

**WARNING:**

- Improper installation of this product can result in personal injury. Always wear safety goggles when cutting, drilling and assembling the product.
- Incorrect installation may cause harm to the product or individual.

**NOTICE:**

- DO NOT attempt to assemble the kit if parts are missing or damaged.
- DO NOT return the product to the store. For assistance or replacement parts call: 1-877-265-2220.

**BEFORE YOU BEGIN:**

It is the responsibility of the installer to meet and/or exceed all code and safety requirements and to obtain all required building code permits.

The deck and railing installer should determine and implement appropriate installation techniques for each installation.

RDI Railing and its distributors shall not be held liable for improper or unsafe installations.

**TOOLS NEEDED:**

Safety goggles
Tape Measure
Pencil
Level
Power screwdriver / drill
3/8" fasteners
Chalk line tool
Wood chisel or utility knife
1/4" and 1/8" drill bits

**POST INSTALLATION INSTRUCTIONS**  
**WARNING: ALWAYS WEAR SAFETY GOGGLES!**

**1.**

**LAG BOLT APPLICATION**

Determine the desired rail placement and snap a line on to the deck to ensure that all posts are aligned properly (Fig. 1). Ensure sufficient mounting structure exists in the areas to receive posts and install blocking if necessary. Plumb the posts using the shims provided, secure the posts in place (Fig. 2), and install trim ring on each post.

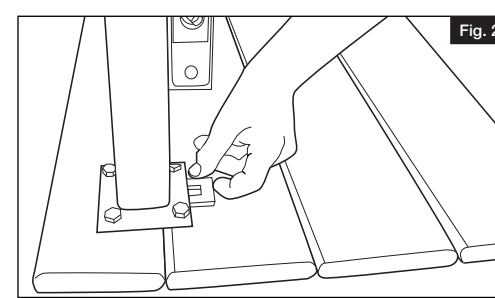
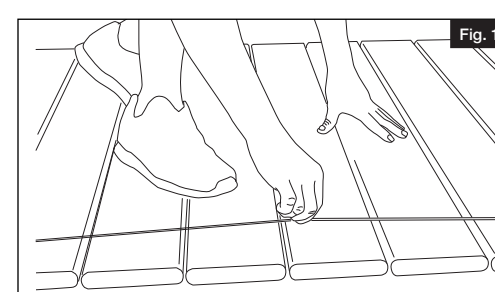
**THROUGH BOLT APPLICATIONS**

For through bolt applications, use the provided secondary mounting plate when securing posts in place. Drill through the mounting surface using a 3/4" drill bit. Using appropriate hardware (sold separately), align bolts through the post mounting flange and secondary mounting plate. Tighten bolts, secure in place, and install trim ring on each post.

*Note: Post kits include post with connected base plate, leveling shims, post cap, 2-piece trim ring, and sandwich plate. Posts are designed and manufactured to accept 1/8" fasteners. Post mounting hardware is sold separately. Be sure to use appropriate fasteners for your installation. For commercial use, Avalon Heavy Duty posts are required. Check local building codes for load requirements.*

**Tip:** Leveling shims can be easily cut using a wood chisel or utility knife. Please keep safety in mind during installation and ALWAYS wear safety goggles.

**IMPORTANT NOTE:** Some spaces between posts will result in the pre drilled upright holes being visible after the installation. When setting posts these spaces should be avoided: 65"-67.5" and 89"-91.5"



Scan for Instructions  
Rechercher des instructions  
Escanear para obtener instrucciones

**STAIR RAIL INSTRUCTIONS**

**WARNING: ALWAYS WEAR SAFETY GOGGLES!**

**TOOLS NEEDED:**

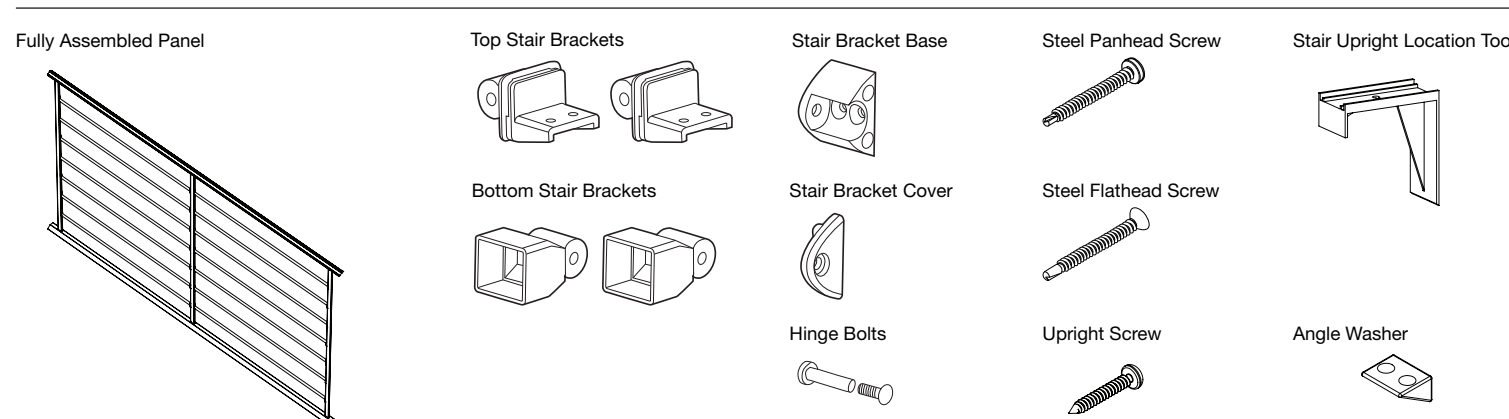
Safety goggles
Tape measure
Pencil
Level
Power screwdriver / drill
Power saw
Rubber mallet
Clamps
Masking tape
1/4" and 1/8" drill bits
5-in-1 tool or putty knife

**COMPONENT LIST:**

Description
1 Fully Assembled Panel
2 Top Stair Brackets
2 Bottom Stair Brackets
4 Stair Bracket Base
4 Stair Bracket Cover
4 Hinge Bolts

Description
4 Steel Panhead Screws
8 Steel Flathead Screws
1 Stair Upright Location Tool
8 Upright Screws
4 Angle Washers

**COMPONENTS:**

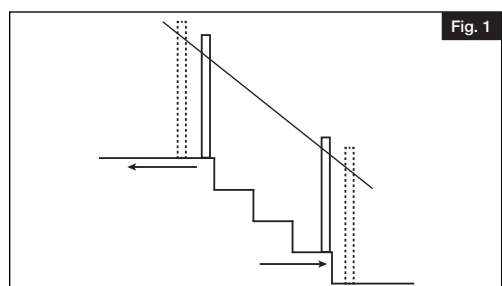


**1.**

Required Avalon aluminum post height will vary based on post location and stair angle. Typically, the post at the bottom of the stairs will need to be taller than the post at the top of the stairs. However, posts at the top of the stairs may require a taller post depending on how far the top post is mounted from the nose of the top stair (See Figure 1). Always make sure that the posts are mounted to the stairs so that there is sufficient blocking under the stair post to securely anchor it.

**Tip:** Be sure to check local building codes and ensure blocking can withstand required loading.

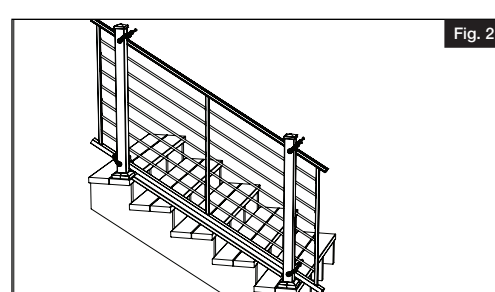
**NOTE: A 6' stair panel will accommodate up to 5 rises; an 8' will accommodate up to 7 rises.**



**2.**

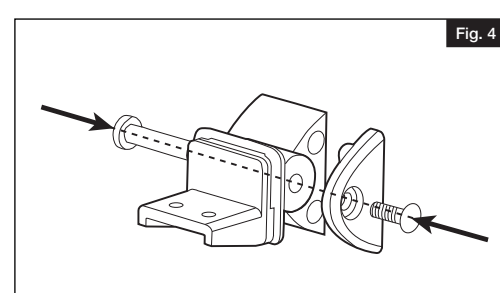
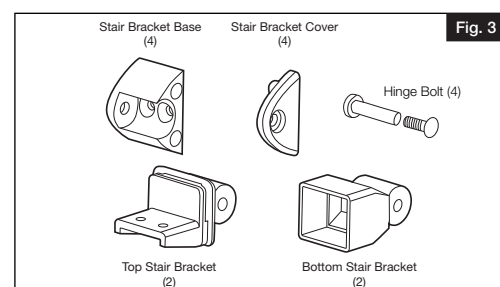
Place a plank on the stair noses spanning from post to post. Place the stair panel on the plank across the opening and adjust vertical upright(s) for plumb while ensuring the panel is centered in the space between the posts. Clamp the panel in place at this location (Fig. 2).

**NOTE:** Use the proper plank thickness to result in the desired finished rail height. Check local building codes for stair height requirements.



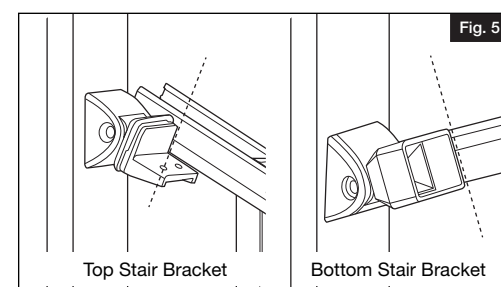
**3.**

Temporarily assemble top and bottom stair mounting brackets. Bracket components are shown in Figure 3. Brackets slide into bracket bases, bracket cover is aligned, and the bracket is fastened together using the hinge bolt provided (Fig. 4).



**4.**

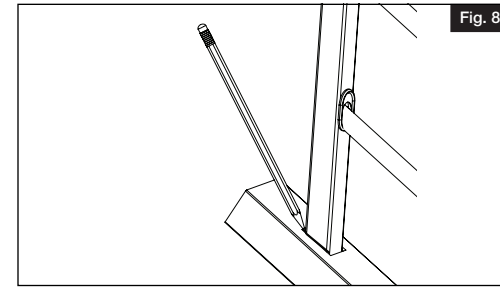
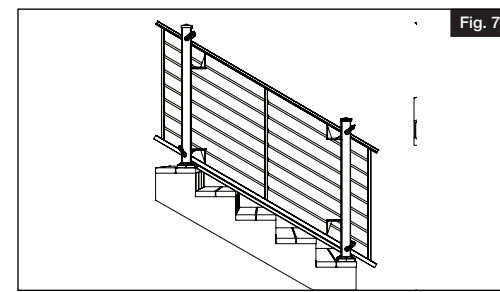
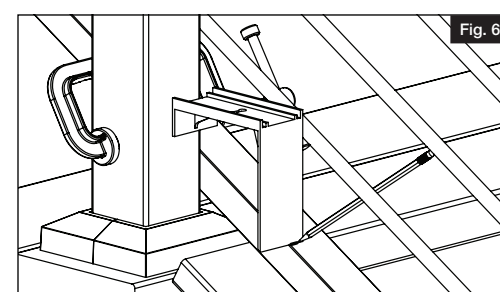
Hold each respective bracket (angled) against the post face, align bracket with the stair panel, and mark all four ends of the rail panel as shown (Fig. 5). Repeat this on the other side of the panel and be sure to label the top rail to simplify placement after cutting.



**5.**

Place the upright alignment tool on the post as seen in Fig. 6. Mark the top and bottom rail where the tool meets the rails. Do this for both the top and bottom posts of the stairs (Fig. 7). These marks will be used to locate the uprights in a later step.

Mark the end upright on the angle that they intersect the top and bottom rail (Fig. 8). Do this for all 4 locations that the end uprights meet the rails.



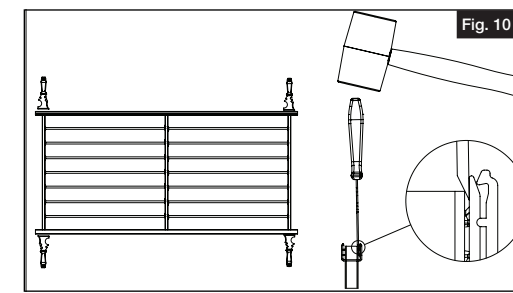
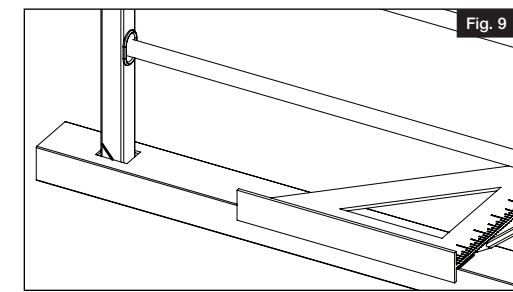
**6.**

Remove the clamps and remove the panel from the stairs. Rack panel back to zero degrees (level). Use a straight edge or square to finish the lines made with the upright alignment tool (Fig. 9).

Measure the distance between the marks made by the upright alignment tool. Record this measurement for the rod cutting step.

Remove the end uprights from the panel. Use a putty knife or 5-in-1 tool. Place the edge of the tool between the rail and the upright. Using a mallet or hammer, hit the handle of the tool to break the plastic locking strip holding the uprights in place. ONLY DO THIS FOR THE UPRIGHTS AT THE END OF THE PANEL. The center upright(s) should remain locked in place (Fig. 10).

Once all 4 locations are broken free of locking strips, remove the uprights and rods. Be mindful of the grommets; they may slide out of place when removing the rods. They can be pressed back into place if this occurs.



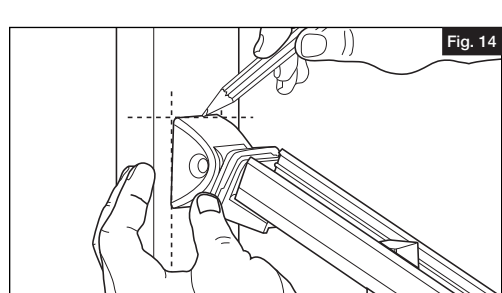
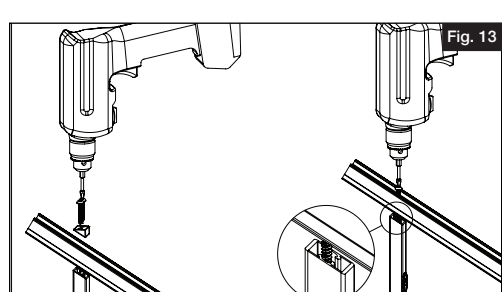
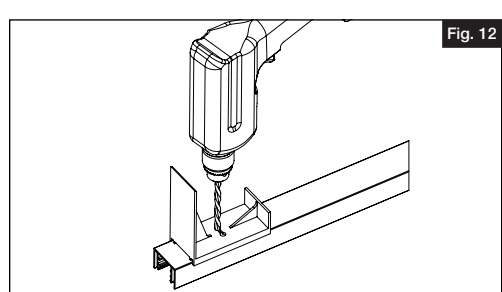
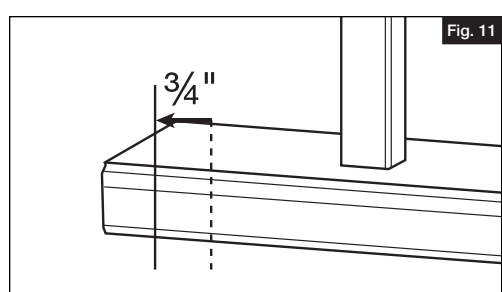
**7.**

For the bottom rail only, add 3/4" (toward the rail end or post - Figure 11) to the marks made on the panel in Step 4 (Fig. 5) and cut the panel at these marks. For the top rail, cut the panel directly on the marks made in Step 4.

Align the window on the upright alignment tool with the mark made by the tool earlier in steps 5 and 6. Use the tool as a guide and pre-drill two 1/4" holes at each mark (Fig. 12).

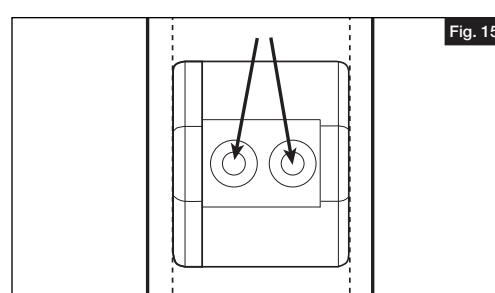
Cut the rods to the measurement previously recorded in step 5. Cut the uprights on the marks made in Figure 8.

Attach end uprights to rails. Using #10 x 1 1/4" screws and wedge washers, attach one upright to the top and bottom rails. Make sure the screws engage with the screw bosses on the upright (Fig. 13). Insert rods through the middle support and into the one installed upright. Press second upright into the rods and attach to rail with #10 x 1 1/4" screws. Insert the bottom brackets onto bottom rail, align top brackets (temporarily secure brackets in place with tape), and test the panel for proper fit. Once proper fit is ensured, mark the bracket positions at all 4 locations (Fig. 14), and remove brackets from the rail panel.



**8.**

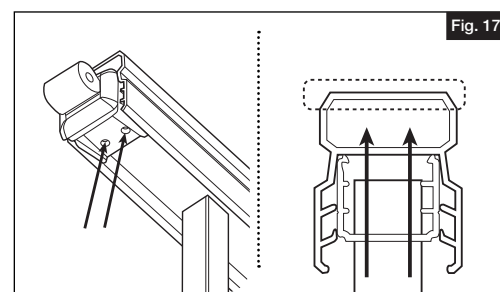
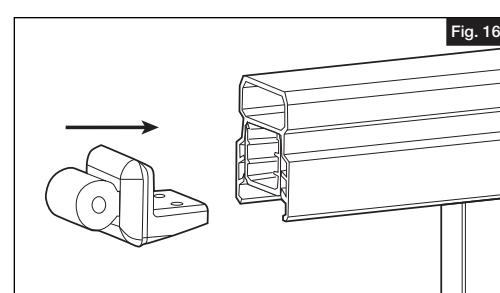
Loosely assemble the mounting base and cover and use it as a template to mark locations for pre-drilling. (Note: If base is centered without bracket cover, rail will NOT be centered). Place the bracket mounting base on the post aligned with the marks made in Step 7 (Fig. 14) ensuring that brackets are properly oriented. Mark the two hole locations shown (Fig. 15) for each bracket and pre-drill using a 1/8" bit. Secure brackets to post using the non-painted flat-head 1 1/2" screws provided.



**9.**

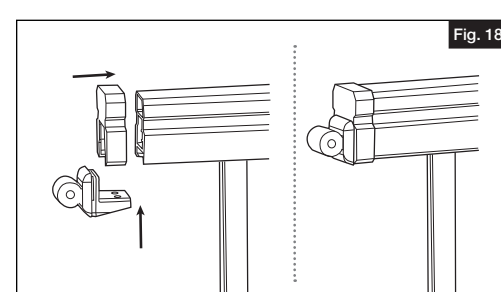
Measure the length of the rail panel and cut the top rail (sold separately) to match. Press down on the top rail to ensure that it fits snugly onto the panel (Fig. 16).

Align top stair bracket with the rail end only at the top of the stairs. Using the pre-drilled holes as a guide, drill through the railing using a 1/8" bit as shown, being careful not to drill through the top of top rail (circled with dotted line) (Fig. 17). Do this for the top of the stairs only.



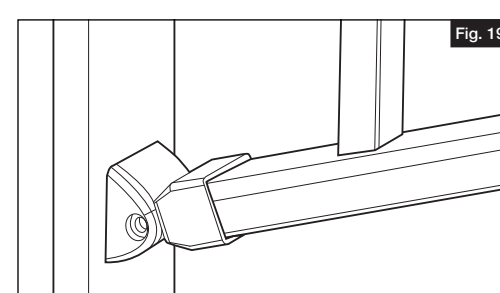
**10.**

Press top rail end covers onto both ends of the top rail. Slide top brackets in place on the rail ends, ensuring that the top rail end covers nest into the grooves of the brackets. Align the bracket, panel, and top rail as shown in Figure 18. Drive two 1 5/8" painted pan-head screws through the pre-drilled holes locking the assembly together at the top of the stair only.



**11.**

Press bottom brackets onto the bottom rails. Slide all four brackets into bracket bases which are connected to the posts. Slide bracket covers onto the bases and loosely secure in place with hinge bolts (Fig. 19).



**12.**

Pre-drill the top rail at the bottom stair post using the bracket holes as a guide (Fig. 20). Drive two 1 5/8" painted pan-head screws up through the holes locking the bracket, panel, and top rail together. Once top rail is secured, tighten all four of the hinge bolts to lock stair panel in place.

Install pyramid post top onto each post. Note: A rubber mallet may be needed for proper fit.

