

so you think all **window companies** are the same... **think again!**

sternfenster

Video

Visoglide Plus Patio Assembly and Installation Guide



so you think all **window companies** are the same... **think again!**

Thank you for choosing to buy our aluminum Patio doors, this step by step guide has been designed to show you how to successfully assemble (*if supplied in kit form*) and install your new Patio Door

It is vital that you follow each step and carry out all checks as detailed in this document to ensure your patio is assembled and installed correctly.

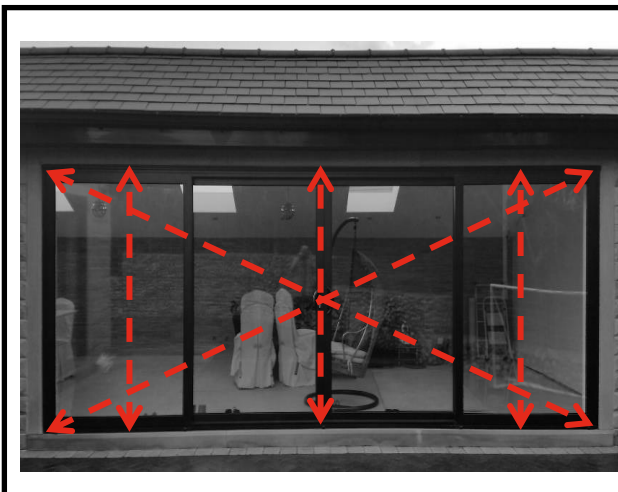
If your Patio doors are not installed square, plumb and level it could lead to operational problems and may cause damage to the profile or gearing.

Tools you will require to assemble and install patio

- A suitable drill for securing the fixings through the frame and into the wall.
- Good quality frame fixings.
- Six foot spirit level for ensuring frame is fitted plumb and level. For large patios we recommend the use of a laser level.
- Good quality silicone to seal the perimeter, we recommend low modulus neutral cure silicone.
- A five meter tape measure.
- A selection of plastic packers that are used for squaring the frame in the opening and preventing distortion when tightening frame fixings.
- Glazing Shovel.
- Putty Knife.
- Rubber Mallet.

Important things to check before you start assembling the Patio

- Check off the parts against the list to ensure you have all parts required.
- Ensure you check all parts for damage and report them prior to assembly.
- Ensure you have a large enough clear area to work and this is suitably protected to prevent damage to parts during assembly.
- Check the paperwork and ensure you fit the patio the correct way round.



Important - Please Read

The frame must be assembled and installed square and plumb to avoid the doors catching when opening and closing this will also cause the gearing to be stiff to lock. Check the dimensions with a tape or string line, Ensure the frame is fixed and level on each side.

We recommend the use of a cavity tray for installations first floor and above

Parts List

Frame Sections				
Outer Frame Section	4			
Sashes				
Sliding Sashes	Depends on style			
Fixed Sashes	Depends on style			
Outer Frame Parts				
Outer Frame Cleats (ACVG510)	8			
Outer Frame Chevrons ACVG520	2 Track	2 Track Flush	3 Track	3 Track Flush
	8	12	12	16
Cill and Head Cover ACVG514	2		2	
Cill and Head Cover ACVG515			2	
Head Extensions & Cill's as required				
NOTE FOR PATIOS WITH ALL SASHES SLIDING NO CILL & HEAD COVERS REQUIRED				
Sash Dependent Parts				
Fixed Sash Securing Screw (75mm Drill point)	1 Fixed Sash		2 fixed sashes	
	7		14	
Number Door Sashes	2	3	4	
Patio Stops	2	4	4	
Drainage cover Caps	3	4	5	
Anti-Lift ACVG529 (25mm fixing screws provided)	2	6	6	
Interlock End cap (65mm fixing screw provided)	2	3	4	
Interlock Cover (Aluminum)	2	4	4	
Bridge Packers	2 per sliding sash			
Over size Patios				
Joining Screws (25mm)	4			
Ancillary Items				
Mitre Glue	1			
Clear Silicone	1			
2.5mm Allen Key	1			



18mm Wide
Frame Cleat



Cleat Blocks



Frame Chevron



Mitre Glue



Silicone



2.5mm Allen Key

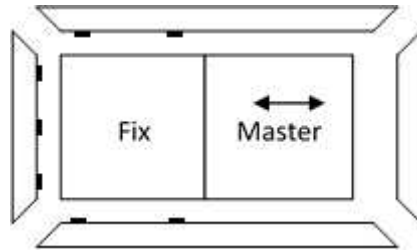
NOTE - See Page 11

If the doors are having slim interlocks the units must be bonded into the sash. Units must be sealed with Butyl and without tape. We will supply a tube of ACUN3612 Surface activator and a tube of ACUN3610 single component sealant.

Failure to bond the units will invalidate any warranty/guarantee.

Patio Door assembly Instructions

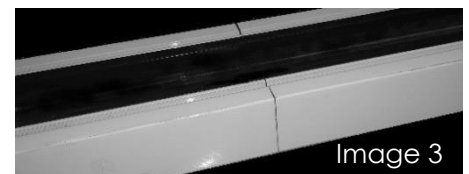
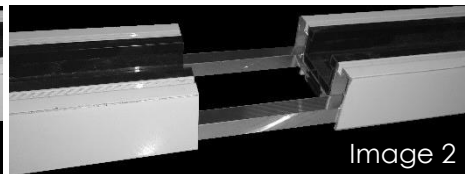
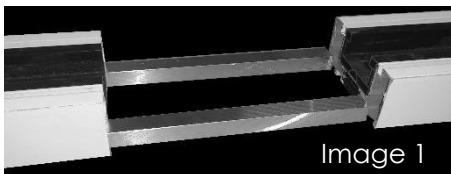
Your Patio door has been fully manufactured and the disassembled for reassembly on site, please follow these instructions carefully



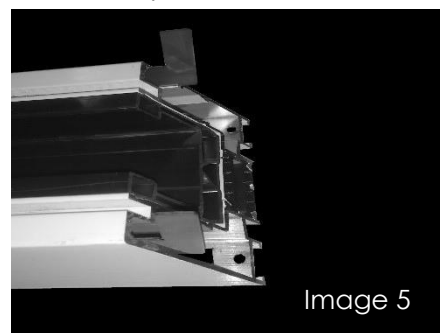
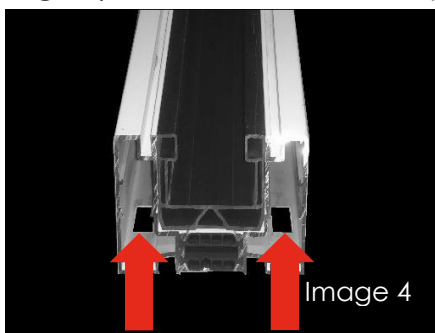
This is the Lock/Keep side for this style

Step 1: Outer Frame Assembly (flat pack only)

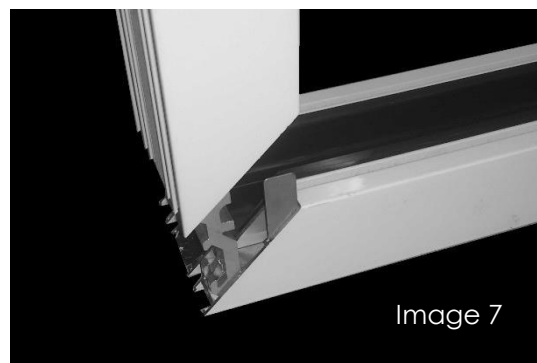
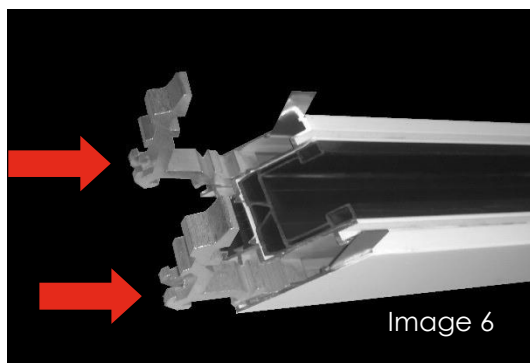
1. Lay out the frame with the drained section at the bottom and the section with the keep fitted at the correct side for the handing of the doors ordered (Check Paperwork – always viewed from outside). Depending on the door size the head and cill section may be supplied in 2 sections straight cut at the join, you will find that one section will already have an aluminium jointing section fitted. To complete the join simply apply silicone along the length of the exposed aluminium jointing sections and around the end of the frame section, (this is important to prevent any leaks at this point). Slide the outer frame sections together (see images 1, 2 & 3), and ensuring the profile edges are lined up flip the profile over and using the screws provided insert them into the pre-drilled holes. Wipe off any excess silicone from the face of the profiles.



2. You can now start assembling the outer frame. Apply the provided mitre glue to the end chambers of the profile (see image 4); N.B. if it is a 3 track patio there will be 3 chambers. Fit the chevrons into the end of the patio frame (see image 5). Coat the ends of the profile in the silicone provided.



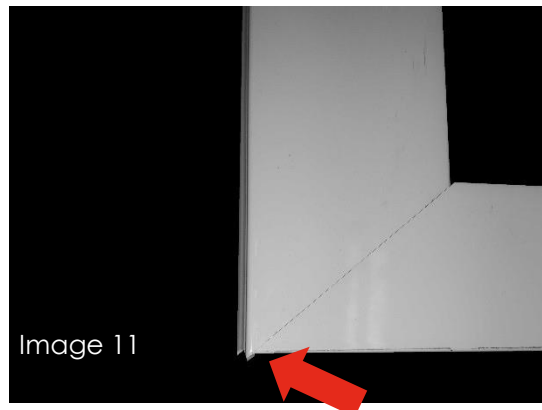
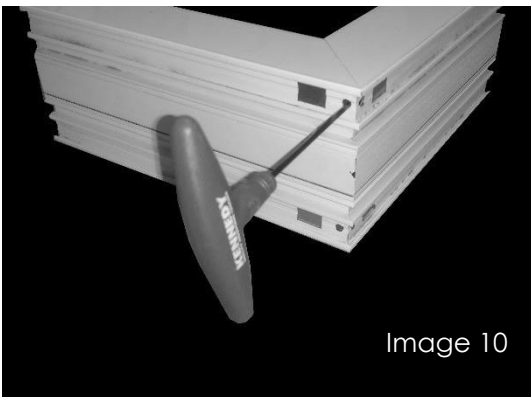
3. Insert the metal cleats, one in each chamber as shown in image 6 (for a 3 track patio insert 1 extra in center), attach the next piece of outer frame see image 7



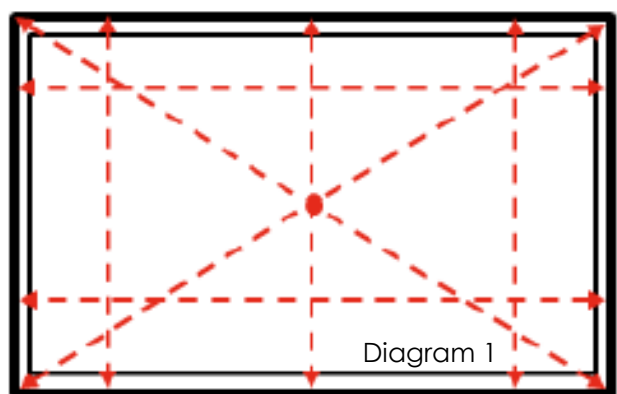
4. Insert the cleat blocks through the pre-punched holes, ensuring that the grub screw is facing towards the corner of the profile (images 8 & 9).



6. Using the 2.5mm Allen key provided, tighten the grub screws on each cleat by inserting the Allen key through the small round pre-punched hole (image 10). Wipe off any excess silicone from the join and check the mitres. Image 11 shows a badly formed mitre; this occurs when the Allen screws are tightened too much in one direction. To remedy this loosen off the screws on the edge that is inset, (image 11), then tighten the screws on the opposing edge. Once the mitre is even (as in Image 12) ensure that the Allen screws are all tight.

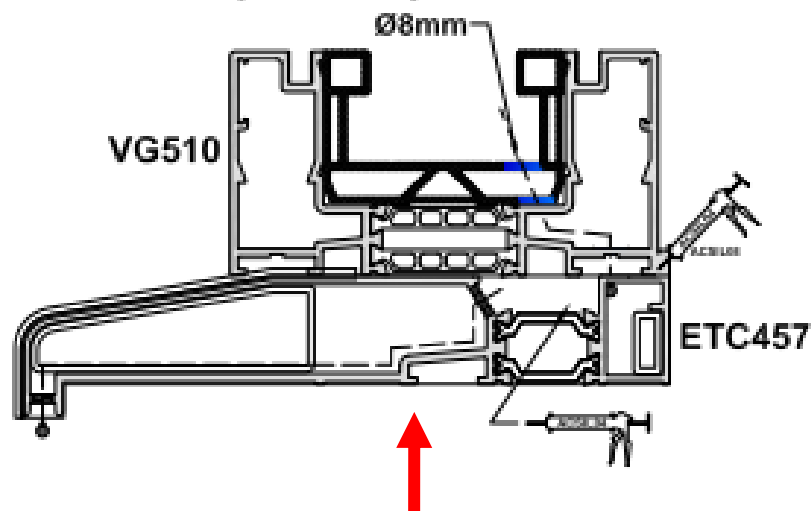


5. Repeat the above steps on the other corners until all sections of the frame are joined. Once assembled check to ensure the frame is square, we recommend checking the measurements as indicated in Diagram 1 below.

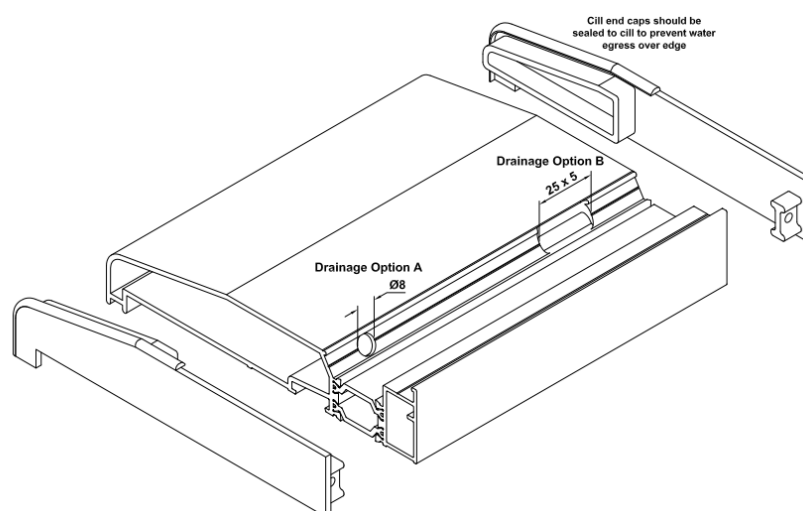


so you think all **window companies** are the same... **think again!**

7. If a head extension has been supplied, fit this with the screws provided, applying a bead of silicone along the join before screwing into place.
8. If a cill is required, fit this next ensuring that you fix from the underside of the cill into the outer frame and not down through the outer frame into the cill. Again, ensure you apply a bead of silicone along the inside edge of the cill before joining it. **The cill end caps must also be fitted and sealed in place with a bead of silicone, without the end caps water can back track into the fabric of the building.**

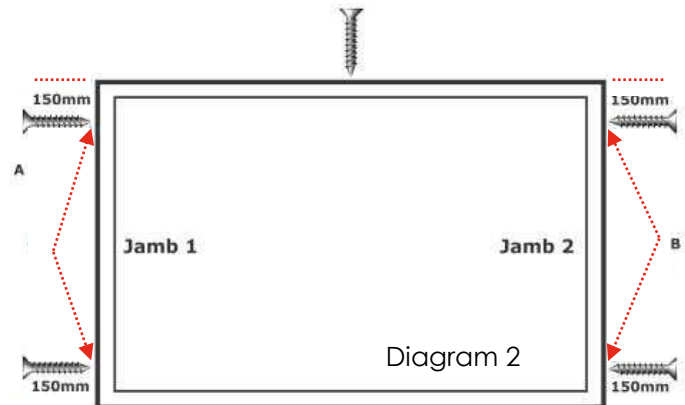


Fix from underside of the cill into the outerframe and not down through the outerframe into the cill

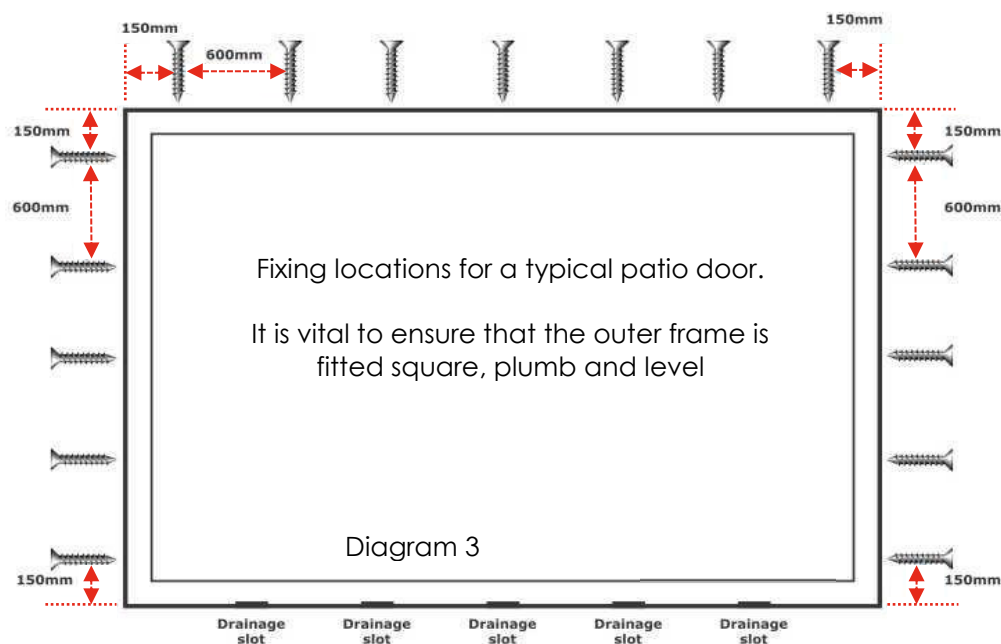


Step 2: Installing the Outer Frame

1. Offer up the assembled outer frame to the prepared opening, using a 6 foot level ensure that Jamb 1 is plumb, once satisfied fit 2 temporary fixings 150mm from each corner (A). At this stage it is important not to fully tighten these fixings.



2. Repeat this process on Jamb 2, again using a 6 foot level to ensure the cill and jamb are both level (B).
3. Ensure installation packers are used behind frame fixings to prevent distortion and hold the frame square. Failure to use these could pull apart the aluminium corners.
4. Using a 6 foot level check the cill is flat with no dips or rises, use installation packers to help achieve this. This is vital to ensure that the doors slide smoothly.
5. Once you are happy the frame is in square and plumb place an additional fixing through the head of the patio at the center, again using installation packers.
6. You can now continue to place the rest of the fixings (at 600 centers max) around the head and jambs as per Diagram 3, not forgetting to tighten the temporary fixing screws from the first 2 steps.



Step 3: Fitting the Sashes

1. If there is a fixed sash you need to fit this first, it will be the sash without any holes for the handle. Position the sash into the frame by tilting the top and lifting the sash in, it will be easier to do this towards the locking side of the outer frame as the fixed sash support blocks will be in the way. If all the sashes are sliding this will not be an issue. Once the sash is in the frame slide it over the support blocks until it is tight to the Jamb.
2. Use the 75mm drill point screws to attach the fixed sash to the outer frame, fit the screws through the pre-drilled holes in the glazing support packet which is fitted to the sash, fix the 3 on the jamb first before moving to the bottom and finally the top section.

3. Now position the sliding sash into the outer frame, again by tilting the top and lifting it into position. In order to prevent the doors being removed you will now have to fit the anti-lift blocks to the top and bottom of the sliding sash, see diagrams 4 & 5.

4. Insert the anti-lift block (ACVG529) to the top and bottom of the sliding sashes using the 2 x 25mm screws provided.

5. Clip on the pre-cut aluminium interlock section (VG530) using a rubber mallet, being careful not to damage it.

6. Fit the ACGV530 plastic covers to the aluminium interlock section using the 65mm screws provided, finally inserting the plastic caps (ACET190) to cover the screws.

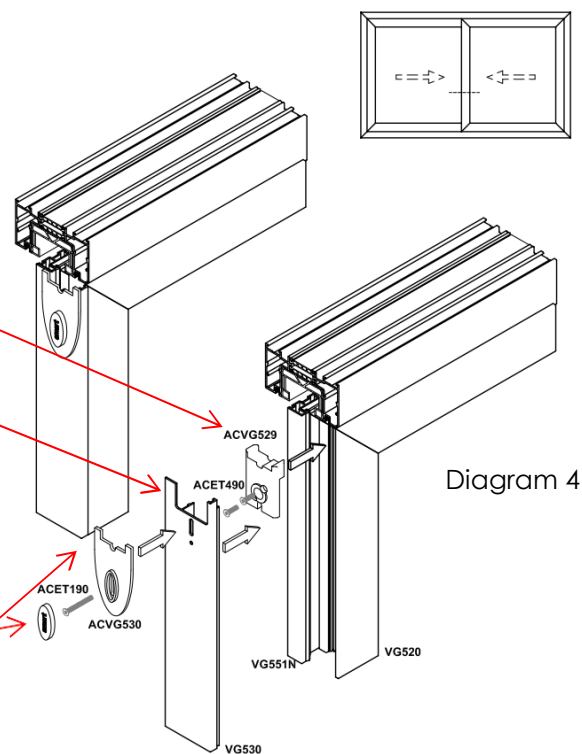


Diagram 4

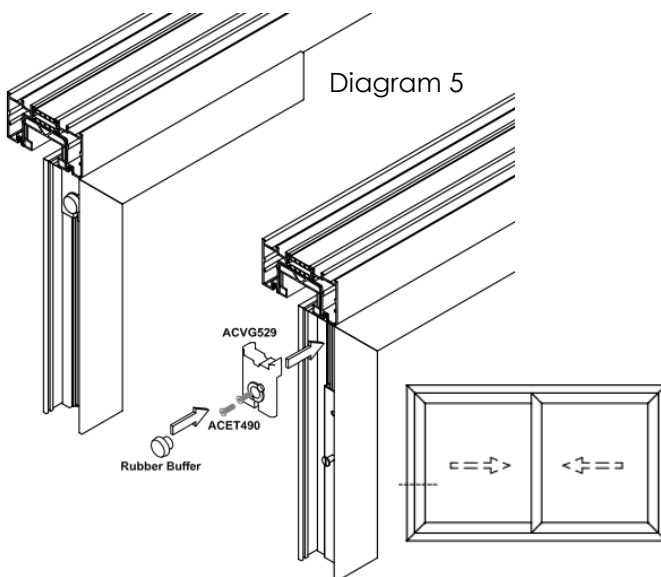


Diagram 5

7. On the locking side of the sash insert the anti-lift blocks (ACVG529), securing them with the 2 x 25mm screws provided and then inserts the rubber buffer.

Unless specified we will fabricate the patio doors with the slider on the inside

8. With the sashes installed the top and bottom aluminium covers need to be fitted into the outer frame, please note that there are no covers if all the sashes slide. The covers are prepped ready to fit but are left 20mm long and must be cut to size onsite to accommodate for small variation during installation. Once you have measured and cut the covers you can simply clip them in using a rubber mallet, being careful not to damage them. See Diagram 6

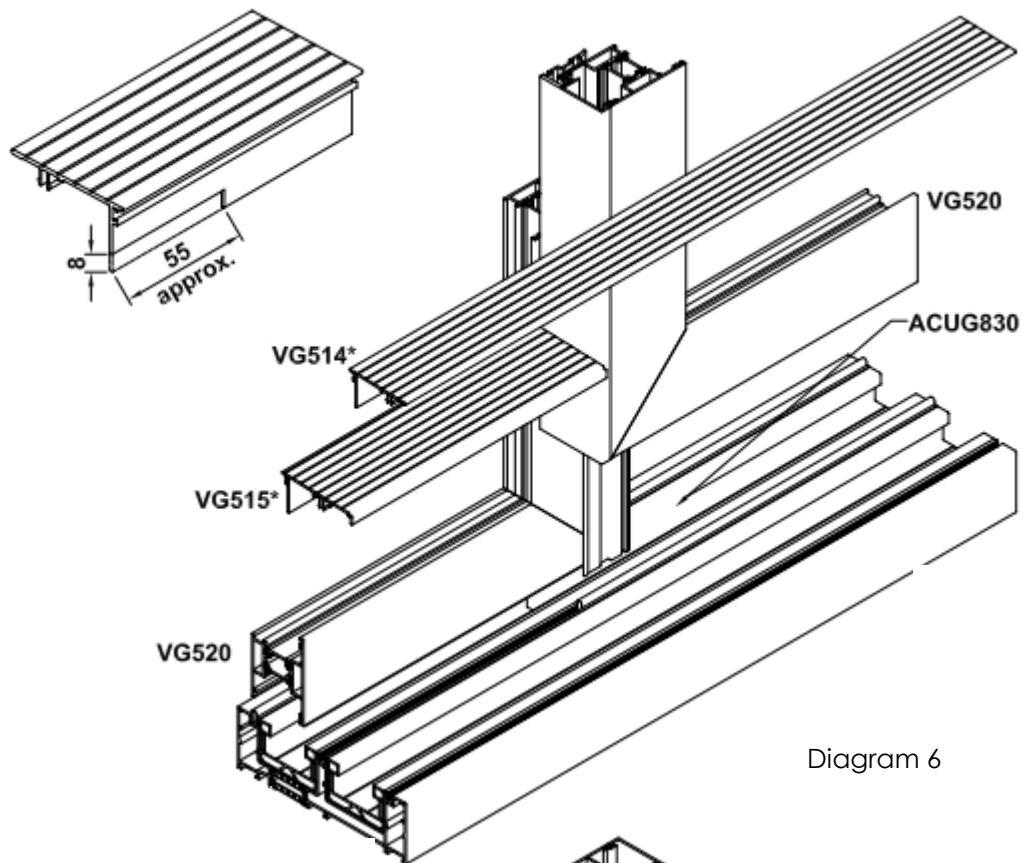
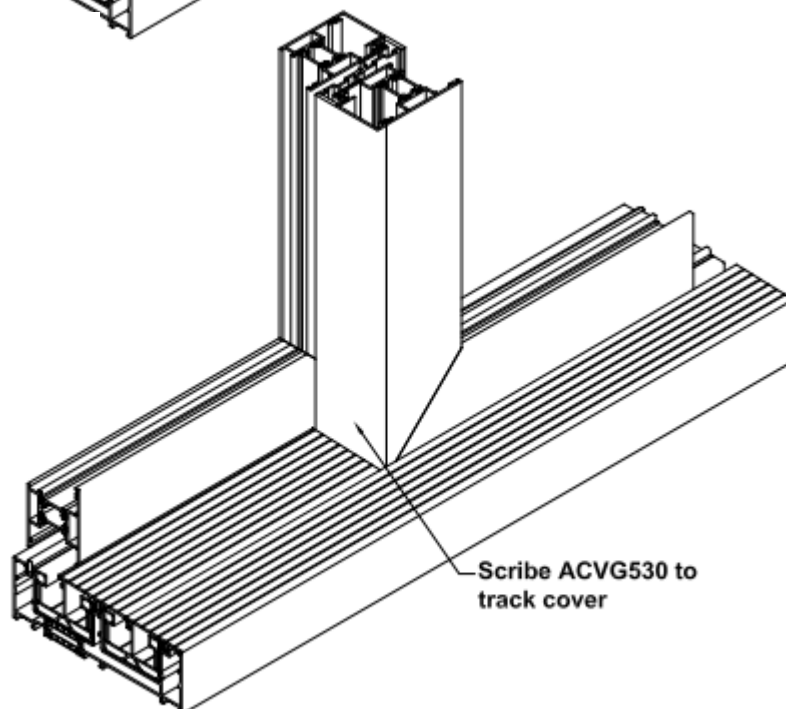


Diagram 6



Step 4: Glazing the patio sashes (for bonding units into slim interlocks see page 11)

To glaze the sashes and “toe and heel” the units correctly please follow the steps detailed below. “Toe and heeling” the glass in the correct way will allow the doors to work smoothly and avoid problems operating the door. To ensure that the glazing packers don't move we recommend that you silicone them in place, it is also important to ensure that they do not obstruct any drainage holes and that the packers are wide enough to sit under both panes of glass to avoid damaging the spacer bar.

1. Starting with the fixed sash, fix the glazing packers into the glazing rebate as per Diagram 7. It is important that the packers are positioned in the correct location. Sliding sashes should have 2 Bridge packers (as supplied) fitted to the bottom of the sash before fitting wedge packers.

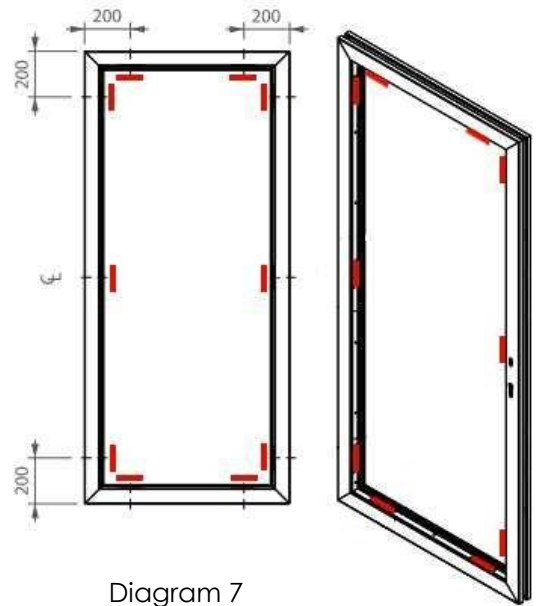
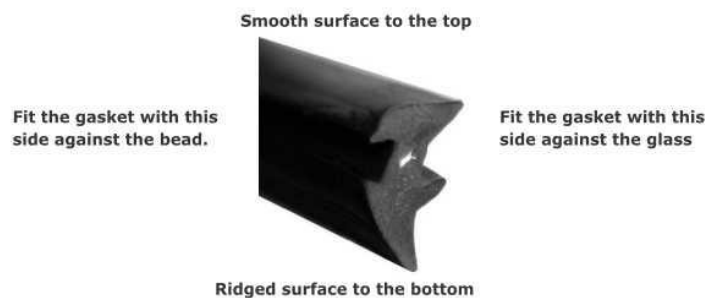


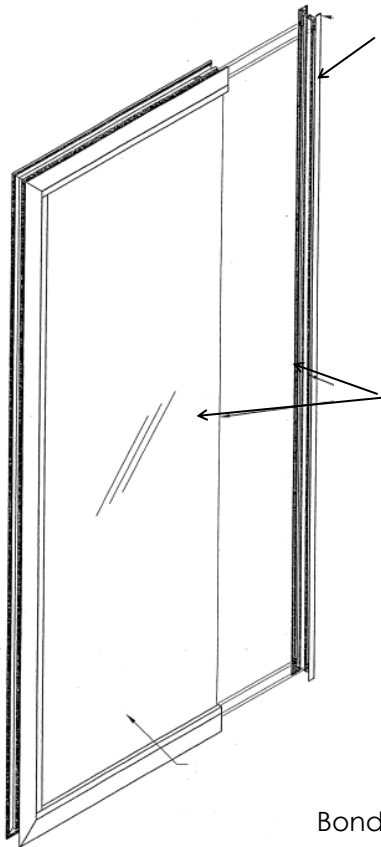
Diagram 7

2. Insert the glass unit; push in more glazing wedge packers between the glass and the packers to ensure that the glass unit is held in tightly. The glazing wedge packers should be tight enough to hold the unit in place without inserting the beads.
3. Once you are happy that the unit is sat squarely in the sash offer up the glazing beads, placing the short ones in first. You should take care not to scratch the beads when fitting them. If you find the bead too tight, lightly file off the end and remove any sharp edges.
4. Finally insert the 5mm internal wedge gasket (ACVG34 - as shown below). Mitre one end of the gasket and using the point push it between the bead and the glass, to ease this is you can spray it with soapy water. Make sure you fit the gasket all the way round, ensuring that you don't stretch it.
5. Repeat the above steps for the other sashes. Once the installation is complete remove any protective tape and clean down the frames and glass.



so you think all **window companies** are the same... **think again!**

Slim Interlock unit bonding



Slim Interlock

Ensure area of bonding is clean, dry and free from surface contamination.

Apply a small coating of ACUN3612 surface activator to the interlock glazing channel and the bond area of the glass only.

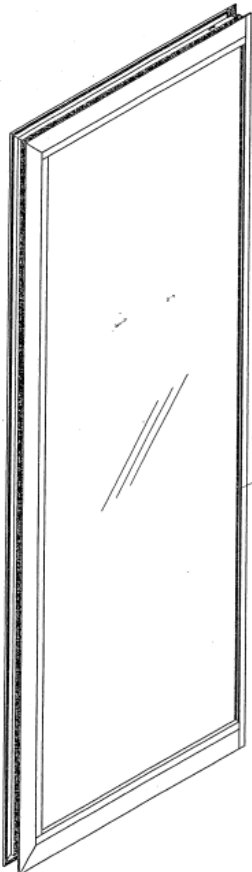
Allow to dry, leaving a slight residue.

Take care not to apply ACUN3612 activator to any visible surfaces

Important : Slim interlocks must always have the units bonded in.

Failure to do so will invalidate any warranties/guarantee.

Bonding



After preparation, apply ACUN3610 single component sealant into the gap between frame and glass as in detail A

ACUN3610 must be applied to the full height of the unit.

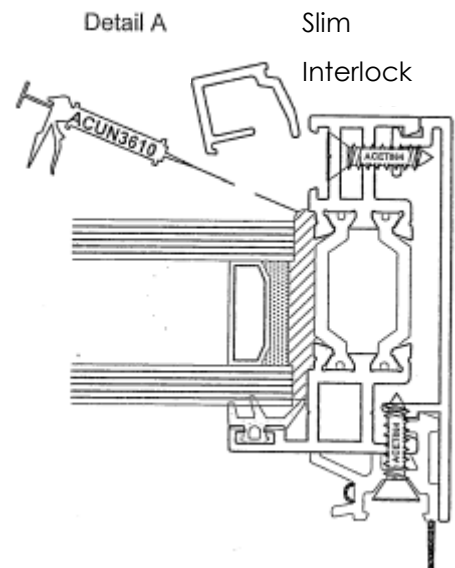
Pack glass to ensure it is positioned correctly within the sash. A sash clamp should be used to ensure the interlock is held flat while ACUN3610 sets.

Leave to set over night.

ACUN3610 is a high quality single component adhesive that provide a strong bond between the Butyl sealed unit and frame.

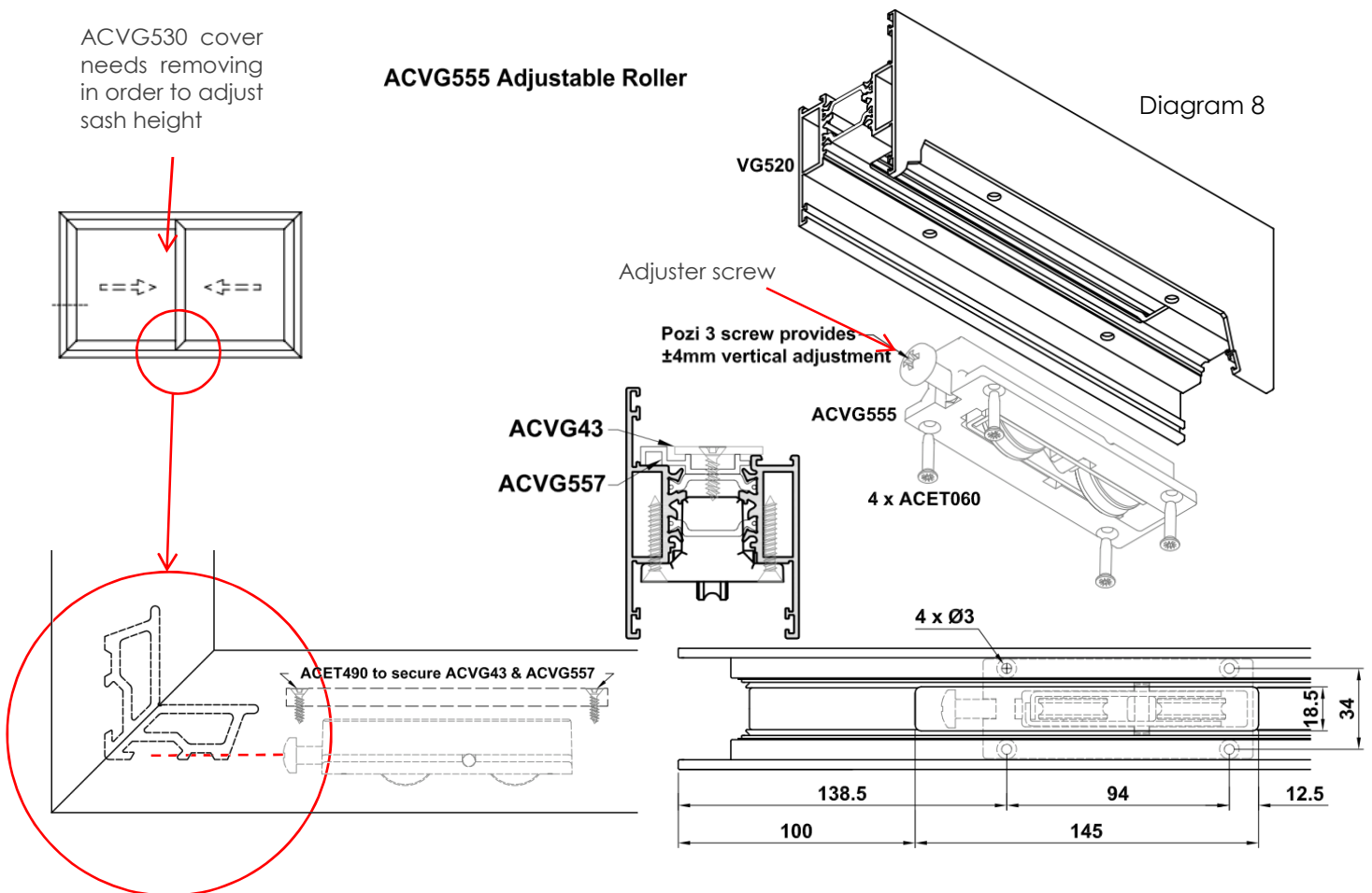
Important

We recommend glazing the sash in the workshop at least a day before installation so it can be allowed to set.



Step 5: Finally checking and adjusting your new Patio door

1. Once the door is fully installed check the track to ensure that any debris is removed and that the patio glides smoothly.
2. Push the sliding door towards the locked position, checking the sash jamb and frame jamb are plumb. Check that the door locks smoothly, it may be necessary to adjust the height of the sliding door in order to ensure that the locks are properly lined up.
3. To adjust the height of the doors you need to remove the aluminium cover (ACVG530) on the side of the sliding door, (see step 3: *Fitting the sashes for details on how to remove the cover*), Once you have removed the ACGV530 cover from the sliding sash you will then be able to access the adjustment screw. Insert a long PZ3 screwdriver under the sash to reach the adjuster screw, turning it clockwise will raise the sliding sash up to 4mm, turning it anti-clockwise will lower the sliding sash up to 4mm.
4. Adjust, test the operation of the doors and readjust as required until you are happy with the operation of the doors. It is advisable to lubricate any moving parts/tracks with silicone spray before demonstrating the product to the customer.



Post installation

Providing that you have followed the instructions detailed in this booklet your doors will operate without any problems, if you find that the sashes are catching at all go through the list below and check to ensure that you have assembled and fitted the patio doors correctly.

- Check that the outer frame has been installed plumb, true and parallel.
- Check the diagonal measurements from corner to corner, these should be the same.
- Check to ensure that the head of the frame has the correct fixings and is not bowing down.
- Check to ensure that the cill is flat and does not have any rise and falls.
- Check to ensure that the sashes have been correctly toe and heeled.
- Check to ensure that the track is free from debris and dust; spray the track and the wheels with silicone spray.
- Ensure that any excessive sealant is cleaned off immediately, this is especially important with plaster and cement as the chemicals are harmful to the paint finish so should be rinsed off immediately.

General use

It is important that you look after your doors and you should follow the guidance below to prolong the life of your new doors.

- **Remember to lubricate all moving parts at least twice a year.**
- Regularly clean the aluminium with a mild detergent and a soft cloth, using abrasive materials will cause damage to the paint finish.
- Providing that the doors have been assembled and installed correctly there will be no need to adjust or move any moving parts.
- Regularly clean the track to ensure it is free from debris and dust, spray the track and wheels with a silicone spray.

sternfenster
window systems

No.5 The Works, Waterside South, Lincoln LN5 7JD Tel. 01522 512525 Fax. 01522 567651
www.sternfenster.co.uk email:sales@sternfenster.co.uk



Version 6, April 2023

We reserve the right to make changes to the product specification as technical developments dictate and without prior notice.
Pictures shown in this brochure are for illustrative purposes only and are not binding in specification or detail.

For technical reasons associated with colour reproduction, the colours shown give only an indication of shade, no guarantee can be given that they will exactly match the actual product finish.