Glassroof
By Ultraframe

V26 | August 2025

GLASS ROOF
INSTALLATION GUIDE

Glassroof
By Ultraframe

Thank you for choosing the Glass roof system.
This guide is designed to make fitting as straightforward as possible.

Before you commence installation of the roof, please;

1) Take a moment to read these two introductory pages before reading the rest of this guide.
2) Do not fix the frames down at this stage – only temporarily 'pin' the frames to the house wall (one fixing each side) to allow the conservatory to 'float'.

Ultraframe is rightly proud of its Glass roof. Over 1½ million Glass roofs have been successfully installed over a 30 year period. We have continued to invest to improve the features that the homeowner will appreciate and that should make your life easier. Any feedback - positive or negative - is welcomed so we can make our systems even better.

Please contact the Tech Support Team on 01200 452918 or email techsupport@ultraframe.co.uk

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ALL box gutters (especially those with tie bars or joints) MUST be supported.

We recommend several types of support for box gutters including brick piers. See pages 24-25 for details of our solutions. Fitting a conservatory box gutter without adequate support will lead to structural failure. Please take the correct steps BEFORE installation.

TOOLS REQUIRED


8, 10, 13mm Socket Spanner


Deadblow Hammer or White Rubber Mallet


No. 2 Pozi-drive Bit


5mm Wide Flat Blade Screwdriver


Hack Saw


Drill/Screwdriver


Long nose pliars


Gasket Shears/ Snips


4.5mm Drill Bit 10mm Drill Bit


Sealant Gun


2 x 5mm Allen Keys (Vic fixing kit)


17mm Open Ended Spanner - Tie Bars


Spirit Level


Tape Measure


Anglefinder


Plumb bob

Eaves to frame fixings, host wall fixings and ridge top cap flashing trim screw not supplied.

General points

Care should be taken when handling components that are seen by the homeowner, as surfaces may be scratched if not handled with care. Choose a suitable area for unpacking the components and always check them before fitting. Any claims for missing or damaged parts are only accepted in line with our standard terms and conditions of sale.

Health & safety

Site safety is paramount. The Construction (Design & Management) Regulations 2015 apply to the whole construction process, on all construction projects from concept through to completion. Compliance is required to ensure construction projects are carried out in a way that secures health and safety. The installation company shall be responsible for the safety of all of the fitting team, the customer and members of the public.

The Surveyor should have carried out a risk assessment to reduce risk on site and this should have been discussed with you prior to starting.

Please use safe working platforms and ladders that comply with BS EN 131. Always use equipment in line with manufacturers recommendations. Personal Protective Equipment – such as goggles, mask and ear defenders – should be used when, for example, grinding out for the flashing.

Careful consideration should be given to the safe disposal of all packaging – our packaging is predominantly made from recycled materials and can be readily recycled.

In order to pass building regulations, the thermal design guide within UDesign will provide the specific U-Value of each glass roof.

Product

The roof kit is supplied with a location plan, a quality control check list for the box and this installation guide. The location plan is used to match individual components to their respective position on the roof. Our numbering convention always starts at the top left, against the house wall as you look from outside the conservatory back at the host wall.

The majority of aluminium and PVCu components contain identification codes, usually by inkjetting or labelling – should you need to re-order a part this should help.

Sealing

It is important to use the correct sealant when sealing the roof.

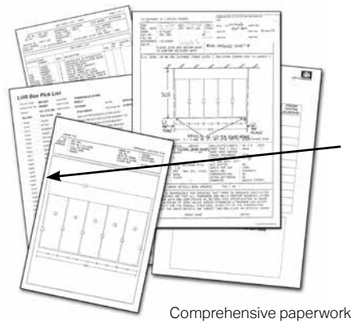
1. For roofs glazed with Polycarbonate (or standard sealed units) a low modulus neutral cure brand of silicone must be used
2. For roofs glazed with Conservaglass or other true `self cleaning` glass, then MS Polymer sealant such as Ultraframes NCGS001 must be used.

Sealed Units

All protective handling tape must be removed prior to installation. For the correct selection of sealant please see above

The Superstructure

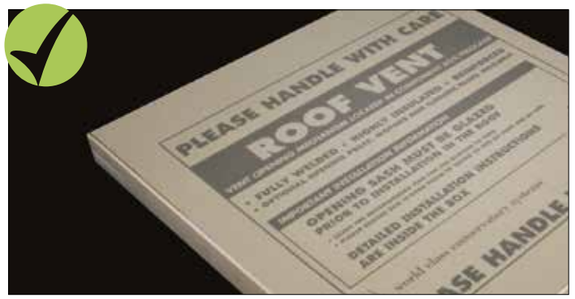
Check the Dwarf wall or Plinth for being level all round. Ensure that all frames which abut the host wall are vertically plumb, which will then allow perfect alignment with our Glass roof eaves beam. Before starting to install the roof, please check the condition of the host wall and whether it's plumb – depending upon what you find, these conditions can seriously affect the final integrity of the roof, particularly when a Tie Bar Replacement Kit (TBRK) is fitted.


Numbering convention starts, eg 1, 2, 3, A, B, C

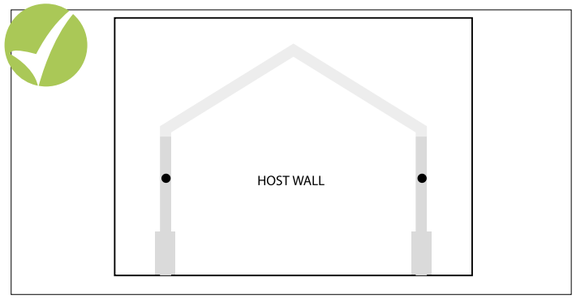
Back left hand corner

Comprehensive paperwork accompanies each roof

PRE INSTALLATION CHECKS

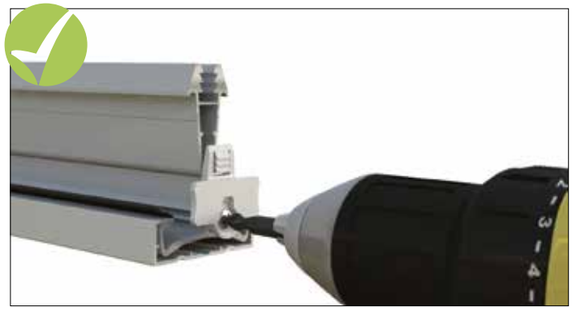


Unpack the roof vent sash and assemble, see section 2 page 5.
If possible, do this in the factory the day before.

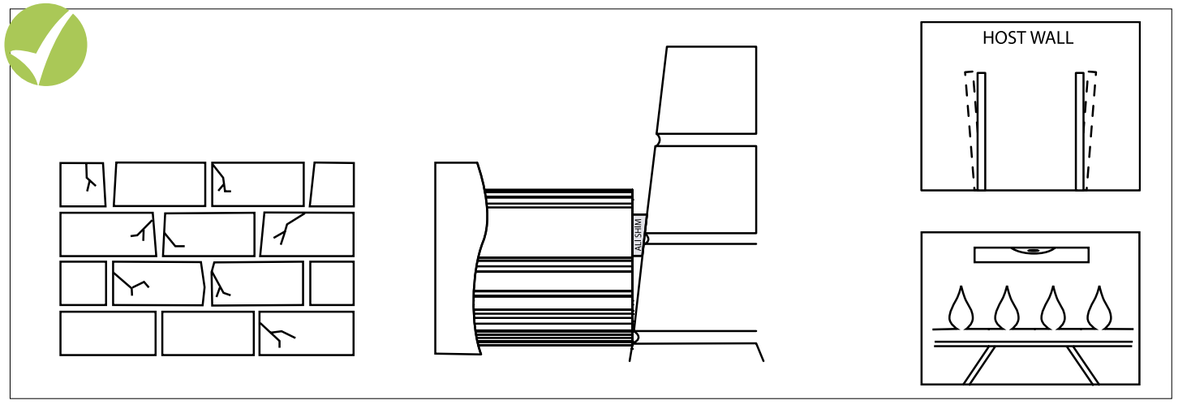


At this stage do not fix the frames down - pin only to the house wall (one fix per side) to allow the conservatory to 'float'.

Take the glazing bars from the roof pack and check the anchor clips are fitted (the clips are always at the top of the slope). On the eaves beam check that there are the correct amount of twin and single bolts and that the glazing support trim is fitted.



Attach the glazing bar end cap fixing blocks - as access restrictions (box gutter situations) may prevent easy attachment later. NOTE: These are attached to the end caps when despatched from the factory.



Check the condition of the host wall as this may affect the quality of the final installation. Check the host wall is plumb - any running in/ or out should have been accounted for by the surveyor. If not, the ridge and starter bars may require packing out with aluminium shims. Correct alignment in this area is critical to a successful installation - Plumb frames/level ridge.

Only use the specified fixings - never be tempted to substitute alternative sizes/gauges.

MS Polymer

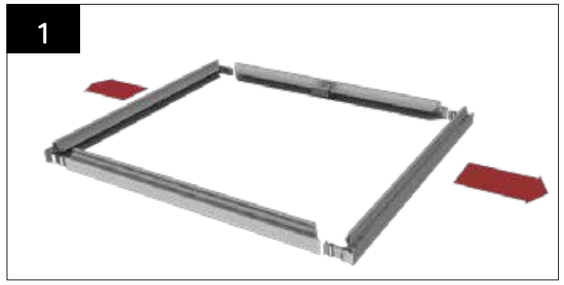
- Conservaglass
- Self cleaning glass

Low modulus neutral cure

- Polycarbonate glazing
- Standard sealed units

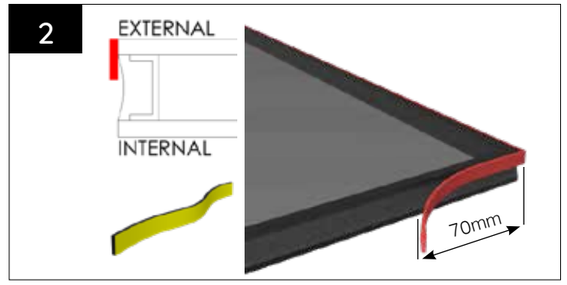
Use the correct sealant. Contact glass manufacturer for approved list of sealants.

ROOF VENT SASH

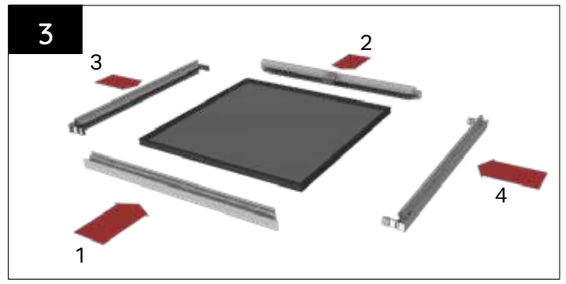


Unwrap the sash and pull two side sections out as shown above.

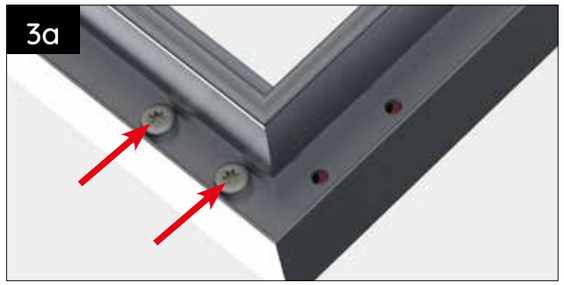
Remove any protective handling tape around the perimeter of the unit prior to installation.



Apply length of foam tape directly to the lower edge of the outer pane of the glass unit as shown. Start by applying the tape 70mm up the side of the glass unit and continuing to wrap around the lower edge of the glass unit, finishing 70mm up the opposite side.

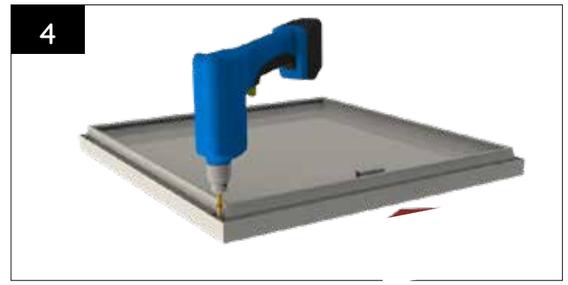


Once tape has been applied, assemble the sash in the sequence shown above and ensure the tape is directed against section 2.



If the pre-drilled holes appear out of alignment as shown above in red simply slacken off the factory fitted screws.

The two sections can then be readjusted so they are in line and square. Then the non factory fitted screws can be fixed down.



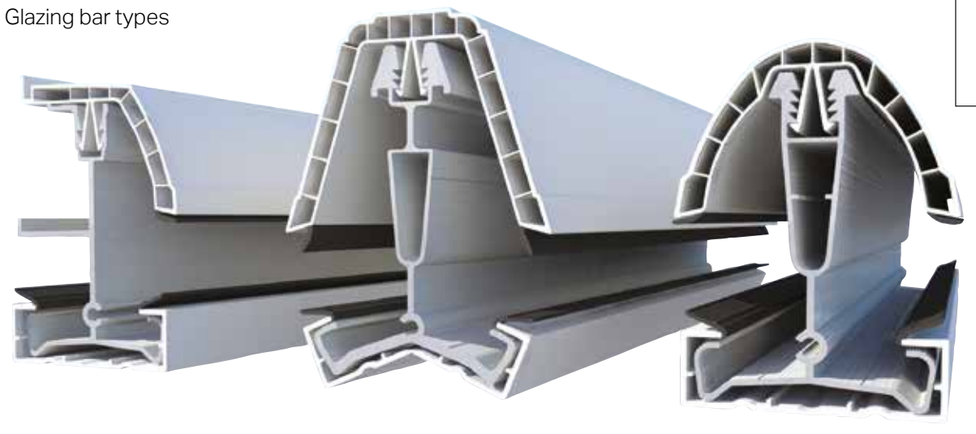
Finally re-fasten the factory fitted screws.

NOTE: If the roof vent is being fitted at 10 ° or under, run a continuous bead of appropriate sealant around the full perimeter of the glass unit.

MAIN ASSEMBLIES

Ridge Assembly

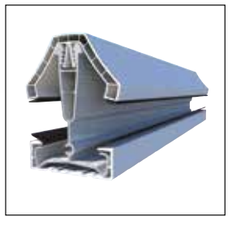
Glazing bar types

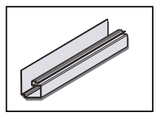


Starter - Chambered Capping

Georgian - Chambered Capping

Vic/Transom - Chambered Capping - main picture features Dome, bevelled version also available see inset.





Optional soaker sits in starter bar

The standard/default under cladding is DSBC

MAIN ASSEMBLIES

Eaves Assembly Options

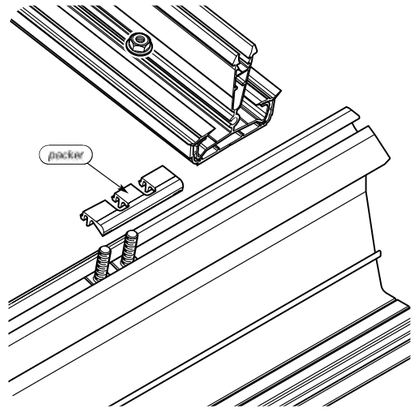
Eaves beam packer to suit roof pitches 5°, 10°, 35° and 40°

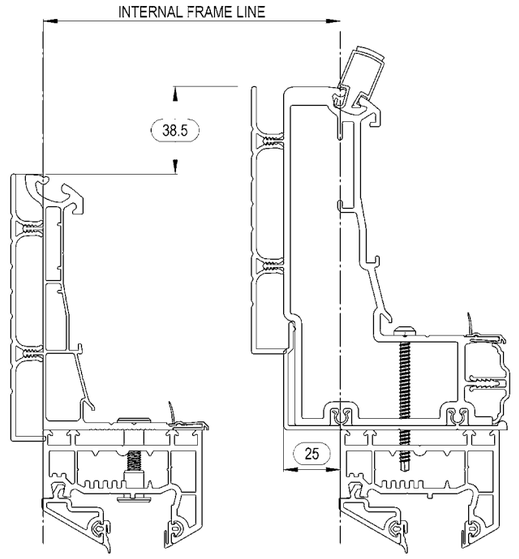
5° packer

10° packer

35° packer

40° packer





Standard Eaves Beam

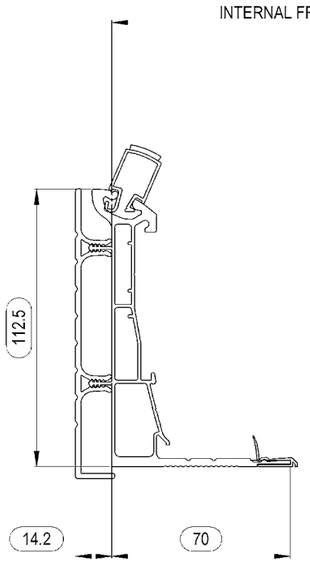
Super Duty Eaves Beam

For all eaves beam details e.g. bi fold support, super bolster and combination, see page 8.

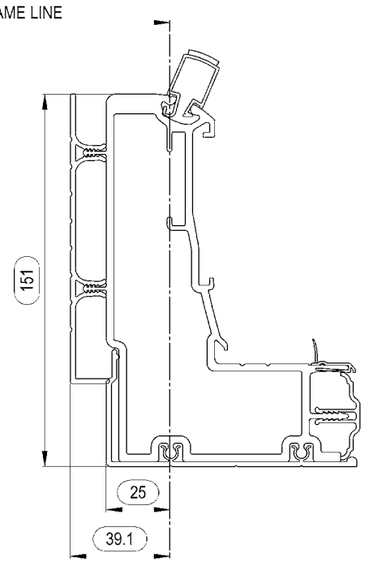
Valley Section

EAVES BEAM

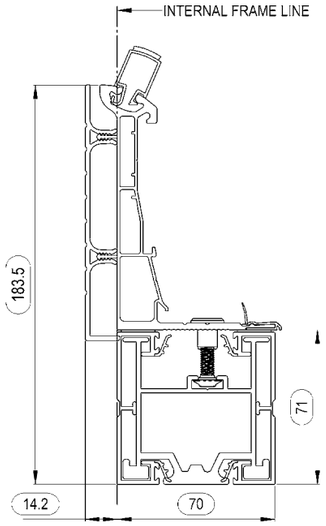
STANDARD EAVES



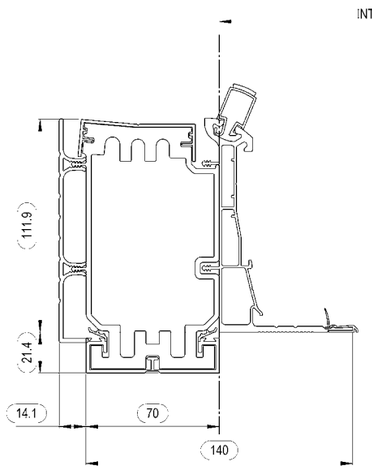
SUPERDUTY EAVES



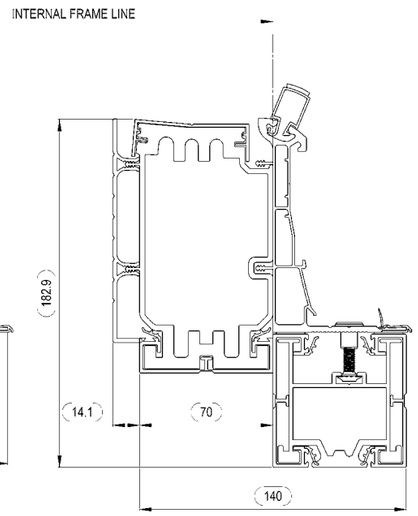
BI-FOLD SUPPORT EAVES



SUPER BOLSTER EAVES

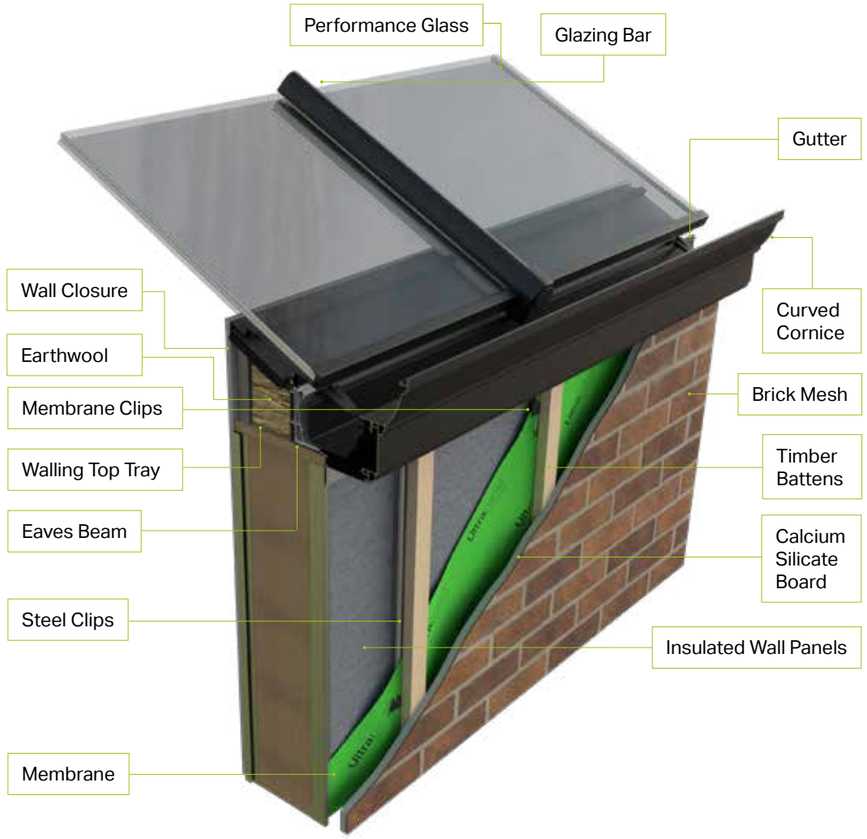


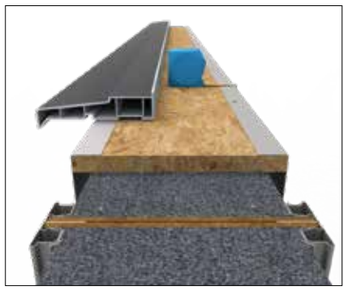
COMBINATION EAVES



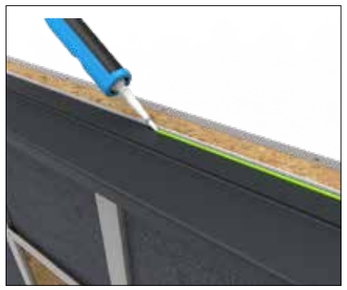
hup!

The Ultraframe Glass Roof is compatible with the hup! walling system. For full details, see separate hup! technical guides.



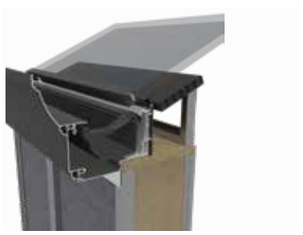


Lower the cill (not included) onto the walls. The internal face of the frames (if 70mm frames are used) is to sit 70mm inboard from the external wall steel datum (145mm from the internal). This is the outermost steel on the top tray.



Run a bead of sealant along the top of the cills.

Lower the eaves into position on the cill. Secure the eaves beam down through the cill and into the top tray using appropriate fixings (NOT SUPPLIED) at 450mm centres and within 200mm of the eaves beam ends. Once secured, fixing heads are to be sealed with an appropriate sealant.



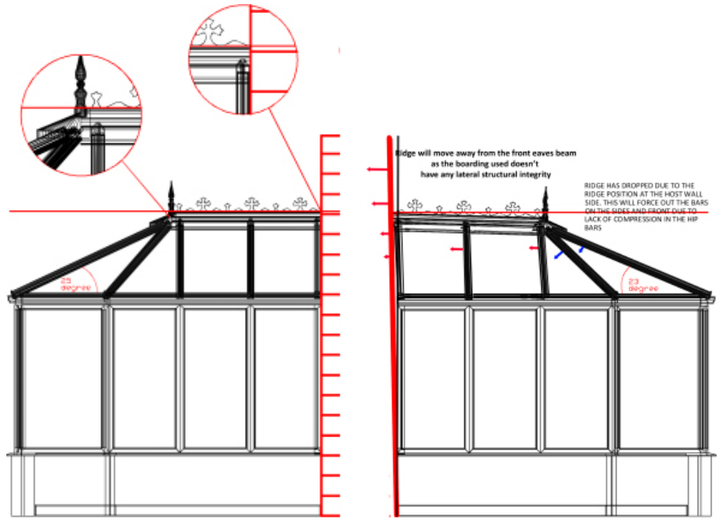
A top tray runs along the top of the hup! walls underneath the eaves beam. The clips are secured into place by fixing through the top tray. Raked frames must be used on lean-to roofs as the walls cannot be raked and meet a glass panel/starter bar

Internally the top tray meets the edge of the internal pelmet or it can be wider.

PRE INSTALLATION CHECKS

IS THE HOUSE WALL VERTICALLY PLUMB?

If the house wall leans forward: when the conservatory ridge butts to the house wall, the whole conservatory will be pushed forward of the basework, resulting in excessive overhang and incorrect angles. See diagram 'A' If the house wall leans backward - then the conservatory dimensions need taking from top of the Dwarf Wall and a suitable tapered packer inserted between frames and house wall. See diagram 'B'.



If vertically plumb - A standard 90° corner post fixed to the rear of both side frames which abut the house wall is a good idea. For example, should you wish to bring a RWP down the frame as opposed to returning on 'The House Wall'. It is also very useful should you wish to plaster or dry-line the inner house wall.

Observe the elevation: Is the upper elevation rendered and lower elevation facing brick? Are there any projecting brick plinths or bell casts which may affect the design of the conservatory? Check the position of rain water pipes, cables, air bricks, extractors, soil vent pipes and, of course, existing window and door openings. Moving soil vent pipes can be very expensive and will require building regulation approval.

If moving an obstruction is not feasible, then it may be necessary to cater for the obstruction when designing the conservatory. Soil vent pipe flashing kits are readily available. These are designed to fit around the stack and seal to the roof line. Fan assisted balanced flues are also a particular problem and it is extremely important not to build too close to these as it may effect their efficiency and the safety of the householder. British Gas Services Ltd state: A minimum distance of 300mm clearance below or to the side of an openable window or other opening eg. air brick/ trickle vent/extractor (maximum heat input up to 60 kw), 600mm for a natural draught flue. Advice should always be sought from a Gas Safe Registered Engineer prior to designing.

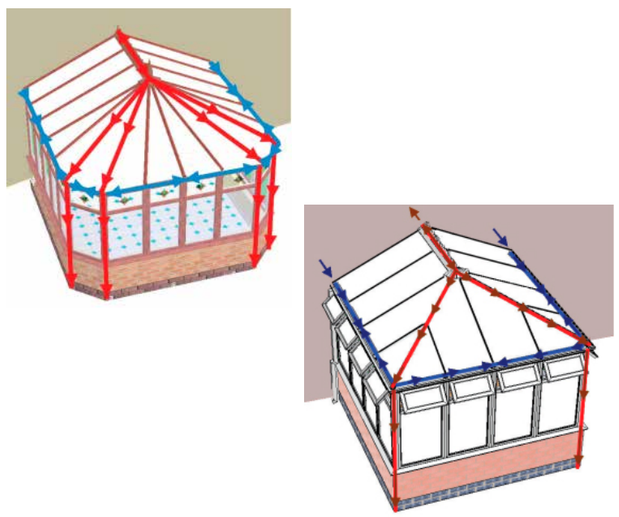
COMPRESSIONS AND TENSIONS EXPLAINED

When a tie bar is located under the finial point, it provides rigid support to that end of the ridge. If no tie bar is there, the hip bars support the ridge instead. This puts the hip bars in to compression. These push outwards at the external eaves corner connection. As a result of this, the eaves beams down either side of the conservatory are now trying to pull away from the house. To maintain the equilibrium of forces, the ridge must therefore go in to compression and pushes against the host wall. These forces are shown graphically in the diagram below. If the host wall runs in, or away, the bars will not support the end of the ridge and compression cannot be established. If the load cannot be transferred down through the hip bars, it will displace it down through the side (transom bars). Due to the fact that side frames have very little lateral stability on there own, the eaves beam will bow due to the stress and this will result in ridge dip.

COMPRESSIONS AND TENSIONS EXPLAINED

The type of fixings required when installing a conservatory is entirely the responsibility of the installer. Brick, block and masonry substrates vary widely in quality; the performance of an anchor primarily depends upon the integrity and strength of the substrate material into which it is fixed. In general, the stronger the substrate, the greater the load will be before failure. There are two typical kinds of load to consider. The first is tensile load, also described as 'pull-out' where a force would be required to pull a fixing out of its hole i.e. along its axis. The second is shear, where the force is at right angles to the fixing.

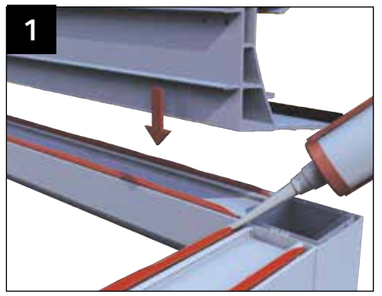
Torque controlled expansion anchors are far superior in performance than 'hammer- in' screw fixings, being typically in excess of 10x stronger for the same diameter. The starter or wall plate bars require a positive fix at several points i.e. in close proximity to the eaves beam & ridge & at regular centres in between, the spacing are dependent on the type & condition of the wall. Weak, badly situated or insufficient fixings could fail & be pulled from the wall causing the frames/ eaves beam to be pushed forward & allowing the ridge to drop.



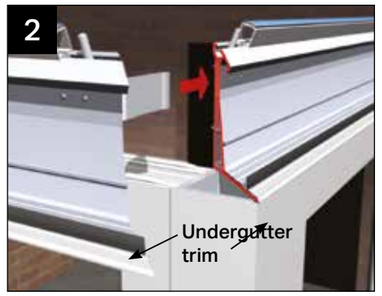
EAVES & GUTTER INSTALLATION

When using the Victorian Fixing Kit drill a 10mm hole through the base of the eaves beam and completely through the head of the window frame. Ensure that both sides of the 10mm hole are accessible for Allen key fixing. Use a 5mm Allen Key to tighten the fixings. The eaves beam should be fixed at 450mm centres and within 200mm of each corner. **THIS IS THE RECOMMENDED FIXING METHOD**

If installing a Bi-fold Support or Combination eaves, please refer to the seperate bi fold support installation guide supplied.



Apply a continuous bead of silicone to the front and rear inner legs of the window frames. Fit the initial piece of eaves beam ensuring that the inside face of the eaves beam is flush with the inside face of the window frame. **Please note: Ensure that the under gutter trim is fitted to the eaves beam and all bolts are in situ prior to fixing to the frames.**

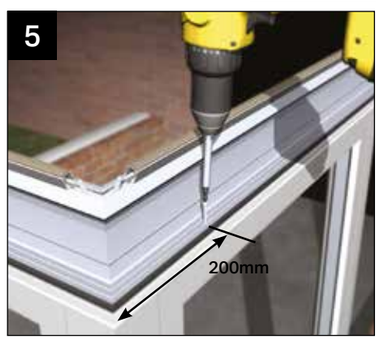


Place the next section of eaves beam into position, by slotting the corner cleat on the adjacent piece of eaves beam into the first piece. When a Super Bolster is specified, access to the screws in the eaves cleats may be limited. In this case, fix the screws from the outside of the eaves beam.

Optional Super Duty Eaves, Bi-fold Support, Super Bolster and Combination (SEE p8)

Using the pre-drilled pilot holes, drill two 4.5mm holes through the corner cleats.

Securely fit the two M5 x 12mm taptite screws.

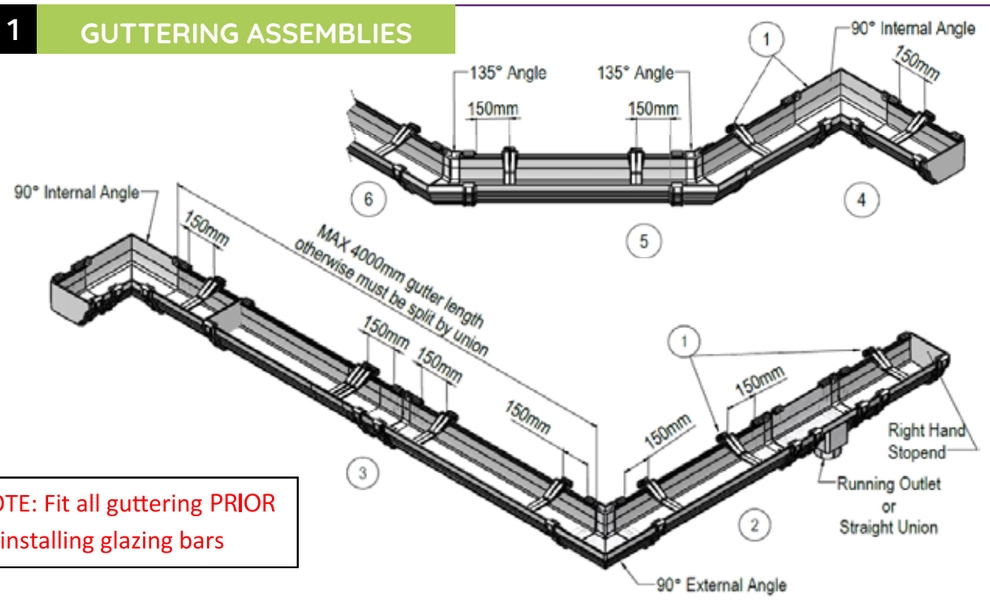


Securely fit the eaves beam to the frames using for example, 38mm x 4.8mm screws in the position shown. Fix down at 450 centres and within 200mm of each corner. For 60mm frames use the inner eaves extrusion line and outer line for 70mm frames. Always screw down. (Not supplied)

Once the eaves beam is secure, run a bead of silicone down the joint where the eaves beam sections meet and where the eaves abuts the host wall. YOU MAY AT THIS STAGE INSTALL THE GUTTERING PRIOR TO FITTING THE GLAZING BARS

EAVES & GUTTER INSTALLATION

Fig. 1 GUTTERING ASSEMBLIES



NOTE: Fit all guttering PRIOR to installing glazing bars

IMPORTANT:

NOTE: DO NOT push fit any union onto gutter as this can result in leaks.

Ensure all lengths of gutter fit to the marked insertion line seen in all unions and box gutter adaptors. (See Fig. 2)

Ensure to lubricate all rubber seals prior to inserting the gutter.

Must not slide gutter into union must always squeeze to prevent the gasket being moved. Watch a video tutorial by scanning the QR code in step 2b.

DO NOT Silicone Seal, this would prevent expansion/contraction.

If the gutter is not allowed to freely expand, distortion can occur.

1

2

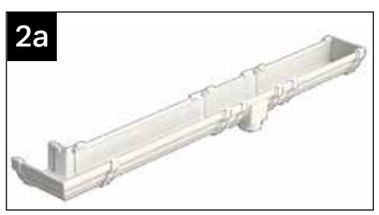
Gutter brackets

Measure & fit all gutter brackets supplied with the kit at maximum 750mm centres and maximum 150mm from Unions and all stop ends (See Fig. 1). To fit the bracket, push into the gutter channel and rotate it clockwise to engage.

Position valley 90° internal angle if required. (See Fig. 1 general finished assembly)

NOTE: It is difficult to fit valley 90° Internal if the valley is already installed.

2a



Pre build up gutter assembly

Position the external 90° gutter angle onto the eaves beam followed by any union/outlet. Then measure between the insertion lines (clearly marked on the union/outlets) and cut the gutters to length. **Ensure to lubricate all rubber seals prior to inserting the gutter into position** then snap the integral clips fitted to the unions/outlets over the gutter.

2b

Insert gutter assembly and squeeze into position. Scan the QR code to watch a video tutorial. Ensure the back and front edges of the gutter are fully clipped into the bracket.

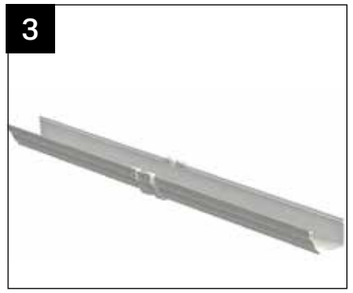
NOTE: DO NOT push fit any union onto gutter as this can result in leaks.

EAVES & GUTTER INSTALLATION

2c

Take the pre-built gutter assembly, overhang it from the end of the wall and squeeze the gutter into the gutter brackets. Once the full length is supported by the brackets, slide the assembly towards the host wall until flush.

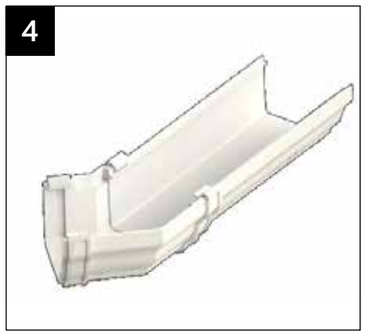
3



Assembly & cut gutter to size – if over 4000mm spam then the gutter must be split by a straight union. Insert gutter assembly and squeeze into position (see step 2). DO NOT slide gutter into union must always squeeze.

NOTE: Sliding can result in damage to the seal.

4



Build up gutter assembly; gutter & 135° union. Snap the integral clips on the unions over the gutter and repeat similarly to step 2b.

NOTE: Remember to work to the insertion lines.

5

Build up gutter assembly; gutter & 135° union. Snap the integral clips on the unions over the gutter.

Insert gutter assembly into brackets using “step 2b” assembly methods. 135° angle to overhang then. 135° angle to overhang,

Slide gutter assembly towards 90° union and then snap the integral clips on the unions.

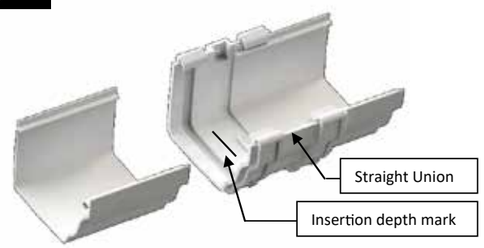
NOTE: DO NOT slide gutter into union must always squeeze gutter into position.

6

This should be the final step in the gutter system installation for a Georgian or Victorian, as the opposing side will be repeated by the previous steps within this guide. The gutter will essentially meet up at this step. Cut gutter to length and insert gutter assembly into brackets using “step 2b” assembly methods.

NOTE: DO NOT slide gutter into union must always squeeze gutter into position.

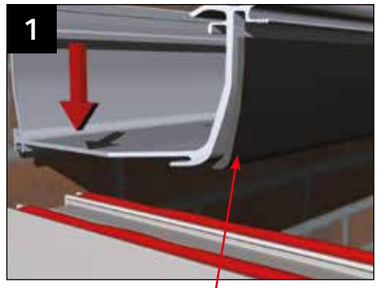
Fig. 2



Insert gutter assembly and squeeze into position, critical to locate the back edge of each section of gutter into the slot in the gutter bracket first.

NOTE: DO NOT push fit any union onto gutter as this can result in leaks.

BOX GUTTER INSTALLATION



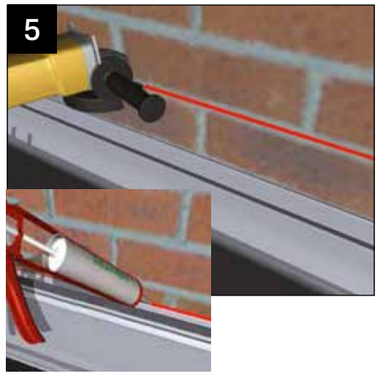
Box gutter foam to be cut back 70mm to enable the box gutter to sit flush on the frames.

Apply a continuous bead of appropriate sealant to the front and inner legs of the window frames. Lift insulated box gutter into position – ensure it has adequate support whilst fitting.

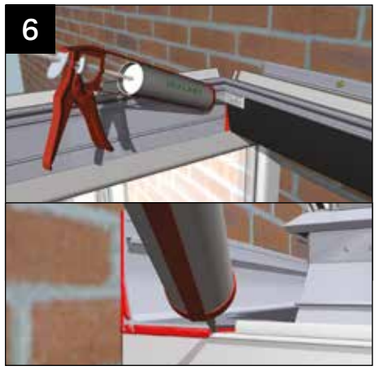
Place eaves beam section – with undergutter trim attached – onto the side frames. Seal the joint between the eaves beam and box gutter.

Whilst ensuring that its level, drill through the back edge of the aluminium at 600mm centres. Bolt to the house wall using masonry anchors that are suitable for the substrate.

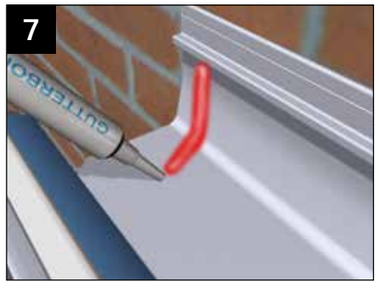
Either peel back or knife off a small amount of the insulation where the cleat is to be fixed. Drill a 4.5mm pilot hole and then fix the cleats with the two M5 12mm taptite screws provided.. The protruding taptite screws will need trimming back prior to fixing the adaptor (alternatively, when its time to insert the adaptor, undue the taptites, drill a pilot hole through the adaptor and then re-screw the taptites and fully seal).



Mark out and grind a channel in the masonry for the flashing – blow out any dust in the channel. Seal the box gutter against the wall



Now seal the internal joint between the eaves beam and box gutter and back point the leading edge of the box gutter where it sits on the side frames.Knife off a small section of the undergutter trim in preparation for the insertion of the adaptor.



Now, from the bag in which the adaptor is supplied, take the special tube of sealant, Gutterbond. Thoroughly clean the internal surface using wire wool and a degreasing wipe to ensure clean and grease free. Apply a generous bead of it evenly across the mouth of the box gutter, 20mm back from the front edge.

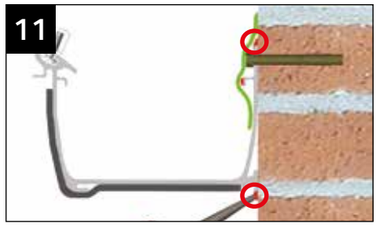
Slide the adaptor into the aluminium box gutter, raising up its front edge to utilise the unique `snow plough` effect. This spreads the Gutterbond evenly under the adaptor. Push the adaptor firmly up to its end stop, so that it will line through with the gutter attached to the eaves beam.

With the adaptor tight to the end stop, turn the toggles upwards to firmly press the adaptor into the Gutterbond.

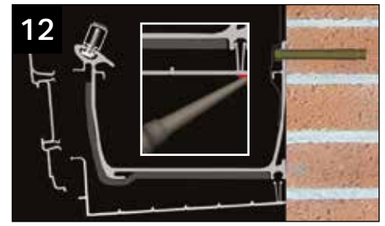
IN ADVERSE WEATHER CONDITIONS FIT THE ADAPTOR TO THE BOXGUTTER PRIOR TO LIFTING THE BOXGUTTER INTO POSITION

BOX GUTTER INSTALLATION

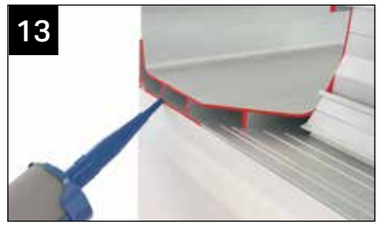
Use the balance of the Gutterbond to back point any gaps at the front edge.



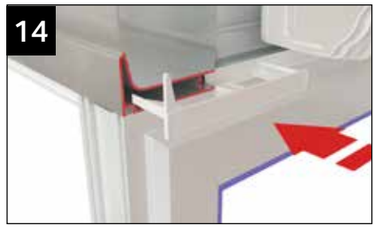
Seal the top and bottom edges of the aluminium box gutter, where it abuts the house wall.



Before lifting into position, assemble the fascia board and undercladding. Offer up the undercladding rear legs, and knock up into position. Lastly locate the upper legs of the fascia board on to the box gutter. Finally seal the undercladding against the house wall.



Apply sealant to the front face of the box gutter and fill the end of the chambers before pushing the end cap into position. Ensure the mitre is also filled with sealant to close off the box gutter. NOTE: Check if box gutter end cap needs trimming before applying the sealant. Gutter components hidden for clarity.



Take box gutter end cap and push into position. In some situations, the box gutter end cap may need trimming to size, use the v-grooves on the back of the end cap. NOTE: Box gutter adaptor hidden for clarity

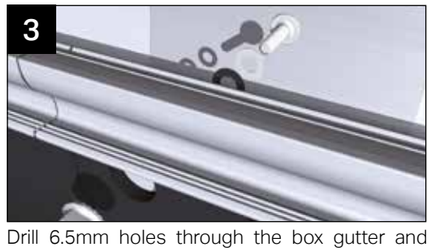
BOX GUTTER JOINTING

Thoroughly clean the internal surface using wire wool and a degreasing wipe to ensure clean and grease free. Apply a generous bead of low modulus neutral cure to the pre-fixed internal sleeve along the entire face of the sleeve.

Drill through the top edge of the aluminium box gutter at 600mm centres .A fixing must be positioned within 50mm each side of the joint. Offer second half of the box gutter up to the internal sleeve and push firmly on. Fasten this second box gutter run to the host wall with masonry anchors suitable to the substrate. Ensure both sections are level and flush.

ALL box gutters (especially those with tie bars or joints) MUST be supported.

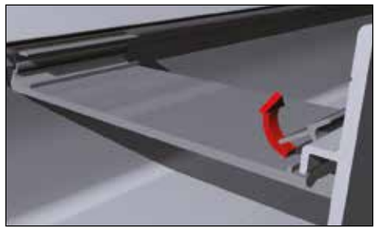
We recommend several types of support for box gutters including brick piers. Fitting a conservatory box gutter without adequate support will lead to structural failure. Please take the correct steps BEFORE installation.



Drill 6.5mm holes through the box gutter and sleeve (at positions shown, ensuring both halves of the box gutter are flush together) and fix using the bolts, nuts and washers provided and in the order shown . Trim any excess off the bolt head before fitting the internal cladding as it may foul.
Add sealant to the bolts prior to adding the nut.

Check surfaces are dry, clean and grease free. De-grease if necessary. Heat both the sealing tape and the box gutter with a heat gun and position the tape over the joint. Press the tape firmly across the joint of the sleeve and the box gutter ensuring there are no air pockets.

BOX GUTTER SUPPORT



BOX GUTTER STRAP

165mm box gutters
These are supplied loose and MUST BE FITTED – they are a structural requirement of the roof. The straps must be installed within 75mm of glazing bar centres (when measured from centre of the strap to the centre of the bar). To install these straps, simply `nip up` as shown.
265mm/special box gutters
Straps are factory welded into position.

GALLOWS BRACKET

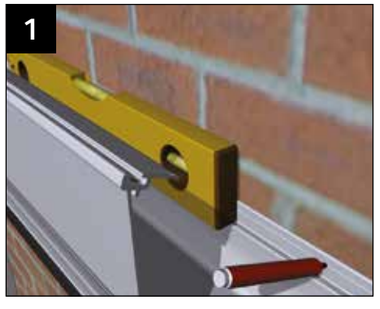
These are available for 165/265 box gutters.
To install, notch out the insulation to ensure metal to metal contact between the extruded box gutter and gallows bracket. Offer up the gallows bracket and mark it ready to drill – always try to line up with the centre of a brick rather than a mortar joint. Drill the gallows bracket (the positions should be similar to the ones shown). Three masonry anchors should be used that are appropriate to the substrate.
Finally, notch out the undercladding, offer it into position and clip in.
Maximum centres are 2300mm. If the roof has a tie bar installed or a joint within the box gutter, then a gallows bracket should be installed directly underneath it.

165mm box gutter hanger | 265mm box gutter hanger

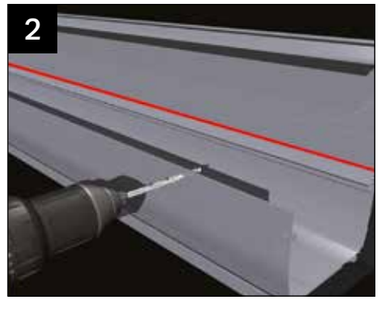
BOX GUTTER HANGER

165mm or 265mm box gutters
If these have been specified by your company at the time of order they are supplied loose and must be fitted.
The structural requirement for the hanging brackets are 2 x hanging brackets (sat side by side) at a maximum span of 2300mm unless the roof has a tie bar or joint on the boxgutter which should then be positioned in the same area.
Drill through the head of the hanger into the centre of the masonry, avoiding the mortar joint if possible. Use a masonry anchor suitable for the substrate. Lead flashing should be dressed down over the hanger, and snipped around the sloped leg. To attach it to the box gutter, simply 'nip up' as shown.

RAISED BACK BOX GUTTERS



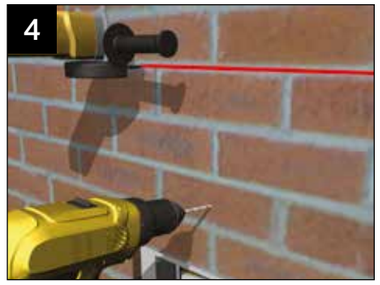
Offer the raised back or special box gutter into position. Carefully mark onto the aluminium leg against the host wall the position of each fixing – use 600mm maximum centres.



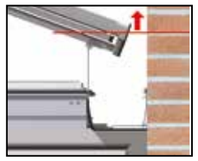
Lift the box gutter down to the ground and turn it around. Drill through the aluminium leg (that abuts the host wall) at the pre-marked positions. Whilst the box gutter is on the ground, seal along the front/rear face where the deep skirt sits inside the head of the extruded box gutter. (Highlighted in red)

Lift the box gutter back into position, check levels, and then mark the wall (through the pre-drilled holes) ready to drill the host wall and grind out for the flashing.

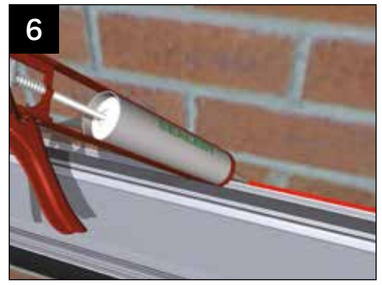
RAISED BACK BOX GUTTERS



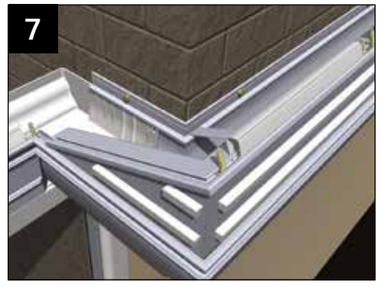
Remove the box gutter and drill the host wall where marked. Grind out the course which is at least one course higher than the raised back height.



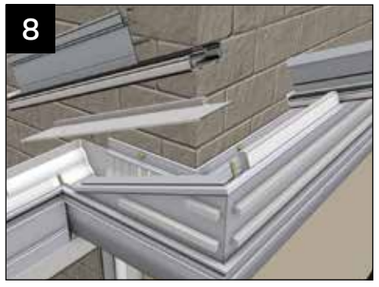
Offer the box gutter into position and insert the anchor fixings that are appropriate for the substrate and tighten up.



Seal the top and bottom edges of the box gutter and follow all other steps as per standard box gutters on page 20-23. When installing the lead flashing, ensure that the top of the flashing is higher than the point of rain water discharge from the glazing bars. Clad off the deep skirt of the raised back box gutter using multi –board (not supplied).



Following steps for the installation of box gutters on pages 22-23, check that the roofing bolts are in position (i.e top and bottom of the slope)

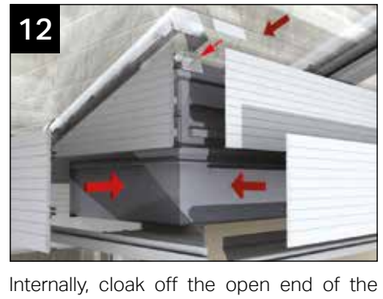


Place the short lengths of firring top cap and modified starter bar on to the two bolts. Please note that the bolts should be staggered, one each side of the bar.

Lift the `L` shaped sealed unit into position and carefully position. Your office may have not ordered an 'L' shaped unit but may have split the unit into two, use a muntin bar to joint them (see page 33 for details of muntin bars).

Knock down the glazing bar top cap so it finished flush with the bottom of the bar.

Two end caps are provided, one left hand and one right hand. Cut the appropriate end cap across its width (right hand shown) so that it fits snugly to the face of the glass, remove it and then using the correct sealant, refit.

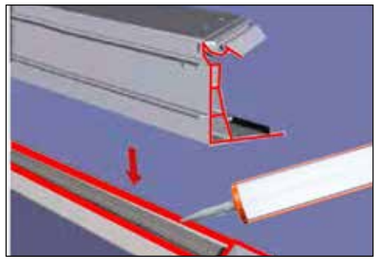


Internally, cloak off the open end of the glazing bar by fabricating a small end closure – seal into place. Fit the lower fascia and boxgutter claddings in the usual way. Scribe and secure the upper claddings to the factory applied horizontal sticky tape strips. (For raised back box gutters beyond 300mm in height, vertical claddings must be fabricated from your own supplied multi board).

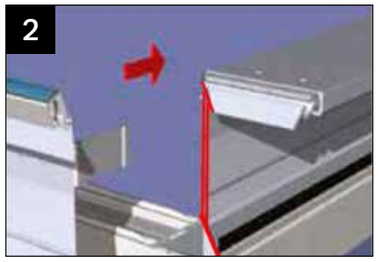
SECTION 7

GABLE EAVES BEAM INSTALLATION

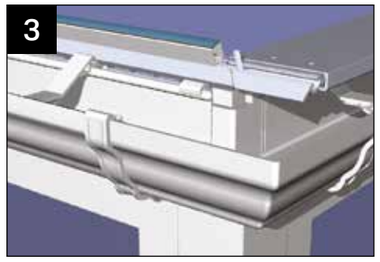
OVER 15° USE THIS DETAIL



Trial fit the gable beam and the eaves beam ensuring the inside face is flush with the inside face of the window/door frames. Remove, then apply a continuous bead of silicone to both the front and rear edges of the window/door frames.



Fit the under gutter trim to each section of eaves beam and gable beam, position the beams and slide the corner cleats (already attached to the eaves beam) into the gable beam. Drill through the holes already in the gable beam into the cleats and secure with the screws supplied.

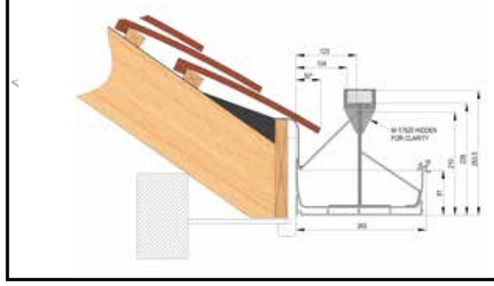


To secure the gable beam (see Vic Fixing Kit page 10), then at this stage the guttering is installed. First attach the gutter brackets to the gable/eaves beam. Fit the 90 degree external gutter corners to the gable beam length of gutter. The brackets are at maximum 750mm centres and 200mm from each corner.

SECTION 8

REINFORCED BOX GUTTER INSTALLATION

(USE IN CONJUNCTION WITH STANDARD GUTTER INSTALLATION STEPS)



PRE-CHECKS / ADVICE

Box gutter weight is approximately 13kg/m. A 6m box gutter will weigh approximately 78kg. You may consider using lift equipment such as a genie lift or similar.

If fixing to a bungalow soffit, we recommend checking behind the fascia to ensure that there is a suitable substrate to fix to.

Check the roof tile overhang (minimum of 50mm) to ensure it will not foul on the gutter reinforcement. If so either pack off (affecting the roof size) or reduce tile overhang.

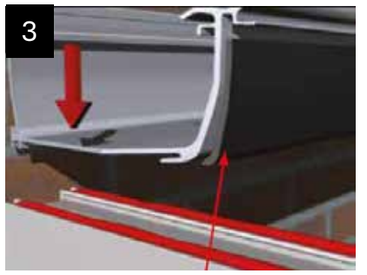
SUPPORTS

When using the reinforced box gutter, it MUST be supported at each end by either hup walling, a brick pier, or a post (by 100mm minimum). When the overall length is greater than 6m and a split is required, the box gutter MUST be supported by at least 100mm either side of the joint.

If you would like to use a post as a support, please contact Ultraframe.

Lift the box gutter into position, taking into consideration the weight.

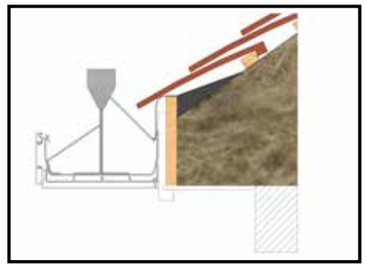
Whilst still supported, pull gutter away from the wall for access and grind a channel in the masonry for flashing. Blow out any dust in the channel.



Lift gutter slightly to cut back foam insulation to enable the box gutter to sit flush on the supports.
Apply a continuous bead of appropriate sealant to the front and inner of the supports.
Lower the insulated box gutter into position – ensure it has adequate support whilst fitting.

If required, place eaves beam section – with under gutter trim attached onto the side frames. Seal the joint between the eaves beam and box gutter.

Ensuring the box gutter is level, fix back into the host wall through each gap in the I-beam and at both ends of the gutter using appropriate anchor fixings for the substrate. Dependant on access, a socket wrench may be used to reach behind the reinforcement.



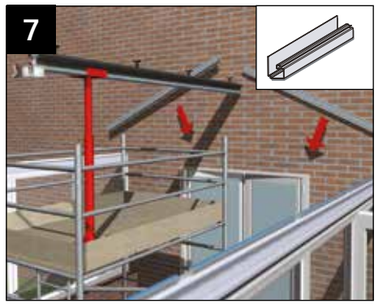
If fitting to a bungalow soffit, ensure that box gutter is fixed along its length into a suitable timber batten behind fascia board using appropriate fixings. When installing a box gutter on a soffit, ensure the soffit is insulated to avoid condensation

Code:RBGG001 V1 08/24

ROOF INSTALLATION

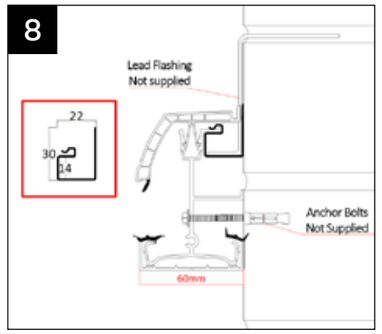
FOR SLIMLINE RIDGE INSTALLATION SEE PAGE 35.

7



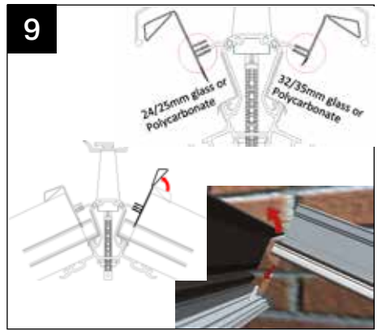
Fit the pre-formed soaker trim to each starter bar (if pre-ordered). Temporarily support the ridge and offer up the starter bars, loosely attaching using the roofing nuts and bolts supplied. THE SOAKER ALLOWS CONSERVAFLASH OR CODE 4 LEAD TO BE DRESSED BEHIND THE STARTER BAR TOP CAPPING.

8



Ensure the soaker trim is clipped into the rear leg of the starter bar. Once installed, the lead should be dressed into the soaker trim.

9



Ensure the rain baffle upper leg is lifted prior to placing the glazing bars that fit to the ridge body sides. For 24mm glass units/25mm poly, always set rain baffle into its highest position.

10

Tighten the glazing bars first at the ridge and then at the bottom (i.e. eaves beam).

11

Continue to support the ridge and offer up the transom glazing bars (above), loosely attaching using the roofing nuts and bolts supplied. Ensure the rain baffle upper leg is lifted prior to placing the glazing bars.

12

Offer up the hip bars.

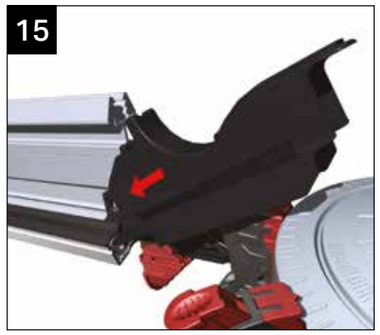
13

Using Speedlock on the glazing bar end, offer the 'ball' into the matching socket.

14

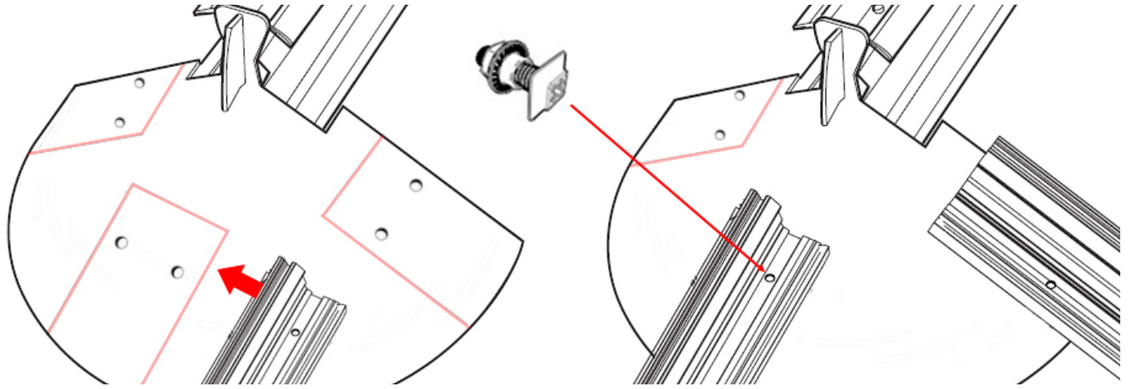
Attach bar at eaves position. Using your thumb push down the upper dead lock so it's flush. YOU MUST NOT PUSH UP THE LOWER WEDGE LOCK UNTIL STEP 31. To remove the bar, lever up the dead lock using a flat blade screwdriver, then insert the screwdriver to release the socket latch. See p20.

15



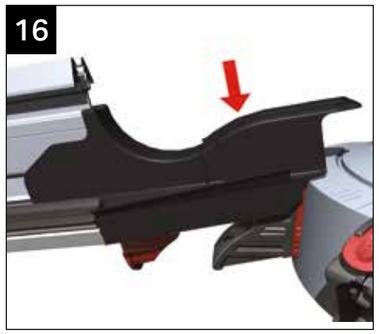
Next, attach the speedlock hood over each bar, sliding it under the co-extruded gasket of the glazing bar undercladding. NOTE: for removal of speedlocks - see page 20.

ROOF INSTALLATION



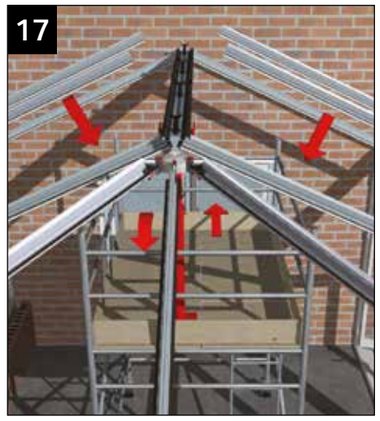
If the roof is manufactured using fabricated ends instead of die cast ends, please note these will be drilled and prepped in house. Please ensure the bars are aligned with the markings on the fabricated end and secure using supplied roofing bolts as shown.

16



Push down to locate, with the final position abutting the front edge of the die cast end.

17



Continue to attach all the glazing bars using the location plan provided to check each bars final position with its corresponding label.

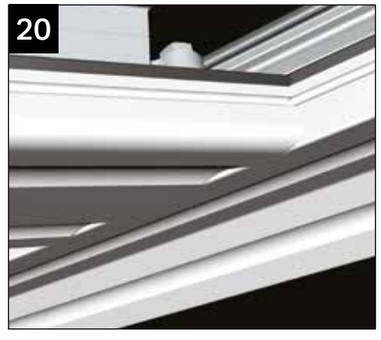
18

Now start on the jack rafters. The two part jack rafter kit will already be fitted to the hip and jack rafter bars. Again refer to the location plan and corresponding labels attached to the parts.

19

Ease back the jack rafter undercladding. Each jack rafter kit is supplied with a number of washers. Trial fit the jack rafter and check that the glazing platforms are level. Adjust if necessary by adding or removing washers between the two part connecting kit, then tighten the nut.

20



Slide back the glazing bar undercladding to ensure it lines through as shown above.

21

Ensure the window frames are plumb.

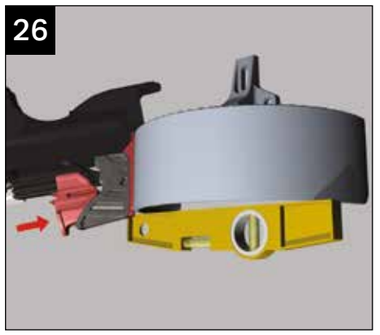
ROOF INSTALLATION

Ensure the ridge is level.

Check that the pitch of the roof is correct. Your Surveyor should have provided a drawing/a copy of the roof confirmation which displays the pitch.

Check that the starter bar and first transom bars are parallel.

Drill the starter bars/masonry within 200mm of the ridge and eaves beam plus at least one more equidistant between the two. Pack out to support the starter bar behind each fixing before fitting the correct masonry anchor. If necessary pack behind the ridge too with aluminium shims.



Finally when all is level and plumb, use your thumb to push up all the lower wedge locks. The roof is now set. **Now return to fasten the frames to the host wall and the dwarf wall.**

If using conservaflash see page 48. Take the 'soft touch' hub weathering shield. It fits by lifting the flaps on the ridge rain baffle to insert. NOTE: The weathering shield will need to be trimmed to suit to fit snugly. See p25 for trimming information.

SPEEDLOCK REMOVAL

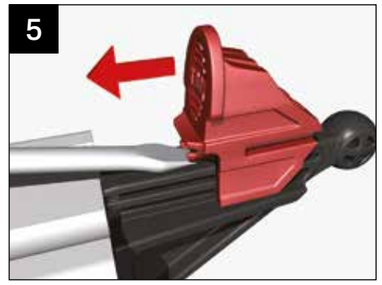
If you need to remove a glazing bar from the speedlock 2 socket assembly, remove the speedlock hood (if fitted) and release and lift the bar at the eaves end.

Gently lever up the upper deadlock.

Insert the 5mm wide flat blade screwdriver and gently push against the upper edge of the roller cam (marked yellow).

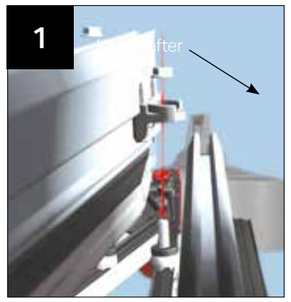
SPEEDLOCK REMOVAL

Gently pulling the bar away will automatically release the head of the speedlock.

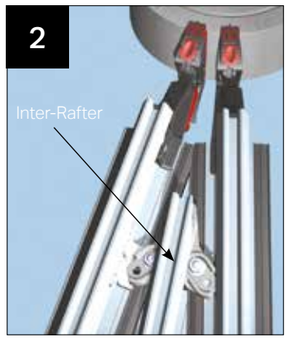


Turn the whole bar over, then insert the screwdriver blade under the lower wedge lock. Lift to allow the wedge to ride back over the serations to its original position.

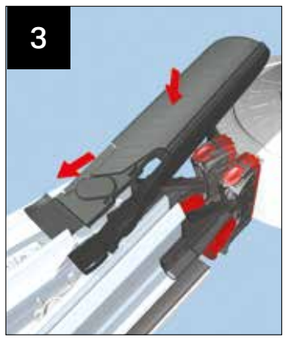
INTER RAFTER



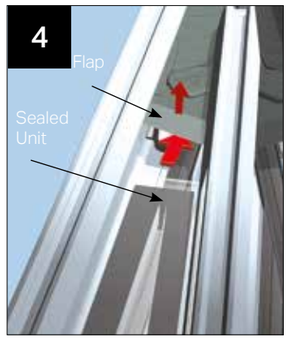
Using the main installation guide, build the roof as normal. Attach the bars to hub end as normal (steps 11-13 installation guide p18-19). Insert the Inter-Rafter into its position between the 2 pre-prepared bars and drop the 'eye' over the threaded post.



Bolt down using the nuts provided - ensure glazing platforms are level.



Now attach the Inter-Rafter weathering hood (may require trimming in certain situations).

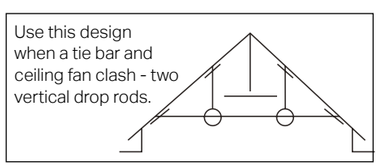


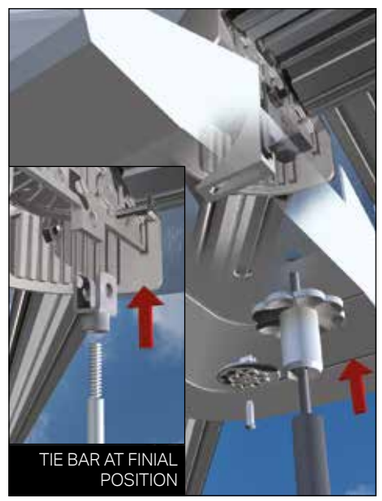
Lift the 'flap' on leading edge of the weathering hood, slide the sealed unit underneath and push flap back into position.

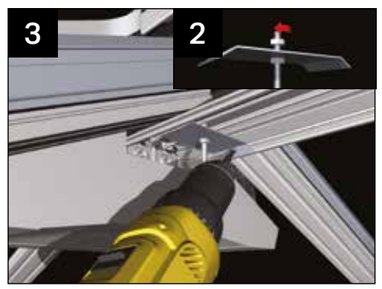
TIE BAR INSTALLATION

1 When a tie bar is specified, it is a structural requirement & must be fitted.

Prior to starting installation check the ridge is level and the side frames are plumb. **THIS IS CRITICAL TO THE SUCCESS OF THE OVERALL INSTALLATION.**
The position of the tie bar (s) will be indicated on the location plan provided whilst the tie bar brackets are already attached to the glazing bars.
Steps 2 & 3 and 5 & 6 show installation back from finial point. To install at finial point see illustration right.

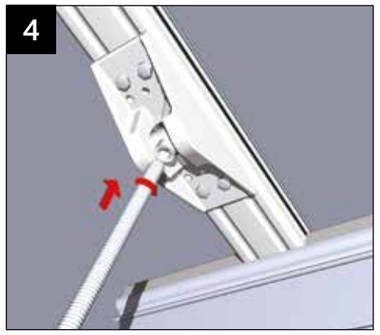




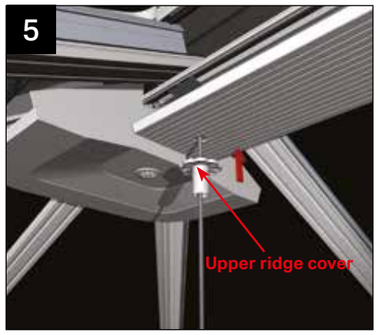


Measure the drop for the vertical threaded bar and cut to length. Attach the gusset plate to the threaded bar with with the nyloc nuts provided. Ensure spanner tight. Now fit the gusset plate to the aluminium ridge body using the four screws provided. Make sure it lines up with the centre line of the pre - attached tie bar brackets. At this stage the pvc ridge undercladding needs fitting. Drill an 11mm hole in it and clip the pvc ridge undercladding into place.

TIE BAR INSTALLATION

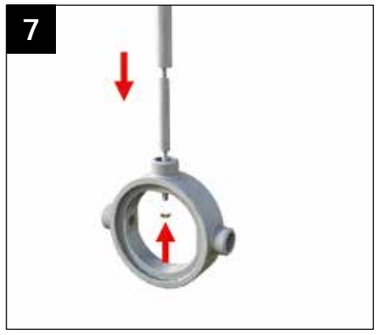


Measure, cut and attach the horizontal threaded bars (ensure sufficient engagement of the bar into the brackets) – it is essential that the tie bar boss is central. Take the boss ring, and loosely assemble the threaded bars to check they terminate inside the ring. Dis-assemble.

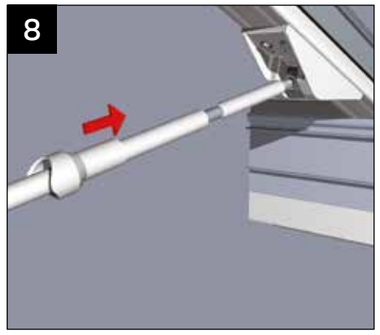


Slide the upper ridge cover over the piece of vertical threaded bar, and insert into the ridge undercladding (the hole may need 'opening' a little –ensure a snug fit).

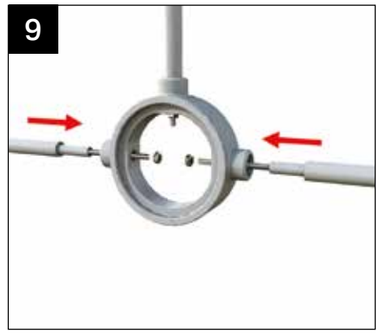
Now cut the PVCu conduit to length, taking care to make allowances for its inset into both the bracket and boss. Take the piece of vertical pvc conduit and slide over the threaded bar and push it home into the ridge cover.



Insert the smaller diameter pieces of pvc conduit inside. Offer into the boss ring and finger tighten the nyloc nut.

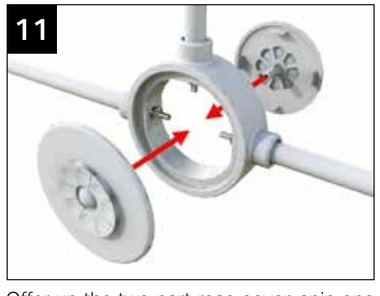


Offer up the horizontal pieces of pvc conduit (large and small diameter).

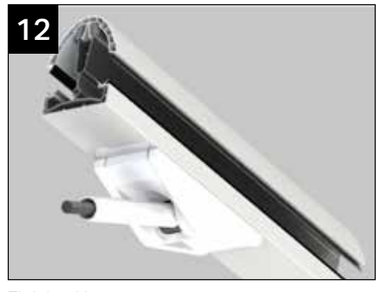


Insert threaded bar into the ring, and again finger tighten the nyloc nuts.

Now, finally check that the horizontal elements are level and the vertical element is plumb. CHECK THAT THE SIDE FRAMES ARE STILL PLUMB. Spanner tighten the boss nyloc nuts.



Offer up the two part rose cover, spin one half onto the threaded end of the other half.



Finished Image.

TIE BAR REPLACEMENT KIT (TBRK)

Each eaves corner (90°, 135° and 150°) is supplied pre-fitted with two standard cleats (Georgian 90° illustrated). Note: seal between each joint of eaves.

Two pilot holes already exist in the next piece of eaves beam – drill two more at 4.5mm diameter through the eaves beam and the cleat and then securely fit the four M5 x 12mm taptite screws.

Where the eaves beam sits against the host masonry wall, it has a structural moulding attached to the eaves beam. This has three fixing positions cast into it to allow attachment into masonry – choose the hole that directly lines up with solid masonry and drill a 10mm hole into the host wall. Attach the structural moulding using the M8x80mm anchor supplied. Silicone seal the gap where the moulding attaches to the eaves beam.

On the ground, away from the conservatory, offer up the first pre-drilled starter bar. Onto the ridge hanger plate fasten using the set screws provided - do not over tighten.

Take the second starter bar and similarly offer this onto the ridge hanger/ compression plate assembly. Lift the whole "A" frame assembly and get ready to install it in its final position.

Attach the starter bar using the nut, bolt and spring washer (included in the kit) to the eaves structural moulding. Finger tighten the nut to temporarily allow the assembly to hang.

To set the ridge use an "angle fix" - check the starter bars are at the correct pitch. Chalk/pencil a line on to the wall to mark the pitch line.

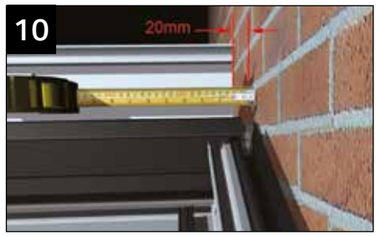
Attach the ridge hanger/compression plate to the host wall. Drill the plate with 2 x 9mm holes, then the wall with an 8mm masonry bit and fasten into the masonry using the two M6 x 65mm sleeve anchors (or resin anchors) provided. If necessary, use aluminium shims to pack out behind the plate. Check the plate is vertical and securely fastened. AT THIS STAGE IT IS ADVISABLE TO CHASE OUT FOR CONSERVAFLASH /LEAD FLASHING.

Loosen the "crocodile jaw" bolts on the underside of the main ridge body – ensure it is supported at the front whilst it is gently guided onto the top half of the 'crocodile jaw'.

Note: The starter bar is NOT attached (bolted) to the ridge body.

TIE BAR REPLACEMENT KIT (TBRK)

10



The ridge body should ideally sit 20mm away from the house wall (or 12mm from the front plate), this allows the compression plate to evenly distribute ridge loads into the host wall (max tolerance 50mm). If the host wall is out of plumb, pack out behind the starter bars and use the longer bolts provided. This ensures the starter bars are at 90° to ridge body (and not tapering).

11

Lay the butterfly cleat over the two captivated roofing bolts. Fit the Georgian hip bar at the eaves and ridge end. Note: A butterfly cleat is not required on 3 or 5 facet fronts unless the eaves beam joins a box gutter at the facet joint.

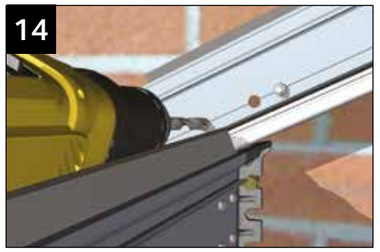
12

To fix the butterfly cleat down, drill 4x 3mm pilot holes then fix 4x CHAA006 fixings into the head of the eaves beam. Note: remove glazing support for easier fit.

13

Ensure that the fixing on the eaves moulding and the nuts on the 'crocodile hanger' are tightened up.
Also ensure the bolts at the top of the starter bar, are tightened up.

14



Drill an 11mm hole through the aluminium starter and its factory inserted reinforcement. Then use a 10mm masonry drill bit for the host masonry.

IT IS IMPORTANT THAT AN ANCHOR BOLT GOES INBOARD AND OUTBOARD OF THE EAVES BEAM.

135° EAVES AND BOX GUTTER ASSEMBLY

Place 135° butterfly cleat (SESA004) over the roofing bolts. Offer the glazing bar on to the bolts, align and secure. Once in position drill 4x 3mm pilot holes and fix the cleat down with 4x CHAA006.

180° INLINE EAVES AND BOX GUTTER ASSEMBLY

Place the inline cleat (SESA002) over the butt joint. Drill 4x 3mm pilot holes and fix 4x CHA006 down.

180° INLINE EAVES TO BOX GUTTER JOINT

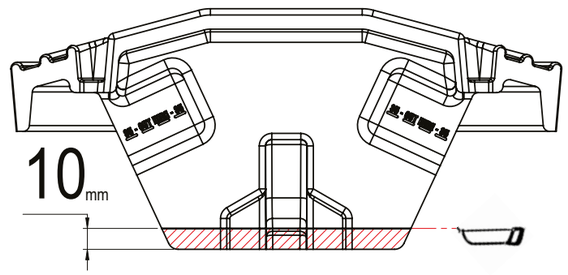
Place inline cleat (SESA003) over the butt joint. Offer the glazing bar on to the bolts, align and secure. Once positioned drill 4x 3mm pilot holes and fix down 4x CHAA006.

90° EAVES AND RAISED BACK BOX GUTTER ASSEMBLY

Place inline strap (SESA005, 165mm / SESA006, 265mm) over the start bar bolt on the sloped gutter. Temporarily fix the bracket to the host wall using three M8 sleeve anchor bolts (SAB001) supplied. Fit the starter bar, drill 4x 3mm pilot holes and secure the strap to the eaves with the 4 CHAA006 fixings supplied.

GEORGIAN INSTALLATION - WEATHERING SHIELD CUTTING DETAIL

FIGURE 1 - APPLIES TO ALL ROOFS BELOW 25° PITCH



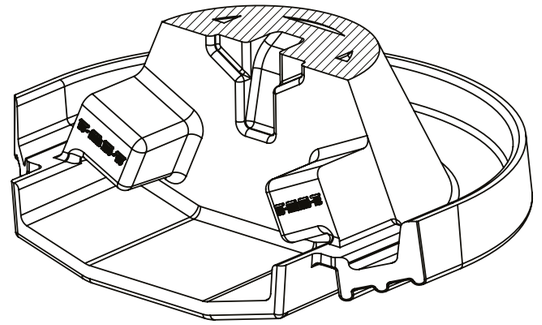
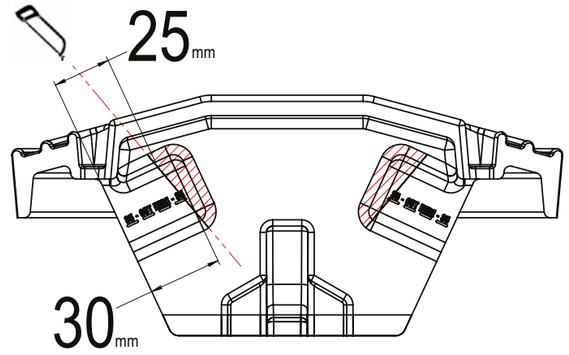


FIGURE 2 - APPLIES TO ALL ROOFS ABOVE 30° PITCH



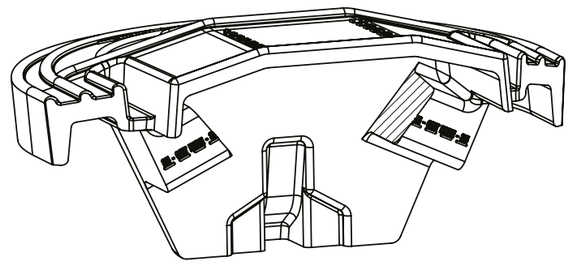
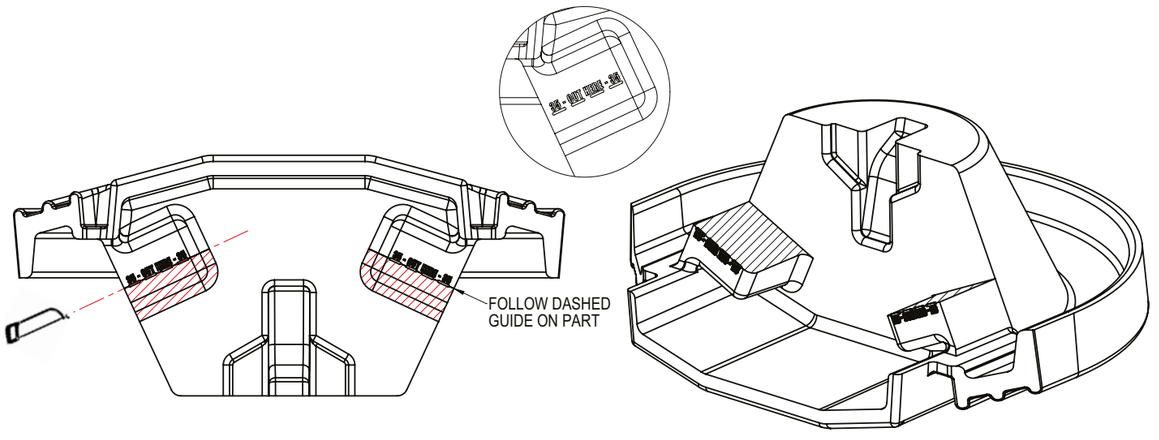
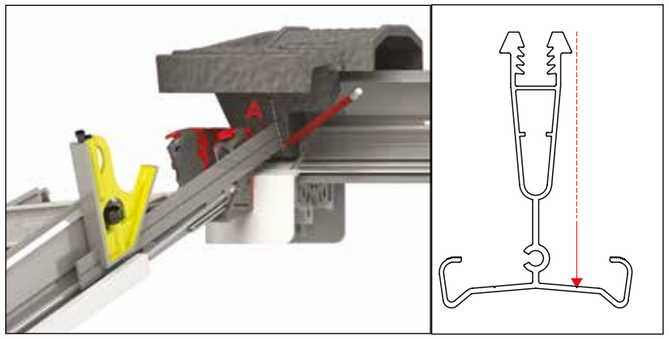


FIGURE 3 - APPLIES TO ALL ROOFS WITH 35MM GLAZING



GEORGIAN INSTALLATION
- WEATHERING SHIELD CUTTING DETAIL

FIGURE 4 - APPLIES TO ALL ROOFS WITHOUT A GLAZING BAR AT THE FINIAL POINT



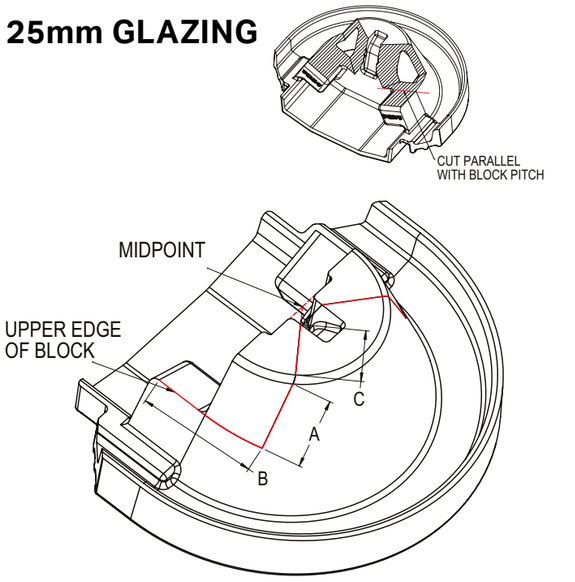
This step allows glazing to run through when there is not a bar at the finial point. With all other necessary preps complete, offer up the Weathering Shield into position. Using a straight edge (as shown), project and mark a line ('A') using the glazing 'V' groove (indicated inset) parallel with the centre of the bar closest to the finial point.

Mark line 'B' – this should intersect line 'A' and line through with the 'upper edge of block (25mm glazing) or '35mm dashed line' (35mm glazing) – see below.

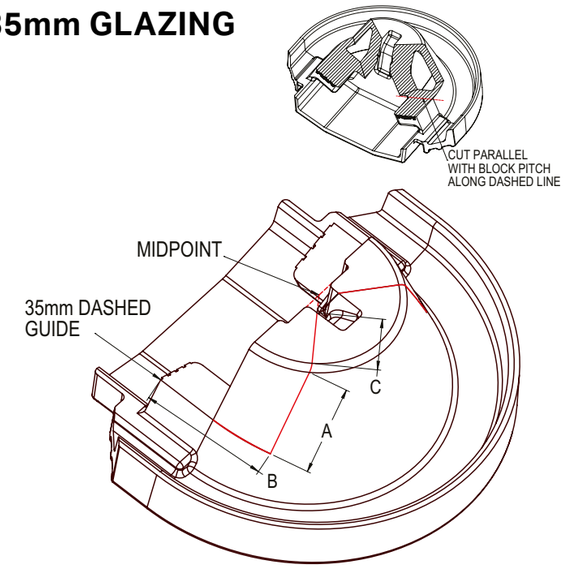
Mark line 'C' – this should intersect line 'A' and the virtual 'MIDPOINT' – see below.

Remove segment and repeat on opposite side.

25mm GLAZING

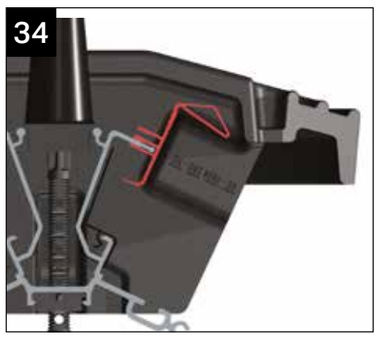


35mm GLAZING



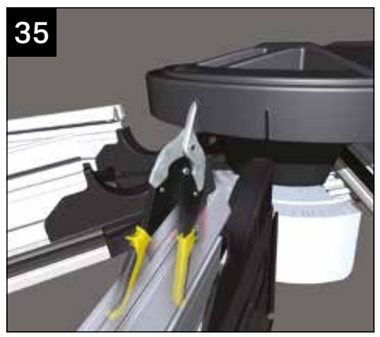
ROOF INSTALLATION

34



The rain baffle should nestle neatly to form a continuous weather tight joint.

35



For each glazing bar, 'snip' two small cuts in the weathering shield and then a horizontal cut to remove 'flap' which facilitates the top cap sliding under.

36

Now glaze the side frames before glazing the roof - this provides additional rigidity whilst working above. INSTALL TIE BAR(S) BEFORE GLAZING.

Ensure the props are left in place whilst glazing.

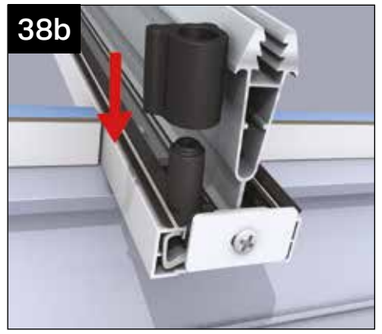
ROOF INSTALLATION

37

Now take the glazing end profile and run continuous bead of sealant (appropriate for glazing) immediately behind the co-extruded gasket (along the full length). Now seal the space between the glazing end profile and the sealed unit (see inset) at each end.

38a

38b



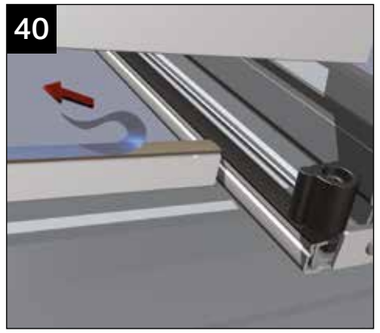
Snap off appropriate handed clip (left hand illustrated). Handing marked on base of clip. Line up the rounded edge on base plate next to central web of glazing bar then tuck neatly under gasket side of bar. Rotate clip into position. Push the grommet over the post as shown.

Transom Bars - glass clips will sit flish with end of bar.
Hip Bars - glass clips must be pushed up to meet glazing.

39

Slide the complete assembly down the glazing bar, using the endcap fixing block as the 'stop'.

40

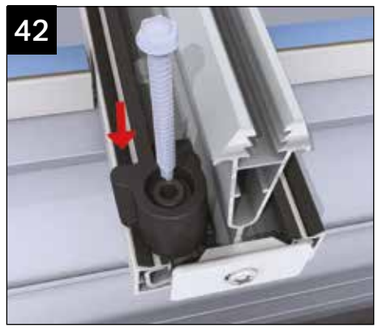


Tease the 'tail' of the glazing support trim tape free (ready to be pulled away when the sealed unit is finally in position).

41

Centralise the glazing between the glazing bars. If necessary pack it out on each side - press it down onto the support trim.

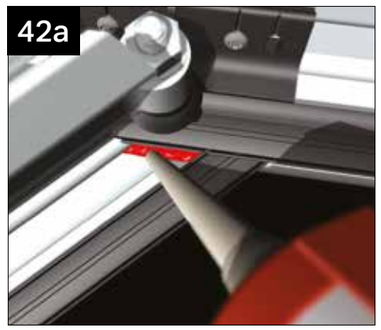
42



Ensure the glazing end profile sits snugly behind the grommet. Now, using the fixing provided screw down into the bar as shown. **Ensure clip offers maximum support to glazing at all times.**

If you are installing a roof vent please refer to roof vent installation guide.

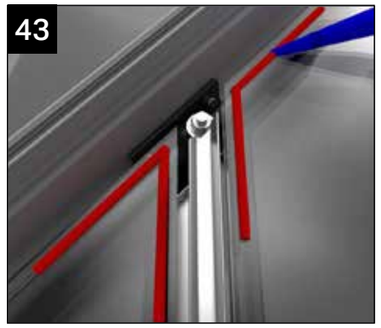
42a



Seal the area where the co-extruded gasket on the hip bar butts against the co-extruded gasket on the jack rafter.

42b

Now glaze the side frames before glazing the roof - this provides additional rigidity whilst working above. INSTALL TIE BARS(S) BEFORE GLAZING.



If the roof has jack rafters. At the corners of the glazing that meet the jack rafter bracket, apply MS polymer to the surface of the glazing as shown above to create a barrier. This should be positioned towards the edge of the glazing as to be obscured by the top caps once they are installed.

Ensure the rain baffle upper leg is lifted prior to fitting the top cappings.

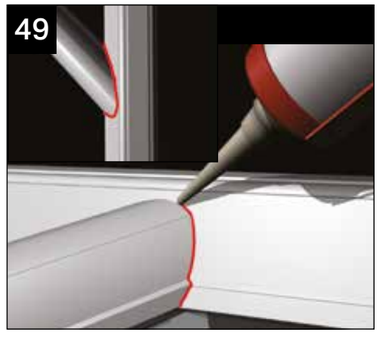
Knock the glazing bar top cappings on with a Deadblow hammer. Greater care is needed in cold weather. Keep all trims wrapped until they are needed. Once again each capping is numbered according to its position in the roof.

Work your way around the roof. The top cap must be lifted into its final resting place (at the ridge) prior to being knocked down over the Anchor clip.

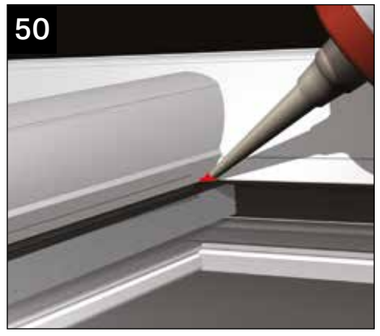
If you haven't fitted already, attach end cap fixing blocks - These arrive attached to the end caps.Fit the glazing bar end caps by sliding onto the fixing blocks. Push fit the insert into the end cap.

Seal around the notched Georgian top cap ready to receive the jack rafter capping.

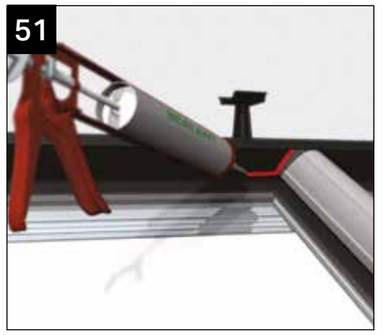
Ensure the jack rafter top capping is lined up correctly (as above) before knocking the top cappings into position. It is not possible to 'tap up' the jack rafter top caps into final position when fitted with anchor clips.



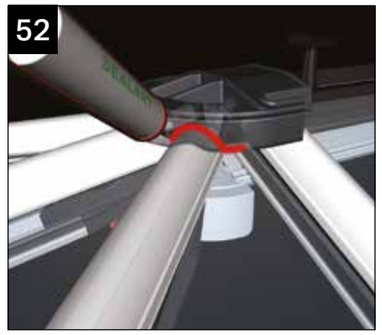
The jack rafter top capping should sit tightly up to the hip bar top capping as shown.
Seal around the joint on the jack rafter capping when complete.



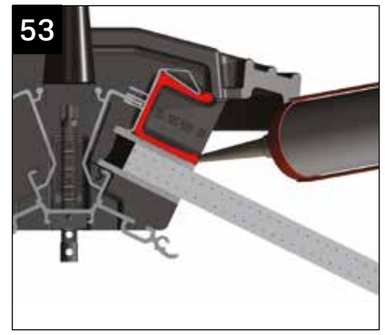
Carefully point the corners on each side of the capping where the gaskets abut each other



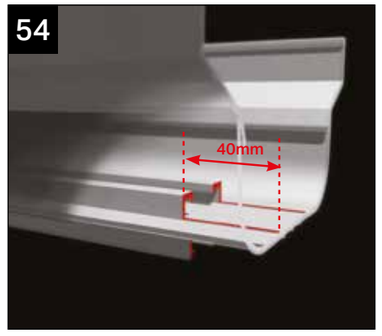
Seal around the top of each glazing bar top capping where it meets the rain baffle. Next, run a bead of sealant along the edge where the glazing meets the rain baffle.



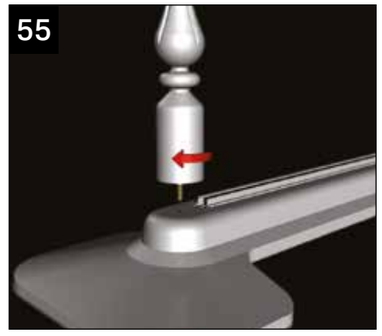
Seal around each glazing bar top capping where it meets the inner wall of the 'soft touch' moulded weathering shield.
Also apply a bead of sealant to the top edge of the weathering shield so that the ridge capping will seal against it when fitted.



Run a bead of sealant in the position shown where the 'soft touch' moulded weathering tray meets the ridge body.



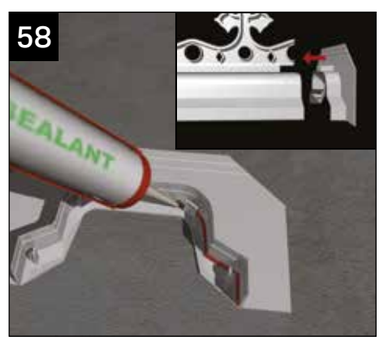
Now for the ridge top cap - Cut back the cresting channel on the top and the T bolt slot on the underside of the ridge top capping by 40mm.



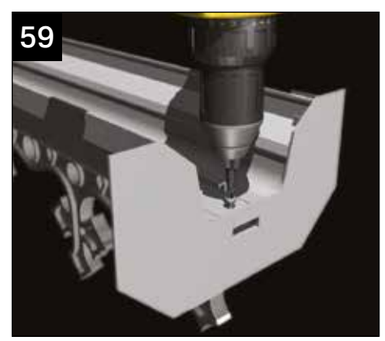
Now down on the ground take the ridge top cap assembly and screw the finial into the radius end capping.

Slide the cresting into the ridge channel. The last section of cresting (by the house wall) may require cutting to length. Some cresting options clip over the ridge body.

Cut back the underside of the last section of cresting by 40mm.

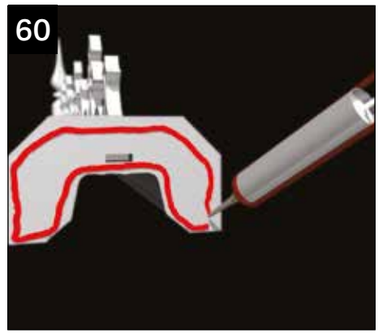


Apply a bead of sealant into the channel of the ridge flashing trim before fitting and then slide into position.

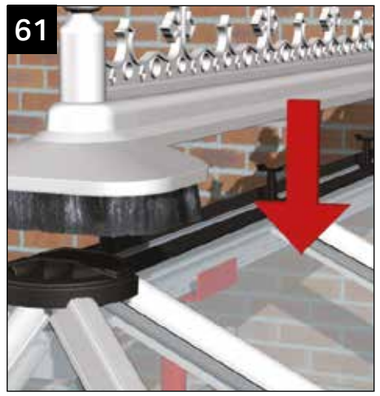


Screw the flashing trim to the ridge top cap through the screw port. Use a 4.2mm x 13mm self drilling screw (not supplied).

ROOF INSTALLATION



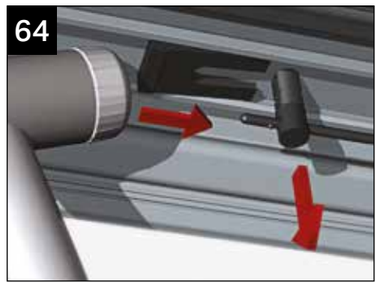
Apply a generous amount of sealant to the back edge of the flashing trim.



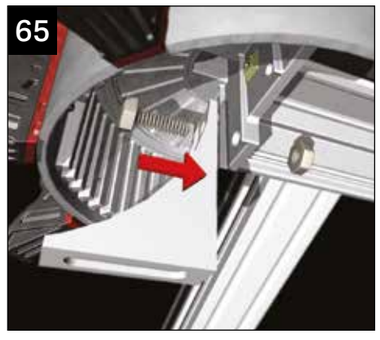
Offer up the complete ridge capping onto the roof.

From the inside of the conservatory insert the snap off tommy bar into the T bolt

Twist through 90° to locate the T bolt into the ridge capping.



Pull down on the T bolt and tap the fixing wedge into place to secure the T bolt. Cut off the excess T bolt below the fixing wedge.



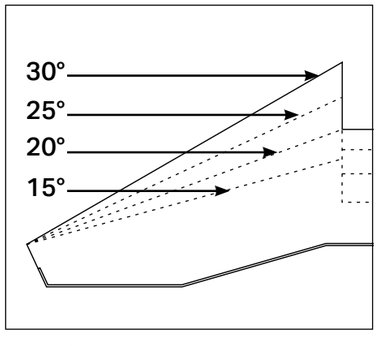
Fit the "L" shape PVC bracket to the underside of the radius end. Offer up the internal radius end to check the position of the bracket before tightening.

FIT CONSERVAFLASH

It is at this stage that the remaining stepped flashings and saddle trim are fitted

SEE PAGE 34

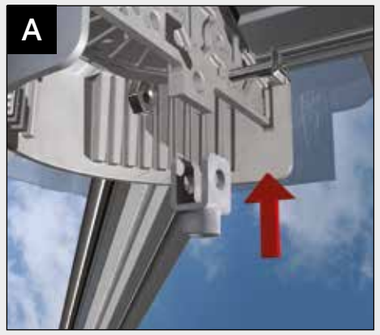
To fit the internal radius end capping insert the rose fixing button and tap the plastic rivet home to secure the button. On some occasions it may be preferable to test fit the ridge internal cladding prior to fitting the radius end capping.



The internal radius end capping may require trimming to suit pitch (pitch lines are marked on the reverse of the internal radius end capping).

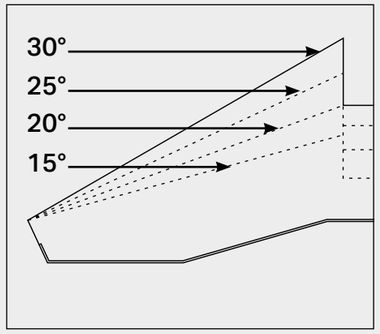
ROOF INSTALLATION

OPTION 2

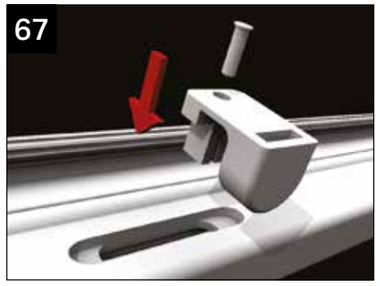


Attach tiebar / internal rose bracket with nut and bolt provided.

Using threaded rose button, attach ridge and cover end to bracket.

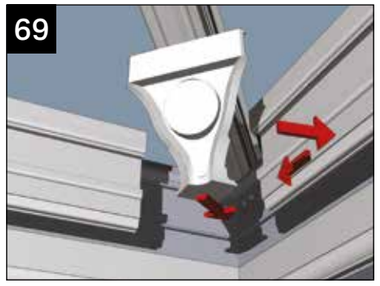


The internal radius end capping may require trimming to suit pitch (pitch lines are marked on the reverse of the internal radius end capping).



Ensure the ventilation button is fixed into the ridge undercladding as shown before you install the cladding.

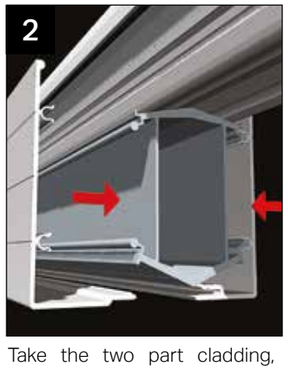
Clip the internal ridge cladding onto the underside of the ridge. In some instances a deep skirt cover may be provided and may need additional trimming on site.



Slot each section of internal fascia into the corner jointer and tap the fascia onto the barbs of the eaves beam. Fit Ultraselect strips into the slots in the fascia

BOLSTERED GLAZING BARS

The aluminium bolster is already attached to the glazing bar, and is a little shorter than its host.

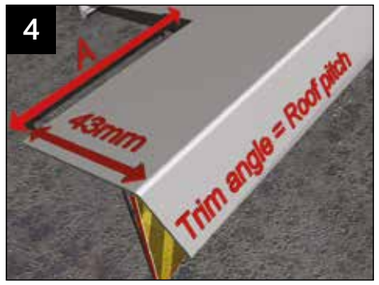


Take the two part cladding, attach each piece carefully to the aluminium bolster profile and 'zip' together.

Next take each bolster end cap, simply plug into the PVCu bolster cladding – one at the ridge one at the eaves.

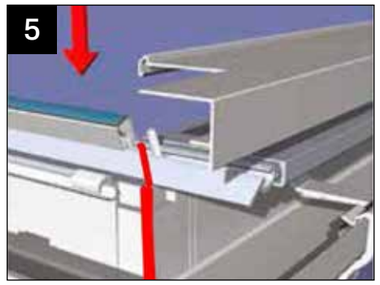
This is how the finished arrangement should look.

GABLE INSTALLATION

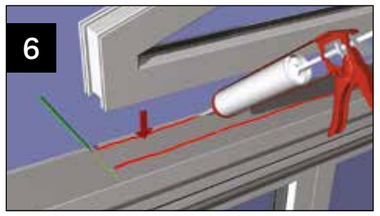


With the guttering in place, trim the gable beam top cladding. The cladding is supplied over length and cut to suit the roof pitch (see table).

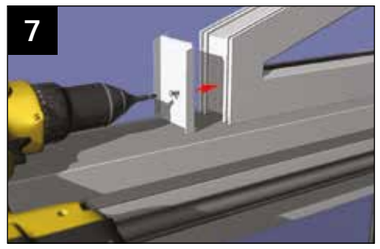
Roof Pitch (°)	Dim A (mm)
10	83
15	85
20	87
25	89
30	93
35	98
40	104

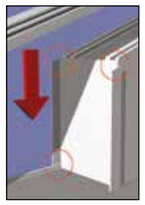


Next attach the notched gable beam top cladding on to the head of the gable beam.

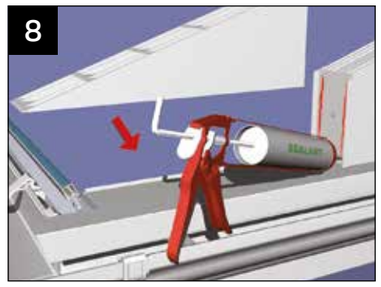


Position the gable window frame central to the gable beam, and mark the position. Remove the frame and again run two beads of silicone along the head of the gable beam top cladding (the width of the window frame only). Replace the frame centrally and back against the upstand of the gable beam top cladding. Fix securely through the frame into the head of the gable beam with self tapping screws (not supplied).

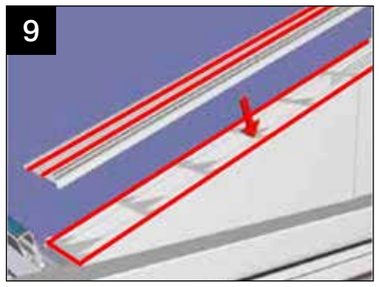




Mark and cut the gable infill end cap. Notch inner bottom edge to allow the end cap to sit flush and tight to the gable window frame. Trim top edge to suit pitch of roof and gable frame firring top cap which should be placed into position for marketing purposes. First silicone and then screw the end cap to the gable frame.

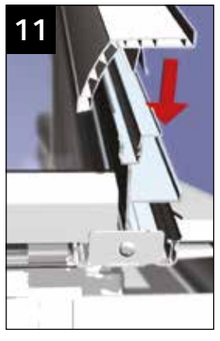


Trial fit the gable infill wedge. Remove, run two beads of silicone and place back in position, tight up against the infill wedge end cap.
NOTE: it will be necessary for non standard pitches to trim the infill wedge to suit the pitch, maintaining the 135mm height dimensions.

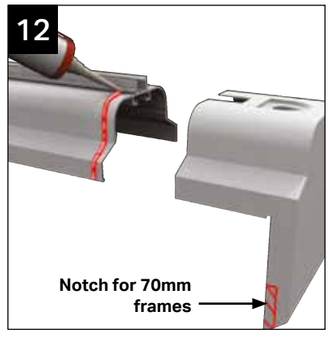


Position the gable frame firring top cap along the gable frame and over the infill wedge. The bottom edge of the gable frame firring top cap is cut to finish flush with the lower edge of the infill wedge and the end of the gable beam. The top edge is cut vertically to suit the roof pitch. Silicone in position.

Place and support the ridge ensuring the ridge is central to the gable frame. Place the starter bar onto the firring top cap and secure to the ridge and eaves beam. Securely fix the starter bars to the gable window frame. Fit and glaze the roof in the normal manner. **NOTE: Ensure the gable frame is vertically plumb.**



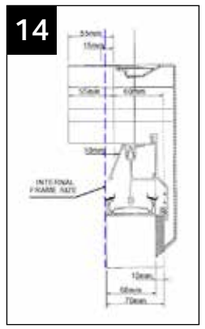
Fit the starter bar top capping in position.



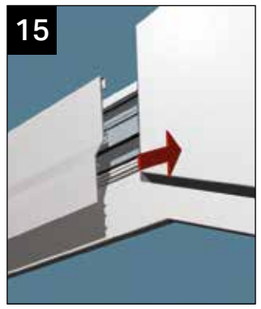
Take the gable end cap - notch if required for 70mm frames. Seal the ridge body as shown.

Using plastic pop rivets supplied, drill as shown and install rivets - avoid 'flat top' of profile

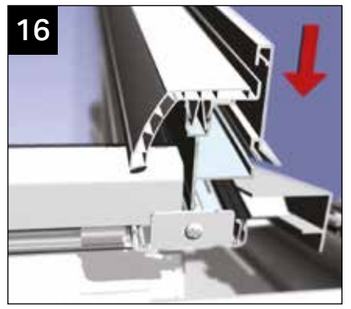
GABLE INSTALLATION



Follow same proceedure on half ridge gable ends.



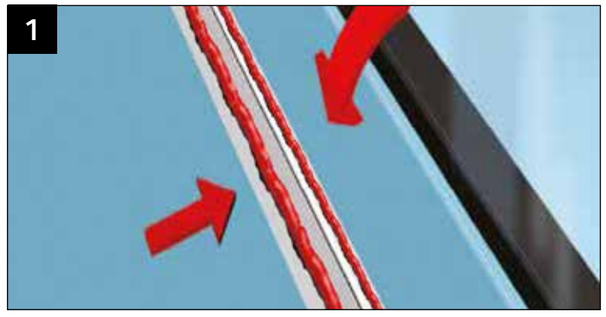
Offer the lean to cloaking trim up to the side of the gable ridge end cap and scribe to suit the roof pitch – push into place against the end cap.



The overall length of the lean to cloaking trim is to the end of the starter bar. Cut in-line with the end of the starter bar. The tapered cut along the lower edge runs parallel with and along the gable beam top cladding.

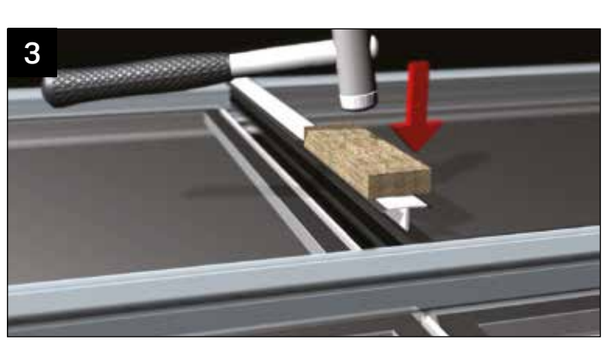
Finally fit the starter bar end cap.

MUNTIN BAR INSTALLATION



IF YOUR SEALED UNITS HAVE BEEN SUPPLIED WITH TAPED EDGES, ALWAYS REMOVE THE TAPE PRIOR TO INSTALLATION.Take the muntin bar profile (top and bottom section) that matches its corresponding sealed unit. Take the lower section and allow it to span between the two adjacent glazing bars. Lower into position the up slope sealed unit. NOTE: MUNTIN SHOULD BE SAME WIDTH AS UNIT.

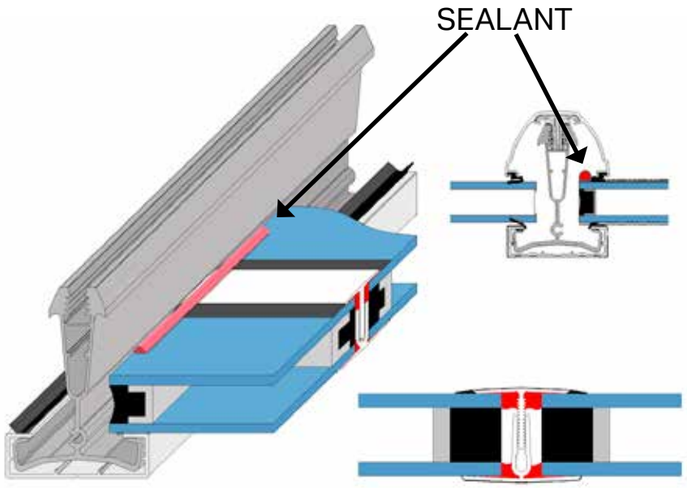
Now take the upper section and lay it face down onto a smooth clean surface. Using the relevant sealant (MS Polymer sealant such as Ultraframe ADV007 must be used on self cleaning glass), apply a generous bead to each side, immediately behind the gasket.



Now lift the sealed unit that goes on the lower slope into position, turn the upper profile over, place it into position and tap down the profile using a non marking plastic mallet. Wipe clean any sealant from the unit face. NOTE: WE RECOMMEND A SECOND PERSON TO SUPPORT THE MUNTIN FROM THE UNDERSIDE WHEN TAPPING DOWN.

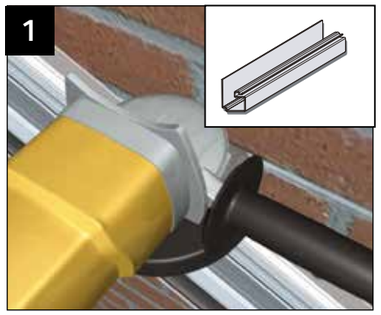
Now, tap the PVCu top cap into position, which will 'trap' the muntin profiles.

MUNTIN BAR INSTALLATION

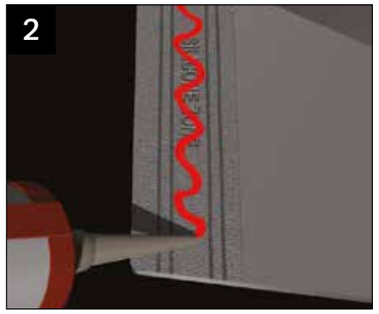


SEAL BOTH INTERNAL AND EXTERNAL MUNTIN SECTIONS

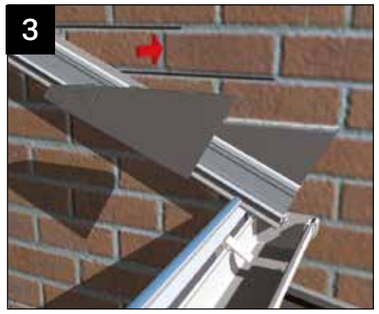
CONSERVAFLASH



Ensure the pre-formed soaker is clipped into the starter bar. At this stage it is easiest to mark and cut out for the lead flashing. For best results always grind a 35mm deep slot to allow Conservaflash to be let into the wall. Brush out any dust from the channel.

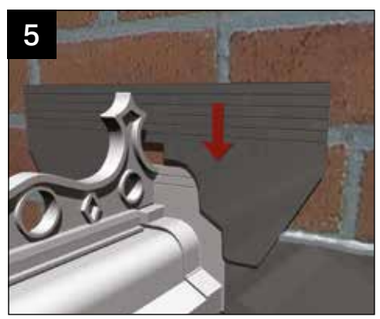


Trial fit the stepped flashing. Start installing from the gutter towards the ridge. Apply sealant (clear or grey low modulus neutral cure) along the two internal weather bar grooves.

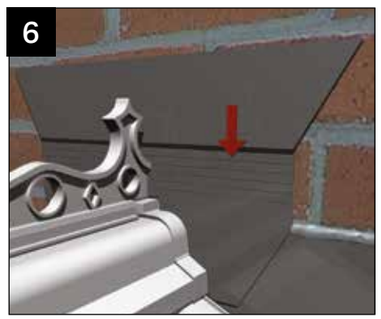


Place Conservaflash into the ground out mortar joint at the gutter end, ensuring lower edge locates into the 'J' soaker.

The unique integral mechanical retention wedge clips bite into the brickwork ensuring positive location. Insert the next stepped flashing (using sealant on the back), ensuring it overlaps to marked minimum. Continue up the roof, both slopes, with stepped flashings.



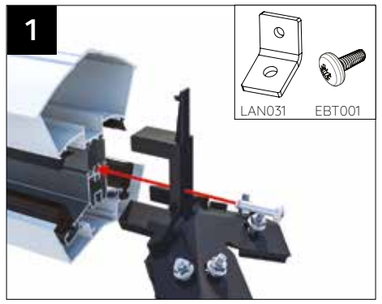
Having added last stepped flashings each side of the ridge 'Butter' the reverse side of the saddle trim and place over the ridge body.



Offer up the horizontal flashing which should typically sit two courses above the stepped flashing. Trim to suit the roof pitch.

Use appropriate sealant, MS polymer if self cleaning glass. Always seal the surface of lead flashing to prevent run off onto self cleaning glass.

SLIMLINE RIDGE



LANRF001 (fixing screw) is supplied pre-installed into the ridge. Remove and fix radius end (LAN032BL) then replace the screw. If using 3 bar attach LAN031 using EBT001. (M5x12 P021 pan screw). If aluminium internal claddings are used then these will need to be attached prior to radius end being installed.

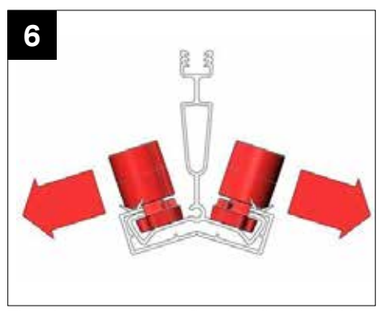
Prop ridge in position using suitable supports, centralising between eaves beam sections. (When the ridge features aluminium painted internal finish it will need to be protected whilst supporting).

Using the roof rise height supplied set the ridge and fix the bracket to the host wall using the appropriate fixings.

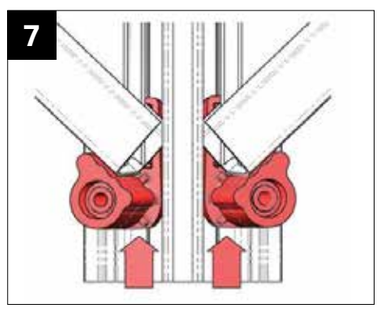
TRANSOM BARS - If your project has them

Depending upon the roof size and options requested, fit hub end transom bar and / or side transom bars. If specified on the job, remove nuts from bolts in transom position and fit transom bar over bolts. Re fit nuts and hand tighten. Check that ridge is level and fully tighten nuts on all bars.

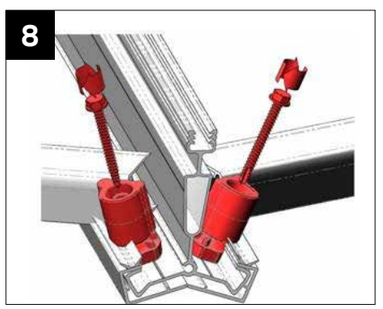
When a transom is fitted between hips, lift transom bar sleeved spigot over bolt, then tighten nut.



The glazing end stops fitted earlier should be pushed away from the centre of the bar and tucked under the gasket side of the glazing bar as shown. These are handed components, ensure they are positioned on the correct sides of the glazing bar.



Ensure that glazing stops are pushed up the glazing bar and are firmly located against the glazing end profile. Please note the glazing end profile may be mitred in some cases.

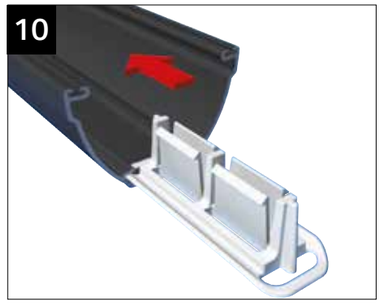


Ensure that the glazing end stops have been positioned correctly then screw down into the glazing bar, using the fixings provided. Now fully peel away protective film from glazing support at eaves and ridge and press glazing down firmly.

SLIMLINE RIDGE

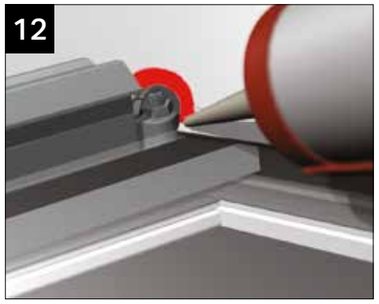
ENSURE THE GLASS IS CLEAN AND DRY BEFORE FITTING. Peel back protective film from weathering shield and position (adhesive face down) on glass, locating around the ridge and the hip bars. Press down firmly.

Before installing capping, if jack rafters are specified, please refer to step 45 (page 19) in the Georgian installation



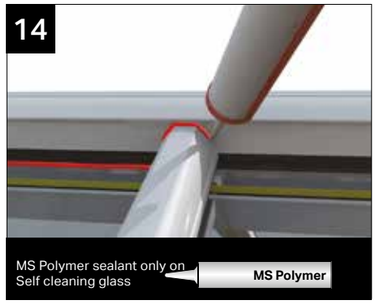
This stage should have been prepped in the factory. If not take the aluminium top caps and lay them onto a protected surface. Slide clips into each bar - position down from ridge / eaves at a max centre of 100mm and then at 500 centres (max) inbetween.

Work your way around the roof and fit glazing bar top caps.

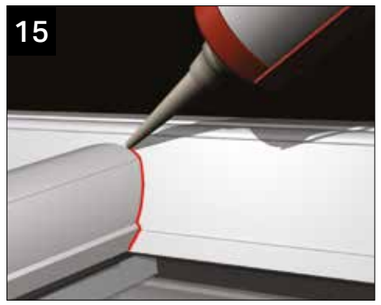


If using jack rafters, seal around the notched hip bar top cap ready to receive the jack rafter capping.

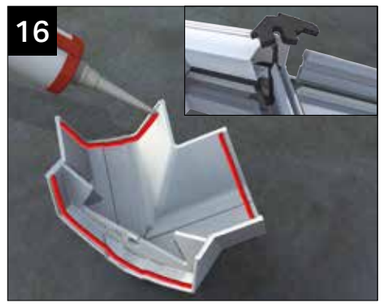
Using the heel of your hand, push down on the top cap to engage the clips, working from ridge to eaves. Ensure the rubber gaskets are full compressed for a watertight seal. NOTE: on longer bars it may be necessary to use a soft mallet and timber block



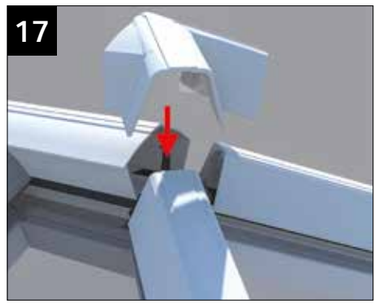
Seal along the ridge baffle where it meets the glazing and over any bar where it meets the ridge.



Seal around the joint on the jack rafter capping when complete.

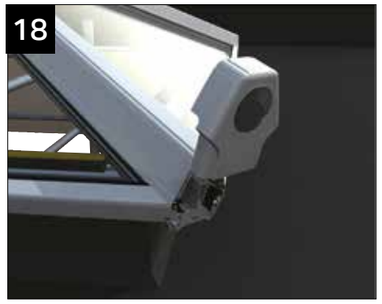


Peel back protective film from weathering shield and position (adhesive face down) on glass, locating around the ridge and the hip bars. Press down firmly.
Apply generous beads of sealant to the underside of the external cover.

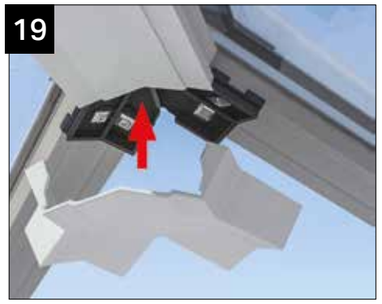


Press firmly down on the ridge end top cap until it clicks into position on the ridge end.

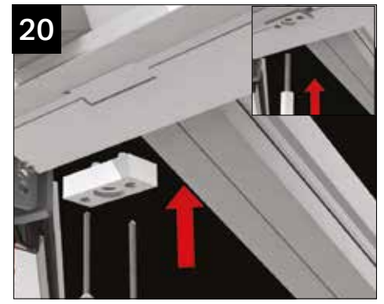
SLIMLINE RIDGE



Fit end caps to bars and push in circular cover disk to finish.



Fit the internal plastic cover if supplied by pushing up into position over the ridge and ridge end.

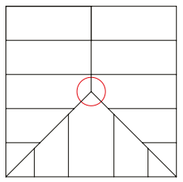


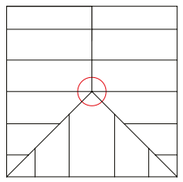
Fix tie bar ridge block to ridge using screws provided. Position by lining up with centre line of bar/brackets. N.B. CLADDING WILL NEED TO BE REMOVED, MARKED AND CUT TO CLEAR BRACKET. Screw tie bar rod into block. Slide tube over rod.

GEORGIAN INSTALLATION
- WEATHERING SHIELD CUTTING DETAIL

READ ME FIRST
UP TO 3 STEPS MAY BE REQUIRED

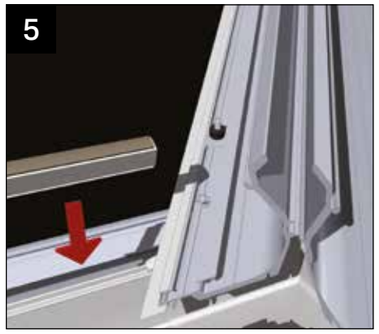
In certain situations it may be necessary to make modifications to the HUB Weathering Shield on site.
Please refer to the table shown to see which steps need to be taken



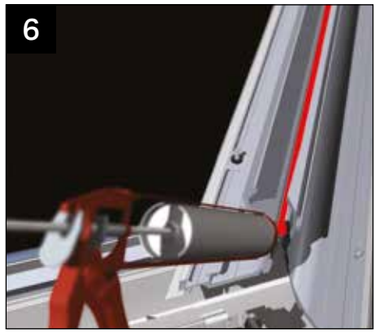


ROOF PITCH	GLAZING THICKNESS	BARS TO FINIAL	BARS NOT TO FINIAL
15 - 24	25mm	FIG. 1	FIG. 1 + FIG. 4
	35mm	FIG. 1 + FIG. 3	FIG. 1 + FIG. 3 + FIG. 4
25 - 30	25mm	NO CUTTING REQUIRED	FIG. 4
	35mm	FIG. 3	FIG. 3 + FIG. 4
31 - 40	25 mm	FIG. 2	FIG. 2 + FIG. 4
	35mm	FIG. 2 + FIG. 3	FIG. 2 + FIG. 3 + FIG. 4

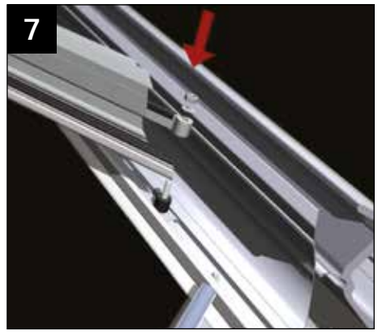
VALLEY INSTALLATION



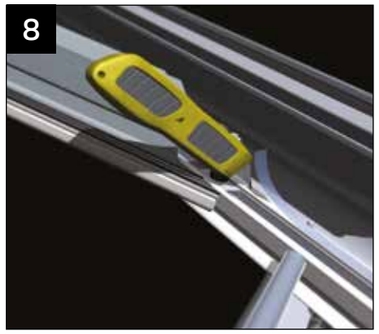
Cut and re-fit the glazing support trim, where the valley meets the eaves beam.



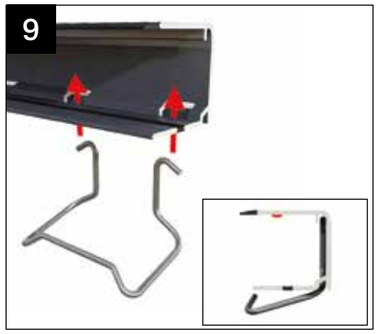
Now run a continuous bead of suitable silicone down the entire length of the aluminium valley profile, at the point of the hinged connector in the centre.



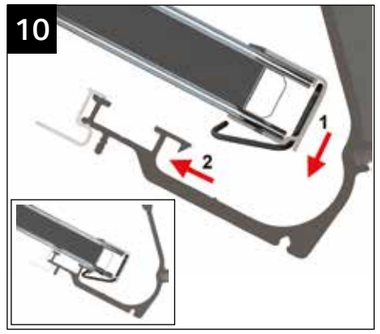
Using the location plan provided, assemble the various glazing bars onto the valley. Use the washers and nuts provided to ensure a robust joint is created.



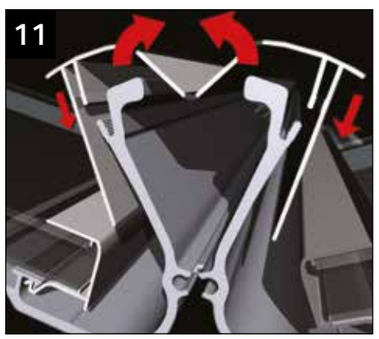
Fit the double sided sealing tape to each of the valley wings. Tease one end of the protective tape loose, crease it about 50mm in from the end and fold over ready to extract once the glazing panels are laid in position.



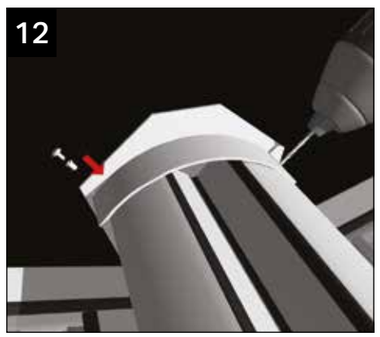
To retain the glazing to the valley wing, fit 2 wire clips (100mm from each end of the profile). The 'hooked ears' locate behind the lip detail as shown. Apply a continuous bead of sealant (MS Polymer to self cleaning glass). See Step 37 on page 16.



Place the glazing in its correct position (refer to location plan if in doubt). Position the end profile down into the valley as shown. With the glazing pressed flat against the valley profile and your fingers underneath, pull the glazing up into the rain baffle and allow the clip to 'lock' the glazing in place. Once properly fitted, the clip should lock into place as shown.



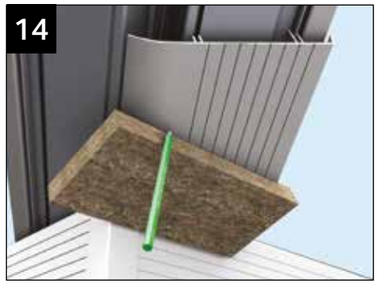
Fit the valley top cladding by folding to form an internal 'V - then tap into the aluminium valley profile using a plastic hammer.



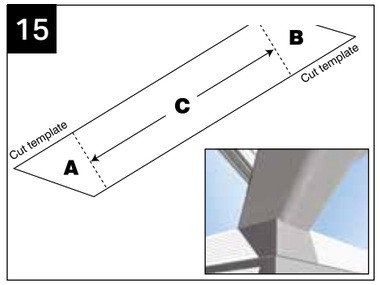
Fit the valley end cap using the two plastic rivets supplied.

The joint between the full and half ridge pvc top caps is sealed by the use of a capping connector. This needs to be trimmed to suit. Bed the capping on suitable silicone and fix using the plastic rivets provided.

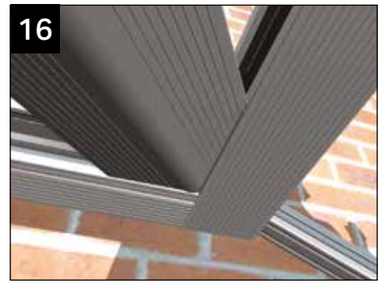
VALLEY INSTALLATION



Cut two 200mm lengths of valley undercladding. These will act as templates for top and bottom scribes. Use a 'straight edge' placed tight to the eaves fascia board, then mark and cut.

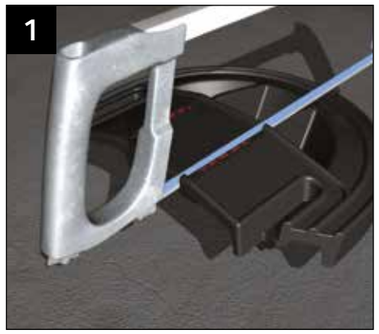


Measure dimension **C** then add **A** and **B** for overall length. Mark and cut the claddings. Repeat process for both left and right side. Push fit the claddings into position.
Insert shows valley claddings in situ at the eaves.



Valley claddings shown in situ at the ridge.

HALF RIDGE INSTALLATION



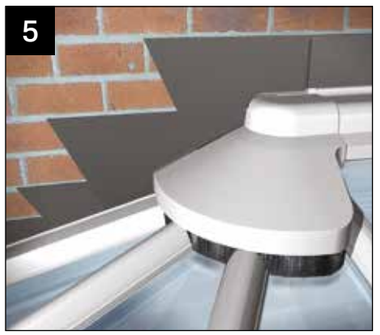
The weathering shield must be cut through the marked line. Note the illustrations shows the cut required for a left hand hipped end.

SEE p14-15 for further guidance on trimming the weathering shield to suit glazing thickness/bar positions.

Prior to attaching the starter bar to the mounted starter bar bracket, remove the M6 taptite screw. Locate the bar on to the bracket and on to the single bolt placed in the eaves beam, re-insert the screw.

Check the half ridge for being level and then check the starter bar pitch. Drill and fix the die cast back plate to the host wall (avoiding mortar joints) using an anchor bolt suitable for the substrate. Drill and fix the starter bars(s) (as step 24 p12).

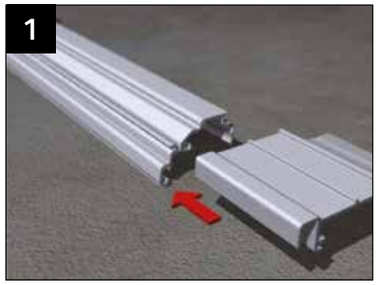
Chase out and install the lead flashing. Add the pre-cut weathering shields. Seal the weathering shield to the host wall.



Glaze the roof. Fit and seal the top of the glazing bar top cappings. Install the ready assembled half ridge top capping and external radius end. Finally install the lead flashing to suit.

Screw threaded rose cover into the fixing 'point' mounted on the aluminium hub end.

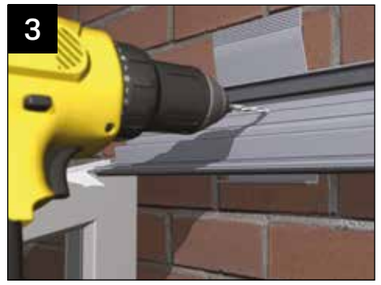
VENTILATED WALL PLATE



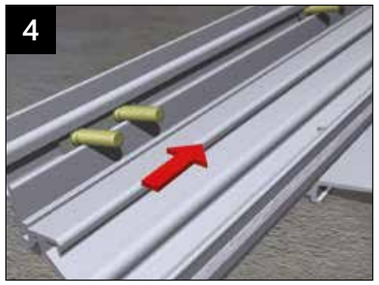
The aluminium wallplate body has been cut to length to fit in between the side frames of the conservatory. Slide the aluminium carriages supplied with the wallplate onto the main body and space out at approximately 500mm centres. NOTE: ROOFS WITH A PITCH OF 15° AND OVER SEE STEP 9)

Offer the wallplate up to the wall and position it so that the top surface of the bolt slot is level with the top of the side frames.

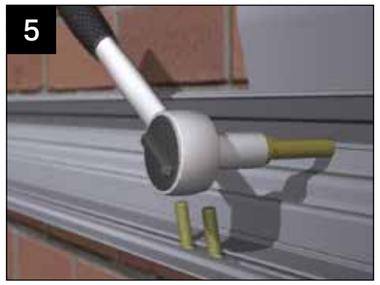
IMPORTANT. Eaves beam is cut to EXTERNAL frame width. Wall plate top cap is cut to EXTERNAL frame width. Aluminium wallplate and undercladding is cut to INTERNAL frame.



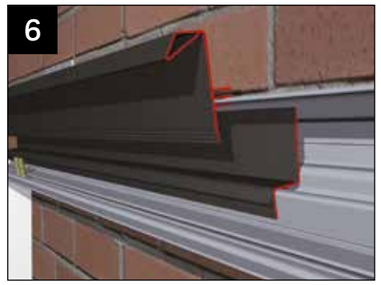
Drill through the wallplate main body and directly through each carriage to suit the masonry anchors being used (not supplied). Mark the position of each masonry anchor on the house wall and drill the house wall to suit.



Make sure the appropriate number of roofing bolts are located in the bolt slot of the wall plate before finally fixing the wall plate to the wall.

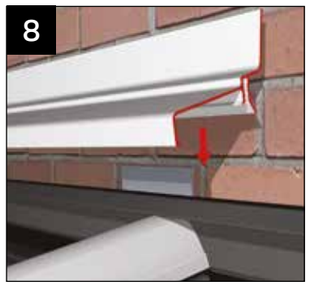


Systematically install the masonry anchors at 500mm centres

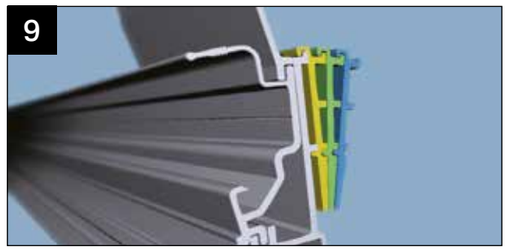


Fit the the back and main baffle. (It is pre-cut to the external frame dimension - DO NOT CUT).

Attach undercladding, having first sub assembled the ventilation button (seperate installation leaflet provided in vent button kit)



Cut the pvc wall plate top capping to the overall width of the conservatory (externally) and notch over the top of the lean-to cloaking trim at each end. Push fit the wall plate top capping. Fit the wall plate end caps using sealant appropriate to the glazing. Fit the lead flashing.



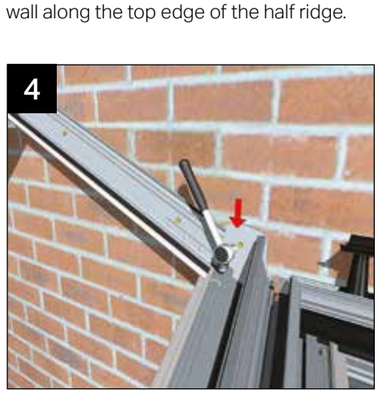
If the pitch of the roof is greater than 15° then the wall plate is supplied with a number of aluminium packers. These packers hook onto the back of each carriage and act as a wedge between the carriage and the house wall. These should be fitted when drilling and fixing the wall plate. The packers may be used in multiples and each packer will tilt the wall plate by 5°. When packers are used it will be necessary to ease the wall plate top capping back to the wall and secure with plugs and screws before dressing the lead flashing over the top capping.

DROP VALLEY INSTALLATION

As with a standard 'P' shape, assemble as much of the main Georgian (Or Victorian) roof side as possible. Check the pitch. Ensure the full ridge is level. Offer the assembled half ridge to the host wall. Attach at least two bars from half ridge to eaves and then tighten down the nuts. Check the pitch. When pitch is correct, mark the host wall along the top edge of the half ridge.

To ensure the half is in the correct side-to-side position, either attach the hipped end starter bar and check pitch or ensure lean-to transom bars (already attached) are at 90 degrees to the eaves and half ridge. Again, mark the host wall when half ridge is set. Remove bars, separate the two part half ridge and secure the back section to the host wall (as step 2, page 26) and then re-fit the front carriage as step 3, page 27.

With the valley lowered into position (see step 5, page 27) locate the short starter bar from ridge to valley. Tighten nuts and check the pitch of the short starter bar (this should match the pitch of the other side of the main roof). Ensure ridges are level. Re-fit the half ridge rain baffle.



Drill and fix the valley back-plate to the host wall (avoiding a mortar joint) using an anchor bolt suitable for the substrate. Drill and fix the starter bars (as step 24, p12).

With the pre-formed soaker clipped into the starter bar, installed. The first stepped lead flashing will need to overlap onto the welded valley back plate (you may need to snip and shape around the fixing). Then continue up the slope.

With the roof now fully glazed position the half ridge top capping to suit. The 'nose' will require notching to suit the valley top capping.

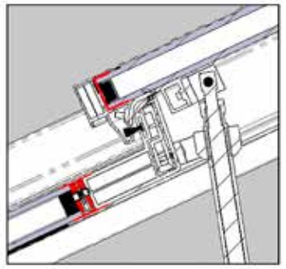
Again, position and notch the half ridge end cap to suit. Attach with suitable sealant. (LH half ridge end cap shown)

Fit the horizontal lengths of lead flashing along the appropriate course above the upstand of the half ridge top capping.

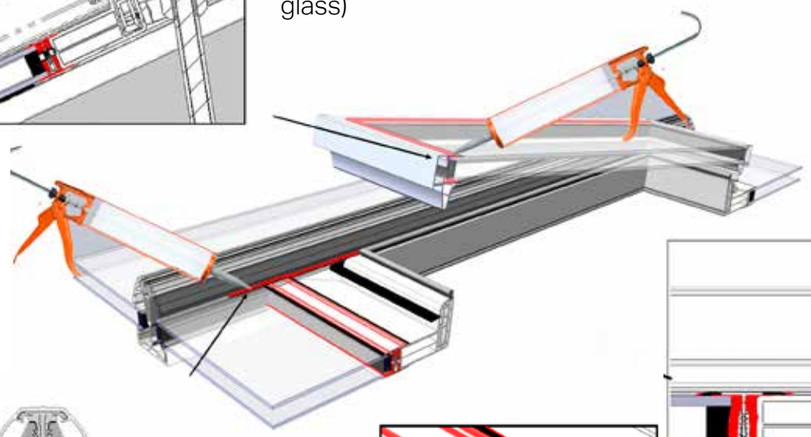
Scribe a plastic trim to close the gap between the half ridge and valley undercladdings.

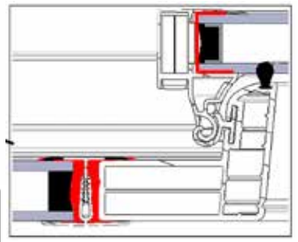
SECTION 25

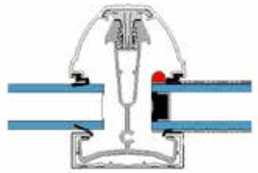
MUNTIN BAR INSTALLATION

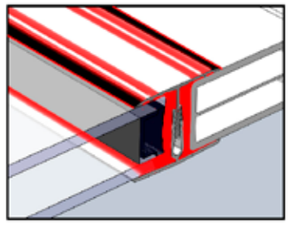


Sealing of the sash MUST' be done on all vents below 10° . The seal should be all the way around the glass and the use of an MS Polymer should be used (especially with self cleaning glass)









A seal should be applied both internally and externally to the muntin bar. Please ensure that each end is sealed to ensure no water tracks in to the muntin.

A bead of sealant (glass manufacturer approved MS Polymer on self cleaning glass) should be applied to the edge of the glass, sat behind the top cap. this should start and finish above and below the vent itself.

SECTION 26

FULL WOK ASSEMBLY

Note to Fitters – carefully follow these notes but follow section 4 simultaneously to get a perfect 'right first time' installation.

1. Support the die cast aluminium hub.
2. Offer up the glazing bars, starting in the four opposing corners to ensure the hub is supported.
3. Follow steps 11-12 on page 11, attaching all the glazing bars.
4. Check the hub 'wok' is level and plumb – now use your thumb to push up all the lower wedge locks. The roof is now set.
5. Once the roof is glazed and the PVCu top caps are knocked on, now is the time to fit the 'soft touch' hub weathering shield. It may be necessary to 'snip' small cuts in the shield to facilitate top caps seating correctly.
6. Seal around each glazing bar top cap where it meets the inner wall of the shield. Apply a bead of sealant to the top edge of the shield so that the 'wok' cap is sealed correctly.
7. Drop the PVCu 'wok' top cap into position, apply a bead of sealant to underside of finial and screw the fi nial into position through the top cap.
8. Internally,offer up the PVCu 'wok' cover over the threaded bar and screw the rose cover onto it.

If finial is not required, capping is supplied with an additional rose cover and threaded bar.

SECTION 27

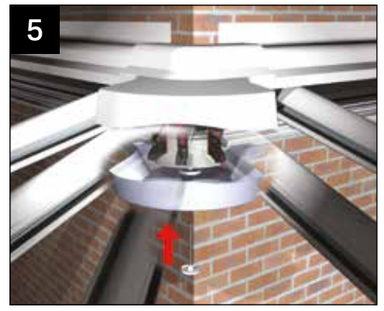
L SHAPE RIDGES - HALF RIDGE TO HALF RIDGE

Take the 2 pieces of half ridge and offer into final position. Support using adjustable support prop, taking account of all H&S issues. Check levels. One half ridge already has the radius assembly attached.

On the top shelf of the half ridge, fix the bracket using one M6 x 25mm taptite (pozidrive) screw.

On the underside of the half ridge, fasten the bracket using 2 M5 x 12mm taptite screws. Check the L shaped half ridge is finally level and attach to the host wall using masonry anchors appropriate to substrate.

Now build the remainder of the roof in sequence. Then, as in step 52, p16, seal around each glazing bar top cap where it meets the inner wall of the 'soft touch' weathering shield. Trial fit the half ridge external radius end top cap into position. Mark and drill for final rivet positions using a 5mm drill bit. Trim to fit (see page 40). When satisfied with fit, apply a bead of appropriate sealant across each end of the half ridge top cap. Place the radius end cover over the weathering shield and rivet into position.

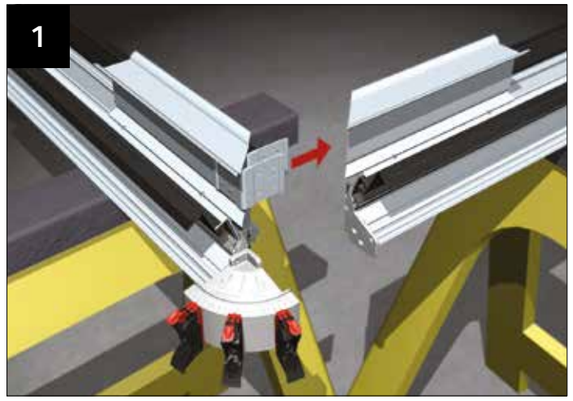


Trial fit the internal radius end cover into position. Minor trimming to ensure a snug fit may be required. Offer into position and secure using the threaded plastic rose.

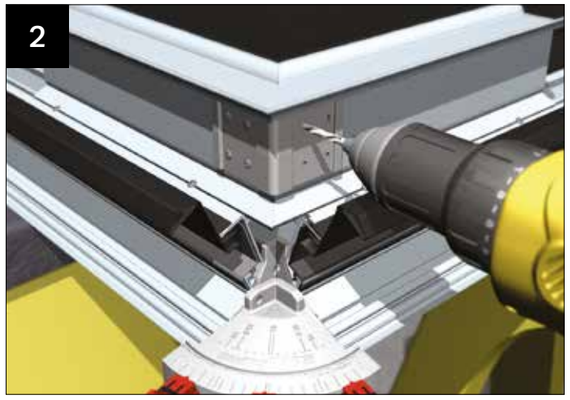
FITTERS TIP - Radius end top cap

- **Plan for access**
- **Leave a panel out to enable access for fitting the top cap.**
- **Temporarily pack the glazing bar top caps as required where panel has been removed**

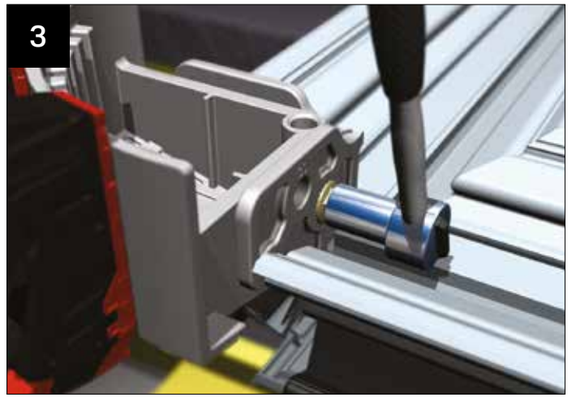
L SHAPE RIDGES - FULL RIDGE TO FULL RIDGE



Lift separate sections of ridge body on to trestles. Slide twin cleats into position.



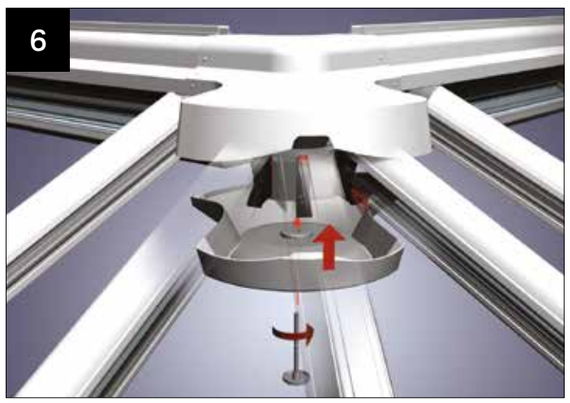
In the pre-prepped holes, use the fixings provided to fix the cleats.



Now carefully lift and turn the 'L' shaped ridge on to its back. Using a socket spanner secure the plate on one section of the ridge to the ridge with the hub attached.

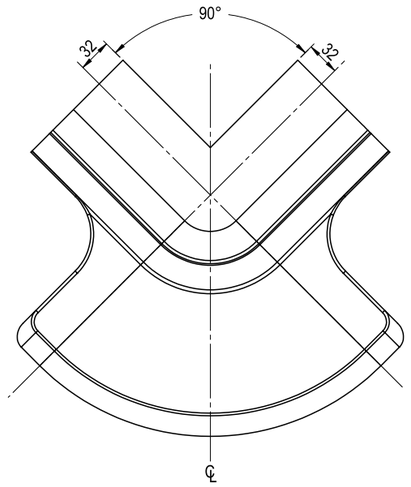
Temporary support/prop the 'L' shaped ridge. Offer up the hip bars. Secure using steps 12-15 in the main installation guide. Build remainder of the roof as section 4.

Now, as per main guide, seal around each glazing bar top cap where it meets the inner wall of the 'soft touch' weathering shield. Take the length of PVCu ridge top cap assemblies, seal the two ends to be joined. Mark and drill for final rivet positions using a 5mm drill bit. Apply plastic rivets. Offer the whole assembly into position, trimming may be required - see over page. The trimming should be in the form of removing a strip across the whole width or as shown above, notching around each bar. Secure ridge into position with 'T' bolts as shown in section 4.

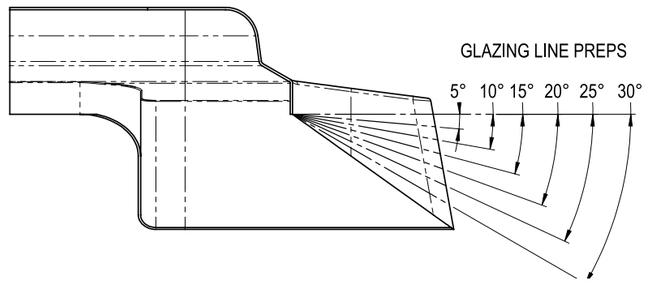


Now fit the internal radius end capping using the threaded plastic rose (trimming may be required - see over page).

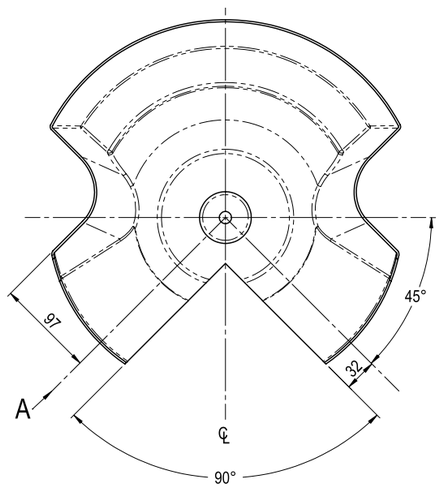
HALF RIDGE TO HALF RIDGE EXTERNALLY



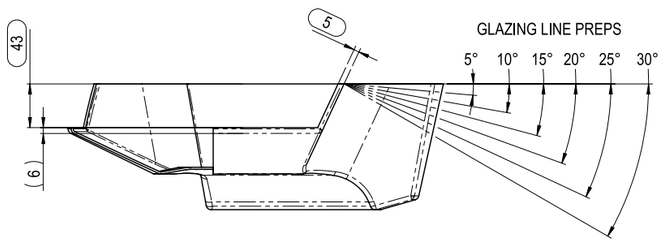
PART IS SYMMETRICAL ABOUT CL



HALF RIDGE TO HALF RIDGE UNDERCLADDING PREPS



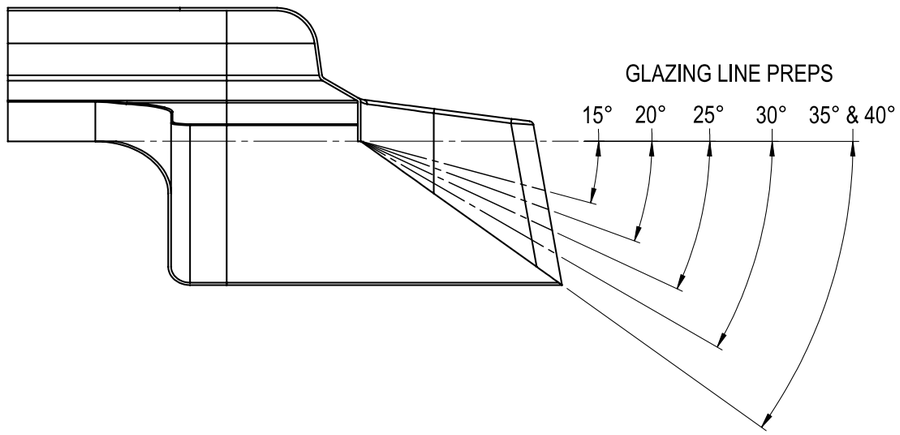
PART IS SYMMETRICAL ABOUT CL



VIEW ON ARROW A

L SHAPE RIDGES

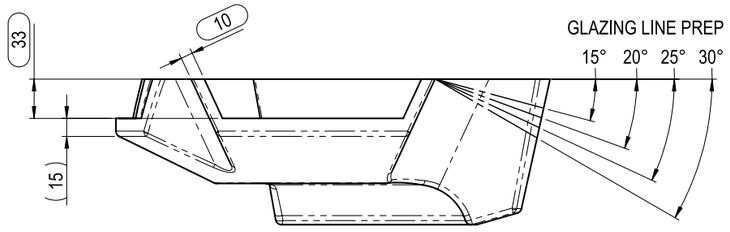
EXTERNAL



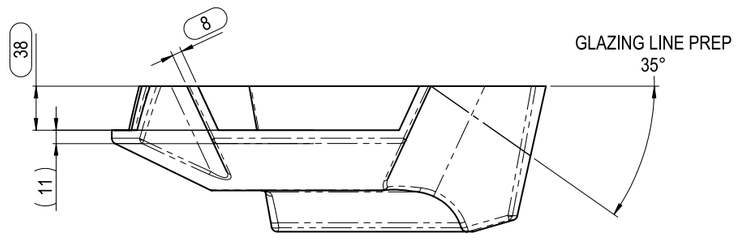
FULL RIDGE UNDERCLADDING PREPS

INTERNAL

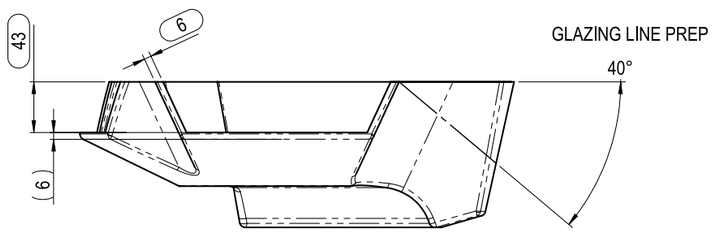
15-30° RIDGES PREP



35° RIDGE PREP



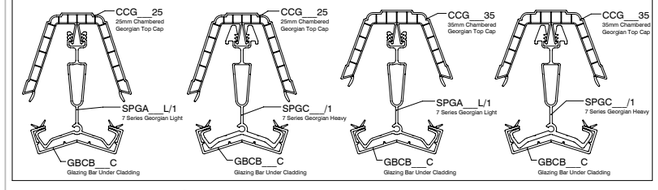
40° RIDGE PREP



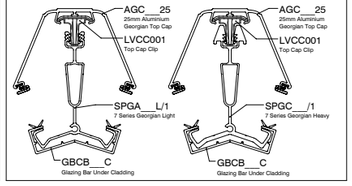
WALL CHART

WALL CHART

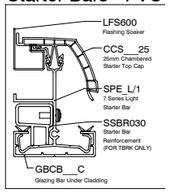
Georgian Hip Bars - PVC



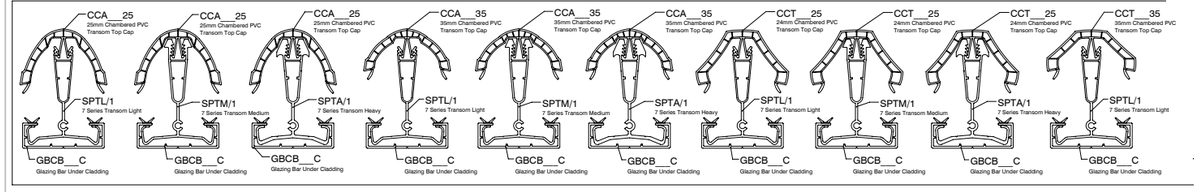
Georgian Hip Bars - Aluminium



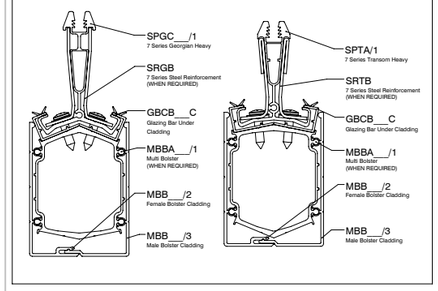
Starter Bars - PVC



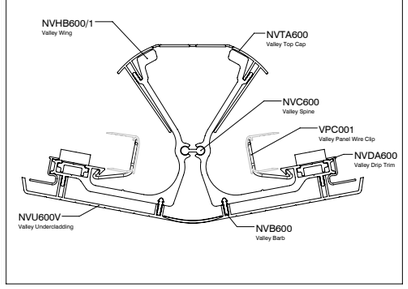
Transom Bars - PVC



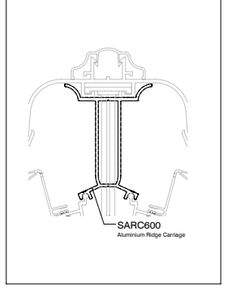
Georgian and Transom Bar Reinforcement



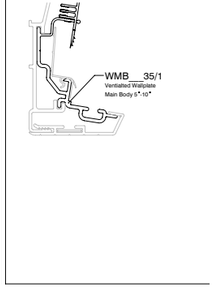
Valley Bar



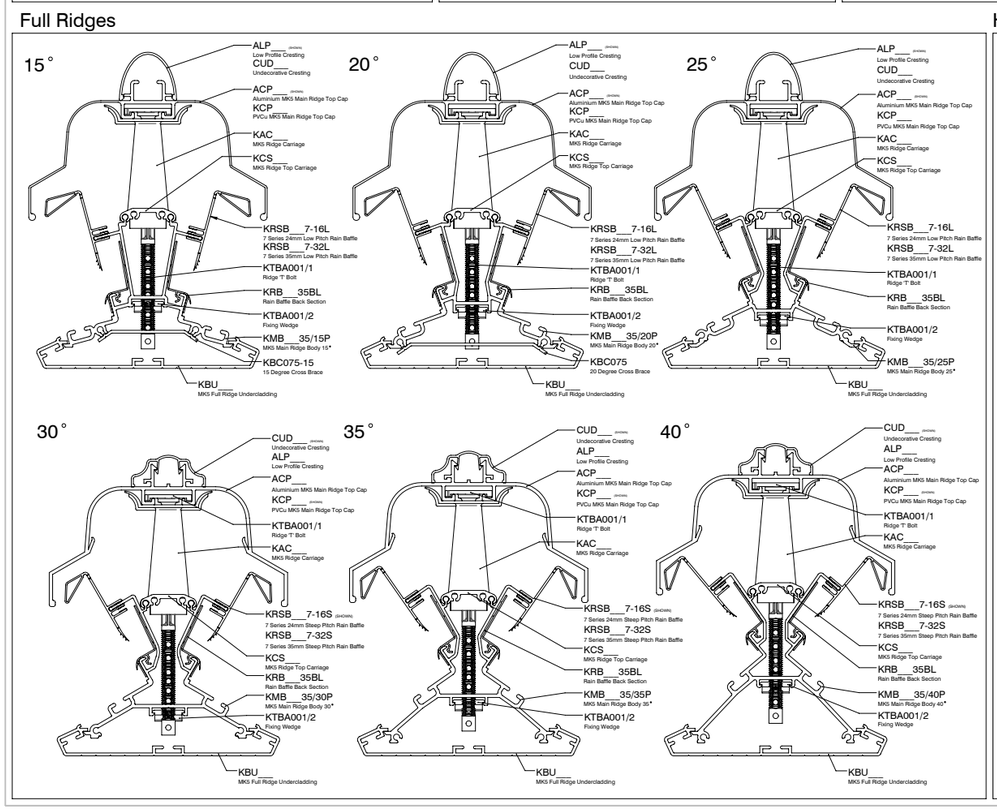
Ridge Reinforcer



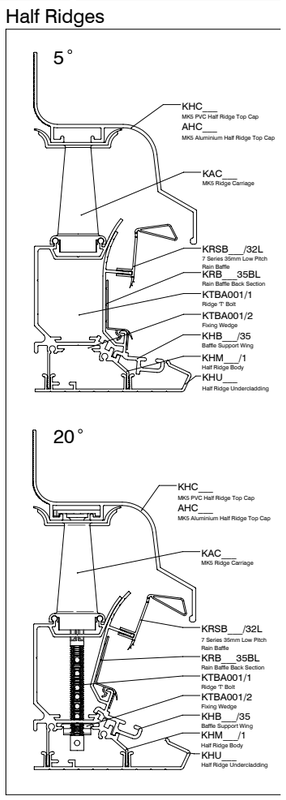
Ventilated Wal



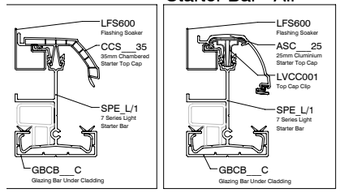
Full Ridges



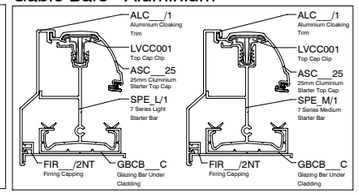
Half Ridges



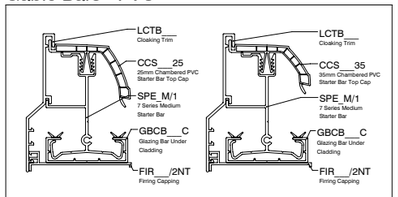
Starter Bar - Ali



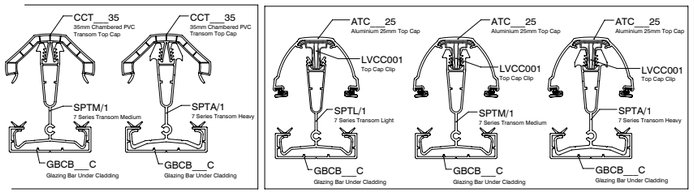
Gable Bars - Aluminium



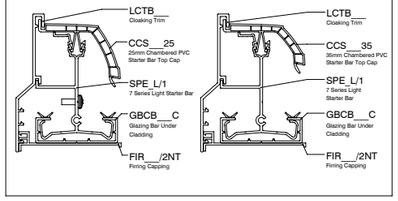
Gable Bars - PVC



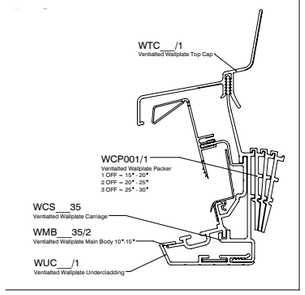
Transom Bars - Aluminium



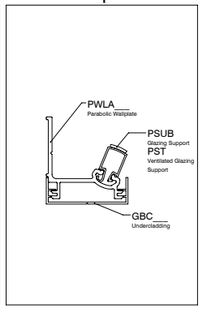
Gable Bars - PVC



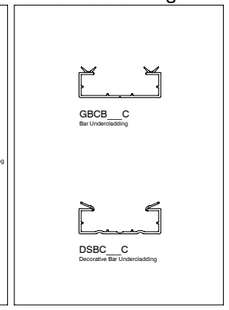
Wallplate



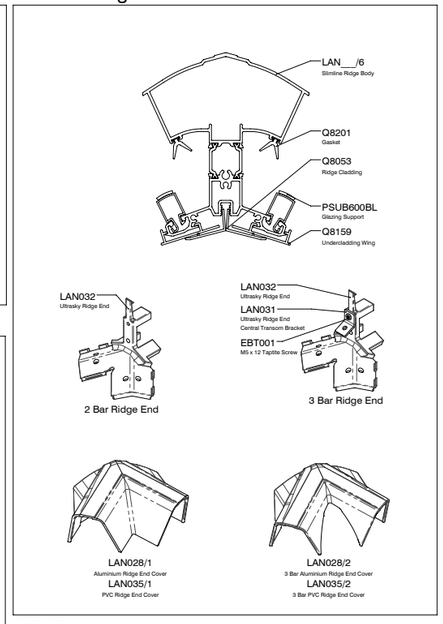
PWLA Wallplate



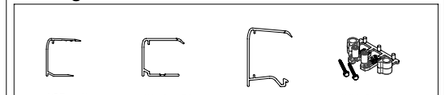
Bar Undercladdings



Slimline Ridge



Glazing



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