



## **DOUBLE HEADER/DOUBLE RAFTER**

# **Open Lattice tube Patio Cover- Basic Installation Guidelines**

### **Before You Begin:**

- 1. Take the time to read and understand the basic guidelines before opening or starting your patio kit.**
- 2. Please read this guideline carefully and then check for any missing parts. You have fourteen days from receipt of materials to claim missing parts. When opening the materials, use a tarp or some other protective material to prevent scratches and/or damage to the parts.**
- 3. You are probably required to obtain a proper building permit prior to assembly. Please check with your local building and safety department for specific requirements.**
- 4. Never attempt to install material without having at least one other adult present, or helping you, during the entire installation process. SAFETY is always priority one! Wear, use, and adhere to all safety precautions.**
  - **This cover is not designed to carry additional loads such as hanging plants, trellises, or any foreign objects**
  - **This structure is NOT APPROVED for inclusion of any electrical installation, including but not limited to; ceiling fans, light fixtures, or misting system.**
- 5. Take your time; do not rush. We only supply the materials. We do not provide any installation services. If for any reason you find you are unable to install your patio cover, we recommend you contact a local licensed contractor who is experienced in installing this type of material. The extra cost of having a qualified contractor install your patio could save you on losses of material and aggravation if you run into difficulties.**

### **RECOMMENDED TOOLS:**

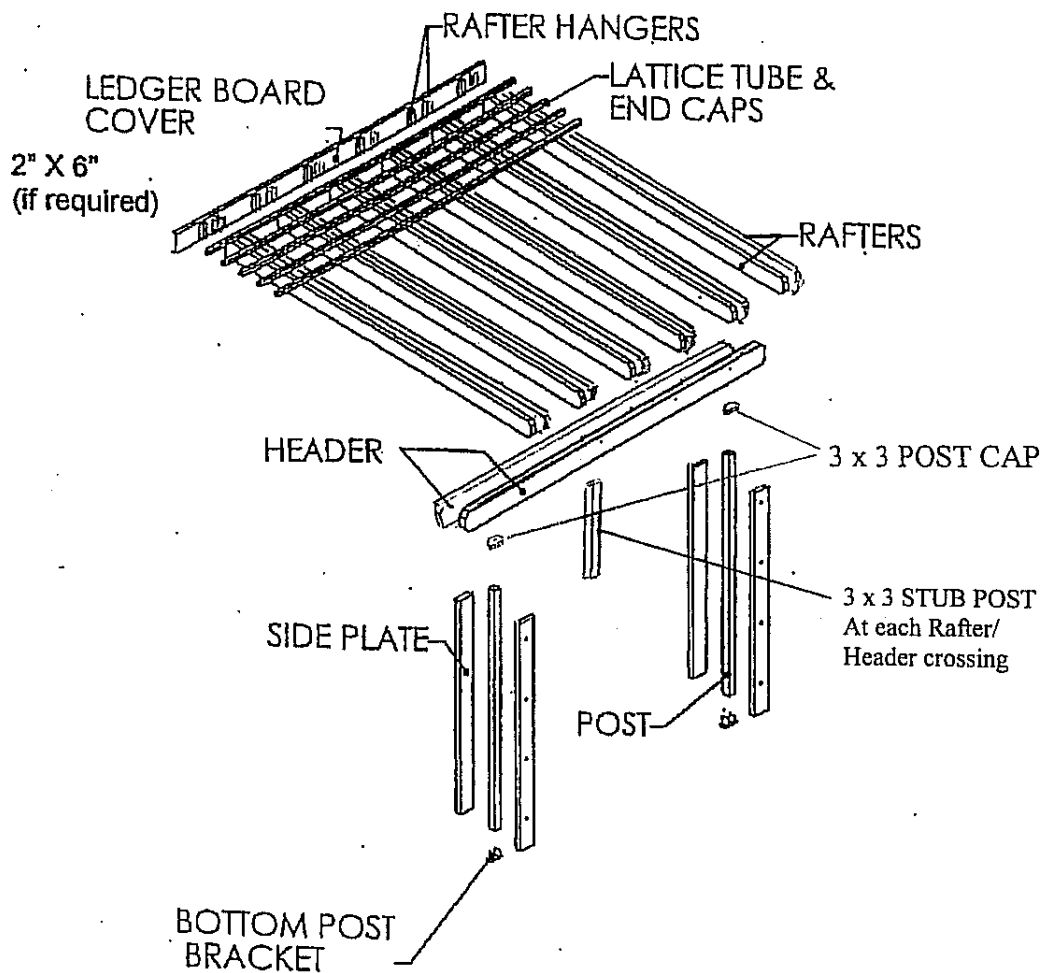
Safety Glasses  
 Work Gloves  
 Wide Pencil  
 Min 30' Steel Tape measure  
 Carpenters Framing Square  
 Chalk Line

Stud Finder  
 Hammer  
 Caulking Gun  
 Ladders or Scaffolding  
 Variable Speed Drill  
 Hex Head Drivers

1/8" Drill Bit  
 5/16" Drill Bit  
 5/8" Hole Saw  
 3/8" Masonry Bit  
 Socket Wrench  
 Crescent Wrench

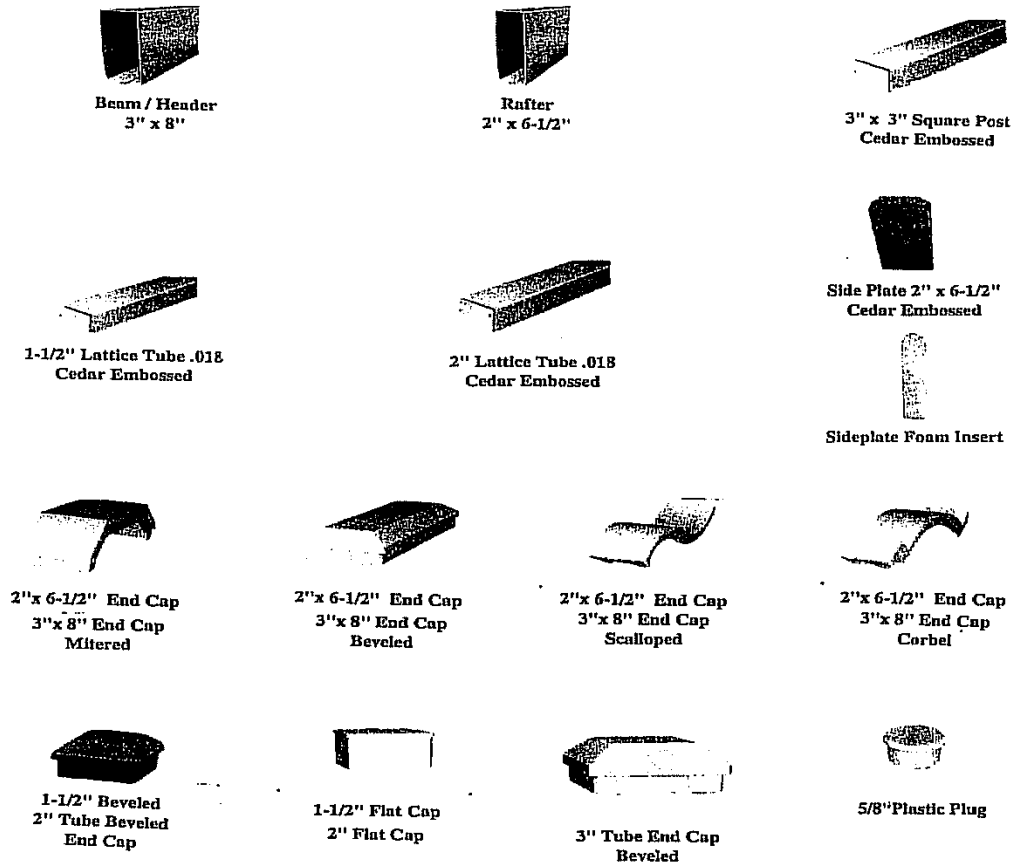
10" Miter Saw, Chop Saw, or Skill Saw (Miter Saw recommended)  
 Hammer Drill (if required)  
 Grounded Extension Cord

**These basic guidelines are just that – basic. Every installation is different and therefore it is virtually impossible to provide exact guidelines for each individual installation project. Referrals to “appropriate size screws” in the instructions need to be detailed with the supplied engineering for load/wind requirements.**

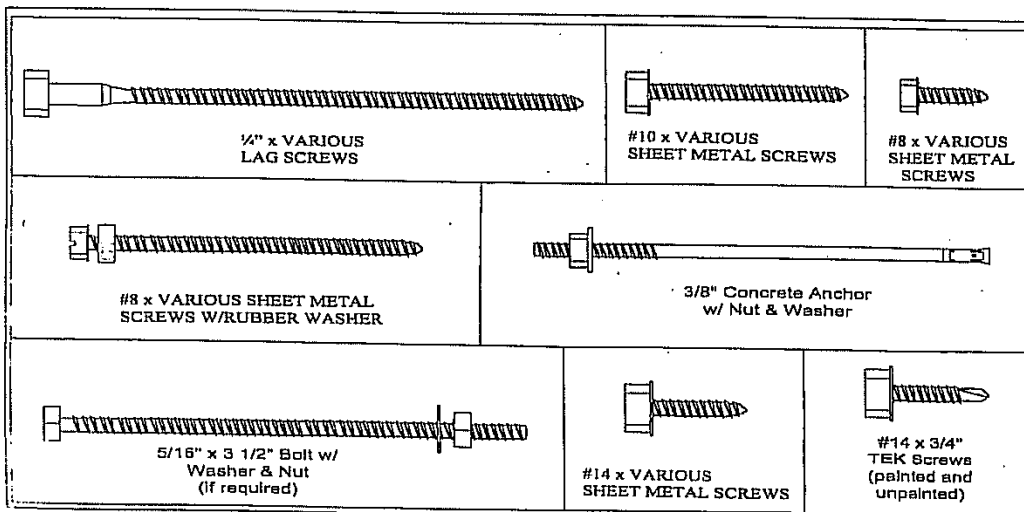


## **EXPLODED VIEW TYPICAL OPEN COVER DOUBLE HEADER/DOUBLE RAFTER**

## PARTS LIST:



## SCREWS:



1. INSTALL LEDGER BOARD IF REQUIRED. (IF NOT, PROCEED TO STEP 2.)

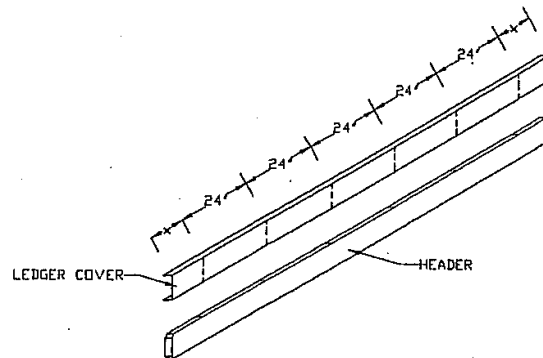
A ledger board is not required in all cities. Check your local building codes to see if it is required. Use a 2" x 6" Douglas fir #2 or better type of wood for the ledger board. If needed, use lengths of 3/8<sup>th</sup> inch plywood as shims to fill the inside of the ledger cover. In some areas a complete ledger assembly is available. If it is provided, proceed to step 1B.

- A. Insert the 2" x 6" ledger cover (Aluminum material) over the wood ledger material.
- B. Select mounting position on the wall or roof fascia. Snap a level chalk line to locate the bottom of the ledger board.
- C. Attach the ledger board to the wall or roof fascia, whichever is applicable, using the chalk line as your bottom reference. Fasten the ledger to the wall studs or roof fascia rafters using 1/4" x 3", 4" or 6" long lag screws.

## 2. INSTALL RAFTER HANGERS:

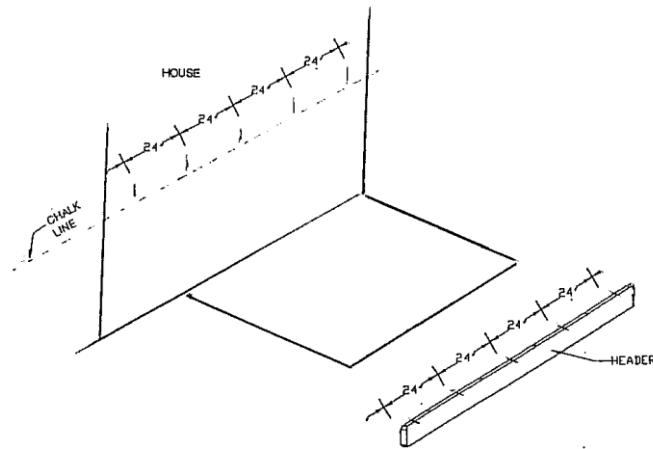
If you are using a ledger board, proceed to step 2A. If no ledger board is used, proceed to step 2B. Pre-drill the rafter hangers using a 1/8<sup>th</sup> inch drill bit.

- A. (WITH LEDGER) Using a straight edge, mark the ledger cover as shown with 24" on center. The leftover ends should be of equal length. Now mark the top (seam side) of one of the 3x8 header beams to match these marks. Proceed to step 2C.

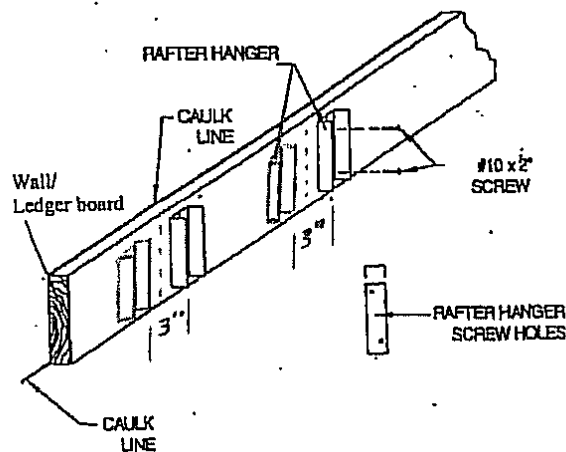


- B. (WITHOUT LEDGER) Identify the attaching height on the wall or fascia and snap a level chalk line. Identify and mark the width of the cover on this line. Using a straight edge, place marks above the chalk line at 24" on center. The

leftover ends should be of equal length. Now mark the top (seam side) of one of the 3x8 headers to match these marks.



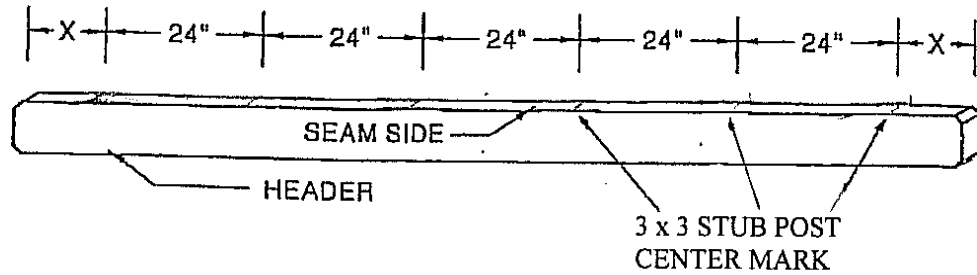
- C. Place one hanger bracket 1 1/2" on each side of the hanger mark. This creates the 3" gap for the double rafter spacing. Install the top screw and tighten loosely. Use a bubble level to straighten the bracket and install/tighten the bottom screw. Completely tighten the top screw. Do this for all of the rafter hangers.



### 3. INSURE THE HANGER MARKS MATCH TO THE HEADER.

NOTE: If a steel insert is being used with this cover, now is the time to install it into the header insuring there is enough room on the ends to fit the end caps onto the header. If not, trim the steel insert until sufficient room exists. (At least 2" from end cut)

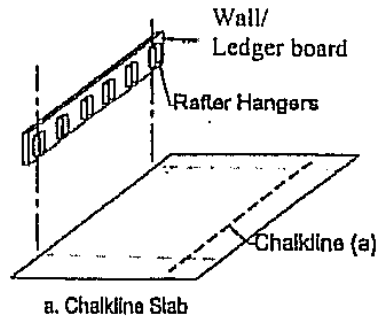
- A. These should be spaced exactly to match the hangers on the ledger/wall/fascia. This mark will be the center mark for the stub post that the double rafters will attach to later.



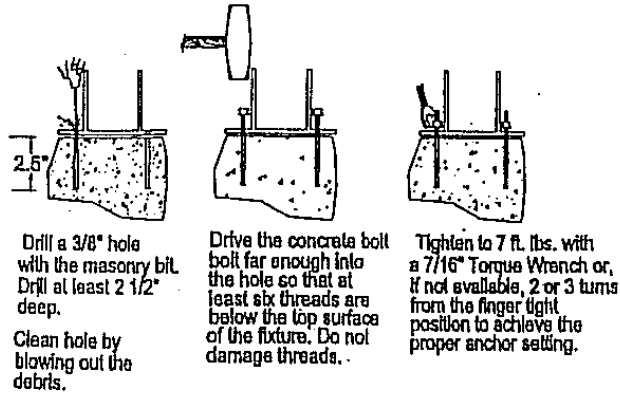
#### 4. INSTALL BOTTOM POST BRACKETS.

NOTE: Post brackets must be at least 4" back from the edge of the concrete slab.

- A. Snap a chalk line on the slab parallel to the ledger board. This distance is generally 12" less than the length of the rafters. Then snap a chalk line perpendicular to the building along the center lines of the first and last Rafter hangers. This will establish and line up the header beam with the center marks of the first and last Rafter to header brackets.



- B. For post spacing, refer to the marked engineering sheet for maximum allowable post spacing.
- C. Mark the post spacing on the header beam chalk line. Square the brackets to the building wall and drill 2 holes 2 1/2" deep into the concrete using a 3/8" masonry bit through the holes in the post bracket. Clean out the concrete debris.
- D. Install the 3/8" anchor bolt and tighten to specifications.



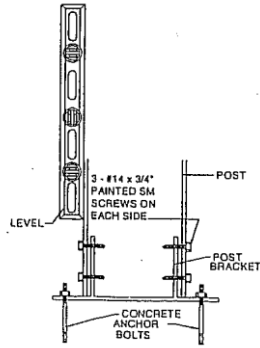
## 5. INSTALL POSTS:

NOTE: The posts need to be trimmed to the correct height before installing. The stub posts for each of the rafter should be trimmed to 24".

- A. Measure from the bottom of the rafter hangers down to the ground mounting surface.
- B. Add 19" to this measurement. This will allow the 3x3 post to clear the top of the 3x8 headers, allow the double rafters to attach, and that the 3x3 cap will attach.
- C. Cut the posts to this height.

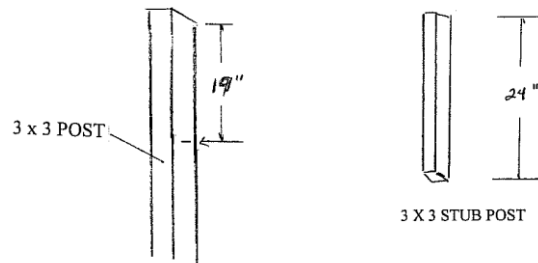
EXAMPLE: If the attaching height to the bottom of the bracket is 96", then add 19" to this figure to give you a post height of 115". Cut the post to this size.

- D. Set a post over the bracket and install one #14 screw to stabilize the post.
- E. Using a level, make sure the post is plumb and install the rest of the screws. There will be 3 each #14 screws to each side in a triangle pattern. Install the other posts the same way.



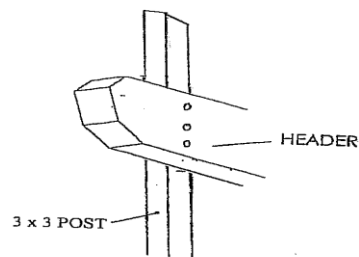
## 6. INSTALL HEADER:

- A. Mark the 3x3 post 19" from the top. This mark is where the bottom of the 3x8 header beam will be.



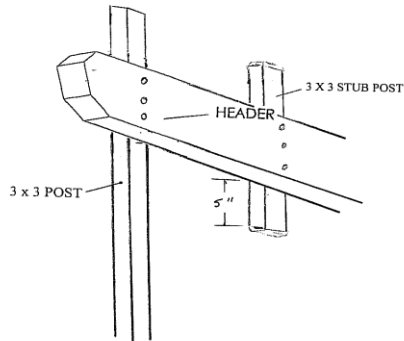
NOTE: If you are using double 2x6's for headers instead of the 3x8's, the mark should be 17 1/2" from the top.

- B. Place the header against the outside of the 3x3 post at the mark. Drill 3 each 5/8" holes into the outside skin of the 3x8. Place one #14 screw through the header and loosely into the 3x3 post. Go to the other end of the header and position it at the mark. Check to insure the header is level. (Adjust as required) Drill the 3 each 5/8" access holes into the header and firmly attach to the 3x3 using 3 each #14 screw. Go back and finish installing the remaining screws into the first post and tighten.

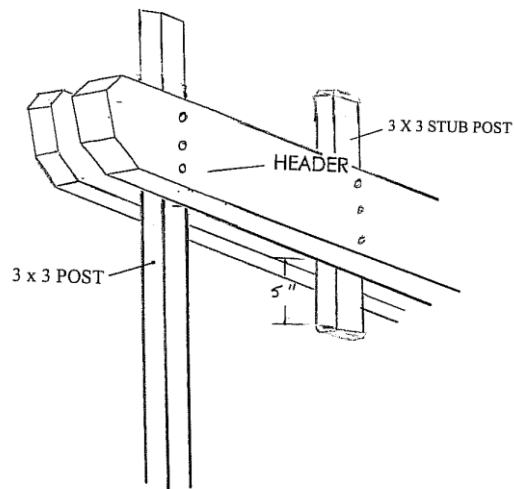




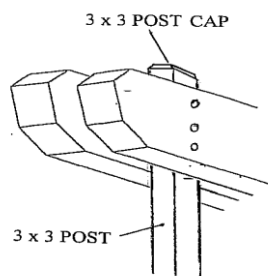
- C. Complete attaching to any remaining posts in the same manner.
- D. Position each of the stub posts at their center marks and attach in the same manner. Insure that the stubs are plumbed.



- E. Position the inside header the same way and attach as outlined above.



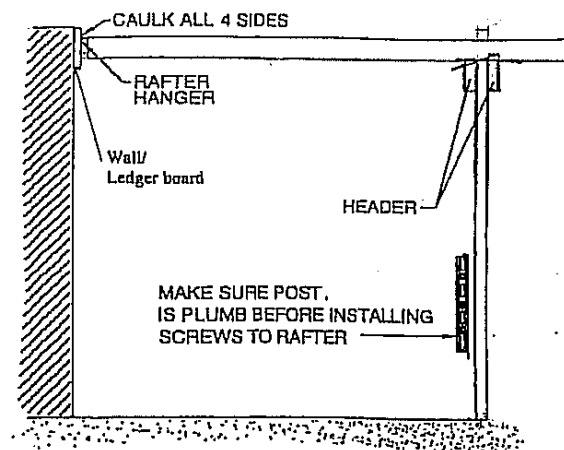
- F. Attach the 3x3 cap to the top of the 3x3 post.



## 7. INSTALL RAFTERS:

NOTE: If you need to trim a rafter for any reason, do so from the flat wall/ledger end. DO NOT trim rafters from the cap end as this can cause issues with trying to hand cut the different rafter ends.

- A. Place a rafter with the seam side up on a rafter hanger and in a rafter bracket on one end of the header.
- B. Secure the rafter to the rafter hanger at the house with an appropriate size screw.
- C. Insure the post is still plumb, and then secure the rafter to the rafter hanger at the header with an appropriate size screw.
- D. Install 3 more screws into the rafter hanger and 3 more into the rafter bracket.
- E. Set the rafter in place at the opposite end of the header. Install as outlined in steps A, B, C, and D. Now install the remaining rafters.
- F. If required, caulk around the rafters at the house to fill any gaps.

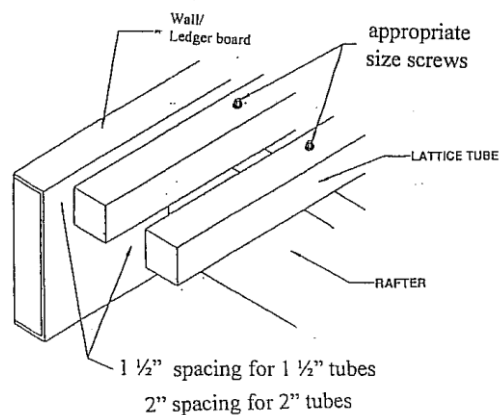


## 8. INSTALL LATTICE TUBES:

NOTE: Uniform placement of the lattice tube will overhang equally on each side of the end rafters. The maximum overhang is identified on the supplied engineering.

- A. Install the end caps on both ends of the tubes.

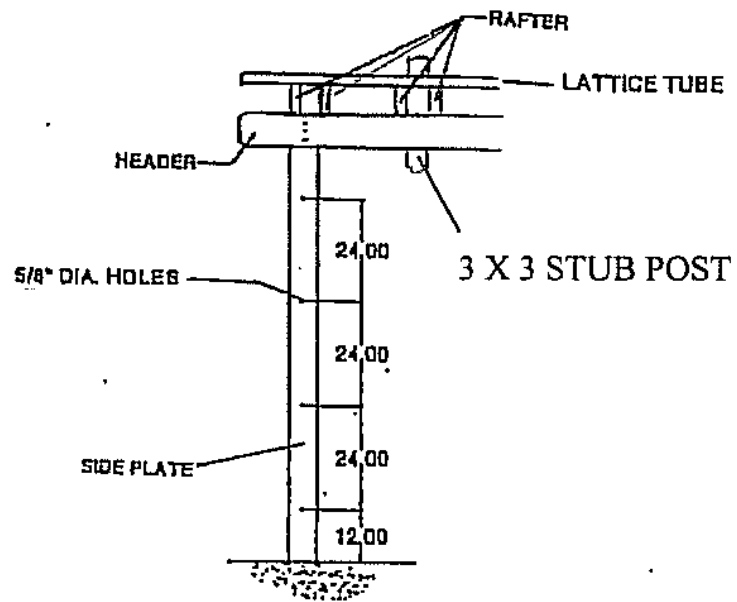
- B. Starting at the house, place the first tube in place seam side up. For 1 ½” tubes, start 1 ½” from the wall/ledger, for 2” tubes, start 2” from the wall/ledger.
- C. Secure the tubes in place using the appropriate size screws. Be careful to not over tighten.
- D. Install the remaining tubes with the appropriate space between each tube. 1 ½” spacing for 1 ½” tubes and 2” spacing for 2” tubes. Check periodically to maintain uniform overhang.



#### 9. INSTALL SIDE PLATES ON POSTS:

NOTE: Side plates are rafters that have been stuffed with foam. Measure from the mounting surface to the bottom of the header. Trim the side plates to this size.

- A. Place the side plate so that it is centered on the post. Measure 12” from the bottom of the side plate and drill a 5/8” hole through one side and the foam, making sure not to puncture the other side.
- B. Place a #14 SM Screw through the side plate into the post.
- C. Measure up 24” on center to locate the remaining holes to be drilled. Drill a 5/8” hole into the marks as done before, making sure not to puncture the other side.
- D. Use a level to check that the side plate is plumb and centered on the post.
- E. Place #14 SM Screws through the remaining holes as done before.



- F. Place the 5/8" button plugs into the holes to finish.
- G. Repeat these steps on the opposite side of the posts and to any other posts remaining.

CONGRATULATIONS!! Enjoy your patio.