

Installation Guide For:



Custom Railing System

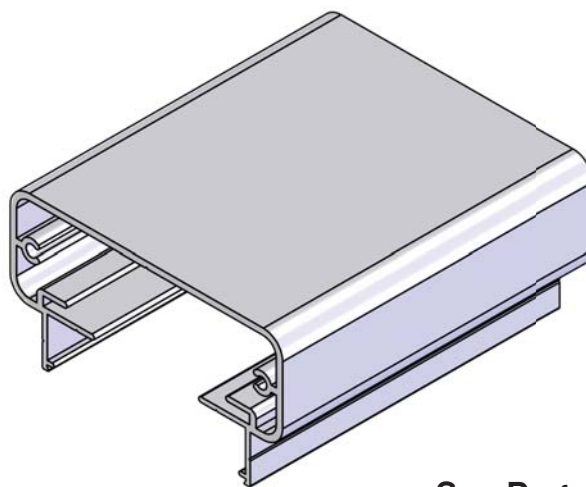
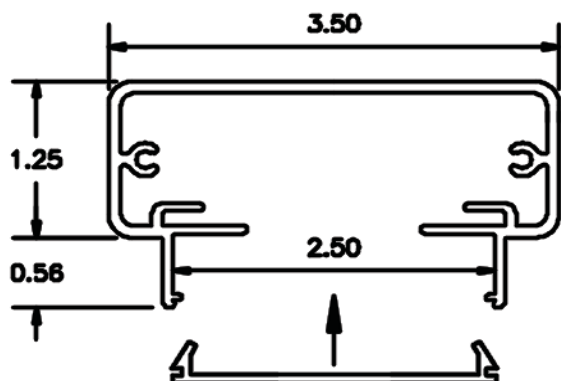
**This Packet MUST Accompany
Materials To Job Site**

Call 1-800-335-5909 for Installation Support

Drawing Enclosed

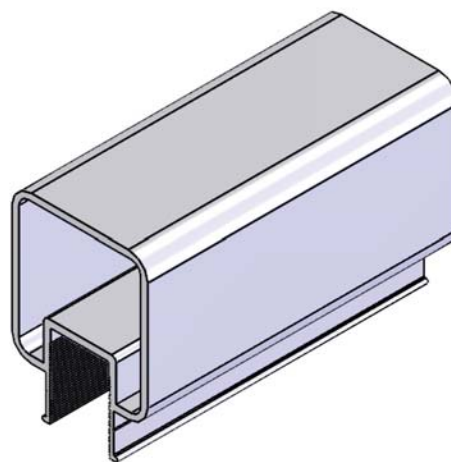
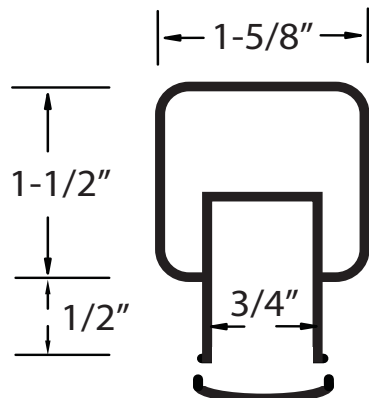
Top Rail Profiles

Series 200



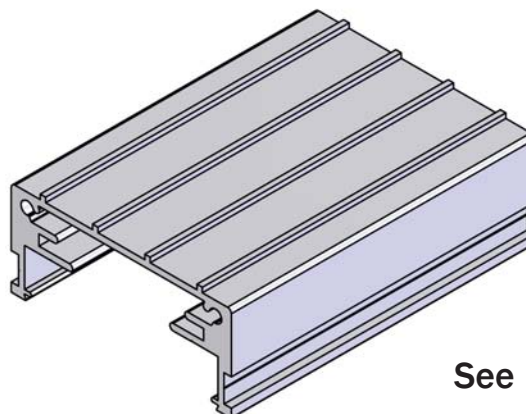
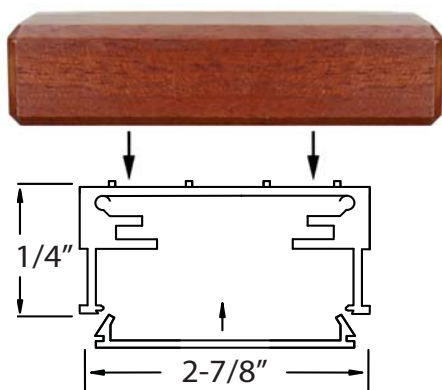
See Pages 33-38

Series 250



See Pages 39-41 & 49-53

Series 400



See Pages 43-47

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.

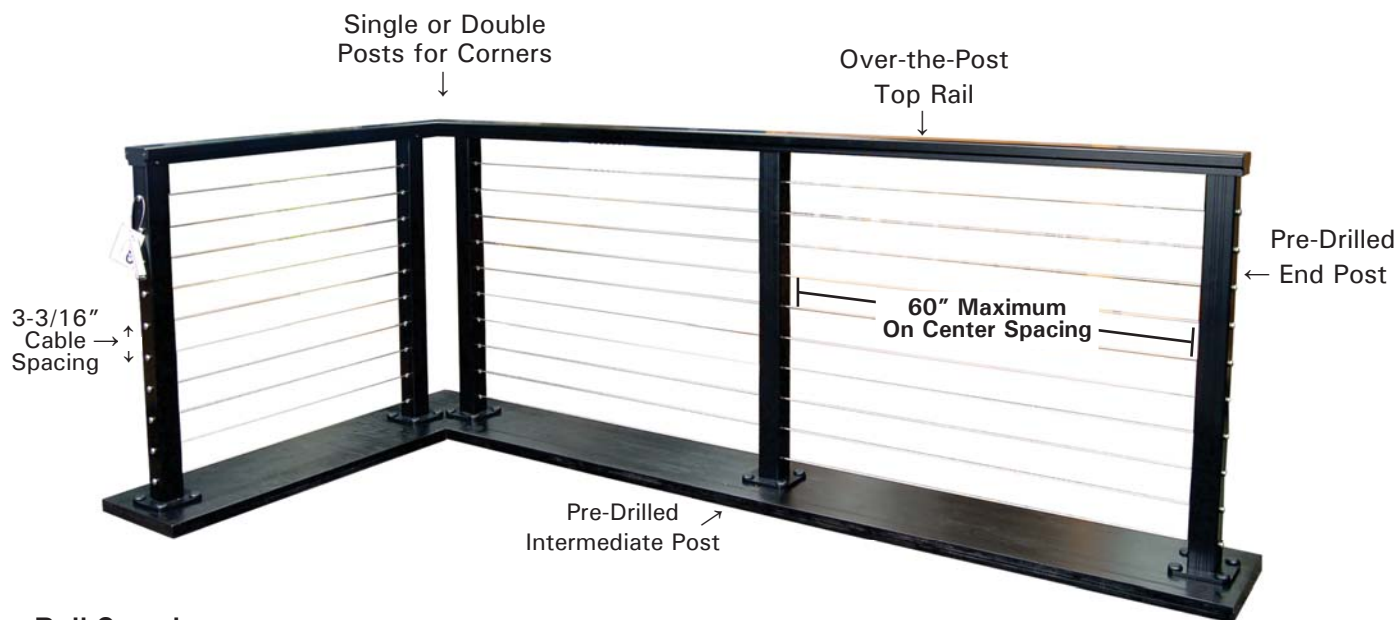
Determine appropriate layout and post spacing - **Maximum post spacing of 60" on center.**

Ensure that proper blocking is in place before mounting post.

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Framework for RailFX™ Aluminum Rail and Cable System



Rail Overview

Manufactured in the USA using aircraft grade aluminum, RailFX™ Aluminum Rail and Cable System has been designed, engineered and tested specifically for use with cable and is approved in all 50 states. The aluminum framework and stainless steel cable allows for railings to be lightweight, while still retaining exceptional durability. Railings will not rust, rot, warp, or split and require minimal user maintenance.

Rail Guidelines

To comply with engineering and testing **posts must be spaced apart no more than 60" on center**. Cables are spaced at 3-3/16" on center to keep the cable from deflecting beyond 4" to meet code. Single or double posts can be used to create a 90 degree corner for surface mount posts. Two corner posts are required for direct mount fascia applications. Cable can either terminate at the corner or run continuously through the corner. Top rail is required for all installations.

Posts

RailFX™ posts for level and stair railings are all predrilled and ready for cable installation. Stairs posts do not come with base plates attached so posts can be cut to size, placed and mounted where desired for maximum installation flexibility. All posts are available for surface mount or fascia mount and available for 36" and 42" rail heights.

Top Rails - Stock

There are 3 main styles of top rail that RailFX™ railing utilizes:

Series 200 is a contemporary flat top rail most often used for level applications. Can be used for stairs with the addition of a secondary handrail system.

Series 250 is a square profile that qualifies as a graspable rail and is most commonly used for stairs.

Series 400 is a flat top rail that is designed to accept a wood or composite cap rail.

Available Colors:

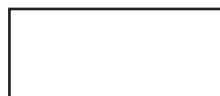
Colors shown are approximate representation



Black



Bronze



White



Silver

AAMA 2604 Powder Coat Finish

RailFX™

Aluminum Railing & Cable Systems

Components Guide



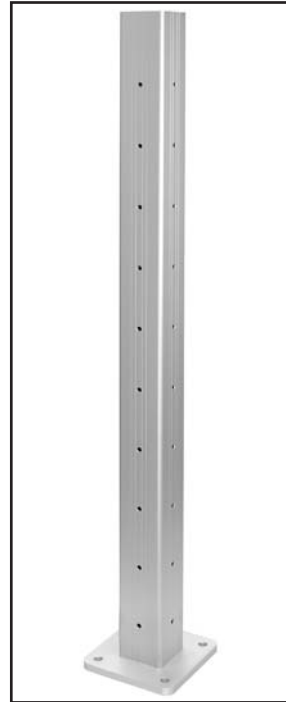
Posts



Surface Mount End Post
 2-3/8" X 35" Post - 10 Holes
 Item #: FXCEP200XXX35KIT
 2-3/8" X 41" Post - 12 Holes
 Item #: FXCEP200XXX41KIT
 (29/64" Pre-Drilled Holes)



Surface Mount Intermediate Post
 2-3/8" X 35" Post - 10 Holes
 Item #: FXCIP200XXX35KIT
 2-3/8" X 41" Post - 12 Holes
 Item #: FXCIP200XXX41KIT
 (3/16" Pre-Drilled Holes)

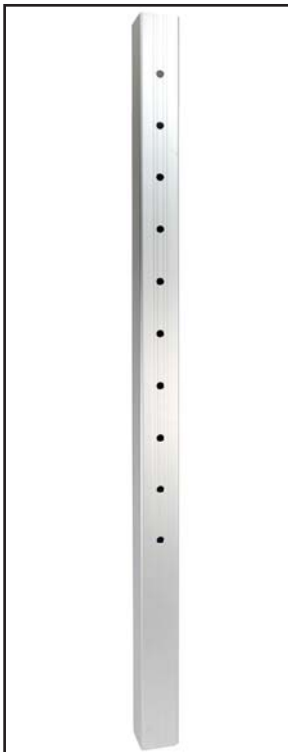


Surface Mount Corner Post
 2-3/8" X 35" Post - 10 Holes
 Item #: FXCCP200XXX35KIT
 2-3/8" X 41" Post - 12 Holes
 Item #: FXCCP200XXX41KIT
 (1/4" Pre-Drilled Holes)

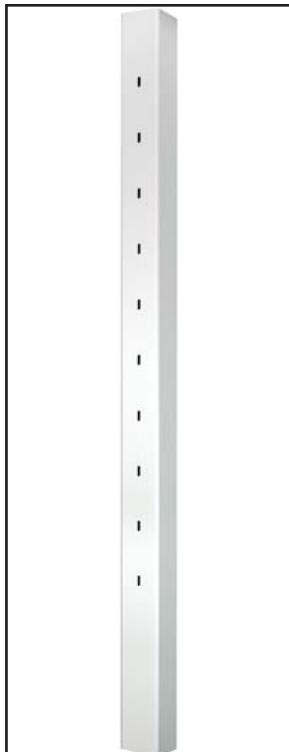


2 Piece Post Skirt
 (7/8" x 5-1/4")
 Fits 2-3/8" Posts
 Item # FXSKIRTXXX

Surface mount posts include bolt cap covers



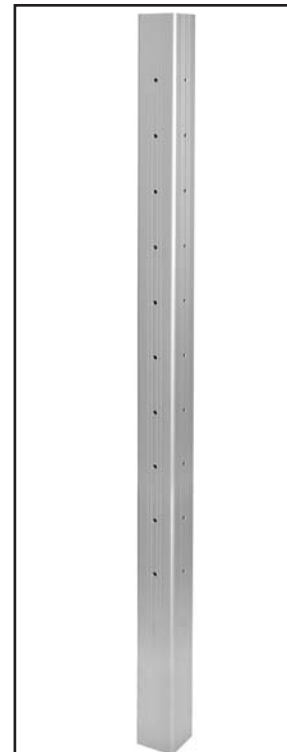
Fascia Mount End Post
 2-3/8" X 45" Post - 10 Holes
 Item#: FXFMCEP200XXX46
 2-3/8" X 52" Post - 12 Holes
 Item#: FXFMCEP200XXX52
 (29/64" Pre-Drilled Holes)



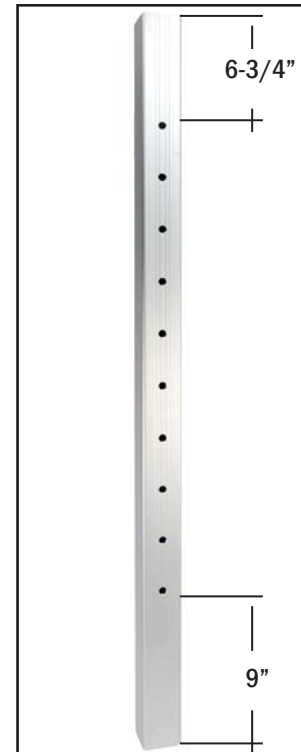
Fascia Mount Stair Post
 2-3/8" X 45" Post - 10 Holes
 Item#: FXFMSCIP200XXX46
 2-3/8" X 52" Post - 12 Holes
 Item#: FXFMSCIP200XXX52
 (Pre-Drilled Slotted Holes)



Fascia Mount Intermediate Post
 2-3/8" X 45" Post - 10 Holes
 Item#: FXFMCIIP200XXX46
 2-3/8" X 52" Post - 12 Holes
 Item#: FXFMCIIP200XXX52
 (3/16" Pre-Drilled Holes)

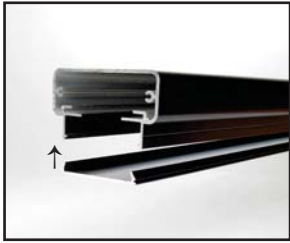


Fascia Mount Single Corner Post
 2-3/8" X 45" Post - 10 Holes
 Item#: FXFMCCP200XXX46
 2-3/8" X 52" Post - 12 Holes
 Item#: FXFMCCP200XXX52
 (1/4" Pre-Drilled Holes)



Stair End Post
 2-3/8" X 45" Post - 10 Holes
 Item#: FXFMSCPEP200XXX45
 (29/64" Pre-Drilled Holes)

Top Rails / End Plates / Splices



**Series 200 Top Rail
w/ Flat Infill**

Item #: FXTR200XXX8KIT



**Series 200 Top Rail
End Plate Bracket**

Item #: FXEPB200XXX



**Series 200 Top Rail
End Plate**

Item #: FXEP200XXX



**Series 250 Top Rail
End Plate Bracket**

Item #: FXEPB250XXX



**Series 200 Top Rail
Extended End Plate**

Item #: FXEXP200XXX



**Series 250 Top Rail
w/ Flat Infill**

Item #: FXTR250XXX8KIT



**Series 200 Top Rail
Straight Splice**

Item #: FXSPL200



**Series 250 Top Rail
End Plate w/ Screws**

Item #: FXEP250XXX



**Series 200 Top Rail
Stair Splice (Notched)**

Item #: FXSPLST



**Series 250 Top Rail
Intermediate Post Fitting
(IPF)**

Item #: FXIPFSETXXX



**Series 200 Top Rail
Universal Angle Splice
for 90°, 45° and Unique Angles**

Item #: FXSPL200UNIVERSAL



**Series 250 Top Rail
1" Rail Connecting
Block (RCB).
Connects Rail to Face of Post**
Item #: FXRCB1

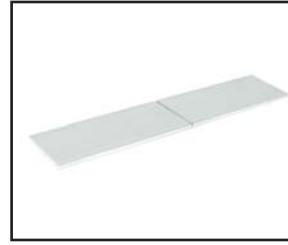
XXX = Color Code.

BLK (Black), BRZ (Bronze), WHT (White) and SIL (Silver)

Top Rails / End Plates / Splices / Lighting



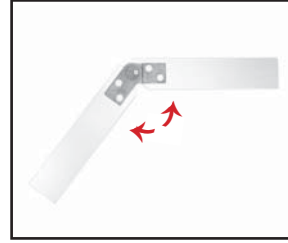
**Series 250 Top Rail
12" Rail Connecting
Block (RCB12).**
Used as Splice for Top Rail
Item #: FXRCB12



**Series 400 Top Rail
Stair Splice (Notched)**
Item #: FXSPL400STAIR



**Series 400 Top Rail
w/ Flat Infill**
Item #: FXTR400XXX8KIT



**Series 400 Top Rail
Universal Angle Splice**
for 90°, 45° and Unique Angles
Item #: FXSPL400UNIVERSAL



**Series 400 Top Rail
End Plate**
Item #: FXEP400XXX



**Adjustable Top Plate to
Attach Wood Top Rail
w/ Hardware (1.5" x 5")**
Item #: FXIPFADJSETXXX



**Series 400 Top Rail
Extended End Plate**
Item #: FXEXP400XXX



**Level Top Plate to Attach
Wood Top Rail
w/ Hardware**
Item #: FXTTP3X5L2HXXX



**Series 400 Top Rail
End Plate Bracket**
Item #: FXEPB400XXX



**Corner Top Plate to Attach
Wood Top Rail
w/ Hardware**
Item #: FXTPCORNER2HXXX



**Series 400 Top Rail
Straight Splice**
Item #: FXSPL400LEVEL



**Stair Top Plate to Attach
Wood Top Rail
w/ Hardware**
Item #: FXTTP3X5S1HXXX

XXX = Color Code.

BLK (Black), BRZ (Bronze), WHT (White) and SIL (Silver)

Lighting / Baseplates / Fascia Mounts



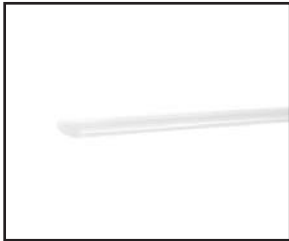
60" Top Rail Lighting Infill

Item #: FXFIG200XXX5



Narrow Base Plate (3" X 5")
(Converts fascia post to surface mount)
Includes Screws & Bolt Cap Covers

Item #: FXBP3X5XXXKIT



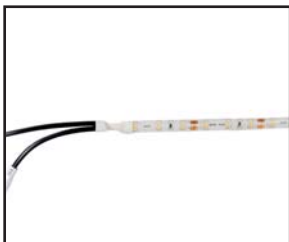
60" Diffuser Lens

Item #: FXFILENS60



Narrow Knee Wall (3" X 7")
(Allows post to be mounted on angled knee wall)
Includes Screws & Bolt Cap Covers

Item #: FXBP3X7SLOTXXXKIT



55" LED Light Strip
w/ Adhesive Backing

Item #: DP5L55



Knee Wall Base Plate (5" X 5")
(Allows post to be mounted on angled knee wall)
Includes Screws & Bolt Cap Covers

Item #: FXBPKWXXXKIT



DekPro™ EFFEX
Transformer Kits

Item #: DP36WTRANSKIT
Item #: DP60WTRANSKIT
Item #: DP100WTRANSKIT



Line Fascia Bracket (6" x 6")
Includes Bolt Cap Covers, Screws
and Bottom Plate

Item #: FXFMIB200XXX6



DekPro™ EFFEX
9' Quick Connect Wire

Item #: DP9CABLEMF



Double Outside Corner Fascia
Bracket (6" x 6")
Includes Bolt Cap Covers, Screws
and Bottom Plates

Item #: FXFMOCB200XXX6



Standard Base Plate (5" X 5")
(Converts fascia post to surface mount)
Includes Screws & Bolt Cap Covers

Item #: FXBPXXXKIT



Single Inside Corner Fascia
Bracket (6" x 6")
Includes Bolt Cap Covers, Screws
and Bottom Plate

Item #: FXFMICBSINGLEXXX6

XXX = Color Code.

BLK (Black), BRZ (Bronze), WHT (White) and SIL (Silver)

Hardware / Accessories



Single Outside Corner Fascia Bracket (6" x 6")
Includes Bolt Cap Covers, Screws and Bottom Plates

Item #: FXFMOCBSINGLEXXX6



#10 - 3/4" Screw

Item #: FXSCREWXXXW805



Direct Mount Fascia Post Kit
Includes 7" Lags, 10" Flat Infill, Bolt Cap Covers, Bottom Plate

Item #: FXFMFINSTKITXXX



Post Cap for 2-3/8" Post

Item #: FXPCXXX



Flush Mount Fascia Post Bottom Plate
Includes Screws

Item #: FXFMPBPXXX



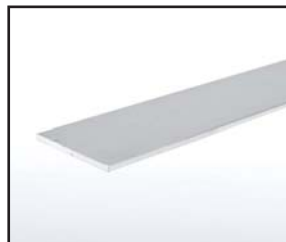
Touch up Paint
(Spray Can or Paint Pen)

Item #: FXPAINTXXX



Bolt Cap and Cup Washer
For 3/8" Diameter Fasteners

Item #: FXBOLTCAPXXXKIT



Internal Post Brace (IPB)
34" or 40" Internal Support for Cable End Post
Item #: FXEPIF34
Item #: FXEPIF42



3/8" Stainless Steel Lag Screw

Item #: FXSCREWLAG5 (surface)
Item #: FXSCREWLAG7 (fascia)



Bee's Wax and T40 Drill Bit
(For Installing Base Plate)

Item #: FXINSTKIT



#14 - 1" Fascia Bracket Screw

Item #: FXSSFS



Push-Lock Release Key

Item #: RFXPLKEY/R

XXX = Color Code.

BLK (Black), BRZ (Bronze), WHT (White) and SIL (Silver)

Hardware / Accessories



1/8" Cable Cutter

Item #: RFXC7HIT



Cable Gripping Pliers

Item #: RFXPLIERS



Lacing Needle

Item #: RFXNEEDLE



Item #: RFXNEEDLECURVED



Cable Cleaner

Item #: RFXEZCLEAN



Pre-Tensioner Tool

Item #: FXPRETENSIONER01



Cable Grippers

Item #: RFXGRIPPER



RailFX™

Aluminum Railing & Cable Systems

**Surface Mount Posts
& Single Corner Post**



Surface Mount: **Post Installation**

For RailFX™ Aluminum Railing and Cable System

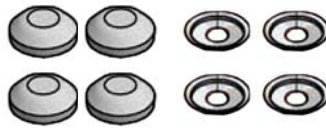
Materials needed for Installation:



Surface Mount Post



3/8" Lags or
Carriage Bolts

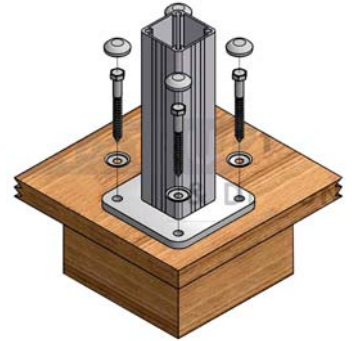


Bolt Caps & Cup Washers
(Included)



2 Piece Post Skirt
(1-5/8" x 5-1/4")
Fits 2-3/8" Posts
(Optional)

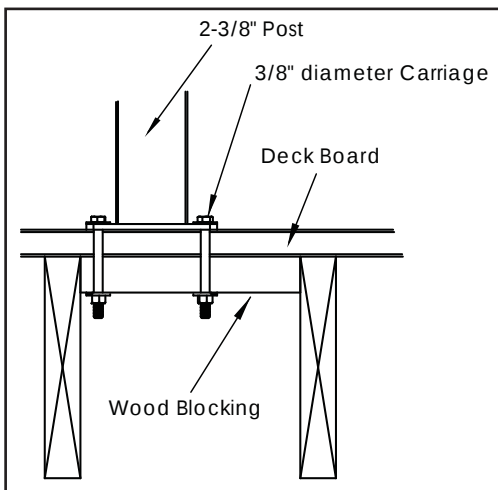
Overview



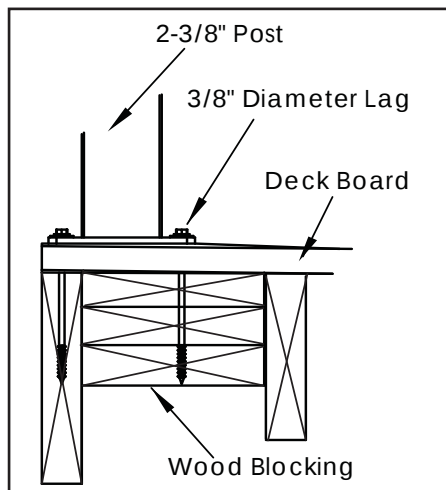
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Post Mounting Options

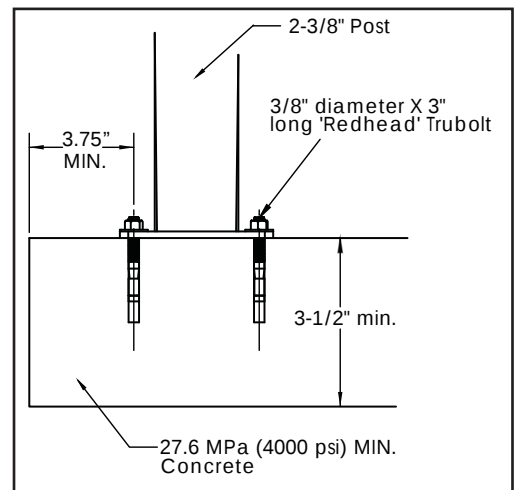
Surface Mount using Carriage Bolt



Surface Mount using Lag Bolt



Surface Mount using Concrete Anchor



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

Surface Mount: **Post Installation**

For RailFX™ Aluminum Railing and Cable System



Step 1:
Determine location of post
and mark hole locations.



Step 2:
Remove post and pre-drill pilot
holes to accept 3/8" diameter
lag or carriage bolt.



Step 3:
Install cup washer under head
of each fastener and drive
fastener into blocking.



Step 4:
Ensure post is plumb,
adjust as needed. Tighten
fasteners and ensure proper
engagement into blocking.



Step 5a:
Press bolt caps onto cup
washer to finish post



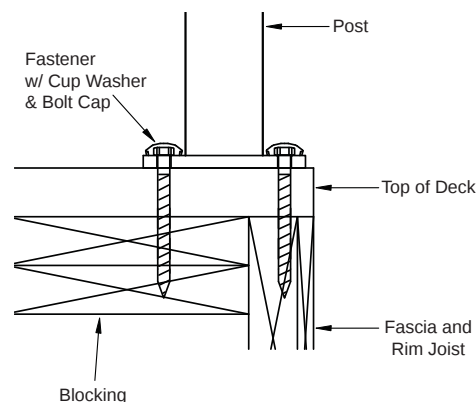
Step 5b:
Finished Installation.
Unless using post skirt.



Step 6a:
Install 2 piece post skirt.
Secure with 2 screws (included)



Step 6b:
Finished Installation.



Surface Mount: Mounting to Angled Knee Wall

For RailFX™ Aluminum Railing and Cable System

Materials needed for Installation:



45° Stair Intermediate Fascia Post
or
45° Fascia Mount End Post



3" x 7" Knee Wall
Base Plate Kit



4 Lags or
Carriage Bolts



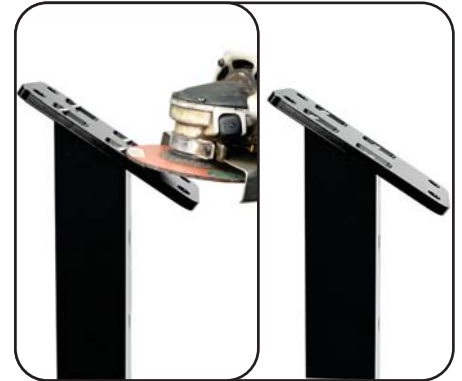
Step 1:

Cut post to match the angle of the knee wall. Post must be cut so cable is 3-1/2" or less from top of knee wall.



Step 2:

Attach knee wall base plate to the post using 4 ea. included screws. Use T40 Torx bit. (Use beeswax for easier install)



Step 3:

Base plate screw heads will stick out beyond the base plate. These must ground down flush or the knee wall itself can be relieved.



Step 4:

Locate the post and drive fastener into the kneewall. (Pre-drilling recommended)



Step 5:

Snap the color matched nylon caps onto the cup washer to conceal the hardware for a finished look.



Finished look

Single Corner Post Installation

For RailFX™ Aluminum Railing and Cable System

*****Cables Need to be Run Through Corner Posts Before Top Rail is In Place*****



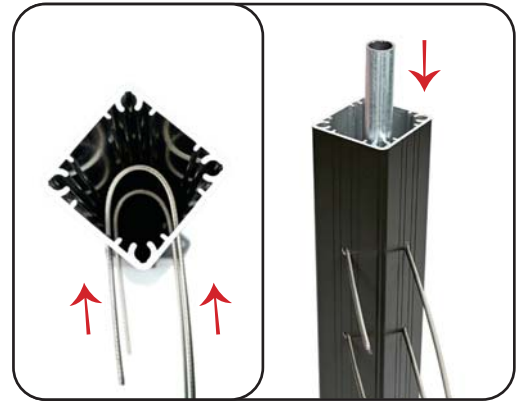
Step 1: Bend Cable

Remove round tube from post. Create a slight bend in the cable to allow for cable to more easily pass through the single corner post or use a curved cable lacing needle



Step 2: Insert Cable

Insert the cable into each hole and pass through the post. Make sure not to fray the end of the cable while feeding through the post.



Step 3: Insert Corner Tube

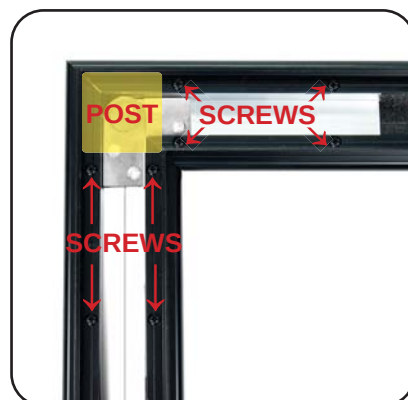
After the cable is completely fed through the post push some of the cable back into the post to allow for corner tube to be dropped into place. The corner tube allows for cable to pass smoothly around corners during tensioning.

Series 200 Top Rail - Miter, Splice & Post Attachment



Step 1: Miter Top Rail

Miter top rails to create a 90 degree corner and slide splice into each end of the rail.



Step 2: 90 Degree Splice Install

Using 8 ea. screws, secure splice into top rail from the underside of the rail. Ensure the screws do not interfere with post placement.



Step 3: Single Corner Post

Once top rail is secured with a splice, it can be placed onto the post. Use 2 ea. screws to attach top rail to post.



RailFX™

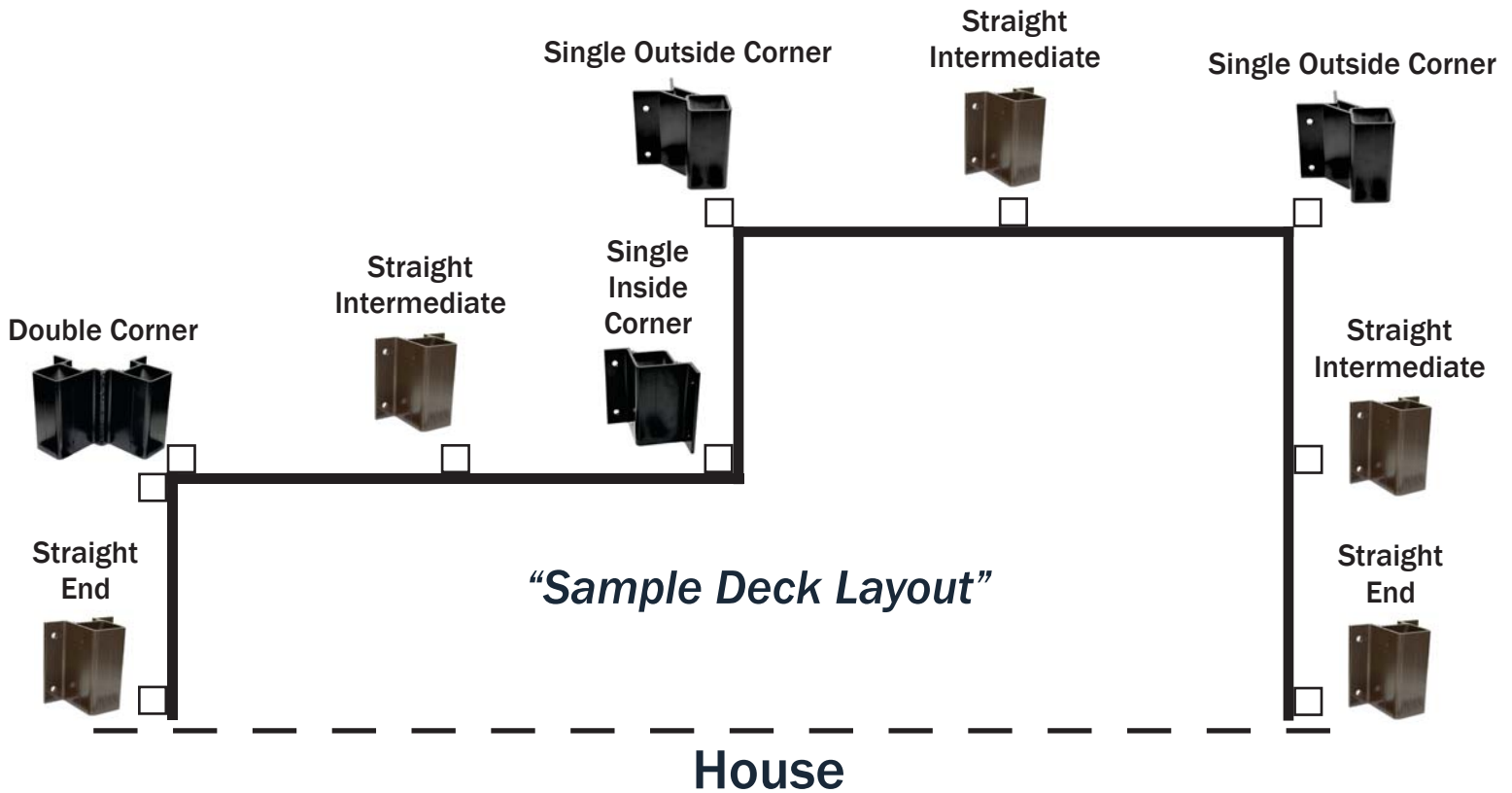
Aluminum Railing & Cable Systems

Fascia Mount Bracket Guide



Fascia Mount: **Bracket Guide**

For RailFX™ Aluminum Railing and Cable System



Determine the Correct Brackets for Your Project:



Straight Fascia Bracket Used For:

- End Post
- Intermediate Post
- Level & Stair
- Inside Corner when using two posts



Single Outside Corner Fascia Bracket Used For:

- Outside Corner when using single corner post



Double Outside Corner Fascia Bracket Used For:

- Outside Corner when using two posts



Single Inside Corner Fascia Bracket Used For:

- Inside Corner when using single corner post

*All brackets provide a **1-1/4" offset** from the fascia to accommodate over-hanging deck boards.*

Fascia Mount: Bracket Installation Overview

For RailFX™ Aluminum Railing and Cable System



Straight Fascia Bracket



Step 1:
Locate bracket.



Step 2:
Attach bracket to fascia



Double Outside Corner Fascia Bracket



Step 1:
Locate bracket.



Step 2:
Attach bracket to fascia



Single Outside Corner Fascia Bracket



Step 1:
Locate bracket.



Step 2:
Attach bracket to fascia



Single Inside Corner Fascia Bracket



Step 1:
Locate bracket.



Step 2:
Attach bracket to fascia



RailFX™

Aluminum Railing & Cable Systems

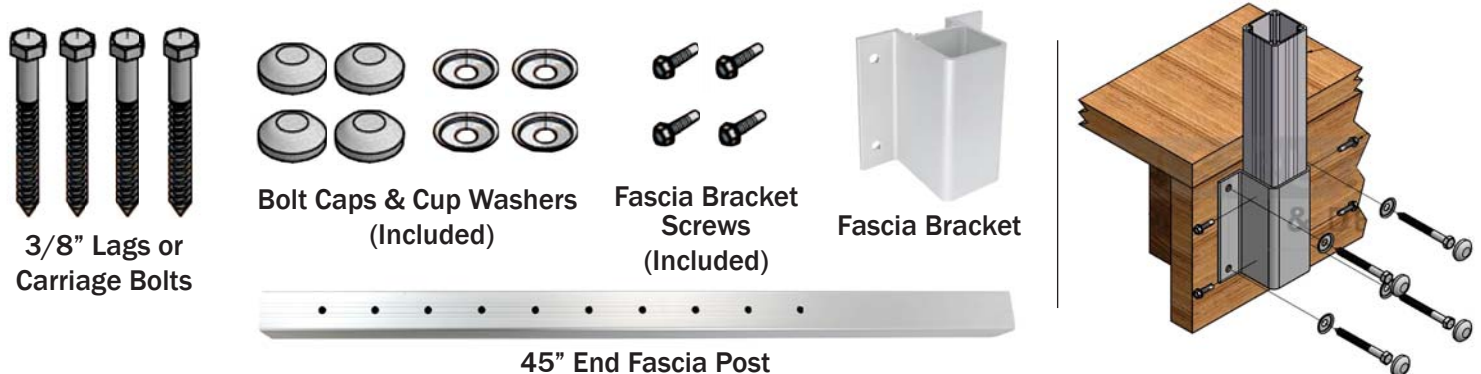
Fascia Mount w/ Brackets



Fascia Mount: End Post with Bracket

For RailFX™ Aluminum Railing and Cable System

Materials needed for Installation:



Maximum post spacing of 60" on center.

Brackets provide **1-1/4" offset** from the fascia to accommodate over-hanging deck boards
Proper blocking must be in place before mounting posts.



Step 1:

Determine location of end post fascia bracket. Ensure bracket is plumb, mark holes, remove bracket and drill pilot holes to accept 3/8" diameter lag or carriage bolt.



Step 2:

Install cup washer under head of each fastener and drive fastener loosely into blocking.



Step 3:

Ensure bracket is plumb, adjust as needed. Tighten fasteners and ensure proper engagement into blocking.



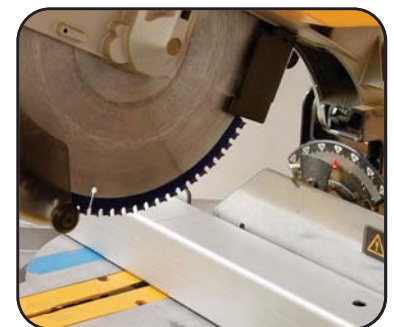
Step 4:

Install fascia end bracket at opposite end. Measure down from deck boards the same distance as the first bracket.



Step 5:

Set post into bracket upside down so the undrilled portion is at the top. Measure so that post is at 35-1/2" above deck surface to meet 36" rail height requirements. Mark post at that measurement.



Step 6:

Cut post at the mark made in Step 5 using a sharp carbide 80 tooth blade on a miter box.

Fascia Mount: End Post with Bracket

For RailFX™ Aluminum Railing and Cable System



Step 7:

Set post back into bracket in the correct upright orientation with the undrilled part of the post going into the bracket.



Step 8:

Slide 2 ea. Internal Post Braces (included) into channels at the top of the post parallel with the end post holes. (Bend slightly before inserting to prevent sliding to bottom of post)



Step 9:

Secure post into bracket by installing 4 ea. self-drilling #14 x 1" screws at the dimpled locations on the side of bracket. Pre-drill Bracket Only with a 1/4" drill bit, if desired.

Do not pre-drill the post.

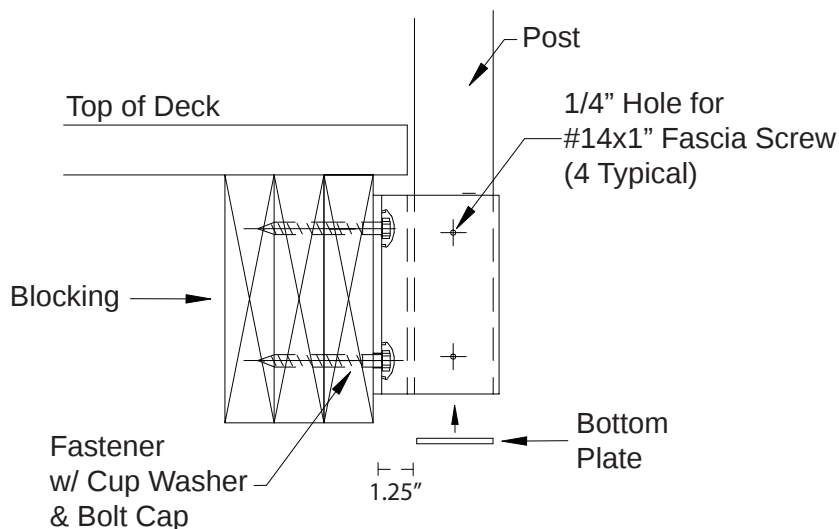


Step 10:

Install nylon bolt cap covers for a finished look.



Finished fascia mount bracket with post installed.



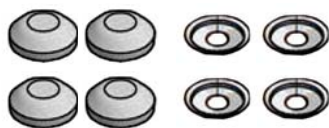
Fascia Mount: Intermediate Post with Bracket

For RailFX™ Aluminum Railing and Cable System

Materials needed for Installation:



3/8" Lags or Carriage Bolts



Bolt Caps & Cup Washers (Included)



Fascia Bracket Screws (Included)

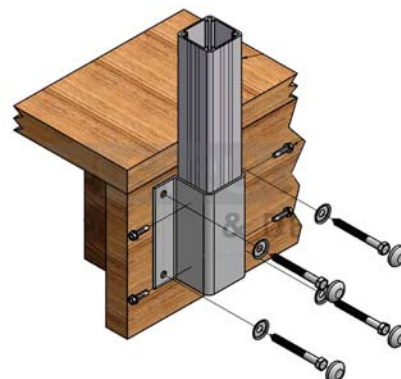


Fascia Bracket



45" Intermediate Fascia Post

Overview



Maximum post spacing of 60" on center.

Brackets provide 1-1/4" offset from the fascia to accommodate over-hanging deck boards
Proper blocking must be in place before mounting posts.



Step 1:

End post brackets must be installed prior to intermediate bracket placement. A level string is then used to place intermediate bracket. Ensuring all brackets are on same plane.



Step 2:

Determine location of fascia bracket. Ensure bracket is level, mark holes, remove bracket and drill pilot holes to accept 3/8" diameter lag or carriage bolt.



Step 3:

Install cup washer under head of each fastener and drive fastener loosely into blocking.



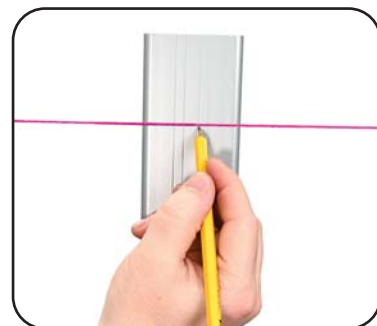
Step 4:

Ensure bracket is plumb, adjust as needed. Tighten fasteners and ensure proper engagement into blocking.



Step 5:

End posts must be installed prior to intermediate post placement. A level string can be used to properly align all intermediate posts. Place intermediate post into bracket upside down so the undrilled portion is at the top.

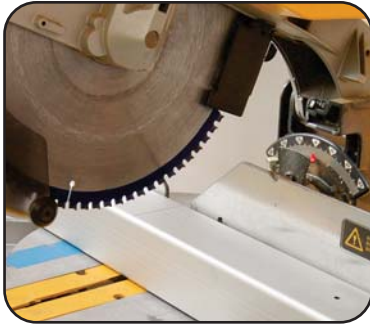


Step 6:

Mark the intermediate posts where the line intersects. Posts must be 35-1/2" above deck board for a 36" rail height.

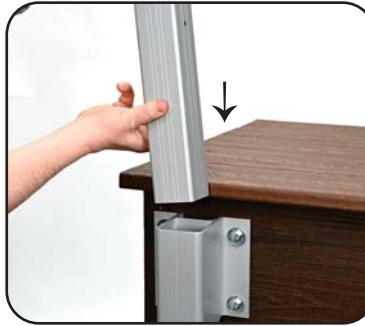
Fascia Mount: Intermediate Post with Bracket

For RailFX™ Aluminum Railing and Cable System



Step 7:

Cut post at the mark made in Step 6 using a sharp carbide 80 tooth blade on a miter box.



Step 8:

Set post back into bracket in the correct upright orientation with the undrilled part of the post going into the bracket.



Step 9:

Secure post into bracket by installing 4 ea. self-drilling #14 x 1" screws at the dimpled locations on the side of bracket. Pre-drill Bracket Only with a 1/4" drill bit, if desired. Do not pre-drill the post.

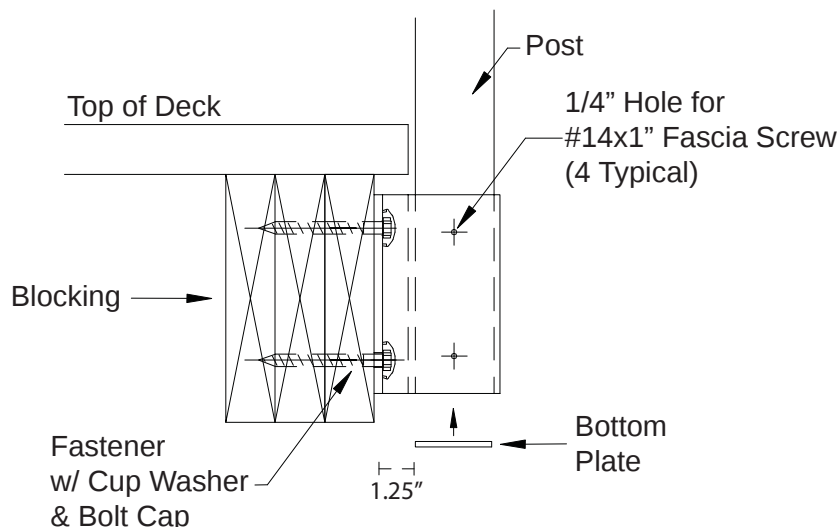


Step 10:

Install nylon bolt cap covers for a finished look.



Finished fascia mount bracket with post installed.



Fascia Mount Posts at the Top of a Stair (with Brackets)



Stair Transition using Fascia Mount Posts w/ Brackets

If stairs come off of the deck at 90 degrees, 2 posts will be needed to make the transition.
A single corner post cannot be used at this junction because the brackets will not align correctly and the bottom run of cable will not meet the 6" sphere rule.



Double Corner Post Fascia Bracket



Single Corner Post Fascia Bracket



Inside Corner Fascia Bracket



Intermediate Fascia Bracket

RailFX™

Aluminum Railing & Cable Systems

**Direct Mount
Fascia Mount w/o Brackets**

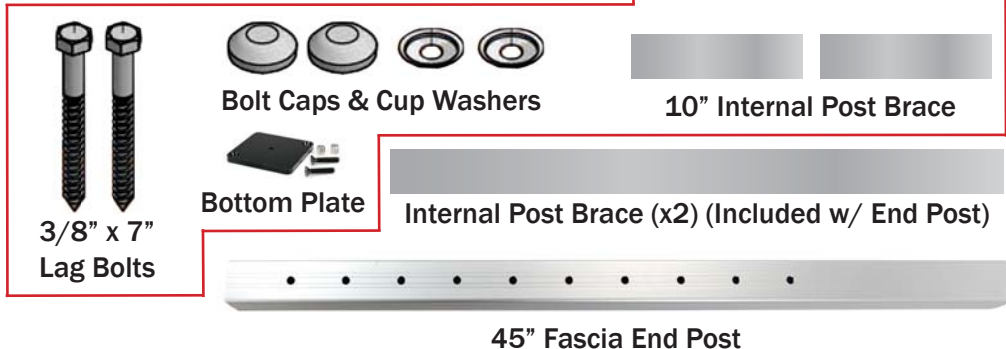


Fascia Mount: End Post Direct Mount

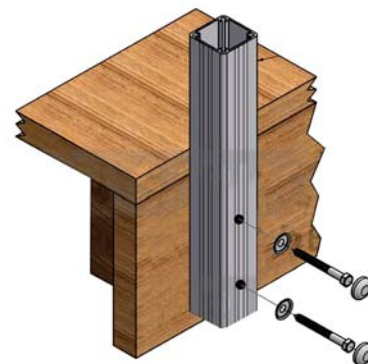
For RailFX™ Aluminum Railing and Cable System

Materials needed for Installation:

Direct Mount Fascia Kit Items



Overview



Special Note:

All 90 Degree outside corners will required 2 posts to be used.

Maximum post spacing of 60" on center.

Proper blocking must be in place before mounting posts.



Step 1:

Determine location of end post. (Max. post spacing of 60" on center) Posts must be 35-1/2" above deck board for a 36" rail height.



Step 2:

Mark post at deck height to use as a reference point.



Step 3:

From the mark you created you can measure down to your first hole and mark. Second hole must be at least 4-1/2" down from the first hole.



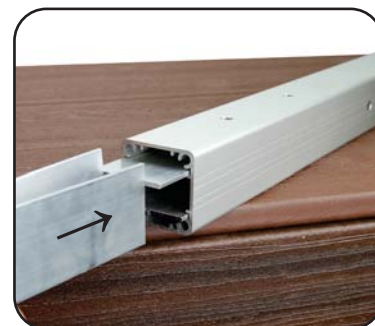
Step 4:

Drill holes. If using a drill press you can do both holes at once. Otherwise you should mark and drill both sides separately.



Step 5:

With post laying horizontally, slide 2 ea. 34" Internal Post Braces (IPB) into existing channels perpendicular to pre-drilled fastener holes. IPB's provide necessary rigidity for posts.

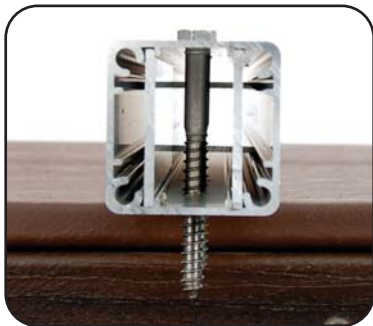


Step 5a:

Then, slide 2 ea. 10" Internal Post Braces (IPB) into other channels parallel to pre-drilled fastener holes. IPB's provide support for posts.

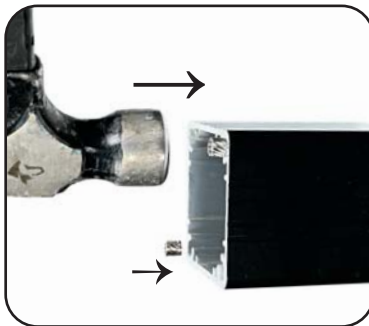
Fascia Mount: End Post Direct Mount

For RailFX™ Aluminum Railing and Cable System



Step 5b:

This cross section from the view looking up from the bottom of the post shows how the IPB's crisscross inside the post.



Step 6:

At the bottom of the post, tap 2 ea. screw inserts into the post screw bosses using a hammer until flush with the post.



Step 7:

Attach fascia post bottom plate to the bottom of the post using 2 ea. included screws.



Step 8:

Confirm location of fascia post. (Max. post spacing of 60" on center) Mark holes, remove post and drill pilot holes to accept 3/8" lag or carriage bolt.



Step 9:

Install cup washer under head of each fastener and drive fastener loosely into blocking.



Step 10:

Plumb post, adjust as needed. Tighten fasteners and ensure proper engagement into blocking.



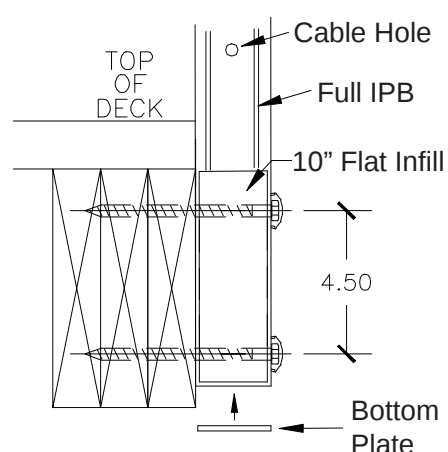
Step 11:

Install nylon bolt cap covers for a finished look.



Step 12:

Finished fascia mount post installed.



Fascia Mount: Intermediate Post Direct Mount

For RailFX™ Aluminum Railing and Cable System

Materials needed for Installation:

Direct Mount Fascia Kit Items



3/8" x 7"
Lag Bolts



Bolt Caps & Cup Washers



Bottom Plate

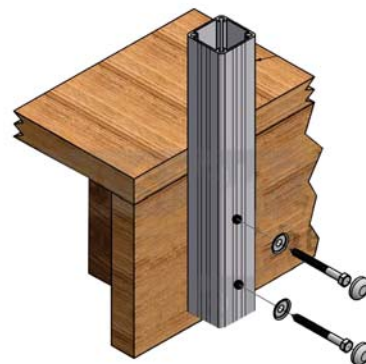


10" Internal Post Braces



45" Fascia Intermediate Post

Overview



Special Note:

All 90 Degree outside corners will required 2 posts to be used.

Maximum post spacing of 60" on center.

Proper blocking must be in place before mounting posts.



Step 1:

End posts must be installed prior to intermediate post placement. A level string can be used to properly align all intermediate posts. Posts must be 35-1/2" above deck board for a 36" rail height.



Step 2:

Mark post at deck height to use as a reference point.



Step 3:

From the mark you created you can measure down to your first hole and mark. Second hole must be at least 4-1/2" down from the first hole.



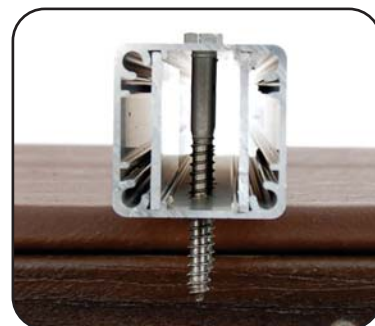
Step 4:

Drill holes. If using a drill press you can do both holes at once. Otherwise you should mark and drill both sides separately.



Step 5:

With post laying horizontally, slide 2 ea. 10" Internal Post Braces (IPB) into existing channels parallel to pre-drilled fastener holes. IPB's provide necessary rigidity for posts.

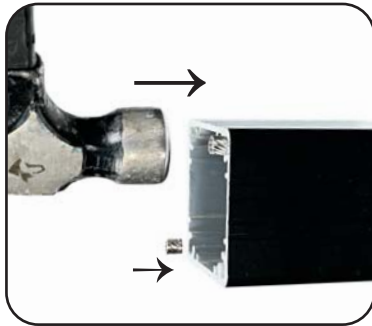


Step 5a:

This cross section from the view looking up from the bottom of the post shows how the IPB's look inside the post.

Fascia Mount: Intermediate Post Direct Mount

For RailFX™ Aluminum Railing and Cable System



Step 6:

At the bottom of the post, tap 2 ea. screw inserts into the post screw bosses using a hammer until flush with the post.



Step 7:

Attach fascia post bottom plate to the bottom of the post using 2 ea. included screws.



Step 8:

Determine location of fascia post. (Max. post spacing of 60" on center) Mark holes, remove post and drill pilot holes to accept 3/8" lag or carriage bolt.



Step 9:

Install cup washer under head of each fastener and drive fastener loosely into blocking.



Step 10:

Plumb post, adjust as needed. Tighten fasteners and ensure proper engagement into blocking.



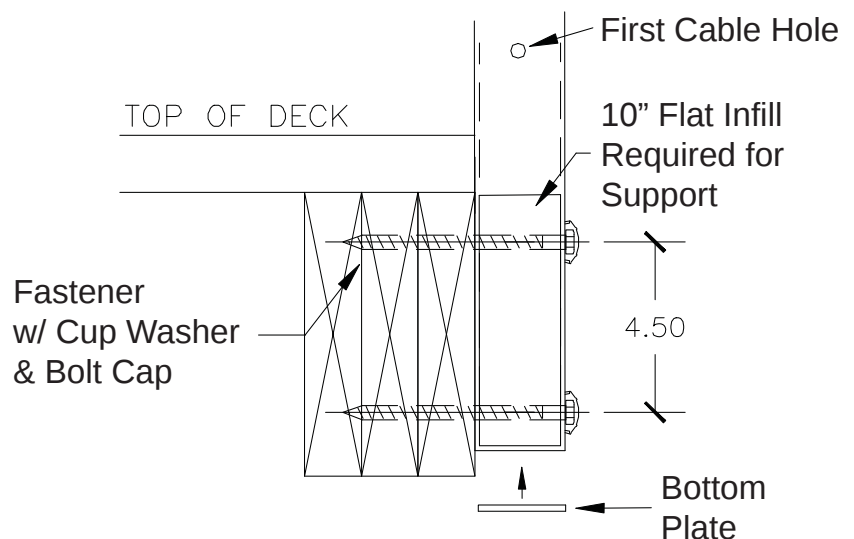
Step 11:

Install nylon bolt cap covers for a finished look.



Step 12:

Finished fascia mount post installed.



Fascia Mount Posts at the Top of a Stair (Direct Mount)



Stair Transition using Direct Mount Fascia Posts

If stairs come off of the deck at a 90 degree turn, 2 posts will typically be needed to make that transition. The cable railing will start and stop at this junction when using 2 posts. This is required so that the bottom run of cable meets the 6" sphere rule.

A single corner post cannot be used at this junction unless the stairs are boxed in with a skirt board. If using a single corner post, the cables will pass through that post and continue down the stairs.



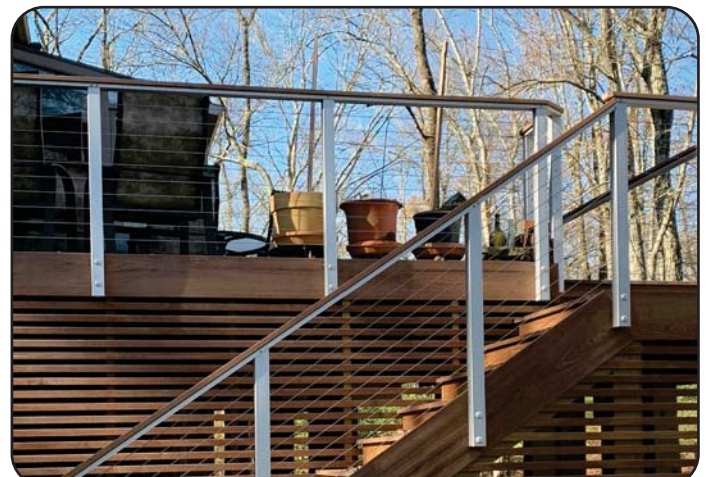
Direct Mount Fascia Posts



Direct Mount Fascia Posts



Direct Mount Fascia Posts



Direct Mount Fascia Posts - Series 400 Top Rail

RailFX™

Aluminum Railing & Cable Systems

Series 200 Top Rail



Series 200 Top Rail for Level Applications



Attaching to End Post

Rail slides over top of post and attaches with 2 ea. screws. 1 screw on each side. Top rail end plate can be attached before or after installation.



Attaching End Plate

End plate goes on open end of top rail. Use 2 ea. included machine screws to attach to top rail.



Attaching to Intermediate Post

Rail slides over top of post and attaches with 2 ea. screws. 1 screw on each side.



Series 200 Level Splice - Step 1

Create a butt joint using the level splice. Splice slides into each end of the rail.



Underside View

Series 200 Level Splice - Step 2

Using 8 ea. screws, secure splice into top rail from the underside of the rail.



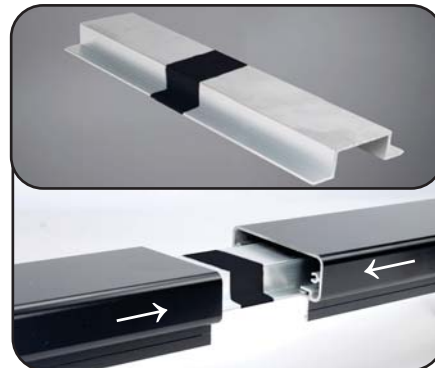
Option to Splice Over a Post

Splice must be installed into rail and then rail mounts to post.



Splice Between Posts

Use splice to connect rails together where the rails meet between posts.



Painting Splices

Paint the middle of the splice where the connection is being made. Applies to all colors.



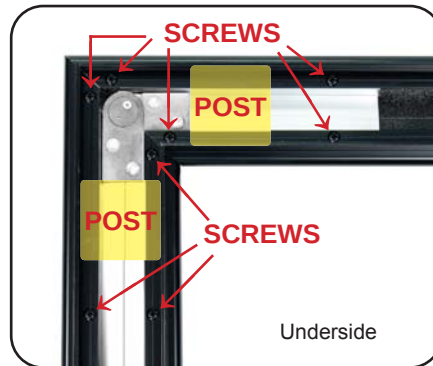
Painting Top Rail Ends

Paint the rail ends on all splices for an inconspicuous splice. Also prevents oxidation. Applies to all colors.

Series 200 Top Rail Splicing



200 - 90 Degree Splice - Step 1
Miter top rails to create a 90 degree corner and slide splice into each end of the rail.



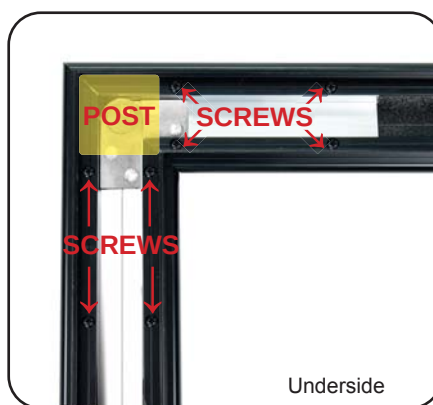
200 - 90 Degree Splice - Step 2
Using 8 ea. screws, secure splice into top rail from the underside of the rail. Ensure the screws do not interfere with post placement.



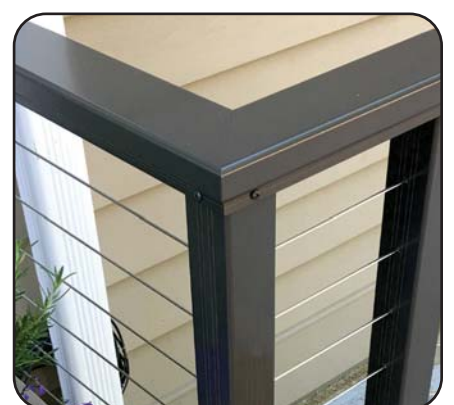
90 Degree Splice - Application
Finished look using universal splice to connect rails.
Single Corner Post Option Also See Below



Single Corner Post - Step 1
Miter top rails to create a 90 degree corner and slide splice into each end of the rail.



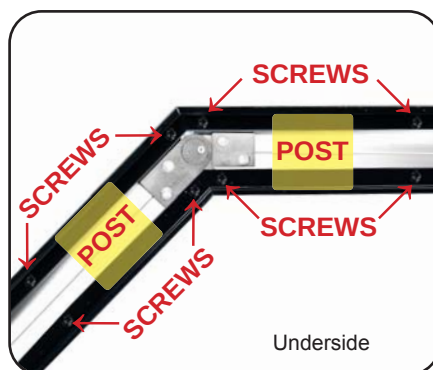
Single Corner Post - Step 2
Using 8 ea. screws, secure splice into top rail from the underside of the rail. Ensure the screws do not interfere with post placement.



Single Corner Post - Application
Once top rail is secured with a splice, it can be placed onto the post. Use 2 ea. screws to attach top rail to post.



200 - Multi-Angle Splice - Step 1
Miter top rails to achieve the correct angle and slide splice into each end of the rail. Splice can accommodate angles between 0 - 90 Degrees



200 - Multi-Angle Splice - Step 2
Using 8 ea. screws, secure splice into top rail from the underside of the rail. Ensure the screws do not interfere with post placement.

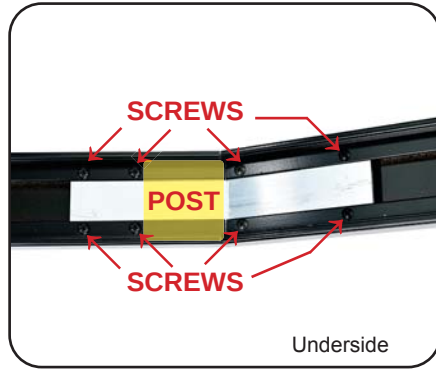


Multi-Angle Splice - Application
Finished look using Universal splice to connect rails.

Series 200 Top Rail for Stair Applications - 42" Rail



Series 200 - Stair Splice - Step 1
Miter top rails to accommodate stair angle. Bend splice to the correct angle of the stairs and slide splice into each end of the rail.



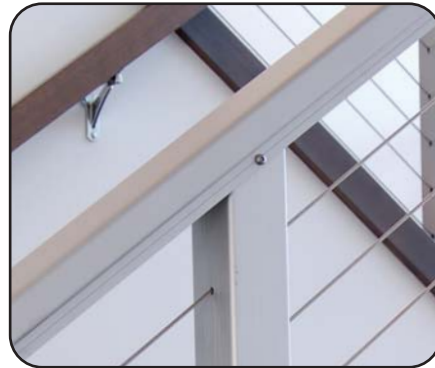
200 - Stair Splice - Step 2
Using 8 ea. screws, secure splice into top rail from the underside of the rail. Ensure the screws do not interfere with post placement.



200 - Stair Splice - Application
Example of rail mitered down the stairs in a continuous line.



Series 200 Stair Posts
Post must be cut at the angle of the stairs to allow for proper top rail attachment.



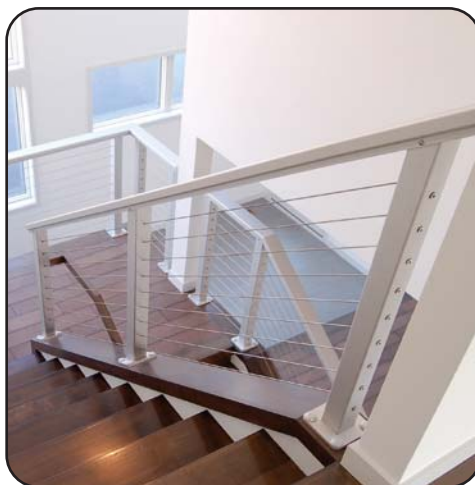
Series 200 Stair Intermediate Post
Post must be cut at the angle of the stairs. Rail slides over top of post and attaches with 2 ea. screws.
1 screw on each side.



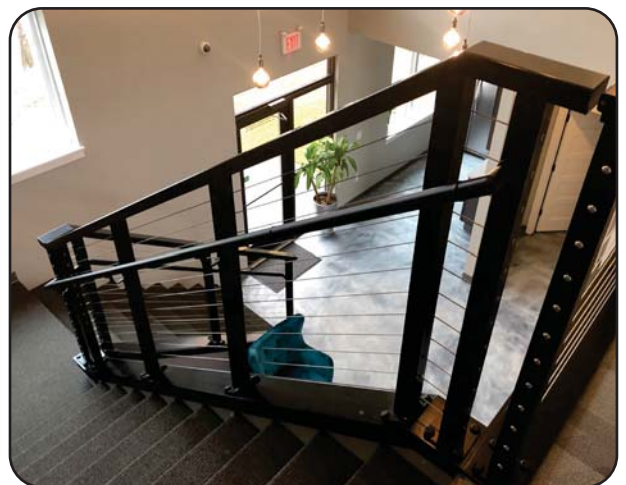
Series 200 Stair End Post
Post must be cut at the angle of the stairs. Rail slides over top of post and attaches with 2 ea. screws.
1 screw on each side.

Please Note
Series 200 Top Rail does not qualify as a graspable rail down the stairway. Series 250 top rail must be used for 36" rails. A secondary handrail must be used for 42" rails.

Please Note
Painting the ends of railing that has been cut will help to prevent oxidation.



Series 200 Top Rail for Level and Stair Rail - Anodized



Series 200 Top Rail for 42" Rail Using Secondary Handrail - Black

Series 200 End Plate Bracket - 42" Rail

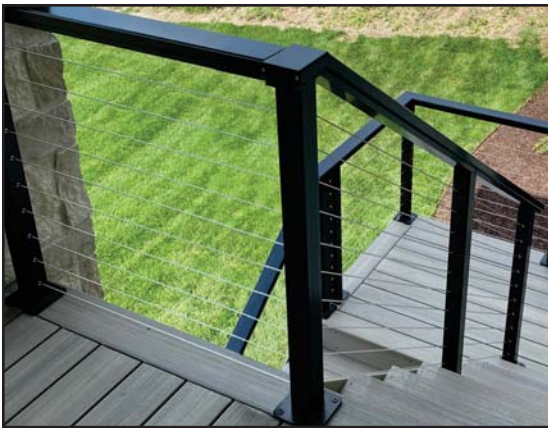


Series 200 End Plate Bracket

Aluminum end plate bracket used to connect series 200 top rails perpendicularly. Used at the top of the stair where the level and stair rails meet at 90 degrees. Allows for single corner post use at top of stairs. Includes 2 color matched screws.



Scenario # 1 - Single Corner Stair Post (Install method #1)



Scenario # 2 - 90 Return to Stair (Install method #2)



Install Method #1



Install Method #2



Series 200 End Plate Bracket - Continued

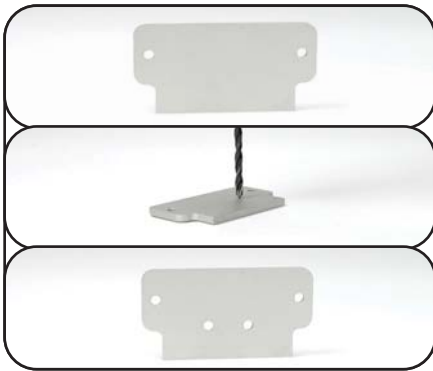


Scenario # 3 - Between Existing Rails (Install method #1)

Similar to Scenario #2 but eliminates any splicing. The brackets allow for a small section of top rail to be placed in between existing railings. Most commonly seen at the top of stairs.

These short sections can use either aluminum vertical balusters (Shown) or cable railing for infill.

Series 200 Top Rail Terminating Into Post or Column



Series 200 Terminating into Post Step 1

Convert end plate into a bracket by drilling holes through the end plate for screws.



Series 200 Terminating into Post Step 2

Use 2 ea. included screws to attach end plate to top rail. Then use holes that were created to connect top rail into post or column.



Series 200 Terminating into Post Step 3

Finished look of attached top rail to existing post or column.

Series 200 Flat Infill



Series 200 - Flat Infill

Cut flat infill to length and snap into bottom side of top rail.

Install prior to tensioning the cables.

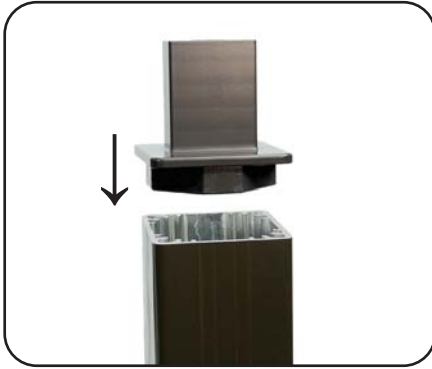
RailFX™

Aluminum Railing & Cable Systems

Series 250 Top Rail

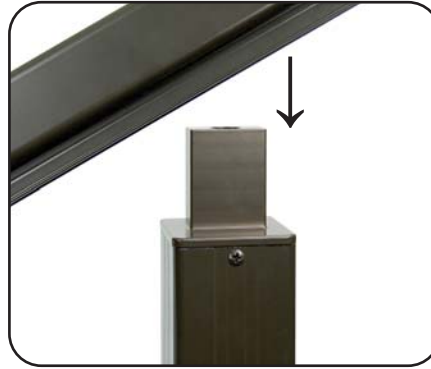


Top Rail: **Series 250 Top Rail for Stairs** For RailFX™ Aluminum Railing and Cable System (OTP) Over-the-Post Application



Intermediate Post Fitting (IPF)

IPF slides down into post.
Secure fitting in place with 2 ea. screws included. 1 screw on each side. Post will have to be cut accordingly, so cable is 3-1/2" or less from top rail



Attaching Top Rail to Post

Rail slides over IPF and attaches with 2 ea. screws. 1 screw on each side.



Series 250 - Intermediate Post

Once top rail is installed on post, snap in the bottom infill for a finished look.



Series 250 - End Post

Rail slides over IPF and attaches with 2 ea. screws. 1 screw on each side. Top rail end plate can be attached before or after installation.



Series 250 End Plate

Use adhesive to secure end plate to top rail.



Series 250 - Flat Infill

Cut flat infill to length and snap into bottom side of top rail. **Install prior to tensioning the cables.**



Series 250 Rail Connecting Block (RCB)

Use RCB12 to splice rails together. RCB12 slides into both top rails and then secures with 8 ea. screws.



Series 250 Splice between Posts

RCB12 slides into each end of the rail. RCB12 must be secured into place with 8 ea. screws. Allows rails to be spliced between posts.



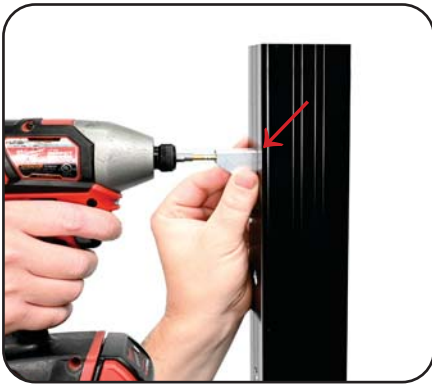
Connecting on IPF

Top rails may also be spliced on top of a post using the IPF fitting. This does not require the use of a splice.

Top Rail: **Series 250 Top Rail for Stairs**

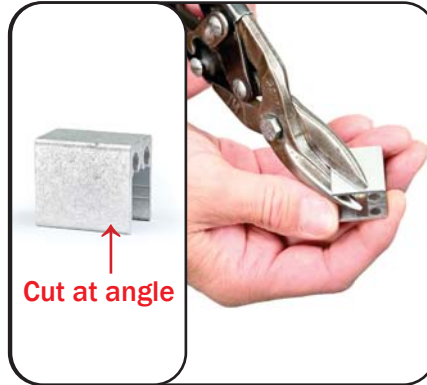
For RailFX™ Aluminum Railing and Cable System

(PTP) Post-to-Post Application



Series 250 - PTP Attachment 1

Locate the 1" Rail Connecting Block (RCB) on the post. Pre-drill with 5/32" drill bit using the RCB as a guide.



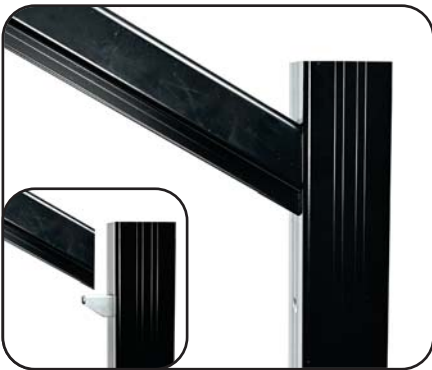
Series 250 - PTP Attachment 2

Clip the corner of the RCB at the angle of the stairs so it will be concealed inside of the top rail. Use tin snips to make cut.



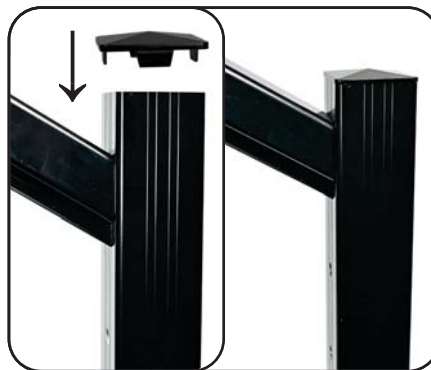
Series 250 - PTP Attachment 3

Attach the RCB to the post. Attaches with 2 ea. screws using #2 square drive.



Series 250 - PTP Attachment 4

Top rail mounts into the side of the post using the rail connecting block. Attach rail with 2 ea. screws. 1 screw on each side.



Post Cap Installation

If terminating series 250 top rail into the post, a post cap must be installed to finish the rail. Use adhesive to secure post cap into post.

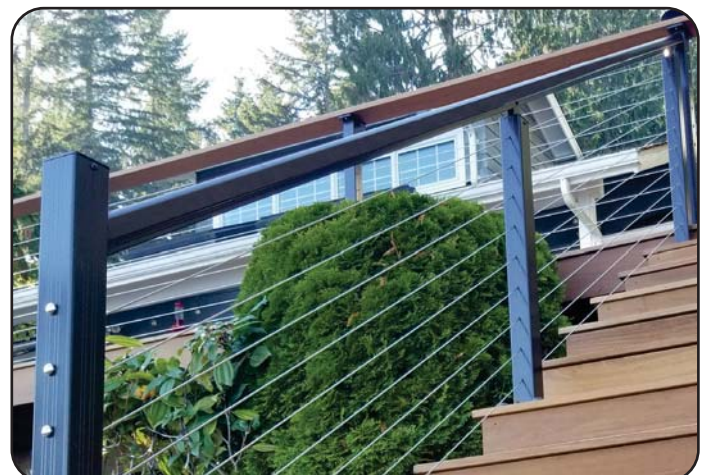


Post Cap Installation

Top Post Example



Series 250 Rail Over-the-Post - Stair



Series 250 Rail Post-to-Post - Stair

Please Note Painting the ends of railing that has been cut will help to prevent oxidation.



RailFX™

Aluminum Railing & Cable Systems

Series 400 Top Rail



Top Rail: **Series 400 Top Rail**

For RailFX™ Aluminum Railing and Cable System

Series 400 Top Rail Applications



Series 400 Top Rail

Allows for a wood / composite cap rail to be attached to the RailFX rail system. Cap rail can be screwed directly to top rail or dadoed out.



Attaching to End Post

Rail slides over top of post and attaches with 2 ea. screws. 1 screw on each side.



Attaching to End Post

Wood / Composite cap rail attaches to series 400 top rail by screws from the bottom side.



Attaching to Intermediate Post

Rail slides over top of post and attaches with 2 ea. screws. 1 screw on each side.



Attaching to Intermediate Post

Wood / Composite cap rail attaches to series 400 top rail by screws from the bottom side.



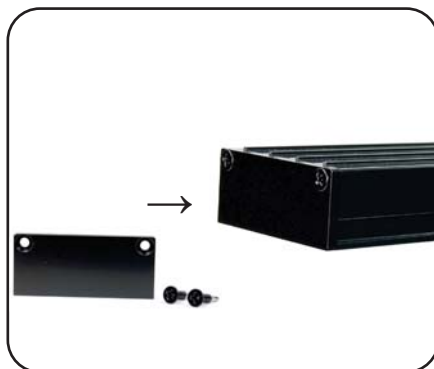
Screwing from bottom Side

Wood / Composite cap rail attaches to series 400 top rail by screws from the bottom side.
Do this before installing flat infill.



Series 400 - Flat Infill

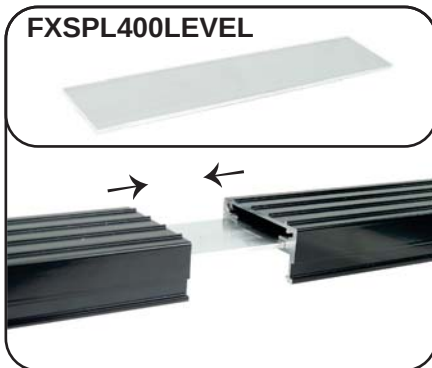
Cut flat infill to length and snap into bottom side of top rail. **Install prior to tensioning the cables.**



Attaching End Plate

End plate goes on open end of top rail. Use 2 ea. included machine screws to attach to top rail.

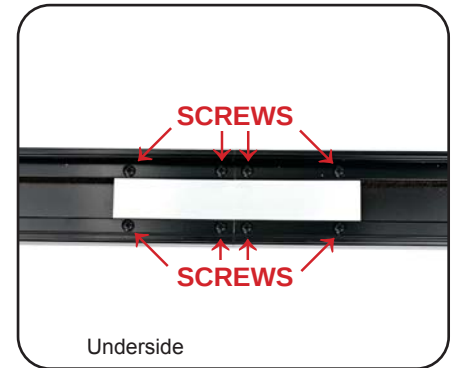
Series 400 Top Rail Splicing Applications



400 Straight Splice - Step 1
Level splice slides into each end of the rail. Splice can land on top of post or between posts.



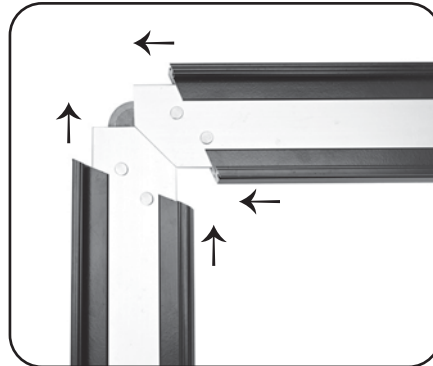
Painting Top Rail Ends (Optional)
It is recommended to paint the rail ends / splices for an inconspicuous splice seam. Also prevents oxidation. Applies to all colors.



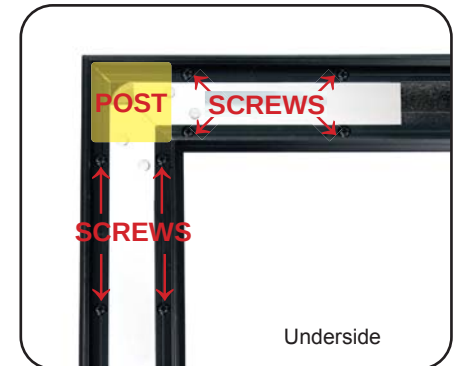
400 Straight Splice - Step 2
Using 8 ea. screws, secure splice into top rail from the underside of the rail. Ensure the screws do not interfere with post placement.



400 - 90 Degree Splice - Step 1
90 Degree Splice used to connect series 400 top rail in the corners of the RailFX railing system



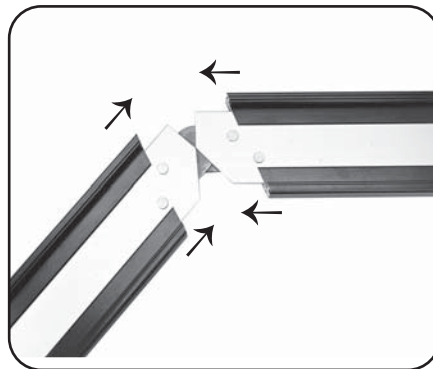
400 - 90 Degree Splice - Step 2
Top rails must be mitered to create a 90 degree corner. Splice slides into splice channels of top rail at each end of the rail.



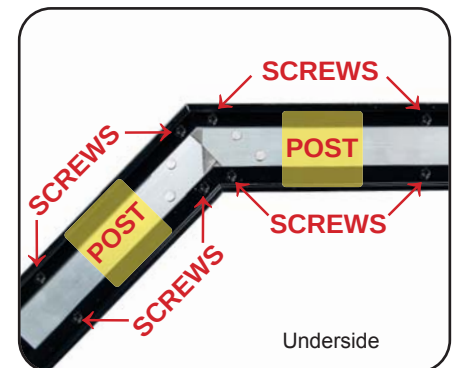
400 - 90 Degree Splice - Step 3
Using 8 ea. screws, secure splice into top rail from the underside of the rail. Ensure the screws do not interfere with post placement.



400 - Multi-Angle Splice - Step 1
Multi-Angle Splice used to connect series 400 top rail at various angles. Splice can accommodate angles between 0 - 90 Degrees



400 - Multi-Angle Splice - Step 2
Miter top rails to achieve the correct angle and slide splice into each end of the rail.

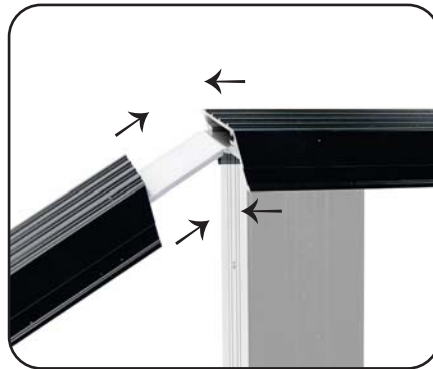


400 - Multi-Angle Splice - Step 3
Using 8 ea. screws, secure splice into top rail from the underside of the rail. Ensure the screws do not interfere with post placement.

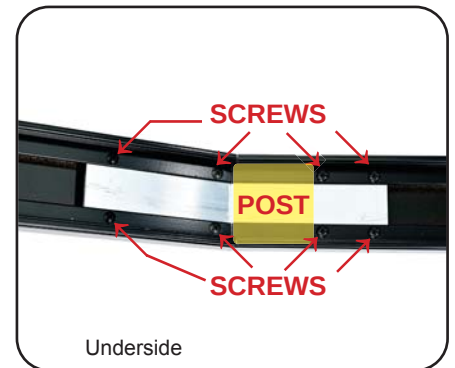
Series 400 Top Rail Splicing Applications



400 - Stair Splice - Step 1
Stair Splice used to connect series 400 top rail at the top of the stairs.



400 - Stair Splice - Step 2
Miter top rails to accommodate stair angle. Bend splice to the correct angle of the stairs and slide splice into each end of the rail.



400 - Stair Splice - Step 3
Using 8 ea. screws, secure splice into top rail from the underside of the rail. Ensure the screws do not interfere with post placement.

Series 400 Top Rail Terminating Into Post or Column



Series 400 Terminating into Post Step 1
Convert end plate into a bracket by drilling holes through the end plate for screws.



Series 400 Terminating into Post Step 2
Use 2 ea. included screws to attach end plate to top rail. Then use holes that were created to connect top rail into post or column.



Series 400 Terminating into Post Step 3
Finished look of attached top rail to existing post or column.

Series 400 - Single Corner Post at the top of a stair



400 - Stair Splice - Step 1
Convert end plate into a bracket by drilling holes through the standard end plate.



Attaching End Plate - Step 2
End plate bracket goes on open end of top rail. Use 2 ea. included machine screws to attach to top rail.



400 - Stair Splice - Step 3
Top rails for the stairs should already be in place. Top rail will come into this junction at a 90 degree angle



400 - Stair Splice - Step 4
Ensure the top rails are properly aligned. Pre-drill holes if desired.



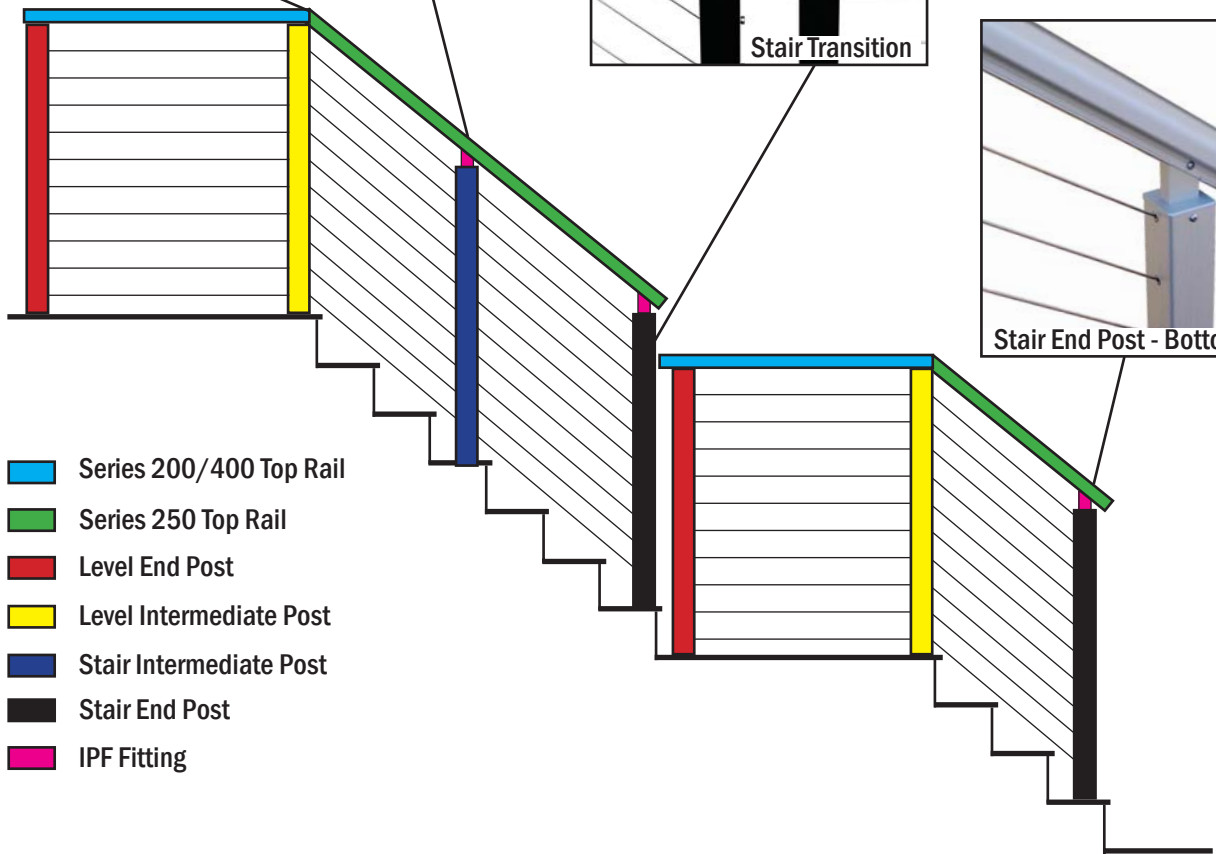
400 - Stair Splice - Step 5
Attach top rails together using screws to fasten the rails.

Special Notes:

- Cap rail **MUST add 1/2"** or more to overall rail height to reach the required rail heights for both 36" and 42" rails.
- A scarf joint should be used to allow for expansion and contraction of cap rail.
- Butt joints of the cap rail and top rail should be staggered.
- Series 400 top rail does not qualify as a graspable rail down the stairway. Series 250 top rail must be used for 36" rails. A secondary handrail must be used for 42" rails.
- Painting the ends of railings that have been cut will help to prevent oxidation

RailFX Elevation View

Using 200 Top Rail With 250 on Stairs



See Pages 50 - 54  Series 200/400 Top Rail

See Pages 50 - 65  Series 250 Top Rail

 Level End Post

 Level Intermediate Post

See Pages 56 - 61  Stair Intermediate Post

See Pages 62 - 65  Stair End Post

See Pages 58 & 64  IPF Fitting



Series 250 Rail - Stair



Series 250 Rail - Stair

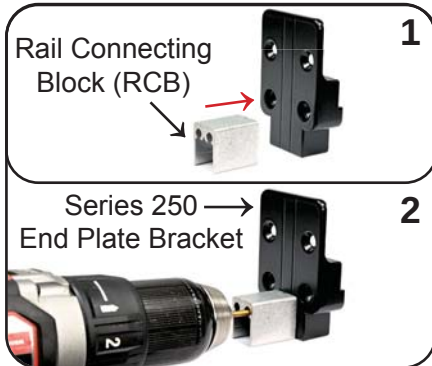
RailFX™

Aluminum Railing & Cable Systems

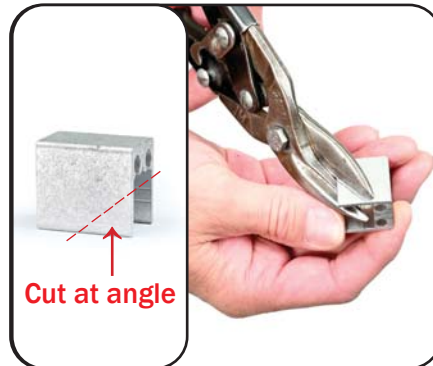
250 Top Rail Installation at the Top of Stairway



Series 250 Attaching to Side of 200 Series Top Rail



- (1) Align RCB to End Plate Bracket**
 1.) Align the bottom edges of the RCB and 250 End Plate Bracket.
 2.) With the RCB centered, pre-drill the end plate bracket with 5/32" drill using the RCB as a guide.



- (2) Cut Rail Connecting Block (RCB)**
 Clip the corner of the RCB at the angle of the stairs so it will be concealed inside of the top rail. Use tin snips to make cut.



- (3) Attach RCB to End Plate Bracket**
 Attach the RCB to the End Plate Bracket. Attaches with 2 ea. screws using #2 square drive.



- (4) Attach End Plate Bracket**
 Attach End Plate Bracket to Rail. Attaches with 4 ea. included screws. (Grooves help to center the bracket)



- (5) Cut Top Rail**
 Cut the Series 250 top rail at the angle of the stairs using a high-tooth count metal cutting saw. Paint the cut ends.



- (6) Set Top Rail in Place**
 Place top rail onto RCB to ensure the cut and fit are correct.

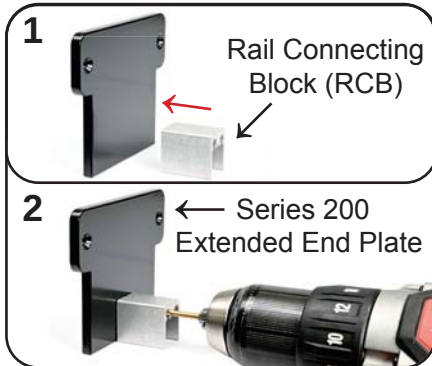


- (7) Attach Top Rail**
 Attach top rail to RCB using 1 screw on each side. Screws should be offset slightly to avoid colliding inside the rail.



Finished Look w/ Cable

Series 250 Attaching to End of Series 200 Top Rail



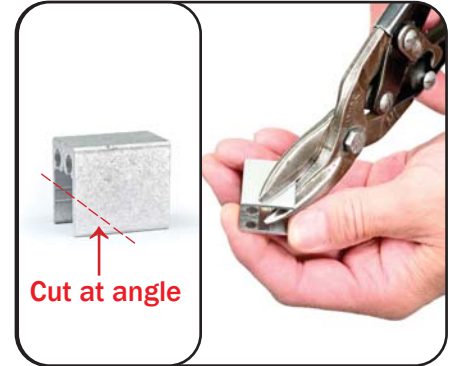
(1) Align RCB to Extended End Plate

- 1.) Align the bottom edges of the RCB and 200 Extended End Plate.
- 2.) With the RCB centered, pre-drill the extended end plate with 5/32" drill using the RCB as a guide.



(2) Attach Extended End Plate

Attach extended end plate to series 200 top rail. Pre-drill post using the 2 holes (drilled previously) in the end plate as a guide. (Keep end plate tight to post)



(3) Cut Rail Connecting Block (RCB)

Clip the corner of the RCB at the angle of the stairs so it will be concealed inside of the top rail. Use tin snips to make cut.



(4) Attach RCB to End Plate

Attach the RCB to the extended end plate. Attaches with 2 ea. screws using #2 square drive.



(5) Cut Top Rail

Cut the Series 250 top rail at the angle of the stairs using a high-tooth count metal cutting saw. Paint the cut ends.



(6) Set Top Rail in Place

Place top rail onto RCB to ensure the cut and fit are correct.



(7) Attach Top Rail

Attach top rail to RCB using 1 screw on each side.

Screws should be offset slightly to avoid colliding inside the rail.



Finished Look w/ Cable

Series 250 Attaching to Side of 400 Series Top Rail

***Note - Drink rail must overhang top rail by a minimum of 3/4" on sides/ends for this installation ***



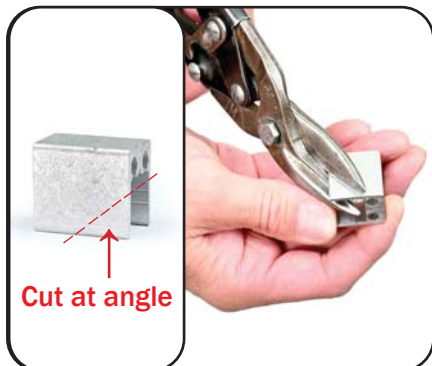
(1) Attach End Plate Bracket
Attach End Plate Bracket to Rail.
Attaches with 4 ea. included screws.
(Grooves help to center the bracket)



(2) Mark Reference Line
Measure down 1-1/2" from the top of the end plate bracket and mark a temporary line.



(3) Locate Rail Connecting Block (RCB)
Align the RCB with the line made in Step 2 and center the RCB on the end plate bracket. Pre-drill the end plate bracket with 5/32" drill bit using the RCB as a guide.



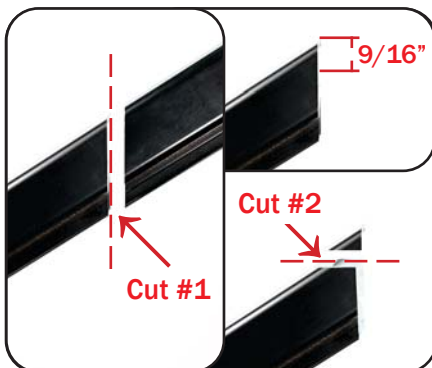
(4) Cut Rail Connecting Block (RCB)
Clip the corner of the RCB at the angle of the stairs so it will be concealed inside of the top rail.
Use tin snips to make cut.



(5) Attach RCB to End Plate
Attach the RCB to the end plate bracket. Attaches with 2 ea. screws using #2 square drive.



(6) Cut Top Rail
Cut the Series 250 top rail at the angle of the stairs using a high-tooth count metal cutting saw.
Paint the cut ends.



(7) Top Rail Cuts
2 cuts are required:
To achieve 35" Rail Height
1.) Cut top rail at angle of the stairs.
2.) Cut tip of top rail 9/16" down from the end so it fits under the cap rail



(8) Set Top Rail in Place
Place top rail onto RCB to ensure the cut and fit are correct.



(9) Attach Top Rail
Attach top rail to RCB using 1 screw on each side.
Screws should be offset slightly to avoid colliding inside the rail.

Series 250 Attaching to End of Series 400 Top Rail

***Note - Drink rail must overhang top rail by a minimum of 3/4" on sides/ends for this installation ***



- (1) Attach Extended End Plate**
Attach extended end plate to series 400 top rail using 2 ea. screws included.
(Keep end plate tight to post)



- (2) Mark Reference Line**
Measure down 1-1/2" from the top of the extended end plate and mark a temporary line.
(Keep end plate tight to post)



- (3) Locate Rail Connecting Block (RCB)**

Align the RCB with the line made in Step 2 and center the RCB on the extended end plate. Pre-drill the end plate with 5/32" drill bit using the RCB as a guide.



- (4) Cut Rail Connecting Block (RCB)**

Clip the corner of the RCB at the angle of the stairs so it will be concealed inside of the top rail. Use tin snips to make cut.

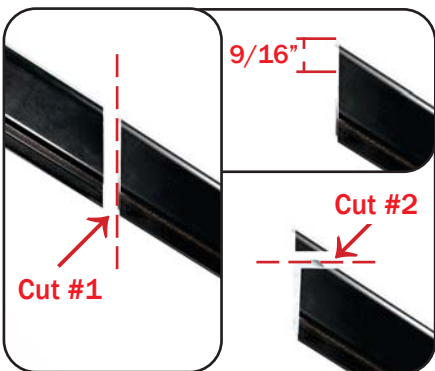


- (5) Attach RCB to End Plate**
Attach the RCB to the extended end plate. Attaches with 2 ea. screws using #2 square drive.



- (6) Cut Top Rail**

Cut the Series 250 top rail at the angle of the stairs using a high-tooth count metal cutting saw. Paint the cut ends.



- (7) Top Rail Cuts**

2 cuts are required:

To achieve 35" Rail Height

- 1.) Cut top rail at angle of the stairs.
- 2.) Cut top rail level 9/16" down from the end so it fits under the cap rail



- (8) Set Top Rail in Place**
Place top rail onto RCB bracket to ensure the cut and fit are correct.



- (9) Attach Top Rail**

Attach top rail to RCB using 1 screw on each side.

Screws should be offset slightly to avoid colliding inside the rail.



RailFX™

Aluminum Railing & Cable Systems

Surface Mount for Stair



Surface Mount: **Stair End Post**

For RailFX™ Aluminum Railing and Cable System

Materials needed for Installation:



45" End Fascia Post



Base Plate Kit



3/8" Lags or
Carriage Bolts



Bolt Caps & Cup Washers
(Included w/ Baseplate)



Step 1:

Temporarily attach base plate to undrilled side of fascia end post using 2 screws (Use beeswax for easier install)



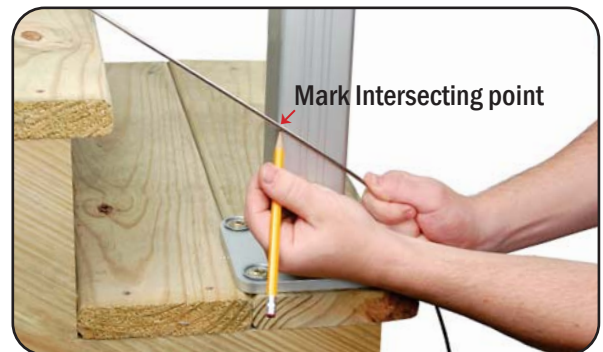
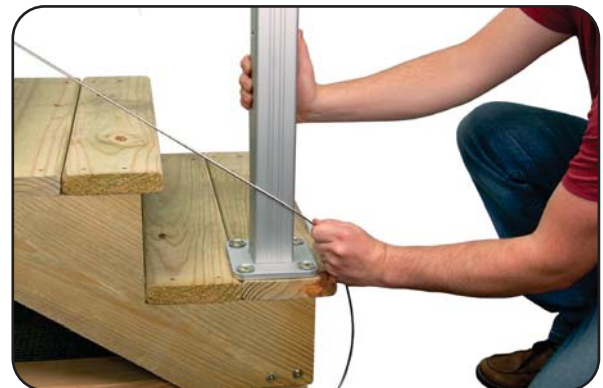
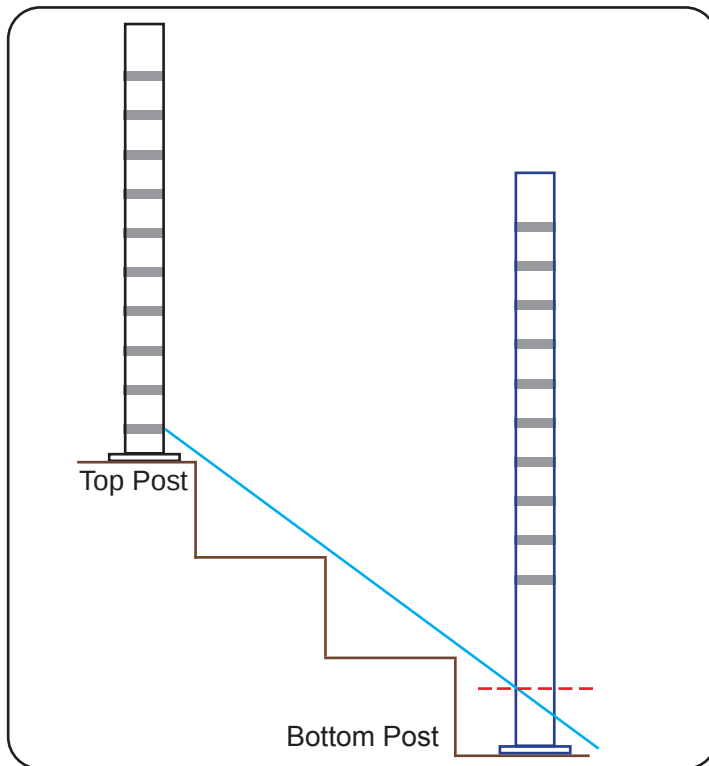
Step 2:

Determine location of bottom end post and mark base plate holes.



Step 3:

Temporarily fasten post.

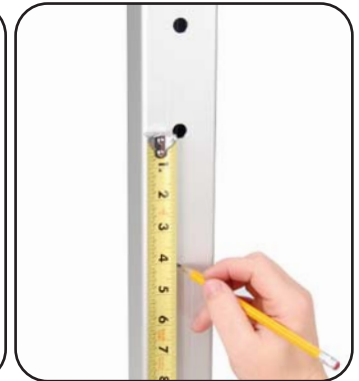
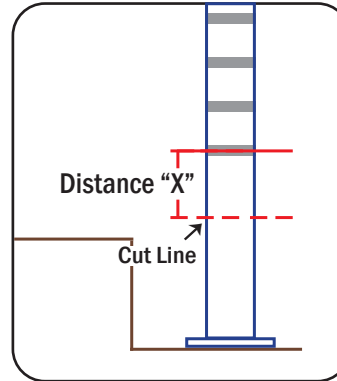
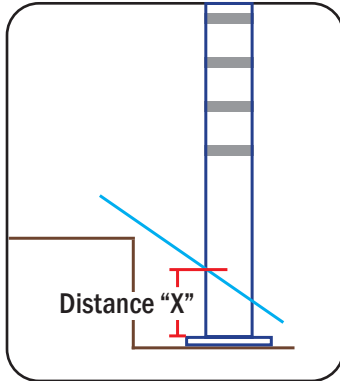


Step 4:

Insert cable into bottom hole of top end post (previously mounted) and pull tightly along side the bottom end post. Ensure that cable is evenly spaced above the nose of the treads, then mark the bottom end post where the cable intersects the post.

Surface Mount: **Stair End Post**

For RailFX™ Aluminum Railing and Cable System



Step 5:

Measure distance (Distance "X") from the mark made in Step 4 to the top of the base plate.

Step 6:

Use Distance "X" from Step 5 and measure down from the center of the first hole (closest to the riser)



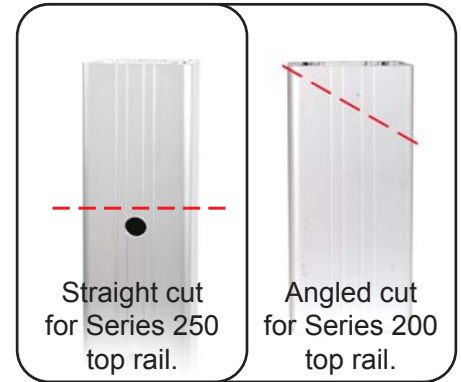
Step 7:

Remove post from tread and remove base plate from post before cutting. Then, cut post at the marked cut line from Step 6.



Step 8:

Re-attach base plate to bottom of cut post with all 4 screws. (Use beeswax for easier install)



Step 9:

Before final post attachment, the top of post will have to be cut accordingly.
Series 250 Top Rail - OTP (Page 58)
Series 250 Top Rail - PTP (Pgs 60-61)
Series 200 Top Rail (Page 59)

Standard Method



Series 250 - OTP
Go to Page 58

(Next Page)

(OTP) Over-the-Post Style



Series 250 - PTP
Pages 60-61

(PTP) Post-the-Post Style

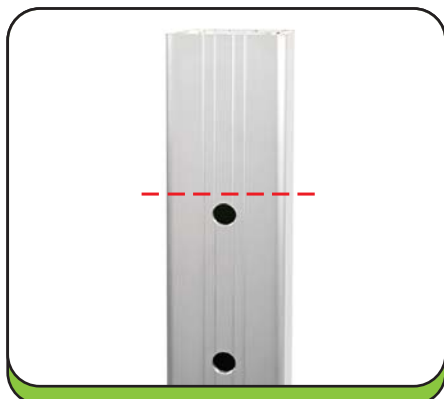


Series 200/400
Go to Page 59

Surface Mount: **Stair End Post**

For RailFX™ Aluminum Railing and Cable System

for Series 250 Top Rail - OTP Standard Method



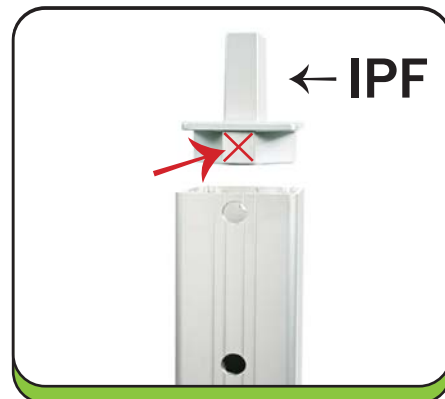
Step 10:

Measure up 3/16" from the top edge of the top hole of the post and mark a line.
(For Typical 35 Degree Stair Angle)



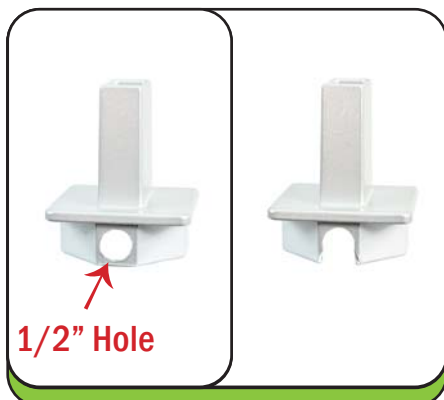
Step 11:

Cut post at the marked cut line from Step 10. (Use a high tooth count metal cutting blade).



Step 12:

An IPF (intermediate post fitting) will be used at the top of the post, but before installation, the IPF must be modified to fit around the cable fitting.



Step 13:

Modify the IPF by drilling out a hole approx: 1/2" in diameter. Then use tin snips to cut the bottom side out. (Must be done for both sides)



Step 14:

Set the IPF into the post and ensure that the cable fitting can pass through the post.



Step 15:

Mount the IPF to the post using 2 ea. included screws. 1 on each side.



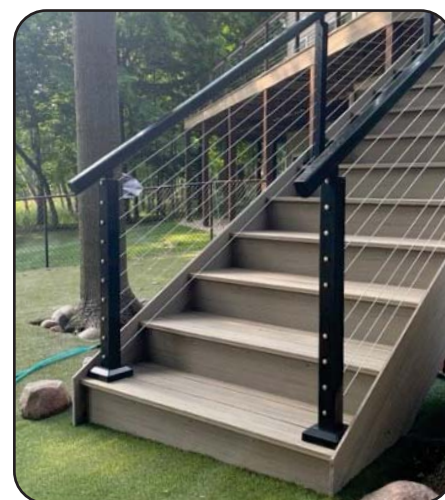
Step 16:

Attach post to surface.



Step 17:

Finished post installation. Bolt Caps (Shown) or Post Skirt may be used.

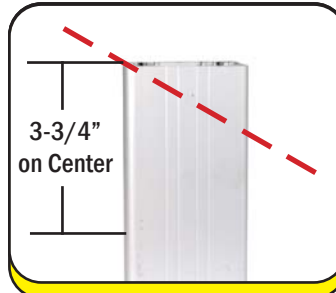
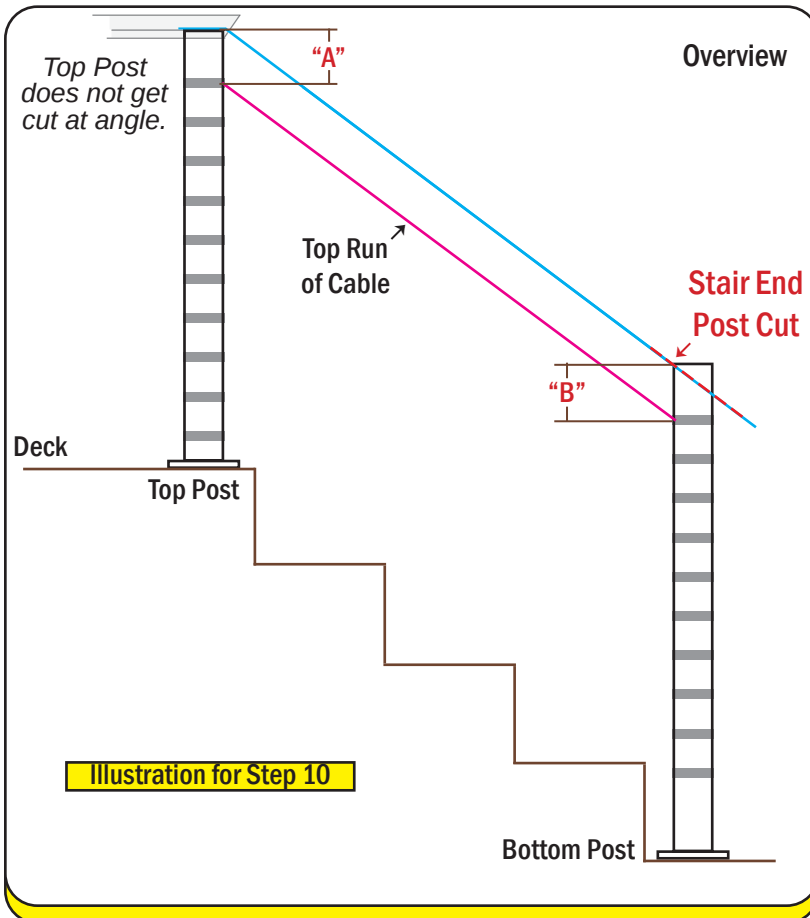


Finished Look

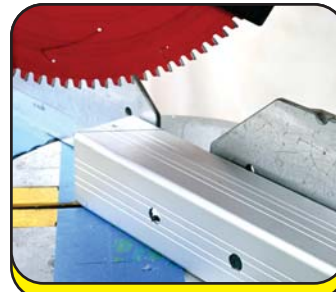
Surface Mount: **Stair End Post**

For RailFX™ Aluminum Railing and Cable System

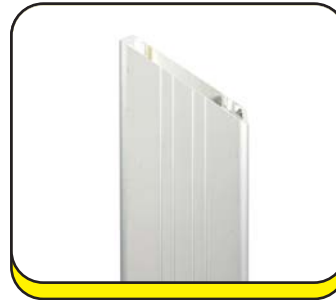
for Series 200/400 Top Rail



Step 11:
Start at the top edge of the post on the inside face of the post. Mark a line across the post that matches the angle of the stairs.



Step 12:
Cut the post at the mark made in step "A". Using high tooth count metal cutting blade.



Step 13:
Post is cut and ready to be installed onto step

Step 10:

The inside face of the stair posts, distance "A" and "B" should be the same. Typically 3-3/4" from center of top hole. In steps (11, 12, 13) begin by cutting the bottom stair end post at the angle of the stairs to allow for the Series 200/400 top rail to attach directly to the post.

Note: The post at the top of the stairs is already fixed into place and can be used as a reference. The top post does not get cut at the top and should remain uncut. The Series 200/400 top rail will be mitered using a stair splice directly after the top post to follow the angle of the stairs.



Step 14:
Attach post to stair surface.



Step 15:
Finished post installation. Bolt Caps (Shown) or Post Skirt may be used.

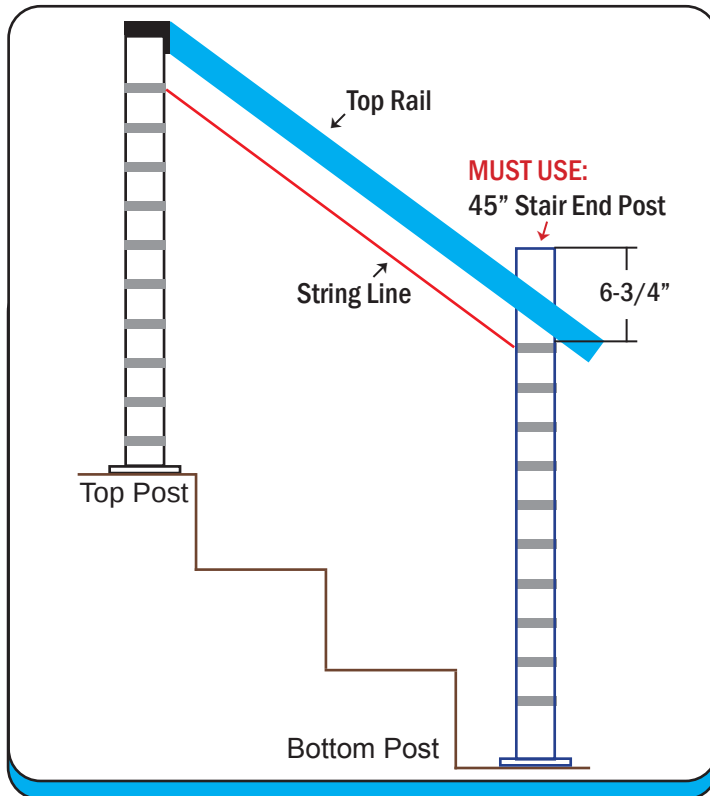


Finished Look

Surface Mount: **Stair End Post**

For RailFX™ Aluminum Railing and Cable System

for Series 250 Top Rail (PTP Stair End Post)



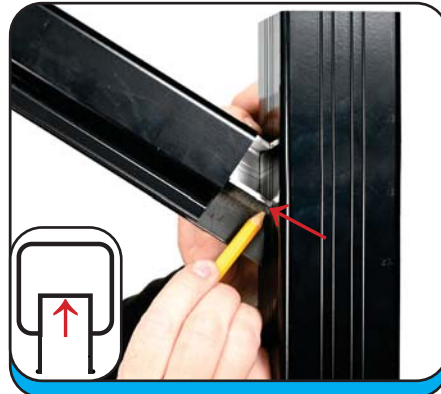
Step 10:

- 1.) Rest top rail onto RCB block at the top post. A screw or a partner can be used to temporarily hold the top rail in place. *(See pages 50 & 51 for top post to get to this point)*
- 2.) Hold top rail alongside the bottom stair end post and mark the top rail where the post intersects the top rail. Ensure your post is plumb and top rail is at proper angle & height. A string line can be used to ensure the top rail is following the same angle of the stairs.



Step 11:

Cut top rail at the marked cut line from Step 10. (Use a high tooth count metal cutting blade).



Step 12:

Place the top rail in between post at the correct angle. From the under side of the top rail mark the top edge of the channel with a horizontal line. (cross-section shown for clarity)

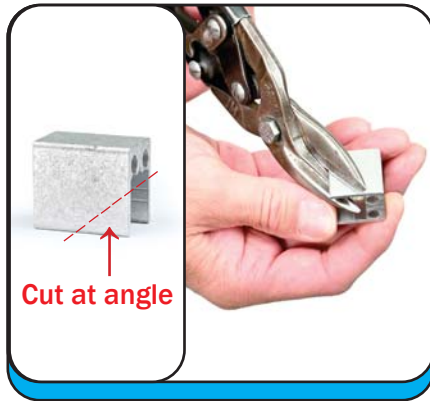


Step 13:

Align the RCB with the line made in Step 12 and center the RCB on the post. Pre-drill with 5/32\" drill bit using the RCB as a guide.

Surface Mount: **Stair End Post**

For RailFX™ Aluminum Railing and Cable System
for **Series 250 Top Rail (PTP Stair End Post)**



Step 14:
Clip the corner of the RCB at the angle of the stairs so it will be concealed inside of the top rail. Use tin snips to make cut.



Step 15:
Attach the RCB to the post. Attaches with 2 ea. included screws using #2 square drive.



Step 16:
Set top rail into place and ensure proper fit.



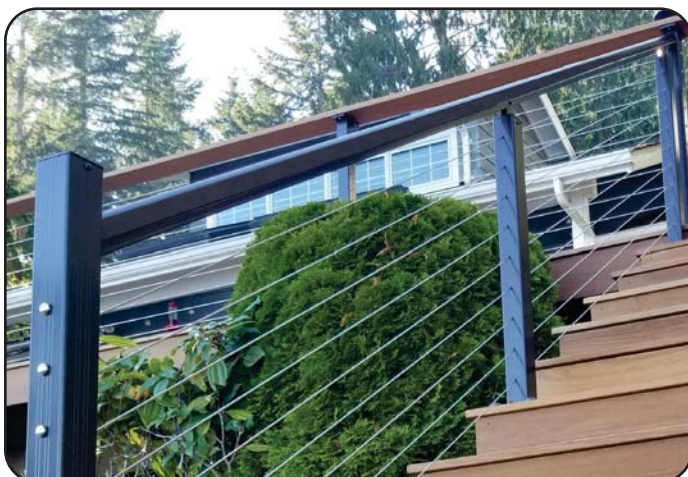
Step 17:
Attach top rail to RCB using 1 screw on each side.
Screws should be offset slightly to avoid colliding inside the rail.



Step 18:
Attach post cap to top of post



Finished Look



Series 250 Rail - Stair



Series 250 Rail - Terminating Into End Posts

Surface Mount: **Stair Intermediate Post**

For RailFX™ Aluminum Railing and Cable System

Materials needed for Installation:



45" Stair Intermediate Fascia Post



Base Plate Kit



3/8" Lags or
Carriage Bolts

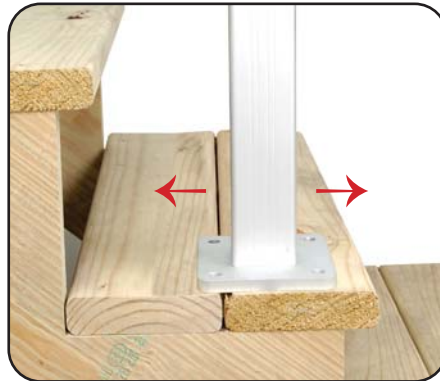


Bolt Caps & Cup Washers
(Included w/ Baseplate)



Step 1:

Temporarily attach base plate to undrilled side of fascia end post using 2 screws (Use beeswax for easier install)



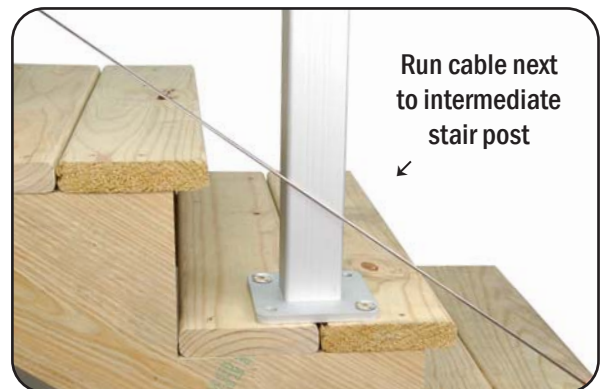
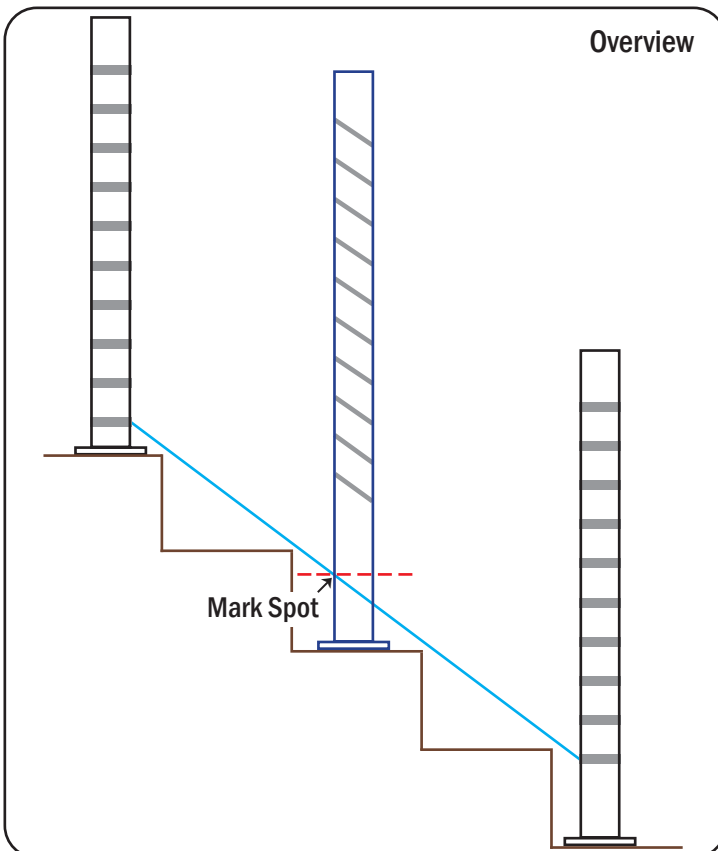
Step 2:

Determine location of intermediate stair post and mark base plate holes.



Step 3:

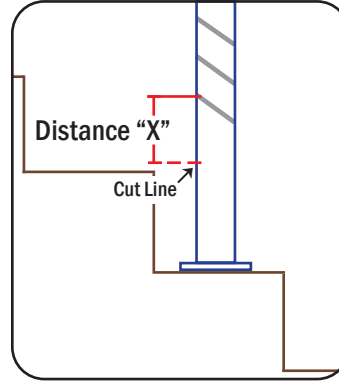
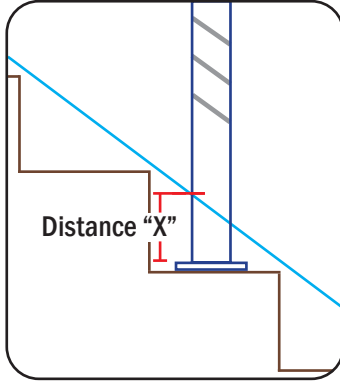
Temporarily fasten post to tread.



Step 4:

Insert cable into bottom hole of top and bottom end posts (previously mounted) and temporarily tighten cable with the cable running along side the intermediate stair post. Ensure that cable is evenly spaced above the nose of the treads, then mark the post where the cable intersects the post.

Surface Mount: **Stair Intermediate Post** For RailFX™ Aluminum Railing and Cable System



Step 5:

Measure distance (Distance "X") from the mark made in Step 4 to the top of the base plate.

Step 6:

Use Distance "X" from Step 5 and measure down from the center of the first hole (closest to the riser)



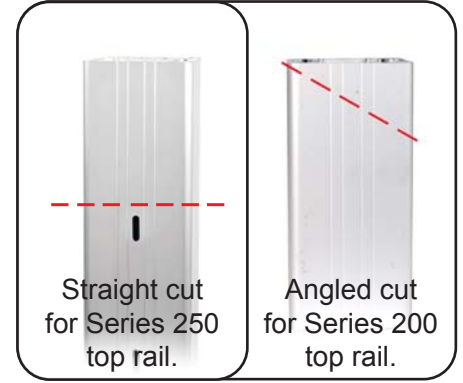
Step 7:

Remove post from tread and remove base plate from post before cutting. Then, cut post at the marked cut line from Step 6.



Step 8:

Re-attach base plate to bottom of cut post with all 4 screws. (Use beeswax for easier install)



Step 9:

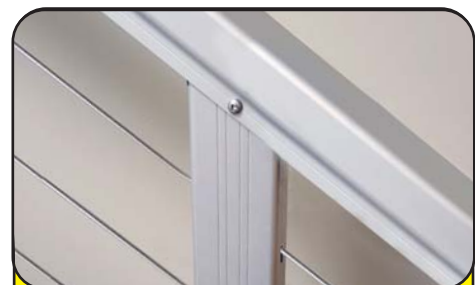
Before final post attachment, the top of post will have to be cut accordingly.
Series 250 Top Rail (Page 64)
Series 200 Top Rail (Page 65)

Standard Method



Series 250
Go to Page 64
(Next Page)

(OTP) Over-the-Post Style

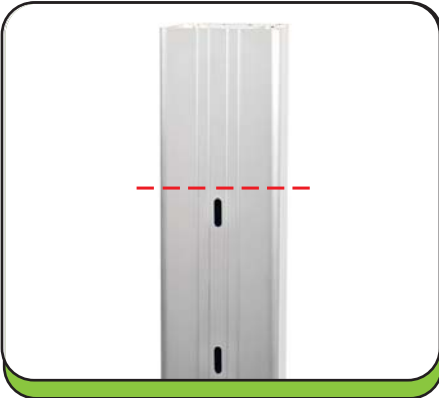


Series 200/400
Go to Page 65

Surface Mount: **Stair Intermediate Post**

For RailFX™ Aluminum Railing and Cable System

for Series 250 Top Rail



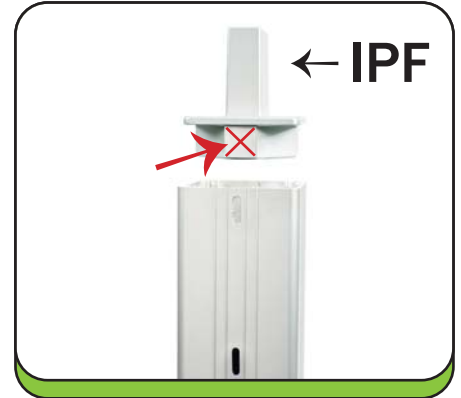
Step 10:

Measure up 3/16" from the top edge of the top hole and mark a line. Be sure to mark the correct post side. (For Typical 35 Degree Stair Angle)



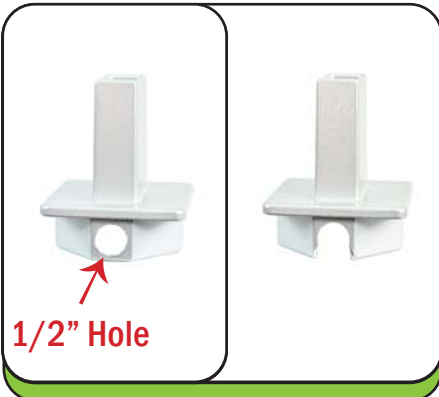
Step 11:

Cut post at the marked cut line from Step 10. (Use a high tooth count metal cutting blade).



Step 12:

An IPF (intermediate post fitting) will be used at the top of the post, but before installation, the IPF must be modified for the cable to pass through



Step 13:

Modify the IPF by drilling out a hole approx: 1/2" in diameter. Then use tin snips to cut the bottom side out.



Step 14:

Set the IPF into the post and ensure that the cable fitting can pass through the post.



Step 15:

Mount the IPF to the post using 2 ea. included screws. 1 on each side.



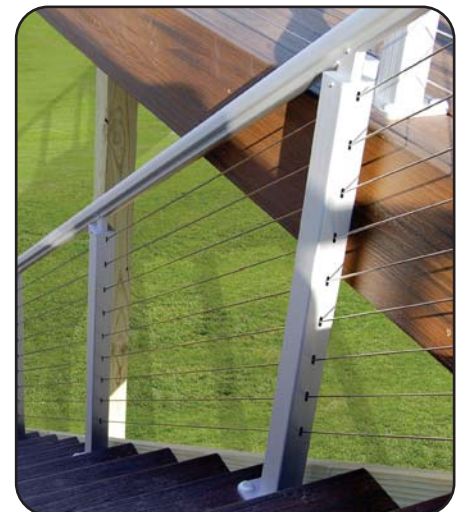
Step 16:

Attach post to surface.



Step 17:

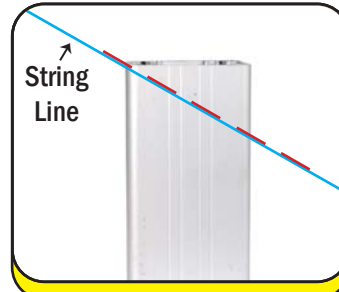
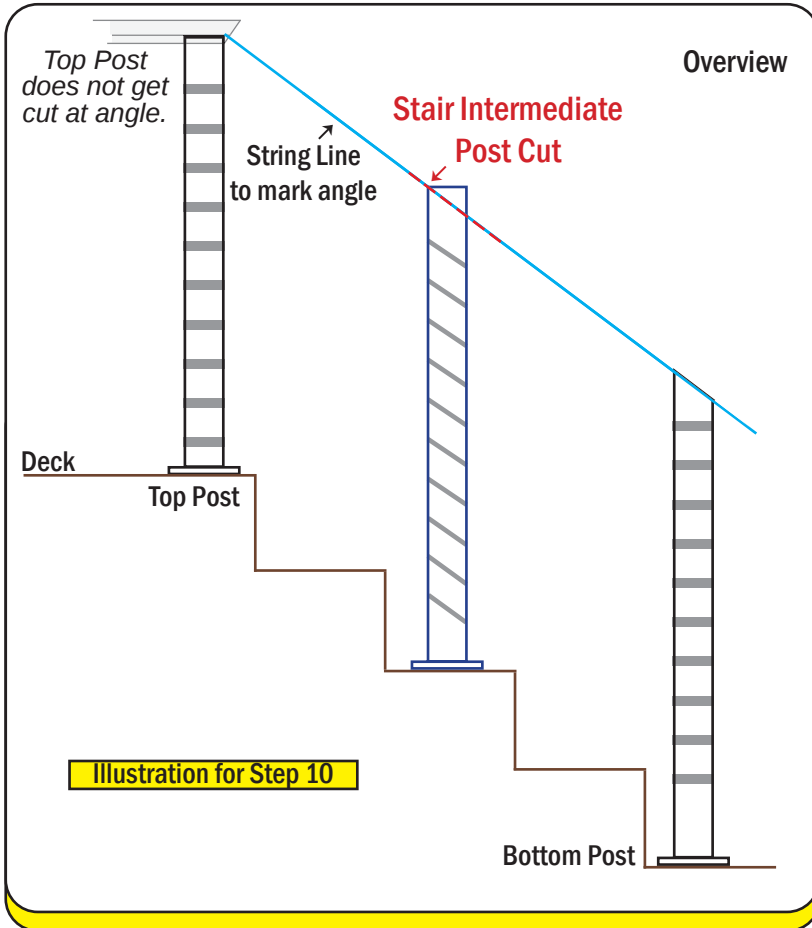
Finished post installation. Bolt Caps (Shown) or Post Skirt may be used.



Surface Mount: Stair Intermediate Post

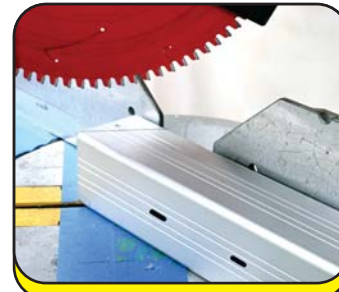
For RailFX™ Aluminum Railing and Cable System

for Series 200/400 Top Rail



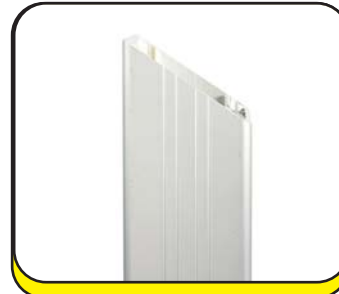
Step 11:

With a string running from the top post to the bottom post. Mark a line across the post that matches the angle of the stairs.



Step 12:

Cut the post at the mark made in step "A". Using high tooth count metal cutting blade.



Step 13:

Post is cut and ready to be installed onto step.

Step 10:

Temporarily place the stair intermediate post, then run a string from the top post to the bottom stair end post. Mark the Stair intermediate post where the string intersects the post.

In steps (11, 12, 13) we are cutting the Intermediate stair post at the angle of the stairs to allow for the Series 200/400 top rail to attach directly to the post.



Step 14:

Attach post to stair surface.



Step 15:

Finished post installation. Bolt Caps (Shown) or Post Skirt may be used.





RailFX™

Aluminum Railing & Cable Systems

Top Plates for Wood



Top Rail: Top Plate for Wood Top Rail

For RailFX™ Aluminum Railing and Cable System



Level Top Plate - Step 1

Post must be cut down 1/2" to maintain proper spacing between top rail and cable. Attach level top plate to post using 4 ea. 5/16" x 2" stainless steel screws (Included). T40 Torx bit. (Use beeswax for easier install)



Level Top Plate - Step 2

Set wood top rail onto plate and mark hole locations. Pre-drill holes if desired.



Level Top Plate - Step 3

Wood top rail attaches to level top plate using 2 ea. screws from the bottom side. (Screws not included)



Corner Top Plate - Step 1

Post must be cut down 1/2" to maintain proper spacing between top rail and cable. Attach corner top plate to post using 2 ea. 5/16" x 2" stainless steel screws (Included). T40 Torx bit. (Use beeswax for easier install)



Corner Top Plate - Step 2

Top rails must be mitered to fit corner. Set wood top rail onto plate and mark hole locations. Pre-drill holes if desired.



Corner Top Plate - Step 3

Wood top rail attaches to level top plate using 2 ea. screws from the bottom side. (Screws not included)



Stair Top Plate - Step 1

Attach stair top plate to post using 4 ea. 5/16" x 2" stainless steel screws (Included). Post must be cut to match stair angle. Use T40 Torx bit. (Use beeswax for easier install)



Stair Top Plate - Step 2

Screw heads are not flush with plate and wood top rail must be relieved to fit flush on plate. Screw heads could also be ground down flush with plate.



Stair Top Plate - Step 3

Set wood top rail onto plate and mark hole location. Pre-drill holes if desired.

Top Rail: Top Plate for Wood Top Rail

For RailFX™ Aluminum Railing and Cable System



Stair Top Plate - Step 4
Wood top rail attaches to level top plate using 1 ea. screws from the bottom side.
(Screw not included)

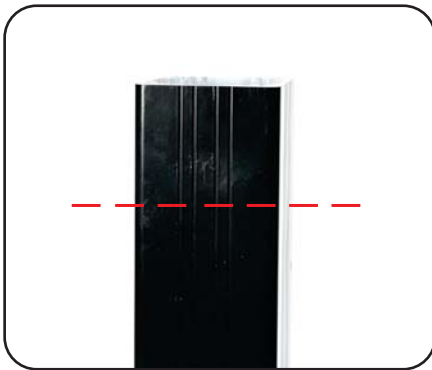


Level Top Plate used to attach wood top rail

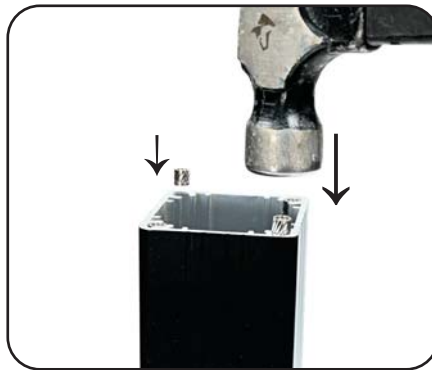


Corner & Stair Top Plate used to attach wood top rail

Adjustable IPF Fitting Installation (For Stair Use ONLY)



Adjustable Top Plate - Step 1
Post must be cut down to maintain proper spacing between top rail and cable to meet code requirements.
(3-1/2" or less between top rail & cable)



Adjustable Top Plate - Step 2
Tap 4 ea. screw inserts down into the post screw bosses using a hammer until flush with the post.



Adjustable Top Plate - Step 3
Adjustable top plate mounts onto the post using 4 ea. included screws.
(Top Plate is 1.5" x 5")



Adjustable Top Plate - Step 4
Adjustable top plate is adjustable up / down to accommodate the exact rail height desired. It can also pivot for use on stair angles.



Adjustable Top Plate - Step 5
Wood cap rail attaches to Adjustable top plate using 4 ea. screws from the bottom side.
Pre-drill if desired.
(Screws not included)



Adjustable Top Plate - Step 6
Tighten center screw to lock the top plate in place using phillips bit.



RailFX™

Aluminum Railing & Cable Systems

LED Lighting Strip



Under Rail Lighting For RailFX Rail

DekPro™ EFFEX LED Low Voltage Lighting Strip

Materials needed for Installation:



Series 200 Top Rail (Top)



60" Top Rail Lighting Infill



60" Diffuser Lens



55" Light Strip

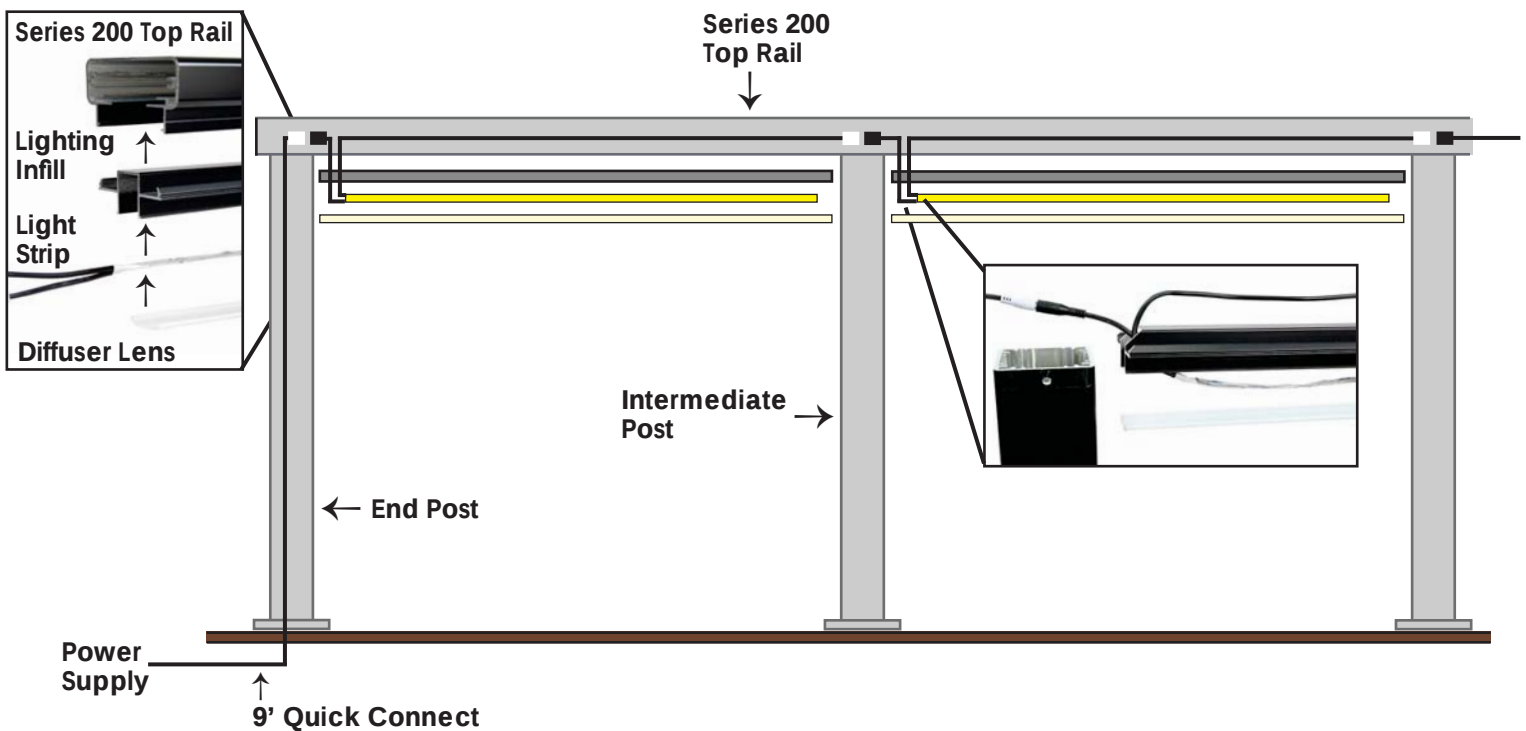


9' Quick Connects



Transformer Kit

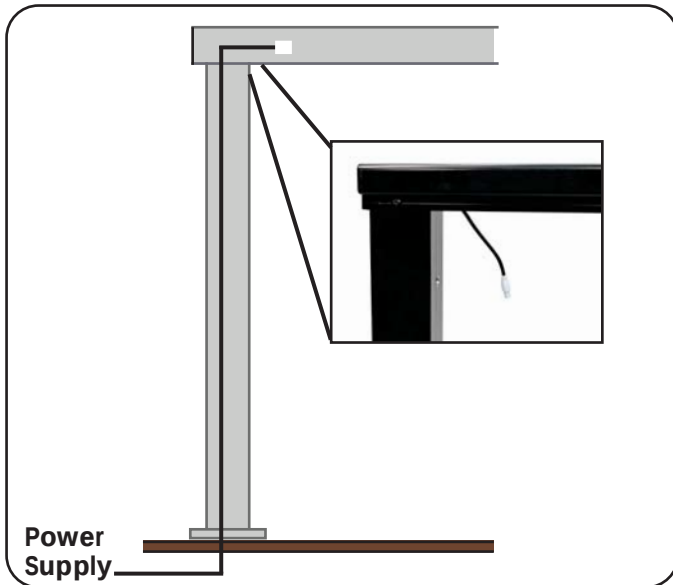
RailFX Lighting Overview



Before beginning to run low voltage wiring, posts and top rail framework must be in place. It is best to install lighting before stainless steel cable infill. This will provide for easier access to run the lighting components. If stainless steel cable infill is in place - Do Not tension the cable railing until lighting is installed.

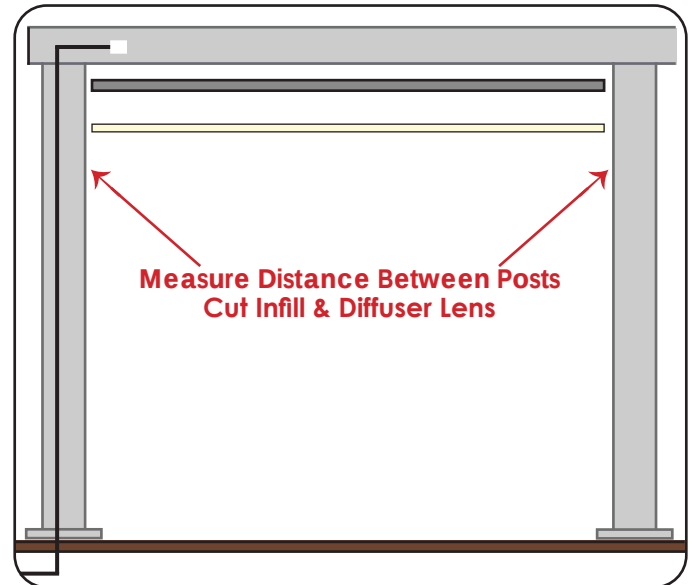
Under Rail Lighting For RailFX Rail

DekPro™ EFFEY LED Low Voltage Lighting Strip



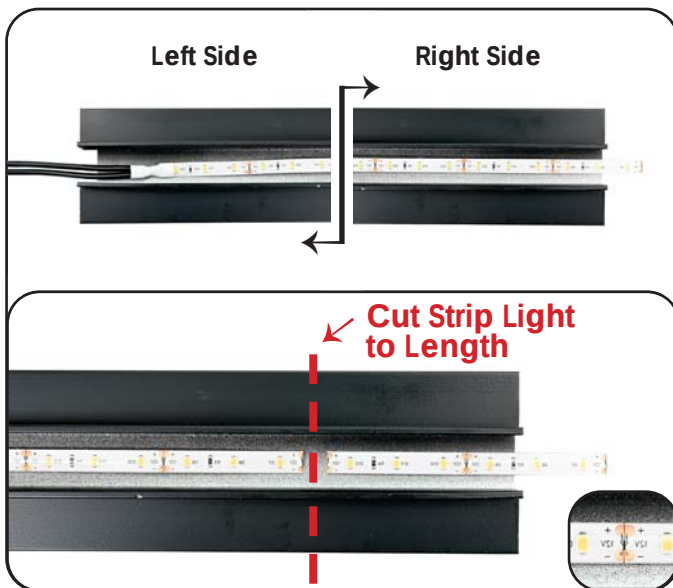
Step 1: Run Wire Up First Post

Run wiring from the transformer to the first post. Fish the wire up the post so you have access to the white end plug. (It's best to do this during post installation or Top rail will have to be temporarily removed)



Step 2: Cut Infill Components to Size

Measure the distance between posts and cut lighting infill to that length. Ensure the cut for the aluminum infill is made on the end without the 45 degree notch for lighting. The diffuser lens can also be cut to this same length.



Step 3: Cut Strip Light to Length

- A.) Lay Strip Light into lighting infill to determine length of strip Light.
- B.) Strip light can be trimmed down in 2" increments on the non-wired end. (Must be cut on indicated cut line)

It is recommended to leave 2" - 3" between the end of the strip light and the post to avoid "Hot Spots"

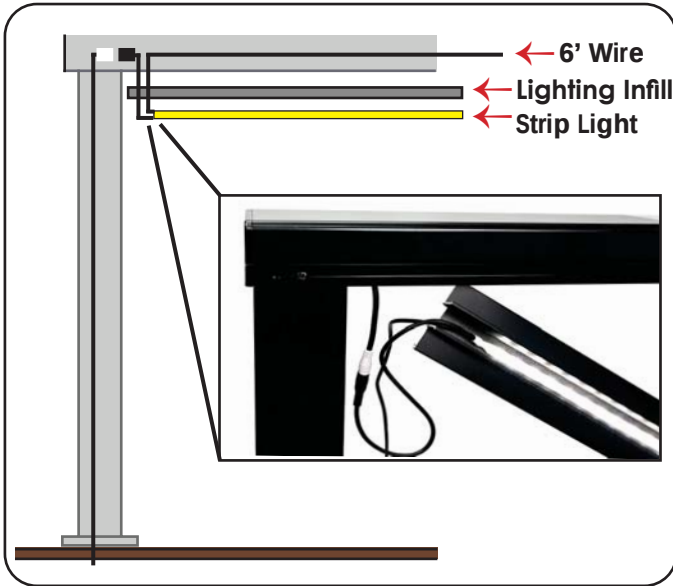


Step 4: Adhere Strip Light to Light Infill

With Strip light trimmed to length, remove backing to expose 3M adhesive. Adhere Strip light to lighting infill. **Ensure the lighting infill has been properly cleaned with denatured alcohol and dried for best results.**

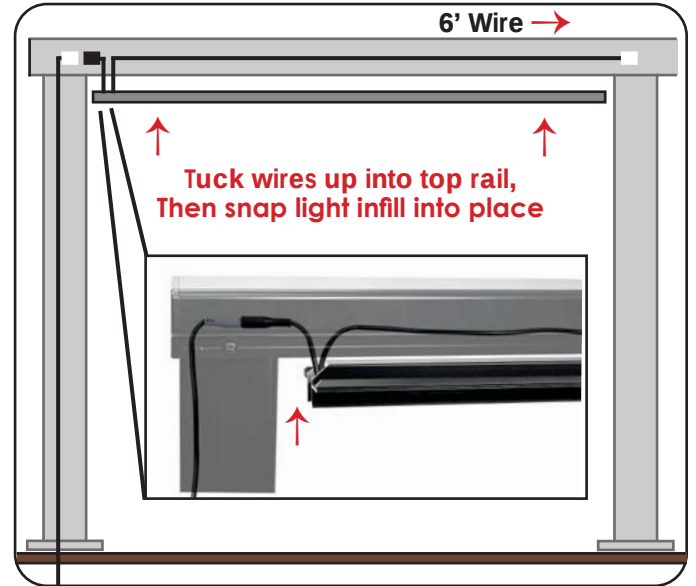
Under Rail Lighting For RailFX Rail

DekPro™ EFFEX LED Low Voltage Lighting Strip



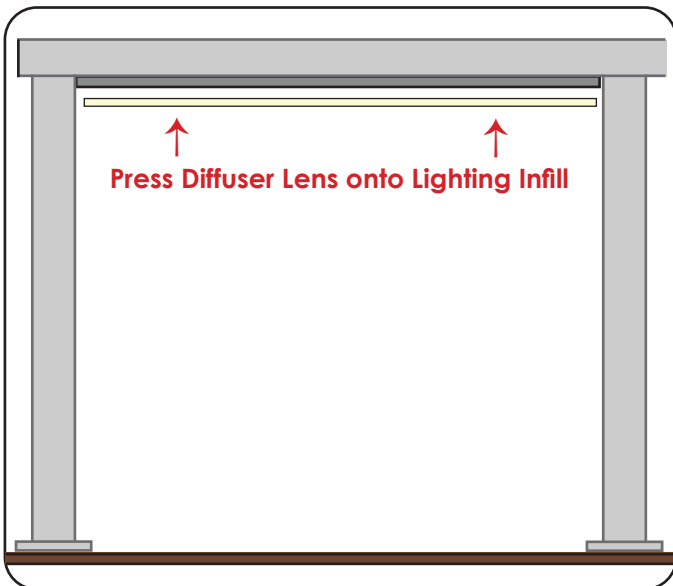
Step 5: Connect Wiring

Connect the shorter 12" wire from the strip light and Ensure the lights are working properly once connected with the power source.



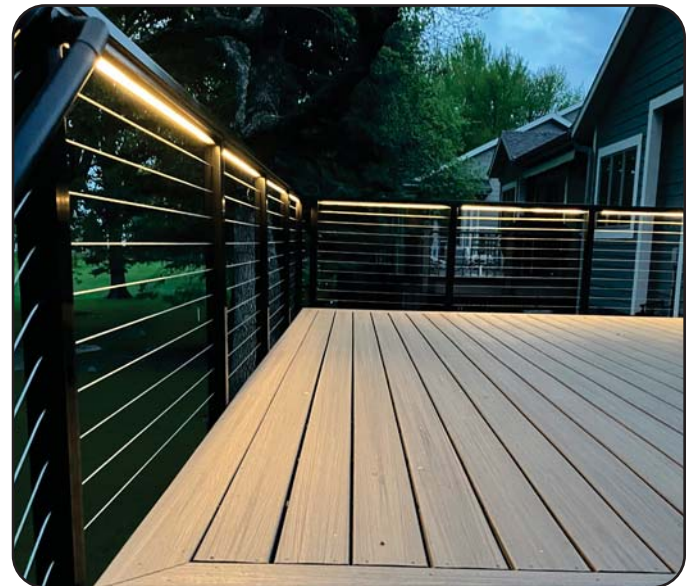
Step 6: Snap Lighting Infill into Place

With wires connected and lighting working correctly snap the lighting infill into the bottom side of the top rail. Run the 6' lead wire up and over the flat infill to the next post to continue lighting connections.



Step 7: Snap Diffuser Lens On

The diffuser lens can be snapped onto the lighting infill to complete the light installation. Continue this process until all lights are connected



Finished Look

RailFX™

Aluminum Railing & Cable Systems

Gate Installation



Materials needed for Installation:



45" End Fascia Posts - Pre-Drilled
(x2)



Series 200 Top Rail (Top)



Series 400 Top Rail (Bottom)



Hinge Set



Latch



Series 200 Top Rail End caps

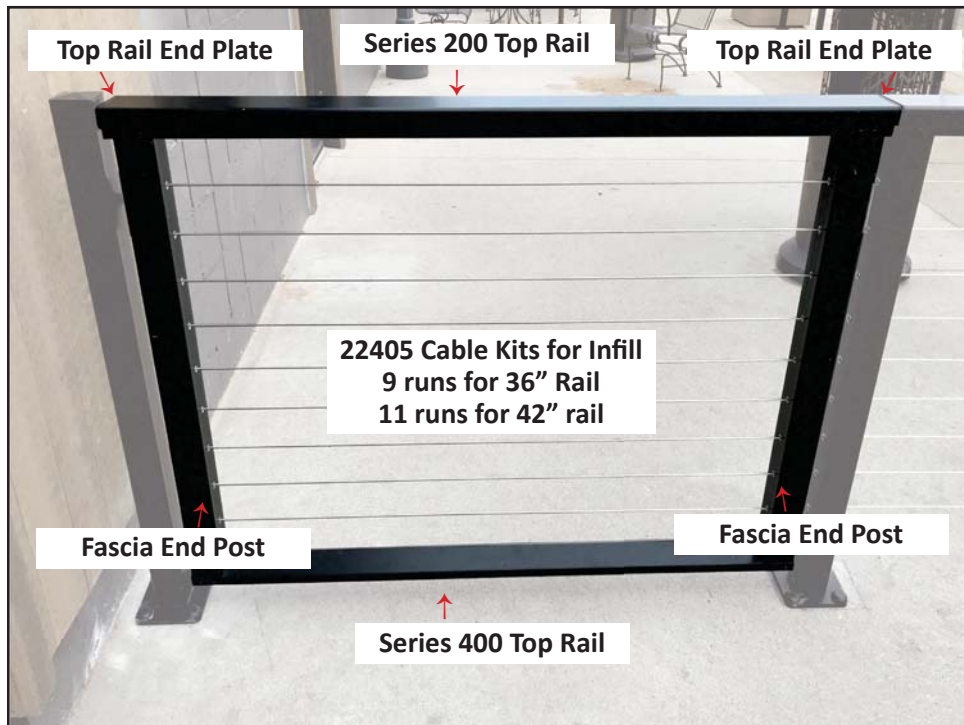


Series 400 Top Rail End caps

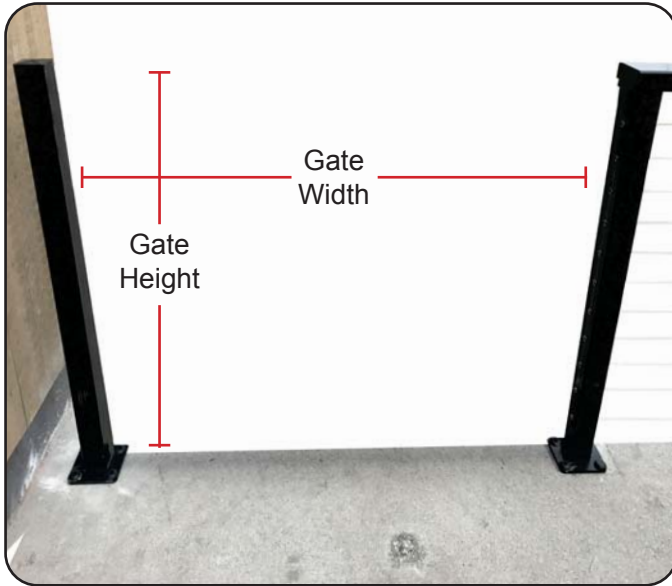


22405 Cable Kits (x9)

RailFX Gate Overview

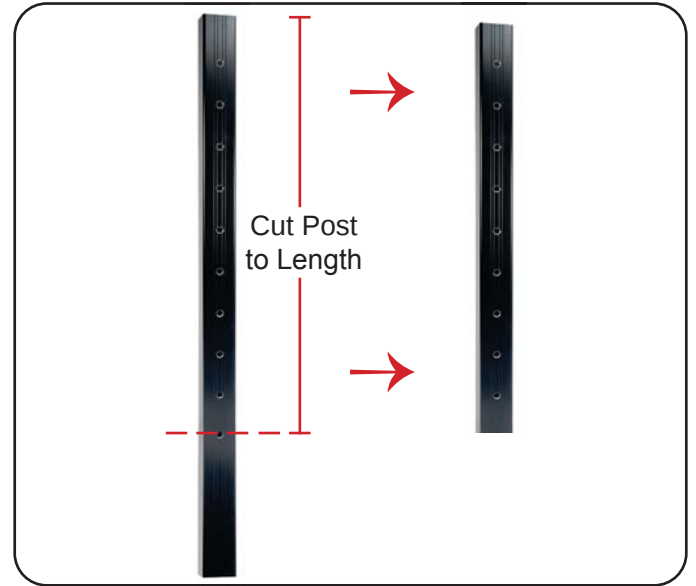


It is the responsibility of the installer to meet all code and safety requirements, and to obtain all required building permits. The deck and railing installer should determine and implement appropriate techniques for each installation situation. RailFX™ or its distributors shall not be held liable for improper or unsafe installations.



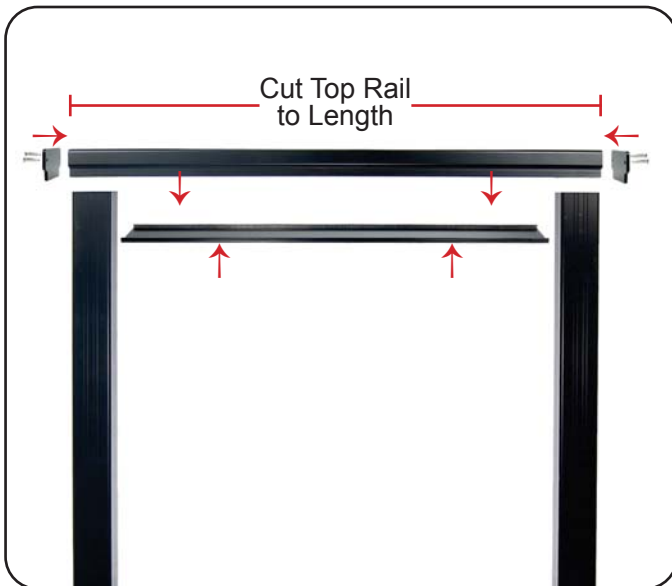
Step 1: Determine Gate Size

Measure the distance between posts to find the gate opening size. (Factor in the distance from bottom rail to surface and leave 1/2" space on each side between the gate and the end post to allow for hinges and latch)



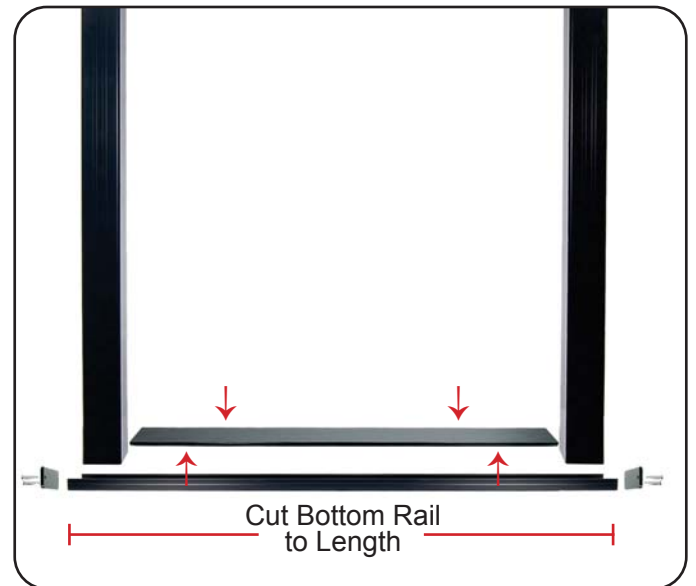
Step 2: Cut Gate End Posts to Size

Gate posts are 45" fascia end posts. Determine the height desired, then cut post to correct length for gate installation. Ensure the pre-drilled holes are centered. (36" rail height typically uses 9 runs of cable)



Step 3: Cut Top Rail to Length

After determining the gate width, cut the top rail to proper length. Attach top rail to gate posts using 2 ea. screws on both sides of the post. Then attached top rail end plates. Once attached measure between posts to determine the length of the flat infill piece, cut it to length and snap it into the rail.



Step 4: Cut Bottom Rail to Length

Series 400 top rail can be used for the bottom rail of a gate. Cut the rail to length and attach it to the bottom of the gate posts using 2 ea. screws on both sides of the post to secure it into place. Once attached measure between posts to determine the length of the flat infill piece, cut it to length and snap it into the rail.

Gate: Gate Assembly for RailFX

For RailFX™ Aluminum Railing and Cable System



Step 5: Cable Infill

With the gate frame complete, install the cable. Typically 9 runs of cable are used for a 36" gate height. Please follow cable railing installation instructions included with the cable kits.



Step 6: Hinge and Latch

With gate completed, attach the hinges and latch as desired. Use hinges with 1" legs to avoid contact with cable fittings in post. *(Keep hinges close to top and bottom of post to maximize strength)*



Completed Gate Assembly
(Latch & Hinge on Opposite Side)

Gate: Anti-Sag Kit for Gates (Optional)

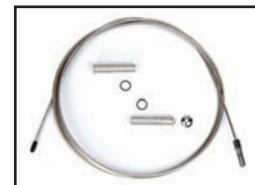
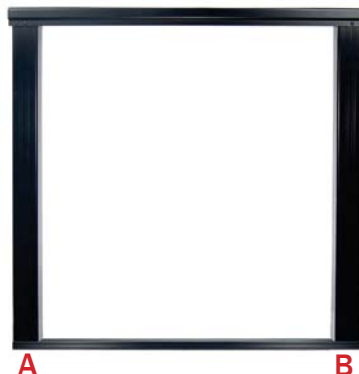
For RailFX™ Aluminum Railing and Cable System

Cable Anti-Sag Kit for Gate

Step 1: Follow Gate Installation Instructions

Follow gate installation instructions thru Step #4 to get you to this point in the installation where the gate posts and rails are cut to the proper lengths.

** Denote which gate post will have the hinges and which will have the latch. In this example "Gate Post A" will have the hinges and "Gate Post B" will have the latch.*



Cable Anti-Sag Kit Includes:

- 1 - 5' Stainless Steel Cable
- 1 - Tensioning Receiver Fitting
- 1 - Pull-lock Fitting w/ End Cap
- 2 - Washers

Step 2: Locate and Drill Holes for Anti-Sag Cable Kit

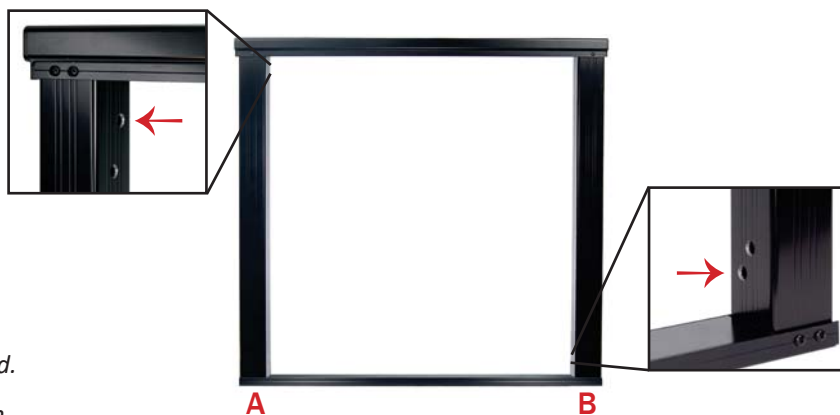
Upright A: Measure down from top rail 1.5" and in from the edge of the post 3/4"

Upright B: Measure up from bottom rail 1.5" and in from the edge of the post 3/4"

Ensure that the holes are drilled in the proper orientation. Either on the front or back side of gate.

** Once location of holes has been noted; Gate can be disassembled for easier post drilling, if desired.*

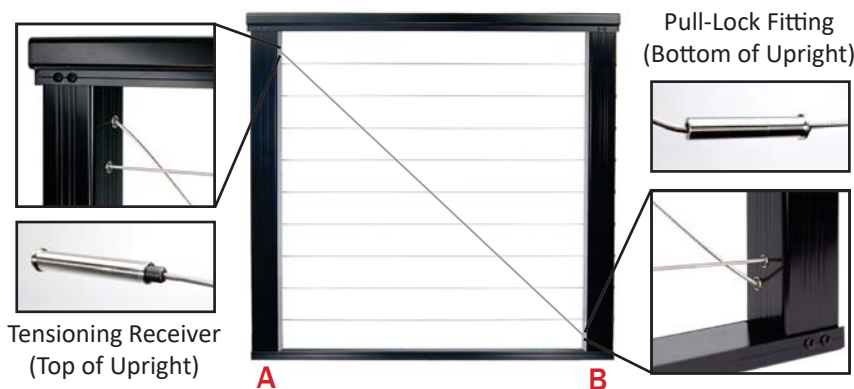
** Tools required: 29/64" drill bit, PI-key, & 3/16" hex wrench*



Step3: Install Cable Anti-Sag Kit

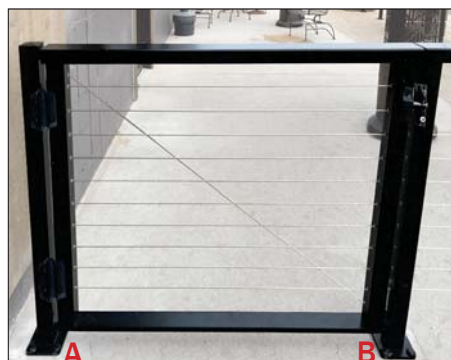
Assemble the gate and install all cables. Turn the cable into the receiver 3-4 threads to engage it into the fitting. Pass the open end of cable through the pull-lock fitting and pull the cable tight. Cut excess cable from pull-lock fitting.

** Tensioning receiver should be used on "Gate Post A" which is the gate post with the hinges.*



Step4: Install Gate and Tension Anti-Sag Cable

Install the gate between posts. Tension the anti-sag cable until the gate sits level between the railings. The anti-sag cable can be tensioned as needed throughout the life of the gate using 3/16" hex wrench.





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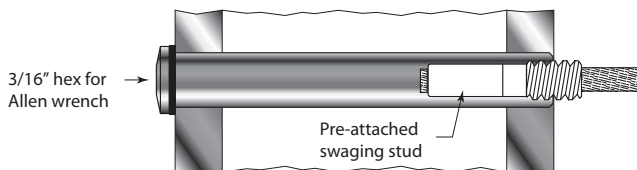
Cable Installation Guide



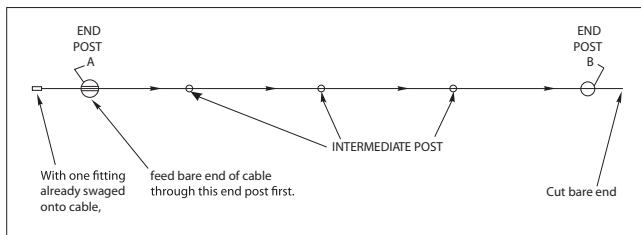
Kit 224 Series Installation Instructions for 2 3/8" Metal Posts



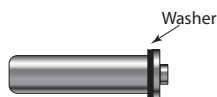
1. Install the tensioning end first with the 2 3/8" long Receiver.
2. Slip the Delrin washer over the body of the Receiver and insert the Receiver into the post.
3. Start the threaded stud attached to the cable into the Receiver and turn 3 complete turns. This will thread about 1/2 of the stud into the Receiver.



4. Run the bare end of the cable through all your intermediate posts and through the end post where you will be installing the Pull-Lock fitting.

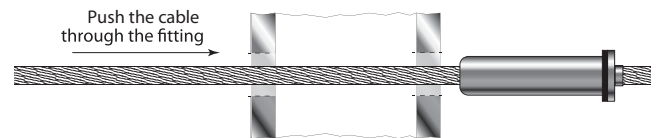


5. Slip the Delrin washer over the body of the Pull-Lock fitting.

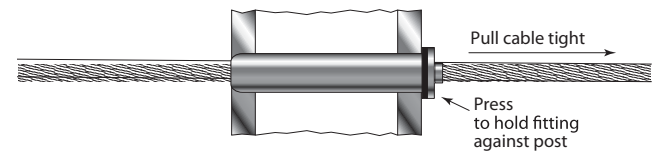


- 6a. Slip the Delrin washer over the body of the Pull-Lock before running cable through the fitting.

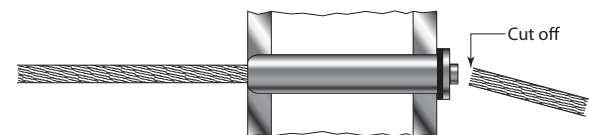
- 6b. Push the cable into the hole in front of the Pull-Lock fitting. Twist the cable in the right hand direction as you push it into the fitting. If the cable begins to "unravel" you are rotating it the wrong way. Push the cable until it is through the fitting.



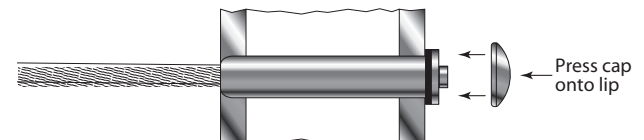
7. Once cable is through the fitting, pull cable while holding the Pull-Lock fitting firmly into the hole in your post. Hold the fitting in place with your hand while pulling the cable through as tightly as you can.



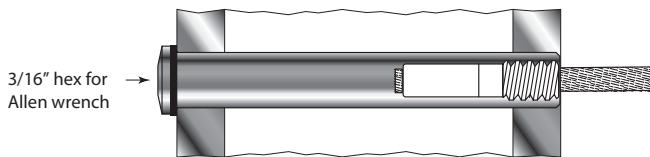
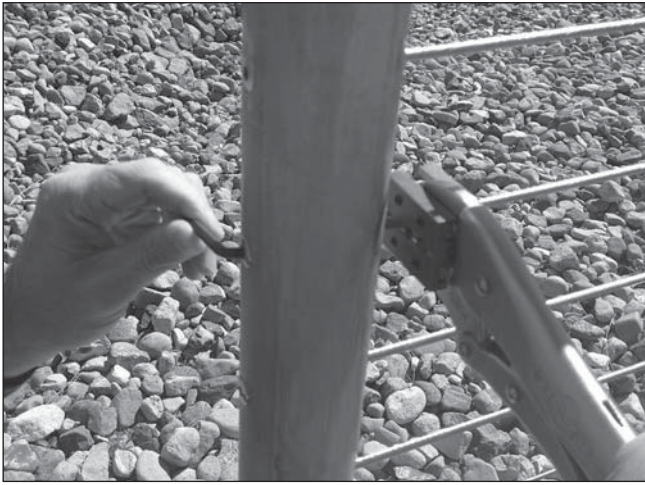
8. Cut the cable flush with the hole in the back of the fitting using a cut-off wheel.



9. Press the cap onto the lip of the Pull-Lock fitting.

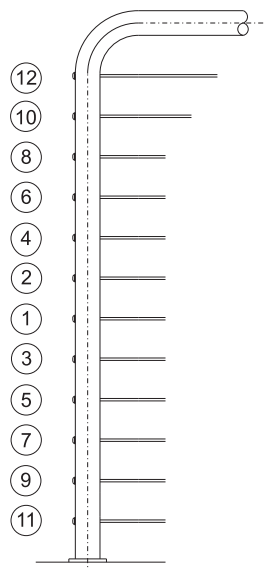


10. Go to the other end and tension the cable by holding the cable securely to prevent it from turning while you turn the Receiver with an Allen hex wrench. Be careful to protect the cable from damage while tensioning.



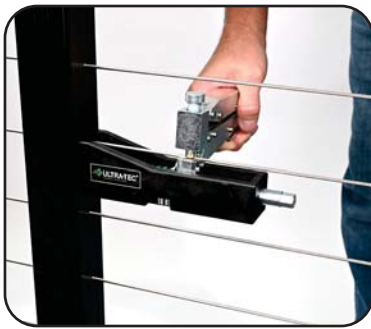
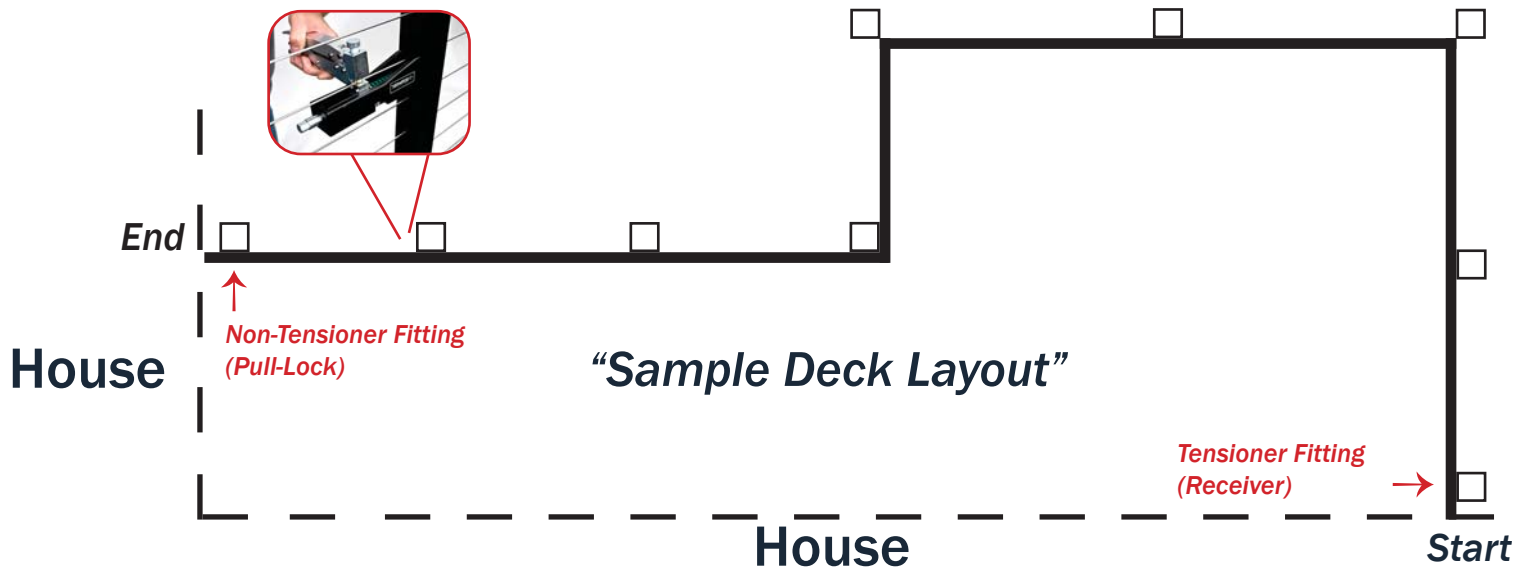
The swaging stud will be pulled into the Receiver by the tensioning.

11. Tension in sequence, beginning with the center cable and moving back and forth toward the top and bottom. As you tension each cable, give it a sharp pull downward mid-span to help set the locking wedges in the Pull-Lock fitting. Then re-tension as necessary in the same sequence.



RECOMMENDED TENSIONING
SEQUENCE

Pre-Tensioner Cable Tool Installation Guide



Step 1:

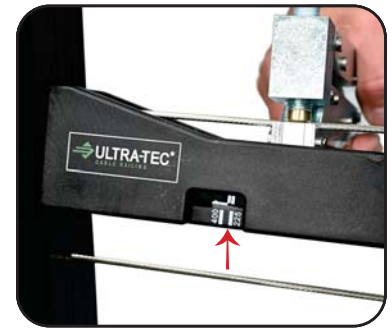
The cable pre-tensioner tool is typically used at the second to last post of the cable run, just before the Non-Tensioner Cable fitting. (See illustration above for reference)



Step 2:

Ensure the tool is snug against the post. Clamp onto the cable tightly with the tool, then use 1/2" socket to rotate the threaded rod to pull tension on the cable.

****DO NOT USE POWER TOOLS****



Step 3:

Rotate until the gauge reaches the 225 lb tension line.



Step 4:

Pull all remaining cable through the Non-Tensioner Fitting at the end of the run.



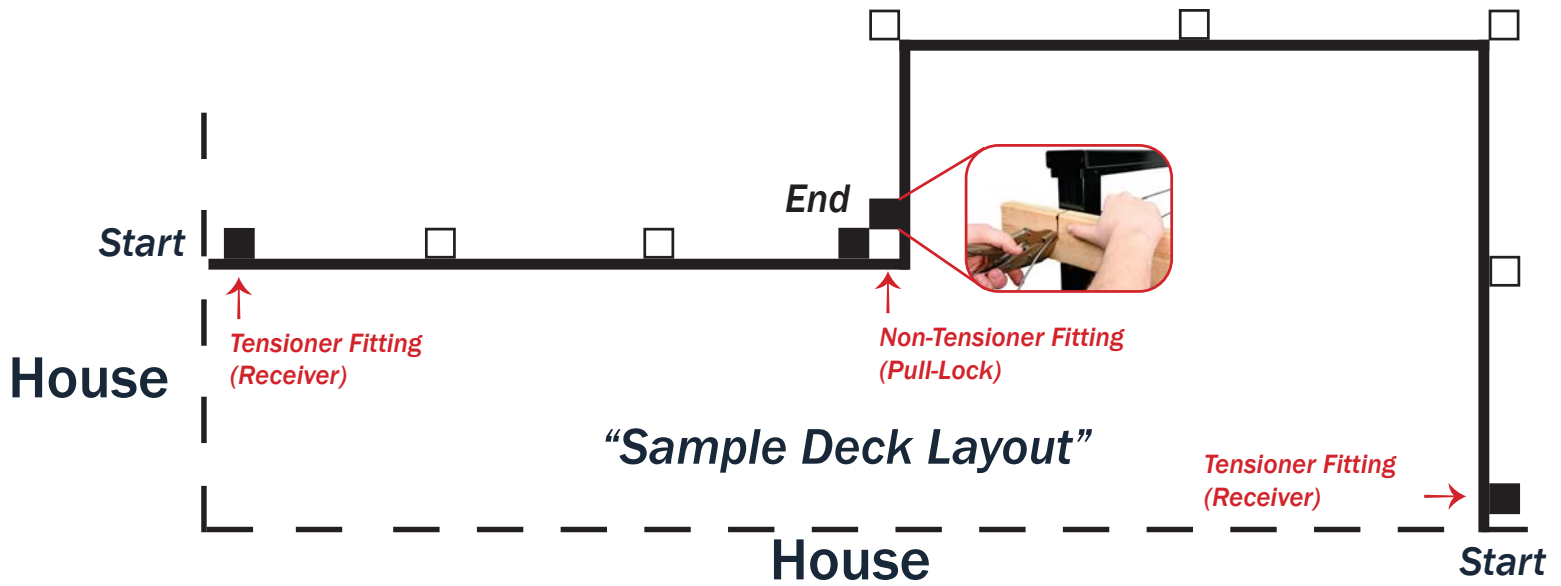
Step 5:

Once all the slack is out of the cable and the Non-Tensioner fitting is tight in the post, the cable can be cut.



Step 6:

Remove the pre-tensioner tool and finish tensioning the cable using the Tensioner cable fitting at the start of the run. (3/16" Allen wrench)



Manual Cable Pre-Tensioning:

When running cables around 2 or more corners and/or running cables for long runs (Over 50') it is necessary to pre-tension the cable.

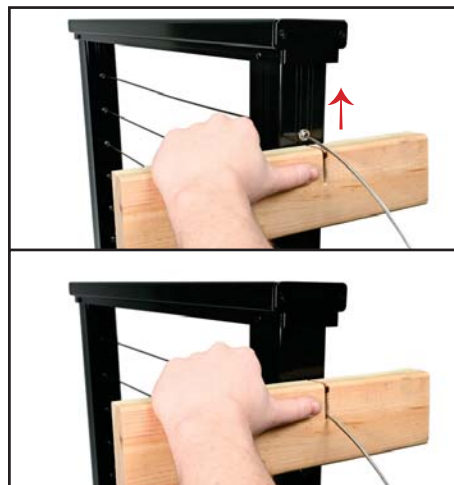
This can be accomplished manually or with a cable pre-tensioner tool.

This instruction sheet is for the Manual method.



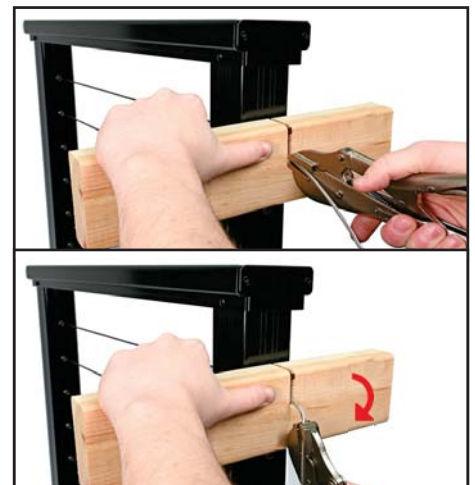
Step 1:

Cut a wood 2x4 or scrap piece of material with a saw blade to a width of about 3/16". This will allow for the cable to pass through the cut slot.



Step 2:

Use the cut 2x4 at the end post with the Pull-Lock fitting. Slide the 2x4 into place with the cable going into the slot created in Step 1.



Step 3:

Clamp a vice-grip onto the cable. Rotate the vice-grip against wood to pull the cable through the fitting. Ensure the fitting stays snug against the post. Pull until cable is tight.

*** If post is not accessible - i.e. up against the house, it may require the use of the cable pre-tensioner tool ***



Marketed and Distributed by:

