

Single-Beam Free-Standing Pergola Installation Guide



Copyright 2015 Pergola Kits USA - All Rights Reserved – The information contained in these instructions are proprietary to Pergola Kits USA and may not be used or reproduced for any purpose other than for the evaluation purpose for which it was provided.

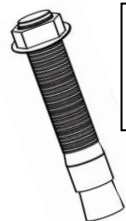
Before you begin installation:

- View the installation video [here](#)
- Consult your local authorities for any permits required to construct the pergola.
- Check with local building code officials to review any required permits or building limitations.
- Read instructions thoroughly prior to assembly.
- If you have questions or concerns with this product **DO NOT** return to store. Assembly questions? Missing parts? Call 1-800-403-9259.
- Due to the size of the parts, at least two people are required to handle, fit and secure pergola components.
- Read manual first as mounting hardware varies with each application. Do not anchor to paver bricks. Foundation must be a solid surface.
- Do not stand, sit, or store items on top of pergola.
- Repair or replace broken parts immediately. Call 1-800-403-9259 for replacement parts.
- At regular intervals inspect the pergola to make sure that assembly integrity has been maintained.

Tools required for installation:

- | | |
|--|--|
| 1. Extension Cord | 10. Masonry Bit – 5/32" |
| 2. Post-Hole digger (for ground installation only) | 11. Carpenter's Square |
| 3. Hammer Drill (for concrete installation only) | 12. Pencil |
| 4. Reciprocating Saw | 13. String Line |
| 5. Cordless Drill | 14. Level |
| 6. Power Drill | 15. Tape Measure (min of 25') |
| 7. Drill Bits – 1", 5/16", 3/16" | 16. 2 Ladders (for at least the height of the pergola) |
| 8. Phillips Screwdriver Bit | 17. Rubber Mallet |
| 9. Masonry Bit – 3/8" (for concrete installation only) | 18. Ratchet |
| | 19. Deep Socket – 1/2" |

Hardware



1/2"x4 1/2" Wedge Anchor with Washer & Nut



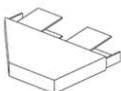
#10 x 1" SS Self-Tapping Screw with Screw Cap



8oz. Vinyl Glue



2" x 8" Finial



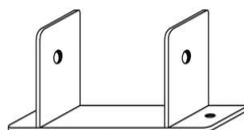
7/8" x 3" Dog-Ear Picket Cap



#10 x 1.5" SS Self-Tapping Screw with Screw Cap



2"x6" Finial

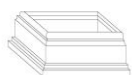


2" Single-Beam Rafter Support

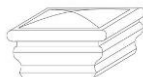
Post Accessories



5"x5" Blank Vinyl Post



5"x5" Bottom Dress Skirt



5"x5" Federation Post Cap

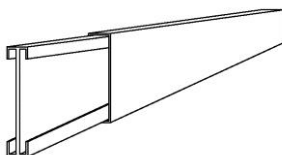
5"x5"x54" Aluminum Post Mount (For Concrete Installations)



5"x5" Aluminum Post Insert (For In-Ground Installations)

Canopy Accessories

2"x6" Hollow Vinyl Rail with Aluminum Insert



2"x8" Hollow Vinyl Rail with Aluminum Insert

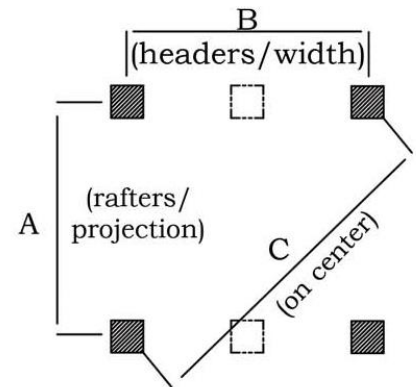
7/8"x3" Purlin



Section 1: The Posts

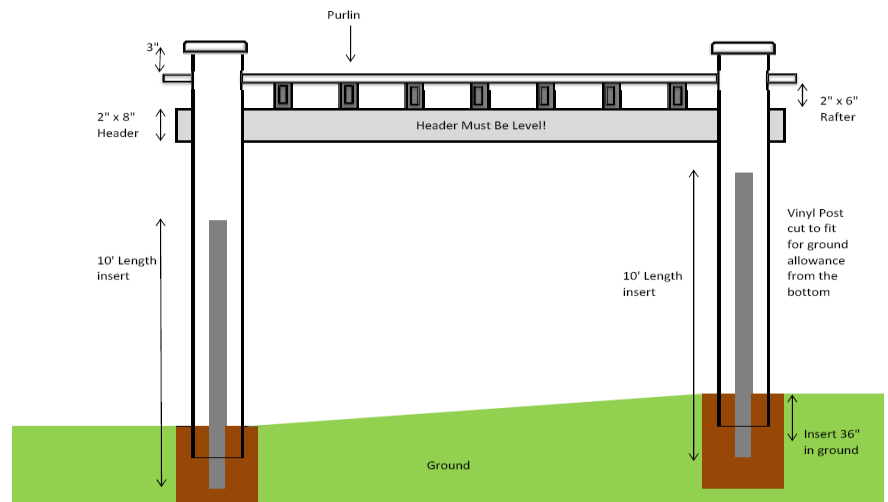
A. Preparation for Post Installation

- NOTE: It is important that the pergola be built so that the structure is level and square.
- NOTE: Our pergolas use on center measurements for width x projection. For example, if the pergola is 12' wide x 12' projection the post must be 12' on center for the width and 12' on center for the projection. For a custom size, you can install the posts closer together. The top canopy extends wider and longer than the post.
- NOTE: Choose the post location based on the width and projection. For all kits, please assure you install the routed posts accordingly. The holes for the headers are 2" x 8". The holes for the rafters are 2" x 6". The headers and purlin are installed parallel to each other.
- NOTE: NOTE: 14' & 16' pergolas will have an additional post to place in the center of the header. For the 14' pergola only, the center post will only be routed for the 2"x8" header, and not the 2"x6" rafter; the rafters will be evenly spaced on each side of the center post.



B. Post Installation in Ground

- Layout and mark the location of all posts according to size specifications. The post inserts will need to be set at the on center measurements.
- Dig the hole for the post (12" diameter), making sure the post will sit below the frost line for your area (usually 36" deep).
- Place the Vinyl post onto the post insert and place them into the hole. Set the vinyl post so that there will be at least 8' from the ground to the bottom of the 2"x8" Header, then secure the vinyl post to the post insert with a self-tapping screw. Assure that the screw will be below ground.
- Pour in concrete. Assure that the post is level and plumb, as well as at the proper measurement. Square the post to the rest of the pergola so it is not twisted.
- Repeat for all remaining in-ground posts and let the concrete set according to the manufacturer's instructions. Make sure all posts are set with the routed holes facing the same direction.

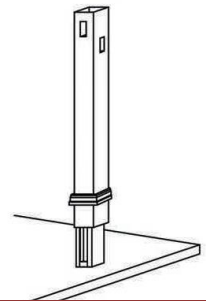
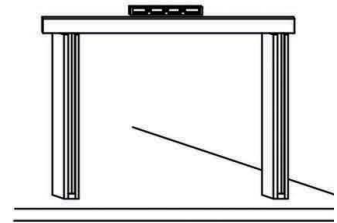
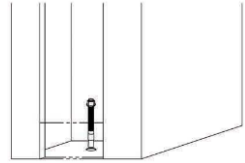
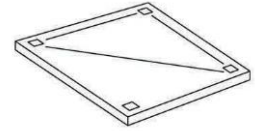


C. Deck or Other Connection

- If the posts are connecting to a deck or other structure, assure that the structural framing is strong enough to hold the pergola and that the posts are fastened securely. Consult a structural engineer to determine if deck installation is possible as well as to define appropriate fasteners.

D. On Concrete Installation

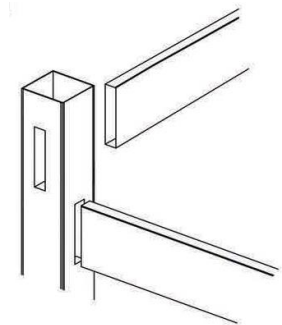
- 1) Square the posts based on the pergola size.
- 2) Place, square and trace each concrete mount.
- 3) Using a hammer drill at a 3½" depth, drill the traced anchor holes with a ½" masonry bit. **Do not** to rush this step, as it could compromise the integrity of the concrete surface.
- 4) Place the ½"x4½" wedge anchor into the each drilled hole and tap them into concrete using a hammer, making sure to leave 1" of the anchor above the concrete.
- 5) Place the concrete mount over the installed anchor mounts. Install the washer and nut to each anchor. Use a ½" deep socket to tighten the nuts. Do not over tighten.
- 6) Assure the post is level (vertically and horizontally) and that the concrete mounts are matching in height by using one of the rafters (see below).
 - Lay the rafter across the tops of two of the concrete mounts.
 - Place a level on top of the rafter to determine if the mounts are at the same height as each other. If the post heights are not the same, you will need to choose the lowest concrete mount to base the height of the other posts.
 - Based on the level, adjust the rafter (by holding it) so that the level shows level.
 - Place a mark on the taller concrete mount where the rafter is sitting at the level position.
 - Measure the distance from the mark to the top of the concrete mount. This is the amount you will need to trim off of the vinyl posts (from the bottom).
- 7) After leveling, cut the vinyl posts accordingly from the bottom, then place the post skirt over the vinyl post.
- 8) Place the vinyl posts over the concrete mounts and secure the post skirt to the vinyl post with a 1 ½" self-tapping screw and screw cap.



Section 2: The Headers & Rafters

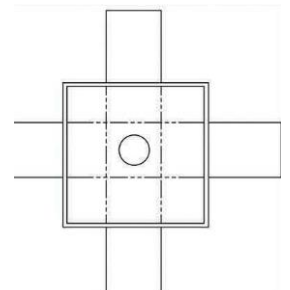
A. Header Installation

- 1) With the help of an additional person, position the 2"x8" headers into the routed slots in the vinyl posts. Make sure there is at least a 5 1/2" overhang from the end of the header to the post on each side.



B. Rafter Installation

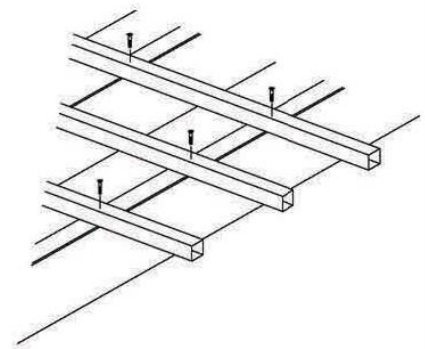
- 1) Position the end 2"x6" rafters into the routed slots on the vinyl posts. Make sure there is at least 3 1/2" overhang from the end of the rafter to the post on each side.
- 2) Looking down into the installed vinyl post at the rafter, drill a 1" hole.
- 3) Place a self-tapping screw into the hole to secure the rafter to the header. Repeat at each post.
- 4) To get equal rafter spacing for the remaining rafters, preset the rafters in the rafter support brackets before making any cuts or securing any brackets. The rafters will extend at least 5" past the header on the outside. Adjust the spacing of the rafters as necessary.
- 5) Once the rafters are spaced evenly, use the #10x1" self-tapping screw and screw caps to secure to the single-beam rafter supports and onto the header.



Section 3: Purlin Installation

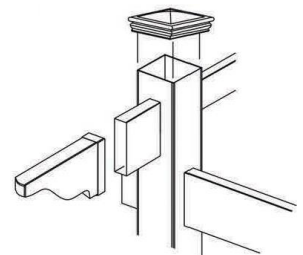
NOTE: The purlin will lay perpendicular to the rafters.

- 1) Start from the back of the pergola and place the first purlin 5" from the 5" post. Space the remaining purlins evenly.
- 2) The purlin overhang should be the same distance from either side of the last rafter. It is helpful to have an additional person to assist with adjusting the purlin overhang.
- 3) Use the #10 x 1 ½" self-tapping screws and screw caps to secure the purlin to the rafters. Do not over-tighten the screws as this will cause dents in the purlin.

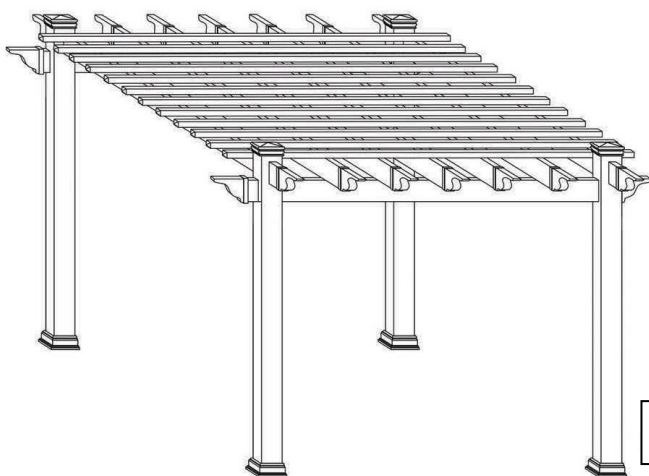


Section 4: Finish Work

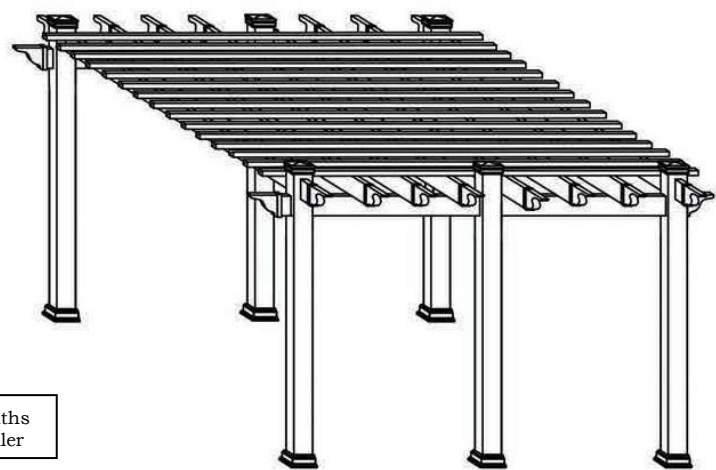
- 1) Place the post caps on the posts. Secure with small beads of vinyl glue.
- 2) Secure the finials onto the headers and rafters with vinyl glue.
- 3) Glue the end caps on the purlin. Use a dab of glue to secure the caps.



Enjoy your new pergola!



12' Widths
or smaller



14' Widths
or wider