

# BLACKline™

## Ornamental Vinyl Railing

### VINYL POST AND RAILING INSTALLATION INSTRUCTIONS

#### Standard Rail Kit Components:

- 2 - 2" x 2½" Top and Bottom Rail
- 2 - Aluminum Stiffeners
- 13 - 1" x 1" Pickets
- 4 - 2" x 2½" Brackets
- 16 - #8 x 1" Screws
- 1 - Instructions

#### Post Kit Components:

- 3" x 3" Vinyl Post
- 24 - #12 x 1½" HWH Tek Screws
- Galvanized post insert, bolts, and nuts

#### Options:

- 36" and 42" Height Stair Rail Kits
- Black Vinyl Glue
- Pyramid Cap
- Ball Cap
- 4" x 4" Vinyl Post
- Solar Light

#### Added Materials:

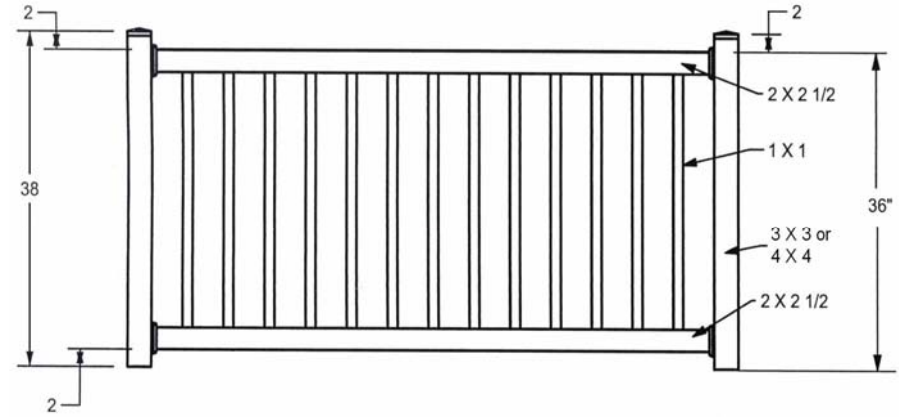
- 24 - #4 x 2½" Square Bit wood Screws (for Wood Posts)

#### Tools Needed for Installation:

- Drill, 1/8" Square head drill bit, Phillips bit, hack saw, level, file & tape measure

#### A. Post Installation:

1. Locate and mark the post centers. The spacing should not exceed 96". The posts should be spaced to obtain a uniform spacing along the rail.
2. Clamp the post support in place at each mark. Adjust the post support so that it is plumb. Mark for the hole locations and drill ½" holes through the decking material. Install all fasteners and tighten. Check post support for plumb and adjust if necessary with shims.
3. If installing the post support on concrete, drill holes using the base as a template and clean dust from the holes. Install all four fasteners and tighten. Check post support for plumb and adjust if necessary with shims.
4. For metal post: **Cut posts to desired height**, slide the 3" x 3" vinyl post over the metal post support.
5. For wood post: **Cut post to desired height**, slide the 4" x 4" vinyl post over the wood post support.
6. If using existing wood posts, check that the posts are securely fastened to the decking material. For new wood posts, secure the wood post to the deck joists with bolts or lag screws, making sure the post is plumb.



#### B. Level Railing Sections Assembly:

1. Begin by installing the level sections. As the post centers may vary slightly, cut the rails for each section as you go. Complete one section at a time and work your way from the middle towards the fixed ends.
2. Measure the rail by laying the bottom rail between the posts. Center the rail so that there is an equal distance between the end picket holes and the post on each end. Mark the rail at the points where the rail and post meet and subtract 3/16" from both ends of the 2x2½ rail base brackets. Double check the measurements and then cut the rail and metal insert. Use the bottom rail as a guide and cut the top rail and metal inserts to the same length, making sure the holes for the pickets line up between the top and bottom rails.
3. For the 36" Rail: Measure up 2 inches from the floor surface to locate the bottom rail base brackets. Secure the mounting brackets with screws through the vinyl post. Measure up an additional 31½ inches to locate and install the top rail base brackets (see Figure 1). Repeat for each post.

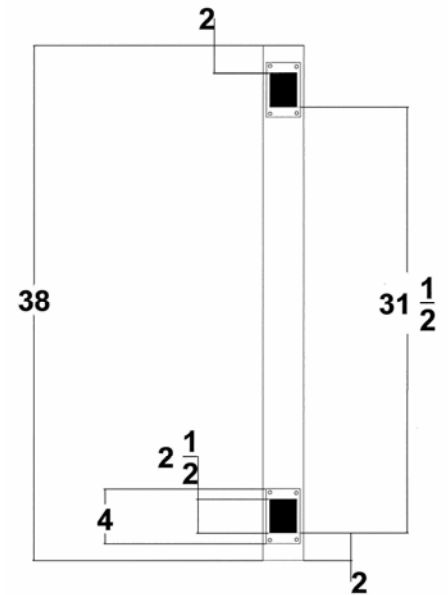


Figure 1: 36" Rail Base Bracket Installation

4. For the 42" Rail: Measure up 2 inches from the floor surface to locate the bottom rail base brackets. Secure the mounting brackets with screws through the vinyl post. Measure up an additional 37½ inches to locate and install the top rail base brackets (see Figure 2). Repeat for each post.

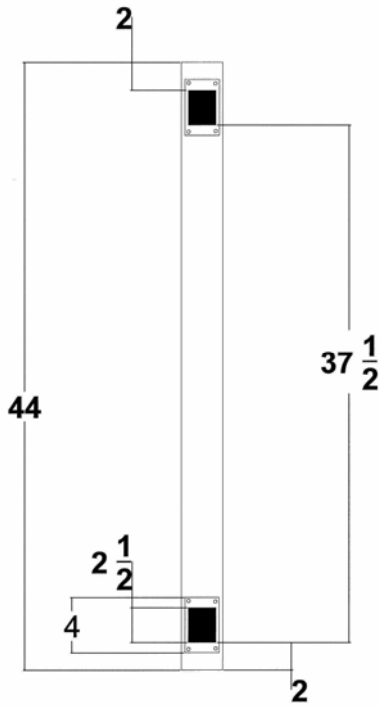


Figure 2: 42" Rail Base Bracket Installation

- Slide the trim cover onto each end of the railing. Insert the bottom rail into the bottom rail base bracket. Insert the pickets into the bottom rail. Position the top rail over the pickets. Pull up on the first few pickets and insert them into the top rail holes. Push down on the top rail and position it next to the top rail base bracket. The rail may not easily push into the base bracket until you have inserted several pickets. Work from one post to the other post.
- Once all pickets are inserted, secure the rails to the rail base brackets with 4 - #8 x 1 inch self-drilling square bit screws, if necessary: pre-drill with an 1/8" drill bit) being careful not to over-tighten. Cover the base brackets with the trim covers. Secure the trim cover to the base bracket with a dab of glue on each tab of the trim cover (see figure 3).
- Repeat this procedure for all level rail sections.

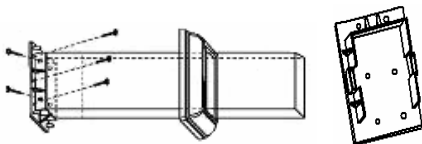


Figure 3: Rail Base Bracket and Trim Cover Plate

### C. Stair Railing Assembly:

- Determine if one rail section will reach from the top to bottom of the stairs, or if multiple sections will be needed. Rail and Pickets are set for a standard 7" rise/11" run, and any other configuration may require a file to enlarge the pre-routed holes.
- Layout post centers and install stair post supports as directed in section A.
- Lay the bottom rail next to the posts and center. Mark where the rail meets the post and subtract 3/16" from both ends for the brackets. Cut the rail, and then use as a guide to cut the top rail and inserts, making sure the holes for the pickets line up between the top and bottom rails.
- Layout the top & bottom base brackets as directed in sections B.3 and B.4 for either the 36" or 42" rail. **Note:** when using steel towers, the top bracket screw holes might not hit metal. Make sure bottom screw holes of top bracket are secured into the metal tower.

- For designs with extra rail, use BWM134 & Swivel Bracket. **Note:** see shop drawings for details.
- Slide trim covers onto the rail and install as directed in section B.5, taking care to push the top rail down onto the pickets. The rail may not easily push down into the base bracket until you have inserted several pickets.

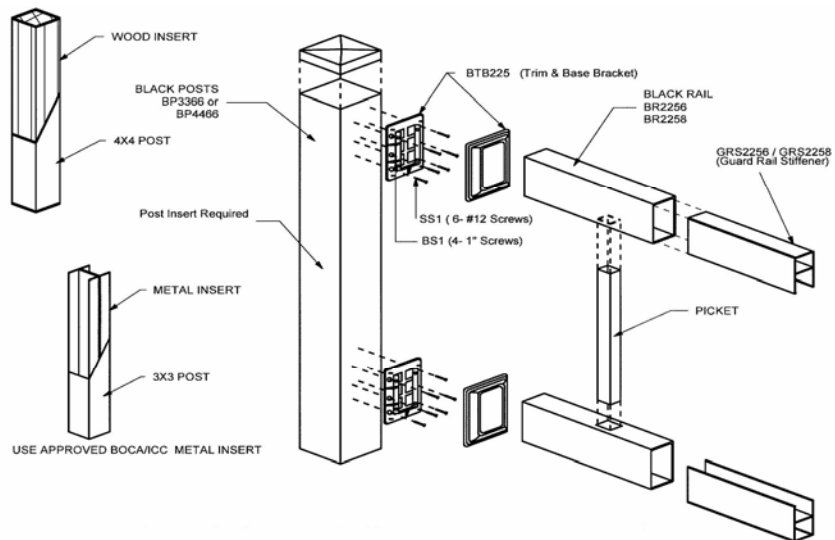


Figure 4: Rail and Post Assembly

- Secure rails using screws and cover with trim covers as directed in section B.6.

### D. Post Cap Assembly:

- To install the caps, place glue along the inside edge of the post and push caps down until flush with the top of the post.

### E. Wall or Column Mounting:

- Railings can be mounted to walls or columns using wall mount brackets. Brackets should be anchored securely with 6 - #4 x 2 1/2" square bit wood screws or masonry screws. The space between the last picket and the wall should not be more than 4".

### F. Care and Maintenance:

- To avoid damage to the vinyl railing before installation, you should keep the railing in the box until ready for installation. Do not lean product up against a house or structure for any period of time. Keep all the products in box laying flat and not on hot concrete, metal, or asphalt.
- If the vinyl railing gets dirty over time, a simple wash with a garden hose will do wonders in cleaning it. If this does not do a satisfactory job proceed with the following steps.
- If dirt is hard to remove, mix a solution of 1/3 cup of powder detergent (such as Tide ®, Fab ®, or equivalent) with 2/3 cup of household cleaner (Soilax ®, Spic & Span ®, or equivalent). Mix this with 1 gallon of water and wipe down surface with this solution.