

# RadianceRail® Installation Guide



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## 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](http://www.timbertech.com).

For the most up-to-date code listings visit

[www.timbertech.com/installation](http://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](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 RadianceRail 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® with Glass Infill

Visit [www.timbertech.com/installation](http://www.timbertech.com/installation) to view TimberTech installation videos. Consult your local building codes for guard and handrail requirements.

RadianceRail® Custom Rail Packs are available in 6' lengths.

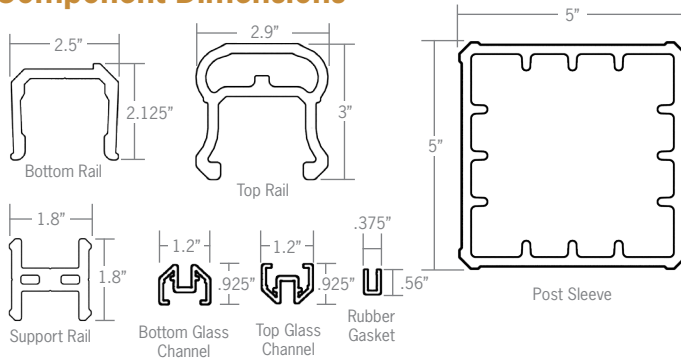
## Measuring Your Railing Area

- Measurements are from center to center of the posts. Rails are produced in 6' lengths to allow for finished end cuts and angles.
- Determine how many 6' RadianceRail 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

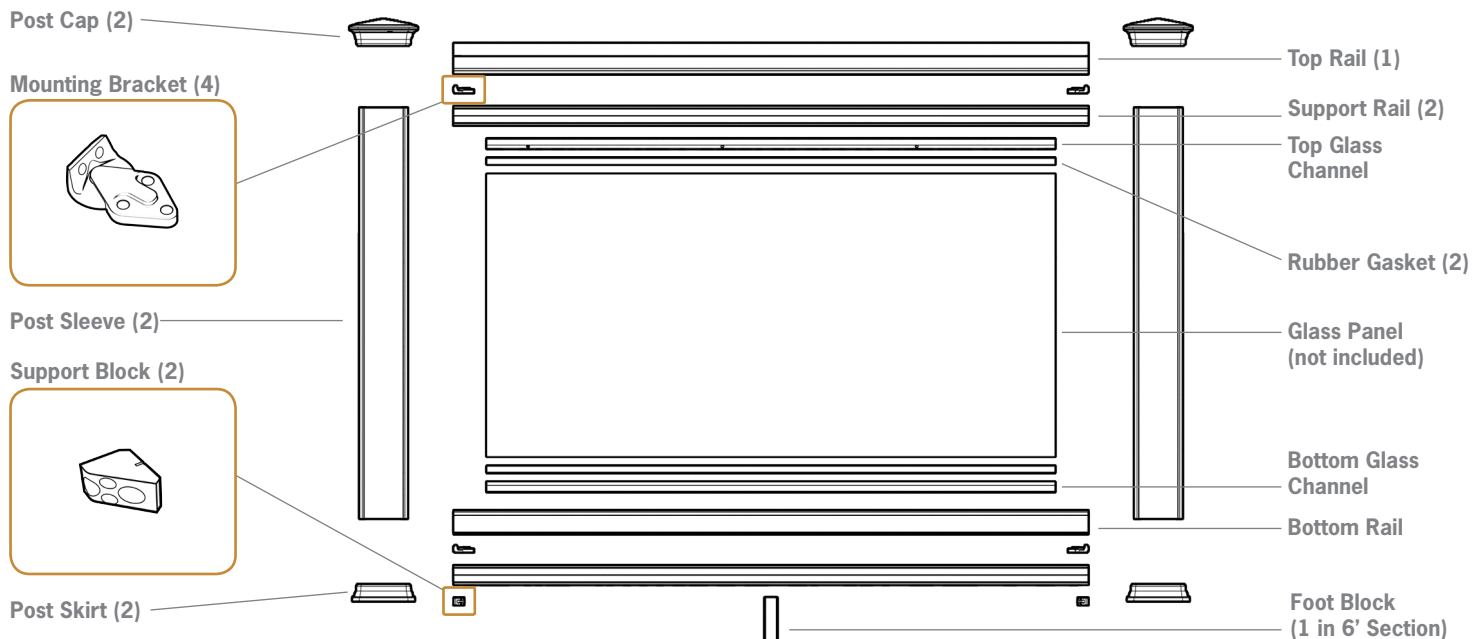
- ⚠️ • RadianceRail 6' rails are designed not to exceed 6' center of post to center of post.
- Cut slowly, using a fine tooth saw blade to avoid chipping.
- For 42" railing use 12' Post Sleeves.

## Component Dimensions



Components Needed For Installing One RadianceRail® Section	
<b>Components available separately for mix-and-match rail systems</b>	<b>RadianceRail Custom Rail Pack</b> 1 - Top Rail 1 - Bottom Rail 2 - Support Rails Hardware Mounting Kit Support Block Mounting Templates 1 - Foot Block
<b>Hardware included in Hardware Kits:</b>	<b>Hardware Mounting Kit</b> 4 - Mounting Brackets 2 - Support Blocks 16 - #8 x 3/4" Screws 6 - #8 x 1 3/4" Screws 6 - #8 x 2 5/8" Screws (Stairs Only) 3 - #8 x 3" Screws 12 - #8 x 3" Green Screws T20 Driver Bit
<b>Glass Hardware Pack</b>	1 - Top Glass Channel 1 - Bottom Glass Channel 2 - Rubber Gaskets 6 - #8 x 2 1/4" Screws 6 - #8 x 2" Screws 3 - #8 x 1" Screws
<b>Additional Components Needed for Each System</b>	⚠️ 1/4" Tempered Glass must be sourced locally (See attached reference sheet). 2 - Post Caps 2 - Post Sleeves 2 - Post Skirts

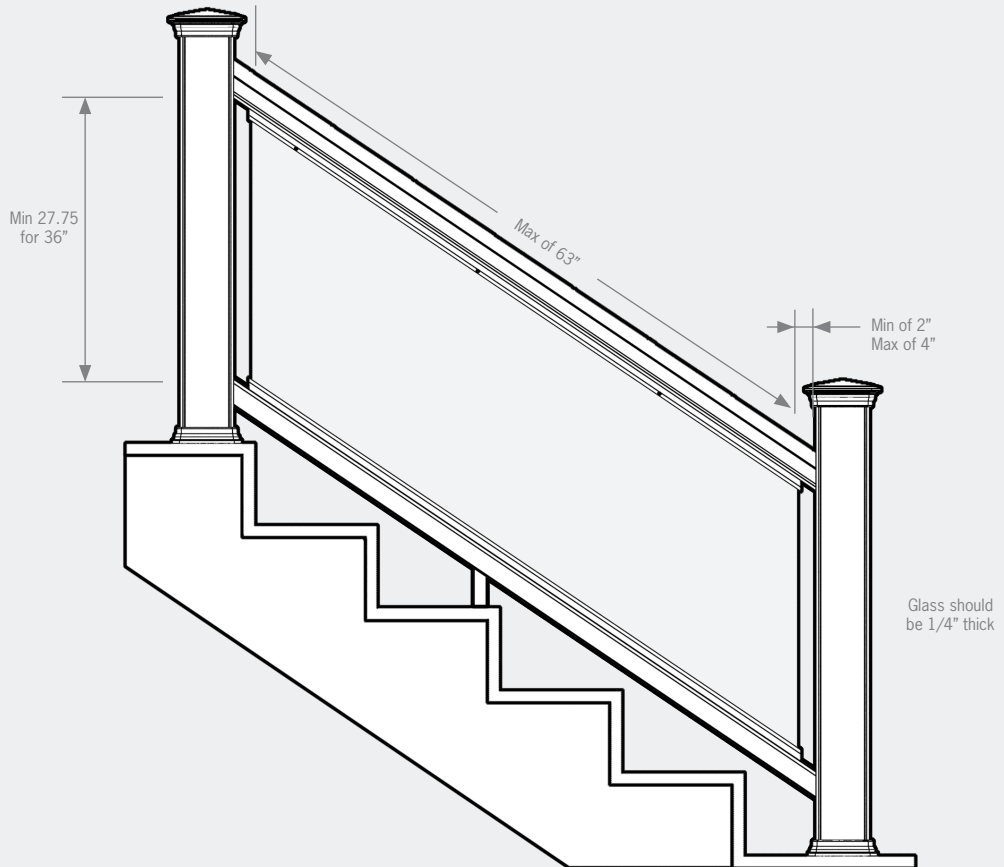
- ## Tools Required
- Miter Saw
  - Drill
  - Measuring Tape
  - 7/64" Drill Bit
  - 3/16" Drill Bit
  - Utility Knife



## DIMENSIONAL CONSTRAINTS FOR STRAIGHT SECTION

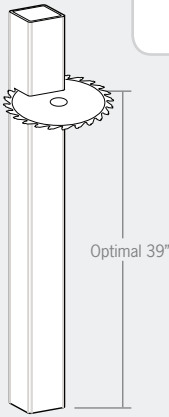


## DIMENSIONAL CONSTRAINTS FOR STAIR SECTION

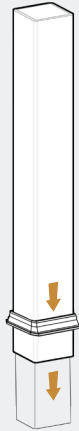
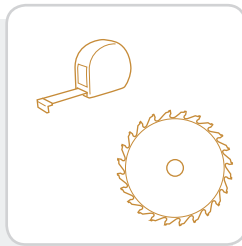


## 1 INSTALL POST SLEEVES

- Trim Post Sleeves to desired length.

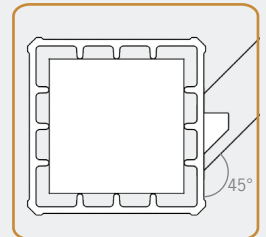
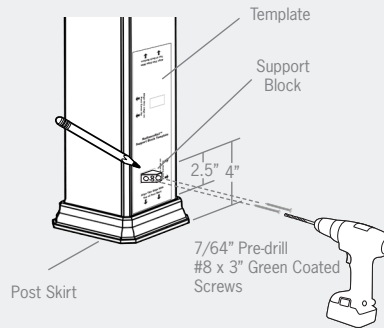


- Slide Post Sleeve and Post Skirt over post (do not force).
- Ensure post are square and plumb.



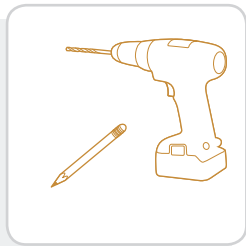
## 2 INSTALL LOWER SUPPORT BLOCK

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



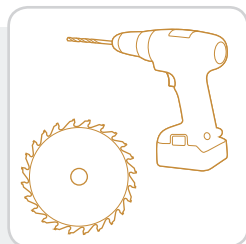
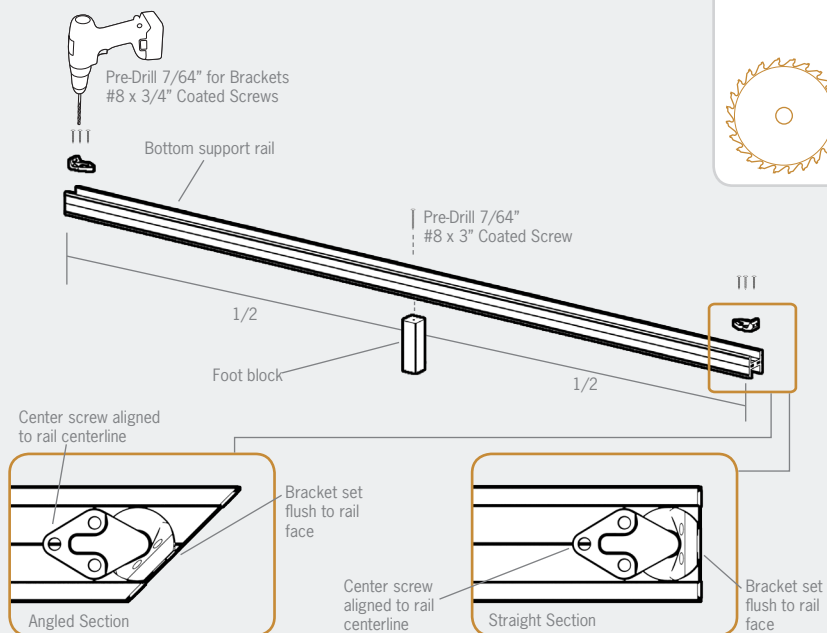
For angled rail installations - align angled face of Support Block parallel to rail section.

If you do not have a the template, position the top of the Support Block 4" above the deck and 2-1/2" above the post skirt.



## 3 CUT AND ASSEMBLE BOTTOM SUPPORT RAIL

- Cut the Bottom Support Rail to length.

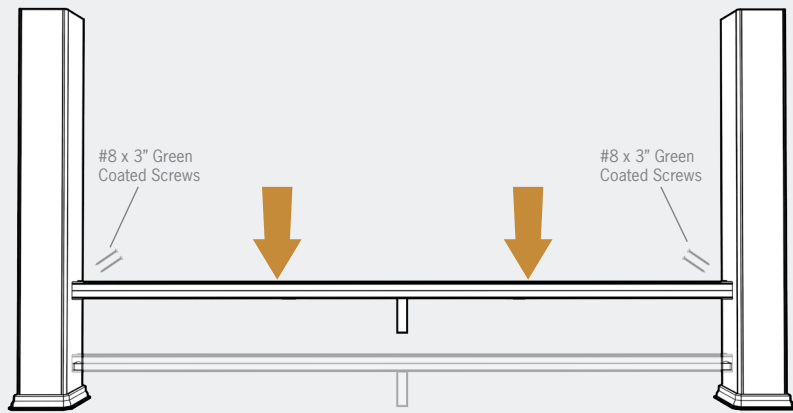
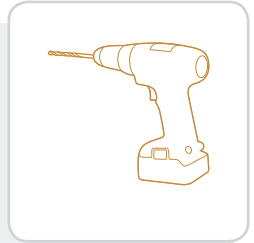
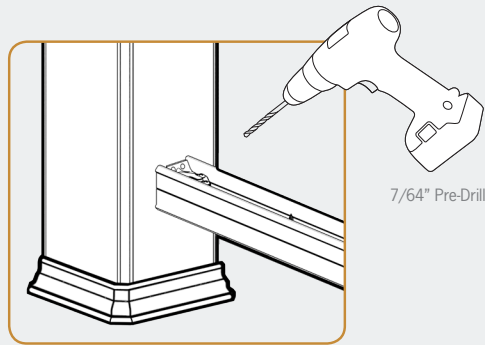


For sections up to 6': Place one Foot Block in the center of the rail

## 4

### INSTALL BOTTOM SUPPORT RAIL

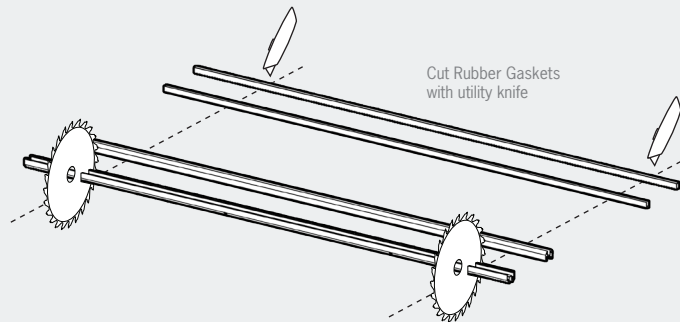
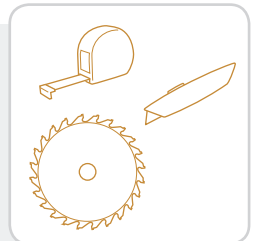
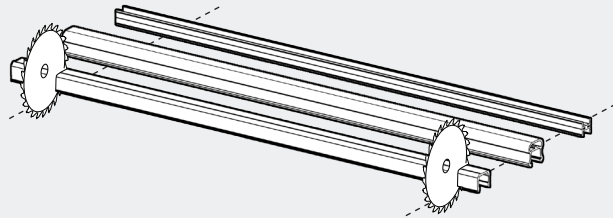
- Position rail assembly onto Support Blocks.



## 5

### TRIM RAILS, EXTRUSIONS, AND GASKETS

- Measure distance between the posts at the Bottom Support Rail.
- Transfer measurement to Top Rail, Bottom Rail, and Top Support Rail, and cut to length.
- Measure and cut Top and Bottom Glass Channels, and Rubber Gaskets to appropriate length.

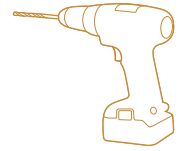
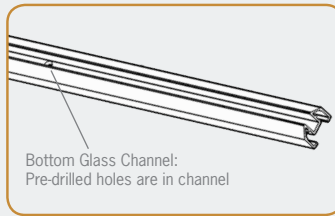


Glass Channels must be at least 4" shorter than rail.

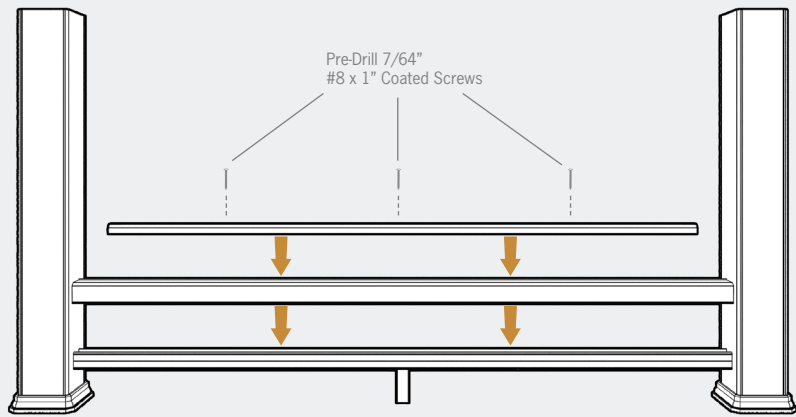
## 6

### ASSEMBLE LOWER RAIL SECTION

- Place Bottom Rail over Bottom Support Rail.
- Install Bottom Glass Channel utilizing pre-drilled holes.



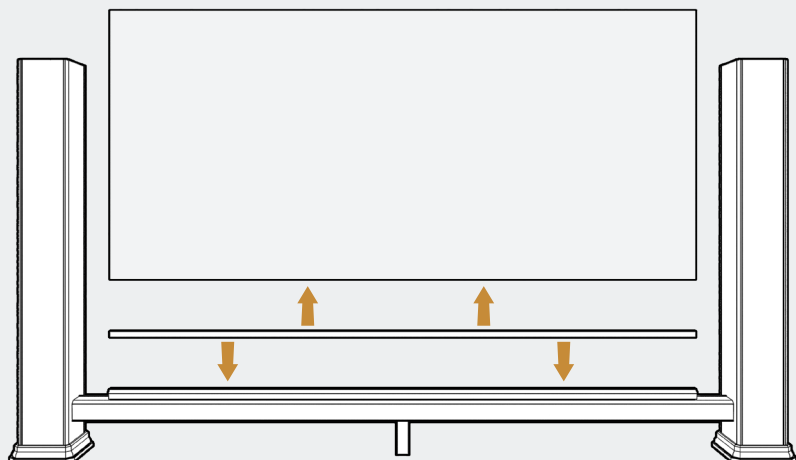
Position Bottom Rail with lip facing outside of deck, over bottom Support Rail.



## 7

### ATTACH LOWER GASKET AND INSTALL GLASS PANEL

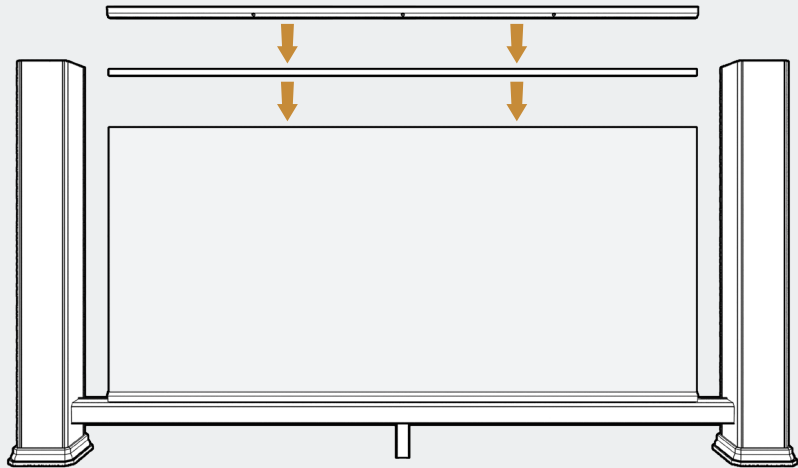
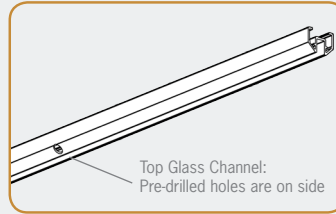
- Apply Rubber Gasket to bottom of Glass Panel first.
- Set panel/gasket assembly into Bottom Glass Channel.



## 8

### INSTALL TOP GASKET AND TOP GLASS CHANNEL

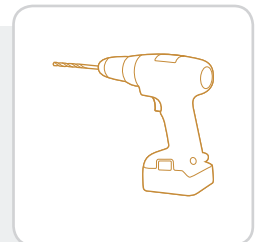
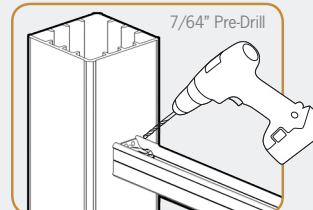
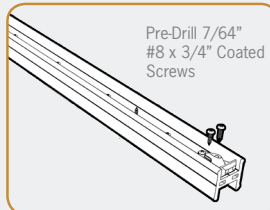
- Place Rubber Gasket on top of glass panel.
- Fit Top Glass Channel onto glass panel assembly.



## 9

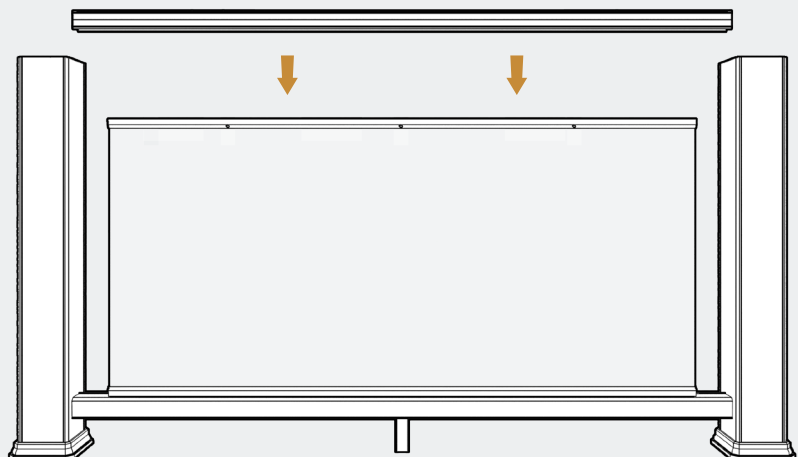
### INSTALL TOP SUPPORT RAIL

- Align top Support Rail to center of Posts.
- Attach Brackets to Top Rail Support



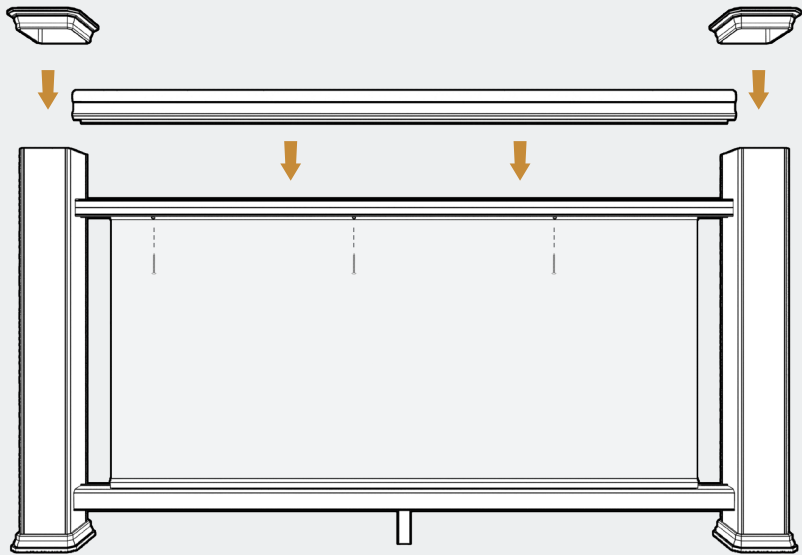
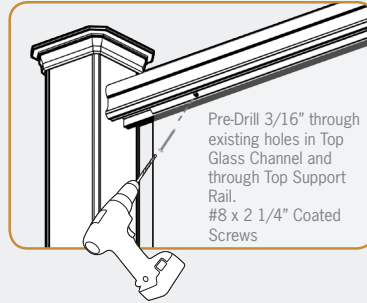
#8 x 3" Green  
Coated Screws

#8 x 3" Green  
Coated Screws



## 10 INSTALL TOP RAIL AND POST CAPS

- Attach Post Caps using exterior grade caulk applied to the underside of the Cap.



**Caution:** Screws must be 2 1/4" to attach the Top Rail on straight rail sections.



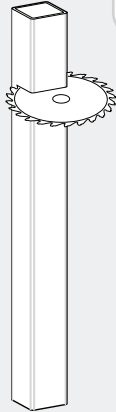


Consult your local building codes for guard and handrail requirements.

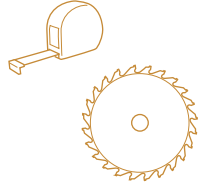
## 1

### INSTALL POST COVERS

- Trim Post Covers to desired length.



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

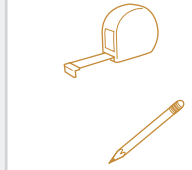
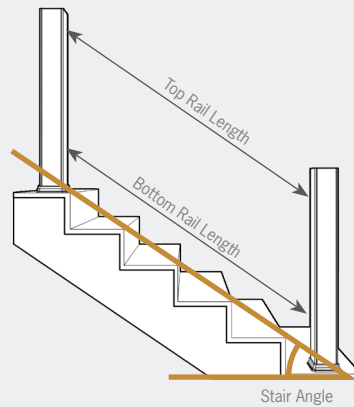


## 2

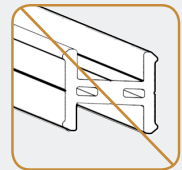
### MEASURE ANGLE AND DISTANCE BETWEEN POSTS

Support Rails are rotated 90° for stair rail applications.

- Determine measurements and angle as shown. Transfer measurements to Top and Bottom Support Rails.



Right

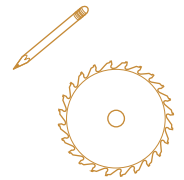
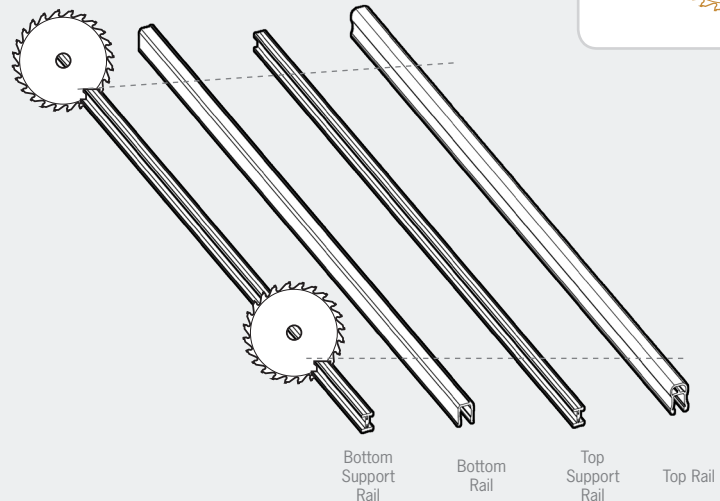


Wrong

## 3

### TRIM RAILS

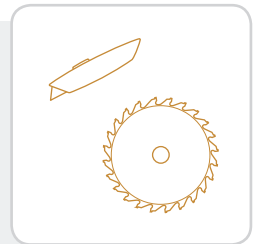
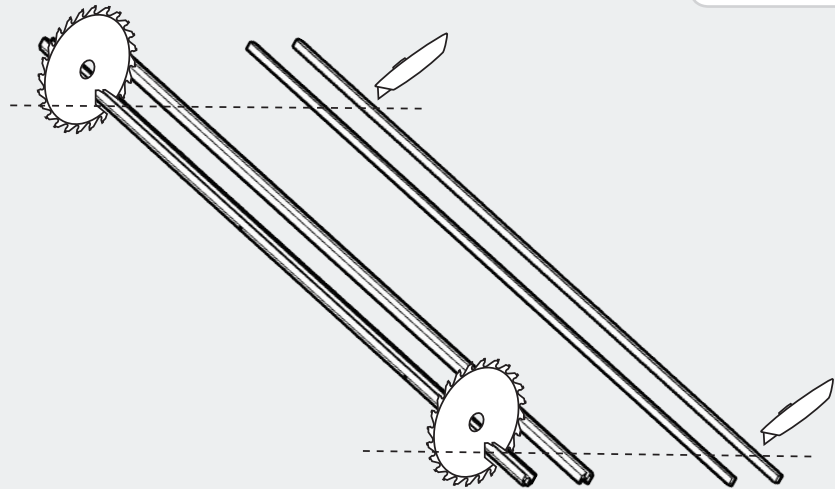
- First trim both Top and Bottom Support Rails to dimensions from Step 2. TEST FIT for accuracy.
- Transfer measurement from Bottom and Top Support Rails to Bottom and Top Rails.
- Trim all Rails to measured lengths at appropriate angle.



## 4

### TRIM GLASS CHANNELS AND GASKETS

- Using lengths in Step 3 as a reference, measure and cut Top and Bottom Glass Channels, as well as both Rubber Gaskets at appropriate angle.



Glass Channels must be at least 4" shorter than rail.

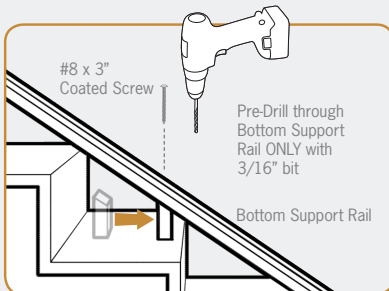
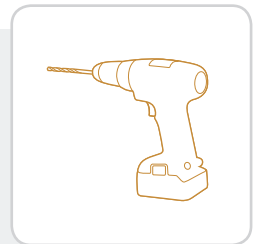
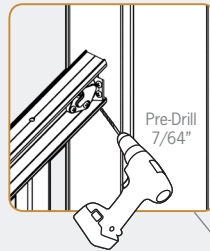
## 5

### INSTALL BOTTOM SUPPORT RAIL

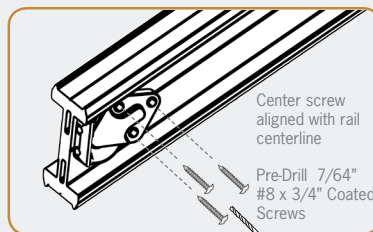


Brackets must be on the side of the rail facing the stairs.

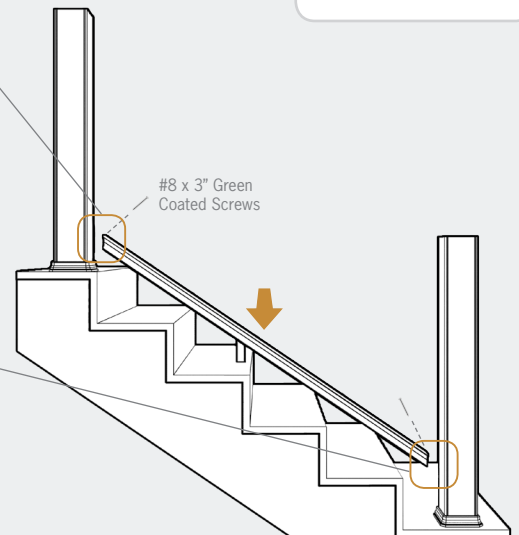
For sections up to 6': Place one Foot Block in the center of the rail



- Wedge Foot Block under Support Rail & attach.



- Attach Mounting Brackets to Top AND Bottom Support Rails.



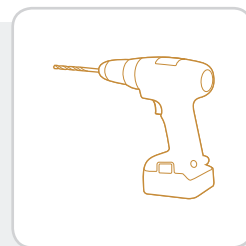
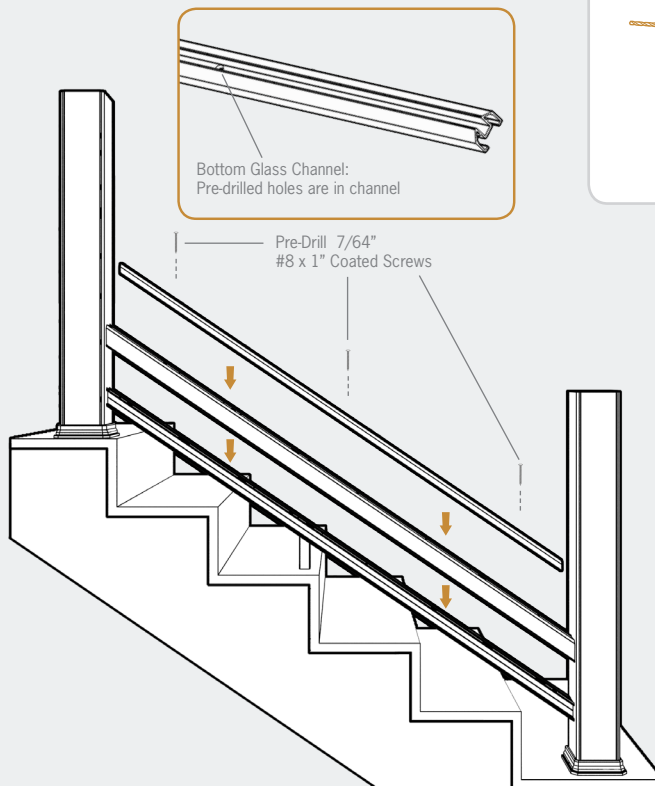
- Secure Mounting Brackets to posts.

## 6

### ASSEMBLE LOWER RAIL SECTION

- Place Bottom Rail over Bottom Support Rail.
- Install Bottom Glass Channel utilizing pre-drilled holes.

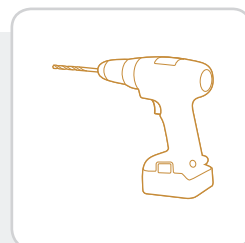
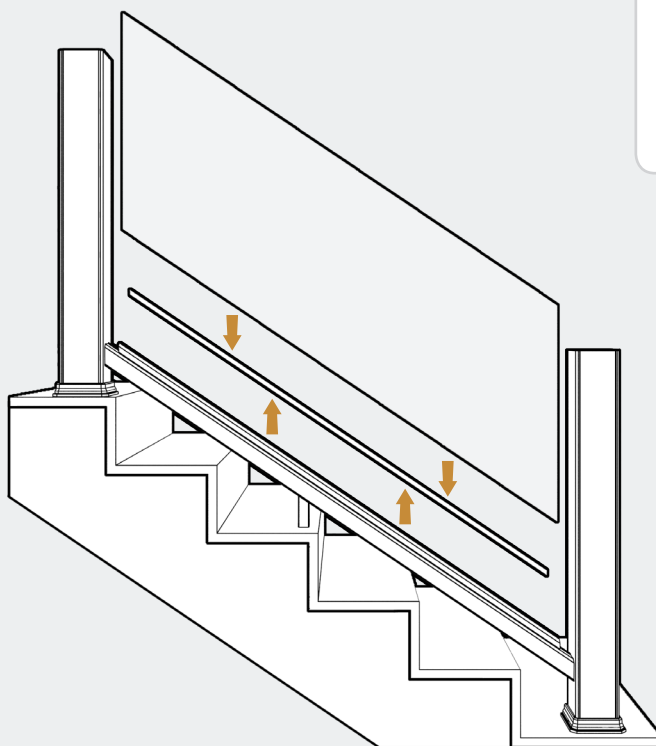
Position Bottom Rail with lip facing outside of deck, over bottom Support Rail.



## 7

### ATTACH LOWER GASKET AND INSTALL GLASS PANEL

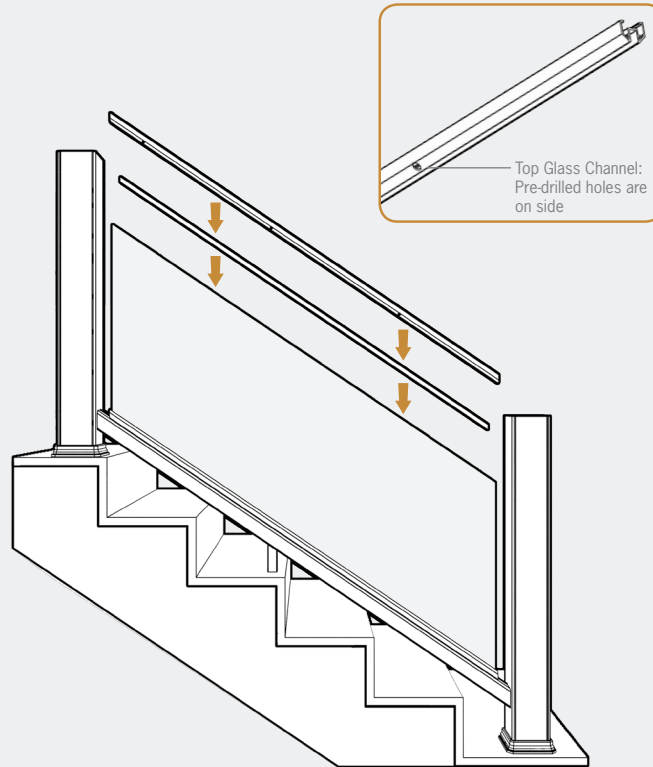
- Apply Rubber Gasket to bottom of Glass Panel first.
- Set panel/gasket assembly into Bottom Glass Channel.



## 8

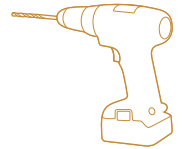
### INSTALL TOP GASKET AND TOP GLASS CHANNEL

- Place Rubber Gasket on top of glass panel.
- Fit Top Glass Channel onto glass panel assembly.



## 9

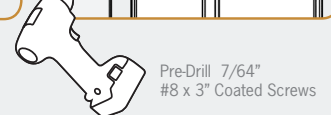
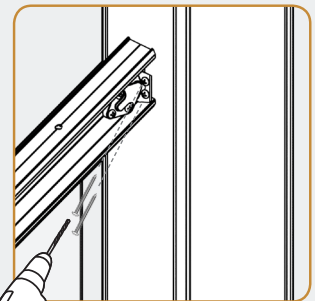
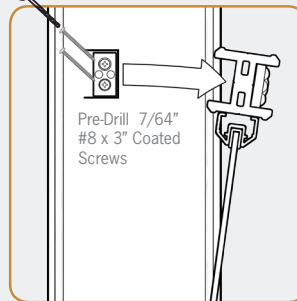
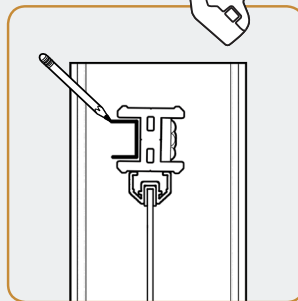
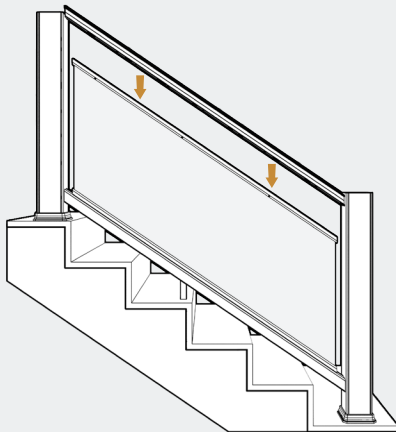
### INSTALL TOP SUPPORT RAIL



- Mark Ends of Top Support Rail.

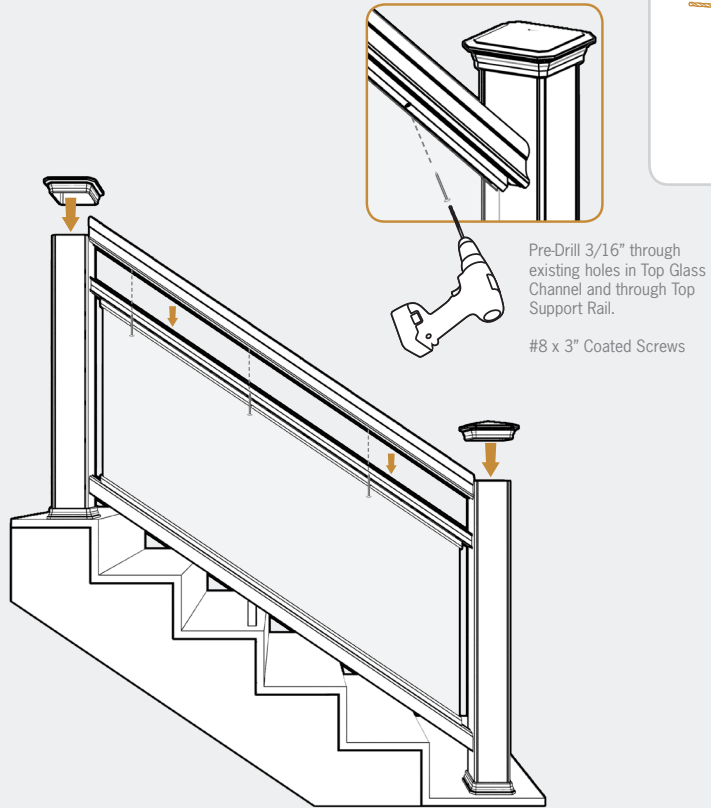
- Rotate Rail assembly out of way to fasten Support Block.

- Secure Mounting Brackets to Posts.



## 10 INSTALL TOP RAIL AND POST CAPS

- Attach Post Caps using exterior grade caulk applied to the underside of the Post Cap.



Screws must be 3" to attach the Top Rail on the stair sections.





# RadianceRail® Installation Guide



TimberTech  
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