

SkylineTM

Stainless Cable Railing

**Installation Instructions
& User Guide**

Thank You For Letting Us Expand Your View!

Congratulations on your new Skyline Stainless Cable Railing – incredible deck views are right around the corner! We're so glad you chose to work with us. If you have any questions or need further help with installation, please contact your retailer.

Please Note:

Important: 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. Skyline and your retailer are not liable for improper or unsafe installations of this product.

We recommend 2 people for assembly

Required Tools for Assembly

- Measuring tape
- Chalk line (optional)
- Pencil
- Marker
- Power drill
- Phillips driver bit
- Drill bits:
 - #8 HSS drill bit for pre-drilling stainless parts (included in Top Rail Install Kit)
 - 1/4" drill bit (if using 3/8" lag screws to mount posts)
 - 13/32" drill bit (if using 3/8" bolts to mount posts)
- Center Punch (included in Top Rail Install Kit)
- Tap Wrench and 12-24 Tap (included in Top Rail Install Kit)
- Anti-Seize Lubricant (included in Top Rail Install Kit)
- Clamps
- Hammer
- Hex wrench (for fascia mounting)
- Level
- Chop saw with abrasive cutting disk
- Disk grinder
- Round file
- Scrub sponge and/or 180-grit sandpaper
- Citrisurf Stainless Steel Passivator
- Epoxy adhesive with nozzle & dispenser
- Rubber gloves
- Cable cutters
- Swaging Tool
- Long screwdriver
- Vise-Grip™ or other gripping pliers
- A piece of leather (to protect the cable as you grip it with the pliers)
- Crescent wrench
- Grinding wheel, hacksaw, or reciprocating saw

Step 1: Separate End Posts & Line Posts

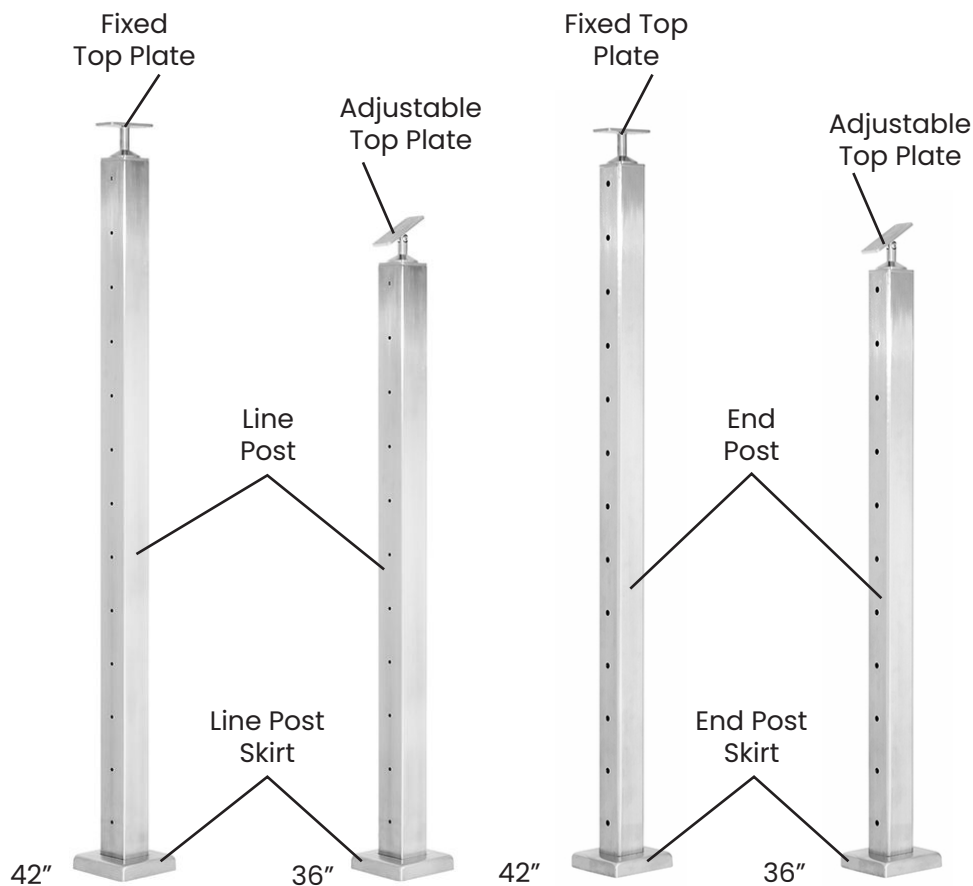
Type of Post	How To Identify It	Where To Install It
End Post	<ul style="list-style-type: none"> • Thicker (5mm) walls • Larger (2 1/64") cable holes 	Install where a cable run starts or stops
Line Post	<ul style="list-style-type: none"> • Thinner (2mm) walls • Smaller (1/4") cable holes 	Install in the middle of railing sections where the cable will pass through and on to the next railing section This includes the corners of your deck


Step 2: Mount Your Posts

For Surface Mount Posts, follow Step 2A. For Fascia Mount Posts, follow Step 2B.

Step 2A: Install Surface Mount Posts

Surface Mount Post Parts & Pieces





Post-To-Deck Installation Screws

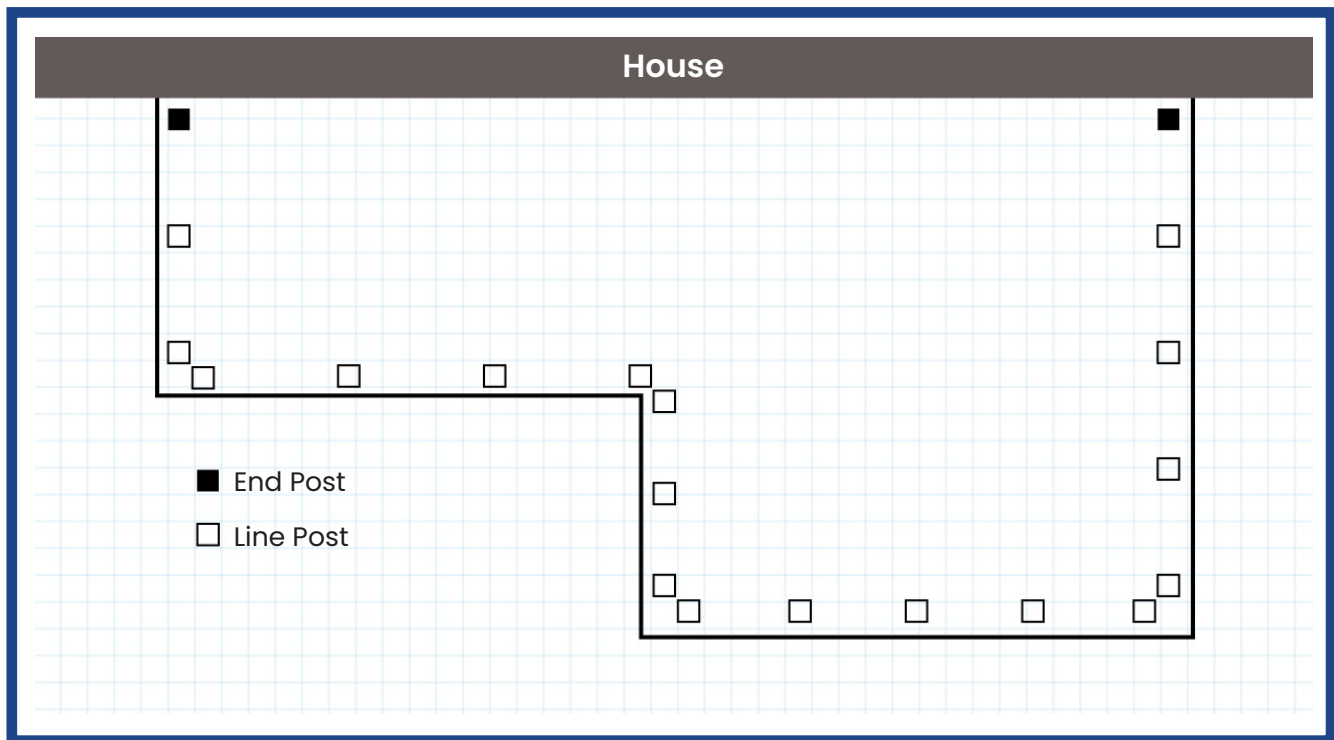
- Sold separately - these will vary based on your framing setup
- We recommend 5" long, 5/16" diameter lag screws
- You'll need 4 per post

2A.1: Locate and Mark Each Post Location

Lightly mark where each post will mount in your space.

- The max post spacing is 5' from the center of one post to the center of the next post
- Make sure the gap between your final post and your house is less than 4"
- Plan two line posts at each corner, leaving enough space for both post skirts
- Measure each mark or use a chalk line to make sure all posts are in a perfect line
- If you have posts on stairs, place the post so that the edge of the baseplate is flush with the edge of the framing underneath the post

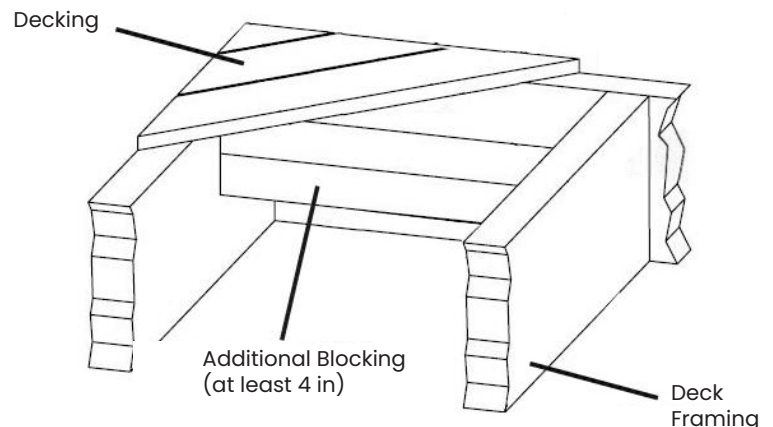
Top View of a Deck - Where your End and Line posts go



2A.2: Prepare Your Deck Frame With Enough Blocking For Each Post

If you're mounting to a deck, make sure you have enough framing or blocking underneath the surface to securely hold each post.

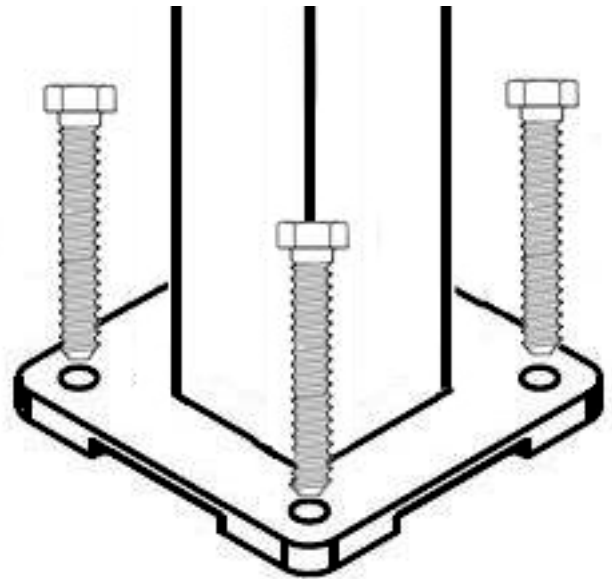
Each 5" x 5/16" post mounting lag screw should drive into at least 4" of solid wood - so you may need to add wood blocking to your deck frame below each spot you've marked to mount a post.



2A.3: Mount Posts

Place your post on the deck, making sure it's square to the deck edge. Mark all four holes, then pre-drill pilot holes:

- If you're using 5/16" lag screws, drill 3/16" pilot holes
- If you're using 3/8" nuts & bolts, drill 13/32" pilot holes



Then mount your post to the deck, using a level to make sure it's plumb. Repeat this step for all posts.

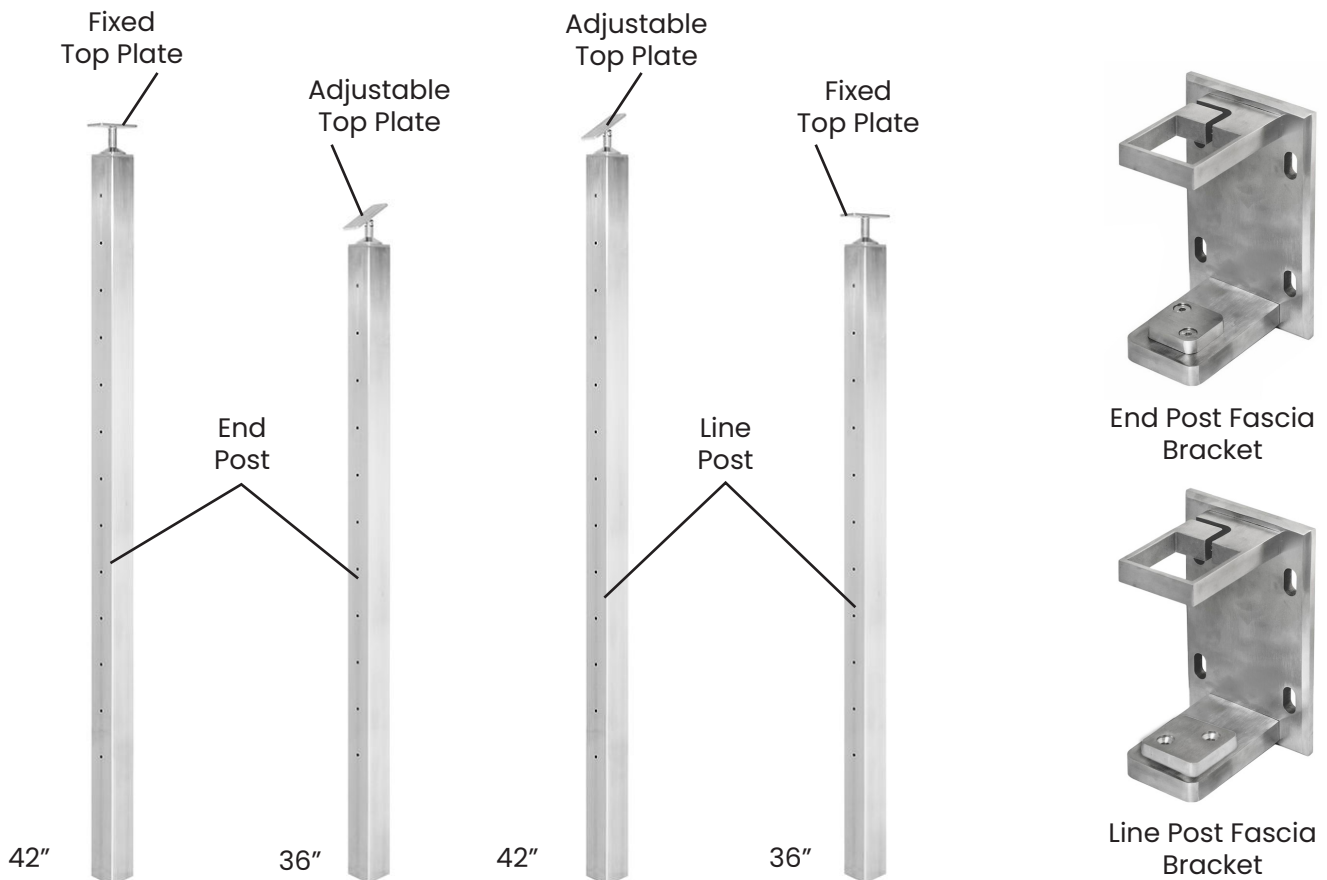
2A.4: Install Post Skirts

Slide each post skirt over the top of its post and down to cover the mounting hardware.

Note: install all post skirts before attaching rails or cable. You will not be able to install the post skirt once the rails or cables are in place.

Step 2B: Install Fascia Mount Posts

Fascia Mount Post Parts & Pieces





Post-To-Deck Installation Screws

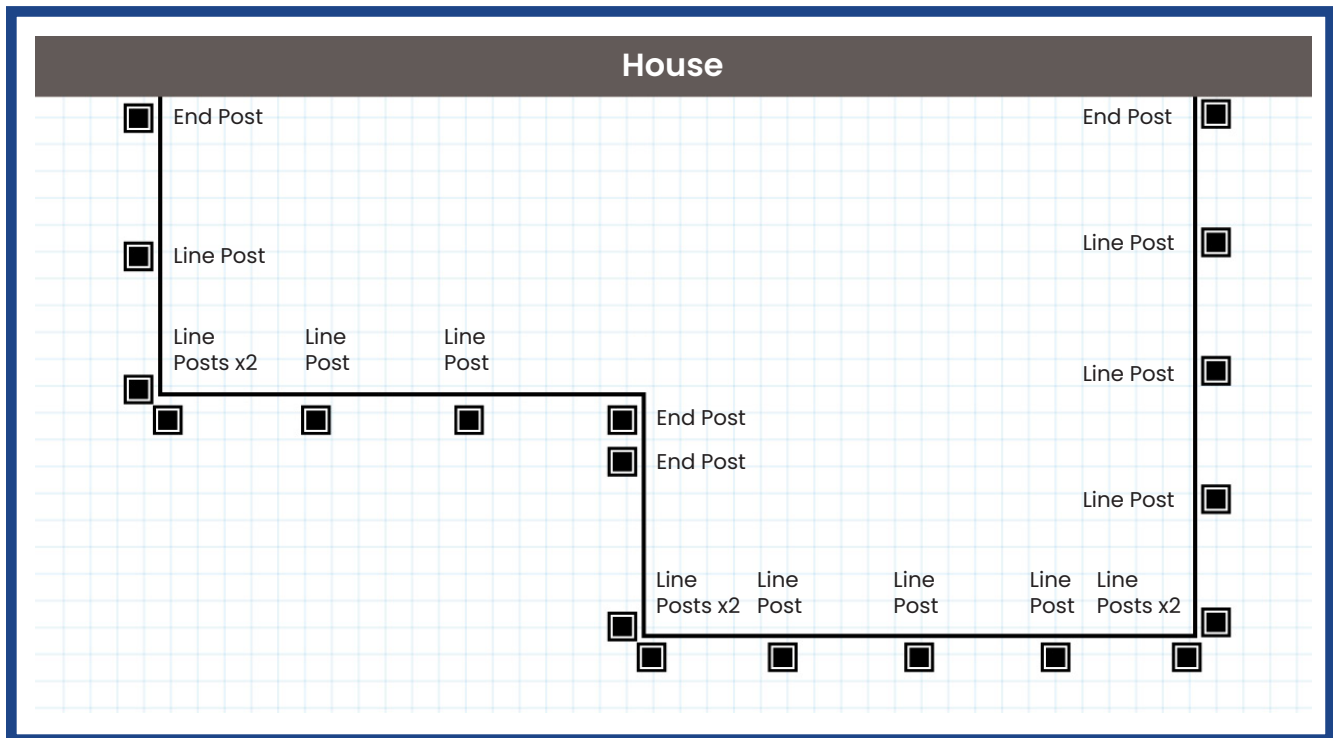
- Sold separately - these will vary based on your framing setup
- We recommend 5" long, 5/16" diameter lag screws
- You'll need 4 per post

2B.1: Locate and Mark Each Post Location

Lay out each fascia mount bracket and post around the outside of your space where it will attach.

- The max post spacing is 5' from the center of one post to the center of the next post
- Make sure the gap between your final post and your house is less than 4"
- For outside corners, plan for two line posts
- For inside corners, plan for two end posts
- Note that fascia mount brackets are designed specifically for the thicker end posts or thinner line posts. Make sure to mount the correct brackets **and** posts at each location
- If you have posts on stairs, place the post so that the edge of the fascia mount bracket is flush with the edge of the framing behind the stair riser.

Top View of a Deck - Where your posts and fascia brackets go



2B.2: Prepare Your Deck Frame With Enough Blocking For Each Post

If you're using lag screws to attach your fascia brackets, make sure you have enough framing behind the fascia boards to securely hold each post.

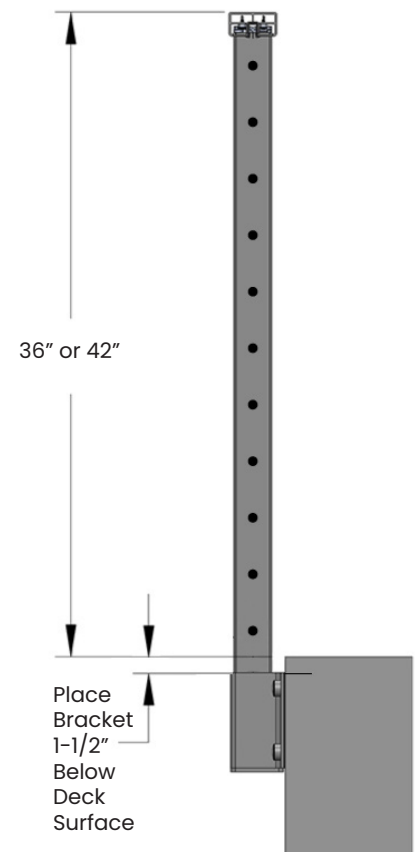
Each 5" x 5/16" post mounting lag screw should drive into at least 4" of solid wood – so you may need to add wood blocking to your deck frame behind each spot you've marked to mount a post.

2B.3: Mark & Pre-Drill Bracket Locations

Starting at your first post location, measure 1-1/2" down from the surface of your deck and make a mark. Line up the top of your fascia bracket on this mark and use a level to make sure the bracket is level and plumb.

Mark each of the four holes. Remove the bracket and pre-drill pilot holes on each mark.

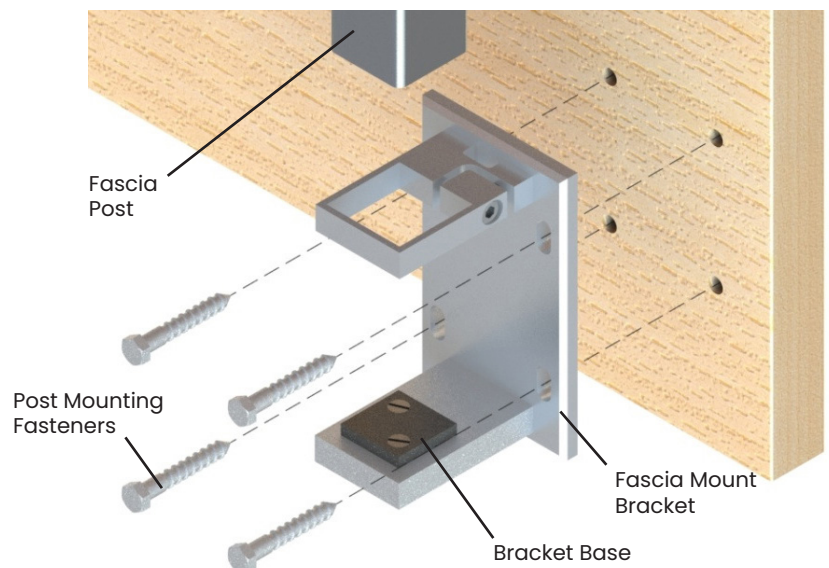
- If you're using 5/16" lag screws, drill 3/16" pilot holes
- If you're using 3/8" nuts & bolts, drill 13/32" pilot holes



2B.4: Mount Fascia Brackets & Posts

Use your post mounting fasteners to attach your fascia brackets through the pre-drilled holes.

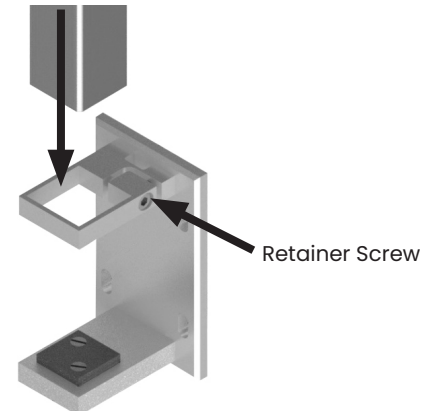
Note: End Post Fascia Brackets have slightly smaller bracket bases to fit with the thicker-walled end posts. Make sure to use the right fascia bracket based on the type of post you're installing at each spot.



2B.5: Attach Post To Fascia Bracket

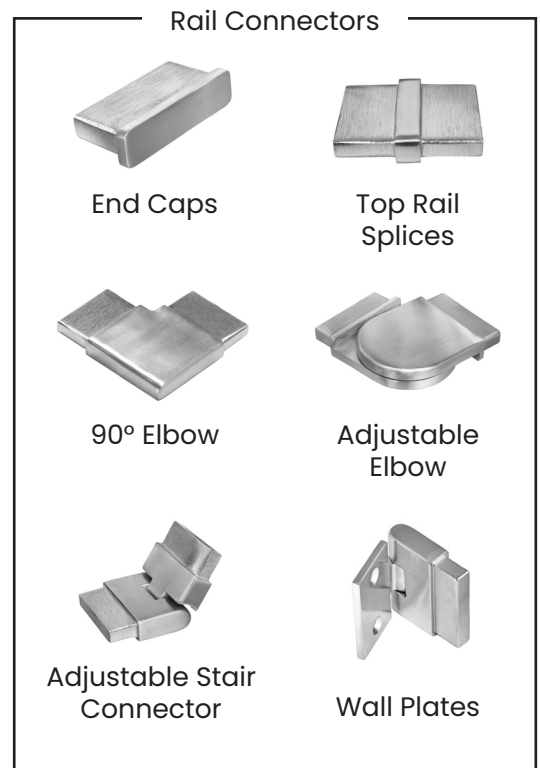
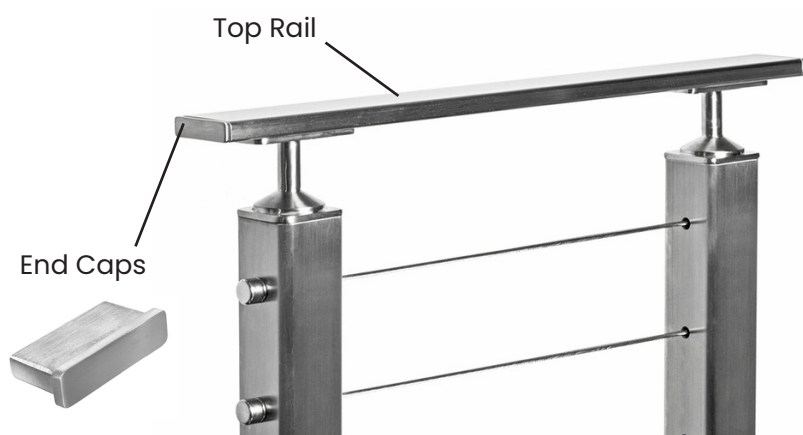
Slide the post through the retainer hole and into the bracket base. Then use a hex wrench to tighten the retainer screw to secure the post in place.

Repeat steps 2B.3 through 2B.5 to mount all of your posts.



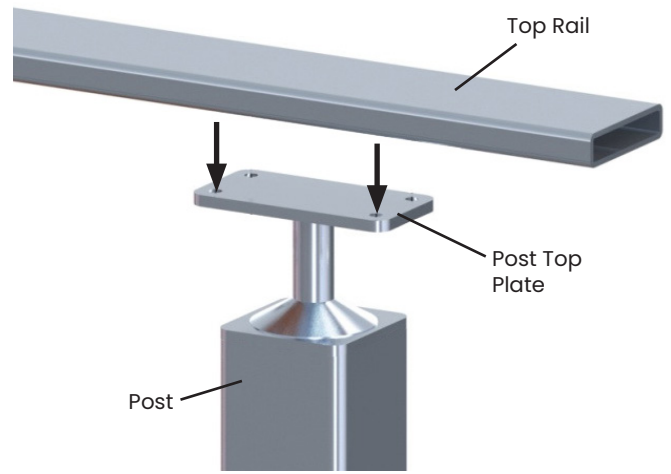
Step 3: Measure & Cut Top Rail Sections

Top Rail Parts & Pieces



Step 3.1: Measure First Section of Top Rail

Start at one end of your railing setup and clamp your top rail in place on top of the post caps.



Position the top rail exactly where you want it and mark for any cuts you need based on the rail connectors you're using at each point in your layout:

Note: make sure to space all rail connectors far enough between posts that they won't interfere with the post-to-rail screws wherever possible. If a rail connector is on top of or near a post top plate, it will be harder to drive your post-to-rail screws in the next step.

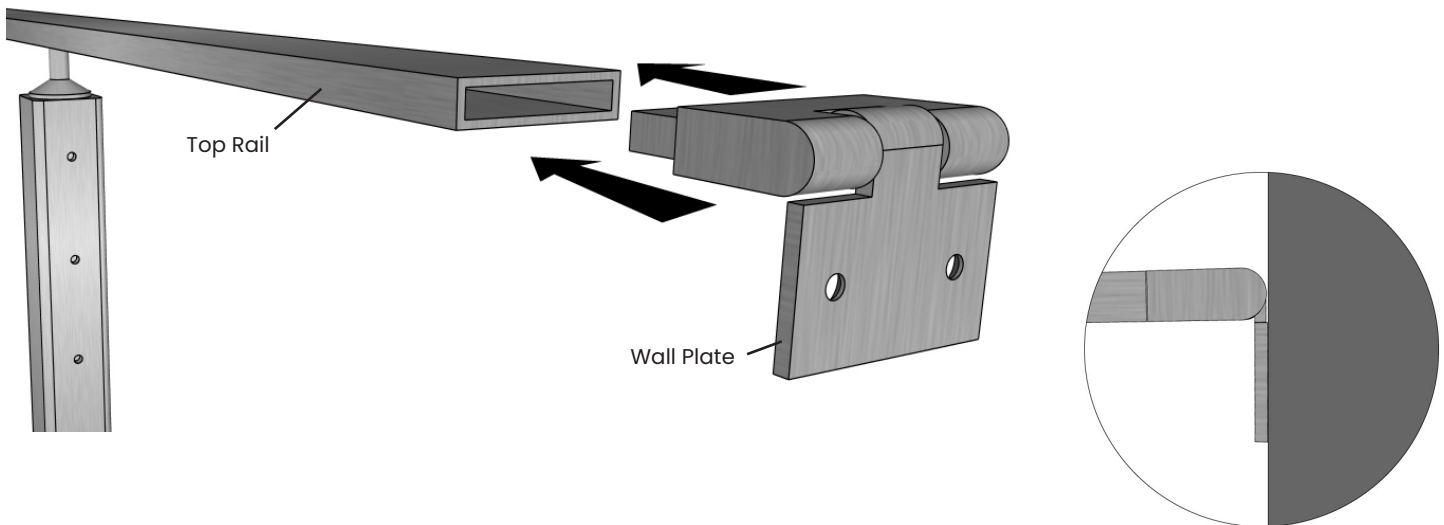
3.1A: End Caps

If you're using end caps, pre-install the end cap in the starting end of your top rail.



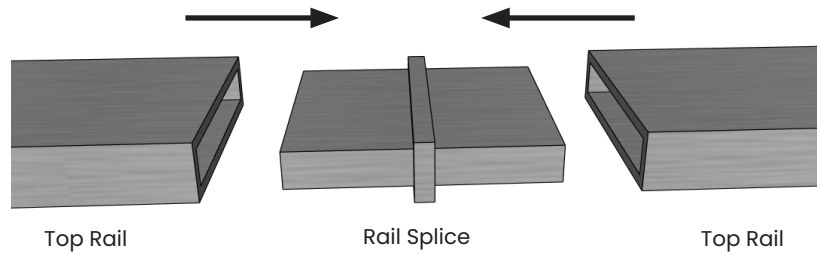
3.1B: Wall Plates

If you're using wall plates, pre-install the wall plate in the starting end of your top rail and position the rail so the wall plate is flush against the wall it will attach to.



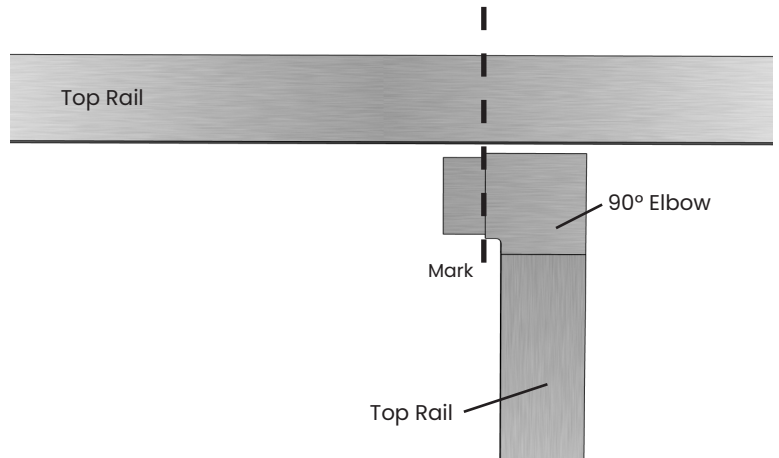
3.1C: Top Rail Splices

If you're using top rail splices, pre-install the top rail splice into the ends of the two rail sections to connect them. If you need to cut down either section, use the splice to mark your cut lines.



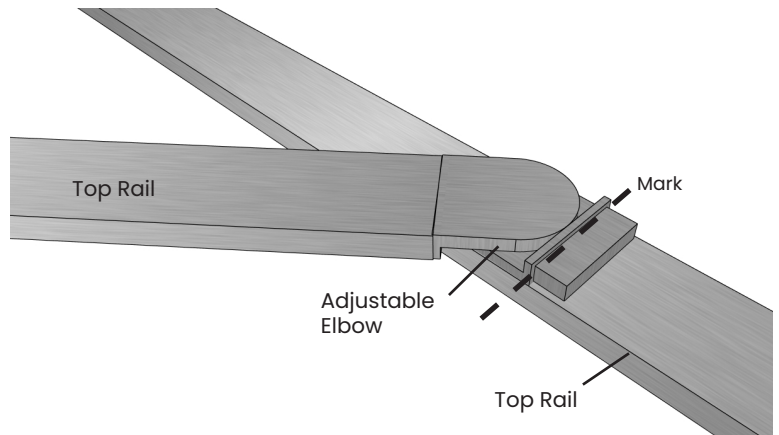
3.1D: 90-Degree Elbows

When you reach a 90-degree corner, your first section of top rail will likely extend beyond the corner. Insert the 90-degree elbow into the end of the second section of top rail and set it in place so the 90-degree elbow is flush beside the first top rail. Use the elbow to mark cut lines on the first section of top rail.



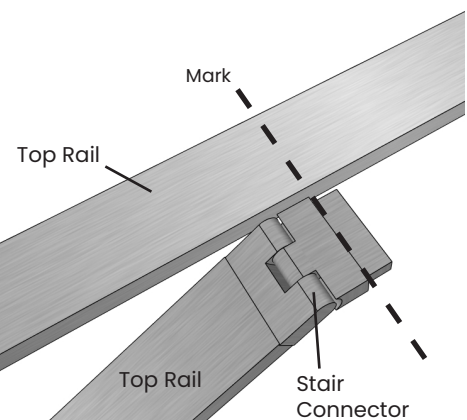
3.1E: Adjustable Elbows

For corners that aren't a standard 90 degrees, line up the first section of top rail extending beyond the corner. Insert the adjustable elbow into the second section of top rail and set it in place, with the adjustable elbow on top of the first section of top rail. Use the adjustable elbow to mark cut lines on the first section of top rail.



3.1F: Adjustable Stair Connectors

For stairs, line up top rails in both directions. Hold the adjustable stair connector beside the rails where they intersect and use it to mark cutlines.



3.2: Cut Top Rails

Cut each top rail section at your cut lines using a chop saw with an abrasive cutting disk. If possible, have someone stream a little water onto the cut to minimize heat buildup.

The metal will likely form a “burr,” or a formation of rough ridges, after cutting. Remove any burrs on the outside using a disk grinder and any burrs on the inside using a round file. Remove any discolorations with a scrub sponge and/or 180-grit sandpaper.

Apply Citrisurf Stainless Steel Passivator to the cut surface using a sprayer, brush, or roller. Let it stand 5-10 minutes.



Citrisurf Stainless Steel Passivator

Step 4: Glue Top Rails Into Straight Sections

First, we'll connect cut-down top rail sections into long, straight runs.

Step 4.1: Use Epoxy to Attach End Caps & Wall Plates To Top Rails

Start with any cut top rail sections that connect to either an **End Cap or a Wall Plate**:

Apply a small bead of epoxy around the perimeter of the inside of the top rail, then insert the end cap or wall plate. If any excess epoxy oozes out, wipe it off with acetone. Make sure the rail connector is fully seated in the top rail.

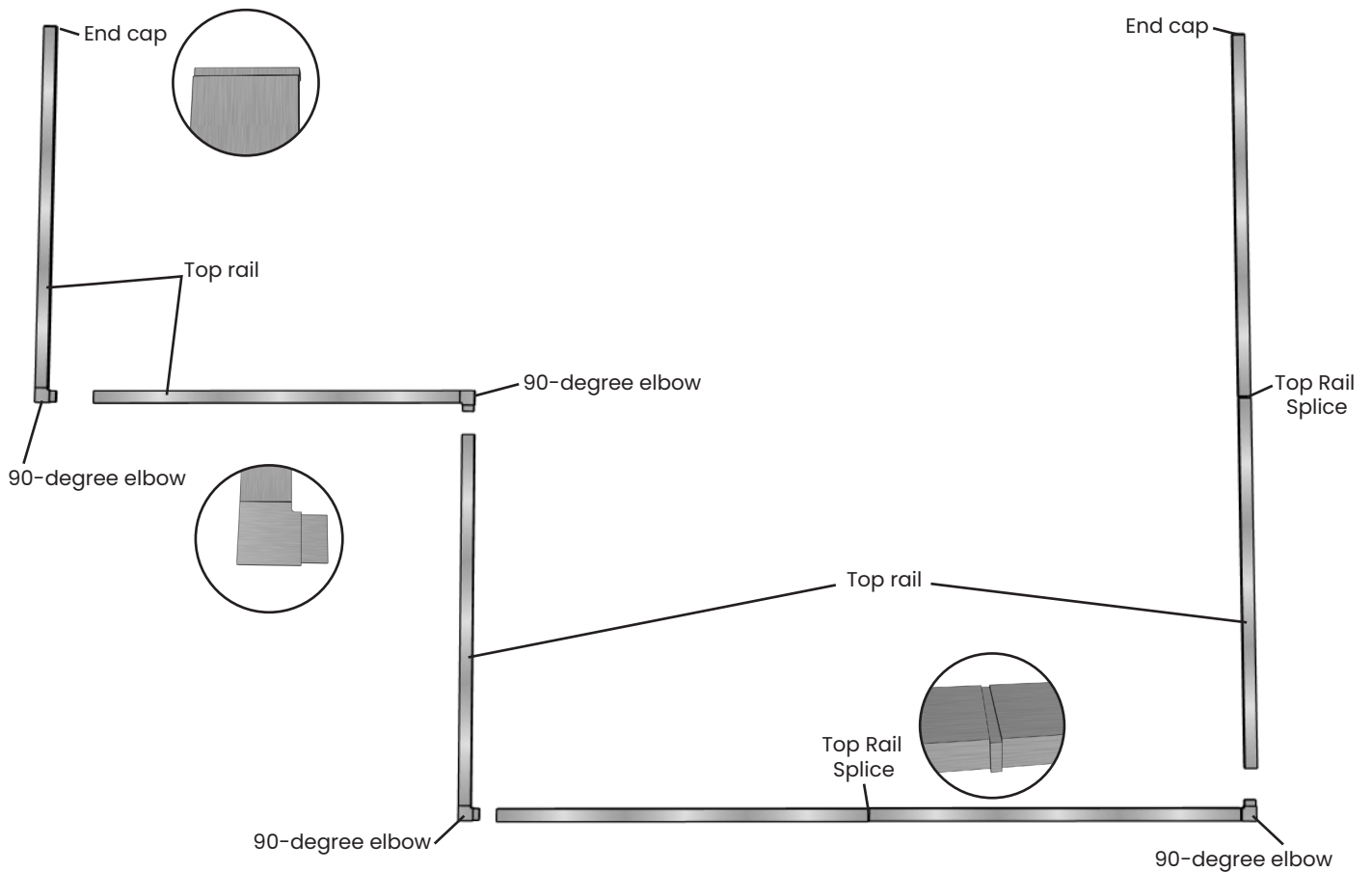
4.2: Use Epoxy to Attach Splices Between Top Rails

Install any top rail splices, using epoxy to connect both ends of the top rail splice into two cut top rail sections.

4.3: Use Epoxy to Attach One Side Of Corner & Stair Connectors

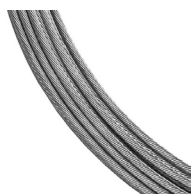
Finally, install 90-degree elbows, adjustable elbows, and adjustable stair connectors using epoxy to glue just one end of the connector into a cut top rail section. We'll connect the other ends in a later step.

Set all these straight top rail sections aside and allow the epoxy to cure. It will take about 24 hours to fully set, but we can continue with Step 5 while the epoxy sets.



Step 5: Cut Cables & Install Lower Runs

Cable Infill Parts & Pieces



Cable



Beveled Washers
(if needed for stair railings)



Swaging Tool



Threaded Tensioners (x2)



QuickNuts
& QuickNut
Covers (x2)

Step 5.1: Cut Your Cable To The Right Length

Begin by determining the total length of each run of cable for the section of railing you are working on by measuring from one end post to the other end post.

For surface mount posts, add 1 foot to the measured length to determine the total cut length for each run of cable.

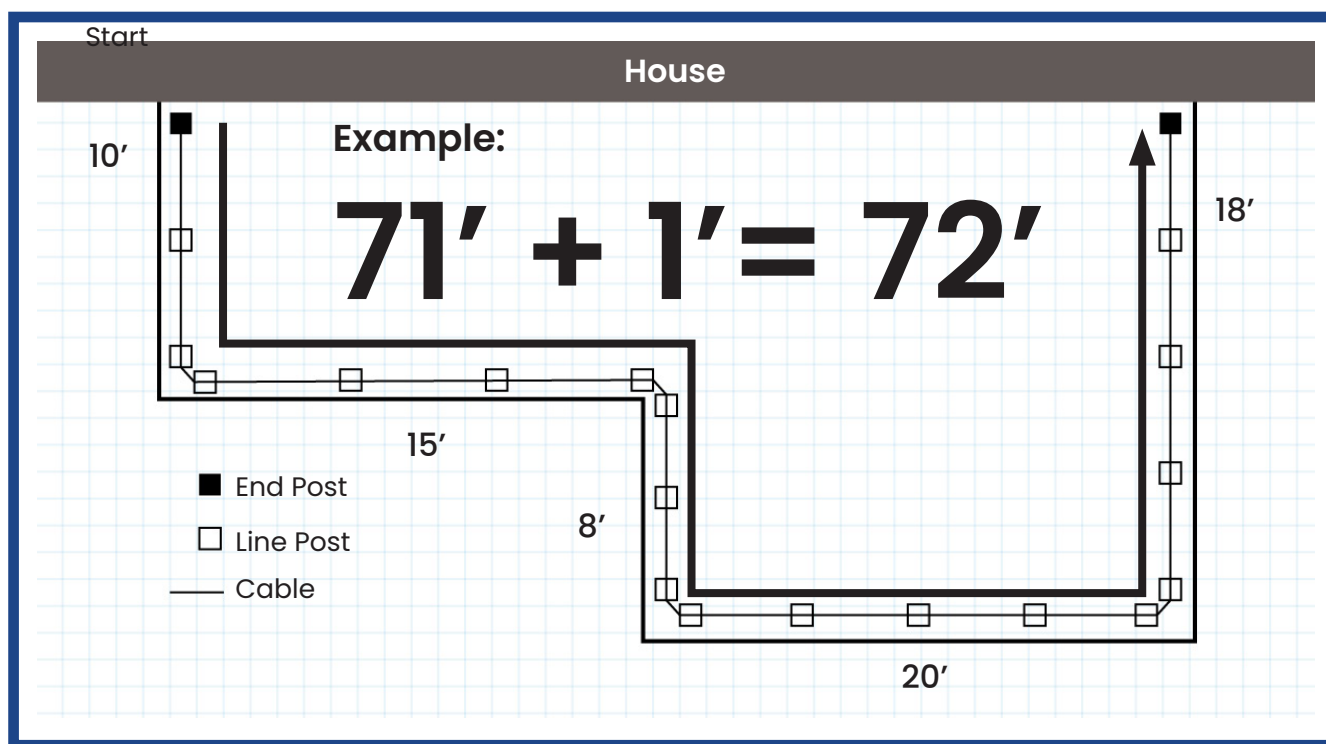
For fascia mount posts, add 2 feet to the measured length to determine the total cut length for each run of cable.

For example, if you measure 73 feet of run length between surface-mounted posts, you will want to cut 74 feet of cable for each run to make sure you have enough cable. You will trim the cable to a more exact length in a later step.

Cut 11 identical cable runs for a 36" railing or 13 identical cable runs for a 42" railing.

Measuring Your Cable

End



5.2: Swage A Threaded Tensioner Onto One End

Each Cable Fitting Kit includes two threaded tensioners that will be swaged (a technical term for clamping or crimping) onto each end of the cable. Here's how to do it:



What does "swage" mean?

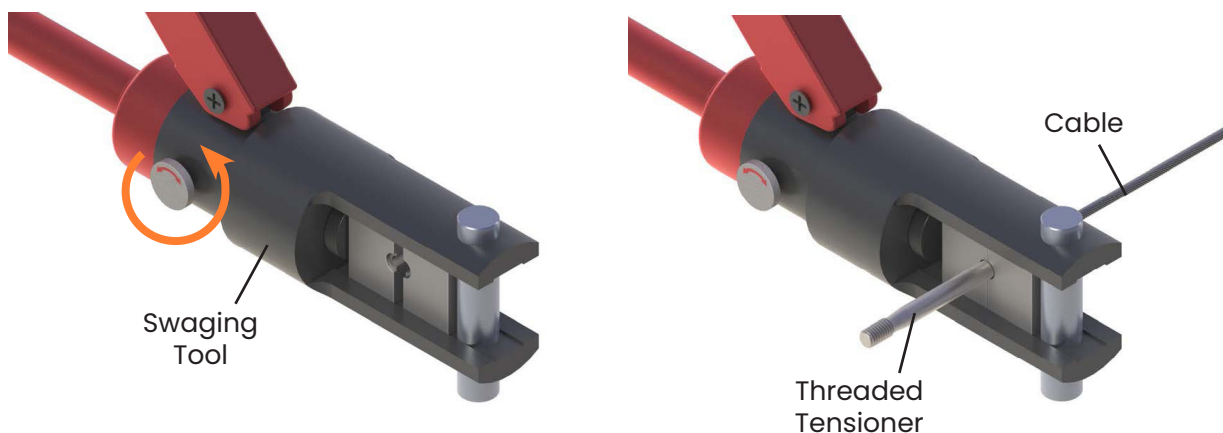
In cable railings, "swaging" is a way to attach cables to fittings by squeezing the metal fitting tightly around the cable.

5.2.1: Insert cable into one threaded tensioner until it is fully seated. Mark the cable at the edge of the threaded tensioner to provide a visual reference and ensure the cable remains fully seated inside the tensioner fitting as you swage.



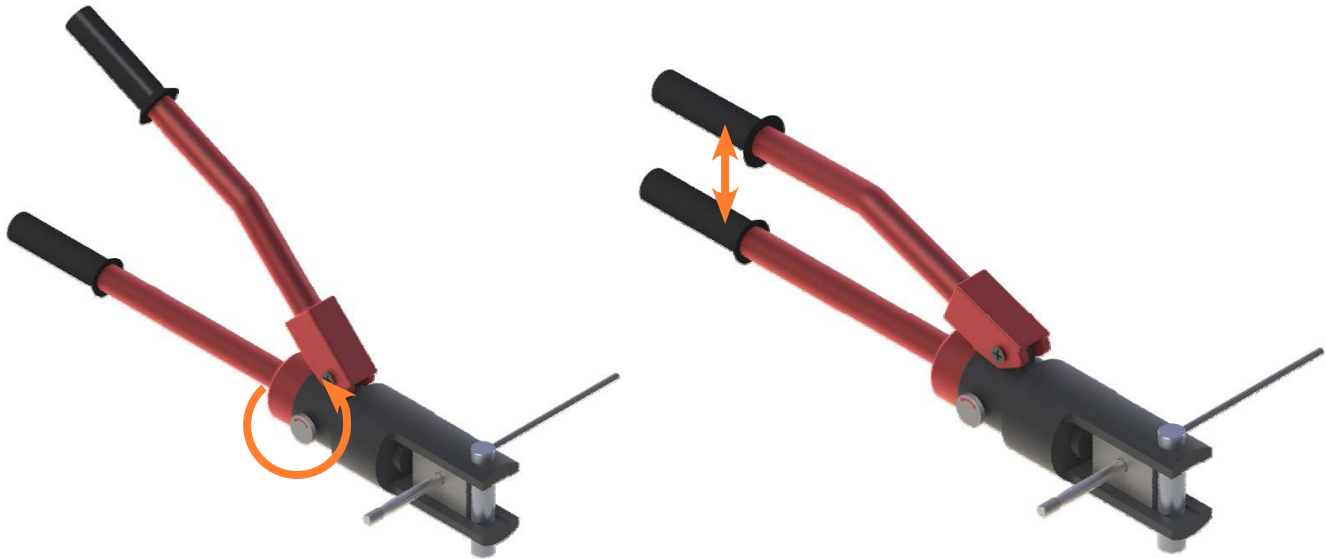
Note: Your tensioner may be longer than the one pictured, but the installation method is the same.

5.2.2: Turn the knob on the swaging tool counterclockwise to open the jaws. Position the jaws around the threaded tensioner fitting, 1/8" from the edge of the fitting where the cable enters the tensioner fitting.



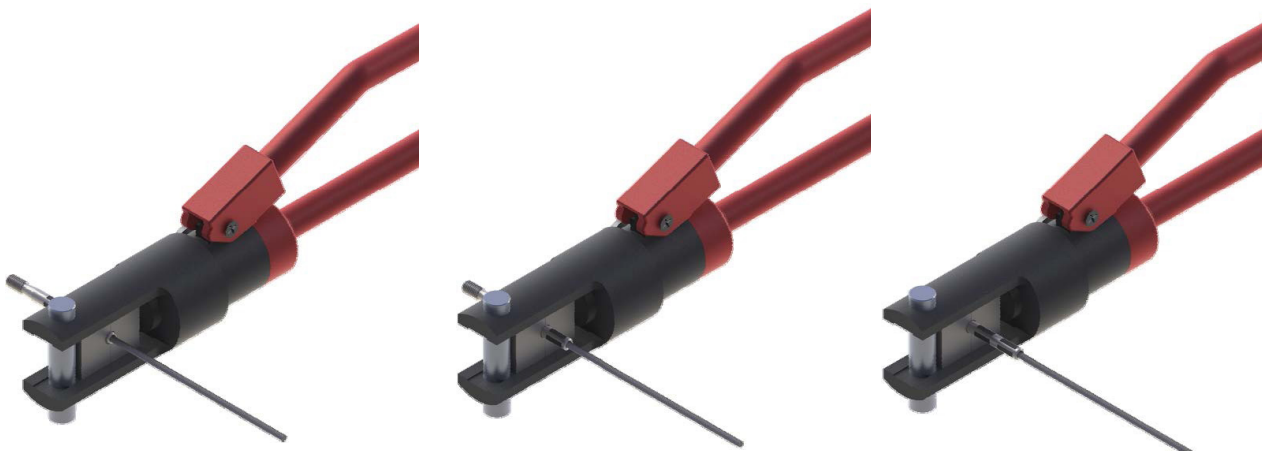
5.2.3: Turn the knob on the swaging tool clockwise, then pump the handle repeatedly until the two die halves nearly touch, creating the first crimp.

Warning: only firm handle pressure is needed to close the die halves. Applying excessive force to the tool will result in damage.



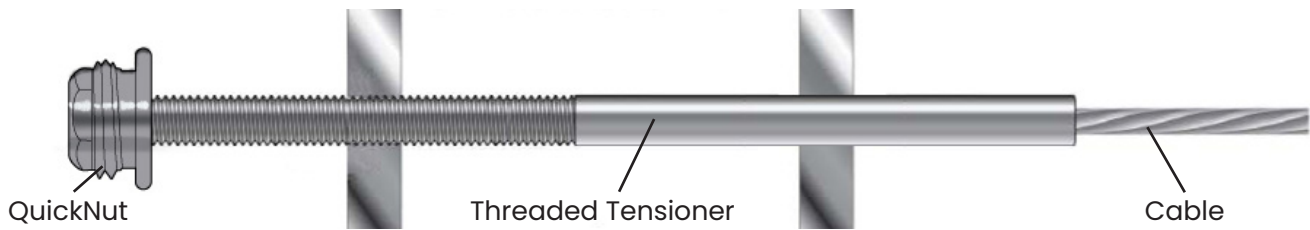
5.2.4: Reposition the dies $1/4$ " further along the threaded tensioner and rotate the fitting 45 degrees. Pump the handle repeatedly until the two die halves nearly touch, creating a second crimp.

5.2.5: Reposition the dies another $1/4$ " further along the threaded tensioner and rotate the fitting another 45 degrees. For a third time, pump the handle repeatedly until the two die halves nearly touch, creating a third crimp.



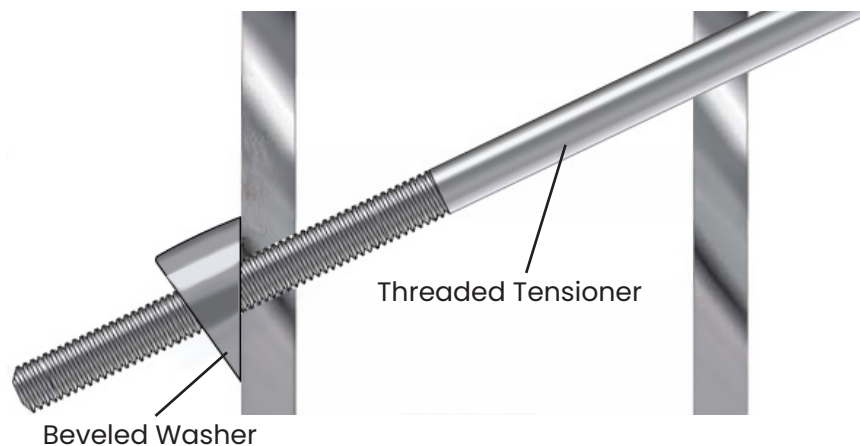
5.3: Attach Cable To One End Post

Insert the threaded tensioner with the now-attached cable through the bottom pre-drilled cable hole in your first end post. Twist a QuickNut onto the very end of the threads sticking out of the post.



Set aside the QuickNut cover for use in a later step.

Note: For angled stair sections, use a beveled washer between the QuickNut and the post to connect the cable fitting at an angle.



5.4: Run Cable Through Remaining Line Posts

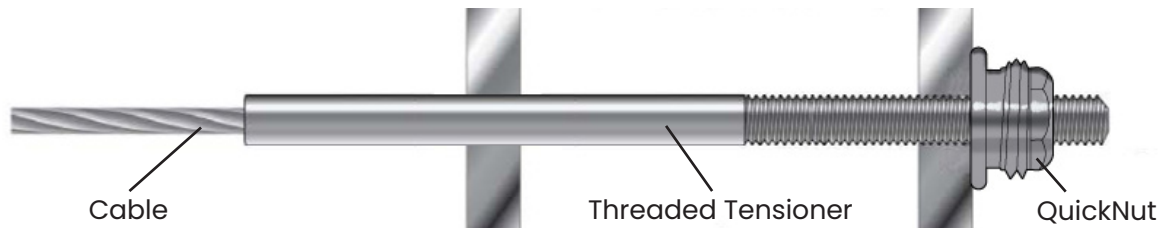
Run the cable through the remaining line posts, ensuring that the cable is running through the bottom hole of each post.

5.5: Attach Cable To Your Second End Post

Run the cable through your second end post. Pull the cable tight and mark it where it enters the second end post. Cut the cable at this mark.

Repeat steps 5.2.1 through 5.2.5 above to swage a threaded tensioner onto this end of the cable with three crimps.

Once the cable is securely attached, insert the threaded tensioner through the top hole of the second end post. Twist a QuickNut onto the threads extending out the post.



Note: For angled stair sections, use a beveled washer between the QuickNut and the post to connect the cable fitting at an angle.

5.6: Install Remaining Cable Runs

Repeat steps 5.2 through 5.5 to install a cable run in the second hole from the bottom.

Continue installing cable runs until only the top three cables remain uninstalled. Do not install these cables yet, as they'll interfere with installation of your top rails.

Don't tension any of your cable runs yet. We'll tension all runs together in the final step.

Step 6: Attach First Top Rail Section

Step 6.1: After Epoxy Sets, Clamp Top Rails To Post Top Plates

After the epoxy in your top rail connections has set, set your top rail sections on your post top plates and clamp them securely in place. Insert the remaining unglued ends of corner elbows and stair connectors into their respective top rails, but don't epoxy them yet.

6.2: Starting With Your First Top Rail Section, Mark & Pre-Drill Holes For Post-to-Rail Screws

Use the screw holes in the post top plates to mark Post-to-Rail screw locations on the underside of your first section of top rail.

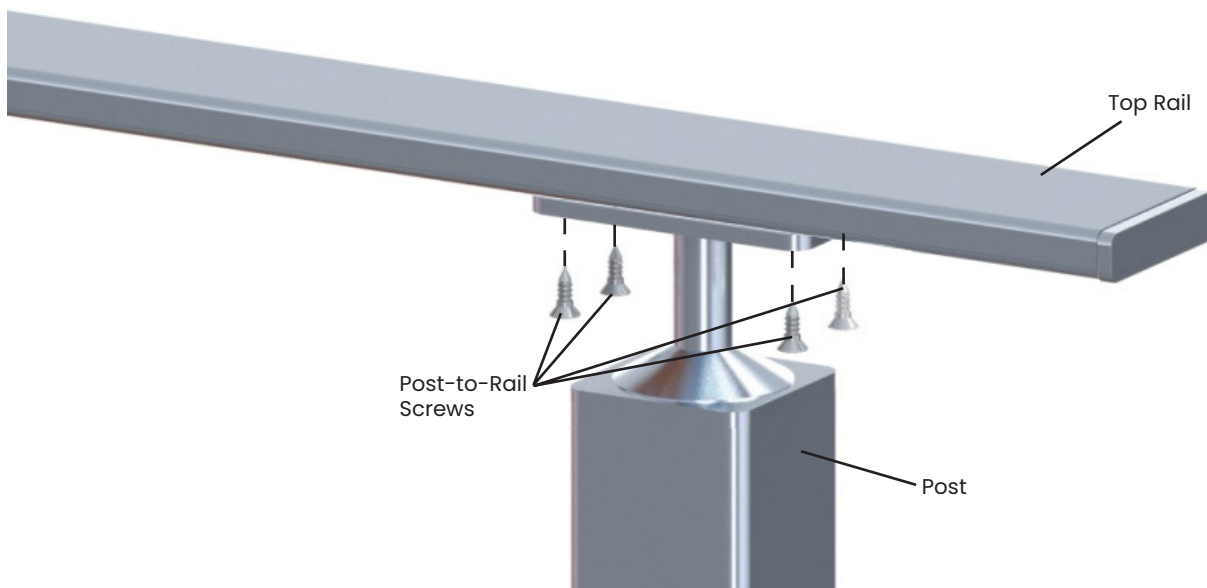
Remove the top rail section and use a hammer and center punch to make small indents in the metal at each of your marks. (This indent will keep your drill bit from moving as you drill). Line up a #8 HSS drill bit on each indent and pre-drill holes through the underside of your top rail.

6.3: Thread the Pre-Drilled Holes

Attach the 12-24 tap to the tap wrench. Insert the tap into a pre-drilled hole and rotate it clockwise to thread the pre-drilled hole. Keep rotating the tap until the end of the tap reaches the other side of the top rail.

6.4: Attach First Top Rail Section To Post Top Plates

Fasten the first top rail section to each post top plate using the post-to-rail screws and the holes you pre-drilled. We recommend applying a small amount of the included anti-seize lubricant to the threads of each screw before driving it into place.



Step 7: Attach Remaining Top Rail Sections

Step 7.1: Clamp Next Top Rail Section In Place, Then Mark & Pre-Drill & Thread Holes

Securely clamp your next section of top rail in place exactly as it will be installed.

Use the screw holes in the post top plates to mark Post-to-Rail screw locations on the underside of the top rail.

Remove the top rail section and use a hammer and center punch to make small indents in the metal at each of your marks. Line up a #8 HSS drill bit on each indent and pre-drill holes through the underside of your top rail.

Insert the tap into a pre-drilled hole and rotate it clockwise to thread the pre-drilled hole. Keep rotating the tap until the end of the tap reaches the other side of the top rail.

7.2: Use Epoxy To Attach Rail Connector

First, attach the end of this new rail section to section you've already installed. Use epoxy to glue the other end of the rail connector to attach the two sections of top rail.

7.3: Attach Top Rail Section To Post Top Plates

Fasten the top rail section to each post top plate using the post-to-rail screws and the holes you pre-drilled, once again applying anti-seize lubricant to the threads of each screw before driving it into place.

7.4: Fasten Remaining Top Rail Sections

Repeat steps 7.1 through 7.3 to glue and screw your top rail sections into place one at a time until all top rail sections and all rail connectors are fully fastened in place.

If you have wall plates, use screws to attach them to your wall, column, or other surface. Screw types will vary based on what you're attaching the wall plate to.

Step 8: Install Remaining Cable Runs & Tension

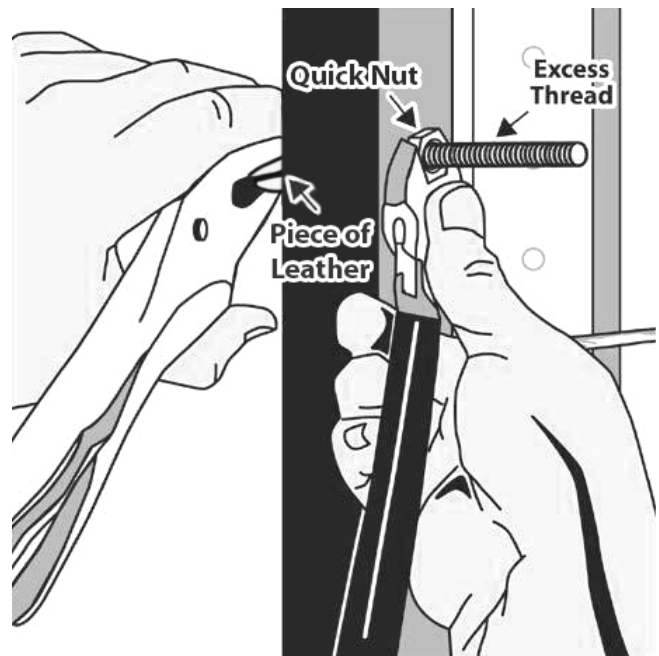
Step 8.1: Install Final 3 Cable Runs

Repeat Steps 5.2 through 5.5 to thread the top three runs of cable through all posts.

8.2: Tension All Cable Runs

Return to your first end post. Beginning with a middle run of cable, use a Vise-Grip™ or other gripping pliers and a piece of scrap leather to grip the cable end of the threaded tensioner, keeping it from spinning and protecting the cable from marring.

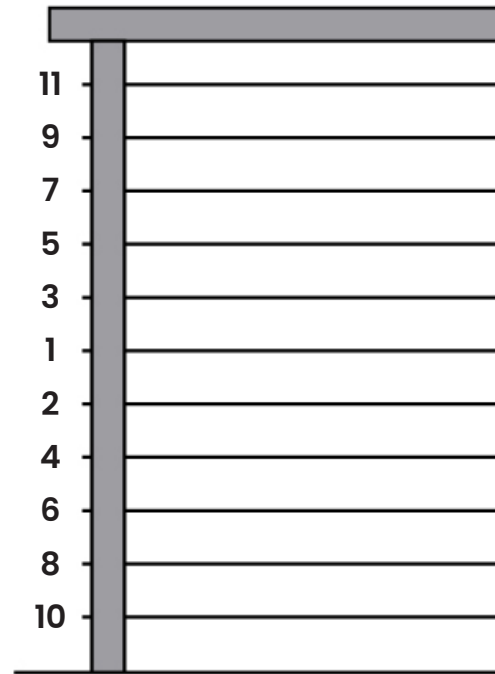
Use a crescent wrench to turn the QuickNut and tension the cable.



Repeat this process to tension all cable runs, alternating higher and lower cable runs and working outwards from the center cable, as shown in this diagram to the right:

For straight runs of cable under 20' in length, complete all of the tensioning using the threaded tensioners in the first end post.

For straight runs of cable over 20' in length, or for runs of cable that change directions, tension your cables from both ends. Tension your cable on the first end post until $3/4$ " of thread is exposed beyond the hex nut. Then move to the other end post and complete the tensioning from that side.



Recommended Tensioning Sequence

8.3: Trim Excess Threading & Install QuickNut Covers

After tensioning, you will likely have a long threaded portion of the threaded tensioner sticking out of your post. Cut off the excess threading using a grinding wheel, hacksaw, or reciprocating saw with a metal cutting blade.

Then screw your QuickNut Covers onto the QuickNuts.

Congratulations – Your Railing Installation Is Complete!

Maintenance & Care

We recommend cleaning your Skyline Stainless Cable Railing 2-3 times a year to extend the lifespan of your railing. To clean, spray CitriSurf onto your frames and cables and wipe them down with a soft, clean cloth. If your railing is near saltwater, we recommend more frequent cleaning every 2-3 months or so.

For light cleaning, you can use glass cleaner or a mixture of mild soap and water. Wipe down railings, then rinse them with clean water and dry them completely.

Other cleaning tips:

- For oil, grease, or other residue, use solvents like acetone or alcohol-based cleaners with a soft, non-scratching cotton cloth. Then rinse with clean water and dry completely.
- For paint, use alkaline or solvent-based paint strippers. Apply with a soft, non-scratching cotton cloth, then rinse with clean water and dry completely.

Warranty Information

Your Skyline Stainless Cable Railing is covered by a 10-year Limited Warranty for residential installations. Please reach out to your retailer with any warranty claims or questions.

Share Photos So We Can Celebrate With You!

We would love to see pictures of your finished project and celebrate your incredible new deck view with you! Tag **#SkylineRailing** on social media to share your best photos. We especially love to see before & after photos so we can celebrate the transformation!