Moo-Tel™
Calf Nurseries

Photo may show a different but similar model.

<table>
<thead>
<tr>
<th>STK#</th>
<th>DIMENSIONS</th>
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</thead>
<tbody>
<tr>
<td>PB02730R3</td>
<td>26’ W x 24’ L</td>
</tr>
<tr>
<td>PB02732R3</td>
<td>26’ W x 30’ L</td>
</tr>
<tr>
<td>PB02736R3</td>
<td>26’ W x 36’ L</td>
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<tr>
<td>PB02739R3</td>
<td>26’ W x 42’ L</td>
</tr>
<tr>
<td>PB02740R3</td>
<td>26’ W x 48’ L</td>
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</table>
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. Follow the information below.

- A level site is required. The site must be level to properly and safely erect and anchor the structure.
- 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 main cover and panels (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 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; other use 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.
MOO-TEL™ CALF NURSERIES

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
- Variable speed drill and impact driver (cordless with extra batteries works best)
- Wrenches or ratchet and socket set (recommended)
- Two ropes long enough to reach over the shelter (The use of rope depends on the height of the shelter. Other main cover installation methods may not use rope.)
- Hammers, gloves, and eye protection
- 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.

QUICK START GUIDE

For an overview of this shelter and to see the main connection details, consult the diagrams in the Quick Start Guide located at the back of these instructions.
fabric structures and greenhouses

The following graphics and photos will help you identify the different parts. (Some parts are not shown.)

- FA4482B Tek screw
- FAMF01B Fender Washer
- CC6212 & CC6214 Fabric Clips
- 100441 Nut Setter
- FA2083 Eyebolt
- QH1404 Band Clamp
- 103620b Plain End Strap
- QH1061 Ratchet
- 103395 Spin Handle
- 103396 Universal Joint
- 102547 Cross Connector
- 102857 End Clamp
- Swaged and Plain Rafter Sections

Plain End Panel
Zippered End Panel*
Actual frame may differ in length than frame shown.
LAY OUT THE BUILDING SITE

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.

SQUARE THE SITE

Gather the parts:
- Ground posts
- Post driver

1. Identify a corner where a ground post will be positioned and drive the first corner ground post into the ground.

   NOTE: Insert the 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.

2. After the first corner ground post is in place, string a line the width of the building (26’ 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 corner 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.

   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.

5. After squaring the position of the building, measure the length and drive the third corner ground post.

6. Repeat the same step for the last corner ground post.

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

7. Check all dimensions (and adjust if needed) before driving the remaining posts to the required height.

8. 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.

9. Use a tape measure to mark the 36” on-center locations of the remaining ground posts.

10. Drive the remaining ground posts into the ground at the required 36” on-center width and the height identified by the string.

   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.

11. Continue with the Rafter Assembly steps that follow.
NOTE: Assistance is required to assemble the frame.

**RAFTER ASSEMBLY**

Gather the parts:

- Rafter pipe (#26CN191D)
- Rafter pipe (#26CN192)
- Rafter pipe (#190S099)
- Rafter pipe (#190P028)
- End clamps (#102857)
- 7' Strut (QH1308)
- Band clamp (#QH1404)
- Tek screws

End Rafter Assembly Procedure

Each rafter assembly consists of six (6) rafter pipes: two (2) plain pipe sections (#26CN191D) (drilled for ground posts), one (1) plain pipe section (#26CN192), two (2) swaged pipe sections (#190S099), and one (1) plain pipe section (#190P028).

1. Select the pipes needed to assemble a rafter and arrange these on a flat surface as shown below for assembly.

2. Slide six (6) end clamps and four (4) band clamps onto the rafter pipes. Position clamps on the rafter pipes as shown.

3. After slipping the clamps onto the rafter pipes, insert the swaged end of the rafter pipes into the plain ends of the pipes to assemble the rafter.

4. With the rafter pipes seated, secure the joints with a self-tapping Tek screw.

5. Using the upper band clamps, attach a QH1308 strut across the rafter. Verify that the strut is level and tighten the band clamps.

6. On the inside of the rafter, install a Tek screw through the band clamps and into the rafter pipe to prevent the clamps from sliding.

7. Repeat steps to assemble the remaining end rafter and set both end rafters aside.

8. Continue by assembling the interior rafters. Interior rafters are assembled exactly the same, except end clamps are not used.

**ATTENTION:** Lower band clamps are used for side struts. They are only attached to the end rafters and the first interior rafters at either end.

9. Continue by assembling the frame.
FRAME ASSEMBLY

After all ground posts are driven in place and rafters are assembled, assemble the frame.

Contact Customer service at 1-800-245-9881 to purchase baseboards, or for additional information.

ASSEMBLE AND PRE-MARK THE PURLINS

The following steps describe one way to speed the assembly process and eliminate the need to measure each purlin as it is installed. Pre-marking the purlins ensures that an accurate spacing of the rafter assemblies is achieved and maintained during assembly.

Gather the Parts:
- Pipe 1.315” x 75” swaged (#131S075)
- Pipe 1.315” x XX” plain (#131P0XX)
- Marker and tape measure

NOTE: The purlins are part of the assembled frame and run perpendicular to the rafter assemblies. Each purlin consists of 1.315” x 75” (#131S075) swaged pipes (number is determined by shelter length) and one (1) 1.315” x XX” (#131P0XX) plain pipe.

ATTENTION: The XX” represents the remaining length required to reach the end of the shelter. Consult the Spec Sheet for part identification.

1. Select the required pipe sections for one purlin and connect these by inserting the swaged ends of the pipes into the plain ends until the entire purlin is assembled.

NOTE: Assemble the purlins in a location that is accessible during the assembly of the frame, but will not interfere with the process of lifting and setting the rafters.

2. Verify that each pipe joint is properly seated.

NOTE: These pipes must be separated during the assembly procedure. Do not fasten them together at this time.

3. For the 36” rafter spacing, measure thirty-six and three-quarters inches (36-3/4”) from one end of the assembled purlin and mark the distance on the pipe.

NOTE: This first measurement is three-quarters (3/4) of an inch longer than the on-center rafter spacing to account for the length of purlin pipe that extends through the end purlin clamp of the first end rafter.

4. From the location marked in the previous step, measure thirty-six inches (36”) and make another mark on the assembled purlin.

5. Continue to mark the purlin in 36” intervals until all locations are marked. These marks help to maintain the 36” on-center rafter spacing of the shelter during assembly.

6. Repeat this procedure until all assembled purlins are marked.

7. After assembling all rafters and pre-marking the purlins, assemble the frame.

ASSEMBLE THE FRAME

After all ground posts are driven in place, rafters are assembled and purlins pre-marked, assemble the frame.

Gather the parts:
- All rafter assemblies and pre-marked purlins
- Band clamps (#QH1404)
- Cross connector (#102547)
- 5/16” x 2-1/2” machine bolts and 5/16” nuts
- Lifts, ladders, and assistants
- Rope or cable

1. Carefully stand the first end rafter and place the leg pipes in the first set of ground posts.

Brace the rafter in place to keep it straight. Depending on the frame size, a lift and additional assistants may be needed. Consult Quick Start section for details.

ATTENTION: Stand the rafter so the nuts and bolts of the end clamps are to the inside of the frame.

NOTE: All end clamps are marked to indicate which end rafter they are to be used on.

Rafter shown differs in design.

ATTENTION: View shows how to position all end clamps. Purlin pipe shown is installed during the frame assembly procedure.
2. Secure the leg pipes to the ground posts using the 5/16" x 2 1/2" machine bolts and nuts.

3. Use rope or cable to brace the rafter in position.

4. Carefully stand the first interior rafter, slide a band clamp onto each rafter leg, position in place, and secure the leg pipes to the ground posts.

5. As the second rafter is steadied, remove one section of pipe from one assembled purlin.

   **NOTE:** Work from the end of the purlin where the first measurement was taken during the pre-marking procedure, if used.

6. Insert the purlin pipe through the upper end clamp of the end rafter and through a cross connector placed in the same position on the *interior rafter*.

7. Align the plain end of the purlin with the center of the end rafter and rotate the purlin pipe so that the first mark is visible (near the clamp of the interior rafter).

8. Tighten the end clamp and secure it to the rafter with a Tek screw.

9. Install Tek screw through end clamp and into the purlin pipe.
BASEBOARD INSTALLATION (RECOMMENDED)

Gather the parts:

- Treated or recycled plastic lumber (supplied by customer)
- 5/16" x 3" lag bolts (#FAJ117B)

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.

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.

1. From the inside of the frame, attach the first baseboard to the outside of the ground posts using 5/16" x 3" lag bolts and nuts. Continue adding baseboards to complete the first run.

   ![Baseboard Installation Diagram]

   **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.

2. Repeat the steps to install baseboard along the remaining side of the frame.

3. Continue by installing the side struts.

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FRAME ASSEMBLY (continued)

10. Move to the interior rafter and align the mark on the purlin with the center of the rafter to maintain the proper spacing.

11. Verify that the rafter spacing is thirty-six inches (36") on-center (adjust as needed) and tighten the cross connector.

12. Secure the cross connector to the rafter and to the purlin using Tek screws. See Quick Start section if needed.

13. Repeat steps 5 through 12 for the remaining purlin runs.

14. Choose another interior rafter assembly and set it in position. *Do not use the remaining end rafter.*

   **ATTENTION:** Do not add a band clamp. A band clamp is only added to the legs of the end rafters and the first interior rafters at either end.

15. Secure the rafter legs to the ground posts as previously described and steady the rafter.

16. Remove another section of purlin pipe from each pre-marked purlin assembly and attach these to the rafter.

17. Verify that the distance between the rafters is 36" center-to-center. Adjust the rafter forward or backward as needed to maintain this dimension.

18. Secure the purlin pipe joint with a Tek screw.

19. Repeat the above steps as needed to stand and secure the remaining interior rafters and purlins to complete the frame assembly.

   **NOTE:** Remember to slide a band clamp onto each leg of the last interior rafter before the end rafter.

20. Secure the remaining end rafter to the ground posts, and attach the purlins to the end clamps. Verify that the end clamps are positioned with the nut and bolt to the inside of the assembled frame. Refer to the Quick Start section and previous diagrams if needed.
SIDE STRUT INSTALLATION

There are four (4) side struts (#QH1304) for the shelter. These struts are positioned across the first rafter space at each end.

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

1. Locate one strut and secure to the previously attached band clamps as shown below.

2. Repeat the above step to attach the remaining side struts to the shelter.

3. After securing the struts, verify that all clamps are secured with a Tek screw to the rafters.

4. Continue the next procedure to anchor the assembled frame.

ANCHOR THE ASSEMBLED FRAME

At this point, anchor the frame. Consult the MUST READ document for anchoring information and suggestions. Please call customer service at 1-800-245-9881 for additional anchoring information.

⚠️ CAUTION: The anchor assembly is an integral part of the cold frame construction. Improper anchoring may cause instability and failure of the structure to perform as designed. Failing to anchor the shelter properly will void the manufacturer’s warranty and may cause serious injury and damage.
ASSEMBLING THE END FRAME KIT COMPONENTS

Consult the end wall diagrams in the Quick Start section of these instructions before you begin.

ATTENTION: Assistance is required to assemble the end wall. Lifts designed to reach the top of the end rafter are also needed. Consult a qualified construction professional if you are not familiar with the construction of similar frame structures.

Install the Ground Posts for Door Jambs

The following steps describe one way to set the ground posts for the door jambs.

1. At ground level, measure between the legs of the end rafter to locate the center of the end wall. Use a plumb line to identify the center of the overhead rafter and mark that location on the ground as well.

   NOTE: Marking the center of the end wall allows multiple measurements to be made as needed.

2. Using the dimensions on the End Wall Frame diagrams, locate the positions of the vertical door frame members for the door. The width of the door determines the frame dimensions for the door opening. Consult the documentation sent with the door for the correct spacing of the door frame verticals.

3. Dig a 12" diameter hole at the locations found in previous step to a depth that is below the geographic frost line.

4. Add concrete to the hole. Concrete should remain 1" to 2" below ground level so that it does not interfere with construction and installation of other end wall components.

5. Determine the required width of the door and insert one 1.75" x 1.75" square tube (104075) into the concrete approximately 8". See diagram below. Repeat the step and verify that the tubes are plumb and the correct distance apart.
Assemble the End Frames

After the ground posts are set, assemble the remainder of the end frame.*

- Angled Bracket (#QH1330)
- Carriage bolts and nuts and Tek screws (#FA4482B)
- QH1404 band clamps and 104074 brackets
- 2" x 2" square tubes (#105328 & #S20P044) and 104075 inserts
- 1.5" x 1.5" square tubes (#S15S099 & #S15P009)

*Refer to the End Wall diagrams for door framing and connecting hardware. Diagrams shown are specific to an 8' x 8' overhead door.

Complete the following steps:

1. Using the dimensions on the End Frame diagrams (or for the doors if equipped) and the 2" x 2" square tubing (105328), related hardware, and connectors, assemble the door frame of the end wall.

   Diagram above shows how to secure header to door jambs using Tek screws and a QH1330 bracket at each end.

   Splice the joints of the 2" x 2" tubes using a 104075 (1.75" x 1.75") square tube insert and Tek screws.

   NOTE: Connect and cut tubes as needed to frame the remainder of the end wall.

The lower end of each 2" x 2" door jamb slides over each 1.75" x 1.75" ground post set in concrete. Secure the connection by installing Tek screws on the back or inside surface of the vertical.

To avoid damaging the end panel (if equipped) or conflicting with an overhead door installation (if equipped) do not install Tek screws from the outside or within the door opening.
ATTENTION: For the 8’ x 8’ overhead door, the upper brackets are mounted wider than the actual door frame. To prepare for the door brackets, use an 18” section of 2” x 2” door frame tubing (#S20P018) and mount it to the outside of each vertical door frame, using the supplied carriage bolts and nuts, in the locations shown in the diagram below. (Frame shown may differ from actual frame.)

Consult the door instructions sent with the door to attach the 2” x 2” x 18” extension tube in the correct position.

Photo to the right shows an installed roll-up door as seen from inside the shelter. Door mounting brackets are attached to the door frame extensions shown above.

Door Frame Extension tube (#S20P018) is bolted to the 2” x 2” door frame using carriage bolts.
The following procedure describes installing both end panels.

**NOTE:** The end wall 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:

- Plain end panel (#QE02730WZ0)
- Zippered end panel (#QE02730WZ2)
- Fender washers (#FAMF01B)
- Tek screws (#FA4482B)
- CC6214 fabric clips (Use half for each end panel)

1. Spread an end panel out on the ground (pocket side up if applicable) and center the end panel as needed.

2. With the proper lift (or ladders) 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 and verify that the bottom edge is in the desired position.

3. With the lower edge of the end panel in the desired position, secure the top end of the panel to the backside of the end rafter using a few fabric clips and Tek screws.

4. With the top edge temporarily secured to the end rafter, move to the bottom of the panel and stretch and secure the edge to the base rail using Tek screws and washers.

**NOTE:** For the zippered end panels, zippers should not have excess tension on them. *Do not stretch the panel door too tight.*

**NOTE:** Align bottom edge of panel with the base rail and secure with Tek screws and fender washers. Space the fasteners evenly along the base rail at 18” to 24” intervals.

*If a pocket is present along the bottom edge of the panel and if desired, the end wall base rail tubes can be detached, fed into the pocket and reattached to the end wall frame. Trim the cover pocket to get the best fit if needed.*
5. With the panel secured along the bottom, loosen the temporary clips and stretch the end panel up and over the end rafter. (Additional assistants are needed to keep the panel evenly stretched.)

6. Attach the fabric clips to secure the end panel to the rafter. Evenly space the fabric clips at 24" intervals. Keep the panel evenly stretched as you work along the rafter and down to the base rail.

7. If installing the zippered end, test the zippers in the roll-up door. Loosen the fabric clips and adjust the material if needed. Re-install Tek screws in the fabric clips.

8. Move to the door frame for the overhead door and secure the end panel to the jambs and header. Evenly space the screws and washers around the perimeter of the door frame on the outside of the frame.

**NOTE:** For the zippered end panel, install Tek screws outside the zippers. Do not install through roll-up panel.

9. Repeat the steps as needed to install the remaining end panel if equipped.

10. With end panels attached, trim the excess panel material to within 12" of the mounting surface if desired.

**ATTENTION:** Allow enough end panel material to remain intact so that the panel can be stretched if needed.

11. Return to the zippered end of the frame and install the roll-up crank assembly.

Space below is reserved for customer notes.
ATTACH ROLL-UP CRANK ASSEMBLY

A hand crank is used to raise and lower the zippered fabric roll-up door of the end panel. Install the roll-up components following the procedures below.

NOTE: Assure the door rolls inward so rain water does not collect inside the door when rolled up.

Required parts:
- Universal joint (#103396)
- Crank handle (#103395)
- Swaged pipe (#131S075)
- Plain pipe (#131P024)
- Fabric Clips (#CC6212): Quantity—5
- Tek screws (#FA4482B)

1. Select a (#131P024) 24" plain pipe and a (#131S075) 75" swaged pipe.
2. Assemble a crank extension by sliding the swaged end of a 75" pipe into the plain end of a 24" pipe. Secure the pipe joint using a Tek screw.
3. Slide the crank handle (#103395) into one end of the extension and the universal joint (#103396) into the other end. Use a Tek screw to secure each component to the crank extension.
4. Assemble a roll-up door conduit by sliding the swaged end of a 75" pipe into the plain end of a 24" pipe. Secure the pipe joint using a Tek screw.
5. Wrap two layers of duct tape over the pipe joint and Tek screw head.
6. Insert the roll-up door conduit into the pocket in the bottom of the door. Leave 3"-4" of conduit extend out of the pocket where you want to attach the roll-up crank.

NOTE: If the roll-up door conduit is too long and extends past the door pocket on both ends, cut the conduit as required so it is 3"-4" longer than the door width. Remove any burrs from the cut end.

7. Secure the conduit to the roll-up door using fabric clips (CC6212) and Tek screws. Evenly space the fabric clips as shown. Diagram shows a similar door. Actual clip quantity may differ from what is shown.

8. Attach the universal joint to the exposed end of the roll-up conduit using a Tek screw.

9. Test the roll-up door assembly and make any adjustments needed.

10. Return to the door end of the frame and cut the opening for the roll-up overhead door.
END PANEL INSTALLATION (continued)

Cut Door Openings in End Panel

**ATTENTION:** For best results and to keep the stretched panel in position, install Tek screws and washers from the outside around the door frame to secure the end panel to the door jambs and header if you have not done so already. Do this before cutting the opening in the panel. If you do not want to install screws through the panel, continue with Step 1.

These steps describe one way to cut a door opening:

**ATTENTION:** Do not cut door openings if you are not installing doors. Remove dark, shaded area.

1. Working from inside the frame, mark a 12"-16" border along the door jambs and below the header. (Consult the diagram below.) These 12"-16" flaps are wrapped around the door framing and secured to the inside of the door frame once the final diagonal cuts are made.

2. Using the diagram as a guide, cut the end panel to remove the section that is shaded.

3. Make two (2) diagonal cuts in the end panel as shown above to create the 12"-16" flaps.

4. Continue with the Secure End Panel to Door Frame instructions that follow.
END PANEL INSTALLATION (continued)

Secure the End Panel to the End Frame

The frame shown in the following diagrams may differ from the actual frame. Installation steps are the same.

1. With door opening cut, secure the end panel to the door frame using Tek screws and washers. See diagram below.

   **NOTE:** For the exposed corners of the door frame that remain, cut a piece of material from the scrap end panel material to cover the exposed frame and secure the piece to the corners using Tek screws and washers (if desired).

   **ATTENTION:** DO NOT secure the end panel to the inside or backside of the door jambs. Some doors kits use this surface for tracks and brackets. Check the instructions that shipped with the door for additional details.

2. Continue by installing the ratchets and main cover.

   **RATCHET INSTALLATION**

   The main cover is secured to the shelter using ratchets and straps. End ratchets can be either attached to the outside of an end rafter 36" above ground level as shown or they can be attached to the end wall base rail (if equipped).

   1. Secure the ratchet to the end rafter (or base rail) using a Tek screw through the bottom hole in the ratchet.
   2. Repeat to install ratchets at the remaining three corners of the frame.
   3. Attach the remaining ratchets to the inside of the rafters 48" above ground level using a Tek screw.

   **NOTE:** Refer to the Side Profile drawings in the Quick Start Guide for the location of the remaining ratchets for your shelter.
INSTALL MAIN COVER

Gather the parts:

- Ratchets (1" 4000 lb)
- Pipe 1.315" x 75" swaged (#131S075)
- Pipe 1.315" x XX" plain (#131P0XX)
- Cover
- Plain strap (#103620B)
- Ropes long enough to reach over the frame (supplied by customer)
- Tek screws
- Duct tape (supplied by customer)

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

The cover conduits are part of the main cover and run perpendicular to the rafter assemblies. Each conduit consists of 1.315" x 75" (#131S075) swaged pipes (number is determined by shelter length) and one (1) 1.315" x XX" (#131P0XX) plain pipe.

The XX" represents the remaining length required to reach the end of the shelter. Consult the Spec Sheet for part identification.

1. Select the required pipe sections for one cover conduit and connect these by inserting the swaged ends of the pipes into the plain ends until the entire conduit is assembled.

2. Drive a Tek screw into each pipe joint and cover the screw head and pipe joint with two layers of duct tape.

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

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

**NOTE:** When handling the cover and setting it in position, do not pull on the end straps. They will pull out of the cover. Unfold the cover with the inside surface facing up.

4. Locate the cover ends with strapping and align cover with the front and back of the shelter.

5. Insert a conduit into each cover conduit pocket of the main cover. **Do not install the roll-up conduits at this time.**

6. 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 cover. Cut through the conduit pocket only.**

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

   ![Diagram showing the cover conduit and ropes]

   **NOTE:** Do not pull on the black straps in the end pockets of the cover. These straps will pull out.

9. Center the cover end-to-end and side-to-side.

10. Move to the side ratchets and secure the sides of the main cover by installing the straps as shown. Cut a slit in the cover pocket (Fig. 1) or remove the pocket material as shown (Fig. 2) to install the strap.

   ![Diagram showing the cover's side ratchets and configuration]

   **ATTENTION:** Do not cut the strap contained within the main cover. Do not remove too much of the bonnet.

12. Repeat the steps to remove the hem from the remaining corners of the main cover as previously described.

13. With additional help, snug the cover into position by simultaneously pulling on the bonnet straps to seat the cover on the frame and over the end rafters.

   ![Diagram showing the cover's interior tightening process]

14. Feed the pre-installed bonnet straps of the cover into the ratchets attached at the corners of the frame and tighten enough to hold the cover in place. Do not tighten completely at this time. Remove excess strap as needed to prevent binding in the ratchet.

15. Move to the inside of the shelter and evenly tighten the ratchets until the cover is tight.

   **NOTE:** If the strap binds up in the ratchet, loosen the ratchet by opening it all the way, then cut some of the strap off. Re-tighten the ratchet.

16. Move to the ratchets on the outside of the end rafters and tighten them evenly to pull the cover tight lengthwise. Continue with the roll-up assembly.
INSTALL ROLL-UP ASSEMBLY

Gather the parts:

- Pipe 1.315" x 75" swaged (#131S075)
- Pipe 1.315" x XX" plain (#131P0XX)
- Pipe 1.315" x 12" (#131P012)
- Spin handle (#103395)
- Universal joint (#103396)
- Fabric clips (#CC6212) (Use half for each side.)

NOTE: Each roll-up conduit consists of 1.315" x 75" (#131S075) swaged pipes (number is determined by shelter length) and one (1) 1.315" x XX" (#131P0XX) plain pipe.

ATTENTION: The XX" represents the remaining length required to reach the end of the shelter. Consult the Spec Sheet for part identification.

1. Select the required pipe sections for one roll-up conduit and connect these by inserting the swaged ends of the pipes into the plain ends until the conduit is assembled.

2. Connect these pipes by inserting the swaged ends of the pipes into the plain ends until each roll-up conduit is assembled. Secure each pipe joint with a Tek screw and wrap the joint with duct tape.

3. These roll-up conduits are inserted into the pockets sewn into the cover.

4. Move to a roll-up conduit, which was inserted into the pocket of the main cover and position the conduit in the pocket so that a few inches extends beyond the pocket at the end where the crank will be attached.

5. Evenly space the fabric clips to secure the main cover to the roll-up conduit.

6. Attach the universal joint to the conduit in the pocket using a Tek screw to secure the connection.

7. Secure one (1) 12" plain pipe to the remaining end of the universal joint using a Tek screw.

8. Add the spin handle to the extension pole and secure the connection with a Tek screw.

9. Repeat the steps to secure the remaining roll-up conduit to the main cover.

10. With the crank assembly properly attached, test the operation of the crank assembly.

11. Continue by installing the anti-billow rope.

ATTENTION: A few inches of the conduit should extend beyond the edge of the cover. See diagram above.
INSTALL ANTI-BILLOW ROPES

Gather the parts:
- Anti-billow rope (#CC5310)
- 3/8” Eye bolts (#FA2083) and 3/8” nuts and washers

Anti-billow ropes secure the roll-up sides when they are in the down position. Complete the following steps to install the ropes.

1. Roll up the sidewall so that it is a few inches above the ground.
2. Drill a 3/8” hole through the baseboard (if equipped) and the end rafter. Insert an eye bolt and washer through the hole and secure the eye bolt with a nut and washer.
3. Move up the same end rafter and drill a 3/8” hole in the cover conduit a few inches from the end rafter. Align the upper eye bolt with the eye bolt at the bottom.
4. Insert an eye bolt and washer through the hole and secure the eye bolt with a nut and washer.

**NOTE:** When installing eye bolts, do not drill through the rafter.

5. Repeat Steps 2-4 using the following photo as a pattern guide.

6. Once all eye bolts are installed in the proper locations, take the end of the black rope and thread it through the eye bolts as shown above.
7. Tie one end to the eye bolt at the bottom of one end rafter.
8. Roll up the side cover to its highest position.
9. With the cover rolled to its highest position, pull the anti-billow rope tight to remove excess slack.
10. Cut and tie the rope to the eye bolt at the base of the remaining end rafter.
11. Lower the roll-up side to check the operation.

**NOTE:** Dashed line shows the position of the cover conduit within the pocket of the main cover. Actual frame may differ from frame shown.

12. Repeat all of the above procedures for the remaining roll-up side for the building.
13. Continue by reading the Shelter Care and Maintenance section that follows.
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.

• 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
26' Wide Calf Nurseries

Actual frame may differ in length from frame shown.
SIDE PROFILE - PB02730R3

Ratchet locations labeled with "R". Ratchets are attached to the inside of the rafter.

(3) 131S075 & (1) 131P0735

Ground Level

24'-0" Length
Center-to-Center

3'-0"
Rafter
On-Center
Spacing

Purlin Run
Ratchet locations labeled with “R”. Ratchets are attached to the inside of the rafter.

(4) 131S075 & (1) 131P0735
SIDE PROFILE - PB02736R3

Ratchet locations labeled with "R". Ratchets are attached to the inside of the rafter.

(5) 131S075 & (1) 131P0735

Purlin Run
SIDE PROFILE - PB02739R3

Ratchet locations labeled with "R". Ratchets are attached to the inside of the rafter.

(6) 131S075 & (1) 131P0735

Purlin Run
SIDE PROFILE - PB02740R3

Ratchet locations labeled with "R". Ratchets are attached to the inside of the rafter.

(7) 1315075 & (1) 131P0735
END FRAMING - FRONT

See Door Jamb Addendum on the next page for details.
**Door Jamb Addendum**

**ADDITIONAL 111708 BRACKET INSTALLATION FOR DOOR JAMBS (Door Installation Only.)**

In addition to the standard door jamb and end frame installation instructions presented in this guide, please install the 111708 connection brackets as described below. *These brackets are not shown in any of the main building diagrams in this manual.* Use the diagrams on this page for proper bracket placement and installation.

**NOTE:** The door jambs are the vertical frame members that the door is attached to when it is installed.

Complete these steps:

1. Locate the 111708 brackets and FA4482B Tek screws included with the building.
2. After installing the door jambs and end wall framing, bend each 111708 bracket as needed to install.

**ATTENTION:** Brackets are shipped as flat plates. Bend each one to conform to the angle created by the rafter curve. To bend the plate, tightly clamp it in a vise so the bend point is centered between the mounting holes. Lightly tap the free end of the plate with a small maul until the desired angle is reached.

3. Use four (4) FA4482B Tek screws to attach each 111708 bracket to the end rafter and top of each door jamb. *Brackets are used to secure the door jambs only. Do not use these for any other vertical frame member of the end wall. See diagram—lower right.*

Diagram shows the location of the door jambs. Circles show where to attach the 111708 brackets.
END FRAMING - FRONT AND BACK DOOR DIMENSIONS
CONNECTION - DETAILS

View 1
Rafter-Strut Connection

View 2
Mid Rafter-Purlin Connection

View 3
End Rafter-Purlin Connection

View 4
Vertical-Horizontal Connection
Page reserved for customer notes.