



## ATLANTIS RAIL Contact Information

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### Spectrum System Installation Instructions

Atlantis Rail's Spectrum System is an easy to install, universal cable railing product. It utilizes surface or fascia mounted square posts and a horizontal cable infill choice between HandiSwage™ studs with 5/32" or 1/8" cable. The Spectrum System is offered in a standard black or metallic silver color option. Other colors are available. Ask your Sales Representative for details. Customers must source their own flat hardwood top rail (minimum of 2" x 4").

### Tools

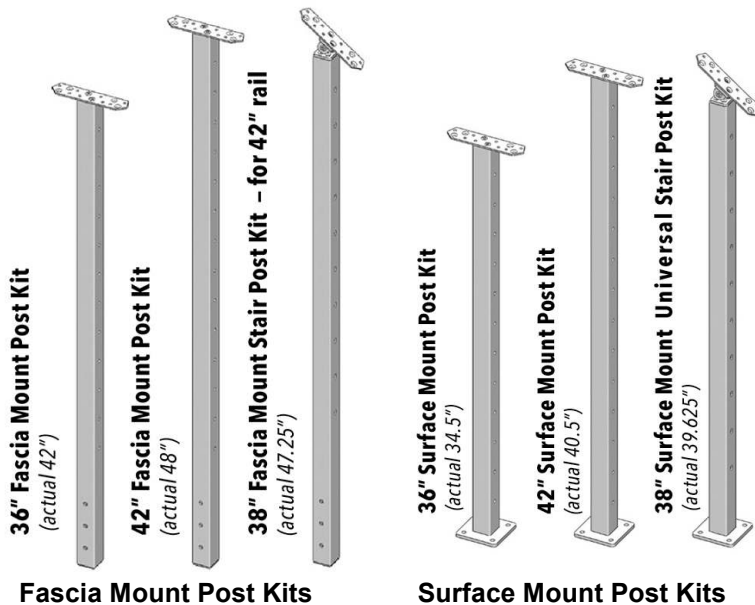
#### Required

- Power Drill
- #2 Phillips Driver Bit
- 7/32" Drill Bit
- 1/8" Drill Bit
- 1/2" Socket & Ratchet
- Pencil
- Safety Glasses
- Work Gloves

#### Recommended

- Level
- Tape Measure
- Carpenter's Square
- Chalk Line
- Rubber Mallet
- Coping Saw
- Silicone Caulk
- 1/4" Wood Dowel

### Mounting Options



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### Infill Options



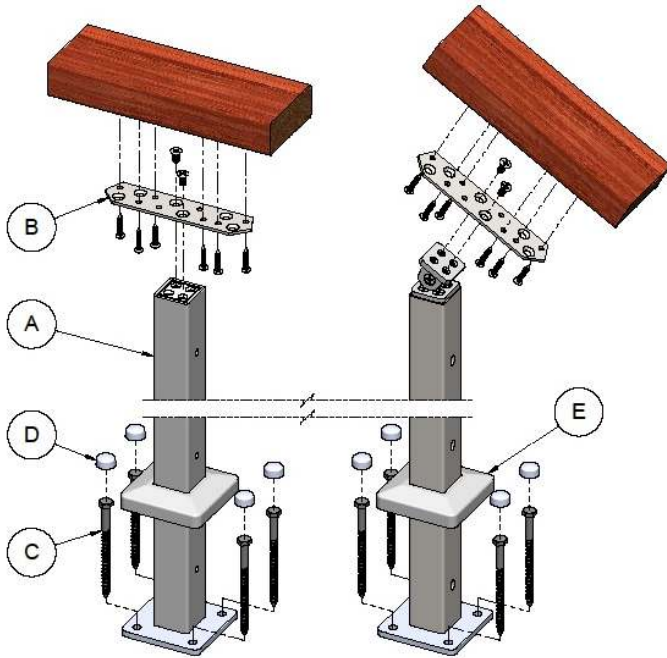
The HandiSwage™ cable infill option features hand swage studs and 5/32" or 1/8" cable.

**NOTE: ALWAYS REFER TO YOUR LOCAL BUILDING CODE OFFICIALS PRIOR TO INSTALLING ANY ATLANTIS RAIL SYSTEM TO ENSURE ALL CODE AND SAFETY REQUIREMENTS ARE MET. ATLANTIS RAIL SYSTEMS IS NOT RESPONSIBLE FOR IMPROPER OR NON-RECOMMENDED INSTALLATIONS.**

*Helpful Hint: Start by marking post locations using removable tape on the deck surface. Install stairs first, followed by corner and end posts.*

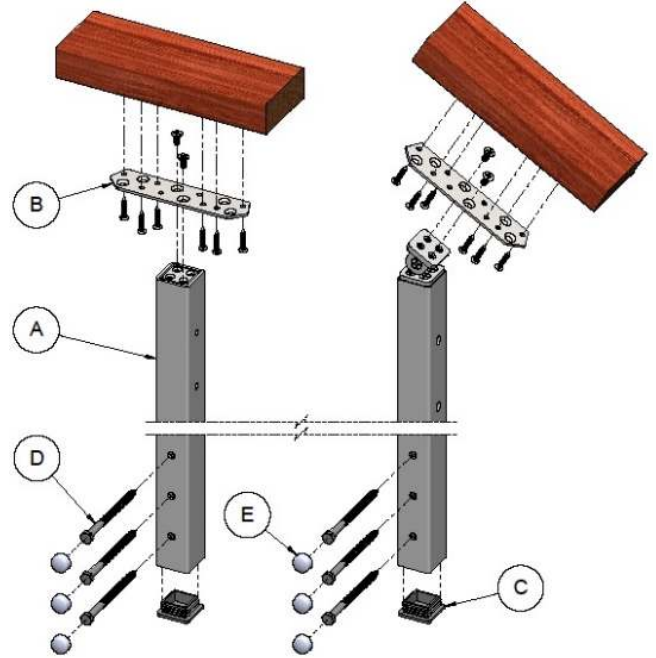
## Spectrum Surface Mount Post Kit Components

A	Spectrum Square Post
B	Top Mounting Plate Assembly
C	Lag Screws (quantity: 4)
D	Lag Screw Caps (quantity: 4)
E	Base Cover



## Spectrum Fascia Mount Post Kit Components

A	Spectrum Square Post
B	Top Mounting Plate Assembly
C	Plastic Bottom Cap
D	Lag Screws (quantity: 3)
E	Lag Screw Caps (quantity: 3)



## Installing the Surface Mount Stair Posts

**NOTE: IF INSTALLING THE FASCIA MOUNT POSTS, PLEASE SKIP AHEAD TO THE INSTALLING THE FASCIA MOUNT STAIR POSTS SECTION (PAGE 4).**

### Find the Location of the Top Stair Post

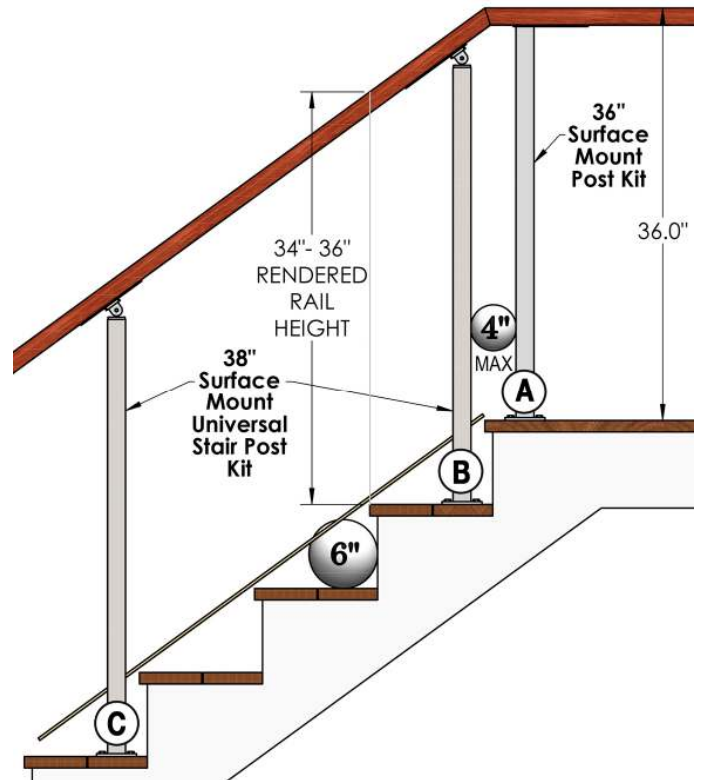
Begin at the top of the stairs. Mark the location of the straight post adjacent to the top stair post (post A). Place your top stair post (post B) and position it so the space between the stair and deck posts is less than 4" (Figure A). At the same time, make sure the deck post is aligned with the stair post.

### Find the Location of the Lower Stair Posts

Place the lower stair post (post C) and insert a 1/4" wooden dowel through the bottom cable holes of the top and lower stair posts to visualize the alignment. Code requires that a 6" sphere cannot fit through the triangle created by the stair rise, stair tread and the bottom row of cable (Figure A). Repeat this process and mark the position of all lower stair posts.

### Install the Posts

Once the stair posts are marked for location, begin installing using the instruction below. The first installed post should be the straight post adjacent to the top stair post.



**Figure A.** Place your top stair post and position it so the space between the stair and deck posts is less than 4". Code requires that a 6" sphere cannot fit through the triangle created by the stair rise, stair tread and the bottom row of cable.

## Surface Mount Posts Preparation

**NOTE: PREPARE PROPER BLOCKING PER LOCAL BUILDING CODE TO ENSURE SAFE AND CODE COMPLIANT INSTALLATION.**

### Measure & Mark the Centerlines

Use a tape measure to find the centerline of your railing system. Measure from the edge of the deck to the center of the structure or blocking below (Figure B). This is typically 3-1/2". It is important that all the fasteners are secured to the structure or appropriate blocking. With the centerline measured, carefully snap a chalk line around the perimeter of the deck. This will be your centerline throughout the project. Make sure that the center of all of your bases fall along this line.

### Assemble the Corner Brackets

Assemble the top mounting plates in the necessary corner configuration. Use the corner mending plate and four (4) 1/4" screws to rigidly hold the assembly (Figure C). The top mounting plates assemble into 90° or 135° corner brackets by using different edges of the corner bracket and a different hole pattern on the mending plate (Figure D).

### Assemble the Corner Posts

With the corner brackets assembled, attach a post to each mounting plate, using the center hole pattern, with two (2) 1/4" screws. Corners require two (2) posts. Make sure that the post holes for the cable are running parallel with the long side of the plate on both sides.

## Installing the Surface Mount Posts

### Install the Corner & End Posts

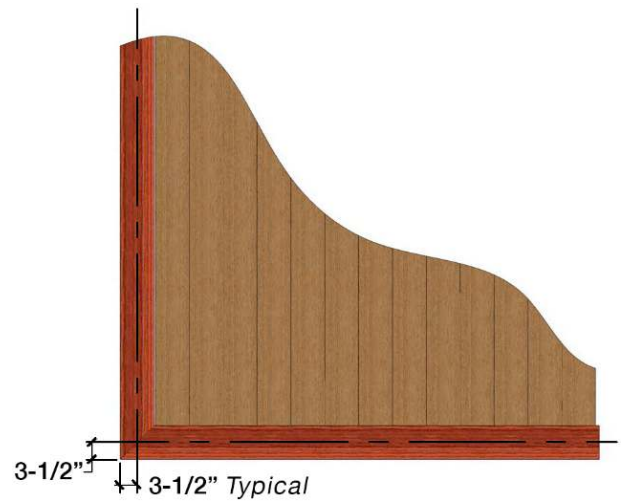
Beginning with corner posts, place the bases along the centerline being careful to make sure the bases are properly oriented. Using the base as a template, mark the four (4) holes for the screws (Figure E). Use a 7/32" drill bit to drill a pilot hole for the lag bolts. Take extra care to be sure the holes are drilled into joists or blocking.

With the holes predrilled, install the corner posts with the lag bolts using a 1/2" socket and ratchet set. When installing the posts, constantly check for level. Once the posts are installed, apply silicone to the lag bolts and secure the supplied lag bolt caps to prevent moisture from getting to the lag bolts (Figure F). Slide the base cover onto the base BEFORE installing the cable (Figure G).

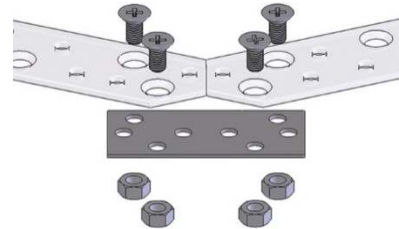
Repeat the steps above to install the end posts.

### Install the Mid Posts

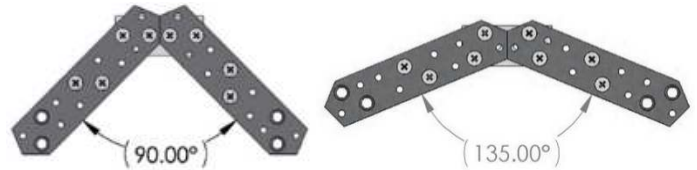
When you have the end and corner posts installed, measure the distance between the end and corner. Divide this measurement evenly to get the required number of sections. Mark the center locations for the mid post bases once again taking care that the base is located on the centerline and oriented properly. Follow the steps above to install the mid posts.



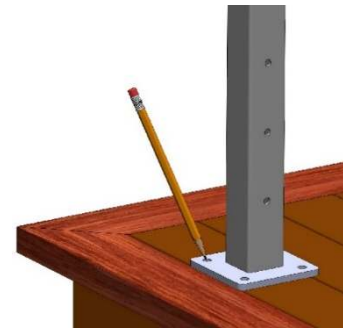
**Figure B.** Measure to the center of your structure or blocking and snap a chalk line to mark the centers. Do this around the perimeter of the deck.



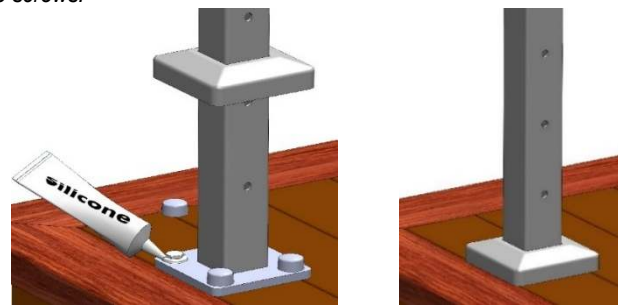
**Figure C.** Use the Corner Mending Plate Set to hold the top mounting plates together.



**Figure D.** The top mounting plates can be assembled into 90° and 135° corner brackets.



**Figure E.** Use the base as a template and mark the four (4) holes for the screws.



**Figure F. (Left)** Apply silicone to the lag bolts once installed and secure the lag bolt caps.

**Figure G. (Right)** Slide the base cover onto the base BEFORE installing the cable.



**NOTE: TO ENSURE CODE COMPLIANCE, ATLANTIS RAIL DOES NOT RECOMMEND EXCEEDING 4' (48") ON-CENTER BETWEEN CABLE SUPPORT POSTS. DO NOT EXCEED 48" BETWEEN TERMINATION HARDWARE.**

## Installing the Fascia Mount Stair Posts

### Find the Location of the Top Stair Post

Begin at the top of the stairs. Mark the location of the straight post adjacent to the top stair post (post A). Place your top stair post (post B) and position it so the space between the stair and deck posts is less than 4" (Figure H). At the same time, make sure the deck post is aligned with the stair post.

### Find the Location of the Lower Stair Posts

Place the lower stair post (post C) and insert a 1/4" wooden dowel through the bottom cable holes of the top and lower stair posts to visualize the alignment. Code requires that a 6" sphere cannot fit through the triangle created by the stair rise, stair tread and the bottom row of cable (Figure H). Repeat this process and mark the position of all lower stair posts.

### Install the Posts

Once the stair posts are marked for location, begin installing using the instruction below. The first installed post should be the straight post adjacent to the top stair post.

## Fascia Mount Posts Preparation

### Assemble the Corner Brackets

Start by assembling the top mounting plates in the necessary corner configuration. Use the corner mending plate and four (4) 1/4" screws to rigidly hold the assembly (Figure I). The top mounting plates assemble into 90° or 135° corner brackets by using different edges of the corner bracket and a different hole pattern on the mending plate (Figure J).

### Assemble the Corner Posts

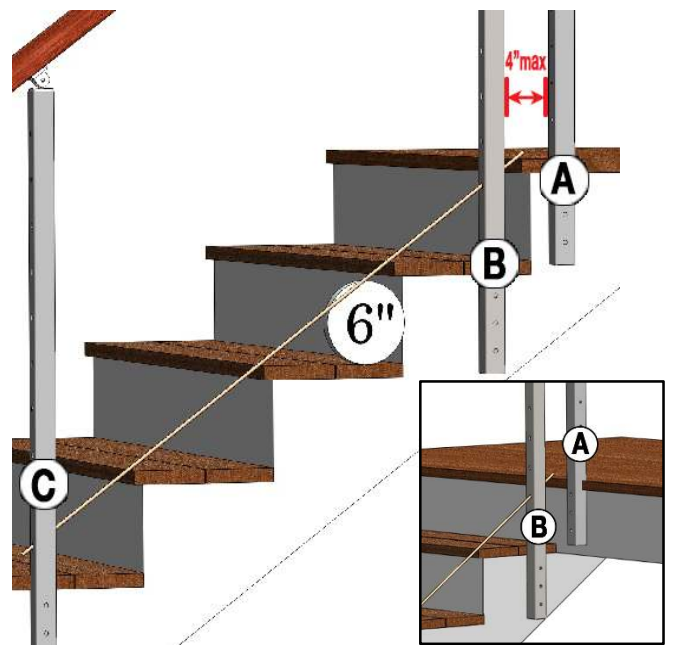
With the corner brackets assembled, attach a post to each mounting plate, using the center hole pattern, with two (2) 1/4" screws. Corners require two (2) posts. Make sure that the post holes for the cable are running parallel with the long side of the plate on both sides (Figure K).

### Measure the Height

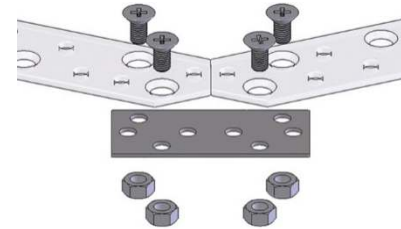
To begin, measure the thickness of your top rail and add 6-1/8". This is the distance below the deck surface where the bottom of the post will sit. As an example, a 1-1/2" thick top rail will require the post to sit 7-5/8" (1-1/2 + 6-1/8) below the deck surface (Figure L).

### Block Out or Notch the Deck

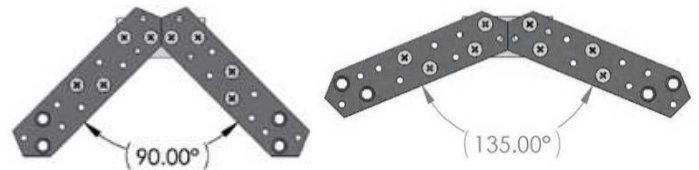
You'll need to account for any overhang of trim your deck may have. This can be accomplished one of two ways, by either notching out the trim piece with a coping saw or similar, or by blocking out underneath the overhang. Use the completed corner assembly and mark on either side of each post and cut or block accordingly.



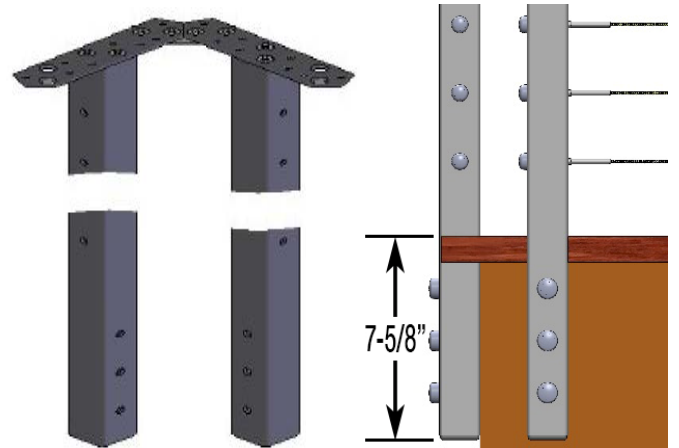
**Figure H.** Place your top stair post and position it so the space between the stair and deck posts is less than 4". Code requires that a 6" sphere cannot fit through the triangle created by the stair rise, stair tread and the bottom row of cable. Please note that stair railings that take a corner to a level surface, the straight post adjacent to the top stair post will be closer together.



**Figure I.** Use the Corner Mending Plate Set to hold the top mounting plates together.



**Figure J.** The top mounting plates can be assembled into 90° and 135° corner brackets.



**Figure K. (Left)** Attach a post to each plate using the center hole pattern.

**Figure L. (Right)** Determine the length below the surface of the deck by adding 6-1/8" to the thickness of the top rail.

### Mark the Centers

Using the completed corner assembly as a guide, mark the centers of the corner posts on either side of the fascia. Use a carpenter's square to draw a vertical line on the fascia board at the center mark (Figure M). Measure down to the height as determined in the previous step, in our example, 7-5/8" and draw a mark. With the centerline drawn, hold the post on the center line at the height mark you just made, and carefully mark the centers of the three (3) mounting holes (Figure N).

## Installing the Fascia Mount Posts

### Pre-Drill the Fascia

Using a 7/32" drill bit, pre-drill the fascia at the marks made in the previous step to a depth as needed, once again, beginning with the corner posts. Take extra care to be sure the holes are drilled straight into the fascia.

### Install the Lag Bolts

With the holes drilled for the fascia, install the post with the lag bolts using a 1/2" socket and ratchet set. When installing the post, constantly check for level, both side to side and front to back. Over tightening the lag bolts may cause the post to pitch forward (Figure O). If this happens and the post is pulled out of level, simply loosen the offending bolt slightly until the post comes back to square and shim as required to keep the post plumb. Once the post is installed, press on the supplied lag screw caps for a finished look (Figure P).

### Repeat

When you have the end and corner posts installed, measure the distance between the end and corner. Divide this measurement evenly to get the required number of sections. Repeat the above steps to install the mid posts.

**NOTE: TO ENSURE CODE COMPLIANCE, ATLANTIS RAIL DOES NOT RECOMMEND EXCEEDING 4' (48") ON-CENTER BETWEEN CABLE SUPPORT POSTS. DO NOT EXCEED 48' BETWEEN TERMINATION HARDWARE.**

## Installing the Top Rail

### Install the Top Plates

Secure the top plates to each of the posts using two (2) 1/4" -20 RH screws. For mid posts, use the hole pattern in the center of the plate (Figure Q). For end posts use the side hole patterns. Be sure to have the corner plates pre-assembled for ease of installation.

### Install the Top Rail

Carefully measure and cut your top rail taking into account any mitering of joints you may need to do. Piece by piece; lay your top rail on the center of the mounting plate being sure that the top rail covers the top plate in its entirety. With the top rail in place, using a 7/32" drill bit, pre-drill for the wood screws that attach the top rail to the mounting plate. Use up to six (6) #10 pan head screws to fasten the wooden top rail (not supplied) to the Spectrum posts (Figure R).

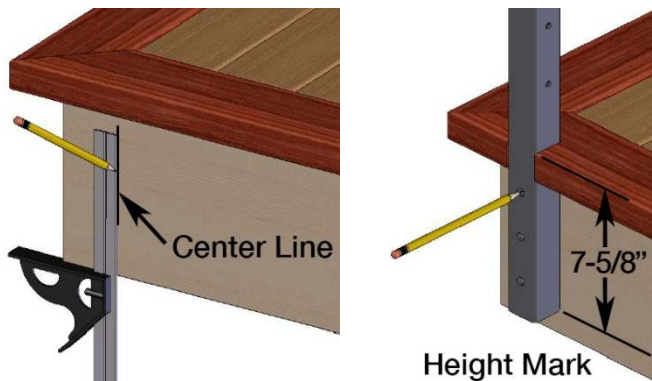


Figure M. (Left) Use a carpenter's square to draw a vertical line at the center mark of the post.

Figure N. (Right) With the post held in place, carefully mark the centers of the mounting holes.

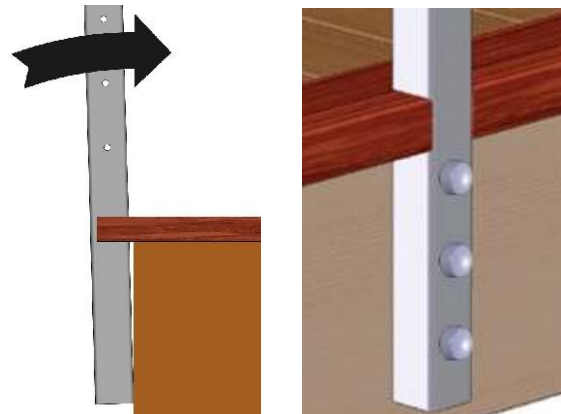


Figure O. (Left) Check the post for level as you tighten the lag bolts. Adjust the tightness of the bolts as necessary and shim as required to ensure that the post is level front to back and side to side.

Figure P. (Right) Attach the supplied lag screw caps for a finished look.

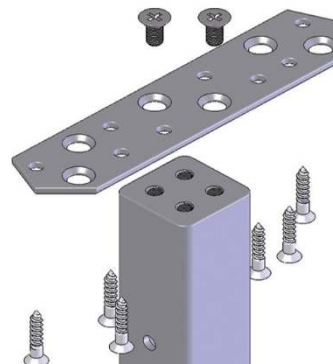


Figure Q. For mid posts, use the hole pattern in the center of the plate and secure using two (2) 1/4"-20 RH screws.

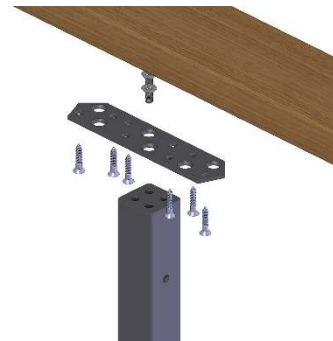


Figure R. Secure wooden top rail using up to six (6) #10 pan head screws.

## Installing the Infill

With the frame securely built according to these installation instructions, it's time to install the cable infill. The Spectrum System is designed to utilize two (2) cable diameter options, 5/32" or 1/8" with HandiSwage™ Studs (Figure S). Please consult the appropriate cable installation instructions. **MAKE SURE THE POSTS AND TOP RAILS ARE INSTALLED IN THEIR ENTIRETY PRIOR TO TENSIONING CABLES!** The posts of the Spectrum System will deflect under load if the guard frame isn't fully assembled.

## Spectrum System Accessories

### Cable Grommets – C0916-0003

Cable Grommets (part number C0916-0003) are available at an additional cost and recommended to help prevent movement and deflection of the cable, as well as, reducing dirt and moisture from getting inside the posts. They are available for straight post sections with 1/8" cable. Once the cable infill is installed, place the slotted side on the cable and push down until it "snaps" onto the cable (Figure T). Push the tapered end into the mid post hole until only the flange is showing (Figure U).

### 30 Degree Stair Spacer – C0841-0030-2

When installing cable infill on stair posts, a 30 Degree Stair Spacer (part number C0841-0030-2) is used to achieve the angled cable run. Place the stair spacer on the threaded end before attaching the desired cover nut set (Figure V).

### Wide Mounting Plate – S0904-XX53

The Wide Mounting Plate (part number S0904-XX53) is twice the width of the standard mounting plate and is used in applications where a wider top rail is desired.

Secure the plate to the post using two (2) 1/4" -20 RH screws. For mid posts, use the hole pattern in the center of the plate (Figure W). For end posts use the side hole patterns.

### ADA Mounting Clamp – S0904-XX60

The ADA Mounting Clamp (part number S0904-XX60) fits snugly on the Spectrum post. To attach, insert the U-shape piece of the clamp onto the post making sure the pads stay intact (Figure X).

*Helpful Hint: Before inserting the U-shape piece onto the post, moisten the pads. This will enable it to glide easier over the post while keeping the pads in place.*

Attach the back piece and insert the screws. Using a 5/32" (or 4mm) Allen wrench, tighten the screws alternately a half turn at a time until the screws are fully tightened.



Figure S. HandiSwage™ Standard Stud

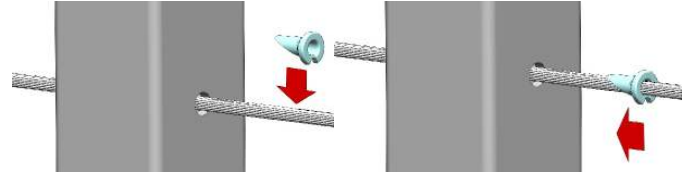


Figure T. (Left) Place the slotted side on the cable and push down.

Figure U. (Right) Push the tapered end into the mid post hole.

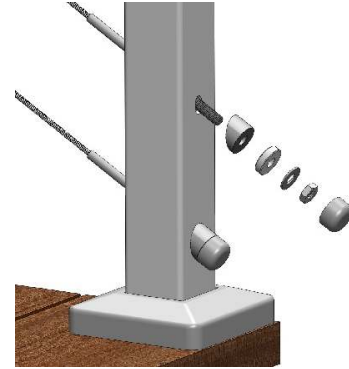


Figure V. Place the 30 Degree Stair Spacer on the threaded end before attaching the cover nut set to achieve the angled cable run.

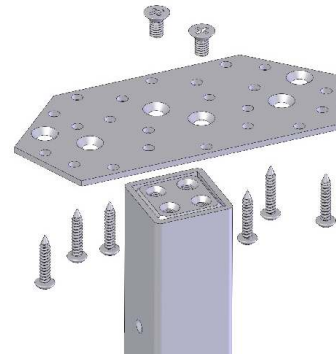


Figure W. Use when a wider top rail is desired. For mid posts, use the hole pattern in the center of the plate and secure using two (2) 1/4"-20 RH screws.

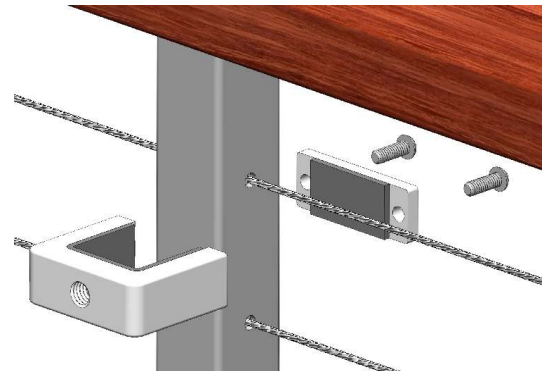
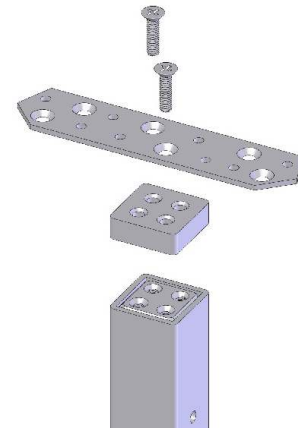


Figure X. Insert the u-shape piece onto the post making sure the pads stay intact. Attach the back piece and tighten screws alternately until fully tightened.

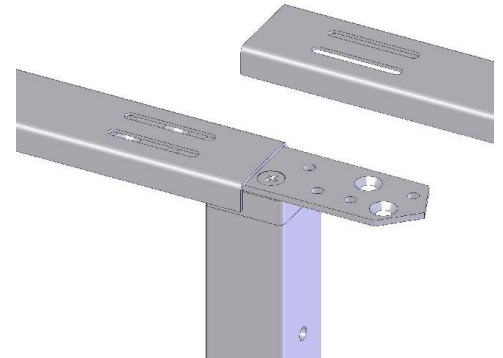
### Reinforcing Channel – S0904-XX54

This channel (part number S0904-XX54) is used in applications where the handrail needs additional reinforcement. The 36" surface mount Spectrum post requires a spacing block (part number S0904-XX58) for installation. If a spacing block is required, attach it to the post before attaching the top mounting plate (Figure Y).

The reinforcing channel is 48" in length and is ideal for 4' post spacing. It can be cut to size if shorter spans are needed. Place the channel in the center of the post on top of the top mounting plate (Figure Z). Place the customer supplied top rail on top of the reinforcing channel. Use the supplied #10 wood screws to attach the channel and top mounting plate to the top rail (Figure AA). Using two (2) screws at either end of all exposed slots, fasten the channel to the top rail. Also, be sure to fasten through the top mounting plate where slots offer exposed top rail access.



**Figure Y.** Attach the spacing block to the post before attaching the top mounting plate.



**Figure Z.** Place the reinforcing channel in the center of the post on atop the top mounting plate.



**Figure AA.** Use the supplied fasteners to attach the channel and top mounting plate to the top rail.



## Spectrum System Specifications

The Spectrum System uses stainless steel square posts and fittings with horizontal cable infill. Customers must provide their own hard wood top rail. It is advised to observe that tension must be applied to fittings and cable. Posts should be fascia or surface mounted securely enough to resist detachment and hold under tension.

### Straight Sections

The Spectrum System is offered in two (2) standard post heights of 36" or 42" for straight sections.

### Stair Sections

Railing heights are offered in these dimensions due to nationwide building codes requiring 34" to 38" stair rail heights. 42" railings do not require 42" stair railings unless special circumstances exist.

### Between Post Lengths

Atlantis Rail requires staying at or below 4' section lengths (post to post) to maintain structural integrity and comply with current building codes.

### Railing Finish

The Spectrum System is offered in a powder coated black or metallic silver finish. Special colors are available.

### Cable Spacing

The cable is spaced on the posts at less than 3" on-center to comply with nationwide building codes. See Post Kit Cable Spacing & Height chart below for more details.

## Post Kits Cable Spacing & Heights

Part Number	Post Description	Cable Spacing	Actual Post Height	Rendered Rail Height	Height From Surface
S0905-XX36*	36" Surface Mount Post Kit	2.625"	34.5"	36"	34.5"
S0905-XX38-ST*	Surface Mount Universal Stair Post Kit	**2.629" – 2.756"	39.625"	34" – 36"	39.625"
S0905-XX42*	42" Surface Mount Post Kit	2.688"	40.5"	42"	40.5"
S0904-XX36*	36" Fascia Mount Post Kit	2.625"	42"	36"	34.375" +/-
S0904-XX38-ST*	38" Fascia Mount Stair Post Kit	**2.629" – 2.756"	47.25"	34" – 36"	39.625" +/-
S0904-XX42*	42" Fascia Mount Post Kit	2.688"	48"	42"	40.375" +/-

\* "XX" in the part number is the color designation. Replace with "BK" for black, "MT" for metallic silver or "SP" for one of the special colors.

\*\*Cable spacing on stair post kits vary due to the angle of the stairs. These variations are based on stair angles between 32° and 36° (aligned dimensions).

## Spectrum System Product Specifications

	Material	Finish	Dimensions	Notes
<b>Post</b>	316L s/s	Powder Coated	1-1/2" square	Available in standard colors or special colors
<b>Top Rail</b>	--	--	Minimum 2" x 4" hardwood	Customer supplied
<b>Cable</b>	316L s/s	n/a	5/32", 1 x 19 strand, left hand lay or 1/8", 1 x 19 strand, left hand lay	580 lb. or 420 lb. working load limit respectively
<b>HandiSwage™ Studs</b>	316L s/s	n/a	See catalog or website for more information	5/32" or 1/8" studs
<b>Fittings</b>	316L s/s	Powder Coated	6" x 1-1/2" x 1/8"	--
<b>Fasteners</b>	316L s/s	Powder Coated	Fasteners vary	--



## Spectrum System Part Numbers & Descriptions

Part Number	Description	Use
<b>Fascia Mount Post Kits</b>		
S0904-XX36*	Spectrum 36" Universal Fascia Post Kit	36" fascia mount straight post
S0904-XX38-ST*	Spectrum 38" Stair Fascia Post Kit	42" fascia mount stair post
S0904-XX42*	Spectrum 42" Universal Fascia Post Kit	42" fascia mount straight post
<b>Surface Mount Post Kits</b>		
S0905-XX36*	Spectrum 36" Universal Surface Post Kit	36" surface mount straight post
S0905-XX38-ST*	Spectrum Stair Surface Post Kit (36" & 42")	36" or 42" surface mount stair post
S0905-XX42*	Spectrum 42" Universal Surface Post Kit	42" surface mount straight post
<b>Accessories</b>		
S0904-XX51*	Spectrum Corner Mending Plate Set	Use on surface or fascia mount post corners
S0904-XX53*	Spectrum Wide Mounting Plate 3.5"	Use when wider top rail is desired
S0904-XX54*	Spectrum Reinforcing Channel	Used when non-structural top rail is desired
S0904-XX58*	Spectrum Spacing Block for Reinforcing Channel	Required on 36" surface mount straight post when using Reinforcing Channel
S0904-XX60*	Spectrum Post Clamp	Used to make ADA handrail mounting bracket
C0841-0030-2	30 Degree Stair Spacer (2 pack)	Use at cable termination points on stairs
C0916-0003	Cable Grommet (25 pack)	Use in mid post holes

\* "XX" in the part number is the color designation. Replace with "BK" for black, "MT" for metallic silver or "SP" for one of the special colors.