Fiberglass (Modern Louvered) Pergola Installation Guide

Required Tools: Hammer, Electric Hammer Drill, 5/8" concrete drill bit, 13/16" wrench, Portable Cordless Drill, #2 square drive bit, 5/16" socket head bit, pair of pliers, 3/8" socket head bit, 3/16" drill bit, 15/16" socket.

(Step 1) Column Anchoring: Locate and mark the center points of the columns as they are stated on the provided drawings and quote/order acceptance form associated with your order. Make sure the layout and slab/footings are square & level. **NOTE:** The concrete slab needs to be a minimum of 4" thick and 2,000psi strength. The concrete footing must be a minimum of 2'x2'x2' cubed or reflect the local building code requirements as they apply to a wood/composite deck support post taking frost line depth into consideration.



(1.B) Use the hammer drill and 5/8" masonry bit to drill a 5" deep hole.



(1.C) Remove the dust from the hole to ensure a clear insertion of the stainless steel anchor. Use the hammer to tap in the 5/8" stainless steel anchor into the prepared hole.





(1.D) Use the 15/16" socket or wrench to tighten the nut on top of the anchor.



Note that each anchor should be seated firmly in place after nut is tightened. Confirm by gripping anchor top with hand and applying only moderate pressure from side to side and pulling upward.

Wood or Composite Deck Attachment

Anchor plates are included if requested during quoting stage. Plates fit inside column and receive 5/8" all thread rod. Reccomended method of deck attachment is for lag or through bolts to be driven through (4) corner holes in plate, surface boards and joists underneath deck, flat and lock washers with lock nut securing through bolts. Note that additional blocking running between joists may be required. Surface board only attachment is not reccomended and considered to be insuficient to provide proper stability.





Step 2 (Column Placement/Anchoring Rod Connection) Position the columns one at a time centered over the anchor before lowering the threaded rod into the top of the column. Connect rod to the coupling nut on top of the previously installed wedge anchor, turn rod to thread into coupler/anchor. Use pliers/channel locks to turn rod until tight but <u>do not</u> clamp pliers onto top 1" of rod which could disfigure the thread pattern.



Step 3 (Top Plate Application) Place flat plate with central hole on top of column allowing protruding allthread to run through hole in middle of plate. Approximately 9" of all thread rod should project above the top of the plate as shown below/middle picture.









(Step 4) Frame Assembly: The 8" square beams with the rectangle and square flush mount brackets already attached on one side are to be placed over the tops of the columns. The outside edge of the beam should be lined up with the outside edge of the column shaft as shown below with square and rectangle brackets over inside edge of top plate. Holes will need to be drilled through the top and bottom walls of these beams allowing the 5/8" all thread rod to pass through with ³/4" rising above the top of the beam to receive flat washer and nut. The nut should be hand tightened at this point with final wrench tightening occurring after all four beams making up the frame have been installed.

Note that the end of the beam is shown open in the photos below for process clarity but will be plugged and finished smooth when purchased components are shipped with standard white or custom color application chosen by customer.



Frame Assembly (4 B) The other two 8" square beams without brackets attached will slide over large square brackets as shown above in above images. Installer may choose to use the <u>provided</u> pop rivets or ½" washer head self-drilling screws to secure beam to internal brackets on at least two sides. Once both beams are secured and the four sides of the frame are connected, go back and tighten the top nut on top of each column, be sure that flat washer is applied under nut to assist in displacing downward compression force, refrain from overtightening, stop just before top beam starts to concave.





(Step 5) Rafter Installation: Rafters have slots cut into each end allowing them to slide down from the top over the opposing brackets that are premounted to the inside of frame beams. Rafters may also be installed by sliding them upwards onto the brackets so cut out is not visible from underneath the pergola,(see bottom right image) Keep in mind that rafters slid onto brackets from underneath instead of from the top down will require two people, one to hold the rafter in place while the second person secures the rafters with the provided ³/₄" Self Tapping SS Screws. Drive screws through the the outside of the rafter, into and through the internal premounted bracket on at least two sides. (note that predrilling with 3/16" bit will be required for pop rivets which are also included and can be used in place of the screws to secure the rafters to the brackets. Predrilling is not required when using the self tapping screws.

Step by step images below showing rafters sliding onto premounted brackets





Brackets are shown in unfinished form within these photos but are shipped with client's choice of color or standard white ChromaGuardTM coating pre applied. Each pergola order also includes a quart of the same touch up coating applied to the structure. The touch up coating can be used to cover the screw heads, light scratches which may occur during installation and to further conceal the rafter/bracket slot. A light bead of caulk can also be applied to the rafter/bracket connection before painting over surface.

Final Step: Double check to insure all top component and column anchoring hardware is tight. Touch up screw heads with provided coating.

For additional guidance and questions regarding installation contact the dealer from whom you purchased the pergola or call 800-403-9259 or email fred@pergolakitsusa.com



The images below show the Modern Louvered Pergola in completed form.



