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SURFACE MOUNT TOGGLE ASSEMBLY INSTRUCTIONS

Choose **STAINLESS CABLE & RAILING™** for all your fittings and cablerail assemblies!

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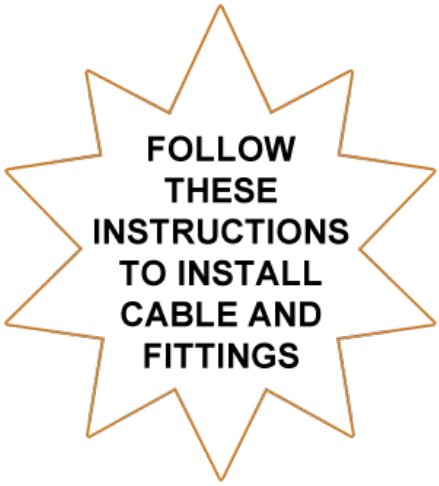
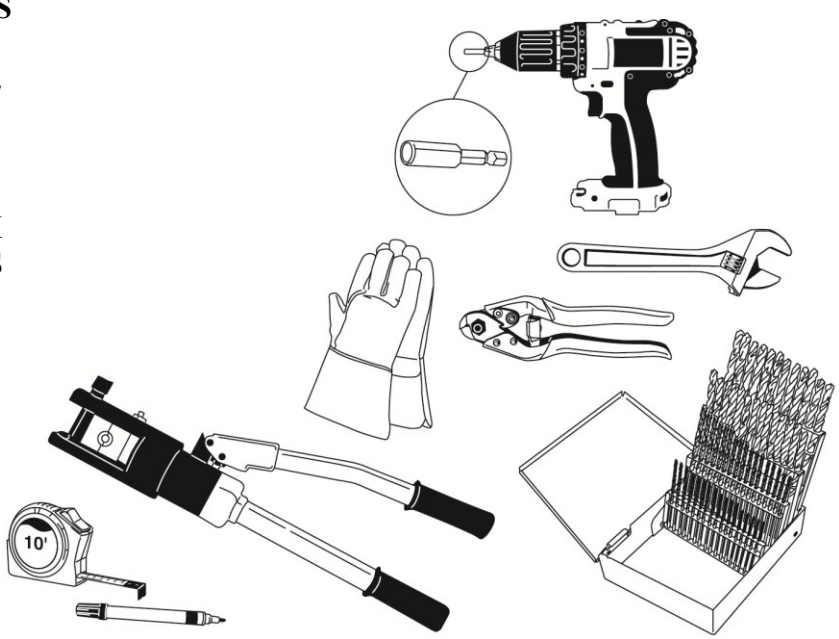


Just follow these simple steps:

1. NECESSARY TOOLS

1. MEASURING TAPE
2. CABLE CRIMPERS
3. CABLE CUTTERS
4. DRILL
5. DRILL BITS INDEX
6. LEATHER GLOVES
7. WRENCH
8. BLACK MARKER



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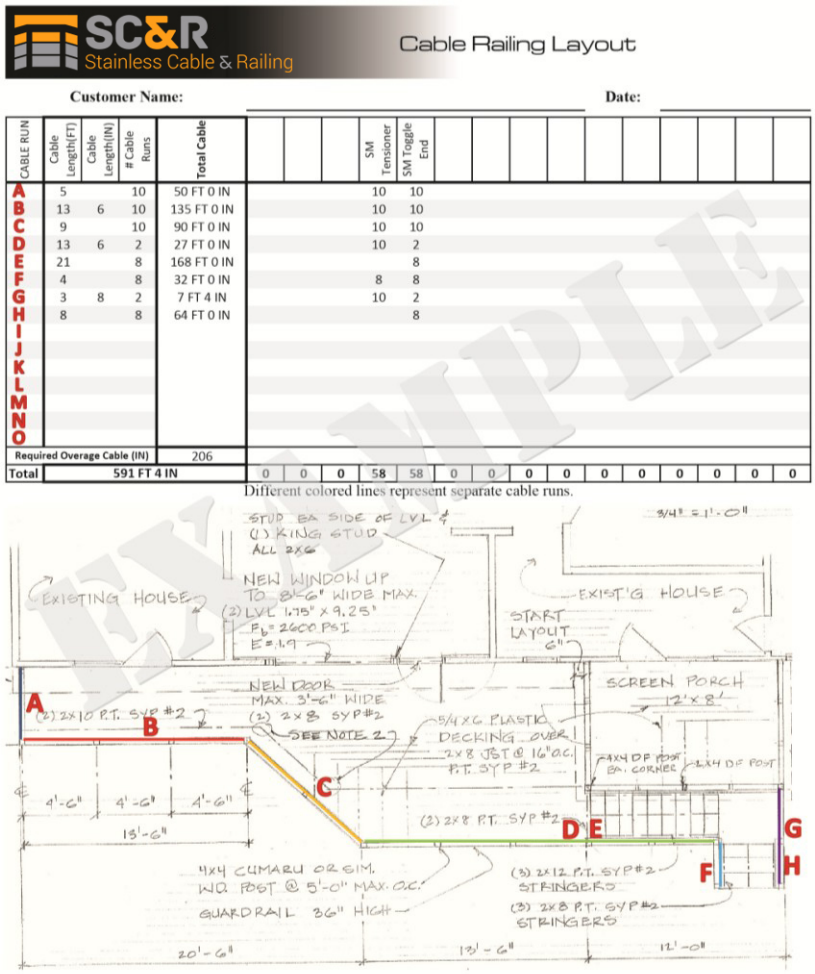
2. LAYOUT

2. Determine where the cable will start and stop (ie; Sections). Reference the color-coded layout sheet (Fig 1) if it was included with these instructions.



SC&R Stainless Cable & Railing — Cable Railing Layout

Customer Name: _____ Date: _____

CABLE RUN	Cable Length(FT)	Cable Length(IN)	# Cable Runs	Total Cable				SM Tensioner	SM Toggle End									
A	5		10	50 FT 0 IN				10	10									
B	13	6	10	135 FT 0 IN				10	10									
C	9		10	90 FT 0 IN				10	10									
D	13	6	2	27 FT 0 IN				10	2									
E	21		8	168 FT 0 IN					8									
F	4		8	32 FT 0 IN				8	8									
G	3	8	2	7 FT 4 IN				10	2									
H	8		8	64 FT 0 IN					8									
I																		
J																		
K																		
L																		
M																		
N																		
O																		
Required Overage Cable (IN)				206														
Total	591 FT 4 IN				0	0	0	58	58	0	0	0	0	0	0	0	0	0

Different colored lines represent separate cable runs.

Fig 1

3. HOLE DRILLING

3. Do you need to drill holes for the cables? (Fig.2).

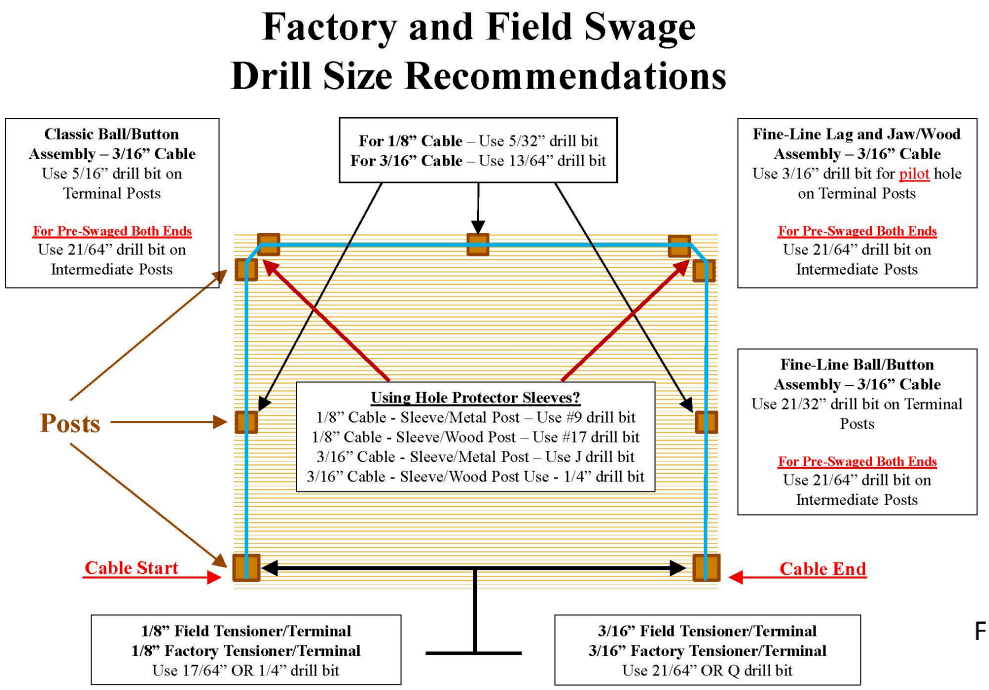


Fig 2

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4. MEASURE/CUT CABLE ASSEMBLY

4.1 Doing only one section at a time, measure (Fig. 3) overall length from inside face of the beginning post (AKA terminal/end post) to the inside face of your ending post face.

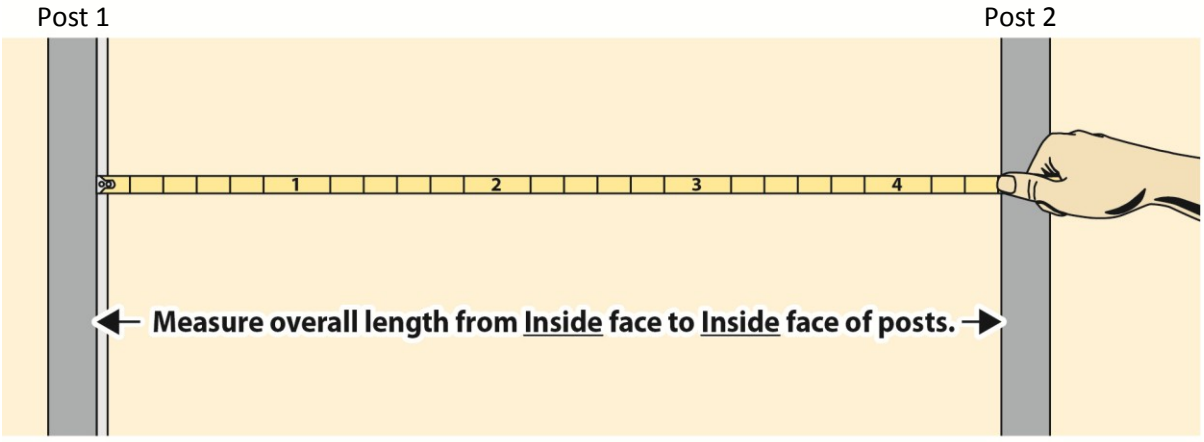

Fig 3

4.2 Using this measurement, unroll enough cable from the spool to complete one cable assembly. Add an extra 3” to make sure the cable is long enough and to make it easier to work with. Cut to this length using the recommended Cable Cutters or a Hand Grinder.

POSSIBLE FITTING COMBINATIONS

Fig 4 **Surface Mount Toggle Turnbuckle (ref. #1)/Surface Mount Toggle End (ref. #2)**

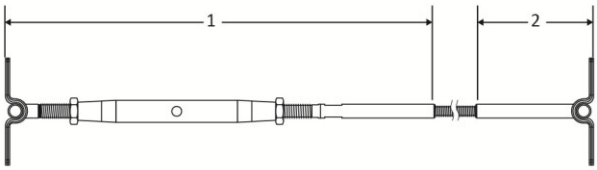

Fig 4

Fig 5 **Surface Mount Toggle Turnbuckle (ref. #1)/Surface Mount Toggle Turnbuckle (ref. #2)**

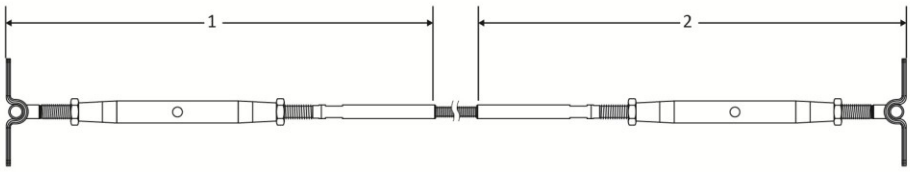

Fig 5

Fig 6 **Surface Mount Toggle End (ref. #1)/Classic Inline Turnbuckle (ref. #2)/Surface Mount Toggle End (ref. #3)**

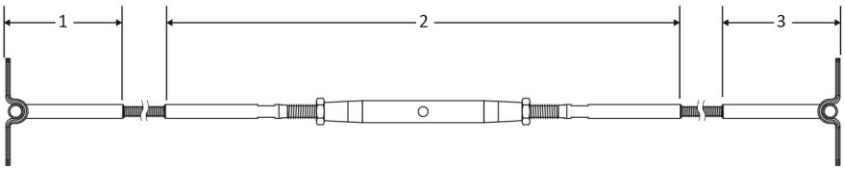

Fig 6

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5. CRIMP FITTING ON ONE END OF CABLE

5.1 Attach a fitting, either a Surface Mount Toggle Turnbuckle or Surface Mount Toggle End, depending on the design, to one end of the cable using the Cable Crimper.

CRIMPING INSTRUCTIONS

a) Insert cable into fitting all the way
b) Using a black marker, mark the cable to provide a visual reference that the cable remains fully seated down inside the fitting and does not slip out (Fig. 7).

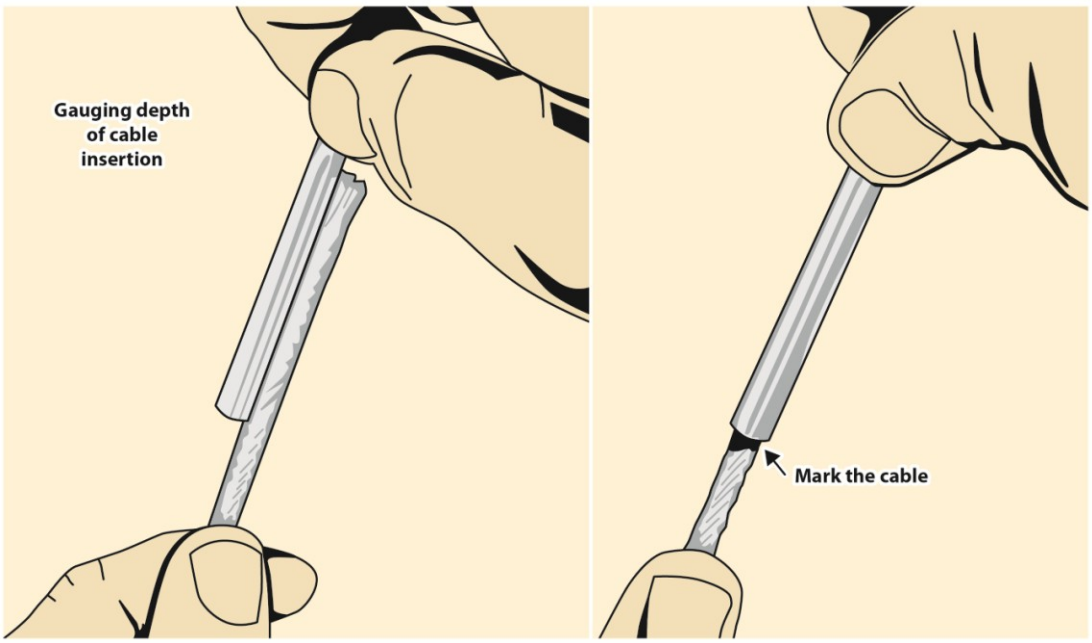

Fig 7

c) Turn the knob on the Cable Crimper counterclockwise to open the jaws and position the fitting 1/8” from the end of the fitting (Fig. 8).

d) Turn knob clockwise and pump the handle consecutive times until the two die halves nearly touch. **WARNING:** Only firm handle pressure is needed to close the die halves. Applying excessive force to the tool will result in damage.

e) Reposition the dies 1/4" further along the fitting and rotate 45 degrees. Repeat the crimping process for a total of three crimps.

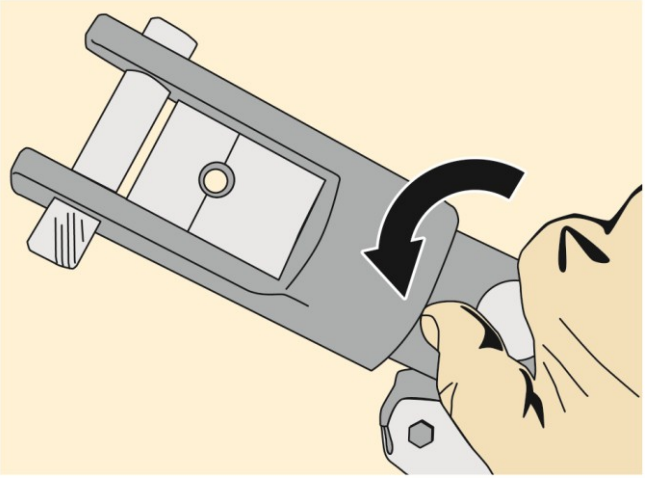

Fig 8

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6. INSTALL SURFACE MOUNTED FITTING WITH ATTACHED CALE TO POST 1 (See Fig. 3)

a) Secure the Surface Mounted Fitting using appropriate hardware. Attachment hardware will vary depending on the post material and size of fitting. Drill pilot holes in wood posts or drill/tap holes in metal posts to mount the Surface Mount Fitting on both ends of the cable run.

NOTE: If using a Surface Mount Toggle Turnbuckle (Fig. 4 & 5 Ref #1), unscrew/lengthen the turnbuckle to allow cable tightening once installed.

b) Lace cable through intermediate posts (Fig. 9).

NOTE: If using an Inline Turnbuckle (Fig. 6 Ref #2), determine desired position in the cable run and cut cable accordingly.

NOTE: If using Hole Protector Sleeves, install these prior to lacing the cable through the intermediate posts. Reference (Fig. 2) for drill size recommendations.

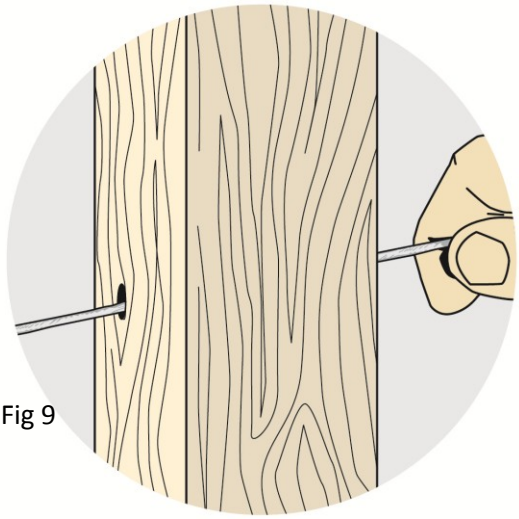

Fig 9

7. INSTALL SURFACE MOUNT FITTING TO POST 2 (See Fig. 3)

8. DETERMINE & CUT CABLE TO FINAL LENGTH & CRIMP

a) Insert a piece of cable into the installed Surface Mounted Fitting and mark on the fitting that indicates how far the cable penetrates (Fig. 10).

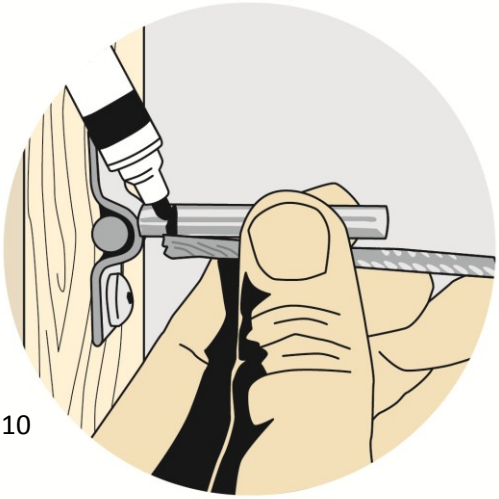

Fig 10

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b) Pull all slack out and hold cable adjacent to the Surface Mounted Fitting and mark the cable where it matches mark on the fitting (Fig. 11). Cut cable to its final length (Fig. 12).

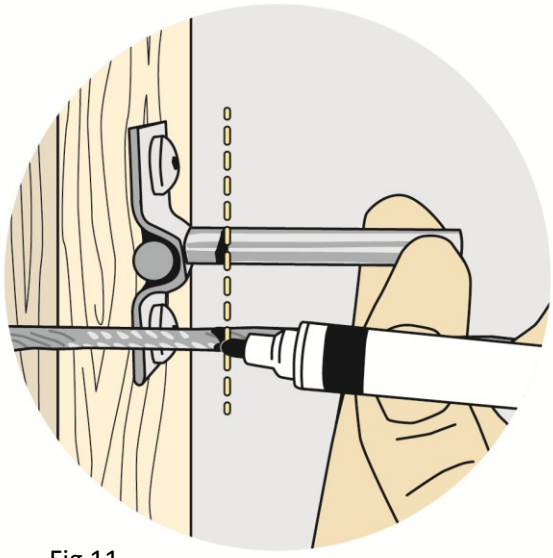

Fig 11

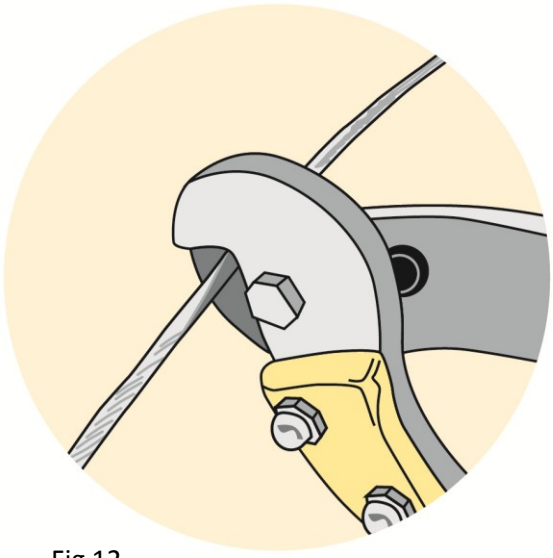

Fig 12

c) Remove installed Surface Mounted Fitting from post and place on the deck surface. Do not unlace from intermediate posts. Crimp on fitting following Step 5 procedure.

9. REINSTALL SURFACE MOUNT FITTING TO POST 2

10. TENSION THE CABLES

Insert drill bit or similarly sized rod into the center hole of the turnbuckle. Use wrench to prevent cable from spinning. Turn turnbuckle body clockwise to tighten cable (Fig. 13). Start tightening the middle cable first, then tighten cables above and below in an alternating sequence until all cables have been tensioned.

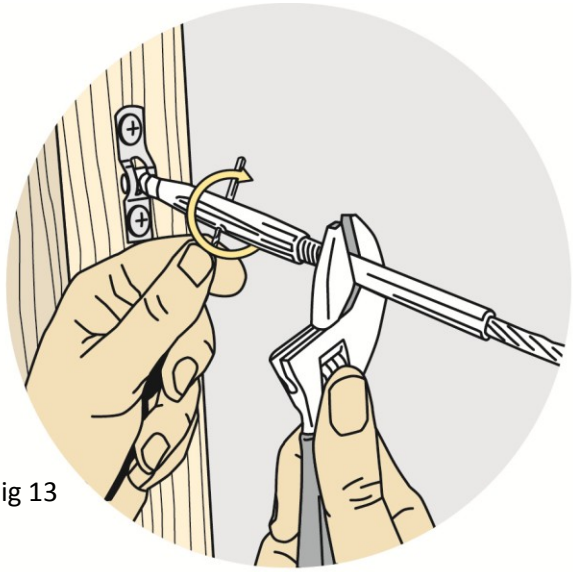

Fig 13

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Marine Grade Stainless Steel Maintenance and Cleaning Procedures

Stainless Cable & Railing Inc. offers Marine-Grade Stainless Steel Cable Infill that boasts high resilience with little maintenance. The material is in and of itself corrosion resistant thanks to a thin “passive layer” of alloying elements that forms on the surface of stainless steel. While this protective layer is strong enough to withstand typical wear and tear, it's not impervious.

We want our customers to get the most out of their cable railing and encourage periodic maintenance to keep cable infill clean, beautiful, and strong for years to come. This is especially important for exterior applications, particularly those in harsh outdoor environments exposed to salt water, industrial pollutants, de-icing salt spray, atmospheric dirt, traffic film, etc.

Here are some simple procedures to keep your cable infill good as new. See Page 2 for warnings and coastal environment procedures.

General Cleaning:

Remove finger prints and other marks generated from daily use as needed. Apply mild soap and water or glass cleaner to area using a clean cotton cloth or chamois. Rinse clean with water and dry completely.

Oil, Grease, and Residue Cleaning:

Remove oil, grease, or residue left from other cleaning materials (such as floor cleaner or polishing detergents) as soon as possible. Apply alcohol-based products (including methylated spirit and isopropyl alcohol) or other solvents (such as acetone) several times using a clean, non-scratching cotton cloth until all traces have been removed. Use Aluminum Oxide Scotch Brite if necessary. Rinse clean with water and dry completely.

Paint and Graffiti Cleaning:

Remove as needed using proprietary alkaline or solvent-based paint strippers. Apply chosen cleaning solvent several times with a clean, non-scratching cotton cloth until all traces of paint have been removed. Use Scotch Brite if necessary. Rinse clean with water and dry completely.

Salt Film and Environmental Deposit Cleaning:

Preform cleaning regularly in consideration of environmental conditions and the rate of deposit build up. Use a clean cotton cloth with CitriSurf® solution (available in our store) to remove contamination. Apply cleaner evenly across cables to avoid a patchy appearance. Rinse clean with water and dry completely. Use Aluminum Oxide Scotch Brite if necessary.

WARNINGS & TIPS

- Avoid use of the following products, as they will harm your cables:
    - Chloride-containing cleansers
    - Hypochlorite bleaches. Should accidental contact occur, rinse off immediately with copious amounts of fresh water.
    - Muriatic acid (commonly used to clean up tile/concrete installations)
    - Silver-cleaners
    - Scouring powders
    - Hard scrapers or knives
    - Non-stainless steel based scouring pads, cleaning wool, or wire brushes
    - Any cleaning utensils that have been used on “ordinary” (carbon) steel, as this may result in iron particle “cross-contamination”

- Do not leave stainless cables or fittings in contact with steel, iron, or any other metals, as this will cause rusting due to free-iron transfer. If your frame is made of a material other than stainless steel, use protective grommets or sleeves (which can be found in our store) to keep the metals from coming into contact.

COASTAL ENVIRONMENT MAINTENANCE

- Due to the regular high-salt content of oceanfront air, properties in these environments are encouraged to use our **Boshield T-9** for their cables, fittings, and/or stainless steel frame, in addition to the general maintenance procedures mentioned above.

- Clean stainless steel during initial installation and regular maintenance. We recommend this maintenance be done quarterly or as needed, and that any stains or rust spots obtained through daily use be removed immediately. Always reapply Boshield T-9 once stainless steel is clean and dry.

Please follow these procedures to get the most out of your stainless steel cable infill by Stainless Cable & Railing Inc.

If you have any questions, call us any time at 1-888-686-7245.

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