

# Installation Instructions for Fortress Al<sup>13</sup> Railing Traditional Panels with Evolve P2 Brackets and Al<sup>13</sup> 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 Al<sup>13</sup> Posts must always be secured to the deck framing. Fortress Al<sup>13</sup> 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:

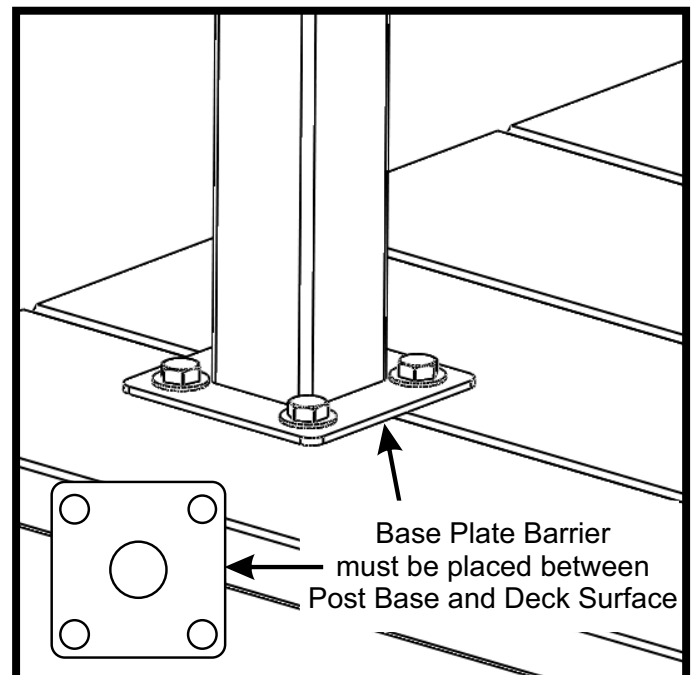
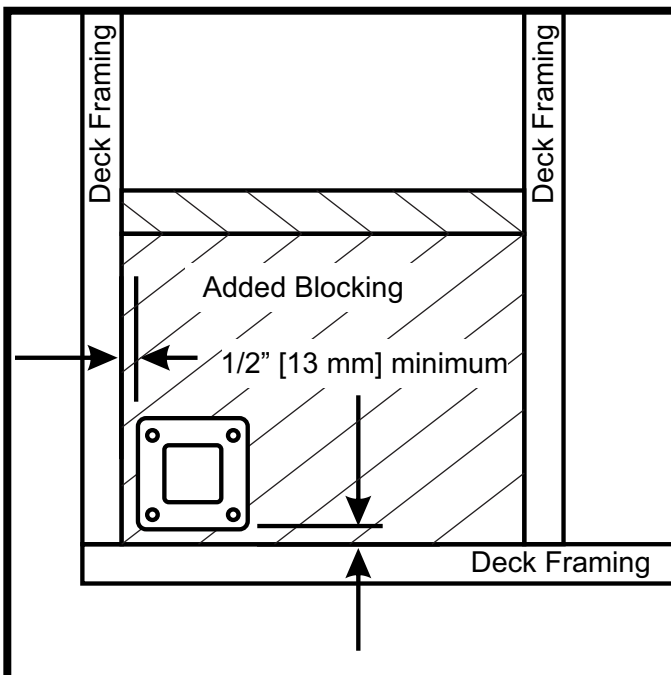
- Remove all metal shavings from the cut area.
- File any sharp edges left by cutting. Thoroughly wipe and remove any filings, grime or dirt from the railing.
- Be sure to remove any metal shavings from the surface of deck, patio or balcony to prevent stains on the deck surface.

### 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.

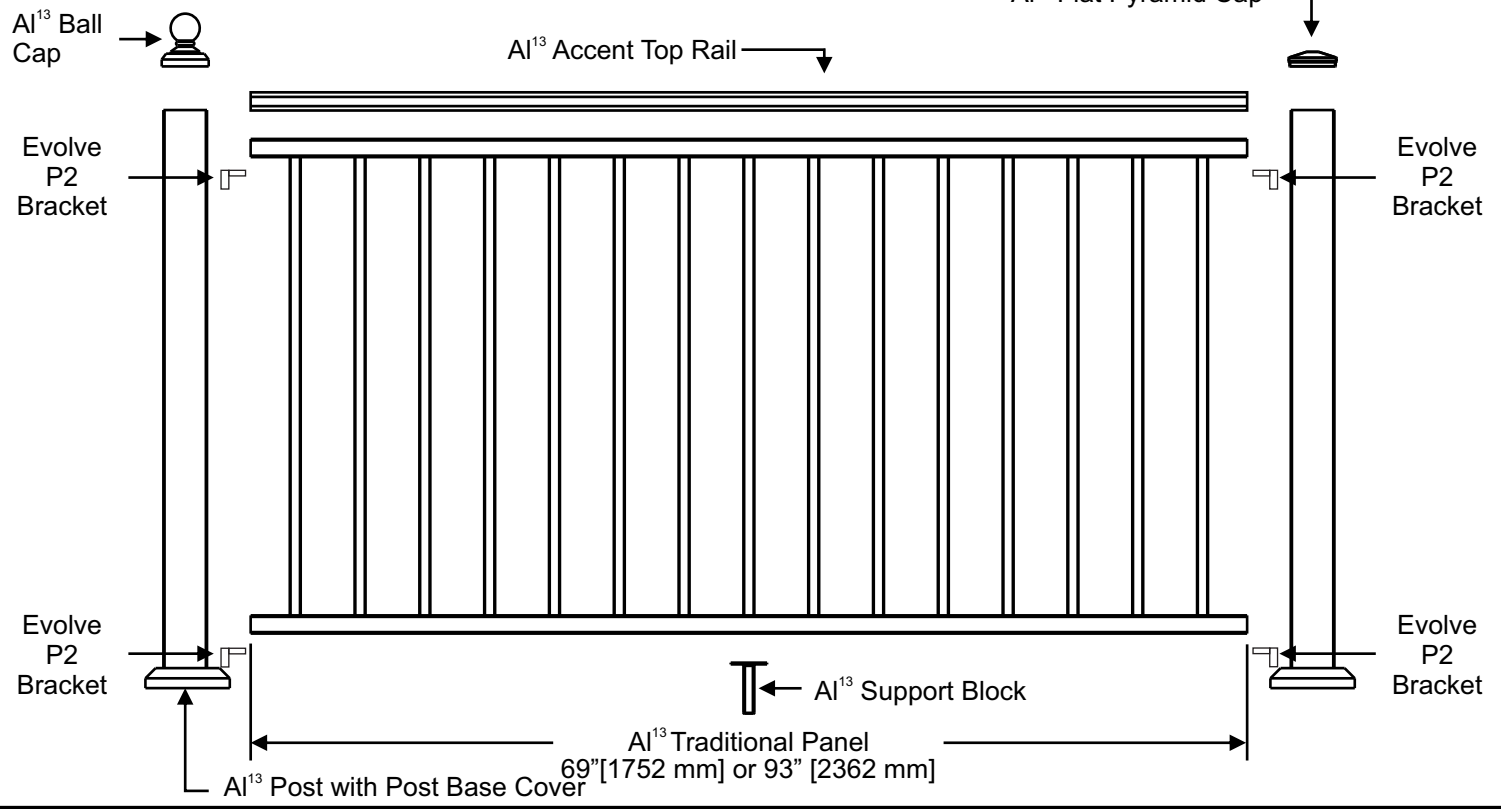
### Mount Al<sup>13</sup> Posts\*

- 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].
- Al<sup>13</sup> 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 Al<sup>13</sup> Posts with 3/8" [10 mm] X 3-1/2" [89 mm] hex head galvanized bolts.

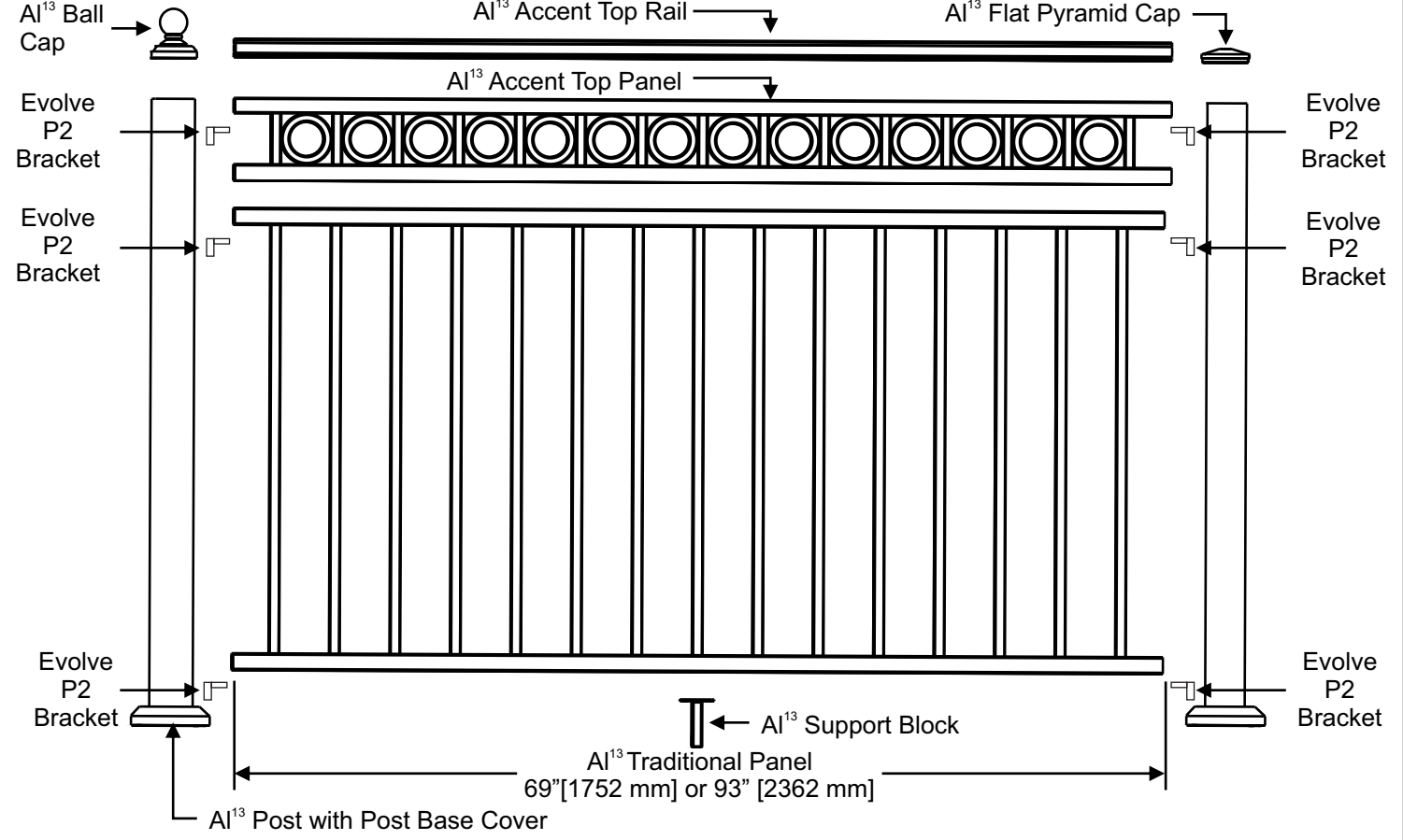


\*Reference Fortress Al<sup>13</sup> Post mounting instructions

# AI<sup>13</sup> Traditional Panel Installation Options



# AI<sup>13</sup> Traditional Panel with Accent Top Panel Installation Options



## Al<sup>13</sup> Traditional Panel and Al<sup>13</sup> 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]

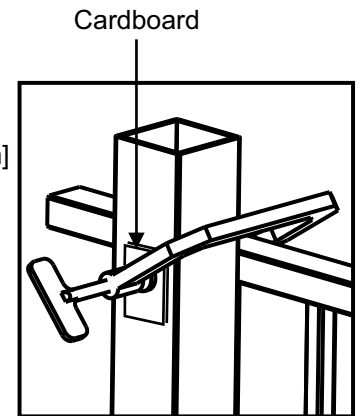
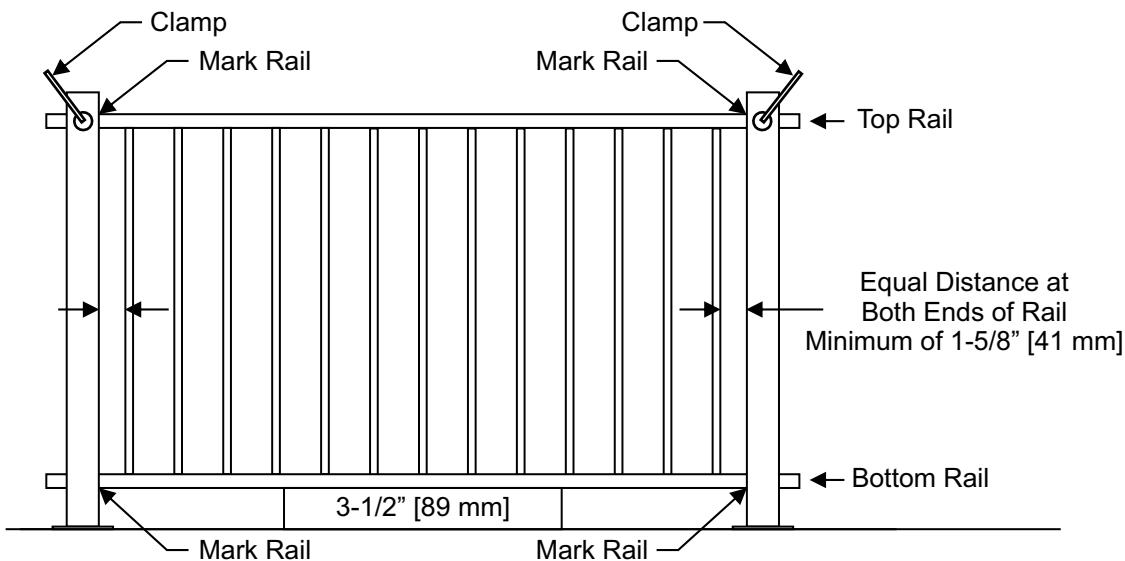
X

X

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

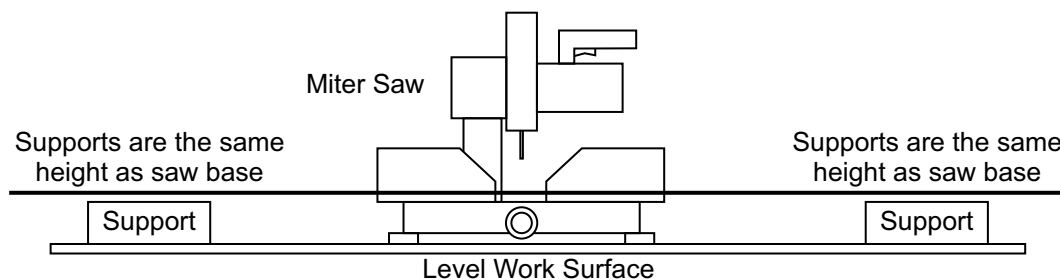
## Al<sup>13</sup> Traditional Panel Installation with Evolve P2 Bracket

- 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 1-5/8" [41 mm].**
- Clamp Rail to Post at each end to prevent movement. **Place a piece of cardboard between clamp and Al<sup>13</sup> Post & Panel**
- Mark the rails so that the end cuts will be flush with the post.



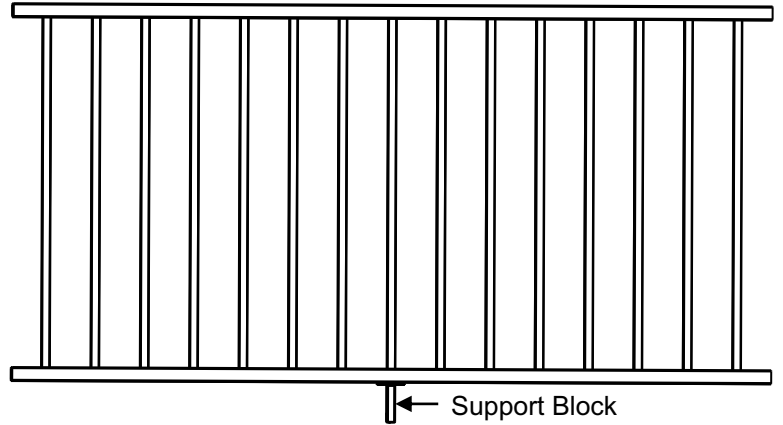
## Cutting Al<sup>13</sup> Traditional Panels

- The best way to cut Al<sup>13</sup> 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 Al<sup>13</sup> Traditional Panel.
- Supports should be the same height as saw base to keep Al<sup>13</sup> 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 Al<sup>13</sup> Traditional Panel between post. **Be careful not to scratch post with end cuts.**



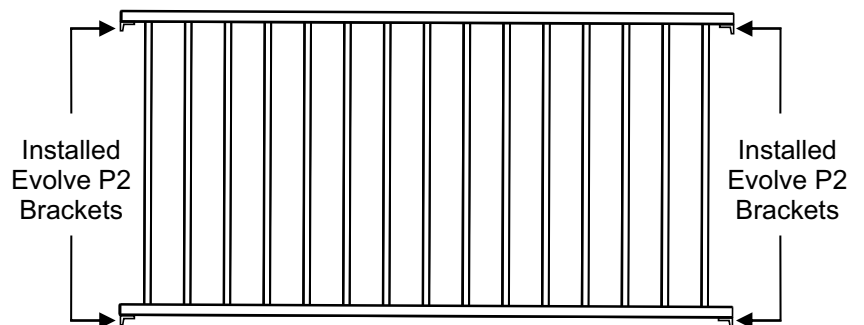
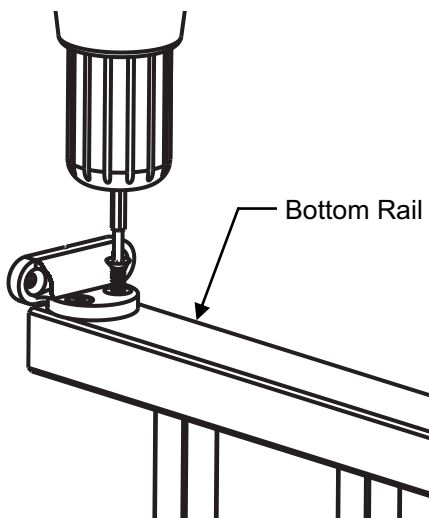
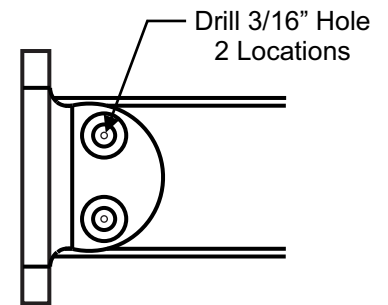
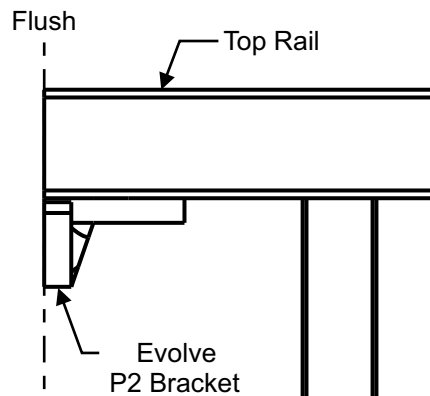
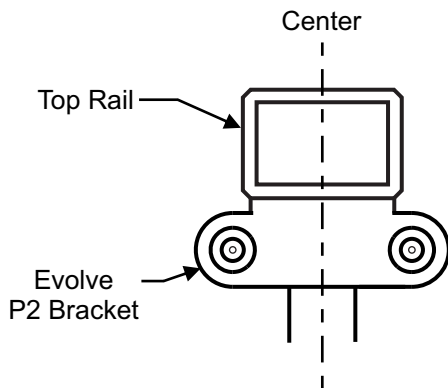
## Al<sup>13</sup> Support Block Installation

- Al<sup>13</sup> Support Block is recommended for rail spans over 72" [1829 mm]
- Mark the center of Al<sup>13</sup> Traditional Panel Bottom Rail.
- Position Al<sup>13</sup> Support Block and mark hole locations.
- Pre-drill with a 3/16" Drill Bit.
- Secure Al<sup>13</sup> Support Block with supplied screws.



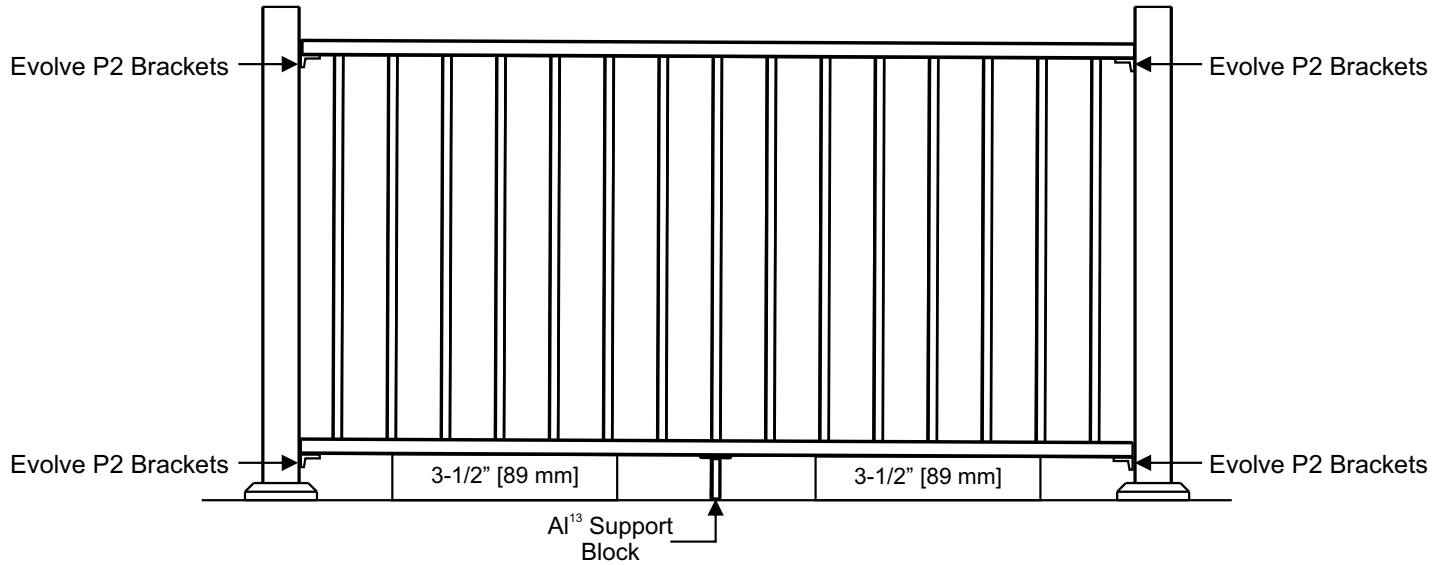
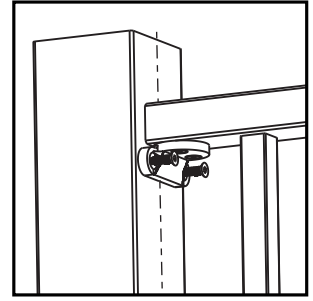
## Install the Evolve P2 Brackets onto Panel

- The Evolve P2 Bracket should be centered across the width of the rail and flush with the rail end.
- For miter cut installations, center bracket along miter cut rail.
- Using a 3/16" drill bit, drill holes on the underside of rails.
- Secure Evolve P2 Bracket with supplied Torx Drive Thread Cutting Screws.



## AI<sup>13</sup> Traditional Panel Installation with Evolve P2 Brackets

- Place a 3-1/2" Support near each post.
- Check fit of AI<sup>13</sup> Panel between installed AI<sup>13</sup> Posts.
- Place AI<sup>13</sup> Panel with Evolve P2 Brackets and Support Block installed between posts.
- Center Panel on each Post.
- With AI<sup>13</sup> Panel in position pre-drill screw locations where Evolve P2 Brackets meet posts with a 3/16" drill bit.
- Secure Evolve P2 Bracket to Post with supplied Torx Drive Thread Cutting Screws.
- If installing a AI<sup>13</sup> Accent Top Rail (ATR), cut ATR to length and snap onto top rail. Use epoxy to secure ATR to top rail.



## AI<sup>13</sup> Traditional Panel with a AI<sup>13</sup> Accent Top Panel Installation with Evolve P2 Brackets

- Place a 3-1/2" support near each post.
- Place AI<sup>13</sup> Panel with Evolve P2 Brackets and Support Block installed between posts.
- Center Panel on each post.
- With AI<sup>13</sup> Panel in position, pre-drill screw locations where Brackets meet posts with a 3/16" drill bit.
- Secure Evolve P2 Brackets to posts with supplied Torx Drive Thread Cutting Screws.
- Install Evolve P2 Brackets to AI<sup>13</sup> ATP.
- Slide ATP with Evolve P2 Brackets installed over the top rail.
- Secure Brackets to posts with supplied Torx Drive Thread Cutting Screws.

