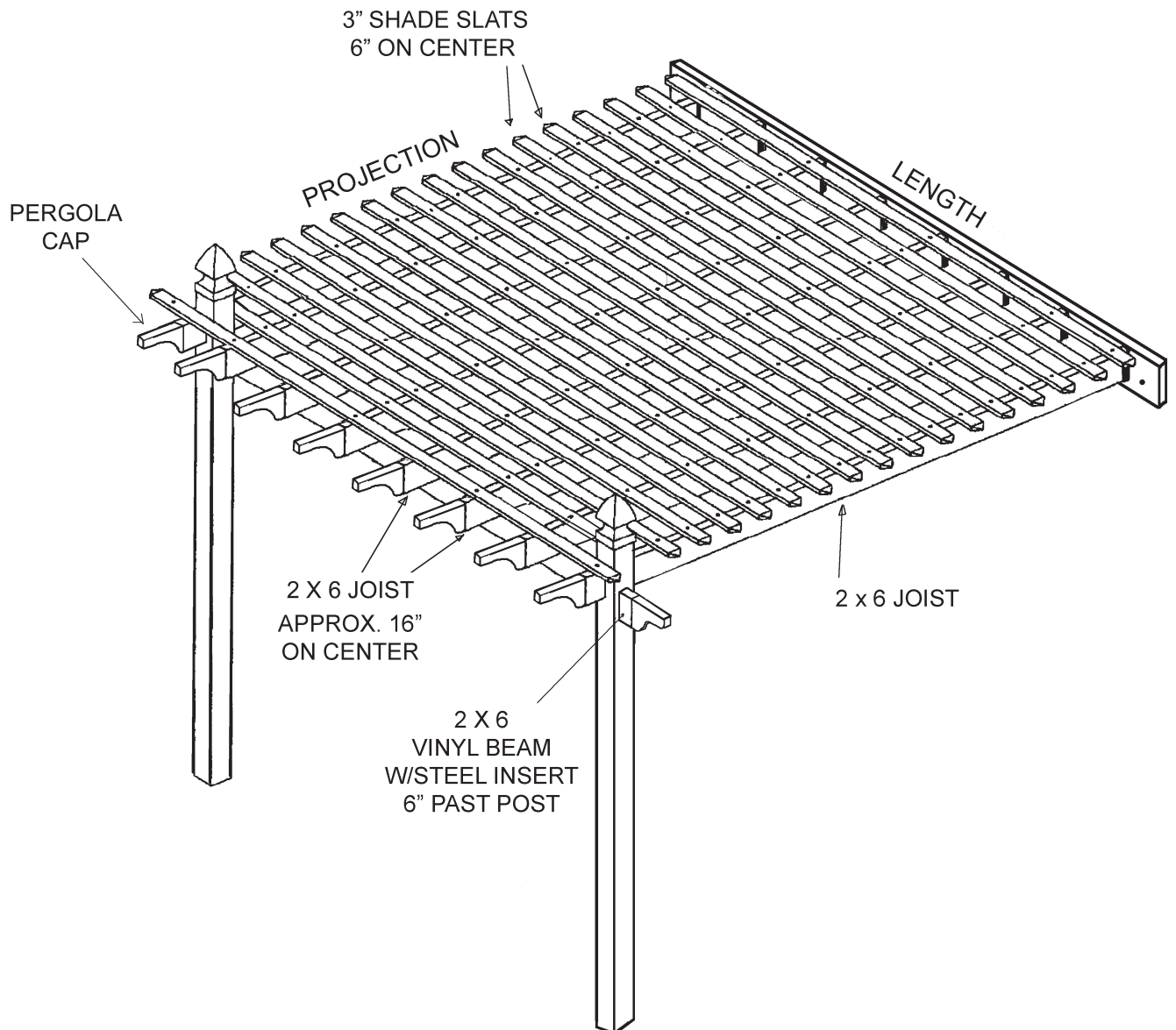


Patio Cover Kits

Instruction Manual

Attach To House

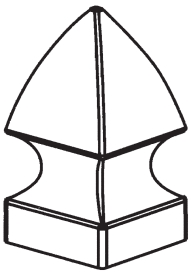


ATTACHED TO THE HOUSE

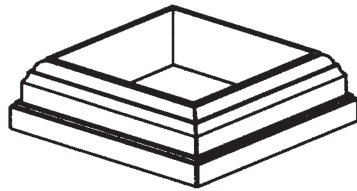
STEP-BY-STEP INSTRUCTION PROCEDURES

COMPONENTS	1
TOOLS NEEDED	1
INTRODUCTION	2
DETERMINING PERGOLA HEIGHTS AND LAYOUT	2
PERGOLA LAYOUT (PROJECTION & WIDTH)	3
INSTALLING LEDGER	3
LAYOUT OF THE OUTSIDE POST	4
INSTALLING SUPPORT POST IN GROUND	5
INSTALLING POST BASES (CONCRETE PATIOS & DECKS)	6,7,8
INSTALLATION OF SUPPORT POST (PATIOS & DECKS)	9
INSTALLATION OF 2"X6" SUPPORT BEAM	10
INSTALLATION OF PRIMARY JOIST AND BRACKETS	11
INSTALLATION OF REMAINING JOIST BRACKETS AND HANGERS	12
INSTALLATION OF JOIST	13
INSTALLING 3" SHADE SLATS	13
INSTALLATION OF EXTERNAL COMPONENTS	14

Fasteners and Hardware Provided:



5" Post Cap



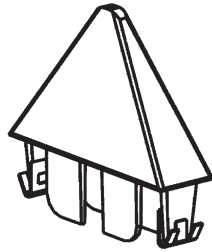
Decorative Post Base Ring (For Concrete & Wood Patios)



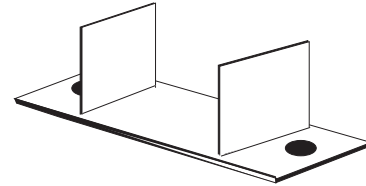
2" x 6" Pergola Cap



2" x 6" Joist Hanger Brackets



Shade Slat Picket End



Joist Beam Bracket

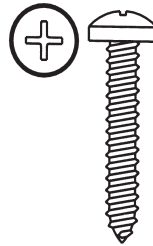


Vinyl Glue

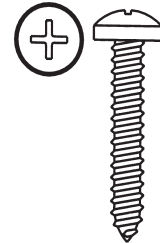
Vinyl Glue



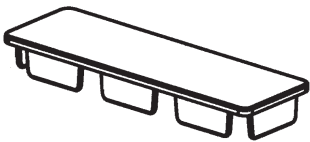
5" Ledger Lock Screw



1 1/2" Self Tapping Screw (For Joist Beam Brackets & Joist Hanger Brackets)



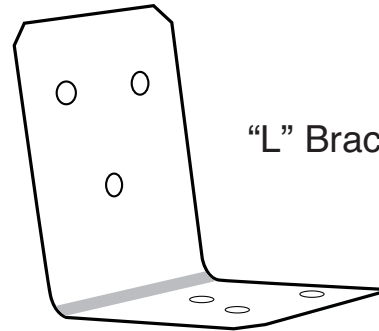
1 1/2" Self Tapping Screw (For Shade Slats)



2" x 6" End Cap



Cap For 5" Ledger Lock Screw



"L" Bracket

Tools Required:

Tape Measure
Framing Level
Framing Square
Circular Saw (Fine Tooth Blade)
Drill and Drill Bits
1/2" Masonry Bit (Concrete Patios)
1/2" Wood Bit (Wood Decks)
1/8" Drill Bit (Pre-drill holes for Joist Beam Brackets)

Framing Square (Patios Attached To House)
(2) Step Ladders
String Line or Chalk Line
Crescent Wrench (Concrete and Wood Patios)
Hammer
80 lb. Ready Mix Concrete
(Pergolas installed in ground)

PERGOLA

ATTACHED TO THE HOUSE

Thank you for purchasing your new pergola from VinylPatioKits.com. We have spent numerous hours in developing an installation manual which we hope will provide simple and concise instructions to help you build a beautiful new addition to your back yard. Enjoy!

This instruction booklet will provide a step-by-step process for installing your new pergola. Should you decide to 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 on your pergola.

Please read these instructions thoroughly prior to the construction of your pergola.

DETERMINING PERGOLA HEIGHTS AND LAYOUT

The average height of a pergola is 8', measured from the ground level to the bottom of your support beam on the outer post.

The height of your pergola will be based on several factors. For example, the height may be based on the roof line, doors, or windows. On most homes you will need to take into consideration the spacing between the overhang on the roof or distance to windows and doors.

Layout of your pergola is just as important as height. You will need to consider ledger location, post location, slope of concrete patios or wood decks, and sprinkler or utility lines if it is an in-ground pergola.

Note: It is recommended to verify local building codes or ordinances regarding height of pergola.

PERGOLA LAYOUT

Projection and Length

On our standard kits, the maximum projection distance is 14'. Projection is the distance of your pergola from the house out to the outside edge of the support post. It is also the direction of your joist (See Diagram 1).

The length of your pergola is measured from the outside edge of the support posts. The length of a pergola is unlimited. With maximum spans between posts of 14', you can have several posts in the length of your pergola, if the length exceeds 14'.

Prior to actual layout of your pergola, you will need to install the ledger to the house first, which will help with layout procedures.

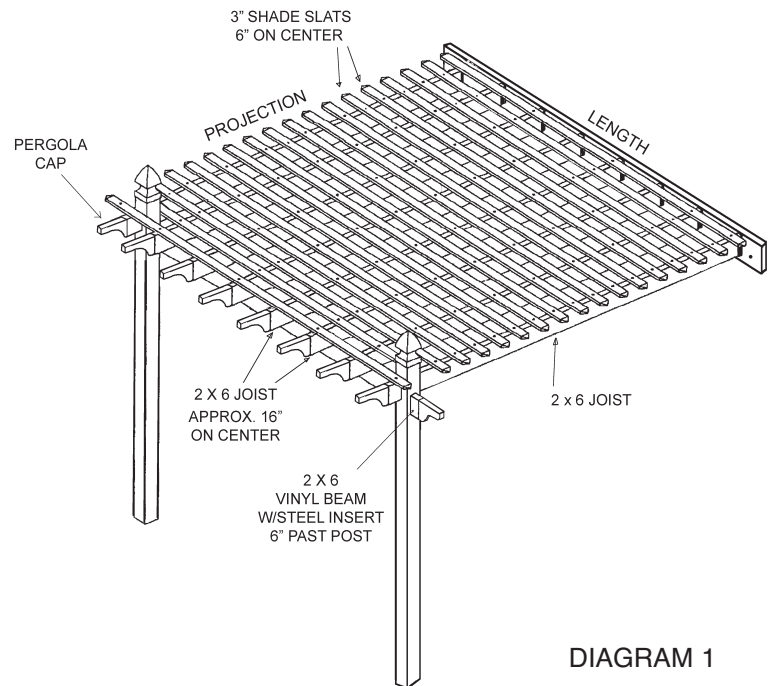


DIAGRAM 1

INSTALLING LEDGER

The ledger (See Diagram 2) is attached to the house using 5" ledger lock screws. Ledgers are pre-cut 1' longer than the length of your pergola. Verify the header or stud locations prior to attaching to the house. Headers are interior framing lumber usually located above windows and doors. On pergolas over 14' in length you will be provided with a two piece ledger.

Note: If you are installing your ledger into material other than wood you will need alternative fasteners not included in your kit. Check with your local building department for appropriate fasteners.

STEP 1

Place the ledger (2"x6" vinyl sleeve with 2"x6" redwood insert) onto the house at the determined height of your pergola. Level the ledger with a framing level.

STEP 2

With the ledger leveled and in place, screw in a 5" ledger lock screw approximately 2" from the edge of both ends of the ledger (See Diagram 2).

With the ledger temporarily secured, continue with the layout of the pergola.

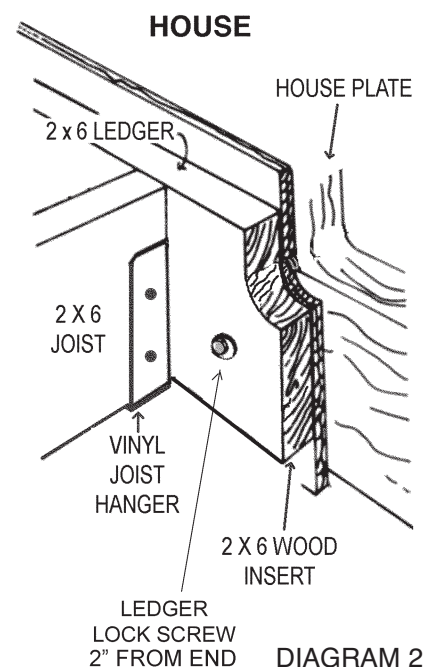


DIAGRAM 2

LAYOUT OF THE OUTSIDE POST

Post location is the most important part of the installation process. Take your time and check yourself several times prior to installing the outside post bases

STEP 1

Measure and temporarily mark the projection and length of the pergola (See Diagram3).

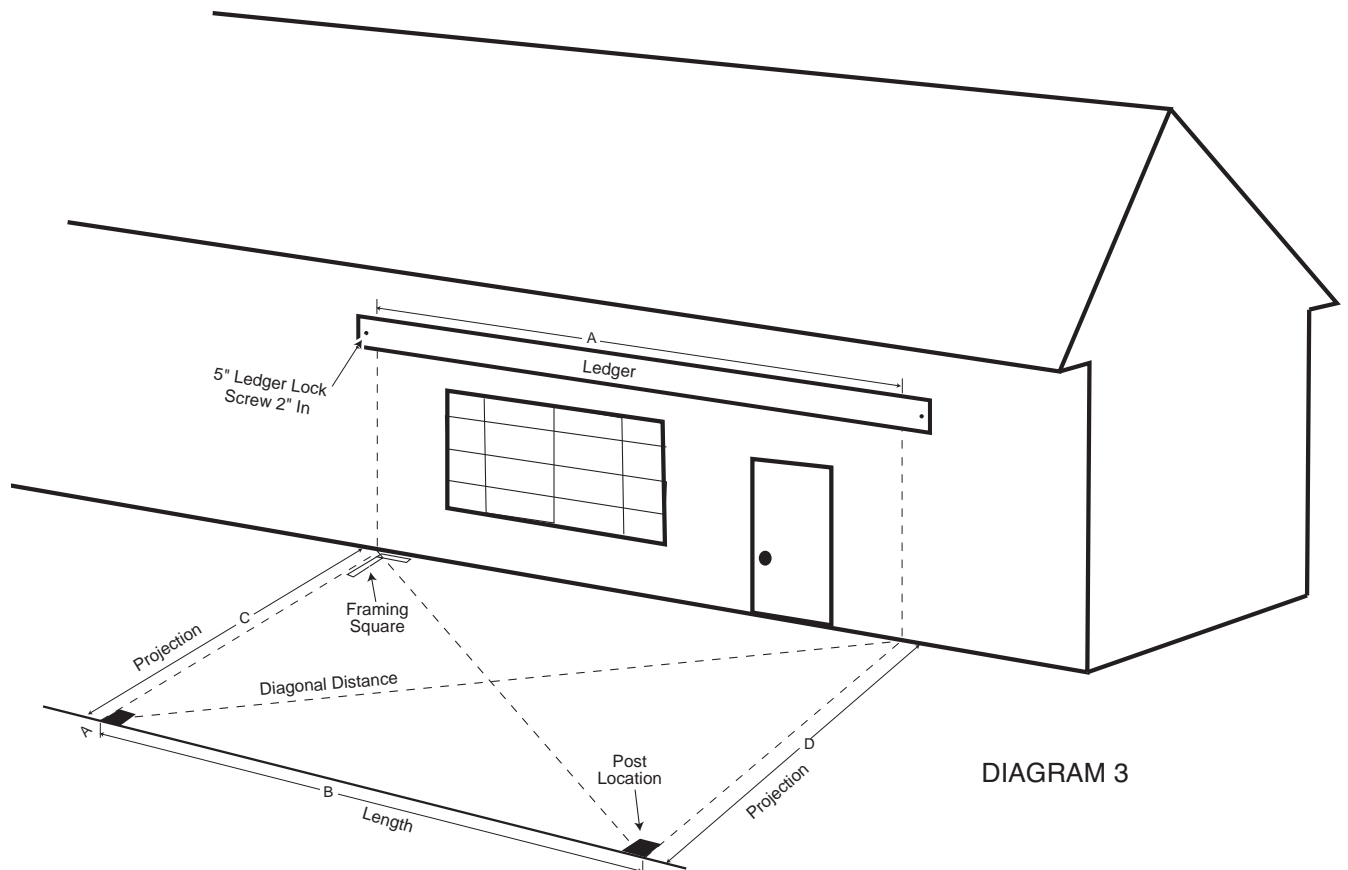
Note: With these temporary corner marks, you have a starting point for squaring up your pergola

STEP 2

Run a string line or chalk line parallel to the house at the projection mark. Extend this string line past the two projection marks and secure or mark with chalk line (See Diagram 3).

STEP 3

To get your projection square from the house, measure straight down from ledger (6" in from edge of ledger) and mark at the ground level of the house. You can put a nail at the base of the house to secure string lines or chalk lines. Run the string line out from the house past the projection marks. Measure the diagonal distance from corner to corner (See Diagram 3). Diagonal distances must be the same to ensure a square installation. Adjust projection string line until square and mark or stake string. The inside corner of the strings will be the post location for your pergola.



INSTALLING SUPPORT POSTS

Pergolas can be installed in the ground, on concrete patios or wood decks.

IN GROUND CONSTRUCTION

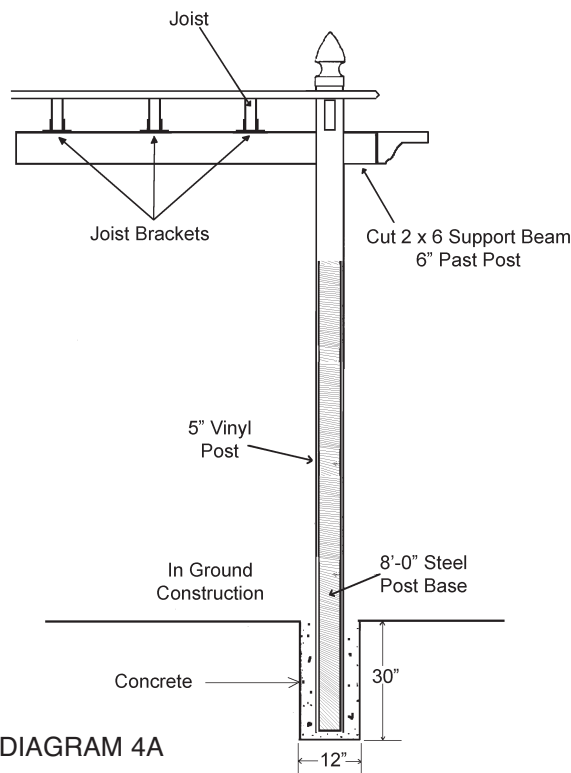
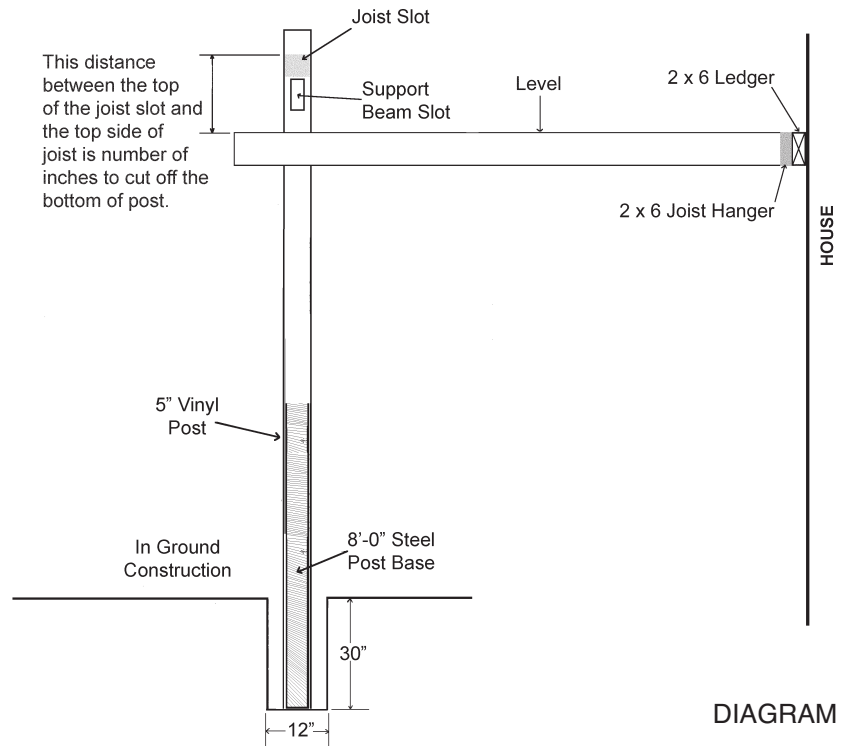
Pergolas installed in the ground require different installation procedures than concrete patios and decks.

STEP 1: DIGGING HOLES

After you have determined where the posts will be located, you are now ready to dig each post hole. Post holes (piers) are dug 12" in diameter and 30" deep (See Diagram 4).

STEP 2

After all the holes are dug and cleaned out, place a post into the first hole upright. With a 2"x6" (hollow) joist, place the joist snug up against the ledger and level this joist up against the outside edge of the support post. With the joist and post both leveled, make a mark onto the post where the top of the 2"x6" is level with the post (See Diagram 4).



STEP 3

The distance between this mark and top of the joist slot is the amount of post you will need to cut off (Bottom slot is for support beam, top slot is for the joist to extend through). (See Diagram 4).

STEP 4

Cut off the excess post based on your measurements in Step 3.

STEP 5

Repeat steps 2, 3 and 4 for all other posts.

Note: Make sure you measure each individual post for step 5. Post length may vary from hole to hole, to ensure a level installation.

STEP 6: CONCRETING POST

With all posts cut to exact height, insert the 8' galvanized steel post base inside the bottom of the 5"x5" support post, place the post with the insert down into the hole and add ready mix concrete all the way to the top. Check to make sure the slots in the holes are facing the correct direction to accept the support beams. Level the post and smooth off top of concrete. Let your concrete set up for at least 48 hours prior to installing your support beams. (See Diagram 4A).

Note: *The best way to mix your concrete is in a wheelbarrow. Do not make the mixture too soupy. This will affect the concrete strength and cause the concrete to be brittle in time. A thick sludge look is ideal, plus it will hold the post in place while concrete is setting up.*

INSTALLING POST BASES ON CONCRETE PATIOS

After you have determined where each post will be located on your concrete patio, you are ready to install 36" galvanized steel post bases (See Diagram 5 and 5A).

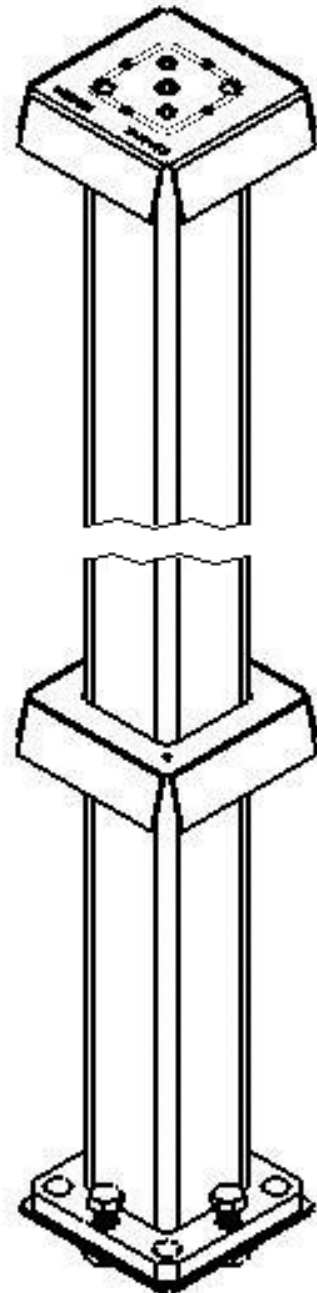
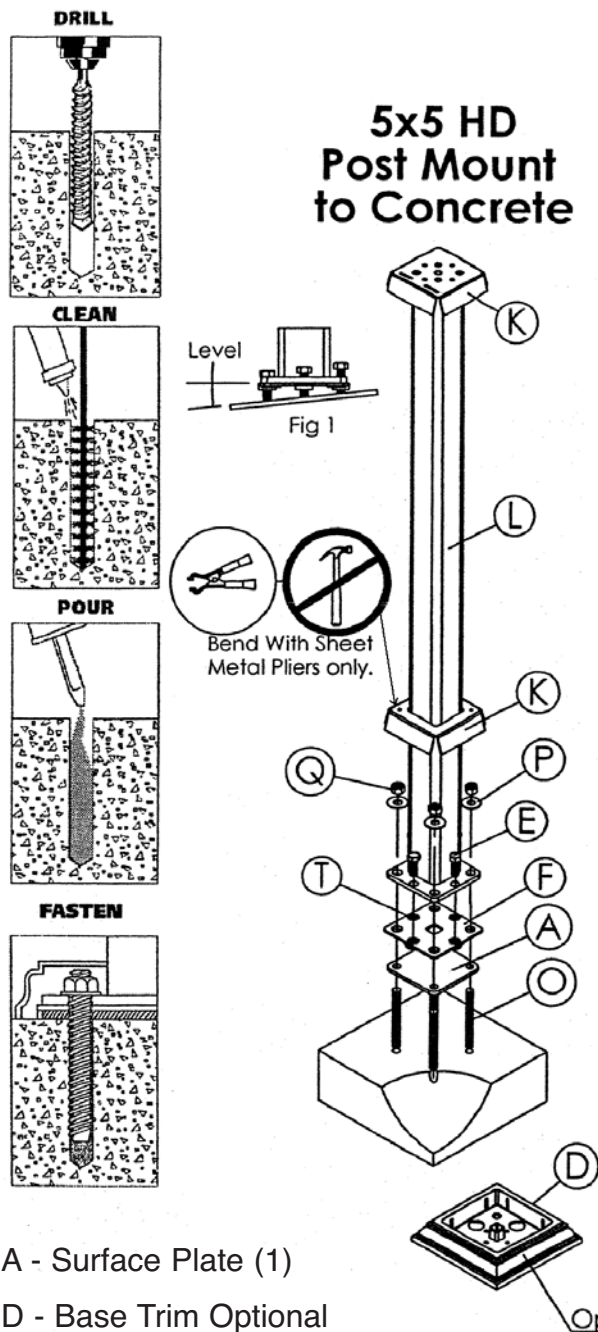


DIAGRAM 5



- A - Surface Plate (1)
- D - Base Trim Optional
- E - 5/16" x 1" Leveling Bolts (4)
- F - Leveling Insert (1)
- K - Post Stabilizer (2)
- L - 2x2 Square Tubing (1)
- O - 3/8" x 4-1/2" Threaded Rod (4)
- P - 3/8" Washers (4)
- Q - 3/8" Nuts (4)
- T - 5/16" Leveling Insert Nuts (4)

DIAGRAM 5A

1) Layout the locations for the post.

2) Take surface plate (A) and use as a template, mark the four corner holes for the (4) 3/8" x 4-1/2" threaded rod (O).

3) Drill the marked holes using a 7/16" masonry drill bit. Drill the hole into the concrete surface to a depth of 3-1/2". Thoroughly clean the holes of dust and debris.

4) It is recommended to use chemical anchoring epoxy (epoxy not included) with threaded rod (O) per ASTM standards.

*For information regarding chemical anchoring contact: Powers Fasteners at 800-524-3244.

5) Align the surface plate (A) over the threaded rods(O).

6) Position the optional base trim (D) over the top of the surface plate (A).

7) Take leveling insert (F) and (4) 5/16" nuts (T). Press nuts into hex shapes of leveling insert (F). Align over holes of optional base trim (D) and surface plate (A)

8) Take the post mount and place it into the optional base trim (D) and over the threaded rods (O).

9) Take four washers (P) and place one on each threaded rod (O), then put nuts (Q) on threaded rod (O). Hand tighten nuts (Q) to allow leveling of the post.

10) Screw the (4) 5/16 x 1" leveling bolts (E) into the (4) 5/16" nuts pressed into leveling plate (F). Adjust the leveling bolts (E) to straighten the post. (See Figure 1) After post has been leveled, tighten nuts (Q). (Do not over tighten)

11) Slide vinyl support post over the post mount until it seats into the optional base trim (D) or meets the deck surface. The post stabilizers (K) will secure the post into its proper position.

INSTALLING POST BASES ON WOOD DECKS

After you have determined where each post will be located on your wood or composite deck, you are ready to install the 36" galvanized steel post bases. (See Diagram 5B).

Note: You will determine where to cut off excess post for proper height once post bases are secured (See: *INSTALLATION OF SUPPORT POST* on page 9).

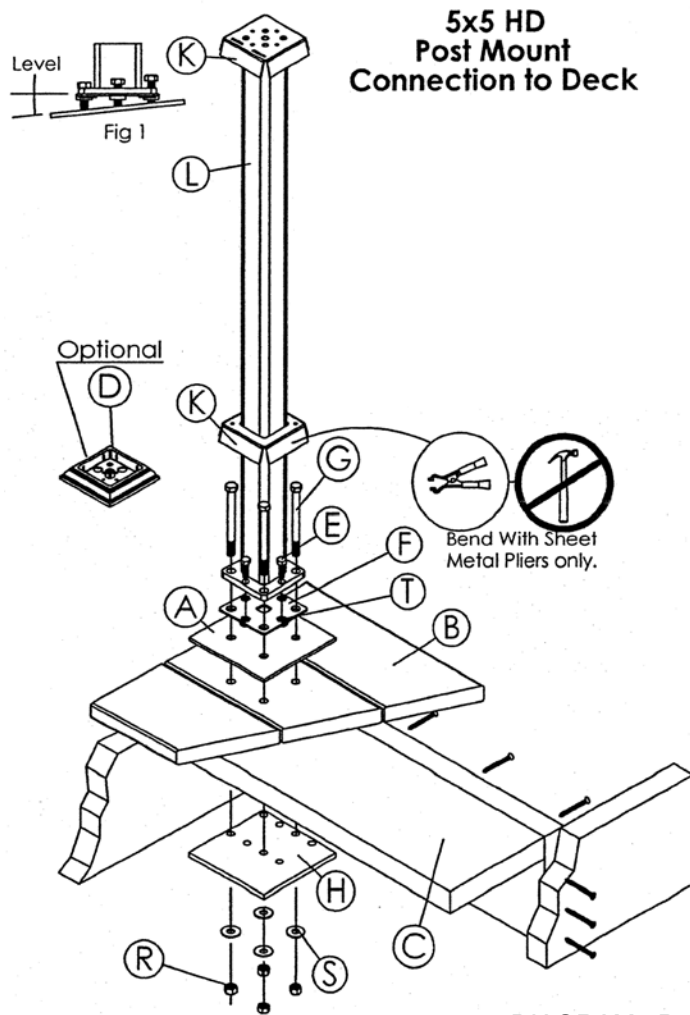


DIAGRAM 5B

- A - Surface Plate (1)
- B - Deck Board Example
- C - Reinforcement Board Example
- D - Base Trim (Optional)
- E - 5/16" x 1" Leveling Bolts (4)
- F - Leveling Insert (1)
- G - 3/8 x 4-1/2" Bolts (4)
- H - Bottom Plate (1)
- K - Post Stabilizer (2)
- L - 2 x 2 Square Tubing (1)
- R - 3/8" Nuts (4)
- S - 3/8" Washers (4)
- T - 5/16 Leveling Insert Nuts (4)

- 1) Layout the locations for the post.
- 2) Take surface plate (A) and use as a template, mark the four corner holes.
- 3) Thickness of wood deck and reinforcement board underneath deck should be a minimum 2-1/2".
- 4) Drill four 7/16" holes through the marked holes, drilling through the deck board (B) and the reinforcement board (C).
- 5) Align the surface plate (A) over the drilled holes.
- 6) Position the optional base trim (D) over the top of the surface plate.
- 7) Take leveling insert (F) and (4) 5/16" nuts (T). Press nuts into hex shapes of leveling insert (F). Align over holes of optional base trim (D) and surface plate (A)
- 8) Take the post mount and place it into the optional base trim (D) lining up the holes.
- 9) Next insert the (4) 5/16" x 4-1/2" bolts (G) into the drilled 7/16" holes.
- 10) Take bottom plate (H) and line up with bolts under the deck as shown in diagram. Add (4) washers (S) and (4) nuts (R). Hand tighten nuts (R) to allow leveling of the post.
- 11) Screw the (4) 5/16 x 1" leveling bolts (E) into the (4) 5/16" nuts pressed into leveling plate (F). Adjust the leveling bolts (E) to straighten the post. (See Figure 1) After post has been leveled, tighten nuts (R). (Do not over tighten)
- 12) Slide vinyl support post over the post mount until it seats into the optional base trim (D) or meets the deck surface. The post stabilizers (K) will secure the post into its proper position.

INSTALLATION OF SUPPORT POST FOR CONCRETE PATIOS AND DECKS

STEP 1

With the post bases secured, place the vinyl support post over the post bases. Take a 2"x6" (hollow) joist and place the joist snug up against the back ledger and level this joist up against the outside edge of the support base (See Diagram 6).

STEP 2

With the joists and posts both leveled, make a mark onto the post where the top of the 2"x6" joist is level with the post.

STEP 3

The distance between this mark and top of the joist slot is the amount of post you will need to cut off (the bottom slot is for support beam, top slot is for the joist to extend through).

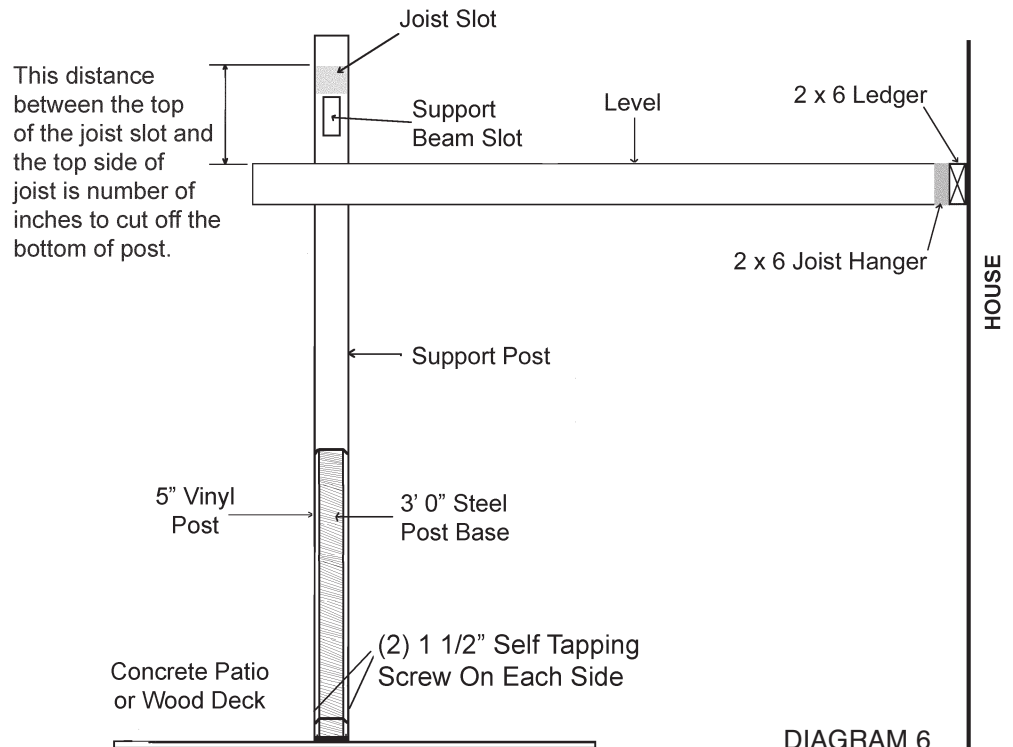


DIAGRAM 6

STEP 4

With the post cut to exact measurements, place your decorative post base ring over the post base.

STEP 5

Slide the support post over the post base and down into the post base ring (both will snap in place).

ON WOOD DECKS

Installation procedures are the same as on concrete patios.

INSTALLATION OF 2”X6” SUPPORT BEAM

The support beam will consist of a 2”x6” vinyl hollow beam and galvanized steel insert. The insert may already be inside the beam for shipping purposes (See Diagram7).

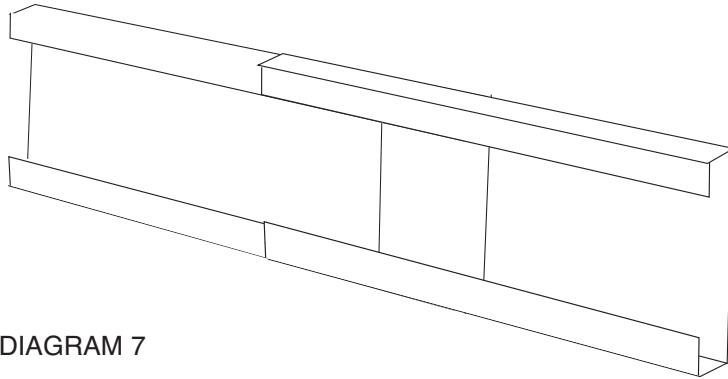


DIAGRAM 7

The inserts come in two pieces if the beam length is greater than 9’. The two-piece inserts telescope into each other in order to extend to the proper length inside the vinyl beam. Make sure that these inserts extend the full length of the beam. Sometimes in shipment they slip inside each other and you will have to re-adjust the length.

STEP 1

Support beams extend 6” past the outside edge of the outside support posts (See Diagram 8).

STEP 2

Slide the vinyl beam (with inserts inside) through both holes of the 5” post and through both holes of the other 5” post. Install Pergola “L” brackets for the beam (See Diagram 8).

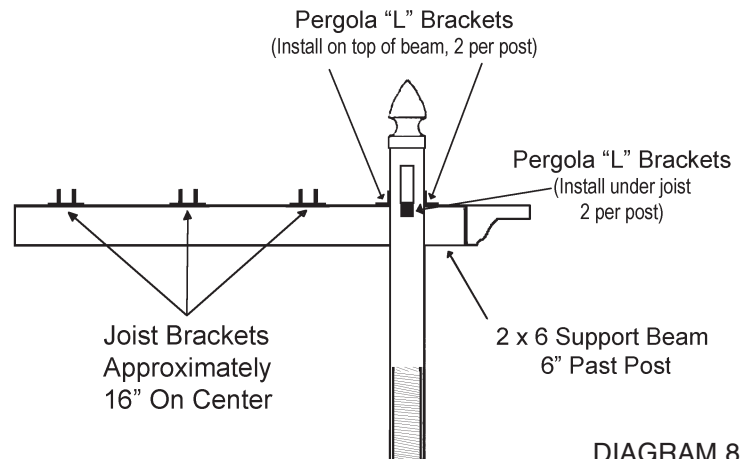


DIAGRAM 8

Note: With length spans greater than 15’, you will have additional support posts to support beams. If this is the case, you will have a splice in one or more of the support beams. If you do have a splice, make sure they are spliced in the middle of these posts (See Diagram 9).

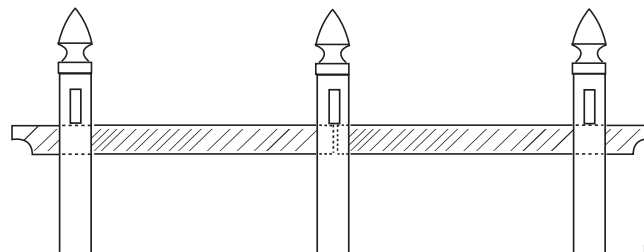
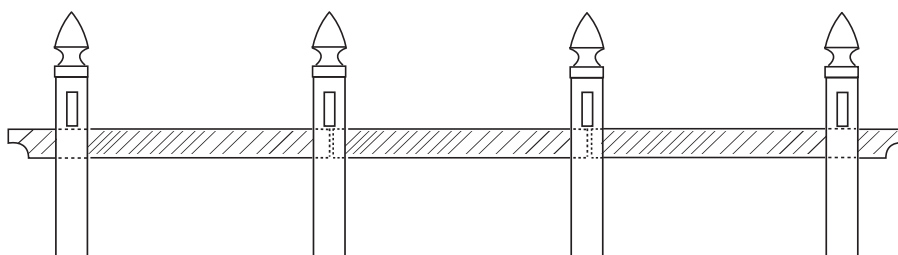


DIAGRAM 9



INSTALLATION OF PRIMARY JOIST AND JOIST HANGER BRACKETS

The first joist and joist/ledger brackets to be installed are the joists that extend through the support posts.

The 2"x6" joists come in lengths longer than the projection of the pergola. Joists are cut to extend a minimum of 6" past the outside edge of the post.

STEP 1

Insert a 2"x6" joist through the post and extend it back to where it is snug up against the ledger. With a framing square, square up the joist to the ledger. Install Pergola "L" brackets under the joist (see Diagram 8).

Note: If ledger and support post are square the center of the joist should be approximately 8 1/2" from the edge of the ledger.

STEP 2

Install joist hanger to ledger using two 5" ledger lock screws. Install ledger lock screws into the top and bottom hole of the joist hanger.

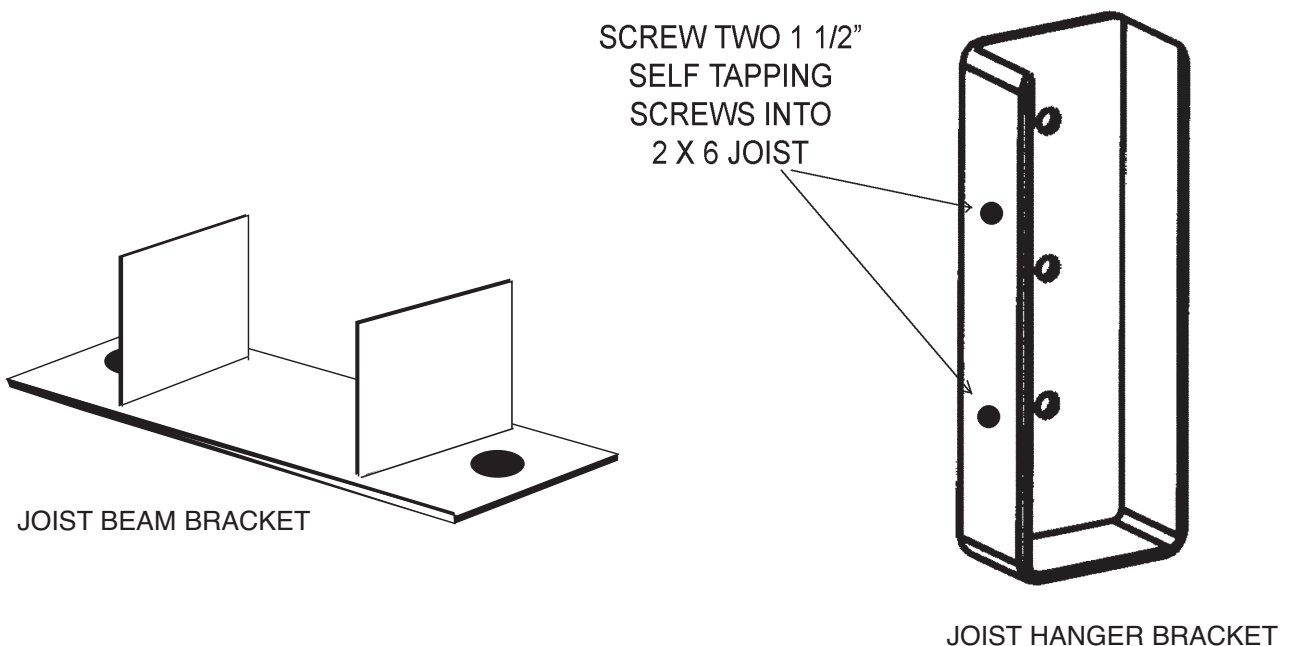
STEP 3

Insert the 2"x6" joist through the top slot of the post and back to where the joist inserts into the joist brackets. Secure the joist (to the bracket) by screwing two 1 1/2" self-tapping screws on each side of the bracket.

STEP 4

Repeat this process on the other post.

Note: After beam and outer joist installation, confirm the posts are level. Adjust where needed.



INSTALLING JOIST BEAM BRACKETS AND REMAINING JOIST HANGERS

The number of joists provided in your kit is calculated based on the length of your pergola. The joist brackets and joist hangers need to be installed approximately every 16" on center, starting from the center of each post (See Diagrams 2 & 10). Your goal is that when you look up at the pergola, the spacing of the joist looks even to the eye.

STEP 1

Start with finding the appropriate spacing for the joist beam brackets on the support beam and mark where each bracket will be installed.

STEP 2

Install each joist beam bracket with two 1 1/2" white self-tapping screws, screwing into the vinyl sleeve and steel insert(s). Pre-drilling the holes will make it easier when you go to install the brackets, especially if you are going through two layers of steel insert.

STEP 3

To install the joist ledger hangers on the ledger, use the same measurements as you did on the front support beam. Secure each joist hanger using two ledger lock screws.

Note: *If the ledger lock screws cannot be installed into a header or stud, additional fasteners may be necessary. Check with your local building department for requirements to secure ledgers to houses.*

Note: *With the ledger screwed securely to the house, it is recommended to run a bead of clear silicone caulking between the house and the beam to prevent water seeping in between.*

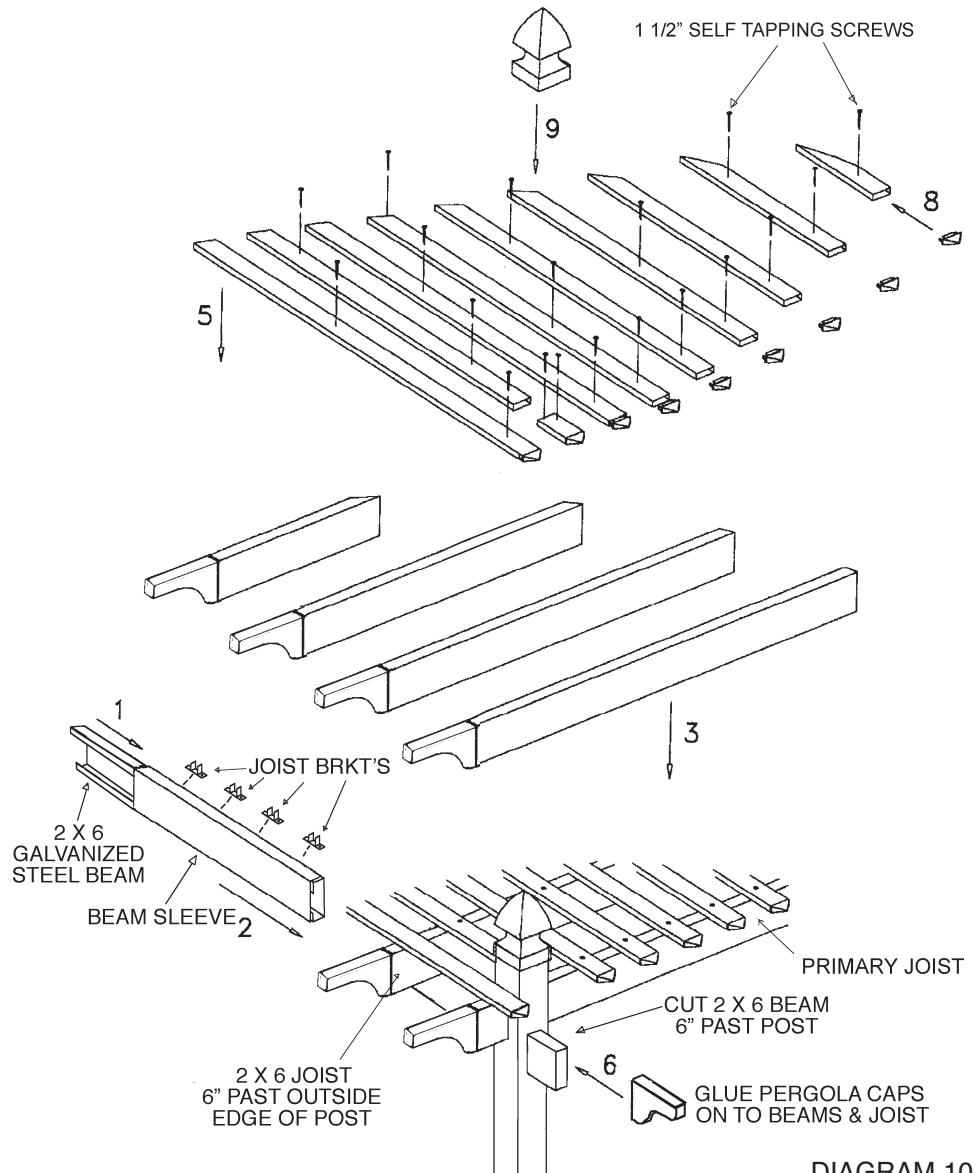


DIAGRAM 10

INSTALLATION OF JOIST

You are now ready to install the remaining 2"x6" joist.

STEP 1

Place the joist into the rear joist ledger hanger and front joist bracket.

STEP 2

Secure the front joist by screwing one 1 1/2" white self-tapping screw on each side and secure the joist in the rear joist hanger screwing in two 1 1/2" white on both sides of the bracket.

STEP 3

Repeat steps 1 through 4 on all remaining joists.

INSTALLING 3" SHADE SLATS

The 3" shade slats are cut to extend 6" further than your pergola length. Your kit will contain enough shade slats for adequate coverage using a 3" gap between slats.

Note: Because 3" shade slats maximum length are 16' and we recommend a 6" overhang on each end (See Diagrams 1 & 11), any pergola length greater than 15' will require splicing of slats in the middle of a 2" x 6" joist.

STEP 1

Install slats on both sides of support posts using one 1 1/2" self-tapping screw (use tan snap cap with tan Pergolas) per joist. Be careful not to over-tighten screw.

STEP 2

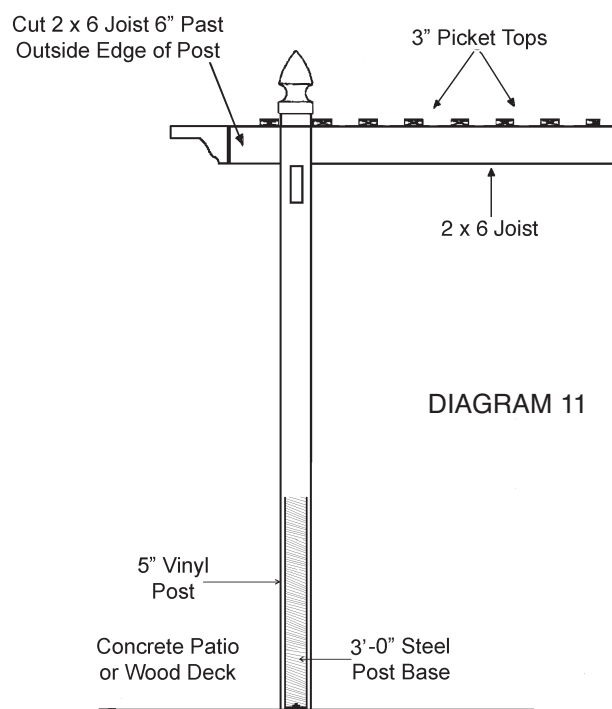
Using a 3" slat as a template, mark slat locations working from the support post towards the building. As you approach the last four or five rows, you want to adjust your marks to achieve as close to a 3" gap as possible. (For example, in the last four rows you may have a gap which is more or less than 3".) Your goal is to have the slats look visually good to the eye when looking up at the pergola.

Note: The number of slats that come with your kit is based on no less than a 3" gap.

STEP 3

Install 3" slats working from the building back towards the support posts.

Important: Before installing the first slat at the house, confirm proper slat placement to achieve slat spacing.



INSTALLATION OF EXTERNAL COMPONENTS

The last installation required is installing the post caps, pergola caps, ledger lock screw caps, ledger end caps and shade slat pickets.

STEP 1

With the vinyl glue that comes with the kit, apply a small dab of glue on each component and install the pieces listed above. Do not apply glue on total surface area if for some reason you want to remove these pieces at a later date.