ADI Cable Railing

By: RailFX™

Application Guide For Cable Railing

ADI
Absolute Distribution Inc.

Phone: 1-800-335-5909 • Fax: 1-800-335-5909 • Web: www.absolutedist.com

Your Deck Type

Decks come in all shapes and sizes and the following pictures represent several ways you can install cable on your deck. Cable railing can be used with wood rail, composite/aluminum sleeves, and metal framed systems. Simply determine which railing you plan to use and find the cables to work with that system. Cable is the most unobstrusive, view friendly option for a railing system and will add value to your home.

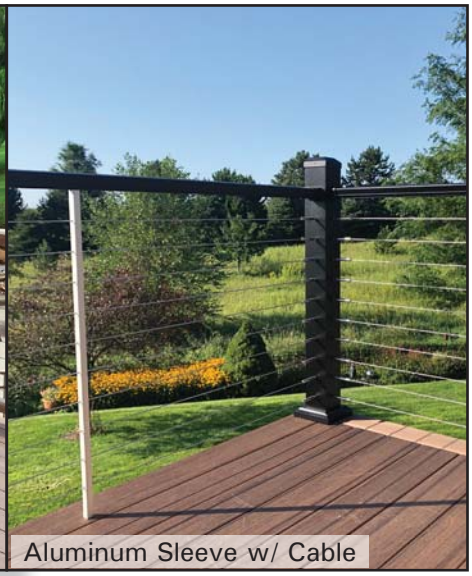
The VIP Run

Throughout this booklet you will see that Run #1 on each drawing is the "view run" — the one that is most important, most visible of all your runs. It's the one on which you want to have the least interference with your view, so you always start with that run and build around it.

RailFX™ Aluminum Rail and Cable System

Wood Rail with Cable

Composite Sleeve w/ Cable



Aluminum Sleeve w/ Cable

Selection Guide

RailFX™ Cable System

RailFX™ Aluminum rail and cable is a complete railing system that provides a clean, contemporary railing specifically designed to work with cable. Aluminum framework, pre-drilled posts and stainless steel cable makes this a strong, durable and attractive option.

See pages 4 - 13

Cable For Wood Posts

Cable railing into wood creates the perfect symmetry between the traditional look of wood railing and the modern appeal of stainless steel cable railing. Cable railing provides the most unobstructed option available in a railing system to maximize your view.

See pages 14 - 27

Cable For Sleeved Posts
(Composite or Aluminum)

Lag style cable fittings are specifically designed to work for post sleeves over a wood 4x4 post. The lag fitting passes through the sleeve and anchors into the structural wood 4x4. A great cable railing option for existing wood and sleeved posts.

See pages 28 - 31

Cable For Metal Posts

Metal Post systems can use two styles of cable fittings. The concealed 200 series cable kits or the exposed fittings of the FlexFX™ offering.
Cable options are available for many different sizes of metal post and railing systems.

See pages 32 - 37

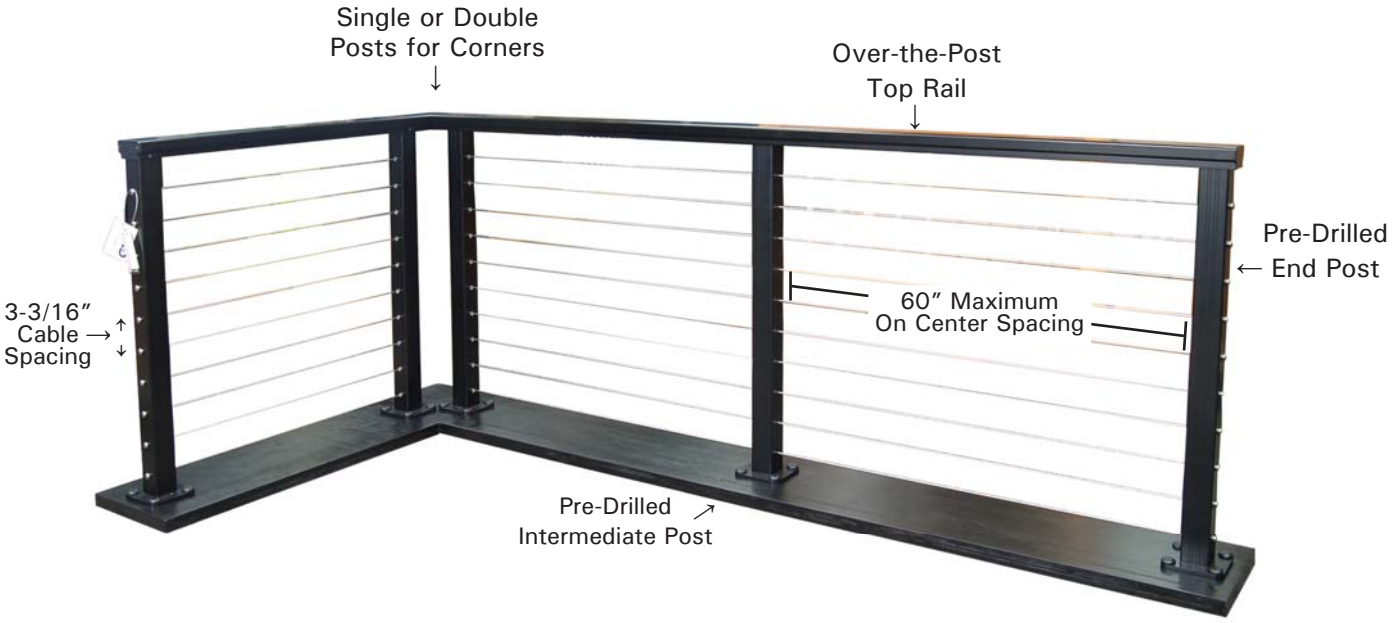
Aluminum Railing and Cable System

RailFX™ Aluminum Rail and Cable w/ Series 200 Top Rail - Bronze

RailFX™ Product Features

- Low maintenance aluminum railing system
- Light weight, strong, and durable
- Powder Coat Finish Stocked in 4 Popular Colors
- Pre-drilled posts for simple and fast installation
- Sleek contemporary lines
- Exterior or interior applications
- Designed and Engineered for use with Cable
- Nationwide Code Approval
- Made in USA
- 10 Year warranty

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 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. Cables can either terminate at the corner using two posts or run continuously through a single 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 placed and mounted where desired for maximizing installation flexibilty. All posts are available for surface mount or fascia mount and available for 36" and/or 42" rail heights.

Top Rails

There are 3 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

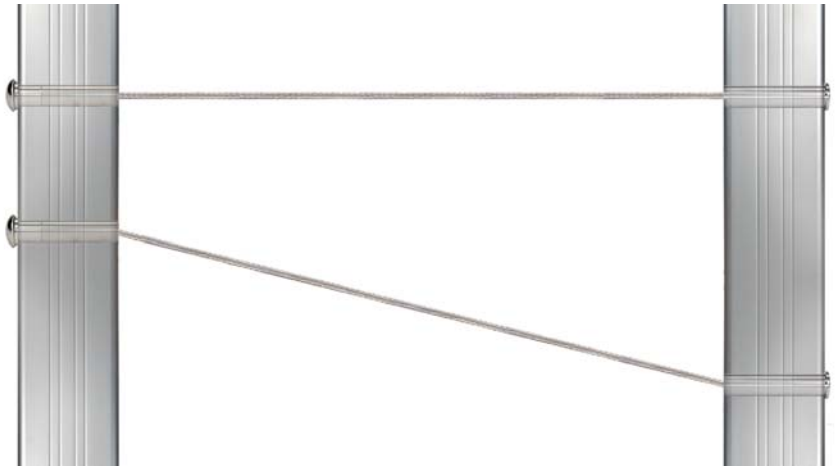
Kit Assemblies for RailFX™ Posts

For level runs:

224 Series (outside to outside)
2-3/8" Invisiware® Receiver
to Pull-Lock®.

For stairs, pitched runs:

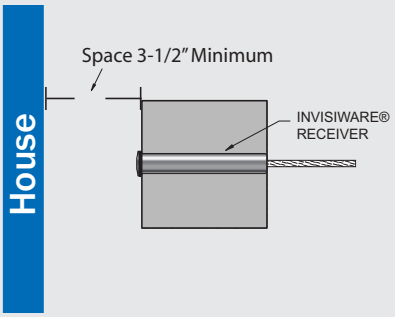
224 Series (outside to outside)
2-3/8" Invisiware® Receiver
to Pull-Lock®.



End Post and Corner Post Guidelines

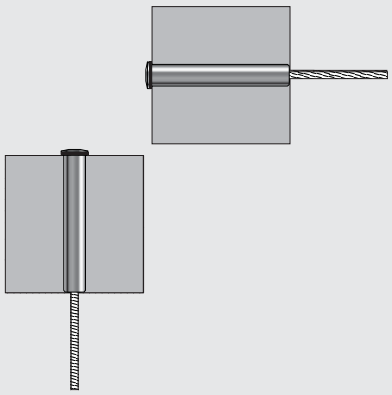
1. End Post against a Structure

Fittings that go through the post need at least 3-1/2" of space between the post and the structure to allow for cable to be installed and/or tensioned without issue.



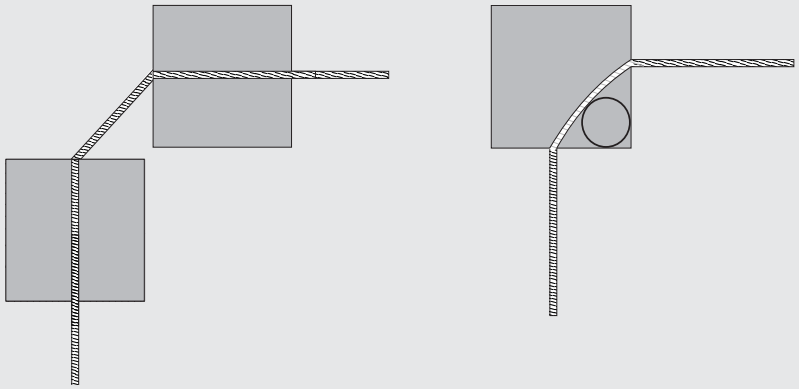
1. Start and Stop Cable Runs

Either cable fitting can be used on corners with two post. Cables are able to stay on same plane.



2. Continuous Cable Through Corner (Single or Double Post)

When running cable railing continuously through a 90° corner, a single corner post or two intermediate post can be used to accomplish this. Direct Mount Fascia mount posts require two posts for outside 90 degree corners.



RailFX™ Post - Outside-of-Post to Outside-of-Post Mount

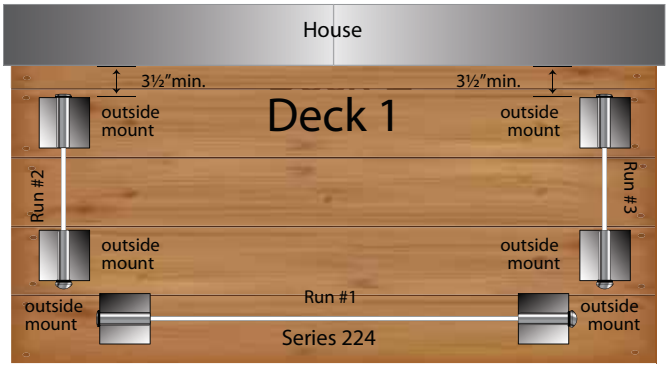
224 Series Cable Kits for Level

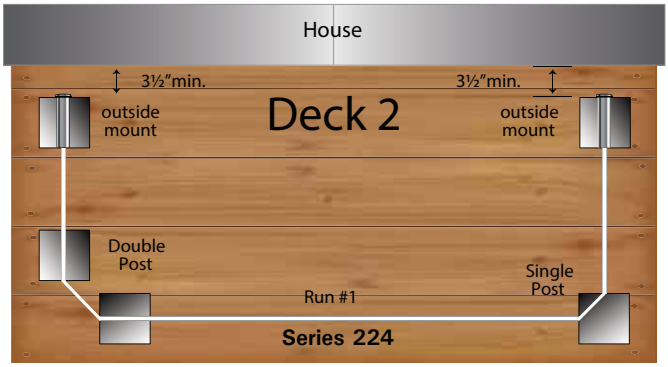
224 Series cable kits are designed to go through metal posts and mount to the outside of the post. This design conceals the fittings within the post so the fittings are hidden from sight to maximize your view through the railing.

When taking cable railing through a corner, there are two options:

Option 1: Starting and Stopping cable kits at each corner as shown in **Deck 1**.

Option 2: Run cables continuously through corner as shown in **Deck 2**.





For 2-3/8" posts, applicable kit is the 224 Series. The tensioning device is 2-3/8" long Receiver, which installs through the aluminum post on one end.

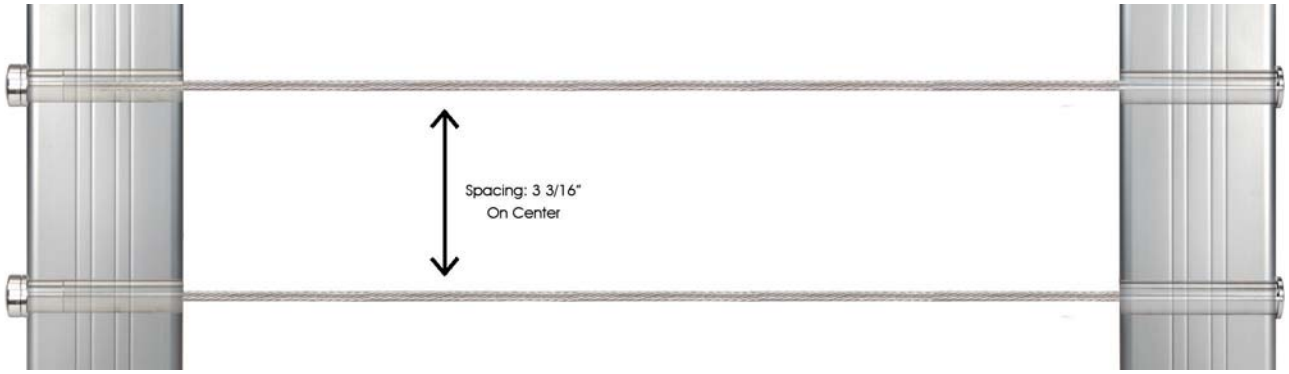
A Pull-Lock® fitting of the same length is installed through the other end.

Series 224 Kits

Cable Length	1/8" cable PART NO.	10 Packs PART NO.
5′	22405	22405-10
10′	22410	22410-10
15′	22415	22415-10
20′	22420	22420-10
25′	22425	22425-10
30′	22430	22430-10
40′	22440	N/A
50′	22450	N/A
60′	22460	N/A
70′	22470	N/A

Tools needed for 224 Series:

3/16 Hex wrench for tensioning Receiver
Cable cutting tool and Cable gripping pliers
See Page 39 for tools



RailFX™ Posts for Stairs - Outside-of-Post to Outside-of-Post

224 Series Cable Kits for Stair

Due to many variables in stair applications, surface mount posts used on the stairs do not come with base plates attached. This allows posts to be placed, adjusted and mounted where desired. Stair intermediate post holes are slotted and pre-drilled to allow cables to pass through at the angle of the stairs. All stair posts require the addition of a surface mount base plate or fascia bracket for mounting.

Stair Options

Deck 1 - Stopping and Starting Cable.

Cable Runs are broken into two sections, one for level and the other for stair. This allows for the Series 250 top rail to be used for the stairs, which doubles as a graspable handrail.

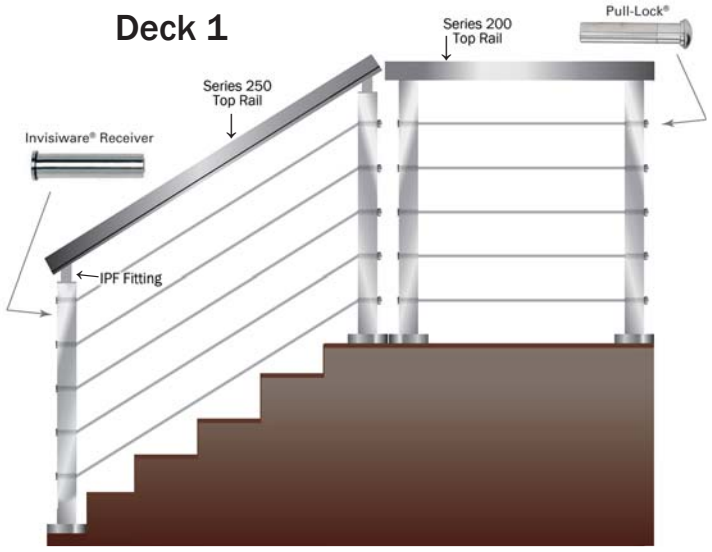
Deck 2 - Continuous cable from level to stair.

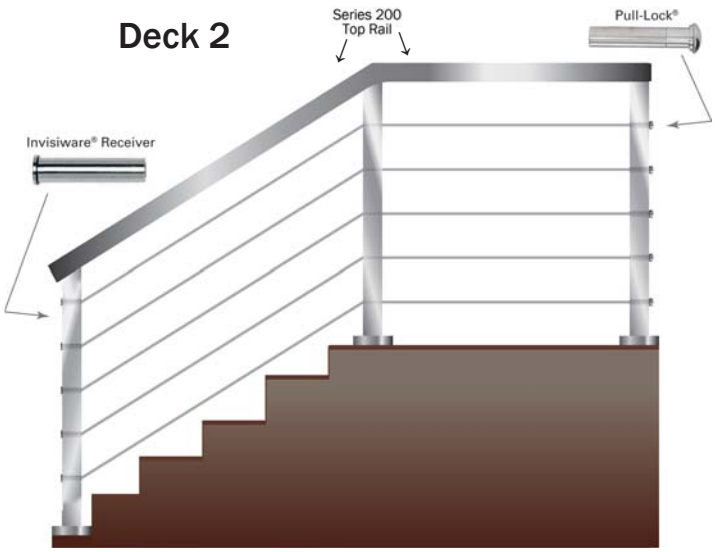
Cable runs through a single post at the top of the stairs without stopping. This can be achieved with either a Series 200 or Series 400 top rail. However, these top rails do not qualify as graspable rail and a secondary handrail may be required.

For 2-3/8" posts, applicable kit is the 224 Series.
The tensioning device is 2-3/8" long Receiver, which installs through the aluminum post on one end. A Pull-Lock® fitting of the same length is installed through the other end.

Tools needed for 224 Series:

3/16 Hex wrench for tensioning Receiver
Cable cutting tool and Cable gripping pliers
See Page 39 for tools





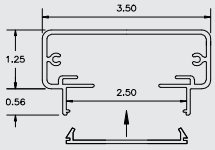

Deck 1 - RailFX™ Aluminum Rail and Cable
Series 250 Top Rail


Deck 2 - RailFX™ Aluminum Rail & Cable
Series 200 Top Rail

Top Rail Options

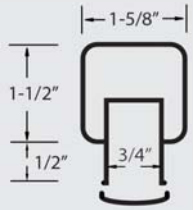
Series 200 (Most Popular)

3-1/2″ x 1-7/8″ x 8′ Contemporary aluminum top rail. Join multiple rails together with splices to achieve any length required. Field trimmable with carbide blade. Includes bottom finishing plate for clean look.
End plate sold separately.



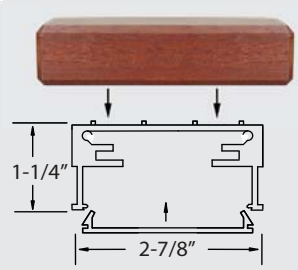
Series 250

2″ x 1-5/8″ x 8′ Aluminum top rail. Qualifies as continuous graspable handrail when used over the post. Field trimmable with carbide blade. Includes bottom finishing plate for clean look.
End plate sold separately.



Series 400

Series 400 aluminum rail cap for attaching wood/composite top rail. Field trimmable with carbide blade. Includes bottom finishing plate.
End plate sold separately.



Top Plate

Top plates allow for attaching structural wood top rail.

Straight Plate

Corner Plate

Stair Plate

Adjustable Top Plate

Adjustable top plate allows for attaching structural wood top rail. 1.5″ x 5″ plate allows for narrower top rails to be used. Can be used for level and stair rails. Adjusts up and down and side to side.

Adjustable Plate (1.5” x 5”)

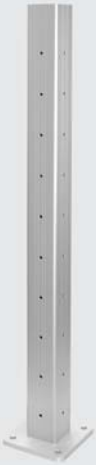
RailFX™ Post Options

- 2-3/8" x 2-3/8" square pre-drilled posts for cable
- Cable spacing 3-3/16" on center
- Rail heights of 36" and 42"
- Post are required every 60" on center or less
- Level and stair applications
- Single or Double Corner Posts

Surface Mount Posts


End Post


Intermediate Post


Corner Post


Stair Intermediate Post
(Stair Posts Require Additional Base Plate)


Stair End Post


Post Skirt


Standard Base Plate
(5"x5")


Knee Wall
(5"x5")


Narrow Base Plate
(3"x5")


Narrow Knee Wall
(3"x7")

Fascia Mount Posts


Straight Fascia Bracket


Double Corner Outside Fascia Bracket


Single Corner Outside Fascia Bracket


Single Corner Inside Fascia Bracket


Direct Mount Fascia Post Kit

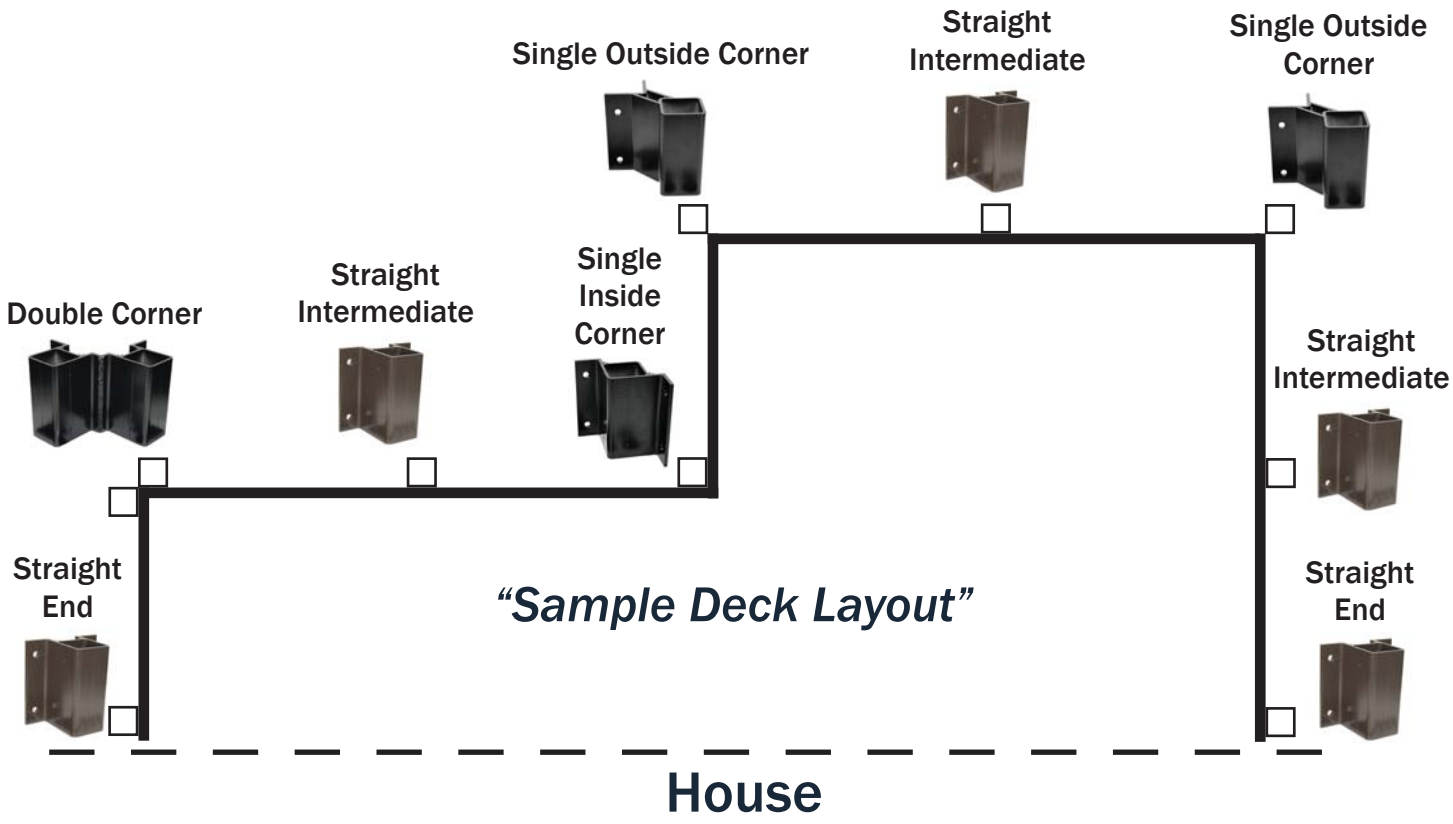

End Post


Intermediate Post


Stair Post


Corner Post

Fascia Mount Bracket Guide



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:

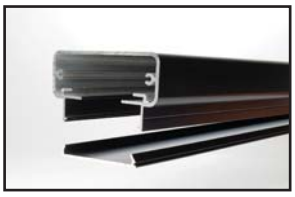
- Inside Corner when using single corner post

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

RailFX™ Under Rail LED Lighting

The RailFX™ LED lighting system is an attractive, low profile accent lighting option that is concealed beneath the top rail. This illumiantes your deck and stairways and enhances your outdoor living experience. Available for both Series 200 and 400 top rails.

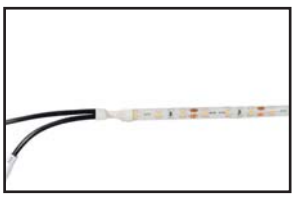
Under Rail Lighting Components:



Series 200 Top Rail

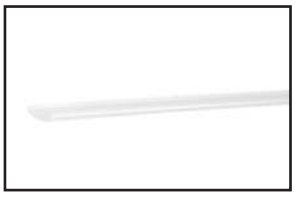
60” Top Rail Lighting Infill

Snaps into the underside of series 200/400 top rails



55” LED Light Strip w/ Adhesive Backing

Adheres to lighting infill.
1 - 12” lead (Black)
1 - 6’ lead (White)



60” Diffuser Lens

Snaps onto the lighting infill channel after lights are installed

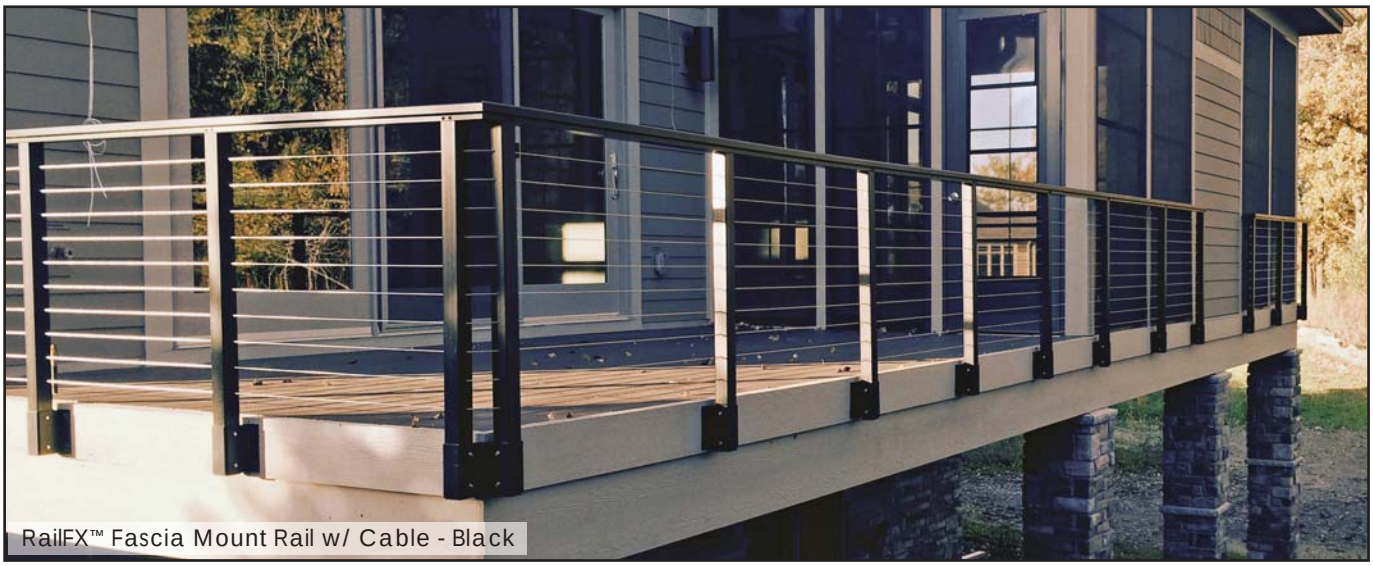
DekPro™ EFFEX Transfomer Kit

Available in:
36W, 60W & 100W

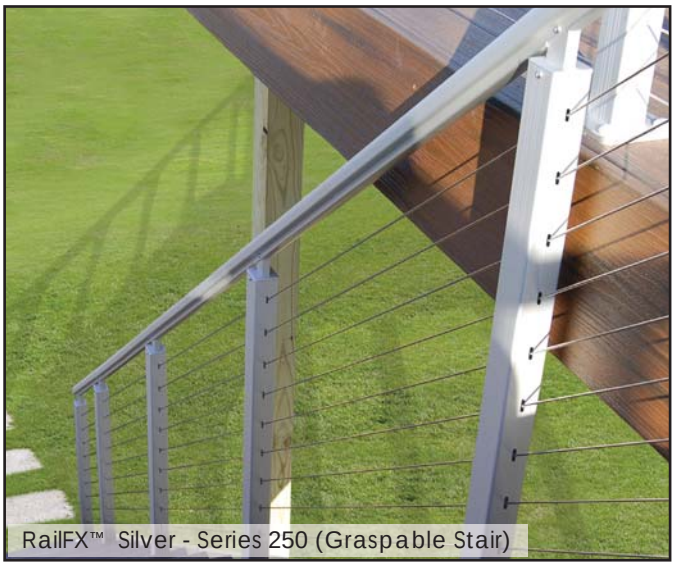
DekPro™ EFFEX 9’ Quick Connect Wire

RailFX™ Cable Railing Gallery

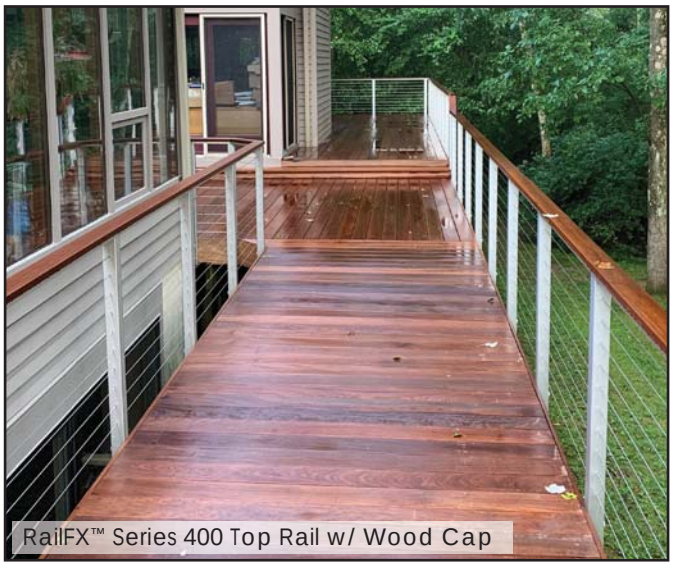
The RailFX™ system is a clean, contemporary railing which has been specifically designed to work with cable. The aluminum framework, pre-drilled posts and stainless steel cable makes this a strong, durable and attractive option.



RailFX™ Fascia Mount Rail w/ Cable - Black



RailFX™ Silver - Series 250 (Graspable Stair)



RailFX™ Series 400 Top Rail w/ Wood Cap

RailFX™ Rail & Cable w/ Series 200 Top Rail - Black

Cable Railing for Wood Posts

Guidelines for proper installation of the ADI™ cable railing system by RailFX™

- Use minimum 4x4 wood posts.
- Top rail is **required** to support posts. (Bottom rail is optional)
- Cables to be spaced at 3-1/8" on center.
- Cable must be supported every 48" to keep the cable from deflecting over 4" to pass code.
- Cables are to be tensioned to **225** lbs of tension minimum.
- 36" Rail height typically uses 10 runs of cable, 42" rail height typically uses 12 runs of cable.
- Lag style cable fittings are required for cable being used with sleeved posts.
- If two posts are used on a corner of the deck, the cable can run through the corner by making a 45 degree turn through the posts with the use of post protector tubes.

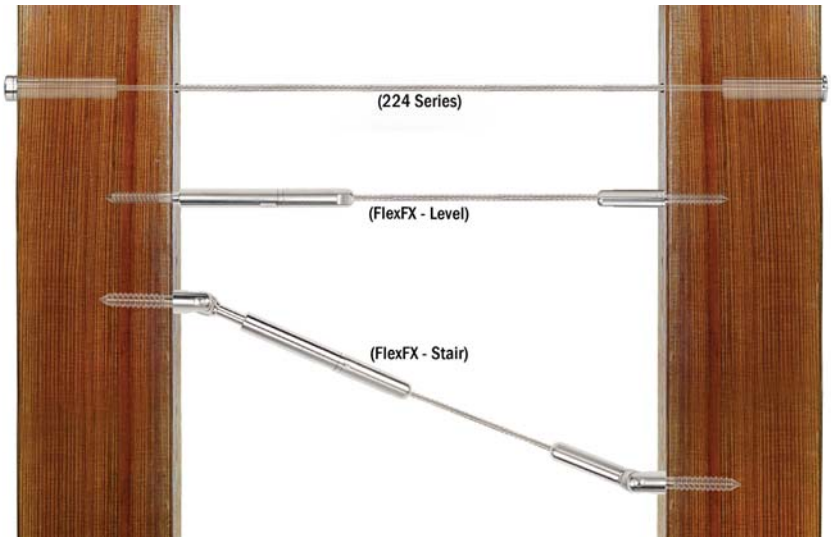
For level runs:

224 Series (outside to outside)
2-3/8" Invisiware® Receiver to Pull-Lock®.

FlexFX™ - Level Cable Fittings
Lag style, Swageless Push-lock fittings.
Level Tensioner & Non-Tensioner

For stairs, pitched runs:

FlexFX™ - Stair Cable Fittings
Lag style, Swageless Push-lock fittings.
Stair Tensioner & Non-Tensioner



Framework for Cable Railing

End Post Construction

Since hundreds of pounds of tension are being applied to end posts using cable railing, those posts must be substantial enough to handle that tension.

For wood posts a minimum 4x4 post is required to keep the post from bending when the cables are tensioned. You will need a top rail, and we recommend that it be reinforced with a support such as a 2x4 on end under the top rail (see illustration at right). End posts must be securely mounted to the deck to prevent the post from coming loose when the cables are tensioned. A bottom rail helps distribute the force away from the bottom of the post, but is not required.

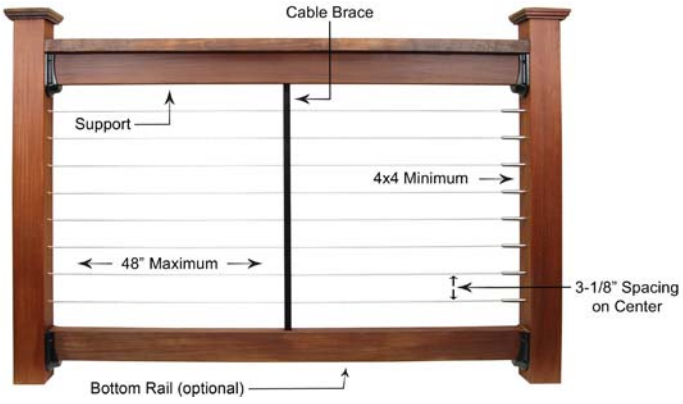
Of course, secure mounting of the intermediate posts to the deck is just as important as with end posts.

Intermediate Posts / Cable Braces

To keep the cable from spreading beyond code requirements, it is required that the cable be supported in some manner no more than every 48" along its run. Intermediate posts, through which the cable is strung, act as supports for the cable. To avoid having to use more intermediate posts than is structurally necessary, an aluminum cable brace with holes for the cables to pass through can be used to support the cables (see illustrations). A typical cable brace is 3/4" x 3/4" square aluminum tube.

Cable Spacing

We recommend that you space the cables with no more than a 3" clear span between the cables (see illustrations). For example, if you are using 1/8" diameter cable, you would drill your holes on center no more than 3-1/8" apart.



Cable Diameter Sizes

The most common cable sizes are 1/8" diameter cable and 3/16" diameter cable. 1/8" is used mostly for residential railing systems and maximizes the view. 3/16" Cable is typically used for commercial railings that require a more heavy duty cable rail application.

Code Compliance Guidelines

4" Sphere Rule: With 3-1/8" on center spacing, 225 lbs of tension and a cable support every 48" or less the cable can not be deflected over 4".

The "Ladder Effect": In 2001 IRC code cycle removed the "ladder effect" with horizontal in-fill. Change was noted in 2001 IRC supplement and has not appeared in the 2012, 2015, or 2018 publications. "Ladder effect" has never been part of the IBC. However, you should always check with local code officials since the old language may appear in local codes.

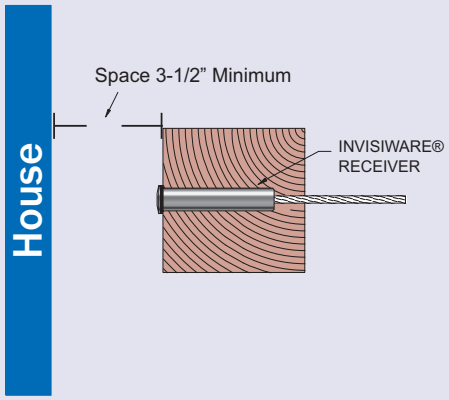
Wood Rail with Cable using Pre-drilled Cable Brace

Single Post Options

Cable Options for Post Against a Structure

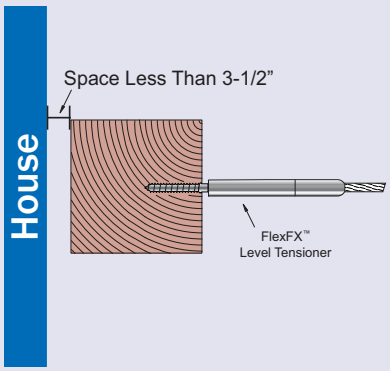
1. Through Post Fittings

Fittings that go through the post need at least 3-1/2" of space between the post and the structure to allow for cable to be installed and/or tensioned without issue.



2. Lag Style Fittings

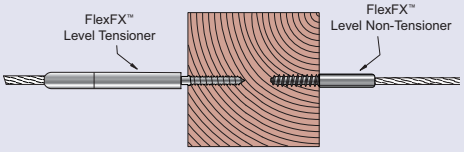
Lag style fittings MUST be used when a post is set less than 3-1/2" from a structure. This fitting allows the cable to be attached to the inside of the post and does not require access to the back side of the post.



Cable Options for Intermediate Post

1. Shared Line Post

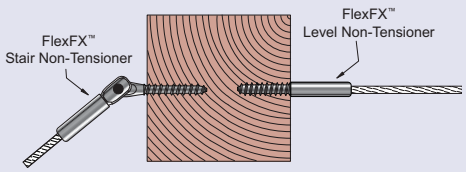
If ever, you need to start and stop cable on a single line post, two lag style fittings must be used. This scenario may occur for very long runs that need to be broken up into multiple sections of cable.



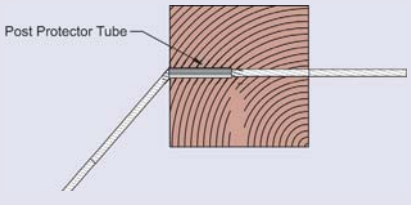
2. Cable Bending at a Single Post

When cable needs to go out of the post at an angle, this can be achieved by a couple methods.

1. Starting and stopping cable at a single post. (Commonly used for Stairs or Sleeved Posts)



2. Running continuous cable and bending cable at post with post protector tube. (not to exceed 45 degrees)



A Closer Look at Corner Posts

Where Two Cable Runs Intersect

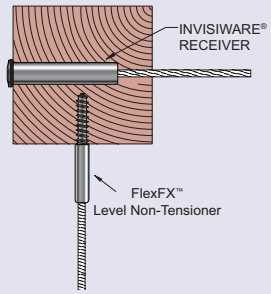
While you can offset cables on intersecting runs to use less expensive fittings, most people want all their cables to exist on the same plane, to give the impression that cables are continuous.

RailFX™ fittings are designed to be able to reside within the same post in many configurations. Below are some examples of how your kit components work together.

Single Corner Post Options

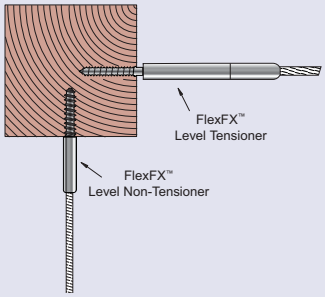
1. Same Plane (Option 1)

Fittings are designed so the lag style fitting and a through post fitting can share a single corner post on the same plane.



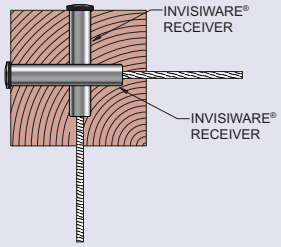
2. Same Plane (Option 2)

Lag style fittings are able to share a single corner post on the same plane without colliding in the post.



3. Offset Fittings

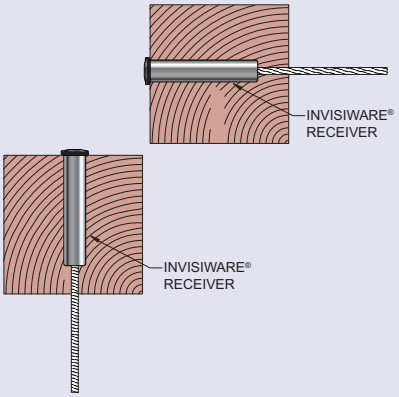
Fittings that go through the post and share a single corner post, must be offset so they do not collide in the post.



Double Corner Post Options

1. Start and Stop Cable Runs

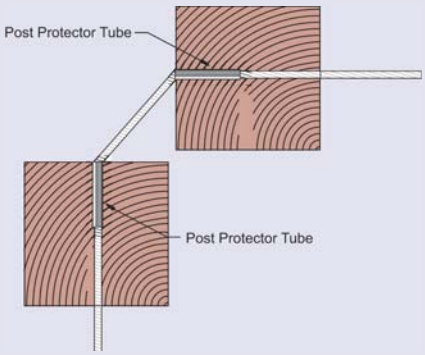
Any cable fitting can be used on corners with two post. Cables are able to stay on same plane.



2. Continuous Cable Run Through a Corner

When taking cable railing through a corner, do not bend the cable past 45° at any time. If turning 90°, a 2-step turn using a double corner post configuration is required, as illustrated. For wood frame cable runs with up to 90° of turn, kits with single tensioners are sufficient. If going through multiple corners totaling more than 90°, you will want to use a kit with tensioners at both ends. (See Pages 18-19)

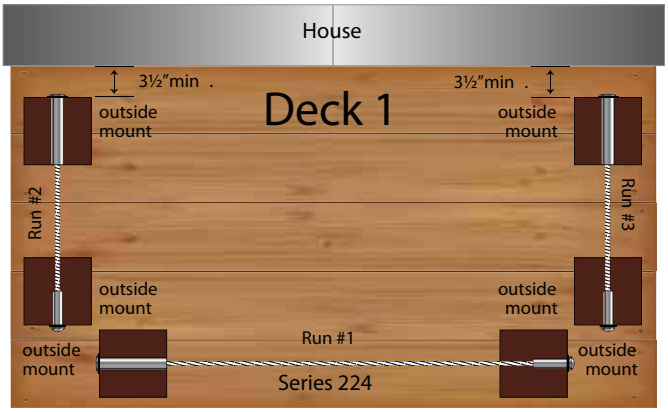
Corners require two posts because the cable itself, being rigid, will not cooperate in bending cleanly through a single post. When you go through a corner post, you will need to prevent the cable from slicing into the wood as it exits the post on an angle by using a Post Protector Tube.



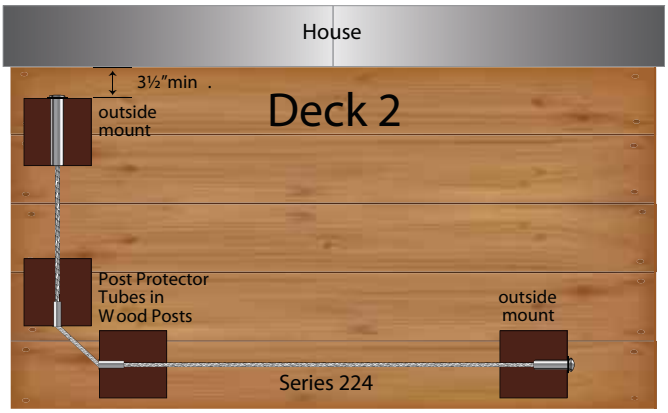
Wood Posts - Outside-of-Post to Outside-of-Post Mount

224 Series - Through Post Cable Kits

224 Series cable kits are designed to go through wood posts and mount to the outside of the post. This design conceals the fittings within the post so the fittings are hidden from sight to maximize your view through the railing.



Deck 1 has dedicated end posts for each run, and the posts are situated such that the back side of the posts are all accessible, meaning you can use an outside-of-post to outside-of-post configuration for all runs. This is both the most economical solution and where the fittings are least visible.



Deck 2 illustrates how the 224 series can also be used to go around a single corner up to 90°.

For post protector tubes, see page 35

Applicable kit is the 224 Series.
The tensioning device is a 2-3/8" long Invisiware® Receiver, which installs through the post on one end. A Pull-Lock® fitting is installed through the other end.

Series 224 Kits

Cable Length	1/8" cable 10 Packs	3/16" cable
	PART NO.	PART NO.	PART NO.
5'	22405	22405-10	22405-6
10'	22410	22410-10	22410-6
15'	22415	22415-10	22415-6
20'	22420	22420-10	22420-6
25'	22425	22425-10	22425-6
30'	22430	22430-10	22430-6
40'	22440	N/A	22440-6
50'	22450	N/A	22450-6
60'	22460	N/A	N/A
70'	22470	N/A	N/A

Tools needed for 224 Series:
5/32 drill bit if 1/8" cable, 7/32 if 3/16"
29/64 drill bit for Receiver® and Pull-Lock® installation
3/16 Hex wrench for tensioning Receiver
Cable cutting tool
If using Post Protector Tubes, 1/4 drill bit
ADI™ Cable Rail Basic Install Kit - ADICRKIT
See Page 39 for tools

Wood Posts on Stairs - Outside-of-Post to Outside-of-Post

224 Series - Cable Runs for Stair

Deck 1: 224 series cable kits can also be used for stair railings. The holes in the end posts can be drilled straight through and the cable itself will bend to the angle of the stair. This requires the use of an IC Tube (sold separately) on the inside of the post to keep cable from biting into the wood as tension is applied to the cables. Intermediate posts must be drilled on the angle of the stairs to allow the cable to pass through.

Deck 2 illustrates how the 224 Series can also be used to go up a stair and across a landing by inserting IC tubes (sold separately) in the break-over post. The post protector tube (IC tube) will prevent the cable from carving a groove into your post where it exits at an angle.

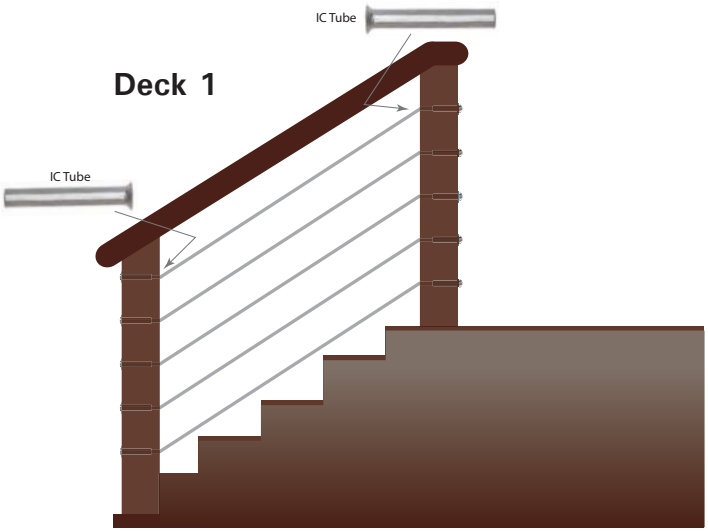
Applicable kit is the 224 Series.

The tensioning device is a 2-3/8" long Invisiware® Receiver, which installs through the wood post on one end. A Pull-Lock® fitting is installed through the other end.

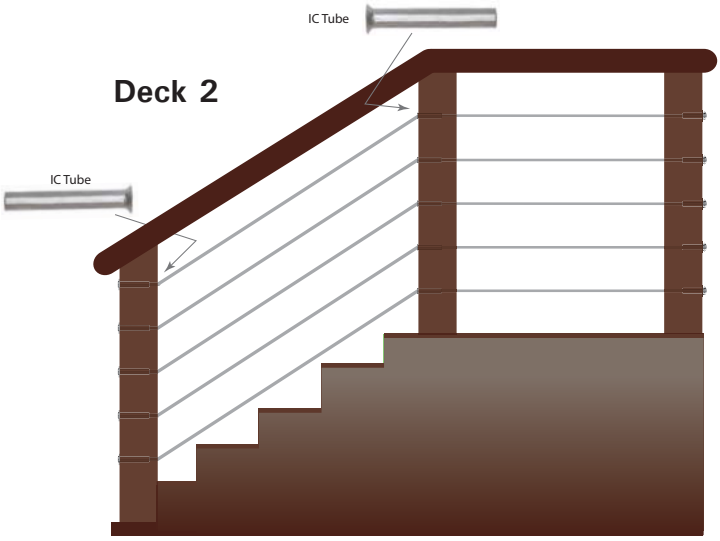
Tools needed for 224 Series on stairs:

5/32 drill bit if 1/8" cable, 7/32 if 3/16"
29/64 drill bit for Receiver and Pull-Lock® installation
3/16 Hex wrench for tensioning Receiver
Cable cutting tool
If using Post Protector Tubes, 1/4 drill bit
ADI™ Cable Rail Basic Install Kit - ADICRKIT

See Page 39 for tools



Must order IC Tubes for top and bottom posts where cable bends up/down posts



Must order IC Tubes for top and bottom posts where cable bends up/down posts

Series 224 Kits

Cable Length	1/8" cable	10 Packs	3/16" cable
	PART NO.	PART NO.	PART NO.
5'	22405	22405-10	22405-6
10'	22410	22410-10	22410-6
15'	22415	22415-10	22415-6
20'	22420	22420-10	22420-6
25'	22425	22425-10	22425-6
30'	22430	22430-10	22430-6
40'	22440	N/A	22440-6
50'	22450	N/A	22450-6
60'	22460	N/A	N/A
70'	22470	N/A	N/A

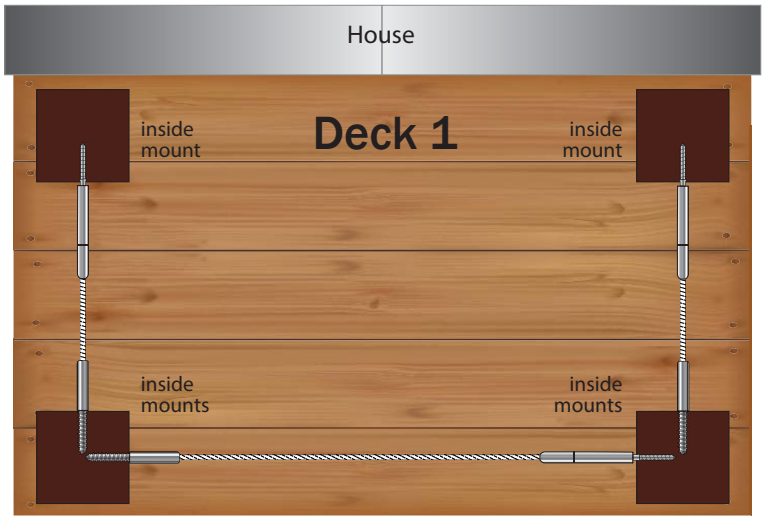
ICTUBE/10 - 10 Pack
3/4" Post Protector Sleeves

FlexFX™ Cables for Wood Posts - Level
Inside-of-Post to inside-of-Post Mount

FlexFX™ Swageless Cables for Wood

Swageless cable fittings are designed to mount on the inside of the posts. These lag style fittings allow for maximum design flexibility and can be used in almost any railing application.

This system is different from the kitted products because individual fittings are used with bulk cable. Cables can simply be cut to length and installed into the push-lock fittings. This allows you to maximize your cable and reduce the amount of drop (or wasted) cable.



Applicable Cable Components.
Swageless tensioner with Threaded Bolt
Push-Lock® Lag into the other end.
Bulk cable comes in 100' and 500' coils.

Fittings for Wood

Non-Tensioner Fitting
Item #: RFXWLT1/8-1 or RFXWLT3/16-1

Tensioner Fitting
Item #: RFXWLN1/8-1 or RFXWLN3/16-1

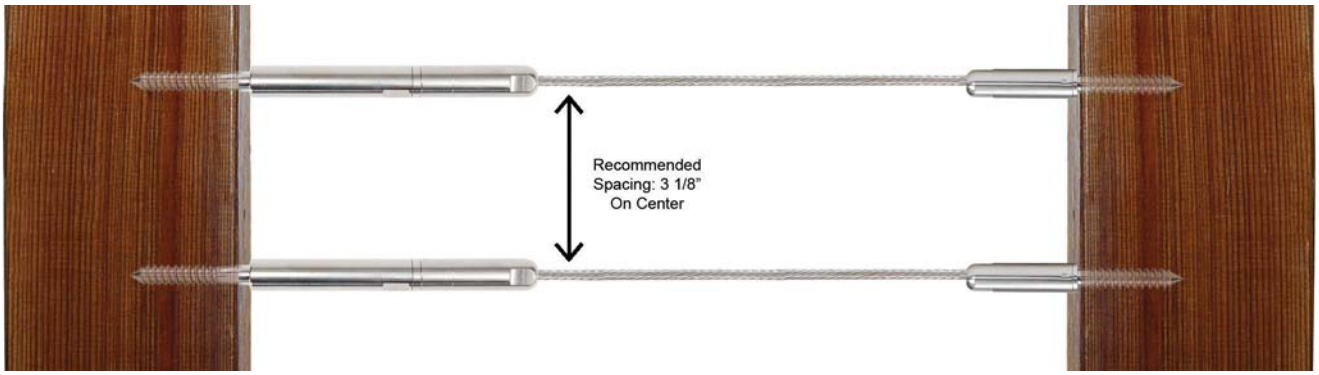
Bulk Cable
(1/8" or 3/16")

100' ROLL

500' ROLL

Tools needed for FlexFX™ level fIttings:
5/32 drill bit if 1/8" cable, 7/32 if 3/16" cable
7/32 drill bit for Swageless Tensioner and Non-Tensioner installation
3/16 hex wrench for installing Tensioner lag bolt
7/16 wrench for tensioning fitting
Driver tool for installing Push-Lock® Lag
Cable cutting tool
FlexFX™ Cable Rail Install Kit - RFXINSTKIT

See Page 39 for tools



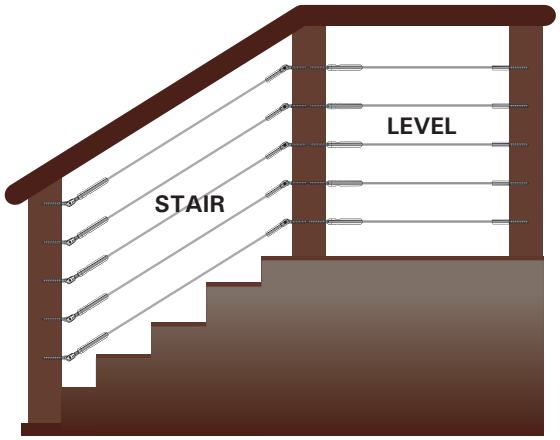
Fitting Dimensions available for reference on page 40

FlexFX™ Cables for Wood Posts - Stair
Inside-of-Post to inside-of-Post Mount

FlexFX™ Swageless Cables for Wood

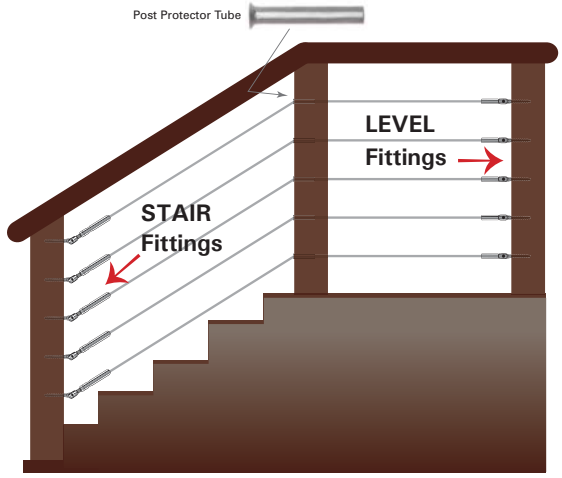
Deck 1: Cables can start and stop on shared posts while maintaining the same plane. This is most commonly seen in the top post of stair railings. Top posts are often corner posts, and usually require the stair run and the level run to attach to the same post. These lag style fittings are designed to share the post without interference. Each fitting has a 1-1/2" lag and only screws into the post about half way.

Some scenarios may require an in-line post to be shared (See deck 1 Illustration). Which can also be accomplished with these lag style fittings.



Deck 2: FlexFX™ cables can also be used to go up a stair and across a landing by inserting post protector tubes (sold separately) in the break-over post. The tube will prevent the cable from carving a groove into your post where it exits at an angle. This requires the use of a level cable fitting and a stair cable fitting.

This hybrid cable run helps to reduce the amount of cable fittings used and provides a cleaner look.



Applicable Stair Fittings:

Non-Tensioner Fitting
Item #: RFXWLT1/8-1
or RFXWLT3/16-1

Tensioner Fitting
Item #: RFXWLN1/8-1
or RFXWLN3/16-1

Tools needed for FlexFX™ stair fIttings:

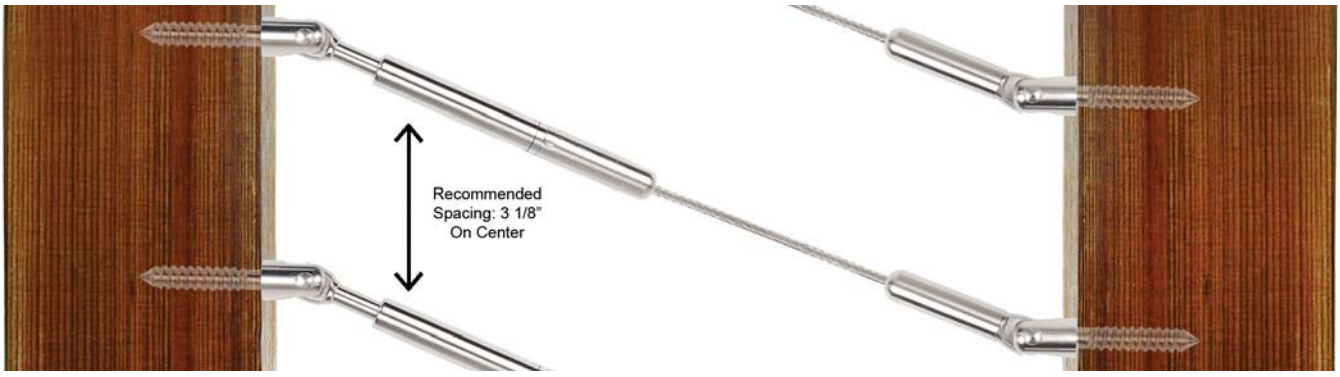
5/32 drill bit if 1/8" cable, 7/32 if 3/16"

7/16 wrench for tensioning fitting

Cable cutting tool

FlexFX™ Cable Rail Install Kit - RFXINSTKIT

See Page 39 for tools



Fitting Dimensions available for reference on page 40

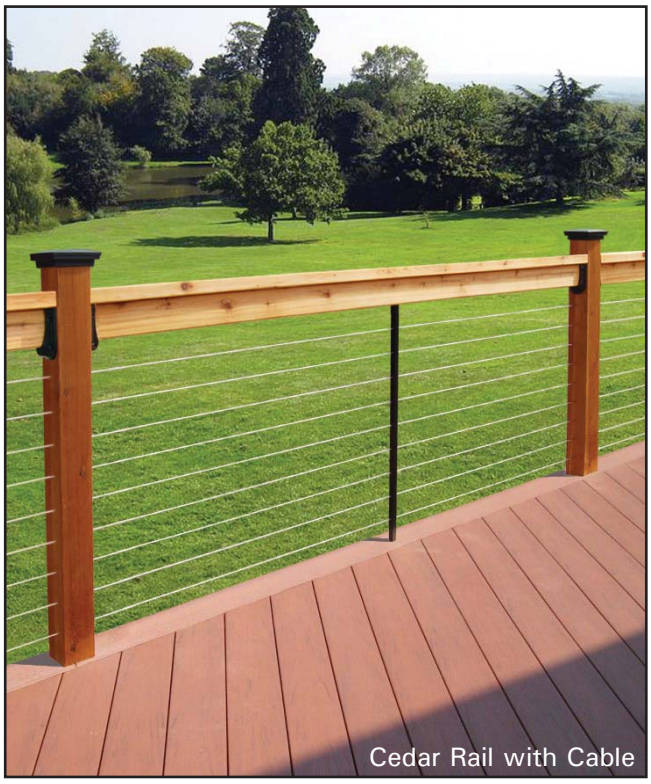
Cable Braces

Pre-Drilled Aluminum Cable Brace

3/4"x 3/4" square tube, 42" long for cutting down to any size rail height. Holes pre-drilled at 3-1/8" on center, 13 holes total. For use between structural posts to keep cables code compliant on level runs. Use cable brace plugs to attach to top and bottom rail or deck.

Anodized:
Order **CB-42-AN-AL-13-P**

Black:
Order **CB-42-BL-AL-13-P**



Cable brace must be used every 48" to avoid the cable from deflecting over 4". The cable brace is not a structural member of the rail.

Undrilled Aluminum Cable Brace for Stairs

3/4" x 3/4" square tube, 42" long for cutting down to any size rail height. Comes undrilled so holes can be field-drilled to match cable.

Anodized:
Order **CB-42-AN-AL-P**

Black:
Order **CB-42-BL-AL-P**

Pre-Drilled Aluminum Cable Brace for Stairs

3/4" x 3/4" square tube, 50" long for cutting down to any size rail height. Comes pre-drilled with 12 slotted and offset holes.

Anodized:
Order **CB-50-AN-12-P**

Black:
Order **CB-50-BL-12-P**

Wood Cable Railing Gallery

Cable railing provides the most unobstructed view available in a railing system. The traditional look of wood combined with the modern appeal of stainless steel cable railing make this a great railing choice.

FlexFX™ Cable into Wood with Anodized Cable Braces

224 Series Cable into Wood with Anodized Cable Braces

FlexFX™ Cable into Wood with Black Cable Braces

DekPro™ INVISICABLE Cable Railing Systems

Cable Railing for Wood Systems

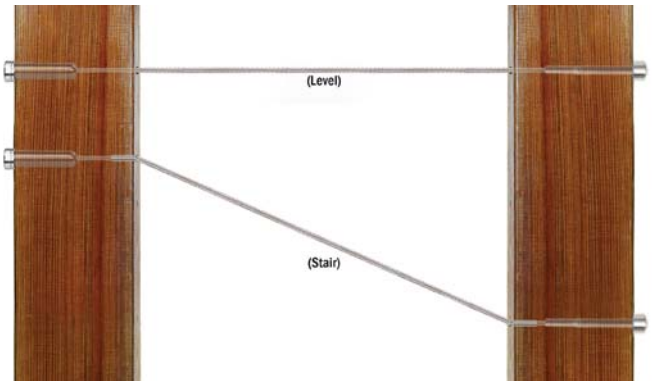
A simple, affordable cable railing option for the value conscious consumer that wants the look of cable but at a lower cost. Proudly made in the USA of marine-grade 316 stainless steel components and cable. Cables are easy to install yet take moderately more time than ADI/RailFX kits.

Kit includes 1 run of cable with 2.75" broached threaded tensioner on one end and a Pull-Lock fitting on the opposite end. Two end caps, washers and brass Nylock hex nut are included. Kits are field trimmable to the proper length and come in 5' increments to 30' then 40' and 50'.

Kits include <u>BOTH</u> stainless steel end caps!

Perfect for interior and exterior use – decks, docks, balconies and stairways utilizing wood or solid composite posts. Fittings are concealed in the post creating a clean, almost invisible infill. Holes are drilled straight through the post and no angled holes or beveled washers are required.

10 Year Manufacturer's Warranty.



For level runs:

- Threaded Tensioner to Pull-Lock®.

For stairs, pitched runs:

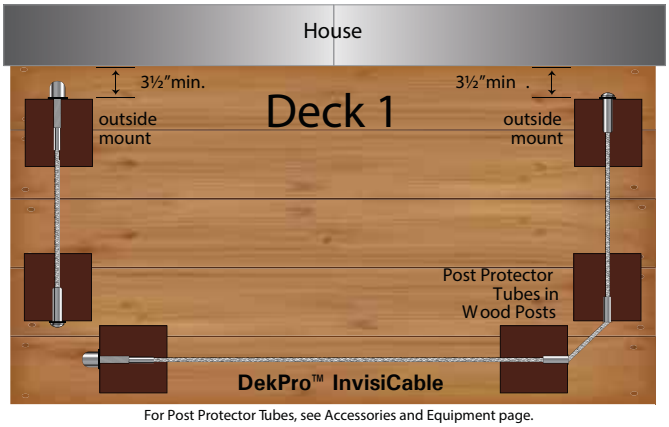
- Threaded Tensioner to Pull-Lock® with 3/4" Post Protector Sleeve

Wood Posts - Outside-of-Post to Outside-of-Post Mount

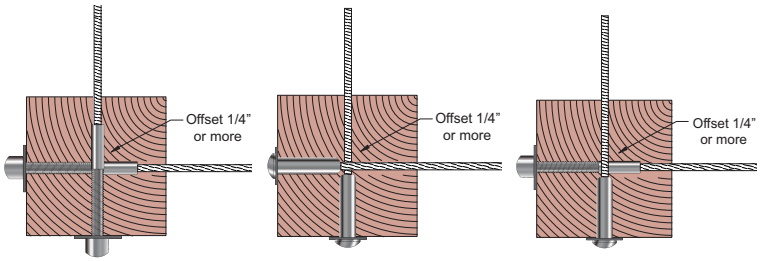
InvisiCable - Cable for Straight Runs and Runs Through One Corner

A through-the-post configuration is the only scenario in which the economical threaded stud kits may be used. The tensioning device is a 2-7/8"long threaded stud that uses a brass Nylock hex nut to tension the cable. This installs on the back side of one end posts and a Pull-Lock® fitting is installed through the other end. Kits comes with end caps for finished look.

If a single corner post is used or there are any posts where cables fittings are sharing a post, the cables / fittings must be offset so the fittings do not collide inside the posts. Offsetting by at least 1/4" is recommended. See illustrations below:



For Post Protector Tubes, see Accessories and Equipment page.



Offset Tensioner Fittings

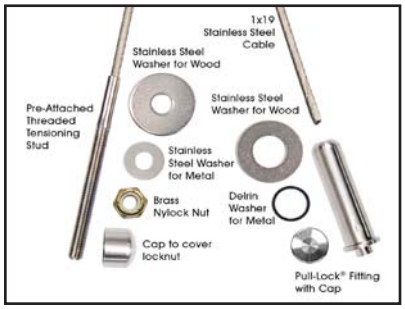
Offset Pull-Lock Fittings

Offset Tensioner / Pull-Lock Fittings

Deck 1: Illustrates how IC series cables can be used for both a straight run and to go around a single corner up to 90°. When taking cable railing through a corner, do not bend the cable past 45° at any one time. If turning 90°, a 2-step turn using a double corner post configuration is required as illustrated in Deck 1. IC Tubes (Post Protector Tubes) must be used where cable is bending against the wood to protect the wood from the cable.

THREADED STUD
WITH CAP, NUT AND WASHER

PULL-LOCK™



Tools needed for IC Series:

5/32 drill bit if 1/8" cable
9/32 drill bit for threaded stud installation
29/64 drill bit for Pull-Lock® installation
1/8 hex wrench for holding the stud
7/16 wrench for tightening Brass nut
Cable cutting tool
If using Post Protector Tubes, 1/4 drill bit
ADI™ Cable Rail Basic Install Kit - ADICRKIT
See Page 39 for tools

IC Series Kits

Cable Length	PART NO.
5′	IC05
10′	IC10
15′	IC15
20′	IC20
25′	IC25
30′	IC30
40′	IC40
50′	IC50

Wood Posts on Stairs - Outside-of-Post to Outside-of-Post

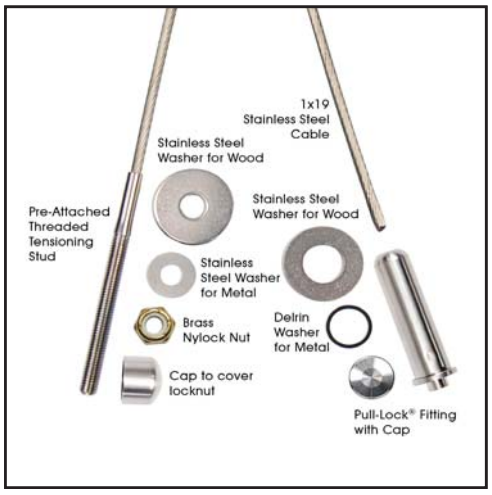
InvisiCable - Cable Runs for Stair

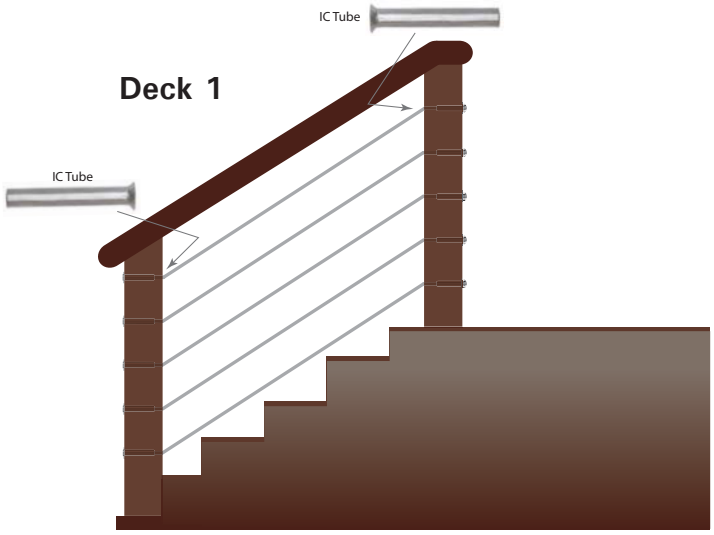
Deck 1: An alternative to mounting to the inside of the stair posts is to go through both top and bottom end posts using the IC series cable kits. The holes in the end posts can be drilled straight through and the cable itself will bend to the angle of the stair. This requires the use of an IC Tube (sold separately) on the inside of the post to keep cable from biting into the wood as tension is applied to the cables. Intermediate posts must be drilled on the angle of the stairs to allow the cable to pass through.

Deck 2 illustrates how the IC Series cable can also be used to go up a stair and across a landing by inserting IC tubes (sold separately) in the break-over post. The post protector tube (IC tube) will prevent the cable from carving a groove into your post where it exits at an angle.

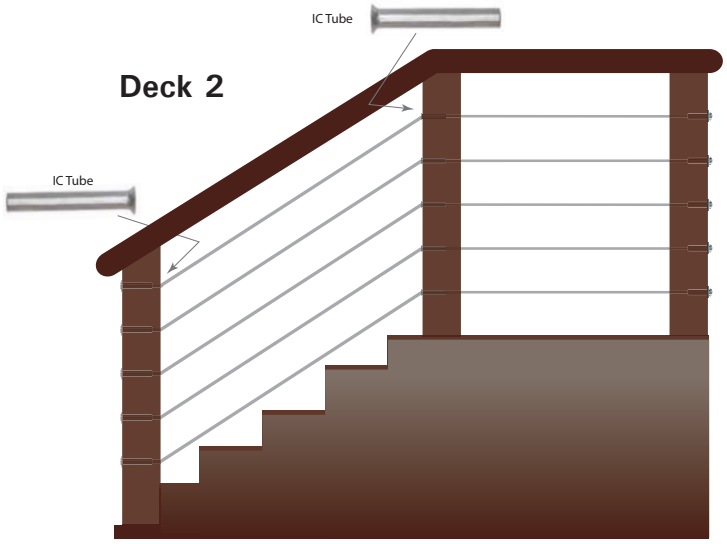
Applicable kit is the IC Series.

The tensioning device is a 2-3/8"" long Invisiware® Receiver, which installs through the wood post on one end. A Pull-Lock® fitting is installed through the other end.





Must order IC Tubes for top and bottom posts where cable bends up/down posts



Must order IC Tubes for top and bottom posts where cable bends up/down posts

Tools needed for IC Series:

5/32 drill bit if 1/8" cable
9/32 drill bit for threaded stud installation
29/64 drill bit for Pull-Lock® installation
1/8 hex wrench for holding the stud
7/16 wrench for tightening Brass nut
1/4 drill bit for post protector tubes
Cable cutting tool
ADI™ Cable Rail Basic Install Kit - ADICRKIT
See Page 39 for tools

IC Series Kits

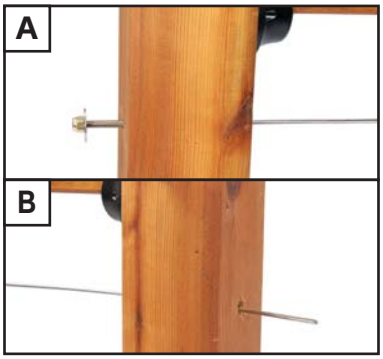
Cable Length	PART NO.
5′	IC05
10′	IC10
15′	IC15
20′	IC20
25′	IC25
30′	IC30
40′	IC40
50′	IC50

ICTUBE/10 - 10 Pack
3/4" Post Protector Sleeves

DekPro™ InvisiCable - Installation Overview

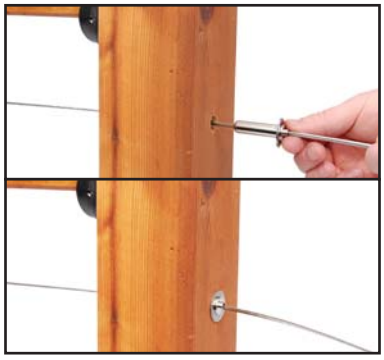
Step 1

Kit comes with all components to complete 1 run of cable



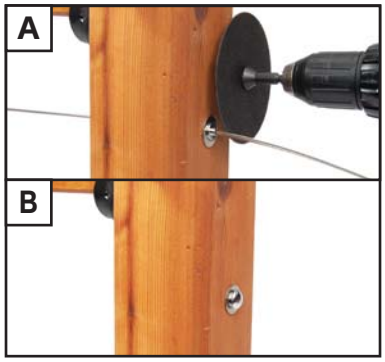
Step 2

A.) Place washer and nut onto Threaded Tensioner Stud.
B.) Then run open end of cable through all posts.



Step 3

Pull cable through fitting until all slack is out of the cable. (works like a zip-tie)

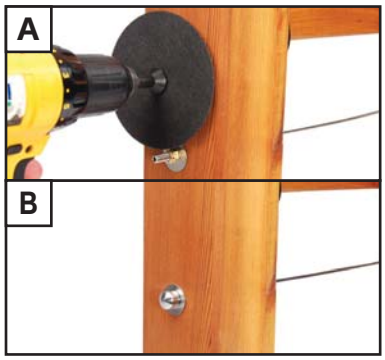


Step 4

A.) Cut excess cable
B.) Install finishing cap

Step 5

Hold tensioning stud in place with 1/8" allen wrench, then use 7/16" wrench to rotate brass Nylock cap. Continue until cable is fully tensioned.



Step 6

A.) Cut excess threads from stud
B.) Install finishing cap.

Cable Braces must be used every 48" or less between posts.

Cable Railing for Composite and Aluminum Sleeved Railing Systems

DekPro™ Prestige Aluminum Sleeved Rail w/ Cable

Guidelines for proper installation of the ADI™ cable railing system by RailFX™:

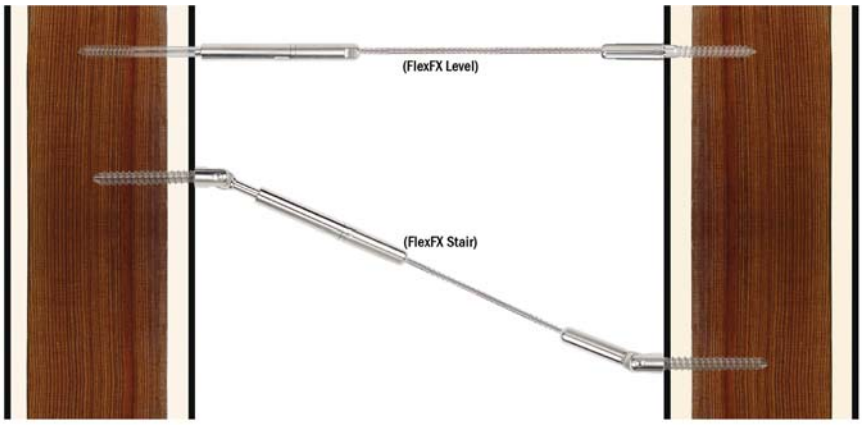
- Use composite / aluminum sleeve with a 4x4 wood post for structural support.
- Top rail is required to support posts. (Bottom rail is optional)
- Cables are to be spaced at 3-1/8" on center.
- Cable must be supported every 48" to keep the cable from deflecting over 4" to pass code.
- Cables are to be tensioned to 225 lbs of tension minimum.
- 36" Rail height typically uses 10 runs of cable, 42" rail height typically uses 12 runs of cable.
- Lag style cable fittings are required for cable used with sleeved posts.
- Cable kits must terminate at corner posts, or posts where the cable is at an angle.

For 4" post sleeves:
Use Standard FlexFX™ Cable Fittings

For post sleeves larger than 4":
Use "XL" FlexFX™ Cable Fittings

FlexFX™ - Level Cable Fittings
Lag style, Swageless Push-lock fittings.
Level Tensioner & Non-Tensioner

FlexFX™ - Stair Cable Fittings
Lag style, Swageless Push-lock fittings.
Stair Tensioner & Non-Tensioner



For wood posts with aluminum / composite sleeves.

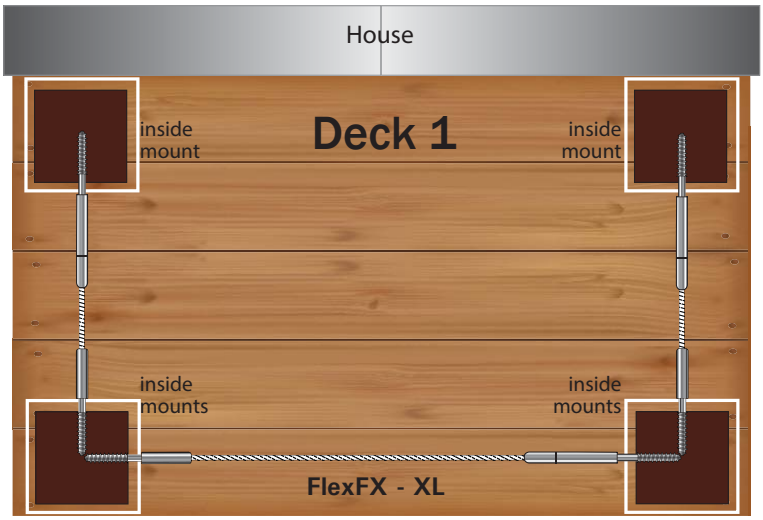
FlexFX™ Cable for Sleeved Posts - Level
Inside-of-Post to inside-of-Post Mount

FlexFX™ Cables for Composite Sleeves

Swageless cable fittings are designed to mount on the inside of the posts. These "XL" lag style fittings can be used in almost any composite sleeved railing application. The fittings are long enough to pass through the composite sleeve and anchor into the wood structural post.

This system is different from the kitted products because individual fittings are used with bulk cable. Cables can simply be cut to length and installed into the push-lock fittings. This allows you to maximize your cable and reduce the amount of drop (or wasted) cable.

Applicable Cable Components.
Swageless tensioner with Threaded Bolt
Push-Lock® Lag into the other end.
Bulk cable. Comes in 100' and 500' rolls.



XL - Fittings for Composite Sleeve
(1" Longer Lag Bolt)

XL - Non-Tensioner Fitting
Item #: RFXWLN1/8XL or RFXWLN3/16XL

XL - Tensioner Fitting
Item #: RFXWLT1/8XL or RFXWLT3/16XL

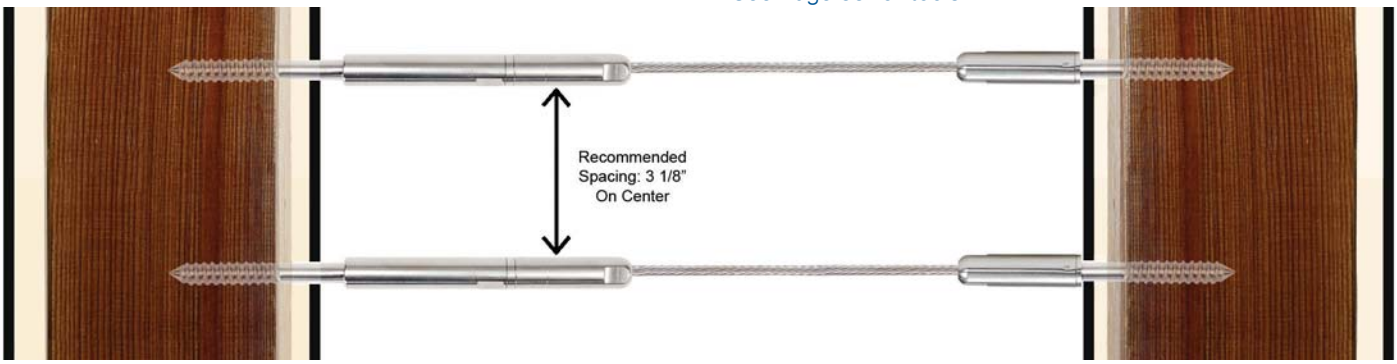
Fittings for 4" Aluminum Sleeve

Non-Tensioner Fitting
Item #: RFXWLT1/8-1 or RFXWLT3/16-1

Tensioner Fitting
Item #: RFXWLN1/8-1 or RFXWLN3/16-1

Tools needed for FlexFX™ level fIttings:
5/32 drill bit if 1/8" cable, 7/32 if 3/16" cable
7/32 drill bit for Swageless Tensioner
and Non-Tensioner installation
3/16 hex wrench for installing Tensioner lag bolt
7/16 wrench for tensioning fitting
Driver tool for installing Push-Lock® Lag
Cable cutting tool
FlexFX™ Cable Rail Install Kit - RFXINSTKIT

See Page 39 for tools



Fitting Dimensions available for reference on page 40

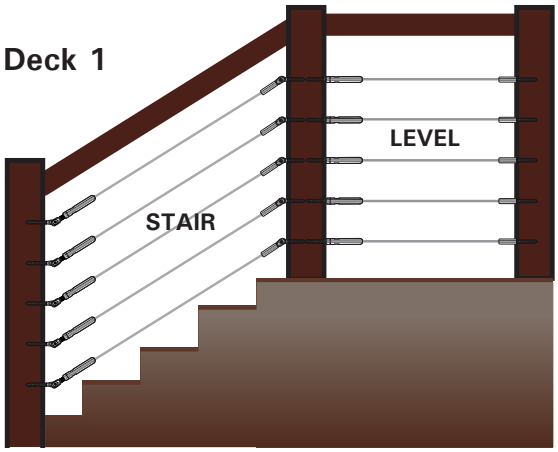
FlexFX™ Cable for Sleeved Posts - Stair

Inside-of-Post to inside-of-Post Mount

FlexFX™ Cables for Stairs

Sleeved posts require the stair run to connect to the inside of the post. The top and bottom of the cable run would be connected perpendicular to those posts, and only the intermediate posts would be drilled on the angle for the cable to run through.

Deck 1: Cables must start/stop if there are any changes of direction. This illustration shows how the cables must start and stop at the top post of a stair railing because of the change in direction from the angled stairs to the level run.



Applicable Cable Fittings:

If the outside diameter of sleeve is **4" or LESS**, use the **Standard FlexFX Fittings**.

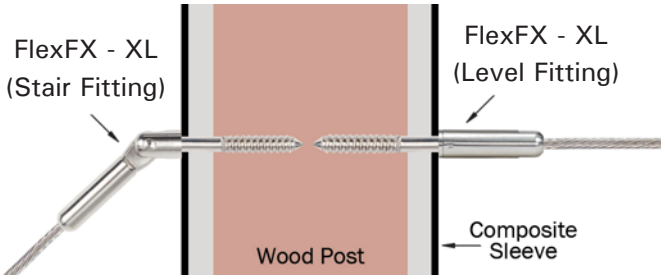
Non-Tensioner Stair Fitting
Item #: RFXWSN1/8 or RFXWSN3/16
Tensioner Stair Fitting
Item #: RFXWST1/8 or RFXWST3/16

If the outside diameter of sleeve is **GREATER than 4",** use the **XL - FlexFX Fittings**.

XL - Non-Tensioner Stair Fitting
Item #: RFXWSN1/8XL or RFXWSN3/16XL
XL - Tensioner Stair Fitting
Item #: RFXWST1/8XL or RFXWST3/16XL

Shared Stair Post (Level to Stair)

A lag fitting will come into one side of the post and end the level run. An adjustable stair cable fitting is then used on the other side of the post to end the stair run. The cables are designed to be able to share the post at the same plane.



Tools needed for FlexFX™ stair fIttings:

5/32 drill bit if 1/8" cable, 7/32 if 3/16"

7/16 wrench for tensioning fitting

Cable cutting tool

FlexFX™ Cable Rail Install Kit - RFXINSTKIT

See Page 39 for tools

Composite / Aluminum Sleeve Gallery

Lag style cable fittings are specifically designed to work for post sleeves over a wood 4x4 post. The lag passes through the sleeve and anchors into the structural wood 4x4. A great cable railing option for existing wood posts.

DekPro™ Prestige Aluminum Sleeved Rail w/ Cable

Composite Sleeved Rail w/ Cable

DekPro™ Prestige Aluminum Sleeved Rail w/ Cable

Cable Railing for Metal Posts

Cable into Custom Metal Railing (Railing not available through ADI™)

Metal Post systems can use two styles of cable fittings. The concealed 200 series cable kits or the exposed fittings of the FlexFX™ offering.

200 Series Kits (Outside of Post Mount)

200 Series kits are designed to go through Metal posts and mount to the outside of the post. This design conceals the fittings within the post so the fittings are hidden from sight to maximize your view through the railing. These are available to fit 1.5", 2", 2-3/8", and 3" posts.

FlexFX™ for Metal (Inside of Post Mount)

Swageless cable railing system is a flexible option for working with cable. This system is different from the kitted products because it utilizes individual fittings with bulk cable. Cables can simply be cut to length and installed into the push-lock fittings. This allows you to maximize your cable by reducing the amount of drop (or wasted) cable. All fittings screw to the inside of the post and each run must use at least one tensioning fitting so cable can be properly tightened. Works with 1/8" and 3/16" diameter cables.

Outside of Post Fittings:

200 Series* (outside to outside)
Invisiware® Receiver to Pull-Lock®.

* 212 series are for use with **1½"** metal posts;
* 232 are for use with **2"** metal posts.
* 224 are for use with **2-3/8"** metal posts.
* 252 are for use with **3"** metal posts.

Inside of Post Fittings - FlexFX™:

Level:

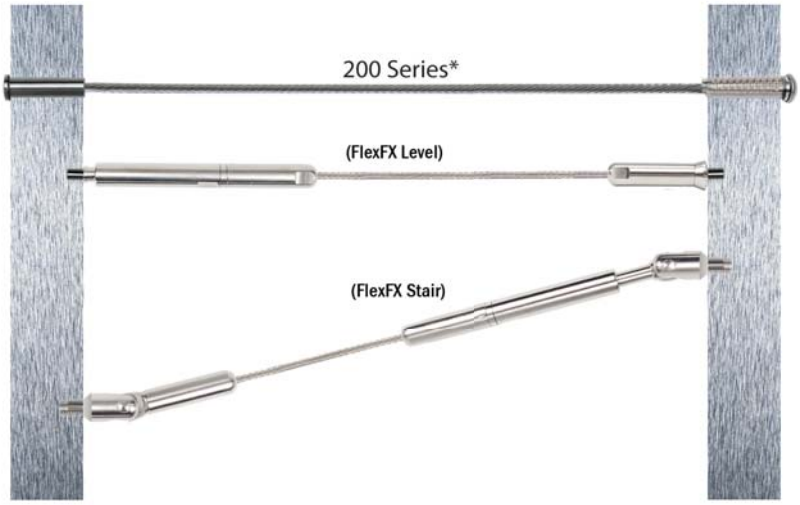
Tensioner: RFXMLT1/8 or RFXMLT3/16

Non-Tensioner: RFXMLN1/8 or RFXMLN3/16

Stair:

Tensioner: RFXMST1/8 or RFXMST3/16

Non-Tensioner: RFXMSN1/8 or RFXMSN3/16



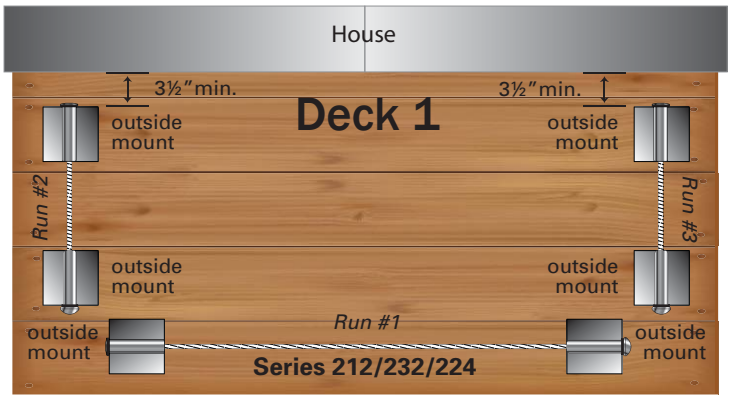
200 Series Cable Kits for Metal Posts
Outside-of-Post to Outside-of-Post Mount

200 Series - Through Post Cable Kits

200 Series cable kits are designed to go through metal posts and mount to the outside of the post. This design conceals the fittings within the post so the fittings are hidden from sight to maximize your view through the railing. These are available to fit 1.5", 2", 2-3/8", and 3" posts.

Deck 1 has dedicated end posts for each run, and the posts are situated such that the back side of the posts are all accessible, meaning you can use an **outside-of-post to outside-of-post** configuration for all runs. This is both the most economical solution and where the fittings are least visible.

Deck 2 illustrates how the 200 series cables can also be used to go around a single corner post or double corner post application.



Applicable kit is the 200 Series.
The tensioning device is a Invisiware® Receiver, which installs through the post on one end. A Pull-Lock® fitting is installed through the other end.

Tools needed for 200 Series:
5/32 drill bit if 1/8" cable, 7/32 if 3/16"
29/64 drill bit for Receiver® and Pull-Lock® installation
3/16 Hex wrench for tensioning Receiver
Cable cutting tool
ADI™ Cable Rail Basic Install Kit - ADICRKIT
See Page 39 for tools

Cable Kits Available for these Posts Sizes:

1.5" Post Series 212 Kits

Cable Length	1/8" cable PART NO.
5'	21205
10'	21210
15'	21215
20'	21220
25'	21225

2" Post Series 232 Kits

Cable Length	1/8" cable PART NO.
5'	23205
10'	23210
15'	23215
20'	23220
25'	23225

3" Post Series 252 Kits

Cable Length	1/8" cable PART NO.
5'	25205
10'	25210
15'	25215
20'	25220
25'	25225

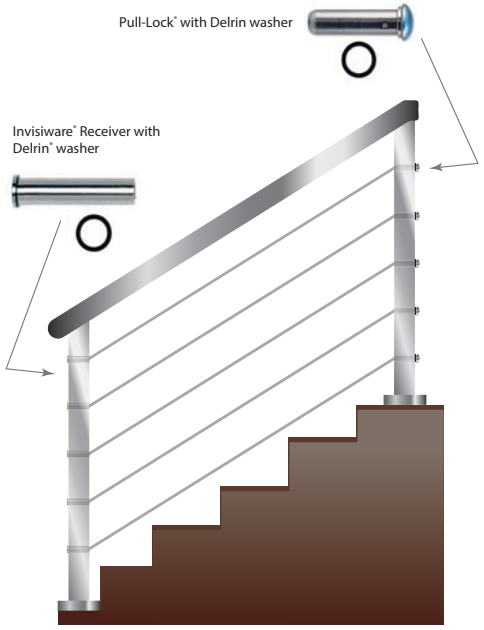
200 Series Cable Kits for Metal Posts
Outside-of-Post to Outside-of-Post Mount

200 Series - Through Post Cable Kits

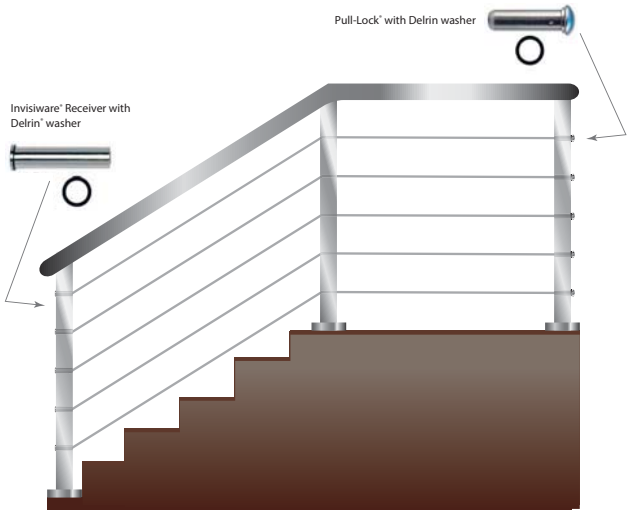
200 Series cable kits are designed to go through metal posts and mount to the outside of the post. This design conceals the fittings within the post so the fittings are hidden from sight to maximize your view through the railing. These are available to fit 1.5", 2", 2-3/8", and 3" posts.

Deck 1 has dedicated end posts for each run, and the posts are situated such that the back side of the posts are all accessible, meaning you can use an **outside-of-post to outside-of-post** configuration for all runs. This is both the most economical solution and where the fittings are least visible.

Deck 2 illustrates how the 200 series can also be used to go up a stair and across a landing.



Deck 1



Deck 2

Applicable kit is the 200 Series.
The tensioning device is a Invisiware® Receiver, which installs through the post on one end. A Pull-Lock® fitting is installed through the other end.

Tools needed for 200 Series:
5/32 drill bit if 1/8" cable, 7/32 if 3/16"
29/64 drill bit for Receiver® and Pull-Lock® installation
3/16 Hex wrench for tensioning Receiver
Cable cutting tool
ADI™ Cable Rail Basic Install Kit - ADICRKIT
See Page 39 for tools

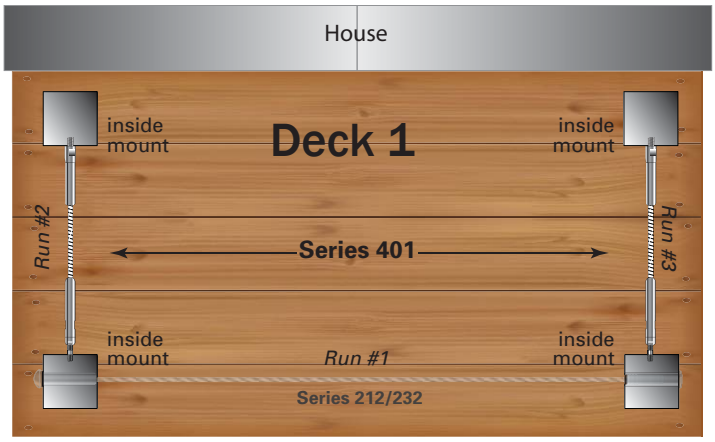
FlexFX™ Cables for Metal Posts - Level
Inside-of-Post to inside-of-Post Mount

FlexFX™ Swageless Cables for Metal

Swageless cable fittings are designed to mount on the inside of the posts. These threaded fittings allow for the cables to be attached to the inside of a metal post. The post being used **MUST** have at least a **1/4" wall thickness** so enough threading can engage within the post.

This system is different from the kitted products because individual fittings are used with bulk cable. Cables can simply be cut to length and installed into the push-lock fittings. This allows you to maximize your cable and reduce the amount of drop (or wasted) cable.

Applicable Cable Components.
Swageless tensioner with Threaded Bolt Push-Lock® Lag into the other end.
Bulk cable comes in 100' and 500' coils.



***Drill and Tap 5/16-24 threaded holes for metal post fittings**

Bulk Cable
(1/8" or 3/16")

100' ROLL

500' ROLL

Fittings for Metal Posts

Non-Tensioner Fitting
Item #: RFXMLT1/8-1 or RFXMLT3/16-1

Tensioner Fitting
Item #: RFXMLN1/8-1 or RFXMLN3/16-1

Tools needed for FlexFX™ level fIttings:
5/32 drill bit if 1/8" cable, 7/32 if 3/16" cable
Drill and Tap 5/16-24 threaded holes for fittings
7/16 wrench for tensioning fitting

Driver tool for installing Push-Lock® Lag
Cable cutting tool
FlexFX™ Cable Rail Install Kit - RFXINSTKIT
See Page 39 for tools

Fitting Dimensions available for reference on page 41

FlexFX™ Cables for Metal Posts - Stair
Inside-of-Post to inside-of-Post Mount

FlexFX™ Swageless Cables for Metal

Deck 1: Cables can start and stop on shared posts while maintaining the same plane. This is most commonly seen in the top post of stair railings. Top posts are often corner posts, and usually require the stair run and the level run to attach to the same post. These threaded fittings are designed to share the post without interference.

Some scenarios may require an inline post to be shared (See deck 1 Illustration). Which can also be accomplished with these lag style fittings.

The post being used **MUST** have at least a **1/4" wall thickness** so enough threading can engage within the post.

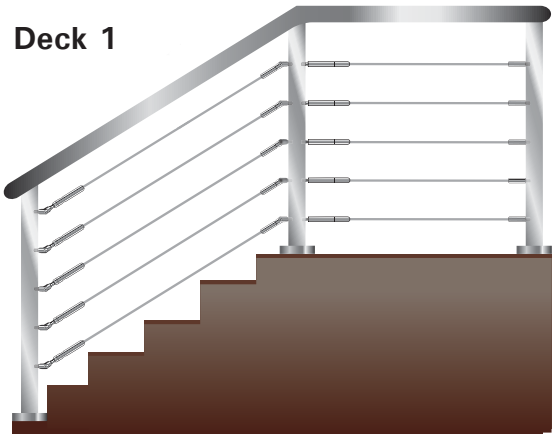
Deck 2: FlexFX™ cables can also be used to go up a stair and across a landing. This requires the use of a level cable fitting and a stair cable fitting.

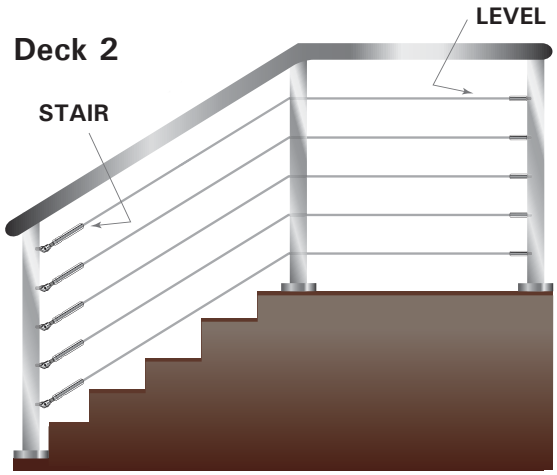
This hybrid cable run helps to reduce the amount of cable fittings used and provides a cleaner look.

Applicable Stair Fittings:

Non-Tensioner Fitting
Item #: RFXWLT1/8-1
or RFXWLT3/16-1

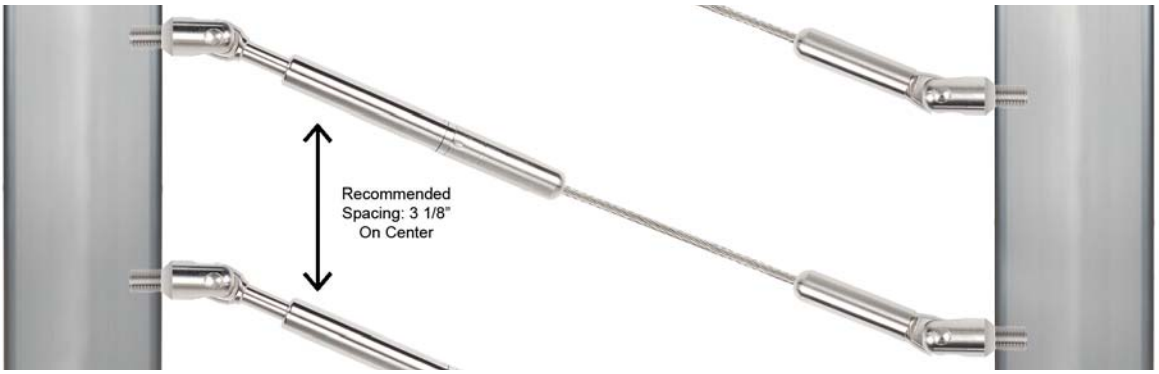
Tensioner Fitting
Item #: RFXWLN1/8-1
or RFXWLN3/16-1





***Drill and Tap 5/16-24 threaded holes for metal post fittings**

Tools needed for FlexFX™ Stair fIttings:
5/32 drill bit if 1/8" cable, 7/32 if 3/16"
Drill and Tap 5/16-24 threaded holes for fittings
7/16 wrench for tensioning fitting
Cable cutting tool
FlexFX™ Basic Install Kit - RFXINSTKIT
See Page 39 for tools



Fitting Dimensions available for reference on page 41

Metal Post Cable Railing Gallery

Metal Post systems can use two styles of cable fittings. The concealed 200 series cable kits or the exposed fittings of the FlexFX™ offering. Options available for many different sizes of metal post and railing systems.

FlexFX™ Cable into Custom Metal Railing (Railing not available through ADI™)

Cable into Custom Metal Railing (Railing not available through ADI™)

Cable into Custom Metal Railing (Railing not available through ADI™)

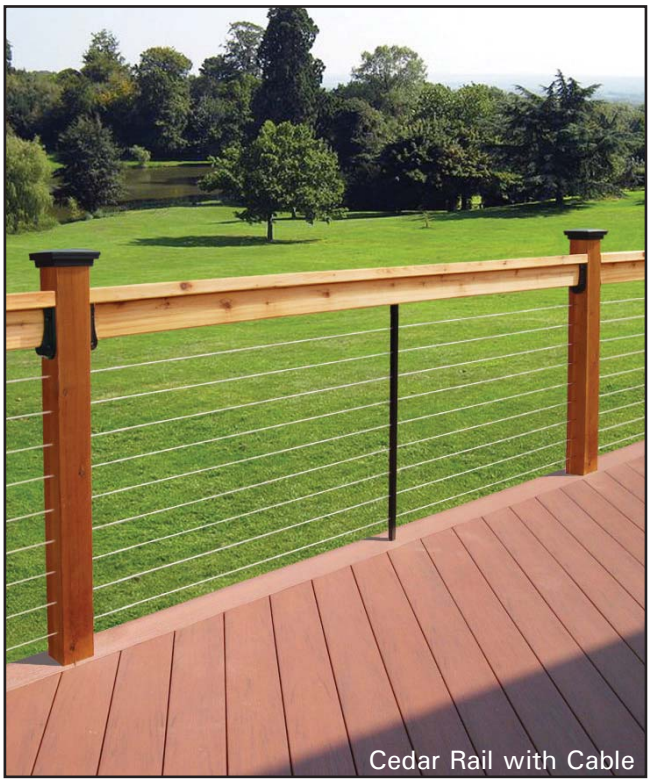
Cable Braces

Pre-Drilled Aluminum Cable Brace

3/4"x 3/4" square tube, 42" long for cutting down to any size rail height. Holes pre-drilled at 3-1/8" on center, 13 holes total. For use between structural posts to keep cables code compliant on level runs. Use cable brace plugs to attach to top and bottom rail or deck.

Anodized:
Order **CB-42-AN-AL-13-P**

Black:
Order **CB-42-BL-AL-13-P**



Cedar Rail with Cable

Cable brace must be used every 48" to avoid the cable from deflecting over 4". The cable brace is not a structural member of the rail.

Undrilled Aluminum Cable Brace for Stairs

3/4" x 3/4" square tube, 42" long for cutting down to any size rail height. Comes undrilled so holes can be field-drilled to match cable.

Anodized:
Order **CB-42-AN-AL-P**

Black:
Order **CB-42-BL-AL-P**

Pre-Drilled Aluminum Cable Brace for Stairs

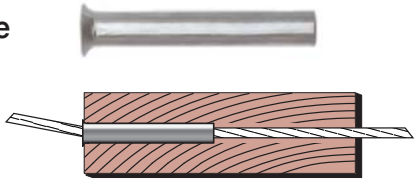
3/4" x 3/4" square tube, 50" long for cutting down to any size rail height. Comes pre-drilled with 12 slotted and offset holes.

Anodized:
Order **CB-50-AN-12-P**

Black:
Order **CB-50-BL-12-P**

Tools and Accessories

Stainless Steel Post Protector Tube



The post protector tube is inserted into a wood post where the cable enters/exits the post at an angle to keep cable from biting into the wood.

Order: **CSTUBE6 (1-1/2")** For 1/8" & 3/16" dia. cable

Order: **ICTUBE/10 (3/4")** For 1/8" & 3/16" dia. cable

Cable Release

Releases cable from Push-Lock® and Pull-Lock® type fittings before cables are tensioned. For 1/8" cable only.

Order: **RFXPL-KEY**

Push-Lock Lag Driver

Makes installing the FlexFX™ Push-Lock® Lag quick & easy.

Order: **RFXDRIVER-PLLAG/R**

Cable Gripping Pliers

Used to securely grip cable to avoid winding during installation.

Order: **RFXPLIERS**

Cable Cutter

For burr-free cutting of cable. For light-duty use to cut 1/8" diameter cable.

Order: **RFXC7HIT**

QuickGrip Cable Tool

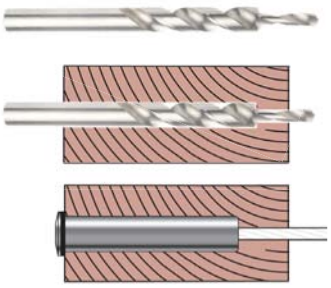
Used to grip cable to avoid winding during installation.

Order: **RFXGRIPPER**

ADI™ Cable Step Drill

For wood post to make 29/64" hole for cable fitting and 3/16" hole for cable using a single drill bit.

Order: **RFXCSD316**



ADI™ Cable Railing Basic Install Kit

Kit comes with necessary drill bits, tools, and a cut off wheel to properly install cable railing.

Order: **ADICRKIT**

FlexFX™ Cable Railing Basic Install Kit

Kit comes with necessary drill bits, tools, and a cut off wheel to properly install FlexFX™ cable railing into wood.

Order: **RFXINSTKIT**

Cut-Off Wheel

Used to cut cable flush to the end of Pull-Lock™ fittings and excess threads from stud type tensioners. Includes mandrel and 2 cut off wheels.

Order: **RFXCUTOFFKIT/R**

Cable Lacing Needle

Used to easily pass cable through posts

Order: **RFXNEEDLE**

Cable Tension Gauges

Check the tension on your cables with these easy-to-use gauges.

Order: **PT-CR** or cable diameter of 1/8", 3/16"

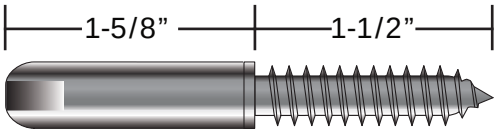
Stainless Steel Cleaner and Protectant

Dissolves minor corrosion, then leaves a protective coating that lasts for months. Includes an 8-oz. spray-on rust and stain remover and a 4-oz. bottle of protectant.

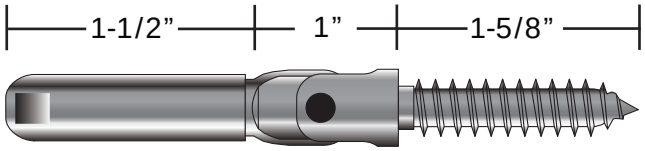
Order: **RFXEZCLEAN**

FlexFX™ Cable Fitting Reference Guide

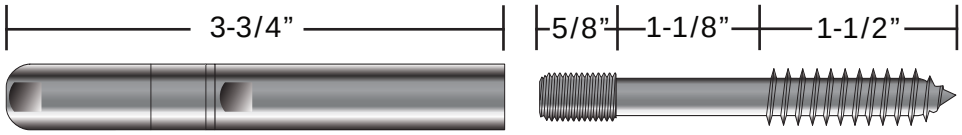
FlexFX™ Cable Fittings for Wood



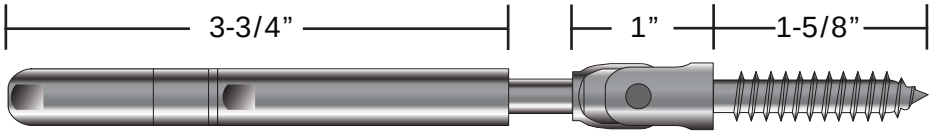
Level - Non-Tensioner for Wood (RFXWLN1/8)



Stair - Non-Tensioner for Wood (RFXWSN1/8)

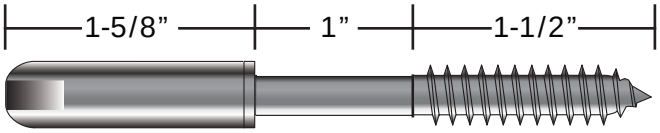


Level - Tensioner for Wood (RFXWLT1/8)

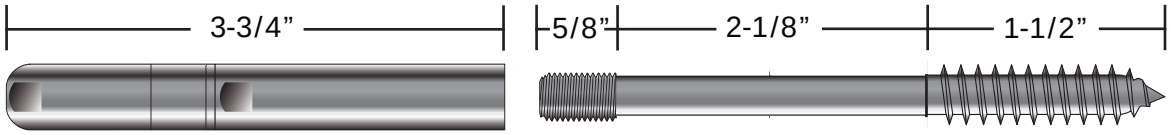


Stair - Tensioner for Wood (RFXWST1/8)

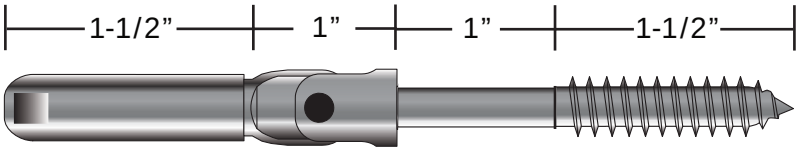
FlexFX™ - XL Cable Fittings for Composite Sleeves



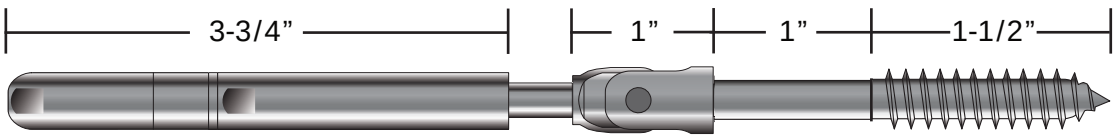
Level - Non-Tensioner for Composite (RFXWLN1/8XL)



Level - Tensioner for Composite (RFXWLT1/8XL)



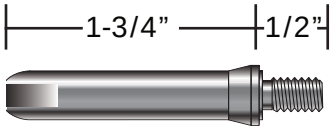
Stair - Non-Tensioner for Composite (RFXWSN1/8XL)



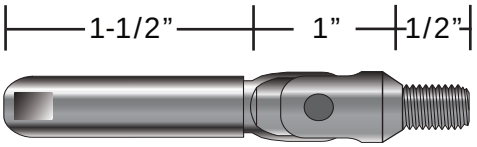
Stair - Tensioner for Composite (RFXWST1/8XL)

FlexFX™ Cable Fitting Reference Guide

FlexFX™ Cable Fittings for Metal

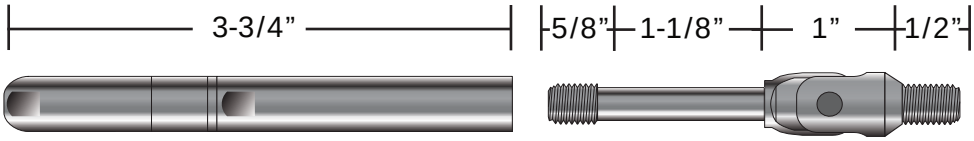


Level - Non-Tensioner for Wood (RFXWLN1/8)



Stair - Non-Tensioner for Wood (RFXWSN1/8)

Level - Tensioner for Wood (RFXWLT1/8)



Stair - Tensioner for Wood (RFXWST1/8)

Warranty Information

Stainless steel hardware and cable are covered by a limited warranty for a period of ten (10) years from the date of receipt to be free from defects due to defective materials and workmanship.

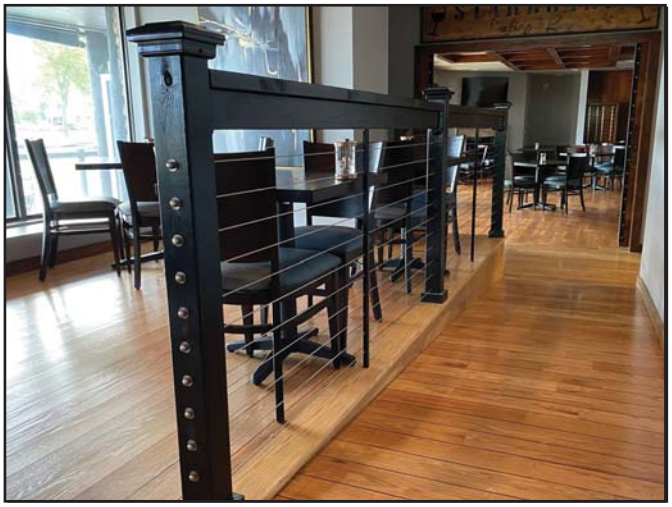
This warranty does not cover materials which have been abused, neglected or used in any manner other than for pedestrian railings nor for any damage, failure of corrosion resulting from environmental conditions, improper installation, vandalism, insurrection, war or acts of nature.

The company’s obligations are limited to the replacement or refund of the net purchase price of the materials found to be defective and does not cover any other related cost for the disassembly of the defective materials nor the installation costs of the replacement material.

In making a claim the material shall be delivered to ADI™ with a written notice of the defect and evidence that the condition or product failure is covered by this warranty.

For complete warranty details, please visit http://www.absolutedist.com/images/Warranty.pdf

Idea Gallery

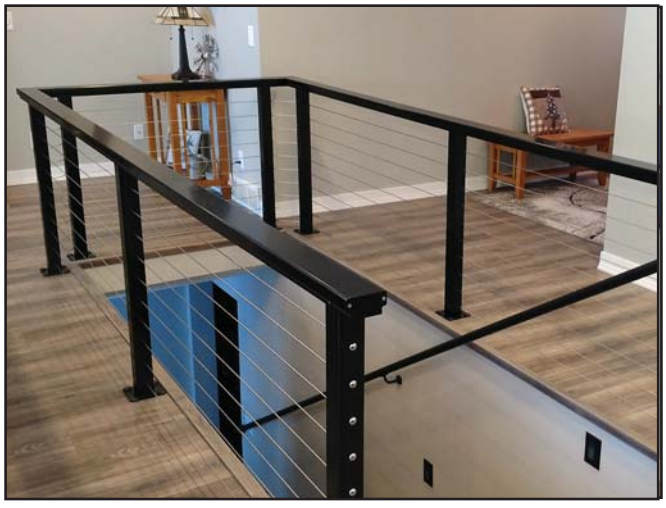


DekPro™ InvisiCable
into Painted Wood Rail

DekPro™ InvisiCable into Wood Rail

FlexFX™ Cable with Aluminum Sleeves

FlexFX™ Cable with Composite Sleeves



RailFX™ Surface Mount
Interior - Series 200 Top rail

RailFX™ Fascia Mount
Series 200 Top Rail w/ Secondary HR

Idea Gallery

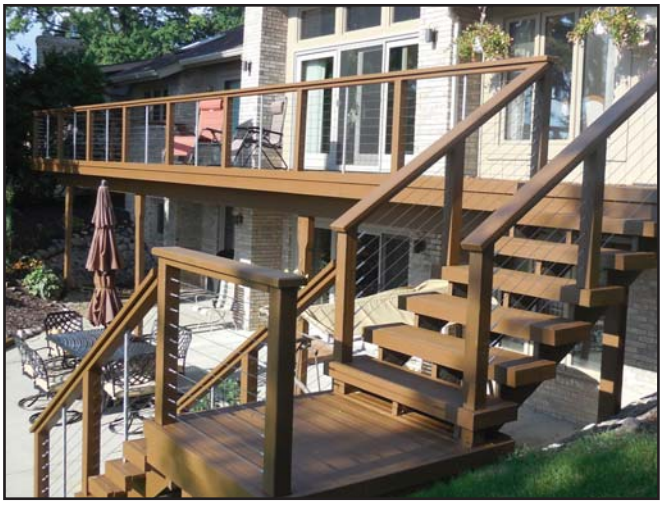
RailFX™ Single Corner Post

FlexFX™ Cable into Wood Rail

RailFX™ Direct Mount Fascia Mount
(No Brackets)

RailFX™ Fascia Mount w/ Brackets

FlexFX™ Cable with Composite Sleeves



FlexFX™ Cable into Solid Composite Rail

RailFX
CABLE • SPECIALTY

DekPro™
INVISICABLE
Cable Railing Systems

Available Thru:

Marketed and Distributed by:

ADI™
Absolute Distribution Inc.
1-800-335-5909