# Installation, Care and Maintenance

ChoiceDek™ foundations

Customer Service: 800-951-5117 | www.ChoiceDek.com

## Installation Instructions

Easy step-by-step instructions for decking, railing and stairs.

As with any building project, use proper eye and ear protection and follow local building codes. ChoiceDek® Foundations™ composite decking is for decking and accessories only. It is not to be used as structural material.

## Warranty

ChoiceDek Foundations composite decking is manufactured by Advanced Environmental Recycling Technologies, Inc. (A.E.R.T.) and is backed by a 25-year limited warranty against rot, decay and insect damage. The ChoiceDek Foundations warranty can be transferred one time. For complete warranty details, please visit our website or call Customer Service at 800-951-5117.

## General Cleaning & Maintenance Instructions

In an outdoor environment, periodic cleaning will help keep your deck looking new. As with any flooring surface, periodic cleaning is recommended.

The following are suggested cleaners for occasional maintenance:

- Spray & Forget™
- Olympic® Premium Deck Cleaner

**For specific cleaning issues, please visit our website www.ChoiceDek.com or call Customer Service at 800-951-5117.**

## Decking Systems

### 1 in. × 5.5 in.
**LENGTH:** 8 ft.*, 12 ft., 16 ft. & 20 ft.
**ACTUAL DIMENSIONS:** 1 in. × 5.4 in.
*Available in Beach House Gray Only.

### Trim Board
**LENGTH:** 8 ft.* & 12 ft.
**ACTUAL DIMENSIONS:** .67 in. × 11.25 in.
*Available in Beach House Gray Only.

## Railing Systems

Our railing systems and accessories are designed to naturally complement your ChoiceDek® deck or porch.

### Post
**LENGTH:** 51 in.
**ACTUAL DIMENSIONS:**
4.265 in. x 4.265 in.

### Post Collar
**ACTUAL DIMENSIONS:**
6.1 in. × 1.5 in. × 6.1 in.

### Post Cap
**ACTUAL DIMENSIONS:**
5.7 in. × 1.8 in. × 5.7 in.

### Baluster
**LENGTH:** 31 in. & 38 in.*
**ACTUAL DIMENSIONS:**
1.5 in. × 1.265 in.
*Available through Lowe's Special Order Program only.

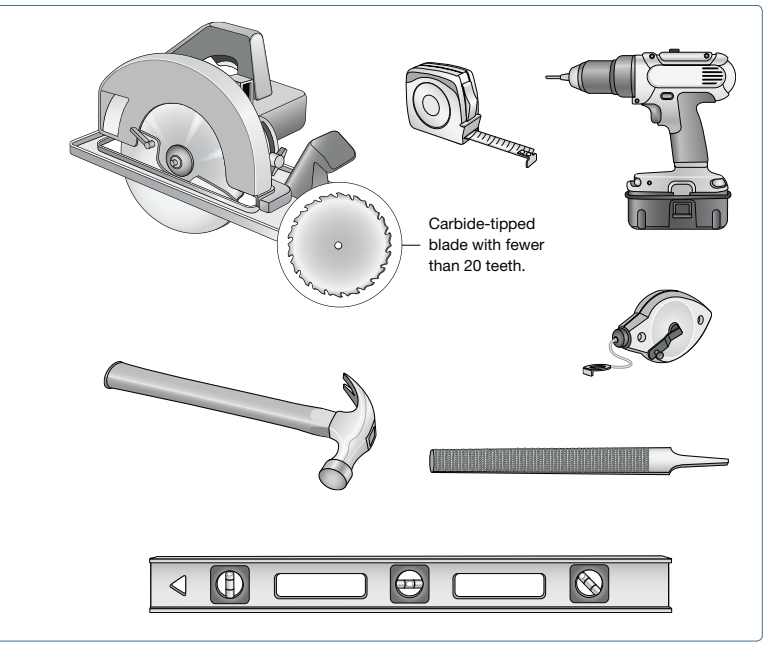
### Speed Rail
**LENGTH:** 6 ft.
**ACTUAL DIMENSIONS:**
1.5 in. x 3.5 in.

## Tools

All you'll need is a hammer, screw gun, circular saw (carbide-tipped blade with fewer than 20 teeth is recommended), level, tape measure, rasp and blue chalk line.

**TIPS**

Manufacturer recommends blue chalk since other colored chalk may temporarily stain the deck.




## Building Code Requirements

For your convenience, some common building code requirements are reprinted here. Since local building codes may vary, you must consult your specific building codes before proceeding.

- Residential minimum handrail height is generally 36-inches.
- Multi-family minimum handrail height is sometimes 42-inches.
- Baluster maximum spacing is generally 4-inches (clear distance between balusters).**
- Maximum gap between bottom rail and deck surface is generally 4-inches.** Some codes require a 2-inch maximum gap for multi-family applications.

* For additional cleaning tips contact Customer Service at **800-951-5117** or visit **www.ChoiceDek.com**.

** **Spacing note:** The precise language is generally "do not allow passage of a sphere 4-inch in diameter". Be sure to check on the tolerance requirements of your local building code.

## Fasteners

We recommend #7, 2¼-inch stainless steel trim head screws for the decking and railing. If you do not want the screw heads to show on the deck boards use the following technique:

Step 1: Using a #7, 2¼-inch stainless steel trim head screw, countersink the screw into the decking material approximately ¼ of an inch.

Step 2: Using your thumb, lightly push the displaced decking material over the hole left by the trim head screw.

Step 3: Tap with a hammer, this will cover the trim head screw with decking material.

**TIPS**

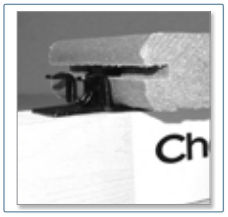
Using a 2-inch driver bit allows you to better gauge screw depth.

Tap hole with edge of hammer for best results.

## Hidden Fasteners

Our products are compatible with most hidden fastener systems. For best compatibility with ChoiceDek boards we recommend the Mantis 396 Hidden Deck Fastener. However, as with all fasteners, please consult the installation instructions provided by the hidden fastener manufacturer or contact our Customer Service department at 800-951-5117

- Easy to install with pneumatic fasteners or screws
- Automatically spaces boards for optimal gapping
- Concealed fasteners allow for an unblemished deck surface
- Allow joists to completely dry out - reducing structural rot or mold
- Powder coated high strength steel or stainless steel.



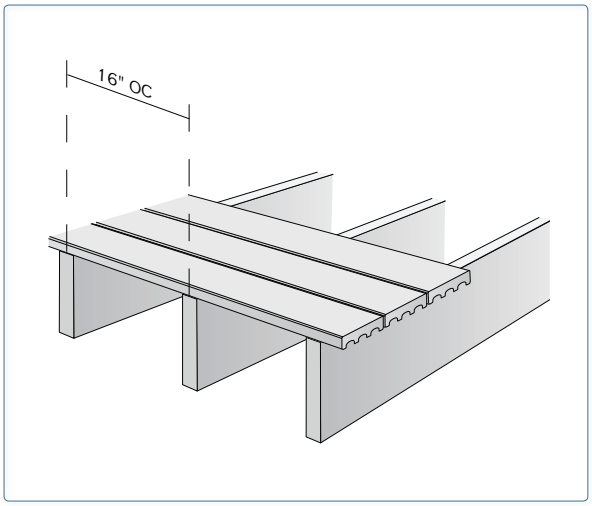
**TIPS**

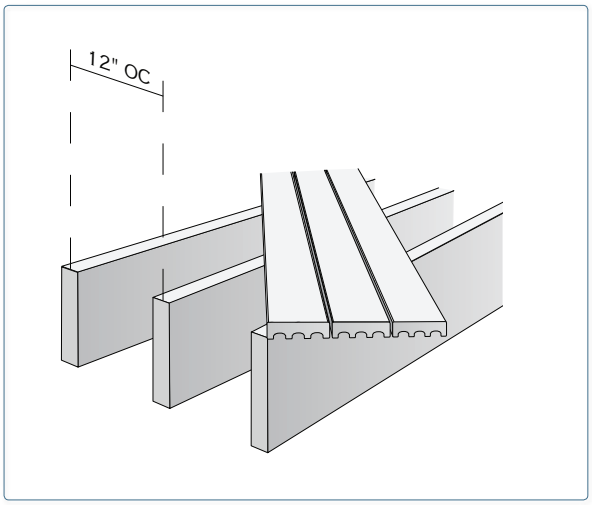
Every board should be fastened to each joist by a clip on both sides. For butt joints, add a second joist to allow for a second clip.

# POST & DECKING INSTALLATION

1.

Layout and install joists at either 16-inch on-center (OC) when decking will be installed perpendicular to the joists, or 12-inch (OC) when deck boards will be installed diagonally or at an angle to the joists. Joists must be level.



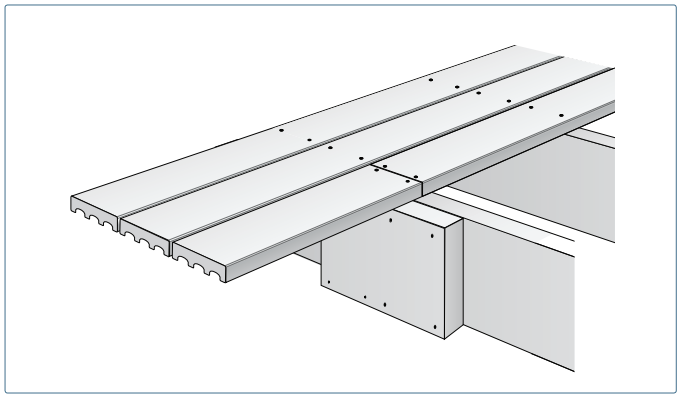

**TIPS**

Recommended spacing provides for proper drainage and prevents buckling from normal expansion and contraction.

**TIPS**

Double or sister joists at butt joints to ensure plenty of room for fasteners.

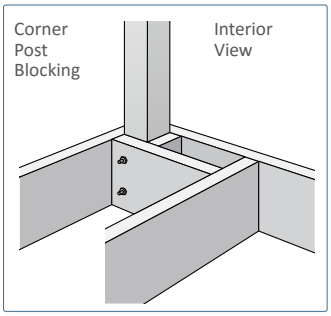
Pre-drill using a 7/64-inch bit when too close to the edge to prevent splitting. Drive screw at a slight angle into joist.

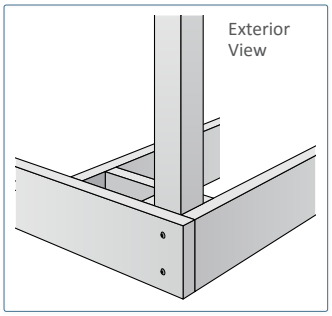


2.

Attach posts to decking frame. DO NOT NOTCH POSTS. The maximum distance from center of post to center of post is 72-inches. Square and level posts.

**A.** Block posts and attach to rim joists with two bolts (1/2-inch carriage bolts 8-inch minimum length with 1-1/4-inch flat washer and nut on back).




**TIPS**

Bolt positions: The top bolt to be no more than 3-inches below the finished deck surface and the bolt spacing to be no less than 4-inches on center.

3.

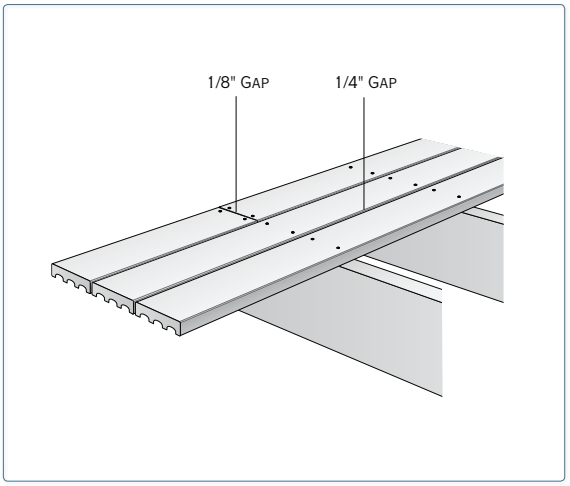
Install ChoiceDek Decking using 2¼-inch, #7 stainless steel trim head screws, two screws per board per joist recommended. Screws should be a minimum of ½-inch from the board end to prevent potential splitting of the board.

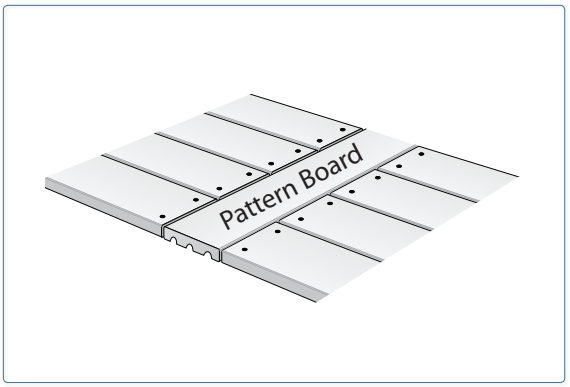
**A.** Allow ¼-inch side-to-side spacing between deck boards. Allow ⅛-inch (or greater) end-to-end spacing between end of boards (butt joints). If installing in freezing weather, leave ¼-inch (butt joints).

**B.** Cut deck boards to fit around posts. Leave ⅛-inch gap between board and post.

**C.** Staggering the butt joints on long decks usually improves the overall appearance of the finished deck. Some people also prefer a distinctive pattern for the deck boards. To achieve an interesting design. Install a pattern board, which eliminate butt joints.

**D.** Once the boards are in place, adjust the blade depth of your saw to match the thickness of your deck boards. Use a blue chalk line to mark your cut and go (review tips below for overhang options). To avoid temporarily staining the decking boards, only use blue carpenter's chalk. Rasp the edges to finish.




**TIPS**

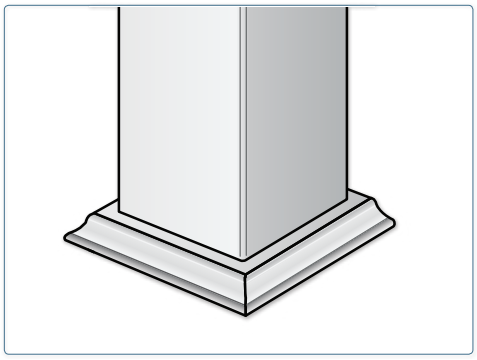
Router or rasp end of deck board using ¼-inch round for a finished look

Allow 3/16-inch overhang for any rim joist imperfections (straight)

If you choose not to use the trim board, maximum recommended overhang is 1-inch

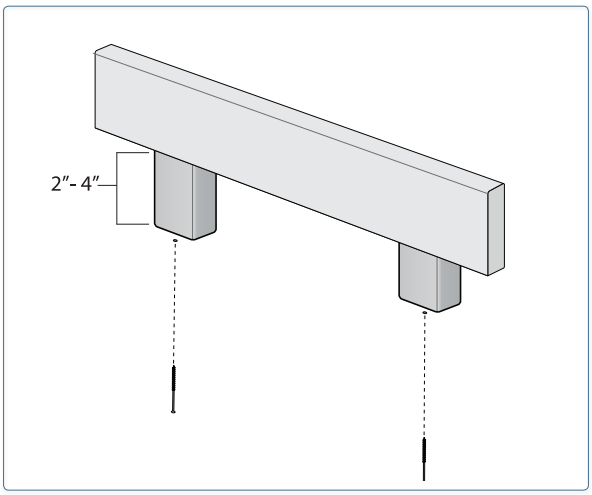
4.

Slip post collar over post onto deck if installing.



# RAILING INSTALLATION

**Railing Orientation:** To use the railing, measure and cut the first 2x4 flush to the inside length between the posts. The speed rails allow the baluster to face either toward or away from the deck depending on which way the consumer prefers the rail system to be installed.




5.

Cut two support blocks to the height you want the toe sweep (no less than 2-inches nor greater than 4-inches. Refer to your building code). Drill a lead hole with a ⅛-inch drill bit in the center of the support block until you reach 1½-inch from the bottom of the block. Use one 2¼-inch #7 stainless steel trim head screw to fasten the support block to the 2-inch side of the bottom rail spaced no more than 24-inches from each post.

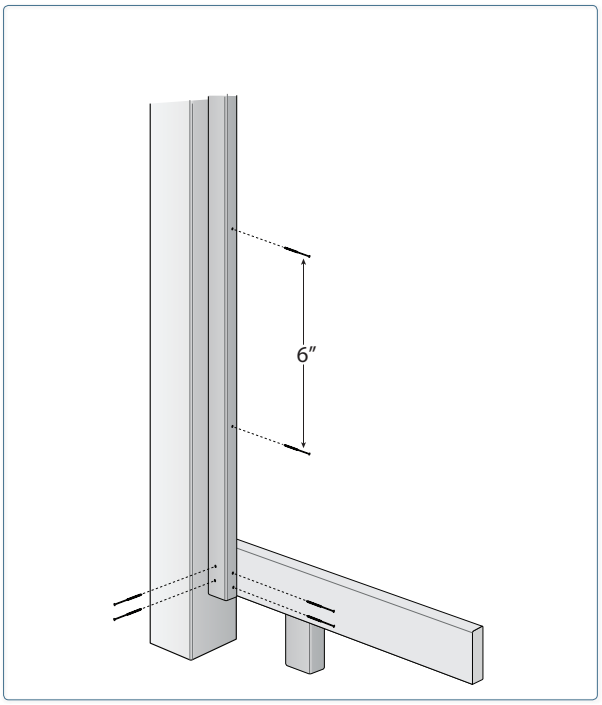
**A.** Set one 2x4 rail edge wise on blocks. Position 2x4 to account for balusters facing toward the deck or away from the deck.

**B.** Measure 1-inch into the inside of post and place baluster against post sitting with its end flush with the bottom of the 2x4 (1¼-inch side against the post).

**C.** Using two 2¼-inch #7 stainless steel trim head screws, secure baluster to post, two screws at each end, and two additional screws evenly spaced between the end of the connections.

**D.** Use two 2¼-inch #7 stainless steel trim head screws to secure the bottom rail to the baluster.

**E.** Place second baluster against opposite post and repeat steps C and D.



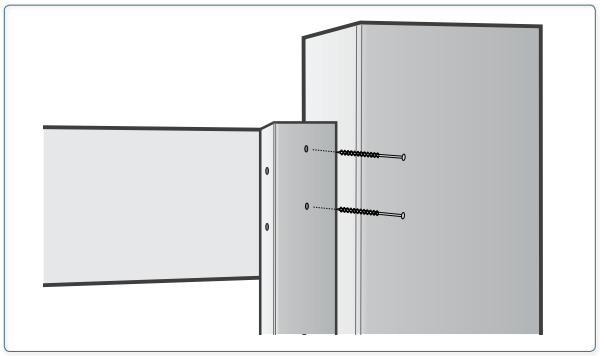

TIPS

Use clamps to secure for easier installation. Using scrap material between the clamps and railing may help avoid clamp marks.

In addition, a few angle (toe nail) 2-1/4-inch, #7 stainless steel trim head screws can be added for additional support. However, rail CANNOT be attached to post with toe nailing alone. To avoid potential splitting, drill a lead hole with a 7/64 drill bit at a 45-degree angle.

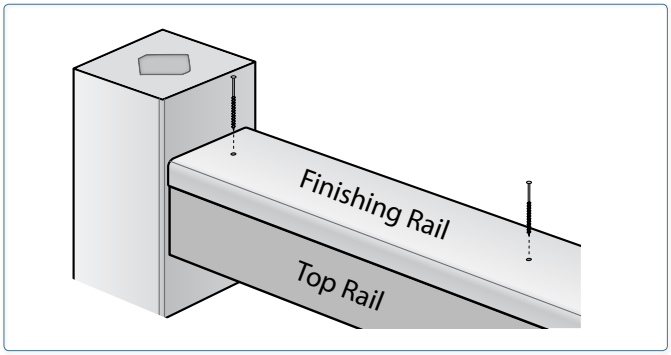
6.

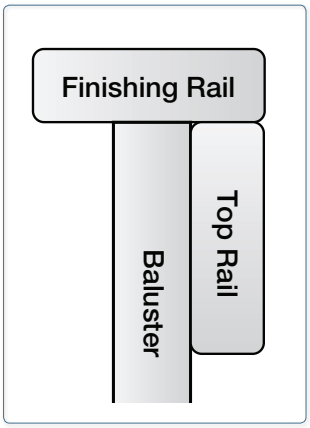
Place second 2x4 flush with the top of the balusters and using two 2¼- inch #7 stainless steel trim head screws secure the baluster to the top rail. Repeat this step on the opposite end.



7.

Place finishing 2x4 over the top rail in a flat position (with 4-inch side against 2-inch side of top rail). Outside edges of both 2x4's should be flush. Secure finishing 2x4 to top rail using one 2¼-inch #7 stainless steel trim head screw on each end and three additional screws evenly spaced across the top of the finishing 2x4. Screws should be centered into top rail with a minimum ¾-inch from the edge of the flat 2x4.




TIPS

If installing balusters that are not ChoiceDek brand, please refer to the manufacturer's installation instructions.

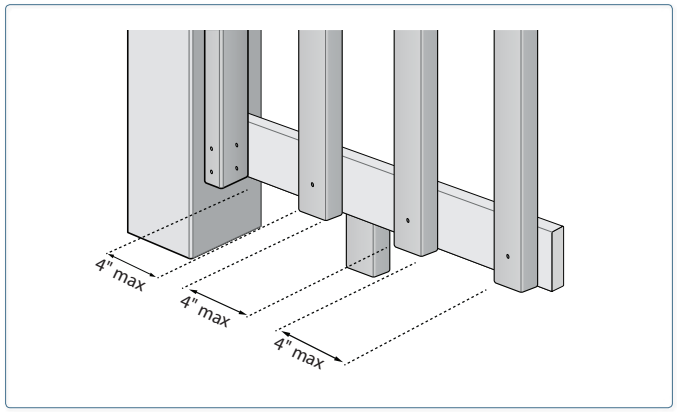
8.

Use the formula below to determine the amount of balusters you need and the spacing between them. Measure the distance in inches between the inside of one post baluster to the inside of the other post baluster. This is your total space.

**A.** Divide the total space by 5, and round it off to a whole number. This is the number of additional balusters you will need.

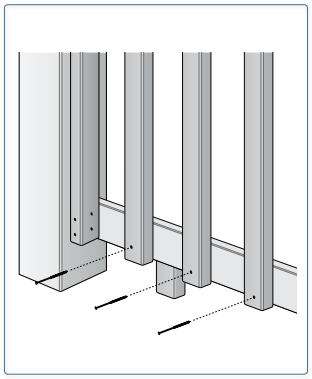
**B.** Multiply the value in (A) by 1.5 and subtract it from your total space.

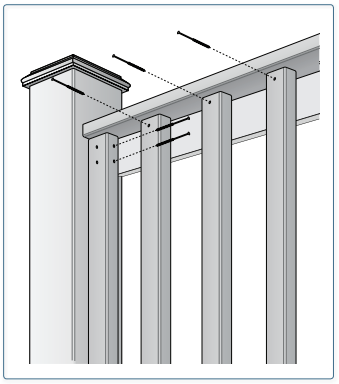
**C.** Divide the value in (B) by the value of (A+1). This is the spacing between the balusters. You may want to cut two spacer blocks from scrap material or a baluster, the same width as answer C and use these two spacers at top and bottom to place each baluster.




9.

Evenly space balusters on the inside of the top and bottom rails with 1½-inch side facing outward. Secure each baluster to the top and bottom rails with one 2¼-inch #7 stainless steel trim head screws at each rail. Balusters should be placed according to the required building code but no more than 4-inches apart.



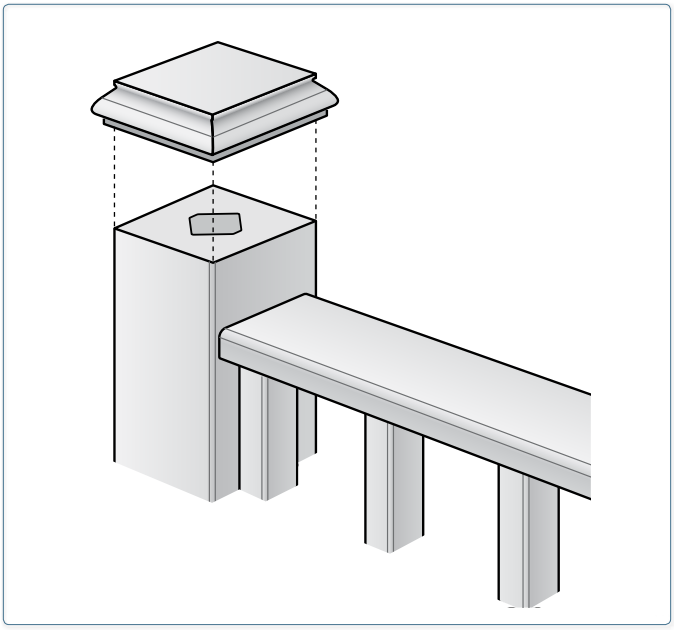


10.

Attach post caps to top of post.

TIPS

Quality outdoor adhesive can be used for caps.

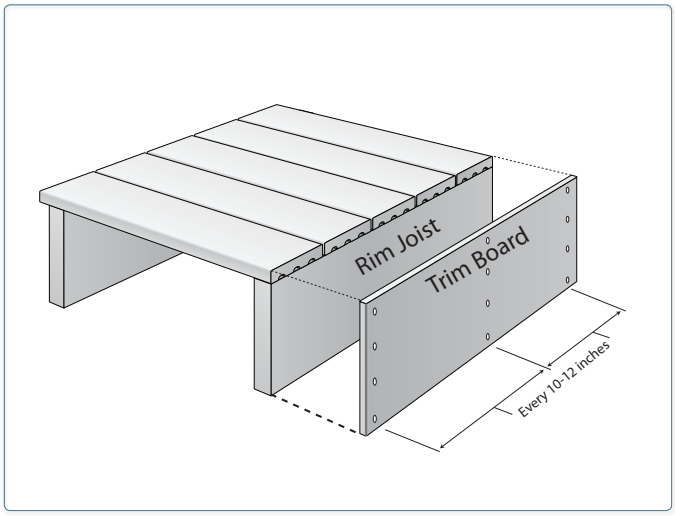


11.

Additionally for a finished look, install trim boards over the rim joists. Position flush with the top of the decking.

**A.** Attach using four 2¼-inch #7 stainless steel trim head screws. One screw through the end or side of the decking and three screws into the rim joist vertically. Repeat this step every 10-12 inches horizontally throughout the length of the trim board.

**B.** We recommend putting the screw through the thickest part of the deck board (center between the top of the board and the bottom of a rib) when attaching the trim board, then the other three into the rim joist.




## Railing Connectors/Brackets

Our railing system is compatible with most 2x4 railing connectors/brackets. Please consult the installation instructions provided by the railing connector/bracket manufacturer or contact our Customer Service department at **800-951-5117.**

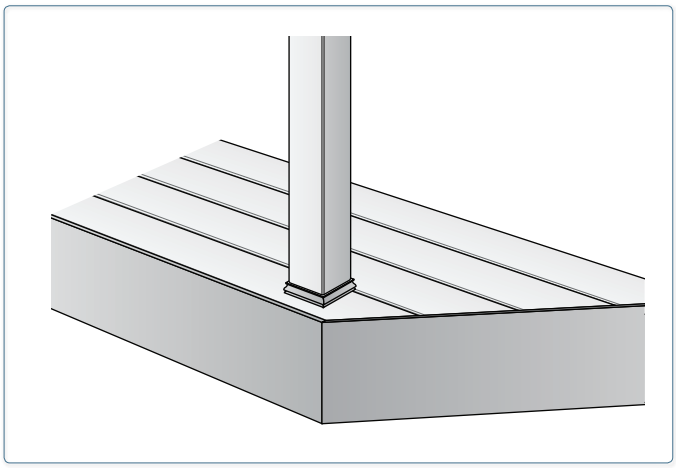
# 45-Degree Railing

12.

Determine the angle of the top 2x4 rail.

**A.** Lay the top 2x4 rail centered on top of the two posts and mark angle (see railing orientation) and cut.

**B.** Mark and cut the bottom 2x4 rail the same way except that the orientation of the board is edge wise. The thin edge down.

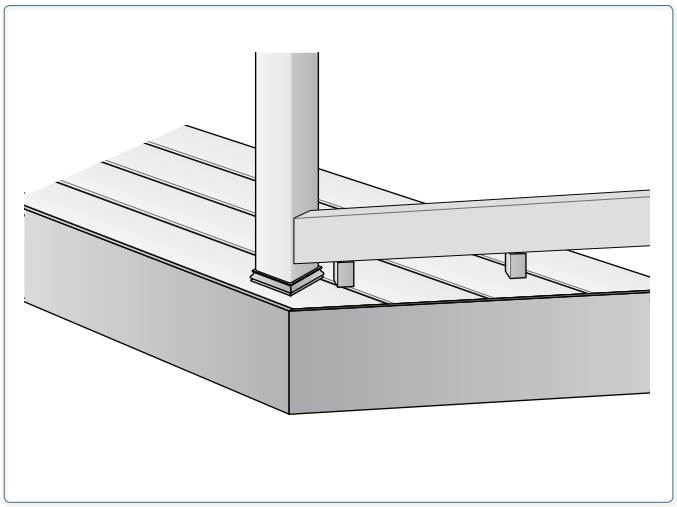


13.

**A.** Place bottom rail on blocks that are cut to the toe sweep height desired (no less than 2-inches nor greater than 4-inches).

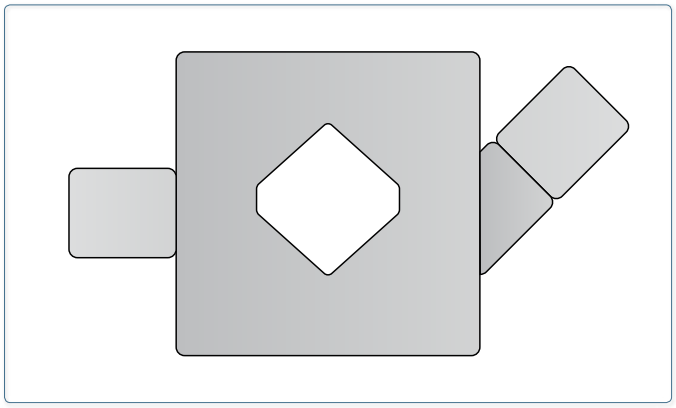
**B.** Place baluster with 45-degree cut side against the post positioned at the 45-degree corner and sitting against the bottom rail. Attach it to the post using procedure #5C.

**C.** Place a regular baluster against the diagonal baluster, sitting on bottom rail and attach with three 2¼-inch #7 stainless steel trim head screws, evenly spaced top to bottom.



14.

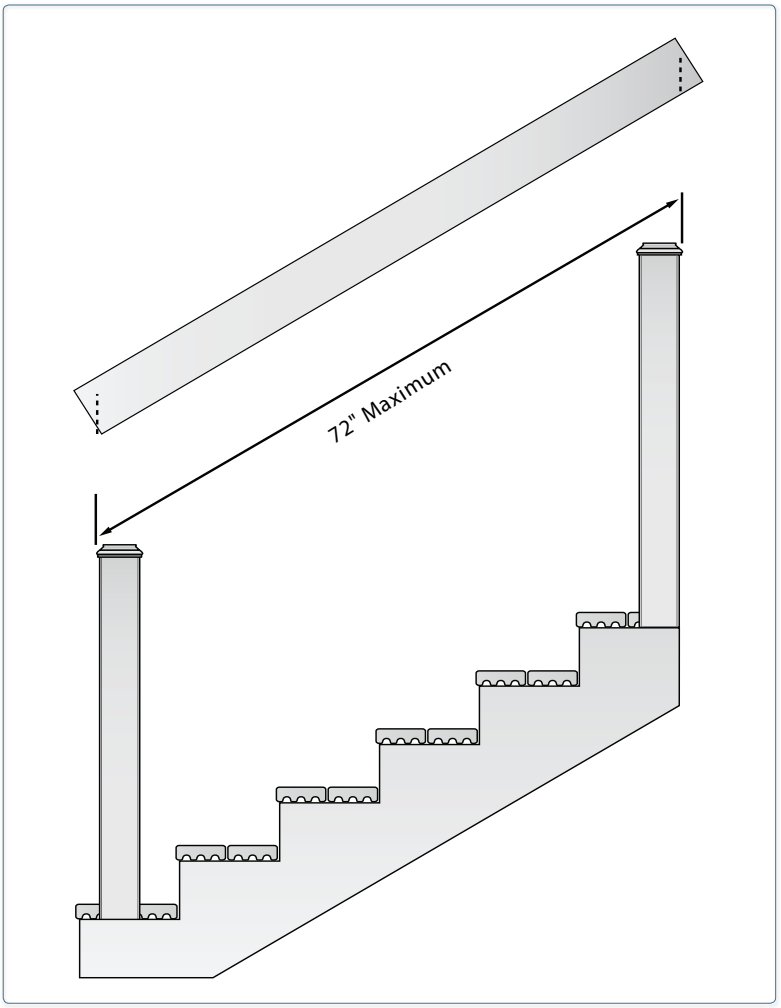
Finish with steps #5D through #11 - with the exception of the post baluster that has been installed already in this 45-degree section (step #13).



# Stair Railing

15.

Be sure posts measure no more than 72-inches from outside at the angle of the stairway when using as a stair rail. Guard rail sections are sold in 72-inch lengths and must be trimmed to fit between the posts. Allow for decrease in length from angle cuts.



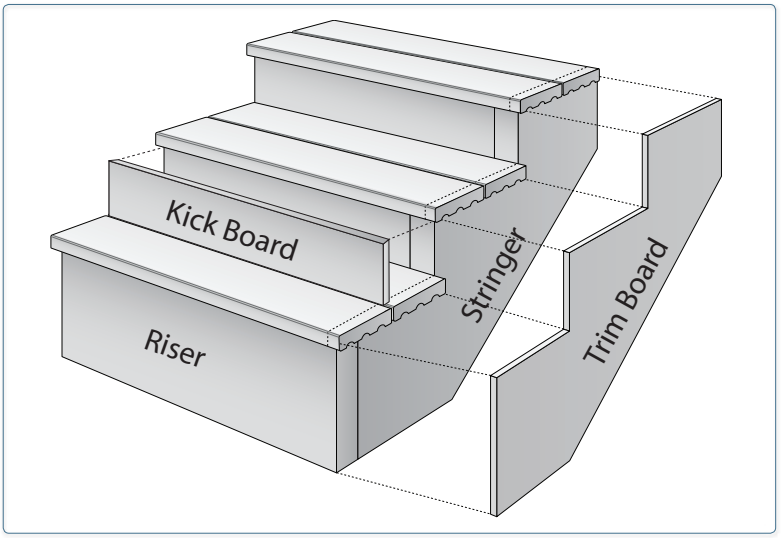

16.

Install deck boards. Boards may be flush with riser or extend past the rise by 1-inch. Use two 2¼-inch #7 stainless steel trim head screws per board per stringer.

**A.** Optional: Cut and install 'kick boards' (Deck boards) along each stair rise.

**B.** Install post collars if desired.

**C.** Cut and install trim board on stringers if desired. Use procedures in step #11.




Stair Stringers need to be 9-inches on center

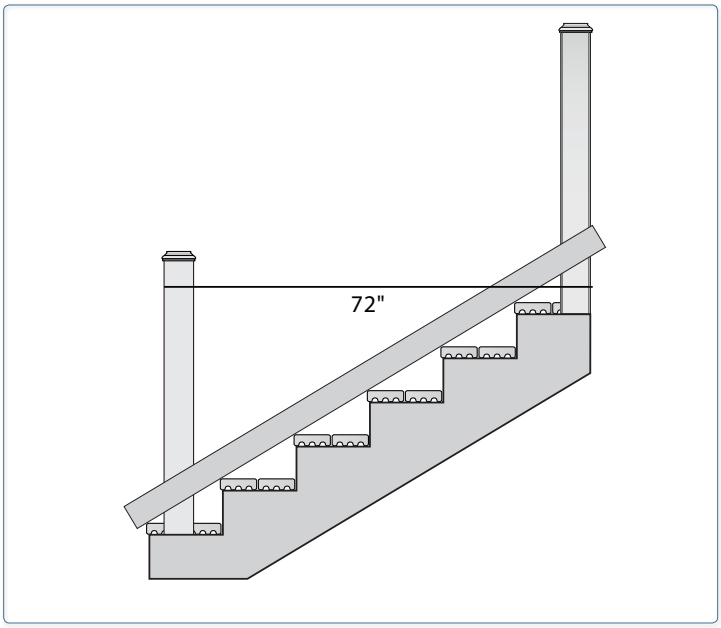
17.

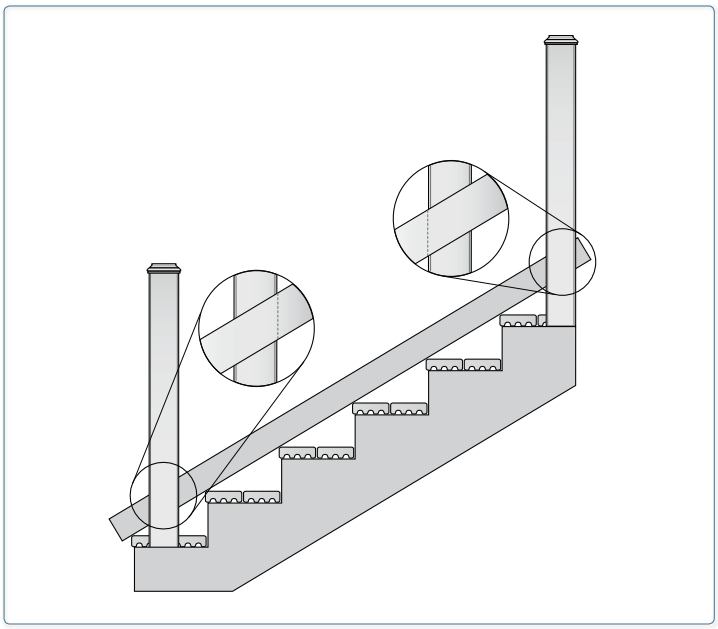
Lay a top and bottom 2x4 rail along the edges of the steps and up next to the post.

**A.** Position both 2x4 rails for marking by lying on the steps.

**B.** Mark the rails on the inside faces of the two upright posts.

**C.** Cut each rail along this mark (line).



18.

Position bottom rail ½-inch above edges of steps (check local code) support on blocks cut from scrap material.

19.

Cut ends of two balusters at the same angle as the top and bottom 2x4 rails and use them as the post balusters.

20.

To complete stair railing follow steps #5B through #11