



QUANTAL

V1 | September 2018

ALUMINIUM  
**INSTALLATION GUIDE**

Please take a few minutes prior to installation to familiarise yourself with this updated system.

**For Technical Support please call 01200 414618  
or email [techsupport@quantal.co.uk](mailto:techsupport@quantal.co.uk)**

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The core of the guide shows how to install a typical Georgian with Jack Rafters and glazed with glass.

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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 21 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.**



8, 10, 13mm  
Socket Spanner



Deadblow Hammer  
or White Rubber  
Mallet



No. 2 Pozzi-drive Bit



5mm Wide Flat  
Blade Screwdriver



Hack Saw



Drill/Screwdriver



Long nose pliers



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.

## 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. Please ask for a copy of our Classic product guide to keep in the van, which will give you further assistance with future identification.

## Sealing

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

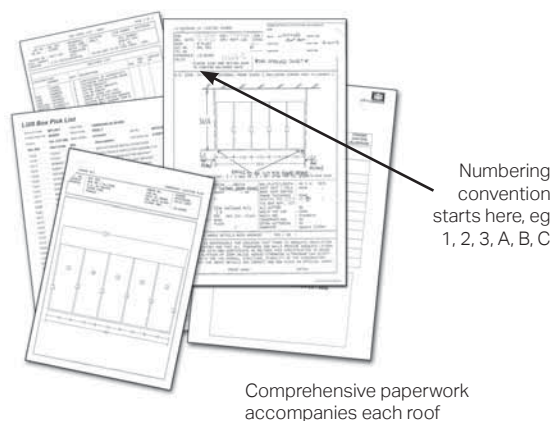
1. For roofs glazed with Polycarbonate (or standard sealed units) a low modulus neutral cure brand of silicone must be used
2. For roofs glazed with Conservaglass or other true 'self cleaning' glass, then MS Polymer sealant such as Rotabond 2000 must be used.

## 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 eavesbeam. 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.



## PAINTED ALUMINIUM PRODUCTS - PLEASE NOTE

All paints will 'chalk' to some extent and there will be a reduction in gloss level over time. (See Cleaning and Maintenance guidelines p39)

### QUALITY EXPECTATIONS ON INSTALLATION.

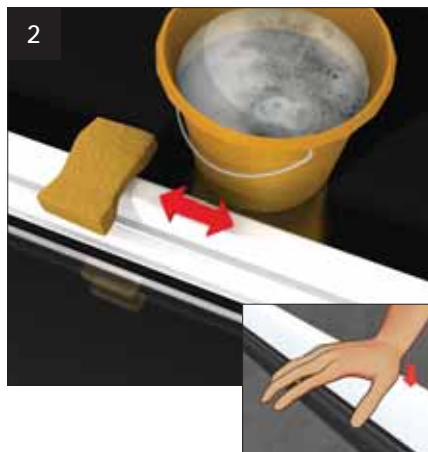
**Appearance:** This is assessed based on the selection of the 'significant' (primary) surface. From a distance of 3m, stand at an oblique angle of 60degree and then defects such as blisters, runs, pin holes etc should NOT be seen.

**Colour and gloss:** Viewed from 5m, the coating must be of even colour and gloss with good coverage.

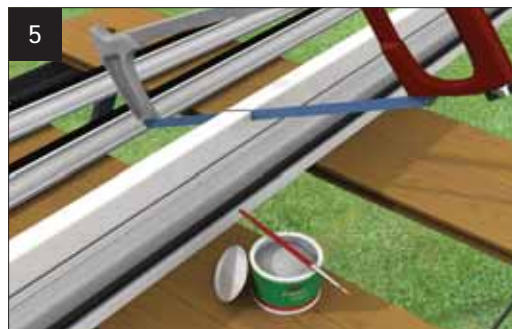
## HANDLING ALUMINIUM PRODUCTS



If storing in warehouse racking or on frails/roof racks, take care to support the products and do not over tension straps and ropes. When opening sealed packs, use a special box knife opener.



Grease marks, dirt and mastic spillage may be removed using soapy water. Take care when fitting aluminium products to not use excessive force.



If site cutting is necessary (drainage slots need inserting or a down pipe hole has to be cut) ensure all swarf is kept away from the painted surface and then seal with a primer/corrosion inhibitor and then top coat. Alternatively, use a suitable gap sealant to prevent the onset of corrosion. These steps are critical in marine environments.

## MAIN ASSEMBLIES

Ridge Assembly



Glazing bar types

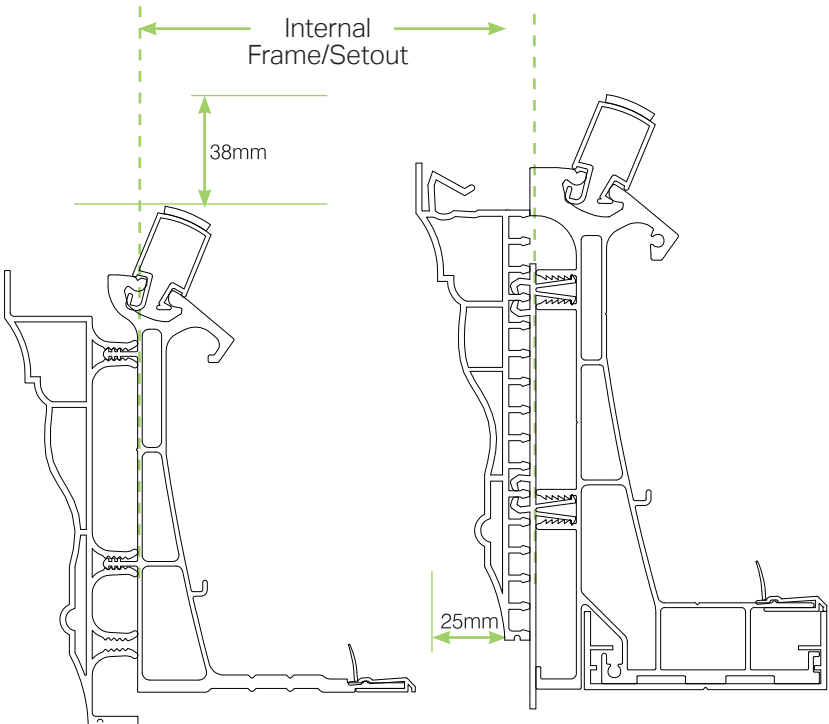
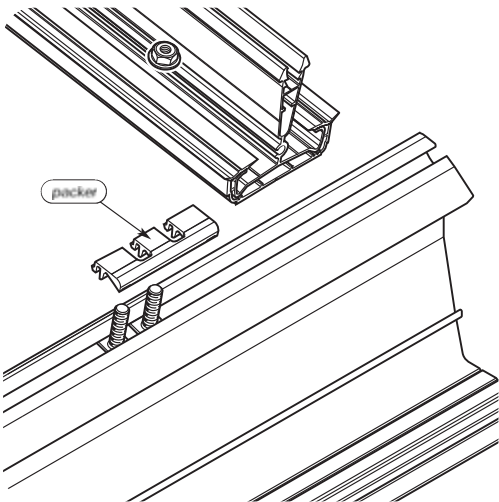
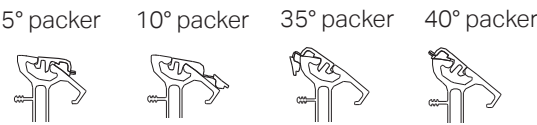




MAIN ASSEMBLIES

Eaves Assembly Options

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



Standard Eaves Beam

Chambered Eaves Beam

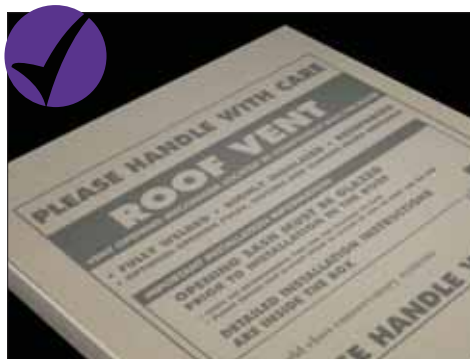
Eaves Assembly



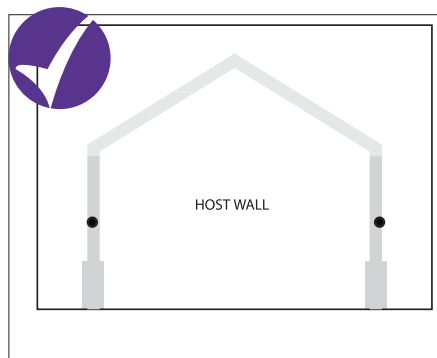
Ridge and Brittonia Cresting



## PRE INSTALLATION CHECKS



Unpack the roof vent sash and assemble, see section 19. If possible, do this in the factory the day before.



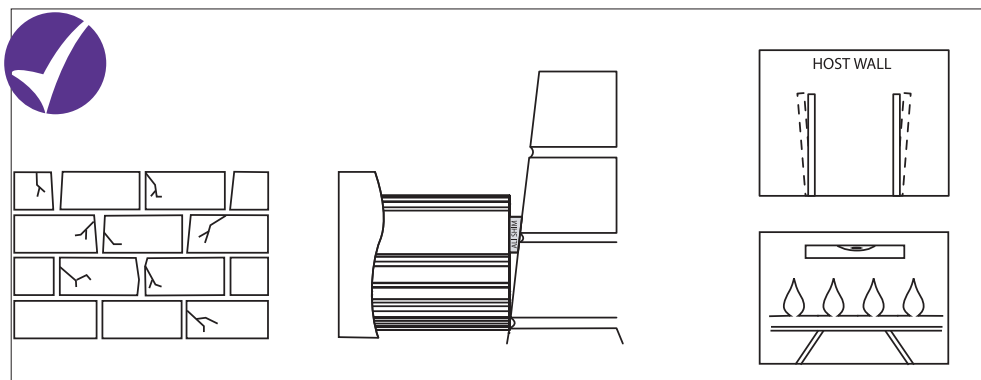
At this stage do not fix the frames down - pin only to the house wall (one fix per side) to allow the conservatory to 'float'.



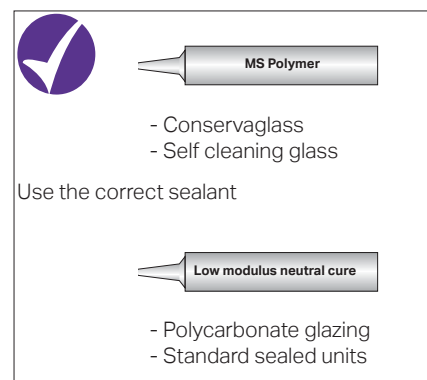
Secure in place using the provided screws and cap covers to finish. NOTE: A small bead of sealant behind the endcap (shown in red) will prevent any rotation over time.

Attach the glazing bar endcaps to the lower end of the bars as access restrictions (box gutter situations) may prevent easy attachment later.

## SECTION 3

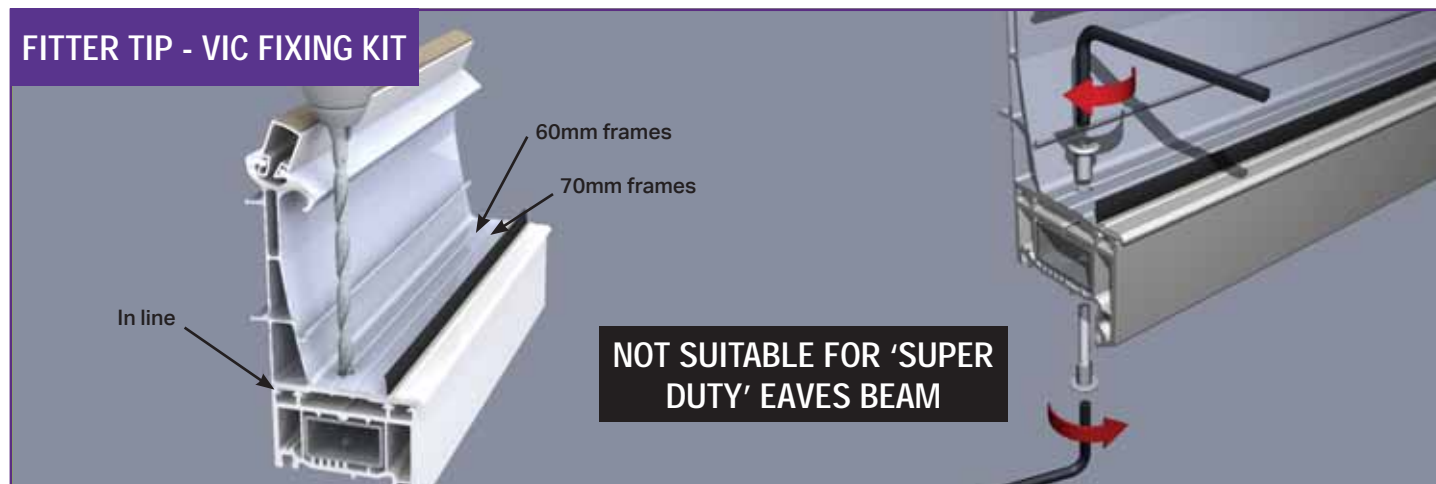


Check the condition of the host wall as this may affect the quality of the final installation. Check the host wall is plumb - any running in/ or out should have been accounted for by the surveyor. If not, the ridge and starter bars may require packing out with aluminium shims. Correct alignment in this area is critical to a successful installation - Plumb frames/level ridge. Only use the specified fixings - never be tempted to substitute alternative sizes/gauges.

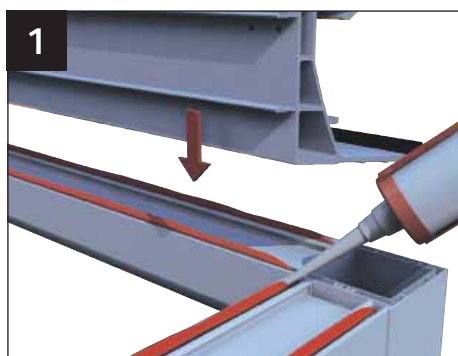


Use the correct sealant

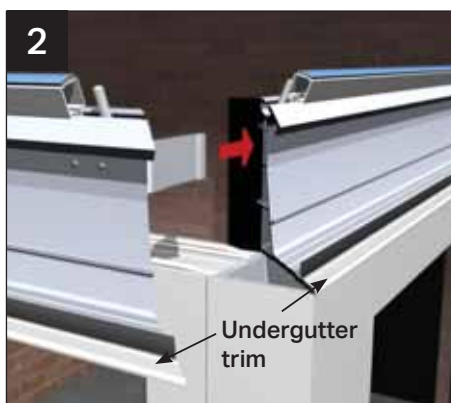
# GEORGIAN INSTALLATION



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**



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.



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



Securely fit the two M5 x 12mm tapitite screws.

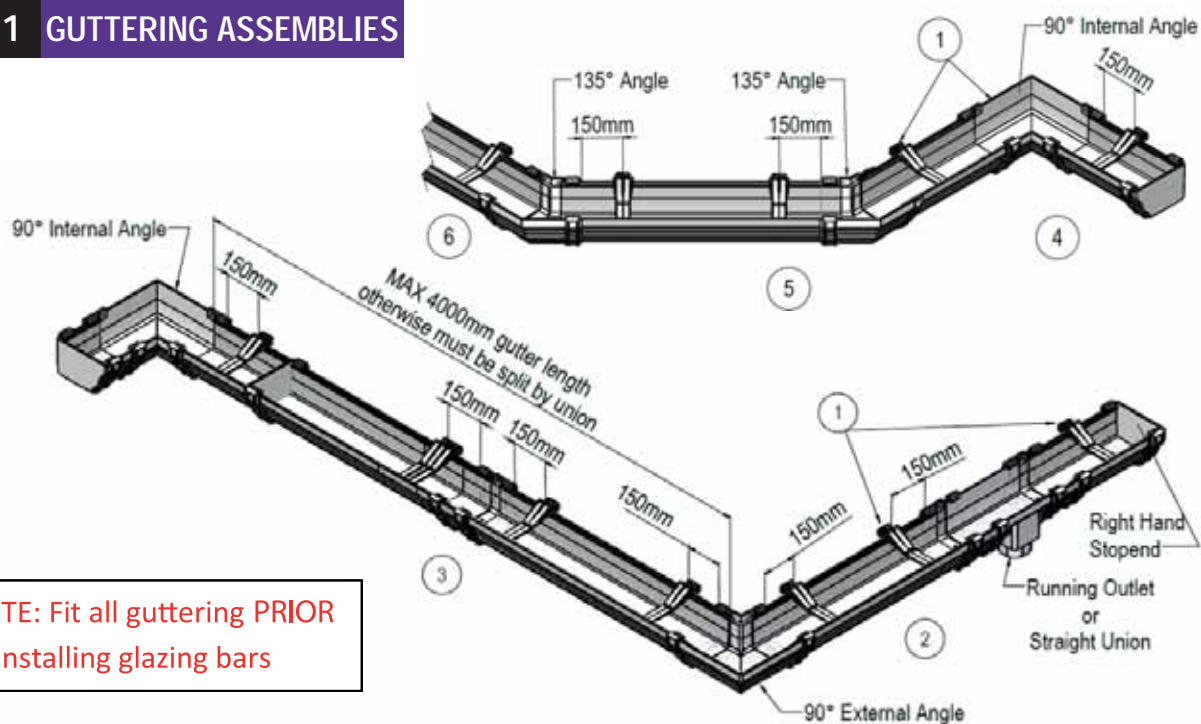


Securely fit the eaves beam to the frames using for example, 38mm x 4.8mm screws in the position shown. Fix down at 450 centres and within 200mm of each corner. For 60mm frames use the inner eaves extrusion line and outer line for 70mm frames. Always screw down. (Not supplied)



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**

## GEORGIAN INSTALLATION

**Fig. 1 GUTTERING ASSEMBLIES**

**NOTE:** Fit all guttering **PRIOR** to installing glazing bars

**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)

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. Drop the guttering into position then snap the integral clips fitted to the unions/outlets over the gutter.

**2b**

Insert gutter assembly and roll 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.

**2c**

90° angle to overhang and then slide the gutter assembly towards the host wall until flush.



## GEORGIAN INSTALLATION

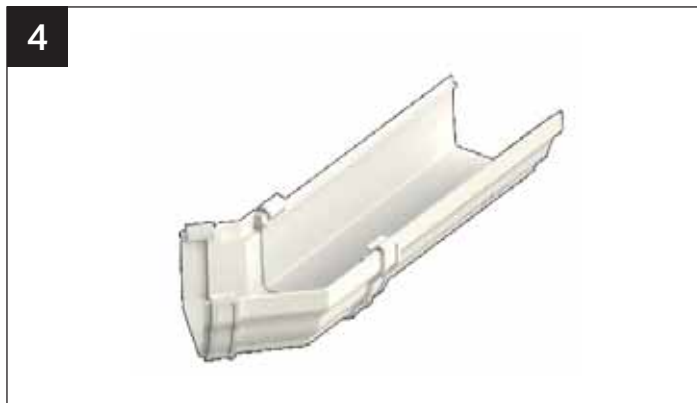
3



Assemble & cut gutter to size - If over 4000mm span then the gutter must be split by a straight union. Insert gutter assembly and rotate into position (see Step 2). DO NOT slide gutter into union must always roll and lock.

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 & 2c.

NOTE: Remember to work to the insertion lines.

5



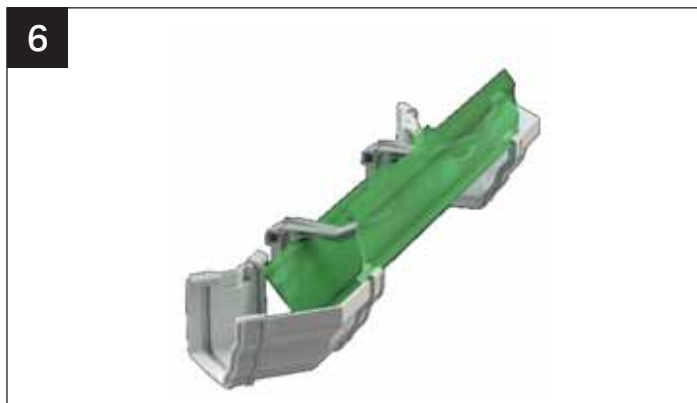
Build up gutter assembly; gutter & 135° union. Snap the integral clips on the unions over the gutter.

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 (Similar to step 2c).

NOTE: DO NOT slide gutter into union must always roll and lock.

6

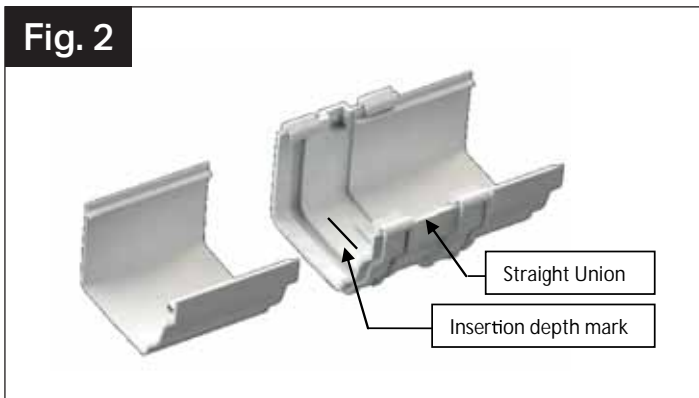


This should be the final step in the gutter system installation for a Georgian or Victorian, as the opposing side will be repeated by the previous steps within this guide. The gutter will essentially meet up at this step.

Cut gutter to length and insert gutter assembly into brackets using "step 2b" assembly methods.

NOTE: DO NOT slide gutter into union must always roll and lock.

**Fig. 2**



Insert gutter assembly and roll 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.

### IMPORTANT:

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

Must not slide gutter into union must always roll and lock  
DO NOT Silicone Seal, this would prevent expansion/contraction.

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

## GEORGIAN INSTALLATION



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.



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.



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



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.



Offer up the hip bars.



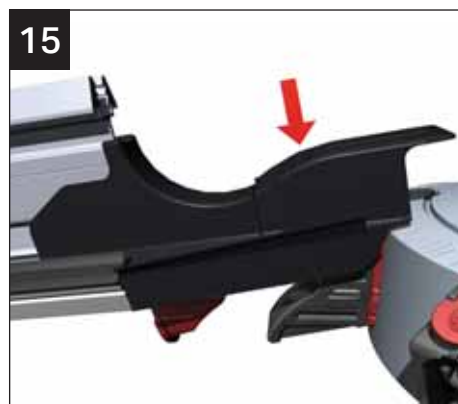
Using Speedlock on the glazing bar end, offer the 'ball' into the matching socket.



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 25.** To remove the bar, lever up the dead lock using a flat blade screwdriver, then insert the screwdriver to release the socket latch. See p16-17.



Next, attach the speedlock hood over each bar, sliding it under the co-extruded gasket of the glazing bar undercladding.



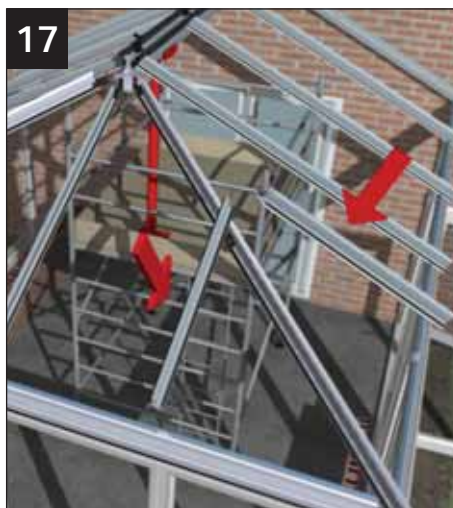
Push down to locate, with the final position abutting the front edge of the die cast end.



## GEORGIAN INSTALLATION



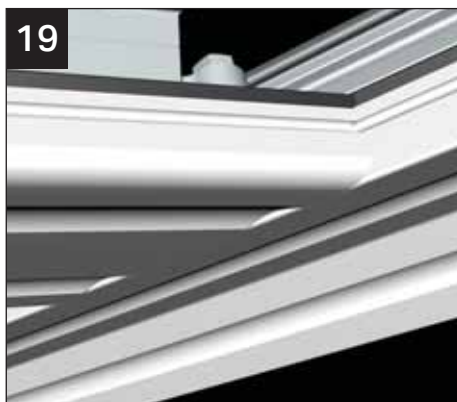
Continue to attach all the glazing bars using the location plan provided to check each bars final position with its corresponding label.



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.



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.



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



Ensure the window frames are plumb.



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.

## GEORGIAN INSTALLATION

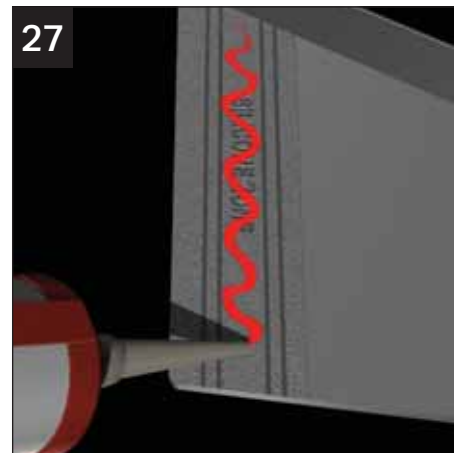
If Cornice has been specified, see Cornice installation guide.



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.**



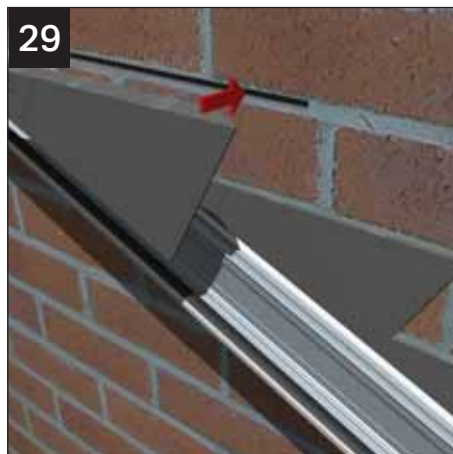
Ensure the pre-formed soaker is clipped into the starter bar. At this stage it is easiest to mark and cut out for the lead flashing. For best results always grind a 35mm deep slot to allow Conservaflash to be let into the wall. Brush out any dust from the channel.



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.



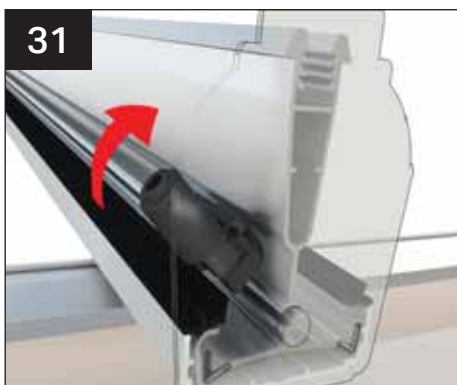
Place Conservaflash into the ground out mortar joint at the gutter end, ensuring lower edge locates into the 'J' soaker.



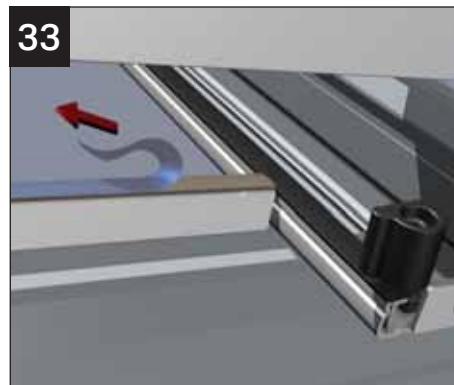
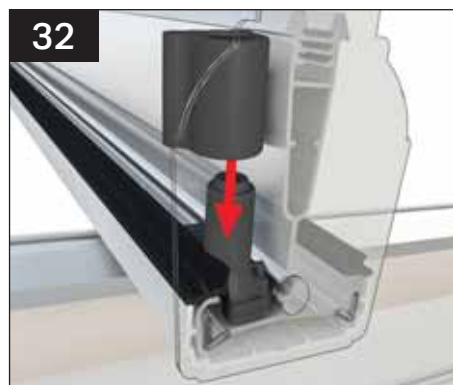
The unique integral mechanical retention wedge clips bite into the brickwork ensuring positive location. Insert the next stepped flashing (using sealant on the back), ensuring it overlaps to marked minimum. Continue up the roof, both slopes, with stepped flashings.



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 (DO NOT DO THIS ON POLY ROOFS).



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.



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



## GEORGIAN INSTALLATION

34



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

35



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 page 37.**

36



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.

37



Lift the rain baffle leg and position top cap.

38



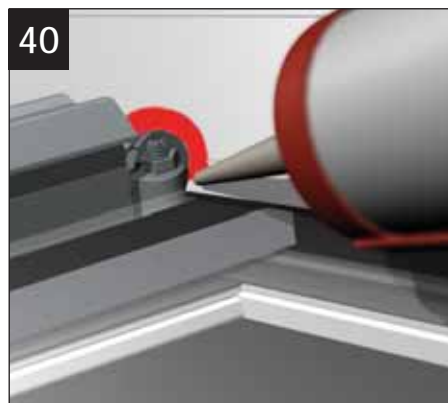
Ensure the rain baffle upper leg is lifted prior to fitting the top cappings.

39



Using the heel of your hand push down on the top cap to engage clips, working from ridge to eaves. Each capping is numbered according to its position in the roof.

40



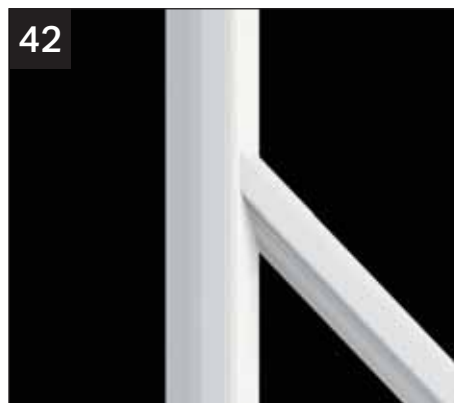
Seal around the notched Georgian top cap ready to receive the jack rafter capping.

41



Fit jack rafter top capping leaving short of hip and tap up to flush.

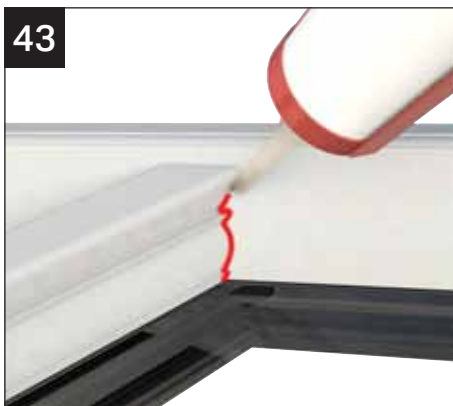
42



The jack rafter top capping should sit tightly up to the hip bar top capping as shown.

## GEORGIAN INSTALLATION

43



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

44



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

45



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.

46



Apply silicone to weather seal as shown. Apply weather seal to glazing, locking wings around ridge - remember, MS Polymer for self cleaning glass (see p38).

47



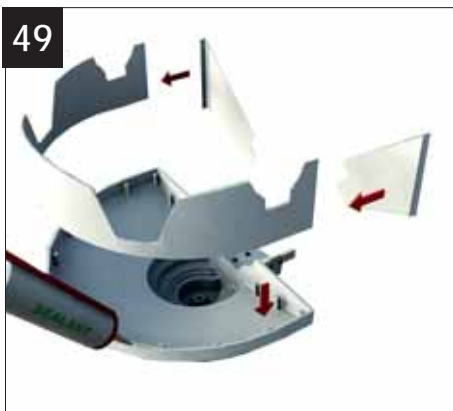
Install bar caps, securing flashing into place. Point around bar caps.

48



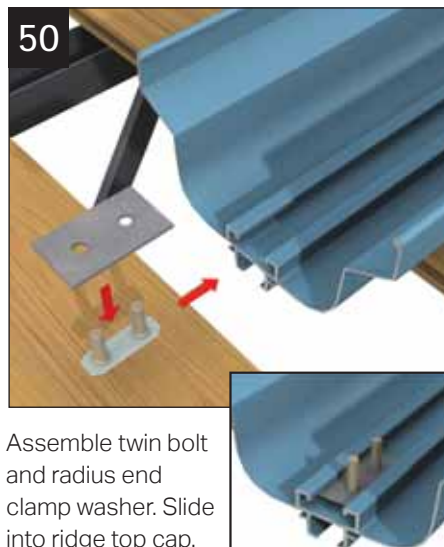
Discreetly 'point' the junctions between the capping gaskets and radius end flashing as shown (use new uncut nozzle).

49



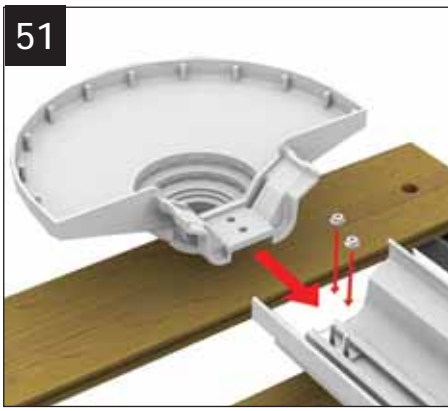
Apply silicone to perimeter groove on radius end top cap. Bend front screen and insert into groove. Apply silicone to channels in rear screens and insert into channels in radius end. Clean off excess silicone. Leave to dry

50



Assemble twin bolt and radius end clamp washer. Slide into ridge top cap.

51



Assemble and secure radius end to ridge top cap with spigot nuts supplied.

## GEORGIAN INSTALLATION



If a finial is required drill a 9mm hole through the underside of the top cap, then secure with washer and nut provided.



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



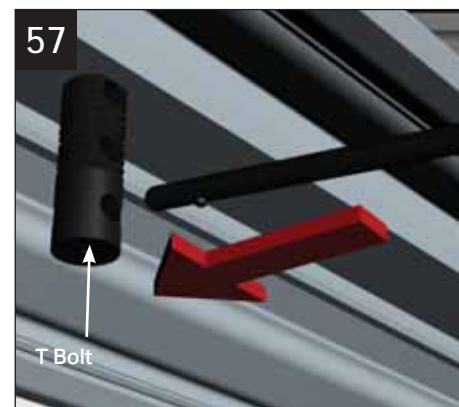
Screw the flashing trim to the ridge top cap through the screw port. Use a 4.2mm x 13mm self drilling screw (not supplied).



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



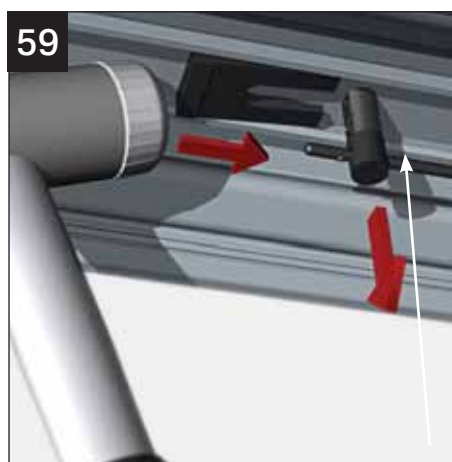
Offer up the complete ridge capping onto the roof.



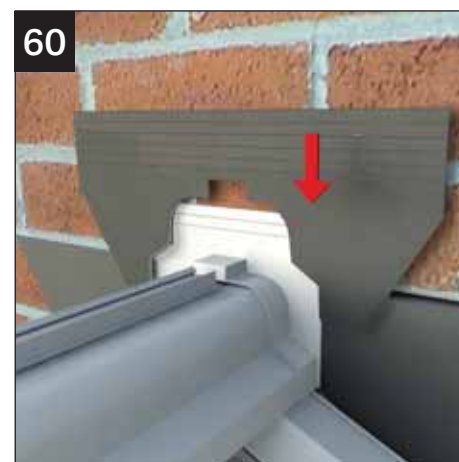
From the inside of the conservatory insert the snap off tommy bar into the T bolt



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.



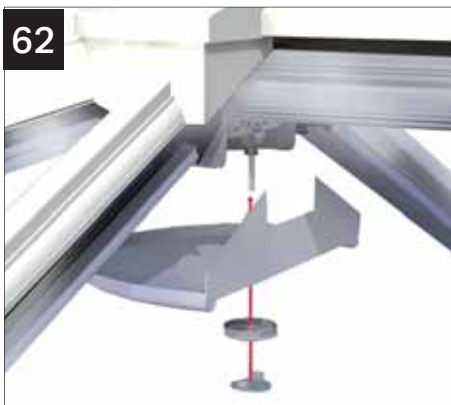
Having added last stepped flashings each side of the ridge 'Butter' the reverse side of the saddle trim and place over the ridge body.



## GEORGIAN INSTALLATION



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.



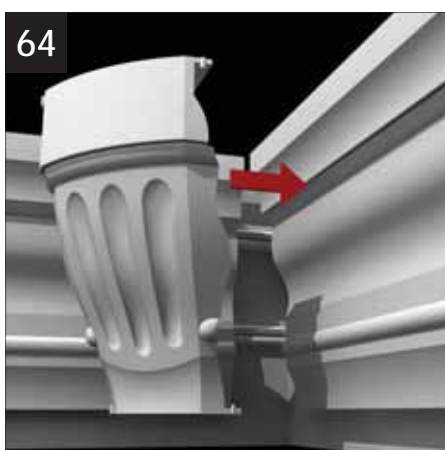
Take the ridge under cap and trim to size using template on back edge. Cut M10 nylon threaded bar to correct length (as shown on template). Screw into underside of radius end. Locate undercladding and screw on retaining boss. Push fit end cap.



Push fit centre ridge undercladding to finish ridge assembly.



Using rubber mallet & timber block, knock home the cladding.



Clip corner trim in position by hooking over the top of Heritage cladding and clipping underneath. **TIP: It may be advisable to fit corner trim on a couple of 'spots' of sealant.**

## SPEEDLOCK REMOVAL

## SECTION 5



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).

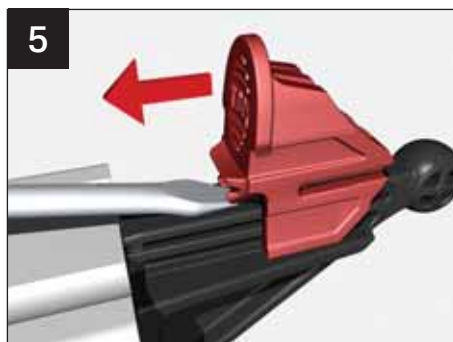




## SPEEDLOCK REMOVAL



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 serrations to its original position.

## TIE BAR INSTALLATION

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

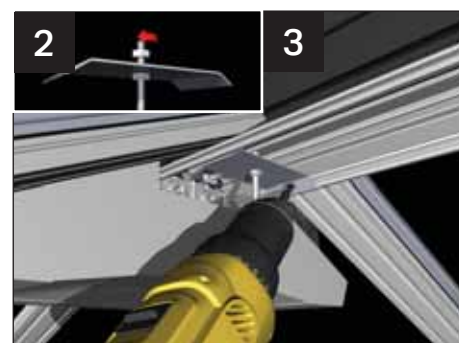
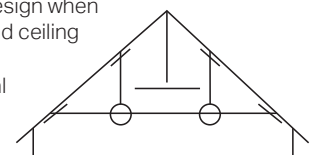
Prior to starting installation check the ridge is level and the side frames are plumb.

**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.

Use this design when a tie bar and ceiling fan clash - two vertical drop rods.



Measure the drop for the vertical threaded bar and cut to length. Attach the gusset plate to the threaded bar 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 PVCu ridge undercladding into place.



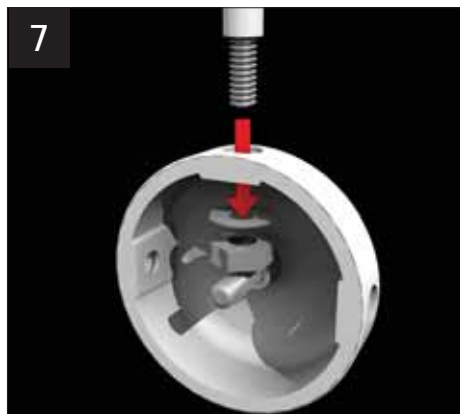
Measure, cut and attach the horizontal threaded bars (ensure sufficient engagement of the bar into the brackets) – it is essential that the tie bar boss is central. Take the boss ring, and loosely assemble the threaded bars to check they terminate inside the ring. Dis-assemble.



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 PVCu conduit and slide over the threaded bar and push it home into the ridge cover.

## SECTION 6

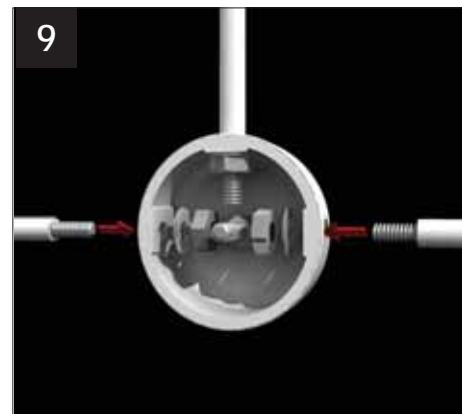
## TIE BAR INSTALLATION



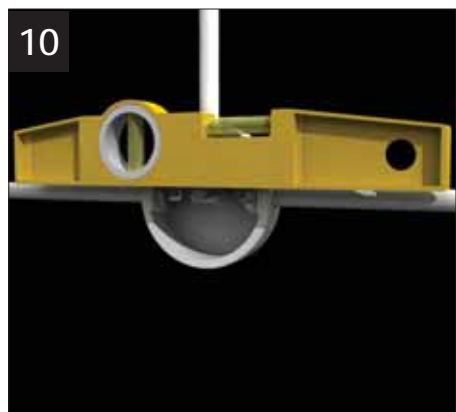
Slide boss over rod, secure in place with washer and nut.



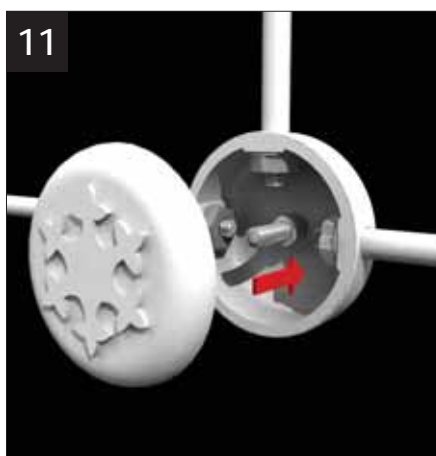
Measure, cut and attach the horizontal threaded bars (ensure sufficient engagement of the bar into the brackets) – it is essential that the tie bar boss is central. Take the boss ring, and loosely assemble the threaded bars to check they terminate inside the ring. Disassemble.



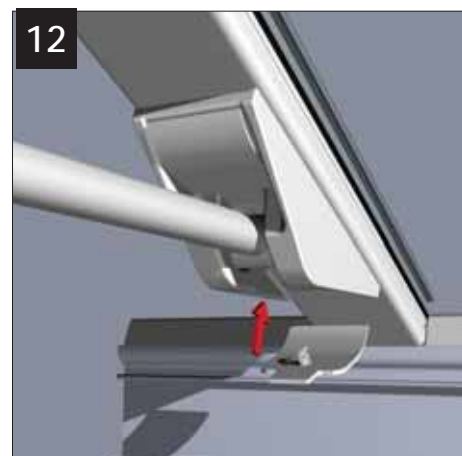
Push the tie bar rod through cover trim. Push rod through boss and finger tighten the washer and nut.



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.

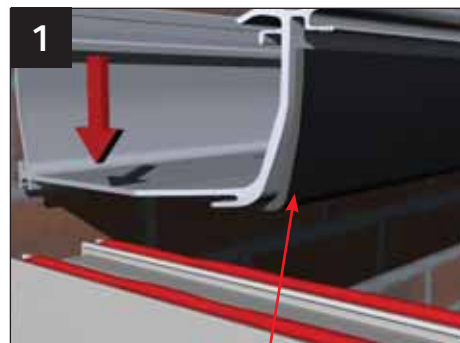


Screw boss cover to boss.



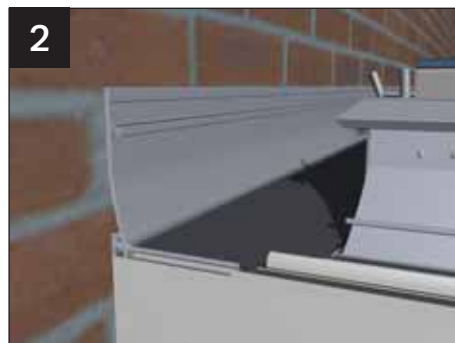
Attach the bracket cover plates that hide the bolts.

## 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.



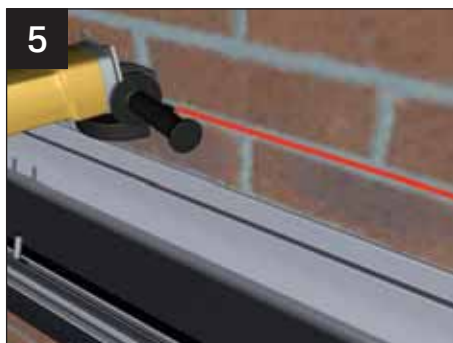
Whilst ensuring that its level, drill through the back edge of the aluminium at 600mm centres. Bolt to the house wall using masonry anchors that are suitable for the substrate.

## SECTION 7

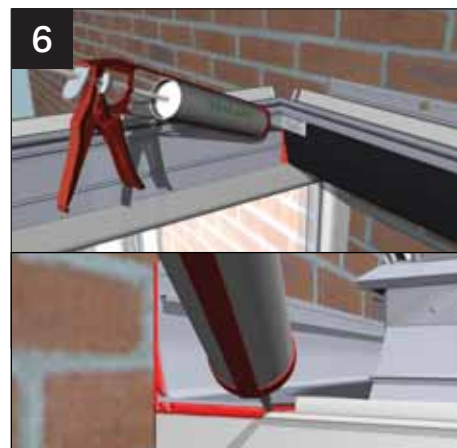
## BOX GUTTER INSTALLATION



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 tapite screws provided.. The protruding tapite screws will need trimming back prior to fixing the adaptor (alternatively, when its time to insert the adaptor, undue the tapites, drill a pilot hole through the adaptor and then re-screw the tapites and fully seal).



Mark out and grind a channel in the masonry for the flashing – blow out any dust in the channel.



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. 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.

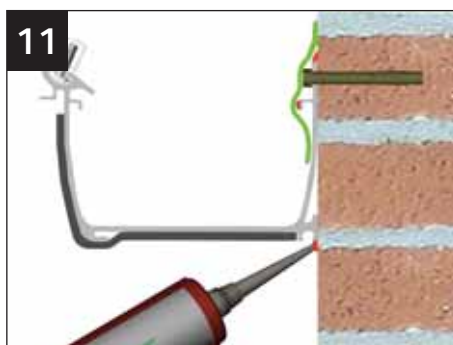


With the adaptor tight to the end stop, turn the toggles upwards to firmly press the adaptor into the Gutterbond.

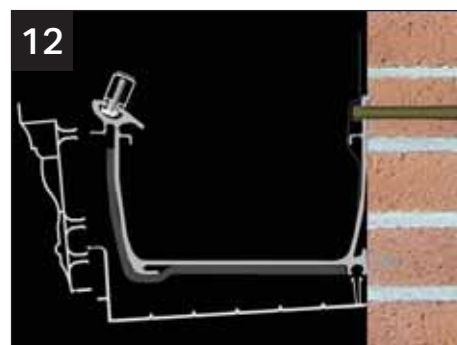
**IN ADVERSE WEATHER CONDITIONS FIT THE ADAPTOR TO THE BOXGUTTER PRIOR TO LIFTING THE BOXGUTTER INTO POSITION**



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.

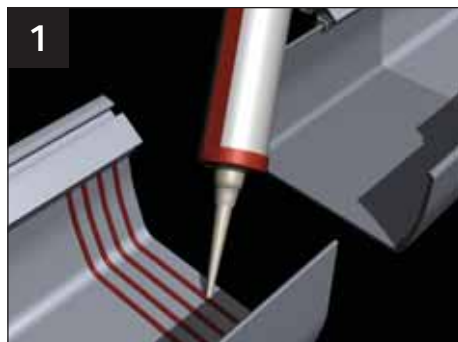


Before lifting into position, assemble the fascia board and undercladding. Offer up the undercladding rear legs, and knock up into position. Lastly locate the upper legs of the fascia board on to the box gutter. Finally seal the undercladding against the house wall.





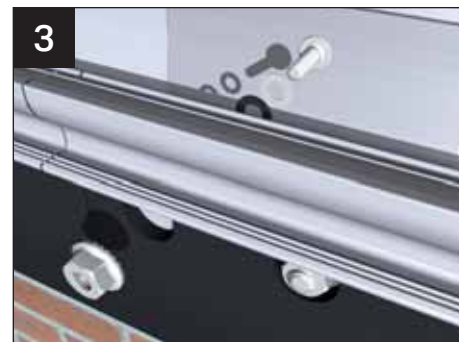
## BOX GUTTER JOINTING



Thoroughly clean the mating parts using wire wool. Surfaces must be 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.



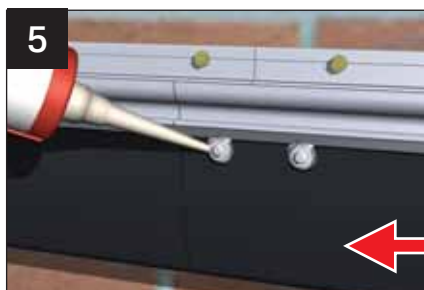
Drill through the top edge of the aluminium box gutter at 600mm centres. A fixing must be positioned within 50mm each side of the joint. Offer second half of the box gutter up to the internal sleeve and push firmly on. Fasten this second box gutter run to the host wall with masonry anchors suitable to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



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.



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.



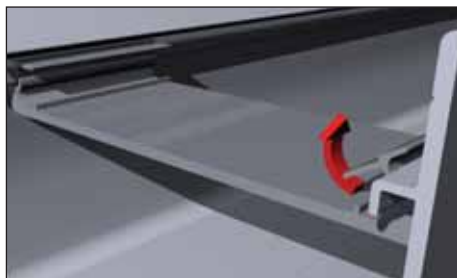
Now seal over all the exposed bolt heads, on the inside and outside of the box gutter.

**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.**



## 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 165/265mm 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.**



### BOX GUTTER HANGER

165mm box gutters

If these have been specified by your company at the time of order they are supplied loose and must be fitted.

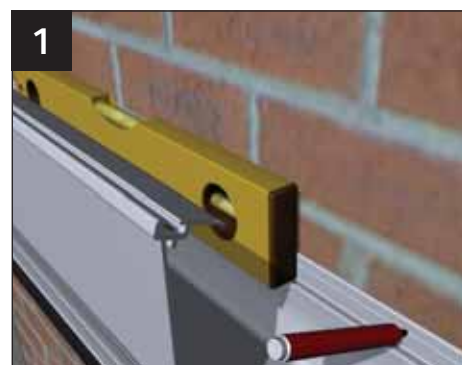
**The structural requirement for the hanging brackets are 2 x hanging brackets (sat side by side) at a maximum span of 2300mm unless the roof has a tie bar or joint on the boxgutter which should then be positioned in the same area.**

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.

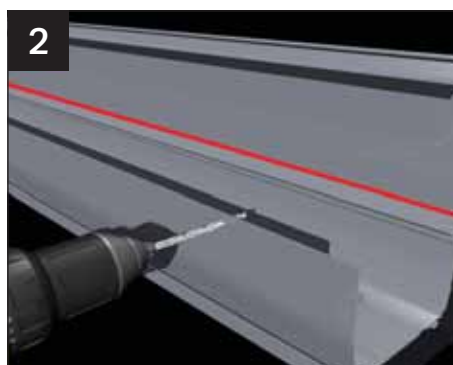
265mm box gutters

Hanger not available.

## 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.

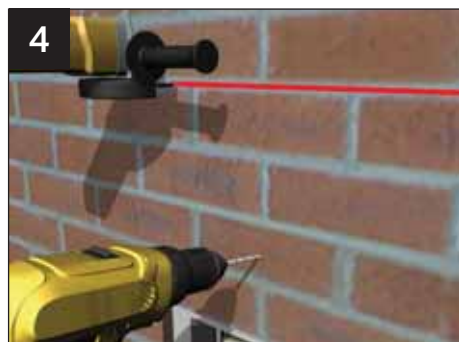


Lift the box gutter down to the ground and turn it around. Drill through the aluminium leg (that abuts the host wall) at the pre-marked positions. Whilst the box gutter is on the ground, seal along the front/rear face where the deep skirt sits inside the head of the extruded box gutter. (Highlighted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

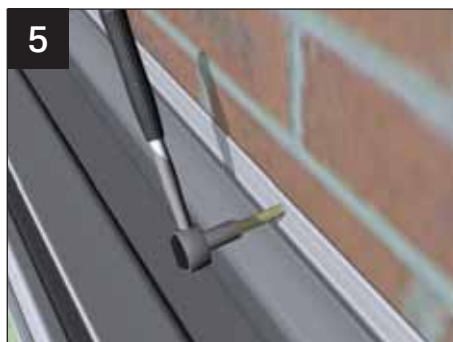
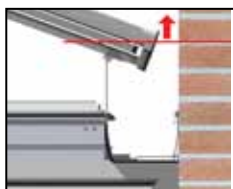


Lift the box gutter back into position, check levels, and then mark the wall (through the pre-drilled holes) ready to drill the host wall and grind out for the flashing.

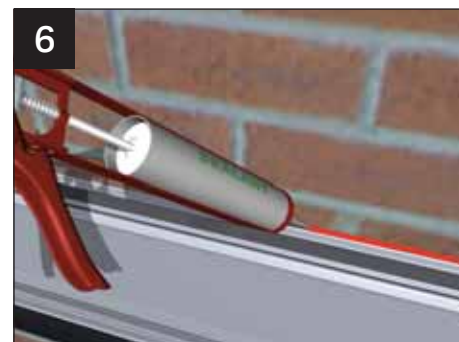
## RAISED BACK BOX GUTTERS



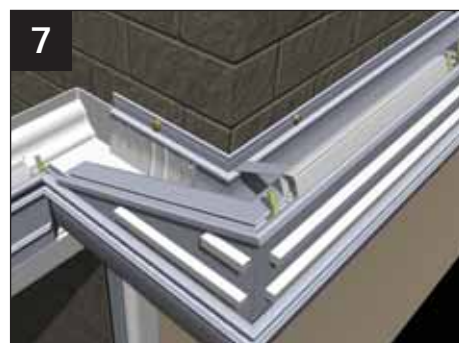
Remove the box gutter and drill the host wall where marked. Grind out the course which is at least one course higher than the raised back height.



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



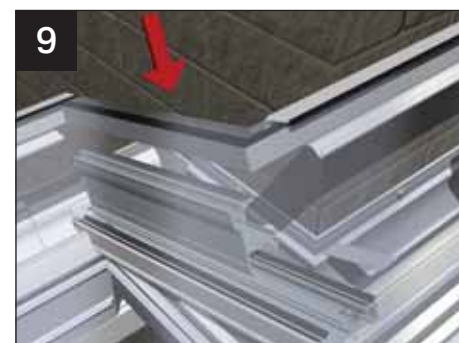
Seal the top and bottom edges of the box gutter and follow all other steps as per standard box gutters on page 20-23. When installing the lead flashing, ensure that the top of the flashing is higher than the point of rain water discharge from the glazing bars. Clad off the deep skirt of the raised back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



Following steps for the installation of box gutters on pages 20-21, check that the roofing bolts are in position (i.e top and bottom of the slope)



Place the short lengths of furring 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 31 for details of muntin bars).



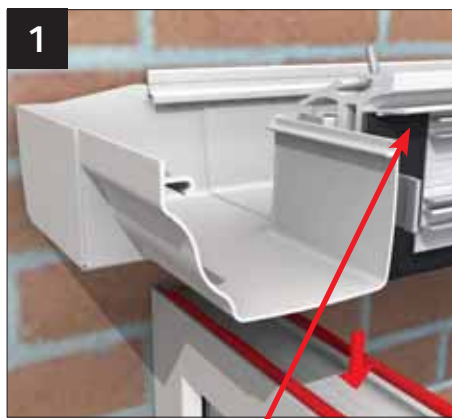
Knock down the glazing bar top cap so it finished flush with the bottom of the bar. Two end caps are provided, one left hand and one right hand. Cut the appropriate end cap across its width (right hand shown) so that it fits snugly to the face of the glass, remove it and then using the correct sealant, 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).

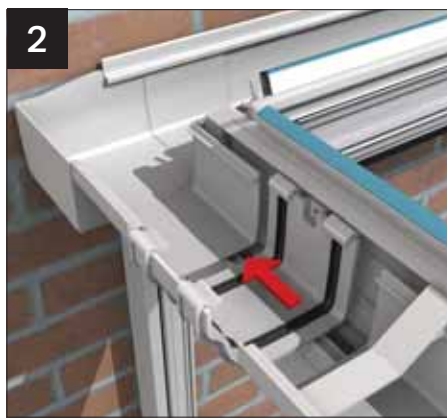


# INSTALLATION - BOXGUTTER OPTIONAL UPGRADE (CHAMBERED)



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.



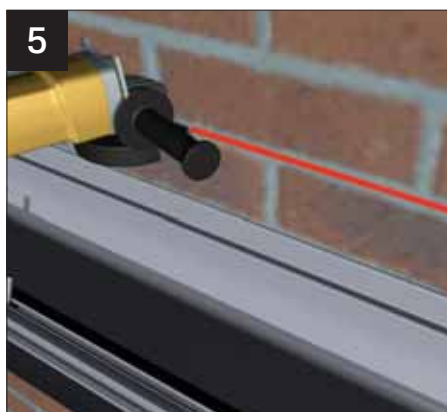
Place eaves beam section – with undergutter trim attached – onto the side frames. Seal the joint between the eaves beam and box gutter.



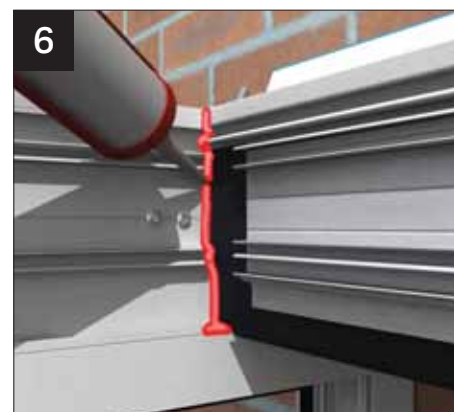
Whilst ensuring that its level, drill through the back edge of the aluminium at 600mm centres. Bolt to the house wall using masonry anchors that are suitable for the substrate.



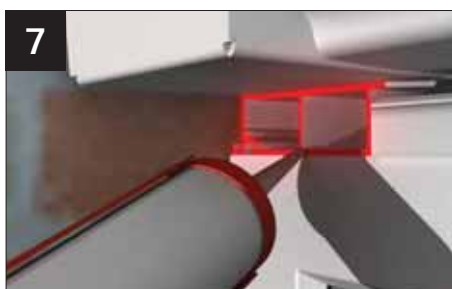
Drill 2 x Ø4.5mm holes through the eaves cleat and fix with the 2 x M5 tap screws provided.



Mark out and grind a channel in the masonry for the flashing – blow out any dust in the channel.



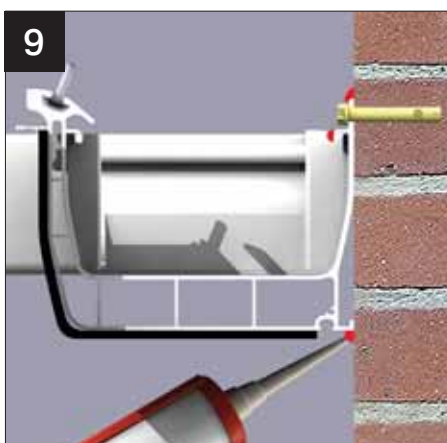
Seal the internal joint between the eaves beam and box gutter.



Apply silicone to end face of boxgutter and point back underneath adaptor up to the under gutter trim



Fix endcap to box gutter using screw and cap cover supplied.



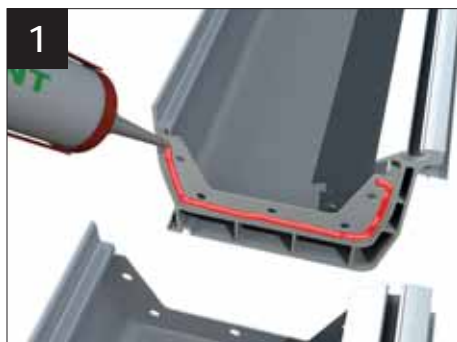
Seal the top and bottom edges of the aluminium box gutter, where it abuts the house wall.



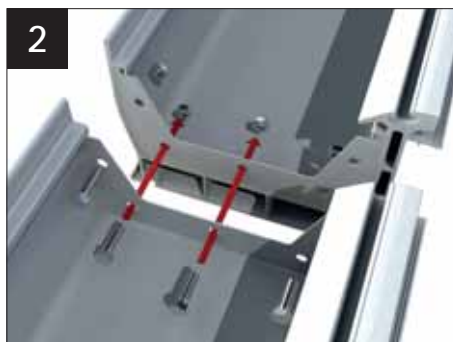
First clip boxgutter under cladding into channel against wall. Rock undercladding up until leg touches aluminium carrier. Using screws provided fix into carrier at 500mm centres.

**Fit Heritage Cladding to box gutter first (ensure screws are covered) and then work round remainder of roof.**

## INSTALLATION - BOX GUTTER JOINTING **OPTIONAL UPGRADE (CHAMBERED)**



Thoroughly clean the mating parts using wire wool. Surfaces must be clean and grease free. Apply a generous bead of gutterbond sealant (supplied).



Fix using the bolts, nuts and washers provided.

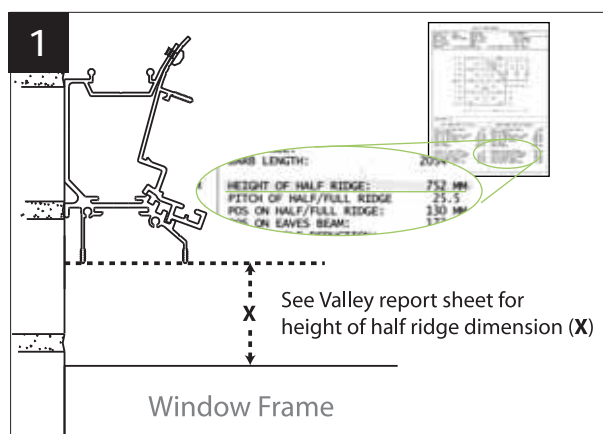


Lead flash over butt joint.

**ALL box gutters (especially those with tie bars or joints) MUST BE SUPPORTED.** Quantal recommends 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.

## SECTION 8

### VALLEY INSTALLATION



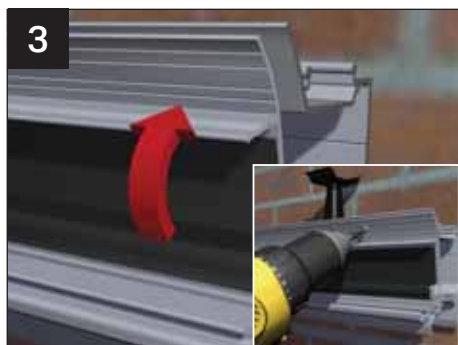
For exact half ridge location, please check as above.



Assemble as much of the main Georgian (or vic) roof side of the 'P' shape as possible. **CHECK THE PITCH.** Ensure the full ridge is level. Separate the two part half ridge. **REMOVE THE RAIN BAFFLE UPPER LEG.** Fit the back section of the half ridge in position, level across the PVCu top carriages (as shown), then secure to the host wall with anchor bolts suitable for the substrate. The first anchor to be 50mm away from full ridge, the second 250mm and then at max 600mm centres.



## VALLEY INSTALLATION



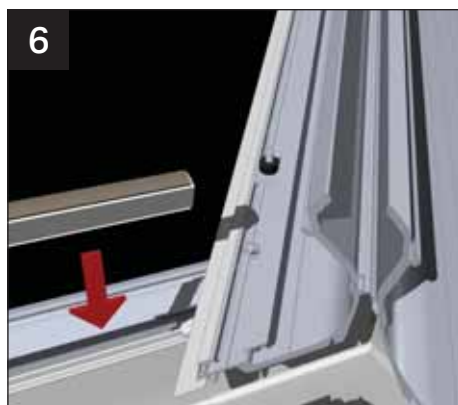
Re-assemble the two parts of the half ridge, ensuring that the front carriage is located in the one of six possible positions. To do this make sure that the original screw holes for the self tapping screws line up. Ensure the profile is fully engaged along its length. Use screws provided at pre-set centres to attach the two parts of the half ridge.



Next, pick up the aluminium valley section, ensuring the under cladding location barbs are slid into position. Then, offer the valley up to the roof and locate onto the captivated bolts in the ridge, half ridge and eaves beam. Tighten the four nuts holding the valley in place.



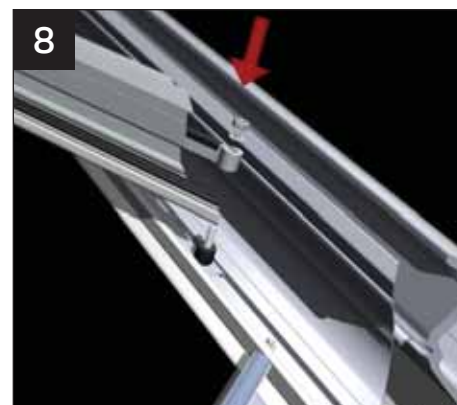
Re-fit the half ridge rain baffle. NOTE: If glazing with 24mm glass units or 25mm polycarbonate, the double leg rain baffle is always set in the highest position.



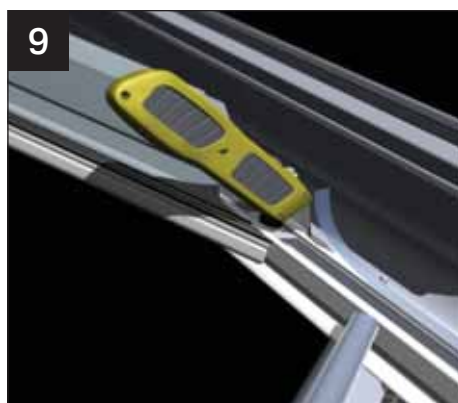
Cut and re-fit the glazing support trim, where the valley meets the eaves beam.



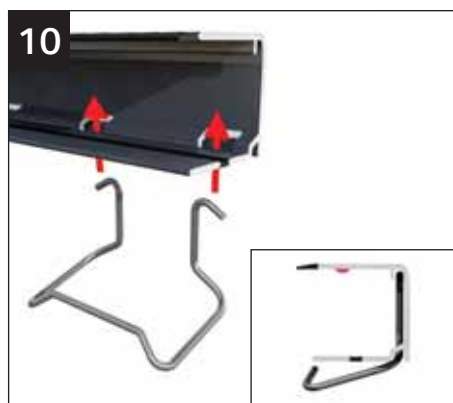
Now run a continuous bead of suitable silicone down the entire length of the aluminium valley profile, at the point of the hinged connector in the centre.



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 30 on page 12.



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.

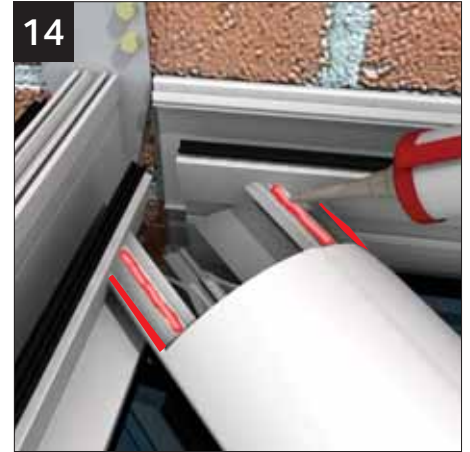
## VALLEY INSTALLATION



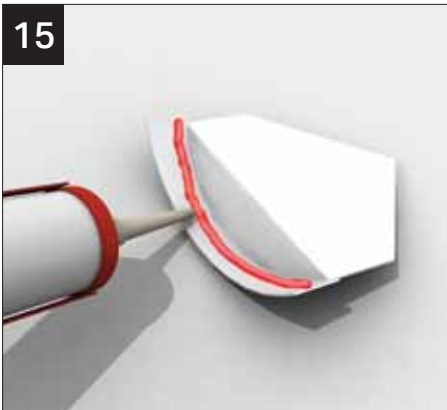
Fit one half of the valley cladding ensuring that clip locates over aluminium barb. Silicone down the length of fitted cladding



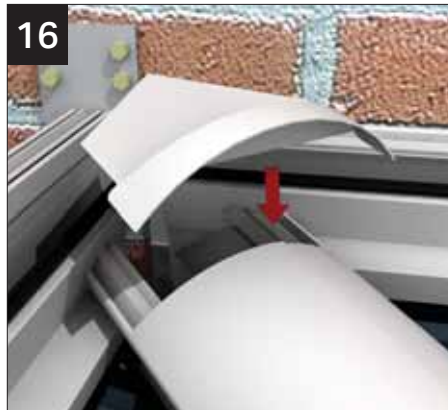
Locate second half of valley cladding over siliconed cladding. Ensure cladding pushed fully down.



Silicone top edges of valley body and the cut edges of valley cladding



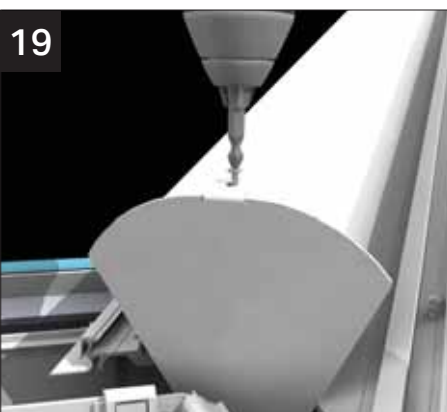
Silicone curved underside of valley top cap



Fit Valley topcap in place over valley cladding



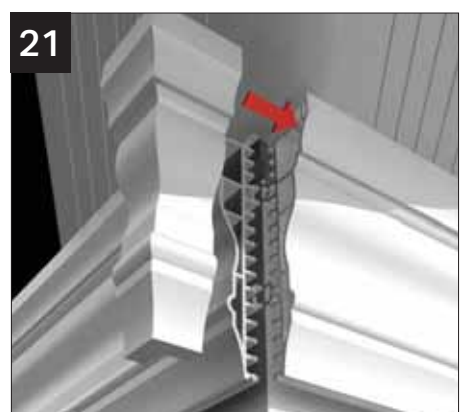
Silicone valley topcap against ridge wings



Fit valley endcap. Position and drill hole through valley top cladding. Screw into position using provided screw and cover.



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.



Fit heritage cladding and corner moulding

## HALF RIDGE INSTALLATION



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 p11).



Chase out and install the lead flashing. Cut weathering shields. Seal the weathering shield to the host wall.



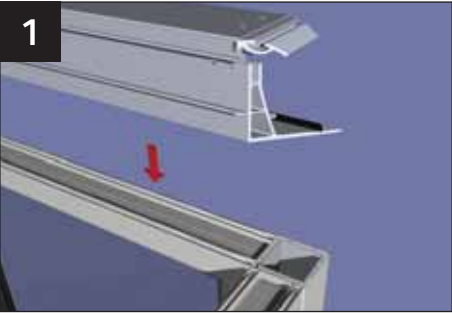
Glaze the roof. Fit and seal the top of the glazing bar top cappings. Install the ready assembled half ridge top capping and external radius end. Finally install the lead flashing to suit.



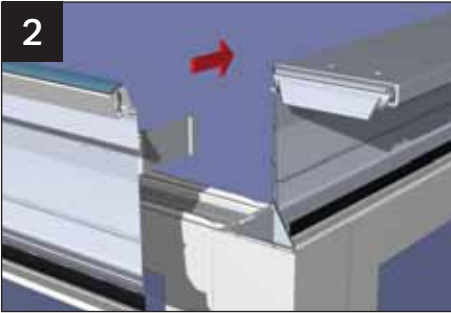
Screw threaded rose cover into the fixing 'point' mounted on the aluminium hub end.



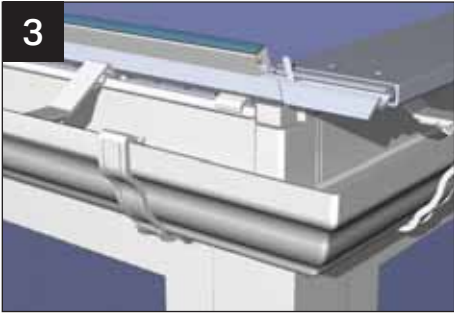
GABLE INSTALLATION



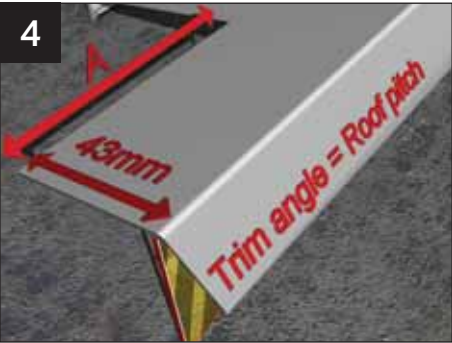
Trial fit the gable beam and the eaves beam ensuring the inside face is flush with the inside face of the window/door frames. Remove, then apply a continuous bead of silicone to both the front and rear edges of the window/door frames.



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.

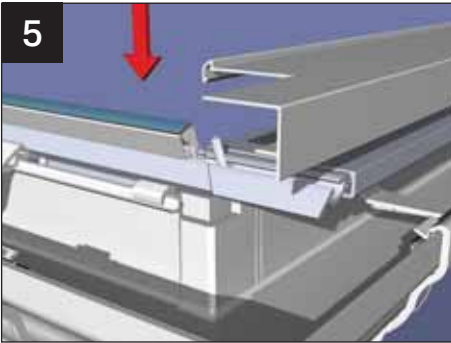


To secure the gable beam (see Vic Fixing Kit page 8), then at this stage the guttering is installed. First attach the gutter brackets to the gable/eaves beam. Fit the 90 degree external gutter corners to the gable beam length of gutter. The brackets are at maximum 750mm centres and 200mm from each corner.

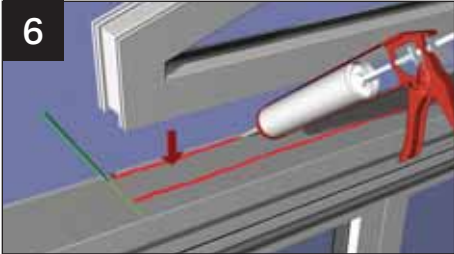


With the guttering in place, trim the gable beam top cladding. The cladding is supplied over length and cut to suit the roof pitch (see table).

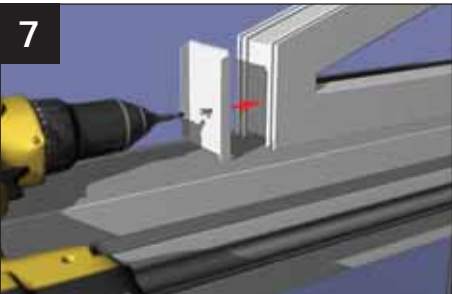
Roof Pitch (°)	Dim A (mm)
10	83
15	85
20	87
25	89
30	93
35	98
40	104



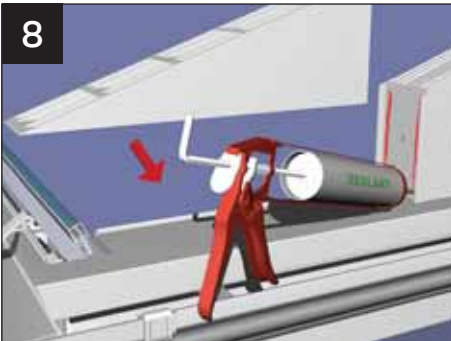
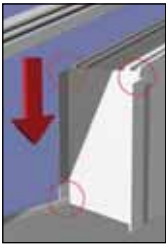
Next attach the notched gable beam top cladding on to the head of the gable beam.



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).

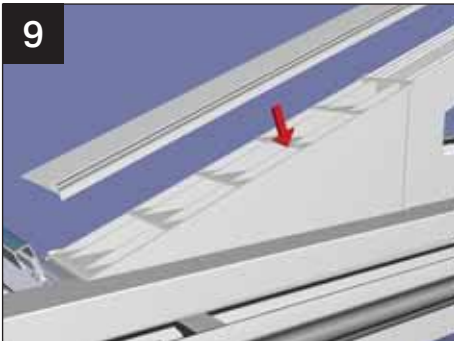


Mark and cut the gable infill end cap. Notch inner bottom edge to allow the end cap to sit flush and tight to the gable window frame. Trim top edge to suit pitch of roof and gable frame furring top cap which should be placed into position for marketing purposes. First silicone and then screw the end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



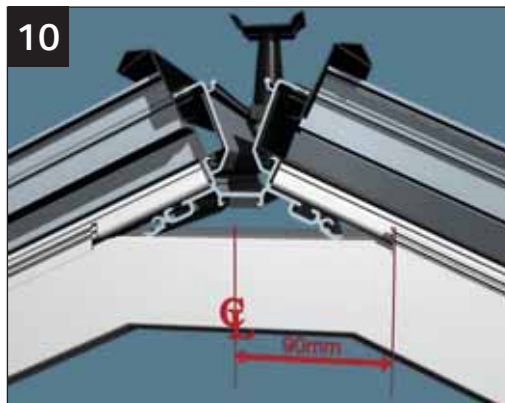
Trial fit the gable infill wedge. Remove, run two beads of silicone and place back in position, tight up against the infill wedge end cap.

**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 furring top cap along the gable frame and over the infill wedge. The bottom edge of the gable frame furring 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.

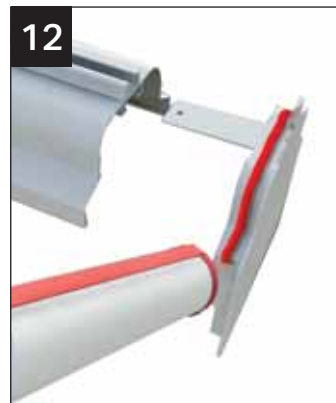
## GABLE INSTALLATION



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.**



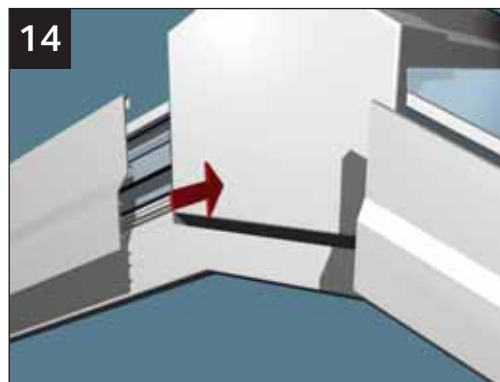
Fit the starter bar top capping in position.



Take the gable end cap, apply sealant as shown and push into ridge capping.



Secure in place using screws provided with cap covers.



Offer the lean to cloaking trim up to the side of the gable ridge end cap and 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.

## 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.

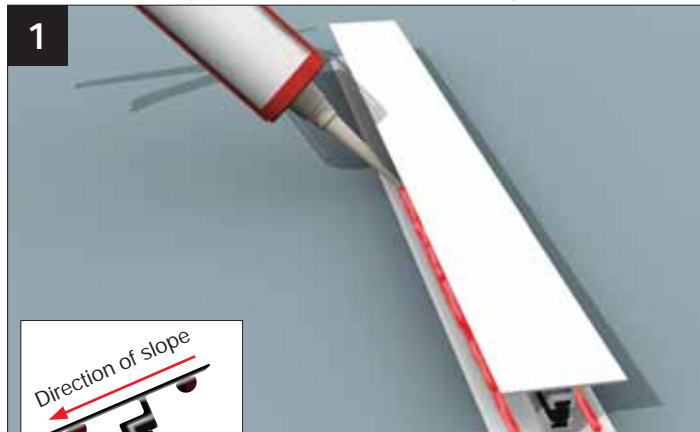


Next take each bolster end cap, simply plug into the PVCu bolster cladding – one at the ridge one at the eaves.

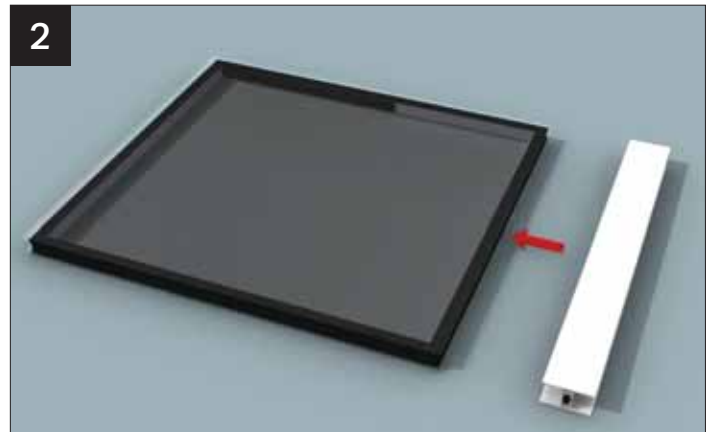


This is how the finished arrangement should look.

## MUNTIN (GLASS JOINTER)



Prepare the glass jointer using the appropriate sealant in the four positions shown.



Slide the glass jointer onto the upper glass unit. Fit assembled unit into the roof.

**IMPORTANT NOTE - APPLIES TO STEPS 2 - 5. 'H' SECTION GLASS JOINTER TO BE POSITIONED AS INSET ILLUSTRATION ON INSET 1**



Fit lower glass unit into glass jointer.



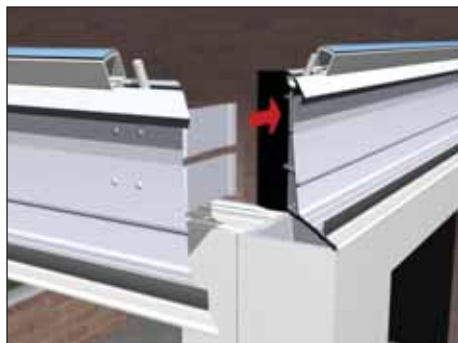
Install beads to bars. Point with appropriate sealant at the intersection between the glass jointer and bead gasket.



Using appropriate sealant run beads along the top and bottom of the glass jointer.



## TIE BAR REPLACEMENT KIT (TBRK)



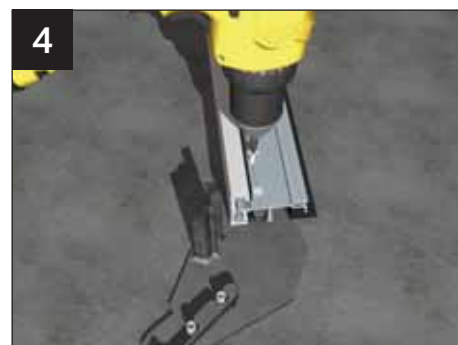
Each eaves corner (90°, 135° and 150°) is supplied pre-fitted with two standard cleats (Georgian 90° illustrated).



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 tapite 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.



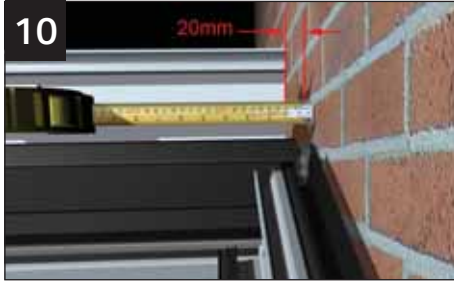
Attach the ridge hanger/compression plate to the host wall. Drill the plate with 2 x 9mm holes, then the wall with an 8mm masonry bit and fasten into the masonry using the two M6 x 65mm sleeve anchors (or resin anchors) provided. If necessary, use aluminium shims to pack out behind the plate. Check the 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)



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).



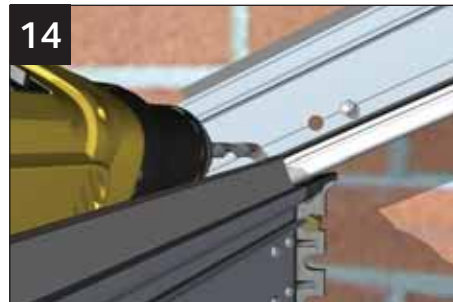
Lay the butterfly cleat over the two captivated roofing bolts. Fit the Georgian hip bar at the eaves and ridge end. Note: A butterfly cleat is not required on 3 or 5 facet fronts unless the eaves beam joins a box gutter at the facet joint. (See image below)



Drill a 5.5mm hole either side and then fix the 'butterfly' cleat into the head of the eaves beam at the 90 degree corners using the fixing provided.



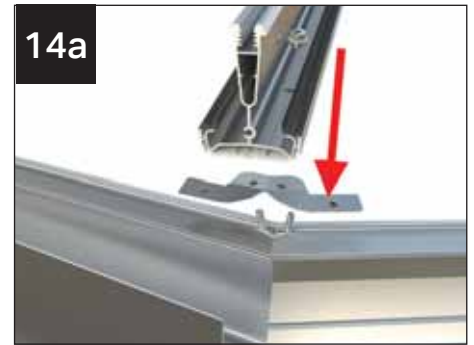
Ensure that the fixing on the eaves moulding and the nuts on the 'crocodile hanger' are tightened up. Also ensure the bolts at the top of the starter bar, are tightened up.



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 the 135° butterfly strap (SES004) over the roofing bolts. Offer the glazing bar on to the bolts, align and secure. Once in position fix the strap down with the two fixings supplied (UZBGF001-D).



## 180° INLINE EAVES AND BOX GUTTER ASSEMBLY

Place the inline cleat (SES002) over the butt joint. Fix down either side of the joint with the two fixings supplied (UZBGF001-D).

Note: Only two of the four holes need to be used.



## 180° INLINE EAVES TO BOX GUTTER JOINT

Place the inline cleat (SES003) over the butt joint. Offer the glazing bar on to the bolts, align and secure. Once in position fix the cleat down with the two fixings supplied (UZBGF001-D).

Note: Only two of the four holes are used.



## 90° EAVES AND RAISED BACK BOX GUTTER ASSEMBLY

Place the inline strap (SES005, 165mm / SES006, 265mm) over the single roofing 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. Secure the strap to the eaves with the two fixings supplied (UZBGF001-D). Finally, fix anchor bolts.

## FULL WOK ASSEMBLY

Note to fitters – carefully follow these notes but follow section 4 Georgian installation 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. Attach 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 glazing is fitted and the beads inserted, now is the time to fit the hub weathering seal.
6. Seal around each glazing bar where it meets the wall of the weathering seal.
7. Prepare the wok top cap. Turn over the 'wok' and apply sealant to perimeter groove. Bend the notched 'screen' and insert into the groove - clean off excess sealant. Leave to dry. Screw the finial into position through the top cap.
8. Internally, offer up the PVCu cover over the threaded bar and screw the rose cover onto it.





# LANTERN

## SECTION 15



Layout the pieces of the lantern eaves beam.



Attach the strut at the mid point of the long sides.



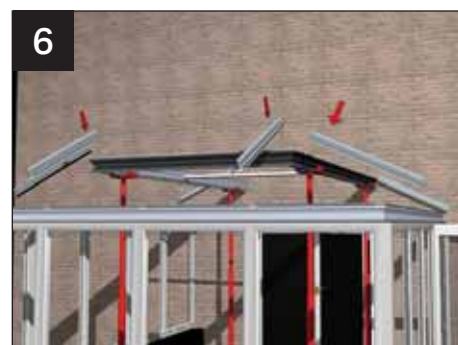
Slide the cleated corners into the adjacent piece of lantern beam



Fasten both fixings in both cleats on every corner



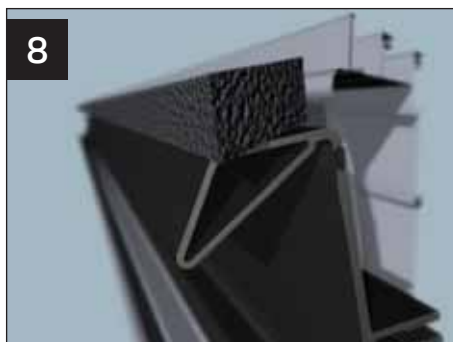
If supplied, fasten to each corner the tie bar drop rod fixing bracket to the underside of the lantern eaves beam.



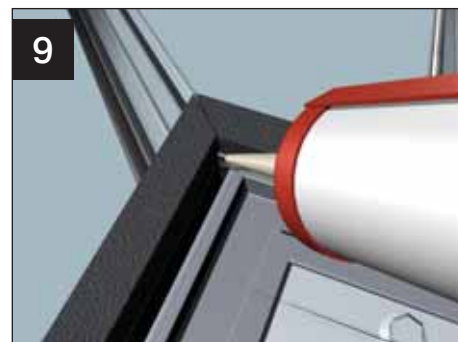
Now the Lantern eaves beam is assembled into a one piece structure, temporarily support it. Attach the glazing bars according to the component location plan. Tighten the bars, at the pagoda beam end first and then at the main eaves beam second.



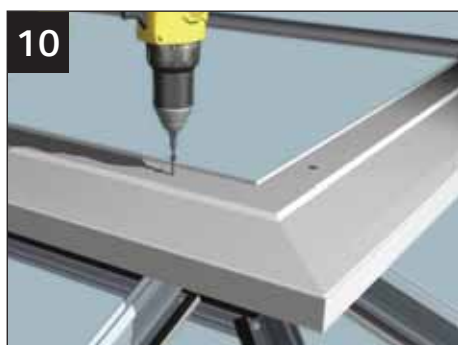
Attach the foam gasket into position by peeling off the adhesive protective strip.



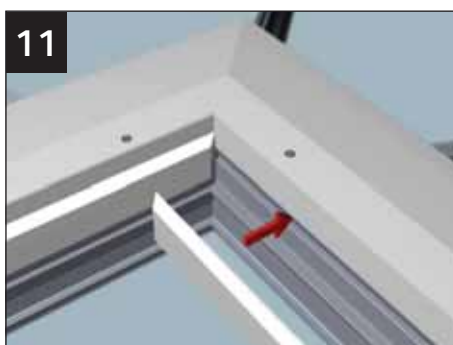
This is how it should look attached to the rain baffle head.



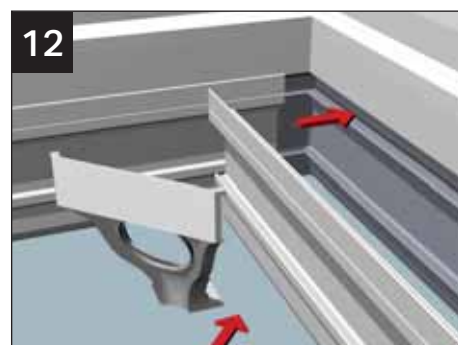
At the corners, seal using a sealant appropriate to the glazing material.



For the lantern application, attach the PVCu window cill to the beam. Assemble side frames on to PVCu cill and build the lantern roof as per section 4 of this guide.

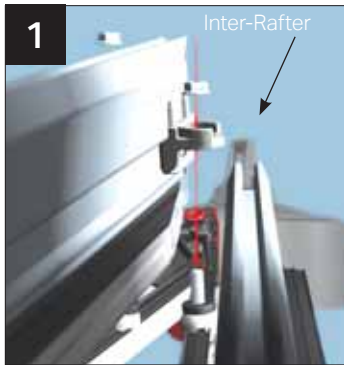


Clad off the inside of the upper leg of the aluminium beam.

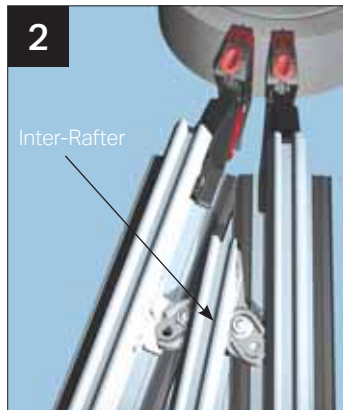


Now attach the PVCu eaves beam cladding - complete the remainder of the internal claddings.

## INTER RAFTER



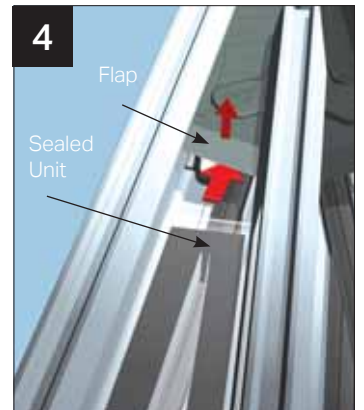
Using the main installation guide, build the roof as normal. Attach the bars to hub end as normal (steps 10-16 installation guide p9). Insert the Inter-Rafter into its position between the 2 pre-prepared bars and drop the 'eye' over the threaded post.



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.

## SECTION 17

### 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 tapite (pozidrive) screw.



On the underside of the half ridge, fasten the bracket using 2 M5 x 12mm tapite 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



## ROOF VENT

1

### MS Polymer

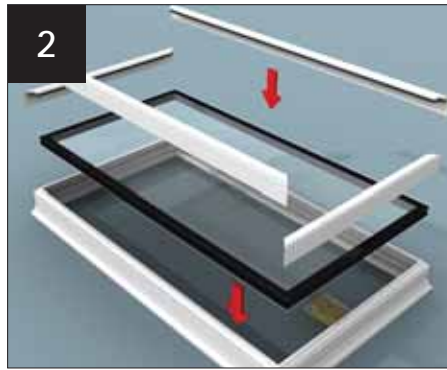
- Self cleaning glass

### Low modulus neutral cure

- Polycarbonate glazing  
- Standard sealed units

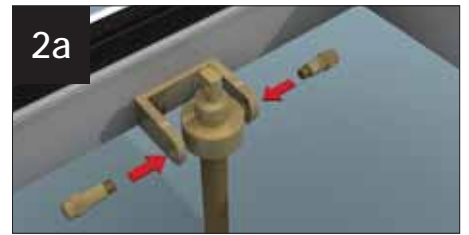
The vents are supplied unglazed – glazing wedges are cut to length. Dispose of all packaging safely and in an environmentally friendly way. Always use the correct sealant for the type of glazing material

2



Remove vent 'lid' from the box and lay the correct way up on a protective clean surface. It may be easier to remove the winder mechanism. (See step 2a). Now fit glazing panel into place. Take the top and bottom un-mitred beads, run a bead of the appropriate sealant along both ends of the bead and clip into place. Now fit the mitre cut beads in the same manner.

2a



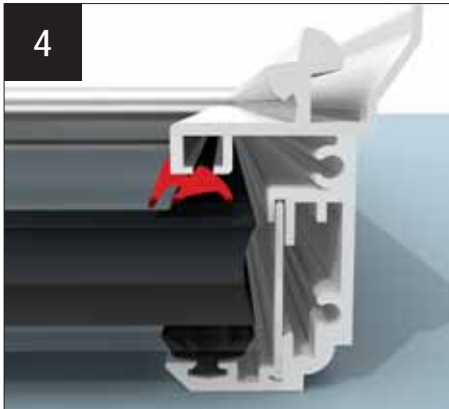
Remove the winder mechanism if pre-fitted – pull the spring loaded clip to release.

3



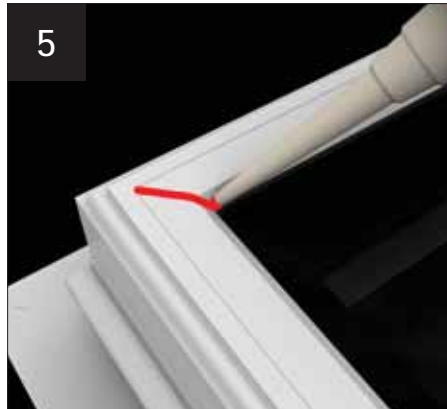
Now, invert the vent 'lid' (protecting the painted finish). Fit the wedge gasket, starting next to the manual vent bracket.

4



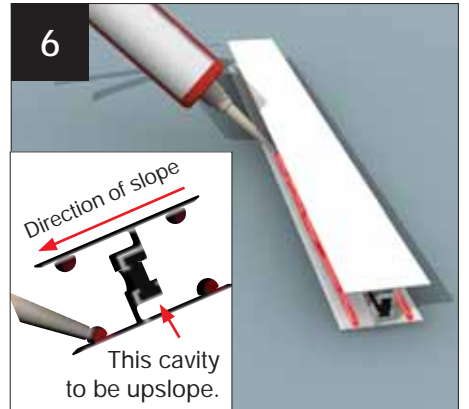
Insert gasket under vent under aluminium lip and work round the lid, cutting and notching in each corner and up to the vent bracket.

5



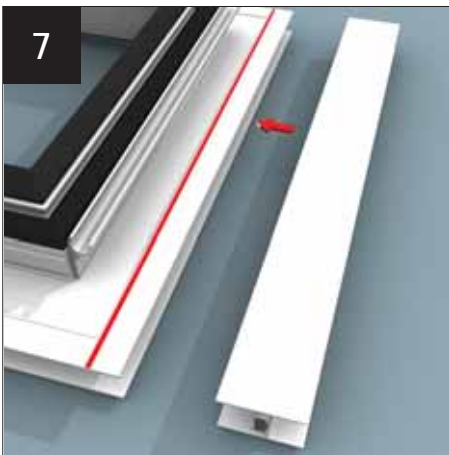
Turn back over and seal where the beads overlap. The lid is now ready.

6



Now is the time to glaze the vent body into the roof. The vent is glazed in using two H sections at top and bottom. Prepare the upper H section using appropriate sealant in the four positions shown.

7



Now is the time to glaze the vent body into the roof. The vent is glazed in using two H sections at top and bottom. Prepare the upper H section using appropriate sealant in the four positions shown. See inset (step 6) to determine correct way round for 'H' section.

8



Apply bead of appropriate sealant to top edge of vent body and then slide vent body into upper H section. Repeat process for lower glazing panel. H section and insert into trailing edge of vent body. Ensure glazing/vent body are central between the two glazing bars.

9



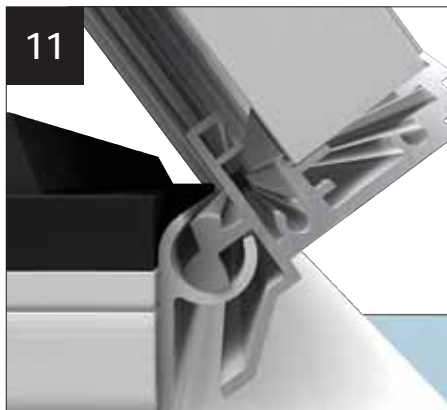
Using appropriate sealant (low modulus neutral cure for polycarbonate and MS Polymer for self cleaning glass), run beads along top and bottom edges of both H sections.



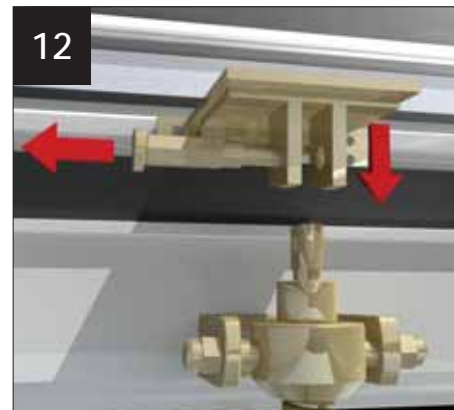
## ROOF VENT



Now lift the pre-glazed lid into position and centralise – this may require two persons to safely handle it.



Lid knuckle will only engage with vent body hinge when lid is greater than 50 degrees. Once engaged, close lid.



Now is the time to fit the spindle ( if manually controlled). Remove spring pin if not already done. Attach spindle to lid. Now unscrew bolts in vent body, unwind spindle to correct height to align with bracket. Screw in bolts to secure spindle in position and re-attach spring pin.

## SECTION 19

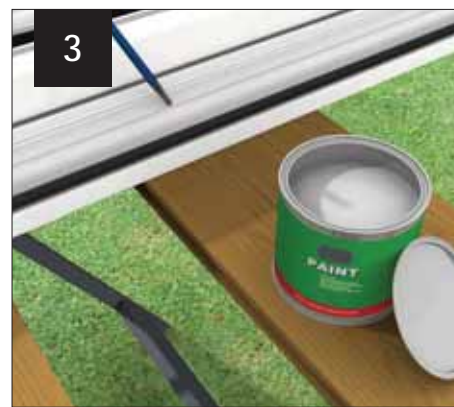
## CLEANING AND MAINTENANCE



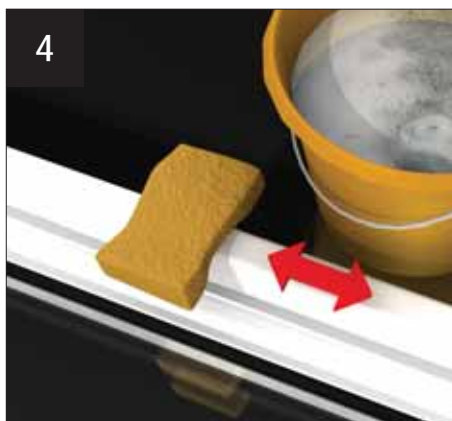
If surface damage is encountered, use 120-360 grit paper to prepare the surface. Wipe clean with white spirit.



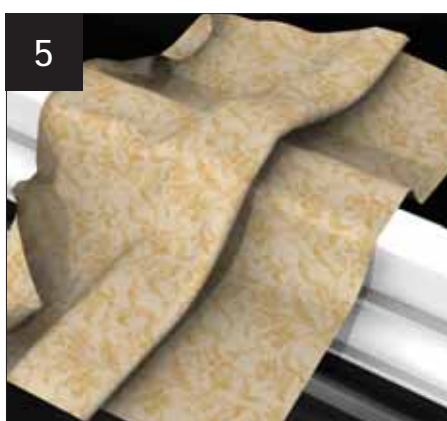
Ensure the surface is dry – apply a thin primer coat using a fine brush.



Finally, apply an air drying top coat with a fine brush.



General cleaning can be undertaken by a wash with warm soapy water.



For added protection, a wax polish can be applied up to twice per year – follow the polish manufacturer's instructions carefully.

## PLEASE PASS TO HOMEOWNER

It should be noted that polyester powder coatings are not maintenance free – the extent of cleaning depends upon the local environment and on the attitude of the building owner. Think cars here...if the building owner wants a finish like that, more regular cleaning is needed. All paints will 'chalk' to some extent and there will be a reduction in gloss level over time – this can be restored.







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