## $10 \times 10$ Arch Top Pergola



OPTIONAL ACCESSORIES

- Privacy Fence Panel System (2 Panels \& 1 Middle Post Included)
- Bolt Down Bracket Kit
(Set of 4)
- Additional Shade Slats

Models: Bellagio, Rio, Riviera

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## 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. The steel stiffeners for the main beams and rafters can be cut down using either a hacksaw or a motorized cutting device designed to cut steel. When assembling components place on a non-abrasive surface (ie: shipping box) to avoid scratching. We recommend a $15^{\prime} \times 15^{\prime}$ area for unobstructed 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 $4 \times 4$ 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 18002829346 , ext \#20 (Mon to Fri 8:00 A.M to 4:00 P.M. EST).

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1. Rafter Brackets (12)
2. Post Caps (4)
3. Post Trims (8)
4. Arched Rafters (12)
5. Main Column Tops (4)
6. Rafter \& Beam Decorative End Caps (20)
7. Main Column Bottoms (4)
8. Main Support Beams (8)
9. Steel Stiffener Inserts for Arched Rafters (6)
10. Beam \& Rafter Joiners (10)
11. Steel Stiffener Inserts for All Support Beams (12)
12. One Way 4 " $x 4$ " Internal Wood Post Guide (4)
13. Shade Slats (24)
14. Shade Slat Joiners (12)


Top View

## OPTIONAL ACCESSORY

(Purchased Separately)
15. Privacy Fence Panel System -

Optional (2 Panels \& 1 Middle Post)


Front View


## Check Boxes (Total of 5) for These Contents

In the event of missing or defective parts please call our customer service dept. at $\mathbf{1 8 0 0} \mathbf{2 8 2} \mathbf{9 3 4 6}$, ext \#20 (Mon. to Fri. 8:00 AM to 4:00 PM EST).

1. Main Column Bottoms (4)
2. Post Caps (4)
3. Rafter \& Beam Decorative End Caps (20)
4. Post Trims (8)
5. Beam \& Rafter Joiners (10)
6. Main Column Tops (4)
7. Rafter Brackets (12)
8. One Way 4"x4" Internal Wood Post Guide (4)
9. Shade Slat Joiners (12)
10. Steel Stiffener Inserts for Arched Rafters (6)
11. Outside Main Support Beams (4)
12. Inside Main Support Beams (4)
13. Three-Piece Steel Stiffener Inserts for All Support Beams (4)
14. Arched Rafters (12)
15. Shade Slats (24)

## Rio Pergola Materials Breakdown

(Includes the above 5 boxes plus a 6th box with short base molds)
16. Short Base Mold (4)


## Riviera Pergola Materials Breakdown

(Includes the above 5 boxes plus a 6th box with tall base molds)
17. Tall Base Mold (4)


10


13


14


15

Please Note: We have included 10\% extra screws beyond what is identified below.
Hardware (in plastic bag)
All Screws Included with this Kit are Self-Auguring.
A. Vinyl Weld Glue (1)
B. 1 1/2" Self-Auguring Stainless Steel Screws (16) (to lock vinyl column and wood post together at bottom of each post)
C. 1 1/2" Self-Auguring Stainless Steel Screws (16) (to lock vinyl column and wood post together at top of each post just above trim cap)
D. $21 / 2^{\prime \prime}$ Self-Auguring Stainless Steel Screws (32) (to stiffen intersection of beams on posts)
E. 1 1/2" Self-Auguring Stainless Steel Screws (60) (joiner screws)
F. 5/8" Self-Auguring Stainless Steel Screws (48) (for clips)
G. $1 / 8^{\prime \prime} \times 2$ " Drill Bit (1) (to pre-drill holes in steel inserts as necessary)
H. Aluminum Bushings (4)
I. $3 / 8^{\prime \prime} \times 8^{\prime \prime}$ Galvanized Bolts, Nuts and Washers (4)
J. 2 1/2" Self-Auguring Stainless Steel Screws (72) (for shade slats)

## Extra Materials You will Need

(Purchase separately from www.edenarbors.com or retailer of our products)
If Mounting Pergola on Concrete or Wood Deck
K. $4 \times 4 \times 7$ Pressure-Treated Wood Posts (4) (purchase at local building center)
L. $4 \times 4$ Bolt Down Bracket Kit (purchase from www.edenarbors.com or a retailer of our products)

## If Mounting Pergola in Ground

M. $4 \times 4 \times 10$ Pressure-Treated Wood Posts (4) (purchase at local building center)
N. Concrete Ready Mix (4) (purchase at local building center)

## 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
- Hacksaw (or a motorized cutting device designed to cut steel)


K


Purchase Separately
N


## 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 $4 \times 4$ 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. The steel stiffeners for the main beams and rafters can be cut down using either a hacksaw or a motorized cutting device designed to cut steel.

## STEP TWO

## Install Wood Supporting Posts Directly into the Ground

## 1

After you have determined where the posts will be located excavate 10 " diameter x $36^{\prime \prime}$ deep post holes.

## 2

After holes are dug and cleaned, place the $4 \times 4$ wood post into a hole ensuring it's level and square to string lines. The final post height should be no more than 84 " out of the ground. If a post is higher because of obstructed excavation of footings, please cut down in height accordingly.

## 3

Fill the vacant hole with pre-mixed concrete all the way to within 3 " of the top of the hole.

## 4

Repeat for all four posts.

## Please Note:

Some $4 \times 4$ pressure treated posts can be larger than $31 / 2 \times 31 / 2$ square due to twisting or cracking. We have allowed a tolerance for this in the internal one way and two way $4 \times 4$ wood post guides (see page 8). However in extreme cases you may need to shave down the top of the $4 \times 4$ wood post slightly to get the vinyl post started over the wood post. Before installing your wood posts in the ground, please check to confirm this and correct at this stage if necessary.

1 Overhead View


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

## 1

Measure and mark out the location of the pergola posts 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 post location.

## 2

Mark out the location of bolt down brackets accordingly using the base of the bracket accordingly.

## 3

Using the 5/32" masonry drill bit included in your bolt down bracket kit, drill $3^{\prime \prime}$ deep holes to allow installation of $21 / 2$ concrete screws included in your kit.

## 4

Proceed to install three $21 / 2$ concrete screws into the bottom base of the bolt down bracket.

## 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 $4 \times 4 \times 7$ ' wood post in place. Secure using the same concrete screws included in the kit. Repeat for all 4 posts.

Posts should not exceed 84" in height. Please cut down in height if necessary.

## Please Note:

Some $4 \times 4$ pressure treated wood posts can be larger than $31 / 2 x$ 3 1/2 square due to twisting or cracking. We have allowed a tolerance for this in the post brackets and the internal one way and two way $4 \times 4$ wood post guides. However in extreme cases, you may need to shave down the end of your $4 \times 4$ wood post slightly to allow access.


## STEP THREE

## Vinyl Column Assembly \& Installation Over Wood Posts

## 1

Using the vinyl weld glue, insert the One Way 4" $\times 4$ " Internal Wood Post Guide in the one end of the main column posts. This step is only applicable if your wood $4 \times 4$ post are embedded into the ground. If your pergola is going to be installed on wood deck or concrete surface, please dispose of these four pieces.

## 2

Using a step ladder, guide the bottom vinyl columns over the wood $4 \times 4$ posts.

## 3

If you purchased Rio or Riviera Pergola, slide the base mold on post.
Note: If you are installing a Privacy Wall on the pergola, do not install base mold on the posts the wall is going between.

## 4

Using a step ladder guide the top vinyl columns over the wood $4 \times 4$ posts.

## Please Note:

Ensure that holes at top of column are orientated correctly for future main beam placement. See diagram at top of next page.

## 5

Connect the bottom and top vinyl column by using vinyl weld and sliding together. Please Note: Vinyl Weld Glue has about a sixty second cure time and about a 20 minute dry time.

## 6

Slide the bottom post trim into position to cover the joint on the column.

## 7

Slide the top post trim into approximate position.

## 8

Final 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 temporarily remove vinyl column from wood post and trim down the bottom of two or more of your vinyl columns as necessary. Once finished heights are determined to be level, (use a temporary string line and level) using vinyl weld install the post caps.

9
Secure the vinyl columns to the wood posts using 4-1 1/2" self-auguring stainless steel screws at 8 " up from the base of the posts, and 4-1 $1 / 2^{\prime \prime}$ self-auguring stainless steel screws just above the trim cap as illustrated. This will prevent possible uplift during high winds, etc.


1


6
$\downarrow$


8


9

At this stage, the columns should be properly installed as per the following illustration, with the columns 110" apart.
Also, notice that the holes at the top of each post should be facing the same direction.


## STEP FIVE

## Vinyl Beam Assembly

## 1

Insert two short steel stiffeners into one long steel stiffener to create full length piece. Repeat so you have four full length beams.

## 2

Insert the end of the vinyl beam (without a hole), into the joiner. Install the joiners so that the side with the four holes are facing up. Push firmly until the extrusion bottoms out inside the joiner.

## Please Note:

Ensure to orientate the main beams correctly so the pre-drilled holes for future installation of rafter brackets is correct.

## 3

Insert one assembled steel stiffener (with steel block facing up), into the lower pocket of the vinyl beam past the joiner. Push until steel block hits the internal ribbing.

## 4

Slide the other vinyl beam over the steel insert and into the joiner.

## 5

Screw the joiner to vinyl beams and steel insert using 1 1/2" screws. The bottom and top holes will need to be pre-drilled (use drill bit provided).

## 6

Install the rafter brackets to the main beams using 5/8" screws. Follow the pre-drilled holes to identify locations.

Note: If you have base molding on your posts, measure above moldings as the measurement is to be from post to post.


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## Vinyl Beam Placement

## 1

Temporarily clamp or place the inside main support beam into position. Align pre-drilled holes in the beam with the pre-drilled holes on the post.

## 2

Position the outside main support beam (beam with rafter brackets goes on the outside), aligning pre-drilled holes in the beam with the pre-drilled holes on the post.

3
Insert the aluminium bushings provided into the pre-drilled holes.
4
Insert galvanized carriage bolts and fasten washers and nuts.
5
Install four 2 1/2 inch screws in a square shape around the bolt on both sides of the beam.


## STEP SEVEN

## Rafter Assembly

Insert one side of the arched vinyl rafters into joiners. Push firmly until the extrusion bottoms out inside the joiner.


## 2

Insert the short steel stiffeners. Position so it centers itself in relation to the joiner.

3
Insert the opposite arched vinyl rafters into joiners. Push firmly until the extrusion bottoms out inside the joiner.


4
Screw the joiner to the vinyl rafters by using $11 / 2^{\prime \prime}$ screws.
5
Repeat so you have 6 completed rafters.
3


## STEP SEVEN

## Rafter Installation

1
Place the arched rafters in the rafter brackets.

## 2

Complete a final adjustment of all beams and rafters. All spacing and overhangs past columns should be equal to the eye.

3
Using $5 / 8$ " self-auguring stainless steel screws, attach the pergola rafters to the rafter brackets.

4
Install decorative pergola end caps using vinyl weld.
5
Final position your post trims.


## Suggestions for Additional Shade as Necessary

- Contact Eden Arbors regarding the possibility of purchasing an extra box of shade slats.
- White resin lattice in variety of shapes and sizes are available at your local lumberyard. Cut to size and fasten directly to the top of shade slats using stainless steel screws.
- In areas of extreme snow or wind load, do not use tight diamond privacy lattice.



## Privacy Fence Panel Materials List

(Sold Separately)


## Number of Shipping Boxes

The Privacy Fence Panel is shipped in two boxes.

## Check Boxes for These Contents

In the event of missing or defective parts please call our customer service dept. at $\mathbf{1 8 0 0} \mathbf{2 8 2}$ 9346, ext \#20 (Mon. to Fri. 8:00 AM to 4:00 PM EST).

1. Post Cap (1)
2. Post (1)
3. U-Channel Long (2)
4. U-Channel Short (2)
5. Post Brackets for Arched Top Rail (2)
6. Post Brackets for Bottom Rail (2)
7. $4 " \times 4$ "Internal Wood Post Guide (2)
8. Various Height Privacy Fence Board Panel (14)
9. Bottom Rails (2)
10. Arched Top Rails (2)

## Hardware (in plastic bag)

A. Vinyl Weld Glue (1)
B. 5/8" Self Auguring Stainless Steel Screws for Bottom Rail Brackets (12)
C. $5 / 8^{\prime \prime}$ Self Auguring Stainless Steel Screws for Top Rail Brackets (12)
D. 5/8" Self Auguring Stainless Steel Screws for U-Channel (14)
E. 1 1/2"Self Auguring Stainless Steel Screws for Middle Post (4)

## Extra Materials You will Need (Purchase Separately) If Mounting Pergola on Concrete or Wood Deck

F. Bolt Down Posts Bracket Including Mounting Hardware (Kit of 1)
G. $4 \times 4 \times 671 / 2^{\prime \prime}$ Pressure-Treated Wood Posts (1) (purchase at local building center)


Not to Scale

## If Mounting Pergola in Ground

H. Concrete Ready Mix (4) (purchase at local building center)
I. $4 \times 4 \times 8$ Pressure-Treated Wood Post (1) (purchase at local building center)

## Privacy Fence Panel Assembly \& Installation

## STEP ONE

Note: As mentioned on page 9, wall is not designed to fit pergola with base mold as custom cutting of pieces will be required.

## Install the Middle Post

1
Measure and mark out the location of the wood $4 \times 4$ post using string or chalk line. Center of $4 \times 4$ wood post should be located between two pergola columns.

## Please Note:

Follow the same applicable post instruction method as illustrated on pages 7 or 8 of this instruction guide.

## 2

Using the vinyl weld glue insert the One Way 4" 44 " Internal Wood Post Guide in the bottom of the post. This step is only applicable if your wood $4 \times 4$ post are embedded into the ground. If your pergola is going to be installed on wood or concrete surface, please dispose of this piece.

## 3

Using the vinyl weld glue insert the One-Way 4"x4" Internal Wood Post Guide at the top of the post.

4
Guide the vinyl post over the wood post. The wood post should stop about 67 1/2" above the ground or concrete patio. This should allow the wood post to extend thru the One-Way $4 \times 4$ Internal Wood Post Guide at the top.

## STEP TWO

## Install Fence

## 1

Install post bracket on one end of the bottom rail using 5/8" screws provided.

## 2

Slide the opposite end of the bottom rail into the routed hole on the post.

## 3

Using a level mark the position of the bracket on the opposite post and screw bracket into place.
(continued on following page...)


3

## Install Fence (continued)

Install long and short u-channel accordingly in the middle of the vinyl posts using $5 / 8^{\prime \prime}$ screws provided.

5
Install the tongue and groove privacy board working from the tallest board to the shortest. The first board should sit flush inside the u-channel.

6
Install the post bracket on one end of the arched rail. After inserting into the top routed hole on the post, begin to "walk" the rail down into place over the tongue and groove privacy board.
7
Fasten the arch post bracket to the post using 5/8" screws provided.

## 8

Repeat for installation of the other fence panel.
9
Secure the vinyl post to the internal wood post as per illustrated on page 9 of this manual step \#8. Level and adjust as necessary before fastening into place using $11 / 2^{\prime \prime}$ screw.

10
Install the post cap using vinyl weld.


7


