

# LOW PROFILE CABLE RAILING KIT

## Installation Instructions for Level Runs

### TOOLS REQUIRED FOR INSTALLATION

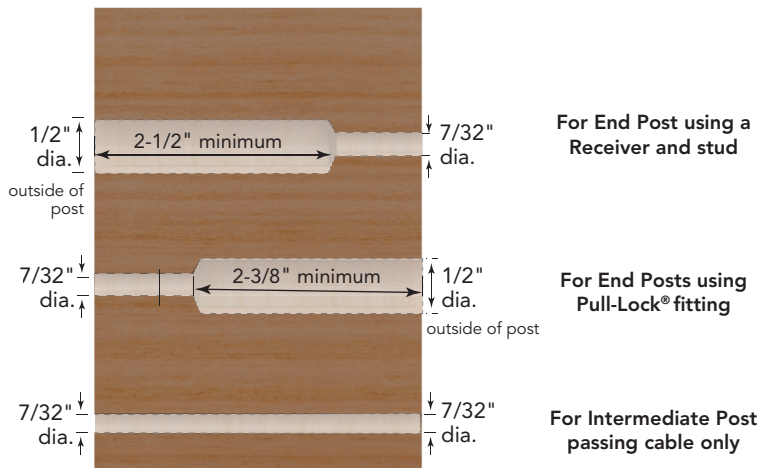
- 7/32" Drill Bit
- 1/4" Drill Bit
- 1/2" Drill Bit
- 1/8" Hex Key
- 3/16" Wrench
- Pre-tensioner Plate
- 3" Combo Wrench
- Cable Release Key
- Cable Gripper
- Cut Off Kit (mandrel)
- Cut Off Kit (wheel)
- Lacing Needle

If installing FlexFX fittings in conjunction with Low Profile Cable Kits, install the Low Profile Cable Kit fittings first before installing FlexFX fittings.

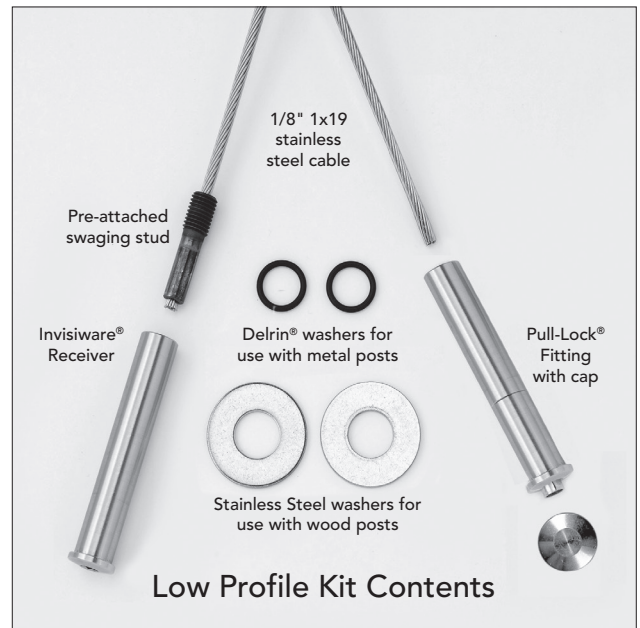
### A. DRILL POSTS

Wood posts must be a minimum 4"x 4".

Hole size for 1/8" dia. cable installation

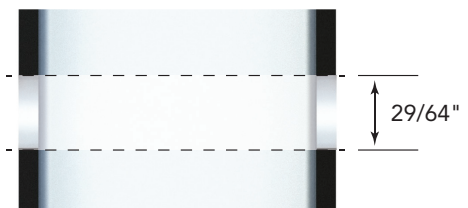
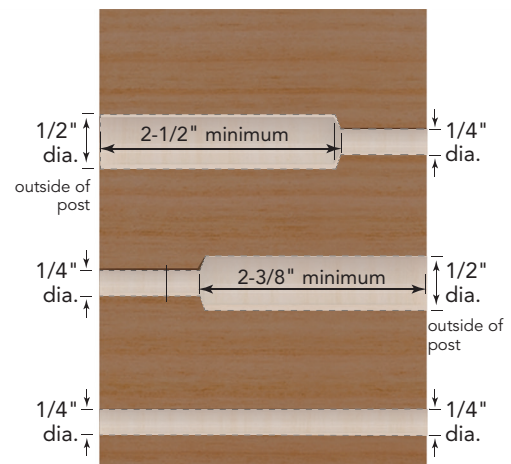


- Metal end posts are drilled through, using a 29/64" drill bit for Receiver and Pull-Lock® fitting.
- Hole sizes through intermediate posts and/or cable braces are:  
7/32" for 1/8" cable  
1/4" for 3/16" cable
- All holes should be burr-free.



**NOTE:** Parts must be kept clean and free of debris before installation for best results.

Hole size for 3/16" dia. cable installation



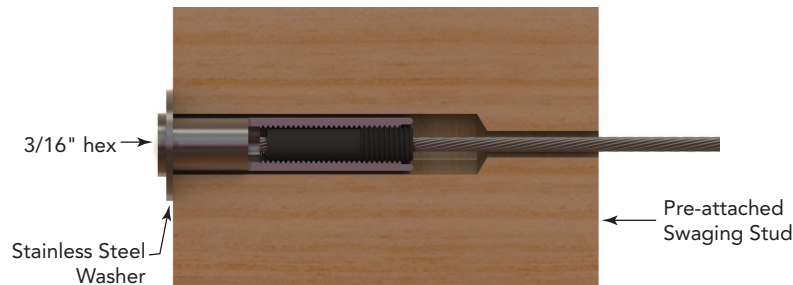
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INSTALLATION VIDEO

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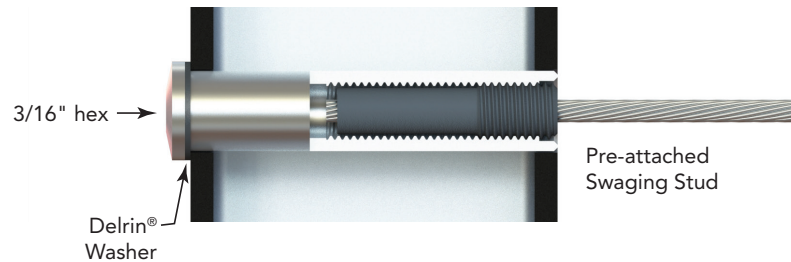
## B. INSTALL TENSIONING TERMINAL IN A WOOD POST

1. Feed the bare cable through the first end post using the provided lacing needle, keeping some of the cable with the swaging stud available so you can perform the next step.
2. Slip the stainless steel washer over the body of the Receiver and start inserting the swaging stud into the Receiver and turn 3 complete turns. This will thread about 1/2 of the stud into the Receiver.
3. Insert the Receiver with the stud into the post.



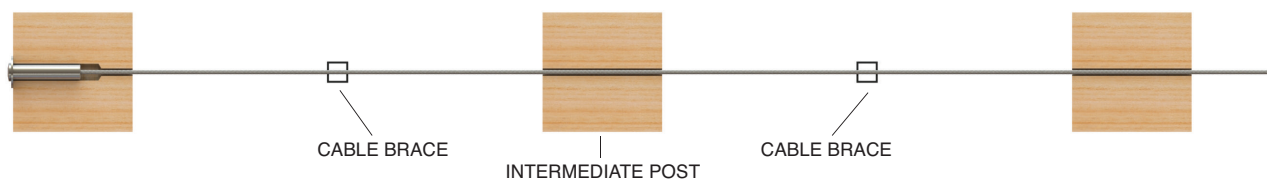
## B. INSTALL TENSIONING TERMINAL IN A METAL POST

1. Slip the Delrin® washer over the body of the Receiver and insert the Receiver into the post.
2. Start inserting the swaging stud into the Receiver and turn 3 complete turns. This will thread about 1/2 of the stud into the Receiver.

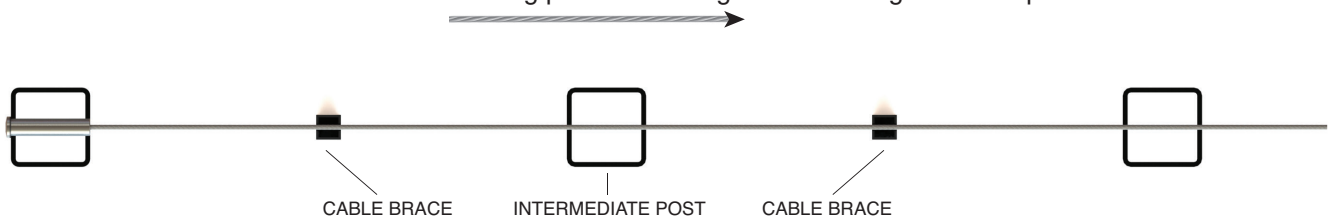


## C. FEED CABLE THROUGH INTERMEDIATE POSTS

1. Feed the bare end of the cable using the provided Lacing Needle through all intermediate posts and through the end post where you will be installing the Pull-Lock® fitting.



Feed bare end of cable using provided Lacing Needle through all other posts.



Feed bare end of cable using provided Lacing Needle through all other posts.

## D. FEED/LOOP CABLE THROUGH CORNER POSTS

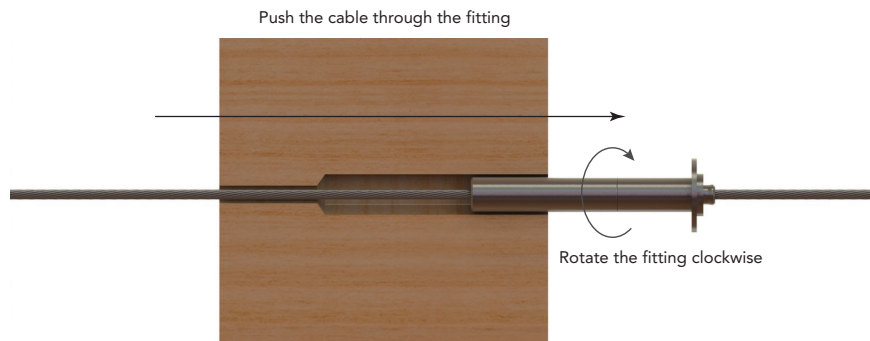
Instructions for going through corner posts can be found on pages 11 through 14 of this document.

## E. INSTALL SWAGELESS TERMINAL

1. Slip the appropriate washer over the body of the Pull-Lock® fitting. (Delrin® for metal post, stainless steel for wood post).

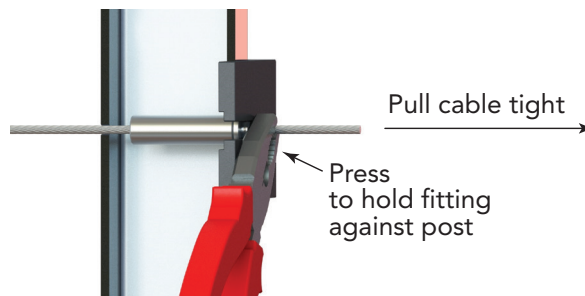


2. Rotate the Pull-Lock® fitting clockwise as you push it onto the cable. Once the cable pushes through, stop rotating the fitting and push into post. If the cable begins to "unravel," you are rotating the fitting in the wrong direction.



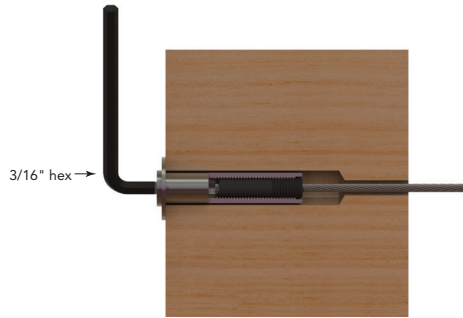
**NOTE:** If you have trouble inserting the cable into the fitting, it may be because the locking wedges have become stuck. This is not a defect! Here's what you can do to "free the wedges" — For Pull-Lock® or Push-Lock® fittings for 1/8" cable, using either a RFXPL-KEY or 1/4" diameter bolt, insert the RFXPL-KEY or bolt into the hole and press until the wedges move freely. Perform the same operation for a 3/16" Pull-Lock® or Push-Lock®, except use a 16d nail or another tool with 1/8" or smaller diameter. Anything larger than what is recommended can actually get stuck inside the fitting – NOT what you want!

3. Push the Pull-Lock® fitting along the cable and firmly into the hole in your post. While holding the Pull-Lock® fitting against the end post using the pre-tensioning plate, pull the bare end of the cable with pliers or vise-grips to remove as much slack in the cable as possible.

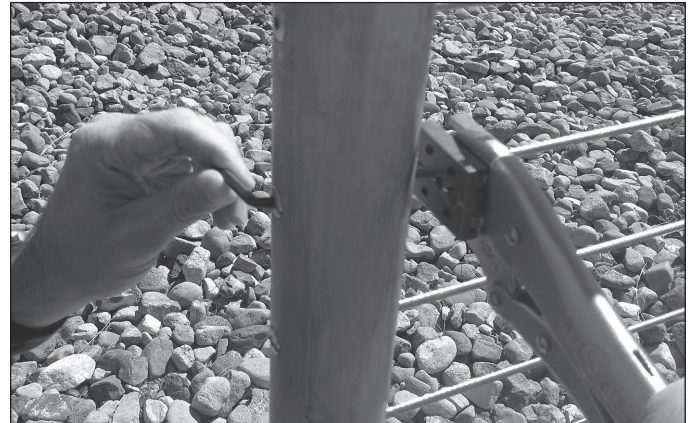


## F. TENSION CABLES

1. Go to the other end and tension the cable by holding the cable securely to prevent it from turning while you turn the Receiver with a hex wrench. Be careful to protect the cable from damage while tensioning.



The swaging stud will be pulled into the Receiver by rotating the Receiver clockwise.

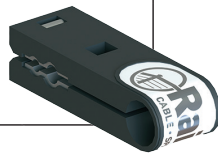


### RailFX Small Cable Gripper

As an alternative to a large cable gripper, this small gripper will clamp on the cable while tensioning to keep the cable from unraveling. Order **CG-4-6-RFX**



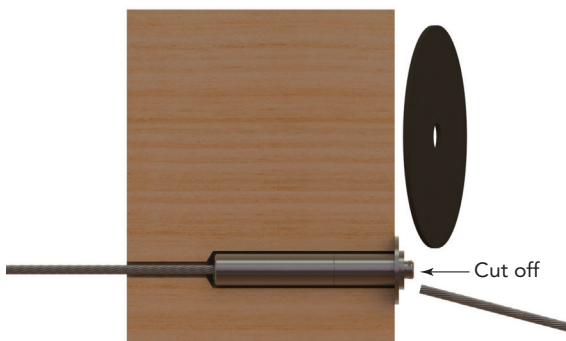
Watch video



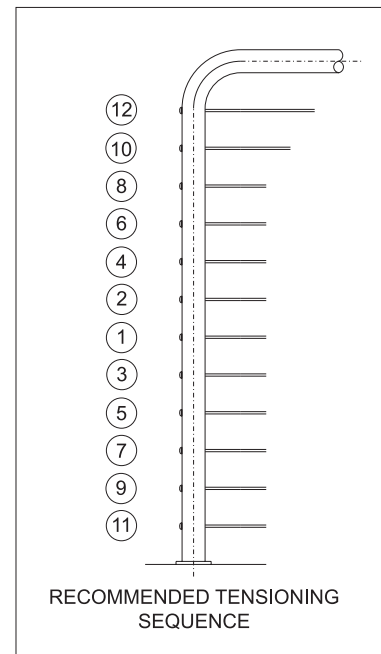
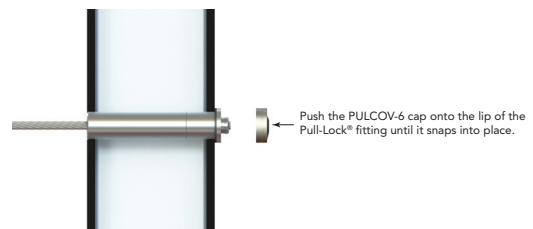
2. Tension all cables to desired amount in sequence, beginning with the center cables, moving up and down toward the top and bottom. As you tension each cable, give it a sharp pull downward mid-span to help set the wedges, then re-tension as necessary in the same sequence. Be aware that the cable may move as much as 3/16" toward the tensioning terminal as the wedges seat. (we recommend 225 lbs. of cable tension).

## G. TRIM EXCESS CABLE

1. Return to the Pull-Lock® hardware. Cut the cable flush with the hole in the back of the fitting using a cut-off wheel.



2. Push while twisting the cap onto the lip of the Pull-Lock® fitting.



# LOW PROFILE CABLE RAILING KIT

## Installation Instructions for Stairs

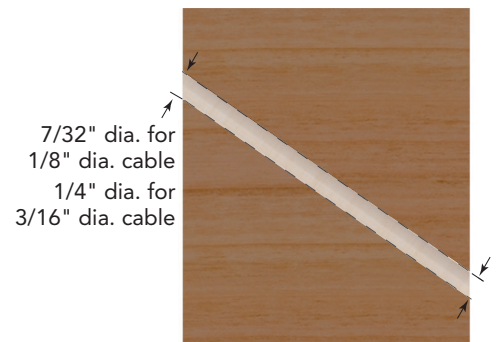
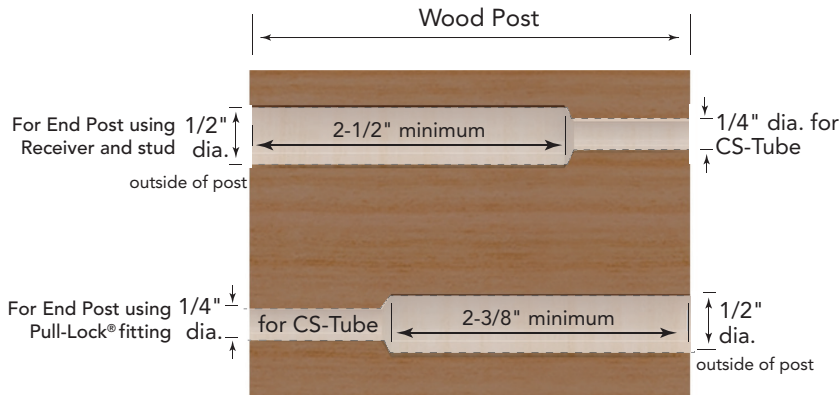
### TOOLS REQUIRED FOR INSTALLATION - see page 1:

#### A. DRILL POSTS

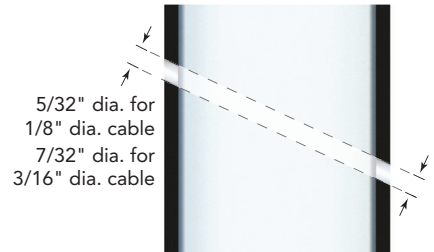
Wood posts must be a minimum 4"x 4".

Hole size for 1/8" or 3/16" dia. cable installation.

Intermediate posts are drilled on the angle.



Metal end posts are drilled through, using a 29/64" drill bit for both the Receiver and Pull-Lock® fitting. All holes should be burr-free.

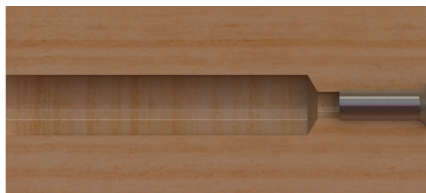


**NOTE:** All holes should be burr-free.

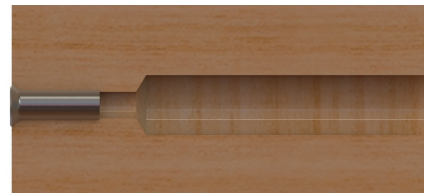
#### B. INSTALL TENSIONING TERMINAL IN A WOOD POST

1. Insert the post protector tube first into the face of both end posts. Force each tube into post so it is flush with post face.

End Post using Receiver and stud



End Post using Pull-Lock®

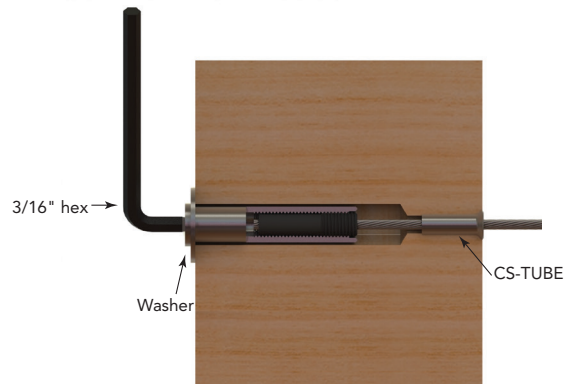


SCAN HERE FOR STEP-BY-STEP  
INSTALLATION VIDEO

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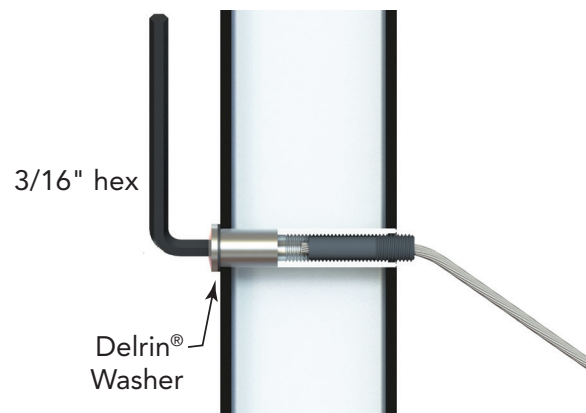
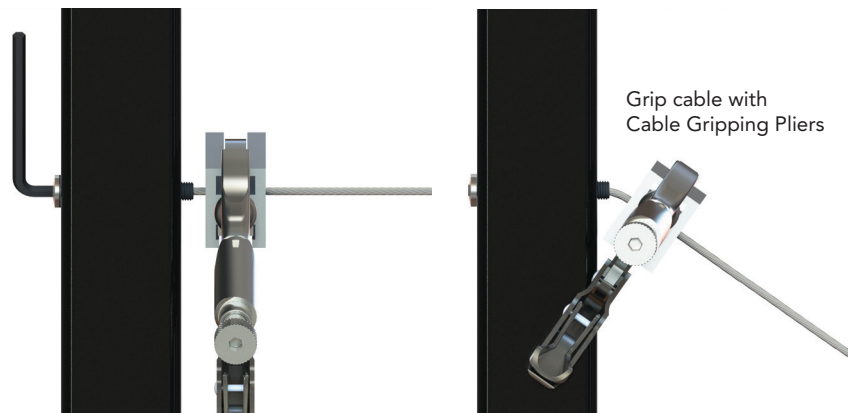
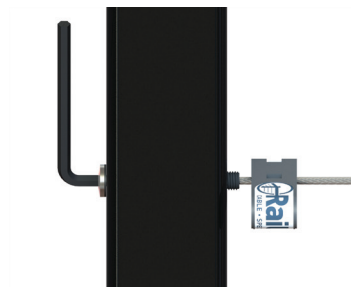
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2. Feed the bare cable using the provided Lacing Needle through the first end post. Slip the stainless steel washer over the body of the Receiver, start inserting the swaging stud into the Receiver with 5 complete turns. Insert the Receiver into the post.



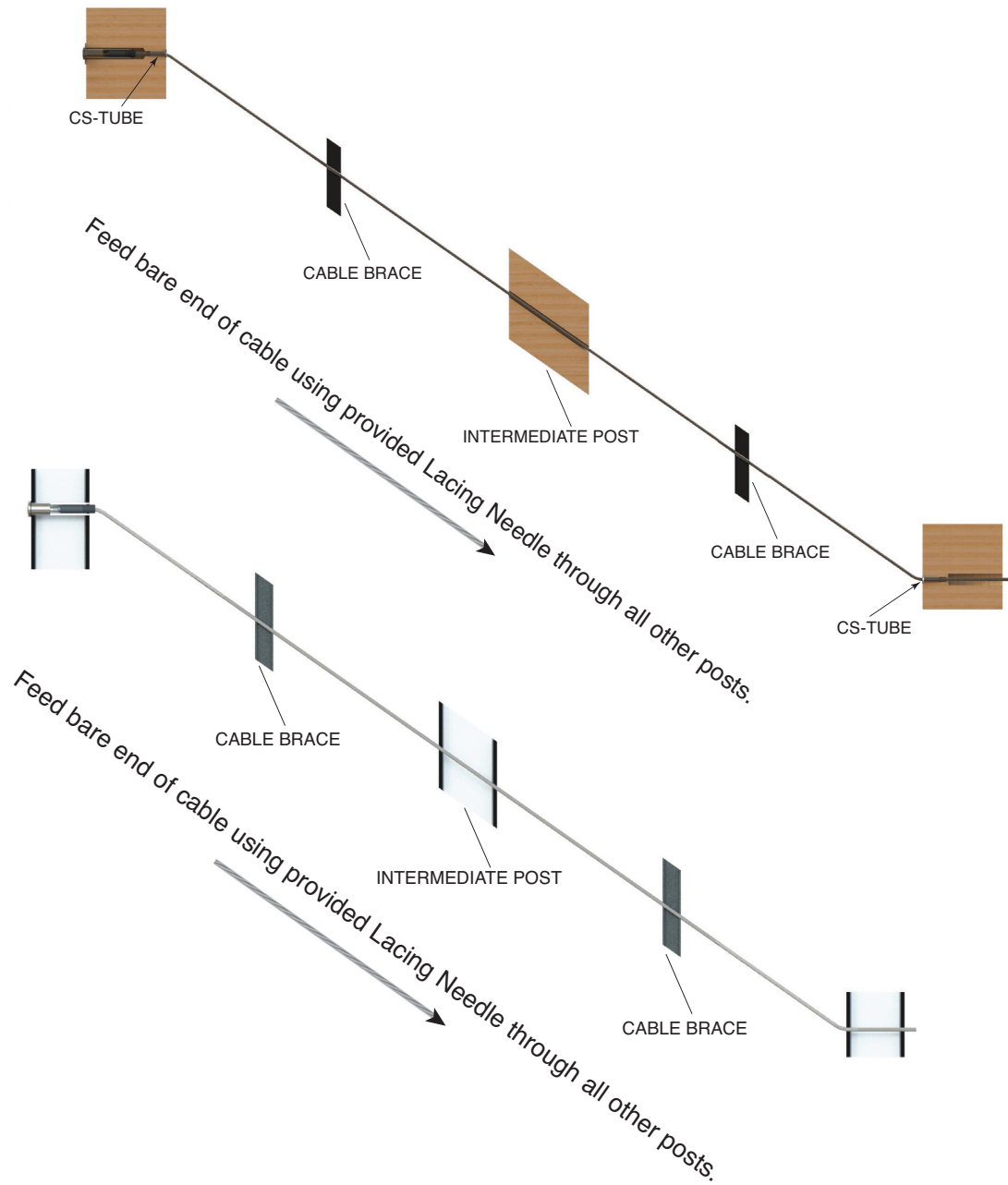
### C. INSTALL TENSIONING TERMINAL IN A METAL POST

1. Slide Delrin® washer onto receiver, insert Receiver into post and start installing the stud into the Receiver with 5 total turns so there is enough threading to ensure additional tension can be added.



#### D. FEED CABLE THROUGH INTERMEDIATE POSTS

1. Feed the bare end of the cable using the provided lacing needle through all intermediate posts and through the end post where you will be installing the Pull-Lock<sup>®</sup> fitting.

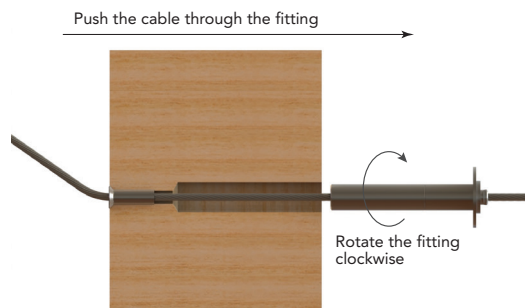


## E. INSTALL SWAGELESS TERMINAL

1. Slip the appropriate washer over the body of the Pull-Lock® fitting. (Delrin® for metal post, stainless steel for wood post).



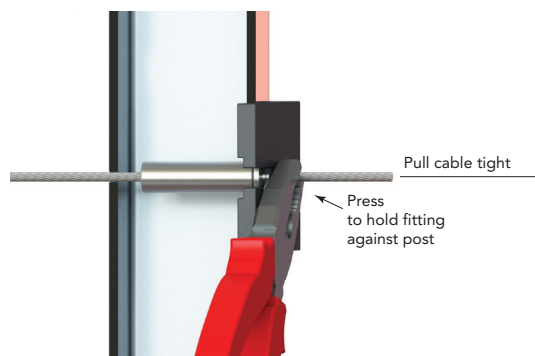
2. Rotate the Pull-Lock® fitting clockwise as you push it onto the cable. Once the cable pushes through, stop rotating the fitting and push into post. If the cable begins to "unravel," you are rotating the fitting in the wrong direction.



**NOTE:** If you have trouble inserting the cable into the fitting, it may be because the locking wedges have become stuck. This is not a defect! Here's what you can do to "free the wedges" — For Pull-Lock® or Push-Lock® fittings for 1/8" cable, using either a RFXPL-KEY or 1/4" diameter bolt, insert the RFXPL-KEY or bolt into the hole and press until the wedges move freely. Perform the same operation for a 3/16" Pull-Lock® or Push-Lock®, except use a 16d nail or another tool with 1/8" or smaller diameter. Anything larger than what is recommended can actually get stuck inside the fitting — NOT what you want!

3. Push the Pull-Lock® fitting along the cable and firmly into the hole in your post using the pre-tensioning plate, pull the bare end of the cable with pliers or vise-grips to create as much tension as possible as you seat the Pull-Lock® fitting into the hole.

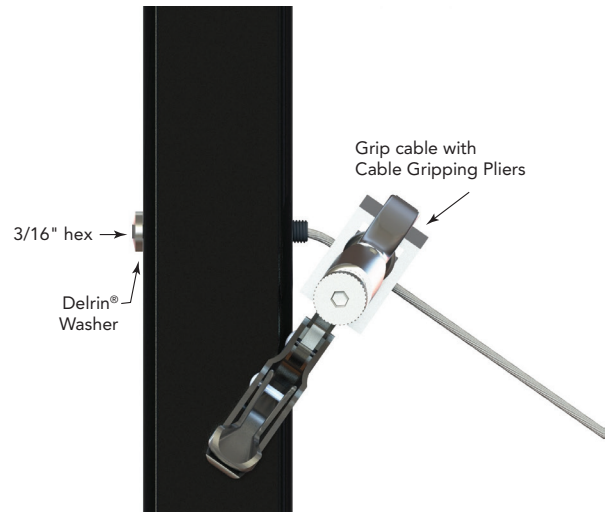
Make sure that the Receiver and stud on the opposite end are still seated in their pre-drilled hole (if not, seat them and repeat the process). The purpose of this is to make the cable as tight as possible prior to increasing tension on the cable by tensioning the Receiver.



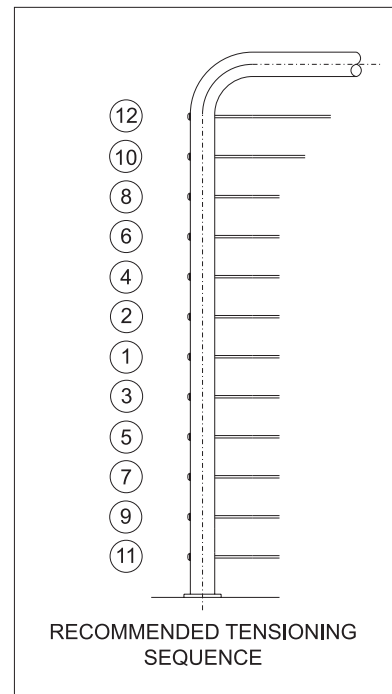
## F. TENSION CABLES

1. Move back to the Receiver and stud end of cable and attach cable gripping pliers to the cable as close as is practical to the fittings without contacting the end post.

Rotate the Receiver to create desired tension on the cable (you may have to move the cable gripping pliers several times to avoid contact with the end post).



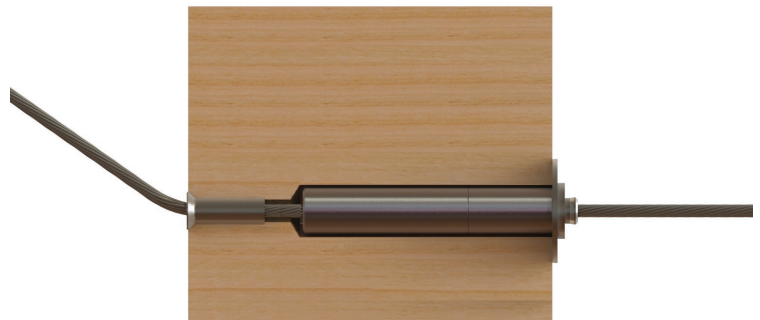
2. Tension all cables to desired amount in sequence, beginning with the center cables, moving up and down toward the top and bottom. As you tension each cable, give it a sharp pull downward mid-span to help set the wedges, then re-tension as necessary in the same sequence. Be aware that the cable may move as much as 3/16" toward the tensioning terminal as the wedges seat. (we recommend 225 lbs. of cable tension).



3. At both ends of the run, you are going to create a sharp bend in the cable where it exits the post (post protector tube in the wood post).

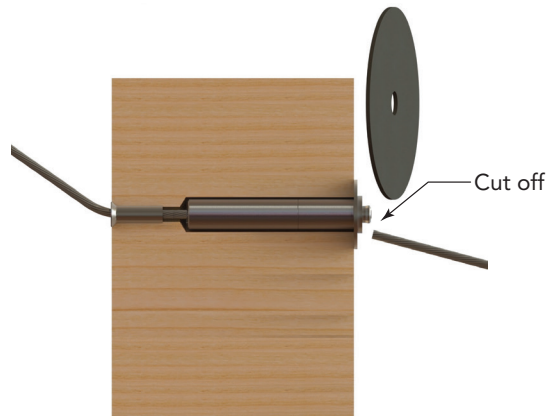
Metal post applications only require this step be done to the Pull-Lock end of the run.

If tension has diminished slightly as a result of the bending of the cable, re-tension the Receiver back up to desired amount, as in Step F-2.

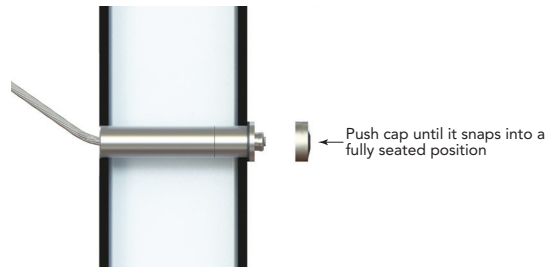


## G. TRIM EXCESS CABLE

1. Cut the cable flush with the hole in the back of the fitting using a cut-off wheel.



2. Push the PULCOV-6 cap onto the lip of the Pull-Lock<sup>®</sup> fitting.



## H. RAILFX SINGLE CORNER POSTS

CABLES NEED TO BE INSTALLED BEFORE TOP RAIL IS INSTALLED

1. Install all posts.
2. Install cables in posts. It is important to only tension cables once the top rail is installed. Refer to RailFX cable installation instructions for more details.

To install cable through corner posts, slightly bend the cable to make lacing the cable through the corner easier.



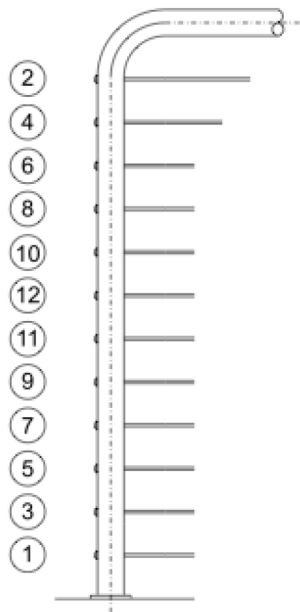
Start by inserting the bent cable through the drilled hole in the post. Then, lace the cable through the post to the corresponding drilled hole on the other side of the post. Do this for all cables. Once the cables are installed through corner post, push the cable back into post to create a loop.



Drop the ½ galvanized pipe into the post through the cable loops. Once the galvanized pipe is all the way in the post, pull the cables towards you to tighten the hold with the pipe. Do this for all cables in the corner post.



Install the top rail and top rail filler. Lastly, tension the cables in the following sequence.



## I. PASSING CABLE THROUGH A TWO-POST CORNER CONFIGURATION

When passing cable railing through a corner, do not bend the cable past 45° at any time. If turning 90°, a 2-step turn using a double corner post configuration is required, as illustrated. For cable runs with up to 90° of turn, kits with single tensioners are sufficient. If going through corners totaling more than 90°, you will want to use a kit with tensioners at both ends.

Corners require two posts because the cable itself, being rigid, will not cooperate in bending cleanly through a single post. When you go through a wood corner post, you will need to prevent the cable from slicing into the wood as it exits the post on an angle by using a post protector tube (aka CS-TUBE).

1. For wood posts only, insert a Post Protector Tube (order separately from Accessories) into all wood posts where the cable angles out of the post. Drill 1/4" diameter holes 3/4" deep into the face of the post where each cable angles out of the post. Force tube into post so it is flush with post face. (Illustration D-1)

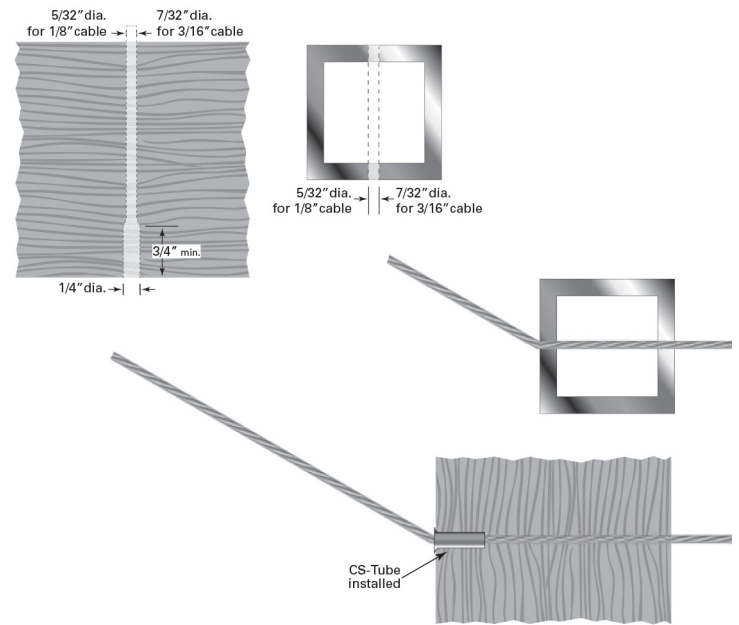


Illustration D-1

2. As you feed the bare end of your cable through your intermediate posts (per Section C in your installation instructions), stop after you feed it through the first of your two corner posts.

3. Mark the cable at the point where it exits the face of the first post. (Illustration D-2)

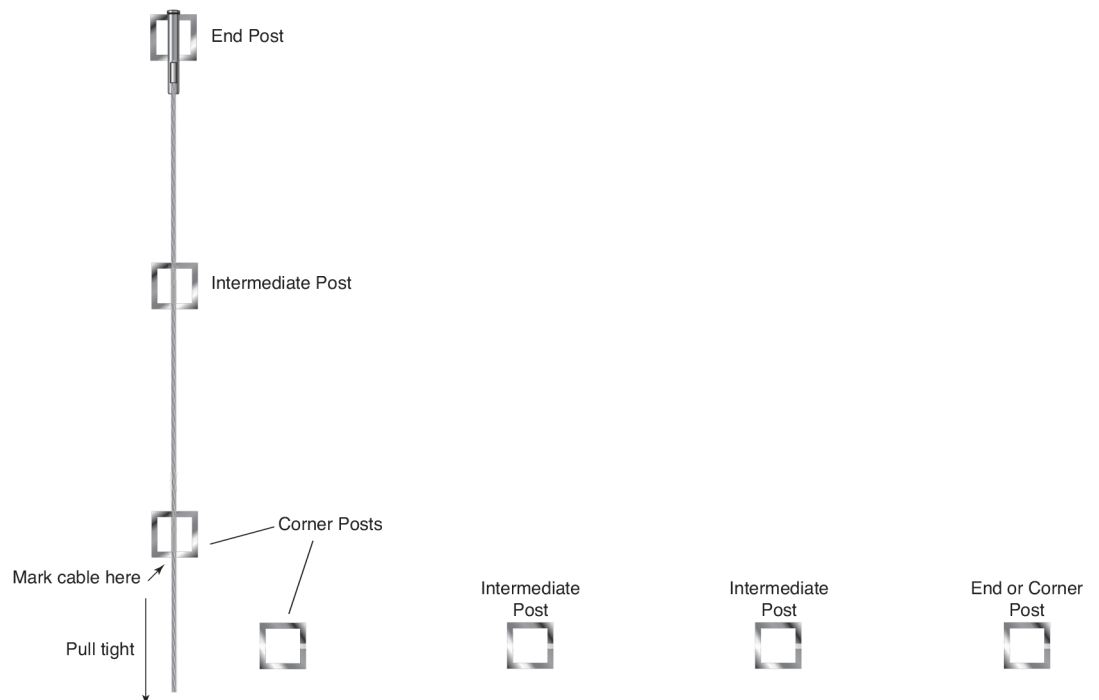
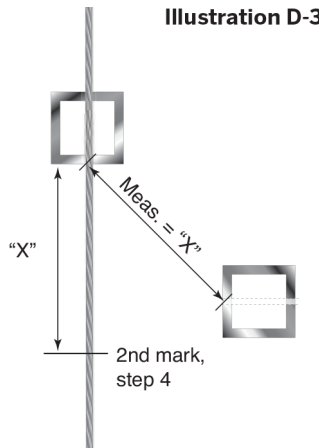
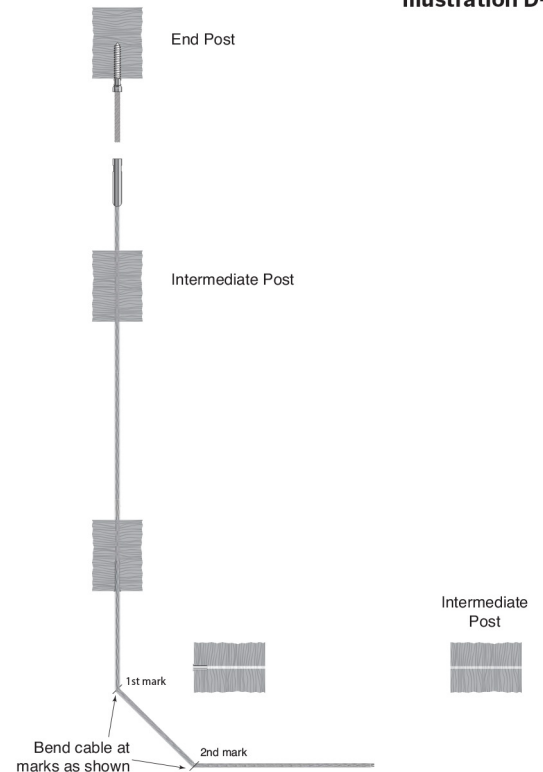


Illustration D-2

4. Take a measurement in a straight line between the adjacent posts. Make a second mark on the cable that is the same distance away from the first mark as the measurement that you have just taken. (Illustration D-3)



5. As you feed the bare end of your cable, remove the tensioning terminal that was installed in Section B of your kit instructions. (If you used a threaded stud, you will have to remove the fitting and all the cable as well.) This will make it possible to pull the first mark away from the face of the post so that you can access the mark for bending the cable. (Illustration D-4)
6. Bend the cable in both locations that you have marked to approximately 45° (in the same plane). Use a tool such as Cable Gripping Pliers to help you make "sharp" bends in your cables at the marked locations. (Illustration D-4)



7. Re-attach the tensioning terminal such that the first mark is at the face of the first corner post. Feed the bare end of the cable through the second post and continue to feed the cable through all other intermediate posts and/or another corner section. Pull tight until the second mark contacts the second post. (Illustration D-5)
8. When the bare end of the cable has been passed through all remaining intermediate posts (if another 2-post corner is encountered, repeat Steps 1-7) proceed to Section E of the installation instructions for your kit application.

