NOTE: These instructions must be followed exactly as written and the material used must be exactly as shown in the instructions. Any deviation from the instructions or variation in the material used/installation may result in an unsuccessful installation.

### Post Applications

**Aluminum Post Mount for Concrete & Wood Applications:**

If using a Standard Aluminum Post Mount (Residential) or Heavy-Duty Aluminum Post Mount (Commercial), see the instructions included with your mount.

### 4” x 4” Wood Support Posts:

**Note:** A 4” x 4” Vinyl Post does not have any structural strength to support weight bearing roofs.

A 4” x 4” wood treated post (which measures 3½” x 3½”) will slide inside the vinyl post to support the weight. Most of the time, your posts are installed after the roof is in place. Usually, there is a beam the post can be attached to. Following are steps needed to install this post system. We do realize you can run into many different situations at the job site. In those cases, field modifications may be needed.

**Step 1:**
Cut vinyl post and wood post to size. To determine wood post length, stack (2) top/bottom support post mounts and measure distance between mounts and beam. To determine vinyl post length, measure distance between floor and beam and deduct 1”. This will ensure no weight bearing on the vinyl post. NOTE: On wood, make sure there is structural strength to support the weight of the roof.

**Step 2:**
All material will need to be applied to the post before installation. Slide post flairs over top and bottom of post. Slide wood post inside vinyl post. Insert a post support mount on each end. The post support mount can be screwed to the wood post if desired (screws not included).

**Step 3:**
Slide post assembly into position. Insert (4) screws into each mount (screws not provided). Slide post flairs into position. Tabs will snap-lock into post support mounts. Flairs may be glued if desired (glue not included). WARNING: Excessive glue may run down post. Hold top flair in place until glue is cured.

### 4” x 4” Wood Support Posts - For Decks

**Note:** The strongest and least expensive way to apply a 4” x 4” vinyl post to a deck is to EXTEND your wood 4” x 4”’s above the deck approximately 24”.

Following are steps to use when building a frame deck or working with an existing wood structure.

**Step 1:**
When building a new deck and using 4” x 4” wood posts to support the wood structure, layout your post setting so it works out for both wood frame structure and length of railing sections you plan to install.

**Step 2:**
Set all wood posts leaving approximately 24” of the post(s) above determined height of floor or deck surface. NOTE: 24” of wood post is sufficient support for 36” or 42” vinyl railing systems. The higher the wood post is above the floor, the greater the chance for the wood post to warp.

If vinyl posts are desired below the floor joint, slide these posts on before the support board is attached. NOTE: These vinyl posts will go from the ground to the bottom of the joist support board.

**Step 3:**
After wood frame and deck flooring are installed, slide vinyl post over wood post. Slide post flair on at this time.

### Option: Vinyl Posts on Existing Deck

When vinyl posts are to be attached to an existing wood deck and no wood posts are protruding above the deck floor, use an aluminum post mount (see instructions for wood surface) or install a 4” x 4” wood post as follows:

**Step 1:**
Cut a 4” x 4” hole in existing floor right inside joist support board. Install a wood 4” x 4” post to go to the bottom of the joist support board. This will extend above the deck floor approximately 24”. Attach wood post with screws or bolts through support board and into wood post. After deck flooring is installed, slide vinyl post and flair over wood post.

### Level Railing Applications

**Step 1:**
Hold each rail against posts. Position so there will be the same spindle spacing on each end of the rail. Mark top and bottom rails where they need to be cut. Cure rails to length. **NOTE:** Make sure rails are cut with a 1/8” gap on each end between rails and posts.

**Step 2:**
If installing an 8” or longer section of railing, a railing support is required. It needs to be attached to the bottom rail at this time to assure the section will not sag.

**Step 3:**
Slide a mount over each end of the rail (make sure profile side of mount is down). Place bottom rail in position. **NOTE:** Leg of Aluminum P-Channel needs to be facing inward. Slide vinyl extrusion over plastic wood block to bottom side of rail. Screw through location tabs (screws provided). Insert screws into aluminum support and screw to bottom rail. Turn support to adjust height.

Insert vertical spindles into bottom rail holes. Position top rail into spindles one at a time. Position...
Cardinal Vinyl & “B” Series Railing
Installation Instructions...Continued

Level Railing Applications...Continued

top rail between posts and fasten top mounts to post with screws (like bottom mount procedure).

If using standard height posts, top rail should be 2” down (2½” down if using an aluminum post mount) from top of post. Should a special height railing be required, the spindles and post may be cut down.

Place mount covers over mounts. Tap each corner of cover to secure it to mount. CAUTION: First, line up top two corners of cover and LIGHTLY TAP the corners with a hammer. Then, carefully line up bottom of cover and LIGHTLY TAP with a hammer.

Stair Rail Applications

NOTE: Make sure to review level rail applications before these steps are attempted. Stair rail mounts are needed for stair rail applications. Stair rail mounts are designed for up to a 35° application.

Step 1:
The same length spindles are sent for the stair rail application. Some cutting on spindles is needed so rail section will be correct height when racked. An angle should be cut at each end of the spindles. The angle will follow the same angle as top and bottom rails. NOTE: The overall length of spindles will not change.

Lay a spindle on the steps, put one end by a post. Mark the angle. Cut all spindles at this angle.

Step 2:
Lay the bottom rail on the steps and up against the posts. Determine the 2 end holes, insert a spindle at each end of rail. Place top rail on top of these 2 spindles. Holding rails against posts, determine exact end spacings, mark rails for cutting. If spindles are too tight and not level, make holes larger by filing out holes accordingly. Then, cut both rails at angle marks.

NOTE: Above ground application requires a 48” post at the bottom step. Field cut after railing is installed. The “A” Series Post must be cut off at the bottom before railing is installed. “A” Series Post length for bottom of steps - 48” for 36” railing and 52” for 42” railing.

Step 3:
Slide a mount over each end of the rail (make sure profile side of mount is down). Place bottom rail into position. NOTE: Leg of Aluminum P-Channel needs to be facing inward.

Center and screw mounts to post with (4) ½” screws (screws provided). Insert (2) ⅜” self-tapping screws through location tabs (screws provided). Insert vertical spindles into bottom rail holes. Position top rail into spindles one at a time. Position top rail between posts and fasten top mounts to post with screws (like bottom mount procedure).

If using standard height posts, top rail should be 2” down from top of post. Should a special height railing be required, the spindles and post may be cut down.

Covers have knock outs for up to a 35° angle (or may be cut out for varying angles). Place mount covers over mounts. Tap each corner of cover to secure it to mount. CAUTION: First, line up top two corners of cover and LIGHTLY TAP the corners with a hammer. Then, carefully line up bottom of cover and LIGHTLY TAP with a hammer.

The top to bottom measurement should be the same for both the stair rail and the level rail sections.

Angle Applications

NOTE: Make sure to review the level application installation before these steps are attempted. Angle mounts are needed for level application. These mounts can be cut to accept UP TO a 45° angle.

Step 1:
Cut rails to correct length, angle to fit in between mounts. Make sure it is cut to be the same spindle spacing at each end of the rails. NOTE: Attach mounts to rail...BEFORE attaching to post.

Step 2:
Bottom Mount…
Place mounts on rail. Insert (1) ⅜” self-tapping screw through location tab (screws provided). This screw will go through both the vinyl and aluminum. Position rail. NOTE: Leg of Aluminum P-Channel needs to be facing inward. Center and screw mounts to post with (4) ⅜” screws (screws provided). Screw (1) ½” screw through location tabs on the top of the mount.

Top Mount…
Use same procedure as bottom mount except, pre-drill pilot hole on top of mount and rail.

Place mount covers over mounts. Tap each corner of cover to secure it to mount.

Contact from where you purchased for questions

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