

ARCHED PERGOLA

ASSEMBLY INSTRUCTIONS



Shown: 12'x14' Arched Pergola

Thank you for purchasing our Arched Wood Pergola. Depending on the size of the pergola, installation can usually be completed in a day.

There are a few things you should consider before installation:

- 1.) Do not store the Pergola components in direct contact with ground concrete, or other moisture wicking surface as this may warp the components.
- 2.) The Base for the Pergola must be solid and level. If installing on a concrete slab or on concrete footers, it should be level where the 4 posts will rest. If not, it may be necessary to cut the bottom of the posts so that the tops are all level, or use shims on the bottom of the posts to raise them up. Other than this, there is no cutting of any of the components of your pergola. If you feel that you will need to make any additional cuts, please call before doing so. ***Making cuts without calling first may make installation difficult and may void our warranties.***
- 3.) These instructions show connection to asphalt, using a wedge bolt and tap-con screws. Connecting to concrete is by the same method. If connecting to an existing deck, a lag bolt and deck screws will replace the wedge bolt and tap-con screws. If a deck was ordered with the pergola, see the instructions that are added for the deck.
- 4.) The Arch Pergola does not give the ability to alter the location of the posts. It is important that they are laid out correctly and double checked for accuracy before permanently attaching to the base.

COMPONENTS:

Floor template (comes in 4 or more pieces); post base brackets; wedge bolts; post base trim, posts, beams (4 complete beams two per side – may be in halves for sizes over 16'), 2x6 top plates, rafters (number varies), top runners, corner braces – 8 total (4 for each type), Keystone trim braces, hardware; 2 ½" screws, 3 ½" screws, 1" black flat head screws, 5" black ledgerlok screws, 1 ½" screws and #2 square head bolt.

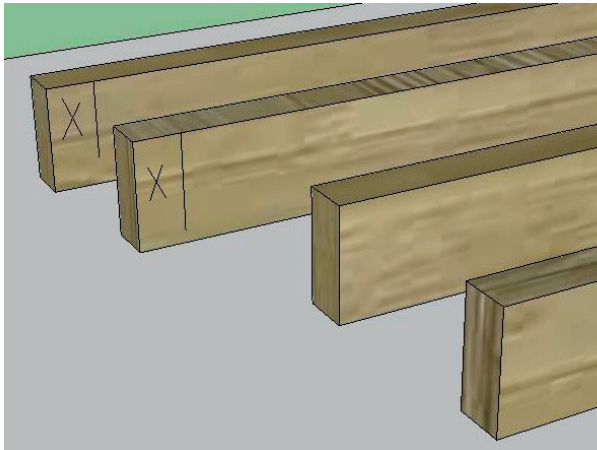
TOOLS NEEDED:

Ladder, tape measure, level, drill or cordless screw gun, if attaching to concrete, a corded drill and ½" masonry bit.

* If you purchased a Pergola with the Heavy Duty Post Brackets, refer to the additional instruction sheet that will be included in your kit.

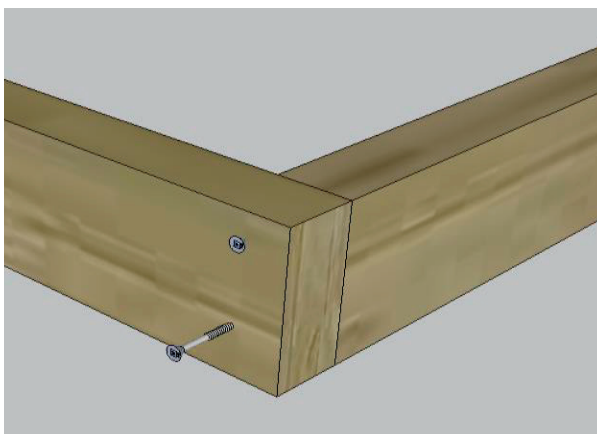
SECTION ONE - POSTS

Setting up the template:

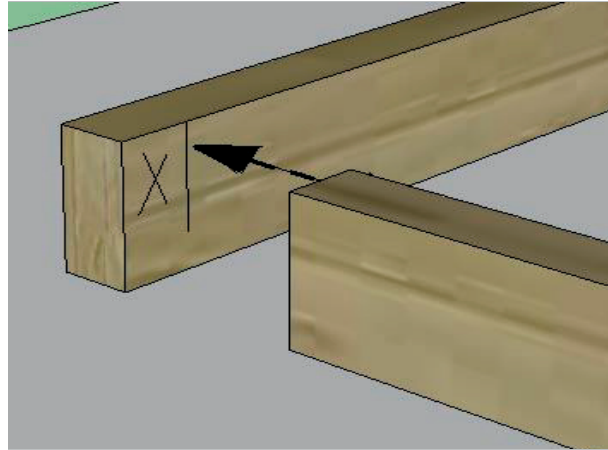


1.) Your pergola kit includes a wooden template that is used to mark your post locations. Notice that two of the 2'x4' boards have a marking near the ends. Build a box that will reveal the outside corners of the posts when properly placed.

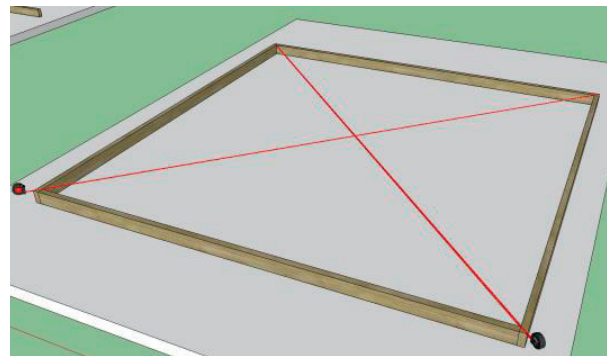
NOTE: If you purchased a larger pergola your template will be spliced in the center, simply match up the letters and fasten together with (2) screws.



3.) Connect the corners of the template pieces by driving two 2 1/2" screws through the side of the template boards.



2.) Arrange the template pieces so that they are positioned in the exact location of where the pergola will be placed. The boards with the marking on the end will be across from each other. The marks will show where the other boards will be attached to create this box.



4.) When the template is in position, square the template. Do this by measuring diagonally from one corner to its opposite corner, then measure diagonally between the other two corners. These two dimensions MUST be the same. Adjust the template until the diagonal measurements are identical.



5.) Once the template is "square", mark the post locations using the INSIDE corners of the framed box on a concrete slab with a pencil. After all the post locations are marked on the concrete slab, remove and set the wooden template aside.

Set the Brackets

6.) The brackets are the 8 L-Brackets in the hardware box. Place them at the outside of the pencil mark, one per corner. Next, drill a hole into your concrete footer or slab. Using a $\frac{1}{2}$ " masonry bit, drill a hole through the bracket about $\frac{1}{2}$ " deeper than the length of your anchor bolt. Make sure all of the concrete dust is cleared from the hole, use a vacuum if needed. Add the washer and put the nut on the bolt so the threads are just above the nut. You may need to hit it down with a hammer, you can use a 2x board to hit the top of the bolt so you do not damage the threads on the bolt. Hammer the bolt down until $\frac{3}{4}$ " of anchor is exposed. Tighten the nut, and the base of the bolt will expand. Once completed, install the rest of the brackets, one per corner. If you purchased a pergola with more than 4 posts, install a bracket for each additional post. On larger structures there may be (4) L brackets per post.





Setting the Posts

7.) Place the post on the inside of the pencil mark. Attach all the posts to the bracket using (5) 2 ½" screws per bracket. Continue this step until all posts are anchored.

NOTE: When installing posts, notice that they have notches on top. This is to set the beams on. When installing – be sure that the notches all run the same and correct way (along the long side – where the beams will set in the next section).

TIP: You can also use your template and secure around the top of the posts to keep all the posts positioned correctly, as shown to the right.



Post Bases

8.) Now you are ready to install the Post Bases. Get a ladder and slide the base over the top of the post. There are (6) screws per base, it does not really matter which way they are turned. We recommend keeping the screws all turned in the same direction. Please continue this step until all the posts are completed.



SECTION 2 - INSTALLING BEAMS



10.) Set a beam on the notches of the post. The overhang on each end is about 6", but make sure that it is the same on both sides. See the pencil mark and keep that on the outside of the post. Move the beam back and forth, measuring the overhangs. When they are the same, attach with (4) 2 ½" screws. Do the same on the other post.

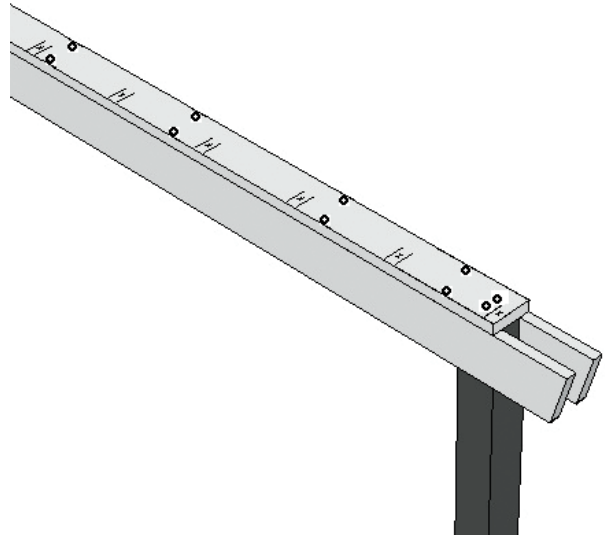
11.) When fastening the second header please make sure everything is even. Fasten to posts as described in step 7. Continue until complete.



Anchor remaining Posts to Concrete

12.) Sliding the base up towards the top you can fasten it to the post with a screw to keep it from falling down. Make sure the posts are level and still at the L-shaped pencil mark. Screw the second bracket to the post using (5) 2½" screws. It does not matter which side of the post, however we recommend going caddy-corner. Keep in mind you should stay approximately 4" away from the edge of the concrete. Refer back to step 6 for setting the brackets. Once completed remove the screw and place the base in its correct position.

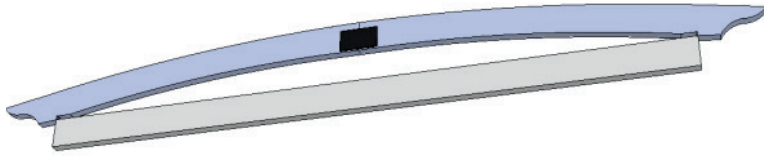
13.) The 2'x6' rafter plates will sit on the top of the beams just installed. The plate will line up with the outside edges of the posts. Before sitting them on the plates, be sure that the markings are the same on each by sitting them next to each other. If the lines and X's (used later for setting rafters) appear wrong, flip one of the plates around. Generally they are the same no matter which way they are set, but if you have ordered a custom size or other options, they may be different.



14.) Set the plates on the beams, with the markings faced up. Make sure that the ends align with the outside edges of the posts.

15.) Attach the top plates into both beams with 2 ½" screws every 24" or so (do not screw through the markings). Also attach with (2) screws through the top plate and into the top of the posts. See example to the right.

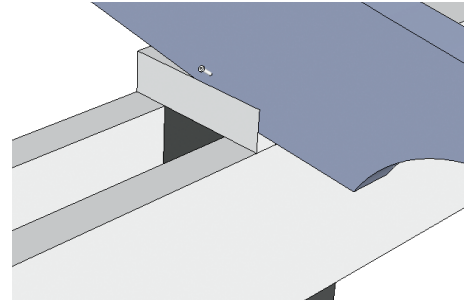
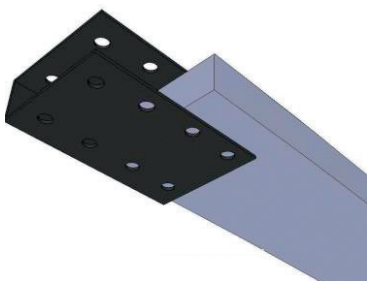
SECTION 3 - BUILDING AND INSTALLING ARCHED RAFTERS



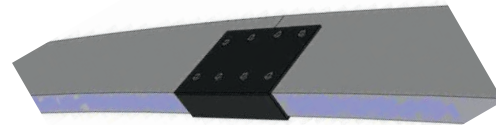
16.) Use the floor template when setting the beams, making sure that the beams are parallel with each other. This will provide the proper distance between the beams, which is needed when assembling and installing the arched rafters. Double check this by measuring at both ends and the middle from outside of the beams.

TIP: Create a template for assembling the arches using one of the other template pieces, or a scrap piece of lumber. Cut or mark it to the exact length of the outside to outside beam measurement. This will be the distance from one notch to the other on the arched rafters.

17.) Slide the metal bracket onto the end of one of the arched rafters. All of the rafters are the same. The bracket will slide up from the bottom of the arch.



18.) Slide another rafter in from the opposite direction. Make sure that the seams where the two sections meet are tight. Set the rafter over the jig board. Attach using (8) 1" black flat head screws. Be sure that the screws go in straight and are tight against the bracket. There will be trim over this, so do not leave screws sticking up.



19.) Flip the rafter over and install 8 more screws on the other side. Do this on all the rafters.

20.) We recommend having a helper when setting the rafters. Set the first rafter on top of the top plate. Make sure that the notches are tight against the outside of the beam and flush with the end of the top plate. Attach with a 2 1/2" screw on an angle from the outside, as shown. Fasten with (2) 2 1/2" screw, 1 screw on each side of the rafter and into the top plate. Attach the other end of the rafter the same way.

21.) Attach both the front and back rafters first in this way.

22.) Set the remaining rafters on the top plate and position over the markings. Fasten with (2) 2 ½" screws, 1 on each side of the rafter and into the top plate. Do this for all the rafters.

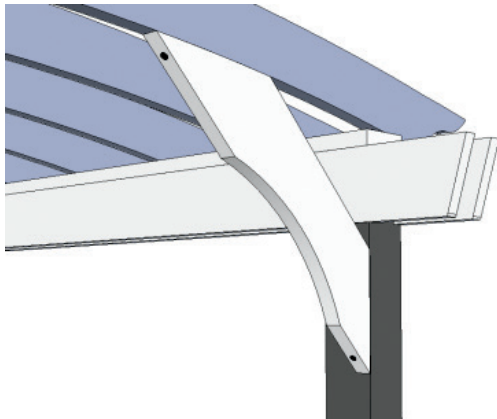
23.) Remove the template from between posts.

NOTE: The wooden keystone covers will be installed later (last step). Do not install the wooden keystones at this time.

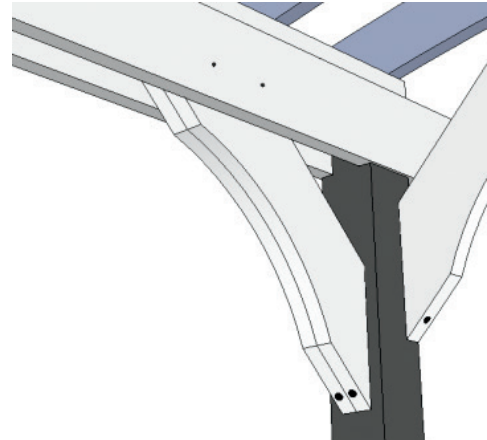


SECTION 4 - INSTALLING CORNER BRACES

There are two different types of corner braces. One of each will go on each post.



24.) Install the longer braces first. These are double 2x8 pieces and will attach to the underside and the inside of the rafter. Slide the brace up until it fits tight against the rafter and against the post. The bracket will be flush with the outside edge of the post. Attach with (3) 5" black screws: (1) through the brace and into the rafter and (2) through the brace and into the post. Fasten the inside of the brace to the rafter with (4) 2 ½" screws. Do this for all 4 corners.

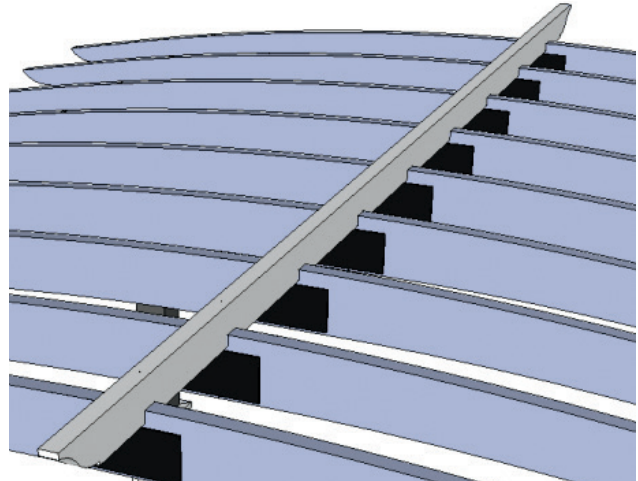
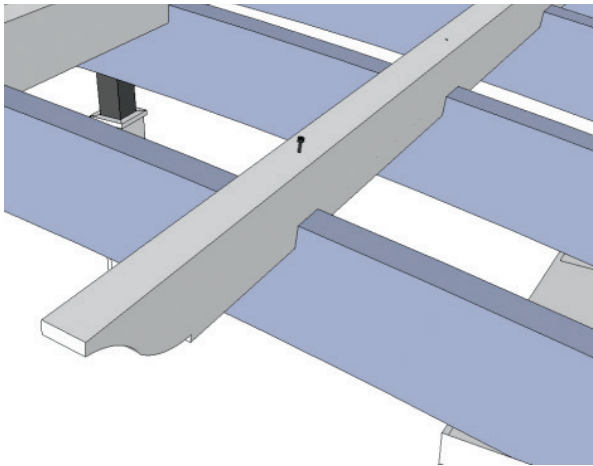


25.) The other braces are a double 2'x8'. The brace will fit between the double beams. Slide the brace up until it touches the bottom of the top plate. These will mount to the post using two of the 5" black screws. Fasten to the beams using (4) 2 ½" screws from each side of the beam. Repeat on all four corners.

SECTION 5 - INSTALLING TOP RUNNERS

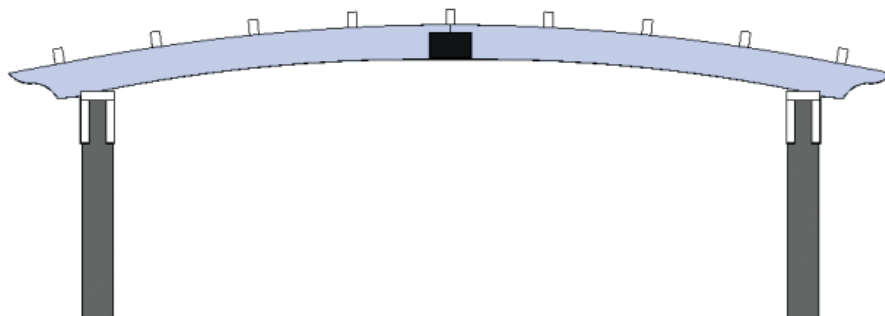
The tops of the runners are marked. This shows the positioning of the top runners. The top runners are notched and will fit over the top of the arched rafters.

NOTE: With a lattice top, the top runners are installed the same was as shown below, but there will be no markings on the arched rafters for placement. See Steps 1A-3A for the positioning of the runners and top lattice.



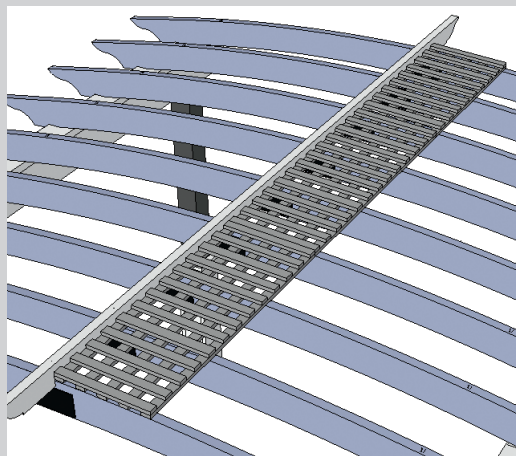
26.) Start with the runner at the top of the arches and work towards the ends. Be sure that the runners sit flat on the top of the runners, so that they follow the contour of the arches as shown.

27.) Fasten using 3 ½" screws, in the pre-drilled holes on the top of the runners.

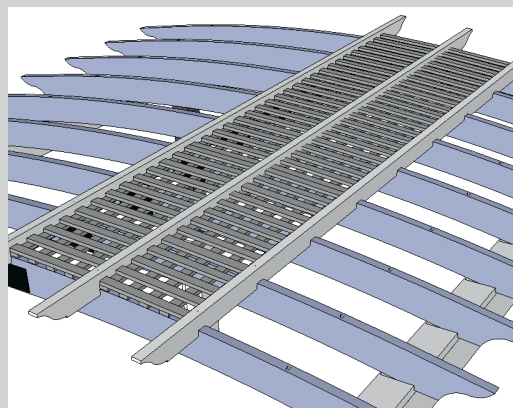


STEPS IF YOU HAVE ORDERED THE LATTICE ROOF

1A.) Review the method for attaching the top runners with 3 ½" screws. The lattice roof will have no markings on the top of the rafters. Install the runners and the lattice at the same time. Starting at the top of the arch, place one top runner centered over the center seam.

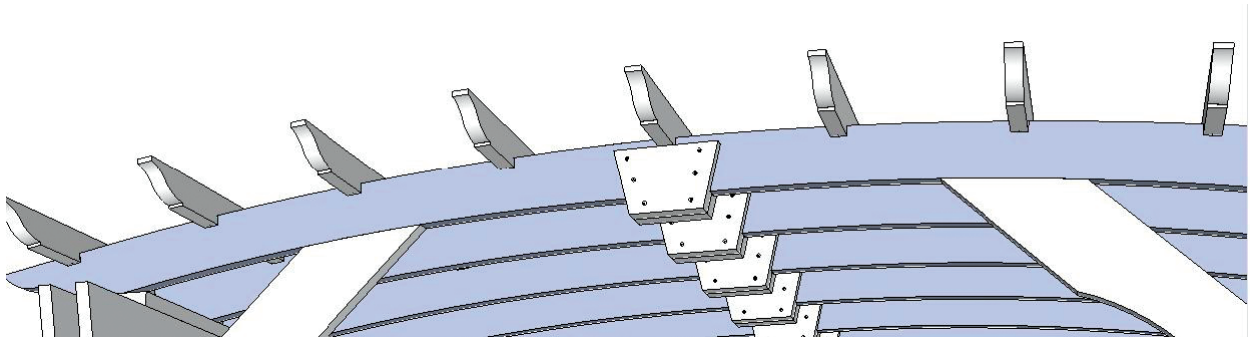


2A.) Lattice sections come in panels that will vary in size, length and width depending on the size of the pergola ordered. If the panels are not all the same size, the parts list should include information as to which section goes where. Starting with a lattice panel, set it against the top runner that was just installed, making sure it touches the runners at both ends of the panel. The panel should be flush with the outside rafter. Attach the panel with (2) 2 ½" screws into the arched runners. Then, install the next panel against the top of the runner. Continue until the row is finished.



3A.) Set the next runner against the lattice panel and secure with 3 ½" screws. Alternate a runner and a row of lattice panels until you reach near the ends of the rafters. The last runner will be 10"-14" from the end of the beams.

SECTION 6 - FINISH TRIM



Keystone Braces

28.) Slip over the bottom of the black brackets that hold the rafters together. Attach with 2¼" screw (2 per side). If the keystone covers seem too tight, check to make sure the black screws for the steel brackets are not raised up. If they are a little too tight and the screws are not interfering, loosen the screws holding the keystones together, and then slide over the brackets. Be sure to tighten all screws.

The Arched Pergola is now complete. Any additional options you selected will have separate instructions inserted.

Be sure to call your project advisor with any questions.

ENJOY YOUR NEW ARCHED PERGOLA