



ClearSpan™ Sunblocker Pro Shade

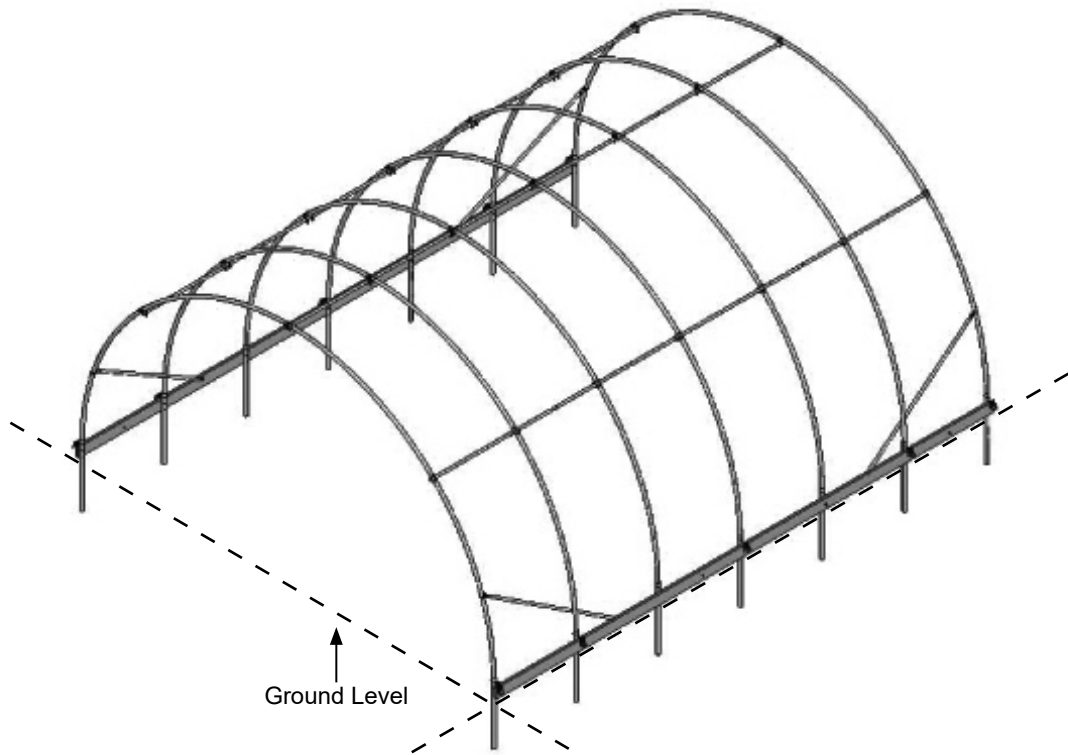


Diagram may show a different but similar model. Overall length may differ.

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WARNING: Cancer and Reproductive Toxicity - P65Warnings.ca.gov

STK#	DIMENSIONS
103561	20' W x 10' H x 24' L
103562	20' W x 10' H x 48' L
103563	20' W x 10' H x 96' L

Revision date: 09.16.09



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.

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. Follow the information below.

- *A level site is required.* The site must be level to properly and safely erect and anchor the structure.
- For sites that are not concrete or gravel, placing wood blocks or other suitable supports under each rafter leg helps prevent the pipes from sinking or working into the site.
- 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. Prepare the site (if applicable).
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 and properly anchor the assembled frame.
10. Install, tighten, and secure the end panel and main cover (if equipped). This applies to fabric covers that stretch over the frame assembly. Your shelter may include roof panels or side panels or both.
11. Read the care and maintenance information at the end of these instructions.
12. Complete and return all warranty information if included and as instructed.

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 or ground posts.
- **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.

CLEARSPAN™ SUNBLOCKER PRO SHADE

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.



Space below is reserved for customer notes.

- 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)
- Wrench, ratchet and socket (recommended)
- Scissors
- Two ropes long enough to reach over the shelter
- Hammers and gloves
- Metal file and metal-cutting saw
- Duct tape (supplied by customer)
- Box cutter or utility knife
- Ladders, work platforms, and other machinery for lifting designed to work safely at the height of the shelter

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 smaller parts such as fasteners or washers (if present).

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. (Some parts are not shown.)



FA4482B
Tek Screw



QH1061
Ratchet



QH1073
Post Driver



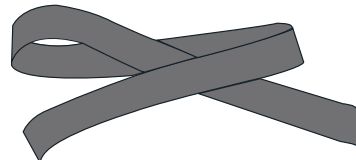
102548
Cross Connector



102856
End Clamp



QH1402
Band Clamp



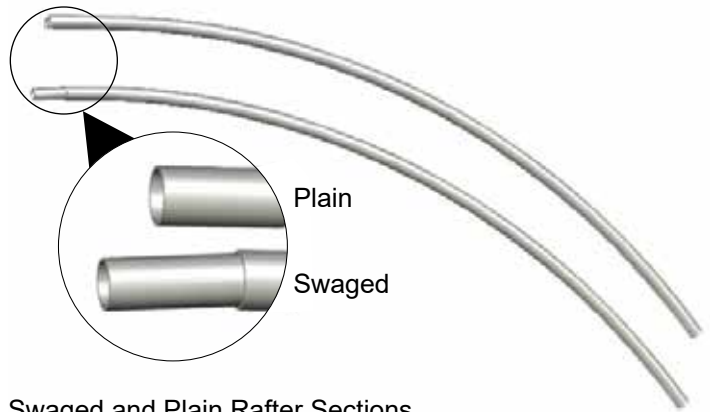
103620b
Plain End Strap



QH1304
5' Strut



102675
Ground Post



Swaged and Plain Rafter Sections

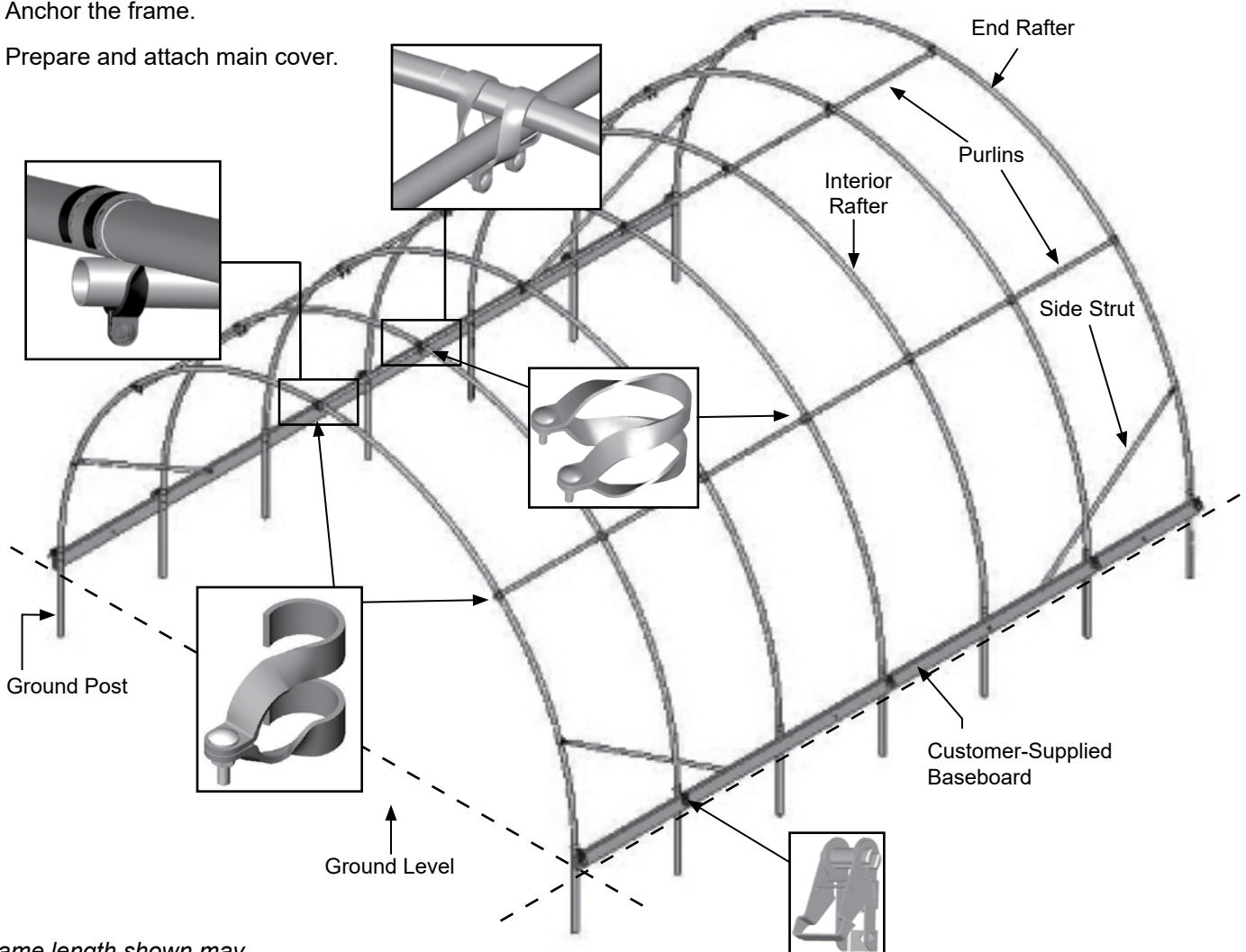


ClearSpan™ Sunblocker Pro Shade

OVERVIEW

This section is an overview of the process for assembling your Sunblocker Pro Shade. For details, please see the Assembling the Sunblocker Pro Shade Components section. Consult the diagram below to identify main parts of the shelter.

1. Locate the required parts for each assembly procedure.
2. Assemble the rafters and frame.
3. Anchor the frame.
4. Prepare and attach main cover.



Frame length shown may differ from actual frame.

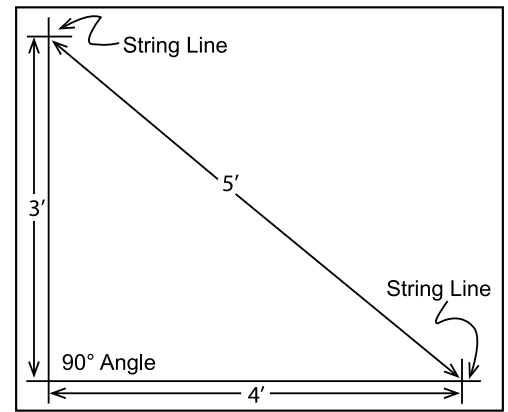
1

LAYOUT AND SQUARE THE SITE AND SET GROUND POSTS

After the site is prepared, lay out the building site. Taking these steps **before** assembling the shelter saves time and ensures that the structure is positioned as desired.

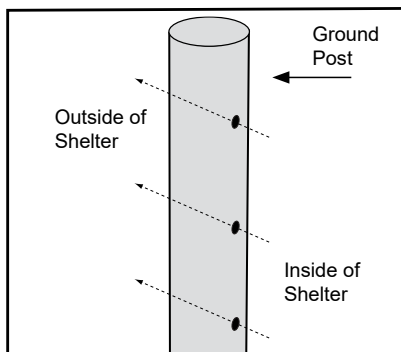
Ground posts must be driven to the proper depth. Width of the shelter is measured from the center of one ground post to the center of the remaining ground post.

1. Identify a corner where a ground post will be positioned and drive the first ground post into the ground. See diagrams.
2. After the first corner ground post is in place, string a line the width of the building (20' center-to-center) and drive the second corner ground post into the ground just enough to hold it in place.
3. Use a transit or line level to drive the second ground post to the same depth as the first ground post.
4. String a line at least as long as the building 90° from the line between the first and second corner ground posts. See diagram in upper right corner.
5. After squaring the position of the building, measure the length and drive the third corner ground post. Repeat for the last corner ground post.
6. After all four corner posts are accurately installed, tie a string line between the tops of the corner ground posts on the same side of the shelter. The string is used to identify the tops of all remaining ground posts. The string must remain tight and level.
7. Use a tape measure to mark the 48" on-center locations of the remaining ground posts.
8. Drive the remaining ground posts into the ground at the required 48" on-center width and the height identified by the string.



NOTE: A transit can be used to ensure an accurate 90° angle, or the 3-4-5 rule can be used. Refer to diagram. Using multiples of 3-4-5 such as 6-8-10 or 12-16-20 helps to maintain an accurate 90° angle.

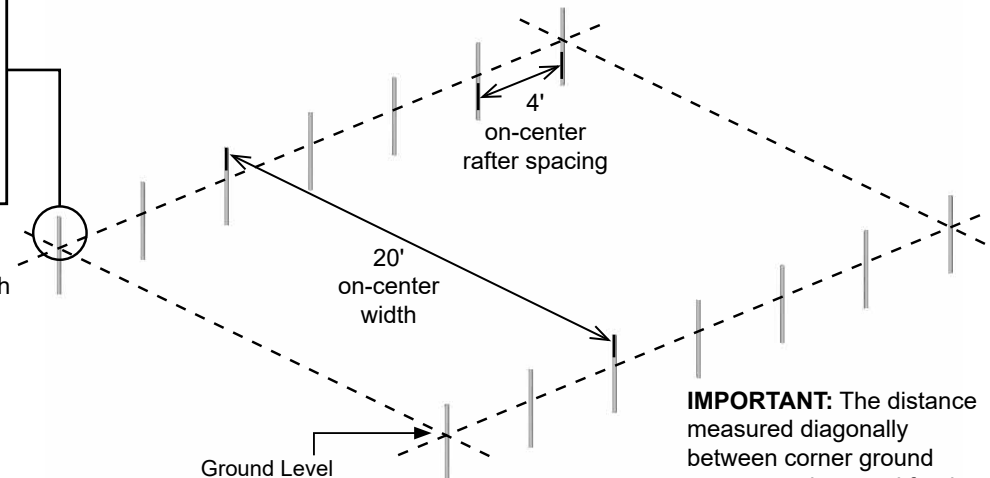
NOTE: Verify that the holes in the ground posts are in the proper position and that each post is plumb and driven to the correct depth.



NOTE: Insert the QH1072 ground post driver into the top of the ground post to protect the post and drive the post into the ground. *The top of the post will be one (1) foot above the finished grade when properly driven.*

ATTENTION: Position the pre-drilled holes facing to the inside/outside of the shelter so they can be aligned with the bolt holes in the rafter legs.

To align the bolt holes in the ground posts with those in the rafter *after driving the ground posts*, insert a tapered rod or pry bar into a ground post bolt hole and turn the post using the rod or pry bar.



IMPORTANT: The distance measured diagonally between corner ground posts must be equal for the building to be square.

2

RAFTER ASSEMBLY

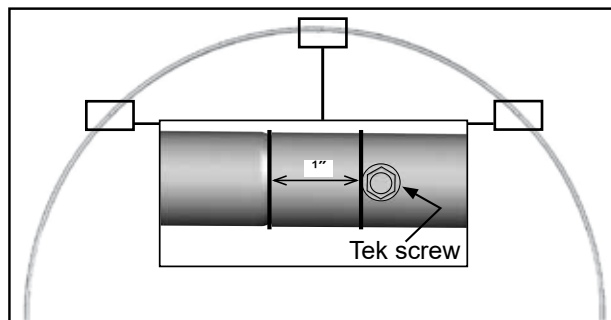
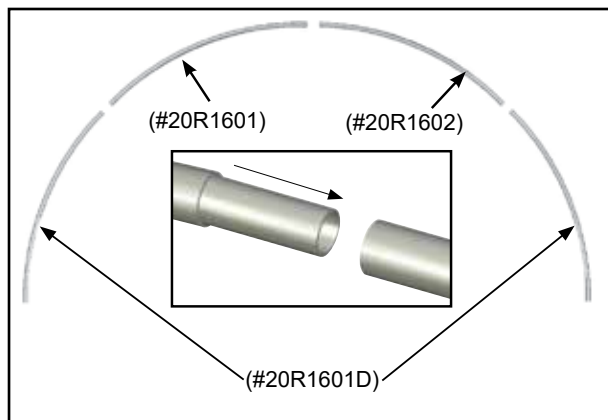
Rafter Assembly Procedure

Each rafter assembly consists of four (4) rafter pipes: two (2) swaged pipe sections (#20R1601D) (drilled for ground posts), one (1) swaged pipe section (#20R1601) (not drilled) and one (1) plain pipe section (#20R1602).

1. Select the four (4) pipes needed to assemble a rafter and arrange these on a flat surface as shown to the right for assembly.
2. Slide the swaged portion of each rafter pipe into the plain end of the pipe as shown.
3. With the main rafter pipes seated at each joint and the rafter positioned on a flat surface, secure each joint with a single self-tapping Tek screw. Position Tek screw approximately 1" from pipe joint.

ATTENTION: Do not secure the drilled pipes until the rafter is attached to the ground posts. This allows holes in the drilled pipes to be aligned with those in the ground posts.

4. Assemble rafters as described and continue with the additional steps to complete the assembly of the two end rafters.

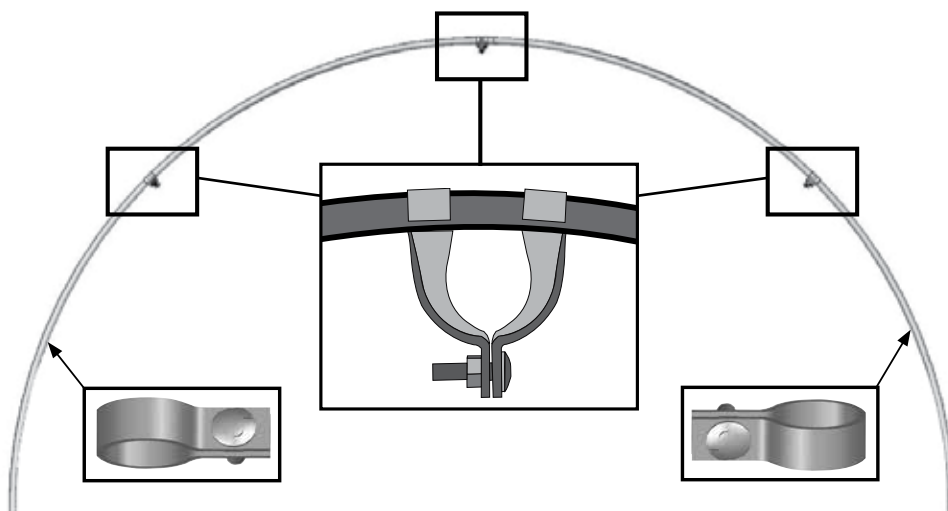


ATTENTION: Install the screws so they will not touch the cover once it is installed. This is typically on the backside of the rafter, which will be the surface visible from the *inside* of the shelter once the frame is assembled.

END RAFTER ASSEMBLY

Complete the following steps *for the two (2) end rafters only*.

1. Slide three (3) end clamps (#102856) and two (2) band clamps (#QH1402) onto the rafter in the locations noted below.
2. Repeat the same procedure for the final end rafter.
3. Continue with the **Frame Assembly** instructions.



NOTE: Do not secure the clamps to the rafter at this time. These clamps will be repositioned during frame assembly when the purlins are added.

Use a piece of duct tape (if desired) to keep the clamps from sliding when the rafter is lifted into position. View of the end rafter and clamps as shown from the *outside* when the frame is assembled.

3

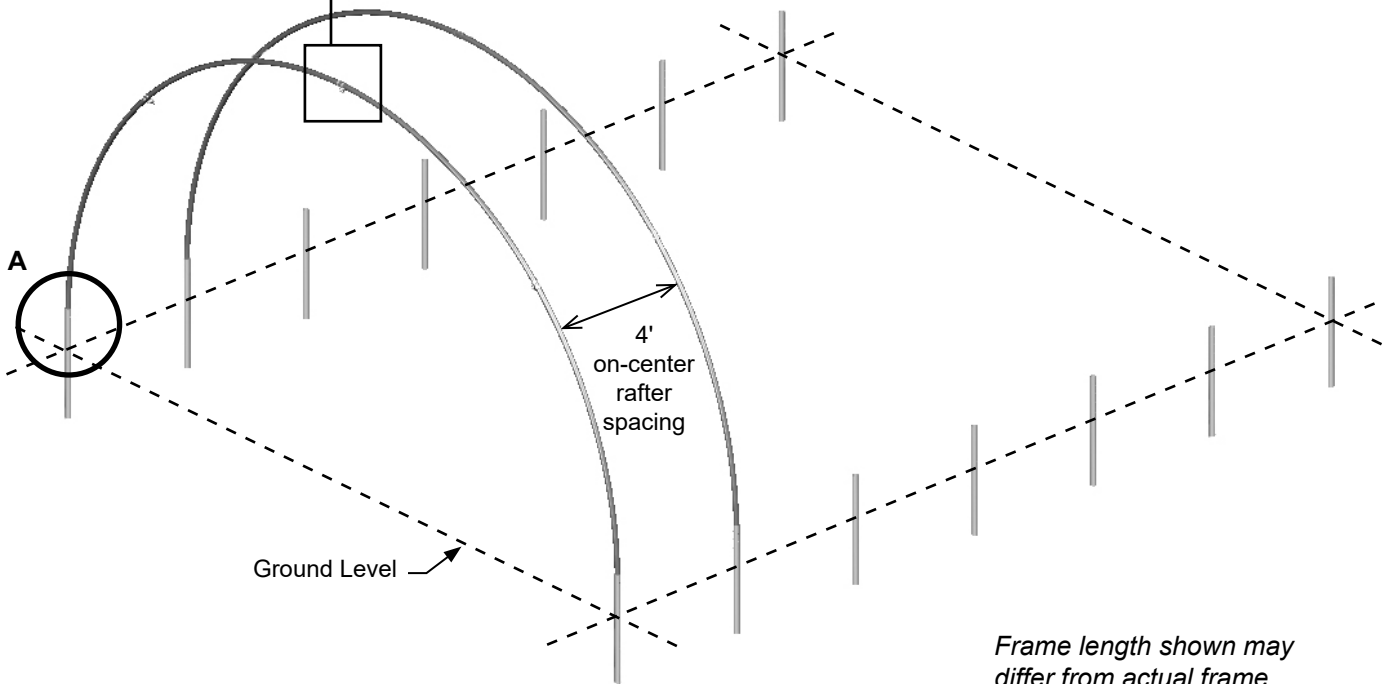
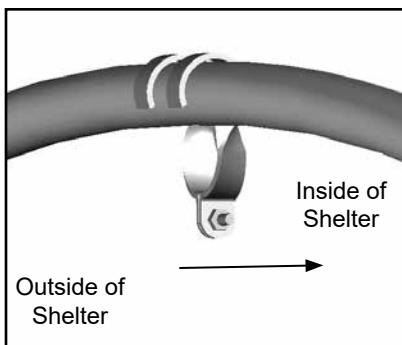
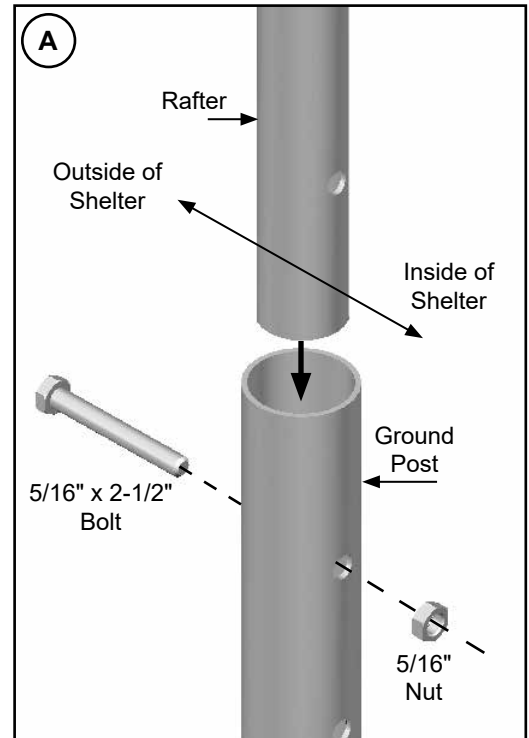
FRAME ASSEMBLY

Frame Assembly Procedure

1. Using the proper lifts and with assistance, carefully stand the first *end rafter* assembly and place the leg pipes into the first set of ground posts. Position the bolt side of the end clamps to the inside of the frame as shown below.

IMPORTANT: Brace the first rafter in position as needed to keep it from moving. Bracing is removed *after* additional rafters are installed and secured to the other rafters.

2. Align the top hole in the ground post with the hole in the rafter and insert a 5/16" x 2-1/2" machine bolt with the head to the outside of the shelter. Install the nut. See diagram A.
3. Place an interior rafter assembly into the second set of ground posts and secure the rafter to the ground posts as previously described.



Frame length shown may differ from actual frame.

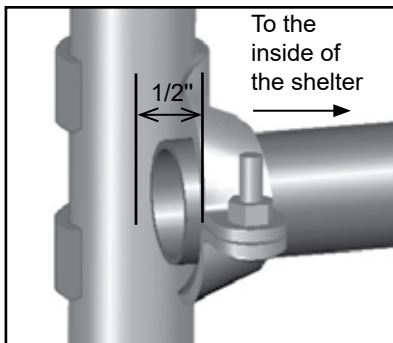
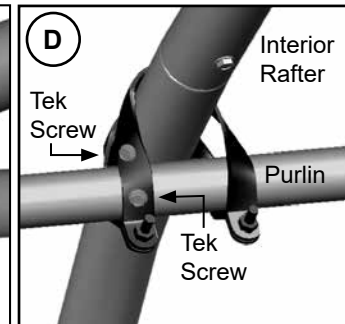
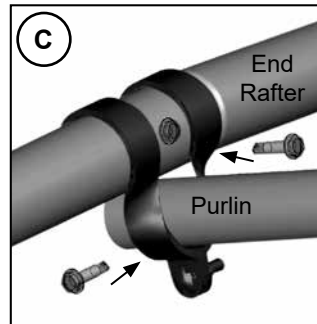
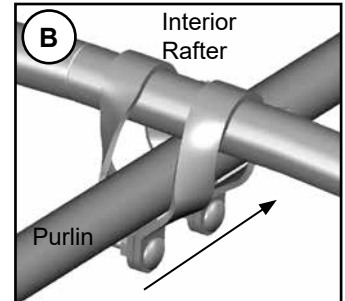
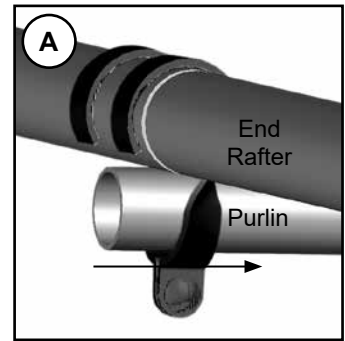
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FRAME ASSEMBLY (continued)

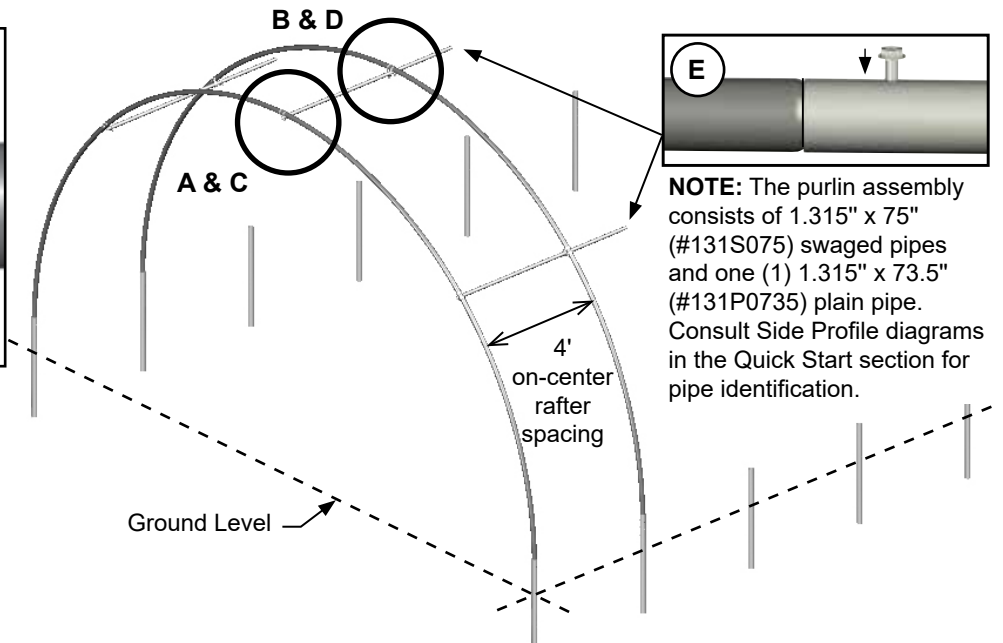
4. Position the cross connector at the peak of the inside rafter assembly as shown in diagram B.
5. Locate one (1) swaged 75" purlin section and insert the swaged end through the upper clamp on the end rafter and through the cross connector at the peak of the interior rafter as shown in diagrams A & B.
6. Verify that both rafters are plumb and properly spaced (4' on center), and that the purlin does not extend more than 1/2" past the end clamp.
7. Repeat steps 4 through 6 for the remaining purlin runs.
8. Tighten the cross connectors on the inside rafter and tighten the end clamps on the end rafter to secure the first sections of purlin pipe.
9. Continue adding rafters and purlin pipes until the frame is assembled. Secure all purlin splices using Tek screws (diagram E).
10. Finish the purlins using the plain, shorter pipes (#131P0735). Attach them to the final end rafter to complete the frame assembly.

NOTE: If the end rafter is plumb and a purlin extends past the end of the rafter, cut the last section of purlin pipe to the required length. Typically purlin pipes *do not* require cutting. *Verify that you have the correct plain pipe before cutting any pipe to complete the purlin.*

11. Once all rafters are set and the purlins are in place and secured, return to each end clamp and cross connector and install Tek screws through each clamp and into the rafter and purlin to secure the clamps. See diagrams C & D.
12. Return to each rafter and, using Tek screws, secure the joint between the lower rafter pipes and the upper rafter pipes and continue with the following procedure.



CAUTION: To prevent damage to the cover, the ends of the purlins should extend no more than 1/2" past the end clamps. The bolt side of the end clamps must go toward the "inside" of the shelter.



NOTE: The purlin assembly consists of 1.315" x 75" (#131S075) swaged pipes and one (1) 1.315" x 73.5" (#131P0735) plain pipe. Consult Side Profile diagrams in the Quick Start section for pipe identification.

4

BASEBOARD INSTALLATION (RECOMMENDED)

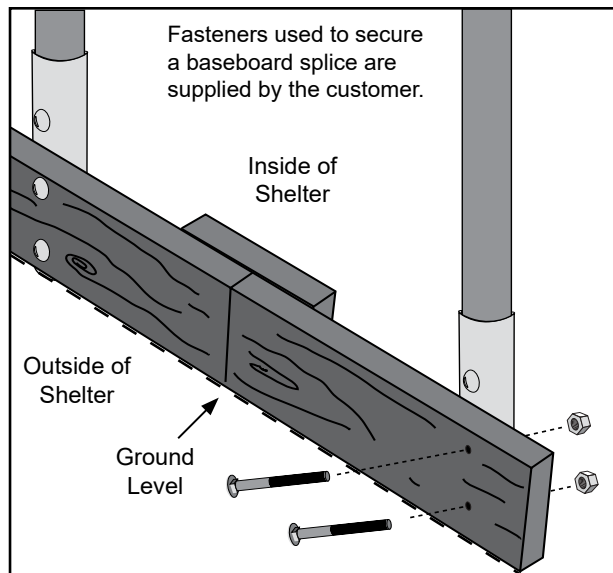
SPECIAL NOTE: Baseboards for Frame

These instructions recommend installing a baseboard along each side of the frame. The baseboard runs from the front to the back of the building.

This baseboard is *not included* with the shipment and must be supplied by the customer. Treated or recycled plastic lumber works well for a baseboard.

The baseboard, when installed properly, helps prevent the ground posts from working into the ground. Depending on the building, it also provides a surface to attach struts or other building components.

Consult instructions, or contact Customer Service for additional information regarding baseboards.



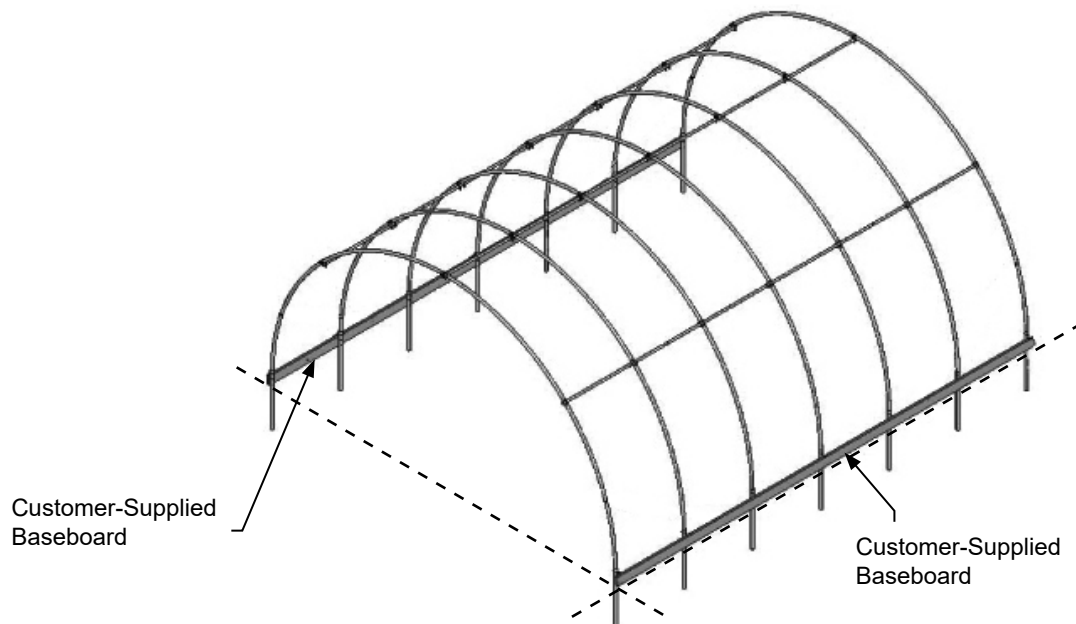
Gather the parts:

- Treated or recycled plastic lumber (supplied by customer)
- 1/4" x 3-1/2" carriage bolts and nuts (may not work for baseboards with a thickness greater than 1-1/2")

NOTE: The following procedure describes one way to install the recommended baseboards. The size and type of the baseboard you choose may require the use of alternative steps. When properly installed, baseboards run the length of the frame.

On the outside of the frame, attach the first baseboard to the ground posts using the 1/4" x 3-1/2" carriage bolts and nuts. Continue adding baseboards to complete the first run. Splices are made between posts as shown. Use a short section of baseboard to secure separate baseboards at a splice.

NOTE: The boards should be at ground level or slightly into grade to prevent the shelter from sinking and to create a seal along the bottom. After installing the baseboards, continue with these instructions.



5

SIDE STRUT INSTALLATION

Complete these steps to install the four (4) side struts:

1. Locate one strut and position it between one first interior rafter leg and the leg of the second interior rafter as shown below.
2. Attach one end of the strut to the previously installed band clamp as shown in the diagram below.

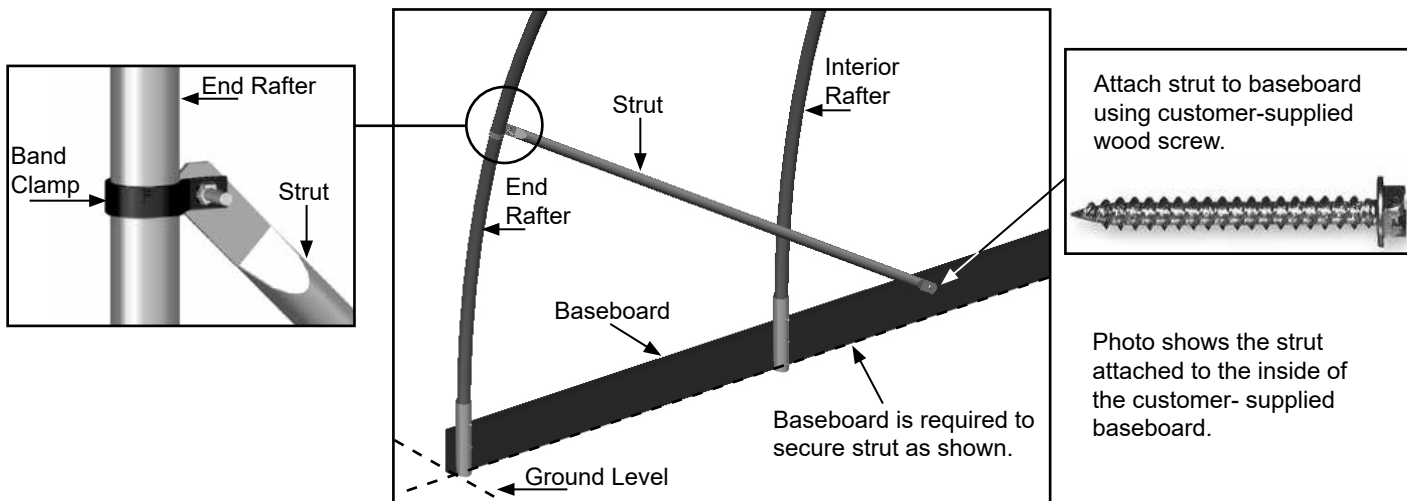
NOTE: Head of bolt on the band clamp must face the outside.

3. Attach the remaining end of the strut to the baseboard using a customer-supplied wood screw. See the diagram below for location.

NOTE: A baseboard provides a place to attach each strut and helps keep the ground posts at the required depth. The customer is responsible for providing a baseboard for this frame.

If no baseboard is used, pre-drill mounting hole in ground post, reposition strut and attach using a customer-supplied fastener.

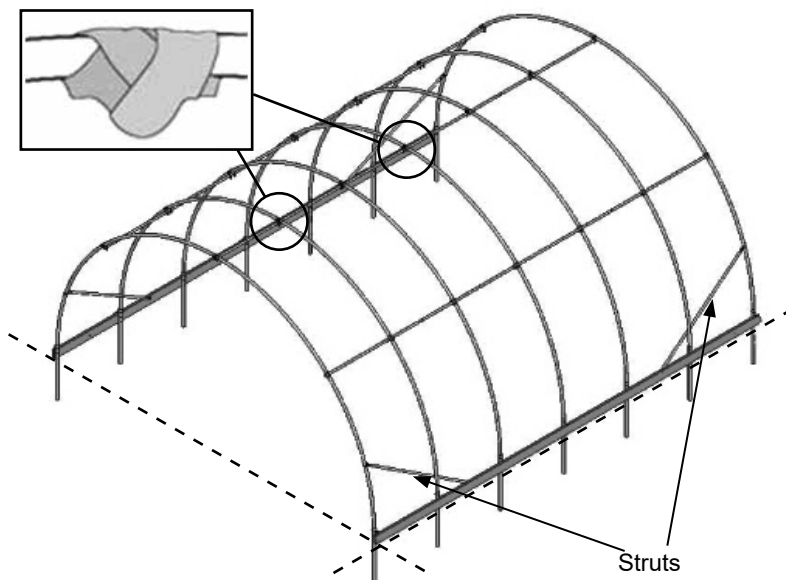
4. Repeat the above steps to attach the remaining side struts to the shelter.
5. After securing the struts, verify that all clamps are secured with a Tek screw to the rafters.



FINAL FRAME INSPECTION FOR COVER INSTALLATION

Before the cover is installed, complete these steps to prepare the frame for cover installation.

1. Verify that all fasteners are installed and tight.
2. Inspect the frame for fasteners that are installed in areas where the main cover meets the frame. Reposition these fasteners (if possible) or wrap with tarp or duct tape to protect the cover.
3. Inspect all pipe and connections for sharp edges and file smooth and/or wrap with duct tape.



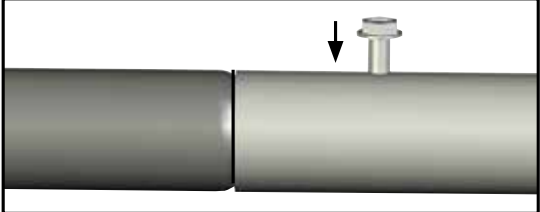
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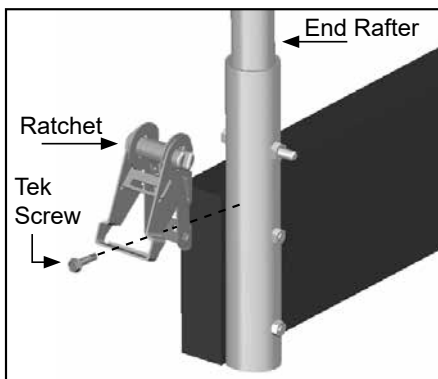
PREPARE MAIN COVER

Assembly Procedure

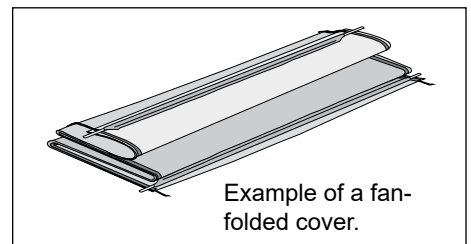
NOTE: When handling the main cover and setting it in position, *do not pull on the end straps*. They will pull out of the cover.

⚠ WARNING: To prevent damage to the cover and to prevent serious personal injury, **DO NOT** attempt to install the main cover on windy days.

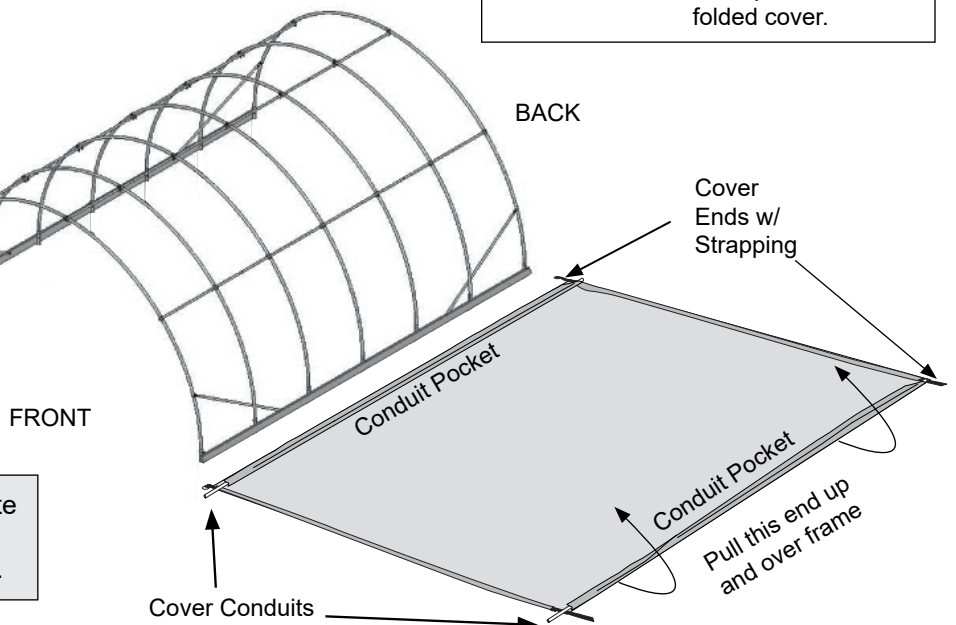
1. Fasten a ratchet to the end rafter using a Tek screw as shown below. The ratchet should be as low as possible and still operate. Repeat this step for the remaining corners.
2. Assemble two cover conduits. Start each conduit assembly with one plain pipe and add 75" swaged pipes to arrive at the correct length. *Consult the Side Profile Diagram in the Quick Start section for pipe identification.* Secure each pipe joint with a Tek screw and wrap each joint using customer-supplied duct tape. 
3. After assembling the cover conduits, locate the main cover and partially unfold it on a clean, smooth surface near the frame. Unfold the main cover with the inside surface facing up and the straps positioned at the front and back of the frame. If the cover is "fan folded" (see below), *unroll, but do not unfold cover at this time.*
4. Align the cover ends—ends have pre-installed straps—with the ends of the shelter and insert one cover conduit into each side pocket of the main cover. Tape or cover the end of conduit with part of a plastic soda bottle and insert that end into the pocket for easier installation. *Remove the plastic bottle after the conduit is installed.*
5. Continue with the installation of the main cover.



NOTE: Frame shown may differ in length from actual frame. Cover installation is the same.



Use liquid dish soap to lubricate the conduit and pocket when inserting the conduit if needed.



7

PULL MAIN COVER OVER FRAME

Gather the parts:

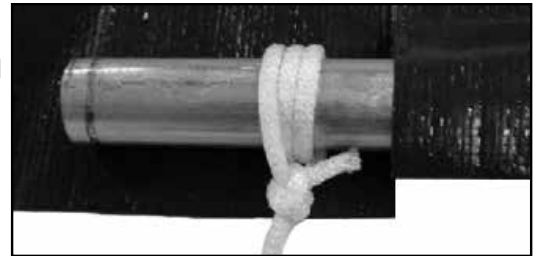
- Main cover (with conduits inserted)
- Ropes (provided by customer) or strap long enough to reach over the frame
- Box cutter or utility knife

⚠ WARNING: To prevent damage to the cover and to prevent serious personal injury, DO NOT attempt to install the main cover on windy days.

⚠ WARNING: To prevent damage and injury, do not leave the cover unattended if it has not been properly secured. Use ropes or straps to keep the cover from blowing off the frame during installation.

Main Cover Procedure

1. To pull the cover over the frame, attach a rope to each end of the cover conduit positioned *farthest from the frame* if the cover was spread out on the ground. If the cover is fan folded, tie the rope or straps to the conduit that is on the top of the folded cover. 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.

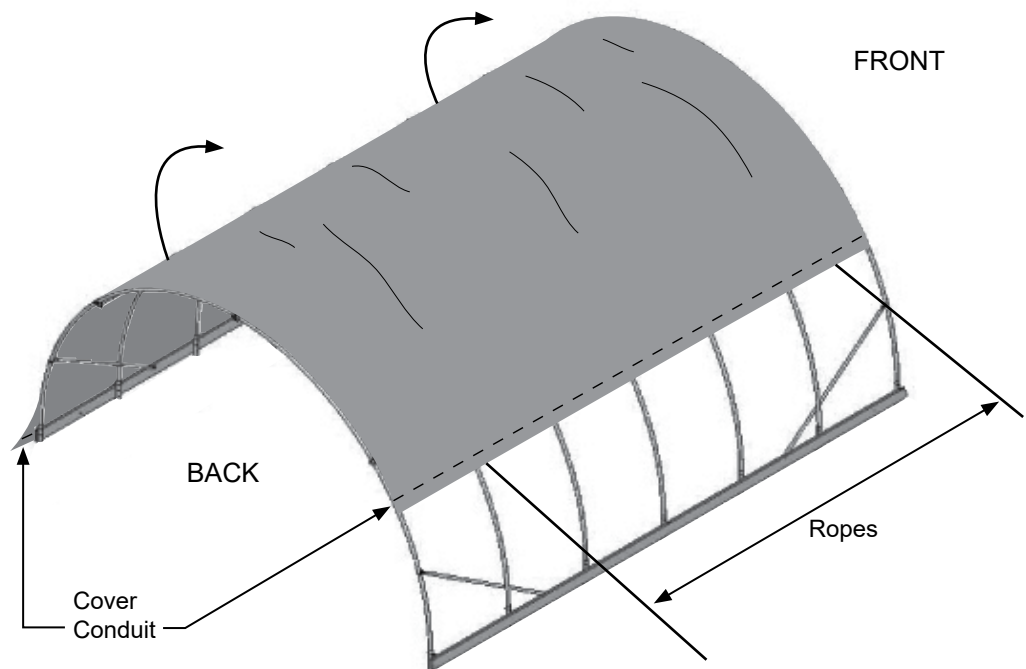
2. With all ropes attached to the cover conduit, lift and carry the conduit and cover toward the base of the assembled frame. *This is the conduit that will be pulled over the frame to the other side.*
3. Toss the ropes over the frame and pull the cover into position. One person is required at each rope.

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

4. Once the main cover is pulled into position, center the cover on the frame and remove the ropes. Loosely secure the ends of the cover to the ratchets attached to the front and back end rafters.

ATTENTION: Do not tighten the straps at this time.

NOTE: Frame shown may differ in length from actual frame. Cover installation is the same.



8

ATTACH MAIN COVER

ATTENTION: Position ratchets as evenly as possible. Consult Side Profile diagrams for ratchet positioning.

- Using the main cover as a guide, attach ratchets to the rafters on either side of the shelter.

NOTE: If baseboard is installed, attach ratchets to the baseboard using customer-supplied fasteners.

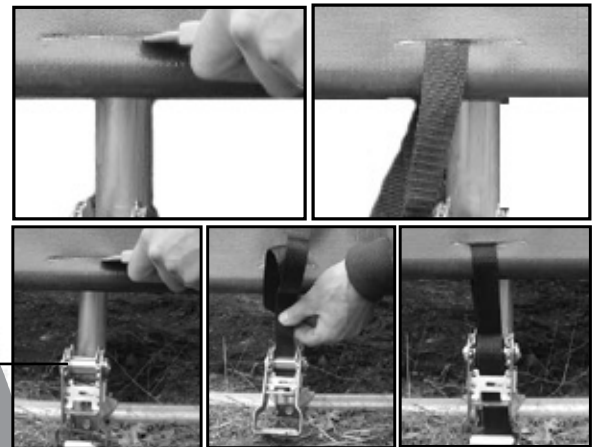
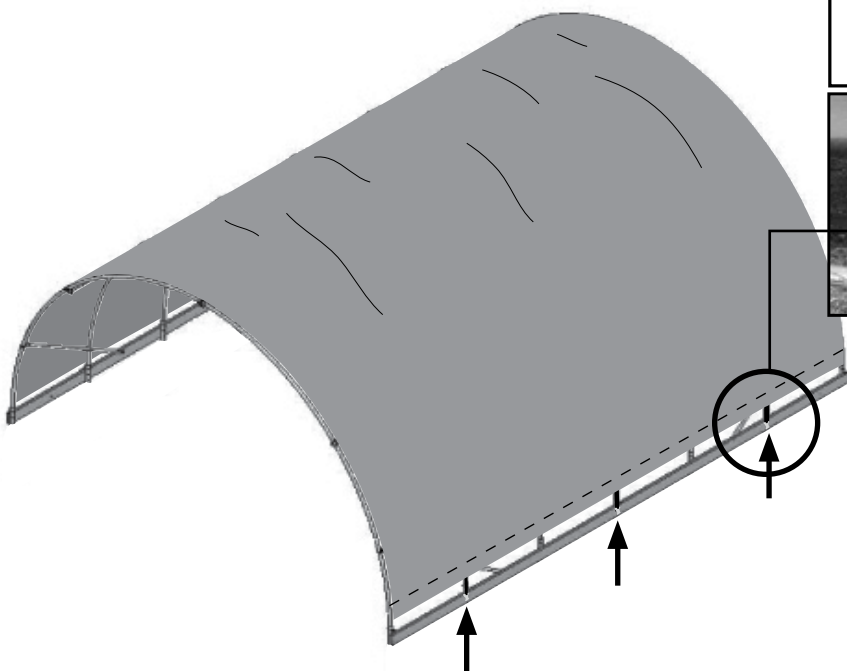
- Move to the other side of the shelter and install ratchets immediately across from each other *on same rafter*.
- Above one ratchet, make a slit in the cover conduit pocket and insert a 3' section of plain strap through the slit and around the cover conduit.

NOTE: DO NOT cut through the main cover. *Cut through the conduit pocket only.*

- Thread the plain strap ends into the ratchet and slightly tighten.
- Repeat the steps for the remaining ratchets.
- Using additional help (if needed) tighten the main cover beginning with the ratchets along the side of the shelter frame.

NOTE: Loosen the ratchets if needed to remove excess strap and tighten. If the main cover is not centered as desired, the ratchets can be repositioned (higher or lower) as needed and the main cover retightened.

- After the side ratchets are tightened, return to the front and back end wall ratchets and tighten.
- Fold the skirt of main cover down and over the ratchets to complete the installation of the main cover.



Frame and ratchet location may differ from actual frame.

9

OPTIONAL END PANEL INSTALLATION

To purchase the optional panels for your shelter, contact Customer Service at 1.800.245.9881 for additional information. If you do not have panels to install, continue by reading the Shelter Care and Maintenance information.

The following procedure describes attaching an end panel to an end rafter. Some steps may not apply to your (or a custom) end panel.

SPECIAL NOTE: Depending on their locations and the main shelter design, it may be necessary to remove the ratchets used to secure the main cover bonnet at the ends of the building *before* the end panel is attached. These ratchets are reinstalled once the end panel is attached.

The end panel and frame shown in the diagrams that follow may differ in design and size. The steps to install the basic end panel are the same despite these obvious differences.

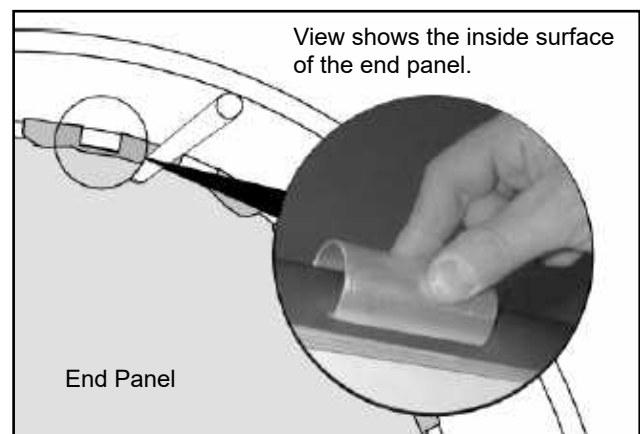
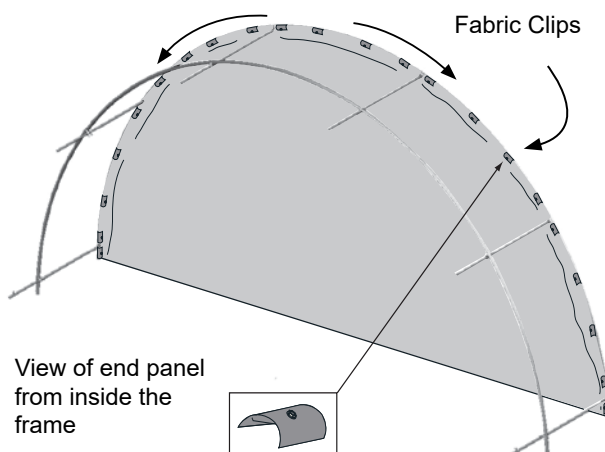
Required parts include:

- End panel and fabric clips
- Tek screws and washers

! DO NOT ATTEMPT TO PULL THE END PANEL INTO POSITION ON WINDY OR STORMY DAYS!

Complete these steps to install a typical end panel:

1. Spread the end panel out on the ground (pocket side up) and center the end panel as needed.
2. With the proper lift positioned inside the frame and with assistance, pull the end panel up and over the top of the end rafter. Square the end panel on the end frame. Verify that the bottom edge is flush with the ground.
3. With the lower edge of the end panel in position, attach the fabric clips to secure the end panel to the rafter. Evenly space the fabric clips at 24" intervals. *Keep the panel evenly and tightly stretched as you go.* Trim excess if desired.
4. Reattach the bonnet ratchets of the main cover and tighten the main cover.



Frames shown above may differ from actual frame.

SHELTER CARE AND MAINTENANCE

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



Space below is reserved for customer notes.

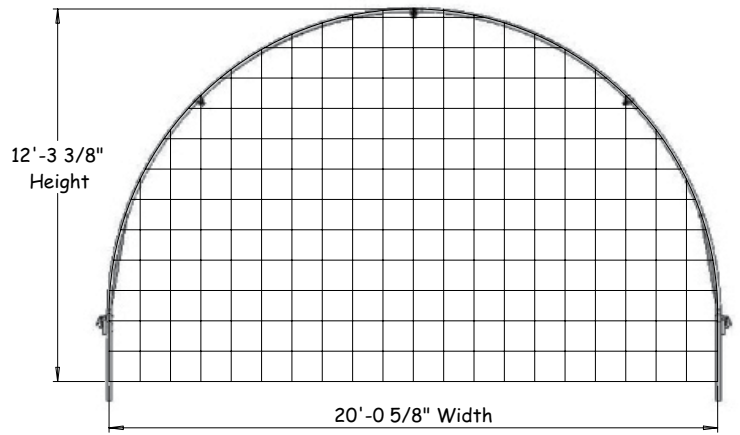
- Regularly check the main cover and panels (if equipped) to see that these remain tight and in proper repair.
- Check connections and all fasteners to verify that they remain tight.
- Do not climb or stand on the shelter at anytime.
- Remove debris and objects that may accumulate on the shelter. Use 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.

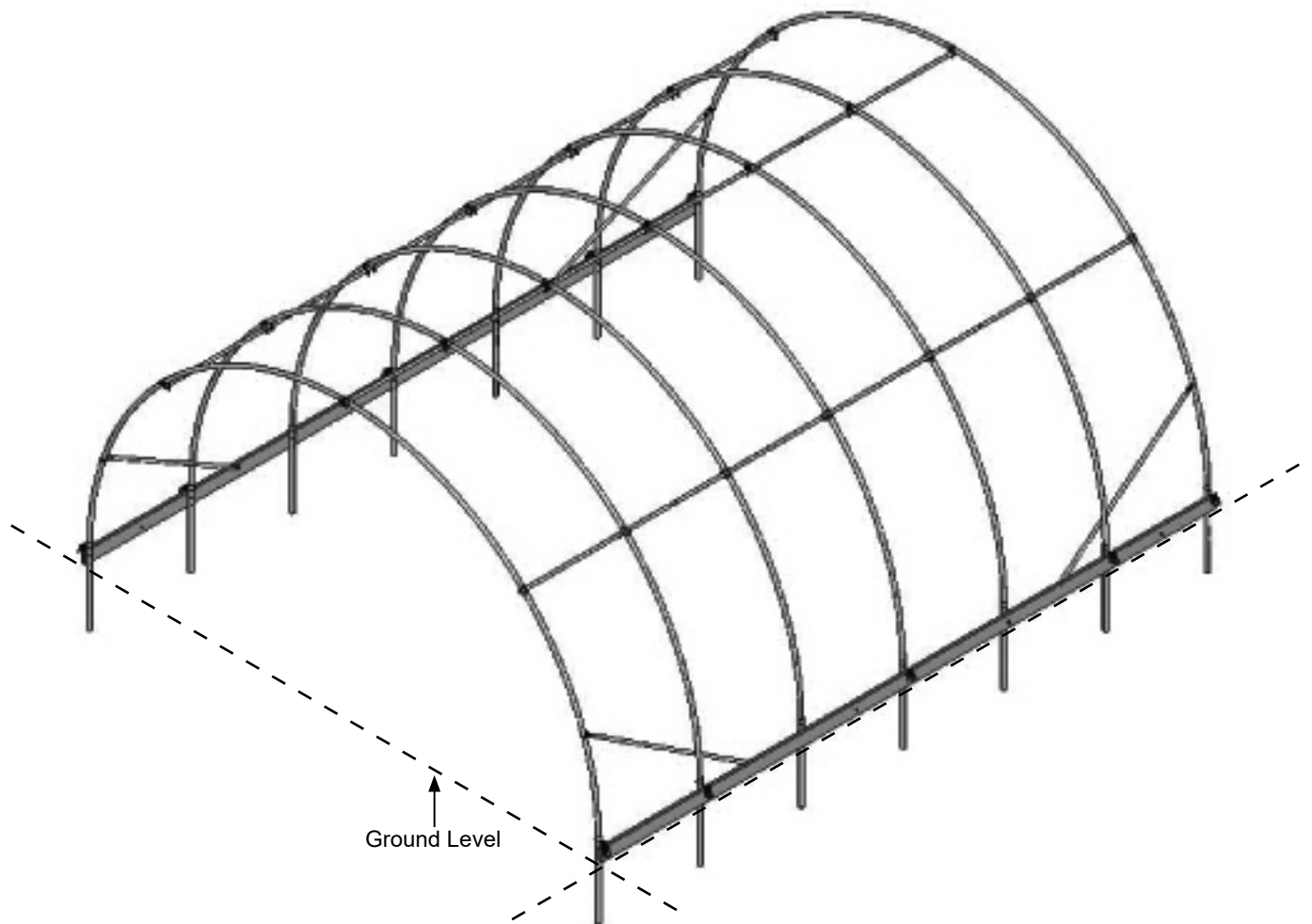


QUICK START GUIDE

20' Wide Sunblocker Pro Shade Building

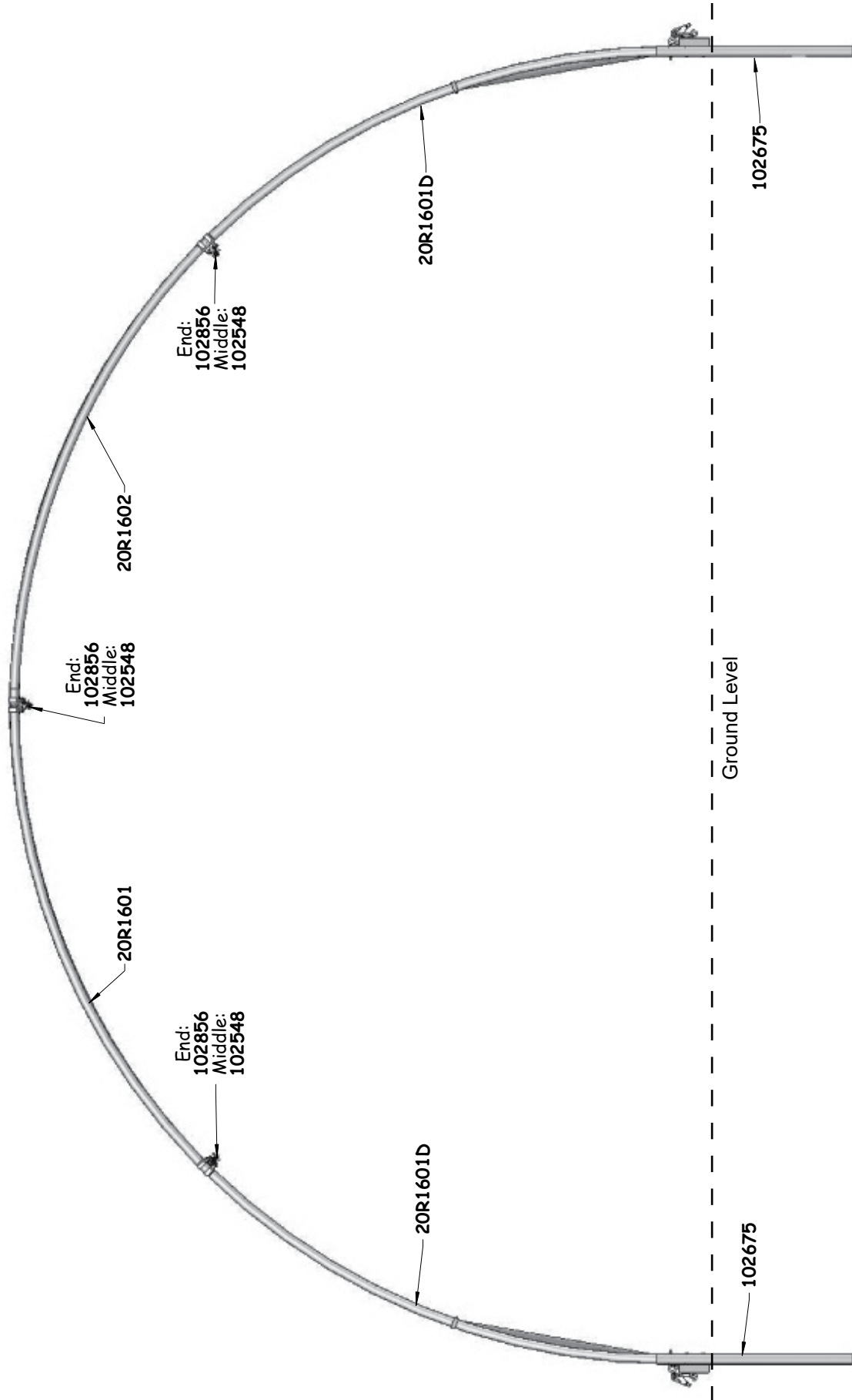


FRONT
Grid Represents 12" Squares

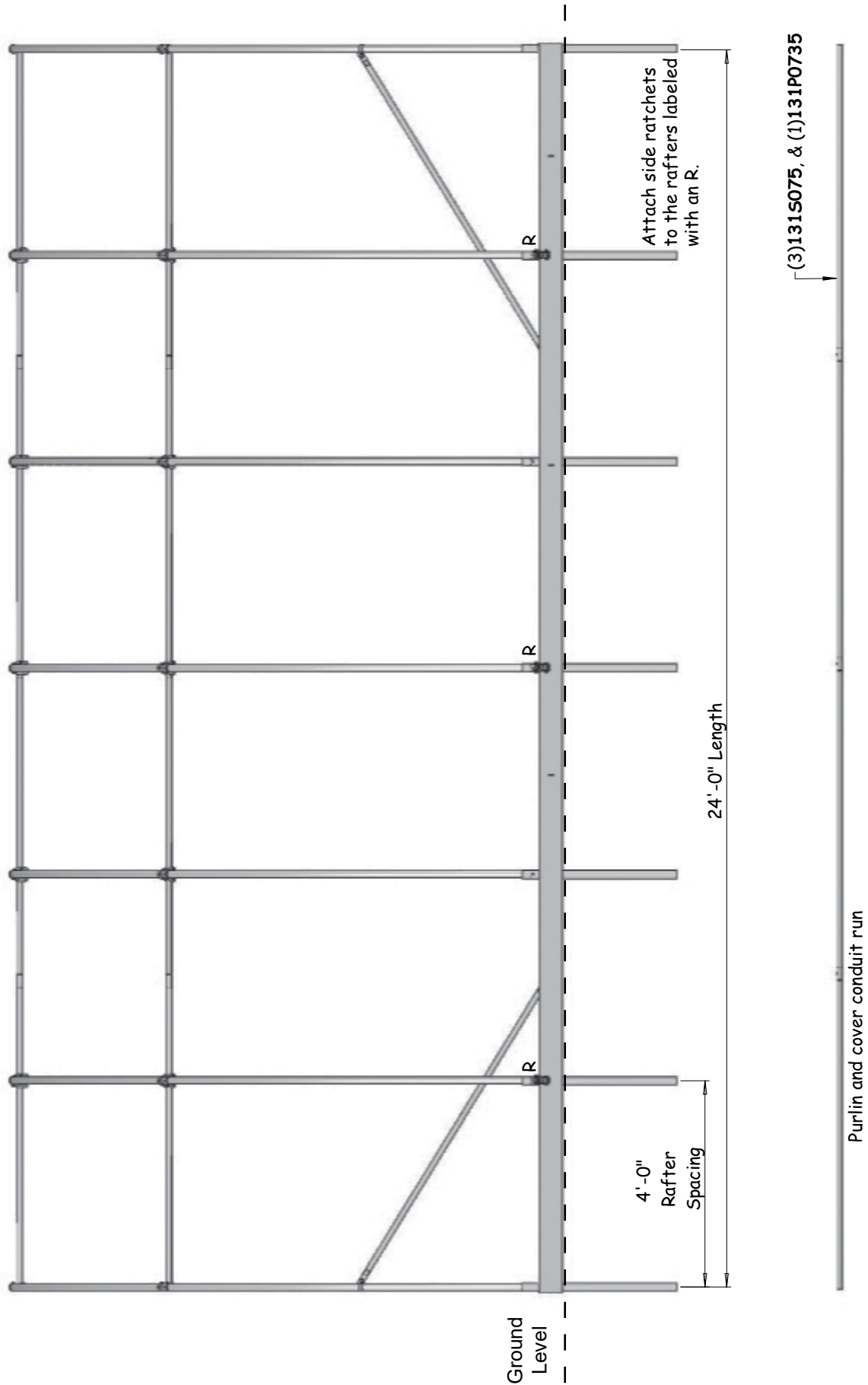


Frame length shown may differ from actual frame.

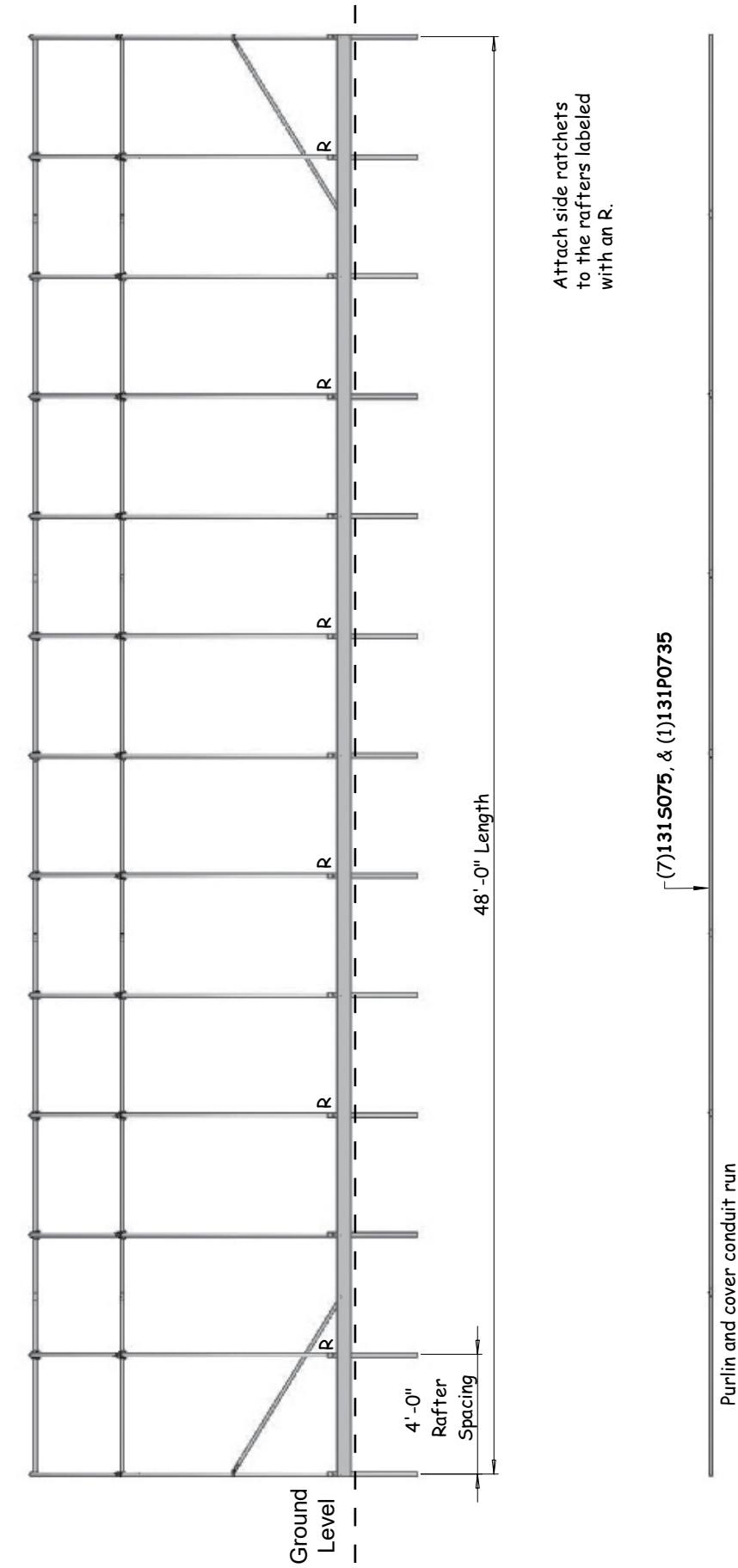
FRONT PROFILE



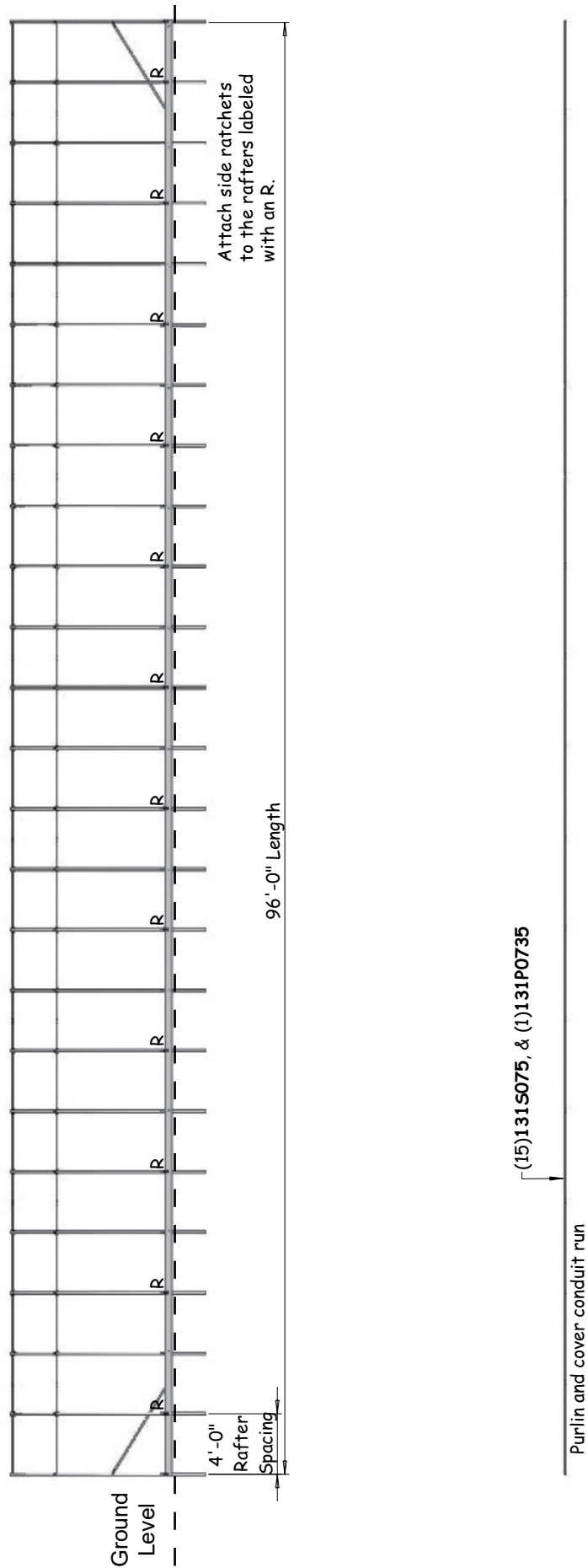
SIDE PROFILE - 103561



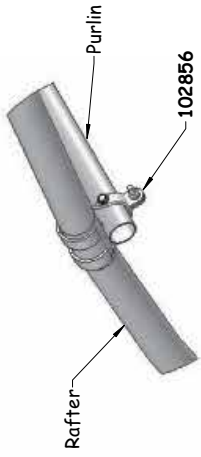
SIDE PROFILE - 103562



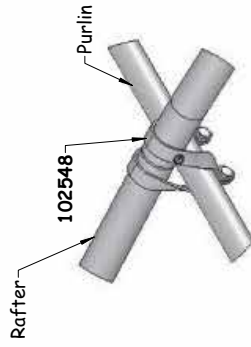
SIDE PROFILE - 103563



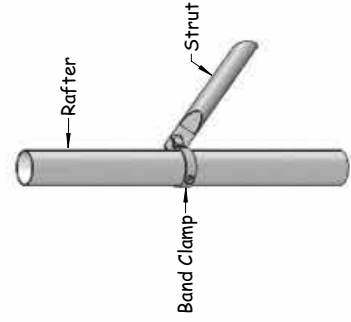
CONNECTIONS



View 1
End Rafter-
Purlin
Connection



View 2
Mid Rafter-
Purlin
Connection



View 3
Strut
Connection

