

**REMINGTON
SOLAR™**

User's Instruction Manual Greenhouse

IMPORTANT - ⚠ CAUTION ⚠

This instruction manual contains important information for the proper installation of your Remington Solar Greenhouse. All individuals involved in the setup procedure should be familiar with the contents of this manual. To prevent personal injury or property damage, follow the instructions contained in this manual.

Introduction

Thank you for choosing our product. We are confident that once assembled, the Remington Solar greenhouse will provide many years of service to your horticultural and/or agricultural needs.

Please read this manual carefully, as it contains details of how to assemble your greenhouse correctly and has important information to ensure your safety. The manual also lists other tools, equipment and materials you will need to build your greenhouse.

Manufacturer's Comments

Welcome to the Remington Solar family. We develop technology for comfort and safety in every season. Innovation should serve your lifestyle, not cost you. Our top priority is to provide excellence of product and service.

Founded in 2006, Remington Solar has grown to sell millions in big box retailers across the country. We are proud of our products that harness the power of the sun to achieve some pretty amazing feats, leverage more powerful technology than the competition, and offer a remarkable warranty.

The Remington Solar greenhouse is just one of our many solutions specially engineered for your self-sufficient lifestyle. Whether you are seeking a greenhouse for your homestead, hobby, or other, we are confident that the Remington Solar greenhouse will satisfy all your needs. In addition to high quality and durable products, we look to provide you with unmatched customer support. You can reach our team with comments and questions through our website or via email at support@remingtonsolar.com.

A. GENERAL INFORMATION

1.1 Warnings & Safety Guidelines

Basic safety precautions & construction guidelines should be followed when erecting a structure.

Before you begin

- Check local building codes to make sure that the building does not contravene any local or other administrative regulations.
- Ensure that the selected ground area is free from any underground pipes and cables. Have utilities marked if necessary.
- Ensure that there are no overhead power cables that could interfere with the construction. It is dangerous (and possibly illegal) to build directly under such cables.

Important safety information

- Always wear eye protection and gloves when handling the metal frame.
- Always wear eye protection when using power tools.
- Take particular care when handling and cutting the pipe. The ends may be sharp.
- Do not climb on the greenhouse at any time.
- Do not occupy the greenhouse during high winds, tornadoes, or hurricanes.
- Do not store hazardous materials in the greenhouse.
- Use power or hand tools safely and according to the manufacturers' instructions.

1.2 Included Parts List

Part Number	Quantity	Part Name	Description/Notes
1	8	Ground Stakes	
2	1	Ground Cover	
3	1	Front Bow Pipe 1, FB1	Each front bow piece connects into each other to form the front bow.
4	1	Front Bow Pipe 2, FB2	
5	1	Front Bow Pipe 3, FB3	
6	1	Front Bow Pipe 4, FB4	
7	1	Middle Bow Pipe 1, MB1	Each middle bow piece connects into each other to form the middle bow.
8	1	Middle Bow Pipe 2, MB2	
9	1	Middle Bow Pipe 3, MB3	
10	1	Middle Bow Pipe 4, MB4	
11	1	Back Bow Pipe 1, BB1	Each back bow piece connects into each other to form the back bow.
12	1	Back Bow Pipe 2, BB2	
13	1	Back Bow Pipe 3, BB3	
14	1	Back Bow Pipe 4, BB4	
15	1	Base Purlin Piece 1, BP1	One set of 2 corresponding pipes.
16	1	Base Purlin Piece 2, BP2	One set of 2 corresponding pipes.
17	1	Top Purlin Piece 3, TP3	One set of 2 corresponding pipes.
18	1	Top Purlin Piece 4, TP4	One set of 2 corresponding pipes.
19	1	Peak Purlin, PP5	One set of 2 corresponding pipes.
20	1	Inwall Pipe 1, IW1	One set of 2 corresponding pipes.
21	1	Inwall Pipe 2, IW2	One set of 2 corresponding pipes.
22	1	Inwall Pipe 3, IW3	One set of 2 corresponding pipes.
23	1	Inwall Pipe 4, IW4	One set of 2 corresponding pipes.
24	1	Cross Pipe 1, CP1	
25	1	Cross Pipe 2, CP2	
26	1	Cross Pipe 3, CP3	
27	1	Cross Pipe 4, CP4	
28	1	Middle Cross Pipe 1, MCP1	
29	1	Middle Cross Pipe 2, MCP2	
30	8	Roll-up Curtain Clips	

31	2	1-5/8" clamps	
32	2	Chains	
33	5	Purlin Bolts	
34	5	Purlin Nuts	
35	20	Purlin Screws	
36	50	Clamp Bolts	
37	50	Clamp Nuts	
38	1	Door Latch	
39	80	3/8" Tek screws	
40	160	5/8" Tek screws	
41	1	Driving Cap	
42	50	1-3/8" Clamps	

1.3 Required Tools

The following tools not included in the kit will be needed:

- ☐ Measuring tape
- ☐ Lumber for batter boards
- ☐ 4 temporary markers (such as a stone or brick)
- ☐ String
- ☐ Squaring stakes
- ☐ Sledgehammer
- ☐ Ladder
- ☐ Power drill
- ☐ 3/8" drive ratchet
- ☐ Deep (long reach) 7/16" socket
- ☐ Deep (long reach) 1/2" socket
- ☐ Knife or scissors
- ☐ Hacksaw or other metal cutting saw
- ☐ Level
- ☐ Channel lock pliers
- ☐ 1/2" deep socket/nut driver
- ☐ 5/16" nut driver
- ☐ 3/8" nut driver
- ☐ Rope
- ☐ Flat file
- ☐ Rat Tail File

1.4 Assembly Preparation

1.4.1 Personnel Requirements

Some operations in the erection of the Remington Solar greenhouse require more than one person. Be prepared to seek the help of other people where the instructions indicate. This is especially important when installing the bows and the covering.

1.4.2 Site Preparation

Make sure the ground is level and the selected building site is slightly elevated such that it shades water on all sides. This helps prevent water from coming in and staying in.

Before starting, inspect all the pipes and make sure to file down any leftover burrs. You can use a flat file for the outer edges of the pipe and a rat tail file to smoothen out the inside of the pipe. Removing leftover burrs will prevent unintended tears to the plastic.



Figure 1. Leftover burrs on pipes. File down burrs prior to beginning assembly.

B. ASSEMBLY

Before assembling the greenhouse, become familiar with the included parts. Several of the parts kits include multiple pieces. Review the individual pipes included in the kits for the bows, purlins, and inwall pipes. Once you are thoroughly familiar with the included parts, take time to gather the additional required tools.

2.1 Assembly Notes

2.1.1 Layout

- Site preparation is a critical step. Ensure that the selected site is level to avoid water collecting within the greenhouse. The ideal site will allow for water shedding on all sides of the structure.
- Laying the ground cover helps avoid mud inside the green house. The ground cover fabric will allow water to permeate it but will prevent weeds and grass from coming up.
- Once the ground cover is laid out, batter boards should be set up at each of the four corners and be 6-inches above the ground.
- The ground cover should extend approximately 12-inches past the edges of the greenhouse.

2.1.2 Ground Pipe Installation

- Do NOT drive the ground pipes into the ground without the driving cap as this will cause damage to the ground pipes.

2.1.3 Bow Assembly

- Although the bow kits are packaged together, the pieces of each kit may need to be mixed and matched in order to achieve the proper dimensions between the bows' angles.
- Screws used to secure bows must be on the interior side.

2.1.4 Bow Preparation

- The clamps placed on the front and back bows should be placed at the same position prior to securing the bow pieces with screws.

2.1.5 Bow Attachment

- Bow attachment requires two people. Attempting to attach the bows without two people may result in physical injury.
- When inserting the bows into the ground pipes, the bow should not go further into the pipe than the 6-inch mark made in step 1 of the bow attachment procedure.

2.1.6 Purlin Assembly

- The purlins are provided in two pieces and must go together. Do not mix the purlin sets.

2.1.7 Bracing Installation

- The ends of the braces need to be filed prior to installation to avoid cutting the green house plastic.
- When installing the bracing, insert the bolts from the outside of the greenhouse such that the nuts will be on the inside of the greenhouse.
- Do not tighten the nuts until the bracing is evenly positioned.

2.1.8 Eaves Installation

- The splice piece will be used to close the gap in the eaves.

2.1.9 Installing Door & Ground Pipes

- There should be 37 inches between the closest two edges of the door ground pipes.

2.1.10 Inwall Pipe Installation

- Use caution while cutting the inwall pipe to the proper length.
- Remove the inwall pipe from the ground pipe prior to cutting.
- There should be 37 inches between the closest two edges of the inwall pipes.

2.1.11 Cross Pipe Installation

- Check all cross pipes for burrs prior to installation.

2.1.12 Door Installation

- The green house door should be centered between the inwall pipes on the front wall with its top edge just underneath the horizontal cross pipe.

2.1.13 Base Trim Finishing – Front & Back Walls ONLY

- The base trim should be placed such that the longest side is pointing upwards.
- Only the front and back walls will receive base trim.
- Do not place base trim along the side walls.

2.1.14 Installing Poly Track

- Use caution when cutting the poly track to the proper length.

2.1.15 Covering the Greenhouse

- Make sure the ends of the wiggle wire do not protrude from the poly track in order to avoid cutting the greenhouse cover.

2.2 Detailed Assembly Instructions

2.2.1 Layout

1. Level the construction site.
2. Layout the ground cover.
3. Using the actual measurements of your greenhouse, place temporary markers at the four corners (A, B, C, D) of where your greenhouse frame will sit.
4. Measure 2 feet beyond the edges of each corner where the temporary markers are and place stakes at A1, A2, B1, B2, C1, C2, D1, and D2.
5. Verify that the layout is square.
6. Use string to connect the following stakes to form a square. **String should be strung 6 inches above the ground.**
 - Stake **A1 to C1 (line 1)**
 - Stake **C2 to D2 (line 2)**
 - Stake **D1 to B1 (line 3)**
 - Stake **B2 to A2 (line 4)**
7. Check that the strings' point of intersection is approximately where the temporary marker is located.

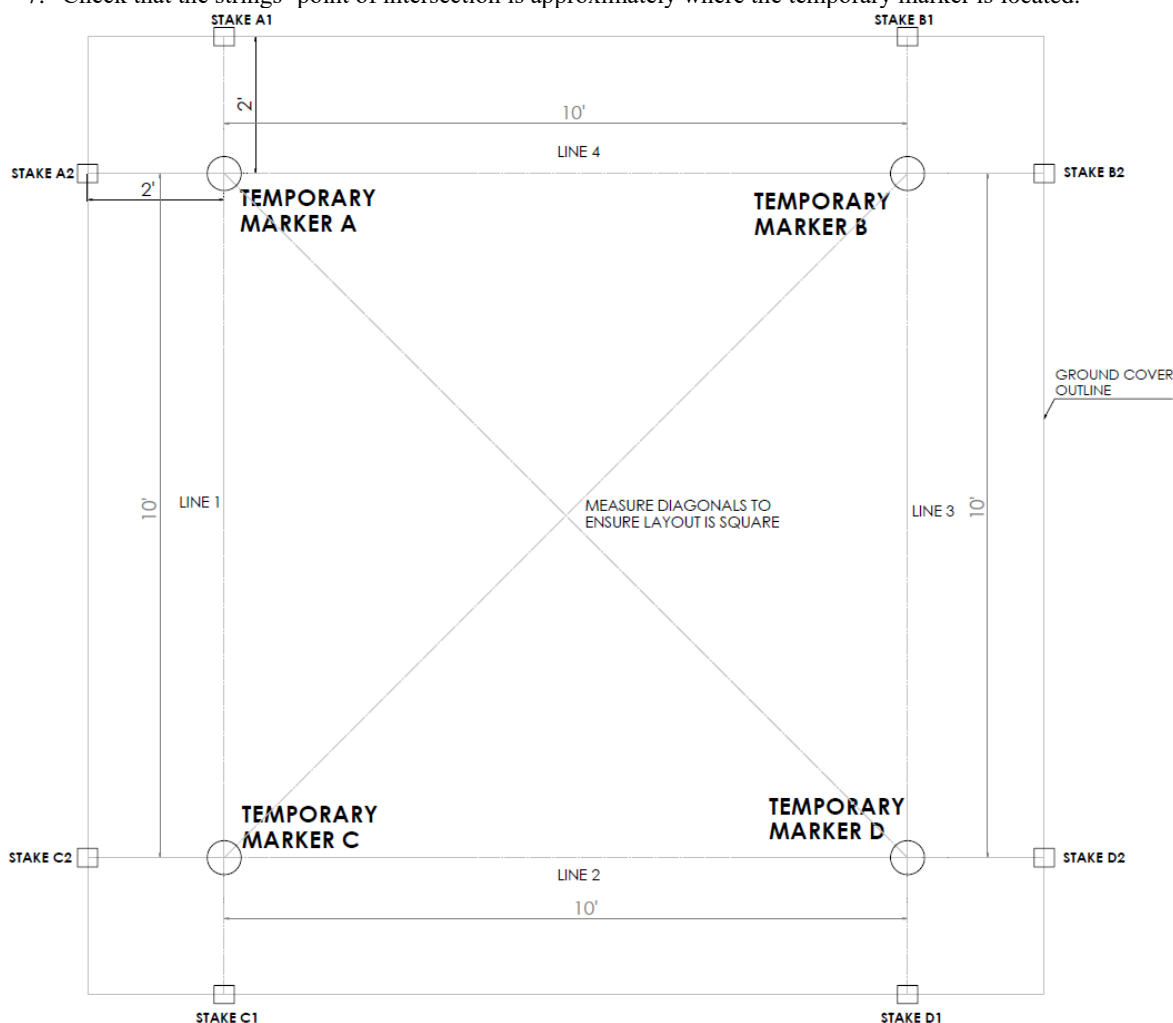


Figure 2. Site layout showing temporary markers, stake location, and greenhouse perimeter.

2.2.2 Ground Pipe Installation

1. Use a torch to burn a hole through the ground cover at points A, B, C, D.
2. Place the driving cap on a ground pipe as shown in Figure 3.

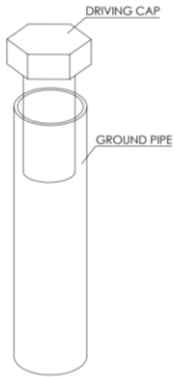


Figure 3. Place the driving cap on the ground pipe prior to hammering the ground pipe into the ground.

3. Hammer a ground pipe into the hole made at point A. Repeat for points B, C, and D.
4. Select the wall of the green house where the door will be located.
 - a. This side and the one parallel to it will be the front and back walls.
 - b. The other 2 sides will be the side walls.
5. Measure 5' between the ground pipe along the side walls and place a temporary marker at these midpoints as shown in Figure 4.
6. Use a torch to burn through the 2 midpoints.
7. Place the driving cap over the ground pipes.
8. Drive a ground pipe through the 2 midpoint holes.



Figure 4. Installation of ground pipes along side walls of greenhouse.

2.2.3 Bow Assembly

1. Locate the front, middle, and back bow sets.
2. Connect two bow pieces together by placing the end of the swaged bow piece into the non-swaged bow piece. Reference Figure 5.



Figure 5. The top image shows a non-swaged end, and the bottom image shows a swaged end.

3. Connect the lower two bow pieces using the pre-attached sleeves.
4. Assemble all 3 bows. **DO NOT** secure the bow pieces with screws.
5. Measure the distance between the angles of each bow.
6. Adjust each bow assembly until the distances between the angles match those shown in Figure 6.

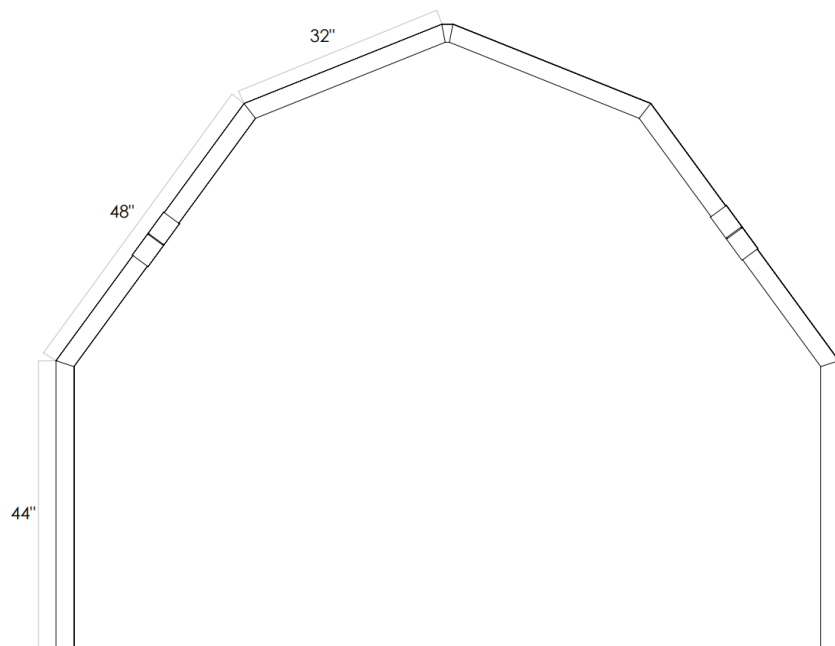


Figure 6. Pieces from each bow set may be mixed and matched to achieve the intended distances between the bow angles.

2.2.4 Bow Preparation

1. Lay out all 3 assembled bows and decide which bow will be the front bow, middle bow and back bow.
2. Refer to Figure 7 for preparation of the **FRONT** and **BACK** bows.
 - a. Insert two clamps at the top of the bow directly above the sleeves. These will be the inwall pipe and brace clamps.
 - b. Drag one of the clamps to the peak of the bow.
 - c. Insert 1 clamp below the sleeve. This will be the cross-pipe clamp.
 - d. Repeat steps 2a, 2b, and 2c for both sides of the front and back bows.
 - e. There should be 6 clamps on front bow and 6 clamps on the back bow.

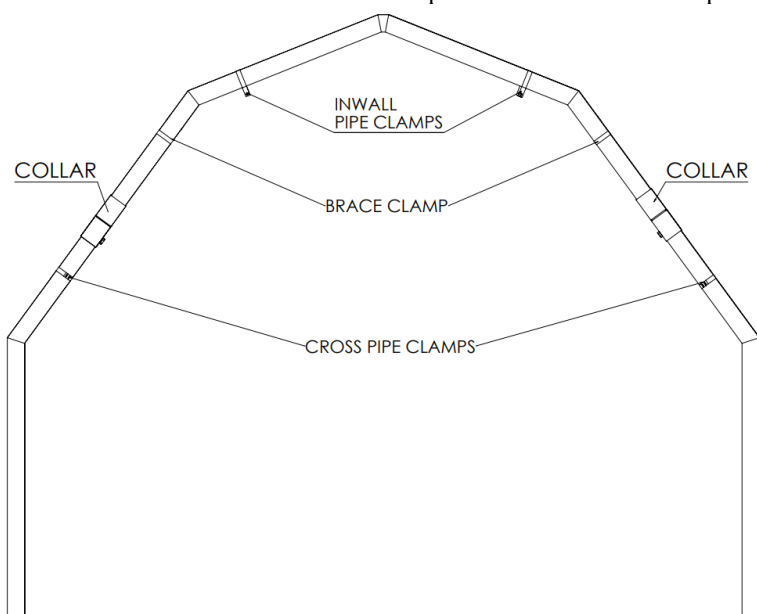


Figure 7. Cross pipe clamp, brace clamp, and inwall pipe clamp positioning for front and back bows.

3. Refer to Figure 8 for preparation of the **MIDDLE** bow.
 - a. Insert 2 clamps below the sleeve on both sides of the middle bow. These will be brace clamps.
 - b. There should be 4 clamps on the middle bow.

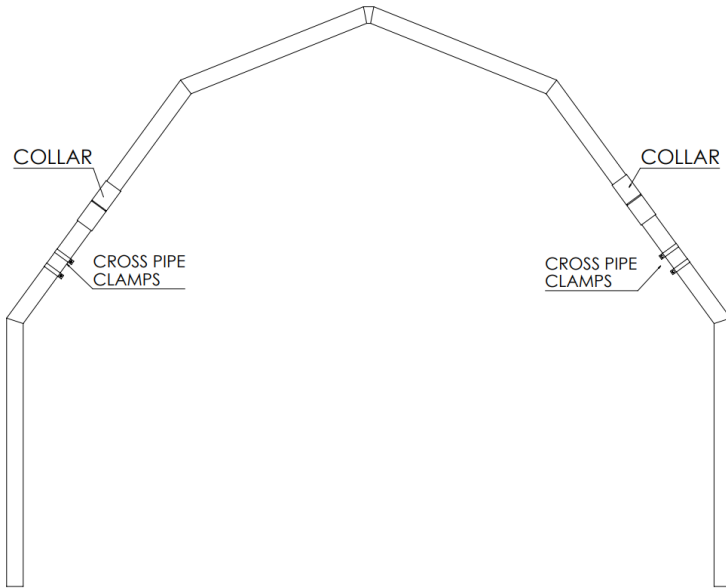


Figure 8. Brace clamp positioning for the middle bow.

4. Secure the top two bow pieces with 3/8" self-tapping screws as shown in Figure 9.



Figure 9. Securing bow sections using 3/8" self-tapping screws

5. Secure the sleeves to the top bow pieces with 3/8" self-tapping screws. See Figures 10.
 - a. Ensure that the screws are on the interior side of the green house.
6. Repeat for all clamped bows.

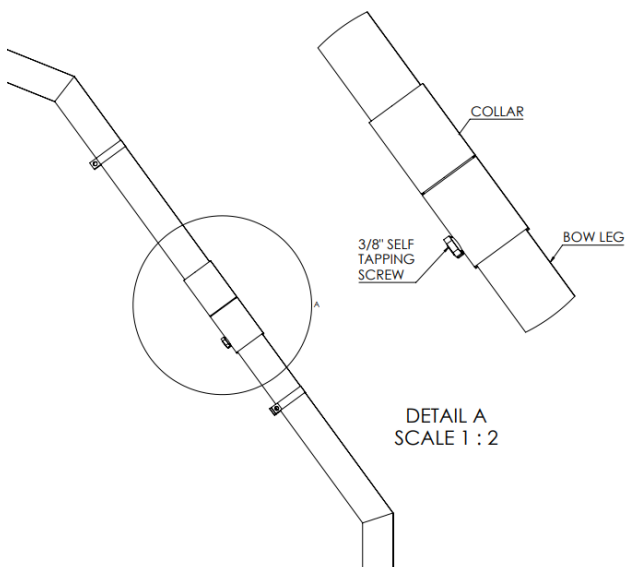


Figure 10. Securing the bow collars with 3/8" self-tapping screws.

2.2.5 Bow Attachment

SAFETY NOTE: BOW ATTACHMENT REQUIRES TWO PEOPLE.

1. Make a mark 6 inches from the bottom of the bow leg as shown in Figure 11. Repeat for all bow legs.

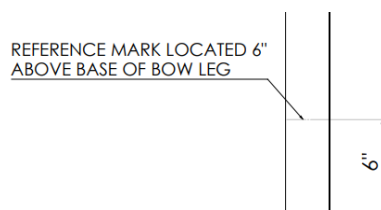


Figure 11. Mark located at 6" from the base will be referenced when inserting the bow legs 6 inches into the ground pipes.

2. With one person at each end of the bow, lift the bow and slide it into the corresponding ground pipe.
3. Ensure that the front bow is where the door will be installed.
4. Adjust the bow such that it only goes as deep into the ground as the 6-inch reference mark. Secure the bow to the ground pipe with a 3/8" self-tapping screw as shown in Figure 12.

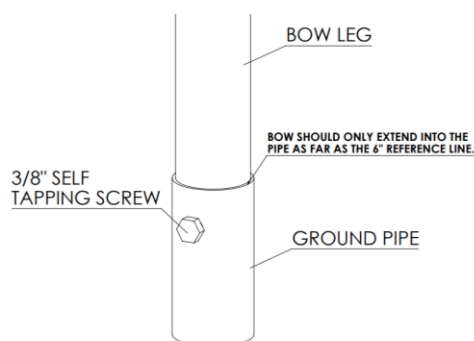


Figure 12. Securing bow legs in ground pipes using 3/8" self-tapping screws

5. Repeat for all 3 assembled bows. The erected bows should look like Figure 13.

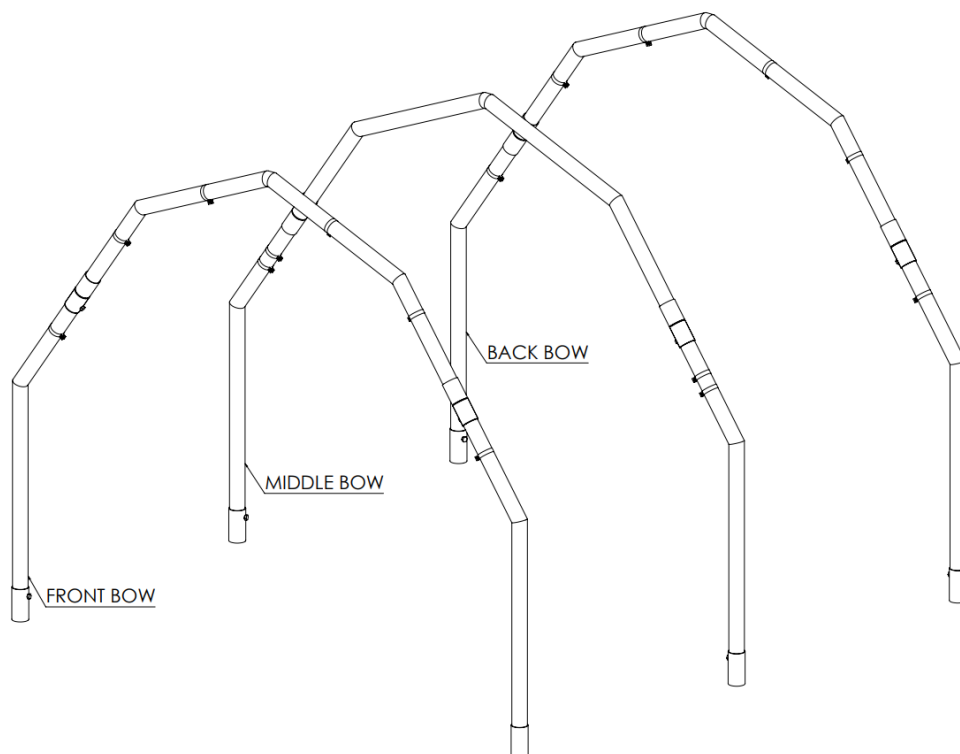


Figure 13. Erected bows.

2.2.6 Purlin Assembly

1. Assemble the base purlins by fitting the pieces numbered 1 and 2 together.
 - a. The purlin piece numbered 1 should be located at the front of the greenhouse. The number should face the interior of the greenhouse.
 - b. The purlin piece numbered 2 should be located at the back of the greenhouse. The number should face the interior of the greenhouse. Reference Figure 14.
2. Ensure that the cross-pipe clamps are located above the lowest arch and below the sleeve. Repeat for all the bow legs.
3. Screw the base purlins to the inside of the arched areas of the bows.

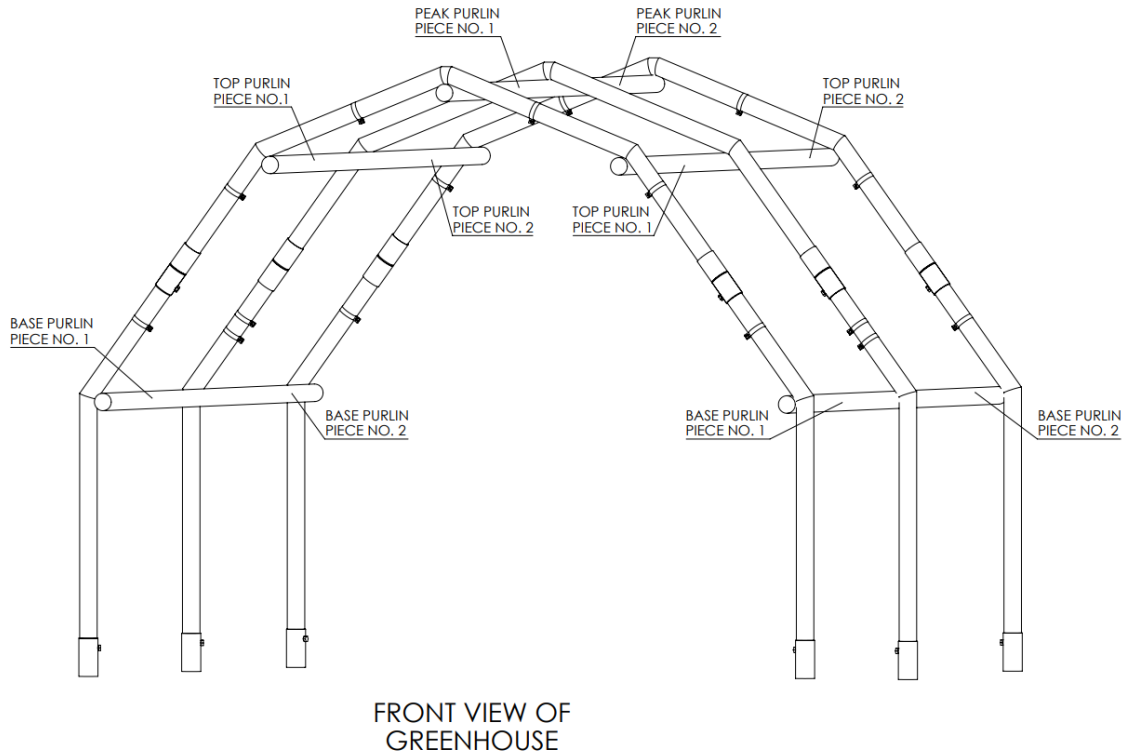


Figure 14. Purlin pieces numbered 1 should be located at the front of the greenhouse and pieces numbered 2 located at the back.

4. Make sure the numbers on each purlin piece are facing the inside of the greenhouse.
5. Assemble the two top purlins by fitting the pieces numbered 1 and 2 together.
6. Ensure that the clamps are properly positioned on the bows.
7. Install the top purlins by securing them to the bows.
 - a. Make sure the inwall pipe clamps, brace clamps, and cross pipe clamps remain properly positioned before securing the top purlins.
 - b. There should be one brace clamp on each side of the front and back bows above the sleeve but below the top purlin.
 - c. There will be one inwall pipe clamp on both sides located above the top purlins and below the peak purlin.
 - d. There will be one clamp on each side above the base purlin but below the sleeve.
8. Once the clamps are in place according to the corresponding bow, secure the top 2 purlins and the peak purlin by screwing through the purlin and into the bows.



Figure 15. Frame assembly with installed purlins.

2.2.7 Bracing Installation

1. Locate the 4 braces.
2. File the edges of the braces as shown in Figure 16.
3. Install the braces using the prepositioned brace clamps on the bows.
 - a. Clamps should fit together as shown in Figure 17.
 - b. The braces will make a V-shape.



Figure 16. Braces must be filed to remove any jagged edges.

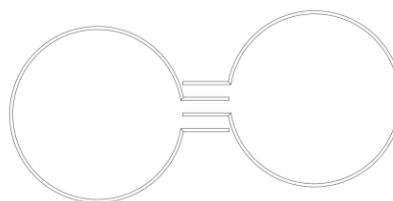


Figure 17. The ears of the clamps will fit together as shown here.

4. Insert bolts from the outside making sure the nuts are on the inside of the greenhouse and hand tighten them as shown in Figures 18 and 19.



Figure 18. Nuts should be located on the interior side.



Figure 19. Bolts should be inserted from the outside directed inward.

5. Use a level on the base purlins to ensure the braces are level.
6. Secure the braces by tightening the nuts.
7. Repeat the brace installation process on both sides of the green house. The installed braces are shown in Figure 20.

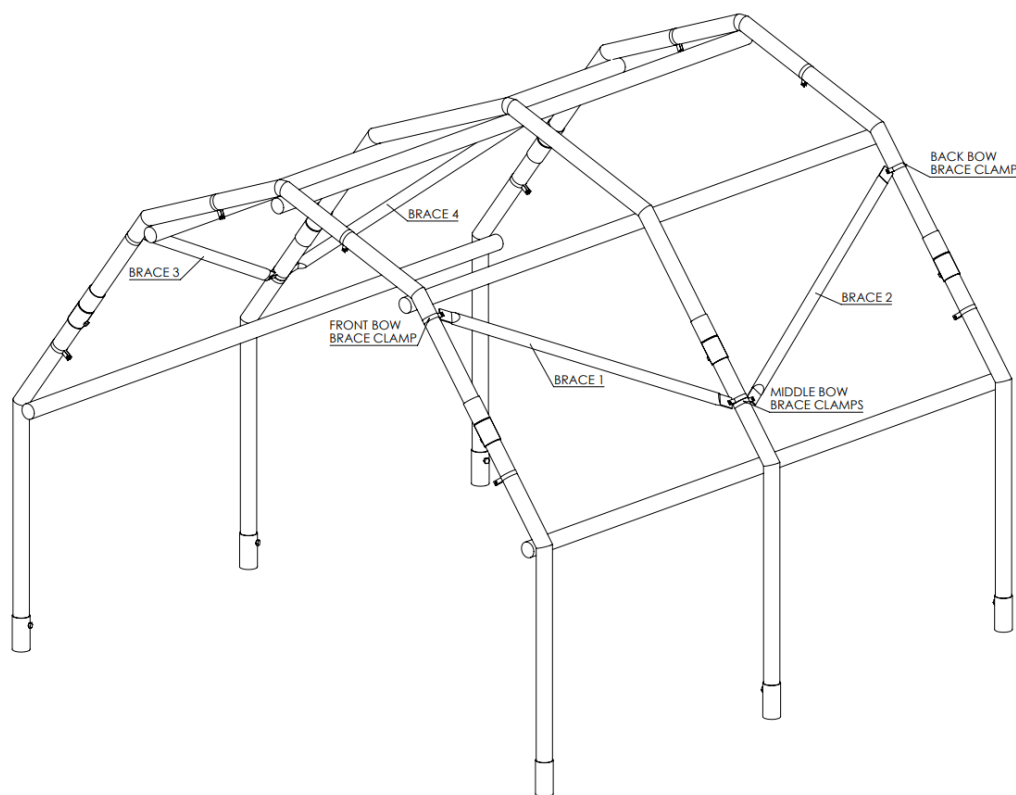


Figure 20. Installed braces will be positioned as shown here.

2.2.8 Eaves Installation

1. Install eaves over the base purlins as shown in Figure 21.

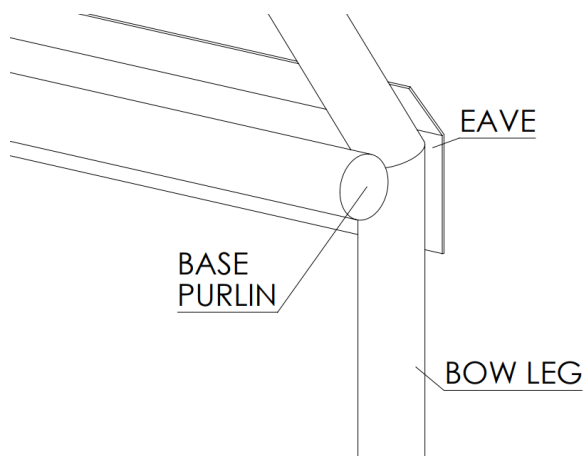


Figure 21. Eaves will be placed over the lowest arch of the bow and base purlin.

2. Install a screw 3 inches from the bottom of the eave and into the bow pipe as shown in Figure 22.
3. Ensure the eaves are level with the base purlins.
4. Put the splice piece over the break in the eaves to secure the assembly as shown in Figure 23. The splice piece will fill the gap in the eaves.



Figure 22. Screw will be located 3" above the bottom of the eave.



Figure 23. Splice piece will be used to close the gap in the eaves.

5. Insert 3 screws to secure the splice piece in the break.
6. Check assembled eaves for the following:
 - a. 1 screw on both ends 3 inches up from the bottom of the eaves securing them to the bow pipes
 - b. 3 screws where the splice piece is securing the break as shown in Figure 24.



Figure 24. 3 screws will be used to secure the splice piece as shown here.

2.2.9 Installing Door & Ground Pipes

1. Locate the front of the greenhouse where the door will be installed.
2. Place a temporary marker at the midpoint of the front wall.
3. Measure 18.5 inches from the temporary marker in both directions. Make marks at these points. There should be 37 inches between the markers. See Figure 25.
4. Burn a hole on the **OUTER** side of the marks for the door pipes.
5. Hammer one of the door pipes into the holes.
6. Ensure that the pipe is 6 inches off the ground.
7. Check that the measurement between the installed door pipe and second hole is 37 inches.
8. Install the second pipe.
9. Along the back wall, place a temporary marker at the midpoint.
10. Measure 18.5 inches from the back wall temporary marker in both directions. Make marks at these points.
11. Burn a hole on the **OUTER** side of the marks for the back wall ground pipes.
12. Ensure that the pipe is 6 inches off the ground.
13. Check that the measurement between the installed back wall ground pipe and second hole is 37 inches.
14. Install the second back wall ground pipe.

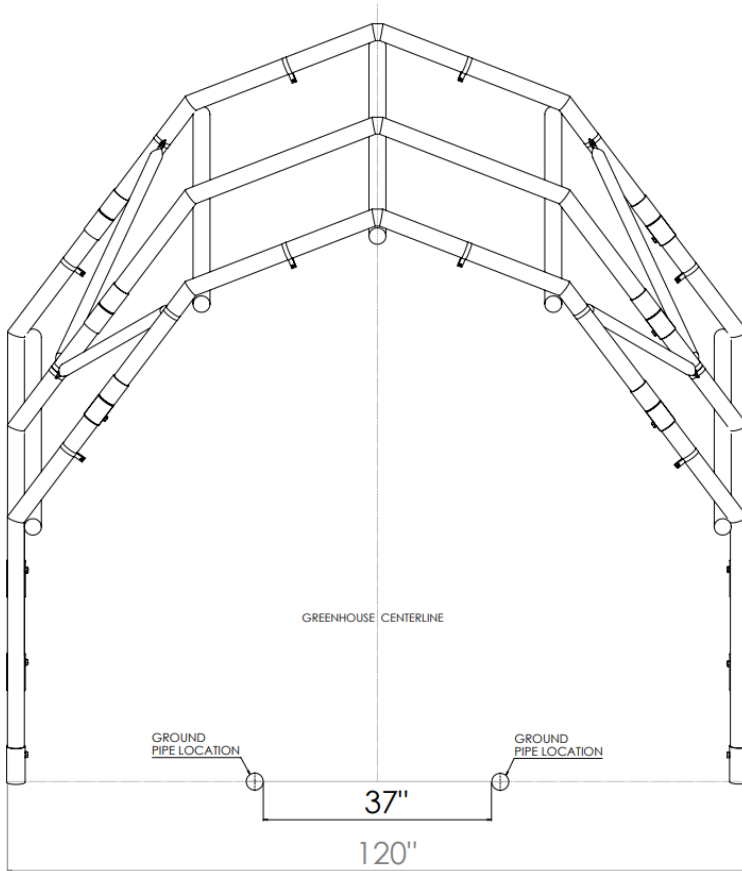


Figure 25. Door ground pipes will be installed to accommodate the pipes for the door assembly.

2.3.10 Inwall Pipe Installation

1. Locate the inwall pipe kits.
2. Assemble the inwall pipes by sliding the pieces together.
3. Place an assembled inwall pipe into each of the door ground pipes. Do NOT screw pipes down.
4. The inwall pipes will extend past the height of the front bow as shown in Figure 26.
 - a. Using a level, make a mark on the inwall pipe where it meets the bottom of the front bow.
 - b. Make two marks along the sides of the inwall pipe.

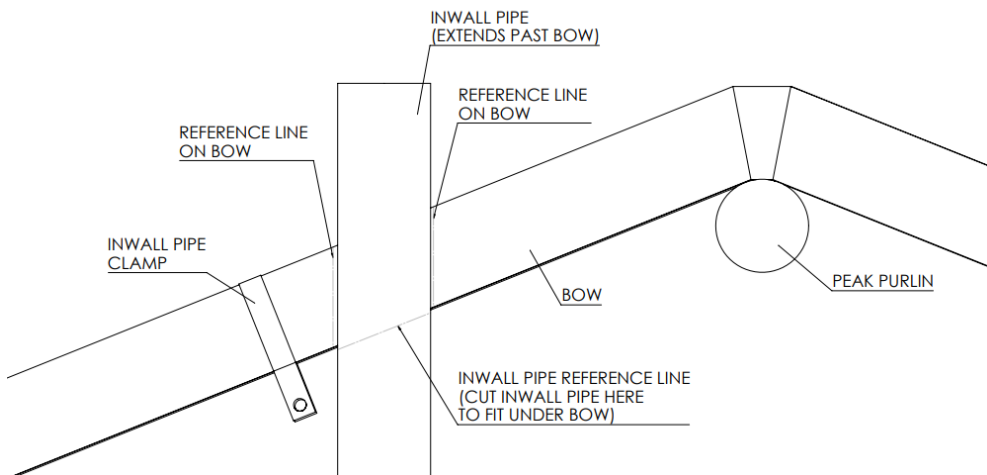


Figure 26. Inwall pipe will extend past the bow.

5. Remove the inwall pipe from the door ground pipe and cut the inwall pipe at mark made in step 4a.
6. Place 3 clamps on the inwall pipes as shown in Figure 27.
7. Place the clamped inwall pipes back into the door ground pipes.

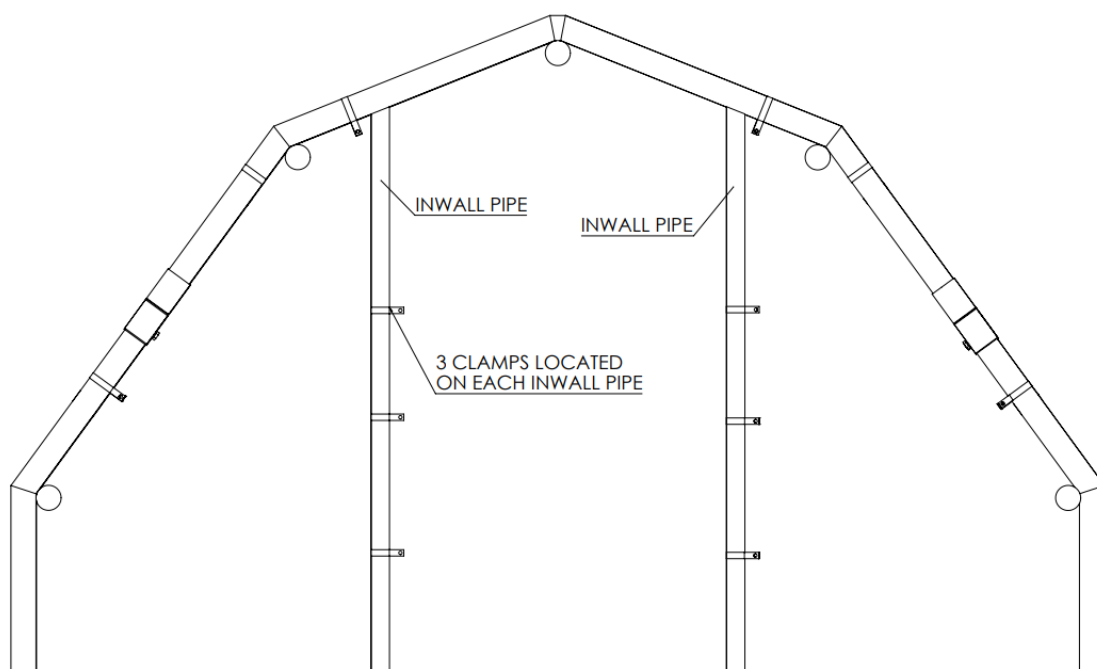


Figure 27. Inwall pipes will be cut to the proper length and each have 3 clamps.

8. The inwall pipe should now meet the front bow as shown in Figure 28.

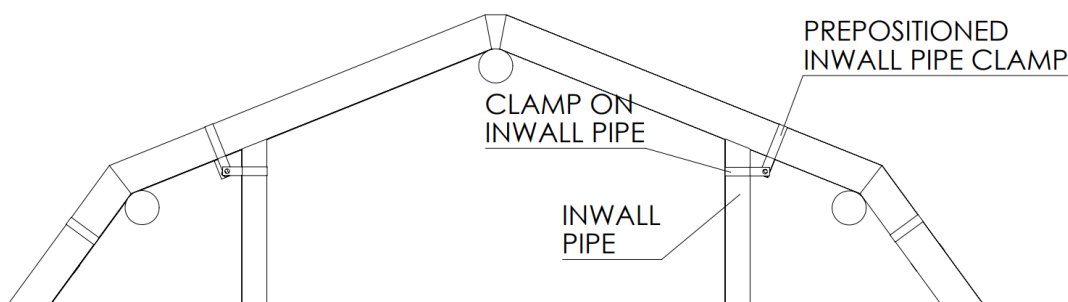


Figure 28. Assembled frame with inwall pipes.

9. Push the top clamp on the inwall pipe to the peak until it meets the prepositioned clamp on the top of the bow.
10. Secure the inwall pipe clamp to the clamp on the top of the bow. See Figure 29.



Figure 29. Installed and secured inwall pipe.

11. Check that the measurement between the installed inwall pipes is 37 inches. See Figure 30.

12. Repeat steps 1-11 for the back wall ground pipes.

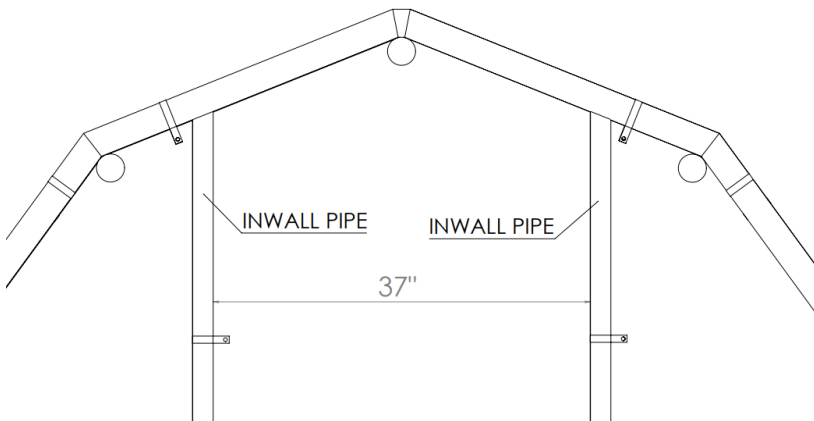


Figure 30. Check the distance between the inwall pipes before securing the inwall pipes.

2.3.11 Cross Pipe Installation

1. Place 2 clamps on the cross pipe.
2. Secure one of the clamps on the cross pipe to the prepositioned cross pipe clamp on the front bow.
3. Secure the bottom clamp on the inwall pipe to the clamp on the free side of the cross pipe.
4. Repeat step 1-13 for the cross pipe on the opposite side of the door.
5. Use the 2 remaining clamps on the inwall pipe to secure the third cross pipe in between the inwall pipes such that it is above the door as shown in Figure 31.

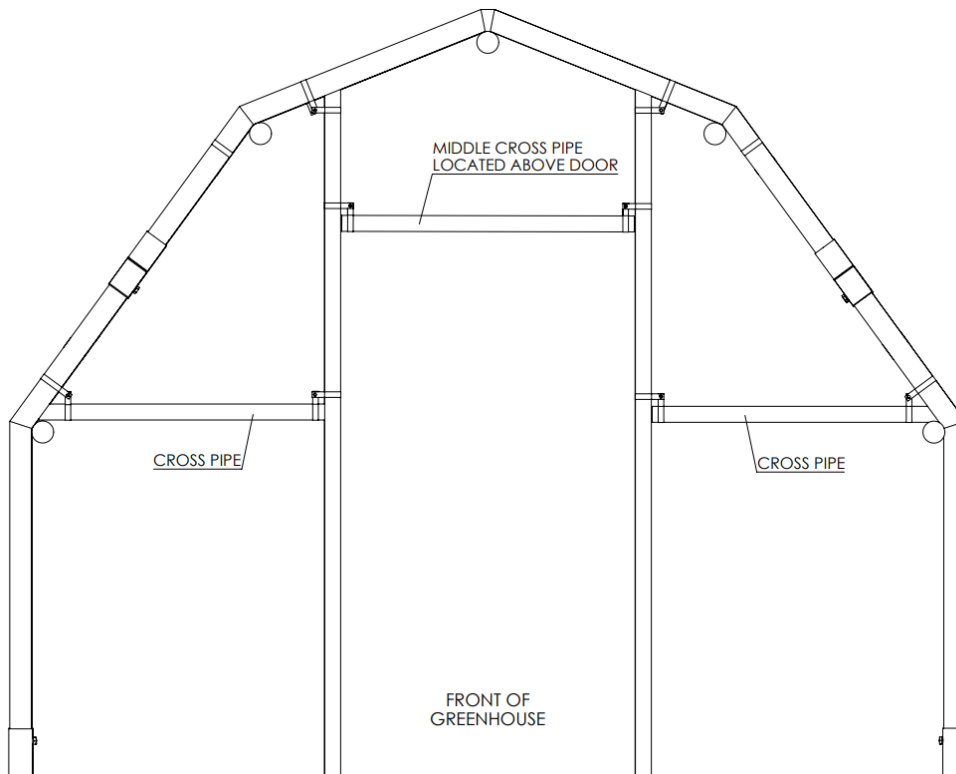


Figure 31. Front view of the greenhouse with installed cross pipes and middle cross pipe.

6. Repeat steps 1-16 for the back wall's ground pipes and inwall pipes.
 - a. The third back wall cross pipe will be located just above the other 2 cross pipes as shown in Figure 32.

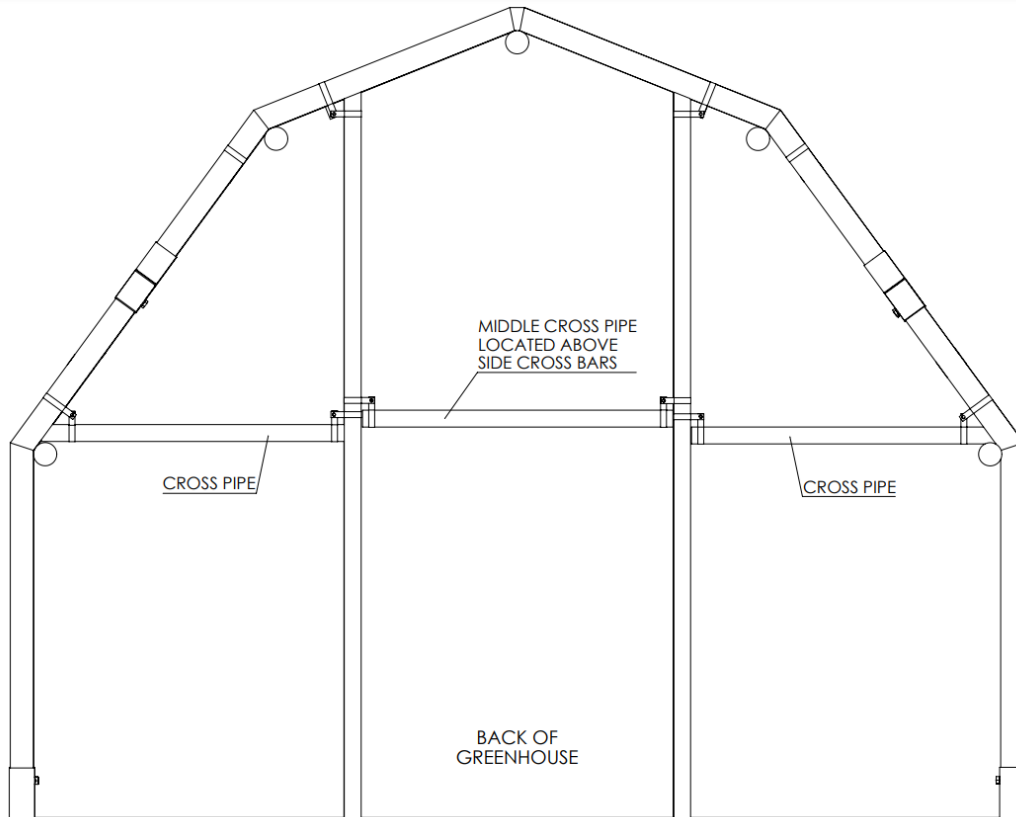


Figure 32. Back view of the greenhouse with installed cross pipes and middle cross pipe.

2.3.12 Door Installation

1. Use 2 bricks to prop the door up in between the inwall pipes.
2. Screw in the hinges. See Figure 33.
3. Attach the door latch as per Figure 34.



Figure 33. Detail view of door hinge.



Figure 34. Detail view of door latch.

2.3.13 Base Trim Finishing – Front & Back Walls ONLY

1. Place the base trim on the ground with the long side directed upwards and screw positioned as shown in Figure 35 across the length of the front wall.
2. Repeat step 1 for the back wall as shown in Figure 36.
3. Remove the batter boards from each corner of the frame.



Figure 35. Base trim installation along the front wall.



Figure 36. Base trim installation along the back wall.

2.2.14 Installing Poly Track

1. Layout and install the base trim poly track as shown in Figure 37.
 - a. Place poly track over the top edge of the front and back wall base trim and cut to length.
 - b. Screw the 5/16 tek screws directly into the inwall pipes to secure each end of the poly track.
 - c. Continue to secure the track by placing additional screws at 12-inch increments.

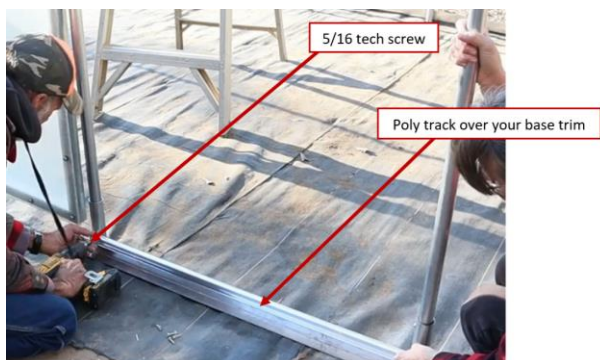


Figure 37. Covering the front and back wall base trim with poly track.

2. Layout poly track on the front bow, front wall cross pipe directly over the door, back bow, and inwall pipes.
 - a. Use the red reference lines shown in Figure 38.
 - b. Cut poly track at angles where the bows bend as shown in Figure 39.
 - c. Screw the 5/16" Tek screws directly into the bow pipes and cross pipes to secure each end of the poly track.
 - d. Continue to secure the track by placing additional screws at 12-inch increments.



Figure 38. Installation of poly track along the front face of the greenhouse.



Figure 39. Detail view of poly track installation at bow angles.

3. Layout and install the poly track on the eaves.
 - a. Use the red reference lines as shown in Figure 40.

- b. These tracks will go on the top short side of the eave for both side walls.
- c. Use the 5/16 tek screws to secure each end of the poly track through the base purlins.
- d. Continue to secure the track by placing additional screws at 12-inch increments along the eaves.

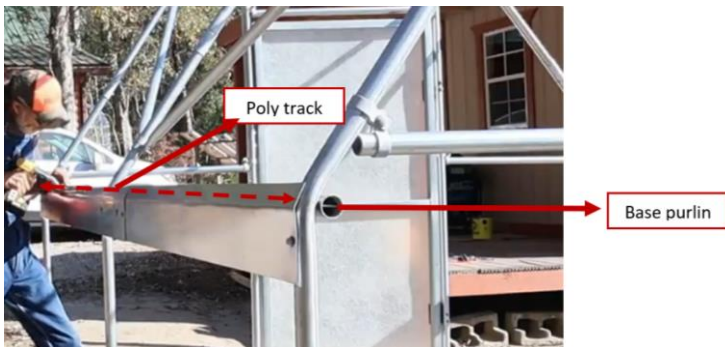


Figure 40. Poly track installed along the eaves.

2.3.15 Greenhouse Sheeting

1. Gently remove greenhouse cover from packaging.
2. One person will move along the greenhouse ensuring that the poly sheet unfolds cleanly and easily and does not snag.
3. Once the poly sheeting has been pulled over the greenhouse, ensure that there is enough spare to cover all four corners.
4. Make sure the poly extends at least 6 inches past the poly track.

2.3.16 Securing the Sheeting

1. Starting at one corner of the building, place the zigzag wire in the poly track base using a back– and–forth motion.
2. Go the next corner and pull the poly sheet tight.
3. Secure with the wire.
4. Repeat for the remaining corners.
5. Once the corners are secure, continue to secure the poly sheeting with zigzag wire down the length of the greenhouse.
6. Once the sheeting is secure along the sidewall, pull the sheet tight over the endwall.
7. Secure to the poly track base at the bottom of the endwall using zigzag wire as shown in Figure 41.



Figure 41. Secure to the poly track base at the bottom of the endwall.

8. Repeat the process around the door.

2.3.17 Installing Roll Up Curtains

1. Slide roll bar pieces together and secure with 3/8" Tek screws on each side of the pipes where they attach.
2. Slide the roll cover handle bar onto the secured roll bar from step one.
3. Place the assembled and secured roll up bar against the side wall of the greenhouse.
4. Repeat for the second roll up bar on the opposite side of the greenhouse.
5. Move the roll up bar out to the edge of the plastic cover which should be 12-inches back from the edge of the greenhouse.
6. Roll the plastic cover around the roll up bar as shown in Figure 42.



Figure 42. The assembled roll bar will be placed next to the greenhouse with the plastic cover rolled around it.

7. Place a roll bar clip over the roll up bar and plastic cover.
8. Ensure that the cover is rolling up straight along the roll bar.
9. Secure the roll bar clips with 5/16" tek screws.
10. Measure 4 inches back from the front corners of the greenhouse and 4 inches out from the side of the greenhouse. Place a temporary marker at each of these points. Repeat for the back wall.
11. Insert a curtain stake at each of the temporary markers from step 10 (place the driving cap on the ground stake prior to hammering it into the ground).

2.3.18 Installing Holdbacks

1. Slip a clamp onto the hold back bar and insert the bar into the ground stake. **USE ONLY ONE CLAMP ON THE HOLDBACK BARS IN THE FRONT OF THE GREEN HOUSE NOT THE BACK HOLDBACK BARS.**
2. Secure the bottom of the hold back bar to the ground stake with a screw and secure the top of the holdback bar to your greenhouse as shown in Figure 43.
3. For the front holdback bars only:
 - a. Locate a clamp, a screw, and a nut.
 - b. Insert the screw through the first hole on the clamp, then insert the chain before inserting the screw through the second hole in the clamp. Secure the screw with a nut.
 - c. The chain should be in the middle of the clamp as shown in Figure 44.
4. Insert another clamp at the end of the chain. This will be used to hold the roll up curtains. Repeat this process for only your two front holdback bars.



Figure 43. Holdback pipes will keep the roll cover from blowing out in the wind.



Figure 44. The roll up bar will allow the cover to be rolled up.