



# Installation Instructions for Avant Aluminum Railing with Straight Aluminum Brackets and Aluminum 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. Menards® shall not be held liable for improper or unsafe installations.

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

## Read Instructions Completely Before Starting Installation

### Note

When cutting Avant Railing, it is very important to complete the following at cut points.

- 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.

### Torx Safety Tips

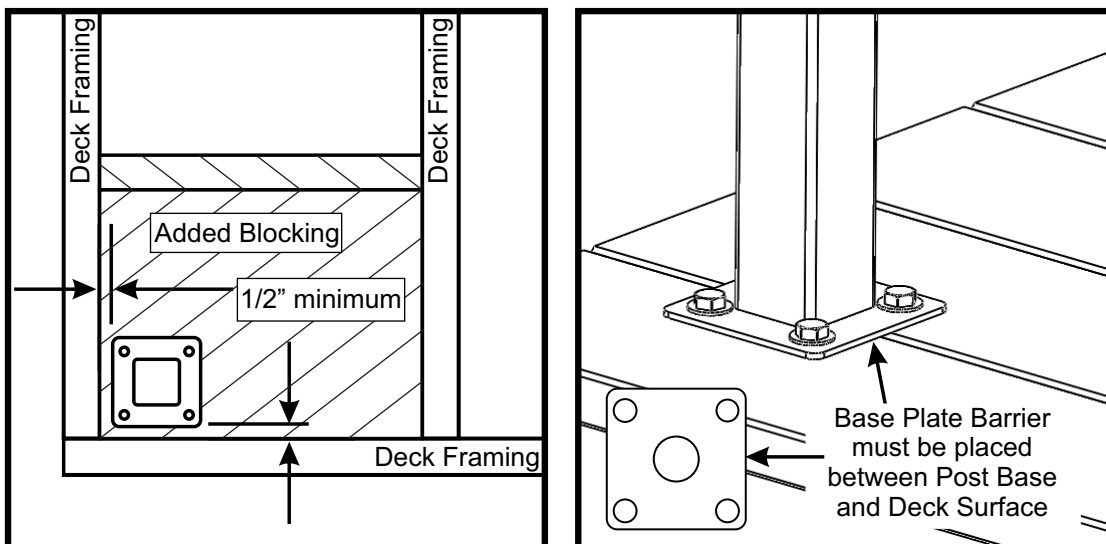
- Have several bits on hand before starting your installation.
- Always pre-drill holes with a 3/16" drill bit.
- Use the lowest possible torque setting on drill. This will help to minimize breakage and twisting of Torx Bits.

### Required Materials

Miter saw with fine tooth blade, Drill, 1/16" and 3/16" Drill Bits, T-25 Driver Bit, Phillip's Head Screwdriver, Drill Bit Extender, Tape Measure, Wrenches, Speed Square, Center Punch, 3-1/2" Support Blocks and Hammer.

### Mount Aluminum Posts

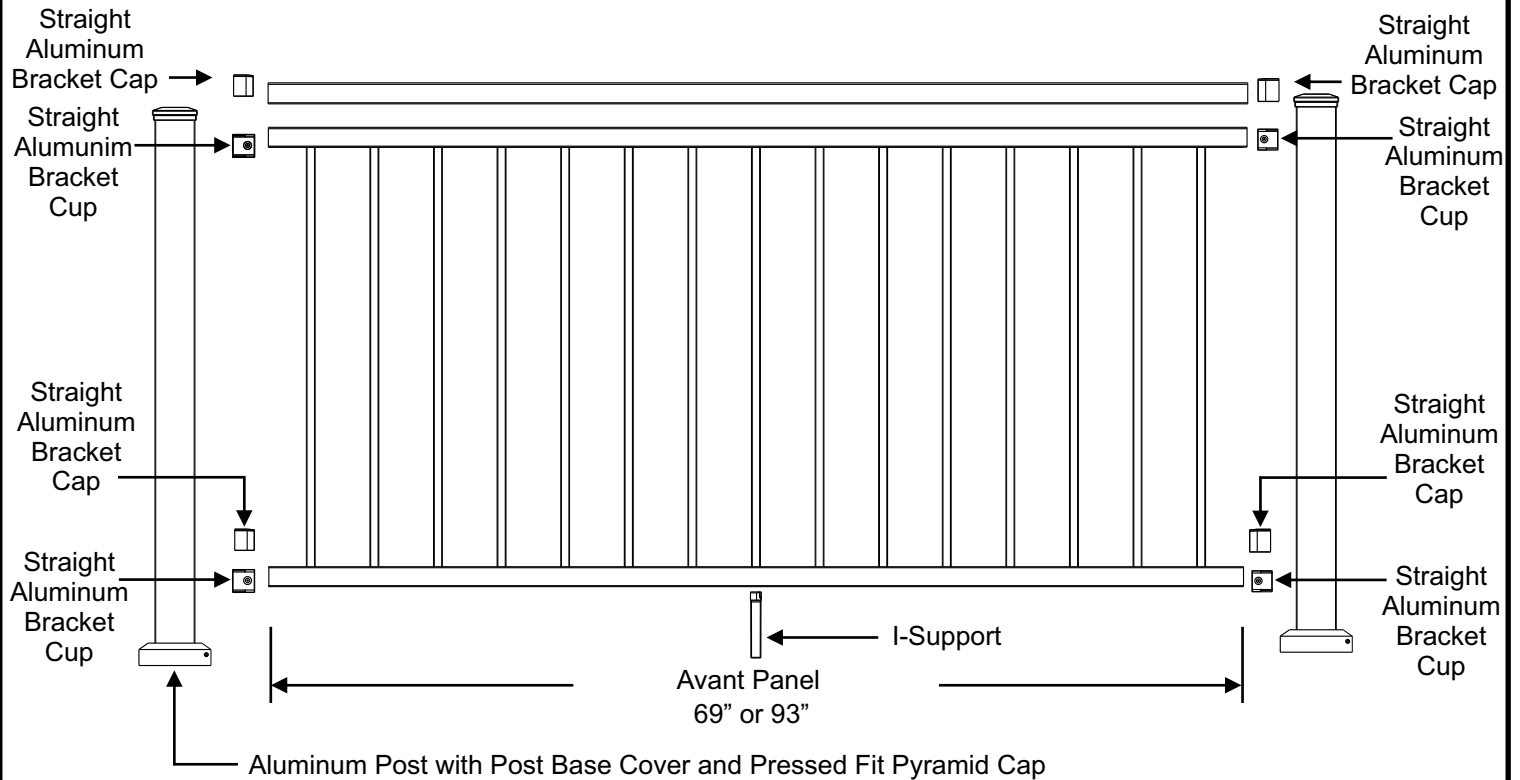
- Wood Blocking tied to deck frame must be installed and constructed with treated dimensional lumber with a minimum thickness of 1-1/2".
- **Aluminum 2-1/2" Post Spacing must not exceed 96" for 8' Panels and 72" for 6' Panels.**
- Position the edge of post base plate a minimum of 1/2" from the inside 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 Aluminum Posts with 3/8 X 3-1/2" Hex Head galvanized bolts.



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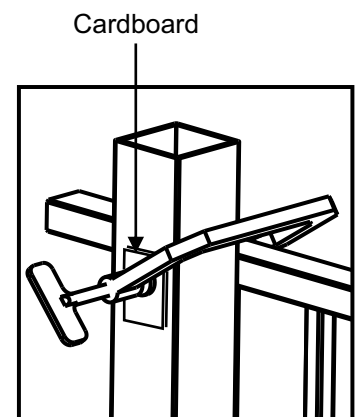
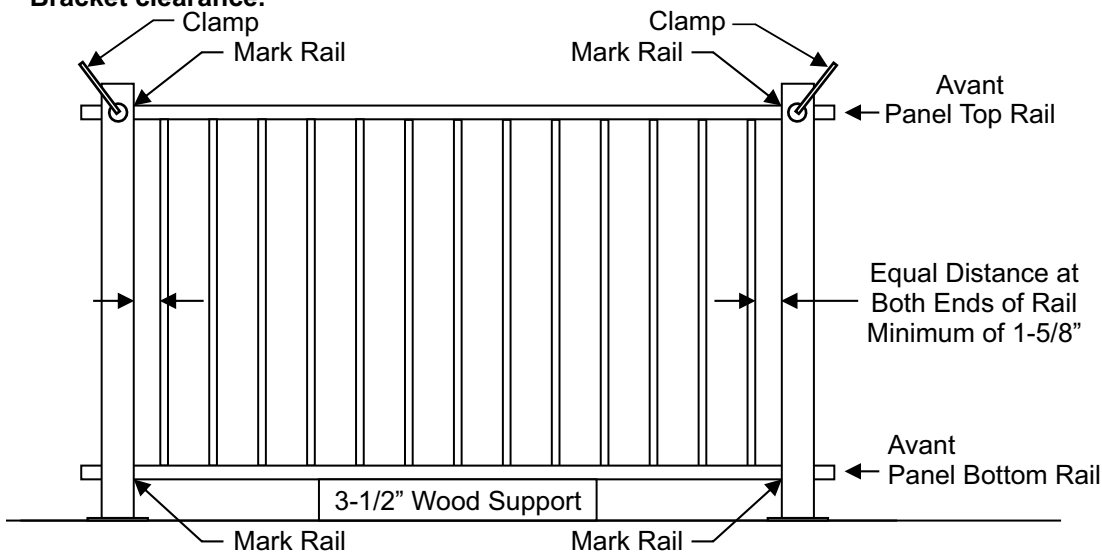
For technical assistance, please email: [avant@fortressrailing.com](mailto:avant@fortressrailing.com)  
Hours of Operation: Monday through Friday 8:00 AM to 5:00 PM, CST  
Phone: 1-866-323-4766  
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## Avant Panel Installation Options



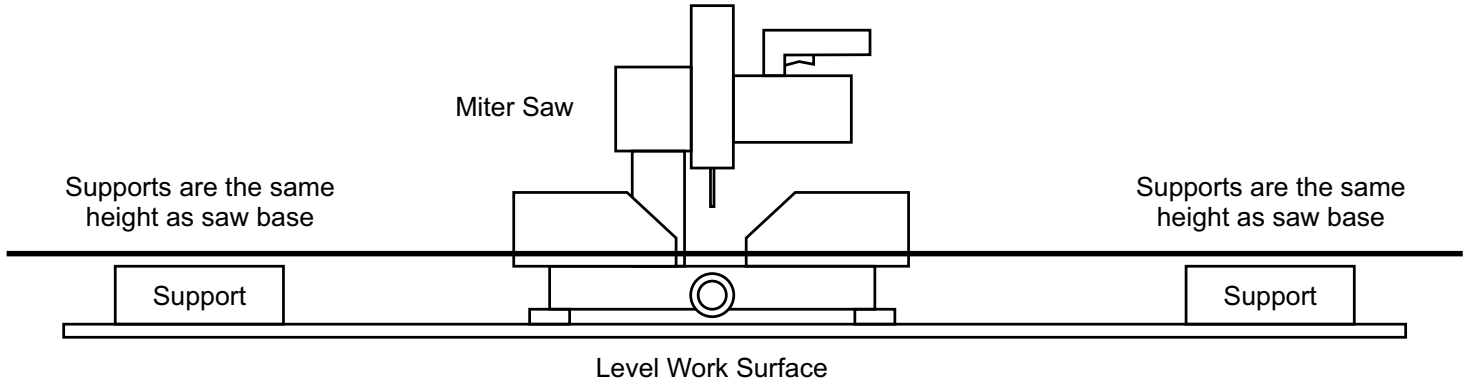
## Avant Panel Installation with Straight Aluminum Bracket

- If panel is to be cut to a size other than 6' and 8' on-center spacing between posts, clamping and marking the panel for cutting is necessary.
- Check Aluminum Posts to ensure that they are square and straight. Shim posts as required.
- Support Avant Panel on 3-1/2" support blocks.
- Center Avant Panel between the Aluminum Posts such that there is an equal distance between the last baluster and posts at each end.
- **Minimum distance between the last baluster and post is 1-5/8"**
- Clamp rail to post at each end to prevent movement. **Place a piece of cardboard between clamp and Aluminum Post & Panel**
- Mark panel next to post on each end as shown. **An extra 1/4" must be taken off of each side to allow space for the Straight Aluminum Bracket. The final rail length when cut must be 1/2" shorter to allow for Straight Aluminum Bracket clearance.**



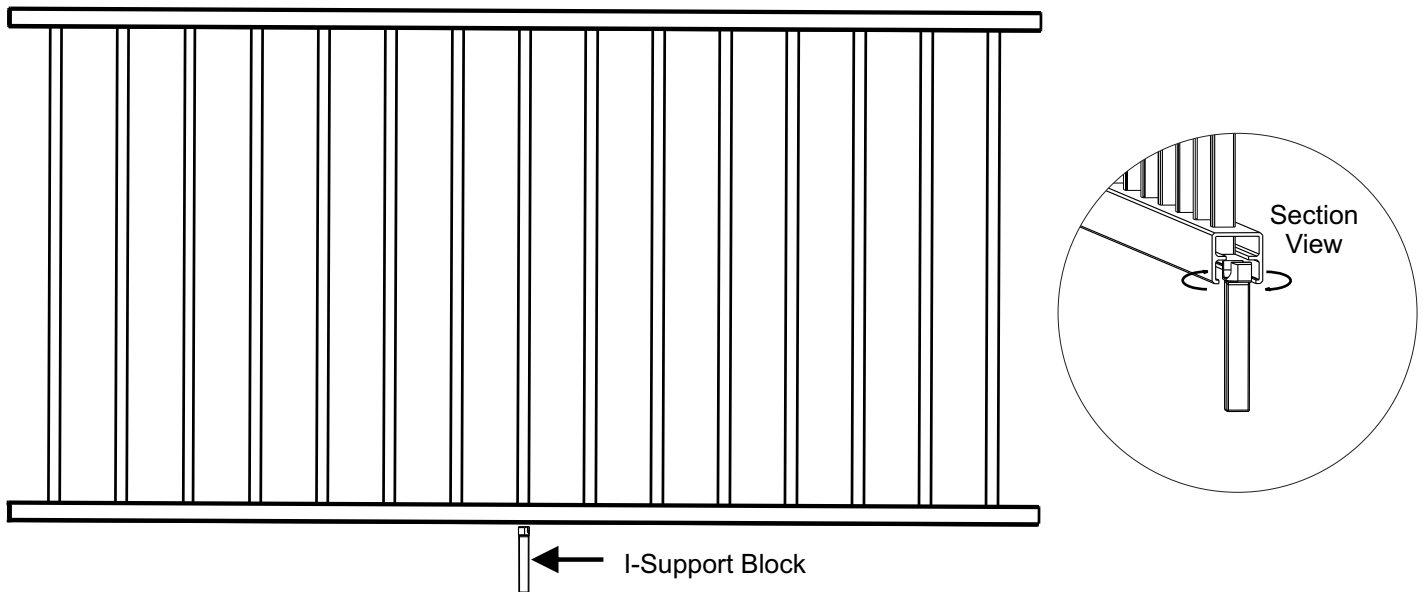
## Cutting Avant Panels

- The best way to cut Avant 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 Avant Panel.
- Supports should be the same height as saw base to keep Avant Panel straight and level when cutting.
- With panel completely supported, make cuts at the marked locations from previous step.
- Remove any burrs or shavings from cut edges.
- Check the fit of Avant Panel between posts. **Be careful not to scratch post with end cuts.**



## I-Support Installation

- Mark the center of the Avant Panel Bottom Rail.
- Position I-Support Block near center of the Avant Panel Bottom Rail
- Insert I-Support Block into the bottom center of rail and twist to secure. Using a crescent wrench (with padding to avoid scratching the support block) is recommended.



# Avant Panel and Aluminum Post Configurations

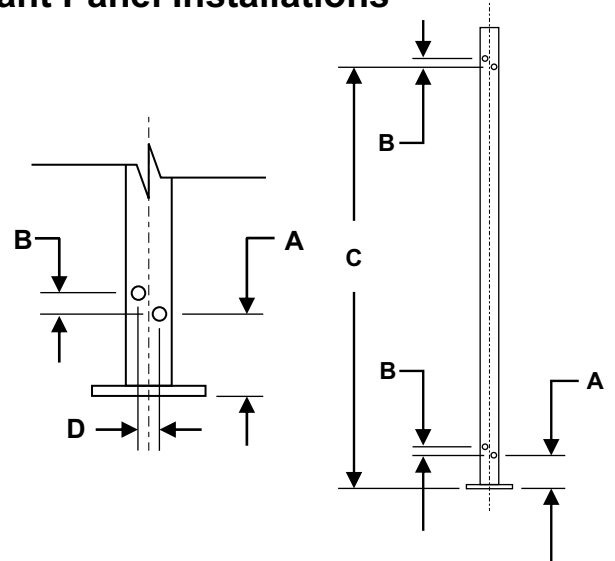
Avant Panel Height	Avant Panel Only	
	Installed Panel Height*	Required Post
32-1/2"	36"	39-1/2"
38-1/2"	42"	43-1/2"

\*Installed heights include a 3-1/2" space between deck surface and bottom edge of bottom rail.

## Straight Aluminum Bracket Hole Locations for Avant Panel Installations

Pre-Drilling with a 3/16" drill bit is required.

Panel Height	Pre-Drill Dimensions			
	A*	B	C	D
32-1/2"	3-15/16"	1/2"	35-1/32"	11/16"
38-1/2"	3-15/16"	1/2"	41-1/32"	11/16"



\*Dimension A positions bottom edge of rail 3-1/2" above deck surface.  
\*Dimension A is measured from the bottom surface of post base.

Remove all metal shavings from deck, post base cover, post, and panel before bracket is screwed to post to prevent corrosion.

## Avant Panel Installation with Straight Aluminum Brackets

- If rails were cut, file cut edges.
- Check fit of rail between installed Aluminum Posts.
- Install Avant Post Base Cover by sliding over the top of Aluminum Post.
- Secure Straight Aluminum brackets to Aluminum Posts with provided T25 thread-cutting screws. Use two screws per bracket. Use low speed setting on drill.
- Drop Avant Panel into installed Straight Aluminum Bracket Cups.
- Secure rails with provided T25 thread-cutting screws at each Straight Aluminum Bracket. **One screw pre bracket is required.**
- Install Straight Aluminum Bracket Caps by sliding the cap over the Straight Aluminum Bracket Cup. Cap will snap into place.
- Pre-drill hole and attach I-Support to ground.

