



INSTALLATION GUIDE

Not only is the CityPost system simple to order, it's also extremely simple to install. Our goal in the next few pages is to give you our list of best practices and tips that we've developed for installing the CityPost cable railing system to ensure that the end result is one that you can't wait to show off.

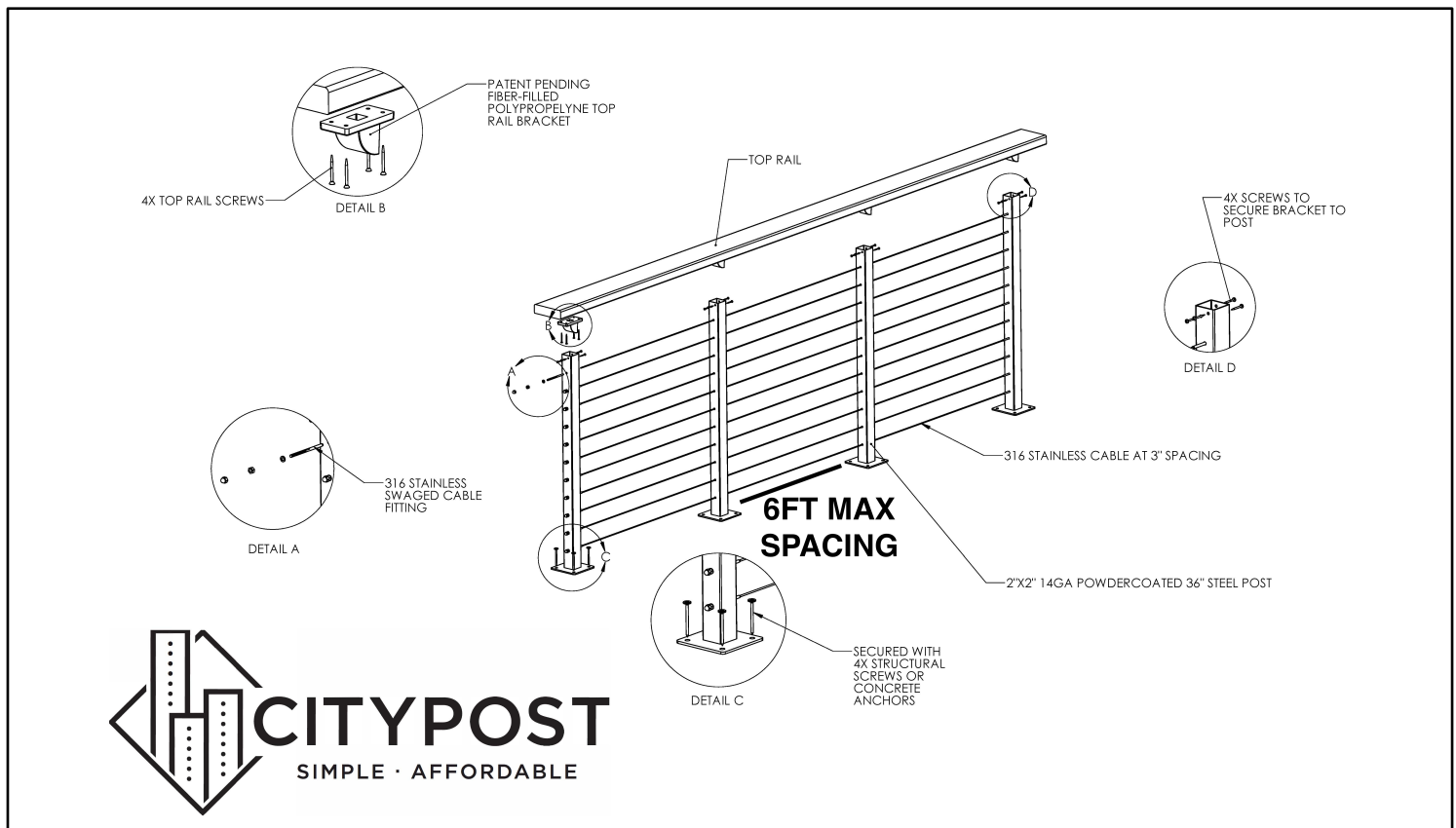
Disclaimer: before installing CityPost cable railing please be sure to check with your local building department to ensure all applicable code requirements are met.

CityPost Cable Railing Installs in 3 EASY STEPS:

1. Layout and install posts
2. Layout and install top-rail
3. Install and tighten cable

Before we begin let's take a quick inventory of what we've included in your CityPost cable railing kit...

WHAT'S IN MY KIT?



POSTS:

You will have received enough posts to do a layout with a maximum distance of 6FT between posts on-center (O.C.). We recommend not exceeding 6FT spacing between posts because this could allow for too much cable deflection. *Please note: If you choose to exceed our recommended spacing of 6FT O.C. you will have surplus posts at the end of the project. CityPost does not offer a credit for returning these.*

POST FASTENERS:

CityPost ships out post fasteners based on the type of material you are securing your posts into.

WOOD INSTALLATION: 2 7/8" OR 4.5" HeadLok Lag Bolts - depending on post type (bit included)



CONCRETE INSTALLATION: 3" TITAN CONCRETE ANCHORS (1/2" Socket not included)



CITYPOST TOP RAIL BRACKET & BRACKET SCREWS:

(1) Top rail bracket & (2) bracket mounting screws are shipped for every post in your kit.

EXAMPLE: If your kit has (10) posts you will have received (10) top rail brackets and (20) bracket mounting screws.



CABLE:

In your kit you have enough marine grade 316 stainless steel cable to complete your project with approximately 10% extra. CityPost wants to make sure that if you decide to make a last-minute change to your layout or for some reason you made a mistake you have plenty of materials to complete your project without any delays.



CABLE END-FITTINGS:

(22) For every run of 36" railing
(26) For every run of 42" railing
There are (11) cables holes in a 36" post and (13) holes in a 42" post so we make sure that you have plenty of materials to start and stop your railing at the beginning and end of every run. All cable end-fittings are manufactured out of marine grade 316 stainless steel. **EXAMPLE: if your project has (5) individual runs of railing you will have received (5) bags of fittings for a total of 110.**



BEVELED WASHERS

(stairs only):

Beveled washers are used to hold the cable end-fittings at the proper angle to ensure your cable maintains the desired straight line going down the stairs. These beveled washers are shipped in bags of (22) for 36" stair railing runs and bags of (26) for 42" stair railing runs. Just like the cable end-fittings, the beveled washers are manufactured out of marine-grade 316 stainless steel.



TOOLS:

If purchased, your kit we will include a stainless-steel cable cutter & a hand crimping tool that will allow you to secure the stainless-steel end-fittings onto the stainless-steel cable. *NOTE: All orders purchased directly from CityPost have tools included for free. Kits ordered through online retailers do not include tools.*



TOP RAIL:

If you received top rail from CityPost you will have received (4) 1" #12 self-tapping sheet metal screws per post for installation (the top rail bracket has 4 points of connection). Each of your CityPost transition sleeves which are used to hide miter cuts and strengthen the corners were shipped with (4) 1/2" #8 self-tapping sheet metal screws for installation.



Now that we've covered all of the materials included in your new CityPost cable railing kit let's start with STEP 1: Laying out & installing posts:

STEP 1: LAYOUT & INSTALL POSTS

POST LAYOUT:

As you begin your layout review the packing slip that came in your hardware box to determine how many posts per run you have received. We recommend laying the posts on their side in the desired location, this will allow you to ensure proper spacing before doing any installation as well as to limit the risk of being knocked over and damaged during this layout. Once you have all of your posts in their desired location be sure that you have proper blocking in place (4" of penetration into structural member). *For stair runs CityPost recommends running a string line through the bottom cable hole in your stair posts prior to post installation to ensure the cable will clear the stair nosing during cable installation.*

- If a post is terminating at a wall, be sure that you do not leave greater than a 4" gap between the edge of the post and the wall.

INSTALL POSTS:

Now that you have taken the time to place your posts in their proper location it's time to install them! A FEW CRITICAL THINGS TO REMEMBER:

- Make sure your fasteners are going into appropriate blocking (4" minimum)
- Your posts need to be plumb & level. ***Pro Tip: get a box of zinc or stainless-steel washers to use as shims for this process. You can place the washers under/behind the mounting holes so that your lag bolt passes through them ensuring permanent placement.***
- If you have a post that is adjacent to a wall, be sure that the (2) post to bracket screw holes are accessible.
- For stair posts be sure the post to bracket mounting holes are facing UPSTAIRS prior to final installation.

STEP 1: COMPLETE!

Before starting step 2 go through and insert the CityPost top rail bracket into the top of each of the posts. For horizontal railing, it's best to place the flat side of the bracket adjacent to the (2) screw holes at the top of the post. This will make the final step of the top rail installation much easier.

STEP 2: LAYOUT & INSTALL TOP-RAIL

TOP RAIL LAYOUT:

Much like the post layout you completed earlier, the top-rail layout process is similar. We recommend planning out your top rail on a sheet of paper to limit the amount of wasted top rail materials. Although overage can be expected with top-rail it's good to have a detailed plan to keep it to a minimum. ***Pro-tip: during the top rail layout phase be sure to decide whether you plan to miter your corners or to square cut them for a butt joint.***

TOOLS:

At CityPost we recommend using a chop saw to cut your top rail, regardless of the material you are using. Be sure to choose a chop saw blade that is designed to cut the top rail material that you are working with.

MAKING YOUR CUTS:

Measure twice, cut once!

Take your time to measure carefully and mark your cut on your piece of top rail. If you are using the CityPost provided aluminum top rail, or any other type of metal top rail, we highly recommend making sure the cutting surface of your chop saw is clean of any excess materials prior to each and every cut. This will keep a nice surface finish of the metal and limit the need for touch up later. If you are installing a natural wood to the CityPost system we recommend using at least 1" thick hardwood for your top rail. **Pro tip: when cutting metal top rail use a piece of painters tape to cover the desired cut to keep the blade from coming in direct contact with the surface finish of the top rail, this will also limit the amount of touch up that will be required later.**

If the piece of top rail you are installing butts up against a wall, but sure to install the end cap (if applicable) prior to final top rail installation.

ATTACHING TOP RAIL TO THE CityPost Top Rail Bracket:

(If you purchased aluminum top rail from CityPost, your kit came with a bag of 1" #12 self-tapping sheet metal screws for top rail installation. If you procured your own top rail locally you will need to select a screw length that is appropriate for the top rail you selected. CityPost recommends using at least #10 screws for top rail installation).

Set the cut piece of top rail onto the posts being sure to center the CityPost top rail bracket underneath the top rail. (Note: If you need to make an in-line joint due to a long run situation, butt the top rail pieces up to one another before installing the sleeve. They DO NOT need to be centered over a post.) Next you'll want to take one of your top rail screws and secure (1) corner on each of the CityPost top rail brackets (leaving 3 empty). Once you have a single screw securing the top rail bracket to the top rail we recommend lifting up the section of top rail and place it upside down onto a non-abrasive surface to have unfettered access to the other (3) mounting holes in the top rail. **Pro tip: while pre-drilling holes in the CityPost provided aluminum top rail is not required, using a 1/8" drill bit can speed up this process. When installing natural wood top rail, pre-drilling holes is recommended to ensure no splitting of the top rail occurs.**

ATTACHING TOP RAIL TO THE POSTS:

Once you have all of the CityPost top rail brackets secured to the top rail you will carefully pick up the top rail, flip it back over and insert the top rail brackets back into the posts. Using a 1/8" drill-bit we recommend pre-drilling a hole into the top rail bracket through the mounting holes at the top of the posts. Lastly, you will take the bag of top rail bracket screws provided in your kit and secure the top rail brackets to the posts.



STEP 2: COMPLETE!

STEP 3: INSTALL & TIGHTEN CABLES

Let's recap: At this point all of your posts should be installed and your top rail attached securely. If this statement is true, then you're ready for the final step, cable!

We recommend starting with your shortest horizontal segment of railing (if you have one) to get the hang of the process. Although it's very simple, it does take a few tries to really master it, for this reason every kit comes with several extra end fittings. Just in case.

PLEASE NOTE: THIS PROCESS IS TO BE FOLLOWED FOR EACH CABLE ONE AT A TIME

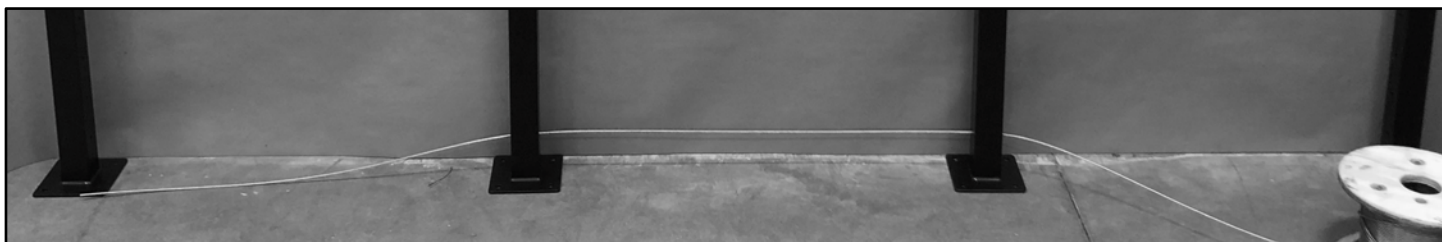
INSTALLING CABLE THROUGH POSTS:

Start by taking the spool of cable that you received in your kit and cutting off the zip ties to loosen the cable. **Pro tip: if you place the spool in a 5-gallon bucket it will help to keep the spool under control while you're working.**

1. Determine the railing run that you are going to be installing cable into

- Every run of railing has (2) “end posts” where the cable terminates. The rest of the posts between those (2) end posts are referred to as “mid posts”. Pass the cable through all mid posts leaving end posts void of cable. Be sure you are passing the cable through the same hole on each post (i.e. the 11th hole) **Pro tip: we recommend starting on the bottom cable hole and working your way up to the top (one at a time)**

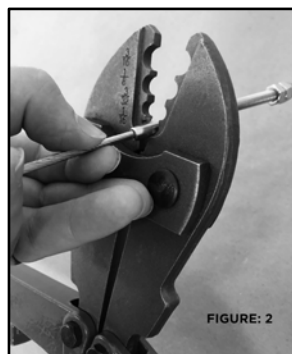
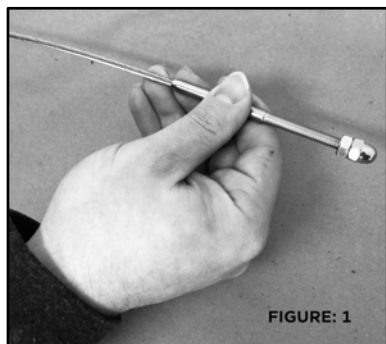
At this point you should have a single strand of cable that has passed through each of the mid posts between the (2) end posts. **For example: if you are running cable for a 15FT run of railing, the cable has passed through the (2) mid posts leaving the (2) end posts void of cable and ready for cable end-fittings**



CRIMPING END-FITTINGS:

Next, open one of your bags of end-fittings and remove a fitting

- Slide the cable that you just ran through your mid posts completely into the end-fitting (FIGURE: 1).
- Open the hand crimping tool included in your kit and place the end-fitting into the smallest crimping groove labeled 1/16 (FIGURE: 2)



- The distance from the crimper to the end of the fitting (where the cable inserts into the end-fitting) should be approximately $\frac{1}{2}$ " - $\frac{3}{4}$ " (FIGURE: 3)



- Bring the handles of the crimping tool together until the crimping head is closed

(FIGURE 4) Note: the first few crimps may be difficult but the tool will loosen up as you make more joints.



5. Lastly, open the handles of the crimping tool to release the crimped joint.

INSTALLING END-FITTINGS:

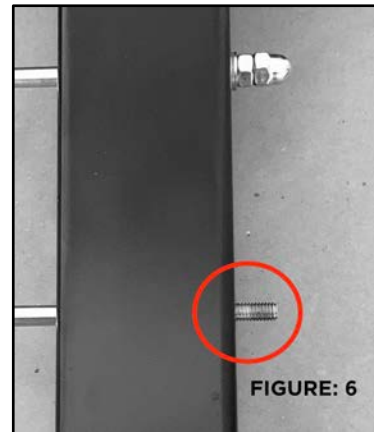
Once you have an end-fitting crimped onto the cable you will:

1. Remove acorn nut, flat washer, and tensioning nut from the end fitting (FIGURE: 5)



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2. Insert the threaded portion of the end-fitting through the post where the cable is to terminate (FIGURE: 6)



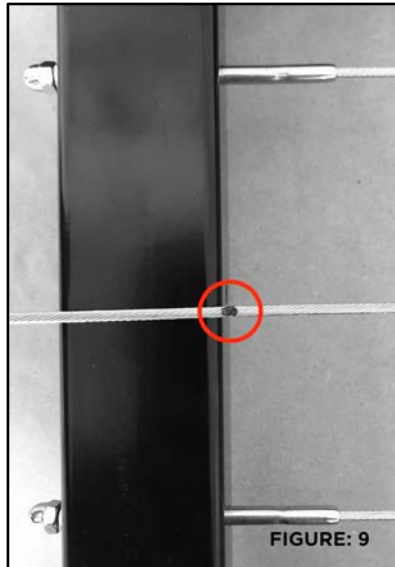
3. Place the flat washer back onto the end-fitting and thread on the tensioning nut:
 - a. For short runs (less than 10FT of railing thread on the tensioning nut leaving 2-4 threads exposed (FIGURE: 7)
 - b. For long runs of railing thread on the tensioning nut leaving zero threads exposed (FIGURE: 8)



MEASURING & CUTTING CABLE:

Once the first end-fitting has been installed into a end post, go back to the cable at the other end post at the end of the run. Pull the cable tight and mark the cable just to the inside edge of the end post (FIGURE: 9) **(FOR STAIR RUNS ADD 1/2")** Once you

have marked the cable, use the cable cutters provided in your kit to cut the cable on that mark.



Now repeat steps 1 - 3 under the "INSTALLING END-FITTINGS" section to complete that run of cable.

REPEAT THIS PROCESS FOR ALL CABLES. NOTE: Do not start tensioning cables until ALL cables for an entire run of railing have been installed on both ends.

TENSIONING CABLE:

Using a pair of vice-grip pliers and a 10mm wrench hold the end fitting with the pliers while turning the tensioning nut with the wrench until there is no visible sag in the cable. DO NOT OVER TIGHTEN. IT PUTS UNNECESSARY STRAIN ON THE END POSTS AND TOP RAIL.

The order of tightening cables should go in an alternating fashion working from the center outward:

- For 36" Posts: 6/5/7/4/8/3/9/2/10/1/11
- For 42" Posts: 7/6/8/5/9/4/10/3/11/2/12/1/13
- You may have to follow this pattern once or twice to achieve the desired level of tension. Once you have achieved the desired level of tension place a small drop of thread-locker on the exposed threads of the end-fitting and fasten on the acorn nut.

FOLLOW THIS PROCESS FOR EACH OF YOUR RUNS OF RAILING

CONGRATULATIONS YOU'RE DONE!