

ShadeTree® Canopy Systems Assembly Instructions

ShadeTree® Deluxe or Basic Pergola supported by a vinyl free-standing support structure.

The Pergola



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.

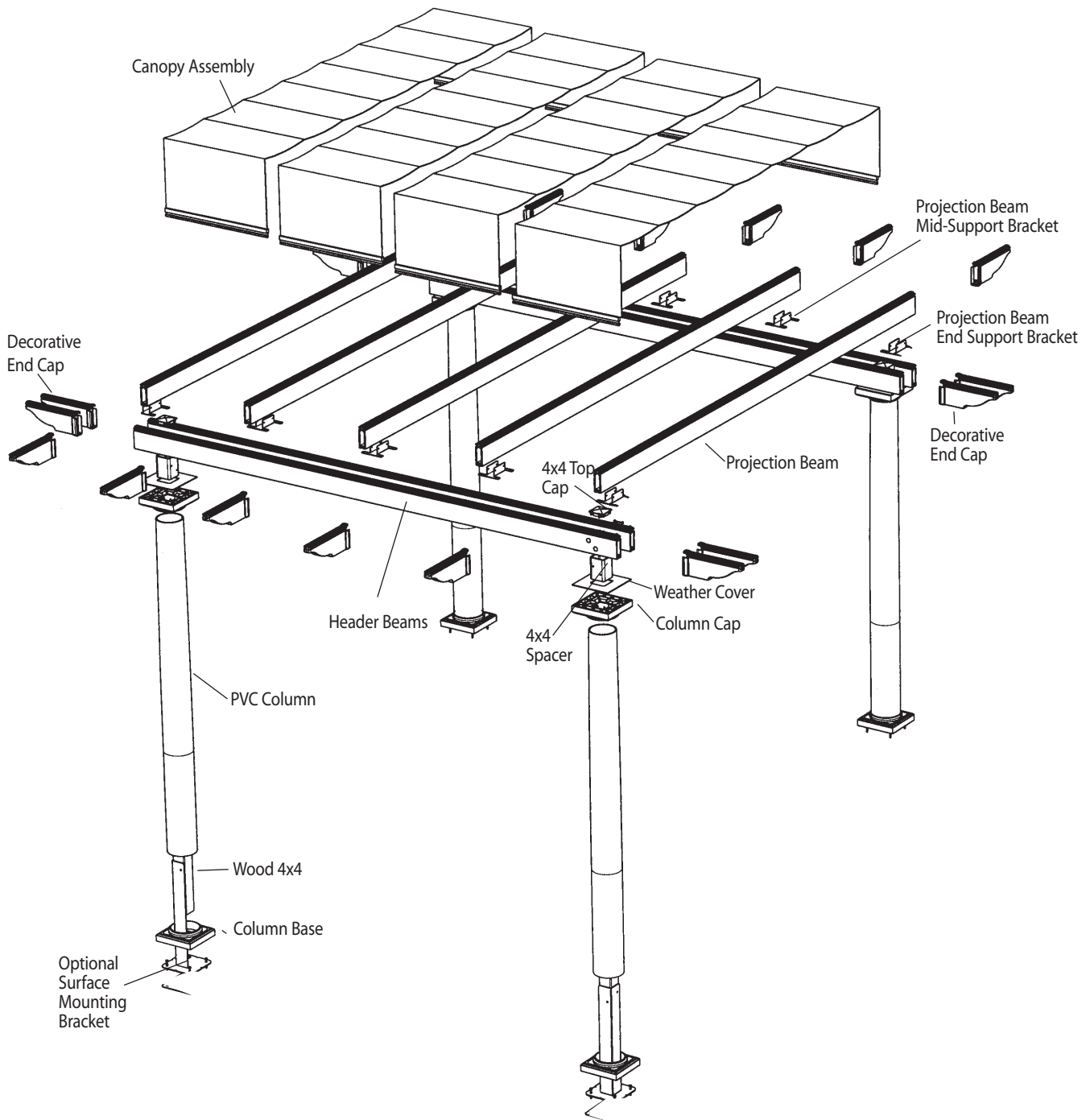
Sincerely,

Colin LeVeque, President
ShadeTree Systems, LLC.

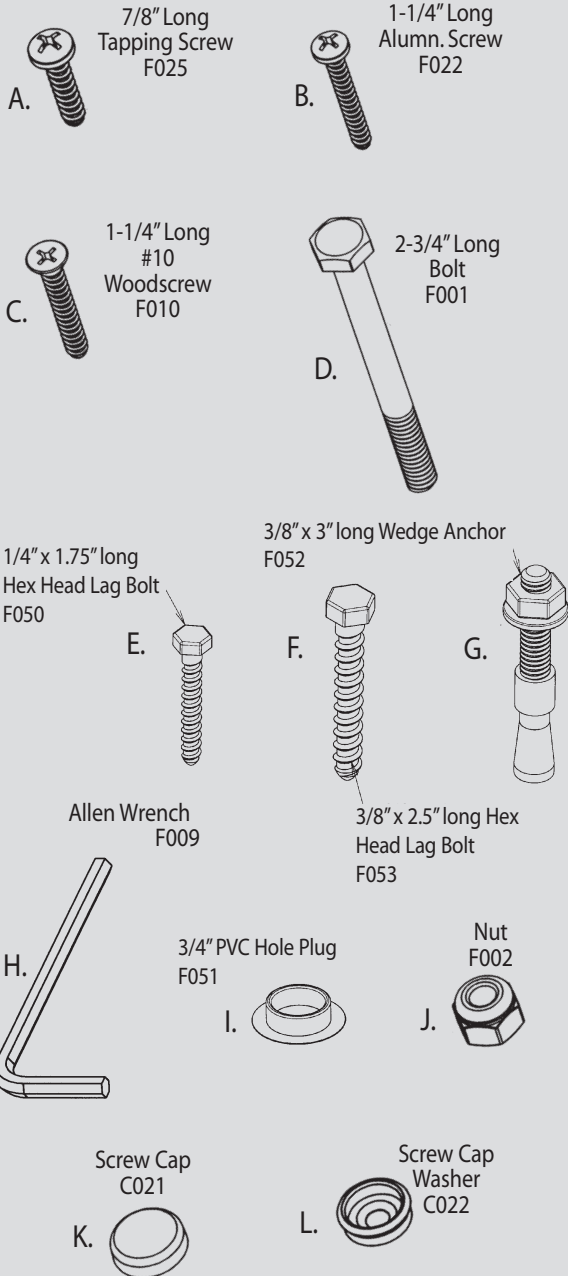
ShadeTree®
Retractable Patio & Deck Canopies



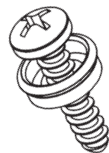
Complete pergola-style vinyl overhead canopies and beams and vertical support system to be free-standing. These instructions are to be used for pergolas with round columns as shown in the illustrations, or square posts (not shown). If using square posts, skip step 5. The optional post anchor looks similar to the illustration shown on the next page, but has a smaller base or fit with the smaller post base.



Fasteners & Hardware Provided:



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



Tools required:

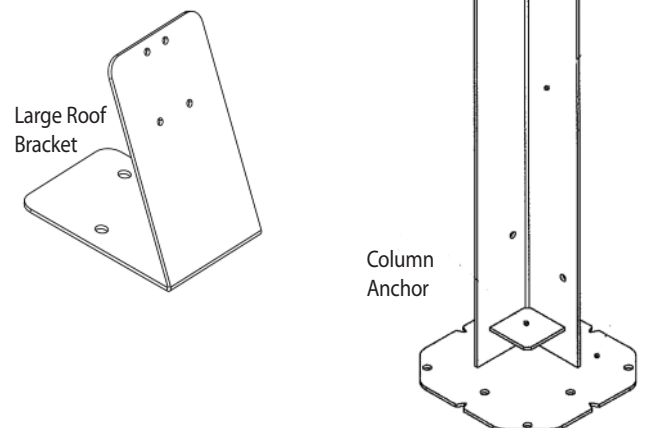
1. Phillips screwdriver
2. Hand drill
3. Power Drill
4. Phillips-Head Bit
5. Carpenter's Square
6. Pencil
7. Bubble-Type Level
8. Tape Measure
9. Tape
10. 8' Ladder
11. Circular Saw
12. hand saw
13. Post-Hole Digger (optional)
14. Ratchet
15. Deep Socket - 3 sizes
 - 1/4"
 - 7/16"
 - 3/8"
16. "Quick Grip" Clamps
17. Drill Bits 9/64", 1/4", 3/16", 3/4"
19. 3/8" masonry bit for concrete mounting

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

CAD –YOUR PROVIDED CUSTOM BLUEPRINT :

Each ShadeTree Pergola will ship with a custom-designed CAD drawing showing all of the dimensions necessary for installation. Please refer to this CAD for all steps in these instructions. If a CAD did not come with your ShadeTree system, please call customer service before proceeding with installation.

Optional installation accessories:



Step 1 – Preparing the surface

If you do not have a level surface (most patios have a slight slope to shed water), you may need to cut the columns that are to be placed on the high side of the mounting surface. You should first establish the difference in elevation (you can use a level and tape measure if necessary). Next, measure up and place a mark from the bottom of the column, the difference in elevation. **(You should only cut the column from the bottom)**. It is important that your ShadeTree structure be built so the beams and headers are level. A deck or patio is an ideal surface. Another option is to set 4x4s into 3' deep hole and encase in concrete.

Step 2 – Determine post locations by using supplied CAD drawing

Each ShadeTree Pergola will ship with a custom-designed CAD drawing showing the dimensions from center to center of posts. Use those dimensions to mark where the centers of the posts will be positioned. Be sure to measure diagonally, from center mark to center mark for posts, to assure that the structure will be square.

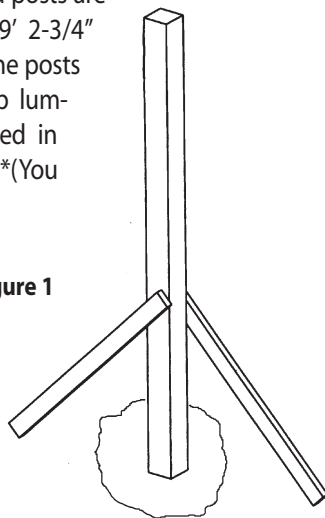
Step 3 - Internal Post assembly (set or surface-mounting)

For Wood Posts set in concrete:

Step 3-A – Dig holes and secure posts

You will need 12' or longer 4x4 posts when setting posts into concrete. We recommend that you use pressure treated lumber for this application. Once you have determined the post locations, you can begin digging the holes. You should dig the holes to a depth of 3 feet. Mix concrete according to manufacturer's instructions and pour into holes. Insert posts into wet concrete. Check that wood posts are plumb and extend at least 9' 2-3/4" above ground level. Stabilize the posts temporarily by attaching scrap lumber into the posts as illustrated in Figure 2 and let concrete set. *(You can now go to Step 4).

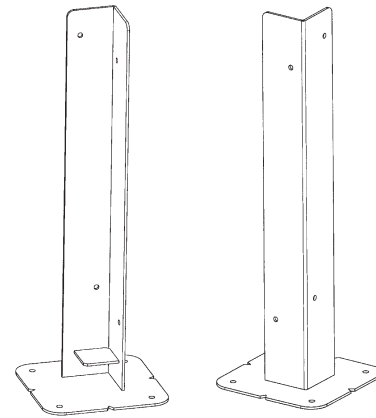
Figure 1



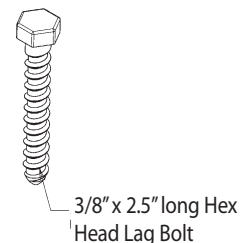
For Surface-Mounting internal wood support Posts:

Step 3-B-1 – Pre-drill mounting holes

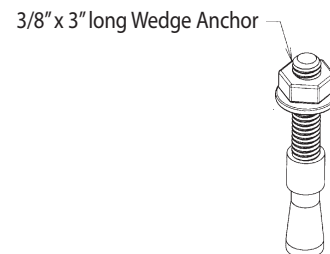
Before drilling holes into the surface, be sure that the *Surface-Mounting Bracket* alignment notches are aligned with the centerlines of the posts.



If attaching to a wood surface. Use the *Surface-Mounting Bracket* as a template and pre-drill for the 3/8" x 2 1/2" lag bolts that will secure the *Surface-Mounting Bracket* to your surface (using a 1/4" drill bit). Repeat for all column locations.



If attaching the posts to concrete. Use the steel bracket as a template and pre-drill for the wedge anchors with the masonry bit included. After pre-drilling the holes, use a hammer to drive in the wedge anchors. Repeat for all column locations.



Step 3-B-2 – Attach wood post to surface-mount bracket

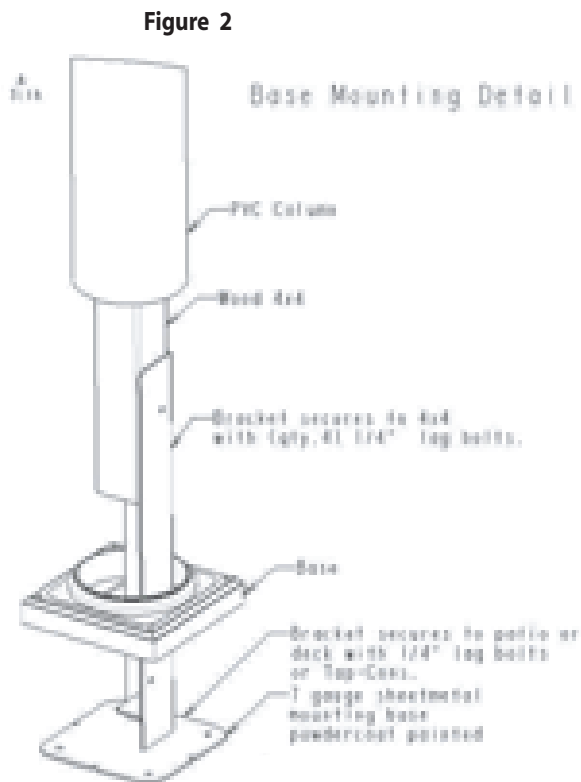
While in horizontal position on the ground, attach each wood 4x4x10' post onto the *Surface-Mounting Bracket*. Pre-drill for the 1/4" x 1 3/4" long lag bolts using a 3/16" drill bit. Install the 4 lag bolts through the steel support into the 4x4 wood posts. See Fig. 2.

Step 3-B-3 – Attach bracket assembly to surface

Attach surface-mount bracket with 4x4 post to the mounting surface using center line marks. If attaching to concrete, a hammer will be need to fully insert the wedge anchors into the pre-drilled holes. If attaching to wood, tighten the lag bolt using a ratchet.

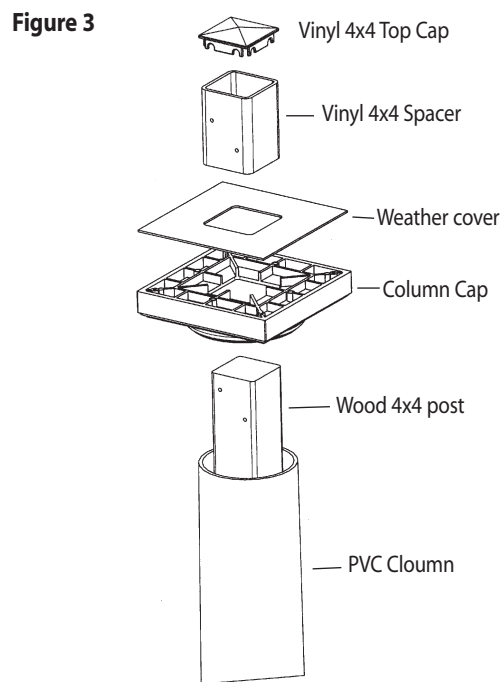
Step 4 – Assemble column over posts

Slide column base and column over the wood 4x4 post and bracket. (see Fig. 4). *Cover Base Plate* with *Column Base*.



Step 5 – Assemble Column Cap

After erecting the posts and columns, place the *Column Cap* and *Weather Cover* (thin, flat, square piece of PVC with square hole) on top of the column (Fig. 3).



Step 6 – Cut excess wood post

Mark on the wood 4x4 post 5" from the top surface of the *Column Cap* and *Weather Cover*. This is the point at which you need to cut off the excess portion of the wood post. You can use a jigsaw to cut the top of the wood post. After the top of the wood post is cut off, slide the vinyl 4x4 *Spacer* over the top of the wood post, and rest it on top of the *Weather Cover*.

Once you have fully assembled the *Column Cap*, put a bead-line of silicon sealant (not supplied) around the joint between the *Weather Cover* and the *Column Cap*. Do the same for the joint around the *Top Cap* and the *Vinyl Spacer*. Then fill the gap between the *Vinyl Spacer* and the *Weather Cover* with a generous amount of sealant.

Step 7 – Position first Header Beam

Place the pre-cut and pre-drilled *Header Beam* according to Figure 4. Place the headers on top of the *Column Cap* with the pre-drilled holes centered on the support post, with the end of the *Header Beam* 1 1/8" overhanging the outside edge of the *Column Cap*. Clamp the header to the wood post.

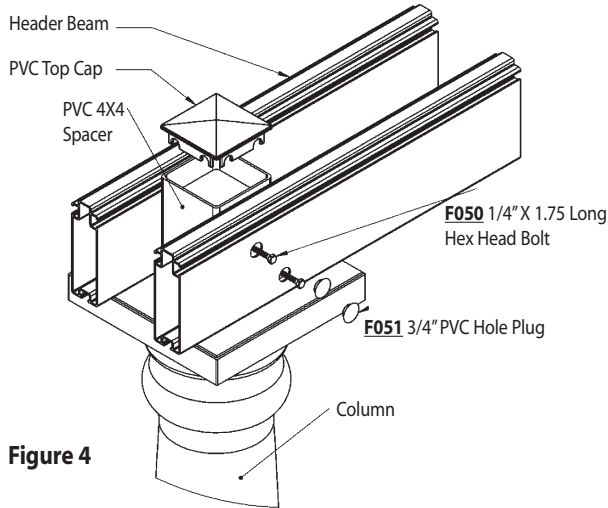


Figure 4

Step 8– Pre-drill headers

Place the pre-cut *Headers* according to Figure 4. Place the *Headers* on top of the *Column Caps* with the end of the *Headers* overhanging the outside edge of the *Column Caps* a minimum of 1-1/8". Clamp the *Headers* to the wood post. Use a 1/4" bit to start a pilot hole in one header that is 1" to the right of the center of the post and 1" below the bottom lip of the track/roller channel. Start another pilot hole that is 1" to the left of the center of the post and 3 1/2" below the bottom lip of the track/roller channel. Use a 3/4" bit to drill the large holes in the vinyl and aluminum insert to the proper size for the bolts - **do not drill large holes all the way through the header - only drill the outer layer of vinyl and aluminum.**

When positioning a column where headers are being joined, start a pilot hole 7/8" in from the edge of each header and 1" down from the bottom lip of the track/roller channel. Put another pilot hole 7/8" in from the edge and 3 1/2" down.

Step 9 – Assemble all headers

Repeat steps 7-8 for remaining posts and headers.

Step 10 – Next, secure the Projection Beam End and Mid-Brackets to the projection beams in the pre-drilled holes. The Projection Beam End Brackets (one-sided brackets) are to support the left-most and right-most projection beams (outside projection beams) and the feet of the bracket should face inward toward the next projection beam. Secure with #10 screws with caps and washers.

Step 11 – Attach Projection Beams

Attach Projection Beams, with brackets already attached, to the headers on the pre-drilled holes. The first Projection Beam to attach is either the left or right outermost beam. The provided CAD drawing will give you the center-to-center measurements for positioning the remaining Projection Beams.

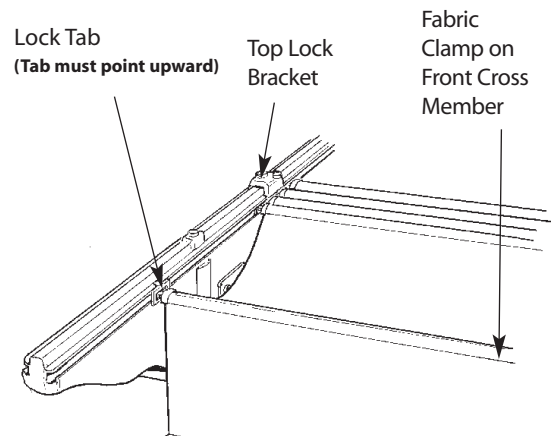
Step 12 –Place 4x4 Top Caps onto the tops of all corner posts.

Step 13 – Snap 3/4" PVC hole plugs into header beams to cover lag bolt holes.

Step 14 – Place decorative end caps on all headers using #10 washers and caps provided.

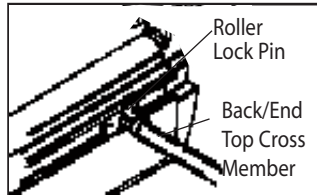
Step 15 - Installing the Canopies

You can now insert the *Canopies*, starting at the end of the beams. 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 16 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).



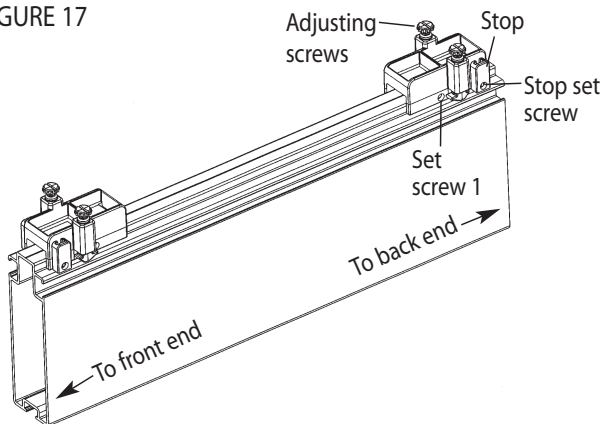
Step 17 Installing the Top Lock Brackets

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. 17. 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. 17. Tighten the set screws.

FIGURE 17



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.

How to **remove** ShadeTree® Canopies for **end-of season storage**:

1. Remove the **Top Lock Brackets** at the "retracted" end of each track (see step 17.)



2. Remove the **Roller Lock Pin** which holds the last *Cross Member* in a fixed position (see step 16.)
3. Then simply roll the **Cross Members** out of the "retracted" end of the track. The tracks can remain up year-round.
4. **If a canopy is dirty** and requires washing before storage, simply spread the canopy on a driveway or other flat surface. Use a medium-firm brush or broom to remove dirt particles while the fabric is still dry. If necessary, use a bucket of warm water and a mild soap, such as Ivory Snow to clean the fabric.

Be sure to rinse well by hosing with a clear water. Allow to air-dry completely in the sun before rolling canopies up for storage. **(Do not store wet canopies!)**

Care and cleaning of your ShadeTree® Canopies

1. **ShadeTree® tracks** should be cleaned regularly to keep debris and dirt from accumulating and interfering with the *Rollers*. Simply use a mild detergent with a small soft brush, such as a toothbrush, and gently wipe or brush along the inside of the tracks. To maintain a smoothly operating system, use the **ShadeTree® EasyRider Track Lubricant** in the *Roller Tracks*. **Note: Do NOT use oil or any wet lubricant, such as WD-40, on the tracks as it would attract more dirt.**
2. **Fabric** should be cleaned regularly before substances such as dirt, roof particles, etc., are allowed to accumulate on and become embedded in the fabric. The fabric can be cleaned without being removed from the *Cross Members*. Simply brush off any loose dirt, roof particles, etc.; hose down and clean with a mild natural soap in lukewarm water (no more than 100° F.) Rinse thoroughly to remove soap. **DO NOT USE DETERGENTS!** For ultimate performance, use **ShadeTree® Canopy Cleaner Mold & Mildew Stain Remover**.
3. For stubborn stains soak the fabric for approximately 20 minutes in a solution of no more than 1/4 cup (2 oz.) natural soap per gallon of water at approximately 100° F. Rinse thoroughly in cold water to remove all of the soap. Note: Excessive soaking in bleach can deteriorate sewing threads. This method of cleaning may remove part of the water repellency and the fabric should receive an application of an air-curing water-repellent treatment, such as **ShadeTree® Canopy Cleaner Mold & Mildew Stain Remover** and **ShadeTree® Water Repellent** or similar products, if water repellency is a factor.
4. When washing or cleaning, **DO NOT SUBJECT TO EXCESSIVE HEAT** as the fabric will shrink. **DO NOT STEAM PRESS OR DRY IN ELECTRIC OR GAS DRYERS**, but allow to air dry.
5. In cases where canopies are taken down & stored, they should be cleaned and allowed to air dry, before being stored in a dry, well ventilated area.

Here's a chance to earn \$50!

We regularly use pictures in our advertising materials. If you send us reproducible pictures of your new ShadeTree® canopy installation, and we use them in any of our advertising, we will send you \$50. Interesting before-and-after pictures will receive an additional \$50. Of course, attractive landscaping and patio furniture will be a factor in selecting pictures to be used. Architects, builders and installers will receive credit mentions in the advertising.