

DUE TO THE COMPLEXITY OF THIS PRODUCT, INSTALLATION OF SIGNATURE MESH STAIR RAIL WILL REQUIRE THE USE OF QUALIFIED AND KNOWLEDGEABLE CONTRACTORS IN MOST CASES.

### HOW TO INSTALL TREX SIGNATURE STAIR POSTS AND STAIR RAILING

TOOLS NEEDED





MESH DIMENSIONS CHART					
Panel Size	А	В	С		
6' x 36" HZ	64″	32 3/8″	4″		
8' x 36" HZ	88″	32 3/8″	4″		
8' x 42" HZ	88″	38 3/8″	4″		
8' x 42" ST	108 3/16″	36 3/16″	4″		

#### Stair Post Spanning and Angle Placement Charts

42" STAIR GUARDRAIL						
Use HZ Panel Size	Max Post Spacing Based on Stair Angle 30° 32° 34° 37° 38°					
6' x 36″ HZ	NA	NA	42"	40"	39"	
8' x 36" HZ	NA	NA	62″	59″	58″	
8' x 42" HZ	66″	65″	62″	59″	58″	
Use Stair	Max Post Spacing					
Panel Size	30°	32°	34°	37°	38°	
36 3/16" x 108 3/16" ST	72″	72″	72″	72″	72″	

#10 x 1" Rail to Bracket Screw

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**#8 x 5/8"** L-Bracket to Rail Screw

36" STAIR GUARDRAIL					
Use HZ	Max Post Spacing Based on Stair Angle				
Panel Size	30°	32°	34°	37°	38°
6' x 36″ HZ	46″	45″	42″	40″	39″
8' x 36″ HZ	67″	65″	62″	59″	58″
8' x 42" HZ	67″	65″	62″	59″	58″
Use Stair	Max Post Spacing				
Panel Size	30°	32°	34°	37°	38°
36 3/16" x 108 3/16" ST	72″	72″	72″	72″	72″



**#8-10 x 2"** Bracket to Wood/Post Sleeve Screw

Have Questions? 1-800-BUY-TREX

#### HOW TO INSTALL MESH STAIR POSTS 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 SIGNATURE COCKTAIL STAIR MESH OR TRADITIONAL STAIR MESH DESIGNS, ONLY PRESSURE-TREATED POST/ POST SLEEVES CAN BE USED. REFER TO DETAILED INSTRUCTIONS FOR MORE INFORMATION.
- » All stair installations require the use of 53" (134.6 CM) stair post, measured and cut to appropriate length if required.
- » All Trex Signature fixed stair brackets <u>ONLY</u> work with stair slopes of 32°-37°.
- » Foot Blocks are sold separately and recommended for all spans over 6' for Signature Mesh Cocktail and Signature Mesh Traditional stair applications.

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

- 1. 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.



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.
- » 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.
- » In most cases, a post and post sleeve longer than 39" will be needed on the lower section of stair rail to accommodate stair angle.

### BRACKET HARDWARE - STAIR APPLICATIONS TREX SIGNATURE

- 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



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#### Measuring and Cutting Rails



 Place a 1" deck board along the nose of the stair tread, then lay the bottom stair rail on top of the deck board. Use the lower and upper stair post to determine the length of the bottom stair rail. At LOWER STAIR POST, mark on topside of rail and cut PERPENDICULAR to the rail. At UPPER STAIR POST, mark on INTERSECTION/ SIDE OF RAIL AND CUT RAIL TO THIS ANGLE.



2. Cut both bottom and top rails to same length. ENSURE POSTS ARE PLUMB before cutting.



3. With deck board still on nose of stair tread, place brackets on ends of bottom stair rail (but do not attach) and mark posts for bracket locations.

#### Installing Lower Stair Brackets



4. Center lower stair bracket on post below the marked line and attach using two #10 x 5/8" 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 Stair Brackets



 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 #10 x 5/8" self-tapping screws (*provided*).

#### Attachment of Foot Block (where recommended)



7. Temporarily set bottom stair rail 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.



8. 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.

9. After attached, use a rubber mallet along with scrap piece of wood to tap foot block until it locks into place.







Set bottom stair rail into bottom stair rail brackets.
Set top stair rail into top stair rail brackets.



12. TEMPORARILY ATTACH BOTH BOTTOM AND TOP RAIL (IN ONE LOCATION ONLY TO ENSURE RAILS DO NOT MOVE) USING ONE #10 X 1" SELF-TAPPING SCREW (PROVIDED) ON SIDE OF BRACKET. YOU MUST PREDRILL THIS LOCATION FIRST USING 9/64" BIT THAT WAS *PROVIDED* IN HORIZONTAL MOUNTING KITS.





13. 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 vertical.

#### Measuring and Cutting Rail Gaskets



14. Measure distance between marked lines on bottom rail and subtract 1/2" from this measurement.



15. Cut both bottom and top rail gaskets to length from previous step.

#### **Measuring Verticals**





16. Determine the angle of the railing (angle should be between 32-37 degrees).

**NOTE:** This can easily be done with using an angle measurement app on cellular phone or using a speed square.

17. Measure distance between marks from bottom to top rail.



 Ensure the verticals are oriented in the correct location, with the channels facing toward each other. Cut verticals to the dimension and at the angle provided above.

### TREX SIGNATURE<sup>®</sup> MESH STAIR RAILING Installation Instructions

## HOW TO INSTALL STANDARD MESH STAIR RAILING/CONTINUED TREX SIGNATURE

#### L-BRACKET ORIENTATION



Above is an overall image showing bracket orientation. The next steps will show in detail how to attach them. Refer to corresponding letters in the following steps.

#### A-Bottom Rail TOP POST LOCATION Installing Gaskets and L-Brackets



19. At TOP POST LOCATION, slide L-bracket into end of gasket. Place gasket so it's resting on the top of the channel (do not insert gasket fully into channel). Slide vertical onto L-bracket.



20. Gently tap gasket into channel of bottom rail. Make sure that upper vertical is properly aligned with mark on bottom rail to ensure this is seated in correct location **BEFORE** attaching L-bracket. Attach L-bracket to bottom rail with two #8 x 5/8" flat head screws (provided).

#### B-Bottom Rail BOTTOM POST LOCATION Measuring for L-Brackets



21. AT BOTTOM POST LOCATION, place L-bracket into vertical and into channel of bottom rail (L-bracket should be oriented in same direction as previous L-bracket.) Ensure that vertical is seated fully flush with bottom rail, bracket is in the channel, and vertical is aligned with mark on rail.

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22. Mark location for screw attachments in channel of bottom rail. Make sure to mark the placement of the screw holes. **DO NOT** attach L-bracket at this point.



#### C-TOP Rail BOTTOM POST LOCATION Installing Gaskets and L-Brackets



23. At BOTTOM POST LOCATION, slide L-bracket into end of gasket. Slide L-bracket (with gasket attached) into top of vertical.



24. Gently tap gasket into channel of top rail. Make sure that vertical is properly aligned with mark on top rail to ensure this is seated in correct location **BEFORE** attaching L-bracket.



25. Attach L-bracket to top rail using two #8 x 5/8" flat head screws (*provided*).

D-Top Rail TOP POST LOCATION Measuring for L-Brackets



- 26. Insert L-bracket into vertical and place bracket into channel of top rail. Ensure that vertical is seated fully flush with top rail, bracket is in the channel, and vertical is aligned with mark on rail.
- 27. Mark location for screw attachments in channel of top rail. Make sure to mark the placement of the screw holes. **DO NOT** attach L-bracket at this point.



#### **Completing L-Bracket Attachments**



28. Remove the two screws from the brackets that were previously installed in step 9. Remove the railing assembly from the post brackets.



29. Lay railing assembly on large, flat, clean surface. Install remaining L-brackets for section **B** and section **D** into rails where marked using remaining #8 x 5/8" flat head screws (*provided*). Before attachment, verify that verticals align properly with marks.



#### Measuring and Cutting Mesh



30. Lay mesh panel on top of stair rail assembly and measure so there is equal spacing between mesh panels at both top and bottom rails. Use clamp to hold mesh in place securely once dimensions are set.



31. At inside of bottom rail, measure DOWN 5/8" and mark mesh at this location. Do this at opposite end of mesh panel/bottom rail. Using straight edge, mark MESH ONLY at all intersection points.



32. At inside of top rail measure **UP** 5/8" and mark mesh at this location. Do this at opposite end of mesh panel/ top rail. Using straight edge, mark **MESH ONLY** at all intersection points.



33. For the vertical measurements, align straight edge with OUTSIDE of one vertical and mark mesh at all intersection points. Align straight edge with INSIDE of opposite vertical and mark mesh at all intersection points.

### TREX SIGNATURE<sup>®</sup> MESH STAIR RAIL

Installation Instructions

# HOW TO INSTALL STANDARD MESH STAIR RAILING/CONTINUED TREX SIGNATURE



34. Cut mesh at all marks using heavy-duty bolt cutters or angle grinder.

**NOTE:** USE PROPER SAFETY GEAR IF CUTTING WITH ANGLE GRINDER.

### Measuring, Cutting, and Installing Gaskets on Sides of Mesh Panel



35. Measure distance within the channel of vertical and subtract 1/2".

36. Using cutting pliers, cut both vertical gaskets to length determined above.





 Attach vertical gaskets to each side of mesh panel. Make sure gaskets are fully seated onto mesh.

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38. Disassemble stair rail panel.

**NOTE:** No screws have to be removed; verticals will pull off of L-brackets.

#### Installing Mesh into Verticals and Rails



39. Snap verticals onto each side of mesh panel (with vertical gaskets installed). Ensure that verticals are still oriented in correct direction and centered appropriately.



40. Holding verticals, align with L-brackets and press mesh panel into bottom rail gasket in channel. Seat verticals fully onto bottom rail.



41. Align top rail with L-brackets, and press top rail down so that mesh panel is seated into gasket in channel and top rail is fully seated onto verticals. Use a rubber mallet to gently tap railing into place.

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### TREX SIGNATURE<sup>®</sup> MESH STAIR RAILING Installation Instructions

## HOW TO INSTALL STANDARD MESH STAIR RAILING/CONTINUED TREX SIGNATURE



42. Drop assembled stair mesh rail panel into brackets. Ensure that rails are fully seated into brackets and verticals are completely seated on rails.

#### Installing Snap-in Channel Filler



43. Cut snap-in channel filler to correct length and install into channels of bottom and top stair rails. Use of a rubber mallet may assist with this step. **DO NOT** attempt to cut short snap-in pieces with a miter saw. Use an angle grinder or hack saw only.

- 44. Attach bottom stair rail to bottom stair brackets using two #10 x 1" self-tapping screws (provided) on each side of bracket. YOU MUST PREDRILL ALL EXISTING LOCATIONS FIRST USING 9/64" BIT THAT WAS PROVIDED IN HORIZONTAL MOUNTING KITS.
- 45. Attach top stair rail to top stair brackets using two #10 x 1" self-tapping screws (*provided*) on each side of bracket. YOU MUST PREDRILL ALL EXISTING LOCATIONS FIRST USING 9/64" BIT THAT WAS PROVIDED IN HORIZONTAL MOUNTING KITS.





Attachment of Bracket Covers, Skirts, and Caps





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



48. Attach post caps to Trex Signature posts. (Use of rubber mallet may be required for secure attachment.)



49. Attach post caps to post sleeves using external- grade PVC construction adhesive (apply adhesive on the inside self-centering/ corner tabs).



# HOW TO INSTALL COCKTAIL MESH STAIR RAILING

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#### 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 Mesh stair railing. Cutting post and post sleeve only applies to the Cocktail style railing.
- » DO NOT CUT LOWER POST/POST SLEEVES UNTIL MESH RAIL STAIR PANEL IS FULLY INSTALLED.
- » THE DECK BOARD USED IN COCKTAIL MESH 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 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.

3. Follow all Stair Mesh instructions for the assembly of the stair mesh 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. BE CAREFUL NOT to CUT brackets.



 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).

Upper – bracket  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.





7. 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).
- 8. 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 MESH 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.
- 1. Installing Pressure-treated Posts, Post Sleeves, and Skirts

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.

3 Follow all Stair Mesh instructions for the assembly of the stair mesh panel



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





- 5. Place 2 x 4 on top stair rail.
- 6. Secure 2 x 4 to top rail using Trex 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.

 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).

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



### Have Questions? 1-800-BUY-TREX

### NOTES
