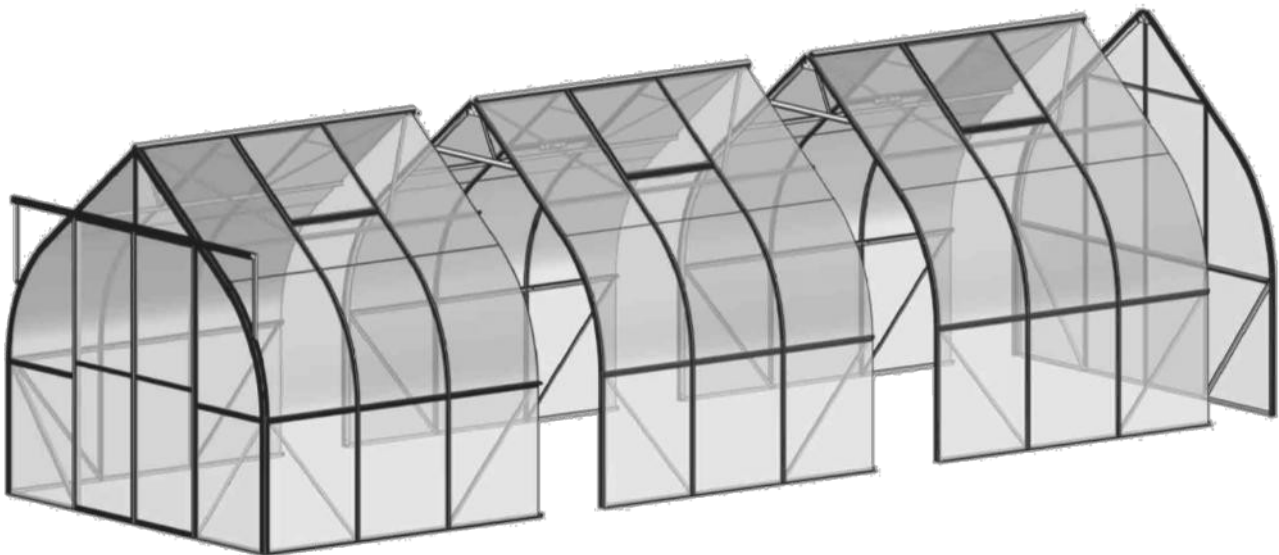




**CLIMATM
POD**

VIRTUE

GREENHOUSE KIT ASSEMBLY INSTRUCTIONS



V9 "Climapod Virtue"

V907 Main House

Silver

Contact Information:

MODULAR ORGANICS LLC

EMAIL: sales@climapod.com

Phone: 360-674-2642

Website: www.climapod.com

Congratulations on your new greenhouse purchase!

Thank you for choosing a ClimaPod Greenhouse Kit! No specific technical knowledge is required for the assembly of this greenhouse. We do our best to clearly lay out each step of the assembly process and are constantly working on enhancements. If you need additional help or guidance during your assembly, you can always contact us by calling or texting our main support line during business hours at 360-ORGANIC (360-674-2642). We also invite you to visit our website or YouTube channel for additional videos supplementing these instructions and the assembly process. You can find it at <https://www.youtube.com/c/ClimapodDealerSalesSupportAssembly>

The main Climapod Virtue greenhouse has three master cartons:

- "V914BF" - Straight Frames & Aluminum Base (includes all hardware)
- "V914PAN" - Polycarbonate Panels
- "V914CUR" - Curved Frames

Depending on the model & accessories configuration that you purchased, you may have received more packages such as extension sets, shelving, fans, and/or other accessories. Please check your unique **PACKING LIST** for the composition and total items in your order.

For greenhouses longer than 14 feet, each additional 7' Extension Set will also include three cartons. These boxes will be labeled V9EXT-BF, V9EXT-PAN, and V9EXT-CUR with the components sorted as above (frames and base, polycarbonate panels, curved frames). Accessories are packed separately.

Identifying Parts

All the aluminum profiles are marked with a part number corresponding to the numbers given on the drawings and listed on the parts list.

Nuts, bolts, and fittings will be found in the relevant packages inside the Straight Frames Box(s):

- | | |
|----------------------|-------------------------|
| • Main Base | • "V9E Side & Roof" |
| • Ext Base | • x4 "V9 Vent" package |
| • "V9 Door" package | • Main hardware packet |
| • "V9 Rear" package | • Packet of m5 brackets |
| • "V9 Front" package | • Packet of tools |
| • "V907 Side & Roof" | • Hanging clips |

Polycarbonate panels

All polycarbonate panels will be found in the Panel box(es) and each polycarbonate panel is labeled with a letter and number corresponding to the polycarbonate sheet page (pages 2-3) in the instructions. You may also differentiate them by their measurements and shape.

IMPORTANT

When inserting the polycarbonate panels, the side with white film must be facing towards the outside as this side is UV protected. Make sure to peel at least 1-2" of film from the edges of **both sides**, this way there will be no obstructions when inserting the panels and they will stay protected from dust and scratches. Once assembly is complete, remove all protective films from **both sides**.

Customer Support

We put severe demands on quality to ensure that you get a faultless product. However, should a problem occur, we kindly ask you to contact our support team at support@climapod.com. For quick service, please specify your order number, the extent of the defect, and part numbers & quantity affected. Include any relevant photos and reference the model number which you can find on the front page of your instructions. We value your feedback, and if you find that portions of these instructions are unclear or missing, please email us with the subject "Assembly Instruction Feedback" and include your detailed comments or suggestions, which will be reviewed and applied to future updates. For information on our Refund & Return policy visit <https://climapod.com/refund-policy/>

Warranty

Greenhouse

From the original date of delivery Modular Organics LLC warrants our greenhouses ("Product") be free from defect in materials and workmanship for a period of 10 years.

This warranty applies to the original owner and is non-transferable.

This warranty covers replacement or repair of defective parts due to material or manufacturing defects.

This warranty does not cover any shipping costs associated with the replacement or repair.

This warranty does not cover polycarbonate, transportation, damage caused due to weather conditions, and/or improper installation.

This warranty does not cover incidental or consequential damages; cosmetic defects, minor twisting or warping that do not affect performance or integrity.

This warranty does not cover vandalism; improper use or installation; acts of nature, including but not limited to wind, storms, hail. Floods, excessive water exposure.

Regular maintenance of our Product it is a requirement of the warranty. This warranty is contingent upon proper use of the Greenhouse in the application for which such Product was intended and does not cover Products that were modified without Modular Organics' prior written approval.

Polycarbonate panels

Modular Organics LLC offers a 10-year limited warranty from the original date of delivery which warrants our Polycarbonate Panels ("Panels") against excessive loss of light transmission and/or surface yellowing on the UV-protected surface.

This warranty does not apply to panels that have been scratched, abraded or exposed to corrosive materials.

This warranty does not cover excessive loss of light transmission and/or yellowing of the surface as well as loss of UV-protective qualities due to the usage of strong cleaning supplies/chemicals or applying any substance to the UV-protected side of the panel.

This warranty does not include or cover loss due to environmental conditions, severe weather or atmospheric conditions, dirt or dust depositions or any changes to the physical properties of the polycarbonate base materials.

This warranty does not include or cover, directly or indirectly, any related expenses for disassembly, fabrication, installation, or any losses, that may be incurred as a result of the failure of the panel.

On request of Modular Organics LLC claimant must allow the material to be inspected on the site and/or return the Panels to Modular Organics LLC company for testing.

Accessories

Modular Organics LLC offers a one-year limited warranty that applies exclusively to new ClimaPod accessories and warrants against defects in material and workmanship.

The accessories that are covered by this warranty are Automatic Window (Vent) Openers, Louver, and Solar Powered Ventilators (Fans).

This warranty does not cover transportation and/or return shipping fees as well as unit assembly or disassembly cost.

The warranty does not cover operating parts such as pistons in automatic window openers or other accessories which are breakable in ordinary use.

This warranty does not apply to defects resulting from misuse, abuse, accident, neglect, incorrect installation, improper maintenance or handling, or operation with an incorrect power source.

On request of Modular Organics claimant must allow the material to be inspected on the site and/or return by mail the sheet to Modular Organics for testing.

THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS. THIS WARRANTY EXCLUDES ALL CONSEQUENTIAL DAMAGES, HOWEVER, SOME STATES/PROVINCES DO NOT ALLOW THE LIMITATION OR EXCLUSION OF CONSEQUENTIAL DAMAGES, AND THEREFORE THIS LIMITATION MAY NOT APPLY TO YOU.

Winter and Wind Protection

Ensuring your greenhouse withstands high winds is crucial, and proper preparation and installation are key. Based on customer feedback, our Greenhouses have successfully endured winds exceeding 60 MPH, thanks to careful planning and regular maintenance. To enhance wind resistance, consider the following measures:

1. **Strategic Positioning:** Orient the greenhouse with gable ends facing the prevailing wind direction. This minimizes wind resistance and maximizes stability by presenting a smaller surface area for the wind to push against.
2. **Sheltered Location:** Place the greenhouse in a naturally protected spot, like behind a building, hedge, or trees, to reduce direct wind impact.
3. **Windbreaks:** If natural protection is unavailable, install man-made windbreaks, such as solid fences or windbreak fabric, to shield the greenhouse strategically.
4. **Secure Anchoring:** Ensure the greenhouse is firmly anchored to the ground using robust foundation supports or anchoring systems designed for high winds, preventing displacement during storms.
5. **Sealing and Caulking:** Enhance overall durability by sealing greenhouse seams with an All Purpose/ All Weather Clear silicone caulk. Caulking prevents water ingress, increases structural integrity, and prevents panel displacement. The sealant should be applied at the end of the assembly, to the outside seams where the Polycarbonate Panels meet the Aluminum Framing. Caulking inside seams is optional.

Silicone Caulking Sealant Recommendation: Henry 212 All Purpose Crystal Clear Sealant
Usage Guidelines: For a 9x14 greenhouse, use 4-6 bottles. Add 2-3 bottles for every 7' extension.

6. **Regular Maintenance:** Keep all bolts and connections well-maintained and tight to ensure structural integrity over time. Consider using a threadlocker product like Loctite after assembly to prevent loosening. This type of adhesive is used to secure bolts, nuts, and other fasteners to prevent them from loosening due to wind vibration or other factors. The adhesive cures when confined in the absence of air between close-fitting metal surfaces, creating a strong bond.
7. **Protect Vents and Doors:** Secure vents and doors closed with wire, string, or custom latches. Disconnect or Disengage any Automatic Window Openers and store the cylinders vertically. Apply regular oil lubricant when reinstalling.
8. **Extreme Weather Precautions:** While acknowledging that no greenhouse is entirely impervious to severe weather, here are additional measures to safeguard your structure:
 - **Insurance Coverage:** Inform your property insurance provider about the new greenhouse to explore additional coverage options tailored to its protection.
 - **Structural Reinforcement:** In regions prone to snow or high winds, reinforce the greenhouse by supporting the ridge at the center and securing crosstie frames and supporting beams with cables or rope. Consider using our Storm Kit, which provides essential materials for enhanced structural integrity.
 - **Snow Load Management:** Monitor snow accumulation closely and, when it reaches 12 inches or more, proactively remove larger snow loads by gently brushing them down the sides to prevent excessive stress on the structure.
 - **Watch for Overhead Hazards:** Be vigilant about potential hazards, such as snow buildup or branches falling from overhead roofs or trees, which could impact the greenhouse. Regularly clear these areas to mitigate risks.

Tools required for assembly:

- 10mm nut driver (Included)
- 10mm open-end wrench (Included)
- Gloves (Included)
- Phillips head screwdriver
- Flat-headed screwdriver
- Level
- Ladder
- Needle-nose pliers
- Utility knife/box cutter

Miscellaneous supplies:

- Hardware and materials for building foundation as preferred
- WD-40 Lubricant
- Clear exterior silicone caulking

Caulking increases the structural integrity of the greenhouse and prevents moisture from infiltrating the panel, which can cause water and algae buildup. Caulking should be applied to all outer seams of the greenhouse. Caulking of the inner seams is recommended but not required.

To caulk the outer seams of a 9x14 greenhouse we recommend approximately 4-6 bottles. For each 7' extension, add 2-3 bottles.

A brand we recommend is Henry 212 All-Purpose Crystal Clear Sealant

Greenhouse Assembly Tips and Tricks

- Erection of the greenhouse must take place in calm, dry, non-windy weather.
- Having an elevated or flat surface to work on, such as a large table or plywood on sawhorses, makes completing the subassemblies easier.
- Lubricate any screws that need to be screwed into an aluminum profiles. Pre-threading may also make it easier.
- After assembly is complete, periodically check connections for loosened nuts and re-tighten them. Consider applying a product such as Loctite to bolts at connections where loosening of bolts is experienced repeatedly.
- When attaching parts to bolts in tracks you can keep the bolt stationary and pushed forward in the track by wedging a flat-head screwdriver behind the head of the bolt until the nut is threaded onto the bolt. (See picture)



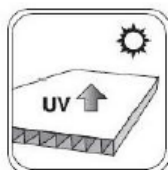
Cautions



Remove approximately 2 inches of film from all sheet edges before installing. Remove all film immediately after the construction is completed.



Handle with care! Dropping can bend the frame, and it won't fit properly.



The UV-protected side of the sheet is covered with opal white film/text and must face towards the sun.



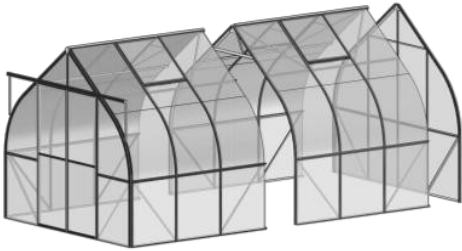
Keep sharp instruments away from the polycarbonate sheets.



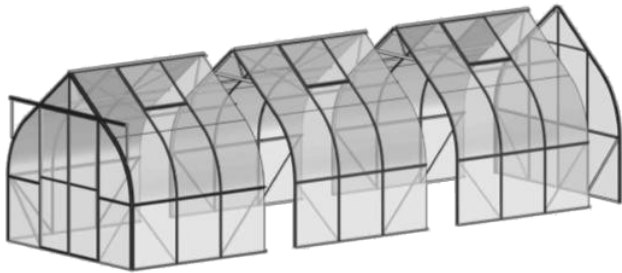
Please put on gloves avoid slitting your hands.

V9 "Climapod Virtue"

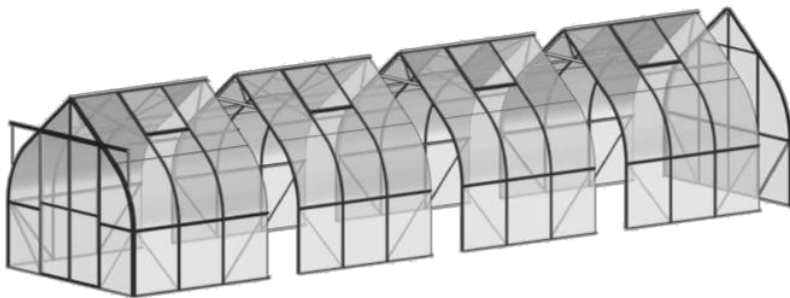
The modular Climapod greenhouse kit is customizable and expandable to suit your needs now and in the future. As shown in the diagrams below, this greenhouse series consists of a 9'x7' core, referred to as the V907 Main House, and is compatible with one or more 7' Extension sets (V9EXT) to increase the length as preferred. The positioning of the V907 Main House will determine the location for the front entrance of your greenhouse .



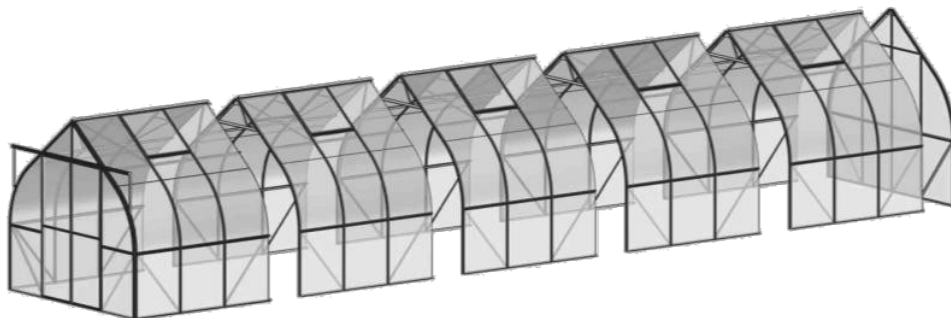
9x14 (V914) = one V907 Main house + one V9 7' Extension set
Outside Dimensions: 8' 11 3/16" (2722 mm) x 14' 4 7/16" (4380 mm) x 7' 11" (2412 mm)



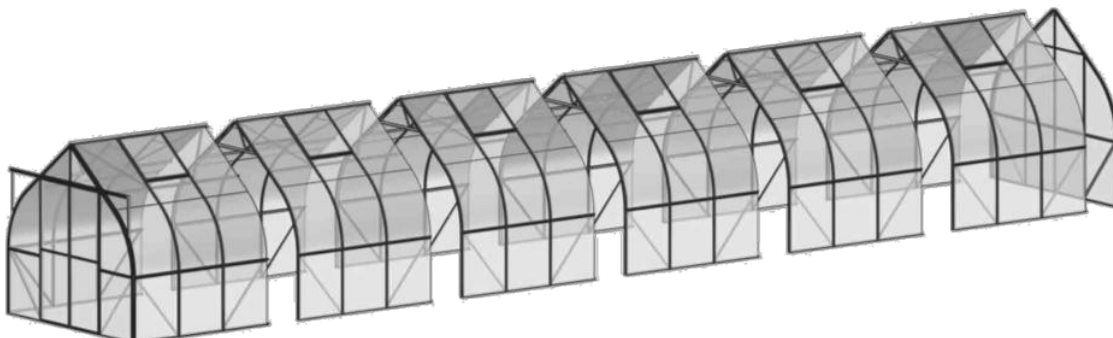
9x21 (V921) = one V907 Main house + two V9 7' Extension sets
Outside Dimensions: 8' 11 3/16" (2722 mm) x 21' 5" (6528 mm) x 7' 11" (2412 mm)



9x28 (V928) = one V907 Main house + three V9 7' Extension sets
Outside Dimensions: 8' 11 3/16" (2722 mm) x 28' 5 9/16" (8676 mm) x 7' 11" (2412 mm)



9x35 (V935) = one V907 Main house + four V9 7' Extension sets
Outside Dimensions: 8' 11 3/16" (2722 mm) x 35' 6 1/8" (10824 mm) x 7' 11" (2412 mm)



9x42 (V942) = one V907 Main house + five V9 7' Extension sets
Outside Dimensions: 8' 11 3/16" (2722 mm) x 42' 6 11/16" (12972 mm) x 7' 11" (2412 mm)

Virtue V907 Main House Parts List

This list details parts and hardware used for the V907 Main House. This includes framing for the front and rear gables, two vents, doors, and the first 7 ft of length. Polycarbonate Panels, Base Profiles & Hardware, and Extension Set Components are listed separately in these instructions.

Section	Part No.	Profile	Size	V907	
R E A R	V903		116 ⁹ / ₁₆ " (2960mm)	1	
	V904		116 ⁹ / ₁₆ " (2960mm)	1	
	V005		75 ¹ / ₄ " (1912mm)	1	
	V006		75 ¹ / ₄ " (1912mm)	1	
	V907		93 ⁹ / ₁₆ " (2377mm)	1	
	908		49 ¹⁵ / ₁₆ " (1268mm)	1	
	V009		26 ⁷ / ₈ " (683mm)	2	
	V010		23 ³ / ₈ " (594mm)	2	
	911		104 ¹³ / ₁₆ " (2662mm)	1	
	012		43 ⁵ / ₁₆ " (1100mm)	2	
	V913		104 ¹³ / ₁₆ " (2662mm)	1	
	F R O N T	V903		116 ⁹ / ₁₆ " (2960mm)	1
V904			116 ⁹ / ₁₆ " (2960mm)	1	
V009			26 ⁷ / ₈ " (683mm)	2	
012			43 ⁵ / ₁₆ " (1100mm)	2	
V014			75 ¹ / ₄ " (1912mm)	1	
V015			75 ¹ / ₄ " (1912mm)	1	
V916			104 ¹³ / ₁₆ " (2662mm)	1	
V917			18 ¹ / ₈ " (460mm)	1	
V918			48" (1220mm)	1	
V919			97 ¹³ / ₁₆ " (2484mm)	1	
056			27 ¹³ / ₁₆ " (707mm)	2	
R O O F & S I D E		V021		86 ¹ / ₂ " (2197mm)	1
		V026		85 ¹¹ / ₁₆ " (2176mm)	2
	031		85 ³ / ₁₆ " (2163mm)	2	
	036		85 ³ / ₁₆ " (2163mm)	2	
	012		43 ⁵ / ₁₆ " (1100mm)	8	
	V042		26 ⁷ / ₈ " (683mm)	6	
	V943		116 ⁵ / ₁₆ " (2954mm)	4	
	955		15 ³ / ₄ " (400mm)	2	

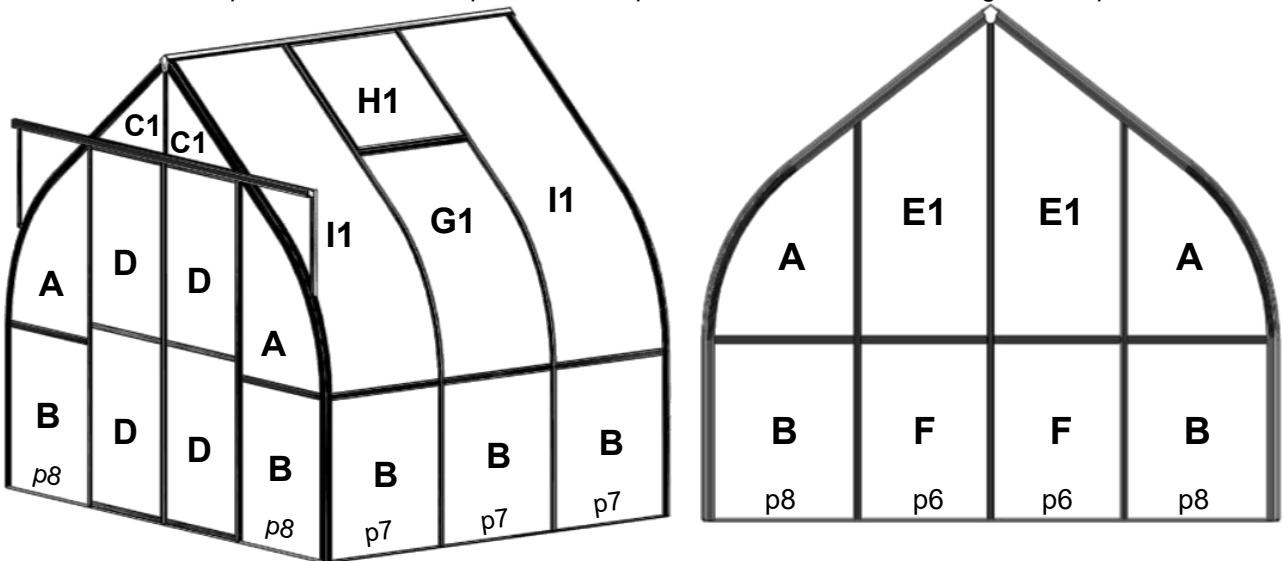
Section	Part No.	Profile	Size	V907
V E N T	V042		26 ⁷ / ₈ " (683mm)	2
	V044		27 ¹ / ₂ " (698mm)	2
	V045		27 ¹ / ₂ " (698mm)	2
	V946		29 ¹ / ₂ " (750mm)	4
	047		11 ¹³ / ₁₆ " (300mm)	2
	048		7 ⁷ / ₈ " (200mm)	2
D O O R	V049		23 ¹ / ₁₆ " (586mm)	2
	V050		23 ¹ / ₁₆ " (586mm)	4
	V051		73 ³ / ₈ " (1864mm)	2
	V952		73 ³ / ₈ " (1864mm)	1
	V953		73 ³ / ₈ " (1864mm)	1
	054		22" (558mm)	2
	a1		M6x10	103
	a2		M6	113
	a3		M6x18	3
	a4		Φ4.2x9.5	4
	a5		Φ3.5x19	8
	a6		Φ3.5x35	12
	a7		Φ4x8	4
	a8		M6x15	6
	a9		M6x15 crop	4
	a10		Φ3x10	4
	a11		M3	4
	m1		-	2
	m3		-	3
	m6		-	2
	n1		-	4
	p1		-	2
	p3		-	4
	p4		-	4
	p5		-	2
	p6		23 ⁵ / ₁₆ " (592mm)	2
	p7		26 ⁷ / ₈ " (682mm)	6
	p8		26" (660mm)	4
	m11		-	1
	FLUFF		3.8m	1

Polycarbonate Panel List

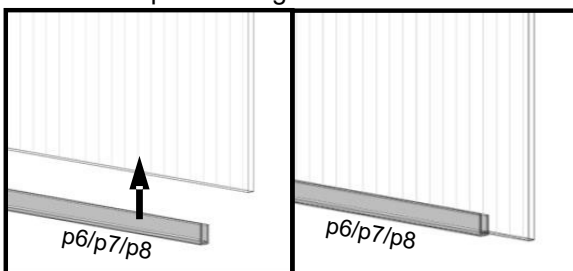
This list details the polycarbonate panels used for the V907 Main House. This includes the front and rear gables, two vents, doors, and the first 7 ft of length. Polycarbonate Panels for Extension Sets are listed separately in these instructions

#	Size	Virtue V907
A	27 ^{9/16} "x41 ^{5/16} " (700x1049mm)	4
B	27 ^{9/16} "x33 ^{1/8} " (700x842mm)	10
C1	23 ^{11/16} "x19 ^{3/16} " (602x487mm)	2
D	23 ^{9/16} "x35 ^{15/16} " (599x913mm)	4
E1	24"x60 ^{3/8} " (610x1534mm)	2
F	24"x33 ^{1/8} " (610x842mm)	2
G1	27 ^{9/16} "x52 ^{3/8} " (700x1330mm)	2
H1	27 ^{3/8} "x28 ^{3/4} " (696x731mm)	2
I1	27 ^{9/16} "x83 ^{1/16} " (700x2110mm)	4
p6	23 ^{5/16} " (592mm)	2
p7	26 ^{7/8} " (682mm)	6
p8	26" (660mm)	4

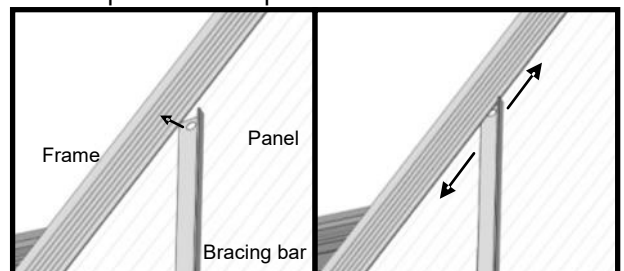
This diagram shows the positioning of the polycarbonate panels for the front and rear gable as well as the roof and the sides. It also indicates which of the anti-dust strips **p6**, **p7** and **p8** are used to cap off the bottom of each lower panel. Make sure to peel back the protective film before attaching dust strips.



Tip: When fitting parts **p6/p7/p8** on the bottom ends of the panels, using a narrow piece of bar soap through the part first will allow them to slide on the panel's edges much easier.



Tip: If you are having trouble getting a panel edge to properly seat into the channels of the aluminum frame you can use a bracing bar **012** to help squeeze it into position.



Virtue V9EXT Extension Parts List

This list details parts and hardware used for one 7' extension set. Refer back to page iv to determine how many extension sets your greenhouse kit includes. Base Profiles & Hardware for each extension are listed separately in these instructions.

Roof/Side wall

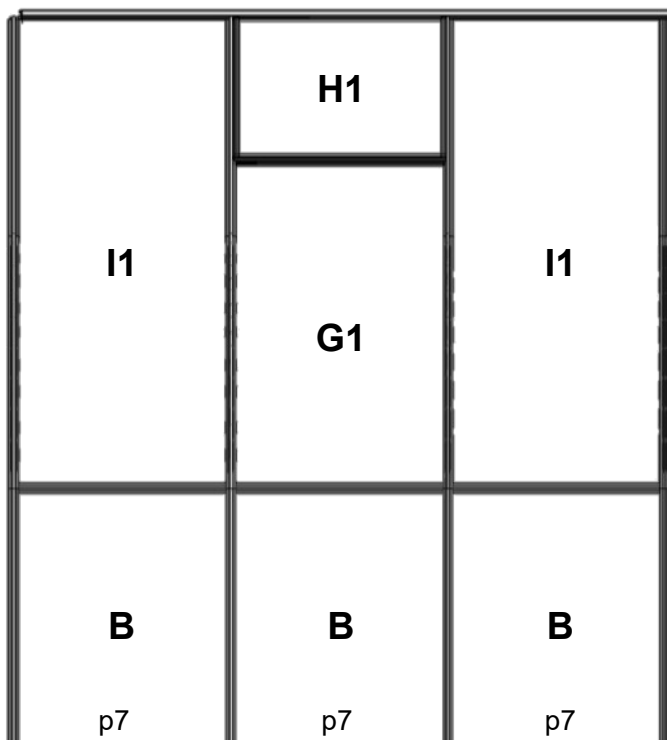
Part No.	012	V063	V064	065	066	067	V943	V042	961	962	955
Size	43 ^{5/16"} (1100mm)	84 ^{9/16"} (2148mm)	84 ^{9/16"} (2148mm)	84 ^{3/16"} (2139mm)	84 ^{3/16"} (2139mm)	84 ^{3/16"} (2139mm)	116 ^{5/16"} (2954mm)	26 ^{7/8"} (683mm)	115" (2921mm)	33 ^{7/16"} (850mm)	15 ^{3/4"} (400mm)
Qty	8	1	2	1	1	2	6	6	2	1	2

Part No.	069	m1	m7	a1	a2	a8	a16
Size	-	-	-	M6x10	M6	M6x15	Φ6
Qty	1	1	2	44	66	22	2

2 Vents

Part No.	V042	V044	V045	V946	047	048	m3	a1	a2	a4	a5	p3
Size	26 ^{7/8"} (683mm)	27 ^{1/2"} (698mm)	27 ^{1/2"} (698mm)	29 ^{1/2"} (750mm)	11 ^{13/16"} (300mm)	7 ^{7/8"} (200mm)	-	M6x10	M6	Φ3.9x8	Φ3.5x19	-
Qty	1	1	1	2	1	1	2	6	6	4	4	2

Polycarbonate Panels



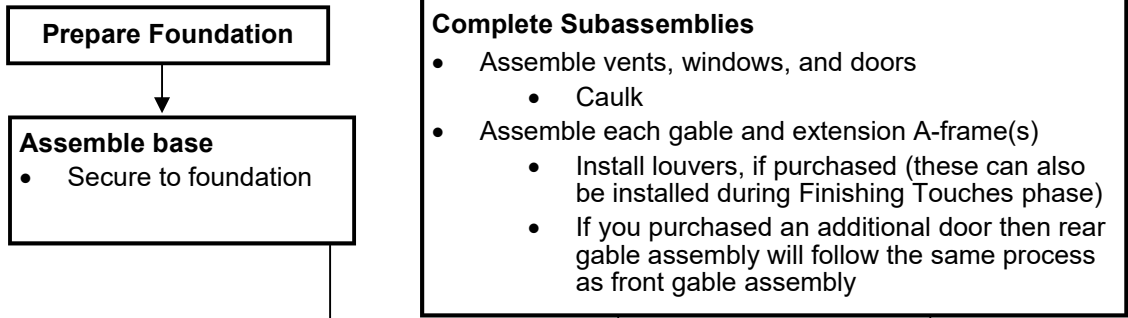
IMPORTANT

When inserting the polycarbonate panels, the side with white film must be facing towards the outside as this side is UV protected. Make sure to peel at least 1-2" of film from the edges of **both sides**, this way there will be no obstructions when inserting the panels and they will stay protected from dust and scratches. Once assembly is complete, remove all protective films from **both sides**.

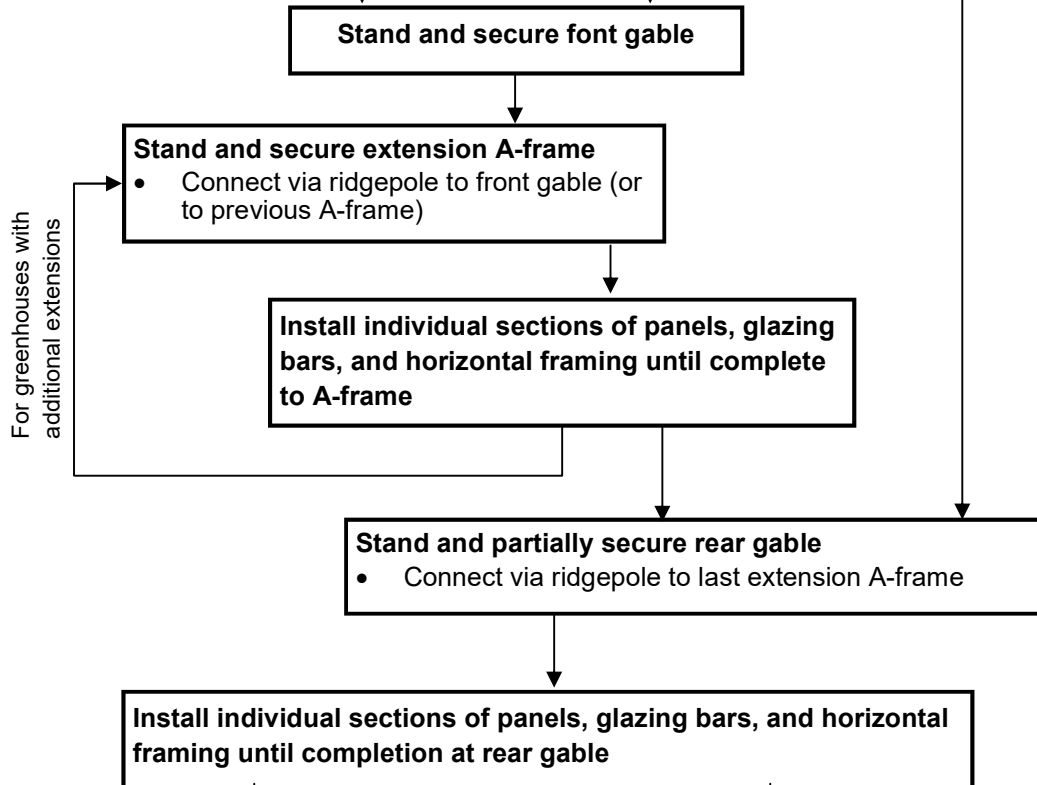
#	Size	QTY
B	27 ^{9/16"} x33 ^{1/8"} (700x842mm)	6
G1	27 ^{9/16"} x52 ^{3/8"} (700x1330mm)	2
H1	27 ^{3/8"} x28 ^{3/4"} (696x731mm)	2
I1	27 ^{9/16"} x83 ^{1/16"} (700x2110mm)	4
p7	26 ^{7/8"} (682mm)	6

Overview of Assembly Workflow

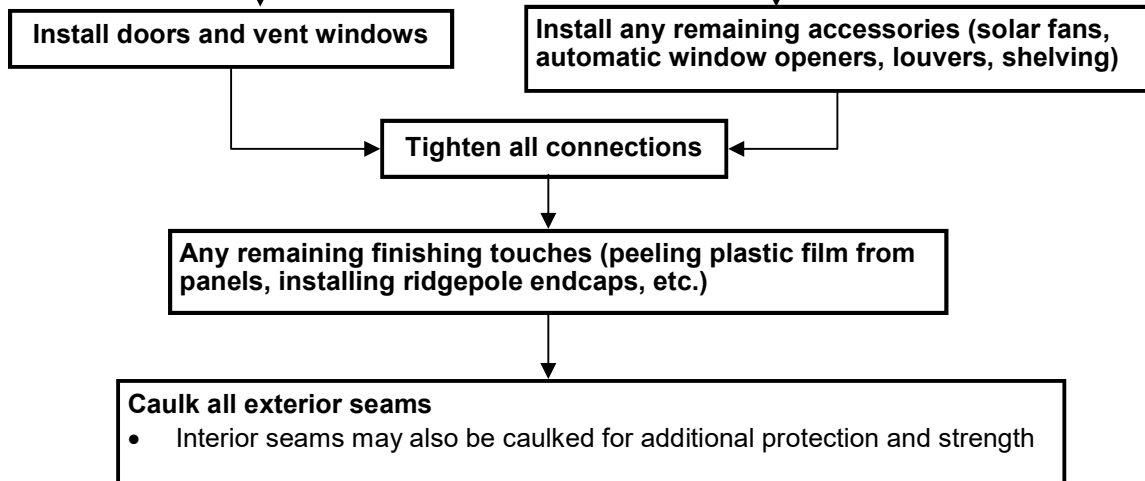
Phase 1: Preparation



Phase 2: Erect Greenhouse



Phase 3: Finishing Touches



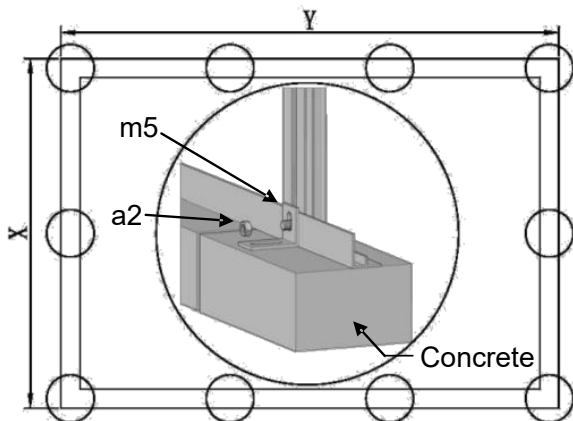
Prepare Foundation

An aluminum base is provided with your greenhouse kit and includes all basic fittings required to secure it to a concrete or wood foundation. While there are many foundation configurations possible, the most common foundation is made up of pressure-treated wood beams. Some other options include a concrete slab or concrete footings. Our kit provides a number of additional brackets, but in the case of more complex foundations you may need to purchase additional materials specific to your building plan. No matter what foundation you are using it should meet the following basic requirements for the base:

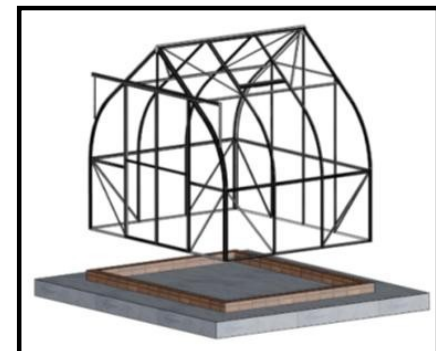
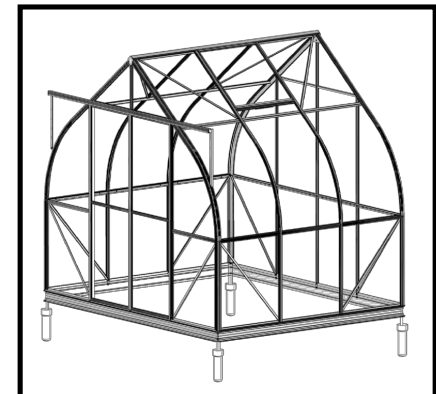
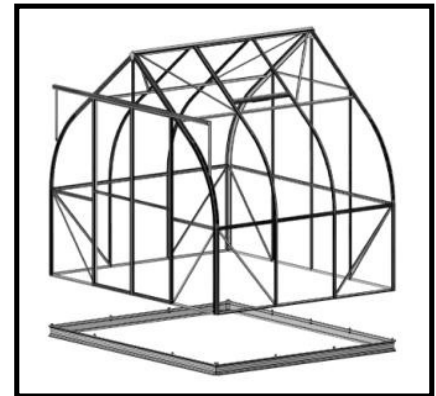
- 100% level and square
- Fastened to a non-freezing depth (approx. 80cm)
- The base must be securely anchored in some way.

There are many possible configurations and customers are encouraged to install additional custom reinforcements to ensure it is well secured in the context of your site.

Assembly without base: If you prefer to construct the greenhouse on a concrete pad or a wooden deck without using the included aluminum base, you may secure the greenhouse using the included brackets **m5** to secure the bottom sills of the greenhouse to your foundation.

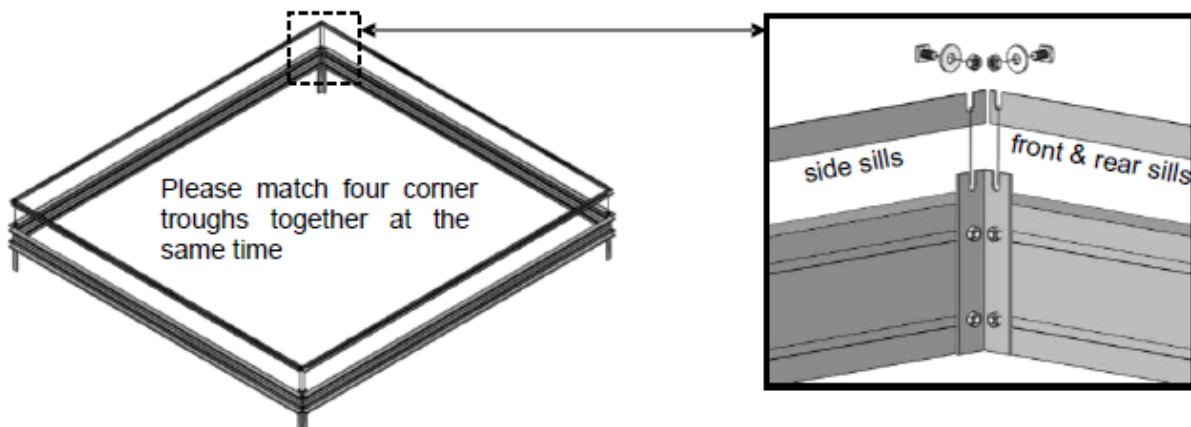


#	m5
V907	13
EXT	6











Before securing the aluminum base to your foundation we recommend performing a fit-test. Affix the base pieces in the intended position using the anchor legs, then lay out the lower sills **V913**, **V916**, **V026** (x2), and **V064** (quantity depending on number of extensions in your kit). Ensure that the end troughs of the four anchor legs match both end troughs of side sills and front & rear sills at the same time., as shown in the diagram below.

The image below shows an example of how to connect the corners. This is for measuring only, DO NOT secure the sills at this time.

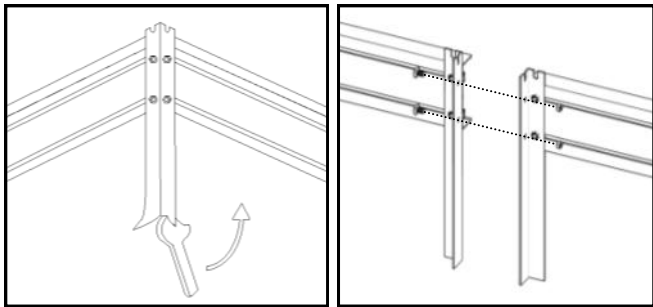


Assemble Base

Model	9-G	7-S	Anchor leg	m7	Bolts	a2	a9	a16
								
V907	104 ^{7/8"} (2664mm)	85 ^{9/16"} (2174mm)	4	9	16	25	9	8
EXT-3	-	84 ^{9/16"} (2148mm)	4	4	16	20	4	8

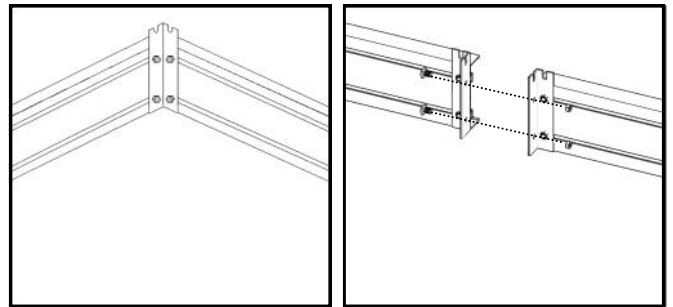
Option A (with anchor leg A)

Using the base, and the full-size anchor legs. Usually, this option is selected if the greenhouse base is positioned towards the inner side of the foundation, and allows full-sized anchor legs to fit alongside the foundation.

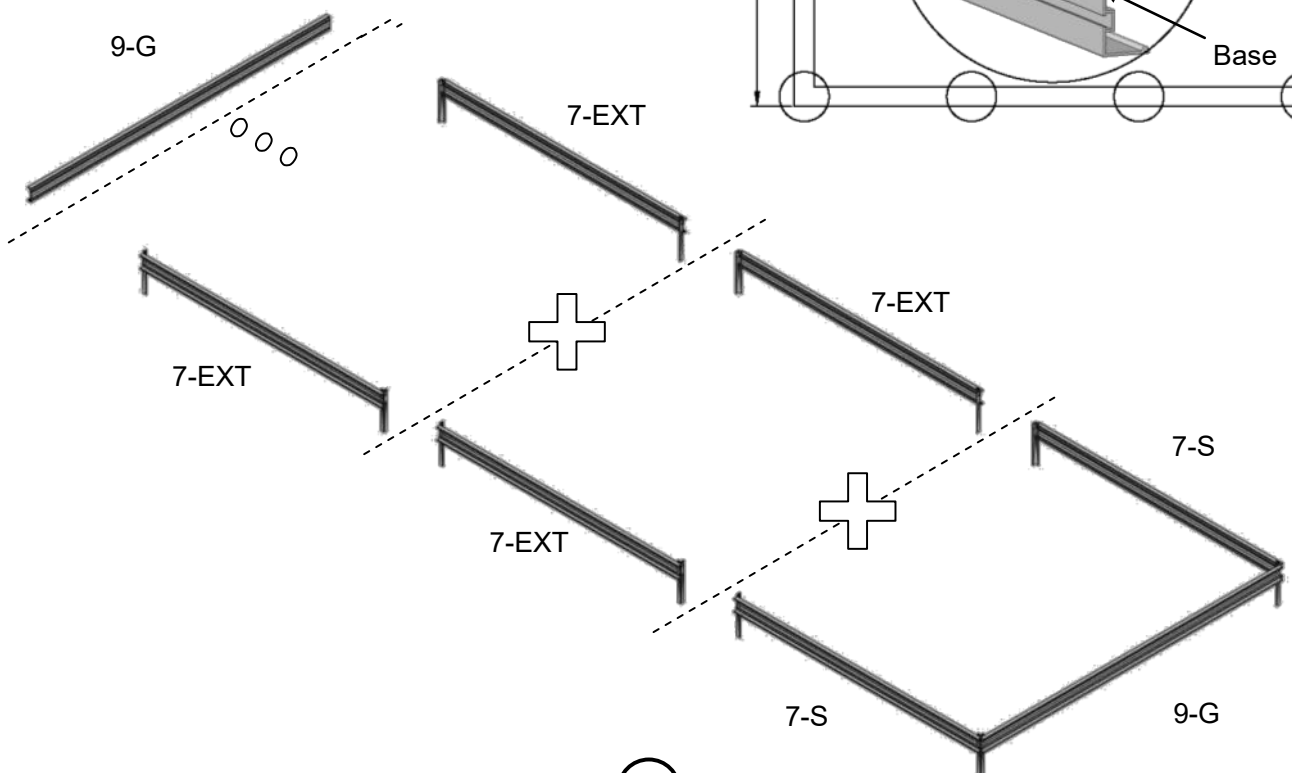
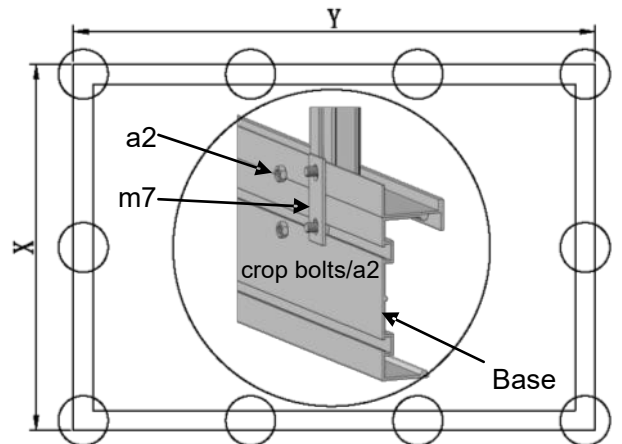


Option B (with anchor leg B)

Using the base with short anchor legs. This option is used when the greenhouse base is positioned to the center of the foundation (for example, when putting aluminum base on top and in the center of 4x4 or 6x6 beams).



Note: For connecting the base profiles at the corners, x4 **a1** bolts OR hex-head (m6x10) bolts will be used. Each base profile will have one bolt inserted into the top and bottom channel, and then used to secure the anchor legs at the inside corner. Later during the assembly, crop head bolts will be inserted into the top base channel and used to fasten the fixing tabs **m7** to each glazing bar after the panels have been installed.



Subassembly: Vents

V9 VENT

Part No.	V042	V044	V045	V946	047	048	m3	a1	a2	a4	a5	p3
Size	26 ^{7/8"} (683mm)	27 ^{1/2"} (698mm)	27 ^{1/2"} (698mm)	29 ^{1/2"} (750mm)	11 ^{13/16"} (300mm)	7 ^{7/8"} (200mm)	-	M6x10	M6	Φ4.2x9.5	Φ3.5x19	-
Qty	1	1	1	2	1	1	2	6	6	4	4	2

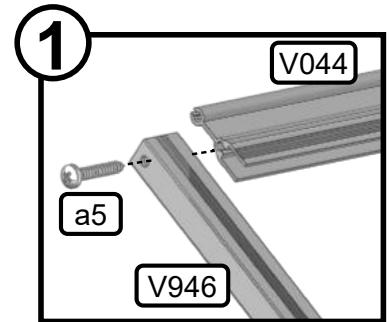
IMPORTANT

When inserting the polycarbonate panels, the side with white film must be facing towards the outside as this side is UV protected. Make sure to peel at least 1-2" of film from the edges of **both sides**, this way there will be no obstructions when inserting the panels and they will stay protected from dust and scratches. Once assembly is complete, remove all protective films from **both sides**.

Step 1: Begin assembling frame around panel H1

Spray a small quantity of lubricant into holes on **V044** where **a5** screws will be attached

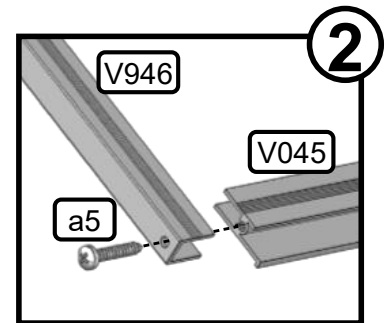
Using screw **a5** attach side vent frame **V946** to top vent frame **V044**.



Step 2: Complete vent frame

Spray a small quantity of lubricant into holes on **V045** where **a5** screws will be attached

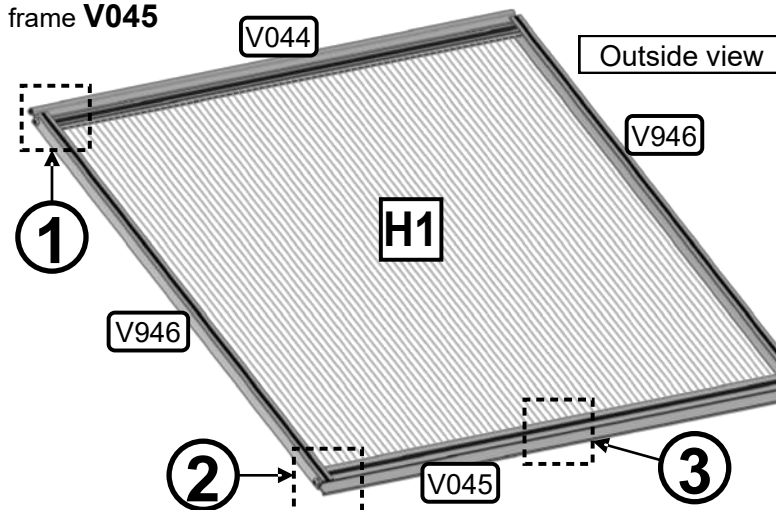
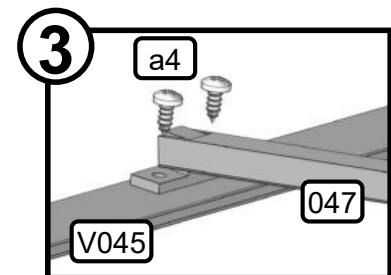
Using screw **a5** attach side frame **V946** to bottom vent frame **V045**.



Step 3: Attach manual vent opener push rod

Skip this step if you have purchased and will be using Automatic Window Openers

Using screw **a4** attach the manual push rod **047** to bottom vent frame **V045**



Repeat these steps to assemble all vents.

Apply caulk to all edges where the panels meet the frame pieces and store vents flat to avoid warping as caulk dries.

Remaining hardware and parts from this pack will be used in "Phase 3: Finishing Touches" when installing the vent assemblies.

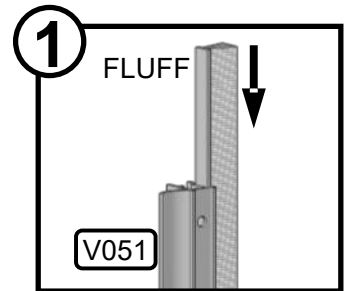
Subassembly: Doors

V9 DOOR

Part No.	V049	V050	V051	V952	V953	054	a1	a2	a5	a6	a7	a8	a10	a11	p4	p5	m11	m6	n1	FLUFF
Size	23 1/16" (586mm)	23 1/16" (586mm)	73 3/8" (1864mm)	73 3/8" (1864mm)	73 3/8" (1864mm)	22" (558mm)	M6x10	M6	Φ3.5x19	Φ3.5x35	Φ4x8	M6x15	Φ3x10	M3	-	-	-	-	-	-
Qty	2	4	2	1	1	2	4	6	4	12	4	2	4	4	4	2	1	2	4	3.8m

Step 1: Insert fluff

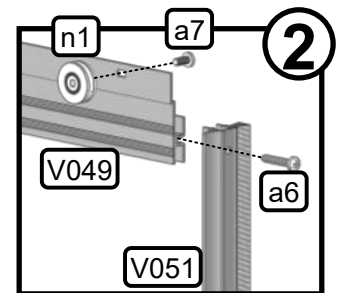
Insert **Fluff** into track of **V051** and pull until completely inserted. Trim off any excess length.



Step 2: Begin assembling door around panel D

Using screw **a7** attach **n1** rollers to **V049**. This is the top of the frame of the door.

Spray a small quantity of lubricant into holes where **a6** screws will be attached. Using screw **a6** attach the sides of the door frame, **V051** and **V952** or **V953**, to **V049**.



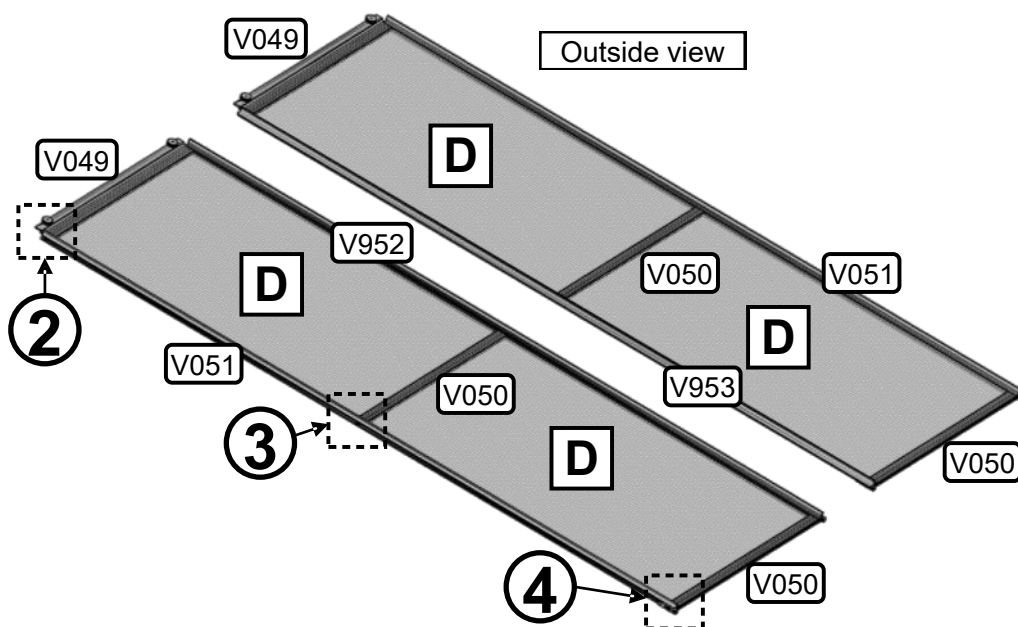
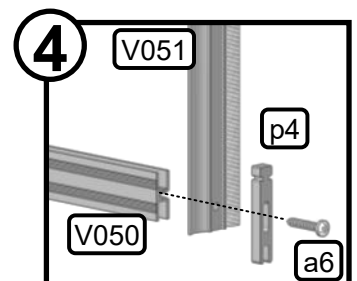
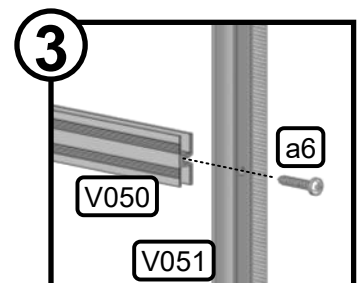
Step 3: Attach middle horizontal support

Using screw **a6** attach the sides of the door frame, **V051** and **V952** or **V953**, to horizontal frame **V050**.

Step 4: Attach bottom horizontal support

Slide second panel **D** into place

Using screw **a6** attach **p4** and **V051** to horizontal frame **V050**



Repeat these steps to assemble the second door.

Apply caulk to all edges where the panels meet the frame pieces.

Remaining hardware from this pack will be used in "Phase 3: Finishing Touches" when installing the doors.

Subassembly: Rear Gable

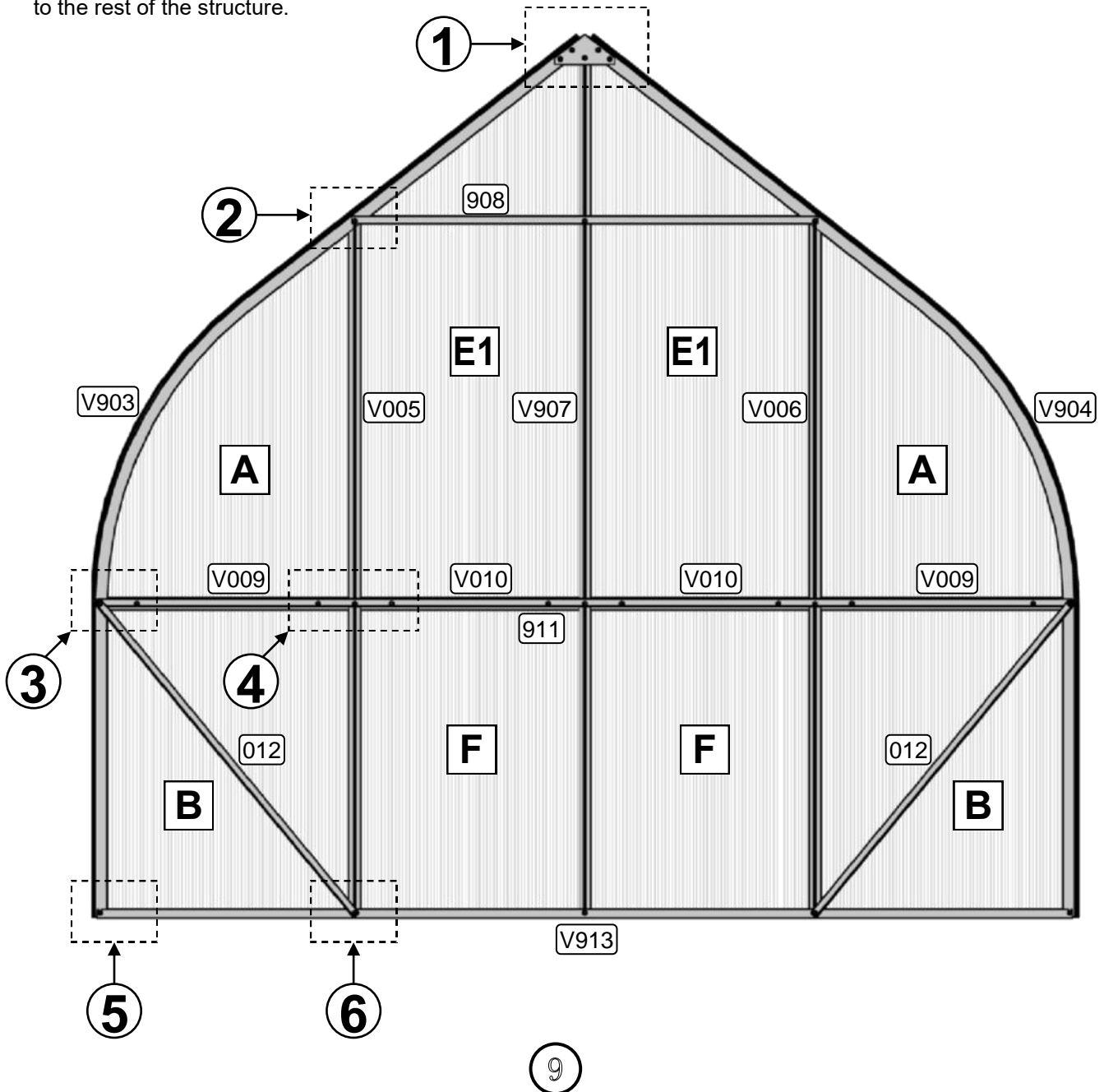
V9 REAR

Part No.	V903	V904	V005	V006	V907	908	V009	V010	911	012	V913	m1	a1	a2	a9	p1	p6	p8
Size	116 ^{9/16"} (2960mm)	116 ^{9/16"} (2960mm)	75 ^{1/4"} (1912mm)	75 ^{1/4"} (1912mm)	93 ^{9/16"} (2377mm)	49 ^{15/16"} (1268mm)	26 ^{7/8"} (683mm)	23 ^{3/8"} (594mm)	104 ^{13/16"} (2662mm)	43 ^{5/16"} (1100mm)	104 ^{13/16"} (2662mm)	-	M6x10	M6	M6x15	-	23 ^{5/16"} (592mm)	26" (660mm)
Qty	1	1	1	1	1	1	2	2	1	2	1	1	24	26	2	1	2	2

During this sequence you will assemble the Rear Gable. Lay out the aluminum profiles on a hard, flat surface as shown in the illustration below. Remember that you are building from the inside with the outside facing down and polycarbonate panels should be installed with the white film facing the outside (down). Assembly will proceed moving from the peak downwards as shown below.

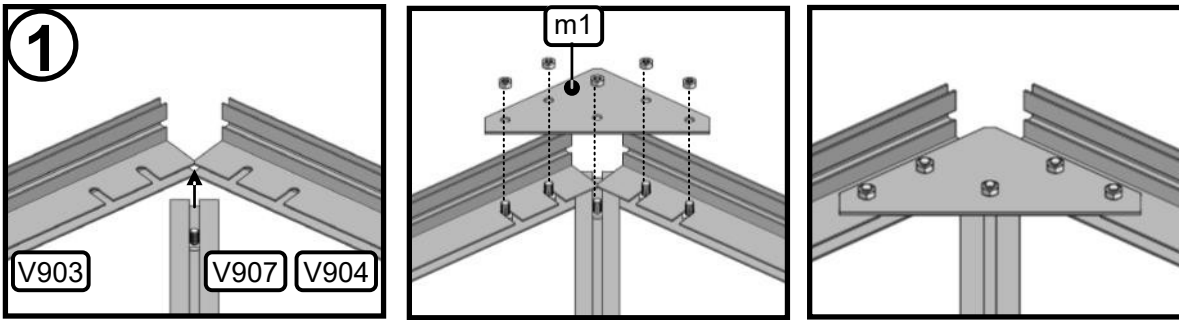
Once the rear gable is complete you may choose to install the optional louvers, if purchased. Installation of louvers can also be done with in the Finishing Touches stage, once the greenhouse is erected.

Before you continue, insert four bolts **a1** each into the tracks of both curves **V903** and **V904** and temporarily secure (finger-tighten) with nuts **a2** at the approximate heights of areas 1, 2, 3, and 5 as shown on the diagram below. These will be used during "Phase 2: Erect Greenhouse" to secure this subassembly to the rest of the structure.



Step 1: Join the curves and vertical support

Use bolts **a1**, nuts **a2**, and bracket **m1** to join together curve **V903** with curve **V904** and center vertical support **V907**.



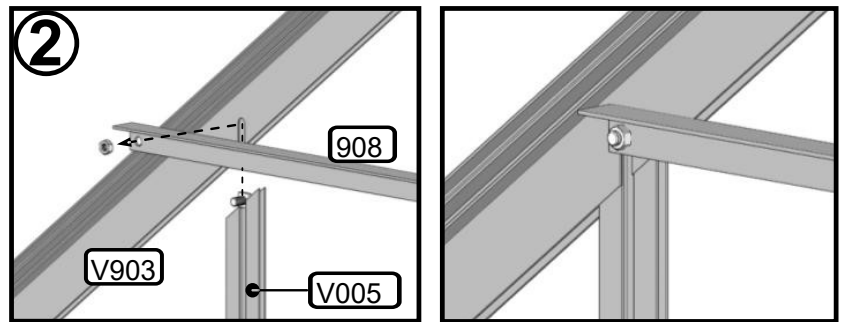
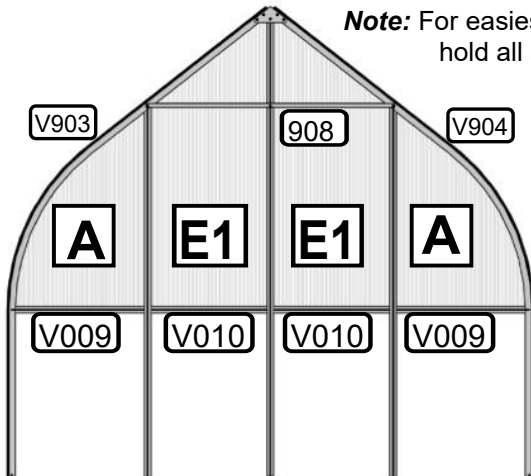
Step 2: Install horizontal support and vertical frame

Use bolts **a1** and nuts **a2** to join together horizontal support **908** and vertical frame piece **V005/V006** with outer curve **V903/V904**.

*Note: Insert an extra bolt **a1** into the channel of **V005** and **V006** for use in attaching horizontal bar **911** in the next step.*

Slide panels **A** and **E1** into place.

*Note: For easiest panel install, temporarily install horizontal bar **911** to hold all aluminum framing in place while panels are inserted.*



*If you temporarily affixed horizontal bar **911** during panel install in Step 2 detach it now; masking tape may be used if needed to hold panels in position.*

Step 3: Attach horizontal framing and bracing

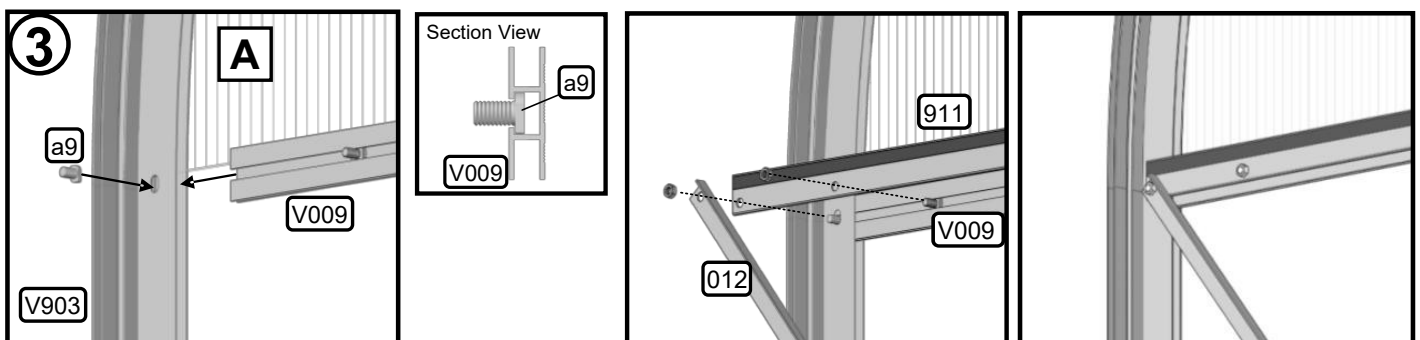
Insert two bolts **a1** into the channels of each **V009** and **V010**. These will be used to affix horizontal bar **911**.

Place horizontal frame pieces **V010** as shown in the diagram above.

Inserting head of cropped bolt **a9** into hole of curved frame **V903/V904**, slide horizontal frame **V009** in so that the head of bolt **a9** is in the channel of **V009**.

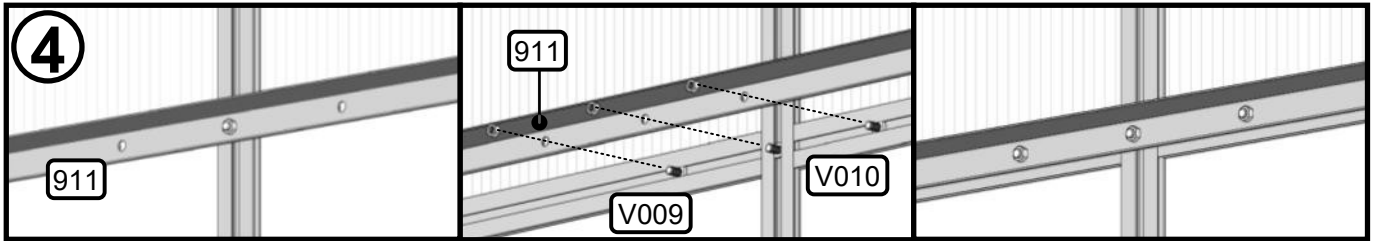
Lay horizontal bar **911** over the **V009** horizontal frame pieces and align bolts to match holes in **911**.

Affix ends of diagonal bracing bars **012** and horizontal bar **911** to bolts **a9** and secure with nuts **a2**.



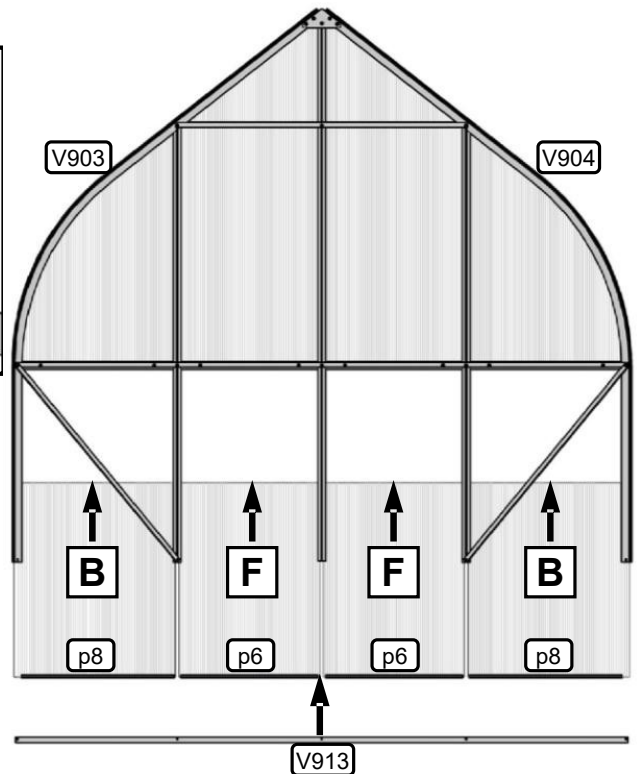
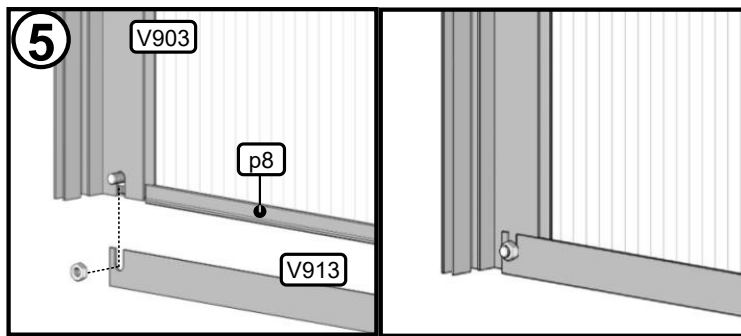
Step 4: Finish securing horizontal bracing bar

Using nuts **a2** secure horizontal bracing bar **911** to bolts previously positioned in parts **V009** and **V010** as well as vertical frame components **V005**, **V006**, and **V907**.
Horizontal bar **911** should now be fully secured.



Step 5: Install panels and affix lower sill

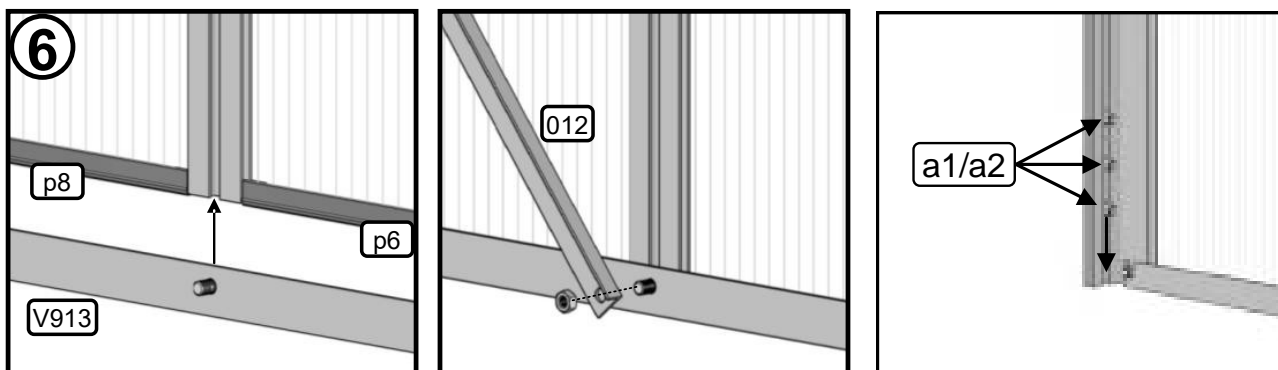
Slide panels **B** and **F** into position as shown in the diagram and affix **p8** and **p6** anti-dust strips to lower edge.
Using bolts **a1** and nuts **a2**, connect the bottom sill **V913** to the gable assembly.
Make sure that the bottom of panels **B** and **F** are in the channel of the lower sill **V913** before securing.



Step 6: Finish securing lower sill.

Using bolts **a1** and nuts **a2**, secure the diagonal supports **012** from Step 3 and the remaining connection points of bottom sill **V913** to the gable assembly.
Make sure that the bottom of panels **B** and **F** are in the channel of the lower sill **V913** before securing.

Slide four bolts **a1** each into channel of curved frames **V903** and **V904**. These will be used later during "Phase 2: Erect Greenhouse" and may be secured in position with masking tape or nuts **a2** until needed.



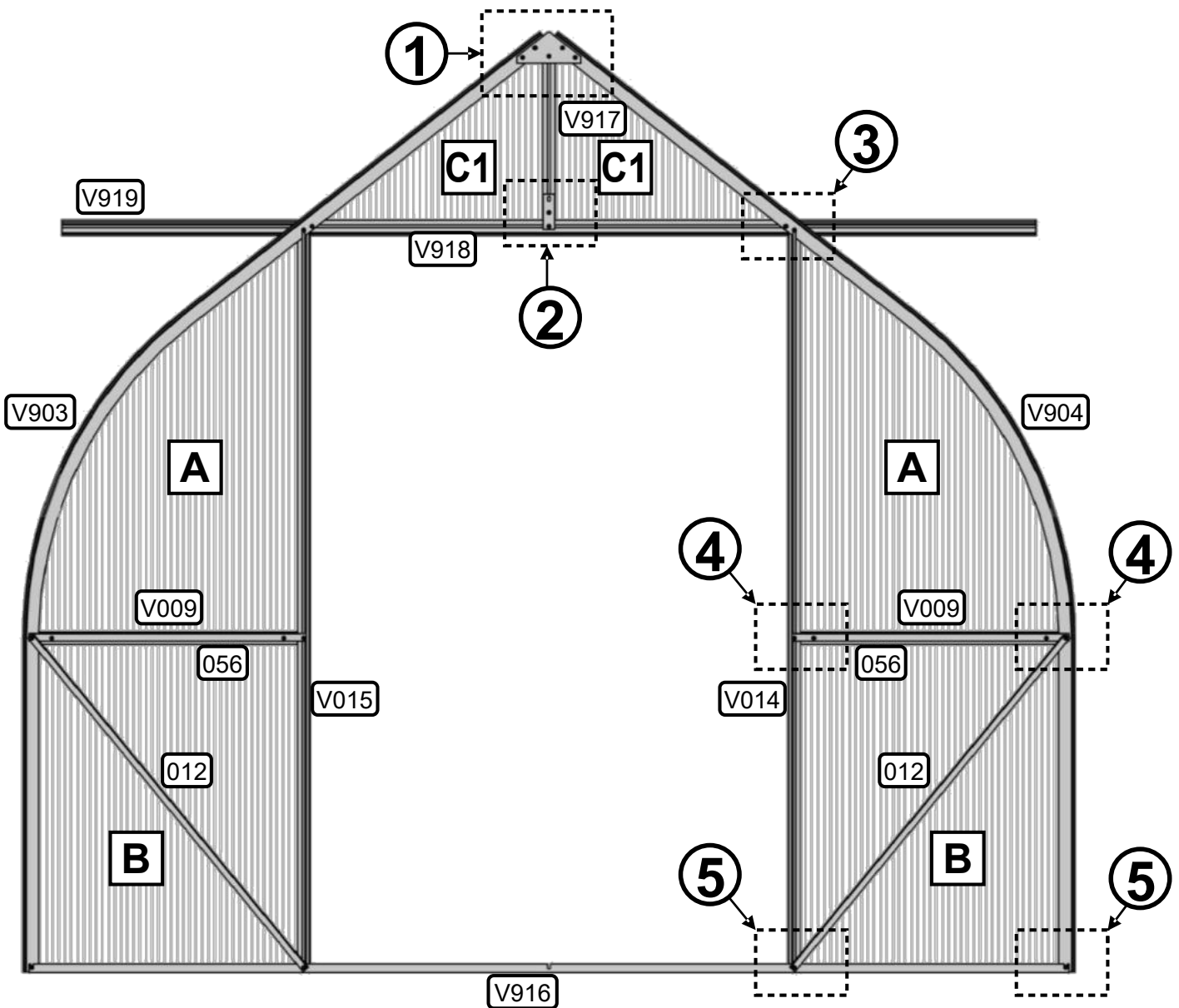
Subassembly: Front Gable

V9 FRONT

Part No.	V903	V904	V009	012	V014	V015	V916	V917	V918	V919	056	m1	m3	a1	a2	a3	a9	p1	p8
Size	116 ^{9/16"} (2960mm)	116 ^{9/16"} (2960mm)	26 ^{7/8"} (683mm)	43 ^{5/16"} (1100mm)	75 ^{1/4"} (1912mm)	75 ^{1/4"} (1912mm)	104 ^{13/16"} (2662mm)	18 ^{1/8"} (460mm)	48" (1220mm)	97 ^{13/16"} (2484mm)	27 ^{13/16"} (707mm)	-	-	M6x10	M6	M6x18	M6x15	-	26" (660mm)
Qty	1	1	2	2	1	1	1	1	1	1	2	1	1	18	23	3	2	1	2

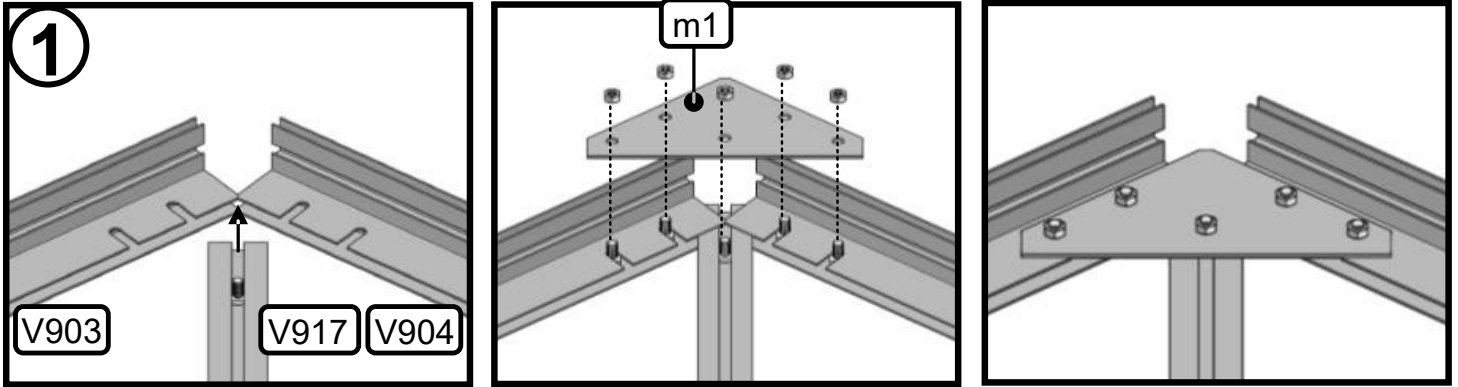
During this sequence you will assemble the Front Gable. This sequence will be very similar to the Rear Gable assembly sequence. Begin by laying out the aluminum profiles from Step 1 and Step 2 on a hard, flat surface as shown in the illustration below. Remember that you are building from the inside with the outside facing down and polycarbonate panels should be installed with the white film facing the outside (down).

Once gable is complete, insert four bolts **a1** each into the tracks of both curves **V903** and **V904** and temporarily secure (finger-tighten) with nuts **a2** at the approximate heights of areas 1, 3, 4, and 5 as shown on the diagram below. These will be used during "Phase 2: Erect Greenhouse" to secure this subassembly to the rest of the structure.



Step 1: Join the curves and vertical support

Use bolts **a1**, nuts **a2**, and bracket **m1** to join together curve **V903** with curve **V904** and vertical support **V917**.



Step 2: Install top panels and top door frame

Slide both panels **C1** into place.

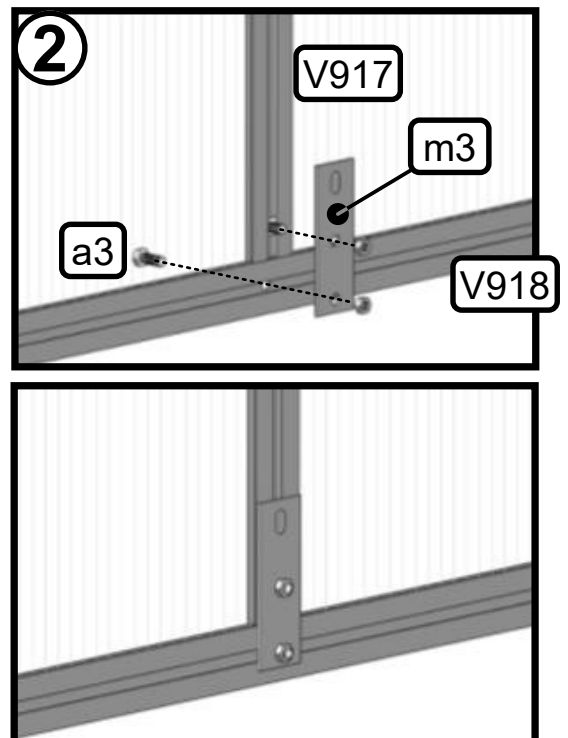
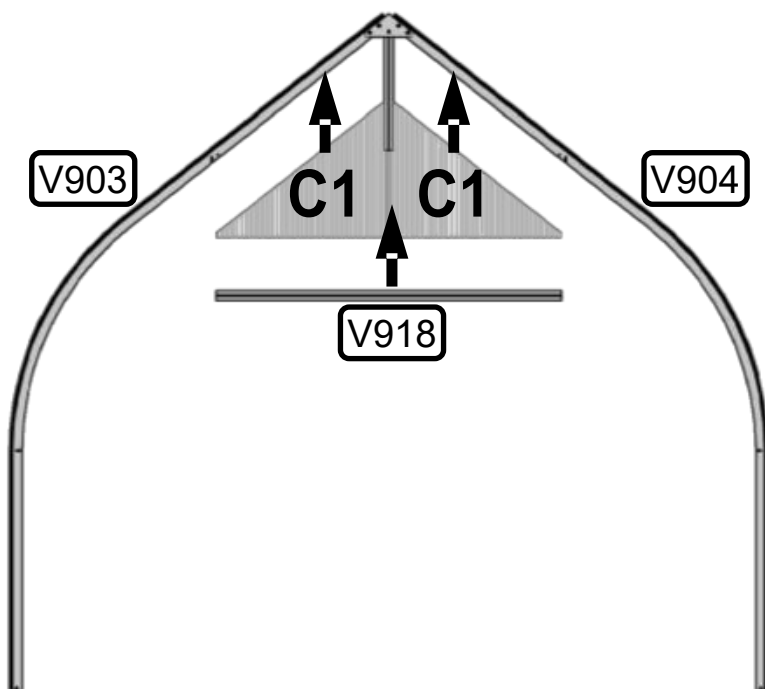
Slide bolt **a1** into track of vertical support **V917**

Use bolt **a3**, nuts **a2**, and bracket **m3** to join top horizontal door frame **V918** to vertical support **V917**.

The protrusion on bracket **m3** is meant to sit in the track of **V917**.

The bolt **a3** will be inserted through **V918** and bracket **m3** at the bottom hole; the head of this bolt will be used later to mount the door rail.

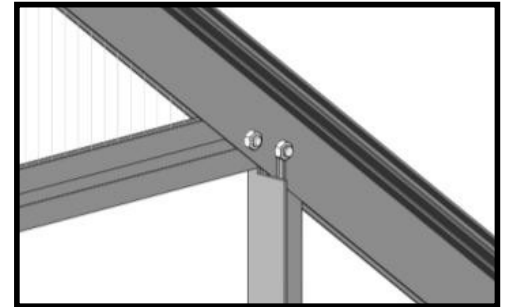
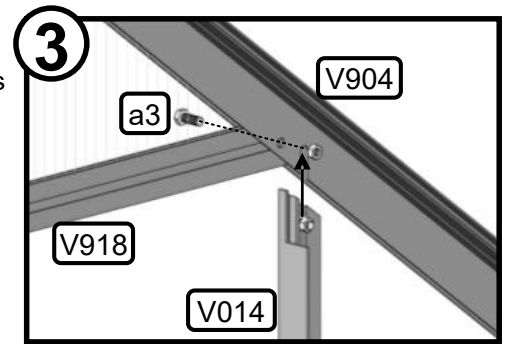
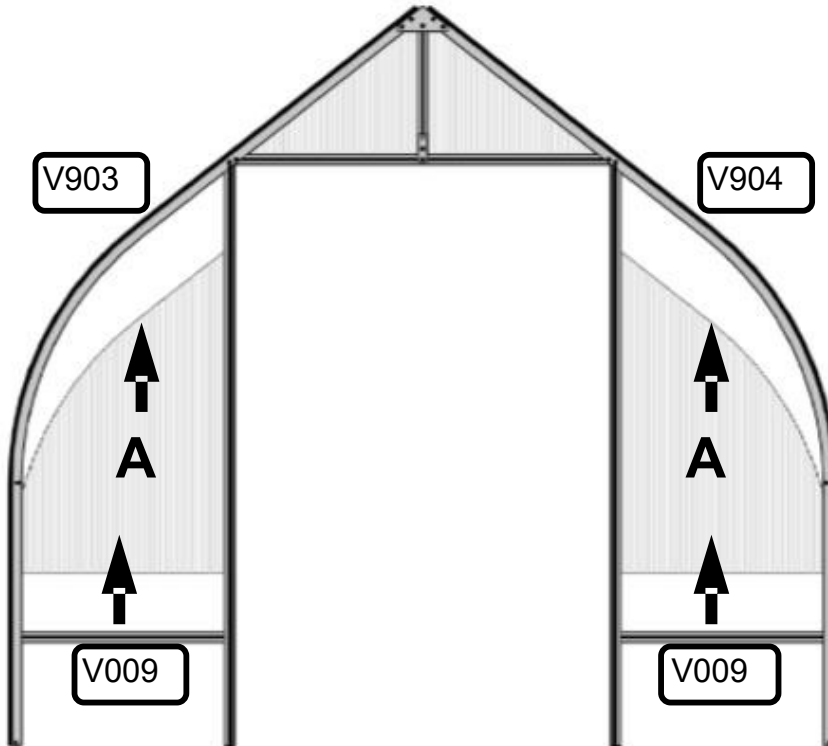
Insert bolt **a1** into track at both ends of **V918** and secure to **V903** and **V904** using nuts **a2**.



Step 3: Install side door frame and insert panels

Use bolts **a3** and nuts **a2** to secure top of vertical door frame supports **V014** and **V015** to **V903/V904**.

Insert panels **A** into channels making sure to face the UV protected side (white film) outwards.



Step 4: Install horizontal supports and bracing

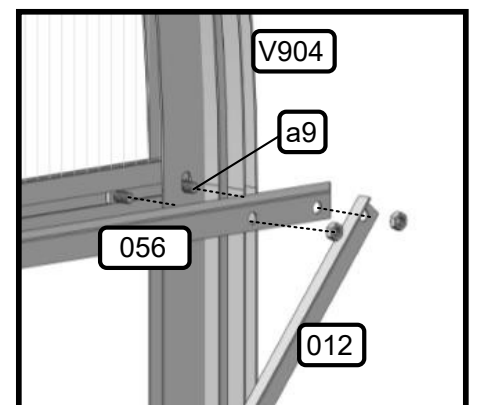
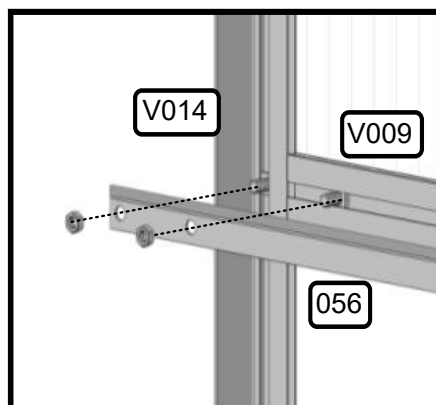
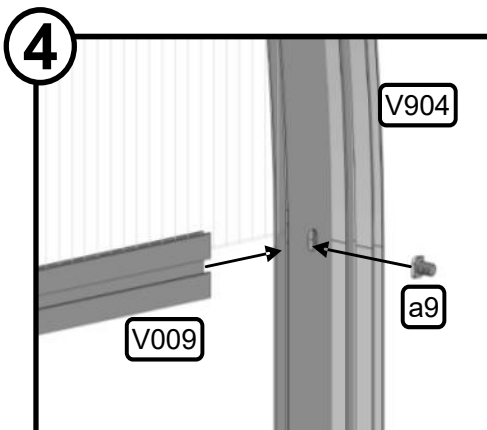
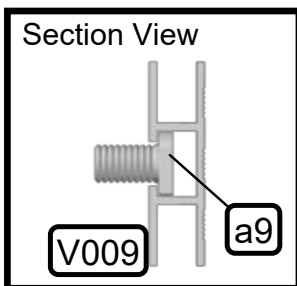
Use bolts **a9** to attach horizontal supports **V009** to **V903** and **V904**.

Insert x2 bolts **a1** into track of **V009**.

Insert x1 bolt **a1** each into track of **V014** and **V015**; position parallel to track of **V009**.

Using the positioned bolts, affix horizontal bracing **056** over **V009** and secure all *except bolt a9* with nuts **a2**; this should fasten together **V903/V009/V014** and **V904/V009/V015**.

Affix one end of one diagonal support **012** each to the bolt **a9** previously used to fasten **V009** to **V903/V904**. Secure with nuts **a2**.

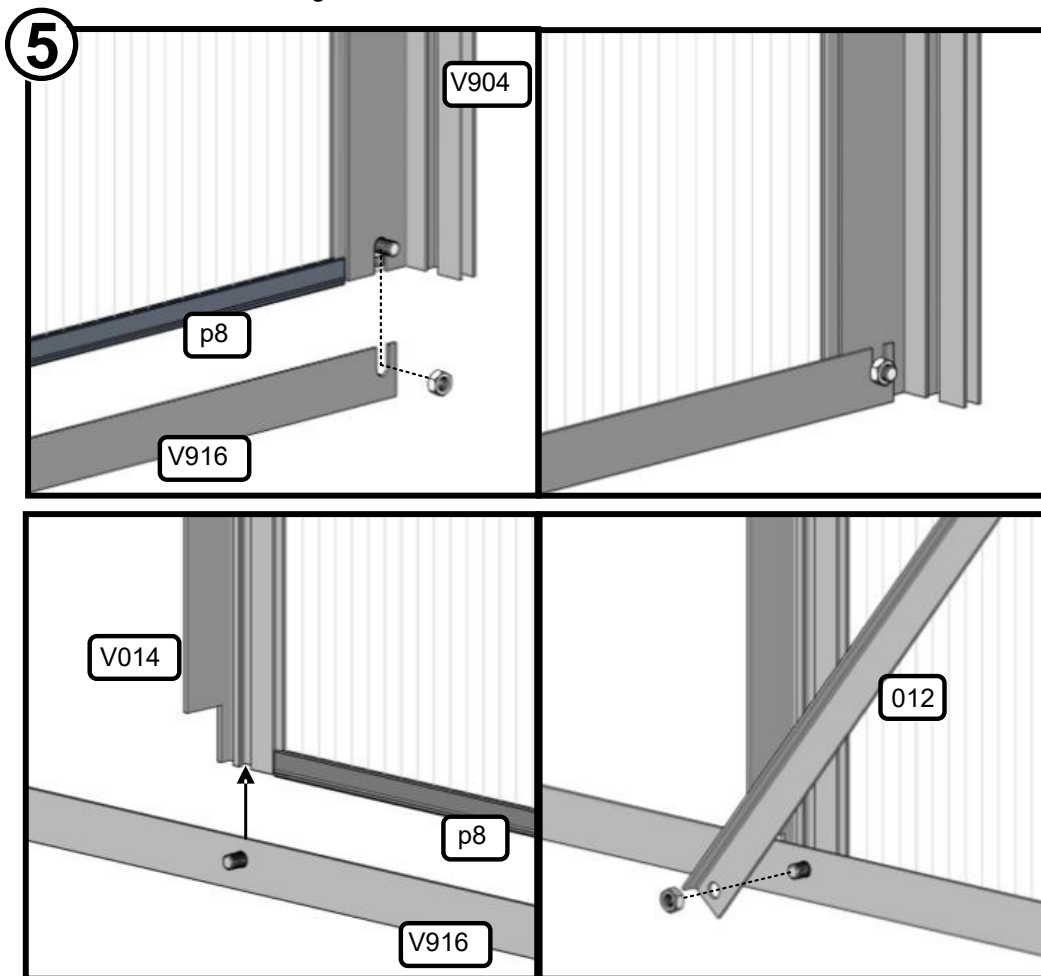


Step 5: Install lower panels and bottom sill

Slide panels **B** into channels and attach **p8** anti-dust strips to lower edge.

Using bolts **a1** and nuts **a2**, connect the bottom sill **V916** to the gable assembly and diagonal supports from Step 4.

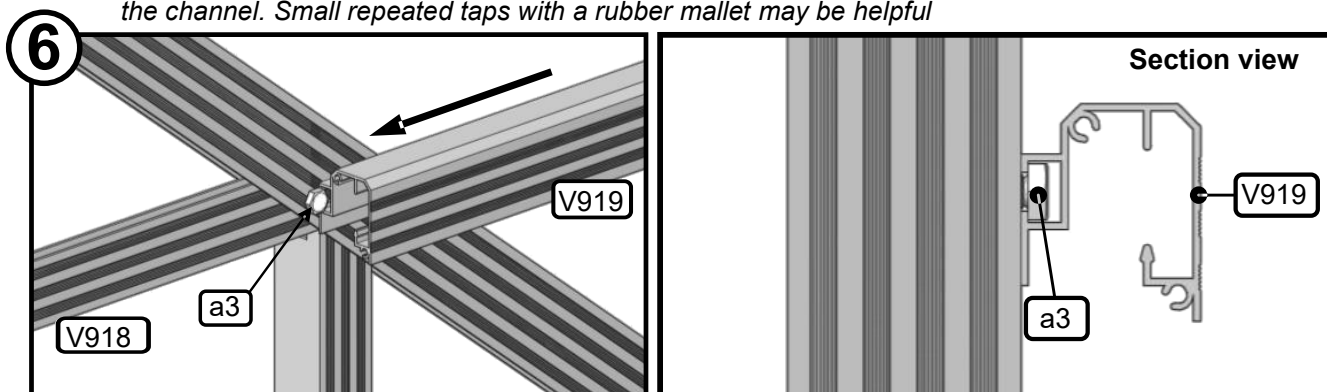
Make sure that the bottom of panels **B** are in the channel of the lower sill **V916** before securing.










Step 6: Install door rail

Slide door rail **V919** over the heads of bolts **a3** that were installed in Step 3.

*Please note that the fit is very tight; check the orientation of the hex heads of the **a3** bolts within the channel. Small repeated taps with a rubber mallet may be helpful*



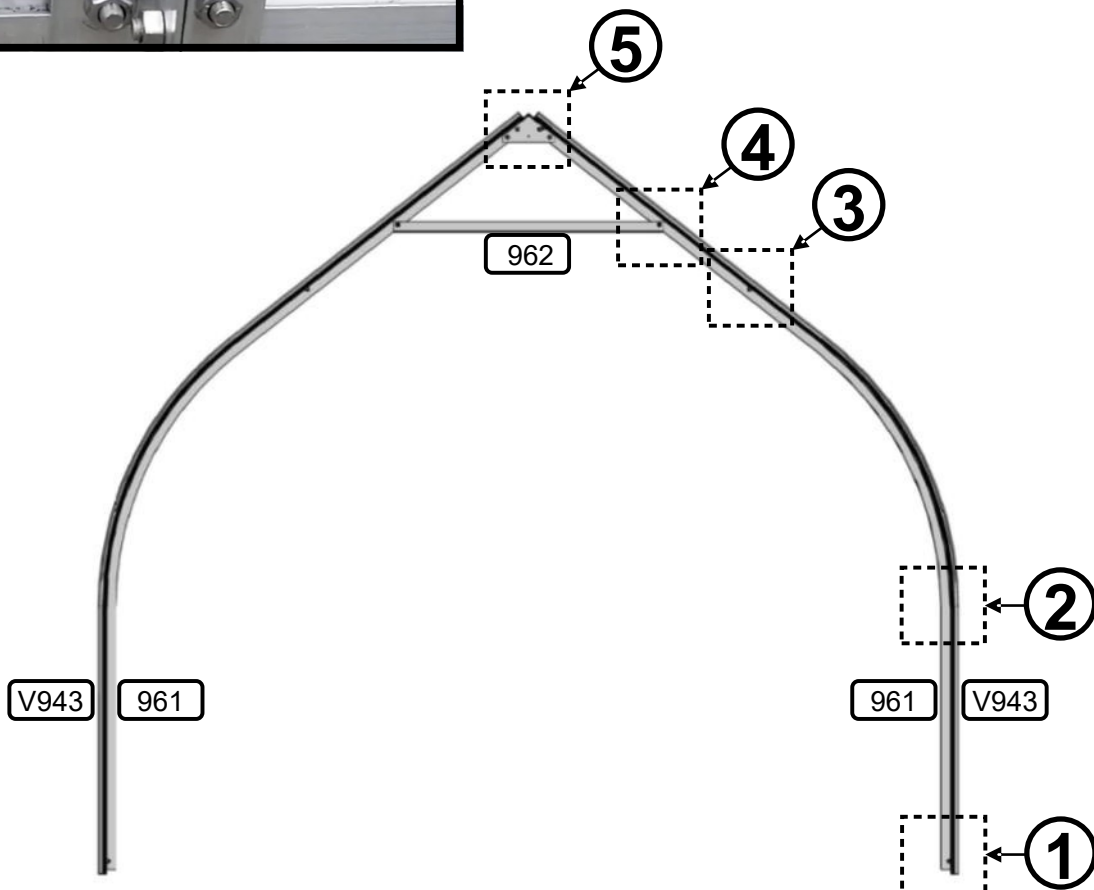
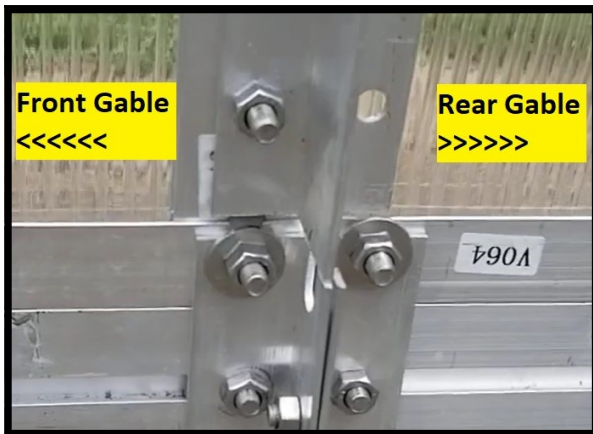
Subassembly: Extension A-Frame(s)

							
Part No.	V943	961	962	m1	a1	a2	a8
Size	116 ^{5/16"} (2954mm)	115" (2921mm)	33 ^{7/16"} (850mm)	-	M6x10	M6	M6x15
Qty	2	2	1	1	6	14	8

During this sequence you will assemble the extension A-Frame. If your greenhouse is 9x14 you will have one extension A-frame. For longer greenhouses, every additional 7' will have one more extension A-frame to assemble.

The extension A-frames may be pre-assembled completely or partially assembled up to completion of Step 3 and attached to the greenhouse separately during "Phase 2: Erect Greenhouse"

The glazing bar **V943** will be asymmetrically attached to the curved T-bar **961** (as pictured below). If you are assembling during Phase 3, make sure that the side of the curved T-bar **961** with the bolts attaching the glazing bar **V943** is towards the Front Gable of the greenhouse. For more information use the QR code on this page.



Step 1: Position and join glazing bar and T-bar

Insert six bolts **a8** into the channel of glazing bar **V943** and nest the curved T-bar **961** against the glazing bar **V943** with 15mm (just under 5/8") of the glazing bar **V943** protruding on the bottom. The glazing bar **V943** will protrude at the top as well.

Note: Of the six bolts **a8** that have been inserted, the top bolt will remain in the section of glazing bar **V943** that protrudes beyond the top of the T-bar **961**. You may temporarily secure this bolt in place with a nut **a2**.

The bottom bolt will remain in the 15mm section of the glazing bar **V943** that protrudes past the bottom of the T-bar **961**. You may temporarily secure this bolt in place with a nut **a2**.

*When proper position has been established, secure the second bolt from the bottom, affixing the glazing bar **V943** to the T-bar **961**.*

Important: The glazing bar **V943** must extend 15mm (just under 5/8") beyond bottom of the T-bar **961** to provide space for the bottom sill when installed.

Steps 2 and 3: Position and secure bolts

With bolts in the glazing bar **V943** positioned to match the corresponding holes in the curved T-bar **961**, secure the remaining bolts with nuts **a2** thus fully affixing the T-bar **961** to the glazing bar **V943**.

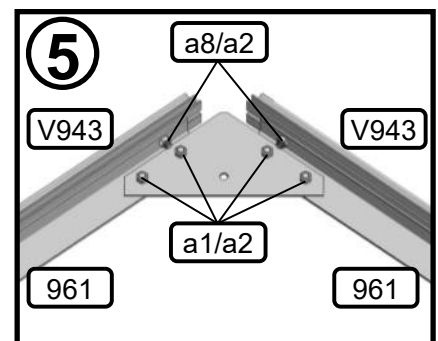
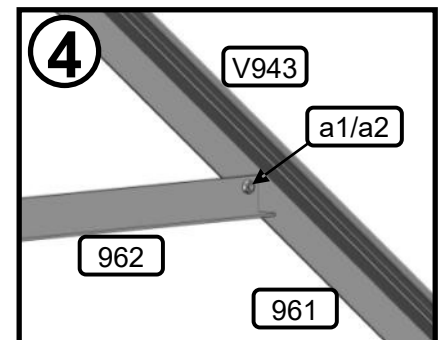
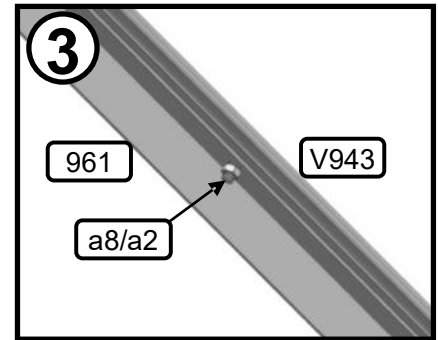
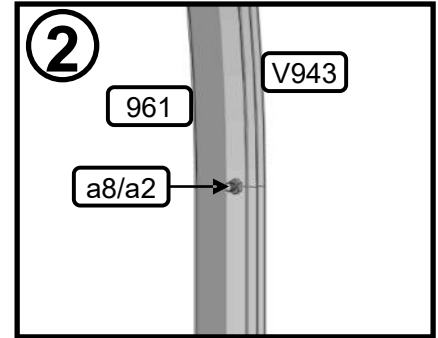
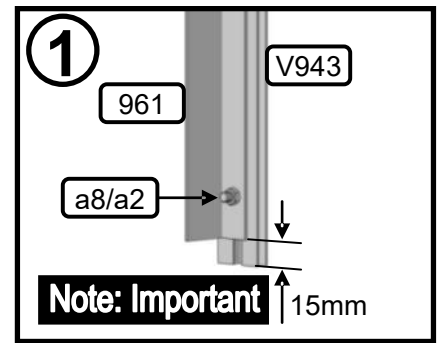
Repeat steps 1-3 to produce the second half of the A-frame

Step 4: Join the two curves

Using bolts **a1** and nuts **a2**, join the two curves together by affixing horizontal support bar **962** to each curve as shown in diagram on the previous page.

Step 5: Attach bracket

Using bolts **a1**, nuts **a2**, and bracket **m1**, complete the joining of the two curves to complete the extension A-frame sub-assembly.

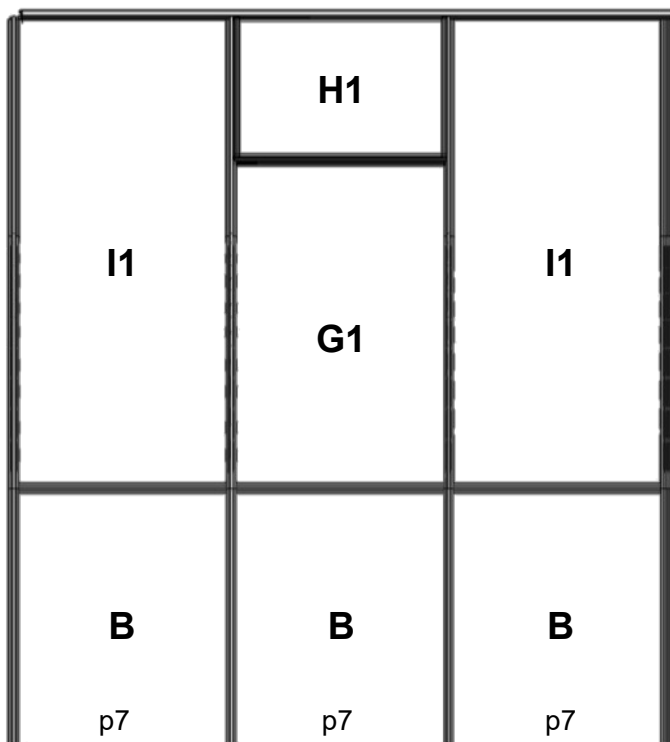


Erect Greenhouse: Main House structure

V9 Side & Roof

Part No.	012	V021	V026	031	036	V943	V042	955	a1	a2	a8
Size	43 ^{5/16"} (1100mm)	86 ^{1/2"} (2197mm)	85 ^{11/16"} (2176mm)	85 ^{3/16"} (2163mm)	85 ^{3/16"} (2163mm)	116 ^{5/16"} (2954mm)	26 ^{7/8"} (683mm)	15 ^{3/4"} (400mm)	M6x10	M6	M6x15
Qty	8	1	2	2	2	4	6	2	48	52	4

Polycarbonate sheets



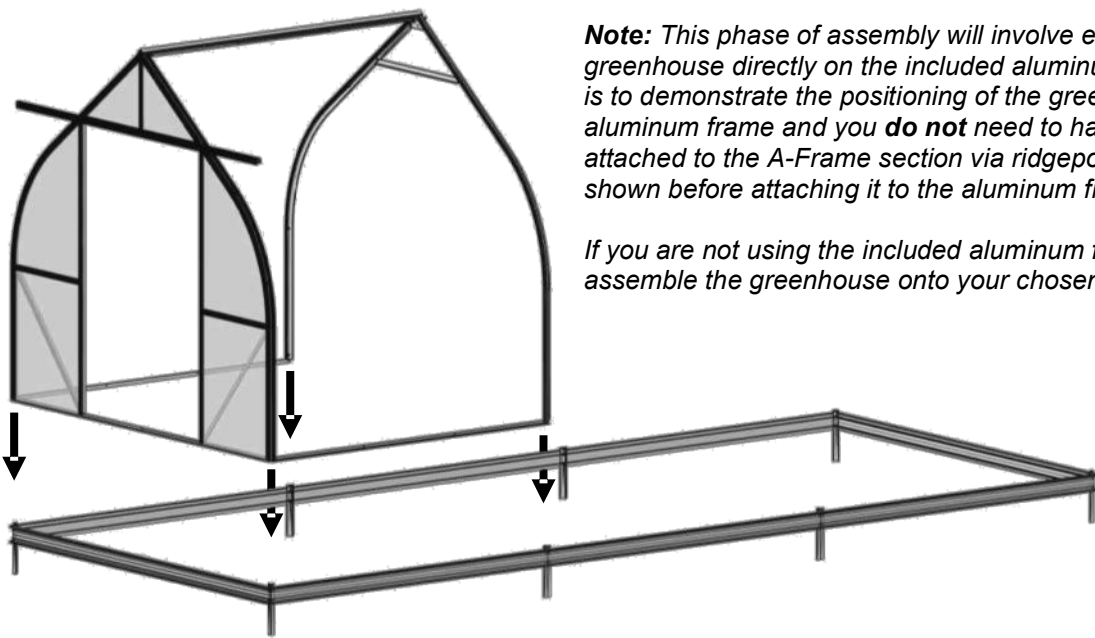
#	Size	QTY
B	700x842(2'3 ⁹ / ₁₆ " x 2'9 ¹ / ₈ ")	6
G1	700x1330(2'3 ⁹ / ₁₆ " x 4'4 ³ / ₈ ")	2
H1	696x731(2'3 ³ / ₈ " x 2'4 ³ / ₄ ")	2
I1	700x2110(2'3 ⁹ / ₁₆ " x 6'11 ¹ / ₁₆ ")	4
p7	682(2'2 ⁷ / ₈ ")	6

IMPORTANT

When inserting the polycarbonate panels, the side with white film must be facing towards the outside as this side is UV protected. Make sure to peel at least 1-2" of film from the edges of **both sides**, this way there will be no obstructions when inserting the panels and they will stay protected from dust and scratches. Once assembly is complete, remove all protective films from **both sides**.

During this sequence you will erect the greenhouse in 7' sections. You will begin building a framework with the front gable subassembly and the first extension A-frame subassembly, which will be connected to each other by the main ridgepole section **V021** as well as the four Main House horizontal rails (x2 **031**, x2 **036**) and two bottom sills **V026**.

With this framework in place you will then begin adding individual paneled subsections by installing the lower panel **B**, then attaching a curved glazing bar **V943** at the top, loose enough that slight movement is possible, and inserting panel **I1** into the channels on either side, working downward to secure the glazing bar **V943** to the horizontal rails, locking the panels in place.



Note: This phase of assembly will involve erecting the greenhouse directly on the included aluminum frame. This image is to demonstrate the positioning of the greenhouse on the aluminum frame and you **do not** need to have the Front Gable attached to the A-Frame section via ridgepole and lower sills as shown before attaching it to the aluminum frame.

If you are not using the included aluminum frame you may assemble the greenhouse onto your chosen base.

Step 1: Connect Front Gable and lower sills on aluminum frame

If you are not using the included aluminum frame, you may simply connect the lower sill V026 to the Front Gable subassembly as described without the steps to place it on or secure it to the aluminum base via the anchor legs.

During the Front Gable subassembly process you inserted four bolts **a1** into the tracks of curves **V903** and **V904**. Using the lowest one of these bolts **a1**, and nut **a2**, secure the front gable to the end of lower sill **V026**.

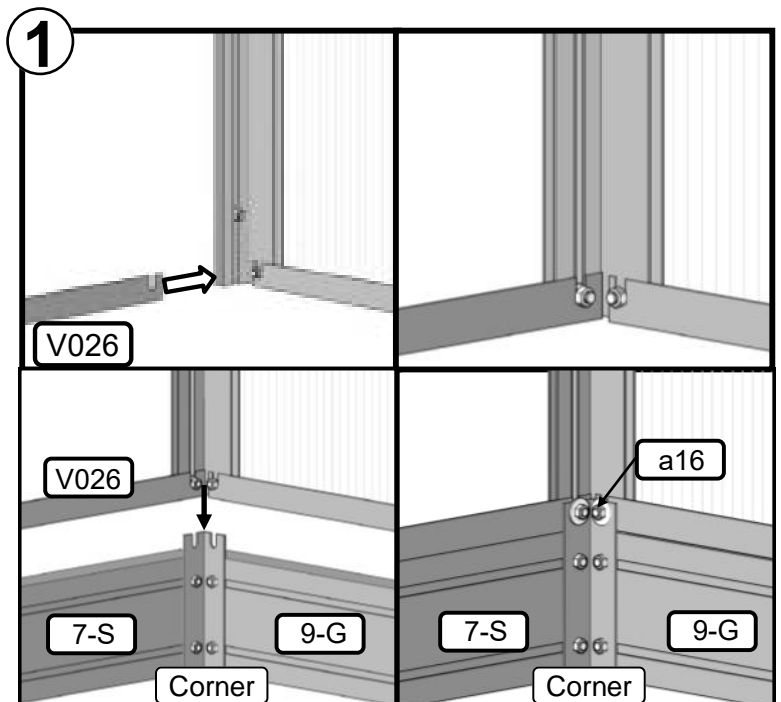
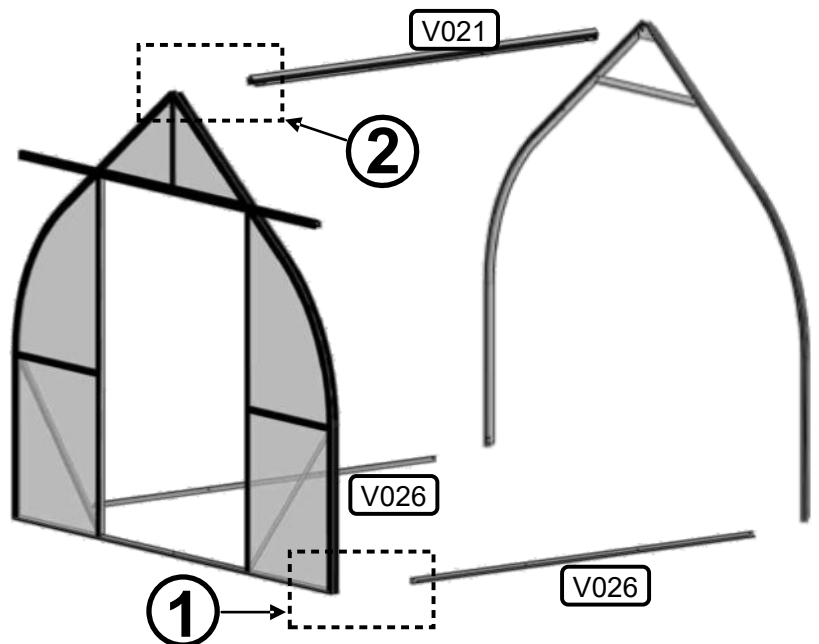
Repeat for both sides.

Stand the Front Gable subassembly on the aluminum frame end **9-G** and align the anchor leg troughs with the secured lower nut/bolt that holds the end of the Front Gable subassembly's lower sill and the nut/bolt that holds the end of side lower sill **V026**.

Note: These nuts will need to be loosened to allow the anchor leg trough to fit between the lower sill of the Front Gable subassembly and the nut.

Once the Front Gable subassembly is properly aligned with the bolts sitting in the troughs of the anchor legs you will need to install washer **a16** onto each connection point. *One at a time* remove nut **a2**, install washer **a16**, then reinstall nut **a2**. Repeat this for each of the four bolts connecting the Front Gable subassembly to anchor leg troughs.

Important: Make sure that the standing gable is held securely, either by additional persons or other means, so that it does not tip over and damage the secured lower connection points.

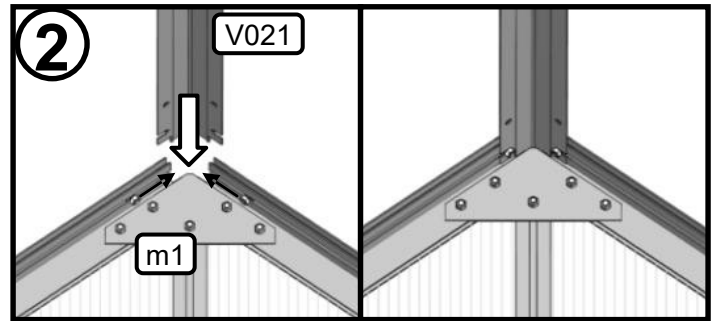


Important: Steps 2 and 3 will need to be undertaken in cooperation as they both involve connecting to the ridgepole at the top of the greenhouse. Read and understand instructions for Steps 2 and 3 before beginning; once the ridgepole is connected on one end it is important that the other end is not allowed to hang unsupported as it could bend the flange used for the connection. Ideally one person on a ladder will support the unconnected end as a second person stands the A-Frame assembly so it can be connected to the ridgepole.

Step 2: Connect ridgepole to Front Gable

During the Front Gable subassembly process you inserted four bolts **a1** into the tracks of curves **V903** and **V904**. Using the topmost one of these bolts **a1** on each side, and nuts **a2**, secure the front gable to the end of ridgepole **V021**.

*Note: The bracket **m1** on the Front Gable subassembly may need to be slightly loosened and adjusted to allow the end of the ridgepole to be inserted.*



Step 3: Install A-Frame subassembly

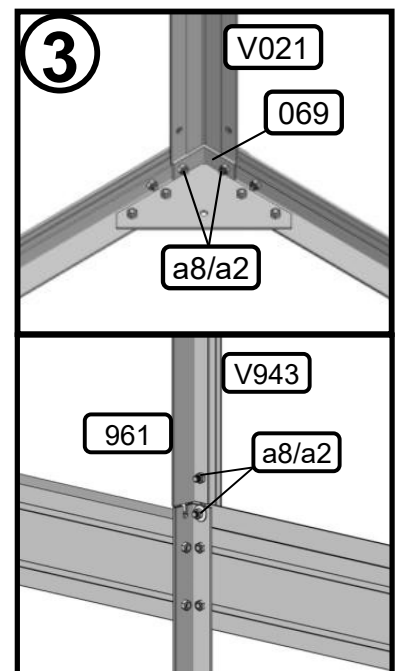
*Note: As you stand the A-Frame for installation please note that it is directional and you must ensure that the side with the bolts attaching the curved T-bar **961** to the curved glazing bar **V943** must be facing the Front Gable.*

During the A-Frame subassembly process you inserted bolts **a8** into the tracks of the glazing bars **V943**, including two that were not used for assembling the A-Frame subassembly: One on the top and one on the bottom. These two bolts will now be used.

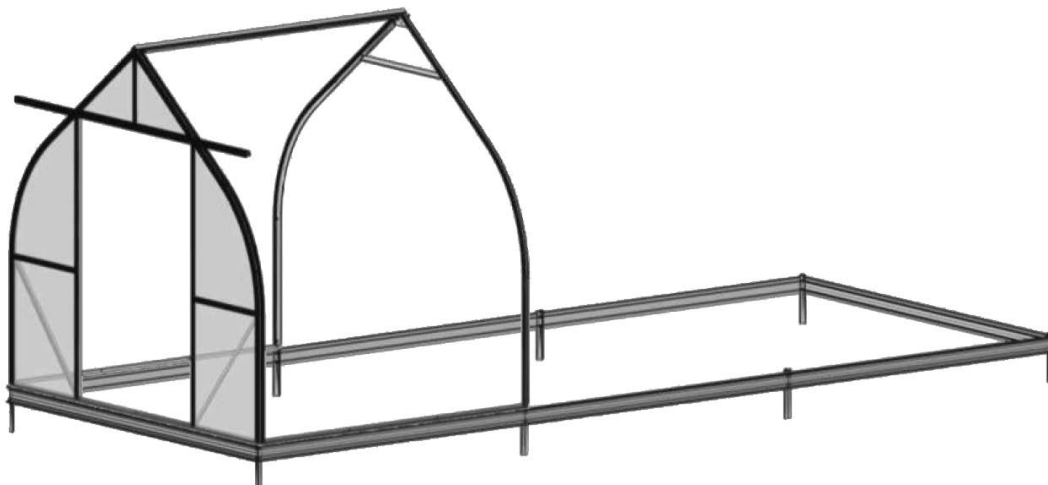
Using the top bolt **a8** on each side, and nuts **a2**, connect the A-frame subassembly to ridgepole **V021** and bracket **069**.

Using the bottom bolt **a8**, and nut **a2** with washer **a16**, connect the bottom of the A-Frame subassembly to lower sill **V026**. If you are using the included aluminum base you should also set this nut/bolt connection into the anchor leg trough as was done at the Front Gable.

*Note: If you are using the provided aluminum base but not using anchor legs at this junction then you may use brackets **m7** to secure the A-Frame subassembly and lower sill **V026** to the base. To do this simply attach the A-Frame subassembly and lower sill **V026** to the top of bracket **m7** instead of the anchor leg trough. Use a cropped head bolt to attach the bottom of the bracket **m7** to the upper track of the aluminum base.*



Repeat these steps on the other side as needed to secure the Subassembly A-frame.

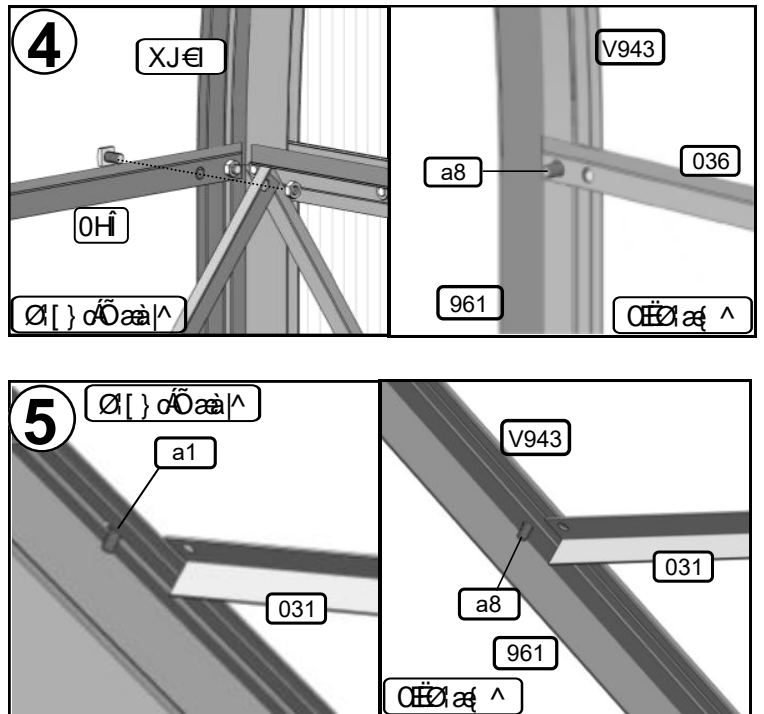


Step 4: Connect lower horizontal rail

During the Front Gable subassembly process you inserted four bolts **a1** into the tracks of curves **V903** and **V904**. Of the remaining two, use the lower bolt **a1** to connect main house horizontal rail **036** and secure with nut **a2** at a height of roughly 33 inches from the bottom sill.

At the other end of the horizontal rail you will find on the A-frame subassembly a bolt **a8** and nut **a2** at the same height as the front gable connection that you have just secured. Remove the nut **a2** and connect the horizontal rail **036** to this bolt **a8**, securing it with the nut **a2**.

Repeat this step on the opposite side.

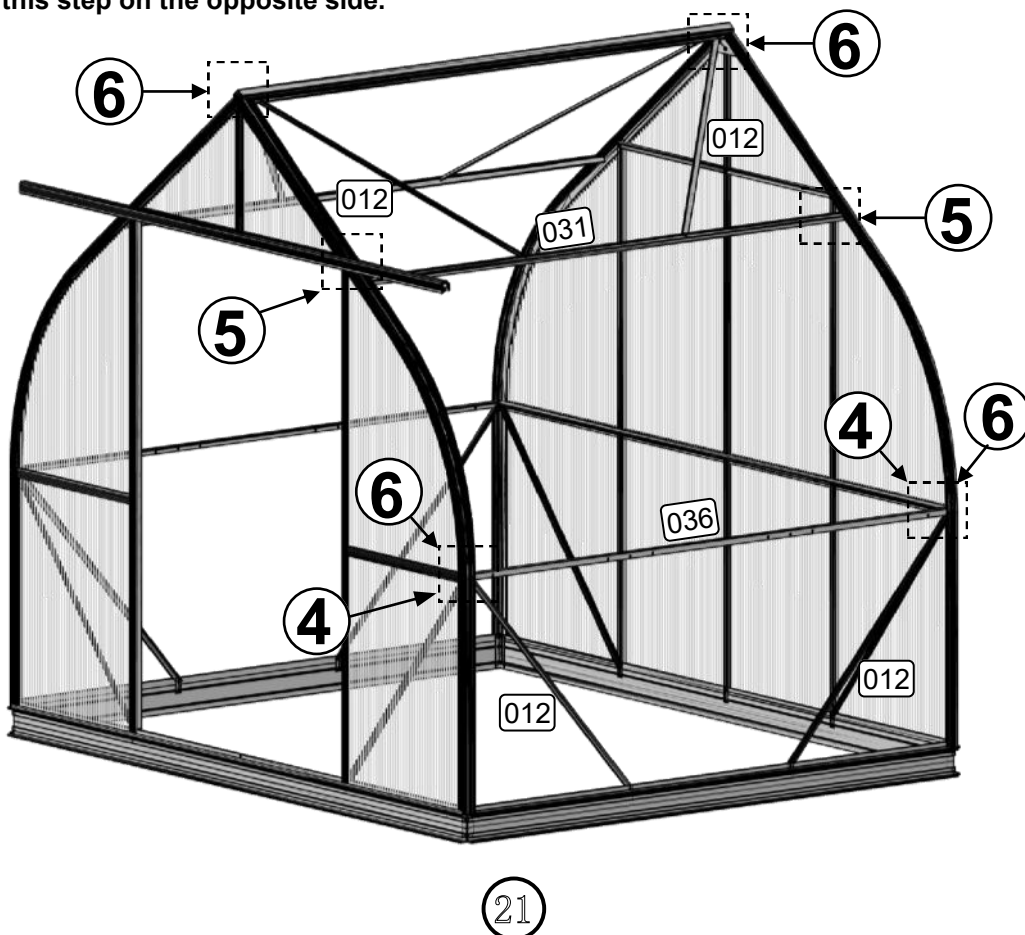


Step 5: Connect upper horizontal rail

On the A-Frame subassembly, approximately 39 inches above the lower horizontal rail connection, you should find a bolt **a8** secured with a nut **a2**. Remove the nut **a2** and connect the upper horizontal rail **031** to this bolt **a8**, securing it with the nut **a2**.

During the Front Gable subassembly process you inserted four bolts **a1** into the tracks of curves **V903** and **V904**. Use the last remaining bolt **a1** to connect main house upper horizontal rail **031** and secure with bolt **a2** at the same height as the connection to the A-frame that you have just secured.

Repeat this step on the opposite side.



Step 6: Connect bracing bars

Using bolt **a1** and nut **a2** connect bracing bar **012** to the ridgepole **V021** using the open hole nearest the front gable.

*This bracing bar **012** will only be attached at one end for now.*

Using bolt **a1** and nut **a2** connect bracing bar **012** to the ridgepole **V021** using the open hole nearest the A-frame subassembly.

*This bracing bar **012** will only be attached at one end for now.*

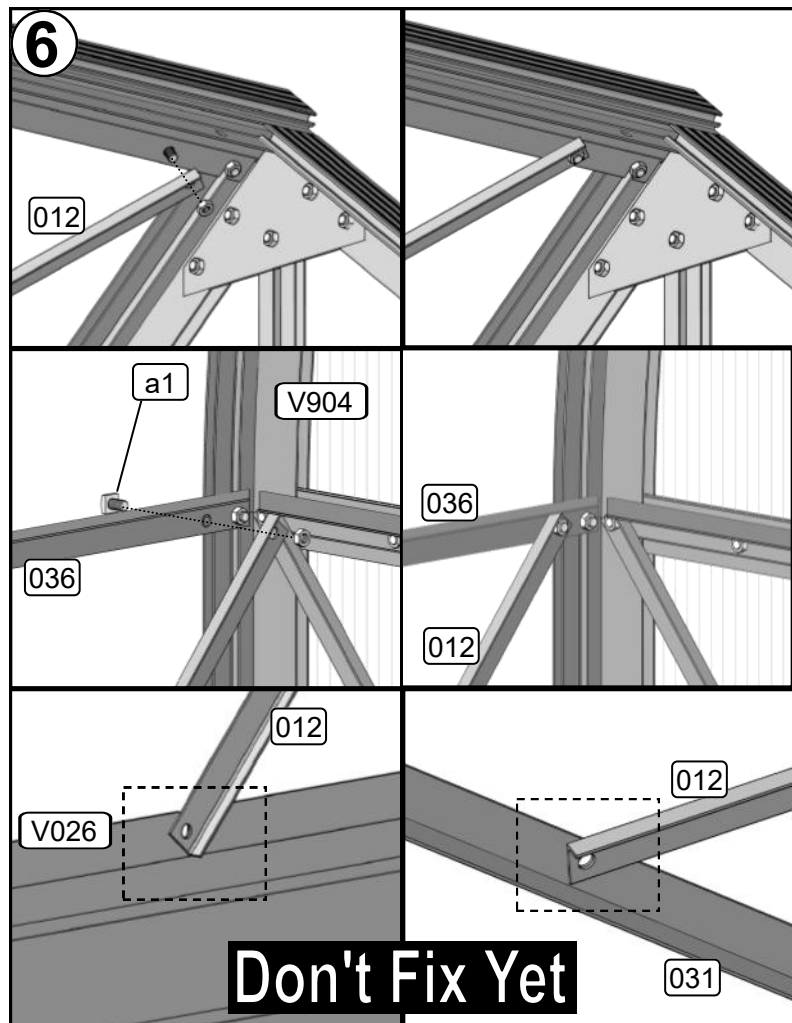
Using bolt **a1** and nut **a2** connect bracing bar **012** to the lower main house horizontal rail **036** using the open hole nearest the front gable.

*This bracing bar **012** will only be attached at one end for now.*

Using bolt **a8** and nut **a2** connect bracing bar **012** to the lower main house horizontal rail **036** using the open hole nearest the A-frame subassembly.

*This bracing bar **012** will only be attached at one end for now.*

Repeat on opposite side.



The 9x7 Main House section of the greenhouse is now ready for the installation of paneled sections and glazing bars (**V943**). There will be three sections on each side.

These instructions will follow the default vent configuration, which places the vents in the middle sections.

Vent installation is possible in other sections but may require extra screws or bolts.

Erect Greenhouse: Main House panels

During this sequence you will install the paneled sections and glazing bars **V943** that make up the roof and sides of the greenhouse. There will be multiple instances of temporarily removing previously installed bolts in order to make additions or adjustments to the structure.

Each glazing bar **V943** will need five bolts **a4** preloaded into the track as well as one bolt **a8**. Bolt **a8** will be placed at the bottom and will be used to connect to the lower sill **V026**. All preloaded bolts may be temporarily secured using nuts **a2**. *In the event that not enough bolts have been preloaded, there is a breach in the glazing bar track near the top where additional bolts may be inserted.*

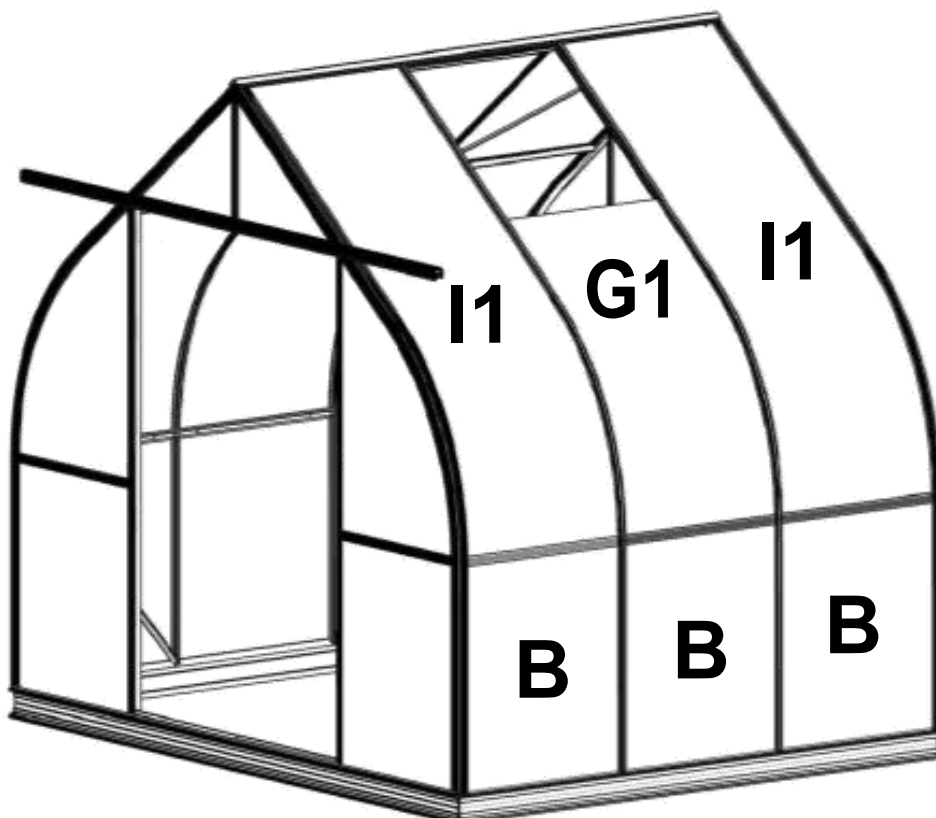
These instructions follow the default configuration which places the vent windows in the center section on each side as shown in the diagram below. *Vent installation is possible in the other sections but may require modification as well as additional bolts or screws.*

IMPORTANT

When inserting the polycarbonate panels, the side with white film must be facing towards the outside as this side is UV protected. Make sure to peel at least 1-2" of film from the edges of **both sides**, this way there will be no obstructions when inserting the panels and they will stay protected from dust and scratches. Once assembly is complete, remove all protective films from **both sides**.

Note: Before sliding panels into position through the channels of curved components please check the channels for obstructions and debris. Sliding the panels should not require extreme pressure. If you find that they are extremely difficult to position please check to make sure an edge has not come out of the channel and become caught against another component.

This sequence is easiest to achieve with multiple people, such as one person inside the structure and one person outside the structure. If a third person is available it can be helpful to have another person on a ladder to help guide the panels into position and secure the connections when proper position is achieved.



Step 1: Install first section lower panel

Near the front gable, at the junction of the lower horizontal rail **036** and bracing bar **012** remove the bolt **a1**, insert into the track of horizontal bar **V042** and reinstall, making sure that horizontal bar **V042** sits against the front gable curve, then tighten the nut **a2** to secure.

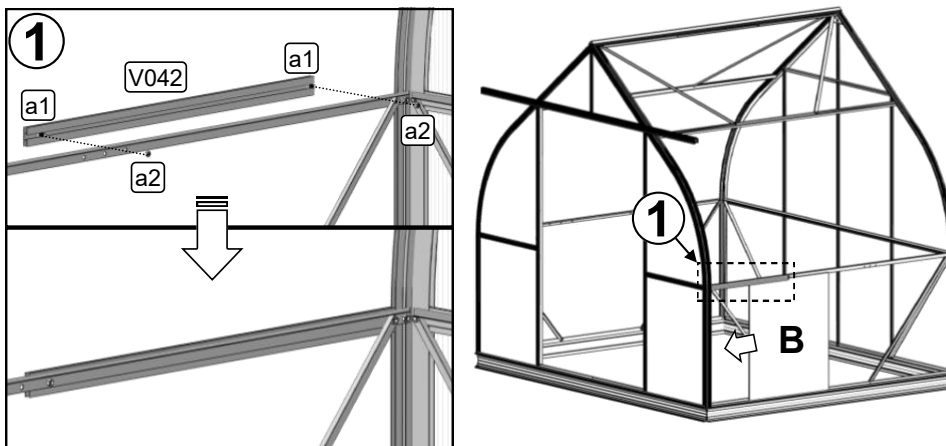
Insert bolt **a1** into the track at the other end of horizontal bar **V042**.

Of the three holes in the lower horizontal rail **036** at this location attach the horizontal bar **V042** to the one closest to the front gable and secure with nut **a2**.

Attach anti-dust strip **p7** to the bottom of panel **B**.

Note: Make sure that the side of the panel with the white film is facing outside of the greenhouse as this is the side that is UV protected.

Place panel **B** dust strip side down, into the channel of lower sill **V026** and slide towards the front gable, guiding the top of panel **B** into the channel of horizontal bar **V042** and sliding forward until the panel side of the panel is seated into the channel of the front gable curve **V903/V904**.



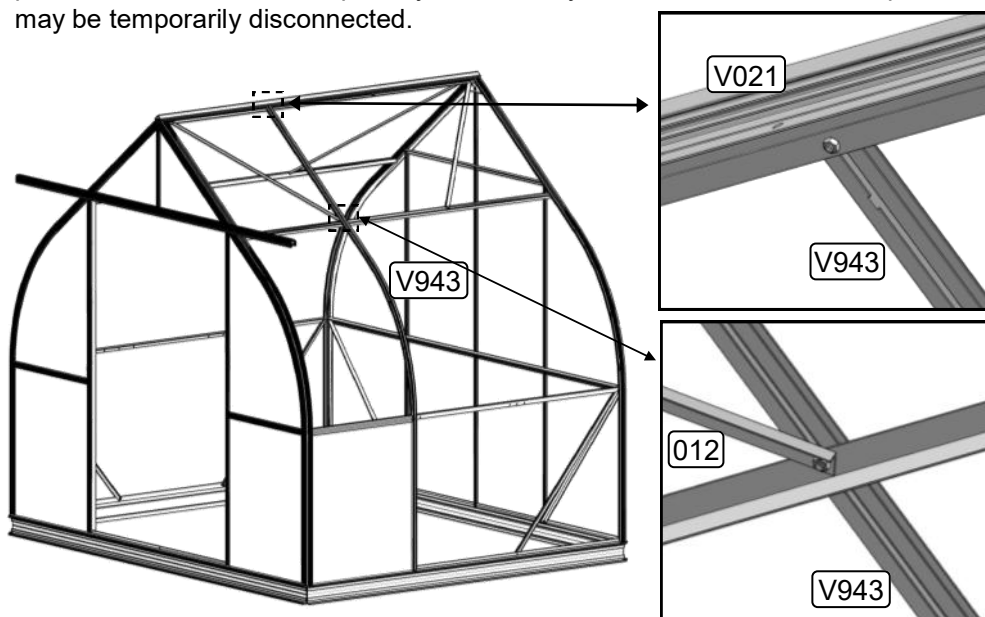
Step 2: Install glazing bar

Load four bolts **a1** and one bolt **a8** into the channel of glazing bar **V943**, with the bolt **a8** at the bottom. You may temporarily secure these with nuts **a2**.

Attach glazing bar **V943** to the ridgepole **V021** using the top preloaded bolt **a1** and secure *loosely* with nut **a2**; this loose connection will provide needed slack in Step 3.

Leave the next bolt in the glazing bar V943 free for now; this bolt will be used for the vent attachment points in a subsequent step.

Using the next bolt **a1** attach the glazing bar to the upper horizontal rail **031**. Attach the free end of bracing bar **012** to this bolt as well, then secure *loosely* with nut **a2**; this loose connection will provide needed slack in Step 3. If you find that you need more slack in Step 3 then this connection may be temporarily disconnected.



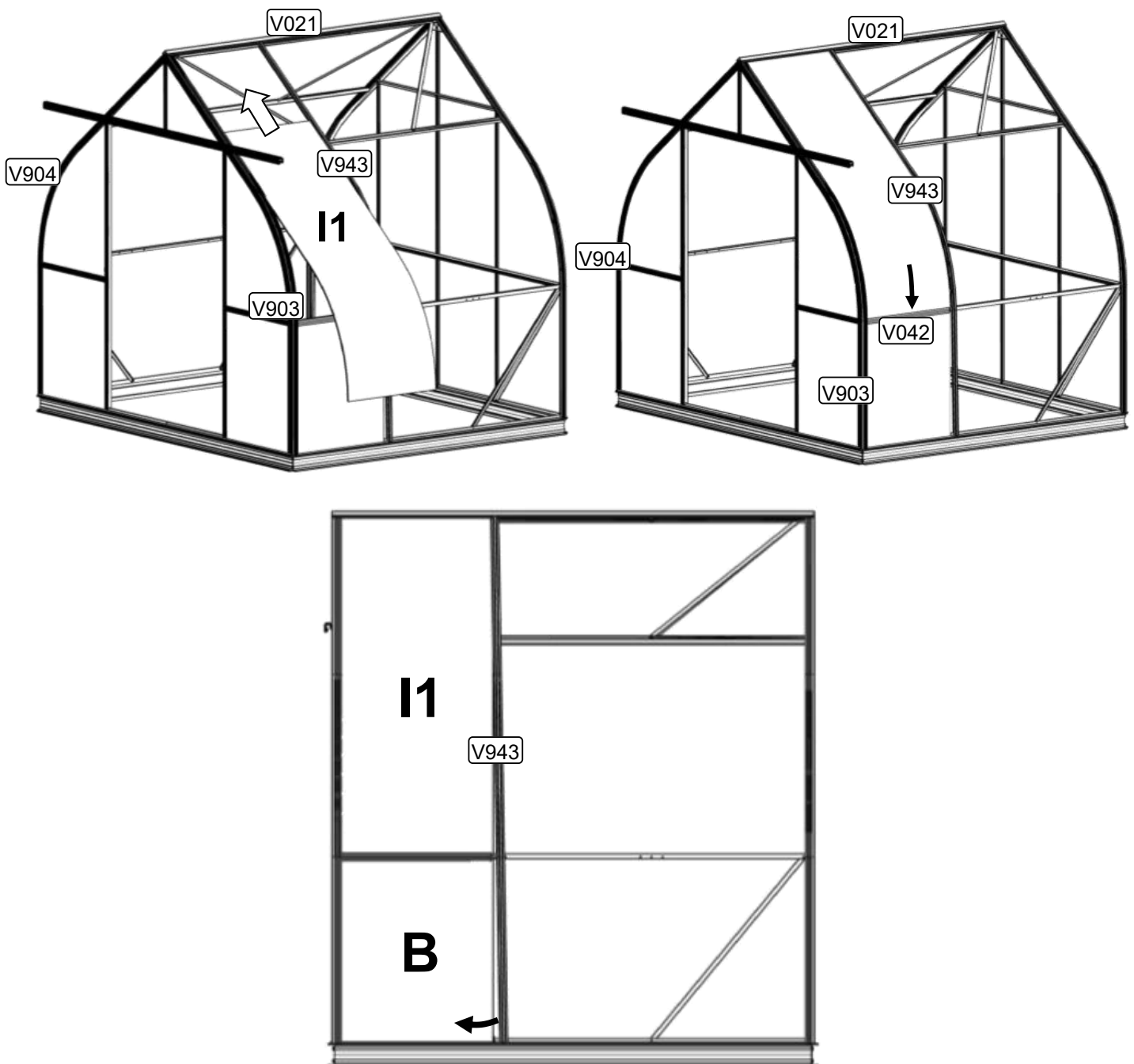
Note: The top of the upper horizontal rail **031** will sit flush against the glazing bar **V943** with the bottom making a 90° angle towards you

Step 3: Install first section upper panel

Lightly pull glazing bar **V943** to the side, away from the front gable, and insert panel **I1** into the channels of the glazing bar **V943** and the front gable curve **V903/V904**.

Slide panel **I1** upwards in the channels until the top of panel **I1** is seated in the channel of the ridgepole **V021**, then press the bottom of the panel **I1** into the channel of the horizontal support **V042**.

Once the panel **I1** is seated correctly into the channels of the front gable curve **V903/V904**, horizontal support **V042**, and ridgepole **V021**, seat the panel **I1** into the channel of glazing bar **V943** by pressing the glazing bar **V943** back into position.



Step 4: Secure glazing bar

In Step 2 the nut **a2** fastening the glazing bar **V943** to the ridgepole **V021** was left loose; tighten this nut **a2** at this time.

In Step 2 the nut **a2** fastening the upper horizontal rail **031**, diagonal bracing bar **012**, and glazing bar **V943** was left loose; tighten this nut **a2** at this time.

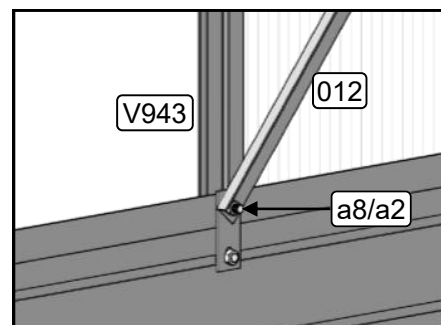
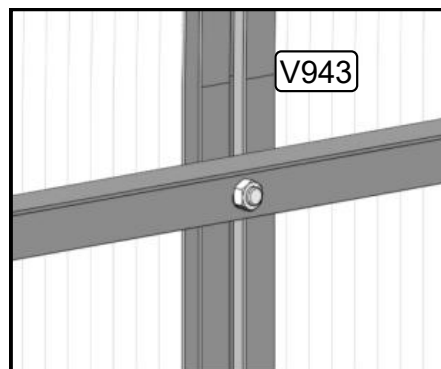
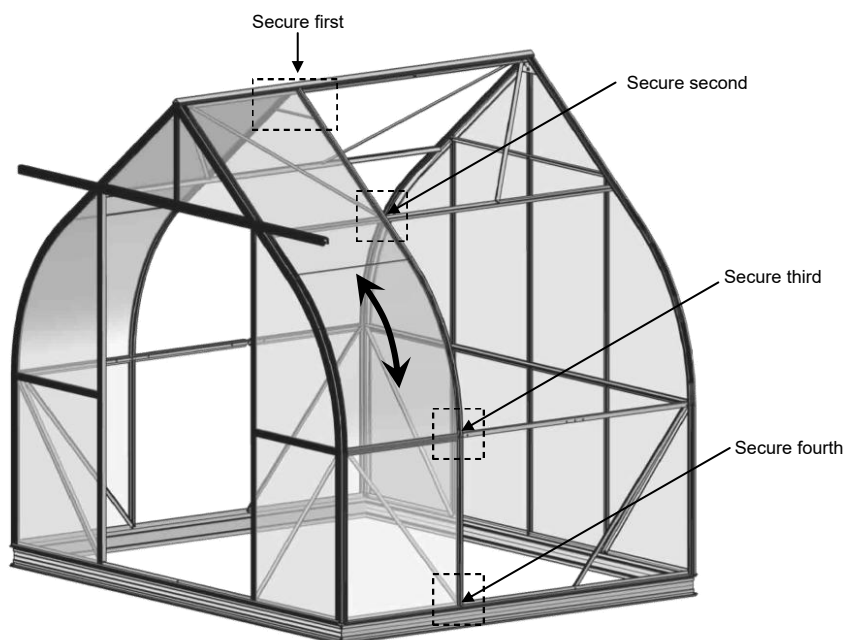
In Step 2 four bolts **a1** and one bolt **a8** were loaded into the track of glazing bar **V943**: two of the bolts **a1** were used for connections and one bolt **a1** was left free for use in a later stage; use the remaining bolt **a1** and a nut **a2** to secure the glazing bar **V943** to the lower horizontal rail **036**.

Using the bolt **a8** in the track of glazing bar **V943** attach the glazing bar to the lower sill **V026**, a bracket **m7**, and the free end of the diagonal bracing bar **012**; secure with nut **a2**.

Attach bracket **m7** to one of the hex-headed bolts inserted into the top track of the frame during frame assembly and secure with nut **a2**.

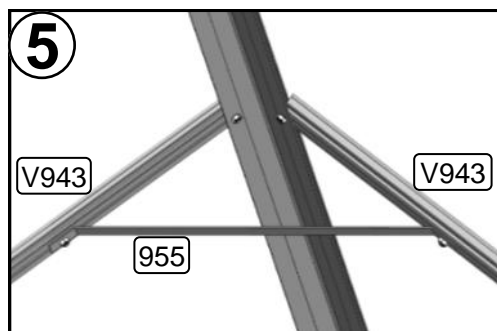
Note: If a hex-headed bolt was not inserted during frame assembly then you must use a cropped bolt, which can be inserted without disassembling the base.

Repeat steps 1-4 on the opposite side to complete the first section.



Step 5: Connect roof support

In Step 2 there were two bolts **a1** left free in the glazing bar **V943**: Use the top bolt **a1** in each opposing glazing bar **V943** and nuts **a2** to secure roof support bar **955**, securing the two glazing bars **V943** together.



Note: The following steps will be completed in a similar manner to Steps 1-5

Step 6: Install second section lower panel

Insert two bolts **a1** into the track of horizontal bar **V042**; one should be near each end.

Attach the horizontal bar **V042** to the horizontal rail **036** secure with nut **a2**.

Attach anti-dust strip **p7** to the bottom of panel **B**.

Note: Make sure that the side of the panel with the white film is facing outside of the greenhouse as this is the side that is UV protected.

Place panel **B** dust strip side down, into the channel of lower sill **V026** and slide towards the front gable, guiding the top of panel **B** into the channel of horizontal bar **V042** and sliding forward until the panel side of the panel is seated into the channel of the glazing bar **V943**.

Step 7: Install glazing bar

Load five bolts **a1** and one bolt **a8** into the channel of glazing bar **V943**, with the bolt **a8** at the bottom. You may temporarily secure these with nuts **a2**.

Attach glazing bar **V943** to the ridgepole **V021** using the top preloaded bolt **a1** and secure *loosely* with nut **a2**; this loose connection will provide needed slack in Step 3.

Leave the next two bolts in the glazing bar V943 free for now; these bolts will be used for the vent and support attachment points in subsequent steps.

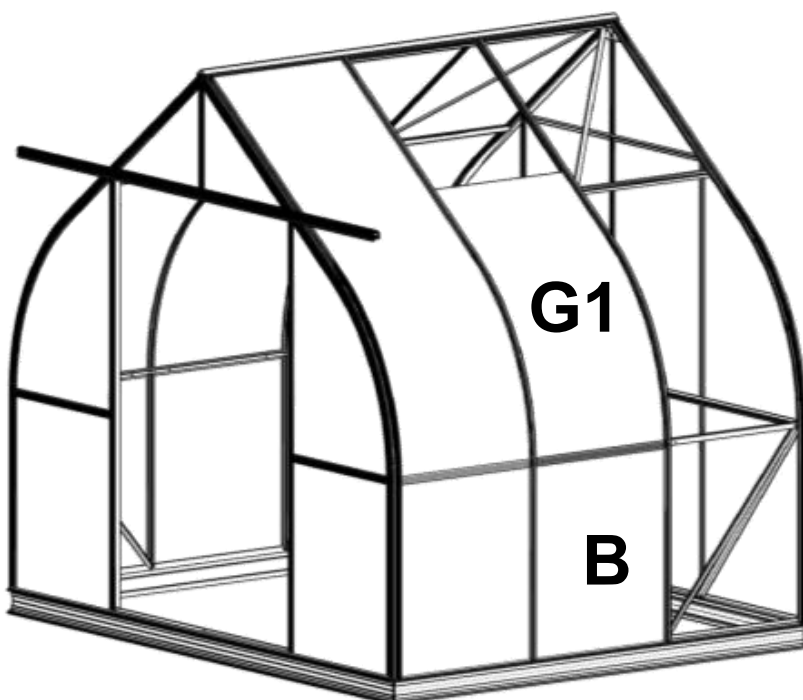
Using the next bolt **a1** attach the glazing bar to the upper horizontal rail **031**. Attach the free end of bracing bar **012** to this bolt as well, then secure *loosely* with nut **a2**; this loose connection will provide needed slack in Step 8.

Step 8: Install second section upper panel

Lightly pull glazing bar **V943** to the side, away from the front gable, and insert panel **G1** into the channels of the two glazing bars **V943**.

Slide panel **G1** in the channels until the bottom of panel **G1** is seated in the channel of the horizontal support **V042**.

Once the panel **G1** is seated correctly into the channels of the first section glazing bar **V943** and horizontal support **V042** seat the panel **G1** the second section glazing bar **V943** by pushing it back into position.



Step 9: Secure glazing bar

We will now secure the connections of the glazing bar V943 in the same manner as in Step 4

In Step 7 the nut **a2** fastening the glazing bar **V943** to the ridgepole **V021** was left loose; tighten this nut **a2** at this time.

In Step 2 the nut **a2** fastening the upper horizontal rail **031**, diagonal bracing bar **012**, and glazing bar **V943** was left loose; tighten this nut **a2** at this time.

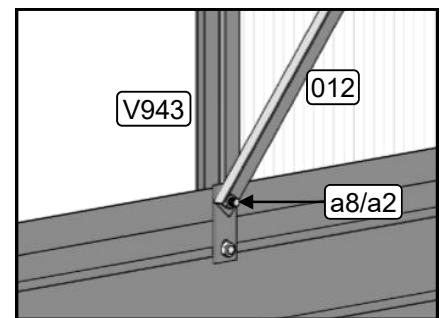
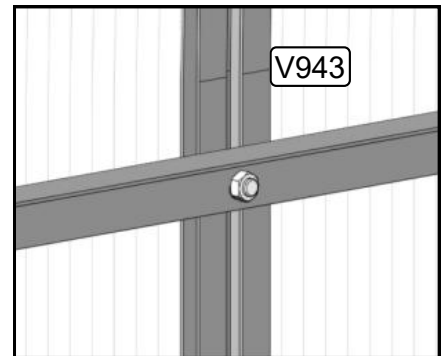
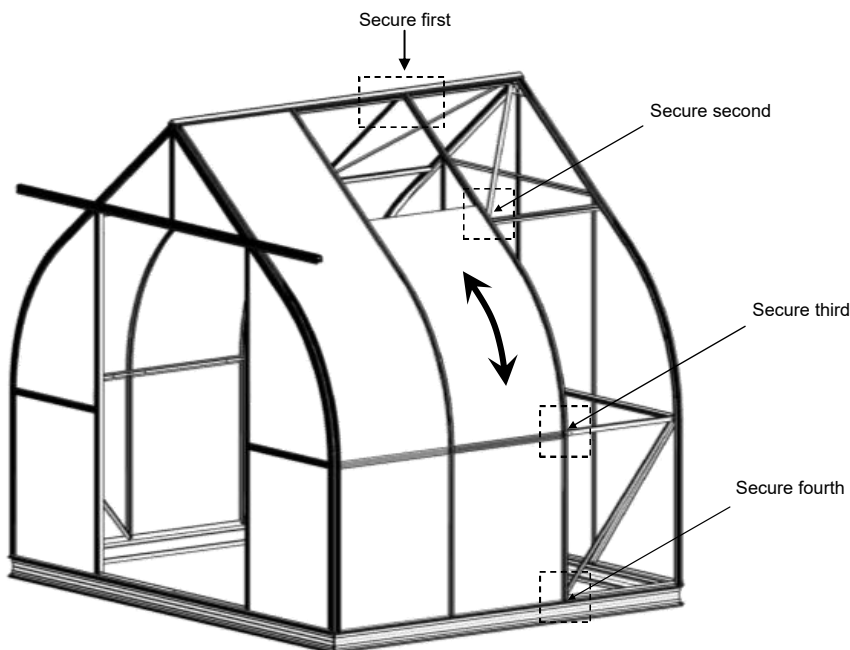
In Step 2 four bolts **a1** and one bolt **a8** were loaded into the track of glazing bar **V943**: two of the bolts **a1** were used for connections and one bolt **a1** was left free for use in a later stage; use the remaining bolt **a1** and a nut **a2** to secure the glazing bar **V943** to the lower horizontal rail **036**.

Using the bolt **a8** in the track of glazing bar **V943** attach the glazing bar to the lower sill **V026**, a bracket **m7**, and the free end of the diagonal bracing bar **012**; secure with nut **a2**.

Attach bracket **m7** to one of the hex-headed bolts inserted into the top track of the frame during frame assembly and secure with nut **a2**.

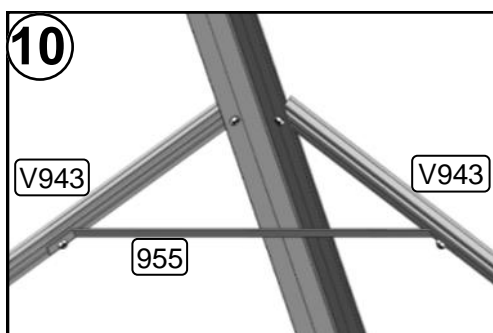
Note: If a hex-headed bolt was not inserted during frame assembly then you must use a cropped bolt, which can be inserted without disassembling the base.

Repeat steps 6-9 on the opposite side to complete the second section.



Step 10: Connect roof support

In Step 2 there were two bolts **a1** left free in the glazing bar **V943**: Use the top bolt **a1** in each opposing glazing bar **V943** and nuts **a2** to secure roof support bar **955**, securing the two glazing bars **V943** together.



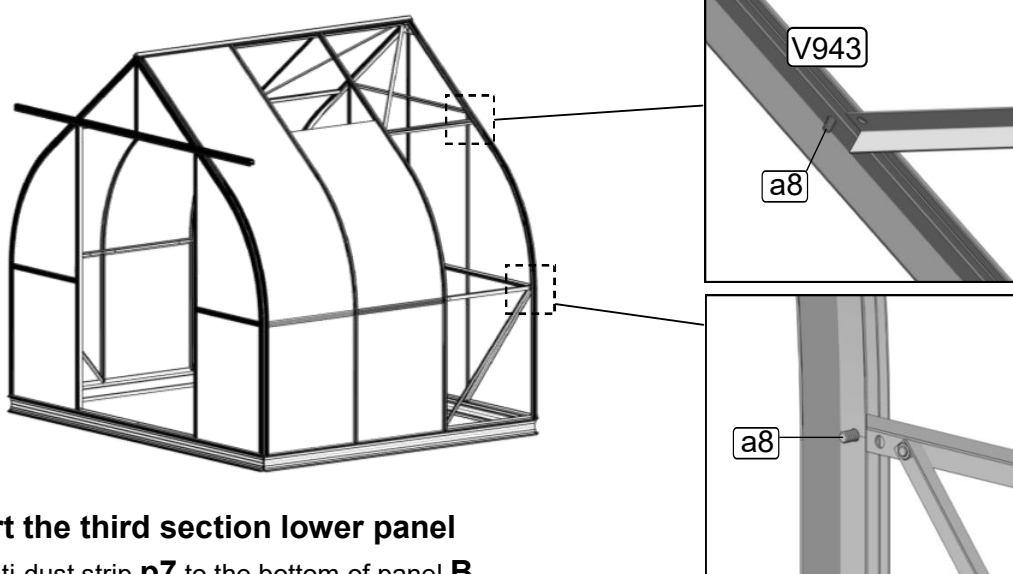
Step 11: Partially disconnect A-frame

Note: The connections securing the upper horizontal rail **031** and lower horizontal rail **036** will now be temporarily disconnected to allow the A-frame to be pulled away enough that the next section of panels may be inserted.

Once the nut **a2** has been removed and the horizontal rail has been disconnected the bolt **a8** will be loose and may slide down the track so it will be helpful to temporarily secure the bolt **a8** in position until it is needed again by using the nut **a2** or tape.

Remove the nut **a2** securing the upper horizontal rail **031** to the A-frame and disconnect the upper horizontal rail **031**.

Remove the nut **a2** securing the lower horizontal rail **036** to the A-frame and disconnect the lower horizontal rail **036**.



Step 12: Insert the third section lower panel

Attach anti-dust strip **p7** to the bottom of panel **B**.

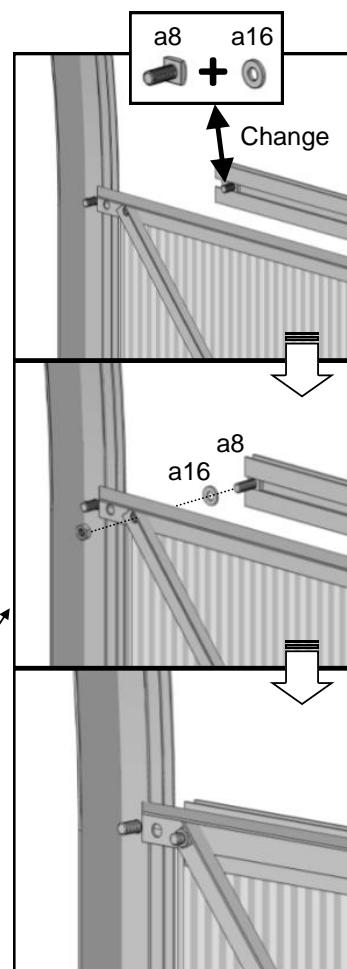
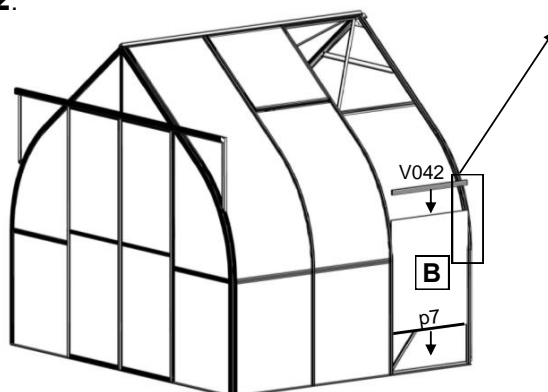
Note: Make sure that the side of the panel with the white film is facing outside of the greenhouse as this is the side that is UV protected.

Slide panel **B** downward into the channels of the second section glazing bar **V943** and the A-frame subassembly until the panel is also seated in the channel of lower sill **V026**.

Remove the nut **a2** from the bolt **a8** securing diagonal bracing bar **012** to the lower horizontal rail.

Remove the bolt **a1** and insert into the track of horizontal support **V042**, then apply a washer **a16** before reinstalling the lower horizontal rail **036** and the diagonal bracing bar **012** and securing with the nut **a2**.

Insert bolt **a1** into the other end of the track of horizontal support **V042** and attach to the lower horizontal rail **036**, securing with nut **a2**.



Step 13: Install third section upper panel

Lightly pull the A-frame subassembly to the side and insert panel **I1** into the channels of the second section glazing bar **V943** and the A-frame subassembly.

Slide panel **I1** upwards until the top of panel **I1** is seated in the channel of the ridgepole **V021**, press the bottom of the panel **I1** into the channel of the horizontal support **V042**, then press the panel into the channels of the second section glazing bar **V943** until seated securely.

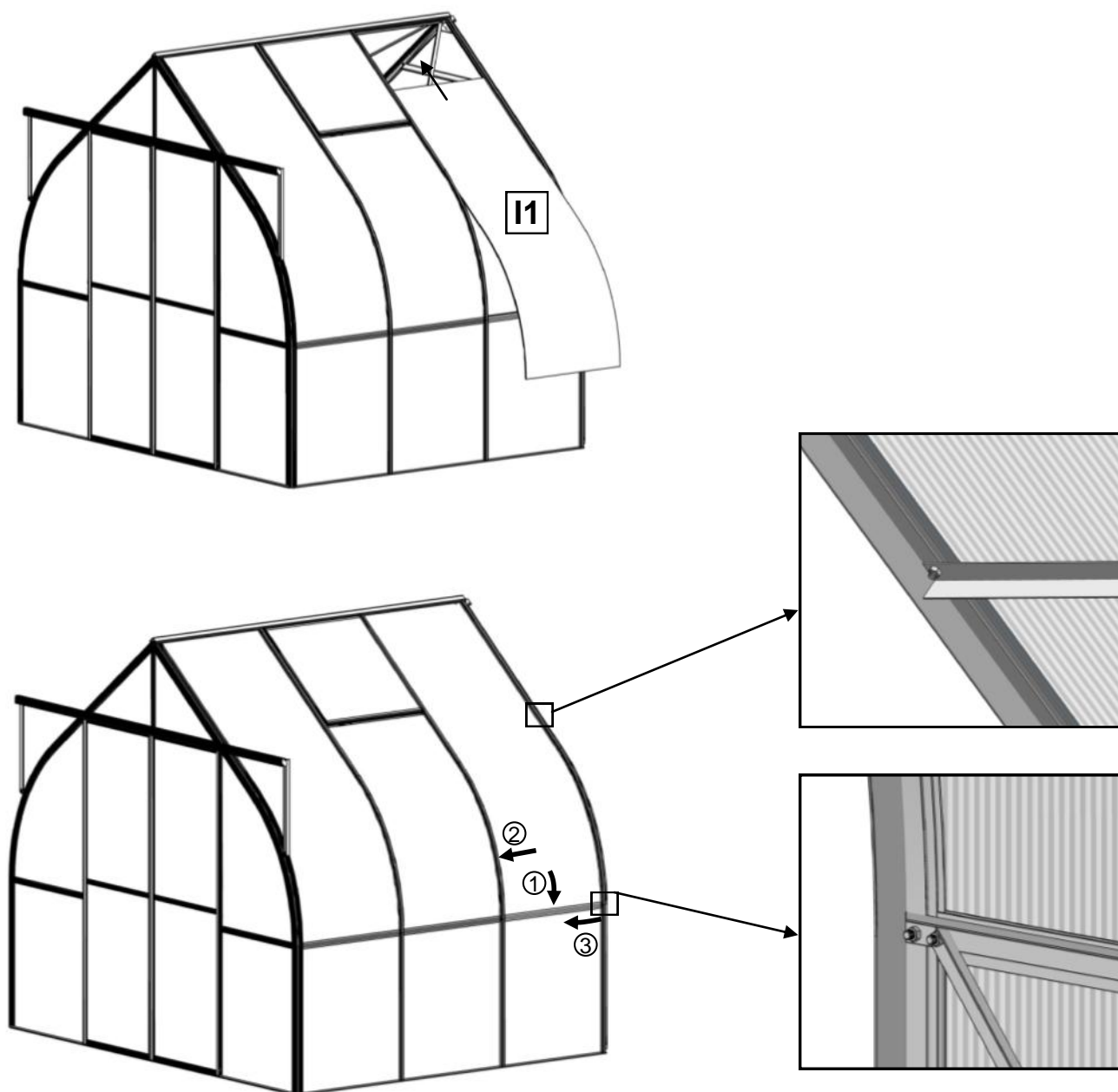
Once the panel **I1** is seated correctly into the channels of the second section glazing bar **V943**, horizontal support **V042**, and ridgepole **V021**, press the A-frame subassembly back into position, making sure that the panels **B** and **I1** seat properly into the channels.

Step 14: Reconnect A-frame

Reconnect the upper horizontal rail **031** to bolt **a8** and secure with nut **a2**.

Reconnect the lower horizontal rail **036** to bolt **a8** and secure with nut **a2**.

Repeat steps 11-14 on the opposite side to complete the third section.



Erect Greenhouse: Extension Structure

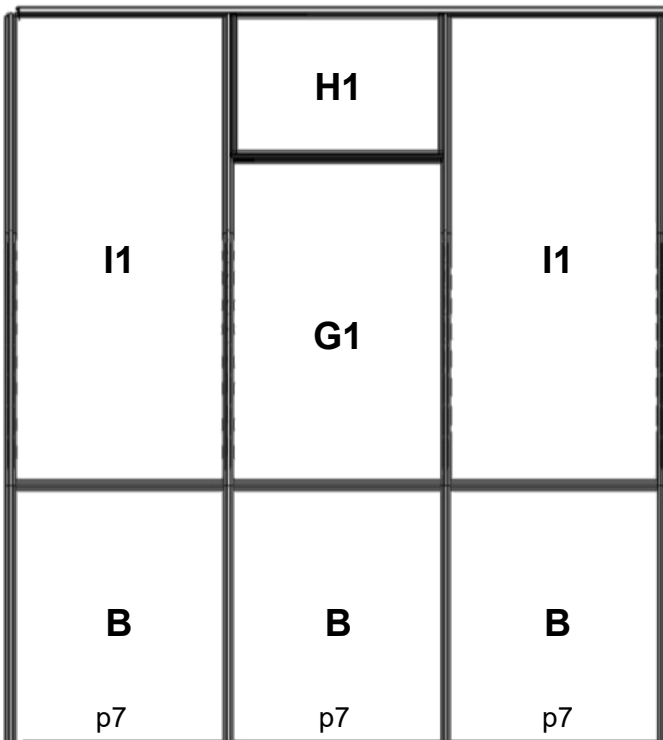
V9E Side & Roof

This parts list is for a single 7' extension. Your kit may contain multiple 7' extensions depending on the length that you ordered.

Part No.	012	V063	V064	065	066	067	V943	V042	961	962	955
Size	43 ^{5/16"} (1100mm)	84 ^{9/16"} (2148mm)	84 ^{9/16"} (2148mm)	84 ^{3/16"} (2139mm)	84 ^{3/16"} (2139mm)	84 ^{3/16"} (2139mm)	116 ^{5/16"} (2954mm)	26 ^{7/8"} (683mm)	115" (2921mm)	33 ^{7/16"} (850mm)	15 ^{3/4"} (400mm)
Qty	8	1	2	1	1	2	6	6	2	1	2

Part No.	069	m1	m7	a1	a2	a8	a16
Size	-	-	-	M6x10	M6	M6x15	Φ6
Qty	1	1	2	44	66	22	2

Polycarbonate sheets



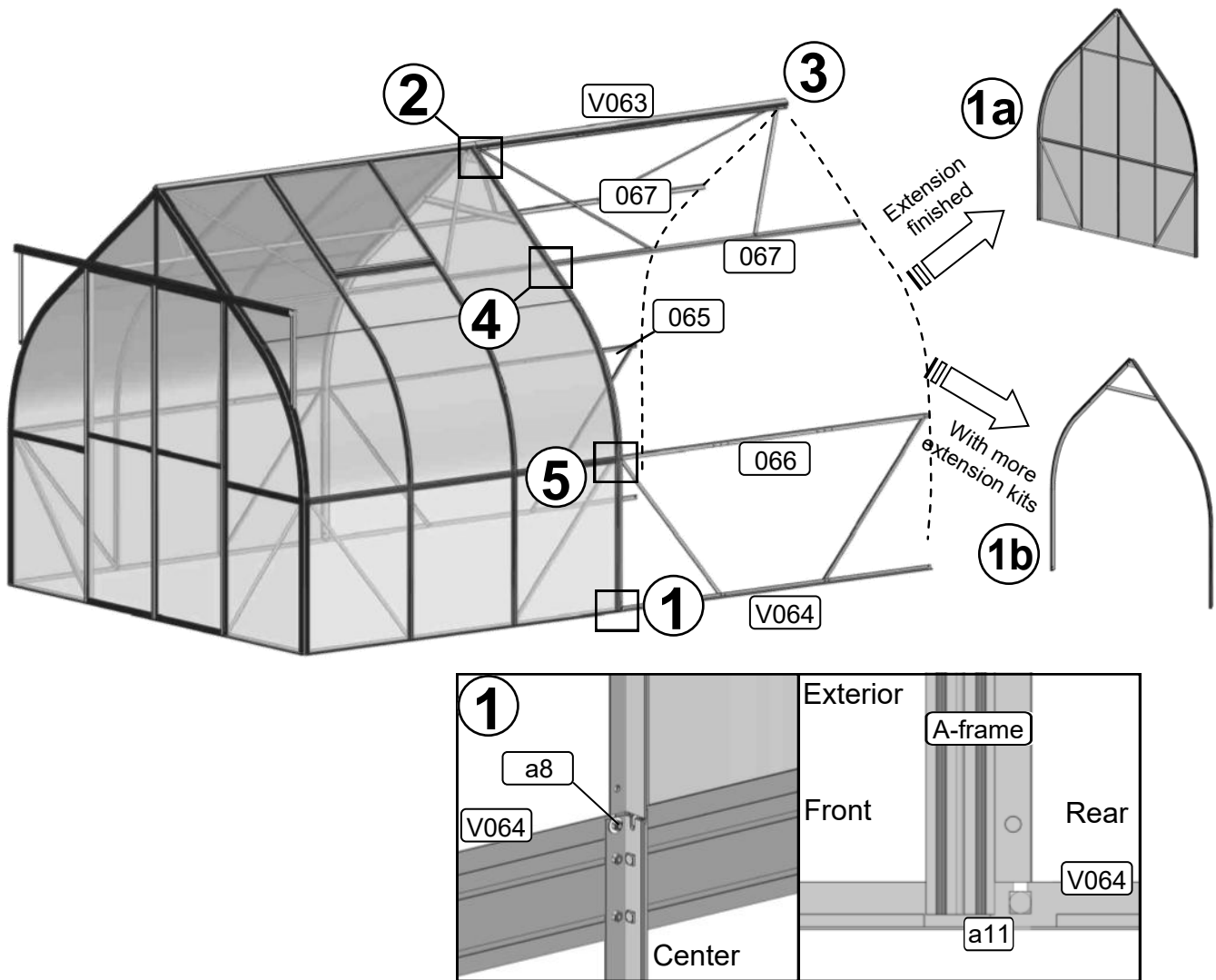
IMPORTANT

When inserting the polycarbonate panels, the side with white film must be facing towards the outside as this side is UV protected. Make sure to peel at least 1-2" of film from the edges of **both sides**, this way there will be no obstructions when inserting the panels and they will stay protected from dust and scratches. Once assembly is complete, remove all protective films from **both sides**.

#	Size	QTY
B	27 ^{9/16"} x33 ^{1/8"} (700x842mm)	6
G1	27 ^{9/16"} x52 ^{3/8"} (700x1330mm)	2
H1	27 ^{3/8"} x28 ^{3/4"} (696x731mm)	2
I1	27 ^{9/16"} x83 ^{1/16"} (700x2110mm)	4
p7	26 ^{7/8"} (682mm)	6

With the 7' main house section completed you will build another framework by adding an extension ridgepole section **V063**, four extension horizontal rails (x2 **067**, x1 **066**, x1 **065**), and two extension bottom sills **V064**, securing these to either another A-frame subassembly or the rear gable subassembly, depending on the length of your greenhouse kit.

Your next step will be different depending on the length of your greenhouse kit. If you are assembling the final section of your greenhouse follow Step 1a. If the section you are currently assembling is not the final section Step 1b.



Important: Steps 1a/1b, 2, and 3 will need to be undertaken in cooperation as they both involve connecting to the ridgepole at the top of the greenhouse. Read and understand instructions for Steps 1a/1b, 2, and 3 before beginning; once the ridgepole is connected on one end it is important that the other end is not allowed to hang unsupported as it could bend the flange used for the connection. Ideally one person on a ladder will support the unconnected end as a second person stands the Rear Gable subassembly so it can be connected to the ridgepole.

Step 1a: Connect Rear Gable and lower sills on aluminum frame

If you are not using the included aluminum frame, you may simply connect the lower sill V064 to the Rear Gable subassembly as described without the steps to place it on or secure it to the aluminum base via the anchor legs.

During the Rear Gable subassembly process you inserted four bolts **a1** into the tracks of curves **V903** and **V904**. Using the lowest one of these bolts **a1**, and nut **a2**, secure the front gable to the end of lower sill **V064**.

Repeat for both sides.

Stand the Rear Gable subassembly on the aluminum frame end **9-G** and align the anchor leg troughs with the secured lower nut/bolt that holds the end of the Rear Gable subassembly's lower sill and the nut/bolt that holds the end of side lower sill **V064**.

Note: *These nuts will need to be loosened to allow the anchor leg trough to fit between the lower sill of the Rear Gable subassembly and the nut.*

Once the Rear Gable subassembly is properly aligned with the bolts sitting in the troughs of the anchor legs you will need to install washer **a16** onto each connection point. *One at a time* remove nut **a2**, install washer **a16**, then reinstall nut **a2**. Repeat this for each of the four bolts connecting the Rear Gable subassembly to anchor leg troughs.

Important: *Make sure that the standing gable is held securely, either by additional persons or other means, so that it does not tip over and damage the secured lower connection points.*

Step 1b: Connect lower sills on aluminum frame and next section A-frame

*If you are not using the included aluminum frame, you may simply connect the lower sill **V064** to the A-frame subassembly as described without the steps to place it on or secure it to the aluminum base via the anchor legs. Instead, you can use brackets **m5** to secure the lower sills to your chosen base.*

Lay extension lower sill **V064** on frame side **7-EXT** so the lower sill troughs are lined up with the anchor leg trough. Using bolt **a1** and nut **a2** secure the end of the lower sill **V064** that is at the previous section A-frame subassembly (towards the front of the greenhouse) to the anchor leg trough.

Stand the A-frame subassembly on the aluminum frame **7-EXT** and align with the end trough of lower sill **V064** and the trough of the anchor leg.

During the A-Frame subassembly process you inserted bolts **a8** into the tracks of the glazing bars **V943**, including two that were not used for assembling the A-Frame subassembly: One on top and one on bottom. Loosen nut the **a2** holding the bolt **a8** in place, and slide into position on the anchor leg trough and the trough of the lower sill **V064**

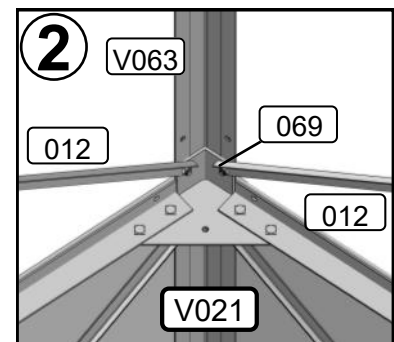
Once the A-frame subassembly is properly aligned with the bolts sitting in the troughs of the anchor legs you will need to install washer **a16** onto each connection point. Remove nut **a2**, install washer **a16**, then reinstall nut **a2**.

Repeat this step on the opposite side.

Important: Make sure that the standing A-frame is held securely, either by additional persons or other means, so that it does not tip over and damage the secured lower connection points.

Step 2: Connect ridgepole to A-frame

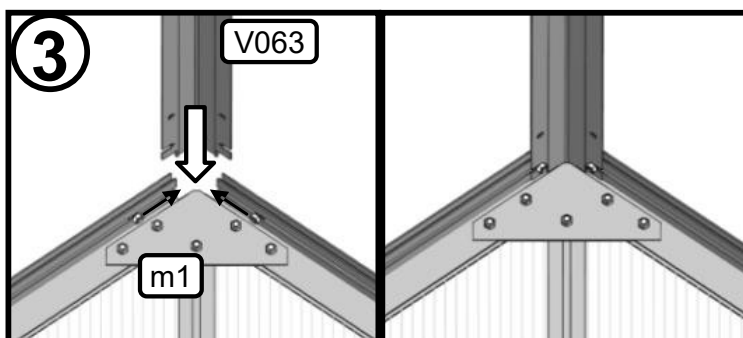
Using bolts **a1** and nuts **a2**, use bracket **069** to connect extension ridgepole **V063** and diagonal bracing bars **012** to the previous section ridgepole. Bracket **069** will connect to the previous section using the bolts **a1** that connect the previous section ridgepole to the A-frame subassembly, so the nuts **a2** will need to be removed from these bolts and then used to secure the bracket **069** to this connection.



Step 3: Connect ridgepole to Rear Gable or next A-frame

During the subassembly process for the Rear Gable or the A-frame, bolts were inserted into the tracks of the curved bars. Using the topmost one of these bolts on each side, and nuts **a2**, secure the rear gable to the end of extension ridgepole **V063**.

Note: The bracket **m1** on the Rear Gable or A-frame subassembly may need to be slightly loosened and adjusted to allow the end of the ridgepole to be inserted.



Step 4: Connect upper horizontal rail

Use bolt **a1** and nut **a2** to secure the Extension House upper horizontal rail **067** to the previous section's A-frame subassembly at a height even with the Main House upper horizontal rail **031**.

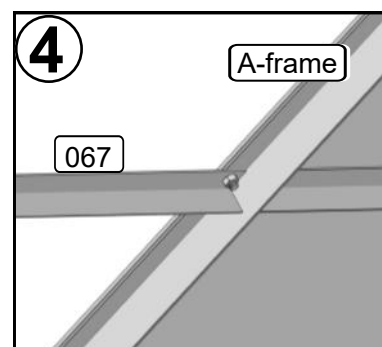
The arrow label on upper horizontal rail **067** should point toward the front gable of the greenhouse.

Note: The next part of this step differs depending on if this is the final section of your greenhouse:

If this is the final greenhouse section: Attach the other end of upper horizontal rail **067** to the rear gable assembly using the pre-inserted bolt **a1** and nut **a2** from the Rear Gable Subassembly section.

If this is not the final greenhouse section: Attach the other end of upper horizontal **067** rail to the next sections A-frame subassembly using the bolt **a8** and nut **a2** already at this location.

Repeat this step on the opposite side.



Step 5: Connect lower horizontal rail

Important: The two Extension House lower horizontal rails **065/066** are opposite and are not interchangeable. To make sure you have them on the correct sides please ensure that the end with two holes should be towards the rear gable while the end with one hole is towards the front gable.

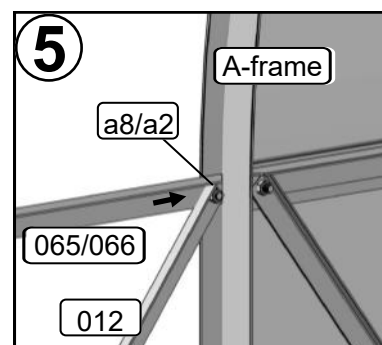
Use bolt **a1** and nut **a2** to secure Extension House lower horizontal rail **065/066** and diagonal bracing bar **012** to the previous section's A-frame subassembly.

Note: The next part of this step differs depending on if this is the final section of your greenhouse:

If this is the final greenhouse section: Attach the other end of lower horizontal rail **065/066** to the rear gable assembly using the pre-inserted bolt **a1** and nut **a2** from the Rear Gable Subassembly section.

If this is not the final greenhouse section: Attach the other end of lower horizontal **065/066** rail to the next sections A-frame subassembly using the bolt **a8** and nut **a2** already at this location.

Repeat this step on the opposite side.



Step 6: Connect bracing bars

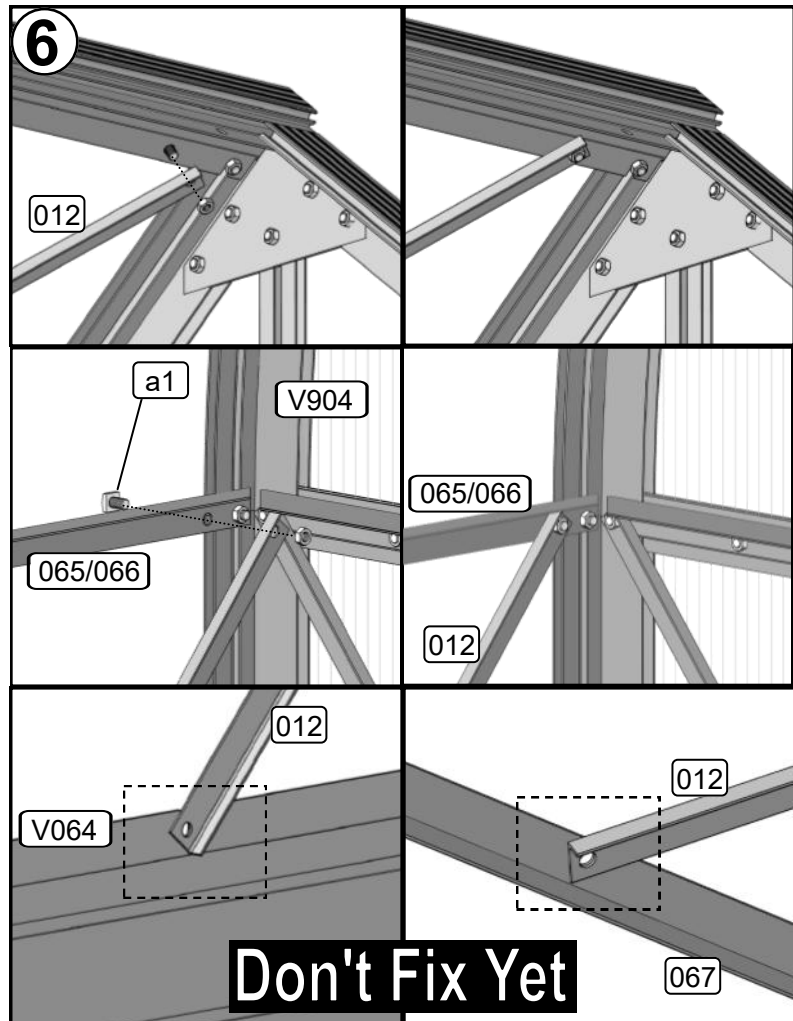
Using bolt **a1** and nut **a2** connect bracing bar **012** to the ridgepole **V063** using the open hole nearest the rear gable/A-frame.

*This bracing bar **012** will only be attached at one end for now.*

Using bolt **a1** and nut **a2** connect bracing bar **012** to the lower extension house horizontal rail **065/66** using the open hole nearest the rear gable/A-frame.

*This bracing bar **012** will only be attached at one end for now.*

Repeat on opposite side.



The 7' Extension House section of the greenhouse is now ready for the installation of paneled sections and glazing bars (**V943**). There will be three sections on each side.

These instructions will follow the default vent configuration, which places the vents in the middle sections.

Vent installation is possible in other sections but may require extra screws or bolts.

Erect Greenhouse: Extension panels

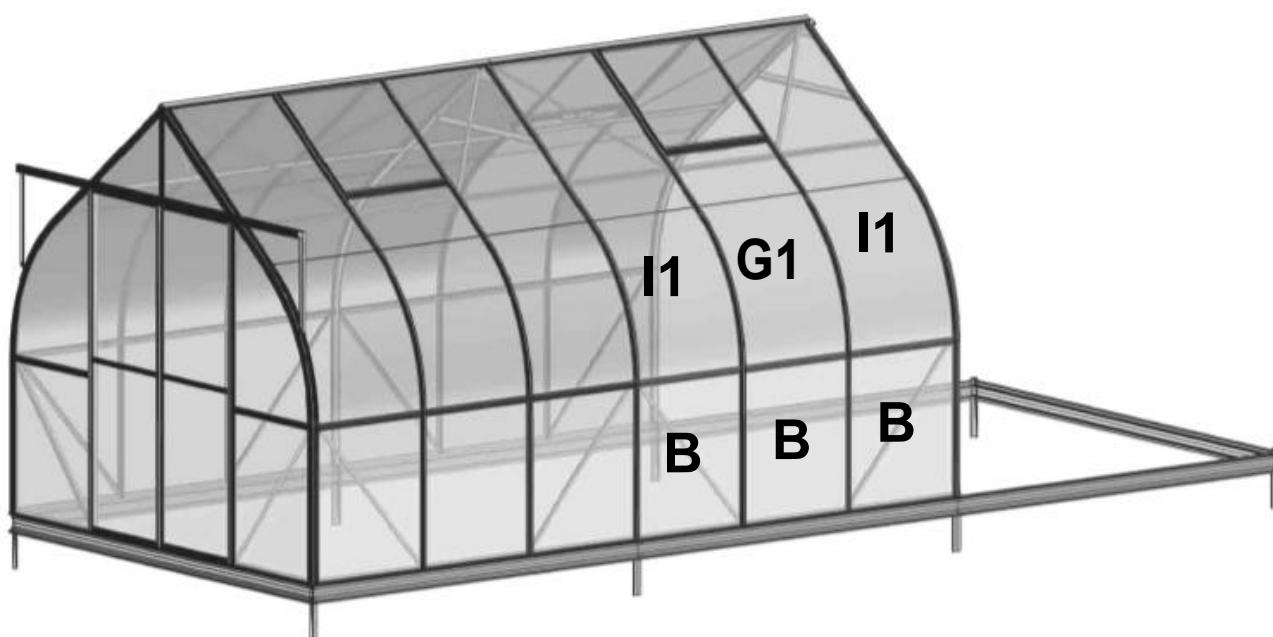
During this sequence you will install the paneled sections and glazing bars **V943** that make up the roof and sides of the greenhouse. There will be multiple instances of temporarily removing previously installed bolts in order to make additions or adjustments to the structure. This sequence will follow the same pattern as the Main House panel installation sequence so for further guidance and diagrams you may also refer to the instructions for that sequence as well, noting the difference in part numbers for the structural components.

Each glazing bar **V943** will need four bolts **a4** preloaded into the track as well as one bolt **a8**. Bolt **a8** will be placed at the bottom and will be used to connect to the lower sill **V064**. All preloaded bolts may be temporarily secured using nuts **a2**. *In the event that not enough bolts have been preloaded, there is a breach in the glazing bar track near the top where additional bolts may be inserted.*

Note: Before sliding panels into position through the channels of curved components please check the channels for obstructions and debris. Sliding the panels should not require extreme pressure. If you find that they are extremely difficult to position please check to make sure an edge has not come out of the channel and become caught against another component. This sequence is easiest to achieve with multiple people, such as one person inside the structure and one person outside the structure. If a third person is available it can be helpful to have another person on a ladder to help guide the panels into position and secure the connections when proper position is achieved.

IMPORTANT

When inserting the polycarbonate panels, the side with white film must be facing towards the outside as this side is UV protected. Make sure to peel at least 1-2" of film from the edges of **both sides**, this way there will be no obstructions when inserting the panels and they will stay protected from dust and scratches. Once assembly is complete, remove all protective films from **both sides**.



Step 1: Install first section lower panel

Near the front gable, at the junction of the lower horizontal rail **066/065** and bracing bar **012** remove the bolt **a1**, insert into the track of horizontal bar **V042** and reinstall, making sure that horizontal bar **V042** sits against the A-frame subassembly curve, then tighten the nut **a2** to secure.

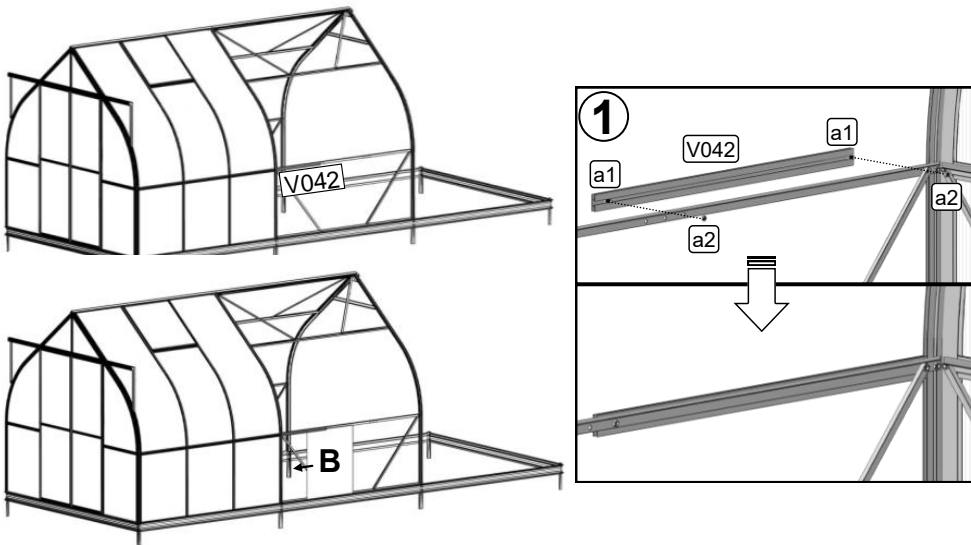
Insert bolt **a1** into the track at the other end of horizontal bar **V042**.

Of the three holes in the lower horizontal rail **066/065** at this location attach the horizontal bar **V042** to the one closest to the front gable and secure with nut **a2**.

Attach anti-dust strip **p7** to the bottom of panel **B**.

Note: Make sure that the side of the panel with the white film is facing outside of the greenhouse as this is the side that is UV protected.

Place panel **B** dust strip side down, into the channel of lower sill **V064** and slide towards the front gable, guiding the top of panel **B** into the channel of horizontal bar **V042** and sliding forward until the panel side of the panel is seated into the channel of the A-frame curve component **V943**.



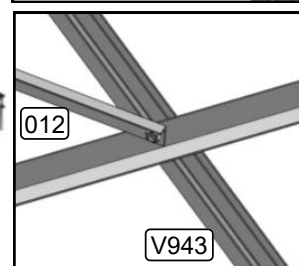
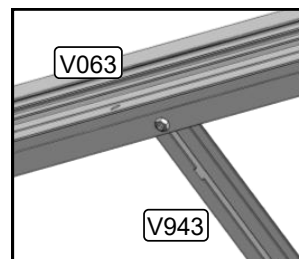
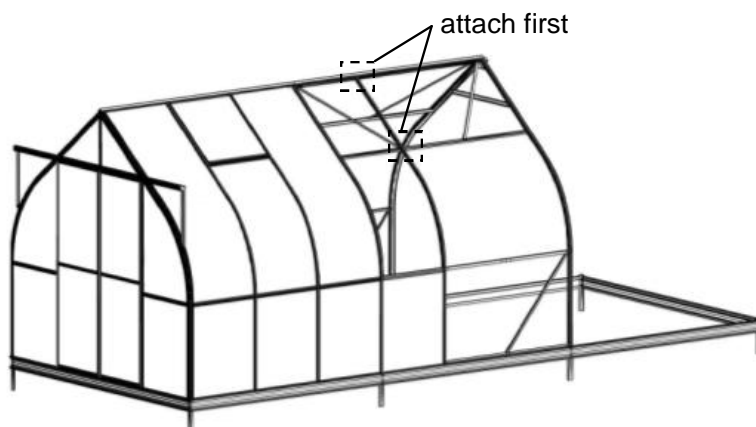
Step 2: Install glazing bar

Load four bolts **a1** and one bolt **a8** into the channel of glazing bar **V943**, with the bolt **a8** at the bottom. You may temporarily secure these with nuts **a2**.

Attach glazing bar **V943** to the ridgepole **V063** using the top preloaded bolt **a1** and secure *loosely* with nut **a2**; this loose connection will provide needed slack in Step 3.

Leave the next bolt in the glazing bar V943 free for now; this bolt will be used for the vent attachment points in a subsequent step.

Using the next bolt **a1** attach the glazing bar to the upper horizontal rail **067**. Attach the free end of bracing bar **012** to this bolt as well, then secure *loosely* with nut **a2**; this loose connection will provide needed slack in Step 3. If you find that you need more slack in Step 3 then this connection may be temporarily disconnected.



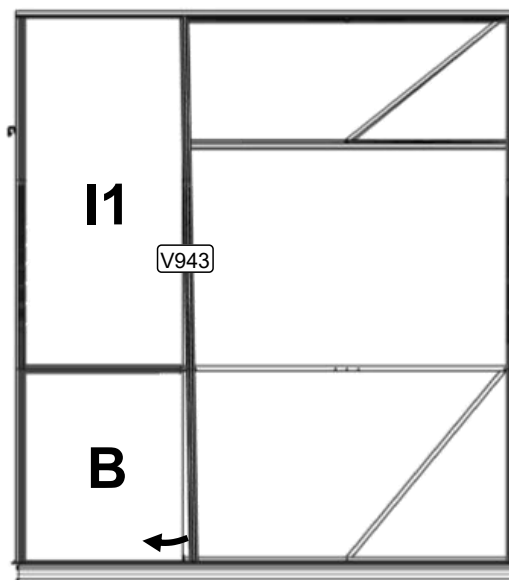
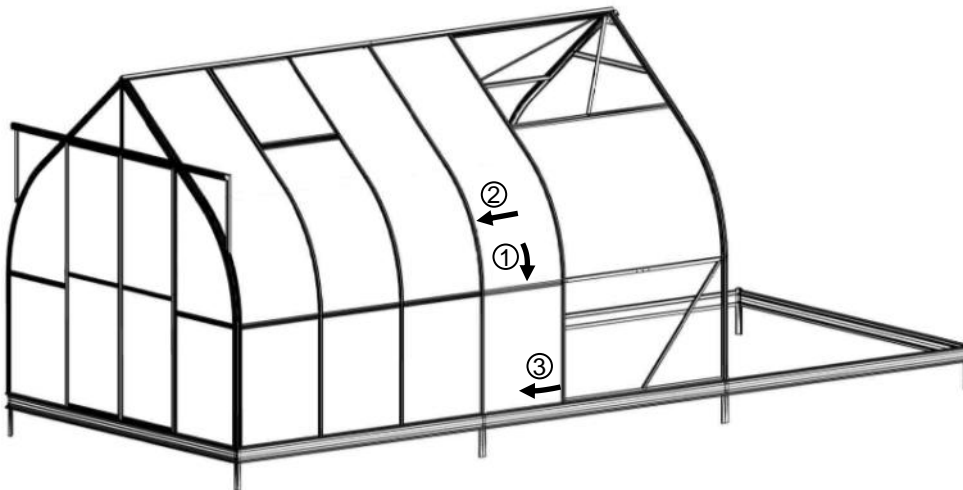
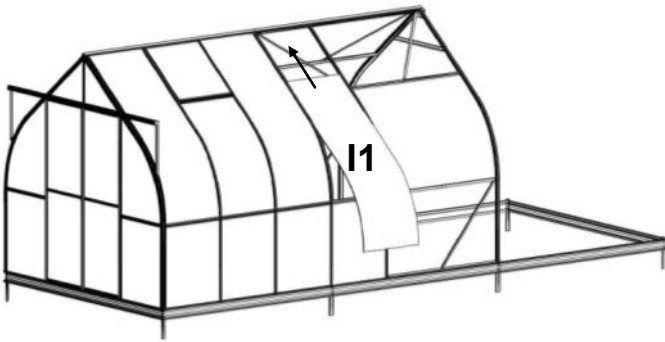
Note: The top of the upper horizontal rail **067** will sit flush against the glazing bar **V943** with the bottom making a 90° angle towards you

Step 3: Install first section upper panel

Lightly pull glazing bar **V943** to the side, away from the previous section's A-frame subassembly, and insert panel **I1** into the channels of the glazing bar **V943** and the A-frame curved component **V943**.

Slide panel **I1** upwards in the channels until the top of panel **I1** is seated in the channel of the ridgepole **V063**, then press the bottom of the panel **I1** into the channel of the horizontal support **V042**.

Once the panel **I1** is seated correctly into the channels of the A-frame curved component **V943**, horizontal support **V042**, and ridgepole **V063**, seat the panel **I1** into the channel of glazing bar **V943** by pressing the glazing bar **V943** back into position.



Step 4: Secure glazing bar

In Step 2 the nut **a2** fastening the glazing bar **V943** to the ridgepole **V063** was left loose; tighten this nut **a2** at this time.

In Step 2 the nut **a2** fastening the upper horizontal rail **067**, diagonal bracing bar **012**, and glazing bar **V943** was left loose; tighten this nut **a2** at this time.

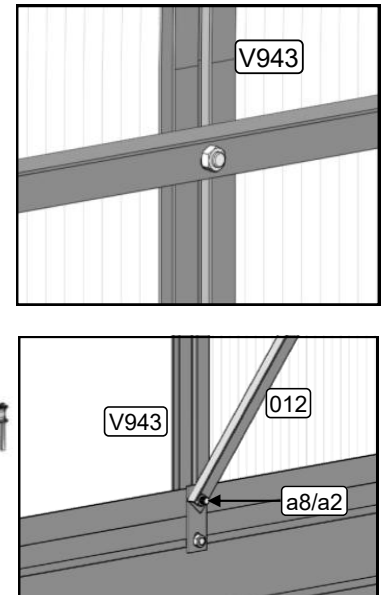
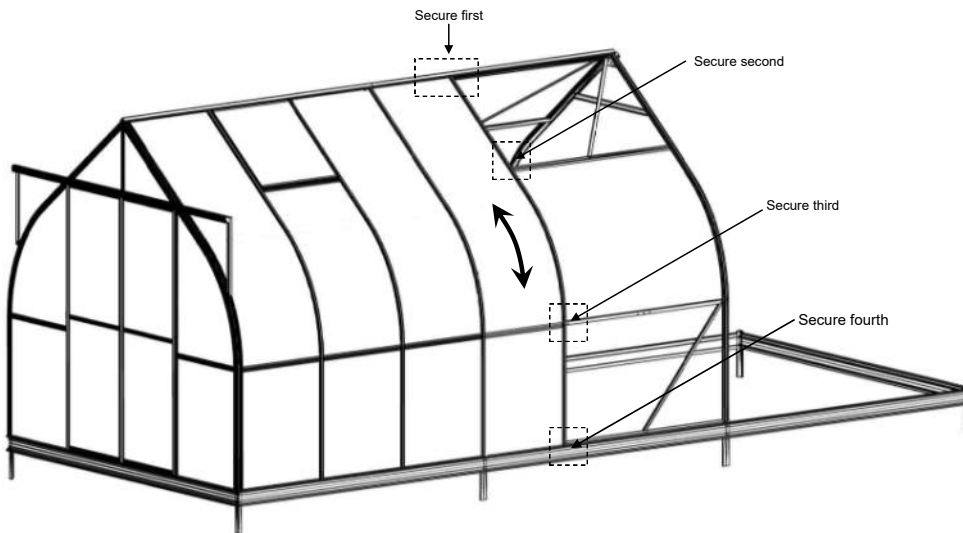
In Step 2 four bolts **a1** and one bolt **a8** were loaded into the track of glazing bar **V943**: two of the bolts **a1** were used for connections and one bolt **a1** was left free for use in a later stage; use the remaining bolt **a1** and a nut **a2** to secure the glazing bar **V943** to the lower horizontal rail **066/065**.

Using the bolt **a8** in the track of glazing bar **V943** attach the glazing bar to the lower sill **V064**, a bracket **m7**, and the free end of the diagonal bracing bar **012**; secure with nut **a2**.

Attach bracket **m7** to one of the hex-headed bolts inserted into the top track of the frame during frame assembly and secure with nut **a2**.

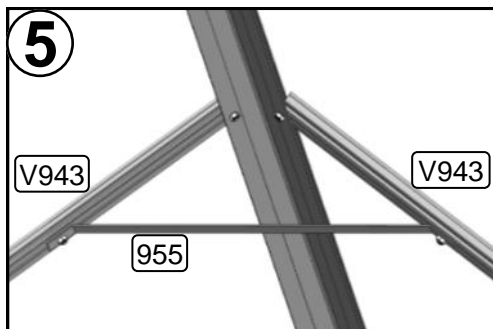
Note: If a hex-headed bolt was not inserted during frame assembly then you must use a cropped bolt, which can be inserted without disassembling the base.

Repeat steps 1-4 on the opposite side to complete the first section.



Step 5: Connect roof support

In Step 2 there were two bolts **a1** left free in the glazing bar **V943**: Use the top bolt **a1** in each opposing glazing bar **V943** and nuts **a2** to secure roof support bar **955**, securing the two glazing bars **V943** together.



Note: The following steps will be completed in a similar manner to Steps 1-5

Step 6: Install second section lower panel

Insert two bolts **a1** into the track of horizontal bar **V042**; one should be near each end.

Attach the horizontal bar **V042** to the lower horizontal rail **066/065** secure with nut **a2**.

Attach anti-dust strip **p7** to the bottom of panel **B**.

Note: Make sure that the side of the panel with the white film is facing outside of the greenhouse as this is the side that is UV protected.

Place panel **B** dust strip side down, into the channel of lower sill **V064** and slide towards the front gable, guiding the top of panel **B** into the channel of horizontal bar **V042** and sliding forward until the panel side of the panel is seated into the channel of the glazing bar **V943**.

Step 7: Install glazing bar

Load five bolts **a1** and one bolt **a8** into the channel of glazing bar **V943**, with the bolt **a8** at the bottom. You may temporarily secure these with nuts **a2**.

Attach glazing bar **V943** to the ridgepole **V063** using the top preloaded bolt **a1** and secure *loosely* with nut **a2**; this loose connection will provide needed slack in Step 3.

Leave the next two bolts in the glazing bar V943 free for now; these bolts will be used for the vent and support attachment points in subsequent steps.

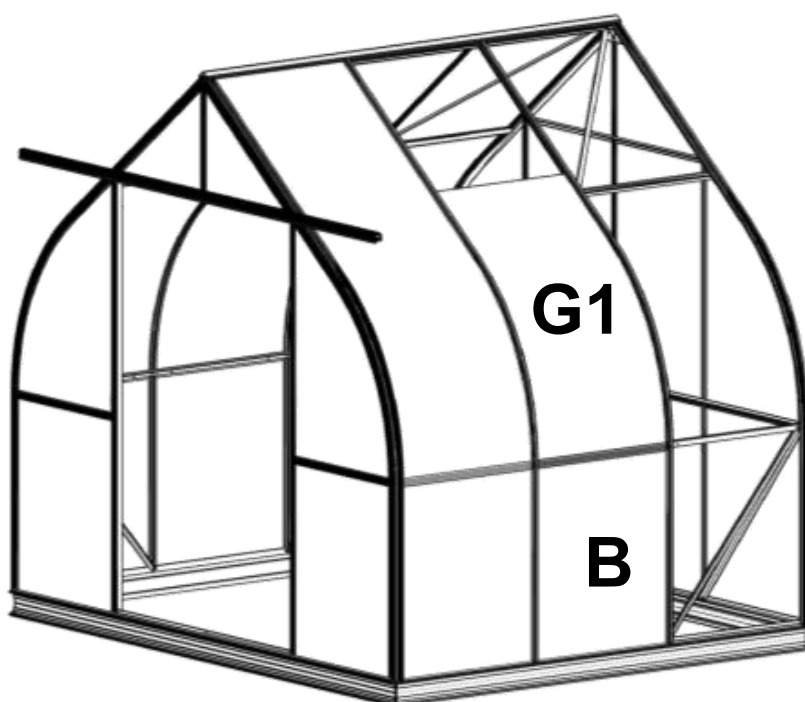
Using the next bolt **a1** attach the glazing bar to the upper horizontal rail **067**. Attach the free end of bracing bar **012** to this bolt as well, then secure *loosely* with nut **a2**; this loose connection will provide needed slack in Step 8.

Step 8: Install second section upper panel

Lightly pull glazing bar **V943** to the side, away from the front gable, and insert panel **G1** into the channels of the two glazing bars **V943**.

Slide panel **G1** in the channels until the bottom of panel **G1** is seated in the channel of the horizontal support **V042**.

Once the panel **G1** is seated correctly into the channels of the first section glazing bar **V943** and horizontal support **V042** seat the panel **G1** the second section glazing bar **V943** by pushing it back into position.



Step 9: Secure glazing bar

We will now secure the connections of the glazing bar V943 in the same manner as in Step 4

In Step 7 the nut **a2** fastening the glazing bar **V943** to the ridgepole **V063** was left loose; tighten this nut **a2** at this time.

In Step 2 the nut **a2** fastening the upper horizontal rail **067**, diagonal bracing bar **012**, and glazing bar **V943** was left loose; tighten this nut **a2** at this time.

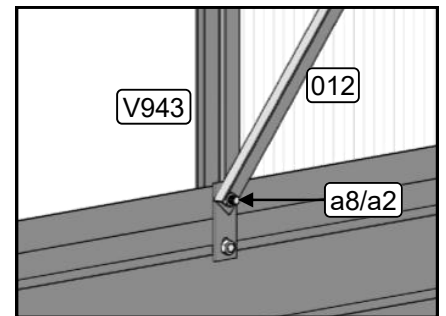
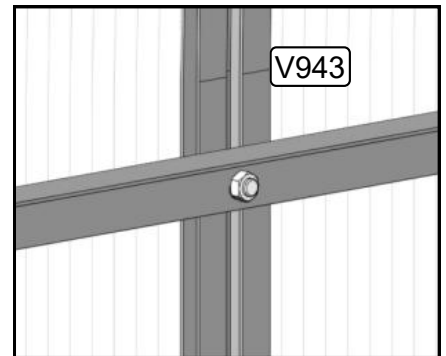
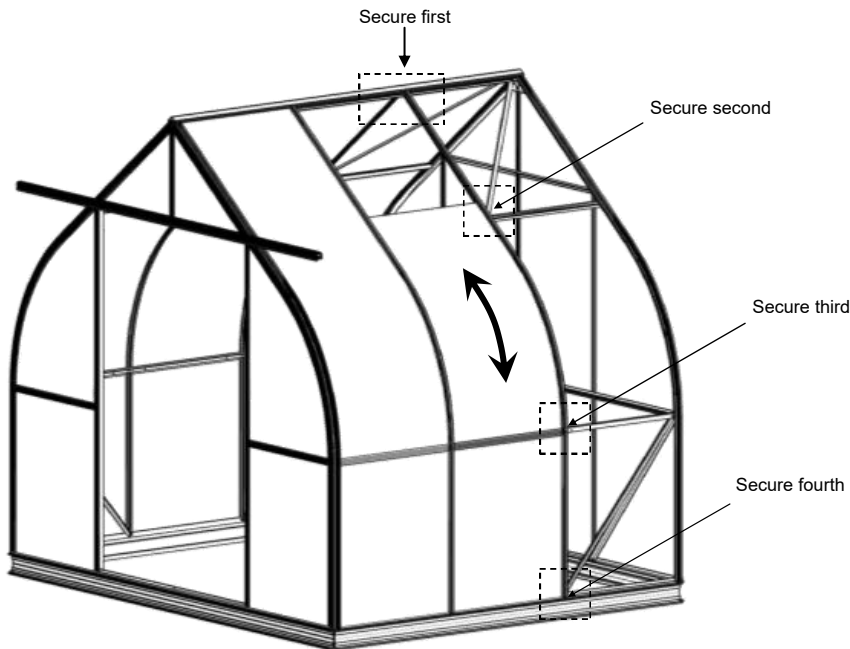
In Step 2 four bolts **a1** and one bolt **a8** were loaded into the track of glazing bar **V943**: two of the bolts **a1** were used for connections and one bolt **a1** was left free for use in a later stage; use the remaining bolt **a1** and a nut **a2** to secure the glazing bar **V943** to the lower horizontal rail **066/065**.

Using the bolt **a8** in the track of glazing bar **V943** attach the glazing bar to the lower sill **V064**, a bracket **m7**, and the free end of the diagonal bracing bar **012**; secure with nut **a2**.

Attach bracket **m7** to one of the hex-headed bolts inserted into the top track of the frame during frame assembly and secure with nut **a2**.

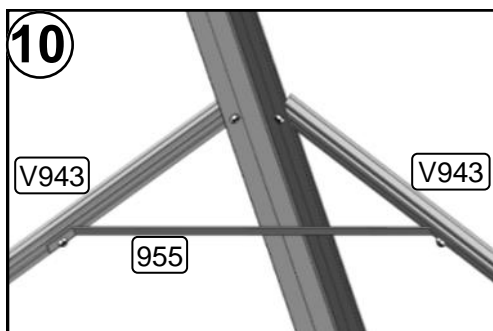
Note: If a hex-headed bolt was not inserted during frame assembly then you must use a cropped bolt, which can be inserted without disassembling the base.

Repeat steps 1-4 on the opposite side to complete the first section.



Step 10: Connect roof support

In Step 2 there were two bolts **a1** left free in the glazing bar **V943**: Use the top bolt **a1** in each opposing glazing bar **V943** and nuts **a2** to secure roof support bar **955**, securing the two glazing bars **V943** together.



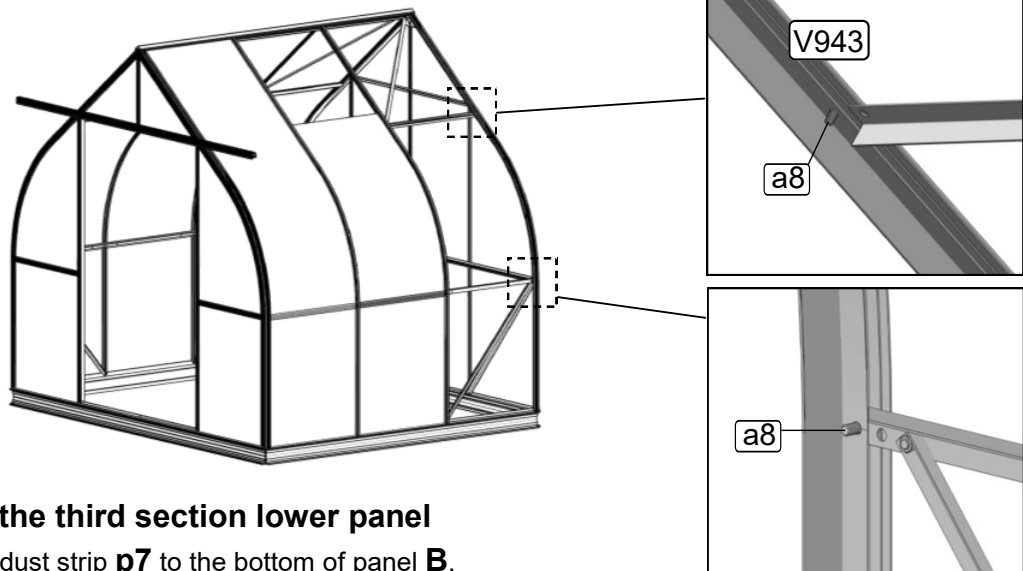
Step 11: Partially disconnect A-frame

Note: The connections securing the upper horizontal rail **067** and lower horizontal rail **066/065** will now be temporarily disconnected to allow the A-frame to be pulled away enough that the next section of panels may be inserted.

Once the nut **a2** has been removed and the horizontal rail has been disconnected the bolt **a8** will be loose and may slide down the track so it will be helpful to temporarily secure the bolt **a8** in position until it is needed again by using the nut **a2** or tape.

Remove the nut **a2** securing the upper horizontal rail **067** to the A-frame and disconnect the upper horizontal rail **067**.

Remove the nut **a2** securing the lower horizontal rail **066/065** to the A-frame and disconnect the lower horizontal rail **066/065**.



Step 12: Insert the third section lower panel

Attach anti-dust strip **p7** to the bottom of panel **B**.

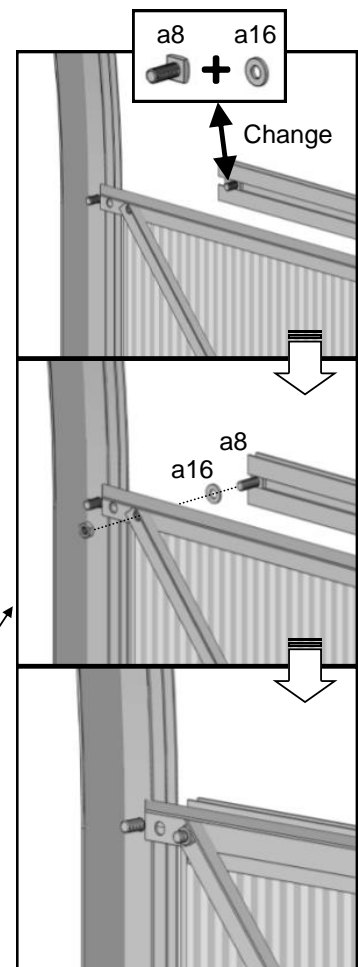
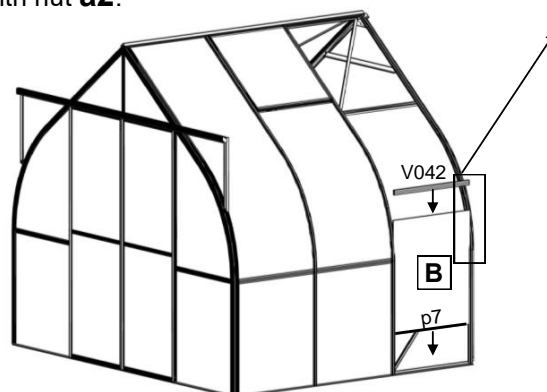
Note: Make sure that the side of the panel with the white film is facing outside of the greenhouse as this is the side that is UV protected.

Slide panel **B** downward into the channels of the second section glazing bar **V943** and the A-frame subassembly until the panel is also seated in the channel of lower sill **V064**.

Remove the nut **a2** from the bolt **a8** securing diagonal bracing bar **012** to the lower horizontal rail.

Remove the bolt **a1** and insert into the track of horizontal support **V042**, then apply a washer **a16** before reinstalling the lower horizontal rail **066/065** and the diagonal bracing bar **012** and securing with the nut **a2**.

Insert bolt **a1** into the other end of the track of horizontal support **V042** and attach to the lower horizontal rail **066/065**, securing with nut **a2**.



Step 13: Install third section upper panel

Note: If this is the final section of the greenhouse then this step may be difficult due to the rigidity of the nearly-completed structure.

Lightly pull the A-frame subassembly to the side and insert panel **I1** into the channels of the second section glazing bar **V943** and the A-frame subassembly.

Slide panel **I1** upwards until the top of panel **I1** is seated in the channel of the ridgepole **V063**, press the bottom of the panel **I1** into the channel of the horizontal support **V042**, then press the panel into the channels of the second section glazing bar **V943** until seated securely.

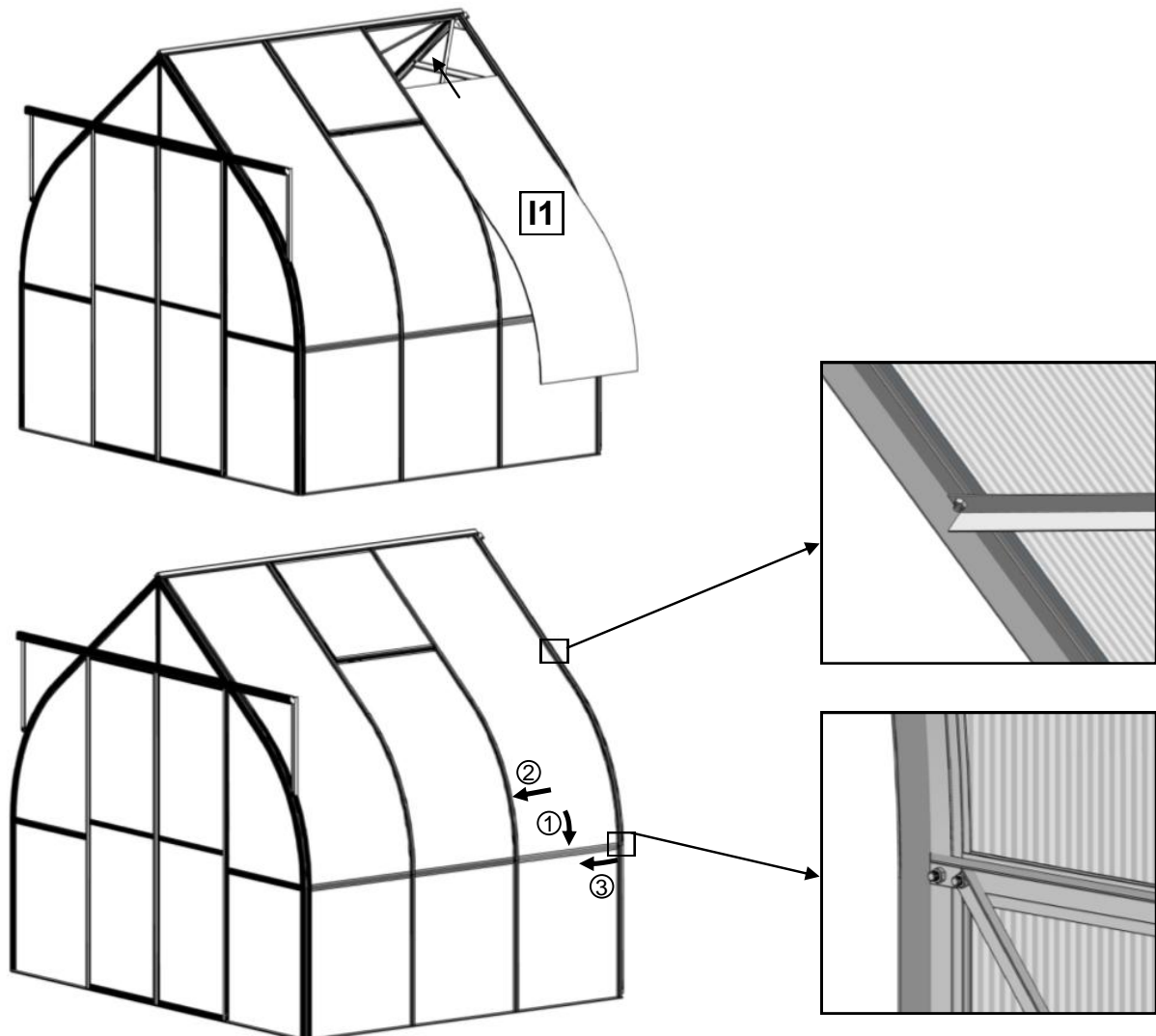
Once the panel **I1** is seated correctly into the channels of the second section glazing bar **V943**, horizontal support **V042**, and ridgepole **V063**, press the A-frame subassembly back into position, making sure that the panels **B** and **I1** seat properly into the channels.

Step 14: Reconnect A-frame

Reconnect the upper horizontal rail **067** to bolt **a8** and secure with nut **a2**.

Reconnect the lower horizontal rail **066/065** to bolt **a8** and secure with nut **a2**.

Repeat steps 11-14 on the opposite side to complete the third section.



If you are adding additional extension sections to your greenhouse:

1. Complete Steps 1 & 2 of "Installing Vents" on page 44 for vents in the extension section you have just completed. Failure to do so at this time may result in difficulty moving the vents into position in middle ridgepole sections in the case of any slight misalignments.
2. Return to page 31 "Erect Greenhouse: Extension Structure" to repeat the extension sequences until complete.

Finishing Touches: Installing Vents

V9 VENT

Step 1: Assemble and install lower vent frame

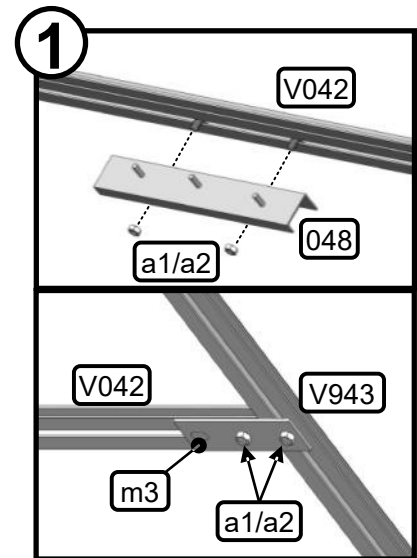
Using bolts **a1** and nuts **a2** affix post plate **048** to horizontal frame **V042**.

*Note: The left post should be positioned at the center of the horizontal frame **V042**.*

Using bolts **a1** and nuts **a2** affix brackets **m3** to each end of the horizontal frame **V042**. The protrusion on bracket **m3** is meant to sit in the track of horizontal frame **V042**. This completes the assembly of the lower vent frame.

Slide the assembled lower vent frame onto side panel **G1** and affix using nuts **a2** and the bolts **a1** that were previously inserted into the glazing bars **V943**.

*Note: If you did not previously insert enough bolts **a1** into glazing bars **V943**, you may insert now using the break in the track near the top of the glazing bar **V943**.*



Step 2: Attach and secure assembled vent

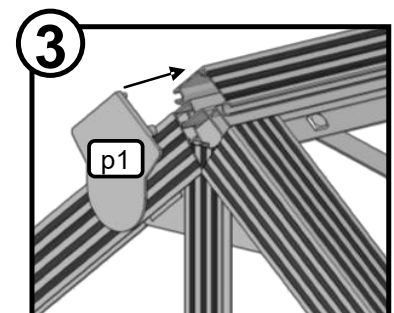
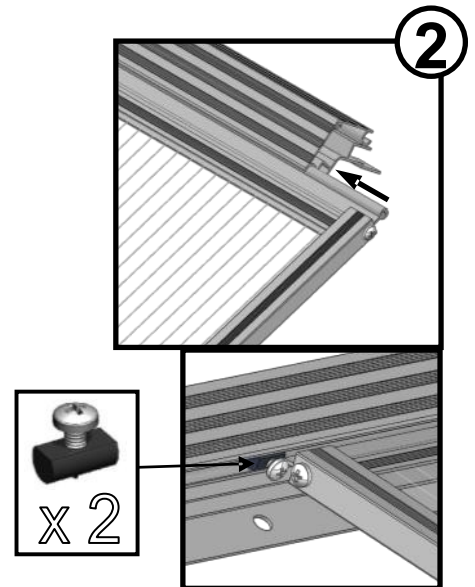
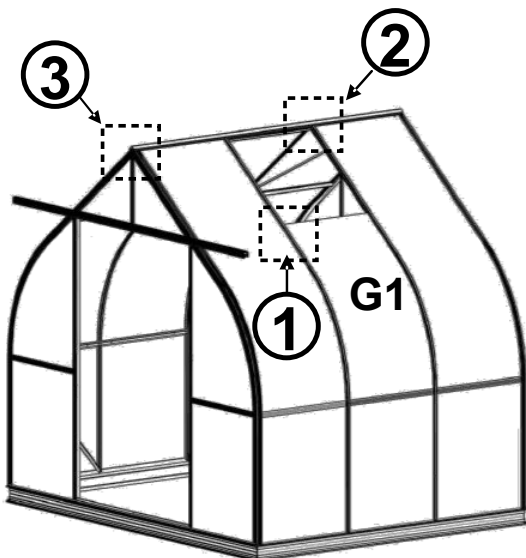
Slide a plug **p3** into the rounded hinge channel of the ridgepole **V021/V063**.

Slide the assembled vent into the rounded hinge channel of the ridgepole **V021/V063** and determine proper position.

Slide a second plug into the rounded hinge channel of the ridgepole **V021/V063**.

With the vent window properly aligned, position one plug **p3** against each side of the vent window and insert screw **a4** to expand it and lock the vent into position.

Repeat as needed until all vents are installed.



Step 3: Install endcaps

At the front of the greenhouse, press endcap **p1** into the end of the ridgepole **V021**.

At the rear of the greenhouse, press endcap **p1** into the end of ridgepole **V063**.

Finishing Touches: Installing Doors

V9 DOOR

Step 1: Install assembled doors

Insert the wheels of the assembled door into the door rail **V919** through the end. The groove in the wheels should ride on the vertical ridge inside the door rail **V919**.

Adjust height of the door guides **p4** so that they keep the bottom of the door on the track without rubbing on the lower sill.

Step 2: Install the magnetic door latch and optional handles

Using screws **a10** and nuts **a11** fasten the magnet portion of the magnetic latch **m11** to the vertical door frame **V952/V953**.

Using screws **a10** and nuts **a11** fasten the plate portion of the magnetic latch **m11** to the vertical door frame **V952/V953**.

Note: The remaining part of Step 2 concerns installation of optional interior door handles. If you do not want to install these then skip ahead to Step 3.

Place the handles **DH1** against the interior of the vertical door frame **V952/V953** and mark the location of the screw holes.

Using a 2mm drill bit, drill holes in the marked locations.

Using screws **DS1** secure the handles to the vertical door frames.

Step 3: Install the end plate and supports

Spray a small amount of lubricant into the round holes on the end of the door rail **V919**.

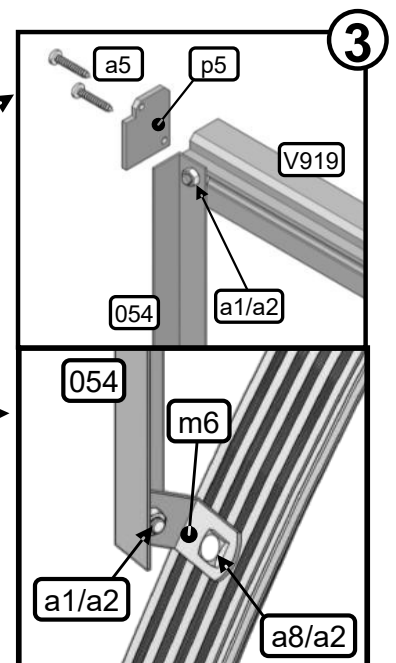
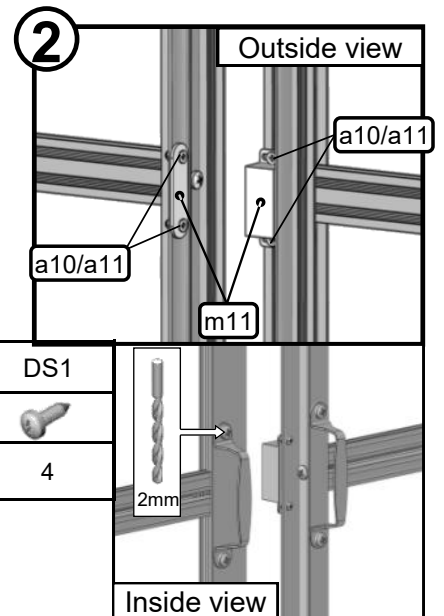
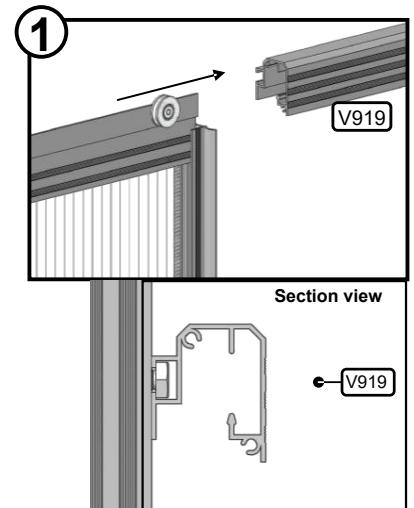
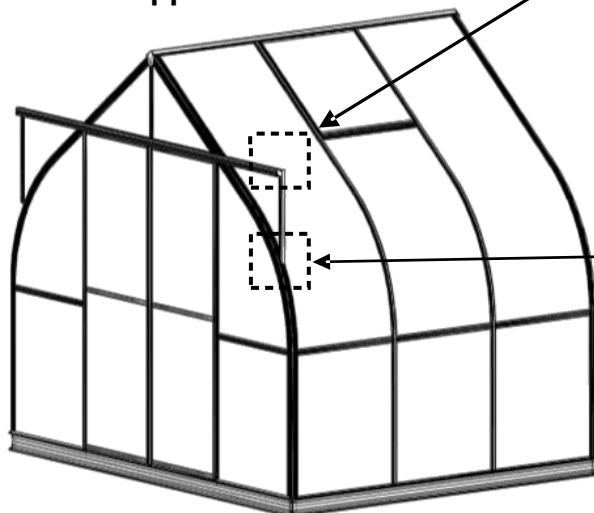
Using screws **a5** secure the end plate **p5** to the end of the door rail **V919**.

Using bolt **a1** and nut **a2** attach the top of vertical support **054** to the door rail **V919**.

Using bolt **a8** and nut **a2** affix bracket **m6** to the curved gable frame **V903/V904**.

Using bolt **a1** and nut **a2** secure the installed bracket **m6** to the bottom end of the vertical support **054**.

Repeat these steps on the opposite side.



Finishing Touches: Other tasks

1. **Check all connections for tightness and ensure all are secured.** Make sure to periodically check connections for tightness and re-secure if necessary. If you find that certain connections are repeatedly becoming loose, consider applying a product such as Loctite to these connections.
2. **Install any accessories if applicable.** Each accessory will include its own installation instructions.
3. **Peel film from panels.** The UV protected side of each panel has a white film and should be on the outside of the greenhouse. The non-UV protected side has a clear film.
4. **Caulk all exterior seams.** Caulking the seams adds structural integrity and prevents moisture infiltration which can lead to water and algae buildup inside the panels. For a 9x14 greenhouse, use 4-6 bottles. Add 2-3 bottles for every 7' extension. Caulking of interior seams is recommended but not required.

Thank you for choosing Climapod!

