

For Customer Services (parts & delivery enquiries only) call: **01254 683 079**

For Technical Support (installation queries) call: **0871 574 7293**

Technical support calls cost 10p per minute from BT landlines, other carriers and mobile networks may vary.

Please note that the conservatory product is complex, and often bespoke in nature. Accordingly, while this document attempts to demonstrate the full installation procedure, it should be seen a guide to method and technique, rather than a strict step-by-step guide. Methods and components are subject to change without notice, and no responsibility will be accepted for any issues arising from such changes.

Printed installation guides for our products are supplied as necessary upon purchase however, due to the limitations of promptly updating printed copies, the PDF versions available online at [www.k2conservatories.co.uk](http://www.k2conservatories.co.uk) should be considered to supercede the printed versions.

## HOW TO USE THIS GUIDE, TOOL & TIPS

### Using this Installation Manual – READ THIS SECTION CAREFULLY

Contained within this Installation Manual are step-by-step instructions to guide you through the installation of your conservatory to successful completion. Each build stage has been broken down into sections and you will see an overview of these build stages immediately following this section.

#### IMPORTANT

Read ALL the instructions completely BEFORE commencing any work, more than one reading may be necessary. Understanding these instructions and familiarity with procedures will make the build process much easier and an enjoyable project to undertake.

#### Cross Referencing

Your conservatory is supplied as several items of packaging, some of which will be immediately apparent (such as windows and doors) other items will be labelled as a particular package reference. Contained within the same pack as these instructions is a set of component checklists, which you will use to identify the items contained within each pack. Within the checklists is a 'Roof Plan'. This diagram is very important as it contains information specific to your conservatory, such as, width, projection, height, etc. Throughout this manual will be references to your 'Roof Plan', please ensure that you refer to this plan whenever requested to ensure all dimensions, etc. correspond.

#### Working through the sections

The first part of the manual is an 'Order of Assembly' chart, outlining the build stages for your conservatory. Each diagram gives an indication of what your conservatory will look like at the end of each stage. Each section in this manual is numbered to correspond with the build stages and is structured as follows:

- **Component reference page –**

Here you will see a diagram showing details of the parts required to complete the section. The table shows an item number, description and any specific comments if necessary.

The descriptions and item numbers are shown on your checklists (along with another graphic for identification) so you may sort out these parts prior to commencing each section. You will not need to collate any other parts from your packaging until it is outlined in a 'component

reference page'. The only exception is silicone sealant, (as this is needed continually as you work through the build process) which will be outlined in the text as required.

- **Section instructions pages –**

Following the component reference page will be the detailed step-by-step instructions to complete the section. Once each section is complete the format is re-produced again for the next section, and so on. If at any point you feel you require any assistance, the telephone number for our technical helpline is shown at the bottom of each page.

#### INSTALLATION TIPS

- All windows are a two person lift.
- Treat PVC-U in much the same way as timber; however, use a finer saw when cutting.
- All windows and doors can be either internally or externally beaded, but consistent throughout the conservatory. When fitting the windows it is essential that they are facing the correct way. Use the drainage slots present along the bottom of each window to determine the outside of each window. The slots will always be positioned to the outside face.
- When fitting your door outer frame, it should be considered as a window and fitted in the same manner.
- Ensure when fitting the door outer frame that it is plumb and square. To check this, the width must be constant all the way up and the height constant all the way across. In addition a diagonal measurement across the corners must be the same. If this is not addressed correctly, it will most probably cause problems when it comes to fitting your doors.
- Try to avoid fitting opening windows against the property wall. This will avoid any conflicts with the openers and gutter down pipes, etc.
- Ensure all drainage slots on windows are at the bottom when positioning windows.

All windows and doors are internally reinforced at various positions with steel sections. You may therefore feel additional resistance when screwing into the PVC as it cuts into the reinforcement.

**RECOMMENDED TOOLS**

- Tape measure (5m min.)
- 2.5m (8') step ladder.
- 3.7m (12') ladder – 2 sections.
- Electric drill (hammer action).
- Steel drill bits: 3.0mm, 6.0mm long reach (min. 120mm ) & 8.0mm
- Masonry drill bits (min 200mm reach): 8.0mm.
- Cordless screwdriver (12v min.).
- 3 Clamps (G-Clamp or similar, one-handed operation if possible).
- 1.2m (4') spirit level.
- Silicone sealant gun.
- Plastic mallet.
- Work bench.
- Gasket pliers/cutters.
- Hacksaw
- Extension lead.
- Screwdrivers.
- Superglue.
- Cleaning materials.
- Cleaning equipment.
- Paper Towels.

**Personal Protective Equipment**

*The following PPE should be worn throughout the construction:*

**A hard hat.**

**Safety foot wear.**

*The following PPE should be worn under certain conditions:*

*(follow machinery guidelines where applicable)*

**Anti slip gloves (when handling glass roof glazing units)**

**Wrist guards (when handling glass roof glazing units)**

**Glass suction cups (when handling glass roof glazing units)**

**Safety glasses (when handling glass roof glazing units)**

**Hearing protection when drilling.**

**Dust mask if dust is likely to be generated.**

**Disposable or rigger gloves as applicable.**

**Advisable to keep arms and legs covered.**

**Fall arrest equipment if working above 2 metres in height.**

**When using a pre-fabricated steel base please refer to the installation guide provided with the base fixing kit for reference to safety recommendations.**

It is advisable to have a first aid kit handy – just in case.

**HEALTH, SAFETY AND ENVIRONMENTAL ISSUES**

As with any type of construction work, there are inherent dangers when assembling a conservatory. The following supplement is designed to supply the installer with general health, safety and environmental information that may be required during the assembly of a conservatory. The appendix offers a guide to "best practice" but cannot be considered as comprehensive. You are advised to work safely at all times.

**1. General Site Safety**

All sites are different and have different hazards. Have a general regard to what potentially can cause harm. The construction site itself should be made a restricted area. Particularly at risk are children and animals. You also need to consider the security issue. Organise your space. Don't open boxes haphazardly and leave components lying around that can get damaged, lost or pose a trip hazard. Be aware of the weather forecast. Wet and hot conditions cause specific hazards. Put controls in place to manage any possible vehicular movement on site. Protect the environment by avoiding fugitive waste. Dispose of your rubbish appropriately.

**2. Working at Height**

Be aware that Health and Safety legislation states that fall protection measures must be put in place by the employer of any person working at a height of 2 metres or more where a fall hazard exists. If it isn't feasible to eliminate the hazard using a collective system then a personal protective equipment system must be selected and used, be it for restraint, work positioning or fall arrest purposes.

For further information, a useful specialist company to contact for fall arrest guidance is Bacou-Dalloz on 01256 693200

***Some height work is inevitable during construction. The majority of this work will probably be done from a ladder.***

## USE OF LADDERS

You are advised to adopt the following rules at all times:

- Assess whether an alternative means of access is more suitable. Take into account the nature of the work, duration, height being worked at, movements required, equipment and materials being used, type of ladder available etc.
- Ladders ideally should be of the "Class 1" type.
- Place them on a firm, stable and level surface which is capable of supporting the ladders and any intended load. They must be erected so as to ensure they won't become displaced.
- Prior to use always check visually whether the ladder is in good condition and free of slippery substances such as oil or mud.
- Check facilities for securing against slipping – tied at top, secured at bottom, or footed by a second person if no more than 3m-height access is required.  
**IF ABOVE 3 METRES IN HEIGHT, THEY MUST BE SECURED.**
- The correct angle of rest is 75 degrees. E.g. for every 4 metres in height, move the base of the ladder out 1 metre.
- Metal ladders (and wooden ones when wet) conduct electricity and should not be used or carried near overhead power lines.
- Ladders must be positioned the correct way up – metal ladders often have rungs with both flat and curved surfaces – the flat surface is the one on which the user's feet should rest.
- The use of ad hoc and "botched" safety devices must be avoided. For example plywood base plates are not to be used. If you require plant, equipment or devices to do the job safely you are to hire/buy them and not manufacture them. This is a short cut to having an accident.
- Never feel pressured to go up a ladder if you are unhappy about its safety.
- Only use the ladders for the purpose for which they were intended.
- Anyone below you? They could be injured if you drop something.

*If scaffolding is to be erected, this should be done only by a suitably qualified contractor. You are advised to ask the contractor to show you an appropriate certificate of qualification. Ensure any scaffold is "scaff - tagged".*

## 4. Tools

The tools you use are your responsibility. We advise:

- Check the condition of your tools prior to use, for obvious damage. Get them checked out if you are in doubt. Arrange for your tools to have a portable appliance test.
- Any electric hand tools are 110 volt or used in conjunction with a residual circuit breaker.
- Don't use tools other than for their intended purpose.
- Follow manufacturer's guidelines as applicable.

### FORMAL PROCEDURE FOR THE USE OF KNIVES AND CHISELS

- Ensure when using a knife / chisel you always keep your hand that isn't in use **BEHIND** the blade. Ensure that you cut away from your body - **NEVER** towards yourself.
- Ensure the position of others is away from the cutting direction.
- Keep the tooling in a sharp condition so you don't have to exert excessive force to cut / slice.
- Always pick up the tool by the handle.
- Always ensure the tool is stored safely where a sharp edge cannot cause injury.
- Only use the tooling for its intended purpose where possible.

## 5. Manual Handling

As a general guideline, follow the "2 man lift" stickers on the boxes. Lift correctly.

**STOP AND THINK.** Plan the lift.

**Where is the load going to be placed?**

Use appropriate handling aids if possible.

**Do you need help with the load?**

Remove obstructions such as discarded wrapping materials. For a long lift – such as floor to shoulder height – consider resting the load mid-way on a table or bench in order to change grip.

### • PLACE THE FEET.

Feet apart, giving balanced and stable base for lifting. Leading leg as far forward as is comfortable.

### • ADOPT A GOOD POSTURE.

Bend the knees so that the hands when grasping the load are as nearly level with the waist as

possible. Don't kneel or over-flex the knees. Keep the back straight and lean forward slightly over the load if necessary to get a good grip. Keep the shoulders level and facing in the same direction as the hips.

- **GET A FIRM GRIP**

Try to keep the arms within the boundary formed by the legs. The optimum position and nature of the grip depends on the circumstances and individual's preference, but it must be secure.

A hook grip is less fatiguing than keeping the fingers straight. If it is necessary to vary the grip as the lift proceeds, do this as smoothly as possible.

- **DON'T JERK**

- **MOVE THE FEET**

- **KEEP CLOSE TO THE LOAD**

- **PUT DOWN, THEN ADJUST**

If precise positioning of the load is necessary, put it down first, and then slide it into the desired position.

- **TEAM LIFTING**

It is important team members are physically evenly matched. One person should take responsibility and co-ordinate their actions.

- **ADEQUATE VISION**

Clear vision may mean multiple trips with smaller loads, but it is safer.

## **6. Control of substances harmful to health**

The chemicals supplied by us for use when assembling your conservatory are:

- **SILICONE:** Safety data sheet provided.

**7. COMPLAINTS PROCEDURE – IMPORTANT – PLEASE READ ON DELIVERY****Using your check list**

It is recommended that all boxes are opened on delivery to ensure that all components listed on your Customer Check List are present. This should be done before the specified F.O.C. buffer period expires. The check list consists of quantities and component pictures to aid the identification of parts. Use the check list to cross reference, examine and quantify your components.

**Missing and damaged components will have a cost implication after the specified buffer period for F.O.C. parts after delivery. The F.O.C. buffer period will be noted on your delivery check sheet.**

If any components *are* missing, please contact the store where the conservatory was purchased and provide the following;

- Your 6 digit order number – e.g. **177047**
- The part reference code from your installation manual – e.g. **C101**
- The part description from your installation manual – e.g. **150mm Sill End Caps**
- The page where the part is described in the installation manual – e.g. **Page 9**

**Delivery damage**

It is also recommended that all components are checked for delivery damage. On receipt of delivery please check the packaging carefully prior to signing the delivery note. It is also good practice to check your components prior to assembly to avoid your installation being halted. This should also be done before the specified F.O.C. buffer period expires.

If any components *are* damaged, please contact the store where the conservatory was purchased and provide the following;

- Your 6 digit order number – e.g. **177047**
- The part reference code from your installation manual – e.g. **C101**
- The part description from your installation manual – e.g. **150mm Sill End Caps**
- The page where the part is described in the installation manual – e.g. **Page 9**

**8. QUERIES AND REQUESTS – IMPORTANT – PLEASE READ ON DELIVERY**

If during your installation you are puzzled on any aspect of how components may fit together or be positioned, you may call our Technical Assistance phone line which is highlighted at the foot of every page.

This installation guide provides information on the erection of the Garden Building. **The installation procedure on each model differs. These differences are outlined below.**

### **The Square Garden Building**

The free standing Square Garden Building model range also contains rectangular shaped models. Both styles are joined at the corners by the 90° corner post (A109). The Square Garden Building also uses a total of four Edwardian hip spars, which connect to a 25° Edwardian boss end (C9170) situated on each end of the 25° ridge.



### **The Octagonal Garden Building**

The Octagonal Garden Building has angled corners called 'facets'. The windows around the Garden Building are therefore joined by 135° corner posts (A110). The Octagonal Garden Building uses a total of eight Victorian hip spars, which connect to a central circular 25° full boss (C9026). There are two variations of the Octagonal Garden Building - the smaller model has only one window on each facet unlike the larger model which has two windows per facet as shown below.





**OCTAGONAL GARDEN BUILDING ORDER OF ASSEMBLY****SECTION 1i****BASE SILL INSTALLATION****SECTION 2i****FITTING FIRST WINDOWS****SECTION 3i (Large Octagonal Garden Building Only)****FITTING WINDOWS IN A STRAIGHT RUN****SECTION 4****FITTING EAVES BEAM****SECTION 5i****GAZEBO RIDGE INSTALLATION (OCTAGONAL ONLY)****SECTION 7****GLAZING**



## SECTION 8

### SPAR CAPPINGS



## SECTION 9

### GAZEBO COVER INSTALLATION



## SECTION 11

### DOUBLE DOOR INSTALLATION



## SECTION 12i

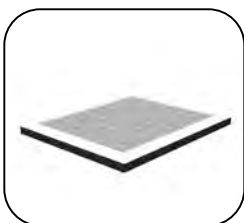
### TRIMS & FINISHING



## SECTION 13

### GUTTER INSTALLATION

## SQUARE GARDEN BUILDING ORDER OF ASSEMBLY



## SECTION 1ii

### BASE SILL INSTALLATION



## SECTION 2ii

### FITTING FIRST WINDOWS



## SECTION 3ii

### FITTING WINDOWS IN A STRAIGHT RUN



## SECTION 4

### FITTING EAVES BEAM



## SECTION 5ii

### RIDGE INSTALLATION (SQUARE GARDEN BUILDING ONLY)



## SECTION 6

### INTERMEDIATE SPARS (SQUARE GARDEN BUILDING ONLY)



## SECTION 7

### TIE BARS (SQUARE GARDEN BUILDINGS ONLY)



## SECTION 8

### GLAZING



## **SECTION 9**

### **SPAR CAPPINGS**



## **SECTION 11**

### **RIDGE COVER INSTALLATION**



## **SECTION 12**

### **DOUBLE DOOR INSTALLATION**



## **SECTION 13ii**

### **TRIMS & FINISHING**

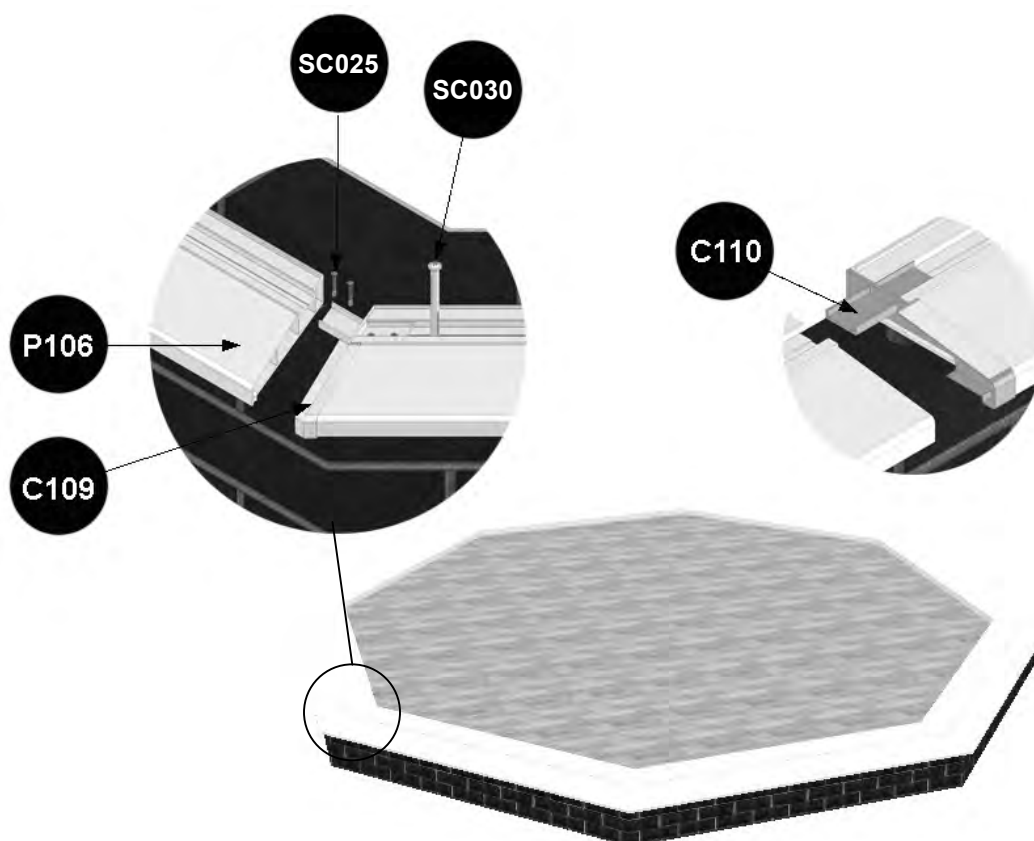


## **SECTION 14**

### **GUTTER INSTALLATION**

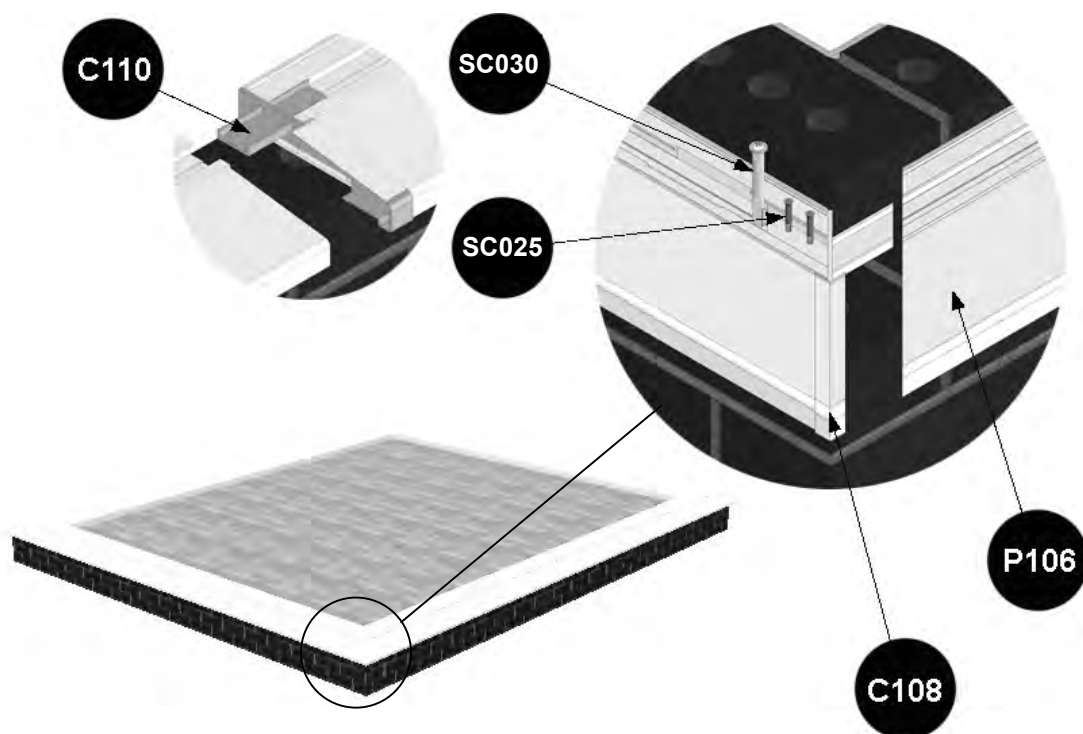
**1i – OCTAGONAL GARDEN BUILDING BASE SILL COMPONENT REFERENCE**

Item No	Item Description	Comments
P106	150mm Sill	
C109	External 135° Sill Connector	
C110	In-line Sill Connector	Specific models only
SC025	3.9 x 16mm Reinforcing Screws	
SC030	100mm Fixing Bolts	



**1ii – SQUARE GARDEN BUILDING BASE SILL COMPONENT REFERENCE**

Item No	Item Description	Comments
P106	150mm Sill	
C108	External 90° Sill Connector	
C110	In-line Sill Connector	Specific models only
SC025	3.9 x 16mm Reinforcing Screws	
SC030	100mm Fixing Bolts	



Having already inspected the base for **LEVEL AND DIMENSIONAL ACCURACY** (against base plan), lay out the 150mm sill pieces (P106) as per the conservatory plan.

### Using Sealants

Wherever PVC-U is joined to PVC-U, ensure that all jointing faces are silicone sealed using a **low-modulus, neutral cure** silicone sealant. The following sealants are recommended:

**Low-modulus silicone (brown):** for sealing woodgrain finish PVC-U conservatories

**Low-modulus silicone (white):** for sealing white PVC-U to PVC-U.

**Acrylic:** for internal use where paint is to be used.

All recommended sealants remain soft for 15-20 minutes (sufficient time for repositioning if necessary). If excess sealant is not removed immediately, wait until the sealant is fully cured (about 24 hours) before peeling the excess away cleanly.

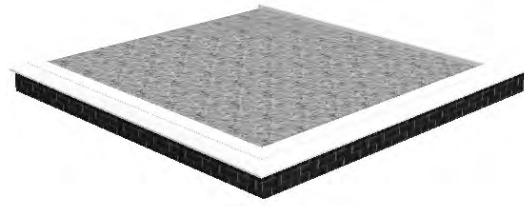
When using sealant as a filler bead, mask both sides of the bead area with masking tape. Run a bead of sealant along the bead area, exerting an even pressure on the sealing gun.

Always refer to the manufacturers' instructions for removing excess sealant.

### Fitting the Sill

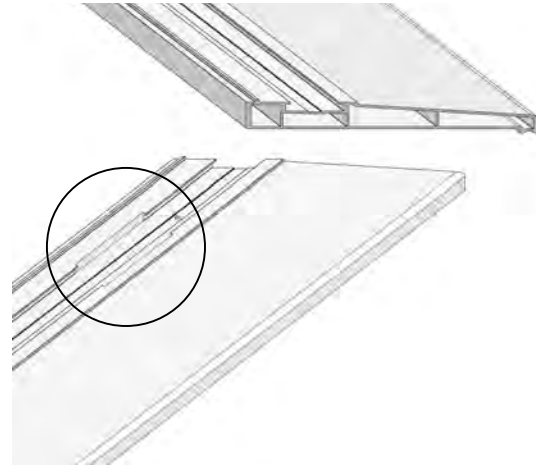
**Please note the following section describes the installation of the Square Garden Building model, however the process of installation is the same for the Octagonal Garden Building model**

Referring to your base plan diagram lay all 150mm sill pieces (P106) onto the base. Approximate positioning is adequate at this stage.



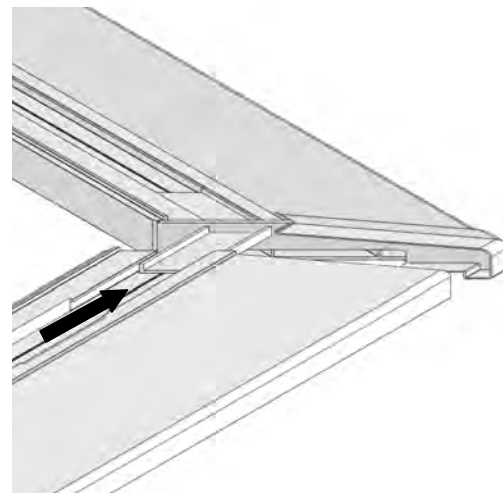
Ensure that every run of 150mm sill (P106) has two 70mm sections on one end of the sill milled out as shown in the image below

This will allow the windows to be positioned onto the sill and then along the groove of the 150mm sill (P106) throughout installation.

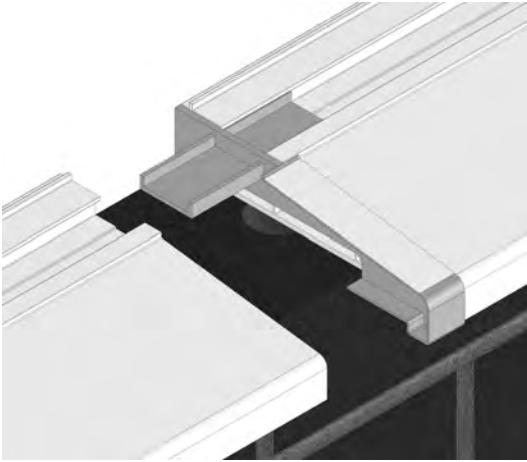


### Sill Connectors

Progressively join the 150mm sill sections (P106) together with the external 90° sill connector (C108).

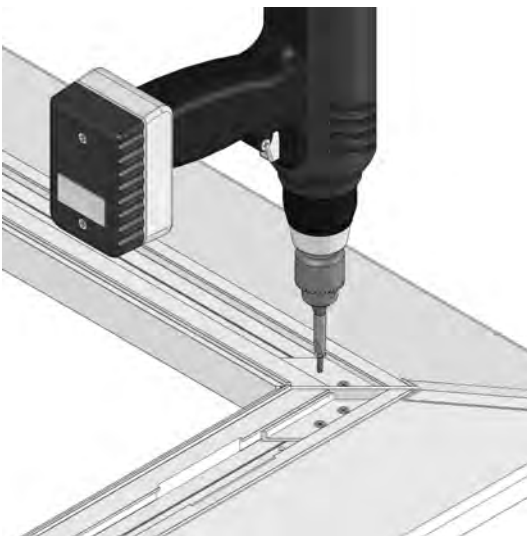


**Note:** Some sections may require joining by using in-line sill connector (C110).



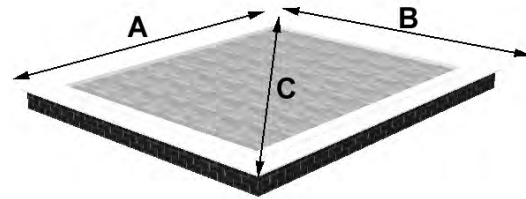
Ensure that the external 90° sill connector (C108) is silicone sealed on all contact surfaces: top, bottom and sides.

Fix all sill connectors (C108/C110) to 150mm sill (PA1) with 3.9 x 16mm reinforcing screws (SC025) as shown below.

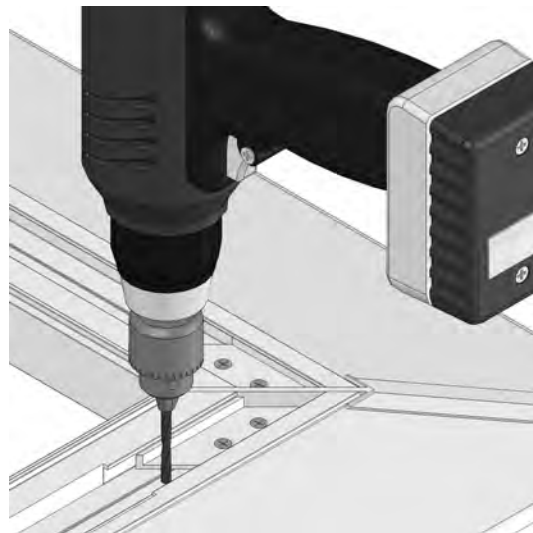


**IMPORTANT:** Time spent getting the base sill layout correct will save time later in the installation, as paying attention to the base sill dimensions, positioning, and making sure it is level will ensure the correct fitting of the rest of the conservatory.

Lay the 150mm sill (P106) in position and using your roof plan (located with your check list), ensure that dimensions A and B are consistent across the entire width and projection and that both diagonals (C) are equal.

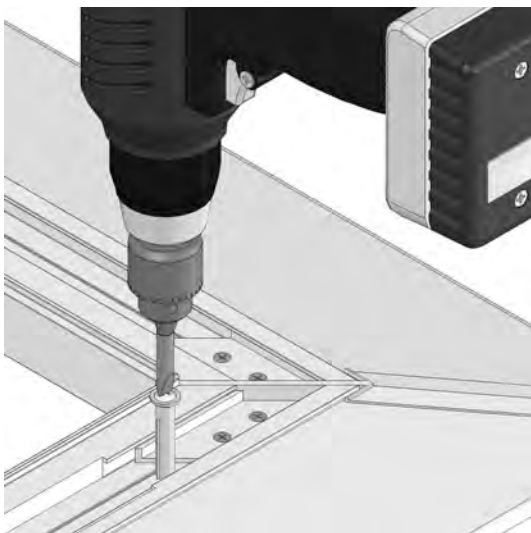


Once level and in the correct position, using the relevant drill bits, drill through the 150mm sill (P106) and into the base to at least 100mm deep.





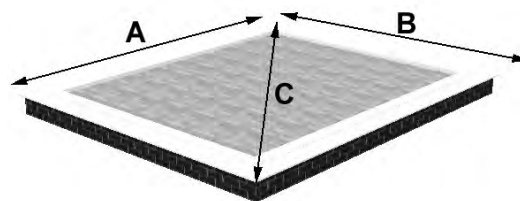
Now permanently fix through the 150mm sill (P106) to the base using the 100mm fixing bolts (SC030).



The 100mm fixing bolts (SC030) should be positioned 100mm from each end of the 150mm sill (P106) and equally spaced between.

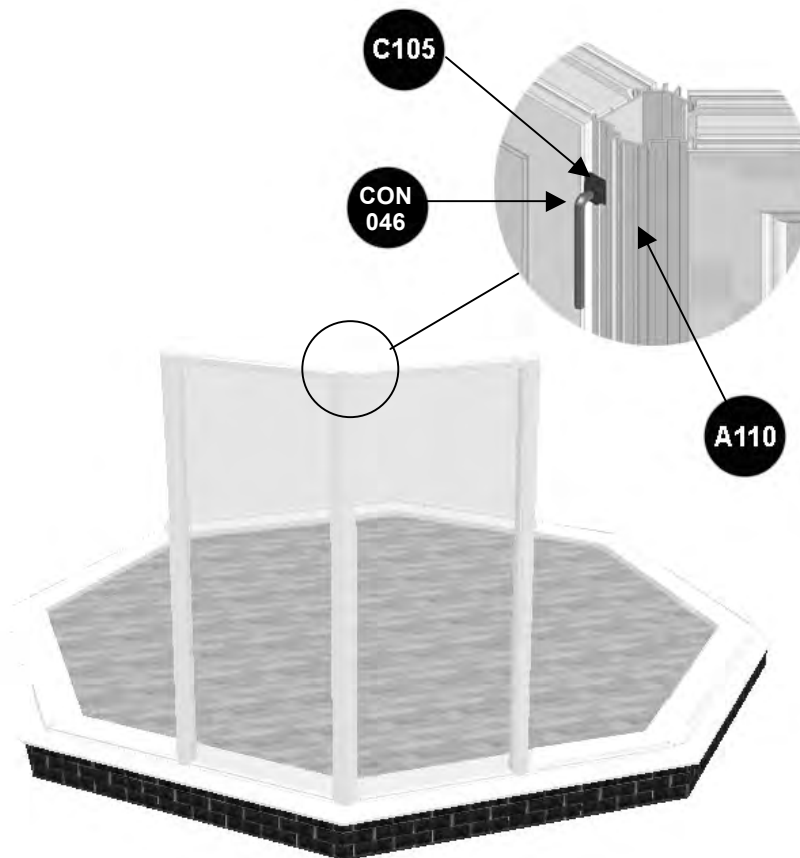
**If your conservatory uses a pre-fabricated steel base please use the self drilling screws provided with the steel base fixing kit referring to the installation guide supplied.**

Check your sill layout again for square.



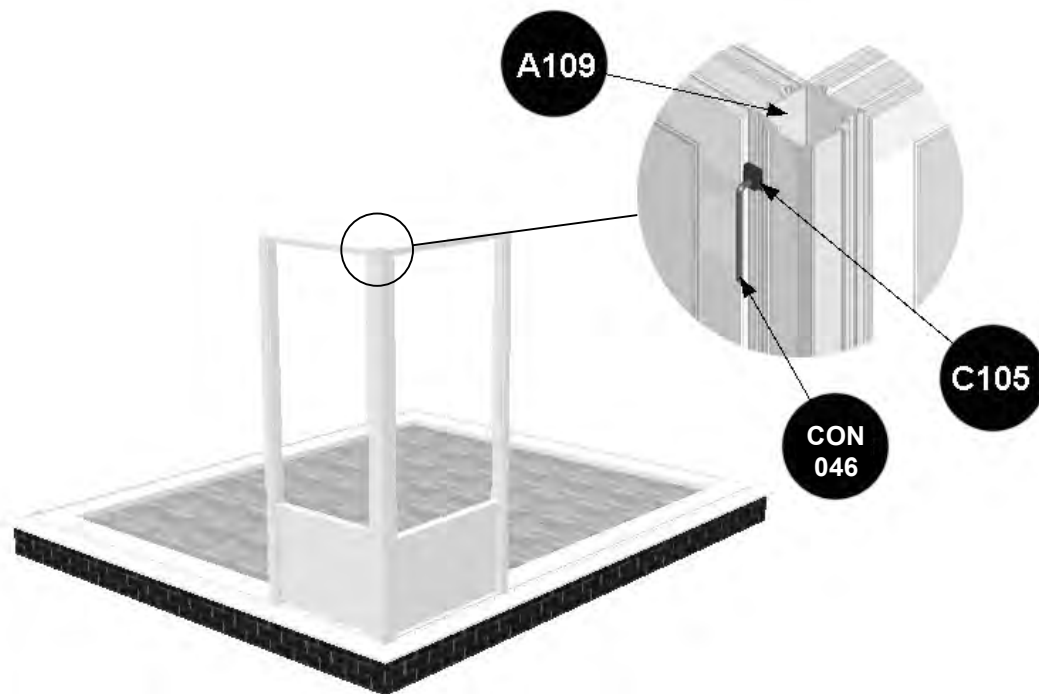
**2i – OCTAGONAL GARDEN BUILDING FIRST WINDOWS COMPONENT REFERENCE**

Item No	Item Description	Comments
C105	Quarter Turn Button	
C106	Sill Support Block	Pre-assembled
SC012	60mm Fixing Bolts	
CON046	6mm Allen Key	
A115	135° Corner Post	



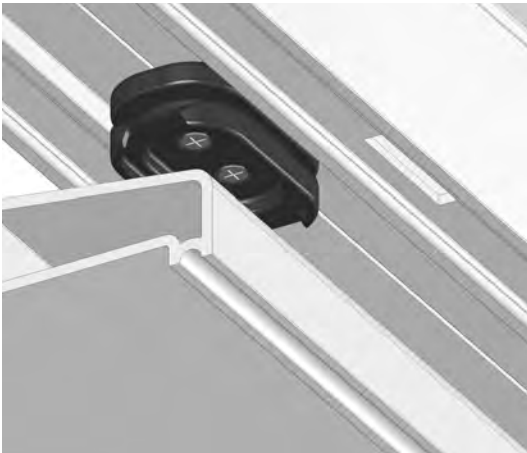
**2ii – SQUARE GARDEN BUILDING FIRST WINDOWS COMPONENT REFERENCE**

Item No	Item Description	Comments
C105	Quarter Turn Button	
C106	Sill Support Block	Pre-assembled
CON046	6mm Allen Key	
A109	90° Corner Post	



Select the first window to be installed. **It is imperative that the drain slots in every window are located at the bottom of the window and facing front as shown below.**

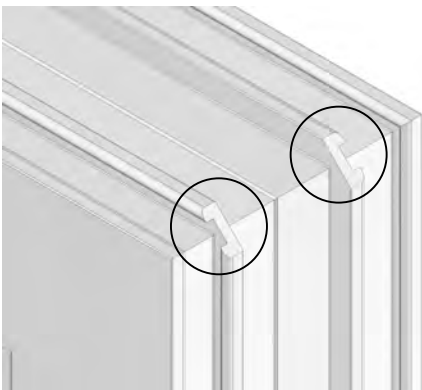
**Please also note that two sill support blocks (C106) are attached to the bottom of the windows also shown below.**



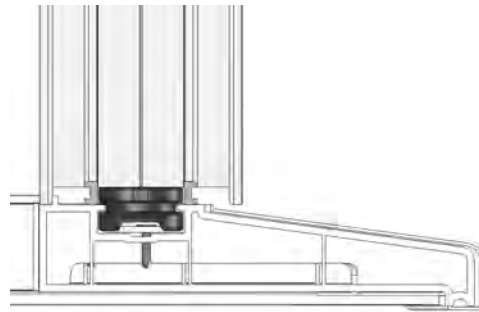
Before installation commences check each window for any defects such as scratches or bowing. If you find any defects please follow the complaints procedure highlighted at the front of this manual.

**Please note: Any slight bow in the windows will be corrected as the window connectors are slid into position.**

You will notice that each window corner has the inner legs on the window detail notched away. It is imperative that this detail is present to ensure that all 18mm inline couplings (A104) can slide into position. The notch detail is highlighted below.

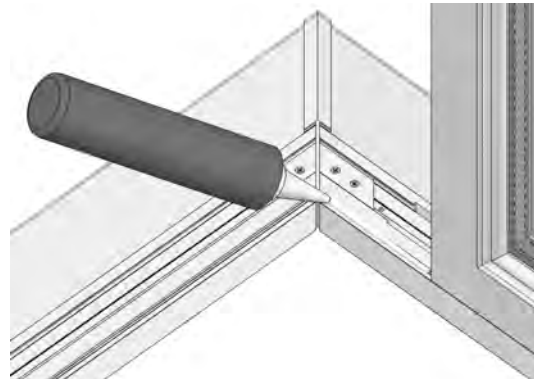


Select the first window and position over the milled out sections in the 150mm sill (P106).

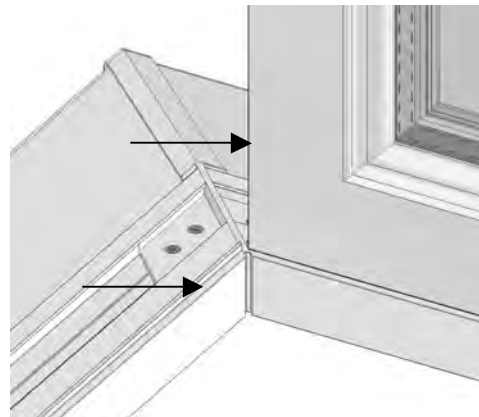


Slide the window towards the corner of the 150mm sill (P106).

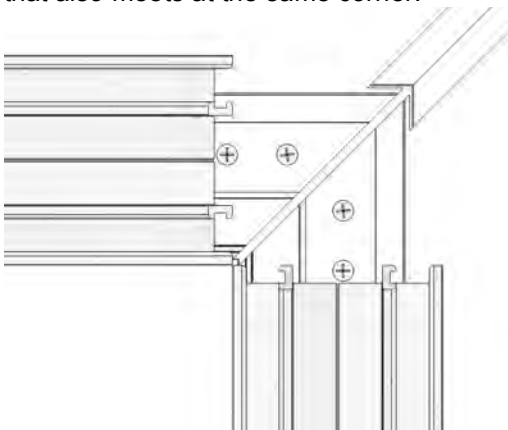
Prior to the positioning of the window into its final place, apply a bead of silicone to the top of the 150mm sill (P106) and inline with the rear face of the 150mm sill (P106).



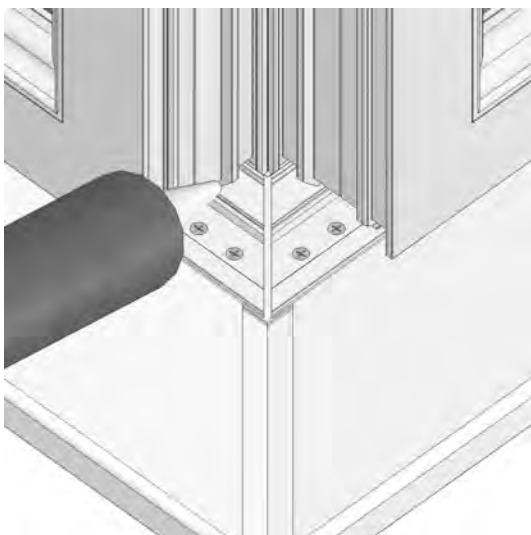
Continue to slide the window towards the corner of the sill so that the front edge is inline with the rear face of the 150mm sill (P106) on the adjacent corner.



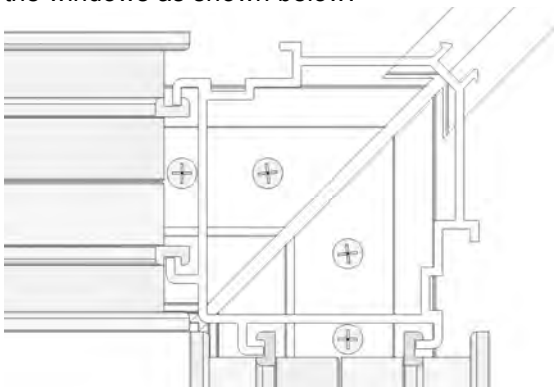
Repeat the procedure for the other window that also meets at the same corner.



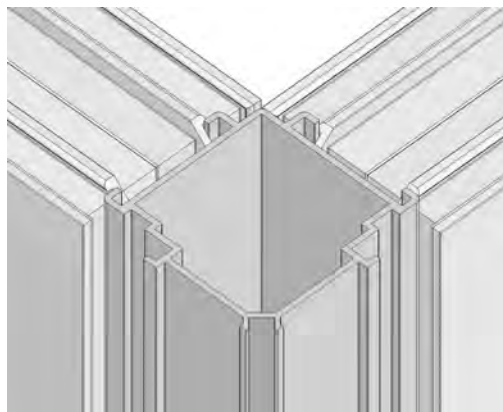
Silicone seal the internal corner of the 150mm sill (P106) where both windows meet.



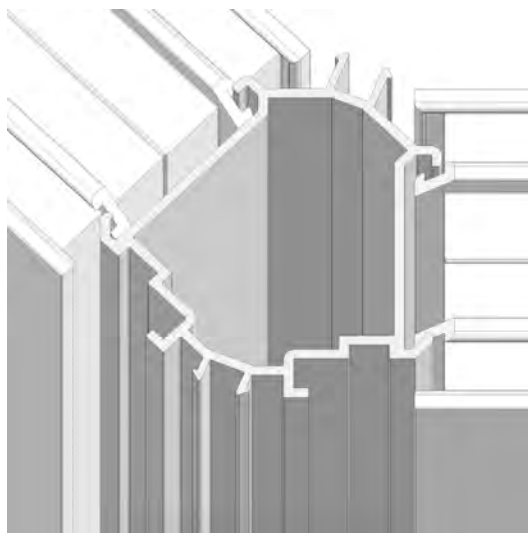
Select the 90° corner post (A109) and slide into the gap between the windows so that the leg detail interlocks with the leg detail on the windows as shown below.



The prongs on the 90° corner post (A109) should face the outer corner of the 90° sill connector (C108) as shown below.



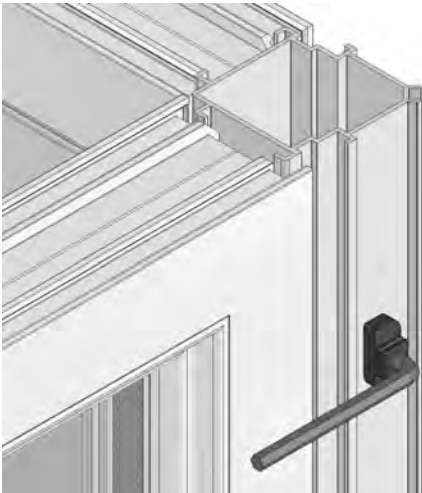
On Octagonal Garden Building models the 135° corner post (A115) is used. This should be assembled as shown below.



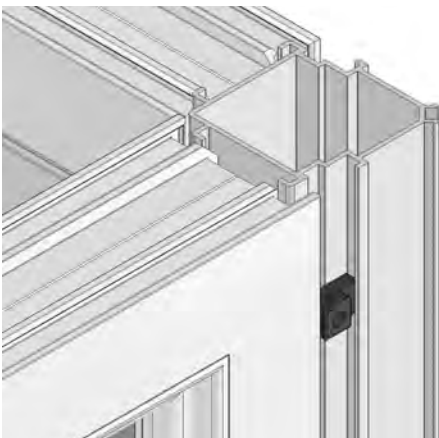
When the 90° corner post (A109) or the 135° corner post (A115) is in position, select a quarter turn button (C105) and the 6mm Allen key (CON046).



Position the quarter turn button (C105) longitudinally into the recess in the 90° corner post (A109).

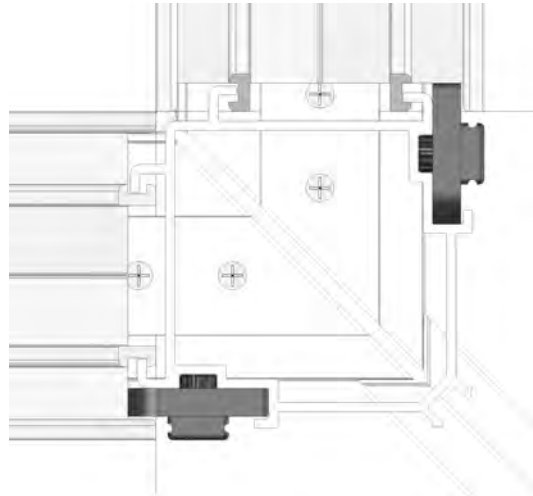


Rotate the quarter turn button (C105) 90° and the quarter turn button (C105) will 'click' into position.

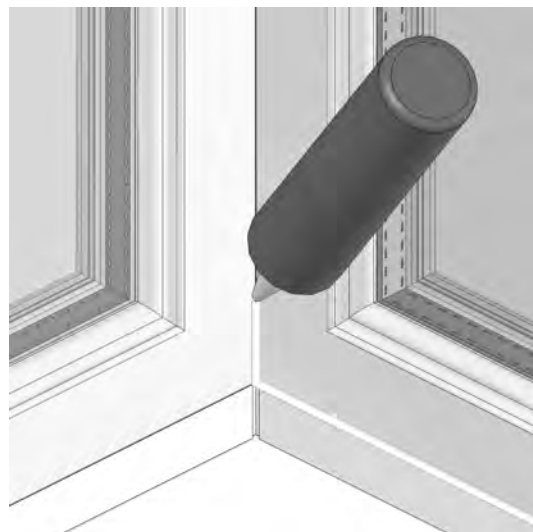


Repeat the process on the second outer side of the 90° corner post (A109).

Eight quarter turn buttons (C105) per face of the 90° corner post (A109) should be attached to the 90° corner post (A109) as shown below.

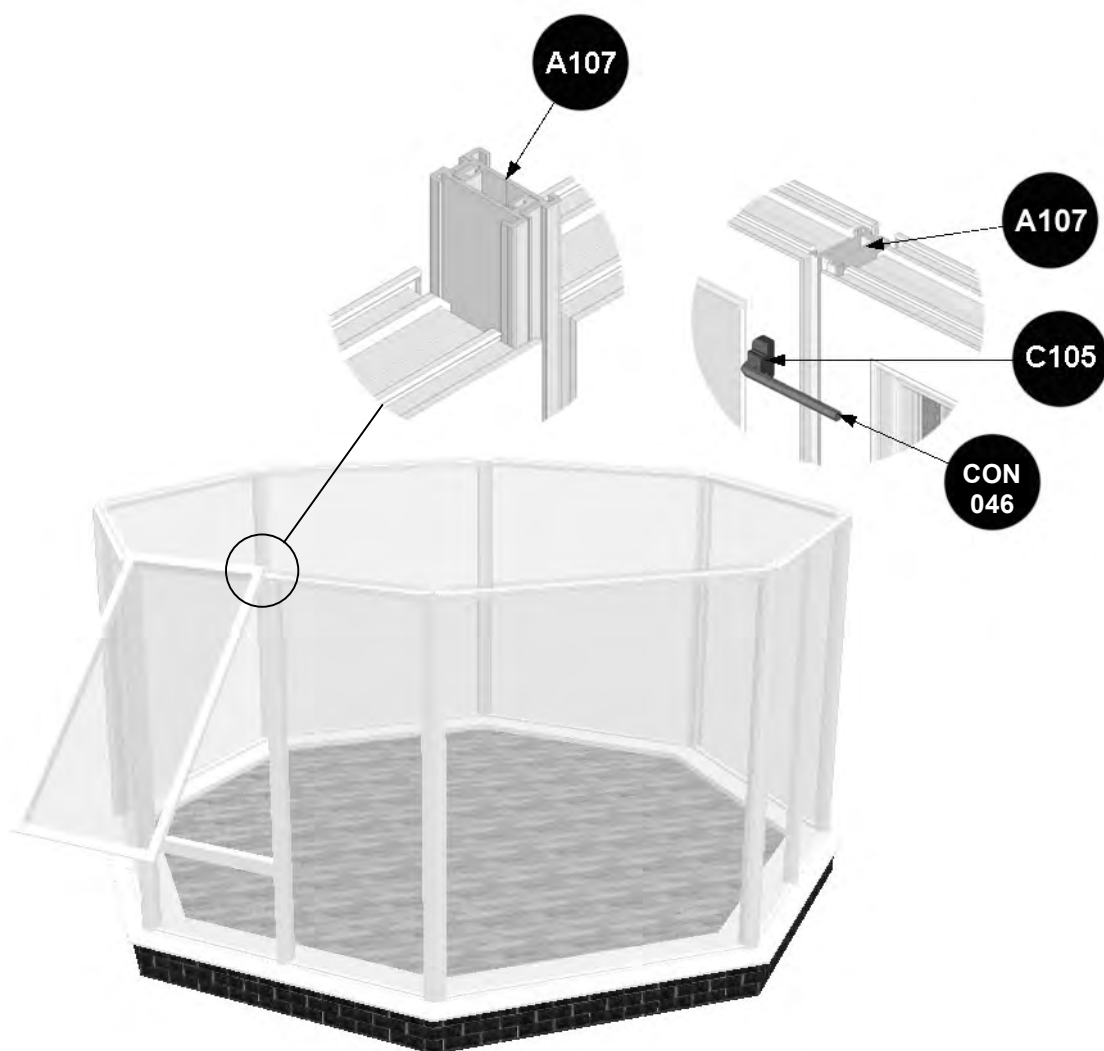


When both windows connected to the 90° corner post (A109) are in position, silicone seal the vertical joint between them to prevent water ingress. It is also recommended that you ensure the joint between the bottom edge of the window and the sill is also sealed.



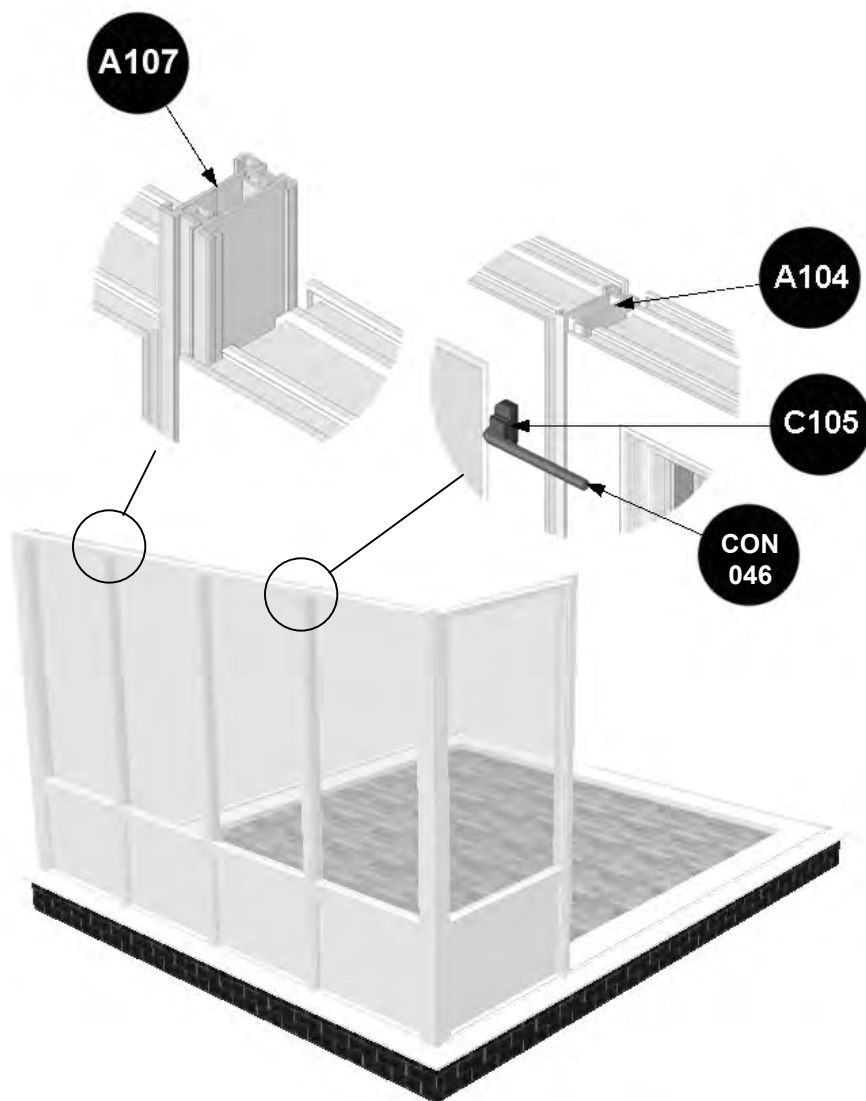
**3i – OCTAGONAL GARDEN BUILDING WINDOWS IN A RUN COMPONENT REFERENCE**

Item No	Item Description	Comments
C105	Quarter Turn Button	
C106	Sill Support Block	Pre-assembled
CON046	6mm Allen Key	
A107	Adjustable Inline Coupling	
SC045	70mm Fixing Screw	



## 3ii – RECTANGULAR GARDEN BUILDING WINDOWS IN A RUN COMPONENT REFERENCE

Item No	Item Description	Comments
A104	18mm Inline Coupling	
C105	Quarter Turn Button	
C106	Sill Support Block	Pre-assembled
CON046	6mm Allen Key	
A107	Adjustable Inline Coupling	
SC045	70mm Fixing Screw	





Select the window to fit against the previously installed window. **It is imperative that the drain slots in every window are located at the bottom of the window and facing front as shown below.**

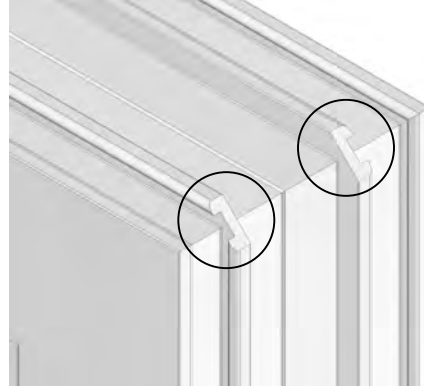
**Please also note that two sill support blocks (C106) are attached to the bottom of the windows also shown below.**



Before installation commences check each window for any defects such as scratches or bowing. If you find any defects please follow the complaints procedure highlighted at the front of this manual.

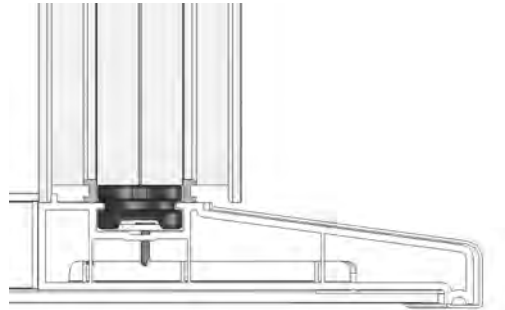
You will notice that each window corner has the inner legs on the window detail notched away. It is imperative that this detail is present to ensure that all 18mm inline couplings (A104) can slide into position. The notch detail is highlighted at the top of the next column.

**Please note: Any slight bow in the windows will be corrected as the window connectors are slid into position.**



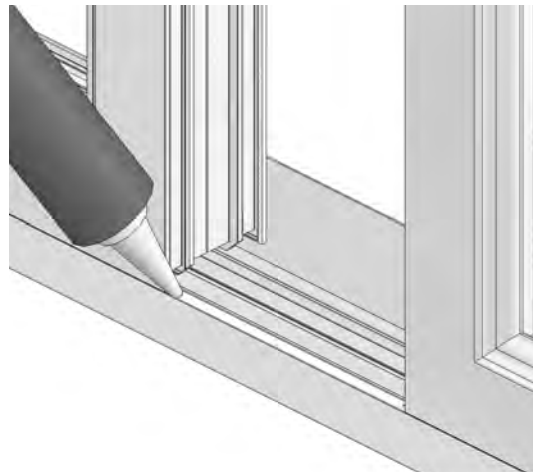
### Fitting the Intermediate Window

Check that the 150mm sill (P106) is clear of dust or dirt then line up the sill support blocks (C106) with the milled out sections at the end of the 150mm sill (P106).

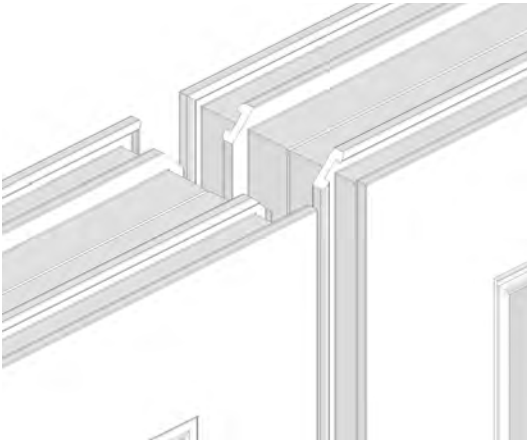


Position the window onto the 150mm sill (P106) and slide towards the first window.

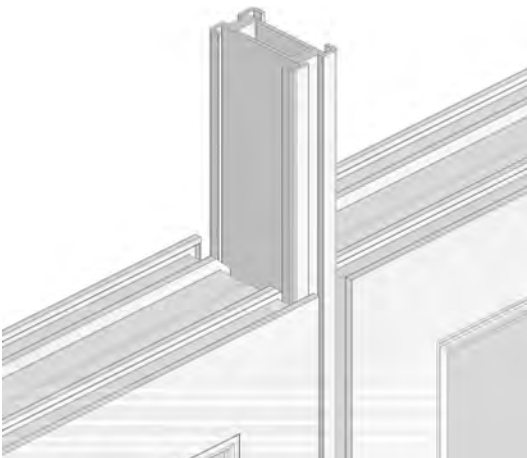
Prior to the positioning of the window into its final place, apply a bead of silicone to the top of the 150mm sill (P106) and inline with the rear face of the 150mm sill (P106).



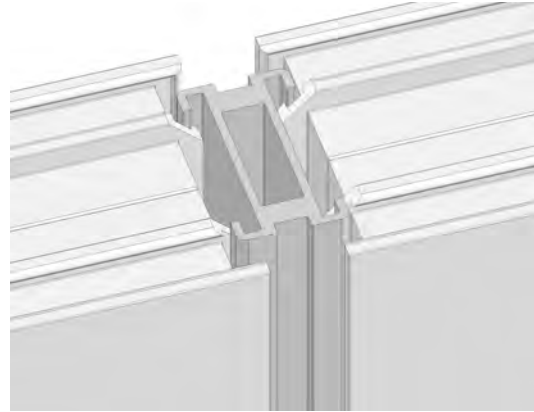
The window is slid along the 150mm sill (P106) until it is approximately 18mm away from the first window to be installed.



Take an 18mm inline coupling (A104) and slide it downwards into the gap between the two windows until it rests on the 150mm sill (P106) at the foot of the window.



**IMPORTANT:** As the 18mm inline coupling (A104) is being positioned, check that the legs on the 18mm inline coupling (A104) interlock with the leg detail on the windows as shown at the top of the next column.



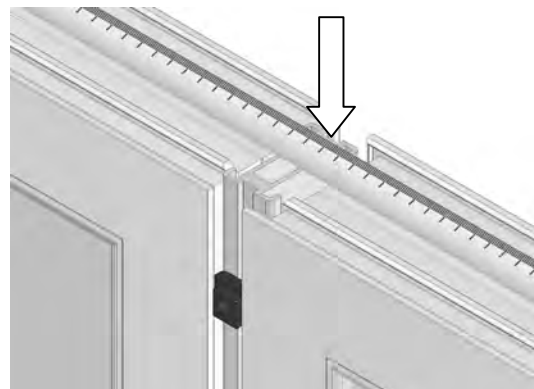
### Adjustable Connectors

If your conservatory model is the Octagonal Garden Building model all the inline window couplings will be *adjustable* ones. Similarly, if your conservatory model is the Rectangular Garden Building the last two windows in every straight run will be joined by the same *adjustable* inline couplings (A107).

These adjustable inline couplings (A107) allow for adjustment to ensure that the windows will finish in the correct position at the end of a run of windows when connecting to a corner post.

Due to the way that the windows are manufactured any adjustments you *may* need to undertake will be to *increase* the 18mm gap between two adjacent windows.

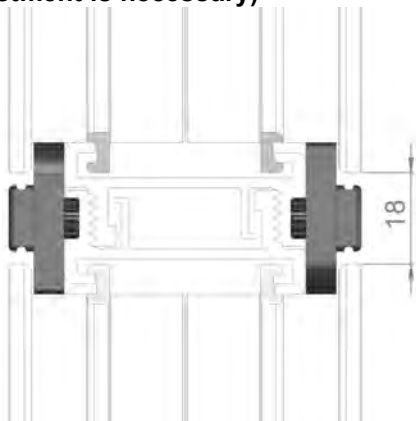
After the windows has been assembled along a straight run of windows, it is recommended to check the dimension from corner post (A109/A115) to the centre line of the previous 18mm inline coupler (A104).



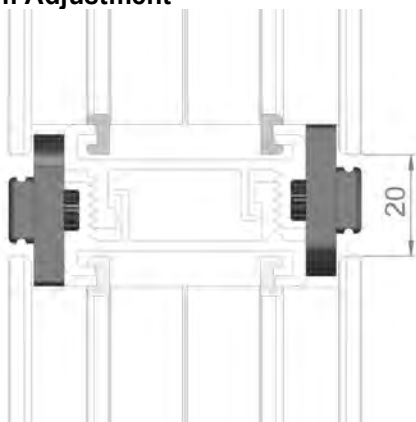
Check this dimension by referring to your roof plan. This will tell you whether your windows are still set at the correct increments or require adjustment.

The two halves of the adjustable inline couplings (A107) slide together in 3 variant positions as shown below and should be interlocked prior to assembly.

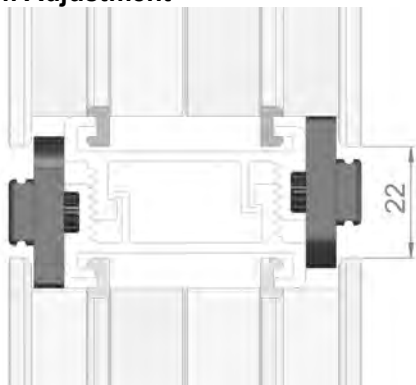
**18mm Adjustment (if no further adjustment is necessary)**



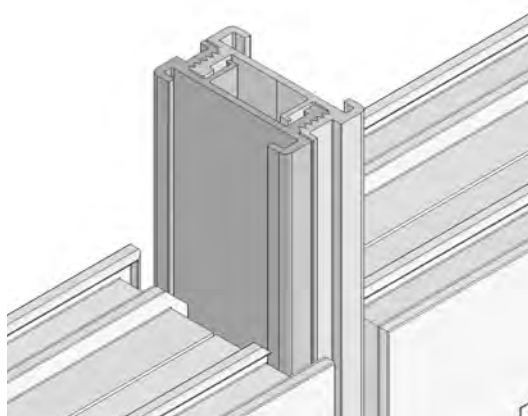
**20mm Adjustment**



**22mm Adjustment**



When the adjustable inline couplings (A107) are interlocked to the required setting they are slid between the two adjacent windows in the same way as the 18mm inline couplings (A104).



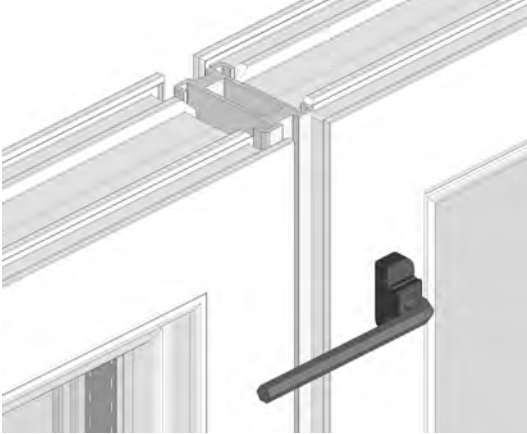
**Remember to silicone seal around the bottom of the 18mm inline coupling (A104) when in position.**



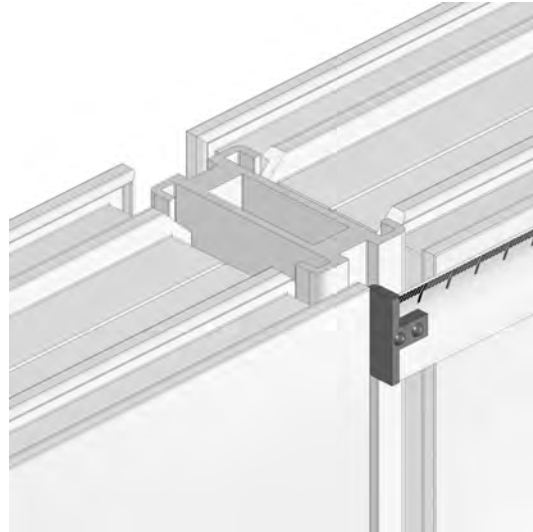
Select a quarter turn button (C105) and the 6mm Allen key (CON046).



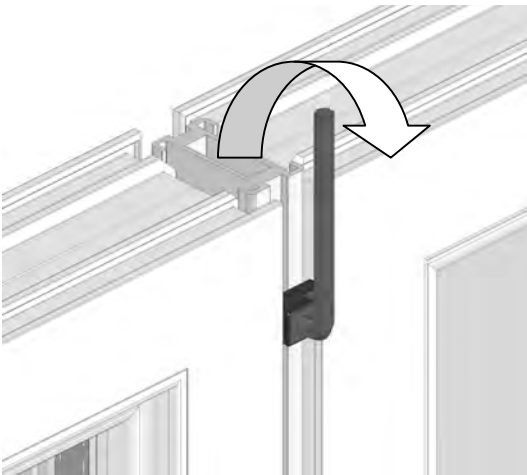
The quarter turn buttons (C105) are positioned longitudinally into the gap between the windows and approximately 50mm from the top and bottom faces of the window.



A quick check between the two windows should show 18mm.



When the quarter turn button (C105) is in position and resting against the 18mm inline coupling (A104), turn the 6mm Allen key (CON046) 90° clockwise. The quarter turn button (C105) will 'click' into position.



An application of silicone should be made to the 150mm sill (P106) where the 18mm inline coupling (A104) has made contact.

Continue the entire process for all windows and 18mm inline couplings (A104).

Continue to fit the rest of the quarter turn buttons (C105) into the 18mm inline coupling (A104) as described.

Six quarter turn buttons (C105) per face of the 18mm inline coupling (A104) should be attached on dwarf wall models inside and out, and eight quarter turn buttons (C105) per full height model conservatory, again eight inside and eight on the outside.

### Fitting Double Door Outer Frames

**The double door outer frame is the last framee to be fitted.**

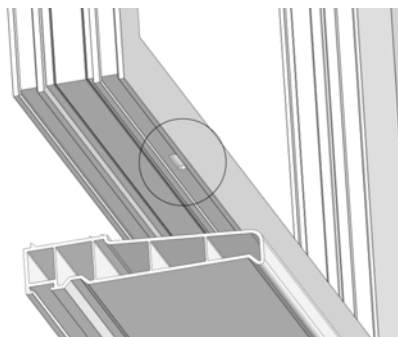
If already assembled, remove the double door sashes from the outer frame.

Ensure that the outer frame is positioned correctly by checking the following;

*The flag hinge socket is on the outer face of the double doors,*



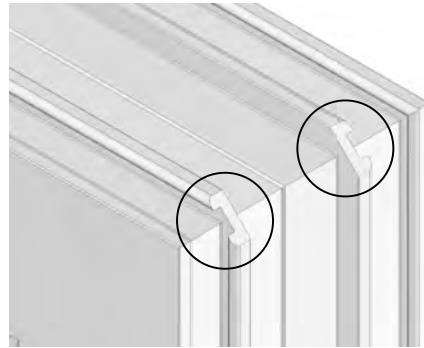
*and the drain holes are at the bottom of the frame. You will also notice that the sill support blocks (C106) will be absent from the bottom face of the double door outer frame.*



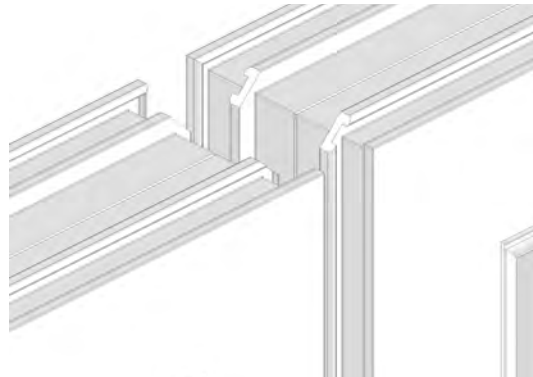
The windows are permanently fixed together in the same way as any other window using the quarter turn buttons (C105) and the 6mm Allen Key (CON046) as described previously.

The double door outer frame is positioned like all other windows with the exception that it is not slid onto the 150mm sill (P106) but simply placed into position.

Again, check that the inner legs on the outer frame window detail are notched to allow the 18mm inline couplings (A104) to interlock with the windows as indicated below.

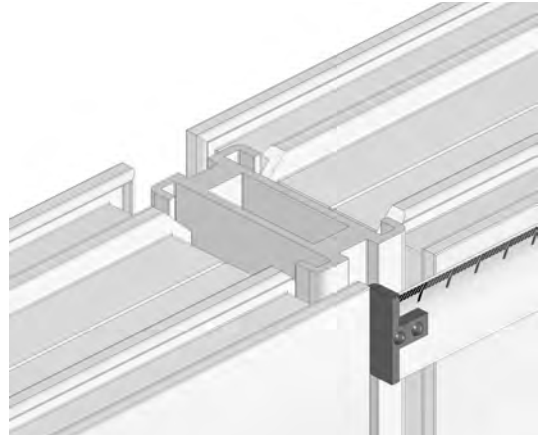


When the double door outer frame is in position on top of the 150mm sill (P106) the gap between the adjacent window and the door outer frame is approximately 18mm.



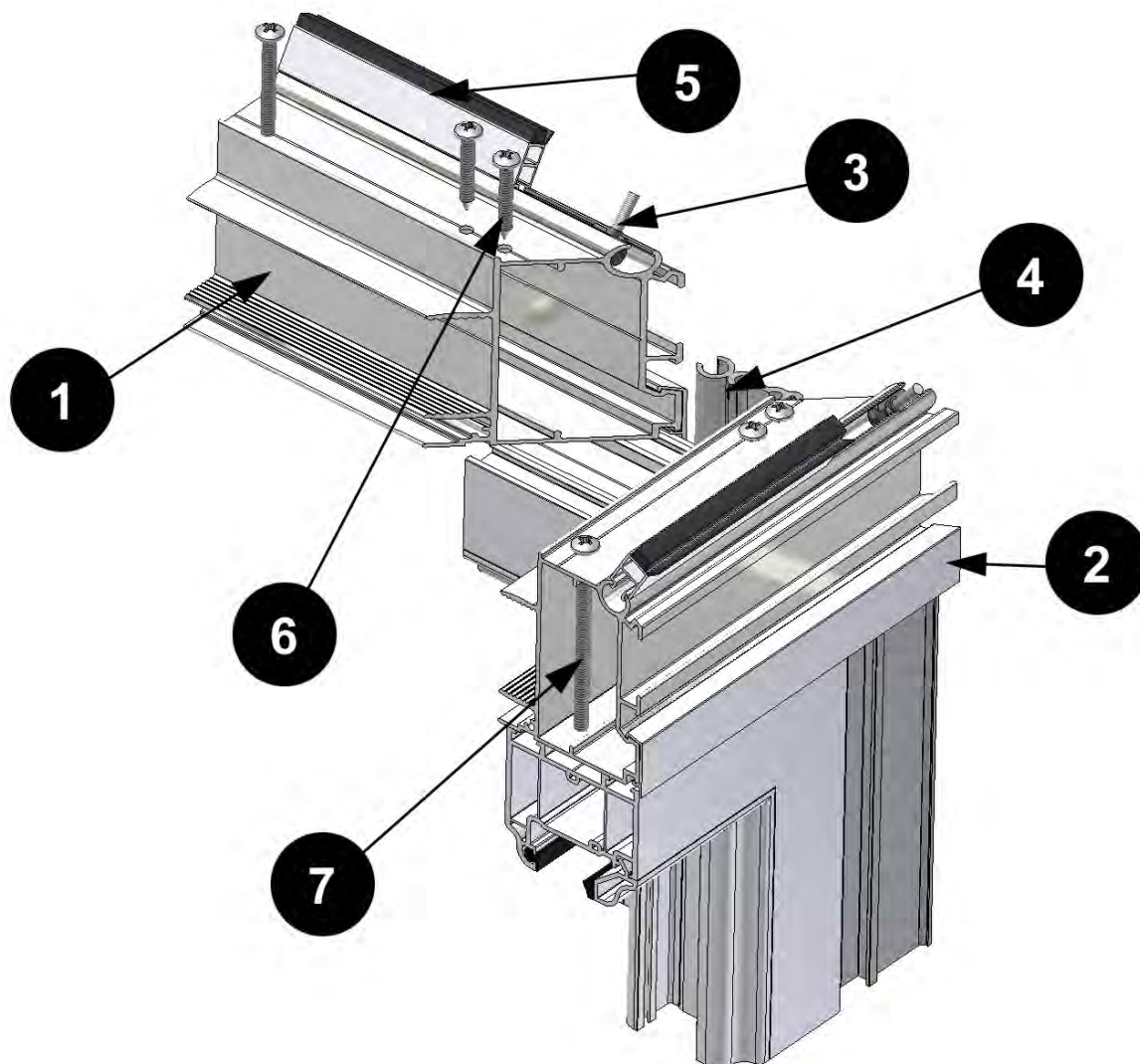
Continue to lock the window in place by the method as previously described.

A quick check between the two windows should show 18mm.



**4 - EAVES BEAM COMPONENT REFERENCE**

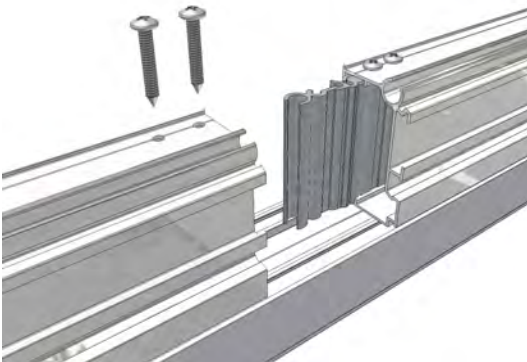
Item No	Item Description	Part Number
1	Eaves Beam	A5080
2	Eaves Beam External Trim	P6024
3	Pivot Bolt Assembly	C9144
4	Eaves Beam Connector	C9068
5	Eaves Beam Closure	P6056
6	6.35 x 38mm Eaves Connector Screw	C9132
7	6.0 x 120mm Yellow Eaves to Frame Screw	SK007



It is recommended at this point to re-check the internal window frame dimensions (width and projection) and check the measurements across the internal corners (these should be the same).

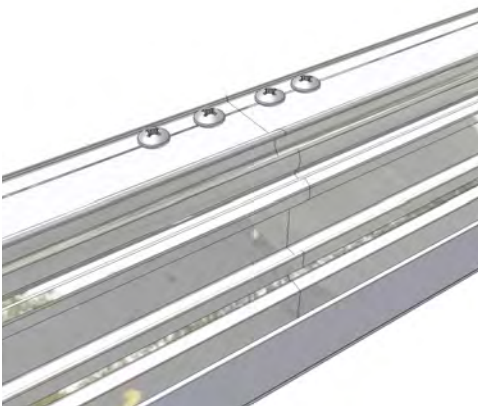
On large models the eaves beam (A5080) may be in two pieces. These are joined using the inline eaves beam joiner (C9068) which joins the two pieces of eaves beam (A5080) together as shown below.

One end of the eaves beam inline joiner (C9068) is already fixed to one of the eaves beams (A5080), the other piece of eaves beam (A5080) is pre-drilled and positioned over the eaves beam inline joiner (C9068).



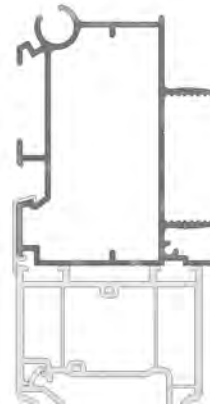
When in position, the eaves beam inline joiner (C9068) is fixed using the 6.35 x 38mm silver screws (C9132) through the pre-drilled holes.

Four 6.35 x 38mm silver screws (C9132) are required to join the eaves beam inline joiner (C9068) to the eaves beams (A5080).



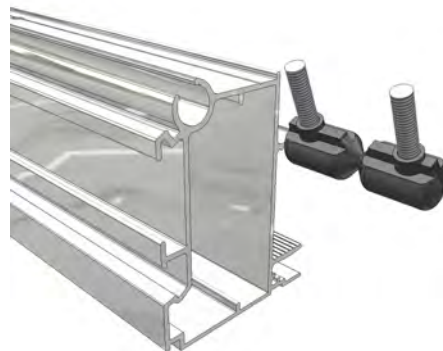
Attach the eaves beam external trim (P6024) onto the front of the eaves beam

(A5080) as shown remembering to remove the protective film on the outer frame.



Position the eaves beam (A5080) centrally on top of the windows. When positioned correctly the front face of the eaves beam (A5080) will sit flush with the front face of the windows below.

Slide the eaves beam bolt retainers (C9144) complete with M5 x 25mm bolts into the eaves beam (A5080). To calculate how many bolt retainers (C9144) are required refer to your roof plan.

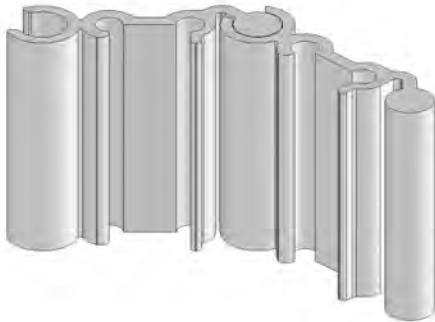


**Please note:** One double bolt retainer is required per spar however a single bolt retainer is required for each starter spar and either side of the eaves beam corners.

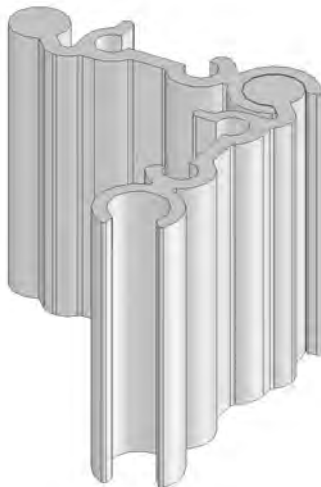


The eaves beam (A5080) pieces will also require joining at the corners. These are joined using two eaves beam connectors (C9068).

The 135° angled corners on the Octagonal Garden Building models are joined by slotting the eaves beam connectors (C9068) together as shown below and slid into the channels on the inside of the eaves beam (A5080).



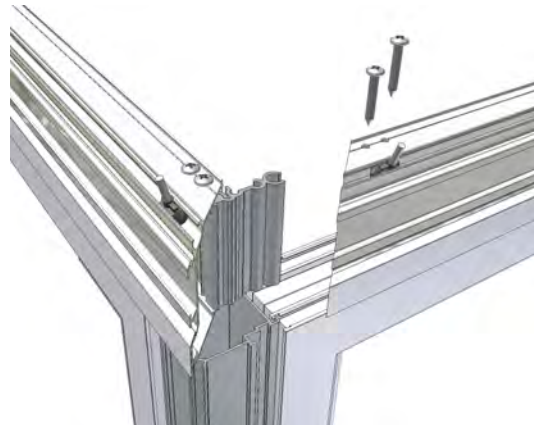
The 90° angled corners on the Square Garden Building are joined by slotting the eaves beam connectors (C9068) together as shown below and slid into the channels on the inside of the eaves beam (A5080).



Prior to joining the eaves beam (A5080), apply a bead of silicone to the mitred cut faces as shown below.



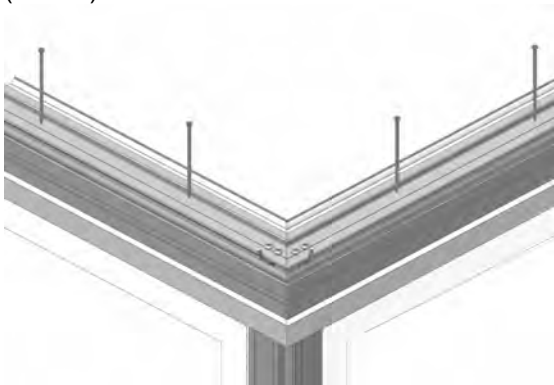
The eaves beam connectors (C9068) are fixed into position by use of the 6.35 x 38mm silver screws (C9132) through the pre-drilled holes.



When all the eaves beams (A5080) are assembled on top of the windows, drill through the eaves beam only with a long reach 6mm drill at positions which are 100mm from the edge of each window (i.e. two holes per window position).

**Please note: The first holes from each end of the eaves beam (A5080) should be positioned at 200mm to ensure that the 6.0 x 120mm yellow screw attaches into the window frame rather than the corner post.**

Power drill the 6.0 x 120mm yellow screws down through the holes in the eaves beam (A5080).

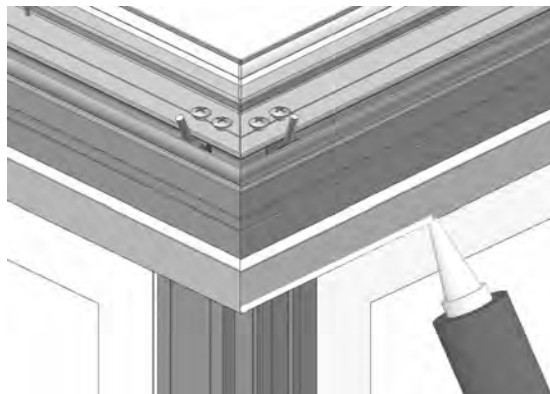


Do not use the 6.0 x 120mm yellow screws to fix the eaves beam (A5080) to the double door outer frame.

For the attachment of this frame use four 70mm fixing screws (SC045) as used to attach the double door outer frame to the 150mm sill (P106), pre-drilling upwards from inside the Double door outer frame and up into the eaves beam (A5080) as shown.

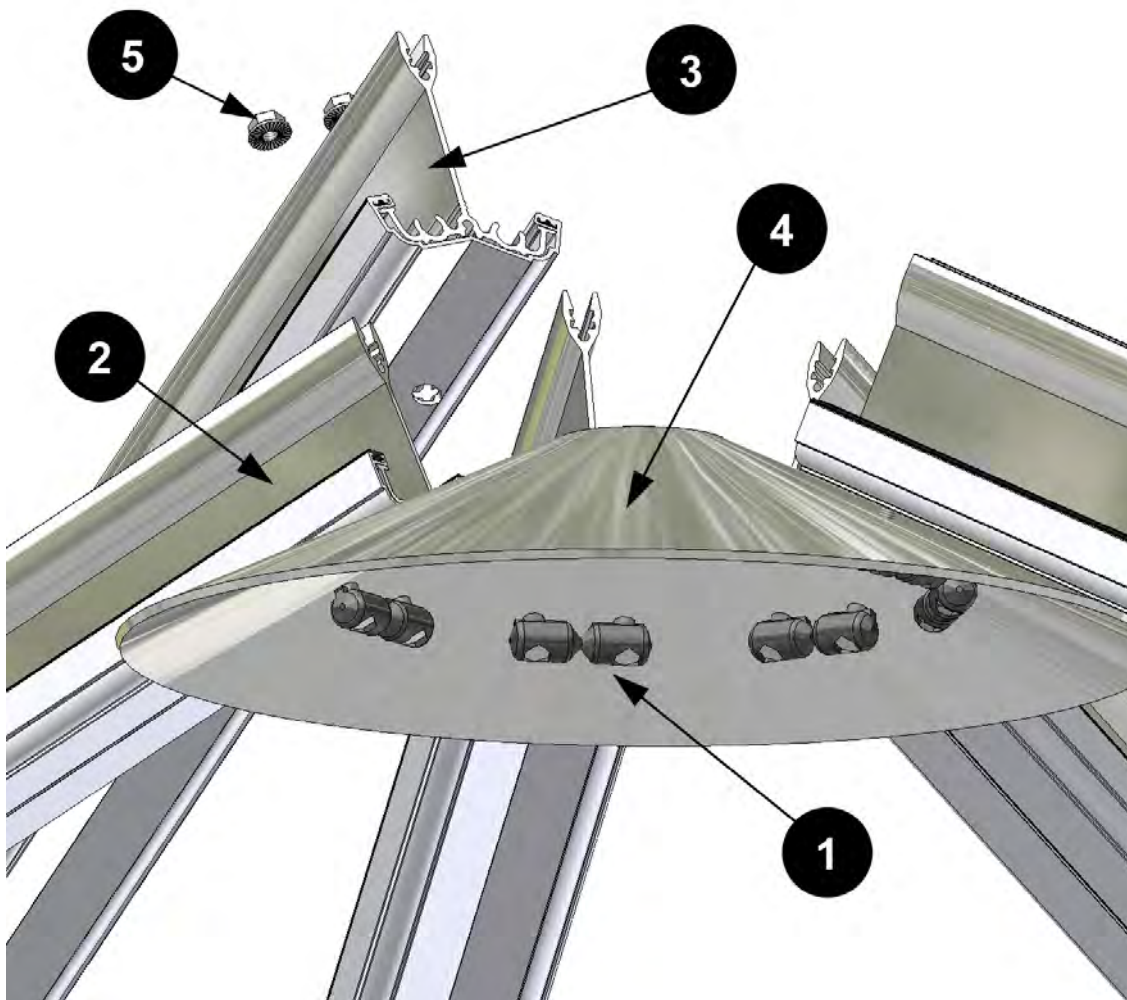


Silicone seal the gaps between the front of the eaves beam external trim (P6024) and the front of the windows to create a water-tight seal.



**5i – OCTAGONAL GARDEN BUILDING RIDGE COMPONENT REFERENCE**

Item No	Item Description	Part Number
1	Pivot Bolt Assembly or M5 x 20mm Roofing Bolt	C9144/C8017
2	Transom Glazing Bar	-
3	Victorian Hip Bar	-
4	25° Gazebo Boss	C9026
5	M5 Flange Nut	-

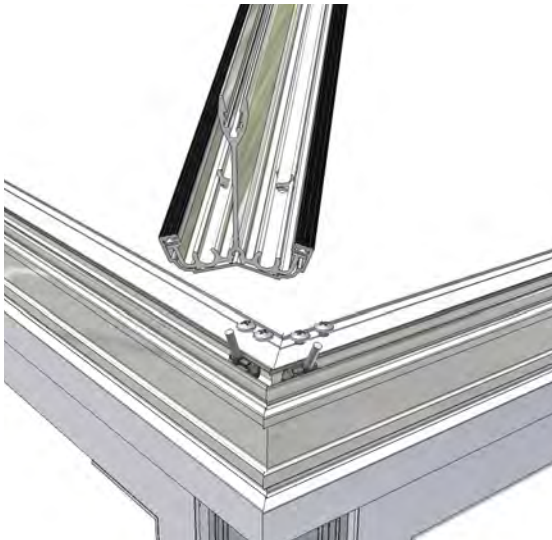


It will be easier to assemble the transom and Victorian hip bars if all the M5 flange nuts are removed from the double bolt retainers (C9144) in the eaves beam (A5080) and kept about your person for use as and when you require them.

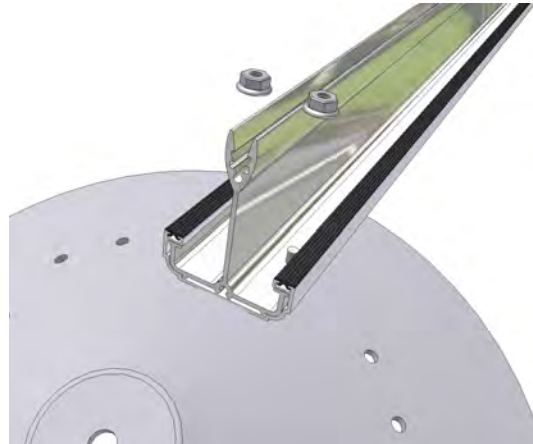
### **Double Bolt Retainer**



Temporarily supporting the gazebo boss (C9026) in the correct position. Slot the holes at the bottom of the Victorian hip bar over the M5 x 25mm bolts located in the single bolt retainers which sit either side of the eaves beam corner.



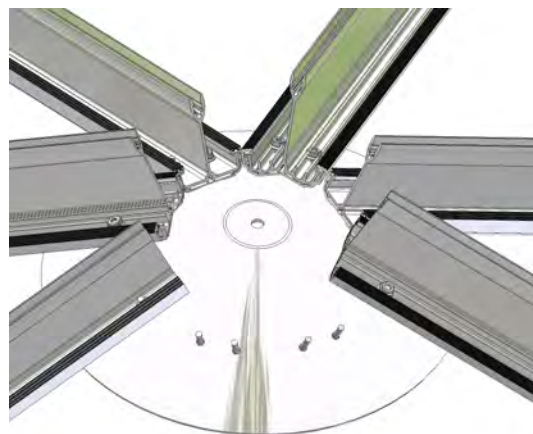
From the underside of the gazebo boss (C9026) pass a double bolt retainer (C9144) through the corresponding holes in the boss and the Victorian hip bar. **(Please note that M5 x 20mm roofing bolts (C8017) may have been provided as an alternative fixing).**



Repeat this procedure until all the Victorian hip bars are attached to the eaves beam (A5080) and the gazebo boss (C9026).



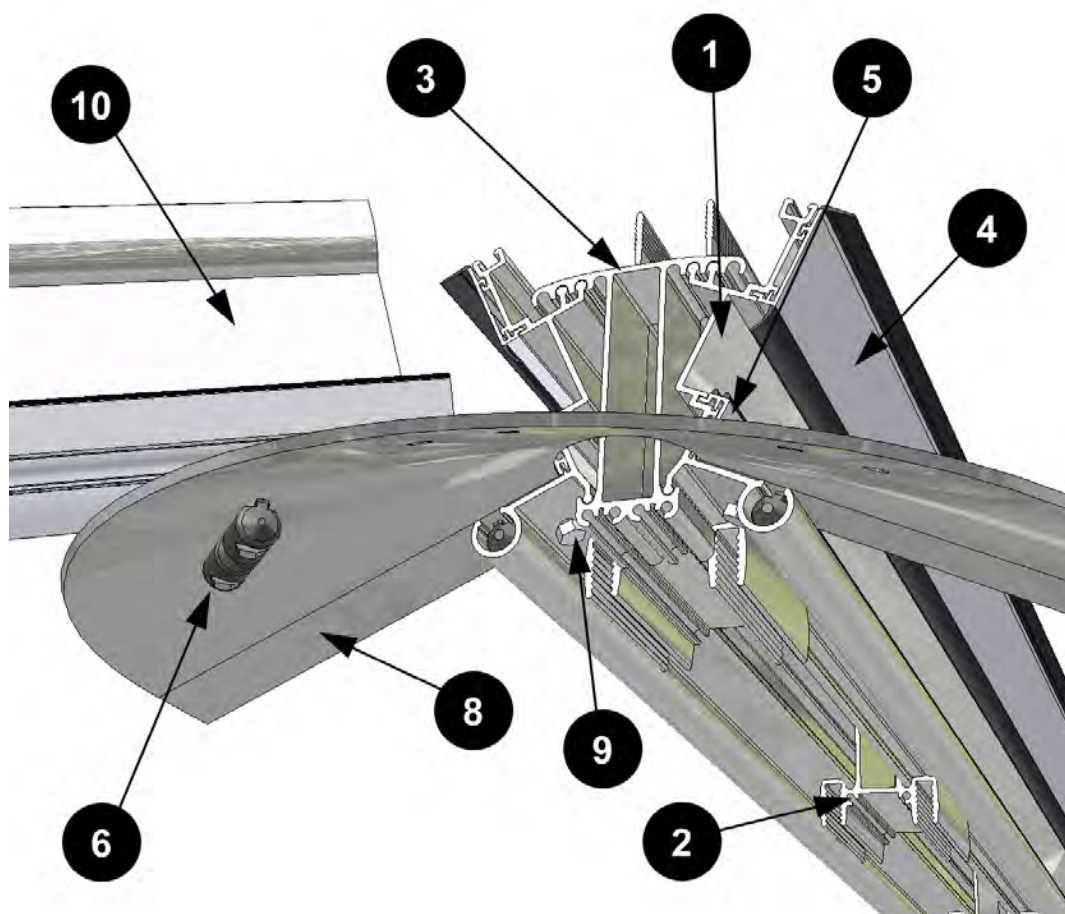
Secure all bolts at the eaves and gazebo boss using the M5 flange nuts.





**5ii – SQUARE GARDEN BUILDING RIDGE COMPONENT REFERENCE**

Item No	Item Description	Part Number
1	Universal Ridge Wing	A5081
2	25mm Standard Ridge Centre	C9019
3	25mm Ridge End Centre	C9061
4	Top Cloaking Trim	P6031
5	Bottom Cloaking Trim	P6028
6	Pivot Bolt Assembly or M5 x 20mm Roofing Bolt	C9144/C8017
7	M5 Flange Nut	-
8	25° Mini Boss End	C9170
9	M5 x 25mm Bolt	C9142
10	Georgian Hip Bar	-
11	Transom Glazing Bar	-



Referring to your roof plan, select the correct number of bolt retainers (C9144) complete with M5 x 25mm bolts (C9142) and slide into the channels of the universal ridge wings (A5081).

To identify the glazing bar positions for your conservatory, refer to your roof plan, where the first glazing bar (marked as P1) is always located at the top left of the diagram. The glazing bars can then be counted anti-clockwise around the layout. Please note: all glazing bars must be counted in sequence. These will then correspond to the numbering on the glazing bar assemblies.

It will be easier to assemble the glazing bars if all the M5 flange nuts are removed from the double bolt retainers in the eaves beam and the universal ridge wings, and kept about your person for use as and when you require them.



Select the mini boss end (C9170) for attachment to the universal ridge wings (A5081).

It is easier if both the mini boss ends (C9170) are assembled to the ridge before you lift the ridge assembly into position for installation.

The mini boss ends are connected to the universal ridge wings by use of a single bolt retainer and a separate single bolt attached to each universal ridge wing.

### Connecting Boss Ends

Select a single bolt retainer and a separate bolt without the retainer as shown.

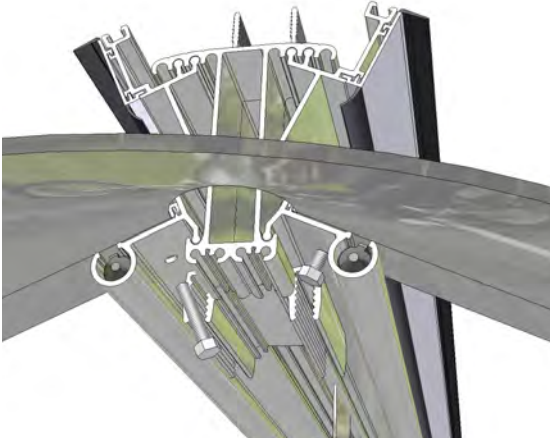


Slide a single bolt retainer into both of the universal ridge wings.

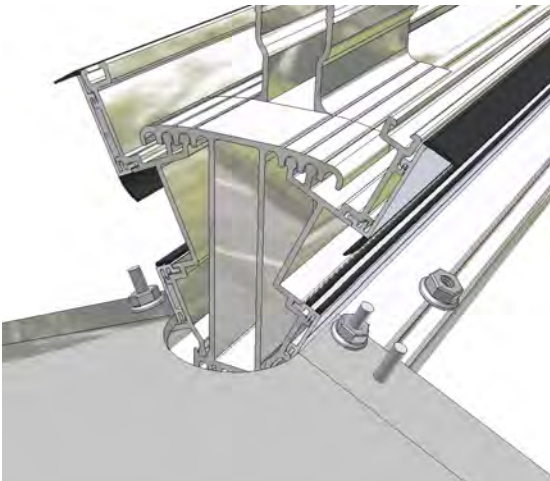
Locate the mini boss end (C9170) over the single bolt retainer located in both of the universal ridge wings.



Once the boss end (C9170) is in position, locate the separate bolt through the predrilled hole in the underside of the universal ridge wing ensuring that the bolt passes through the hole in the boss end.

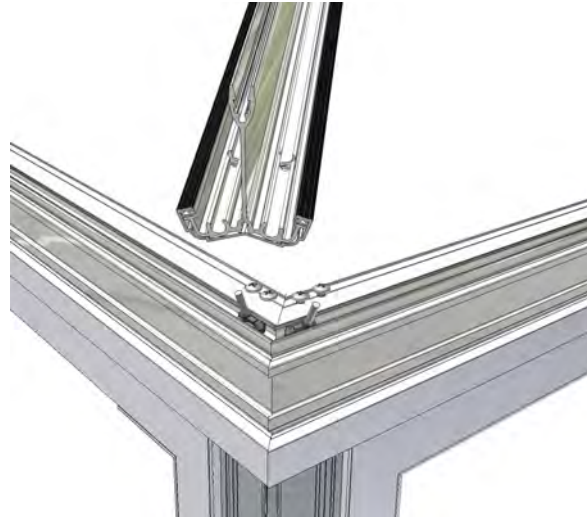


Permanently fix in place by use of a M5 flange nut.

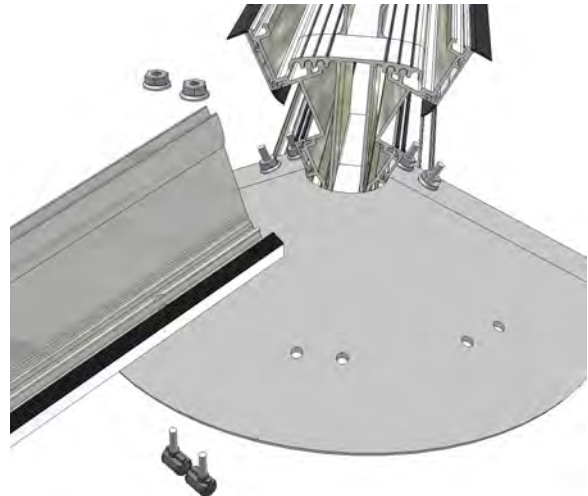


Start the ridge assembly by attaching the Georgian hip bars to the boss end (C9170). These are the glazing bars which run diagonally from the corners of the eaves beam (A5080) to the mini boss ends (C9170).

Temporarily support the ridge assembly in the correct position. Slot the holes at the bottom of the Georgian hip bar over the M5 x 25mm bolts located in the single bolt retainers that sit either side of the eaves beam corner.



Now locate a double bolt retainer from underneath the boss end and through the holes.



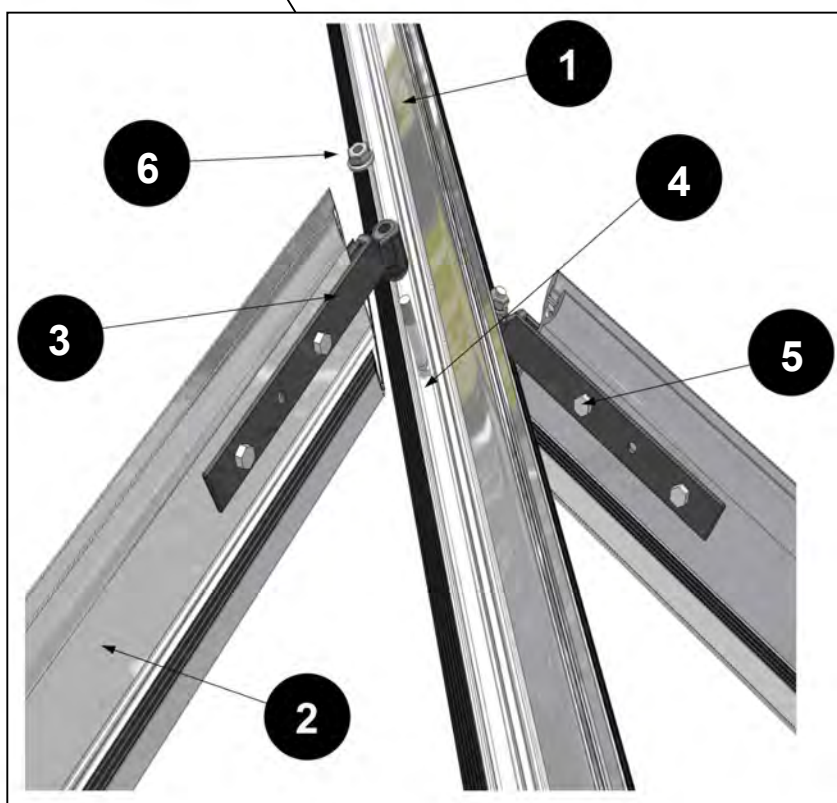
Slot the top of the Georgian hip bar over the double bolt retainer and loosely attach the M5 flange nut, but do not fully tighten at this stage. Repeat for the Georgian hips on the opposite ridge wing.

Once the rear Georgian hip bars are in position, fit the front ones.

Once completed, with the four Georgian hip bars in position, the ridge is self supported and additional roof checks to ensure the build is plumb and level should be carried out.

**6 – SQUARE GARDEN BUILDING INTERMEDIATE SPARS COMPONENT REFERENCE**

Item No	Item Description	Part Number
1	Georgian Hip Bar	-
2	Transom Jack Rafter Glazing Bar	-
3	Jack Rafter Bracket Kit	C9196
4	Domed Bolt	C9165
5	M5 x 16mm Hex Head Set Screw & Nut	C9244
6	M6 Flange Nut	-

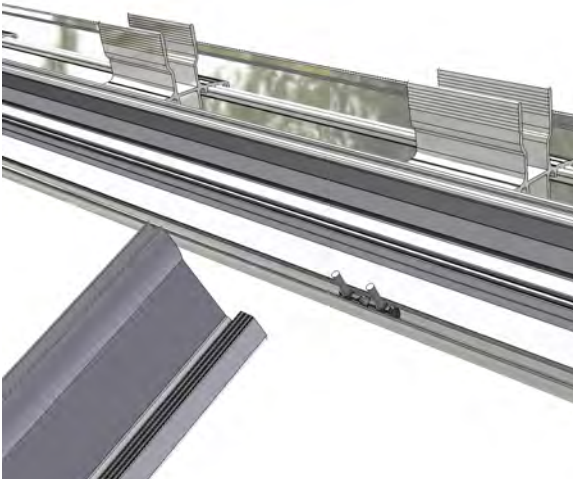




The transom glazing bars need to be installed next.

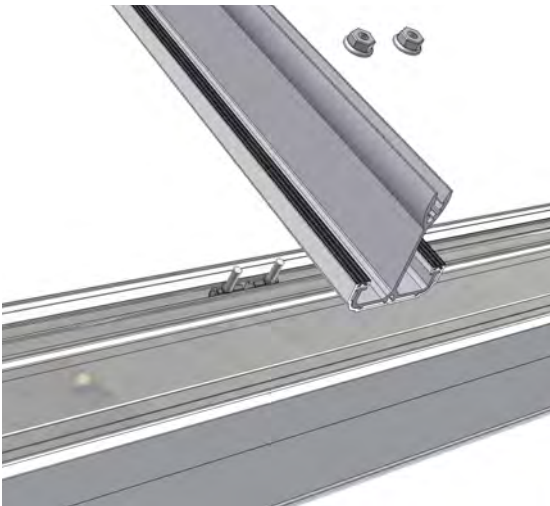
Start with any glazing bars that connect to the 25° pitch ridge.

After removing the protective film from the glazing bar under cladding slot the transom glazing bar holes over the M5 x 25mm bolts in the double bolt retainers located in the ridge.



Repeat for the holes at the bottom of the transom glazing bars which connect to the M5 x 25mm bolts in the double bolt retainers located in the eaves beam. Loosely thread on the M5 flange nuts. Do not tighten at this stage.

Repeat for any more transom glazing bars that connect to the 25° pitch ridge.



### Jack Rafters

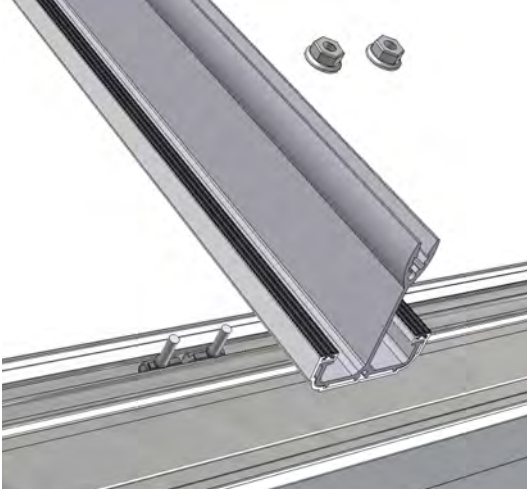
The final set of glazing bars, the jack rafters need to be fitted. The jack rafter glazing bars have tops which are cut at an angle and when in position will run perpendicular from the eaves beam until they meet and attach to the Georgian hip glazing bar.

Before attaching the jack rafter, slide the jack rafter glazing bar under cladding down and away from the top end of the jack rafter. REMEMBER to remove the protective film.

If not already fitted, locate a domed bolt (C9165) into the jack rafter bolt slot which is located runs the entire length of the Georgian hip bar. Locate the jack rafter arm (C9166) onto the domed bolt and loosely attach the M6 flange nut. Do not tighten.



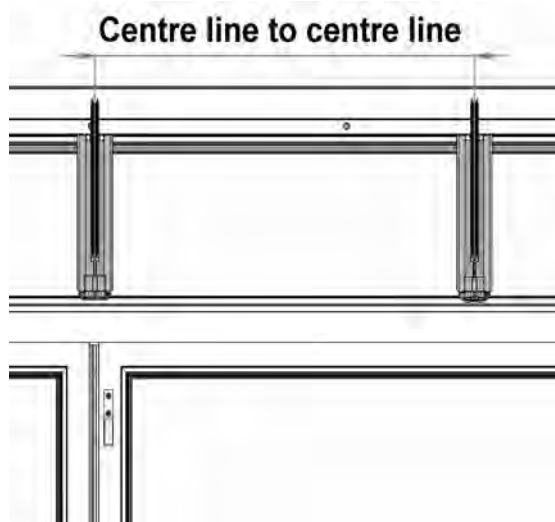
Slide the undercladding back to the top of the jack rafter and tight up against the Georgian hip undercladding. Locate the jack rafter onto the M5 x 25mm bolt in the eaves beam. Screw on the M5 locking nuts loosely. Do not tighten at this stage.



Prior to tightening **any** M5 locking nuts it is recommended that you perform some glazing bar position checks.

The positions of the intermediate transom glazing bars are confirmed by performing dimensional checks between the intermediate rafter centres.

These dimensions shown on your roof plan are taken from the centre line of the transom glazing bars. If all the glazing bars are correctly positioned, tighten the M5 locking nuts.



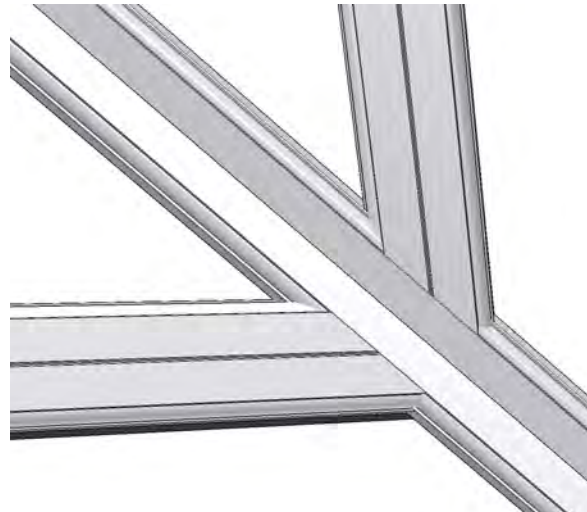
Now that all glazing bars are in position you must tighten all the M5 locking nuts which keep the glazing bars in place on the eaves beam.

Finish fixing the jack rafter glazing bars in position by use of the M5 locking nut onto the domed headed bolt locking the jack rafter arm.



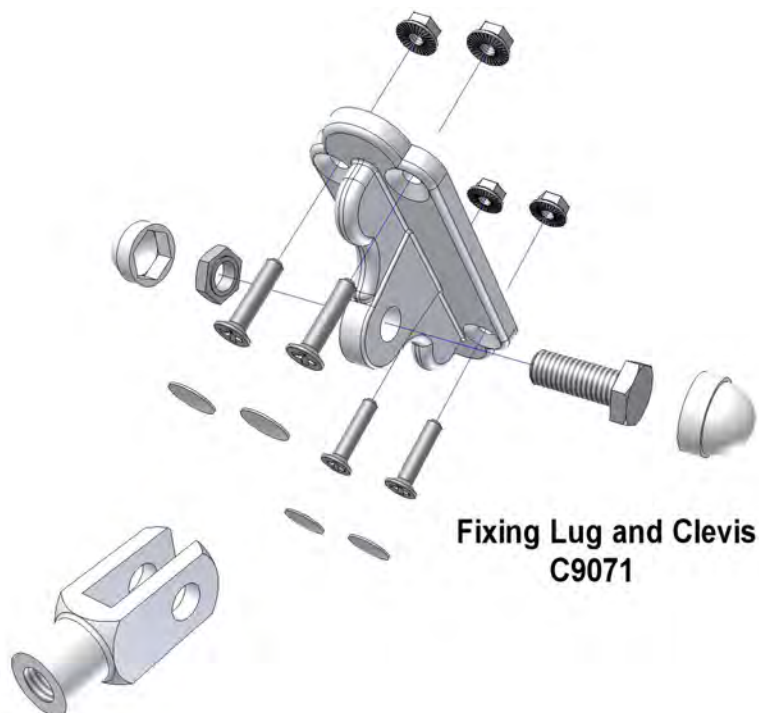
#### IMPORTANT NOTE

On the inside of the connection, thoroughly seal with silicone the joint between the aluminium jack rafters and the PVC Georgian hip undercladding.



**7 – SQUARE GARDEN BUILDING TIE BARS (Certain Models Only)**

Item No	Item Description	Part Number
1	Tie Bar Rods with nuts (3m)	C8005
2	3 Way Tie Bar Centre Boss Kit	C9069
3	Fixing Lug and Clevis Kit	C9071





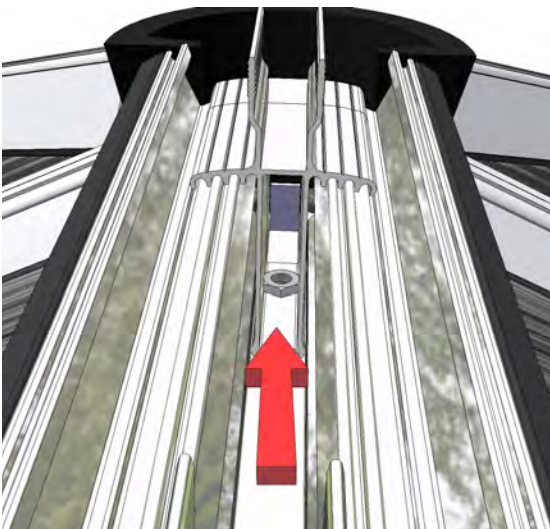
In most cases the tie bar kit is attached to the set of glazing bars that sit at the end of the ridge as shown below.



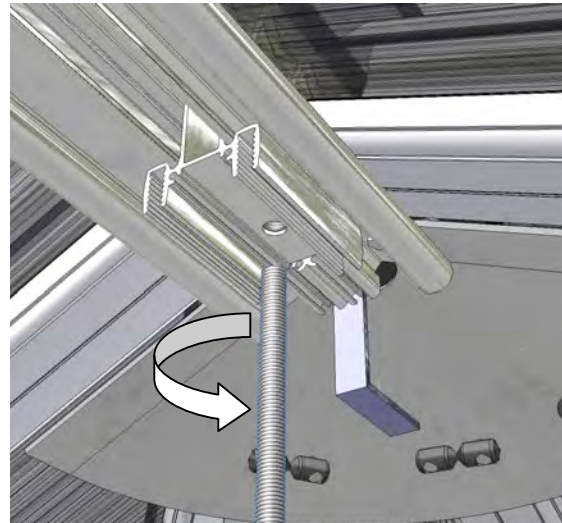
The lugs will be attached to the bottom of the relevant glazing bars where the tie bar is to be positioned. Three lengths of threaded tie bar rod and three lengths of conduit to cover the rod are supplied with each 3 way tie bar.

Two lengths run horizontal to the lug attached to the glazing bar and into the centre 3-way tie bar boss. The final threaded bar and conduit is fixed vertically into the ridge from the tie bar centre boss.

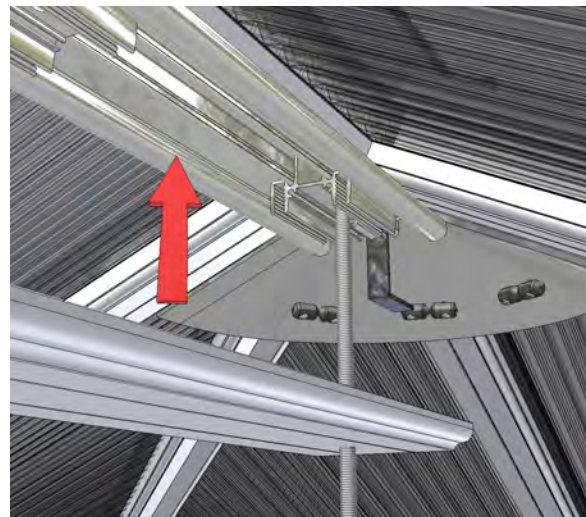
Firstly attach the vertical tie bar rod through the ridge. Slide a M10 fixing nut into the ridge centre over the pre-drilled hole.



With the locking nut in place screw the vertical tie bar rod into place, through the ridge centre and into the locking nut.

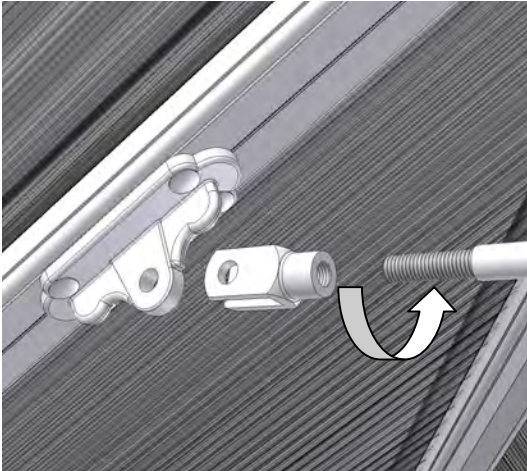


At this stage it is a good time to fit the ridge under cladding with the tie bar rod fitted in place. The ridge under cladding needs to be inserted and passed up the tie bar rod until it reaches the ridge centres and can be push fit onto the serrated prongs.

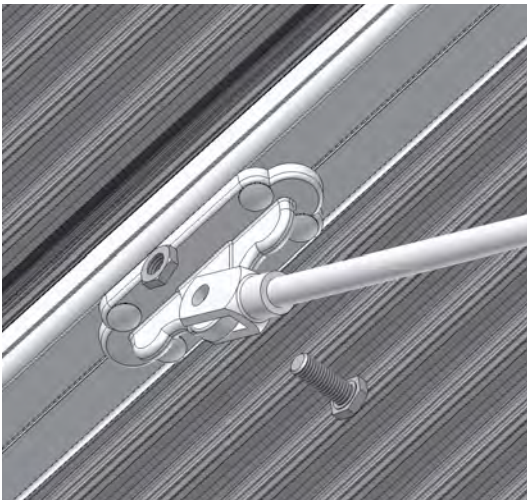


Thread the vertical tie bar conduit over the threaded bar and insert into the hole in the internal ridge cover. Leave the tie bar rod hanging down vertically from the ridge.

As the lug is already attached to the glazing bar, screw the horizontal threaded tie bar rod into the clevis.

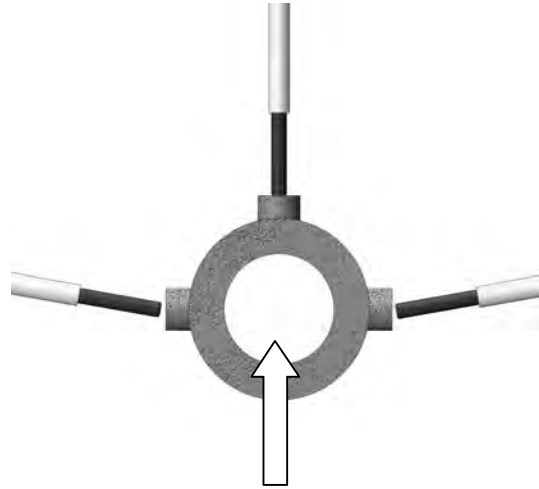


Once the rod has been attached to the clevis, the clevis can be fixed to the lug by means of the M10 nut and bolt. Attach both tie bar rods on the left and right sides of the conservatory in this way.

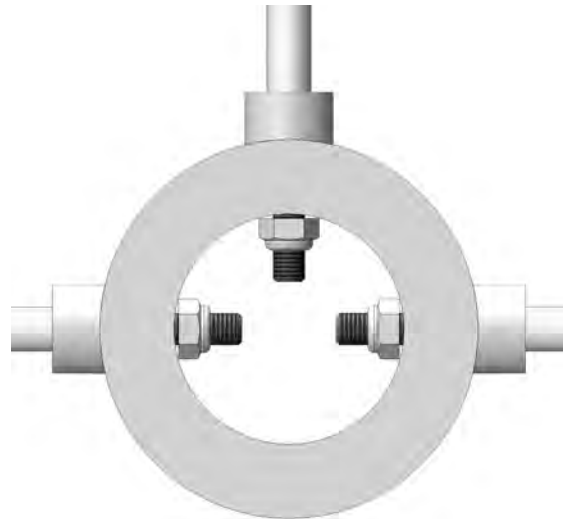


With the vertical tie bar rod and the two horizontal tie bar rods in place, raise them all together towards the centre and thread the ends of the tie bar rods through the holes in the 3 way tie bar centre boss.

Raise the tie bar centre boss until the three rods protrude into the boss.

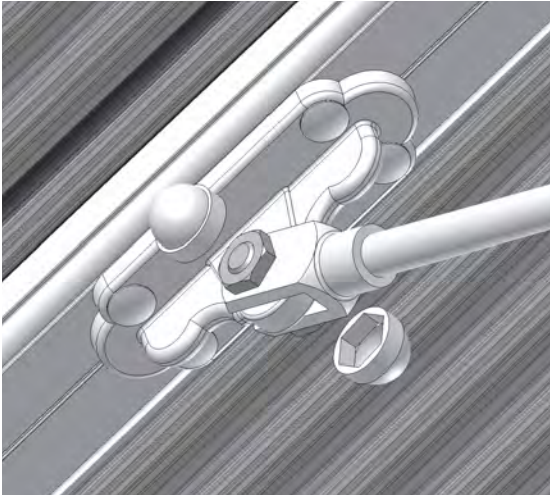


When the tie bar centre boss assembly is in place, thread on the M10 tie bar centre boss locking nuts. Check the horizontal tie bar rods for level before tightening the M10 tie bar centre boss locking nuts fully.



When all tie bar poles are in position and connected to all pole connectors, glazing bar lugs and ridge connection, you can now tighten the M10 tie bar centre boss locking nuts fully ensuring that the horizontal tie bar poles are tight fitting.

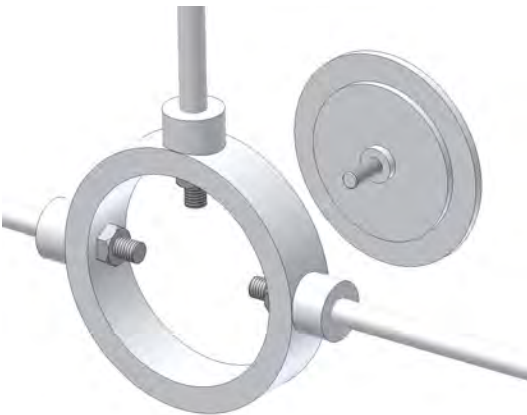
Now that all components are permanently fixed, push fit the bolt cover caps over the M10 x 30mm Nyloc nut and bolt.



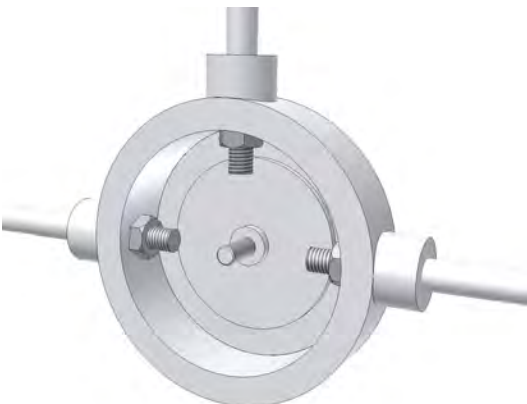
Position the remaining centre boss cover over the centre thread and rotate into position.



Select one of the tie bar boss covers and screw the centre thread into position.



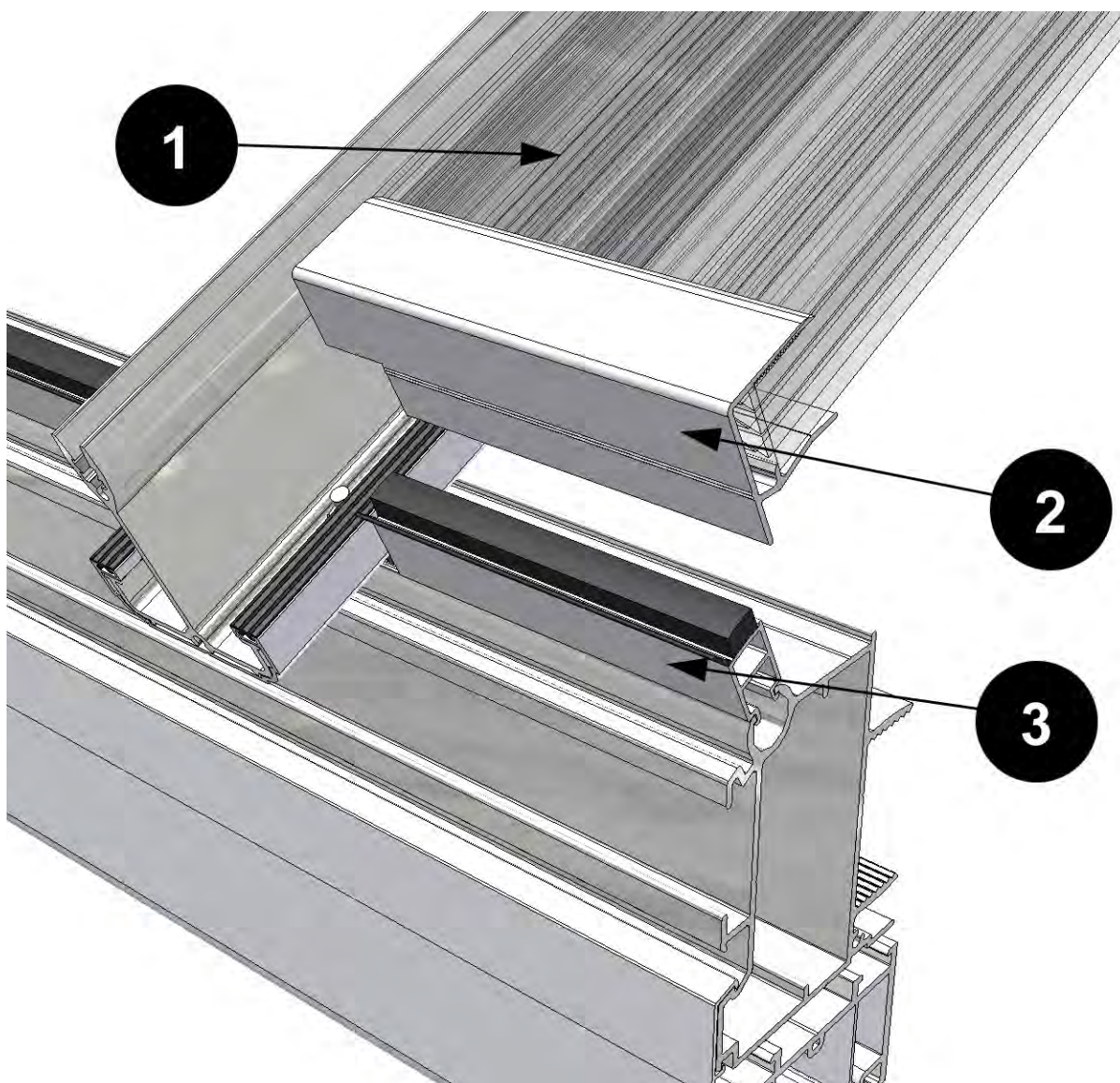
Position the tie bar cover on to the centre boss.



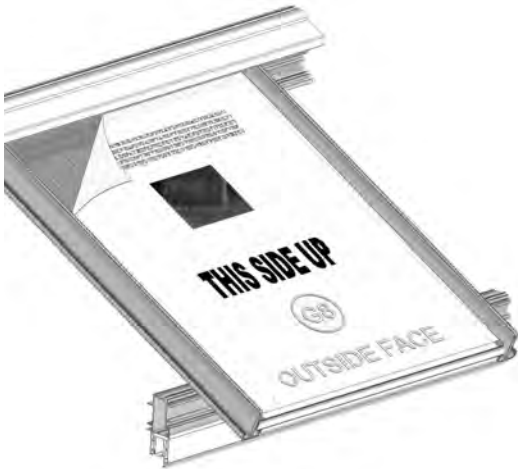


**8 – ROOF GLAZING COMPONENT REFERENCE**

Item No	Item Description	Part Number
1	Roof Glazing Sheet	-
2	Glazing End Trim	P6054
3	Eaves Beam Closure	P6056



Unpack the roof glazing sheets. If your glazing material is polycarbonate, it is important at this stage to note that the surface which is protected by the *printed* polythene film is the surface that is on the outside of the conservatory. The print on the outer film gives details on how to correctly store your polycarbonate until it is installed. Each roof glazing sheet is labelled with the corresponding number on your roof plan.



**Please note that if your conservatory roof has glass roof glazing sheets, some may require joining with muntin bars. Instruction on how to install this is detailed at the back of this installation guide.**

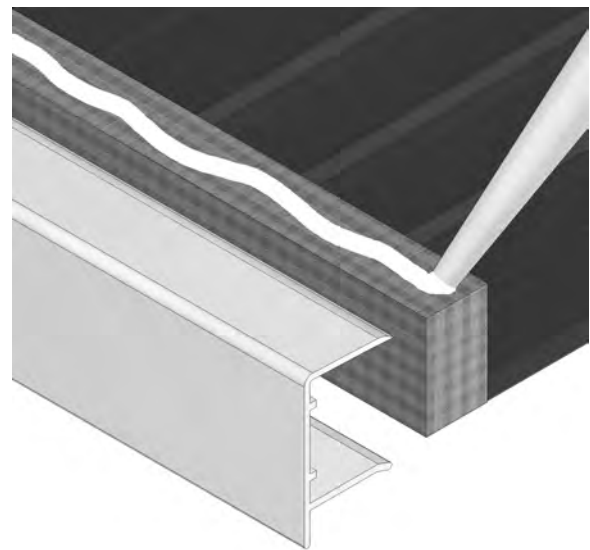
If not already installed, fit all the eaves beam closure (P6056) into eaves beam (A5080). This trim will snap fit into the channels of the eaves beam between the glazing bars. Do not remove the glazing tape protective film at this point.



It is recommended to apply a bead of silicone to the gap between the eaves beam closure (P6056) and the glazing bar undercladding as shown below.

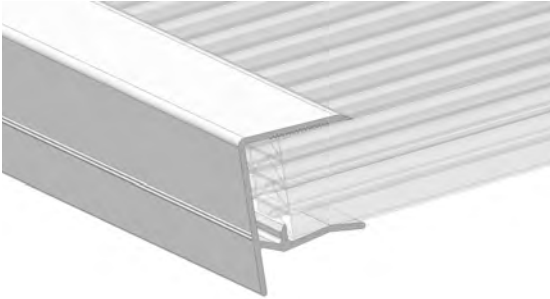


Although the glazing end trims (P6054) may already be fitted on the polycarbonate glazing sheets, they will have to be removed to allow the application a bead of silicone along the top face of the breather tape where it will come into contact with the glazing end trim. Re-attach the end trim once application is complete.





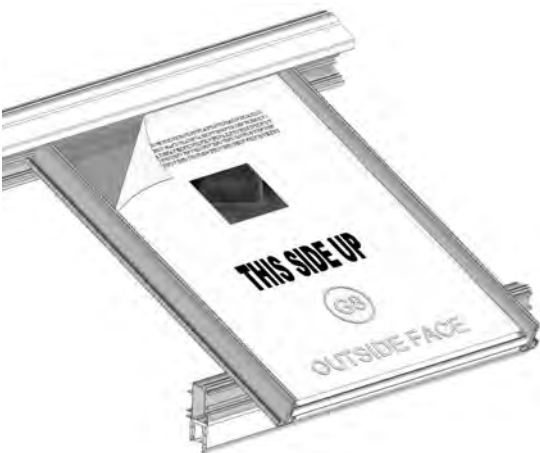
The glazing end trim push fits over the bottom edge of the roof glazing sheet with the flange facing downwards as shown below.



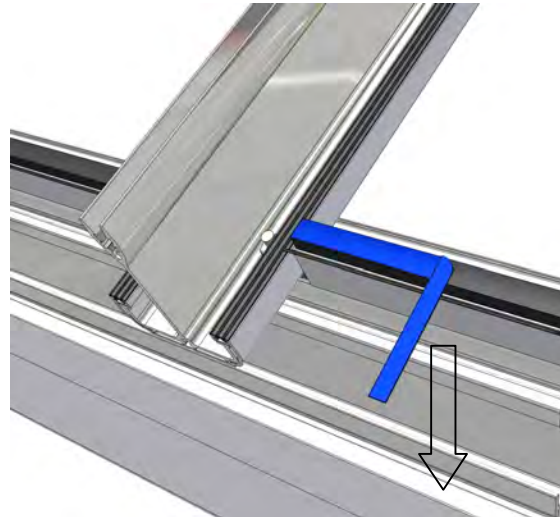
Select the first roof glazing sheet and remove its protective outer film.

It is recommended that only a 100mm perimeter of the inner protective film is removed at this stage of conservatory installation as this will help protect the roof glazing sheet from any unnecessary damage. The inner protective film can be completely removed once all plaster work is complete.

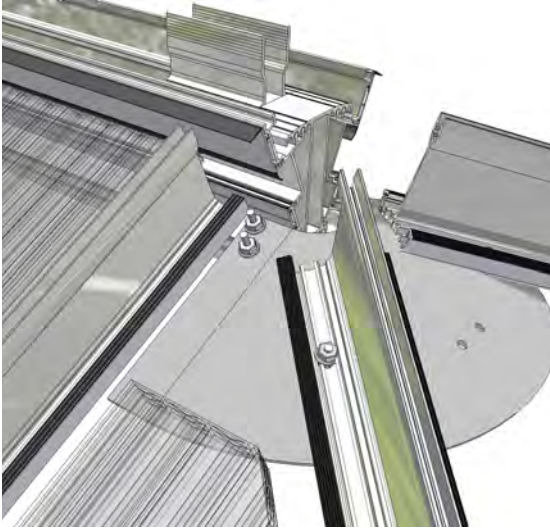
Start with the roof glazing sheets against the wall and to the left with the face that had the printed film facing outwards. This first sheet will be labelled as 'G1'.



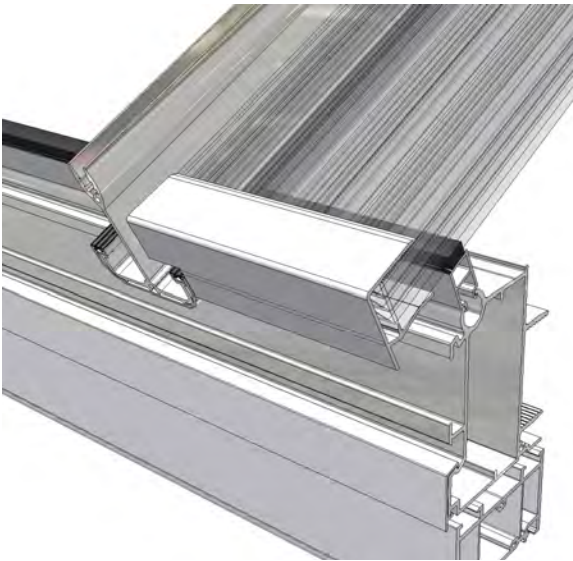
Prior to fitting the roof glazing sheets it is recommended to peel back around 50mm to 100mm of the glazing tape protective film. This enables adjustments to be made to the position of the roof glazing sheets without permanently sticking the entire roof glazing sheet to the eaves beam closure.



### Square Garden Building Models



Push the roof glazing sheet up into the universal ridge wings then slowly allow it to slide back down away from the ridge until it rests flush with the bottom of the transom glazing bars.



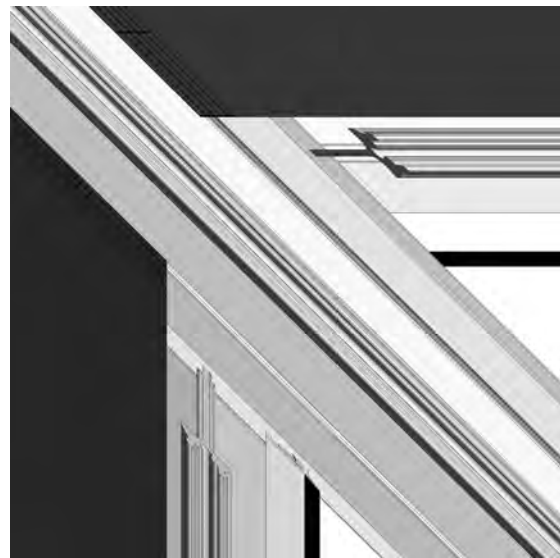
Allow the roof glazing sheet to gently rest on to the eaves beam closure (P6056).

### Fitting Roof Glazing Sheets around Jack Rafter

Lay the roof glazing sheet between the jack rafters and allow it to rest on to the eaves beam closure.

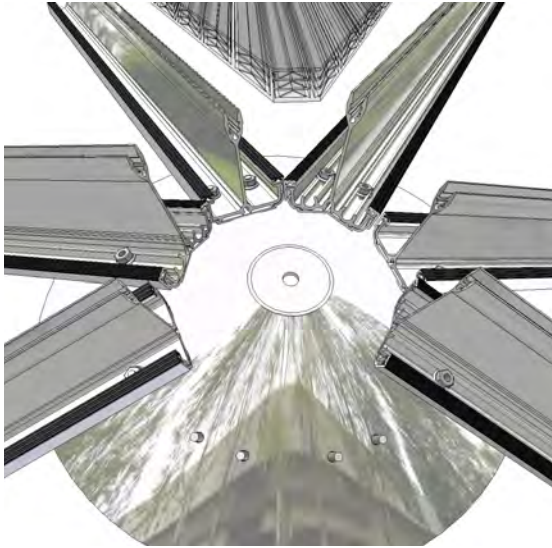


If positioned correctly there will be an approximate gap of 8mm between the sides of the roof glazing sheet and the centre stems on the jack rafters. The top edge of the roof glazing sheet will be approximately 5-10mm away from the centre stem on the Georgian hip bar.



### Octagonal Garden Building Models

Position the triangular roof glazing sheets between the roof glazing bars allowing an even gap between the edge of the roof glazing sheets and the roof bars.

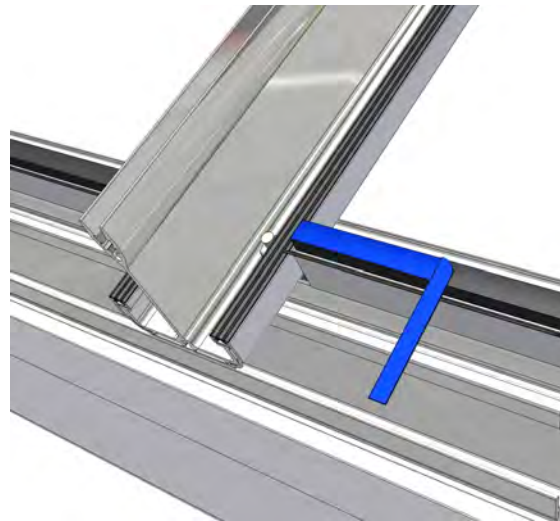


### Recommended Method of Glazing

When you are glazing your conservatory roof it is recommended that you place the roof glazing sheet labelled 'G1' into position first. Then by use of a step ladder through the empty 'G2' roof glazing sheet position you will have good access to put on the spar top cap labelled 'P1' first. Then place 'G2' roof glazing sheet into position whilst getting good access to put on 'P2' spar top cap by use of your stepladder in the empty 'G3' roof glazing sheet position.

If you choose to install the roof glazing sheets and glazing bar top caps in this way it is imperative that you read both the Glazing Installation and the Glazing Bar Installation sections prior to glazing your conservatory roof.

When satisfied that the roof glazing sheets are in place, gently pull on the glazing tape protective film on the eaves beam closure situated in the eaves beam (A5080) in a downwards motion while pressing firmly down on the roof glazing sheet to make sure that it remains in position afterwards. Continue to fit all others as previously described.



**PLEASE NOTE IT IS NOT UNCOMMON FOR CONDENSATION TO APPEAR IN THE FLUTES OF THE POLYCARBONATE ROOF GLAZING SHEETS FROM TIME TO TIME.**

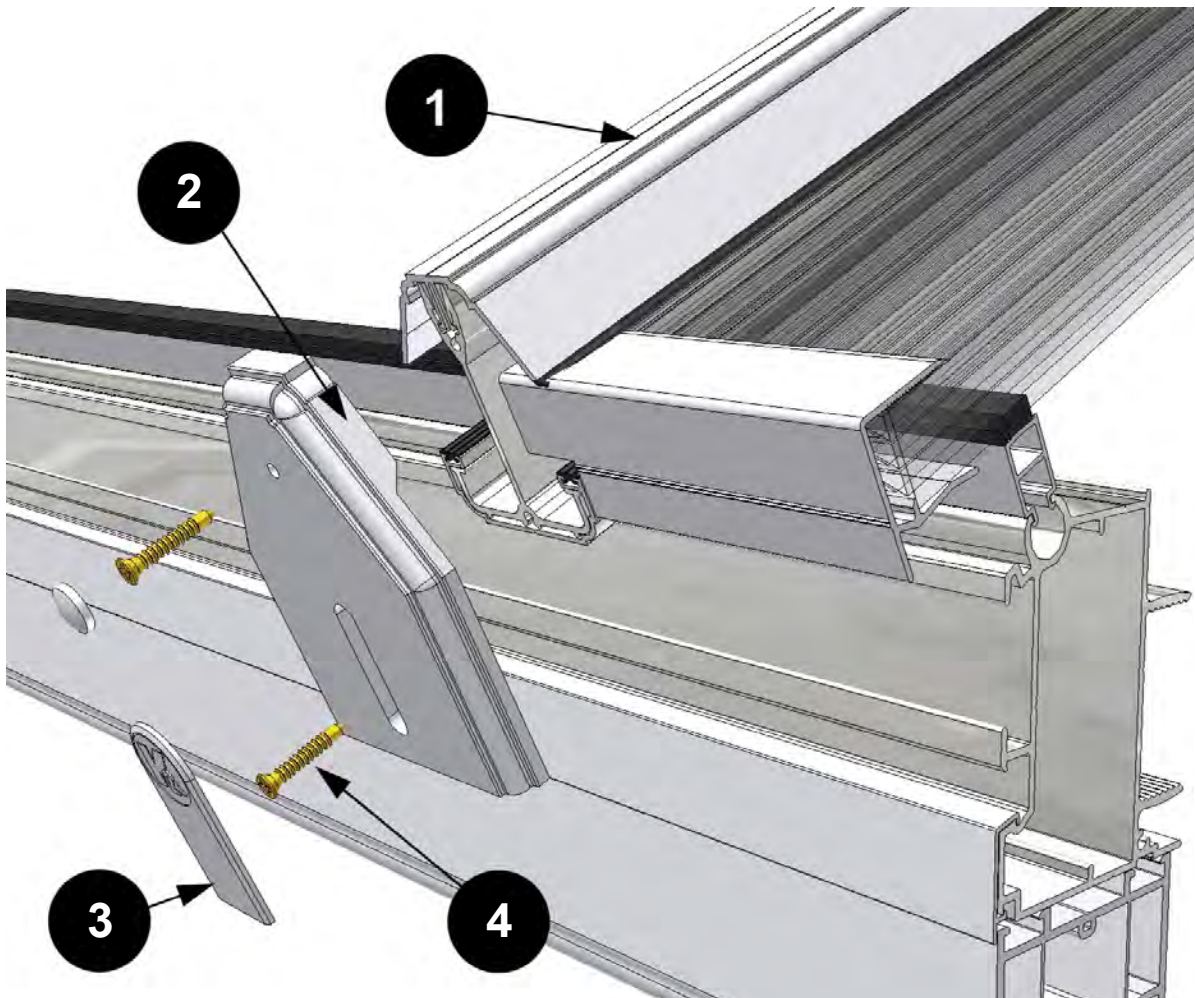
**THE 'BREATHER' TAPE PRE-FITTED TO THE BOTTOM OF THE POLYCARBONATE ROOF GLAZING SHEETS IS DESIGNED TO ALLOW THE MOISTURE TO EVAPOURATE NATURALLY.**

**DO NOT BREAK THE SEAL ON THE BREATHER TAPES IN ATTEMPT TO INCREASE THE VENTILATION INTO THE FLUTES OF THE POLYCARBONATE ROOF GLAZING SHEETS.**



**9 – GLAZING BAR CAPPINGS COMPONENT REFERENCE**

Item No	Item Description	Part Number
1	Glazing Bar Top Cap	-
2	Glazing Bar End Cap	C9038
3	Screw Cover Cap	-
4	3.9 x 19mm Yellow Screw	C9176



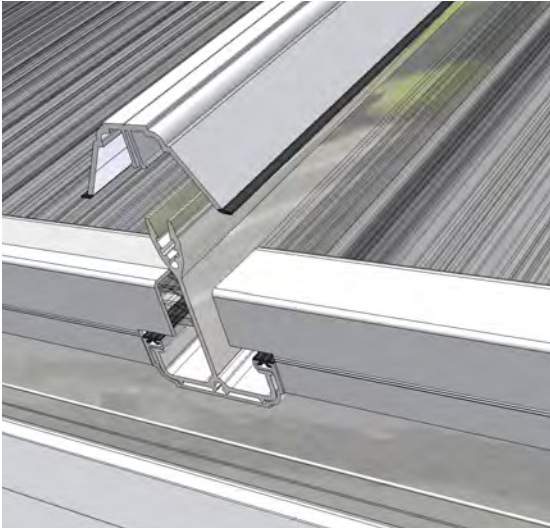
Once all roof glazing sheets are in position and stuck to the eaves beam closure, it is time to attach the top caps to the glazing bars. This is for two reasons; firstly to

permanently keep the roof glazing sheets in place and secondly to create a water-tight seal.

### Fitting Glazing Bar Caps

Select the appropriate glazing bar top cap by matching its number with the corresponding glazing bar number.

Prior to installing the glazing bar top caps the top cap rubber gasket must be lubricated with a solution of mild soapy water (this will allow the top cap to spread more easily during installation).



Use a glazing mallet or similar plastic surfaced mallet to knock on the glazing bar top caps starting at the top and working down the glazing bar towards the eaves beam (A5080).

If your conservatory has a woodgrain finish, the Georgian hip top caps will comprise of a foiled aluminium outer case with a PVC inner connector. These top caps are positioned over the hip glazing bars and are attached in the same manner as the other transom bar top caps.



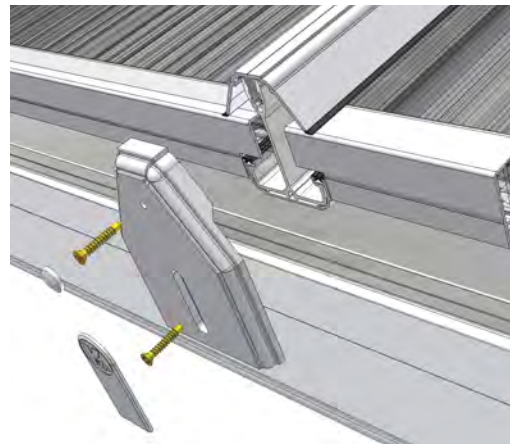
When the glazing bar top cap is attached, ensure that the bottom face of the top cap is aligned with the bottom face of the glazing bar. Remove the protective film from the glazing bar top cap.

When assembling the glazing bar top caps onto the glazing bars, support can be gained by use of conservatory ladders or by spreading your leaning weight on boards positioned across the bars. **Do not put your weight directly on to the roof glazing sheets.**

### Fitting Glazing Bar End Cap

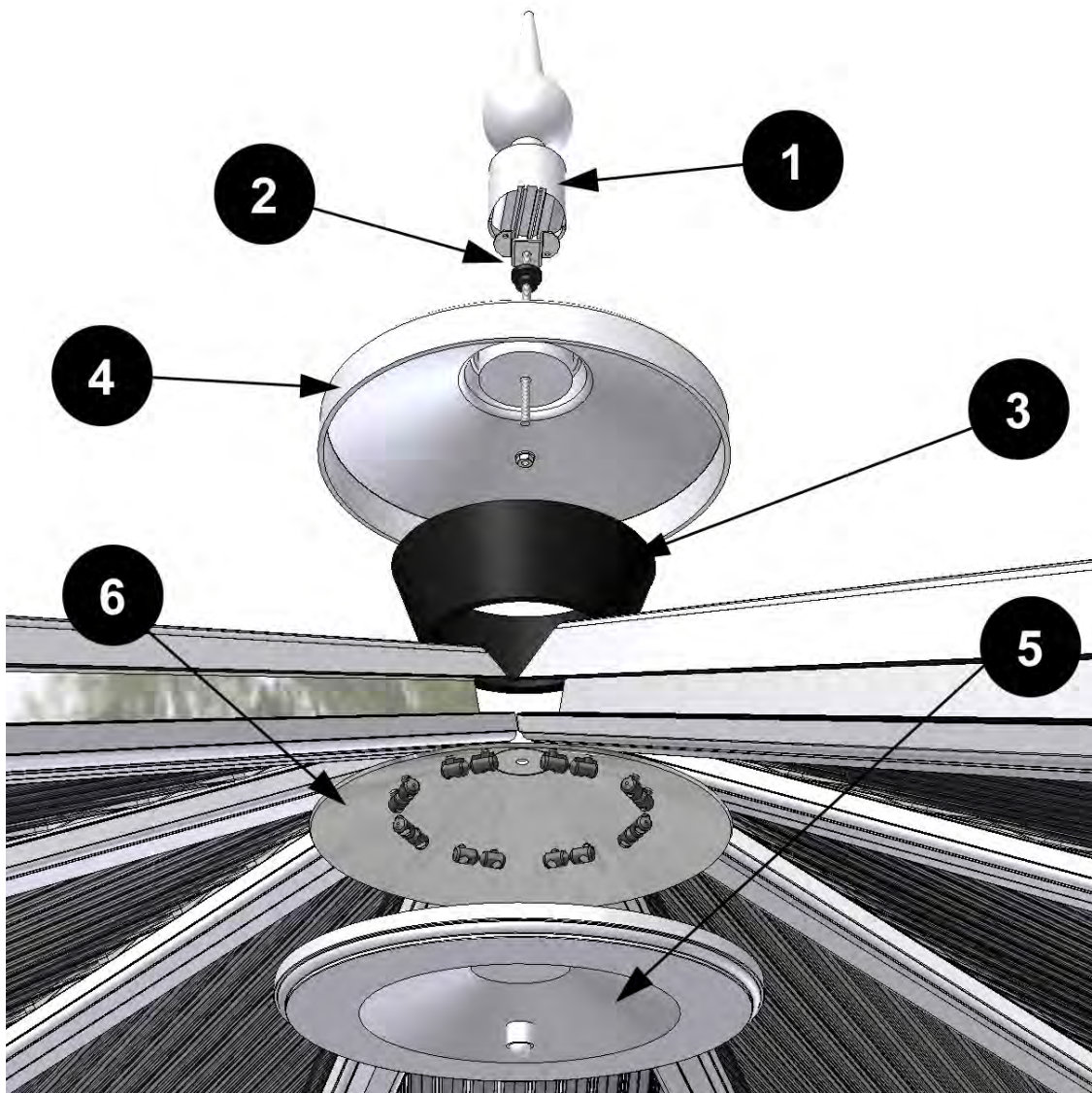
When the glazing bar top caps are attached you need to close the end of the glazing bar by use of the glazing bar end cap (C9038).

The glazing bar end cap is attached to the glazing bar by two 3.9 x 19mm yellow screws (C9176). Ensure that the screw cover caps supplied are used to hide the screws once fixed in place.



**10 – OCTAGONAL GARDEN BUILDING RIDGE CAPPINGS COMPONENT REFERENCE**

Item No	Item Description	Part Number
1	Finial	C7012
2	Gazebo Fixing Kit	C9054
3	Gazebo Foam Bung	C9051
4	Gazebo External Boss Cover	C9031
5	Gazebo Internal Boss Cover	C9032
6	25° Gazebo Boss	C9026





Now all the glazing bars are in position, the conservatory needs to be made watertight and sealed to prevent water ingress.

### Creating a watertight seal

Bend the gazebo foam bung (C9051) into a cone and place into the void between the ends of the glazing bars. Ensure that the bung touches the end faces of all the glazing bars.



Once in position, seal the glazing and the hip and glazing bar top caps to the gazebo foam bung with a continuous bead of silicone.

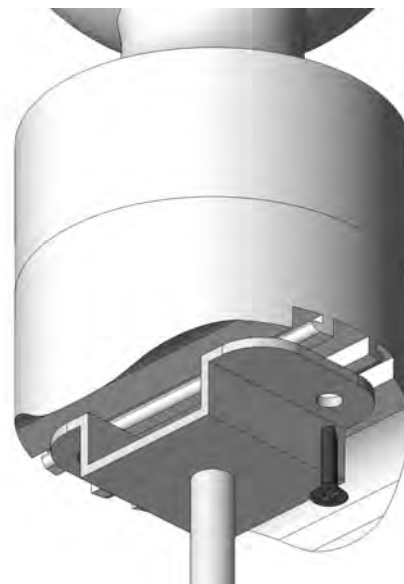


### Fitting the Garden Building Covers

Slot the first flange nut into the gap between the finial fixing bracket and the finial (C7012) and screw fully into the nylon rod.



If you had to remove the bracket to insert the flange nut, re-attach the finial fixing bracket to the underside of the finial with the 4.0 x 25mm screws.



Drill a 10mm diameter hole through the centre of the Gazebo Boss (C9031) and insert the rubber grommet from the gazebo fixing kit (C9054) into the hole.



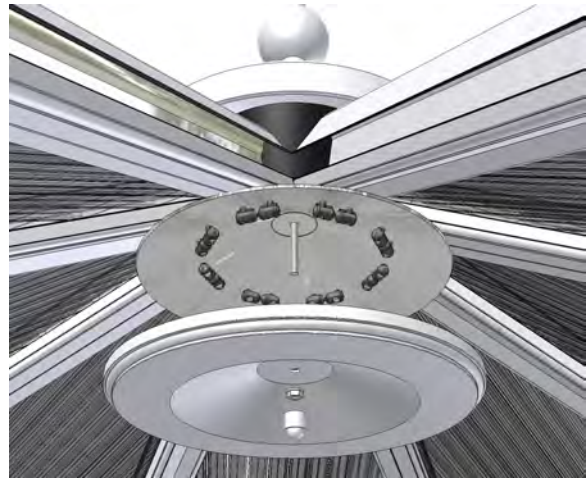
Apply a generous bead of silicone to the inside perimeter of the gazebo boss before pushing the finial into position.



Locate the nylon rod through the hole in the top of the gazebo external boss cover (C9031) and secure in position with the nylon flange nut fitted to the underside of the cover.



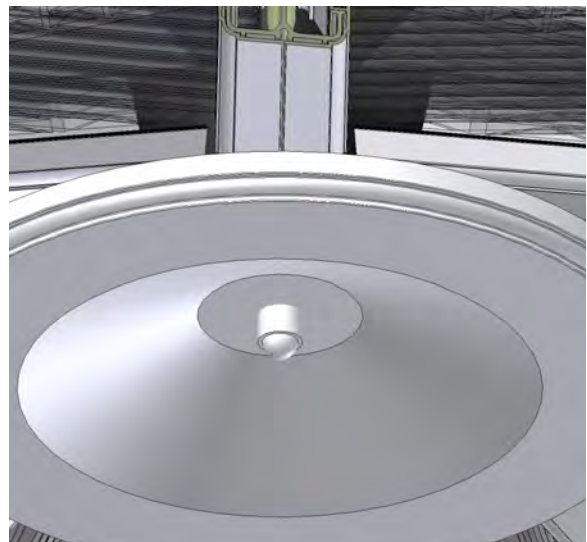
Insert the threaded bar through the hole in the aluminium gazebo boss.



Locate the gazebo internal boss cover (C9032) over the nylon rod and secure in position by fully tightening the remaining flange nut.

Trim the end of the nylon rod to ensure that it finishes flush with the bottom face of the flange nut.

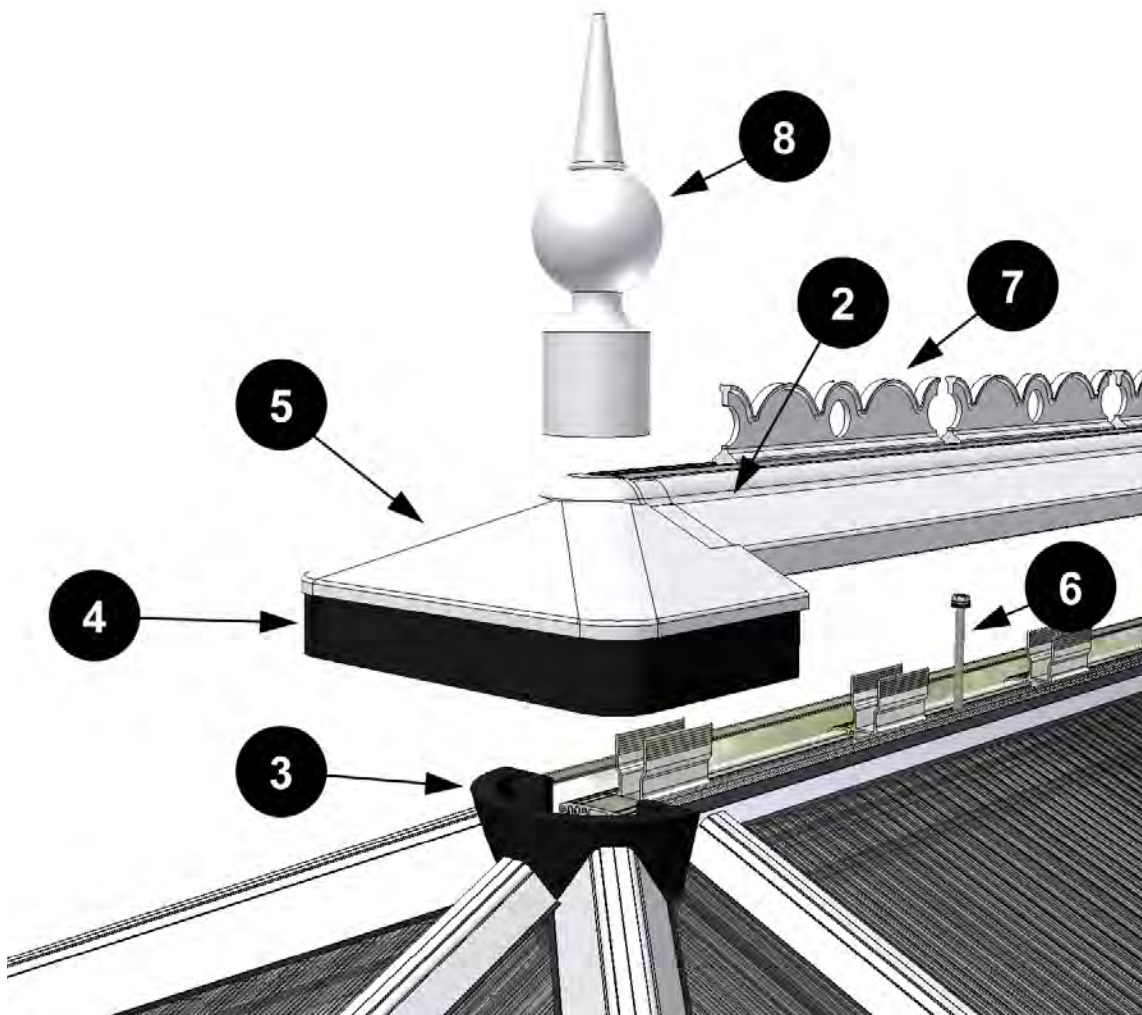
Push fit the domed cover cap over the flange nut to finish.





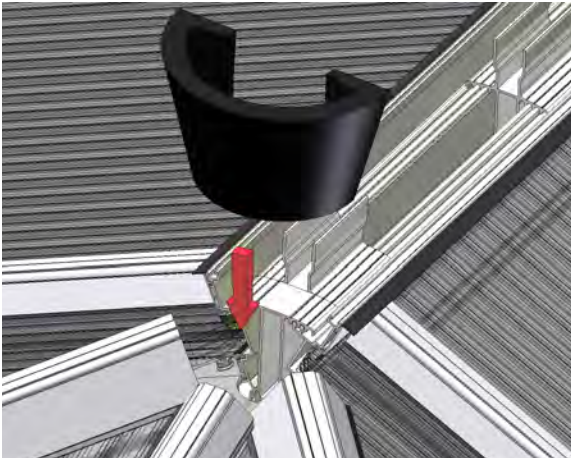
## 11 – RECTAGONAL GARDEN BUILDING RIDGE CAPS COMPONENT REFERENCE

Item No	Item Description	Part Numbers
1	25° Variable Pitch Ridge	-
2	External Ridge Cover	P6027
3	Universal Foam Bung	C7023
4	Boss End Foam Trim	C9350
5	Square External Boss Cover	C9029
6	Ridge Holding Down Bolts	C8031
7	Plain Cresting (as shown) / Ornate Cresting	C7013 / C7015
8	Finial	C7012

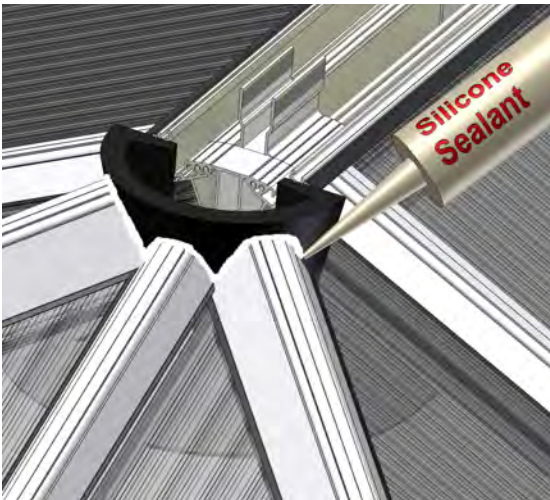


Now that all the edges of the polycarbonate roof sheets are sealed by use of the glazing bar top caps and the glazing bar end caps, the tops of the glazing bars need to be sealed from water ingress and dirt.

After folding into a semi circle ensuring the ends are tucked in towards the centre, place the universal foam bung (C7023) into the void on the Georgian boss end so that the outer face rests against the end of the glazing bars.



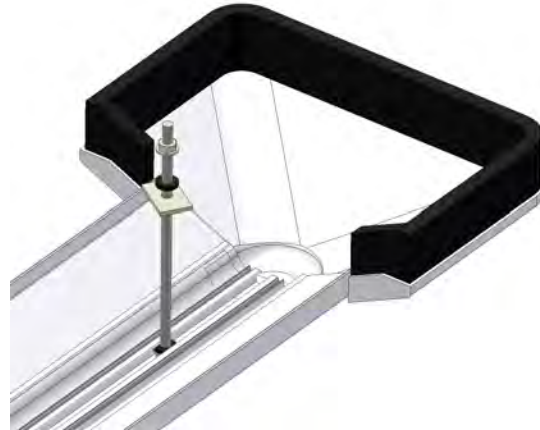
Using the silicone provided, run a continuous bead around the joint between the foam bung and the glazing and the glazing bar top caps, being careful to avoid gaps in the sealant.



Repeat for the Georgian boss end on the opposite end of the ridge assembly.

### Fitting the Ridge Covers

When fitting the ridge covers, you must first attach the boss end foam trim around the perimeter of the underside of the boss end cover as shown. Remove the backing adhesive tape and press the foam firmly onto the underside of the capping.

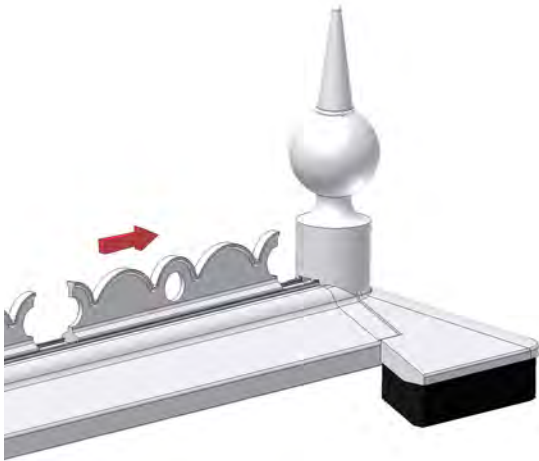


The ridge holding down bolts must be slotted into the groove on the underneath of the external ridge capping at approximately 500mm centres.



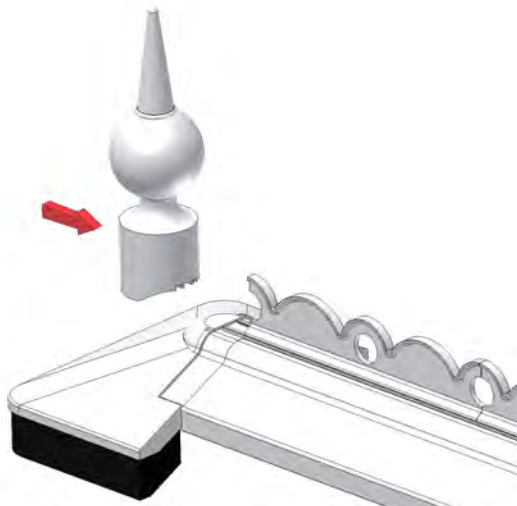
Slide the finial (C7012) fully onto the ridge capping as far as it will go.

Slide the pieces of crestring (C7013/C7015) into the open ended channel of the external ridge cover.



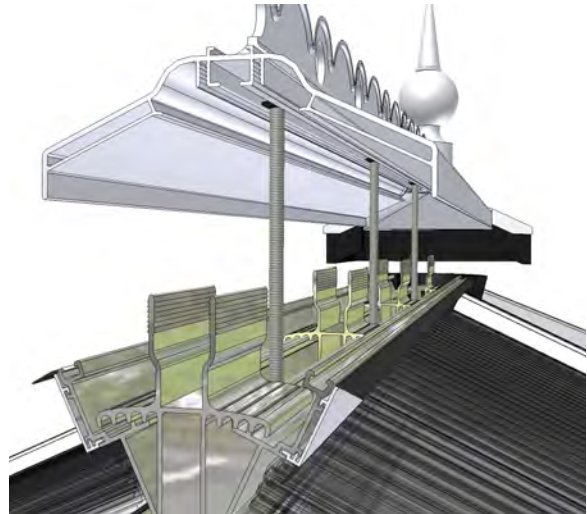
**The last piece of crestring may have to be trimmed so that it finishes flush against the other finial when it is pushed onto the external ridge capping at the other end.**

To do this, temporarily position the crestring onto the external ridge cover and mark where the finials final position will be. Remove the crestring, trim and reinsert into position.

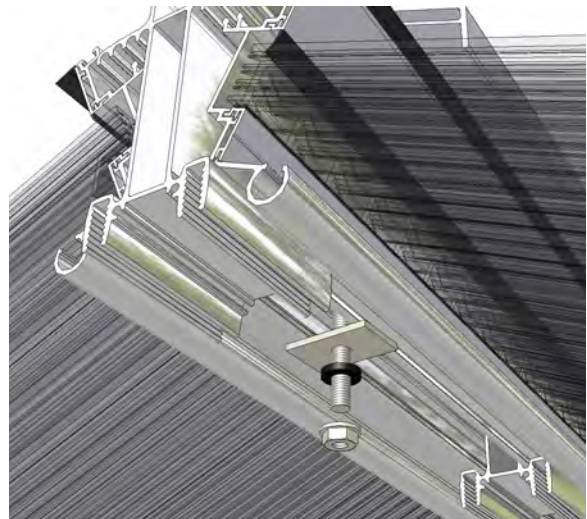


Slide the second finial onto the square external boss cover.

Lift the ridge capping assembly onto the top of the ridge assembly and push down so that it locates onto the prongs of the ridge centres.



When assembling the external ridge cover, support can be gained by use of conservatory ladders or by spreading your leaning weight on boards positioned across the glazing bars. **Do not put your weight directly on to the roof glazing sheets.**

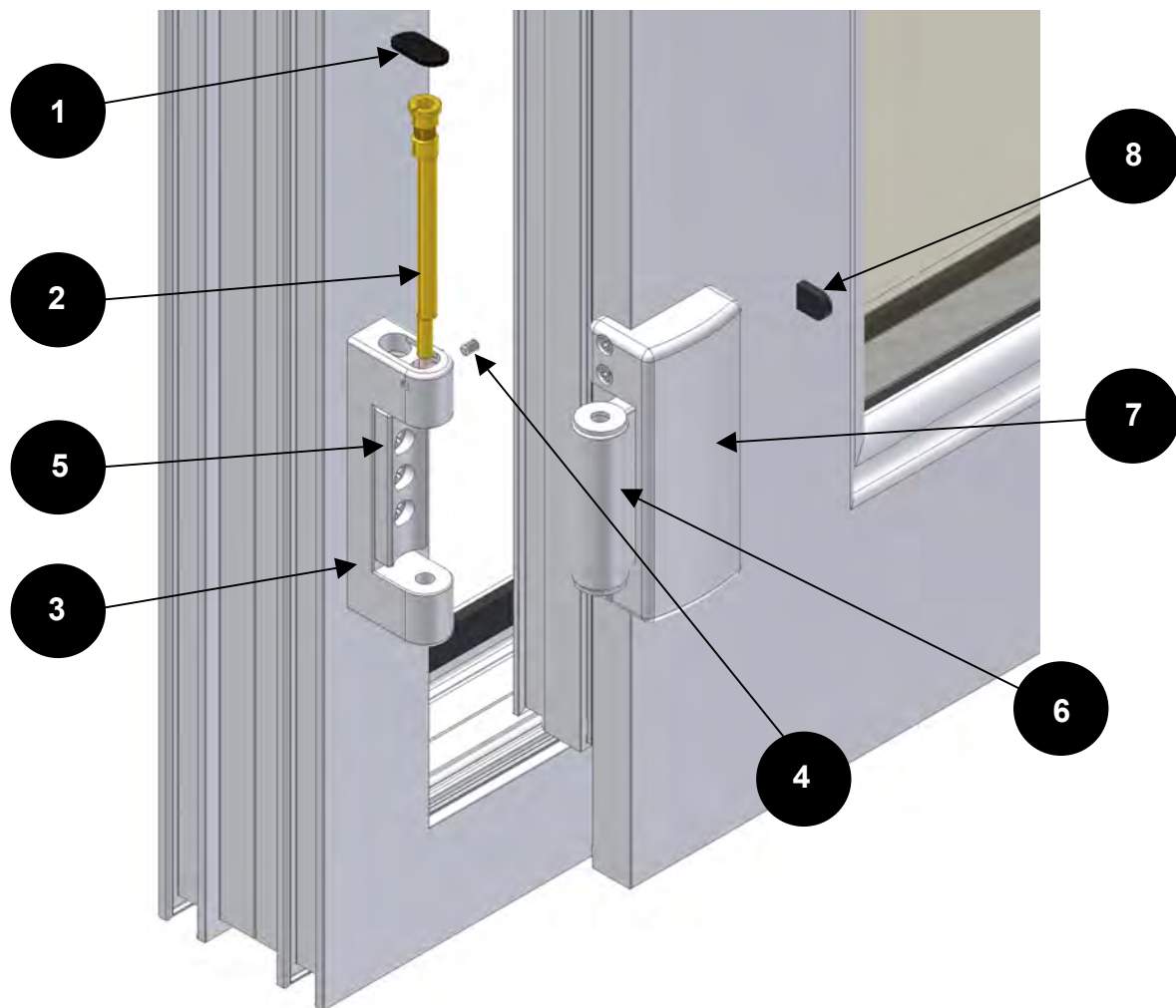


Screw the rectangular washer until it touches the ridge wings and finger tighten the nylon nut on the ridge holding down bolts to make the external ridge capping secure.



**12 - DOOR COMPONENT REFERENCE**

1	Hinge Pin Cover Cap	
2	Hinge Pin (Mk2)	
3	Outer Frame Hinge (Mk2)	
4	Hinge Pin Grub Screw	
5	Outer Hinge Adjuster	
6	Sash Hinge Adjuster	
7	Sash Hinge Cover	
8	Sash Hinge Adjustment Cover Cap	

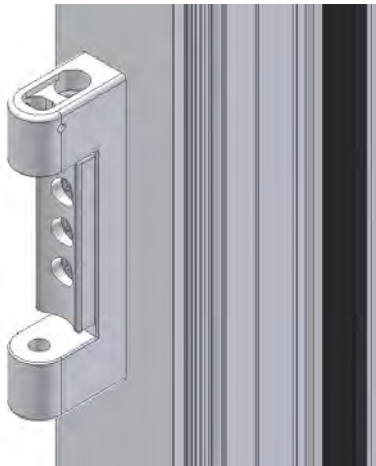


Check that the double door outer frame is square, plumb and not in twist (check that the diagonal measurement from corner to corner is equal in both directions).

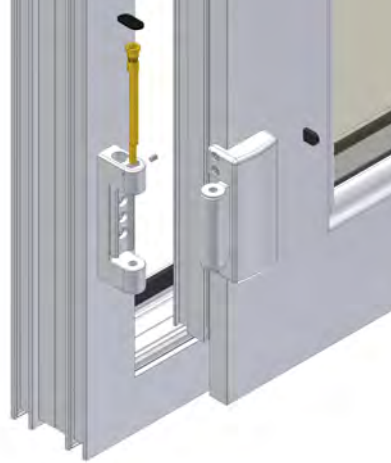
Two or three sash hinges will be fitted to the door leafs with all relevant components, except for the sash hinge adjustment cover cap.



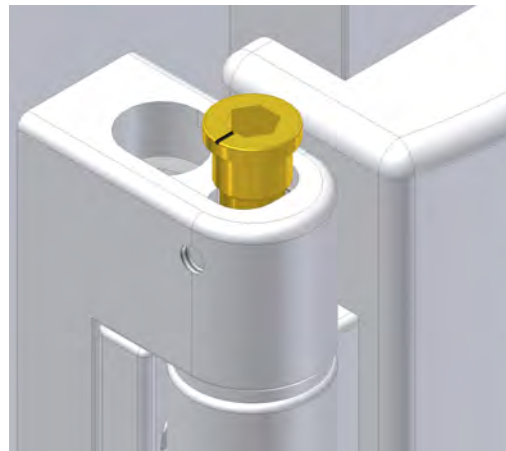
Two or three outer frame hinges and sash hinge adjusters are pre-fitted to the door outer frame. The hinge pin, hinge pin cover cap and hinge pin grub screw are supplied separately.



To hang the door, lift and slide the door sash assembly to allow the sash hinge adjuster to slide in between the outer frame hinge.



Once in position, pass the hinge pins through both hinge parts. It may be necessary to tap each pin down using a mallet. Do not fit the outer hinge cover and sash hinge cover caps at this time as some adjustment may be required later.



Ensure that the slot mark in the hinge pin points away from the door sash.

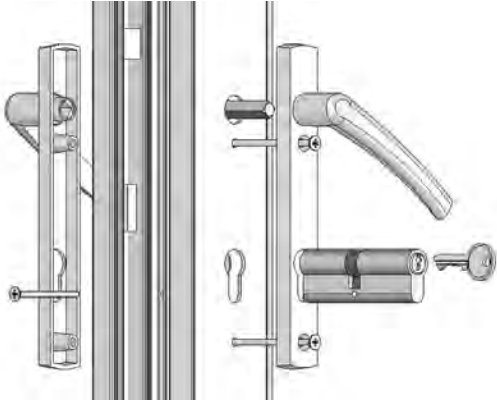


To prevent the hinge pins from turning, it is recommended that the hinge pin grub screws are fitted at this point. To do this,

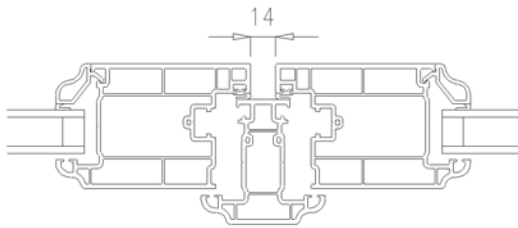
open each sash and fit the grub screws into the inside hole on the outer hinge.

Fit the door handles and cylinder.

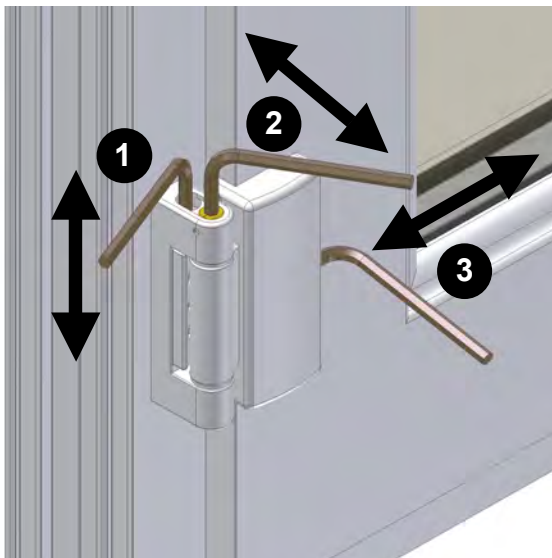
**NB: To operate the locking mechanism the handle must be lifted to allow the key to turn the cylinder.**



Ensure that the gap between the door sashes is parallel. When set correctly the gap between the doors will be 14mm.



### Adjusting the Hinge



Vertical adjustment of each sash can be achieved by inserting the 5mm Allen key into

socket 1 in the top of the outer frame hinges and turning it clockwise to lift the door sash. A maximum lift of 4mm can be achieved.

Horizontal (front to back) adjustment can be obtained by inserting the 5mm Allen key into socket 2 in the top of the outer frame hinges and turning 90° in either direction to adjust the compression of the door sash. (N.B The hinge pin grub screw will need to be removed to allow this adjustment).



Horizontal (left to right) adjustment of the sash can be achieved by use of socket 3 located on the end face of the sash hinge cover (above). Insert the 5mm Allen key into the socket of the hinge and turn clockwise to move the sash inwards or anti-clockwise to move the sash outwards. Approximately 4mm adjustment can be obtained in either direction.

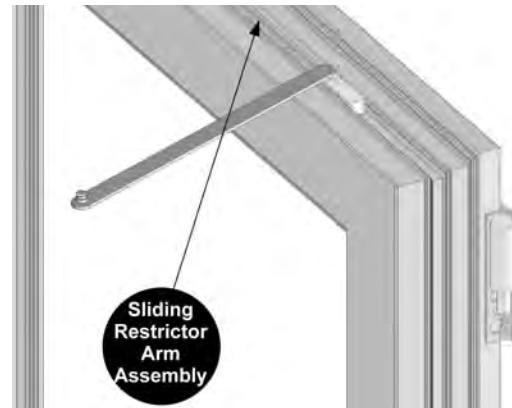
When content that the door sashes are correctly adjusted, fit the outer hinge cover caps.

### Shoot Bolt Keeps

The shoot bolt keeps have an adjustable top plate. Loosen the locking screws on each plate prior to adjustment, ensuring that they are re-tightened afterwards. On the slave door, adjust the top section so that this door is pulled into the frame as tightly as possible. Adjust the master door keep as required to ensure that the door latching and locking is a smooth operation.



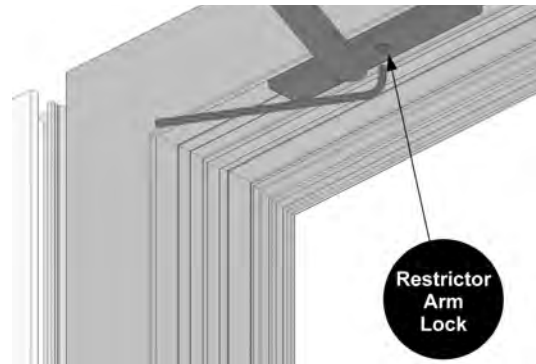
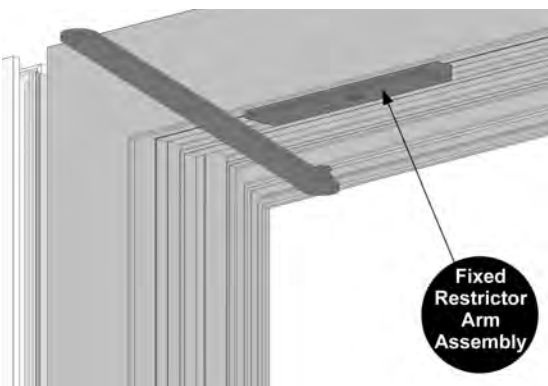
The restrictor arms are taped into position for transit. The tape should be removed prior to installation.



Locate the button on the sliding arm into the receptor of the fixed restrictor assembly. Push firmly upwards until the button snaps into place.

### Connecting the Restrictor Arm

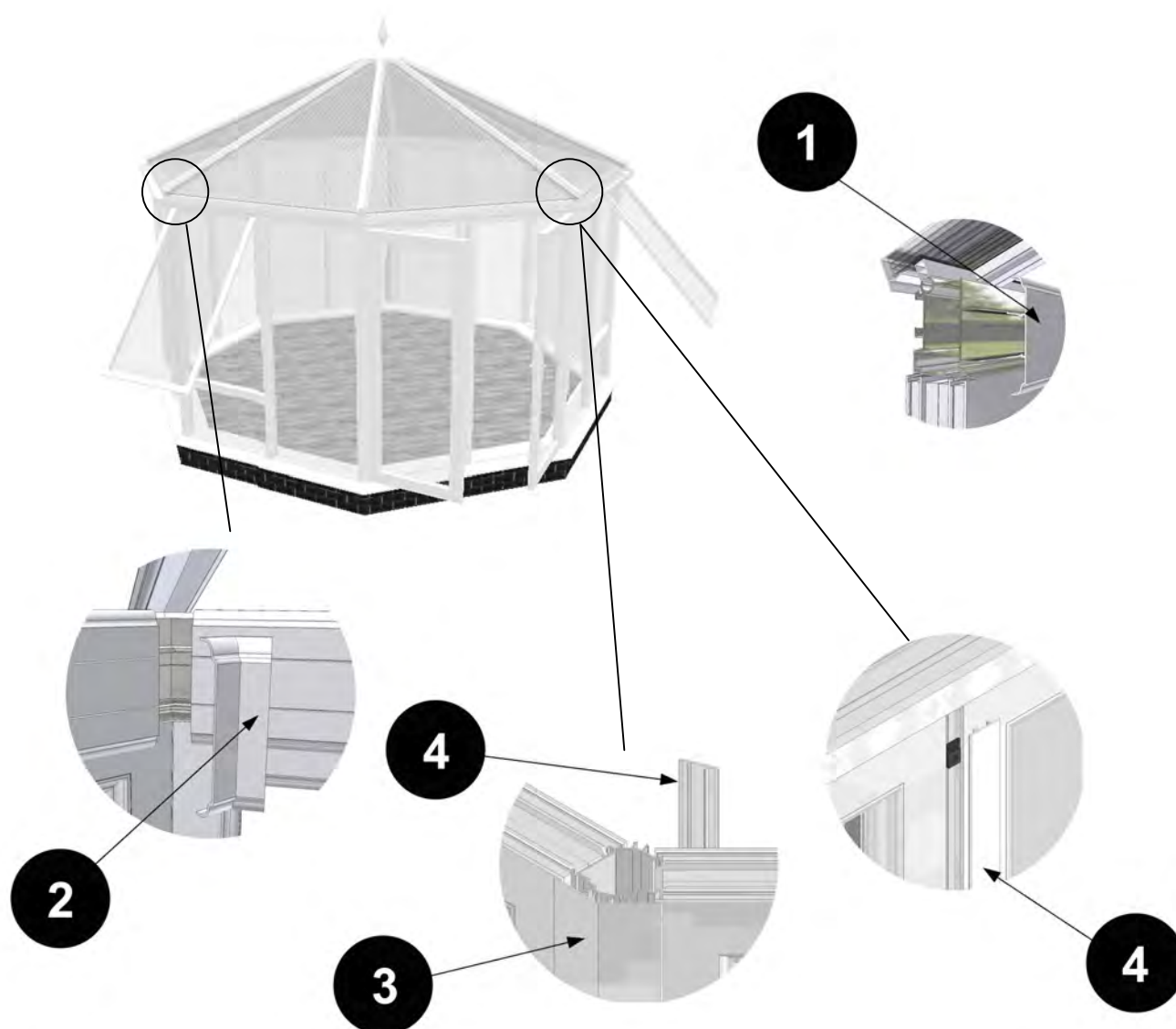
When both double doors sashes are in position the restrictor arm assemblies can be connected. These are found in two parts that are already attached to the top of both door sashes and the top inside corners of the door outer frame.



When the restrictor has been located, tighten the restrictor arm lock by using the 2mm Allen key.

**13i- OCTAGONAL GARDEN BUILDING TRIMS AND FINISHING COMPONENT REFERENCE**

Item No	Item Description	Part Number
1	Eaves Beam Internal Cladding	P6042
2	Eaves Beam 135° Joint Cover	C9111
3	135° Corner Post Cover	P114
4	18mm Coupling Cover	P125





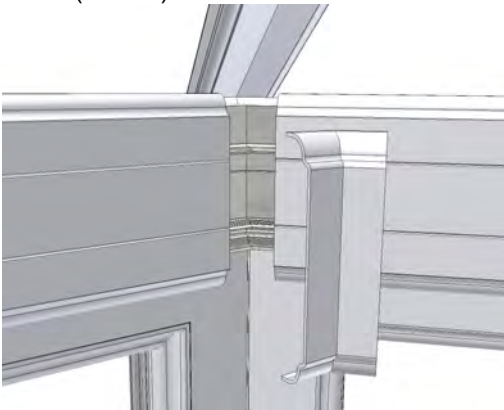
Check that you have sealed the joints inbetween the eaves beam closure (P6056) and the glazing bar under cladding on each window, and that the glazing tape protective film has been removed.



Select the eaves beam internal cover (P6042), position onto the barbs on the eaves beam (A5080) and press home.



Select the eaves beam 135° joint cover (C9111), and push home into the corner gaps between the eaves beam internal cover (P6042).



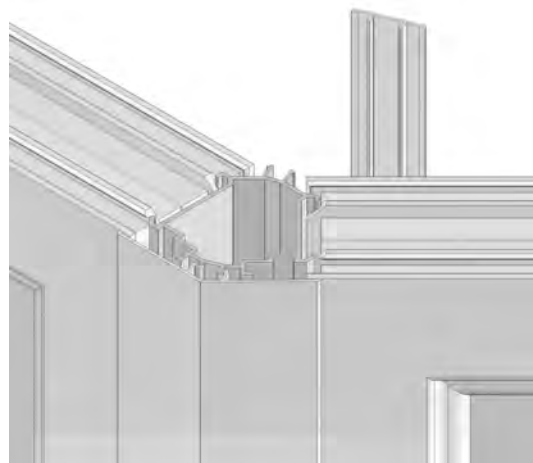
Select the 135° corner post cover (P113) for the 135° corner post (A110).

Position the 135° corner post cover (P113) over the barbs at the bottom of the corner post (A110) and by working upwards press home.



The 18mm coupling covers (P125) will require trimming to fit underneath the external eaves beam trim (P6024) and the eaves beam covers (P6042).

Select an 18mm coupling cover (P125) and position onto the barbs on the inside of the 135° corner post (A110) and push firmly to fit.



Select the 18mm coupling covers (P125) and position onto the recesses on the sides of each quarter turn button (C105) positioned on the 18mm inline couplings (A104) and press home.

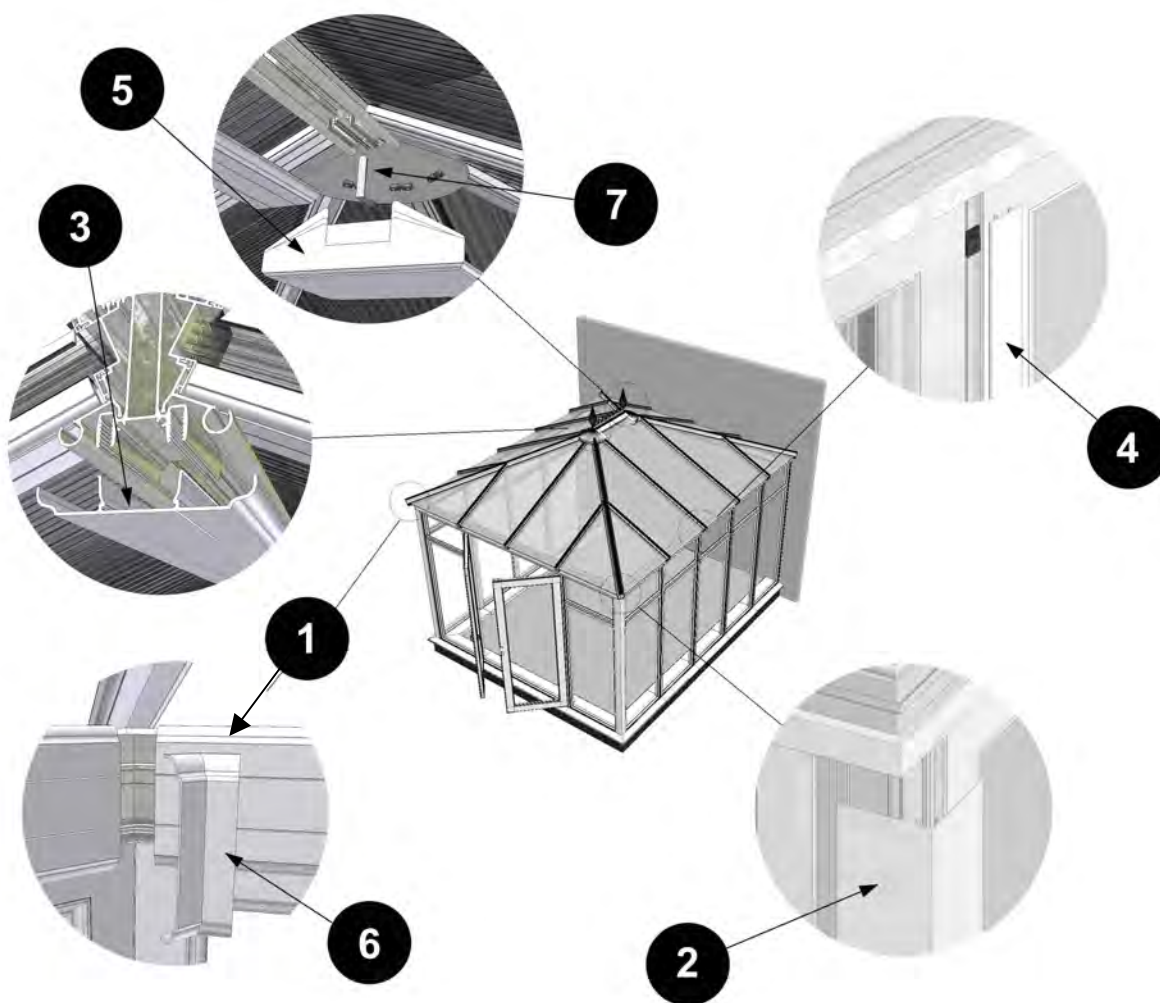


Fit the handles to all opening sashes using the 5 x 45mm handle screw (SC035).

Repeat for each set of 18mm inline couplings including the ones on the inside.

## 13ii – RECTANGULAR GARDEN BUILDING TRIMS AND FINISHING COMPONENT REFERENCE

Item No	Item Description	Part Number
1	Eaves Beam Internal Cover	P6042
2	90° Corner Post Cover	P113
3	Ridge Internal Cover	P6042
4	18mm Coupling Cover	P125
5	Square Internal Boss Cover	C9030
6	90° Eaves Beam Joint Cover	C9108
7	End Boss Bracket	C9040



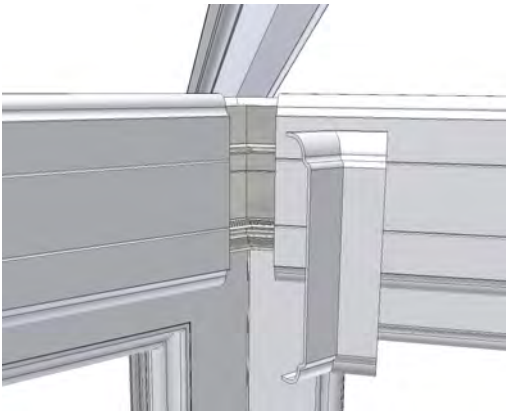
Check that you have sealed the joints in between the eaves beam closure (P6056) and the glazing bar undercladding on each window and that the glazing tape protective film has been removed.



Select the eaves beam internal cover (P6042), position onto the barbs on the eaves beam (A5080) and press home.



Select the eaves beam 90° joint cover (C9111) and push home into the corner gaps between the eaves beam cover.



Prior to installing the square internal boss cover, it may need to be trimmed to the correct pitch of the roof.

Offer the square internal boss cover (C9030) up to the Edwardian boss end. The square internal boss end cover is positioned so its upstand fits tight against the rear face of the end boss (C9170).

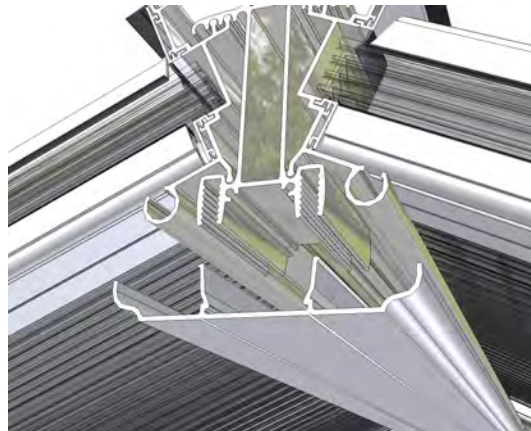
Use the M4 x 25mm self tapping screw to fix the square internal boss cover to the 'L' shaped bracket attached to the end of the aluminium ridge section.

The square internal cap should be a tight fit under the georgian glazing bar hips on each corner.

Push fit the plastic screw cover cap in place.

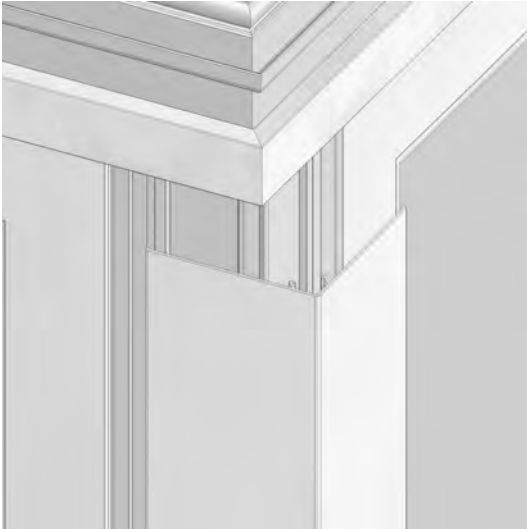


Select the ridge internal cover (P6042) and position beneath the serrated prongs of the aluminium ridge spacers. Push the internal ridge capping into position until it touches the bottom of the glazing bars on each side of the conservatory roof.



Select the 90° corner post cover (P114) for the 90° corner post (A109).

Position the 90° corner post cover (P114) over the barbs at the bottom of the 90° corner post (A109) and by working upwards press home.



Select the 18mm coupling covers (P125) and position onto the recesses on the sides of each quarter turn button (C105) positioned on the 18mm inline couplings (A104) and press home.



Repeat for each set of 18mm inline couplings including the ones on the inside.

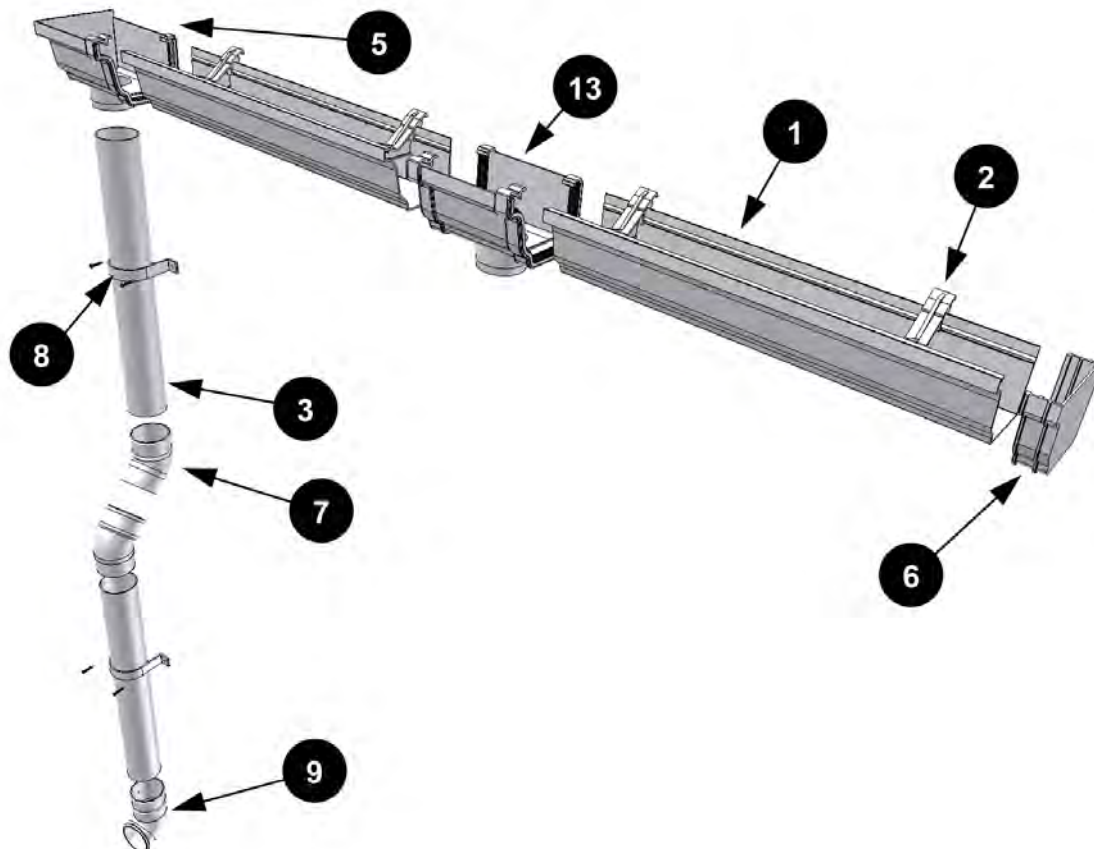


Fit the handles to all opening sashes using the 5 x 45mm handle screw (SC035).



## 14 - GUTTER COMPONENTS REFERENCE

Item No	Item Description	Part Number
1	Ogee Gutter	P6026
2	Ogee Gutter Support Brackets	C8043
3	Round Downpipe (2.4m)	P6022
4	Ogee Gutter Stop End Outlet (opposite hand to 5)	C9188
5	Ogee Gutter Stop End Outlet (as shown below)	C9187
6	Ogee Gutter Stop End (pair)	C8042
7	135° Downpipe Bend	C9012
8	Downpipe Retention Clip	C8056
9	Downpipe Shoe	C9013
10	Ogee Gutter Inline Union	C8035
11	Ogee 135° External Gutter Corner	C8037
12	Ogee 90° External Gutter Corner	C8040
13	Ogee Running Outlet	C8036
14	Ogee Gutter Clips	C8067

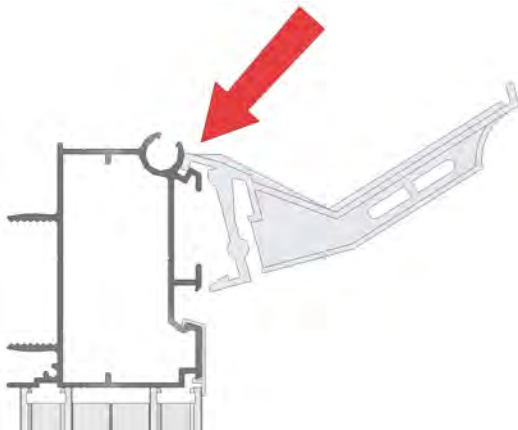


The following illustrations show the round downpipe located to the left hand side of the conservatory. This can however be fitted to either side. All the relevant components are supplied with your conservatory to suit either side.

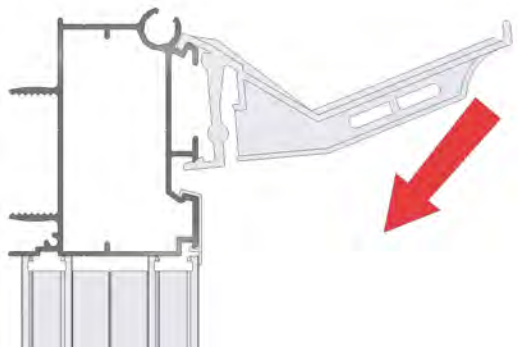
Ogee gutter support brackets (C8043) should be positioned 150mm from each corner and the remainder equally spaced.

#### Fitting Ogee Gutter Support Brackets

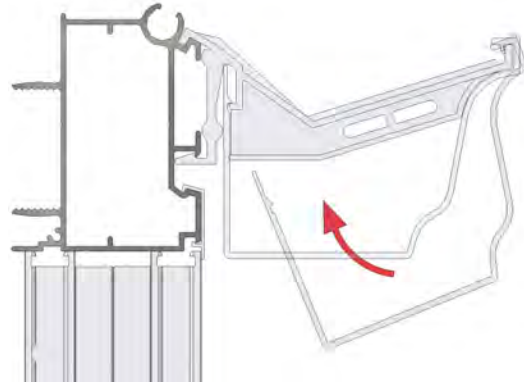
To fit the brackets, place the top of the bracket into the groove on the eaves beam.



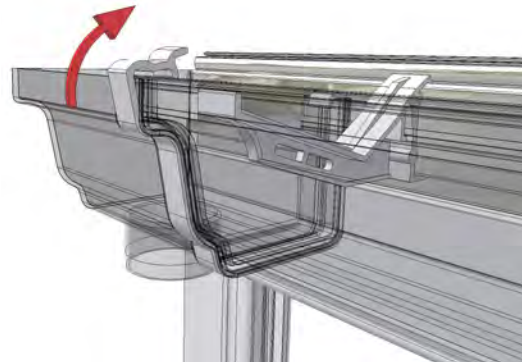
Pull the bracket downwards until it locks into place



Hang the front edge of the gutter onto the bracket and rotate up the back of the bracket as shown. Fit only to the first "click", do not push all the way up.

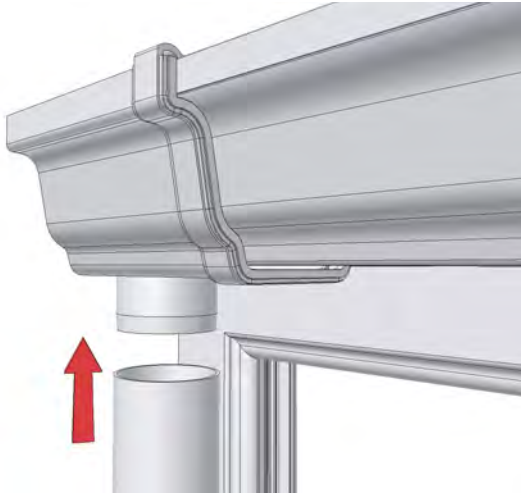


Where there are stop ends or outlets on the gutter you will need gutter joint clips to fix these in place. Offer the gutter joint clips over the gutter, slide up the back of the gutter until the hooks engages over the gutter. Pull up the front of the joints and clip over the gutter.



Once the clips are in place you can push the gutter up into its final position.

With the gutter and clips in place you can now fit the downpipes and brackets.



Push fit the downpipe (P6022) onto the spigot of the stop end outlet.



Connect the downpipe shoe (C9013) to the base of the downpipe. Fix the downpipe in position by use of the downpipe retention clips (C8056). They can be clipped over the downpipe and fixed into position with the screws provided



On dwarf wall models, you will need to cut the round downpipe (P6022) into two lengths and join them together by use of the downpipe bends (C9012). This is to allow the round downpipe to sweep over the 150mm sill (P106) and down the dwarf wall to the ground. The cut in the round downpipe is to produce two lengths that suit the height of the window frames and the dwarf wall.

**NOTE: To ensure adequate drainage, it is important that all round downpipes supplied, are fitted.**



## MAINTENANCE

Your conservatory is made to the highest technical standards using the finest materials. However as with all precision items, where metal parts move on metal, regular lubrication will increase service life and removal of surface dirt will maintain good looks.

### Lubrication

We recommend that once every 3-6 months parts should be oiled or greased. Any acid-free light machine oil will provide reasonable protection for metal fittings. Penetrating oil and similar spray-on lubricants are not recommended.

### Locking System – Windows

Move the operating handle to open the window. Locate and lubricate all locking points with oil. Lubricate the moving strip showing through the slot.

### Friction Hinges

While the window is open, lubricate all moving parts of the hinges with oil.



### Doors

Move the operating handle to open the door, locate and lubricate all locking points with oil. Lightly oil all hinges.

### Cleaning

The need for cleaning your PVC-U conservatory will vary in frequency depending on where you live.

Some areas have a higher level of industrial pollution or natural corrosive air content, e.g. a salty atmosphere in coastal regions.

We recommend that when the glass needs cleaning, the PVC-U parts are also quickly wiped over with warm soapy water.

Persistent marks can be moved by using a hard circular motion with a wet cloth and neat washing-up liquid.

When decorating, it is wise to wipe away splashes of paint where they have been caught before they dry. Do not scrape with anything hard, metal or sharp.

**Your conservatory in PVC-U will never rot, need painting or discolour, BUT it will need cleaning.**

