



# TIMBERTECH CLASSIC COMPOSITE SERIES AND RESERVE RAILING INSTALL GUIDE

Installing TimberTech Railing with CableRail by Feeney<sup>®</sup> ..... 3  
Installing TimberTech Stair Railing with CableRail by Feeney<sup>®</sup> ..... 12

TimberTech Reserve Rail can be installed with a continuous Top Rail in up to 16' lengths, measured from the center of the end posts. These applications require the use of a 4" Post Sleeve, 4" Post Skirt and a 4" x4" Post as an intermediate post, as well as unique fastening procedures. This Install Guide details these unique procedures.

#### IMPORTANT NOTES:

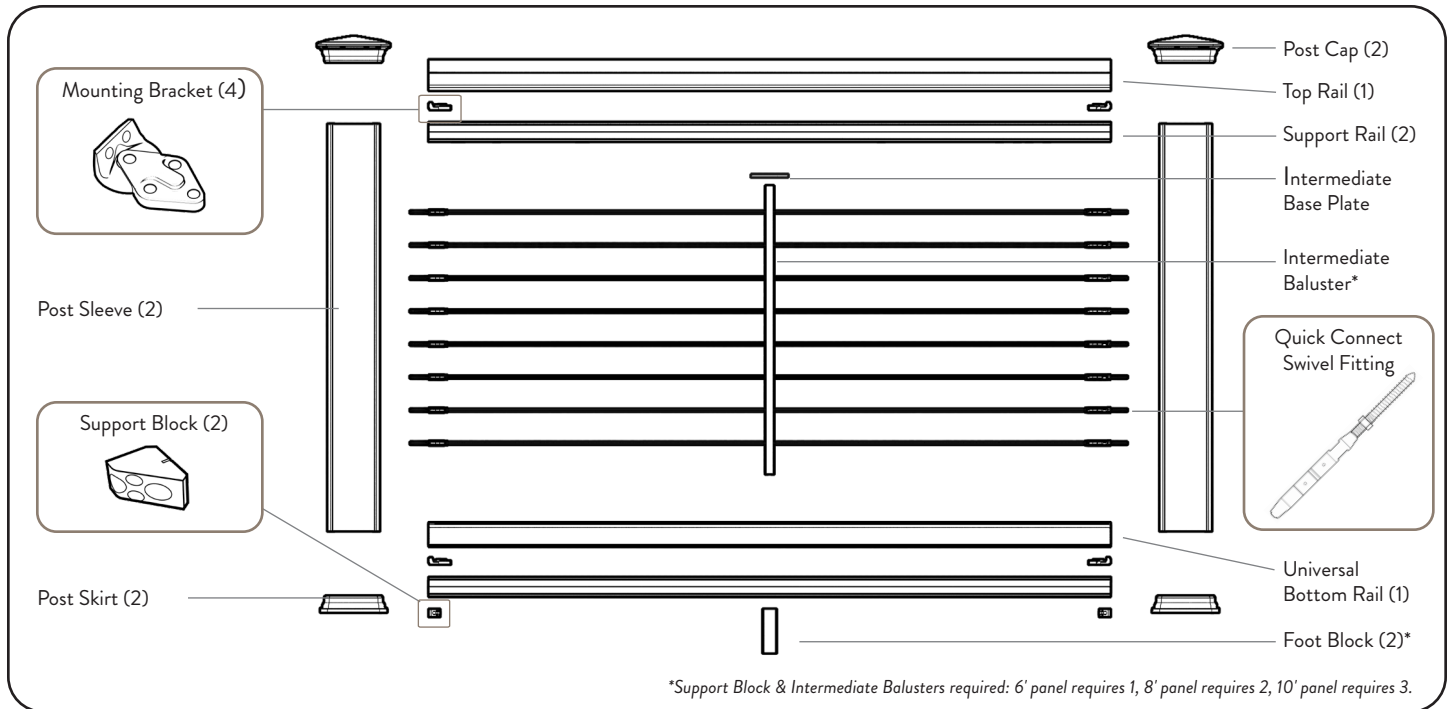
- Please read all instructions completely before starting any part of the installation. Always make sure to visit [www.TimberTech.com](http://www.TimberTech.com) to ensure you are viewing the most current installation instructions, care and cleaning, technical information and more.
- TimberTech Railing 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.
- AZEK Co. LLC accepts no liability or responsibility for the improper installation of this product.
- TimberTech Railing may not be suitable for every application and it is the sole responsibility of the installer to be sure that TimberTech Railing 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.
- AZEK Co. LLC 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 AZEK Customer Service at 877-ASK-AZEK (877-275-2935) or visit our website at [www.TimberTech.com](http://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 Classic Composite Series and TimberTech Reserve Rail Systems.
- **IMPORTANT:** Make sure the DRIVE TOOL/DRILL is configured or set to use the SCREW setting when driving and/or tightening all FASTENERS. It is very Important not to overdrive fasteners. The use of Impact type drill drivers can increase the risk of overdriving 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 Railing Install Guide may lead to personal injury, affect rail system performance and void the product warranty.
- The buildup or generation of static electricity is a naturally occurring phenomenon in many plastic based products such as carpeting, upholstery, and clothing, and can occur on alternative decking under certain environmental conditions. This static electricity can discharge once contact is made with hardware, railing, or other conductors of electricity.



Find install videos, written instructions and a chat link at <https://www.timbertech.com/installation-help>.

**NOTE:** IF INSTALLING POST LIGHTING, WIRING MUST BE INSTALLED PRIOR TO SECURING POSTS TO DECK/STAIR SURFACE AND INSTALLING TOP RAILS.

It is the responsibility of the installer to meet all local code requirements and obtain all required building permits. The installer should determine and implement appropriate installation techniques for each installation situation. The AZEK Company or its reseller shall not be held responsible for improper or unsafe installations.



**! IMPORTANT NOTES:**

- TimberTech Custom Rail Packs are available in 10', 8' and 6' lengths.
- Visit <https://www.timbertech.com/installation-help> to view TimberTech installation videos.
- Consult your local building codes for guard and handrail requirements.
- TimberTech Railing 10', 8' and 6' Rails are designed not to exceed 10', 8' and 6' from center of post to center of post, respectively.
- For all other applications, consult a design professional or a TimberTech Railing representative for more information. For stair applications maximum rail length must not exceed 91".
- 4x4 lumber posts must be installed plumb and level with each other.
- Cable rail is not compatible with secure mount post.
- Cut slowly, using a thin kerf, finish saw blade to avoid chipping.
- Read instructions completely to get an understanding of how the product goes together and how each piece affects the other.
- For all applications, a structural post must be used inside our Post Sleeve.
- Compatible with all Classic Composite Series Railing Infills.



This entire section of instructions is for installation of Classic Composite Series and Reserve Rail systems. Installation of the RESERVE RAIL system is identical to the Classic Composite Series, except it uses the RESERVE BOTTOM RAIL instead of the Universal Bottom Rail.

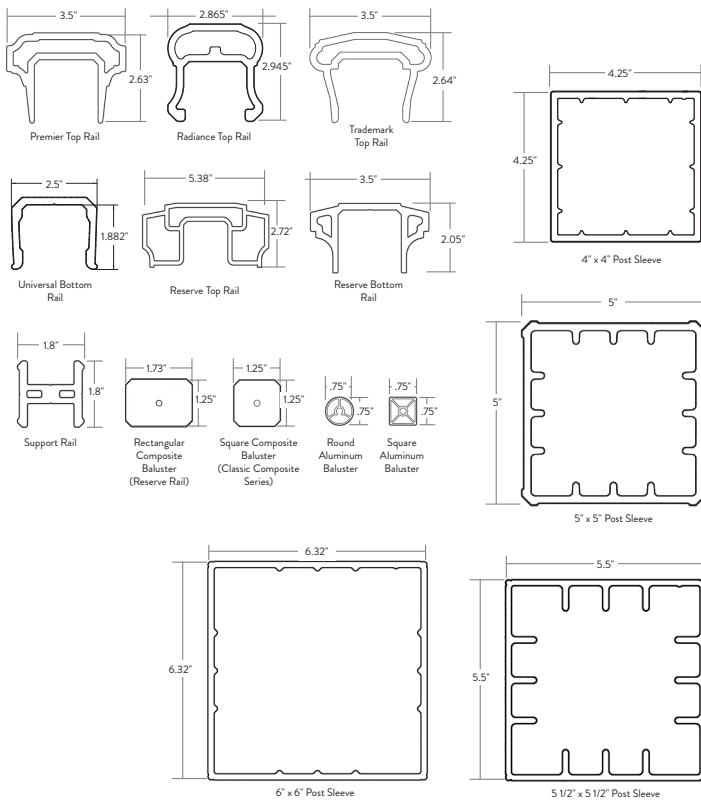
**TOOLS REQUIRED**

- Miter Saw
- Tape Measure
- Drill
- Cable Cutters
- #2 Square Drive
- Drill Bits: 7/64", 1/4", 3/16", 1/8"
- Extended 1/4" Drill Bit
- 2 3/8" Open-End Wrenches

### MEASURING YOUR RAILING AREA

- Measurements are from center to center of the posts. Rail components are produced in 10', 8' and 6' to allow for finished end cuts and angles.
- Determine how many 10', 8' and 6' TimberTech Rail Sections you need and check to be sure you have all the components (and quantities) listed in the chart shown.

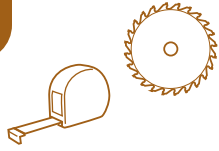
### COMPONENT DIMENSIONS



### COMPONENTS NEEDED FOR INSTALLING ONE TIMBERTECH RAIL SECTION

<p><b>Components needed to complete install of 10', 8', and 6' rail sections</b></p> <p>One Kit = One Rail Pack + One Baluster Pack + One Baluster Screw Kit.</p> <p>Kits only available in 36" height.</p>	<p><b>Hardware Mounting Kit</b></p> <ul style="list-style-type: none"> <li>4 - Mounting Brackets</li> <li>2 - Support Blocks (6' panel requires 1, 8' panel requires 2, 10' panel requires 3)</li> <li>16 - #8 x 3/4" screws</li> <li>6 - #8 x 1 5/8" Screws</li> <li>6 - #8 x 2 5/8" screws (Stairs Only)</li> <li>6 - #8 x 3" Screws</li> <li>12 - #8 x 3" Semi-threaded Screws</li> <li>T20 Driver Bit</li> </ul>	
<p><b>Components available separately for mix-and-match rail systems</b></p>	<p>TimberTech Rail Custom Rail Pack</p>	<p>(Top Rails sold separately)</p> <ul style="list-style-type: none"> <li>1 - Universal Bottom Rail (with Classic Composite Series)</li> <li>2 - Support Rails (1-Aluminum Top Support Rail for 10')</li> <li>Hardware Mounting Kit</li> <li>Support Block Mounting Templates</li> <li>Foot Blocks</li> <li>- 1 in 6' Packs, - 2 in 8' Packs, - 3 in 10' Packs</li> </ul>
<p><b>Additional Components Needed for Each System</b></p>	<p>CableRail Components</p>	<ul style="list-style-type: none"> <li><b>36" Intermediate Baluster</b> - 1 for 6', 2 for 8', 3 for 10'</li> <li><b>42" Intermediate baluster</b> - 1 for 6', 2 for 8', 3 for 10'</li> <li><b>Stair Intermediate baluster</b> - 1 for 6', 2 for 8', 3 for 10'</li> <li><b>Cable</b> - 100' spool or 500' spool</li> <li><b>36" Hardware Kit</b> - 9 Quick-Connect Fittings</li> <li><b>42" Hardware Kit</b> - 9 Quick-Connect Swivel Fittings</li> <li>- 18 Hanger Bolts</li> <li>- 9 lock nuts</li> <li><b>42" Hardware Kit</b> - 9 Quick-Connect Fittings</li> <li>- 9 Quick-Connect Swivel Fittings</li> <li>- 22 Hanger Bolts</li> <li>- 11 lock nuts</li> </ul>

**1**



**INSTALL POST SLEEVES**

- Trim Post Sleeves to desired length.
- Slide Post Sleeves and Post Skirt over post (do not force). Post sleeve will be slightly larger than the post.
- Ensure posts are square and plumb. Shim as needed to plumb.

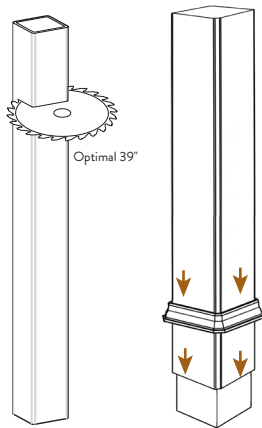
**! IMPORTANT NOTES:**

Be sure to cut Post Sleeves such that finished rail height is at least 36" high for a 36" rail application and 42" high for a 42" application.

For all rail installations, post and post covers must be plumb and aligned with one another.

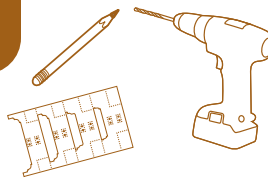
For Over-the-Post applications, it is critical that Posts be of a consistent height (e.g. the tops of all post sleeves are level and on plane with each other).

**TIP:** To ensure that the tops of all post sleeves are level, you may use a traditional 8 ft. level or a string line to establish a common level across all post sleeves and cut at that level. Alternatively, you may use a laser level to "shoot" a level mark on each post sleeve and then cut at that mark.



39" above deck surface is optimal for 36" railing heights.

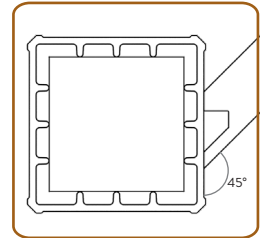
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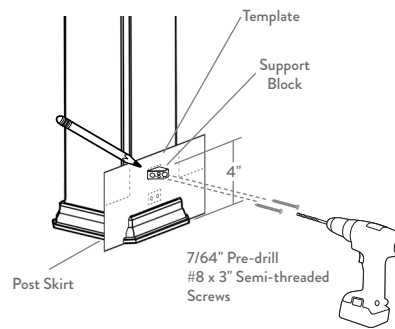
**INSTALL LOWER SUPPORT BLOCKS**

- Position template at bottom of Post Sleeve above Post Skirt.

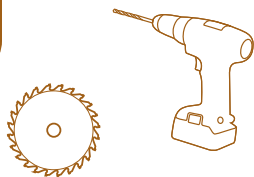
If you do not have the template, position the top of the Support Block 4" above the deck.



For angled rail installations, align angled face of Support Block parallel to rail section.



**3**



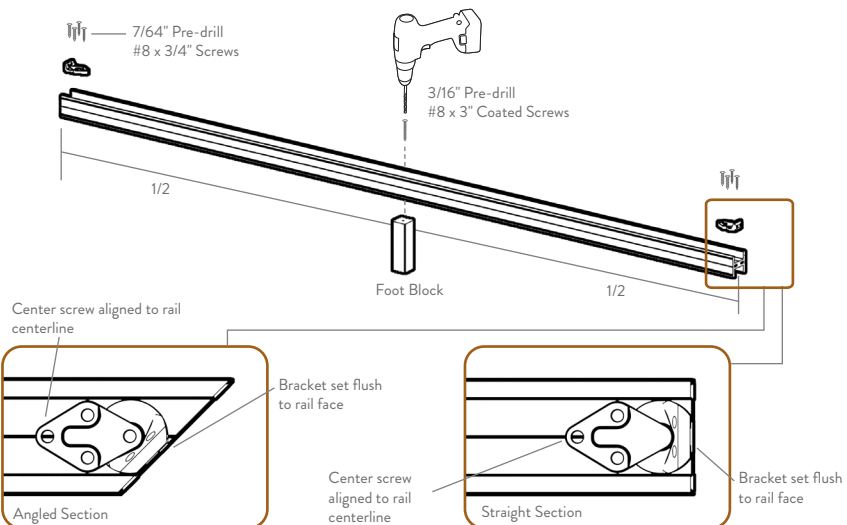
**CUT AND ASSEMBLE BOTTOM SUPPORT RAIL**

- Cut the Bottom Support Rail to length.
- Add support blocks as required.
- Attach brackets.

**! For sections up to 6': Place one Foot Block in the center of the rail.**

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

For sections 8' to 10': Space three Foot Blocks approximately at 1/4 intervals on the rail.

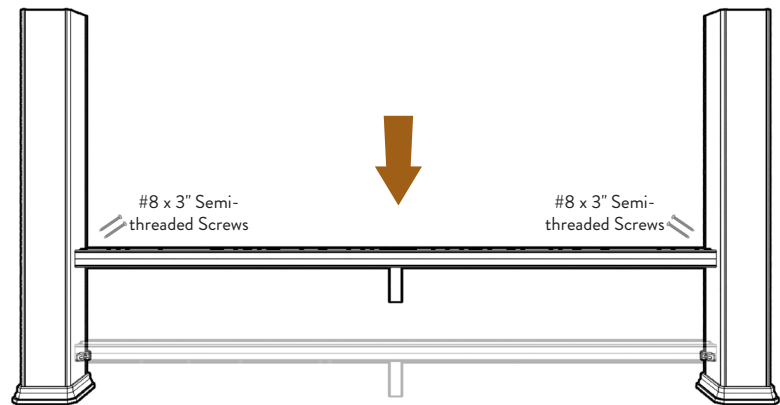
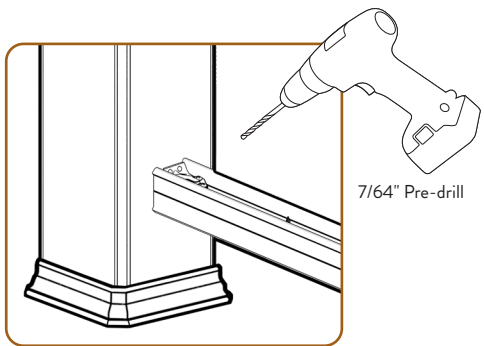


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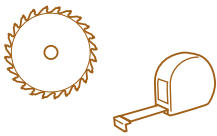


### INSTALL BOTTOM SUPPORT RAIL

- Position Bottom Support Rail assembly onto Support Blocks.
- Pre-drill holes into post sleeves only.
- Attach brackets with green coated screws.



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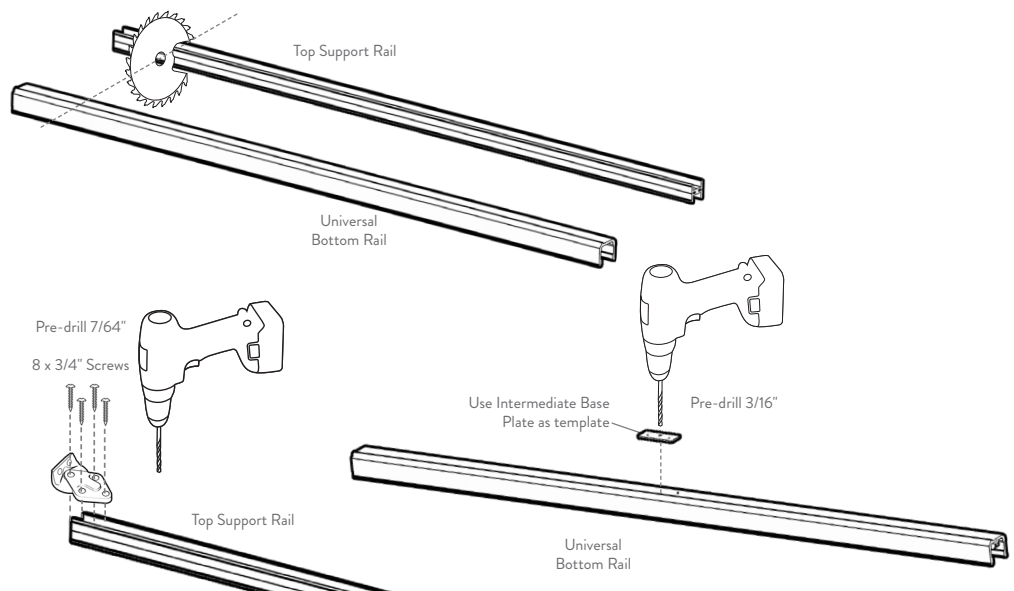
### CUT AND PREP UNIVERSAL BOTTOM RAIL AND TOP SUPPORT RAIL

- Measure distance between the posts at the Universal Bottom Rail and Top Support Rail.
- Cut Universal Bottom Rail and Top Support Rail to length.
- Attach Brackets to the Top Support Rail.
- Use Intermediate Base Plate as a template for predrilling hole for intermediate baluster.



6' sections require  
1 Intermediate Baluster;  
8' sections require  
2 Intermediate Balusters;  
10' sections require  
3 Intermediate Balusters.

For 10' rail sections utilizing aluminum support rail, when attaching Mounting Brackets at each end of the Top Support Rail, pre-drill using a 9/64" drill bit (instead of 7/64" bit).

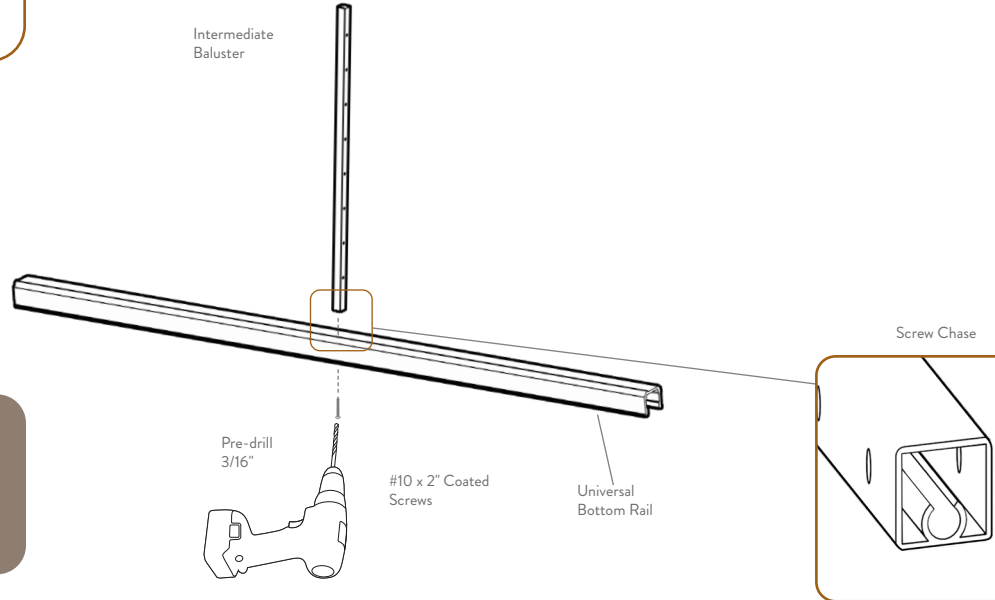


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### ATTACH INTERMEDIATE BALUSTERS

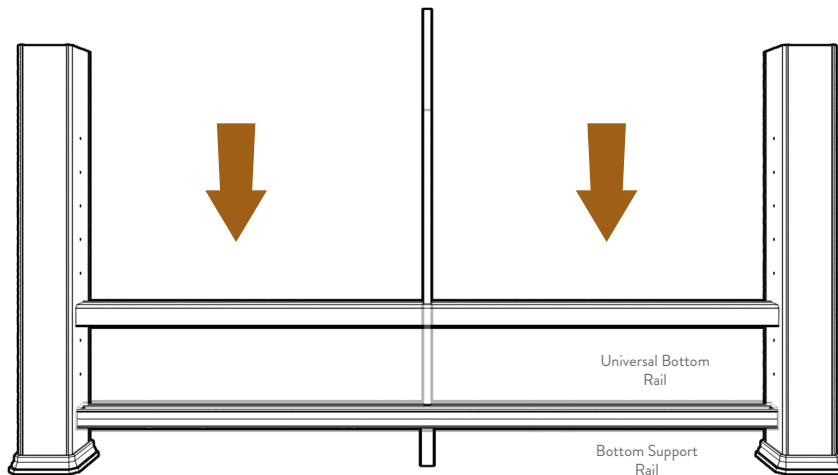
- Attach Intermediate Baluster to Universal Bottom Rail Profile.



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### INSTALL UNIVERSAL BOTTOM RAIL

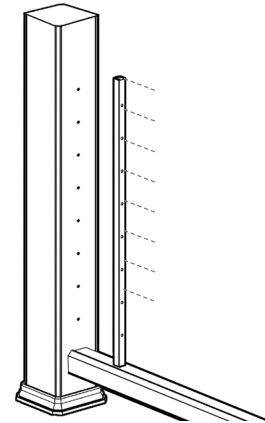
- Place the Universal Bottom Rail between the posts and allow the rail to rest on the Bottom Support Rail.



**8**

**TRANSFER HOLE LOCATION ONTO POST SLEEVE**

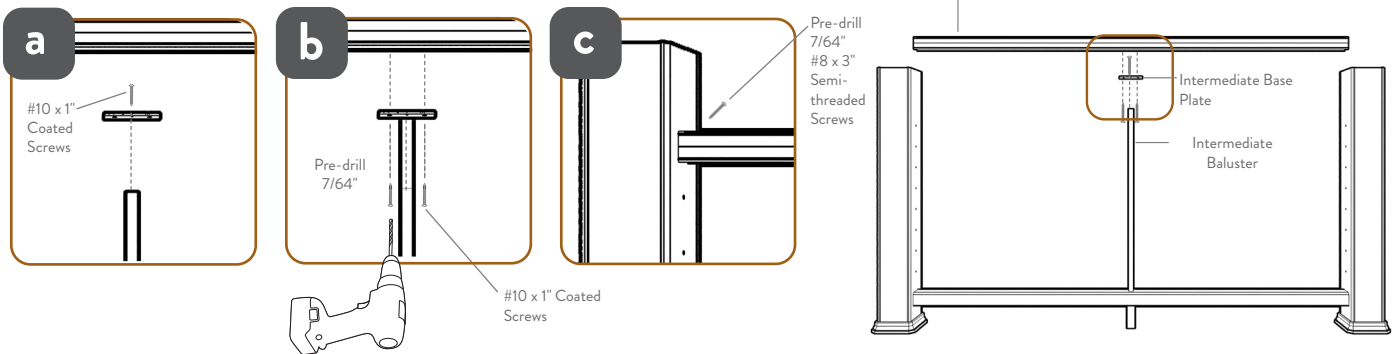
- Use an extra Intermediate Baluster, rested on the Universal Bottom Rail, as a template for the CableRail Hardware and through holes.
- Using a 3/16" drill bit to transfer your marks onto the Post Sleeve.



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**ATTACH TOP SUPPORT RAIL**

- Attach Intermediate Baluster Base Plate to Top Support Rail

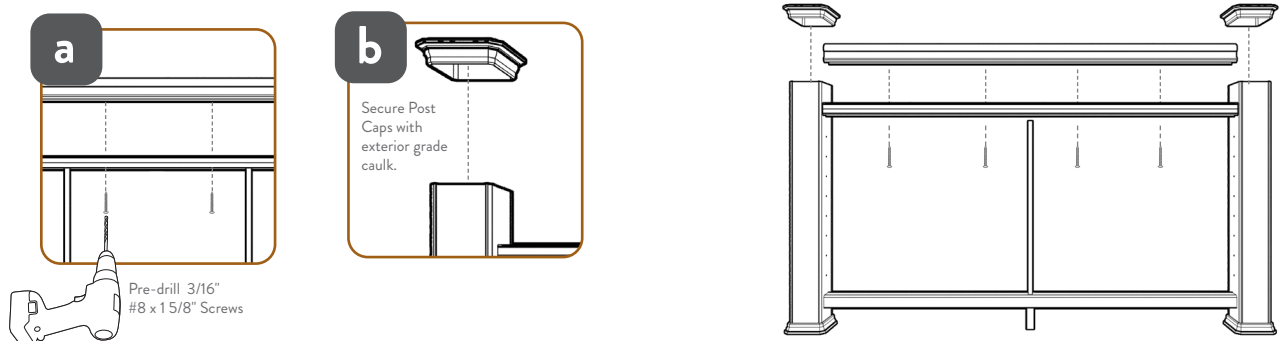


**NOTE:** If installing a Deck Board as a Top Rail, please refer to Drink Rail Install Guide.

**10**

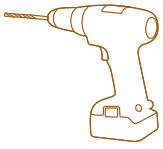
**INSTALL TOP RAIL AND POST CAPS**

- Measure and cut Top Rail (not included) to length. Trim both ends for a clean cut. If installing Deck board as Drink Rail, please refer to Drink Rail Install Guide
- Attach Top Rail using 1 5/8" screws, driving screws up through bottom of support rail into Top Rail.
- Attach Post caps using exterior grade caulk applied to the underside of the cap.






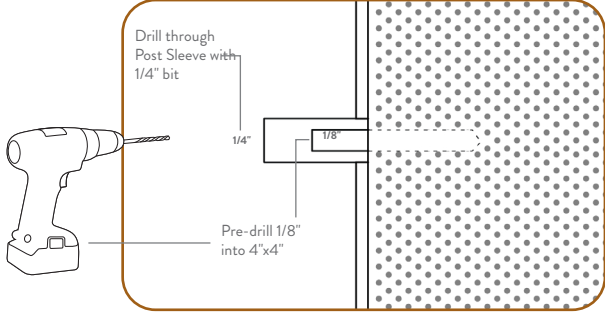
### 11 PRE-DRILL ANCHOR POST SLEEVE



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



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



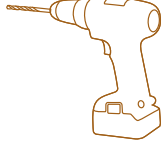
Drill through Post Sleeve with 1/4" bit

1/4"

1/8"

Pre-drill 1/8" into 4"x4"

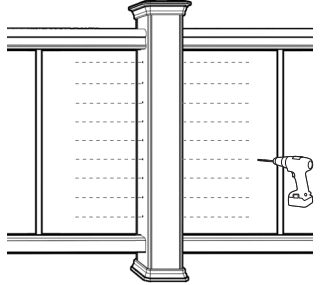
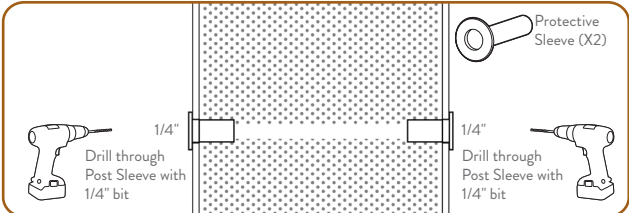
### 12 PRE-DRILL THROUGH POST SLEEVES



- 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.

Use a dab of adhesive on Protector Sleeve if needed.

Protective Sleeve (X2)

1/4"

Drill through Post Sleeve with 1/4" bit

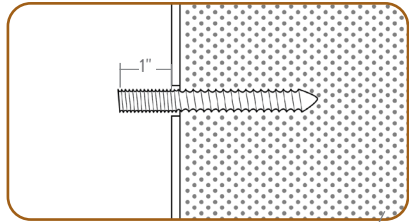
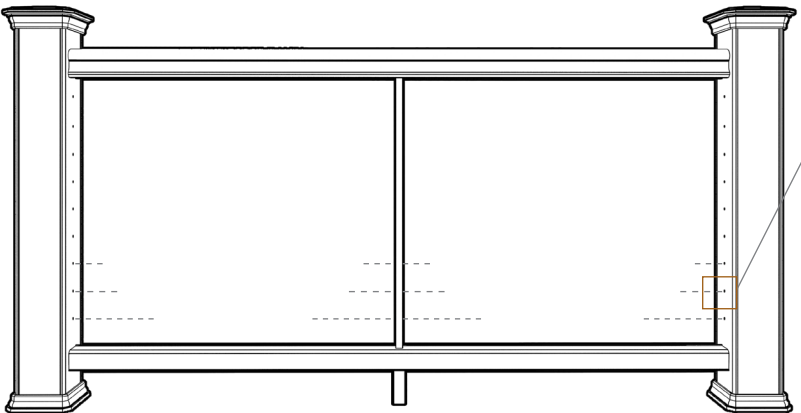
1/4"

Drill through Post Sleeve with 1/4" bit

### 13 DRIVE IN HANGER BOLTS

- On Anchor Posts, screw the Hanger Bolts into the pilot holes in the Post with the Hanger Bolt Installation Tool (included with CableRail Accessory Kit, purchased separately).
- Once Hanger Bolts are all driven in, then screw on Quick-Connect Fittings.

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

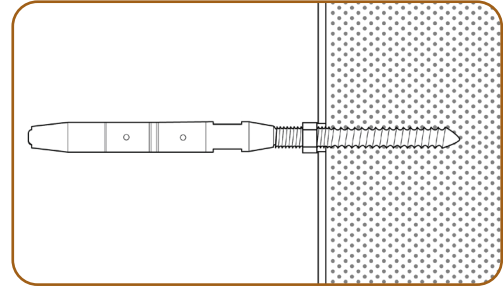
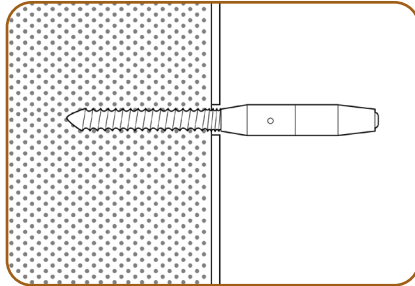
1"

**14**

**ATTACH QUICK-CONNECT AND QUICK-CONNECT SWIVEL FITTINGS**

- Screw on Quick-Connect fittings snugly against Post Sleeve onto one side of the railing and lock nuts onto hanger bolts on the other side.
- Screw on Quick-Connect Swivel fitting onto the Hanger Bolt with the lock nut already installed.

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

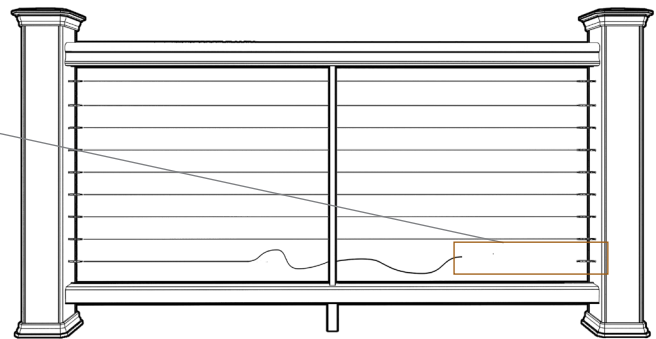
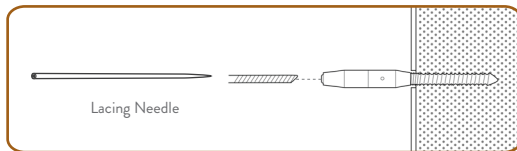


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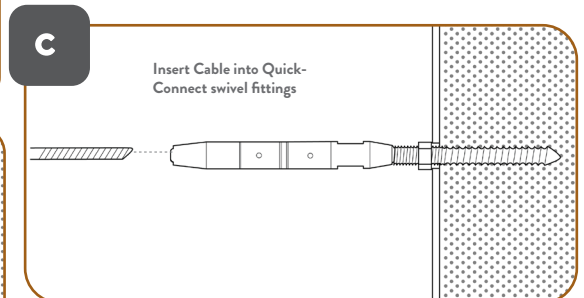
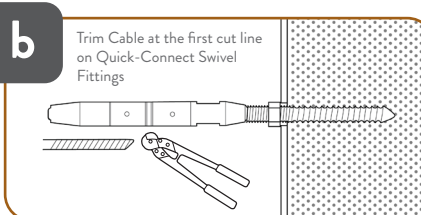
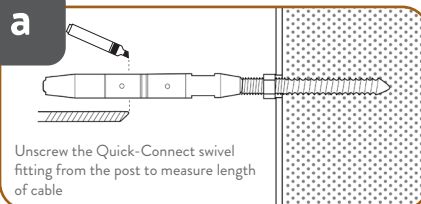
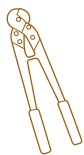


**INSERT AND THREAD CABLE**

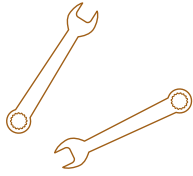
- When all of the hardware is in place, insert one end of the Cable into the Quick-Connect fitting.
- Feed the Cable through the Intermediate Baluster (or through posts) with a lacing needle.



**16**

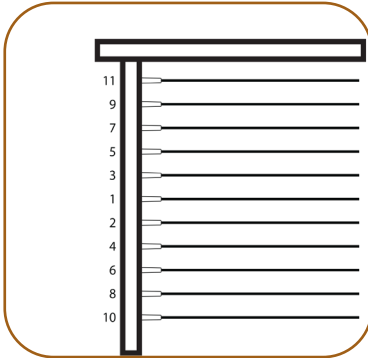


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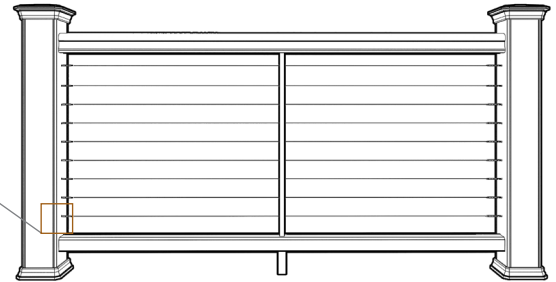
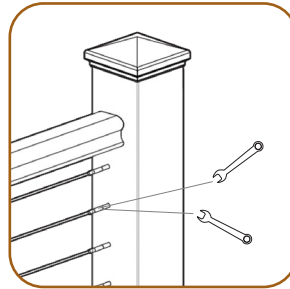


### ATTACH QUICK-CONNECT AND QUICK-CONNECT CABLE FITTINGS

- Use a set of 3/8" open-ended wrenches to tighten the Cables using the "swivel" end, insuring the Cables do not twist. Tighten the center cable first, then in an alternating pattern from top to bottom.
- Once the Cable is tight, tighten the lock nuts against the Quick-Connect swivel fitting.

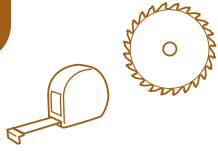


Tightening Order



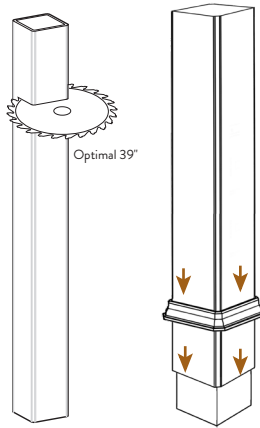
If necessary, the Cable can be removed from the Quick-Connect fitting by using the Quick-Connect Release Tool.

1



### INSTALL POST SLEEVES

- Trim Post Sleeves to desired length.
- Slide Post Sleeves and Post Skirt over post (do not force). Post sleeve will be slightly larger than the post.
- Ensure posts are square and plumb. Shim to plum as needed.



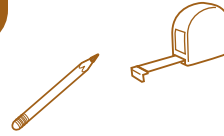
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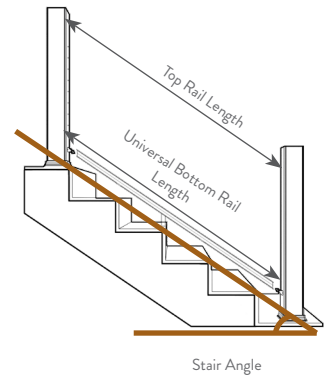
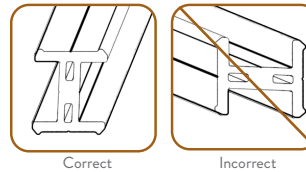
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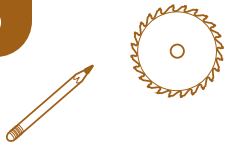
### MEASURE SUPPORT RAILS

- Determine measurements and angle as shown.
- Trim both the Top Support Rail and the Bottom Support Rail to those dimensions.
- Test fit rails to check for accuracy.

Support Rails are rotated 90° for stair rail applications.



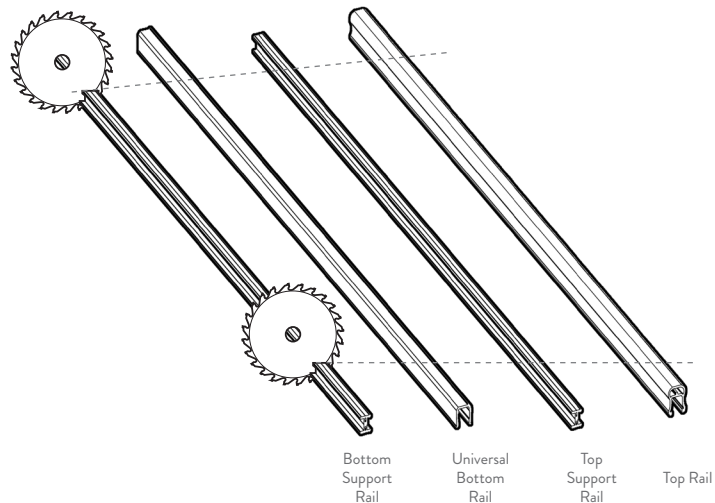
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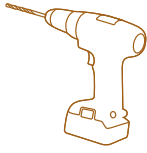
### TRIM RAILS

- Transfer measurement from both Support Rails to Universal Bottom Rail and Top Rail.
- Trim Top Rail and Universal Bottom Rail to match the Support Rails at the appropriate angle.

**!** This entire section of instructions is for installation of Classic Composite Series and Reserve Rail systems. Installation of the RESERVE RAIL system is identical to the Classic Composite Series, except it uses the RESERVE BOTTOM RAIL instead of the Universal Bottom Rail.



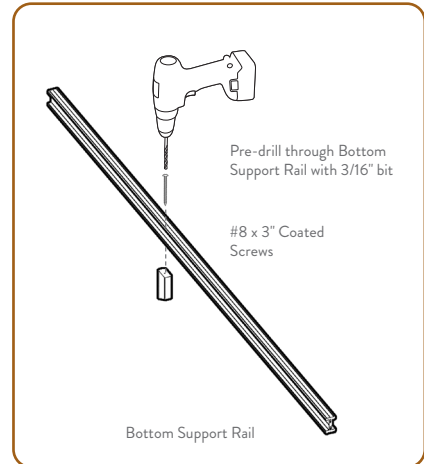
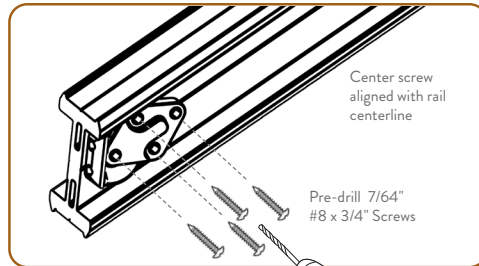
4



### PREP BOTTOM SUPPORT RAIL

- Attach Mounting Brackets to Bottom Support Rail.

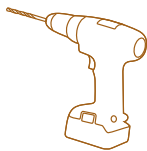
- Trim and Attach Foot Blocks.



For sections up to 6': Place one Foot Block in the center of the rail.

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

5

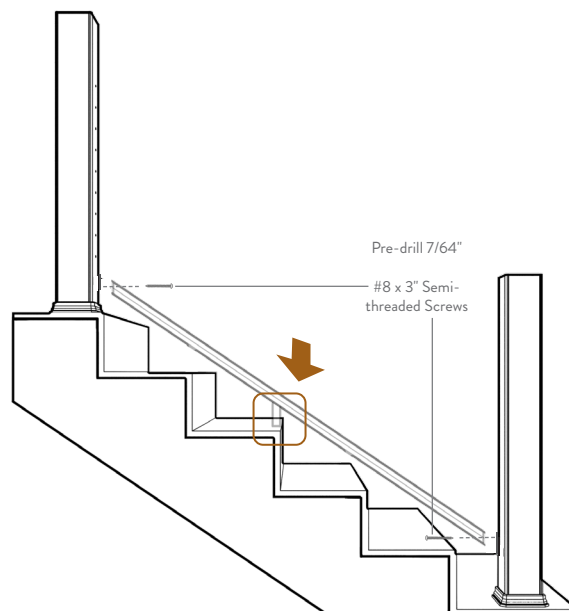


### INSTALL BOTTOM SUPPORT RAIL

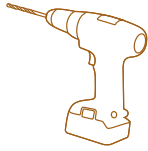
- Secure Mounting Brackets.



Brackets must be installed to the stair tread side of the rail.



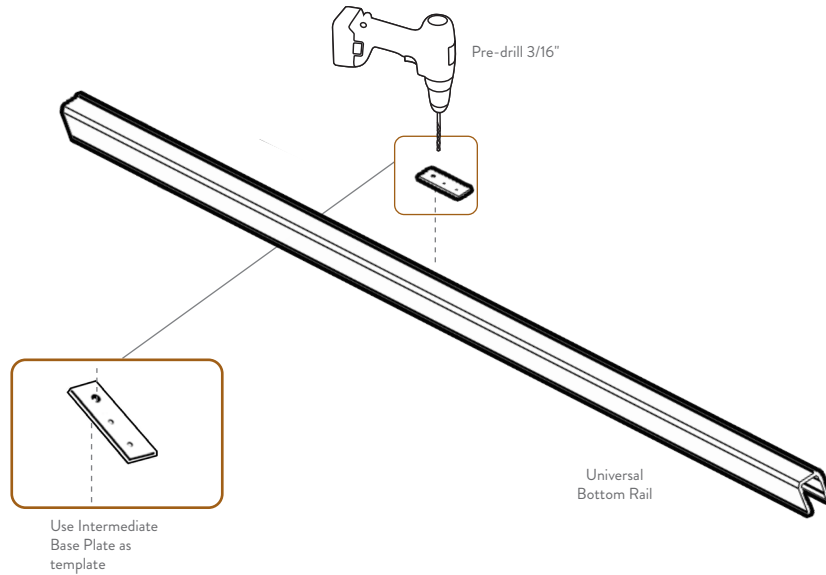
6



### PRE-DRILL UNIVERSAL BOTTOM RAIL

- Use Intermediate Base Plate as a template for predrilling hole for intermediate baluster.

Use the Intermediate Base Plate as a Template, as shown to the right.



7



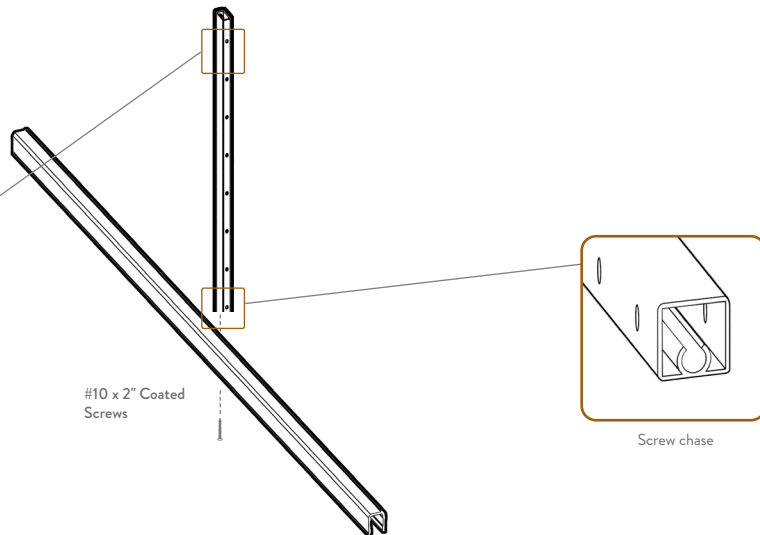
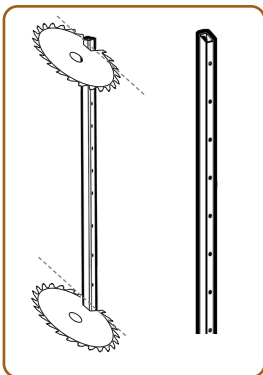
### ATTACH STAIR INTERMEDIATE BALUSTER

- Trim Stair Intermediate Baluster to match stair angle.



Be sure the screw finds the screw chase

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

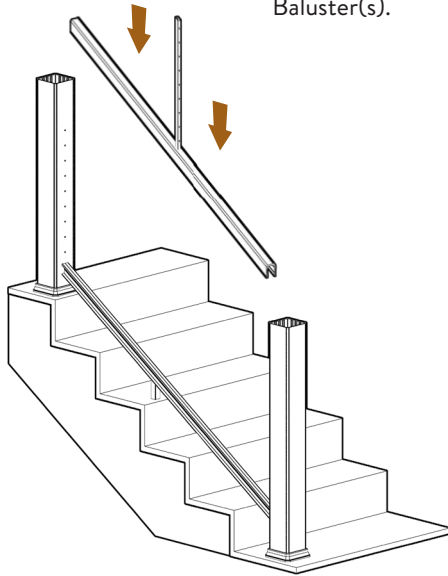


**8**

**INSTALL UNIVERSAL BOTTOM RAIL**

Lower the rails perpendicular to the deck surface.

- Place the Universal Bottom Rail over the Bottom Support Rail with the Intermediate Baluster(s).

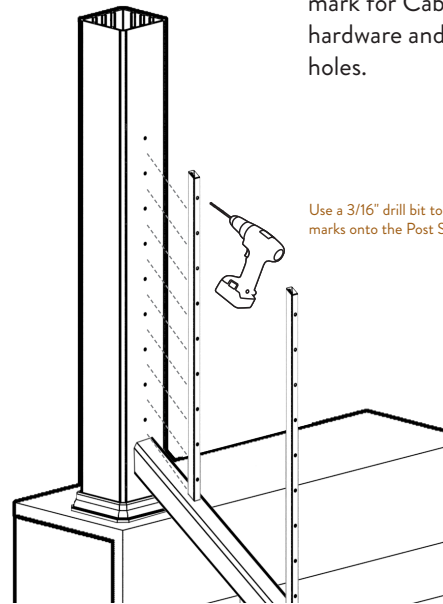


**9**

**TRANSFER HOLE LOCATION ON POST SLEEVE**

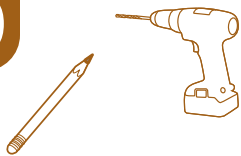


- Use an extra Intermediate Baluster as a template to mark for CableRail hardware and through holes.



Use a 3/16" drill bit to transfer marks onto the Post Sleeve

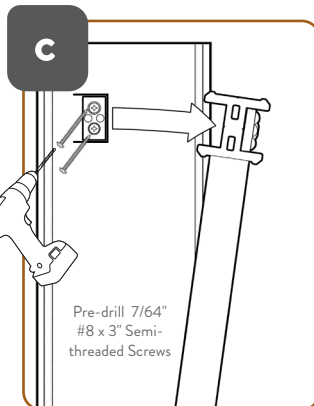
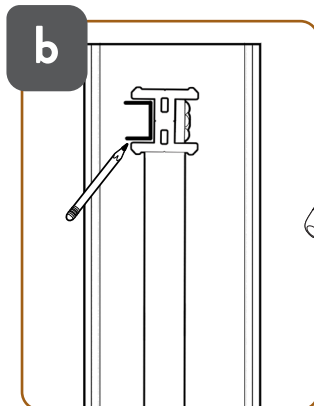
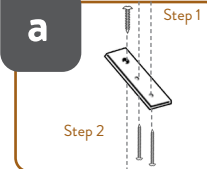
**10**



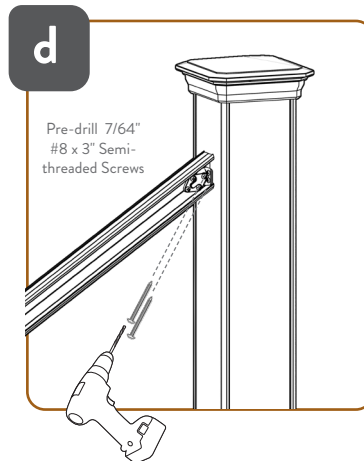
**ATTACH TOP SUPPORT RAIL**

- Mark ends of top support rail for position of support block.
- Rotate Rail assembly out of way to fasten Support Block.
- Secure Mounting Brackets to Posts.

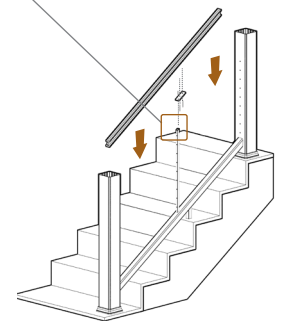
**a**



Pre-drill 7/64" #8 x 3" Semi-threaded Screws



Pre-drill 7/64" #8 x 3" Semi-threaded Screws



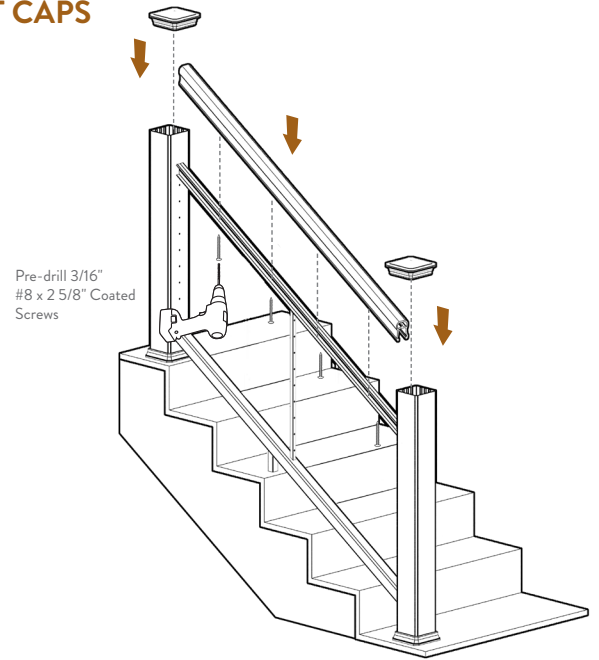
**NOTE:** If installing a Deck Board as a Top Rail, please refer to Drink Rail Install Guide.

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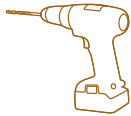


**INSTALL TOP RAIL AND POST CAPS**

- Position Top Rail over Support Rail and attach with screws.
- Attach Top Rail using 2 5/8" screws, driving screws up through bottom of support rail into Top Rail.
- Secure Post Caps with exterior grade caulk.



12



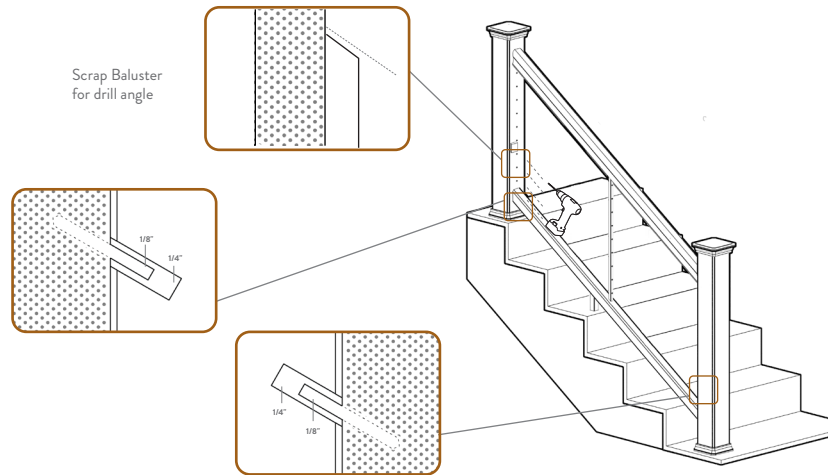
**PRE-DRILL ANCHOR POST SLEEVE**

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



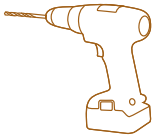
Use a scrap piece of baluster trimmed at the stair angle as a guide.

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



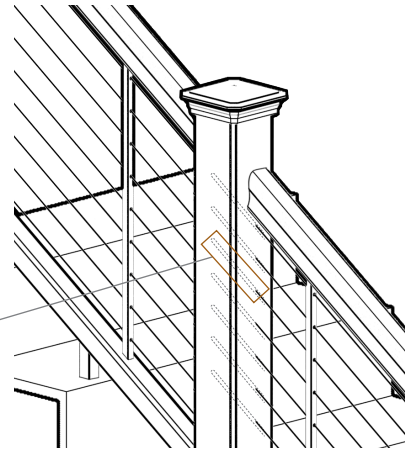
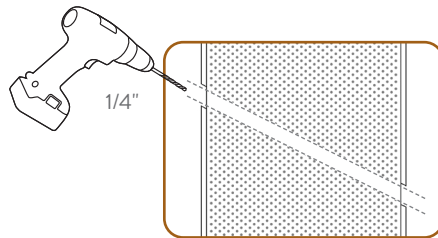


**13**



**PRE-DRILL THROUGH POST SLEEVES**

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

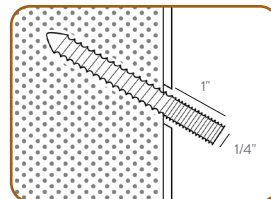


**14**

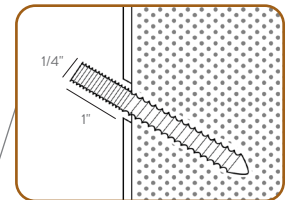
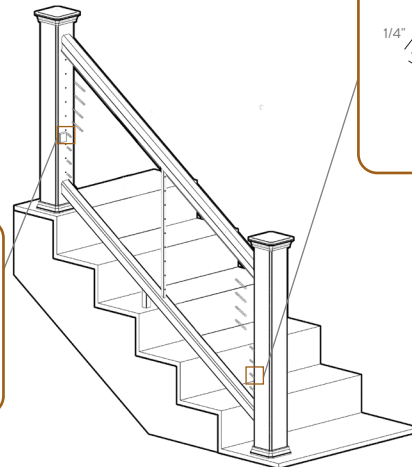
**DRIVE IN HANGER BOLTS**

- On Anchor Posts, screw the Hanger Bolts into the pilot holes in the Post with the Hanger Bolt Installation Tool (included with CableRail Accessory Kit, purchased separately).

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



Top Anchor Post



Bottom Anchor Post

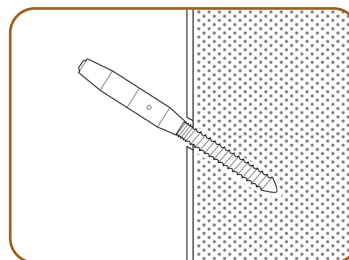
**15**

**ATTACH QUICK CONNECT FITTINGS**

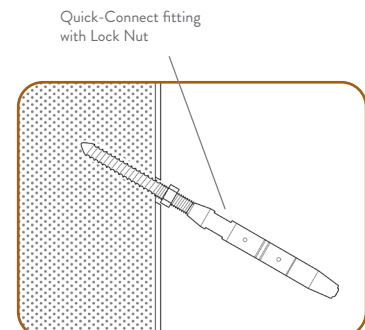
- Place one Quick-Connect fitting at one end and the Quick-Connect Swivel fitting on the opposite end.



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



On the side with the lock nuts, screw on the Quick-Connect fittings after the lock nuts, onto the hanger bolts



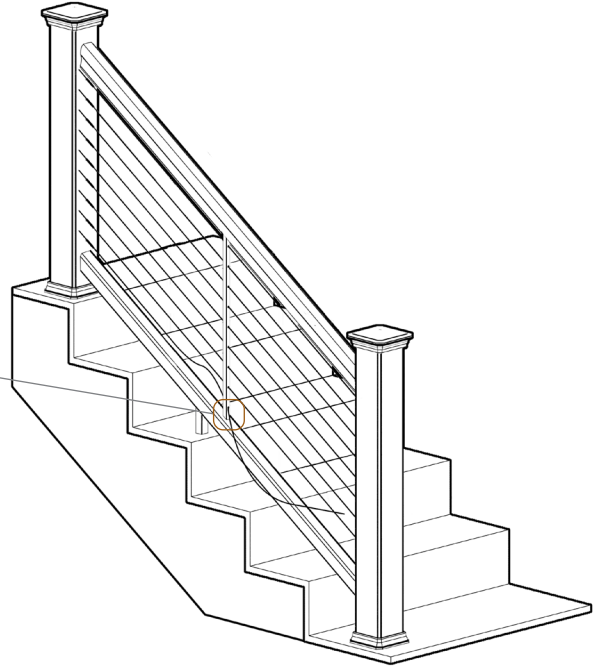
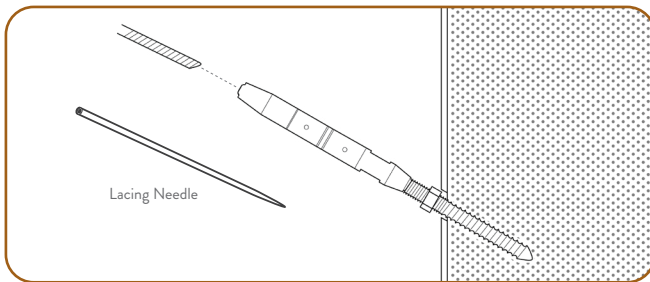
Quick-Connect fitting with Lock Nut

16

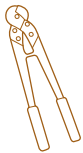


**THREAD CABLE**

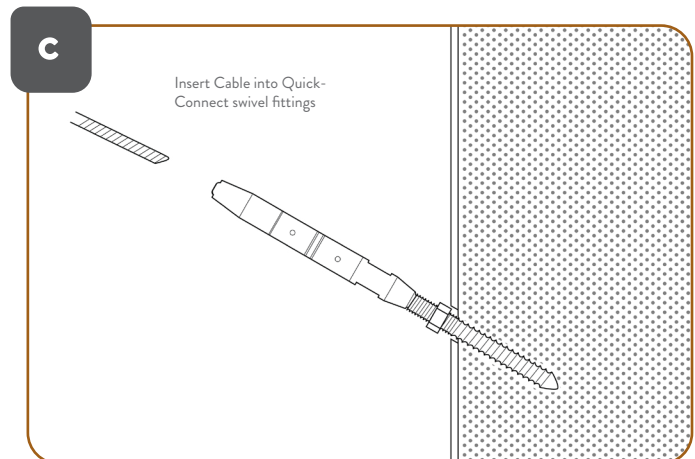
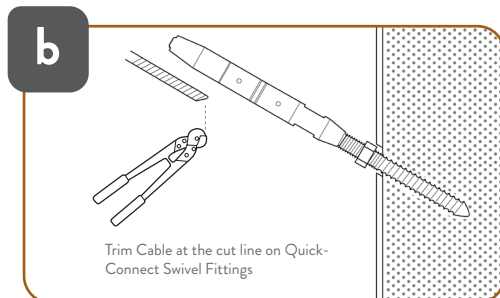
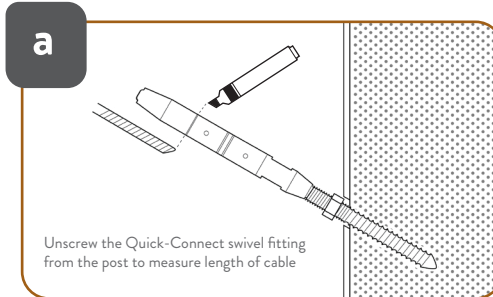
- When all of the hardware is in place, insert one end of the Cable into the Quick-Connect fitting.
- Feed the Cable through the Intermediate Baluster (or through posts) with a lacing needle.



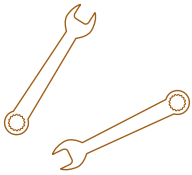
17



**CUT CABLE TO LENGTH**

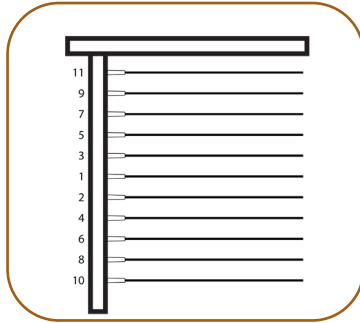


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### TIGHTEN CABLE

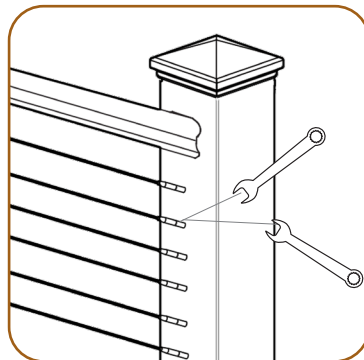
- Use a set of 3/8" open-ended wrenches to tighten the Cables using the "swivel" end, insuring the Cables do not twist. Tighten the center cable first, then in an alternating pattern from top to bottom.
- Once the Cable is tight, tighten the lock nuts against the Quick-Connect swivel fitting.



Tightening Order



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



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

