# OCTAGONAI



# 9x12 Instruction Manual







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#### Introduction

Thank you for purchasing your new Alton greenhouse. We recommend you familiarise yourself with the instructions and read all safety information before you commence assembly.

HELPLINE: 0116 267 7091

#### **Safety Warning**

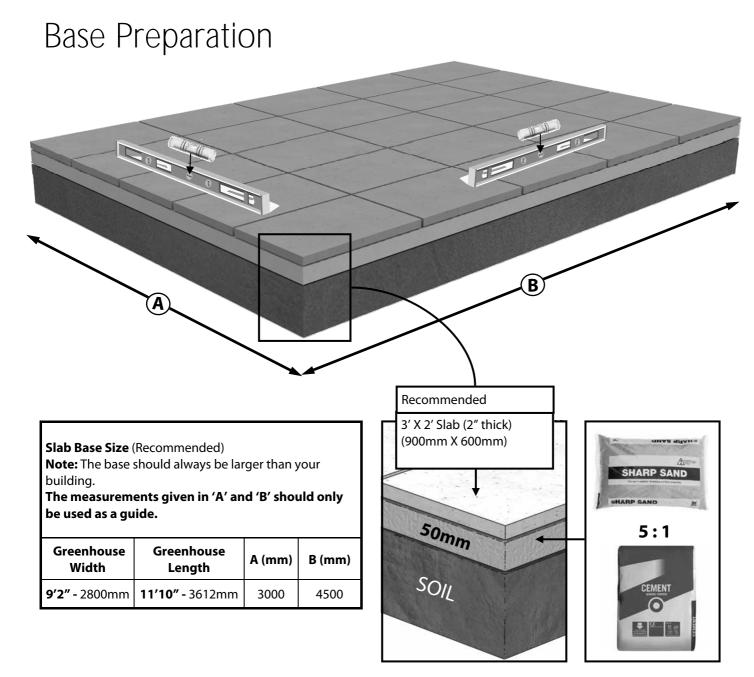
- Glass, aluminium and timber can potentially cause injury. Please ensure you wear protective goggles, gloves, headgear and suitable footwear when assembling and glazing the building.
- Please remember that glass is fragile and should be handled with extreme care. Always clear up and dispose of any breakages immediately.
- Do not assemble the greenhouse in high winds.
- DIY assembly For safety reasons and ease of assembly, we recommend that this greenhouse is assembled by a minimum of two people.
- Please clear all lying snow from the greenhouse roof as it can cause the roof to buckle or collapse.

#### **Site Preparation**

- When selecting a site for your greenhouse, it is vital that you choose as flat and level an area as possible.
- A concrete or slabbed base will provide the most solid foundation for your greenhouse. A slabbed base would be our preferred choice as this helps with drainage.
- Avoid placing your greenhouse under trees or in other vulnerable locations.
- To minimise the risk of wind damage, try to select as sheltered a site as possible, e.g. beside a hedgerow or garden fence.

#### **Additional Considerations**

- Please bear in mind that assembling your greenhouse can be time consuming. You may need to spread the construction over two or more days. We recommend that you avoid leaving the building partially glazed. If you ever have to leave your greenhouse half assembled and not anchored down, weigh it down with slabs or bags of sand to stop the wind moving it.
- You will find it helpful to prepare a large, clean and clear area in which to work in. A garage floor or flat lawn area is ideal.
- If you have arranged for someone to install your greenhouse for you, please check that all components are included and are correct before your fitter comes on site. Most parts are numbered and can be identified by a stamp or removable label. Alternatively, the components can be identified by lengths detailed in the packing list in the latter pages of his manual.
- Remember this is a natural timber product. Cedarwood can vary from white through shades of pink to dark brown colours, this natural variation is a characteristic of cedar. The wood will soak up some water to start with and some staining may occur. This will settle down over time and the greenhouse will really blend with its surroundings. If you want to avoid this and give your greenhouse a more permanent finish you could apply an oil or spirit based product (it would be best to do this before glazing!).



It is necessary to leave sufficient working room around your greenhouse when you're putting it up and also to allow for the possible need to replace a piece of glass in the future. If possible try and leave a space of 2ft/610mm around the greenhouse.

Locate the greenhouse where there is maximum amount of sunlight and avoid if possible any shade from trees, fences or other buildings. Over-hanging branches can be a particular nuisance and should be avoided.

Choose a site where the greenhouse is relatively easy to get to and convenient to bring water to and possibly a supply of electricity.

Finally, and most importantly, choose a site where your Alton Greenhouse will look right so that it will complement your garden.

#### Overview

To build you new greenhouse you will need the following tools:

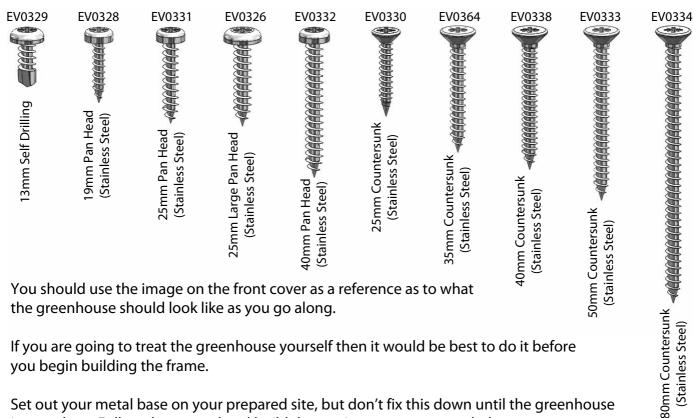
Pozidrive No. 2 Screwdriver Bit Spirit Level

Pencil Cordless Screwdriver (2 would be ideal, 1 to drill and 1 to screw)

4mm Drill Bit Hammer Hammer Drill Step ladders 7mm Masonry Bit **Tape Measure** 

you begin building the frame.

There are 10 types of screws used in the construction of the greenhouse. These are as follows:



If you are going to treat the greenhouse yourself then it would be best to do it before

Set out your metal base on your prepared site, but don't fix this down until the greenhouse is complete. Follow the manual and build the sections as recommended.

When screwing through one piece of timber into another it is always recommended to pre-drill the first piece. This will prevent the timber from splitting which could weaken the structure.

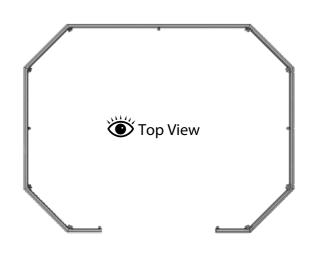
Glazing the structure is very simple but be very careful of the edges of the glass as the pane will break into tiny pieces if you catch an edge on a hard surface such as concrete. You should also wear suitable gloves when handling the glass (this also helps to keep it clean).

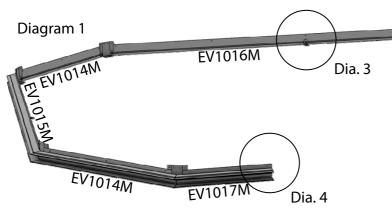
Option of gluing joints. This is not required for strength but you may do it if you wish. However bear in mind if you ever intend to move or adapt the greenhouse in the future this would make it very difficult. The best glue for this would be Poly Urethane Wood Adhesive. Take care when applying this, you only need a very small amount as the glue expands to fill the joint. If you use too much it may seep out of the joint and could be unsightly! Try a test piece before you start.

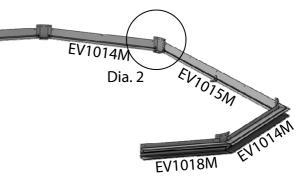
Read through the rest of this manual before starting, you are less likely to miss something doing this and you will have a better understanding of how it all works.

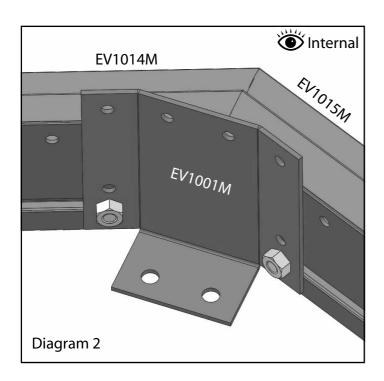
# Base Assembly

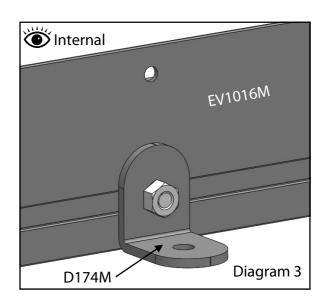
Lay out your aluminium base sections as diagram 1 shows. The base brackets (EV1001M) attach to the base sections using the M6 bolts supplied (diagram 2). The bolts slot into the bolt channel in the aluminium base and fix through the largest hole in the base bracket. Also slide in bolts and use them to attach five small base brackets (D174M), one in the middle of each EV1015M / EV1016M (diagram 3) and one either side of the door opening (diagram 4).

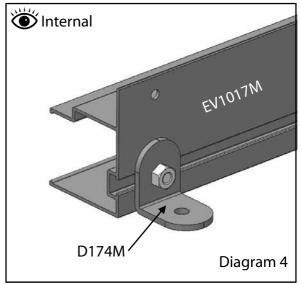






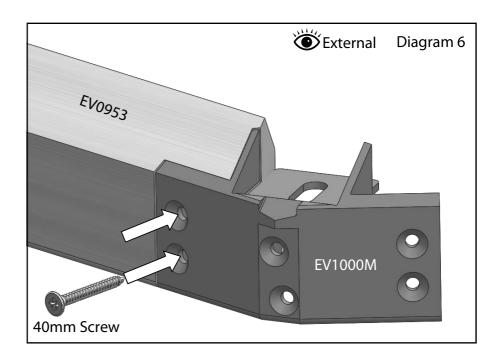


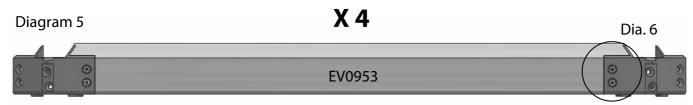




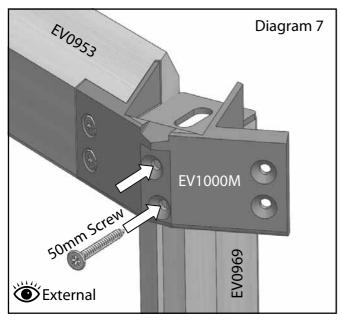
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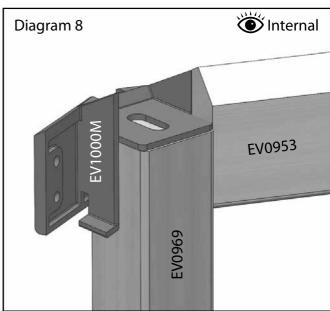
Start by attaching the cast eaves brackets (EV1000M) four eaves to rails (EV0953). First of all drill pilot holes through the eaves bracket into the end of the eaves bar. careful not to drill all the way through the rail! Once the bracket is firmly in position fix with the 40mm Countersunk (CSK) screws (diagrams 5 and 6).

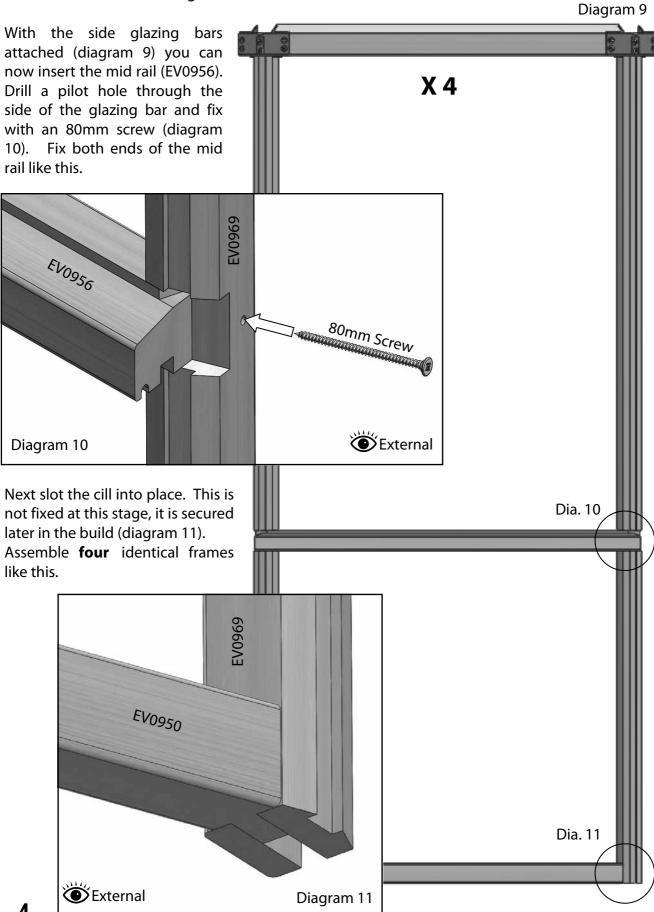




Once you have attached all the cast eaves brackets you can fix two standard side glazing bars (EV0969) to each of the prepared eaves rails. Make sure the glazing bar is tight into the bracket (diagrams 7 and 8), drill pilot holes and fix using 50mm CSK screws. Don't over tighten these screws as it may make it difficult to glaze later in the build.



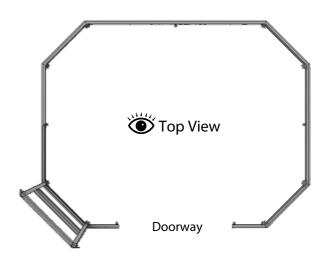


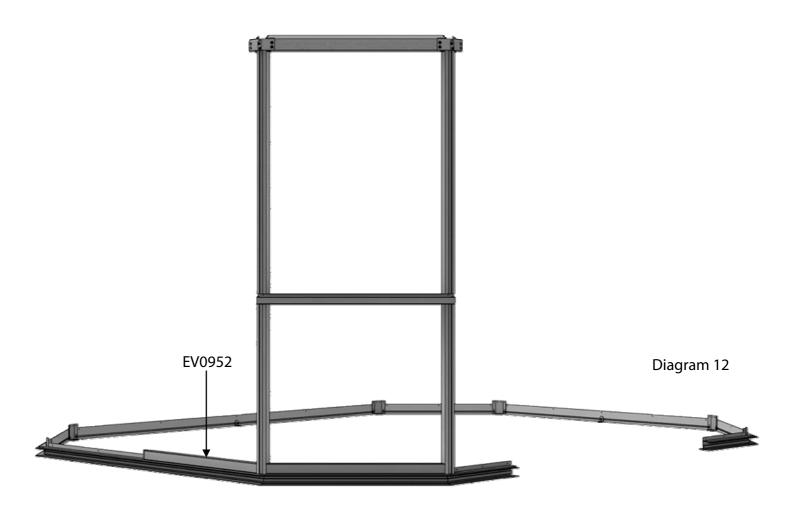


Now you have four 2' side frames assembled you can start assembling the greenhouse sides on the aluminium base. Place the first side assembly to the left of the door, position this on the base and either ask a helper to hold it in place or secure it to a step ladder.

With this in place you will then need to slot a cill section (EV0952) in next to it ready for the next side frame (diagram 12).

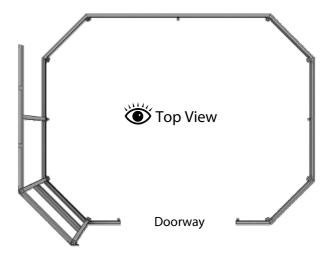
Do **NOT** fix any frames or cills to the aluminium base, this is done after the door installation on page 19.

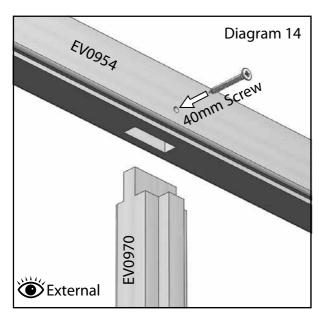


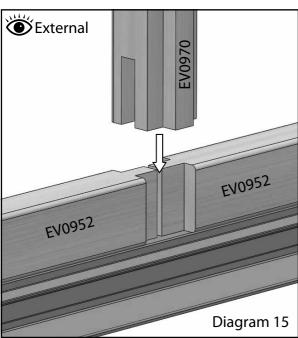


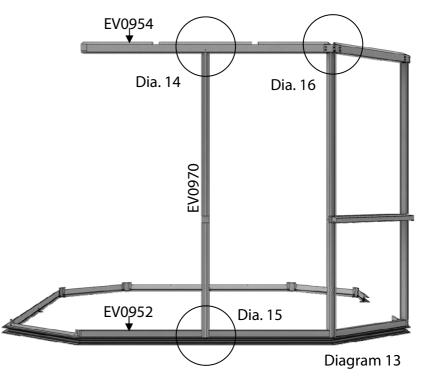
You now need to attach the standard glazing bar (EV0970) to the 4' eaves section (EV0954). Drill a pilot hole in the outside face of the eaves bar into the mortice hole, then slot the top of the glazing bar into the mortice hole and fix with a 40mm countersunk screw (diagram 14).

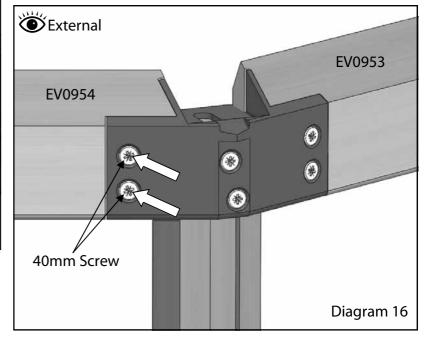
Slot the assembly into place, locating the bottom of the glazing bar onto the tenons of the cill sections (diagram 15). Drill the pilot holes in the end of the eaves bar again and then fix with 40mm CSK screws (diagram 16).





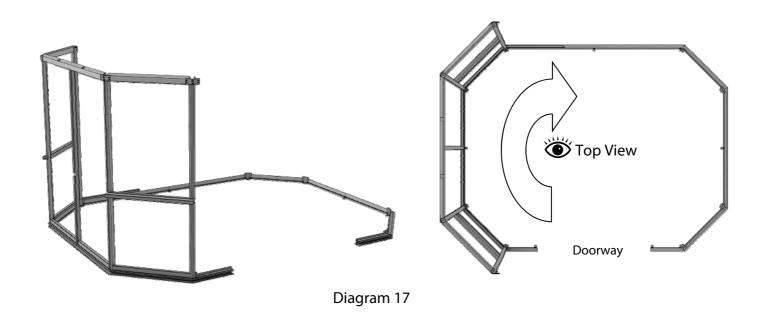






Pilot drill and attach the next standard 2' side frame.

With this in place you will then need to slot a cill section (EV0952) in next to it ready to repeat the previous page diagrams 14 through to 16. Continue working like this in a clockwise fashion until all four of your 2' side sections are in position. There is a special straight cut cill for the rear middle (EV951), see diagram 18, and a special 6' rear eaves bar (EV0955).



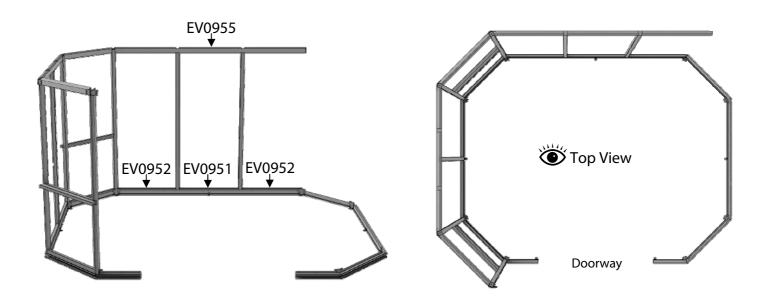
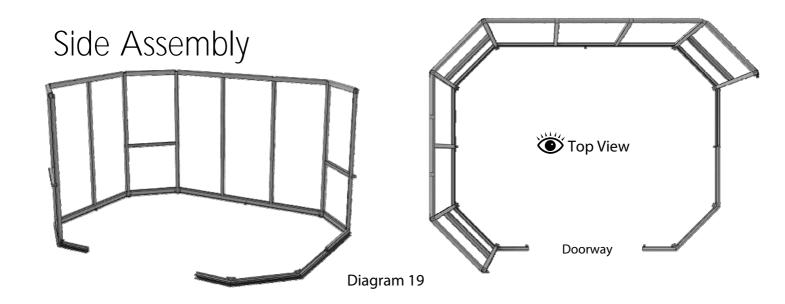
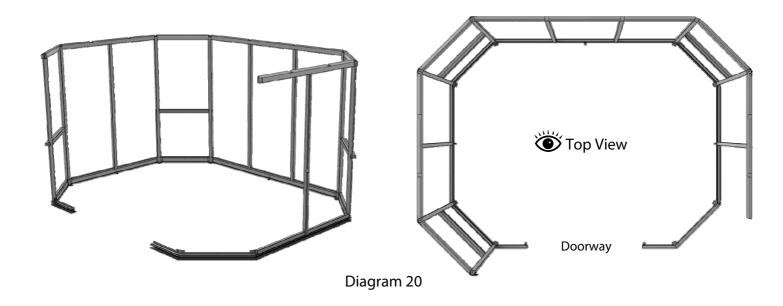
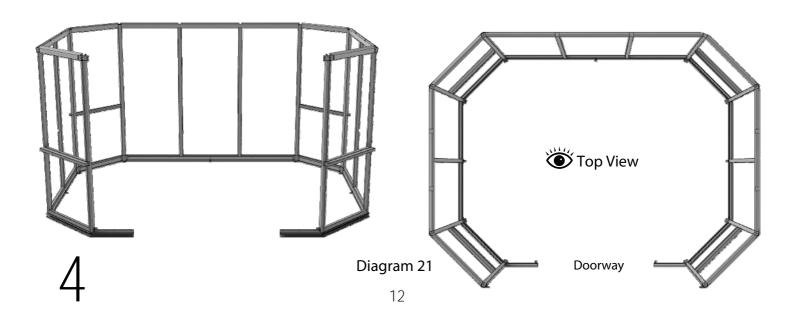


Diagram 18

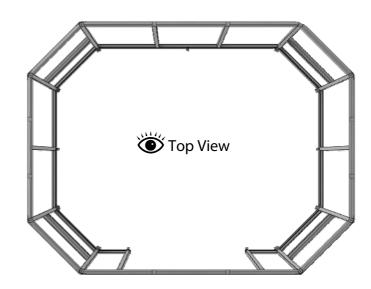


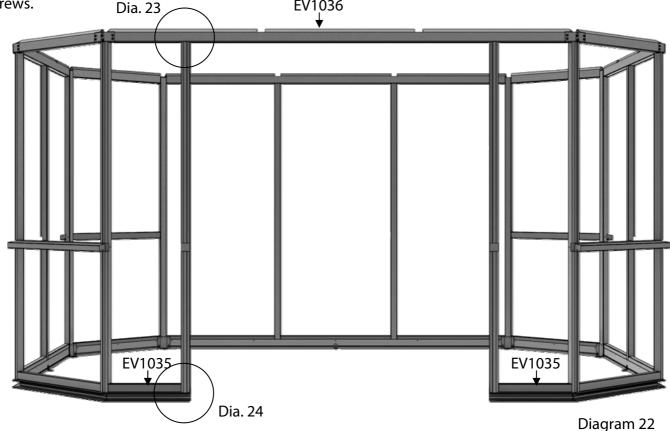


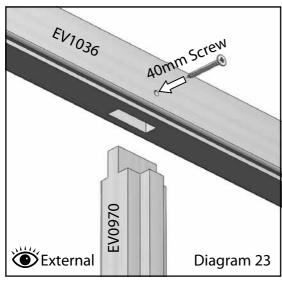


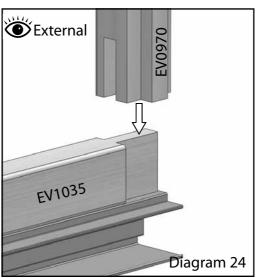
You now need to attach the last two glazing bars (EV0970) onto the front eaves section (EV1036). Drill two pilot holes in the outside face of the eaves bar into the mortice holes, then slot the top of the glazing bars into the mortise hole and fix with 40mm countersunk screws (diagram 23).

Slot the assembly into place, locating the bottom of the glazing bar onto the tenons of the cill sections (EV1035) (diagram 24). Drill pilot holes in the end of the eaves bar again and then fix with 40mm CSK screws.





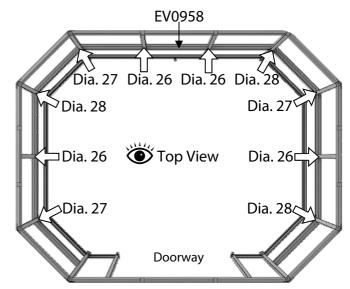


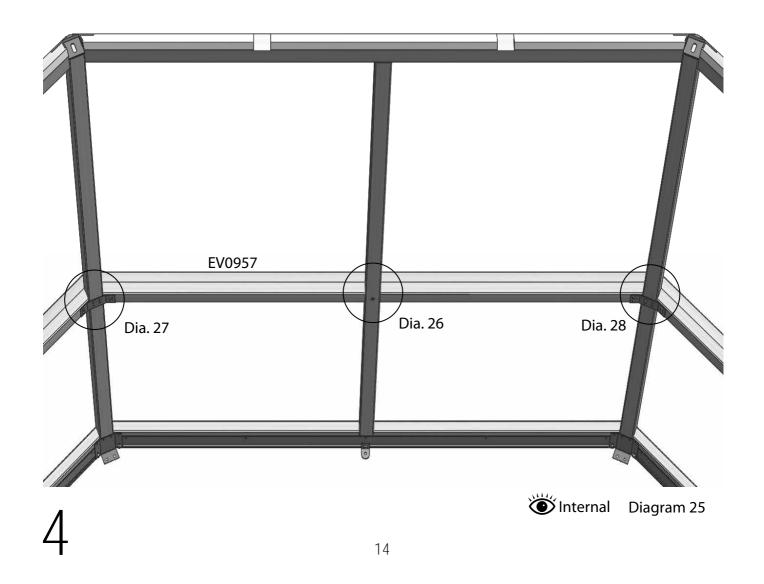


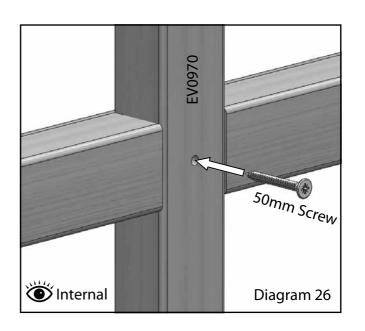
Now slot the two 4' mid rails (EV0957) and the 6' mid rail (EV0958) into position. Drill a pilot hole through the inside face of each of the (EV0970) glazing bars and fix with a 50mm countersunk screws (diagram 26).

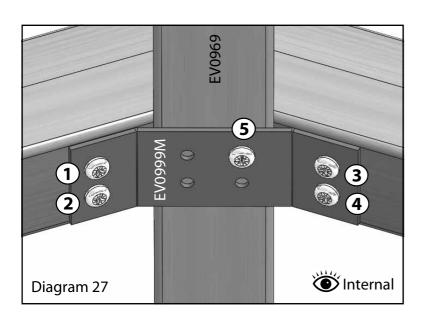
The mid rail brackets (EV0999M) can be fitted with 40mm Pan head screws, note that the screw positions on the mid rail brackets are different in diagram 27 (left hand) and 28 (right hand). This is to leave space for the staging brackets.

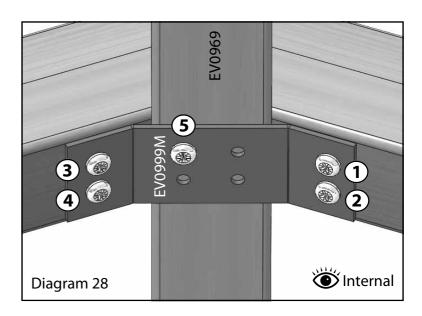
There is also an order to inserting the screws, follow the order on the diagrams as it makes installing them a little easier. 1 and 2 go into a fixed mid rail that was part of a 2' side frame, 3 and 4 go into the loose end of the mid rail and 5 always picks up the loose mid rail through the tenon.



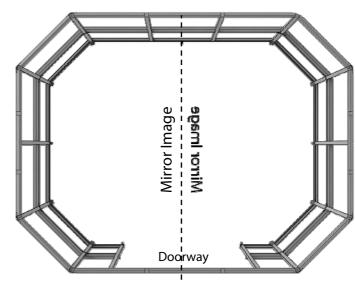


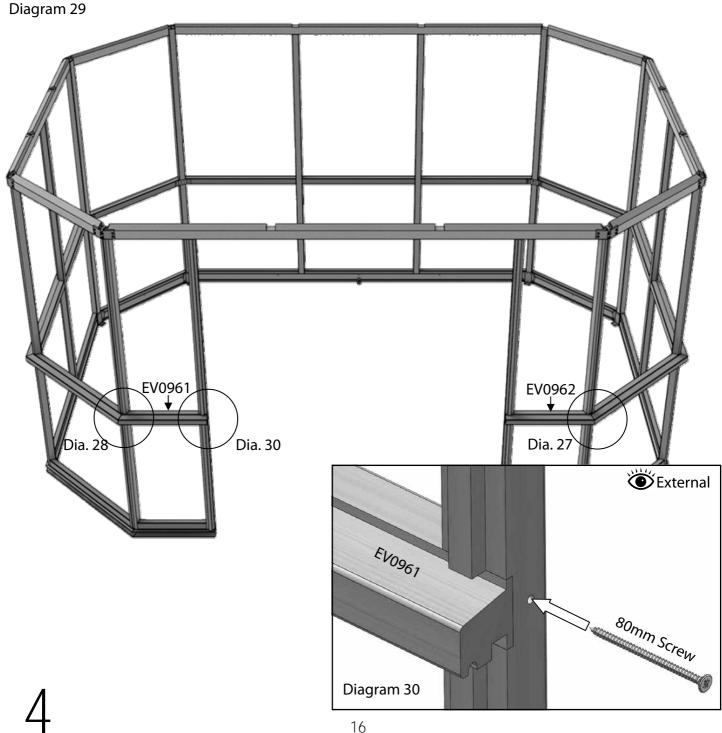






Next install the short rail sections to the left and right of the door (EV0961 / EV0962). Slot theses into place and fix with mid rail brackets (EV0999M), diagrams 27 / 28 on the previous page. Then drill a pilot hole through the sides of the glazing bar to the left and right of the doorway and secure the mid rail with an 80mm CSK screw (diagram 30).

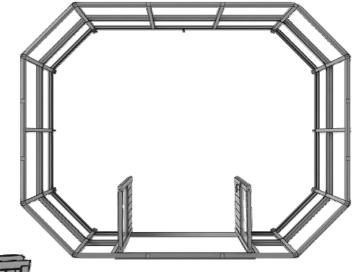


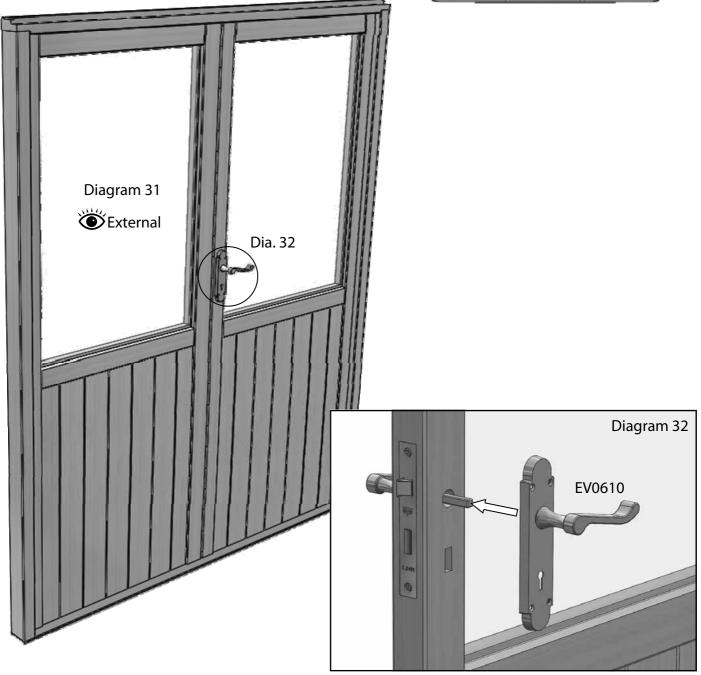


## Door Installation

Before you can install the door section you need to fit the door handles (EV0610). Slide the spindle through the lock to give you the position of the handle on the door.

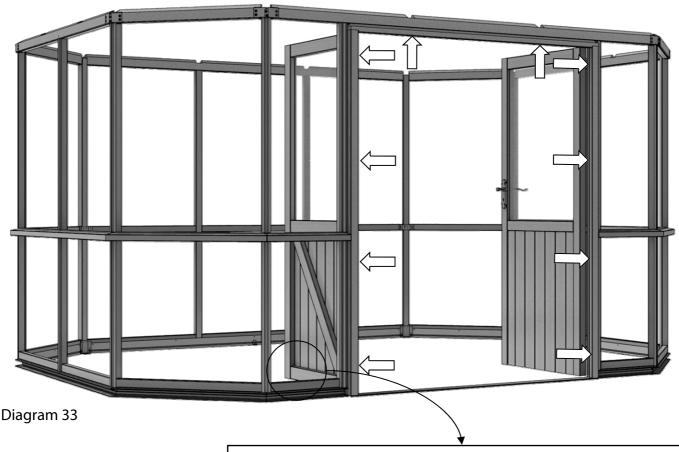
Fix the handle with the 3.5 x 25mm countersunk screws supplied (diagram 32).



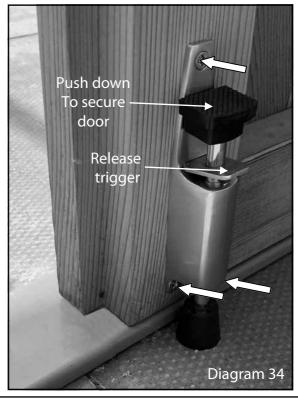


#### Door Installation

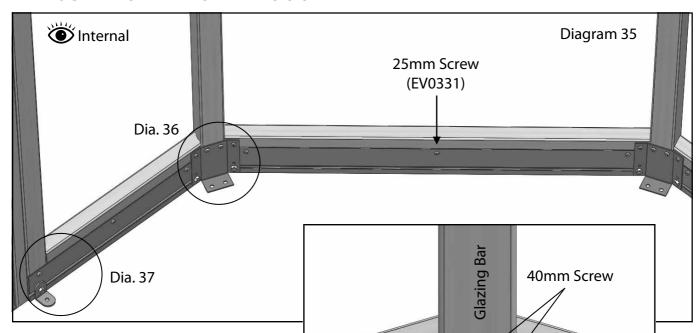
Slot the door section into the assembly, the internal surfaces should be flush. Once in position drill pilot holes and fix with 50mm CSK screws (EV0333), suggested locations shown by the arrows in diagram 33.



When the door is fixed in position you can install the lower door stop to the rear of the slave door. Push the stop foot up into the body as far as it will go, you can position the then door stop on the door so the foot is 10-25mm off the floor. Fix this with 3.5 x 25mm countersunk screws.



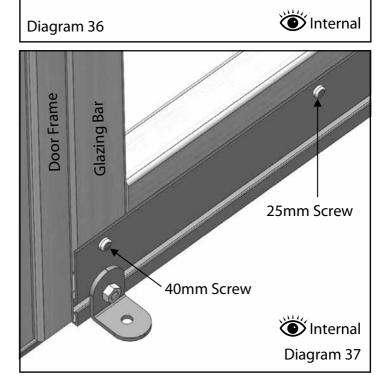
#### Fix to Aluminium Base



25mm Screw

With the door frame fixed to the assembly you can now fix the aluminium base to the greenhouse frame. Follow the examples in diagrams 35, 36 and 37, these show what size screw should be used. On each base bracket, its best to start by fixing the 40mm Pan head screws (EV0332) followed by the 25mm Pan head screws (EV0331). You may find you need to loosen the nuts slightly to get the best fit, remember to tighten them again afterwards.

**Important:** Only use 25mm Pan head screws for screwing into the cill sections.



EV1001M

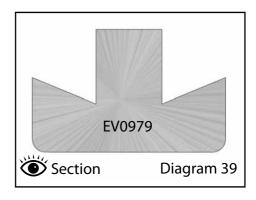
25mm Screw

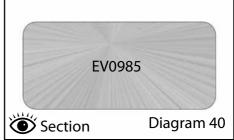
#### Board Installation | Optional low Level louvre? See special help sheet.

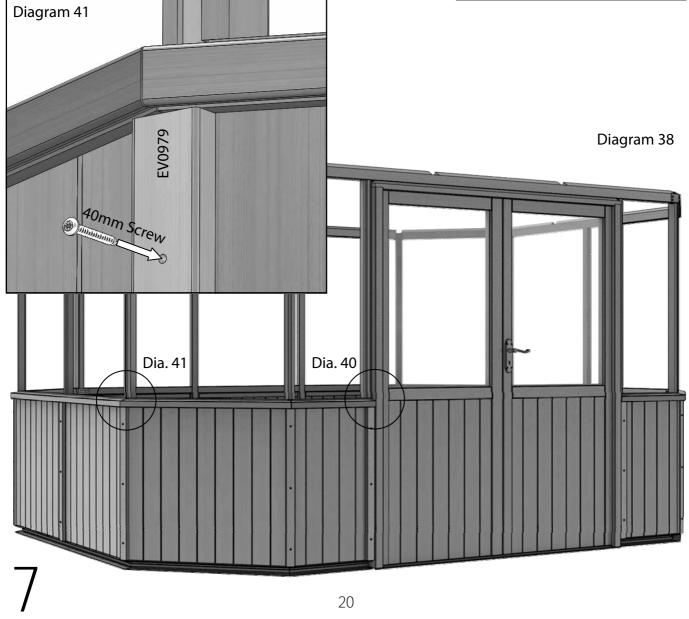
If you have purchased the optional low level louvre you can either fit it now or simply leave out the board where you want the louvre to be positioned and fit it later.

To fit the boards slot the top edge into the mid rail (the top of the board has the baton closest to the edge), then push the bottom of the board in until it touches the frame. The board will drop slightly and the bottom baton will rest on the cill.

Work your way around the building until all the boards are in place. Once in position you can fix them with the cedar panel capping (EV0979), diagram 41 This capping is used all around the building apart from either side of the door and in the middle of the 4' sides where special (EV0985) capping is used (diagram 40). Fix the capping in place with 40mm Pan head screws.





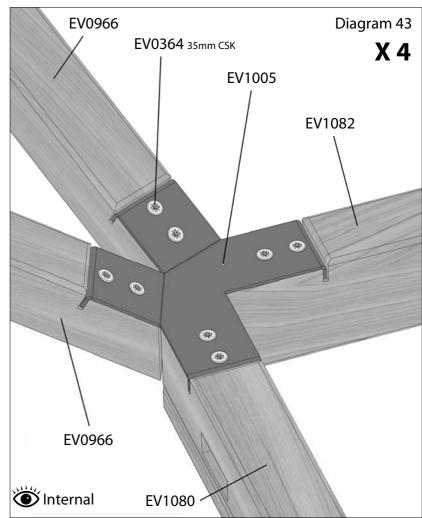


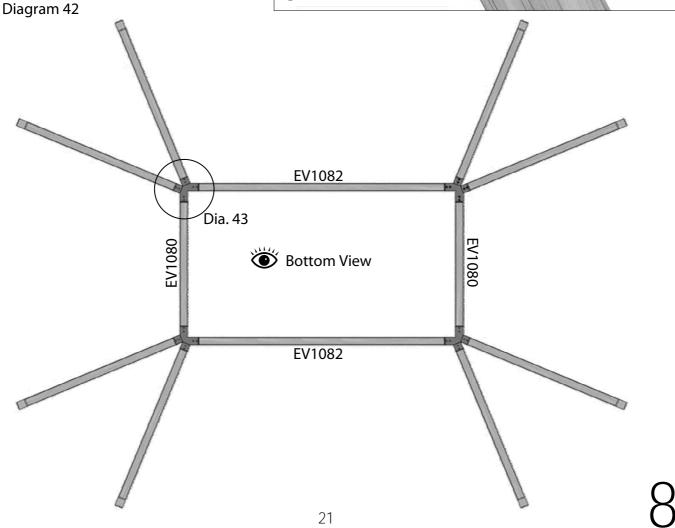
# Roof Assembly

Once you have all the sides built up with the door in position you can then begin assembly of the lower roof structure (diagram 42).

Lay the lower roof frame components out on the ground. Assemble by attaching the roof glazing bars (EV0966) to the corner brackets (EV1005) and then the corner brackets to the lower frame horizontals (EV1080 / EV1082) using eight (EV0364) 35mm countersunk screws (diagram 43).

Repeat the above until the lower roof frame is complete.



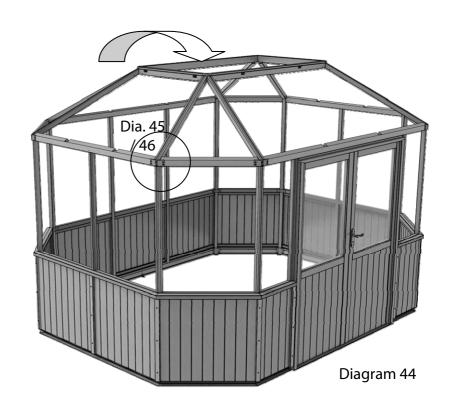


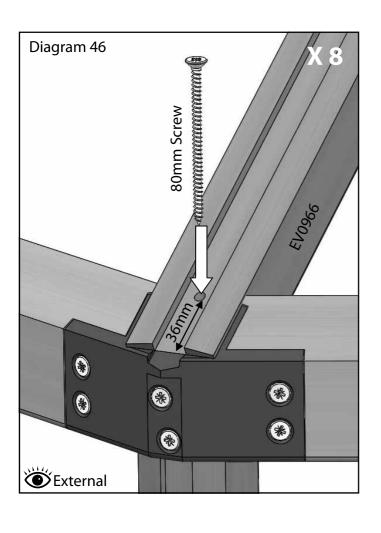
# Roof Assembly

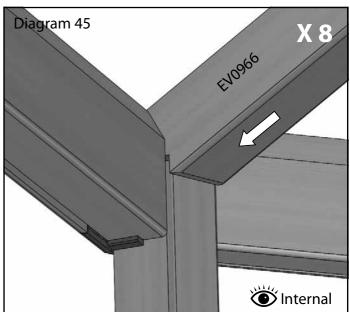
With help position the lower roof frame assembly onto the building (diagram 44).

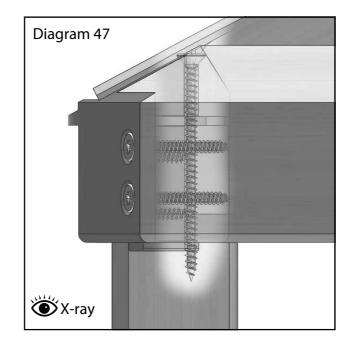
See diagrams 45 and 46 for the fixing down of the roof bars to the sides making sure they are pulled tight into the side glazing bars leaving no gap. When in position drill vertically down in the location shown in diagrams 46 and 47. Then fix with a 80mm CSK screw.

Work your way around the building until all roof bars are fixed.









8

# Roof Assembly

Slot the eight middle roof bars (EV0967) into place locating them firstly into the lower frame horizontals (EV1080 / EV1082) and then lowering them down onto the trench in the eaves bars, see diagram 48.

Drill pilot holes top and bottom and fix with 50mm CSK screws (diagrams 49 and 50).

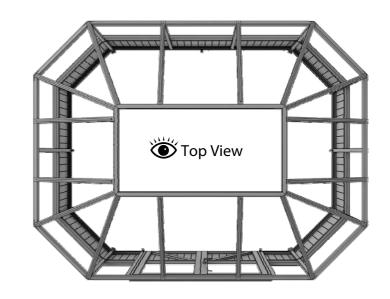
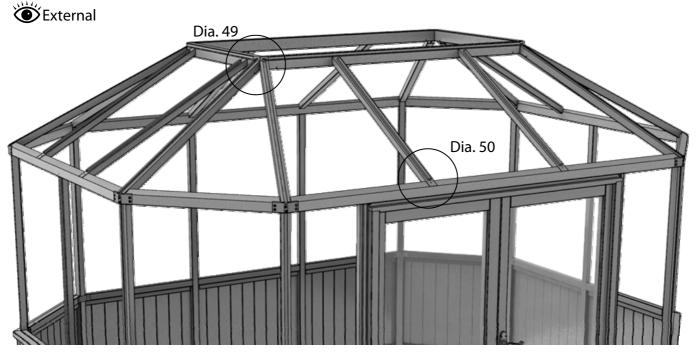
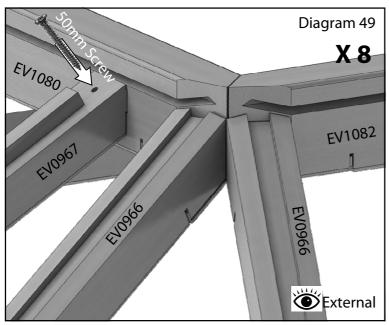
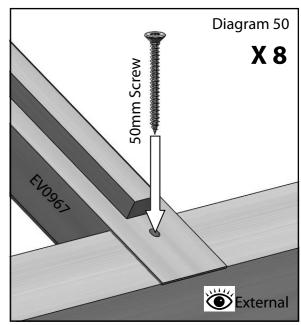


Diagram 48





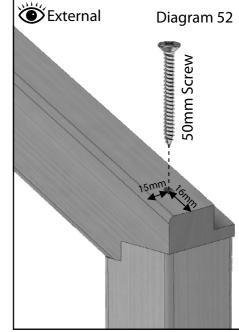


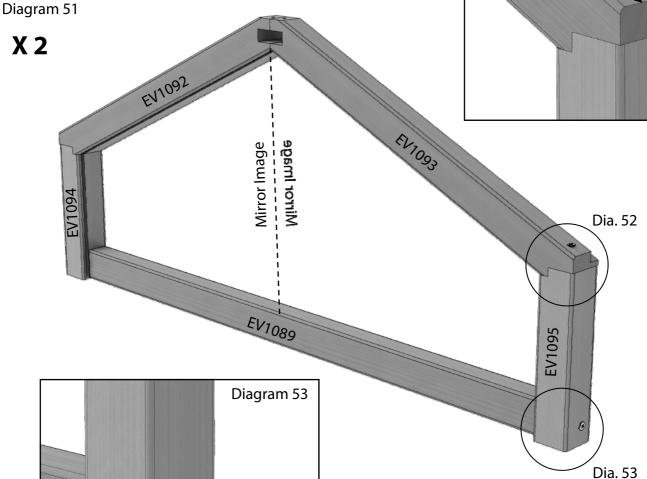
Now that the main frame has been assembled you can begin to construct the lantern top which once assembled will be lifted on whole.

Begin lantern assembly by constructing its gable ends. Drill accurately placed pilot holes first (diagrams 51– 53), note these screw heads will be visible externally. Use 50mm CSK screws to fix through the handed (EV1094 / EV1095) lantern side corner mortices to pick up the cill section (EV1089).

Again making sure that the pilot holts are accurately positioned use 50mm screws down through the handed lantern top gable bars (EV1092 / EV1093) into the side corners (diagram 52).







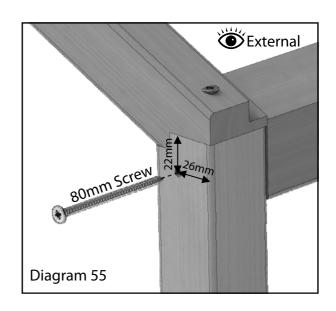
50mm Screw

External

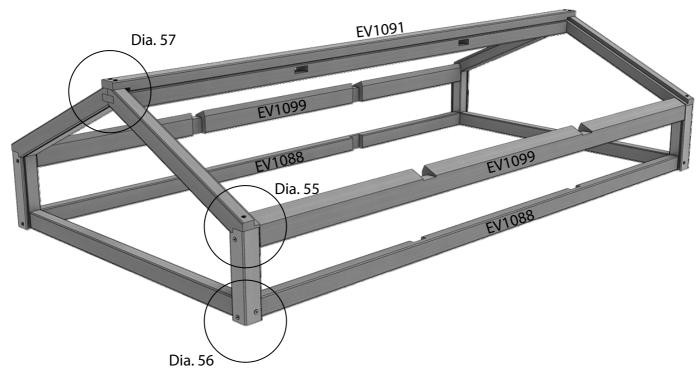
With both lantern gables assembled you can join them together with the (EV1088) cills, eaves (EV1099) and ridge (EV1091).

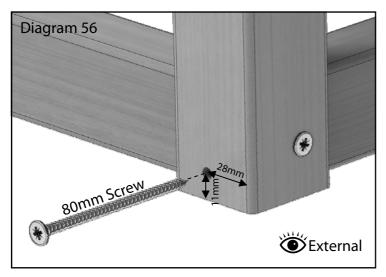
The cill and eaves are both fixed through the gable ends with eight 80mm screws. Diagrams 55 and 56 show the optimum positions for the pilot holes, note these screw heads will also be visible externally.

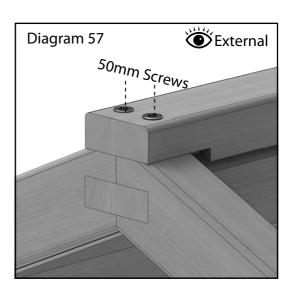
The ridge is fixed to the gable bars with 50mm screws (diagram 57), pilot drill first.



#### Diagram 54

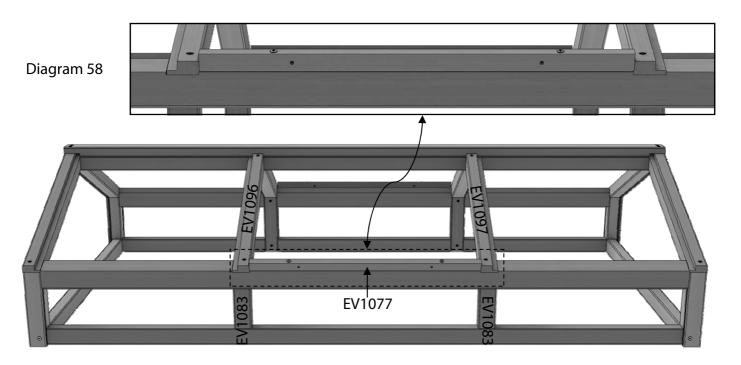






Next add the handed lantern top roof bars (EV1096 / EV1097) and fix again as you did your middle roof bars (refer back to diagrams 49 and 50) using **50mm** CSK screws.

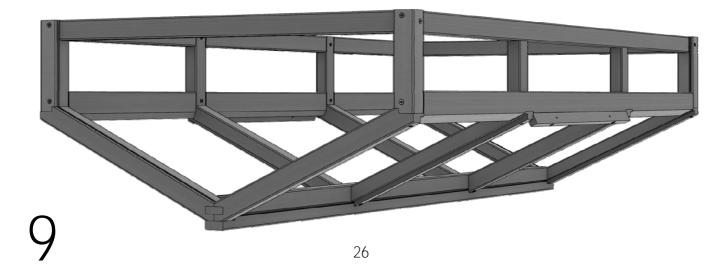
Between these bars you can fix the vent slam rails (EV1077) using 50mm CSK screws. When using the optional aluminium capping this should be fitted on the long side face. If using the cedar capping then the short face should be used so the slam rail sits higher (cedar orientation shown in diagram 58).



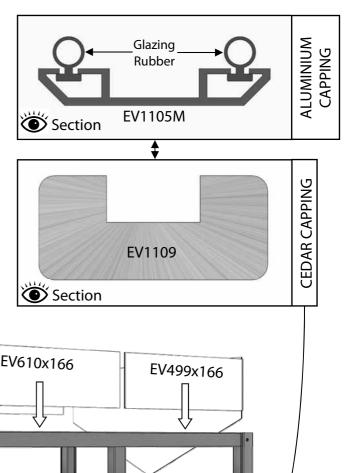
**Important:** When attaching the lantern side bars (EV1083) be careful not to pilot drill all the way through from the inside and only use 25mm Pan head screws to attach them top and bottom.

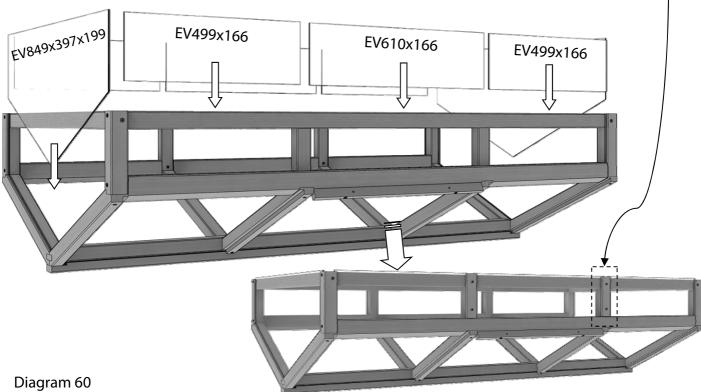
The lantern sides are glazed from below. In order to insert the glass it is easiest to flip the lantern over onto its ridge getting someone to help and then hold during glazing (diagram 59).

#### Diagram 59

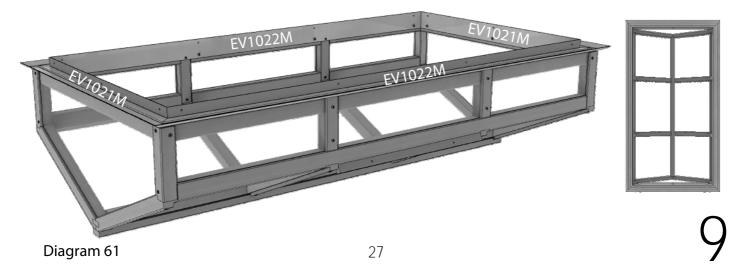


Taking the necessary safety precautions insert the two gable and six side panes into the lantern as shown below, diagram 60. Make sure your helper/s is stabilising the frame as you do this. You will need to use the lantern side bar covers (EV1109 cedar / EV1105M alu) and 40mm pan head screws to hold the side glass in place. With the optional aluminium capping make sure you have slid the glazing rubber into both channels and cut to length (see right).



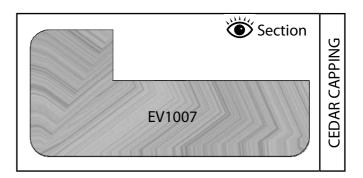


The gable glass and side glass are retained by the four flashing parts (EV1021M / EV1022M), use 25mm pan head screws to fix in place making sure they all meet neatly in the corners, diagram 61.



Having turned the lantern the right way up you need to add its four upper panes (EV509x525). The lantern roof glass is held in place by 2 glass stop (EV0313) per pane and secured with capping on each side using 40mm pan head screws, diagram 62. If you have the optional aluminium bar capping you need to insert the rubber into the rubber channels and trim it to length prior to attachment.

**Important:** Please make sure that you use the 40mm countersunk (EV0338) screws where the vent/s will be located (two each side), the usual pan headed (EV0332) screws will prevent the vents from closing properly.



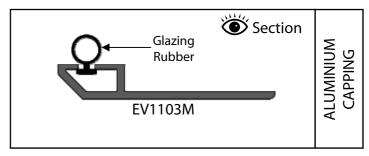
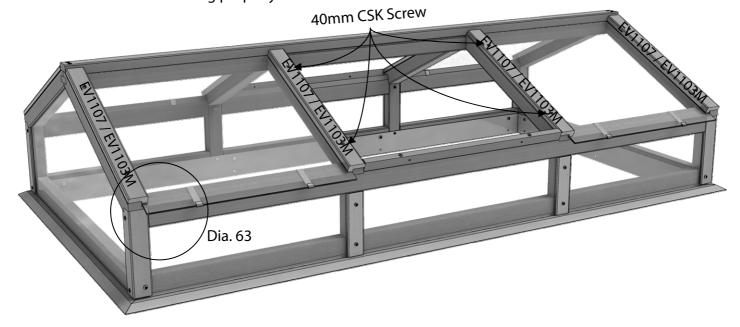
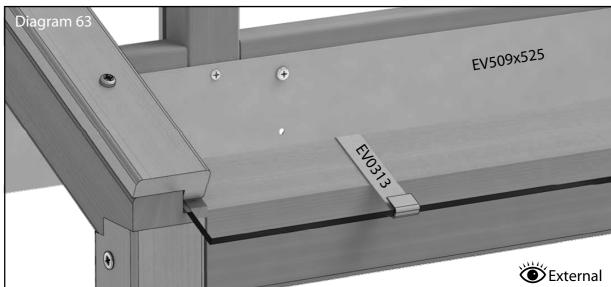


Diagram 62



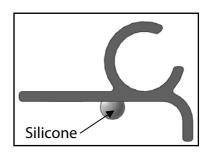


Now centrally position and fit the ridge cap (EV1101M) through its pre-drilled holes using four 40mm pan head screws (diagram 64).

The end caps (EV0001M) and finials (EV1025M) clamp together with a 15mm M6 bolts. The easiest way to attach this is to slide the end cap onto the end of the ridge cover cap, then slide the bolt on the end cap (the head should locate in the lower recess of the end cap), with the bolt in place you can then screw the finial down onto the bolt (diagram 65). This can be done once the lantern top is in place if you find it a little heavy to lift but it is easier to do this on the ground.

**Important:** Prepare the vent hinges (EV0314M) by running a bead of silicone along their back edge (see right). Then position this spaced equally above the openings in the lantern. Use three 13mm self taping screws (EV0329) to secure (diagram 66, 67).

The lantern vents are installed once the lantern is in situ.



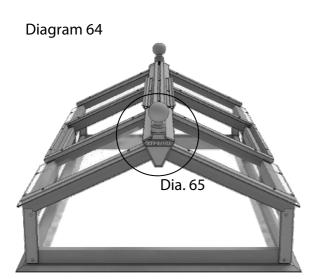
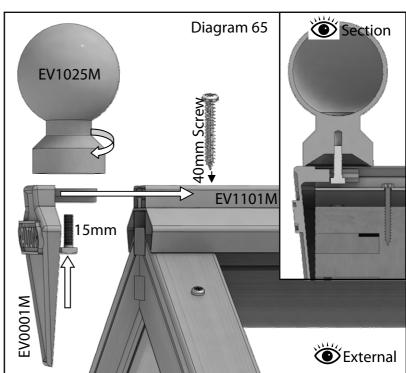
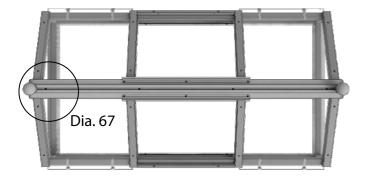
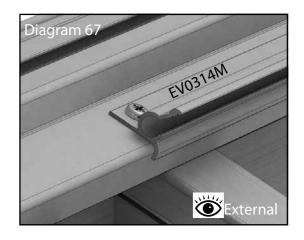


Diagram 66

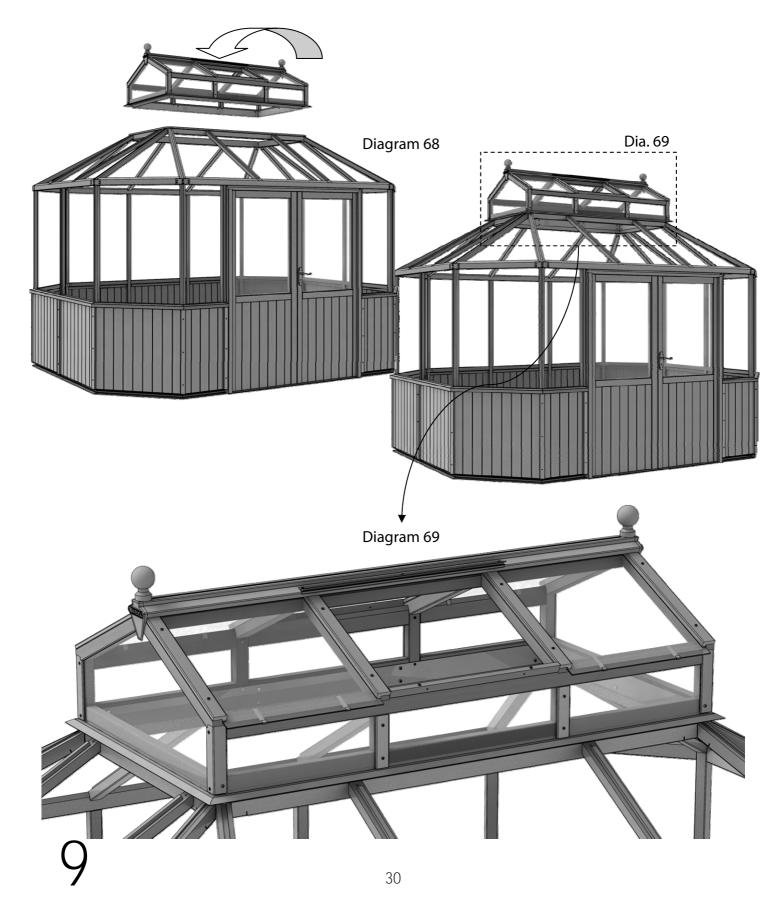


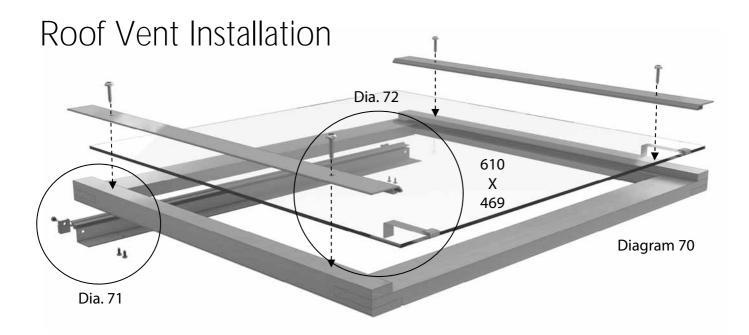




# Lantern Attachment

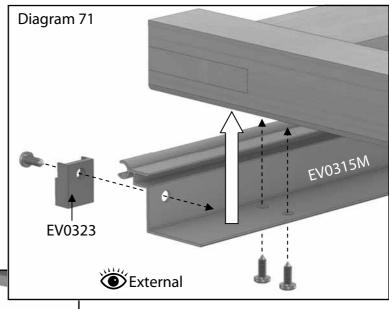
With at least two persons on ladders lift the assembled lantern top above the roof and lower it down onto the greenhouse main frame (diagram 68). The lantern top then fixes to this with fourteen 25mm pan head screws (diagram 69).

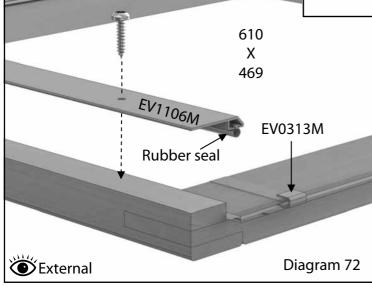




Take the vent frame that is ready assembled and fix the vent hinge to one end through the 4 pre drilled holes using the 19mm screws, diagram 70 and 71. Once this is in place fix the plastic vent filler (EV0323) also with a 19mm screw, its is **important** to make a pilot hole before fixing the plastic filler to prevent splitting.

Now take a 610mm x 469mm pane of glass and locate this in the vent hinge. Before lowering this down completely slot the glass stops onto the open edge.



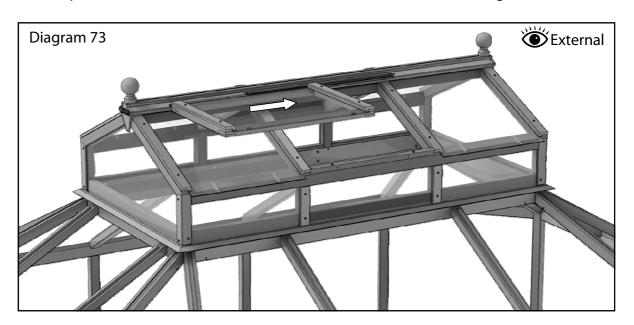


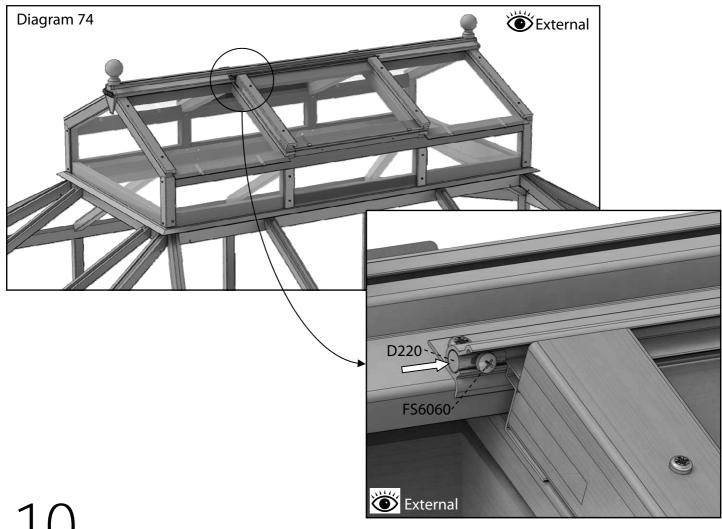
(Cedar capping part number: EV1110)

When in position you can fix the glass in place with the vent capping (either cedar or aluminium) using the 25mm screws, diagram 72. Remember if you are using the aluminium capping system you will need to insert the rubber seal before fixing it in place.

### Roof Vent Installation

Having built the roof vents you can then slide them into the top hinges (EV0314M, diagram 67) from either end, diagram 73. You can now lower the vents until they rest on the lantern roof bars in a central position. Secure in place with the D220 vent barrels and FS6060 bolts each side, diagram 74.



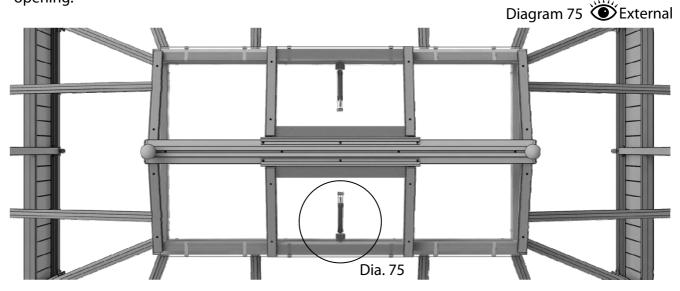


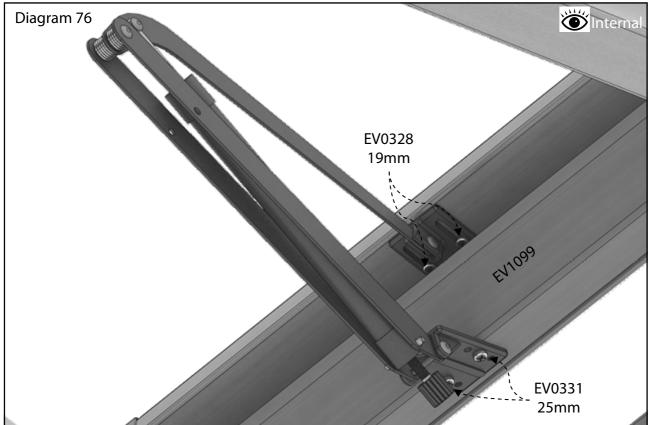
# Roof Vent Installation

Fitting the assembled autovent units is easier if they have been kept cool so they are in their closed position during installation.

The top arm of the auto vents fixes to the vent in the normal way using EV0328 19mm pan head screws, see diagram 76. The bottom arm fixes to the **underside** of the lantern top eaves rail (EV1099) using EV0331 25mm pan head screws, do this with the roof vent in the closed position so that you get the bracket in the correct position.

Ensure that the autovent mounts are inline with each other so that the autovent does not twist on opening.



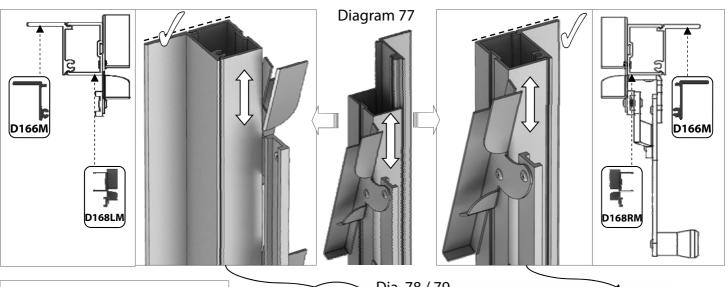


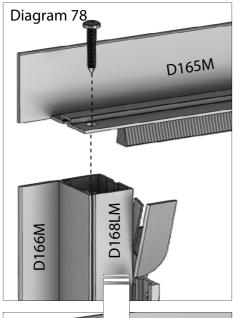
# Louvre Assembly

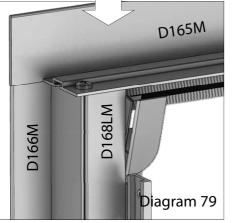
To start building your louvre you first need to assemble the handed sides. Combine the two side sections with the two inserts, see diagrams 77 to create the side assemblies.

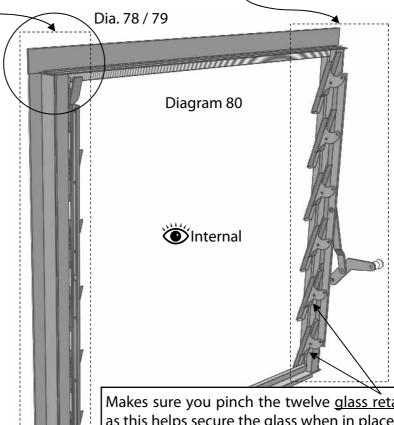
Trim the rubber seal flush with the ends. Attach the top and bottom of the louvre with the 19mm assembly screws in each end. This locates with a screw channel in the side sections (diagrams 78 and 79).

1 x Louvre				
Part Name	Part Number	Size (mm)	Qty	
Louvre Top/Bottom	D165M	612	2	
Louvre Side Insert	D166M	552	2	
Louvre Side	D168LM	552	1	
Louvre Side (handle)	D168RM	552	1	
Assembly Screw	-	19	4	
Louvre Glass	D729TG	100 x 525	6	





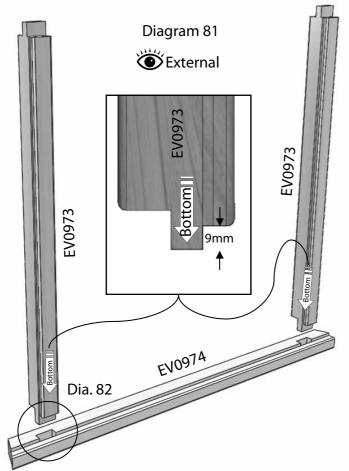


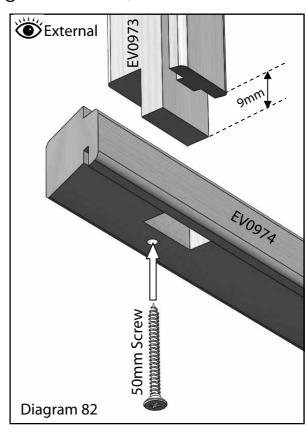


Makes sure you pinch the twelve <u>glass retainers</u> as this helps secure the glass when in place. You will find your louvre glass in the box with the louvre, diagram 80.

It is easier to install the glass when the louvre is in the frame of the greenhouse.

# Louvre Frame Assembly (High & Mid)

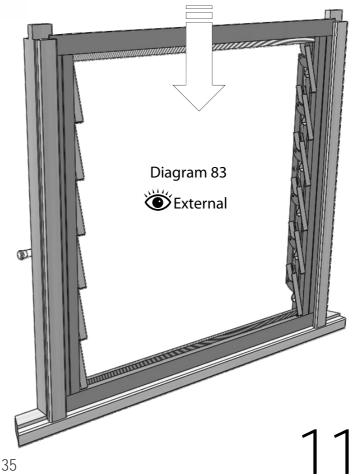




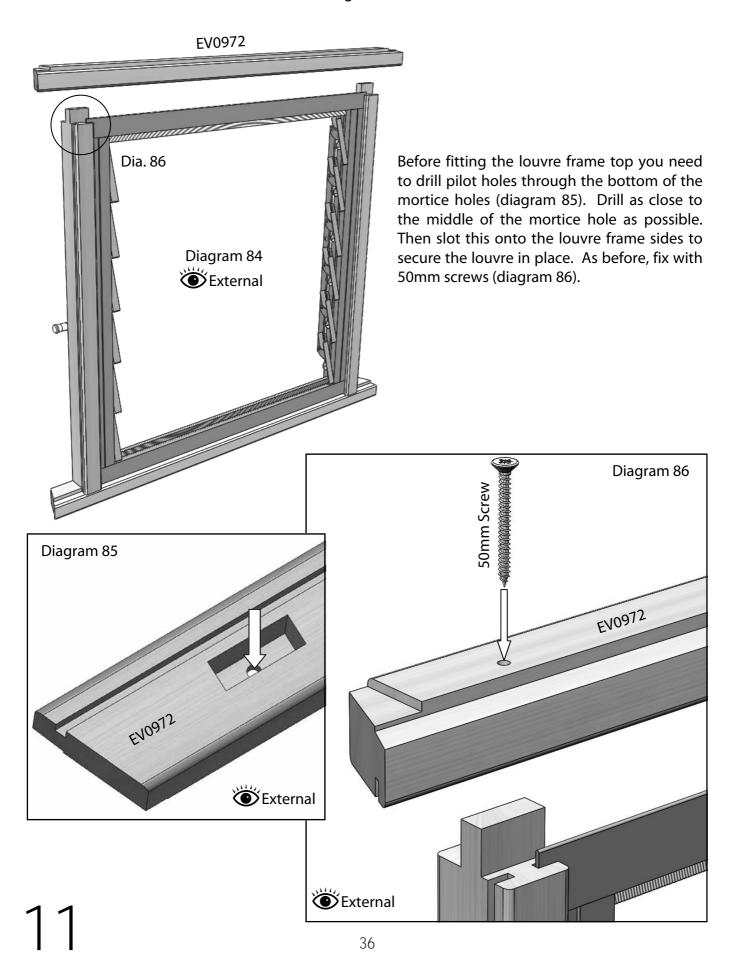
Slot the two louvre frame sides EV0973 into the louvre frame bottom rail EV0974 making sure they are correctly orientated, see 9mm in diagram 81. Drill a pilot hole as shown in diagram 82, just behind the mortice hole. Fix with 50mm CSK screws.

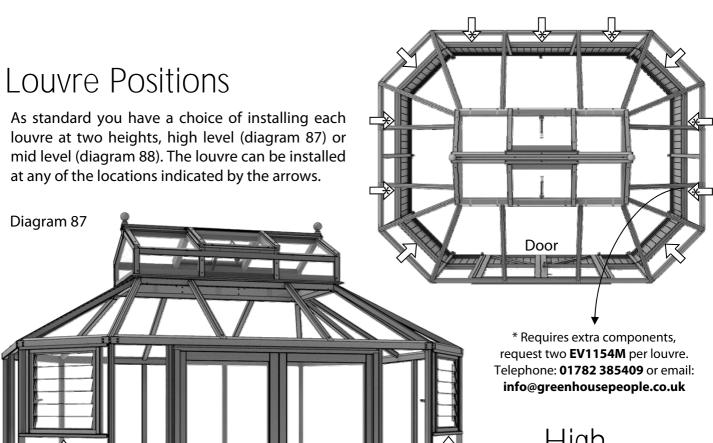
Slot the louvre into the louvre frame (diagram 83).

**Important:** Make sure that when your inside the greenhouse that the louvre handle is on the right hand side, if it is on the left then your louvre is upside down.

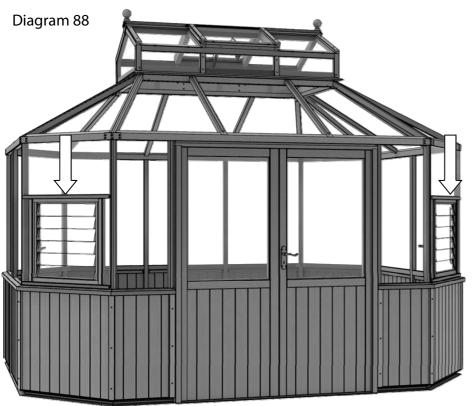


# Louvre Frame Assembly





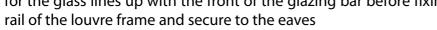
High Level Louvre

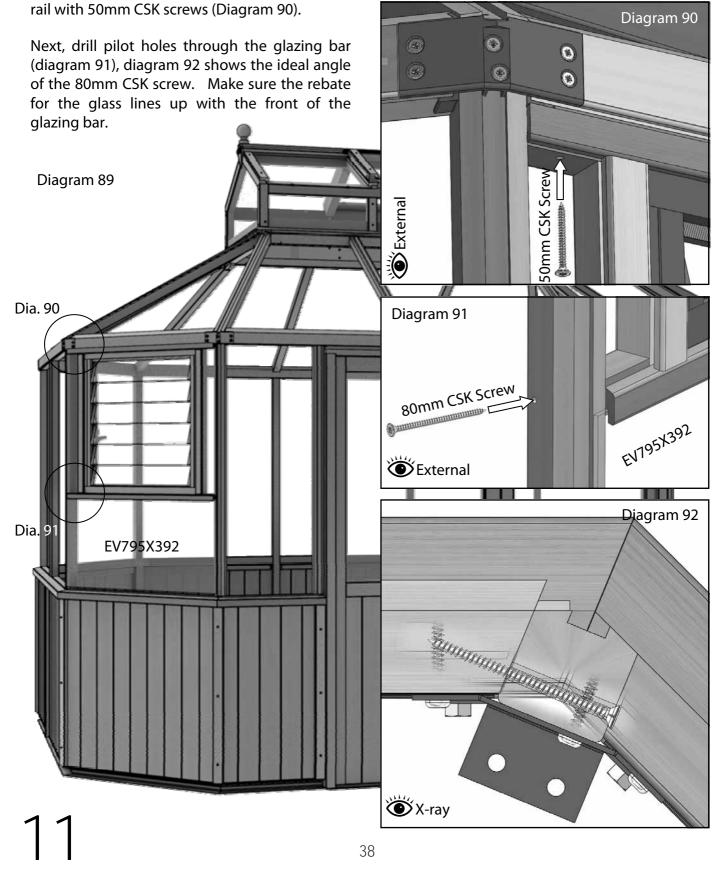


Mid Level Louvre

### High Level Louvre Installation

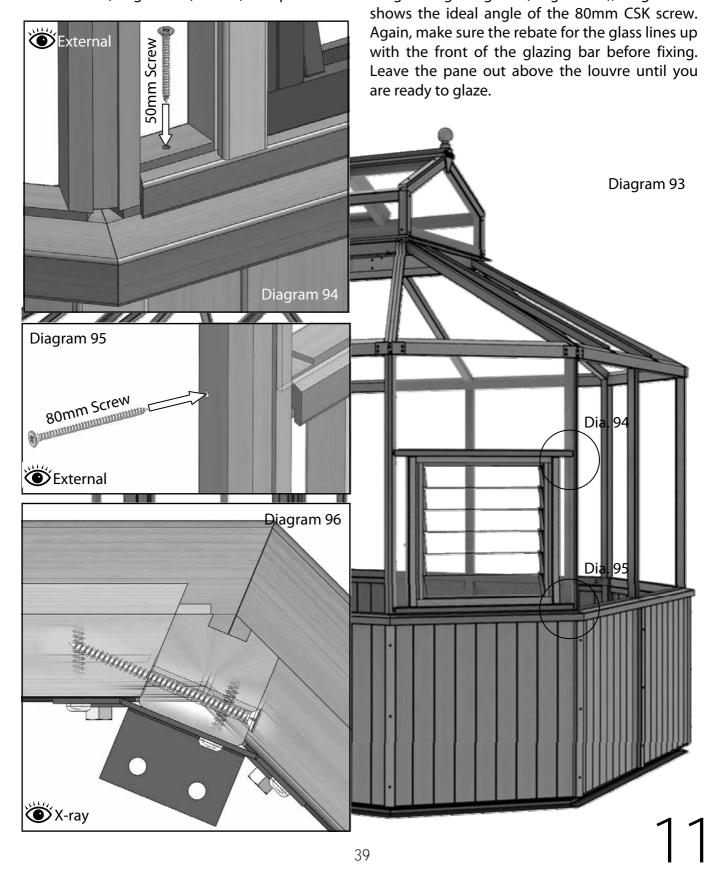
To fit the louvre assembly in the high level position you place the EV795X392 glass under the louvre frame. This should be held in place while the louvre frame is fixed in position, make sure the rebate for the glass lines up with the front of the glazing bar before fixing. Drill pilot holes through the top





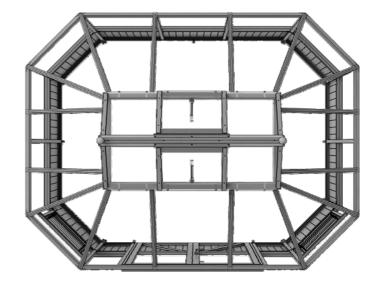
### Mid Level Louvre Installation

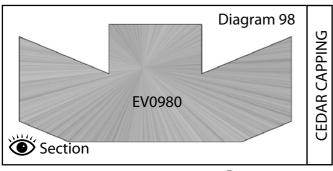
To fit the louvre assembly in the mid level position place the louvre frame on top of the mid rail. Make sure the glass rebate on the louvre frame lines up with the front face of the glazing bar then drill pilot holes through the bottom rail of the louvre frame and secure to the mid rail with a 50mm CSK screws (Diagram 94). Next, drill pilot holes through the glazing bar (diagram 95), diagram 96

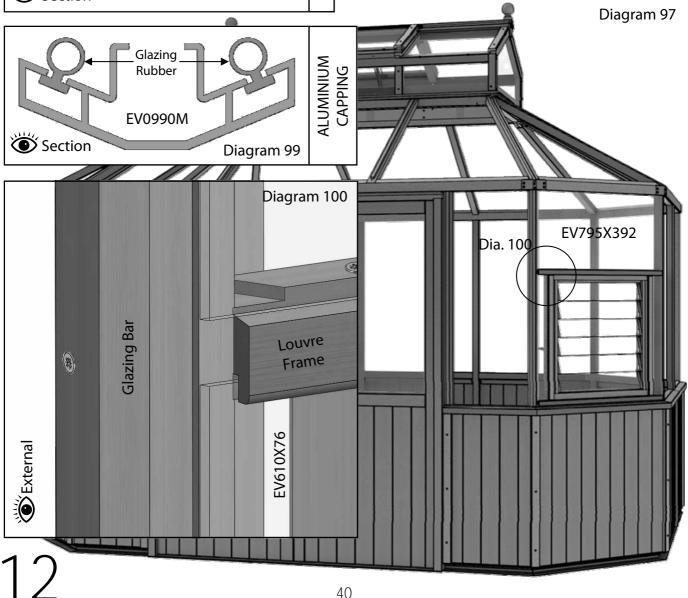


# Glazing (part 1)

If you have the optional aluminium bar capping you need to insert the rubber into the rubber channels and trim it to length (diagram 99). Begin glazing the sides of the building by inserting one of the narrow panes (EV610x76) next to the louvre frame. If you have the louvre in the mid level position as below you also need to install the glass above the louvre (EV795X392).

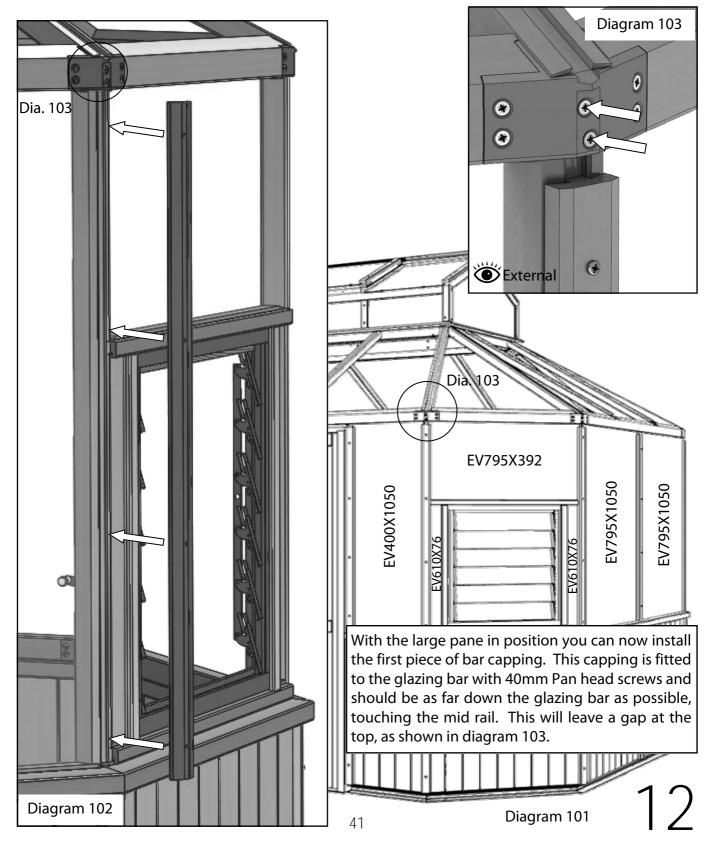






# Glazing (part 1)

Before you install the large panes it helps to place each 1028mm long bar capping around the building ready for installation. When ready, insert the large side pane next to the louvre (diagram 101). If this is difficult try loosening off the middle screws on the eaves bracket indicated by the arrows on diagram 103. Remember to tighten all the screws after glazing the sides, but don't over tighten them!

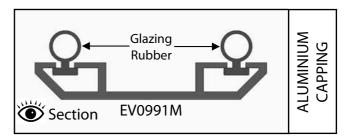


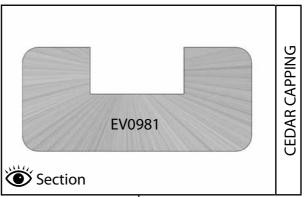
# Glazing (part 1)

Work around the building fitting the next pane along followed by a section of capping.

The capping either side of the door and in the middle of the 4' sections of the building is slightly different to the standard capping. If you have aluminium capping this also needs rubber inserting along the channels.

It is installed with 40mm Pan head screws.





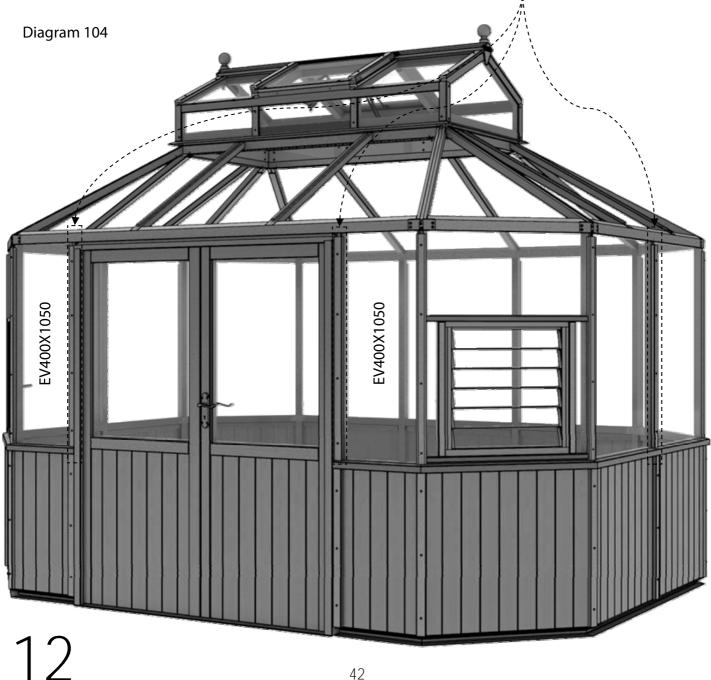


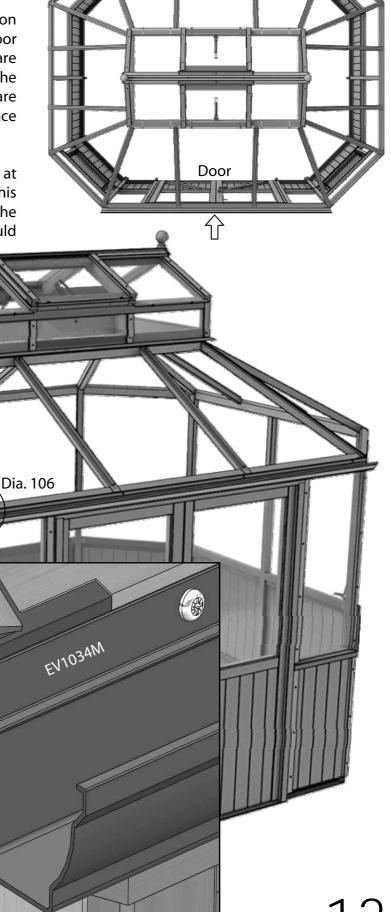
Diagram 105

External

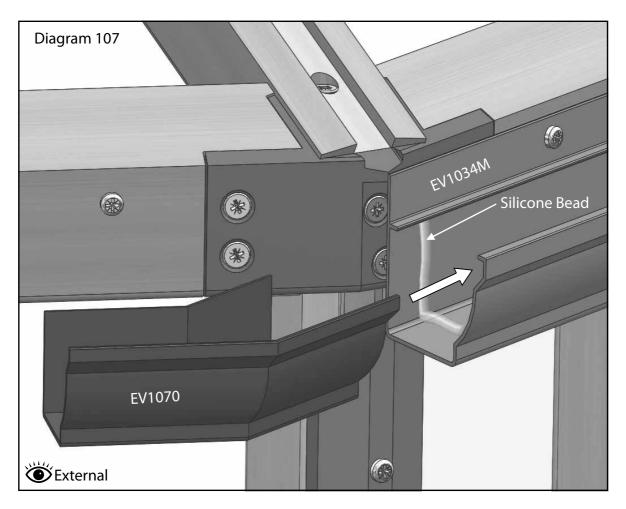
Diagram 106

Now all the side glass is in place the first section of gutter to be installed goes above the door (EV1034M). Make sure the ends of the gutter are evenly spaced between the centre point of the eaves bracket (diagram 106). Once you are happy with the position you can fix it in place with 25mm Pan head screws.

One section of the 2' guttering has large holes at each end ready for the downpipe (EV1032M), this can be fitted to one of the four corners of the building. Decide at the start where you would like this to go.



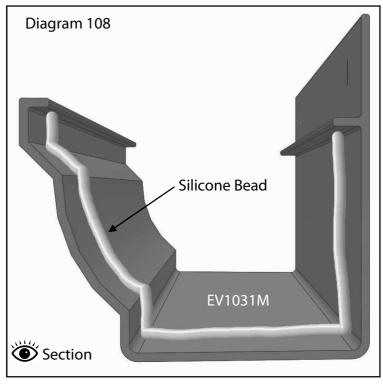
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Next you need to apply a bead of silicone to the internal surfaces of the gutter section (diagrams 107 and 108).

You can now insert the first gutter joint (EV1070). Slide this in until the corner in the middle of the gutter joint meets the end of the gutter (diagram 107).

With this in place you can now prep the next section of gutter. Apply another silicone bead to the end that will slide onto the gutter joint (diagram 108).



Keep repeating this process working from the front to the rear on each side leaving a gap where you would like the downpipe section (EV1032M) to be, an example layout is shown in Diagram 109.

Offer up the final section (EV1032M), if any adjustment needs to be made you can do this now. When you're happy with the fit, add a bead of silicone to both ends then fix the section in place with 25mm round head screws (diagram 111). Make sure you line up both ends as best you can before fixing.

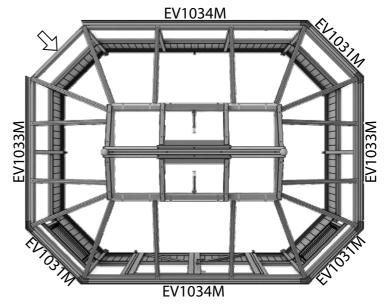
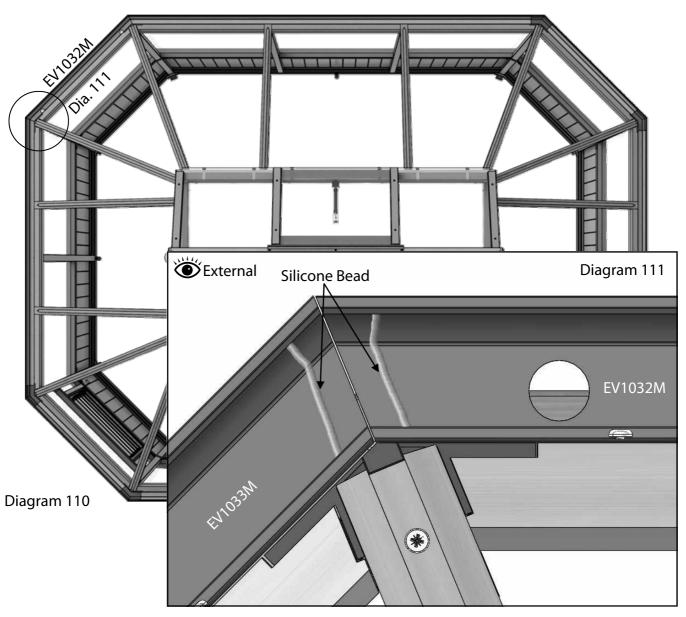
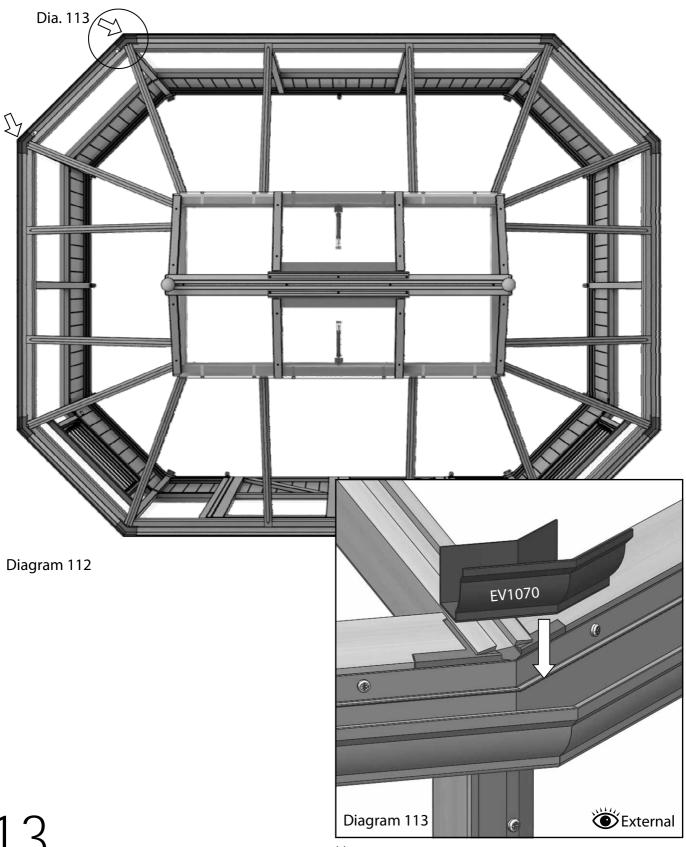


Diagram 109



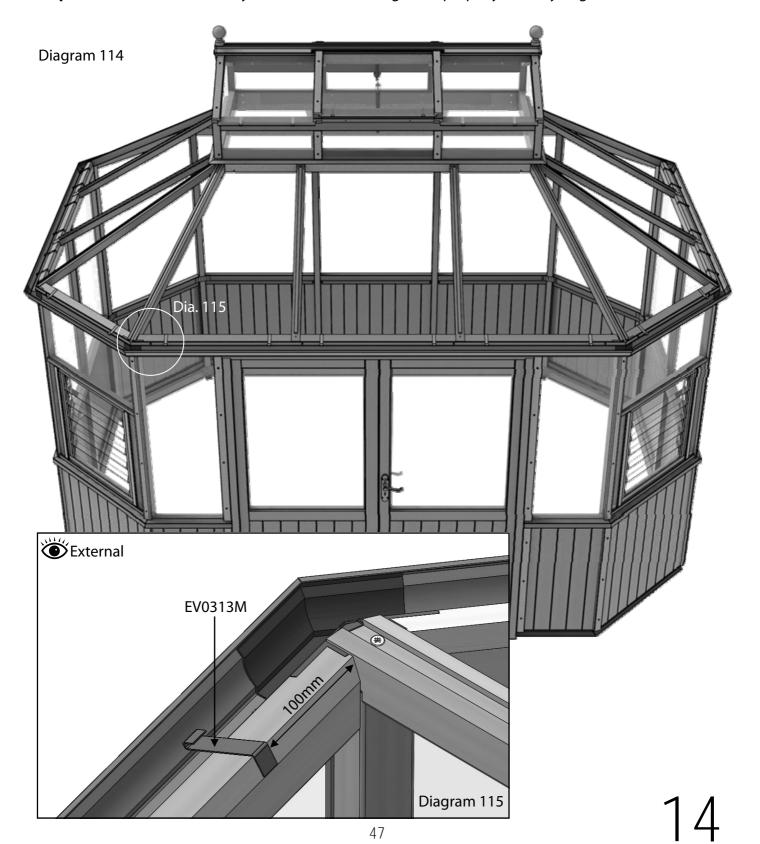
Finally you can add the last two gutter joints (EV1070). With the silicone beads applied to the gutter lower the joint into position, first locating the front edge then push the base of the joint down until the back edge clicks into place.



# Glazing (part 2)

To glaze the roof you first need to place the glass stops (EV0313M) on the eaves bars. Hang two glass stops between each glazing bar as shown in diagram 114. Space these around 100mm in from the roof glazing bars (diagram 115).

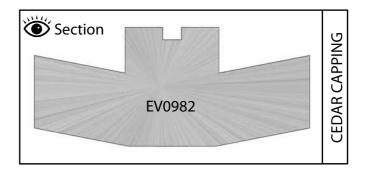
**Important:** Please make sure you have installed the gutters properly before you glaze the roof.

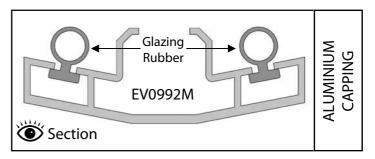


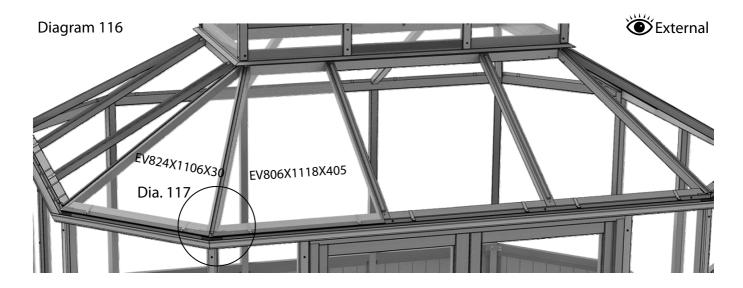
# Glazing (part 2)

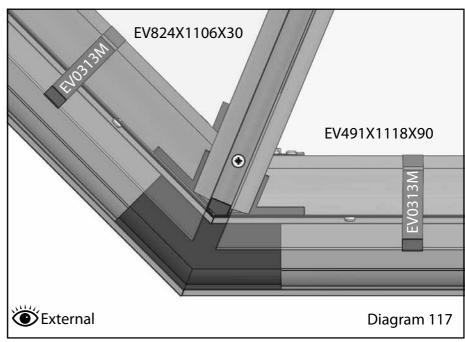
Before you start glazing the roof you should place the bar capping around the building again so you have it to hand when needed. If you have the aluminium capping remember to insert the glazing rubber and trim it to length.

Slide the first piece of roof glass into place, be careful to support this and try to slide it up one roof bar until it reaches the other. When lowered into the glass stops, the glass should fit either side of the rebate in the roof bar (diagram 117).







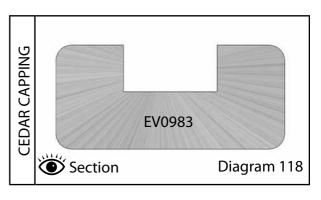


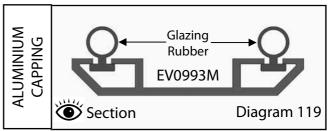
# Glazing (part 2)

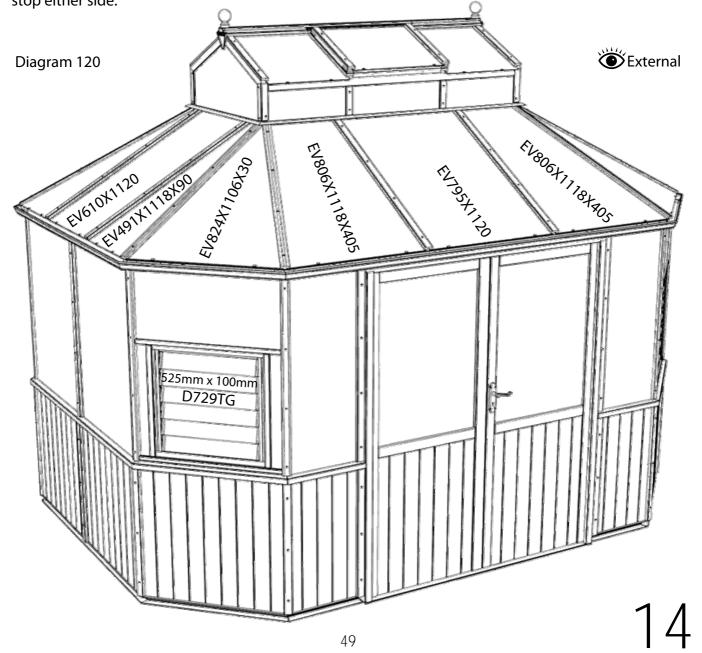
Work around the building securing the glass with the bar capping using 40mm pan head screws.

When you get to the glazing bars in the middle of a 4' and 6' sections as before with the sides these use a slightly different capping (diagram 118 & 119).

If you haven't already done so you can now install the louvre glass, 6 per louvre. From the inside of the building carefully slide each piece (525 x 100mm - D729TG) into the louvre frames glass retainers until it hits the small stop either side.

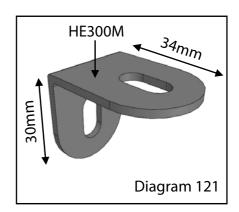




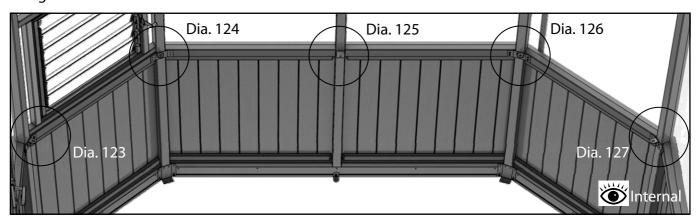


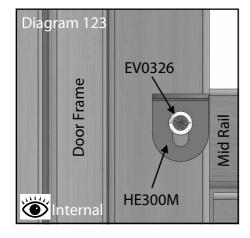
Orientate each bracket (HE300M) as shown in the diagram 121, the shorter tab fixes to the side of the greenhouse. Always use the large head 25mm screw (EV0326) supplied for the staging brackets and supports. Study diagrams 123 - 127 closely and attach the HE300M / EV1125M brackets accordingly.

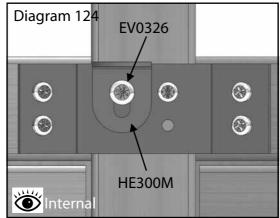
Run a spirit level between the brackets to check they are all level.

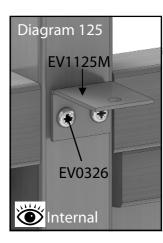


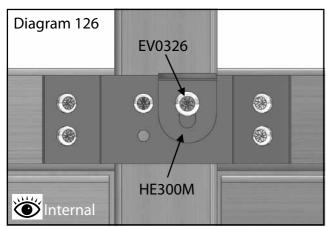
#### Diagram 122

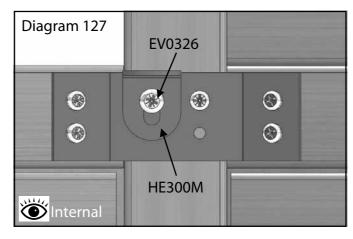






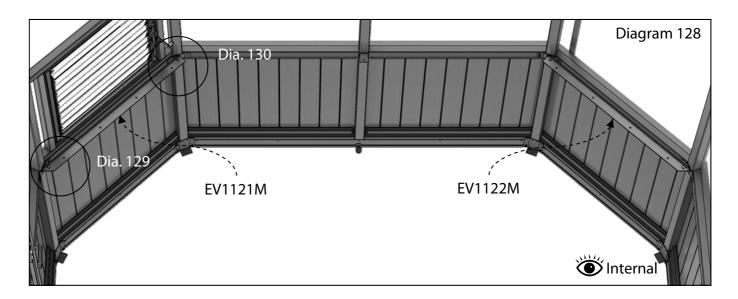




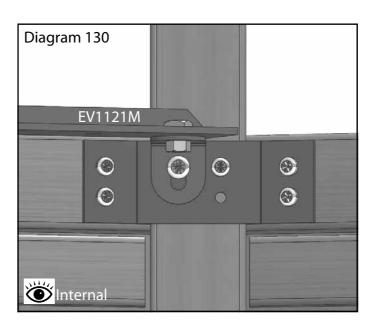


Now attach the outer staging arms (Left - EV1121M and Right - EV1122M), These bolt to the HE300M brackets with a 10mm bolt (HE576) and nut (HE579) as shown in diagram 129 and 130.

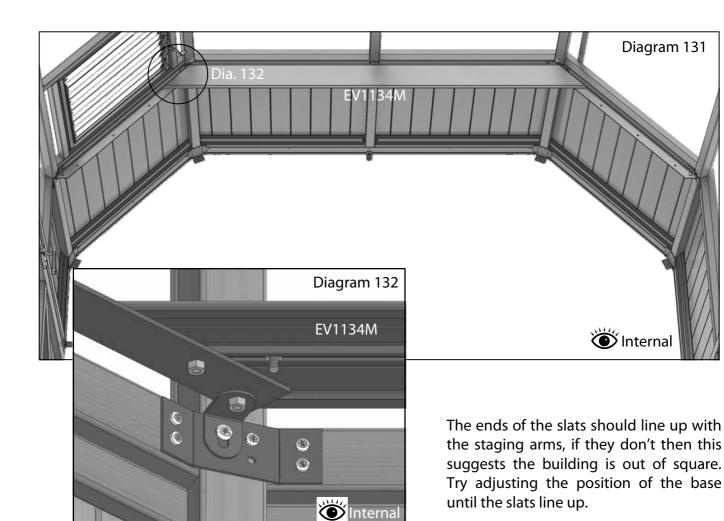
If you struggle to line the holes up try loosening the screws, fix the nut and bolt and then tighten the screws again.







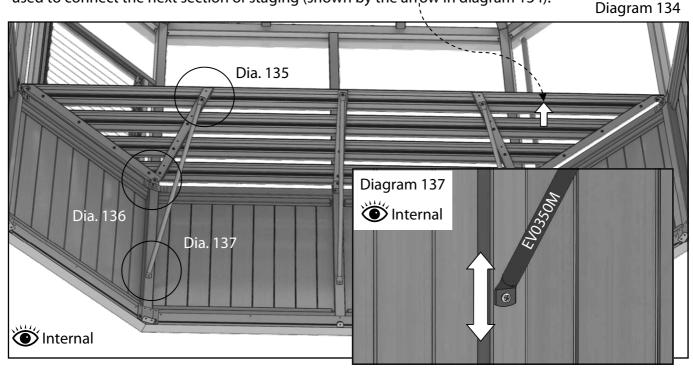
You can now start to install the staging slats. Each slat needs  $5 \times 10$ mm bolt (HE576) sliding down the bolt channel on the underside. Its easiest to lay the slat topside down to do this, then turn it over to position it. The two bolts closest to the ends locate with the holes in the staging arms (diagram 132). The longest slat (EV1131M) nearest to the middle of the greenhouse needs  $6 \times 10$ mm bolts.



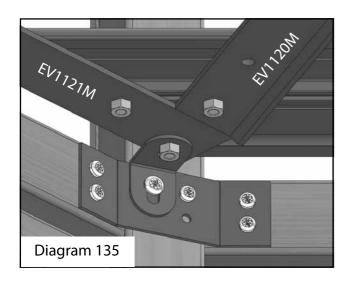


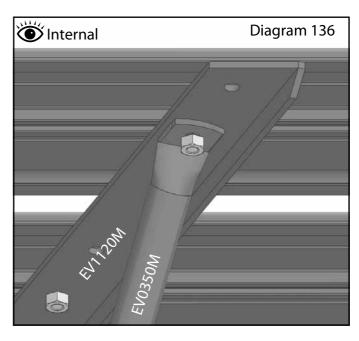
You now need to bolt the internal arms (EV1120M) onto the underside of the slats (diagram 134). These uses the extra bolts you inserted earlier. Loosely fit the nuts for now. Before attaching the internal arms to the longest slat you also need to attach the diagonal supports (EV0350M) to the same bolt. Line the ends of the internal arm up with the front edge of the staging (diagram 136) and with the outer staging arm at the rear (diagram 135), once happy with the position tighten all the nuts. Attach the internal mid arm (EV1123) in a similar manner, diagram 134.

**Important:** The extra bolt in the longest slat should be left towards the rear of the building as this is used to connect the next section of staging (shown by the arrow in diagram 134).



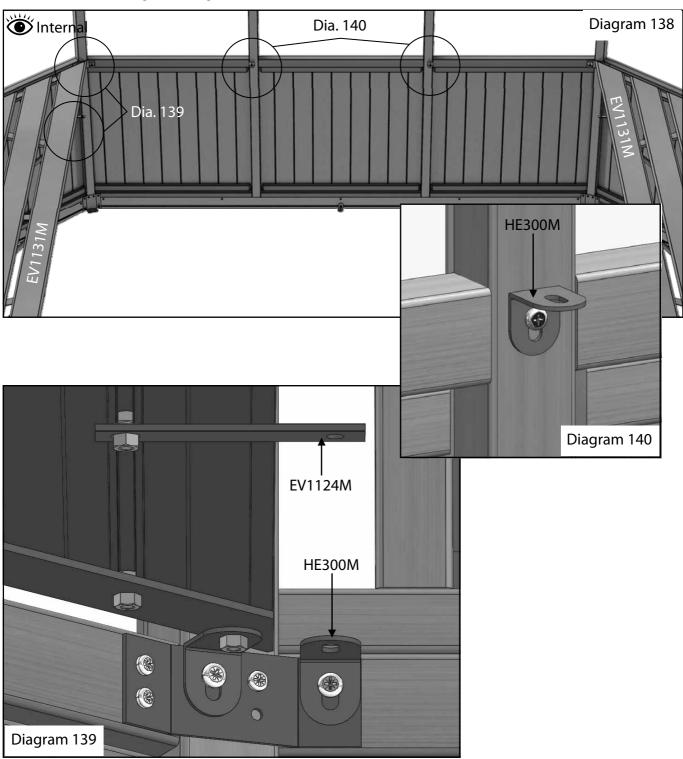
Using a level make sure the staging is flat and level before fixing the diagonal supports in place with large head 25mm screws (diagram 137).





## Staging Installation (rear)

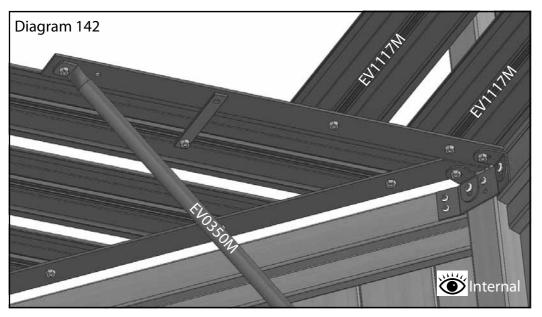
With both end sections of staging in place you can now fit the infill section. Start by fitting the small brackets (HE300M) to the rear of the greenhouse (diagram 139 & 140). You will need to remove the 25mm round head screw to fix the brackets on the rear mid rail. As before fix in place with the large head 25mm screw. Next, attach the staging support bracket (EV1124M) to the extra bolt on the underside of the long slat (diagram 139).



## Staging Installation (rear)

Now fit the infill staging arms (EV1123M) to the small brackets on the rear of the building with 10mm nuts and bolts. Don't fix to the staging support bracket yet, just use this to support the arm while you fit the first couple of slats, diagram 142. Slide four 10mm bolts into each of two infill staging slats (EV1117M) and position them as shown in diagram 141. Loosely attach these for now as you may need some adjustment.

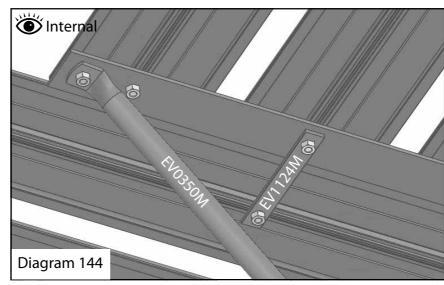


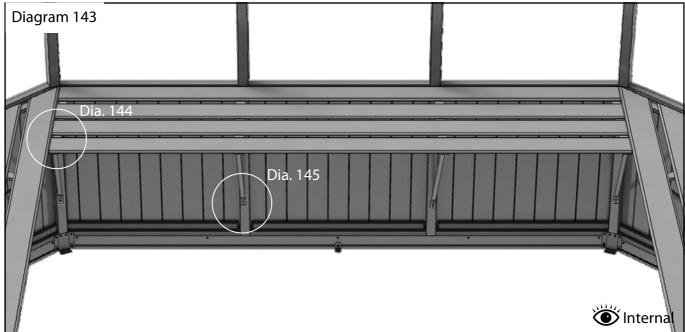


Attach two diagonal supports (EV0350M) to the last hole in the infill staging arm (diagram 142).

## Staging Installation (rear)

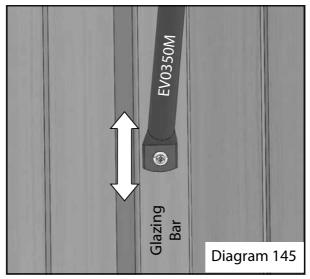
Slide four bolts into each of the last two slats and slot them into place. Line the staging support brackets (EV1124M) up with the bolts on the 2nd slat in from the front and attach nuts to both.





Make sure all the staging slats are level before fixing the diagonal support with a large head 25mm screw (diagram 145).

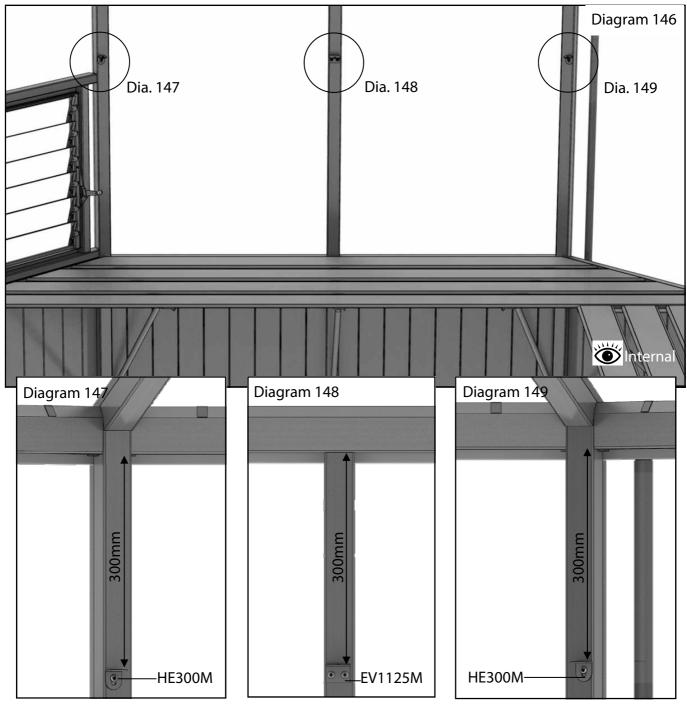
When you are happy with the position of the infill staging section tighten all of the nuts.



### High Level Shelf Installation (end)

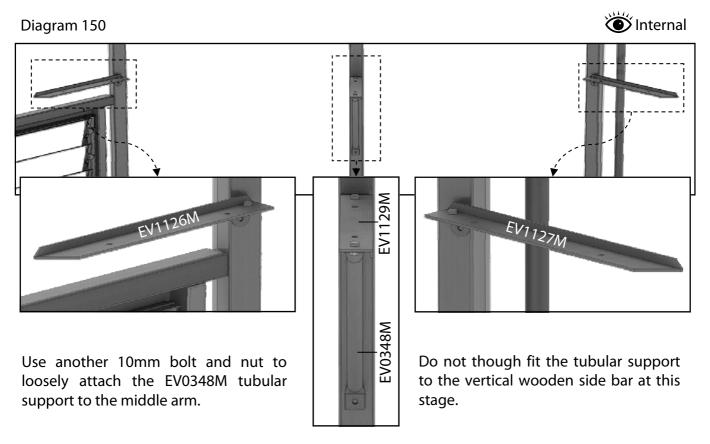
Before you start to install your high level shelf you need to decide what height it should be from the eaves, consider the height it will be from the staging top. E.g. 300mm is a good position from the eaves as this allows you room for small plant pots on the shelf but won't interfere with larger pots on the staging top (diagrams 146-149).

The left hand bracket should be fitted inline with the left edge of the glazing bar and the right hand bracket the right side of that glazing bar (diagram 147). Fix with large head 25mm screws (diagram 149).

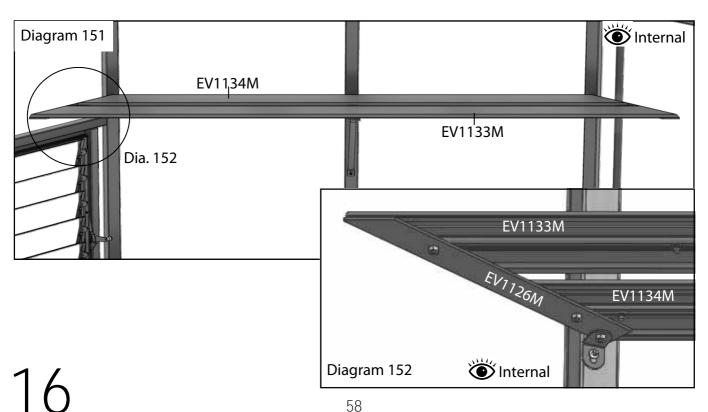


### High Level Shelf Installation (end)

Attach the shelving arms (Left - EV1126M, Mid - EV1129M, and Right - EV1127M) to the brackets with a 10mm bolt. Use the hole nearest the square end on EV1126M / EV1127M (diagram 150).



Next slide 5 x10mm bolts down each shelf slat. Use the middle bolt to attach the slats to the mid arm and use the two nearest the ends to attach to the outer shelving arms (diagram 152).



## High Level Shelf Installation (end)

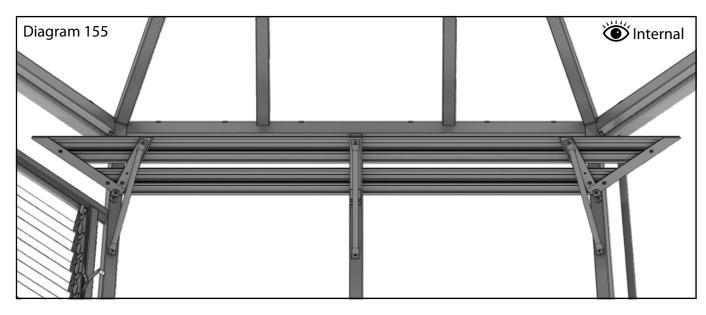
You now need to assemble the internal shelving arms (EV1128M) with the tubular supports (EV0348M). You need to create one left hand assembly and one right hand assembly (diagrams 153 & 154).

Now offer each assembly to the shelving slats and slot them on to the bolts already inserted. Line up with the front edge and at the rear with the outer shelving arm, attach nuts and fix when you're happy with the position.





Check the shelf is level before fixing the tubular supports to the greenhouse frame using three 25mm pan heads EV0326 (diagram 155).



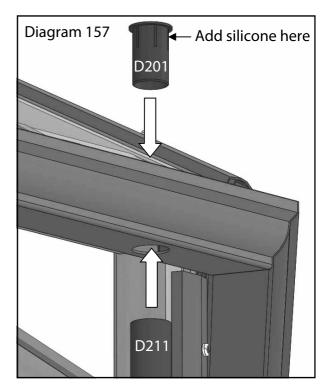
### Downpipe Installation

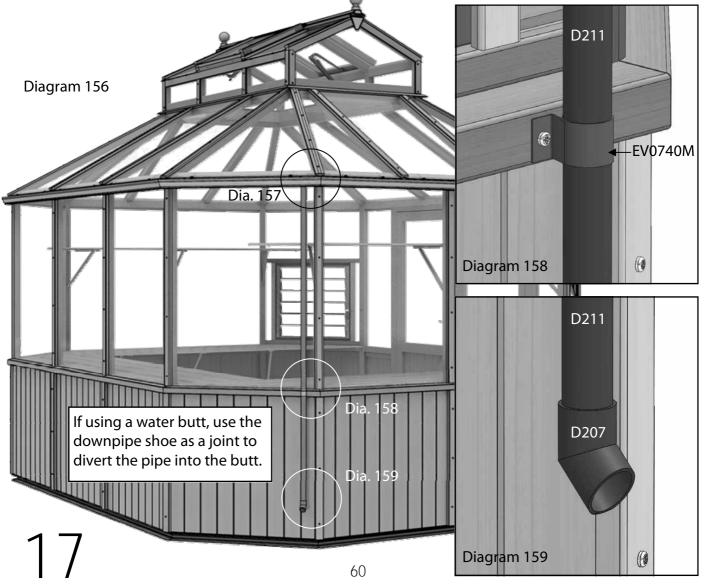
In the gutter section supplied to take the downpipe there are two holes, you can decide which hole to use for the outlet and then simply blank the other hole off with the insert supplied (D214).

Start by adding a small amount of silicone to the underside of the collar on the outlet (D201), diagram 157. Push the outlet through the hole and attach the downpipe (D211).

While supporting the downpipe slide the downpipe clip (EV0740M) on from the bottom of the pipe. Fix this to the mid rail with a 25mm round head screw (diagram 158).

When secure fit the downpipe shoe (D207) to the bottom of the pipe (diagram 159).



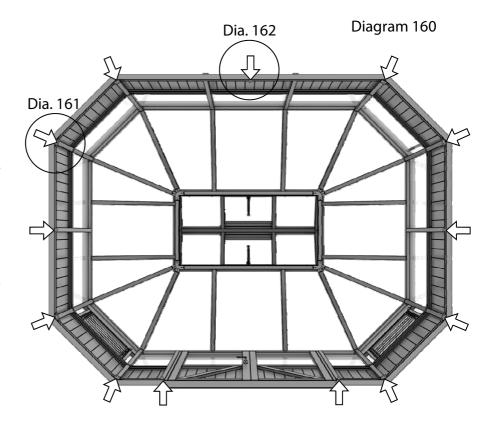


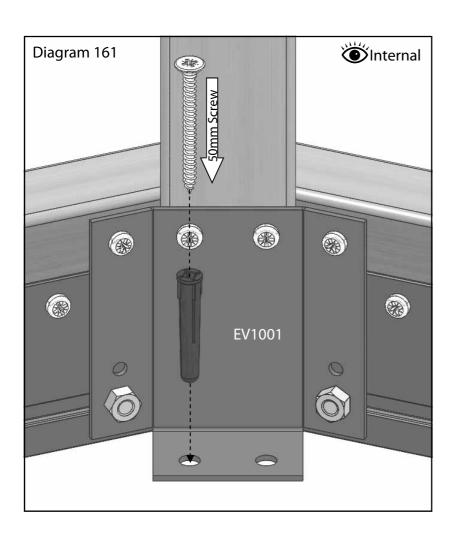
# Fixing Down

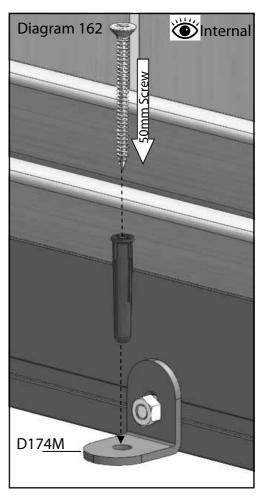
Do not fix down unless the staging has been installed!

If you are happy with the position of the building and your door opens and closes well you can fix the building down. You need at least one fixing per base bracket (supplied), if the building is exposed to high winds it would be a good idea to use 2 fixings per bracket (not supplied).

Drill through the bracket with a 7mm masonry drill, plug the hole with a brown rawl plug and fix with a 50mm screw (diagrams 161 and 162).







EVOCT912	Evo Octagonal Greenhouse 9x12	Quantity
EVOCTBOX912	Evo Octagonal Greenhouse BOX 9x12	1
EVOCTCOM912	Evo Octagonal Greenhouse Components 9x12	1
EVOCTSTA912	Evo Octagonal Greenhouse Staging 9x12	1?
EVOCTSHE9	Evo Octagonal Greenhouse Shelving 6x9, 9x9 and 9x12 (Single)	2?
EVOCTLOUH	Evo Octagonal High / Mid Level Louvre	2
EVOCTDD	Evo Octagonal Greenhouse Double Door in Frame Glazed	1
EVOCTDDPAC	Evo Octagonal Greenhouse Double Door Pack	1
EVOCTCAPC912	Evo Octagonal Greenhouse Capping 9x12 - Cedar	1?
EVOCTCAPA912	Evo Octagonal Greenhouse Capping 9x12 - Aluminium	1?
EV1060	Octagonal Panel Assembled EV1060 795mm	11
EV1061	Octagonal Panel Assembled_Narrow Side of Door EV1061 400mm	2
EV1075	Octagonal Vent Assembly EV1075	2
EVPACVENT EV795X1050	Vent pack bundle for Evolution vent  Evo Octagonal Side Glass	9
EV824X1106X30	Evo Octagonal Roof Glass	4
EV491x1118x90	Evo Octagorial Roof Glass_Half panel	4
EV806x1118x405	Evo Octagorial Roof Glass 3/4 panel	4
EV400x1050	Evo Octagorial Noor Glass 3/4 panel	2
EV610x469	Evo Octagonal Roof Vent Glass	2
EV610x76	Evo Octagonal Side of Louvre Glass	4
EV795x392	Evo Louvre Make-up Glass	2
EV610x1120	Evo Octagonal Full Roof Glass	2
EV795X1120	Evo Octgaonal Full Roof Glass	2
EV509x525	Lantern Roof Glass	4
EV499x166	Lantern Side Glass	4
EV610x166	Lantern Side Middle Glass	2
EV849x397x199	Lantern Gable Glass	2
THAUTO	Classic Autovents	2
EVOCTBOX912	Evo Octagonal Greenhouse BOX 9x12	
EV0313M	Evo Glass Stop	40
EV0950	Octagonal Cill_Angled EV0950 793mm	4
EV0951	Octagonal Cill_Straight EV0951 809mm	1
EV0952	Octagonal Cill_Straight_Angled EV0952 800mm	6
EV0953	Octagonal Eaves Bar_Single EV0953 762mm	4
EV0954	Octagonal Eaves Bar_Double EV0954 1573mm	2
EV0955	Octagonal Eaves Bar_Triple EV0955 2393mm	1
EV0956	Octagonal Mid Rail_Single EV0956 843mm	4
EV0957	Octagonal Mid Rail_Double EV0957 1654mm	2
EV0958	Octagonal Mid Rail_Triple EV0958 2467mm	1
EV0961	Octagonal Mid Rail_Left of Door_Square End EV0961 458mm	1
EV0962	Octagonal Mid Rail_Right of Door_Square End EV0962 458mm	1
EV0966	Octagonal Roof Glazing Bar EV0966 1146mm	8
EV0967	Octagonal Roof Glazing Bar_Standard EV0967 1099mm	8
EV0969	Octagonal Side Glazing Bar EV0969 1850mm	8
EV0970	Octagonal Side Glazing Bar_Standard EV0970 1834mm	6
EV0979 EV0985	Octagonal Panel Capping EV0979 727mm  Octagonal Standard Panel Capping EV0985 727mm	8 6
EV1035	Octagonal Cill_Short_Straight_Angled EV1035 434mm	2
EV1036	Octagonal Eaves Bar 3_Central Double Door EV1036 2387mm	1
EV1080	Octagonal Lantern Top_Lower Frame Rail 99 EV1080 890mm	2
EV1082	Octagonal Lantern Top_Lower Frame 912 EV1082 1702mm	2
EV1083	Octagonal Lantern Top_Front Glazing Bar EV1083 200mm	4
EV1077	Octagonal Lantern Top_Vent Slam Rail 99 EV1077 586mm	2
EV1088	Octagonal Lantern Top_Front Cill 912 EV1088 1645mm	2
EV1089	Octagonal Lantern Top_Gable Cill EV1089 887mm	2
EV1091	Octagonal Lantern Top_Ridge 912 EV1091 1733mm	1
EV1092	Octagonal Lantern Top_Gable Bar L EV1092 514mm	2
EV1093	Octagonal Lantern Top_Gable Bar R EV1093 514mm	2
EV1094	Octagonal Lantern Top_Gable Corner Bar L EV1094 200mm	2
EV1095	Octagonal Lantern Top_Gable Corner Bar R EV1095 200mm	2
EV1096	Oct Lantern Top Roof Bar 99-912 EV1096 505mm L	2
EV1097	Oct Lantern Top Roof Bar 99-912 EV1096 505mm R	2
EV1099	Octagonal Lantern Top_Eaves Bar 912 EV1099 1695mm	2
EVOCTSMA02	Evo Octagonal Greenhouse Smalls - 9 x 9 & 9 x 12	1
D211	Downpipe	1

EVOCTCAPC912	Evo Octagonal Greenhouse Capping 9x12 - Cedar	
EV0980	Octagonal Side Capping Cdr EV0980 1028mm	8
EV0981	Octagonal Standard Side Capping Cdr EV0981 1028mm	6
EV0982	Octagonal Roof Capping Cdr EV0982 1180mm	8
EV0983	Octagonal Standard Roof Capping Cdr EV0983 1110mm	8
EV1107	Octagonal Lantern Top_Roof Capping EV1107 485mm	8
EV1109	Octagonal Lantern Top_Front Capping EV1109 160mm	4
EV1110	Octagonal Lantern Top_Vent Capping EV1110 455mm	4
EVOCTCAPA912	Evo Octagonal Greenhouse Capping 9x12 - Aluminium	Quantity
EV0990M	Octagonal Side Capping EV0990M 1028mm **MOSS**	8
EV0991M	Octagonal Standard Side Capping EV0991M 1028mm **MOSS**	6
EV0992M	Octagonal Roof Capping EV0992M 1180mm **MOSS**	8
EV0993M	Octagonal Standard Roof Capping EV0993M 1110mm **MOSS**	8
EV1103M	Octagonal Lantern Top_Roof Capping EV1103M 485mm **MOSS**	8
EV1105M	Octagonal Lantern Top_Front Capping EV1105M 160mm **MOSS**	4
EV1106M	Octagonal Lantern Top_Vent Capping EV1106M 455mm **MOSS**	4
HE570	Glazing rubber Black 10,000mm	9
EVOCTDDPAC	Evo Octagonal Greenhouse Double Door Pack	
EV0610	SATIN CHROME DOOR HANDLE SET WITH STAINLESS STEEL SCREWS	1
EV0954	Octagonal Eaves Bar_Double EV0954 1573mm	1
EV0959	Octagonal Mid Rail_Left of Door EV0959 879mm	1
EV0960	Octagonal Mid Rail_Right of Door EV0960 879mm	1
EV0968	Octagonal Glazing Bar Side of Door R EV0968 1850mm	1
EV0971	Octagonal Glazing Bar Side of Door L EV0971 1850mm	1
EV0978	Octagonal Panel Capping Side of Door EV0978 727mm	2
EV0988	Octagonal Side of Door Capping Cdr EV0987 1028mm	2
EVOCTDDINS	Evolution Octagonal Double Door Instructions	1
EV1044	Kick Down Door Stop 120mm	1
EVOCTCOM912	Evo Octagonal Greenhouse Components 9x12	
EV0001M	Alton Evo End Cap EV0001M **MOSS**	2
EV0999M	Octagonal Mid Rail Plate EV0999M **MOSS**	8
EV1000M	Octagonal Eaves Bracket EV1000M **MOSS**	8
EV1001M	Octagonal Base Bracket EV1001M **MOSS**	8
EV1005M	Octagonal Ridge Box Frame Bracket EV1005M **MOSS**	4
EV1014M	Octagonal Base_Single EV1014M 824mm **MOSS**	4
EV1015M	Octagonal Base_Double EV1015M 1634mm **MOSS**  Octagonal Base_Triple EV1016M 2446mm **MOSS**	2
EV1016M		
EV1017M EV1018M	Octagonal Base - Next to door L EV1017M 448mm **MOSS**  Octagonal Base - Next to door R EV1018M 448mm **MOSS**	1
EV1021M	Octagonal Lantern Flashing 88 EV1021M 983.5mm **MOSS**	2
EV1021W	Octagonal Lantern Flashing 81 EV1022M 1791.5mm **MOSS**	2
EV1025M	Octagonal Finial Ball EV1025M 99.5mm **MOSS**	2
EV1031M	Octagonal Gutter Single EV1031M 872mm **MOSS**	3
EV1032M	Octagonal Gutter_Single - With Outlets EV1032M 872mm **MOSS**	1
EV1033M	Octagonal Gutter_Double EV1033M 1683mm **MOSS**	2
EV1034M	Octagonal Gutter Triple EV1034M 2495mm **MOSS**	2
EV1070	Octagonal Gutter Corner Insert EV1070	8
EV1101M	Octagonal Lantern Top Ridge Cover Cap 811 EV1101M 1733mm **MOSS**	1
EVOCTLOUH	Evo Octagonal High / Mid Level Louvre	
EV0325	Evolution louvre ***MOSS*** EV0325	1
EV0972	Octagonal High Level Louvre Top Rail EV0972 776mm	1
EV0973	Octagonal High Level Louvre Side Rail EV0973 628mm	2
EV0974	Octagonal High level Louvre Bottom Rail EV0974 776mm	1
EV0333	50mm Csk SS EV0333	4
EV0334	80mm Csk SS EV0334	4
EVOCTLOUL	Evo Octagonal Low Level Louvre (optional)	
EV0325	Evolution louvre ***MOSS*** EV0325	1
EV0975	Octagonal Low Level Louvre Side Rail LH EV0975 727mm	1
EV0976	Octagonal Low Level Louvre Side Rail RH EV0976 727mm	1
EV1059	Octagonal TnG Board_Louvre EV1059 732mm	2
EV0333	50mm Csk SS EV0333	2

EV0350M A EV1117M E	Base Bracket **MOSS**	12
EV1117M E		12
	Atlas staging tubular support 02-2210 **MOSS**	10
	Evo Atlas Octagonal Staging Slat_811_Infill EV1117M 2355mm **MOSS**	4
EV1120M E	Evo Atlas Octagonal Staging Arm_Internal End EV1120M 575mm **MOSS**	4
EV1121M E	Evo Atlas Octagonal Staging Arm_Outer End_LH EV1121M 790mm **MOSS**	2
EV1122M E	Evo Atlas Octagonal Staging Arm_Outer End_RH EV1122M 790mm **MOSS**	2
EV1123M E	Evo Atlas Octagonal Staging Arm_Infill EV1123M 558mm **MOSS**	6
EV1124M E	Evo Atlas Octagonal Staging Support Bracket EV1124M 107.75mm **MOSS**	2
EV1125M E	Evo Atlas Octagonal Staging Bracket_Middle arm EV1125M **MOSS**	6
	Evo Atlas Octagonal Staging Slat_88-811_1 EV1131M 2689mm **MOSS**	2
EV1132M E	Evo Atlas Octagonal Staging Slat_88-811_2 EV1132M 2396mm **MOSS**	2
EV1133M E	Evo Atlas Octagonal Staging Slat_88-811_3 EV1133M 2104mm **MOSS**	2
EV1134M E	Evo Atlas Octagonal Staging Slat_88-811_4 EV1134M 1812mm **MOSS**	2
	HE576 Stainless Bolt, square head - 10mm M6 -	80
	HE579 Nut - M6 -Stainless	80
EV0326 2	25mm Pan Poz No.5 SS EV0326	28
EVOCTSHE9 E	Evo Octagonal Greenhouse Shelving 6x9, 9x9 and 9x12 (Single)	
	Base Bracket **MOSS**	2
	Atlas shelf tubular support 02-2211 MOSS	3
	Evo Atlas Octagonal Staging Bracket_Middle arm EV1125M **MOSS**	1
	Evo Atlas Octagonal Shelving Arm_Outer End_LH EV1126M 377mm **MOSS**	1
	Evo Atlas Octagonal Shelving Arm_Outer End_RH EV1127M 377mm **MOSS**	1
	Evo Atlas Octagonal Shelving Arm_Internal End EV1128M 259mm **MOSS**	2
	Evo Atlas Octagonal Shelving Arm_Mid EV1129M 266mm **MOSS**	1
	Evo Atlas Octagonal Staging Slat_88-811_3 EV1133M 2104mm **MOSS**	1
	Evo Atlas Octagonal Staging Slat_88-811_4 EV1134M 1812mm **MOSS**	1
	HE576 Stainless Bolt, square head - 10mm M6 -	18
	HE579 Nut - M6 -Stainless	18
	25mm Pan Poz No.5 SS EV0326	8
		L
EVOCTSMA02 E	Evo Octagonal Greenhouse Smalls - 9x9 & 9x12	
	L9mm Pan Poz No.4 SS EV0328	4
	L5mm Pan Poz Self Tap EV0329	6
	25mm Csk SS EV0330	8
	25mm Pan Poz SS EV0331	47
	40mm Pan Poz SS EV0332	18
	50mm Csk SS EV0333	24
	30mm Csk SS EV0334	10
	40mm Csk SS EV0338	32
	35mm Csk SS EV0364	32
	Nuts M6 Alu ANFM060	21
	Bolts 11mm M6 (simp) ABCX060011	21
	Base bracket D174 ***MOSS***	5
	HE588 Stainless long Bolt, square head - 15mm M6 -	2
	Rubber Washer 10mm EV0363	4
	Outlet Stub	1
	Blanking plug	1
	Downpipe clip	1
	Brown Rawl Plug	10
IUZ-1707 IF	Silicone Clear 80ml	1

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