

# ClearVisionSystem® INSTALLATION

## Post Installation

Fiberon Horizon railing systems are designed to work with a number of different decking materials and surfaces. Before initiating any project, obtain a copy of your local building codes and understand them thoroughly. The following installation instructions are intended as a general guideline based on common building practices used in railing installation. Local building code requirements will always supersede any and all suggested procedures and measurements in the following installation.

Determine where the railing posts will be positioned by using a scaled drawing of your project (figure a). For proper aesthetics, divide the perimeter dimensions evenly so that posts are spaced equally. To optimize post placement, additional joists or alternative locations may be required. Posts may be installed by using one of three methods. Choose the method or methods that best suit your particular project.

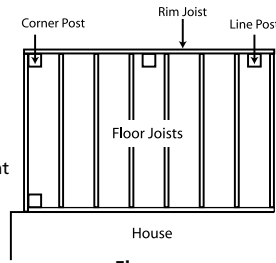


Figure a

### Joist Mount Brackets (sold separately)

Use joist mount brackets on projects where framing is fully exposed. In new construction, joist mount brackets are attached to the inside of the framing before the porch flooring or decking is installed. Joist mount brackets may be used to install railing on existing decks provided the framing underneath is exposed to permit proper installation. Joist mount brackets can be used in a corner or line application and bolts directly to the framing with four carriage bolts. Follow these guidelines to complete the post installation (figure c & b):

1. Determine the position of the posts on the framing.
2. Locate and mark the position of the joist mount brackets. They should be flush with top of framing at each post location.
3. Use the joist mount bracket as a template for pilot hole location. With a pencil, mark hole positions on the framing.
4. For corner posts, remove the side plate from the bracket. Mark hole positions on the framing.
5. Drill pilot holes using a 7/16" drill bit.
6. Attach brackets to rim joists using 3/8" x 3" carriage bolts (at this point, do not fully tighten).
7. Insert post into bracket. Be sure post is plumb and true.
8. Tighten carriage bolts to secure post in place. Double check that posts remain plumb.
9. Once all posts are in place, decking can be applied.

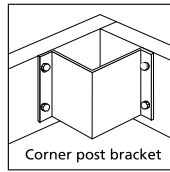


Figure b

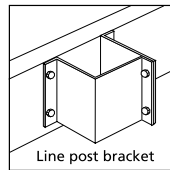


Figure c

### For Concrete (figure d):

1. Use the base plate as a template and mark the four corner holes for the concrete wedge-bolt anchors.
2. Drill the marked holes using a 1/4" masonry drill bit. Drill the hole into the base to a depth of at least 1/2" deeper than the length of the 1/4" x 3" wedge-bolt anchors (included). Clean the hole of dust and debris.
3. Align the base plate over the drilled holes.
4. Position the base trim over the top of the base plate.
5. Take the post mount and place it into the base trim lining up the holes.
6. Screw the 5/16" leveling bolts into the four tapped holes. If needed, adjust the bolts to plumb the post.
7. Fasten the surface mount bracket to concrete surface with (4) 5/16" wedge-bolt anchors (included in surface mount kit). Tighten anchors until the head of the bolts are firmly seated against the base plate.
8. Slide post over mount until it seats into the base trim. The post sizing stabilizers will secure the post in proper position.

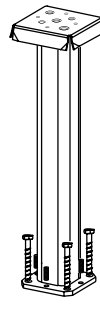


Figure d

### For Wood (figure e):

1. Thickness of wood/composite deck and reinforcement boards underneath deck should be a minimum of 4" (two treated 2" x 8" lumber under the deck board). Fasten reinforcement boards with 3" stainless steel fasteners.
2. Use post mount as a template and mark the four corner holes for the 5/16" x 5-1/2" bolts.
3. Drill four 3/8" holes at the marked locations, drilling through the deck board and the reinforcement boards.
4. Align the base plates over the drilled holes as shown at left.
5. Screw the 5/16" leveling screws into the four tapped holes. If needed, adjust the set screws to straighten the post.
6. Insert the four 5/16" x 5-1/2" bolts into the drilled 3/8" holes.
7. Fasten the four bolts underneath the reinforcement boards with the 5/16" fender washer and hex nut.
8. Slide composite post over the post mount until it contacts the base plates. The post sizing stabilizers will secure the post in proper position.

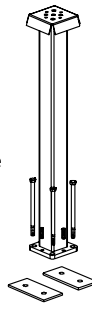


Figure e

## Rail Installation (figure f)

1. Measure the inside distance between the posts.
2. Cut the top and bottom rails to fit snugly between the posts.
3. Cut u-channels and panel gaskets 6" shorter than rails to allow 3" on each end for "L" brackets.
4. Using a 1/8" bit, drill screw attachment holes 1" from each end of the two trimmed u-channels through their center line. Measure the distance between screws and divide by 6 to obtain screw spacing. Mark screw locations and drill holes.
5. Center the u-channels on what will be the underside of the top rail and top side of the bottom rail, equidistant from each rail end. Mark hole positioning on top and bottom rails and drill pilot holes with a 1/8" drill bit. Using the 1/8" stainless steel flat head screws provided, attach u-channels to top and bottom rails.
6. Fit panel gaskets onto top and bottom edges of ClearVisionSystem™ panel.
7. Lubricate bottom panel gasket with liquid dish washing soap solution (20 parts warm water to 1 part soap) and force the ClearVisionSystem™ panel into the bottom rail u-channel by starting at slight upward angle at one end and working down to opposite end.
8. Install top rail onto ClearVisionSystem™ panel in a similar manner.
9. Place crush block on deck surface midway between posts. Position and level rail section on crush block.
10. Mark with a pencil the area where the rail brackets will meet the posts and pre-drill using a 1/8" bit.
11. For ease of installation, attach top rail "L" brackets to posts first and rail last. Attach bottom rail brackets to bottom rail first and posts last. Rest section on top rail brackets and install the remaining screws.
12. Glue and place crush block underneath bottom rail centered between posts.
13. Remove polyethylene masking from both sides of panel.

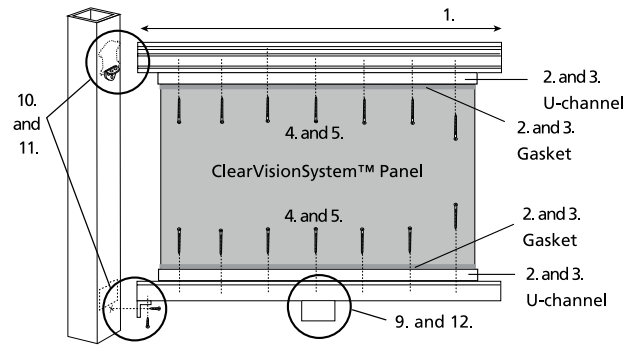


Figure f

## Angle Rail Installation (figure g)

For angled railing installation, use the angle mounting bracket. "V" cut rail for appropriate angle and attach to post with bracket.

\*Fiberon Horizon railing can be cut easily with any cross cut handsaw or circular saw using a 32-tooth carbide saw.

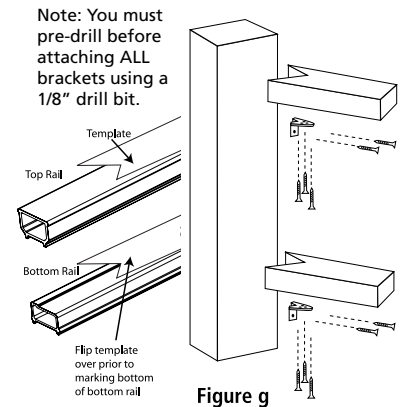


Figure g

## Cutting ClearVisionSystem® Panels

Note: Leave polyethylene masking in place until after cutting to size (polyethylene masking acts as a lubricant). Sharp saw blade teeth are essential for achieving good results. Carbide tipped saw blades are recommended for superior cuts. A 10" diameter, 80-tooth blade is recommended for all purpose cutting. (For more detailed cutting information, see [www.cyro.com](http://www.cyro.com)).

1. Using 1" masking tape, mask off area to be cut.
2. For best results, set cutting depth at 1/16" and make 4 passes, increasing depth 1/16" each time.
3. Cut the panel 7" shorter than the distance between the posts.