

VOP PICKET RAIL SYSTEM

36" & 42" HEIGHTS

ASSEMBLY INSTRUCTIONS



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TOOLS REQUIRED:

- | | |
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| <ul style="list-style-type: none"> • Power Drill • 3/8" x 5" concrete bit for 3/8" x 4 concrete anchor (concrete mounted application) • 1/8" x 6" wood bit for 3/8" x 6" wood lag screw (wood mounted application) | <ul style="list-style-type: none"> • Measuring Tape • Safety glasses and gloves • Level • #2 Square Driver Bit • Miter Saw (with Carbide Tipped Blade min. 60 teeth) |
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BOX KIT INCLUDES:

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| <ul style="list-style-type: none"> • 1 pc. Top Handrail • 1 pc. Pre-Punched Top Filler Strip • 1 pc. Pre-Punched Bottom Rail • 1 pc. Bottom Filler Strip • 1.25" x 1.25" x 31" / 36" Long Pickets (9 pcs. for the 48" long kit and 14 pcs. for the 72" long kit) | <ul style="list-style-type: none"> • 2 pcs. Pre-punched Aluminum Reinforcement • 4 pcs. Galvanized Steel Mounting Brackets • #8 x 1.50" Screws (36 pcs. for the 48" long kit and 52 pcs. for the 72" long kit) • 12 pcs. #8 x 1.00" Self Drilling Screws • 8 pcs. #8 x .50" Self Drilling Screws |
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ASSEMBLY TIPS:

Find a flat elevated surface to assemble rails. Always take precaution when using power tools and extension cords. Always cut your top and bottom rails before assembly. Cut your rails from both ends, this way you will keep the picket spacing consistent. When using a drill it is recommended to use a drill with a torch setting. Adjust the torch setting to low.

STEP 1 - DETERMINE POST CONFIGURATIONS & LOCATIONS

(i.e. end, center, corner, etc.) (See Fig. 1)

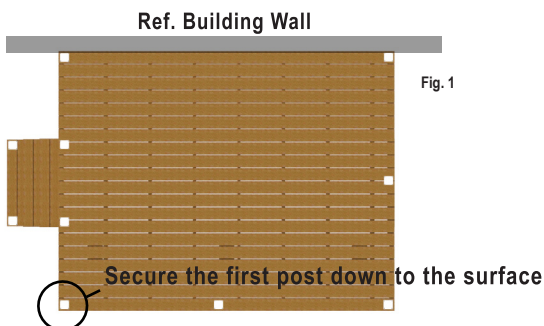


Fig. 1

STEP 2 - POST INSTALLATION

- Draw a line with a pencil at 2.5" from the edge of your deck or concrete pad to guide your installation.
- Secure the first post down to the surface using the recommended post anchors. (See Fig. 1 & 2)
- Slide on the post cover. Measure and mark 3.5" from the top of the plate. Fasten the mounting "L" bracket to the center of the post using the two outside holes only. (See Fig. 3 & 4)
- Remove "L" bracket. Leaving the screws in place with the screw head slightly away from the post. (See Fig. 4)
- Fasten the mounting "L" Brackets using the fasteners recommended.
- The Bracket must be mounted in the middle of the pvc cover with the screws located at 3.5" from the top of the plate. (See Fig. 3)
- Loosen screws about 1/8 of a turn removing the mounting "L" brackets. (See Fig. 4)

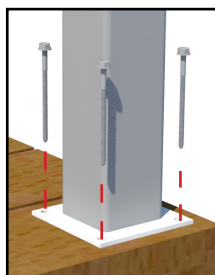


Fig. 2

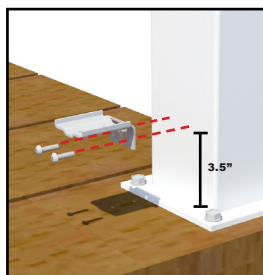


Fig. 3

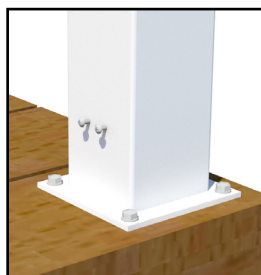


Fig. 4

INSTALLATION FOR POST ON CONCRETE/ WOOD SUBSTRUCTURE

- Place post in place and mark anchor locations.
- For Concrete drill 1/4" holes to allow a minimum embedment of 4".
- Clean holes of all concrete and dust debris.
- Place post reinforcement over the drilled pilot hole and thread in 3/8" x 4" long concrete fasteners. (See Fig. 5)
- For Wood drill 1/8" holes to help prevent lumber from splitting.
- Deck must have proper blocking in place underneath deck boards.
- This must be done to ensure proper installation
- Once done drive the 3/8" x 6" long lag bolts into place. (See Fig. 6)



Fig. 5

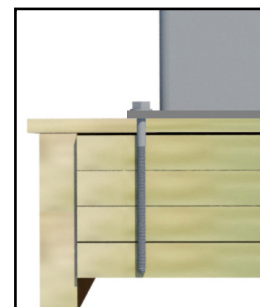


Fig. 6

STEP 3 - RAILING PREPARATION

- Place your posts where desired and then measure the distance in between the two posts. (See Fig. 7)
- This is your railing measurement and now you are ready to cut your top and bottom rails.

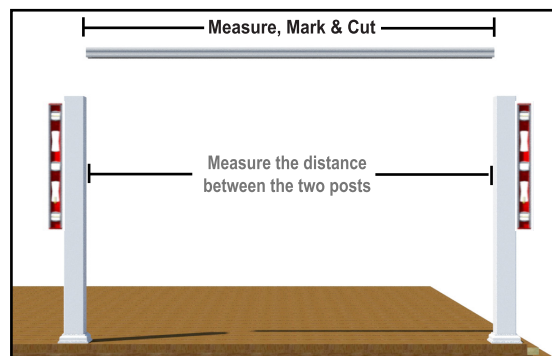


Fig. 7

- Using a Miter Saw with a carbide tipped blade that has a minimum of 60 teeth.
- Cut the vinyl components down on each side so the picket spacing is equal.
- Use the same blade to cut the aluminum reinforcement down. Cut the aluminum 1/8" shorter on both ends. This will prevent the aluminum from scuffing the vinyl posts or other existing posts.

STEP 4 - RAILING ASSEMBLY

- Once your top and bottom rails are cut down you can start the assembly process.
- Find a flat elevated surface.
- Take the top filler along with one of the aluminum reinforcements and start driving the 1.5" long pan head screws into the pickets. (See Fig. 8 below)
- Each picket requires two screws on top and bottom.

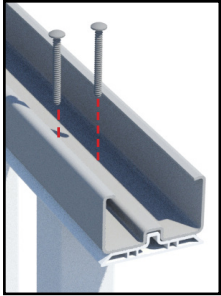


Fig. 8

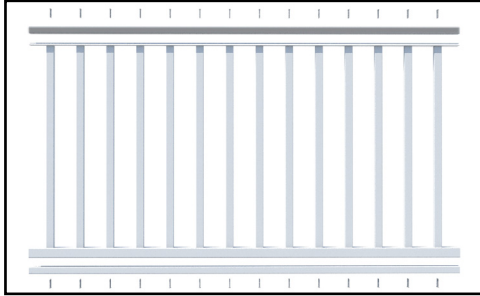


Fig. 9

- Repeat this process for the remaining pickets along the top and bottom. (See Fig. 9)
- Once the pickets are installed you can then take the four steel mounting brackets and fasten them down to the aluminum reinforcement on all four corners using the 1/2" long self-drilling screws provided. Two screws are required for each bracket.
- Mount the brackets approx 1/16" in to prevent the brackets from scuffing the vinyl posts or other existing posts when sliding the railing in place. (See Fig. 10)

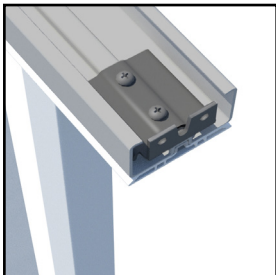


Fig. 10

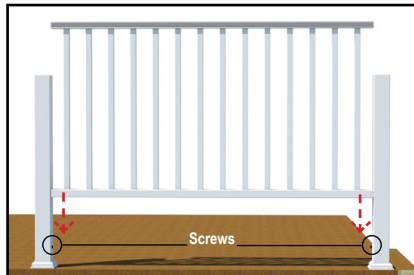


Fig. 11

STEP 5 - RAILING INSTALLATION

- Once your railing section is assembled you are now ready to install.
- Within the hardware bag that is included you will find 1" long self-drilling screws to mount the railing to our post kit.
- Drop the assembled railing section onto the four screws already installed on both posts. (See Fig. 11)
- Now you can mount the top rail to the posts.
- Drive three 1" long screws into each of the top brackets.
- Then drive 1 screw 1" long into the center hole on the bottom brackets on both sides. Your railing is now fastened and secured.

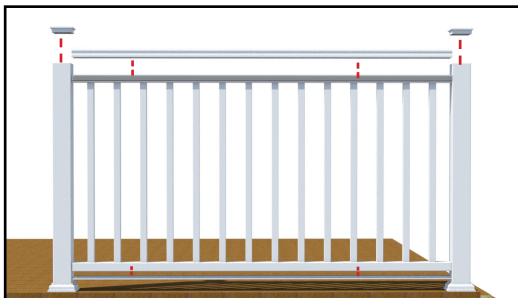


Fig. 12

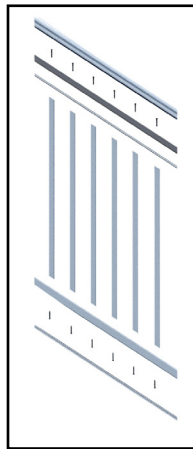
STEP 6 - FINAL TOUCHES

Your railing has now been installed and you can complete the process by snapping on the top handrail, bottom filler and the post cap and base cover. You can use some silicone underneath the post cap to help keep it in place. (See Fig. 12)

STEP 7 - MEASURING & ASSEMBLING STAIR RAILS

The top post on the landing must already be installed at this point. To measure the length of the stair rails place the bottom post on top of the last step 3" in from the edge. A measurement can be then taken from the inside of each post. To determine the stair angle you can use two very simple techniques.

First we have provided a stair angle chart below to help determine the angle by simply measuring the rise and run. (Please see Fig. 13 below.) Another way to determine the angle is to lay a straight board down on top of each step and against each post and mark the angle. Using a miter saw, line up the mark on the board with the blade to determine the angle. (Please see Fig. 14 below.) Now that your angle has been determined cut each picket on both sides and then your top and bottom rails all at the same angle. Once all of your cuts have been made start the assembly process and repeat steps 4 to 6.



Exploded view of the stair railing assembly.

Run	10"	10.5"	11"	11.5"	12"	12.5"	13"	13.5"	14"
5"	27°	25°	24°	23°	23°	22°	21°	20°	20°
5.25"	28°	27°	26°	25°	24°	23°	22°	21°	21°
5.5"	29°	28°	27°	26°	25°	24°	23°	22°	21°
5.75"	30°	29°	28°	27°	26°	25°	24°	23°	22°
6"	31°	30°	29°	28°	27°	26°	25°	24°	23°
6.25"	32°	31°	30°	29°	28°	27°	26°	25°	24°
6.5"	33°	31°	30°	29°	28°	27°	27°	26°	25°
6.75"	34°	32°	31°	30°	29°	28°	27°	27°	26°
7"	35°	33°	32°	31°	30°	29°	28°	27°	27°
7.25"	36°	34°	33°	32°	31°	30°	29°	28°	27°
7.5"	37°	35°	34°	33°	32°	31°	30°	29°	28°
7.75"	38°	36°	35°	34°	33°	32°	31°	30°	29°

Fig. 13

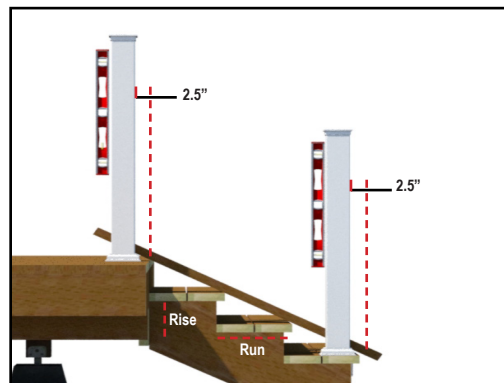
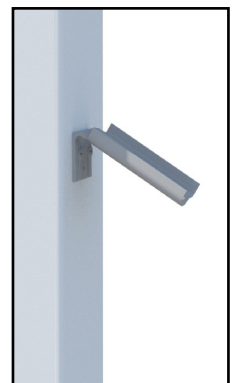


Fig. 14



Angled steel railing bracket.

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