A310 Level Railing
Installation Guide

Top Rail

Bottom Rail

Aluminum Baluster

2x Bottom Bracket

1x Rail Support

Kit Includes:
1 - Top Rail (with Baluster Connectors installed)
1 - Bottom Rail (with Baluster Connectors installed)
2 - Bottom Rail Brackets (PTP/OTP) Level (with screws)
1 - Rail Support - Top/Deck Mount
Aluminum Balusters:
   10 Balusters with 4' Kit
   15 Balusters with 6' Kit
   21 Balusters with 8' Kit
Top rail brackets sold separately.

Before Starting the Installation
Review all local building codes. Wear proper safety equipment.
NOTE: always lay material on a clean, non-abrasive surface material (such as the box it came in) when cutting or assembling.
This is a pre-finish product and damage may occur.

STEP 1
Lay out post placement.

STEP 1

STEP 2
Determine size and surface post mount required.
3-1/2" surface post mount for post-to-post (PTP) applications or
1-7/8" surface or side/fascia post mount for over-the-post (OTP) applications.

Using Surface Post Mount:
Set post mount in place and mark four mounting holes. Pre-drill four holes for 5/16" mounting bolts (hardware not supplied).
Set post mount in place and install mounting bolts.
Check mount with level and shim if necessary (using metal or composite shims).
Slide post sleeve over post mount. Adjust height, if necessary, by cutting length of post to proper height (see manufacturer's specifications).
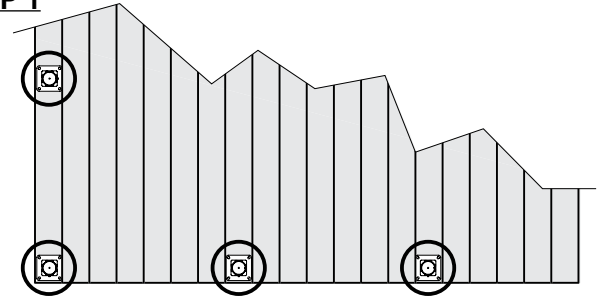
Using Side/Fascia Post Mount:
Insert post mount inside 1-7/8" post sleeve. Align pre-drilled holes in post mount with bottom of post sleeve.
NOTE: 1-7/8" post layout is 8" end to mount on fascia, 2" gap between deck surface and bottom of bottom rail and balance of post for 36" and 42" height railing.
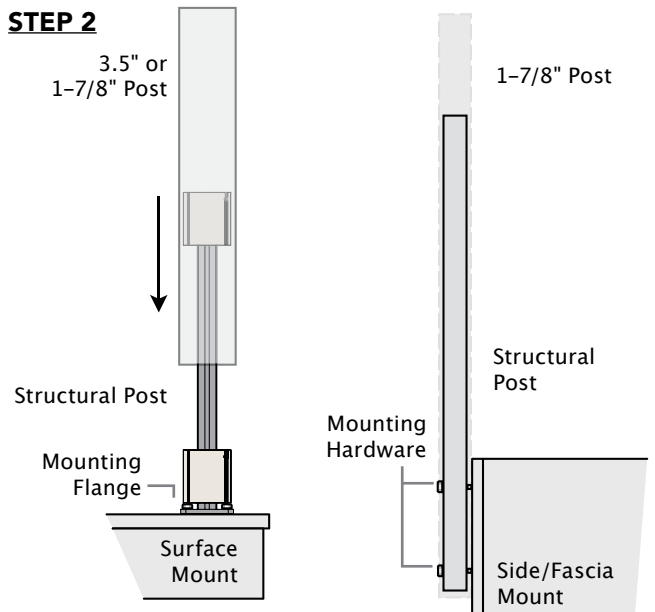Set post in place, mark and drill for 5/16" mounting bolts (hardware not supplied).
Set post in place, install mounting hardware. Check post with level and shim if necessary (using metal shims).

STEP 2

3.5" or 1–7/8" Post

Structural Post

Mounting Flange

Surface Mount

1–7/8" Post

Structural Post

Mounting Hardware

Side/Fascia Mount

STEP 3
Measure distance from post to post and deduct 3/8" from each end of rail.
Measure bottom rail ensuring **equal and maximum spacing** from end of rail to the first baluster on both ends of the bottom rail.
Cut bottom rail with a metal cutting blade (check manufacturer's specs for proper blade).
Repeat previous steps when measuring and cutting the top rail.

Equal Spacing

Top or Bottom Rail

Maximum Spacing

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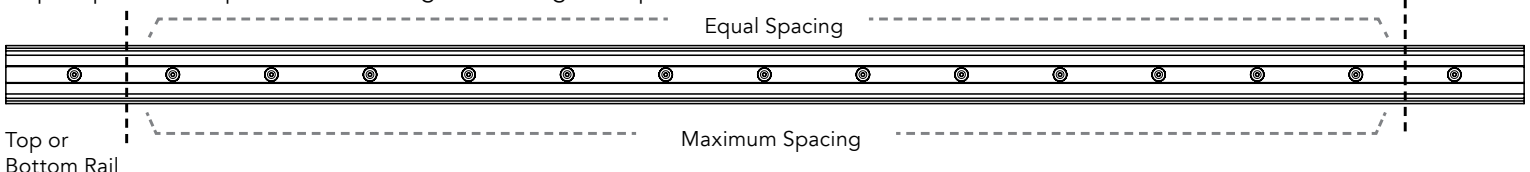
A310 Level Railing
Installation Guide *(continued)*

STEP 4

Method 1:
Insert balusters onto the baluster connectors that are provided attached to the bottom rail.
Insert first two balusters from one end of section onto the baluster connectors attached to the top rail.
Install a strap (not included) on this end.
Continue working down the length of the rail inserting the balusters onto the top rail.
When finished, install strap on other side.
  OR
Method 2:
Insert balusters onto the baluster connectors that are provided attached to the bottom rail. Lay rail section on a flat surface and use a block (or board) under balusters to line up with baluster connectors on the top rail.
Insert balusters onto the baluster connectors attached to the top rail. Install straps (not included) on both ends.

The rail support surface mount (foot block) provided is designed for a maximum 3" of clearance between the bottom rail and the walking surface. TIP: If a smaller clearance is required, the rail support can be carefully cut by mounting to scrap wood and cutting with a mitre saw (see Cutting Rail Support notes).
Install rail support to the bottom rail in the center point of the section.
Drill a 3/16" weep hole under bottom rail at two locations mid-point between rail support and each end of the section.

STEP 5

Using wood scrap, cut two spacer blocks that are the same height as the rail support. For example: using the maximum desired rail support clearance of 3", the blocks would be the same height. Place each block approximately 12" from each post. (see Step 5a illustration).
Slide top and bottom mounting brackets on ends of rail section (see Step 5b illustration).
Set rail section between posts, resting on blocks, with mounting brackets centered on posts.
Install self-drilling stainless steel screws through mounting brackets into posts while maintaining the rail in a level position.
Install self-tapping stainless steel screws up through the bottom of the TOP mounting brackets into the rail.
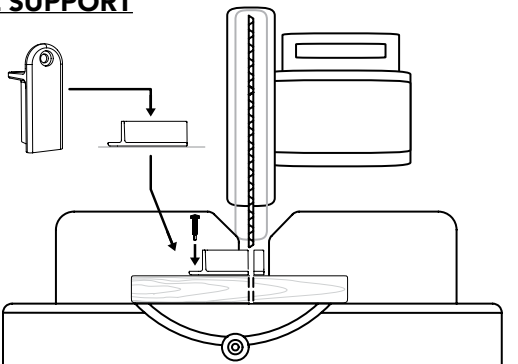Remove straps and spacer blocks.
Install post caps and post base trim.
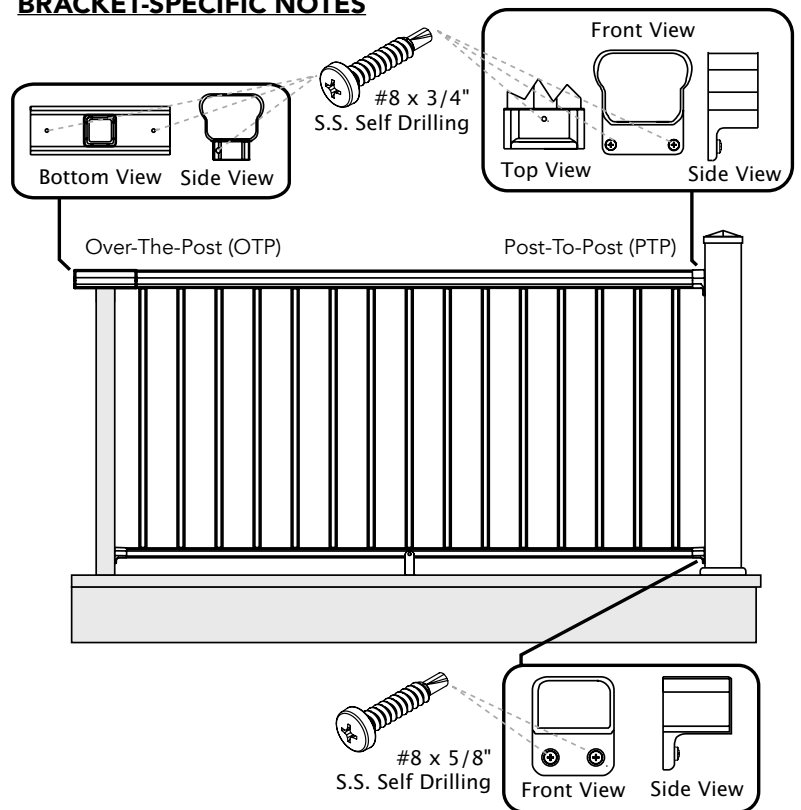
CUTTING RAIL SUPPORT

Place rail support - surface mount face down on scrap wood.

Screw into wood flush against back stop.

Cut, remove from scrap wood.

BRACKET-SPECIFIC NOTES

#8 x 3/4"
S.S. Self Drilling

Bottom View   Side View

Front View
Top View   Side View

Over-The-Post (OTP)   Post-To-Post (PTP)

#8 x 5/8"
S.S. Self Drilling

Front View   Side View

STEP 5B

STRAPS