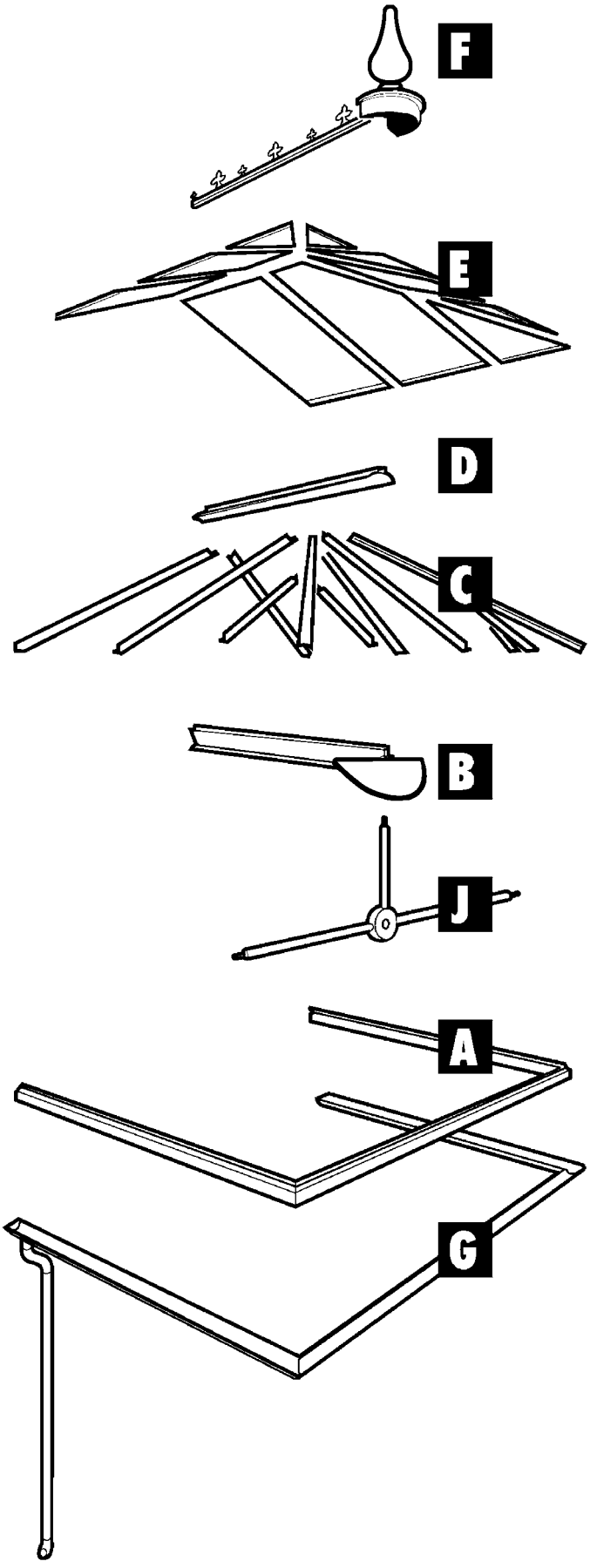
Your step-by-step guide to a brilliant conservatory roof

INSTALLATION GUIDE

ZOOM READY

INNOVATION AND FRESH THINKING IN CONSERVATORY ROOFING!

INSTALLATION INDEX



Before You Start

The following installation guide has been created to assist in constructing a Zoom conservatory roof. Please note however, each roof has been individually designed to meet specific criteria and to suit the shape and dimensions specified.
Section 1 of this guide gives a step by step guide approach detailing the construction of a Victorian/ Edwardian style roof, but when used in conjunction with the subsequent sections, it can also be used as a guide to construct most conservatory roof styles.
The roof will be supplied in kit form, consisting of a number of packages and boxes.

You will also be supplied with a roof layout plan and a copy of this guide, please take time to confirm that the dimensions are true to the survey supplied by your surveyor. The roof plan gives important information on roof heights and pitches which will aid in this installation. Each bar is labelled with the corresponding bar number on the roof plan, the numbering sequence starts back left with the first roof bar and continues anti-clockwise.

Each pack is labelled, please check you have the correct number of packages prior to installation.

Additional colour coded stickers are placed on each pack so you are able to distinguish what is in each pack before you open them. Eaves Beam - Red, Bars - Blue, Ridge - Yellow, Gutter/Trims - Green, Box Gutter/Valleys - White and Glass Retainer - Orange.

Care of Products

When storing, handling or erecting your Zoom roof, please keep the following in mind;

*When unwrapping, take care not to damage products with a knife.
*PVC-U components should not be left out in freezing conditions.
*Do not leave coloured foiled components in their wrapping in direct heat or sunlight.
*Store polycarbonate roof panels in a dry safe area.
*Take care when fitting caps/trims, always use a piece of timber between the cap and mallet spreading the impact point.

Sealing

At important roofing junctions it is vitally important that you use a low modulus, neutral cure sealant to ensure a water tight joint.
When using Zoom Relax 365 roof glass or other self-cleaning products you must use a MS Polymer sealant.

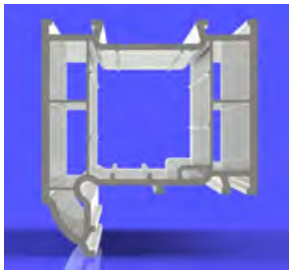
Tools Required

The following tools are required to install the Zoom roof;

10mm Socket and ratchet
White Rubber headed mallet
Silicone Gun
13mm open ended spanner
Spirit Level
Cordless screw driver with Pozi bits
Stanley knife
Roofing square
Tape measure
Power drill with HSS masonry bits
Hack Saw
60mm Diameter drill bit for outlet

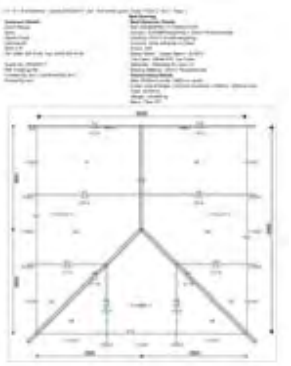
contents

1•1 Eaves Beam

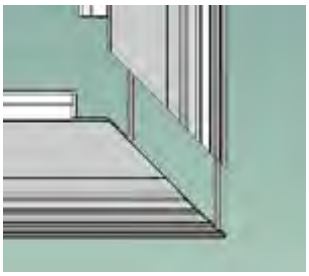


After ensuring the frames are square and level, run a line of low modulus silicone along the external rebate in the frame.

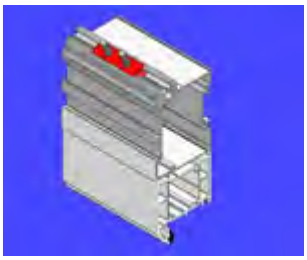
Seal the profile end of the eaves beams using low modulus silicone prior to fitting the next section. If using the 'Eaves to wall fixing' refer to the guide at the back of the manual.



Using the roof drawing, layout the eaves beam in the correct position.

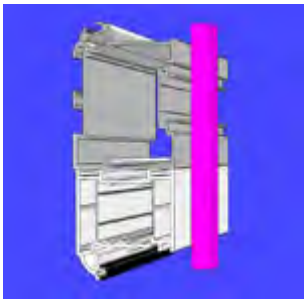


Run a line of sealant along the edge of the eaves prior to joining. Connect the eaves using the cleats provided, fixing them into the external and internal eaves rebates with the screws provided.



Ensure glazing bar bolts are located into the eaves beam pivot. The bolts will be located in the eaves pivot using the eaves bolt spacer.

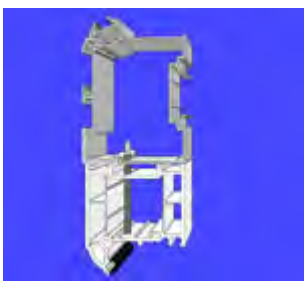
The external eaves trim must be fitted at this stage.



Obtain and fit Eaves beams in order, ensuring the inside edge of each aligns with the inside edge of the window frames.

1•2 Ridge & Glazing Bars

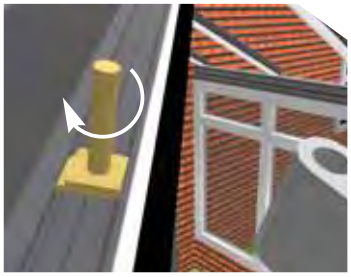
Raise and support the ridge assembly with props.



Fix eaves beam to the frames from the inside of the windows using 5.0mm diameter screws at 150mm from the corners and a maximum of 500mm from the centres.

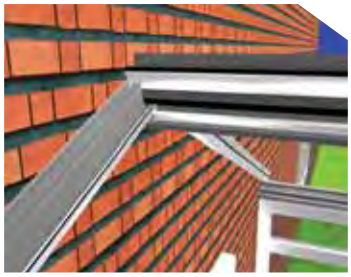
Remove protective film from the bottom caps. Fit sufficient glazing bars to support the ridge.

Loosely fix the nuts at each end of the glazing bars.

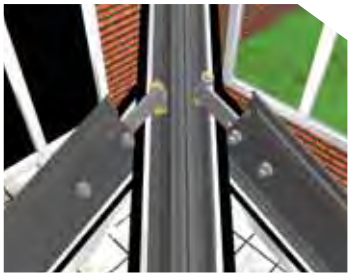


The jack rafter pivot bar should be loosened to facilitate movement, but do not fully unscrew.

Position the pivot bolt and turn through 90 degrees to provide retention.



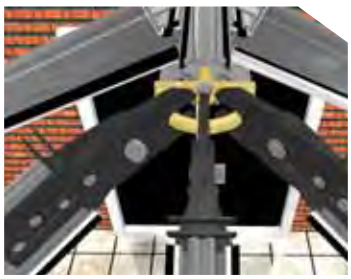
Fix the wall end bars to the eaves beam and ridge, ensuring the ridge is plumb. Refer to the roof layout for pitch and roof height references.



Align the jack rafter with the hip bar, ensuring the correct position is obtained on the glazing bar at 90° to the eaves beam.

Loosely fit the remaining glazing bars to the ridge and eaves beam, the bars are numbered as per the layout plan, ensure glazing bar centres are maintained on both ridge and eaves beam.

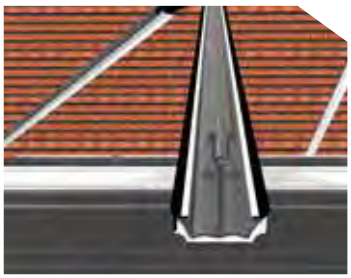
Aligning the jack rafter on the hip can be achieved by correcting the bar spacing at the eaves beam.



Align the hip bars and any spider bars using the Zoom Lock. The Zoom Lock is factory set at the correct pitch to obtain the glazing levels, for adjustment refer to the back of the guide. The M10 hole in the D Ring is your centre line.

Fully tighten the jack rafter arm and the pivot bolt nut.

Any jack rafters on the roof should be fitted at this stage.



Fully tighten nut on the jack rafter to the eaves beam.

1•2 Ridge & Glazing Bars[cont.]

Fix the wall end bar to the host wall using propriety fixings.

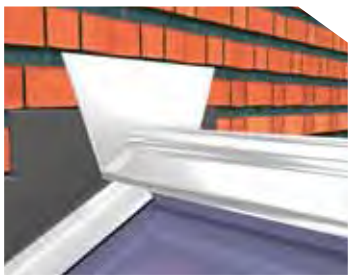
Tighten all the glazing bars starting from the back left hand side.

Fit lead into the slots and flashing channel in the wall end bars.

Cut slots into the brickwork to receive the lead flashing above the wall end bars.

At this point the lead flashing should be dressed on the wall end bars and the flashing preparation completed for the ridge top cap.

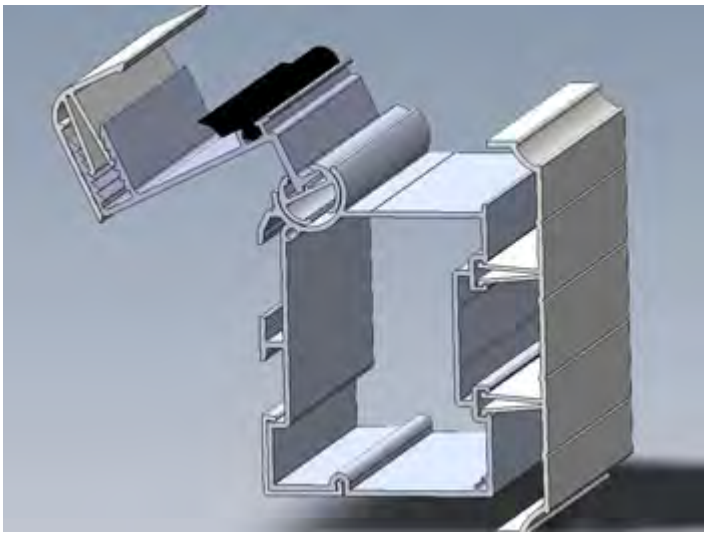
1•3 Lead Flashing



Cut a slot into the brickwork to receive lead flashing above the ridge, using the ridge flashing trim as a guide to the height of this slot.

Run a continuous bead of silicone between the wall and the wall end bars.

1•4 Glazing



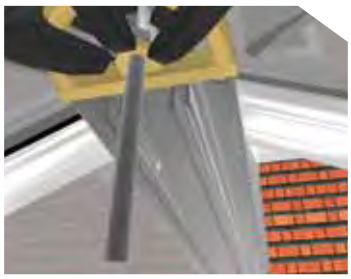
The glass retainer should be fitted at this stage prior to glazing. It locates in the eaves pivot rail between each glazing bar. Follow the location plan for position. The glazing is then positioned.
Run a line of sealant along the internal lip of the glazing trim and clip into the glass retainer.

The glazing panels supported by the hip bars should be glazed first, thus enabling the sealing of the radius end without climbing on the roof. Jack rafter top caps should be sealed to the hip bars at this point using low modulus silicone.

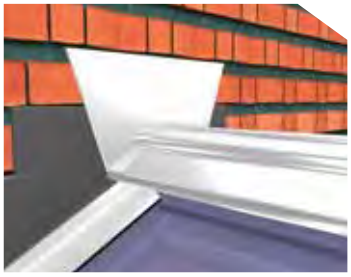
Prior to completing the remaining glazing panels the radius should be sealed.

The weather mask fits to the top edge of the bars, notch the mask where it sits over the hip bars to allow it to sit down. The weather seal sits behind this on top of the glazing and D ring, use the primary seal to fix.

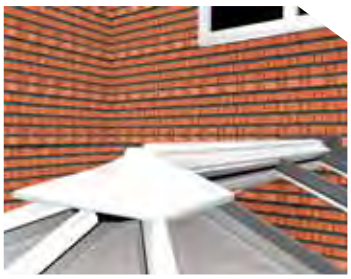
Apply a bead of silicone around the outer edge of the foam weather seal following the profile contours.



Screw the M10 stud into the D ring from the under side to allow fitment of the internal D cover at a later stage.



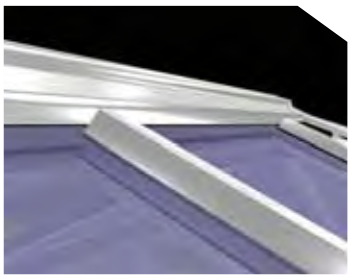
Apply a bead of silicone between the ridge cover and the ridge flashing trim. Slide the ridge flashing trim over the ridge. Apply a generous amount of sealant to the back of the flashing trim. Locate the ridge cover onto the ridge and tap down using a rubber mallet.



Slide the cresting along the ridge cover channel from the D ring end of the ridge. Finally slide into place the finial. If using the ridge blanking trim and blanking trim end boss fit these now.

Complete lead flashing over the ridge flashing trim prior to glazing the wall end panels.

Glaze the remaining panels starting with the panels adjacent to the wall end bars. Remove the protective tape and ensure the panels are fully inserted into the ridge.



Fit the glazing bar top caps, and ensure the caps are butted up to the ridge. Run a line of sealant at the top edge of the bar where it abuts the fascia trim.

1•5 Internal Trims

Fit the ridge bottom cladding and internal radius end cover. The internal boss end cover fits to the bottom of the M10 threaded stud situated in the D ring. The nut holding the internal boss end cover should be concealed using the nut cover supplied.

Fit the internal eaves beam covers to the eaves beam.

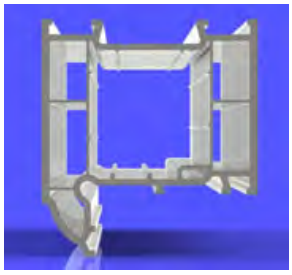
Fit the eaves beam cover cloak trims to the corners, gluing in place. For any non-standard angles a straight joiner will be supplied to be cut in on site.

1•6 Glazing Bar End Caps

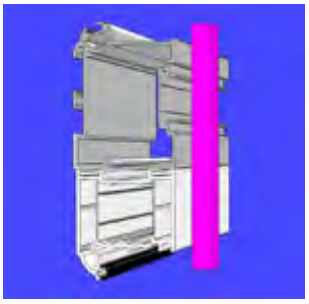
Fit the glazing bar end caps using the self tapping screws provided, pull down and tighten.

Fit the logo plates to the glazing bar end cap once the final position of the glazing bar end cap has been achieved.

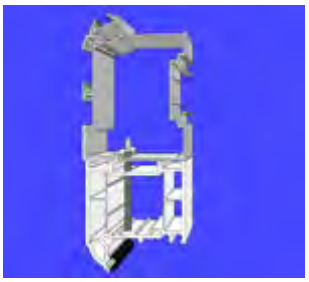
2.1 Eaves Beam



After ensuring the frames are square and level run a line of low modulus silicone along the external rebate in the frame.



Fit the front eaves onto the front frames ensuring the inside edge of the frame and eaves are aligned. The external eaves trim must be fitted at this stage.



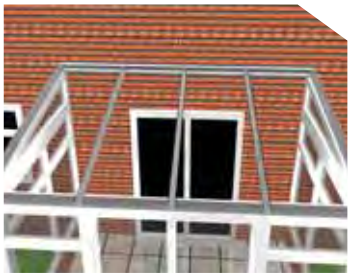
Fix the eaves beam to the frames from the inside of the windows using 5.0mm diameter screws, at 150mm from the corners and a maximum of 500mm from the centres.

2•2 Wall Plate and Glazing Bars

Fix the wall plate to the wall at 500mm centres with propriety fixings at the height shown on the roof plan. Note the wall-plate channel can fill with dust during this stage which can obstruct the wallplate wing from fitting.

Fit the wall plate wing into the wallplate body. Note the angled frame should be notched to allow the wallplate to sit down.

Fix the wall end bars to the wall plate and the eaves beam, and fix to the wall/angled frame if required.

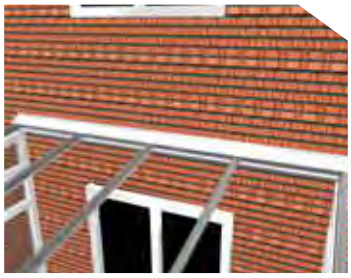


Fit the remaining glazing bars to the wallplate and eaves beam - the bars are numbered as per the layout plan.

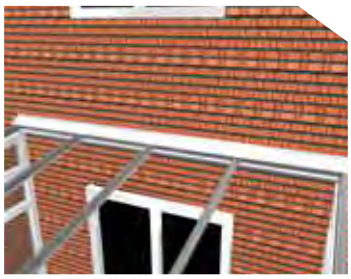
Fit your anged frame or firring section behind the front eaves on top of your side frames. The wallplate runs to the external frame width therefore the frame requires notching. If your angled frame or firring section has not been notched please refer to the back of this guide for notching details.

End frame calculations can also be found at the back of this guide.

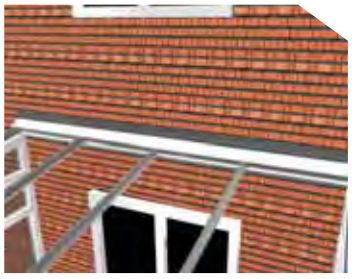
2.3 Lead Flashing



At this point the lead flashing should be completed on the wall plate and if required on the wall end bars if your roof is butting against a side wall.



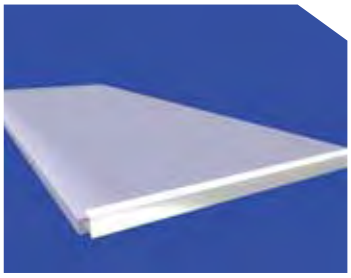
Fix the wall plate external half ridge cover.
On high pitched lean to's Ground Wall Packing is required, refer to the back of this guide for instructions.



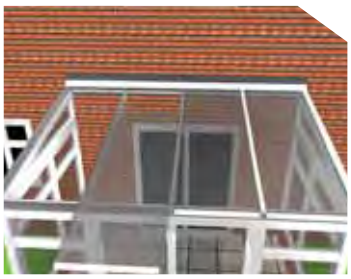
Apply a continuous bead of sealant between the wall and the wall plate external half ridge cover and the end bar.

Fit the lead flashing into the cut out of the brickwork and fold over the wallplate external half ridge cover.

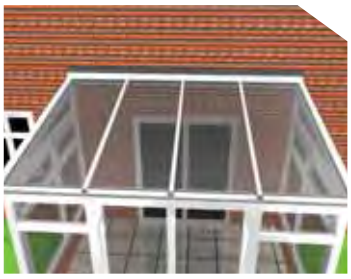
2.4 Glazing



For glazing the roof please refer to the Glazing section 1.4, Glass Retainer.

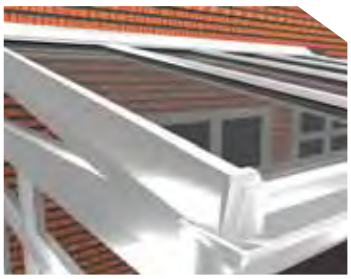


Glaze the panels starting with the panels adjacent to the wall end bars. Ensure the panels are fully inserted into the wall plate.

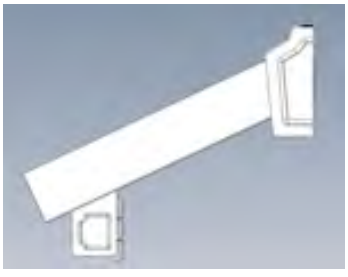


Fit the glazing bar top caps, as numbered on the roof plan. Run a line of sealant where the top cap abuts the fascia trim.

The bar end caps will be fitted at this stage, refer to section 1.6.



Fit the wall end bar cloaking clipping it into the wall end bar top cap.



Fit the wallplate end caps and eaves end caps.

3.1 Fitting the Aluminium Valley Sectior

On roofs with valleys, the valley should be fitted after the ridge and wallplate have been fitted and supported. This is before all the glazing bars are fitted.

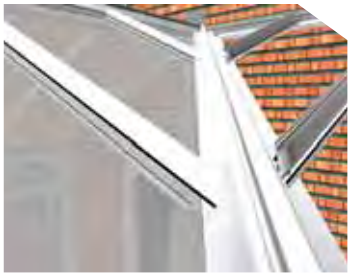
Prior to fitting the aluminium valley sections it is necessary to seal along the eaves pivot where the valley sits using a low modulus silicon.

The valley assembly should now be aligned at the ridge, wall plate and eaves beam with the fixing bolts. Secure the valley wings using M6 nuts.

Start locating the glazing bars between the ridge and valley again using the M6 bolts provided.

When all of the bars are located check the bar spacings are correct and secure using M6 nut provided. At this point fit the top valley trim where the valley centre section is notched, screw the trim into the valley centre using the screw and fit the screw cover cap. Seal along the front lip of the trim ready to accept the valley top cap.

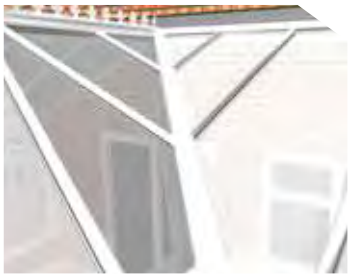
3.2 Glazing Valley Panels



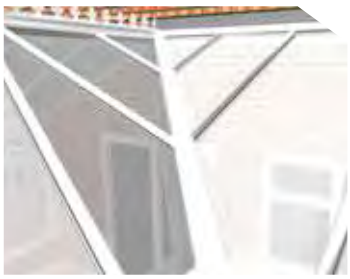
Glaze the first panel either side of the valley at the ridge wall plate intersection. Silicone seal the void at this intersection, continue glazing either side of the valley.

Prior to fitting the glazing bar top caps the glazing trim should be fitted to each valley wing. (the picture shows the section with no glazing for clarity) Apply a bead of silicone on the top inside edge of the glazing trim and push into place.

3.3 External Top Cap



Fit top caps to all of the glazing bars attached to the valley.



The external valley top cap can now be fitted along the valley section. Finally fit the valley end cap using the screws and cover caps provided.

4.1 Fitting the Aluminium Box Gutter Section

The box gutter section will be supplied connected to the eaves beam.
If joining is required this should be completed before the box gutter is installed.

Fix the box gutter to the host wall making sure that the box gutter is level and straight, pack out if required. The fixing point of the box gutter is the top leading edge.

The underside of the box gutter will have been notched to accept the frame under-neath if required.

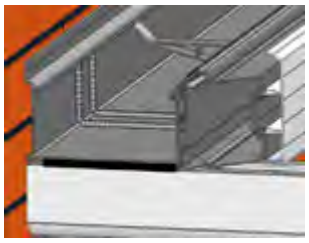
Cut a slot in the brickwork above the box gutter to receive the lead flashing. Apply a bead of sealant along the upper edge of the box gutter where it meets the host wall.

Fit the lead flashing into the slot of the brickwork and fold into the box gutter.

Connect adjoining eaves beams as per instructions in Section 1.1.

4.2 Box Gutter Adaptors

The box gutter connectors should be fitted whilst the box gutter is dry.



Apply two lines of box gutter sealant on all three surfaces of the box gutter. Slide the box gutter adaptor fully into place.
Use the sealing tape to seal over the join of the box gutter adaptor and box gutter.

Please note there are various styles of box gutter adaptors, these can all be found in the component chart at the back of this guide.

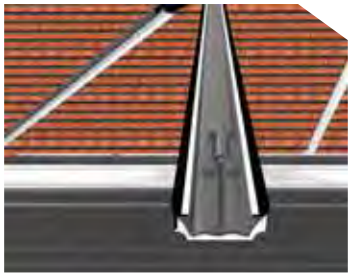
Apply sealant at the joint between the box gutter and the adaptor. Allow the sealant to set prior to attaching the remaining gutter.

Where a raised back box gutter is used you will need to offer the box gutter up to the host wall and mark your fixing positions to both the box gutter and host wall. Drill though the leading edge of the box gutter at the desired mark and then into the host wall, you can then offer back up and bolt the box gutter into the host wall. These fixings are not provided.

Clad the raised section of the box gutter with the multi board provided.

4.3 Glazing Bars & Glazing

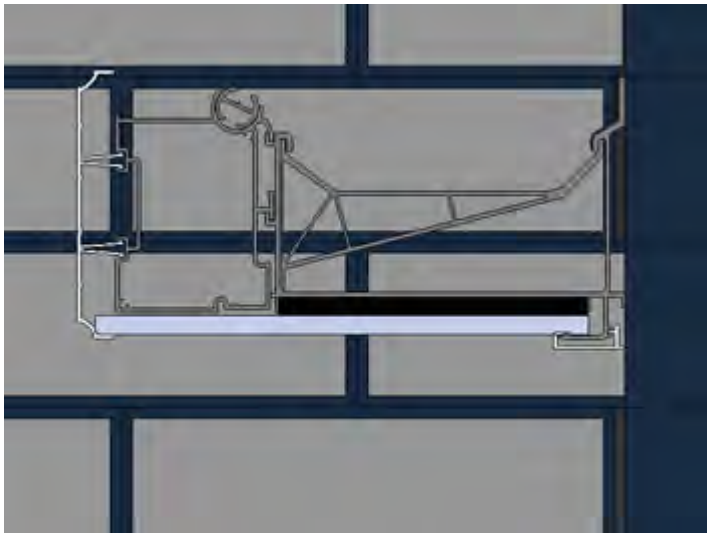
When fitting the glazing bars onto the eaves beam that are connected to the box gutter, it is recommended that the end caps are fitted to the bars prior to fixing to the eaves beam.



All other glazing bar fitting and glazing processes are the same as fitting a standard roof.

4.4 Internal Trims

The box gutter is clad using the internal eaves beam cover, the universal gutter trim and the box gutter under cladding.



Firstly clip into place the eaves trim to the under-side of the box gutter nearest to the host wall.

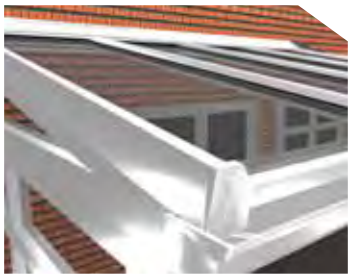
Slide the box gutter under cladding between the eaves trim and the box gutter.

Finally clip the eaves cover into the eaves section ensuring the box gutter under cladding is retained.

5.1 Fitting the Gable End External Trims

Attach the gable frame to the frames below following the manufacturers specification.

The gable end wall end bars are finished with a cloaking trim and a gable end plate.



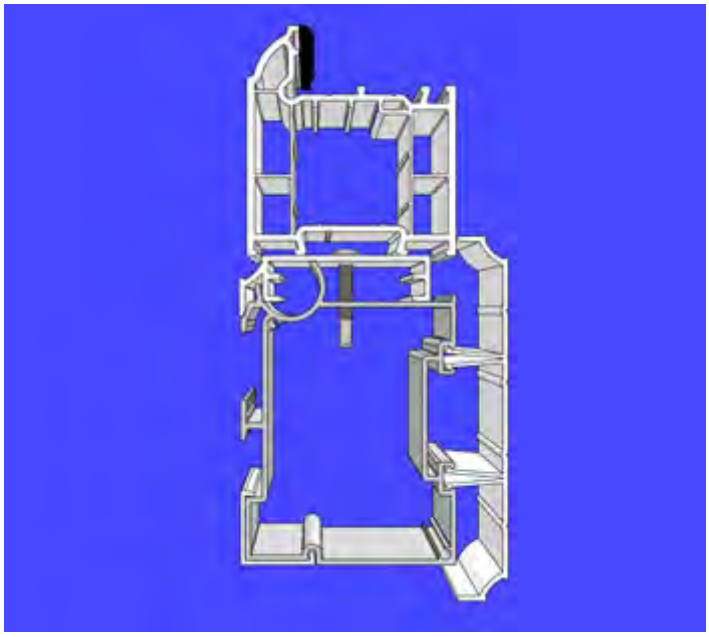
The cloaking trim clips over the wall end bar top cap and into the side of the wall end bar.

Notch the top of the gable end plate to fit around the finial if required.

The gable end plate is screwed into the end of the ridge and is finished off with a logo plate and screw caps.

Then fit the eaves end plates.

5.2 Fitting the Gable Support



When using the gable support fix the eaves beams following the instructions in Section 1.1, note the front eaves beam does not have the eaves pivot.

Fit the gable support platform as above and screw down. Run a line of sealant between the base of the support and the top of the eaves beam.

Secure the gable frame on top of the gable support platform aligning the inside edge of the frame and eaves beam.

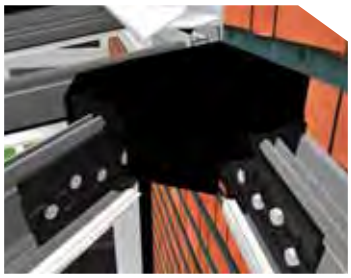
Now fit the gable wedges either side of the gable frame and seal.

Follow the instructions in Section 5.1 for fitting the gable external trims.

6.1 Lean-To Hips

The wall plate should be fitted as per the instructions in the Lean-To installation guide.

Connect the glazing bars to the half D ring and fix down onto the eaves beam. Insert glazing panels around half D ring and fit glazing bar top caps.



Insert the foam weather seal over the half D ring junction.
Apply a bead of silicone around the outer edge of the foam weather seal following the profile contours.

Screw the M10 stud into the half D ring from the under side to allow fitment of the internal half D cover at a later stage. (for clarity the glazing bars are omitted)

Locate external half ridge cover into the top of the wall plate. Fix through external half ridge cover up-stand in to wall at 600mm centres using propriety fixing.

The internal boss cover fits to the bottom of the M10 stud situated in the half D ring. The nut holding the cover should be concealed using the nut cover supplied.

7.1 Tie Bars

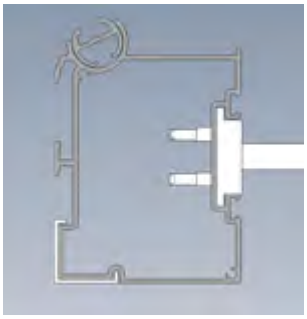
Tie bars are designed to provide structural support to both conservatory panels and roofs. This prevents the outward movement of frames, thus preventing downward movement of the roof.

When a tie bar has been supplied with the roof kit, the design or size of the roof deems it necessary to fit a tie bar to improve the structural integrity of the conservatory.

Positioning of the Tie Bar will vary by roof style, but should generally be located behind the Finial or one panel rearward to maximise effectiveness.

7.2 Fitting

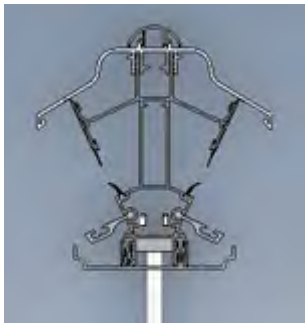
Tie bars must be fitted prior to the glazing of the roof. The internal eaves clads and ridge under clad must be fitted before tie bars installation commences.



The mounting block for the tie bar will be factory fitted.

Pass the tie rod through the hole in the eaves trim and twist into the tie bar mounting block.

Slide the tie bar rod cover over the rod.



Do this for both eaves and the ridge.

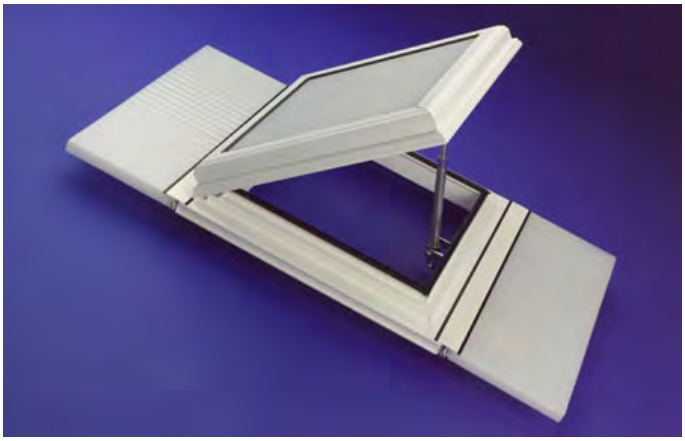
Take the tie bar centre from the box and pass the rods through the holes and using the nuts tighten the tie bars until the desired tension is achieved.

Screw the centre roses together.

In some instances tie bar brackets will be used. These will be fitted onto the glazing bars.

Screw the rods into the brackets and follow the previous instructions.

8.1 Roof Vents



Roof vents must be fitted during the glazing process. If glass is being used you must glaze the roof vent lid with enough time to allow the sealant to cure.

Follow the roof vent maunfacturers instructions on glazing the vent.

8.2 Roof vent fitting

With the centre sash removed run a line of sealant along the top and bottom leading edge of the roof vent frame.

Glaze this into the roof between the top and bottom glazing sheets.

Seal the top T section along both edges and clip into the frame

The roof vent sash can now be fitted in accordance

8.3 Muntin Strip

In some instances the glass in the roof must be split, to join these two units a muntin strip is used.

There are various suppliers of muntin strip, below is a generic instruction for fitting muntin strips.

Run a line of sealant along the leading edge of the bottom PVC T of the muntin strip, lay the top unit down onto this, repeat the same with the bottom unit.

Run a line of sealant along the leading edge of the top Ali T of the muntin strip and click into the bottom T.

NB Remember to use the correct sealant when sealing against glass, silicone based sealants will damage Relax 365 self cleaning and other self cleaning glass products.

9.1 Guttering

Fit the gutter brackets by hooking the serrated clip into the eaves beam slot at approximately 600mm centres. It is advised to place gutter brackets either side of gutter connectors to provide support.

Locate the front edge of the gutter onto the gutter brackets and rotate upwards into the gutter bracket.

Continue the process on all sides.

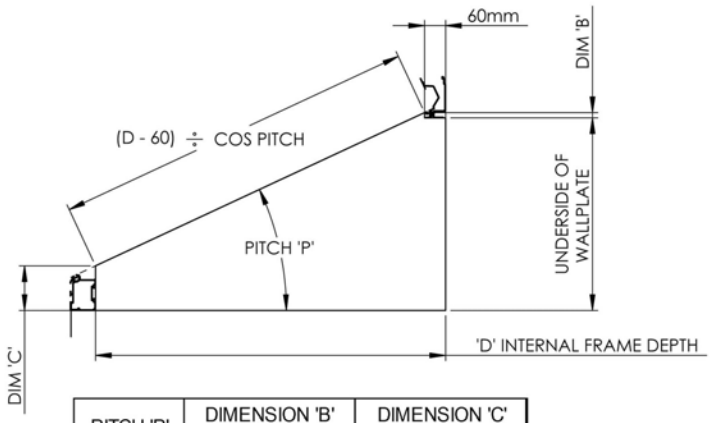
It is recommended to attach the gutter connectors to one piece of guttering prior to clipping into place.

The roof will be supplied with a multi positional outlet which can be fitted anywhere along the gutter run. You will need to drill a 60mm hole in the base of the gutter where you require you downpipe.

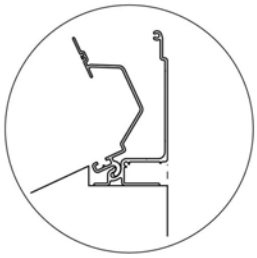
Once fitted you can connect your downpipe fixings with the brackets supplied.

You can view the full range of rainwater goods in the component guide at the back of this guide.

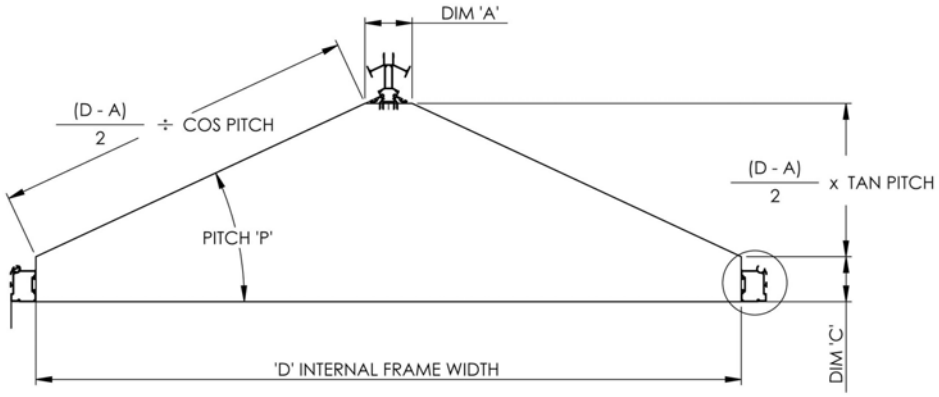
Micsellaneous Information

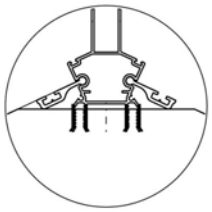


PITCH 'P'	DIMENSION 'B' NOTCH DEPTH	DIMENSION 'C' FRONT HEIGHT
5	21	106
7.5	20	108
10	19	111
12.5	19	113
15	18	116
17.5	17	119
20	16	122
22.5	17	125
25	15	128
27.5	14	131
30	14	134
32.5	13	138
35	12	142
37.5	11	146
40	10	150



RIDGE NOTCH DETAIL



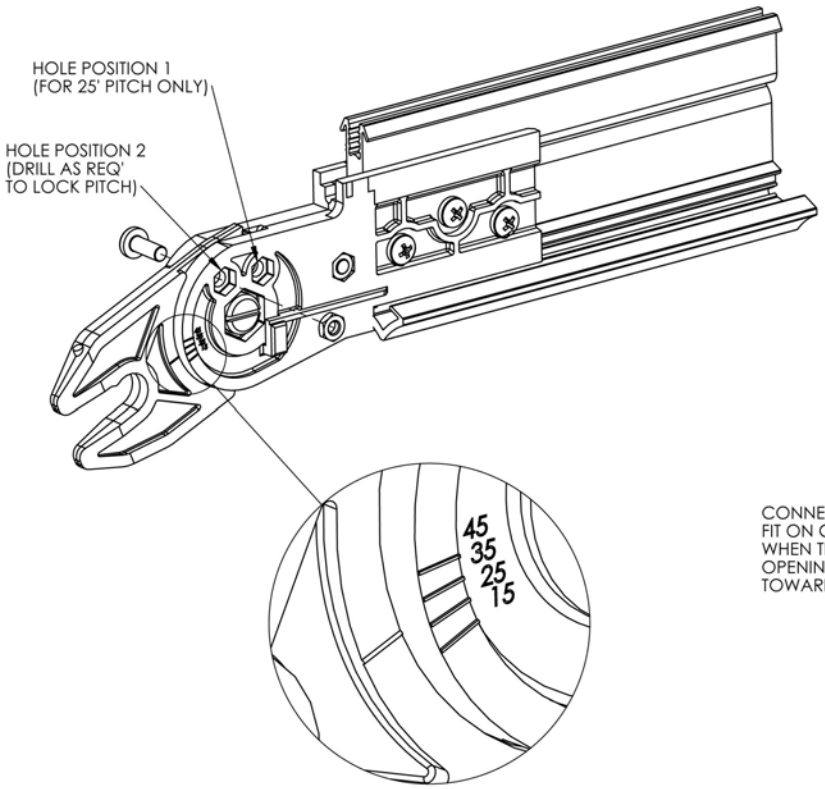


RIDGE DETAIL SEE SHEET 2 FOR RIDGE PREP

PITCH 'P'	DIMENSION 'A' TOP FLAT	DIMENSION 'C' FRONT HEIGHT
15	165	116
17.5	155	119
20	146	122
22.5	139	125
25	134	128
27.5	128	131
30	124	134
32.5	119	138
35	115	142
37.5	11	146
40	107	150

Micsellaneous Information

'D' RING CONNECTOR PREPARATION AND MODIFICATION

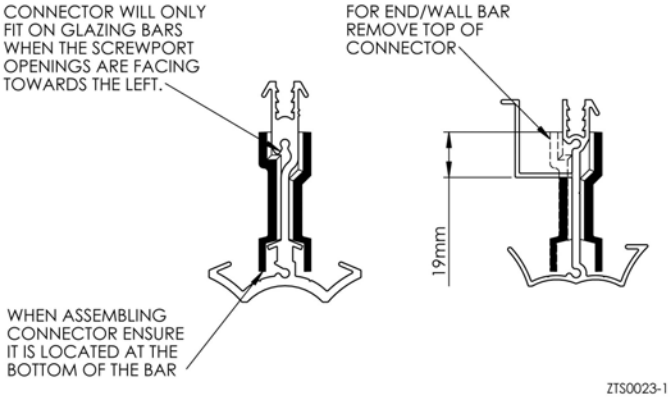


DETAIL A
SCALE 2 : 1

SETTING OF CONNECTOR ANGLE

- USE THE PRE-DRILLED HOLE FOR 25' PITCH. (SEE HOLE POSITION 1)
- FOR ALL OTHER PITCHES ROTATE THE CONNECTOR JAW TO THE DESIRED PITCH ANGLE USING THE SCALE (SHOWN IN DETAIL A). DRILL A Ø6mm HOLE THROUGH THE CONNECTOR (SEE HOLE POSITION 2).
- WHEN PREPARING A CONNECTOR USED ON A HIP BAR. USE THE TABLE BELOW TO SET THE DESIRED HIP PITCH ANGLE.

FACET PITCH	GEORGIAN HIP ANGLE	3 BAY VIC HIP ANGLE	5 BAY VIC HIP ANGLE
10	7	9	-
12.5	9	12	-
15	11	14	15
17.5	13	16	17
20	14	19	19
22.5	16	21	22
25	18	23	24
27.5	20	26	27
30	22	28	29
32.5	24	31	32
35	26	33	34
37.5	29	35	37
40	31	37	39



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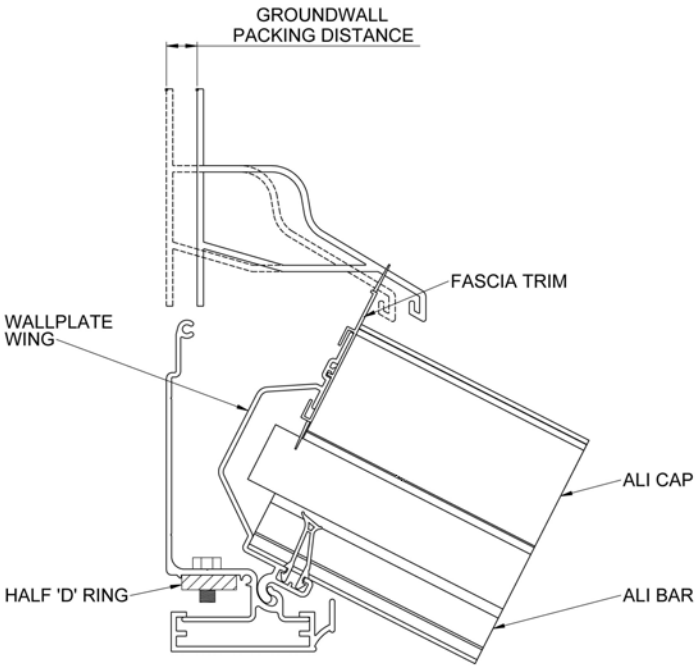


BAR	ALI CAP	PITCH	FASCIA TRIM	GROUND WALL PACKING
AL0033	AL0036	0' TO 27'	PE0026	N/A
AL0033	AL0036	>27' TO 33'	PE0026	12mm
AL0033	AL0036	>33'	PE0026	24mm
AL0031	AL0035	0' TO 27'	PE0026	N/A
AL0031	AL0035	>27' TO 33'	PE0026	12mm
AL0031	AL0035	>33'	PE0026	24mm
AL0005	AL0035	0' TO 31'	PE0016	N/A
AL0005	AL0035	>31'	PE0016	12mm

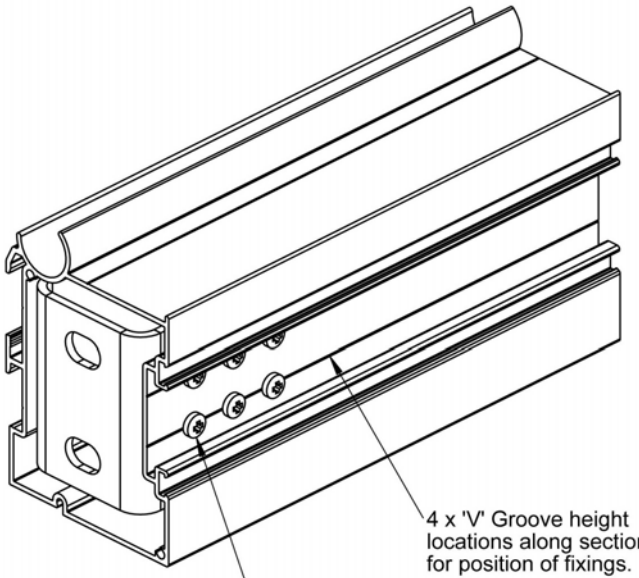
Micsellaneous Information

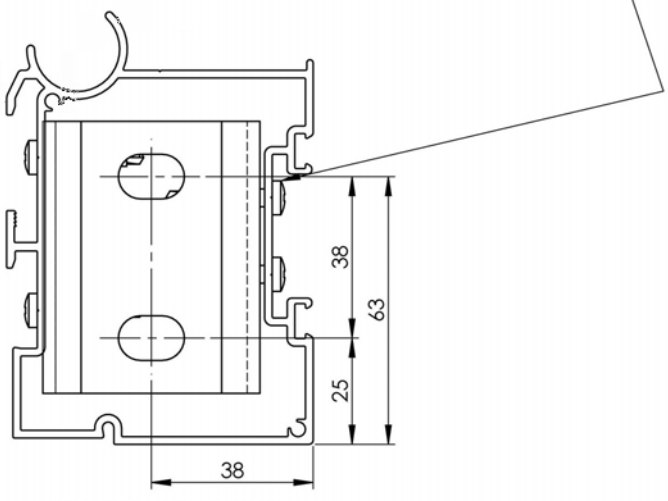
Eaves Beam Fixing to Masonry Wall

Fitting Instructions

1. Determine final position of window frames abutting masonry wall and fix to wall as manufacturers recommendations.
2. Refer to detail below and drill ∅10mm hole in wall at the correct positions shown for the eaves beam type to be used.
3. Fix bracket to wall using ∅10mm suitable masonry fixings and washers (not supplied).
4. Offer eaves beam into position sliding bracket inside of eaves beam. Fix eaves beam to window frames as shown on installation broadsheet.
5. Fix internal cleat to eaves beam with 12 Self Drilling screws (supplied) 6 each side.

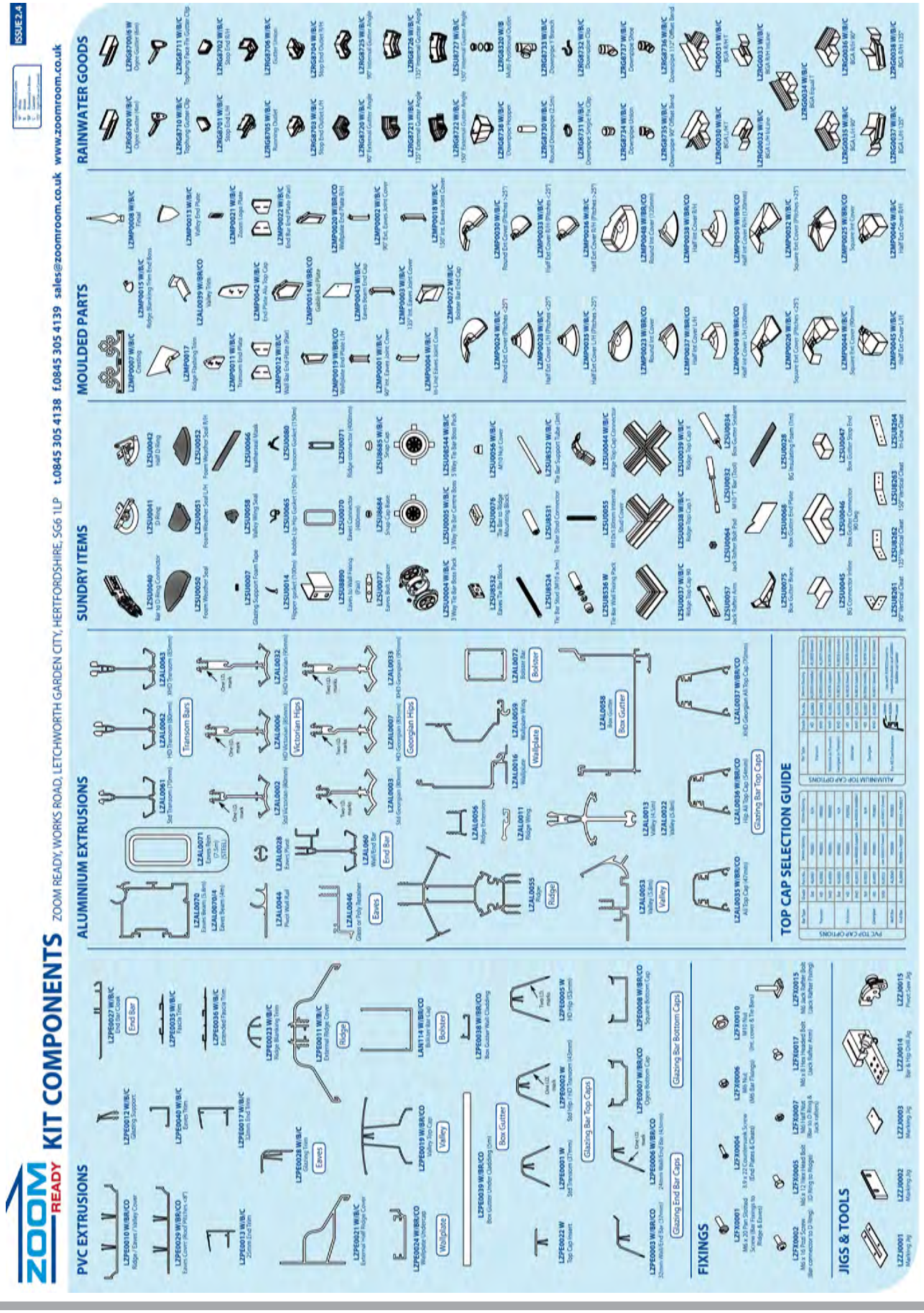
EAVES BEAM
AL0070





PACK NO: 8890

Component Chart



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