



## INSTALLATION GUIDE

### RailFX® Oasis™ Cable Railing System

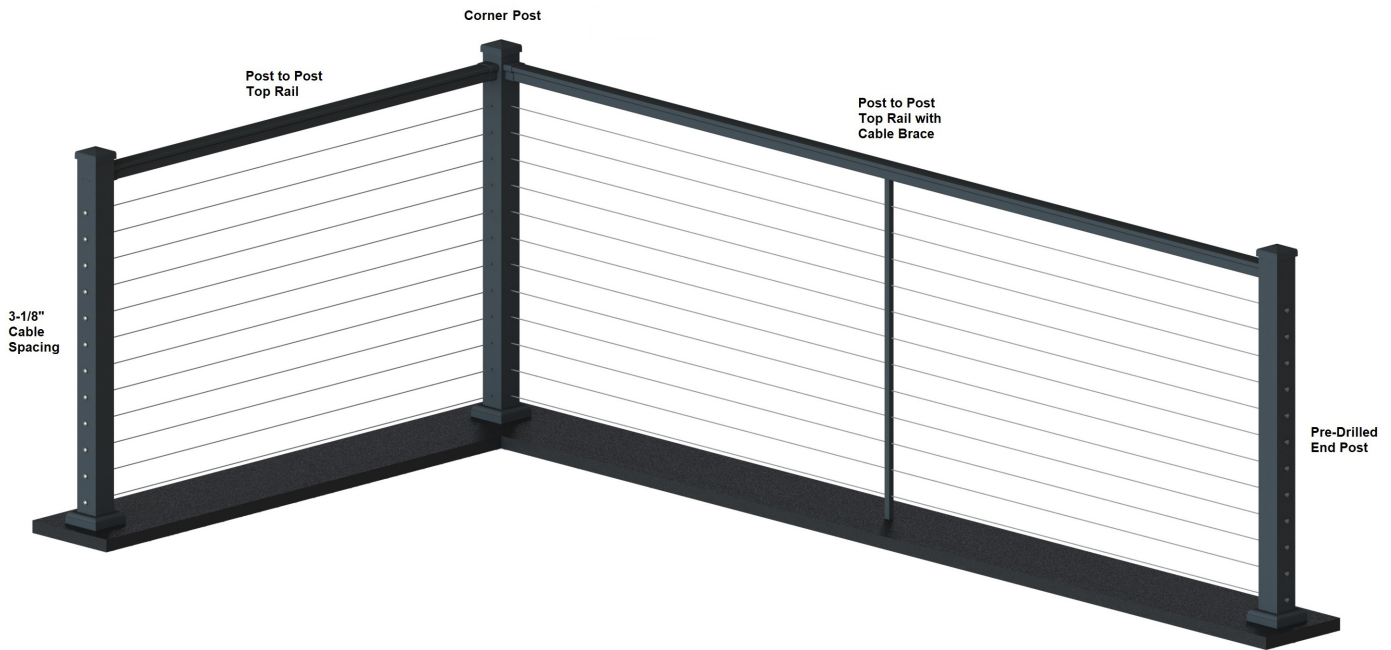




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## RailFX® OASIS™ CABLE RAILING OVERVIEW



The RailFX® Oasis™ Aluminum Rail and Cable System has been designed, engineered and tested specifically for a cable application rail system. The aluminum framework and stainless-steel cable allows for railings to be lightweight while still retaining exceptional durability.

### RAIL GUIDELINES

To comply with engineering and testing posts must be spaced no more than 96" with a cable brace. Unsupported cable span should not exceed 48". Cable brace included with top rail kit. Cables are spaced 3 1/8" on center to keep cable from deflecting beyond 4" to meet code. Cable can either terminate at the corner or run continuously through corners. Single corner posts can be used with cable running through the corner. Top rail is required for all railing installations.

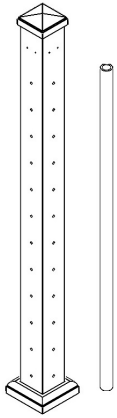
### POSTS

RailFX® Oasis™ posts for level and stair railings are pre-drilled, and ready for cable installation. Posts for stairs come with a base plate unattached to maximize installation flexibility which allows the post to accommodate most stair applications. All posts are available for surface mount only and available for 36" and/or 42" rail heights.

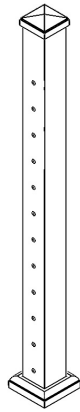
### TOP RAIL

There is one top rail available for the RailFX® Oasis™ Cable Railing System (shown on page 4). The rail insert is designed to slide into the top rail for a finished look and is used to secure cable braces.

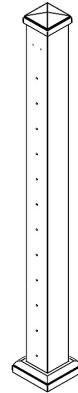
## COMPONENT GUIDE



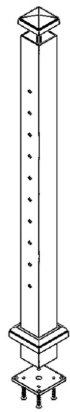
**Corner Post and  
Conduit Kit**



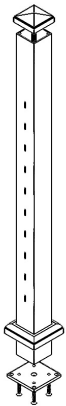
**End Post Kit**



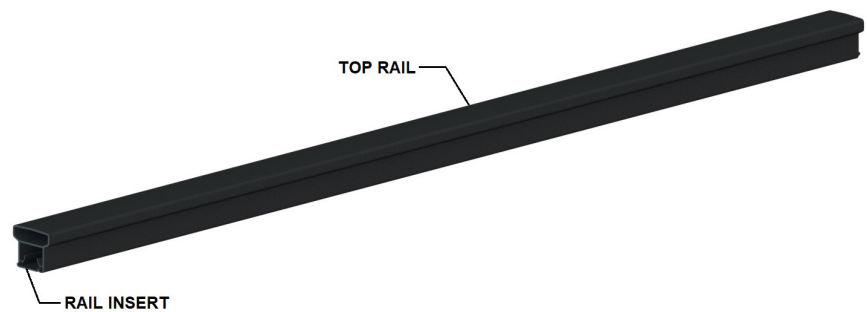
**Intermediate Post Kit**



**Stair End Post Kit**



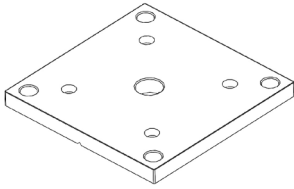
**Stair Intermediate  
Post Kit**



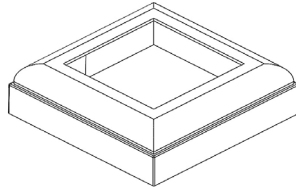
**Top Rail with Rail Insert**



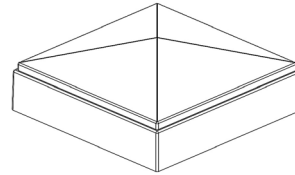
## HARDWARE / ACCESSORIES



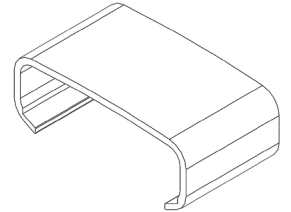
**Post Base Plate**



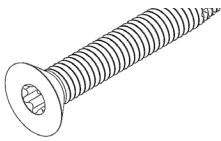
**Base Trim**



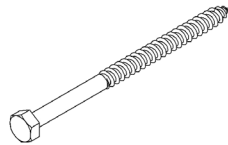
**Post Cap**



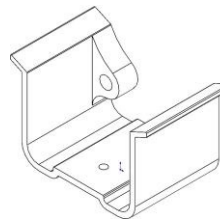
**Saddle Bracket Cover**



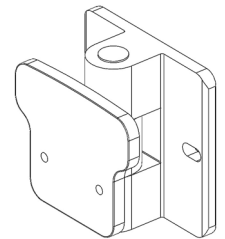
**5/16" x 2" T-40 Self Tapping Stainless Steel Screws**



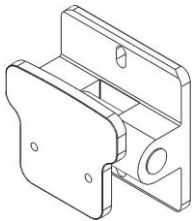
**3/8" x 8" Stainless Steel Lag Bolt**  
Note: Min. 5" thread length  
(Not included, user supplied)



**Saddle Bracket**



**Horizontal Pivot Bracket**  
(Optional)



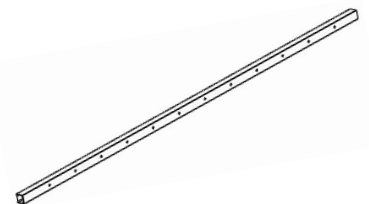
**Stair Pivot Bracket**



**#8 x 1/2" Screw**



**#10 x 1" Screw**



**Cable Brace**



**RailFX Installation Kit for Classic and Low Profile Cable Kits**

(Includes all tools necessary for cable kit installation)

### **\*Alternative Structural Screw Options:**

- A. It is structurally acceptable to use 5/16"  $\Phi$  304/316 SS screws only for max. 38" tall posts with max. 48" post spacing, for all IBC compliant residential and commercial installations.
- B. It is structurally acceptable to use 5/16"  $\Phi$  hardened 410 SS screws for max. 54" tall posts with max. 54" post spacing, for all IBC compliant residential and commercial installations.
- C. It is structurally acceptable to use 5/16"  $\Phi$  hardened 410 SS screws for max. 54" tall posts with max. 96" post spacing, only for installations at IRC compliant one or two family dwellings.

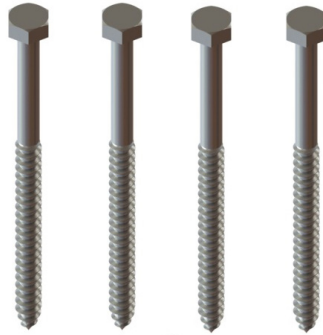
## SURFACE MOUNT POST INSTALLATION

For 36" or 42" Oasis™ Aluminum Railing and Cable System

### MATERIALS FOR INSTALLATION:

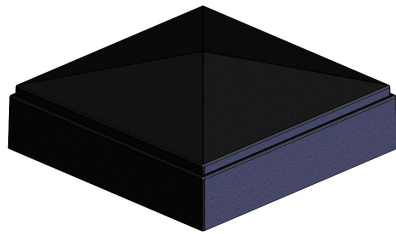


**Surface Mount Post**



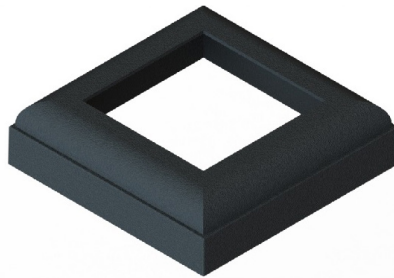
**3/8" x 8" Lag Bolts**

Note: Min. 5" thread length  
(customer supplied)



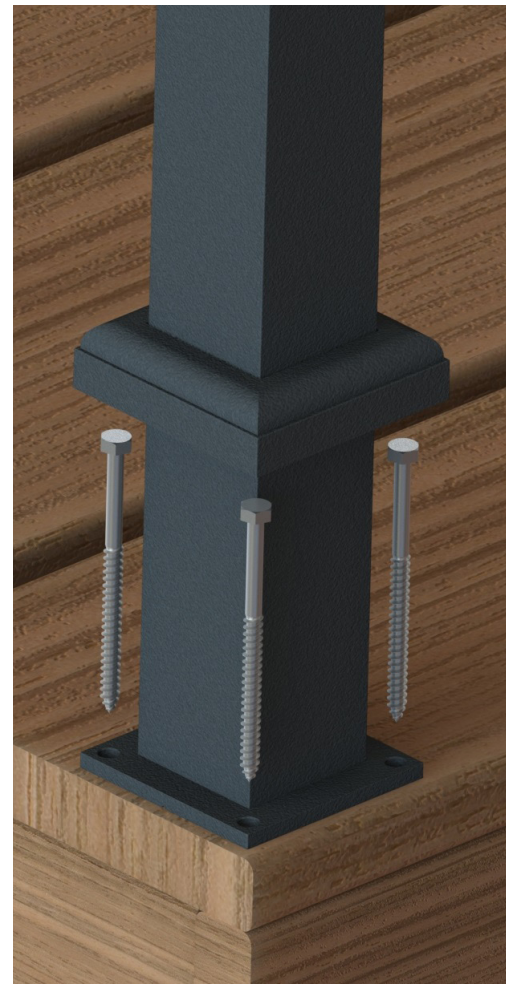
**Post Cap**

(Included with Post Kit)



**Post Base Trim**

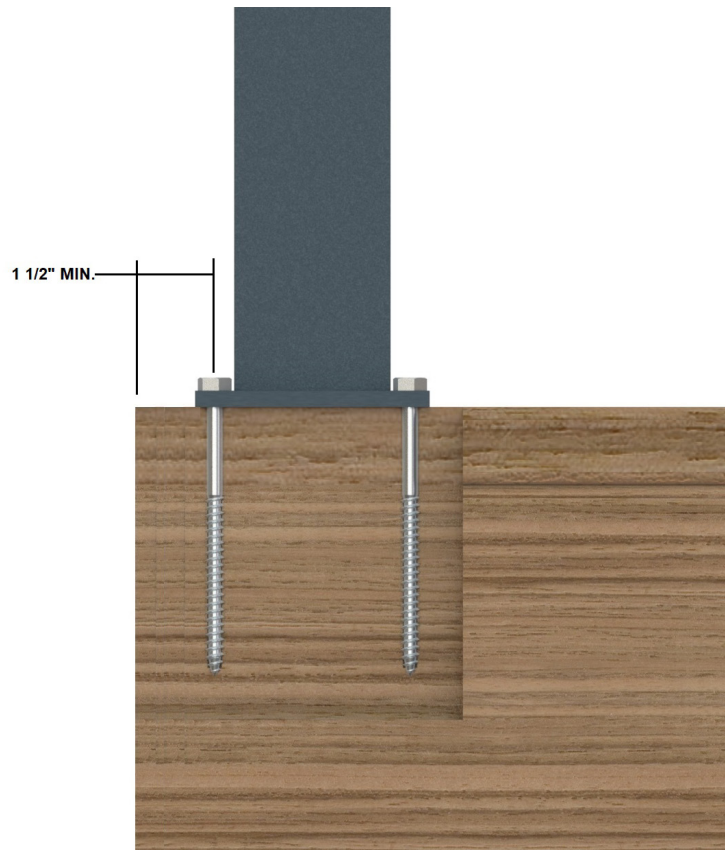
(Included with Post Kit)



It is the responsibility of the installer to meet all code and safety requirements and to obtain all required building permits. The deck and railing installer should determine and implement appropriate techniques for each installation situation. RailFX® or its distributors shall not be held liable for improper or unsafe installations. Determine appropriate layout and post spacing. Maximum post spacing is 96" with cable brace. Ensure that proper blocking is in place prior to mounting post. 8" lag must be fully embedded into blocking.

## POST MOUNTING OPTIONS

- Wood blocking must be constructed with treated dimensional lumber.
- Secure wood blocking to deck frame on all four sides – using #10-3-1/2" deck screws.
- Wood blocking must be constructed with a minimum thickness of 1-1/2".
- Base plate edge **MUST** be positioned a minimum 1-1/2" from the edge of the deck framing.
- Use only 3/8" diameter lag screws to attach post.\*
- Secure each post with four lag screws.





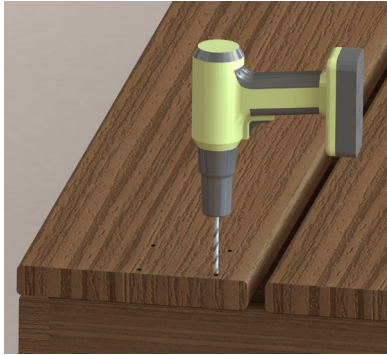
## SURFACE MOUNT POST INSTALLATION

36" or 42" RailFX® Oasis™ Aluminum Railing and Cable System



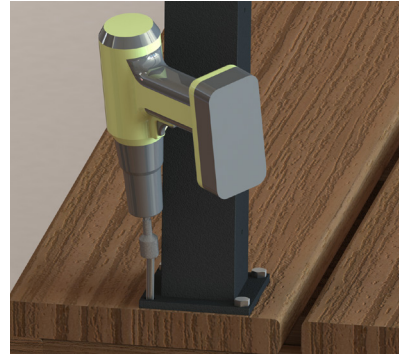
### Step 1

Determine location of post and mark hole locations.



### Step 2

Remove post and pre-drill pilot holes (5/16" diameter) to accept 3/8" diameter lag bolts.



### Step 3

Install and drive lag bolt fasteners into blocking.



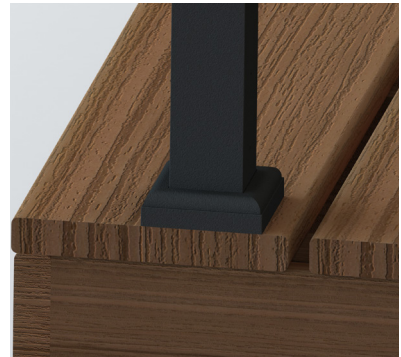
### Step 4

Ensure post is plumb. If not adjust as needed utilizing composite shims or stainless steel washers. Tighten fasteners and ensure proper engagement of lag screws.



### Step 5

Slide post base trim over the top of the post and seat it over the post base plate.

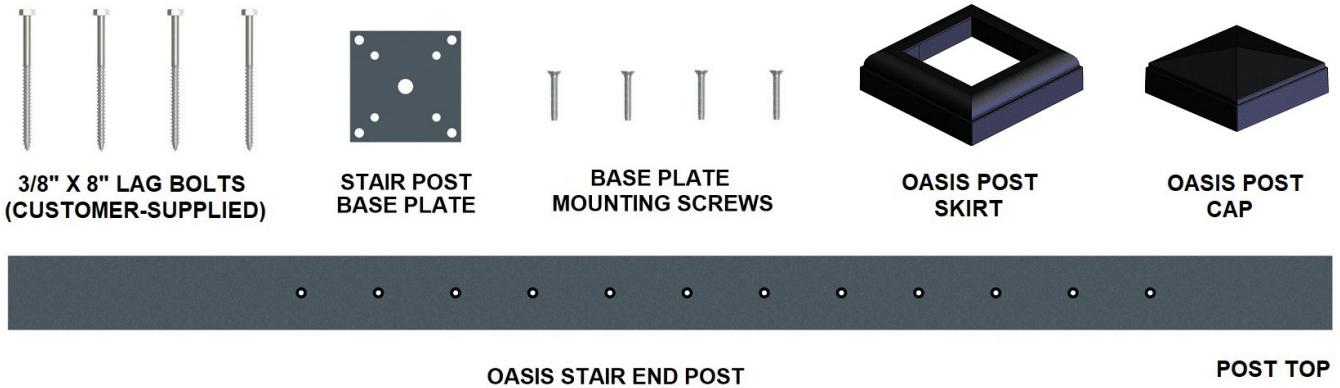


### Step 6

Post installation complete.

## SURFACE MOUNT STAIR END POST

**NOTE:** Post comes long on top and bottom and will require trimming prior to installation.

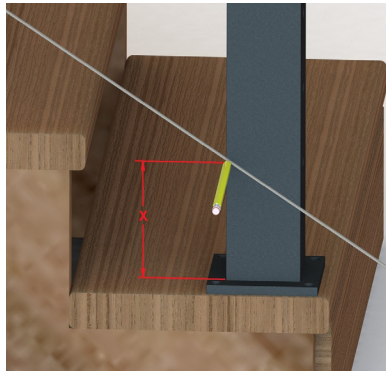


**PRE-MOUNT INSTRUCTIONS** Attach base plate to bottom of post (post bottom) temporarily using 2 mounting screws located diagonally from each other. This will aid in aligning the post-base plate assembly to the stair tread, in order to lay out the post holes to the correct angle of the stair.



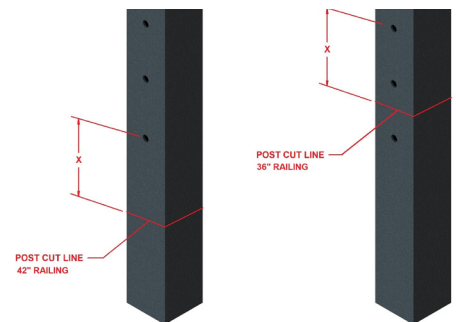
### Step 1

Locate end post on bottom stair tread in desired position. Mark hole locations.



### Step 2

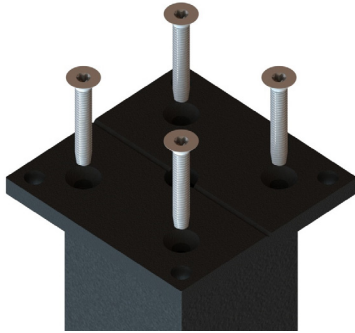
Insert cable into the first hole of top end post (previously mounted) and pull tightly alongside the end post. Ensure that cable is evenly spaced above the nose of the treads, then mark the post, using masking tape, where the cable intersects the post.



### Step 3

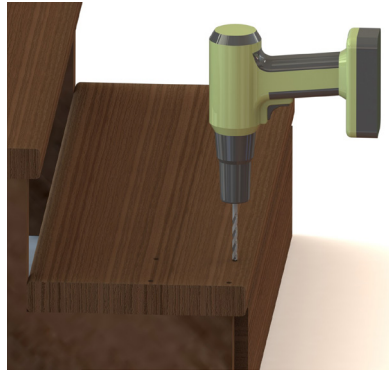
Disassemble base plate from post. For 42" railings, mark X dimension from bottom hole and mark post cut line. For 36" railings, mark X dimension from the 3rd hole from the bottom and mark post cut line. Cut post bottom at the cut line. Cut top of post to desired finished post height.

## SURFACE MOUNT STAIR END POST (continued)



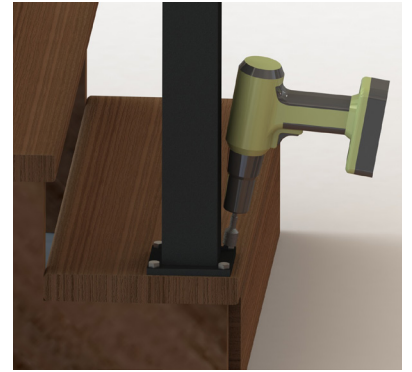
### Step 4

Reassemble base plate to post bottom using all four Torx screws (Use beeswax for easier install).



### Step 5

At marked hole locations for stair end post, pre-drill pilot holes with a 5/16" drill bit to accept 3/8" diameter lag bolts.



### Step 6

Mount post, ensuring lower slots on post are on downward side of stair. Install and drive 3/8" lag bolt fasteners into stair step and blocking.



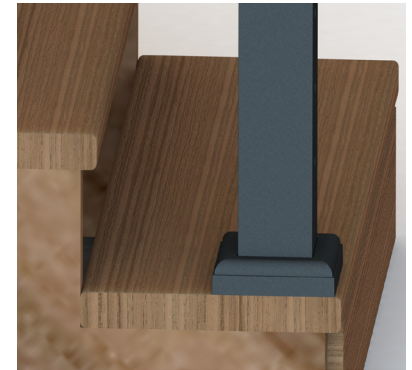
### Step 7

Ensure post is plumb. If not, adjust as needed utilizing composite shims or stainless steel washers. Tighten fasteners and ensure proper engagement of lag screws.



### Step 8

Slide post base trim over the top of the post and seat it over the post base plate.



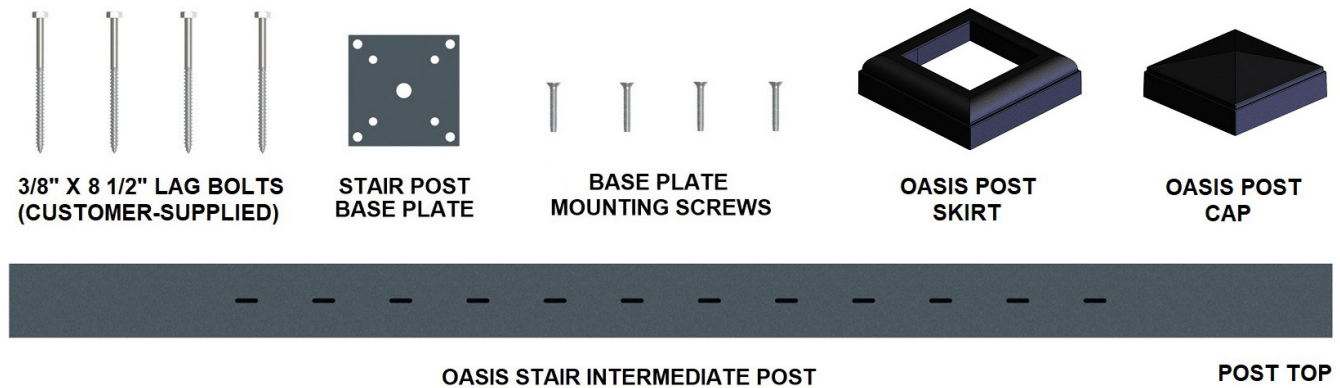
### Step 9

End post installation complete.



## SURFACE MOUNT STAIR INTERMEDIATE POST

**NOTE:** Post comes long on top and bottom and will require trimming prior to installation.

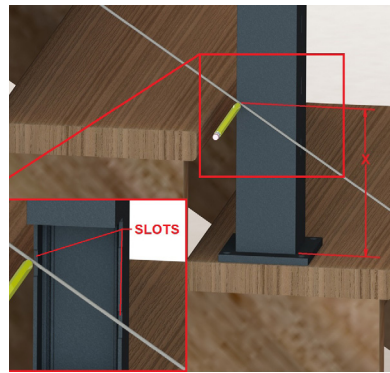


**PRE-MOUNT INSTRUCTIONS** Attach base plate to post bottom temporarily using 2 mounting screws located diagonally from each other. This will aid in aligning the post-base plate assembly to the stair tread, in order to lay out the post slots to the correct angle of the stair.



### Step 1

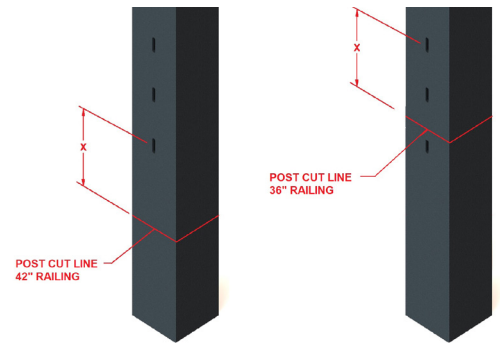
Locate intermediate post on stair tread in desired position. Mark hole locations.



### Step 2

Insert cable into the first hole of top end post (previously mounted) and pull tightly alongside the intermediate post. Ensure that cable is evenly spaced above the nose of the treads, then mark the post, using masking tape, where the cable intersects the post. This measures the bottom slot on the post to the new post bottom.

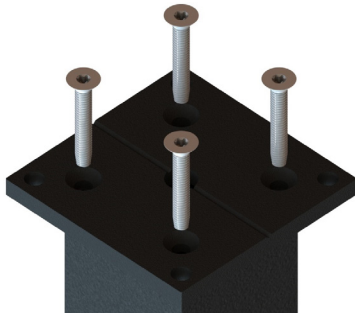
**NOTE:** Ensure that post slots on downside of post are positioned downward on the post.



### Step 3

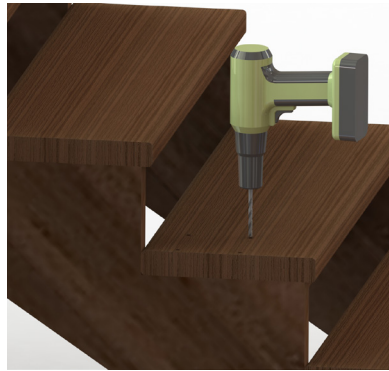
Disassemble base plate from post. For 42" railings, mark X dimension from bottom slot and mark post cut line. For 36" railings, mark X dimension from the 3rd slot from the bottom and mark post cut line. Cut post bottom at the cut line. Cut top of post to desired finished post height.

## SURFACE MOUNT STAIR INTERMEDIATE POST (continued)



### Step 4

Reassemble base plate to post bottom using all four Torx screws (Use beeswax for easier install).



### Step 5

At marked hole locations for stair end post, pre-drill pilot holes to accept 3/8" diameter lag bolts.



### Step 6

Mount post, ensuring large holes on post are on outside of stair. Install and drive 3/8" lag bolt fasteners into stair step and blocking.



### Step 7

Ensure post is plumb. If not, adjust as needed utilizing composite shims or stainless steel washers. Tighten fasteners and ensure proper engagement of lag screws.



### Step 8

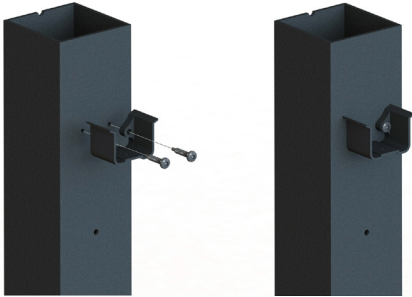
Slide post base trim over the top of the post and seat it over the post base plate.



### Step 9

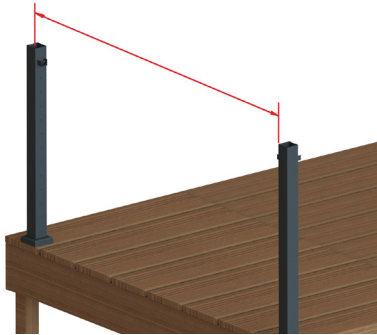
Intermediate post installation complete.

## TOP RAIL LEVEL INSTALLATION



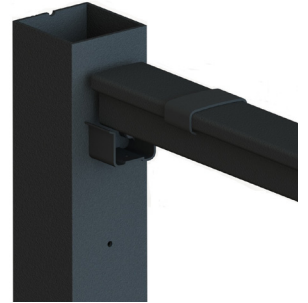
### Rail Saddle Bracket

Install Saddle Brackets on the 2 horizontally positioned holes at the top of the post using provided #10 x 1" self-drilling screws. Assemble brackets on all remaining level posts.



### Cutting Top Rail & Rail Insert

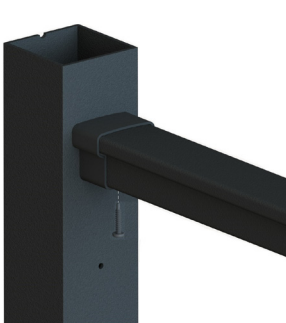
Remove the Rail Insert from the Top Rail. Measure the distance between posts, subtract 7/8", and cut Top Rail squarely using a saw to this length. Next, using the distance between posts previously measured, subtract 1/4" and cut Rail Insert to this length.



### Locating Top Rail – Insert

Slide Rail Insert back into Top Rail once cut to the correct length. Slide Saddle Bracket Covers over the top of the rail (approx. 3" - 4"). Ensure Rail Insert is centered within Top Rail.

**IMPORTANT:** Post spans greater than 48" require a cable brace. Before securing top rails, follow Cable Brace Installation Instructions on page 15.



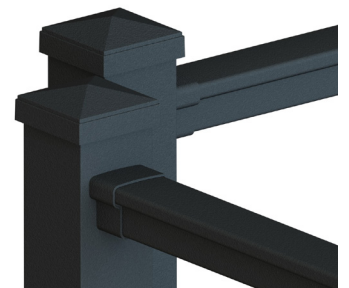
### Securing Top Rails

Drop Top Rail and Rail Insert into the Saddle Bracket and slide Saddle Bracket Cover to lock Top Rail and insert onto Saddle Bracket. Install #10 x 1" self-drilling screw through Saddle Bracket hole to fasten securely onto Saddle Bracket.



### Finish Top Rail Install

Continue top rail installation on all remaining level posts.

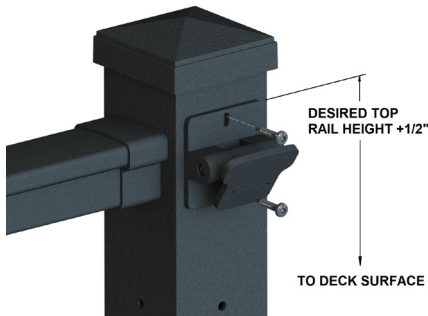


### Install Post Caps

Place Post Caps over remaining level posts. Lightly tap with a soft hammer to ensure caps are fully seated on post.

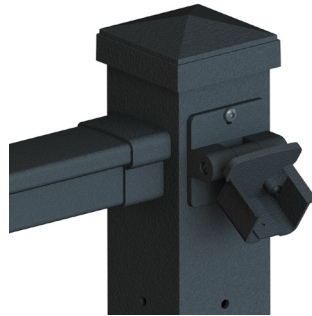


## TOP RAIL STAIR INSTALLATION



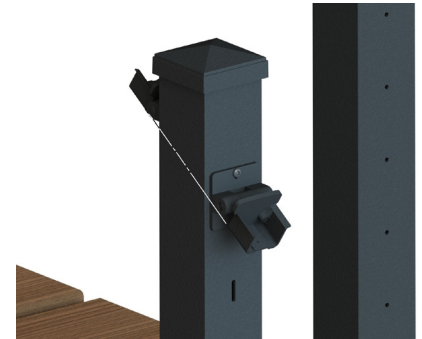
### Stair Pivot Bracket

Measure from the surface of your deck to the desired rail height and add 1/2". At this location, center Stair Pivot Bracket on post and mark location. Top of bracket base should be located at desired rail height + 1/2". Secure bracket to post using 2 ea. #10 x 1" self-drilling screws.



### Attach Saddle Brackets

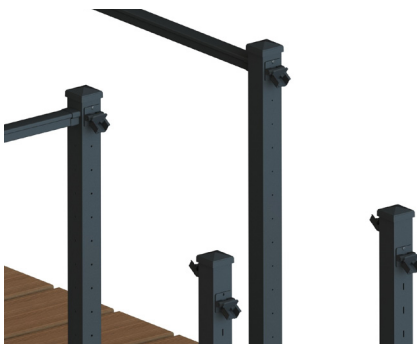
Attach Saddle Bracket to Stair Pivot Bracket using 2 #10-24 x 7/16" screws. Rotate Stair Pivot Bracket so mounting plate is perpendicular to stair angle.



### Saddle Brackets - Int Posts

Continue attaching remaining Stair Pivot Brackets and Saddle Brackets to Stair Intermediate and Stair End Posts.

**NOTE:** Ensure Stair Pivot Bracket on backside of Stair. Intermediate Post is in line with front side of post.



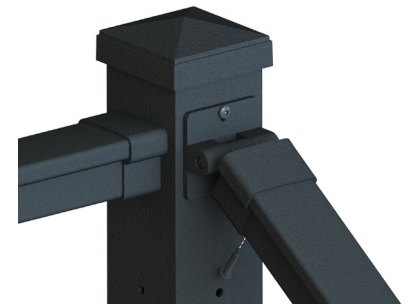
### Measuring Stair Rail Length

Remove the Rail Insert from the Top Rail. Measure the distance between Stair Pivot Bracket mounting plates, subtract 7/8", and cut Top Rail squarely using a saw to this length. Next, using the distance between Stair Pivot Bracket mounting plate previously measured, subtract 1/4" and cut Rail Insert to this length.



### Locating Top Rail - Rail Insert

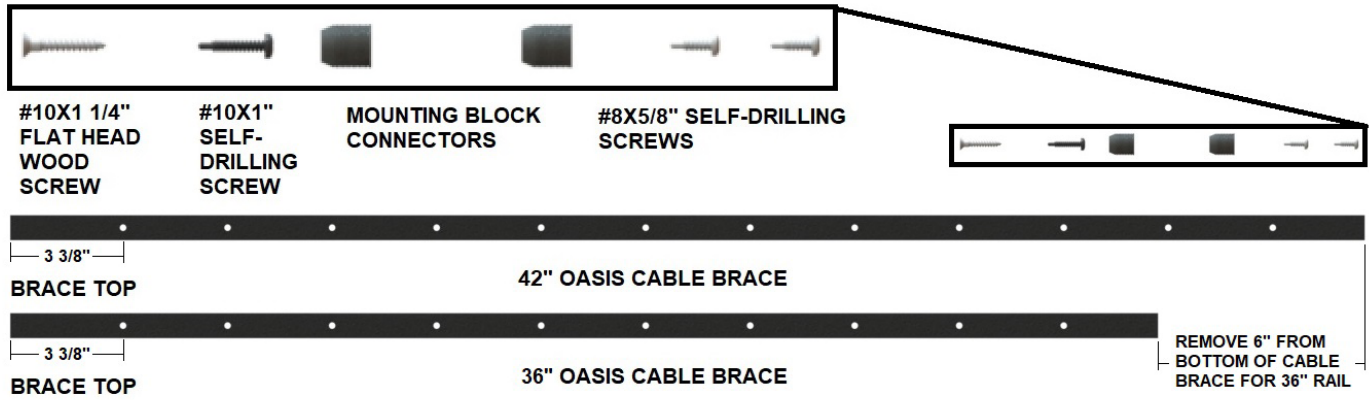
Slide Rail Insert back into Top Rail once cut to the correct length. Slide Saddle Bracket covers 3-4" over cut Top Rail and Rail Insert. Drop the Top Rail and Rail Insert into Saddle Brackets.



### Securing Top Rails

Slide Saddle Bracket Cover to lock Top Rail and Rail Insert onto Saddle Bracket. Install #10 x 1" self-drilling screw to fasten Rail Insert securely onto Saddle Bracket.

## CABLE BRACE INSTALLATION



**IMPORTANT:** The cable brace has a top and bottom. The top of the cable brace can be found by measuring the distance from the end of the brace to the center of the first hole. This distance will measure 3 3/8" from the top. For 36" Railing Height, you will need to cut 6" from the bottom of the cable brace.



### Step 1

Locate center of Top Rail-Rail Insert assembly and fasten the Mounting Block Connector to underside of assembly using one #10 x 1" self-drilling screw (supplied). Ensure screw head bottoms out on the inside of the Mounting Block Connector.

**CAUTION:** Do not overtighten.

### Step 2

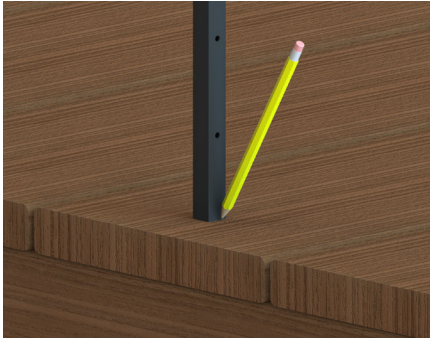
Push Cable Brace onto Mounting Block Connector and ensure that the Cable Brace is seated firmly, and cable holes are oriented in the direction of the cable run.

**NOTE:** Ensure that the Cable Brace Top is inserted into the Connector. First hole spacing is greater at the top than the bottom.

### Step 3

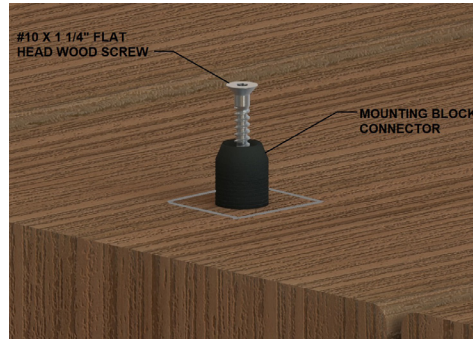
Drop Top Rail-Rail Insert with Cable Brace onto Saddle Brackets between Posts. Use level to ensure that Cable Brace is squared and in proper alignment with cable run direction. Once Cable Brace is squared, hold bottom of brace in position and move to Step 4.

## CABLE BRACE INSTALLATION (continued)



### Step 4

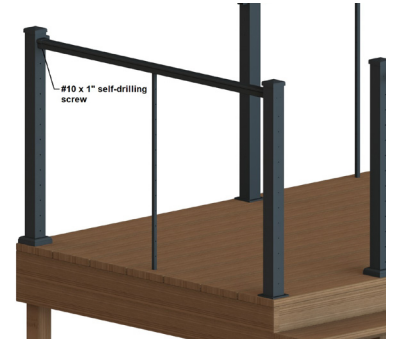
With pencil, mark around the 4 sides of the Cable Brace. This will ensure the correct placement of the Mounting Block Connector. Once the position of the Cable Brace is marked, remove the Top Rail-Rail Insert with Cable Brace from the Saddle Brackets.



### Step 5

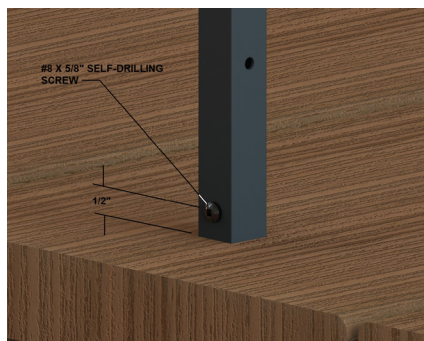
Center Mounting Block Connector within the pencil marks locating the Cable Brace. Secure the connector using one #10 x 1 1/4" flat head wood screw. Ensure screw head bottoms out on the inside of the Mounting Block Connector.

**CAUTION:** Do not overtighten.



### Step 6

Drop Top Rail-Rail Insert with Cable Brace onto Saddle Brackets between Posts, ensuring bottom of Cable Brace is inserted into the Mounting Block Connector on deck surface. Secure Top Rail assembly using one #10 x 1" self-drilling screw through Saddle Bracket bottom on each post. Slide Saddle Bracket Covers on both posts over the Saddle Brackets.



### Step 7

With supplied #8 x 5/8" self-drilling screws, secure Cable Brace to bottom Mounting Block Connector. Screw should be centered on Cable Brace and located 1/2" from bottom of Cable Brace.



### Step 8

With supplied #8 x 5/8" self-drilling screws, secure Cable Brace to top Mounting Block Connector. Screw should be centered on Cable Brace and located 1/2" from top of Cable Brace.

### Step 9

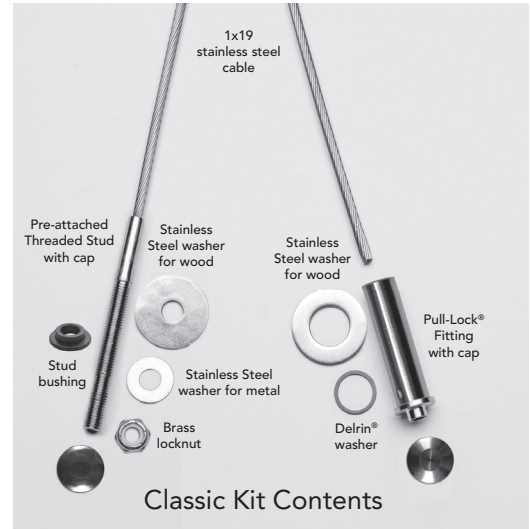
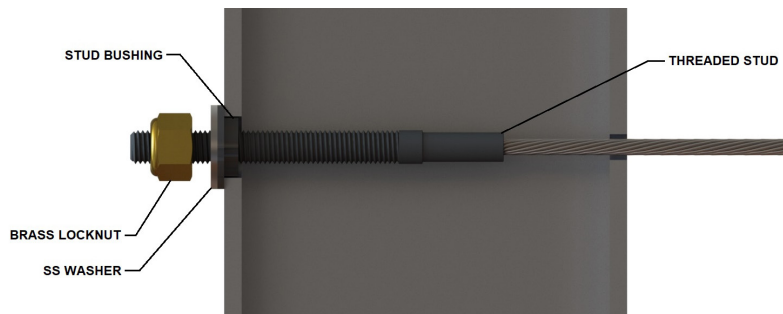
Upon completion of Cable Brace installation, follow steps to secure the top rail as shown on page 13 and 14.



## RAILFX® OASIS™ CABLE INSTALLATION GUIDE

### Install Tensioning Terminal

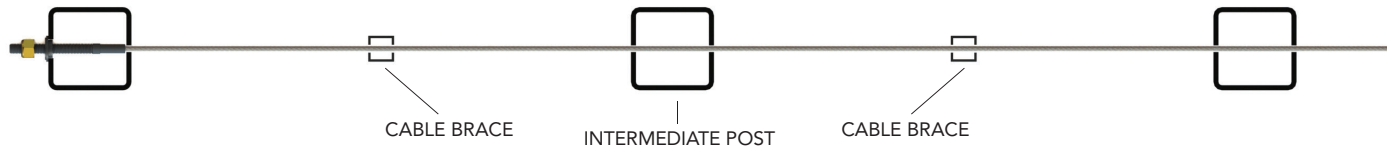
Install the Threaded Stud end first. Feed the cable and stud through the end post. Start by inserting the plastic stud bushing into the pre-drilled hole in the post. Slide the stainless-steel washer onto the Threaded Stud and start the brass locknut onto the threads as far as possible by hand.



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

### Feed Cable Through Intermediate Posts

Feed the bare end of the cable through all intermediate posts/cable braces and through the end post where you will be installing the Pull-Lock® fitting.



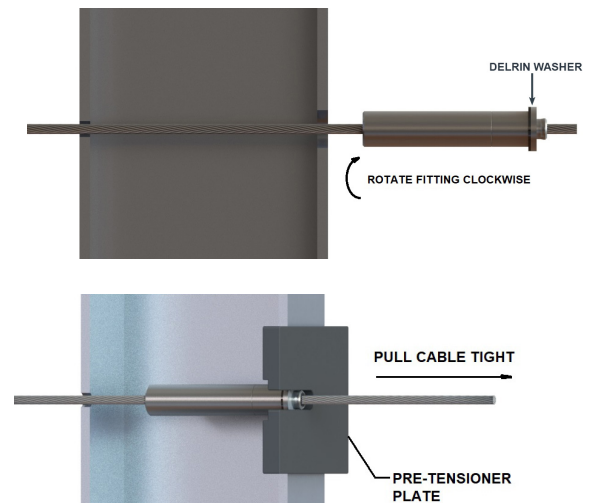
### Feed Cable Through Corner Posts

Instructions for going through corners can be found on page 18.

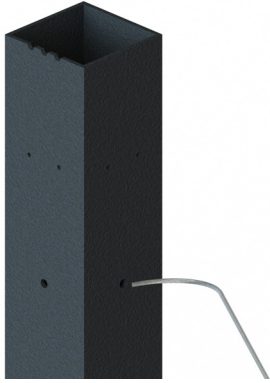
### Install Swageless Terminal

Slip the Delrin washer over the body of the Pull-Lock® fitting. At the terminal end post, rotate the Pull-Lock® fitting clockwise as you push it onto the cable. If the cable begins to "unravel," you are rotating the fitting in the wrong direction. Once the cable is through the fitting, pull the cable while using the Pre-Tensioning Block to hold the Pull-Lock® fitting firmly in the hole on the post. With the Pre-Tensioning Block holding the fitting, pull the cable with pliers as tightly as possible.

**NOTE:** Longer runs of cable and cables that go around corners need to be pretensioned.

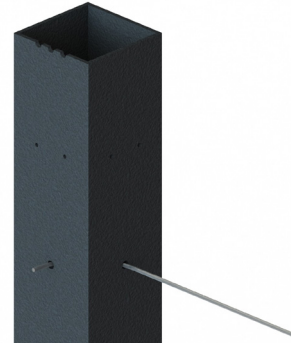


## SINGLE CORNER POST CABLE INSTALLATION



### Step 1: Bend and Insert Cable

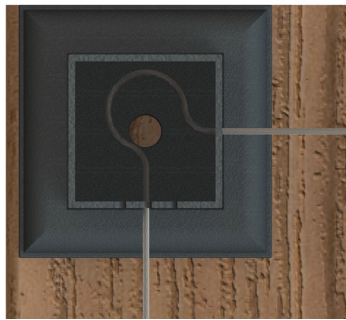
Create a bend in cable to allow for easier insertion into post. Do not fray cable end.



### Step 2: Run Cable

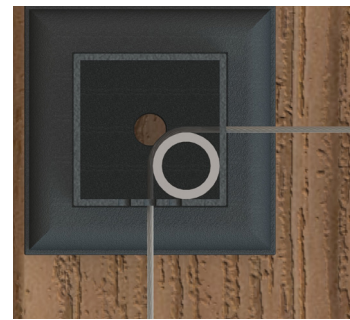
Insert and pull through on all cables on post.

**NOTE:** Cables must be pushed through as well as pulled.



### Step 3: Create a Loop

Push cable back into post creating a loop.



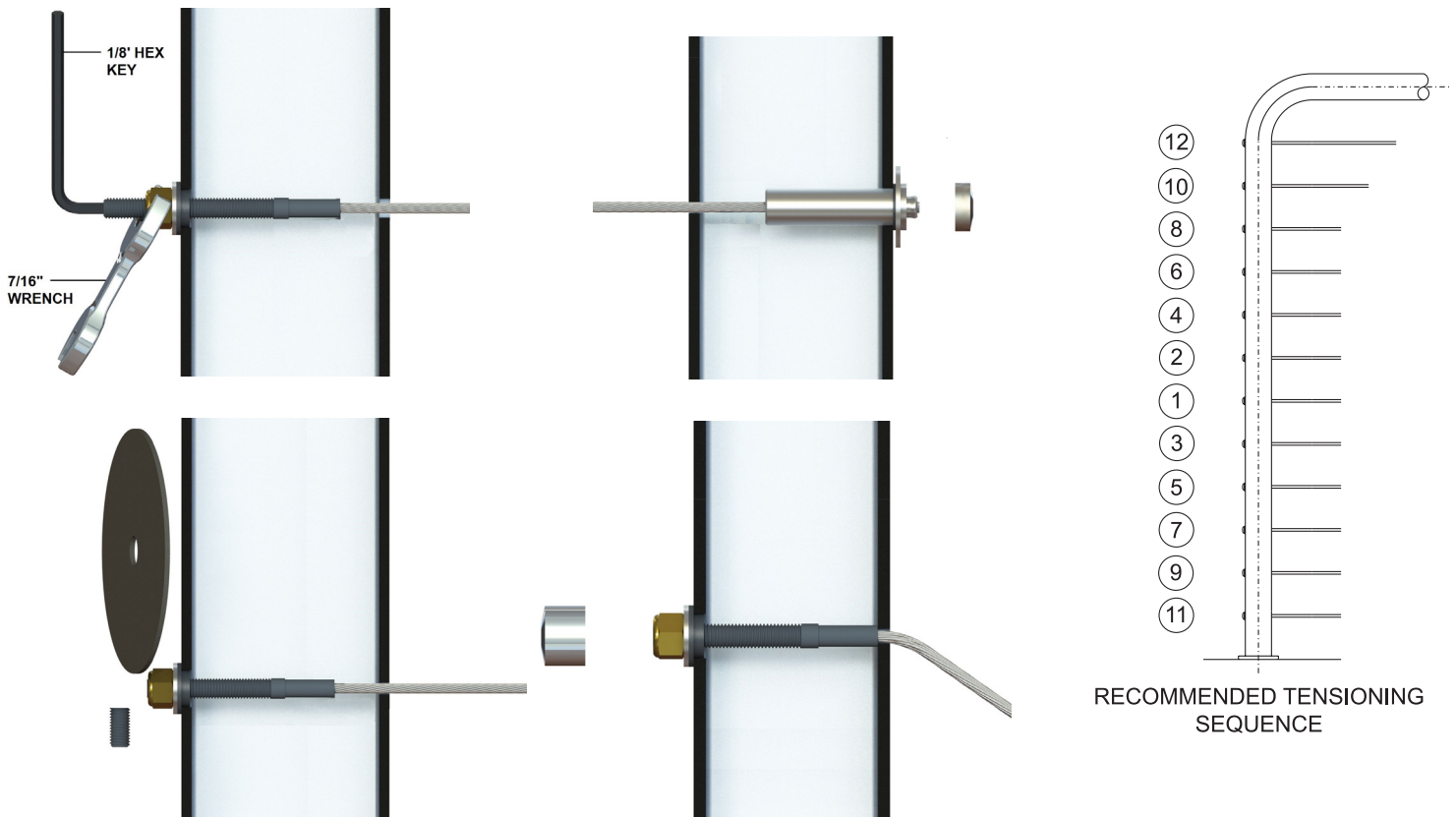
### Step 4: Insert Conduit

Insert conduit into post and align to inside corner. Pull cables tight to conduit.

## RAILFX® OASIS™ CABLE INSTALLATION GUIDE (continued)

### Tension Cables

Return to the Threaded Stud end post. Insert an 1/8" hex wrench into broached opening on the tip of the stud. Tighten the locknut with a 7/16" wrench while holding the hex wrench to prevent the stud from turning.



Tension all cables to 225 lbs. of tension 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 tension terminal as the wedges seat.

**NOTE:** Cut excess thread from threaded stud so end is flush with the end of the Ny-Lock hex nut. Twist and push cap onto nut. Cut the cable flush with the hole in the back of the Pull-Lock® fitting using a cut-off wheel, then press cap onto fitting.





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THE RAILFX<sup>®</sup> OASIS<sup>™</sup>  
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