

Evolutions Rail™ Contemporary Style Installation Guide



Installing Evolutions Rail™ Contemporary Style with CableRail by Feeney® 2

Installing CableRail by Feeney® for Evolutions Rail™ Contemporary Style 8

Installing Evolutions Rail™ Contemporary Style Stairs with CableRail by Feeney® 11

Installing CableRail by Feeney® Stairs for Evolutions Rail™ Contemporary Style 16

TimberTech Code Listings

Once a product is tested by an independent lab, an application and report is submitted to one of several agencies that provide listings for building products that meet the requirements of Acceptance Criteria 174 (AC 174) as set forth by the International Code Council Evaluation Service (ICC-ES). TimberTech currently has listings from the ICC-ES and Architectural Testing Inc. The following TimberTech reports on code compliance are available to download on www.timbertech.com.

For the most up-to-date code listings visit
www.timbertech.com/installation.

ATI Architectural Testing, Inc.
CCRR-0196 • Evolutions Rail



- Please read all instructions completely before starting any part of the installation.
- TimberTech Rail should be installed using the same good building principles used to install wood or composite railing and in accordance with the local building codes and the installation guidelines included below. TimberTech accepts no liability or responsibility for the improper installation of this product.
- TimberTech Rail may not be suitable for every application and it is the sole responsibility of the installer to be sure that TimberTech Rail is fit for the intended use. Since all installations are unique, it is also the installer's responsibility to determine specific requirements in regards to each Rail application.
- TimberTech recommends that all applications be reviewed by a licensed architect, engineer or local building official before installation. If you have any questions or need further assistance, please call TimberTech Customer Service at 1.800.307.7780 or visit our website at www.timbertech.com.
- TimberTech Railing is tested as a whole system and should be used that way. It is not intended to be used in conjunction with other railing systems or fasteners.
- The following Installation Guidelines are applicable for installation of TimberTech Evolutions Rail Contemporary Style railing.
- **IMPORTANT:** Make sure the DRIVE TOOL/DRILL is configured or set to use the SCREW setting when driving and/or tightening all FASTENERS.
- **SAFETY:** Always wear goggles when handling, cutting, drilling and fastening materials.
- Failure to install this product in accordance with applicable building codes and TimberTech's written Rail Install Guide may lead to personal injury, affect rail system performance and void the product warranty.

Installing Evolutions Rail™ Contemporary Style with CableRail by Feeney®



Visit www.timbertech.com/installation to view TimberTech installation videos. Consult your local building codes for guard and handrail requirements.

Evolutions Rail™ Contemporary Rail Packs are available in 6' or 8' lengths.

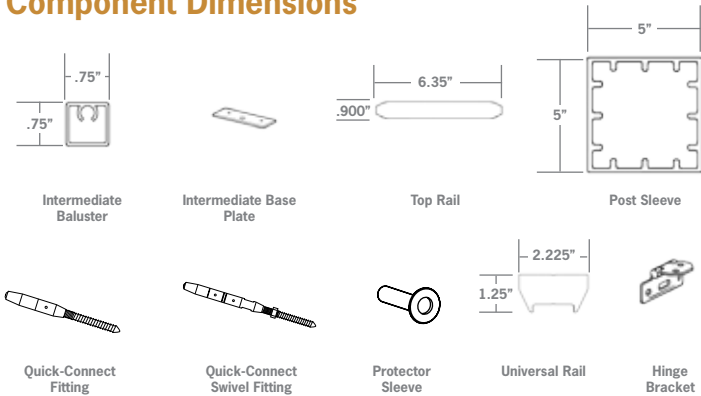
Measuring Your Railing Area

- Measurements are from center to center of post. Packs are produced to 6' and 8' to allow for finished end cuts and angles.
- Determine how many 6' or 8' Contemporary Rail packs you need and check to be sure you have all the components (and quantities) listed in the chart and shown to the right.

Important Information

- ⚠ **Contemporary Style 6' and 8' Packs are designed not to exceed 6' and 8' center of post to center of post, respectively.**
- Cut slowly, using a fine tooth saw blade to avoid chipping.
- For 42" railing, use 8' Post Sleeves.

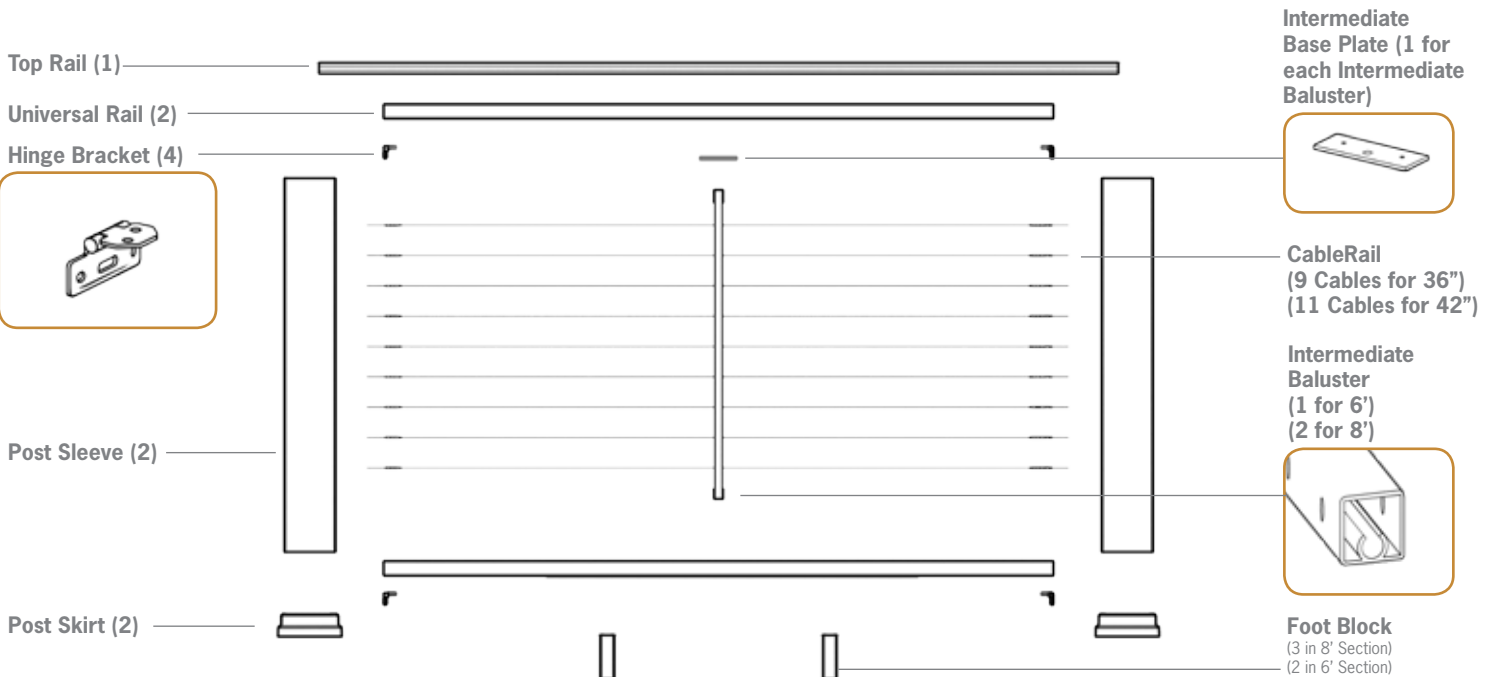
Component Dimensions



Tools Required

- Miter Saw (blade designed for finished cuts)
- Cable Cutters
- Drill Bits: 1/4", 3/16", 1/8", 9/64"
- Drill
- Extended 1/4" drill bit
- Tape Measure
- 2 - 3/8" open-ended wrenches
- #2 square drive

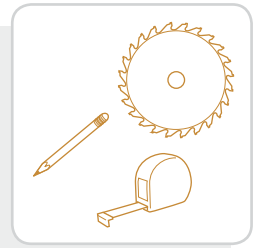
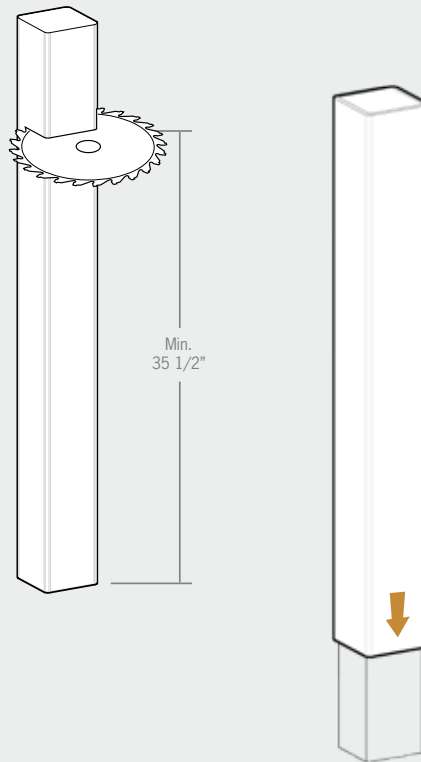
Components Needed For Installing One Contemporary Style Rail Section	
Hardware included in Hardware Kits:	4 - Hinged Brackets 11 - #10x2" Screws 8 - #10x7/8" Screws 4 - #10x1/2" Screws T25 Torx Driver Bit
Components available in Mix-and-Match Rail Systems	Contemporary Rail Pack 2 - Universal Rails Hardware Mounting Kit 8 - Top Rail screws Foot blocks - 2 in 6' Pack - 3 in 8' Pack
CableRail Components	36" Intermediate Baluster - 1 for 6' -2 for 8' 42" Intermediate Baluster - 1 for 6' -2 for 8' Stair Intermediate Baluster Cable - 100' spool or 500' spool 36" Hardware Kit - 9 Quick Connect Fittings - 9 Quick Connect Swivel Fittings - 18 Hanger Bolts - 9 Lock Nuts 42" Hardware Kit - 11 Quick Connect Fittings - 11 Quick Connect Swivel Fittings - 22 Hanger Bolts - 11 Lock Nuts
Additional Components Needed for Each System	2 - Post Sleeves 2 - Post Skirts 1 - Contemporary Top Rail End Coating- optional CableRail Accessory Pack Includes: - Quick-Connect Release Tool - Lacing Needle - Hanger Bolt Installation Tool Protector Sleeves - 42" system: 22 per through post - 36" system: 18 per through post



1

CUT POSTS AND TEMPORARILY INSTALL POST SLEEVES

- Posts must be positioned no more than 8' on center, and must be plumb.
- Trim post a min of 35 1/2" (for 36") or 41 1/2" (for 42") above finished deck surface.
- Slide Post Sleeve over 4x4 Post (do not force).

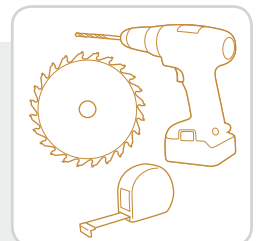
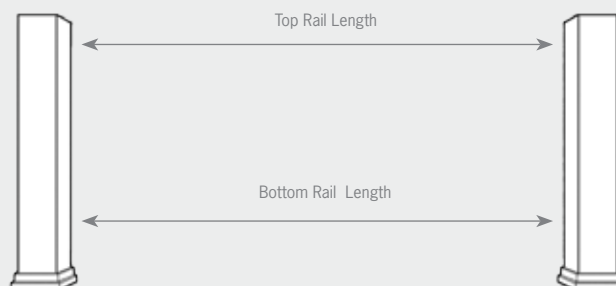
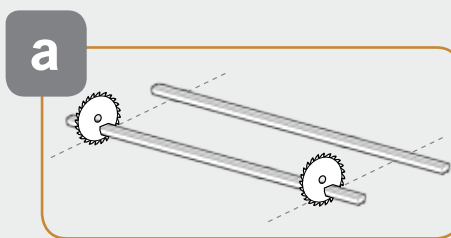


 Do not cut Post Sleeves in this step.

2

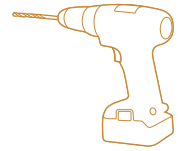
PREPARE UNIVERSAL RAILS

- Measure the length between the posts and trim the rails to those dimensions.
- Pre-Drill Universal Rails with a 9/64" drill bit, attach provided brackets to the Universal Rails using the #10 x 7/8" screws.



3

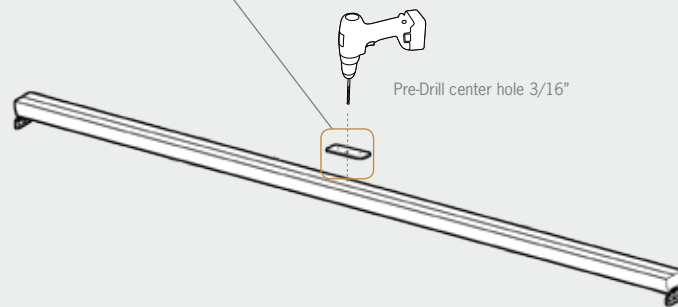
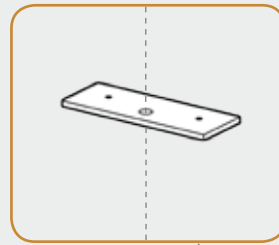
DETERMINE INTERMEDIATE BALUSTER LOCATION



- Use the Intermediate Base Plate of the Intermediate Baluster as a template on the bottom Universal Rail.

1' to 6' on center requires 1 Intermediate Balusters.

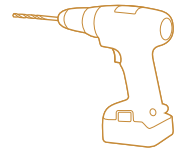
6' to 8' on center requires 2 Intermediate Balusters.



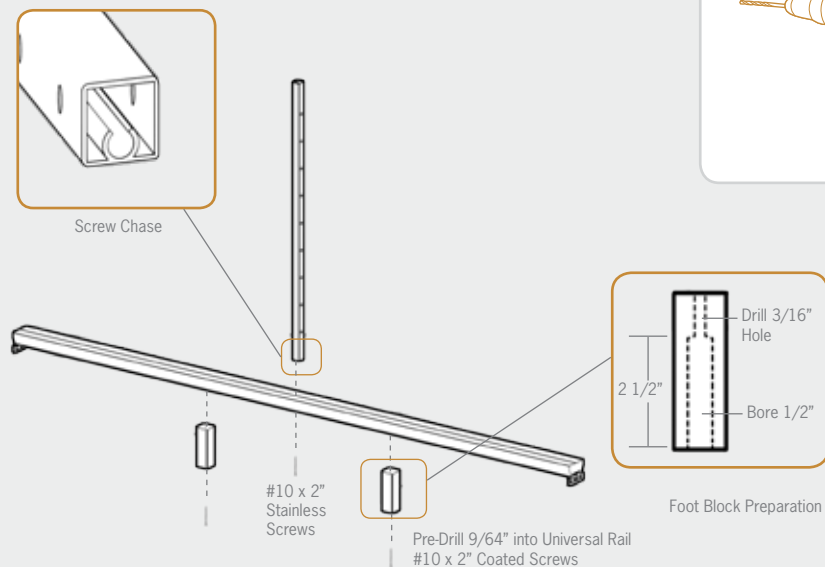
Pre-drilled hole will be offset from the centerline.

4

ATTACH INTERMEDIATE BALUSTER AND FOOT BLOCKS



- Attach the Intermediate Baluster to the bottom Universal Rail using the #10x2" screw.
- Attach provided foot blocks to the underside of one Universal rail by counter-boring the foot block and using the #10x2" screws.



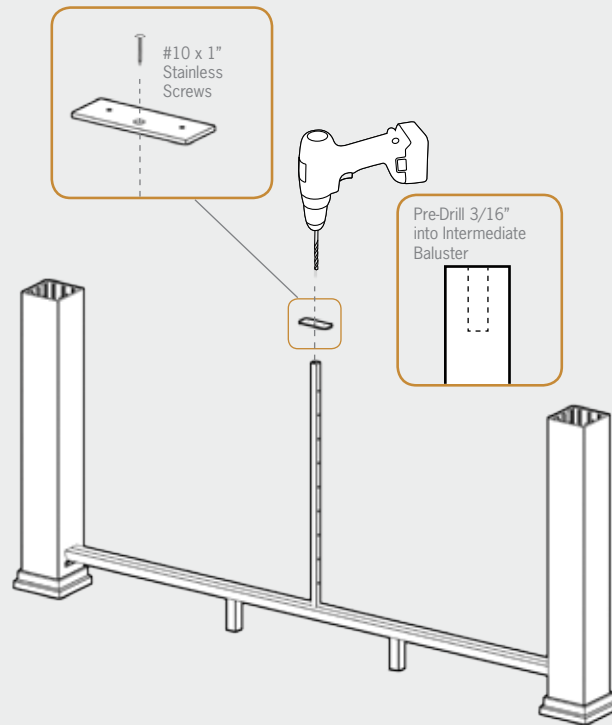
Be sure the screw finds the screw chase.
For easier installation, pre-drill screw chase with a 3/16" drill bit.

For sections up to 6': Place two Foot Blocks at 1/3 intervals on the rail.
For sections 6' to 8': Space three Foot Blocks approximately at 1/4 intervals on the rail.

5

ATTACH BASE PLATE TO INTERMEDIATE BALUSTER

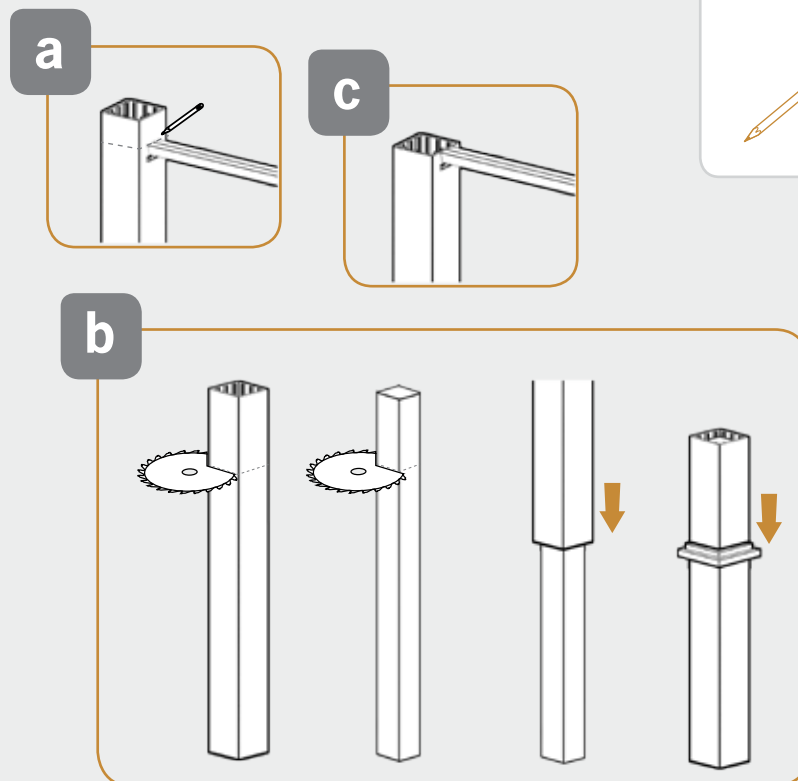
- Place the bottom Universal Rail and allow the rail to rest on its foot blocks.
- Attach base plate to the Intermediate Baluster.



6

MEASURE AND CUT POST SLEEVES

- Temporarily install top Universal Rail.
- Mark the height of the Post Sleeves.
- Cut your Post Sleeves and posts to desired length.
- Place the Post Sleeves over the 4x4" posts.
- Slide Post Skirts over Post Sleeves.

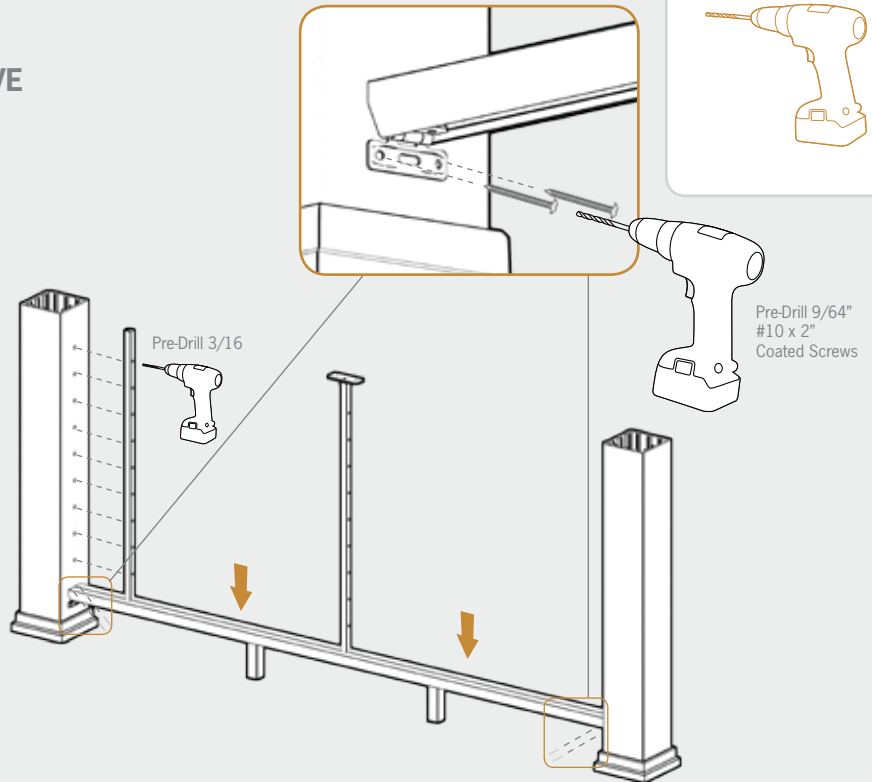


Post Sleeves should be flush with the top Universal Rail.

7

ATTACH BOTTOM UNIVERSAL RAIL AND TRANSFER HOLE LOCATION ONTO POST SLEEVE

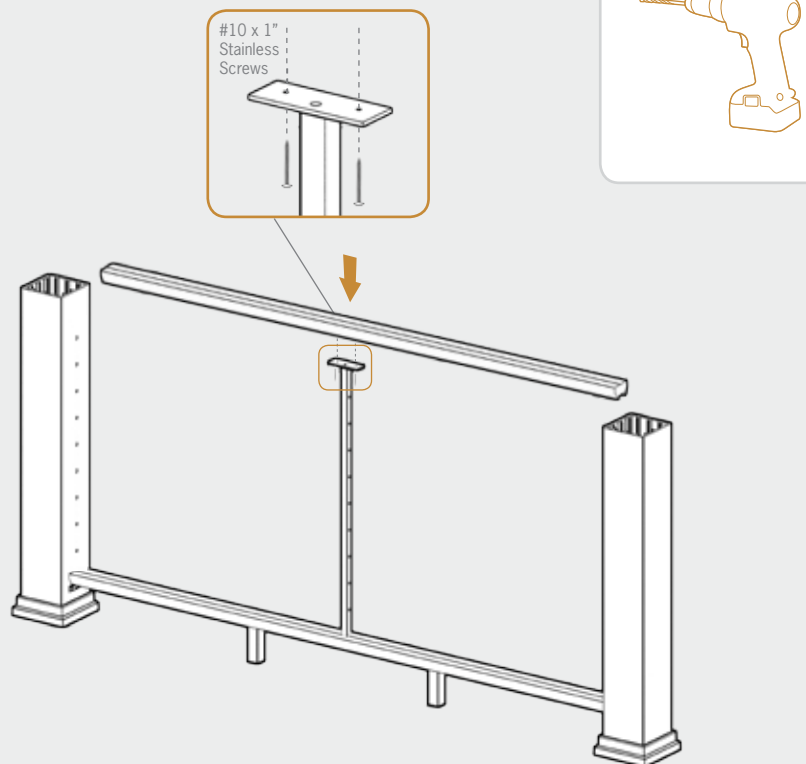
- Set the bottom Universal railing into place and Pre-Drill pilot holes through the Post Sleeve and into the post through the bracket holes. Secure with #10x2" screws.
- Use an extra Intermediate Baluster as a template for the CableRail hardware and through holes. Use a 3/16" drill bit to transfer your marks to the Post Sleeves.



8

TRIM TOP RAIL AND SECURE TOP UNIVERSAL RAIL

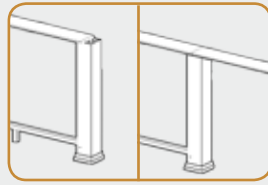
- Attach Intermediate Baluster to the underside of the top Universal Rail with 2 #10x1" screws.



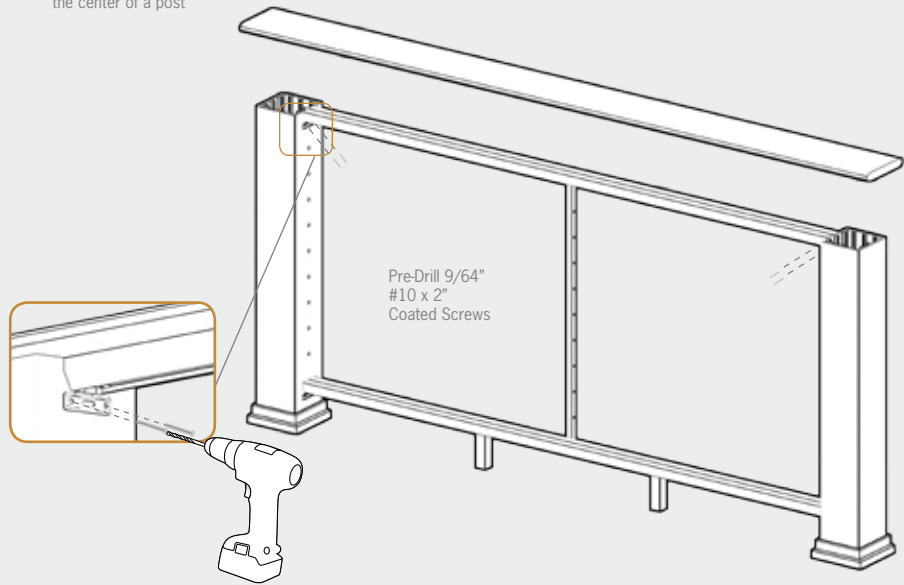
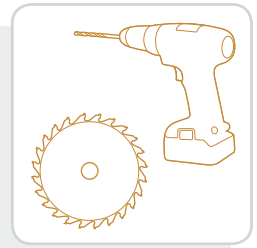
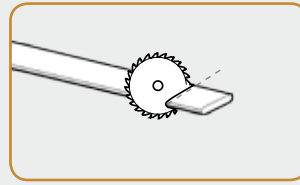
9

SECURE TOP UNIVERSAL RAIL & TRIM TOP RAIL

- Pre-Drill pilot holes through the Post Sleeve and into the post through holes in the brackets of the top Universal Rail and fasten using #10 x 2" Coated Screws.
- Cut the Top Rail so that any seams fall at the center of a post.



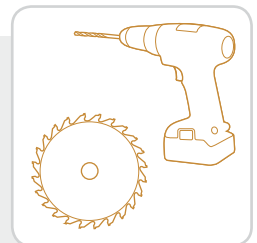
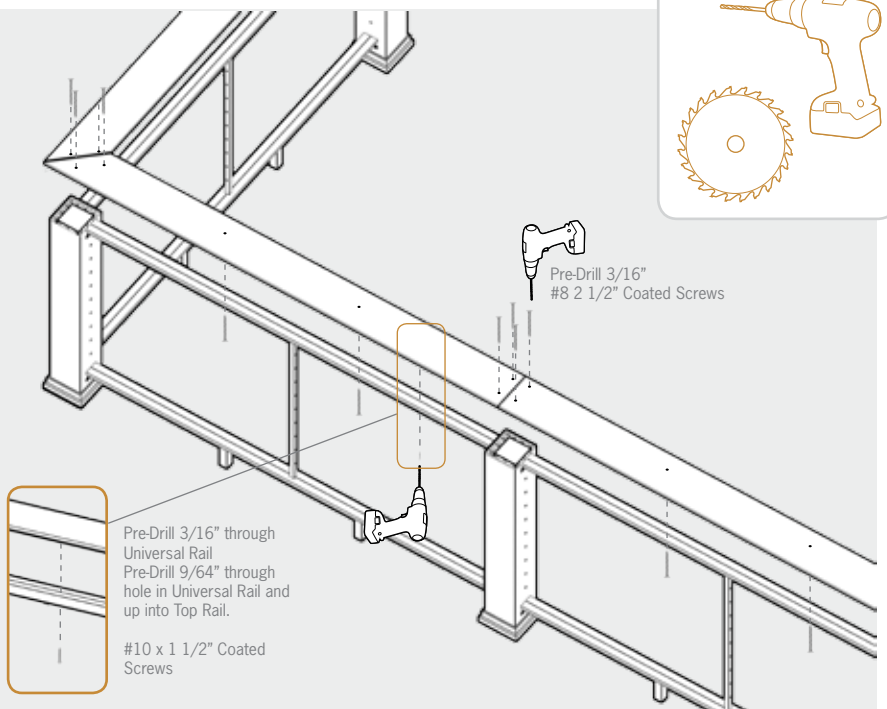
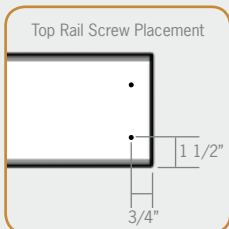
Make sure any seams fall at the center of a post



10

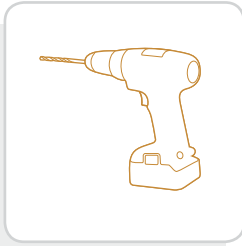
INSTALL TOP RAIL

- Cut Top Rail so that any seams fall at the center of a post. Miter the planks at corner posts.

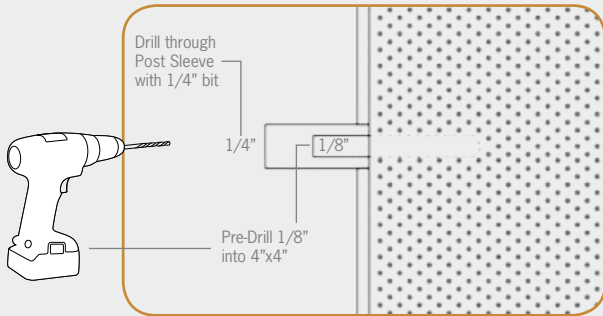


If your rail has stair sections, start installing the cap at the stairs. Wait until all rail sections are complete before beginning Top Rail installation.

1 PRE-DRILL ANCHOR POST SLEEVE



- Using the marks on the Anchor Posts, drill a through hole only in the Post Sleeve with a 1/4" drill bit.



Anchor posts should not exceed 60 feet apart during any continuous run of cable.

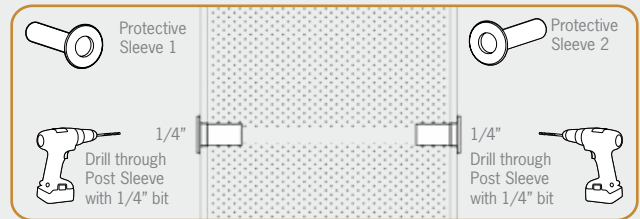
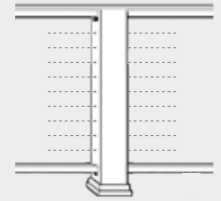
2 PRE-DRILL THROUGH POST SLEEVES



- For the through posts, drill a 1/4" hole through both the Post and Post Sleeve.

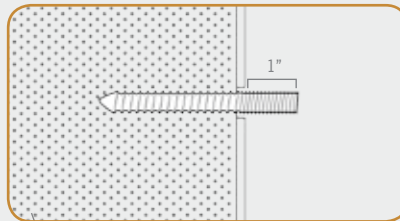
Optional - Protector Sleeves are not required on the through posts, but do offer a more finished appearance.

If needed, use a dab of adhesive on Protector Sleeves.

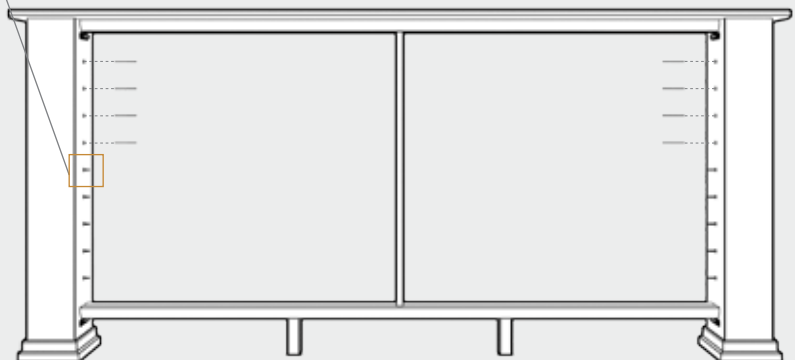


3 DRIVE IN HANGER BOLTS

- On Anchor Posts, screw the Hanger Bolts into the pilot holes in the Post with the Hanger Bolt Installation Tool.



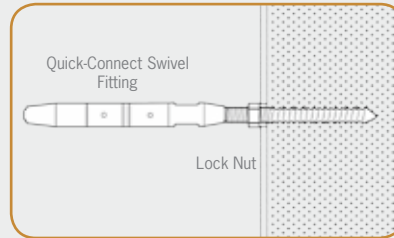
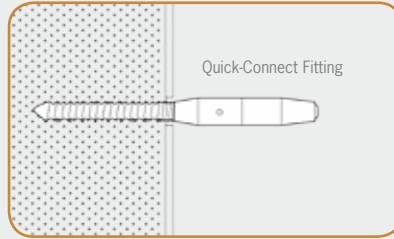
Leave about 1" of machine thread exposed for cable take-up.



4

ATTACH QUICK-CONNECT FITTINGS

- Screw on Quick-Connect fitting onto one side of the railing and Quick-Connect Swivel fittings lock nuts onto the hanger bolts on the other side.



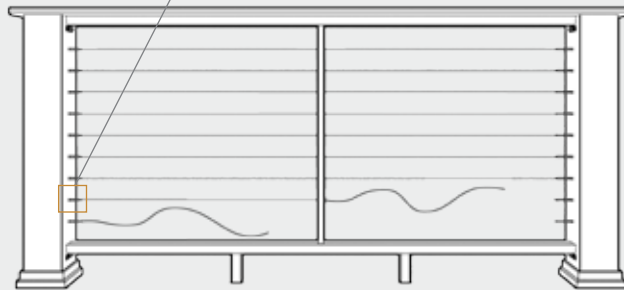
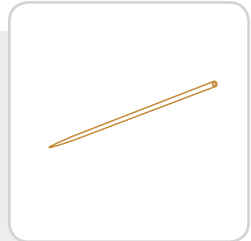
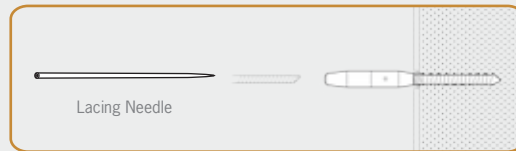
One side of the railing will be only Quick-Connect fittings, the other side will be Quick-Connect swivel fittings and lock nuts

5

INSERT AND THREAD CABLE

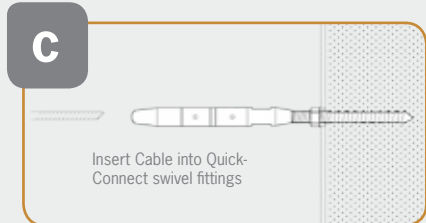
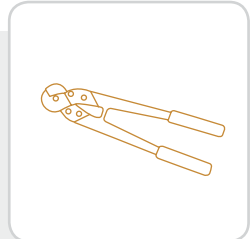
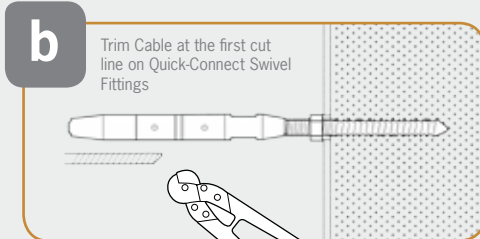
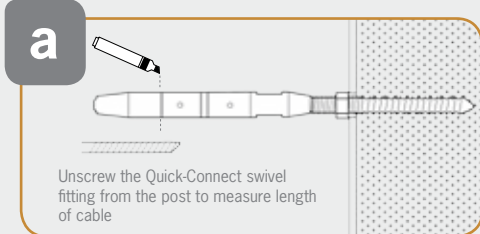
- When all of the hardware is in place, insert one end of the Cable into the Quick-Connect fitting.

Feed the Cable through the Intermediate Baluster (or through posts) with a lacing needle.

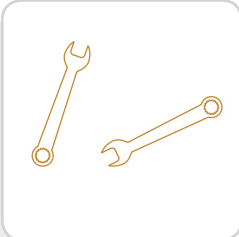


6

CUT CABLE TO LENGTH



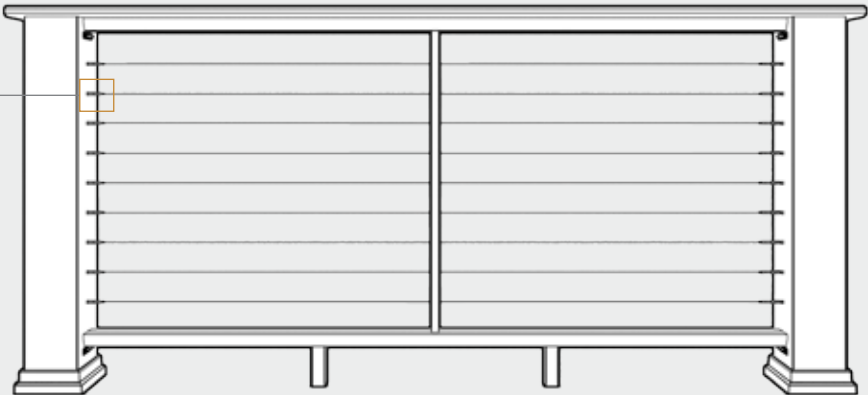
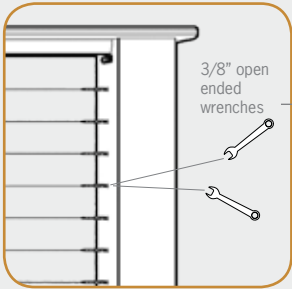
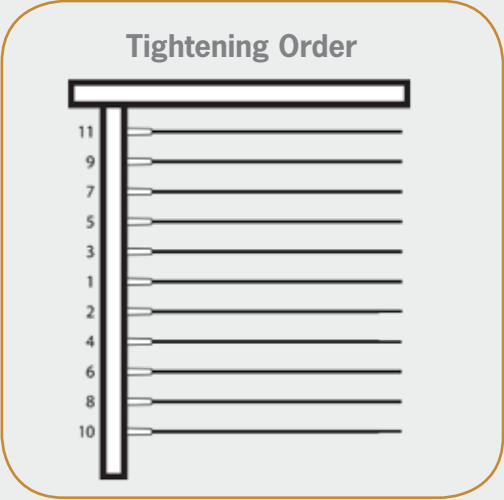
7 TIGHTEN CABLE



- Use a set of 3/8" open-ended wrenches to tighten the Cable using the "swivel" end insuring the Cable does not twist.

If necessary, the Cable can be removed from the Quick-Connect fitting by using the Quick-Connect Release Tool.

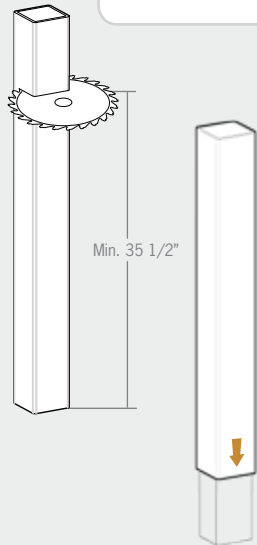
- Once the Cable is tight, tighten the lock nuts against the Quick-Connect fitting.



1

CUT POSTS AND TEMPORARILY INSTALL POST SLEEVES

- Posts must be positioned no more than 8' on center, and must be plumb.
- Trim post a min of 35 1/2" (for 36") or 41 1/2" (for 42") above finished deck surface.
- Slide Post Sleeve over 4x4 Post. Do not force.
- Posts may need to be slightly taller for stairs.



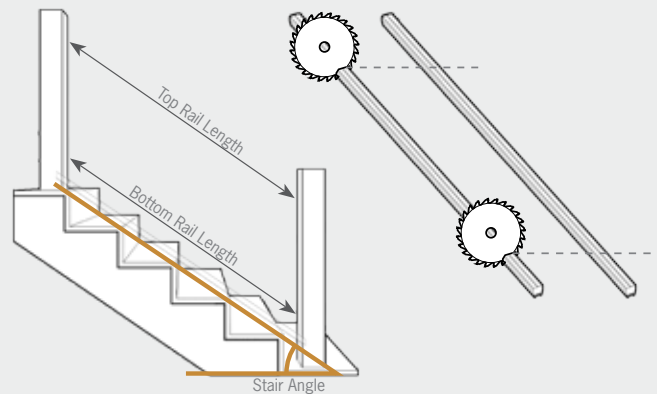
Min. 35 1/2"

Do not cut Post Sleeves in this step.

2

MEASURE AND TRIM UNIVERSAL RAILS

- Rest the bottom Universal Rail on stairs and transfer the length and angle of the stairs onto the rail.
- Trim the rails to necessary length and angle.

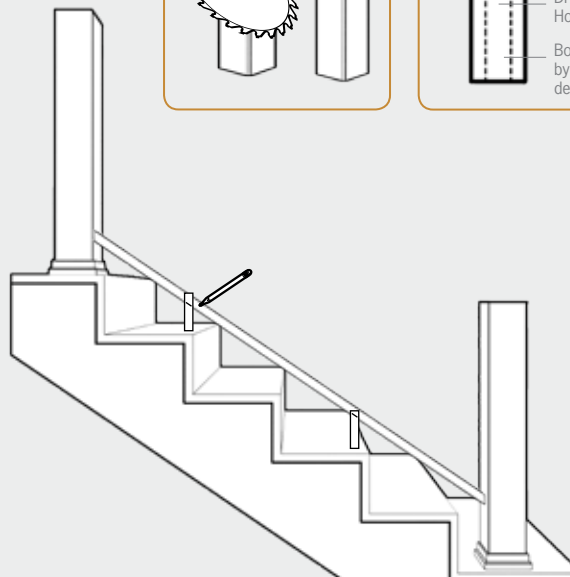


Stair Angle

3

PREPARE FOOT BLOCKS

- Temporarily place bottom Universal Rail in place to plan where Foot Blocks will go.
- Cut Foot Blocks to length at the correct angle.
- Counter-bore the foot block and using the #10 x 2" screws



Stair Angle

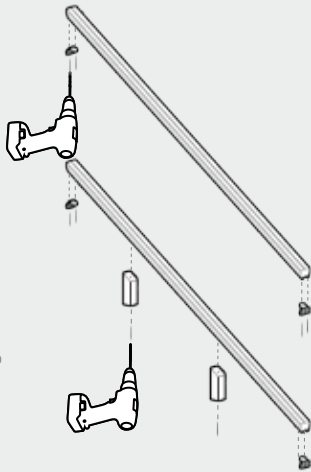
Drill 3/16"
Hole
Bore 1/2"
by 2 1/2"
deep

4

ATTACH FOOT BLOCKS AND BRACKETS

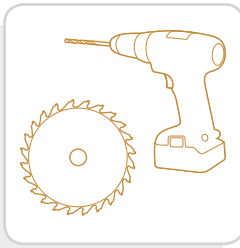
- Attach provided brackets to the Universal Rails.

Pre-Drill 9/64" through Brackets #10 x 7/8" Coated Screws



Pre-Drill 9/64" into Universal Rails #10 x 2" Coated Screws

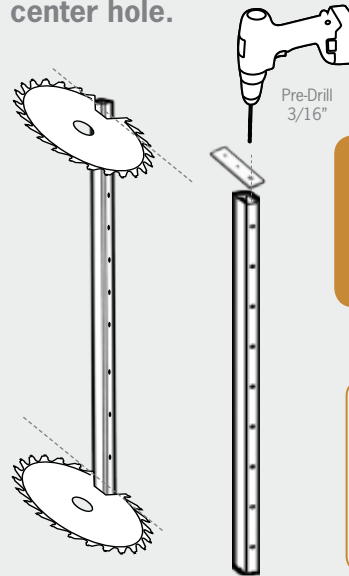
For sections up to 6': Place two Foot Blocks at 1/3 intervals on the rail.
For sections 6' to 8': Space three Foot Blocks approximately at 1/4 intervals on the rail.



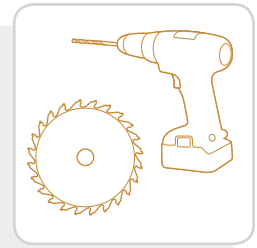
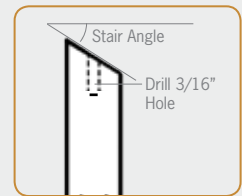
5

TRIM INTERMEDIATE STAIR BALUSTERS

- Trim Baluster to length and angle. Pre-Drill center hole.



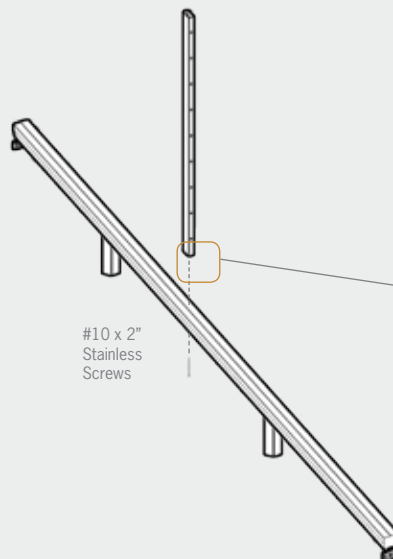
1' to 6' on center requires 1 Intermediate Balusters.
 6' to 8' on center requires 2 Intermediate Balusters.



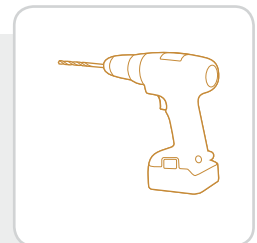
6

ATTACH INTERMEDIATE BALUSTERS

- Pre-drill screw chase in Intermediate Balusters with a 3/16" bit.
- Attach Intermediate Balusters to the bottom Universal Rail using #10 x 2" screws provided.



#10 x 2" Stainless Screws



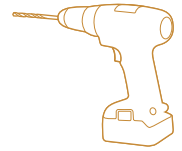
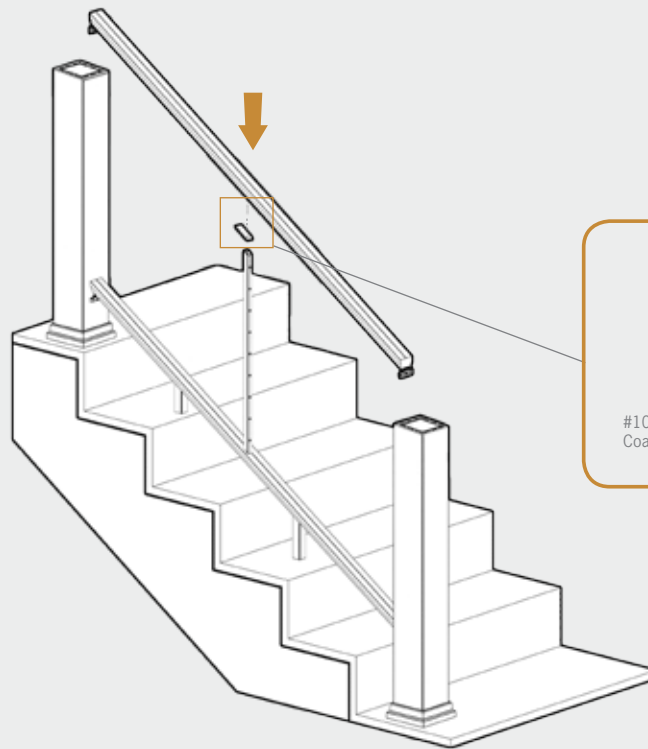
Be sure the screw finds the screw chase.

For easier installation, pre-drill screw chase with a 3/16" drill bit.

7

ATTACH BASE PLATE TO INTERMEDIATE BALUSTERS

- Set the bottom Universal Rail in place and allow the rail to rest on its Foot Blocks.
- Attach base plate to the Intermediate Baluster.
- Place top Universal Rail on assembly but do not fasten.

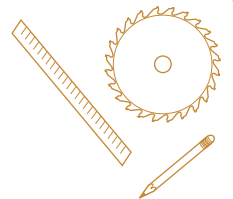
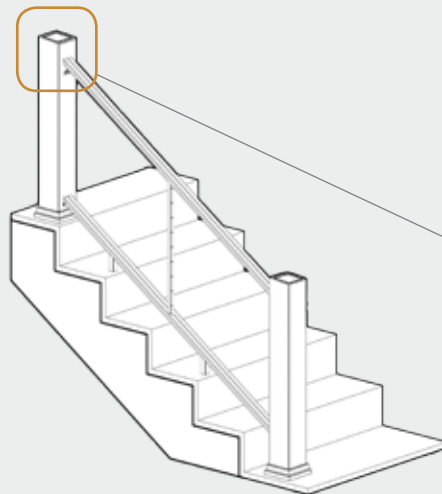


#10 x 1"
Coated Screws

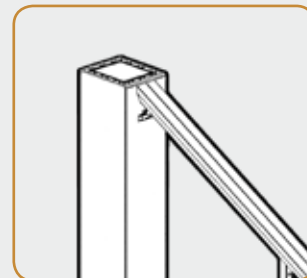
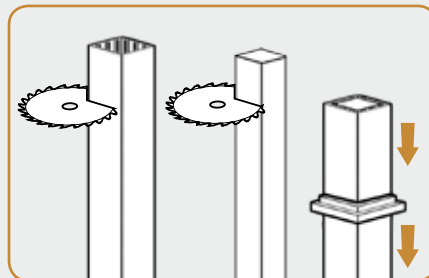
8

MEASURE AND TRIM TOP POST AND TOP POST SLEEVE

- Mark the top of the top Universal Rail.
- Remove Post Sleeve and trim to length, then Trim Post to same length.
- Replace Post Sleeve.



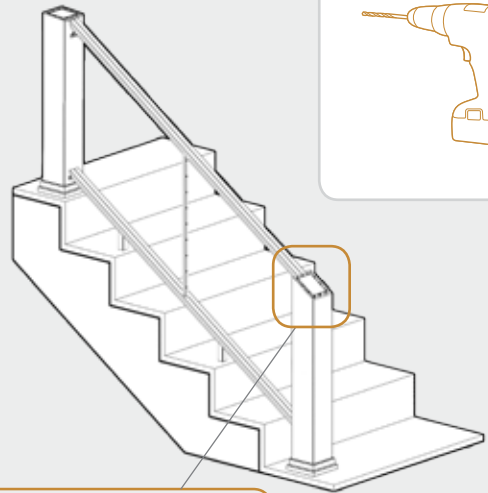
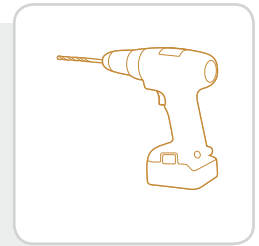
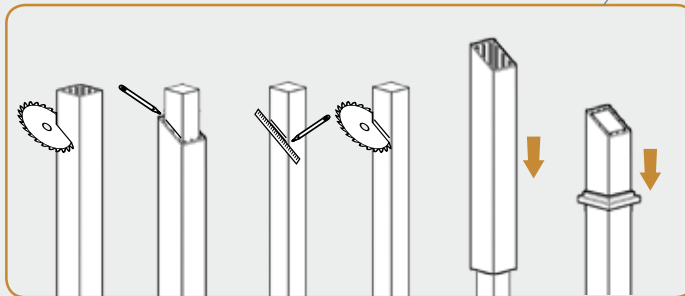
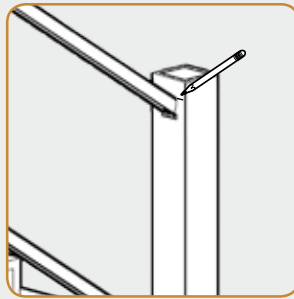
Post Sleeves should be flush with top Universal Rail.



9

MEASURE AND TRIM BOTTOM POST AND BOTTOM POST SLEEVE

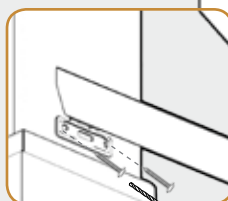
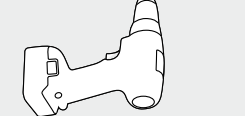
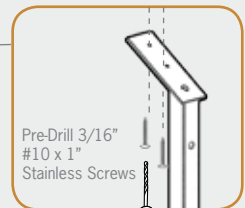
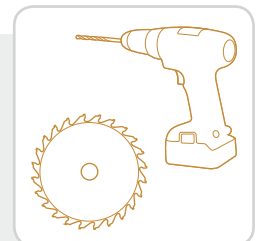
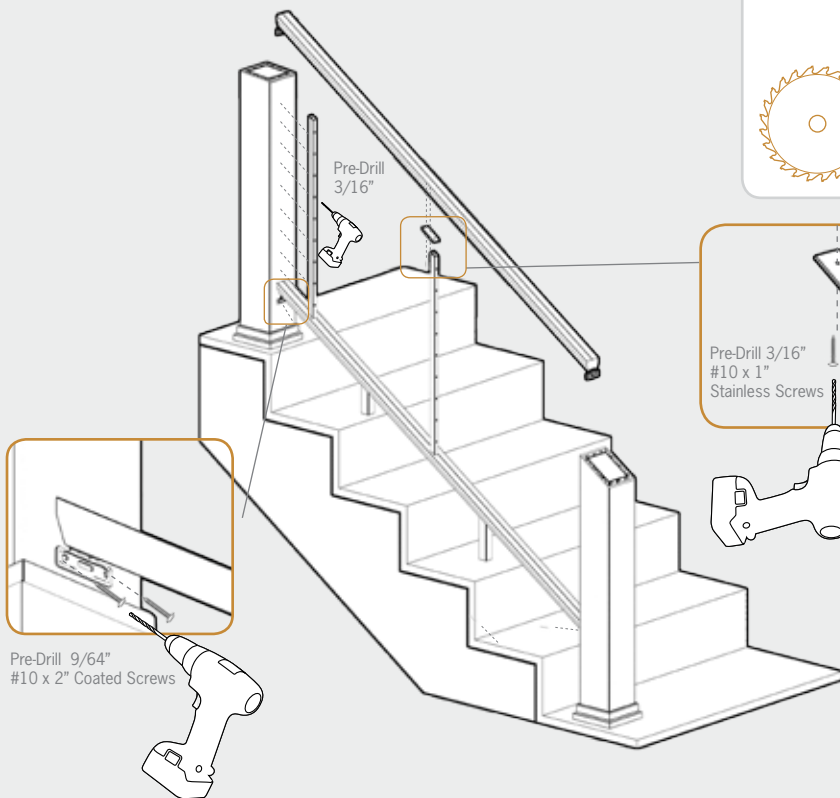
- Mark where Top Universal Board meets Bottom Post Sleeve.
- Remove Post Sleeve and trim to stair angle. Replace Post Sleeve.
- Use Post Sleeve to mark the angle of cut on Post. Remove Post Sleeve.
- Using a straight edge, draw a line roughly 1/8" below previous mark on Post.
- Trim Post at lower line.
- Replace Post Sleeve.
- Slide on Post Skirts.



10

INSTALL BOTTOM UNIVERSAL RAIL

- Attach the Bottom Universal Rail to the Posts
- Attach Intermediate Baluster to the underside of the top Universal Rail with the 2 #10x1" screws.
- Use an extra Intermediate Baluster, rested at the bottom Universal Rail, as a template for the CableRail hardware and through holes.
- Use a 3/16" drill bit to transfer your marks onto the Post Sleeve.



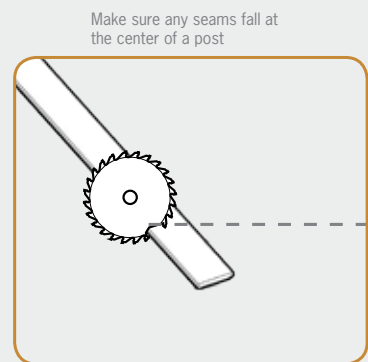
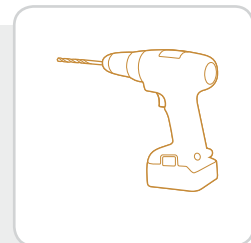
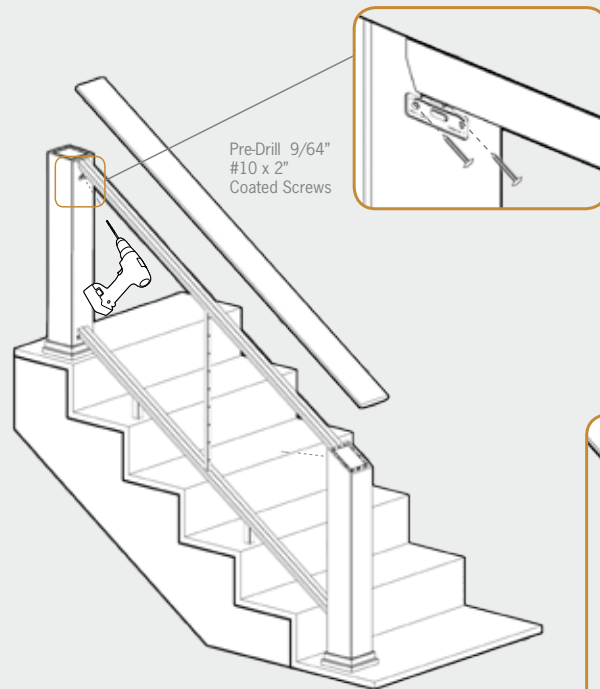
Pre-Drill 9/64" #10 x 2" Coated Screws

Pre-Drill 3/16"

Pre-Drill 3/16" #10 x 1" Stainless Screws

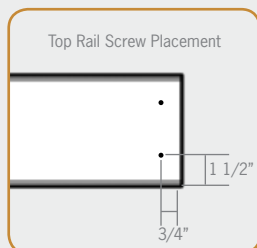
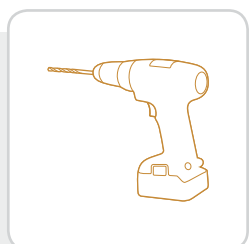
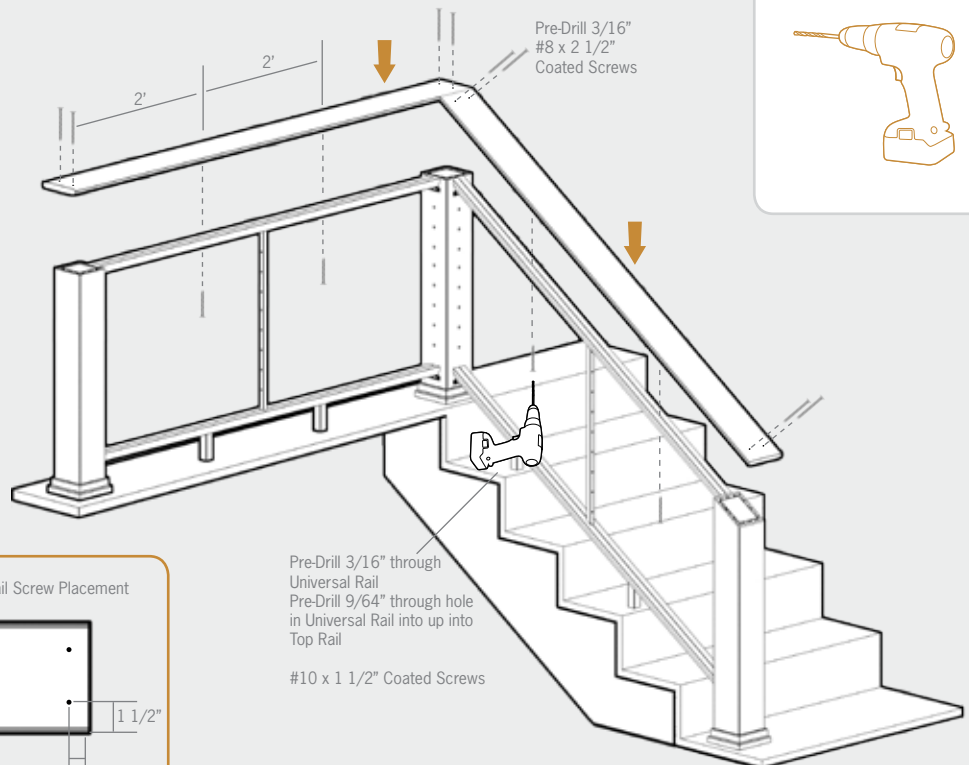
11 SECURE TOP UNIVERSAL RAIL AND PREPARE TOP RAIL

- Pre-Drill pilot holes through the Post Sleeve and into the post through holes in the brackets of the top Universal Rail.
- Cut the Top Rail so that any seams fall at the center of a post.



12 INSTALL TOP RAIL

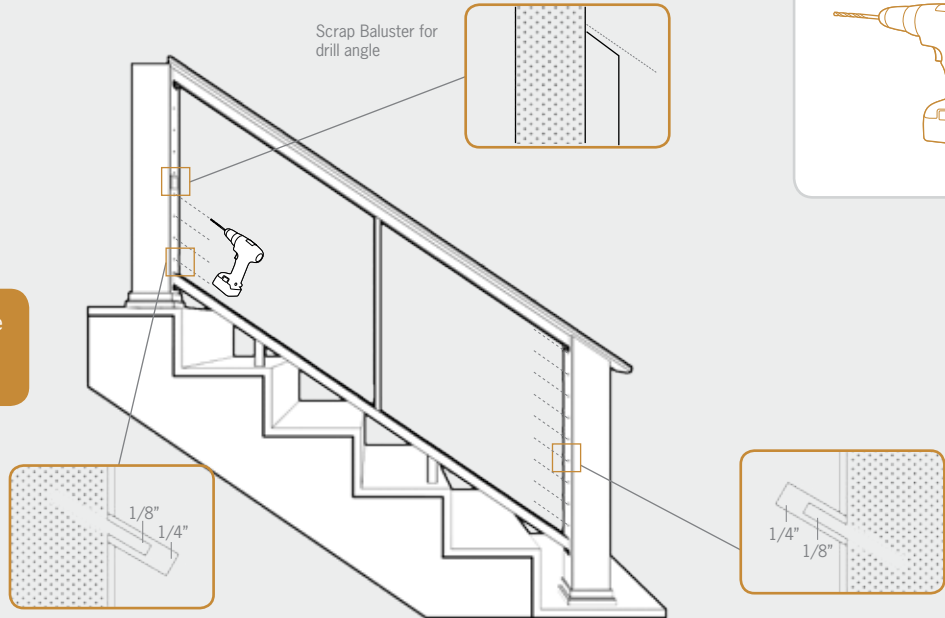
- Finish railing system by applying an Evolutions Contemporary Top Rail to the top of the rail assembly.
- Use optional End Coating on exposed Top Rail ends.



1

PRE DRILL POST SLEEVES

Drill a through hole only in the Post Sleeve with a 1/4" drill bit at the same angle as the stair run.



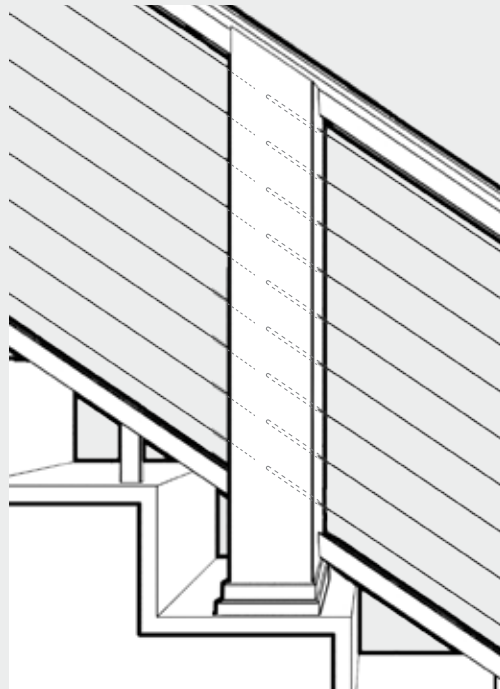
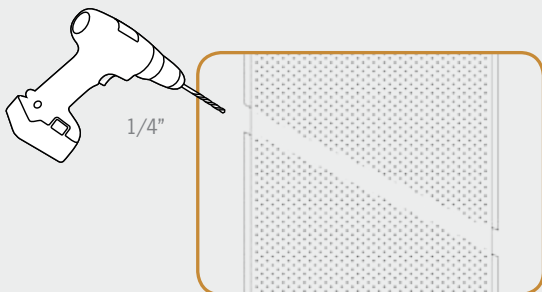
Use a scrap piece of baluster trimmed at the stair angle as a guide.

Anchor posts should not exceed 60 feet apart during any continuous run of cable.

2

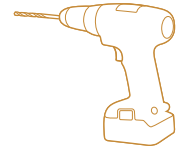
PRE-DRILL THROUGH POSTS

- Drill a 1/4" hole through both the Post and Post Sleeve at stair angle.



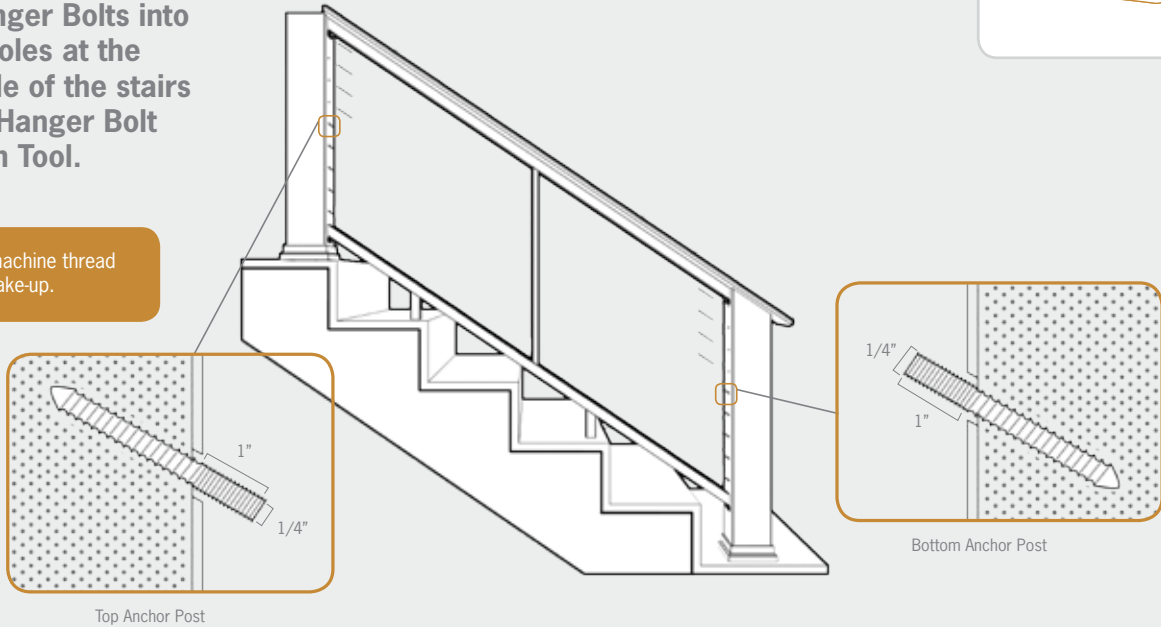
3

DRIVE IN HANGER BOLTS



- Screw Hanger Bolts into the pilot holes at the same angle of the stairs using the Hanger Bolt Installation Tool.

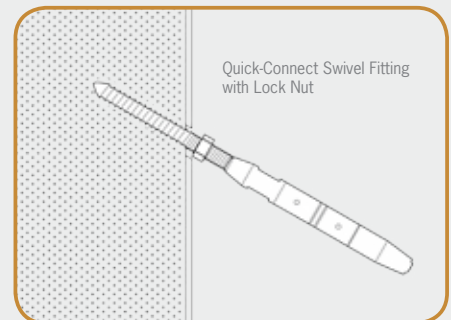
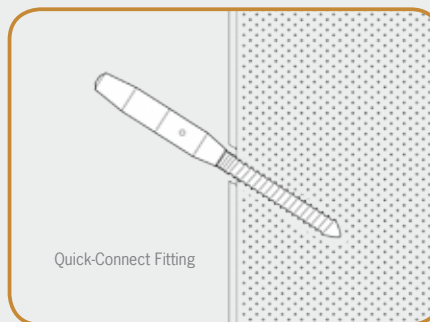
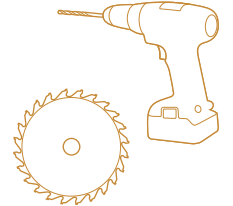
Leave about 1" of machine thread exposed for cable take-up.



4

ATTACH QUICK CONNECT FITTINGS

- Place one Quick-Connect fitting at one end and the locknuts and Quick-Connect Swivel fitting on the opposite end.

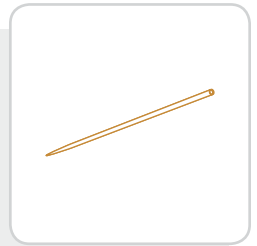
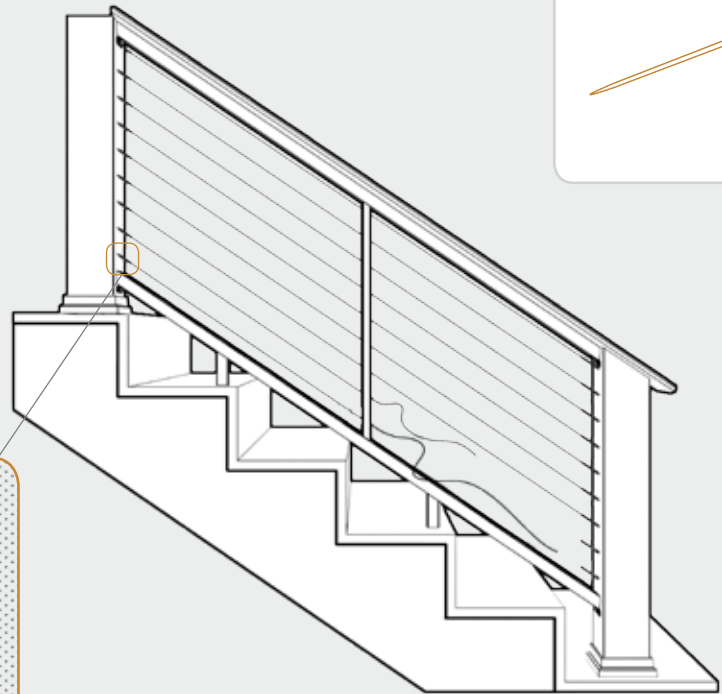
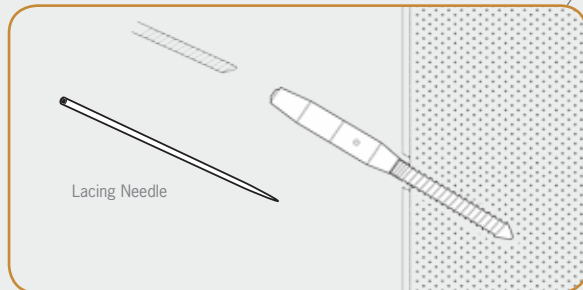


One side of the railing will be only Quick-Connect fittings, the other side will be Quick-Connect swivel fittings and lock nuts.

5

THREAD CABLE

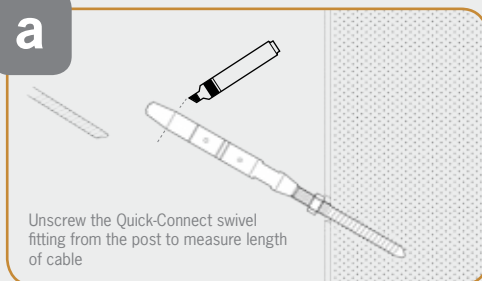
- When all of the hardware is in place, insert one end of the Cable into the Quick-Connect fitting.
- Feed the Cable through the Intermediate Baluster (or through posts) with a lacing needle.



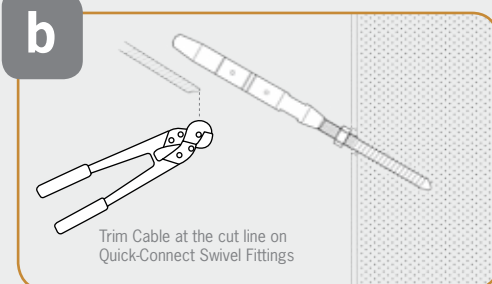
6

CUT CABLE TO LENGTH

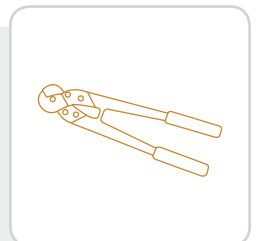
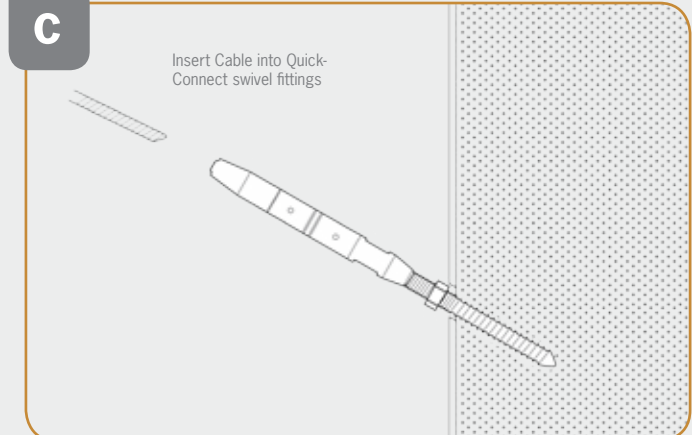
a



b

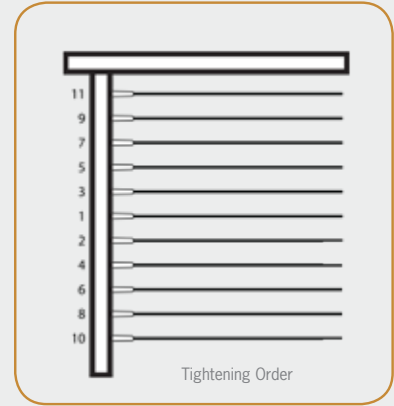
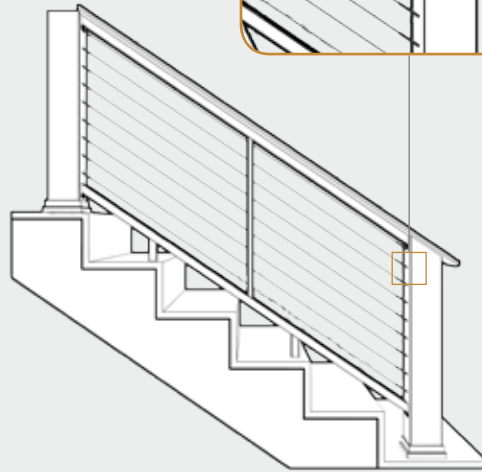
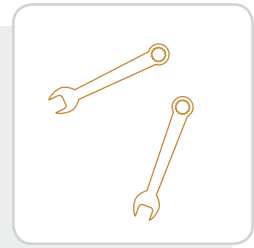
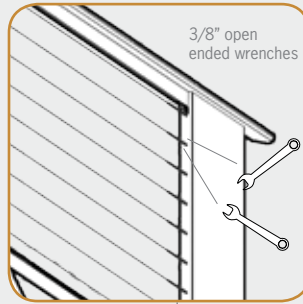


c



7 TIGHTEN CABLE

- Use a set of 3/8" open-ended wrenches to tighten the Cable using the "swivel" end insuring the Cable does not twist.
- Once the Cable is tight, tighten the lock nuts against the Quick-Connect swivel fittings



If necessary, the Cable can be removed from the Quick-Connect fitting by using the Quick-Connect Release Tool

**Evolutions Rail™
Contemporary Style
Installation Guide**



TimberTech
894 Prairie Avenue
Wilmington, OH 45177
timbertech.com
1.800.307.7780