### TREX® ROD RAIL STAIR RAILING

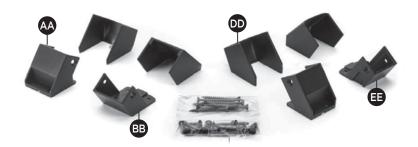
Installation Instructions



# BRACKET HARDWARE - ROD RAIL STAIR RAILING (INCLUDING STAIR SWIVEL BRACKETS AND STAIR CROSSOVER BRACKET) TREX SIGNATURE®

#### FIXED BRACKET - STAIR HARDWARE

- AA. Bottom Stair Bracket and Cover Lower Rail
- BB. Top Stair Bracket and Cover Lower Rail
- CC. Fastener Pack
- DD. Bottom Stair Bracket and Cover Upper Rail
- EE. Top Stair Bracket and Cover Upper Rail



### SWIVEL BRACKET - STAIR HARDWARE

- FF. Swivel Top Rail Bracket and Cover Stair
- GG. Swivel Bottom Rail Bracket and Cover Stair
- HH. Fastener Covers
- II. Fastener Pack



#### SWIVEL CROSSOVER BRACKET KIT - STAIR HARDWARE

NN. Swivel Crossover Bracket - Stair

OO. Post-to-Bracket Fasteners



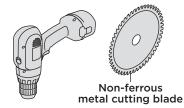
### HOW TO INSTALL ROD RAIL STAIR POSTS TREX SIGNATURE

**TOOLS NEEDED** 









5/16" (7.9 mm) drill bit for stairs

7/64" (2.8 mm) or similar sized metal punch



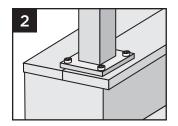
## HOW TO INSTALL ROD RAIL STAIR POSTS/CONTINUED TREX SIGNATURE

#### **IMPORTANT NOTES:**

- » FOR A 6' OR 8' STAIR RAIL, POST TO POST SPAN WILL BE LESS THAN 6' OR 8'. PRIOR TO INSTALLING STAIR POSTS CALCULATE POST TO POST SPAN USING A MAXIMUM STAIR RAIL LENGTH REQUIRED AND THE ANGLE (32°-37°) AT WHICH THE STAIR RAILS WILL BE INSTALLED. DO NOT INSTALL STAIR POSTS AT 6' OR 8' SPAN, AS STAIR RAILINGS WILL THEN BE TOO SHORT.
- » TREX SIGNATURE POSTS CANNOT BE USED WITH TREX ROD RAIL TRADITIONAL OR TREX ROD RAIL COCKTAIL STAIR DESIGNS, ONLY PRESSURE-TREATED POST/ POST SLEEVES CAN BE USED. REFER TO DETAILED INSTRUCTIONS FOR MORE INFORMATION.
- » All Trex Rod Rail stair installations require the use of 53" (134.6 CM) stair post, measured and cut to appropriate length if required.
- » If crossover stair post is required, use stair post (again cut to appropriate length if required) and use swivel crossover bracket.
- » Trex Signature Stair fixed brackets are designed to work only with stair slopes of 32°-37°.
- » Foot blocks are required ONLY for All Clear Span Applications over 6' (1.83 m) thus these stair railing spans must be installed over the decking frame or on inside of rim joist. Signature Stair Foot blocks are sold separately.

Installing Standard Trex Signature Stair Posts, Trex Signature Stair Crossover Posts, or Pressure-treated Post, Post Sleeves and Skirts

- Make sure 53" (135.6 cm) posts are used for all stair posts.
- 2. If Trex Signature stair posts are used, install at nose of stair tread directly under required blocking. See Trex Signature horizontal post instructions for blocking requirements.



#### **Installing Pressure-Treated Posts**

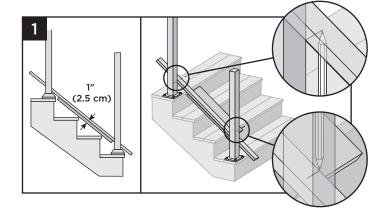
- » PLEASE REFER TO LOCAL BUILDING CODE REQUIREMENTS PRIOR TO ATTACHING PRESSURE TREATED POSTS.
- » PRESSURE TREATED POSTS MUST BE INSTALLED ON INSIDE OF STAIR STRINGER AND AT NOSE OF STAIR TREAD.
- Stair Post
- » POST TO POST SPAN WILL BE LESS THAN 6' OR 8'. PRIOR TO INSTALLING POSTS CALCULATE POST TO POST SPAN USING A MAXIMUM RAIL LENGTH REQUIRED AND THE ANGLE (32°-37°) AT WHICH THE RAILS WILL BE INSTALLED. DO NOT INSTALL STAIR POSTS AT 6' OR 8' SPAN, AS STAIR RAILINGS WILL THEN BE TOO SHORT.
- » Attach posts using code approved hardware and also use added blocking.
- » Bolts can be countersunk flush with framing to allow for fascia attachment.
- » In most cases, a post and post sleeve longer than 39" (991 mm) will be needed on the lower section of stair rail to accommodate stair angle.

NOTE: Blocking can be added for extra strength.

# HOW TO INSTALL ROD RAIL STANDARD STAIR RAILING TREX SIGNATURE®

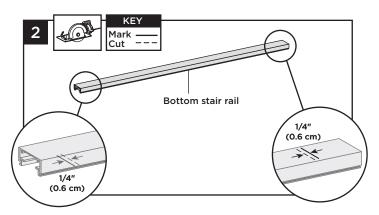
### **Cutting Bottom Rail**

 Place a 1" deckboard on the nose of the stair tread, then lay the bottom stair rail on top of the deckboard. Use the lower and upper stair post to set the size of the lower stair rail. On UPPER STAIR POST, mark from underside of bottom rail. ON LOWER STAIR POST, mark from top side of bottom rail.



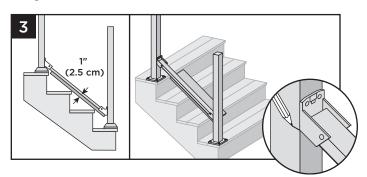


### HOW TO INSTALL ROD RAIL STANDARD STAIR RAILING/CONTINUED TREX SIGNATURE®



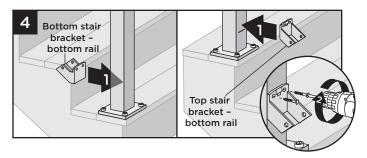
2. Cut each end of the bottom stair rail and bottom rail cover 1/4" (0.6 cm) shorter than the mark on each end to allow for fit into bottom stair rail brackets.

**NOTE:** Railing does not need to be cut at angle. Brackets are designed to allow for railing to be installed with standard straight cut.



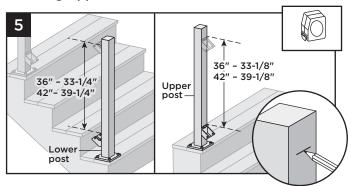
3. With deckboard still on nose of stair tread, place brackets on end of bottom stair rail (DO NOT attach brackets to rail) and mark posts for bracket locations.

### **Installing Lower Fixed Stair Brackets**



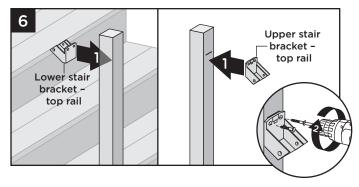
4. Center lower stair bracket on post above the marked line and attach using two self-tapping screws (provided). In some cases it may be difficult to attach the stair bracket on the lower stair post. Recommend using a 90° drill adapter or loosen the post to get access to the lower bracket screw holes.

#### **Installing Upper Fixed Stair Brackets**

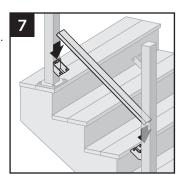


5. **On Lower Post** – From top of lower bracket, measure up and mark with light line (33-1/4" for 36" rail; 39-1/4" for 42" rail).

On Upper Post - From top of lower (upper) bracket, measure up and mark with light line (33-1/8" for 36" rail; 39-1/8" for 42" rail).



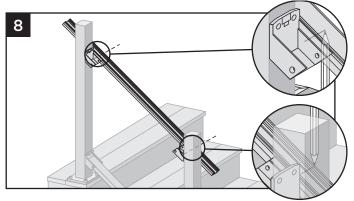
- 6. Center upper stair brackets on posts **below** the marked lines and attach using two self-tapping screws (*provided*).
- 7. Set bottom stair rail into bottom stair rail brackets.



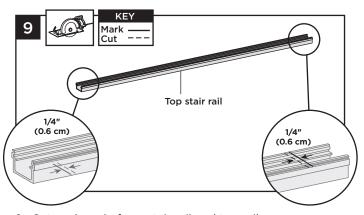
Installation Instructions

### HOW TO INSTALL ROD RAIL STANDARD STAIR RAILING/CONTINUED TREX SIGNATURE®

How to Mark, Cut and Place Top Stair Railing



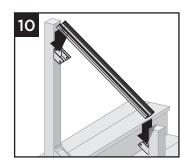
 Position top rail to side of post. Mark top stair rail at each location stated. On UPPER STAIR POST, mark from underside of bottom rail. On LOWER STAIR POST, mark from topside of bottom rail.



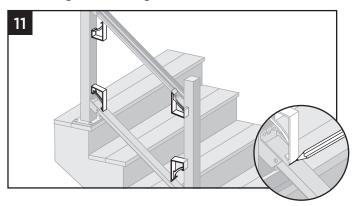
9. Cut each end of top stair rail and top rail cover 1/4" (0.6 cm) shorter than mark to allow for fit into top stair rail bracket.

NOTE: Railing does not need to be cut at angle. Brackets are designed to allow for railing to be installed with standard straight cut. HOWEVER IF INSTALLING ROD RAIL WITH EITHER COCKTAIL OR TRADITIONAL DESIGN, THE TOP RAIL WILL NEED TO BE CUT ON AN ANGLE.

10.Set top stair rail into top stair rail brackets.

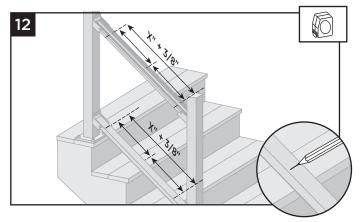


### **Measuring and Cutting Rods**



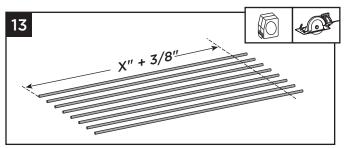
11. Using the long edge of the stair template, mark the location of the end verticals on the upper and lower rails.

**NOTE:** Mark should only be 1" max length or it will be visible after installation of verticals.



12. Measure and mark the mid-line (6' sections) of the two end marks of the top and bottom rail. Take that measurement and add 3/8" for rod length in next step.

**NOTE:** For 8' sections divide the distance into thirds and make two marks for the two verticals.



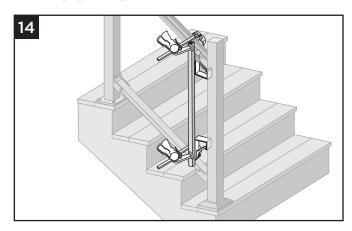
13. Cut rods to the length measured in previous step.



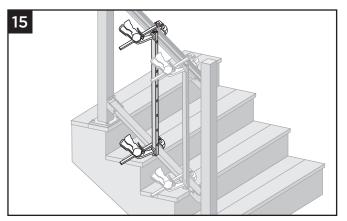
IMPORTANT: DO NOT CUT RODS AT RAIL ANGLE; MAKE  $90^{\circ}$  CUTS ONLY!



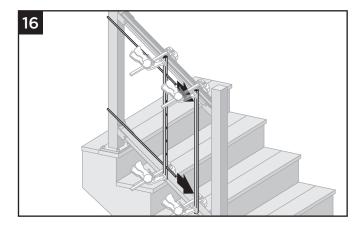
# HOW TO INSTALL ROD RAIL STANDARD STAIR RAILING/CONTINUED TREX SIGNATURE®



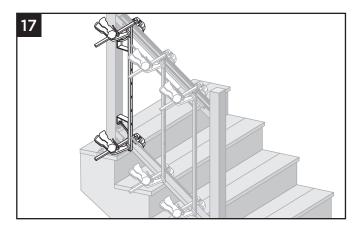
14. Clamp first vertical (lower part of stairs) in place, using width of stair template to position.



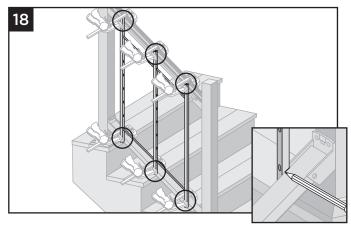
15. Clamp middle vertical(s) in place.



16. Slide a rod into top and bottom of all verticals. Ensure that distance of top rod to top rail and bottom rod to bottom rail are equal.

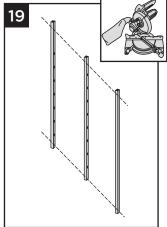


17. Clamp top vertical (upper part of stairs) in place, using width of stair template to position.



18. Mark angle cuts at top and bottom on all verticals.





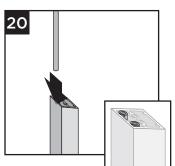
Installation Instructions

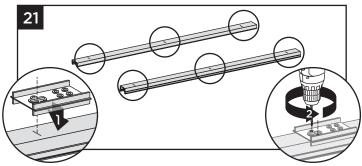
# HOW TO INSTALL ROD RAIL STANDARD STAIR RAILING/CONTINUED TREX SIGNATURE®

### **Vertical and Rod Assembly**

20.Insert anti-rattle strips into the vertical supports.

**NOTE:** There are two anti-rattle strips for each support which can only be inserted in one side.

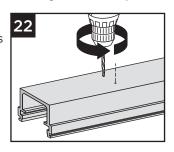




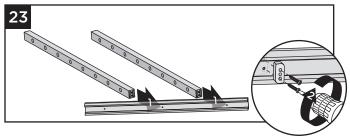
21. Using the slot on the HZ template, locate marked line and drill two 7/64" pilot holes at each mark (or mark with a punch).

NOTE: Pilot holes will be drilled out larger in next step.

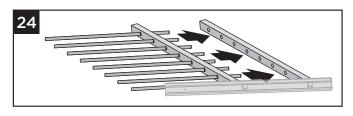
22.Using pilot holes (or marks), drill 5/16" holes for all vertical supports in both top and bottom rails.



### **Installing Top and Bottom Rails**

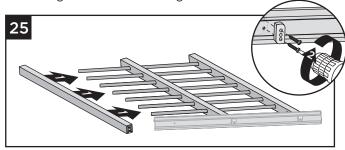


23.Install lowest end vertical and all intermediate verticals to bottom rail using ST Wedge Spacer and screws provided.

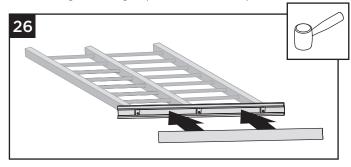


24. Slide rods into lower end and all intermediate verticals.

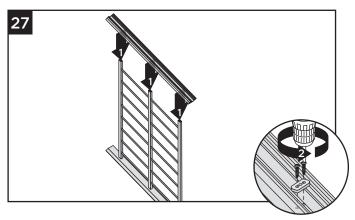
**NOTE:** When inserting rods into intermediate supports, keep rods straight to avoid scratching.



25.Slide upper end vertical onto rods and attach to bottom rail using ST Wedge Spacer and screws provided.



26.Using a mallet, install bottom rail cover onto bottom rail.



27.Install top rail to all vertical and end supports using S Wedge Spacer and screws provided.

**Have Questions?** 

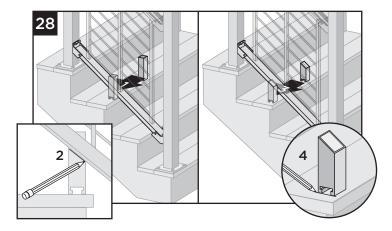
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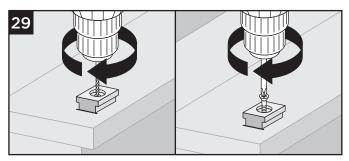
### HOW TO INSTALL ROD RAIL STANDARD STAIR RAILING/CONTINUED TREX SIGNATURE®

### Attachment of Foot Block

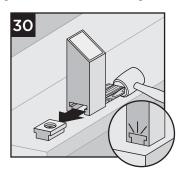
Required **ONLY** for All Clear Span Applications over 6' (1.83 m). **NOTE THAT FOOT BLOCK IS SOLD SEPARATELY.** 

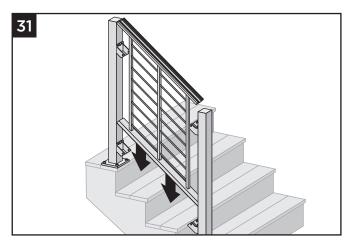


28.Temporarily drop assembled stair rod rail panel into brackets. To ensure proper location place foot block towards the nose of the stair tread along the side of the bottom rail. Mark location of angle on foot block and cut on mark. Then place foot block under the center of the bottom rail. Mark placement location of the base.



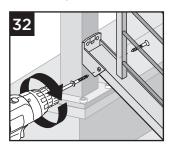
- 29.Place base (smaller side facing down) on decking surface. Pre-drill using a 3/16" bit. Attach base of foot block using one screw at an angle through base and into decking.
- 30.After attached, use a rubber mallet along with scrap piece of wood to tap foot block until it locks into place.

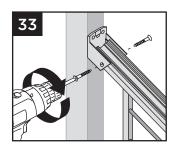




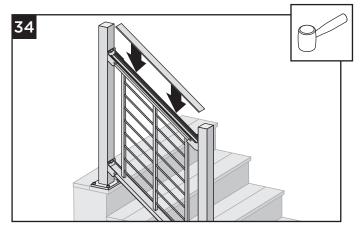
31.Drop assembled stair rod rail panel into brackets.

### **Attaching Stair Panel to Brackets**





- 32. Attach bottom stair rail to bottom stair bracket using two self-tapping screws (*provided*) on each side of bracket.
- 33.Attach top stair rail to top stair bracket (all types) using two self-tapping screws (provided) on each side of stair bracket.

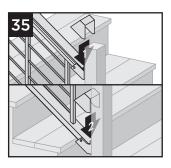


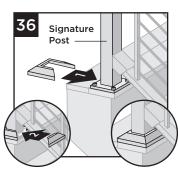
34. Using a mallet, install top rail cover.

Installation Instructions

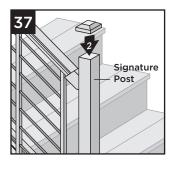
## HOW TO INSTALL ROD RAIL STANDARD STAIR RAILING/CONTINUED TREX SIGNATURE®

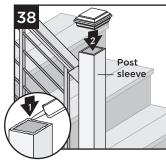
### Attachment of Bracket Covers, Skirts, and Caps





- 35. Attach corresponding bracket covers over opening in upper and bottom rails.
- 36. Attach provided post skirt to bottom of posts when using Trex Signature posts.





- 37.Attach post caps to Trex Signature posts.

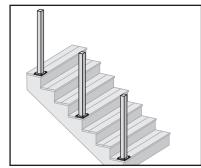
  (Use of **rubber mallet** may be required for secure attachment.)
- 38.Attach post caps to post sleeves using external grade PVC construction adhesive.

### HOW TO INSTALL ROD RAIL STAIR CROSSOVER SWIVEL BRACKETS TREX SIGNATURE®

- 1. Cutting
  Bottom Rail
  See instructions
  on page 2.
- 2. Install Lower Fixed Stair Brackets

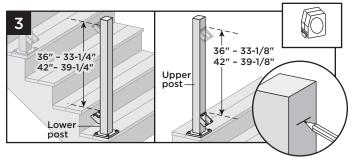
See instructions
on page 3. NOTE:
These are installed
on all posts,

including the center crossover post.

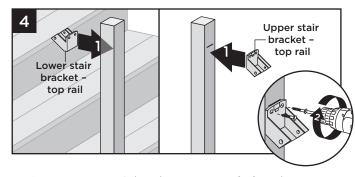


### Install Upper Fixed Stair Brackets

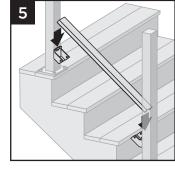
**NOTE:** When using a center crossover post the, upper fixed stair brackets will only be installed at the terminating upper and lower post, and not the center crossover post.



On Lower Post - From top of lower bracket, measure up and mark with light line (33-1/4" for 36" rail; 39-1/4" for 42" rail).
 On Upper Post - From top of lower (upper) bracket, measure up and mark with light line (33-1/8" for 36"rail; 39-1/8" for 42" rail).



- 4. Center upper stair brackets on posts **below** the marked lines and attach using two self-tapping screws (*provided*).
- 5. Set bottom stair rail into bottom stair rail fixed brackets.



**Have Questions?** 

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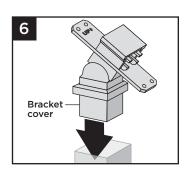


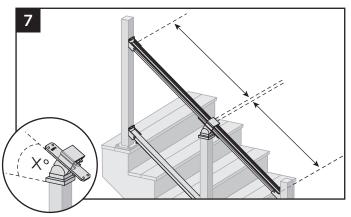
# HOW TO INSTALL ROD RAIL STAIR CROSSOVER SWIVEL BRACKETS/CONTINUED TREX SIGNATURE®

### Determining Placement of Stair Crossover Swivel Bracket

Insert stair crossover swivel bracket into post.

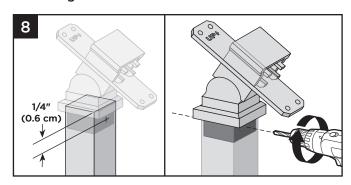
NOTE: Keep the bracket cover on when inserting this into post, this will cover the screw attachment area.





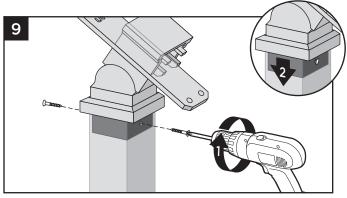
7. Determine location/height of the stair crossover swivel bracket by aligning the angle of this with the fixed brackets already installed. Note that the crossover post may need to be cut to ensure the top stair rail is parallel to the bottom stair rail.

### **Attaching Stair Crossover Swivel Bracket to Post**



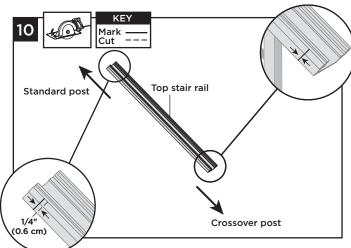
8. Once location/height is determined, center and predrill two holes (using a drill bit slightly smaller than that of self-tapping screw diameter) on opposite sides of post, approximately. 1/4" (0.6 cm) from top of post. Drill through the post and into the stair crossover swivel bracket on each side.

**NOTE:** Slightly countersink pre-drilled holes to allow for flat head screws to seat flush on the post. This will allow cover to fit over screw heads.



 Attach stair crossover swivel bracket to post with two selftapping screws (provided). Slide cover over post to hide screws.

### Cutting Top Stair Rail For Stair Post-to-Stair Crossover Post Configuration



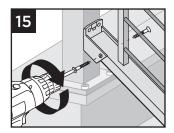
- 10. Top stair rail must be cut differently on each side of the rail. Railing side that attaches to standard post should be cut 1/4" (0.6 cm) shorter than the mark to allow for fit into top rail bracket. Railing side that attaches to the crossover post should be cut directly on the mark to allow for fit into the crossover post bracket.
- 11. **Measuring and Cutting Rods** See instructions on page 4.
- 12. **Vertical and Rod Assembly** See instructions on page 6.
- 13. **Installing Top and Bottom Rails** See instructions on page 6.
- 14. Attachment of Foot Block See instructions on page 7.

Installation Instructions

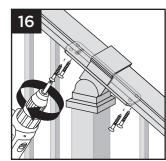
### HOW TO INSTALL ROD RAIL STAIR CROSSOVER SWIVEL BRACKETS/CONTINUED TREX SIGNATURE®

### Attachment of Stair Panel to Stair Brackets

15. Attach bottom stair rail to bottom stair bracket using two self-tapping screws (provided) on each side of bracket.



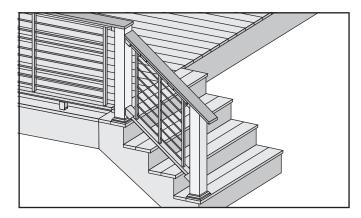
16. For stair crossover post configuration, fasten upper stair rail to swivel crossover post bracket by installing screws diagonally through crossover stair bracket into upper rail using two self-tapping screws (provided) on each side.



**NOTE:** Pre-drilling is required (7/64" [0.28 cm] drill bit) for attachment of stair railing to stair bracket.

17. Attachment of Bracket Covers, Skirts, and Caps See instructions on page 8.

### HOW TO INSTALL COCKTAIL ROD RAIL STAIR RAILING TREX SIGNATURE®



#### **IMPORTANT NOTES:**

- » Only for use with pressure-treated 4 x 4 post (3.5" nominal square) and 4" x 4" (102 mm x 102 mm) post sleeve. Trex Signature posts, Trex post mounts or joist mount posts cannot be used with Trex Signature Cocktail Rod Rail stair railing. Cutting post and post sleeve only applies to the Cocktail style railing.
- » DO NOT CUT LOWER POST/POST SLEEVES UNTIL ROD RAIL STAIR PANEL IS FULLY INSTALLED.
- » When referring to previous instructions referenced, disregard all crossover post instructions as these cannot be used with Cocktail railing.
- » THE DECK BOARD USED IN COCKTAIL ROD RAIL STAIR WILL NEED TO TERMINATE AT THE UPPER STAIR POST AS SHOWN ABOVE. THE DECK BOARD WILL HAVE TO BE TOENAILED INTO THE SIDE OF THE POST IN THESE AREAS USING 2 APPROPRIATE COMPOSITE DECKING SCREWS - PRE-DRILLING IS RECOMMENDED.
- » Do Not use Enhance for top board.

### 1.Installing Pressure-treated Posts, Post Sleeves, and Skirts to Use with Trex Signature Railing

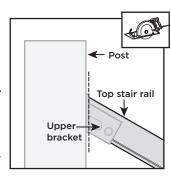
See instructions on page 2.

#### 2. Installing Brackets

Follow previous stair instructions for the installation of desired brackets, making sure that all dimensions are calculated before installation, and ensuring deck board is placed in correct location. See instructions on pages 3 and 4 for fixed stair brackets and 7-10 for swivel stair brackets.

### **Cutting Top Stair Rail**

NOTE: THE TOP RAIL
AND TOP RAIL COVER
WILL NEED TO BE CUT
AT APPROPRIATE ANGLE
ON THE END OF THE RAIL
THAT CONNECTS TO THE
UPPER FIXED BRACKET,
SO THAT WHEN THE RAIL
IS INSTALLED IT SITS
FLUSH WITH THE END OF
THE BRACKET AS
SHOWN.



**Have Questions?** 

1-800-BUY-TREX

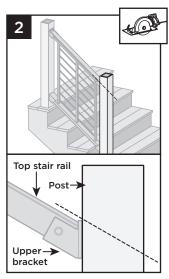


# HOW TO INSTALL COCKTAIL ROD RAIL STAIR RAILING/CONTINUED TREX SIGNATURE®

 Follow all Rod Rail Stair instructions for the assembly of the rod rail stair panel.

### Cutting Post and Post Sleeve and Attaching Deck Board to Top Rail

 Cut post and post sleeves at proper angle so these are flush with the top of the top brackets and/or top rail cover. BE CAREFUL NOT to CUT brackets.



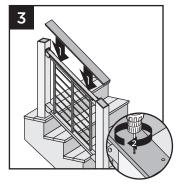
3. Place deck boards over top rails. *DO NOT* use Enhance deck boards for top rail. PLACE DECK

BOARD ON TOP

RAIL TO CHECK FOR PROPER FIT AND

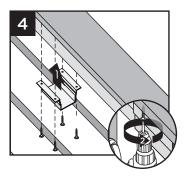
RAIL CLEARANCE AT BRACKET LOCATIONS. DECK BOARD MAY

REQUIRE EITHER A

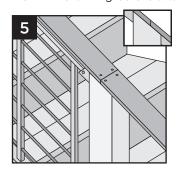


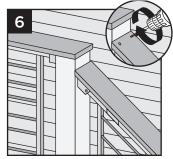
NOTCH CUT ON THE UNDERSIDE OR SLIGHT PLANING ON THE UNDERSIDE TO ALLOW DECK BOARD TO CLEAR TOPS OF BRACKETS AND SIT FLUSH ON TOP OF POSTS AND RAILS. Attach boards on each post with Trex-recommended composite screws (quantity of 2 per each post/board end).

4. Secure boards to top rail using Trex Signature Cocktail Bracket (sold separately). Ensure that there is a bracket at each end of the stair railing section, then space brackets approximately every 24" and attach with 4 screws provided.



NOTE: Pre-drilling before attachment is recommended.





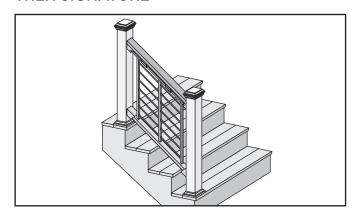
5. Use scarf cut for posts where two deck boards meet.

#### **NOTES:**

- » Leave 1/8" (3 mm) gap between deck boards.
- » Deck boards can overhang end of last post maximum 1/2" (13 mm).
- Where deck board terminates at upper post, PREDRILL and toenail two approved composite deck screws as shown into post, being careful to avoid hitting stair bracket.

**NOTE:** Top Bracket Covers are not attached in this configuration.

## HOW TO INSTALL TRADITIONAL ROD RAIL STAIR RAILING TREX SIGNATURE®

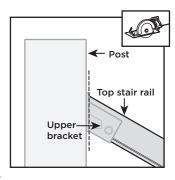


#### IMPORTANT NOTES:

- » Only for use with pressure-treated 4 x 4 post (3.5" nominal square) and 4" x 4" (102 mm x 102 mm) or 6" x 6" post sleeves, Trex Post Mounts or Trex Joist Mount Post WITH Trex post sleeves. Signature Joist Mount Posts cannot be used with Trex Signature Traditional railing.
- » THE TOP RAIL AND TOP RAIL COVER WILL NEED TO BE CUT AT APPROPRIATE ANGLE ON THE END OF THE RAIL THAT CONNECTS TO THE UPPER FIXED BRACKET, SO THAT WHEN THE RAIL IS INSTALLED IT SITS FLUSH WITH THE END OF THE BRACKET AS SHOWN.

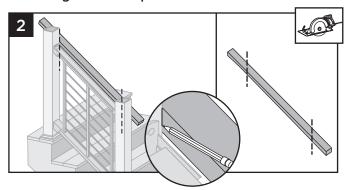
### **Cutting Top Stair Rail**

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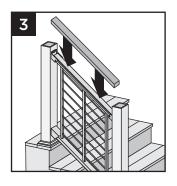


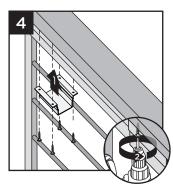
 Follow all Rod Rail Stair instructions for the assembly of the rod rail stair panel

### Attaching 2 x 4 to Top Rail



2. Place 2 x 4 beside top rail. Mark and cut (both ends need to be cut on an angle for proper fit).





- 3. Place 2 x 4 on top stair rail.
- 4. Secure 2 x 4 to top rail using Trex<sup>®</sup> Signature™ Cocktail Bracket (sold separately). Ensure that there is a bracket at each end of the railing section, then space brackets approximately every 24" and attach with 4 screws provided.

NOTE: Pre-drilling before attachment is recommended.

5. Pre-drill a pilot hole and toenail 2-1/2" (6.4 cm) screw at each end of 2 x 4 into post on back side of rail (side not facing decking).

