

RadianceRail Express® Installation Guide



Installing RadianceRail Express® System	2
Installing RadianceRail Express® Stairs System.....	7
Notes	11

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-0114 • RadianceRail & RadianceRail Express



- 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 RadianceRail Express 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 RadianceRail Express® System

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

RadianceRail Express® is available in 6' or 8' lengths.

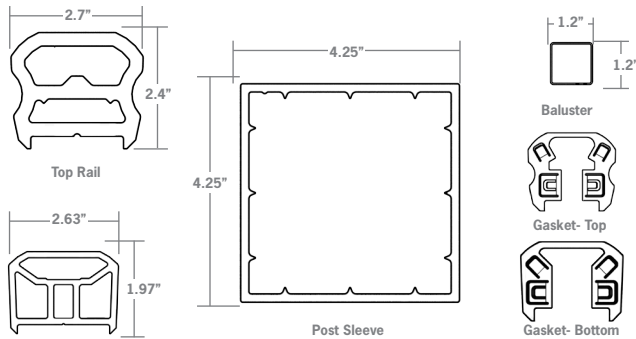
Measuring Your Railing Area

- Measurements are from center to center of the posts. Rails are produced to 92.75" and 68". Maximum finished rail length must not exceed 91.75". Please allow for finished end cuts and angles when selecting rail length.
- Determine how many 6' or 8' RadianceRail Express sections you need and check to be sure you have all the components (and quantities) listed in the chart shown to the right.

Important Information

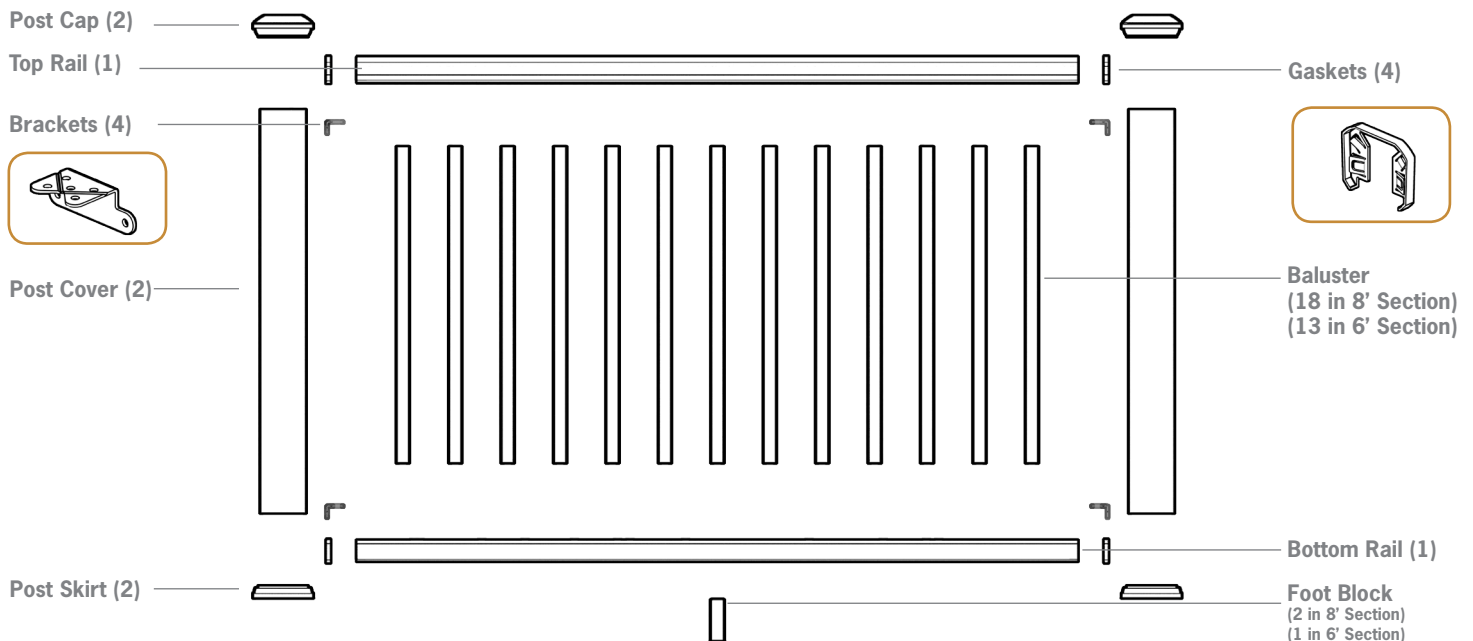
- ⚠️ • RadianceRail Express is designed to not exceed 6' and 8' on center of post to center of post, respectively. For angled and stair runs center to center post spacing will be less than 6' or 8'.
- Stairs require 35 3/4" long balusters to trim to size.
- 4x4 lumber posts or TimberTech Secure Mount Posts should be installed plumb.
- 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)
 - Drill
 - Drill Bits: 3/8" & 9/64"
 - Tape Measure

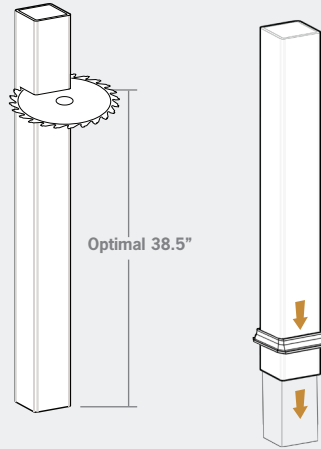
Components Needed For Installing One RadianceRail Express® Section			
Hardware included in Hardware Kits:	Hardware Mounting Kit 4 - Mounting Brackets 20- 1 5/8" x #10 Screws 2 - 3" x #10 Foot Block Screws	Stair Hardware Kit	4 - Stair Mounting Brackets 8 - 1" x #10 Screws 8 - 1-5/8" x #10 Screws 2 - 3" x #10 Foot Block Screws
			Components available in Rail Packs, Baluster Pack and Stair Pack
Baluster Pack		Square Balusters for 36" or 42" Heights - 18 Balusters per Pack - 36" Pack - 29-3/4" Height - 42" Pack - 35-3/4" Height *Stairs Require 42" Packs	
Additional Components Needed for Each System		2 - Post Sleeves 2 - Post Caps 2 - Post Skirts	



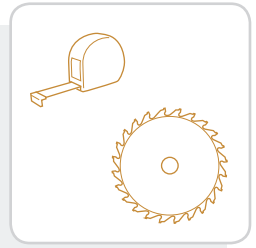
1

INSTALL POST SLEEVES AND POST SKIRTS

- Trim Post Sleeves to desired length.



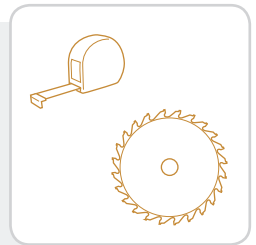
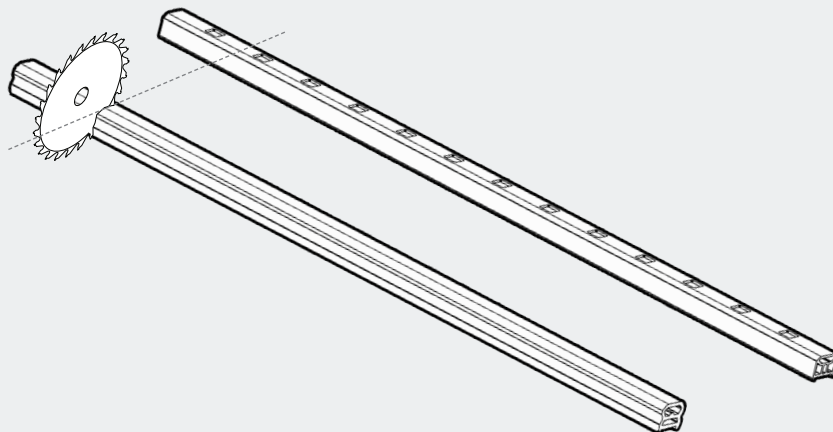
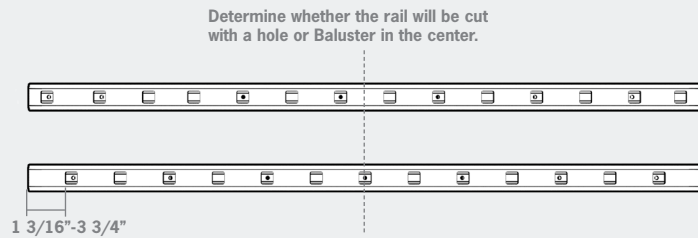
- Slide Post Sleeve and Post Skirt over post (do not force).
- Ensure posts are square and plumb.



2

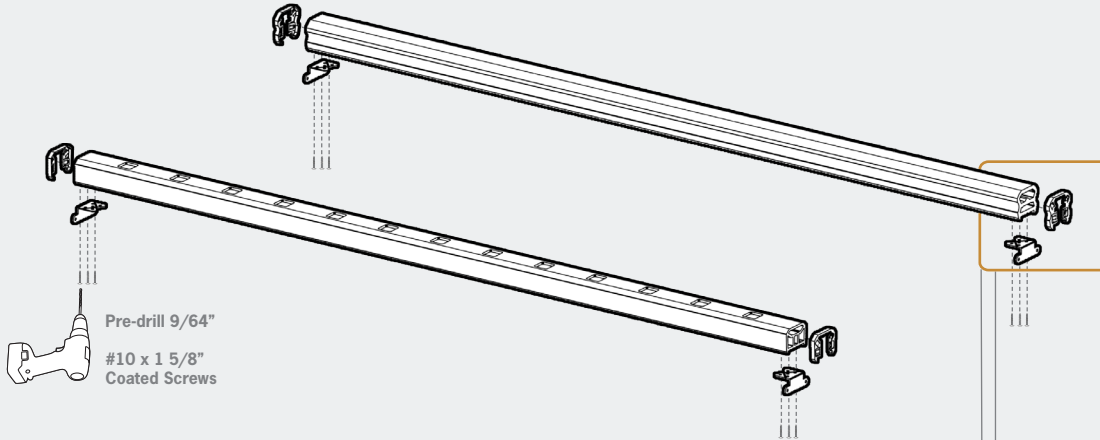
CUT TOP AND BOTTOM RAIL

- Cut the Top and Bottom Rail to length (Cut rail 1/8" shorter if using gaskets for 90° cuts).

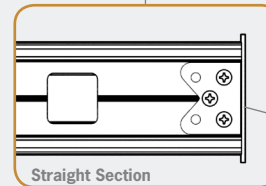
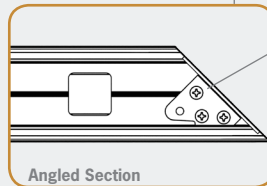


3

ASSEMBLE BRACKETS ONTO TOP AND BOTTOM RAILS

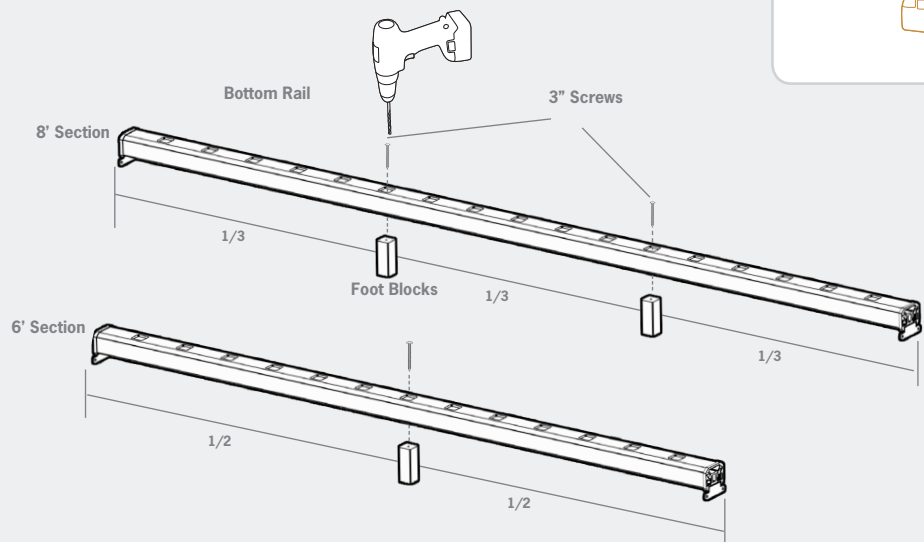
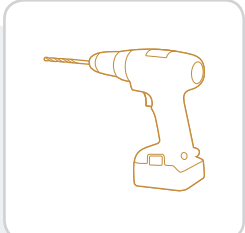
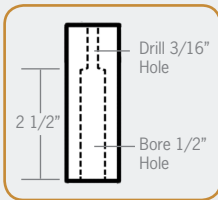


Gaskets are optional and can be used to provide a clean edge on cut rails.



4

ATTACH FOOT BLOCKS ON BOTTOM RAIL



Only need to pre-drill Foot Block when doesn't fall on routed hole.

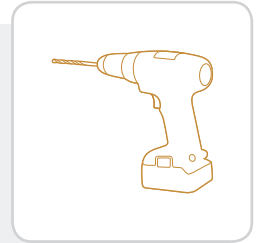
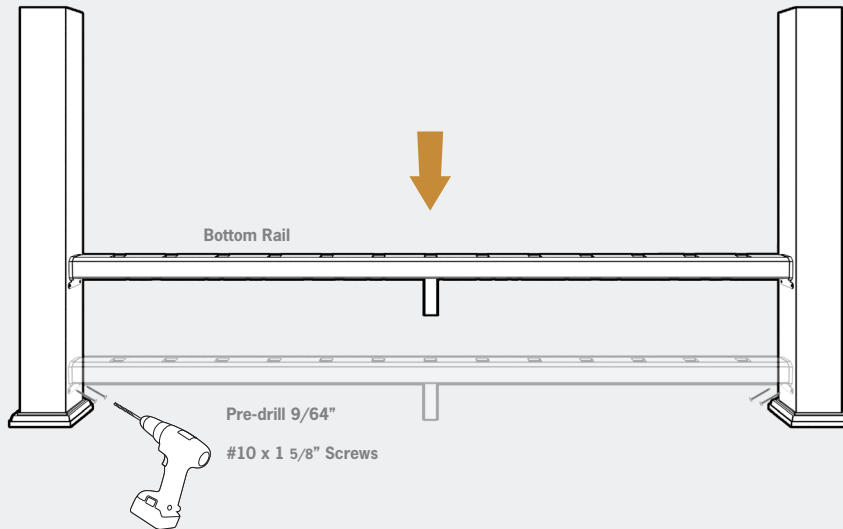


For sections up to 6': Place one Foot Block in the center of the rail

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

5

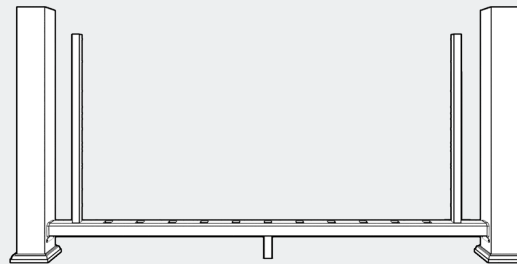
INSTALL BOTTOM RAIL



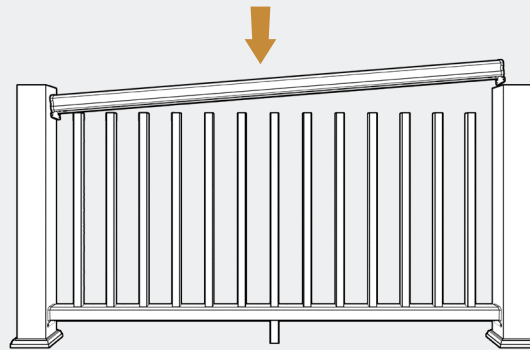
6

INSTALL BALUSTERS AND TOP RAIL

- **Straight Sections:** Place one baluster in routed hole at each end of the Bottom Rail.
- Place Top Rail and attach Gasket and Bracket to one side.
- Place the remaining Balusters in the routed holes in the Bottom Rail.



Angled Sections: Place all but the two end Balusters into the Bottom Rail. Pre-drill Post Sleeve through the two Bracket holes and attach with 1 5/8" screws. Once attached to the Post, unscrew the Top Rail from the Bracket at one end. Lift the Top Rail slightly and insert the last Baluster. Re-attach Top Rail and repeat on other side.

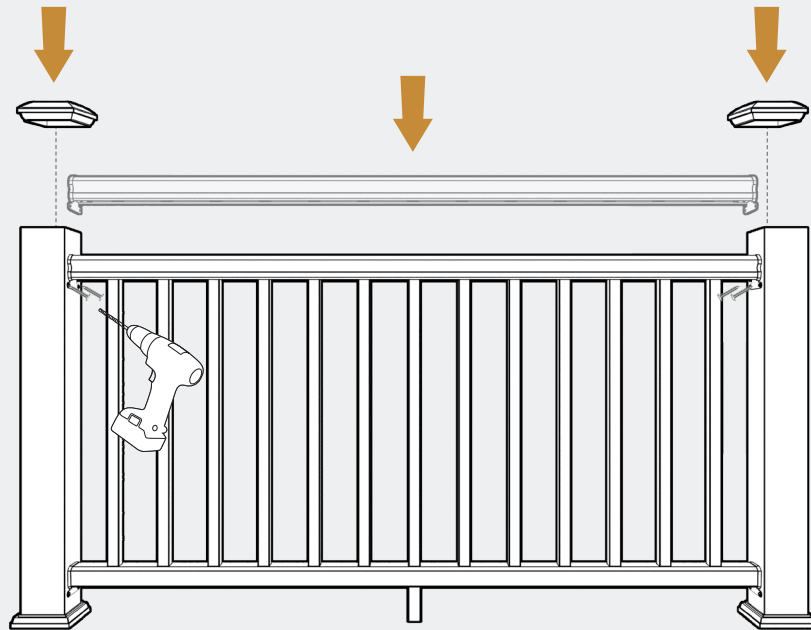


Installation Tips (Straight Section): Insert the 4th to last Baluster in the Top Rail and rest it next to the Bottom Rail routed hole to elevate the Top Rail. Install the last 3 Balusters into the Top Rail first, followed by the Bottom Rail. Slide the Baluster that was left out of the Bottom Rail into the routed hole, allowing the Top Rail to drop in place.

7

INSTALL TOP RAIL AND POST CAPS

Pre-drill 9/64"
#10 x 1 5/8"
Screws



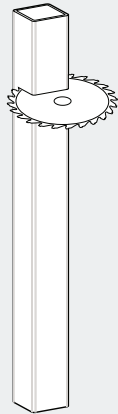


Consult your local building codes for guard and handrail requirements. RadianceRail Express stair rail and brackets are built at a nominal 34 degrees and may require adjusting of the bracket within the range of 32 to 36 degrees.

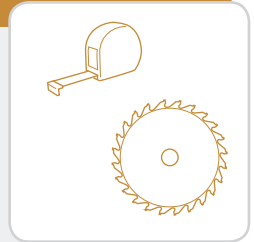
1

INSTALL POST SLEEVES AND POST SKIRTS

- Trim Post Sleeves to desired length.



- Slide Post Sleeve and Post Skirt over post (do not force).
- Ensure posts are square and plumb.



2

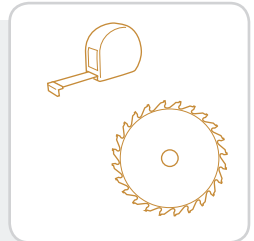
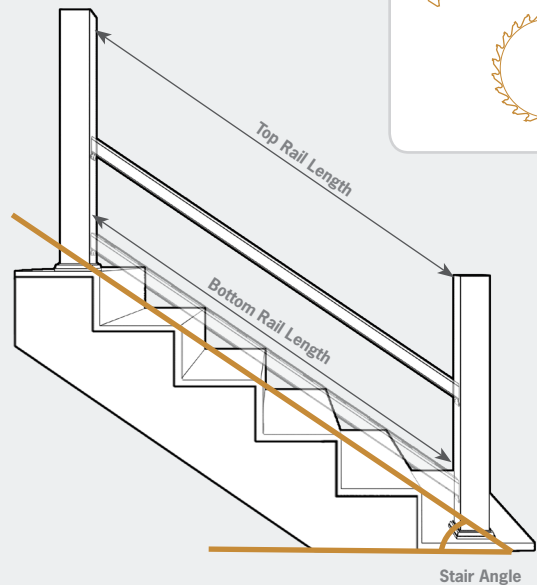
CUT TOP AND BOTTOM RAIL

- Cut the Top and Bottom Rail to length and angle.

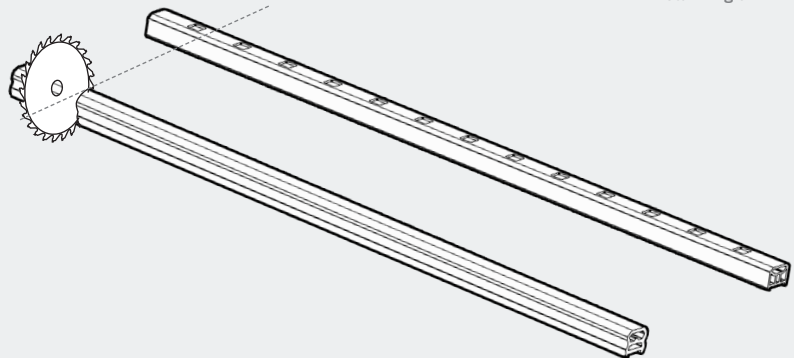
Determine whether the rail will be cut with a hole or Baluster in the center.



1 3/16" - 3 3/4"

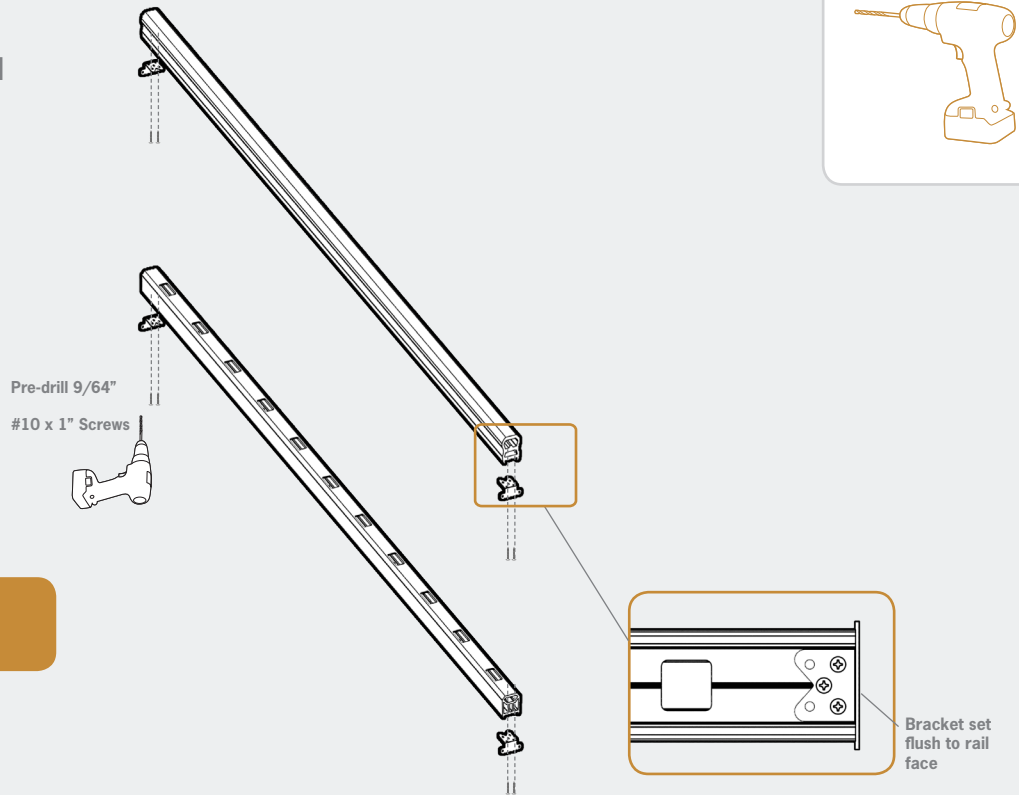


Lay Bottom Rail along stair tread. Position Rail to maximize space between the last cut hole and the Post at each end.



3

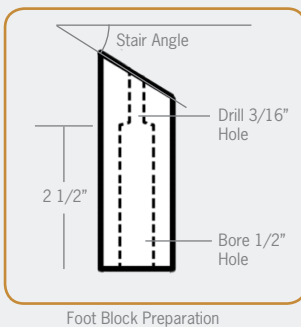
ASSEMBLE BRACKETS ONTO TOP AND BOTTOM RAIL



Gaskets are not provided for stair sections.

4

INSTALL FOOT BLOCKS ON BOTTOM RAIL



- Wedge Foot Block(s) under Bottom Rail and attach.



Only need to pre-drill Foot Block when doesn't fall on routed hole.

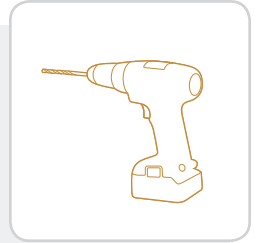
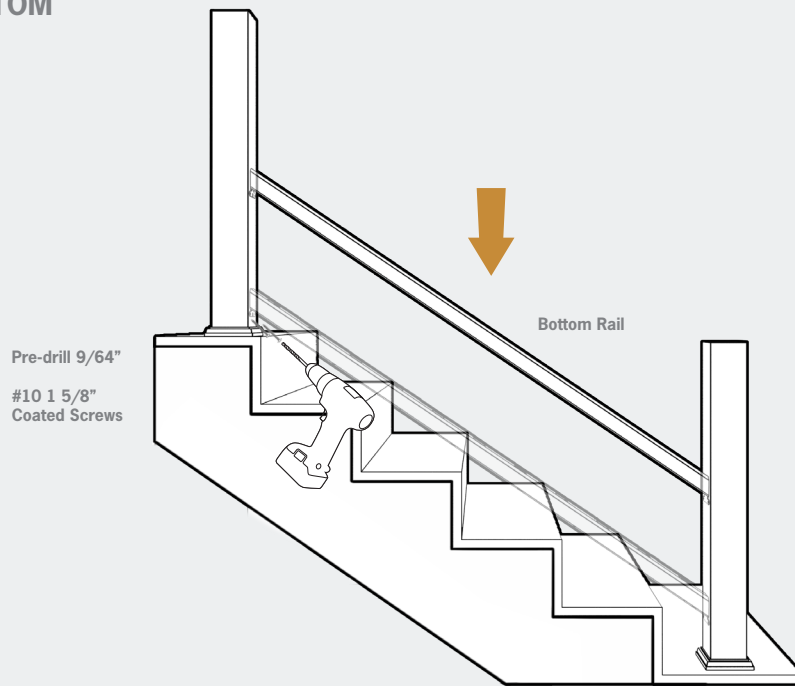


For sections up to 6': Place one Foot Block in the center of the rail

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

5

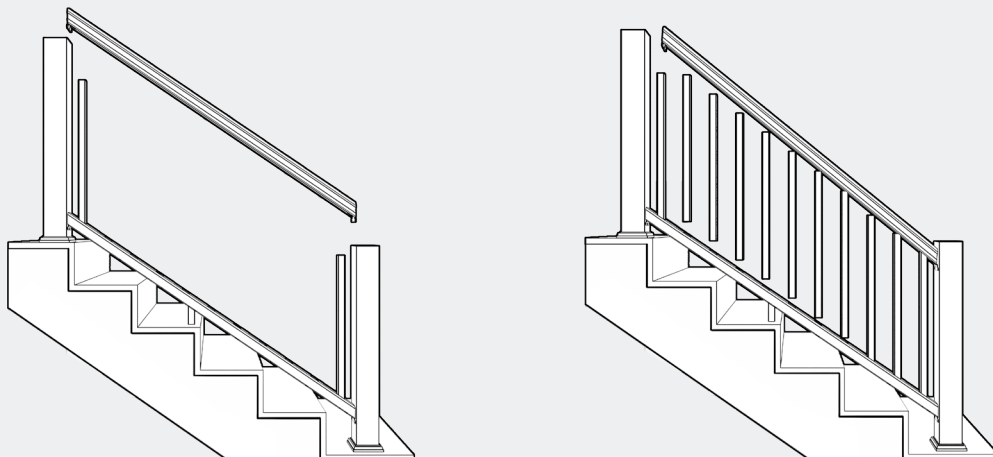
INSTALL BOTTOM RAIL



6

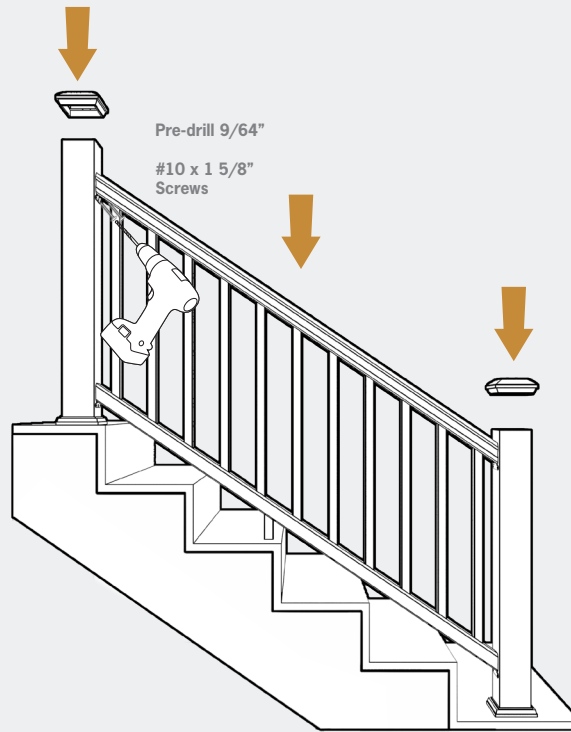
INSTALL BALUSTERS AND TOP RAIL

- Place one baluster in routed hole at each end of the Bottom Rail.
- Place Top Rail and attach Bracket to lower post.



7

ATTACH TOP RAIL AND POST CAPS



RadianceRail Express® Installation Guide



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