

# Vertical Cable Systems

# DESIGN·RAIL®

**Important Note:** These instructions are for a standardized frame system with posts on 5-1/2 foot centers. Bay infills may vary depending on your distance between posts. Infill rails should be cut so the space between pickets, cables and posts should all appear to be consistent.

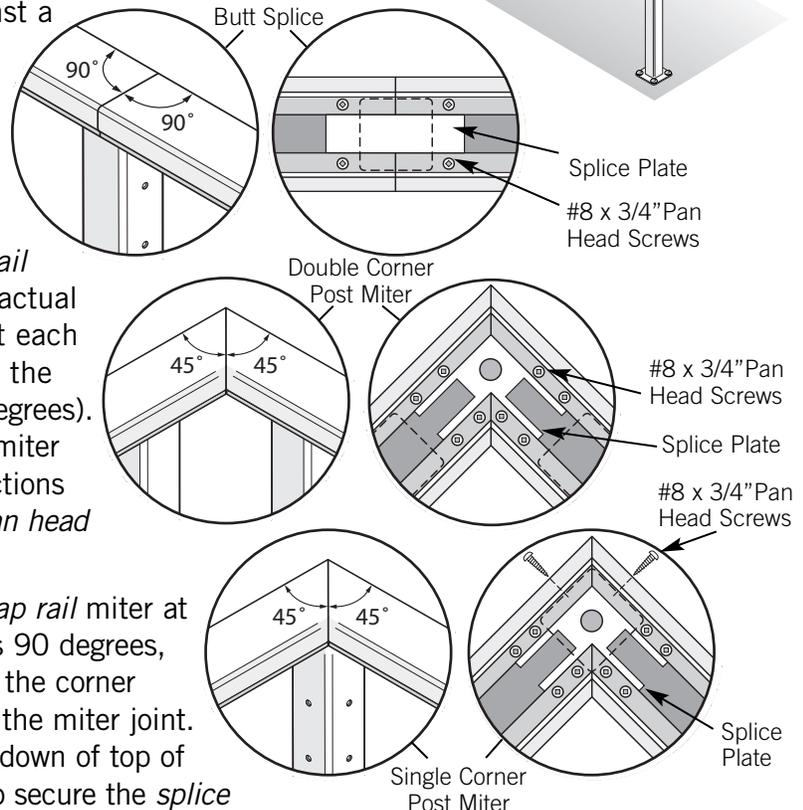
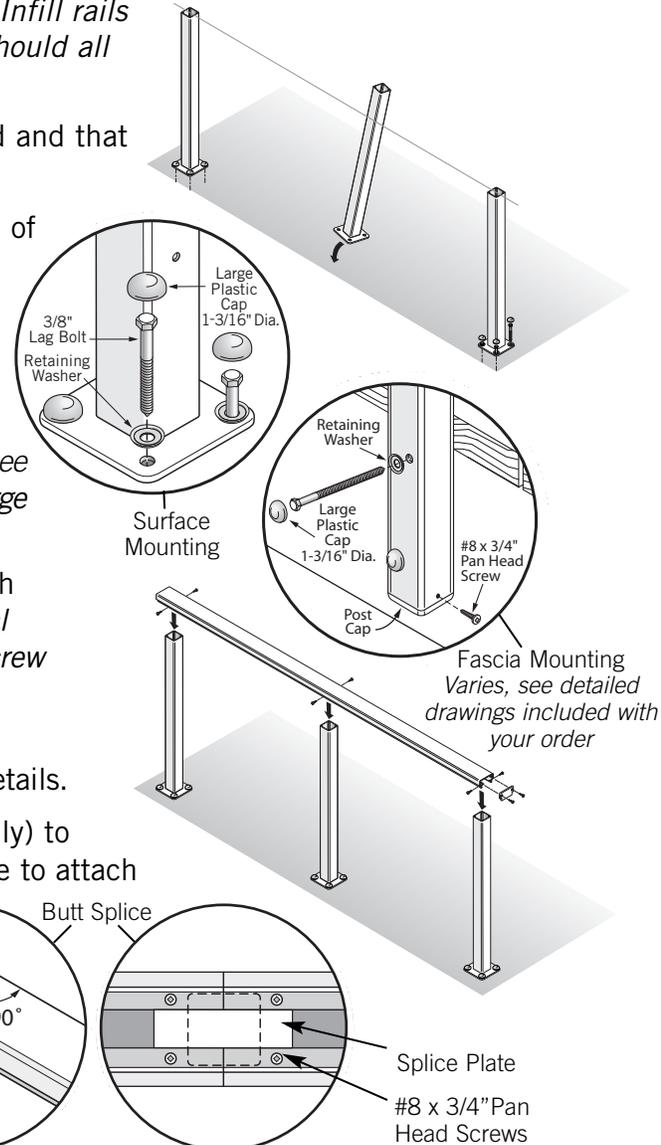
**1) Check Contents Of Packages:** Verify that all parts have arrived and that they match the packing list.

**2) Anchor Posts:** Position all main posts. Space posts a maximum of 5-1/2 ft. on center for residential applications (5 ft. commercial applications). Remember, you must have a minimum of 3" of thread penetration into solid wood for proper attachment; additional wood blocking and/or longer bolts may be required. Expansion anchors can be supplied for concrete base

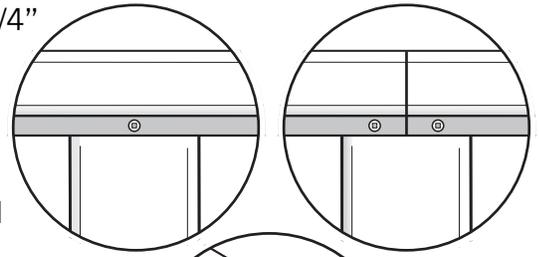
- **Surface mounting:** anchor each post using provided hardware (see detailed sheet included in your order) with retaining washers and large plastic caps.
- **Fascia mounting:** anchor each post using provided hardware with retaining washers and large plastic caps. Finish with an internal post cap by pre-drilling post & screwing a #8 x 3/4" pan head screw through the side of the post and cap flange to secure cap.
- If you are mounting posts using the *stanchion mount* or *fascia bracket mount* methods, please call for additional installation details.

**3) Cut & Snap Cap Rails:** Cut the cap rail (Series 200 & 300 only) to length and then snap it into position on top of the posts. Be sure to attach decorative end plates to any ends that butt-up against a wall face or that have limited access.

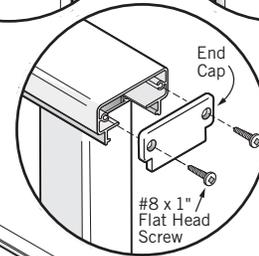
- **Butt splices:** always cut the cap rail at 90 degrees and center the joint over a post. Use a rectangular splice plate with four #8 x 3/4" pan head screws to secure this joint.
- **Mitered joints with double corner posts:** the cap rail will extend past each of the corner posts and the actual miter joint will be unsupported. Remember to cut each cap rail miter at 1/2 the total corner angle (i.e. if the corner angle is 90 degrees, cut each miter at 45 degrees). Add one splice plate to connect and stabilize the miter joint. Insert the plate before setting the two rail sections down of top of the posts; use eight (8) #8 x 3/4" pan head screws to secure the splice plate to the rails.
- **Mitered joints with single corner posts:** cut each cap rail miter at 1/2 the total corner angle (i.e. if the corner angle is 90 degrees, cut each miter at 45 degrees) Center the joint over the corner post. Add one splice plate to connect and stabilize the miter joint. Insert the plate before setting the two rail sections down of top of the post; use eight (8) #8 x 3/4" pan head screws to secure the splice plate to the rails. Also, on each side of the miter cut, screw a #8 x 3/4" pan head screw through the cap rail flange and into the post face.



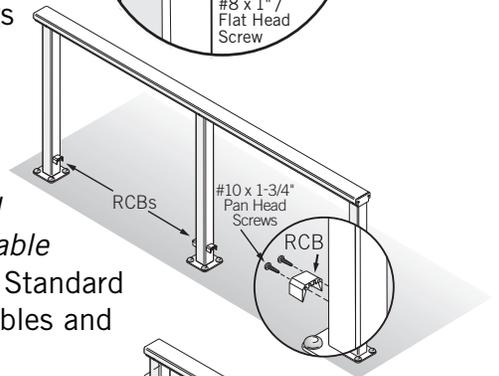
**4) Fasten Cap Rails:** Secure the *cap rail* to each *post* using two #8 x 3/4" *pan head screws* (four screws for butt splices); screws should run through the *cap rail* flange and into the center of the *post* face. Attach screws to both the front and back of each post.



**5) Attach Decorative End Caps:** Attach the *decorative end caps* to all of the exposed *cap rail* ends using two #8 x 1" *flat head screws*.

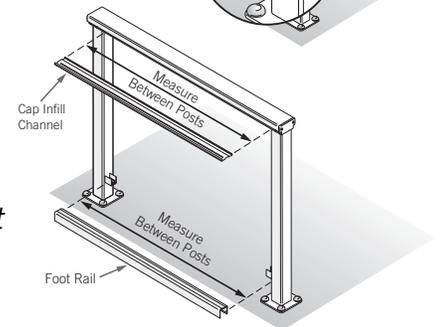


**6) Attach RCBs:** For the *foot rail*, locate the *rail connecting block (RCB)* holes on each *post* (these are pre-drilled) except on stair rail *posts* where all the holes must be drilled in the field). Attach the *RCBs* to the posts using two #10 x 1-3/4" *pan head screws*. The *RCBs* should be mounted wings up for frames using *vertical cable systems*.



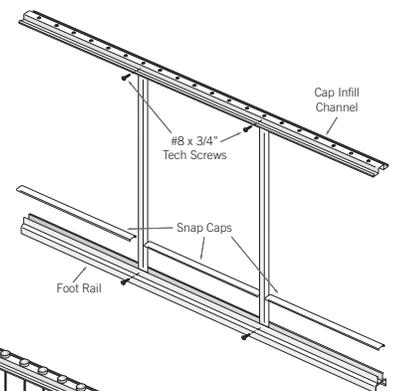
**7) Cut Cap Infill Channels:** Measure between each set of *posts* just below the *cap rail*. Cut the *cap infill channel* for each section to  $-1/16$ " of your corresponding measurement. Do not attach the *cap infill channels* to the *cap rail* at this time. The distance between *post* and *cable* holes should be between 1-1/2" and 3 inches and equal on both ends. Standard configurations have 6 cables between *posts* and *pickets*. Number of cables and *pickets* may vary due to panel size. Consult your layout sheet.

**8) Cut Foot Rails:** Measure between each set of *posts* just above the *RCBs*. Cut the *foot rail* for each section to  $-1/16$ " of your corresponding measurement. Make sure the holes in the foot rail are in similar placement to the *cap infill channel* so the cables run plumb vertically. Do not attach the *foot rails* to the frame at this time.

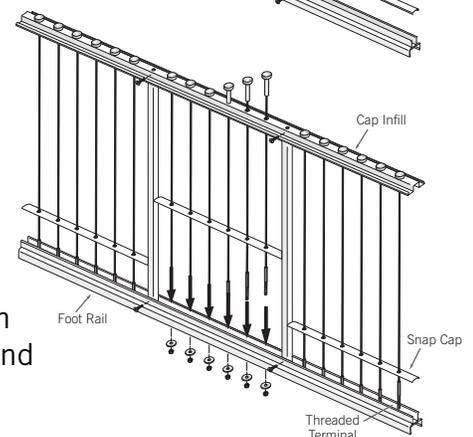


**9) Cut Snap Caps:** Measure distance between posts and pickets, cut *snap caps* to  $-1/16$ " length. Standard infill bays will have 20 1/4" length of *snap cap* to use between the two installed *pickets*. End *snap cap* sections will vary depending on size of bay.

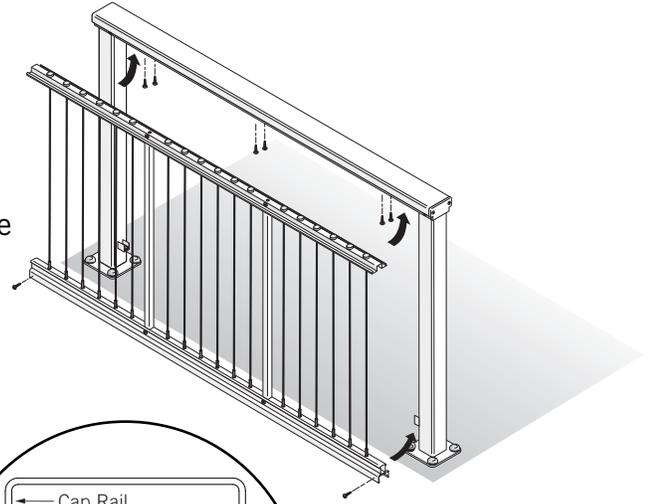
**10) Cut & Install Pickets:** Pickets should come cut to length for level railing installations, if not, call for measurements for your particular installation (residential or commercial). Pickets slip in slots in *cap infill channel* and *foot rail* and are secured with #8 x 3/4" *pan head screws* through side of channels (see illustration).



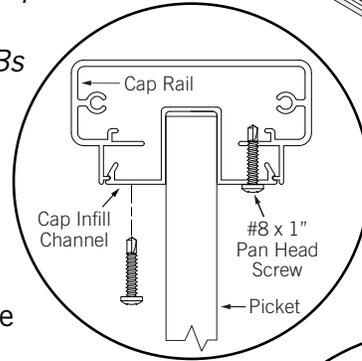
**11) Assemble Panels:** Thread center cables through center holes on the *cap infill channel*. The *threaded terminal* of the *cable* feeds through first, to eventually lace through the foot rail channel. Position the 20-1/4" section of *snap cap* over the *foot rail* in between the *two pickets*. Thread the cable through the *snap cap* and continue through the holes in the *footrail*. Hold *snap cap* up at this time. Attach *washers* and *nuts* on the protruding *threaded terminals*. Drop the remaining *cable* assemblies through the remaining holes in the *cap rail channel* and thread through *snap caps* and *foot rail*. Attach remaining *washers* and *nuts*.



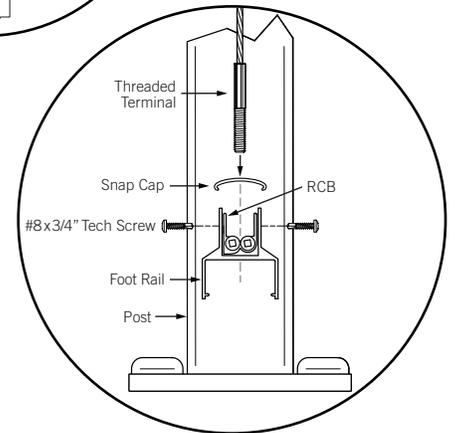
**12) Install Panels:** Place the assembled panel between *posts* and lift up into opening of the underside of the *cap rail*. Make sure the *RCBs* fit into the upper channel of the *foot rail* below the *snap cap*. Snap the *cap infill channel* into the *cap rail* once the infill is aligned.



**13) Secure Panels:** Screw the *cap infill channel* into the *cap rail* from underneath with 6 #8 x 1" *pan head screws* per panel. 2 on each end, 2 in center. Install *foot rails* to *RCBs* with #8 x 3/4" *pan head screws*.



**14) Tension Cables:** Tension cables by spinning *nuts* concealed under *foot rail*. Hold the threaded terminal above the *foot rail* with vise-grip pliers while tightening the nut with a socket below. Tension evenly until taught.



**15) Fasten Snap Caps:** Fasten *snap caps* to top of *foot rail* after tensioning cables. Push down and snap into place.

