2x2 panel rails (see illustration). Using 2" screws, screw through the top and bottom rails into the ends of the balusters. We recommend pre-drilling pilot holes through the 2x2 rails with an appropriately sized countersink bit to eliminate possible splitting of the 2x2 rails and to ensure a tighter 2x2 rail-to-baluster connection.



Step 3

Standard Woodway deckrail baluster spacing is 4 3/4" on center, creating an opening space between balusters of 3 1/2". Using this or other spacing desired determines the spacer block length. Using a stop on the miter saw, (set at same *master angle*), precut the total number of spacer blocks needed.



Lower Rails to Post Assembly

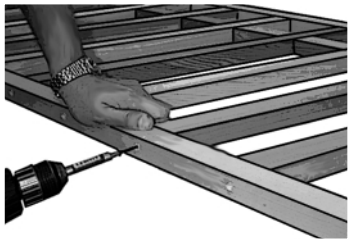
Steps 4, 5 & 6

Assemble the balusters using 2" screws and one of the small horizontal pieces as spacers. Continue on top and bottom.

Use waterproof adhesive to assemble the small horizontal pieces.

Using a spacer to help keep all small pieces aligned, pin-nail the pieces in place.

4



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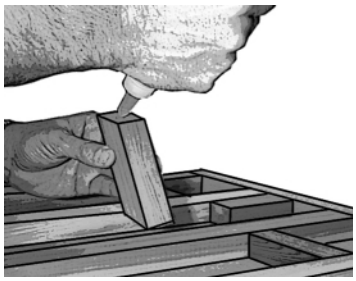


6

Steps 7 & 8

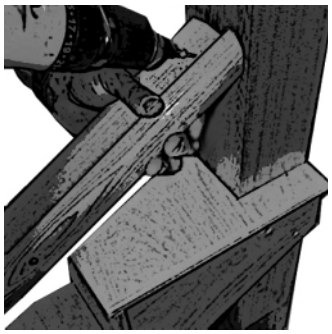
Mark and drill a pilot hole at the master angle and install a 4" stainless steel lag-eye rail fastener. Screw the lag in all the way (cover all threads). The flat end of the screw needs to be on an angle facing the outside. Place the bottom rail over the screw in the groove and lock it in place using a 1" screw.

7

8

Step 9

Attach the other end of the bottom rail to the second post by pre-drilling and then using a 3" screw.

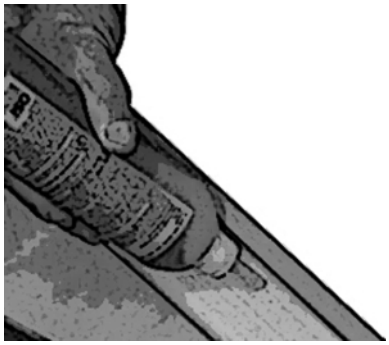


Panel and Upper Rail Installation

Step 10

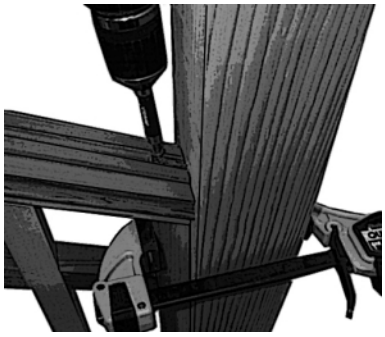
Use construction adhesive to glue the panel to the bottom rail. Use clamps or screw the two pieces together (preferably from the bottom, if it is accessible).

Note: Mechanical fasteners may be used in place of adhesive glue.



Step 11

As with the bottom rail, use a 4" stainless steel lag-eye rail fastener to secure the sub rail in place, (follow Steps 7 and 8).



Step 12

Attach the other end of the sub rail to the second post by pre-drilling and screwing in a 3" screw.

Step 13

Use construction adhesive to secure the top rail. Clamp while adhesive sets.

Note: Mechanical fasteners may be used in place of adhesive glue.