ASSEMBLY INSTRUCTIONS

24’ X 8’ X 8’9” Garden Master

G-524 (3.5mm)

Your 24’ Garden Master Kit includes (2) double-decker benches and (2) hanging rods running the entire 24’ length of the unit. There is also (1) large Louver (12” x 24”) on the back end wall to enable your plants to have plenty of cross ventilation. You will assemble a front, middle, and back 8’ section simultaneously.

Assembly required - all pipe has been precut - no cutting is required.
It is important to panel the greenhouse frame once it is completed and before it is rained on. The protective coating on the fittings is to protect the fittings from rust due to moisture or condensation. The protective coating was not designed for the volume of water produced when the fittings are rained on for a period of time with out the paneling on the greenhouse.

TOOLS PROVIDED:
A. ¼” NUT DRIVER (Is included in the screw bag.)

TOOLS NEEDED:
A. VARIABLE SPEED DRILL
B. SCREWDRIVER
C. LONG SHARP KNIFE
D. TAPE MEASURE
E. STEP LADDER
F. PLIERS
G. DUCT TAPE
H. 2-3 tubes IS 800 Silicone Rubber Adhesive Sealant & a Caulking Gun
I. 8 oz. can of “Clear” PVC CEMENT (Available at a hardware store). **

**Follow the instructions on the glue can. Do not apply glue if it is colder than the instructions indicate for proper use.

▶ NOTE: GLUE DRIES VERY QUICKLY! Hold pipe into fitting for 30 seconds until the glue has set.

Please read instructions carefully and refer to the diagrams.

▶▶Attention:

There are two types of frame tubing in your kit. The Composite Tubing is a heavier thick-walled tubing that has a gray fiber weave throughout (looks like a fiber texture) while the PVC tubing is a thin-walled tubing. The super strong Composite Tubing will be used for the structural areas of the greenhouse frame. The PVC is used in areas where the pipe needs to be flexible to bend or in non-structural areas.

PARTS LIST

24'X 8'X 8'9" Garden Master

G-524, 3.5mm

*Please make sure your kit includes all the following parts before you begin assembly

NOTE: To conserve shipping space, U-Trim and 1/2" diameter pipe are sometimes inserted into 3/4" pipe tubing. Please check frame pieces before assembly.

ROLL BOX 1 138 lbs Box 1 & Inner Roll (23" x 23" x 44")

_____	7	42" x 145"	3.5mm Panels
_____	4	31" x 94 ½"	3.5mm Panels
_____	1	29" x 42"	3.5mm Panel
_____	1	33" Composite Tubing- Cross Bar with Snap T (for door) - Slotted	

Inside the roll: (With cardboard sleeve)

Bag #1	_____	6	5-Way Metal-T's
Bag #2	_____	810	1" Screws.
	_____	6	Metal Rings
	_____	6	1 ½" x 3/16" Machine Screws
	_____	6	3/16" Wing Nuts

Note: Bags 3 - 7 are used in the Extension Kit Frame

Bag #3	_____	6	5-way Metal-T
Bag #4	_____	4	4-way Metal-T
Bag #5	_____	6	4-Way 120° Metal-T
Bag #6	_____	6	4-Way 120° Metal-T

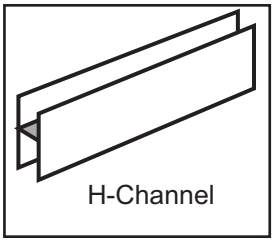
ROLL BOX 2 140 lbs Box 2 & Box 3 (23" x 23" x 51")

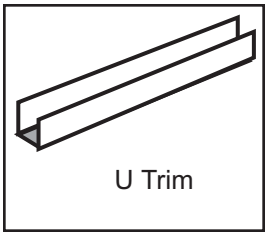
_____	4	49 ½" x 145"	3.5mm Panels
_____	1	42" x 145"	3.5mm Panels
_____	1	42" x 115"	3.5mm Panel
_____	1	36 1/2" X 80"	3.5mm Door Panel

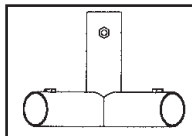
INNER BOX 3 58 lbs (10" x 10" x 50" Inner roll box)

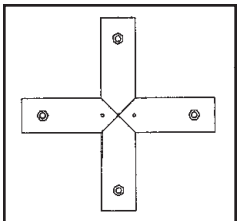
Bag #1_____	7	4-Way 120° Metal-T
Bag #2_____	7	4-Way 120° Metal-T
Bag #3_____	7	4-Way 120° Metal-T
Bag #4_____	8	Metal Corner Posts
Bag #5 &6___	8 ea	4-way Metal-T's (total 16)
Bag #7_____	6	3-Way 120° Metal Post
Bag #8_____	4	90° Metal Elbow
_____	12	Metal Rings

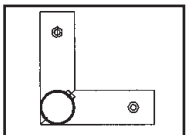
Bag 8 continues on next page.

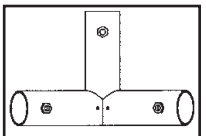

H-Channel

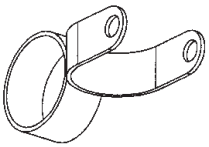

U Trim

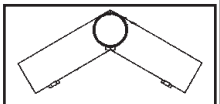

Metal Corner Post


Metal Cross

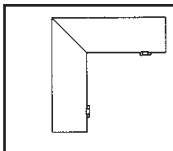

Metal Corner Post (Top View)

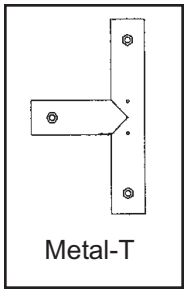

3-Way 120° metal post


Metal Ring


3-Way 120° metal post (Top View)


33" Composite Cross Bar with Snap T (for door) - slotted

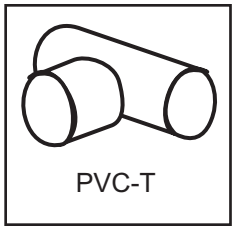

90° Metal Elbow

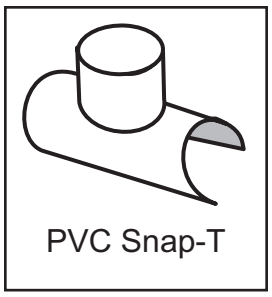

Metal-T

Bag #8 Cont.

_____	12	1 ½" x ¼" Bolts
_____	12	¼" Nuts
_____	5	Yellow Banding
_____	5	Metal Banding Clips
_____	38	Small Screws
_____	11	Large Black Zip Ties
_____	1	¼" Driver
_____	1	**Door Parts Bag**:

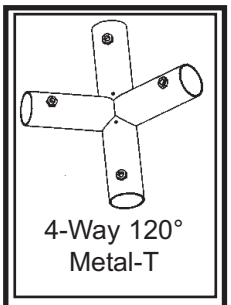
Outside Handle, Inside Handle, 3-point Cam
Hinge Bag: 1/4" x 1-3/4" Bolts (4), Lock Nuts (4), Hinge halves and pins (2), Flat Washers (2)
Door Parts Bag: 8/32 Hex Lock Nut, 3/8" Lock Nut, 32 x 1-3/4" Machine Screw, 1" Metal Screw, 4mm Allen Wrench
Door Cable Bag: Turnbuckle, 76" Wire Cable, 1/16" Wire Cable Clamps (2)

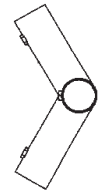

PVC-T

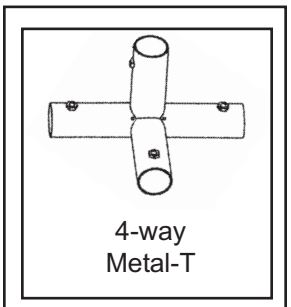

PVC Snap-T

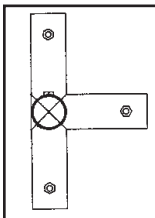
BOX 4 45 lbs (99" x 7 ¼" x 5")

_____	18	6' H-Channel
_____	3	94 ½" Composite Tubing - Green
_____	2	92" Composite Tubing - Red
_____	6	90" Composite Tubing - Yellow
_____	6	54 ¼" PVC pipes- Yellow
_____	3	35 ¾" PVC pipes - White
_____	3	35 ¾" Composite Tubing - White
_____	4	78" U-Trim
_____	1	3' H-Channel


4-Way 120° Metal-T


4-Way 120° Metal-T (Top View)


4-way Metal-T

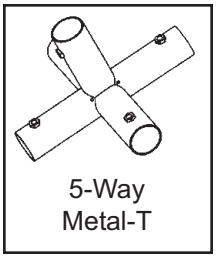

4-way Metal-T (Top View)

BOX 5 50 lbs (99" x 7 ¼" x 5")

_____	24	92" Composite Tubing - Red
_____	4	56" U-Trim
_____	1	36" U-Trim

BOX 6 39 lbs (99" x 7 ¼" x 5")

_____	12	54 ¼" PVC pipes - Yellow
_____	2	33" Composite Tubing -Black
_____	36	28" Composite Tubing - Green **(Double Slotted)**
_____	4	24" Composite Tubing - Orange **(Double Slotted)**
_____	4	22" Composite Tubing - White **(Double Slotted)**
_____	4	12 ½" PVC pipes - White


5-Way Metal-T

BOX 7 39 lbs (78" x 7 ¼" x 5")

_____	18	75" Composite Tubing - Orange **(Single Slotted)** (Used in all 3 units)
_____	1	74" Composite Tubing BLACK (With Holes for Hinges)
_____	1	74" Composite Tubing BLACK (no Holes)
_____	2	76" Side Door Casing (1 with Hinge Pieces)
_____	1	38" Top Door Casing
_____	8	18" PVC pipe - ½" diameter

BOX 8 8' Extension Kit 49 lbs (99"x 7 ¼" x 5")

_____	1	94 ½" Composite Tubing - Green
_____	13	92" Composite Tubing - Red
_____	2	90" Composite Tubing - Yellow
_____	6	75" Composite Tubing - Orange **(Single-Slotted)**
_____	6	6' H-Channel

BOX 9 8' Extension Kit 30 lbs (78"x 7 ¼" x 5")

_____	8	75" Composite Tubing - Orange (no Slots, some to be used in end units)
_____	8	54 ¼" PVC pipes - Yellow
_____	16	28" Composite Tubing - Green **(Double-Slotted)**
_____	1	35 3/4" Composite Tubing - White

BOX 10 8' Extension Kit 18 lbs (24" x 12" x 12" box)

_____	2	24" Composite Tubing - Orange **(Double-Slotted)**
_____	2	22" Composite Tubing - White **(Double-Slotted)**

Bag #1	_____	22	PVC Snap T's (includes 1 extra)
Bag #2	_____	25	PVC Snap T's

Note: Bags 3- 8 are used in the front and back sections

Bag # 3-6	_____	25 ea	PVC Snap T's (100 total)
Bag #7	_____	12	H-Channel Clips

BOX 11 6 lbs (28" x 15" x 5")

_____	1	Louver Assembly

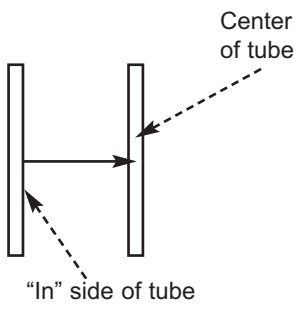
Packed by:_____

Date: _____

Hints for Preassembly

A.

▶▶Note: All measurements are taken from the "in" side of one tube to the center of the other tube so one person can easily take the measurement by her/himself.



B.

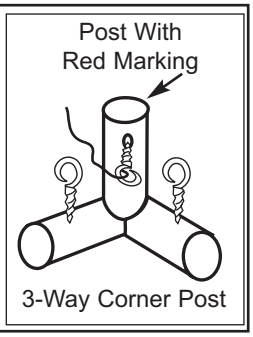
▶▶NOTE: Attaching Snap T's this way prevents pinched fingers! Use a small pipe and step on the Snap-T.

C.

▶▶Note: Tubes that are double-slotted have slots on each end. Single-slotted tubes only have slots on 1 end. All Slotted ends attach to Snap-T's.

D.

▶▶Note: The 3-Way Metal Corner posts have a red mark on the "dead end" arm. In order for all measurements to be correct, the 3-Way Metal Corner Posts must be oriented correctly on the Base Frame and on the End Wall Frames. Follow Ithe directions carefully about where the red arm is pointing. Please look at these fittings and check out the arm with the red marking.



E.

▶▶PVC Pipe is White and flexable. Composite Pipe is white with small gray fibers throughout and will not bend.

F.

▶▶Very Important!! NEVER glue the underside of the Snap T. You need to be able to slide the Snap-T along the pipe. You only glue tubes into the enclosed arm

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1. SIDE WALLS

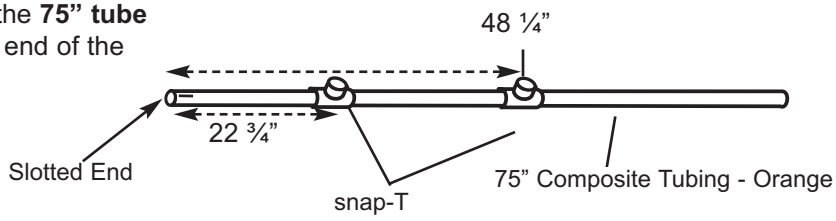
Pieces Required:

8	75" Composite Tubing - ORANGE
18	75" Composite Tubing - ORANGE (Single Slotted)
52	Snap-T's

Make 26

1. Attach 1 **snap-T** about 23" from the end of the **75" tube** and a second snap-T about 48 ¼" from the end of the tube.

   Side Walls are used in step 7.



Step 2. is deleted.
Go to Step 3

3. TOP RIDGE FRAME, BENCH & BASE RODS

Pieces Required:

27 4-way 120° Metal-T's
6 3-Way 120° Metal posts
33 92" Composite Tubing - RED
78 Snap-T's

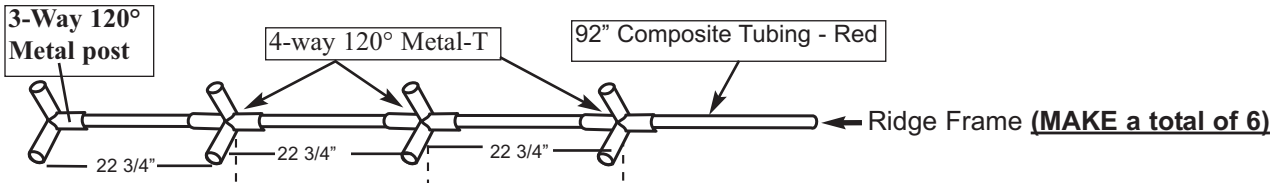
Making the Ridge Frames

Complete as shown on a level surface so the Top Ridge Frame will be flat and not twisted. Top Ridge Frame is used in Step 9, Top Ridge Assembly.

1. Insert a **3-Way 120° Metal post** snugly on one end of a **92" Composite tubing - Red** and tighten eyebolt. (Insert a screwdriver or long bolt through the eyebolt and twist the eyebolt clockwise.)

2. Slide a **4-way 120° Metal-T** over the 92" tube so that the distance from the inside of the 3-Way 120° Metal post to the center of the 4-way 120° Metal-T is 22 3/4". Twist the eyebolts tight.

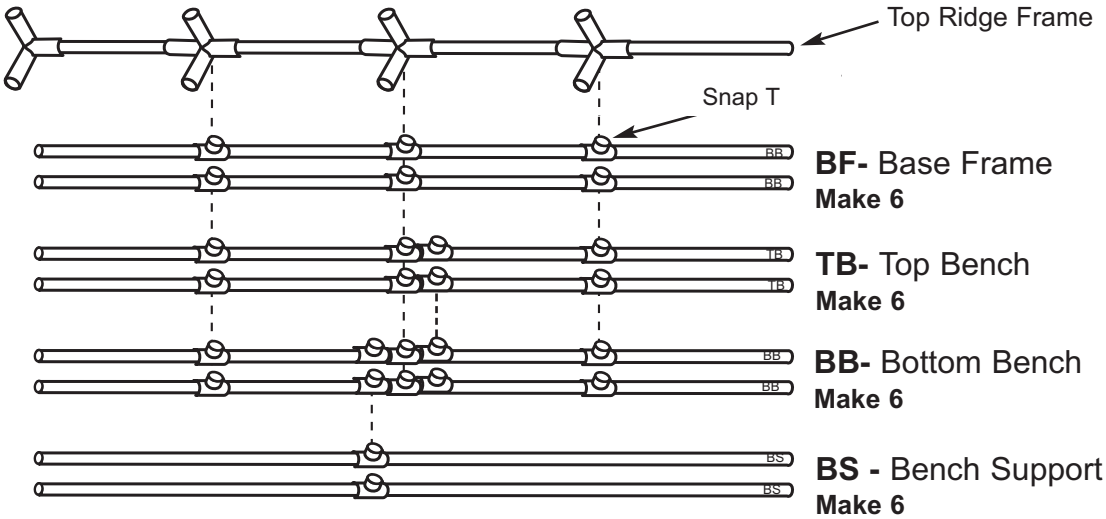
3. Slide over the 2nd **4-way 120° Metal-T** so the distance from the inside of the 1st 4-way 120° Metal-T to the center of the 2nd 4-way 120° Metal-T is 22 3/4" - tighten. Slide over the 3rd **4-way 120° Metal-T** so the distance from the inside of the 2nd 4-way 120° Metal-T to the center of the 3rd 4-way 120° Metal-T is 22 3/4" - tighten.



4. Repeat step 1-3 to make a total of 6. Then Make **3 more** with no 3-Way 120° Metal post on the end.

Aligning the Snap-T's

5. Use a Top Ridge Frame to line up the **Snap-T's** on the remaining 92" tubes. Follow the pattern below. Label the tubes (**BF**, base frame; **TB**, top bench; **BB**, bottom bench; **BS**, bench support) with a permanent marker to lessen confusion about the tubes in later steps.



FRAME ASSEMBLY

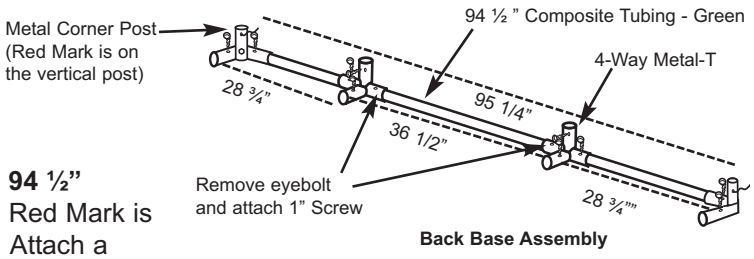
4. BASE FRAME

Make sure working surface is clean and level.

Pieces required:

4 Metal Corner Posts
8 4-Way Metal-T's
4 5-Way Metal-T's
4 94 ½ " Composite Tubing - GREEN
6 BF - 92" Composite Tubing - RED (from step 3)
6 BS - 92" Composite Tubing - RED (from step 3)
8 1" Screws

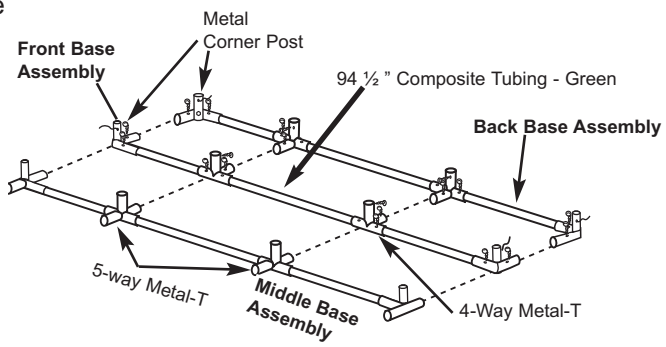
NOTE: It is important that the corner post is put on the right way. (Red Mark is pointing up)



Back Base Assembly

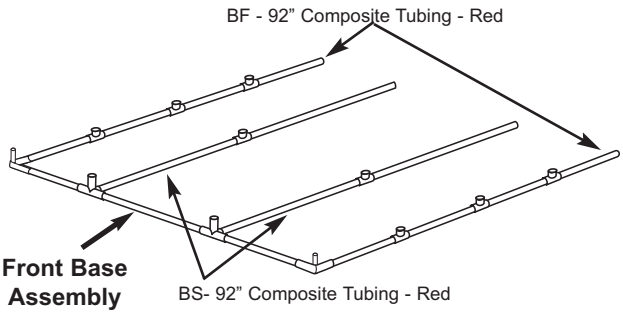
1. **Back Base Assembly.** Slide two **4-Way Metal-T's** onto a **94 ½" Composite Tube**. Attach a **Metal Corner Post** (post with Red Mark is vertical) to one end of the 94 ½" pipe and tighten eyebolt. Attach a Metal Corner Post to the opposite end and adjust the Metal Corner Post so that the measurement from "in" side of one Corner Post to the center of the opposite Corner Post is 95 1/4 ". Secure each 4-way Metal T at 28 ¾" ("in" side to center) from each Metal Corner Post with eyebolts on the outside arms and 1" screws on the inside arms (see illustration).

2. **Front Base Assembly.** Repeat the above step using the Back Base Assembly as a measuring device for Metal Post placement.

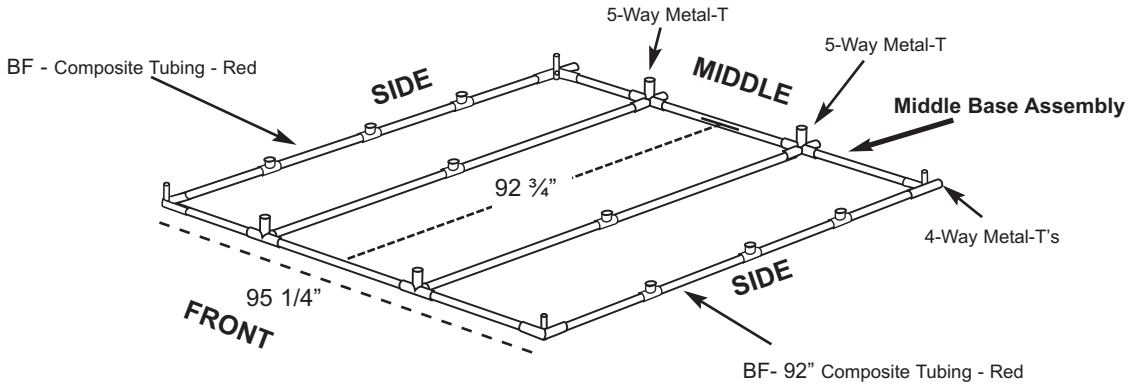


3. **Middle Base Assembly**. On the remaining **94 ½ " tubes**, attach two **5-way Metal-T's** to be inline with the 4-way Metal-T's above and attach a **4-way Metal-T** on each end. (**Make a total of 2)**

4. Attach 2 **BF- 92" Composite Tubes** to the Metal Corner Posts of the Front Base Assembly. Attach 2 **BS - 92" Composite Tubes** to the 4-way Metal-T's of the Front Base Assembly. Tighten eyebolts



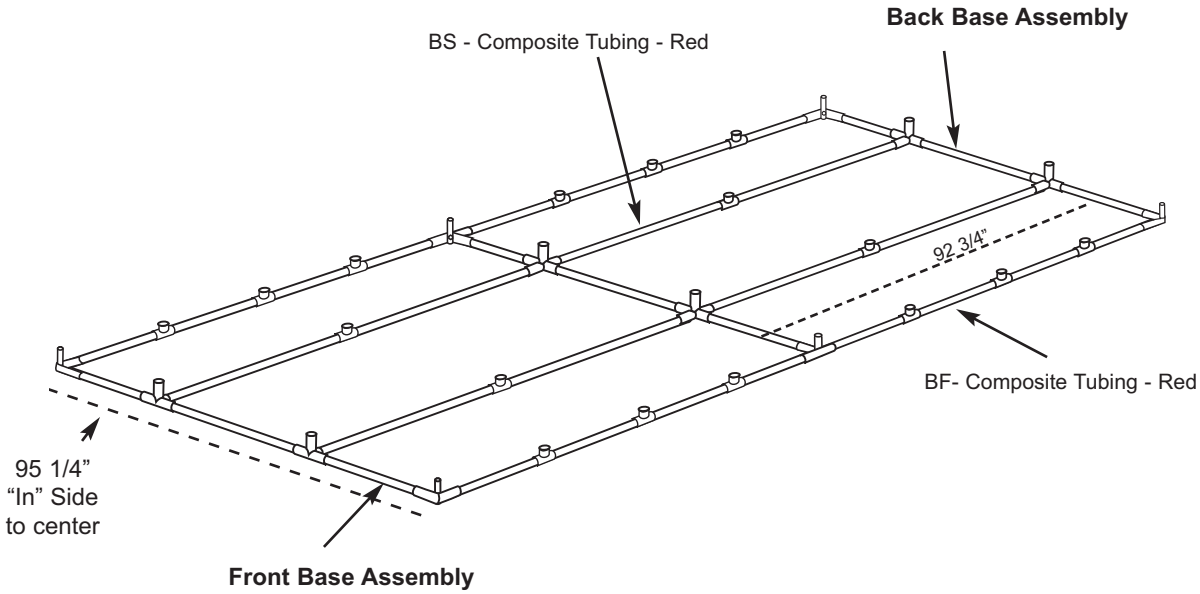
5. Attach one of the **Middle Base Assemblies** to the 92" BS tubes (pushing them all the way into the 5-way Metal-T's and the 92" BF tubes all the way into the 4-way Metal-T's) You should set the measurement to 92 ¾" from the "in" side edge of the Front Base Assembly to the center of the Middle Base Assembly.



6. Make the 2nd 8’ section by repeating sub steps 4 and 5 of step 4 but feeding off of the middle base assembly that you just used instead of the front base assembly.

7. Make the 3rd 8’ section by repeating sub steps 4 and 5 of step 4. Attach the fittings of the Back Base Assembly to the open ends of the 92” tubes. Push the 92” BS tubes all the way into the 4-way Metal-T’s on the Back Base Assembly. Adjust the Metal Corner Posts so that the measurement from the “in” side edge of the Middle Base Assembly to the center of the Back Base Assembly is 92 ¾”.

8. Double check the measurements on all 3 sections to make sure each measures 92 3/4” from the “in” side of one of the 94 ½ ” Composite Tubing - GREEN to the center of the next 94 ½ ” Composite Tubing - GREEN.



Please note that from here going forward the drawings depict the front and back 8’ sections only. The middle section is included in the parts lists for each step and in the written instructions. The middle section(s) fits in between the front and back sections.

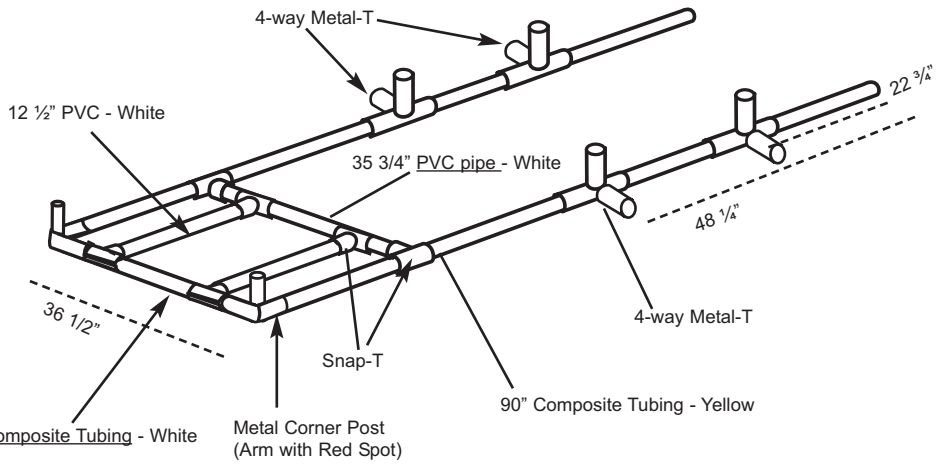
5. END WALL FRAMES

▶▶Be sure to get the 35 3/4" PVC and the 35 3/4" composite tubing in the right spots.

5A. Front End wall Frame

Pieces Required:

2 90" Composite Tubing - YELLOW
2 Metal Corner Posts
1 35 3/4" PVC Pipes - WHITE
1 35 3/4" Composite Tubing - WHITE
6 Snap-T's
2 12 ½ " PVC pipes -WHITE
4 4-way Metal-T's



Note: On Metal Corner Post, the arm with the Red Mark attaches to 90" Composite Tube -Yellow

1. Slide each **90" Composite Tube - Yellow** snugly into a **Metal Corner Post** (insert tube into the arm with the Red Mark) and tighten eyebolt. Attach **35 ¾" Composite Tube** between the Metal Corner Posts on the 90" Composite Tube. Adjust 90" Composite Tube so the distance between the Metal Corner Posts is 36 1/2" from inside to center - tighten eyebolts.

2. Attach a **Snap-T** to each 90" Composite Tube about 13" below the Metal Corner Post. Insert and glue **35 ¾" PVC pipe** - **White between** the Snap-T's.

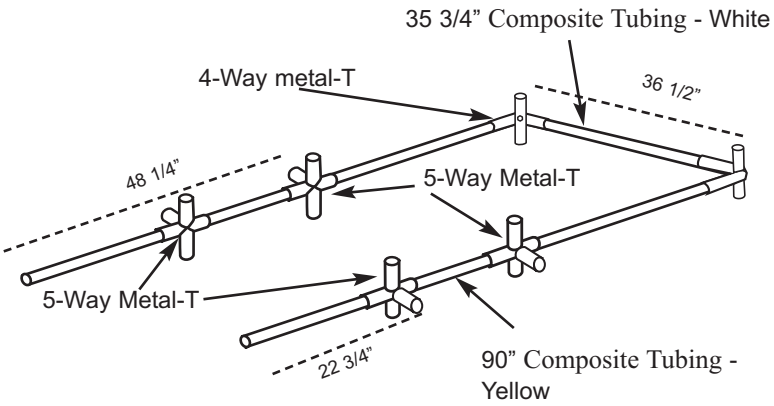
3. Attach two **Snap-T's** to both 35 ¾" pipes. Attach and glue **12 ½" pipes** between the Snap-T's. Slide over each 12 ½" pipe to the edge of the Metal Corner Posts.

4. Slide two **4-way Metal-T's** on one 90" Composite Tube. On the opposite 90" tube, slide on two **4-way Metal-T's** (Note direction of the posts). Tighten bottom 4-way Metal-T at 22 ¾" from the bottom of the 90" Composite Tube and tighten the top 4-way Metal-T at 48 ¼" from the bottom of the 90" Composite Tube.

5B. Middle End wall Frames

Pieces Required:

4 90” Composite Tubing - YELLOW
4 4-way Metal-T’s
2 35 3/4 ” Composite Tubing - WHITE
8 5-way Metal-T’s



1. Slide each **90” Composite Tube** -**Yellow** snugly into a **4-way metal-T** and tighten eyebolt. Attach **35 ¾” Composite Tube - White** between the 4-way metal-T’s of the 90” Composite Tube. Measure the distance between the 4-way metal-T’s and adjust to 36 1/2” from “in” side to center. Snugly tighten eyebolts.

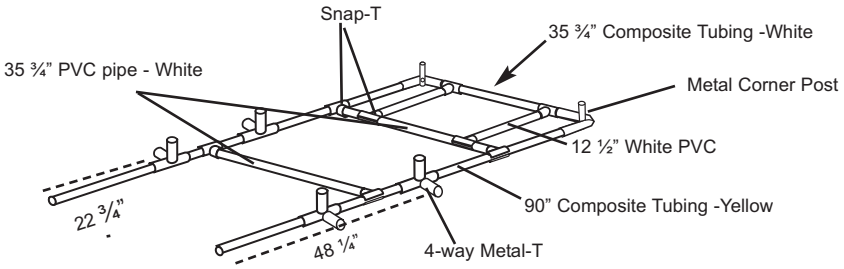
2. Slide two **5-way Metal-T’s** on each 90” Composite Tube - yellow (note the direction of the posts). Tighten eyebolts of the top posts at 48 ¼” and the bottom posts at 22 ¾”.

3. Repeat steps 1 & 2 for the 2nd Middle End wall.

5C. Back End Wall Frame

Pieces Required:

2 90” Composite Tubing - YELLOW
2 Metal Corner Posts
4 4-way Metal-T’s
2 35 ¾” PVC Pipes. - WHITE
1 35 ¾” Composite Tubing - WHITE
8 Snap-T’s
2 12 ½” PVC pipe -WHITE



1. Slide each **90” Composite Tube** snugly into a **Metal Corner Post** (insert tube into the arm with the Red mark) and tighten eyebolt. Attach a **35 ¾” Composite Tube** between the Metal Corner Post on the 90” Composite Tubes into the corner posts. Adjust metal corner posts so the distance between the Metal Corner Posts is 36 1/2” from inside to center - tighten eyebolts.

2. Attach a **snap-T** to each 90” Yellow Composite Tube, about 13” below the Metal Corner Posts. Insert and glue **35 ¾” PVC pipe** between the snap-T’s.

3. Attach two **snap-T’s** onto both 35 ¾” pipes. Attach and glue (We recommend dry fitting the 12” fan or louver in this opening before gluing) **12 1/2” pipes** between these snap-T’s. Slide over each 12 ½” pipe so it is 10 ½” in from the closest side of the closest 90” tube. Leaving about 13 ½” between the 12 ½” pipes.

NOTE: *This spacing applies when installing a 12” Exhaust Fan. If installing a 16’ fan or larger, replace the 12 ½” pipes with the larger pipes included with the fan (refer to Fan installation instructions).*

4. Slide two **4-way Metal-T’s** on each 90” Composite Tube (note the direction of the posts). Tighten the top 4-way Metal-T’s at 48 ¼” and the bottom 4-way Metal T’s at 22 ¾”.

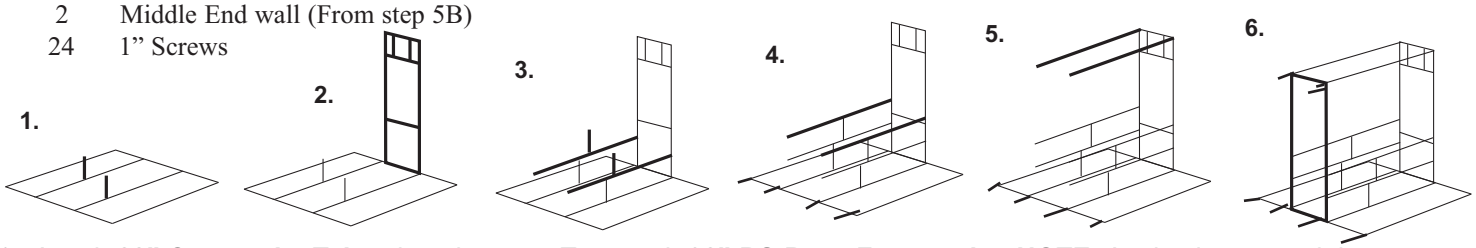
5. Attach a **snap-T** on each 90” Composite Tube between the top and bottom 4-way Metal T’s. Insert and glue **35 ¾” PVC pipe** into snap-T’s.

6. HANGING RODS & BENCH RODS

Pieces Required:

6 22” Composite Tubing - White
1 Back End wall (From step 5C)
6 BB -92” Composite Tubing - RED (from step 3)
6 24” Composite Tubing - Orange
6 TB -92” Composite Tubing - RED (from step 3)
6 92” Composite Tubing - RED
1 Front End wall (From step 5A)
2 Middle End wall (From step 5B)
24 1” Screws

Two people & ladder recommended!



1. Attach **22” Composite Tubes** into the snap-T on each **92” BS Base Frame tube. NOTE:** Apply glue around the outer end of the tube and inside the snap-T fitting hole for lubrication so the tubing will be easier to slide into the snap-T’s. The glue does not adhere to the Composite Tubing, so you will have to secure the tubing by drilling a **1” Screw** through the top of the snap-T and into the 22” Composite Tube.

2. Attach **Back Endwall** to 4-way Metal T’s on the Base Frame -tighten eyebolts.

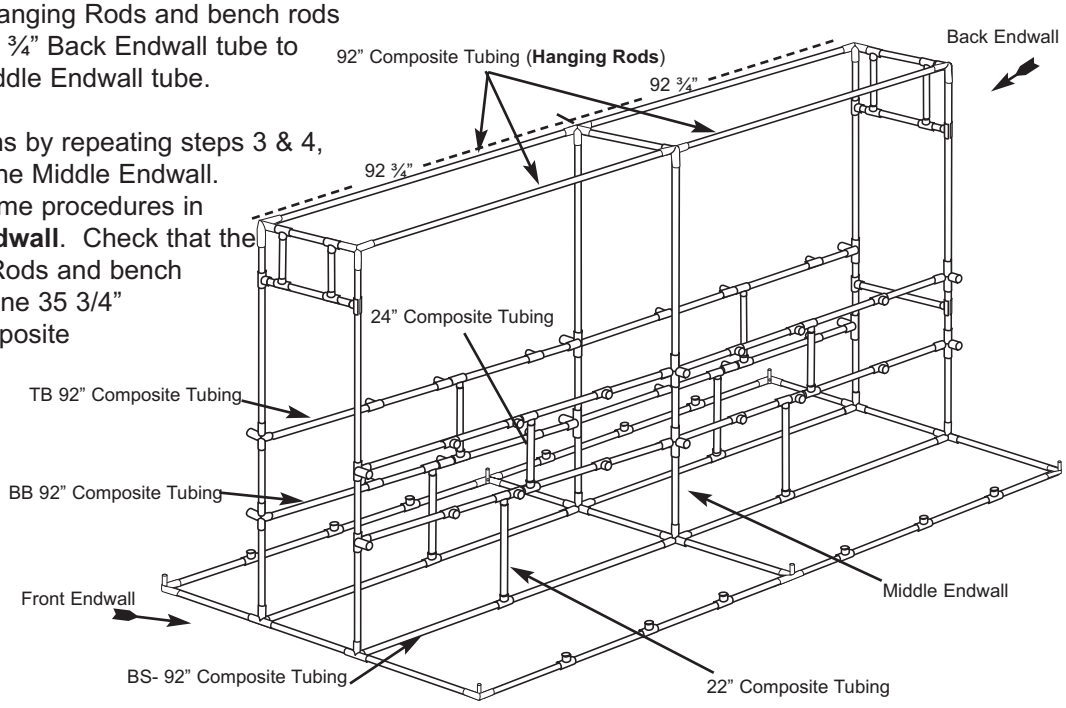
3. Insert the **BB - 92” Composite Tubes** into the bottom 4-way Metal T’s on the 90” Back Endwall- tighten eyebolts. (Attach the end that is marked BB from step 4 into the post). Attach the opposite end of the 22” Tube into the snap-T on the 92” Base Frame tube. Attach the **24” Composite Tube** into the snap-T (right of center) on the BB- 92” Composite Tubes. Secure all snap-T’s to the tubes with 1” Screws.

4. Insert the **TB - 92” Composite Tubes** into the top 4-way Metal T’s on the 90” Back Endwall -tighten eyebolts. (Attach the end that is marked TB from step 4 into the post). Attach 24” Composite Tubes to snap-T (right of center) on TB - 92” Composite Tubes with 1” Screws.

5. Use a marker and draw a line 2 ¾” from both ends of two **92” Composite Tubes**. Put 92” Composite Tubes into the top Metal Corner posts on the Back Endwall. Slide tubes into the post until the line marked on the tube is even with the post -tighten eyebolt.

6. Lift a **Middle Endwall** and attach to the 4-way Metal T’s on the Middle Base Frame - tighten eyebolts. Insert the opposite sides of the 92” Composite Tubes into the corresponding Metal Fittings of the Middle Endwall - tighten eyebolts. Check that the measurements of the Hanging Rods and bench rods are **92 ¾”** from inside of one 35 ¾” Back Endwall tube to center of the opposite 35 ¾” Middle Endwall tube.

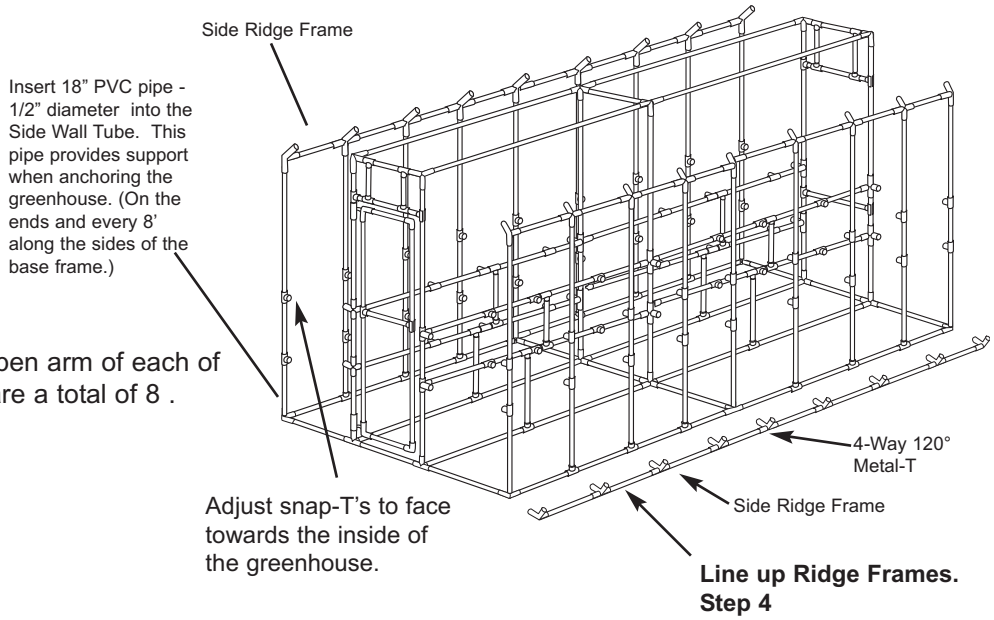
7. Complete 2nd and 3rd 8’ sections by repeating steps 3 & 4, attaching all the 92” tubes into the Middle Endwall. Tighten eyebolts. Follow the same procedures in Step 5-6 inserting the **Front Endwall**. Check that the measurements of the Hanging Rods and bench rods are **92 ¾”** from inside of one 35 3/4” Endwall tube to center of the opposite 35 3/4” Endwall tube.



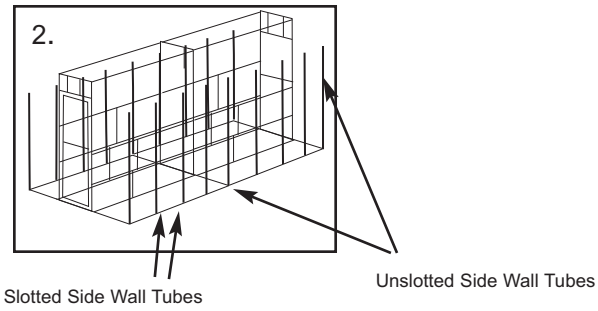
7. SIDE WALLS

Pieces required:

26 Side Wall tubes, made in step 1
6 Ridge Frames, made in step 3
4 4-way 120° Metal-T's
8 18" PVC pipe - 1/2" diameter
18 1" Screws



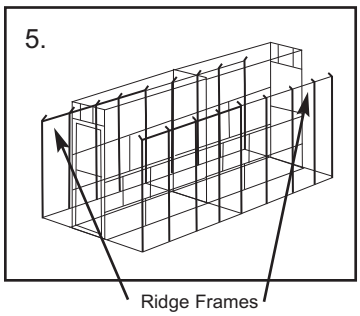
1. Slide 1 18" PVC Pipe- 1/2" diameter into open arm of each of the metal fittings on the Base Frame. There are a total of 8 .



2. Locate the 8 **Side Wall tubes (without slots)**. Draw a line 2¾" from the top, (the end opposite the end with the Snap-T's.) Slip each Side Wall Tube over the 18" PVC pipe that you placed in Step #1 and into the Metal Fittings. Tighten the eyebolts.

3. Insert the 18 remaining Side Wall tubes (Single Slotted) into the snap-T's on the BASE FRAME. **Use glue to help lubricate the tube to make it easier to slide into the snap-T's. Make sure Side Wall tubes are seated all the way into the snap-T's. The glue does not adhere to the Composite Tubing, so you will need to secure the tubing by drilling a screw through the top of the snap-T and into the Side Wall Tube.** On each Side Wall Tubes, adjust the snap-T's so they face towards the inside of the greenhouse.

4. Line up an **8' Ridge Frame** with the first 8' section of the base frame. Make sure the snap-T's and the Metal fittings on the base frame are lined up with the Metal Fittings of the Ridge Frame. Add a **4-Way 120° Metal-T** to the end of the Ridge Frame and line it up with the 4-Way Metal-T on the Base Frame. Attach another 8' Ridge Frame to the open end of the 120° Cross. Make sure the snap-T's on the second section of the Base Frame and Metal Fittings on the 2nd Ridge Frame also line up. Join the third Metal Ridge to the 2nd section using a second **4-Way 120° Metal-T**. Tighten all the eyebolts.



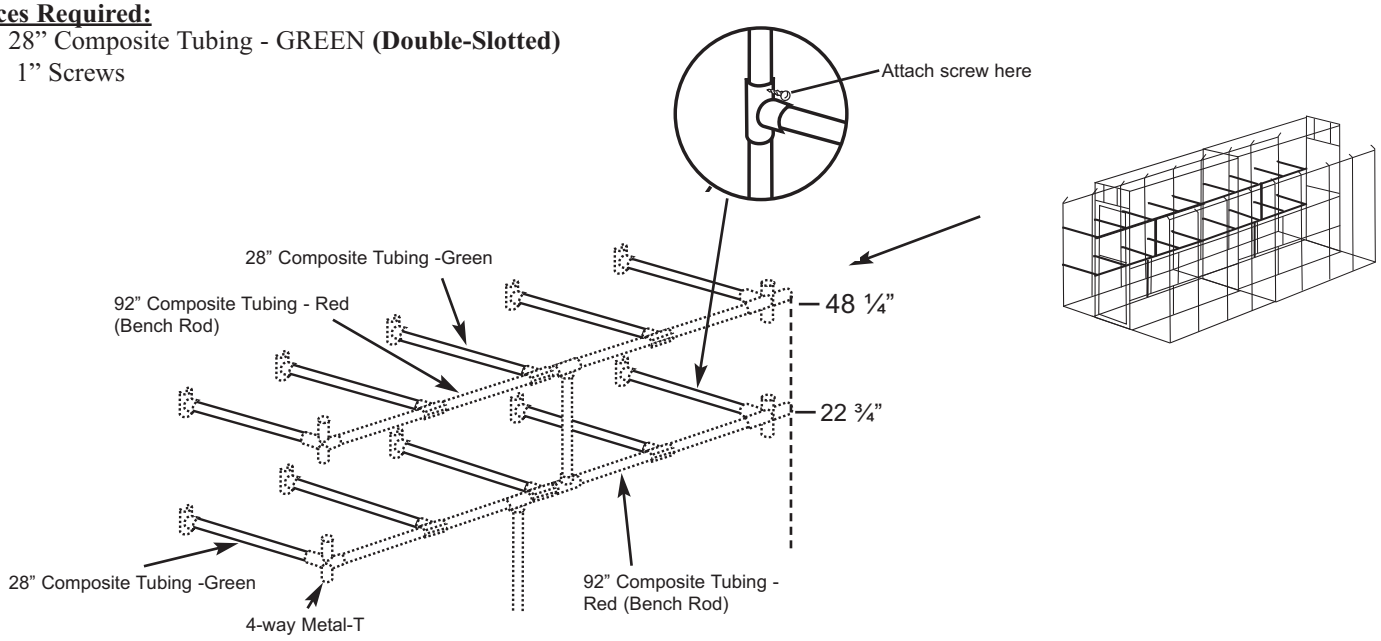
5. Pick up the 3 sections of the Ridge Frame and place them on top of the Side wall tubes. Each Side Wall Tube will be inserted into an open arm of a Metal Fitting. Adjust the Ridge Frame so the fittings just stop at the line you drew on the 8 tubes. Tighten the eyebolts. Then repeat sub-steps 4 and 5 of Step 7 (above) for the other side wall.

8. BENCH ASSEMBLY

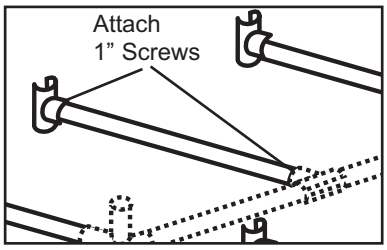
Pieces Required:

52 28” Composite Tubing - GREEN **(Double-Slotted)**

96 1” Screws



1. Insert eight **28” Green Composite Tubes** into the 4-way Metal-T’s on the end walls. Attach the opposite ends of the 28” pipes into the composite tubing (**NOTE: Apply glue around the outer end of the pipe and inside the snap-T fitting hole for lubrication so the tubing will be easier to slide into the snap-T’s.** The glue does not adhere to the Composite Tubing, so you will have to secure the tubing by drilling a **1” Screw** through the top of the snap-T and into the 28” Composite Tube. Attach the remaining 28” Composite Tubes between the snap-T’s on the rib pipes and the snap-T’s on the 92” Bench Rods using glue to lubricate and 1” Screws to secure.



2. Double check measurements and make sure that 4-way Metal-T’s on the End walls are at 22 ¾” and 48 ¼” from the top of the base frame tube to the center of the fitting.

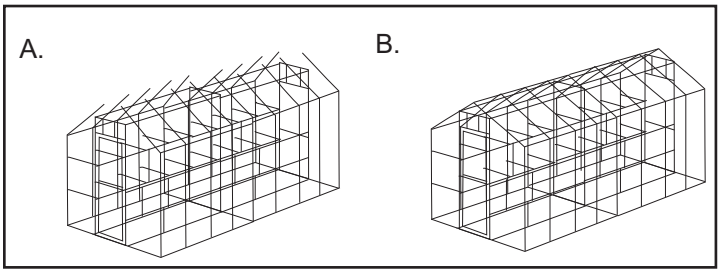
3. Adjust Bottom Bench Frame pipes (by moving snap-T’s on the Ribs up or down) so snap-T’s of each bottom bench frame are at an equal height. HINT: Use a rubber mallet to tap the pipe up or down.

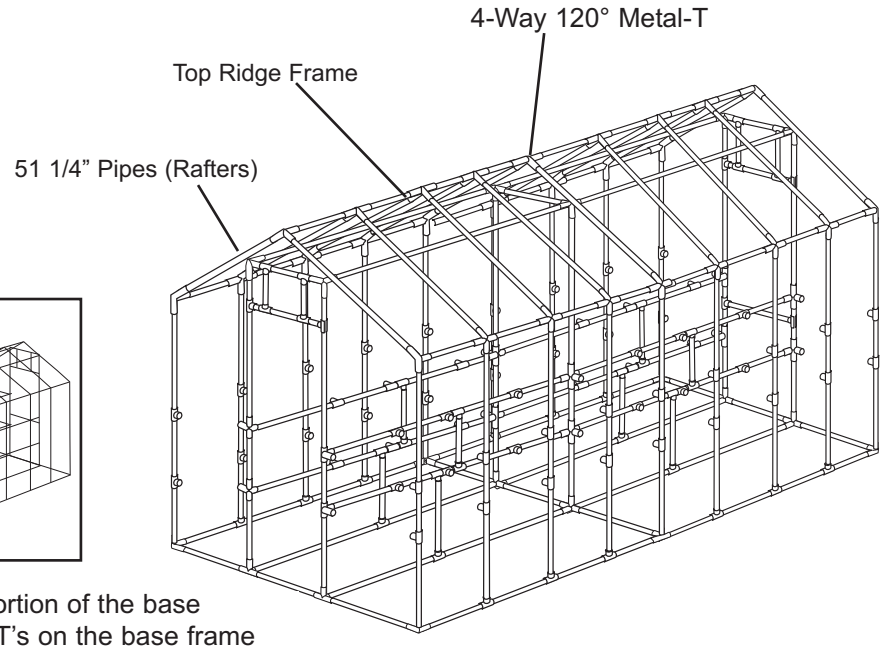
4. After everything is level **on the bottom bench**, attach a **1” Screw** through the top of the vertical snap-T’s on the Ribs to prevent shelf brackets from sliding down.

9. TOP RIDGE ASSEMBLY

Pieces required:

26 54 ¼" PVC pipes - Yellow
3 8' Ridge Frames, made in step 3
2 4-Way 120° Metal-T's
18 Metal Rings
18 1 ½" x ¼" Bolts & nuts
6 Large Black Zip Ties

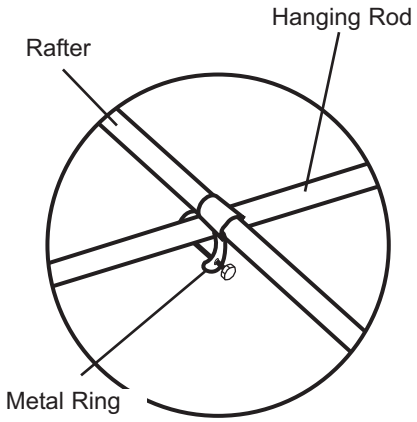




1. Line up an **8' Top Ridge Frame** with the first 8' portion of the base frame (see picture Step 7). Make sure the Snap-T's on the base frame and Metal fittings on the Top Ridge Frame are in line with each other. Join the 2nd Top Ridge Frame using a **4-Way 120° Metal-T.** Join the 3rd Top Ridge Frame using another 4-Way 120° Metal-T. Make sure all fittings lineup and tighten the eyebolts.

2. Draw a line 2 ¾" from the end of <u>eight</u> **54 ¼" pipes** (on both ends). Set these 54 ¼" pipes into the front and back Metal 120° T's of the Side Ridge Frames and into each of the 120° Crosses where the 8' units join. <u>DO NOT tighten eyebolts.</u>

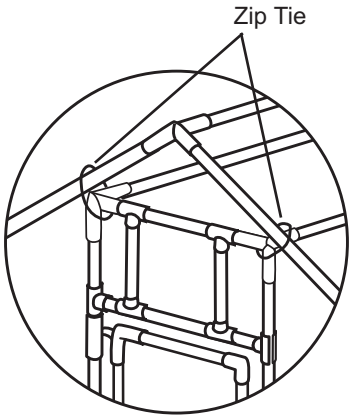
3. Set the remaining 54 ¼" pipes into the 18 remaining Metal 120° Crosses of the Side Ridge Frames, <u>DO NOT tighten eyebolts.</u>



4. Balance the 24' Top Ridge Frame on the hanging rods. Pull a 54 ¼" pipe from the side Ridge Frame and insert it into a 120° metal-T on the TOP RIDGE FRAME (54 ¼" pipe will pop out of the Metal Fitting on the side Ridge frame - this is OK). Push the 54 ¼" pipe into the 120° metal-T until the line drawn is even with the arm of the 120° metal-T. Tighten eyebolt. Repeat on the opposite side.

5. Pull out the remaining 54 ¼" pipes and insert them into the metal fittings on the Top Ridge Frame. Insert the 54 ¼" pipes all the way into the 120° Metal Crosses until they stop. On the 5th, 9th, and last Rafters, push the 54 ¼" pipes in so the line drawn is even with the arm. Tighten eyebolts.

6. Rest the top Ridge Frame and Rafter (54 ¼" pipe) assembly over the center of the Hanging Rods.



7. Insert the Rafters into the Metal Fittings of the side Ridge Frame one at a time. Slide a Metal Ring on the Rafters attached to a 120° Metal Cross. **Exception: The 5th and 9th Rafters (the junctions between each sections) do not have Metal Rings.** Adjust Rafters on the front, middle and back endwall's so the lines drawn are even with the arms of the 120° Metal Fittings. Once all Rafters are inserted into all the metal fittings, and the lines are correct, tighten the eyebolts.
8. Slide the **Metal Rings** up to the Hanging Rods. Adjust the "U" bracket so it straddles the hanging rod. Slide a **1 ½" x ¼" bolt** through the bolt holes of the Metal Rings and attach a **nut.**

9. Attach a **Zip Tie** around the Rafter and Metal Corner Post at each endwall and Metal Crosses at the junction of each section.

10 A. SQUARING FRAME

Pieces Required:

5 Yellow Banding
5 Metal Banding Clips
2 76” Side Door Casings (1 with hinges)
1 38” Top Door Casing
1 1” Screw

1. On the front end wall, loop **Banding 1** through an eyebolt on the Metal Corner Post on the base frame. Loop the other end of the banding through an eyebolt on the opposite 3-Way 120° Metal post on the Side Ridge Frame.

2. Thread banding through the metal buckle as shown/explained in Fig 10B.

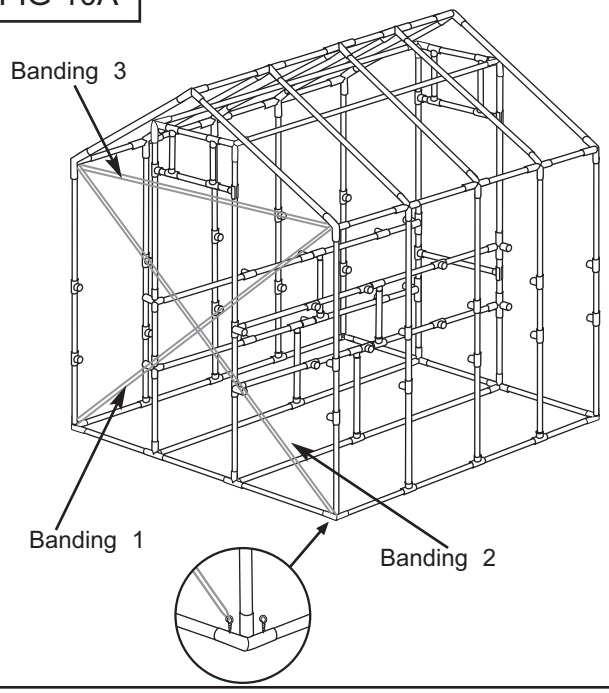
3. Thread **Banding 2** to the opposite diagonals.

4. Tighten Banding 1 & 2 so the diagonals are equal in length. If they are not equal in length. Lossen the shorter one and then tighten the longer band until the two diagonal measurements are the same.

5. Loop **Banding 3** through an eyebolt of the 3-way 120° Metal post of one Side Ridge Frame to the eyebolt of the 3-way 120° Metal post on the opposite Side Ridge Frame. Tighten the banding so the measurement from the “in” side of one 3-way 120° Metal post to the center of the opposite 3-way 120° Metal post is equal to 95 ½”.

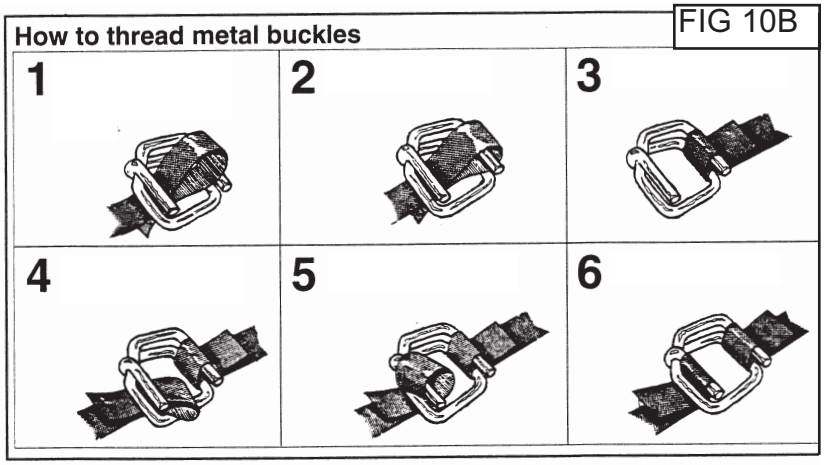
Keep banding in place until Front End wall paneling has been applied.

FIG 10A



NOTE: Measure the diagonals with a tape measure first. If diagonals are equal, skip step 10A.

FIG 10B



10 B. Sizing Door Frame for Door Casing

1. Using the Top Door Casing as a measuring device, check to make sure the door opening is 36 7/8” at both the top and bottom **from “in” side to center of the 90” tubes.** (The Top Door Casing fits between the snap-T’s on the top of the 90” tubes.)

2. Make sure the door opening is square by measuring diagonally from corner to corner and making sure the measurements are the same. Also check that the 90” tubes are plum (Straight up and down) and the top door frame tube is level.

3. Again place the Top Door Casing over the 35 3/4” tube. Hold in place temporarily with one screw inserted from the front and into the tube.

4. Temporarily place the side Door Casing with the Hinge attached on whichever side you want your door to hinge from.

5. Place the other Side Door Casing on the opposite side of the door opening. All 3 Door Casing pieces should fit snugly.

6. Remove the Door Casing Pieces. They will be used in the Door Assembly **Step #14.** Proceed with paneling.

How to thread Metal Buckles

1. Form a 3” loop by folding banding away from you, (short end of banding needs to be on top). With buckle tines facing upright, pass loop up through center of buckle.

2. Slip the loop over the tine (farthest from you).

3. Pull banding down and away.

4. Place banding around specified frame area. Fold a new loop by folding banding toward you.

5. Slip new loop over other tine.

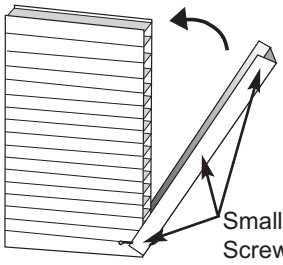
6. Tension by pulling banding coming from coil.

7. To loosen banding, grasp coil with pliers and twist your wrist so banding slides loose from tine.

Hints for Panel Assembly

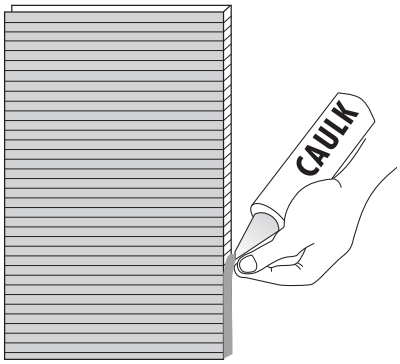
Congratulations, your frame is now finished! All that's left is the paneling application. Listed are several hints that will make paneling your greenhouse much easier. If you have suggestions that would be helpful for future customers we would be happy to hear from you.

1. **PANELS**: Apply paneling when temperature is moderate for your area (not during a cold or hot spell). When attaching panels to the PVC Pipe, be careful not to over-torque the screws. The washers should just make a dimple in the plastic. The screws should be placed about 12" - 15" apart on the panels and about 6" apart around the perimeter of the walls, roof and any overlapped joint.



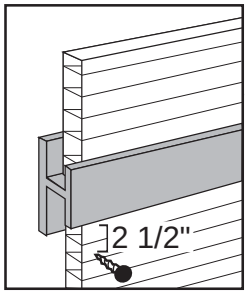
2. **U-TRIM**: Insert 1/4"-1/2" of silicone caulking into open flutes to prevent water intrusion. Slide U-Trim over the 4'1" ends of panels where specified in the instructions. Secure U-Trim with **small phillips screws** by poking a small hole on the underside of the U-Trim, and screwing into panels. Place 1 screw on each end of each U-Trim and 1-3 screws in between the ends.

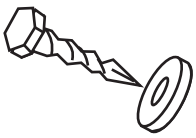
▶ Note: When using caulking, cut tip of tube at an angle. Be careful not to get caulking on nice clothing or jewelry.



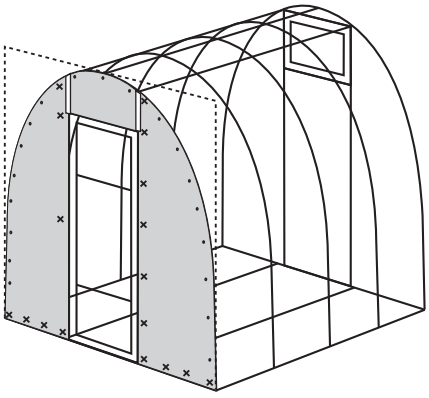
3. **H-CHANNEL**: If H-Channel is difficult to slide on, spray panel edges with Pam (Vegetable oil). Also tapping on ends of H-Channel with a hammer or rubber mallet helps H-Channel slide on easily. Secure panels by placing screws 2 1/2" from each side of H-Channel. You can cut H-Channel by scoring on both sides with a knife and then bending at the score lines or use tin-snips.

<u>NEVER</u> attach screws into the H-Channel!





4. **SCREWS**: Use the pictures as a guide for placement of screws. Use your discretion on your own greenhouse. The number of screws required for each step in paneling may not exactly coincide with the picture.



5. **CUTTING PANELS**: Panels cut very easily with a long sharp knife, utility knife or box cutter. Use PVC Frame for a guide when trimming panels.

6. **TIE DOWN**: Please remember to tie down your greenhouse once you begin paneling. The greenhouse is light enough that on a windy day it could blow over.

11. FRONT END WALL PANEL

Parts Required:

2	31” x 94 1/2” Panels
1	29” x 42” Panels
70	1” Screws
1	3’ H Channel

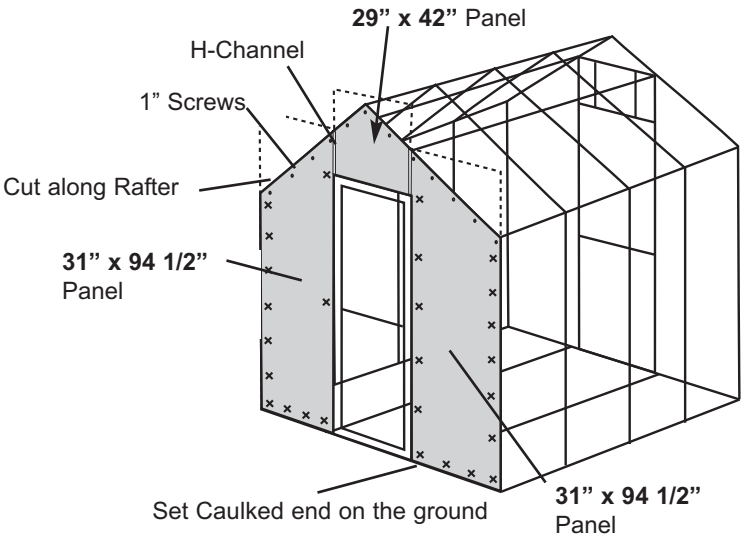
Don’t forget to secure your greenhouse. The panel creates wind resistance.

1. Caulk the flutes of one end of each of the panels.

2. Screw **31” Panels** into place (caulked end on ground) making sure they cover the door end wall tubes. **Attach to End wall Tubes with only 1 or 2 Screws.** These screws will be removed later when you make your door.

3. Cut panels carefully along the Rafters and Side Walls using a sharp knife (use the tubes as a guide).

4. Attach 29” x 42” panel above the door. Leave 1/4” gap between this piece and the 31” x 94 1/2” Panels so there is room to slide the H-Channel between the panels. Cut the **3’ H-Channel** in half and trim to fit.



12. BACK END WALL PANEL

Pieces Required:

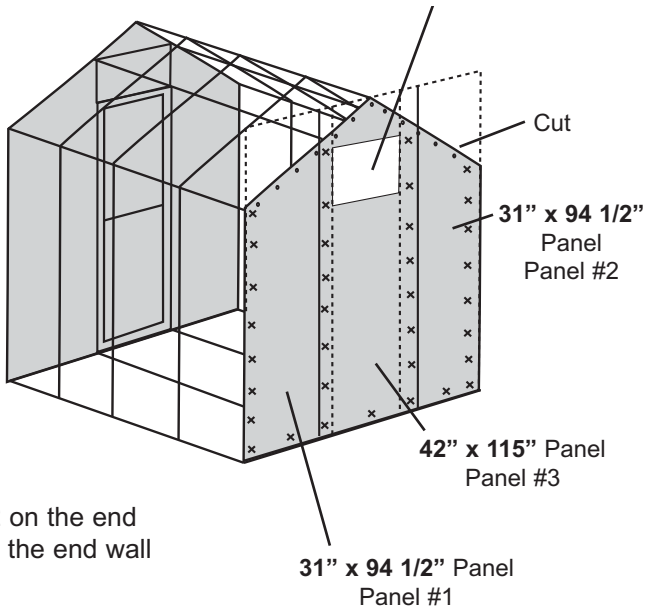
3	Yellow Bands (from Step 10A.)
3	Metal Clips (from Step 10 A)
2	31” x 94 1/2” Panels
1	42” x 115” Panel
87	1” Screws

Hole will be cut here during Louver Installation, Step 15.

1. Caulk the open flutes on one end of all three panels.

2. Remove the Banding from the Front end walls, do not cut the banding. Use the banding to square the back end wall. (**see step 10, Squaring the frame**)

3. Attach panel #1 and panel #2 (31” x 94 ½” panels) vertically (Caulked ends on the ground). Line one side of the panels up with the side wall tubes so they also cover the end wall tubes. This way you should not have to trim the panels at the side wall tubes. Do not attach screws on the end wall tubes yet. Panel 3 will over lap panel 1 & 2. Carefully trim panels along the rafters and side walls (If needed).



4. Attach panel #3 (42” x 115” panel) so it overlaps panels #1 and #2 on the end wall tubes. Attach screws through both layers of paneling and into the end wall tubes. Trim panel along the rafters.

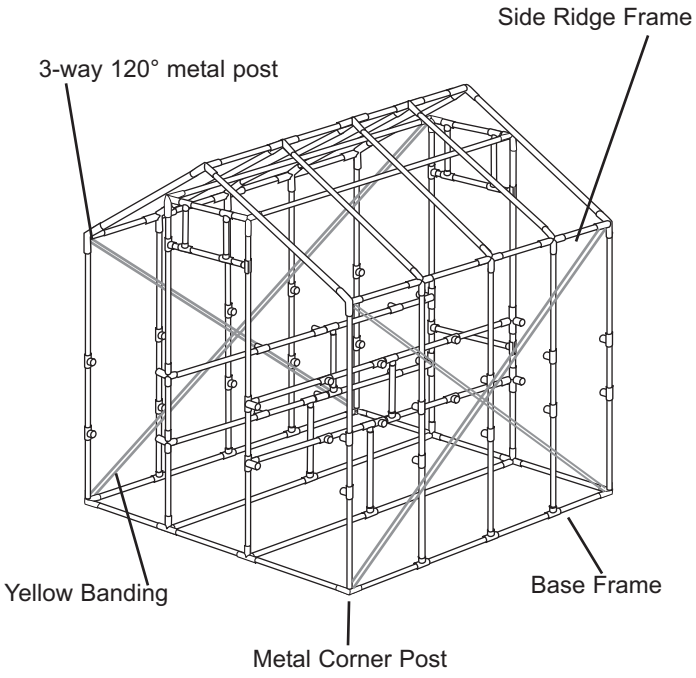
5. Caulk all exposed flutes that are still open on the top of both end walls.

DO NOT CUT HOLE - the Louver will be installed in Step 15. Louver installation instructions included in the Louver Box.

13A. SQUARING SIDE WALLS

Pieces Required:

5 Yellow Banding (3 from Back Endwall, Step 12)
5 Metal Banding Clips (3 from Back Endwall, Step 12)



1. Remove **Yellow Banding** from the Back Endwall (do not cut).

2. On the side wall tubes, loop the banding through an eyebolt on the corner post of the base frame and run the banding diagonally across to the 120° metal-T of the Side Ridge Frame. Repeat for the opposite diagonal. Attach banding on both sides of the greenhouse. (see Fig. 10A in Step 10)

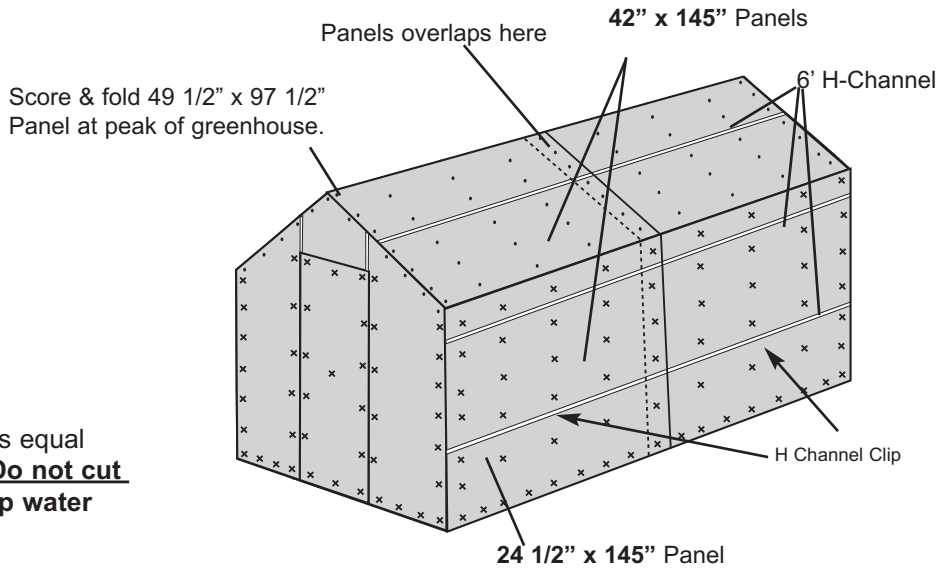
3. Tighten the banding so there is equal tension on both pieces and the diagonals are equal in length. This should square all 3 sections. Check this by measuring each section. If one not square you can determine which diagonal needs to be shortened and use a band or additional piece of twine to shorten whichever diagonal needs to be shortened.

4. At the middle endwalls, measure the distance from Side Ridge to Side Ridge. If the measurement is greater than 95.5" from inside to center, attach a Yellow Banding to pull the frame in.

13B. TOP AND SIDE PANELING

Pieces Required:

4	49 1/2" x 145" Panels
8	42" x 145" Panels
24	6' H-Channels
12	H-Channel Clips
258	1" Screws
4	78" U Trim
4	56" U Trim
36	Small Phillips Screws



▶NOTE: Center the panels so the overhang is equal over the front & middle endwalls. **Do not cut off the overhang. It will help keep water out of the endwall panels.**

You will apply panels over the top of the back 8' section and then apply panels over the top of the front 8' section. The 8' panels will overlap where they meet at the middle of the middle section.

1. Caulk both ends of each panel.

2. Lay a **49 1/2" x145" Panel** on the ground and score (using a blunt object such as the back side of a butter knife) down the center of the panel following a flute. Center the panel on the peak of the greenhouse, with equal overhang on each end. Attach with screws.

3. Attach a **42" x 145" panel** 1/4" below the top panel (the 1/4" provides room to slide in the H-Channel). Score and fold the panel down where the side of the greenhouse meets the roof. Repeat with a 42 1/2" x 145" Panel on the opposite side of the greenhouse.

4. Attach a **42" x 145" panel** 1/4" below the panel from step 3.

5. Cut a **49 1/2" x 145" panel** in half (to make two 24 1/2" x 97 1/2" panels) to fill in the the remaining spaces on each side of the greenhouse. Remember to allow for 1/4" between each of the panels for H-Channel.

6. Slide **6' H-Channel** between each of the panels and secure with an H-Clip. (See next page for H-clip instructions)

7. Repeat steps 2-6 on the 2nd half of the greenhouse. Overlap the panels and H-Channel where they come together in at the middle of the greenhouse.

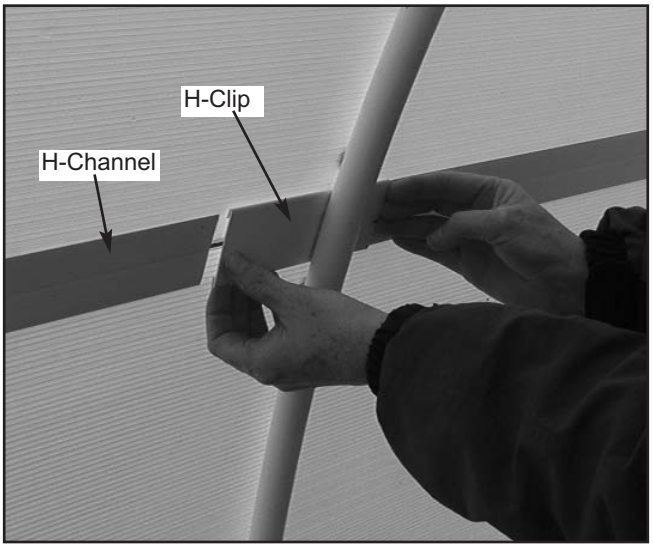
8. Attach **U-Trim** to the edges of the panels at the front and back of the greenhouse (refer to hints on page 14). Use two 56" pieces on the roof and two 78" pieces on the side panels (Cut to fit if needed).

If you have purchased a tie down kit, install it now!
See Tie Down instructions on P. 21

(If you have not purchased one. You will need to secure the greenhouse to the ground.)

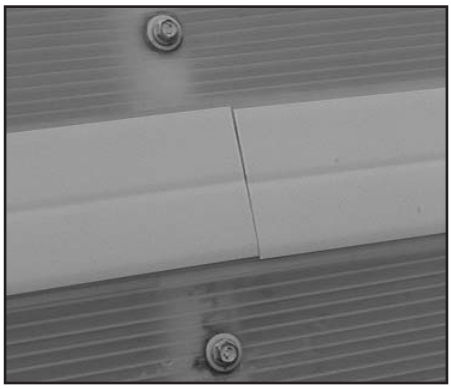
Installation instructions for

H-Channel Clips Used in (Step #13B)



1. Slide the H-Channel between the panels leaving a couple inches between each piece of H-Channel. On the inside of the greenhouse, slide the H-Clip onto each end of the H-Channel pieces.

2. From the outside of the greenhouse, insert about a nickel-size gob of silicone caulking into the area between the H-Channel pieces.



3. Slide the H-Channel pieces in so they butt together.

Tie Down Kit Instructions for 4 or 6 Anchor kit

Disclaimer: While these ties down augers are effective in most situations, proper conditions are required to prevent failure. Improperly tightened or loose anchors, high winds, loose or sandy soil, waterlogged or flooded soil, or extremely rocky soil can contribute to anchors pulling out of the ground. You will need to determine the best means to anchor the kit for your unique situation. If you have concerns about your conditions, a concreate perimeter, concrete slab, or corner holes are good alternatives to anchoring into soil.

Parts Needed: (4 anchor)

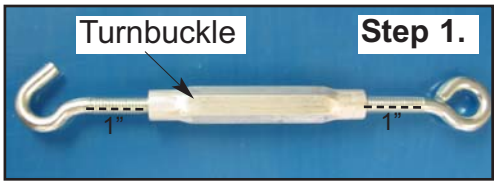
4 - 15” or 30”Steel Anchors
4 - Turnbuckles
4 - Metal Hooks
8 - 1 ½ x ¼” bolts
8 - ¼” locknuts
8 - Washers

(You need a ¼” drill bit to predrill for the bolt holes)

Parts Needed: (6 anchor)

6 - 15” or 30” Steel Anchors
6 - Turnbuckles
6 - Metal Hooks
12 - 1 ½ x ¼” bolts
12 - ¼” locknuts
12 - Washers

(You need a ¼” drill bit to predrill for the bolt holes)



1. Loosen **turnbuckles** so the bolts of the turnbuckle are out about 1” on each side.

2. Screw one 15” or 30” **steel anchor** into the ground using a screwdriver, rod, or pipe inserted throught the eyelet of the anchor. This will act as a handle for you to twist the anchor into the ground. The eyelet should be just showing above ground. This will prevent the greenhouse from shifting. Also, make sure the anchor is as close to the greenhouse as possible for the most secure pull. Place 1 anchor at each corner of the greenhouse. For units longer then 8’, place one anchor in the middle of the each sidewall or every 8’ along the sidewall plus the corners of the greenhouse.

3. Slide the hook of one turnbuckle onto the eyelet of a ground anchor. Slide a **Metal hook** through the eyelet of a turnbuckle.

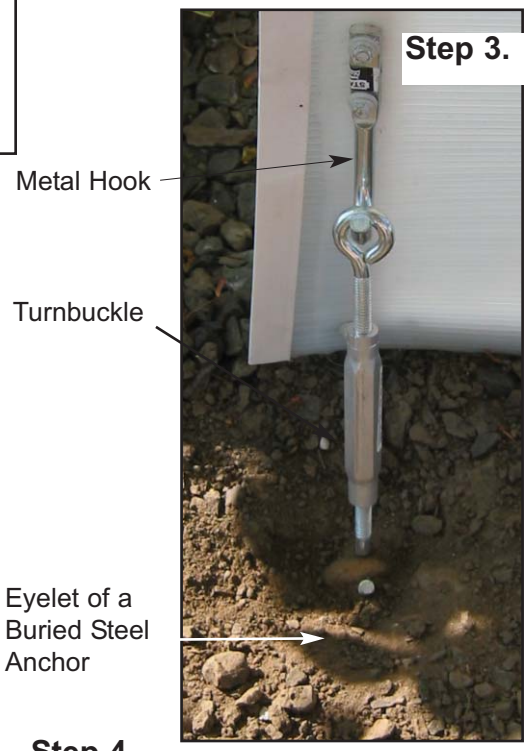
4. Hold the flat part of the hook up tight against a corner rib outside the greenhouse. Using a ¼” drill bit, drill a hole through each of the holes in the **metal Hook,** clear through the Solexx and the rib including the ½” PVC pipe inside the rib.

5. From outside the greenhouse push a **bolt** through each hole in the **metal hook** and through the rib.

6. From inside the greenhouse, slide a **washer** over each bolt and secure it with a **lock nut.** Tighten the locknuts.

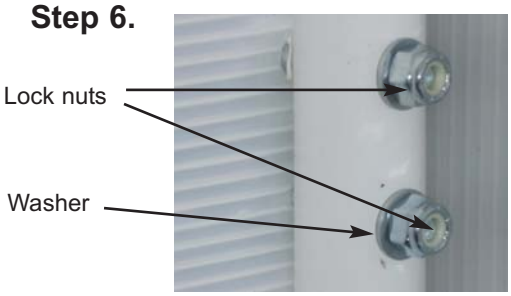
7. Repeat this process on each of the other corners.

8. Tighten the turnbuckles to remove any slack.



Step 4.

Step 6.

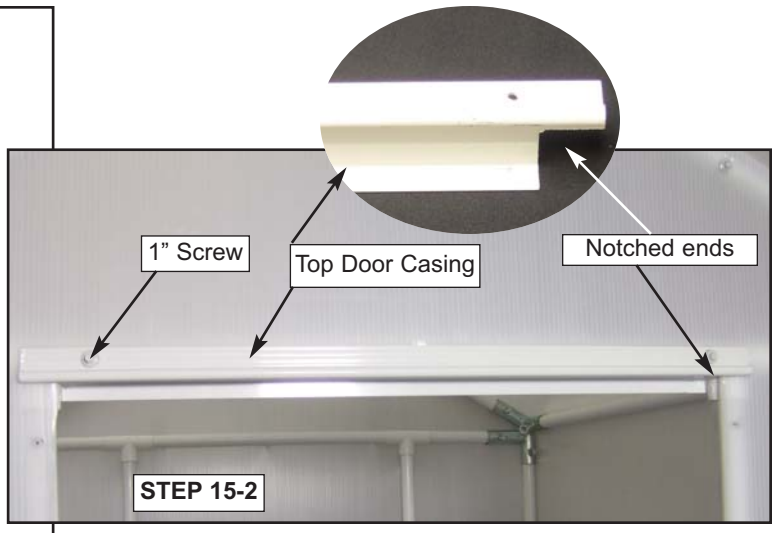


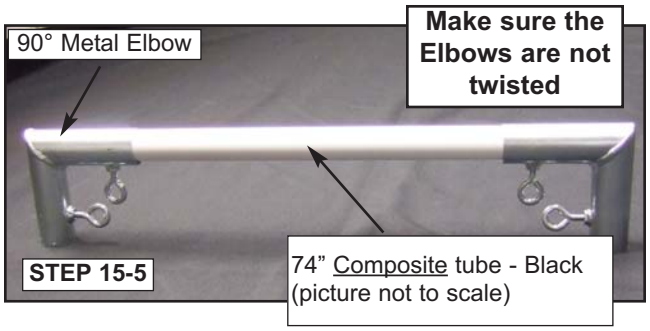
Questions? Contact Adapt8 at 1-877-476-5399

14. Door

Pieces Required:

1	36 ½" x 80" Door Panel
1	76" Side Door Casing (**Used in Step 11b**)
1	76" Side Door Casing with Hinges (**Step 11b**)
1	74" Composite Tubing- BLACK (**with holes for Hinges**)
1	74" Composite Tubing- BLACK
1	38" Top Door Casing (**Used in step 11b**)
2	33" Composite Tubes- BLACK
1	36" U-Trim
4	90° Metal Elbows
1	Snap-T's
49	1" Screws
3	Small phillips Screws
1	33" Composite Cross Bar with Snap T (for door) - slotted
1	**Door and Vent Parts Bag**: Outside Handle, Inside Handle, 3-point Cam Hinge Bag: 1/4" x 1-3/4" Bolts (4), Lock Nuts (4), Hinge halves and pins (2), Flat Washers (2) Door Parts Bag: 8/32 Hex Lock Nut, 3/8" Lock Nut, 32 x 1-3/4" Machine Screw, 1" Metal Screw, 4mm Allen Wrench Door Cable Bag: Turnbuckle, 76" Wire Cable, 1/16" Wire Cable Clamps (2)





1. Remove the temporary screws from around the Door opening.

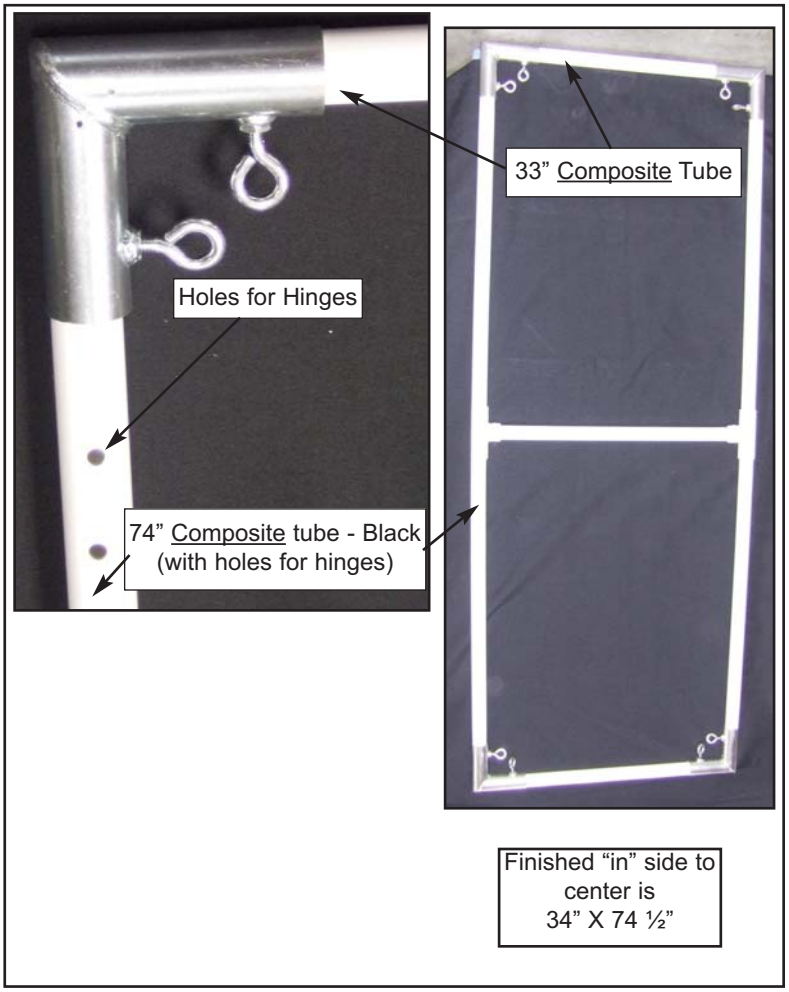
2. Attach the Top Door Casing to the Tube above door with 1" Screws. Make sure it is level.

3. **Decide which side you want your door to open (as you face the door) and attach the 76" Side Door Casing with hinge halves attached on the side you want the door to hinge.** Attach to the 90" Composite Tube with 1" Screws. Making sure casing is straight up and down.

4. Attach the **Side Door Casing** with no hinges to the opposite side of the door opening with 1" Screws. Making sure casing is straight up and down.

5. Assemble the door frame on a flat surface by attaching one **90° Metal Elbow** to both ends of both **74" Composite Tubes.** Tap the tubing so that it is completely seated into the elbow. Make sure the pre-drilled holes in the 74" tube with holes are facing up as the frame lays on the ground. You will be attaching hinge halves using those holes in a later step. Connect these 2 assemblies using the **33" Composite Tubes.**

Hints: It is important to attach the 74" tubes into the elbows first, followed by the 33" tubes. Line up the holes on the hinge side so they are centered on top. The door frame should measure 34" x 74 ½" ("In" side to center). Tighten the eyebolts. You will adjust this frame when you hang the door so the measurements don't need to be exact at this time.



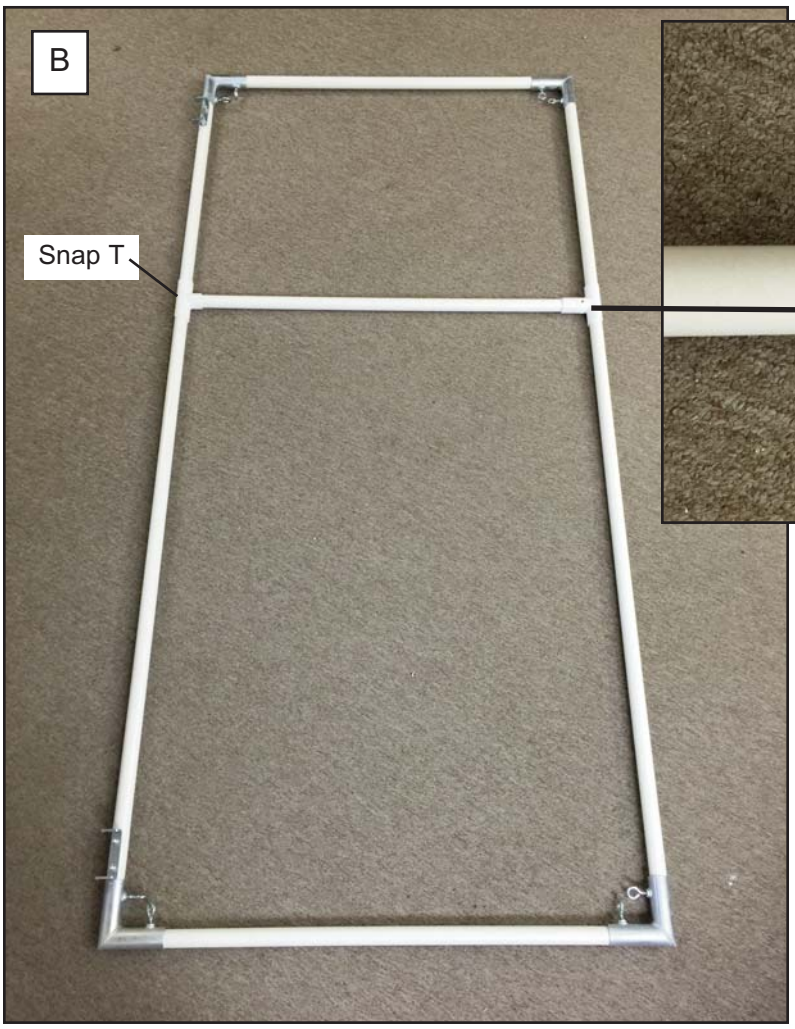
6. Attach the snap T end of the 33” PVC Cross bar to the side door tube **WITHOUT drill holes. Attach near the center of the tube (you can adjust it up and down later)**. **Make sure the holes in the crossbar are facing up and looks like picture A.**

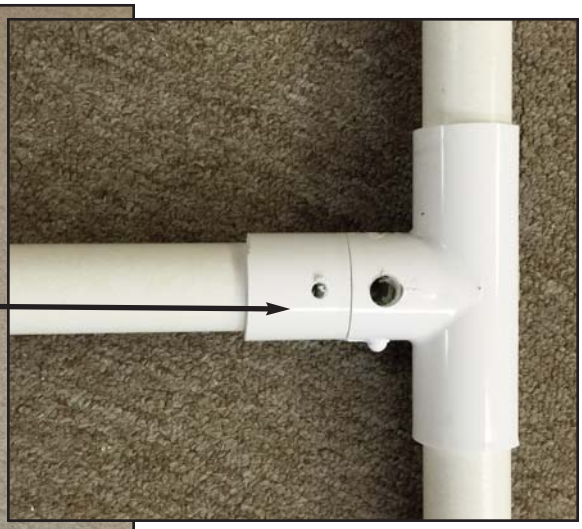
Attach a snap-T to the center of the opposite door tube and then slide the Cross Bar into this snap-T. See picture “B” below. Make sure that this cross bar is not causing the frame to be bowed out in the middle, if so, try compressing the snap-t on the end of the cross bar. If that doesn’t work, separate the snap-T from the end of the cross bar and use a hack saw to trim that tube down a little bit. Then insert the end of the cross bar back into the snap-T.

This side of the cross bar for the door faces up (While assembling the door frame or towards the outside of the greenhouse when the door is hung

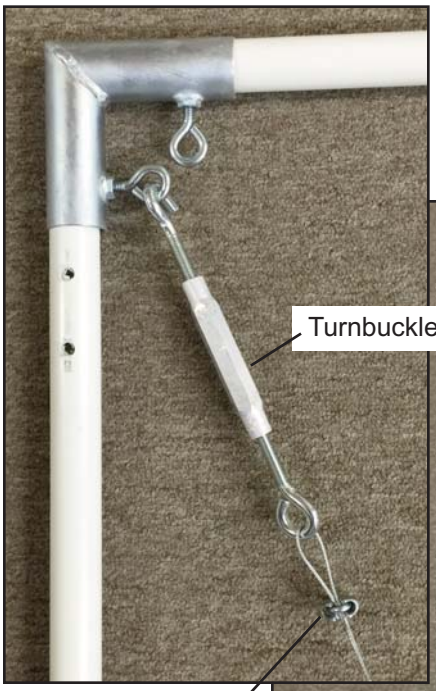
Make sure that the big hole and little hole remain lined up. If they are not aligned, then use the shaft of a screw driver inserted into the large hole and push or pull on the screw driver to move the snap-T on the tube. Once the large hole in the snap-T is aligned, you can use your hand to move and line up the smaller hole. You will insert the lock through the larger hole in a later step. Aligning these holes now will make that easier.

7. **Attaching the cross cable door support.** See Picture “C” next page.You will be using two cable clamps, a turnbuckle and the 76” long - 1/16” diameter cable. These are all grouped together in the door kit bag. Start at the metal elbow that is on top of the side door tube holes. Place the Hook of the turnbuckle through the eye bolt that is pinching the metal elbow fitting onto the side door frame tube, not the eye bolt that goes to the upper tube. Then run the cable through the cable clamp, through the eye bolt of the turnbuckle and back through the cable clamp. Using a pair of Pliers or a socket, tighten the two nuts on the cable clamp so that it pinches the two sections of the cable together creating a loop that is going through the eye bolt of the turnbuckle.

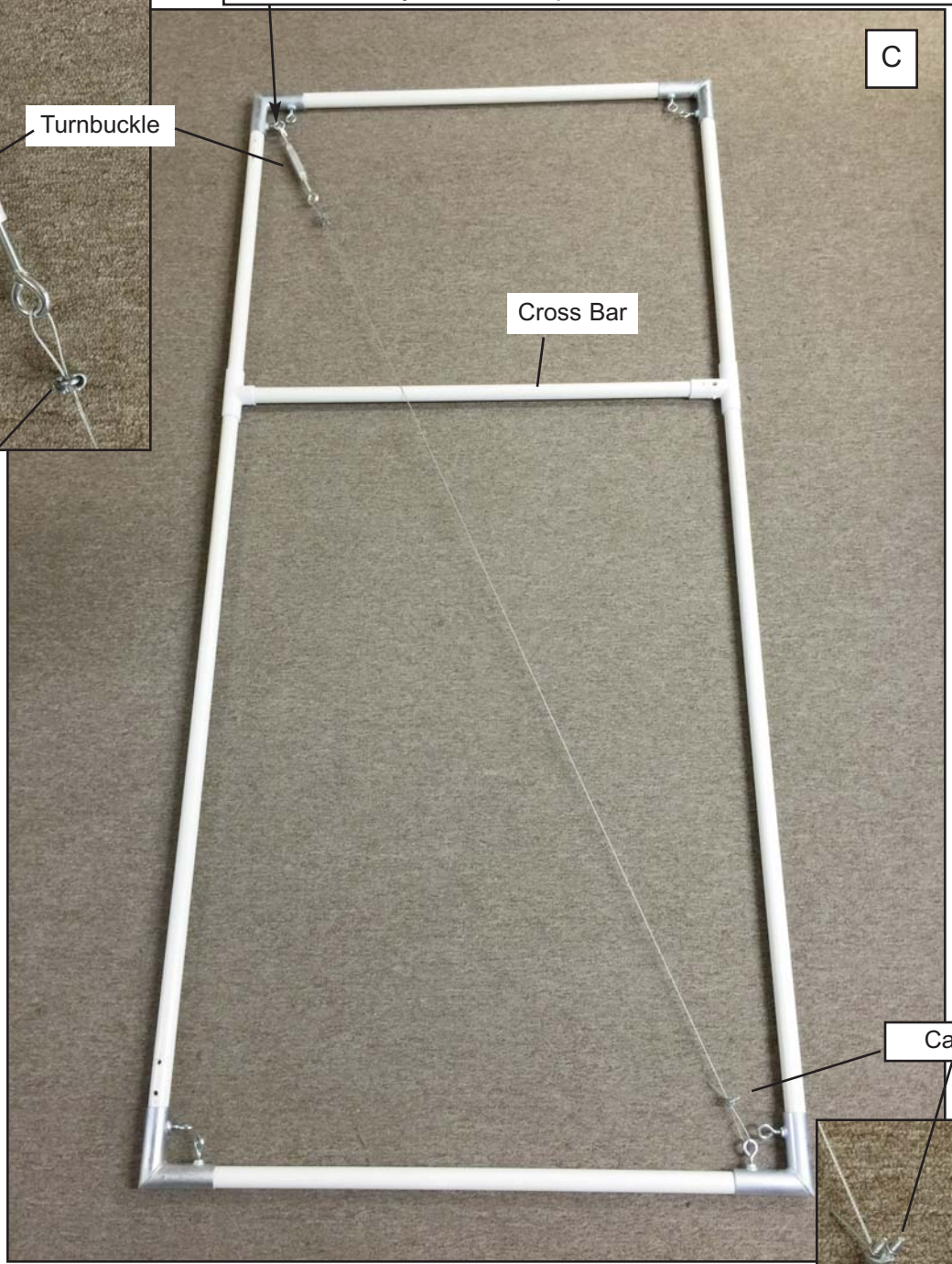




Cross Cable Door Support (Installed on Door frame)



Turnbuckle is mounted to this eye bolt on this fitting for a door that opens from the right side (as you face the door). For a door opening from the left (As you face the door) you would have the turnbuckle mounted on the upper elbow on the right side, to the eye bolt that pinches the side door tube.

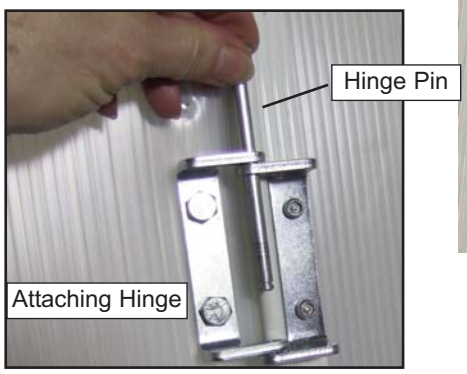


You will now connect the other end of this cable. **The cable will pass over the top of the cross bar of the door**. Run the cable through the 2nd cable clamp, through the eye bolt and then back through the cable clamp. Using a pair of Pliers, tighten the two nuts on the cable clamp so that it pinches the two sections of the cable together creating a loop that is going through the eye bolt of the metal elbow. See picture to the right.

8. Place the **36 1/2” x 80” Door Panel with holes** on the Door Frame, aligning the holes in the Panel with the holes in the **75”** Tube. Measure in from one of the two ends to the first predrilled hole. The side that is 7” from the first predrilled hole is the top of the door panel. If needed, flip this panel over so that this end of the panel is the top of the door.

Once the panel is positioned, attach the **hinge halves** using two **¼” x 1 ¾” Bolts**, **two lock nuts and one flat washer** for each hinge. **<u>See next page for washer placement and hinge attachment.</u>** From the underside, Insert a bolt through the door frame, through the washer (The washer is only used on one of the two bolts for the hinge half), through the door panel and then put the hinge half on top and attach the nut. Repeat this for the 2nd bolt and 2nd hinge. The nut will be on the side that the hinge half is on. Once all 4 bolts are put in place, they will be holding the door panel to the door frame. **<u>Do not screw the rest of the Panel to the Door Frame yet.</u>**

9. Position the Door into the door opening and align the hinge halves up as shown on next page. The upper hinge half will sit on top of the hinge half on the door casing and it will be opposite for the lower hinge. Once aligned connect the hinge halves on the Door to the hinge halves on the Door Casing using the 2 hinge pins. They are inserted from the top of the hinge for both hinges.



10. Now that the door is hung, close and open the door several times to make sure that none of the metal elbows of the door frame are hitting the metal casings of the door opening. If needed, adjust the door frame so that it fits within the door opening and is not touching the metal casings of the door opening. Make sure the top door tube is approx. 1/8” below the Top Door Casing. Very rarely would you need to trim a tube in the door frame but if trimming is needed, use a hack saw.

11. Tighten the cross cable door support a little bit by rotating the turnbuckle. Be careful not to lift the door very much - you just want to support the door. Verify that the lower tube of the door frame is not hitting the tube under it and that it is parallel with the tube below it. After doing this, repeat step 10 again and make sure that the adjustment on the cross cable door support didn’t cause one of the door fittings to now touch the metal casings of the door opening. Once the door opens and closes freely, the fittings are not touching the metal casings of the door opening, and the cable has been snugged up, attach the door panel to the door frame using 1” screws. **<u>Do not put any screws into the cross bar of the door, you will adjust this tube in a step below.</u>**

12. You can leave the door panel oversized or you can trim the panel down so that it fits within the door casings. We prefer to leave the door panel oversized to help keep wind from blowing in around the door. *If you like the look of the door panel snugged into the opening of the door casings, then with the door shut, look through the door panel and mark the corners of the door opening on the door panel from the outside of the house.* ***(keep in mind that you still want to keep the bottom of the door panel down at ground level)*** *and then remove the door and lay it back down on a flat surface. Using a straight edge as a guide and the marks you made on the door panel, cut the top and only the one side (The side opposite of the hinged side of the door) of the door panel down to fit just inside of the door casings.*

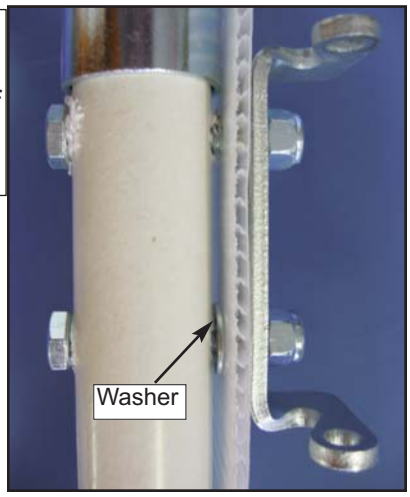
13. Caulk the open flutes on the top and bottom of the door panel and reattach the door to the Hinges. Caulking the bottom of the door panel is easiest when the door is removed from the greenhouse.

14. Slide a **36” U-Trim** over the top of the door panel to cover the caulked flutes (cut u-trim to fit if needed). Attach u-trim with 3 **Small Phillips Screws (see page 15, step 2).**

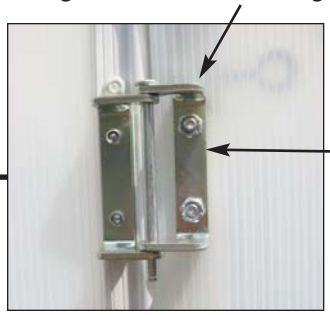
Hinge assembly & location of washer

Upper hinge **Inside** greenhouse

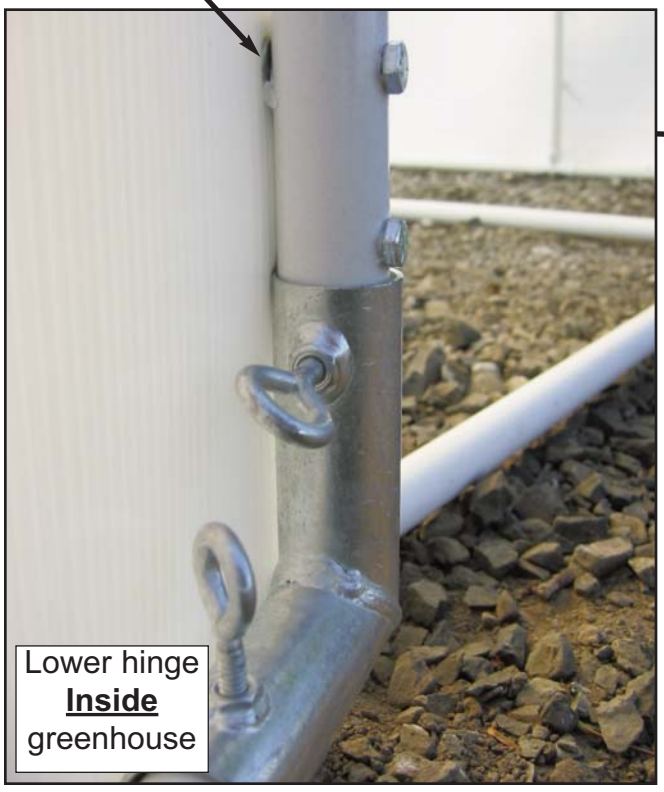
Side view of assembled upper hinge-half on door



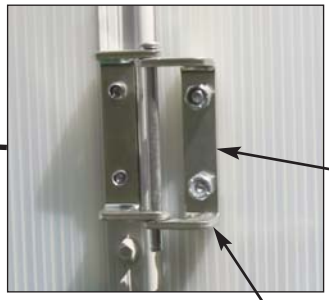
Upper hinge (**Outside** greenhouse) Hinge-half on door sits **above** hinge-half on door casing.



One washer goes in-between the door panel and the door frame to even out the spacing with the fitting. The fitting sits under the door panel and hinge-half on one side of the hinge-half and one washer goes under the door panel and hinge-half on the other side. (**Bolt goes through the washer**)

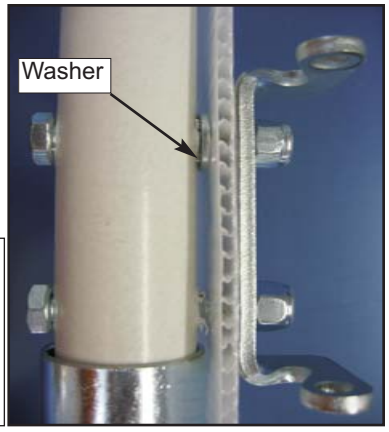


Lower hinge **Inside** greenhouse



Lower hinge (**Outside** greenhouse) Hinge-half on door sits **below** hinge-half on door casing.

Side view of assembled lower hinge-half on door



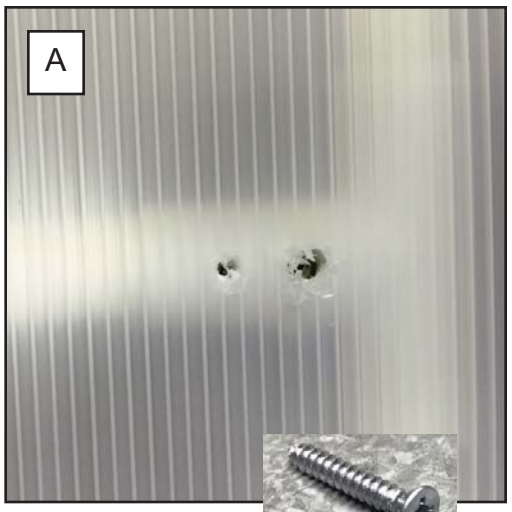
15. **Door lock** - The center cross bar of the door will set the height of your door lock/handle. From the outside of the greenhouse, look through the door panel at the holes in the predrilled snap-T, this would the height of the outside door handle. To adjust to your prefered handle height, slide the cross bar up or down using a rubber mallet. Make sure to level.

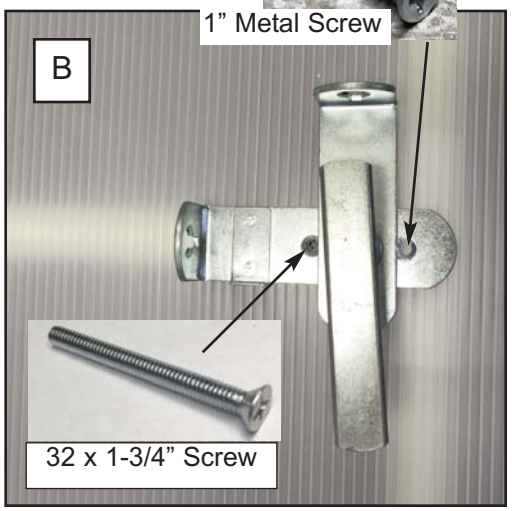
    From the outside of the greenhouse, use a sharp thin bladed knife and push the blade of the knife through the panel and into the large predrilled hole. Do this twice so that you are cutting an “X” in the panel right where the predrilled hole is at and then twist the knife when it is in the hole, do the same thing for the smaller predrilled hole. See picture “A” to the right.

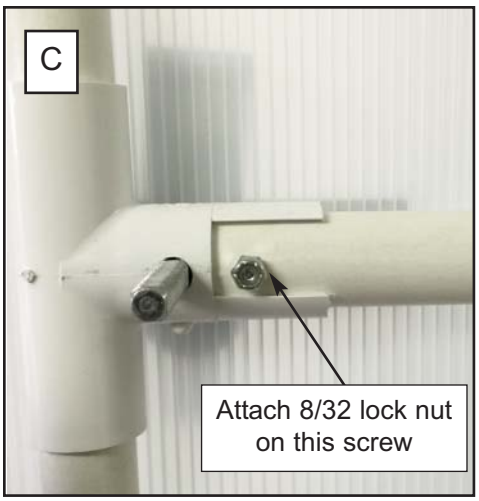
    Now you will install the outer door handle. This handle has a thin nut included in the bag, remove that nut and keep it close by.

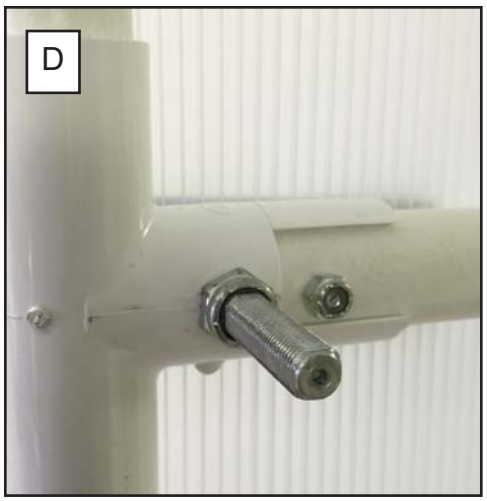
    Insert the shaft of the door lock handle through the door panel and into the large hole of the door cross bar. You may need to twist or screw this into the hole. The handle should be flush with the door panel. Next, twist the door handle so that it is perpendicular to the metal plate that is just behind that handle (that plate is a part of the lock, there are two holes in that plate, you cannot see them unless you twist the handle on the outside door handle). See picture “B” to the right.

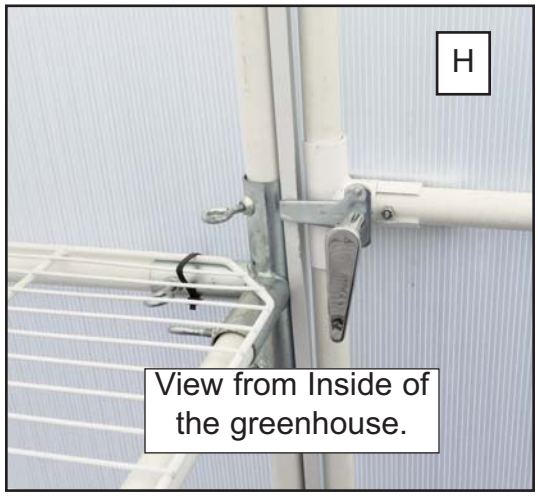
    Insert the 32 x 1¾” flat head screw (the long one in the lock kit) through the hole that is closest to the middle of the door, the tube is predrilled behind this hole. Attach the 1” Metal Screw into the other hole (this hole is not pre-drilled) - this will lock cross bar in place - so make sure the bar is level.

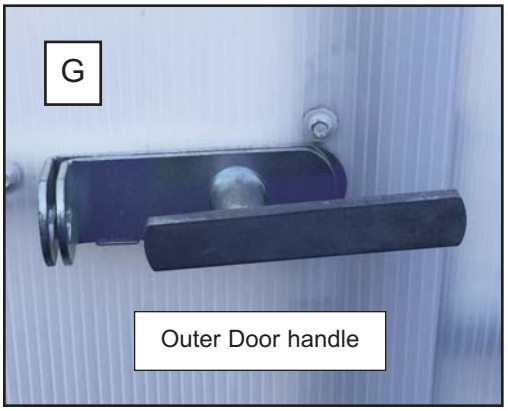












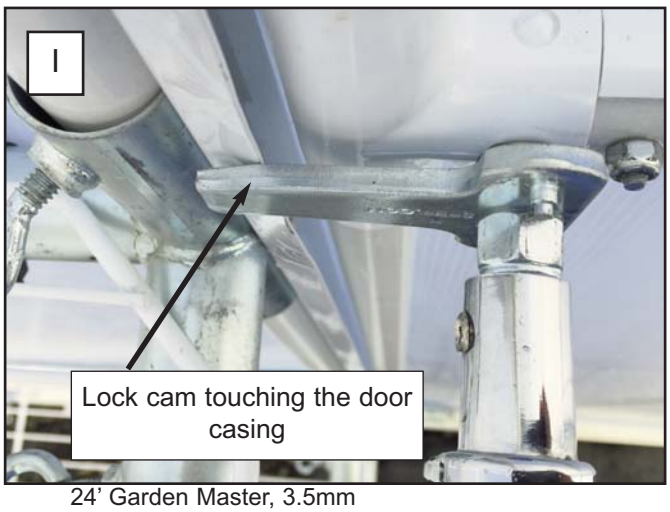
16. **Inside Door Handle** On the inside of the door, attach the 8/32 lock nut (the small nut in the kit) on this screw. See picture **"C"**.

Attach the nut that came with the outer lock onto the shaft of the lock, snug this nut up against the tube, see picture **"D"**. Then turn the outer door handle several times, this helps seat the outer door handle on the tube.

Slide the door lock cam onto the shaft. See Picture **"E"**. Next put the thicker of the two large nuts onto the shaft. Tighten the nut but make sure you can still turn the door handle. See picture **"F"**.

Install the inner door handle (picture H). Make sure the outer door handle is in the position as shown in picture **"G"**, then using the 4mm allen wrench included in the door kit, loosen the set screw on the side of the inner door handle, position the handle so that it faces downward when you slide it on the shaft, then hold the handle pressed up against the nut and then tighten the set screw. Your lock is now installed.

Next go inside the greenhouse and shut the door, when the door is shut push the inner door handle down which will swing the door lock cam out so it is now behind the door casing keeping the door from opening. Check to see if there is any space between the door lock cam and the metal door casing, if so, use a pair of pliers and bend the metal door casing (where the door lock cam is next to it) towards the lock cam. This should now put the metal door casing right up against the door cam when the door is closed. See picture **"I"**. This adjustment keeps the door shut snuggly against the door casings.



15. LOUVER

Pieces Required:

1 Louver Box

SEE LOUVER INSTALLATION INSTRUCTIONS IN LOUVER BOX

IMPORTANT: If installing an Exhaust Fan, the fan will go in the back of the greenhouse in place of the Louver and the Louver will be installed above the door. Do not cut a hole for the Louver if you have purchased or are considering purchasing a 16" or larger fan.

Notes:

Other Helpful Hints

1. Caulk any holes from screws or punctures in the panels to help keep bugs and dirt out.
2. Be sure your Greenhouse is properly anchored to the ground or a foundation. **DURING AND AFTER ASSEMBLY**
3. Remove Shade Cloth in the winter.
4. Please call us if you have questions about assemblying your greenhouse.
5. We welcome pictures of your greenhouse in use. Send to info@adapt8.us

ENJOY YOUR NEW GREENHOUSE!

P.S. Please share with us any ideas you have on improving our kits. Pictures are appreciated.

 FEB. 2020 4th Edition V-1 Edition