

REVIVAL+

Mesh Railing

Installation Instructions & User Guide

Thank you!

Congratulations on your new Revival Plus railing! We are so glad you chose to work with us, and we can't wait for you to start enjoying your amazing new outdoor space. If you have any questions or need further help with installation, please contact your retailer.

Please Note:

It is the installer's responsibility to understand and adhere to local building codes and safety requirements, and to obtain all required building permits before installing. All of our straight level aluminum railing sections 8 feet long and below meet IRC and IBC building codes. The purchaser and installer should review the intended use of the products with a licensed professional engineer to determine code compliance. Revival Railing and your retailer are not liable for improper or unsafe installations of this product.

We recommend 2 people for assembly.

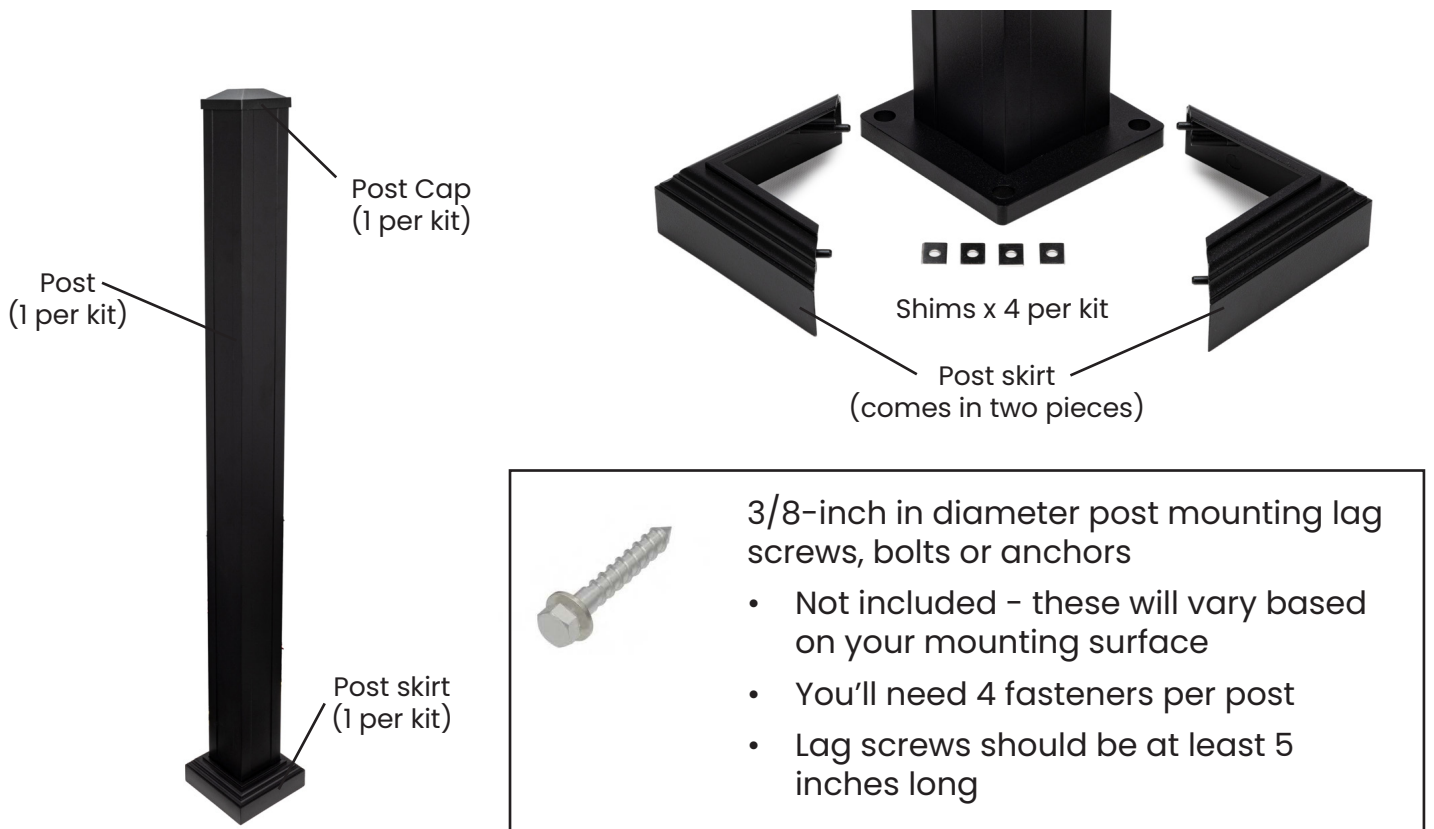
Required Tools for Assembly

- Miter saw with a high tooth count carbide blade
- Angle grinder
- Safety glasses
- Silicone adhesive
- Pencil
- Drill
- 5/32-inch drill bits
- Screwdriver
- Measuring tape
- Level
- Revival Touch-Up Paint
- Clamps
- At least two 2-3/4-inch blocks of wood to use as temporary supports
- A 1-inch-thick wood board as a temporary measuring support for stair railing sections

Note: When cutting any metal parts, make sure to coat the cut ends in Revival Touch-Up paint to protect the metal from corrosion.

Part I: Mount Your Posts

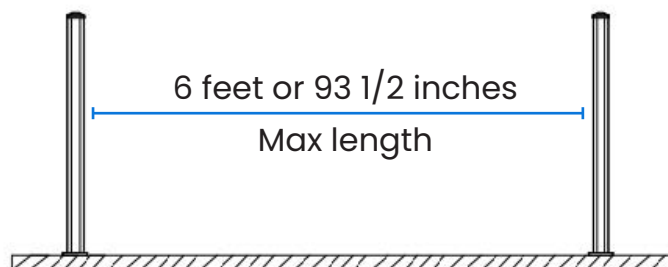
Post Installation Parts & Pieces



Step 1: Determine Where Your Posts Go

Measure the perimeter of your deck and mark where each post will mount.

- If you have **6-foot rail kits**, your posts can be up to **6 feet apart**.
- If you have **8-foot rail kits**, your posts can be up to **93-1/2 inches apart**.



Don't space your posts any further apart, or your top and bottom rails will not reach! You can cut your rails down to shorter lengths - we'll walk through measuring and cutting in Parts II and III.



Why 93-1/2 inches?

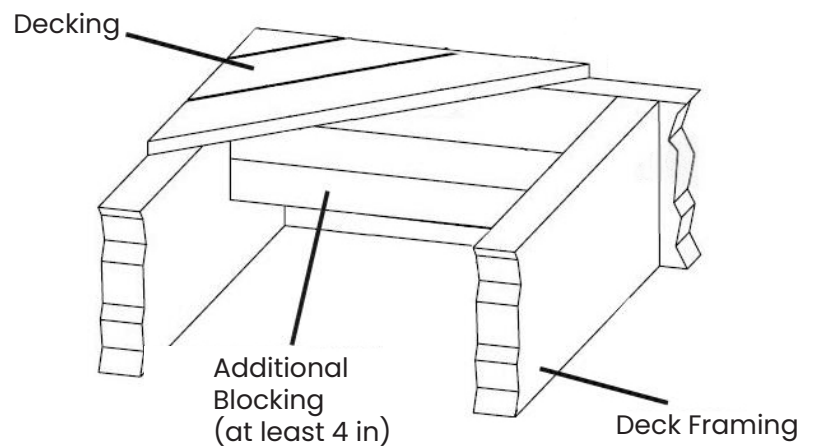
Our 8-foot rail kits use “on-center” dimensions, which means a full railing section would be 8 feet from the center of one post to the center of the next post. The “true” distance between the edges of the posts will be slightly shorter: 93-1/2-inches.

We do this to save you on shipping costs, as items 8 feet or longer cost significantly more to ship.

Step 2: Prepare Your Deck Frame With Enough Blocking Under Each Post

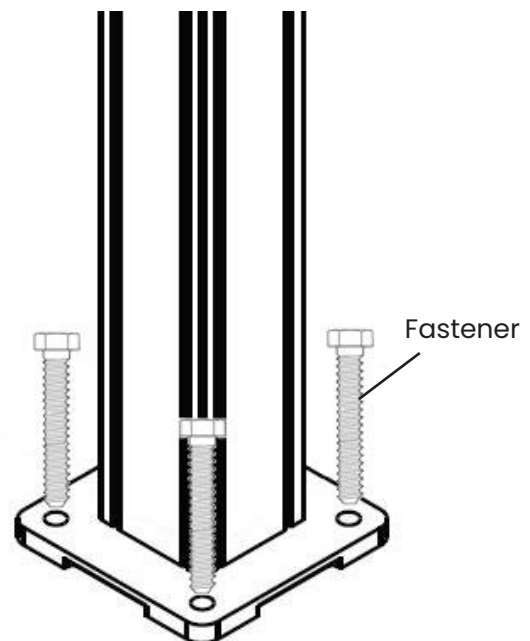
If you’re mounting posts onto a deck surface, make sure you have enough framing or blocking underneath the surface to securely hold your post.

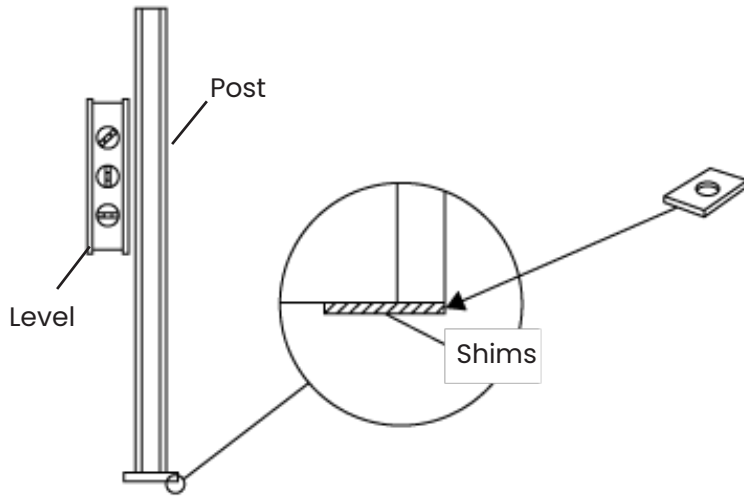
Each 5-inch post mounting lag screw should drive into at least 4 inches of solid wood - so you may need to add wood blocking to your deck frame underneath each spot you’ve marked to mount a post.



Step 3: Mount Your Posts

Attach each post to your mounting surface using four 5-inch x 3/8-inch fasteners.



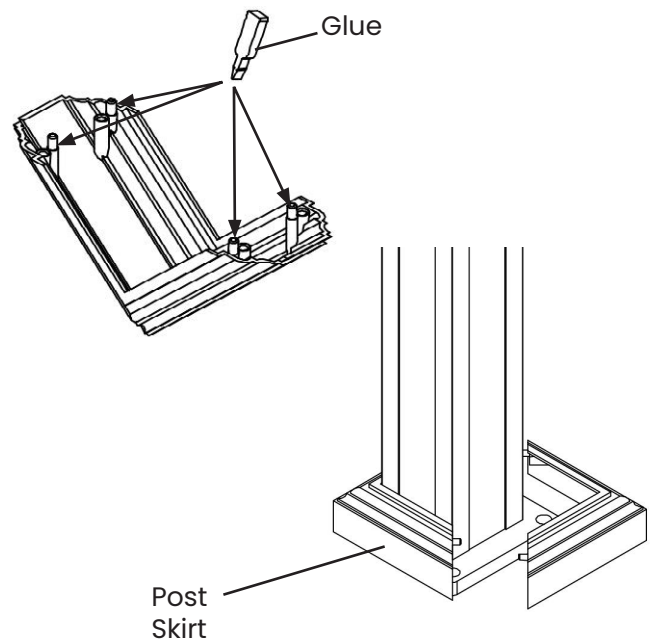


These fasteners are not included with the posts because the type of fastener needed depends on your mounting surface. To mount onto a deck surface, use 3/8-inch weather-resistant lag screws or bolts. To mount onto concrete, use concrete lag screws or anchors.

Make sure your post base is level and your post is plumb. Use shims to level the post if needed before fully seating your post-mounting fasteners.

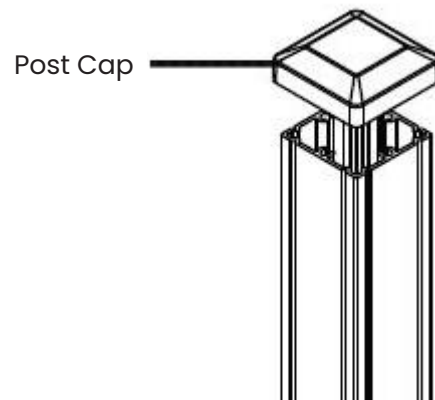
Step 4: Install Post Skirts

Place a drop of glue on each of the holes in the post skirt as shown. Slide the two pieces of the post skirt together around the post to cover the hardware at the base of your post.



Step 5: Attach Post Caps

Attach a post cap to each post, using silicone adhesive on the top of the post to secure the cap in place.



Part II: Install Level Railing Sections

Level Rail Section Parts & Pieces



Bottom Rail
includes removable
plastic bottom strip
(1 per kit)



Bottom Rail
Bracket
(2 per kit)



Top Rail
includes removable
plastic top strip
(1 per kit)



Top Rail Bracket
includes removable
top rail cover
(2 per kit)



Corner Guides -
unassembled
(4 per kit)



Corner Guide
Screws
(4 per kit)



Corner Covers
(4 per kit)



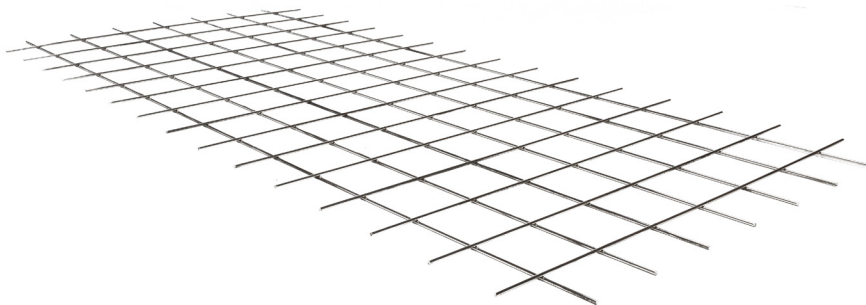
Side Uprights
includes removable
plastic side strips
(2 per kit)



Post-to-Bracket
Screws
(10 per kit)



Rail-to-Bracket
Screws
(8 per kit)



Mesh Panel
(1 per kit)



Foot Block & Screws
(unassembled in picture)

Please note: These instructions are for railing sections in a straight line or at 90-degree angles. If you have any unique angles in your railing, check out Part IV for additional instructions.

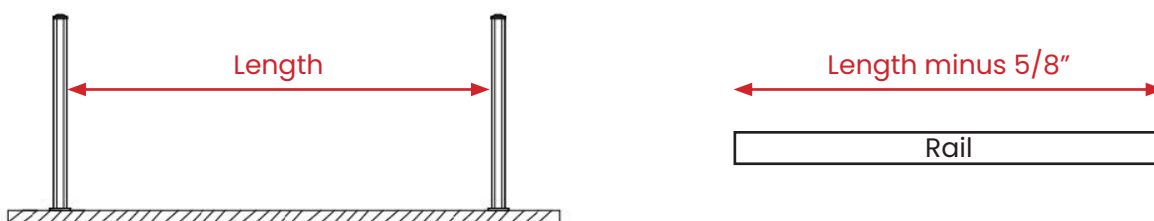
Part IIA: Cut Rails & Mesh

Step 1: Cut Bottom & Top Rails

Measure the distance between two posts, measuring as close to the deck surface as possible for accuracy.

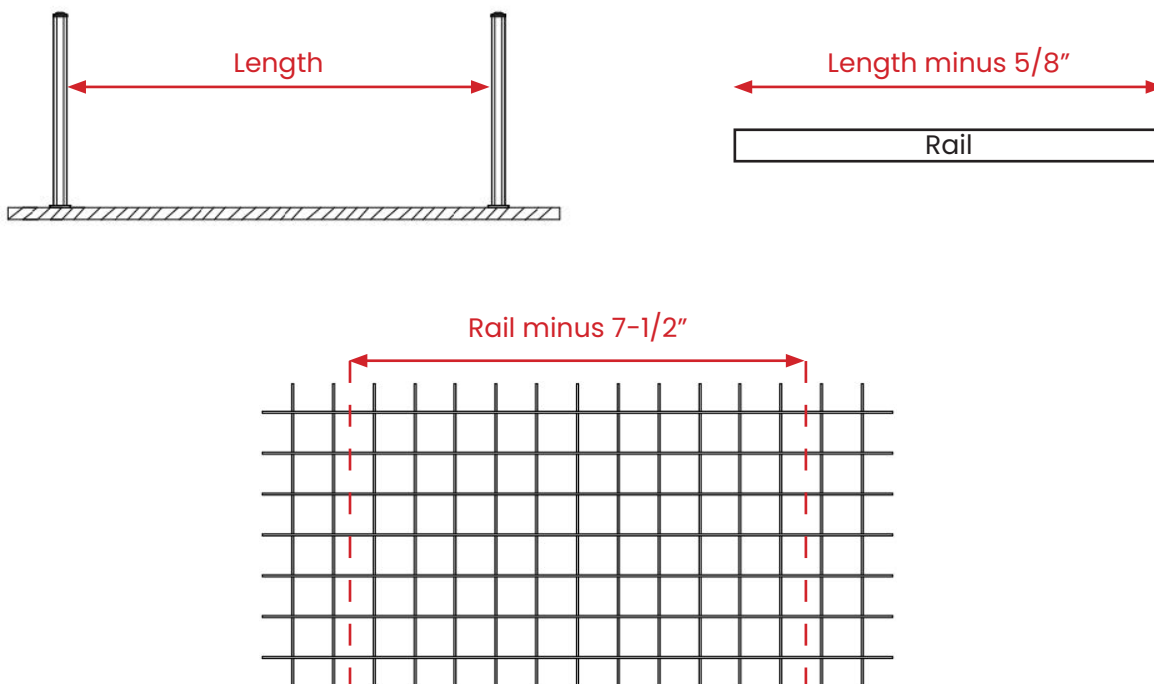
Take the distance between posts minus 5/8-inch and cut your top and bottom rails to this length using a miter saw and a carbide-tipped blade with a high tooth count.

When cutting metal parts, coat all cut ends in Revival Railing touch-up paint to protect them from corrosion.



Step 2: Cut Mesh Panel

Take the length of the rails minus 7-1/2 inches and cut your mesh panel to this length using an angle grinder or bolt cutters. Cut from both sides of your mesh panel so the mesh pattern is centered between the uprights.



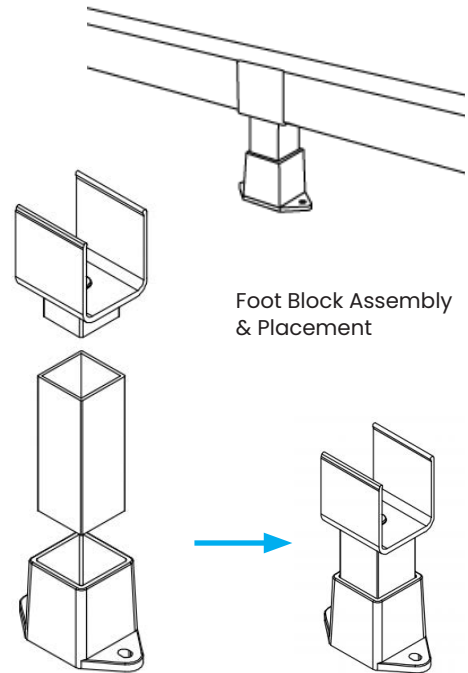
Part IIB: Install Bottom Rail

Step 1: Attach Foot Block To Bottom Rail

Remove the plastic bottom strip from inside your bottom rail and set it aside for a later step.

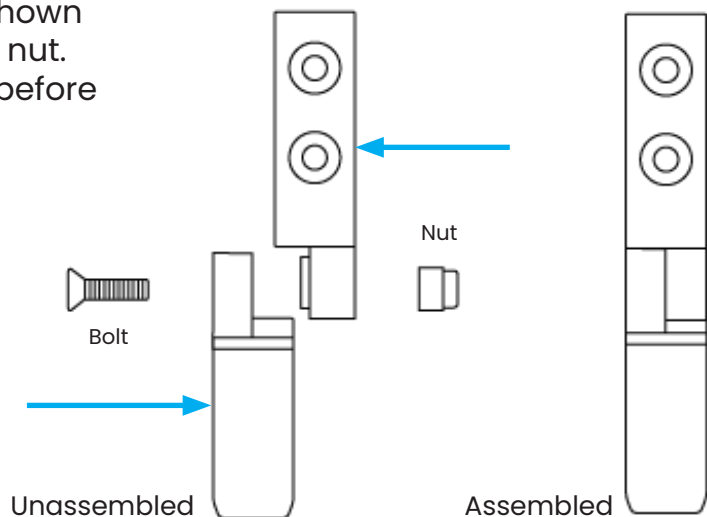
Find the center of your bottom rail and attach the foot block to it, with the bottom rail sitting in the U-channel at the top of the foot block.

The foot block comes apart in three pieces; if you need to adjust the height, you can cut the middle piece to size.



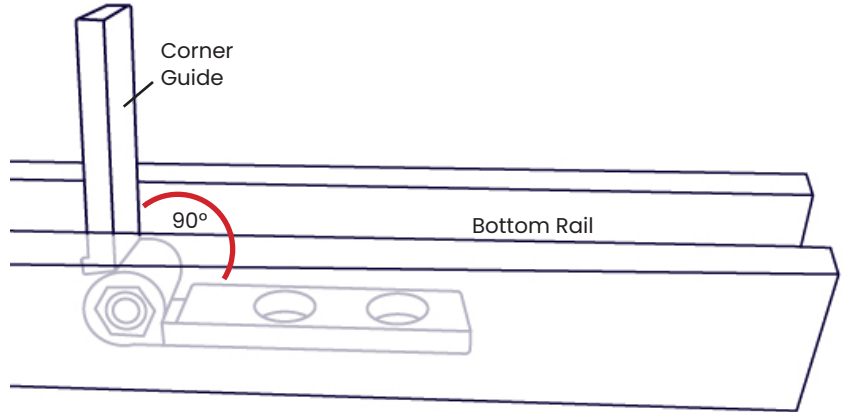
Step 2: Assemble Corner Guides

Assemble your four corner guides as shown below, using the corner guide bolt and nut. Open the guide to a 90-degree angle before fully tightening the bolt.

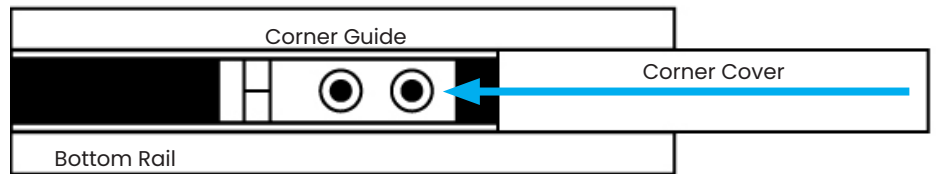


Step 3: Install Corner Guides & Corner Covers On Top & Bottom Rails

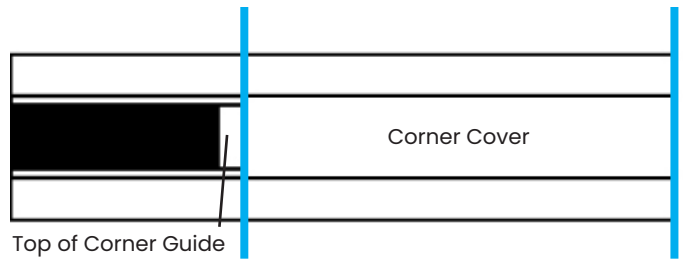
Place your 90-degree corner guide into the bottom rail.



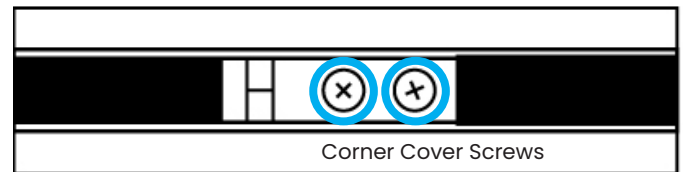
Slide a corner cover into the bottom rail and use it to line up the corner guide.



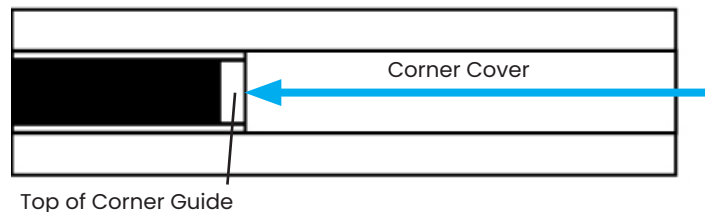
The corner cover should be flush with the end of the rail and the corner guide should be as flush as possible with the corner cover.



Hold the corner guide in place, remove the corner cover, and fasten the corner guide to the bottom rail with the corner guide screws.



Then replace the corner cover so it covers up the screws.



Repeat this process to attach corner guides and covers at both ends of the bottom rail and the top rail.

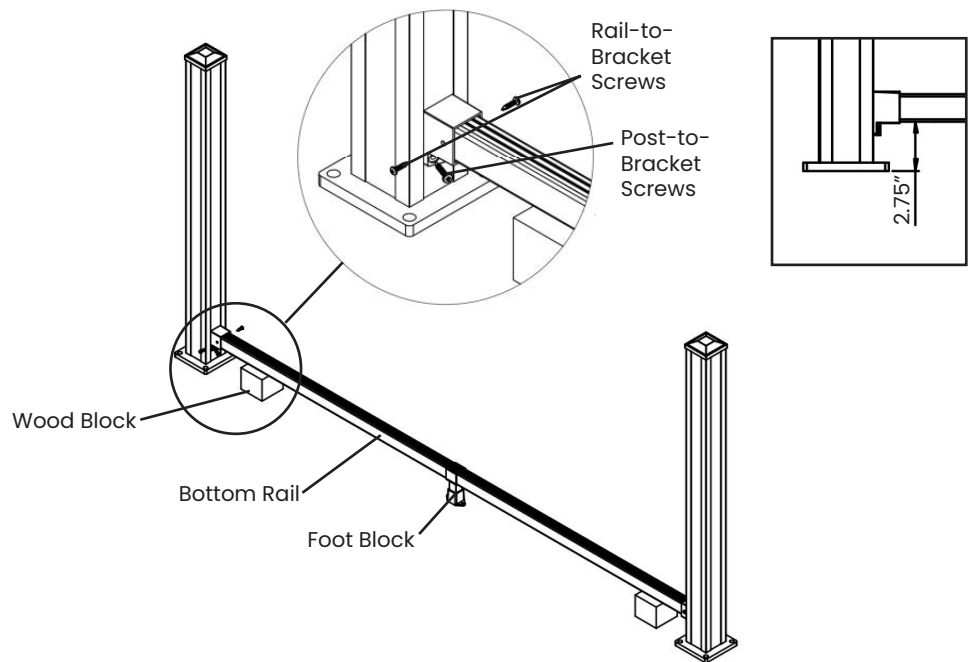
Step 4: Install Bottom Rail & Brackets

Insert each end of the bottom rail into a bottom rail bracket. Set the bottom rail between your posts on top of two wood blocks that are 2-3/4 inches tall.

Mark where the screw holes in the brackets line up on your post. Then pre-drill holes using a 5/32-inch drill bit. Use the grooves in the post to help make sure your brackets are centered and level.

Attach your brackets to the post with the longer post-to-bracket screws and your brackets to your rail with the shorter rail-to-bracket screws.

Then attach the foot block to your deck surface with the included foot block screws.

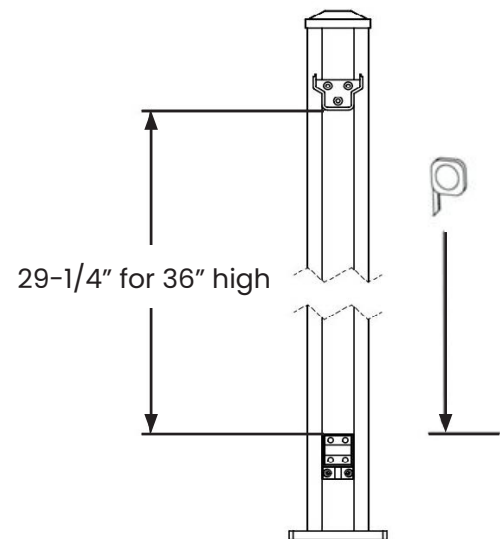


Step 5: Install Top Rail Brackets

Starting at the top of your bottom rail bracket, measure 29-1/4 inches up each post and place your top rail bracket. Make sure the bracket is level, then mark where the screw holes are and pre-drill holes using a 5/32-inch drill bit.

Remove the top rail covers from the top of each bracket and set them aside. Attach your top rail brackets to both posts using the included post-to-bracket screws.

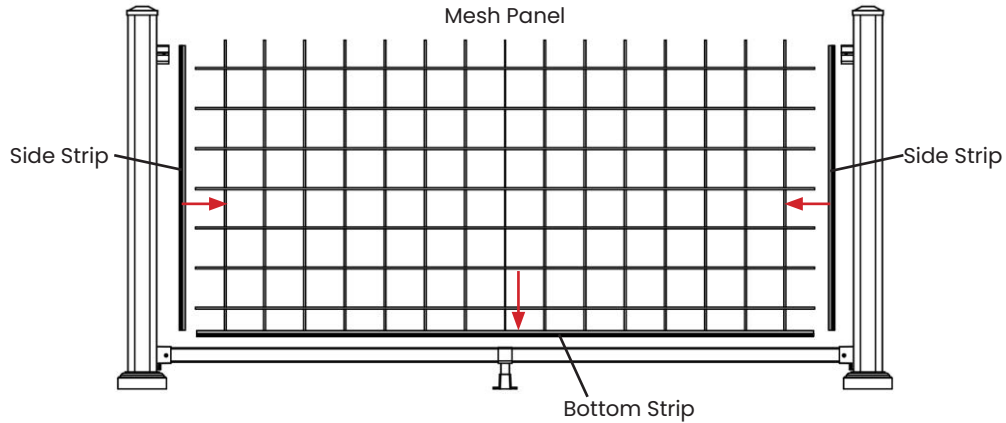
Note: don't install your top rail yet. The infill panel has to be in place first.



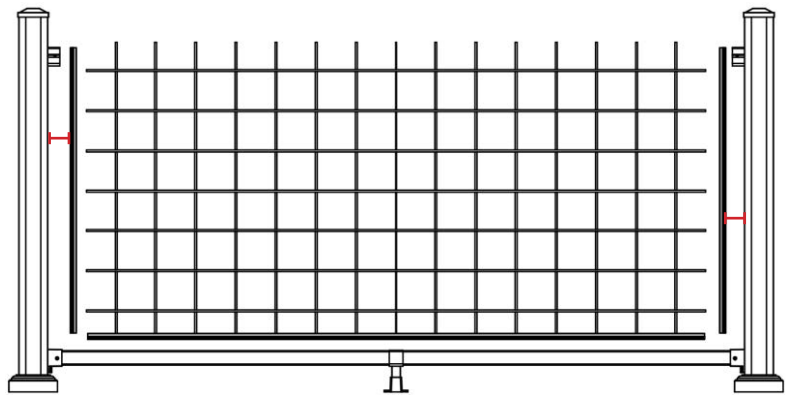
Part IIC: Install Mesh Infill

Step 1: Insert Mesh Panel Into Bottom Rail

Remove the plastic side strips from your side uprights by sliding them out.



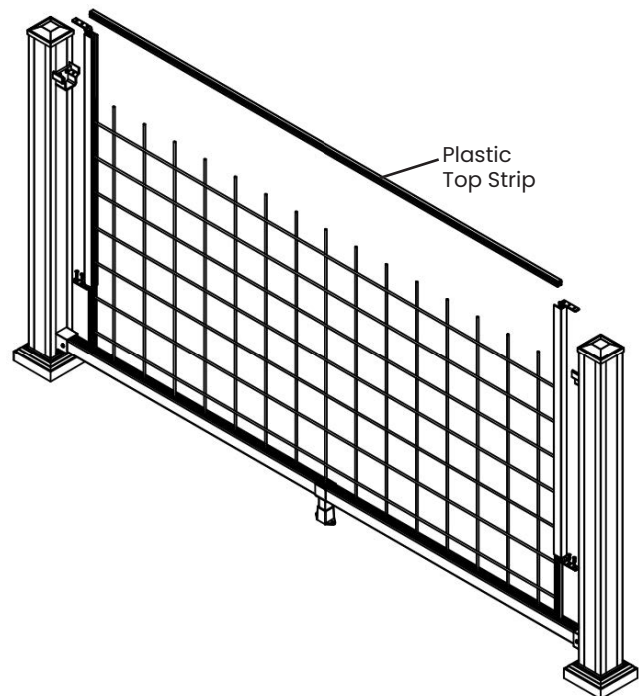
Fit the side strips and the bottom strip you set aside earlier onto your mesh panel. Then insert the bottom strip into the channel in your bottom rail until it clicks into place.



Step 2: Install Side Uprights

Install the side uprights by sliding them downwards onto each side strip. Fit the side uprights into the corner guides on your bottom rail.

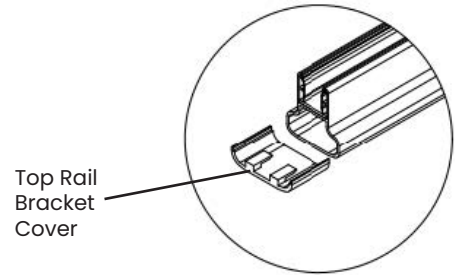
Then remove the plastic top strip from inside your top rail and fit it onto the top of the mesh panel.



Part IID: Install Top Rail

Step 1: Attach Top Rail Bracket Covers To Top Rail

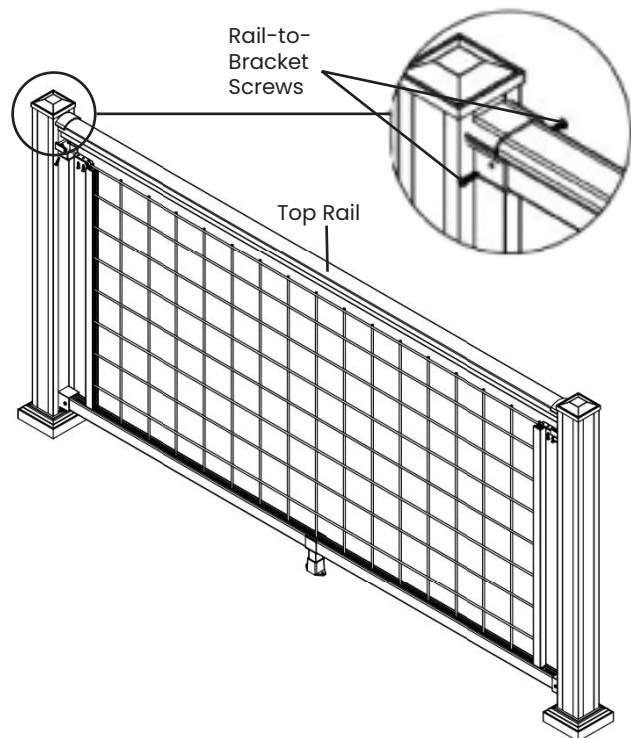
Insert bracket covers onto each end of your cut top rail.



Step 2: Attach Top Rail

Line up your top rail so the corner guides fit into the slots in the side uprights. Then press the top rail into place until the plastic top strip clicks into the top rail.

Then use rail-to-bracket screws to attach the top rail to the brackets.



Part III: Install Stair Railing Sections

Stair Rail Section Parts & Pieces



Bottom Rail
includes removable
plastic bottom strip
(1 per kit)



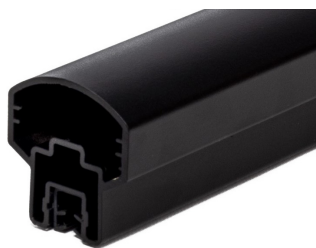
Bottom Rail
Bracket
(2 per kit)



Bottom Rail
Bracket Base
(2 per kit)



Side Uprights
includes removable
plastic side strips
(2 per kit)



Top Rail
includes removable
plastic top strip
(1 per kit)



Top Rail Bracket
(2 per kit)



Top Rail
Bracket Base
(2 per kit)



Bracket-Hinge bolt
assemblies
(four long hollow bolts
& four short bolts - all
with hex heads)



Post-to-Bracket
Screws
(8 per kit)



Corner Guides -
unassembled
(4 per kit)



Corner Guide
Screws
(4 per kit)



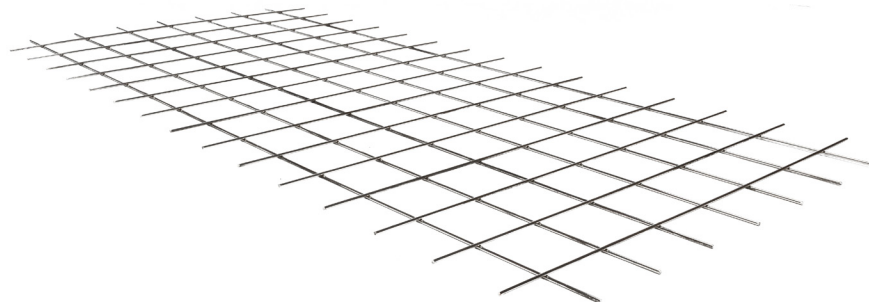
Corner Covers
(4 per kit)



Rail-to-Bracket
Screws
(8 per kit)



Allen Wrench
(1 per kit)



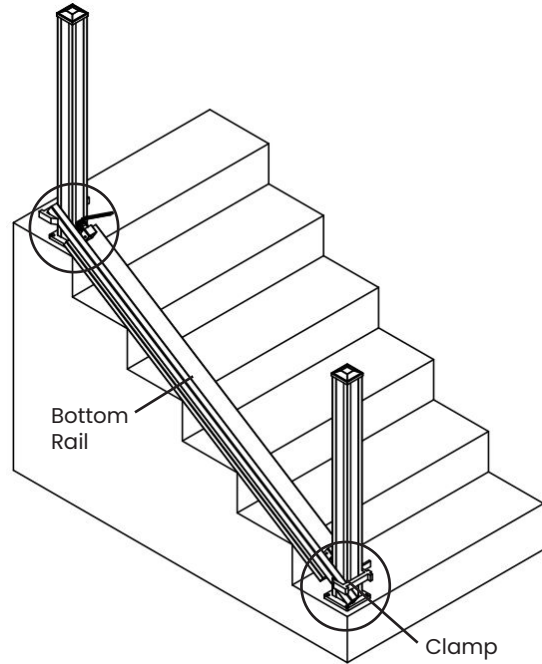
Mesh Panel
(1 per kit)

Part IIIA: Cut Top & Bottom Rails To Size

Step 1: Clamp Bottom Rail In Place

Lay a 1-inch-thick piece of wood on your stair treads to mark the slope of your stairs.

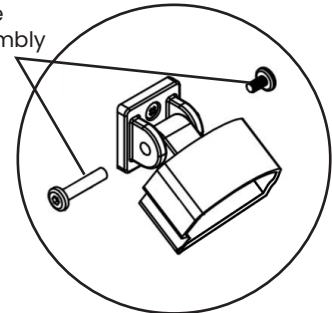
Lay your bottom rail on the wood piece and clamp it to the posts at the top and bottom of your stairs.



Step 2: Assemble Bottom Brackets & Mark Bottom Rail

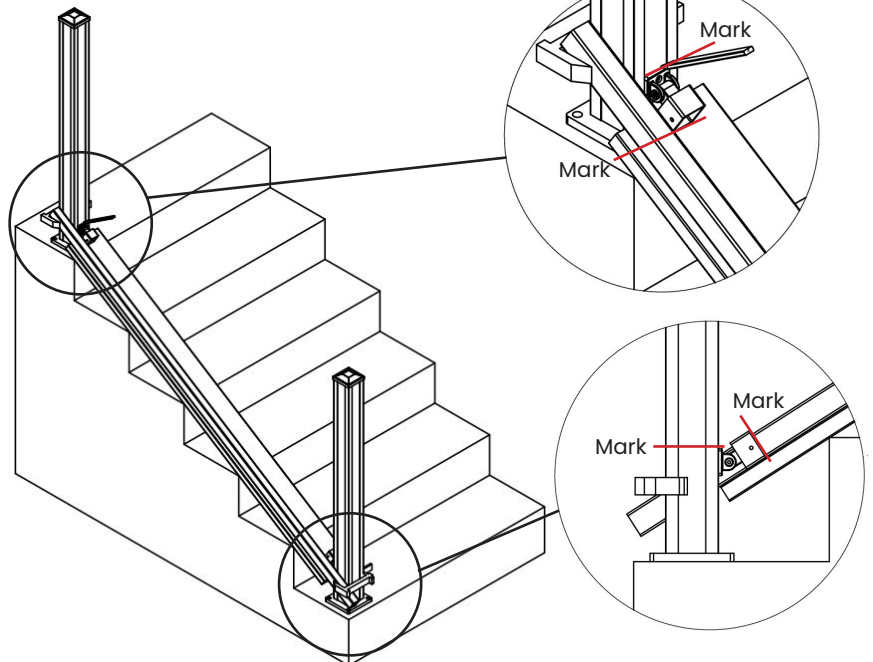
Use the bracket-hinge bolt assembly to attach a bottom bracket base to a bottom bracket.

Bracket-Hinge Assembly



Set the entire bracket assembly on your one-inch wood piece so it's parallel to your clamped bottom rail. Mark where the base will attach to your post, and mark where the end of the bracket lines up with your bottom rail.

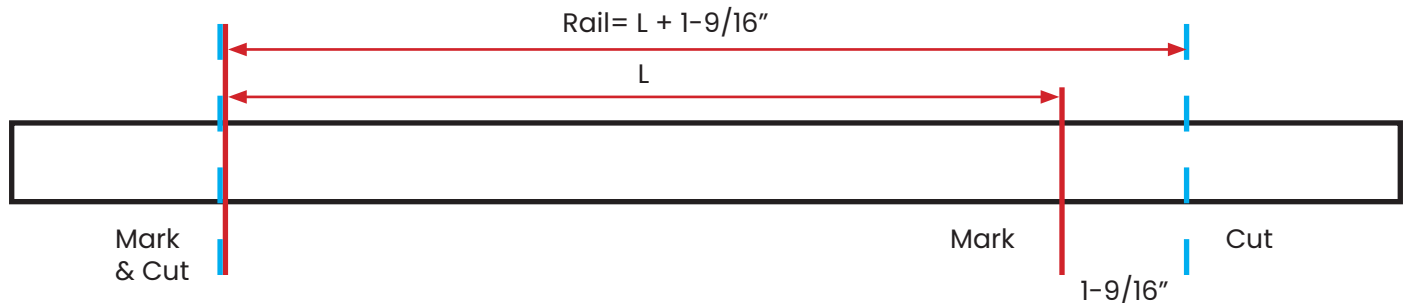
Do this at the top and bottom of your stairs.



Step 3: Cut Top & Bottom Rail To Size

Take the length between the two marks on your bottom rail (L) and **go 1-9/16 inches beyond one mark**. Cut your bottom rail to this length using a miter saw and a carbide-tipped blade with a high tooth count.

Then use your bottom rail as a template and cut your top rail to the same length. Coat the cut ends of both rails in Revival Railing touch-up paint to protect them from corrosion.



Part IIIB: Cut Side Uprights To Size

Step 1: Attach Bottom Bracket Bases To Posts

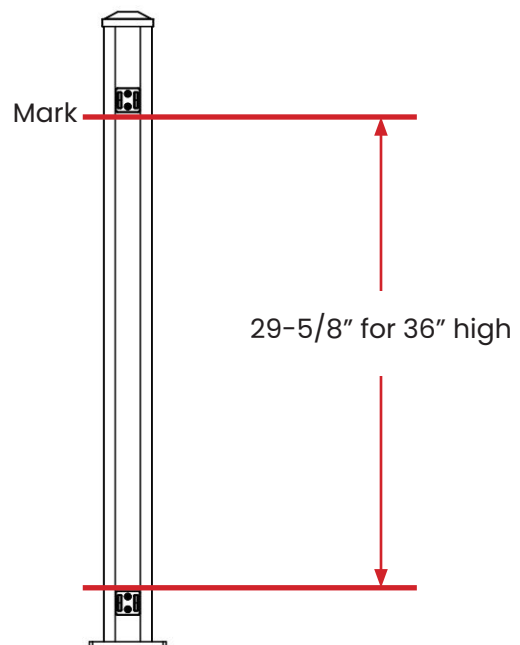
Take your bracket assemblies apart again so the bracket bases and brackets are separate.

Using the marks you made on the post, attach the bottom rail bracket bases to the posts at the top and bottom of your stairs. Mark the locations of the screw holes, pre-drill holes with a 5/32-inch drill bit, then attach the bracket bases using the included post-to-bracket screws.

Step 2: Attach Top Bracket Bases To Posts

Measure 29-5/8 inches up from the top edge of your bottom bracket bases and mark your posts. This is where the bottom of your top rail bracket bases will attach.

Line up the top rail bracket base, mark the locations of the screw holes, pre-drill holes with a 5/32-inch drill bit, and then attach the top rail bracket bases using the included post-to-bracket screws.

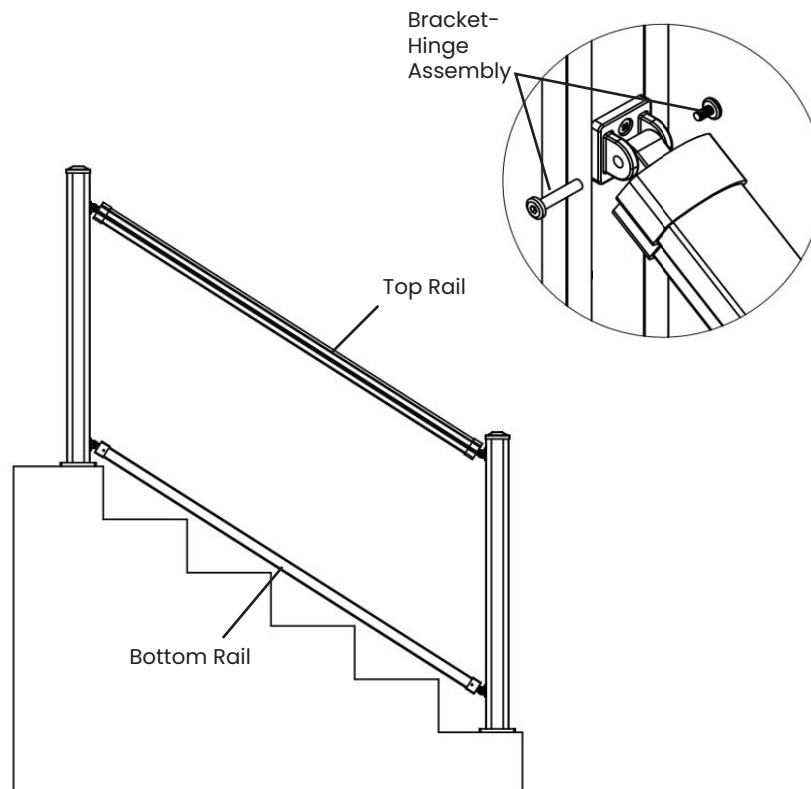


Step 3: Loosely & Temporarily Place Top & Bottom Rails In Place

Insert the ends of your cut-down top and bottom rails into the top and bottom brackets. Don't fasten them yet.

Put your bottom rail in place, loosely connecting the bottom rail brackets to the bottom bracket bases with the bracket-hinge bolt assembly. You don't need to fully tighten these screws yet.

Then repeat the same process for the top rail.



Why shouldn't I fasten rails yet?

Stairs come in so many different angles and sizes that the trickiest part of stair railings is matching everything to the exact angle of your stairs. We're lining everything up so we can measure and mark all the angles – then we can cut all the parts and assemble them all at once!

Step 4: Clamp Side Uprights To Rails & Mark

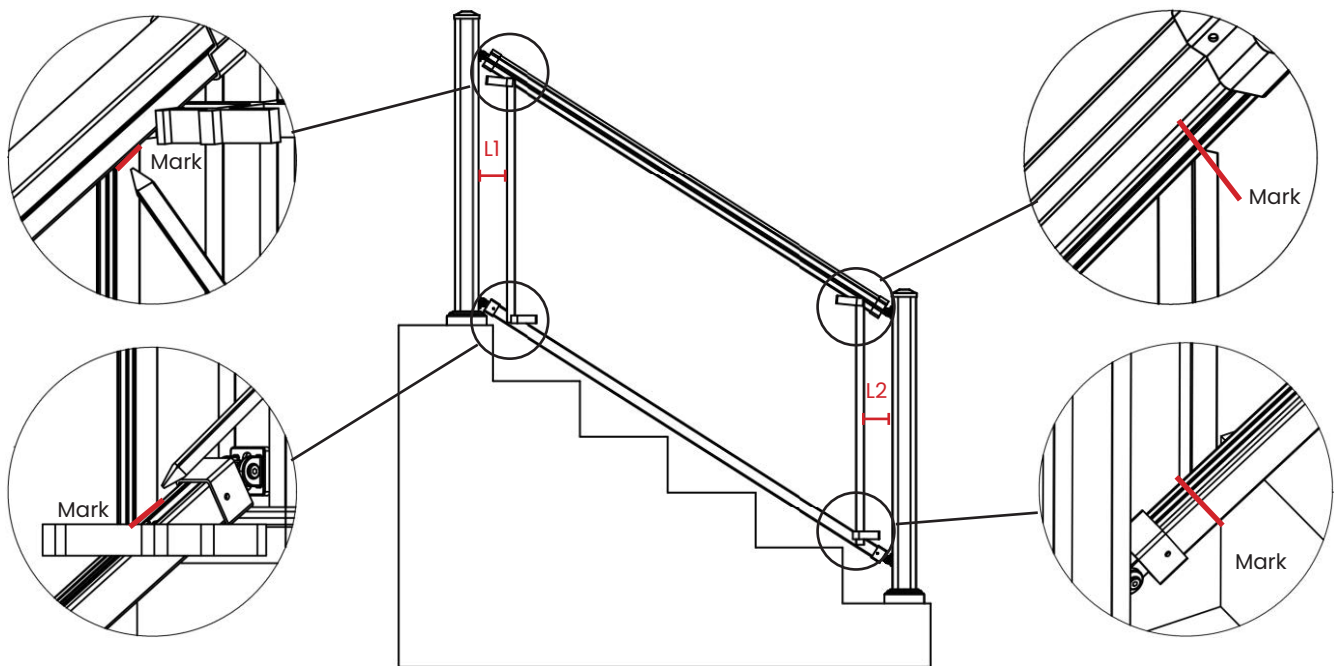
Use clamps to set your two side uprights in place. Make sure that both uprights are:

- less than 4 inches from the post
- The same distance from the post as the other upright ($L1 = L2$)
- perfectly plumb, or level vertically

Once everything is lined up correctly and clamped in place, start marking your components for cutting.

Mark the top and bottom rails where they meet the outsides of the side uprights.

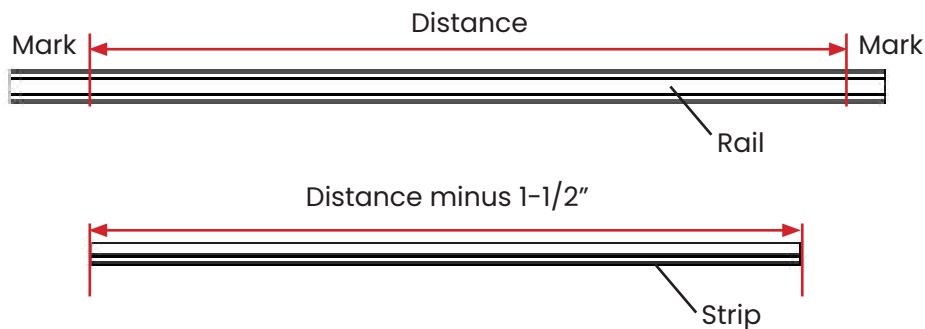
Mark the side uprights at an angle where they meet the top and bottom rail.



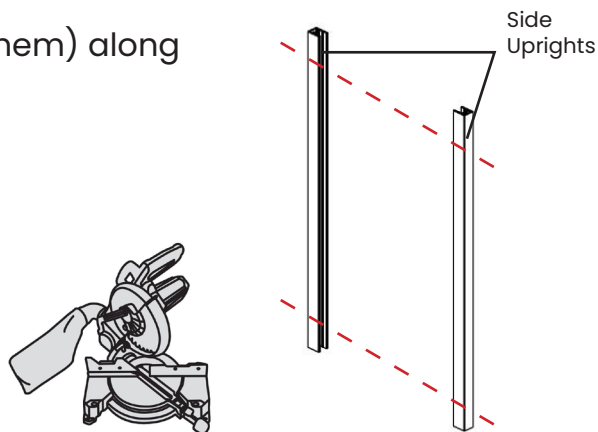
Step 5: Cut Rail Strips & Side Uprights

Unclamp all your components from each other. Remove the bracket-hinge screws and remove your top and bottom rails. Remove the plastic top strip and bottom strip from your top and bottom rails.

Measure the distance between your two marks on the top and bottom rails. (They should be the same). Take this distance minus 1-1/2 inches and cut the top and bottom strips to this length.



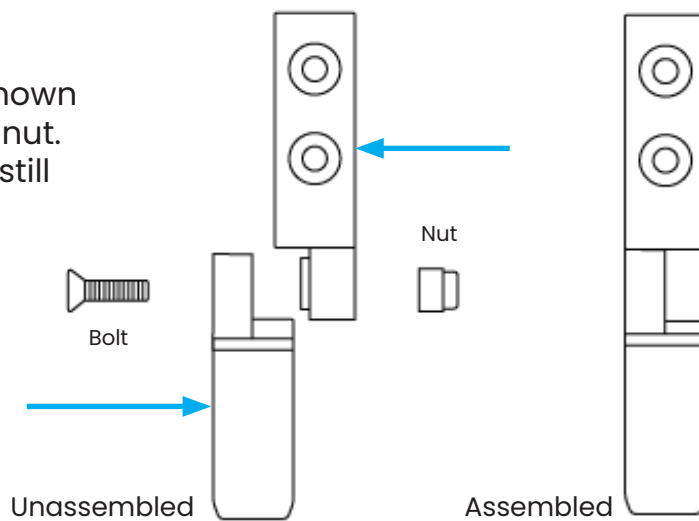
Cut both side uprights (and the side strips inside them) along the angled line you marked.



Part IIIC: Build Frame & Cut Mesh

Step 1: Assemble Corner Guides

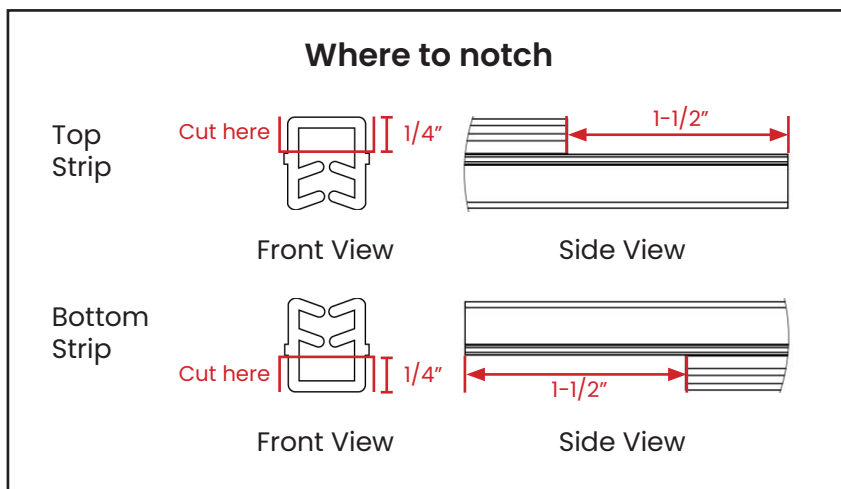
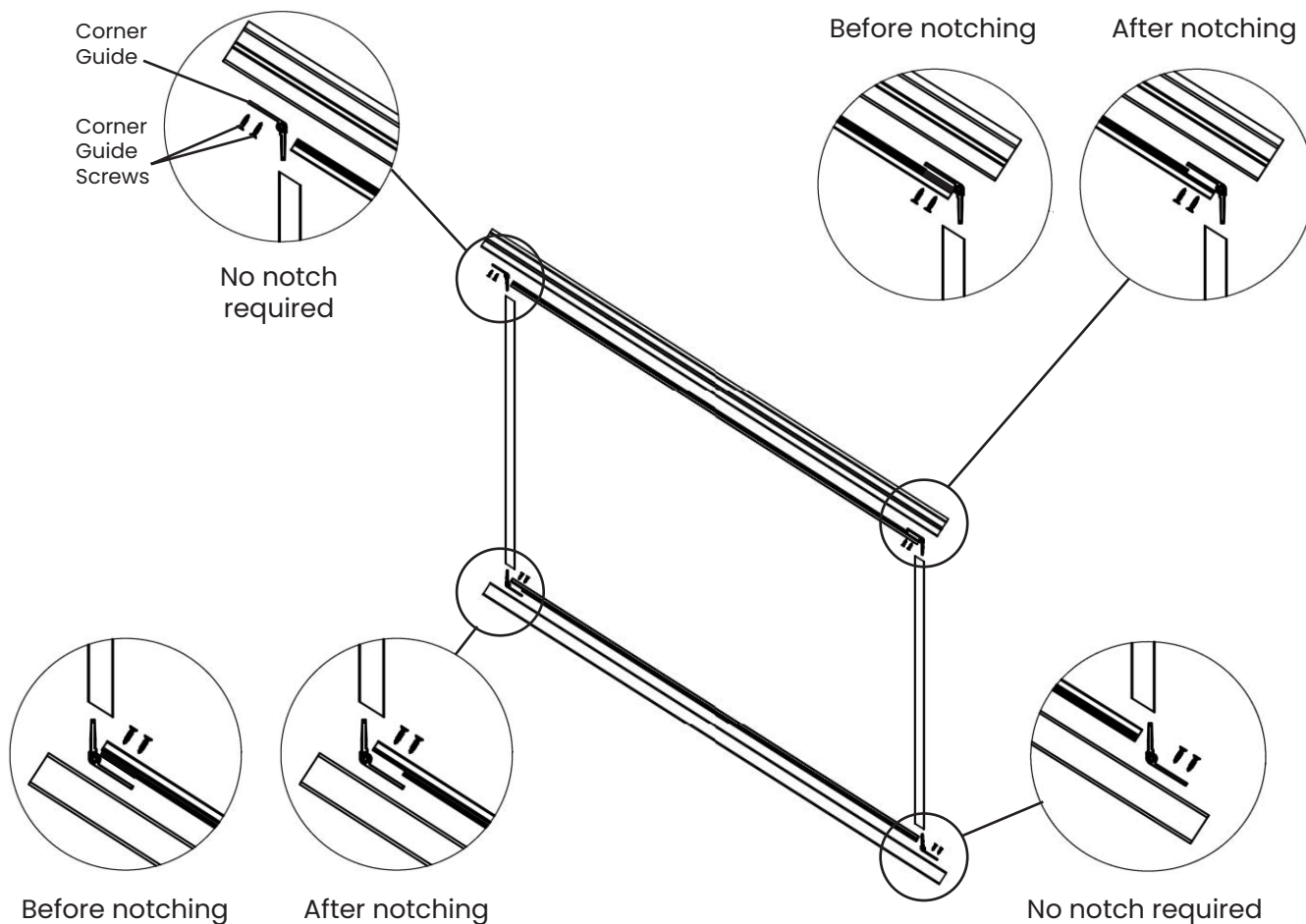
Assemble your four corner guides as shown below, using the corner guide bolt and nut. Tighten the bolt only to where you can still adjust the angle of the corner guide.



Step 2: Fit Corner Guides Into Side Uprights

Insert the thick end (the end with no holes) of a corner guide into the top and bottom of each side upright as shown below. The end with the screw holes will extend up the stairs under the top rail and down the stairs along the bottom rail.

At the marked locations below, make a 1-1/2-inch by 1/4-inch notch in the top or bottom strip where the corner guide and top or bottom strip will overlap.



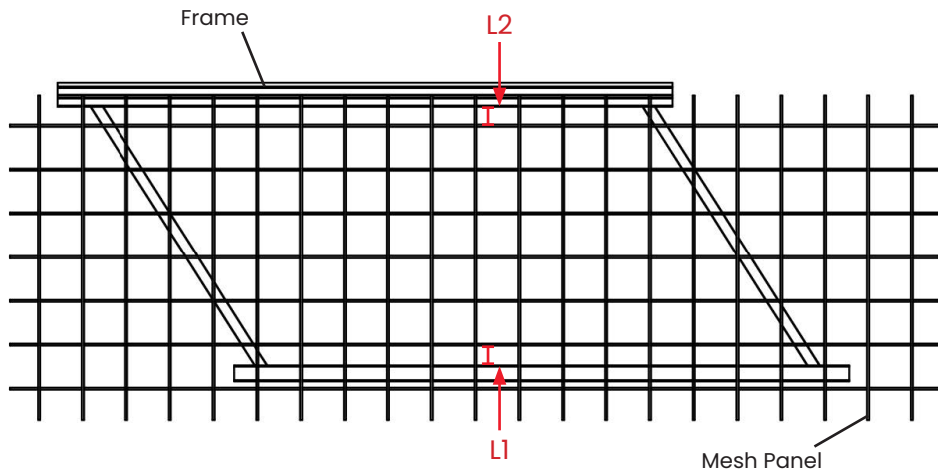
Step 3: Fasten Corner Guides To Top & Bottom Rail

Slide the top strip back into the top rail and the bottom strip back into the bottom rail.

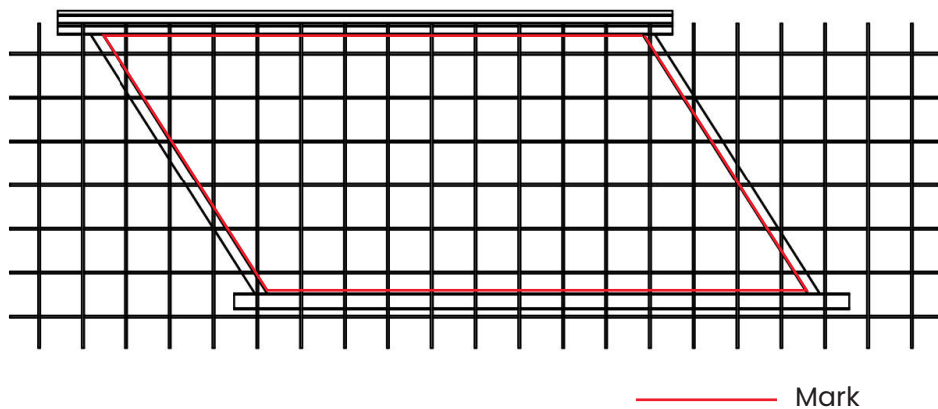
Using the corner guide screws, attach the four corner guides to your top and bottom rails, holding the top and bottom strips in place.

Step 4: Measure & Cut Mesh Panel

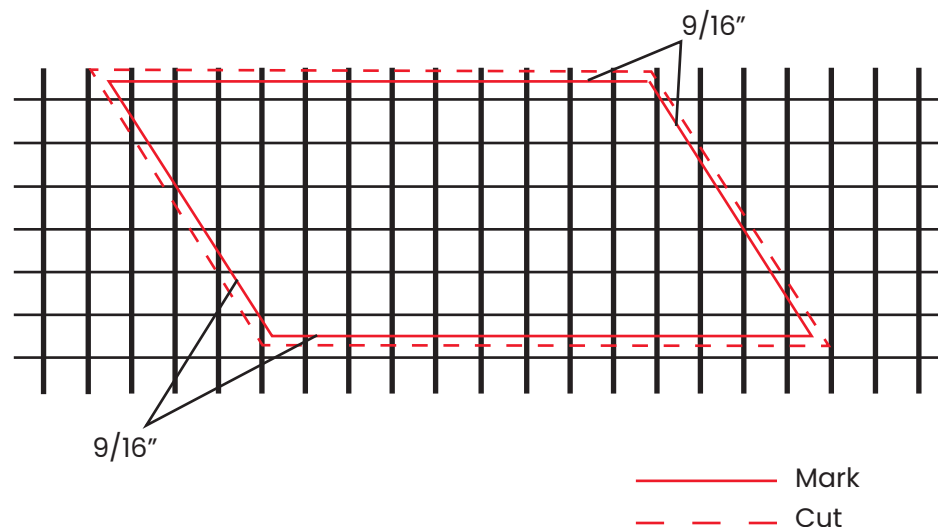
Temporarily assemble your frame by sliding the side uprights into the corner guides. Lay your mesh panel on the ground and lay the entire frame on top of it. Center the frame vertically so that $L1 = L2$ as shown here.



Mark your mesh panels along the inside edges of the rails and side uprights.



Then **measure 9/16-inch outwards from those marks and cut your panel** to size using an angle grinder.



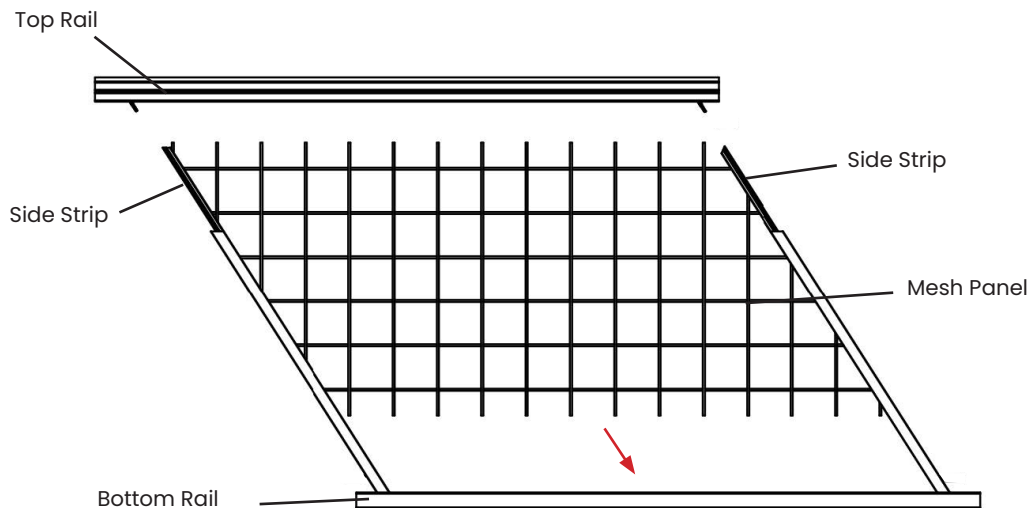
Part IIID: Assemble & Install Mesh Panel

Step 1: Install Mesh Panel Into Frame

Remove the side strips from each side upright. Insert each side of the mesh panel into a side strip.

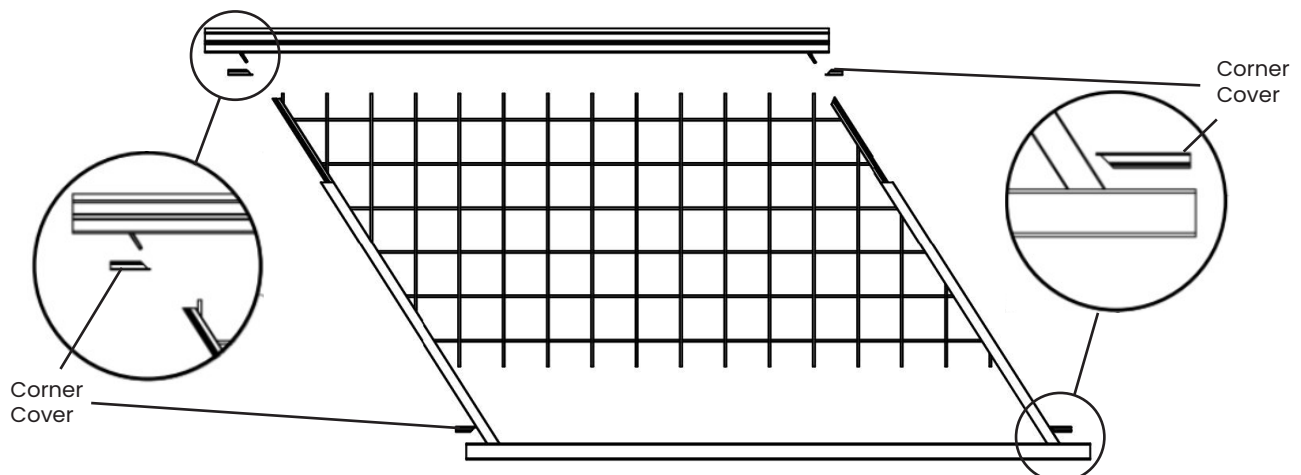
Then slide the whole panel into place, sliding the side strips into the side uprights. Press the bottom of the mesh into the bottom strip within the bottom rail.

Finally, install the top rail, pressing the top of the mesh into the top strip within the top rail.



Step 2: Cut & Install Corner Covers

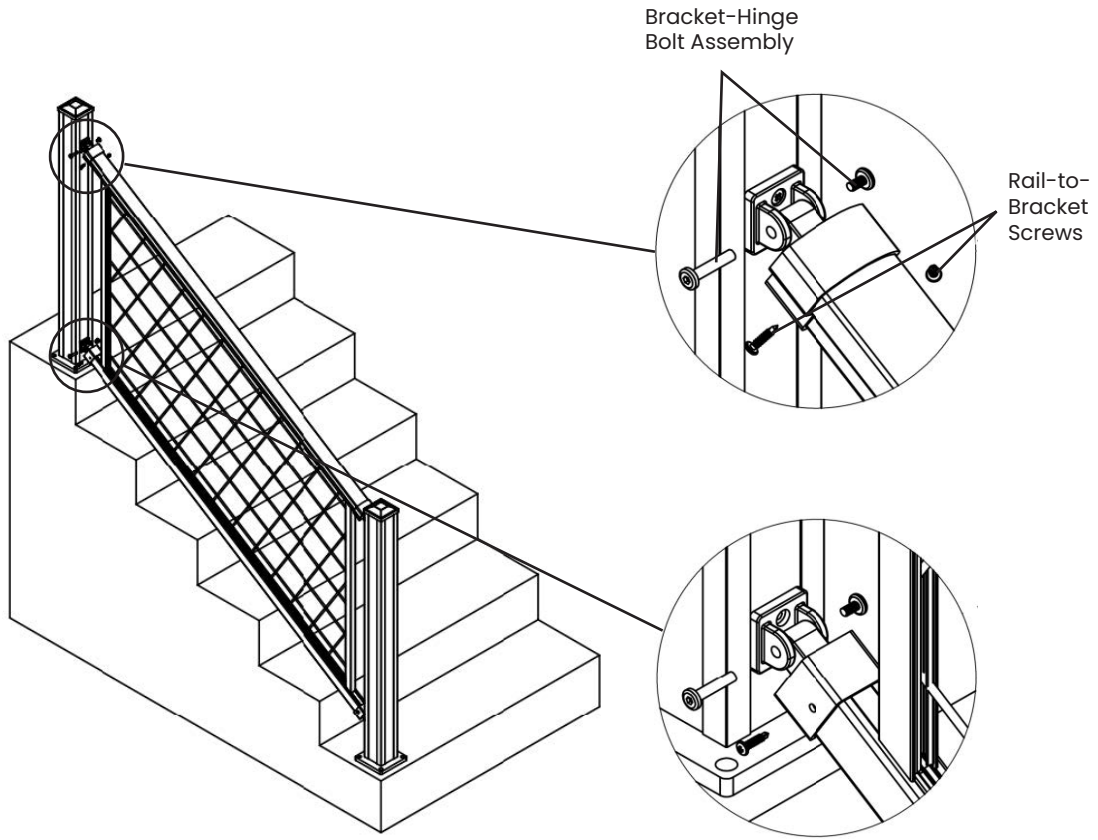
Slide your corner covers into the ends of the top and bottom rails to cover the channel. Mark them, and cut them down so they don't extend beyond the end of the rail. Then slide them into place.



Step 3: Install Panel Between Posts

Fit the brackets on the ends of your top and bottom rails. Place the whole infill panel in place and attach the top and bottom brackets to the bracket bases on your posts with the bracket-hinge bolt assembly.

Then use the rail-to-bracket screws to fasten the brackets to your top and bottom rails.



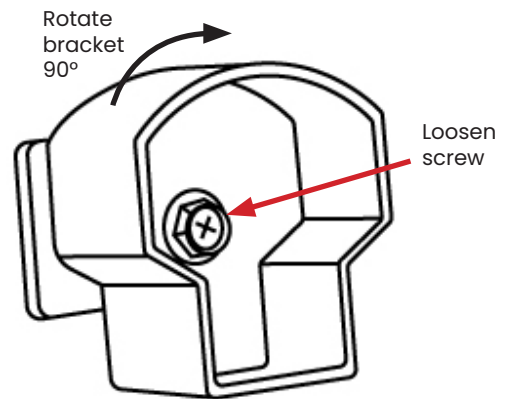
Part IV: How To Create Custom Angles

If your railing sections are all attached in straight lines or at standard 90-degree corners, attach all your brackets as described in the sections above.

If your deck railing has any unique angles that aren't 90° or 180°, you'll need to use angled brackets (used above for stair railing sections) to attach your top and bottom rails. Follow these steps first, then go back to Part II and complete any remaining steps:

Angled Connection Part #1: How To Adjust Angled Bracket To Pivot Side-To-Side

Loosen the screw inside the angled bracket until the bracket comes apart in two pieces. Rotate the bracket 90 degrees and re-attach it. Do this for the top rail brackets and bottom rail brackets.



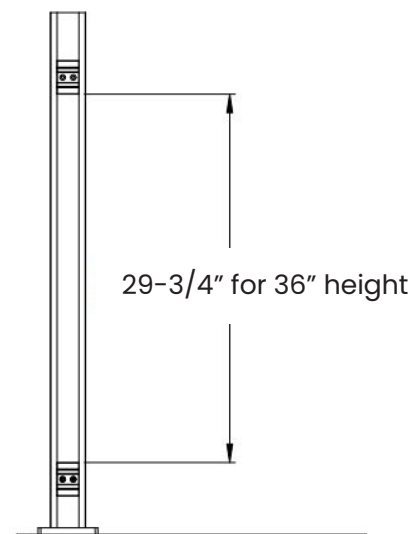
Use the bracket-hinge bolt assembly to connect the bracket to the bracket base.

Angled Connection Part #2: Attach Angle Brackets

Insert one end of your bottom rail into an angle bracket and set the bottom rail on top of 2-3/4-inch wood blocks to mark where the bottom angle bracket will attach to the post. Pre-drill holes and attach the bottom brackets. Do the same for the bracket on the other side.

Starting at the top edge of your bottom bracket base, measure upwards 29-3/4 inches and make a mark.

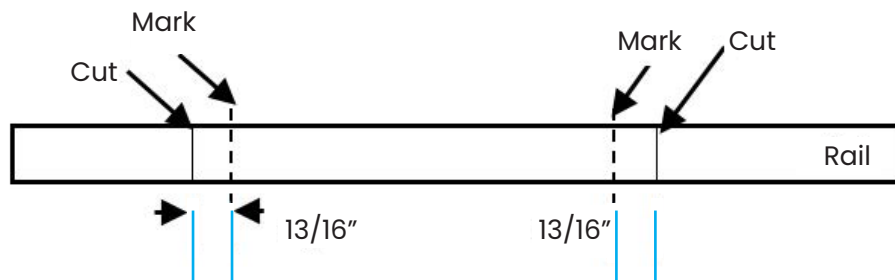
Attach your top rail bracket here, lining up the bottom of the bracket base with your mark.



Angled Connection Part #3: When Cutting Top & Bottom Rails, Use Angled Bracket To Measure, Mark & Cut

With the angled brackets attached to your posts, hold your top or bottom rail alongside both brackets.

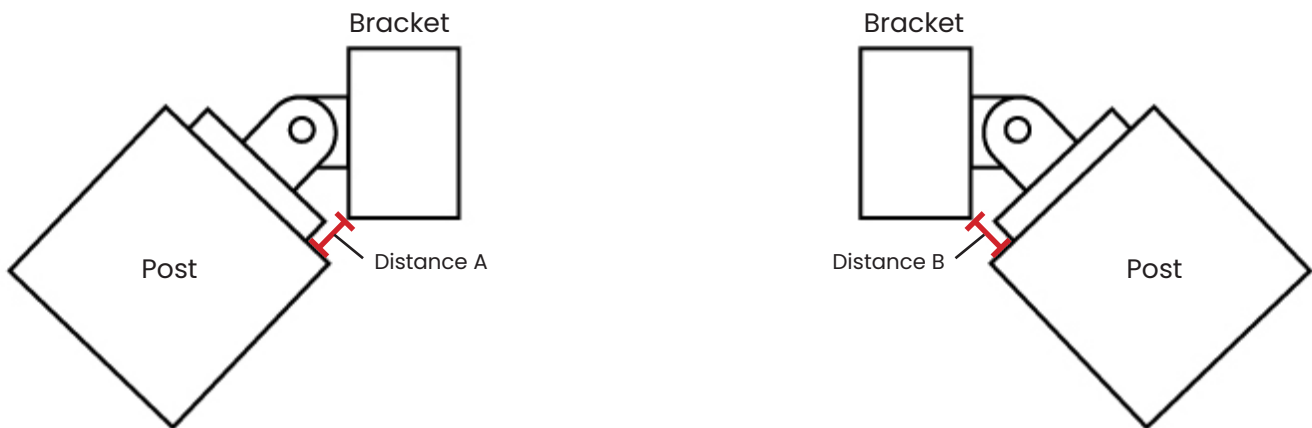
Gently mark the rail where it meets the edge of your bracket at each end. **Measure 13/16-inch from that mark (towards the end of the rail) and make a second mark - this second mark is your cut mark.**



Angled Connection Part #4: Use Different Measurements To Cut Mesh

With differently-sized top rails, you'll also need to slightly adjust the size you cut your mesh panels down to. There's some math involved here, but it's not too complex. Bear with us for a minute - your custom angle is going to look awesome!

Align your brackets to the exact angle they'll be installed at. Then measure the shortest distances between each post and the edge of the bracket, labeled **Distance A** and **Distance B** below:



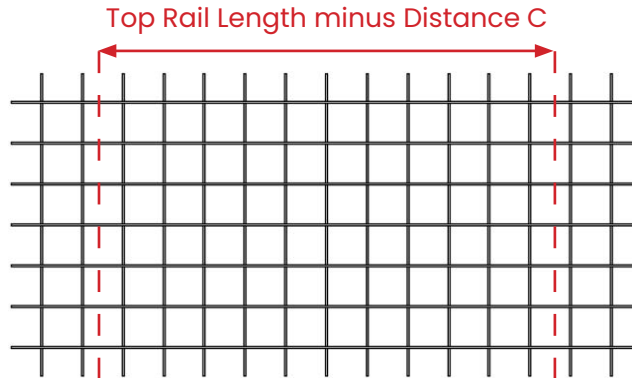
If one side of your rail isn't using a custom angle bracket, then the distance is zero.

Add Distance A and Distance B from the previous page. Then take 7 inches minus that total. We'll call this "Distance C".

Then measure the length of your top rail and subtract Distance C. This is how long you should cut your mesh panel.

$$7'' \text{ minus (Distance A + Distance B) = Distance C}$$

$$\text{Top Rail Length minus Distance C = Mesh Panel Length}$$



Then cut each of your corner covers down to fit your new dimensions:

Cut **Distance A** off of two corner covers - one for the top rail and one for the bottom rail on the side where you measured Distance A.

Cut **Distance B** off of two corner covers - one for the top rail and one for the bottom rail on the side where you measured Distance B.

Now, return to Part II and continue installing your railing with **Part IIB**.

Congratulations! Enjoy your new Revival Railing!

Operation & Maintenance

We recommend cleaning your Revival Plus Aluminum Railing 2–3 times a year to prevent corrosion and extend the lifespan of your railing. Clean using a mixture of water and mild detergent (like dish soap) and a soft sponge or cloth. Wet down your railing with a garden hose, then hand wash all surfaces with the soapy water and rinse thoroughly with fresh water.

For railings near saltwater, we recommend more frequent cleaning.

Warranty Information

Your Revival Railing is covered by a 10-year limited warranty for residential installations or a 5-year limited warranty for any non-residential installation. Please reach out to your retailer for any warranty claims or questions.

Share Photos Of Your Deck Revival!

We would love to see pictures of your finished project and celebrate your amazing new outdoor space with you! Tag #RevivalRailing on social media to share your best photos. We especially love to see before & after photos so we can celebrate the transformation!