

WORTHINGTONCAST™ BALUSTRADE SYSTEM

ILLUSTRATED INSTALLATION INSTRUCTIONS



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1. Getting started...laying out the job. Use the house as a reference point if you can. If not, get the builder/homeowner to sign off on the placement of the baluster system.
- 2, 3. The base must be level. Therefore, it may be necessary to level the surface upon which the system will be installed by grinding (if possible). You may need to cut off some of the base as well to insure that it is level.



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4. Once the base is level and in position, mark the placement by penciling around the outside edge.
5. Remove all dust and debris from the area.
6. Place tape around the edge of the pencil marks to protect the surrounding surface from excess glue.



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7. Find the center point of the base for placement of the rod.
8. Drill an 11/16" hole slightly deeper than the anchor. Remove all dust and debris from the area.
9. Use sub floor adhesive on the bottom of the base.



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10. Insert concrete anchor and then install the 3/8" threaded rod
11. Put adhesive on ledge of base.
12. Adhesive should also be used on the bottom of center column. (Note: channels in center section of the column need to be at the top.)

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13. The center section of the columns must be level; if it is not, refer to the installation instructions for leveling of the newel post.
14. Install the channel iron and secure with the hex nut.
15. Cut off the excess length of the threaded rod.



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16. Measure distance between the newel posts and adjust the length of the bottom rail. Use a masonry blade to cut off excess length allowing a 1/8" gap at each end.
17. Align bottom rail on center with newel post bases.
18. Temporarily place bottom rail in position, using shims to steady.



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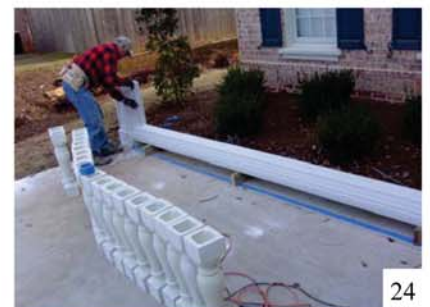
19. Mark placement of bottom rail with pencil and tape to prevent excess glue runoff.
20. Line up all balusters with the bottom rail with the seams all facing in the same direction,. You may need to adjust the number of balusters to meet the 4" code requirement; or, to insure equal spacing if not.
21. Mark the position of the balusters on the bottom rail with a pencil creating a reference point.



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22. Find the center of 4 equally spaced balusters per each 10' section for placement of threaded rods. (Refer to installation instructions.)
23. Drill holes through the bottom rail as marked. Spot glue every 18" on the bottom rail.
24. Tap concrete to mark corresponding placement of the anchors and rods. Move rail and install anchors and rods.



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25. Lift bottom rail and placing it into position over the rods.
26. Be sure rods are securely placed in the anchors.
27. Put adhesive on the bottom edge of the balusters.



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28. Place balusters over threaded rods and in the position you marked with pencil previously. Position remaining balusters as marked
29. Place the treated "2x4" on top of the balusters marking the center position of the rods. Drill a 1/2" hole for the rods to come through.
30. Spot glue top of balusters on which the "2x4" will be placed.



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31. Position the "2x4" over the threaded rods and use a washer and hex nut to snug the "2x4" into place. DO NOT over tighten. Cut off any excess rod length.
32. Put adhesive on top edge of center newel and on inside ledge of corresponding cap. Put wedges between the inside of bottom of cap and center post. This is to keep the cap centered on the post and from moving around.



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- 33, 34, 35 Optional: Drill pilot holes, countersink and install screws on 2 sides for extra stability.



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36. The "L" bracket should have glue on both legs.



37. Center the "L" bracket on the "2x4" and screw into place.



38. Screw upper leg of "L" into position on the newel.



39. Put adhesive on top edges of baluster not covered by the "2x4".



40. Run a bead of adhesive on the inside ledge of top rail and position the rail in place over the "2x4" atop the balusters. Cut and install Synboard using adhesive to secure (see TAR written installation instructions).



41. Your finished balustrade system looks GREAT!

