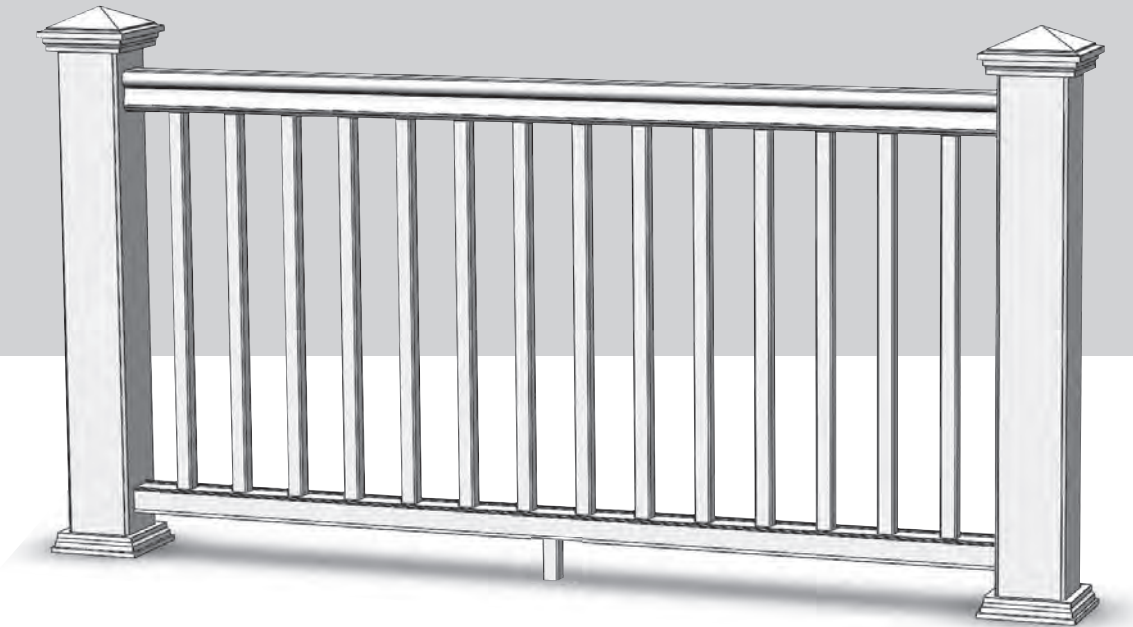


fiberon® Symmetry™

Low Maintenance Composite Railing

1.83 m and 2.44 m
INSTALLATION INSTRUCTIONS



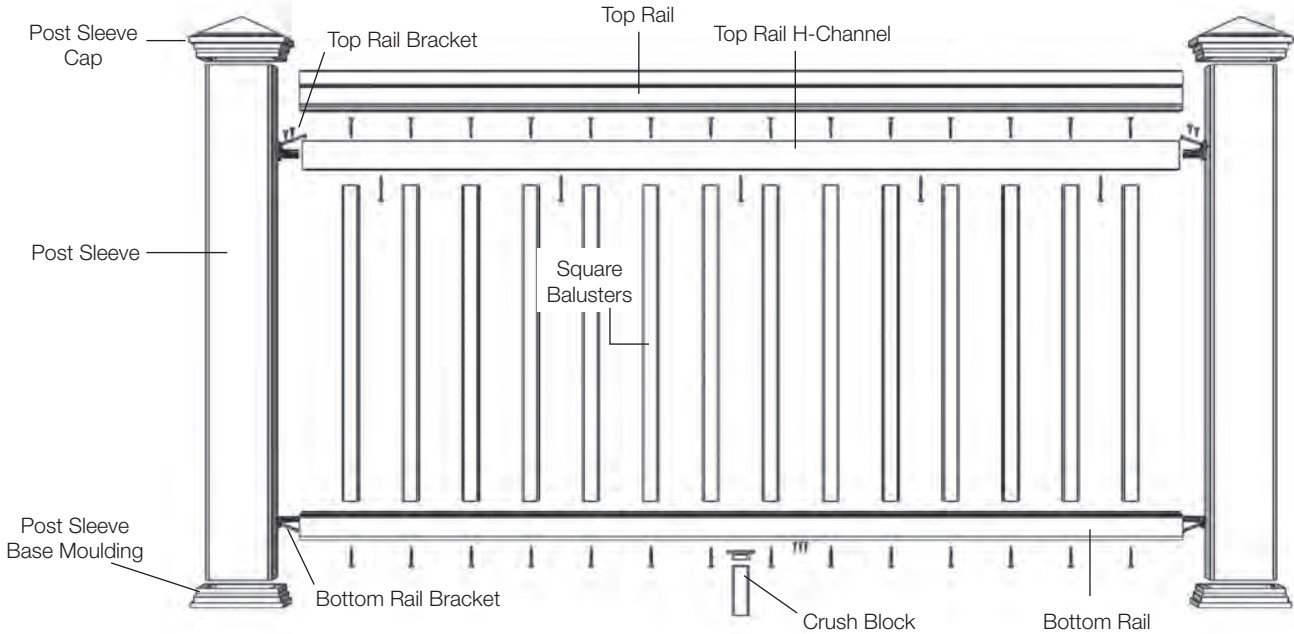
Manufactured by

fiberon®

fiberondecking.com

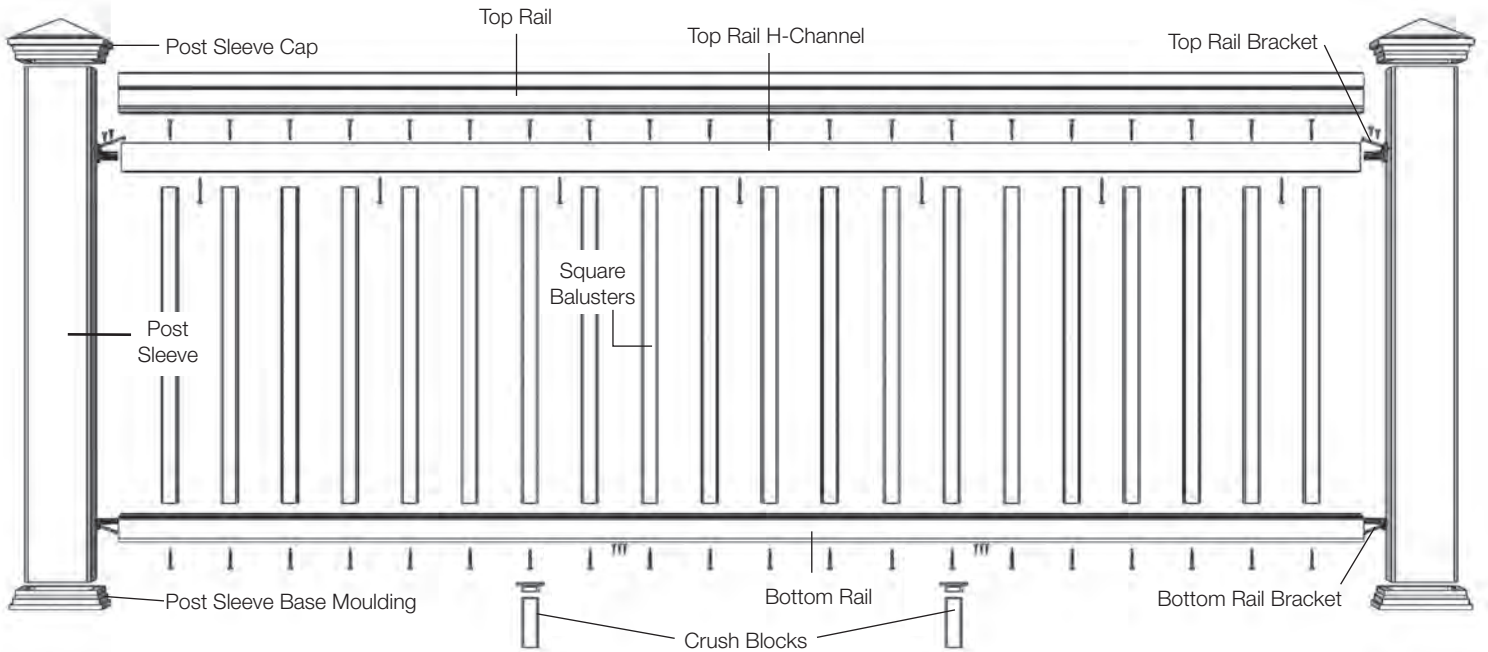
Railing component list for 1.83 m section:

Maximum length between post sleeves is 1.7 m.



Railing component list for 2.44 m section:

Maximum length between post sleeves is 2.3 m.



Note: Rail lengths will vary slightly due to manufacturing processes. Ensure rails are cut to correct length with hole pattern centred between posts before securing.

Symmetry Railing Installation Instructions - 1.83 m and 2.44 m Line



Top Rail Profile



Bottom Rail Profile

Required Tools and Supplies:

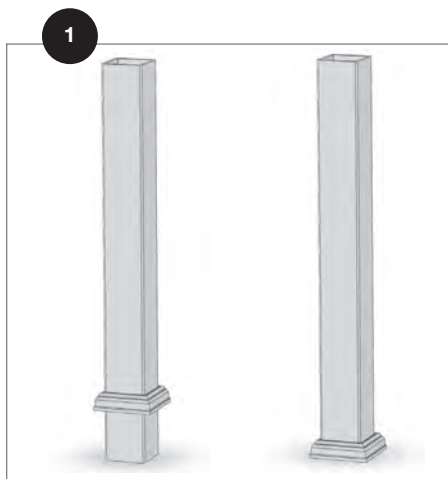
- Power Drill
- Protective Eye Wear
- Tape Measure
- Level
- Speed Square
- Mitre Saw
- Pencil
- Adjustable Square

Prior to installing railing: Please consult local zoning laws in regard to load requirements and bottom space requirements for rails. All supporting structures must be in accordance with applicable building codes. Neighbourhood associations and/or historic districts may regulate size, placement and type of railing. Apply for permits if required by local authorities and codes. Ensure compliance prior to installation. Local building code requirements will always supersede any and all suggested procedures and measurements in the following installation. The following installation instructions are intended as a general guideline based on common building practices used in railing installation.

When top and bottom rail length is greater than the distance between posts, trim both top and bottom rail ends to maintain uniform baluster spacing. Slide post sleeve base moulding over each post prior to installing bottom rails and press securely into place.

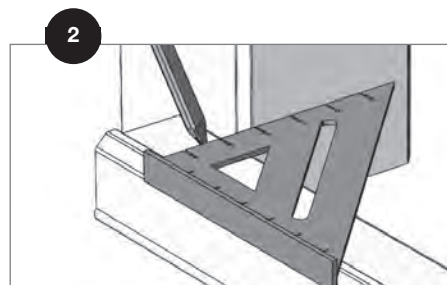


Rail Installation: Trim both ends of the rail to maintain uniform baluster spacing. It is critical to ensure the trim mark does not interfere with the balusters once installed. Adjust trim lines to maintain uniform baluster spacing.

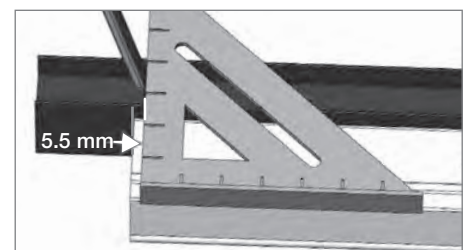
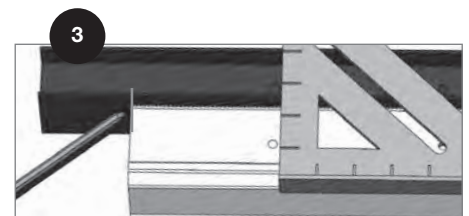


Note: Make sure posts are plumb and level prior to installing the railing.

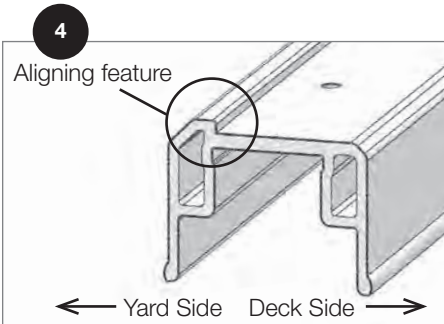
Cover 10 x 10 cm posts or Fiberon surface mount bracket with post sleeve and verify spacing. Posts should be plumb in both directions. Place post sleeve base moulding over post sleeve and slide it down to the deck surface.



Measure the distance between the posts for the bottom rail. Centre the hole pattern, then mark the cutting points. Check for fit. Centre the bottom rail with the top rail. Mark and cut to length.



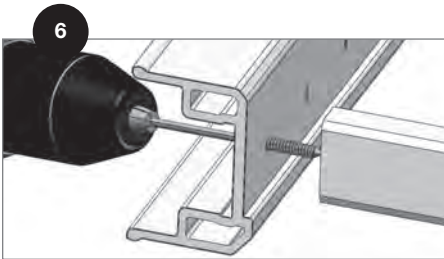
Align the H-bar and the cut bottom rail hole patterns. Mark the length of the bottom rail on the H-bar then subtract 5.5 mm from that measurement on each end of the H-bar (11 mm total to allow for top bracket thickness) and mark. Cut the H-bar and set aside for step 7.



Note: Make sure that the bottom rail is positioned correctly prior to installation. The bottom rail has an aligning feature on the top, which should be on the yard side of the rail, opposite to the deck side.

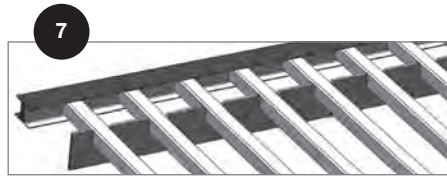


Measure and cut all balusters to the required length. Remove the baluster guide from the railing box. Place on a flat surface and insert the balusters into the pre-cut slots.

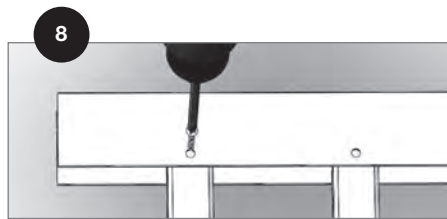


Align the bottom rail with the balusters on the same end as the baluster guide.

Starting from one end, hold each baluster securely against the aligning feature on the bottom rail and secure the balusters to the bottom rail with the supplied 4.8 x 38 mm screws. Do not overtighten.



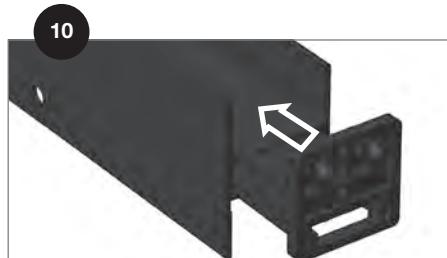
Slide the baluster guide to the opposite end of the balusters. Insert the top of the balusters fully into the channel of the aluminium H-bar rail.



Position the top of the balusters tightly against the inside of the top H-bar. Centre the balusters under the side-mounting screw holes. Working from one end to the other, secure each baluster using the supplied 4.2 x 38 mm flat head screws. Do not overtighten.



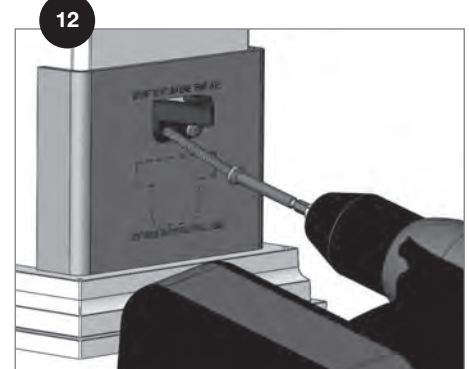
NOTE: THE BRACKETS INDICATE WHICH SIDE WILL BE FACING THE DECKING.



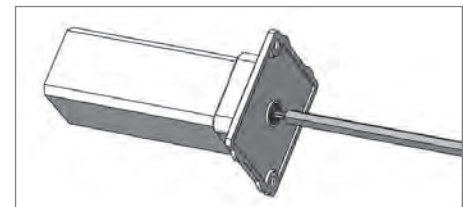
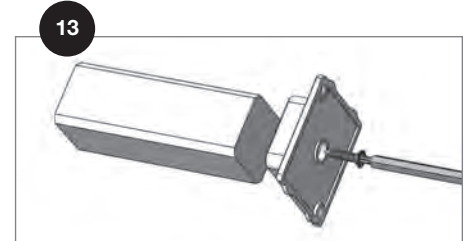
Insert top brackets into the cavity of the aluminium H-bar, noting the directional arrows.



Using integrated screw template, secure with the supplied 4.8 x 16 mm self-drilling screws.

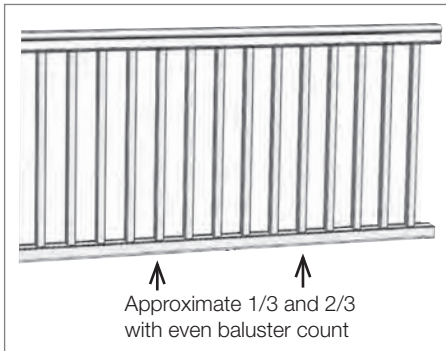
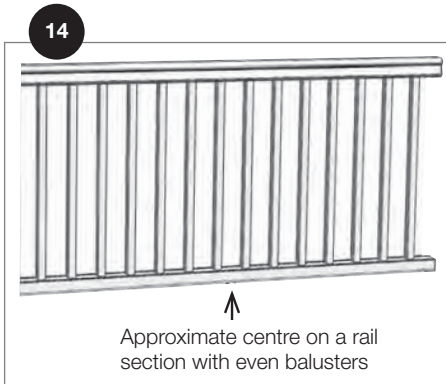


Locate the Symmetry bottom line bracket template (included on the post sleeve carton and inside the rail kit box). Position and secure the bottom brackets using the bottom bracket template making sure the long side of the bracket is on the deck side of the post. The template will create a 7.6 cm gap under the bottom rail.



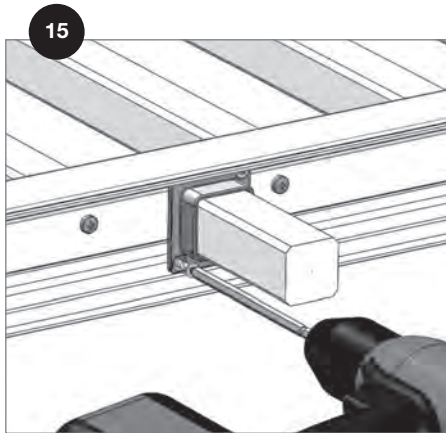
If needed, measure and trim crush block to the required final length. Secure crush block to holder using supplied flat head screw.

Symmetry Railing Installation Instructions - 1.83 m and 2.44 m Line

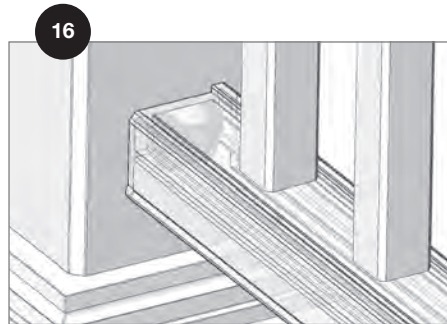


For 1.83 m rails sections, position the crush block and holder inside the bottom rail at the approximate centre point.

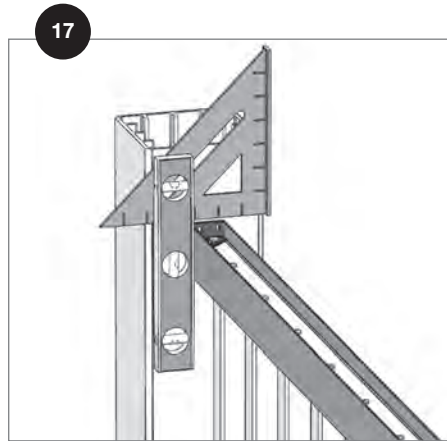
For 2.44 m rail sections, position the two crush blocks and holders inside the bottom rail at the approximate 1/3 and 2/3 points.



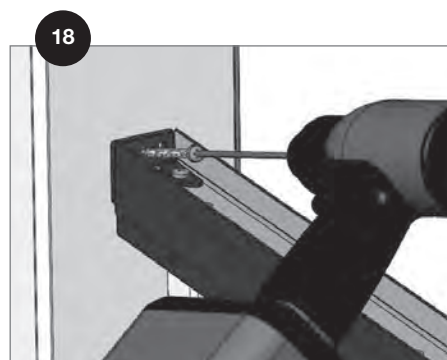
Pre-drill the two holes with a 3 mm bit taking care not to drill through the top of the bottom rail. Secure with the supplied flat head screws. Do not overtighten.



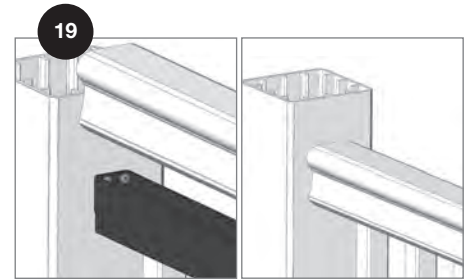
Carefully position the pre-assembled railing infill between the posts, then slowly lower over the bottom brackets until fully seated.



Centre the H-bar on the post and check rail for plumb.



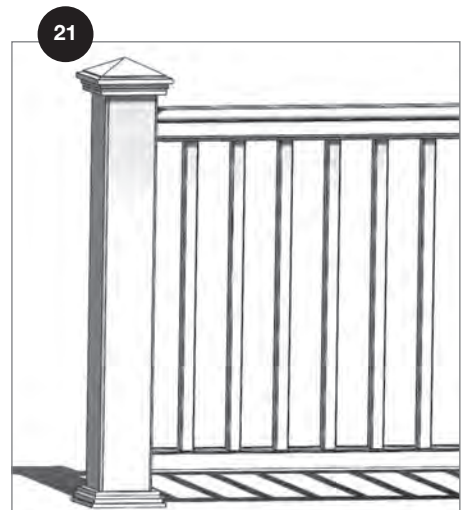
Secure the top brackets with the supplied 4.8 x 64 mm screws.



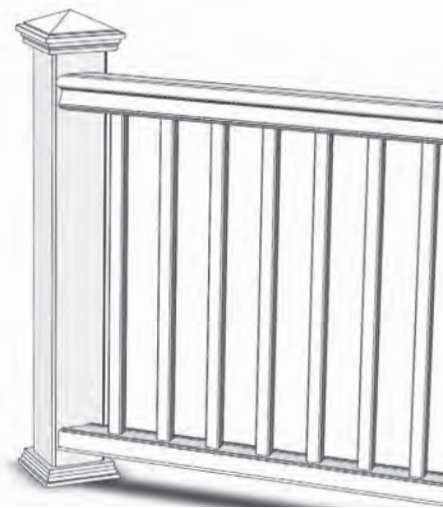
Position the top rail over the infill assembly and carefully lower into place.



Starting at one end of the rail, secure the top rail with the supplied 48 mm screws between the post and first baluster (if there is room), at the centre of the top rail, and approximately between every second and third baluster in the infill.

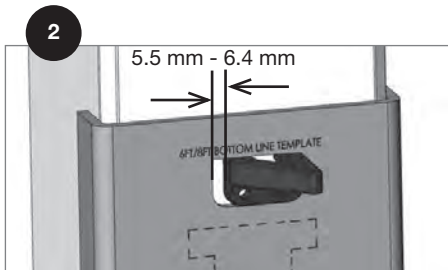


Complete the assembly by gluing the post caps in place with a quality exterior grade adhesive.



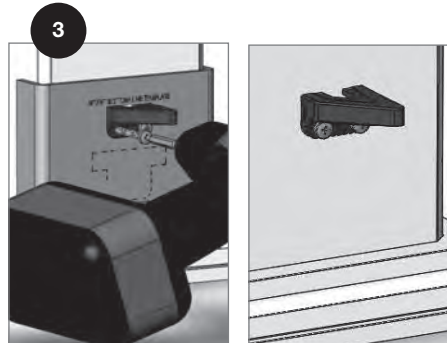
For angled line installation, the line brackets will need to be installed with the angled edge on the deck side of the railing.

Note: This is opposite of what is indicated on the line bracket for basic line railing installation.

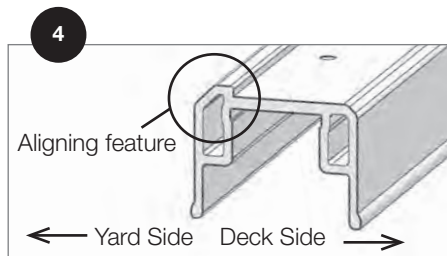


The template can still be used to locate the height of the line bracket. The side-to-side alignment needs to be approximately 5.5 mm – 6.4 mm off-centred from the deck side of the railing for a full 45 degree installation.

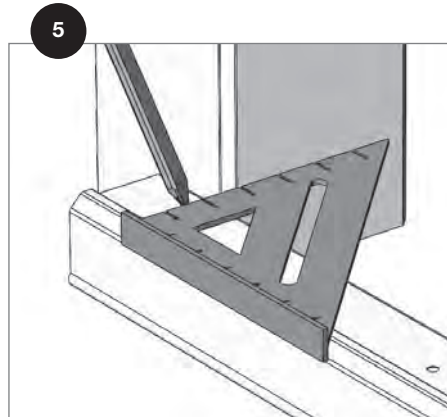
Note: If the bracket is not offset slightly, the top rail may overhang the corner post face and extend into the corner chamfer.



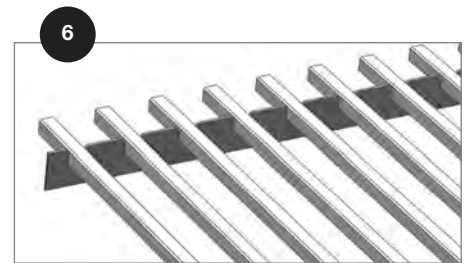
Secure with the supplied 4.8 x 64 mm self-drilling screws. Do not overtighten.



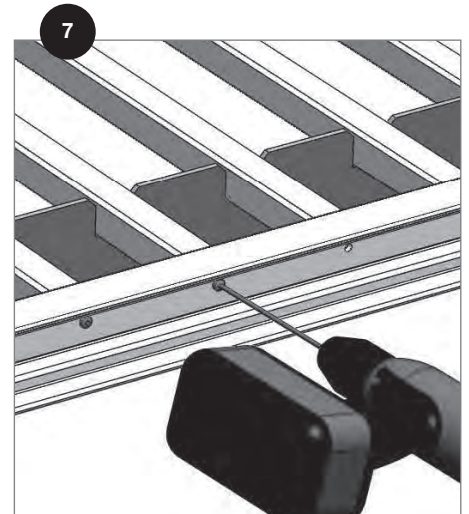
Note: Make sure that the bottom rail is positioned correctly prior to cutting the bottom rail angle for installation. The bottom rail has an aligning feature on the top, which should be on the yard side of the rail, opposite to the deck side.



Centre the hole pattern in the bottom rail between the posts. Measure, transfer the length and cut angles. Transfer length and angle to the top rail and cut. When transferring length and cutting angles to the H-bar, remember to subtract 5.5 mm from each end to allow for top brackets.



Measure and cut all balusters to the required length. Remove the baluster guide from the rail box. Place on a flat surface and insert the balusters into the pre-cut slots.



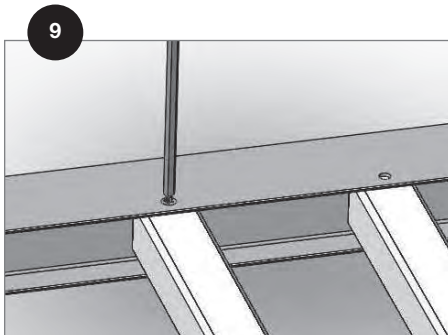
Assemble infill by aligning the bottom rail with the balusters on the same end as the baluster guide.

Starting at one end, hold each baluster securely against the aligning feature on the bottom rail and secure the balusters to the bottom rail with the supplied 4.8 x 38 mm screws. Do not overtighten.

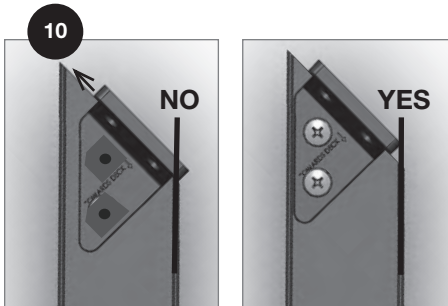


Slide the baluster guide to the opposite end of the balusters. Insert the top of the balusters fully into the channel of the aluminium H-bar rail.

Symmetry Railing Installation Instructions - Angled Line



Position the top of the balusters tightly against the inside of the top H-bar. Centre the balusters under the side-mounting screw holes. Working from one end to the other, secure each baluster using the supplied 4.2 x 38 mm flat head screws. Do not overtighten.

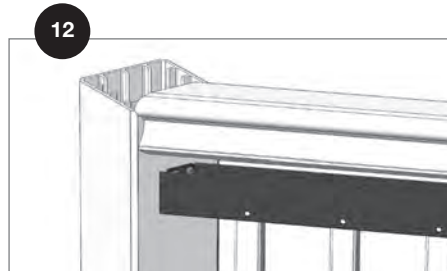


Insert top brackets into the cavity of the aluminium H-bar making sure that the top bracket is located within the boundaries of the H-bar. If the bracket is outside of the boundaries, the top rail will not fit over the H-bar and bracket. Secure with the supplied 4.8 x 16 mm self-drilling screws.

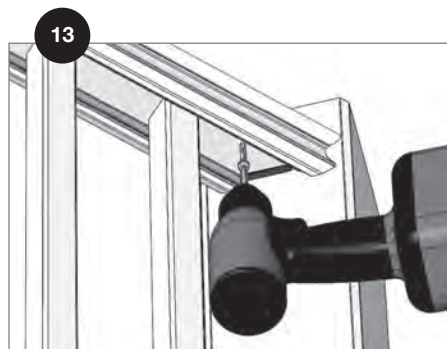


Assemble and attach the crush block following standard line railing instructions.

Position the assembled bottom rail, balusters, and H-bar over the bottom brackets and carefully lower into place and secure the top brackets with the supplied 4.8 x 64 mm screws.



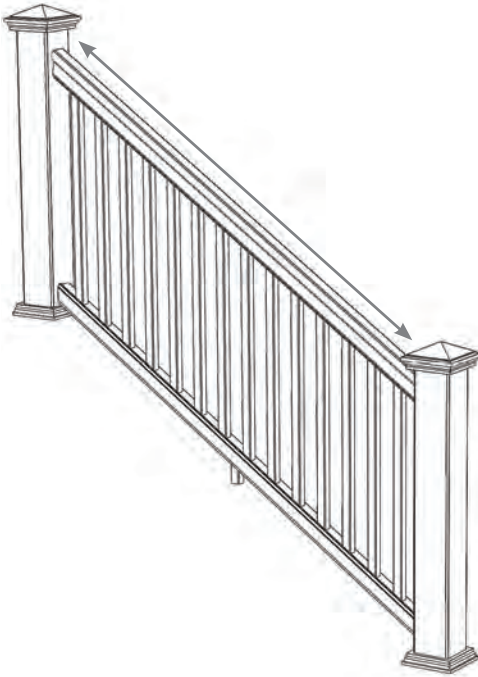
Position the top rail over the infill assembly and carefully lower into place.



Starting at one end of the rail, secure the top rail with the supplied 48 mm screws between the post and first baluster (if there is room), at the centre of the top rail, and approximately between every second and third baluster in the infill.

Complete the assembly by gluing the post caps in place with a quality exterior grade adhesive.

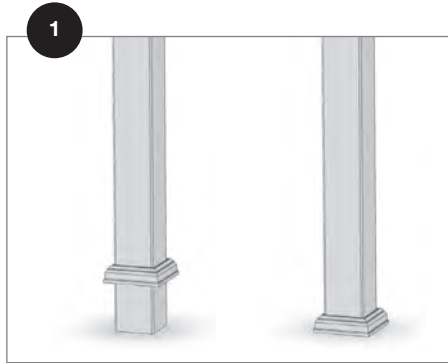
The maximum length between post sleeves measured in line with the guardrail cannot exceed 12.7 cm short of full length.



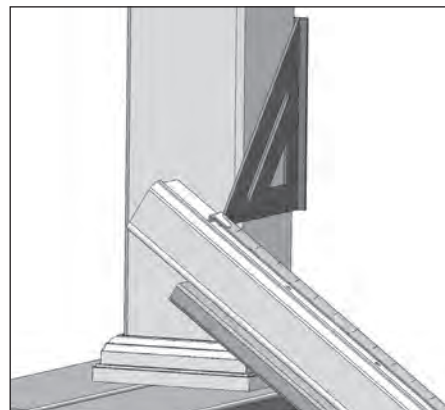
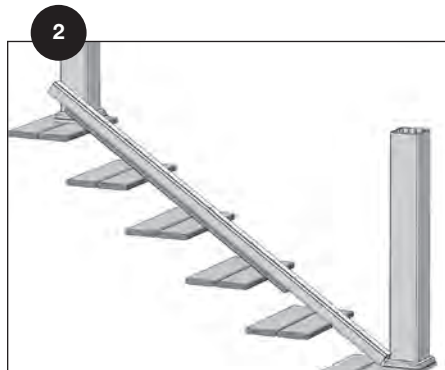
Building codes are very specific on allowable angles and widths. It is very important to consult with your local building code officials and plan your stair layout accordingly. Leave adequate space for a graspable hand rail if applicable.

Note: The slope of the stairs can be 30 to 37 degrees.

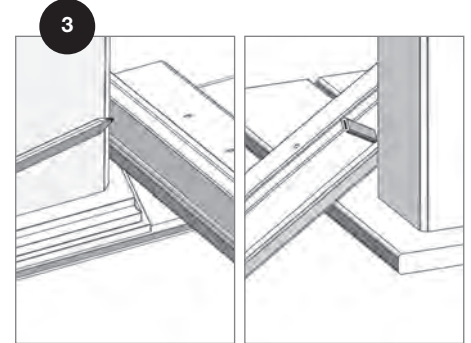
Note: Rail lengths will vary slightly due to manufacturing processes. Make sure rails are cut to correct length.



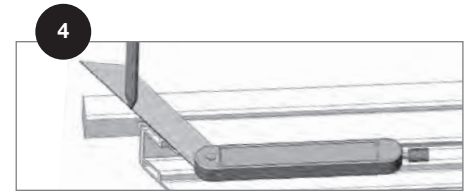
Install 10 x 10 cm posts in the pre-determined locations, cover with post sleeve and verify spacing. Posts should be plumb in both directions. Place post sleeve base moulding over post sleeve and slide it down to the deck surface.



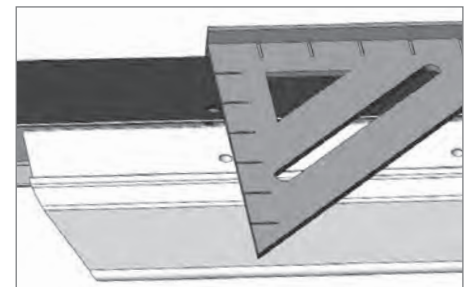
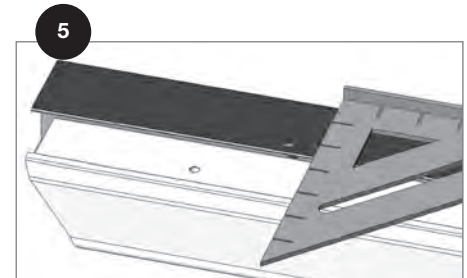
Use a 2.54 x 10 cm or similar support to bridge at least three stairs to establish the stair angle. Place the bottom rail between the stair posts. Centre the hole pattern between the posts allowing a minimum 41 mm from rail end to routed baluster holes.



Transfer the stair angle to both ends of the bottom rail and cut the bottom rail to the required length and angle. Test for a snug fit and make corrections as needed.

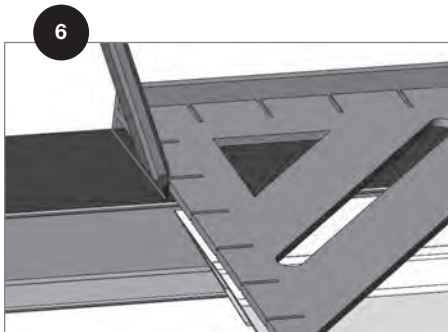


Transfer the stair angle to the balusters, and cut the balusters to desired length.

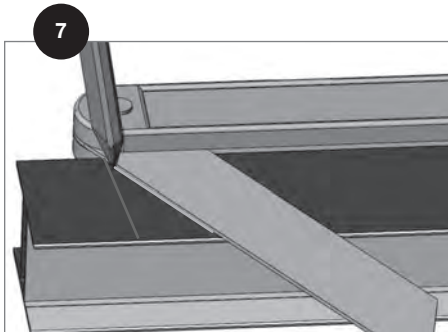


To cut the H-bar, first place the H-bar on its side with the holes nearest to the cut bottom rail. The bottom rail should be top side up. Align the hole pattern with the cut bottom rail.

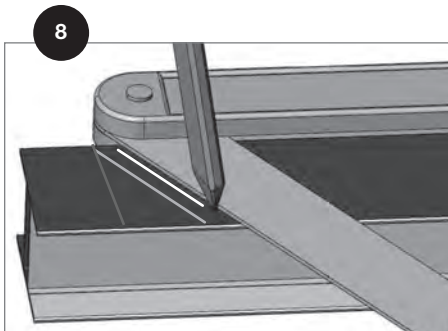
Symmetry Railing Installation Instructions - 1.83 m and 2.44 m Stair



Transfer the length of the cut bottom rail to the H-bar.

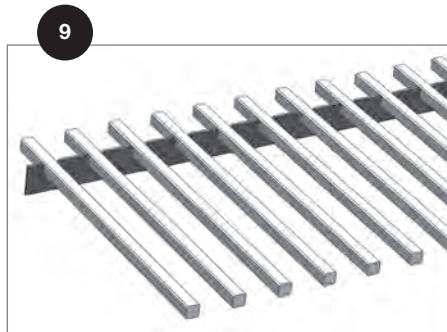


Scribe the stair angle to the side of the H-bar at both ends.

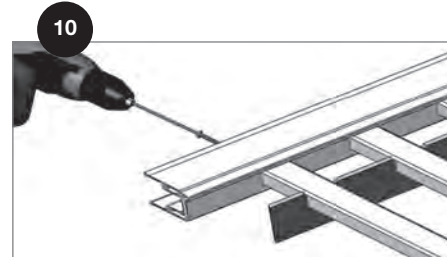


Scribe a second line 5.5 mm inside the first.
Note: This allows for the thickness of the upper bracket.

The total length of the H-bar will be 11 mm shorter than the cut bottom rail.

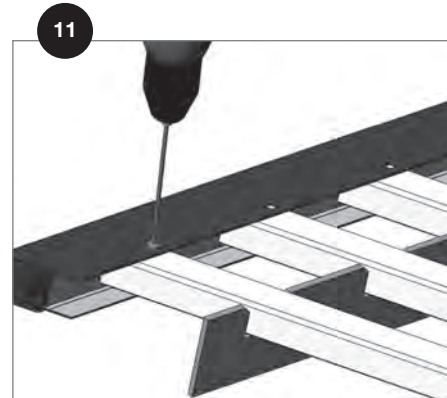


Remove the baluster guide from the rail box. Place on a flat surface and insert the balusters into the pre-cut slots.



Align the end baluster with the predrilled hole in the bottom rail.

Starting at one end, hold each baluster securely against the aligning feature and drive screws parallel with the balusters, not perpendicular to the bottom rail. Do not overtighten.



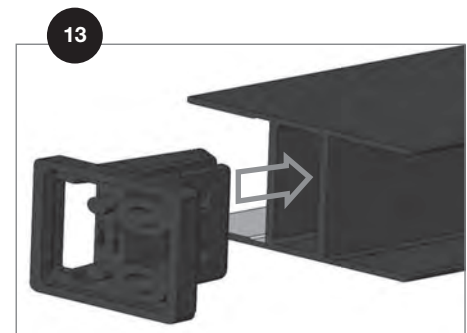
Move the baluster guide to the top rail end of the balusters.

Starting at one end screw the end baluster using the supplied pan head screw into the predrilled hole on the side of the aluminium H-bar.



Note: The screws should penetrate fully through the baluster.

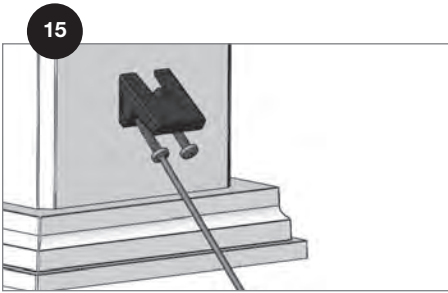
Secure the remaining balusters working to the other end. Do not overtighten.



Insert the top stair brackets into the centre cavity in the top H-bar.

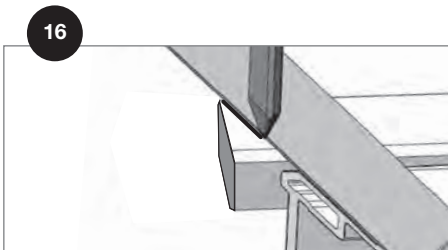


Secure the top brackets to the H-bar using (two) 16 mm self-drilling pan head screws. Do not overtighten.

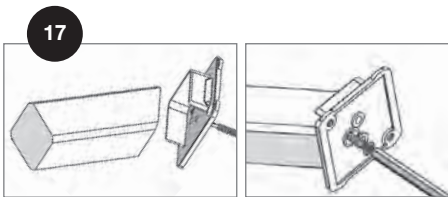


Note: For best results, predrill bracket holes on the post with a 3 mm - 4 mm bit to ensure accurate screw placement and full insertion, particularly as the stair angle increases.

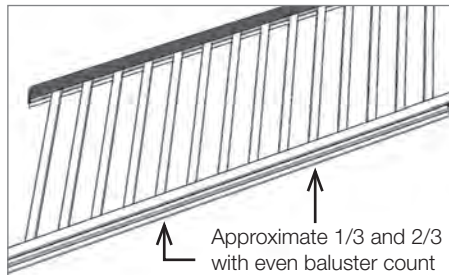
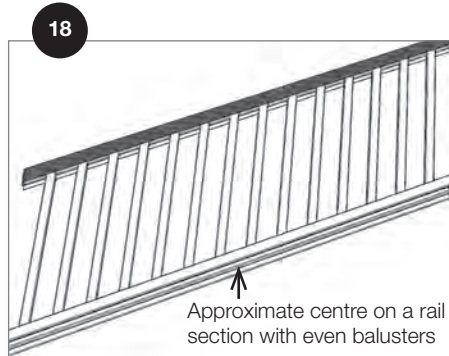
Secure the bottom stair brackets to the post using the supplied pan head screws at the desired height. Do not overtighten.



Before assembling the crush block, transfer the stair angle to the end of the crush block and cut to desired length.

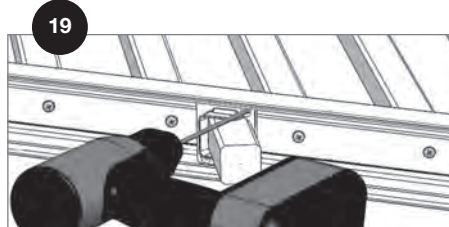


Secure crush block to crush block holder using a supplied 4.2 mm flat head screw. Do not overtighten.

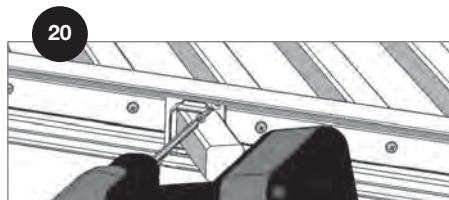


For 1.83 m rails sections, position the crush block and holder inside the bottom rail at the approximate centre point.

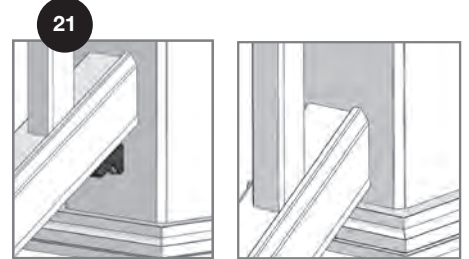
For 2.44 m rail sections, position the two crush blocks and holders inside the bottom rail at the approximate 1/3 and 2/3 points.



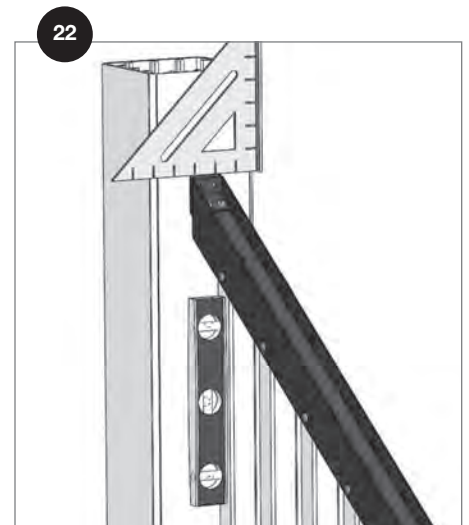
Predrill two holes with a 3 mm bit taking care to not drill through the top of the bottom rail.



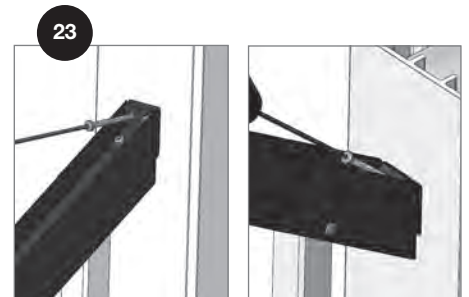
Secure the crush block to the bottom rail using the supplied two 4.2 mm flat head screws. Do not overtighten.



Carefully position the pre-assembled railing infill between the posts, then slowly lower over the bottom brackets until fully seated.



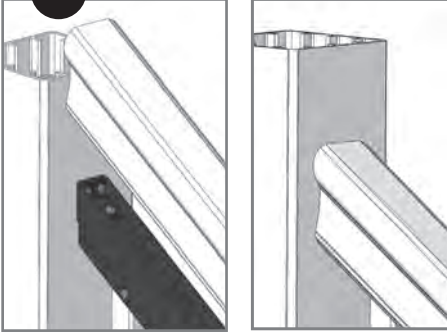
Centre the H-bar on the post and check rail for plumb.



Starting at the top, secure the H-bar to the posts at both ends using the supplied 4.8 x 64 mm self-drilling pan head screws. Do not overtighten.

Symmetry Railing Installation Instructions - 1.83 m and 2.44 m Stair

24



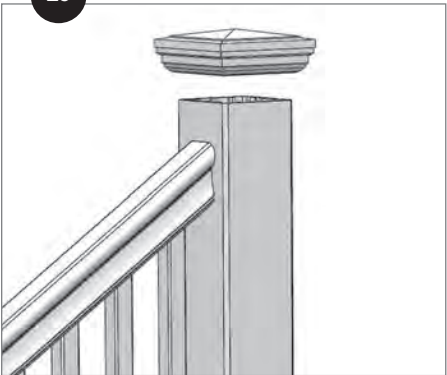
Position the top rail over the infill assembly and carefully lower into place.

25



Starting at one end of the rail, secure the top rail with the supplied 48 mm screws between the post and first baluster (if there is room), at the centre of the top rail, and approximately between every second and third baluster in the infill.

26



Finally, position and glue the post cap over the post sleeve.

Design Grid



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