

Aluminum Straight Railing Installation Guide

TOOLS :

- Angle Grinder or metal cutting saw
- Drill with Phillips tip
- Drill bits 5/32"
- Measuring tape
- Level

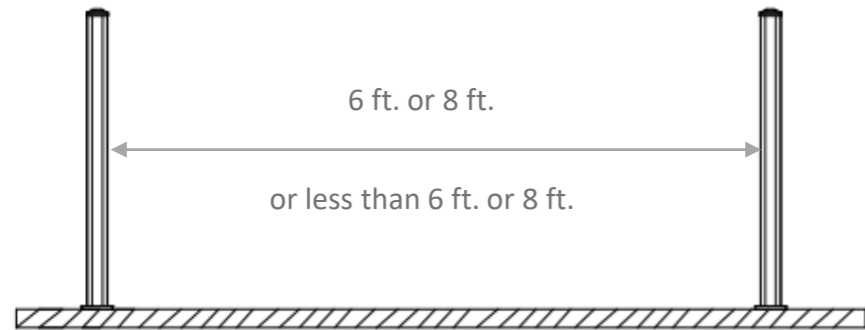
MATERIALS :

- Post Kits
 - Panel Kits
- All fasteners are included with each component

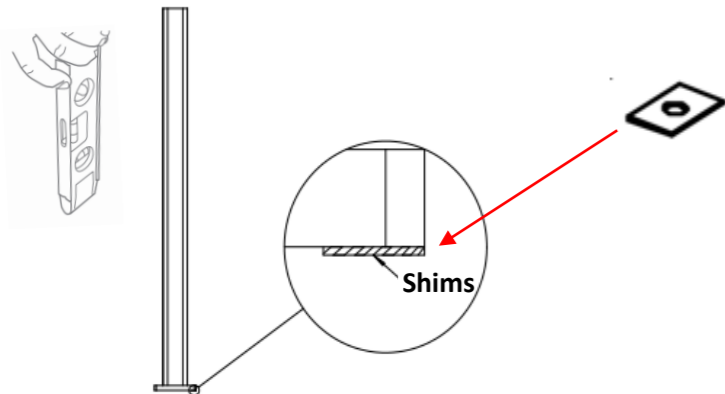
Straight Railing Installation

Step 1: Measure and locate all posts

- 1.1 Measure and locate all posts.
- 1.2 Choose the appropriate 3/8 in. fasteners to fasten the posts according to local regulations. Ensure the posts are plumb. Use shims to adjust verticality.

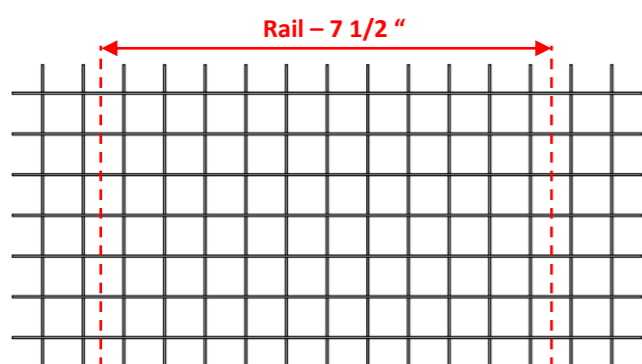
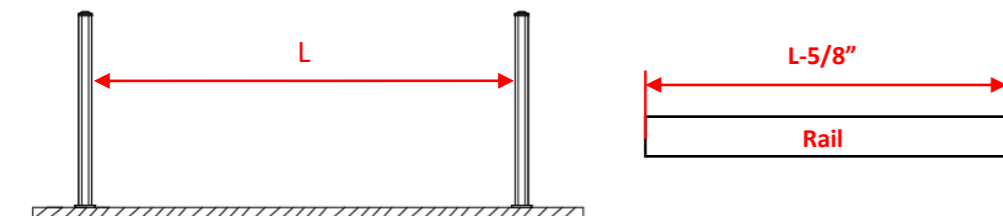


Note:
The internal spacing between 2 posts is 6 ft. and 8 ft. , or less than 6 ft. or 8 ft.



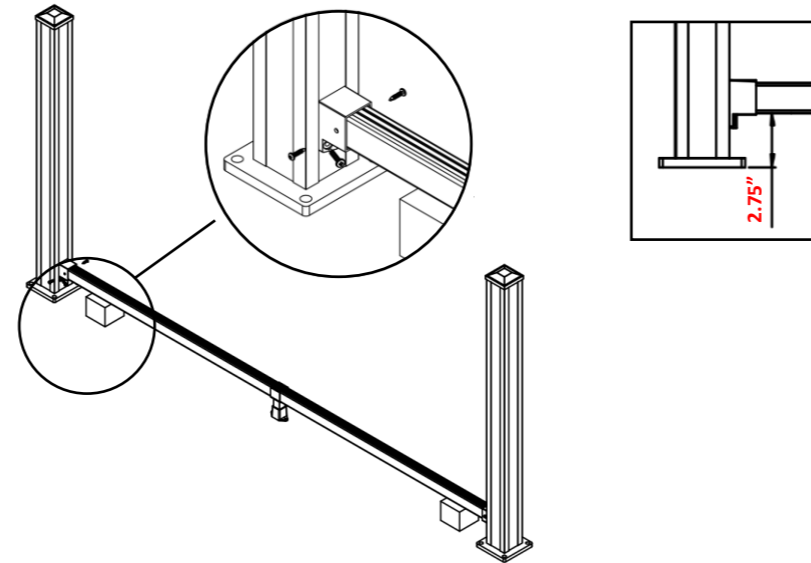
Cut rail

When the installation size is less than 6ft or 8ft, it is necessary to cut the length of the rail and the mesh. The length of the rail is the post spacing minus 5/16 ". The length of the mesh is the length of the rail minus 7 1/2".



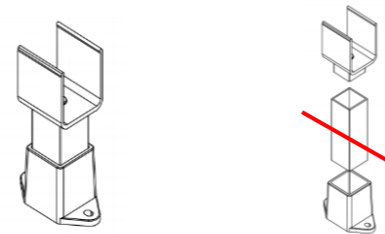
Step 2: Install bottom rail .

- 2.1 Locate and install bottom rail support.
- 2.2 Cut bottom rail to fit between posts if necessary.
- 2.3 Insert the bottom rail into bottom bracket at both ends, then position the bottom rail between posts, secure the brackets on the post with 2 - #10 - 1 in. the brackets to the rail with 2 - #8 - 3/4 in



Adjustable bottom rail support

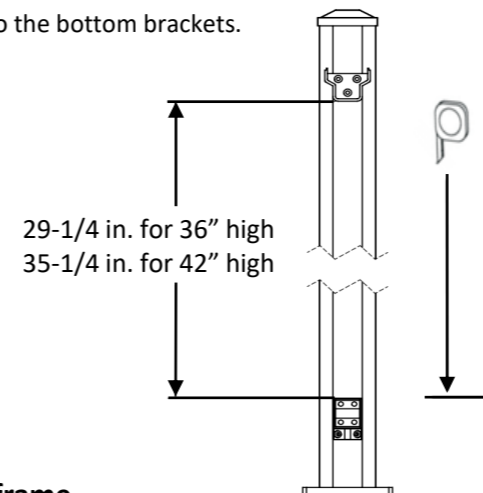
Adjustable bottom rail support consists of 3 parts, cut middle part to adjust height if necessary.



Step 3: Install top rail brackets.

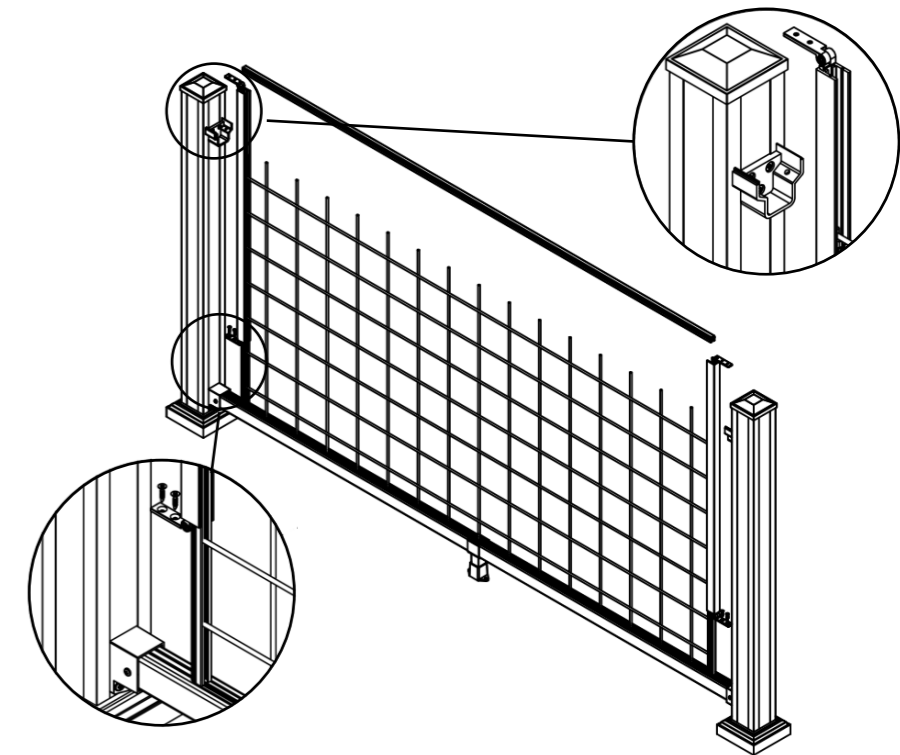
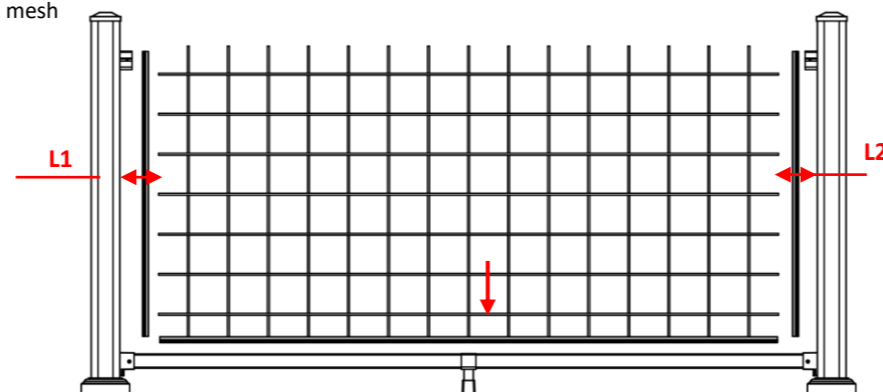
- 3.1 Position the top brackets according to the bottom brackets. Height is as following instruction :

Note :
Screw top brackets into post using 3 - #10 - 1" screws.



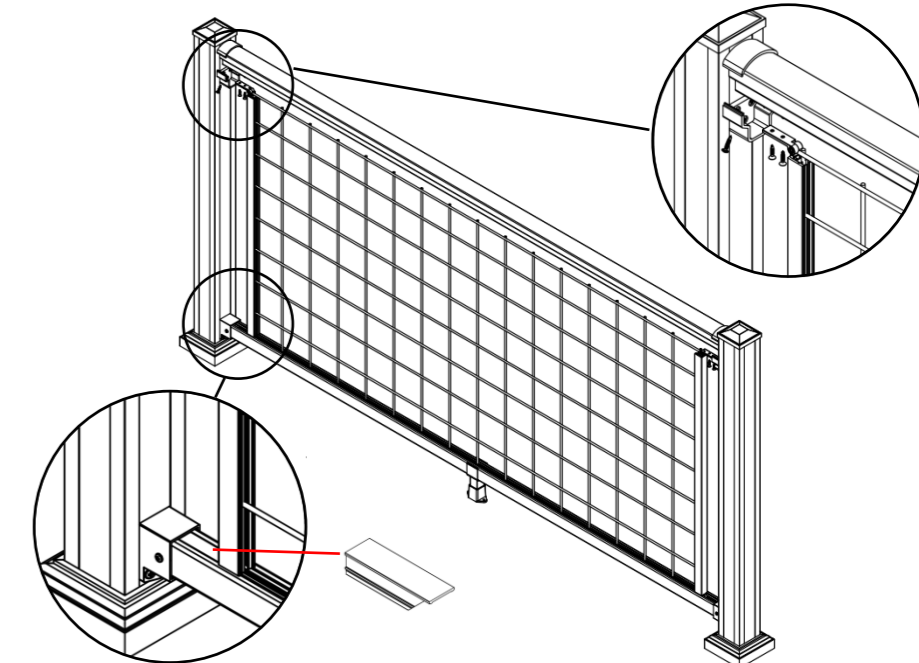
Step 4: Install mesh and mesh side frame

- 4.1 First install the bottom strip and side strip on the mesh
- 4.2 The mesh is fitted into the bottom rail,ensure that the gap between the left and right ends is the same
- 4.3 Install the four corner codes on both ends of the side frame, and the side frame is fitted downward along the side strip.
- 4.4 Use four # 8 3/4 "countersunk screws to fix the lower corner code and bottom rail. Then fit the upper strip to the mesh



Step 5: Install top rail and cover.

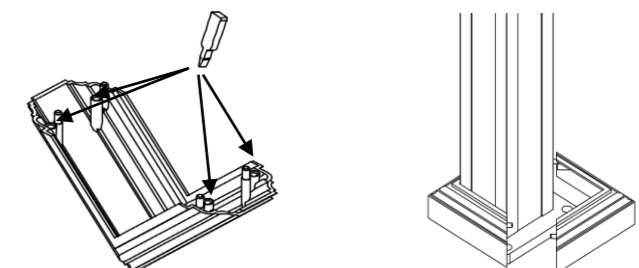
- 5.1 The bracket covers shall be installed at both ends of the top rail first, and then the top rail shall be matched with the mesh.
- 5.2 Use four # 8 3/4 "countersunk screws to fix the corner and top rail, and finally use four # 8 3/4" pan head screws to fix the brackets and rail.
- 5.3 Finally, cut the cover to a proper length and fit it at the end of the rail.



Install post cap and post trim

Post cap is pre-assembled onto your post. If loose use a plastic hammer or similar tool to make it tight.

Install the post trim after all other components are installed. Install the post trim as following:
Drop the glue into the holes of post trim (Do not overflow.)
fasten the post trim and press it tight about 6 seconds.

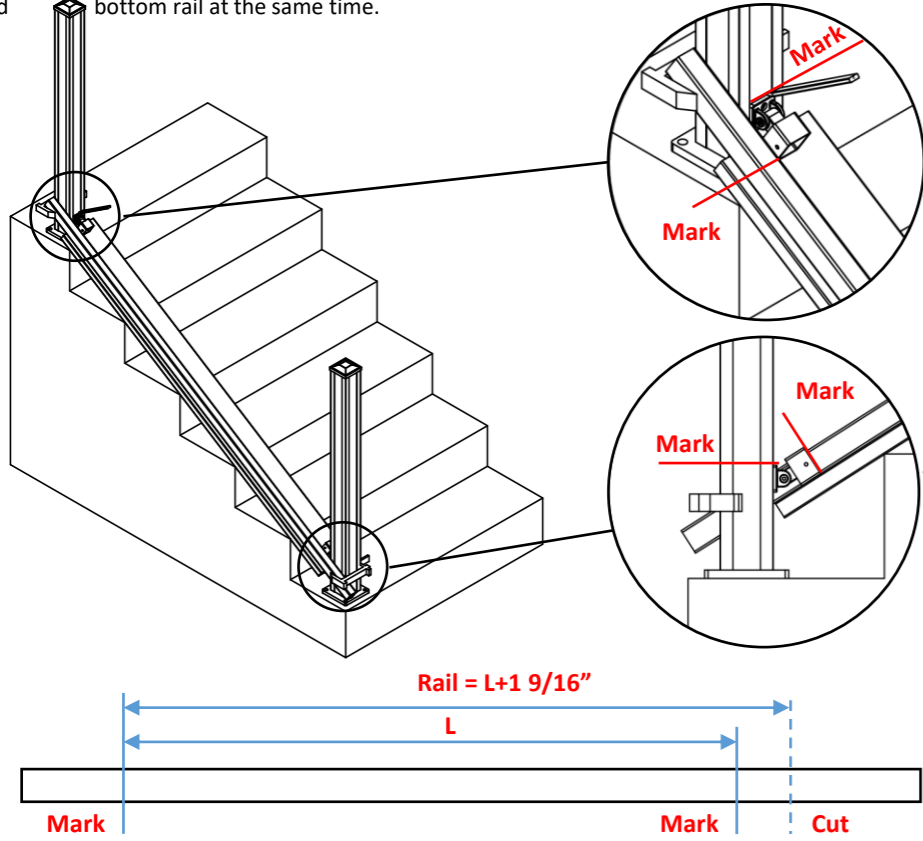


Aluminum Stair Railing Installation Guide

Stair Railing Installation

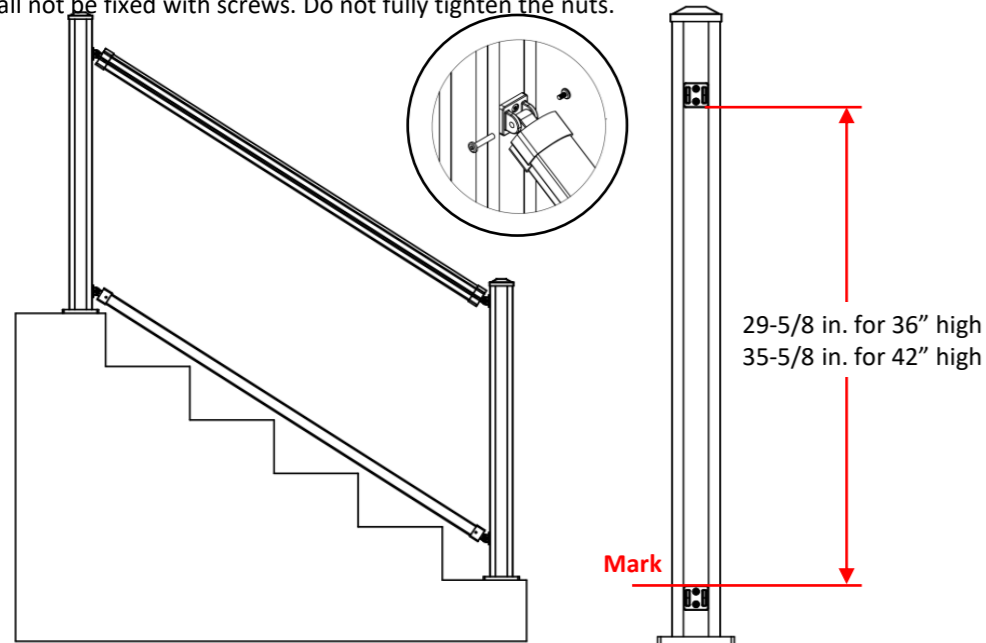
Step 1: Locate bracket to confirm the rail length

- 1.1 Measure and locate all posts.
- 1.2 Choose the appropriate fasteners to fasten the posts according to local building code. Ensure the posts are plumb. Use provided shims to adjust verticality.
- 1.3 Put 1" thickness plank on the stairs. The rail is placed on the plate and then fixed to the post with quick clips.
- 1.4 The swivel bracket shall be preassembled first, then placed on the board, and the position of the bracket and the cutting position of the rail shall be marked with a pencil.
- 1.5 Add 1 9/16" as the top and bottom rail according to the marked position dimension, and cut the top and bottom rail at the same time.



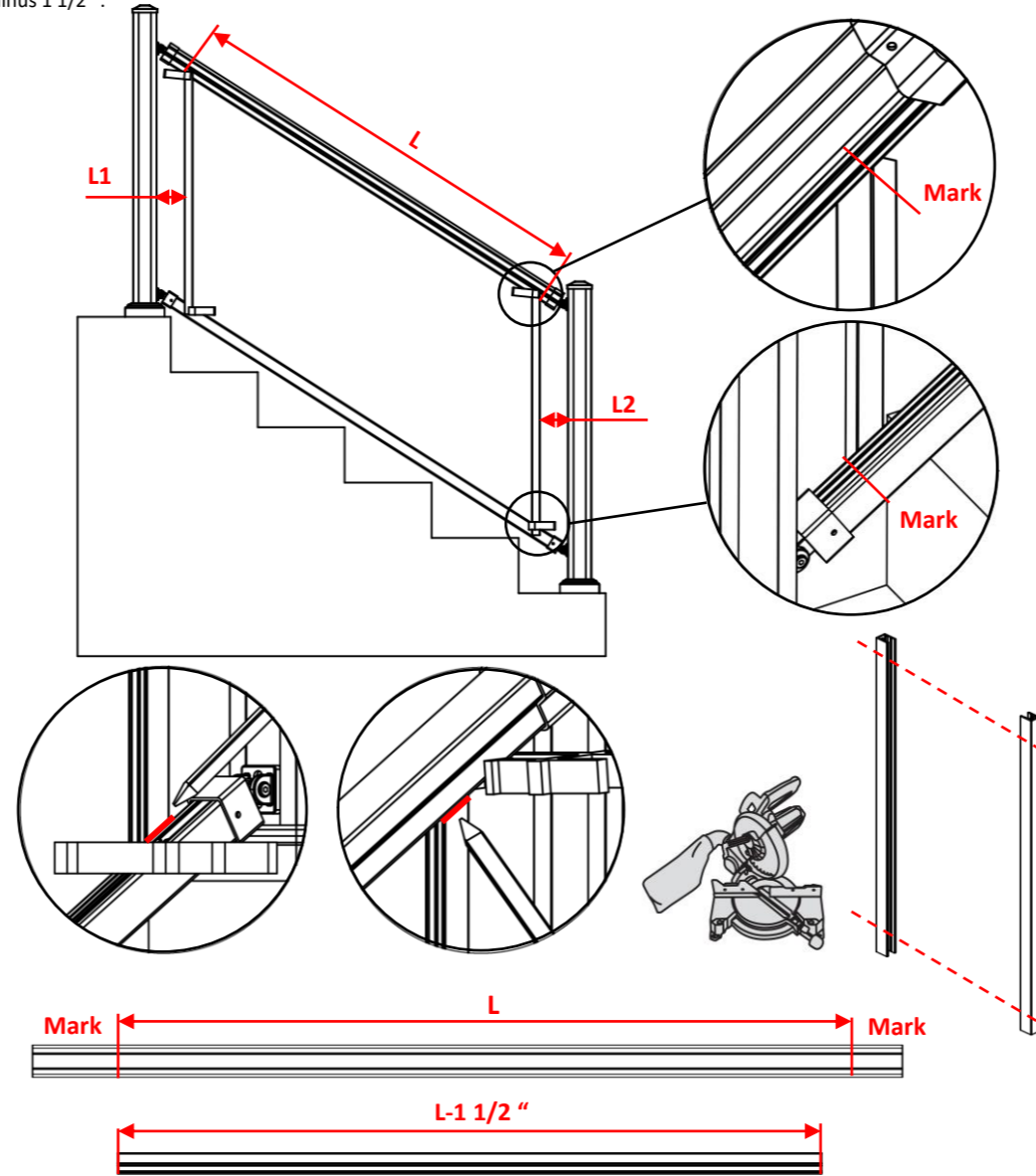
Step 2: Install bracket base and top/bottom rail

- 2.1 Use two # 10 1" pan head drilling screws to install the bracket base according to the marked positions.
- 2.2 Use a ruler to measure the position of the bracket base, and respectively use two # 10 1" pan head drilling screws to fix the upper base.
- 2.3 After the base is fixed, the top and bottom rail shall be preinstalled. The rails and bracket shall not be fixed with screws. Do not fully tighten the nuts.



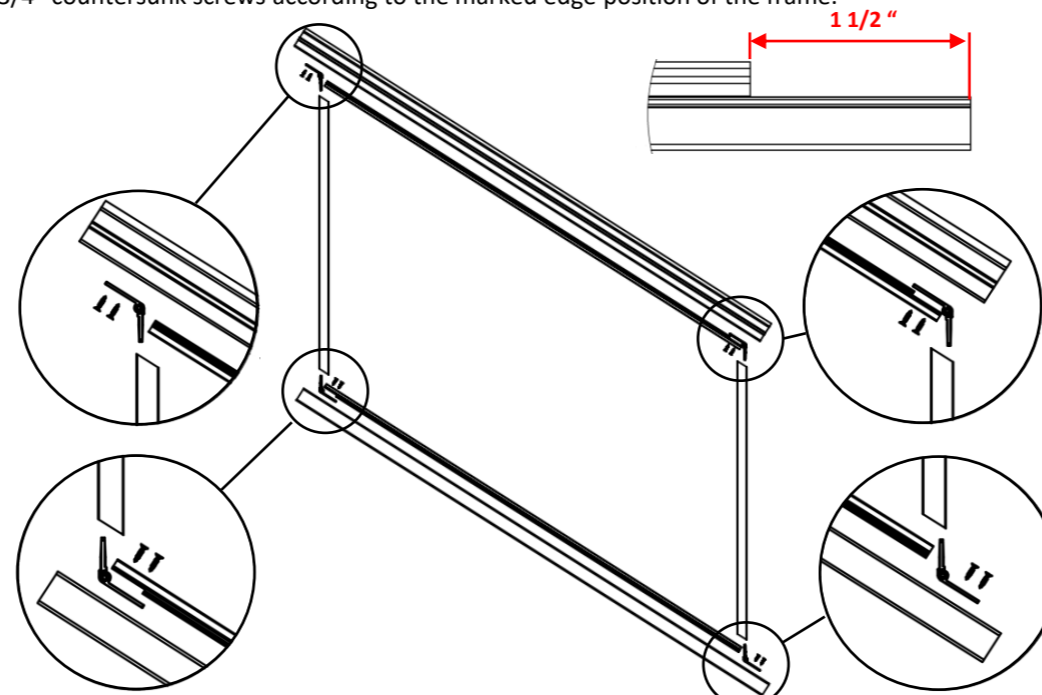
Step 3: Locate frame, cutting frame and rail strip

- 3.1 Use quick clips to fix the frame on the side of the rail, adjust the distance between the left and right frames and the post $L_1=L_2$ and less than 4".
- 3.2 Mark the position of the border edge on the rail with a pencil. Used for positioning the installation frame after cutting.
- 3.3 Use a pencil to make a cutting mark at the intersection of the rail and the frame, and bevel the two ends of the frame.
- 3.4 Cut the strip in the beam according to the marked border edge, and the length of the strip is equal to the marked length L minus 1 1/2".



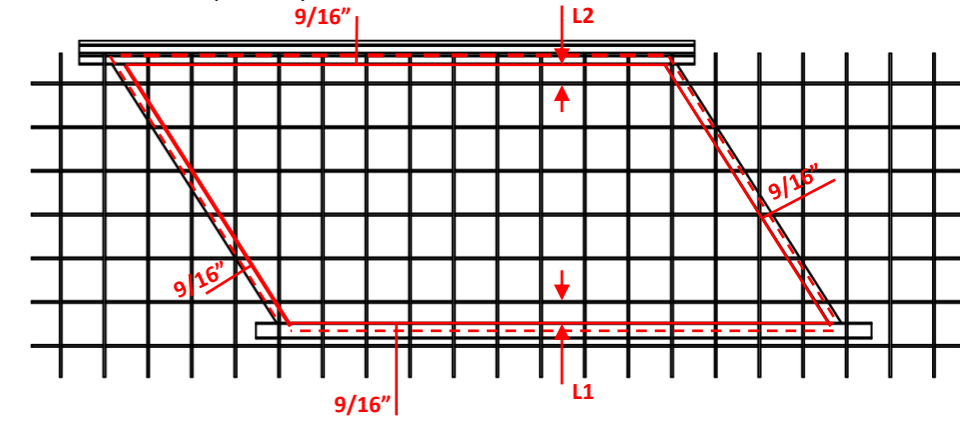
Step 4: Install frame

- 4.1 Fit the connectors into the side frame respectively, and cut a 1 1/2"x1/4" long notch at the overlapping end of the rail strip and the connector.
- 4.2 The clamping strip is pre installed in the rail, and then the frame and rail are fixed with two # 8 3/4" countersunk screws according to the marked edge position of the frame.



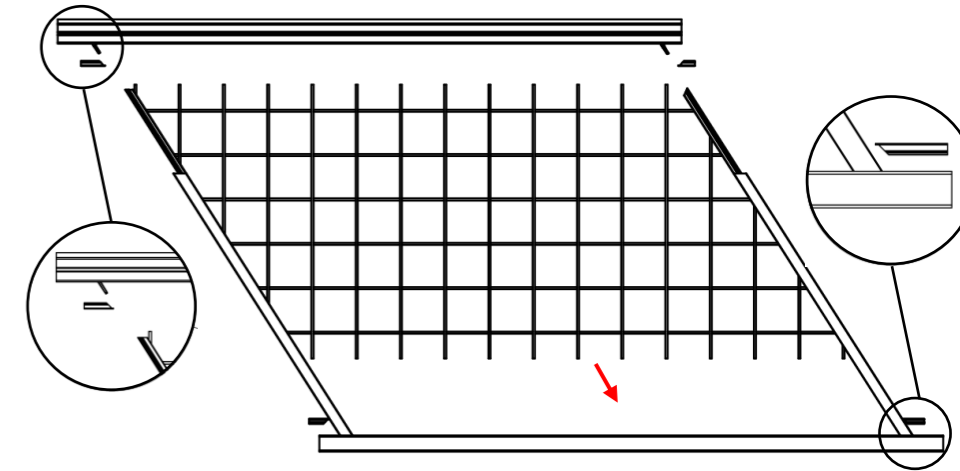
Step 5: Cutting mesh

- 5.1 Cut the mesh according to the size of the assembled rail frame, and adjust the distance between the lower ends of the steel mesh and the beam edge $L_1=L_2$
- 5.2 According to the internal position of the frame and rail, the four sides shall be offset 9/16" outward respectively to cut the mesh.



Step 6: Install mesh and rail end cover

- 6.1 The side strip shall be preinstalled on the mesh, removed from the top rail, and the mesh shall be sliding fitted into the side frame.
- 6.2 Refit the top rail and side frame.
- 6.3 Cut the cover to a suitable length and fit it on both ends of the top and bottom rail.



Step 7: Panel assembly to the posts

- 7.1 Fit the swivel brackets to both ends of the rail, and then fix the swivel brackets and the base with the nuts and bolts.
- 7.2 Use two # 8 3/4" pan head drilling screws to fix the swivel brackets and rail respectively.

