

**Aluminum Stair Railing**

**Installation Guide**

# Aluminum Stair Railing Assembly

## The best choice for strong & durable railing.

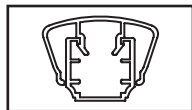
Our aluminum railing provides strength, durability and is maintenance free. It meets all nationwide (IRC/IBC) building codes. Ideal for the do it yourselfer or a professional installer, it is simple to install and does not require any special tools. Made to last a lifetime, our premium aluminum railing is manufactured with the best American made materials on the market today. This guide will help make your installation easy.

## BEFORE YOU BEGIN INSTALLATION:

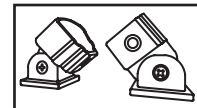
- Consult your local building code official and check all Code Requirements.
- Read all instructions thoroughly prior to assembly to ensure correct installation.  
THE MANUFACTURER WILL NOT BE HELD RESPONSIBLE FOR UNSAFE OR INCORRECT INSTALLATION.
- These instructions are guidelines and do not cover every installation scenario.
- Always use the fasteners provided in the railing kit. DO NOT swap any hardware.
- Always follow all safety regulations when installing the railing section and always wear safety glasses.
- Purchaser has the sole responsibility to determine whether the aluminum railing and aluminum post products comply with the applicable codes and are appropriate for the intended use. The purchaser and installer should review the intended use of the products and the structural integrity of the deck, concrete pad, or patio for installing the posts with a licensed professional engineer.

## HARDWARE & PROFILES

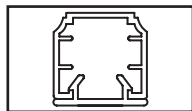
Top Rail



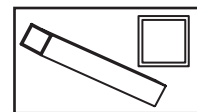
Two-piece top and bottom adjustable brackets



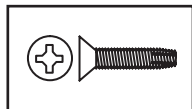
Bottom Rail



3/4" Square Balusters



#14 TEK self-tapping screws



Note: Stair Railing section pivots between 30-38°

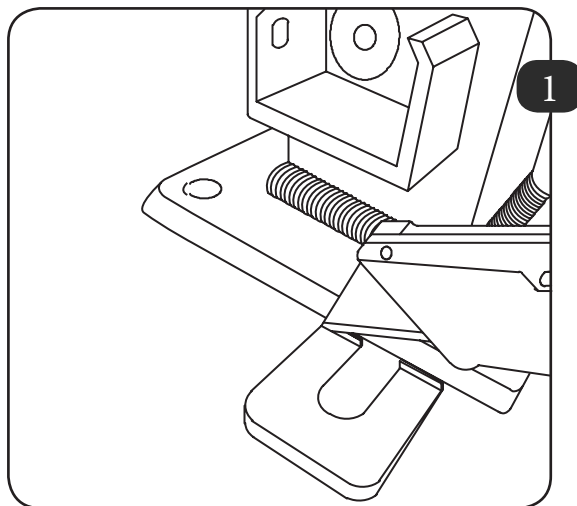
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## TOOLS

1. Cordless Drill/Impact Driver
2. 13/64" Drill Bit
3. #3 Phillips Screwdriver Bit
4. Speed Square
5. 2' Level
6. Post level (optional)
7. Tape Measure
8. Miter saw or portable band saw
9. Rubber Mallet
10. Clamps with at least 4" clearance (x2)

## Section 1: Installing the Posts

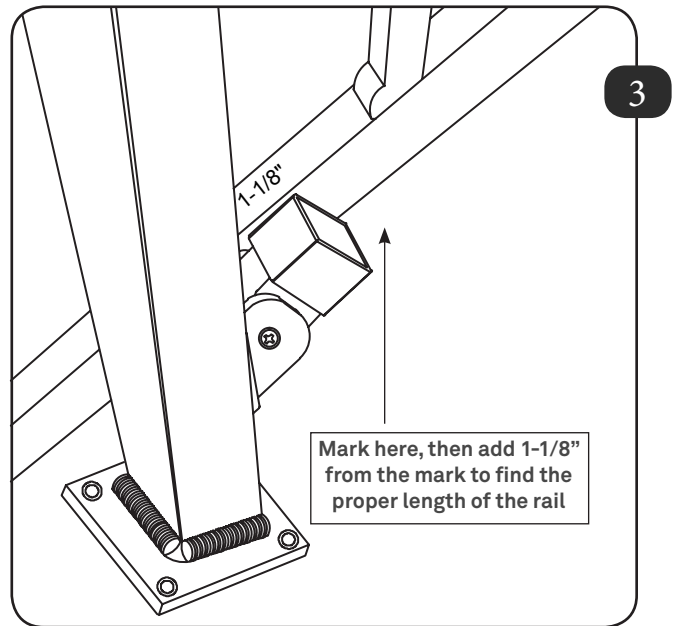
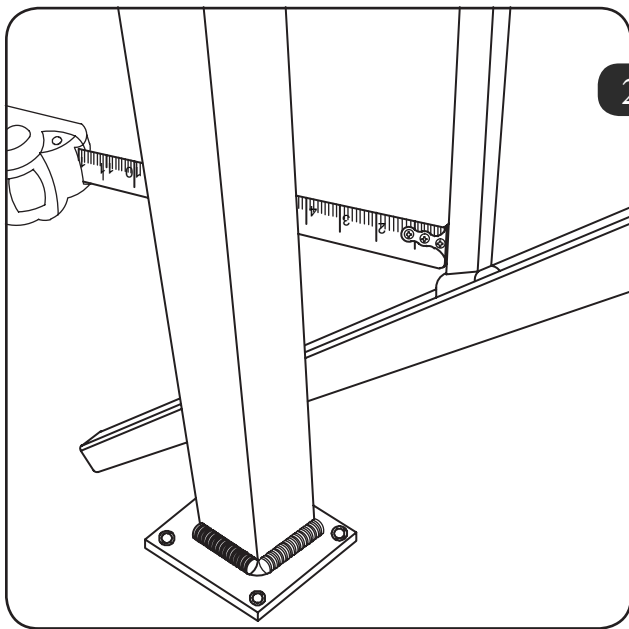
1. Lay out and mark where the posts will be installed on the deck surface. Assure that the 5"x5" base plate is at least 2" from the edge of the deck to allow for the 2-piece trim.
2. If installing on a deck (wood, composite), ensure that the posts will attach to the substructure of the deck or patio. The decking may need to be reinforced with support lumber (backer board such as a 2"x10" or 2"x12" treated lumber cut to fit tightly between the joists and installed flat under the decking). Use appropriate structural weatherproof fasteners (not included) for your application.
3. If installing on concrete, use the appropriate structural weatherproof concrete anchors for your application.
4. Use the included shims and a level to plumb and square the post.
5. Secure the posts to the deck and slide on the included 2-piece post skirt.



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## Section 2: Preparing the Rails

1. After the posts have been installed, determine the height of the bottom rail to stair tread (it must be at least 3/4" to clear the post skirt). A wood spacer works best.
2. Assemble the panel and set the rail section on top of the spacers against the post (tip: install with just the two pickets closest to the post to make it easier to take apart and cut the rails).
3. Assure that the railing section is at the proper pitch and adjust the rails to create an equal space between the pickets and the post.
4. Mark the top and bottom rail at this point so that the section is placed the same way each time.
5. Line each bracket up with the rails, assuring that the bracket is flat against the post.
6. Mark the rail at the open edge of the bracket. Repeat this step for each end. (See figure 3)
7. Remove the panel and disassemble. Add 1-1/8" from the mark to account for the part of the rail that goes into the bracket.
8. Cut the rails at the second mark.



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## Section 3: Installing the Panel

1. Re-assemble the panel and place the brackets on each end. Then set the panel in between the posts.
2. Double check the spacing between the picket and the posts to assure the panel is seated correctly.
3. Once the panel is properly seated between the posts, mark the position of each bracket on the posts.
4. Mark the position of the top brackets to assure they are fastened to the top rail correctly.  
(Tip: mark each bracket to assure it is placed in the same spot.)
5. Fasten the bottom brackets to the rail, assuring that the bracket is tight against the post and the spacing is correct.
6. Remove the panel and fasten the top brackets to the rail at the mark.
7. Take brackets apart at the joint; each backer plate will need to be fastened to the post.
8. Seat the fully assembled panel with brackets into the backer plates, assuring that all marks line up (See figure 4).
9. Secure the brackets to the backer plate to finish the installation.
10. Alter the post height if necessary, then tap the cap securely into place with a rubber mallet.

