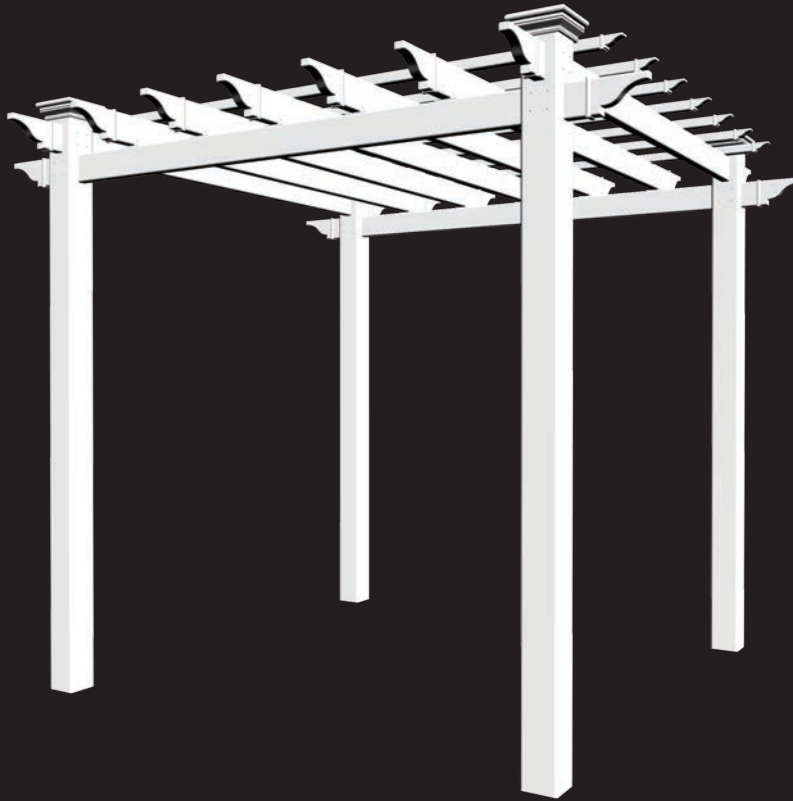


6 1/2 x 6 1/2 Flat Top Pergola



ASSEMBLY GUIDE

Models: **Portland**



OPTIONAL ACCESSORY

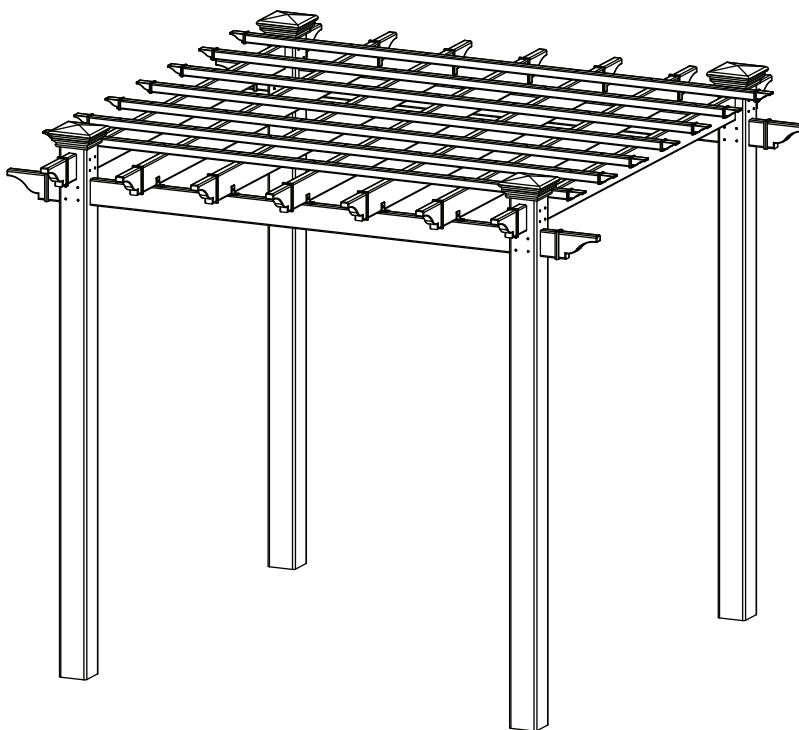
- Bolt Down Bracket Kit



Table of Contents

	PAGE
The 6.5 x 6.5 Flat Top Pergola	
Introduction & Overview	3
6.5 x 6.5 Flat Top Pergola Materials Overview	4
6.5 x 6.5 Flat Top Pergola Materials Breakdown	5
Pergola Additional Materials List	6
Wood Post Layout & Installation for In-Ground Application	7
Wood Post Layout & Installation using Bolt Down Post Brackets for Concrete or Wood Surface	8
Vinyl Column Installation Over Wood Posts	9
Main Support Beam Assembly	10
Main Support Beams & Rafters Placement	11
Fastening Decorative Caps	12
Shade Slat Assembly & Installation	12

Introduction & Overview



Getting Started

First off, allow us to say thank you for the investment you have made in one of our fine pergola kits. This kit is designed to be assembled and installed ideally by two people with basic carpentry knowledge and tools. Do not attempt alone, especially during the installation stage. Should you decide to moderately modify the dimensions of your pergola from the standard kit size, a circular saw with a sharp fine-tooth blade is all that is needed to cut, shorten or modify the vinyl components. When assembling components place on a non-abrasive surface (ie: shipping box) to avoid scratching. We recommend a 15'x15' (4.6m x 4.6m) area for un-obstructed assembling. You should not need to use excessive force when assembling any components.

Planning & Preparing

Because this project is made to stand independent of your home, you can either locate it near your house or let it stand alone in the garden. By keeping it unattached from your home you will not have to deal with moving existing gutters or matching eave heights. If you plan to build your pergola close to the house, please keep the outer extremities of the pergola a minimum of 4 inches back from your eaves.

What looks like the toughest part of this project is actually the easiest, the graceful, solid-looking columns. We've designed these columns to simply be slipped over treated 4x4 wood posts that are either embedded in concrete or directly mounted to a concrete or wood surface using our bolt down brackets. See pages 7, 8 and 9 for more details.

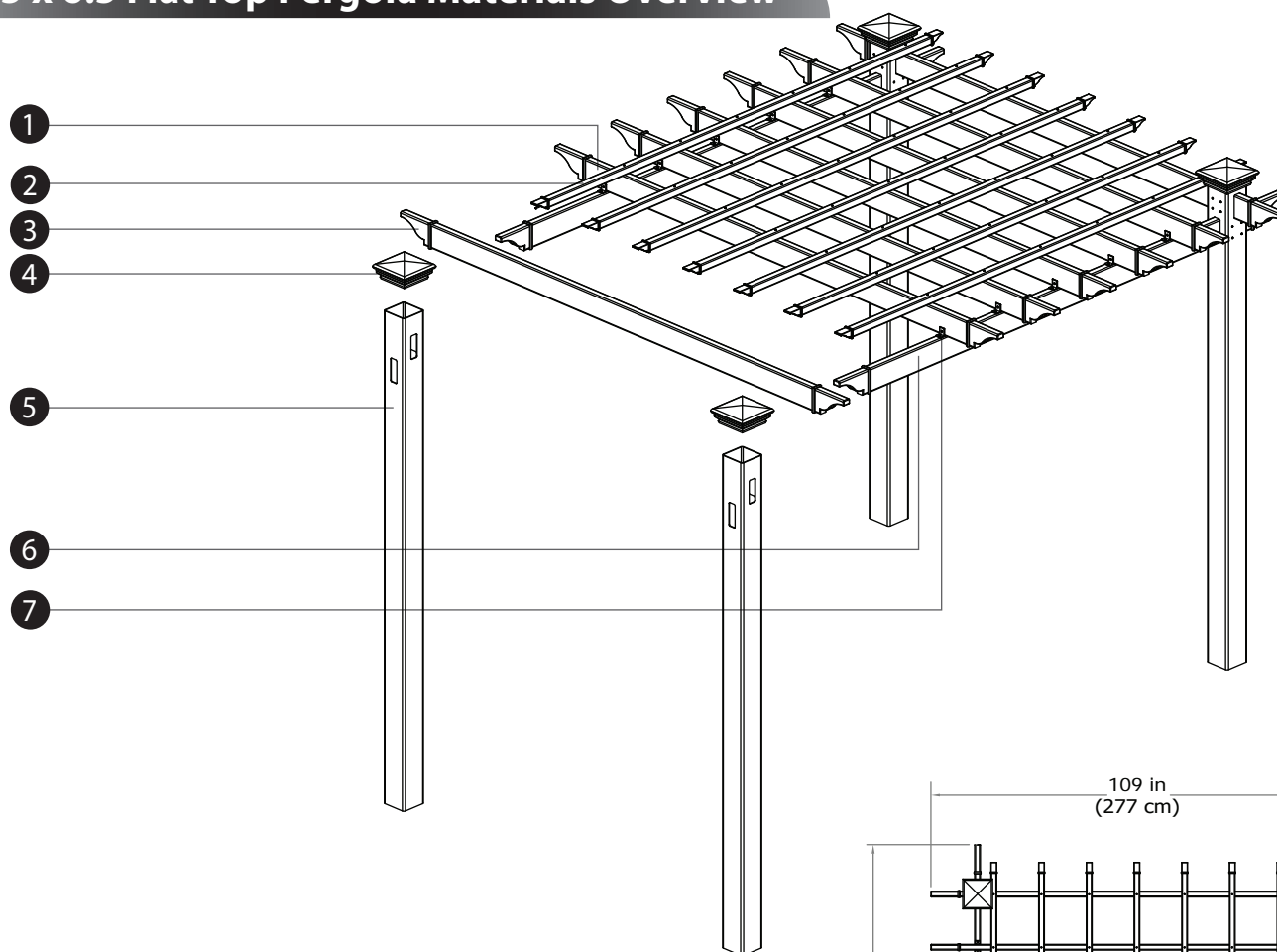
It is critical before you start that you consider the current slope of elevation where the pergola is planned - if there is any. Also utility or sprinkler line location is important to identify prior to excavating holes if necessary. You should also check to verify local building codes, ordinances, neighbourhood covenants, or height restrictions regarding this type of structure.

Restriction of Use

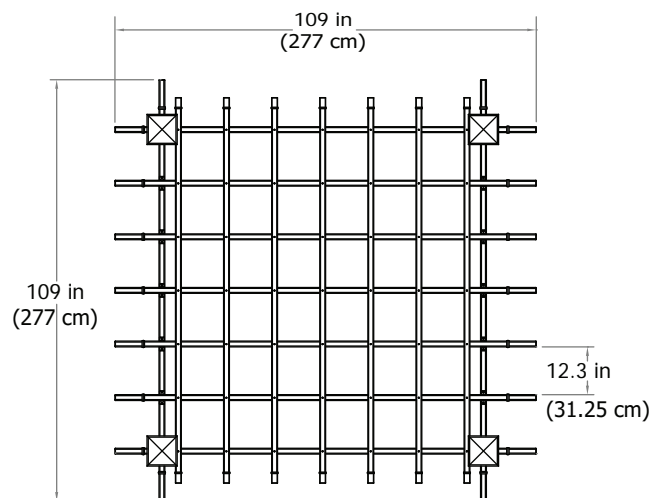
*This product **is not** designed to carry additional weight loads such as swings, people or other objects.*

Please take the time to read this instruction guide thoroughly prior to the construction of your pergola. If you have any questions, feel free to contact our technical dept by calling 1 800 282 9346 (Mon to Fri 8:00 A.M to 4:00 P.M. EST).

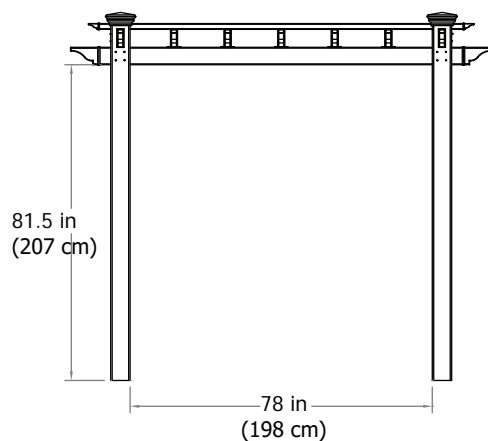
6.5 x 6.5 Flat Top Pergola Materials Overview



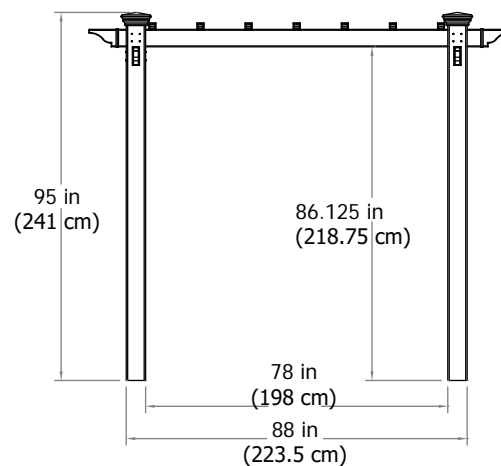
1. Rafters (7) - 10798
2. Shade Slats Including Decorative End Caps (7) - Shade Slat - 10799, Cap - 30030-1
3. Rafter & Beam Decorative End Caps (18) - 10700-1
4. Post Caps (4) - 10699-1
5. Posts (4) - 10796
6. Main Support Beams (2) - 10797
7. Rafter Brackets (10) - 10536



Front View



Top View



Side View

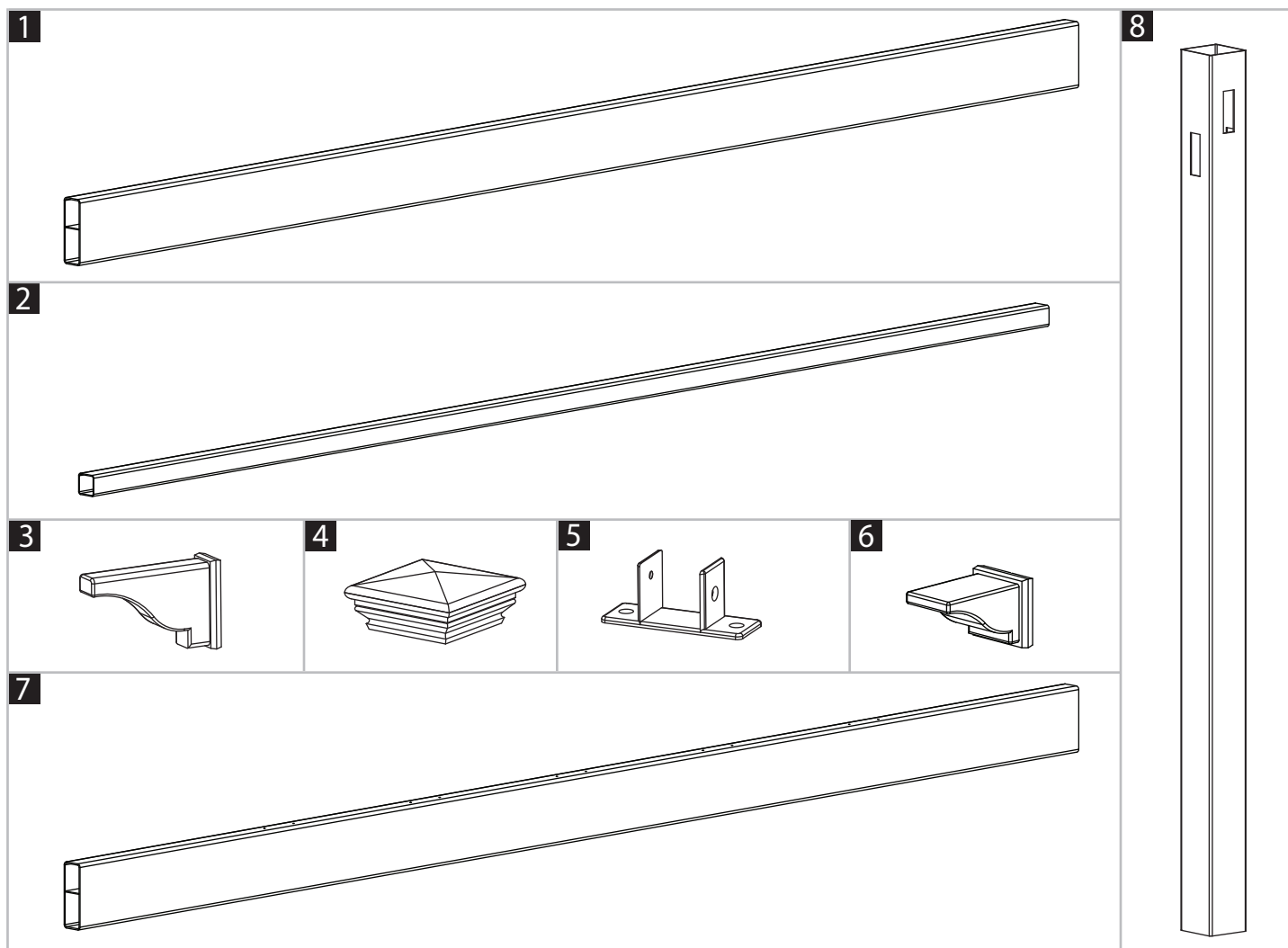
6.5 x 6.5 Flat Top Pergola Materials Breakdown

(Accessories Not included)

Check Boxes (Total of 3) for These Contents

In the event of missing or defective parts please call our customer service dept. at **1 800 282 9346** (Mon. to Fri. 8:00 AM to 5:00 PM ET).

1. **Rafters (7)** - 1.5" x 4.5" x 94.5" (3.8 cm x 11.4 cm x 240 cm) - 10798
2. **Shade Slats (7)** - 1.5" x 1.5" x 94.5" (3.8 cm x 3.8 cm x 240 cm) - 10799
3. **Rafter & Beam Decorative End Caps (18)** - 10700-1
4. **Post Caps (4)** - 10699-1
5. **Rafter Brackets (10)** - 10536
6. **Shade Slat Decorative End Caps (14)** - 30030-1
7. **Main Support Beams with pre-drilled holes (2)** - 1.5" x 4.5" x 94.5" (3.8 cm x 11.4 cm x 240 cm) - 10797
8. **Posts (4)** - 5" x 5" x 94.5" (12.7 cm x 12.7 cm x 240 cm) - 10796



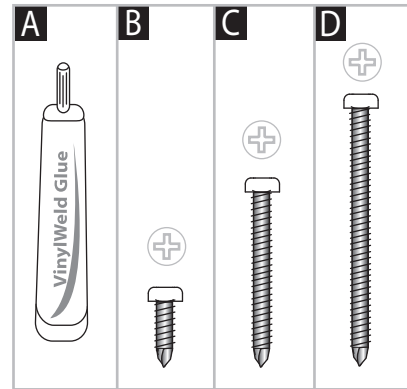
Not to Scale

Pergola Additional Materials List

Hardware *(in plastic bag)*

All Screws Included with this Kit are Self-Auguring.

- A. Vinyl Weld Glue (1) - 20000
- B. 3/4" (19 mm) Self-Auguring Stainless Steel Screws (40) - 20016 *(for Rafter Brackets)*
- C. 2 1/2" (64 mm) Self-Auguring Stainless Steel Screws (65) - 20009-1 *(for Vinyl Columns & Shade Slats)*
- D. 4" (102 mm) Self-Auguring Stainless Steel Screws (64) - 20006 *(to secure Beams and Rafters to Posts.)*



Not to Scale

Extra Materials You will Need

(Purchase separately from www.newenglandarbors.com or retailer of our products)

If Mounting Pergola on Concrete or Wood Deck (not intended to be installed on concrete pavers, patio stones, or interlocking bricks)

- J. 4x4x4' (10x10x122cm) Pressure-Treated Wood Posts (4) *(purchase at local building center)*

- K. 4x4 Bolt Down Bracket Kit *(purchase from www.newenglandarbors.com or a retailer of our products)*

Refer to bolt down bracket instructions for hardware requirements, as they pertain to your application:

If mounting pergola onto an existing concrete surface:

- 1/2" x 3 1/2" x 12" (1.3x9.x30.5cm) Wood Shims (32) - Can be cut from 1/2" (1.27 cm) Plywood
- 1/4" x 2 3/4" (6x70mm) Cement Screws - *Countersunk Head* (12)
- 3/16" (5mm) Concrete drill bit. Minimum 3" (76mm) long (1)

If mounting pergola onto a wooden/composite deck with

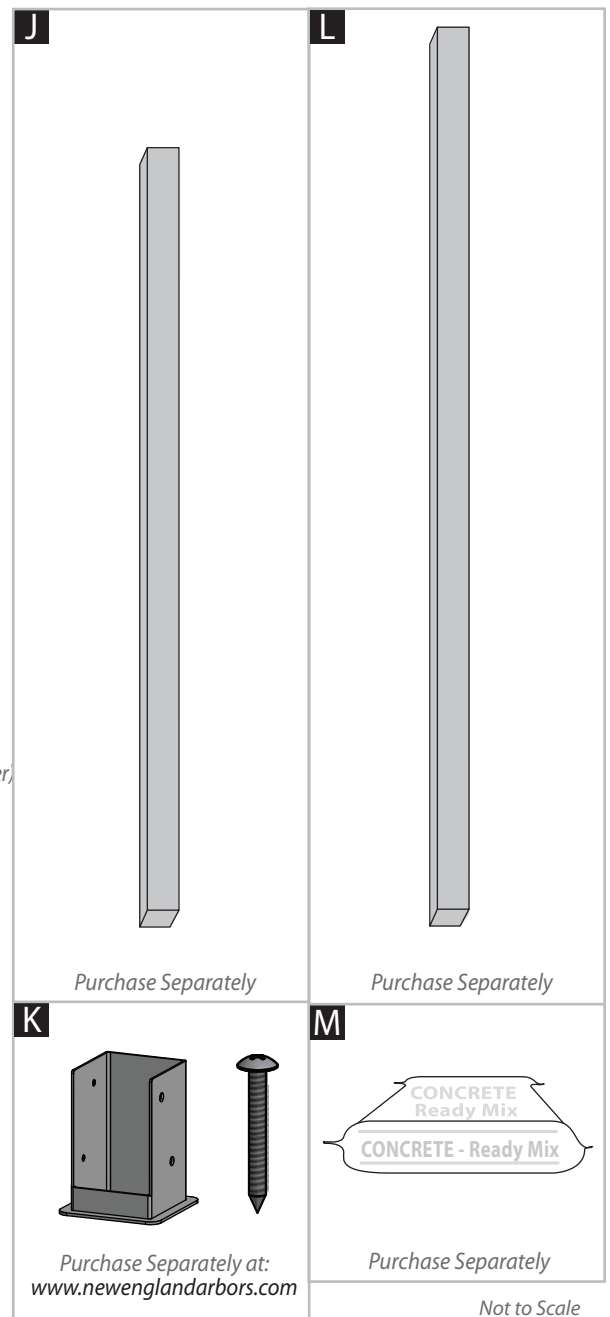
AN ACCESSIBLE UNDERSIDE:

- 1/2" x 3 1/2" x 12" (1.3x9.x30.5cm) Wood Shims (32) - Can be cut from 1/2" (1.27 cm) Plywood
- 1/4" x ?" (6x?mm) Bolts and Nuts - *Countersunk Head* (12) (Length depends on thickness of blocking material)
- 1/4" (6mm) Washers (12)
- 1/4" (6mm) Wood drill bit. Minimum 3" (76mm) long (1)

If Mounting Pergola in Ground

- L. 4x4x8' (10x10x244cm) Pressure-Treated Wood Posts (4) *(purchase at local building center)*

- M. Concrete Ready Mix (4) *(purchase at local building center)*

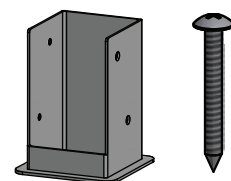


Purchase Separately

Purchase Separately

K

M



Purchase Separately at:
www.newenglandarbors.com

Purchase Separately

Not to Scale

Tools You Will Need

- Level
- Hammer
- Tape Measure
- String Line
- Wood Stakes (4) *(temporary support for string line)*
- Step Ladders (2)
- Cordless Drill

Tools You May Need

- Circular Saw with Fine Tooth Blade
- Framing Level
- Framing Square

Wood Post Layout & Installation for In-Ground Application

This pergola can also be installed on a pre-existing wood or concrete surface using our bolt down bracket system with a 4x4 wood post (sold separate). See page eight for more details.

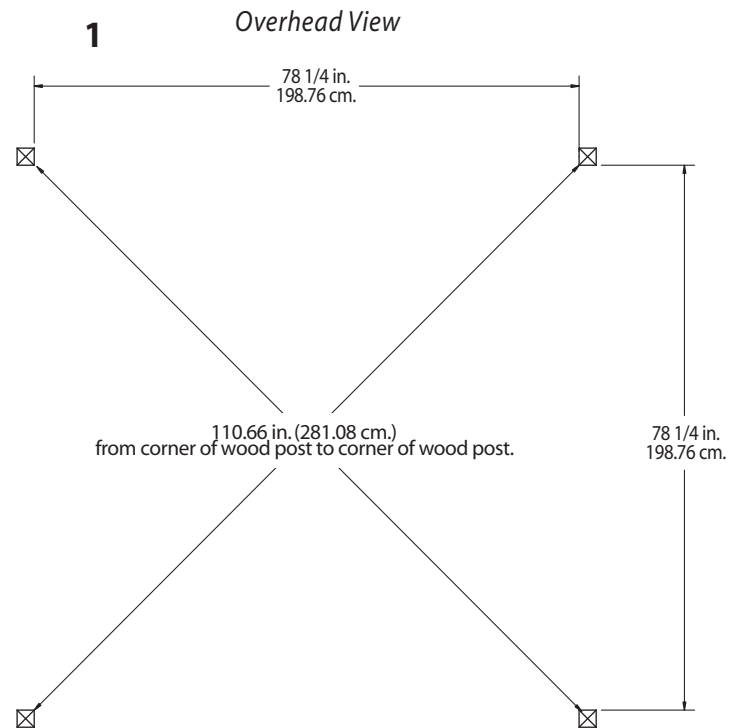
Post location and placement is the most critical step in the overall installation process. Please double check for the possibility of any underground utilities such as sprinkler, gas or telephone lines.

STEP ONE

Measure and mark out the location of the pergola posts using string line and temporary wood stakes. Diagonal distances must be the same to ensure a square installation. Adjust string lines accordingly. The inside corner of the string lines will be the post location.

Please Note:

Should you decide to moderately modify the dimensions of your pergola from the standard kit size, a circular saw with a sharp fine-tooth blade is all that you need to cut, shorten or modify the vinyl components.



STEP TWO

Install Wood Supporting Posts Directly into the Ground

1

After you have determined where the posts will be located, excavate 10" (25 cm) diameter x 36" (91 cm) deep post holes.

2

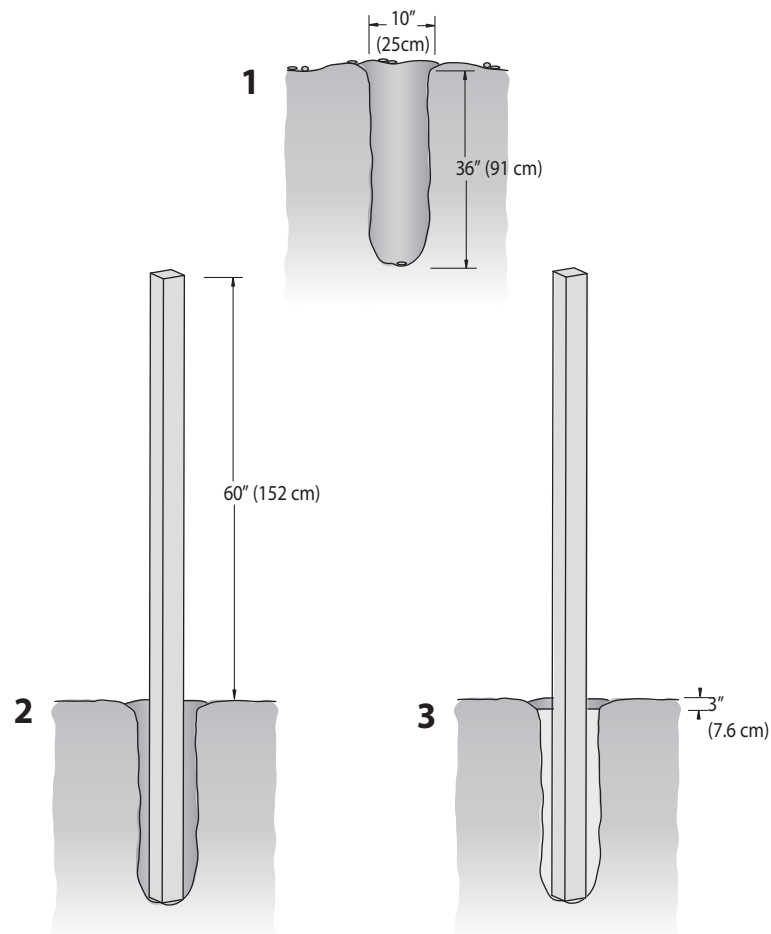
After holes are dug and cleaned, place the 4x4 wood post into a hole ensuring it's level and square to string lines. The final post height should be about 60" (152 cm) out of the ground.

3

Fill the vacant hole with pre-mixed concrete all the way to within 3" (7.6 cm) of the top of the hole. After the concrete has set, back fill the 3" (7.6 cm) space with soil.

4

Repeat for all four posts.



OPTIONAL STEP

Wood Post Layout & Installation Using Bolt Down Brackets for Concrete or Wood Surface

Note: for additional information on the bolt down bracket installation, refer to the bolt down bracket instructions.

1

Measuring from the edges of the bottom base plates, measure and mark out the location of the bolt down brackets' bottom of flange using string or chalk line. Diagonal distances must be the same to ensure a square installation. Adjust string lines accordingly. The inside corner of the string lines will be the corner of the bottom flange.

2

Mark out the location of bolt down brackets as illustrated.

3

Using a 3/16" (5mm) masonry drill bit, drill 3" (76mm) deep holes to allow installation of 2 3/4" (70mm) concrete screws (Not included)

4

Proceed to install three 2 3/4" (70mm) concrete screws into the bottom base of the bolt down bracket (Not included)

Please Note:

Concrete patios generally have sloped surface for water run-off. If this is the case, when you secure the bolt down bracket to the concrete, the bracket may be at an angle. This can be corrected for level using galvanized steel washers (not provided), acting as shims underneath the base to level - **VERY IMPORTANT OR PERGOLA BEAMS AND RAFTERS WILL NOT BE LEVEL.**

5

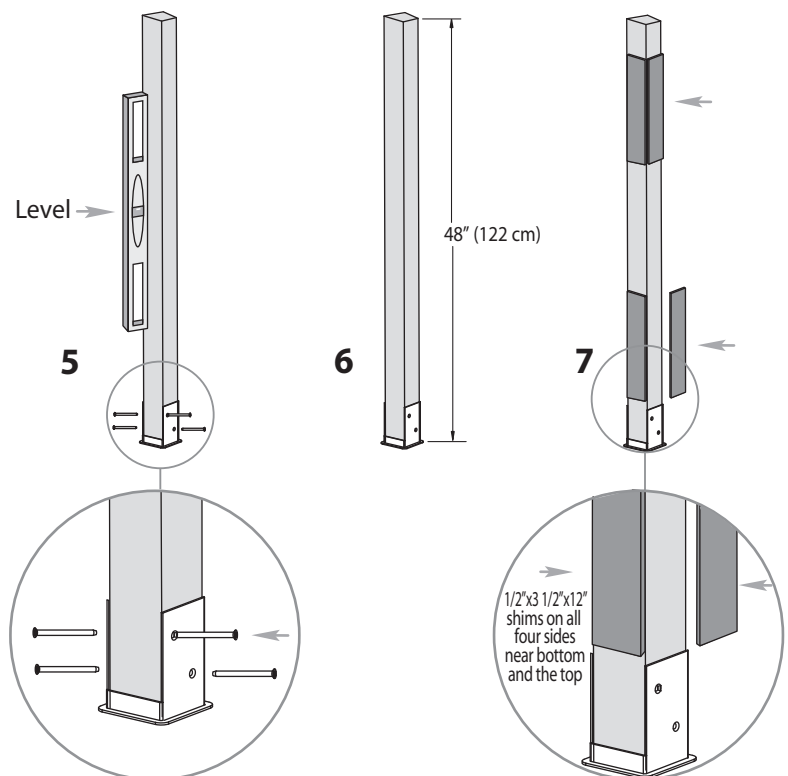
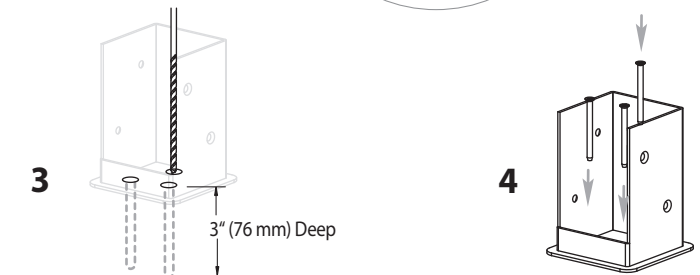
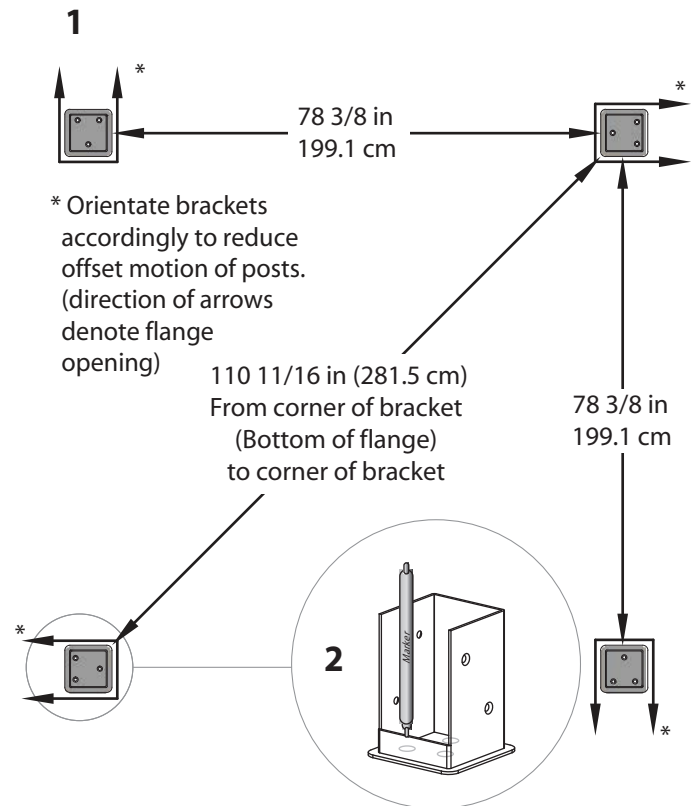
With the four post brackets installed plumb, proceed to set the 4x4 x4' wood post in place. Secure using the same concrete screws included in the kit. Repeat for all 4 posts.

6

Posts should be approximately 48" (122 cm) in height.

7

In order to create a snug fit between the wood posts and the inner cavity of the vinyl posts, it will be necessary to 'build out' the 4x4 posts near the bottom and the top using 1/2" x 3 1/2" x 12" (1.3x9.x30.5cm) shims on all four sides (not supplied).



STEP THREE

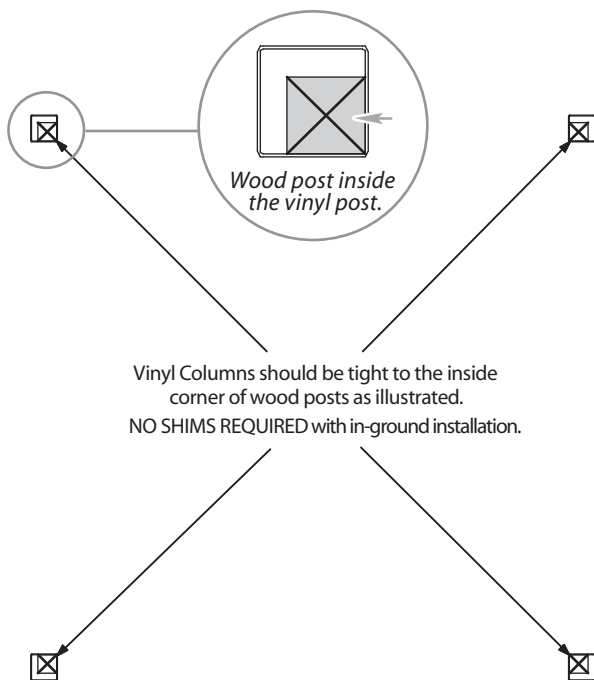
Vinyl Column Installation Over In-Ground Wood Posts

1

Using a step ladder, guide the vinyl column over the top of the wood post down into position. **Ensure that holes at top of column are orientated correctly for future beam and rafter placement as per illustration.**

Please Note:

If you installed your wood posts directly into the ground, please proceed to position the vinyl column tight to the inside corner of the wood posts as illustrated below. NO SHIMS REQUIRED.



2

Finally, adjust post heights accordingly to ensure future level installation of beams and rafters as necessary. If slope is severe causing a height difference between the posts, you may need to trim down the bottom of two or more of your vinyl columns as necessary.

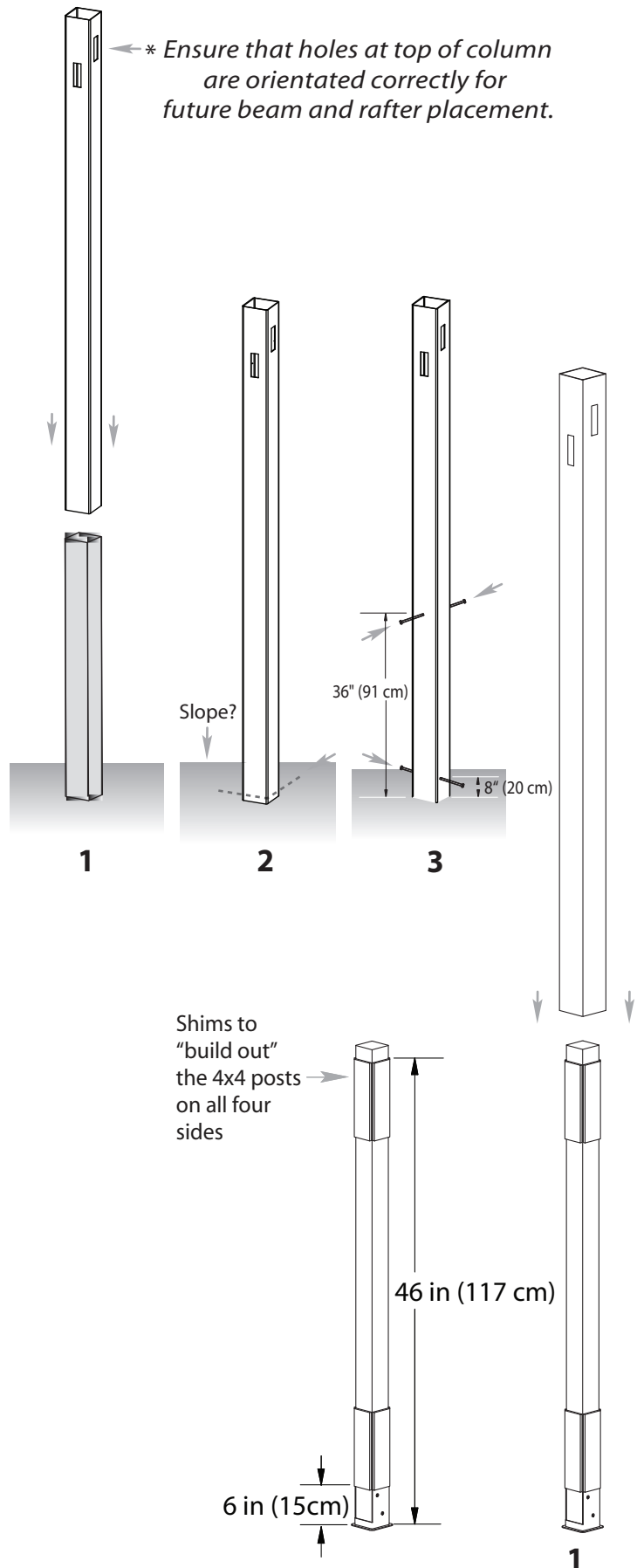
3

Secure the vinyl columns to the wood posts using 2 - 2 1/2" (64 mm) screws at 8" (20 cm) up from the bottom (on 2 sides), and 2 more approximately 36" (91 cm) high (on 2 sides).

Vinyl Column Installation Over Wood Posts with Bolt Down Brackets

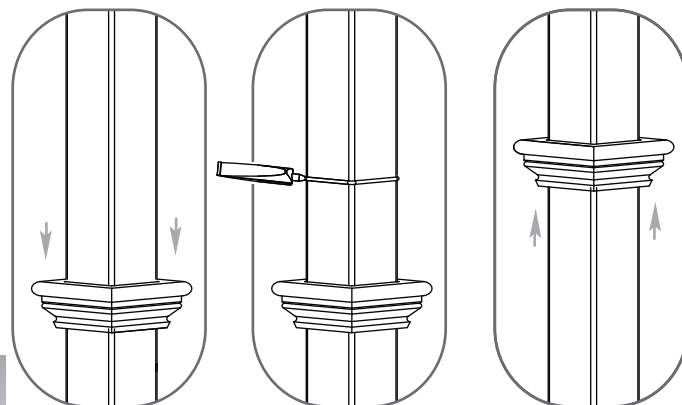
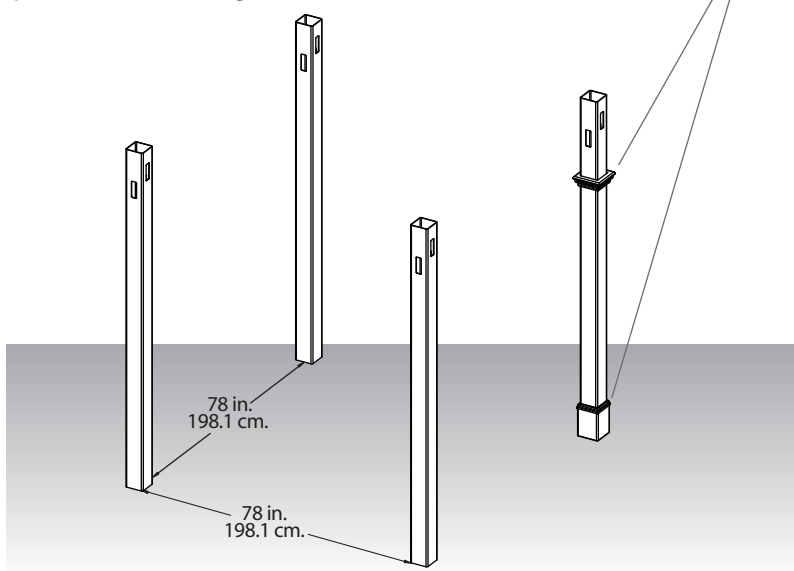
1

The process for posts installation over the bolt down bracket is identical as shown aside.



At this stage, the columns should be properly installed as per the following illustration, with the columns 78 in (198.1 cm) apart. Also, notice that the holes at the top of each post should be facing the same direction.

Note: If you purchased the trim kit, now would be the ideal time to install the base moldings and post trims.



To glue post trim in place:

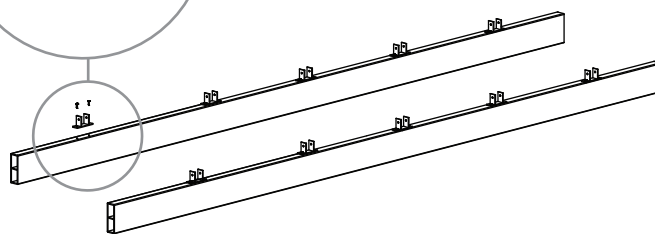
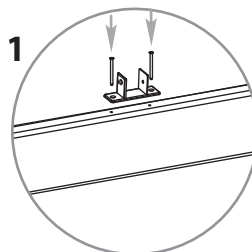
1. Slide the post trim down.
2. Apply a generous amount of vinyl glue around the post
3. Slide the post trim back up to the desired location and allow a few minutes for glue to cure.

STEP FOUR

Main Support Beam Assembly

1

Lay out two main support beams (part 7) as shown. Align and fasten mounting brackets to the pre-drilled holes on top of the beams using the 3/4" (19 mm) screws provided.



STEP FIVE

Main Support Beam & Rafters Placement

Using a helper and two ladders, proceed to complete the following steps"

2

Slide the main support beam with rafter clips pre-installed through both holes of the vinyl column (overshooting), and then back through both holes of the opposite column. Repeat for opposite beam.

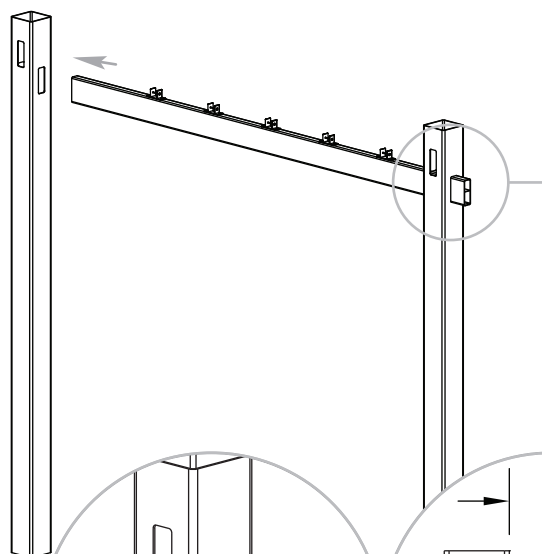
Please note:

The top of the vinyl columns may need to be tensioned in opposite directions to each other to allow the beams and rafters to be installed on a slight angle. The vinyl columns naturally allow for some measure of flex.

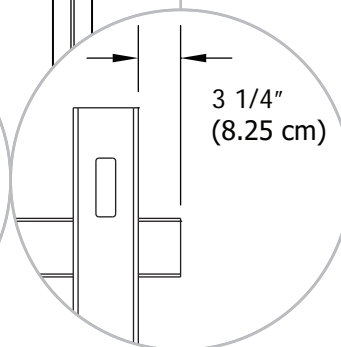
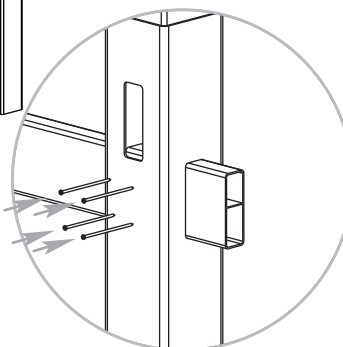
3

Stop when the end of the main support beam measures 3-1/4" (8.25 cm) from the outside edge of the post. Fasten both ends of the beam to the posts as illustrated using four 4" (102 mm) screws per post. Repeat step 2 for the remaining posts and main support beam.

2



3



4

Slide the two outer rafters through both holes of the vinyl column (overshooting) and then back through both holes of the opposite column. Stop when the end of the beam measures 3 1/4" (8.25 cm) from the outside edge of the post.

5

Using 4" (102 mm) screws, lock the beams and rafters into position inside the posts by driving in 4 screws on each face of the posts.

6

Place the remainder five rafters in the front and rear rafter brackets.

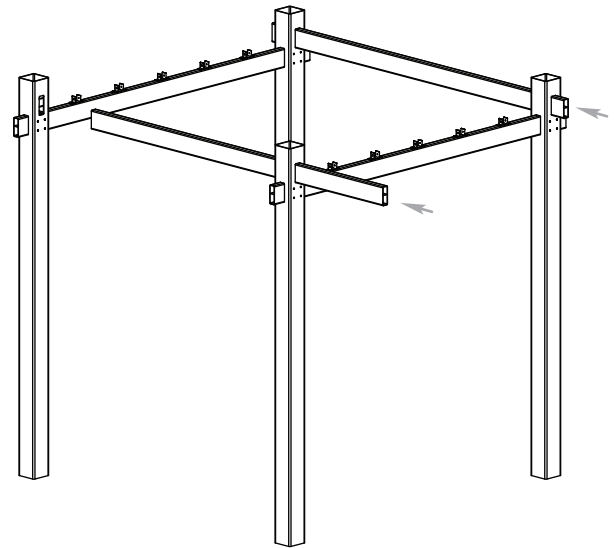
7

Complete a final adjustment of all beams and rafters. All spacing should appear equal to the eye.

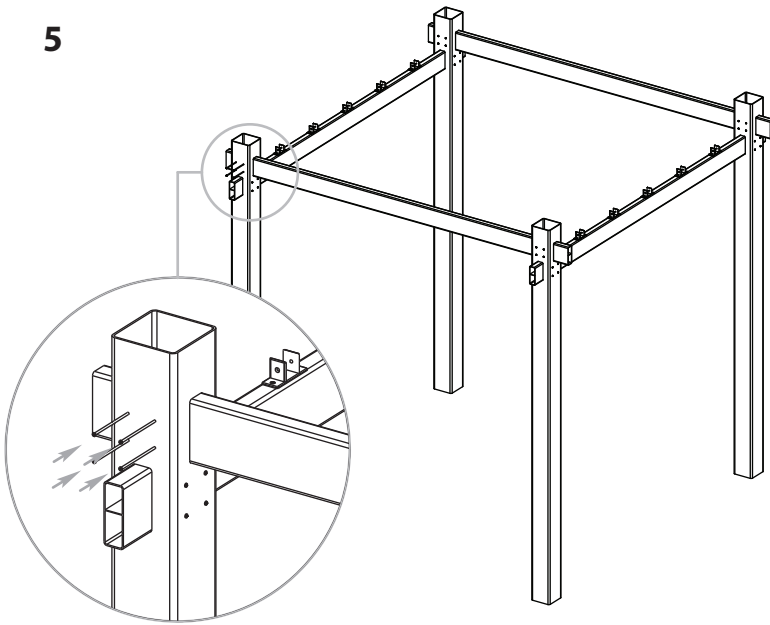
8

Using 3/4" (19 mm) self-auguring stainless steel screws attach the pergola rafters to the rafter brackets.

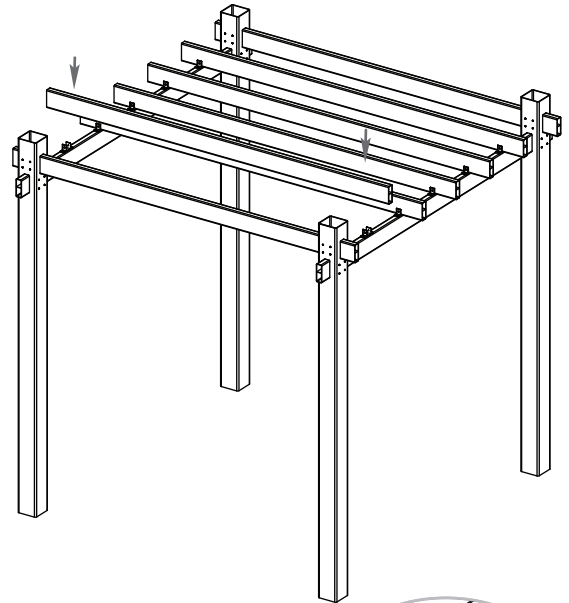
4



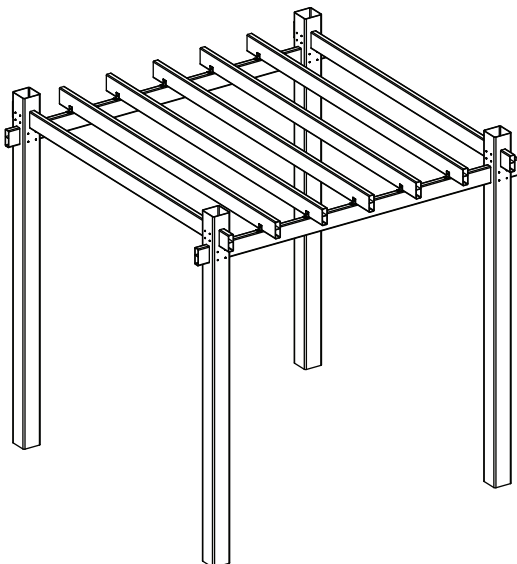
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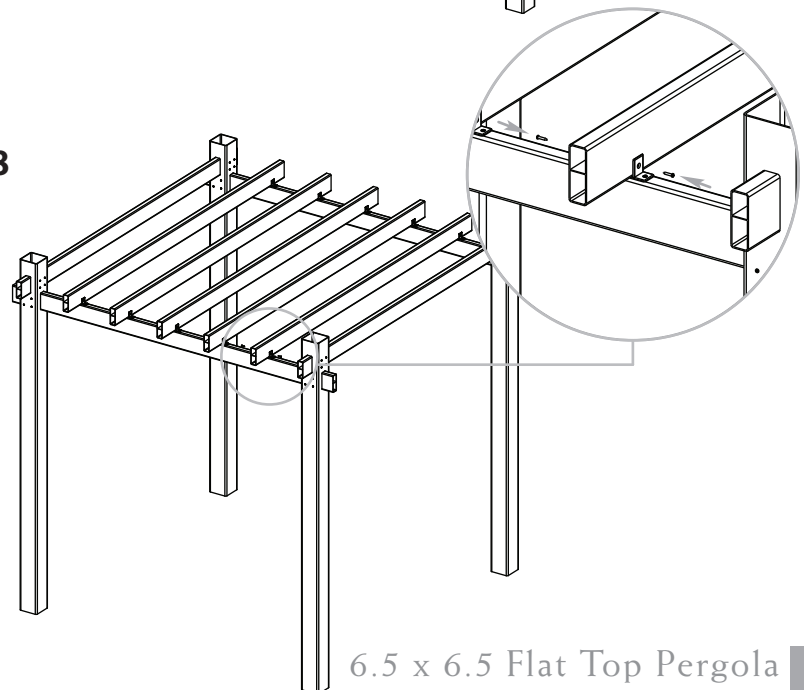
6



7



8



STEP SIX

Fastening Decorative Caps

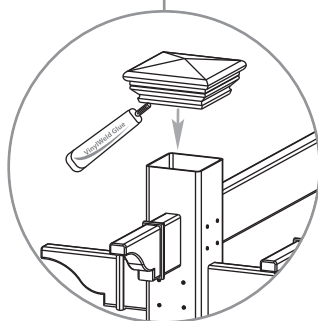
1

Install the post caps using vinyl weld.

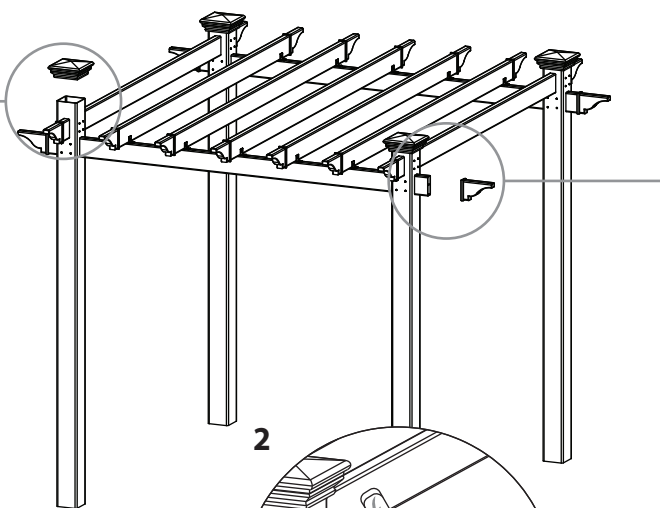
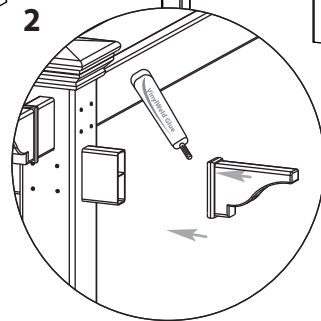
2

Install decorative pergola end caps using vinyl weld.

1



2



STEP SEVEN

Shade Slat Assembly

1

To assemble the shade slats, glue the 1 1/2" (3.8 cm) square pergola end caps onto the end of the filters.

Shade Slats Installation

Shade slats are designed to extend approximately 7 1/2" (19 cm) past the last rafter. Measurement includes the pergola end caps. Your goal is to ensure that all the shade slats overhang equally to the eye.

2

Install first shade slat adjacent to the top of the vinyl columns.

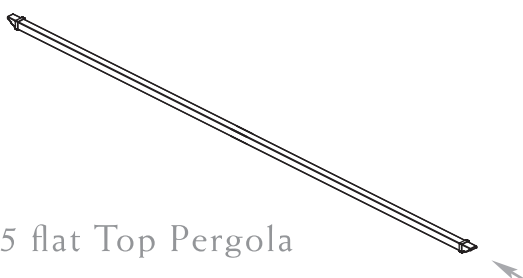
3

Install the rest of the shade slats at 11" (27.9 cm) spacing.

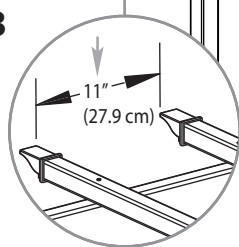
4

Install one 2 1/2" (64 mm) screw at each intersection of rafter and shade slat.

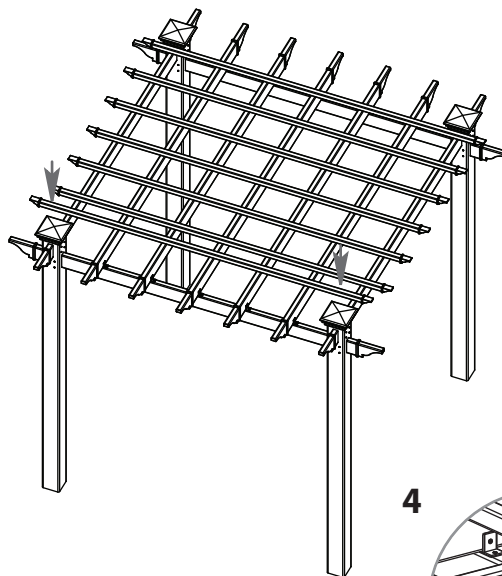
1



3



2



4

