TREX SIGNATURE® MESH STAIR RAILING
Installation Instructions

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

- Angle grinder
- Heavy duty bolt cutters
- Non-ferrous metal cutting blade
- 9/64” (2.8 mm) or similar sized metal punch

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 over required blocking. Refer to Trex Signature Instructions for detailed post installation.

3. If pressure-treated posts/post sleeves are used, posts should be installed to the inside of the last stair stringer. (Rails must be over decking surface.) Refer to Trex Signature Instructions for detailed post installation.

Stair Post Spanning and Angle Placement Charts

<table>
<thead>
<tr>
<th>Panel Size</th>
<th>Max Post (Measured Horizontally) Spacing Based on Stair Angle</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>30˚ 32˚ 34˚ 37˚ 38˚</td>
</tr>
<tr>
<td>6’ x 36” HZ</td>
<td>NA 42” 40” 39”</td>
</tr>
<tr>
<td>8’ x 36” HZ</td>
<td>NA 62” 59” 58”</td>
</tr>
<tr>
<td>8’ x 42” HZ</td>
<td>66” 65” 62” 59” 58”</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Panel Size</th>
<th>Max Post Spacing</th>
</tr>
</thead>
<tbody>
<tr>
<td>8’ x 42” ST</td>
<td>72” 72” 72” 72”</td>
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Mesh Dimensions Chart

<table>
<thead>
<tr>
<th>Panel Size</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>6’ x 36” HZ</td>
<td>64”</td>
<td>32 3/8”</td>
<td>4”</td>
</tr>
<tr>
<td>8’ x 36” HZ</td>
<td>88”</td>
<td>32 3/8”</td>
<td>4”</td>
</tr>
<tr>
<td>8’ x 42” HZ</td>
<td>88”</td>
<td>38 3/8”</td>
<td>4”</td>
</tr>
<tr>
<td>8’ x 42” ST</td>
<td>108 3/16”</td>
<td>36 3/16”</td>
<td>4”</td>
</tr>
</tbody>
</table>

Note: An 8’ stair rail kit is required if above is marked with an asterisk (*).

INSTALLING STANDARD STAIR POSTS, OR PRESSURE-TREATED POSTS, POST SLEEVES AND SKIRTS / TREX SIGNATURE STANDARD

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 over required blocking. Refer to Trex Signature Instructions for detailed post installation.

3. If pressure-treated posts/post sleeves are used, posts should be installed to the inside of the last stair stringer. (Rails must be over decking surface.) Refer to Trex Signature Instructions for detailed post installation.

Have Questions?
1-800-BUY-TREX

Note: Construction methods are always improving. Please ensure you have the most up-to-date installation instructions by visiting trex.com

TSMSR-1019
BRACKET HARDWARE - STAIR APPLICATIONS

TREX SIGNATURE STANDARD
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

NOTES:
» All Trex Signature fixed stair brackets ONLY work with stair slopes of 32°-37°.
» Illustrations shown are representations when using Trex Signature posts, but same rules apply if using pressure-treated posts and post sleeves (using wood screws to attach brackets to post).

Measuring and Cutting Rails

1. Place a 1” (2.5 cm) 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

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

7. Set bottom stair rail into bottom stair rail brackets.

8. Set top stair rail into top stair rail brackets.

9. 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.
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10. 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

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

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

Measuring Verticals

13. 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.

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

15. 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.
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

16. 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.

17. 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

18. 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.
19. 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

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

21. 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 **B E F O R E** attaching L-bracket.

22. 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

23. 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.

24. 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

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

26. 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

27. 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.

28. 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.

29. 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.

30. 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.
31. 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

32. Measure distance within the channel of vertical and subtract 1/2”.

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

34. Attach vertical gaskets to each side of mesh panel. Make sure gaskets are fully seated onto mesh.
35. Disassemble stair rail panel.

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

### Installing Mesh into Verticals and Rails

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

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

38. 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.
39. 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

40. 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.

41. 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.**

42. 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

43. Attach corresponding bracket covers over opening in upper and bottom rails.

44. Attach provided post skirt to bottom of posts when using Trex Signature posts.
45. Attach post caps to Trex Signature posts. (Use of rubber mallet may be required for secure attachment.)
46. Attach post caps to post sleeves using external-grade PVC construction adhesive.