



Selfbuild Guide





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This Centurion Assembly Guide has been produced as an aid to assemble the Centurion range of products.
All information in this manual is provided for guidance only.
Centurion DIY Conservatories cannot be held responsible for the way in which the information in this manual is interpreted.
We reserve the right to alter specifications and descriptions without prior notice as part of our policy of continual development.
All dimensions are in millimetres. Do not scale drawings.

Important Note:

Before attempting to assemble your conservatory base, frame and roof, please carefully read through this assembly guide. The roof installation plan and instruction guides are packed in with the roof parts.

The purpose of this Installation Guide is to assist you when erecting your Centurion conservatory.

Although the diagrams display a step by step approach when fitting a typical Edwardian style conservatory, the additional sections can be incorporated to cover the majority of other simple conservatory styles.

Your Centurion conservatory will arrive in kit form consisting of a number of packages containing the aluminium roof skeleton and the PVC-u cappings as well as the frames and glass units. Small ancillary items arrive in a box.

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 are numbered to correspond with its position on the roof plan.

For example if the eaves beam assembly is 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 your centurion conservatory is robust in construction, simple measures should be taken when handling, storing and erecting the conservatory. When unwrapping the packages take care not to damage components with a knife.

Do not leave PVC-u 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.

Sealants and flashings

Follow the instructions carefully and use sealants where indicated. It is recommended that where your conservatory roof abuts the house, you use a minimum of Code 3 lead chased into the brickwork.

Tools required

The following tools are necessary to install the Centurion Base, Frames and Roof.

Small tower or working platform
10 tread platform steps
2-section extension ladder
Work bench
8 x 150mm masonry drill bits
4 x 119mm HSS drill bits
8 x 165mm HSS drill bits
2 x 12" ratchet clamps
Mallet with white rubber head
Long nosed pliers
13mm socket and ratchet
Electric hammer drill

4" Angle grinder with masonry discs
Battery operated screwdriver
4' spirit level
10m measuring tape
Roofing square
Silicone sealant gun
Hacksaw
Stanley knife

13 & 17mm open ended spanners
60mm diameter hole cutters
5mm Allen key

Fixings

8 x 100mm frame to masonry
Fixings (supplied)
Self tapping screws (supplied)
M6 x 70mm Coach screws (supplied)
(Fixing back to timber)
(For box gutter models only, nylon roller hot air gun)

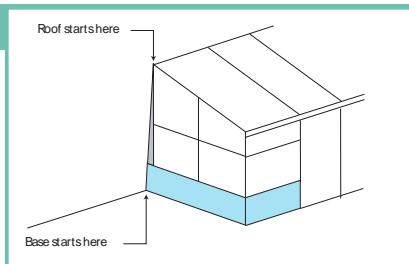
Roof vents

Centurion Roofs can be supplemented with an opening roof if required to the installation instructions found within the roof vent packaging.

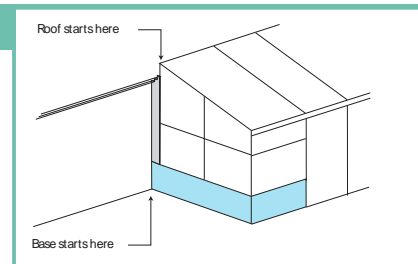
Setting out the conservatory

The setting out point (datum) of the base off the house wall must be carefully considered if the house wall is not vertical or has protrusions such as render, brick corbels, pipes etc. The drawings to the right show how you need to make allowances for these discrepancies and obstructions.

Allow for obstructions and discrepancies



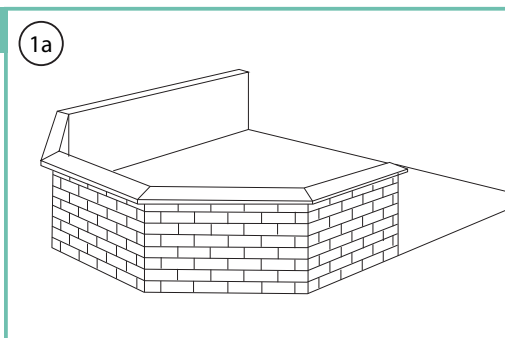
Example: Base projection greater than that of the conservatory due to 'out of plumb' house wall



Example: Base projection greater than that of the conservatory due to 'brick projection' on house wall

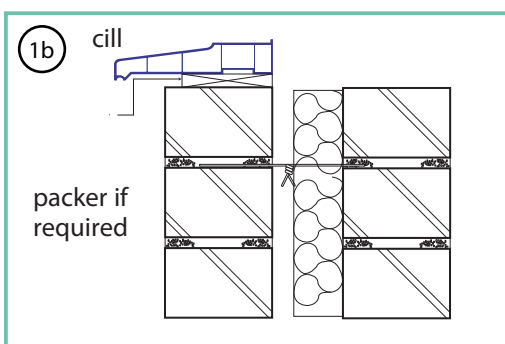
1- LAYING OUT THE CILL

The welded conservatory cill will act as a template for the conservatory frames and roof and must therefore be laid out onto the base accurately. The ends of the cill will be supplied over-size to take up any discrepancies on the base and you will need to cut these to size. Please note that the internal edge of the cill should be level with the internal edge of the outside brick (fig 1b). It is vitally important that the perimeter setting out sizes for the cill match the sizes on the roof plan exactly, cross checking the diagonal measurements will help determine the positions of the cill corners. Please note that cills are supplied over length for and will require cutting back on site.



FULL HEIGHT FRAME MODELS

If fitting direct to the concrete base, the inside edge of the cill should be positioned 100mm in from outside edge of base.

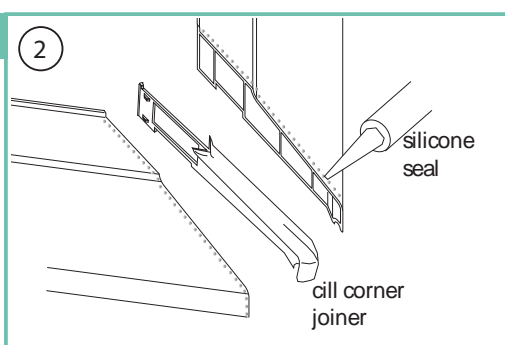


MODELS WITH FULL HEIGHT BRICK WALLS

You will be supplied with cills or welded cills plus a 20mm add-on. Cut cill and add-on to length, add-on will require mitring in the corners. Fix to external brick before fitting the roof.

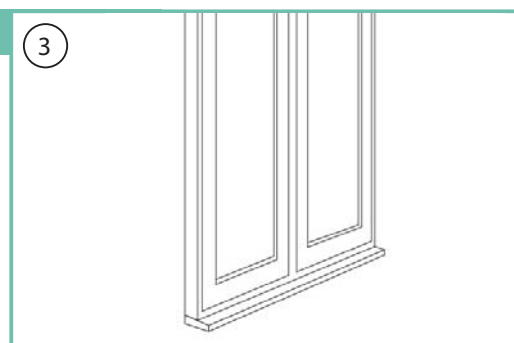
2- JOINING CILLS

The conservatory cill will arrive in individual segments the corners will require sealing and joining. Using the cill corner joiners supplied (fig 2) each cill should arrive mitred and cut to size with the specific cill corner joiner, the joint must receive a complete silicone seal along its length.



3- FIXING THE CILL TO THE DOOR FRAMES

At the door opening positions in dwarf walls, cut the extra piece of cill for the doors to the brick opening size less 10mm. Position the door frame in the brick opening (it may not necessarily be central) and mark its position on the cill. The lengths of the dwarf wall sills coming into the sides of the door frame can now be established and the cills cut to size. Remove the door frame and cill, run a continuous silicone sealant line along the back edge of the cill then screw the door cill to the underside of the door frame.

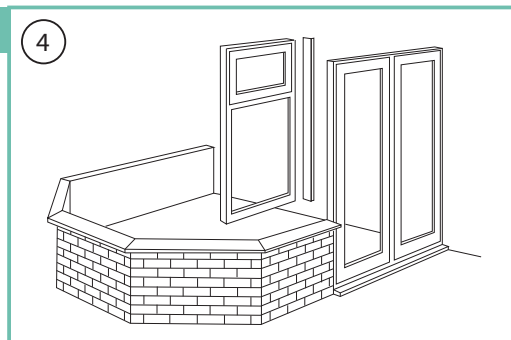


4- WALL PANELS

The contract paperwork with your conservatory should depict the style and position of each window frame. Starting on the left side (as viewed from outside) select the correct frame for each position and check that the widths amount to the correct perimeter size of the conservatory cill. You will need to take into account the thickness of the window coupling profile. Please be aware that PVC window frames have manufacturing tolerances of +/- 4mm.

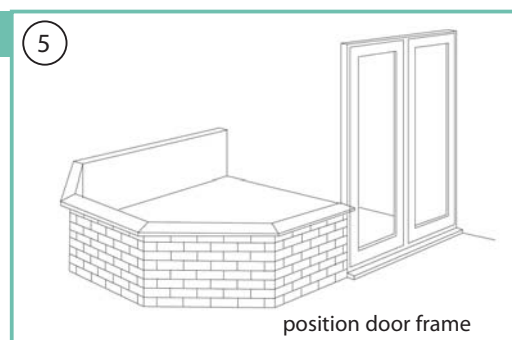
Select the first frame and position it on the cill against the house wall (fig 4). Using a spirit level ensure the frame is vertical, pack any gaps there may be between the frame and the house wall, then drill and fix in place using one masonry fixing.

Select the next frame and coupling profile and position them adjacent to the side of the previous frame. Ensure the coupling and frame heads are level and then temporarily clamp the three items together. Use self tapping screws into 4mm drilled pilot holes at 350mm centres, 150mm in from each end to give the connection (Screws supplied). Couplers may be supplied over-length, cut down as required. Couplers are either PVC H coupler (3mm) for a polycarbonate roof or aluminium couplers (8mm) for glass roofs.



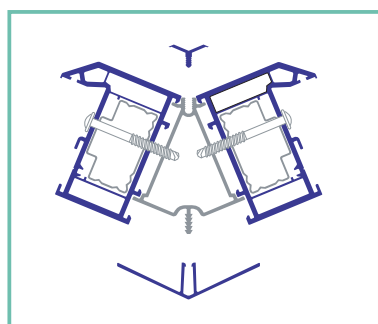
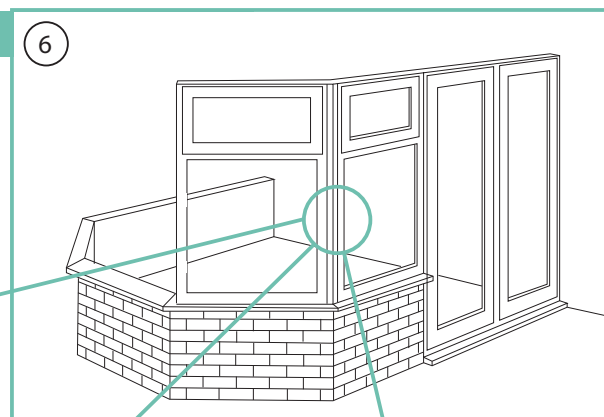
5- POSITIONING THE DOOR FRAME AND CILL

On dwarf wall models, position the previously prepared door frame and cill into the opening, fit packers if required between the underside of the cill and the base ensuring the door cill remains level. Pack between the door frame and the reveals on the dwarf wall ensuring the door frame is plumb on all sides, fix back the door frame into the brickwork reveals using 8 x 100mm frame to masonry fixings supplied.

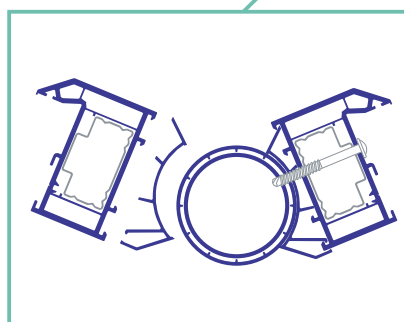


6- CONNECTING THE FRAME TOGETHER

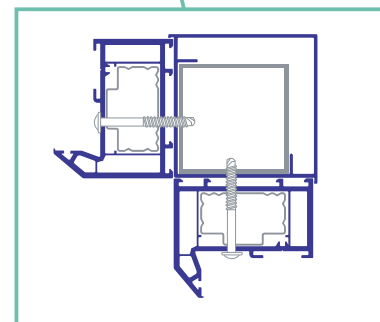
Continue connecting the frames together using the in-line and corner couplings until the perimeter is complete, the corner posts should relate to the corners on the welded cill. These couplings may be provided oversize in length, cut down as required.



Victorian Models



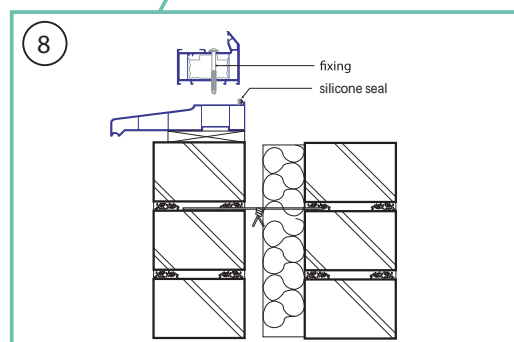
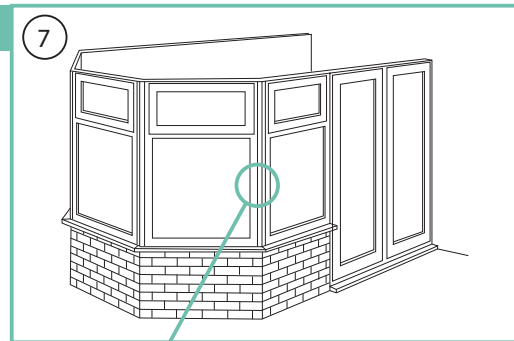
Victorian Models



Edwardian, Gable and Lean-to Models

7- SECURING THE FRAMES TO THE CILL

Run a continuous silicone sealant line along the back edge of the cill (fig 8) and position the back edge of the window frame up to the upstand on the cill.



8- LEVELLING THE FRAMES

With the frames fixed together, a constant level must be achieved around the perimeter of the conservatory, packing pieces between the top of the wall and the underside of the cill may be needed to achieve this constant level.

A long spirit level placed on top of the windows will determine the highest point around the frame perimeter, this will be your starting level. Work away from this starting level and pack-up the frames as required. Note: the frames and cill should float on the conservatory wall, therefore it is advised that once the conservatory is complete, point-up any gaps between the underside of the cill and the wall with mortar to give the cill a constant bed.

The last frame against the house wall requires fixing back into the brickwork, you may have to fit packers in any gaps there to stop the window frames from distorting. Ensure the window frame against the house wall is plumb on all sides and fix back using frame to masonry fixings at 350mm centres, 150mm in from each end. Seal over all exposed screw heads.

9- SECURING THE FRAMES TO THE WALL AND BASE

When the conservatory frames are assembled in correct and level position, the structure can be fixed to the base and wall. Use masonry fixings to fasten through the frame and cill into brickwork. Seal over all exposed screw head with silicone.

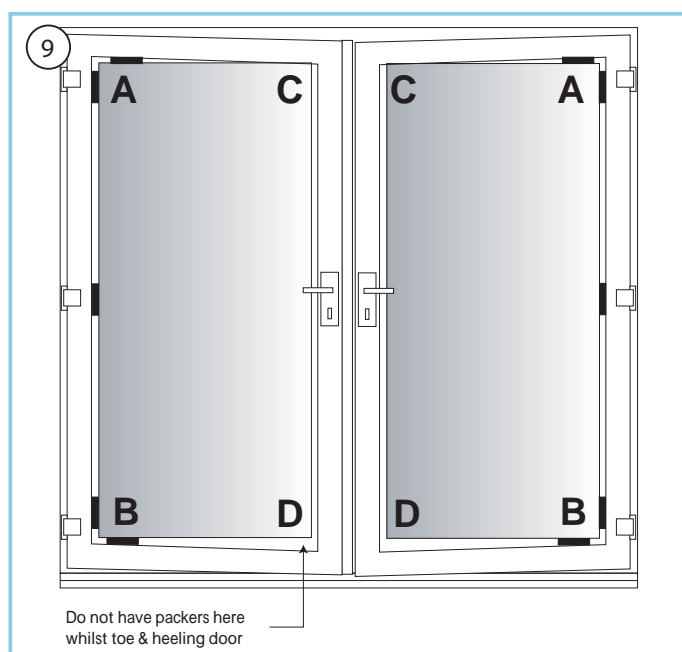
10- READY FOR THE ROOF

The frames should now be ready to accept the roof. Refer to the roof installation guide that is included for instructions on how to assemble the roof. Please remember that prior to assembling the roof, the frames must be:

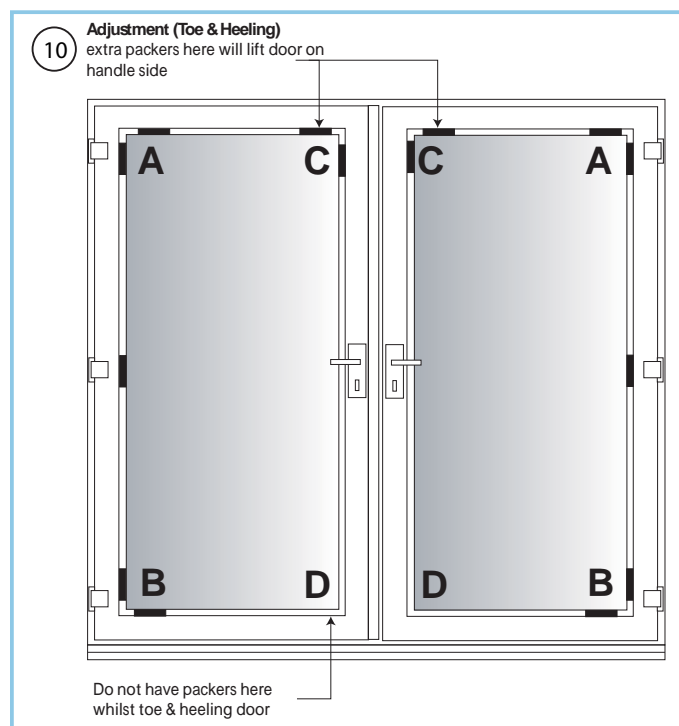
1. dimensionally correct around the perimeter
2. dimensionally correct in width and depth
3. level
4. vertical, leaning neither into or out of the conservatory

11- TOEING AND HEELING

PVC-U doors are heavy, and although their weight is supported on the hinge side when the door is open, there is no support on the lock side. Without the procedure of toeing and heeling, the door will drop on the lock side. To stop the door from dropping, the glass itself has to be braced diagonally corner to corner (B to C) with plastic packing pieces in the gap between the glass and frame.



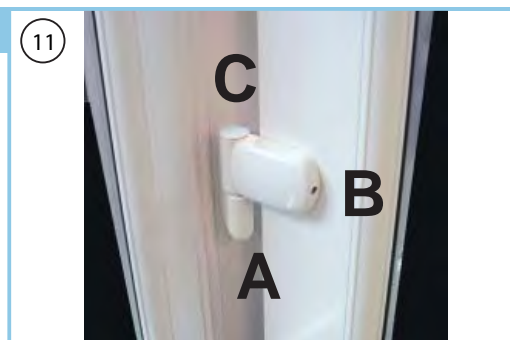
First, the double glazed unit must be in place in the door, resting on its plastic setting blocks to allow for correct drainage. Insert packing pieces at points A and B until the unit is evenly held in the frame. The door then needs to be squared up by adding packing pieces at point C, making sure that the door is parallel to the outer frame. Packing pieces can now be added at point D so that the glass is not able to move within the frame. Your door is now toed and heeled and the final glazing can now be done.



12- HINGE ADJUSTING

Each door hinge has the ability to be adjusted in 3 directions, (fig 11). This adjustment allows fine tuning of the locking mechanisms and ensures that the doors remain parallel to each other whilst giving correct compression on the door to frame gaskets. Once the door has been adjusted the plastic caps at A and C must be refitted.

The hinge adjustment A will effect the height position of the door mainly on the door hinge side. Should the height position need adjusting more on the lock side then this can be achieved by adjusting the packers between the glass and the door as detailed in Toeing and Heeling above.



Door hinge adjustment
5mm Allen key

- A door height adjustment
- B door left to right adjustment
- C door in and out adjustment (eccentric)

13- SHOOT BOLT KEEPS

The shoot bolt keeps fitted to the frame can be adjusted by releasing the screws. On the slave door, adjust the top and bottom keeps so that the door is pulled into the frame as tight as possible. Adjust the keeps on the master door until a smooth latching operation is achieved. Re-tighten all screws once adjustment is complete.

14- GLAZING WINDOWS AND DOORS

Your window frames are delivered with beads in place, remove the longest beads first then remove the remaining beads. Each bead is cut to fit in specific position and should be replaced in the same position when glazing.

Do not use implements such as a screwdriver or chisel to remove the beads, as this can damage the beads and/or frames.

The sealed units in your conservatory are made from toughened glass, this makes them very tough face-on but vulnerable on their edges. Whilst handling the sealed units, please ensure you protect the edges from knocks. To install a glass unit into the frame, firstly ensure that the frame is fitted with the appropriate gasket then follow these instructions:

Important Note:

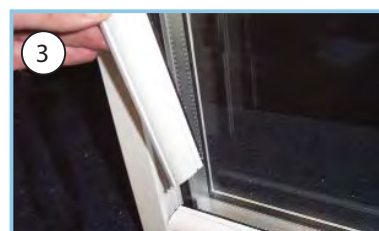
Take care when packing glass units as shown, not to wedge anything between the 2 panes of glass! If this happens the glass unit will be stressed when the glazing beads are fitted and will break!



Position the unit onto bridging packers. These keep the unit away from any water sitting inside the frame.



Centralise the unit within the frame and pack the edges with appropriate thickness of glass packers. Keep the bead area of the frame clear.



With the glass packed into the frame at the sides and head, fit the glazing beads. The top and bottom beads must be fitted before the side beads.

REMEMBER!

We are only a phone call away. If you are unsure about any of the detail in this build guide or are having difficulties, our staff are here to help.

Please call on 0800 389 7261
for help or advice.



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