

## Craftsman & ShadeFlex Canopy Installation Guide

Read this guide and review shop drawings and notes before beginning installation.

All packages should be opened and inspected for hidden damage upon receipt. Any missing or damaged components should be noted on the delivery receipt with the carrier before accepting the shipment. All items should be repackaged and stored where protected from moisture, dirt, and excessive heat. Do not wrap material so that heat or moisture can become trapped. Ensure that items are level, fully supported, and have airflow between parts. Damage from improper storage is not considered shipping damage and is not covered by product warranties. Handle materials so as to protect materials, coatings, fabric and finishes during transportation and installation to prevent damage or staining.

It is the responsibility of the installer to meet or exceed all code and safety requirements, and to obtain all required building permits. These instructions are only a guide, and may not address every circumstance. The installer should determine and implement appropriate installation techniques for each situation. Structureworks shall not be held liable for improper or unsafe installations.

### Recommended Tools

The tools required for installation will vary depending on structure configuration and the hardware used. Review shop drawings to confirm drill bit sizes, socket sizes, and other project specific tools.

- Pencil
- 4' Level
- 8' Ladder (2)
- Framing Square
- Caulk Gun
- Drill
- Impact Driver w/ Phillips Bit
- Tape Measure
- Rubber Mallet
- Adjustable Wrench
- Socket Wrench w/ Sockets
- 1/8" Allen Wrench

### Required Materials

Depending on the configuration of the structure, additional materials such as ledger attachment hardware, silicone caulk, and anchoring epoxy may be needed. Review shop drawings for project specific requirements.

### Paint Touch-Up

All structures will require touch up over time and at completion of construction. Use extreme care when handling components. Touch up paint is provided. In the event of scratching or chipping, touch up the painted surface with the included brush. Apply light coats in order to allow the paint to flow and dry with a smooth finish.

## **Structure Cleaning and Maintenance**

Use a combination of Simple Green All-Purpose Cleaner and hot water with a soft bristle brush. Clean after installation and on an annual basis. For more difficult to clean marks, a Mr. Clean Magic Eraser can be used. Structural attachments should be inspected annually.

## **Canopy Use and Maintenance**

Do not operate in rain or high winds.

Inspect annually for wear and tighten or replace parts as needed.

To reduce dirt buildup, remove canopies and rinse fabric with a hose. Do not use a power washer. Allow fabric to dry before retracting.

Apply ShadeFlex track cleaner regularly to keep rollers operating smoothly.

Use ShadeFlex fabric cleaner to clean heavy dirt or stains, and apply ShadeFlex canopy water repellent to protect the fabric from mildew and environmental damage.

If canopies will not be used for an extended period, they can be retracted and secured with a ShadeGuard. During winter months it is advised to remove and store the canopy. To remove the canopies, loosen the WindLock set screws at the retracted end and remove the plate. Then, loosen the set screws on the roller lock pins and remove all crossmembers. Store the canopy in a dry, protected location.

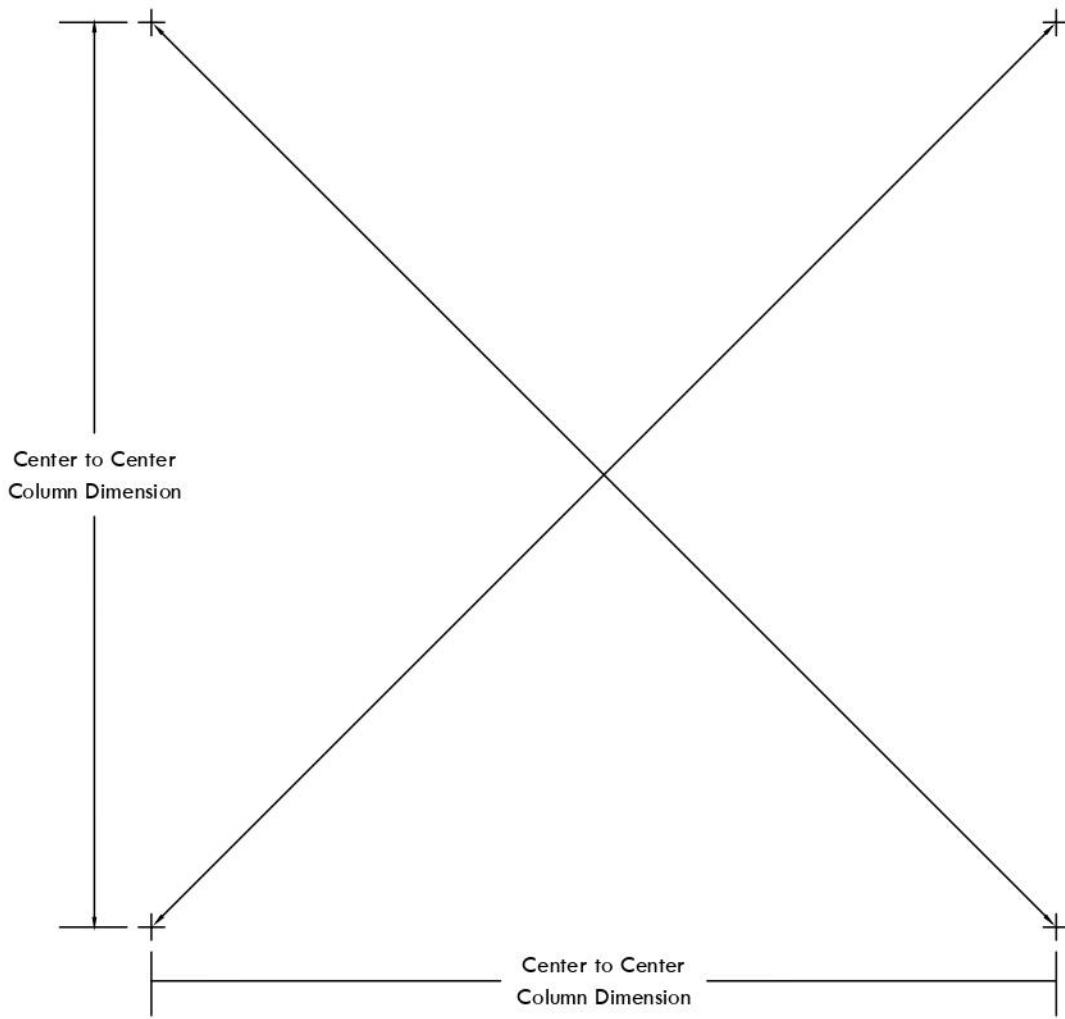
## Installation Sequence

This installation guide provides a step by step sequence for the installation of the structure and canopy. This guide covers only the structure and the canopy, separate installation guides are provided for accessories and other products used in the installation of the structure. Ensure that you have all required installation guides before beginning the installation.

All structures are made to order and are provided with shop drawings. Shop drawings may contain additional information, details, or job specific instructions. Shop drawings take precedence over this installation guide.

## Layout

Layout all columns according to the shop drawings. Columns must be located precisely and variations in the height of the mounting surface must be accounted for by leveling each column. The structure will not install correctly if the columns are installed out of square or out of level from one another.



## Prepare for Column Installation - Concrete Mounting Surfaces

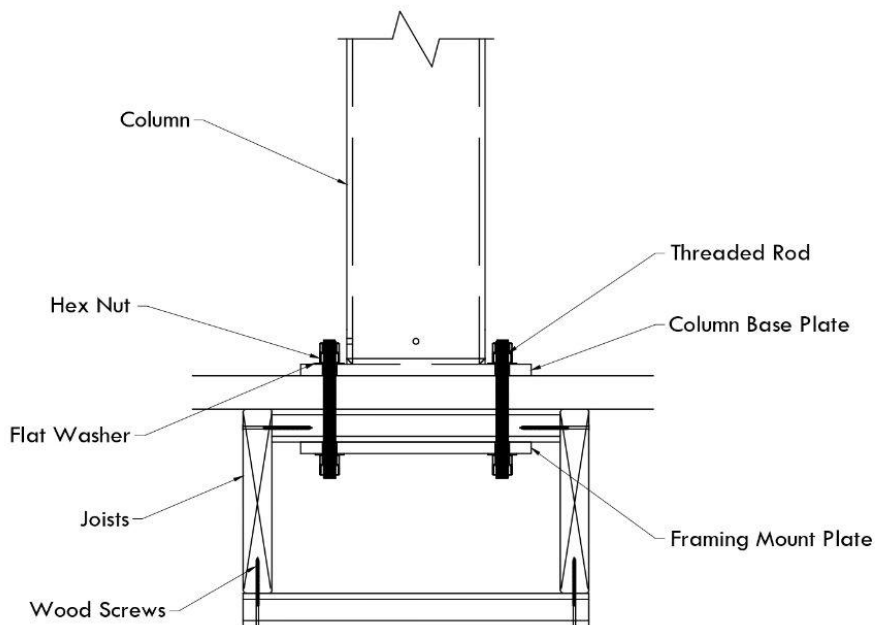
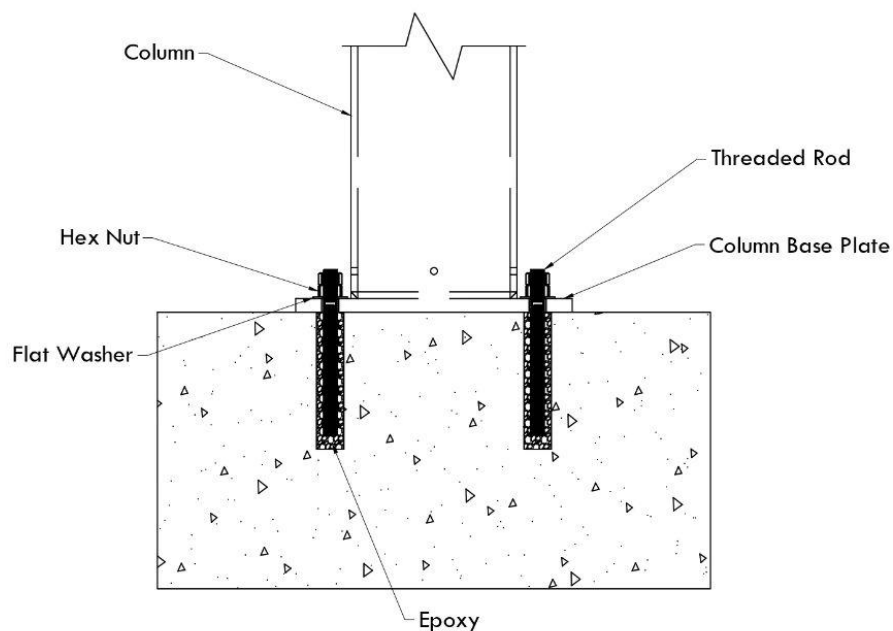
Drill the holes for the threaded rods and epoxy. The holes should be sized larger than the threaded rod diameter per the epoxy manufacturer's instructions. Clean the hole thoroughly.

Fill the holes with epoxy per the manufacturer's instructions. Insert the threaded rods in a twisting motion to ensure epoxy flows into the threads of the rods. Ensure that the rods are inserted to the proper depth and are plumb. Do not anchor the column to the surface during this step.

## Prepare for Column Installation - Wood Mounting Surfaces

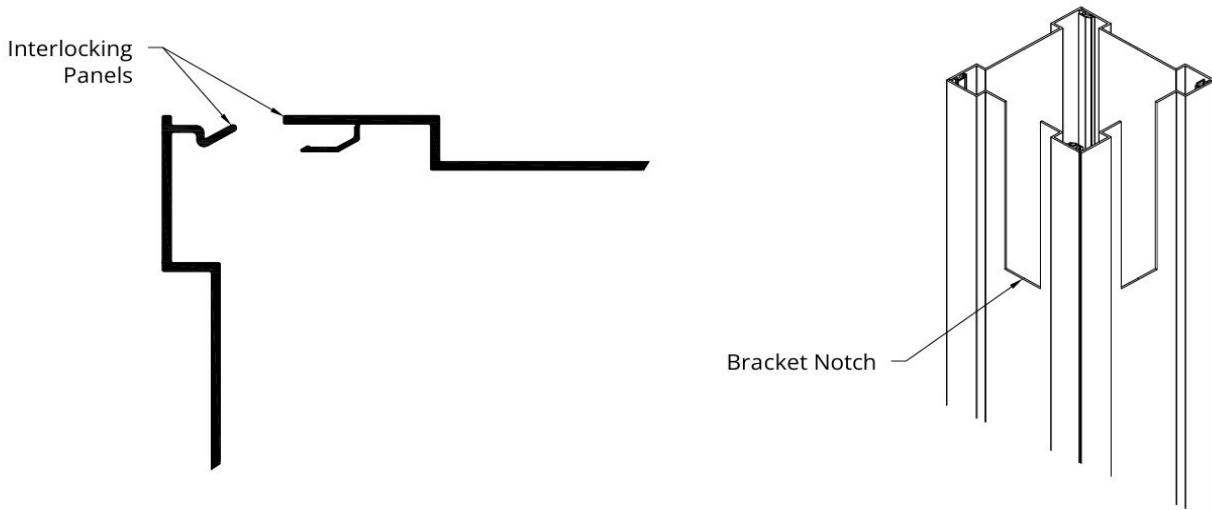
Install pressure treated wood blocking between the joists against the underside of the decking. Blocking should be a nominal thickness of 2" and wider than the framing mount plate.

Drill the holes for the threaded rods through the deck and wood blocking. Do not anchor the column to the surface during this step.



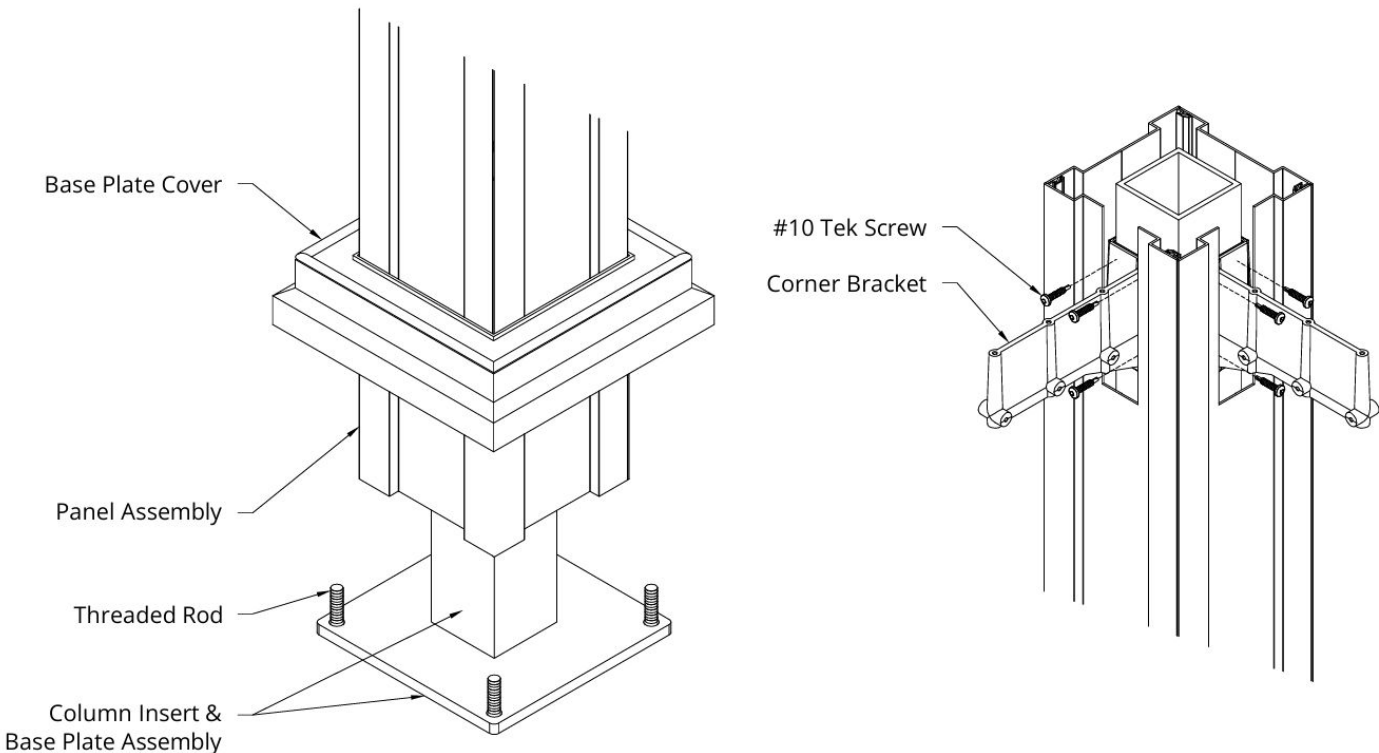
## Pre-Assemble Columns

Recessed panel columns are assembled from four interlocking panels, some of which include notches at the top to accommodate the width and rafter tracks. Begin by assembling the panels, ensuring that the notched panels are oriented according to the shop drawings. If needed, use a rubber mallet to gently tap the panels into place.



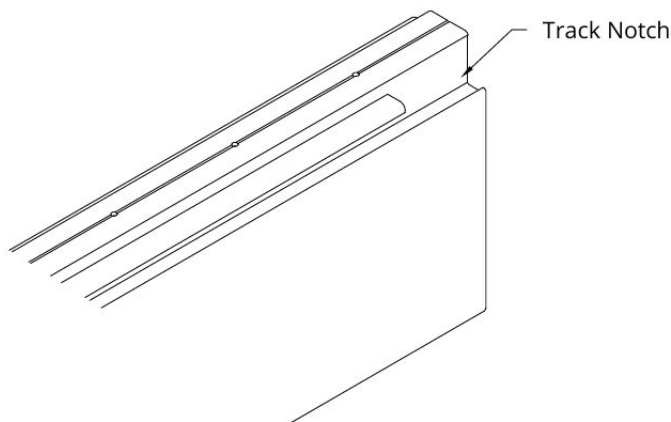
Slide the assembled column over the column insert and base plate assembly. Next, position over the installed threaded rods. Then, slide the base plate cover over the column assembly until it sits flush at the bottom.

At the top of the column, slide the appropriate bracket over the column insert assembly and secure with screws at the height specified in the shop drawings.



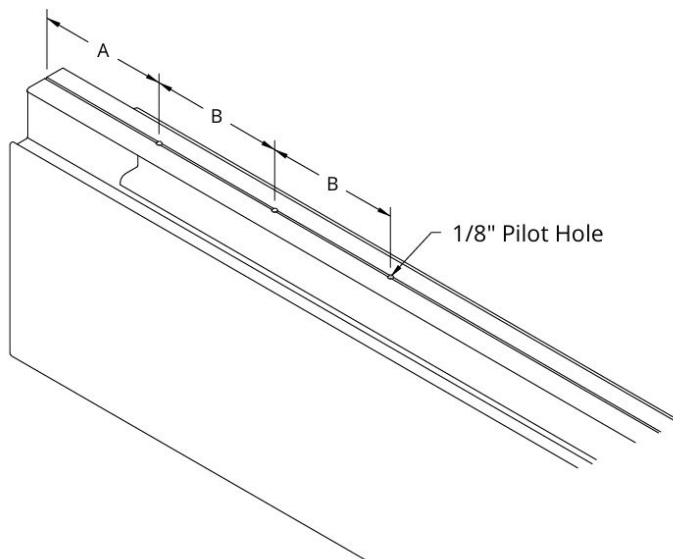
## Identify Rafter Notches - Freestanding Structures

All rafter tracks on freestanding structures will have notches at one end to accommodate the canopy installation. When installing the tracks, make sure the notches are positioned at the rear of the structure, where the canopies will retract. Outside tracks will have a single notch, while mid tracks will have two. Ensure the notches on outside tracks are towards the inside of the structure.



## Prepare Tracks

Drill 1/8" pilot holes at the ends of each track. Dimensions A and B depend on the track location and bracket type. Refer to the shop drawings for the dimensions for each track.



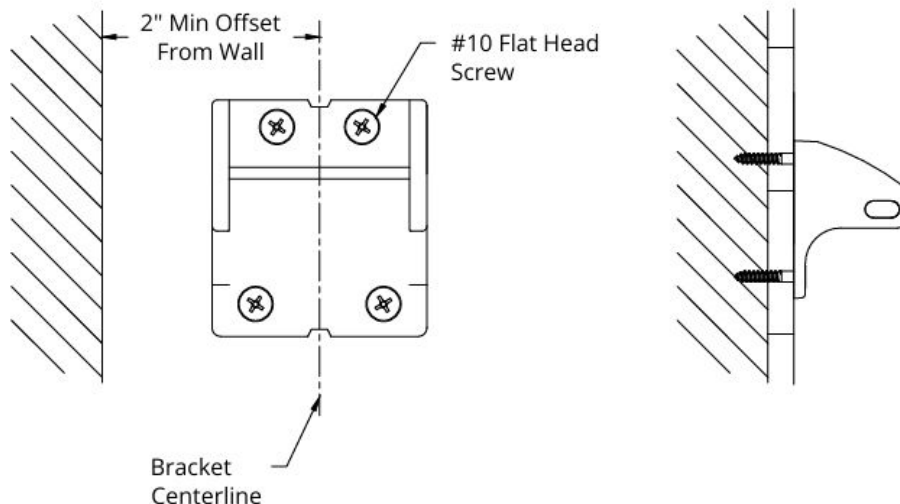
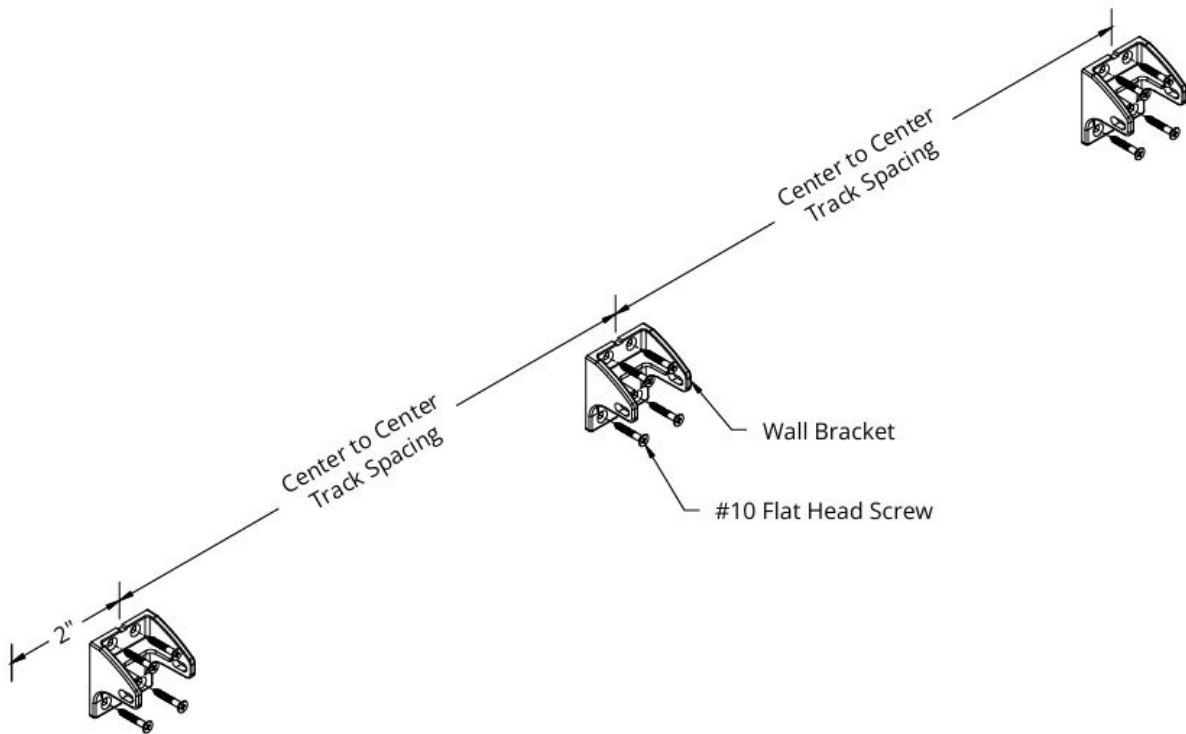
## Install Mounting Brackets & Prepare Rafter Tracks - Attached Structures

For attached structures, one side will be mounted to a host structure using mounting brackets. All brackets must be installed at the same height that is detailed in the shop drawings.

Begin by determining the location of either the left or right corner bracket. If the bracket is positioned in a closed corner, maintain a minimum 2" offset from the center of the bracket to the adjacent wall. If the bracket is in an open area, it can be mounted flush with the edge.

Secure the bracket using screws. Ensure the brackets are mounted to structural components that can support the loads of the structure. When mounting to a surface other than a wooden ledger or wood substrate, use hardware appropriate for that surface.

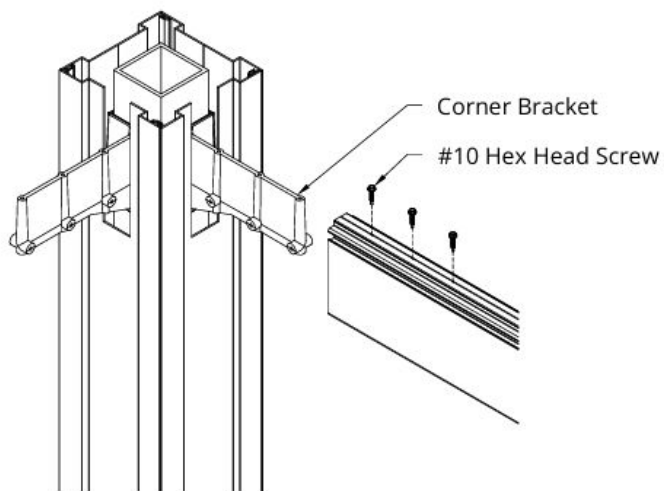
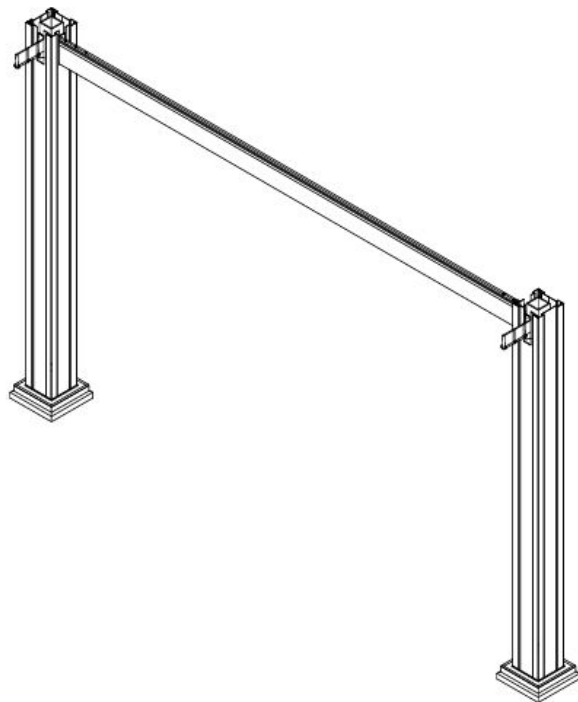
Using the center-to-center spacing shown in the shop drawings, install the remaining brackets,



## Install Width Track

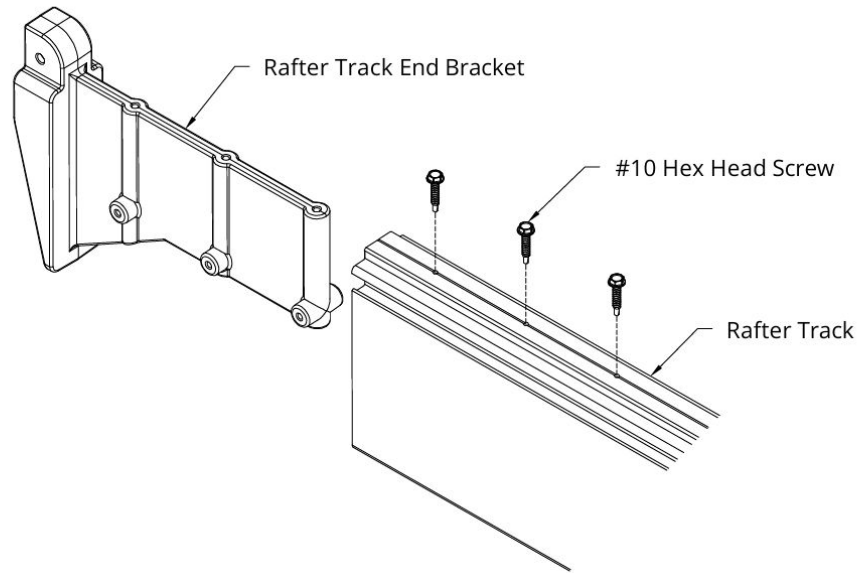
Locate the width track(s) for the structure and use the shop drawings to determine placement.

Slide one end of the track onto a rafter bracket. Then, tilt the adjacent column outward and slide its bracket into the other end of the width track. Once the track is in place, secure using screws. For freestanding structures, repeat this step for the adjacent side.



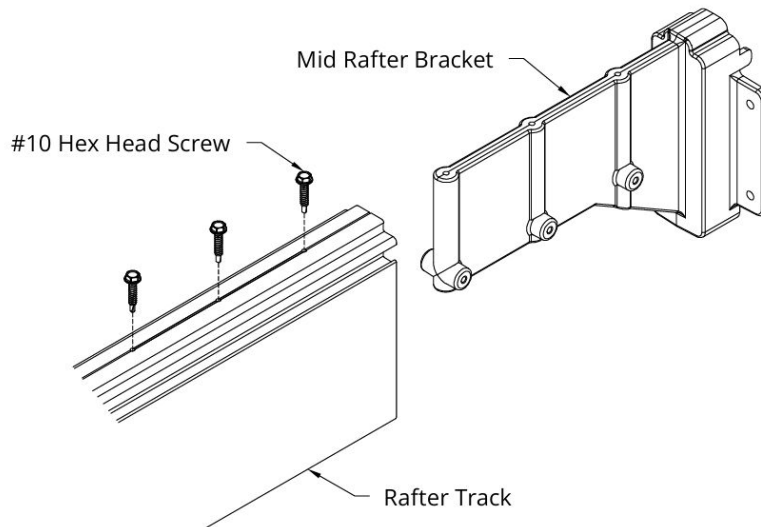
## Install Rafter Track End Brackets - Attached Structures

For attached structures, install the end bracket on the wall side of each rafter. Secure with screws.



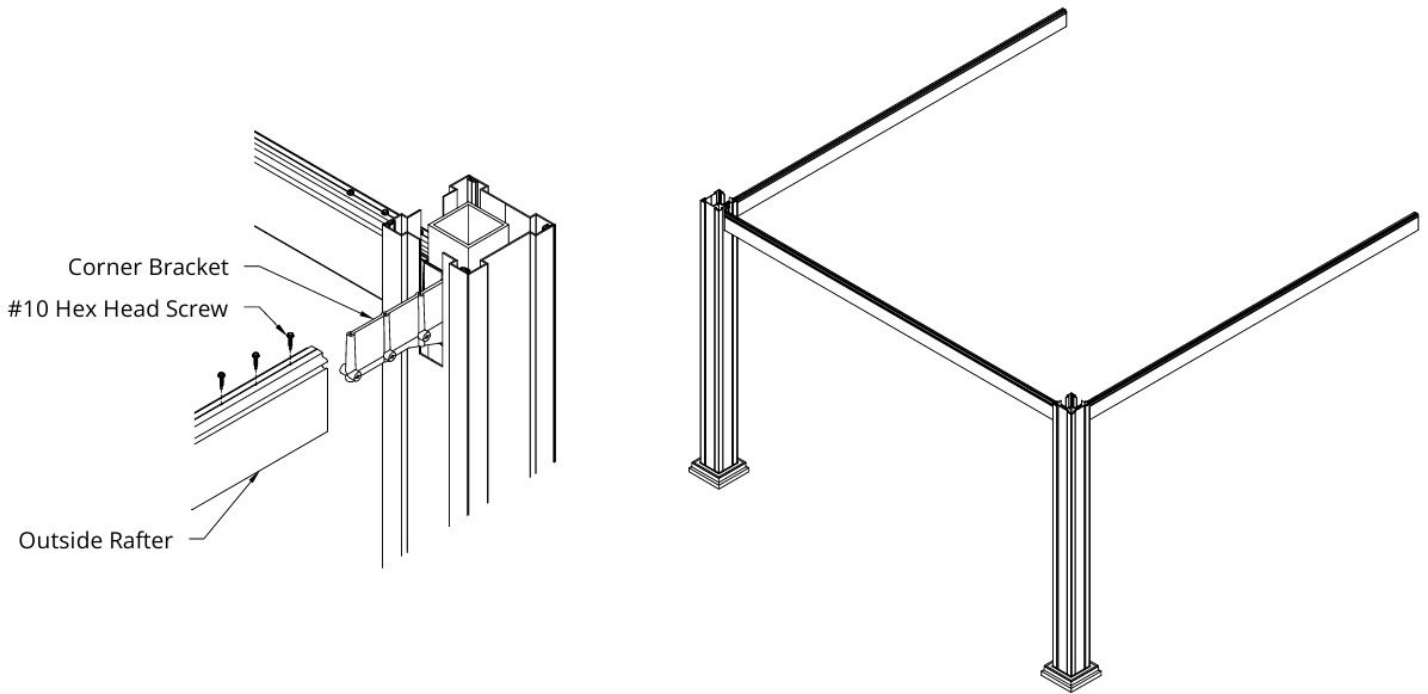
## Install Mid Rafter Brackets

Install mid brackets on both ends of the mid rafters for freestanding structures, and on the opposite side of the end bracket for mid rafters on attached structures. Secure with screws.

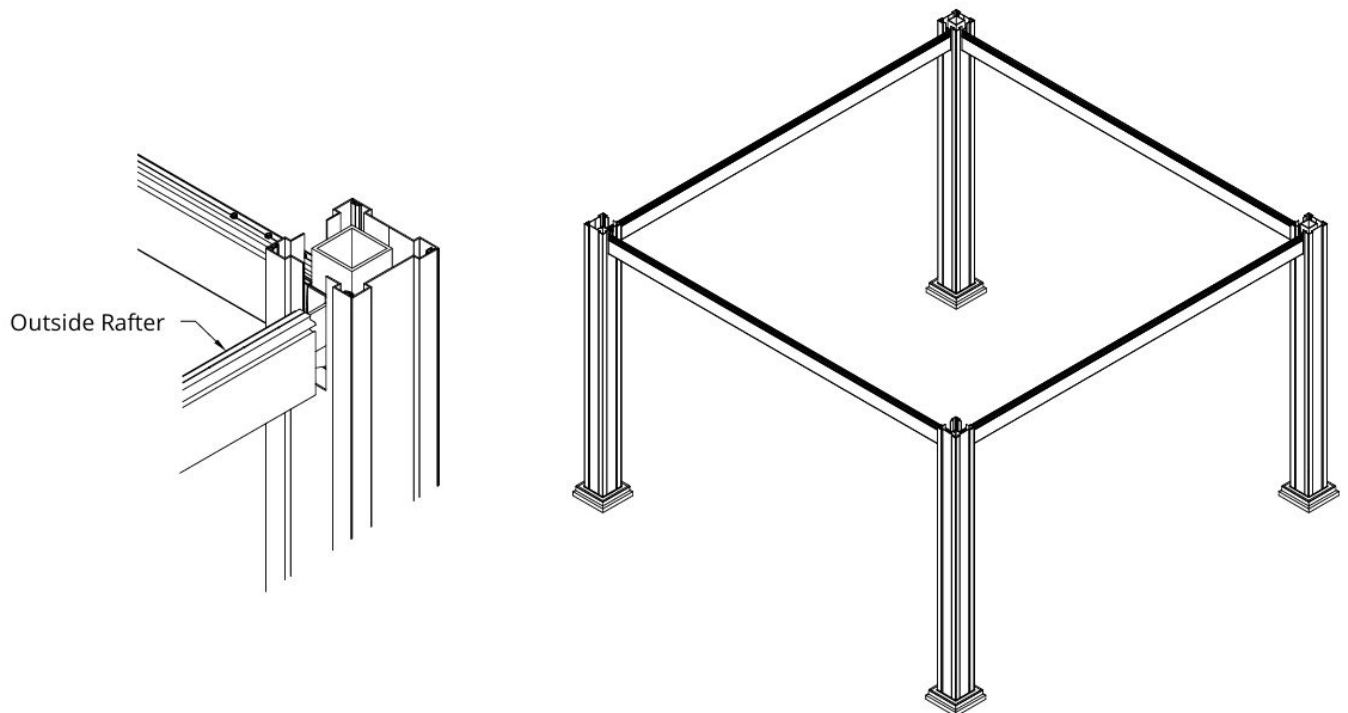


## Attach Outside Rafters

Attach the outside rafter tracks to the column and width track assembly by sliding the bracket into the open end of the outside rafter. Secure the bracket with screws. Ensure the opposite end of the outside rafter is supported during this step.

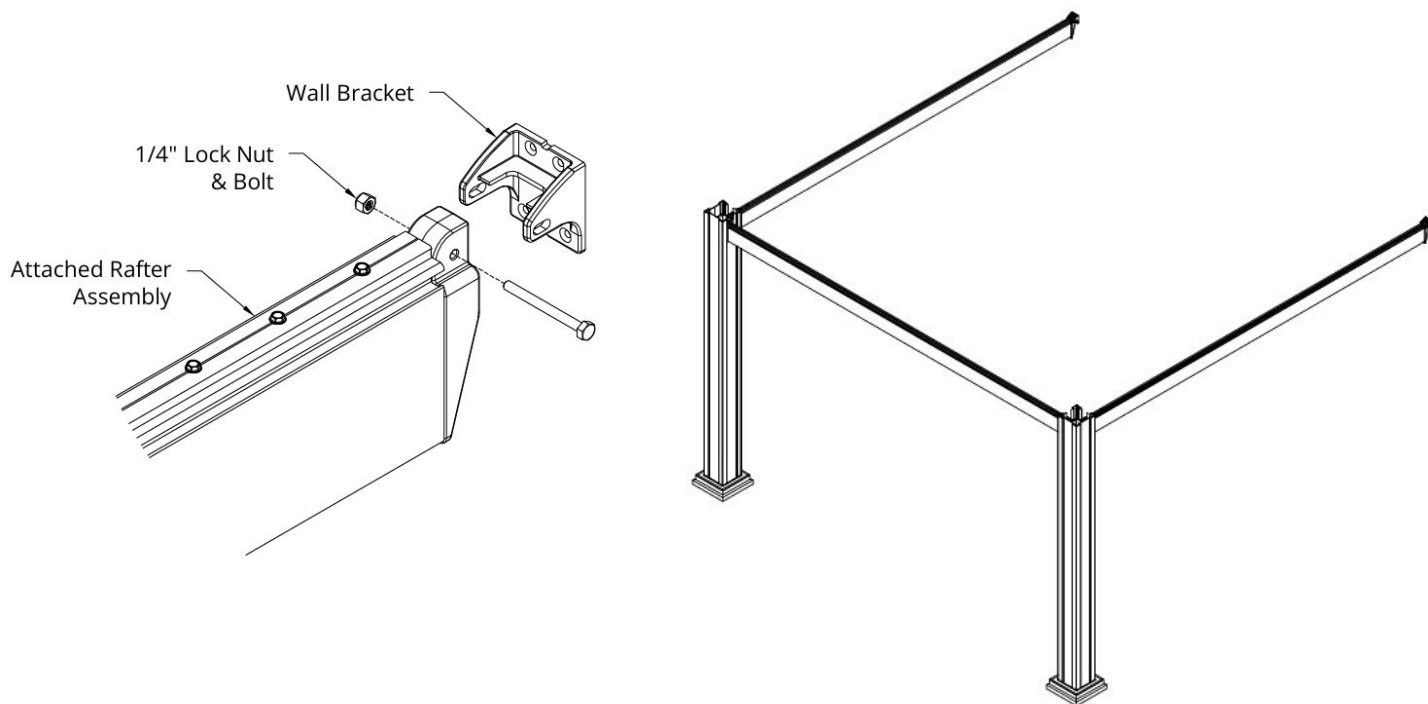


For freestanding structures, insert the opposite end of the outside rafter into the adjacent column and width track assembly, leaving an approximate 1/2" gap between the track and bracket. Do not secure the rafter track to the bracket at this time.



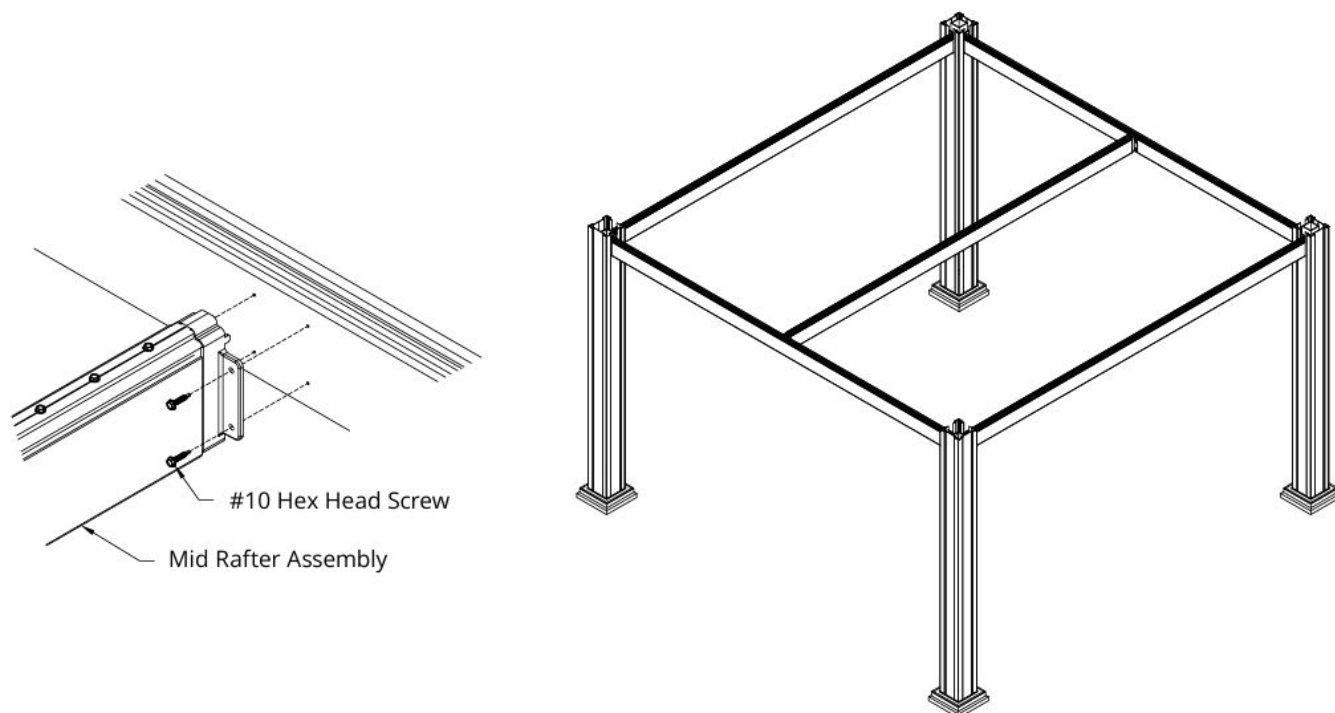
## Attach Outside Rafter (Continued) - Attached Structures

For attached structures, lift the wall side of the outside rafters to the mounting bracket and secure in place with bolt and lock nut.



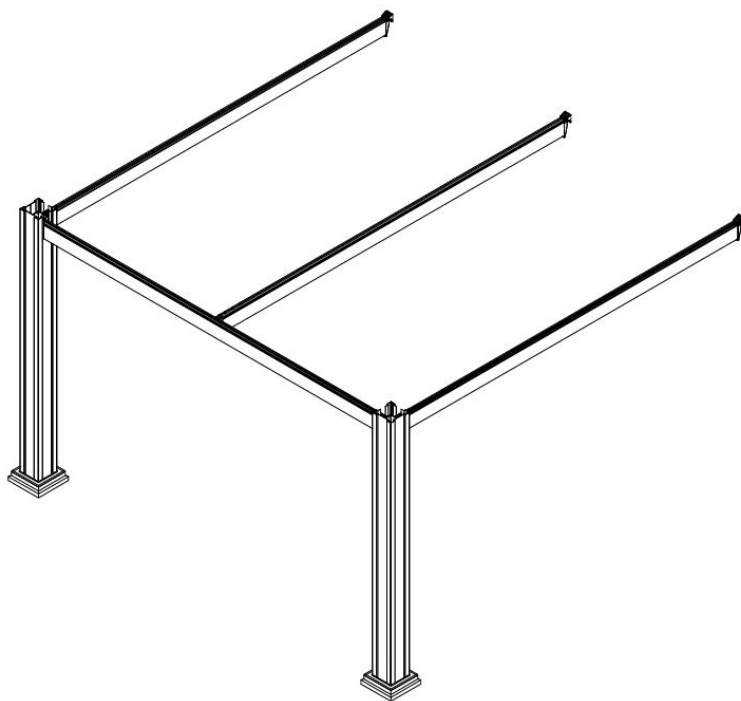
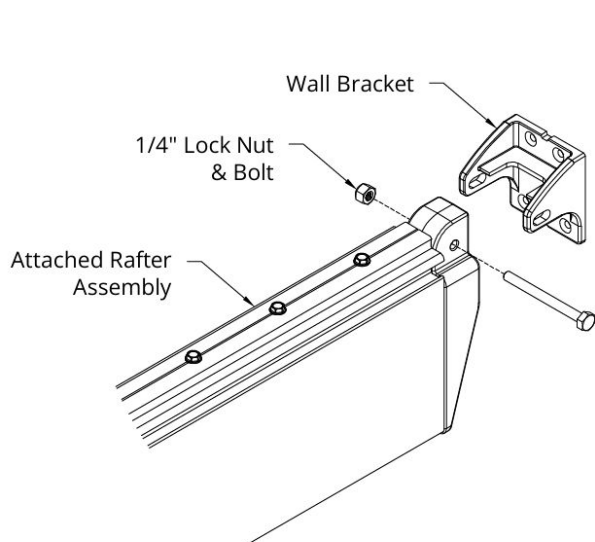
## Install Mid Rafters

For freestanding structures, lift the mid rafter assembly at an angle and insert one end bracket into the width track at the location shown in the shop drawings. Level the mid rafter, then position the opposite end on the width track. Once all mid rafters are in place, install the end brackets fully into the outside tracks. Secure all end and mid brackets with screws.



## Install Mid Rafters (Continued)

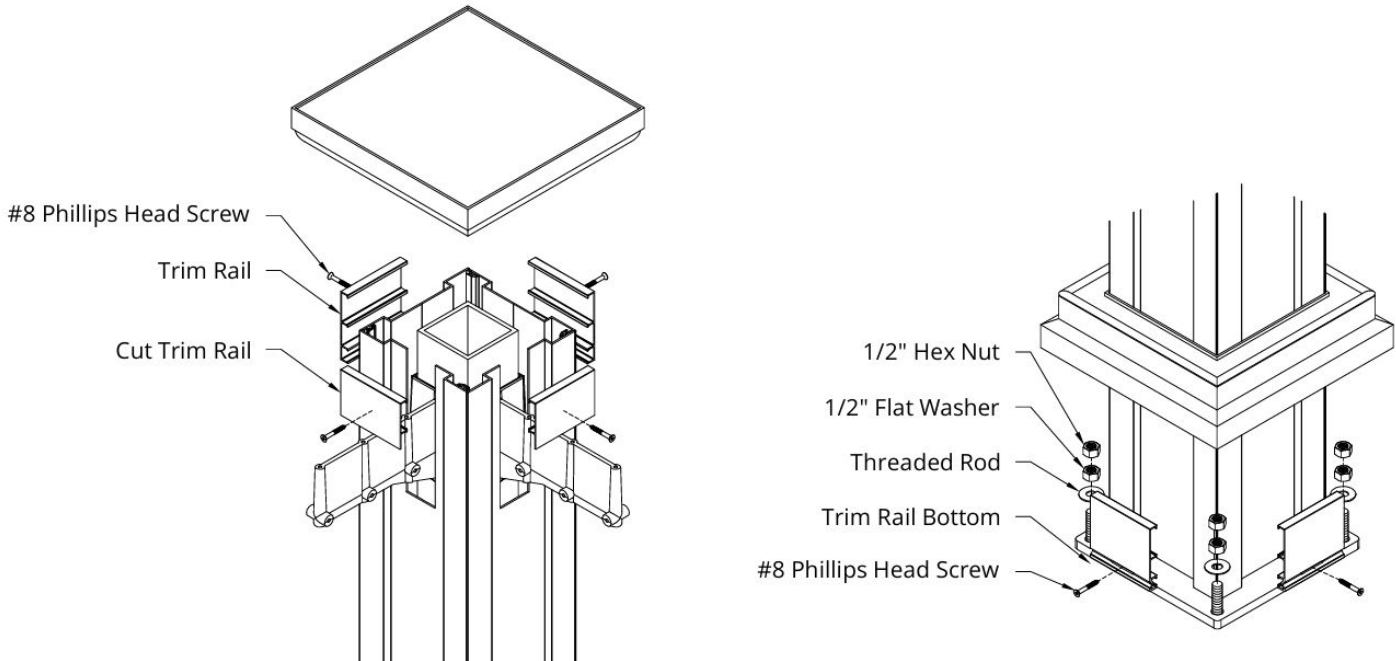
For attached structures, lift both ends of the mid rafter at the same time and position it between the width track and the wall based on the location detailed in the shop drawing. First, secure the end to the width track with screws. Then align the wall-side end bracket with the mounting bracket and fasten using the bolt and lock nut.



## Finish Columns

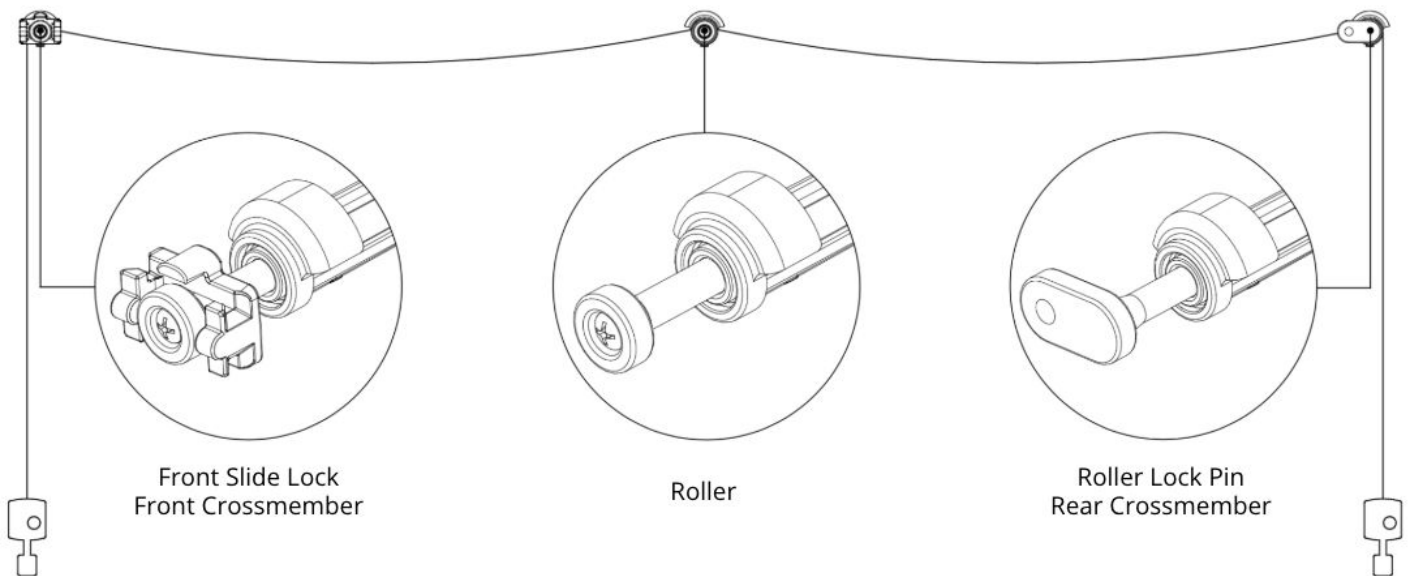
Position the trim rails at the top and bottom of each column and secure with screws. Trim rails should be installed flush with the top and bottom of the panel column. Place the column capital on top of each post and secure with a construction adhesive or silicone.

Once all components are in position, check that the tracks are level and the columns are plumb. Install the flat washers and hex nuts onto the threaded rods to secure the columns in place.



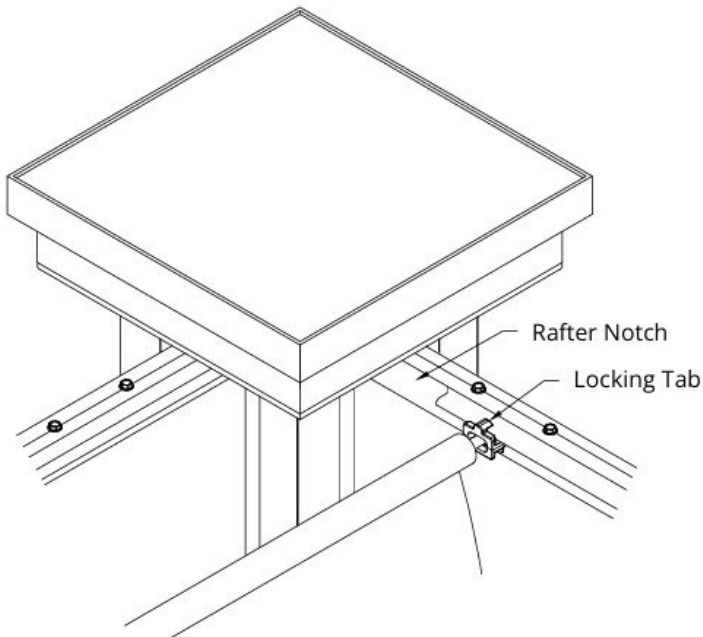
## Install ShadeFlex Canopy

Determine the correct orientation of the canopy by identifying the front slide lock and the roller lock pin. For attached configurations, the roller lock pin will be located on the wall side. For freestanding configurations, the roller lock pin will be located on the side where the fabric will collect when retracted. Additionally, ensure the PVC side of the crossmember faces upward and the aluminum side faces downward.

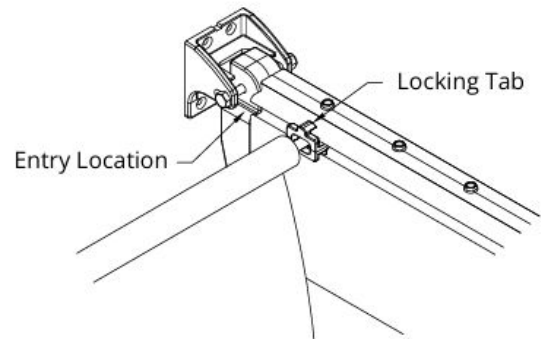


## Install Front Slide Lock Crossmember

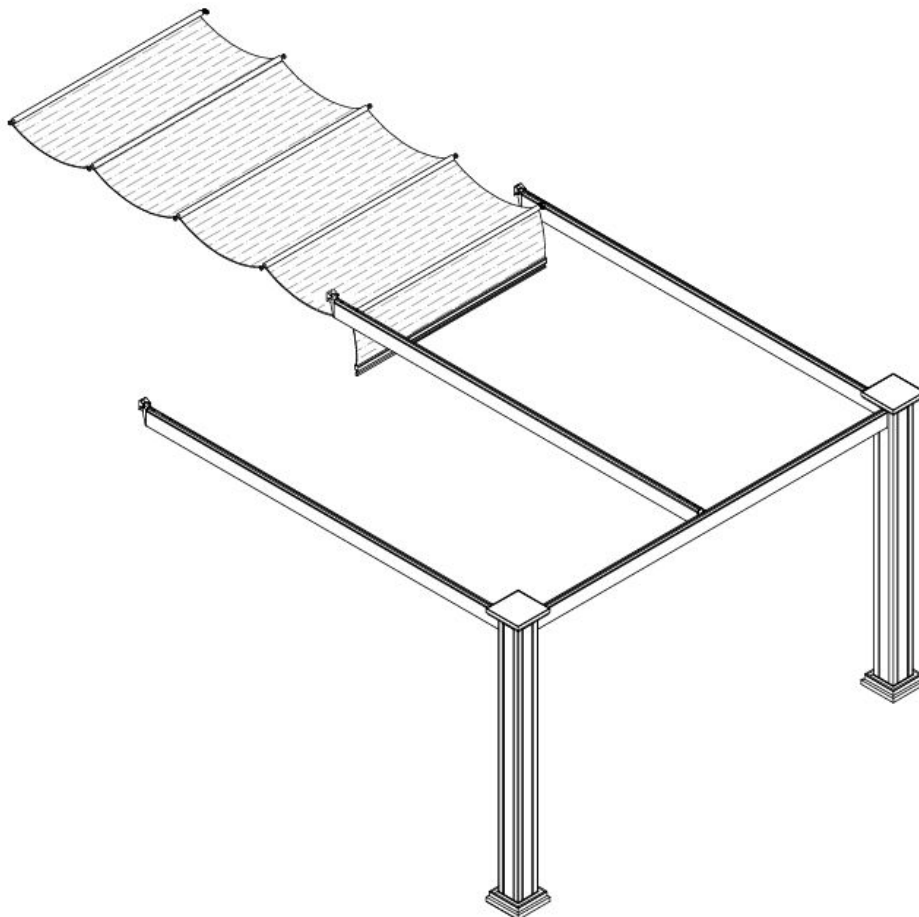
Begin installation at the rear of the structure, starting with the crossmember that contains the front slide lock. Insert this crossmember into both rafter tracks at the same time to avoid binding, making sure the locking tab on the crossmember is facing upward.



Freestanding

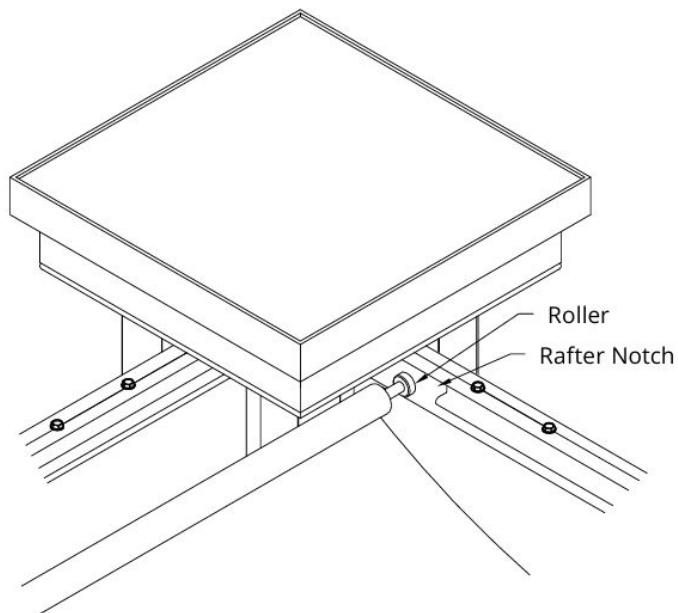


Attached

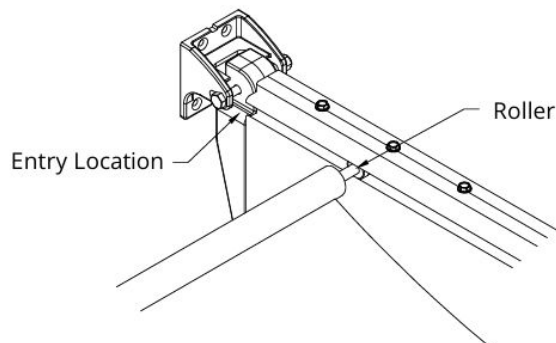


## Install Mid Crossmembers

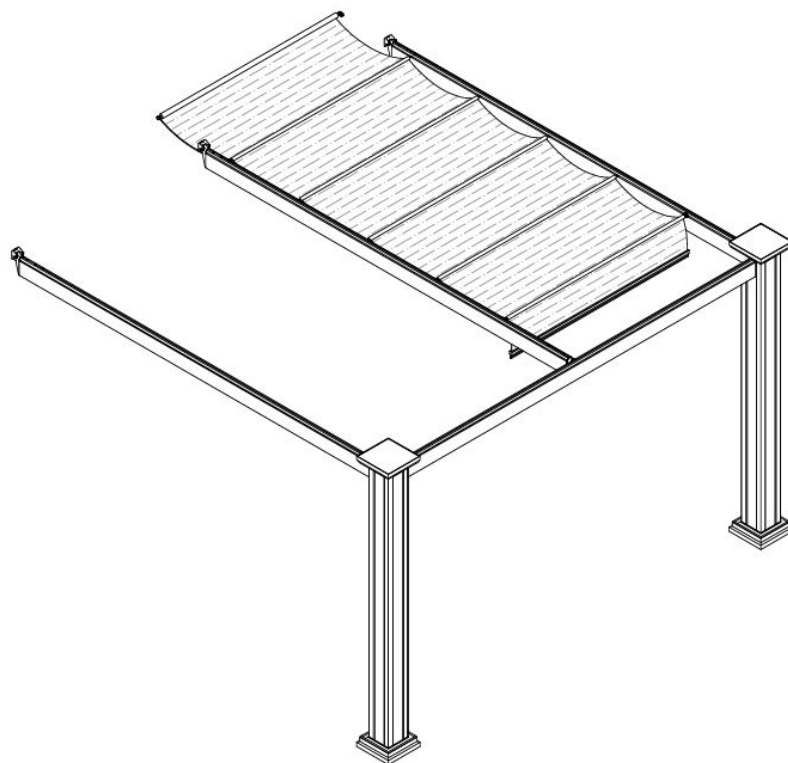
Install remaining mid crossmembers into both rafter tracks at the same time.



Freestanding

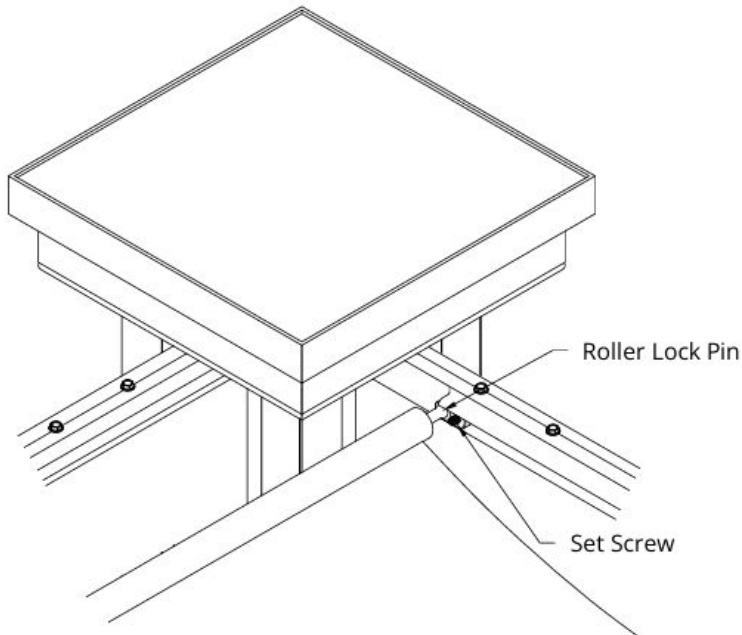


Attached

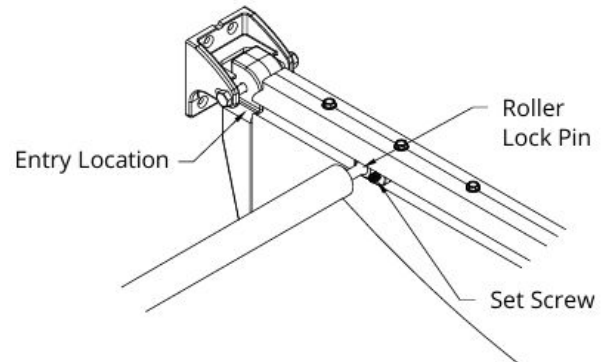


## Install Roller Lock Pin Crossmember

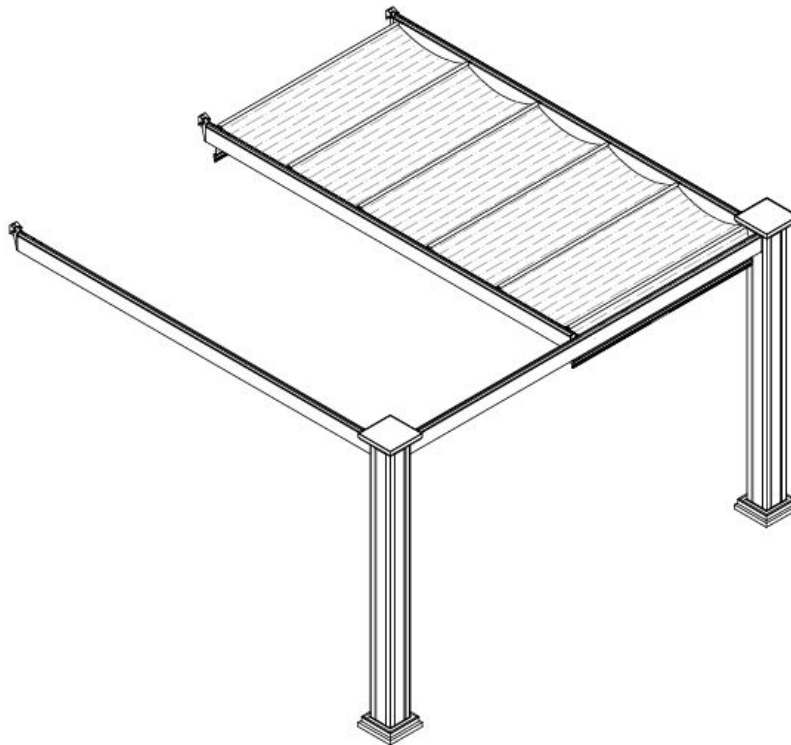
Finally, install the last crossmember into the tracks. The roller lock pin should face towards the front of the canopy. Position this final crossmember at the desired stopping point for the canopy, measuring from a fixed reference point to ensure consistent placement across all canopies. Once positioned, tighten the roller lock pin set screw.



Freestanding



Attached

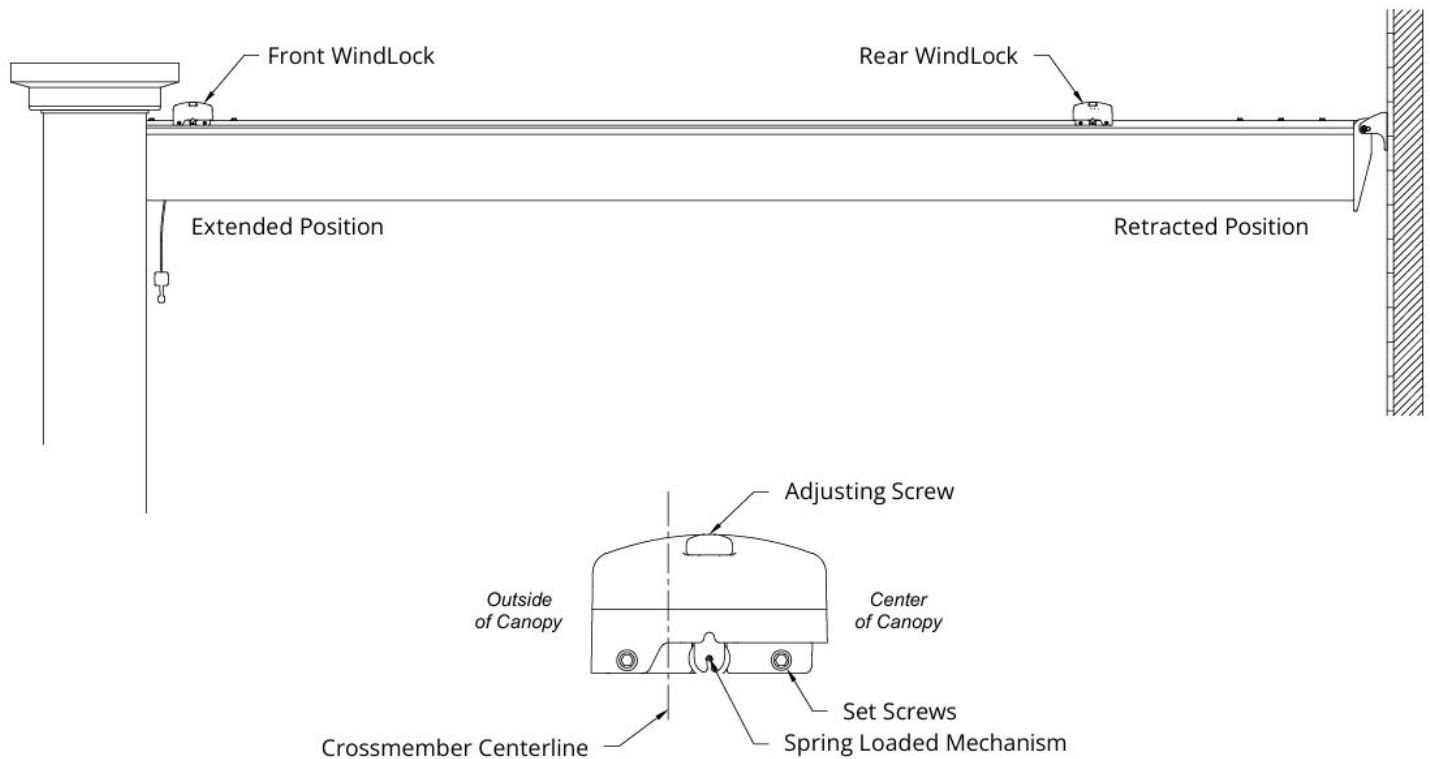


## Install WindLocks

Position a WindLock at the end of the track where the canopy will be in the extended position as shown below. Secure the WindLock to the rafter track by tightening all four set screws.

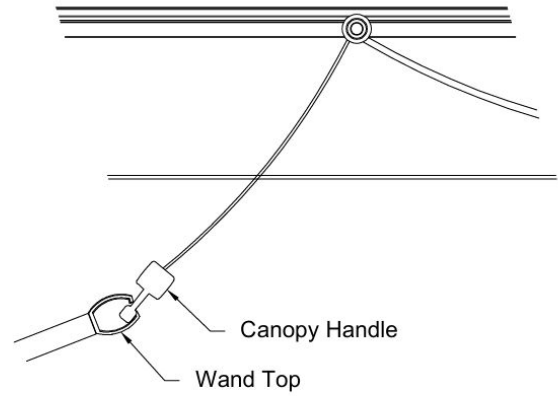
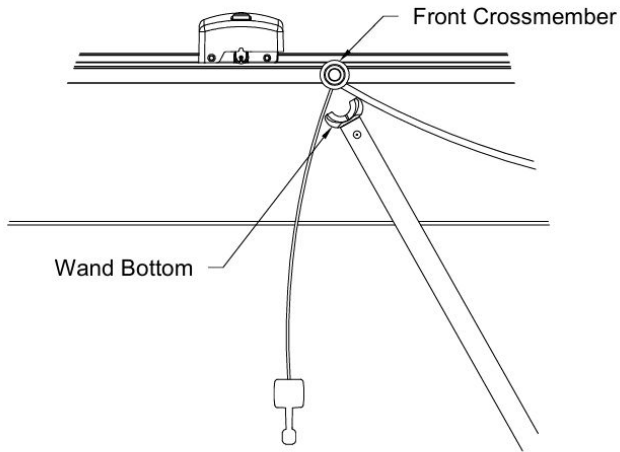
Next, fully retract the canopy and mark the centerline of the first crossmember that contains the front slide locks on the rafter track. Position a second WindLock on the rafter track as shown below. Align this WindLock so the mark is centered between the set screw and the spring-loaded mechanism, just as before. Tighten all four set screws with an Allen wrench to secure it in place.

Tighten or loosen the adjusting screw on the WindLock to set the desired spring tension. The WindLocks are designed to release the fabric during inclement weather. Avoid over tightening the adjusting screw.



## Canopy Wand

To operate the canopy, use the canopy wand. To engage or disengage the front crossmember from the WindLocks, use the bottom of the wand to push the front crossmember. To extend or retract the canopy, use the top of the wand to pull the canopy handle.



Store using the wand mount and appropriate mounting screws based on the installation surface.

