



TimberTech RadianceRail Express® Install Guide

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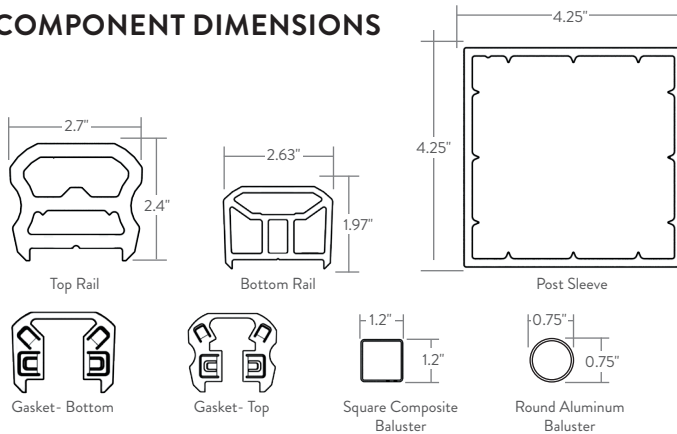


IMPORTANT NOTES:

- Please read all instructions completely before starting any part of the installation.
- RadianceRail Express® should be installed using the same good building principles used to install wood, composite, or metal railing and in accordance with the local building codes and the installation guidelines included below.
- AZEK Building Products accepts no liability or responsibility for the improper installation of this product.
- RadianceRail Express® may not be suitable for every application and it is the sole responsibility of the installer to be sure that RadianceRail Express® 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 TimberTech.com.
- RadianceRail Express® 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 RadianceRail Express® only.
- **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 RadianceRail Express' 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.


IMPORTANT NOTES:

- RadianceRail Express[®] is available in 6' or 8' lengths.
- For 8' on center of post to center of post, railing sections must be cut down to no greater than 91.75" (for level applications) and 86.375" for stair applications prior to installation. 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. A carbide finish blade is recommended.
- For 42" railing use 8' Post Sleeves.
- Visit www.timbertech.com/installation to view TimberTech installation videos.
- Consult your local building codes for guard and handrail requirements.
- Only TimberTech balusters (composite or aluminum) may be used with this system to ensure code compliance.

COMPONENT DIMENSIONS

TOOLS REQUIRED

- Miter Saw (recommended carbide finish blade)
- 3/8" Drill Bit
- 9/64" Drill Bit
- Drill
- Measuring Tape

Components Needed For Installing One RadianceRail[®] Express Section

Hardware included in Hardware Kits:	Hardware Mounting Kit 4 - Mounting Brackets 20 - 15/8" 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	Rail Packs 1 - Top Rail 1 - Bottom Rail 1 - Hardware Mounting Kit Foot Blocks - 1 in 6' Kits - 2 in 8' Kits 4 - Gaskets for 90° cuts only T25 Driver Bit	Stair Rail Pack 1 - Top Rail 1 - Bottom Rail 1 - Stair Hardware Mounting Kit 2 - Foot Blocks T25 Driver Bit											
	Baluster Packs	<table border="0"> <tr> <td>Square Composite Baluster Pack</td> <td>Round Aluminum Baluster Pack</td> </tr> <tr> <td>- For 36" or 42" Heights</td> <td>- For 36" or 42" Heights</td> </tr> <tr> <td>- 18 Balusters per Pack</td> <td>- 20 Balusters per Pack</td> </tr> <tr> <td>- 36" Pack - 29 3/4" Height</td> <td>- 36" Pack - 29 3/4" Height</td> </tr> <tr> <td>- 42" Pack - 35 3/4" Height</td> <td>- 42" Pack - 35 3/4" Height</td> </tr> <tr> <td>*Stairs Require 42" Packs</td> <td>*Stairs Require 42" Packs</td> </tr> </table>	Square Composite Baluster Pack	Round Aluminum Baluster Pack	- For 36" or 42" Heights	- For 36" or 42" Heights	- 18 Balusters per Pack	- 20 Balusters per Pack	- 36" Pack - 29 3/4" Height	- 36" Pack - 29 3/4" Height	- 42" Pack - 35 3/4" Height	- 42" Pack - 35 3/4" Height	*Stairs Require 42" Packs
Square Composite Baluster Pack	Round Aluminum Baluster Pack												
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Additional Components Needed for Each System	2 - Post Sleeves 2 - Post Caps 2 - Post Skirts												

TIMBERTECH CODE LISTINGS

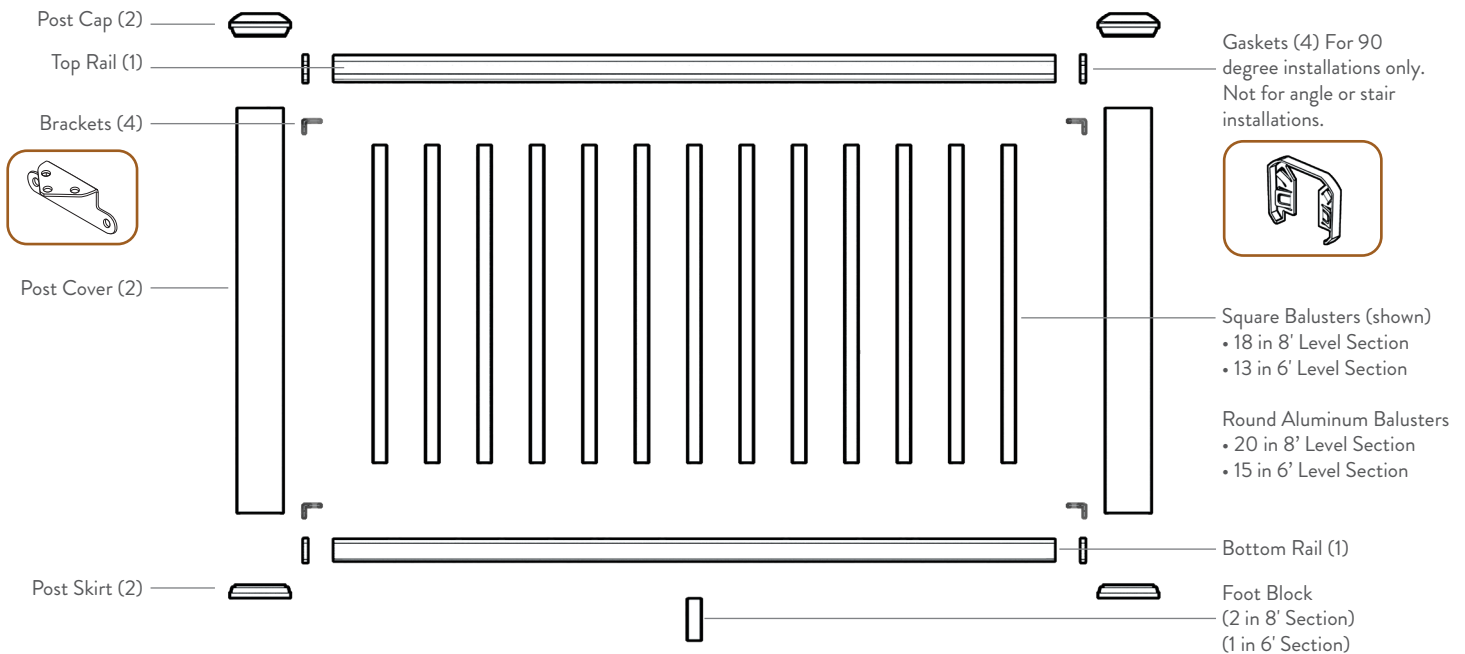
Once a product is tested by an independent lab, an application and report is submitted to one of several agencies that provide listings for building products that meet the requirements of Acceptance Criteria 174 (AC 174) as set forth by the International Code Council Evaluation Service (ICC-ES). TimberTech 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

Intertek
CCRR-0114 • Classic Composite Series and RadianceRail Express[®]

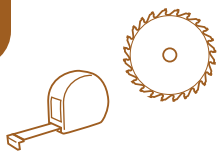
MEASURING YOUR RAILING AREA

- 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" (for level applications) and 86.375" for stair applications. 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 on this page.



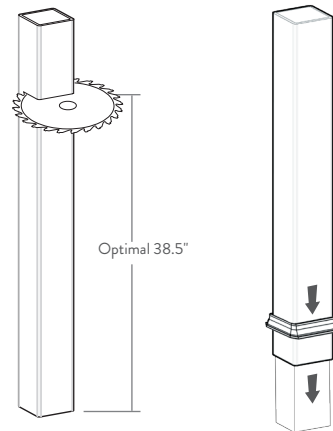
Installation of RadianceRail Express®

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.

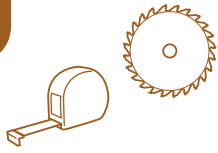


Find install videos, written instructions and a chat link at <https://www.timbertech.com/installation-help>.

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

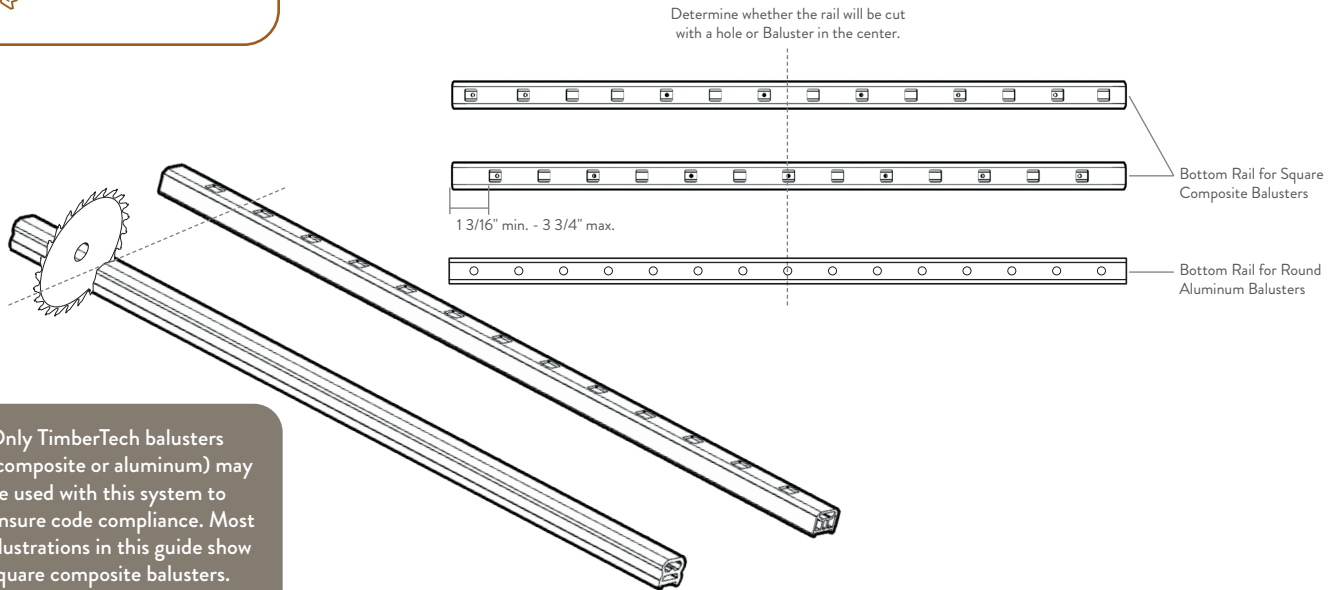
It is the responsibility of the installer to meet all local code requirements and obtain all required building permits. The installer should determine and implement appropriate installation techniques for each installation situation. AZEK Building Products or its reseller shall not be held responsible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

2



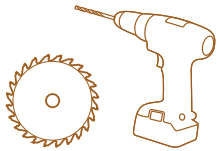
CUT TOP AND BOTTOM RAIL

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



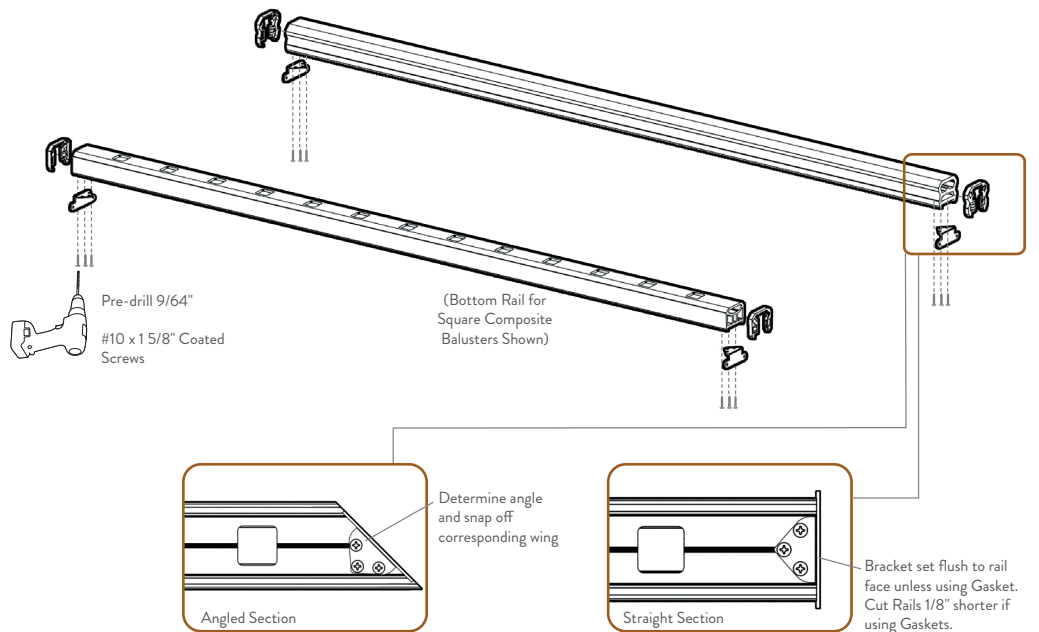
! Only TimberTech balusters (composite or aluminum) may be used with this system to ensure code compliance. Most illustrations in this guide show square composite balusters. There is no difference in the installation process.

3



ASSEMBLE BRACKETS ONTO TOP AND BOTTOM RAILS

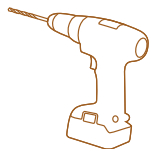
- Cut the Top and Bottom Rail to length (Cut rail 1/8" shorter if using gaskets for 90° cuts).



When pre-drilling 9/64" hole to prep for attaching brackets onto Top and Bottom Rails, it is important to drill through middle layer (or web).

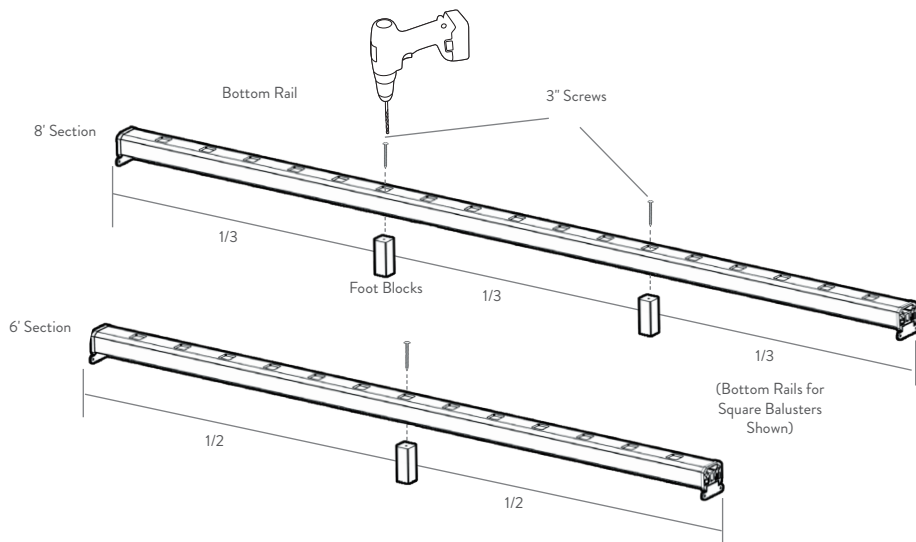
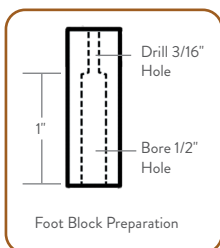
Gaskets are optional and can be used to provide a clean edge on cut rails. For 90 degree installations only. Not for angle or stair installations.

4



ATTACH FOOT BLOCKS ON BOTTOM RAIL

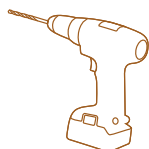
If the Foot Block does not align under a routed hole, you must predrill and fasten as shown below. If it does align, attach as depicted in images to right



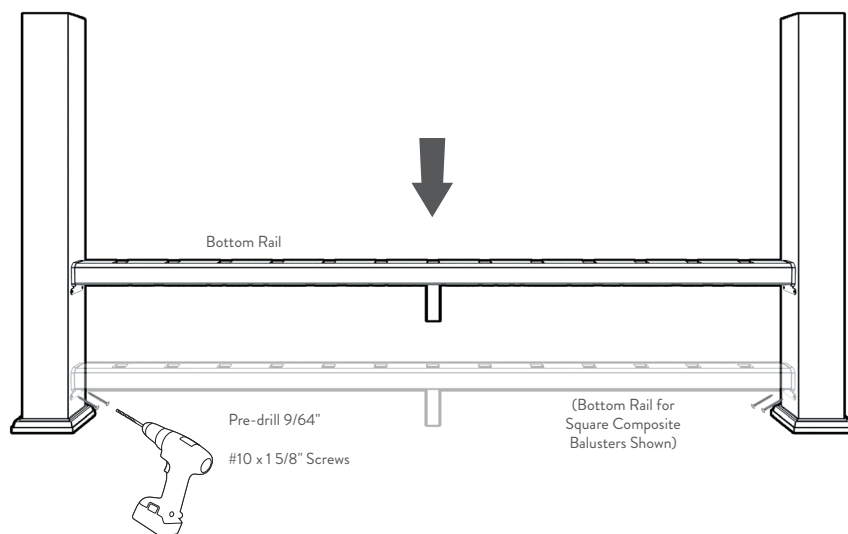
For sections up to 6':
Place one Foot Block in the center of the rail.

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

5



INSTALL BOTTOM RAIL



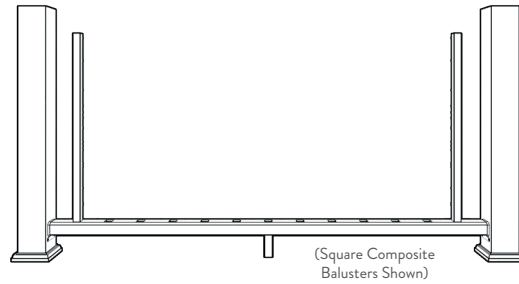
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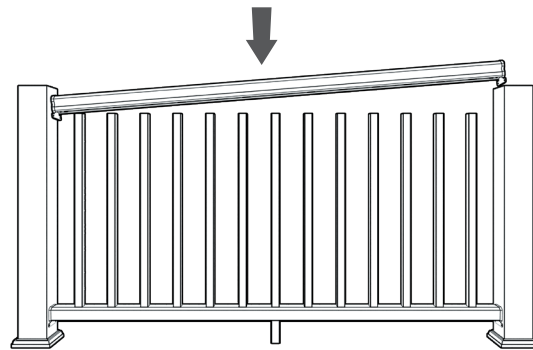
ATTACH FOOT BLOCKS ON BOTTOM RAIL

- Straight Sections: Place one square composite baluster or round aluminum 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.

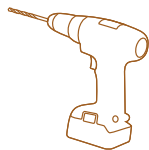
Angled Sections: Place all but the two end Balusters into the Bottom Rail. Pre-drill Post Sleeve through the two Bracket holes and attach with 1 5/8" screws. Once attached to the Post, unscrew the Top Rail from the Bracket at one end. Lift the Top Rail slightly and insert the last Baluster. Re-attach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

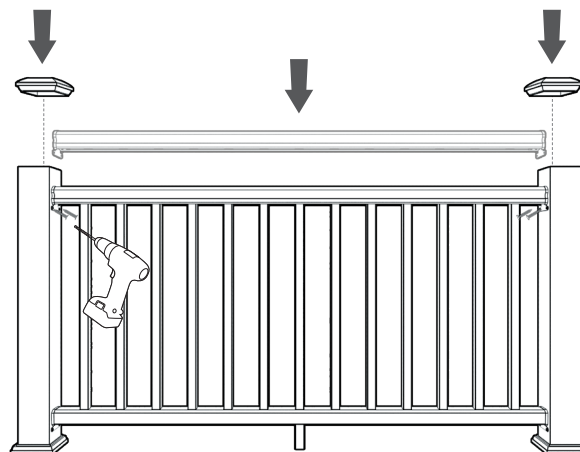


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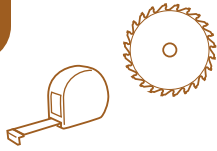
INSTALL TOP RAIL AND POST CAPS

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



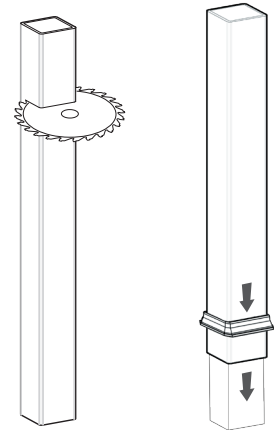
Installation of RadianceRail Express® Stair System

1



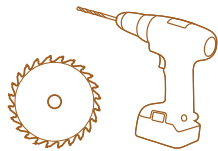
INSTALL POST SLEEVES AND POST SKIRTS

- Trim Post Sleeves to desired length.
- Slide Post Sleeve and Post Skirt over post (do not force).
- Ensure posts are square and plumb.



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.

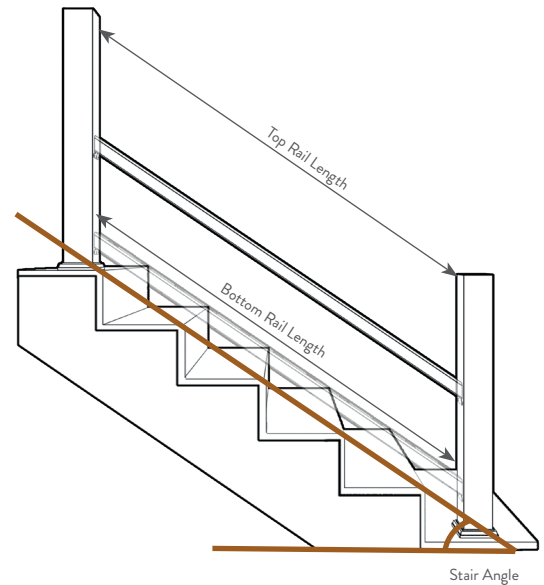
2



CUT TOP AND BOTTOM RAIL

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

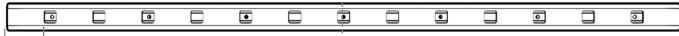
Lay Bottom Rail along stair tread. Position Rail to maximize space between the last cut hole and the Post at each end.



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

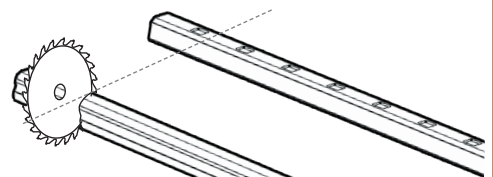


Bottom Rails for Square Composite Balusters



Bottom Rail for Round Aluminum Balusters

13/16" min. - 3 3/4" max.

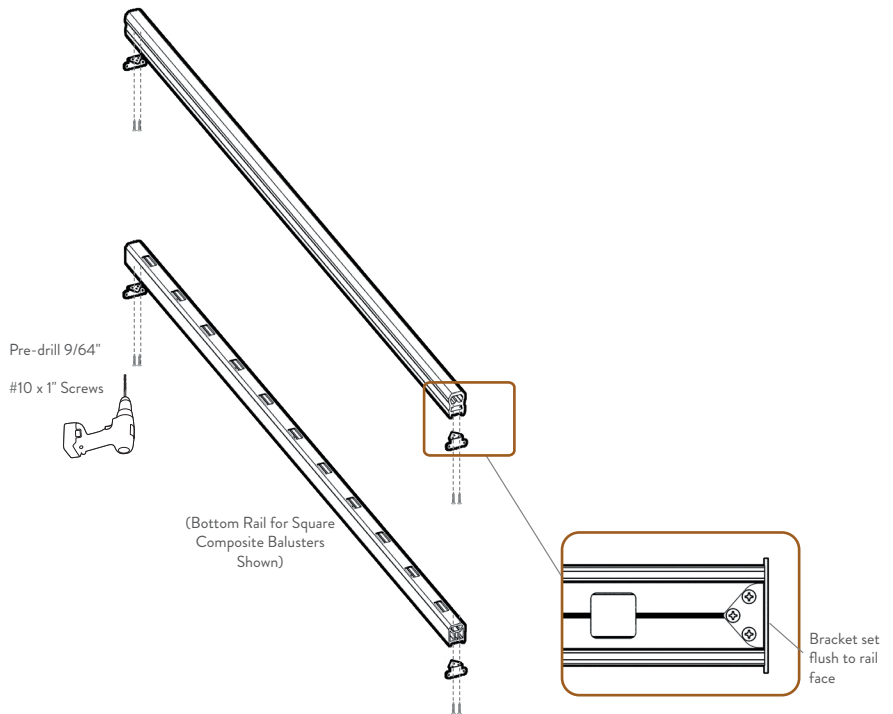


3



ASSEMBLE BRACKETS ONTO TOP AND BOTTOM RAIL

Gaskets are not provided for Stair Sections

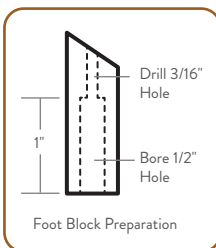


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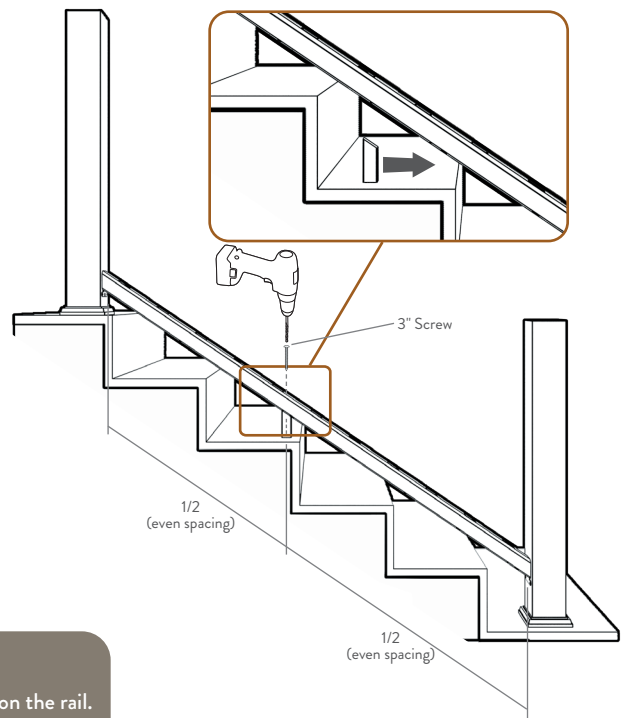


INSTALL FOOT BLOCKS ON BOTTOM RAIL

If the Foot Block does not align under a routed hole, you must predrill and fasten as shown below. If it does align, attach as depicted in images to right



- Rest the bottom rail on the stairs and transfer the length and angle of the stair onto the bottom rail. Determine the baluster layout by maximizing the distance between the end balusters and the post covers. Cut the bottom rail to length.
- After ensuring that the posts are plumb, transfer the angle and baluster spacing from the bottom rail to the top rail and cut the top rail to length.
- Cut Foot Block(s) to match angle of stairs, wedge under Bottom Rail and attach.

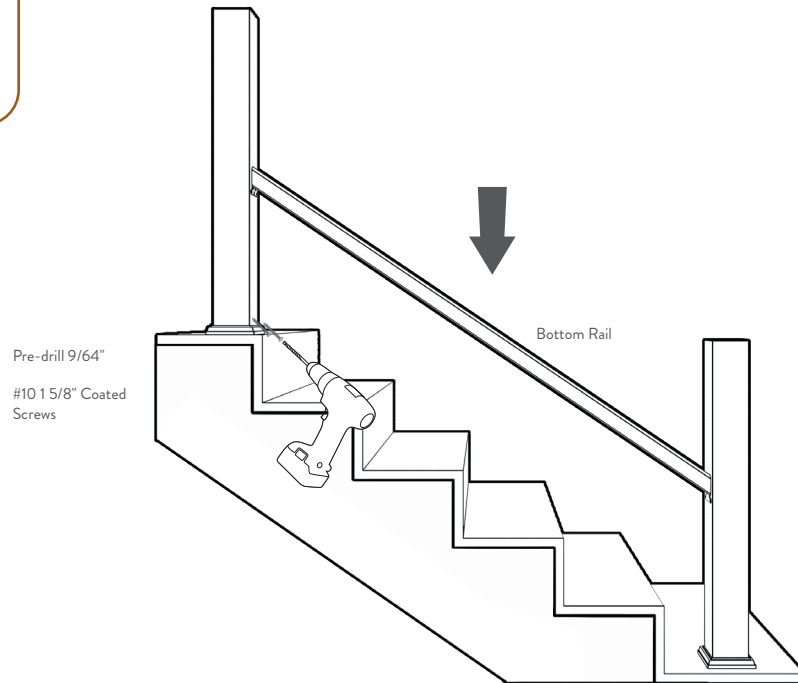


For sections up to 6': Place one Foot Block in the center of the rail.
For sections greater than 6': Space two Foot Blocks approximately at 1/3 intervals on the rail.

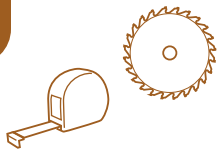
5



INSTALL BOTTOM RAIL

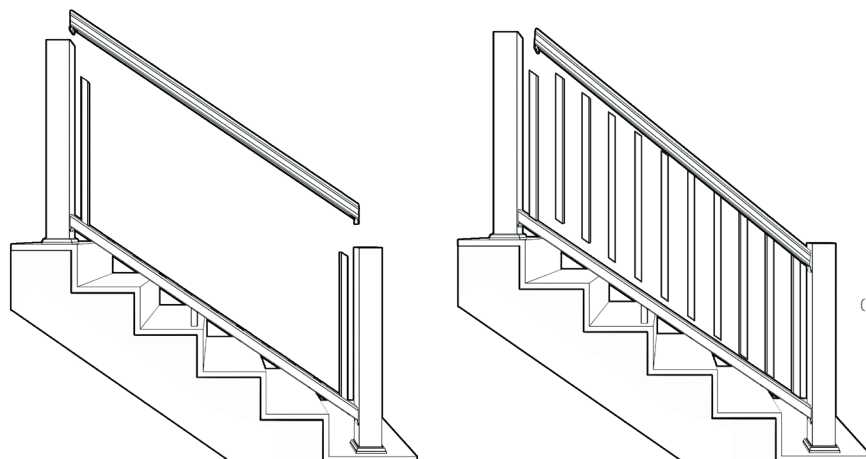
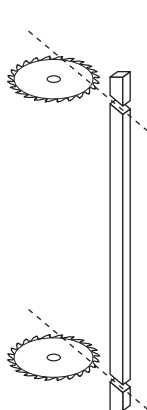


6



INSTALL BALUSTERS AND TOP RAIL

- Cut balusters to the angle of the stair. It is important to maintain the overall length of the baluster. Recommended blade: 80-120 tooth blade designed for cutting aluminum
- Place one baluster in routed hole at each end of the Bottom Rail. **Note:** Angle of cut baluster should be seated fully into bottom rail (twist as needed).
- Place Top Rail and attach Bracket to lower post.
- Place the remaining Balusters in the routed holes in the Bottom Rail.



(Square Composite Balusters Shown)

7



ATTACH TOP RAIL AND POST CAPS

- Attach Brackets to upper post.
- Attach Post caps using exterior grade caulk applied to the underside of the cap

