

City of Portland, Maine - Building or Use Permit Application
 389 Congress Street, 04101 Tel: (207) 874-8703, Fax: (207) 874-8716

Permit No: 02-0688	Issue Date: PERMIT DENIED	CBL: 163A F015001
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Location of Construction: 66 E Kidder St	Owner Name: Grinshpun Ilya M &	Owner Address: 66 E Kidder St	Phone: 207-761-0743
Business Name:	Contractor Name: Applicant	Contractor Address: Portland	Phone:
Lessee/Buyer's Name	Phone:	Permit Type: Garages - Detached	Zone:

Past Use: Single Family	Proposed Use: Single Family with 26' x 24' detached garage/storage.	Permit Fee: \$37.00	Cost of Work: \$1,500.00	CEO District: 2
		FIRE DEPT: <input type="checkbox"/> Approved <input type="checkbox"/> Denied	INSPECTION: Use Group: Type:	

Proposed Project Description: Construct a 26' x 24' detached garage/storage.	Signature:	Signature:
PEDESTRIAN ACTIVITIES DISTRICT (P.A.D.)		
Action: <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied		
Signature:	Date:	

Permit Taken By: jmy	Date Applied For: 06/20/2002	Zoning Approval	
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1. This permit application does not preclude the Applicant(s) from meeting applicable State and Federal Rules. 2. Building permits do not include plumbing, septic or electrical work. 3. Building permits are void if work is not started within six (6) months of the date of issuance. False information may invalidate a building permit and stop all work..	Special Zone or Reviews <input type="checkbox"/> Shoreland <input type="checkbox"/> Wetland <input type="checkbox"/> Flood Zone <input type="checkbox"/> Subdivision <input type="checkbox"/> Site Plan Maj <input type="checkbox"/> Minor <input type="checkbox"/> MM <input type="checkbox"/> Date:	Zoning Appeal <input type="checkbox"/> Variance <input type="checkbox"/> Miscellaneous <input type="checkbox"/> Conditional Use <input type="checkbox"/> Interpretation <input type="checkbox"/> Approved <input type="checkbox"/> Denied Date:	Historic Preservation <input type="checkbox"/> Not in District or Landmark <input type="checkbox"/> Does Not Require Review <input type="checkbox"/> Requires Review <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied Date:
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CERTIFICATION

I hereby certify that I am the owner of record of the named property, or that the proposed work is authorized by the owner of record and that I have been authorized by the owner to make this application as his authorized agent and I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in the application is issued, I certify that the code official's authorized representative shall have the authority to enter all areas covered by such permit at any reasonable hour to enforce the provision of the code(s) applicable to such permit.

SIGNATURE OF APPLICANT	ADDRESS	DATE	PHONE
RESPONSIBLE PERSON IN CHARGE OF WORK, TITLE		DATE	PHONE

Inspection Services
Michael J. Nugent
Manager



Housing & Neighborhood Services
Lee Urban
Director

CITY OF PORTLAND

June 28, 2002

Mr. Ilya Grinshpun
66 East Kidder Street
Portland, Maine 04103

RE: 66 East Kidder Street
Permit: 02-0688
CBL: 163A F015

Dear Mr. Grinshpun;

Permit # 02-0688 is DENIED in accordance to section 108.1 of the BOCA Code 1999 edition. Additional information that was required on June 25, 2001 by Michael Nugent, Inspections Manager was not submitted to this office.

You may re-apply at a later date, however the permit will be reviewed as a "new application".

Enclosed you will find your submissions.

The business hours are 8:00 a.m. to 4:00 p.m. weekdays.

Sincerely,

Jodine L. Adams
Office Manager

02 PERMIT DENIED 06/28/2012

All Purpose Building Permit Application

If you or the property owner owes real estate or personal property taxes or user charges on any property within the City, payment arrangements must be made before permits of any kind are accepted.

Location/Address of Construction: <u>66 East Kidder</u>		
Total Square Footage of Proposed Structure <u>27 by 26 624 sq ft.</u>	Square Footage of Lot	
Tax Assessor's Chart, Block & Lot Chart# <u>163</u> Block# <u>AF</u> Lot# <u>15</u>	Owner: <u>Ilya Grinshpun</u> <u>Irina Shapiro</u>	Telephone: <u>(207) 761-0743</u>
Lessee/Buyer's Name (If Applicable) <u>163 AF 015</u>	Applicant name, address & telephone: <u>Ilya Grinshpun</u> <u>66 E Kidder St 761-0743</u> <u>Portland, ME 04103</u>	Cost Of Work: \$ <u>1,500.</u> Fee: \$ <u>37.00</u>
Current use: <u>S/F</u>		
If the location is currently vacant, what was prior use: _____		
Approximately how long has it been vacant: _____		
Proposed use: <u>Garage - storage 26' x 24'</u>		
Project description: _____		
Contractor's name, address & telephone: _____		
Who should we contact when the permit is ready: <u>Ilya Grinshpun 761-0743</u>		
Mailing address: <u>66 E Kidder St</u> <u>Portland ME 04103</u>		
We will contact you by phone when the permit is ready. You must come in and pick up the permit and review the requirements before starting any work, with a Plan Reviewer. A stop work order will be issued and a \$100.00 fee if any work starts before the permit is picked up. PHONE: _____		

IF THE REQUIRED INFORMATION IS NOT INCLUDED IN THE SUBMISSIONS THE PERMIT WILL BE AUTOMATICALLY DENIED AT THE DISCRETION OF THE BUILDING/PLANNING DEPARTMENT, WE MAY REQUIRE ADDITIONAL INFORMATION IN ORDER TO APPROVE THIS PERMIT.

I hereby certify that I am the Owner of record of the named property, or that the owner of record authorizes the proposed work and that I have been authorized by the owner to make this application as his/her authorized agent. I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in this application is issued, I certify that the Code Official's authorized representative shall have the authority to enter all areas covered by this permit at any reasonable hour to enforce the provisions of the codes applicable to this permit.

PERMIT DENIED

Signature of applicant: _____	Date: _____
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This is NOT a permit, you may not commence ANY work until the permit is issued. If you are in a Historic District you may be subject to additional permitting and fees with the Planning Department on the 4th floor of City Hall

DEPT. OF BUILDING INSPECTION
CITY OF PORTLAND, ME
JUN 20 2012
RECEIVED

Applicant: 144 GRINSHAW

Date: 7/1/02

Address: 66 EAST KIDDER C-B-L: 163A FOIS

CHECK-LIST AGAINST ZONING ORDINANCE

Date - 7/1/02

Zone Location - R5

Interior or corner lot - INTERIOR

Proposed Use/Work - 26x24 TEMP. MEMBRANE STRUCTURE

Sewage Disposal -

	REQUIRED	SHOWN
Lot Street Frontage -	30	50
Front Yard -	20'	N/A
Rear Yard -	20'	20'
Side Yard -	8'	8'
Projections -		
Width of Lot -	60'	N/A
Height -	18'	12'
Lot Area -	6000	6250

Lot Coverage/ Impervious Surface - 40%

Area per Family - N/A

Off-street Parking -

Loading Bays - N/A

Site Plan - N/A

Shoreland Zoning/ Stream Protection -

N/A

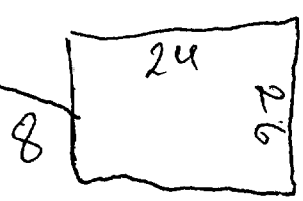
Flood Plains - NOT

MUST BE REMOVED BY 12/1/02

STORAGE
GARAGE

20
↑

125.

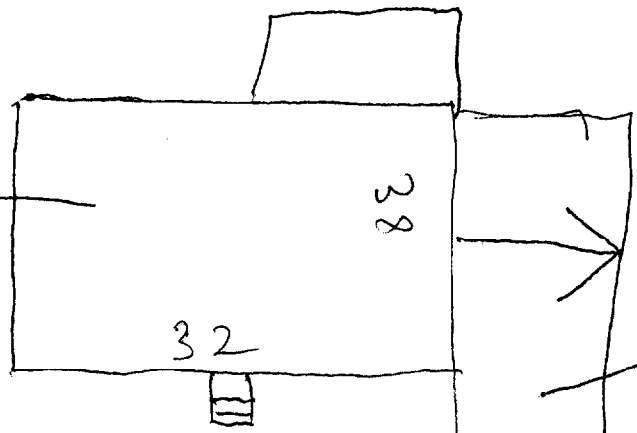


17

12

1 STORY WOOD
FLOOR USE

ON
CONCRETE
FOUNDATION.



11

PAVED
DRIVEWAY

21

50

Livestock Shelters
Accessories and Add-Ons
Entry & Anchors Systems
X-LARGE INDUSTRIAL TRUSS-ARCH STRUCTURES
Widths from 55' to 160', up to 60' high!

**ShelterWorld
Alternative Structures
"WE'VE GOT
YOU COVERED!"**

<TABLE borderColor=#cccccc cellSpacing=0 cellPadding=2 width= align=center border=1 >

Shipping fees may be previewed by adding an item to your order and providing state and zip code!

✓ LEAD TIME - Your shelter product is shipped factory direct within 2-4 weeks

YOU MAY MODIFY OR CANCEL YOUR ORDER AT ANY TIME DURING CHECKOUT

- TOP OF PAGE -

Quick-Spec Product Summary Product - **Round Style Enclosed Shelter (SKU 102992)**

Weight: **999.00 lbs.**

Size - Width: **26.0 feet** Length: **24.0 feet** Height: **12.0 feet**

Cover Details - **Fully Weatherproof Polyethelene Composite (10 oz. per Sq. Yard, 20 mil)**, Tear Resistant

Available Colors: **Forest Green**

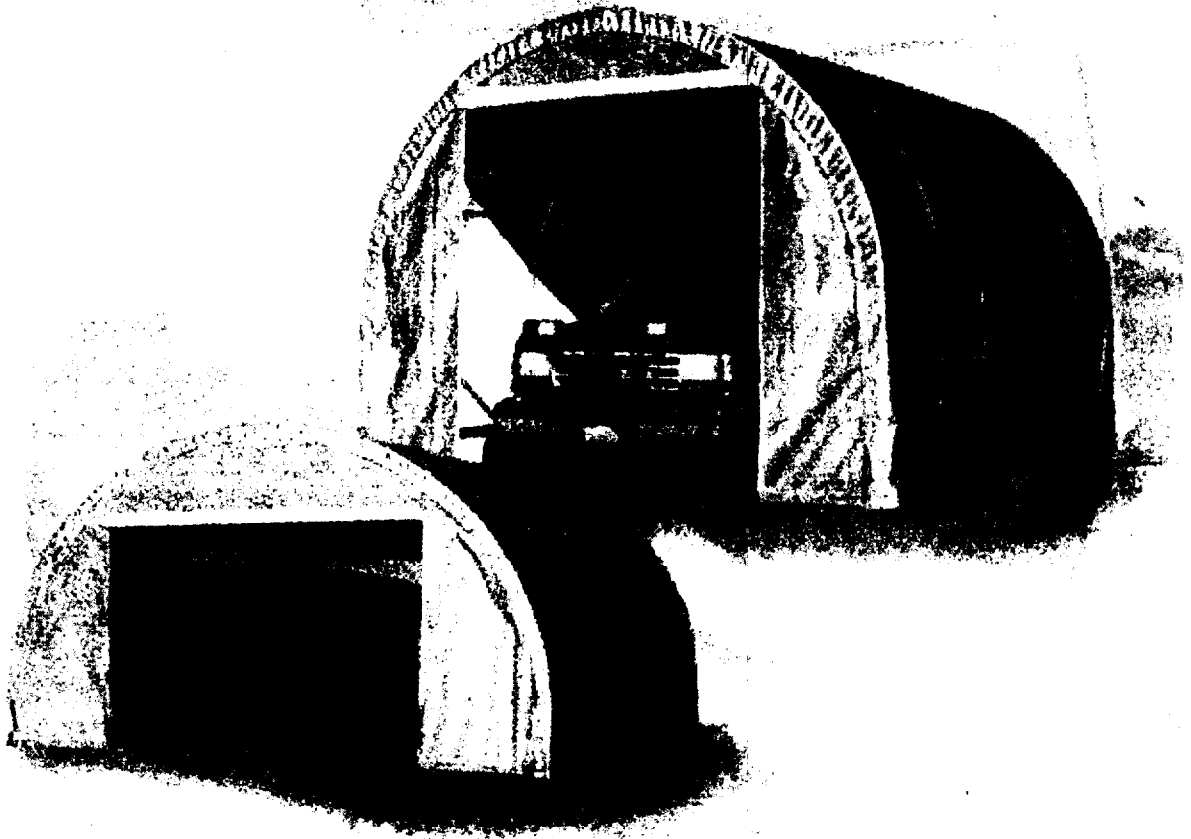
Rating: **10-15 Years**

Standard Entry (Included): **Twin Double Zipper Roll-Up Entries with Hand Crank Mechanisms (two (2) 8 x 8 front double zipper entry systems)**

Rafters - Size(Diameter): **1.660 inches** # of Rafters: **8** Gauge: **14 gauge - .085"** Strength (Yield, Tensile): **60,000 / 75,000 PSI**

Description: This Round Style Enclosed Shelter is 26' wide, 24' long, and 12' high, constructed from a galvanized steel frame with an outside diameter of 1.66 inches (14 gauge - .085" steel thickness). Priced at \$1695, this package is delivered with the industry's finest weather proof, poly-composite 20 mil, 10 oz. per sq. yard, tear resistant cover material, rated for an expected life-span of 10-15 years! Available in Forest Green Only. All Round Style Enclosed Shelters use our exclusive ratchet-action "come along" cover tension system for a clean look with easy set-up and maintenance! Included in the package: heavy galvanized steel frame assembly, top cover, two end panel enclosures with twin (2) double zipper entry systems, full-length 4' wide end-to-end skylight panel, end-panel bracing system, and full installation instructions.

ClearSpan™
Poly Shelters



Instruction Manual

**for Round Style Models
in Sizes 26' Wide x 12' High**

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Rev. 9 Oct 01

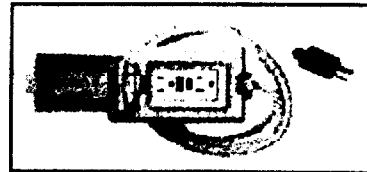
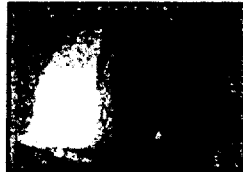
Introduction

Thank you for purchasing the ClearSpan™ Poly Shelter. We appreciate your patronage. We hope you enjoy building and utilizing your shelter. Please read this entire instruction manual before starting to assemble your shelter. If you require assistance during the construction process you may call us at 1-888-603-4445.

A Word About Safety

Just as we want you to be pleased with your assembled shelter, we don't want you to get hurt in the process of building it! Our suggestions include the following:

- Wear eye protection when drilling and power-screwing.
- Wear head protection when working with/under heavy parts including metal tubing.
- Wear gloves when handling metal tubing due to sharp or rough ends.
- Use a portable GFCI when working with corded power tools.
- Never erect a shelter directly under power lines.
- Be careful not to drive anchors into buried power cables.
- Do not climb on the shelter or its frame. It is not designed to support human weight.
- If the shelter is enclosed, provide proper and adequate ventilation.
- Do not store hazardous materials in the shelter without proper ventilation and precautions.
- If both ends are covered, provide proper ingress and egress to prevent entrapment.
- Do not occupy the shelter during very high winds, hurricanes, or tornadoes.
- If shelter is moved after construction, inspect shelter thoroughly before reuse.
- Use common sense at all times.



Required Tools

Before you start to build your shelter you should assemble the following tools:

- Tape Measure at least as long as your shelter
- Fine Point Marker to mark locations on tubing
- Electric Drill/Driver (cordless preferred)
- 5/16" High Speed Drill Bit
- 7/16" and 1/2" Wrenches
- Step ladder tall enough to safely work at the height of your shelter
- Two 30-foot pieces of rope

Selecting a Location

It is important to select a proper location for your poly shelter. While the location may have been predetermined before you even ordered your shelter, you may want to "improve" the location before starting the assembly process.

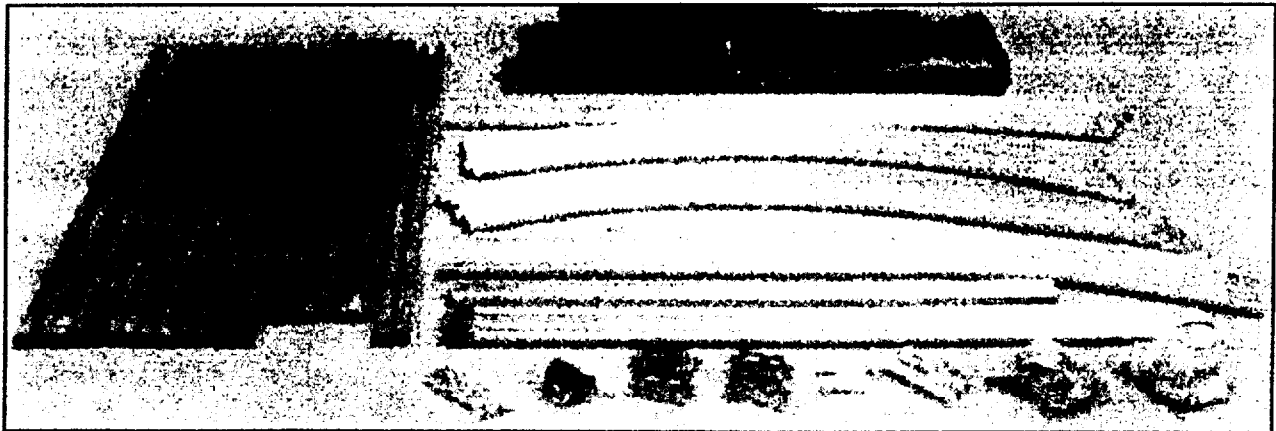
One of the most important considerations is that the location should be level. If it is not, the shelter's frame will not assemble or sit properly. If your location is not level, you should consider grading it before building on it. Another alternative is to provide footings which are level to support the shelter. These could be pressure-treated posts, precast concrete blocks, or poured in place footings.

Drainage is another important consideration. Rain flowing off your shelter should have a natural path to flow away from the shelter and not under or into it.

Section A - Unpack & Identify Parts

Step 1: Before you begin to assemble your shelter you should first unpack the contents of your shipment. During this process you will both verify that you have all the parts required to build your shelter and learn what all of the various parts look like.

Tip: We recommend you start by laying out the contents of your shipment in an orderly fashion as shown in the photograph below.



The contents of the Bill of Material for your shelter will depend on the length of the shelter ordered. Please refer to the following table.

Step 2: Carefully go through the bill of material and verify that you have all the required parts.

Tip: It is not necessary to open the plastic bags and count all of the fasteners at this time. Likewise, it is not necessary to unfold your covers except to verify that you have the correct end panels as ordered.

Bill of Materials

NOTE: Quantities with * increase when rafters are added		Quantity for Shelter Length of:				
		20'	24'	30'	36'	40'
Tubing:	Description:					
Rafter	Pipe, 20' x 1.66"	12*	14*	18*	20*	22*
Ridge & Bottom	Pipe, 12' x 1.315" drilled		3		3	
Ridge & Bottom	Pipe, 8' x 1.315" drilled	3				
Ridge & Bottom	Pipe, 6' x 1.315" drilled			3		
Ridge & Bottom	Pipe, 4' x 1.315" drilled					3
Ridge & Bottom	Pipe, 12' x 1.315" swaged & drilled	3	3	6	6	9
Purlin, plain end	Pipe, 12' x 1.315"		4		4	
Purlin, plain end	Pipe, 8' x 1.315"	4				
Purlin, plain end	Pipe, 6' x 1.315"			4		
PPurlin, plain end	Pipe, 4' x 1.315"					4
Purlin, swaged end	Pipe, 12' x 1.315" swaged	4	4	8	8	12
Cover Conduit	Pipe, 12' x 1.66"					2
Cover Conduit	Pipe, 10' x 1.66"		2			
Cover Conduit	Pipe, 8' x 1.66"				2	
Cover Conduit	Pipe, 6' x 1.66"	2				
Cover Conduit	Pipe, 2' x 1.66"			2		
Cover Conduit	Pipe, 14' x 1.66" swaged	2	2	4	4	4
End Conduit	Pipe, 12' x 1.66" w/holes	2	2	2	2	2
End Conduit	Pipe, 14' x 1.66" swaged w/holes	2	2	2	2	2
Strut	Pipe, 7' x 1.315" w/flattened ends	4	4	4	4	4
Strut	Pipe, 5' x 1.315" w/flattened ends	4	4	4	4	4
Gable End Verticals	Pipe, 12' x 1.66"	2	2	2	2	2
Rollup Door Conduit	Pipe, 6' x 1.315"	1	1	1	1	1
Rollup Door Conduit	Pipe, 12' x 1.315" swaged	1	1	1	1	1
Hardware:	Description:					
Rafter Coupler	Pipe, 1.66" ID	6*	7*	9*	10*	11*
External Coupler	Pipe, 1.66" ID		2	2	4	4
Carriage Bolt	1/4"x2-1/2"	14*	16*	20*	22*	24*
Carriage Bolt	1/4"x3-1/2"	20*	23*	29*	32*	35*
Carriage Bolt	1/4"x4"	10	10	10	10	10
Nut, zinc	#20x1/4"	50*	55*	65*	70*	75*
Carriage Bolt	5/16"x1-1/2"	16	16	16	16	16
Nut, galvanized	5/16"	16	16	16	16	16
Brace Band	1.315" ID	8	8	8	8	8
Brace Band	1.66" ID	8	8	8	8	8
Tek Screw	#14 x 1"	119*	131*	155*	167*	179*
Hex Driver Bit	3/8"	1	1	1	1	1
Pipe Strap	1.315" U-clamp	26*	30*	38*	42*	46*
Gable Brackets	Heavy Angle	4	4	4	4	4
Door Hand Crank		1	1	1	1	1
Zipper Extension	Pole	1	1	1	1	1
Cover:	Description:					
End Panel, plain		1	1	1	1	1
End Panel, zippered		1	1	1	1	1
Cover (size to match length)		1	1	1	1	1
Fabric Clip	Aluminum clip for 1.66" pipe	42	42	42	42	42
Fabric Clip	Aluminum clip for 1.315" pipe	5	5	5	5	5
Strap, 1" Black	3' long	4*	6*	8*	8*	10*
Ratchet	1" x 400#	8*	10*	12*	12*	14*
Duct Tape	Roll	1	1	1	1	1

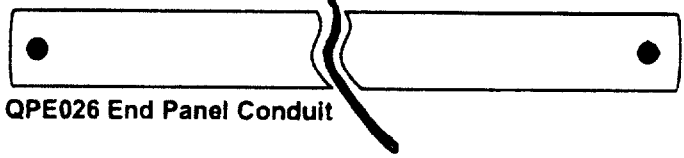
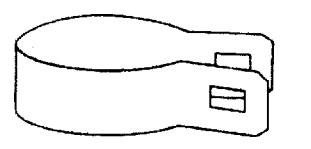
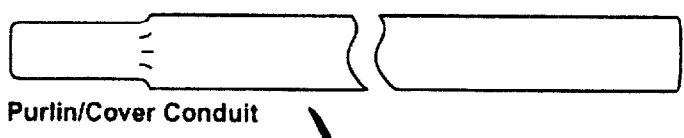
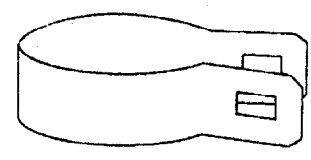
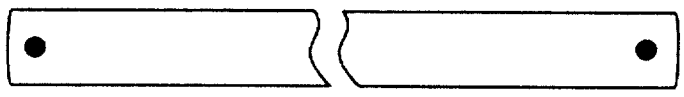
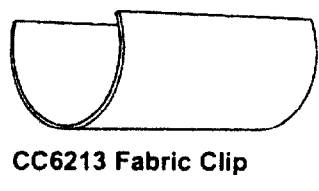
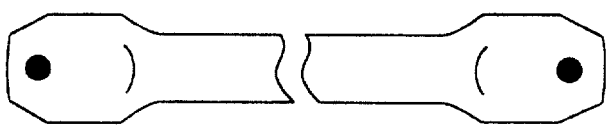
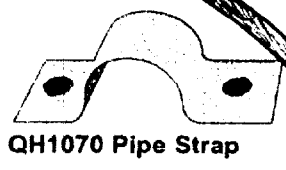
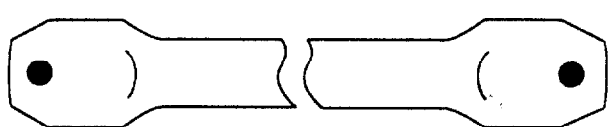
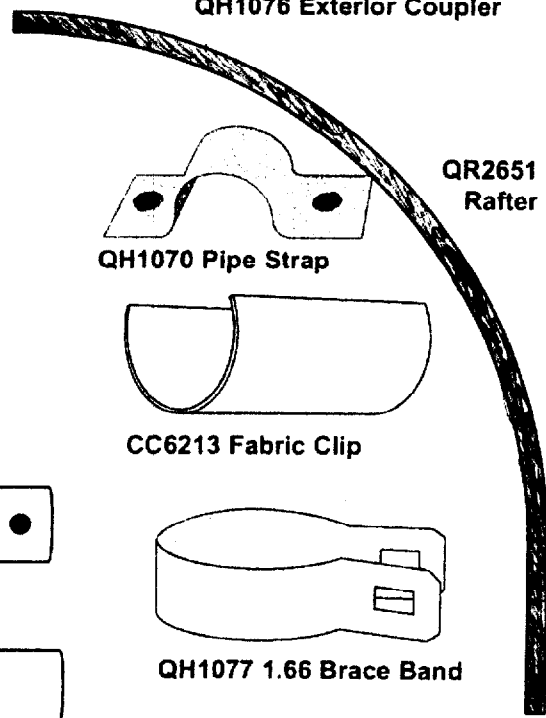
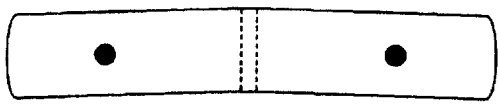
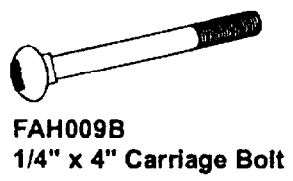
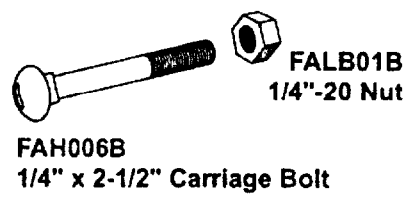
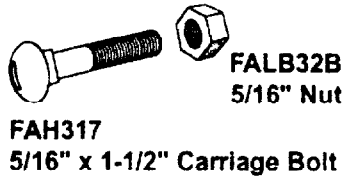
Color coding for shelter parts:

Round rafter sides, swaged - blue
 Round rafter sides, plain - red
 House/gothic sides - blue
 House/gothic tops - red
 End conduit - yellow
 Struts - green

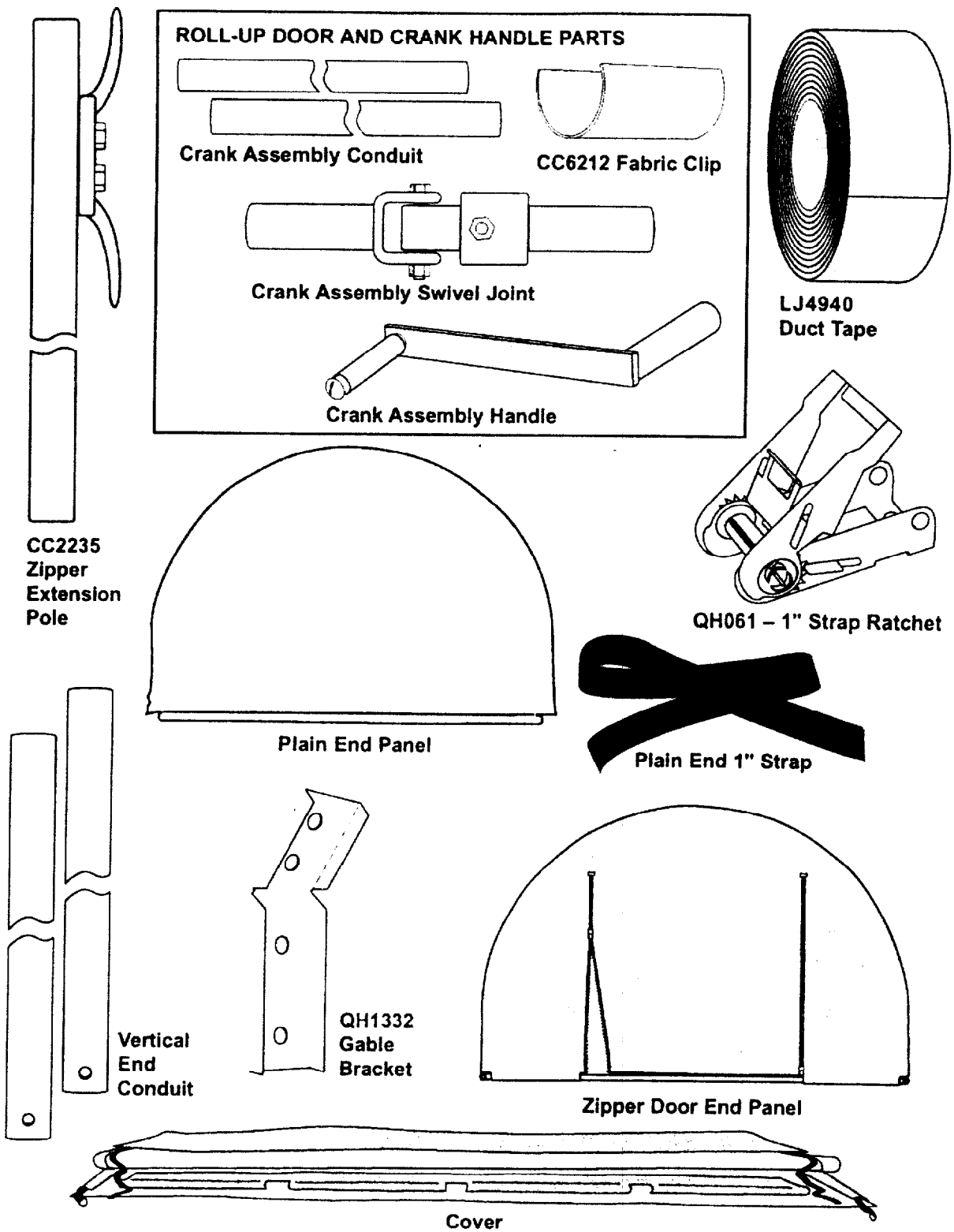
Purlins/cover conduit - orange
 Bottom rail/ridge - black
 Rollup side conduit - yellow / black
 Crank up door conduit - green / orange
 End verticals - red / blue

Note: Your kit may not include all colors listed.

Parts Identification



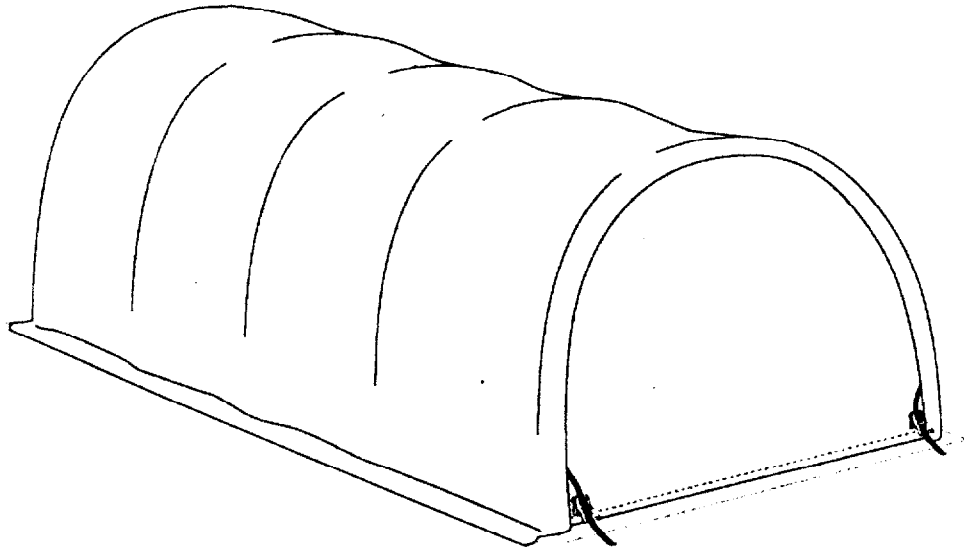
Note: Illustrations are not to scale.



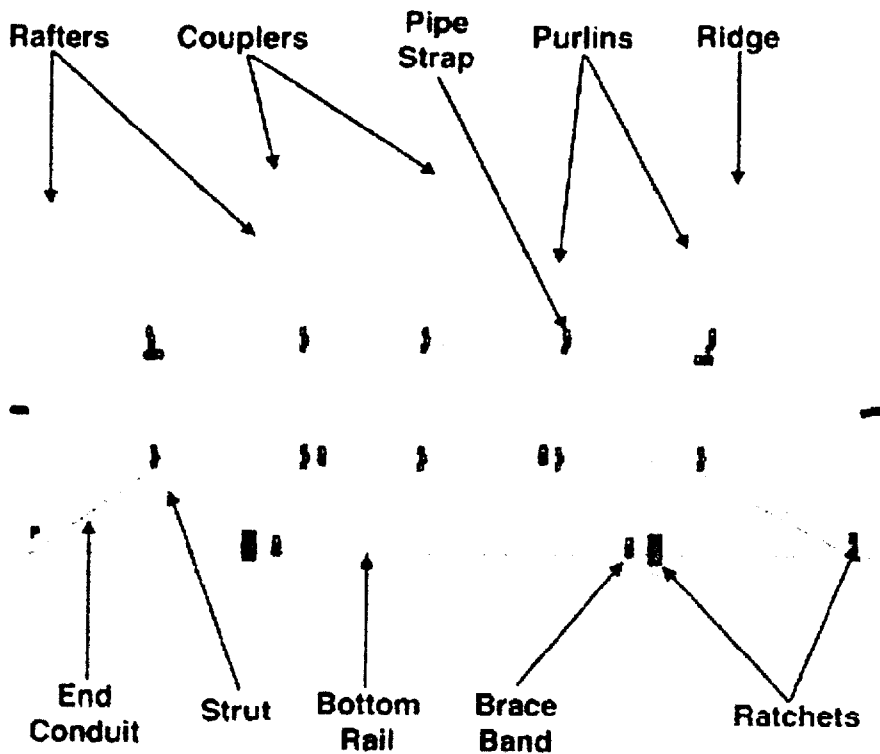
Note: Illustrations are not to scale.

Assembly Diagrams

Your assembled shelter will be similar to the illustration below:



First you will assemble the frame:



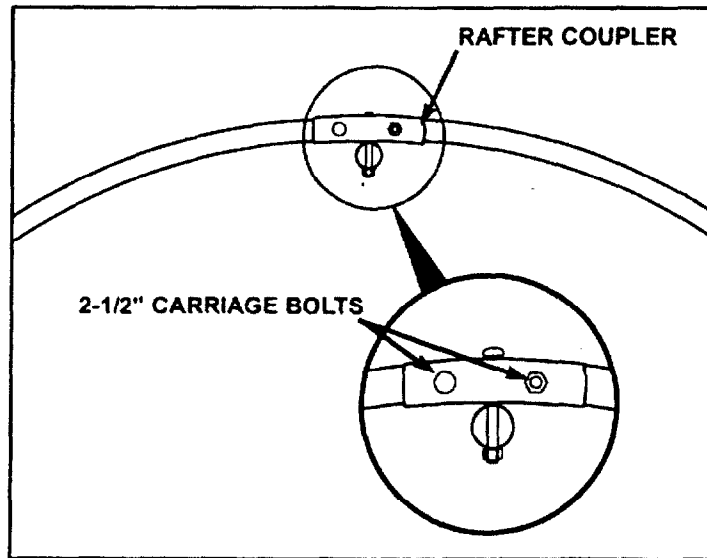
Section B - Rafter Assembly

Step 1: Each rafter consists of two long curved sections of pipe held together with a coupler using carriage bolts and nuts. Locate two sections of curved pipe, one pre-drilled coupler, two 2-1/2" carriage bolts, and two 1/4-20 nuts to make your first rafter.

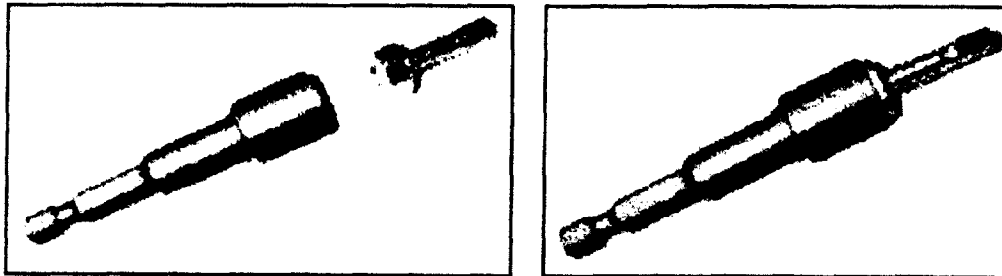
Step 2: Fit the predrilled end of each rafter into the coupler so the holes line up.

Step 3: Secure the rafter sections to the coupler using the 2-1/2" carriage bolts and nuts.

Step 4: Repeat the steps above to assemble all remaining rafters using the same procedures.

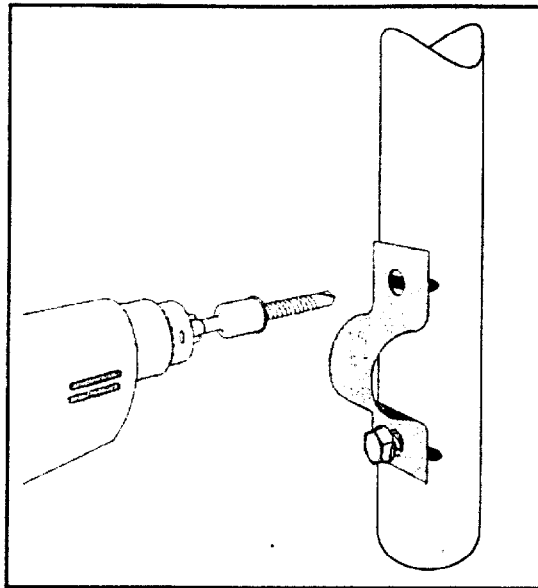


Step 5: Install the supplied 3/8" hex driver bit into the chuck of your drill/driver.

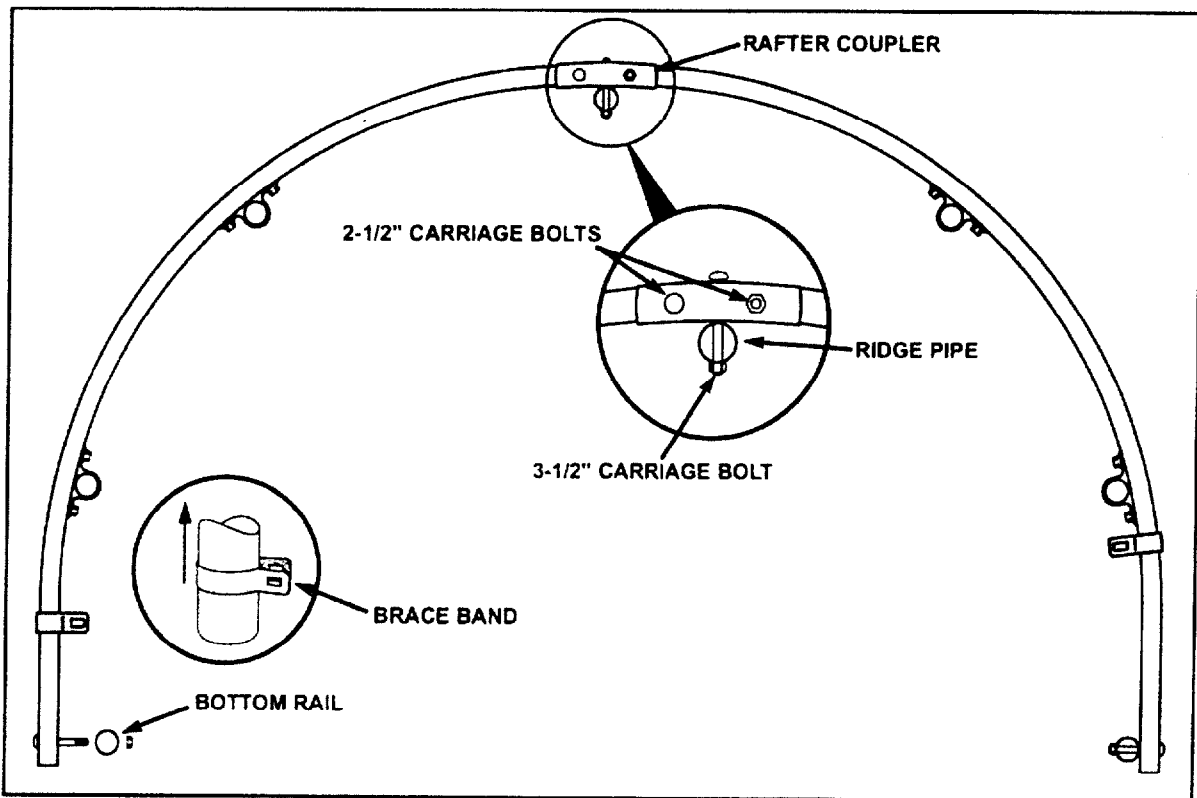


Step 6: Pipe straps are used to hold the purlins to the rafters. Using Tek screws, install four pipe straps at the marked locations on the insides of all of the rafter assemblies. Leave the screws out about 1/4" so you can slide the purlins through the straps later on.

Tips: Tek screws are self-drilling and no pilot hole is usually required. If you have trouble getting a Tek screw to "bite," try another Tek screw (or you can drill a 3/16" pilot hole). This step will require two people. Have a helper flip the rafter "up" and hold it in position so you can drive the Tek screws down into it. The helper should advance/change the position of the rafter as you install each strap so you are always working at the "bottom" of the curve.



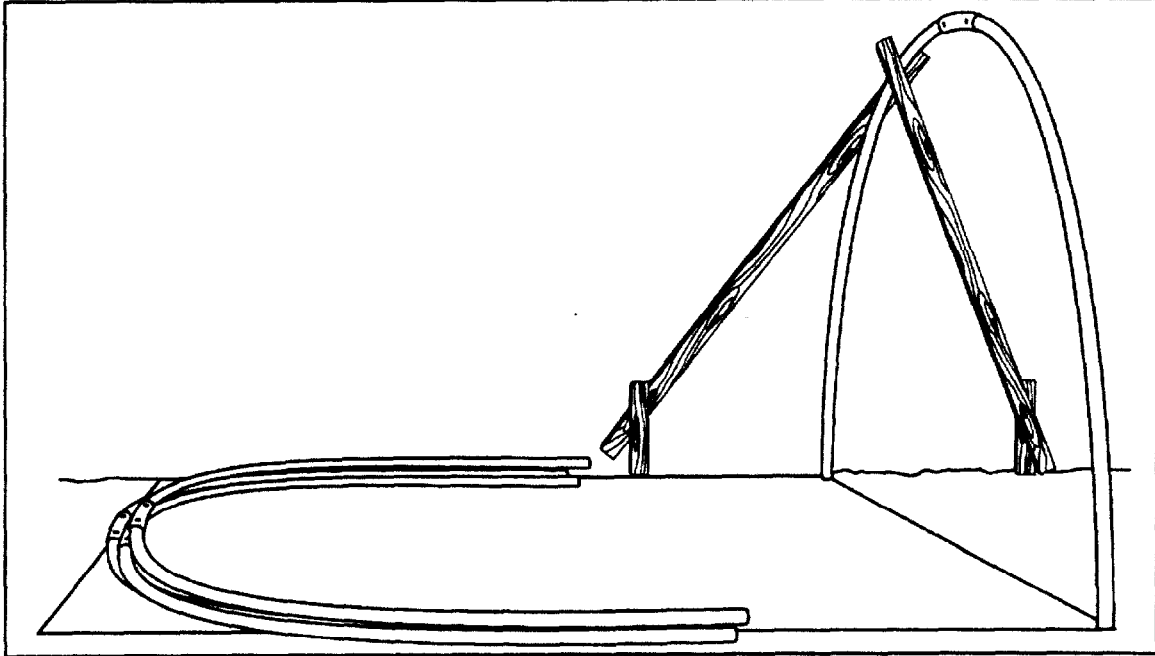
Step 7: Slide a 1.66" Brace Band onto both ends of two of the rafters. These will be the first and last rafter used at each end of your shelter.



Section C - Rafter Setup

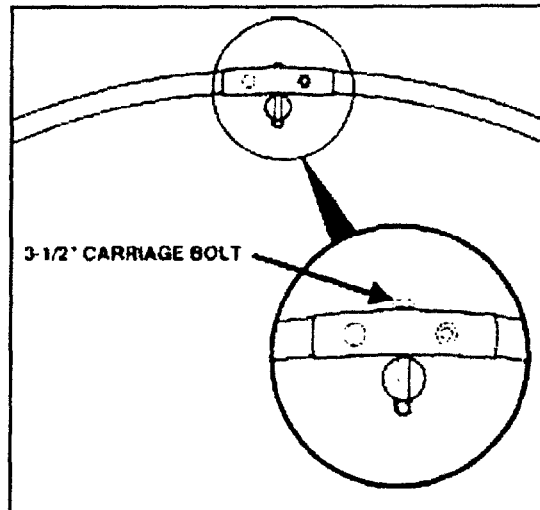
Step 1: Stand up one of your end rafters (one of those with the brace bands attached). Secure it to an existing structure if possible so that it is plumb.

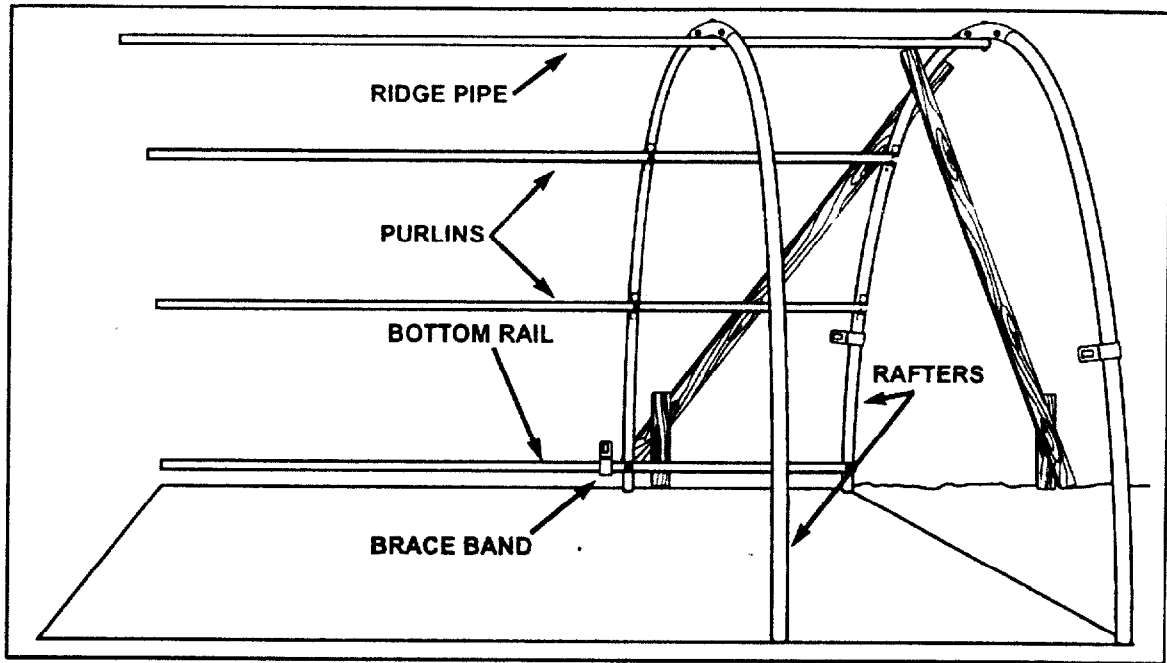
Tip: If you don't have an existing structure, you can use some 2x4s as shown tied with rope:



Step 2: Stand up a second rafter and have a helper hold it in a vertical position.

Step 3: Locate a ridge pipe. It is pre-drilled according to your rafter spacing. Using 3-1/2" carriage bolts and 1/4-20 nuts, secure the ridge pipe to the bottoms of the rafter couplers at the first (end) rafter and second rafter.

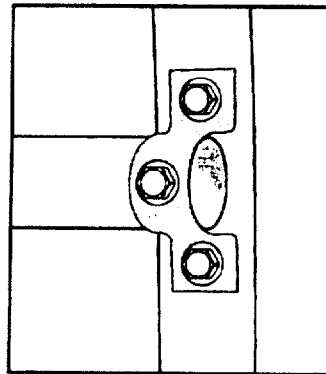




Step 4: Next slide purlins through the pipe straps half way up the rafters. The ends of the purlins must be flush with the edges of the straps on the end rafter and not extend past the strap, or the rough end could damage the cover when it is installed later.

Step 5: Tighten the Tek screws securing the straps to the first "end" rafter.

Step 6: Add a third Tek screw through the middle of the pipe straps into the purlins to hold the purlins on the first rafter securely in place.

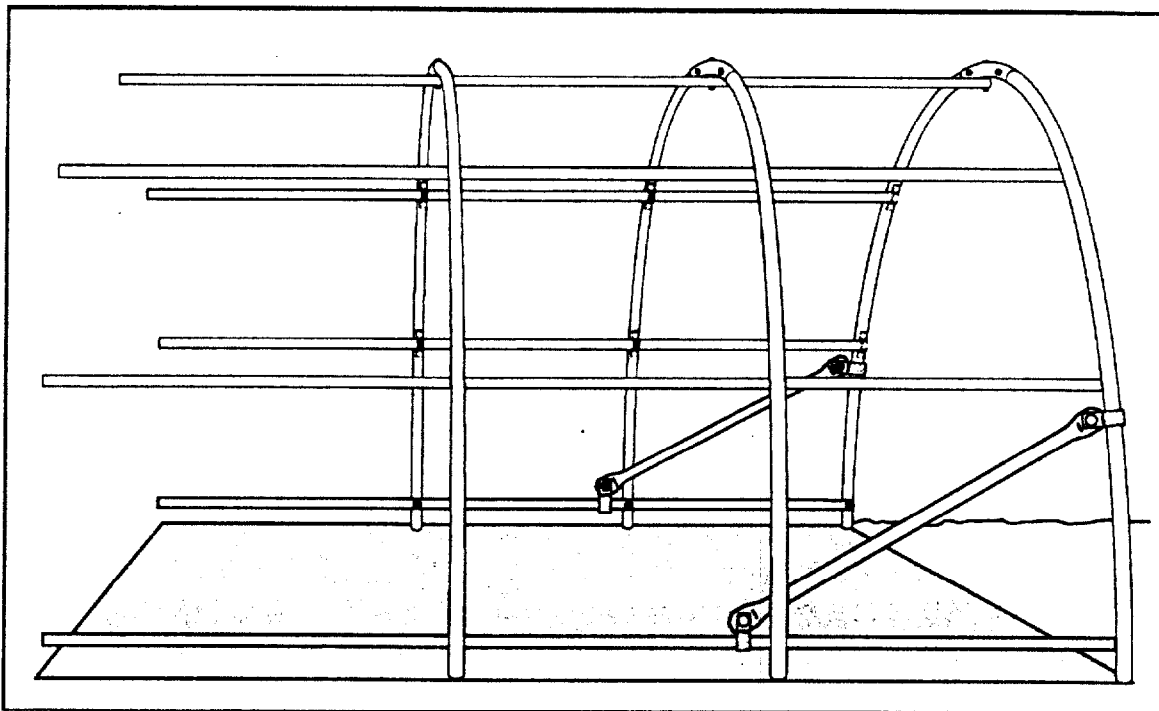


Step 7: At the ridge pole, measure the distance from the first rafter to the second. Using this same measurement, set the position of the second rafter along both of the purlins and tighten the pipe strap Tek screws.

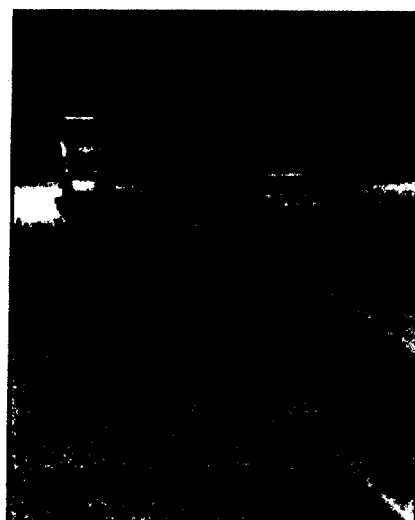
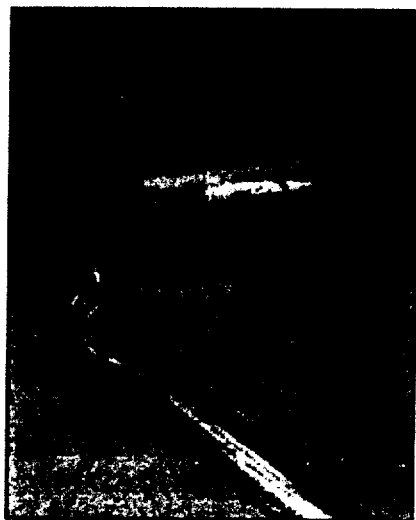
Step 8: Attach bottom rails to the first 2 rafters with 3-1/2" carriage bolts and nuts. Bottom rails are predrilled just like the ridge pole.

Step 9: After you have installed the first two rafters to the bottom rails, slide a 1.315" brace band onto each of the two bottom rails (before you go on to attach the third rafter).

Step 10: Using 1-1/2" carriage bolts and nuts, attach struts between the brace bands on the purlins and the brace bands on the end rafter. Position the struts so that they form a triangle when installed. Make sure the end rafter is plumb before you tighten the nuts.

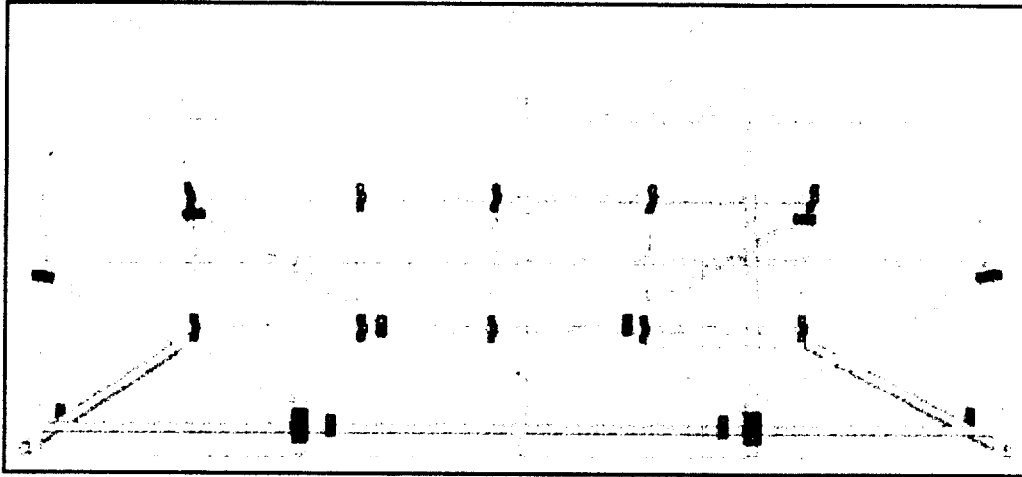


Tip: If you forgot to slide a brace band into position on a rafter or bottom rail, you can wedge the brace band onto the pipe by striking it with a mallet. **Be careful, and wear eye protection!** You can then reclose the end of the brace band by pinching it with slip joint pliers if necessary.



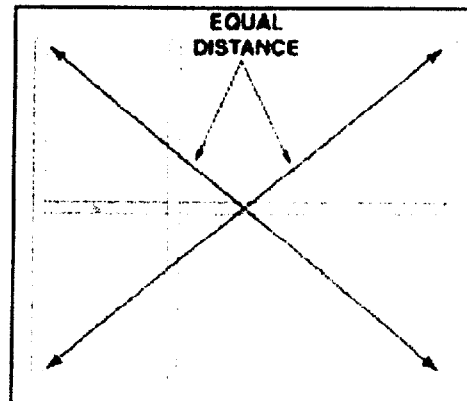
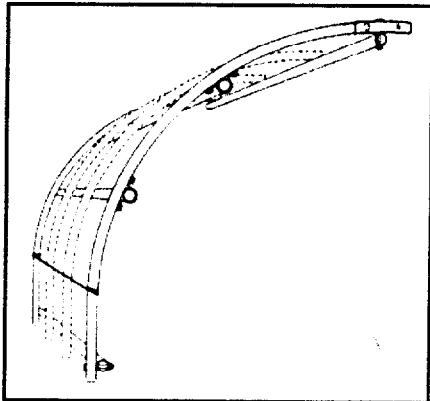
Step 11: Continue adding rafters and purlins until all are in place. The numbers of rafters and purlins you have will vary. Remember to use the other end rafter with brace bands last.

Step 12: Using 1-1/2" carriage bolts and nuts, attach struts between the end rafter just added and bottom purlins as you did at the other end of the frame.

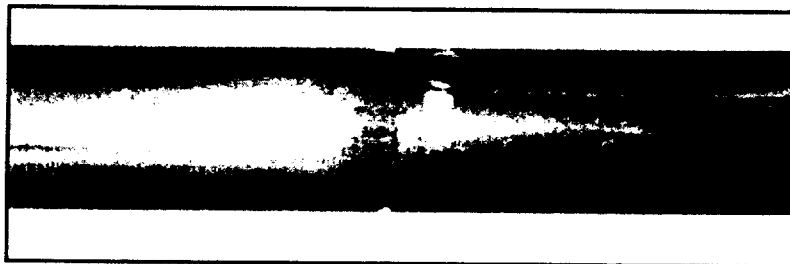


Step 13: With all rafters and purlins in place, position the shelter exactly where you want it located.

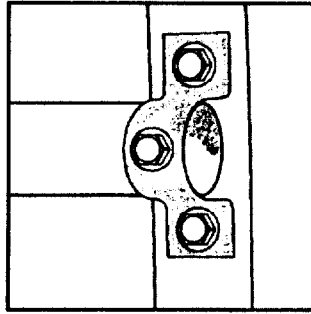
Step 14: Recheck the rafter-to-rafter dimensions along all five purlins. Also check that every rafter is standing up straight (plumb). Square the corners by measuring diagonally corner-to-corner, and line up all rafters using a straight line.



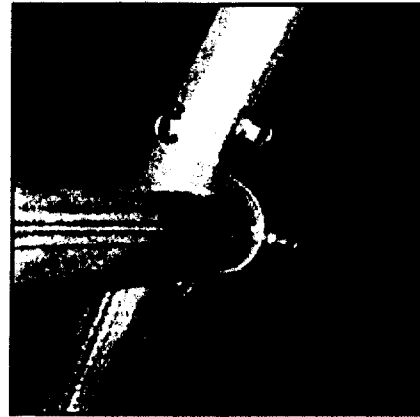
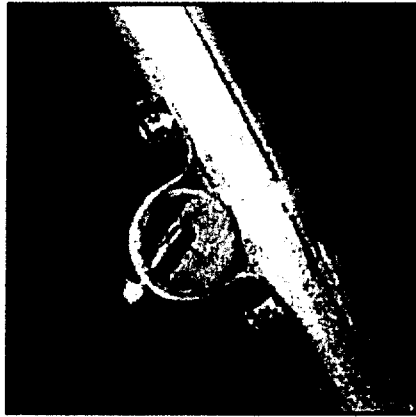
Step 15: If you have a shelter model long enough to use multiple sections of purlins, secure every joint between sections with a Tek screw.



Step 16: Add a third Tek screw through each pipe strap into the pipe being clamped.



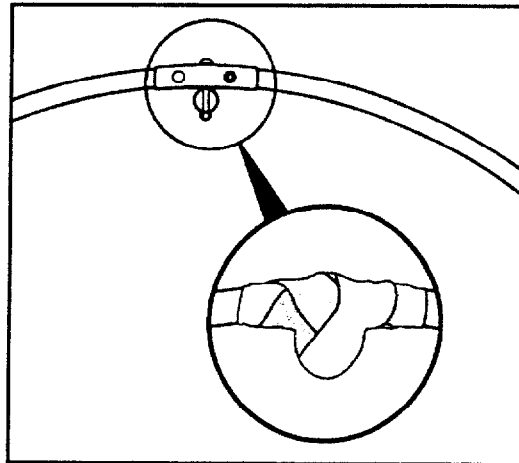
Tip: As there is a small crown on each strap, you will find it easier to start the hole slightly off-center.



Section D - Finish Rough Edges

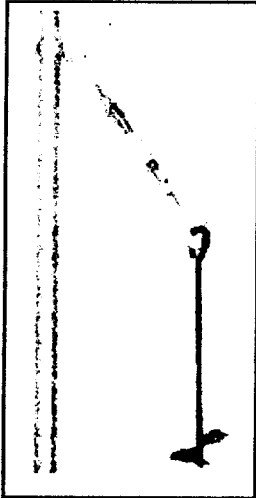
Step 1: Check for any sharp edges on the frame and file them smooth so they will not cut the cover.

Step 2: Apply two layers of heavy duct tape on all pipe connections that may contact the cover.



Section E - Anchoring the Shelter

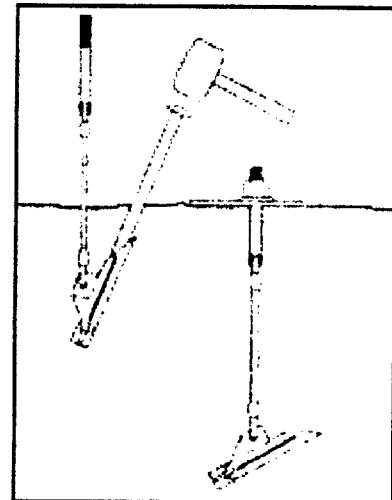
ClearSpan™ offers three different anchoring systems, and **you must use one of these systems to anchor your shelter at this time.** Anchoring systems are designed to ensure that your shelter is anchored safely and securely. The type of system used with your shelter should be selected based on the size of your shelter and the type of surface to which you are securing your shelter. It is recommended that you place one anchor at every rafter on both sides of your building.



Auger



Bracket



Duckbill

Type 1: Earth Auger Anchor assembly

Includes a 30" Earth Auger Anchor, a 6" Turnbuckle and a securing Clamp Band Assembly.

Step 1: Place 1 Earth Auger Anchor, 1 Turnbuckle, and 1 Clamp Band Assembly (including 1 nut and 1 bolt) where they will be installed.

Step 2: Screw the Earth Auger Anchor into the ground approximately 20"-26", making sure the eye of the Auger is within 7"-8" of the rafter to which it will be attached.

Note: The placement of the Earth Auger Anchor is not critical, as long as the Turnbuckle will reach from the Anchor to the rafter it will be supporting.

Step 3: Unscrew the "hook" and the "eye" ends of the Turnbuckle to lengthen it approximately halfway. Attach the "hook" of the Turnbuckle through the "eye" of the Earth Auger Anchor.

Step 4: Spread the Clamp Band and place around the rafter. Squeeze the Clamp Band back together and place the "eye" of the Turnbuckle in the Clamp Band opening and secure with the bolt and nut. Slide Clamp Band as high up the rafter as it will go, then tighten the nut on the bolt.

Step 5: Turn Turnbuckle until taut.

Type 2: Shelter Bracket for shelters on cement pads / blocks

Includes a Bracket and a 5-1/2" Cement Wedge Anchor.

Step 1: Place a Bracket and a Cement Wedge Anchor next to each rafter end.

Step 2: Place the Bracket over the bottom purlin and mark the center of the hole in the Bracket on the cement.

Step 3: Drill hole in the cement at least 4-1/2" deep.

Step 4: Place Wedge Anchor into hole, then fit Bracket over bottom purlin and threaded portion of Wedge Anchor. Secure Wedge Anchor with nut and washer.

Type 3: Duck Bill Earth Anchors

Includes a complete assembly plus U-bolt assembly.

Step 1: Place a Duck Bill Earth Anchor next to each side of all rafters.

Step 2: Using a drive steel, drive the Duck Bill into the ground, making sure the threaded portion attached to the cable is resting next to the rafter with the end of the threaded rod facing up.

Step 3: Secure threaded portion to rafter with U-bolt and tighten nuts securely.

Section F - Install End Panels

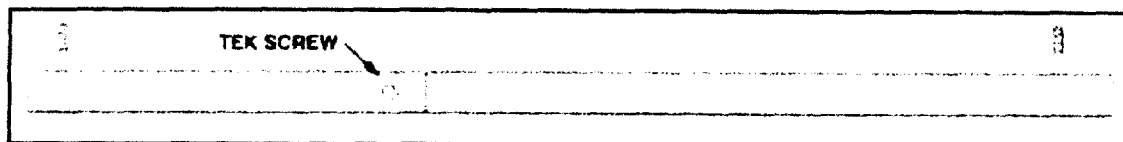
DO NOT INSTALL END PANELS ON A WINDY DAY AS DAMAGE TO THEM MAY RESULT!

Step 1: Locate the end panels and end conduit sections.

Step 2: Assemble a set of end conduit sections. The length should match the width of your shelter.

Step 3: Insert a loose 1/4" x 3-1/2" carriage bolt through the hole in each end (pointing in the same direction). Use these bolts to help you adjust the alignment of the sections so the holes in the ends are lined up and the bolts point straight to your left or right with the conduit on the ground.

Step 4: With the bolts in the ends of the conduit lined up and pointing to the side, secure the joint in the conduit with a Tek screw driven straight down from the top perpendicular to (at 90° from) the bolts in the ends of the tubing. Remove the bolts when you complete this step.



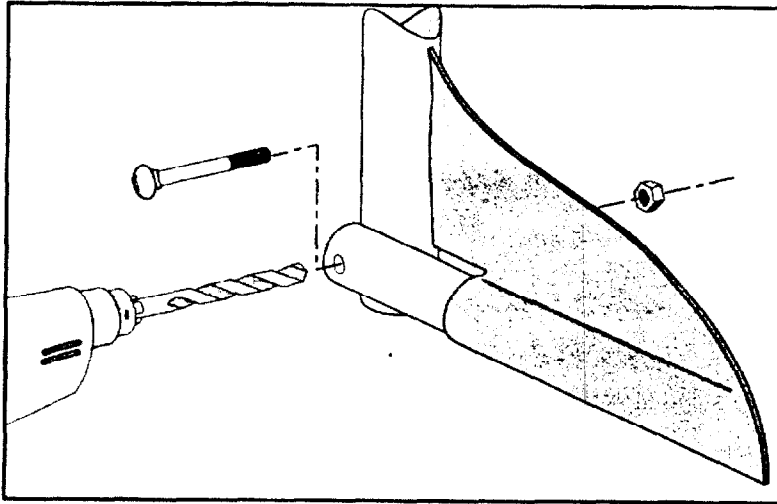
Step 5: Slide this end conduit assembly into the hem at the bottom of the plain end panel. Make sure the Tek screw goes on top when you slide it into the hem so it will not contact the material.

Step 6: Position the end panel so the bottom edge is just touching the ground.

Step 7: Drill a 5/16" hole through the last rafter using the holes in the end conduit as a guide.

Tip: If your shelter is too wide/narrow, adjust its width to match your shelter size. If it is too wide, you can use rope to pull it to the correct size before proceeding.

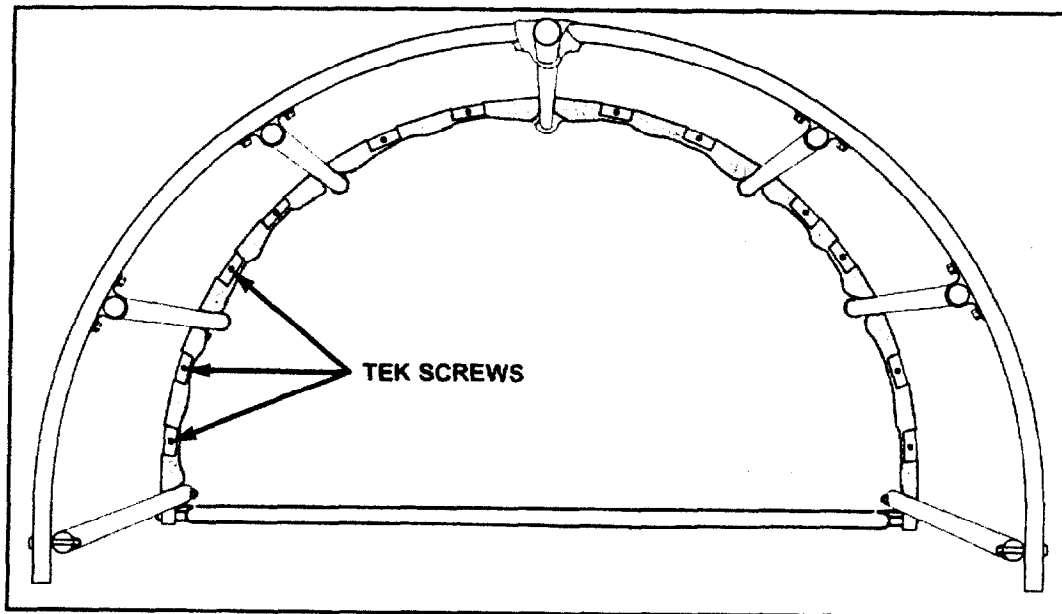
Step 8: Fasten the conduit to the outside of the last rafter with 1/4" x 3-1/2" carriage bolts and nuts.



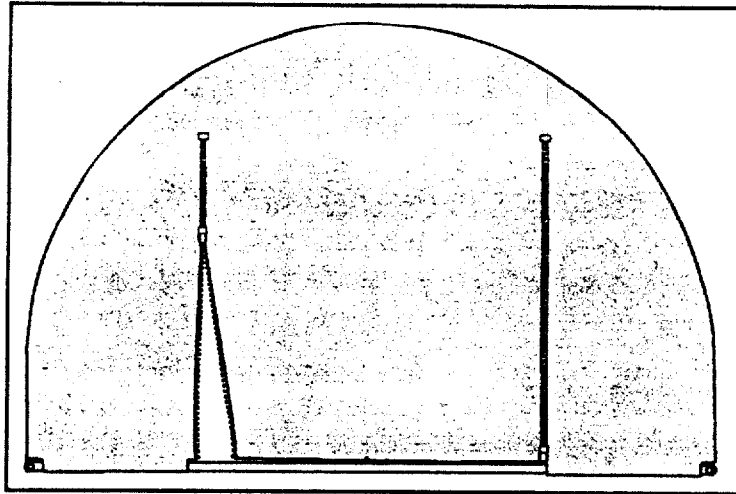
Step 9: While standing inside the shelter, start at the peak of the end rafter and pull the end panel over the top of the rafter so the material edge is on the inside of the rafter.

Step 10: Secure the panel in place at the top center with a fabric clip.

Step 11: Move outward in both directions, placing one fabric clip every 24." For additional support, secure the fabric clips with a Tek screw.



Step 12: Your end panel has two sections as shown below. Insert the end conduit through the side portions of the end panel only and not through the door section(s).



Section G - Install Roll-up Crank Assembly

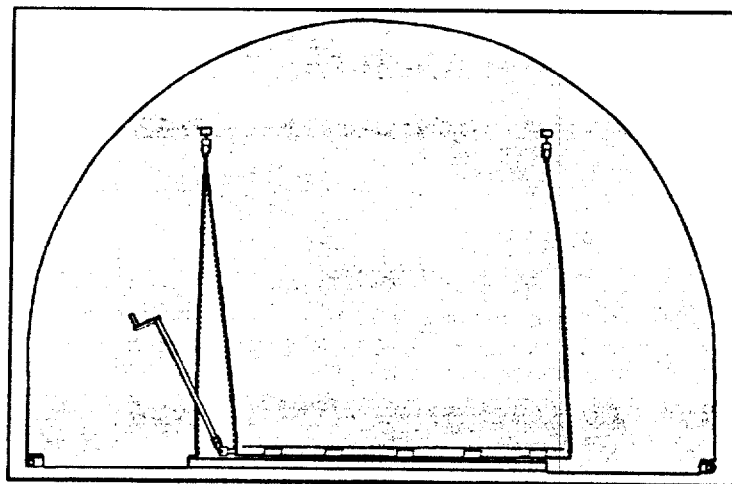
The roll-up crank assembly consists of a swivel, crank handle, a section of pipe to go into the hem sewn into the door panel, an extension pipe and some pipe clips.

Step 1: Slide the long section of pipe into the door hem. The pipe should nearly reach the other side of the door.

Step 2: If the pipe sticks out more than a couple of inches it will need to be cut off. If it is too short it can be coupled with another section of pipe using a Tek screw to join them.

Note: More than enough pipe is supplied with the door but due to the variety of widths and door heights the pipes are not pre-cut to your door.

Step 3: Secure with pipe clips as shown below.

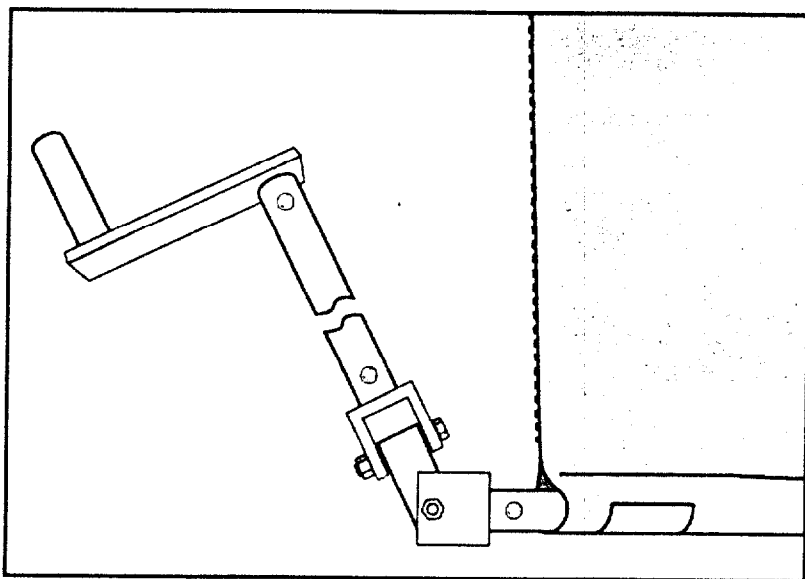


Step 4: Next attach the swivel to the pipe in the hem with a Tek screw.

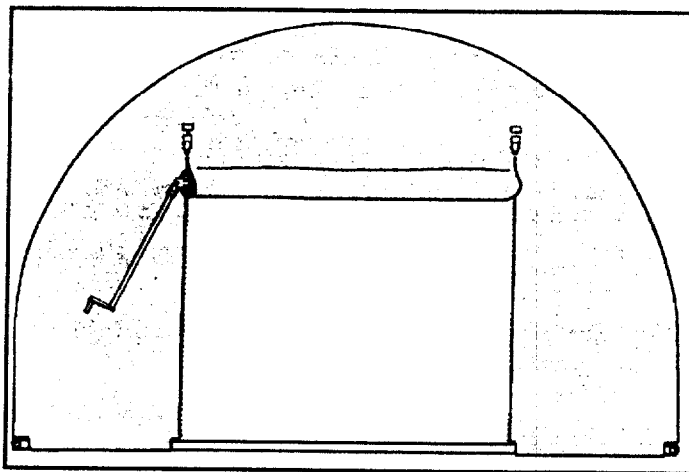
Step 5: Then, to the other end of the swivel, attach an extension pipe, which is the same type pipe as used in the door hem.

Step 6: This pipe should be cut to the length you need to open the door fully from the ground. For example if the door is 12' high and you are 5' tall the extension handle pipe needs to be at least 6' long.

Step 7: Fasten with a Tek screw, add the crank handle to the extension pipe fastened with a Tek screw to complete the assembly as shown in the next illustration.



Tip: Use the zipper extension pole to zip and un-zip tall zipper doors.



Section H - Install Vertical End Braces

This shelter, comes with two vertical braces for the door end.

Step 1: Stand up the pieces of pipe straight up next to the zippers on the inside of the frame and mark them where they come in contact with the rafters

Tip: Make sure they are straight and plumb!

Step 2: Cut the vertical pipes where you marked them with a hacksaw or tubing cutter.

Step 3: Attach the bottom of the vertical to the end conduit by drilling a 5/16" hole through the end conduit using the hole in the end vertical as a guide. Fasten with a 4" carriage bolt and nut.

Step 4: Slide a 1-5/8" brace band onto the vertical pipes at this time.

Step 5: Fasten the top of the vertical to the rafter with gable end bracket and Tek screws as shown.

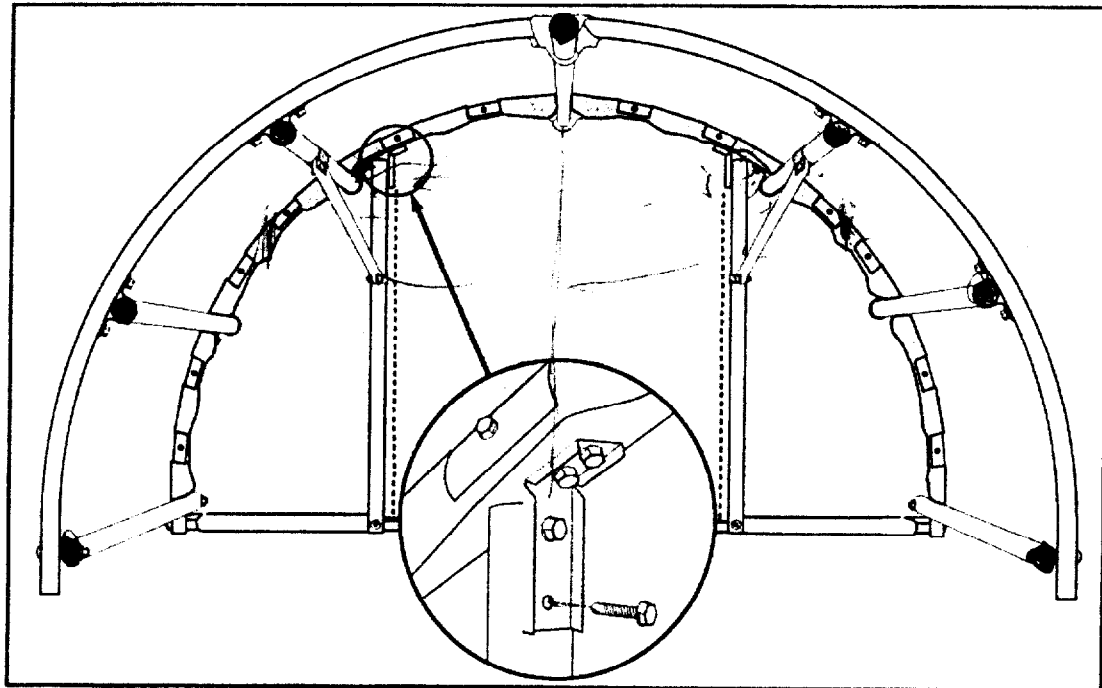
Step 6: Connect one end of a 5' strut to the brace band on each vertical with a 1-1/2" carriage bolt and nut.

Step 7: Connect the other end of the 5' strut to the nearest purlin. A 1-3/8" brace band will have to be spread open and slipped over the purlin where the strut is to be attached.

Tip: The brace band can be squeezed back together with pliers.

Step 8: The other end of the 5' strut can now be attached to form a triangle with the much the same as when attaching the 7' struts earlier.

Note: Additional end support can be provided with two-by-four framing and gable end brackets (not included). The ends can be framed in virtually any configuration.

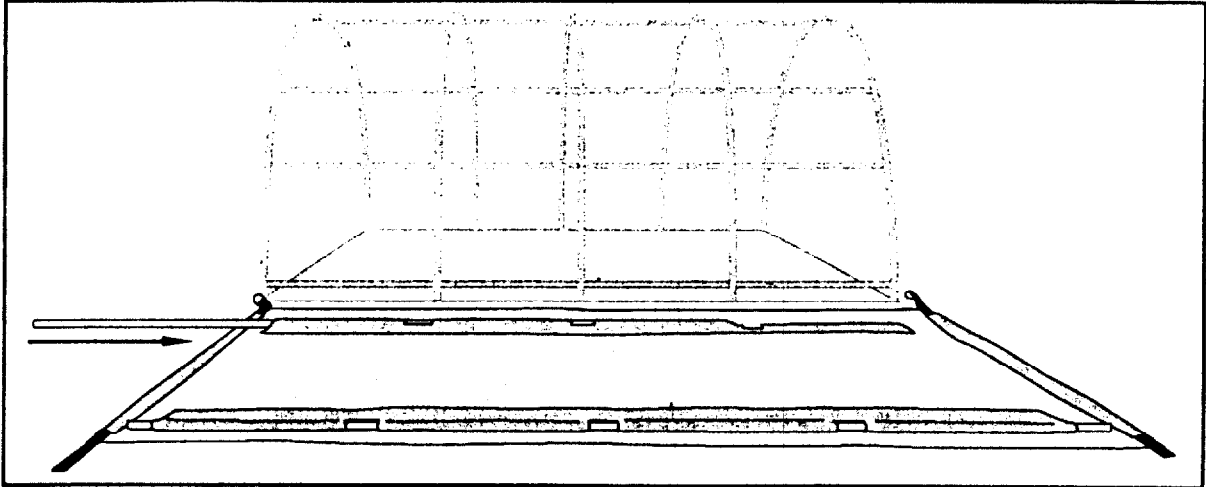


Section I - Install Main Cover

DO NOT INSTALL COVER ON A WINDY DAY AS DAMAGE TO IT MAY RESULT!

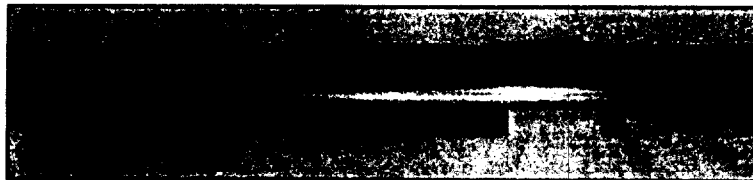
Step 1: Unpack main cover and unfold it completely with the inside surface facing up.

Tip: The ends with black straps in the hems correspond to the front and back of the shelter.

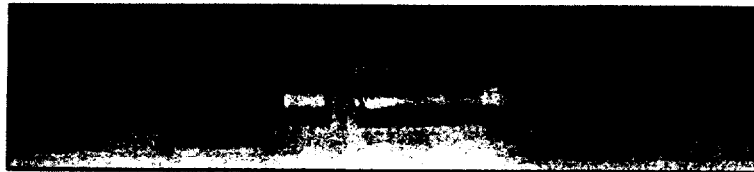


Step 2: Slide the cover conduit into the hem opening (slit) that is located about 9" from the end of the cover. Your cover conduit may consist of several sections depending on shelter length.

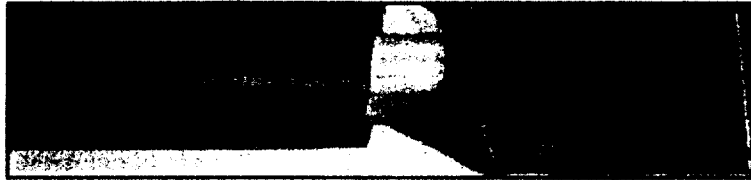
Tips: If your cover conduit consists of multiple sections, it may be easier to install it in pieces. Start with an unswaged section at the end furthest from the slit. Slide the first piece into the hem using a zig-zag approach through one of the wide openings



Slide the next section swaged end first into the hem and then into the end of the first section.

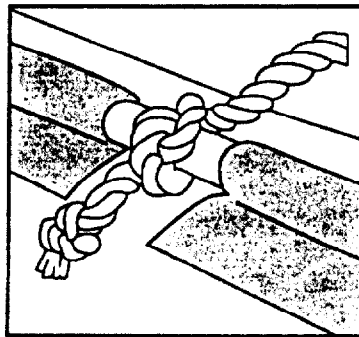


Slide the last section swaged end first into the hem and also into the open end of the previous section. When fully inserted, only a couple of inches will protrude at the slit. It will then be easy to get the end of this last section into the remaining pocket.

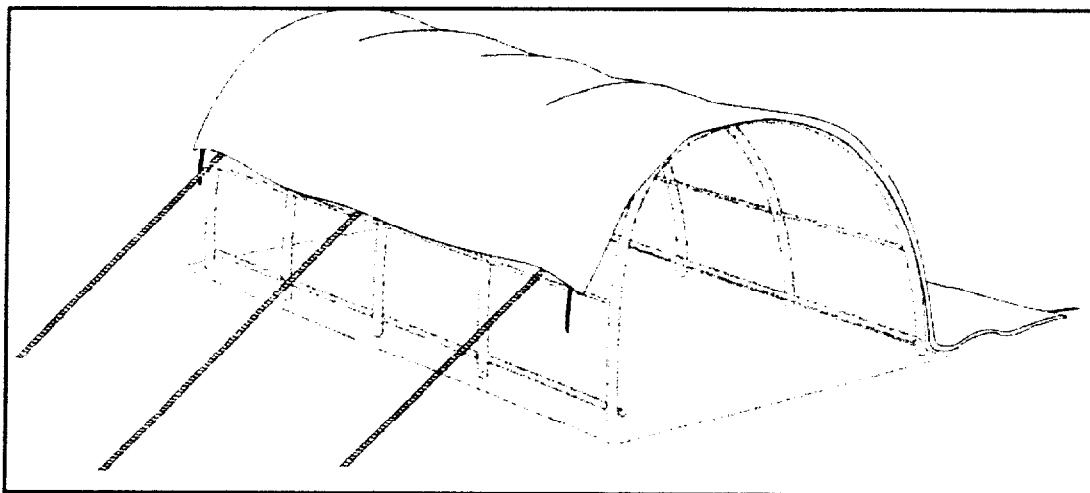


Step 3: Repeat the above steps at the other side of the cover with another cover conduit assembly.

Step 4: On most shelters, the cover can be pulled over the frame. First, attach ropes to the cover conduit through the openings. Then pull the ropes over the top of the shelter. Two or more people are recommended for this step.



Step 5: Then pull the ropes over the top of the shelter. Two or more people are recommended.



Step 6: Center the cover front to back and side to side.

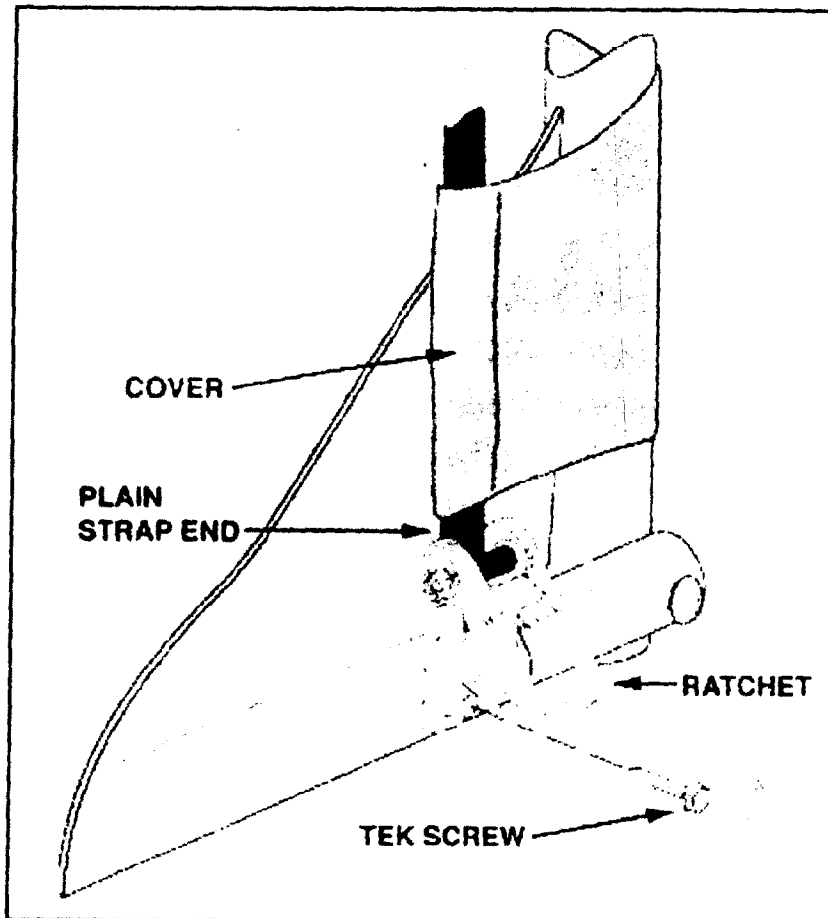
Step 7: In the front and rear hems, locate the black straps.

Step 8: Fasten a ratchet to the end conduit with a Tek screw in the bottom hole of the ratchet. The ratchet should be about 6" in from the end of the conduit. Repeat this step in all four corners.

Step 9: Tighten both corner straps on each end by pulling on them manually. Have a partner help you so you can pull on both straps for an end at the same time.

Step 10: Cut off the excess strap leaving 12" in length.

Step 11: Feed the strap through the center slot in the ratchet and tighten slightly.

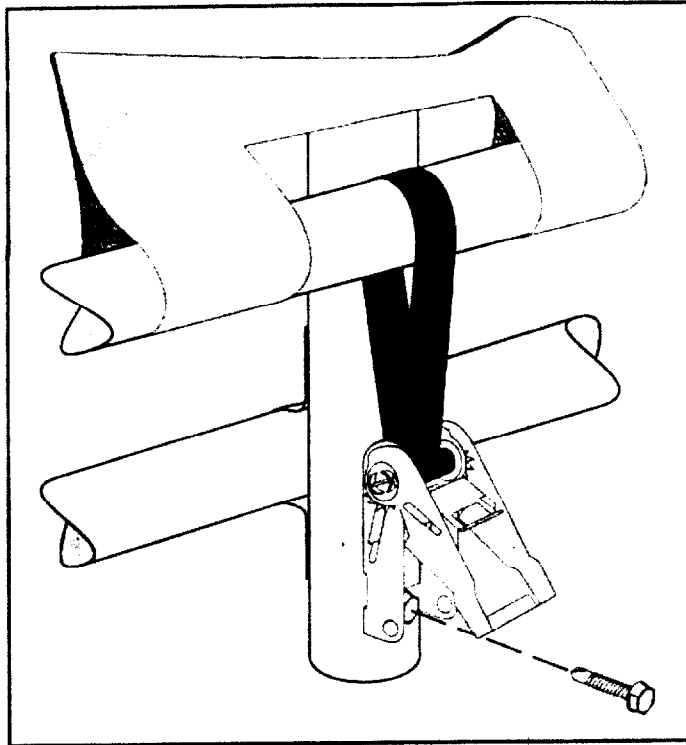


End Ratchet

Step 12: On the side of the shelter, lift the cover up from outside the shelter so you can see the conduit frame.

Step 13: Locate the cutouts in the cover exposing the conduit. This is normally the second, the next to the last, and every other rafter in between. Fasten ratchets to the outsides of these rafters with a Tek screw about 2" from the bottom of the rafters.

Note: Some models may have two consecutive rafters without ratchets.



Side Ratchet

- Step 14:** Ratchets are located on the same rafters on both sides of the shelter. Repeat the previous steps so you have ratchets on both sides of the shelter opposite each other.
- Step 15:** Locate the 3' straps and loop them over the conduit where the hem is cut out.
- Step 16:** Feed both ends of each strap through the slot in the ratchet and tighten slightly.
- Step 17:** Center the cover evenly from front to back.
- Step 18:** Tighten the outer ratchets first and then the inner ratchets. If the ratchets need to be released, open them completely and they will release. Excess strap can then be pulled through the ratchets and re-tightened.

Section J - Shelter Maintenance

- Cover must be kept taut - Check and adjust tension periodically.
- To insure longer zipper life, do not allow door to flap in the wind.
- Instead, roll up / secure door in an open position with straps provided.
- Do not allow snow to accumulate on the cover.
- If shelter is moved after construction, inspect shelter thoroughly before reuse.