

ClearSpan™ End Panel Installation Guide



Photos show end panel examples. Lower photo shows an installed panel as seen from the inside.

CLEARSPAN™ END PANEL INSTALLATION



READ THIS DOCUMENT BEFORE YOU BEGIN!

Thank you for purchasing this ClearSpan™ end panel installation kit and/or end panel. This guide includes helpful hints and important information needed to safely attach and properly maintain the end panel and installation kit components. 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 (if equipped).
- Use a portable GFCI (Ground Fault Circuit Interrupter) when working with power tools and cords.
- Do not climb on the end wall or shelter frame during or after construction.
- Do not occupy the shelter during high winds, tornadoes, or hurricanes.
- Never attempt to install an end panel during windy or stormy conditions.
- Anchor the main shelter frame *before* installing an end panel.
- Do not store hazardous materials in the shelter after installing end panels.
- Provide proper ingress and egress to prevent entrapment.

⚠ WARNING: The individuals assembling this end frame 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

The steps below describe attaching a typical end panel to a typical end frame of a ClearSpan™ building. Verify that all parts are included in the shipment. Notify customer service for questions or concerns.

ATTENTION: The frame and end panels shown throughout this guide may differ from your frame and end panel. *It is the responsibility of the owner/installer to adapt these steps as needed to attach the actual end panel.*

Depending on the end frame, some components contained in the installation kit may not apply to your end wall frame. In such instances, purchase additional parts and fasteners locally. Or, contact your sales representative to purchase additional parts and for more information.

1. Read these instructions and additional documentation (if any) included with the shipment **before** you begin.
2. Gather the tools, bracing, ladders (and lifts), and assistance needed to reach the top of the end wall to install the panel.
3. Check the weather **before** you install the end panel. *Do not install the end panel on a windy or stormy day.*
4. Attach the end panel to the end frame.
5. Read the care and maintenance information at the end of these instructions.
6. Complete and return all warranty information as instructed.

REQUIRED TOOLS

The following list identifies the main tools needed to attach the end panel. *Additional tools and supports may be needed depending on the structure, location, and end panel size and design.*

- Tape measure or measuring device
- Variable speed drill and impact driver (cordless with extra batteries works best)
- Metal file and metal-cutting saw
- Scissors or utility knife to cut strap
- Hammers, gloves and eye protection
- Ladders, work platforms, and other machinery for lifting designed to work safely at the height of the building and end wall.

ATTENTION: Consult the services of a qualified, professional contractor if you are not familiar with the installation of similar covers and end panels.

UNPACK AND IDENTIFY PARTS

The following steps will ensure that you have all the necessary parts *before* you begin.

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 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 and clamps (if present).

Custom End Panels

The procedures presented in this guide describe attaching a typical end panel to a typical end frame of a ClearSpan™ building. If you are attaching a custom panel or a typical panel to an end frame that differs from what is shown, some steps may not apply.

It is the responsibility of the owner/contractor to review the steps in this guide and to adapt the procedures as needed to account for differences.

If you have questions, consult the services of a qualified, professional contractor familiar with the installation of similar covers and panels.

END FRAME: Final Check

Before you attach the end panel, inspect the end frame for sharp edges or fasteners that could damage the panel.

1. Verify that all end frame members are properly secured.
2. Verify that all bolts and clamps are tight.
3. Recheck the end frame assembly for sharp edges or clamps and bolts that may interfere with the installation of the end panel. File or tape sharp edges as needed.
4. Reposition clamps and bolts as needed and tape all rafter pipe joints with duct tape to protect the panel.
5. Verify that the main building frame is properly and adequately anchored.

DO NOT ATTACH AN END PANEL TO AN UNANCHORED FRAME.

6. Remove the ratchets that secure the bonnet portion of the main cover at each end of the original shelter. (This step may not apply to all applications.) See Page 8 for additional ratchet information.
7. Continue by attaching the end panel.

Installation Kit Components and Typical End Panels

The design and size of the end panel determines which components are included in each installation kit. For the purpose of this installation guide, the following conditions apply:

- End panels (20', 26', and some 30' wide) are secured to the end rafter and end frame using Tek screws, washers, and fabric clips. These are the components typically included with the installation kits for these end panels. *No 1" strapping or pipe are included.*

EXCEPTION: In some instances for a 30' wide end panel, PVC or metal conduit pipe or both are included in the kit in addition to ratchets and 1" strapping.

Consult Panel A and Panel B on Page 5 to view typical end panel designs.

- End panels that are 30' wide or wider typically include D-rings along the upper radius and are secured to the end rafter using 1" strap. Tek screws, washers, PVC and metal conduit, and additional 1" strap are included. *No fabric clips are included.*

EXCEPTION: In some instances, a 30' wide panel may be designed without D-rings. In those cases, fabric clips are included with the kit for that panel.

Consult Panel B and Panel C on Pages 5-6 to view typical end panel designs.

- For end panel widths not indicated above and for customer end panels, the installation kits may include a combination of all components mentioned above to adequately secure the panel to the end frame.
- This guide *does not* address the installation of custom end panels or the installation of a typical end panel on an atypical building frame or end frame. The customer can, however, review the information and steps presented in this guide to determine the best and safest way to attach an end panel of a similar design.

Always consult the services of a qualified and experienced contractor if you are not familiar with the installation of similar covers panels.

CLEARSPAN™ END PANEL INSTALLATION



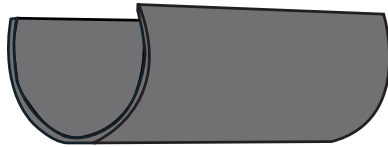
The parts shown below are contained in a typical end panel installation kit. The width and height of the end wall and the end panel design determines the components of the typical end panel installation kit.

Consult the bill of materials that shipped with your end panel installation kit to identify which components are included.

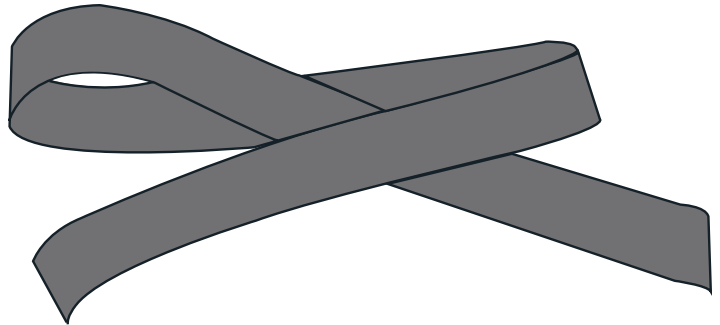
ATTENTION: Installation kits for end panels with D-rings attached to the upper edge also include the parts shown in this column. PVC conduit and 1.315" pipe components (not shown) are also included in some kits.



FAMF01B
Washers
(all kits)



CC6213 and CC6214 Fabric Clips
(for end panels without D-rings)



103620 1" Strap (typically shipped in a roll)



FA4482B Tek
Screws
(all kits)



100441
Driver
(all kits)



QH1061 Ratchet

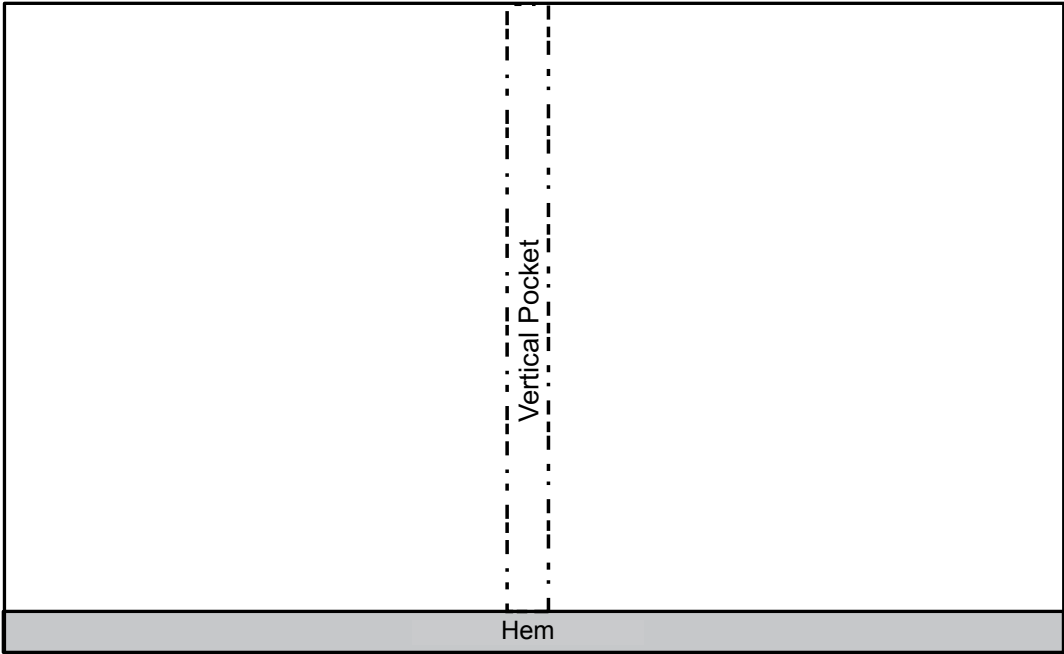


LJ7510 Duct Tape
(all kits)

Depending on availability, the parts shipped with the installation kit may differ from the parts shown. Consult the bill of materials to verify that the shipment is complete.

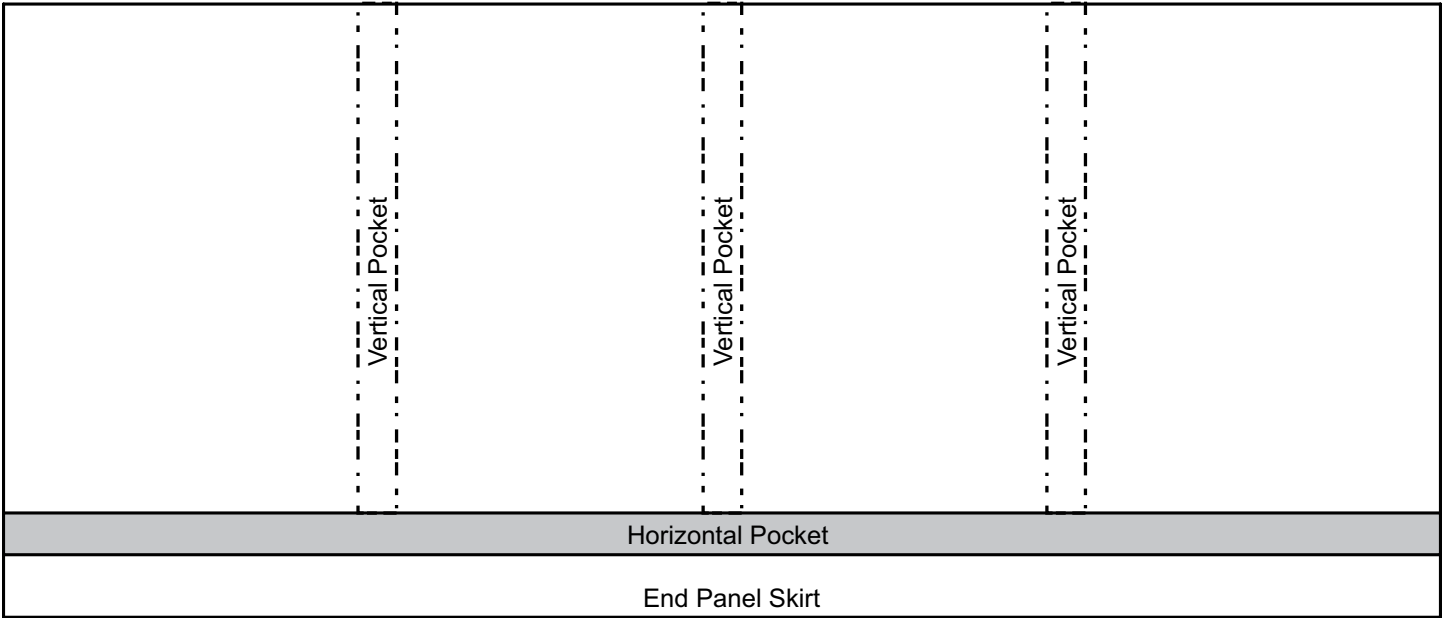
Typical End Panel Designs

PANEL A



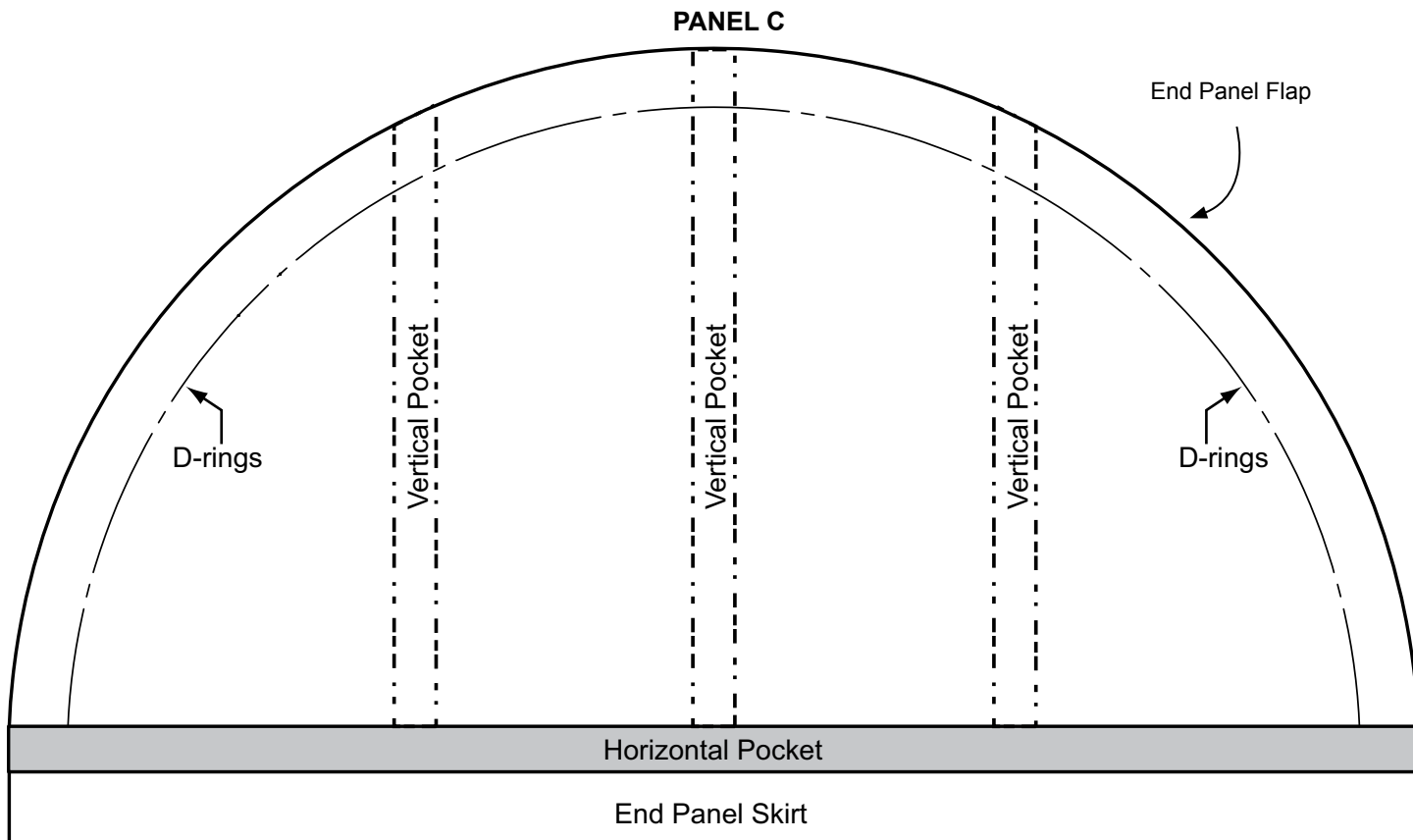
PANEL A (No D-Rings): This end panel is typically shipped as a rectangle. After installation, the excess panel material can be trimmed for appearance if desired. For some end walls, the center end frame member is installed inside the vertical end panel pocket to secure the end panel to the end frame. For other applications, the vertical pocket material is cut, wrapped around the end wall frame members, and secured to the metal tubes using Tek screws and washers. Consult the services of a professional contractor to determine the best way to secure your end panel to the end frame. May not apply to custom end panels or to your end frame. Panels of this design are typically attached to the end rafter using fabric clips and Tek screws.

PANEL B



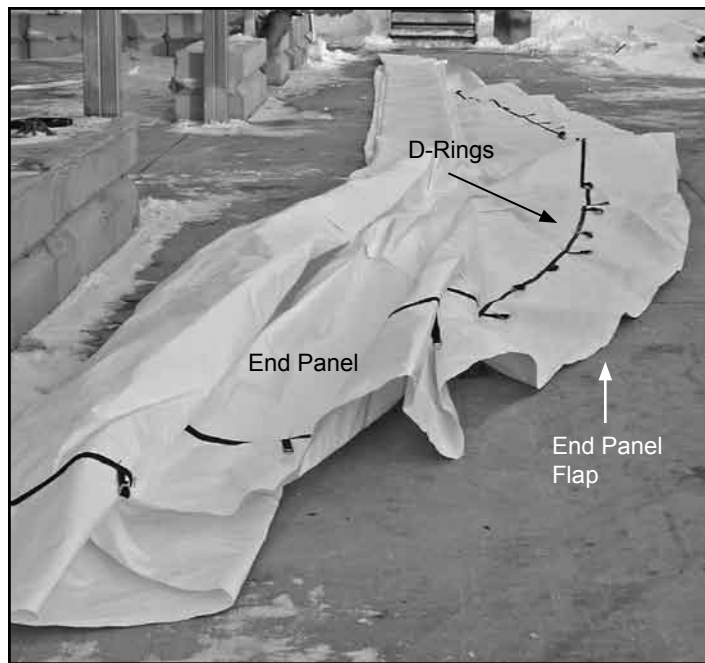
PANEL B (No D-Rings): Like Panel A, this end panel is typically shipped as a rectangle. Metal pipe is assembled and inserted into the horizontal pocket while PVC conduit is inserted into the vertical pockets. The metal conduit is secured to the end frame using 1" strap and QH1061 ratchets. The PVC conduit is secured to the end frame using 1" strap threaded between the PVC conduit and around an end frame member. (May not apply to custom end panels or to your end frame.) Consult the services of a professional contractor to determine the best way to secure your end panel to the end frame. Panels of this design are typically attached to the end rafter using fabric clips and Tek screws. The panel skirt can remain loose or it can be secured to the end wall as desired.

Typical End Panel Designs (continued)



PANEL C (D-Rings): Panel C panels include evenly-spaced D-rings attached to the radius along the top edge. This end panel is typically shipped as shown above. Like Panel B panels, metal pipe is assembled and inserted into the horizontal pocket while PVC conduit is inserted into the vertical pockets. The metal conduit assembly is secured to the end frame using 1" strap and QH1061 ratchets. The PVC conduit is secured to the end frame using 1" strap threaded between the PVC conduit and around an end frame member. (May not apply to custom end panels or to your end frame.) Consult the services of a professional contractor to determine the best way to secure your end panel to the end frame.

Panels of this design are typically attached to the end wall using 1" strap threaded through the D-rings and around the rafter. The panel skirt can remain loose or it can be secured to the end wall as desired. For typical applications, the upper flap of the end panel is pulled between the end rafter and the main cover. It is then secured to the end rafter using a few Tek screws and washers to keep it in place. The 1" strap is also secured at each end to keep it in place.



CLEARSPAN™ END PANEL INSTALLATION

TYPICAL END PANEL INSTALLATION (No D-Rings)

The following procedure describes attaching an end panel (without D-rings) to an end rafter and end frame. Some steps may not apply to your (or a custom) end panel.

If your end panel *includes attached D-rings* (Panel C on Page 6), continue with the steps on Page 9.

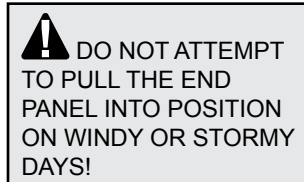
If your end panel *does not include* D-rings attached to the upper edge, continued with the steps that follow.

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.

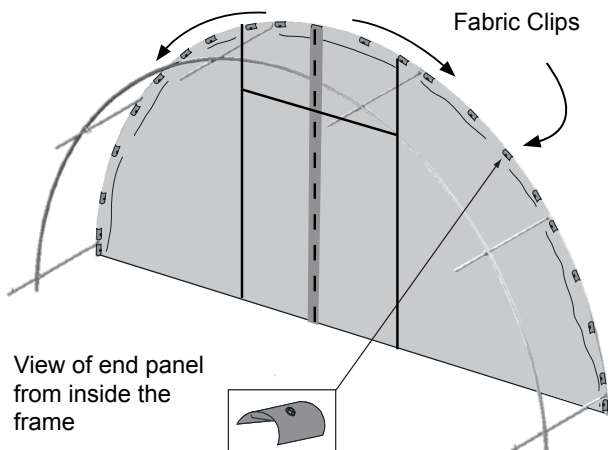
Required parts include:

- End panel and fabric clips
- FA4482B Tek screws
- FAMF01B Washers



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.



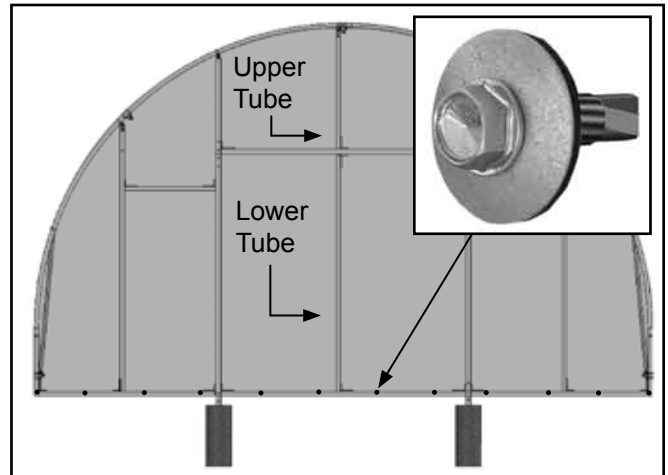
2. With the proper lift positioned inside the frame and with assistance, pull the end panel up and over the top of the end rafter. Square the end panel on the end frame. Verify that the bottom edge is in line with the base rail.

NOTE: This procedure describes attaching the panel bottom to the base rail using Tek screws and washers (FAMF01B) installed from the outside. This is one suggested installation method; consult a contractor for additional methods for your end frame and panel if needed.

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

NOTE: These fasteners temporarily hold the end panel in place while securing the lower edge to the base rail.

4. With the top panel edge temporarily secured to the end rafter, move to the panel bottom outside the frame. Stretch and secure the lower panel edge to the base rail using Tek screws and washers. Space the fasteners evenly along the base rail at 16" to 24" intervals. *Verify screw and washer counts before you begin.*



5. If equipped, remove the center end frame verticals of the end wall frame and slide the pipe into the center pocket of the end panel. Reattach the frame members to the end wall frame. *See the diagram to the left. May not apply to your frame or end panel. DO NOT REMOVE END FRAME TUBES IF THESE ARE SUPPORTING WEIGHT!*

In the diagram (left), the shaded area represents the center pocket of a typical end panel. Vertical dashed line indicates the location of the end frame members as installed inside the end panel pocket.

NOTE: Trim the pocket material as needed to reinstall the verticals and reattach the frame members to the end rafter, header, and base rail. **DO NOT REINSTALL THE LOWER TUBE IF YOU ARE INSTALLING AN OVERHEAD DOOR IN THE END WALL.**

6. Loosen the temporary clips (installed in Step 3 above) and stretch the end panel up and over the end rafter.
7. 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.*
8. Install doors if equipped. See Page 13. (Additional door purchase required.)

If you are not installing a door, reattach the bonnet ratchets of the main cover and tighten the main cover.

CLEARSPAN™ END PANEL INSTALLATION

ATTACH END RATCHETS FOR MAIN COVER BONNET

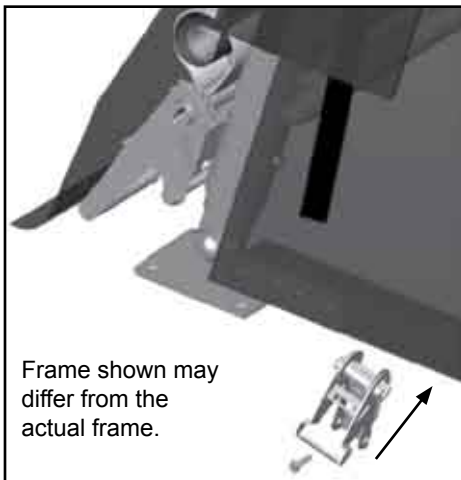
After the end panel is fully stretched and all doors are installed (if equipped), reattach the end ratchets for the main cover bonnet. These ratchets remain from the original building if the main cover of that building included a bonnet. *These ratchets are not included with any end panel installation kit.* May not apply to some shelters and end panels.

Gather the parts:

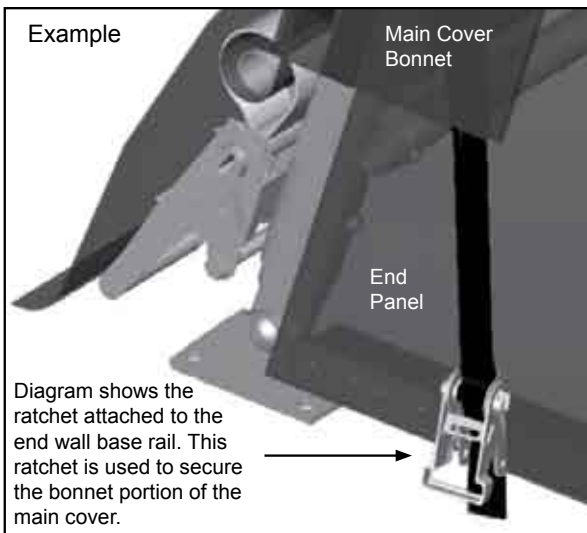
- Ratchets (from the original end wall)
- Fasteners to secure ratchets to end frame

Complete the following steps to reattach the ratchets to the base rail.

1. Pull the bonnet portion of the main cover back over the end rafter.
2. Locate the four ratchets and attach each ratchet to the outside of the end wall base rail using a Tek screw (FA4482B). *Use the cover strap to position the ratchet.*



3. Locate the straps at the front and rear of the main cover and feed each strap through the center hub in each end ratchet.



4. Tighten the end ratchets to secure the bonnet of the main cover.
5. Move to the other end of the building and secure the bonnet at that end.
6. After securing the main cover bonnet, read the care and maintenance information on Page 15.



Space below is reserved for customer notes.

END PANEL INSTALLATION (D-Rings)

The following procedure describes installing an end panel that includes D-rings at the top (Panel C on Page 6) and vertical and horizontal pockets heat sealed to the inside surface of the panel.

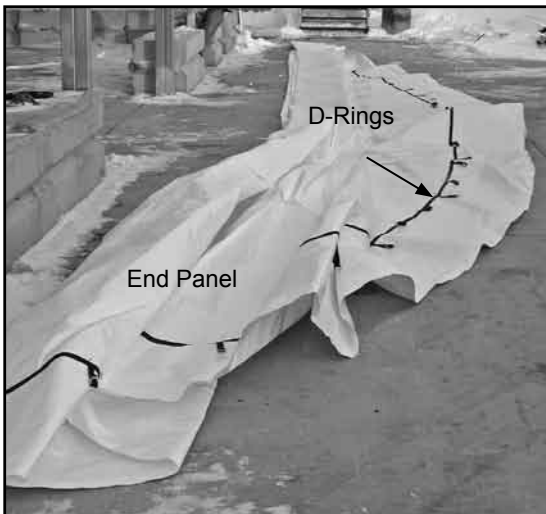
Complete these steps to install an end panel of this design.

Required parts include:

- End panel
- 131S075 pipe (kit)
- LJ2842 PVC pipe (kit)
- QH1061 ratchets & 103620 1" strap (kit)
- Washers and FA4482B Tek screws (kit)

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

1. Position the panel flat on ground with the long edge against the bottom end wall frame member and the pockets facing up. (The pockets and D-rings should be visible when the panel is positioned properly.)
2. Locate the D-rings near the top edge of the panel and tie a section of strapping (or rope) to the center-most D-ring. Tie two additional straps on each side of the center D-ring, allowing a few feet to remain between the straps.

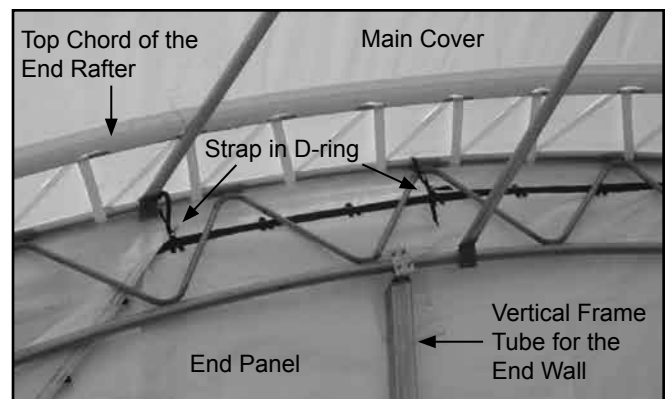


3. With the temporary straps (or customer-supplied rope) in place, pull the end panel up to the end rafter and secure the end panel to the end rafter using small sections of the strap. *Keep the panel centered.*



NOTE: Pull the top edge of the end panel to within 6" of the rafter. (Approximately 1 to 2 feet of the end panel material will remain at and run *along the base of the end wall*. In a later step, this can be wrapped under or secured to the bottom tube of the end wall frame. Or, it can remain as a skirt to direct water away from the shelter.)

The end panel skirt must remain on the ground after the top edge of the panel is secured to the rafter. The horizontal pocket of the end panel will remain above the base rail of the end wall frame. Adjust the panel and strap as needed to achieve these results.



View (above) is from the inside of the shelter looking at the end panel. Frame and rafter shown are different from your frame. The technique used to secure the end panel is the same however. Photo shows the main cover installed.

CLEARSPAN™ END PANEL INSTALLATION

END PANEL INSTALLATION (continued)

- Once the end panel is temporarily secured, take the roll of 1" strapping and weave the end of the strap through the D-rings and around the rafter pipe as shown below. If the rafter has an upper and lower chord, attach the end panel D-rings to the *upper chord* as shown in the photo below.

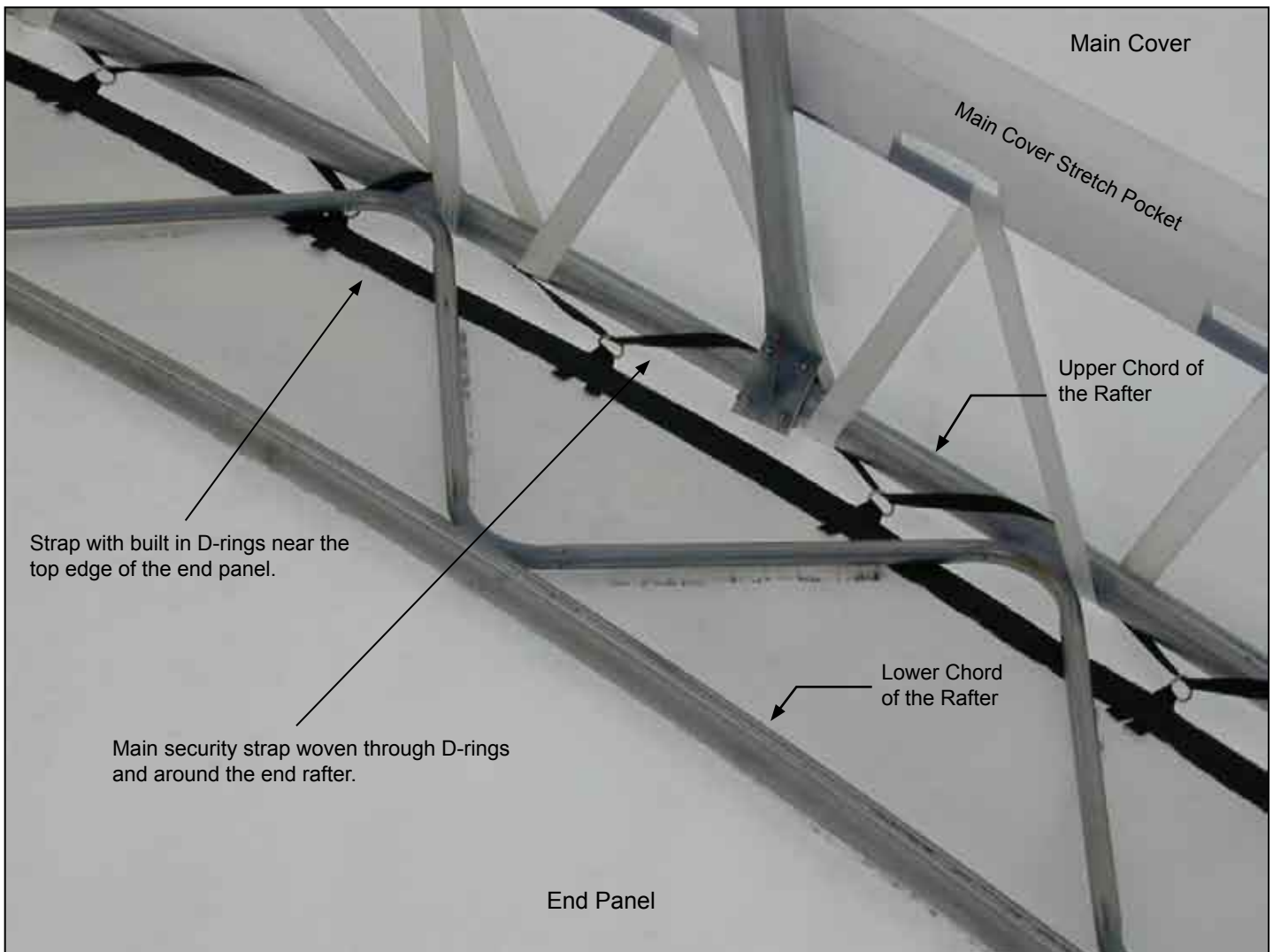


Photo above shows a building with the main cover already installed. View is from the inside looking up at the rafter and main cover. Rafter design may differ from actual rafter.

NOTE: Maintain an even space between the rafter and the top of the end panel. The *end panel flap* that extends beyond the D-rings is tucked *between the rafter and the main cover*. **DO NOT** attach the flap to the end rafter at this time.

- Stretch the bottom of the end panel evenly out on the ground along the bottom frame tube of the end wall frame (if needed) and tighten the 1" strap at the top of the end panel.

NOTE: For a typical end panel, the upper edge is pulled tightly up to the rafter. Verify that the lower end of the panel remains on the ground as the top is tightened. If the panel begins to lift off the ground, loosen the top evenly along the radius of the rafter. (In a later step, the end panel is stretched from the bottom to pull the panel tight and into position using the end panel horizontal conduit, straps, and ratchets.)

- With the top edge of the end panel secured, continue by installing the end panel conduit.

END PANEL INSTALLATION (continued)

End Panel Horizontal Conduit Installation

Some end panels include vertical and horizontal pockets. PVC tubes (vertical) and metal pipe (horizontal) are inserted into these pockets. The conduit is then secured to the vertical frame members of the end wall using straps and to the base rail using ratchets and straps.

The following steps describe one way to install the metal conduit included with the installation kit.

Required Pipe: 1.315" x 75" swaged pipe (#131S075) (kit)

ATTENTION: This metal pipe is inserted into the *horizontal pocket* on the inside surface of the end panel. *If doors are to be installed, cut the pipe to the correct length to properly fit into the pocket and to remove it from the opening.*

1. Locate the 1.315" pipes and assemble sections to achieve the required length. Cut to length as needed.

NOTE: As pipes are connected, secure each joint with a Tek screw and wrap the joint and screw using duct tape to prevent damage to the end panel. The conduit can also be assembled in sections and inserted into the end panel pocket.

2. Insert the assembled conduit into the end panel horizontal pocket. (End wall and panel shown are used for illustration only. These may differ from the actual items in design and size.)

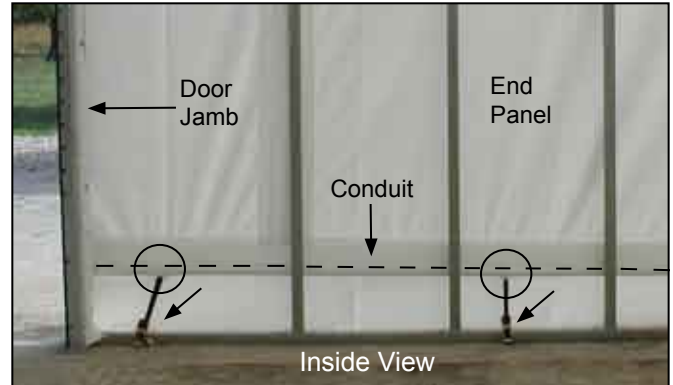


NOTE: Do not install the horizontal conduit in the portion of the pocket extending into any door opening if you are installing a door.

3. Locate the QH1061 ratchets that shipped with the installation kit and attach these to the end wall base rail on the inside surface using FA4482B Tek screws. Space the ratchets evenly along the base rail in locations that will not interfere with the installation of doors (if equipped).

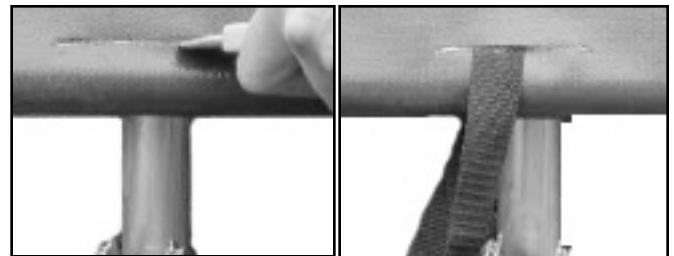
NOTE: For end walls with door openings, attach the ratchets in locations that will best secure and stretch the end panel. This may or may not be "evenly" spaced. See arrows in the next photo.

Once the ratchets are attached, make a horizontal slit (approximately 3"– 4" long) in the horizontal pocket containing the metal conduit directly above each ratchet. See the circles in the photo below.



⚠ WARNING: Cut only the end panel pocket. **DO NOT** cut through the end panel.

1. Locate the 1" strapping and cut a section that reaches from the ratchet (#QH1061), around the horizontal conduit in the end panel pocket, and back to the ratchet.



NOTE: Allow enough extra strap so you can insert both ends of the strap into the ratchet.

2. Thread one end of the strap in through the slit, around the conduit, and back to the ratchet.
3. Align the strap ends and insert both ends into the slot in the center hub of the ratchet.
4. Tighten slightly and repeat the steps for the remaining straps and ratchets.

ATTENTION: If the strap "builds up" inside the ratchet, loosen the ratchet, remove the excess strap, and retighten.

5. Return to all horizontal conduit ratchets and tighten.
6. After securing the horizontal conduit, continue by cutting the door opening (Page 13).

NOTE: If you are not installing an overhead door, continue by installing the vertical PVC conduit as described in the next procedure.

CLEARSPAN™ END PANEL INSTALLATION

END PANEL INSTALLATION (continued)

Install the Vertical PVC End Panel Conduits (Kit Components)

NOTE: After installation, the PVC conduits are attached to the vertical frame member closest to the end panel pocket in which the conduit is located. See photos that follow.

Door Installation: **DO NOT ATTACH THE VERTICAL PVC CONDUIT TO ANY PART OF ANY DOOR FRAME.** Doing so may interfere with the installation of some doors.

1. Take the PVC conduit and seat the separate conduit sections into one another to achieve the required length (if needed) and secure the joint with a Tek screw, wrap with duct tape, and slide the assembled conduit into one vertical pocket. Cut to length as needed.

NOTE: PVC glue can be used to secure each PVC joint. PVC glue *is not included*. The PVC is flexible enough to feed up from the bottom and into the end panel pocket.

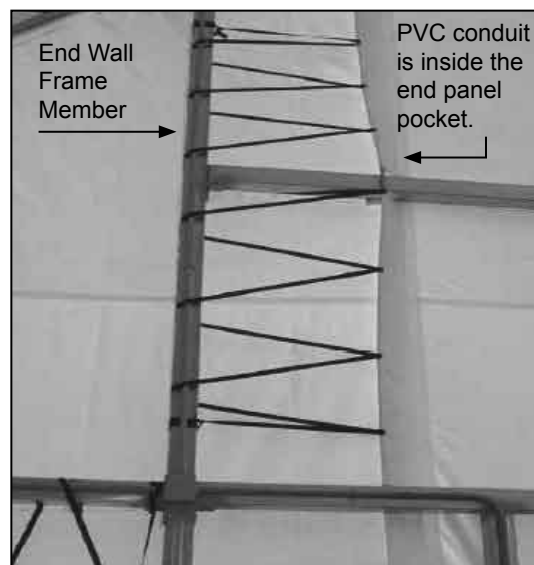
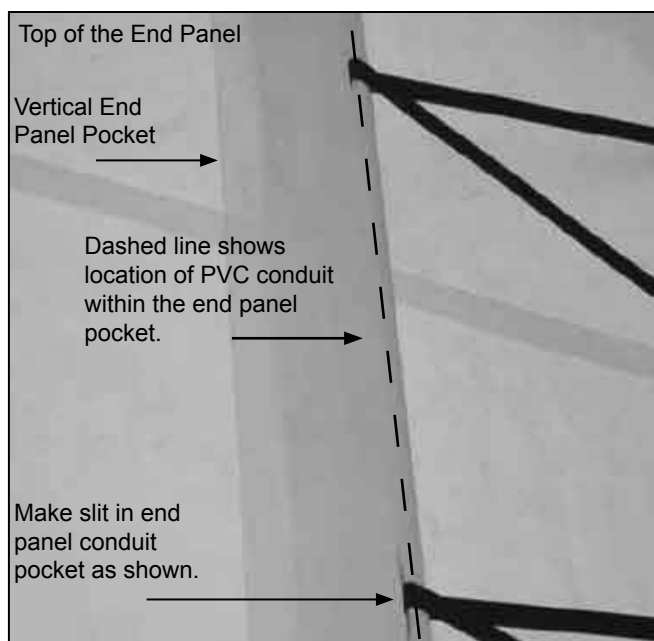
2. At approximately every two (2) feet, cut a 2" - 4" vertical slit in the vertical conduit pocket of the end panel.

ATTENTION: *DO NOT cut the end panel.* Cut only the conduit pocket.

3. Beginning at the bottom of the conduit pocket, take the 1" strap and weave the strap through the slit, around the PVC conduit, and around the closest vertical end wall frame member *that is not part of the door frame*.

NOTE: The following photos are a different frame from your frame. End panel is attached in a similar manner however. Frame is shown from the inside the shelter.

4. Move to the next slit (or notch) and repeat the process and work up the conduit and pocket.



5. Once the strap is in place, tie the upper end to the vertical end wall frame tube.
6. Slightly tighten the end panel by working the vertical strap between the conduit and vertical end wall frame tube. *See Fig. 3 on Page 14 for an example.*

NOTE: Do not tighten completely at this time. Straps should be snug.

7. Cut (if needed) and tie the remaining (lower) end of the strap to the end wall frame.
8. Repeat the steps to install the strap for the remaining vertical end wall PVC conduit.
9. With all PVC vertical conduits in place, tighten the straps for the vertical end panel conduits. *Do not overtighten the strapping. Straps should be snug.*
10. After all the conduit straps are tight, move to the top of the end rafter and tuck the end panel flap over the top of the end rafter. The end panel flap is tucked between the end rafter and the main cover.

NOTE: This flap can be secured in place by using Tek screws and washers. *Attach the screws to the backside of the end rafter so they do not touch the main cover after it is pulled back over the end rafter.*

11. Return to each strap near the strap ends and drive a screw and washer through the strap and into the vertical end frame member to keep the strap tight.
12. With the end panel secured, continue by installing the ratchets for the bonnet of the main cover and tighten the main cover bonnet. See the steps on Page 8.

May not apply to all end frame applications.

Cut Door Openings (additional door purchase required)

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. (See dashed lines Fig. 1.) *Do this before cutting the opening in the panel.* If you do not want to install screws through the panel, continue with Step 1.

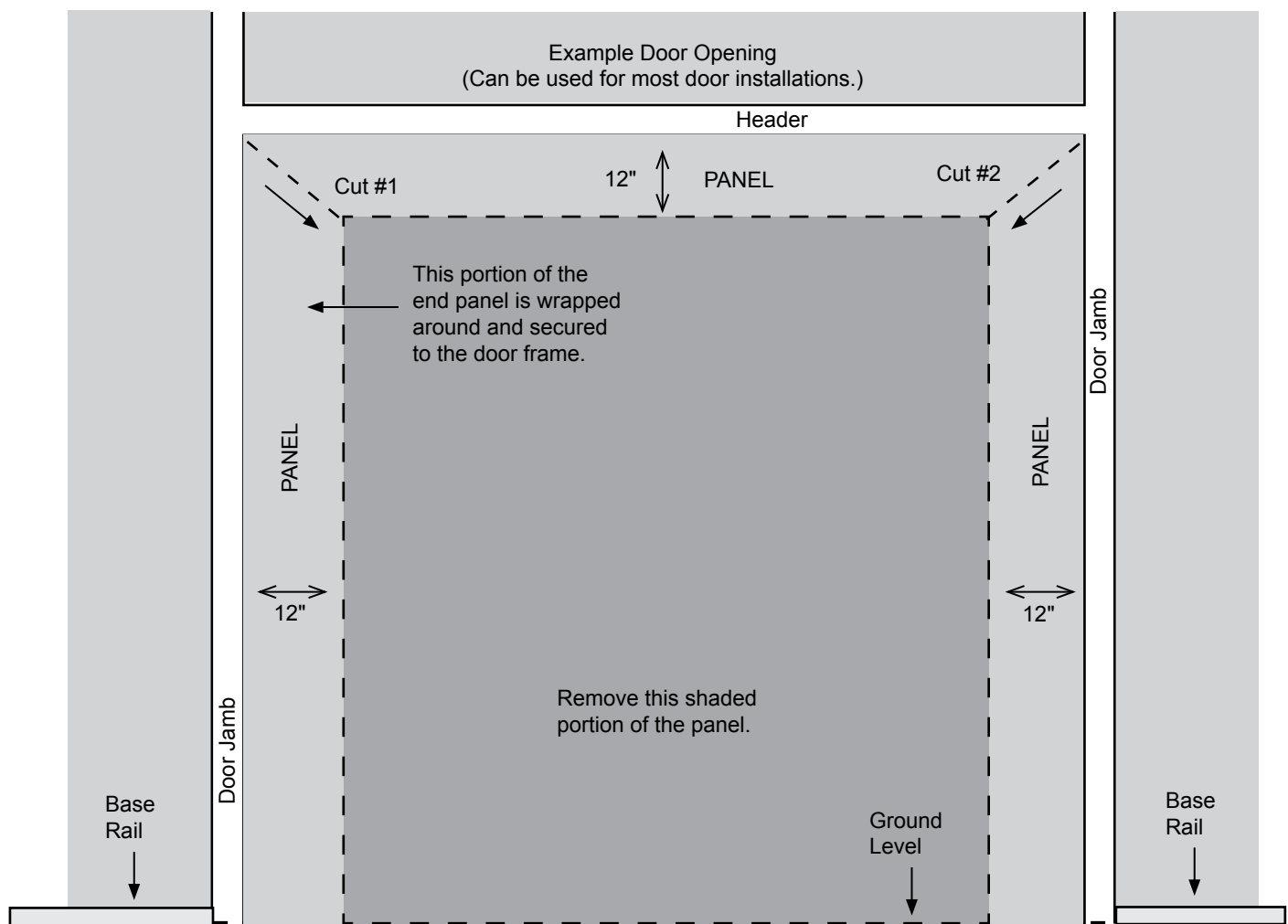
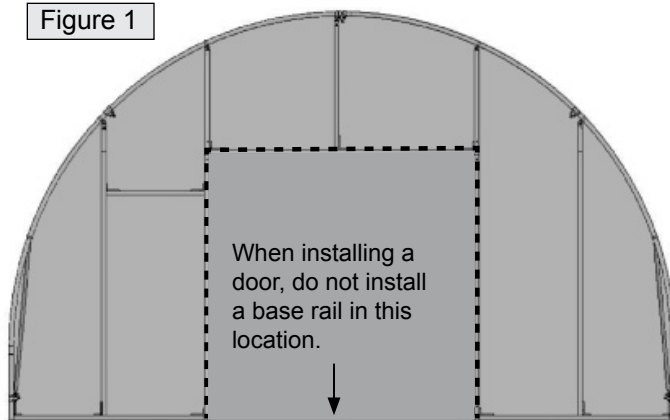
These steps describe one way to cut a door opening:

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

NOTE: If a base rail is installed between the door jambs, remove the base rail and continue.

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

Figure 1



View above shows the end panel as seen from inside the frame.

3. Make two (2) diagonal cuts in the end panel as shown above (Cut #1 and Cut #2) to create the 12" flaps.
4. Continue with the Secure End Panel to Door Frame instructions that follow.

CLEARSPAN™ END PANEL INSTALLATION

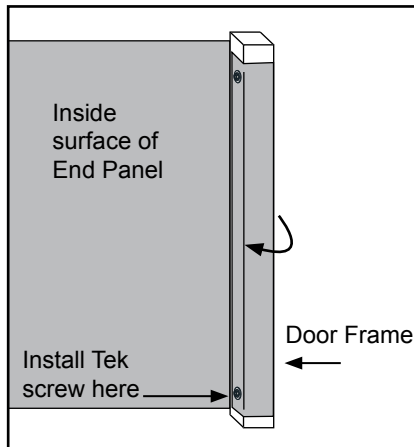
Secure the End Panel to the End Frame (Optional Door Installation Only!)

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

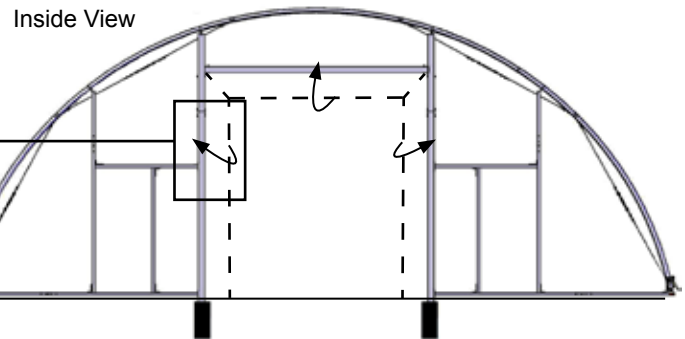
1. With door openings cut, secure the end panel to the door frame using Tek screws and washers. See diagram below.

NOTE: For the exposed corners of the door frame that remain, cut out a 16" x 16" piece of material *from the scrap end panel material* and secure the piece to the exposed corners using Tek screws and washers (if desired).

Secure the end panel to the inside surface of the frame tube using a Tek screw and washer.

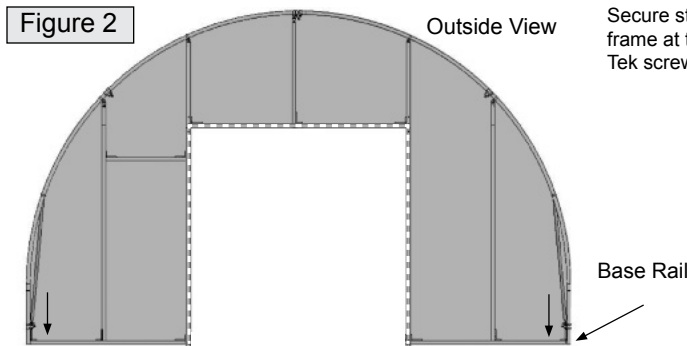


Sample frame is shown in the diagram below.

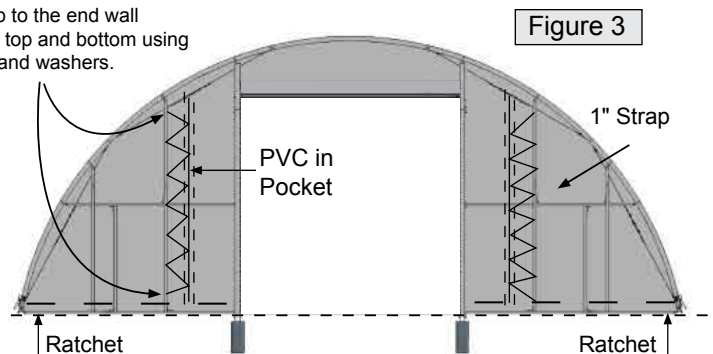


ATTENTION: DO NOT secure the end panel to the inside or backside of the door frame tubes. Some doors kits use this surface for tracks and brackets. Check the instructions that shipped with the door for additional details.

2. Install the door or doors according to the instructions included with those components.



Secure strap to the end wall frame at the top and bottom using Tek screws and washers.



Example A: Typical end panel without vertical or horizontal pockets. Opening has been cut to install an optional door.

In some instances and depending on the width of the end wall, the vertical pockets (Example B) of some panels may not be used when an optional overhead door is installed.

Example B: Typical end panel with vertical and horizontal pockets for conduit installation. Opening has been cut to install an optional door.

Dashed lines show the approximate locations of the vertical and horizontal pockets of the end panel. Diagram shows the installed PVC for the vertical pockets and strapping.

3. After doors are installed according to the door manufacturer's instructions, install the vertical PVC conduit as described on Page 12, and reattach the bonnet ratchets and cover. (See previous steps on Page 8 for an example.)

NOTE: The arrows in the above diagrams (base rail) show where to reattach the end ratchets to secure the bonnet of the main cover. The ratchets are typically reattached through the end panel and to the end wall base rail. Pull the main cover bonnet back over the end rafter and use the bonnet straps as a guide to properly position each ratchet. These ratchets are not included in the installation kits. They are from the original building if that building included a main cover with a bonnet. May not apply to all end walls.

4. Read the care and maintenance information that follows.

SHELTER CARE AND MAINTENANCE

Proper care and maintenance of your ClearSpan™ shelter and its components is important. Check the following items periodically to properly and adequately maintain your building:



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 the cable turnbuckles and cable clamps to see that these remain tight (if equipped). Tighten as needed.
- Check the cable (if equipped) to verify that it is not worn or wearing on a frame member.
- Frequently check the anchoring system and all components. Replace worn or damaged parts immediately.
- Check all fasteners frequently to verify that these remain tight and in good repair.
- Do not climb or stand on the building or frame 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. *Never allow snow to accumulate on the main cover or to remain against the sides or end panels after it is removed from the main cover.*
- Check the contents of the shelter to verify that nothing is touching the cover or panels (if equipped) that could cause damage.
- Replace all worn or damaged parts.
- 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.