



Gable front roof installation guide

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Precautions

It is recommended that protective gloves are worn.

We recommend using the following Personal Protective Equipment where required:

Safety glasses and hearing protection when drilling.

Dust mask if dust is likely to be generated.

Under no circumstances should you venture onto the roof panels of a conservatory. If access above a conservatory is required, special precautions need to be taken.

Recommended materials and accessories

All fixing bolts, screws, glazing packers, brick slip adhesive, brick slip mortar and SMX Roof Glass Silicone is provided. (If the conservatory has self cleaning roof glass we supply a specialised silicone that does not damage the self cleaning coating on the glass units).

	Base	Frame	Roof
Sealants			
Silicone (Clear for sealing between & under wall boxes - colour of choice for required frame finish).	\checkmark	\checkmark	\checkmark
Lead Sealant - (Sand and cement if pointing the lead work).			\checkmark
Building Materials & Accessories.			
Foundation Blocks - 440mm x 215mm x 355mm.	\checkmark		
Post crete - 2 x Bags per pad.	\checkmark		
Code 4 Lead (Size & Length to suit the job)			\checkmark
Rubble bags to remove waste.	\checkmark	\checkmark	\checkmark
Roll of visqueen - To protect the finished floor.	\checkmark		
Timber (Lean To Only) 50mm x 50mm to be used.			\checkmark

Recommended tools and equipment	Base	Frames	Roof
Power Tools			
SDS Drill	\checkmark	\checkmark	\checkmark
Impact Driver or Cordless Drill.	\checkmark	\checkmark	\checkmark
Circular Saw. (For cutting the chipboard flooring).	\checkmark		
4" Angle Grinder. (Mortar cuts for lead work).			\checkmark
Breaker/ Kango. (Only required if you are breaking through concrete for required pads)	\checkmark		
Hand Tools			
Spanner Set.	\checkmark		
Socket Set.	\checkmark		\checkmark
1800mm Spirit Level.	\checkmark	\checkmark	\checkmark
600mm Spirit Level.	\checkmark	\checkmark	\checkmark
Hand Saw. (To cut insulation sheets - long craft knives can also be used).	\checkmark		
Marker Pen. (To mark out the insulation cuts).	\checkmark		
Tape Measure.	\checkmark	\checkmark	\checkmark
Glazing Mallet.		\checkmark	
Glazing Paddle.		\checkmark	
Silicone Gun.	\checkmark	\checkmark	\checkmark
Sharp putty knife or similar. (For removing frame glazing beads).		\checkmark	
Lead Beater.			\checkmark
Small trowel and pointing tool. (For pointing brick slips).	\checkmark		
Spade.	\checkmark		
Wheelbarrow.	\checkmark		
Pick. (If you need to break up any difficult terrain).	\checkmark		
G-Clamps. (To secure frames / ring beams / corner posts etc. when fixing.)		\checkmark	\checkmark
Accessories			
8mm SDS Drill Bit. (For securing base sections to the house wall).	\checkmark		
6.5mm SDS Drill Bit. (For securing wall boxes / windows / wall plates to the house wall).	\checkmark	\checkmark	\checkmark
4mm HSS Drill bits. (For securing wall boxes and flooring - Multiple required).	\checkmark		
T30 Torx Bits. (For direct to brick fixings).	\checkmark	\checkmark	\checkmark
Pozi Drive Bits.	\checkmark	\checkmark	\checkmark
53mm hole cutter. (For downpipe spigot drill & fix adaptor.			\checkmark
PVA Glue. (Gorilla Glue or similar for floor joints).	\checkmark		
Solvent Cleaner. (NOT to be used on foiled frames or any self cleaning glass).		\checkmark	\checkmark
Glass Cleaner & Paper Tissue Roll.		\checkmark	\checkmark
Super Glue & Activator		\checkmark	\checkmark

Gable Front Roof overview



Instruction drawings required



Along with your roof layout plan you will also have been emailed a roof glazing plan as part of your instructions, as shown in the example on the right.

Your roof glass or polycarbonate will show the corresponding 'RG' number as shown in the layout plan.

All roof components including your box of ancillary, gutter & fixings will have blue tape on them.

Ext/int profile colour	White
Roof glazing	Blue Self Cleaning Solar Control
Glazing area	6.72m2
Frames colour	White
Fan light glazing	Toughened Safety Glass
Window glazing	Toughened Safety Glass
Lower panel glazing	28mm Flat Panel
Window system	ConservatoryLand 70 Ver 1.2
Frame depth	70mm
Wall type	Brick
Brick type	Rustic Red Charcoal Multi 685
Mortar type	Charcoal
Skirt type	Brick
Top of frame to U/S ridge	437mm
Top of frame to top of ridge	628mm (Excl Crest)
Rootslope	7.0%

Your roof layout plan shows component positions, along with the Ridge height in the top right corner as shown in the red box above.



Summarised order of fitting

Below is a summarised order of the general stages of your installation. You will find detailed information in the step-by-step instructions that follow.



Fit the Ring Beams (Front Ring Beam includes a Gable Support Platform).



Install the Ridge Body and supporting Rafter Bars.







Install the Gable Frame and Gable Wedge Blocks.



Install the remaining Rafter Bars.



Fit Tie Bars if you roof includes them.

Summarised order of fitting - Continued



Install the Lead Flashing.



Fit the Ridge Top Cap.



Install the Glazing and Top Caps.



Fit the Guttering and Downpipe.

YouTube video example

We have a range of useful videos on our YouTube channel. We are always adding new installation videos as we create them. If you are viewing this instruction digitally, on your PC, phone or tablet etc., you can click the links to the right. One shows an Edwardian roof being installed, and one takes you to our main page. Or go to:



www.youtube.com/c/ConservatoryLandDIYConservatories

Fixing the Ring Beams



Using your roof layout plan, identify the first Ring Beam you intend to fit. Start with one of the side Ring Beams. Ring beam components are usually labelled with a 'BM' number.





Variable ring beam

Gable Ring Beam

The above images are cross section drawings of Ring Beams. The Variable Ring Beams are for the sides of your conservatory roof, and the Gable Ring Beam sits across the front, underneath your Gable Frame.



Before fixing the Ring Beam in place, run a bead of silicone along the back edge of the Ring Beam. (You can test fit the Ring Beam to check its position first if required).



Position the side Ring Beam in place, with the aluminium lip at the back of the Ring Beam fitting up to the inside of the frames (You may need to trim this lip if sat on a cill). The Ring Beam should finish level with the edge of the corner posts. If sat on a high wall with a cill on top, the Ring Beam should be sat 70mm over the inside corner of the cill. Do not remove the yellow protective tape at this stage.

With the two side Ring Beams in place, sit the third Ring Beam - the Gable Ring Beam in place across the front.

Before joining the Ring Beams at the corners add a line of silicone to the edge of one of the Ring Beams as shown in the photo on the right.



Fixing the ring beams - Continued



Fix the Ring Beams together at the corners. Make sure the Ring Beams are at 90° and fitting tight up to each other and then fit the inside Cleats using the 19mm self drilling screws, and fix the Ring Beams at the top with the same screws, as shown in the two images to the right.

Fixing the Ring Beams to the window / door frames

With your Ring Beams fixed together at the corners it is now time to fix them to the frames below.



We recommend clamping your Ring Beam and frames before fixing them together.



Using the 70mm self drilling fixings to fix the Ring Beam. Use 2 per frame or 2 per door sash.Fix at least 150mm from any corner frame welds.



If you have opening windows, make sure the windows are open before fixing up into the Ring Beam.

Installing the Gable Frame and Gable Wedge Infill's



The next step is to sit your Gable Frame in place. A Gable Wedge block that fits each end, and PVC Butt Joints that sit in between Joints for each side. The PVC Butt Joints are sent oversized, and require trimming to suit your Gable Frame and Wedge Blocks. Before sitting the Gable Frame in place, there are some areas of your roof to seal, please see below for details.



Seal Along the back of the Ring Beam on the top where the Gable Frame inside edge meets the Ring Beam.



Seal behind the Variable Support on the Ring Beam each side of your roof.



Also seal along the outer edge of each Variable Support on the Ring Beams.

Installing the Gable Frame and Gable Wedge Infill's - Continued





Sit the Gable Frame in place above the front Ring Beam & Gable Support Platform. This should be positioned centrally, leaving an equal distance each side for Gable Wedge Infill's. The Gable Frames should sit tight up to the lip on the inside edge of the Ring Beam where you have just applied a bead of sealant.



Seal the edges of the Gable Frame, along the bottom and both vertical sides.



Clip in the two PVC Butt Joints to the edge of the Gable Frame (Trimmed to size).



Make sure the back of the Ring Beam is sealed as you did for the Gable Frame.



Run a bead of sealant along the inside of the PVC Butt Joints and place the gable wedge blocks in place.



Fox the Gable Wedges to the Ring Beam, Also fix your Gable Frame down to the Ring Beam using the 70mm Self-drilling Screws.



Seal the rear edge of the Gable Wedge Block against the Ring Beam.

Identifying the main roof bars

With the Ring Beams fixed in position it is time to build the remainder of the main roof frame. Familiarise yourself with the different types of Rafters first. There are three main roof bar types as shown below, along with the aluminium Ridge Body they connect to.



The Wall Rafter bars are the bars that sit against the house wall and bolt to the Ring Beams and Ridge. The PVC Wall Rafter Gutter allows you to sit your flashing into the gutter and leave a neat finish to your conservatory. There are two grooves on the wall rafter to suit either 25mm or 32mm glazing. The example above suits 25mm glazing.



The Gable Rafter bars are similar to the Wall Rafters but fit to the front of the roof, over the top of your Gable window frame. There is no Wall Rafter Gutter on this bar, instead it has a PVC side cover.



The standard Rafter bar makes up the rest of the roof Rafters that fit in-between the Wall Rafters and the Gable Rafters.

The first components of the roof frame to install are the Ridge and bars that connect to it. There are two types of ridge body, depending on the size and style of your conservatory. Please see below:



The Fixed Ridge body are used for pitches around 25°.



The Variable Ridge body is used for pitches other than around 25°.



Refer to your roof plan and identify the two Wall Rafter bars (These are labelled with a BM number), The next set of Rafters that connect to the ridge (There are labelled with an RA number) and your Ridge. There is only one Ridge (Normally labelled with an RI number).

Remove, but keep safe the two nuts from the Ring Beam and Ridge in the spaces where the bars will fit.

Fitting the Ridge body

It is now time to fit the main Ridge body and connect it to the Rafters and Wall Rafter bars.



With the Gable frame now in place you can use this as a guide to set the Ridge height. The bottom of the Ridge Body should be touching the Gable frame for it to be in the correct place.

PLEASE NOTE: The gable frame should not support the weight of the ridge body,

you must use adequate support to take the weight of the Ridge before it is fixed in place.

You will need to fit the Wall Rafters, and the next set of rafters closest to the Gable end.



Place the first Wall Rafter into the gap provided on the Ring Beam. Fit in place over the bolts and secure in place with the nuts you removed and kept safe, but do not fully tighten them yet. Do this for the opposite Wall Rafter and rest the two bars against each other.



Repeat this process for the next set of Rafter bars, The bar closest to the front of the roof, but not the bars that sit on the gable frame. Remember to secure the bars in place with the nuts, but not fully tightening them.



Lift the Ridge up and place it between both sets of the Rafters, checking it is at the correct height, and the Rafters fit into place. Next fit the set of Rafters that sit over the Gable frame. If the Ridge is at the correct Height, the Rafters will sit perfectly in line along each side of the Gable frame, with the bottom of the Ridge touching the Gable Frame.

Once you are happy with the height and positions tighten all the fixings that you left loose earlier. You can fit the remaining Rafters to fit to the Ridge and Ring Beams.

Fixing the Wall Rafters to the house wall



T30 Torx bit (Not supplied) -dentantic in the manual of

100mm direct to brick fixings Fixings are found in the bag

marked with **blue** tape.

To fix the Wall Rafters to the house wall, you will first need to drill a 6mm pilot hole through the Rafter. Fix every 500mm, or a minimum of 3 100mm direct to brick fixings. You will need a T30 Torx driver bit for these fixings.

Lead Flashing

Where possible we would always recommend using lead for your flashing (**Code 4 lead**). Each length of flashing should be no longer than 1500mm. Where you need to overlap the flashing, each overlap should be a minimum of 100mm wide. Read the next two pages thoroughly before you start your lead flashing.

Step Lead

Below is a diagram to show how to mark out and cut step lead flashing. See further images on the next page or view our installation video on our YouTube channel (or you can click the link on page 5 if you are viewing this instruction on your tablet phone or PC)



Lead Flashing - Continued



Before you start your lead flashing it is important to seal the Wall Rafters to the house wall.

Run a bead of silicone along the top of each rafter where it meets the house. Please see image to the left.



To firmly hold the flashing in place prior to sealing, it is good practice to use flashing clips (also known as hall clips). These are ready available from most DIY stores, builders merchants, or your local Eurocell branch. These push into the chase line in the mortar and are easily installed. Nylon flashing clips are also available at DIY stores.



1 & 2 - Mark out the step lead flashing (please refer to the diagram on the previous page .3 - Chase out the mortar line where you intend to fit the lead flashing to your brickwork. You will also need to chase out a mortar line above the Ridge and flash over the Ridge Top Cap (please see the images below).





4 - The Wall Rafters have a Wall Rafter Gutter designed to hide the lead flashing under the bars top cap. Please see images above. There are two positions for the gutter depending if you have 25mm glazing or 32mm polycarbonate glazing.

5 - Once the lead flashing is installed, and you have fit the optional lead flashing clips if you are using them, you need to seal the lead work to your property wall with a lead flashing sealant.



Lead Flashing - Continued



Once you have installed the step lead work above the Wall Rafters, it is time to install the Top Cap and lead flash around it. Before you do, install the Crestings and Finials if you have them on your roof.

Slide the Crestings down the channel on the top of the Top Cap and add the Finial last.

You may need to trim a Cresting in order for them all to fit correctly.



Slide the Top Cap onto the Ridge body and push it up against the property wall. Knock the end against the wall down using a nylon hammer (Knock along the channels either side of the crestings until it clips in place). Leave the front end so you have access for glazing later. Install the flashing over the top of the Ridge Flashing Trim on the Top Cap and seal using a lead flashing sealant.

Installing Tie Bars

Install the tie bar next if you have them. **Not all roofs will have a tie bar**. The is dependent on the size and structural requirements of your conservatory which will have been checked by our technical team.

If your roof has Tie Bars you will have noticed that brackets have already been fitted to the Rafters for you. You will just need to fit the remaining bracket to the Ridge. Please see the instructions on the next page or view the installation video. Below is a cross-section of how the tie bars fit together.



Installing Tie Bars - Continued





First, fit the Tie Bar rod fitting to the bracket on each of the rafters. The are fit with the supplied bolts and PVC bolt covers with can be fit once the Tie Bar is fully constructed.





You will have three Tie Bar rods housed inside PVC covers. Two of the rods are bigger than the other. Screw the longer rods into the Tie Bar rod brackets. Then fit the rods through the Centre Boss and tightly screw the bolts to the Tie Bar rods.





Fit the remaining Tie Bar rod to the Centre Boss in the same way as the first two. Once the bars are fitted you can fit the decorative Centre Boss cover which simply screws in place.











Roof Glazing - End Closures



Before you start glazing, you will need to refer to your Roof Glazing Plan, which will have been sent as part of your instructions.

Each glazing panel will be labelled with an 'RG' number in the instruction, which will correspond with the sticker on each of the glazing units.

Glazing unit stickers will also be labelled telling you which side should face to the inside or outside. Please note: for any self cleaning glass, the sticker is always on the inside of the unit.

Before installation, each glazing panel should be fitted with a Glazing End Closure, for both polycarbonate and glass roofs. Each though are fitted in a slightly different way, please see the instruction below.

Glass or polycarbonate ⁄ unit



If your glazing is polycarbonate remember to remove the protective film before fitting the End Closure

Glazing End Closures - glass units





For self cleaning glass units only a specialised SMX sealant can be used. Run a bead of sealant along the top of the glass unit.



Then position the End Closure onto the end of the glass unit.

Glazing End Closures - Polycarbonate





The breather tape at the end of the sheet must not be covered or blocked in anyway. Run a continuous bead of low modulus silicone to the top of the polycarbonate sheet, then position the Glazing End Closure onto the end of the polycarbonate sheet.

Roof Glazing -Continued



Slide the glazing panel on to the Rafters (remember to remove the protective film if your glazing is polycarbonate). On side units that meet the ridge the glazing units push into the PVC glazing carrier.



Pull back a small amount of the yellow protective tape back and fold it over. Do not remove it all at this stage.

Roof Glazing -Top caps







Fit a Rafter End Cap and Glazing Stop to the Rafter. For the end Rafters, you will notice the End Caps are a different shape. The flat edge of the End Cap sits to the outside on each side of the conservatory. Pull the glazing sheet back until it sits against the Glazing End Stops. Once in position peel away the yellow protective tape and gently pat the glazing down onto the Ring Beam seal adhesive tape.



As you glaze, you can install the Rafter Top Caps. Use a rubber mallet to firmly knock these down on to the aluminium rafters.



You must seal the Rafter Top Cap to the Ridge Carrier as shown above.



Rafter End Caps can now also be fully fitted. Simply fold the End Cap up and locate it onto the hook just above the Glazing Stop until they click into place.

Roof Glazing -Top Caps & Side Caps

For the end Gable Rafters that sit over the top of the Gable Frame, the caps are slightly different. For each Rafter there is a Top Cap & a Side Cap, and there is a specific order in which to fit these. The Top Cap needs to be fitted first in order to allow the Side Cap to fit correctly. Please see images below. PLEASE NOTE: There are two positions to fit the caps depending on if your roof has 24/25mm glazing, or 32mm glazing.



The Side Rafter Caps are square cut the length of the Rafter bars and should be fit level with the top and bottom of the Rafters. There is an End Cap that fits over the Ridge to cover the Side Caps and aluminium Ridge Body.

Roof Glazing -Ridge Gable Cap



Guttering & Downpipe



Gutter Brackets

To fit the gutter brackets, twist into the Ring Beam external trim as shown above. These should be no more than 200mm from each corner, and a maximum of 600mm centres.



90° Corner (Code RWKA1)

Gutter Stop Ends & corners

Gutter Stop End (Code RWKE1 / RWKE2

To fit the Stop Ends or 90° Gutter Corners, there is no need to remove the clips. Clip one side of the Gutter into the Stop End / Corner and then push the other end up to the stop under the clip. You will need to use some force to do this.

Guttering







To fit the Gutter, clip the front part of the Gutter Bracket into the Gutter section (image 1)

Then rotate the rear section of the Gutter up and clip into position. (Image 2).

Image 2

Universal Gutter Downpipe Adaptor (Spigot)



52mm diameter drill / hole saw



Universal Gutter Downpipe Gutter Adaptor (Spigot)

To install the Downpipe you need to first fit the Universal Gutter Downpipe Adaptor also known as a Spigot. We use this rather than a running outlet to give greater flexibility on the Downpipe position. The downpipe position will have been discussed with the Technical team though to avoid positioning the Downpipe in front of an opening window for example.





To fit the Spigot, first determine where the Universal Downpipe Adaptor is to go, and then drill a 53mm diameter hole in the Gutter using a hole saw.



Unscrew the two parts of the Gutter Adaptor and fit into the hole you have drilled, before screwing back together.

To fit the Universal Gutter Downpipe Adaptor to the Gutter that sits on a cill, you will also notch a section of the cill underneath the hole you are drilling for the adaptor. This will need to be at least 70mm to allow the Downpipe to pass through the cill. Please see images on the right.





Fitting the downpipe

Parts shown on the right are used when assembling the Downpipe. (Black downpipe parts shown for illustration purposes only, Not supplied). Depending on the style of your conservatory you may need some or all of these parts.



Downpipe

112° offset bend

Downpipe bracket



Downpipe shoe

Fitting the Downpipe - Continued

There are a number of different ways to install the Downpipe, each depending on the style of your conservatory and the Downpipe position and requirements. Your Downpipe will be supplied oversized, and will need to be cut to size. You may require the offcut if you are using the supplied 112° offset bends. This instruction shows two different downpipe installations.



Measure the length of Downpipe required and cut to size. Take into account the shoe, that fits to the bottom of the pipe, and any offset bends if you are using them.



If you are running the Downpipe straight down from the Gutter, fit the Shoe to the Downpipe, then fit the downpipe to the Universal Downpipe Adaptor (Spigot).



Fit the Downpipe Brackets to the wall or corner post for example, and the Downpipe installation is complete for this down pipe configuration.



If the Downpipe is to be positioned away from the Gutter you may need to use the 112° Offset Bends and your offcut of Downpipe as shown in the example above.

The images on the right show how a Downpipe or Offset Bend fits to the Universal Gutter Downpipe Adaptor / Spigot.

Each conservatory Downpipe position and requirements are unique, but should be achievable with the parts supplied.



If you are attaching the Downpipe to your property wall you will need to pre drill any fixings that you choose to use, before fixing the Downpipe Brackets.





Fix the Downpipe Brackets to the wall. Four Downpipe Brackets are supplied with each Downpipe to use where required. Remember to fit the Shoe to the bottom of the pipe.



Ring Beam internal trims



To fit the Ring Beam Internal Trim you will notice two clips on the inside of the trim that clip into the inside of the aluminium Ring Beam. The top of the trim also clips over the top of the aluminium Ring Beam, and cab be simply push fit into place. Internal Ring beam Corner Trims are simply glued in place over the internal trims.

Internal Gable End trim









To fit the internal Gable Trim, first you may need to trim it to suit the pitch of your roof. There are lines on the trim for different pitches. Each line represents a 5° increment. The main roof pitches used are shown on the diagram at the bottom of the page. Once trimmed slide onto the end of the Ridge Bottom Cap. Before securing the Bottom Cap in place apply a silicone or mastic seal to the face that sits against the Gable Frame.



Bolster Bar Internal Trims (If applicable)



Bolster bar end caps are pre-moulded to suit an Edwardian Hip Bar (for example, square ended Hipped Lean-to). In this instance, no trimming is required. For your gable roof you will need to trim to suit. Cut the caps to the bottom moulding line to suit your Rafter bars.Once trimmed super glue into place, on the adhesive points also shown in the image above.

Face Drain Caps



Finally, if you haven't done so already, you need to fit the drainage hole caps, known as Face Drain Caps.

You will have noticed that there are two thin slots cut into the front of the gable frame, one either end. These are drainage holes, you will need to glue the caps onto the frame to cover over the drainage holes and leave a nice finish to the gable frame.

Also seal up around the PVC Butt Joints externally and along the bottom of the Gable Wedges if you haven't already done so. Your conservatory roof should now be complete.