

Cable Railing Kit "How To" Guide For Wood Posts and Wood Posts with Composite Sleeves



AMERICANTM
STRUCTURES & DESIGN

November 1, 2013

Ultra-tec[®]
CABLE RAILING SYSTEMS

The Cable Connection
52 Heppner Drive
Carson City, Nevada 89706

800.851.2961
775.885.1443
Fax: 775.885.2734
E-mail: info@ultra-tec.com
www.ultra-tec.com

**For the location of your nearest
cable railing kit source, see back cover.**



Made in
the U.S.A.



ISO 9001
QMI-SAI Global



Framework You Will Need for Cable Railing

End Post Construction

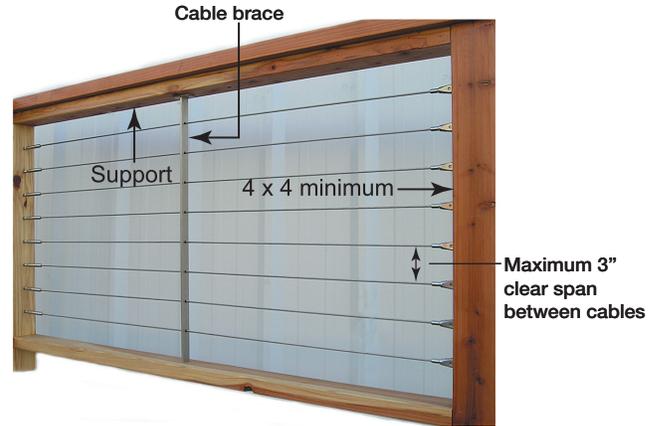
Since hundreds of pounds of tension is being applied to end posts using cable railing, those posts must be substantial enough to handle that tension.

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 between end and corner posts

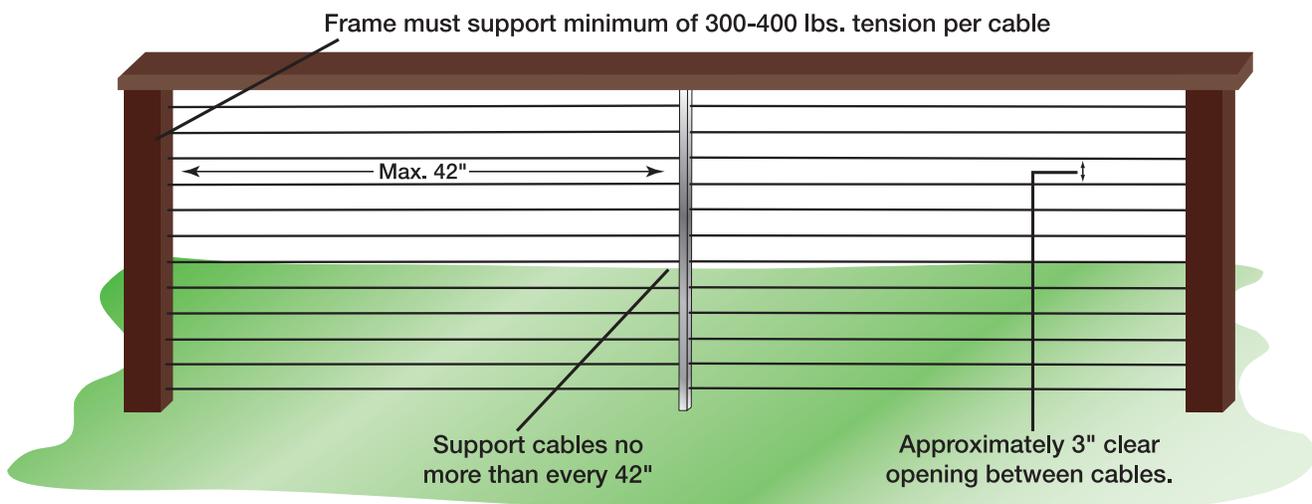
To keep the cable from spreading beyond IBC code requirements, we recommend that the cable be supported in some manner no more than every 42" along its run. Intermediate posts, through which the cable is strung, act as supports for the cable. To avoid having to use more intermediate posts than is structurally necessary, a thin metal cable brace with



holes for the cables to pass through can be used to support the cables (see illustrations). A typical cable brace is either 3/4" x 3/4" aluminum tube or 1/4" thick by 1" wide stainless steel flat bar and is ordered separately.

Cable spacing on your posts

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 3/16" diameter cable, you would drill your holes on center no more than 3-3/16" apart.



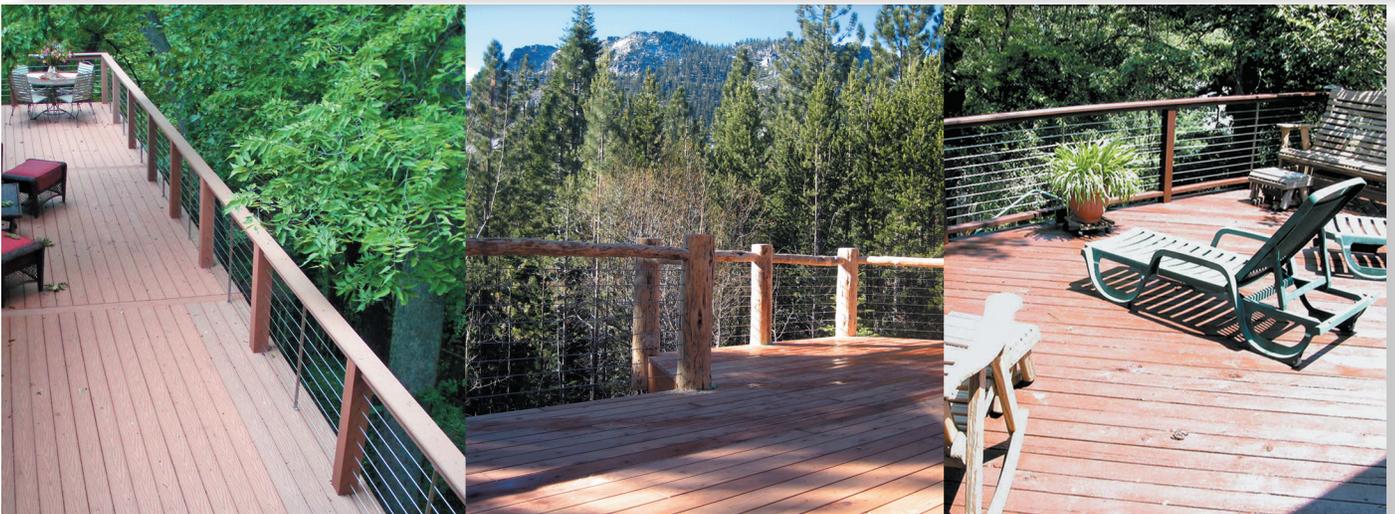
Your Deck Type

Decks come in all shapes and sizes, but there are only a few types of cable runs that go on those decks: inside-of-post to inside-of-post, inside-of-post to outside-of-post, and outside-of-post to outside-of-post. The following illustrations represent several ways you can run cable on your deck. Every run will require a fitting that will act to tension the cable once installed. Depending on the length of the run, the tensioning device in the kit, and whether you plan to bend the cable through a corner, you will either be able to use a

non-tensioning Push-Lock™ or Pull-Lock™ on the other end or you will need to use a Push-Lock tensioner on the other end.

The VIP Run

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 the view, so you always start with that run and build around it.



American Structures & Design Inc. - WA
218 Stewart Rd. SE, Pacific, WA 98047
P: 253-833-4343 F: 253-833-4545
AmericanStructures.com

American Structures & Design Inc. - OR
13444 NE Jarrett St. Portland, OR 97230
P: 971-645-4201 F: 971-645-4212

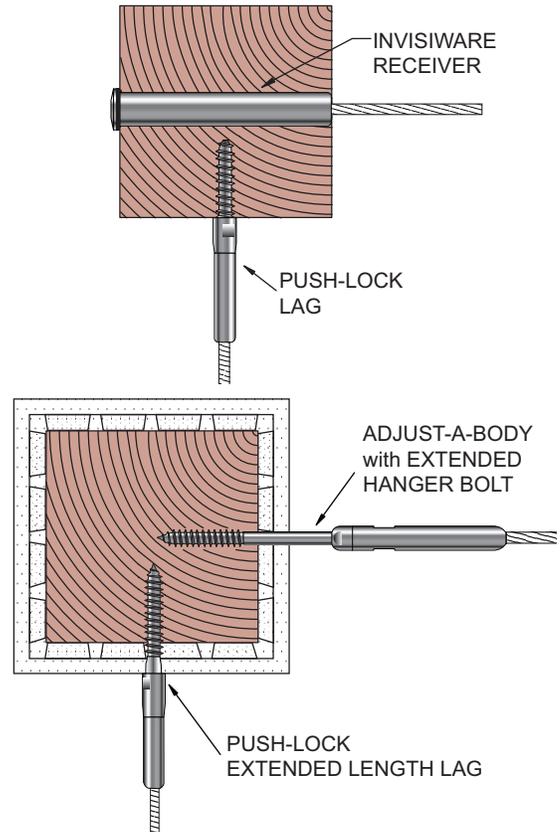
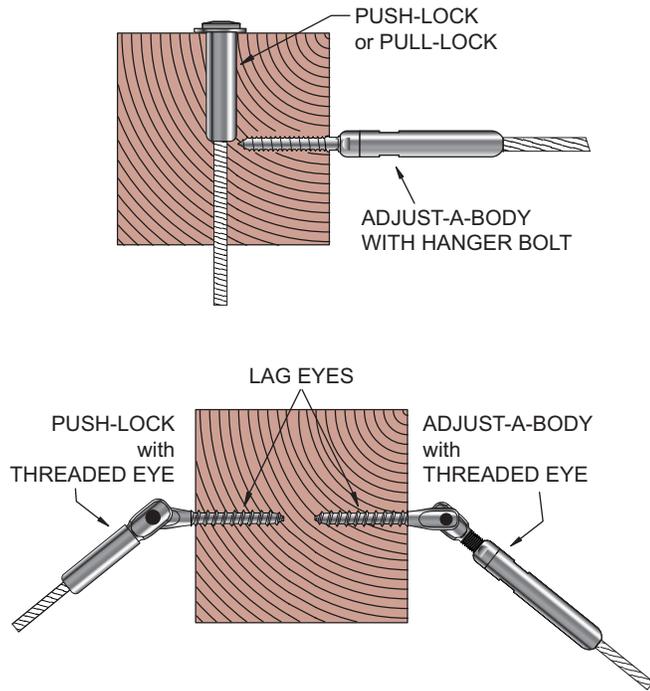


A Closer Look at Corner Posts

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.

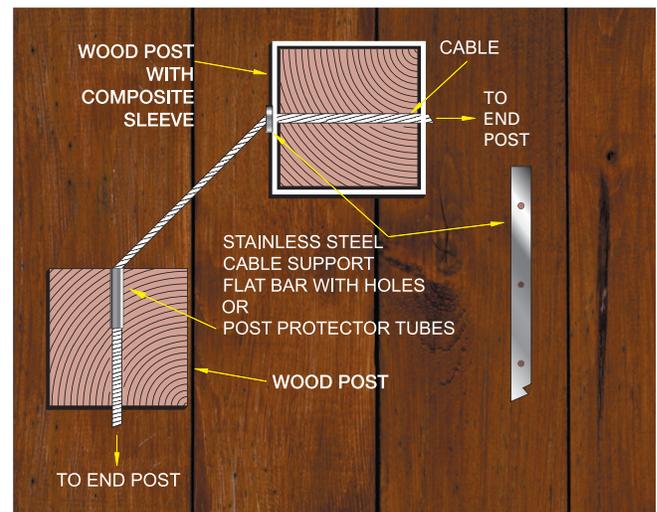
Ultra-tec fittings are designed to be able to reside within the same post in many configurations. Below are some examples of how your kit components work together.



Continuing a 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 corners totaling more than 90°, you will want to use a kit with tensioners at both ends.

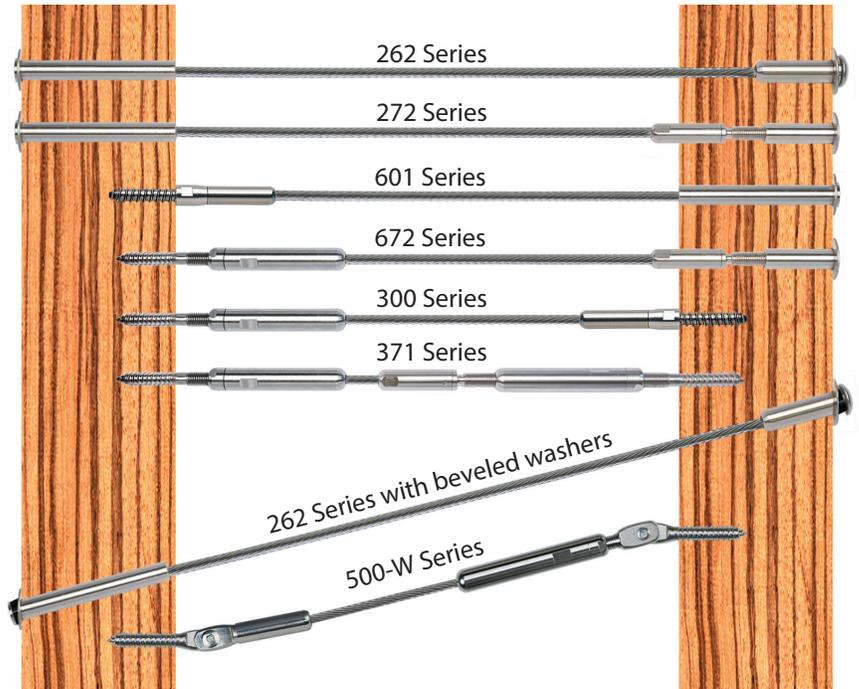
Corners require two posts because the cable itself, being rigid, will not cooperate in bending cleanly through a single post. When you go through a corner post, you will need to prevent the cable from slicing into the wood as it exits the post on an angle by using a Post Protector Tube. If using wood posts with composite sleeves, you will want to use cable supports instead, which reside on the outside of the sleeve, lagging through it to the wood posts beneath.



Kit Assemblies at a Glance for Wood Posts

For level runs:

- 262 Series (outside to outside)
3½" Invisiware® Receiver to Pull-Lock™.
- 272 Series (outside to outside)
3½" Invisiware Receiver to 1½" Receiver with Push-Lock™ Stud.
- 601 Series (inside to outside)
3½" Invisiware Receiver to Push-Lock Lag.
- 672 Series (inside to outside)
Adjust-a-Body® with Hanger Bolt to 1½" Receiver with Push-Lock Stud.
- 300 Series (inside to inside)
Adjust-a-Body with Hanger Bolt to Push-Lock Lag.
- 371 Series (inside to inside)
Adjust-a-Body with Hanger Bolt to Push-Lock Turnbuckle with Hanger Bolt.

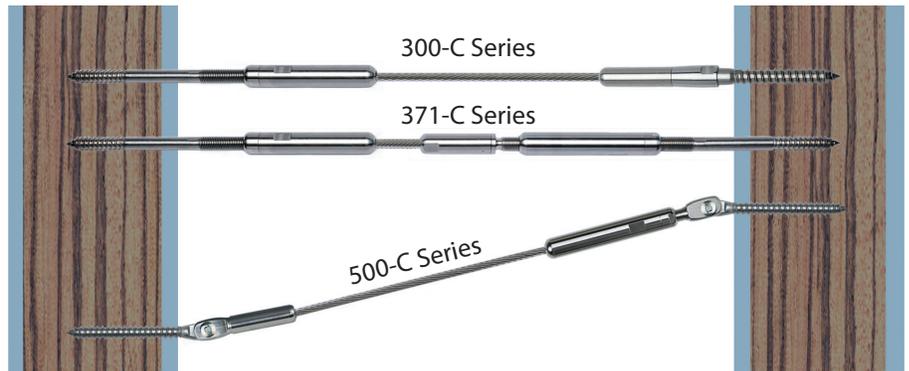


For stairs, pitched runs:

- 262 Series (outside to outside)
Invisiware Receiver to Pull-Lock with beveled washers.
- 500-W Series (inside to inside)
Push-Lock with Threaded Eye and Lag Eye to Adjust-a-Body with Threaded Eye and Lag Eye.

For level runs using wood posts with composite sleeves (with an outside diameter greater than 4½"):

- 300-C Series (inside to inside)
Adjust-a-Body with Extended Length Hanger Bolt to Push-Lock with Extended Length Lag.
- 371-C Series (inside to inside)
Adjust-a-Body with Extended Length Hanger Bolt to Push-Lock Turnbuckle with Extended Length Hanger Bolt.



For stairs using wood posts with composite sleeves:

- 500-C Series (inside to inside)
Adjust-a-Body with Threaded Eye and Extended Length Lag Eye to Push-Lock with Threaded Eye and Extended Length Lag Eye.

Recommendations for wood railings:

Outside attachments can only be used if your end posts are not obstructed on the back side: Series 200 or 272; or Series 601 or 672 if only one end is obstructed.

If you are unable to access the back side of your end post, then you will need to use a series with an inside attachment: Series 300, 371 or 500 if both ends are obstructed; Series 601 or 672 if only one end is obstructed.

If you are installing a railing with a pitch, you will need a series that can be run on an angle: Series 262 or 500.

Warranty: 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.

For complete warranty details, please visit <http://thecableconnection.com/warranty-ultra-tec.html>



American Structures & Design Inc. - WA
218 Stewart Rd. SE, Pacific, WA 98047
P: 253-833-4343 F: 253-833-4545
AmericanStructures.com

American Structures & Design Inc. - OR
13444 NE Jarrett St. Portland, OR 97230
P: 971-645-4201 F: 971-645-4212



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

Straight Cable Runs and Cable Runs through One Corner

Decks 1 and 2 have 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.

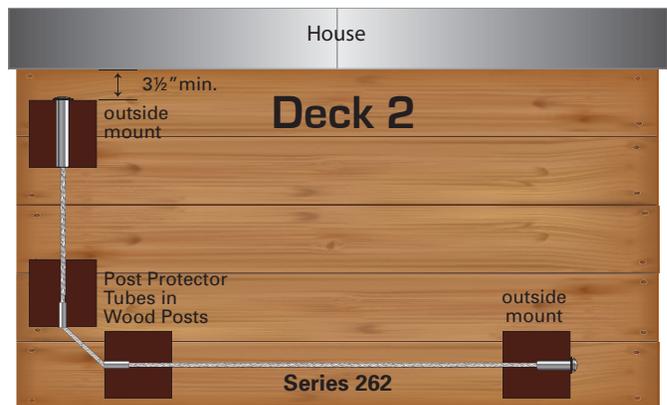
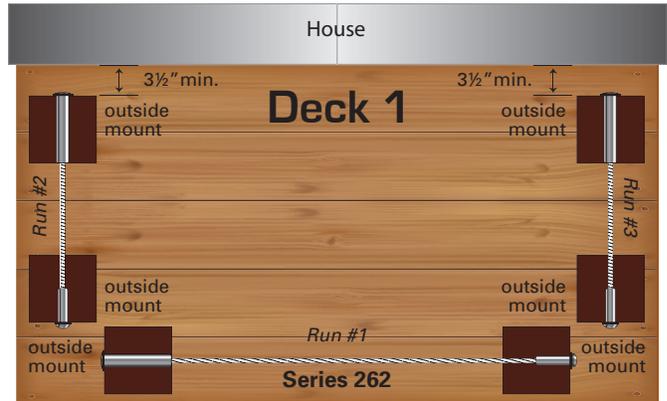


Applicable kit is the 262 Series.

The tensioning device is a 3½" long Invisiware® Receiver, which installs through the wood post on one end. A Pull-Lock fitting is installed through the other end.

Series 262 Kits

Cable Length	1/8" cable PART NO.	3/16" cable PART NO.
5'	26205	26205-6
10'	26210	26210-6
15'	26215	26215-6
20'	26220	26220-6
25'	26225	26225-6
30'	26230	26230-6
40'	26240	26240-6
50'	26250	26250-6



For Post Protector Tubes, see Tools and Essentials section.

Cable Runs through Two Corners

When going around two corners, it's necessary to tension the cable from both ends as shown in Deck 3.

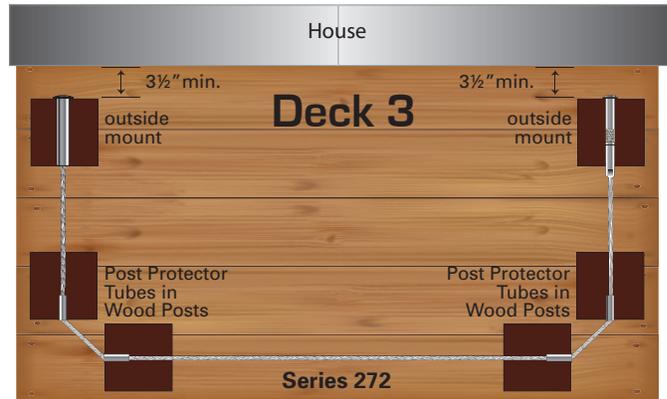
Applicable kit is the 272 Series.

The tensioning devices are a 3½" long Invisiware Receiver, which installs through the post on one end, and a Push-Lock Stud on the other end, which is threaded into a 1½" long Receiver.



Series 272 Kits

Cable Length	1/8" cable PART NO.	3/16" cable PART NO.
30'	27230	27230-6
40'	27240	27240-6
50'	27250	27250-6



For Post Protector Tubes, see Tools and Essentials section.

Tools needed for 262 and 272 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
- If 272 Series, 3/8 wrench for Push-Lock Stud



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

Straight Cable Runs and Cable Runs through One Corner

Deck 1 has dedicated end posts, but the posts next to the house are too close to access the back side of the posts. Run #1 is outside to outside, so it will take a Series 262 kit. However, for Runs #2 and #3, you will attach to the *inside* of the posts next to the house and run *through* the post at the other end.

Deck 2 has shared corner posts, but the posts next to the house are placed such that the back side of the posts are accessible, so for Runs #2 and #3, you will attach to the *inside* of the corner posts and run through the post next to the house.

Deck 3 illustrates how the 601 series can also be used to go around a single corner up to 90°.

Applicable kit is the 601 Series

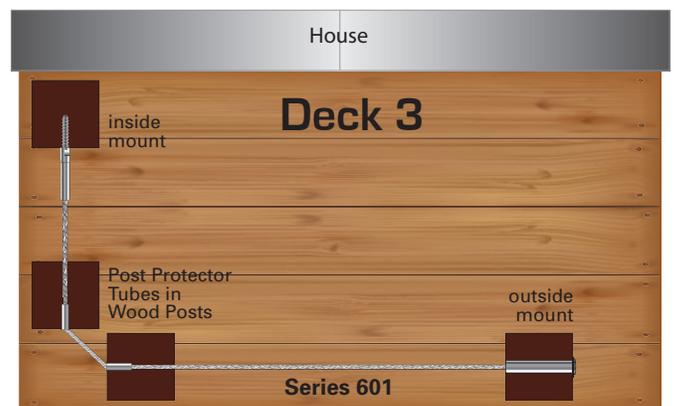
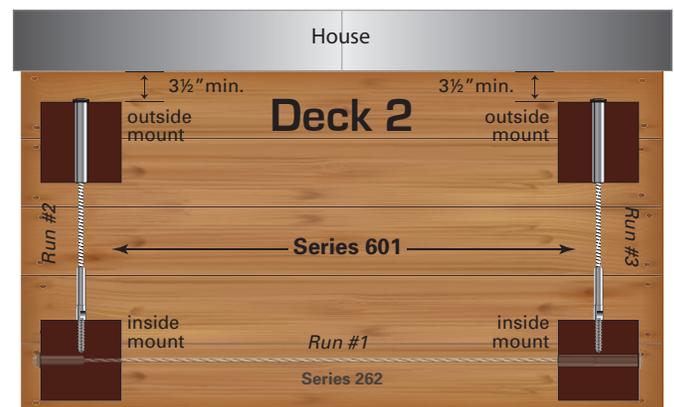
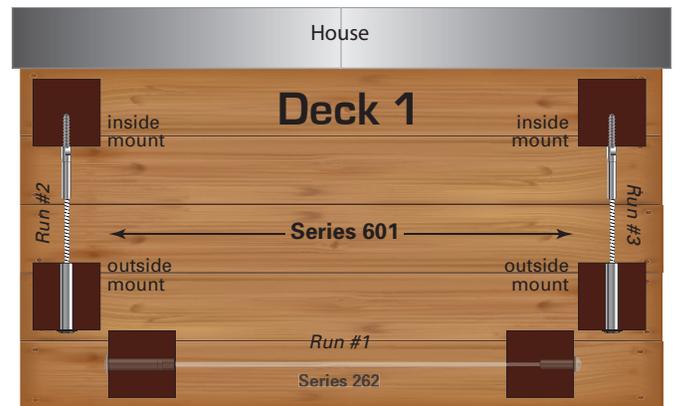
The tensioning device is a 3½" long Invisiware Receiver, which installs through the wood post on one end. A Push-Lock Lag is lagged into the other end.



Tools needed for 601 Series:

- 5/32 drill bit if 1/8" cable, 7/32 if 3/16"
- 29/64 drill bit for Receiver installation
- 3/16 Hex wrench for tensioning Receiver
- 9/32 drill bit for Push-Lock Lag installation
- 7/16 wrench for tightening Push-Lock Lag
- Cable cutting tool
- If using Post Protector Tubes, 1/4 drill bit

Cable Length	Series 601 Kits	
	1/8" cable PART NO.	3/16" cable PART NO.
5'	60105	60105-6
10'	60110	60110-6
15'	60115	60115-6
20'	60120	60120-6
25'	60125	60125-6
30'	60130	60130-6
40'	60140	60140-6
50'	60150	60150-6



For Post Protector Tubes, see Tools and Essentials section.

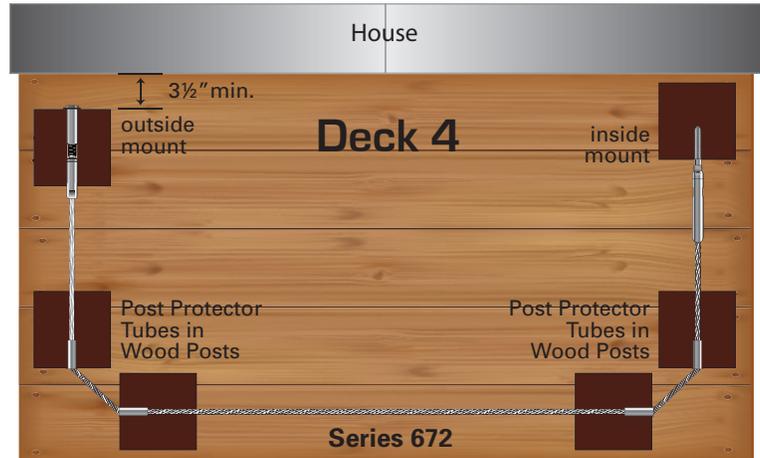
Wood Posts _____ Inside-of-Post to Outside-of-Post Mount

Cable Runs through Two Corners

When going around two corners, it's necessary to tension the cable from both ends as shown in Deck 4.

Applicable kit is the 672 series

The tensioning devices are an Adjust-a-Body with Hanger Bolt which lags into the wood post on one end, and a 1-1/2" long Receiver with Push-Lock Stud on the other end.



For Post Protector Tubes, see Tools and Essentials section.

Series 672 Kits

Cable Length	1/8" cable PART NO.	3/16" cable PART NO.
30'	67230	67230-6
40'	67240	67240-6
50'	67250	67250-6

Tools needed for 672 Series:

- 5/32 drill bit if 1/8" cable, 7/32 if 3/16"
- 29/64 drill bit for Receiver installation
- 3/16 Hex wrench for tensioning Receiver
- 9/32 drill bit for Push-Lock Lag installation
- 1/4 drill bit for Adjust-a-Body installation and Post Protector Tubes, if applicable
- 1/4 wrench for turning Hanger Bolt
- 7/16 wrench to tension Adjust-a-Body
- 3/8 wrench for Push-Lock Stud
- Cable cutting tool

Tools needed for 300 and 371 Series (page 9):

- 5/32 drill bit if 1/8" cable, 7/32 if 3/16" cable
- 3/16 Hex wrench for tensioning Receiver (300 Series)
- 1/4 drill bit for Adjust-a-Body with Hanger Bolt installation (and Push-Lock Turnbuckle in 371 Series), and installing Post Protector Tubes
- 1/4 wrench for turning Hanger Bolt (one end of 300 Series, both ends 371 Series)
- 9/32 drill bit for Push-Lock Lag installation (not needed for 371 Series)
- 7/16 wrench for tensioning Adjust-a-Body and tightening Push-Lock Lag (2 wrenches if 371 Series to tension Push-Lock Turnbuckle)
- 3/8 wrench for Push-Lock Stud
- Cable cutting tool



Inside-of-Post to Inside-of-Post Mount _____ Wood Posts

Straight Cable Runs and Cable Runs through One Corner

Deck 1 has only one end post at the corners. The posts next to the house butt right up to it so the back sides of those posts are not accessible. Run #1 is still outside to outside, so it will take a Series 262 kit. Runs #2 and #3 connect to the *inside* of the corner post going back toward the house to keep the cables on the same plane. They also connect to the *inside* of the posts next to the house as well.



Cable Length	Series 300 Kits	
	1/8" cable PART NO.	3/16" cable PART NO.
5'	30005	30005-6
10'	30010	30010-6
15'	30015	30015-6
20'	30020	30020-6
25'	30025	30025-6
30'	30030	30030-6
40'	30040	30040-6
50'	30050	30050-6

Applicable kit is the 300 Series.

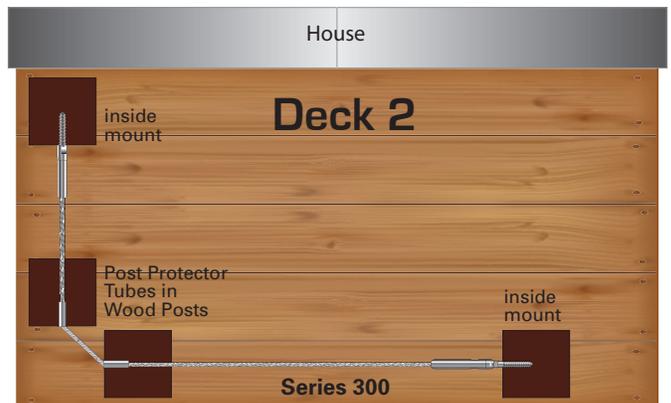
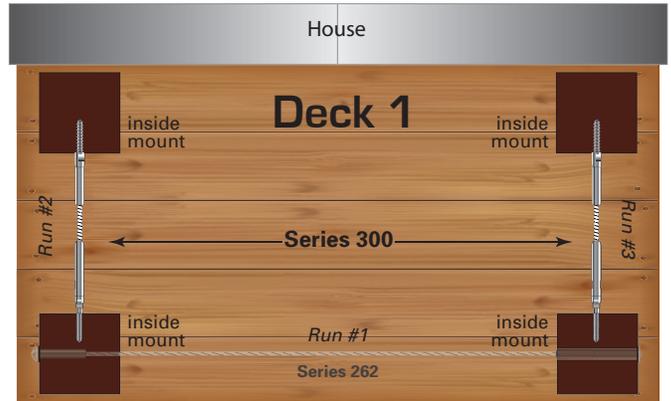
The tensioning device is an Adjust-a-Body® with Hanger Bolt, which lags into the wood post on one end. A Push-Lock Lag is lagged into the other end.

Cable Runs through Two Corners

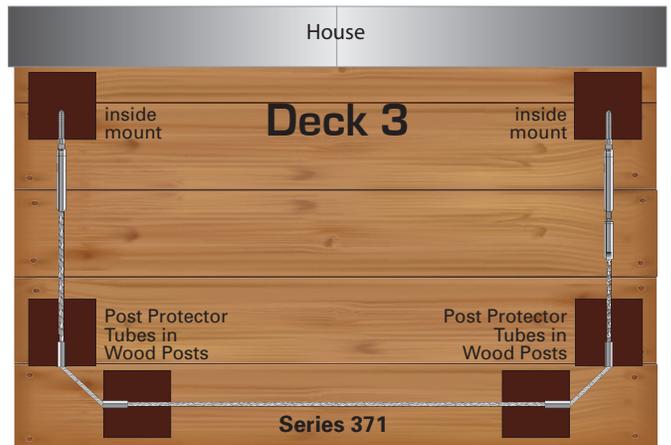
When going around two corners, it's necessary to tension the cable from both ends as shown in Deck 3.

Applicable kit is the 371 Series.

The tensioning devices are an Adjust-a-Body with Hanger Bolt, which lags into the wood post on one end, and Push-Lock Turnbuckle with Hanger Bolt on the other end.



For Post Protector Tubes, see Tools and Essentials section.



For Post Protector Tubes, see Tools and Essentials section.

Series 371 Kits

Cable Length	1/8" cable	3/16" cable
	PART NO.	PART NO.
30'	37130	37130-6
40'	37140	37140-6
50'	37150	37150-6

For Tools needed, see bottom of page 8.

Wood Posts _____ Inside-of-Post to Inside-of-Post Mount on Stairs

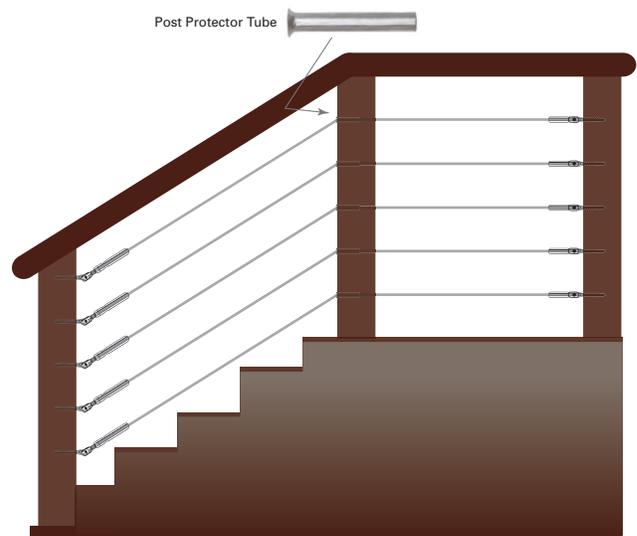
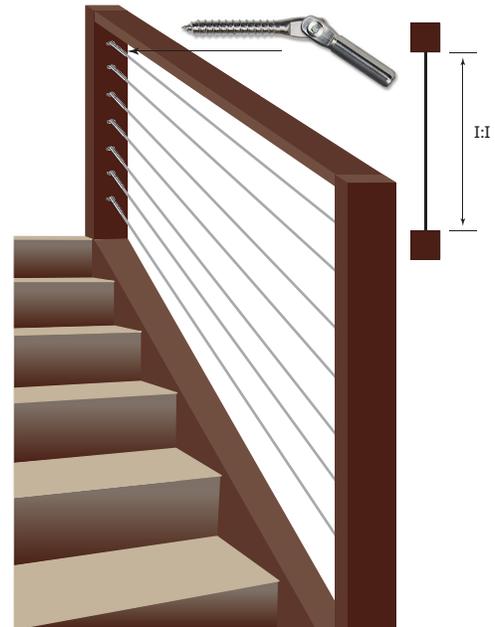
Cable Runs on a Pitch

Top posts are often corner posts, which may 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.

Applicable kit for wood posts is the 500-W Series.

The tensioning device is an Adjust-a-Body with Threaded Eye, which attaches via mounting screw to the lag eye. A Push-Lock with Threaded Eye attaches the same way to the other end.

The 500-W Series can be used to go up a stair and across a landing by inserting post protector tubes (order CS-TUBE-6 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.



Series 500-W Kits for Wood Posts

Cable Length	1/8" cable PART NO.	3/16" cable PART NO.
5'	50005-W	50005-6W
10'	50010-W	50010-6W
15'	50015-W	50015-6W
20'	50020-W	50020-6W
25'	50025-W	50025-6W
30'	50030-W	50030-6W
40'	50040-W	50040-6W
50'	50050-W	50050-6W

Tools needed for 500-W Series:

- 5/32 drill bit if 1/8" cable, 7/32 if 3/16"
- 9/32 drill bit for Lag Eye installation
- 7/16 wrench for tensioning Adjust-a-Body
- 5/32 Hex wrench to tighten mounting screws
- Cable cutting tool
- If using Post Protector Tubes, 1/4 drill bit

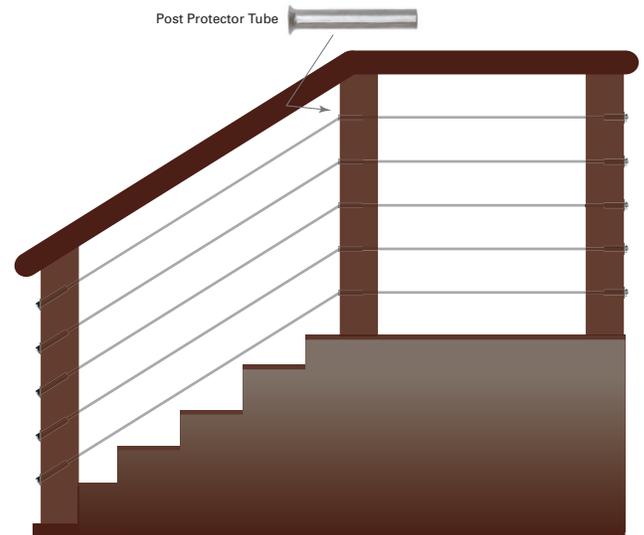
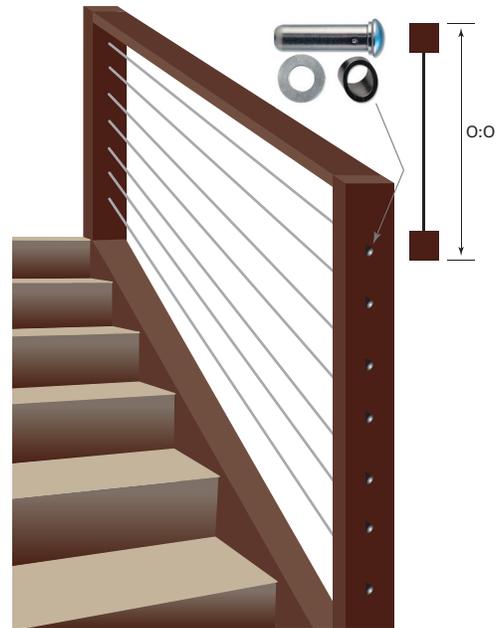


Outside-of-Post to Outside-of-Post Mount _____ Wood Posts on Stairs

Cable Runs on a Pitch

An alternative to mounting to the inside of the stair posts is to go through both top and bottom end posts. The holes in the end posts, and any intermediate posts, must be drilled on the angle of the stairs.

Applicable kit is the 262 Series. Requires beveled washers. Order the beveled washer/flat washer combo separately from the kit. The tensioning device is a 3½" long Invisiware Receiver, which installs through the wood post on one end. A Pull-Lock fitting is installed through the other end. The 262 Series can be used to go up a stair and across a landing by inserting post protector tubes (order CS-TUBE-6 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.



Series 262 Kits for Wood Posts

Cable Length	1/8" cable PART NO.	3/16" cable PART NO.
5'	26205	26205-6
10'	26210	26210-6
15'	26215	26215-6
20'	26220	26220-6
25'	26225	26225-6
30'	26230	26230-6
40'	26240	26240-6
50'	26250	26250-6

Order two BW32-6W (beveled washer/flat washer combo) per kit, one combo if one end post is on a landing. See Tools and Essentials section.

Tools needed for 262 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

Wood Posts with _____ Inside-of-Post to Inside-of-Post Mount Composite Sleeves

Straight Cable Runs and Cable Runs through One Corner

Decks 1 and 2 have wood posts with composite sleeves. For sleeved posts, the recommended approach is inside to inside for the best finished look. Since Deck 1 has only one end post at the corners, there is no bending of the cable through those posts. Each run must start and stop. All three runs use the same kit.

Deck 2 has double posts at the corners, meaning you can bend cable through the corners. When taking cable railing through a corner, or any angled turn, you will need to affix cable supports to the outside of the post where the cable exits the sleeved post on an angle.

Applicable kits are the 300 and 300-C Series:

If the outside diameter of the composite sleeve is 4½" or less, use the 300 Series.

The tensioning device is an Adjust-a-Body with Hanger Bolt, which lags into the wood post on one end. A Push-Lock Lag is lagged into the other end.

If the outside diameter of the composite sleeve is greater than 4½", use the 300-C Series.

The fittings are the same as in the 300 Series, with extended length hanger bolt and lag respectively.



For corner applications, see page 4.
For Cable Supports, see Tools and Essentials section.



Series 300-C Kits

Cable Length	1/8" cable PART NO.	3/16" cable PART NO.
5'	30005-C	30005-C6
10'	30010-C	30010-C6
15'	30015-C	30015-C6
20'	30020-C	30020-C6
25'	30025-C	30025-C6
30'	30030-C	30030-C6
40'	30040-C	30040-C6
50'	30050-C	30050-C6



Inside-of-Post to Inside-of-Post Mount _____ Wood Posts with Composite Sleeves

Cable Runs through Two Corners

When going around two corners, it's necessary to tension the cable from both ends as shown in Deck 3.

Applicable kits are the 371 and 371-C Series:

If the outside diameter of the composite sleeve is 4½" or less, use the 371 Series.

The tensioning devices are an Adjust-a-Body with Hanger Bolt, which lags into the wood post on one end, and Push-Lock Turnbuckle with Hanger Bolt on the other end.

If the outside diameter of the composite sleeve is greater than 4½", use the 371-C Series.

The fittings are the same as in the 371 Series, with extended length hanger bolt and lag respectively.



For corner applications, see page 4.
For Cable Supports, see Tools and Essentials section.

Tools needed for 300-C (page 12) and 371-C Series:

- 5/32 drill bit if 1/8" cable, 7/32 if 3/16" cable
- 3/16 Hex wrench for tensioning Receiver (300-C Series)
- 1/4 drill bit for Adjust-a-Body with Hanger Bolt installation (and Push-Lock Turnbuckle in 371-C Series), and installing Post Protector Tubes
- 1/4 wrench for turning Hanger Bolt (one end of 300-C Series, both ends 371-C Series)
- 9/32 drill bit for Push-Lock Lag installation (not needed for 371-C Series)
- 7/16 wrench for tensioning Adjust-a-Body and tightening Push-Lock Lag (2 wrenches if 371-C Series to tension Push-Lock Turnbuckle)
- 3/8 wrench for Push-Lock Stud
- Cable cutting tool



Series 371-C Kits

Cable Length	1/8" cable PART NO.	3/16" cable PART NO.
30'	37130-C	37130-C6
40'	37140-C	37140-C6
50'	37150-C	37150-C6

Wood Posts with _____ Inside-of-Post to Inside-of-Post Mount Composite Sleeves

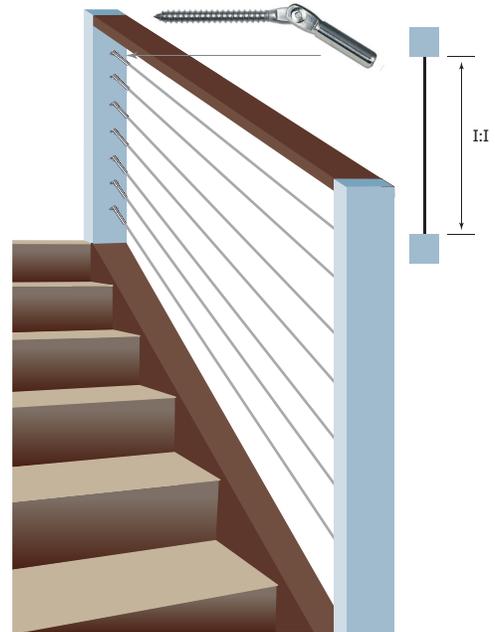
Cable Runs on a Pitch

Top posts are often corner posts, which may 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.

Applicable kit for wood posts with composite sleeves with an outside diameter greater than 4½" is the 500-C Series.

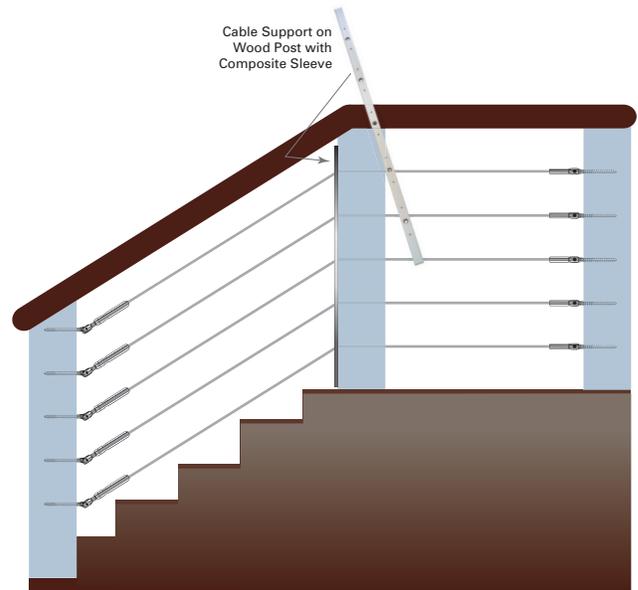
The tensioning device is an Adjust-a-Body with Threaded Eye, which attaches via mounting screw to the extended length lag eye. A Push-Lock with Threaded Eye attaches the same way to the other end.

The 500-C Series can be used to go up a stair and across a landing by mounting a cable support to the stair side of the break-over post. The cable support will prevent the the cable from damaging the sleeve where it exits the post at an angle.



Series 500-C Kits for Wood Posts with Composite Sleeves

Cable Length	1/8" cable PART NO.	3/16" cable PART NO.
5'	50005-C	50005-6C
10'	50010-C	50010-6C
15'	50015-C	50015-6C
20'	50020-C	50020-6C
25'	50025-C	50025-6C
30'	50030-C	50030-6C
40'	50040-C	50040-6C
50'	50050-C	50050-6C



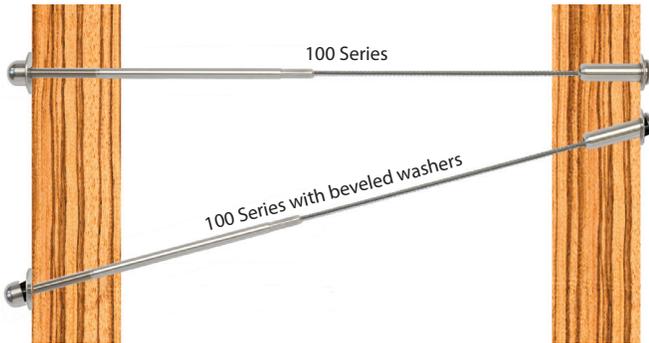
Tools needed for 500-C Series:

- 5/32 drill bit if 1/8" cable, 7/32 if 3/16"
- 9/32 drill bit for Lag Eye installation
- 7/16 wrench for tensioning Adjust-a-Body
- 5/32 Hex wrench to tighten mounting screws
- Cable cutting tool



Budget Kits for 1/8" Cable

Fitting combinations for wood posts



For level runs:

100 Series (outside to outside)
7 1/2" long threaded stud to Pull-Lock.

For stairs, pitched runs:

100 Series (outside to outside)
7 1/2" long threaded stud to Pull-Lock
with beveled washers
(BW-.250-32 for stud, BW32-6W for Pull-Lock).

Important Notes for Budget Kits:

- Outside attachments can only be used if your end posts are not obstructed on the back side.
- 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 (no more than 45° at any 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 (see Tools and Essentials section).
- If you are installing a railing with a pitch, you will need beveled washers for both ends.

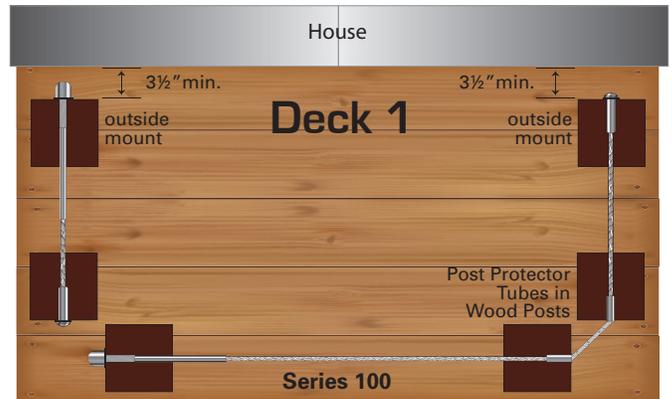
Warranty: Stainless steel hardware and cable are covered by a limited warranty for a period of ten (10) years from the date of receipt to be free from defects due to defective materials and workmanship. For complete warranty details, please visit <http://thecableconnection.com/warranty-ultra-tec.html>

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

An outside-of-post to outside-of-post configuration is the only scenario in which the economical threaded stud kits may be used. The threaded stud kits are even more economical than the 200 series, but the threaded studs are a basic, functional fitting, not a hide-in-the-post solution. Two jam nuts and some metal thread (all covered by an end cap) will extend beyond the back of the post on one end. A Pull-Lock fitting is installed through the other end.

For wood posts, the applicable kit is the 100 Series.

The tensioning device is a 7 1/2" long threaded stud which installs on the back side of one end post, as shown in Deck 1.



For corner applications, see page 4.
For Post Protector Tubes, see Tools and Essentials section.

Series 100 Kits

Cable Length	PART NO.
5'	10005
10'	10010
15'	10015
20'	10020
25'	10025
30'	10030
40'	10040
50'	10050

Tools and Essentials



Stainless Steel Cable Brace

1/4" x 1" in 2 lengths, for 36" and 42" high rails. Holes pre-drilled at 3-1/8" on center, 10 holes in short length, 12 in long. For use between structural posts to keep cables code compliant on level runs. Weld to metal frames; use cable brace floor plates for attaching to wood.

Order **CB-34.5-SS-10** or **CB-40.5-SS-12**

Stainless Steel Cable Brace for Stairs

1/4" x 1" in 2 lengths, for 36" and 42" high rails. Slots pre-drilled at 3-1/8" on center, 10 slots in short length, 12 in long. For use between structural posts to keep cables code-compliant on stair runs. Weld to metal frames; use cable brace floor plates for attaching to wood. Must be field-chamfered to match stair angle.

Order **CBS-34.5-SS-10** or **CBS-40.5-SS-12**

Stainless Steel Cable Brace Floor Plates

For mounting cable braces to top or bottom rail or deck. 2-1/4" x 1-1/4" x 1/4"; #4 Finish Stainless Steel.

Order **FLP-CBS**



Anodized Aluminum Cable Brace

3/4" x 3/4" 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.

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

Black Aluminum Cable Brace

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

Anodized Aluminum Cable Brace for Stairs

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

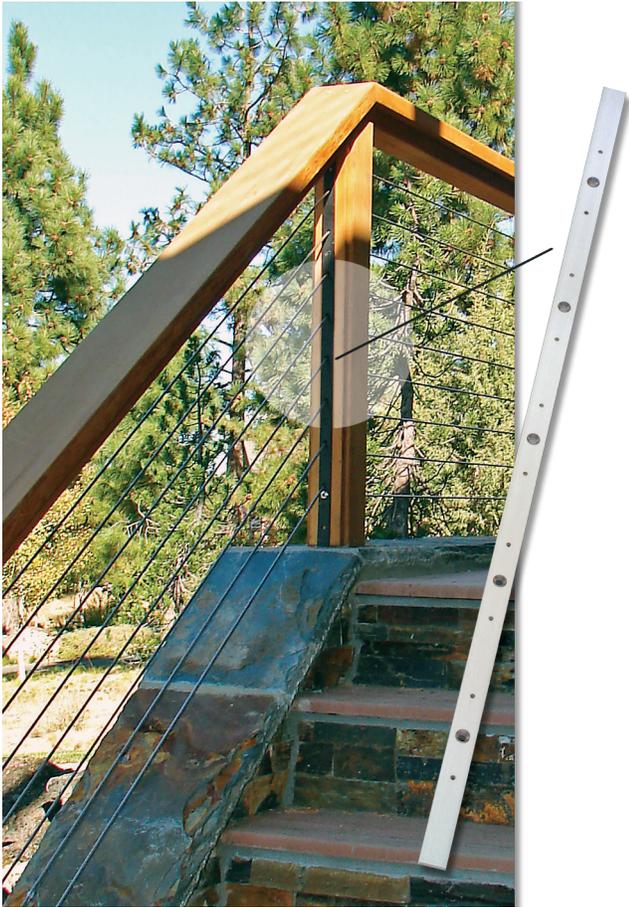
Order **CB-42-AN-AL-P**

Black Aluminum Cable Brace for Stairs

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

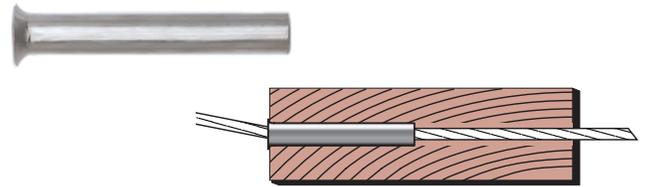


Tools and Essentials



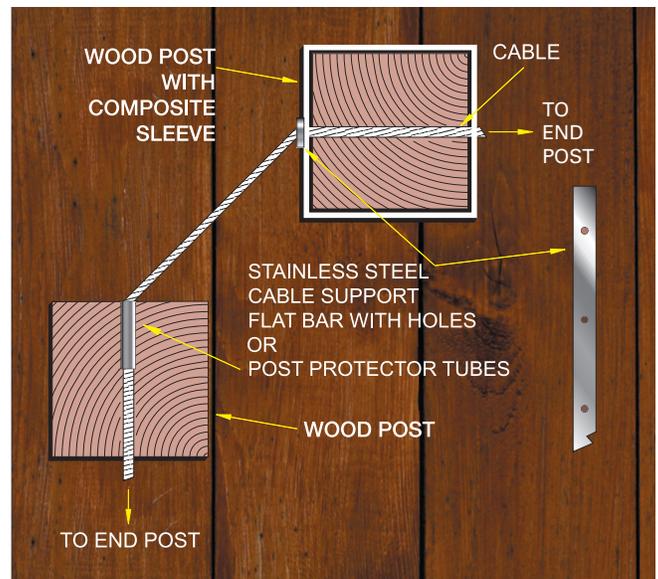
Stainless Steel Cable Support

1/4" x 1" in 2 lengths, for 36" and 42" high rails.
 Holes pre-drilled at 3-1/8" on center, 10 holes in short length, 12 in long. Lags onto the outside of a wood post with composite sleeve to allow cable to exit post on an angle, protecting the sleeve from the cable.
 Order **CS-34.5-SS-10** or **CS-40.5-SS-12**



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 the cable from biting into the wood.
 Order **CS-TUBE-6** for 1/8" and 3/16" dia. cable



Tools and Essentials

Beveled Washers

Made of stainless steel for use on stairways or slopes where you need to drill your end post holes at an angle.

Order **two** of **BW32-6W Beveled Washer/Flat Washer Combos** per kit.

FOR BUDGET KITS:

For wood stairs, order **one each** of **BW-.250-32** and **BW32-6W** per kit.



Cut-off Tool

Used to cut cable flush with the end of Pull-Lock fittings, and to cut excess threads off stud-type tensioners. Includes mandrel and two cut-off wheels.

Order **CUT-OFF KIT**



Cable Cutter

For burr-free cutting of cable.

For light-duty use to cut 1/8" diameter cable, order **C-7HIT**

To cut cable up to 1/4" diameter, order **C-9**



Cable Release

Releases cable from Push-Lock and Pull-Lock type fittings before cables are tensioned.

For 1/8" cable only.

Order **PL-KEY**



Cable Tension Gauges

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

Order **PT-CR** for cable diameter of 1/8", 3/16" and 1/4"



Light Duty Hanger Bolt Driver

Use to install Adjust-A-Body with Hanger Bolt tensioners. Makes driving hanger bolts fast and easy.

Order **DRIVER HB-6N** for 1/8" and 3/16" dia. cable



1/2" drive

Heavy Duty Hanger Bolt Driver

Robust design intended for multiple installations, many jobs.

Order **HB-6 DRIVER** for 1/8" and 3/16" dia. cable



1/2" drive

Stainless Steel Cleaner and Protectant

Dissolve minor corrosion, then leave 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 **E-Z Clean**



Or, if you'd rather use Metal Posts...



For level runs:

- 200 Series* (outside to outside)
Invisiware Receiver to Pull-Lock.
- 272 Series (outside to outside)
3½" Invisiware Receiver to
1½" Receiver with Push-Lock Stud.
- 700 Series* (inside to outside)
Invisiware Receiver to Push-Lock with Threaded Bolt.
- 773 Series (inside to outside)
Adjust-a-Body with Threaded Bolt to
1½" Receiver with Push-Lock Stud.
- 401 Series (inside to inside)
Adjust-a-Body with Threaded Bolt to
Push-Lock with Threaded Bolt.
- 471 Series (inside to inside)
Adjust-a-Body with Threaded Bolt
to Push-Lock Turnbuckle with Threaded Bolt.

For stairs, pitched runs:

- 200 Series* (outside to outside)
Invisiware Receiver to Pull-Lock with beveled washers.
- 500-M Series (inside to inside)
Push-Lock with Threaded Eye to
Adjust-a-Body with Threaded Eye.
Threaded tabs on both ends.

* 212 and 702 series are for use with 1½" metal posts;
232 and 703 are for use with 2" metal posts.

Recommendations for metal railings:

Outside attachments can only be used if your end posts are not obstructed on the back side: Series 200 or 272; Series 700 or 773 if only one end is obstructed.

If you are unable to access the back side of your end posts, then you will need to use a series with an inside attachment: Series 400, 471 or 500-M if both ends are obstructed; Series 700 or 773 if only one end is obstructed.

If you are installing a railing with a pitch, you will need a series that can be run on an angle: Series 200 or 500-M.

Corners require two posts because the cable itself, being rigid, will not cooperate in bending cleanly through a single post.

Warranty: 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.

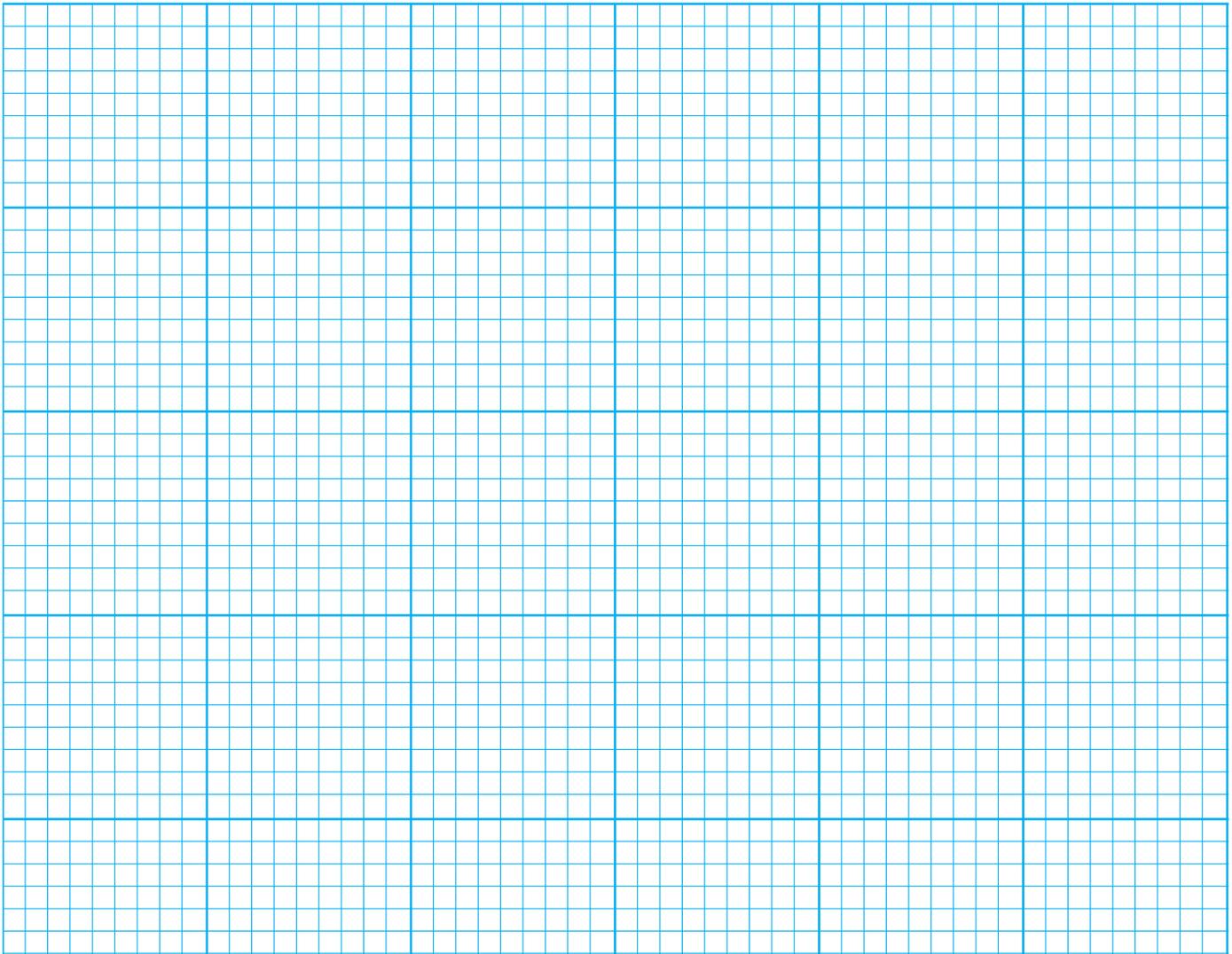
For complete warranty details, please visit <http://thecableconnection.com/warranty-ultra-tec.html>

Your Project

Make a bird's eye drawing of your project. Include railing lengths, end and corner post locations, stairs and any angles/turns your railing takes. Please include the following:

- ✓ What size post?
- ✓ What material (wood/composite sleeve)?
- ✓ If composite sleeve, what is the outside diameter when installed?

- ✓ What is the height of the railing?
- ✓ Are you using a bottom rail?
- ✓ Are you using single posts at corners or a double post configuration?
- ✓ Do you have 3-1/2" of space behind end posts to allow for installation of Receivers and Pull-Locks?
- ✓ What diameter cable are you using (1/8" or 3/16")?



Ultra-tec® Cable Railing products are available through:



Looking for your nearest source for Ultra-tec Cable Railing Kits?

Visit our Website: <http://thecableconnection.com/wholesalers.html> or scan this QR code with your smartphone. You will be directed to wholesalers in your state who can point you to a participating local retailer.