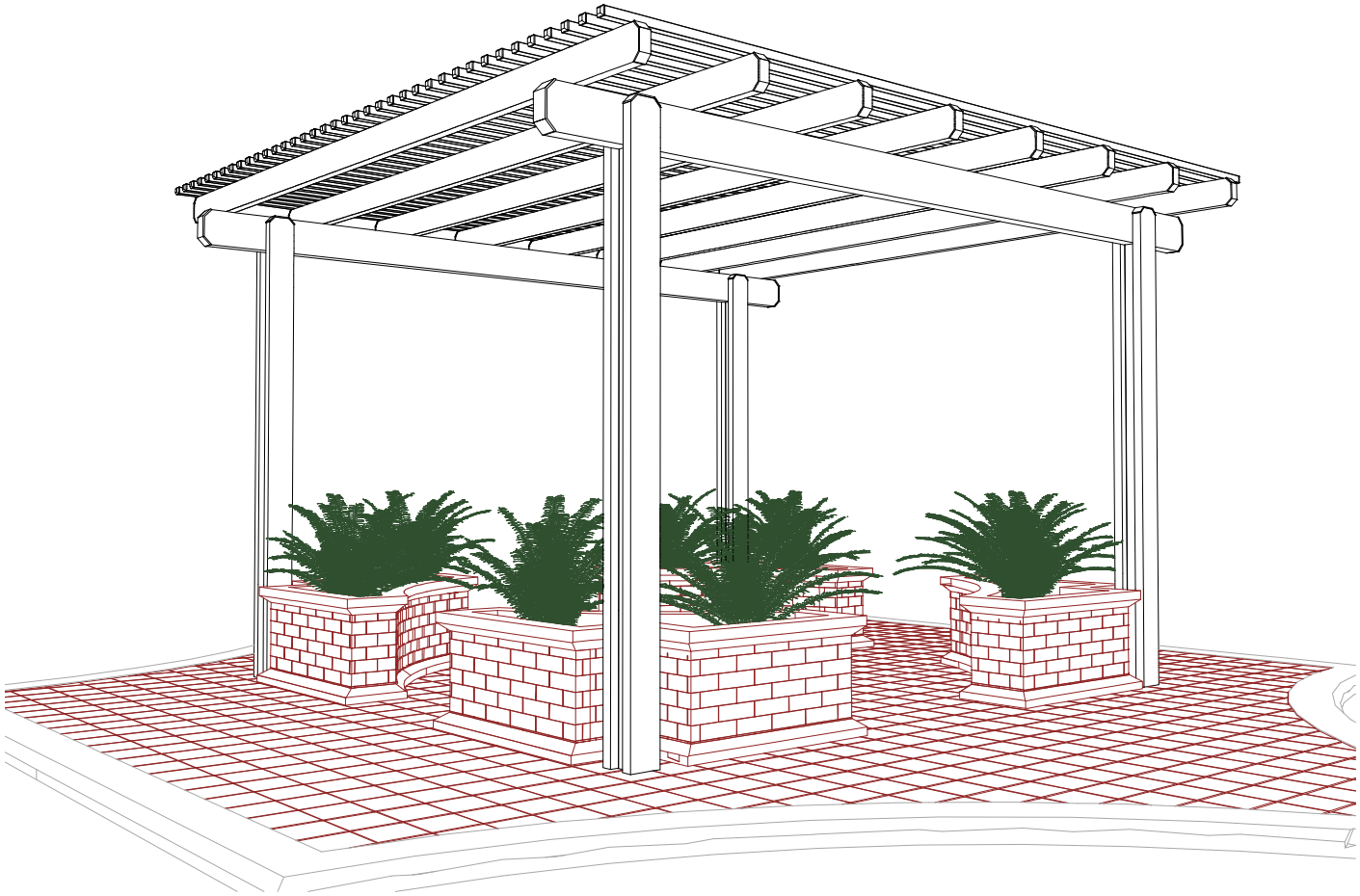
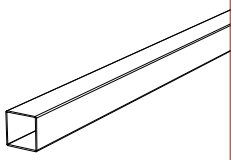
FREESTANDING
SINGLE HEADER PERGOLA
ASSEMBLY INSTRUCTIONS

Instructions for Double Header Pergola are below, starting from page 12.

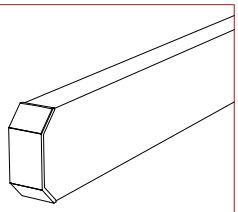


Before You Begin:	1) Please read all instructions and notes carefully. Check the Parts List or Bill of Materials for any missing parts and gather necessary tools. To prevent scratching of painted materials, place on a tarp, paper, or other protective material. 2) You may be required to obtain a building permit for this structure from your local building authority. Contact your local building department for details. 3) Note that this shade structure is not designed to carry additional loads such as hanging heavy plants, swings, people, or other objects.
Recommended Tools:	Safety Glasses, Tape Measure, Carpenters Level, Framing Square, Hex Head Nut Drivers, Chalk Line, Electric Drill w/ Bits, Pliers, Metal Hack Saw, Silicone Caulking, Regular and Phillips Screw Drivers
Note on Masonry Units:	If securing to stone, concrete, or other masonry unit, a masonry drill and bits may be required. You may also be required to purchase masonry anchor bolts, as the 1-1/2" lag screws provided will not be sufficient.
Note on Electric Drills:	We recommend lowering the speed of your drill during this installation. Installing Tek screws at a high rpm may cause the Tek screws to become damaged or break during installation.
Note on Cutting and Drilling:	Cutting and drilling will cause metal shavings. These shavings must be carefully removed by sweeping or brushing. If this is not done, the metal shavings will quickly rust and stain the surface finish.

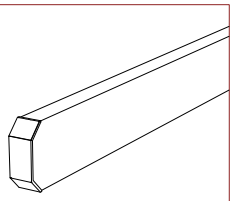
PARTS LIST



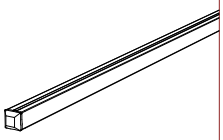
1. 3" x 3" Post



2. 3" x 8" Header

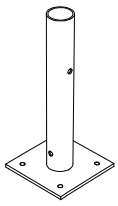


3. 2" x 6" Rafter

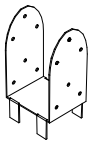


4. 1.5" x 1.5" Lattice

5. Post Mounting Bracket



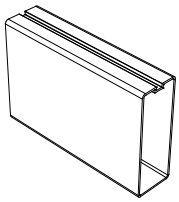
6. Heavy-Duty Post Mounting Bracket (Optional)



7. Post Top Bracket (Standard)

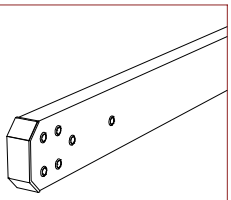
8. Post Top Bracket (Optional)

9. Rafter Mounting Bracket



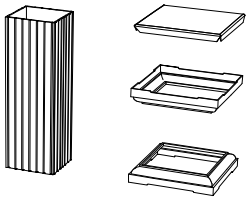
10. Header Splice (Optional)

11. Lattice Splice (Optional)

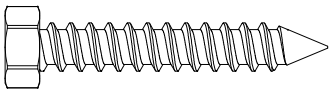


12. Post Side Plate (Foam Filled) (Optional)

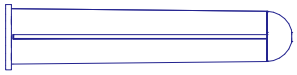
13. 5/8" Hole Plug (Optional)



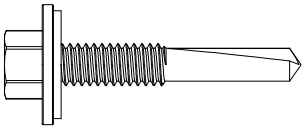
14. Column Wrap Kit (Square Shown) (Optional)



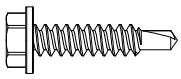
15. 1/4" x 1 1/2" Lag Screw



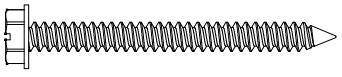
16. Lag Screw Insert



17. #12 x 1 1/4" HWH #5 Tek Screw



18. #8 x 3/4" HWH #2 Tek Screw



19. #10 x 2" Stainless Steel Sheet Metal Screw (SMS)

HEADER SPLICE (OPTIONAL)

-If the header is in two or more pieces, insert an equal amount of the provided header splice into each of the square ends of the headers and secure as shown using (12) #8 x 3/4" HWH #2 Tek Screws (see Fig. S-1).
-Be sure to place a post under the splice (see Fig. S-2).

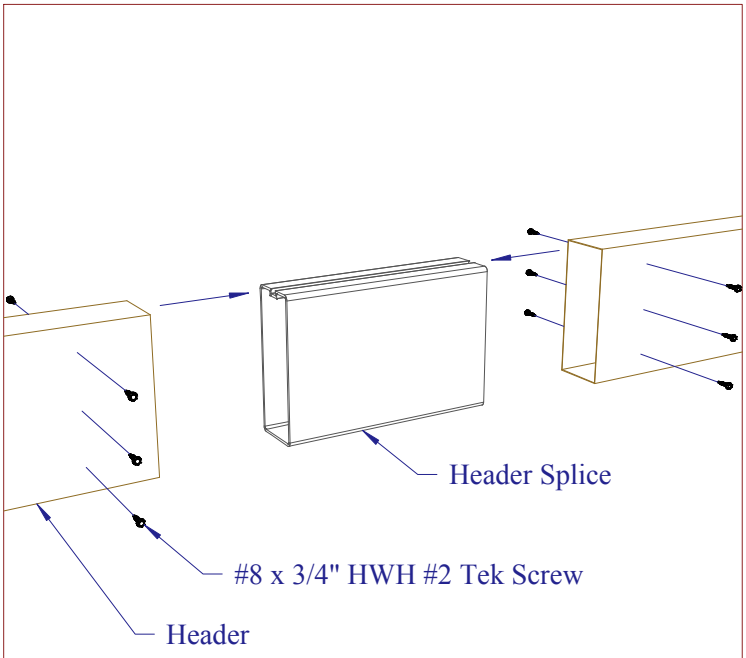


Fig. S-1

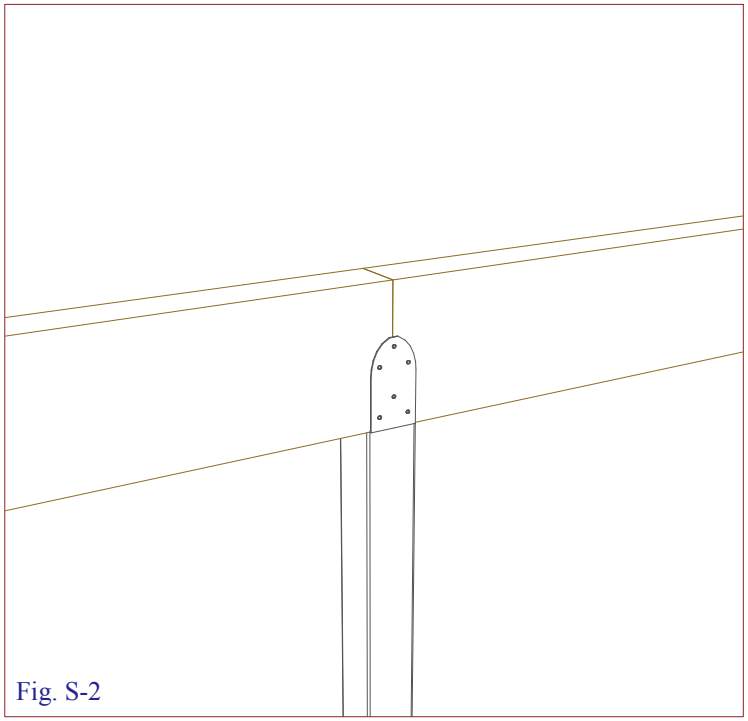


Fig. S-2

LATTICE SPLICE (OPTIONAL)

-If the lattice is in two or more pieces, insert a lattice splice into the ends of two tubes and secure with (2) #8 x 3/4" HWH #2 Tek screws (see Fig. S-3).

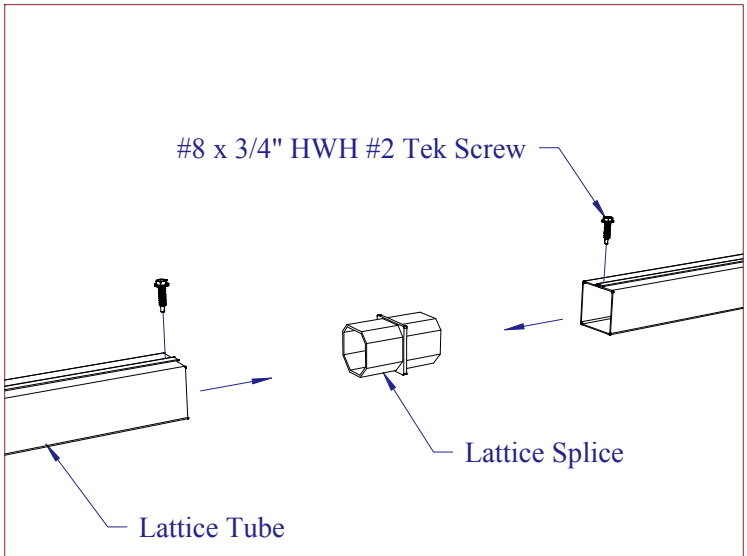


Fig. S-3

STEP 1

-Determine the location for your pergola and mark the outer edges by snapping a chalk line the length of the headers along the outer edge. Turn 90 degrees and snap a chalk line the length of your rafters beginning at the end of the previous chalk line. Repeat to close the square.
-Locate the center of the posts by subtracting the desired overhang from the overall dimensions and snap four chalk lines accordingly (see Fig. 1-1). NOTE: If drawings were received with your order, use those as the guide.
NOTE: If installing fiberglass columns, skip to Step 4 now and return to this step later.

-Depending on the available surface or local building codes, there are three post mounting options.
Option 1 - If your pergola has the standard post mounting brackets, anchor them at the intersection of two centerlines by drilling (4) 3/8" diameter holes and embedding (4) lag screw inserts. Then, attach the brackets to the surface using (4) 1/4" x 1 1/2" lag screws or appropriate anchors. Attach a post to each bracket using (4) #12 x 1 1/4" HWH #5 Tek screws (see Fig. 1-2).

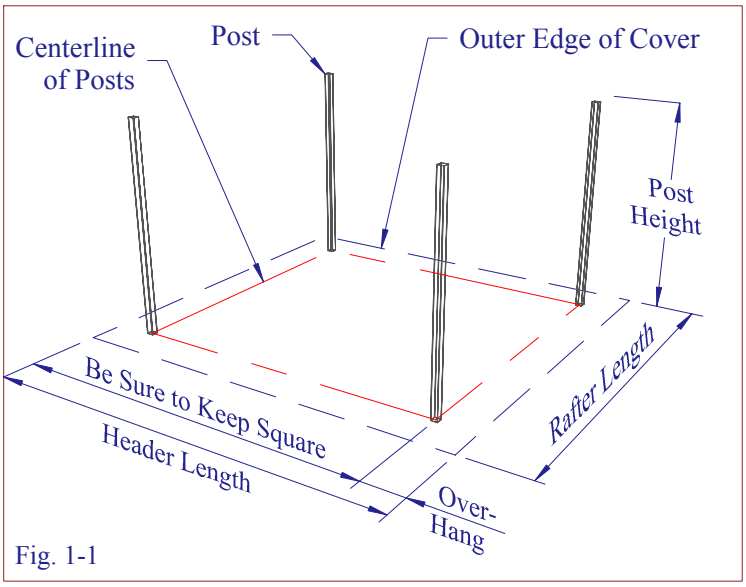


Fig. 1-1

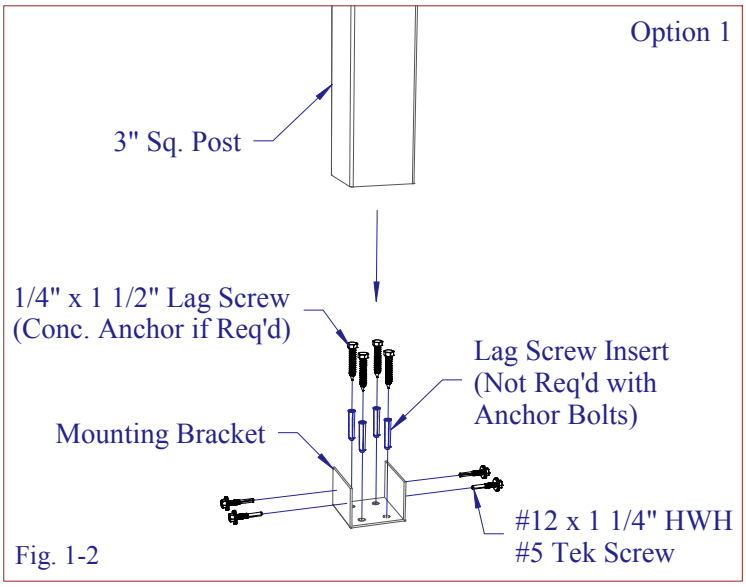


Fig. 1-2

Option 2 - If your pergola has the heavy duty mounting brackets, anchor them at the intersection of two centerlines by drilling (4) holes for anchor bolts (not included, hole size will vary). Attach the bracket to the surface using (4) appropriate anchor bolts. Attach a post to each bracket using (2) 3/8" x 3 1/2" bolts (see Fig. 1-3). NOTE: If installing post side plates, only one bolt is required for the post to bracket connection. Run the bolt the same direction the header will run.

Option 3 - If you plan to bury the posts, start by digging a hole approximately 12" diameter and 30" deep. Place rock 6" deep in the bottom of the hole and drop the post in. Add or remove rocks as necessary to achieve the desired post height above ground. Fill the hole with a pre-mix of cement, aggregate, and water. Check the post on all sides with a carpenters level to make sure it is plumb. (see Fig. 1-4). NOTE: Hole size and concrete mix must comply with local building codes.

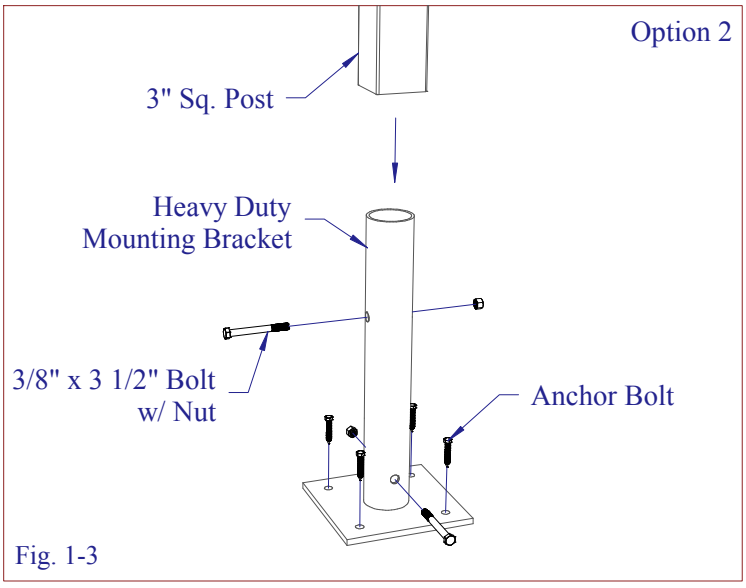


Fig. 1-3

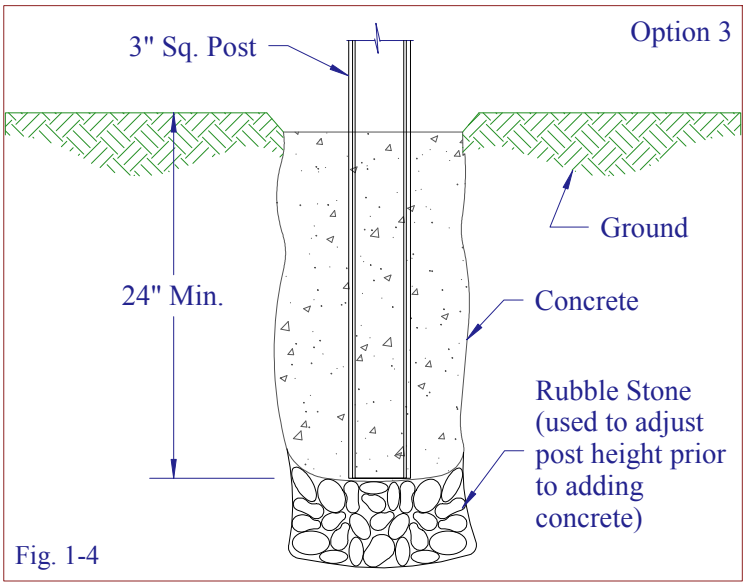
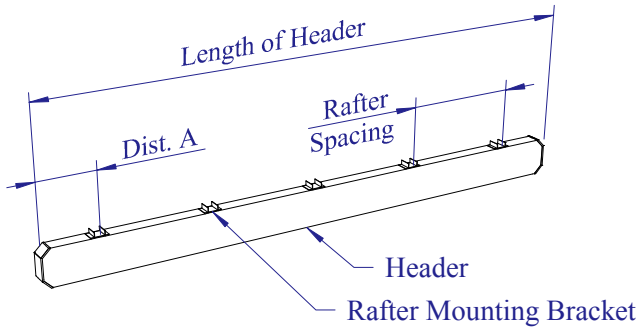


Fig. 1-4

STEP 2

-Calculate Distance A using the formula shown in Fig. 2-1. Subtract one from the number of rafters and multiply that by the center to center spacing of the rafters. Subtract that from the length of the header and divide by two.
EXAMPLE: You received a 10'-0" long header and five rafters. The standard rafter spacing is 24" on center.
5 - 1 = 4; 4 x 24 = 96; 120 - 96 = 24; 24 / 2 = 12; Therefore, Distance A = 12".
-Once you know Distance A for your project, position a rafter mounting bracket with Distance A between the end of the header and the center of the bracket (see Fig. 2-1).
-Attach the bracket to the seam side of the header using (4) #8 x 3/4" HWH #2 Tek screws (see Fig. 2-2).
NOTE: If the header is reinforced with a beam inside, #12 x 1 1/4" HWH #5 Tek screws must be used instead.
-Position the next rafter mounting bracket with the rafter spacing between the centers of the two brackets and attach as shown.
-Repeat for all rafter mounting brackets.



Dist. A =

$$\frac{\text{Length of Header} - [(\#\text{ of Rafters} - 1) \times \text{Rafter Spacing}]}{2}$$

Fig. 2-1

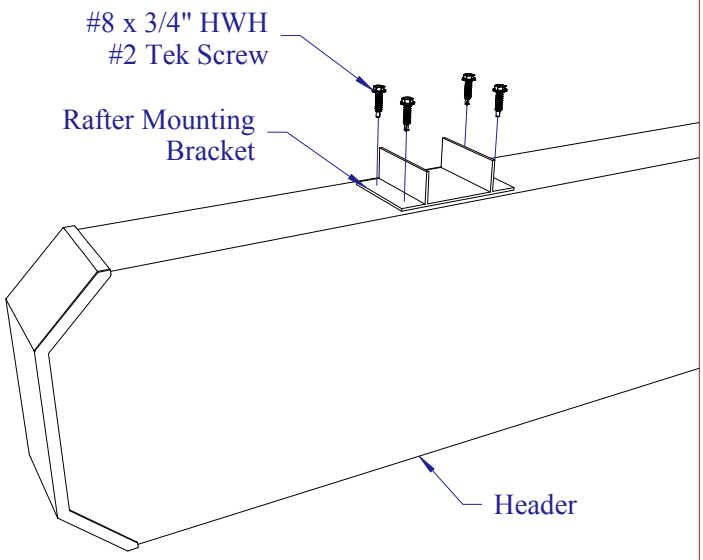
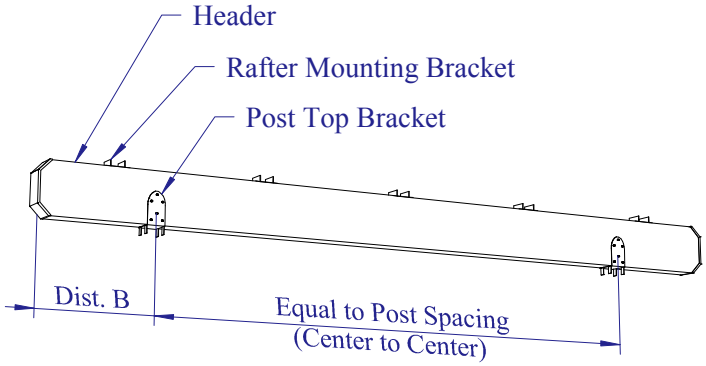


Fig. 2-2

-Mark the proper location for the post top brackets by calculating Distance B as shown in Fig. 2-3. Be sure that the spacing between the brackets attached to the header is equal to the spacing between the posts attached to the ground.
-If you received a column wrap kit with your pergola, attach the column plate to the header at the same location the post top bracket will be attached using (4) #8 x 3/4" HWH #2 Tek screws as shown (see Fig. 2-4).
-If you received the standard post top bracket, attach each to the header at the proper locations using (12) #8 x 3/4" HWH #2 Tek screws as shown (see Fig. 2-4a).
-If you received the optional post top bracket, attach each to the header at the proper locations using (4) #12 x 1 1/4" HWH #5 Tek screws as shown (see Fig. 2-4b).



Dist. B = $\frac{\text{Length of Header} - \text{Post Spacing}}{2}$

Fig. 2-3

Fig. 2-4a

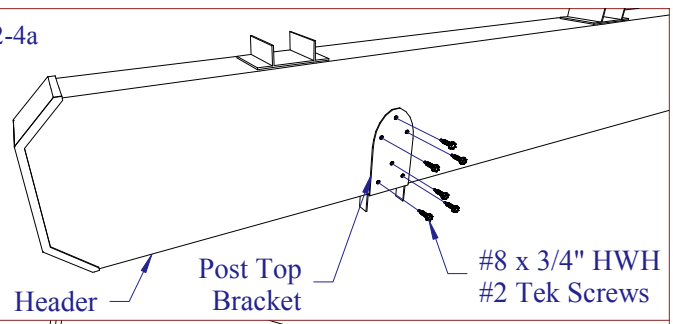
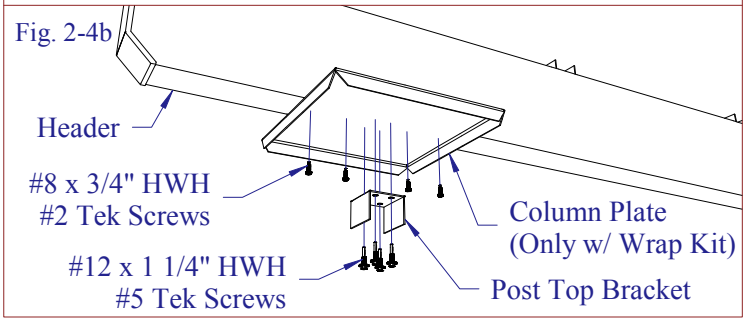


Fig. 2-4b



STEP 3

-Hoist the header assembly to the top of the posts and insert the post top brackets into the top of each post (see Fig. 3-1).
-Secure the header assembly to each post using (4) #12 x 1 1/4" HWH #5 Tek screws per bracket (see Fig. 3-2).
NOTE: This applies to both post top bracket types.

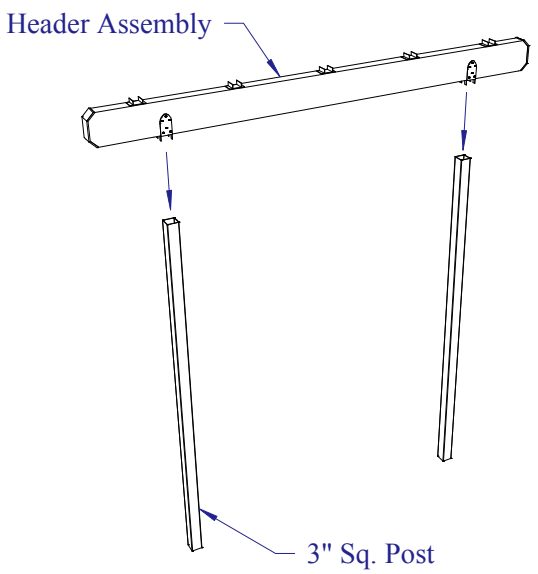


Fig. 3-1

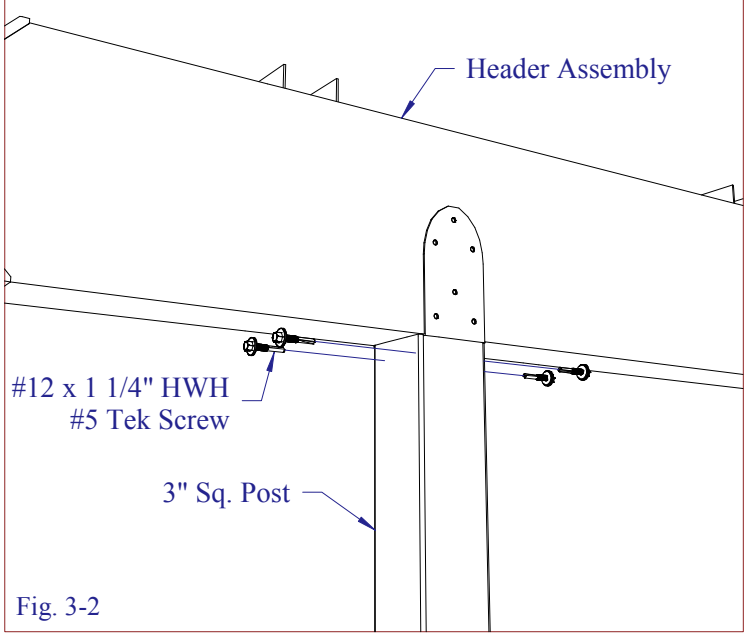


Fig. 3-2

STEP 4 - OPTIONAL COLUMN KITS: SIDE PLATES

-If your pergola has side plates, center two per post in front of the post along the header (see Fig. 4-1).
-Attach the inside face of the side plate to the post using #12 x 1 1/4" HWH #5 Tek screws through the pre-drilled holes.
-Also attach the side plate to the header at the top using (4) #12 x 1 1/4" HWH #5 Tek screws (see Fig. 4-2).
-Insert a hole plug into all exposed holes.
-Repeat for each side plate.

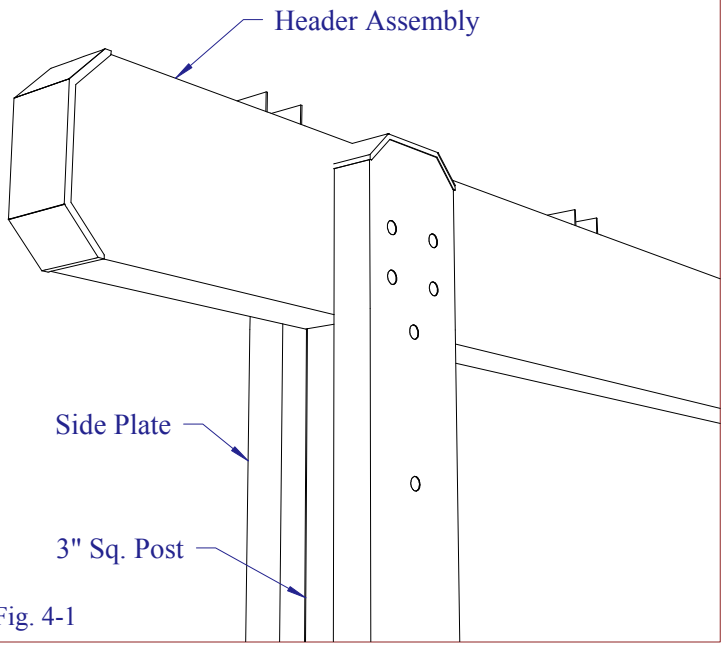


Fig. 4-1

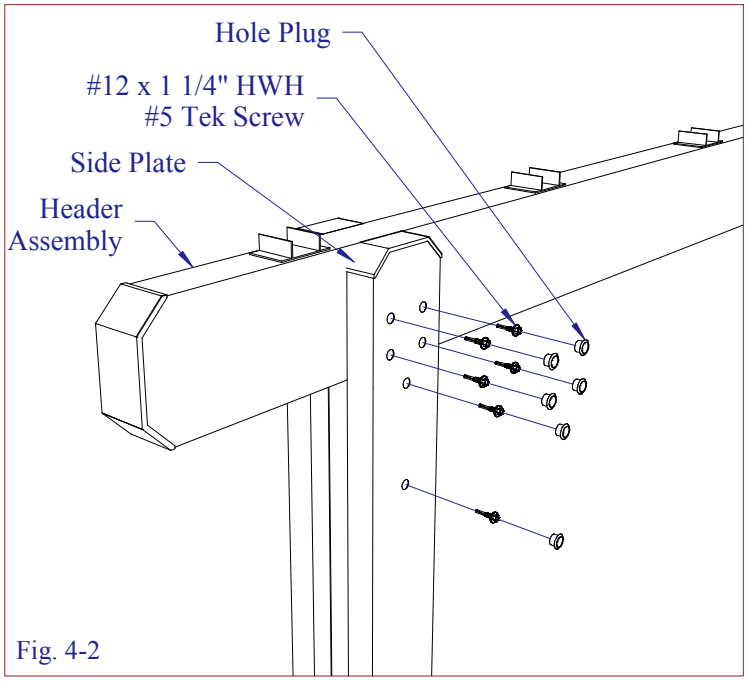


Fig. 4-2

STEP 4 - OPTIONAL COLUMN KITS: SQUARE WRAP KIT

-Snap two column sections together by fitting the tongues into the grooves and lightly tapping with the heel of your hand.
-Once two sets of sections are locked together, stand them on end and snap the open ends together around a post (see Fig. 4-3).
-Anchor the bottom of the column with two lower column brackets, (6) lag screw inserts, (6) 1/4" x 1 1/2" lag screws into the surface, and (6) #8 x 3/4" HWH #2 Tek screws into the column (see Fig. 4-4).

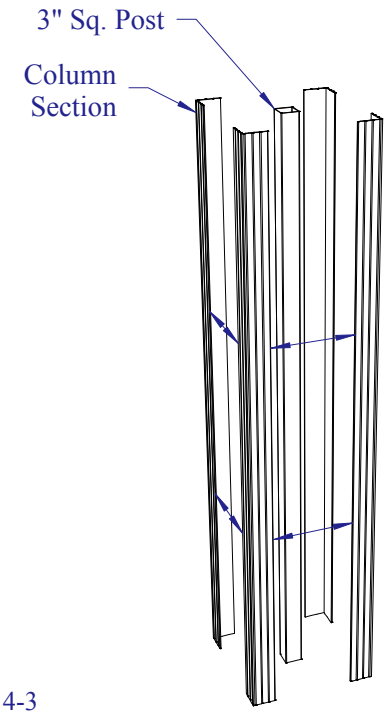


Fig. 4-3

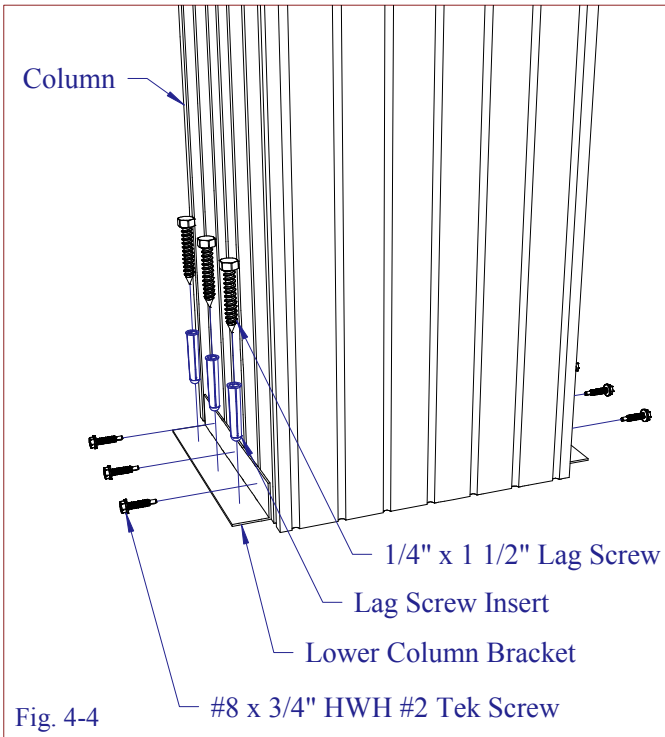


Fig. 4-4

-Once the column sections are secure, assemble a column cap around the bottom of the column.
-Attach the column cap to the column using (6) #8 x 3/4" HWH #2 Tek screws as shown (see Fig. 4-5).
-Assemble another column cap around the top of the column.
-Push the column cap up until flush with the bottom of the header and attach to the column plate using (4) #8 x 3/4" HWH #2 Tek screws (see Fig. 4-6).
-Attach the column cap to the column using (6) #8 x 3/4" HWH #2 Tek screws as shown (see Fig. 4-6).

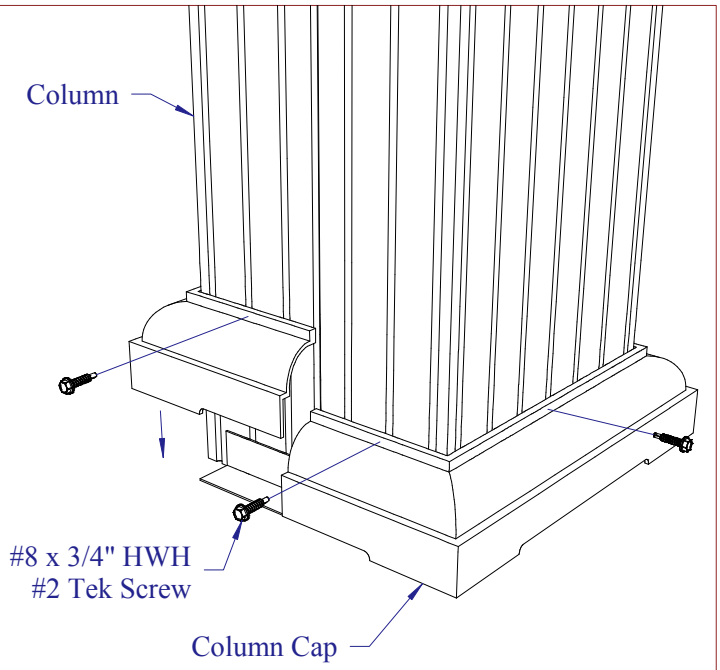


Fig. 4-5

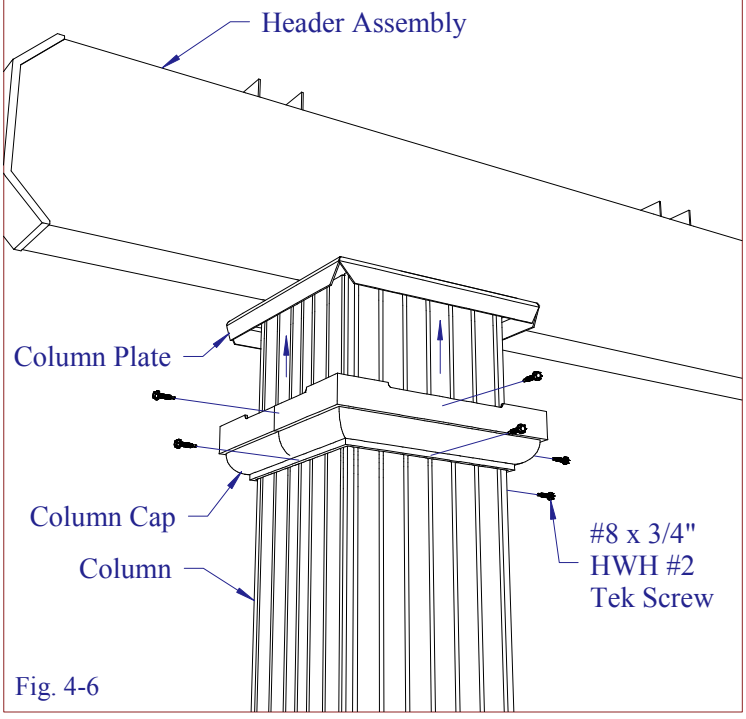


Fig. 4-6

STEP 4 - OPTIONAL COLUMN KITS: ROUND WRAP KIT

-Snap two column sections together by fitting the tongues into the grooves and lightly tapping with the heel of your hand.
-Stand the sections on end and snap the open ends together around a post (see Fig. 4-7).
-Anchor the bottom of the column with three lower column brackets, (3) lag screw inserts, (3) 1/4" x 1 1/2" lag screws into the surface, and (3) #8 x 3/4" HWH #2 Tek screws into the column (see Fig. 4-8).

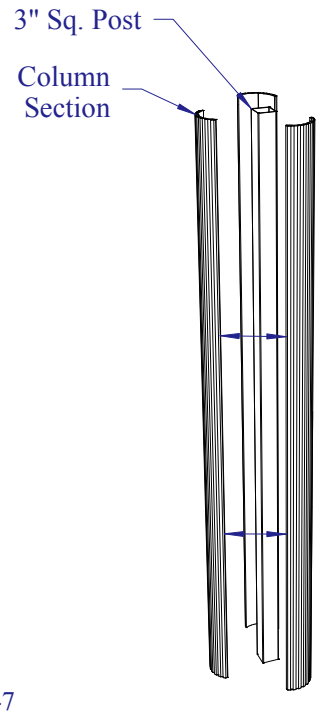


Fig. 4-7

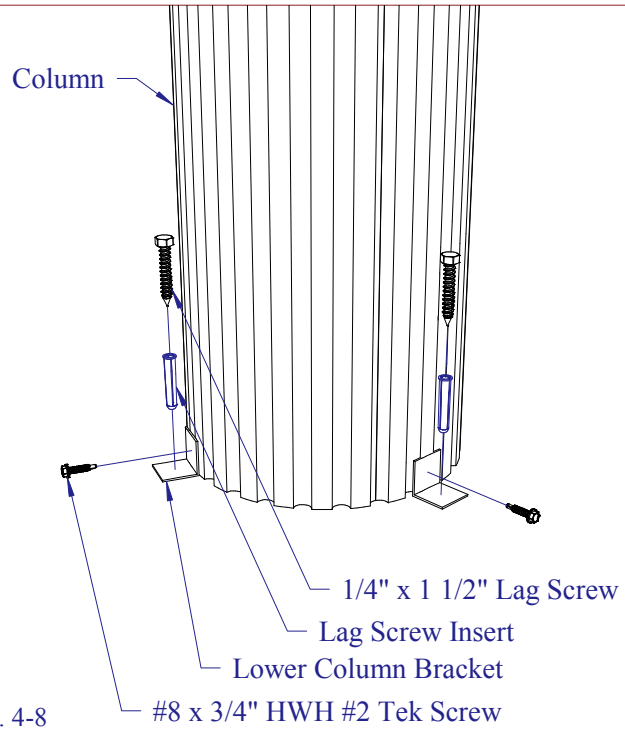


Fig. 4-8

-Once the column sections are secure, assemble a column cap around the bottom of the column.
-Attach the column cap to the column using (6) #8 x 3/4" HWH #2 Tek screws as shown (see Fig. 4-9).
-Assemble another column cap around the top of the column.
-Push the column cap up until flush with the bottom of the header and attach to the column plate using (4) #8 x 3/4" HWH #2 Tek screws (see Fig. 4-10).
-Attach the column cap to the column using (6) #8 x 3/4" HWH #2 Tek screws as shown (see Fig. 4-10).

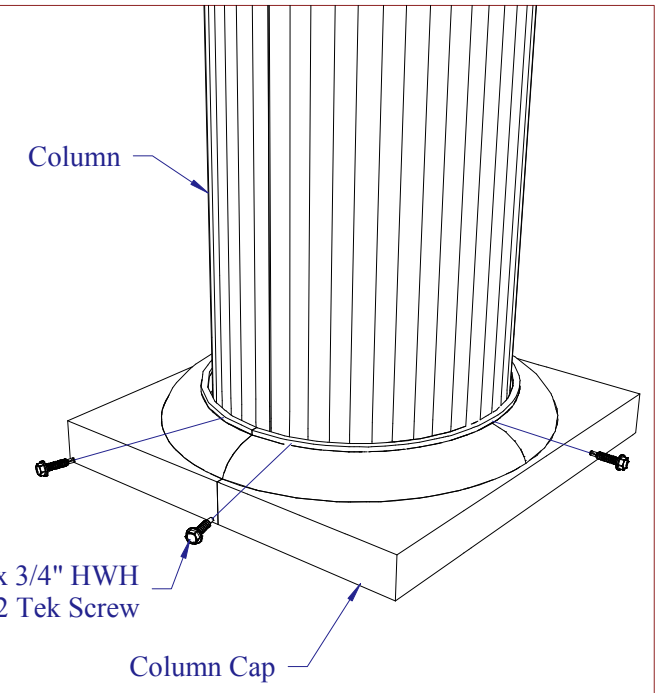


Fig. 4-9

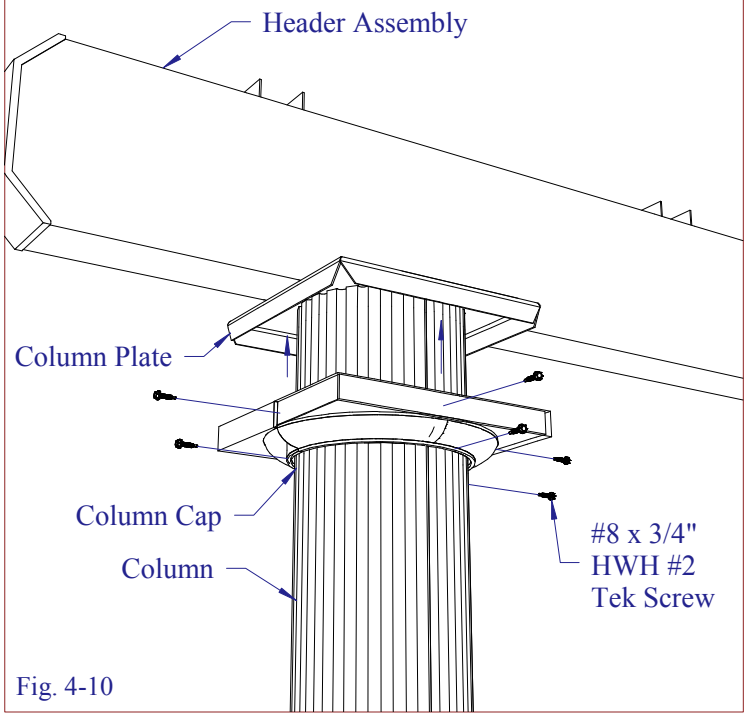


Fig. 4-10

STEP 4 - OPTIONAL COLUMN KITS: FIBERGLASS COLUMN

NOTE: Before installation, fiberglass columns must be painted. See below for color matching formulas.
TIP: Before painting, sand the column lightly with 120 grit or finer wet/dry sandpaper. Use mineral sprits to remove all dust/dirt.

-Start by measuring the required height of the column. If needed, trim off the bottom of the column.
-Cut a notch on opposite sides at the top of the column 3" wide and 2" deep (see Fig. 4-11). This is to allow room to attach the post to the post top bracket. The notches will be covered by the column cap.
-Slip the top and base column caps on the column. The top column cap may rest on the neck mold.
-Place the post inside the column and mark the exact mounting location. Apply construction adhesive on the ground in the area the bottom column cap will be. Continue with the proper option, depending of post mounting method.

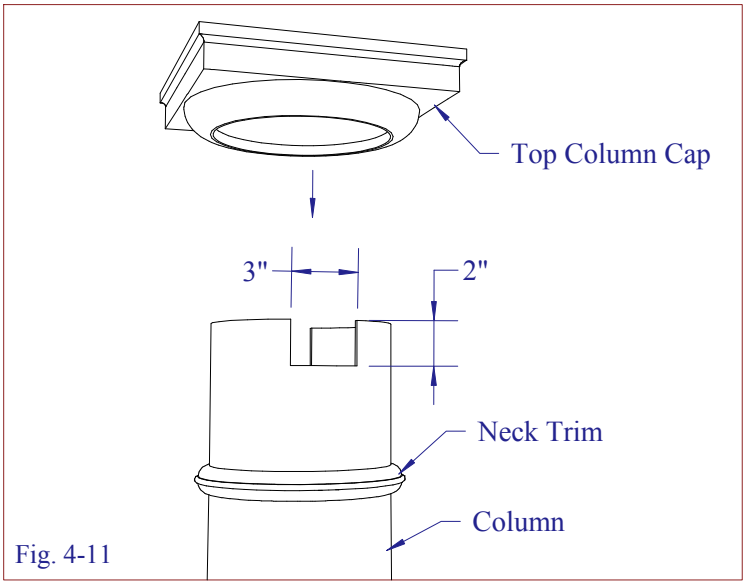


Fig. 4-11

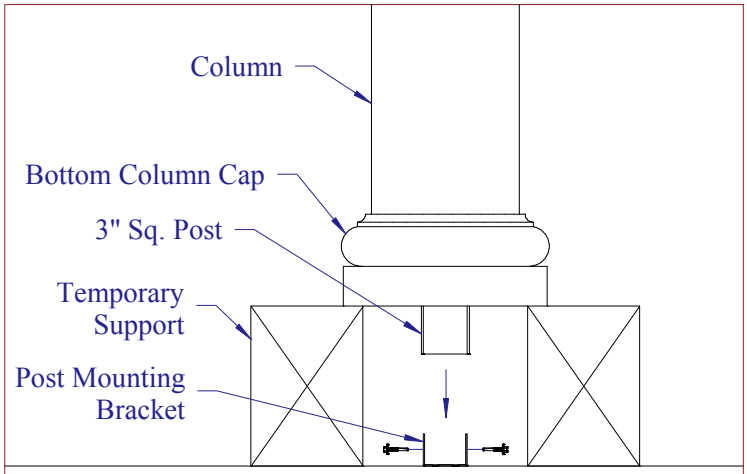


Fig. 4-12

Option 1 - If your pergola is surface mounted, anchor the post mounting brackets to the surface as shown in Fig. 1-2 or Fig. 1-3. Prop up the column using any type of support block as show in Fig 4-12. Let the post slide down and attach to the post mounting bracket as shown in Fig. 1-2 or Fig. 1-3. Remove the support blocks and anchor the bottom column cap.

Option 2 - If you plan to bury the posts, do so as instructed in Step 1 (see Fig. 1-4). Once posts are installed, hoist the column over the post and place around it. WARNING: Standard 8'-0" x 8" round fiberglass column weighs approximately 60 pounds; installation may require more than one person. Apply construction adhesive to the bottom surface of the column and anchor the bottom column cap.

-Once columns are installed, continue with installation from Step 2. After the header is attached (see Step 3), raise the top column cap and attach to the column plate using (4) #8 x 3/4" HWH #2 Tek screws (see Fig. 4-13).

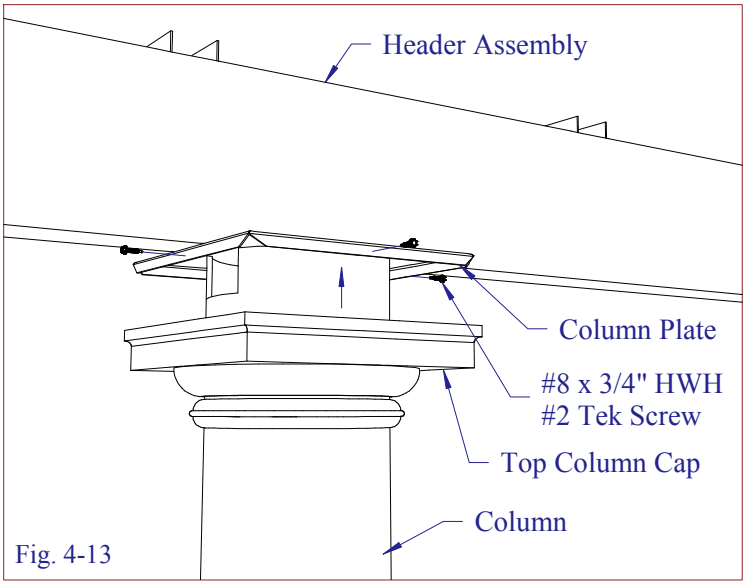


Fig. 4-13

Color Matching Formulas

Lowes - Valspar Paint 1 gallon
Exterior/Latex/Semi Gloss/Daylight

White
Base B1-20015
101 - 5 shot
103 - 1/2 shot
107 - 4 shot

Wicker
Base B1-20015
101 - 18 shot
107 - 25 1/2 shot
109 - 3 1/2 shot

Adobe (Clay)
Base B1-20036
101 (1y oz) - 45 1/2 shot
104 (1y oz) - 12 1/2 shot
111 (1y oz) - 32 shot

Latte
Base B1-20015
101 - 37 1/2 shot
107 (2y oz) - 19 1/2 shot
109 - 17 1/2 shot

STEP 5

-Determine the rafter overhang by subtracting the length of the rafters from the center to center distance between the posts along the projection and divide by 2.
-Mark the header locations on the rafters and position a rafter in each pair of rafter mounting brackets.
-Attach the rafters to the rafter mounting brackets using (4) #8 x 3/4" HWH #2 Tek screws per bracket (see Fig. 5-1).
-After all rafters are installed, layout the lattice tubes on the rafters with the seam side facing up. See Fig. 5-2 for lattice spacing details. Similar to how you determined Distance A in Step 2, subtract one from the number of lattice tubes and multiply that by the center to center spacing of the lattice. Subtract that from the length of the rafter and divide by two.
-The standard lattice spacing is 4 1/2" on center. If this is the case for your project, you might have received a short piece of 3" square tube. Simply placing this between two lattice tubes will give you the correct lattice spacing.
-Once a lattice tube is in the correct position, attach it to the rafters using #10 x 2" sheet metal screws (see Fig. 5-3).

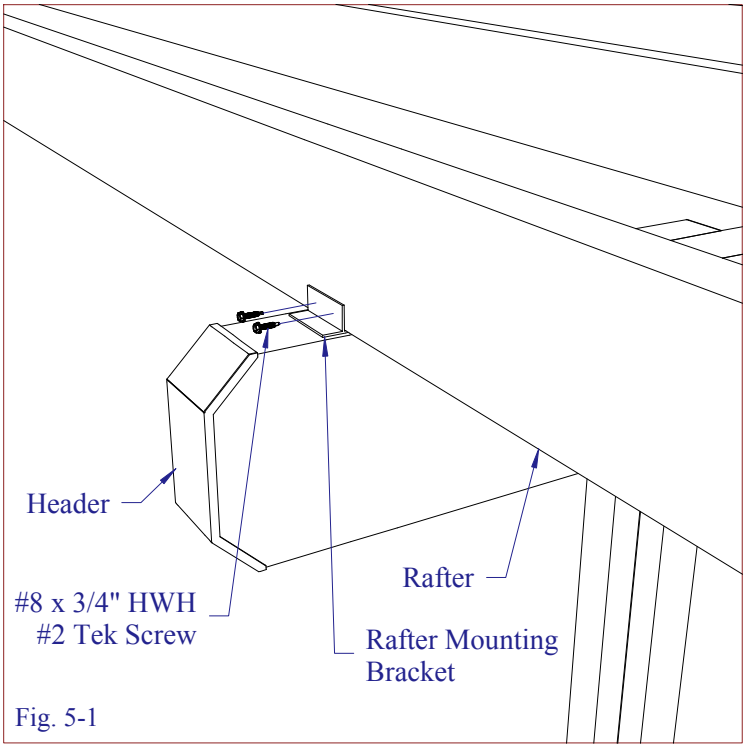
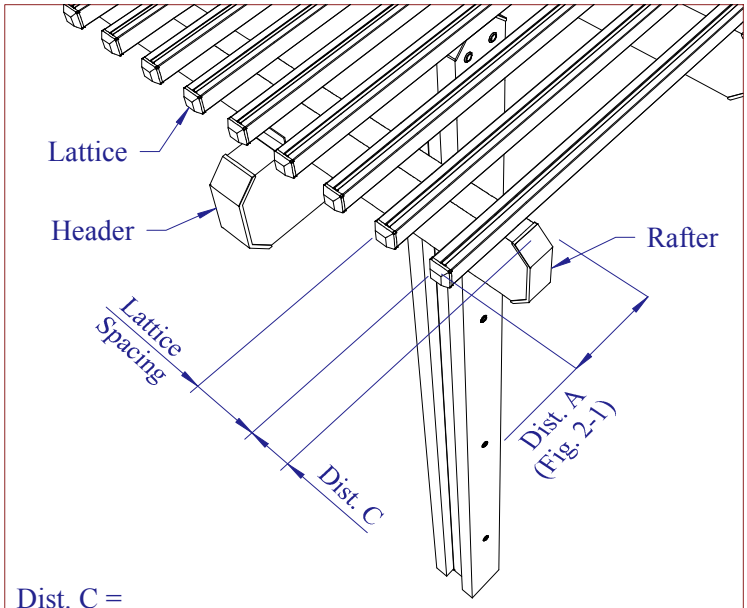


Fig. 5-1



Dist. C =

$$\frac{\text{Length of Rafter - [(\# of Lattice - 1) x Lattice Spacing]}}{2}$$

Fig. 5-2

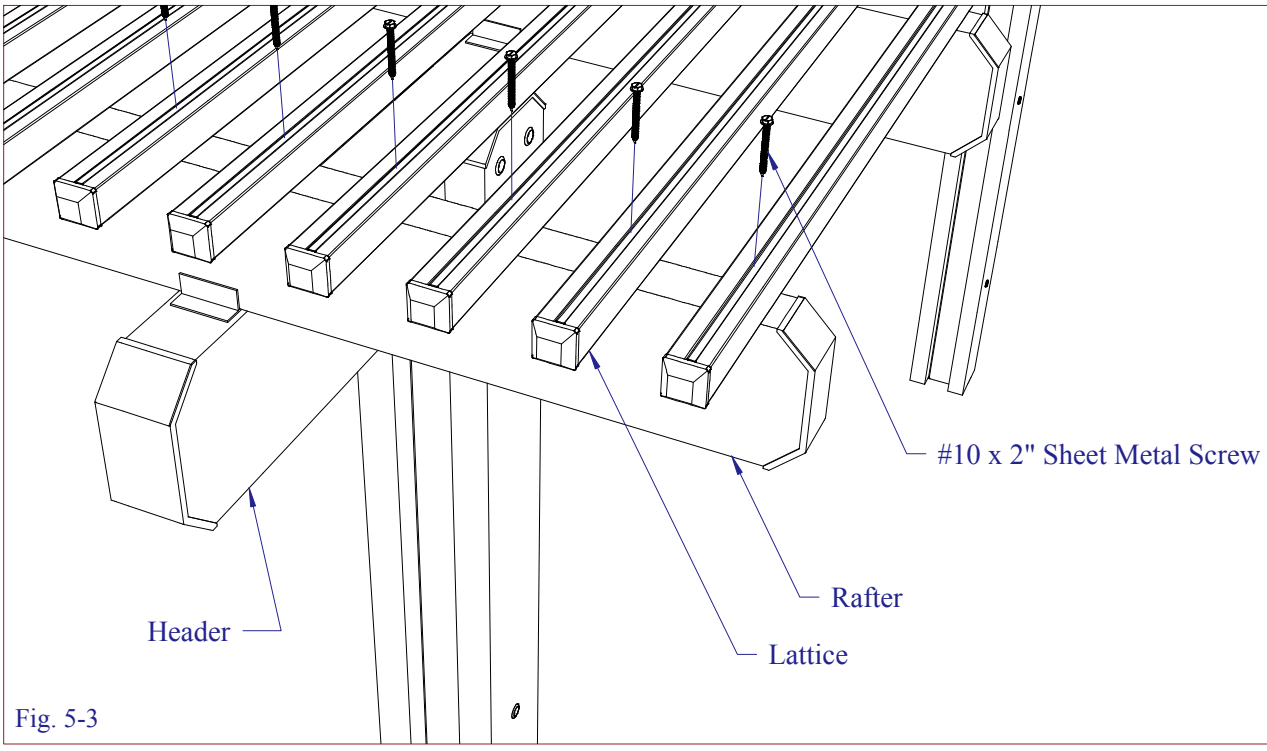
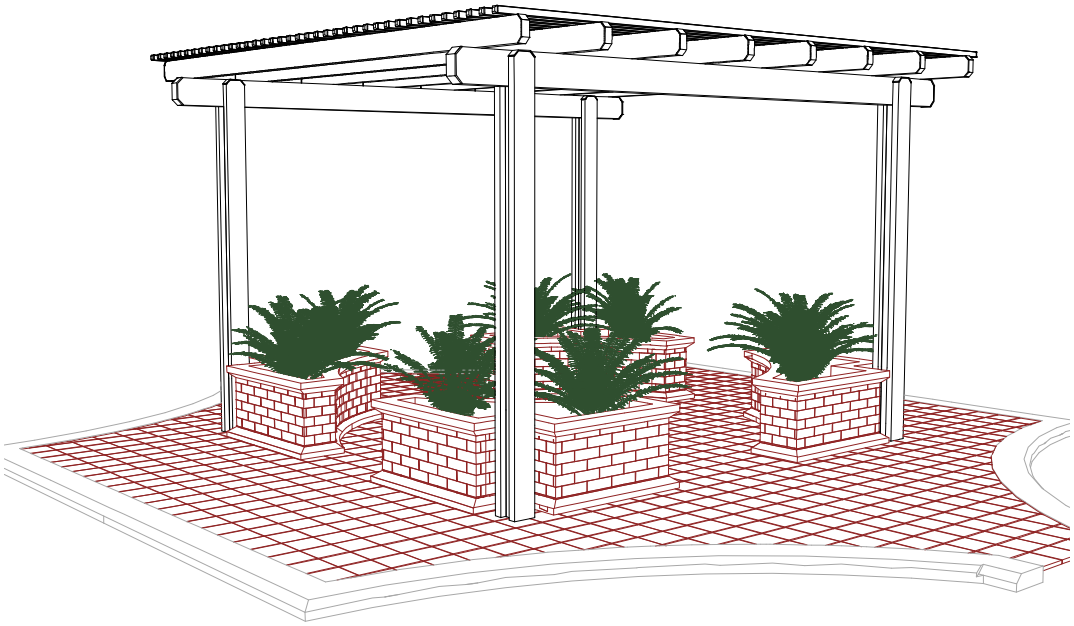


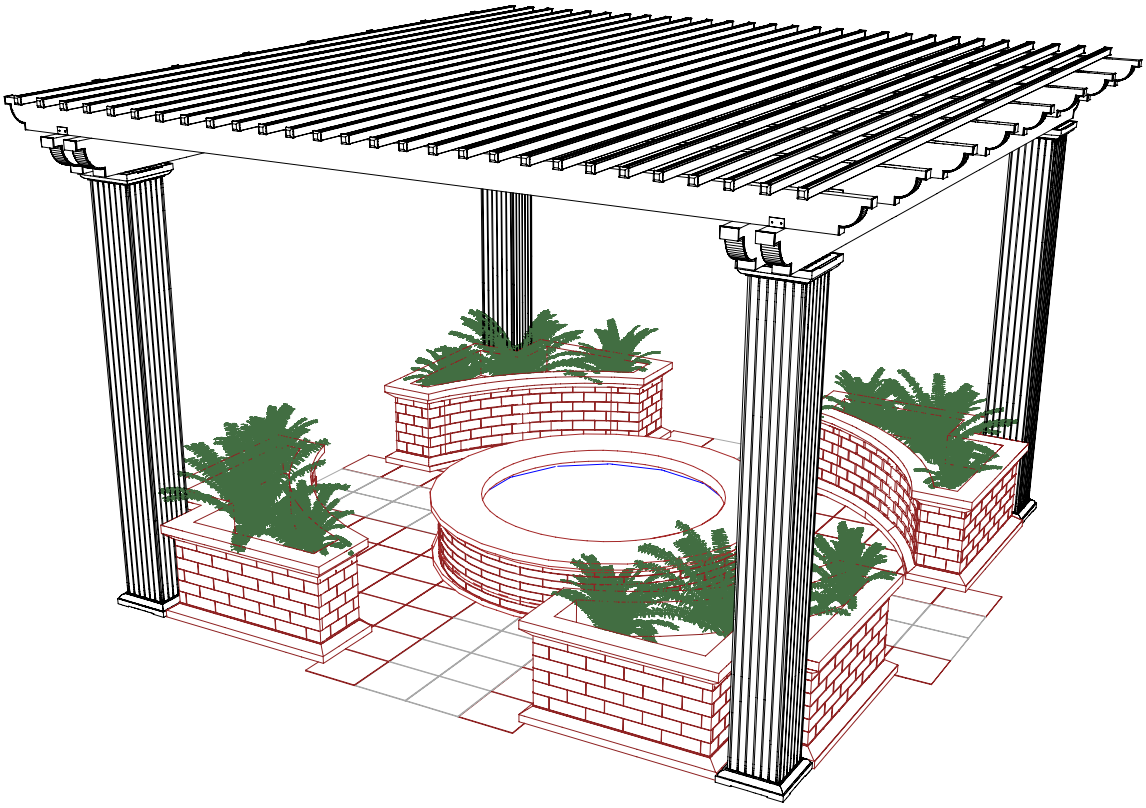
Fig. 5-3

ASSEMBLY COMPLETED



NOTES

FREESTANDING
DOUBLE-HEADER PERGOLA
INSTALLATION INSTRUCTIONS



Recommended Tools: Saftey Glasses, Tape Measure, Carpenters Level, Framing Square, Hex Head Nut Drivers, Chalk Line, Elec. Drill w/ Bits, 5/8" Hole Drill Bit, (Masonry Drill, Bits. & Anchors may be required if securing to Stone, Concrete, or any other masonry unit.)

Before You Begin:

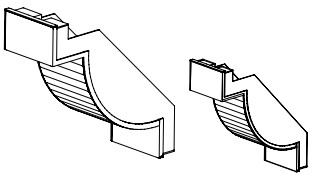
1.) Please read all instructions carefully. Check the Parts List for any missing parts, and gather necessary tools. To prevent scratching of painted materials, place on a tarp, paper, or protective material.

2.) You may be required to obtain a building permit for this structure from your local building authority. This product should only be installed in 10, 20, or 30 psf (pounds per square foot) snow load and 90 mph or less wind speed zone (Custom models can be designed for heavier loads). This product is listed under ICBO Evaluation Report #2621P. You may have to submit two copies of your plot plan and also a copy of the evaluation report to your local building authority for a building permit. Contact your local building department for details and your area's snow & wind loads.

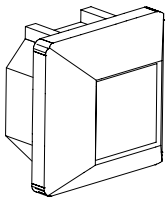
3.) Note that this Pergola Kit is not designed to carry additional loads such as hanging heavy plants, swings, people, or other objects.

4.) Fountain, Patio Stone, & Ferns are not included.

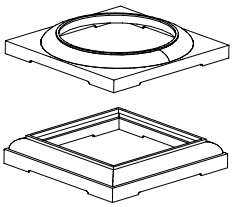
FREESTANDING DOUBLE HEADER PERGOLA
PARTS LIST



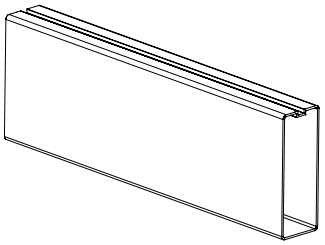
1. Designer End Caps for Headers & Rafters



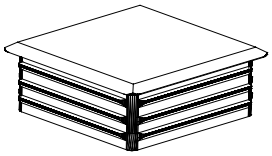
2. End Cap for 1 1/2" Sq. Lattice



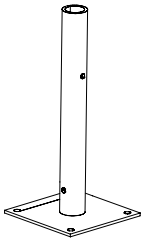
3. Column Cap (Round & Square Shown)



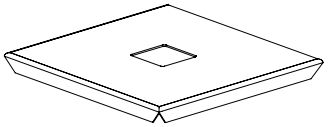
4. Header Splice (Optional)



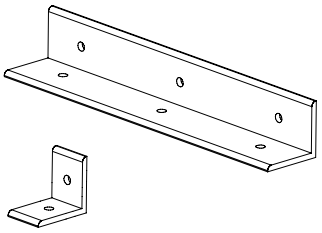
5. 3" Post Cap



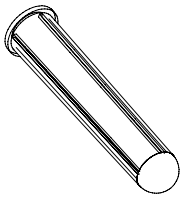
6. Lower Post Mounting Bracket (Optional)



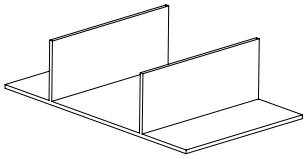
7. Upper Column Mounting Plate



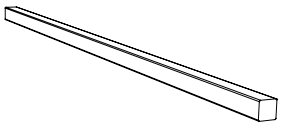
8. Lwr. Col. Mtg. Bracket (Round & Square Shown)



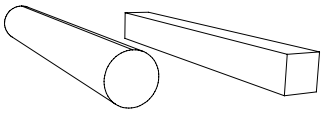
9. Lag Bolt Insert



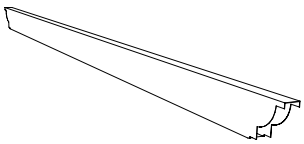
10. Rafter Bracket



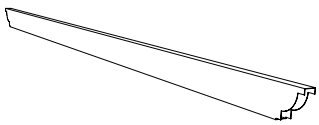
11. 3" x 3" Post



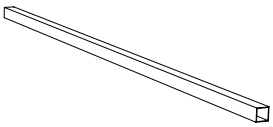
12. Fluted Column (Round or Square)



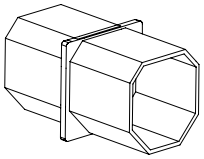
13. 3" x 8" Header (Shown Precut for Optional Designer End Caps)



14. 2" x 6" Rafter (Shown Precut for Optional Designer End Caps)

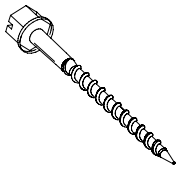


15. 1 1/2" x 1 1/2" Lattice

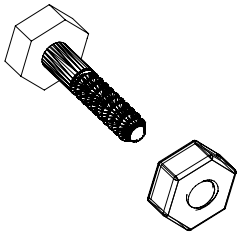


16. Lattice Splice (Optional)

17. #8 x 3/4" Tek Screw



18. #10 x 2" Stainless Steel Sheet Metal Screw (SMS)



19. 3/8" x 3 1/2" Bolt w/ Nut

20. 1 1/2" Lag Screw

STEP 1

Pick out the 3" x 8" header beams (Fig. 1-1). If the header beams require splicing simply insert an equal amount of the provided header splice into each of the square ends of the header beams and secure with 10 - #8 x 3/4" Tek Screws on both sides of the splice (Front & Back for a total of 40 screws, see Fig 1-2). Be sure to locate a column under header splices.

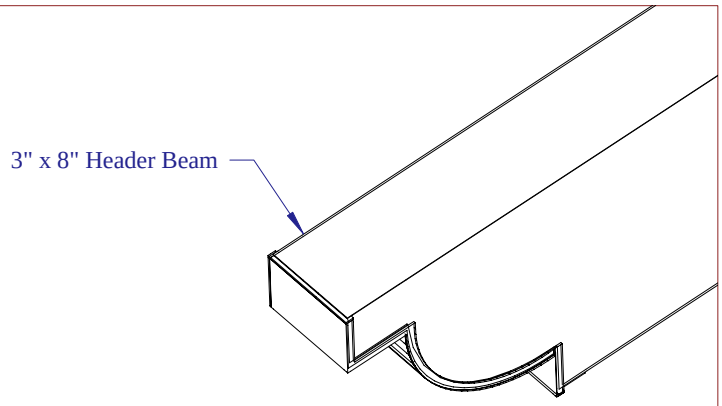


Fig. 1-1

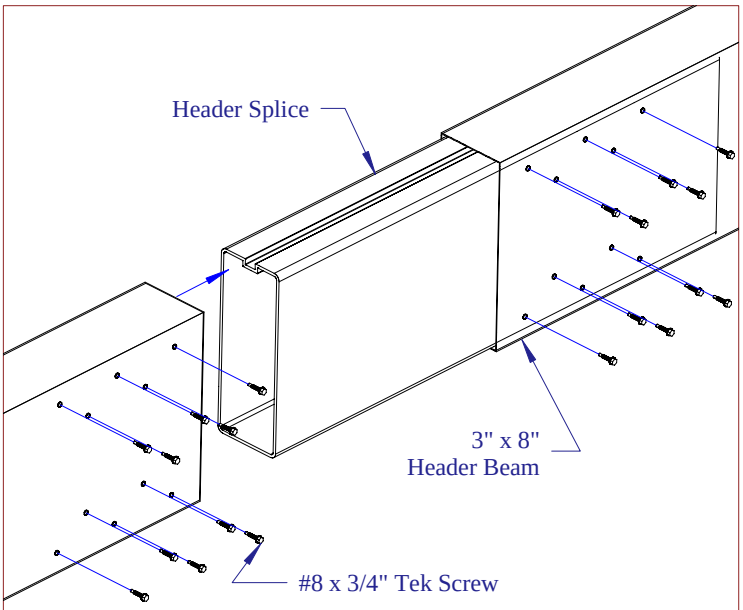
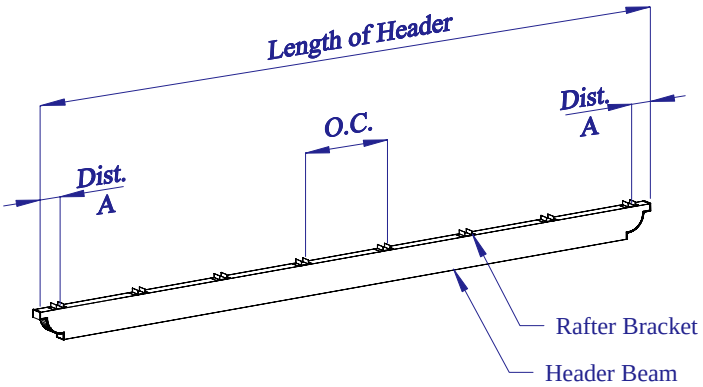


Fig. 1-2

STEP 2

Pick out the Rafter Mounting Brackets (#10 on parts list). Secure Rafter brackets to header with 4 - #8 x 3/4" Tek Screws as shown in Fig. 2-2, see Fig. 2-1 for spacing details. If the Header is reinforced, 1 1/2" screws must be used to secure the Rafter Brackets to the Header.

NOTE: Rafter distance on center (O.C.) will most likely be 24"



$$\text{Dist. A} = \frac{\text{Length of Header} - [(\text{No. of Rafters} - 1) \times \text{O.C.}]}{2}$$

Fig. 2-1

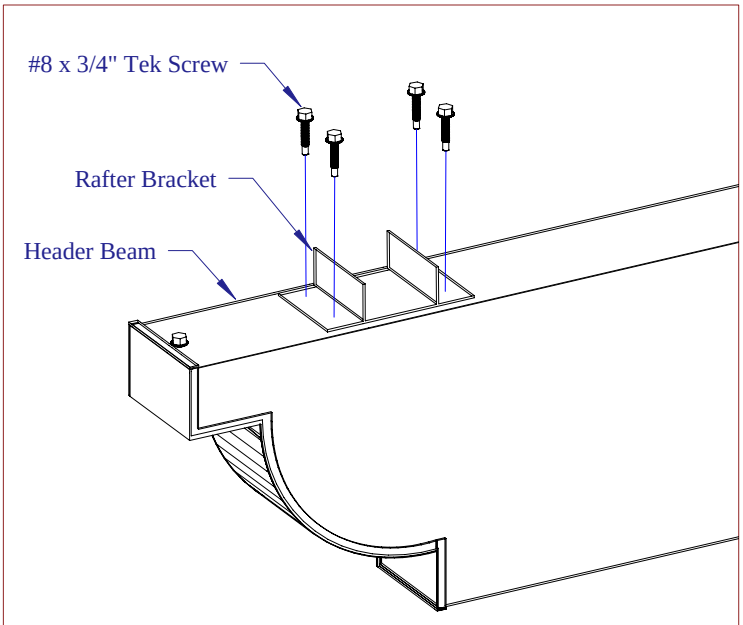


Fig. 2-2

STEP 3

Determine the best location for your new pergola and mark outer edges by snapping a chalk line the length of your headers along the outer edge. Turn 90 degrees and snap a chalk line the length of your rafters begining at the end of the previous chalk line. Repeat to close the square. Locate the center of the posts by subtracting the desired overhang from the over all dimensions and snap 4 chalk lines accordingly (see Fig 3-1).

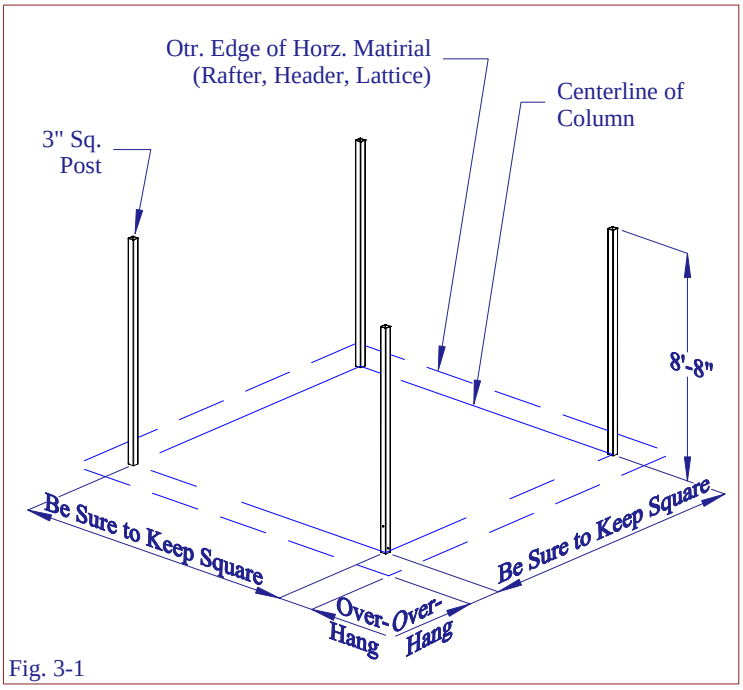


Fig. 3-1

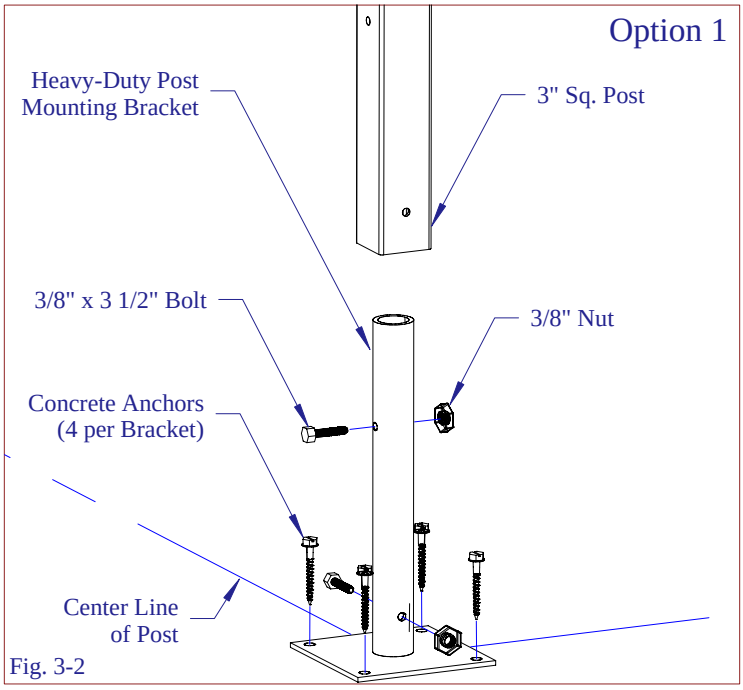


Fig. 3-2

Depending upon the available surface or local building codes there are three post mounting options.

Option 1 - If your pergola has Heavy Duty Mounting Brackets, anchor them at the intersection of two centerlines, drill 4 holes for Anchor Bolts, and attach bracket to ground with 4 Anchor Bolts. Then, with 2 - 3/8" x 3 1/2" Bolts, attach post to bracket (see Fig. 3-2). Note: If installing side post plates, only one bolt is required for the post to bracket connection.

Option 2 - If you plan to bury your post, start by digging a hole approximately 12" in dia. x 30" deep. Place rock 6" deep in bottom of hole and drop 3" post in. (NOTE: Be Sure there is 8'-0" of post above ground.) Fill hole with a pre-mix of cement, agragete, and water. Check post on all sides with a carpenters level to make sure it is plum with the ground (see Fig 3-3).

Option 3 - If your pergola has standard lower mounting brackets, just anchor them at the intersection of two centerlines, drill 4 - 3/8" dia Holes and embed 4 - Lag bolt Inserts. Now, with 4 - 1 1/2" Lag Screws, attach brackets to concrete and attach post to bracket with 4 - #10 x 1 1/4" Tek Screws (see Fig. 3-4).

NOTE: If installing fiberglass columns, skip to Step 4 after snapping chalklines.

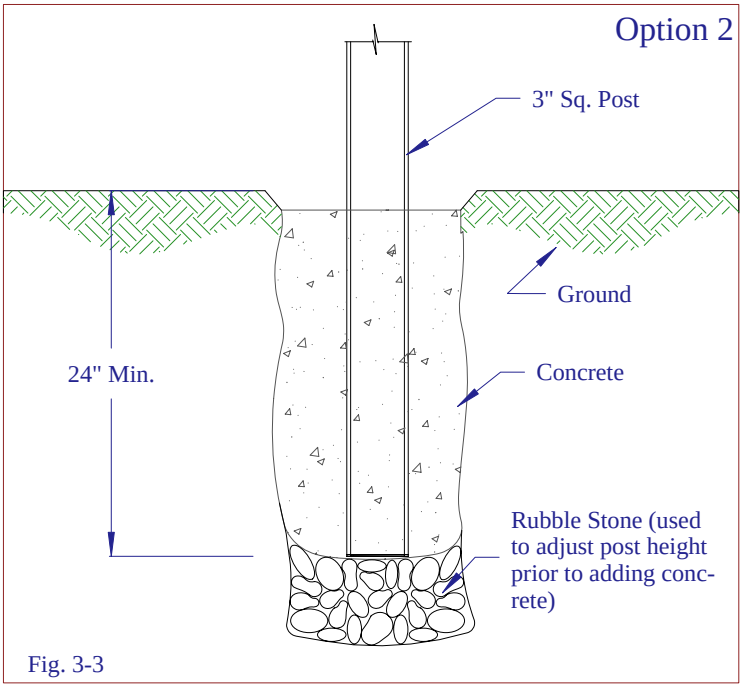


Fig. 3-3

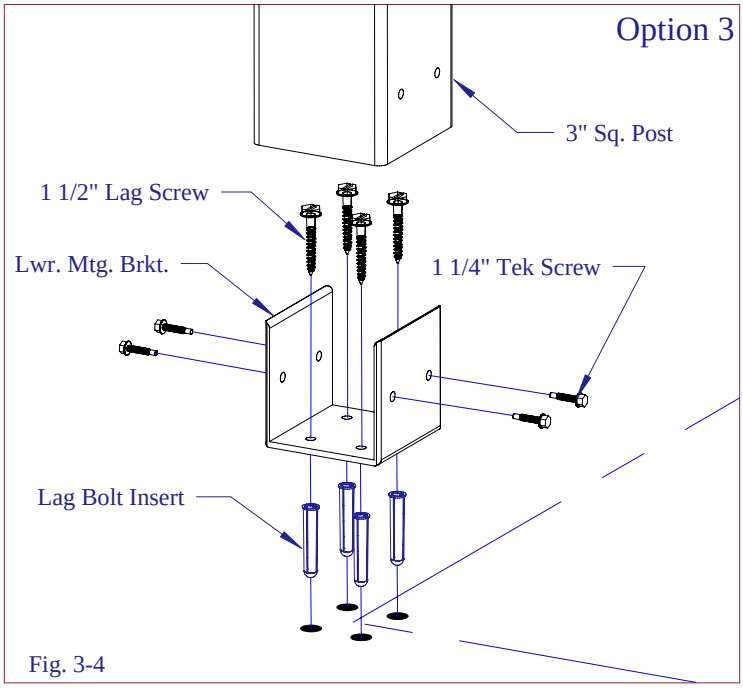


Fig. 3-4

STEP 4 - COLUMN SETUP: SQ. or ROUND ALUM. COLUMNS

Snap two column sections together by fitting tongue into groove and lightly tapping with heel of hand to lock. Once two sets of two sections are locked together stand them on end and snap the open ends together around a post (see Fig. 4-1). Anchor bottom of column with two lower column brackets, 6 - Plastic Lag Screw Inserts, 6 - 2" lag bolts into surface, and 6 - #8 x 3/4" Tek screws into column (see Fig 4-2). Once column sections are secure slide the lower column cap in place and attach to column with 4 - #8 x 3/4" Tek Screws.

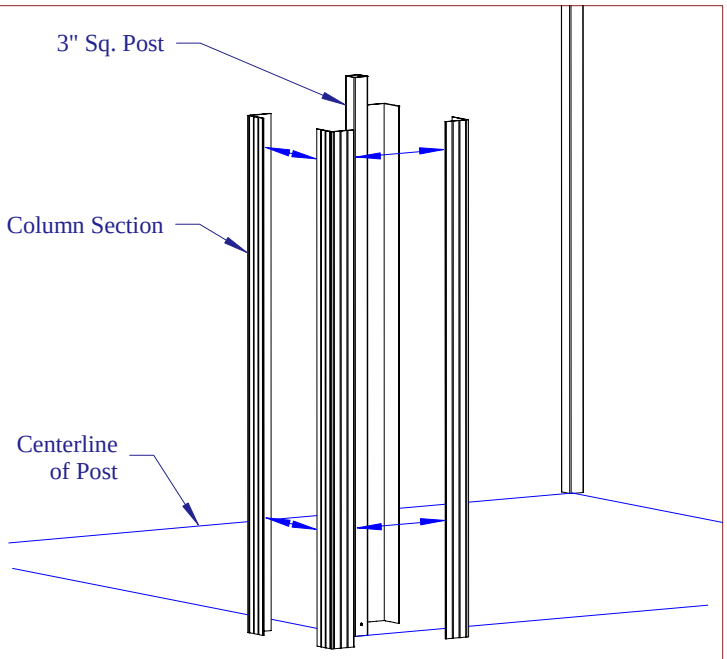


Fig. 4-1

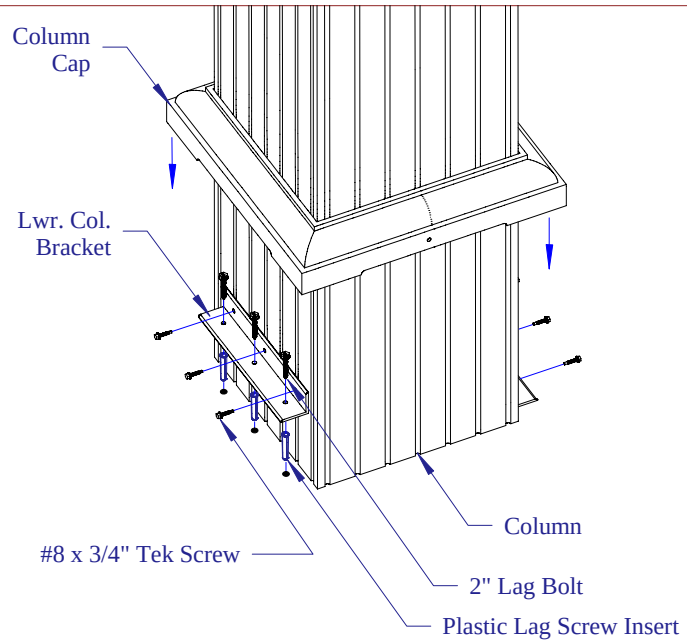


Fig. 4-2

Round columns should be snapped together by inserting the small hooks into the large hooks on the long ends of the column sections. Keep one joint open and wrap the adjoined sections around post (see Fig 4-3). Lock final joint. (Note: The final joint should be the shortest of the large hooks.) Secure Column to surface with 3 'L' brackets, 3 - Plastic Lag Screw Inserts, 3 - 2" lag bolts, and 3 - #8 x 3/4" Tek screws (see Fig. 4-4). Once column sections or together slide the lower column cap in place and fasten to column with 4 - #8 x 3/4" Tek Screws.

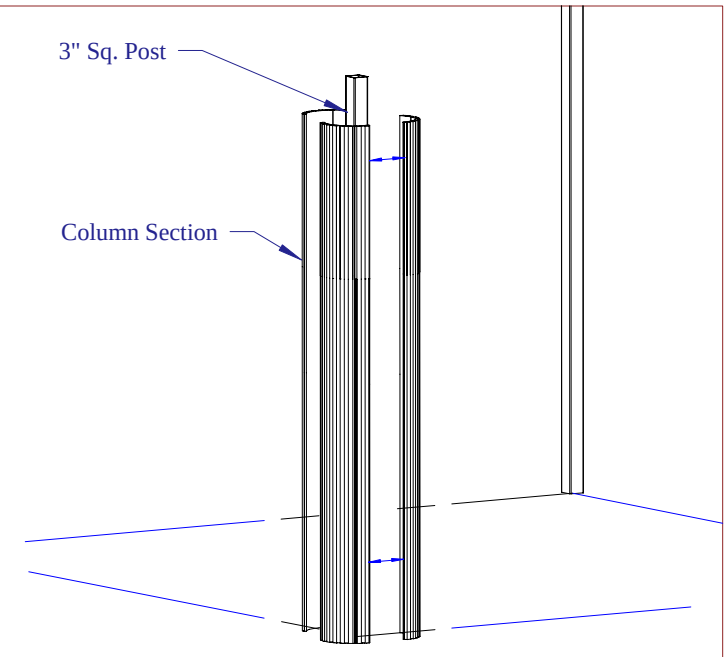


Fig. 4-3

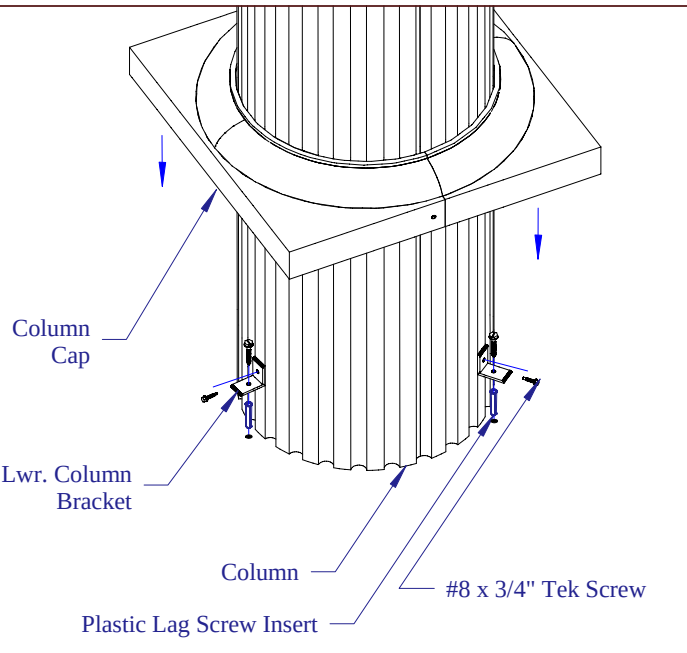


Fig. 4-4

STEP 4, CONT. - COLUMN SETUP: FIBERGLASS COLUMNS

Before installation, fiberglass columns must be painted. See bottom of page for color matching formulas. TIP: Before painting, sand column lightly with 120 grit or finer wet/dry sandpaper. Use mineral sprits to remove all dust and dirt.

Start by applying construction adhesive around lower round surface of cap, and position cap onto column. Measure overall required length from top of cap and trim bottom of column as needed. Column should be slightly longer for a snug fit. Position base cap on column, then temporarily stand column in position and plumb with level. With cap and base in proper position, mark exact mounting location with a pencil. Next, lay column down and continue with proper option.

Option 1 - Lower Mounting Brackets

If your pergola has standard lower mounting brackets, just anchor them at the intersection of two centerlines (Fig. 3-1), drill 4 - 3/8" dia Holes and embed 4 - Lag bolt Inserts. With 4 - 1 1/2" Lag Screws, attach brackets to concrete (Fig. 3-2). Next, apply construction adhesive to the top of cap and bottom surface of column, place post through column, and place the two onto mounting bracket (Fig. 4-6). Prop up the column and attach post to bracket with 4 - #10 x 1 1/4" Tek Screws (Fig. 3-2).

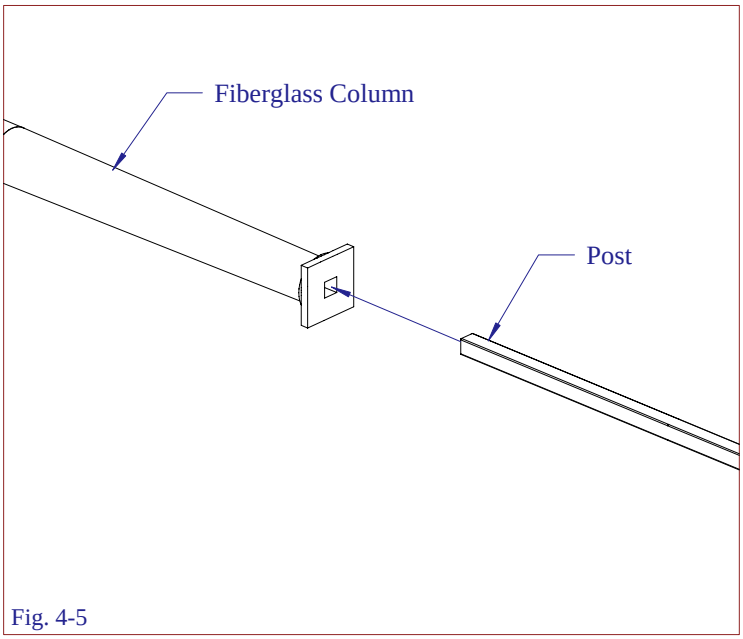


Fig. 4-5

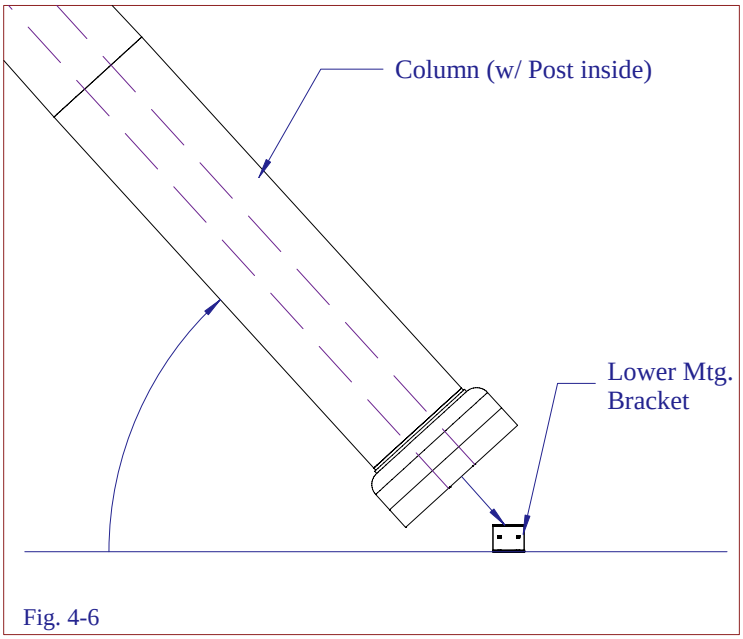


Fig. 4-6

Option 2 - Buried Posts

If you plan to bury your posts, do so as instructed in Step 3. Once posts are installed, apply construction adhesive to top of cap and bottom surface of column. Next, the fiberglass column must be hoisted over the post and placed around it (Fig. 4-7).

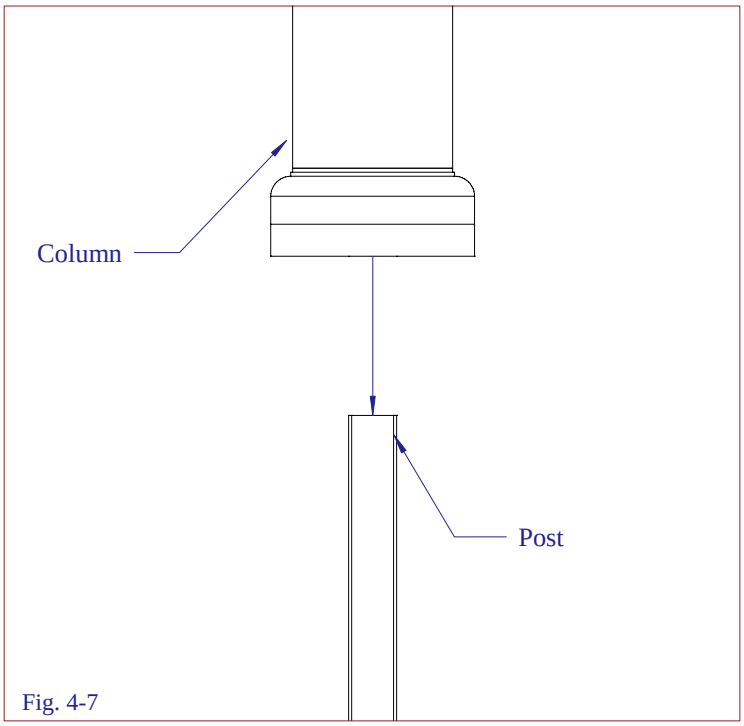


Fig. 4-7

WARNING: Standard 8'-0" x 8" rd. fiberglass column weighs approx. 60 pounds. Installation may require more than one person.

Color Matching Formulas

Lowes - Valspar Paint 1 gallon
Exterior/Latex/Semi Gloss/Daylight

White	Wicker
BaseB1-20015	Base B1-20015
101 5 shot	101 18 shot
103 1/2 shot	107 25-1/2 shot
107 4 shot	109 3-1/2 shot

Adobe (Clay)	Latte
Base B2-20036	Base B1-20015
101-(1y oz) 45-1/2 shot	101 37-1/2 shot
104-(1y oz) 12-1/2 shot	107-(2y oz) 19-1/2 shot
111-(1y oz) 32 shot	109 17-1/2 shot

STEP 4, CONT. - COLUMN SETUP: SIDE POST PLATES

If your pergola has side plates, start by cutting the plates to the proper length. The plates must be 8" less than the post length above the grade. Next, drill 5/8" diameter holes through the side plates beginning 12" up from the bottom with one hole every 24" (see Fig. 4-8). Center two side plates per post against the post; the headers will rest directly on top of the side plates. Anchor the plate's inside face to the post through the holes with #10 x 1 1/4" Tek Screws. Insert the 5/8" hole plugs into the outside face of the plate (see Fig. 4-9).

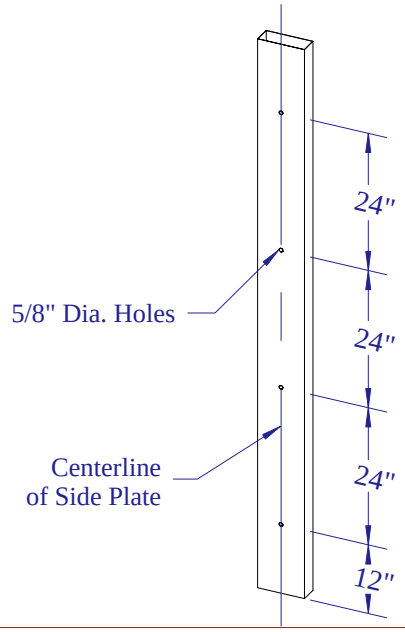


Fig. 4-8

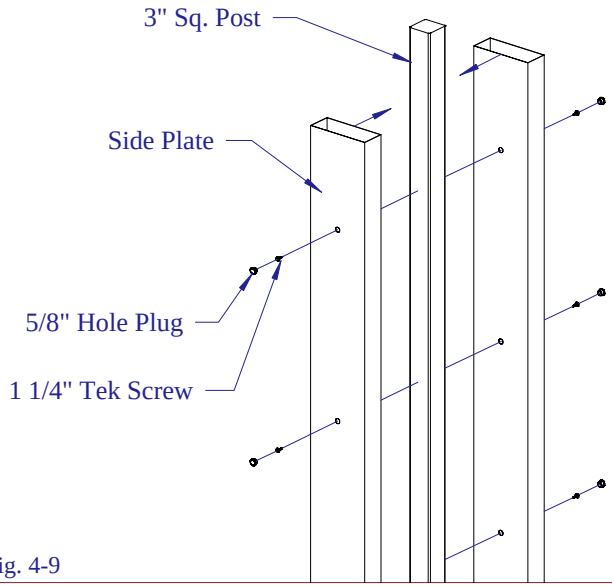


Fig. 4-9

When finished, the assembly should look like that shown in Fig. 4-10.

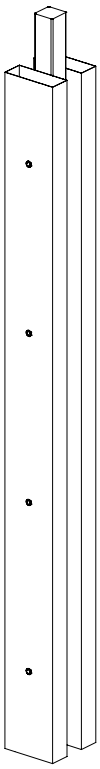


Fig. 4-10

STEP 5

Assemble upper column cap and secure to column with 4 - #8 x 3/4" Tek Screw. Slide the column plate over 3" post and insert into top of column cap. Secure plate to cap with 4 - #8 x 3/4" Tek Screws, but be careful not to over torque (see Fig. 5-1). Hoist headers onto top of columns. Be sure to center headers over column measuring the overhang from end of header to center of post. Attach headers to post by drilling a 5/8" dia. hole in outer face of header and secure inner face to post with 2 - #5 x 1-1/4" Tek Screws. Cover the 5/8" holes with the provided hole plugs (see Fig. 5-2).

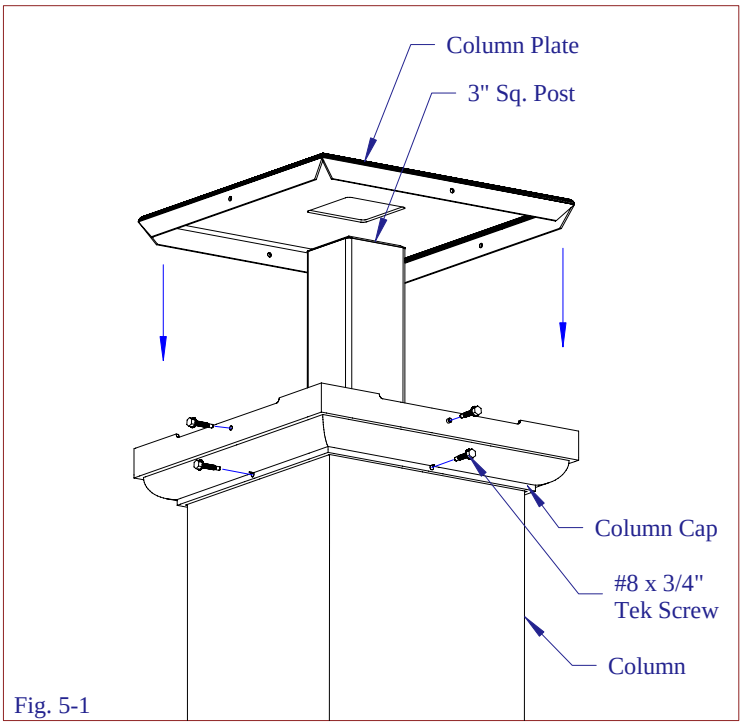


Fig. 5-1

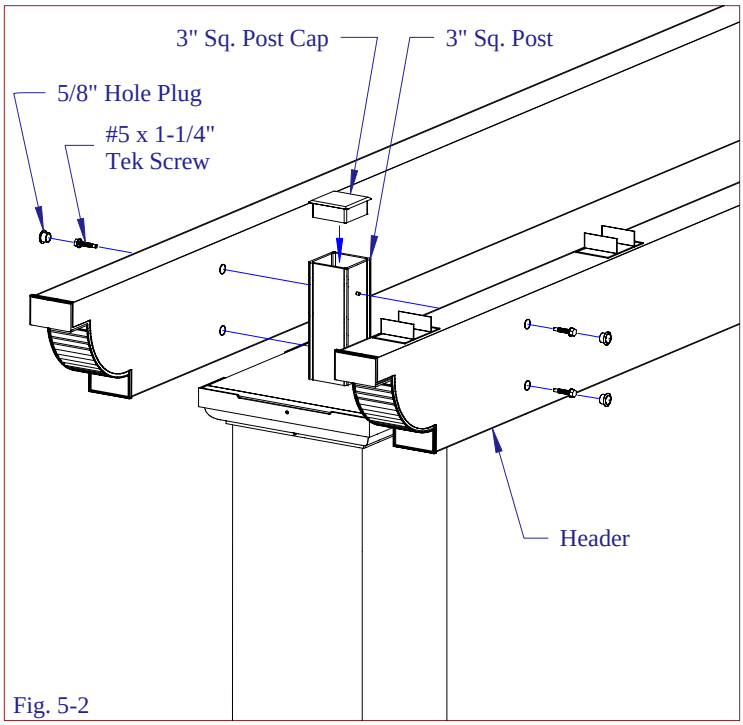


Fig. 5-2

STEP 6

Begin anchoring the rafters by centering them over the adjacent headers and measuring the proper overhang from end of rafter to center of post. Secure the rafters to the rafter brackets with 2 - #8 x 3/4" Tek screws per side (see Fig 6-1).

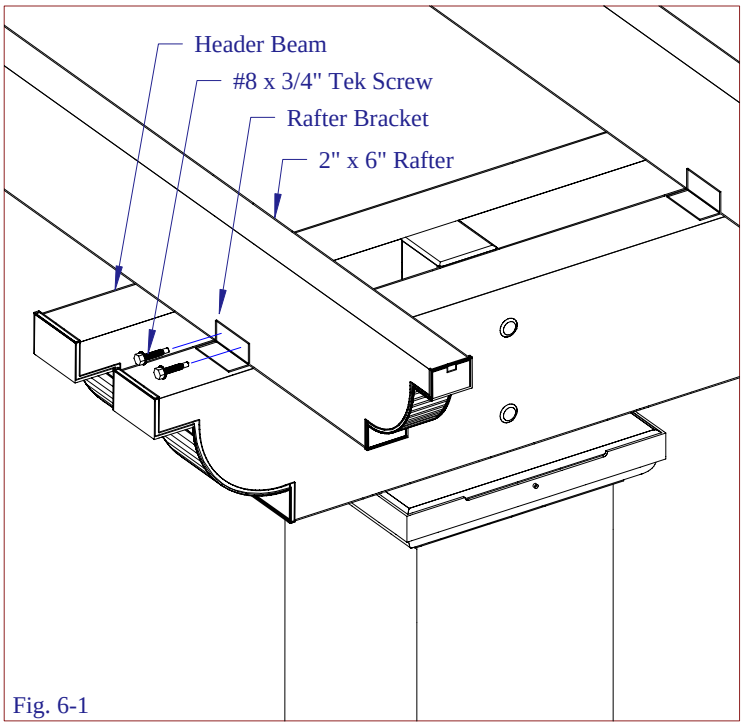


Fig. 6-1

STEP 7

If the lattice tubes require splice insert the splice into and end of two tubes and secure with 2 - # 8 x 3/4" Tek screws. (see Fig. 7-1). Layout lattice on rafters seam side up. For lattice spacing details, see Fig. 7-2. Lattice O.C. will most likely be 4 1/2". The distance from centerline of rafter to end of lattice is equal to "Dim. A" in Fig 2-1.

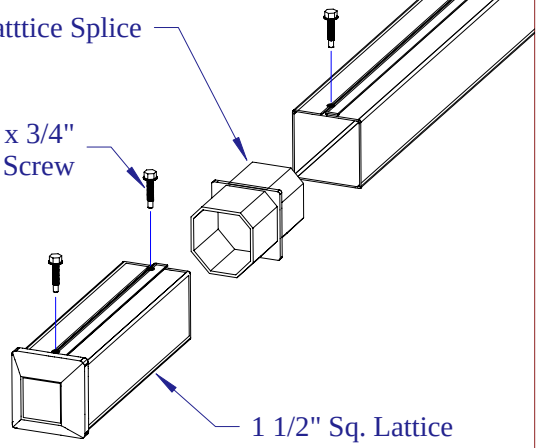
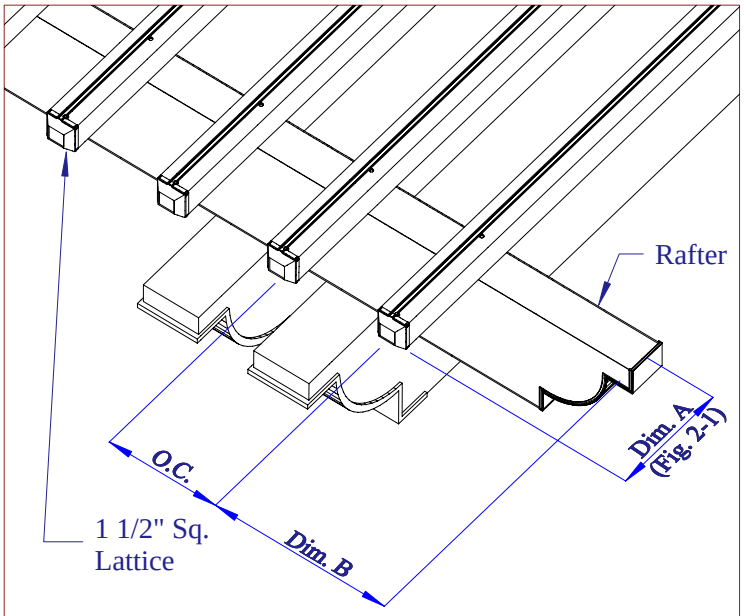


Fig. 7-1



$$\text{Dim. B} = \frac{\text{Rafter Length} - [(\text{No. of Lattice} - 1) \times \text{On Center (O.C.)}]}{2}$$

Fig. 7-2

Finally, secure the 1 1/2" sq. lattice to rafters with 2" stainless steel sheet metal screws (see Fig. 7-3).

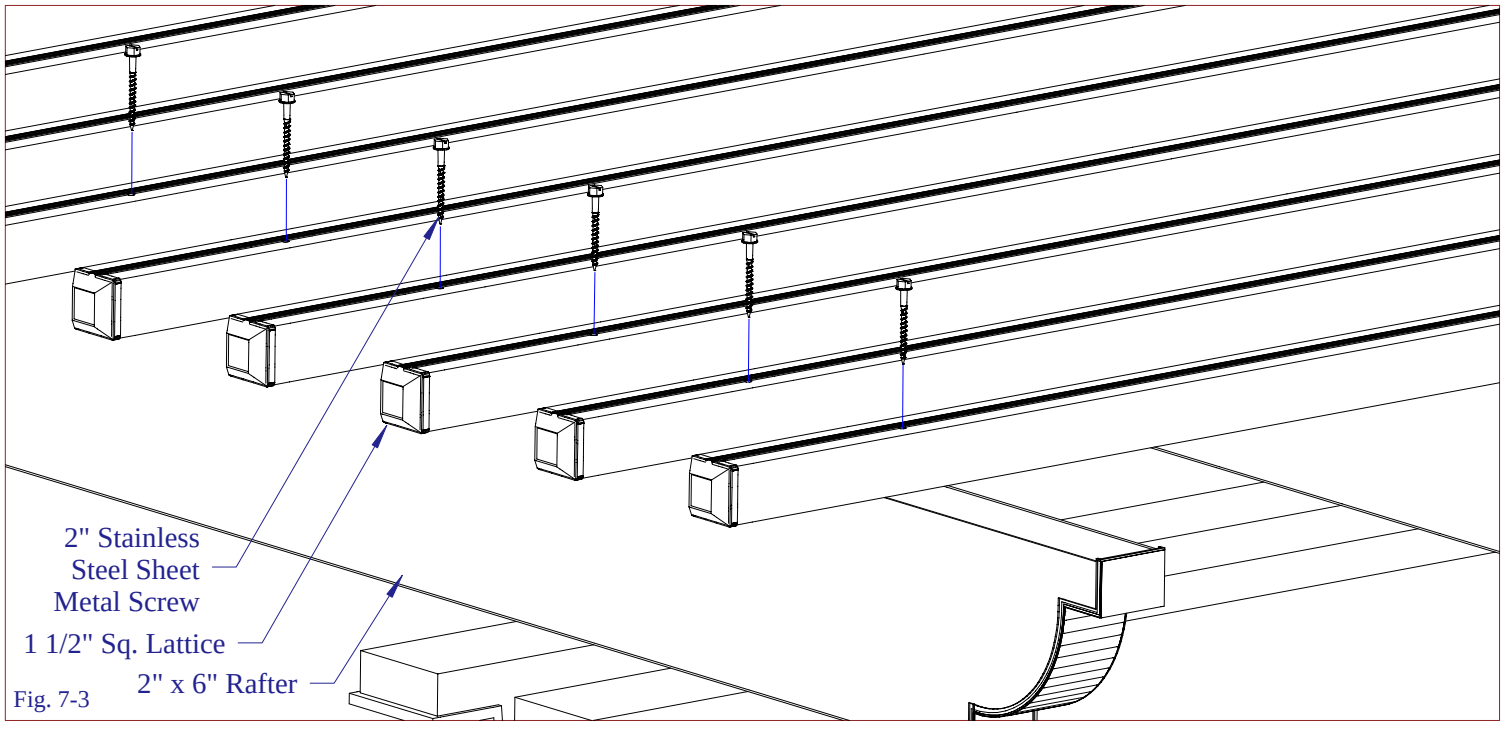
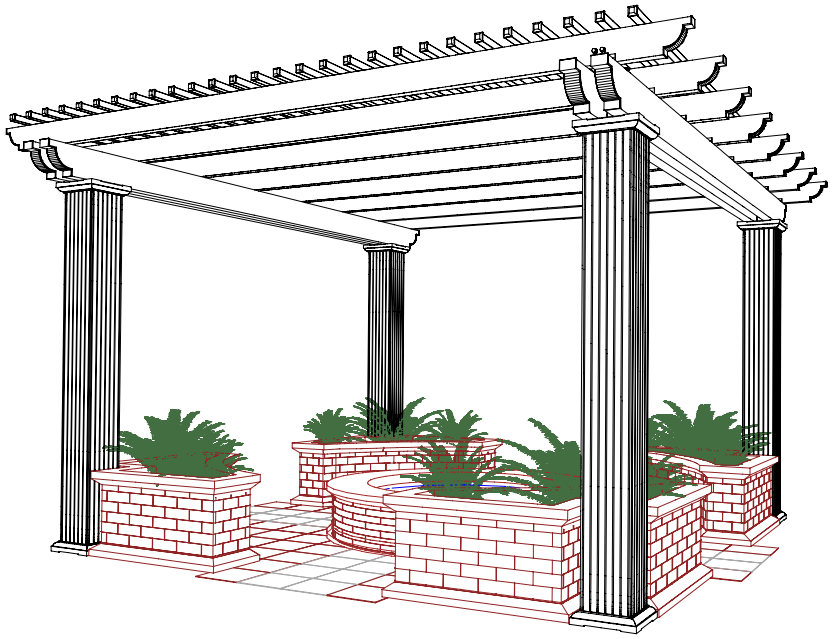


Fig. 7-3

CONGRATULATIONS! ASSEMBLY COMPLETED



NOTES