

## Bespoke Conservatory Installation Guide

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 panels and doors) other items will be labelled as a particular package reference. For example, 'Pack B' will contain your sills. Contained within 'Pack A' (along with these instructions) is a set of component checklists which you will use to identify the items contained within each pack. Also as part of 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 and the 'Packs' which you will be using (for each section). 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, the pack it is contained within 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 panels are a two person lift.
- Treat PVCu 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 panel 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 window panels against the property wall. This will avoid any conflicts with the openers and gutter down pipes, etc.
- Ensure all drainage slots on panels are at the bottom when positioning panels.
- All panels and doors are internally reinforced. You may feel a screw; for example, appear to have more difficulty once it is through the PVCu. This is normal due to the steel reinforcing.

**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, 5.0mm (min. 80mm reach), 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.

**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. 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.**

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

**3. 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.
- **CREAM CLEANER CLEANING FLUID:** Safety data sheet provided
- **FLASHING TAPE\***

\* You are advised to follow the guidance on the packaging.

**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 14 day F.O.C. buffer period expires. Your check list can be found in A. 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 14 days after delivery.**

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

- Your 6 digit order number – e.g. **432000**
- 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 14 day 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. **432000**
- 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.

**F      90° / 135° CORNER POSTS**

**G      END OUT TRADITIONAL  
(Traditional Extra)**

## CONTENTS

PLEASE SELECT YOUR STYLE OF CONSERVATORY FROM THE STYLES SHOWN ON THE FOLLOWING PAGE. FOLLOW THE INSTALLATION ORDER AS INDICATED BY THE SERIES OF LETTERS WHICH FOLLOW CONSERVATORY STYLE NAME. THESE SERIES OF LETTERS INDICATE THE RECOMMENDED ASSEMBLY ORDER AS SHOWN BELOW.

IF YOUR CONSERVATORY STYLE IS NOT SHOWN, PLEASE FOLLOW THE INSTALLATION ORDER FROM THE LIST WHICH BEST SUITS YOUR MODEL OF CONSERVATORY.

AT THE START OF THIS GUIDE IS A SERIES OF 3D DRAWINGS WHICH SHOW HOW THE MAIN ROOF COMPONENT ASSEMBLIES LOOK WHEN COMPLETE. THIS IS FOR REFERENCE IF UNSURE ABOUT ANY ASPECT OF HOW THE PARTS FIT TOGETHER.

### PANEL INSTALLATION

**A      90° BASE SILL**

**B      135° BASE SILL**

**C      BASE SILLCHECKS**

**D      FITTING FIRST PANELS**

**E      PANELS IN A STRAIGHT RUN**

### ROOF INSTALLATION

**H      EAVES BEAM**

**I      FIRRING KIT**

**J      GABLE FRAMES**

**K      WALL PLATE**

**L      RIDGE INSTALLATION**

**M      VALLEY INSTALLATION**

**N      SPAR INSTALLATION**

**O      JACK RAFTERS**

**P      GLAZING**

**Q      SPAR CAPS**

**R      RIDGE CAPS**

**S      WALL PLATE CAPS**

**T      TRIMS & FINISHING**

**U      GUTTERING**

**V      BOX GUTTER**

**W      ADDITIONAL BOX GUTTERS**

**X      ROOF VENTS (Optional Extra)**

**Y      MUNTIN BAR (Dependant Extra)**



**Edwardian** – A, C, D, E, F, H, L, N, O, P, Q, R, T, U.



**Victorian** – B, C, D, E, F, H, L, N, P, Q, R, T, U.



**Traditional** – A, C, D, E, F, H, I, K, L, Q, R, S, T, U.



**Pavilion** – A, C, D, E, F, H, J, L, N, P, Q, R, T, U.



**Double Hip Edwardian** – A, C, D, E, F, H, L, N, O, P, Q, R, T, U, V.



**Double Hip Victorian** – B, C, D, E, F, H, L, N, O, P, Q, R, T, U, V.



**'Gullwing'** – B, C, D, E, F, H, K, N, O, P, Q, R, S, T, U.

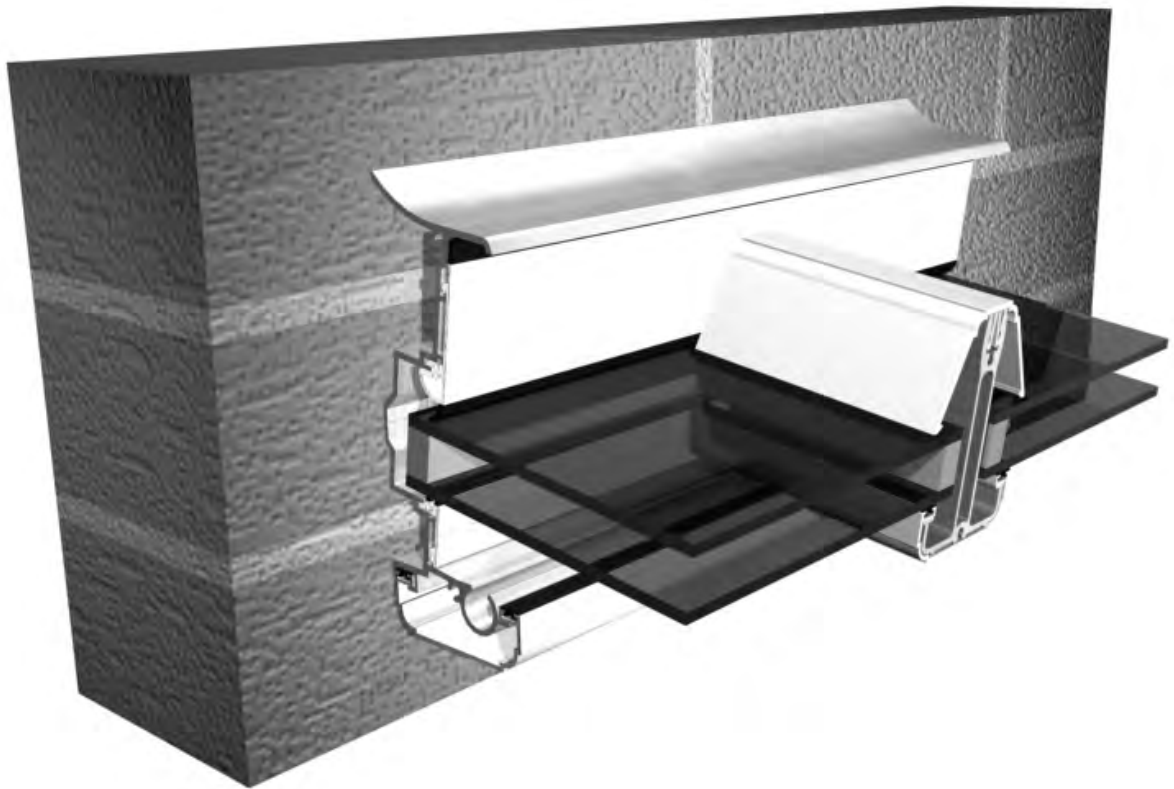


**P-Shape** - A, B, C, D, E, F, H, L, K, L, M, N, O, P, Q, R, S, T, U.

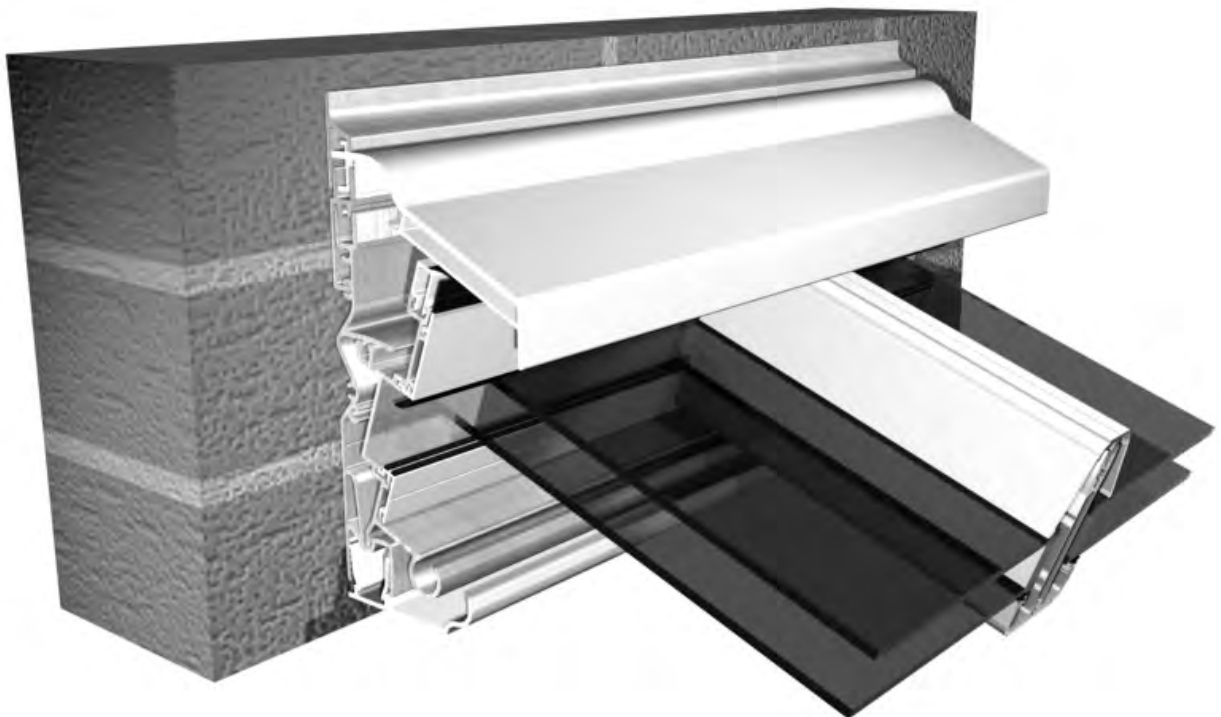


**T-Shape** - A, C, D, E, F, H, J, L, K, M, N, O, P, Q, R, S, T, U.

## SECTION K – 5° WALL PLATE ASSEMBLY



## SECTION K – VARIABLE WALL PLATE ASSEMBLY



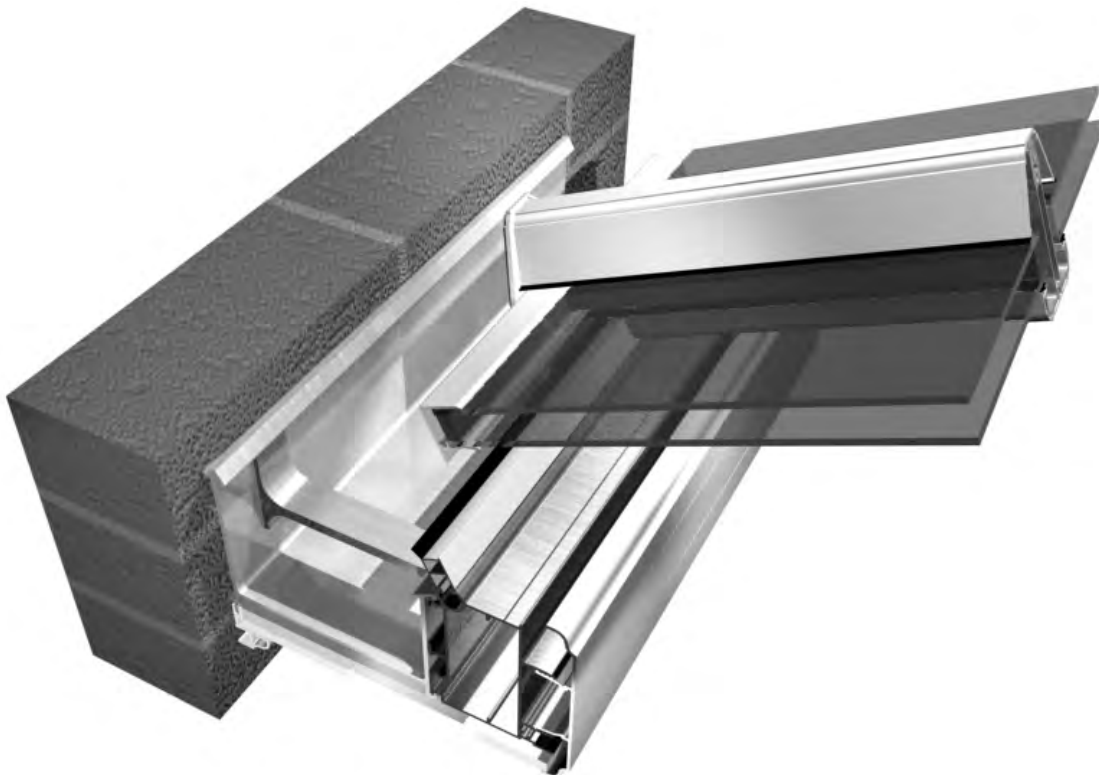
## SECTION L – RIDGE ASSEMBLY



## SECTION M – VALLEY ASSEMBLY



**SECTION V – 135MM BOX GUTTER ASSEMBLY**

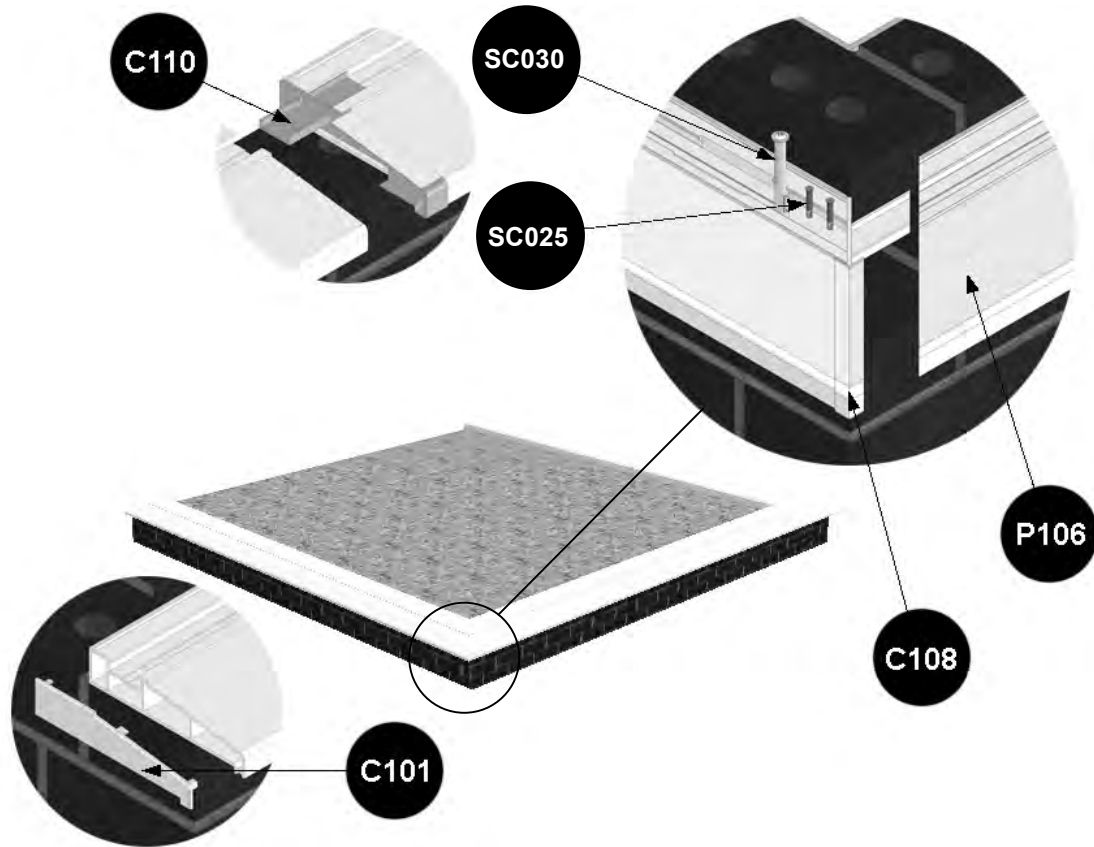


**SECTION V – 210MM BOX GUTTER ASSEMBLY**



### A – 90° BASE SILL COMPONENT REFERENCE

| Item No | Item Description              | Comments        |
|---------|-------------------------------|-----------------|
| P106    | 150mm Sill                    |                 |
| C101    | 150mm Sill End Caps           |                 |
| C108    | External 90° Sill Connector   |                 |
| C110    | In-line Sill Connector        | Specific models |
| 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 to dark brick or stone walls.

**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.

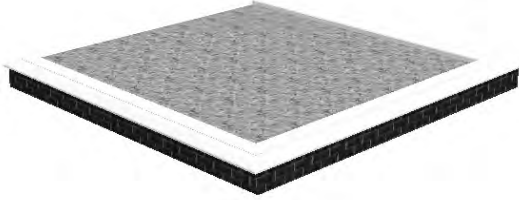
Always refer to the manufacturers' instructions for removing excess sealant.

### Fitting the Sill

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

On dwarf wall models you will have to measure the gap left for the French doors

and cut your 150mm sill (P106) by use of a hacksaw, to fit. The 150mm sill (P106) will finish flush with the outside face of the external brick work.



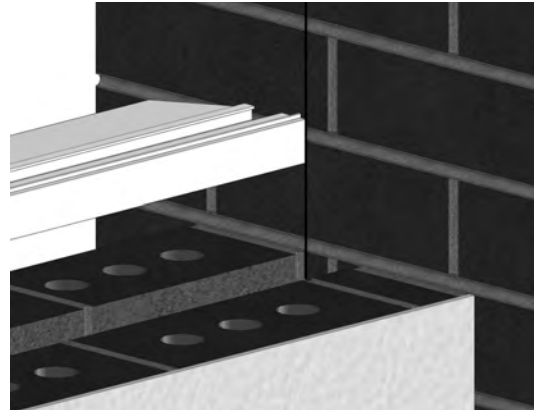
It is recommended that the inside edge of the 150mm sill (P106) is drawn onto the host wall. This guide line will ease in the positioning of the 150mm sill (P106) and the first panels.

Place a spirit or digital level against the inside face of the external brickwork and make plumb.

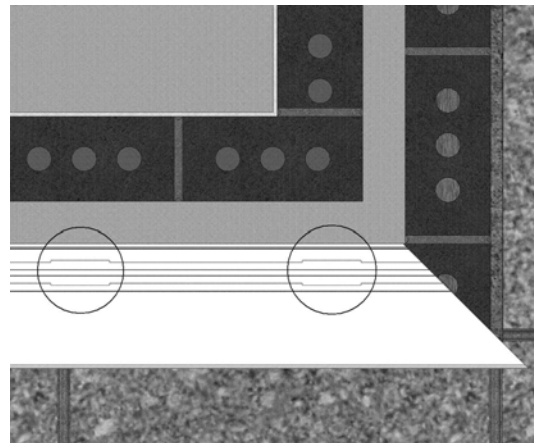
Take a wax or similar crayon and draw a line along the inside edge of the spirit level.



Position the inside face of the 150mm sill (P106) against this line and onto the base.



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 **(with the exception of a cut sill for a French door opening which is described in the next paragraph)**. This will allow the panels to be slid into the groove of the 150mm sill (P106) throughout installation.

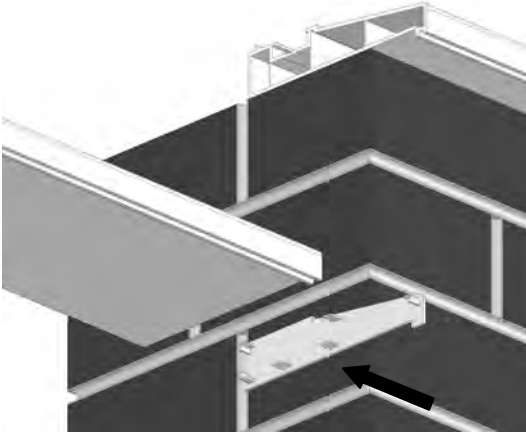


#### **Preparing the 150mm Sill for French Doors in Dwarf Wall Models.**

On dwarf wall models you will have to cut the run of 150mm sill (P106) with a hacksaw where the French door is positioned. Cut the 150m sill (P106) so that it overhangs the brickwork for the French door by 2mm on each side.

This is to compensate for the 150mm sill end caps (C101) which when fitted will create an overall overhang of 5mm over the faces of the brick work.

A separate length of 150mm sill (P106) is supplied to fit between the dwarf walls. The 150mm sill end caps (C101) should be attached at the same time as the 150mm sill (P106) is fitted. This process is described at the end of this section.



Do not fit the 150mm sill end caps (C101) to the open ends of the 150mm sill either side of the dwarf wall opening until all panels are fitted (with the exception of the French door outer frame which should be positioned last).

### Sill Connectors

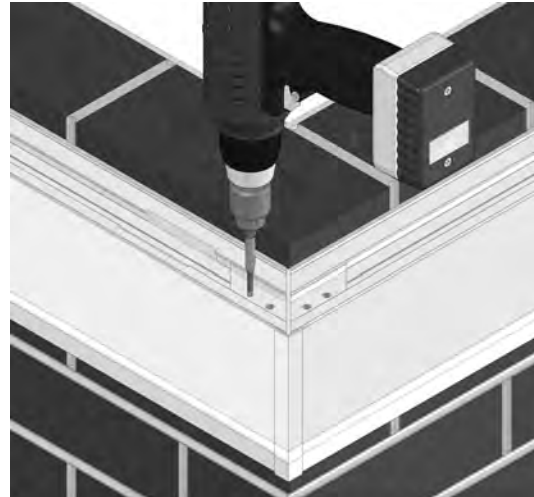
Progressively join the 150mm sill sections (P106) together with the external 90° sill connector (C108).



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

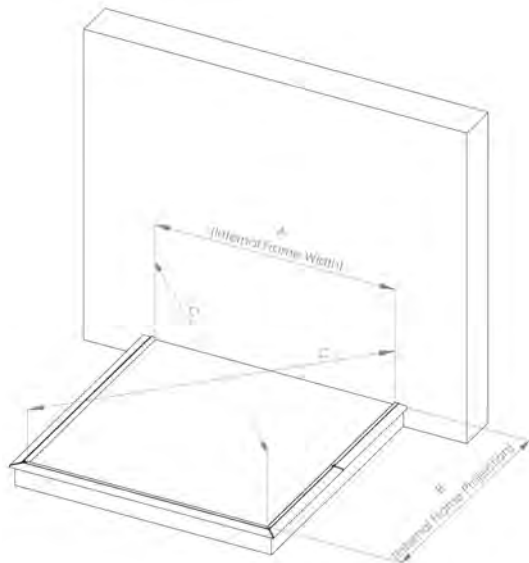
Ensure that the external 90° sill connector (C108) is silicone sealed on all contact areas: top, bottom and sides.

Fix all sill connectors (C108/C110) to 150mm sill (P106) 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.**

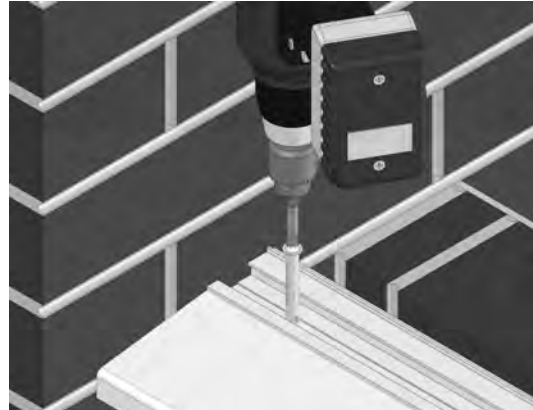
Lay the 150mm sill (P106) in position and by use of your roof plan (located with your check list images on box A) ensure that dimension A (front and rear) is equal. Dimension B (both sides) are equal. Dimensions C (two diagonal measurements) are equal.



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.

Two 100mm fixing bolts (SC030) are used to fix the 150mm sill (P106) to the base between the French door opening in dwarf wall models. This however is done at the same time as the French door outer frame is positioned as described in the next section.

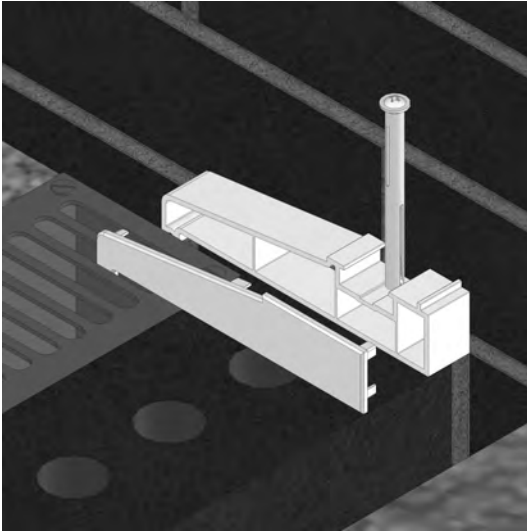
**Check your sill layout again for square.**

**Positioning Aluminium Low Threshold against host wall.**

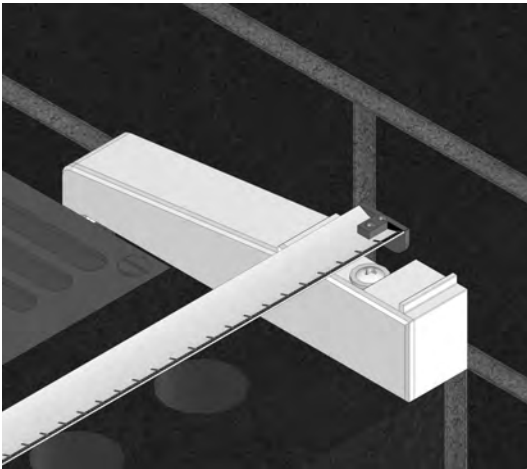
If your conservatory has an aluminium low threshold (A103) against the host wall, a small piece of 150mm sill (P106) should be installed. This is described below.

Cut a piece of 150mm sill (P106) 23mm in length from your left over pieces. A sill end cap (C101) should be attached to the open end which is *not* against the host wall.

Pre-drill the 150mm sill (P106) as previously described and permanently fixing to the base to a minimum depth of 100mm by use of the 100mm fixing bolts (SC030).



A quick measurement check between the host wall/start position and the 150mm sill end cap (C101) should show 26mm.



#### Sill End Caps

On dwarf wall models, the 150mm sill (P106) should finish 3mm inset from the

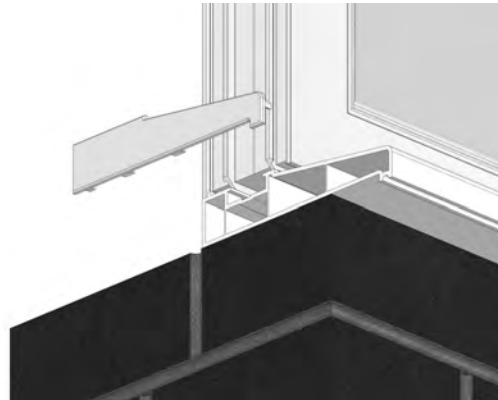
external face of the dwarf wall to allow for the 150mm sill end cap (C101).

The first set of 150mm sill end caps (C101) are attached to both ends of the 150mm sill (P106) which is positioned underneath the French door outer frame (as described earlier).

The final set of 150mm sill end caps (C101) are attached when all the panels have been fitted (with the exception of the French door outer frame which will be the last panel to be fitted after the 150mm sill end caps (C101) have been attached).

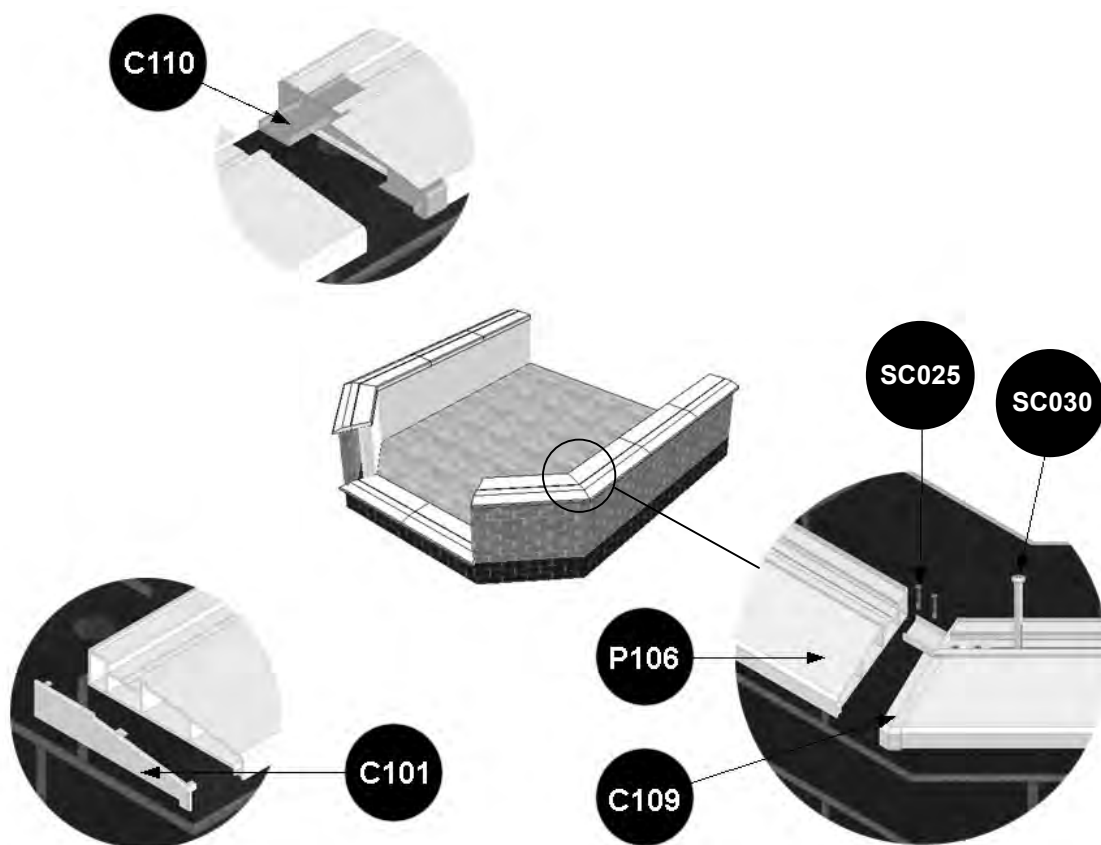
The 150mm sill end caps (C101) are attached to the open ends of the 150mm sill (P106) on either side of the opening for the French door.

Apply a bead of low modulus neutral cure silicone to the end face of the 150mm sill (P106) and push fit the 150mm sill end caps (C101) to seal wiping off excess silicone.



**B – 135° BASE SILL COMPONENT REFERENCE**

| Item No | Item Description              | Comments        |
|---------|-------------------------------|-----------------|
| P106    | 150mm Sill                    |                 |
| C101    | 150mm Sill End Caps           |                 |
| C109    | External 135° Sill Connector  |                 |
| C110    | In-line Sill Connector        | Specific models |
| 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 to dark brick or stone walls.

**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.

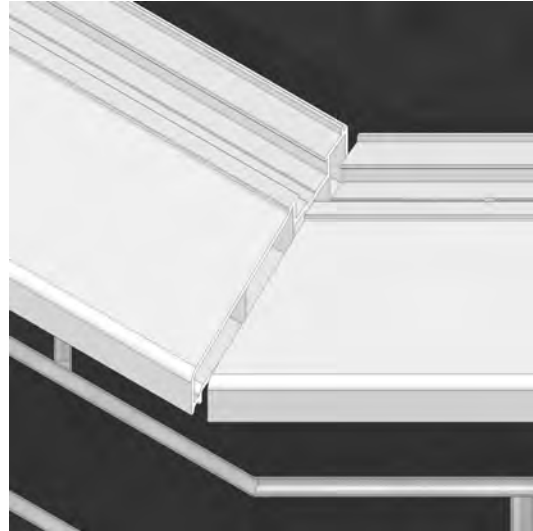
When using sealant as a filler bead, mask both sides of the bead area with masking tape. Run a bead of sealant along the bead area, exerting an even pressure on the sealing gun.

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

### Fitting the Sill

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

On dwarf wall models you will have to measure the gap left for the French doors and cut your 150mm sill (P106) by use of a hacksaw, to fit. The 150mm sill (P106) will finish flush with the outside face of the external brick work.



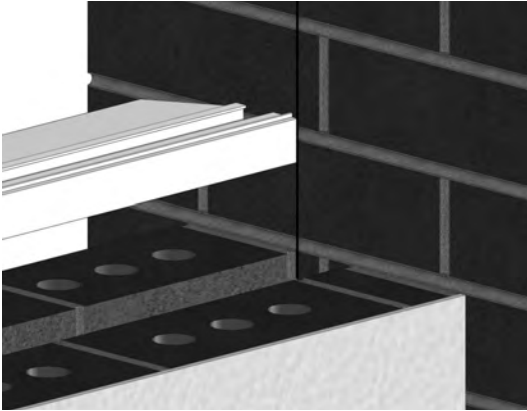
It is recommended that the inside edge of the 150mm sill (P106) is drawn onto the host wall. This guide line will ease in the positioning of the 150mm sill (P106) and the first panels.

Place a spirit or digital level against the inside face of the external brickwork and make plumb.

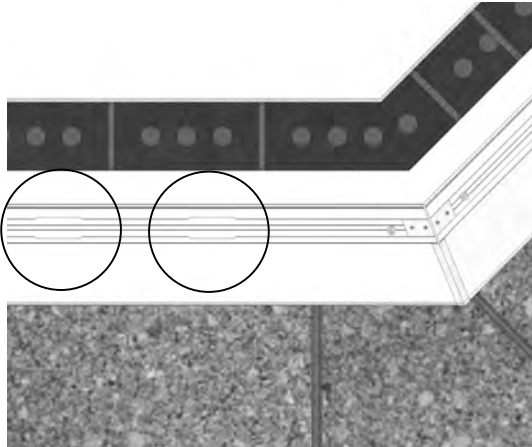
Take a wax or similar crayon and draw a line along the inside edge of the spirit level.



Position the inside face of the 150mm sill (P106) against this line and onto the base.



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 **(with the exception of a cut sill for a French door opening which is described in the next paragraph)**. This will allow the panels to be slid into the groove of the 150mm sill (P106) throughout installation.

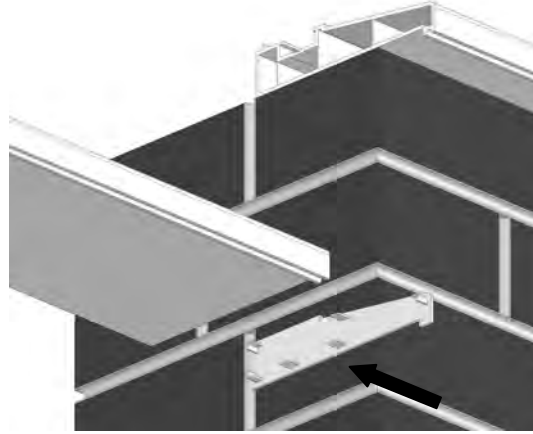


#### Preparing the 150mm Sill for French Doors in Dwarf Wall Models.

On dwarf wall models you will have to cut the run of 150mm sill (P106) with a hacksaw where the French door is positioned. Cut the 150mm sill (P106) so that it overhangs the brickwork for the French door by 2mm on each side.

This is to compensate for the 150mm sill end caps (C101) which when fitted will create an overall overhang of 5mm over the faces of the brick work.

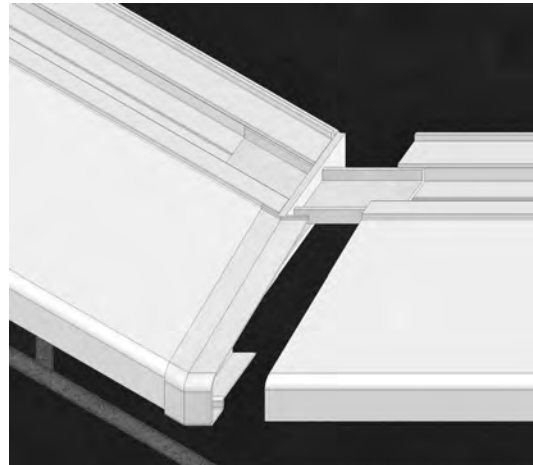
A separate length of 150mm sill (P106) is supplied to fit between the dwarf walls. The 150mm sill end caps (C101) should be attached at the same time as the 150mm sill (P106) is fitted. This process is described at the end of this section.



Do not fit the 150mm sill end caps (C101) to the open ends of the 150mm sill either side of the dwarf wall opening until all panels are fitted (with the exception of the French door outer frame which should be positioned last).

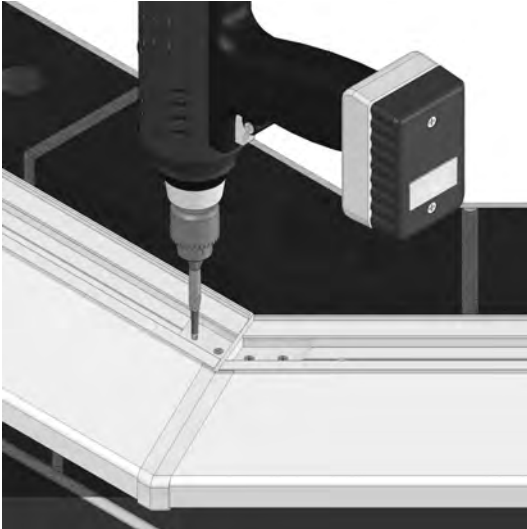
#### Sill Connectors

Progressively join the 150mm sill sections (P106) together with the external 135° sill connector (C109).



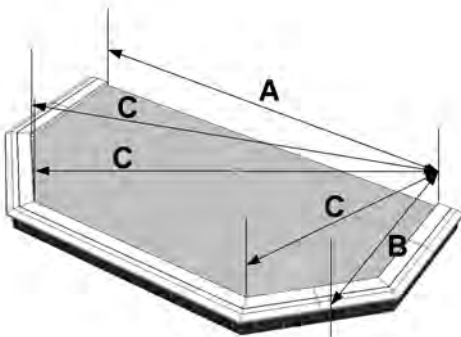
**Note:** Some sections may require joining by using in-line sill connector (C110).

Ensure that the external 135° sill connector (C109) is silicone sealed on all contact areas: top, bottom and sides.  
Fix all sill connectors (C108/C110) to 150mm sill (P106) with 3.9 x 16mm reinforcing screws (SC025) as shown below.



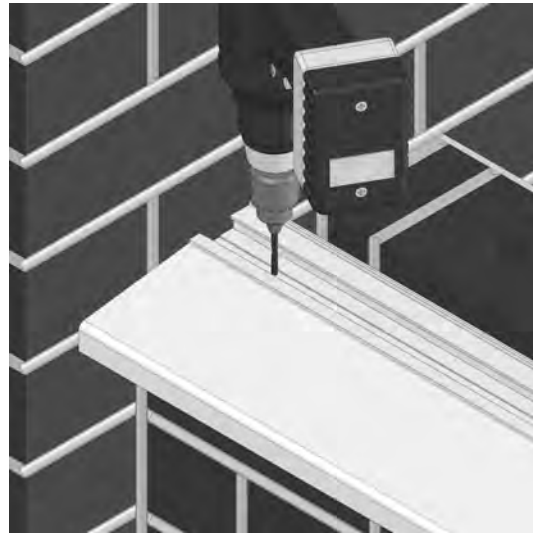
**IMPORTANT:** Time spent getting the base sill layout correct will save time later in the installation, as paying attention to the base sill dimensions, positioning, and making sure it is level will ensure the correct fitting of the rest of the conservatory.

Lay the 150mm sill (P106) in position and by use of your roof plan ensuring that all width, projection and diagonal dimensions are equal. For further direction please refer to section C – ‘Base Sill Checks’ of this manual.



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.

Two 100mm fixing bolts (SC030) are used to fix the 150mm sill (P106) to the base between the French door opening in dwarf wall models. This however is done at the same time as the French door outer frame is positioned as described in the next section.

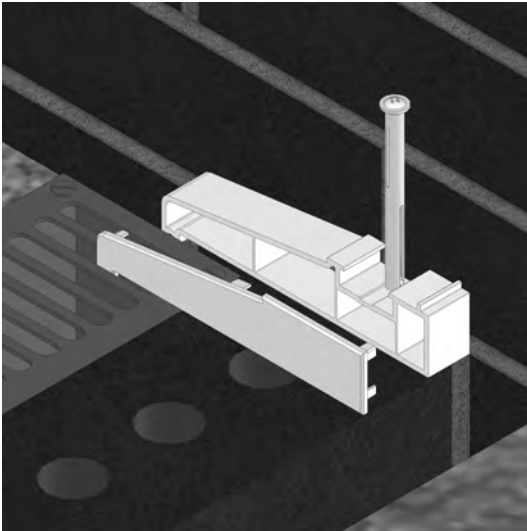
**Check your sill layout again for square.**

### Positioning 150mm sill for Aluminium Low Threshold's positioned against host wall.

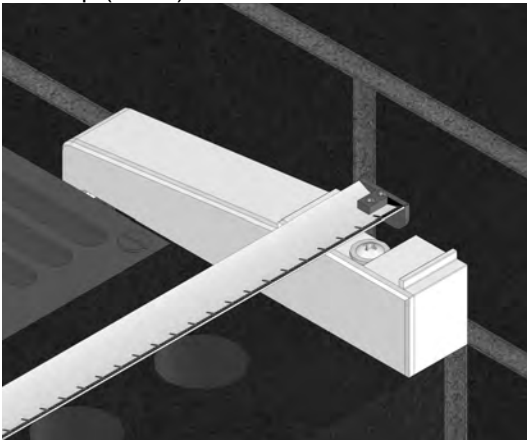
If your conservatory has an aluminium low threshold (A103) against the host wall, a small piece of 150mm sill (P106) should be installed. This is described below.

Cut a piece of 150mm sill (P106) 23mm in length from your left over pieces. A sill end cap (C101) should be attached to the open end which is *not* against the host wall.

Pre-drill the 150mm sill (P106) as previously described and permanently fixing to the base to a minimum depth of 100mm by use of the 100mm fixing bolts (SC030).



A quick measurement check between the host wall/start position and the 150mm sill end cap (C101) should show 26mm.



### Sill End Caps

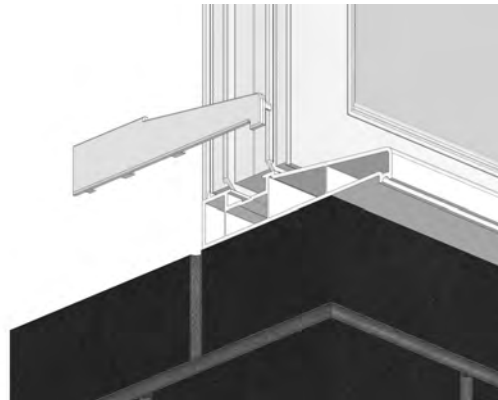
On dwarf wall models, the 150mm sill (P106) should overhang 3mm from the external face of the dwarf wall to allow for an overall 5mm overhang when the 150mm sill end cap (C101) is attached.

The first set of 150mm sill end caps (C101) are attached to both ends of the 150mm sill (P106) which is positioned underneath the French door outer frame (as described earlier).

The final set of 150mm sill end caps (C101) are attached when all the panels have been fitted (with the exception of the French door outer frame which will be the last panel to be fitted after the 150mm sill end caps (C101) have been attached).

The 150mm sill end caps (C101) are attached to the open ends of the 150mm sill (P106) on either side of the opening for the French door.

Apply a bead of low modulus neutral cure silicone to the end face of the 150mm sill (P106) and push fit the 150mm sill end caps (C101) to seal wiping off excess silicone.

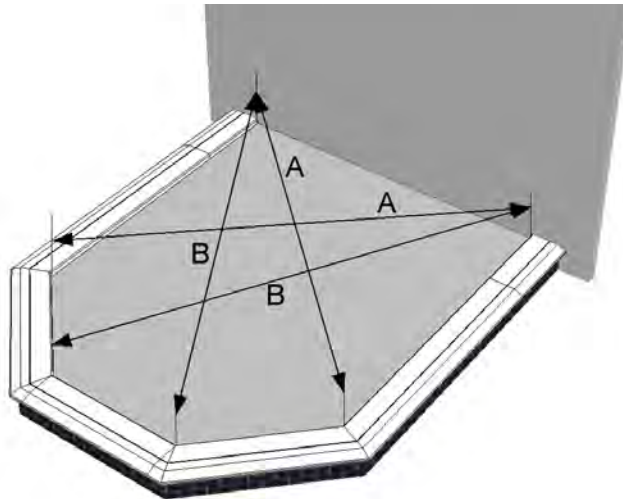


## C – BASE SILL CHECKS

When all 150mm sill (P106) pieces are in position it is recommended that checks are made to ensure that they have been positioned correctly.

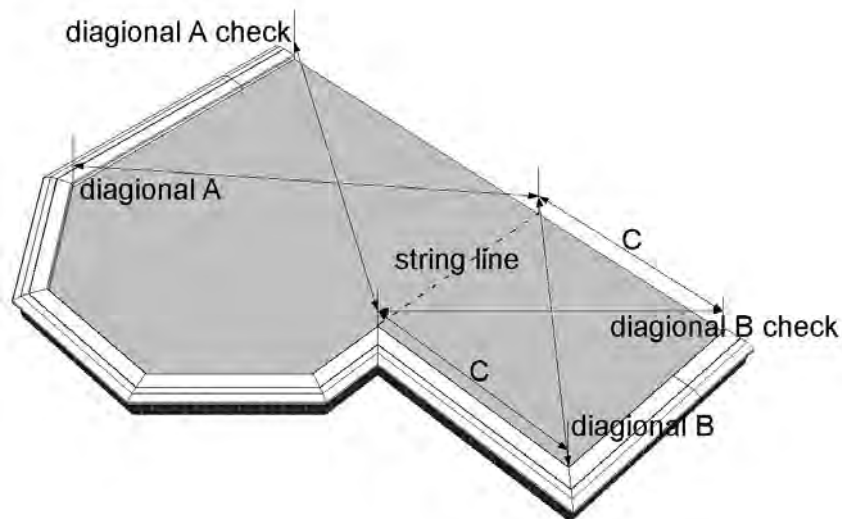
**IMPORTANT:** Time spent getting the sill layout correct will save time later in the installation, as paying attention to the sill dimensions, positioning, and making sure it is level will ensure the correct fitting of the rest of the conservatory.

Although you may not have the *actual* dimensions of the diagonal measurements, one can ensure that each diagonal and the ones from the opposite corners are the same as shown below. If these diagonal dimensions are the same then the 150mm sill (P106) layout is correct and in 'square'.



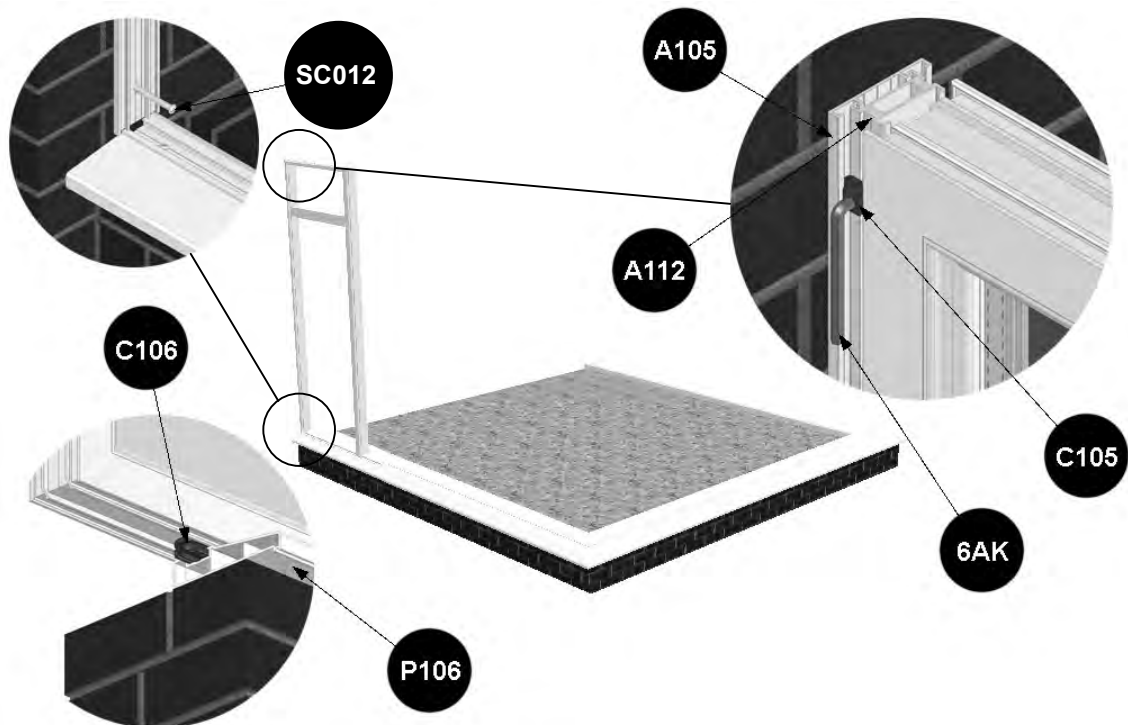
If the style of your conservatory is more complex than the image shown above you may have to create some of your own string lines to check the diagonal dimensions. Such an example is when you are checking the 150mm sill (P106) for a P-Shape as shown below.

The diagram below shows how a string line is created to enable the checking of the diagonals from points along the host wall. For example measurement 'C' taken from your roof plan, is measured along the host wall and marked so that the diagonals 'A' and B can be checked.



**D - FIRST PANELS COMPONENT REFERENCE**

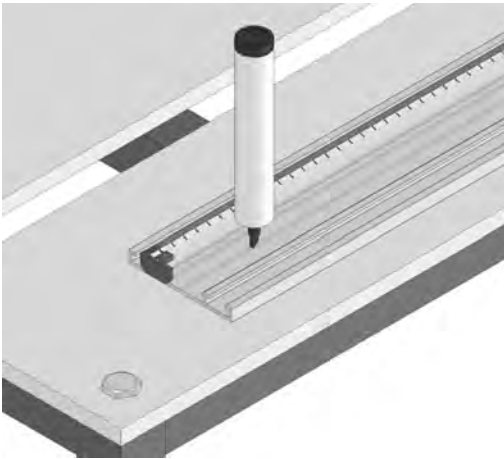
| Item No | Item Description    | Comments      |
|---------|---------------------|---------------|
| A112    | Two-Part Connector  |               |
| A105    | 26mm Wall Connector |               |
| C105    | Quarter Turn Button | Pre-Assembled |
| C106    | Sill Support Block  |               |
| SC012   | 60mm Fixing Bolts   |               |
| 6AK     | 6mm Allen Key       |               |



### Setting Position for Wall Connectors

Select the 26mm wall connector (A105) and lay out on a work bench or the conservatory base. Use a marker pen or similar tool to mark out the position of the 60mm fixing bolts (SC012).

The first and last 60mm fixing bolt (SC012) should be positioned 50mm from the top and bottom faces of the 26mm wall connector (A105) and the rest should be equally spaced between. A total of five 60mm fixing bolts (SC012) are used on full height models and 3 for a dwarf wall model per 26mm wall connector (A105).



Again, using the scribed vertical line drawn on the wall earlier, position the 26mm wall connector (A105) so that the internal edge is in line with the scribed line on the wall. You will notice that the inside edge of the 26mm wall connector (A105) is in line with the internal face of the 150mm sill (P106). Use a spirit level to check for plumb.



If any marked positions for the 60mm fixing bolts (SC012) land on mortar joints adjust accordingly so that they locate over solid brick. Holding the 26mm wall connector (A105) in position and ensuring that it rests onto the 150mm sill (P106), pre drill through the 26mm wall connector (A105) and into the masonry using an 8mm masonry drill.



Please note that in dwarf wall models the 26mm wall connector (A105) should be cut to size unless a set of French doors are to be positioned against the wall in which case they are left full height. The French door outer frame is then fitted in the same way as any other panel.

**Important: Ensure that the 26mm wall connector (A105) is at 90° to the base by packing if required (this should have been accounted for when setting out the base).**

Fix the 26mm wall connector (A105) with 60mm fixing bolts (SC012).



Repeat for the connector on the opposite side of the conservatory.

### Fitting the First Panel.

Prior to the positioning of the panels and to prevent water ingress, a bead of silicone should be run along the full length of the 150mm sill (P106). The position is shown below.

**NB: The 150mm sill (P106) should however, be wiped free of dust or dirt before application of the silicone.**



If your conservatory is against a side wall as well as the rear your roof will require a box gutter. If so, it is important that you re-read the Box Gutter Installation section at the back of this installation guide paying particular attention to the size of the box gutter panels before you continue to erect your roof.

**IMPORTANT – When fitting your French door frame it must be positioned the right way. To ensure this, check that the hinges on the outer frame are to the outside of your conservatory.**

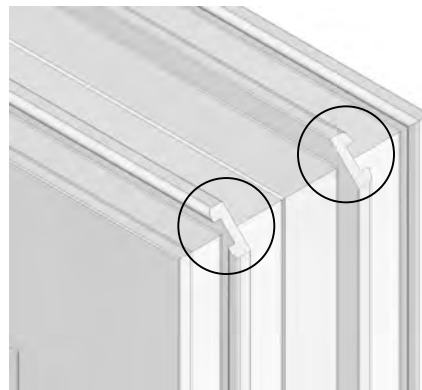
Select the panel to fit against the property wall. It is imperative that the drain slots in every panel are located at the bottom of the panel and facing front as shown on the next column.

Please also note that two sill support blocks (C106) are attached to the bottom of every panel also shown below, *except* for the French door outer frame and any box gutter panels (BG9/BG10).



Before installation commences check each panel 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 panel corner has the inner legs on the panel 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.

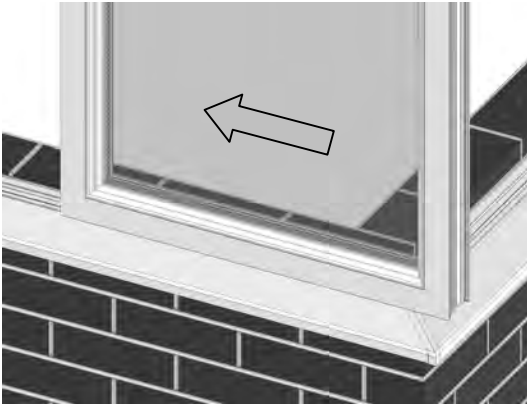


### Fitting First Panel

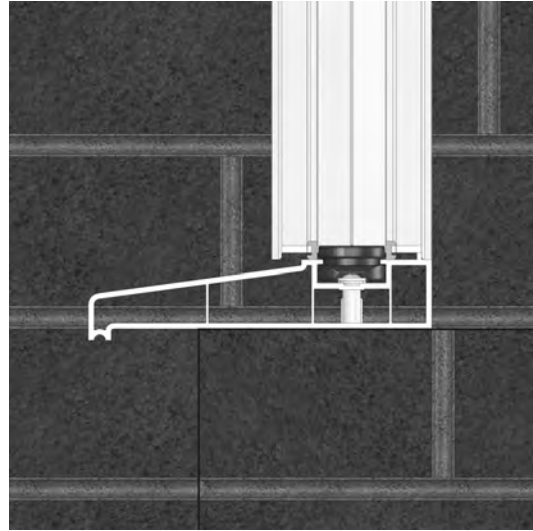
Check that the 150mm sill (P106) is clear of dust or dirt then line up the sill support blocks (C106) with the milled out sections at the end of the 150mm sill (P106).



Position the panel onto the 150mm sill (P106) and slide into position.



The sill support block (C106) will sit in the 150mm sill (P106) as shown at the top of the next column.

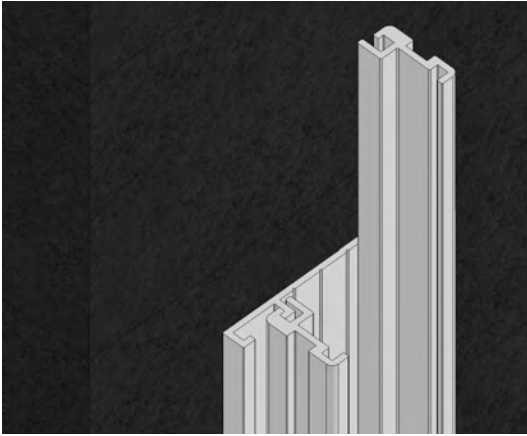


### Fitting the Two-Part Connectors

The first panel is connected to the 26mm wall connector (A105) by use of the two-part connectors (A112). Two are used per 26mm wall connector (A105).

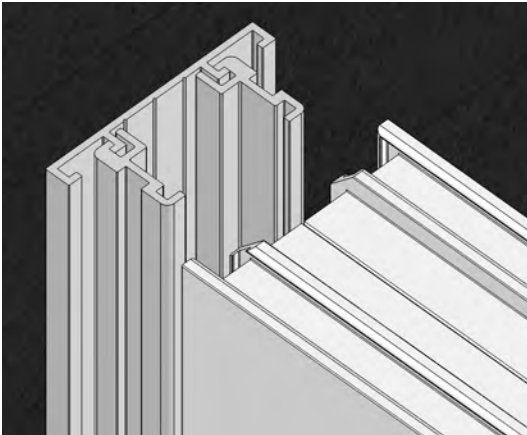


Select a two-part connector (A112) and slide it downwards and over the legs on the 26mm wall connector (A105) ensuring that the legs inter lock.

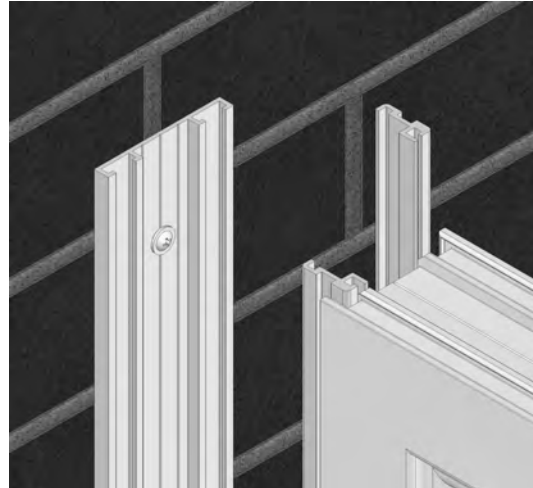


When the two-part connectors are in position, slide the panel towards the 26mm wall connector A105). The leg detail of the two-part connectors (A112) will automatically mate with the leg detail of the forthcoming component.

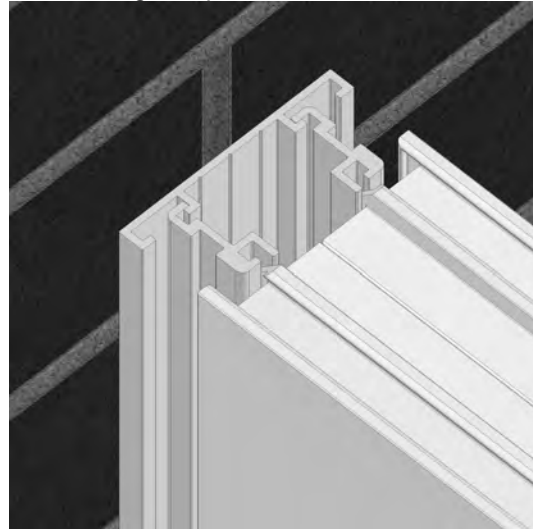
The standard assembly is shown below.



If there is an obstruction above the 26mm wall connector (A105) which prevents the two-part connectors (A112) being slid onto the 26mm wall connector (A105) from above, slide the two-part connector onto the panel instead and in the same manner – from above and ensuring that the legs interlock with those of the panel.



When the two-part connectors are in position, slide the panel towards the 26mm wall connector A105). The leg detail of the two-part connectors (A112) will automatically mate with the leg detail of the forthcoming component.



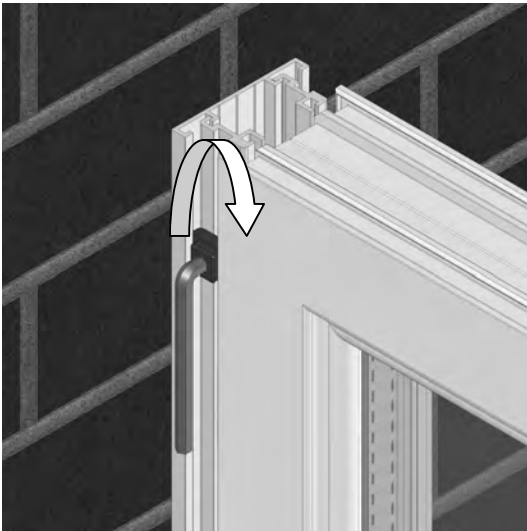
Select a quarter turn button (C105) and the 6mm Allen key (6AK).



The quarter turn buttons (C105) are positioned longitudinally into the gap between the panel and the 26mm wall connector (A105) approximately 50mm from the top and bottom faces of the panel.



When the quarter turn button (C105) is in position and resting against the two-part connector (A112), turn the 6mm Allen key (6AK) 90° clockwise. The quarter turn button (C105) will 'click' into position.

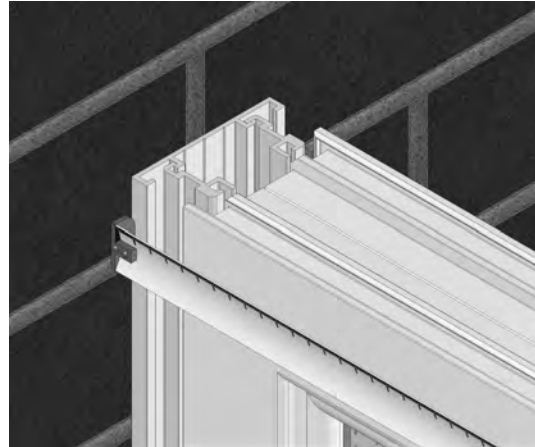


Continue to fit the rest of the quarter turn buttons (C105) into the two-part connector (A112) as described.

Six quarter turn buttons (C105) per face of the two-part connector (A112) should be

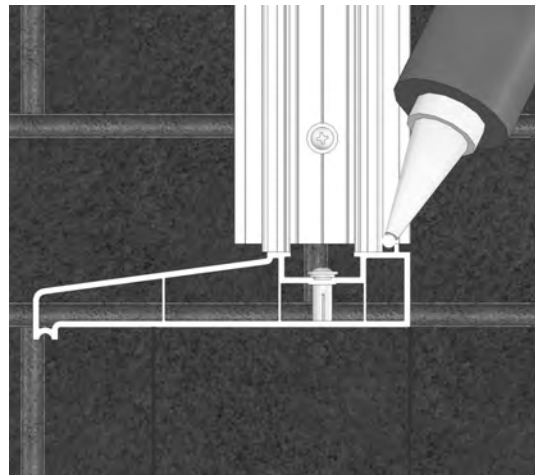
attached on dwarf wall models inside and out, and eight quarter turn buttons (C105) per full height model conservatory, again eight inside and eight on the outside.

A quick check between the back face of the 26mm wall connector (A105) and the wall face of the panel should show 26mm.



An application of silicone should be made to the 150mm sill (P106) where the two-part connector (A112) has made contact.

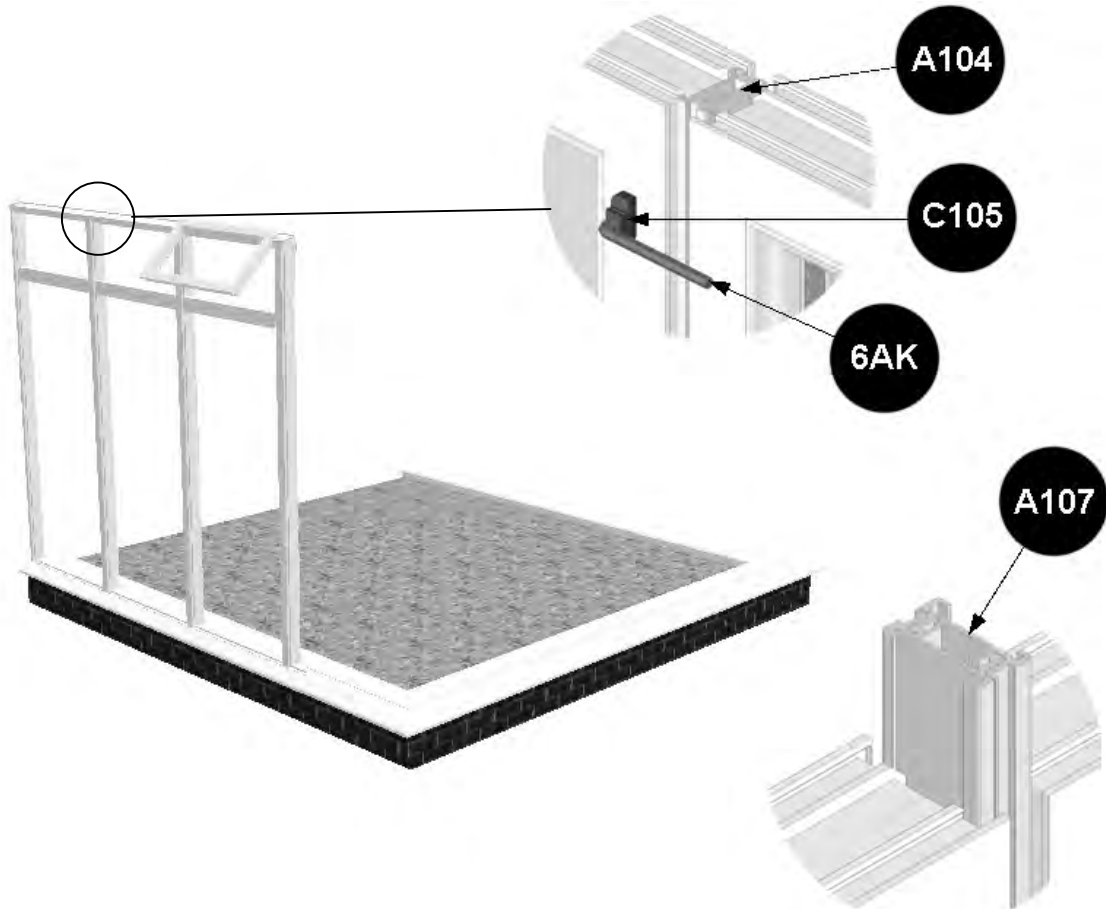
This should be a bead at the back of the two-part connector (A112) positioned as shown below.



Repeat the entire process for the opposite panel.

**E - STRAIGHT RUN PANELS COMPONENT REFERENCE**

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



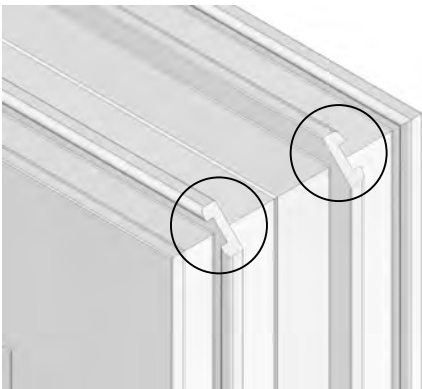
Select the panel to fit against the previously installed panel. **It is imperative that the drain slots in every panel are located at the bottom of the panel and facing front as shown below.**

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



Before installation commences check each panel 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 panel corner has the inner legs on the panel 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.

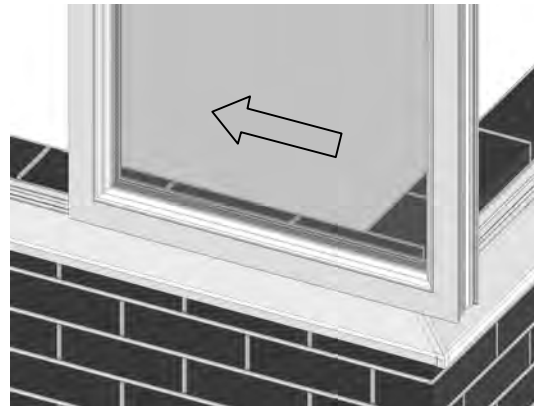


### Fitting the Intermediate Panel

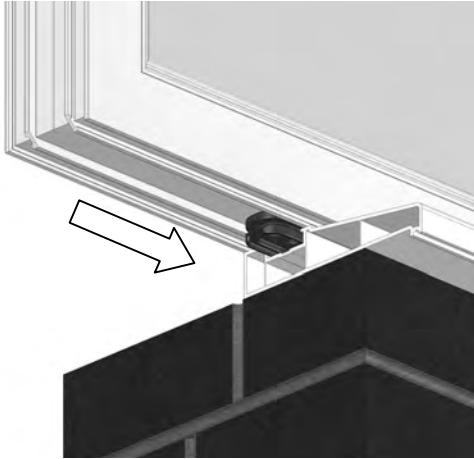
Check that the 150mm sill (P106) is clear of dust or dirt then line up the sill support blocks (C106) with the milled out sections at the end of the 150mm sill (P106).



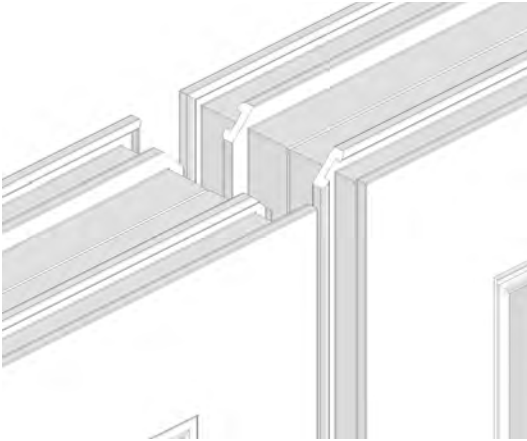
Position the panel onto the 150mm sill (P106) and slide into position.



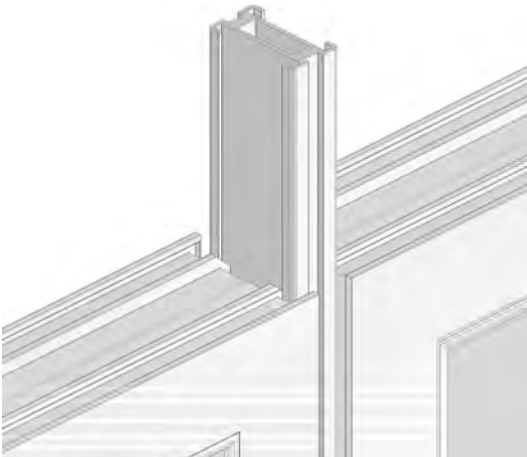
If you have a dwarf wall model conservatory and you have had to cut the 150mm sill (P106) for a French door opening, the first panel, and any subsequent ones between the host wall and the French door opening, are slid on through the open face of the 150mm sill (P106) as shown on the next page.



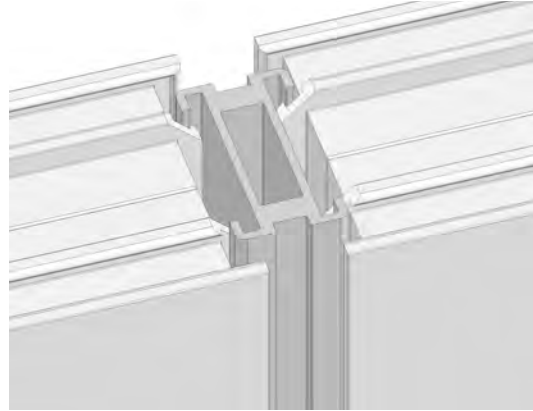
The panel is slid along the 150mm sill (P106) until it is approximately 18mm away from the last panel to be installed.



Select the 18mm inline coupling (A104) sliding downwards and through the gap between the two panels until it rests on the 150mm sill (P106) at the foot of the panel.



**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 panels as shown below.

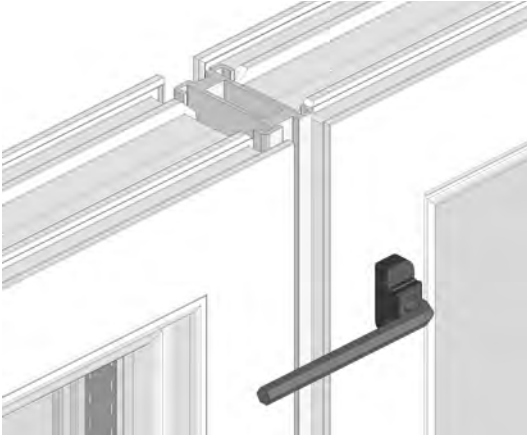


**Remember to silicone seal around the bottom of the 18mm inline coupling (A104) when in position.**

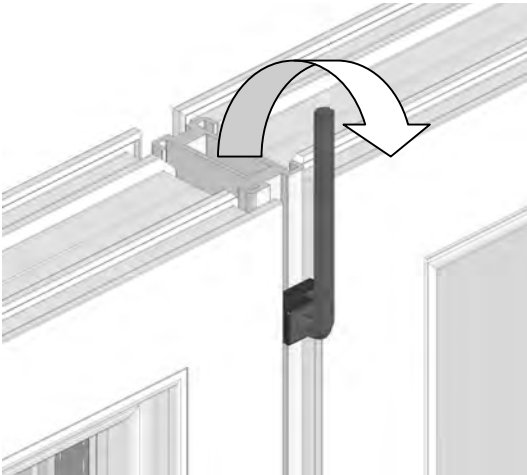
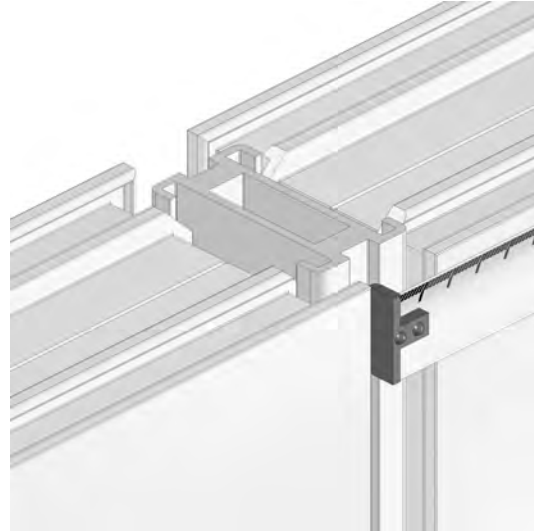
Select a quarter turn button (C105) and the 6mm Allen key (6AK).



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



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



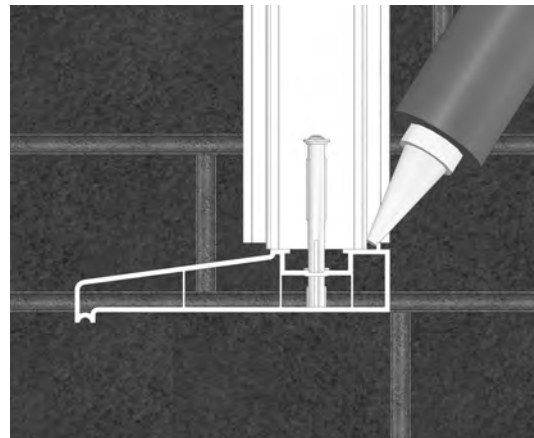
Continue to fit the rest of the quarter turn buttons (C105) into the 18mm inline coupling (A104) as described.

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.

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

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

This should be a bead at the back of the 18mm inline coupling (A104) positioned as shown below.



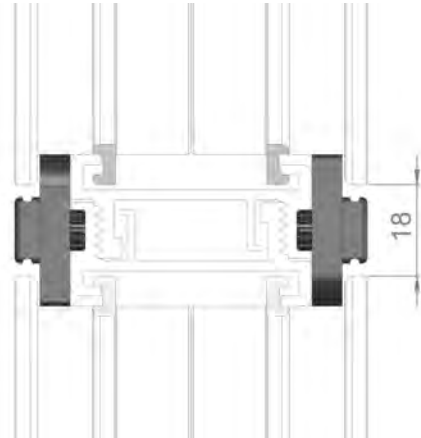
Continue the entire process for all panels and 18mm inline couplings (A104).

### Adjustable Connectors

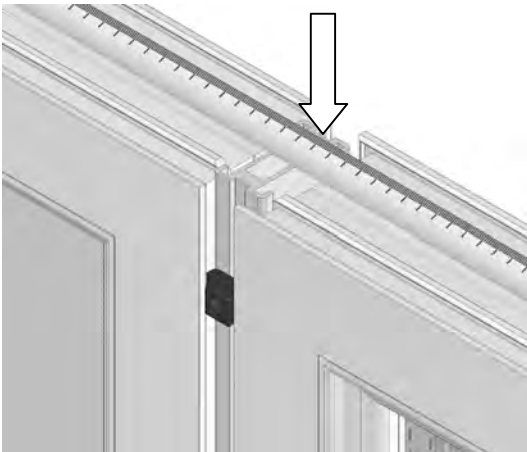
After every third 18mm inline coupler (A104) along a run of connected panels, an *adjustable* inline coupling (A107) is supplied. These adjustable inline couplings (A107) allow for adjustment to ensure that the panels will finish in the correct position at the

end of a run of panels when connecting to a corner post or wall connector.

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



After the third panel has been assembled along a straight run of panels, it is recommended to check the dimension from the start of the 26mm wall connector (A105) to the centre line of the previous 18mm inline coupler (A104).

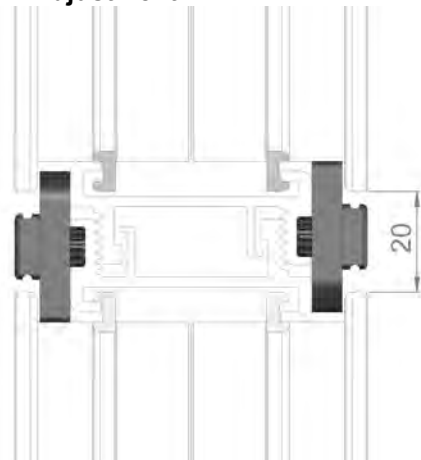


Check this dimension by referring to your roof plan. This will tell you whether your panels are still set at the correct increments or require adjustment.

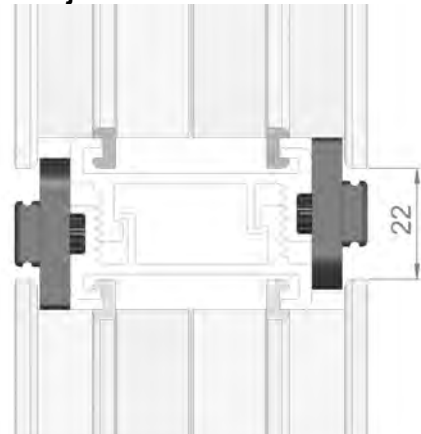
The two halves of the adjustable inline couplings (A107) slide together in 3 variant positions as shown below and should be interlocked prior to assembly.

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

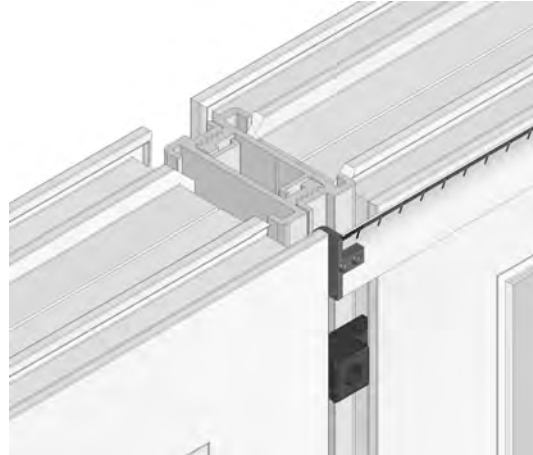
#### 20mm Adjustment



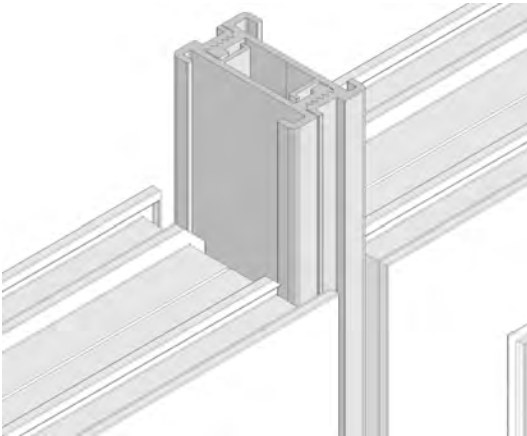
#### 22mm Adjustment



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



**Remember to silicone seal around the bottom of the adjustable inline couplings (A107) when in position.**

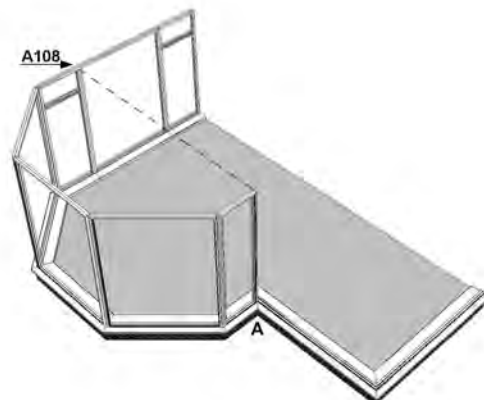


The quarter turn buttons (C105) are again used to lock the panels together in the same positions and quantities as the 18mm inline coupling (A104). A dimensional check is then performed to ensure that the required setting has been achieved.

### The 70mm Inline Coupling

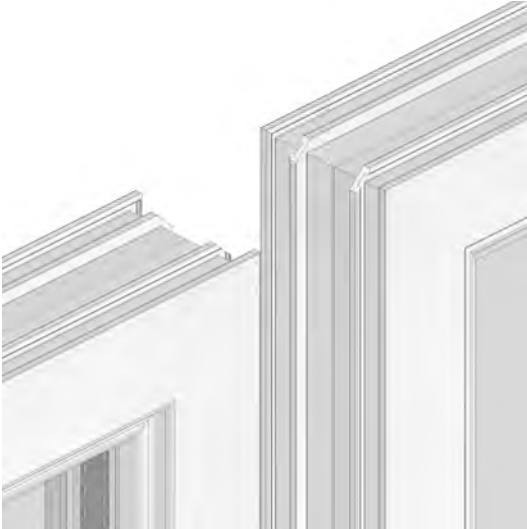
**The 70mm inline coupling (A108) is used on P-shape conservatories only.**

A 70mm inline coupling (A108) is required in the position shown in the diagram below. It is used to connect the last two panels together along the longest side away from the host wall. You will notice that it is positioned opposite the 90° corner post (A109).

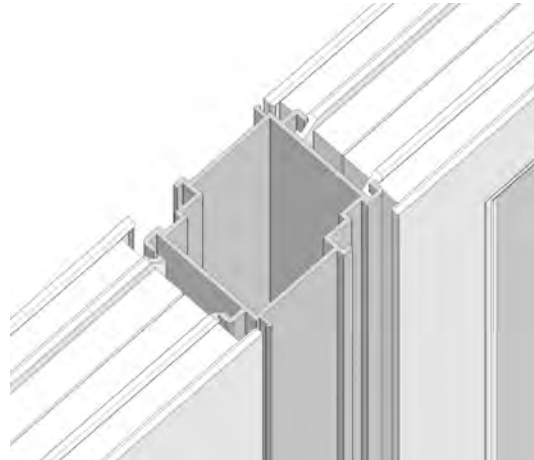


The 70mm inline coupling (A108) is assembled in the same way as the 18mm inline couplings (A104).

The panels which are to be connected are assembled approximately 70mm from each other.

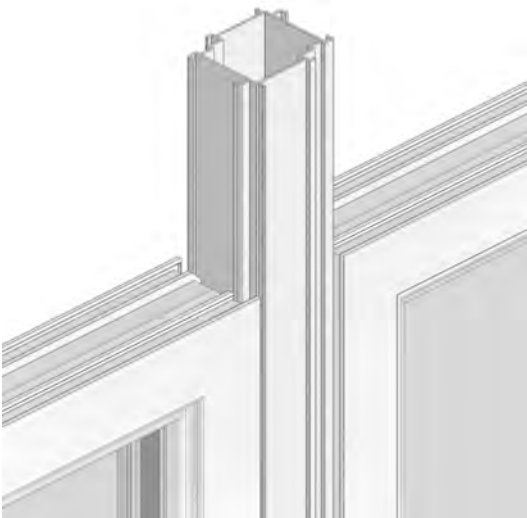


legs on the 70mm inline coupling (A108) interlock with the leg detail on the panels as shown below.



**Remember to silicone seal around the bottom of the 70mm inline coupling (A108) when in position.**

Select the 70mm inline coupling (A108) sliding downwards and through the gap between the two panels until it rests on the 150mm sill (P106) at the foot of the panel as shown below.



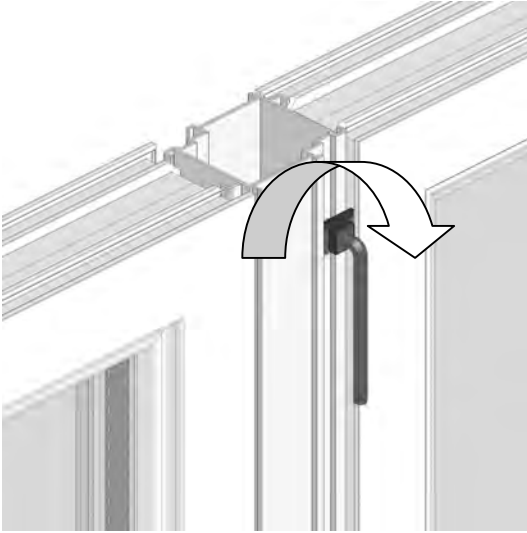
**IMPORTANT:** As the 70mm inline coupling (A108) is being positioned check that the

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



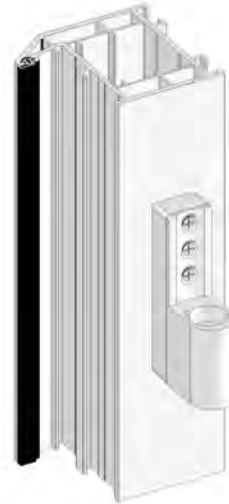
The quarter turn buttons (C105) are positioned longitudinally into the gap between the panels and approximately 50mm from the top and bottom faces of the panel.

When the quarter turn button (C105) is in position and resting against the 70mm inline coupling (A108), turn the 6mm Allen key (6AK) 90° clockwise. The quarter turn button (C105) will 'click' into position.



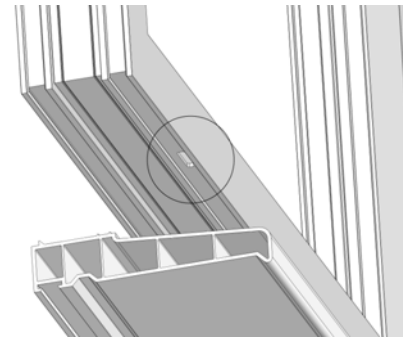
**The French door outer frame is the last panel to be fitted.** Ensure that the outer frame is positioned correctly by checking the following;

*The flag hinge socket (FH1d) is on the outer face of the French doors,*



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

A quick check between the two panels on each side of the 70mm inline coupling (A108) and should show 70mm.



**If you have 'TP Panels' these have to be attached to the French door outer frame prior to installation.**

The 'TP Panels' are joined to the top of the French door outer frame by use of an 18mm inline coupling (A104) which is positioned from the side.

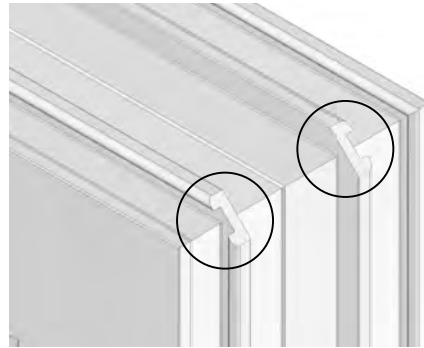
**Fitting French Door Outer Frames for Dwarf Wall Models.**

the 150mm sill (P106) but simply placed into position.

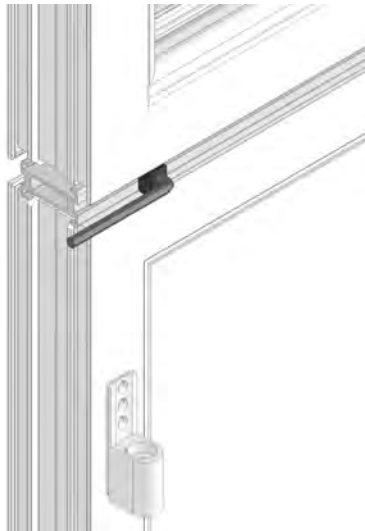
Ensure that the legs on the 18mm inline coupling interlock with the legs on the 'TP Panel' and the French door outer frame.



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



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



On dwarf wall models, the 18mm inline couplings (A104) which attach the French door outer frame to the adjacent panels are to be cut to size as they must rest on top of the 150mm sill (P106) as shown below.

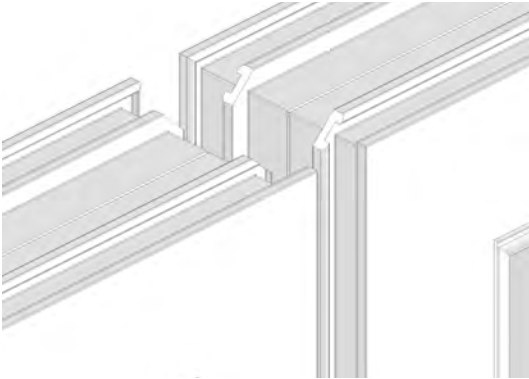


Locate the French door outer frame position by ensuring that the internal face of the French door outer frame is in line with the internal face of the 150mm sill (P106).

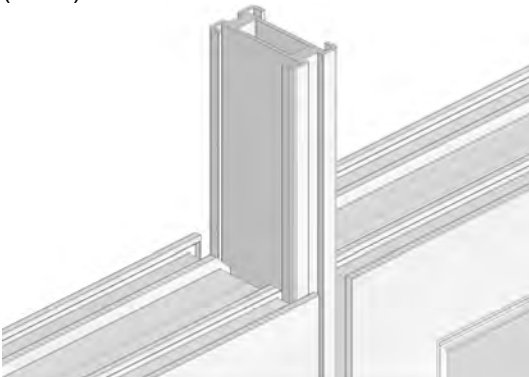
The French door outer frame is positioned like all other panels with the exception that the French door outer frame is not slid onto



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



Select the 18mm inline coupling (A104) or adjustable inline coupling (A107) and slide downwards through the gap between the two panels until it rests on the 150mm sill (P106) on the dwarf wall.

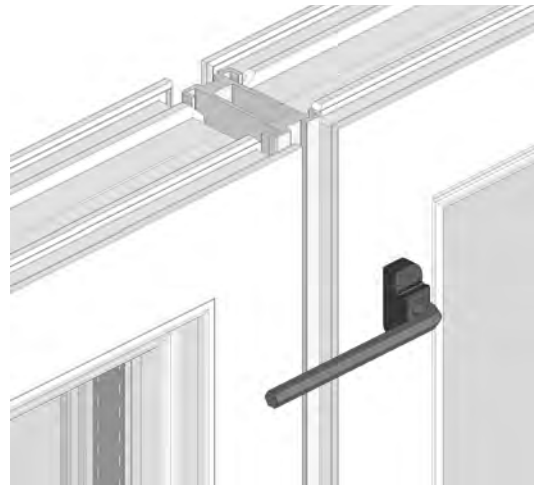


**Remember to silicone seal around the bottom of the 18mm inline coupling (A104) when in position.**

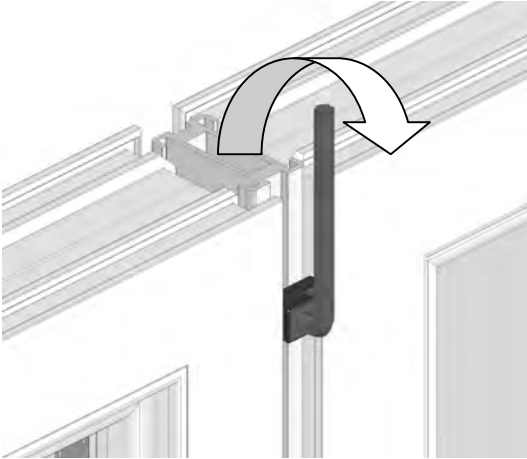
Select a quarter turn button (C105) and the 6mm Allen key (6AK).



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



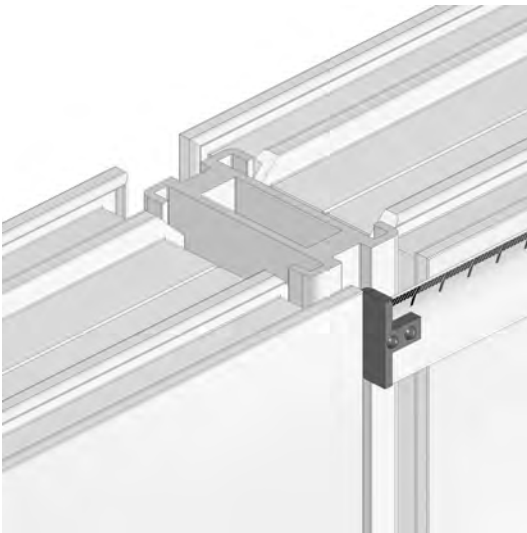
When the quarter turn button (C105) is in position and resting against the 18mm inline coupling (A104), turn the 6mm Allen key (6AK) 90° clockwise. The quarter turn button (C105) will 'click' into position.



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.

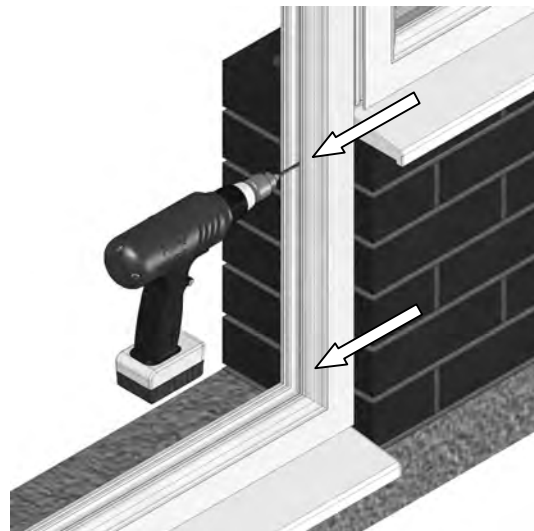
A quick check between the two panels should show 18mm.



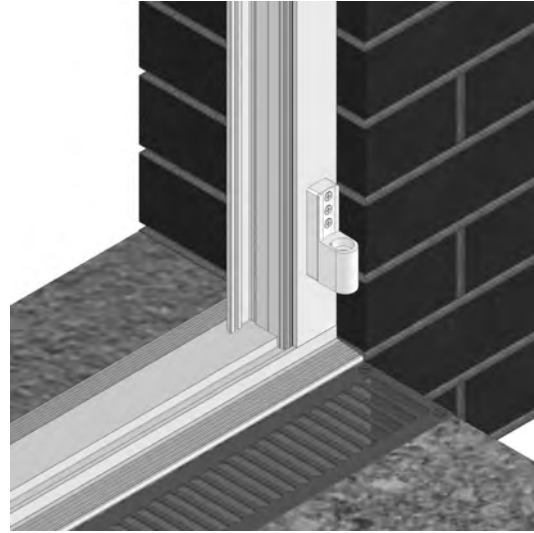
Once level and in the correct position, fix the French door outer frame to the 150mm sill (P106) by use of four 70mm fixing screws (SC045), two positioned on each side of the shoot bolt keeps at the foot of the French door.



In dwarf wall models use the relevant drill bits to pre-drill two holes through the French door outer frame, as indicated below and then into sound masonry positioned 50mm in from the top and bottom of the dwarf wall.



Now permanently fix the French door outer frame to the sides of the dwarf wall with two 100mm fixing bolts (SC030).



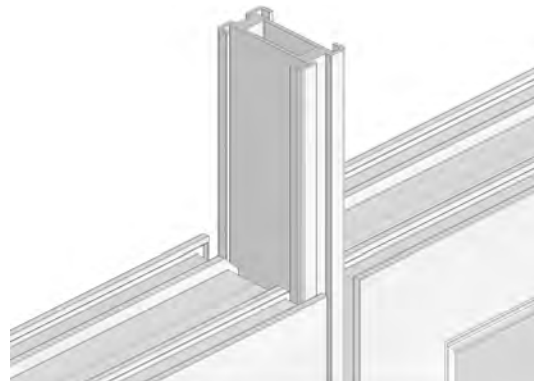
The 18mm inline couplings (A104) are assembled into the gap between the French door outer frame. **Remember to silicone seal around the bottom of the 18mm inline coupling (A104) when in position.**

### Fitting the French Door Outer Frame in Low Threshold Models

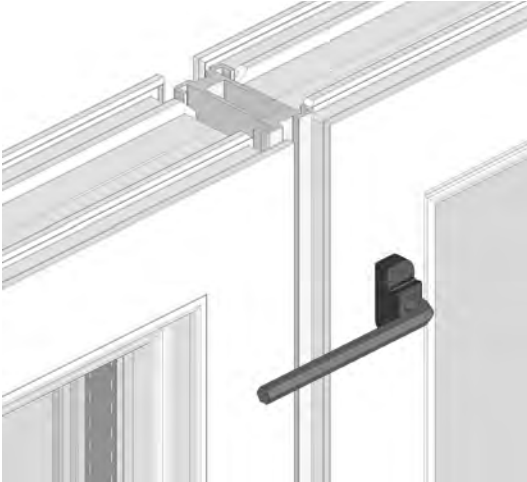
The French door outer frame for low threshold doorways differ from regular French door outer frames as it is pre-assembled to the aluminium low threshold (A103).

**It is recommended that a drain is installed onto the top of the access ramp to prevent pooling of water and subsequent water ingress.**

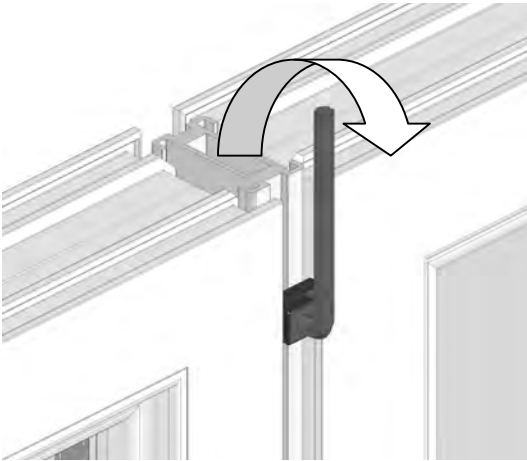
The whole low threshold assembly should be positioned approximately 18mm from the adjacent panels.



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



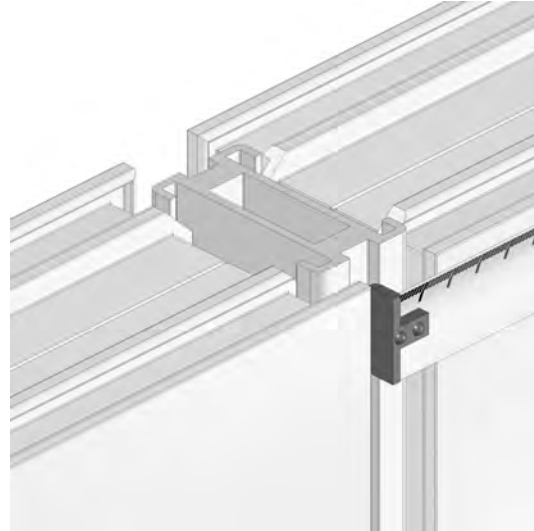
When the quarter turn button (C105) is in position and resting against the 18mm inline coupling (A104), turn the 6mm Allen key (6AK) 90° clockwise. The quarter turn button (C105) will 'click' into position.



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

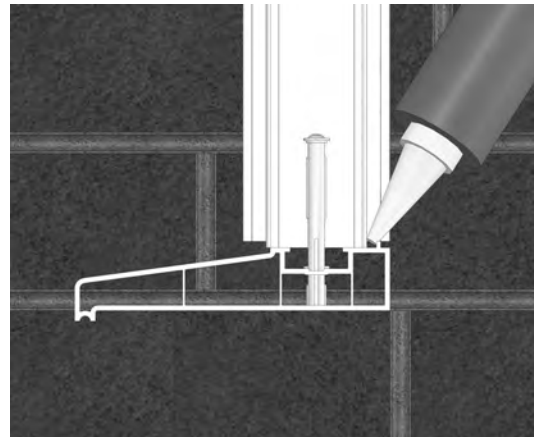
Six quarter turn buttons (C105) per face of the 18mm inline coupling (A104) should be attached on dwarf wall models inside and out, and eight quarter turn buttons (C105) per full height model conservatory, again eight inside and eight on the outside.

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



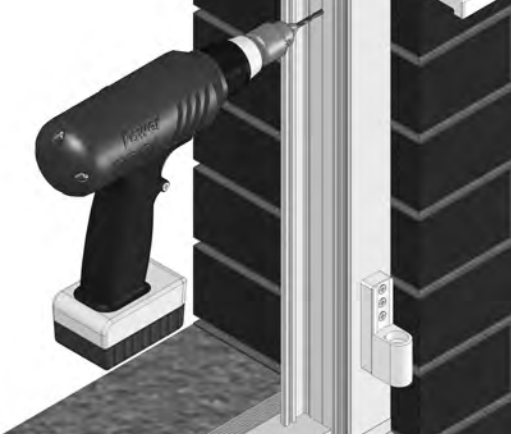
An application of silicone should be made to the 150mm sill (P106) where the 18mm inline coupling (A104) has made contact.

This should be a bead at the back of the 18mm inline coupling (A104) positioned as shown below.



In dwarf wall models and when the 18mm inline couplings (A104) are in position, pre-drill two holes through the French door outer frame and into the side faces of the dwarf wall 50mm from the bottom and top faces of the dwarf wall.

Like wise, pre-drill two holes on each side of the shoot bolt keeps located in the aluminium low threshold (A103) and into the base to at least 100mm deep.



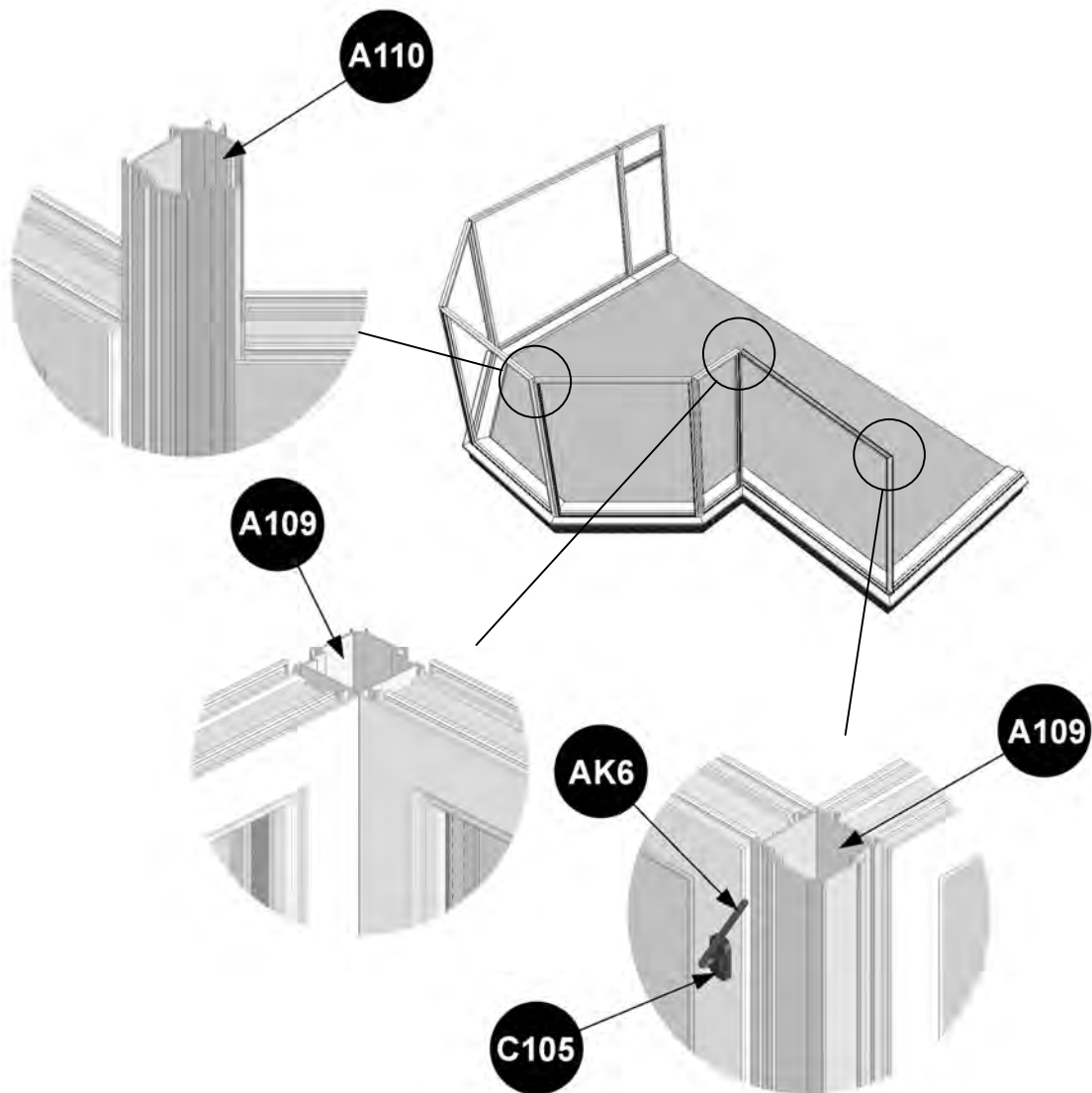
Permanently fix the aluminium low threshold (A103) to the base by use of the 100mm fixing bolts (SC030). The French door outer

frame is also permanently fixed to the faces of the dwarf wall by use of the 100mm fixing bolts (SC030).



**F - 90° & 135° CORNER POST COMPONENT REFERENCE**

| Item No | Item Description     | Comments |
|---------|----------------------|----------|
| A109    | 90° Corner Post      |          |
| C105    | Quarter Turn Buttons |          |
| 6AK     | 6mm Allen Key        |          |
| A110    | 135° Corner Post     |          |



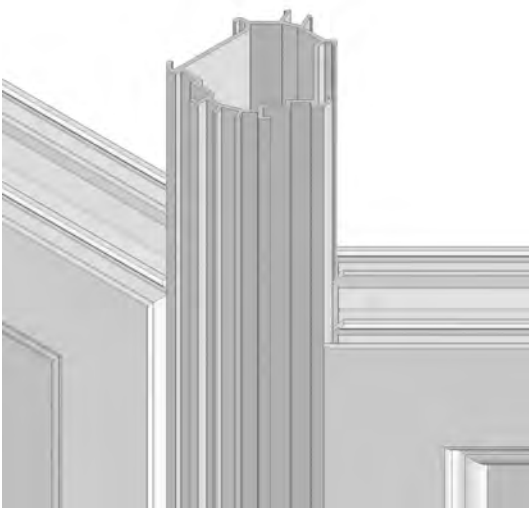
### Fitting the 135° Corner Posts

The 135° corner posts (A110) are positioned around the angled faces of the P-Shape.

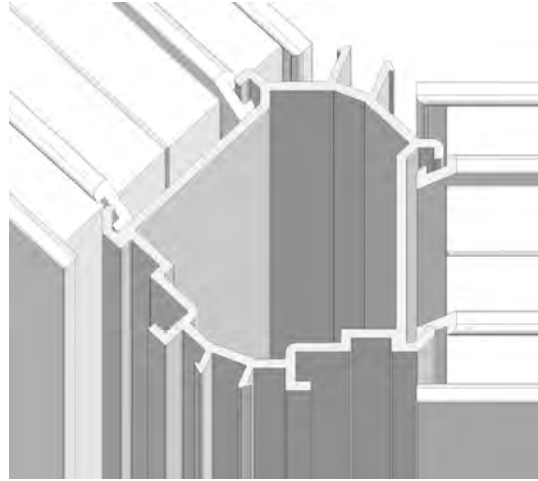
The panels which sit either side of the 135° corner post (A110) should be positioned at the approximate position as shown below so that the external corners of the panels are approximately 75mm apart.



Select the first 135° corner post (A110) and from above, slide between the two adjacent panels. The large angled face section of the 135° corner post (A110) is positioned to the outer corner of the 150mm sill (P106) as shown below. **Bed onto a bead of silicone positioned onto the 150mm sill (P106).**



Ensure that the leg detail on the 135° corner post (A110) interlocks with the leg detail on the panels as shown at the top of the next column.



Select a quarter turn button (C105) and the 6mm Allen Key (6AK).



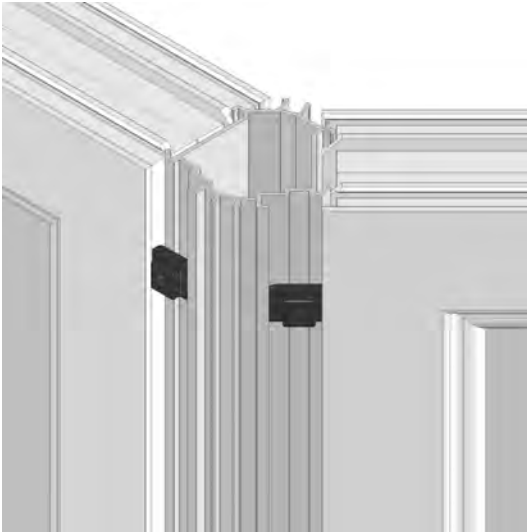
The quarter turn buttons (C105) are positioned longitudinally into the gap between the panels and 135° corner post (A110) at approximately 50mm from the top and bottom faces of the panels.



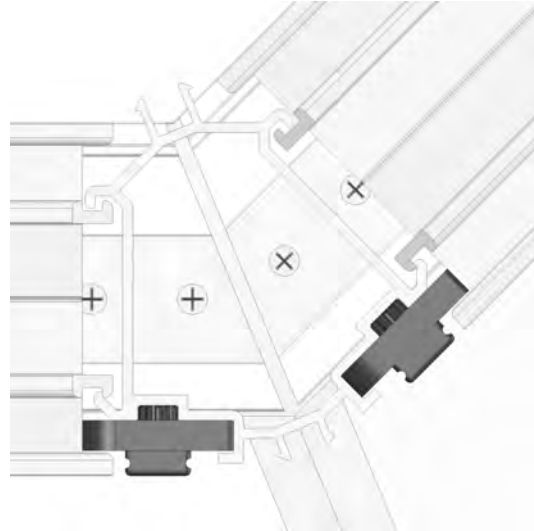
When the quarter turn button (C105) is in position and resting against the 135° corner post (A110), turn the 6mm Allen key (6AK) 90° clockwise. The quarter turn button (C105) will 'click' into position.



The 135° corner post (A110) also requires a quarter turn button in the adjacent outer corner. This is positioned in the same way as described previous.



If positioned correctly, the quarter turn buttons (C105) should lock the 135° corner post (A110) and panels as shown below.

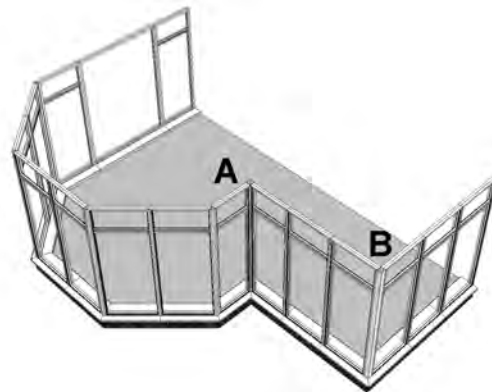


Continue to fit the rest of the quarter turn buttons (C105) into the 135° corner post (A110) as described.

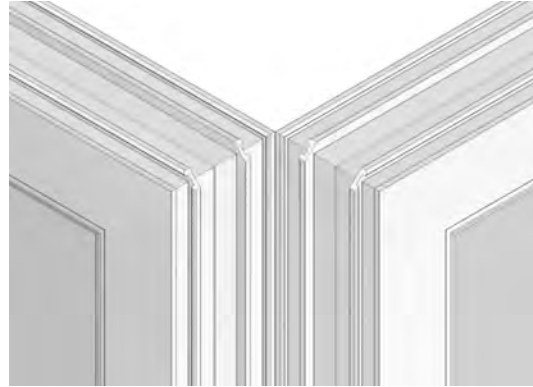
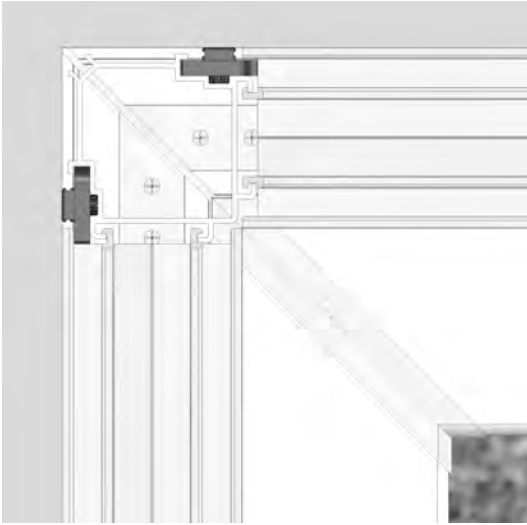
Six quarter turn buttons (C105) per face of the 135° corner post (A110) should be attached on dwarf wall models inside and out, and eight quarter turn buttons (C105) per full height model conservatory, again eight inside and eight on the outside.

### Fitting the 90° Corner Posts

The 90° corner posts (A109) are fitted two positions on the P-Shape conservatory. The first 90° corner post (A109) is situated on the internal corner of your conservatory indicated 'A' in the illustration below and the other is situated on the external corner as indicated 'B'.

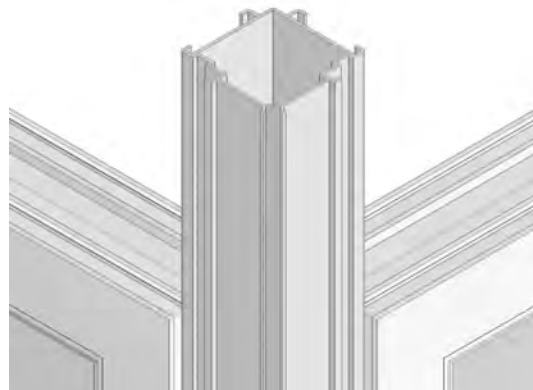
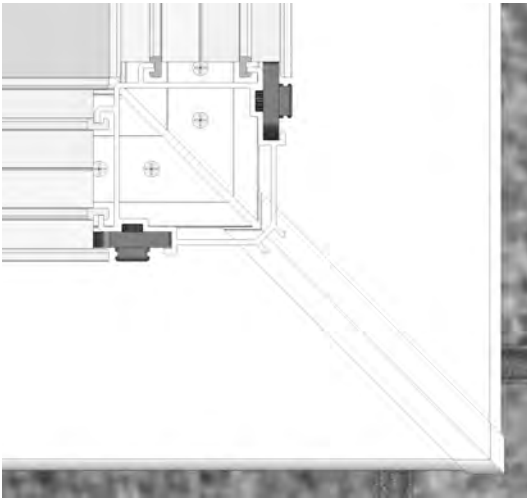


On the internal corner 'A', the 90° corner post (A109) is positioned as shown below.

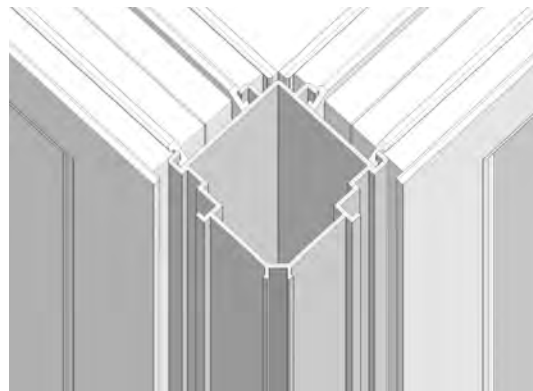


Select the first 90° corner post (A109) and from above, slide between the two adjacent panels. The angled corner section of the 90° corner post (A109) is positioned to the outer corner of the 150mm sill (P106) as shown below. **Bed onto a bead of silicone positioned onto the 150mm sill (P106).**

On the external corner 'B', the 90° corner post is positioned as shown at the top of the next column.



Ensure that the leg detail on the 90° corner post (A109) interlocks with the leg detail on the panels as shown below.



The panels which sit either side of the 90° corner post (A109) should be positioned at the approximate position as shown below so that the internal corners of the panels touch.

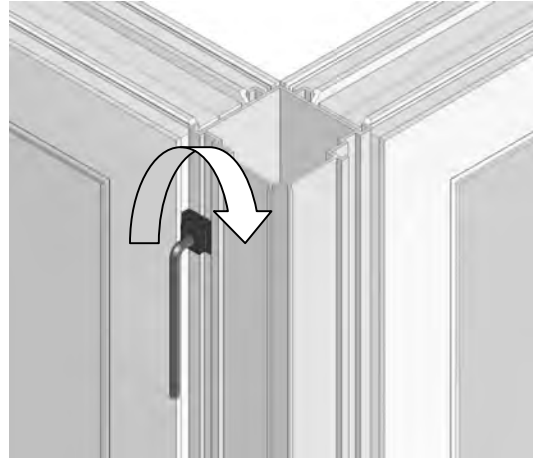
Select a quarter turn button (C105) and the 6mm Allen Key (6AK).



The quarter turn buttons (C105) are positioned longitudinally into the gap between the panels and 90° corner post (A109) at approximately 50mm from the top and bottom faces of the panels.



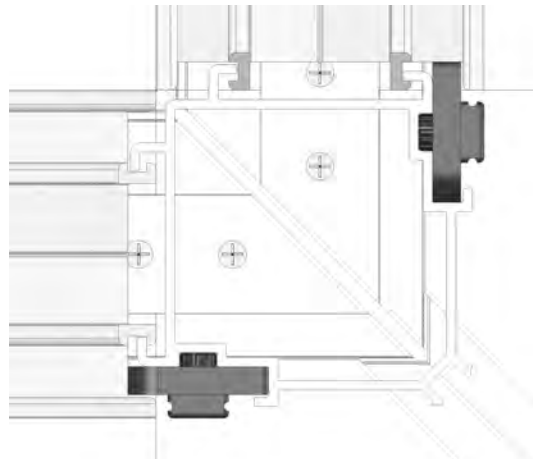
When the quarter turn button (C105) is in position and resting against the 90° corner post (A109), turn the 6mm Allen key (6AK) 90° clockwise. The quarter turn button (C105) will 'click' into position.



The 90° corner post (A109) also requires a quarter turn button in the adjacent outer corner. This is positioned in the same way as described previous.



If positioned correctly, the quarter turn buttons (C105) should lock the 90° corner post and panels as shown below.



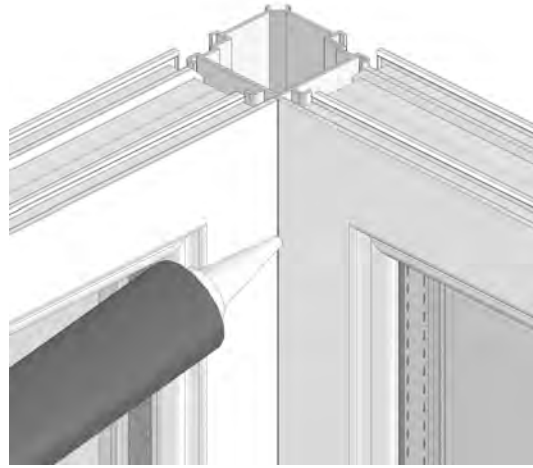
Continue to fit the rest of the quarter turn buttons (C105) into the 90° corner post (A109) as described.

Six quarter turn buttons (C105) per face of the 90° corner post (A109) 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.

A quick check along the horizontal between the two panels should show 70mm.



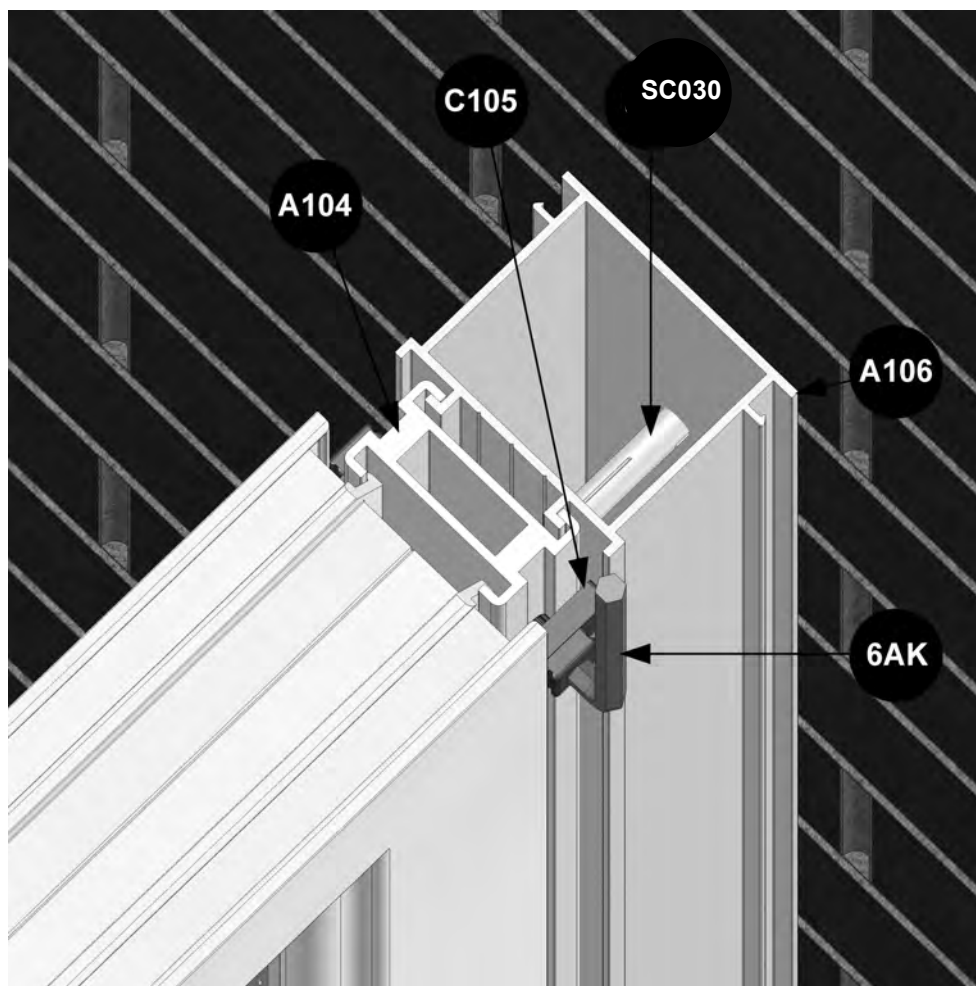
It is recommended to run a thin bead of silicone where the panels meet on the inside of the conservatory.



## G – WALL END OUT CONNECTOR ASSEMBLY

– Traditional End Out Models Only.

| Item No | Item Description     | Comments            |
|---------|----------------------|---------------------|
| A104    | 18mm Inline Coupling | Wall End Out Models |
| A106    | 76mm Wall Coupling   | Wall End Out Models |
| C105    | Quarter Turn Button  |                     |
| SC030   | 100mm Fixing Bolts   |                     |
| 6AK     | 6mm Allen Key        |                     |

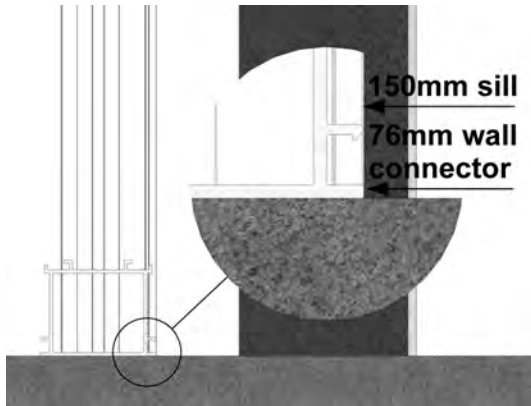


### Fitting 'Wall End Out' Panels.

For Traditional End-Out styles, the panel which goes against the side wall is attached by use of a 76mm wall connector (A106).

**Please note that in dwarf wall models the 76mm connector (A106) have to be cut to size unless a set of French doors are to be positioned against the wall in which case they are full height.**

The large flat surface face of the 76mm wall connector (A106) faces the host wall and the internal legs in line with the internal face of the 150mm sill (P106).



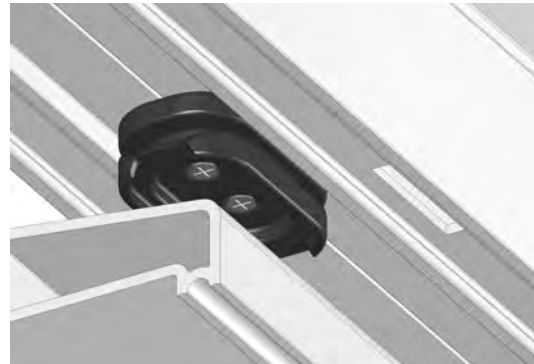
The 76mm wall connector (A106) is positioned centrally to the 150mm sill and fixed in the same way as the 26mm wall connector (A105) by pre-drilling into sound masonry and fixing with the 100mm fixing bolts (SC030).



Use five 100mm fixing bolts (SC030) to fix full height models and three for dwarf wall models. Ensure that the top and bottom 100mm fixing bolts (SC030) are positioned 50mm from the ends of the 76mm wall connector (A106).

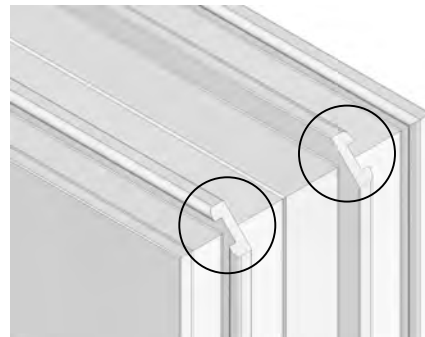
Select the panel to fit against the previously installed panel. **It is imperative that the drain slots in every panel are located at the bottom of the panel and facing front as shown below.**

**Please also note that two sill support blocks (C106) are attached to the bottom of every panel also shown below with the exception of the French door outer frame.**



Before installation commences check each panel 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 panel corner has the inner legs on the panel 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.

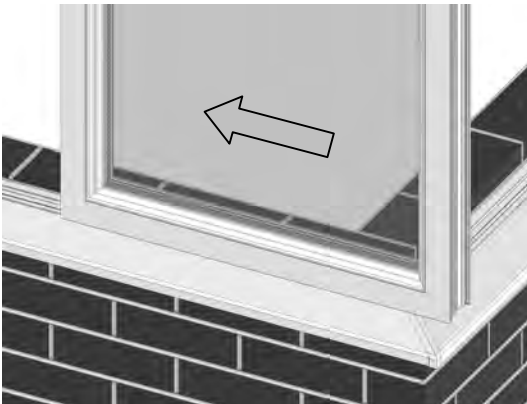


### Fitting the End Out Panel

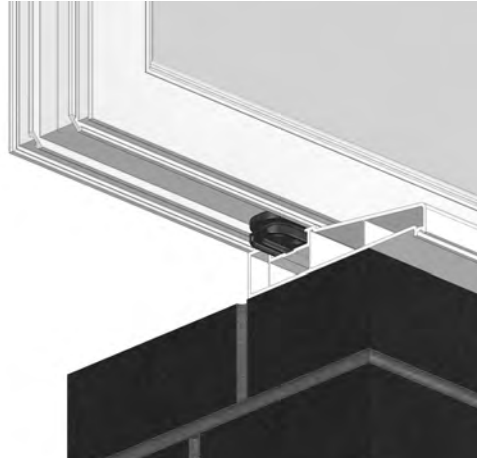
Check that the 150mm sill (P106) is clear of dust or dirt then line up the sill support blocks (C106) with the milled out sections at the end of the 150mm sill (P106).



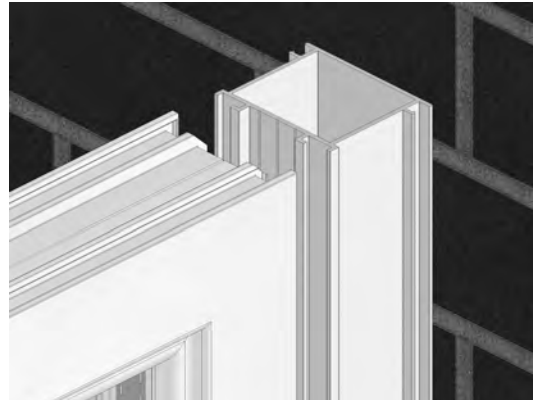
Position the panel onto the 150mm sill (P106) and slide into position.



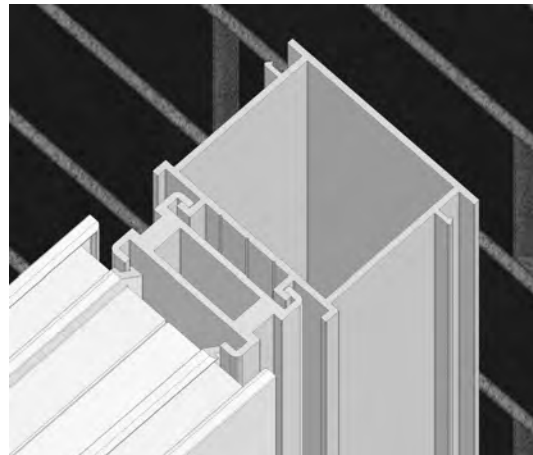
If you have a dwarf wall model conservatory and you have had to cut the 150mm sill (P106) for a French door opening, the first panel, and any subsequent ones between the host wall and the French door opening, are slid on through the open face of the 150mm sill (P106) as shown at the top of the next column.



The panel is slid along the 150mm sill (P106) until it is approximately 18mm from the 76mm wall connector (A106).



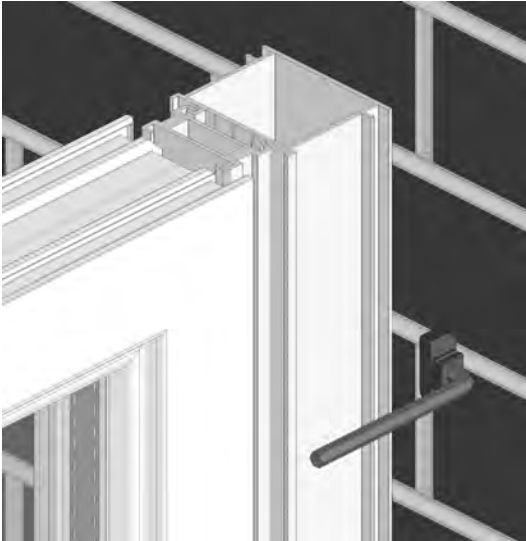
Select the 18mm inline coupling (A104) and slide downwards and through the gap between the 76mm wall connector (A106) and the panel until it rests on the 150mm sill (P106) at the foot of the panel as shown below.



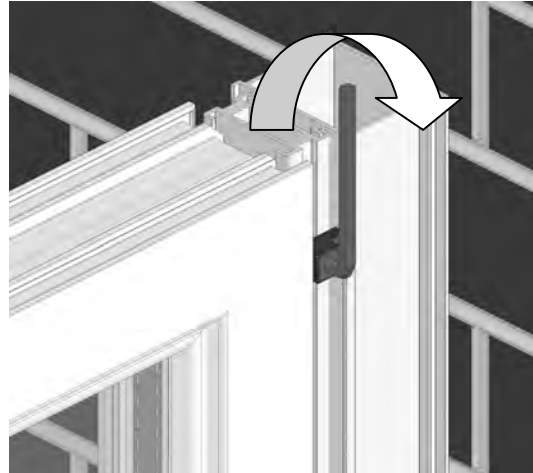
Select a quarter turn button (C105) and the 6mm Allen key (6AK).



The quarter turn buttons (C105) are positioned longitudinally into the gap between the panels and the 76mm wall connector (A106) 50mm from the top and bottom faces of the panel.



When the quarter turn button (C105) is in position and resting against the 76mm wall connector (A106), turn the 6mm Allen key (6AK) 90° clockwise. The quarter turn button (C105) will 'click' into position.



Continue to fit the rest of the quarter turn buttons (C105) into the 76mm wall connector (A106) as described.

Six quarter turn buttons (C105) per face of the 76mm wall connector (A106) 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.

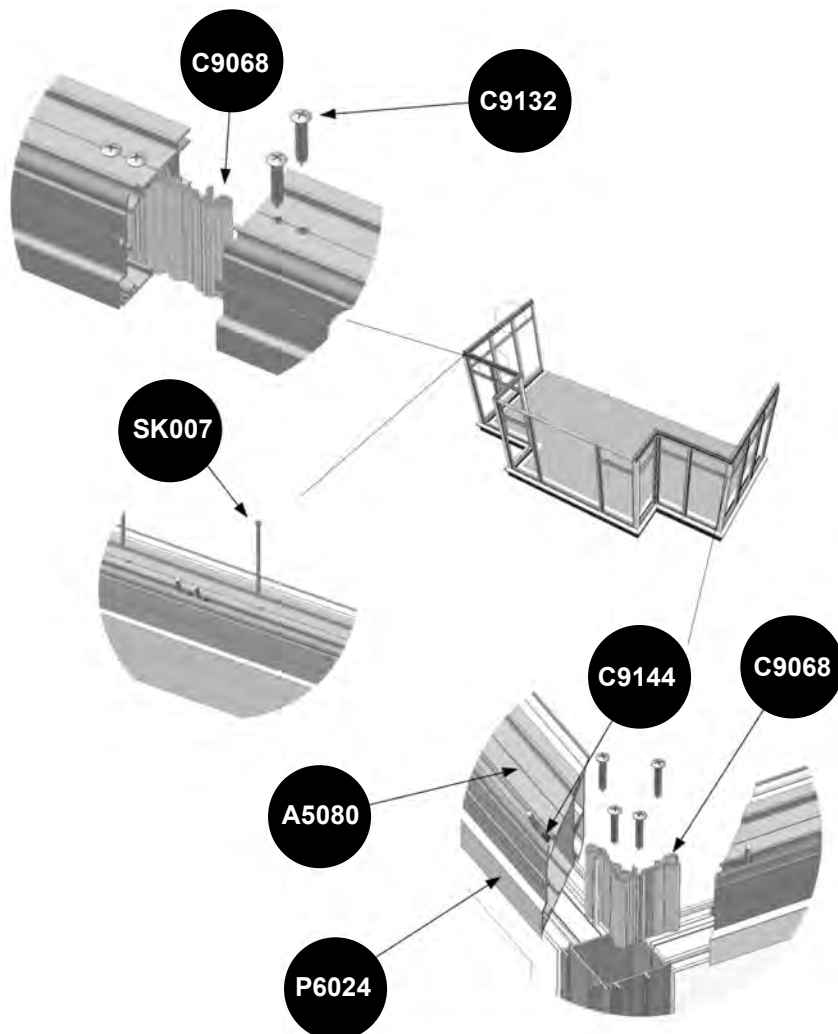
A quick check between the panel and the host wall face of the 76mm wall connector (A106) should show 76mm.



Silicone seal the areas where the 76mm wall connector (A106) makes contact with the 150mm sill (P106) to create a water tight seal.

## H - EAVES BEAM COMPONENT REFERENCE

| Item No | Item Description                        | Comments |
|---------|---|----------|
| A5080   | Eaves Beam                              |          |
| P6024   | Eaves Beam External Trim                |          |
| C9144   | Pivot Bolt                              |          |
| C9068   | Eaves Beam Joiner                       |          |
| C9132   | 6.35 x 38mm Eaves Beam Connecting Screw |          |
| SK007   | 6mm x 120mm Yellow Screw                |          |



PLEASE NOTE CONSERVATORY STYLE IS INDICATIVE FOR EXAMPLES ONLY

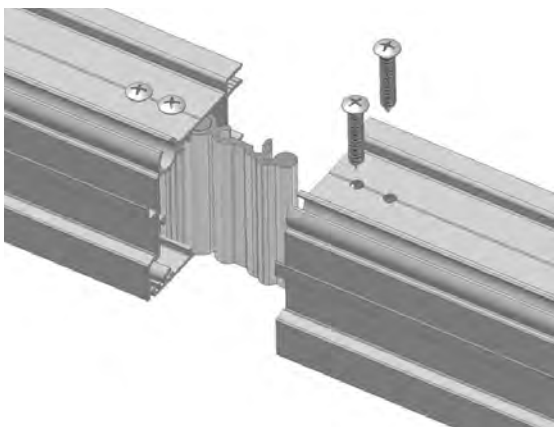
It is recommended at this point to re-check the internal dimensions (width and projection) and check the measurements across the internal corners (these should be the same).

On large models the eaves beam (A5080) may be in two pieces. These are joined using two eaves beam joiners (C9068) which slot together and slid into the channels on the inside of the eaves beam.

### IN-LINE EAVES BEAM JOINERS



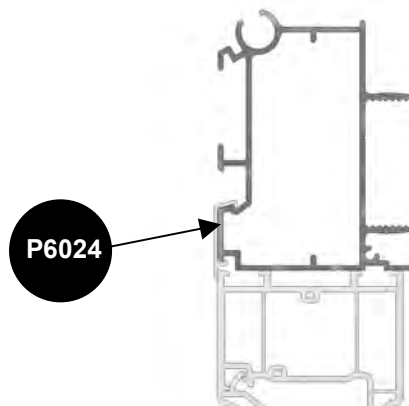
The eaves beam joiners (C9068) are fixed into position by use of the 6.35 x 38mm silver screws (C9132) through the pre-drilled holes.



Attach the eaves beam external trim (P6024) onto the front of the eaves beam (A5080)

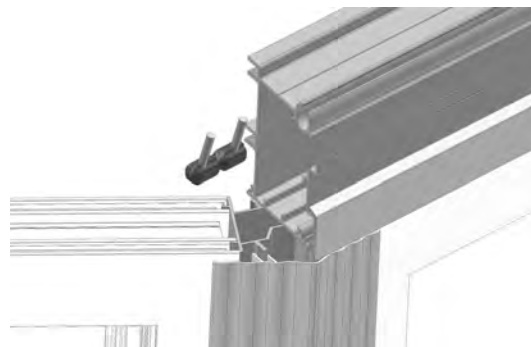
**If your conservatory is against a side wall as well as the rear your roof will require a box gutter. If so, it is important that you**

**re-read Section X - Additional Box Gutters at the back of this installation guide before you continue erecting your conservatory roof.**



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

Slide the eaves beam pivot bolts (C9144) into the eaves beam channel. To calculate how many pivot bolts are required refer to your roof plan.



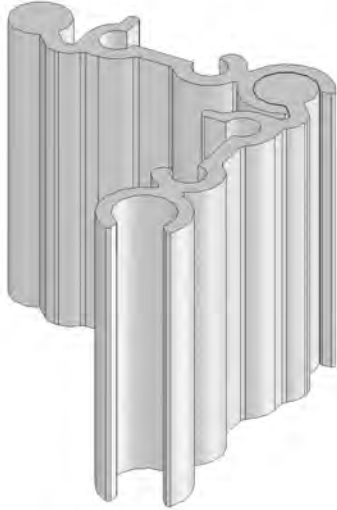
**Please note:** One double bolt retainer is required per bar however a single bolt retainer (C9144) is required for each starter bar and either side of the eaves beam (A5080) joint. Do not throw any bars away.

### Double Bolt Retainer (Cut for Single)

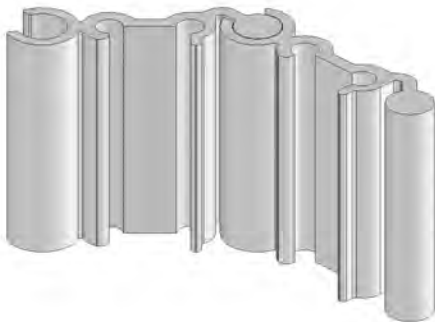


The eaves beam (A5080) will also require joining at the corners. These are joined using two eaves beam joiners (C9068) which slot together as shown below and slid into the eaves beam.

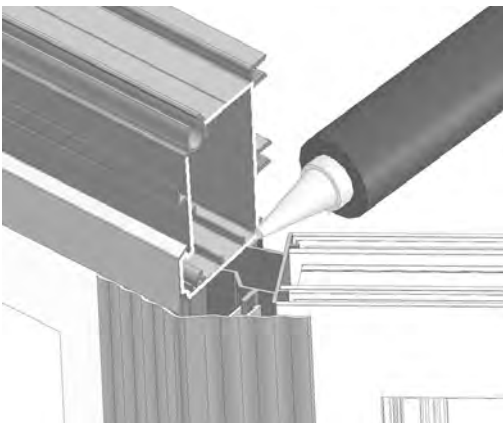
### 90° EAVES BEAM CORNERS



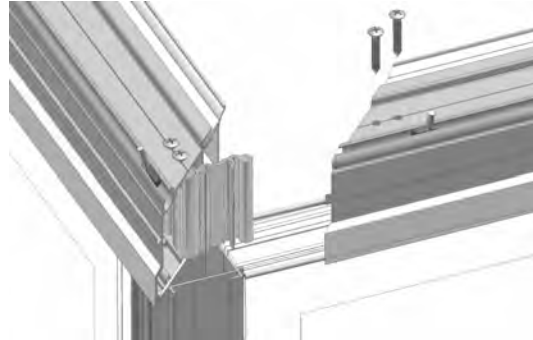
### 135° EAVES BEAM CORNERS



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

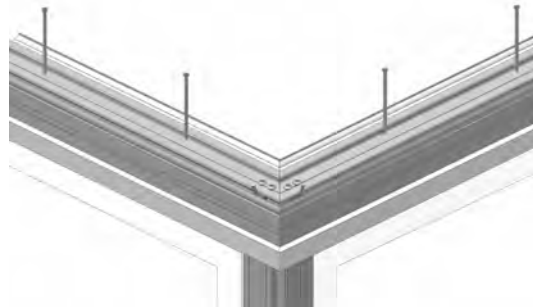


The eaves beam joiners (C9068) are fixed into position by use of the 6.35 x 38mm silver screws (C9132) through the pre-drilled holes.

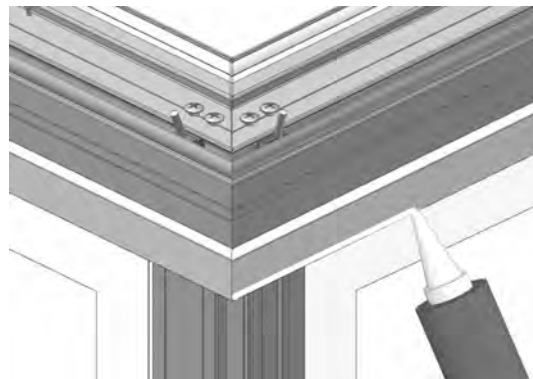


When the eaves beam (A5080) is assembled on top of the panels, drill through the eaves beam (A5080) only with a long reach 5mm drill at positions which are 100mm from the edge of each panel (i.e. two holes per window ).

Power drill the 6 x 120mm yellow screws (SK007) down through the holes in the eaves beam (A5080).

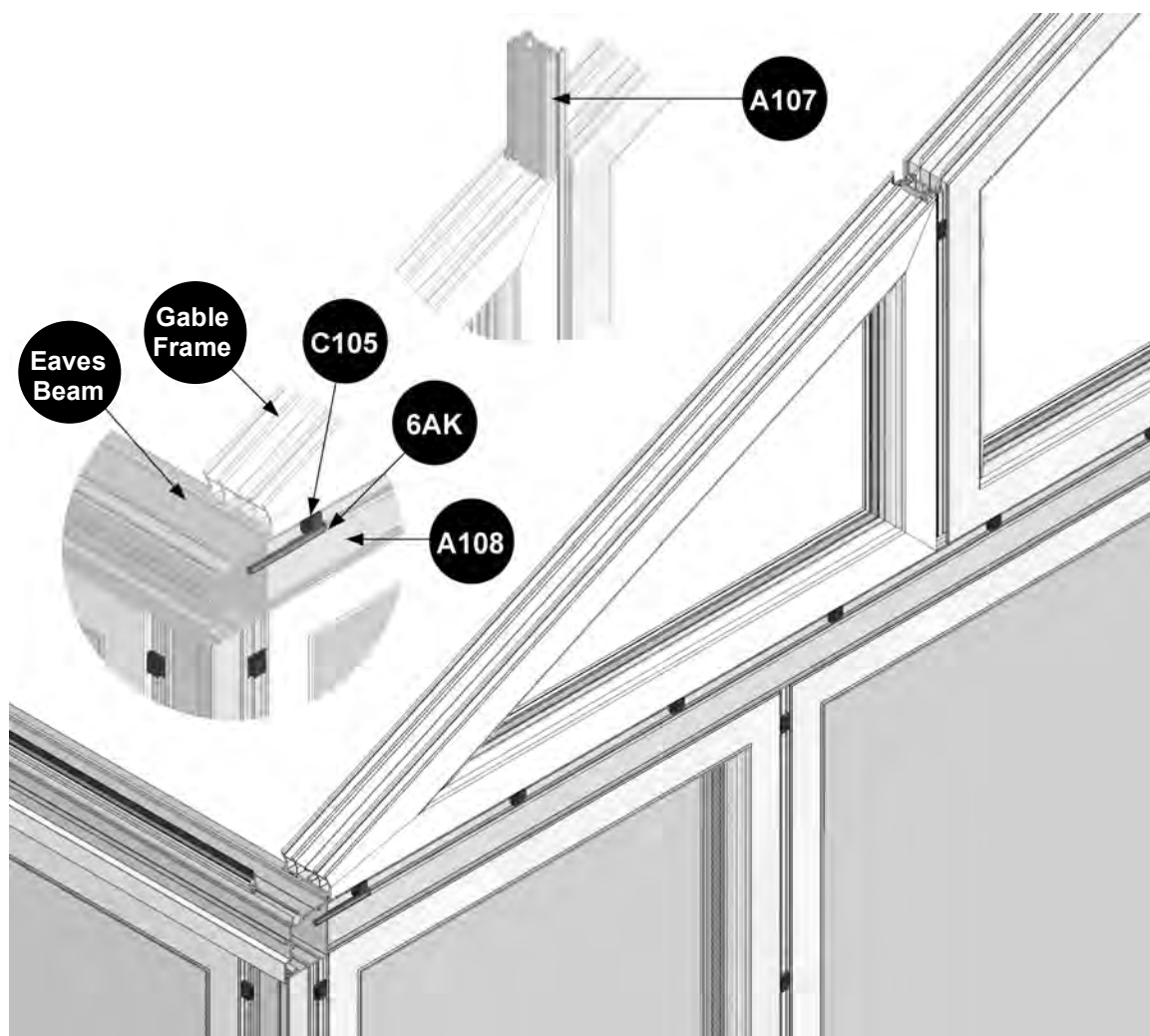


Silicone seal the gaps between the front of the eaves beam external trim (A5080) and the front of the windows to create a water-tight seal.

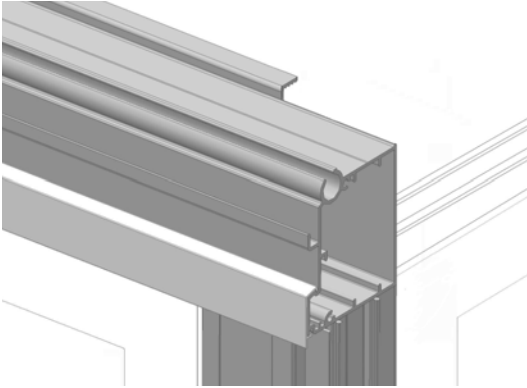


**J – GABLE FRAME COMPONENT REFERENCE**

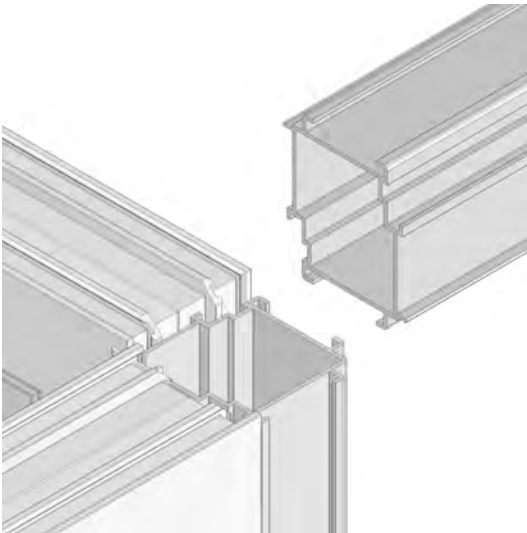
| Item No | Item Description                     | Comments              |
|---------|--------------------------------------|-----------------------|
| A107    | Adjustable Inline Coupling (2 piece) |                       |
| A108    | 70mm Inline Coupling                 |                       |
| C105    | Quarter Turn Buttons                 |                       |
|         | Gable Frame                          | Left and Right Handed |
| 6AK     | 6mm Allen Key                        |                       |



First of all ensure that the first 70mm of the legs on the back of the eaves beam (A5080) have been ground away to accept the gable frames.



From the side of the conservatory that has the piece of eaves beam (A5080) missing, slide the 70mm inline coupling (A108) on to the side panels.



When the 70mm inline coupling (A108) is in position ensure that the legs of the 70mm inline connector (A108) and the windows are interlocked. Push the 70mm inline coupling (A108) up to the rear face of the eaves beam (A5080).

Select a quarter turn button (C105) and the 6mm Allen Key (6AK).



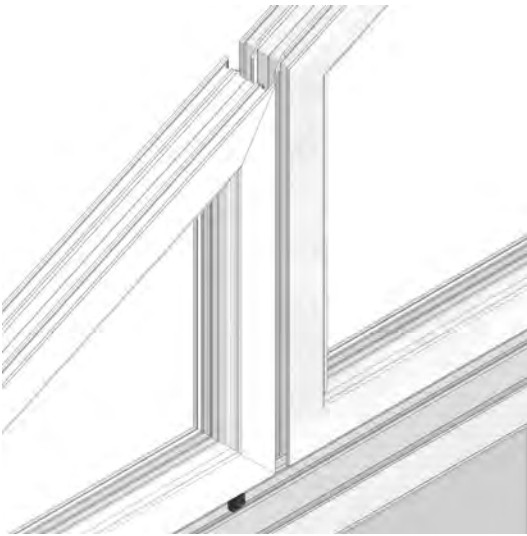
The quarter turn button (C105) is positioned into the gap between the windows and 70mm inline coupling (A108) and at approximately 50mm from the end.

When the quarter turn button (C105) is in position and resting against the 70mm inline coupling (A108), turn the 6mm Allen key (6AK) 90° clockwise. The quarter turn button (C105) will 'click' into position.

Continue to fit the quarter turn buttons (C105) along the 70mm inline coupling (A108) equally spaced and at approximately 300mm centres.

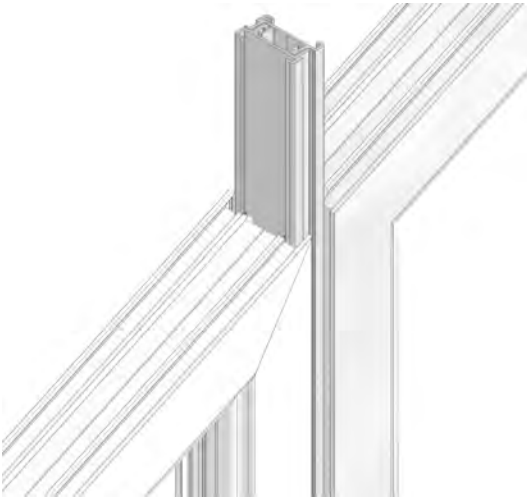


Install the largest gable frame first, slide onto the 70mm inline coupling (A108) ensuring that the legs of the gable frame (GF1) interlock with the legs of the 70mm inline coupling (A108), fit the remaining gable frames in size order



**Adjustable inline couplings (A107)** are used to connect the gable frames.

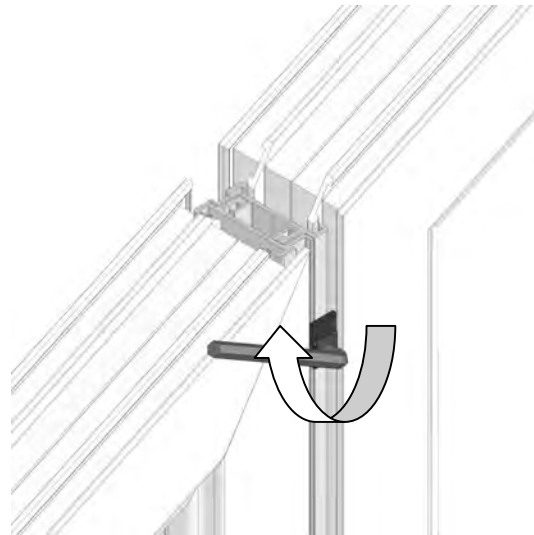
Connect the adjustable inline couplings (A107) and slide into the gap between the two gable frames (GF1) ensuring that the legs of the adjustable inline couplings (A107) interlock with the legs of the gable frames.



Select a quarter turn button (C105) and the 6mm Allen Key (6AK).



The quarter turn button (C105) is fitted into the gap between the windows at approximately 50mm from the top and bottom of the gable frame (GF1), turn the 6mm Allen key (6AK) 90° clockwise. The quarter turn button (C105) will 'click' into position.



Continue to fit the quarter turn buttons (C105) gable frames, equally spaced and at approximately 300mm centres. **A minimum of two is required on this gable frame (GF1).** Repeat for the inside of the adjustable inline couplings.

Continue to fit the remaining gable frames utilising the adjustable inline couplings (A107) accordingly. **Do not fix the final gable frame to the 70mm inline coupling (A108) until the remaining eaves beam (A5080) has been checked for fit as described at the top of the next column.**

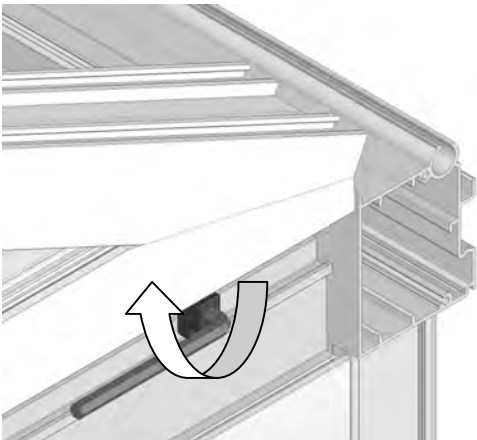
When the final gable frame is in position and not yet fixed, select the eaves beam (A5080) and position onto the panels.



The external face of the eaves beam (A5080) should be flush with the external face of the windows, the ends of the eaves beam (A5080) should finish flush with the side window/gable frames.

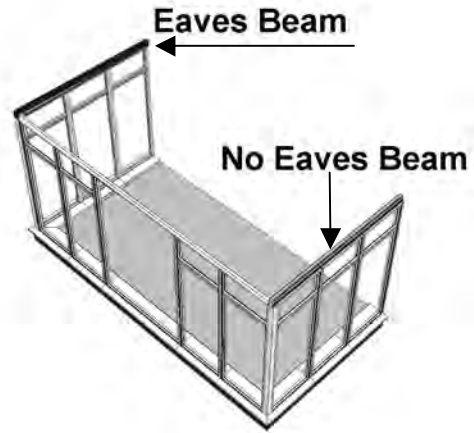
Adjust the inline couplings (A107) between the final two gable frames to ensure that the gable frames are a tight fit to the back of the eaves beam.

When satisfied that the eaves beam (A5080) is in the correct position, permanently fix the final gable frame to the 70mm inline coupling (A108) by use of the remaining quarter turn buttons (C105).

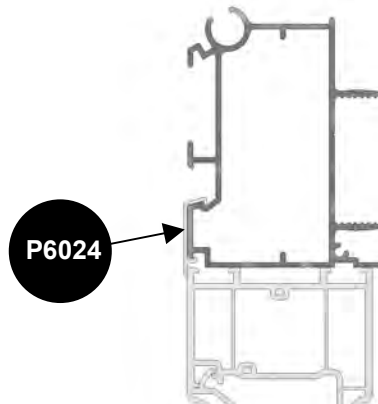


### Fixing the Remaining Eaves Beam

Now the final gable frame is installed the eaves beam (A5080) can be fitted.

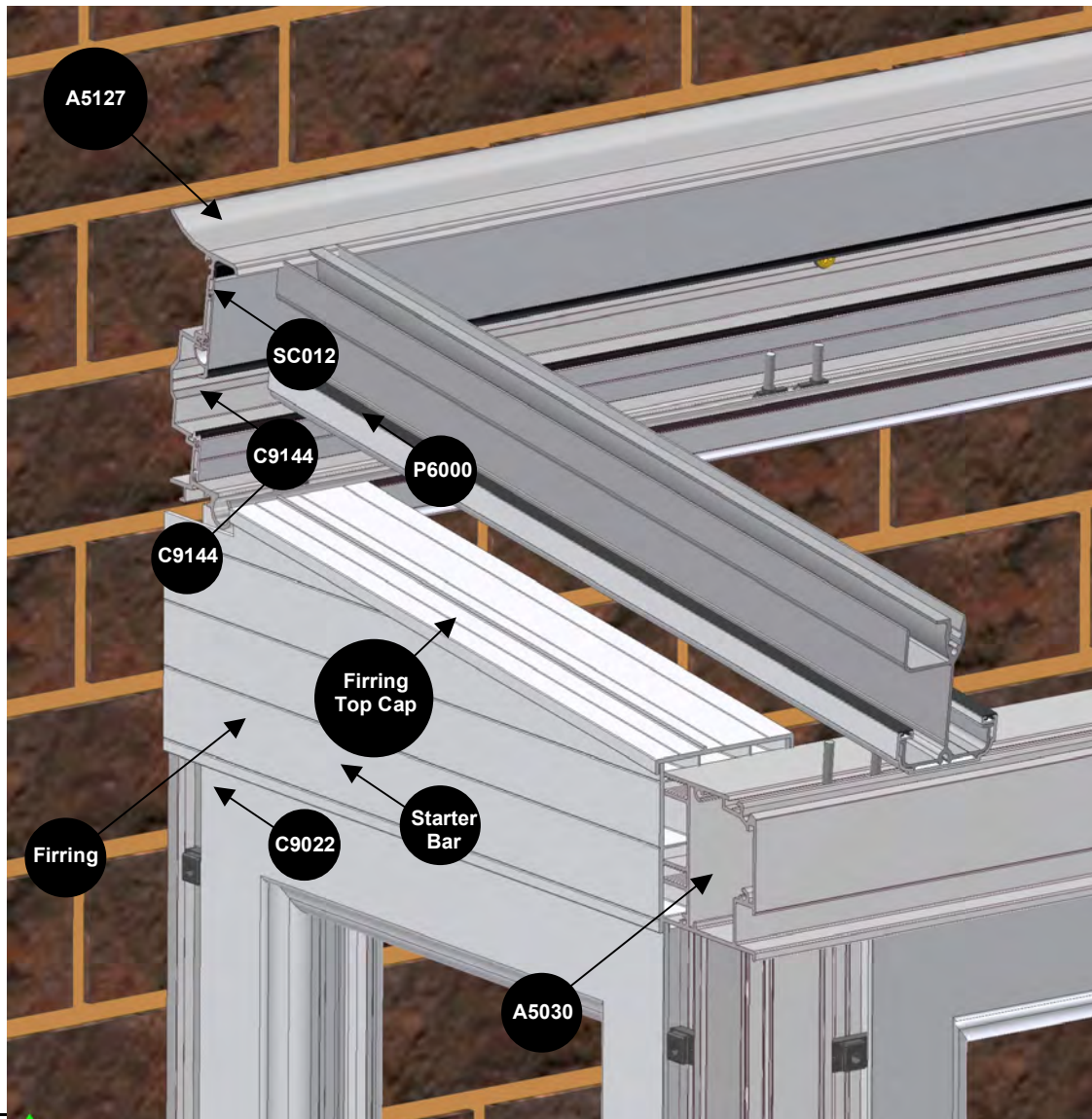


The eaves beam (A5080) can be installed in the same way as described previously. Remember to silicone seal between the eaves beam external trim (C9132) and the windows to create a watertight seal.



## 6 – WALLPLATE COMPONENT REFERENCE

| Item No | Item Description                   | Comments      |
|---------|------------------------------------|---------------|
| -       | Wallplate & Undercladding          |               |
| C9022   | M5 x 12mm Bolt & Flange Nut        |               |
| SC012   | 60mm Fixing Bolts                  |               |
| -       | Starter Bar                        |               |
| SC020   | 4.8mm x 32mm Pan Head fixing Screw |               |
| C9144   | Pivot Bolt Assembly & Flange Nuts  | Pre-Assembled |
| A5030   | Eaves Beam                         |               |

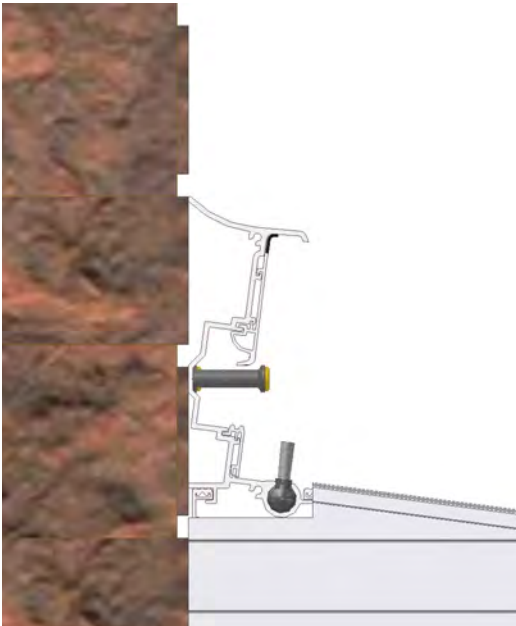


You will notice that the wallplate cladding trim (P6000), top coaking trim and the bottom cloaking trim are pre-assembled on to the wallplate (A5127).

Prior to positioning the wallplate (A5127), measure the distance between the firings (or firing and wall) and cut the wallplate undercladding (P6000) to this size. Slide the wallplate undercladding (P6000) onto the wallplate (A5127).



Rest the wallplate (A5127) in the notch of the firings and position centrally. If positioned correctly the wallplate (A5127) should be approximately 5mm back from the firing top cap at each end.

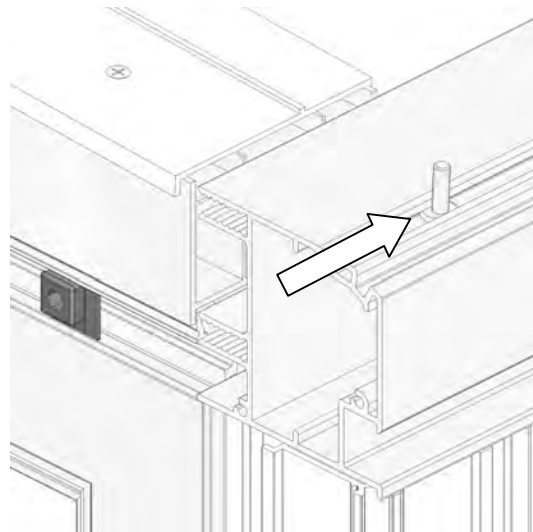


**Remove the protective film from the top face of the firing top cap.**

**Check that the correct number of pivot bolt assemblies (C9144) are inserted into the wall plate (A5127) by referring to your roof plan. These bolts will hold the roof bars to the wallplate (A5127). The starter bar at each end of the roof will only require one M5 x 12mm bolt (C9022) and one pivot bolt (C9144), the intermediate bars will require two.**

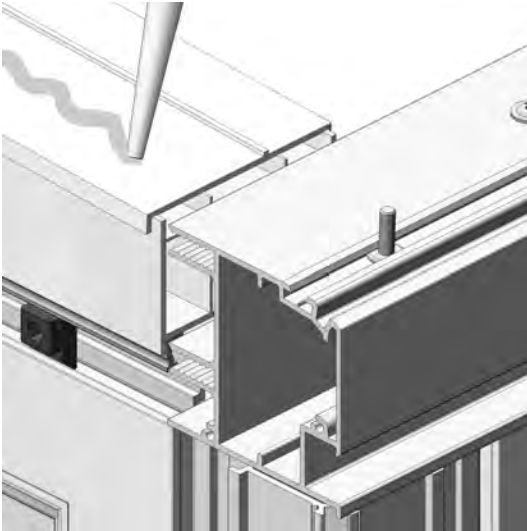


**Repeat for the M5 x 12 bolts (C9022) which slide into the eaves beam (A5030).**



Select the starter bar and remove the protective film from the under cladding (P6000).

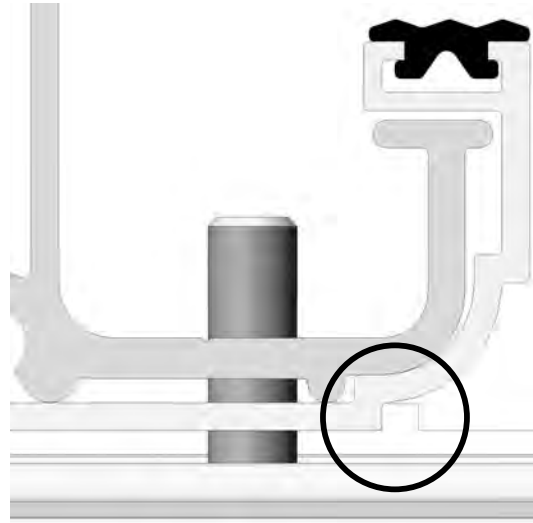
Run a line of silicone along the firing top cap (P6043) where the starter bar will sit. This will help prevent water ingress.



Fit the starter bar onto the bolts situated in the wallplate (A5127) and eaves beam (A5030).



The starter bar will sit against the upstand of the firing top cap. This helps locate the position of the starter bar correctly.



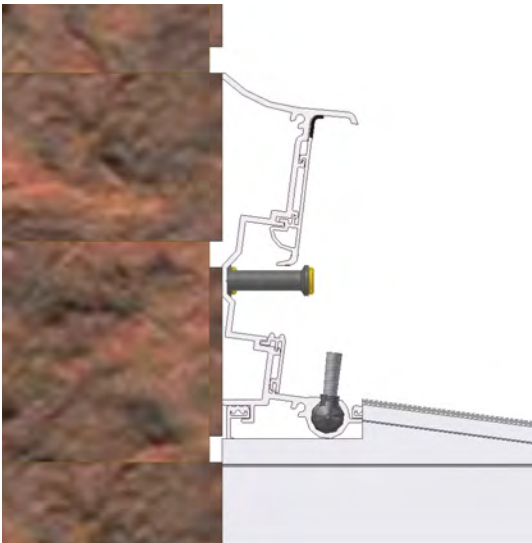
Repeat the process for the starter bar at the opposite end of the roof.



When permanently fixing the wallplate (A5127) to the wall, you must first drill through a central point along the wallplate (A5127) with an 8mm masonry drill, through the wallplate (A5127) and into sound masonry drilling to a minimum depth of 10mm deeper than fixing.

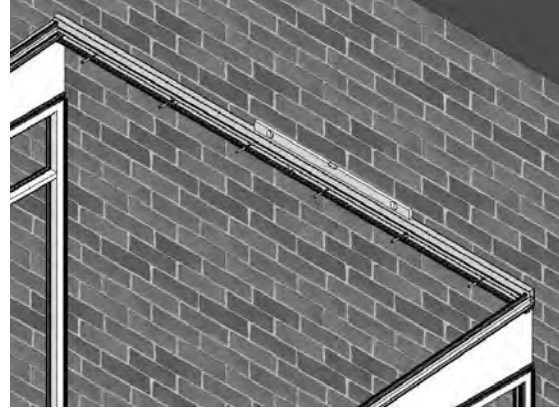


Fix the wallplate (A5127) with a central 60mm fixing bolt (SC012). **Do not fully tighten, allow enough slack for rotation.**

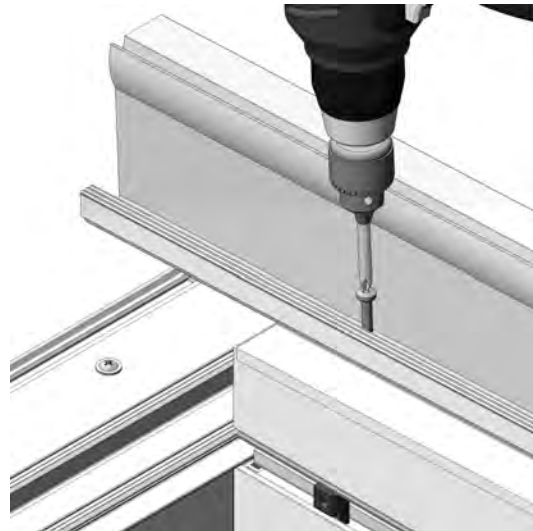


**It is recommended at this stage that you check the wallplate (A5127) for level by use of spirit level before permanently tightening the central 60mm fixing bolt (SC012).**

Once level, 5° wallplate (A5127) is permanently fixed to the host wall by fitting the remaining 60mm fixing bolts (SC012) at 600mm centres along the wallplate (A5127) ensuring that the first and last 60mm fixing bolts (SC012) are positioned 100mm from the ends of the wallplate (A5127). Permanently tighten the M5 flange nuts on all the bolts.



Secure the starter bars to the firrings with 4.8 x 32mm screws (SC020) positioned at 500mm centres along the starter bar the first one being 100mm from the inside face of the eaves beam (A5030).



#### **Fitting Starter Bar to Side Wall for 'End Out' Models**

The starter bar which is adjacent to the side wall needs to be attached not only to the eaves beam (A5030) and the wallplate (A5127) but also to the side wall.

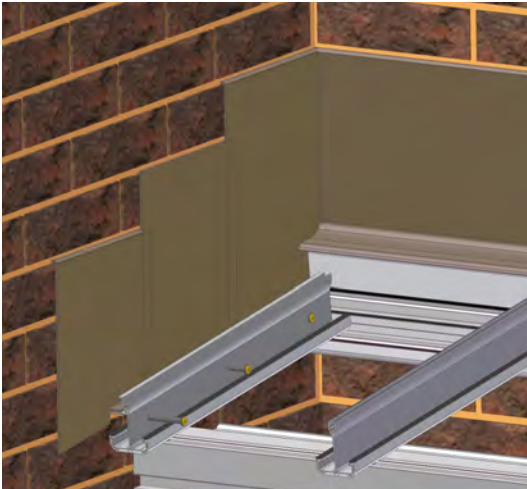
When the starter bar is permanently fixed to the eaves beam (A5030) and wallplate (A5127), you need to pre drill the starter bar with an 8mm masonry drill, through and into sound masonry drilling to a minimum depth of 90mm. The positioning of the drilling should be approx. 150mm from each end and then at 500mm centres (these dimensions may vary to ensure that drilling is into sound masonry and not mortar joints). Fix the starter bar to the side wall with 80mm fixing bolts (SC030).

**Primary Seal to Host Wall (All Models)**

Self adhesive flashing tape is included in your conservatory kit. This product is suitable for use where the host wall is flat and even, e.g. face brickwork. The tape is provided as a means of temporarily sealing the conservatory from water ingress. Although the flashing tape, if applied in accordance with the manufacturers instructions, can function for many years, it is not a long term substitute for traditional lead flashing. We would recommend that you employ an experienced builder to carry out lead flashing works during the construction of your conservatory, or at some time in the near future.

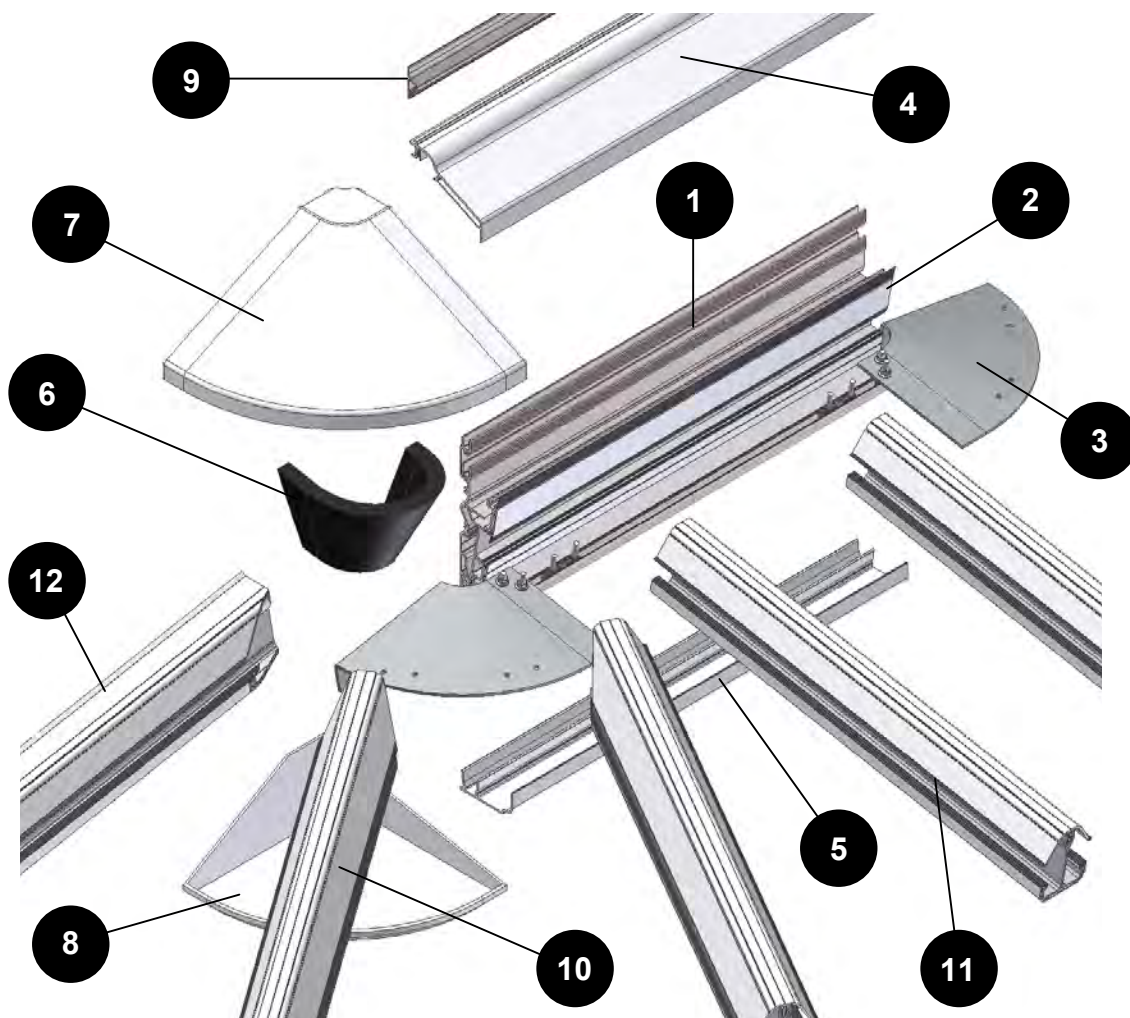
When all starter bars are fixed in position, cut out and apply the flashing tape.

The flashing tape should cover three courses of brickwork on the host wall and run over the top face of the 5° wallplate (A5127). On 'End Out' models, the flashing tape should also be cut in and applied over three courses of brickwork on the **side** wall and over the flat leg section of the starter bar which rests against the side wall.



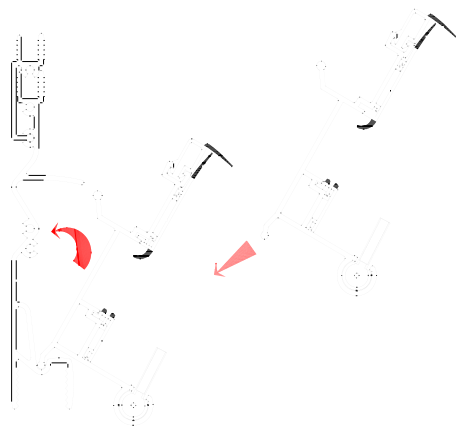
**1 – HIPPED LEAN-TO ROOFS**

| Item No | Item Description                | Item Code   |
|---------|---------------------------------|-------------|
| 1       | Wallplate                       | A5130       |
| 2       | Wallplate Wing Assembly         | A5081       |
| 3       | Quarter End Boss                | -           |
| 4       | Wallplate External Cover        | P6052       |
| 5       | Wallplate Internal Cover        | P6072/P6073 |
| 6       | Quarter End Boss Foam Bung      | C9202       |
| 7       | Quarter End Boss External Cover | C9239/C9240 |
| 8       | Quarter End Boss Internal Cover | C9049/C9241 |
| 9       | Wallplate Flashing Section      | A5132       |
| 10      | Hip Bar                         | -           |
| 11      | Transom Glazing Bar             | -           |
| 12      | Wallbar                         | -           |



Once the eaves beam is in position and screwed to the window frames below, the wallplate assembly can be installed.

If not already assembled, locate the wallplate wing assembly into the wallplate (A5130) as shown below.



Use the roof plan to determine the transom glazing bars that extend from the wallplate to the front eaves beam (A5080). Whilst the wallplate assembly is at ground level, attach the outer most transom glazing bars to the wallplate wing using the double bolt retainers and M5 flange nuts.



Lift the entire assembly roughly into position, locate the transom glazing bars onto the double bolt retainers (C9144) in the eaves

beam (A5080) and allow the wallplate to rest against the wall in its natural position. Loosely attach the M5 flange nuts to the bolts in the eaves beam.

Install the wallbars. These must be attached using the double bolt retainer in the eaves beam and the M5 x 20mm roofing bolts at the position of the quarter boss end. The fixing should pass through the pre-drilled hole in the end boss and into the wallbar. It may be necessary to manoeuvre the wallplate assembly to align the holes. Loosely attach M5 flange nuts on all fixings. If it is not possible to align the holes, stop and check the window frame dimensions and that the correct bars have been used. Do not drill your own fixing holes in the boss end.

Confirm that the wallplate is at the correct height by checking the dimension from the top of the window frames to the highest point on the wallplate assembly. This dimension is shown on the roof confirmation found in the box of roof components.

|   |                 |
|---|-----------------|
| PROFILE FRAME THICKNESS                       | : 70mm          |
| ROOF FRAMING COLOUR                           | : White         |
| GLAZING THICKNESS                             | : 25mm          |
| GLAZING TYPE                                  | : Polycarbonate |
| GLAZING COLOUR                                | : Opal poly     |
| INT. CONSERVATORY WIDTH                       | : 3314mm        |
| INT. CONSERVATORY DEPTH                       | : 3340mm        |
| TOP OF RIDGE = 2588mm INCLUDING 2100mm FRAMES |                 |
| Please circle an outlet option below:         |                 |
| A1  | A2              |
| B1  | B2              |
| C1  | D1              |
| E1  |                 |
| OTHER INFORMATION:                            |                 |

Once satisfied that the wallplate is at the correct height and that it is level, mark its height and end positions on the wall. Also mark suitable fixing positions along the wallplate that will avoid mortar courses. Fixings should be approximately 150mm from each end of the wallplate and no more than 600mm apart.

Dismantle the roof back to eaves beam level.

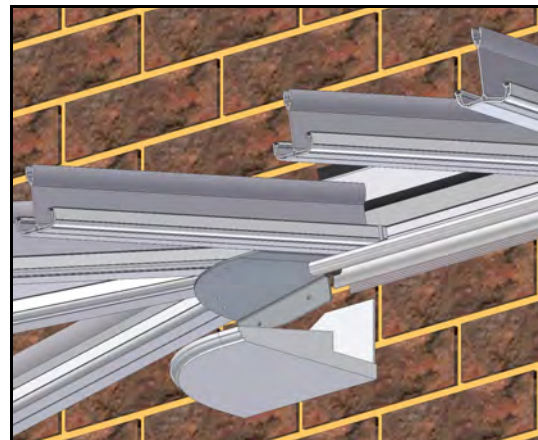
Whilst at ground level, drill the wallplate (A5130) at the position of the marks in the location shown on page 3. The size of the hole will be dependant on the type of fixing being used. These fixings must be suitable for the building substrate and are therefore not supplied.



Once drilled, position the wallplate to align with the marks on the wall and, using the pre-drilled holes as a template, drill the wall to suit the fixings. Fix the wallplate.

Re-assemble the roof as before, ensuring that the glazing bars are in the correct positions in accordance with the roof plan supplied. Fit and tighten all M5 flange nuts.

Prior to permanently fixing the wallbars, locate the internal quarter boss cover behind the return on the quarter end boss. Depending upon the pitch of the roof and the handing of the boss end, the upstand on the boss cover will require an amount of trimming. If there is a large variation in pitch between the front and side of the conservatory roof, it may also be necessary to trim the skirt of the internal boss cover to suit.



Drill and fix the wallbars to the wall using suitable fixings (not supplied). Fixings should be positioned 150mm from each end and no more than 600mm apart in the location shown below.



Glaze the roof using the method described in the main guide, ensuring that the correct top cap is used on each glazing bar and hip.

Fold the quarter boss end foam bung (C9202) into a partial cone and insert into the void at the position of the quarter boss. Ensure that the bung makes contact with the glazing and the end of each top cap. Using a continuous bead of silicone, seal the joint between the top caps, glazing and foam bung.



Slide the quarter boss end covers (onto the wallplate cover (P6052) by 30mm and attach to the wallplate by locating onto the aluminium barbs and applying downward pressure.



If the quarter boss end cover fouls on the hip top caps, it will be necessary to trim the skirt on the cover to suit. Once fitted, silicone seal the joint between the boss cover and the wallplate external cover.

Locate the aluminium flashing trim into the gap between the wallplate external cover and the wall and tap into position. Using continuous beads of silicone, Seal the flashing section to the wall and to the wallplate external cover.



Measure the distance along the wallplate between the internal boss covers and cut the wallplate internal cover to suit. Locate the legs on the wallplate internal cover between the aluminium barbs on the wallplate and push into position.



## 6 – 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        | C9144       |
| 7       | M5 Flange Nut              | -           |
| 8       | 25° Mini Boss End          | C9170       |
| 9       | M5 x 25mm Bolt             | C9142       |
| 10      | Georgian Hip Bar           | -           |
| 11      | Transom Glazing Bar        | -           |
| 12      | Starter Bar                | -           |



Referring to your roof plan, select the correct number of bolt retainers (C9144) and slide into the channels of the universal ridge wings (A5081).

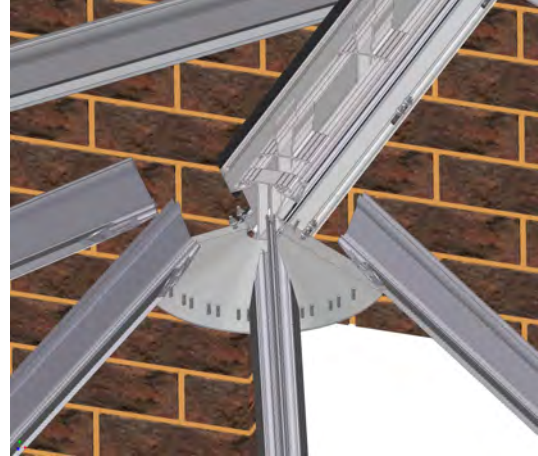
To identify the glazing bar positions for your conservatory, refer to your roof plan, where the first glazing bar (marked as P1) is always located at the top left of the diagram. The glazing bars can then be counted anti-clockwise around the layout. Please note: all glazing bars must be counted in sequence.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

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 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 bolts located in the bolt retainers that sit either side of the eaves beam corner. Please note that the holes at the upper end of the hip are closer to the end of the bar than the holes at the lower, eaves beam end.

Remember to remove the protective film on the hip bar undercladding prior to fitting.



From the underside of the boss end, pass the M5 x 25mm roofing bolts through the pre-drilled holes in the hip and loosely secure with an M5 flange nut.



Repeat this process for the Georgian hip on the opposite side.

Once the Georgian hip bars are in position, fit the wallbars using the bolt retainers in the eaves beam and ridge wings.

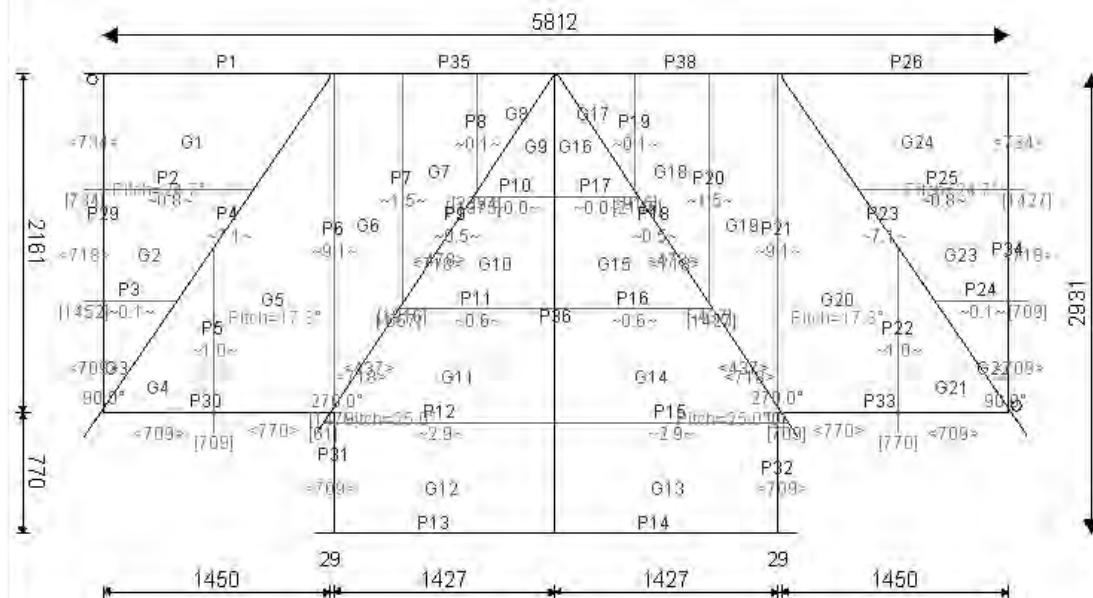


## L - RIDGE CHECKS (Example only)

The Colour of this Conservatory is

Order No  
Reference  
Spec Number

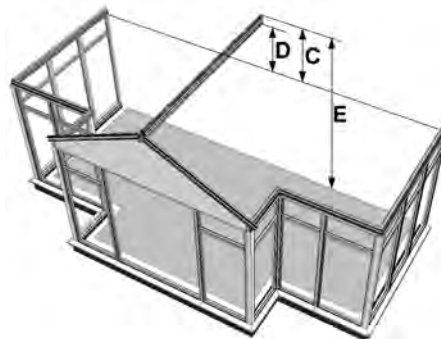
**A Internal Frame Width :**  
**B Internal Frame Projection :**  
Frame Height (incl sill) :  
**C Roof External Ridge Height :**  
**D Roof Internal Ridge Height :**  
**E Roof Height External from  
Finished Floor level :**



Please note that the end dimensions are taken from the external frame to the centre line of the next rafter. The intermediate dimensions are taken from bar centre line to bar centre line. The image above is an example roof plan. The detail specific to your conservatory is shown on your roof plan, **Do not follow the dimensions shown in this image.**

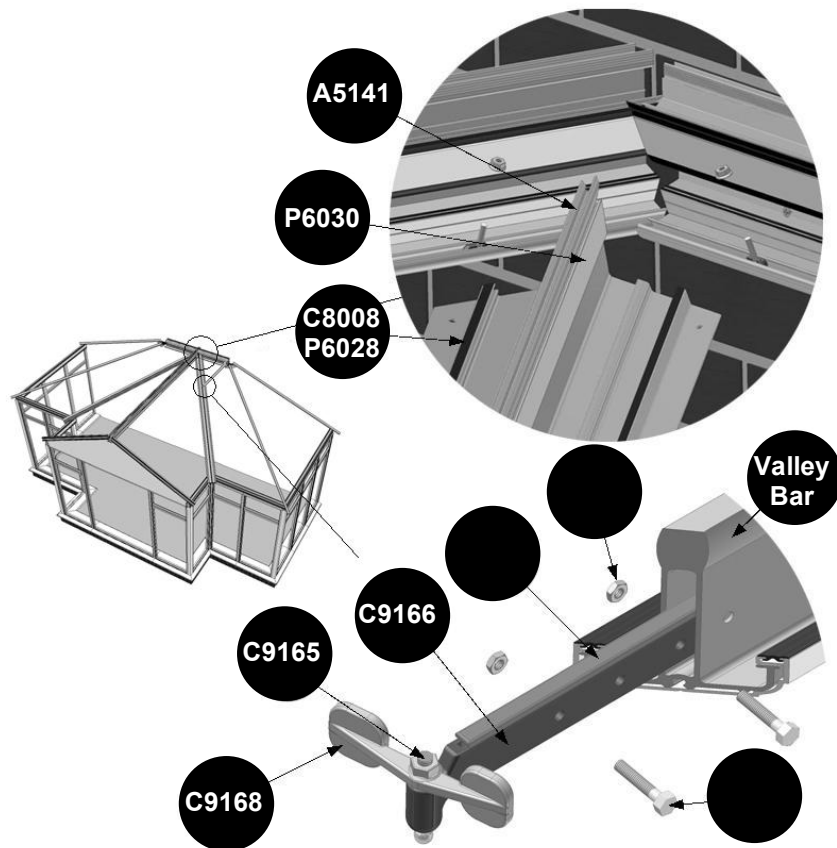
It is strongly advised that you perform the following checks:-

1. Double check the internal dimensions shown 'A' and 'B'.
  2. Check that the height of your ridge (RD1) is correct. One of three ways is possible:
- C. - **Roof External Ridge Height:** Height from the top of the windows to the top of the ridge (RD1).
- D. - **Roof Internal Ridge Height:** Height from the top of the windows to the underside of the ridge (RD1).
- E. - **Height from your Finished Floor Level:** to the top of ridge (RD1).



## M – VALLEY INSTALLATION

| Item No      | Item Description                              | Comments      |
|--------------|---|---------------|
| <b>A5141</b> | Valley Centre (P6030 Cloaking Trims – fitted) | Pre-assembled |
| <b>A5037</b> | Valley Wing                                   | Pre-assembled |
| <b>C8008</b> | Glazing Support Tape                          | Pre-assembled |
| <b>P6028</b> | Valley Cloaking Trim                          | Pre-assembled |
|              | Valley Bar                                    |               |
| <b>C9165</b> | Pivot Bolt, Rubber “O” Ring & Flange Nut      |               |
| <b>C9168</b> | Valley Paddle                                 |               |
| <b>C9166</b> | Jack Rafter Arm                               | Pre-assembled |



### Fitting Valley Assembly

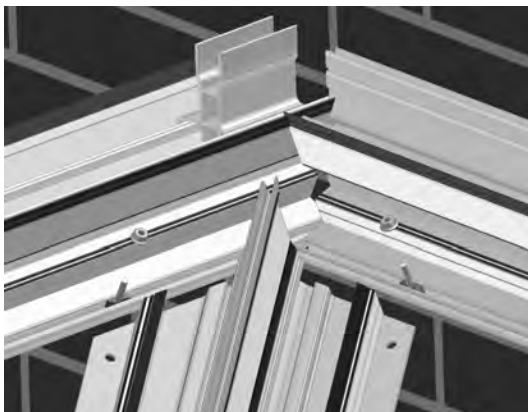
When the ridge and wall plate assemblies are installed and permanently fixed to the host wall, ridge checks are performed, the pre-assembled valley assembly can be fitted.

The valley is in three sections – a valley centre and two valley wings.

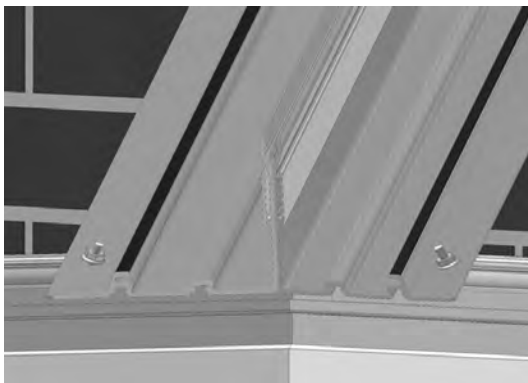
Ensure that the glazing support tape (C8008) is attached to the valley wings.

Locate the pre-drilled holes in the top of the valley wings over the pivot bolts located in the single pivot bolts (C9144) in the wall plate and ridge.

**Ensure that the valley centre is pushed as far up the ridge as possible.**



Next, locate the pre-drilled holes at the bottom of the valley wings over the pivot bolts located in the single pivot bolts (C9144) in the eaves beams (A5080) on the internal corner.

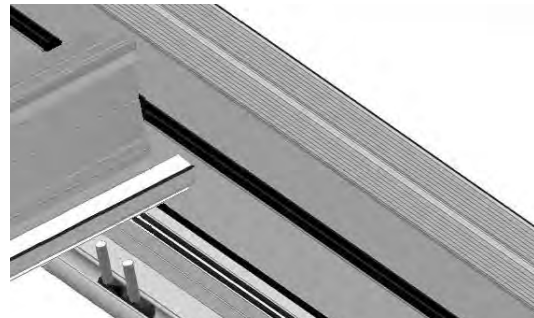


### Fitting Valley Bars

The valley bars are the bars which run from the wall plate and into the valley. These valley bars are cut at an angle along the bottom face. Jack rafter arm assembly's are fitted to the valley end of the bars, valley paddles (C9168) should be fitted to the jack rafter arm (if not already fitted). This assembly is pre-fitted and prevents the glazing sheets from sliding into the valley.



Hook your first valley bar over the pivot bolts (C9144) located in the wall plate.



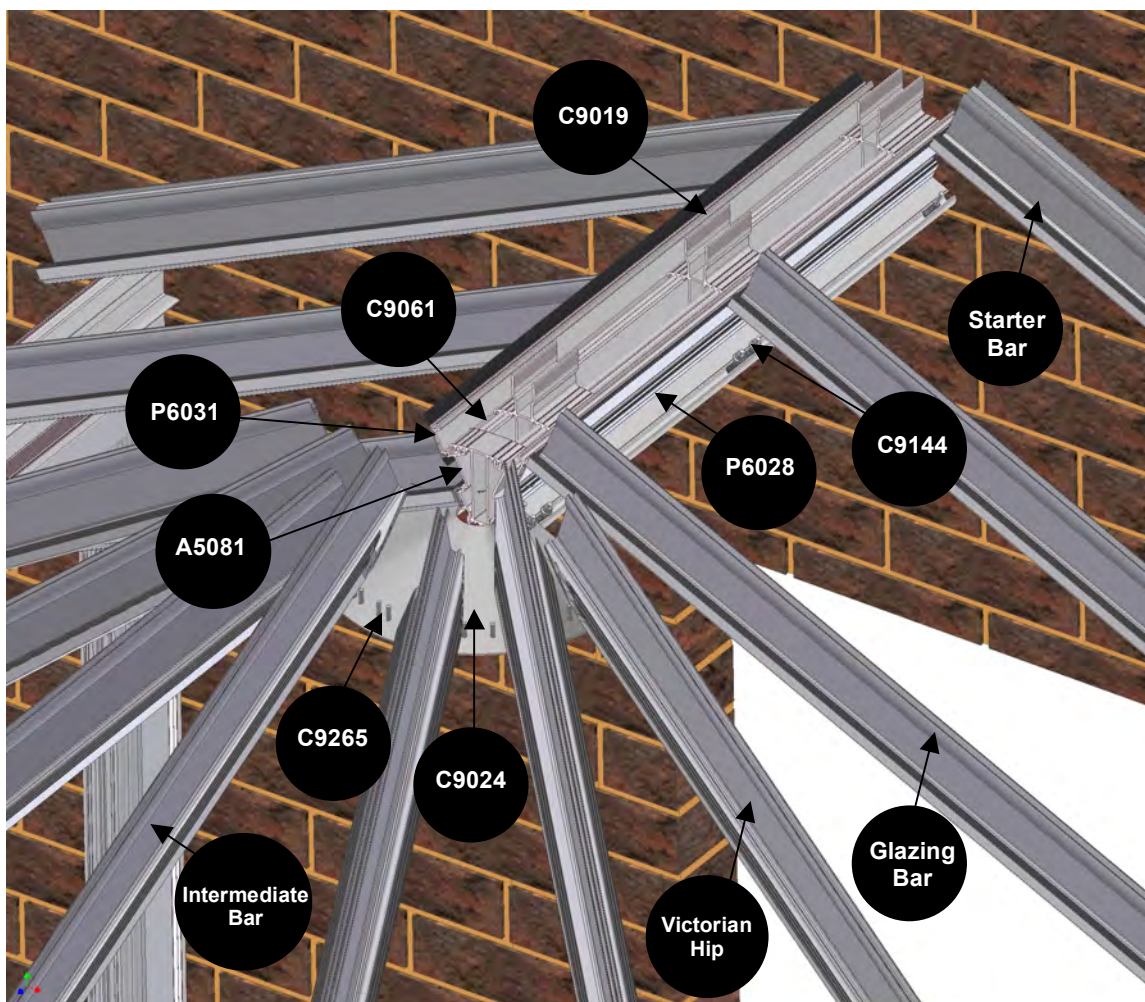
Locate the holes at the bottom of the valley bar over the pre-drilled holes in the valley wing, but do not tighten at this stage.

From the underside, fit the M5 x 20mm bolts (C8017) through the pre-drilled holes in the valley wing and valley bar. Loosely thread on the flange nuts, but do not tighten at this stage. Repeat for every set of valley bars.

When all the valley bars are connect to the wall plate proceed to the valley bars off the ridge, attaching them to the ridge and to the valley wings as previously described. When all valley bars are in position check the bar spacing's between them by referring to your roof plan. When satisfied, tighten all flange nuts. The valley wing flange nuts can be tightened up

## 6 – RIDGE COMPONENT REFERENCE

| Item No | Item Description            | Comments |
|---------|-----------------------------|----------|
| 1       | Universal Ridge Wing        | A5081    |
| 2       | 25mm Standard Ridge Centre  | C9019    |
| 3       | Ridge End Spacer            | C9061    |
| 4       | Top Cloaking Trim           | P6031    |
| 5       | Bottom Cloaking Trim        | P6028    |
| 6       | Pivot bolt Assembly         | C9144    |
| 7       | M5 x 25mm Bolt & Flange Nut | C9265    |
| 8       | 25deg Boss End              | C9024    |
| 9       | Victorian Hip               | -        |
| 10      | Starter Bar                 | -        |
| 11      | Glazing Bar                 | -        |
| 12      | Intermediate Bar            | -        |



Referring to your roof plan, select the correct number of bolt retainers (C9144) 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. All the glazing bars, bars are numbered anti-clockwise around the layout. Please note: all 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 universal ridge wings and kept about your person for use when you require them.

Start the ridge assembly by attaching the victorian hip bars to the boss end (C9024). These are glazing bars that span diagonally from the corners of the eaves beam (A5080) to the boss ends (C9024).

Temporarily support the ridge assembly in the correct position. Slot the holes at the bottom of the victorian hip bar over the M5 bolts located in the bolt retainers that sit either side of the eaves beam corner. Please note that the holes at the upper end of the hip are closer to the end of the bar than the holes at the lower, eaves beam end.

Remember to remove the protective film on the hip bar undercladding prior to fitting.



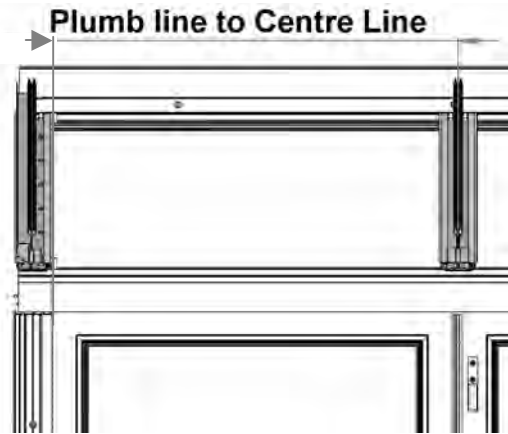
From the underside of the boss end, pass the M5 x 25mm roofing bolts through the pre-drilled holes in the hip and loosely secure with an M5 flange nut.



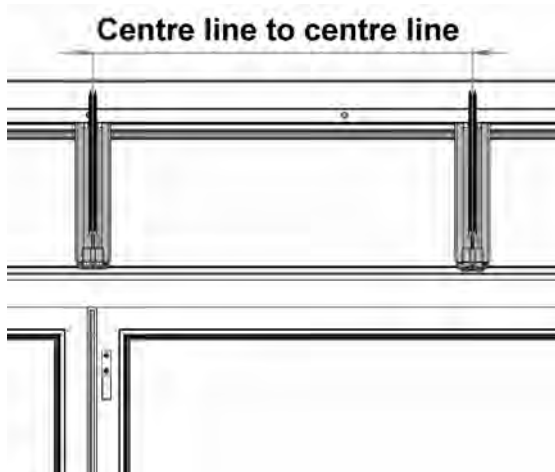
Repeat this process for the victorian hip on the opposite side. Once the victorian hip and intermediate bars are in position, fit the wallbars using the bolt retainers in the eaves beam and ridge wings.



The first check is the distance from *the plumb line where you positioned the first panel connector – 25mm connector A (PD4) against the host wall/packing on the far left to the centre line of the next bar (RD6) labelled as 'P2'*. Refer to your roof plan for this dimension. If the distance is correct tighten the M5 flange nut fully.



The next dimensional checks are the ones between the intermediate rafters. These dimensions shown on your roof plan are taken from *bar centre line to bar centre line*. If all bars are correctly positioned, tighten the M5 flange nuts.



If all checks have been performed it is now possible to permanently fix the starter bars to the host wall.

Drill and fix the wallbars to the walls using suitable fixings (not supplied). Fixings should be positioned 150mm from each end and no more than 600mm apart in the location shown.

Take care not to fix into the mortar beds.

### Primary Seal to Host Wall

Self-adhesive flashing tape is included in your conservatory kit. This product is suitable for use where the host wall is flat and even, e.g. face brickwork. The tape is provided as a means of temporarily sealing the conservatory from water ingress. Although the flashing tape, if applied in accordance with the manufacturer's instructions, can function for many years, it is not a long term substitute for traditional lead flashing. We would recommend that you employ an experienced builder to carry out lead flashing works during the construction of your conservatory or at some time in the near future.

When all wallbars are fully installed, cut the flashing tape and apply the flashing tape to the host wall. The flashing tape should run down three courses of brick and run into the drainage channel

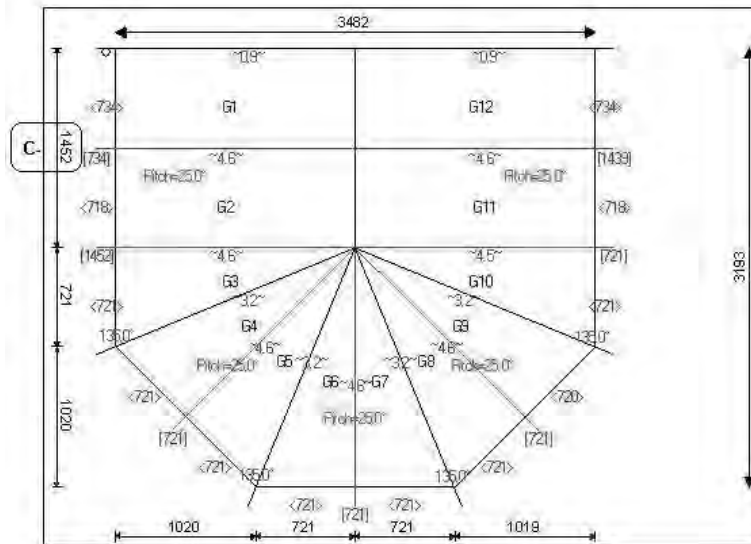


## 6 - RIDGE CHECKS

The Colour of this Conservatory is

Order No  
Reference  
Spec Number

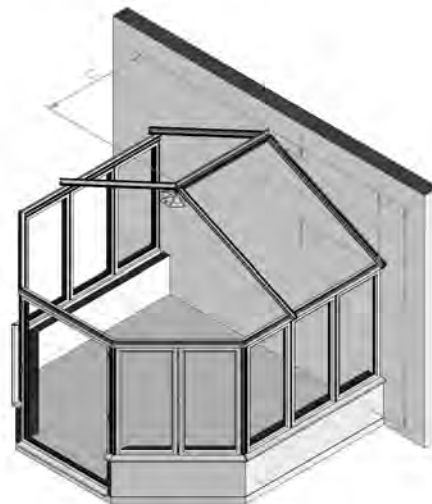
**A Internal Frame Width :**  
**B Internal Frame Projection :**  
**Frame Height (incl sill) :**  
**C Roof External Ridge Height :**  
**D Roof Internal Ridge Height :**  
**E Roof Height External from Finished Floor level :**



Please note that the end dimensions are taken from the external frame to the centre line of the next rafter. The intermediate dimensions are taken from bar centre line to bar centre line. The image above is an example roof plan. The detail specific to your conservatory is shown on your roof plan, **do not follow the dimensions shown in this image.**

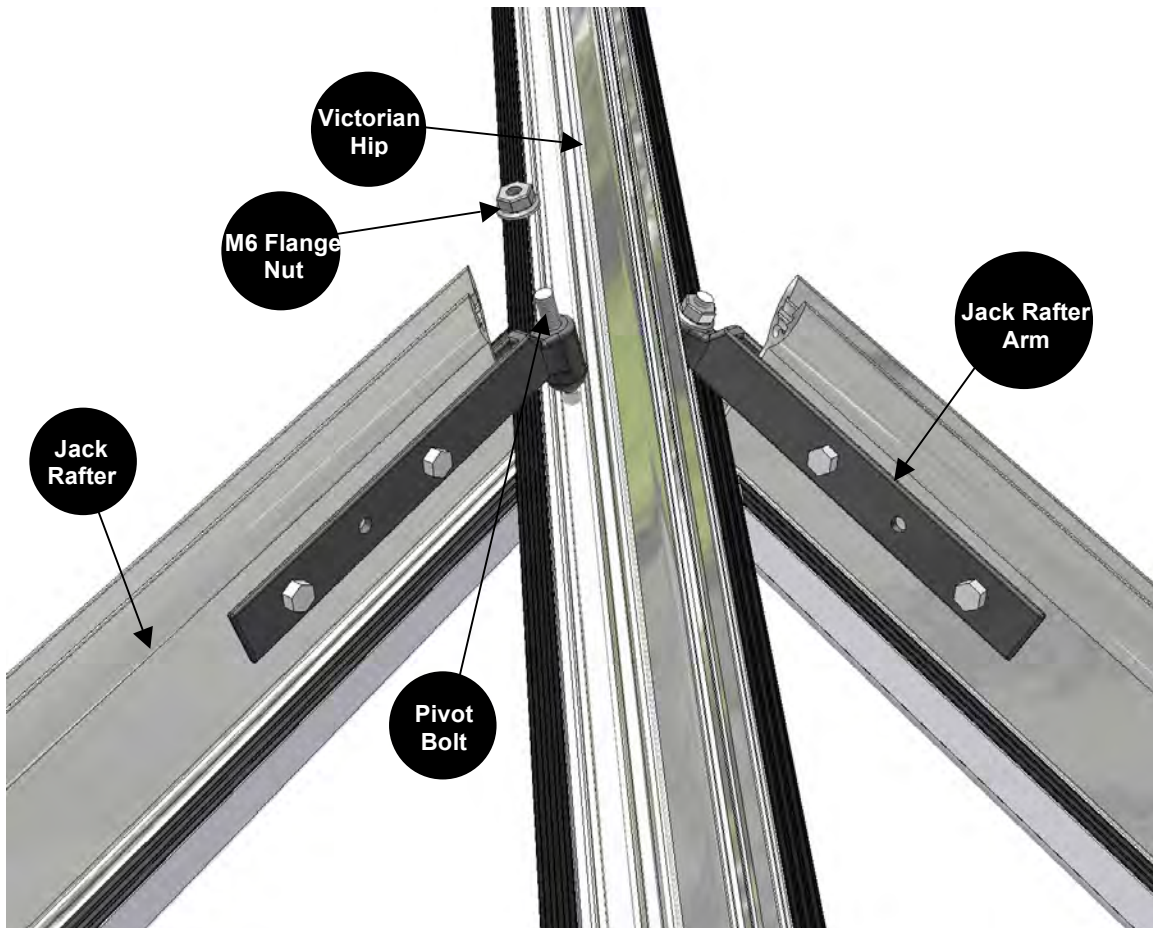
It is strongly advised that you perform the following checks:-

1. Double check the internal dimensions shown 'A' and 'B'.
2. Check that the height of your ridge (A5081) is correct. One of three ways is possible:
  - C. - **Roof External Ridge Height:** Height from the top of the panels to the top of the ridge (A5081).
  - D. - **Roof Internal Ridge Height:** Height from the top of the panels to the underside of the ridge (A5081).
  - E. - **Height from your Finished Floor Level:** to the top of ridge (A5081).



## 7 – JACK RAFTERS INSTALLATION

| Item No | Item Description          | Comments      |
|---------|---------------------------|---------------|
| 1       | Victorian Hip Bar         | Pre-assembled |
| 2       | Jack Rafter Assembly      | Pre-assembled |
| 3       | Jack Rafter Undercladding | Pre-assembled |
| 4       | Jack Rafter Arm           | Pre-assembled |
| 5       | Pivot Bolt                | -             |
| 6       | M6 Flange Nut             | -             |

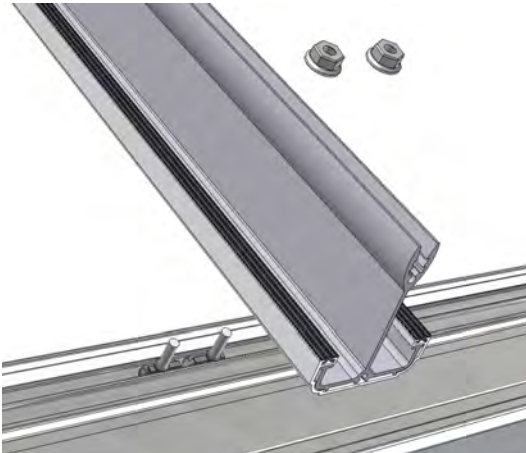


### Jack Rafters

Before attaching the jack rafter, slide the jack rafter undercladding down and away from the top end of the jack rafter.



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 bolts in the eaves beam and loosely attach the M5 flange nuts.



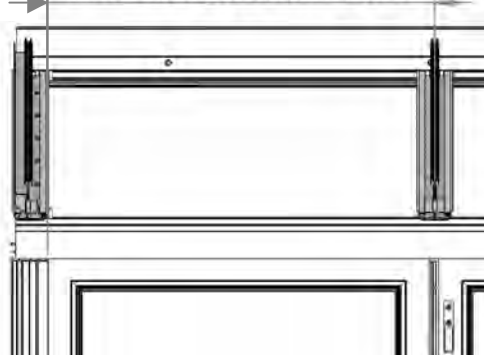
Prior to tightening **any** M5 locking nuts it is recommended that a check of the glazing bar centres is carried out.

These dimensions are shown on your roof plan are taken from the centre line of the transom glazing bars. When all the bars are correctly positioned, tighten all M5 and M6 flange.

REMEMBER to remove the protective film from the under cladding prior to installation.

Jack rafters can now be fitted to the hips.

**Plumb line to Centre Line**



### 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.

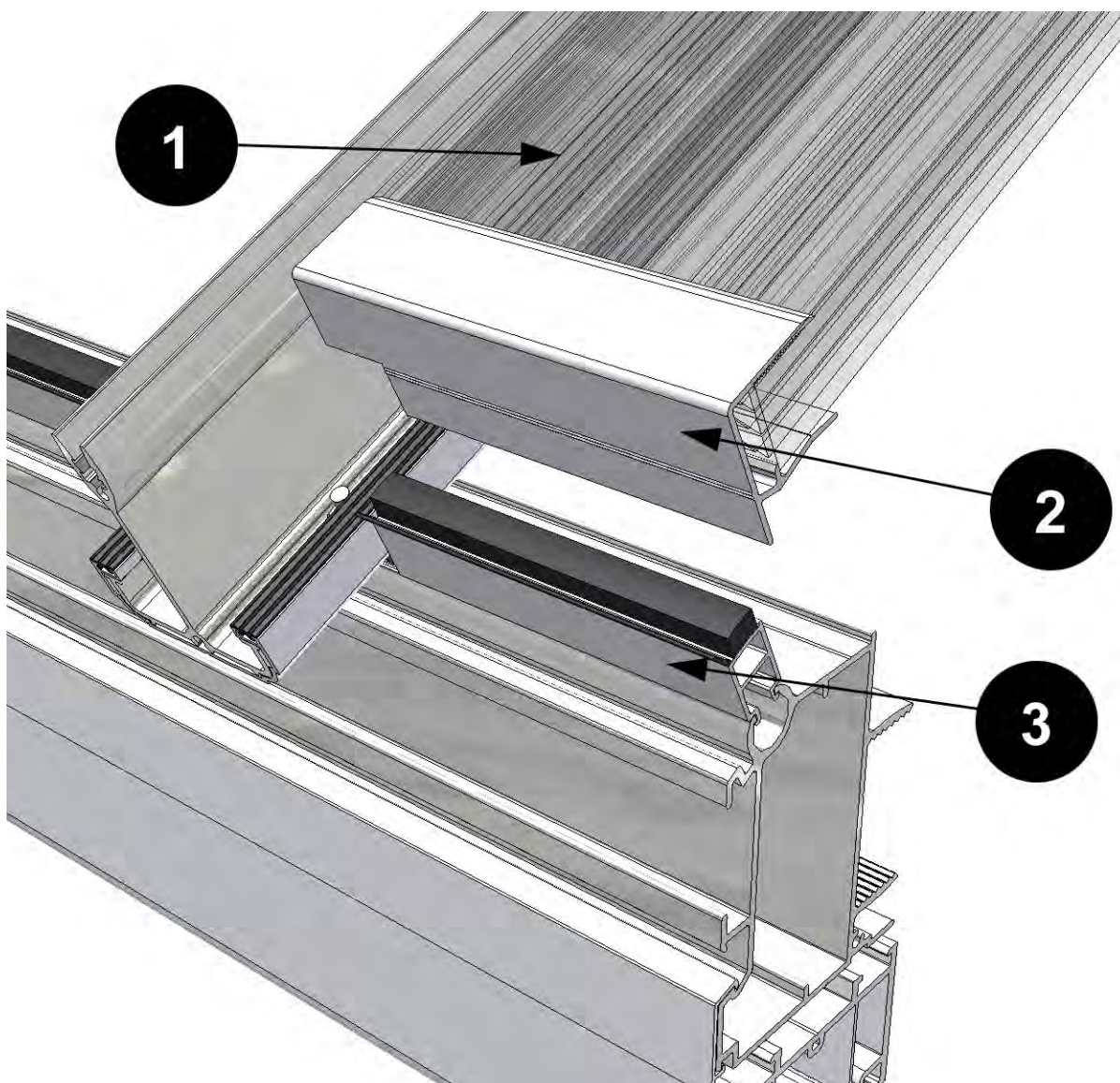


The finished appearance of the jack rafter connection from beneath should be as below.



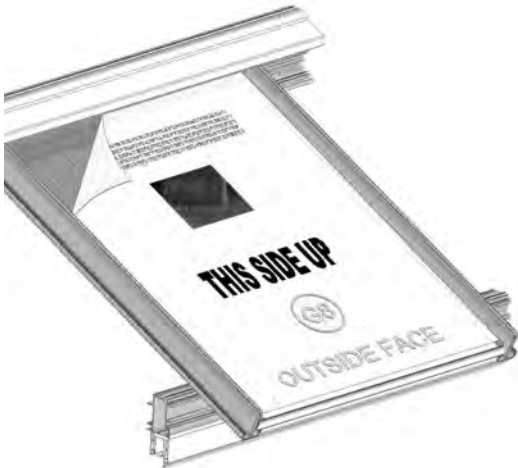
**9 – ROOF GLAZING COMPONENT REFERENCE**

| 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.

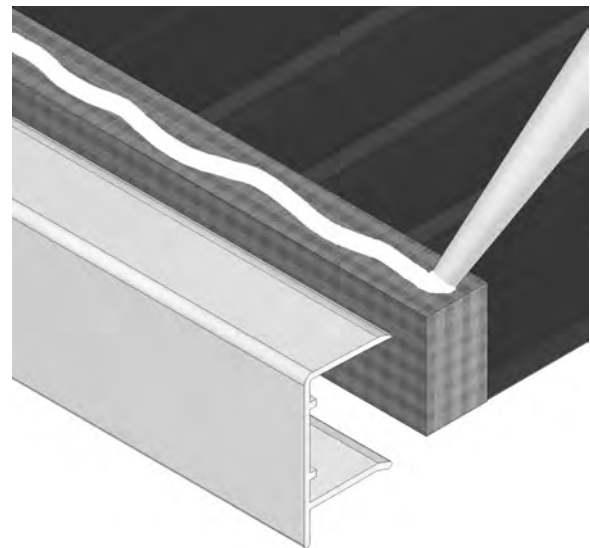


It is recommended to apply a bead of silicone to the gap between the eaves beam

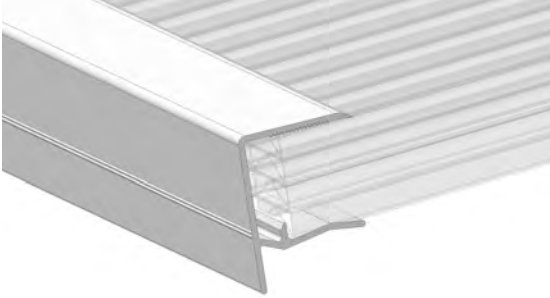
closure (P6056) and the glazing bar under cladding as shown below.



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.

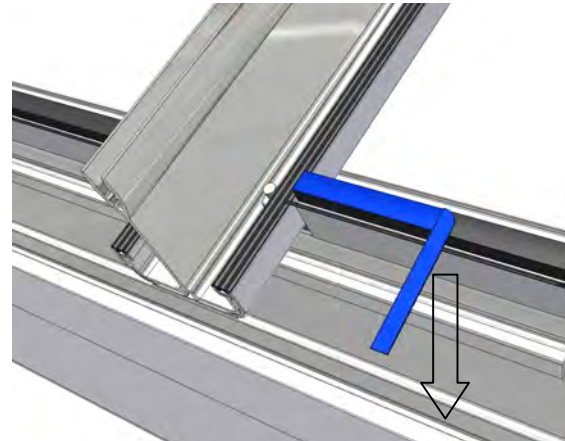


Push the roof glazing sheet up into the universal ridge wings then slowly allow it to slide back down away from the ridge until it rests flush with the bottom of the transom glazing bars.

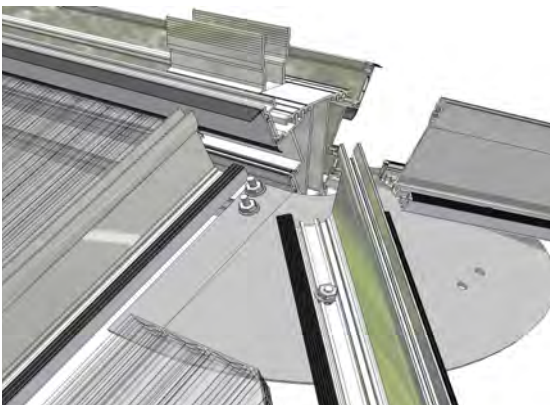
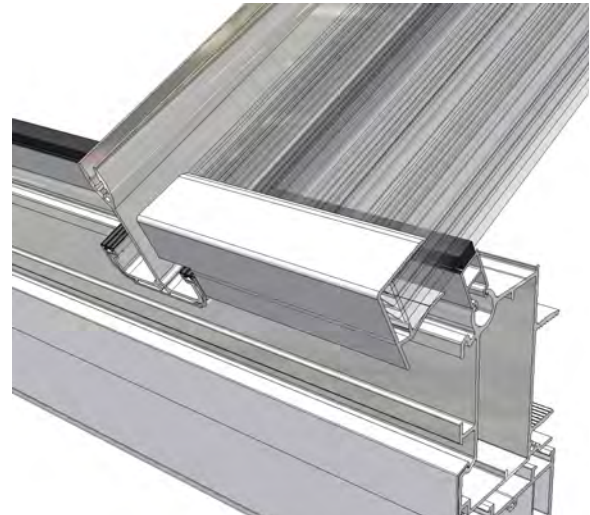
Allow the roof glazing sheet to gently rest on to the eaves beam closure (P6056).

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 internal protective film can be completely removed once all plastering work is completed.



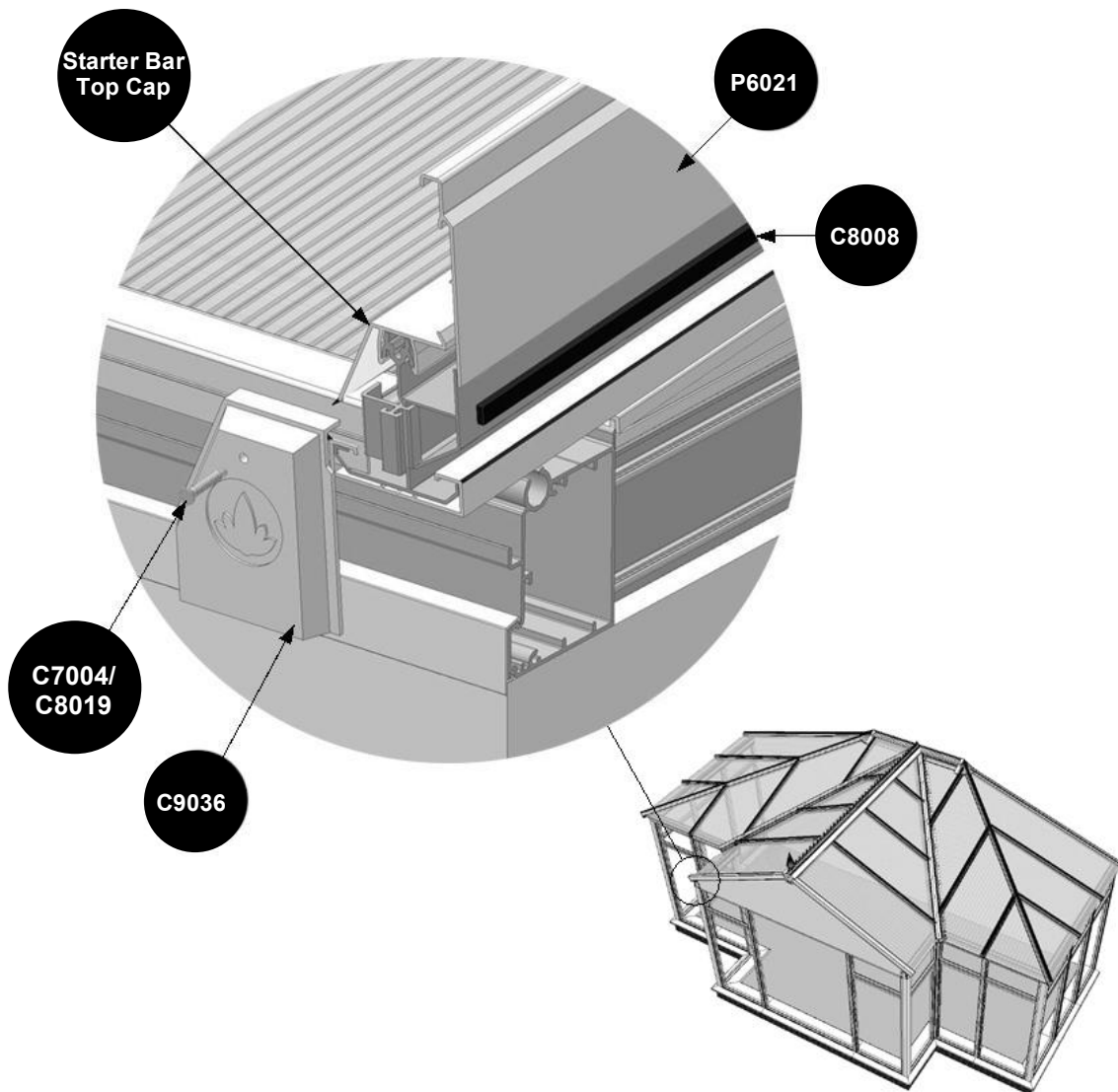
Start with the roof glazing sheets against the wall and to the left with the face that had the printed film facing outwards. This first sheet will be labelled as 'G1'.



When positioned correctly there should be a gap of approximately 8-10mm between the sides of the glazing sheets and the bars.

**Q - BAR CAPPINGS COMPONENT REFERENCE**

|              |                          |  |
|--------------|--------------------------|--|
|              | Starter Bar Top Cap      |  |
| <b>C9036</b> | Starter Bar End Cap      |  |
| <b>P6021</b> | Fascia Trim              |  |
| <b>C7004</b> | Screw Cover cap & Washer |  |
| <b>C8019</b> | 3.9 x 19mm Yellow Screw  |  |
| <b>C8008</b> | Fascia Tape              |  |



Once all roof glazing sheets are in position and stuck to the glazing support trim (P6056), it is time to attach the bar top caps to the bars.

### Fitting Starter Bar Caps

Select the appropriate starter bar top cap by matching its number with the corresponding bar number. Both starter bar and bar top cap will be labelled 'P1'. Prior to installing the bar top cap, the bar top cap rubber gasket must be lubricated with a solution of mild soapy water (this will help to slide the bar top cap if adjustments are necessary).



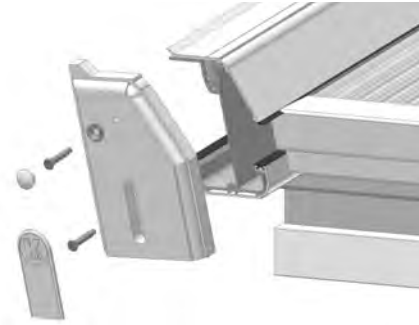
Use a glazing mallet or similar plastic surfaced mallet to knock on the bar top cap starting at the top and working down the bar top cap towards the eaves beam (A5080). When the bar top cap is attached, make sure that the bottom face of the bar top cap is flush with the bottom face of the starter bar. Remove the protective film from the bar top cap.

Support when assembling the bar top caps on to the bars 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 Starter Bar End Cap

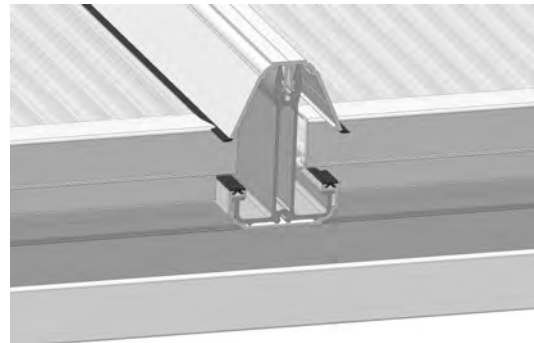
When the starter bar top cap is attached you need to close the end of the bar by use of the starter bar end cap.

The starter bar end cap is attached to the starter bar by use of the 3.9 x 19mm yellow screws. Ensure that the screw cover caps are used to hide the 3.9 x 19mm yellow screws.

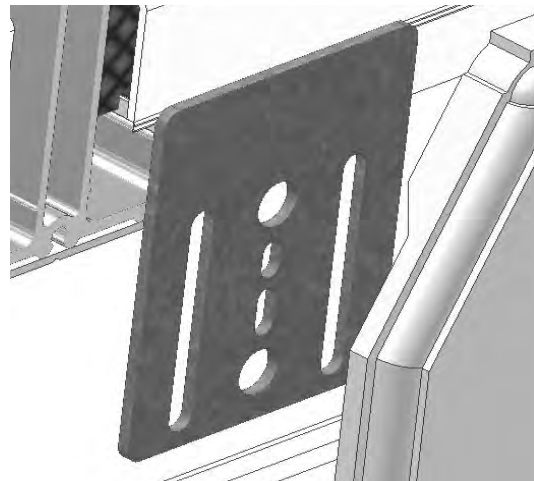


### Fitting Intermediate Bar Caps

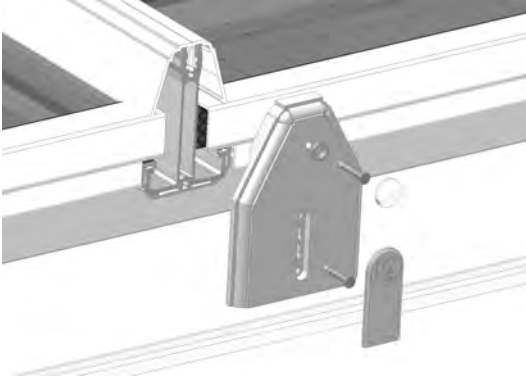
For all other bars fix the bar top cap to the bar in the same way as described previously, ensuring that the rubber bar top capping gaskets are lubricated prior to installation and protective films removed afterwards.



**Please note that if your conservatory's roof glazing sheets are glass you will have to fit the glass plates (C9039). These are square metal plates which offer support to keep the glass from slipping. These plates are fitted inside the bar end caps (C9036/C9038) on assembly.**



When the bar top caps are attached, fix the bar end caps to the end of each bar by using the 3.9 x 19mm yellow screws (C8019). Ensure that the screw cover caps (C7004) are used to hide the screws.



#### **Fitting the Fascia Trim on Traditional and Gable End Styles**

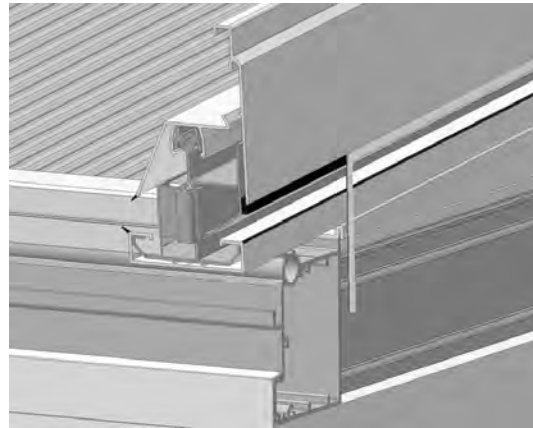
The fascia trim (P6021) seals the end of the starter bars.

Apply the fascia tape (C8008) along the outside edge of the starter bar by firstly peeling off one side of the protective outer film and apply to the face of the starter bar bottom cap as shown below.



When the fascia tape (C8008) is in position, approximately peel back the first 100mm of the outer protective film nearest the eaves beam (A5080).

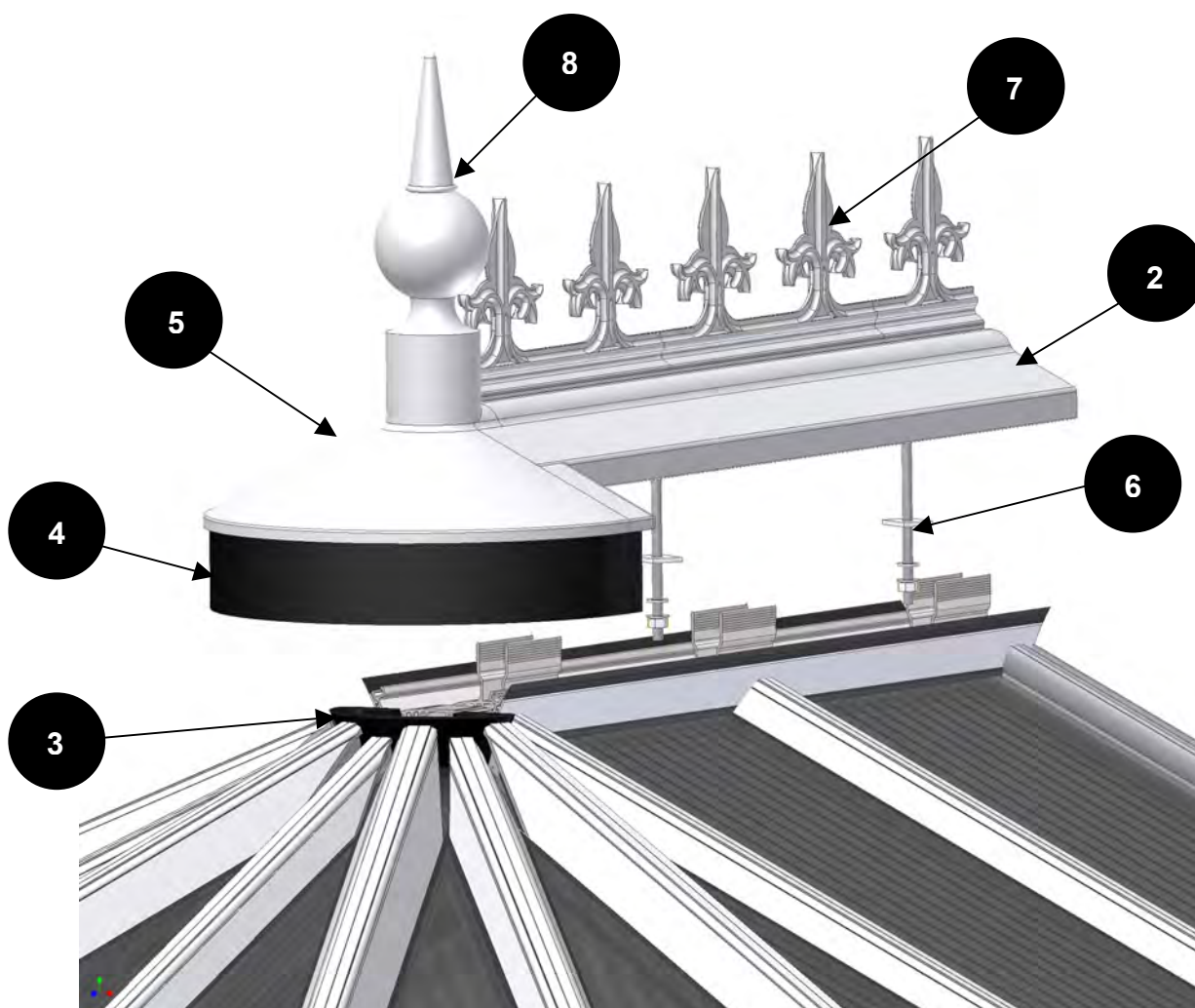
Locate the fascia trim (P6021) over the starter bar top cap ensuring that the top hook on the fascia trim (P6021) locates over the top hook on the starter bar top cap.



When the fascia trim (P6021) is in position, pull slowly on the fascia tape protective film in a downwards motion while pressing firmly onto the fascia trim (P6021). This will ensure that adhesion is sound between the fascia trim and the fascia tape (C8008). Continue this process along the rest of the starter bar.

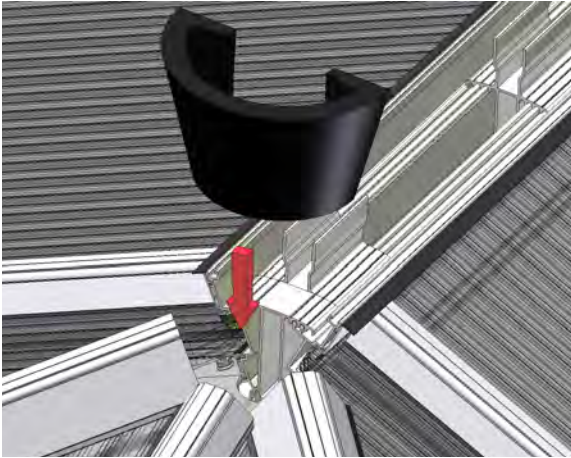
## 11 – RIDGE CAPS

| Item No | Item Description                            | Comments      |
|---------|---|---------------|
| 1       | 25° Variable Pitch Ridge                    | -             |
| 2       | External Ridge Cover                        | P6027         |
| 3       | Universal Foam bung                         | C7023         |
| 4       | Boss End Foam Trim                          | C9350         |
| 5       | Round External Boss Cover / Deep Skirt      | C9027 / C9043 |
| 6       | Ridge Holding Down Bolts                    | C8031         |
| 7       | Ornate Cresting (as shown) / Plain Cresting | C7015 / 7013  |
| 8       | Finial                                      | C7012         |

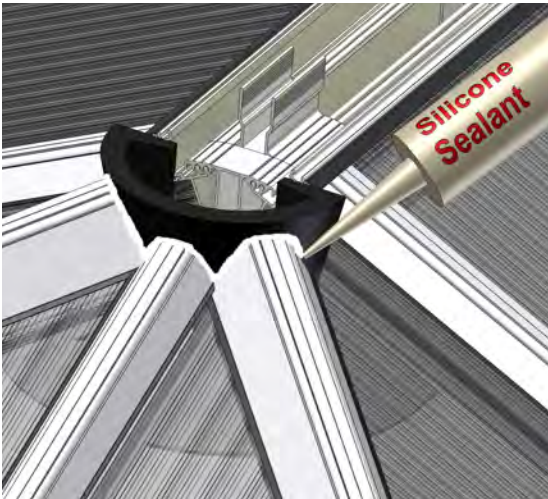


Now that all the edges of the polycarbonate roof sheets are sealed by use of the bar top caps and the bar end caps, the tops of the bars need to be sealed from water ingress and dirt.

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



Using the silicone provided, run a continuous bead around the joint between the foam bung (C7023) and the end of each bar top cap, being careful to avoid gaps in the sealant.



### Fitting the Ridge Covers

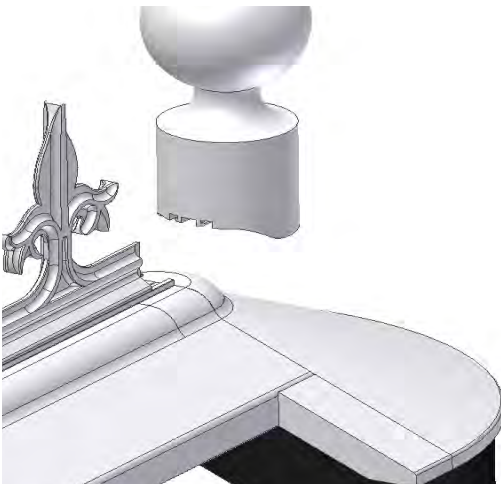
When fitting the ridge covers, you must first attach the boss end foam trim around the perimeter of the underside of the boss end cover as shown. Remove the backing tape and press firmly onto the underside of the boss cover.



The ridge holding down bolts must be fitted into the groove on the underneath of the external ridge capping at approximately 500mm centres. When fitting the bolts ensure that the nut and washer for each threaded rod is located into the channel, tighten the threaded rod prior to installing.

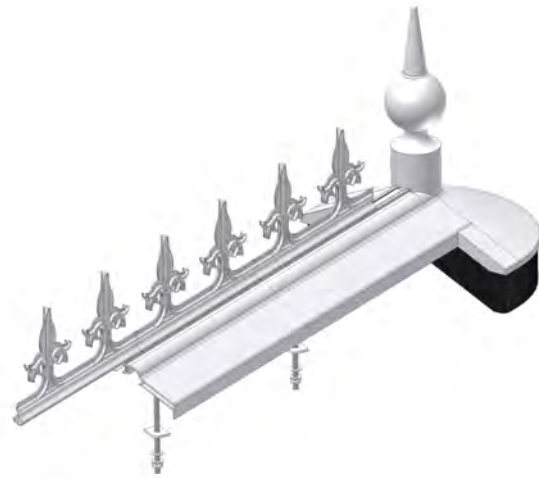


Slide the finial (C7012) fully onto the ridge cap assembly as far as it will go.



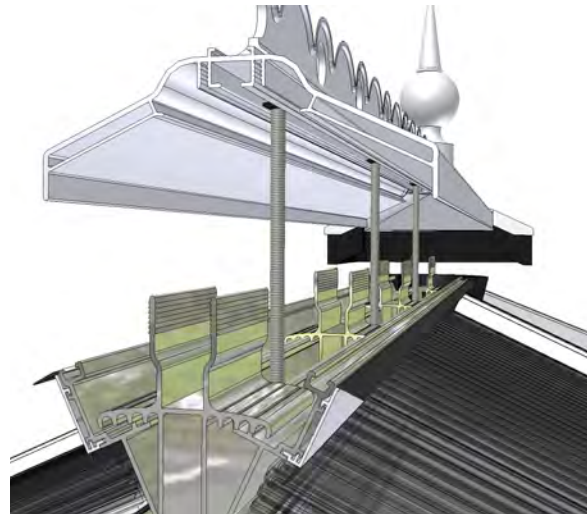
Slide the pieces of crestring (C7013/C7015) into the open ended channel of the ridge cap

assembly.

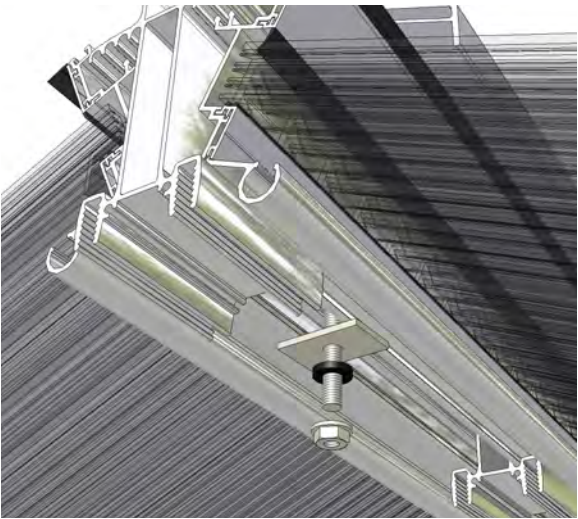


**The last piece of crestring may have to be cut to length so that it finishes flush with the end of the ridge top cover.**

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 fitting the external ridge cover assembly, Use of conservatory ladders or boards positioned across the glazing bars will assist spreading any load. **Do not put your weight directly on to the roof glazing sheets.**



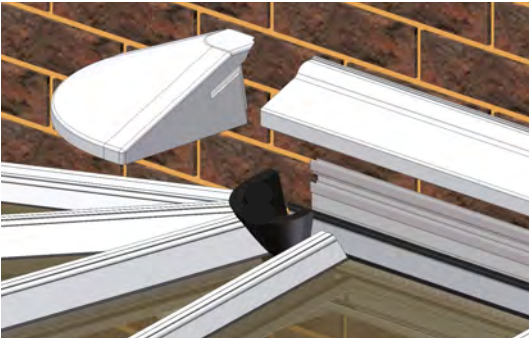
Screw the rectangular washer until it touches the ridge wings and finger tighten the nylon nut on the ridge holding down bolts to make the external ridge capping secure.

**Riii – QUARTER BOSS COVERS COMPONENT REFERENCE**

|              |  |               |
|--------------|--|---------------|
| <b>P6052</b> | <b>Half Ridge Wall Plate Top Cover</b>     |               |
| <b>P6027</b> | <b>Ridge Top Cover</b>                     |               |
|              | <b>Qtr Boss Ext Cover</b>                  |               |
| <b>C9123</b> | <b>Wallplate Top Cap Inline Jointer</b>    | <b>Top</b>    |
| <b>C9123</b> | <b>Wallplate Top Cap Inline Jointer</b>    | <b>Bottom</b> |
| <b>C9133</b> | <b>“T” Ridge/Wallplate Top Cap Jointer</b> | <b>Welded</b> |
| <b>C9104</b> | <b>Ridge Top Cap Inline Jointer</b>        | <b>Top</b>    |
| <b>C9104</b> | <b>Ridge Top Cap Inline Jointer</b>        | <b>Bottom</b> |
| <b>C9202</b> | <b>Foam Bung</b>                           |               |



Product Code: K2Cv8.1 / November 2011



If the quarter boss external cover fouls the hip top caps, it will be necessary to trim the skirt on the cover to suit.

Once fitted, silicone seal the joint between the boss cover and the wallplate external cover.

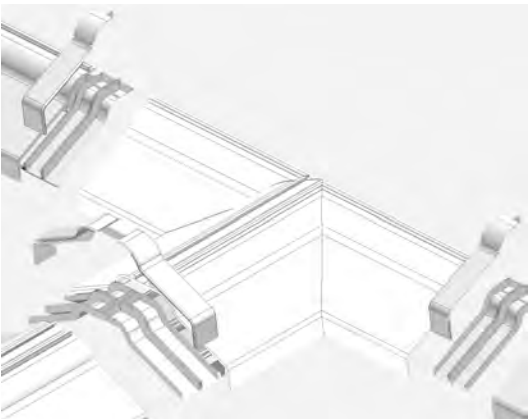
Locate the aluminium flashing trim into the gap between the wallplate external cover and the wall and tap into position. Using continuous beads of silicone, Seal the flashing section to the wall and to the wallplate external cover.



Measure the distance along the wallplate between the internal boss covers and cut the wallplate internal cover to suit.

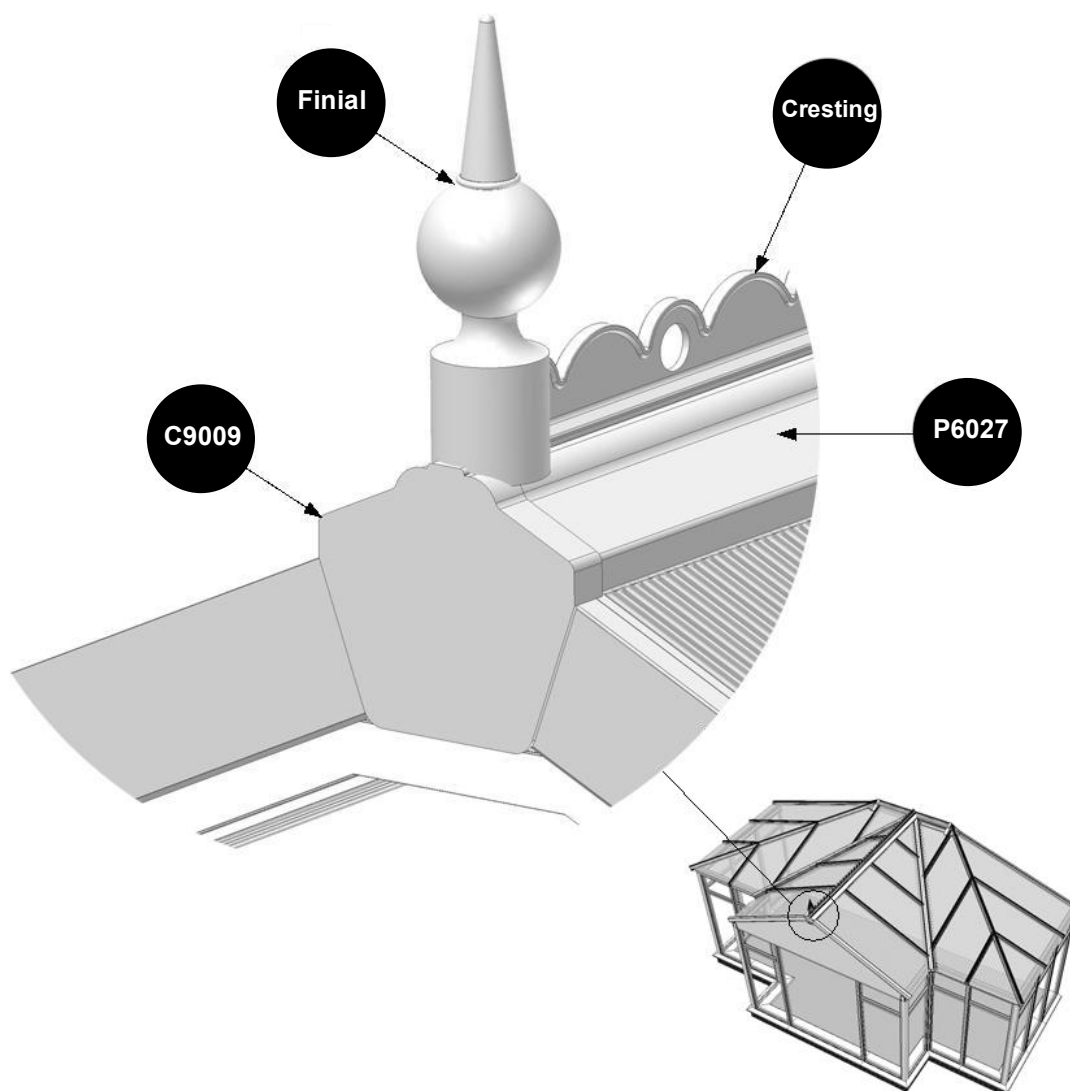
**Ridge Cover Connectors**

On a style such as the “P” or “T” Shape, the external ridge cover (P6027) and wallplate covers (P6052) will require joining. The joints are connected using inline jointers (C9104 & C9123). **The C9104 jointer may require cutting in half to suit.**



**Rii – GABLE RIDGE CAPS COMPONENT REFERENCE**

|       |                      |                |
|-------|----------------------|----------------|
| C9009 | Gable End Cap        |                |
| P6027 | External Ridge Cover |                |
|       | Finial               | Style may vary |
|       | Cresting             | Style may vary |



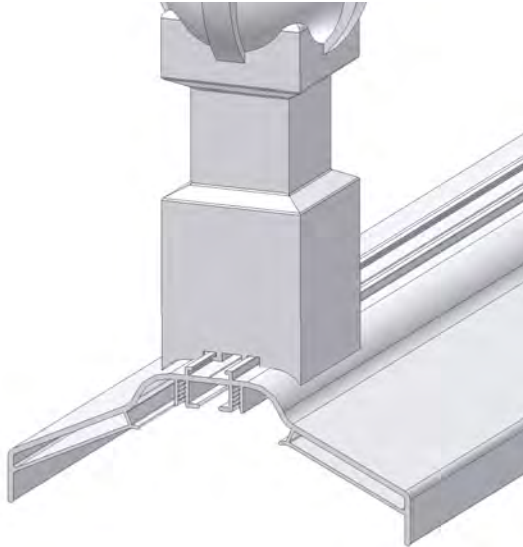
**Please Note: finial and cresting may differ in style from the imagery shown.**

### Gable End Styles

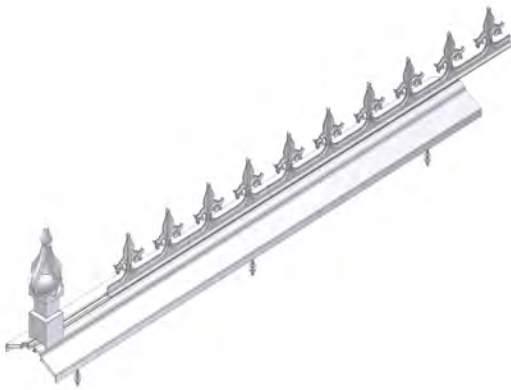
Prior to installing the external ridge cover (P6027) will require some assembly.

The base of the finial (C7014) will require trimming to allow it to be slide along the ridge cap. Once trimmed the finial must be fitted 25mm back from the end of the ridge

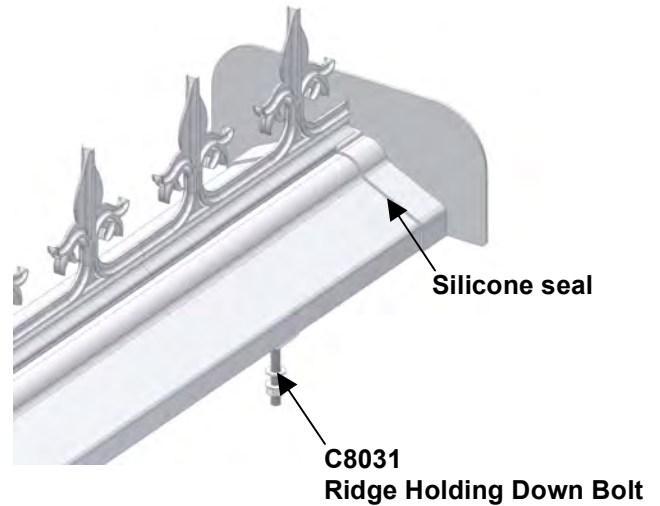
cover, this will allow for the fitting of the gable end cap (C9009) later.



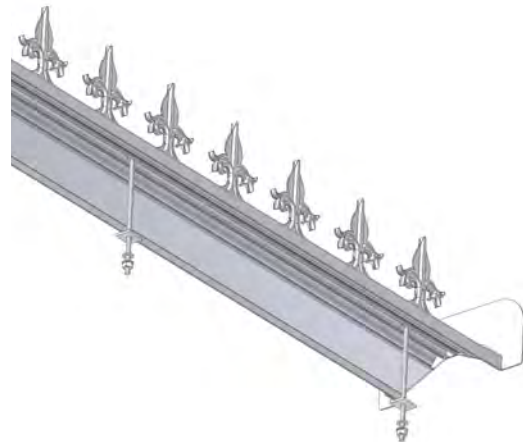
Next slide the cresting's into the channel on the ridge cover, the last cresting may require trimming to length.



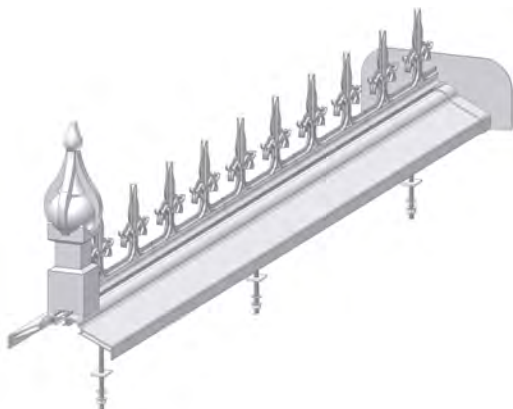
Once all the cresting's are in place, the ridge flashing trim (C9010) needs to be fitted, apply silicone to the end of the ridge cover prior to fitting the flashing trim. A bead of silicone can also be applied to the joint between the flashing trim and ridge cap.



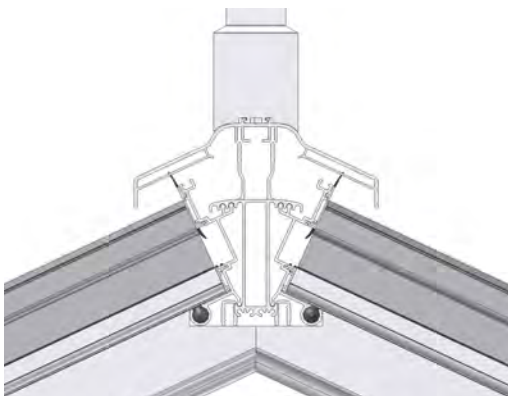
The ridge holding down bolts (C8031) must be fitted into the groove on the underneath of the external ridge capping at approximately 500mm centres. When fitting the bolts ensure that the nut and washer for each threaded rod is located into the channel, tighten the threaded rod prior to installing. Once



The ridge cap assembly can now be lifted into place on the roof, the ridge cap needs to be located centrally onto the top prongs of the ridge centres.



Once in place press firmly down on the ridge cover assembly so that the ridge cover locks onto the barbs of the ridge centre prongs. Support when fitting 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 onto the roof glazing sheets.**

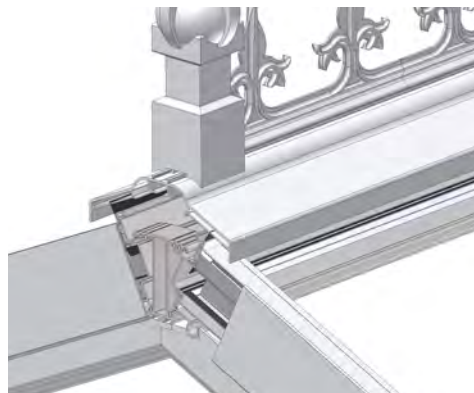
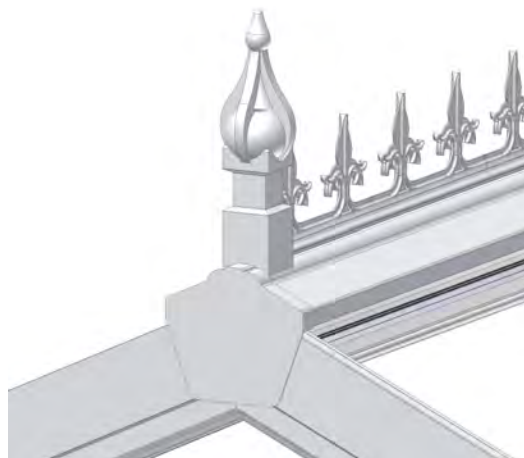


Prior to fitting the fascia cover, ensure that the fascia tape has been adhered to the starter bar bottom cap.

Once the fascia covers has been fitted, install the ridge gable end cap.

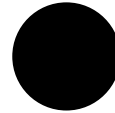


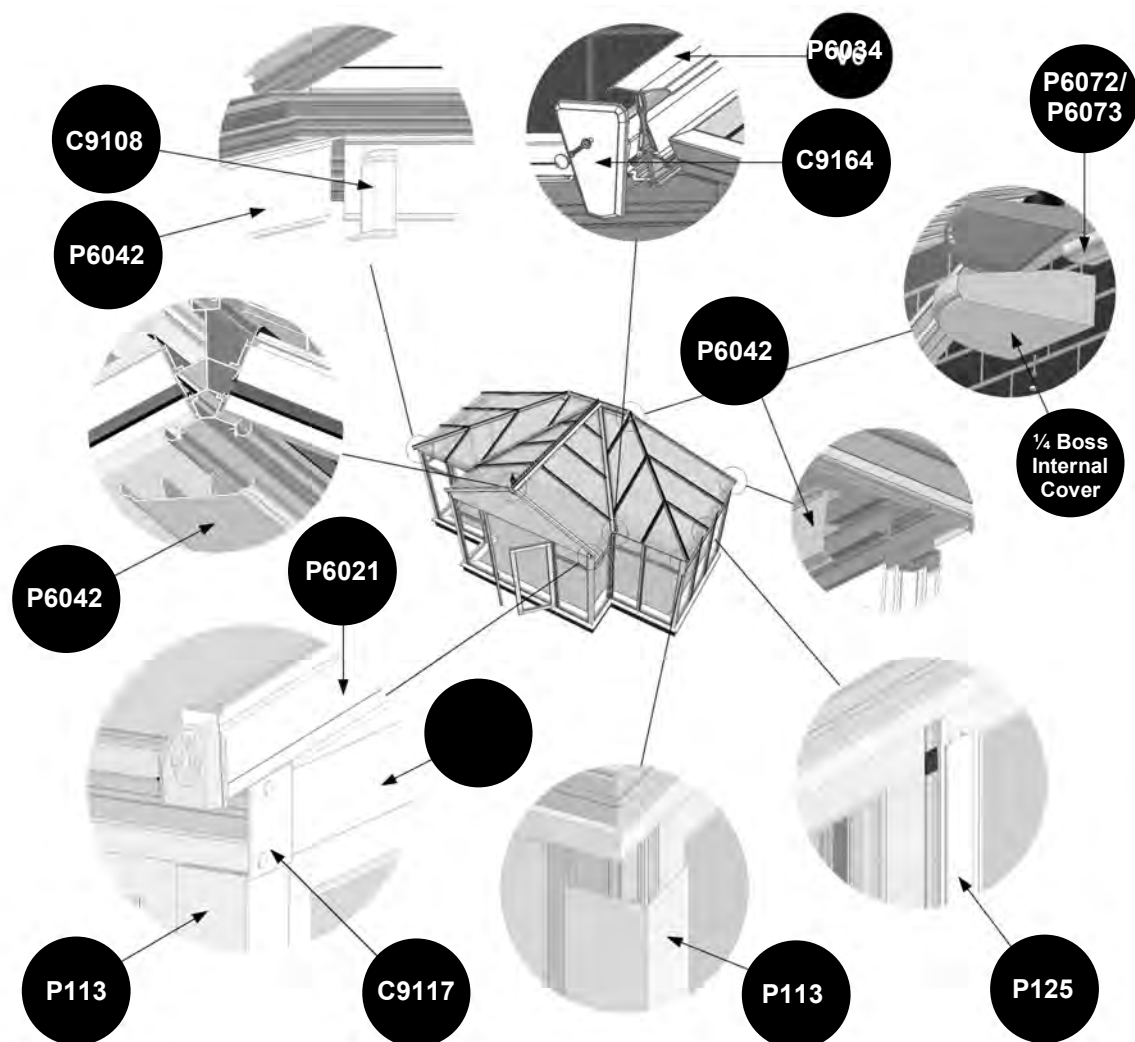
Position the gable end cap (C9009) on to the end of the ridge cover so that the return of the gable end cap sits over the ridge cover. It is recommended that a bead of silicone is applied to the mating faces.



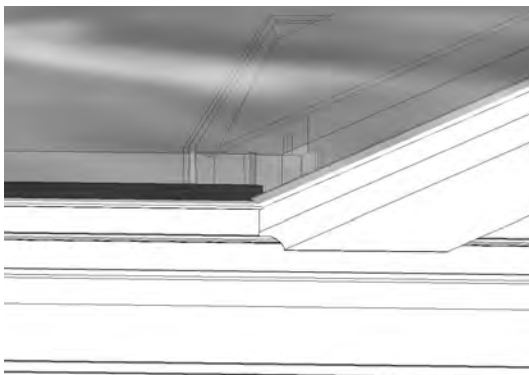
**i – TRIMS AND FINISHING COMPONENT REFERENCE**

| Item No | Item Description            | Comments |
|---------|-----------------------------|----------|
| P6042   | Eaves Beam Cover            |          |
| P113    | 90° Corner Post Cover       |          |
| P6042   | Ridge Cover Internal        |          |
| P125    | 18mm Coupling Cover         |          |
| C9108   | Eaves Beam 90° Cover Trim   |          |
| P6034   | Valley Top Cover            |          |
| C9164   | Valley End Cap              |          |
|         | Quarter Boss Internal Cover |          |
| P6072   | Wallplate Internal Cover    |          |
| C9117   | Eaves Beam End Cap          |          |

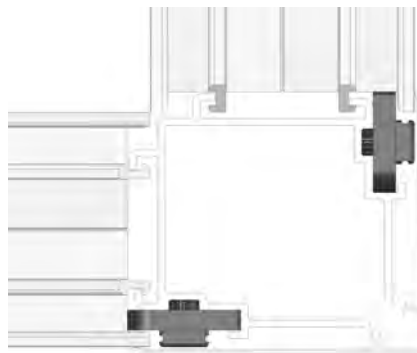




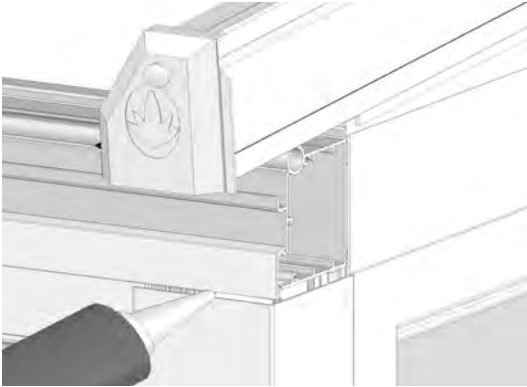
Check that you have sealed the joints in between the eaves beam closures (P6056) and the glazing bar under cladding on each panel and the glazing tape protective film has been removed.



Select the 90° corner post cover (P113) for the 90° corner post (A109), and position onto the barbs on the outer corner as shown below.



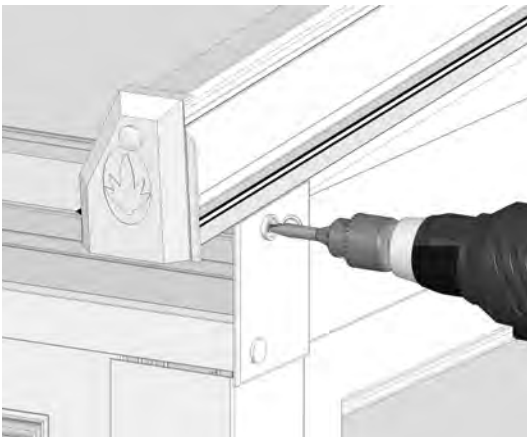
When in position silicone seal the gap between the eaves beam external trim (A5080) and the 90° corner post cover (P113).



Select the eaves beam end cap (C9117) and position over the open end of the eaves beam (A5080).



The eaves beam end cap (C9117) is fixed in place by use of 3.9mm x 25mm yellow screws (C8019), covered by screw cover caps (C7004).



Peel back around 100mm of the fascia tape protective film (C8008), but **do not cut and remove**.



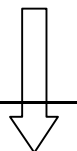
Locate the hook at the top of the fascia trim (P6021) over the up-right long leg on the starter bar top cap ensuring that the inside face of the fascia trim (P6021) does not make contact with the tape at this stage.



Ensure that the front end of the fascia trim (P6021) is in line with the front face of the starter bar, when satisfied that it is correctly positioned, press firmly on the fascia trim to create a strong bond with the fascia tape.

Slowly pull down on the glazing tape protective film which you peeled back earlier while you press firmly on the fascia trim until all the glazing tape protective film is removed along the full length of the tape.

When the fascia trim is attached, fix the bar end cap (C9036) to the starter bar using the 3.9 x 19mm yellow screws (C8019), the top screw must be used with a cup washer and finished off with a push-on cover



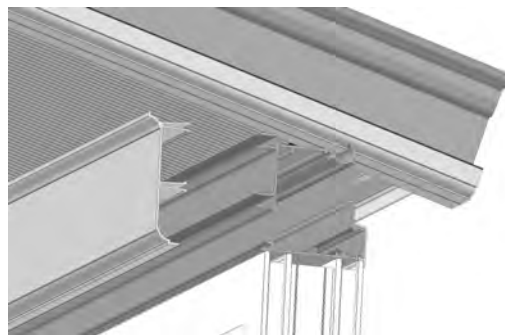


Select the eaves beam cover (P6042), position onto the barbs on the eaves beam (A5080) and press home.



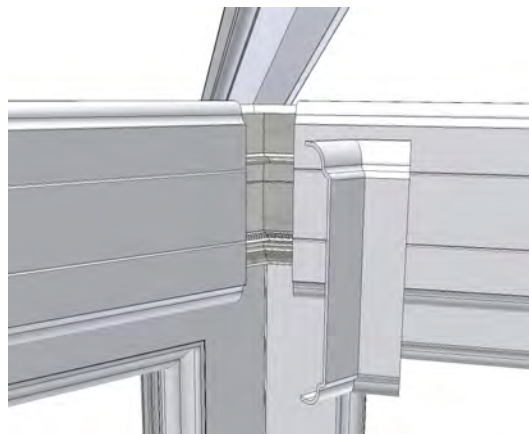
Select the 18mm coupling covers (P125) and position onto the recesses on the sides of each quarter turn button (C105) positioned on the inline couplings (A104) and press home.

**If your roof style has a box gutter, do not locate the eaves beam cover fully into position along the box gutter length.**



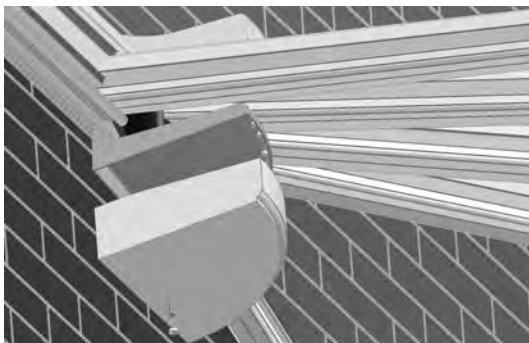
Repeat for each set of 18mm inline couplings (A104) including the ones on the inside.

Select the eaves beam cover trim (C9108), and push home into the corner gaps between the eaves beam cover (P6042).



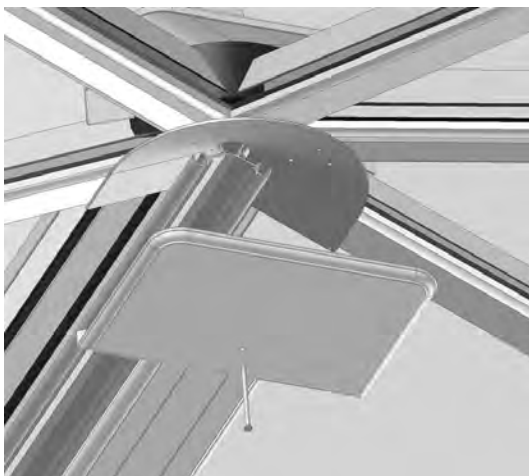
**Boss End Covers**

Position the quarter boss internal cover and fix with a self tapping screw and cover cap.

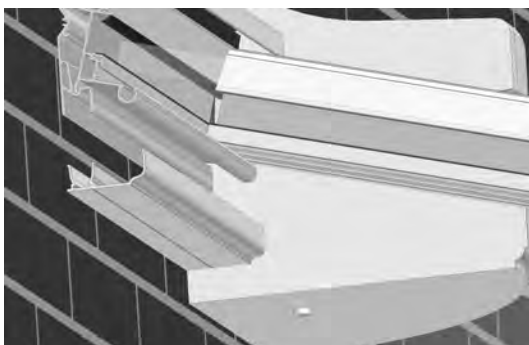


Offer up the boss end cover internal to the boss end. The boss end cover internal is fitted so the up-stand fits tight against the underside of the bars.

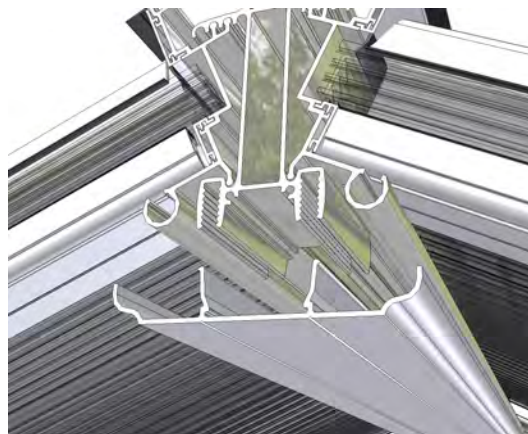
Ensure that the boss end is completely covered and fix in place the boss end cover using a fixing screw, washer and cover cap.



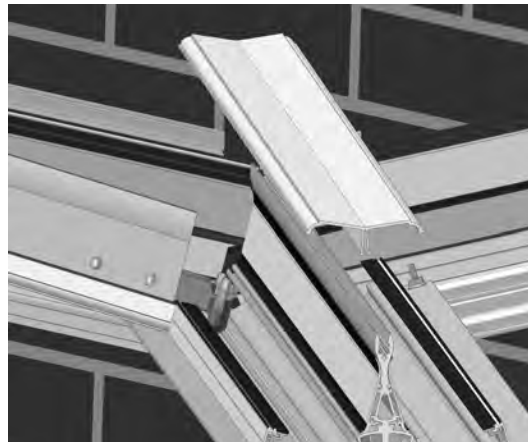
Select the wall plate cover internal and push fit on to the barbs on the under side of the wallplate and press home.



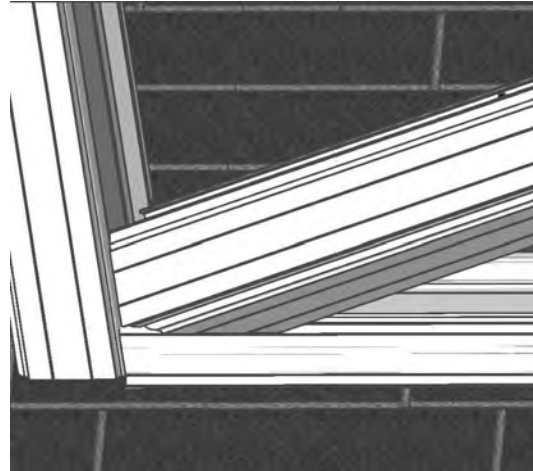
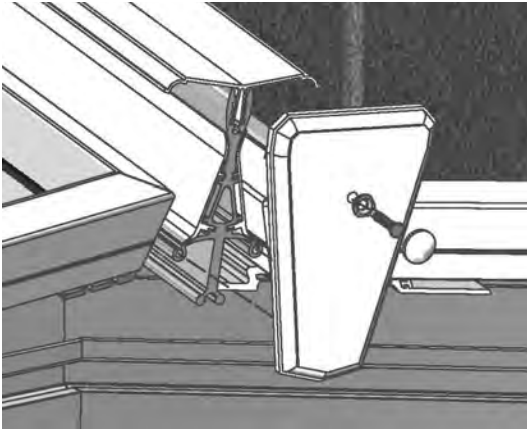
Select the ridge cover internal (P6042) and position over the 'feet' of the ridge centres, Push fit to hold secure.



Locate the valley cover (P6034) push home. Ensure that it is pushed as far up the valley as possible.



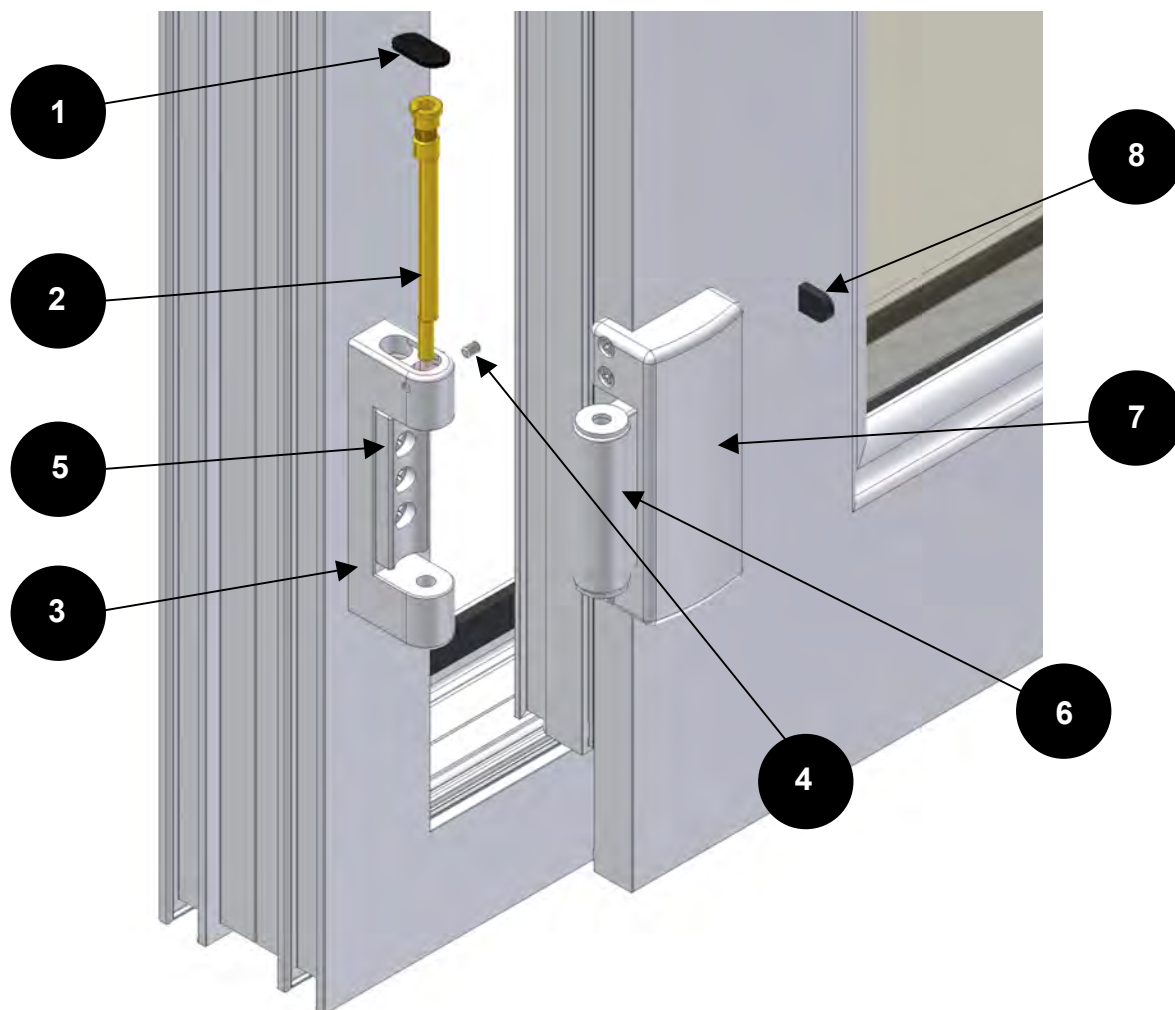
Fit the valley end cap (C9164) on the end of the valley as you would a bar end cap as previously described in 'Bar Caps Installation'.



Finally, push fit the internal valley cover (P6042) on to the underside of the valley wing scribing them to make them fit into the ridge internal trim and the wall plate under cladding.

## 10 - DOOR COMPONENT REFERENCE

| Item No | Item Description                | Comments |
|---------|---------------------------------|----------|
| 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 |          |



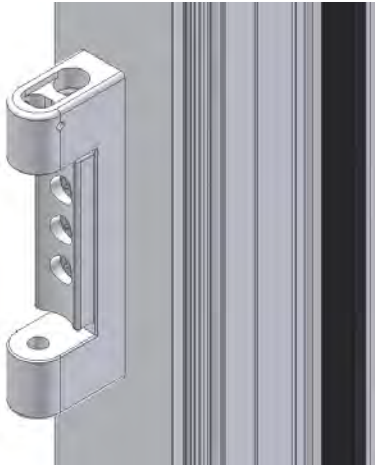
Check that the double door outer frame is square, plumb and not in twist (check that the diagonal measurement from corner to corner is equal in both directions).

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

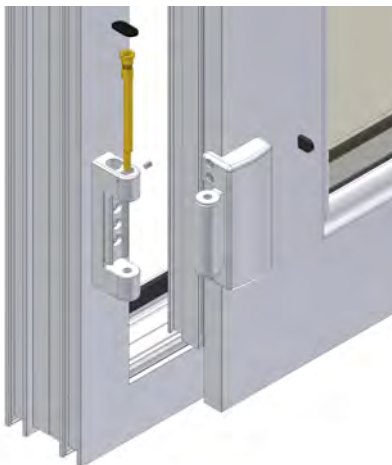


Two or three outer frame hinges and sash hinge adjusters are pre-fitted to the door outer frame. The hinge pin, hinge pin cover

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.



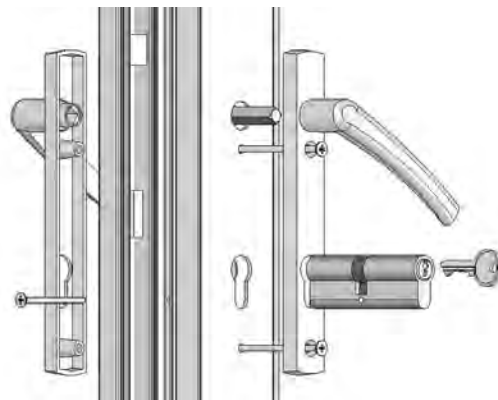
Ensure that the slot mark in the hinge pin points away from the door sash.



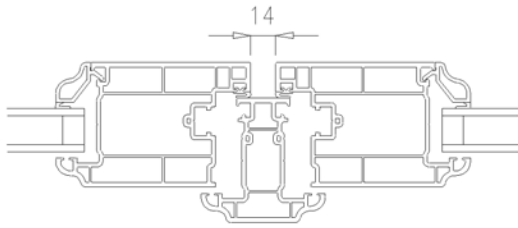
To prevent the hinge pins from turning, it is recommended that the hinge pin grub screws are fitted at this point. To do this, open each sash and fit the grub screws into the inside hole on the outer hinge.

Fit the door handles and cylinder.

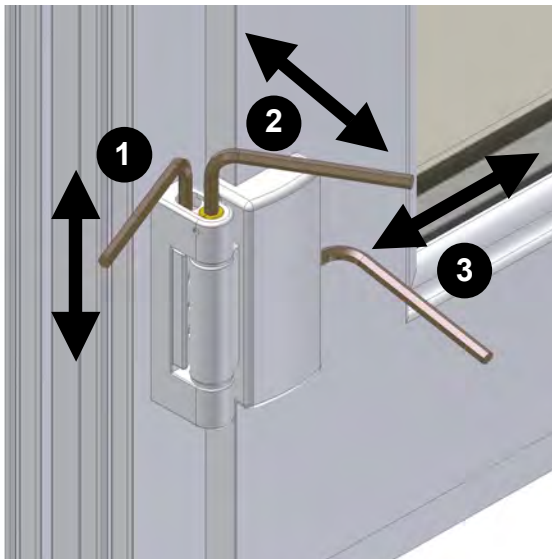
**NB: To operate the locking mechanism the handle must be lifted to allow the key to turn the cylinder.**



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).

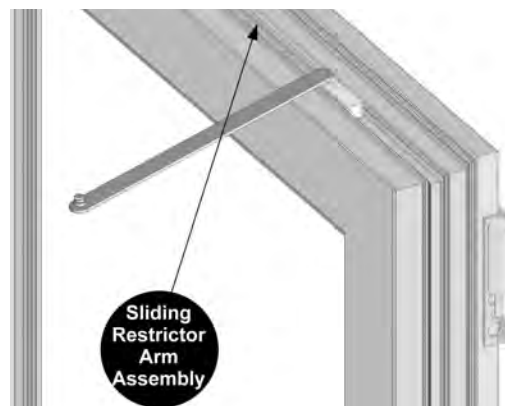


Horizontal (left to right) adjustment of the sash can be achieved by use of socket 3 located on the end face of the sash hinge cover (above). Insert the 5mm Allen key into the socket of the hinge and turn clockwise to move the sash inwards or anti-clockwise to move the sash outwards, Approximately 4mm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

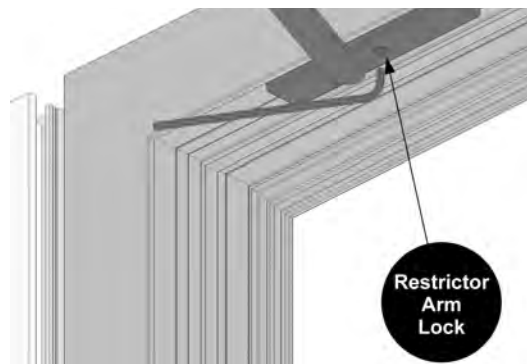
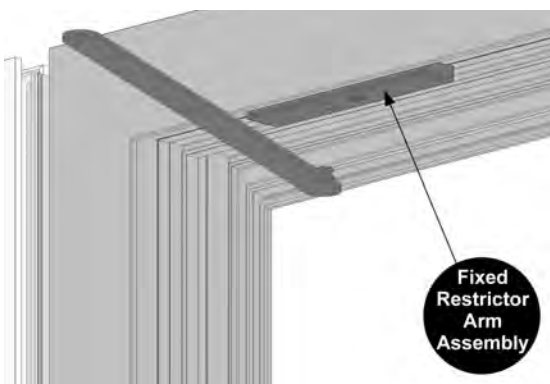
The shoot bolt keeps have an adjustable top plate. Loosen the locking screws on each plate prior to adjustment, ensuring that they are re-tightened afterwards. On the slave door, adjust the top section so that this door is pulled into the frame as tightly as possible. Adjust the master door keep as required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



### 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.

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



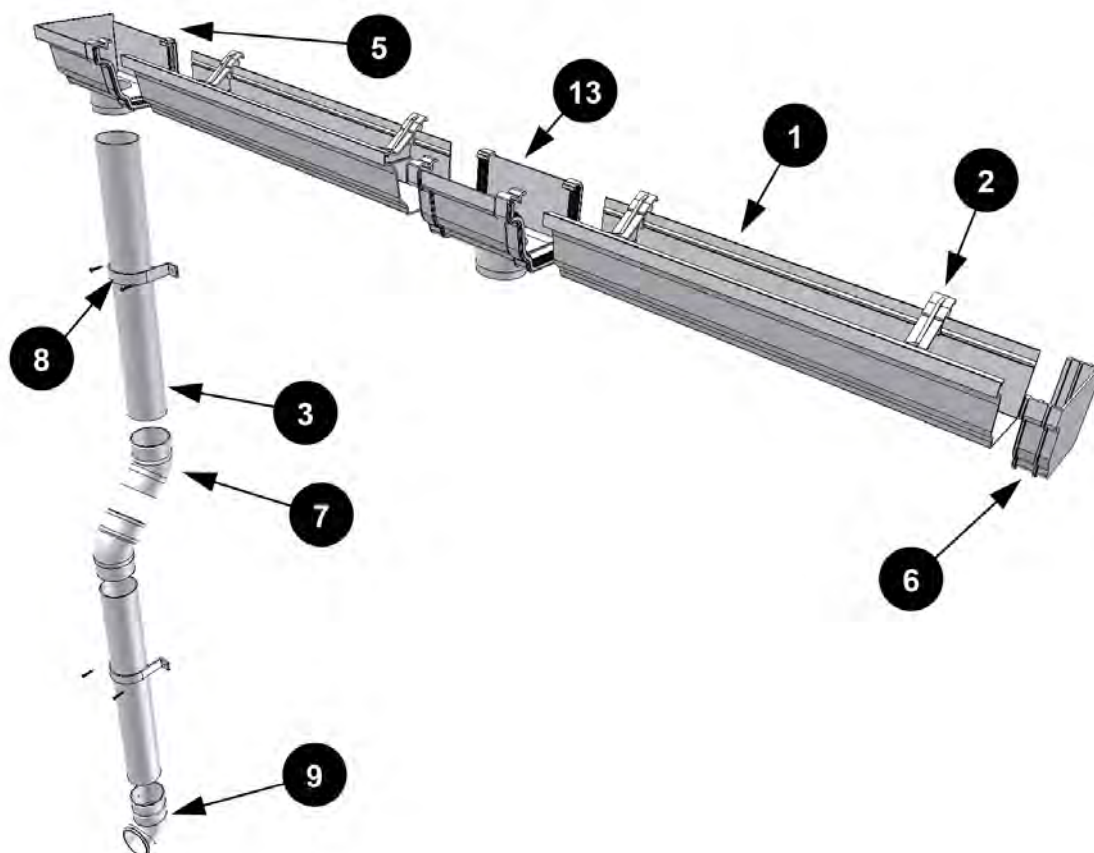
The restrictor arms are taped into position for transit. The tape should be removed prior to installation.

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

## 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 |



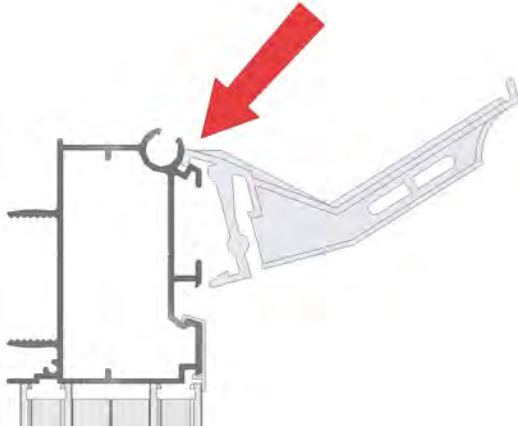
The following illustrations show the round downpipe located to the left hand side of the conservatory. This can however be fitted to either side. All the relevant components are

supplied with your conservatory to suit either side.

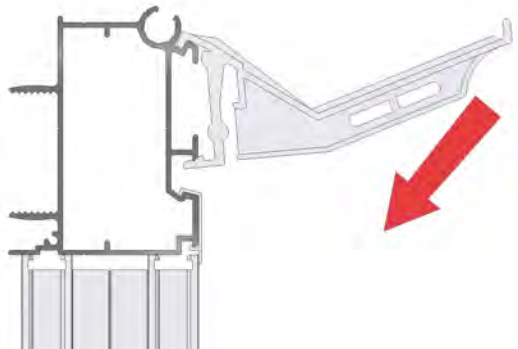
Ogee gutter support brackets (C8043) should be positioned 150mm from each corner and the remainder equally spaced.

### Fitting Ogee Gutter Support Brackets

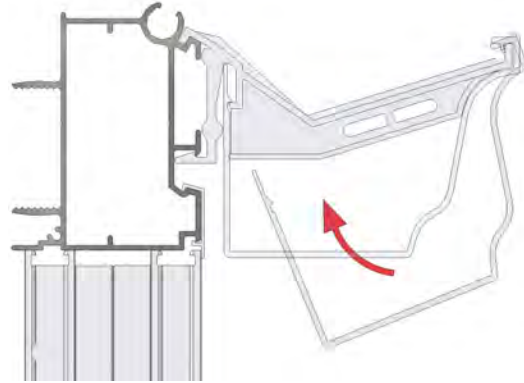
To fit the brackets, place the top of the bracket into the groove on the eaves beam.



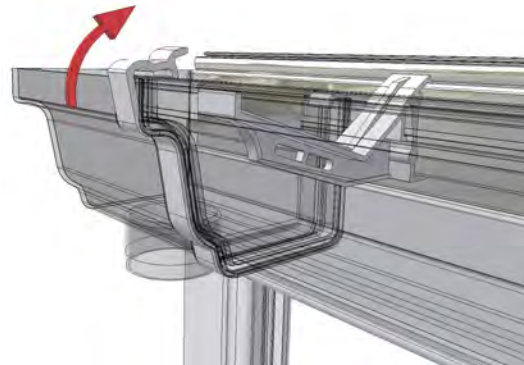
Pull the bracket downwards until it locks into place



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.

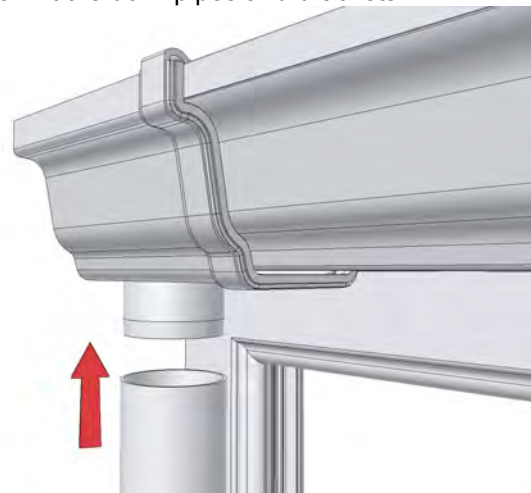


Where there are stop ends or outlets on the gutter you will need gutter joint clips to fix these in place. Offer the gutter joint clips over the gutter, slide up the back of the gutter until the hooks engage over the gutter. Pull up the front of the joints and clip over the gutter.



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

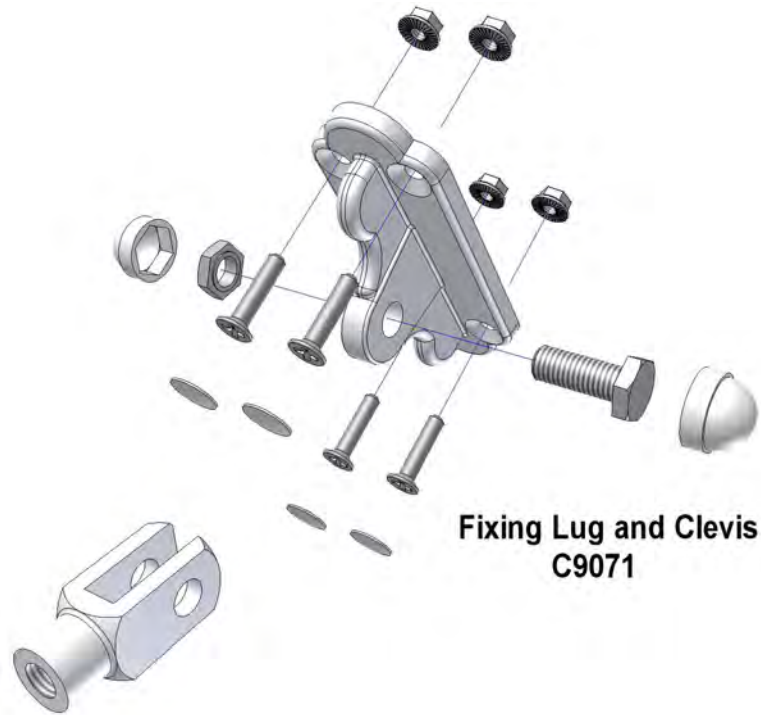


On dwarf wall models, you will need to cut the round downpipe (P6022) into two lengths and join them together by use of the downpipe bends (C9012). This is to allow the round downpipe to sweep over the 150mm sill (P106) and down the dwarf wall to the ground. The cut in the round downpipe is to produce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

**8 –TIE BARS INSTALLATION (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       |



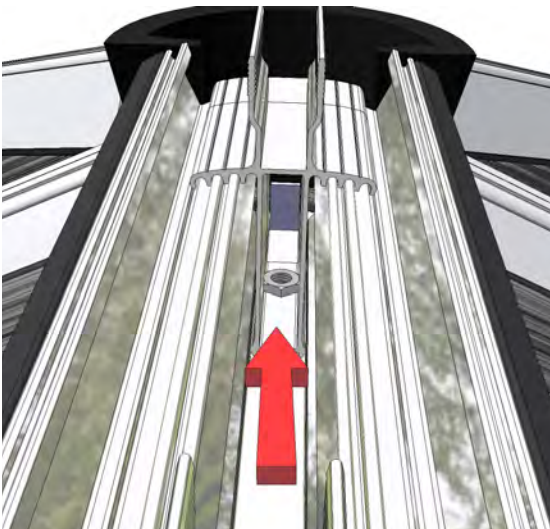
In most cases the tie bar kit is attached to the set of glazing bars that sit at the end of the ridge as shown below.



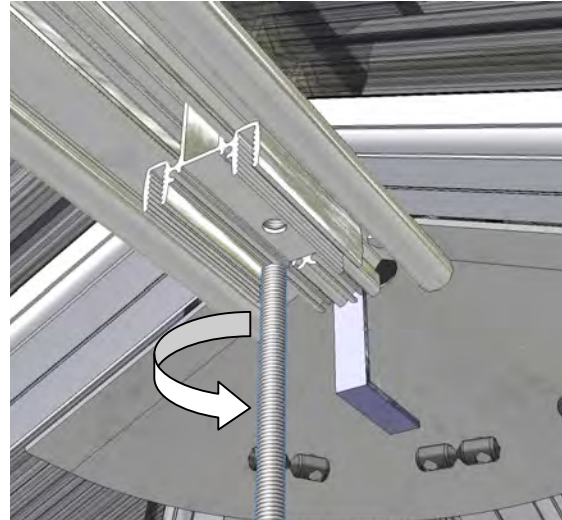
The lugs will be attached to the bottom of the relevant glazing bars where the tie bar is to be positioned. Three lengths of threaded tie bar rod and three lengths of conduit to cover the rod are supplied with each 3 way tie bar.

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.

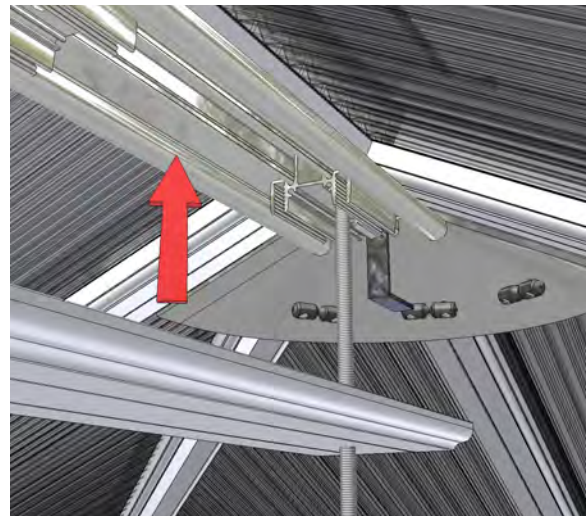
Firstly attach the vertical tie bar rod through the ridge. Slide a M10 fixing nut into the ridge centre over the pre-drilled hole.



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

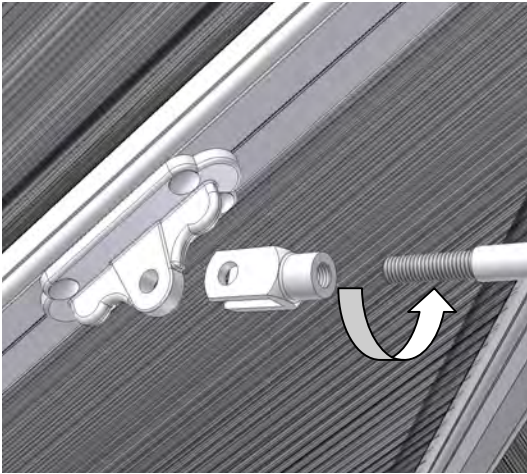


At this stage it is a good time to fit the ridge under cladding with the tie bar rod fitted in place. The ridge under cladding needs to be inserted and passed up the tie bar rod until it reaches the ridge centres and can be push fit onto the serrated prongs.

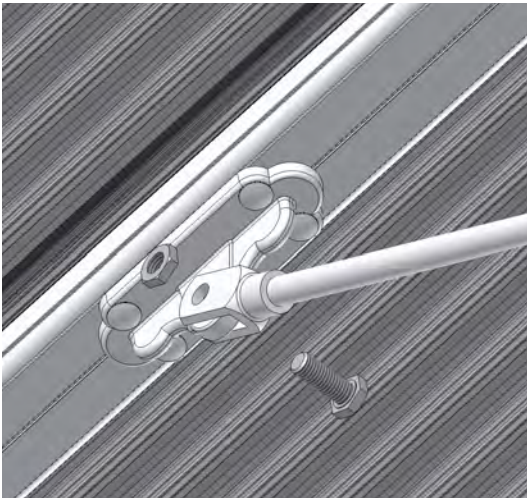


Thread the vertical tie bar conduit over the threaded bar and insert into the hole in the internal ridge cover. Leave the tie bar rod hanging down vertically from the ridge.

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

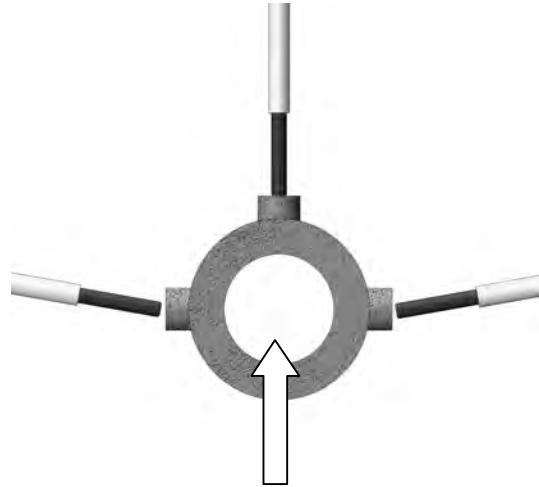


Once the tie rod is attached to the clevis, the clevis can be fixed to the lug by means of the M10 nut and bolt. Attach both tie bar rods on the left and right sides of the conservatory in this way.

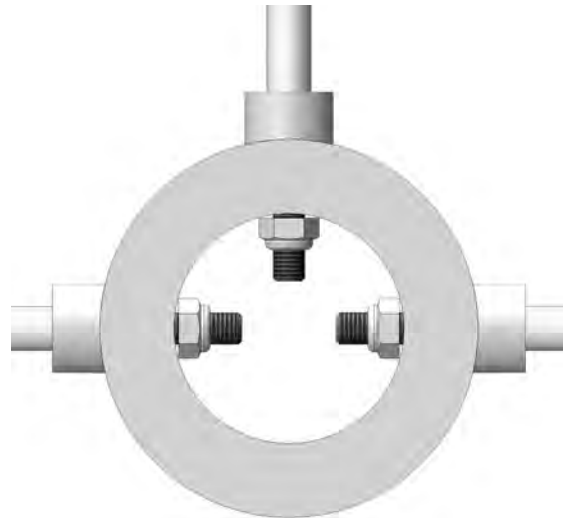


With the vertical tie bar rod and the two horizontal tie bar rods in place, raise them all together towards the centre and thread the ends of the tie bar rods through the holes in the 3 way tie bar centre boss.

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

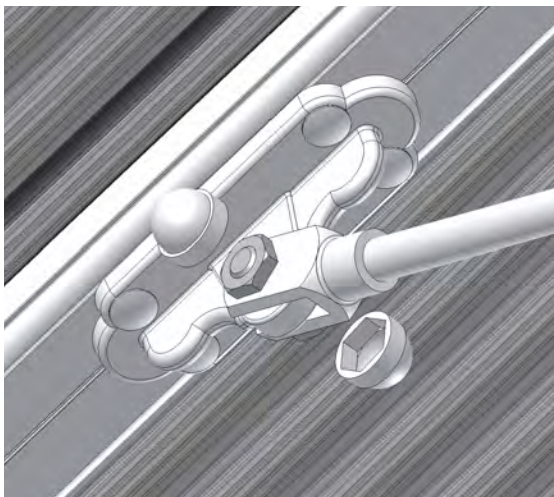


When the tie bar centre boss assembly is in place, thread on the M10 tie bar centre boss locking nuts. Check the horizontal tie bar rods for level before tightening the M10 tie bar centre boss locking nuts fully.



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.

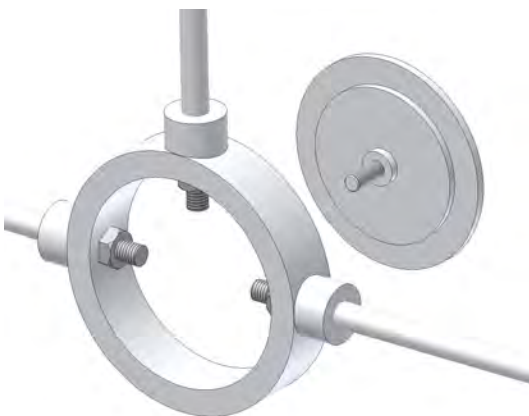
Now that all components are permanently fixed, push fit the bolt cover caps over the M10 x 30mm Nyloc nut and bolt.



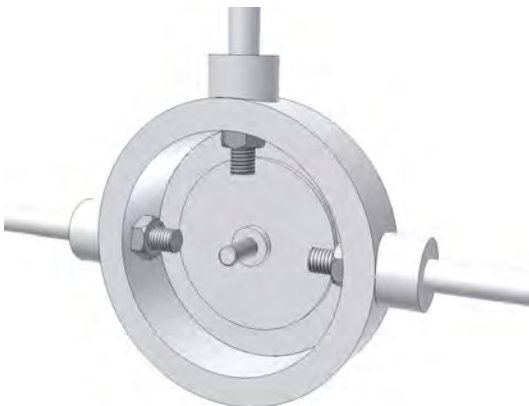
Position the remaining centre boss cover over the centre thread and rotate into position.



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



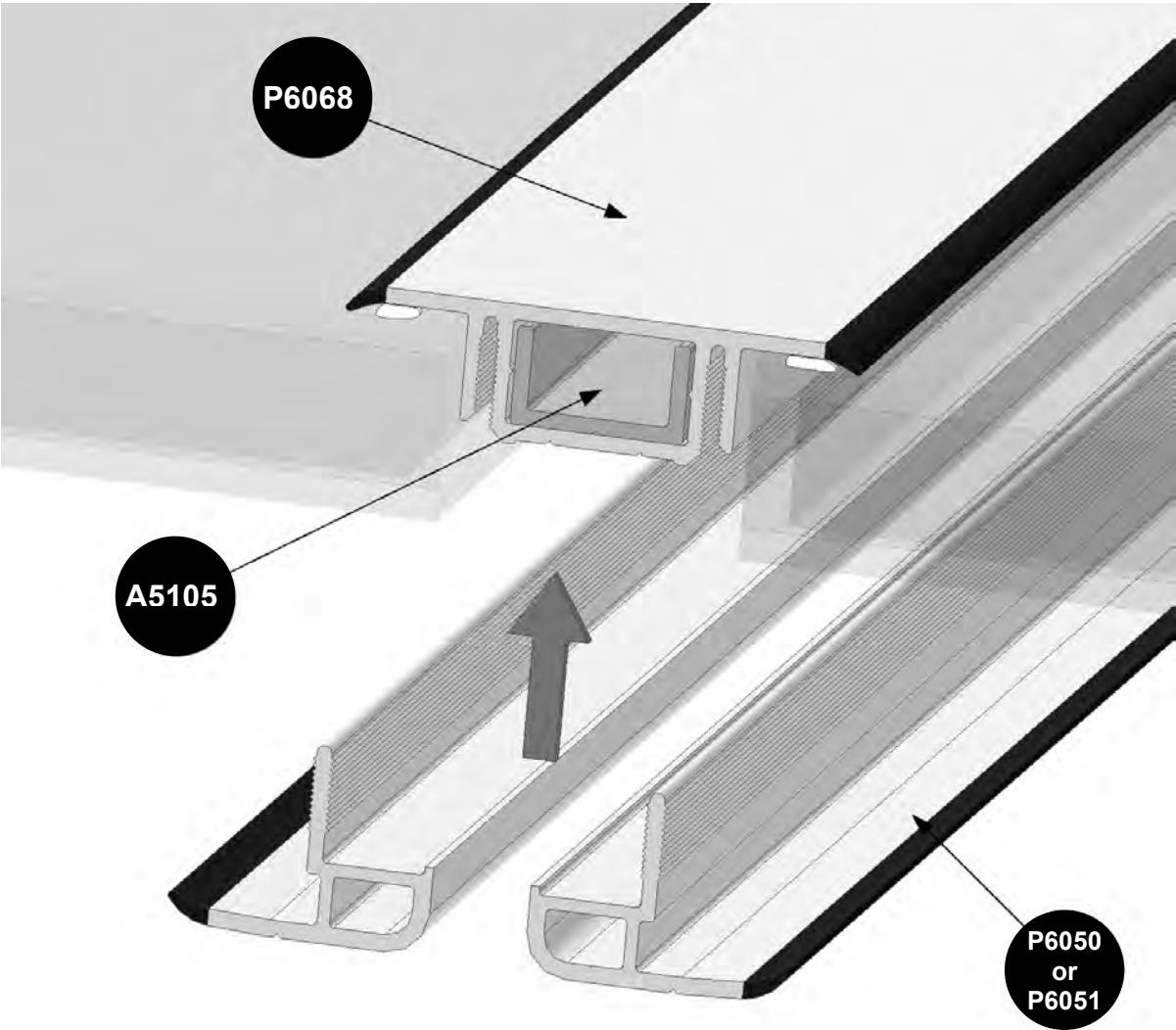
Position the tie bar cover on to the centre boss.



Y - MUNTIN BAR COMPONENT REFERENCE

| Item No | Item Description                 | Comments      |
|---------|----------------------------------|---------------|
| C9245   | Muntin Bar Assembly, comprising; |               |
| P6068   | Muntin Bar                       |               |
| A5105   | Muntin Bar Reinforcement         | Pre Fitted    |
|         | Glazing Bead (25mm or 35mm)      | P6050 / P6051 |

PLEASE NOTE THAT MUNTIN BAR IS ONLY USED ON WHERE GLASS ROOF GLAZING SHEETS ARE TOO LARGE TO SUPPLY IN ONE PIECE



The muntin bar assembly (C9245) is used in situations where glass roof glazing sheets are too long to be supplied in one length therefore are required to be supplied in two pieces and joined.

**The Muntin bar is not used in every glass roof or every glass sheet.**

Slide the top piece of glass in between the bars and into the ridge/wallplate so that it rests against the glazing bar.



Next slide the bottom piece of glass in between the bars.

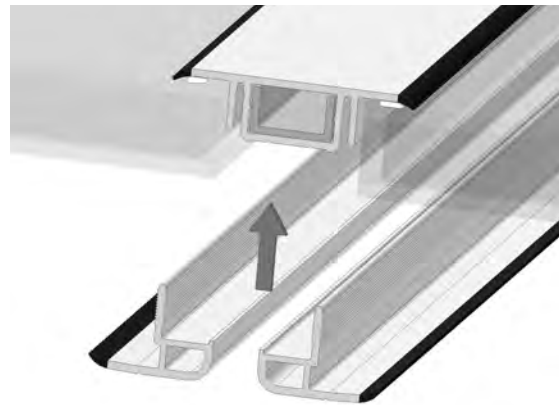
**It is imperative that a minimum gap of 35mm is left between the ends of the two glass units.**

**Ensure that the muntin bar reinforcement (A5105) is slid into the channel of the muntin bar (P6068) prior to installation.** Run a bead of silicone along the underneath of the muntin bar (P6068) on both faces.



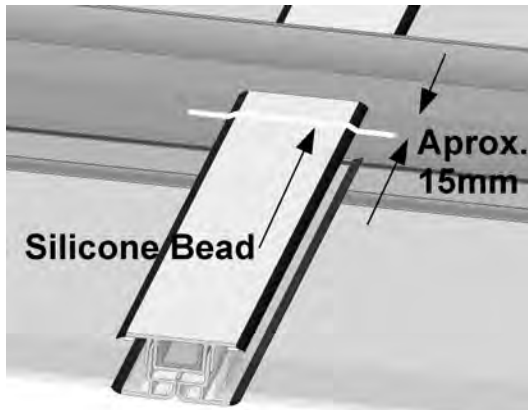
Position the muntin bar centrally over the gap between the two glass units and gently but firmly press on to the outer surface of the glass roof sheet wiping off any excess silicone with a damp cloth.

Then locate the legs of the glazing bead (P6050/P6051) into the recess in the muntin bar. Do not locate fully at this stage.



**Prior to the installation of the bar top caps, run a bead of silicone across the tops of the muntin bar at either end as shown below (approx 15mm).**

**The bead of silicone will create a water-tight seal on compression of the bar top cap (RN1) on to the glass roof glazing sheet (RM1).**



When all glass roof glazing and bar top caps have been fitted, you can then press firmly on the roof glazing beads from inside the conservatory to locate fully into the recess of the muntin bar.

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, eg: 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 by masking/cover material 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.**

