# ClearSpan™
# Low-Profile Roof Frame

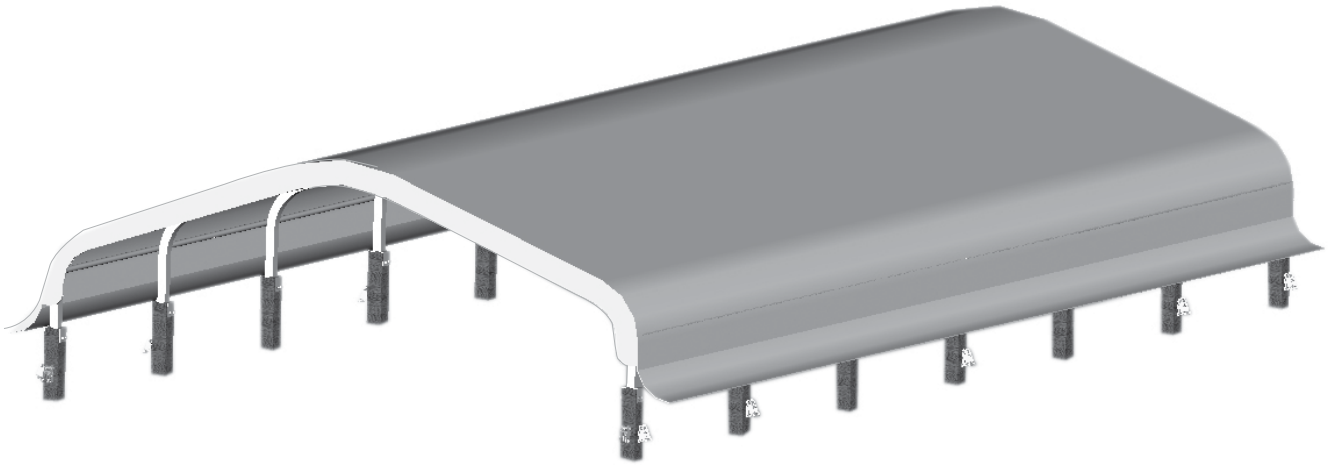


*Photo may show a different but similar model.*

| STK# | DIMENSIONS |
|---|---|
| 105620 | 12' W x 20' L |
| 105621 | 12' W x 24' L |
| 105622 | 12' W x 36' L |
| 105623 | 12' W x 48' L |



Revision date: 10.27.08

**YOU MUST READ THIS DOCUMENT BEFORE YOU BEGIN TO ASSEMBLE THE SHELTER**.

Thank you for purchasing this ClearSpan™ shelter. When properly assembled and maintained, this product will provide years of reliable service. These instructions include helpful hints and important information needed to safely assemble and properly maintain the shelter. Please read these instructions ***before*** you begin.

If you have any questions during the assembly, contact Customer Service for assistance.

## SAFETY PRECAUTIONS

- Wear eye protection.
- Wear head protection.
- Wear gloves when handling metal tubes.
- Use a portable GFCI (Ground Fault Circuit Interrupter) when working with power tools and cords.
- Do not climb on the shelter or framing during or after construction.
- Do not occupy the shelter during high winds, tornadoes, or hurricanes.
- Provide adequate ventilation if the structure is enclosed.
- Do not store hazardous materials in the shelter.
- Provide proper ingress and egress to prevent entrapment.

## ANCHORING INSTRUCTIONS

Prior to assembling this shelter, please read the *MUST READ* document included with the shipment.

**WARNING:** The anchor assembly is an integral part of the shelter construction. Improper anchoring may cause shelter instability and failure of the structure. Failing to anchor the shelter properly *will void the manufacturer's warranty* and may cause serious injury and damage.

## LOCATION

Choosing the proper location is an important step before you begin to assemble the structure.

The following suggestions and precautions will help you determine whether your selected location is the best location.

- Never erect the structure under power lines.
- Identify whether underground cables and pipes are present *before* preparing the site or anchoring the structure.
- Location should be away from structures that could cause snow to drift on or around the building.
- Do not position the shelter where large loads such as snow and ice, large tree branches, or other overhead obstacles could fall.

## SITE

After choosing a location, proper preparation of the site is essential. The following site characteristics will help ensure the integrity of the structure.

- The support structure must be level to properly and safely erect and anchor the low profile roof frame.
- Drainage: Water draining off the structure and from areas surrounding the site should drain away from the site to prevent damage to the site, the structure, and contents of the structure.

**WARNING:** The individuals assembling this structure are responsible for designing and furnishing all temporary bracing, shoring and support needed during the assembly process. For safety reasons, those who are not familiar with recognized construction methods and techniques must seek the help of a qualified contractor.

## ASSEMBLY PROCEDURE

Following the instructions as presented will help ensure the proper assembly of your shelter. Failing to follow these steps may result in an improperly assembled and anchored shelter and will void all warranty and protection the owner is entitled.

The steps outlining the assembly process are as follows:

1. Verify that all parts are included in the shipment. Notify Customer Service for questions or concerns.
2. Read these instructions, the Must Read document, and all additional documentation included with the shipment ***before*** you begin assembling the shelter.
3. Gather the tools, bracing, ladders (and lifts), and assistance needed to assemble the shelter.
4. Check the weather ***before*** you install the roof cover and any panels (if equipped). Do not install covers or panels on a windy or stormy day.
5. Re-evaluate the location and site based on the information and precautions presented in the documentation included with the shipment.
6. Lay out the site (if this has not been completed) Customer is responsible for providing a secure support structure for this frame assembly.
7. Assemble the frame components in the order they are presented in these instructions.
8. Assemble the frame including the struts (if equipped).
9. Consult the Must Read document for anchoring comments and instructions.
10. Install, tighten, and secure the end panel (if equipped) and main cover. This applies to fabric covers that stretch over the frame assembly.
11. Read the Care and Maintenance information at the end of these instructions.

## LIST OF WORDS AND PHRASES

Before you begin, it is important to become familiar with the words and phrases used in this instruction manual.

These words and phrases are common to most ClearSpan™ shelters and identify the different parts of the shelter. (Some are used in this document. Others may not apply to this particular shelter.) These terms describe the shipped parts and can also be found on the materials list/spec sheets included with the shipment. To aid in the assembly, read through the following definitions before you begin to assemble your shelter.

- **Conduit:** An assembly of pipes used to secure the main cover and end panels (if equipped). Purlins and some strut assemblies also consist of connected pipes to form a conduit. Each pipe joint of a conduit assembly is secured with a self-tapping Tek screw.
- **Coupler or Fitting:** A part of the frame assembly where legs, purlins and rafter pipes are inserted and secured. In most instances, 3-way and 4-way couplers are used. In some larger applications, couplers are used to secure the joints of the different rafter sections during the assembly of the rafters. Some shelters do not use couplers.
- **Foot or Rafter Foot:** The part attached to and found at the base of the rafter or leg of the shelter. Depending on the shelter, the foot is an optional purchase. Some shelters do not offer an optional foot. Some use 1-way connectors.
- **Must Read Document:** This document includes building and shelter anchoring instructions, steps for end wall reinforcement, safety precautions, and notices and warnings. The Must Read document is sent with all shelters and buildings. If you did not receive a Must Read document, contact Customer Service to request one.
- **On-Center:** Term used to describe a measurement taken from the vertical center of the rafter or frame member to the vertical center of another.
- **Purlin:** The pipe assembly that runs perpendicular to the rafters or framework that supports the main cover. Purlins are found on the sides and roof areas of the assembled frame, are evenly spaced, and typically run from the front to the back of the shelter.
- **Plain or Straight Pipe:** A term used to describe a pipe that has the same diameter or width throughout its entire length.
- **Strut:** A strut is usually a length of pipe with two flattened ends and is used for diagonal bracing of the shelter frame. A strut is typically secured to the frame work by special brackets and bolts.
- **Swaged End or Swaged Pipe:** The term “swaged" refers to the tapered end of the pipe or tube. Swaged ends of a pipe can be inserted into couplers and the straight ends of other pipes.
- **Tek Screw:** A self-tapping fastener used to secure pipe joints and to fasten brackets to rafters.

## REQUIRED TOOLS

The following list identifies the main tools needed to assemble the shelter. Additional tools and supports may be needed depending on the structure, location, and application.

- Tape measure or measuring device
- Fine point marker to mark the location on tubing.
- Variable speed drill and impact driver (cordless with extra batteries works best)
- Drill bit
- Wrench, ratchet and socket (recommended)
- Scissors and utility knife
- Hammers and gloves
- Ladders, work platforms, and other machinery for lifting designed to work safely at the height of the shelter
- Rope for cover installation

Space below is reserved for customer notes.

## UNPACK AND IDENTIFY PARTS

The following steps will ensure that you have all the necessary parts before you begin to assemble the shelter.

1. Unpack the contents of the shipment and place where you can easily inventory the parts. Refer to the Bill of Materials/Spec Sheets.
2. Verify that all parts listed on the Bill of Materials/Spec Sheets are present. If anything is missing or you have questions, consult the Pictorial Parts Guide and all shelter diagrams for clarification, or contact Customer Service.

   **NOTE:** At this time, you do not need to open the plastic bags containing the fasteners (if used).

## QUICK START GUIDE

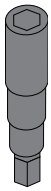
For a quick overview of this shelter and its components, consult the Quick Start Guide at the back of these instructions.

ClearSpan

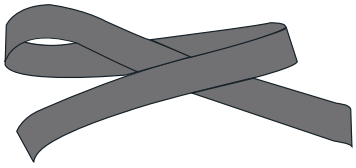
The following graphics and photos will help you identify the different parts and show you how they are used. (Not all parts are shown.)

FA4482B
Tek Screw

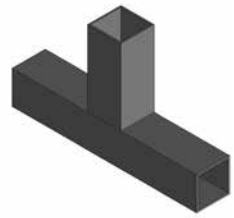
QH1061
Ratchet



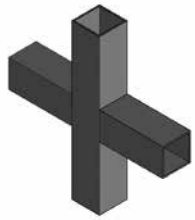
100441
Nut Setter



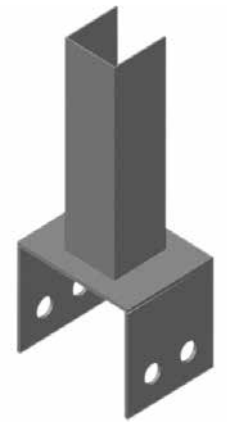
103620d
Black Tie Down Strap



104626
3-Way Square Tube Fitting



104627
4-Way Square Tube Fitting



105560
2" x 2" Post Cap

# Low Profile Roof Frame 12' Wide

## OVERVIEW

This section is an overview of the process for assembling your Low Profile Roof Frame. For details, please see section, Assembling the Low Profile Roof Frame Components. See illustration below to identify main parts of shelter.

1. Locate the required parts for each assembly procedure.
2. Assemble the rafters and frame.
3. Install optional end panels, if purchased.
4. Attach main cover.

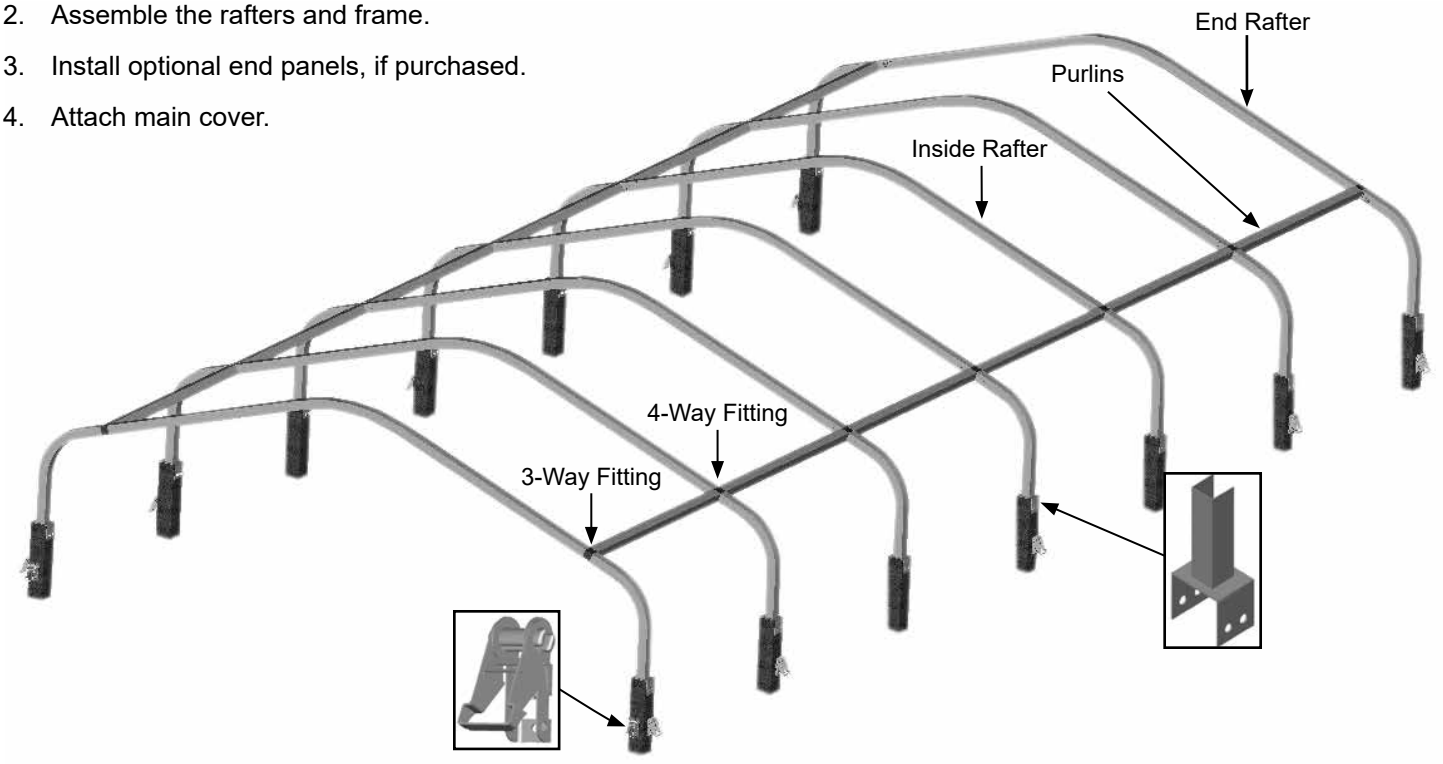



Diagram may show a different shelter length.

## LAY OUT THE BUILDING SITE

The Low-Profile Roof Frame is designed to be secured to a permanent structure, or to 4" x 4" posts anchored in the ground. **ALL DIMENSIONS REGARDING THE ROOF FRAME ARE CENTER-TO-CENTER**.

**ATTENTION:** The customer is responsible for providing the support structure for the frame. Consult a professional contractor if needed to construct the required support structure.

Verify that the support structure complies with local and regional building codes before construction.

After the support structure for the low-profile roof frame is constructed, continue with the RAFTER ASSEMBLY procedures that follow.

## ASSEMBLING THE LOW PROFILE ROOF FRAME COMPONENTS

**NOTE**: Assistance may be required to assemble the Low Profile Roof Frame.

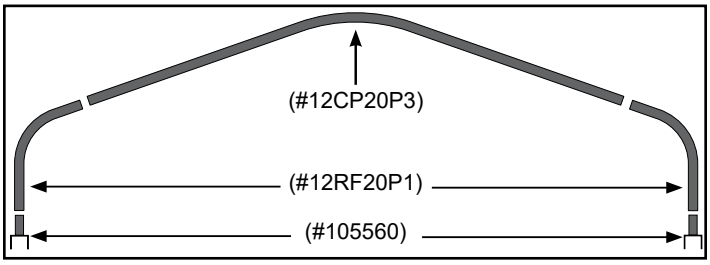
### RAFTER ASSEMBLY

Gather the Parts:

- Rafter Pipe ( #12RF20P1)
- Rafter Pipe (#12CP20P3)
- 3-Way Square Tube Fittings (#104626)
- 4-Way Square Tube Fittings (#104627)
- Post Caps (#105560)
- Tek Screws  and Nut Setter 3/8" x 2-9/16 Magnetic

Rafter Assembly Procedure:

Each rafter assembly consists of three (3) rafter tubes: one (1) curved center pipe (for the top or peak) and two (2) lower bent leg pipes.



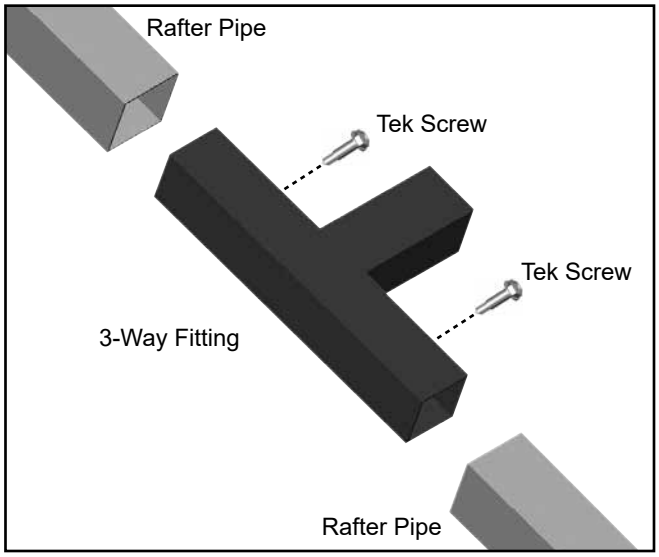

**NOTE:** The end rafter tubes are connected using 3-Way fittings; the interior rafter tubes are connected using 4-Way fittings. See the following diagram and the Connections Diagram for clarification and tube locations.

All rafters include two (2) post caps to attach the assembled rafter to the support structure.

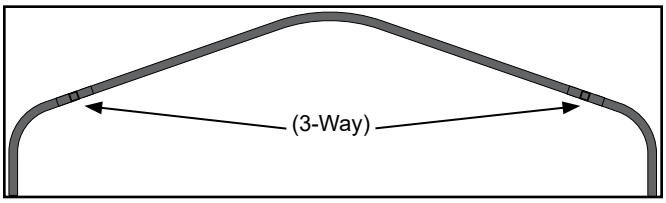
End Rafter Assembly:
Complete the following steps to assemble the two (2) end rafters.

**NOTE:** The two (2) end rafters are assembled using 3-Way fittings positioned between the upper tube splices.

1. Select the three (3) pipes needed to assemble the end rafter. Refer to rafter assembly diagram.
2. Brace the rafter pipes and insert the 3-Way fittings into the rafter pipes and secure them using Tek screws.




**ATTENTION:** All the 3-Way fittings should face the same direction. The free section of the tube fitting is used to connect the purlin pipes.




Install 3-Way fittings in the locations shown above. *End rafters only.*

**IMPORTANT:** To prevent damage to the cover, the Tek screw heads must not come in contact with the cover when installed.

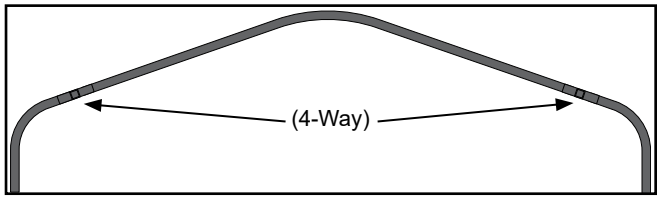
3. Repeat above steps for the remaining end rafter.

**NOTE:** There are only two (2) end rafter assemblies.

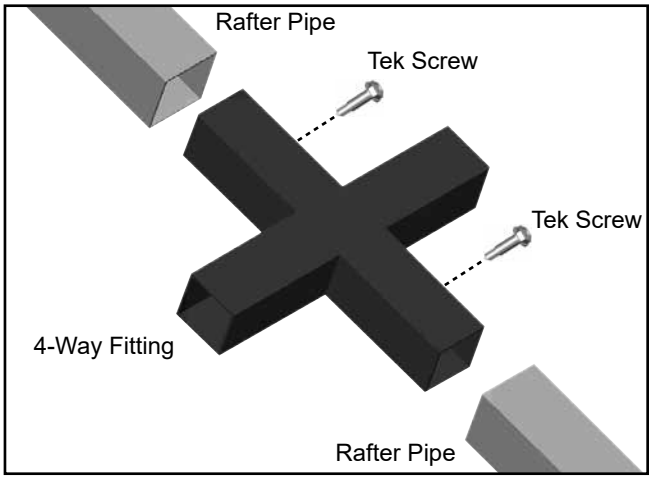
## RAFTER ASSEMBLY (CONTINUED)

Interior Rafter Assembly:

1. Select the tubing for the first interior rafter assembly.




2. Install a 4-Way fitting in the locations shown. Secure the joints using Tek screws.




3. Repeat the steps for all remaining interior rafters. Once all rafter assemblies are complete, continue with attaching the post caps.

## ATTACH POST CAPS TO RAFTERS

The post caps are designed to secure the rafters to the support structure, *which is constructed by the customer.* The type of support structure affects when the post caps are attached.

**ATTENTION:** The following instructions assume that the support structure is properly constructed and adequate to support the assembled low-profile roof frame.

If neither of the following examples resembles the support structure used to support and attach the low-profile roof frame to, these instructions may not fully apply to the application.

If in doubt, seek the assistance of a qualified contractor before continuing with the assembly of the frame.

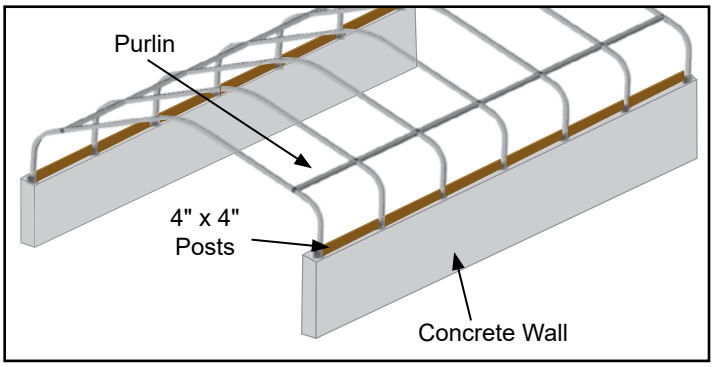
Use the following examples to assemble the frame.

**NOTE:** If setting the low-profile roof frame on individual 4" x 4" posts set in the ground, skip to and complete the Example #2 procedures.

### EXAMPLE #1: Post Cap Installation

If the roof frame is to be attached to a structure where the 4" x 4" posts run parallel with the purlins of the frame, use the following steps as a guide when installing post caps.

Example #1: 4" x 4" posts running parallel with the purlins.



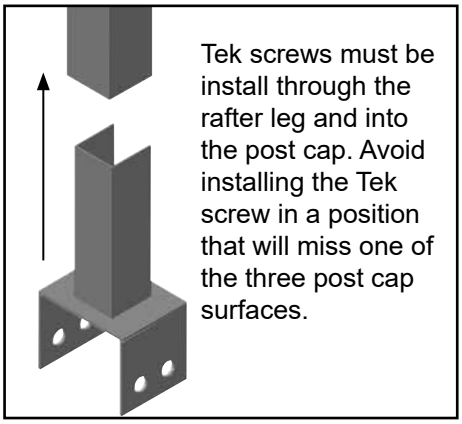

**WARNING:** The 4" x 4" posts in the above diagram must be anchored to the structure on which they are setting.

**NOTE:** The following procedure describes setting each rafter in place, drilling the mounting holes, and securing the rafter to the 4" x 4" wood posts.

Alternative Method: If desired, the post caps can first be spaced and secured to the 4" x 4" posts (rafter spacing is 4' on-center) and then the rafters can be set on and secured to the post caps. Proceed as desired.

1. Using Tek screws, attach two (2) post caps to each of the assembled rafters.

   **ATTENTION:** Install the post cap so that it can be properly attached to the support structure. *Install Tek screws so they will not contact the cover when it is installed.*




   **IMPORTANT:** To prevent damage to the cover, Tek screws cannot touch the cover. Install these through the rafter leg and through the post cap.

2. After all post caps are attached to the rafters, complete the Frame Assembly procedure that follows.

**EXAMPLE #1: Frame Assembly**

To assemble and secure a low-profile roof frame to 4" x 4" posts that run parallel with the purlins, complete these steps.

Gather the Parts:

- Rafter Assemblies
- Post Caps
- 1/2" x 4-1/2" Bolts and Nuts

1. Set the first end rafter in the desired position on the horizontal 4" x 4" post and brace it in place. Verify that the free ends of the 3-Way fittings are pointing to the inside of the frame.

**WARNING:** DO NOT leave the rafter unattended. Additional rafters must be added and secured to the frame.

2. Drill the post cap mounting holes.
3. Insert the 1/2" x 4-1/2" mounting bolts through the post cap and mounting holes, add the nuts, and tighten.

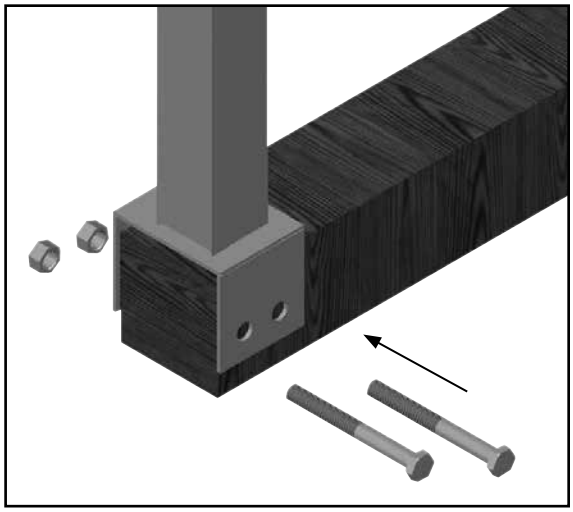
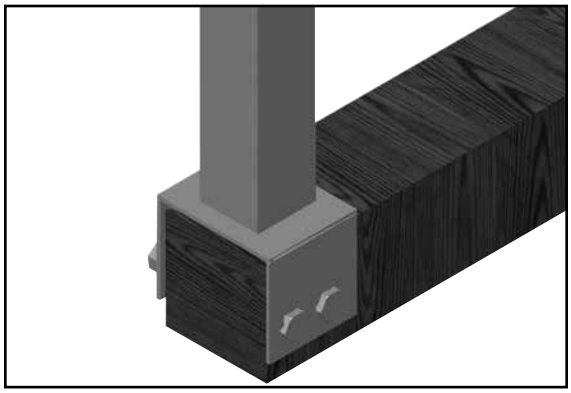


Diagram below shows an end rafter secured to a 4" x 4" wood post. *The post must be secured to the structure that it sets on.*

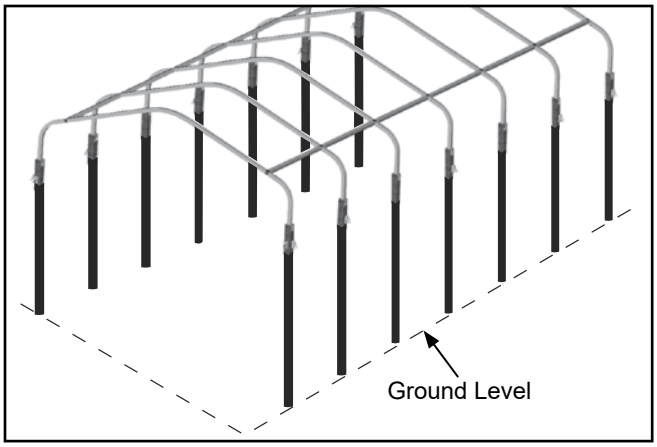


4. Continue with Step 3 of the ***Example #2: Frame Assembly*** procedure.

**EXAMPLE #2**: **Post Cap Installation**

If the support structure consists of individual 4" x 4" support posts anchored in the ground, use the following steps as a guide when attaching the post caps.

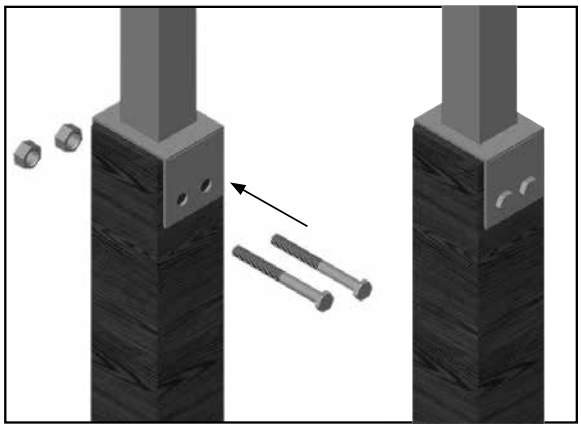
Individual 4" x 4" posts anchored in the ground.




Gather the Parts:

- Rafter Assemblies
- Post Caps
- 1/2" x 4-1/2" Bolts and Nuts

1. After assembling all rafters as previously described, take one (1) post cap and position it on top of one 4" x 4" post.
2. Center the post cap on the 4" x 4" post and mark the centers of the mounting holes.



3. Use a drill and bit to drill the holes and insert the 1/2" x 4-1/2" mounting bolts through the post cap and holes and install the 1/2" nuts.

   **ATTENTION:** DO NOT tighten bolts at this time. These are tightened during the assembly of the frame.

4. Repeat the steps to attach the remaining post caps to the tops of the 4" x 4" posts.
5. Once all post caps are installed, continue by completing the frame assembly instructions that follow.

**EXAMPLE #2: Frame Assembly**

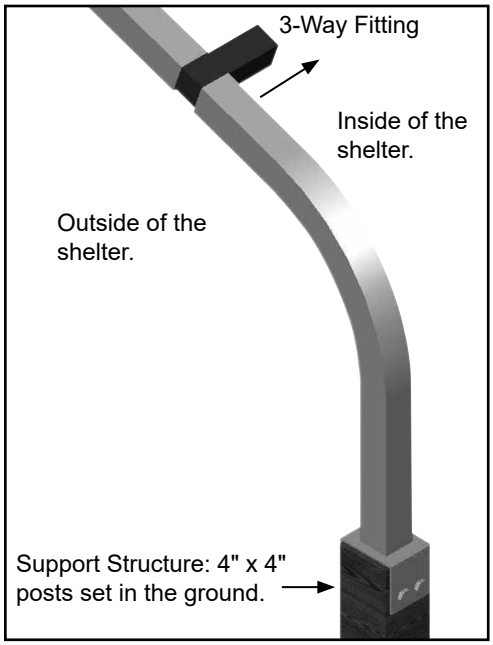
These instructions describe one way to assemble the frame when the support structure consists of individual 4" x 4" posts set into the ground.

**ATTENTION:** If completing the EXAMPLE #1: Frame Assembly procedure and you were directed here, skip to and continue with *Step 3* of this procedure.

Gather the Parts:

- Rafter assemblies and Purlins
- Tek Screws
- Nut Setter 3/8" x 2-9/16 Magnetic

1. Carefully lift the first end rafter and place the leg pipes on the first set of post caps.

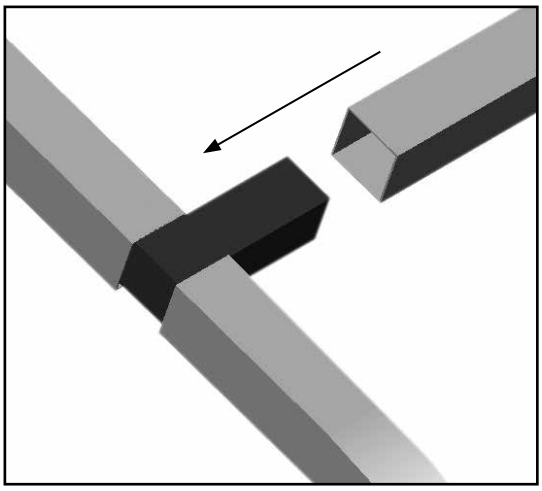



**NOTE:** Verify that the free end of the 3-Way fitting points to the inside of the shelter.

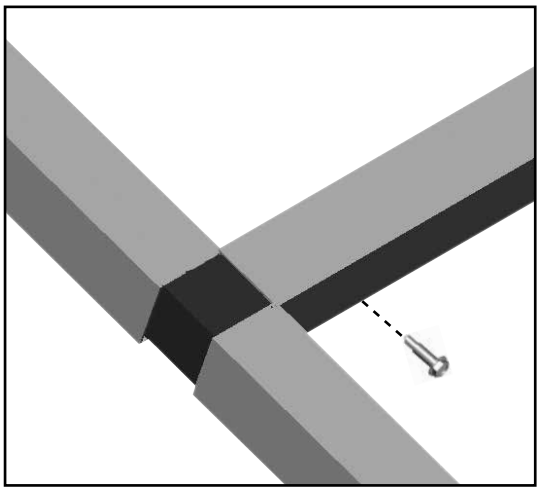
2. After setting the rafter in position, stabilize the rafter and secure it to each of the post caps using two Tek screws for *each post cap*. Install Tek screws so they will not contact the cover when it is installed.

**WARNING:** DO NOT leave the rafter unattended until additional rafters are added to the frame and secured to the post caps.

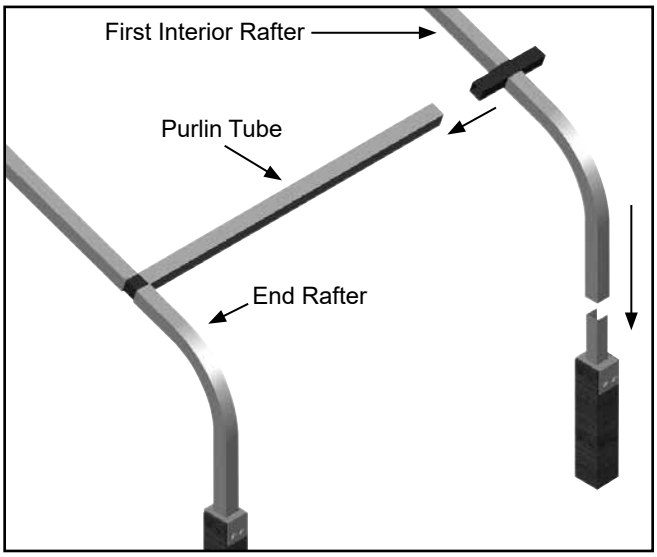
3. Select two sections of the precut purlins and slide one onto each of the 3-Way fitting of the first end rafter.



4. Secure the connection with a Tek screw. Verify that the screw head will not touch the cover when it is installed.



5. Set the first interior rafter (second rafter) in position by inserting the end of each 4-Way fitting into a purlin and then setting the rafter legs on the post caps.



**EXAMPLE #2: Frame Assembly (continued)**

6. Verify that the rafter is plumb and secure the purlin to each 4-Way fitting and the rafter to each post cap as previously described using Tek screws.
7. Continue to add the remaining purlins and secure the remaining rafters to the post caps.

   **NOTE:** After setting each rafter in place, verify that the rafter is plumb *before* securing the purlins to the 4-Way fittings.

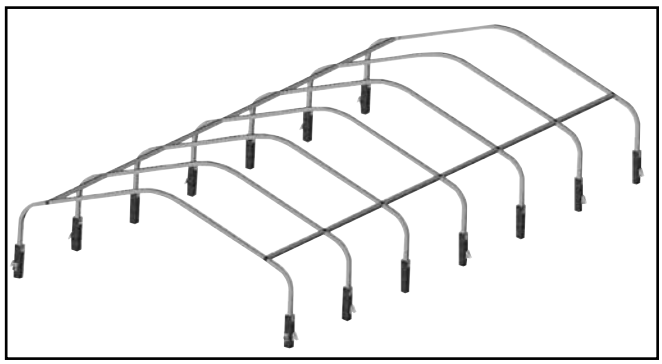


Diagram may show a different shelter length.

   Consult the Side Profile diagrams at the back of these instructions to view each shelter length.
8. Once all interior rafters are set and all purlins are secured to the 4-Way fittings, add the last two purlins and set the final end rafter in position.
9. Secure the last end rafter to the assembled frame as previously described.
10. Verify that all purlin connections are secured to the connectors with Tek screws and verify that all rafter legs are secured to the post caps with Tek screws.
11. After checking all connections of the assembled frame, return to each 1/2" x 4-1/2" post cap mounting bolt and tighten each bolt.
12. Continue with the FINAL FRAME CHECK and then complete the RATCHET and MAIN COVER installation procedures.

**FINAL FRAME CHECK**

Gather the Parts

- Duct tape

1. Verify that all connectors, purlins, and post caps are secured with Tek screws.
2. Recheck the frame assembly for sharp edges or Tek screws that may interfere with the installation of the cover. Reposition Tek screws as needed.
3. Use the supplied duct tape to tape any areas of the frame that may damage the cover.
4. After the final frame check, complete one of the following:
   - If you *did not* purchase an optional end panel, skip the next procedure and attach end ratchets as described on page 14.
   - If you ordered an optional end panel, complete the following procedure.

**END PANEL INSTALLATION (*Optional purchase required.*)**

The end panels for this frame are an optional purchase and are not included. The following steps describe one way to attach the end panels to your assembled and anchored low profile frame using customer-supplied end conduits, angled brackets, Tek screws, and washers.

The main steps to install an end panel include:

1. Assemble end conduits.
2. Attach end panel at the base using conduits and angled brackets.
3. Pull the end panel up and over the end rafter.
4. Attach the end panel to the frame using the Tek screws and washers.

Contact your sales representative to purchase an end panel and the necessary connecting and installation hardware.

End wall framing is also available and is recommended for end panel installation.

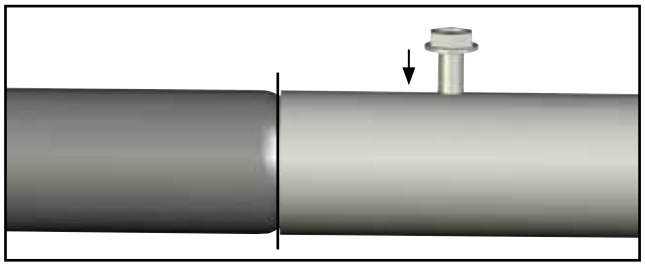
## END CONDUIT ASSEMBLY

Gather the parts (*additional purchase required*):

- Pipe 1.315" x 75" swaged (#131S075)
- Pipe 1.315" x 73.5" plain (#131P0735)
- Duct tape
- Tek screws

Complete the following steps:

1. Locate the end conduit pipes. End conduit consists of one (1) 75" pipe and one (1) 73.5" pipe.
2. Assemble an end conduit by connecting one (1) swaged pipe and one (1) plain pipe.
3. Secure the joint using a Tek screw and tape over the Tek screw to protect the end panel.



**NOTE:** Use duct tape to tape the Tek screw to prevent damage to end panel.

## PREPARE END PANEL

**CAUTION:** To prevent damage, do not install end panels on a windy day.

Gather the parts (*additional purchase required*):

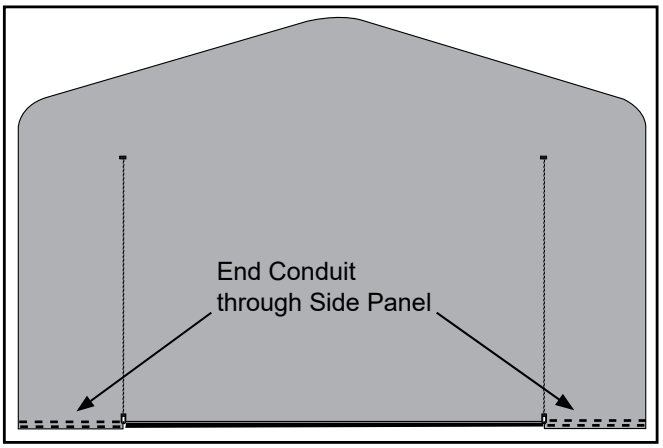
- End panel
- End conduit assembly
- QH1330 Angled brackets
- Tek screws

Assembly Procedure:

1. Locate the end panel, unfold the panel at the base of the assembled frame (where it will be installed) with the inside surface facing up.

   **NOTE:** If the panel has zippers, verify that the long black straps are on the inside and the D-rings are on the outside.

2. On a zippered end panel, insert the end conduit through the two side panels of the end panel (as shown below) and *not through the door sections*.

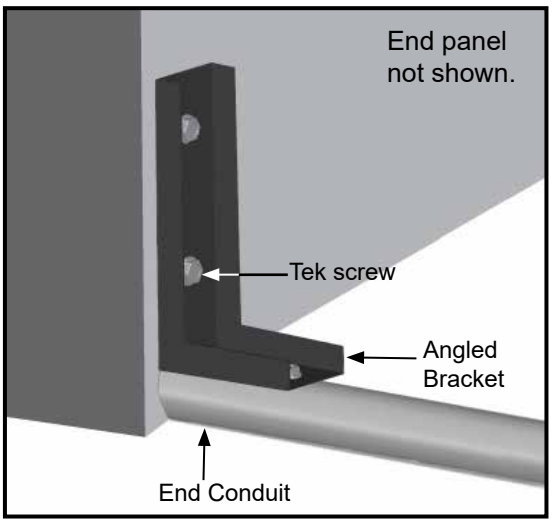



   On a plain end panel, slide the end conduit assembly into the pocket at the bottom of the panel.

3. Continue with the next procedure.

## ATTACH END CONDUIT

1. Using two (2) QH1330 angled brackets, secure one (1) angled bracket to each end of the end conduit and secure the conduit to the legs of the end rafter. See the following diagram.




   **NOTE:** It may be necessary to trim the panel pocket to attach the bracket to the end panel conduit and to the end wall (or to the structure the frame is attached to.)

2. Attach the end panel to the end rafter as described in the next procedure.

## ATTACH END PANEL

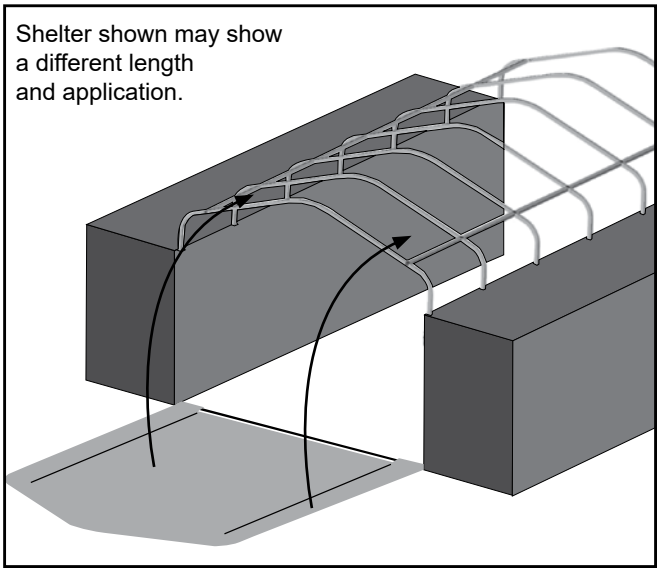
Gather the parts:

- End panel assembly
- Customer-supplied fasteners
- Measuring tape and scissors

**NOTE:** *If in doubt, consult the advice of a professional contractor (if needed) and purchase the correct fasteners to attach end panel(s) to the support structure.*

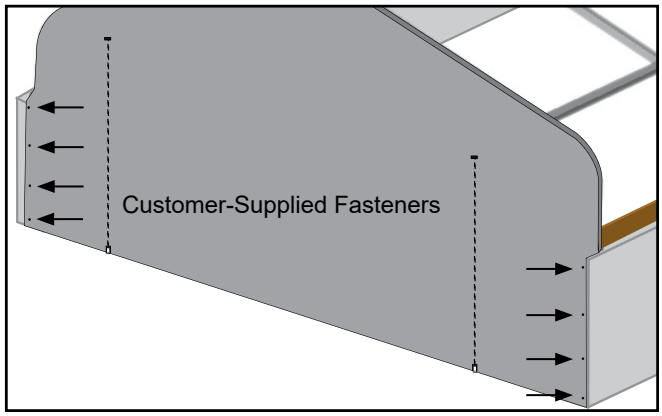
Assembly Procedure:

1. While standing inside the shelter, start at the peak of the end rafter and pull the end panel over the top of the rafter so the panel edge is wrapped to the inside of the rafter.

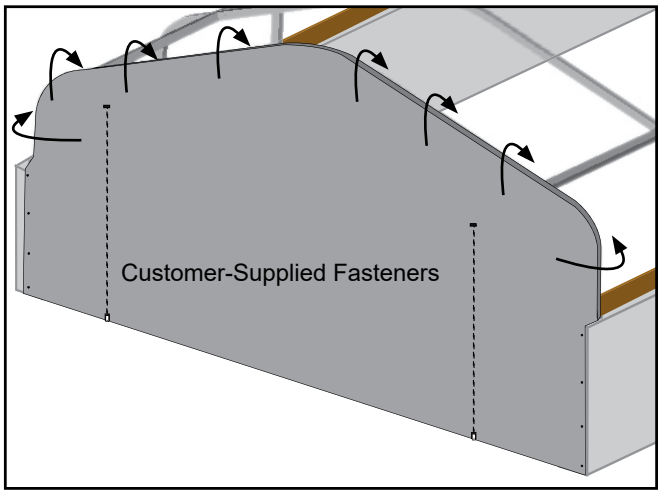



**NOTE:** Use additional help to pull the end panel in position over the entire rafter. It may be helpful to have someone stand on the conduit to keep it on the ground when stretching and attaching the end panel.

2. Move to the lower section of the end panel and secure the panel to the building, support wall, or posts using customer-supplied fasteners approximately 12" up from the conduit.

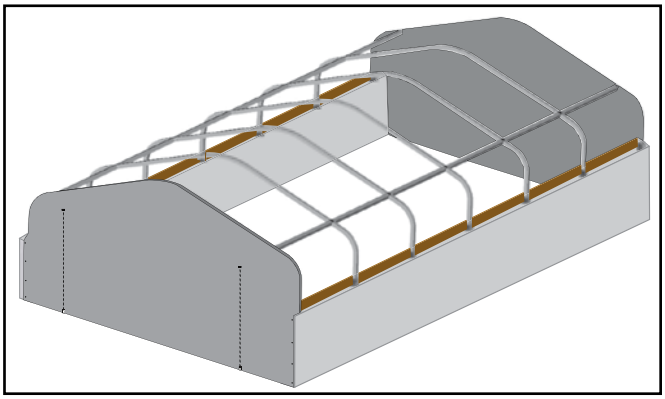



3. Evenly space the fasteners along the rafter and pull the end panel tight as the fasteners are installed.
4. After securing the lower section of the end panel, move to the top, stretch the panel to remove wrinkles, and secure it in place as previously described.




**NOTE:** Install the fasteners on the backside or inside surface of the rafter to prevent damage to the main cover.

5. After installing the first end panel, repeat the steps to attach the remaining optional end panel if purchased.



Shelter shown above may show a different length and support structure.

**NOTE:** The excess end panel material can be removed. If the excess is removed, allow at least six inches (6") to remain beyond the fasteners. If the panel is removed for any reason, the extra material is used to pull the panel tight.

6. After installing the optional end panel(s), install the end ratchets.

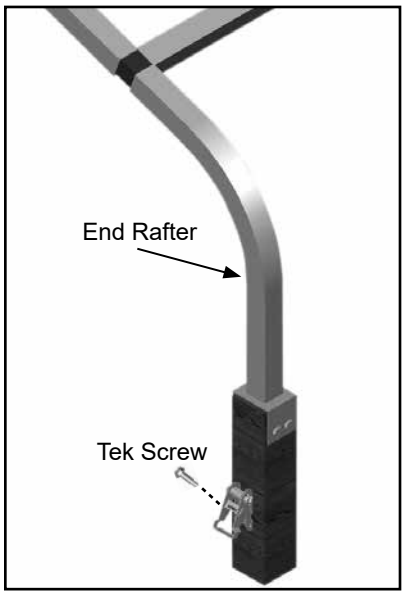
## INSTALL END RATCHETS

The end ratchets are used to secure the bonnet portion of the main cover.

Gather the Parts:

- Ratchets (4)
- Tek Screws

Attach the main cover end ratchets using a Tek screw.




**ATTENTION:** If the frame is mounted on a support structure different from what is shown, attach each end ratchet in a location that allows the black straps of the main cover bonnet to be secured to the ratchets.

*Tek screws may not work for all support structure materials. If in doubt, consult the advice of a professional contractor (if needed) and purchase the correct fasteners to attach ratchets to the support structure.*

If the optional end panel was purchased and installed, it may be necessary to attach the end ratchets through the end panel.

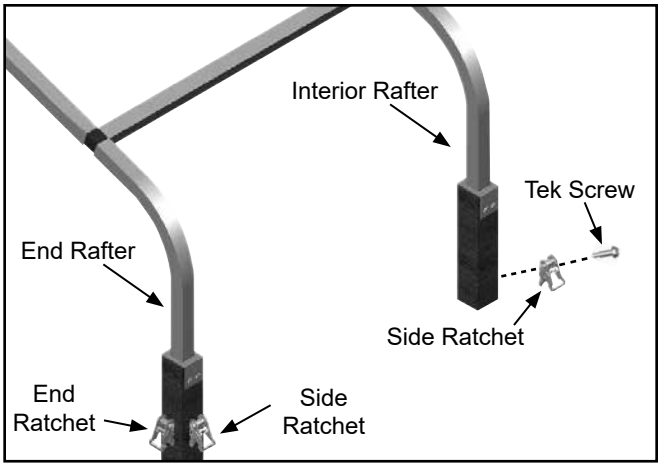
## INSTALL THE SIDE RATCHETS

Consult the following information when installing the side ratchets.

Gather the Parts:

- Ratchets
- Tek Screws

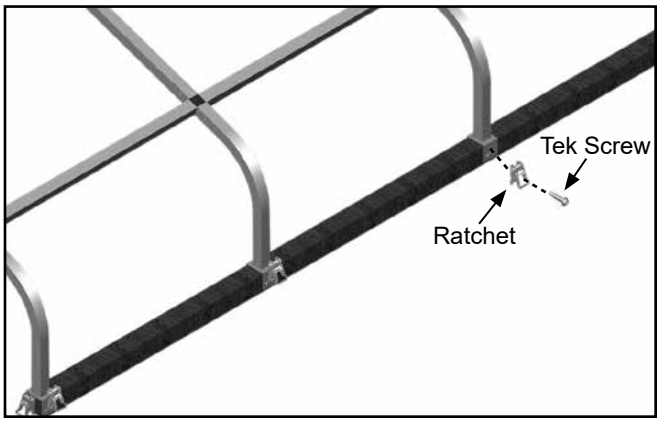
1. Install a side ratchet on each end rafter leg.
2. After attaching the four (4) side ratchets to the end rafters, divide the quantity of the remaining ratchets in half and evenly space these along each side of the assembled frame.
3. Attached the remaining side ratchets to the outside of the rafter supports. Refer to Side Profile diagrams located at the back of these instructions for proper ratchet location per shelter.




**NOTE:** When installed properly, side ratchets are immediately across from one another.

4. If the frame is attached to individual 4" x 4" wood posts, install the side ratchets within 1' of the bottom of the post cap mounting bolts. If the ratchets are installed too far down the post, the black straps may be too short.

   In an application similar to the frame below, ratchets can be attached as shown. After installing all ratchets, install the main cover.



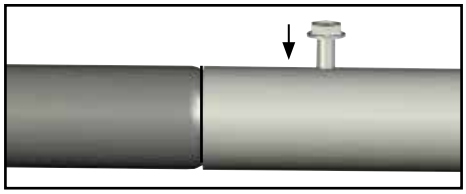
## MAIN COVER CONDUITS ASSEMBLY

Gather the Parts:

- Pipe 1.315" x XXX" Plain
- Pipe 1.315" x 75" Swaged
- Duct tape
- Tek Screws

Assembly Procedure:

1. Assemble two main cover conduits. Start each conduit assembly with one plain pipe and add swaged pipes to arrive at the correct length. *This conduit length is identical to the frame length.*
    a. Locate all sections of pipe needed to assemble the cover conduit.
    b. Insert the swaged end of each pipe into the plain end of another pipe until the conduit is assembled.
    c. Secure each pipe joint with a Tek screw.



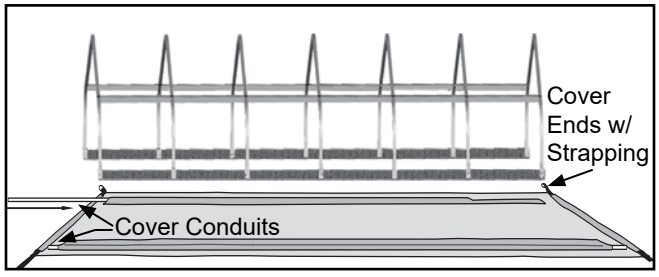
**NOTE:** Duct tape Tek screws to prevent damage to main cover.

These cover conduits are inserted into the pockets sewn into the main cover. The conduits are used to tighten and secure the main cover.

2. After assembling the cover conduits, locate the main cover and unfold it on a clean, smooth surface near the frame.

**NOTE:** Unfold the main cover with the inside surface facing up.

3. Locate the cover ends with strapping and align with the front and back of the shelter.
4. Insert the cover conduits into the pockets of the main cover.




**NOTE:** Shelter shown above may be a different length than this model.

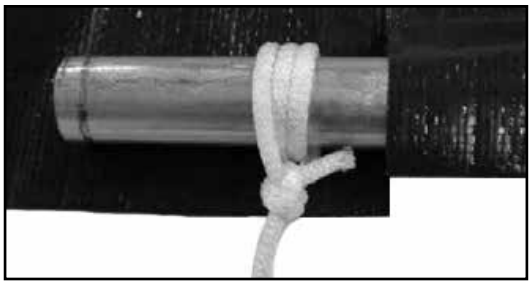
## ATTACH MAIN COVER

Gather the Parts:

- Main cover (with conduits already inserted)
- Ropes long enough to reach over the frame (provided by customer).
- Box cutter or utility knife

Assembly Procedure:

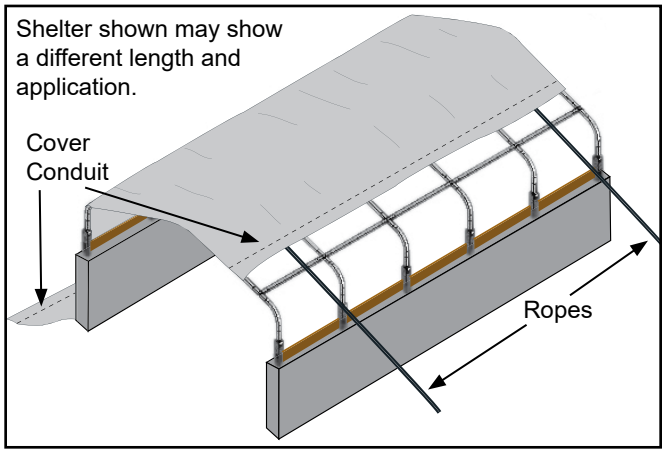
1. To pull the cover over the frame, attach ropes to both ends of the cover conduit. Wrap the rope around the conduit a few times to prevent it from slipping off.



**NOTE:** Depending on the length of the cover it may be necessary to attach additional ropes to the cover conduit between the end ropes by cutting a small opening in the cover pocket and tying the rope around the conduit. DO NOT cut through the main cover. *Cut through the conduit pocket only.*

2. With all ropes attached to the cover conduit, lift the conduit and carry the cover toward the base of the frame.
3. Toss the ropes over the frame and pull the cover into position. One person is required at each rope.

**NOTE:** Use lifts and additional assistants (if needed) to help pull the cover up and over the frame.




4. Once in place, center the main cover on the frame. Center the cover side-to-side and end-to-end.

**ATTACH MAIN COVER (CONTINUED)**

**WARNING:** To prevent damage and injury, DO NOT leave the cover unattended if it has not been properly secured. The ropes can be used to temporarily keep the cover from blowing off the frame.

5. Locate the black straps at the front and rear hems and feed the straps through the center slot in the end ratchets located on outside each end rafter.

   **NOTE:** Do not tighten completely at this time. This helps to temporarily secure the cover.

6. Lift the main cover skirt, locate the side ratchets attached to the support structure (e.g., 4" x 4" wood posts), and make a slit in the cover conduit sleeve at these locations.

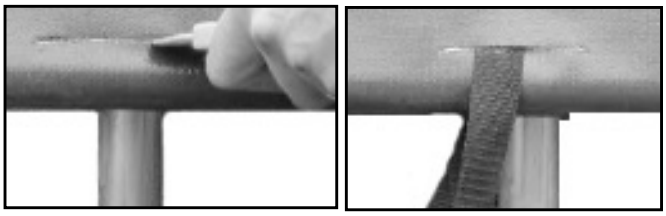


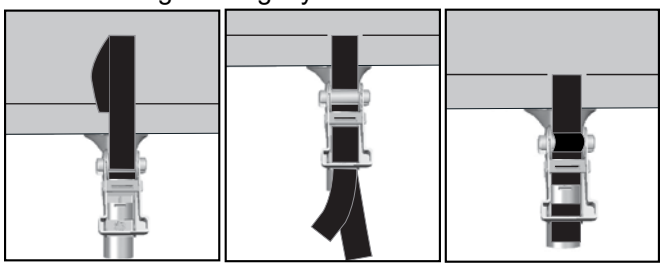
Photo shows a different shelter with a similar ratchet and cover design.

   **NOTE:** If ropes were used at these locations when the main cover was pulled in place, a slit may already be present.

7. Select one of the tie down straps that shipped with the building and insert one end of the strap through the sleeve opening, around the cover conduit, and back through the opening.

   **NOTE:** Depending on the ratchet location, the strap may need to be cut to the proper length. Some shelters are shipped with a roll of bulk strap. If this is the case for this shelter, cut a length of strap from the roll and continue.

8. Feed both ends of the strap through the slot in the ratchet and tighten slightly.



**NOTE:** It may be necessary to remove excess strap if it binds up in the ratchet.

9. Repeat the same steps for the remaining ratchets.

10. Using additional help (if needed), tighten the main cover beginning with the ratchets along the side of the shelter frame.

    **NOTE:** For easier tightening of the main cover and to get a uniform appearance, multiple individuals can be used to complete this procedure. DO NOT OVER TIGHTEN.

11. After the side ratchets are tightened, return to the end rafter ratchets and tighten the bonnet of the main cover.

    **NOTE:** Loosen the ratchets if needed to remove excess strap and retighten. Loosen all ratchet if needed to reposition the main cover on the frame and retighten the ratchets.

12. Fold the skirt of main cover down and over the ratchets to complete the installation of the main cover.

**SHELTER CARE AND MAINTENANCE**

Proper care and maintenance of your shelter is important. Check the following items periodically to properly maintain your shelter:

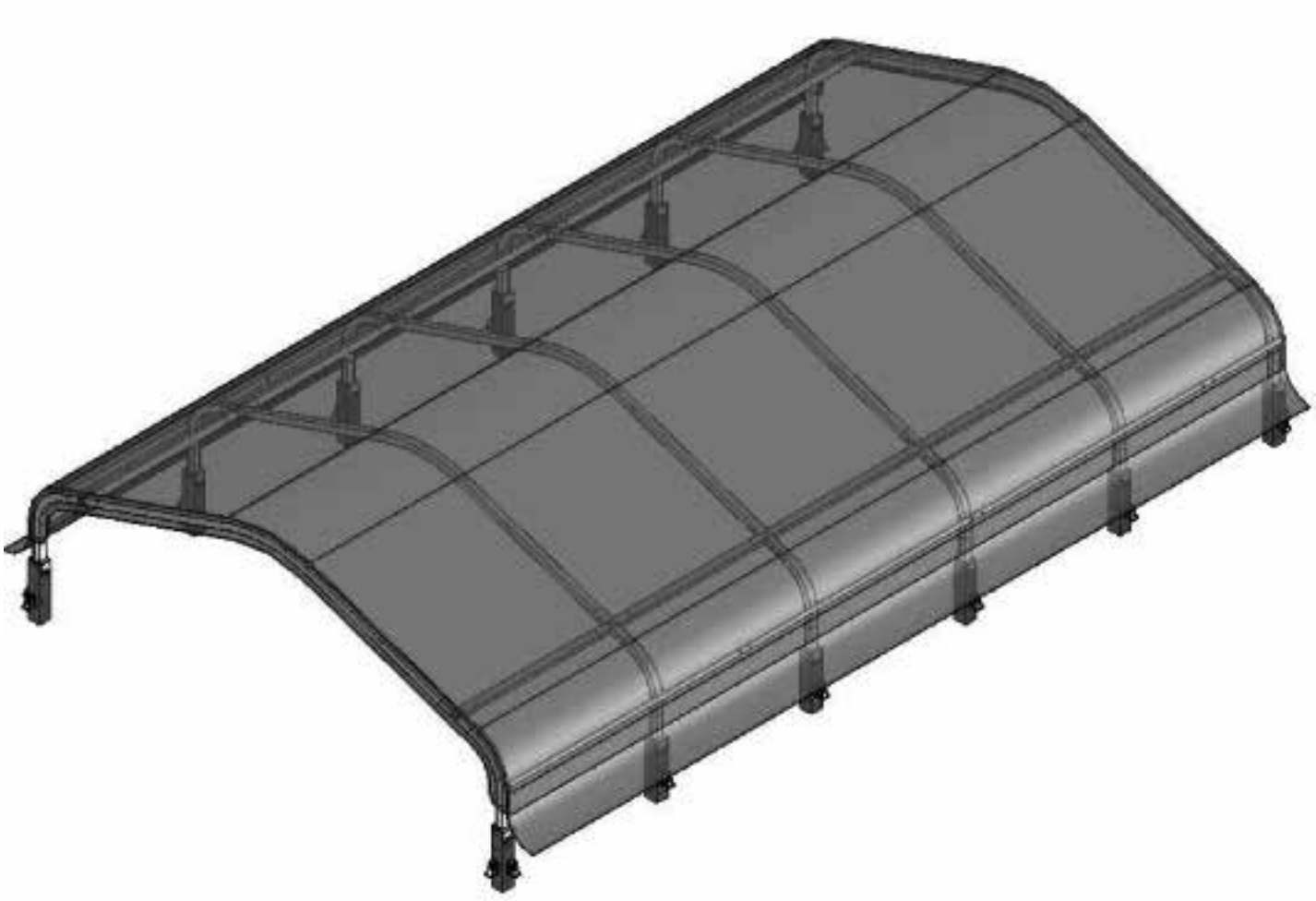
- Regularly check the main cover and panels (if equipped) to see that these remain tight and in proper repair.
- Check connections and all fasteners to verify that they remain tight.
- Verify that the bolts and nuts used to secure the post caps to the support structure are tight and in good repair.
- Do not climb or stand on the shelter at anytime.
- Check the customer-supplied support structure to ensure that it is adequately supporting the low-profile roof frame and all of its components.
- Remove debris and objects that may accumulate on the shelter. Use tools that will not damage the cover when removing debris.
- Remove snow to prevent excess accumulation. Use tools that will not damage the cover when removing snow.
- Check the contents of the shelter to verify that nothing is touching the cover or the side panels that could cause damage.
- Check the anchoring system to ensure that all components are tight and in good repair.
- If the shelter is moved, inspect all parts and connections before reassembling.
- For replacement or missing parts, call 1-800-245-9881 for assistance.

**NOTE:** With the exception of Truss Arch buildings, ClearSpan™ shelters and greenhouses do not have any tested loading criteria.

ClearSpan

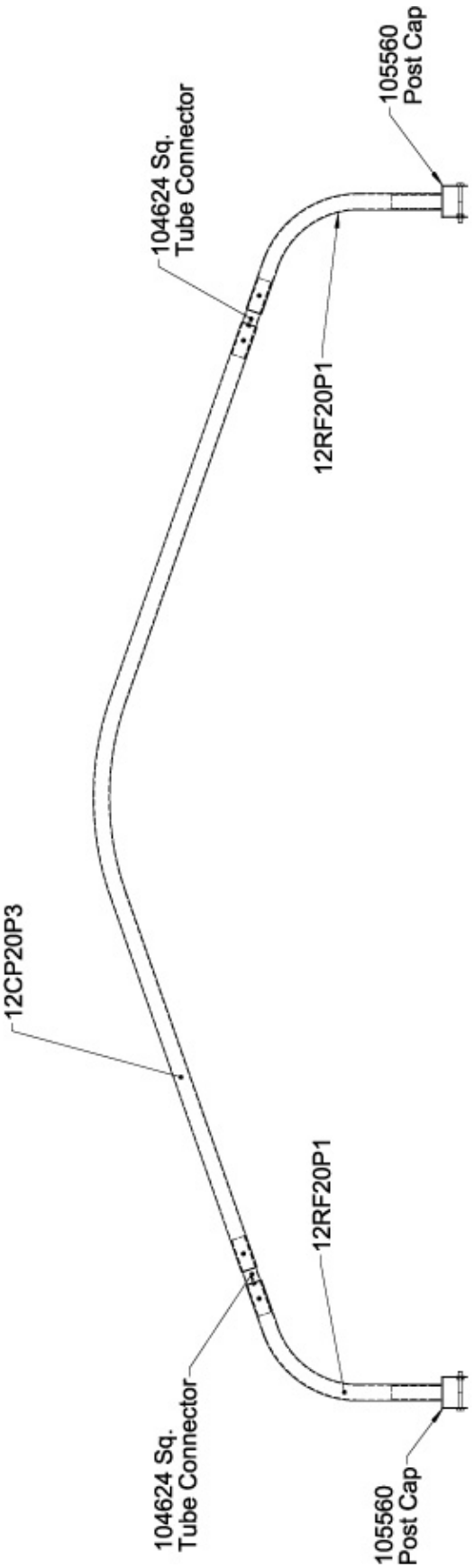
**QUICK START GUIDE**

12' Wide Low Profile Roof Frame



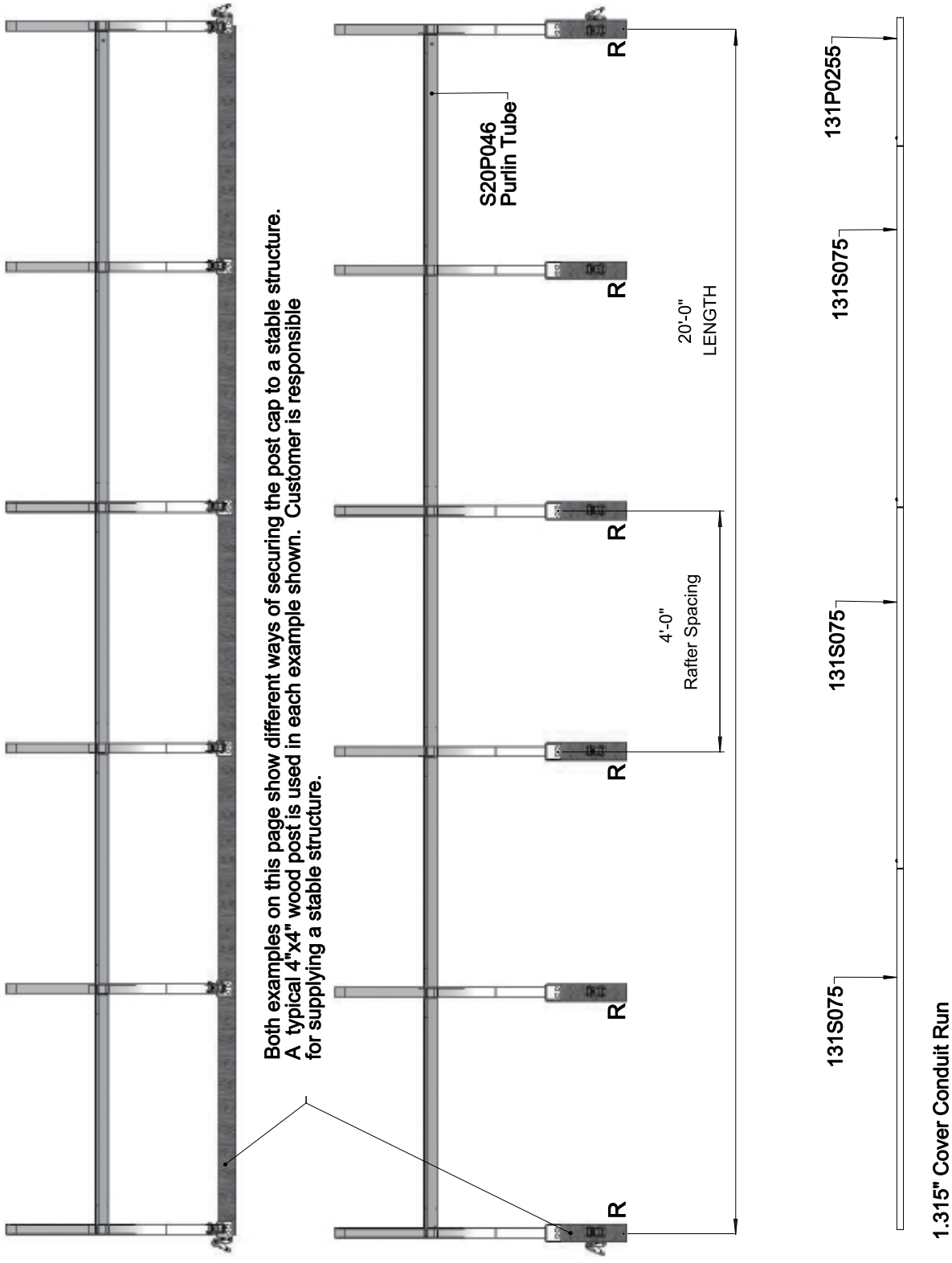
Frame shown may differ in length from actual frame.

# FRONT PROFILE



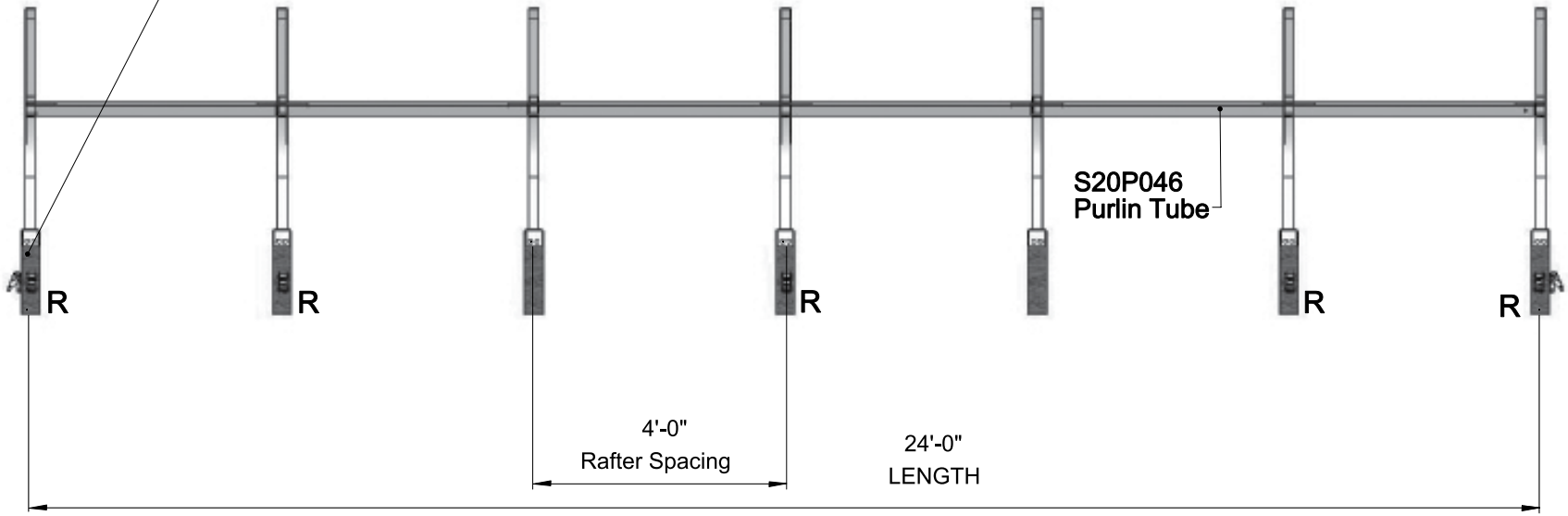

NOTE: Interior rafters use 104627 connectors in place of 104626 connectors.

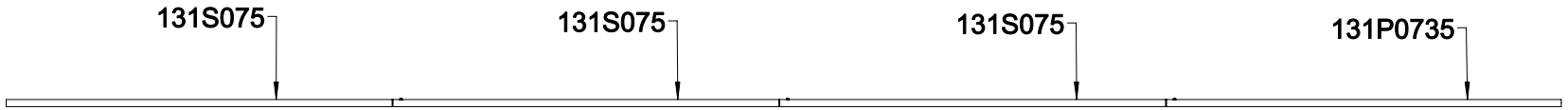
# SIDE PROFILE - 105620



# SIDE PROFILE - 105621

Both examples on this page show different ways of securing the post cap to a stable structure. A typical 4"x4" wood post is used in each example shown. Customer is responsible for supplying a stable structure.



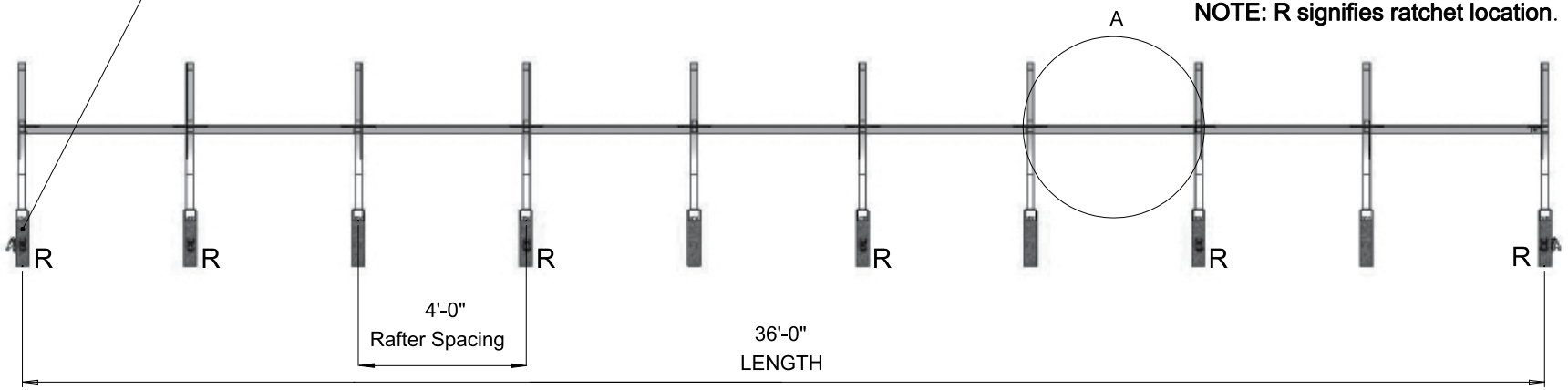



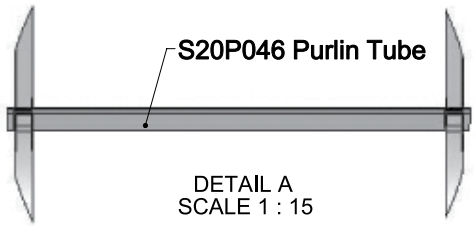

1.315" Cover Conduit Run

# SIDE PROFILE - 105622

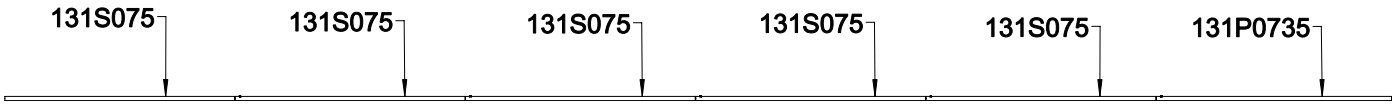
Both examples on this page show different ways of securing the post cap to a stable structure. A typical 4"x4" wood post is used in each example shown. Customer is responsible for supplying a stable structure.

NOTE: R signifies ratchet location.



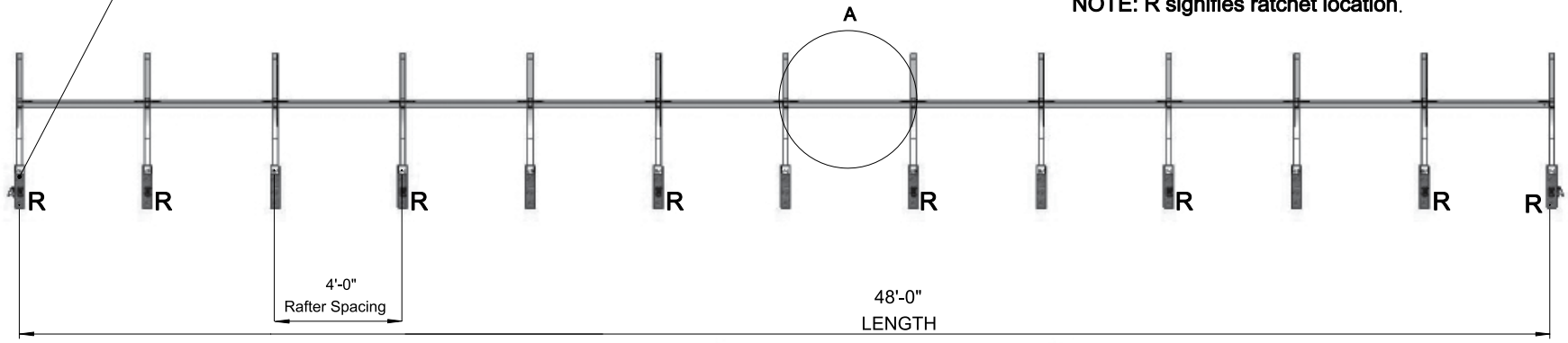

1.315" Cover Conduit Run

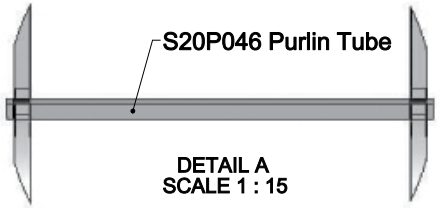


# SIDE PROFILE - 105623

Both examples on this page show different ways of securing the post cap to a stable structure.
A typical 4"x4" wood post is used in each example shown. Customer is responsible
for supplying a stable structure.

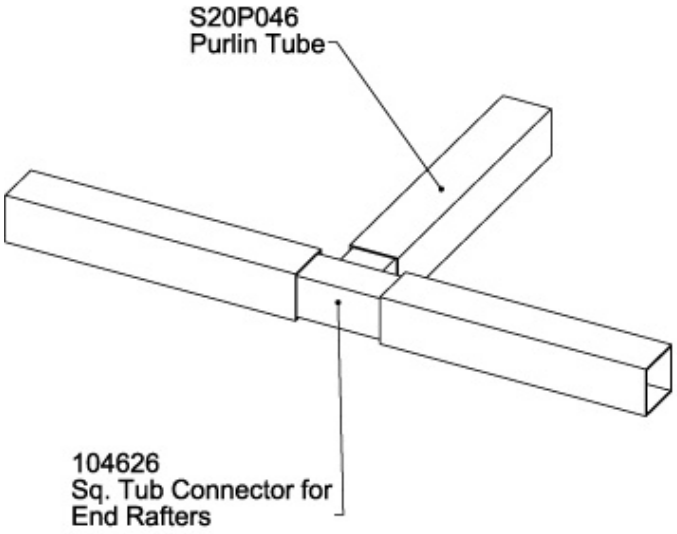
NOTE: R signifies ratchet location.

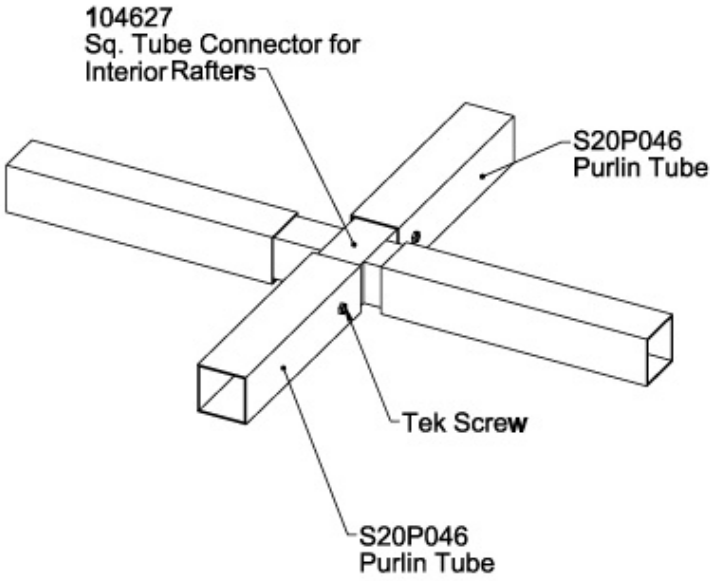



1.315" Cover Conduit Run

# CONNECTIONS




NOTE: All tubes use
Tek Screws for fastening.

-Be sure that Tek Screws have heads to the inside of the frame to protect cover.
-Bolts should have heads facing to the outside of frame.