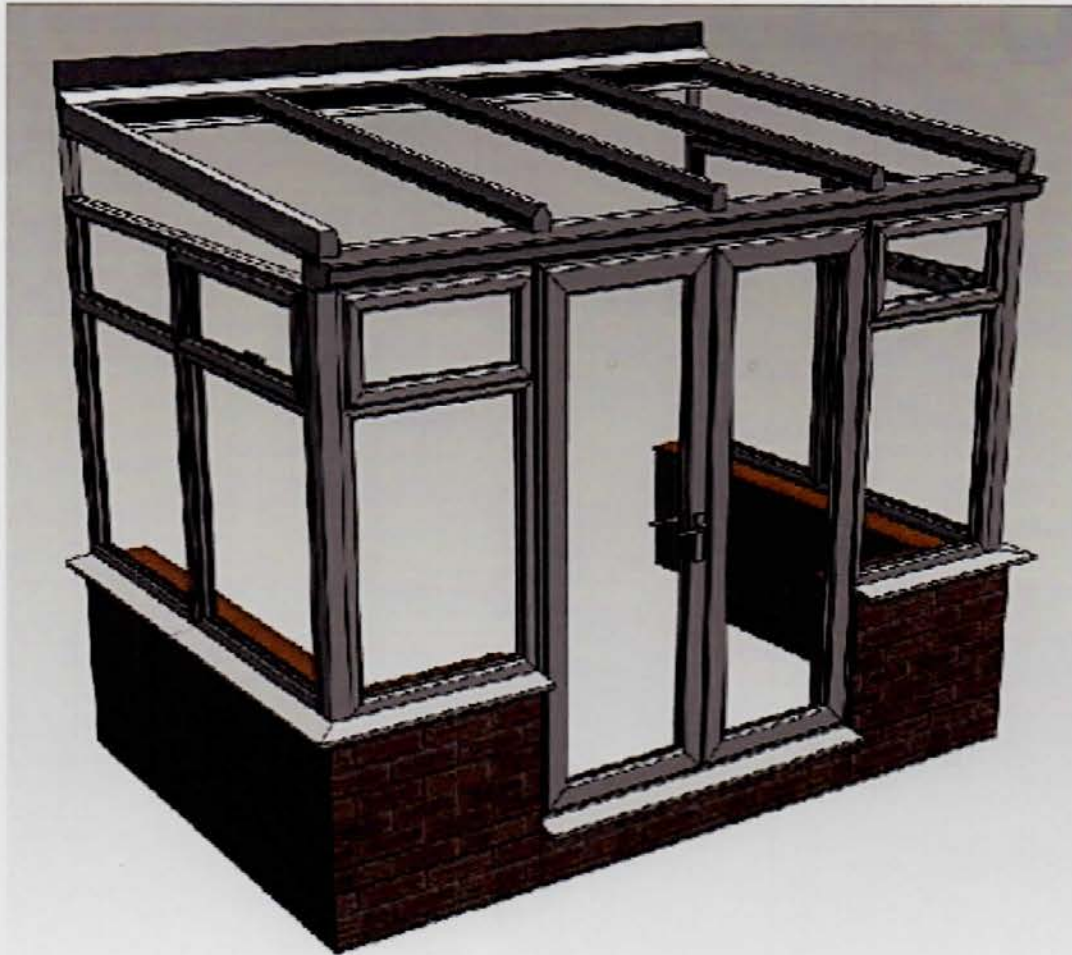




Lean-to installation guide



2015

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Product Identification



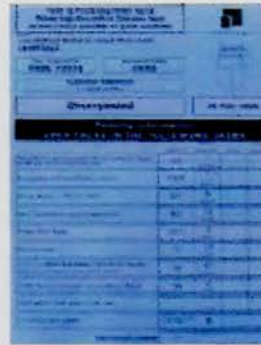
1. Before You Start

The purpose of this installation guide is to assist the installation team when erecting a Synseal roof. All Synseal roofs are individually designed to suit the requested size and specification. The Synseal roof will arrive in kit form consisting of a number of packages containing the aluminium skeleton and the PVCu cappings. Small ancillary items will arrive in a box, with a copy of the roof layout plan.

The technical team may also have sent you additional installation details individual to your order so please check your emails



This roof has 17 packs



The delivery note shows what is in each pack

Roof Layout Plan

The roof layout plan is essential as it depicts the size of the roof and the position of the main roof components. Thoroughly check that the roof fits the window frame layout and that all the roof components are present.

Each length of material should be numbered to correspond with its position on the roof plan.

An example of this is an eaves beam assembly numbered P17 on the roof plan, the aluminium, gutter and cladding lengths should all be numbered P17 to aid identification.

Care of Products On Site

Although the Synseal roof is robust in construction, simple measures should be taken when handling, storing and erecting the conservatory roof.

When unwrapping the packages take care not to damage components with a knife.

Do not leave PVCu components outside in freezing conditions then immediately attempt to knock them on.

Do not leave brown components in their packaging whilst in direct sunlight at times of high temperatures.

Store polycarbonate roof panels in a dry safe area until they are required.

Sealing

The Synseal roof requires sealing at important junctions in the roof, the use of Low Modulus, Neutral Cure sealants is vital. Self cleaning glass may have compatibility issues with certain types of sealant based sealants, refer to your glass supplier regarding the use of specific sealants.

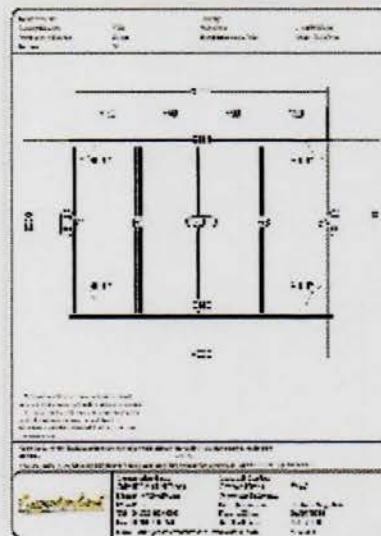
Roof Vents

The Synseal roof can be supplemented with an opening roof vent, refer to the installation instructions found within the roof vent packaging.

Tools Required

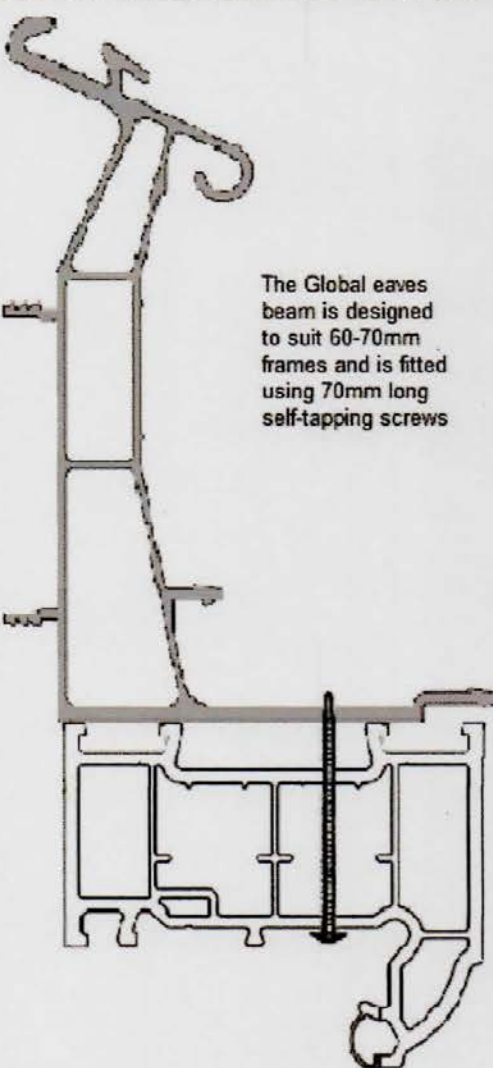
The following tools are necessary to install the Synseal roof:

- 13mm socket and ratchet
- 13mm open ended spanner
- 17mm open ended spanners
- Power drill + HSS and masonry bits
- Long nosed pliers
- White rubber headed mallet
- Stanley knife
- Tape measure
- 45mm diameter hole cutter
- 60mm diameter hole cutter
- Sealant gun
- Spirit level
- Hack saw
- Roofing square
- Cordless driver + pozi bits

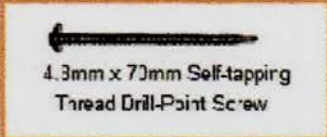


2. Fixing the Global Eaves Beam



Before the roof installation commences make sure the conservatory footprint dimensions are correct, with the frames level and plumb. The internal sizes at the head of the frames should correspond with those on the supplied roof plan



The Global eaves beam is designed to suit 60-70mm frames and is fitted using 70mm long self-tapping screws

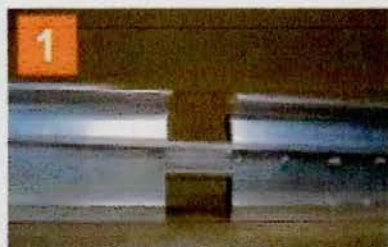


4.3mm x 70mm Self-tapping Thread Drill-Point Screw



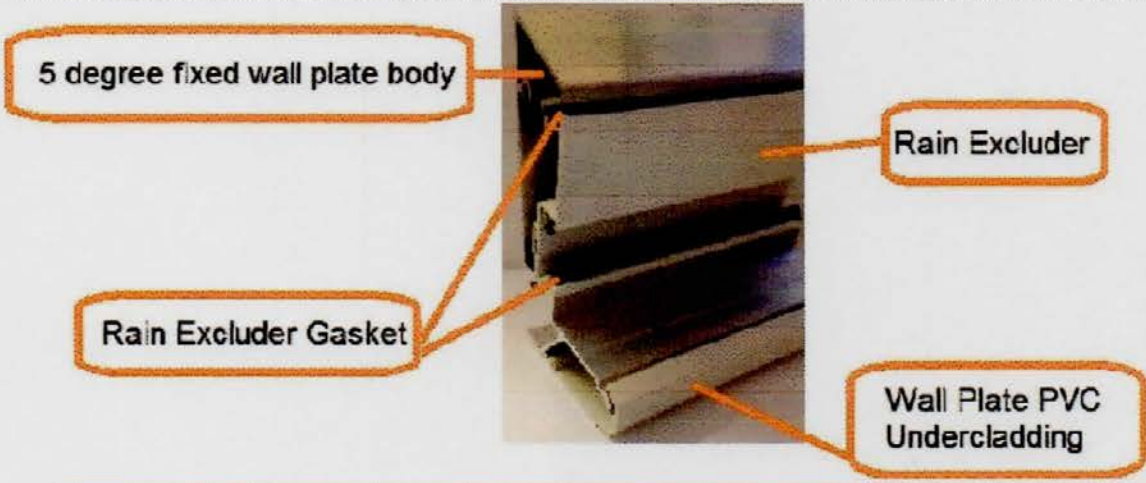
Fix up through frames into eaves beams, You will usually be supplied 2 fixings per frame (2 per French door leaf) fix maximum every 500mm

2.1 Joining the eaves beam (Where Required)

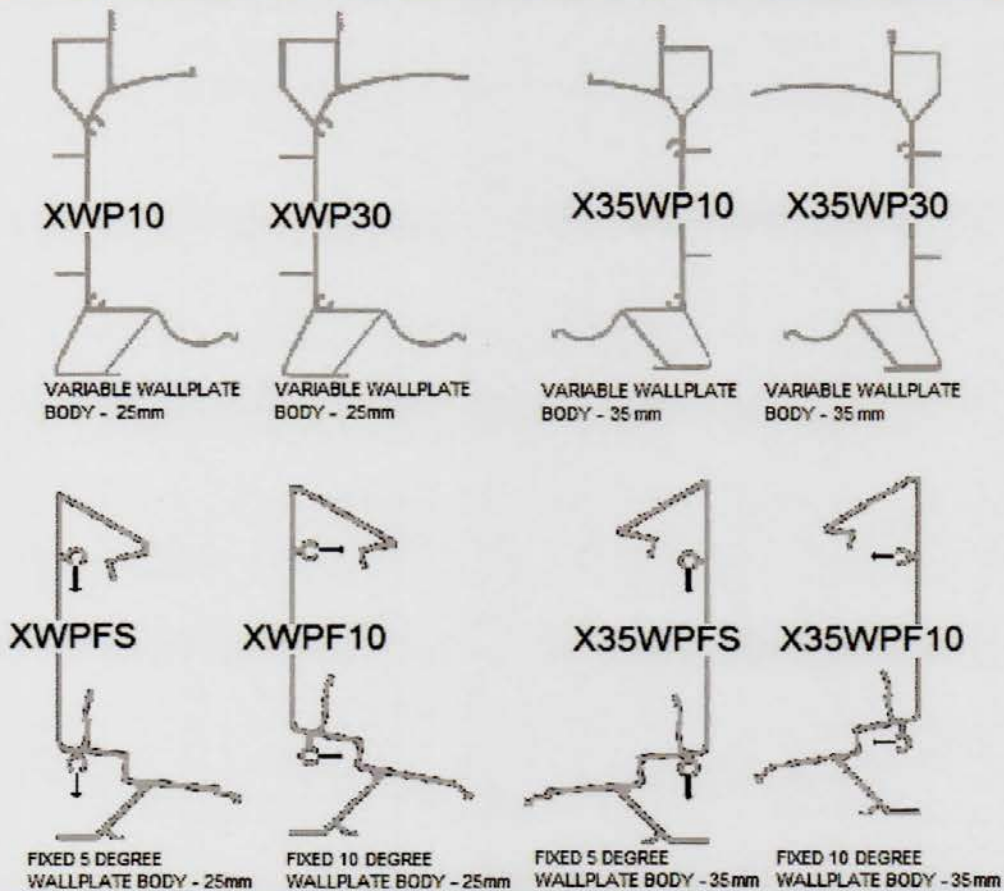


The eaves beam joiner will be pre-prepared and fixed to one side of the eaves beam to be joined. Slide the next section of eaves beam over the joiner until it meets the end of the first section of eaves beam. Fix in place using screws provided.

3. The lean to wall plate

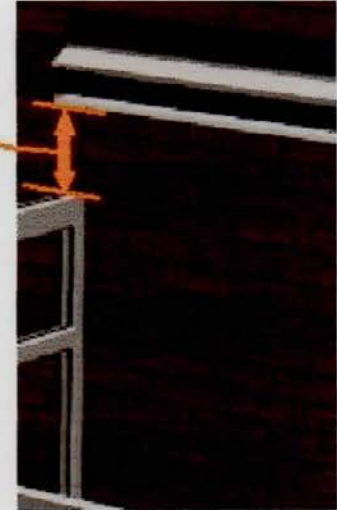
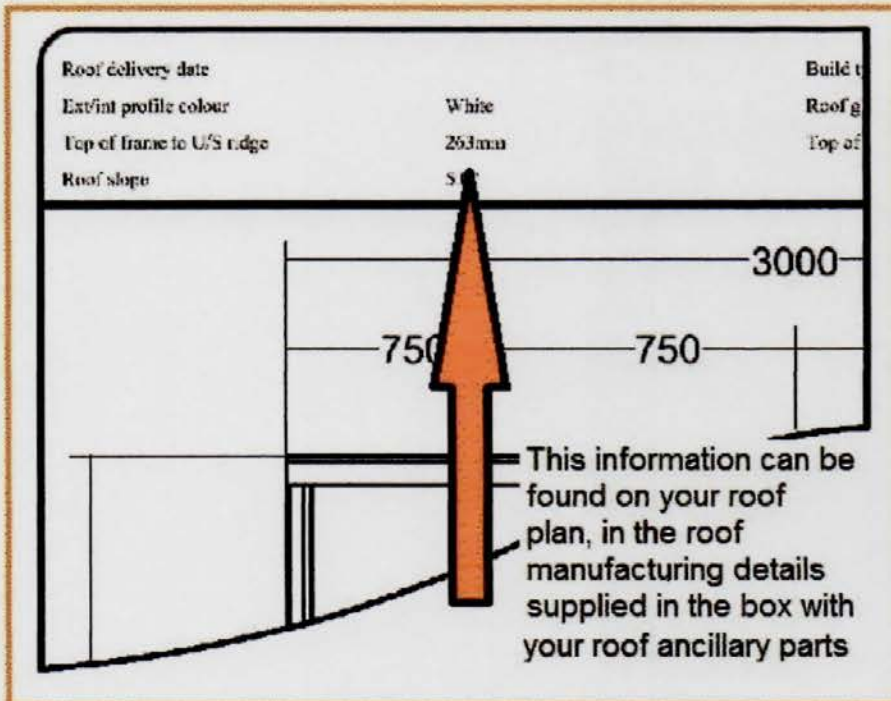


The above image shows a typical assembly for a fixed 5 degree pitch wallplate body, below are other wall plates that may be used depending on the pitch of your roof. Fixed 5 and 10 degree wall plates have no top cap, as your flashing goes straight over the aluminium body.



4 . Fixing the lean to wall plate

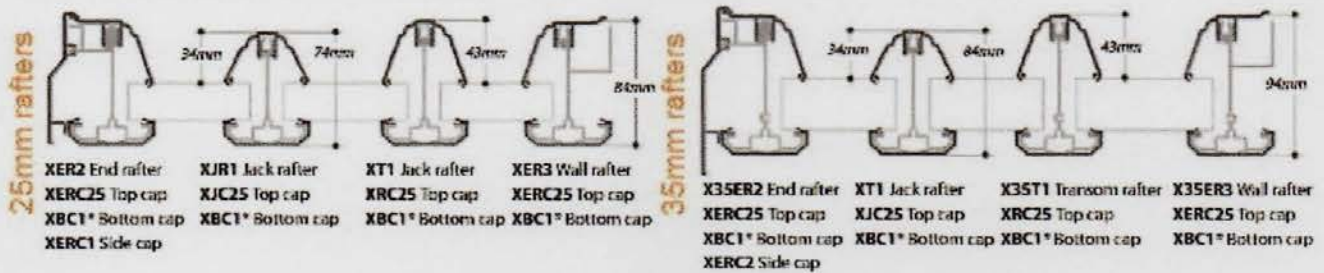
First, plot what height your wall plate needs to be set at from the top of your conservatory frames and mark a line on your property wall, ensuring the line is level.



After determining the height and position of wall plate support it in this position. Next locate the main ridge to eaves rafters using the roof plan as a guide to their positions (the eaves beams and wall plate will be pre-prepped with rafter positions marked on them) Each rafter connects into a pre-drilled hole via a single bolt to the top and bottom.

4. Fixing the lean to wall plate (continued)

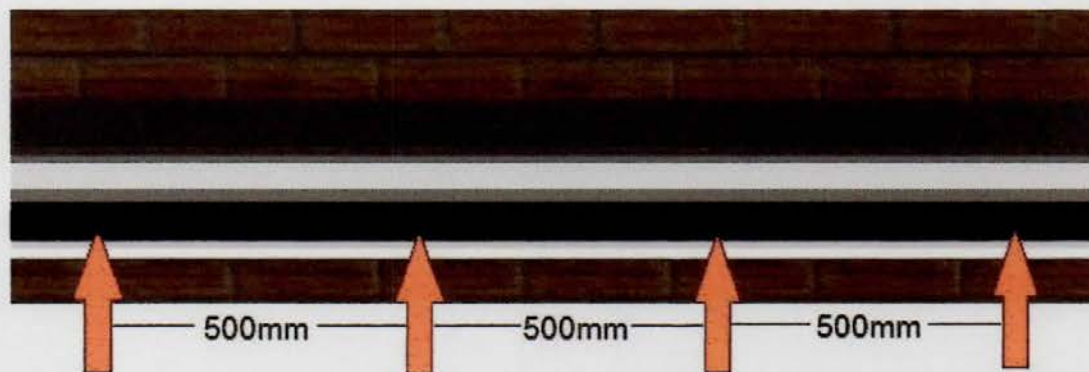
Below are typical rafter cross-sections used on lean-to roofs



Rafters used will vary depending on style and design of your conservatory

4.2

You are now ready to fix your wall plate in place



Fix wall plate to house wall at 500mm intervals using the screws shown below



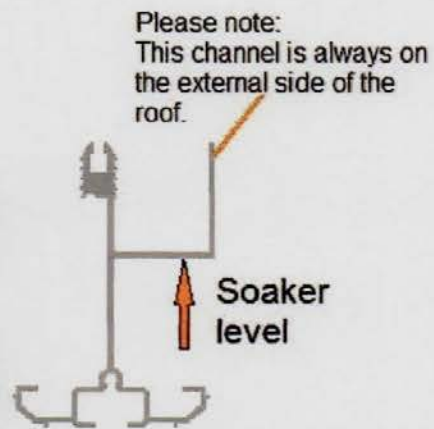
7.5mm x 100mm Direct Frame Anchors -
to house wall (Drill 6mm - 6.5mm pilot hole)

5. Fix the rafters in place

Once the wall plate is fixed to the wall in its correct position fix all remaining roof rafters using your roof plan as again. Please note it is important that the bolts are checked for tightness on site.

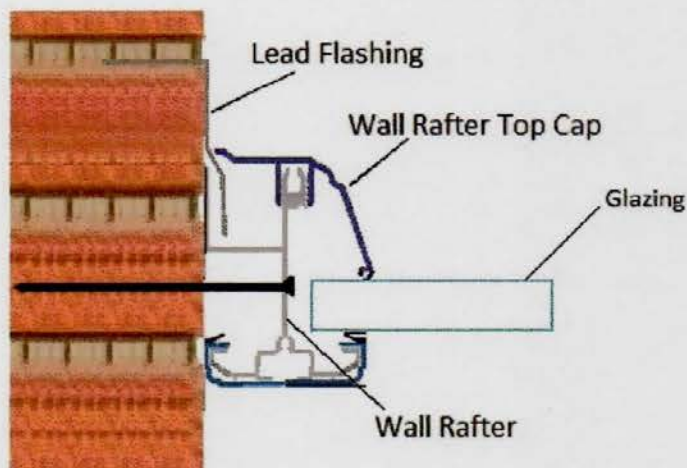
5. Fix the rafters in place (continued)

This section is only relevant if your lean to end is against a wall



The rafters against the house wall should be secured back using the 7.5mm x 100mm Direct Frame Anchors (Drill 6mm - 6.5mm pilot hole) These are the same fixings that are used to secure the wall plate. Fix at 600mm maximum centres and a maximum of 150mm in from either end of the rafter. Ensure you drill below the soaker level.

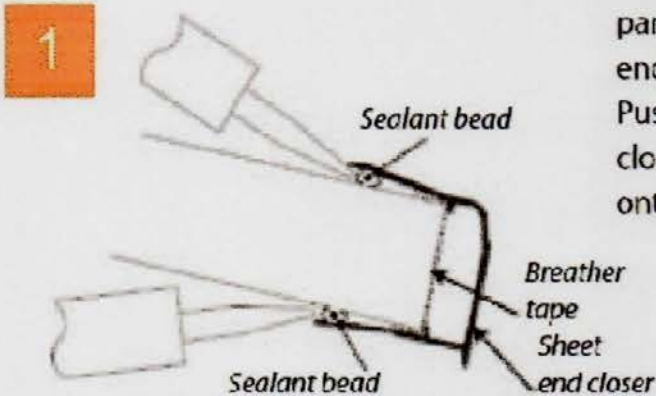
Finished Wall Rafter Fixing



6 . Fitting the roof sheets

Careful consideration must be given to the sequence of glazing a conservatory roof. Please consider the following points:

- Sequence the glazing so access is available for sealing wall plate areas
- With roof glass, sequence the glazing so loadings are progressively balanced across the wall plate.



Cut the sheet closer to the bottom width of the panel and remove the drip 20mm in from each end. Slide the closer onto the end of the panel. Push the sealant nozzle under the lip of the closer and run a continuous line to form a seal onto the roof sheet.



Seal the bottom lip of the closer to the sheet and then seal up the open ends. Clean away any excess sealant.

Note: Ensure the closer is sealed to the panel and not the breather tape!

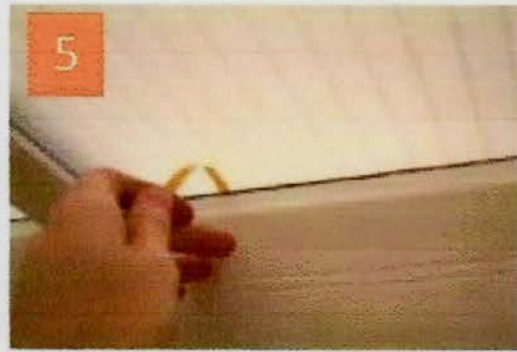


Peel back a start on the support trim security tape so it can be pulled off from the inside when the panel is in position.

6 . Fitting the roof sheets (continued)



Offer the roof panels into position so they are central between the rafters. See the notes above for positioning panels.



With the panel in its final position, remove the film from the security tape on the support trim and press the panel down. If the roof is 10° pitch or lower then run a sealant line between the underside of the roof sheet and the support trim.



Jack rafter top caps are supplied over size and will require cutting down on site. Foiled aluminium top caps are supplied with the gasket over-length.

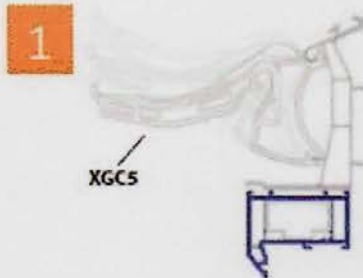


With a roof panel in each side of the rafter, knock the rafter top cap down onto the rafter using a rubber headed mallet. Use a piece of timber when knocking on the foiled aluminium top caps to avoid denting the caps.



Seal the rafter top cap to ridge rain excluder joint.

7. Guttering



Position the top of the gutter bracket (XGCS) in to the eaves beam monkey tail. Rotate the bracket downwards until the bottom of the bracket clips in to the eaves beam clip. A nylon or rubber mallet can be used to locate the clips if required.



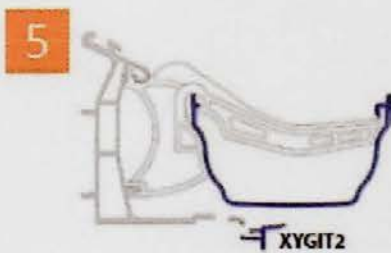
Position the brackets at a maximum of 600mm centres and a maximum of 150mm in from each end of the eaves beam.



Position the main gutter so that the monkey tail clip faces outwards. Push the back of the main gutter (XYGUT2) up in to the gutter bracket clip (XGCS). Continue this procedure until the back of the main gutter is installed in to all of the gutter brackets.



Pull up and clip the front of the gutter bracket in to the main gutter monkey tail.

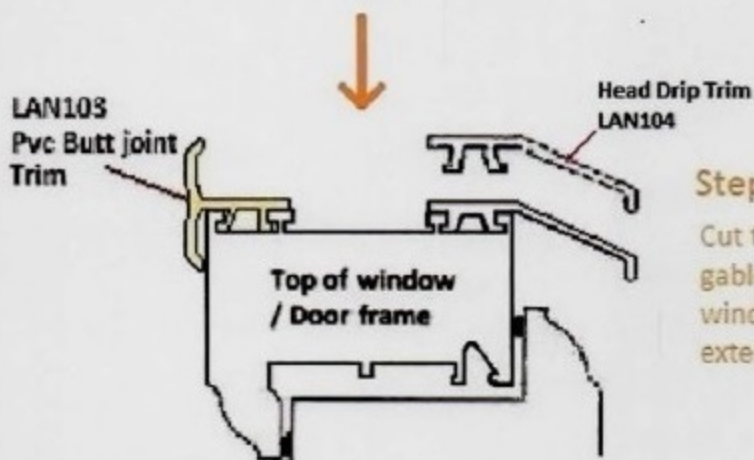


The gap between the bottom of the gutter and the top of the frames is cloaked off with an under gutter trim (XYGIT2).



The gutter under trim is sent oversize. Measure and cut the trim so that it fits between the gutter unions, stop ends or both.

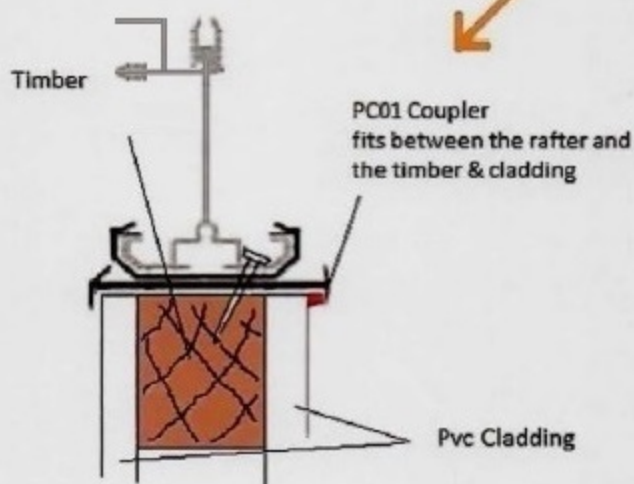
8. Building The Gable End

**Step 1**

Cut the head drip to the required length of the gable. Insert the head drip into top of the window / door, ensuring it is fixed to the external of the conservatory.

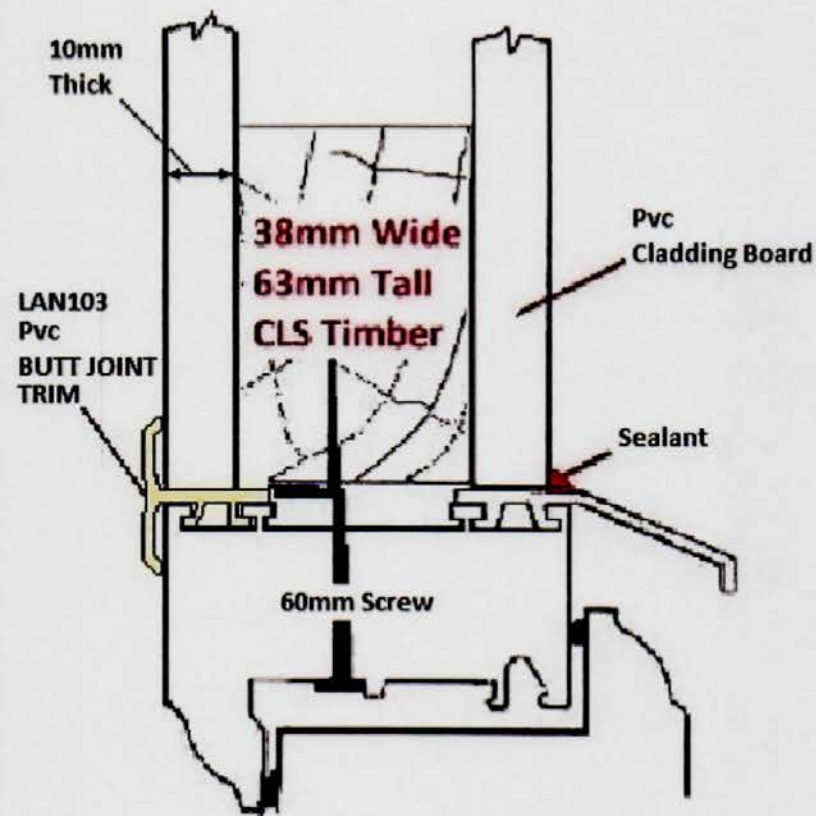
Step 2

Measure and cut the timber to the required lengths as shown.

**Step 3**

Fix the timber in position ensuring the PC01 Coupler is inserted between the bottom of the rafter and top of the timber.

8. Building The Gable End (cont.)



Step 4

Fix horizontal timber up through frames (as shown right)

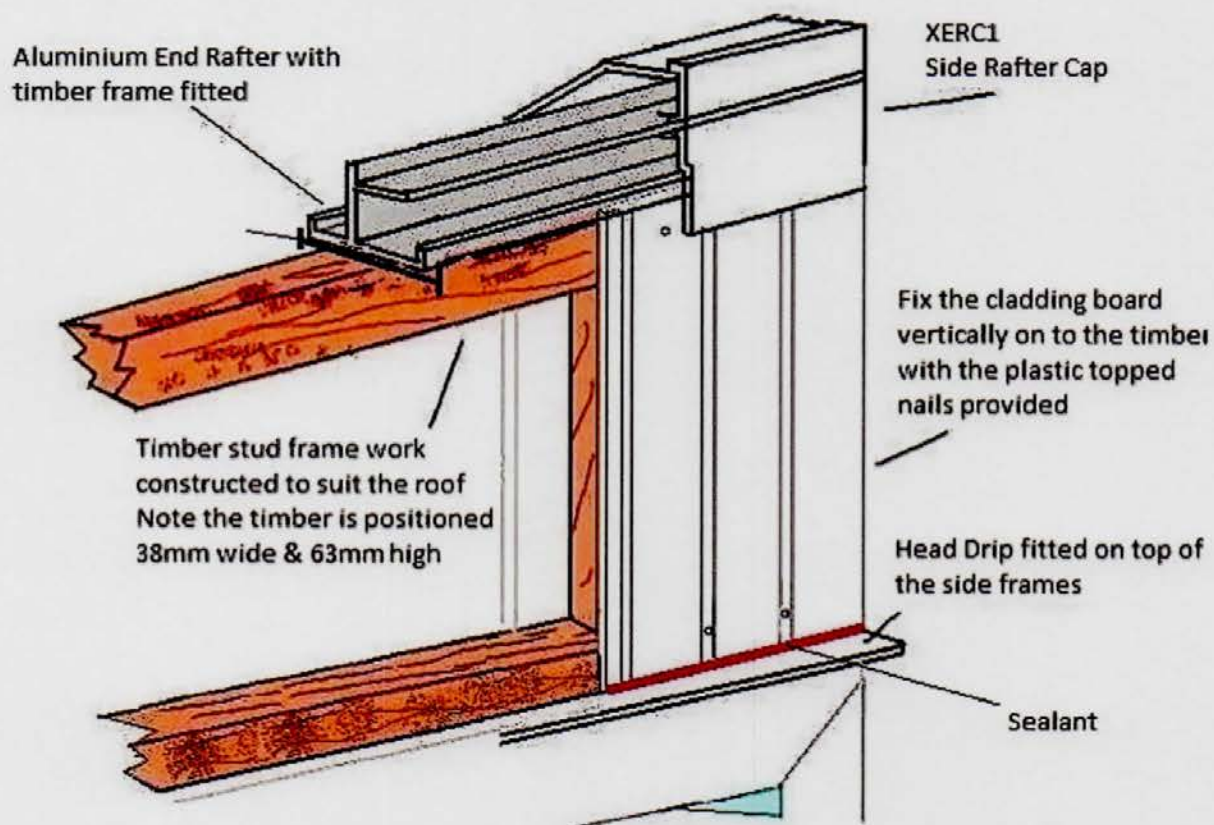
Step 5

Cut and fix cladding with plastic topped nails provided


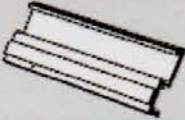

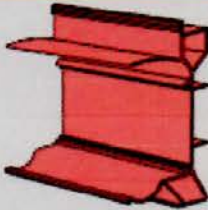

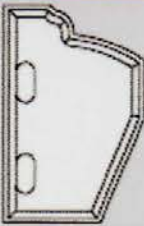
Step 6

Once all the cladding is fitted, install the side rafter cap (shown below) and seal along the head drip (shown left and below in red) externally

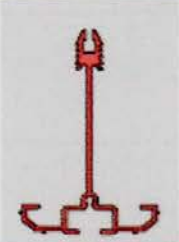
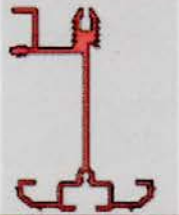
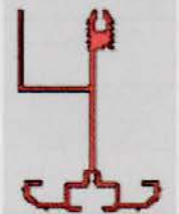
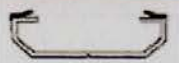


Finally fit the 20mm internal trim (D Mould) internally between the cladding and window frame (shown left orange)



LEAN TO PRODUCT IDENTIFICATION

<u>Image</u>	<u>Part Name</u>	<u>Guide Section</u>
	Wallplate Fixed Pitch	Section 3 & 4
	Rain Excluder	Section 3
	Fixed Wallplate End Cap	Section 3
	Wallplate Variable Pitch	Section 3 & 4
	Wallplate Top Cap (Variable Pitch)	Section 3
	Variable Wallplate End Cap	Section 3

LEAN TO PRODUCT IDENTIFICATION

Image	Part Name	Location Used
	Rafter	Section 4 (page 6)
	End Rafter (Gable)	Section 4 (page 6)
	End Rafter (Wall)	Section 4 (page 6) & Section 5
	Rafter Bottom Cap	Section 4 (page 6)
	Standard Rafter Top Cap	Section 4 (page 6) & Section 6 (page 9)
	End Rafter Top Cap	Section 4 (page 6)

LEAN TO PRODUCT IDENTIFICATION

Image	Part Name	Location Used
	<p>Rafter End Cap</p>	<p>Section 4 (page 6)</p>
	<p>End Rafter End Cap (Left & Right Handed)</p>	<p>Section 4 (page 6)</p>
	<p>End Rafter Coupler</p>	<p>Section 8 (page 11)</p>
	<p>Head Drip Trim</p>	<p>Section 8 (page 11)</p>
	<p>LAN103 BUTT JOINT TRIM</p>	<p>Section 8 (page 12)</p>



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