



CABLE RAILING INSTALLATION GUIDE FOR WOOD POST SYSTEMS

Welcome to Viewrail! We are excited to help you install your new railing system. We know you will enjoy it for many years to come. Our goal is to bring you top quality products in a very organized package. This binder is your resource for the following information:

- Installation Instructions for Viewrail Cable Railing Systems
- Code Compliance Information

Our mission is to create simplicity and elegance, and we can't wait to see that become a part of your décor. If you need any help, please feel free to give us a call. As a victory lap, send us some photos of your finished project. We'll enter you into a quarterly photo contest where you can win up to \$250!

Blessings from your Viewrail team,

Len, Fernando, and Trent

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Unpack & Prep

Your shipment has arrived and it's time to get busy installing! The first thing you need to do is unpack your boxes. While you're unpacking, keep your eyes open for any **shipping damage**. You'll also want to check your layout (drawing made to quote your job, found in the back of this binder) for **order accuracy**.

If anything is wrong or damaged, you must contact us within 5 business days.

What You'll Need

Here's a quick rundown of what you will need to get started with most cable railing installations.

Cable

Our 5/32" stainless steel cable comes in spools of 100 or 400 feet.

Tension Kits

Tension Kits come in boxes of 10 or 2 Kits, 1 Kit is needed for each end of every cable run.

Tools

Depending on which Tension Kits you're installing, you should have the Cable Rail Installation Kit, DriveTite Installation Kit, or both. The contents of the tool kits are explained on the next page.

Intermediate Posts

Sometimes referred to as pickets, these posts are made to minimize cable deflection for the purpose of safety and code compliance. Your project may not require these posts if your main posts are spaced less than 4 feet apart.



Cable Rail Installation Kit (VR400)

Crimpers and cutters have clear purposes, but our kit has a few unique tools, which are explained below.

Tightening Tool

Made to rest on the cable, the Tightening Tool has teeth that fit into the notches on a Threaded Crimp Fitting. It holds the fitting during tightening so the cable doesn't spin.

Wooden Block

The Wooden Block is used to simplify the process of tapping in the Insert Sleeves. Straddling the cable, the block provides an even surface to tap and prevents the sleeve from entering the post at an angle.

String

Run the provided string through the bottom holes of your layout with the posts in place **before** they are installed. This exercise will help you know exactly where to install posts for optimum cable clearance on stairs.



DriveTite Installation Kit (VR440)

Cable cutters have a clear purpose, but our kit has a few unique tools, which are explained below.

Modified Pliers

These customized channel locks have a space cut out in the bottom of the jaw to make room for the cable so you can get a solid grip on the fittings while compressing.

Wooden Block

The Wooden Block is used to simplify the process of tapping in the Insert Sleeves. Straddling the cable, the block provides an even surface to tap and prevents the sleeve from entering the post at an angle.

String

Run the provided string through the bottom holes of your layout with the posts in place **before** they are installed. This exercise will help you know exactly where to install posts for optimum cable clearance on stairs.



Mount Intermediate Posts

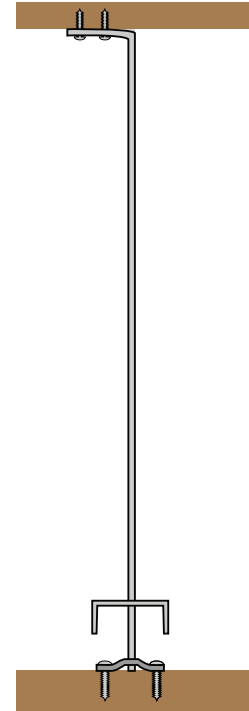
If your project requires intermediate posts, this is where the installation will begin. If you don't require intermediate posts, move on to the Drilling section.

Level Section Installation of 3/16" Intermediate Posts

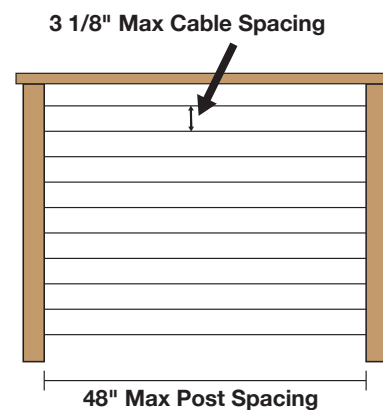
1. Measure from bottom of the handrail to the mounting surface.
2. Cut intermediate post to the measurement from the previous step with any device appropriate for cutting stainless steel. Remove any burrs with a file.
3. Slide the Foot Cover followed by the Intermediate Post Mounting Bracket onto the cut end of the intermediate post.
4. Mount the top end of the intermediate post into the handrail with the provided screws.
5. Make sure the post is vertical, then screw the Intermediate Post Mounting Bracket into the mounting surface with the provided screws.
6. Slide the Foot Cover over the Intermediate Post Mounting Bracket.

Helpful Tip: Once cut to size, you can use an intermediate post as a drilling guide for your posts. This will ensure that all of your cable holes line up.

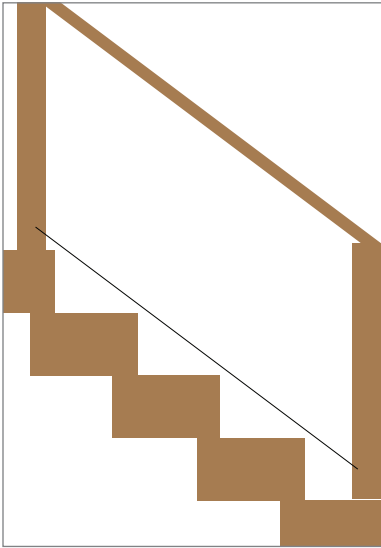
These posts are not designed to offer structural support to the handrail.



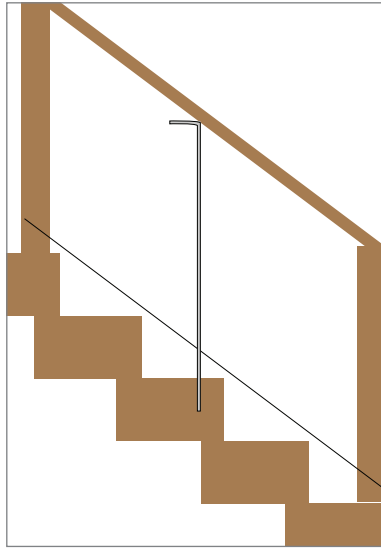
Critical Info: Cable spans between posts can be no more than 48" with a structural post at least every 8'.



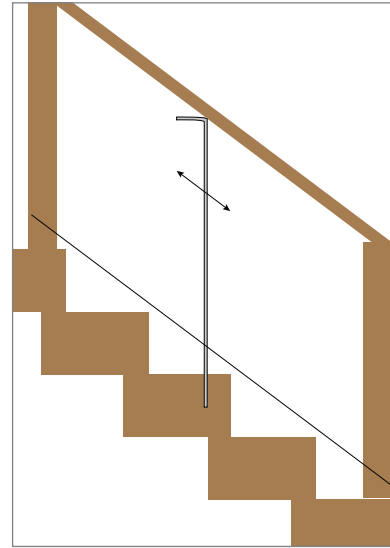
Angle Section Installation of 3/16" Intermediate Posts



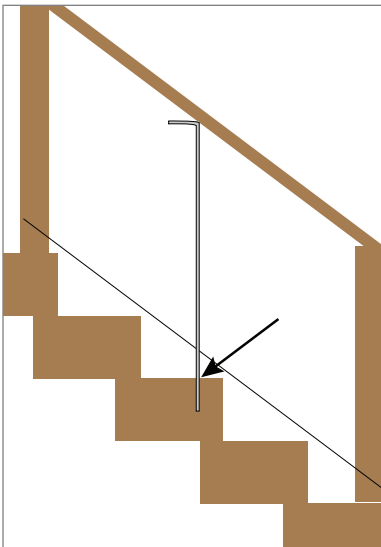
1. Run string to simulate the bottom cable of your angled run.



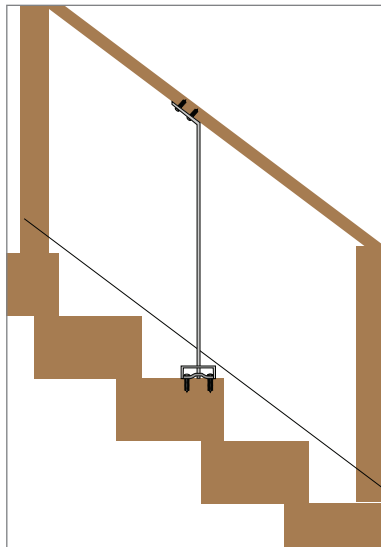
2. Hold the intermediate post up to the bottom of the handrail with the bottom hanging off the side of the stair.



3. Slide post to find where a cable hole will line up with your bottom cable (string).



4. Once you've found the proper post location, mark the cut length for the post.



5. Cut intermediate post to the measurement from the previous step with any device appropriate for cutting stainless steel. Remove any burrs with a file.

6. Covering the post top with a rag to protect the finish, use pliers to bend the post top to the appropriate angle.

7. Slide the Foot Cover then the Intermediate Post Mounting Bracket onto the cut end of the intermediate post.

8. Mount the top end of the intermediate post into the handrail with the provided screws.

9. Make sure the post is vertical, then screw the Intermediate Post Mounting Bracket into the mounting surface with the provided screws.

10. Slide the Foot Cover over the Intermediate Post Mounting Bracket.

Drilling

Once you have determined your post spacing and installed intermediate posts as necessary, you're ready to check your layout one last time before drilling the wood posts.

Run String

Run a string along the side of the posts to simulate the bottom cable before drilling holes. This process will ensure that you have proper clearance from the stair nosing to the cable. If you have any specialty posts or bends, run the string along them so you can visualize the layout and identify any tricky spots.

Mark Posts

Make a template for marking hole locations on the posts. (You can use an Intermediate Post as a template after it has been cut to size.) The holes should be 3 1/8" apart from center to center. This spacing will allow the cable to deflect slightly and remain less than 4" apart. A sharp, pointed object like an awl or a punch can be used to mark your wood post. Mark both sides of each post that requires a through-hole.

Determining Hole Size

Hole size and depth depends on which tension kits and components you are installing. Here's the breakdown:

Pass-Through Posts

A pass-through post is any post that cable will pass through without any tensioning components attached. If you are installing Wood Insert Sleeves (VR334) in your pass-through posts, you'll need 1/2" holes.* If no inserts are being used, we recommend 5/16" holes.

End Posts

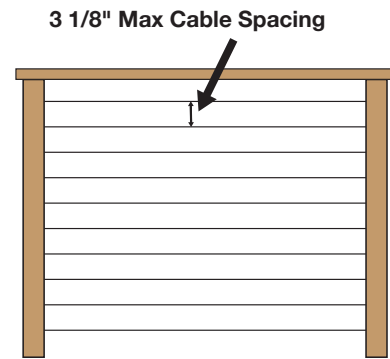
An end post is any post that will have tensioning components attached. If you are installing our Wood Level Tension Kit (VR333) or Wood Angle Tension Kit (VR333), you will need 1/2" holes* that go all the way through the post.

*We recommend using a 1/2" spade bit for drilling these holes.

For DriveTite and DriveTite Surface end post drilling instructions, see the kit installation instructions on pages 10 and 12.

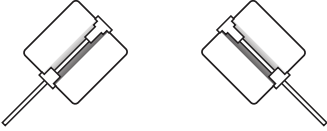
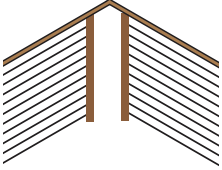
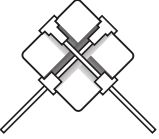
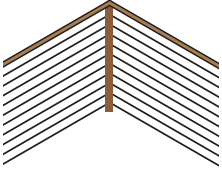
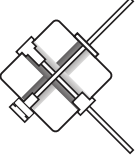
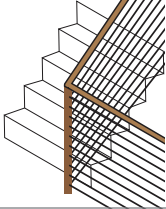
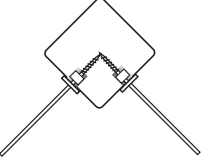
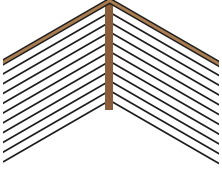
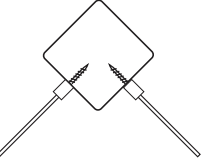
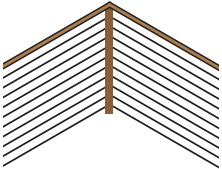
Drilling

We recommend drilling a hole half way through the post then going to the other side of the post and drilling through so that the holes meet in the middle. If you drill all the way through the post from one side, it is likely that the hole will not be straight.



Turning Corners

There are a few ways to turn corners in a system with wood posts. Carefully consider the following information before you begin drilling your corner posts.

| | | |
|---|---|---|
| <p>Start/Stop Corner This configuration terminates a cable run in each post.</p> |  |  |
| <p>Single Post Corner This configuration uses standard Level Tension Kits (VR290). If your post is smaller than 4", offset cable runs by 1/8".</p> |  |  |
| <p>Angle Single Post Corner This configuration uses Level Tension Kits (VR290) and Angle Tension Kits (VR296).</p> |  |  |
| <p>DriveTite Single Post Corner This configuration uses DriveTite Kits (VR297). Good for level or angles. Minimum post thickness: 3 1/2"</p> |  |  |
| <p>DriveTite Surface Single Post Corner This configuration uses DriveTite Surface Kits (VR296). Good for level or angle runs. Minimum post thickness: 1 1/4"</p> |  |  |

Run Cable & Tension — Standard Kits

Now that the posts are mounted, handrail is securely attached, and holes are drilled, you're ready for cable. This section will lead you through four stages: Measure & Cut, Crimp, Thread & Tension, and Apply Sleeves.

Measure & Cut

1. Measure the distance from the outside face of one Tensioning Post (where the cable terminates) to the outside face of the other Tensioning Post.
2. Based on which Kit you're installing, subtract the amount listed below from your measurement in the previous step:

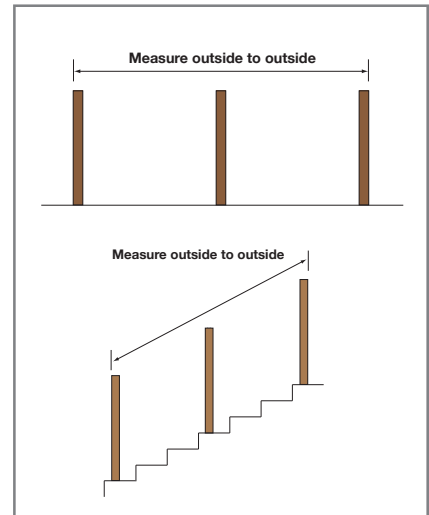
NOTE: This amount is to be subtracted ONCE per cable. Do not subtract from each end.

Wood Level Tension Kit (VR295) on both ends — 2 1/2"

Wood Angle Tension Kit (VR299) on both ends — 1 1/2"

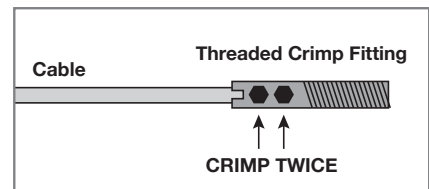
Wood Level Tension Kit & Wood Angle Tension Kit — 2"

3. Once you've determined cut length, mark one cable and cut.
We recommend cutting and crimping one cable at a time.

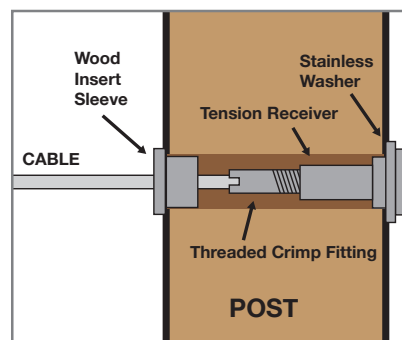


Crimp

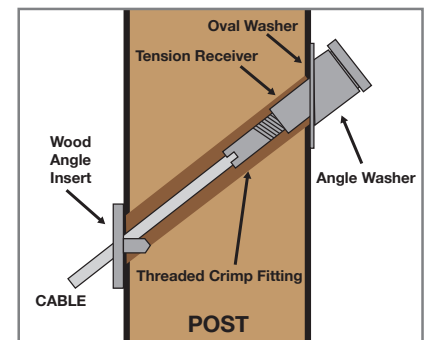
1. Slide the cable into the Threaded Crimp Fitting until it cannot slide any further.
2. Put the fitting, with the cable inside it, between the crimper dies.
3. Crimp the fitting onto the cable, avoiding the threads and fins of the fitting. Be sure to crimp all fittings twice. When crimped correctly, you'll see the number 10 inside the crimped area.



A Look at How each Kit Works



Wood Level Tension Kit (VR295)



Wood Angle Tension Kit (VR299)

Thread & Tension

1. Put the Threaded Crimp Fitting through the hole of a Tensioning Post and thread the Tension Receiver (with Stainless Washer) on the Threaded Crimp Fitting. Tighten 4 turns.

**If this is an angled run, be sure to add the Angle Washer and Oval Washer to the Tension Receiver before threading into the Threaded Crimp Fitting.*

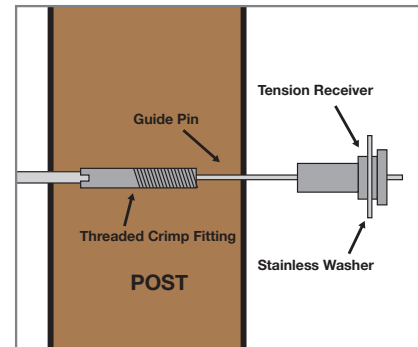
2. Thread the cable through each post, putting the proper sleeves on the cable as your layout requires. *Please read the **Sleeves** section below before completing this step.*
3. Place the Guide Pin in the end of the Threaded Crimp Fitting and use it to align the threads with the Tension Receiver at the final post. Snug the cables, but do not tighten until all cables have completed this step.

4. Begin tightening at the middle of the post and work out using the Allen Wrench and Tightening Tool. Tighten from each end so that the Threaded Crimp Fitting is into the post far enough that the sleeve can be inserted.

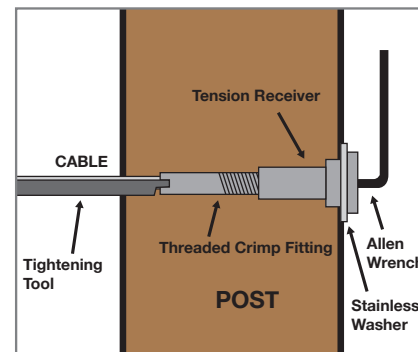
NOTE: Tightening the cable too much could apply stress to the screws or brackets that attach the handrail to your posts. Stop tightening once cable is taut.

5. Use the Tightening Tool to hold the fittings in place while tightening. Do not allow the cable to spin while tightening.

Tip: When installing on an angle, crimp and attach the bottom end first. This will allow gravity to help hold the Guide Pin in place when aligning and attaching Tension Receivers at the top



Use Guide Pin for easier alignment and threading.



Use Tightening Tool and Allen Wrench to tension.

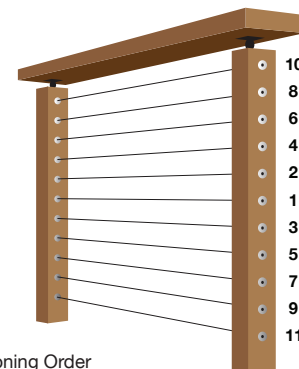
Apply Sleeves

Make sure the Sleeves are put on the cable as it is being strung through the posts. Only apply the Sleeves once all other installations have been finished and cables are tightened.

1. To apply the Sleeves, tap them in using the wood block provided in your tool kit.

How to Install Adhesive Sleeves

1. Wipe the area on the post where the sleeves will be installed with a clean rag. Peel the backing off and do not touch the adhesive.
2. Once you are ready to apply the Adhesive Sleeves, simply press them against the post, applying moderate pressure for 3-5 seconds.



Cable Tensioning Order

Use care to keep steel tools, dirt, harsh chlorine-based cleaners, and acids away from any stainless steel parts before, during, and after installation.

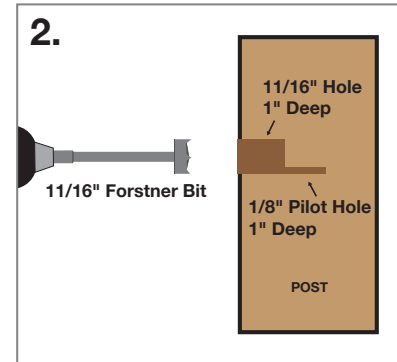
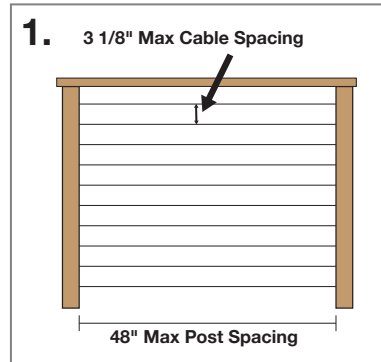
Run Cable & Tension — DriveTite

DriveTite Level Installation

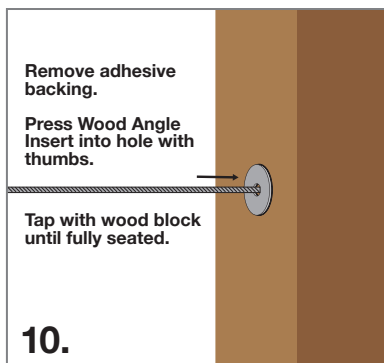
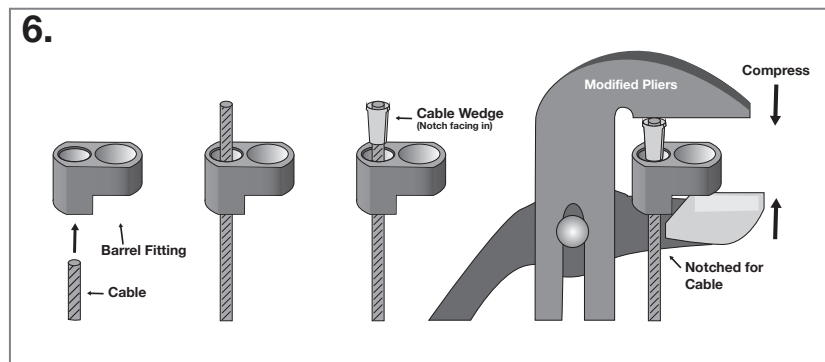
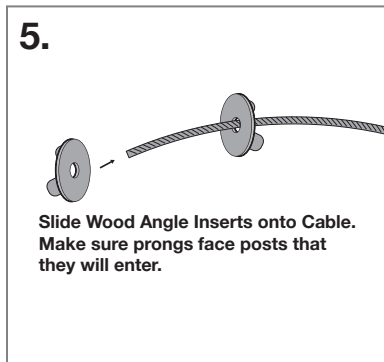
Now that you have your handrail secured and any necessary intermediate posts installed, you're ready to get started with DriveTite.

We recommend using a Forstner bit to drill the 11/16" holes because it makes the bottom of the hole flat. A spade bit will make the center of the hole deeper, making it more difficult to drive the screw in straight.

It's also a good idea to clear the hole of any debris before mounting the Barrel Fitting.

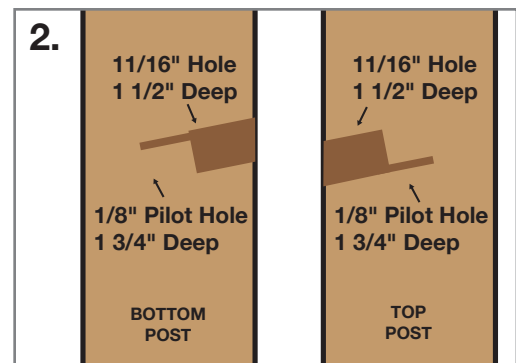


*When installing in hardwoods, drill 11/16" hole to a depth of 1 1/4" and make the pilot hole 3/16".

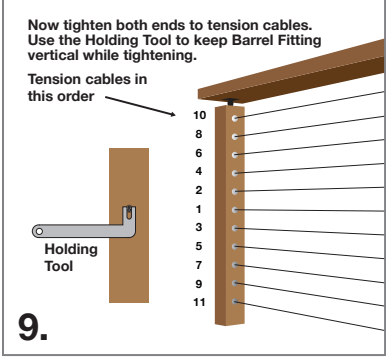
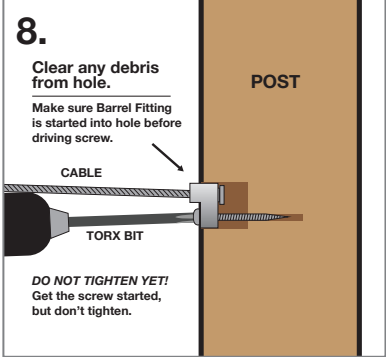
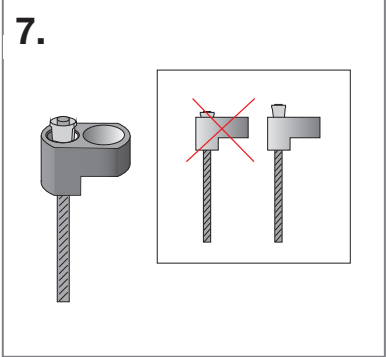
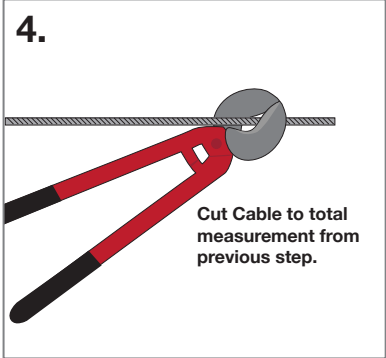
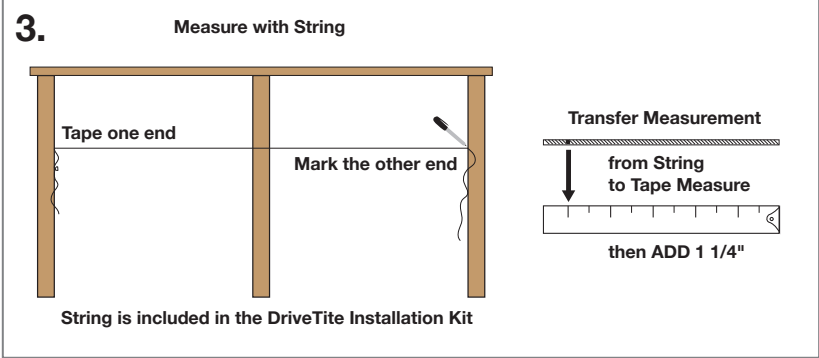


Angle Installation

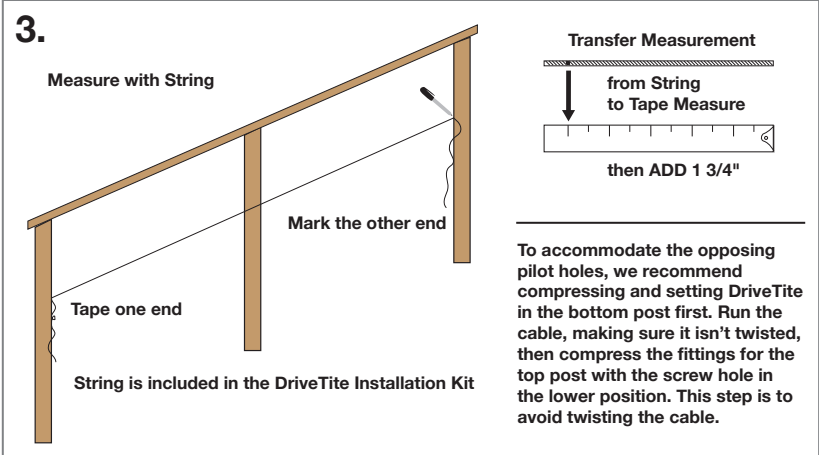
For angled runs like stairs, follow the instructions above except for steps 2 and 3. Use steps 2 and 3 to the right in their place.



Drill holes at a 10° angle.



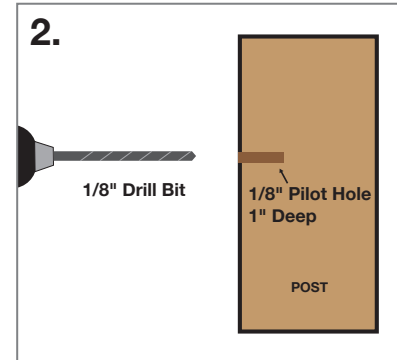
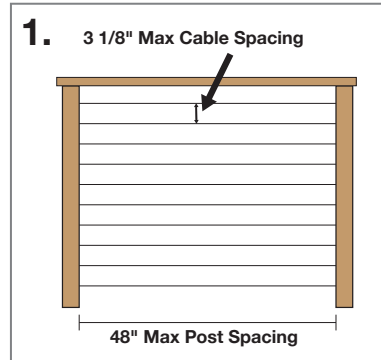
Repeat steps 3–8 until all cables are mounted.



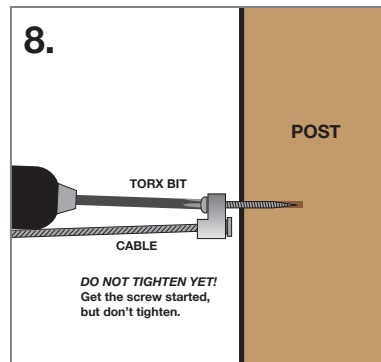
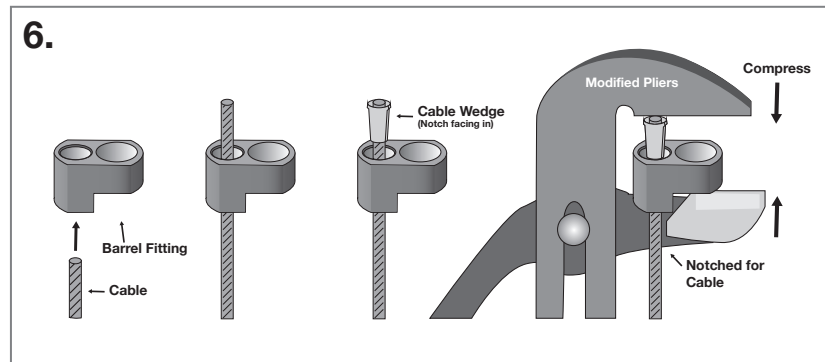
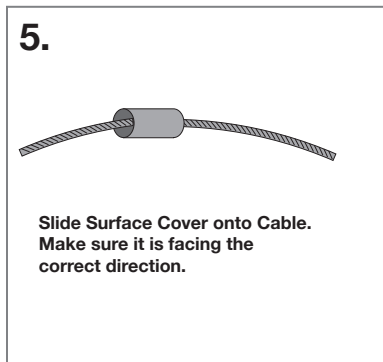
Run Cable & Tension – DriveTite Surface

DriveTite Surface Level & Angle Installation

Now that you have your handrail secured and any necessary intermediate posts installed, you're ready get started.



*When installing in hardwoods, make the pilot hole 3/16".

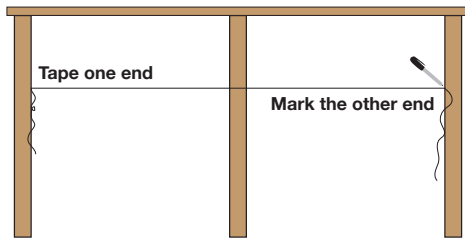


Repeat steps 3–8 until all cables are mounted.

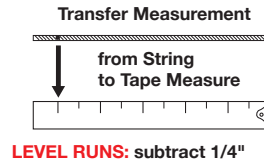
STOP

3.

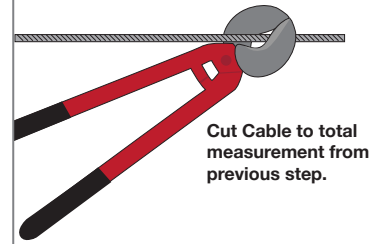
Measure with String



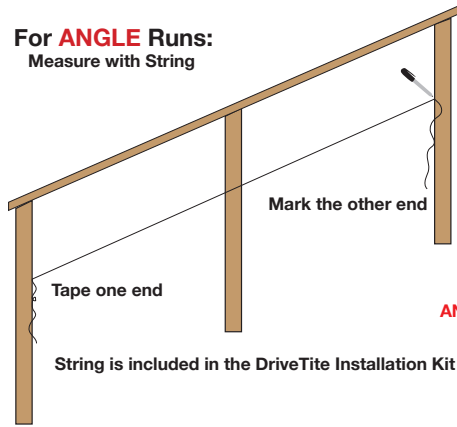
String is included in the DriveTite Installation Kit



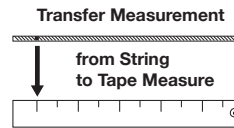
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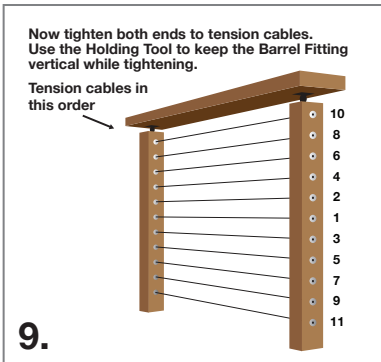
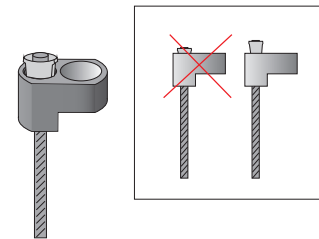
For ANGLE Runs: Measure with String



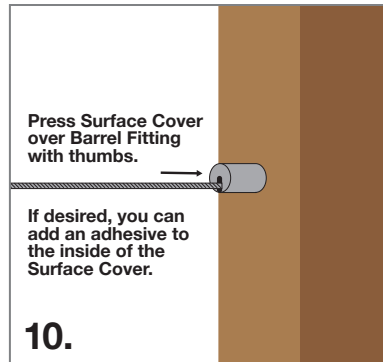
String is included in the DriveTite Installation Kit



7.



9.



10.



Cleaning & Code

Clean, Clean, Clean!

Cleaning and sealing your stainless steel Viewrail system after installation is the best investment you can make to ensure the lasting beauty of this elegant railing.

EXTERIOR INSTALLATIONS

If the work site is still active after your system is installed, rinse stainless steel thoroughly with water to remove any surface contaminants. (A pressure washer is great for this task!) Once thoroughly rinsed, cover your system until all work on the site is complete. The goal is to protect the stainless steel from any airborne iron particles or harsh chemicals that can cause discoloration.

Once all work on the site is complete, uncover your system and give it another healthy rinsing. We highly recommend applying *Marine 31™ Stainless Steel Liquid Polish* followed by *Marine 31™ Stainless Steel Liquid Sealant*. If you didn't order these products with your system, contact your Viewrail salesperson for ordering information.

IMPORTANT: Polish must be rinsed away completely before application of the sealant. This requires a substantial amount of water. (Optional step: Wipe the stainless steel down with rubbing alcohol to ensure all of the polish has been removed.)

INTERIOR INSTALLATIONS

As soon as installation is complete, clean all stainless steel with a retail stainless steel cleaner (the same kind you would use on stainless steel appliances). If the work site is still active, cover your system to protect it from airborne contaminants. When all work on the site is complete, uncover your system and clean again if necessary.



Code Compliance Information

Code Compliance for 4" Sphere

Meeting the 4" sphere rule means that cables should be spaced on the standard spacing provided in the Viewrail posts. The standard spacing is 3 1/8" O.C. which allows a reasonable amount of deflection of the cable when the posts are spaced no more than 4' apart. When laying out a deck or balcony, it is tempting to space posts farther than 4' apart; however, the deflection of the cable increases dramatically and it cannot be overcome with increased tension. Do not place posts more than 4' apart and do not space cables more than 3 1/8" apart to conform to the 4" sphere rule. Often, posts are placed adjacent to each other for a dual corner. When placing two posts in a corner, be sure to place them no more than 4" from each other.



