

Installing The Porch Store's PVC panels for deck railings using locally available building materials for top and bottom rails.

If you have decided to use top and bottom rails locally sourced and built on site, we'd like to show you how we do it at The Porch Company in Nashville, TN. We often install our PVC panels with this method as it costs less than using manufactured railing systems, can be painted to owner's color choice and allows for longer spans.

Step 1. Set your posts.

In our example, we are using 4x4 core posts and then adding 6" PVC sleeves. We'll eventually add PVC post caps (of course, made by The Porch Store!) Make sure you provide blocking where the rails connect.

Here we are using Titan post anchors to secure the 4x4 PT post to the deck. We then are adding The Porch Store's PVC 5 1/2" x 5 1/2" Sleeve



Step 2. Prepare your components.

Measure between the posts (check top and bottom measurements to make sure posts are plumb.)

Cut two 2x4 PT pieces to length.

Cut one 1x4 PVC to length. Chamfer the edges (if you want to!)

Cut one 5/4 x 6 PVC or composite decking to length.

Create a 1" x 1/2" routed groove in the center of one of the 2x4's.



Step 3: Cut PVC panel to fit opening between posts.

Determine if you need to splice panels together.

Cut panels to length as needed thinking about centering pattern in the opening.

Photo shows 2 panels butted together and centered in opening – not yet cut to size



Step 4: Assembling the railings and panels

We turn the railing upside down to assemble.

Lay the grooved 2x4 PT with the groove side up on the work surface. Flipping the PVC panels upside down, insert in groove.



Turn panel upside down to assemble.

Step 5: Attach the railings and panels

Install the 1x4 PVC on top panel by screwing every 12" using 1 5/8" deck screws.

Make sure you are centering the PVC panels on the 1x4.

Install a screw 2" from the splice on either side of a splice. Use PVC glue where panels join.

Screw the 2x4 PT on top using 2 1/2" deck screw every 12".

Flip the panel over and screw the 2x4 top rail into the PVC panels using 1 5/8" deck screws 12" on center. Again, add a screw on either side of a splice.



Screw 1x4 PVC to panel making sure to set a screw on either side of a splice



Attach bottom 2x4 to assembly



Flip assembly over and attach top 2x4 to panel



Finished assembly. Ready for paint or installation.

Step 6: If you plan to paint the panel – now would be a great time!

We like to spray paint our railings and they are easy to handle when assembled like this. Use Sherwin Williams' Extreme Bonding Primer.



Step 7: Attach railing sections to the post

Install the railing sections by screwing the 2x4 PT rails into the posts using 3" screws (check your local building code for required fasteners). Determine the length of the mounting block and cut at least one per 8' panel. If you want a 36" tall railing and you are using the materials specified above, this block will be 2 3/4" tall.



Refer to your local building codes to use the correct fasteners when attaching top and bottom rail to posts.



Install mounting blocks as needed



Step 8: Install Cap Rail

Install PVC or composite decking to the top of the cap rail. If you have matching plugs to hide the screws, screw from the top of the board into the 2x4 PT and plug. If you do not have matching plugs, screw from the bottom of the 2x4 into the cap.



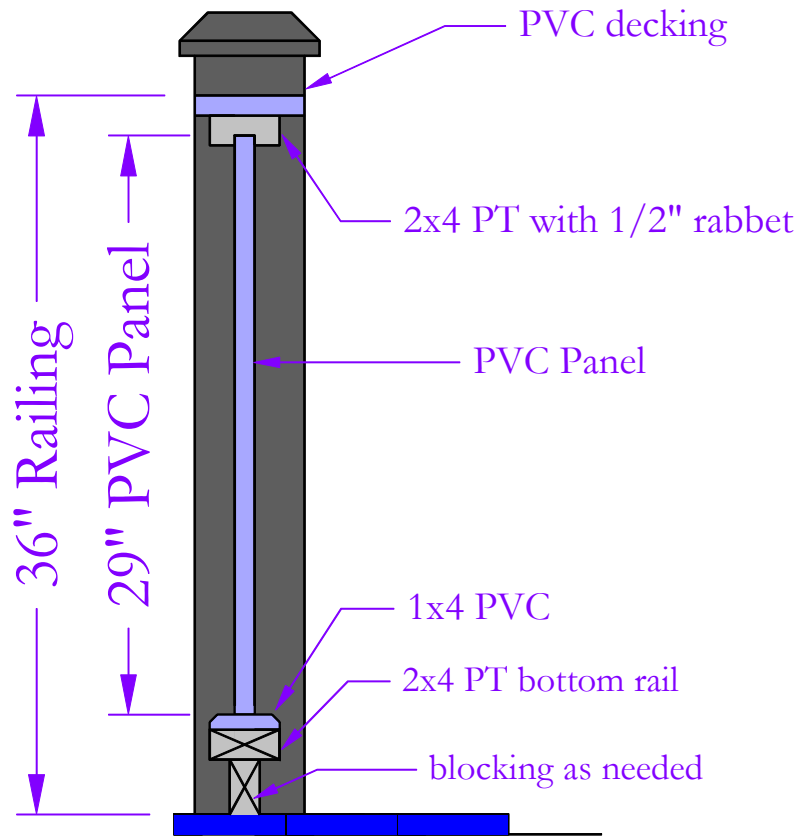
We use Cortex screws & plugs to hide any screws in the cap rail.

Install the post cap and Voila! You're done!

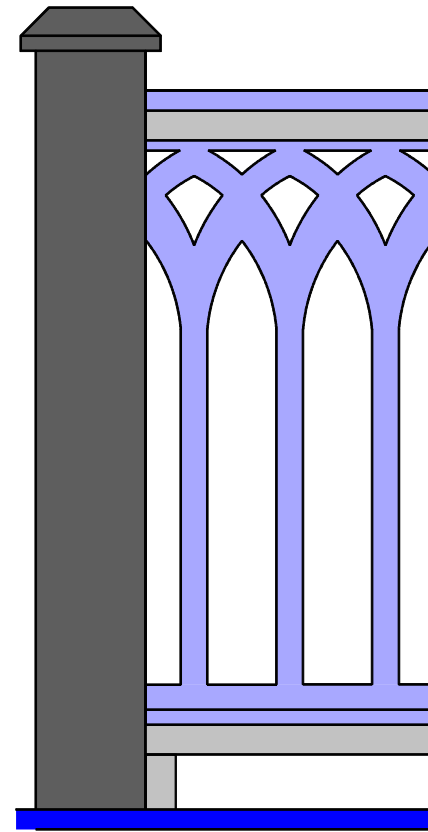


Congratulations! You did it! Let us know if you'd like to be one of our Certified Installers!!

29" PVC Panels
with PVC cap
and pressure treated lumber for top and bottom rails



Wall Section



Exterior View