ShadeTree® **Canopy Systems** Assembly Instructions

Using ***ShadeTree***® ***Vinyl Free-Standing ShadeRetreat***™ ***Overhead Tracks*** *supported by support structure.*

The Shade Retreat

Dear Customer:

Thank you for purchasing our **ShadeTree**® **Canopy System**. We trust these assembly instructions will be satisfactory for your installation. If you have any questions, please feel free to call 1-800-894-3801.

And here's a special offer we'd like to make to you: Send us a photo of your new ShadeTree® installation and we will send you **$50** if we use your photo in our advertising materials. Before and after pictures will receive an additional $50. A deck or patio that is nicely furnished helps us communicate to prospective customers how nice a ShadeTree® patio can be.

We hope you enjoy your new ShadeTree® patio canopies.

Sincerely,

Colin LeVeque, President
ShadeTree Cool Living, LLC.

ShadeTree®
Retractable Patio & Deck Canopies

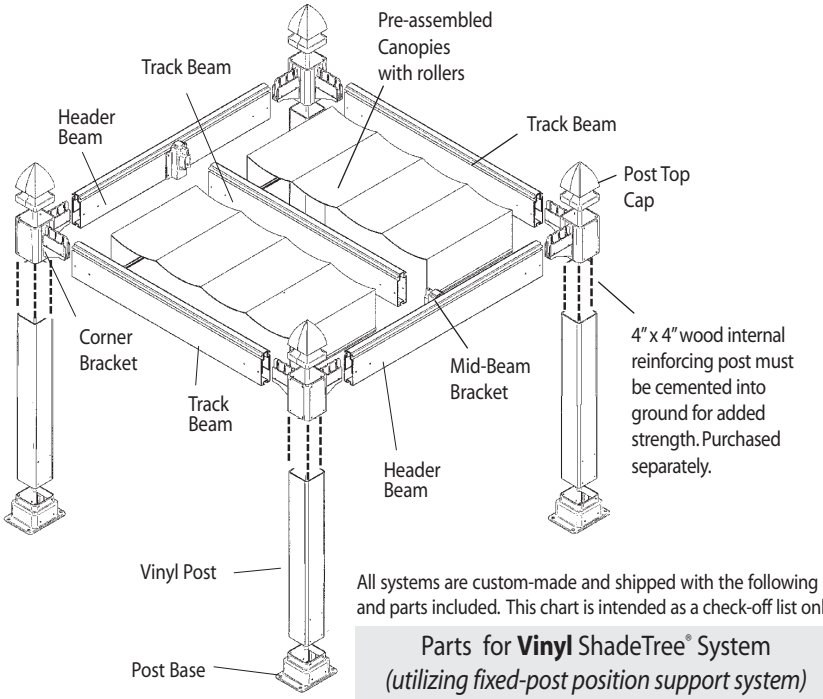
ShadeTree Cool Living, LLC | 6317 Busch Blvd. | Columbus, Ohio 43229 | **800-894-3801** | fax **614-844-5991** | www.**shadetreecanopies**.com

Complete **Free-standing Vinyl** System

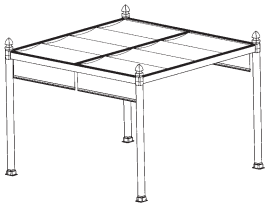
(supported by a **vinyl** frame)

This handsome, low-maintenance vinyl system comes precut and predrilled for easy installation. Available in several configurations.

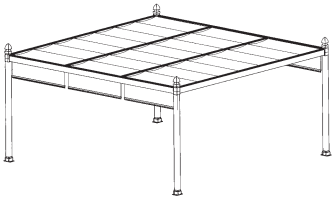
free-standing vinyl system



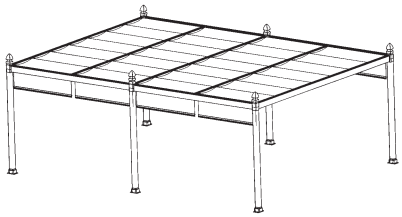
All systems are custom-made and shipped with the following kits and parts included. This chart is intended as a check-off list only.



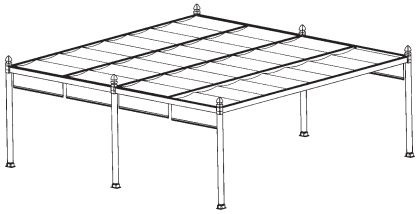
2 canopy sections
10'8" x 10'8" or **8'4-1/2" x 8'4-1/2"**



3 canopy sections
16' x 16' or **12'6-3/4" x 12'6-3/4"**



4 canopy sections
21'4" x 16' or **16'9" x 16'9"**



SUPER ShadeRetreat™
4 canopy sections
21'4" x 21'4" or **16'9" x 21'4"**

*center to center of outside projection beams. Please allow an additional 8" overall to accommodate mounting hardware and base fittings.

Parts for **Vinyl** ShadeTree® System *(utilizing fixed-post position support system)*	Quantity
ShadeTree® Canopies	2
Corners	4
Mid-Beam Positions	2
Projection beams	3
Header beam	2
Posts (4" x 4" x 10')	4
Posts – wood, 4" x 4" x 10' **	4
ShadeTree® Canopies	3
Corners	4
Mid-Beam Positions	2
Projection Beams	4
Header Beam	2
Posts (4" x 4" x 10')	4
Posts – wood, 4" x 4" x 10' **	4
ShadeTree® Canopies	4
Corners	4
Mid-Beam Positions	4
Middle Post Positions	2
Projection Beams	5
Header Beam	4
Posts (4" x 4" x 10')	6
Posts – wood, 4" x 4" x 10' **	6
ShadeTree® Canopies	4
Corners	4
Mid-Beam Positions	4
Middle Post Posittions	2
Projection Beams	5
Header Beam	4
Posts (4" x 4" x 10')	6
Posts – wood, 4" x 4" x 10' **	6

**** Purchased separately – should be longer if to be imbedded into ground.**

Other Materials Required:

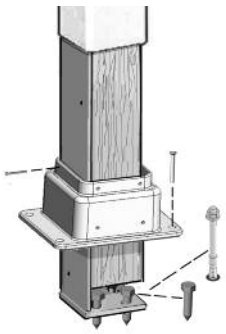
You will also need 4" x 4" wooden posts for added strength inside vinyl posts. Any warped or oversized lumber will not fit inside the vinyl post. If sinking posts into the ground, treated lumber is recommended.

If mounting on a deck, patio, stepping stones, or wooden landscaping timber embedded into the ground, a wood post length of nine feet will suffice. If you wish to cement the posts 3' into the ground, 12' posts are needed. The vinyl framework should be completely assembled before cement is poured into the holes.

If you are sinking posts into the ground, the four *Post Bases* are optional. If you prefer to use the *Post Bases*, they should be assembled onto the vinyl *Posts* before erecting the system.

Optional:
Internal Post Anchor Bracket

For use in securing vinyl posts to concrete or decks, when sinking wood posts in the ground is not possible.



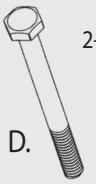
NOTE: You'll find a second pair of hands (to hold parts as the unit goes up) to be very helpful in erecting your vinyl system.

Fasteners & hardware provided:

A. #F025 7/8" Long Tapping Screw

B. #F022 1-1/4" Long Tapping Screw

C. #F010 1-1/4" Long #10 Woodscrew



D. #F011 2-3/4" Long Bolt

Screw Cap

E.

Screw Cap Washer

F.

1/8" Allen Wrench

G.

Note: All A & B screws should be assembled with screw cap washer (D.) As shown at right.

Tools required:

1. Phillips screwdriver
2. Hand drill
3. 9/64" drill bit
4. pencil
5. bubble-type level
6. Carpenter's square
7. tape measure
8. hand saw
9. 8' ladder

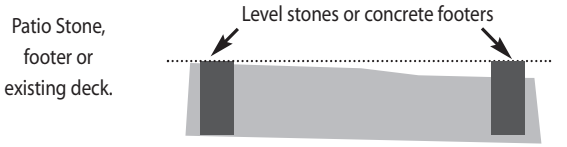
If driving screws with a drill or power screwdriver, set the torque to a low setting to avoid stripping screw heads.

Step 1 Start with a **level surface**

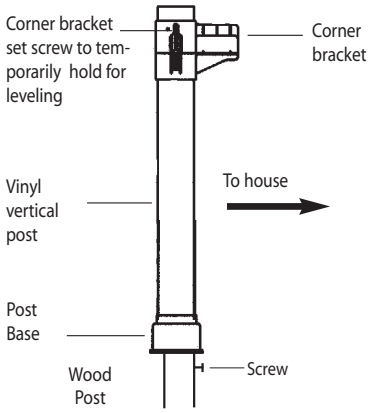
It is important that your ShadeTree® structure be built on a level surface. A deck or patio is an ideal surface, or you may choose to mount it in the lawn on wood timbers set in the ground. Another option is to pour concrete footers for the vertical *Posts*. For the greatest precision, the stones, footers or timbers should be checked with a level.

The timbers, or concrete footers should be placed where the vertical *Posts* will be erected.

If you plan to sink the posts into the ground or cement them in place, refer below for suggestions.



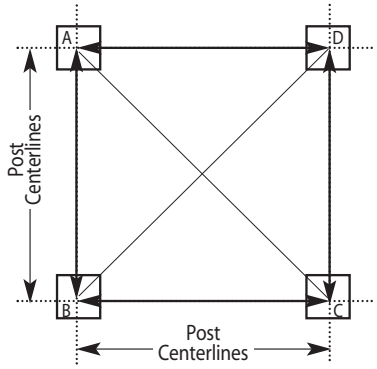
*If cementing posts into the ground, slide the vinyl post about 12" up the wood post and insert a wood screw to hold in place



Step 2 Determine **Post Base** locations

Measure to determine the *Post Base* locations per the illustration below. The *Post Base* locations should be measured on the centerlines.

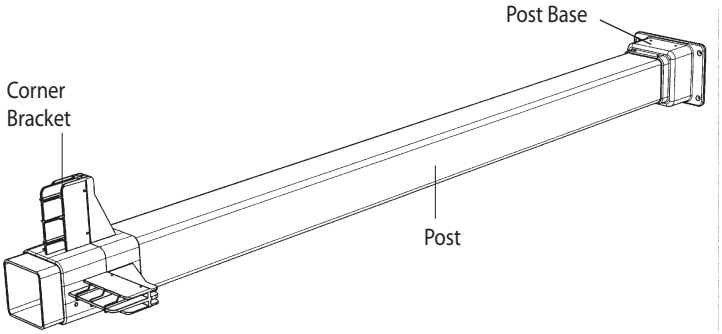
To ensure that your system will be square, measure the distance from point B to point D. Then measure the distance from point A to point C. Move points A and B right or left to get B to D and A to C equal.



Step 3 Assemble **Post Base** & **Corner Bracket** to Posts

Place the 4" x 4" vinyl *Post* on a flat clean surface. Slide a *Post Base* on one end of the *Post*. Slide a *Corner Bracket* onto the other end of the *Post*. Slide the *Corner Bracket* to the approximate desired height and temporarily secure in place by tightening the set screw on the *Corner Bracket* with the Allen wrench provided (F). For most applications, setting the *Corner Bracket* at a height of 8' works well.

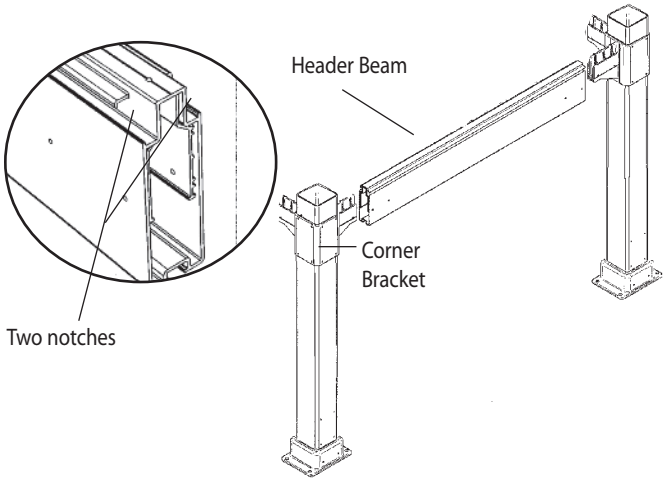
If reinforcing the vinyl posts with wood posts, slide the wood post into the vinyl *Post*. Repeat this procedure with all four *Posts*.



Step 4 Assemble one **Header Beam** to **Posts**

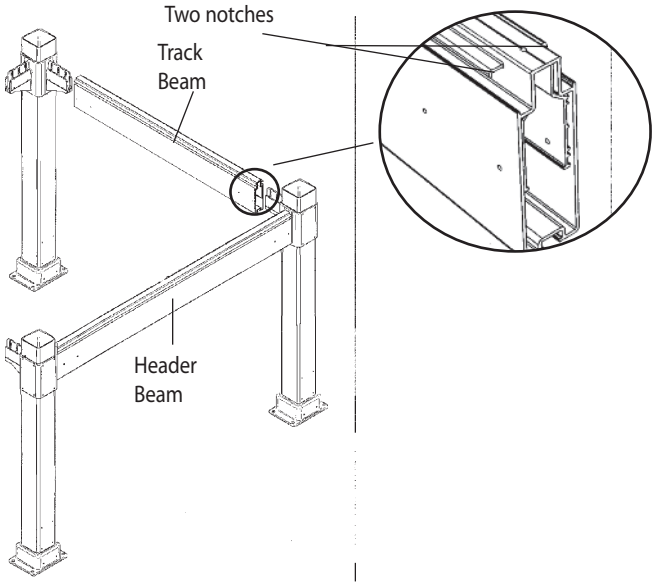
Please note that you were provided five *Beams* for a 2 section ShadeRetreat. Three of the *Beams* are identical and have notches cut at one end as pictured below. These are the *Track Beams*. The remaining two *Beams* do not have notches in the end but they have a 4-hole pattern in the center of the Beam on one side only. These are the *Header Beams*.

Assemble the one *Header Beam* to the two *Corner Brackets* as shown in the illustration below. Ensure that the four holes in the center of the *Header Beam* face to the inside of the structure. Secure the *Header Beam* to the *Corner Brackets* with two 7/8" Tapping Screws (A) on each end.



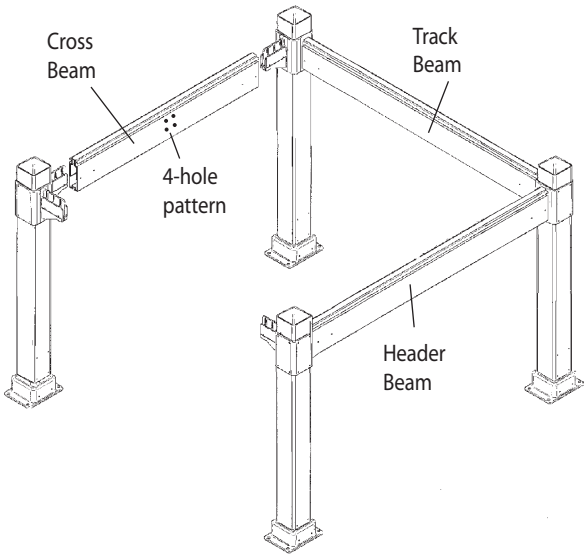
Step 5 Attach 3rd **Post** and **Track Beam**

Have your helper hold the *Post* assembly upright. Place the 3rd *Post* on the centerline created in step 2. Assemble *Track Beam* as shown in the illustration. Note that on one end of the *Track Beam* there are two notches. Assemble the notched end towards the front of the system as shown in the illustration. Secure the *Track Beam* to the *Corner Brackets* with two 7/8" Tapping Screws (A) on each end.



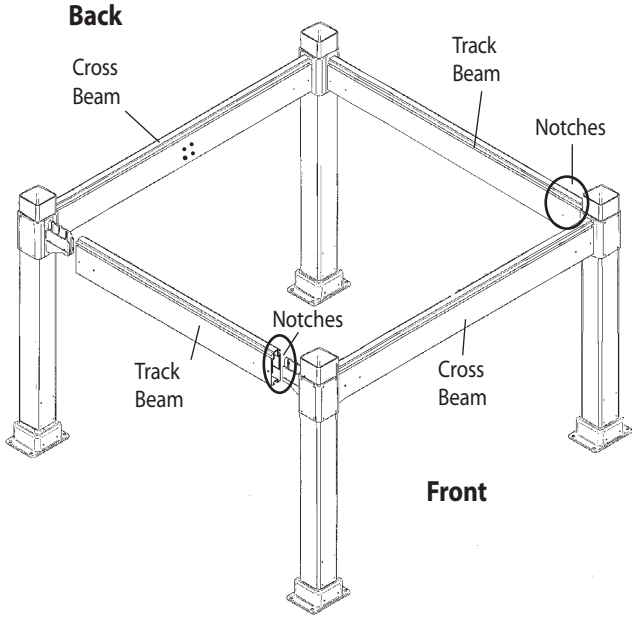
Step 6 Attach 4th **Post** and 2nd **Cross Beam**

Place the fourth *Post* on the centerline created in step 2. Assemble the *Header Beam* as shown in the illustration. Again ensure that the 4-hole pattern in the center of the beam faces to the inside of the structure. Secure the *Header Beam* to the *Corner Bracket* at both ends with two 7/8" Tapping Screws (A).



Step 7 Attach 2nd **Track Beam**

Assemble *Track Beam* as shown in the illustration. Again, ensure that the notched end of the *Track Beam* is toward the front. Secure the *Track Beam* to the *Corner Brackets* at each end with two 7/8" Tapping Screws (A).



Step 8 Cementing the posts

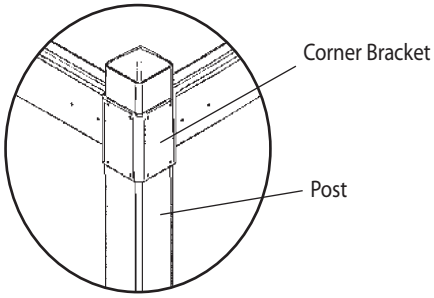
If cementing posts, square all vertical posts using a bubble leve. Add cement to holes and resume assembly in step 9 once cement is dry.

Step 9 **Square** and **level** all four **Beams**

Level the Beams. Place a bubble level on top of the front *Header Beam*. Loosen the *Corner Bracket* set screws at each end of the *Header Beam* and raise or lower the *Corner Bracket* on the *Posts* until level. When level, retighten the set screws. Repeat this process on all *Header Beams* and *Track Beams*.

Step 10 Fasten **Corner Brackets** to **Post**

Drill eight 9/64" holes through the existing mounting holes in the *Corner Bracket* into the wood posts. Fasten with eight 1-1/4" Tapping Screws (B). Repeat at all four corners.

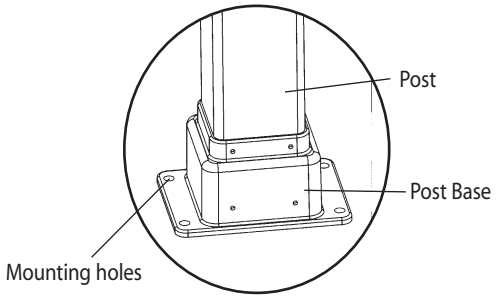


Step 11 Fasten **Post Base** to mounting surface

Square the Post to the floor. Square the post by placing a bubble level or carpenters square along the side of the *Post*. Repeat this procedure on all *Posts*.

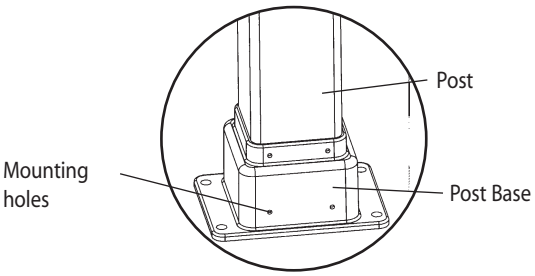
Using the *Post Base* as a template; mark and drill the four base mounting holes into the mounting surface with a 9/64" drill bit. If mounting to wood or vinyl decking, secure the *Post Base* with four 1-1/4" #10 Woodscrews (C) provided. If mounting to concrete or patio stones, please see your local hardware store for recommended screws and drill bit.

Repeat this step at all *Post Bases*.



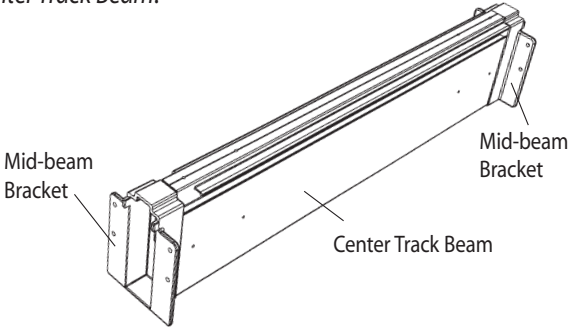
Step 12 Fasten **Post Base** to **Post**

Drill eight 9/64" holes through the existing holes in the *Post Base* through the vinyl post and into the wood post. Secure with eight 1-1/4" Tapping Screws (B).



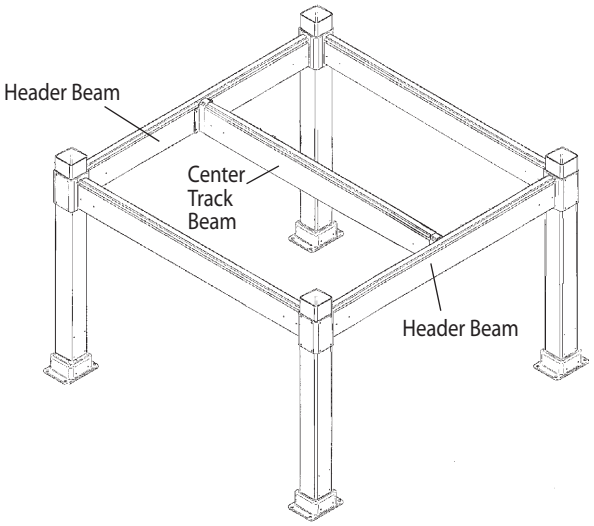
Step 13 Assemble **Center Track Beam**

Insert a *Mid-beam Bracket* into one end of the *Center Track Beam* as shown. Secure them together with three 7/8" Tapping Screws (A). Repeat this procedure at the other end of the *Center Track Beam*.



Step 14 Install Center Track Beam

Lift the *Center Track Beam* into place and align at each end with the four holes on the *Cross Beams*. Fasten to the *Cross Beams* at each end with four 7/8" Tapping Screws (A).

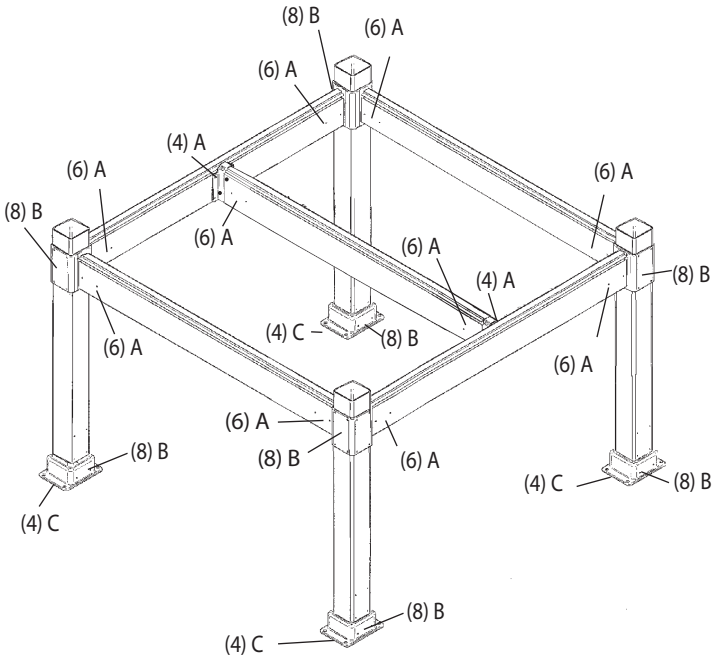


Step 15 Add remaining **screws** & assemble **screw caps**

Use a square and a level to make sure the *Posts* are all square and *Beams* are level. Proceed to insert screws into all remaining fastening points.

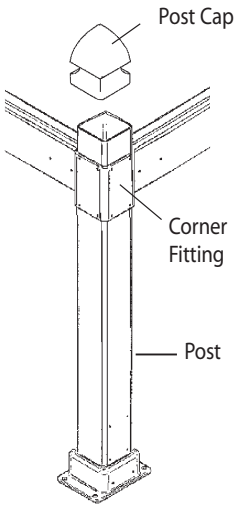
Be sure to use the plastic washer on each screw so a plastic cap can be applied to cover the screw.

Once all the screws are assembled, locate the small white caps (F) in the hardware packet and snap the caps onto the screw cap washers (G).



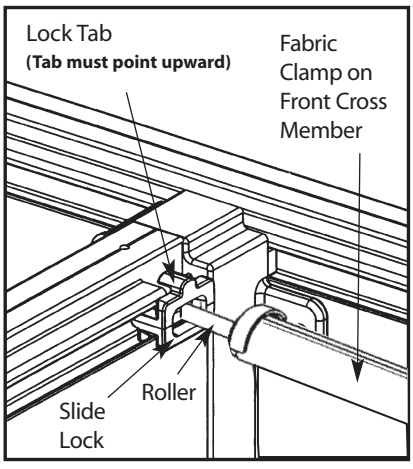
Step 16 Attach **Caps** to Posts

If more than 2" of *Post* is exposed above the *Corner Fitting*, you can cut the excess with a saw before assembling the *Post Caps*. Place one *Post Cap* on top of each *Post*. If you wish to secure the cap permanently on top of the *Post*, apply a bead of clear silicon caulk (not provided) to the inside wall of each cap before assembly.



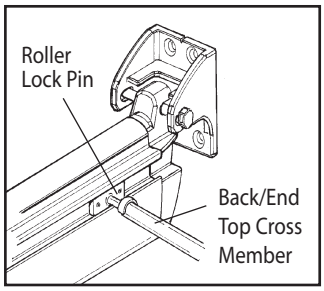
Step 17 Installing the **Canopies**

You can now insert the *Canopies*, starting at the end of the beams with the notches cut in the ends. Insert the *Rollers* at the ends of each *Cross Member*; insert all *Cross Members,* ensuring that the front *Cross Member* is inserted last. The front *Cross Member* is the one that has a *Slide Lock* on each end. **When inserting, ensure that the Lock Tab is pointing up as shown here.** Be sure that the canopy is oriented so that the *Fabric Clamp* (top cross member) is facing up as shown, while the aluminum *Cross Member* is oriented down. Continue inserting the remaining rollers until the entire *Canopy* is up. Install remaining *Canopy* using the same procedure.



Step 18 Locking the end of the canopy

A *Roller Lock Pin* is provided to hold the *Cross Member* nearest the house in a fixed position. It will arrive already inserted in the canopies in the last cross member. Once in place, it can be secured with set screws. The locking pin will hold the last *Cross Member* firmly in place. Repeat on each track. (On masonry houses, it is recommended to leave a few inches between the canopy and the house to prevent scuffing of the canvas during windy weather).



Step 19 Installing the **Top Lock Brackets**

Pull each canopy section out to the position where you want it to end. Place a *Top Lock Bracket* on the top of the track in the orientation shown in Fig. 2A. Tighten set screw 1 on both sides of the *Top Lock Brackets* with the Allen wrench provided (I) . . . making sure that the *Top Lock Brackets* are completely pushed down on the track before tightening.

Test the snap-in *Top Lock Bracket* and tighten or loosen the adjusting screws as required for the desired tension. The recommended tension setting procedure is to turn the adjust screw clockwise until it stops, and then back the adjust screw out six full revolutions Repeat this step on each lock mechanism.

Pull each canopy back to the fully retracted position. Place another *Top Lock Bracket* on each track at this point, in the orientation shown in Fig. 2A. Tighten the set screws.

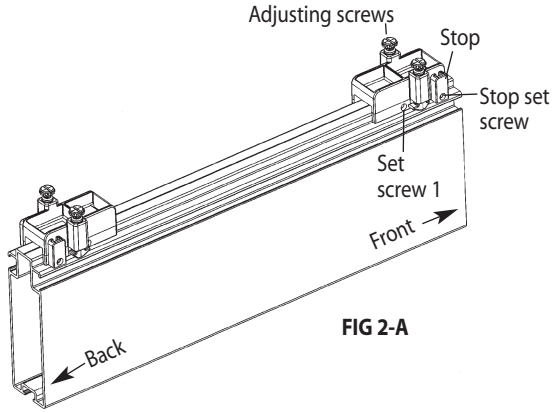


FIG 2-A

NOTE: The locking system is designed to release the canopies in high winds to protect the canopies. The adjusting screws can be used to adjust the tension. Do not over-tighten, as this could increase the chance for canopy damage in high winds.