

Installation Instructions for Fortress Al¹³ Railing Traditional Panels with Evolve Internal Brackets and Al¹³ Posts

It is the responsibility of the installer to meet all code and safety requirements, and to obtain all required building permits. The deck and railing installer should determine and implement appropriate installation techniques for each installation situation. The Fortress Company or its distributors shall not be held liable for improper or unsafe installations.

Fortress Al¹³ Posts must always be secured to the deck framing. Fortress Al¹³ Posts should never be attached to only the deck boards.

Read Instructions Completely Before Starting Installation

Note

When cutting Fortress railing, it is very important to complete the following at cut points. Not following the below steps will result in corrosion at the cut areas:

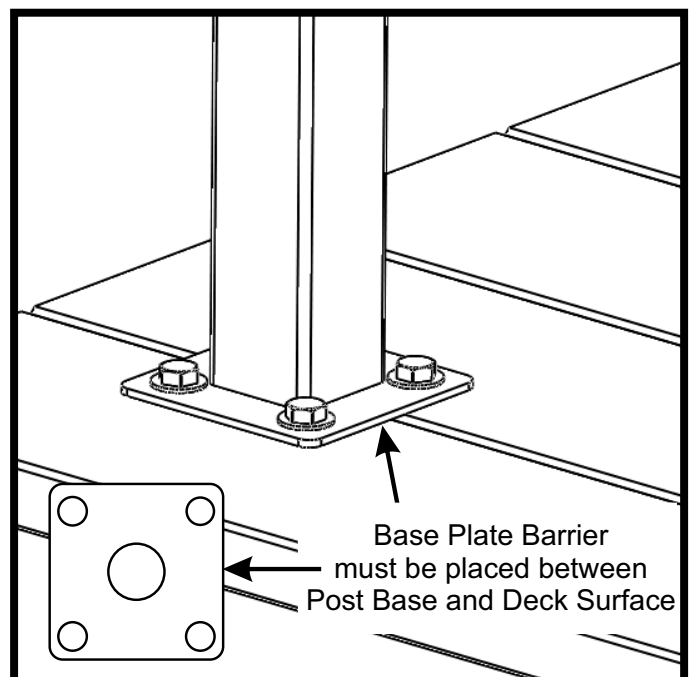
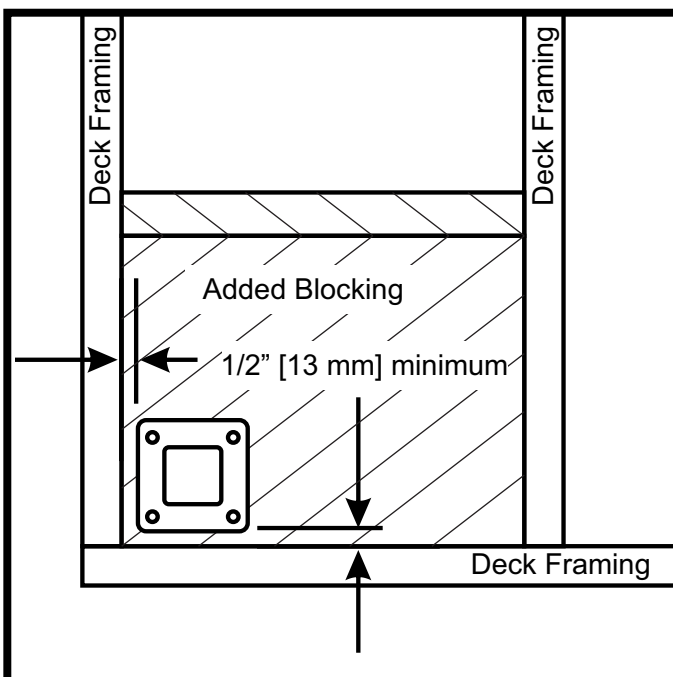
- Remove all metal shavings from the cut area.
- File any sharp edges left by cutting. Thoroughly wipe and remove any filings, grime or dirt from the railing.
- Be sure to remove any metal shavings from the surface of deck, patio or balcony to prevent stains on the deck surface.

Required Materials

Miter saw with fine tooth blade, Drill, Drill Bits, T-25 Driver Bit, Drill Bit Extender, Tape Measure, Wrenches, Speed Square, Center Punch, 3-1/2" [89 mm] Support Blocks, Hammer and Personal Safety Equipment.

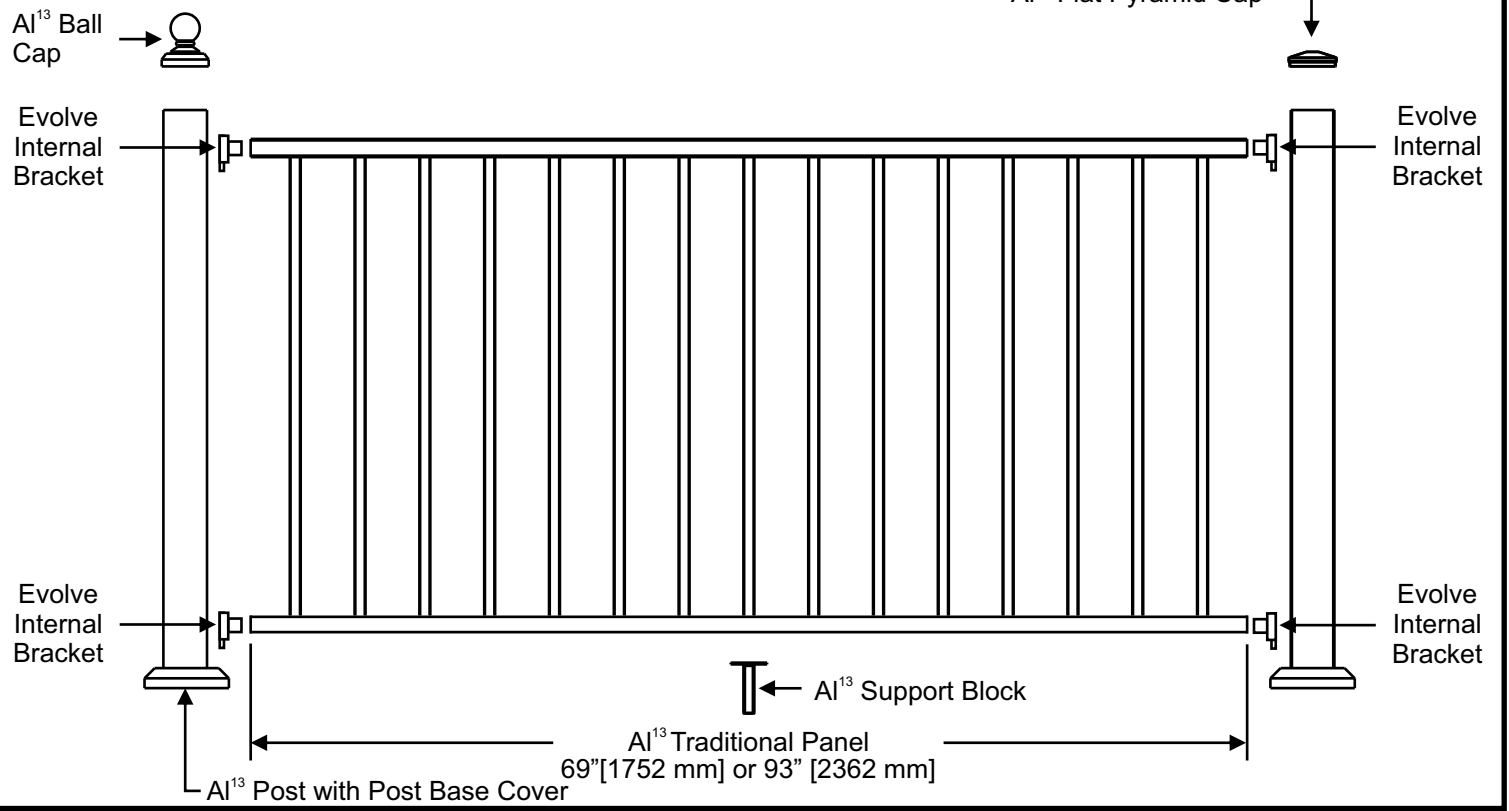
Mount Al¹³ Posts*

- Wood Blocking tied to deck frame must be installed and constructed with treated dimensional lumber with a minimum thickness of 1-1/2" [38 mm].
- Al¹³ 3" [76 mm] Post Spacing must not exceed 96" [2438 mm] for 8' [2.44 m] Panels and 72" [1829 mm] for 6' [1.83 m] Panels.
- Position the edge of post base plate a minimum of 1/2" [13 mm] from the inside edge of rim joist.
- Place included Base Plate Barrier between post base and deck surface.
- Mount posts at appropriate points based on panel length.
- Attach Al¹³ Posts with 3/8" [10 mm] X 3-1/2" [89 mm] hex head galvanized bolts.

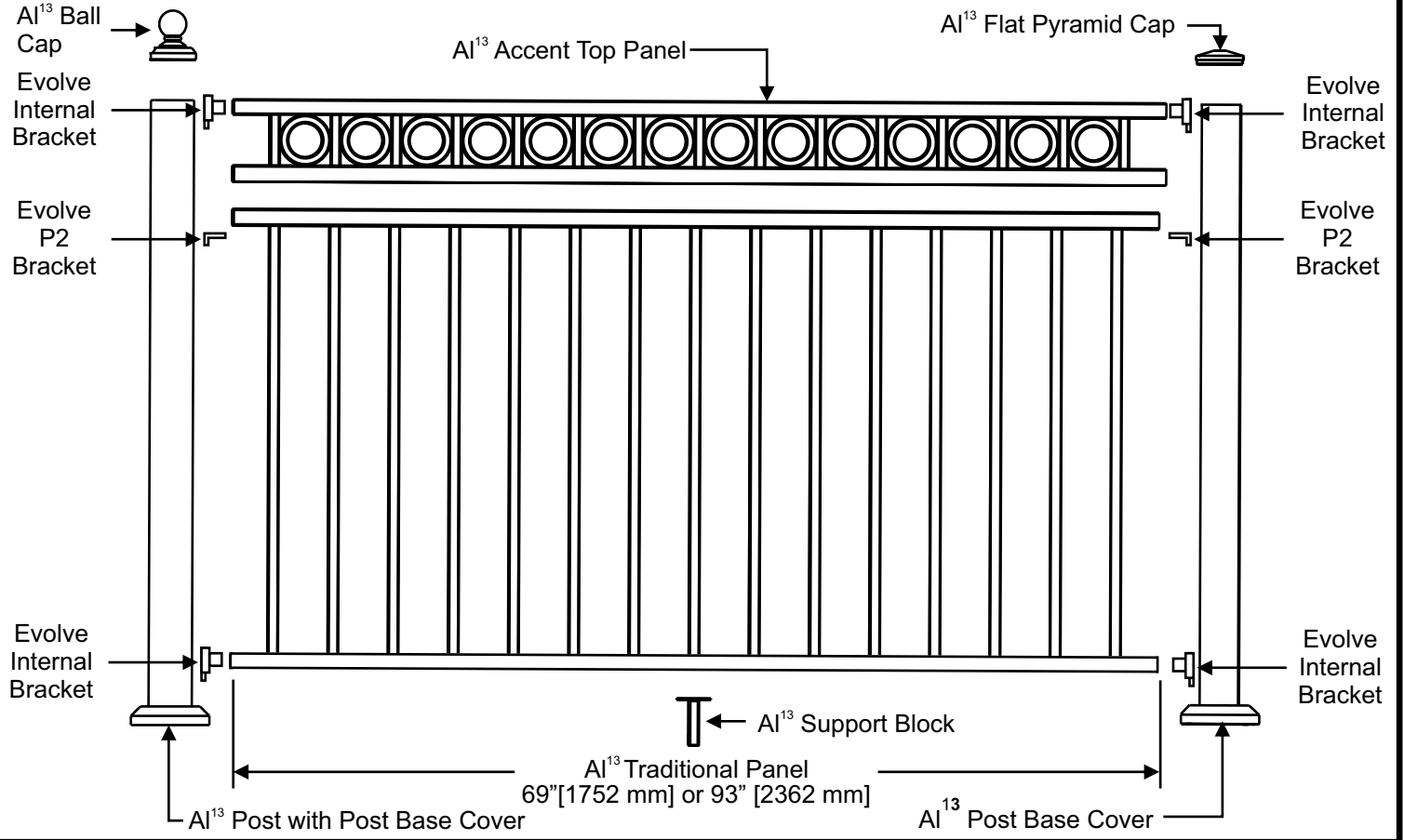


*Reference Fortress Al¹³ Post mounting instructions

AI¹³ Traditional Panel Installation Options



AI¹³ Traditional Panel with Accent Top Panel Installation Options



Al¹³ Traditional Panel and Al¹³ Post Configurations

Railing Panel Height

34" [864 mm]

38" [965 mm]

40" [1016 mm]

Railing Panel without Accent Top Panel

Installed Panel Height*

37-1/2" [953 mm]

41-1/2" [1054 mm]

43-1/2" [1105 mm]

Required Post

39-1/2" [1003 mm]

45-1/2" [1156 mm]

45-1/2" [1156 mm]

Railing Panel with Accent Top Panel

Installed Panel Height with ATP*

42-1/2" [1078 mm]

X

X

Required Post

45-1/2" [1156 mm]

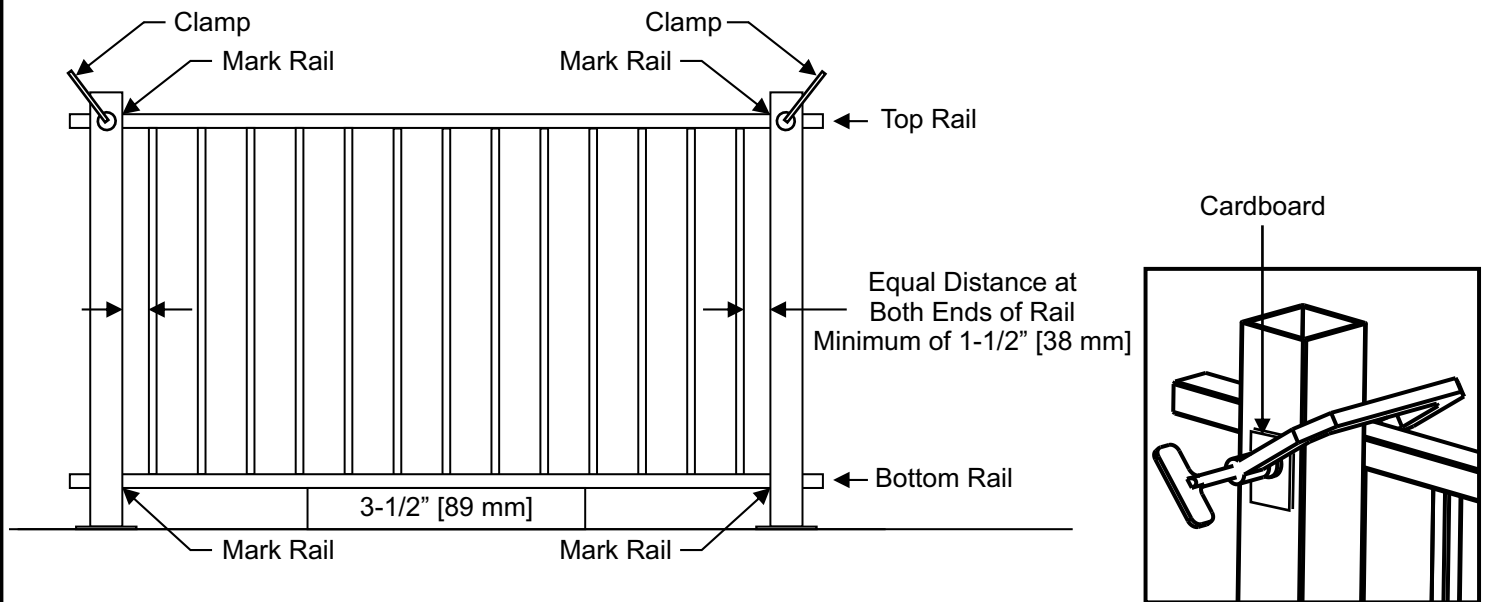
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*Heights includes a 3-1/2" [89 mm] space between deck surface and bottom edge of bottom rail.

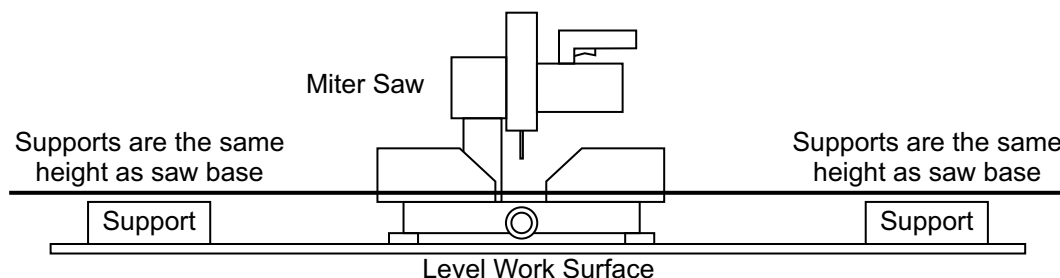
Al¹³ Traditional Panel Installation with Phantom Bracket

- Check posts to ensure that all posts are square and straight.
- Support Panel on 3-1/2" [89 mm] Support Blocks.
- Center Panel between the post so that there is an equal distance between the last baluster and post at each end.
- **Minimum distance between the last picket and post is 1-1/2" [38 mm].**
- Clamp Rail to Post at each end to prevent movement. **Place a piece of cardboard between clamp and Al¹³ Post & Panel**
- Mark the rails 1/4" [6 mm] from the edge of the posts.
- The final rail length when cut must be 1/2" [12 mm] shorter to allow for Evolve Internal Bracket clearance.



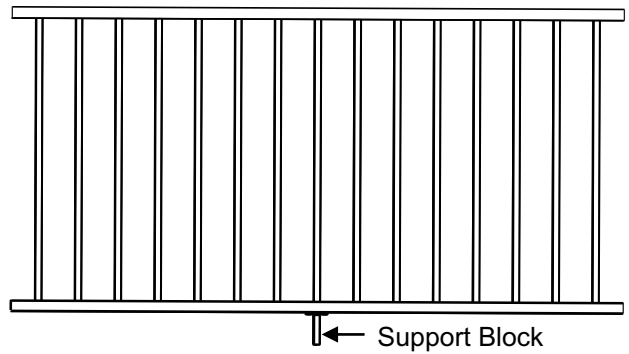
Cutting Al¹³ Traditional Panels

- The best way to cut Al¹³ Traditional Panels is to use a miter saw.
- A fine tooth carbide tipped blade designed to cut non-ferrous materials is recommended.
- Set up a work surface that is level and large enough to support all four corners of the Al¹³ Traditional Panel.
- Supports should be the same height as saw base to keep Al¹³ Traditional Panel straight and level when cutting.
- With Panels completely supported, make cuts at the marked locations from previous step.
- Remove any burrs or shavings from cut edges.
- Check the fit of Al¹³ Traditional Panel between post. **Be careful not to scratch post with end cuts.**



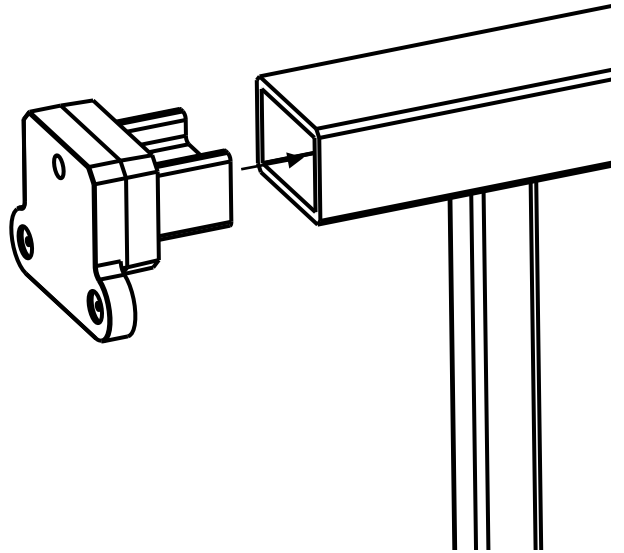
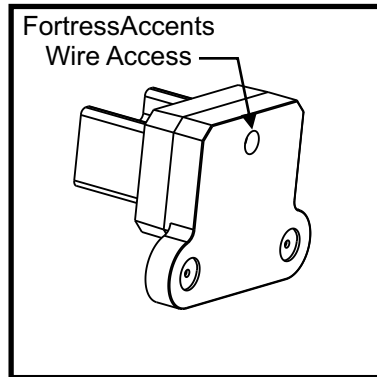
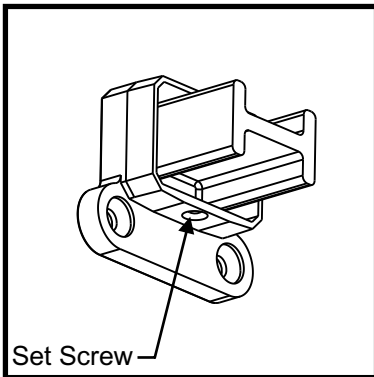
Al¹³ Support Block Installation

- Al¹³ Support Block is recommended for rail spans over 72" [1829 mm]
- Mark the center of Al¹³ Traditional Panel Bottom Rail.
- Position Al¹³ Support Block and mark hole locations.
- Pre-drill with a 3/16" Drill Bit.
- Secure Al¹³ Support Block with supplied screws.



Install Al¹³ Evolve Internal Brackets into Rail

- Insert an Al¹³ Evolve Bracket into the end of each rail.
- Do not install set screw at this time.



Al¹³ Traditional Panel Installation with Evolve Internal Brackets

- Place a 3-1/2" [89 mm] Support near each post.
- Place Al¹³ Panel with Evolve Internal Brackets and Support Blocks positioned on rail.
- Center Panel on each Post.
- With Panel in position the pre-drill screw holes with a 3/16" drill bit.
- Secure Bracket to Post with supplied Torx drive thread cutting screws.
- Pre-drill set screws holes in the 2 top rail Evolve Internal Brackets with a 1/16" drill bit.
- Secure Bracket to Rail with supplied phillips drive thread cutting screws.

