

## WOOD SERENITY PERGOLA INSTRUCTIONS



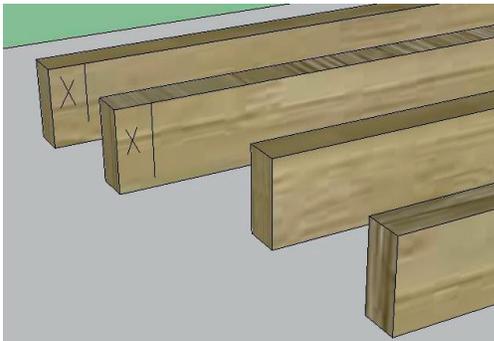
Shown – 12x14 Treated Pine Serenity Pergola with decorative posts (w/16” post base trim).

Thank you for purchasing the Serenity Wood Pergola. Depending on the size of the pergola, installation can usually be completed in a day. These instructions apply to both cedar and treated pine models.

Consider a few details before starting assembly:

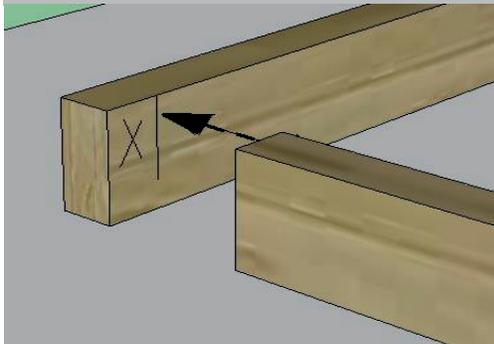
1. The base for the pergola must be solid and level. If installing on a concrete slab or on concrete footers, it should be level where the posts will rest. If not, it may be necessary to cut the top of the posts so that the tops are all level. Other than this, no cutting is necessary. If any additional cuts are needed, please contact us before doing so. ***Making cuts without calling first may make installation difficult and may void our warranties.***
2. These instructions show connection to asphalt using a wedge bolt. The same method can be used with concrete. If connecting to an existing deck, a lag bolt and deck screws (not included) will replace the wedge bolt.
3. The Serenity pergola does not give the ability to alter the location of the posts. It is important they are laid out correctly and double checked for accuracy before permanently attaching it to the base.

## SECTION ONE – POSTS

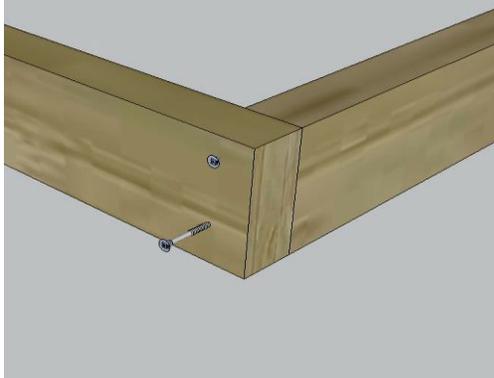


### Setting up the template:

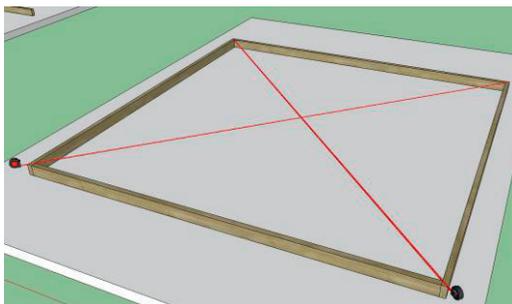
1. Your pergola kit includes a wooden template that is used to mark your post locations. Notice that two of the 2x4 boards have a marking near the ends. Build a box that will reveal the outside corners of the posts when properly placed.



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.



3. Connect the corners of the template pieces by driving two 2 ½" screws through the side of the template boards.

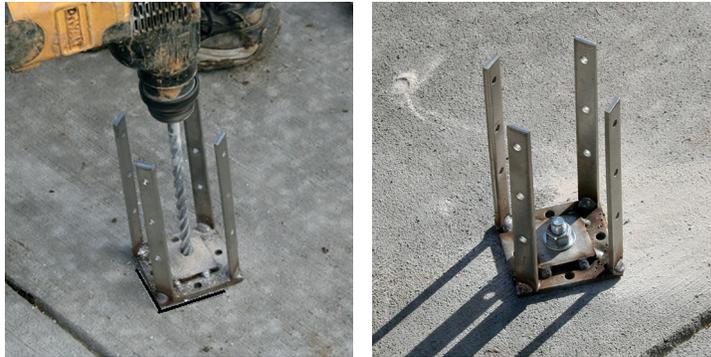


4. When the template is in position, square the template. Do this by measuring diagonally from one corner to its opposite corner, then measure diagonally between the other two corners. These two dimensions **MUST** be the same. Adjust the template until the diagonal measurements are identical.

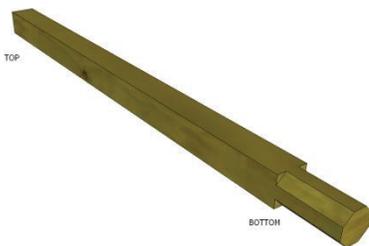


5. Once the template is "square", mark the post locations using the **INSIDE** corners of the framed box on a concrete slab with a pencil. After all the post locations are marked on the concrete slab, remove and set the wooden template aside.

6. **Set the Brackets:** The brackets are stainless steel. Next, drill a hole into your concrete footer or slab. Using a ½” masonry bit, drill a 4” hole through the center of the large hole in the middle of the post base. 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. Do not set the bolt too deep in the hole, as this will also protect the threads should it need to be tapped with a hammer. Tighten the bolt, and the base of the bolt will expand. If installing the pergola on concrete, use the supplied wedge bolt. If attaching the pergola to a wood deck, use a 4” lag bolt (not included) instead of a wedge bolt.



7. **Square the Brackets:** It is a good idea to recheck the square of the brackets by measuring opposing corners, similar to what was done when squaring the template. Also be sure that the brackets are parallel with the other brackets. The brackets can be rotated until they are aligned properly. Keeping the template in place will ensure that the brackets do not spin. Once satisfied with their location, install one tapcon screw (not included) in one of the remaining holes in the base of the bracket to keep it from spinning. Use one of the 2 ½” screws instead of a tapcon on wood decks. Now remove the template.



8. **Post Bases:** Notice that there is a top and bottom of each post. The top is square, and the bottom of the posts have 45 degree angle cuts creating an octagon when looking at them from the bottom. There is a top trim for the post base, made of four 2x2's, that will go onto the posts first, then the 36” tall post bases. Do not attach the base trim to the posts.

9. **Secure Post Base:** Secure the post base above the angled cuts so that the posts will attach to the bracket in the next step. One screw will hold the base up until the connection is made to the brackets.



10. **Install the Posts:** Slide the posts into the brackets so that the bracket prongs are at the corners of the posts and sitting flat on the bracket. Attach it using 2 ½” stainless steel screws (12 screws per post, 3 on each corner). Do this on all posts before proceeding to the next step.

NOTE: A hole has been drilled on the bottom of each post. The nut and the top of the wedge bolt should fit inside the hole so that the bottom of the posts rests on the bracket plate, and not on the wedge bolt. If the wedge bolt prevents the post from sitting on the plate, fix this by either cutting the top of the wedge bolt threads (above the nut) or by drilling the hole deeper.

## SECTION 2 – BEAMS

Note: The beams are pre-built and include 45 degree braces. Help is needed when installing beams. Ideally, a minimum of 3 people one to hold each end of the beam in place and one to screw to the posts. Some of the beams can be up to 16’ long and weigh over a hundred pounds.

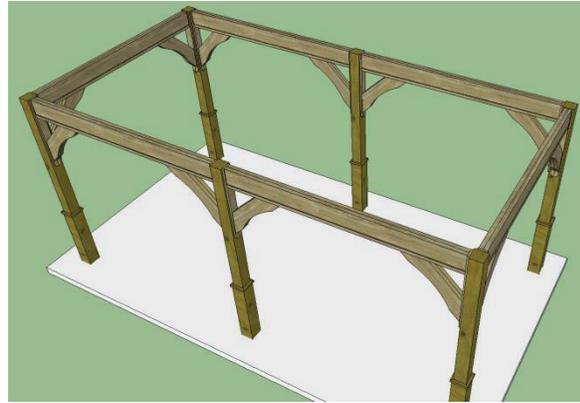
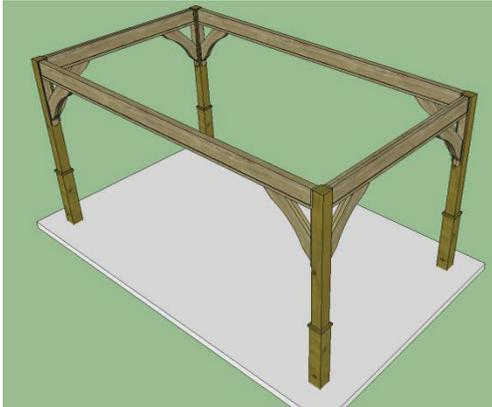
Each beam will be comprised of: (A) a double beam - two 2x6’s together; (B) a 2x4 bottom plate that will hide the seam of the two 2x6 beams; (C) two “legs” (one on each end), which are 1x4’s that will hold the beam to the posts; and (D) two 45 degree braces. Some pergolas may have larger members due to customized or increased strength required, but the basic beam assembly is the same.



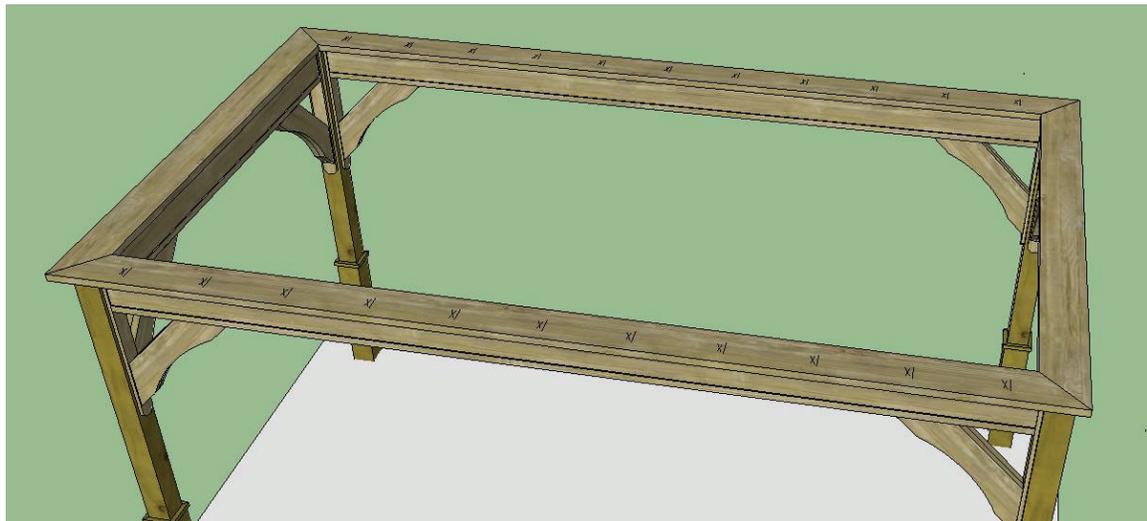
1. **Install the Beams:** Though there is no set order, it usually works best to install the shorter beams first. Allowing a better feel for how they are done using lighter beams. Lift the beam into place until the top of the beam is flush with the top of the posts and centered. Secure each beam with five 2½” screws – three on the leg, one below the brace and two above. (As shown to the right) There is also one screw on an angle on both sides of the beam driven into the posts. Do this on all connections to the posts.



- 2. Do the Same for Longer Beams:** Note: If the pergola is over 16' long, there will be a center post, making two sets of beams for each side of the pergola. Installing the beams is the same no matter how long or how many beams there are.



- 3. Install the Top Plate:** The top plate is a piece of 2" x 8" wood that is precut to fit on top of the beams. Rest all 4 pieces on top of the beams. Arrange them so that they fit tight at the corners. (NOTE: On larger pergolas, there may be more than 4 top plates as some of the sides will need more than one board.) Two of the top plates have marks for positioning the runners – these are usually set on the longest dimension since runners span the short dimension. On square pergolas, the parts are interchangeable, but the top plates with the markings need to be on opposing sides. Be sure that the markings are facing up as shown below.



4. **Join the Top Plate Pieces:** The top plate pieces must be joined together *before* attaching them to the top of the posts or to the beam. Place 3 ½” screws on an angle at the corners as shown. There are no predrilled holes. Since the screw is close to the end, predrill a 1/8” hole.
5. **Attach Top Plates:** Position the assembled top plates so that the seams in the corners are centered across the corner posts. The top plate will overhang the beams by about ½” - 1” on the inside. Before attaching to the posts and to the top of the beam with 2 ½” screws, make sure that the overhangs are the same along the entire perimeter. Attach with two screws at an angled cut into the top of the wood posts and then along the beam approx. every 24”.

**Note:** If the top plates are more than one piece, attach at the place where they join with four screws – two on either side of the seam.

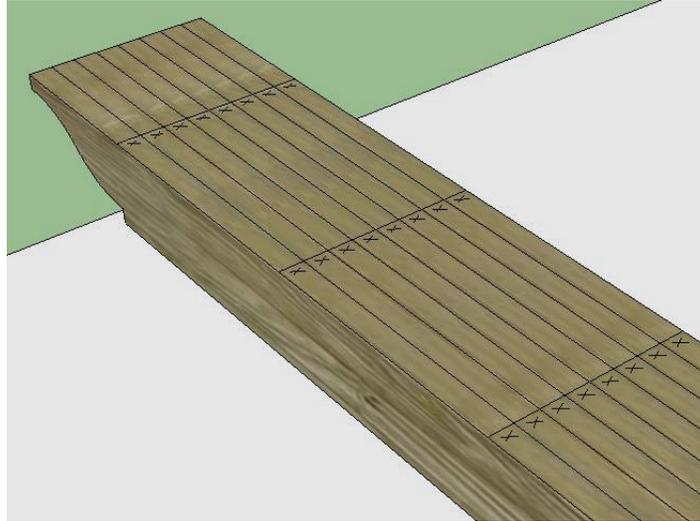


### SECTION 3 – MAIN RUNNERS

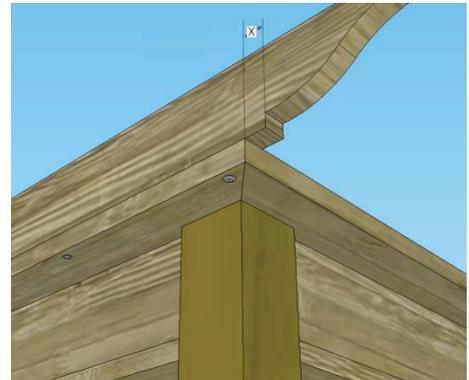
**The main runners are 2x6's that have decorative cuts on both ends (unless a special order). They have markings on the top for the top runners.**

**Note about spacing:** Generally both the main and top runners are spaced 16” on center unless you order other spacing. Since the first runner on each side will align with the edge of the top plate as explained below, the spacing may need adjusted. This is done during production and the marks made accordingly. Most importantly, the top runners have notches that coincide with the calculations made. Never change the placement of the main runners, or the top runners will *not* fit.

Since the top runners have notches, the overhangs cannot be adjusted later. These runner notches are “symmetrical” but the markings will be backwards if not arranged correctly. It is a good idea to lay all the runners down next to each other to make sure the lines and X's are aligned. Make sure not to flip the direction when installing.



1. **Set the First Main Runner:** As discussed in the previous section, two sides of the top plate are lined with marks to guide your runner placement. Set the first 2x6 runner on the corresponding top plate marks at the outer sides. The end runners are set about  $\frac{1}{4}$ " from the edge of the runners. Do not flush the runner to the end of the top plate. Set the first runner. Next, adjust the runner placement back and forth until each overhang has an equal measurement. (Hint: you can “split the distance” to center the pergolas) For example, if you have a measurement of 2" on one side and 1  $\frac{1}{2}$ " on the other side, the difference is  $\frac{1}{2}$ ". Moving the runner just  $\frac{1}{4}$ " will center it. Once the overhang measurement is the same, remember this measurement for other runners.

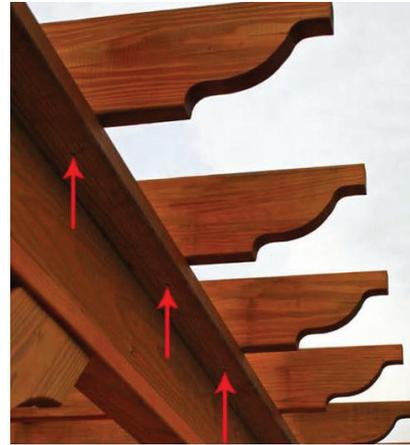


2. **Attach First Main Runner:** When the runner has an equal overhang on each side, attach it to the frame by inserting a 2  $\frac{1}{2}$ " screw from the underside of the top plate up into the runner on both sides. For the two outside runners only, use screws through the top plate into the runner for the full length of the runner – approx. every 24".

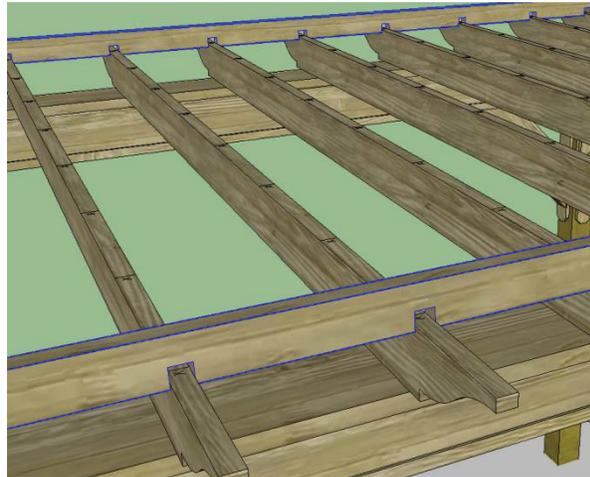
**Note about markings:** Each mark consists of a line and an “X”. The line represents the side of the 2x6 runner, and the X means that the board will be placed to that side of the line.



3. **Set and Attach Remaining Main Runners:** Set the next runner over the markings. Ensure that the overhangs are equal to each other and the preceding runner's overhang. Attach with 2 ½" screws on the outside, up through the bottom of the top plate and into the bottom of the runners. Do this for the rest of the main runners.



4. **Double Check Spacing:** Double check spacing by using two of the top runners. Set each on the main runners and make sure that the notches in the top runners slide down over the main runners. Do this on both ends, above the beams. If one or more of the notches do not line up, unscrew that runner and reposition it so that it fits.

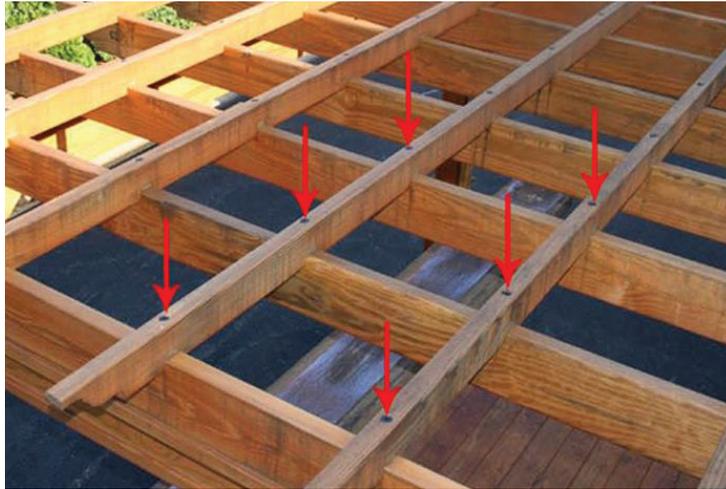


5. **Run Additional Screw:** Once all of the runners are in place and attached with screws, run an additional screw from the inside of the pergola, up through the 1" exposed top plate and into each runner. It is fine to angle this 2 ½" screw slightly facing toward the outside of the beam.



## SECTION 4 – TOP RUNNERS

Align each of the top runners over the marking on the main runners. It is best to work from one side of the pergola to the next in order to make sure that any bows in the runners are worked out. Attach the top 2x4 runners onto the main runners using 3 ½” screws from the top through the pre drilled holes. Do this until all the top runners are in place.



## SECTION 5 – FINISHING TOUCHES

If installing on pavers or a brick patio, fill in the patio components around the post and then slide the post base trim down over the brick to hide cuts. If doing that, hold off screwing down the base trim, using two screws per side will suffice. Also, screw down the top ring on the base trim using two 2 ½” screws. If using the 16” post base trim rather than the 36” trim, use two 2 ½” screws per side. There is no top trim ring.





