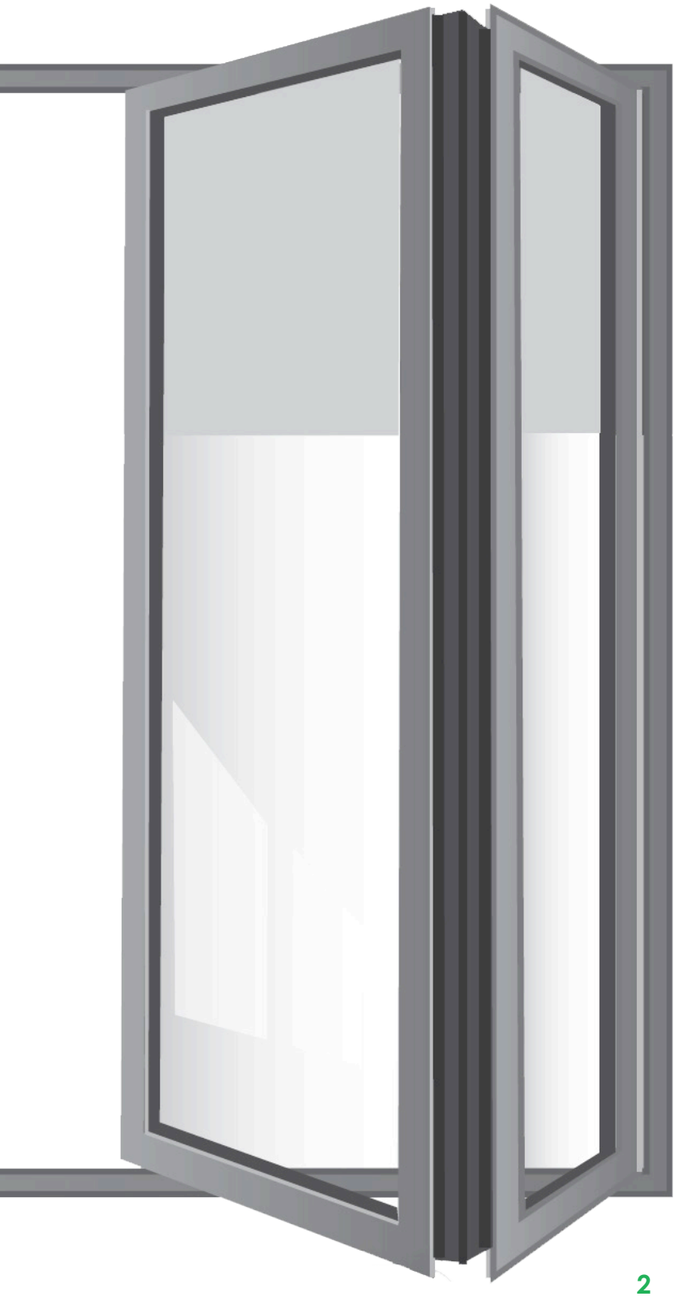
BI FOLDING DOORS

Installation Guide

HOMEVIEW

REVISION 1.5

INSTALLATION

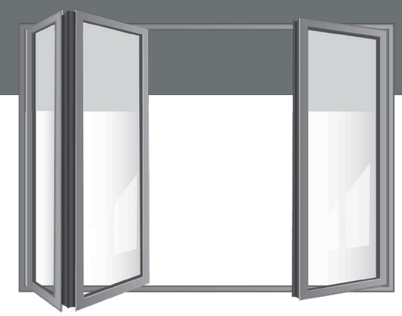


Thank you for choosing Home View

We are delighted you have chosen to install Home View bi folding doors for your project. Home View is the bi folding door brand of GAP Ltd, the UK's largest independent manufacturer and stockist of low maintenance building products.

Step by Step Guide

To ensure our doors are easy to install and to provide a hassle free operation for the homeowner, we ask that you follow our step by step installation guide which covers everything you will need.



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1.0 General Installation Instructions

Assembly Instructions

IMPORTANT. Read these assembly instructions before beginning any installation work. Install as recommended otherwise the door unit may not function properly and any warranty, written or implied, will be void.

Qualifications

The assembly instructions are only for the attention of qualified installers who are trained and qualified in window and doors installation techniques, and are aware of the manufacturer's recommendations for the system used.

Transport and Storage

- Parts that could come loose during transportation can be damaged or cause accidents.
- All packaging opened to allow the goods to be inspected must be closed and properly sealed for further transport.
- Any goods that will be further transported must be loaded safely and securely.

Incoming Goods

- All goods received must be inspected for any transport damage prior to being removed from the vehicle. The goods received must match the delivery note.
- Any wet packaging may cause damage to the goods and therefore must be removed immediately.

Site Survey

- It is important to check the conditions on site before starting the assembly.
- Check for any apparent defects and deficiencies around the structural opening. If any defects are found, then the customer must be notified, and agreement reached as to who is responsible for rectifying these defects prior to the installation.
- Check structural conditions such as the wall construction, the load capacity or adhesiveness of the edges for adhesive sealing systems, evenness, building moisture, a possibility for load transfer and mounting, constructional tolerances and height reference points.
- Check for contractual agreements, supplied assembly detail, planning guidelines, heat protection, humidity proofing, and interferences to other assembly sections.

Fixings

- The fixing materials are not part of the scope of supply. The installer must decide on which fixing materials to use after assessing the given substructure. If any supplied fixing materials are used, Gap do not accept liability for the correct assembly.
- The installer must ensure that the fixing materials are suitable for the respective substructure and that assembly is completed correctly.

Handover

- All operating, assembly and adjustment instructions as well as maintenance and care guidelines must be delivered to the user when briefing them.
- It is essential to train the user on the function of the supplied product and provide instruction on the directions for safety and use. Incorrect operation or failure to observe the instructions may lead to damage and accidents.
- The installer must store the instructions carefully and hand them over to the new owner.

Packaging

- When unpackaging the bi folding doors, it is important to do it slowly and carefully to avoid any damage. Do not use sharp objectives likes Stanley knives to open.

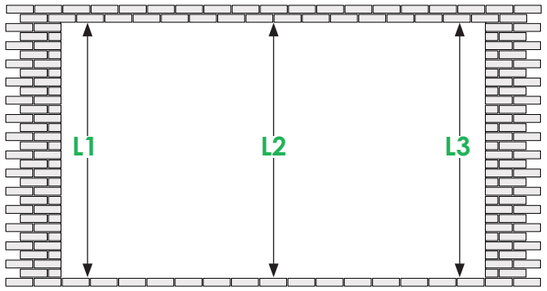
1.1 Recommended Tool List

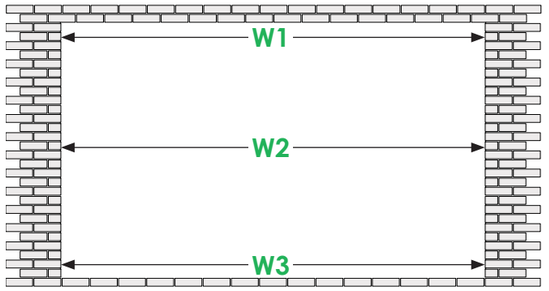
Appropriate fixings into structural opening
Mixed selection of frame packers
Mixed selection of glazing packers
Rubber mallet or plastic mallet
Set of HSS drill bits
Drill / SDS hammer drill
Saw for cutting aluminium sill
Long spirit level
String line
Tape measure
No.2 Pozi drive
2.5mm, 3mm and 4mm Allen keys
Level or laser level
Gloves
Vacuum cups
Caulk gun and low modulus silicone
Paper towels
Utility knife
Silicone and gun
Set square

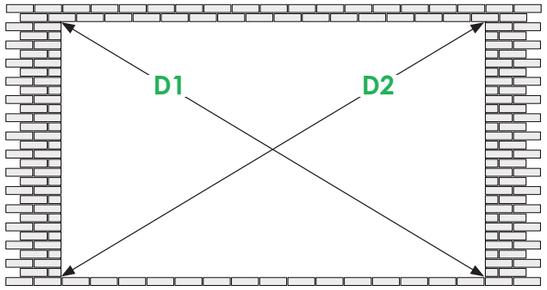
2.0 Survey

- The aperture for the new doors must be flat, level, straight, plumb and square at every single side. There should be a solid structure to fix the frame.
- The aperture load bearings must not be transferred to any part of the frame when fitted.
- The internal and external reveal sizes should be checked and any variations must be determined to ensure enough opening light for the area where doors will fold and will not be obstructed by plaster or tiles etc.
- Check the aperture's height, width and diagonals to ensure the opening is equal on all sides and square.
- Generally three measurements should be taken.

NOTE: The smallest measurement of width and height used to determine manufacturing sizes.
- See section 2.2 Aperture height inspection using a datum line.





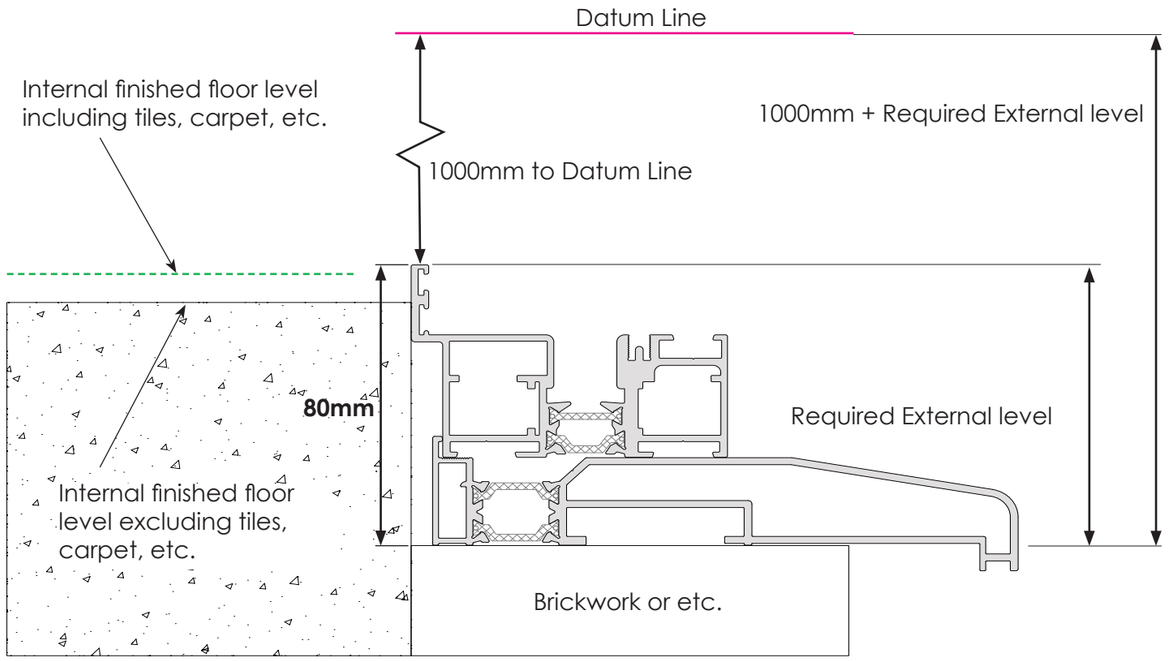


D1 = D2

Use tape measure to verify the aperture overall height and width.
At least three measurements must be taken.
Smallest height and width measurement will determine the overall frame manufacturing size.
By measuring the diagonals verify the aperture is square.

2.1 Using a laser level

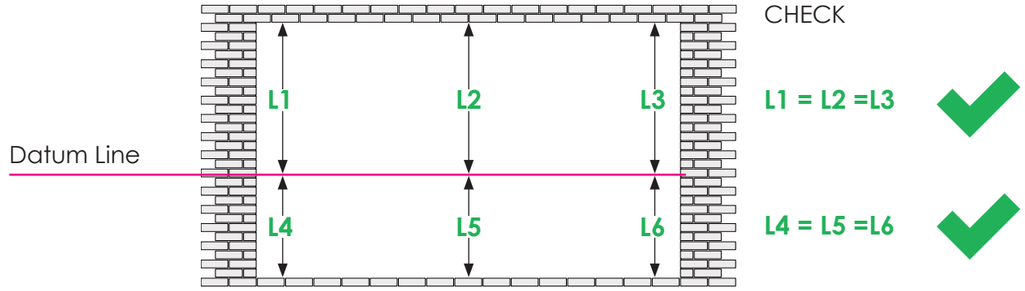
- Determine the Internal finished floor level and set the datum line position using a laser level.
- Select a point within the agreed/existing structure finished floor level from where the builder can determine the internal floor level i.e. tiles, carpet, timber.
- Using laser measure set a datum line at 1000mm from the existing finished floor level.
- Take into account the agreed internal floor finish i.e. tiles, carpet, timber.
- Mark the datum line on each jamb of the aperture.
- Refer to the technical manual and specify which threshold profile or cill is required.



- Check if the existing threshold needs to be lowered taking into account if the internal edge of the aluminium threshold sits flush, or is set at a certain height with the new internal finished floor level.

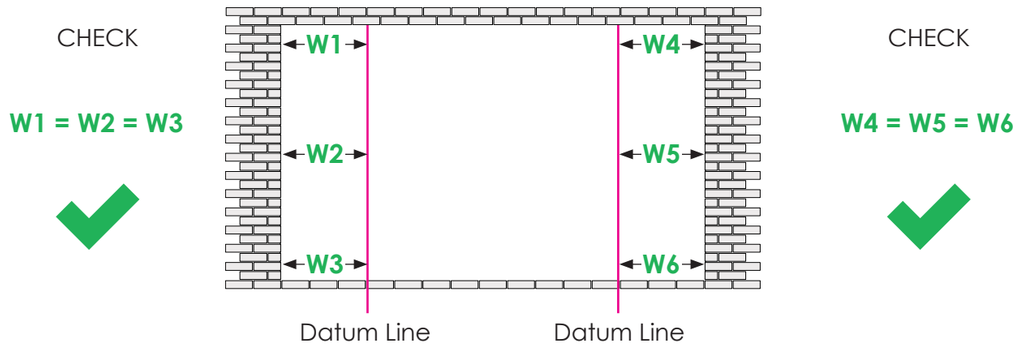
2.2 Aperture height inspection using a datum line

- From the laser datum line measure the distance to the threshold at left, centre and right positions where new bi-fold door will sit on.
- Each of the bottom measurements should be uniform. If not then the threshold is not level and structure should be releveled.
- From the original datum line position (set at 1000mm) measure the distance to the top underside of the aperture at left, centre and right positions.
- Each of the top measurements should be uniform. If not then aperture at the top is not level and the adjustment to the manufacturing height of the frame must be made.



2.3 Jamb inspection using a datum line

- Set a vertical laser datum line position at 250mm from the jamb.
- Take measurements from top, middle and bottom of the laser line to the face of the jamb.
- Each horizontal measurements should be equal. If not, then the jamb is not plumb and adjustment to the manufacturing frame width must be made.
- Repeat jamb inspection for the opposing side



2.4 Manufacturing sizes

- Allow the aperture to be 10-15 mm wider and 10-15 mm higher than the overall frame size of the ordered unit. It is important that the opening size for new frame is correct.

NOTE: Overall height of new unit is measured from the bottom of the cill and not from the finished floor.

3.0 External Cill Installation

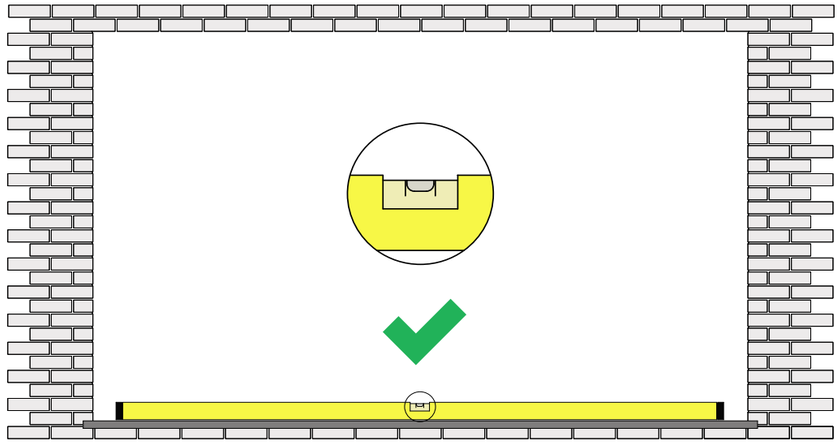
3.1 Leveling the cill

- The need for any external cilll should be determined at the beginning of the project.
- The size of the external cilll should be as such that there is an overhang of at least 25 mm from the face of the building.
- The installer should determine how the external cill should be fitted, taking into account features such as horns.
- Prepare the aperture by making sure it is clean.
- Remove any old silicone and brush down the threshold.

NOTE: Check the cill for drainage slots, make sure they are clean and not blocked by any debris, clean if necessary.

- Using low modulus silicone seal the ends of the cill section.
- Install the end caps (ref DBA1-203N).
- Place the external cill on to the aperture

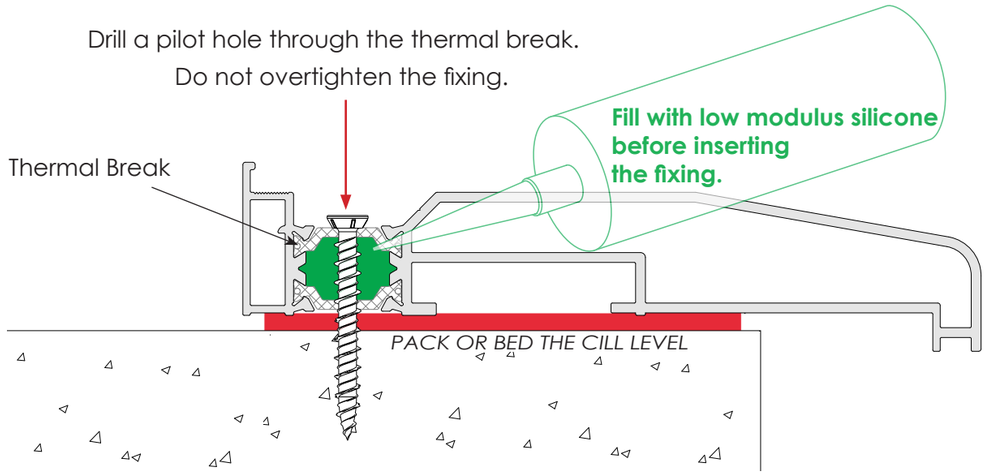
Use a spirit/laser level or a string line to assess the level of the external cill.
Temporarily place the required packers under the cill, check the level and adjust if necessary.



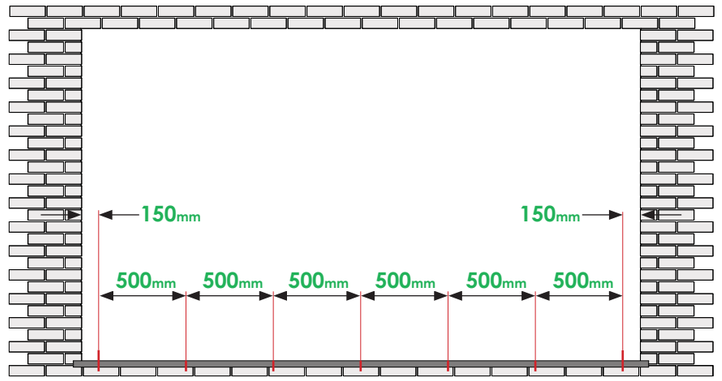
The external cill **MUST** be level

3.2 Fixing and packing the cill

- Use specified fixings to fix the cill through the thermal break.
- Fill each fixing hole with low modulus silicone before inserting the fixing.

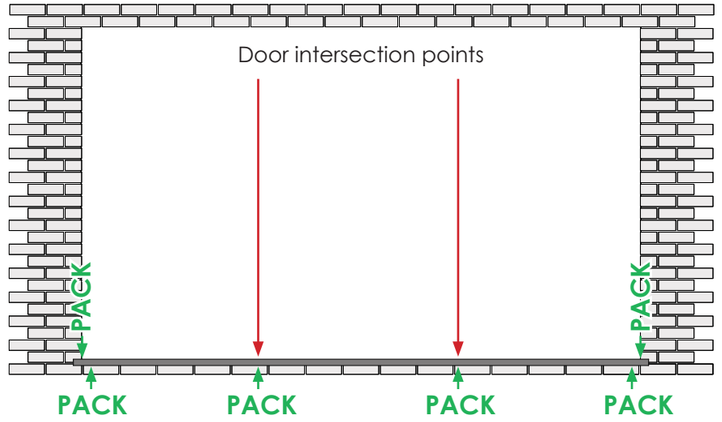


- Fix through the packers at minimum 150mm from each end, and spacing every 500mm centres.



Double check for level and **ADJUST** if necessary

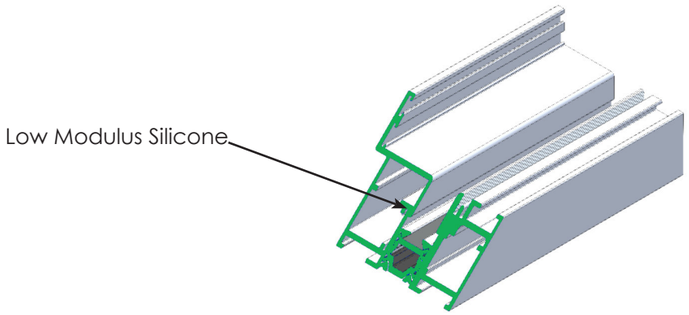
- Insert a packer between the cut end of the cill and the brickwork, at each end, to stop any lateral movement of the cill.
- Ensure packers are placed at each end of the cill and at the door intersection points.



4.0 Frame Assembly and Installation

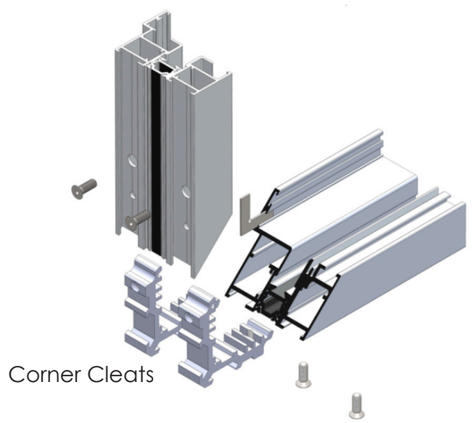
4.1 Outer frame assembly

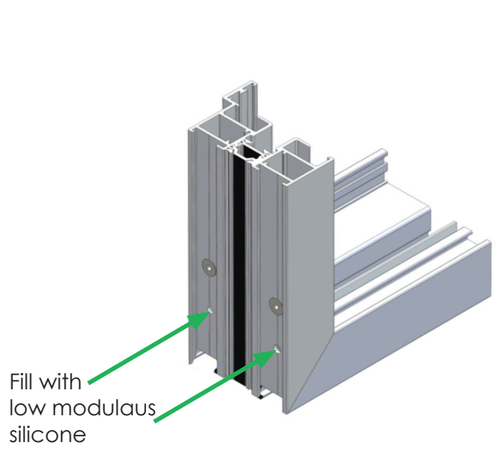
- Apply low modulus silicone at all outer frame connection joints and between the frame components.



- Connect the outer frame corners using outer cleats and M6x16 machine screws as shown below.
- Align the frame by adjusting the screws, if necessary.
- Any silicone excess should be wiped off at this stage.

TOOL REQUIREMENT: 4mm Allen key is required.

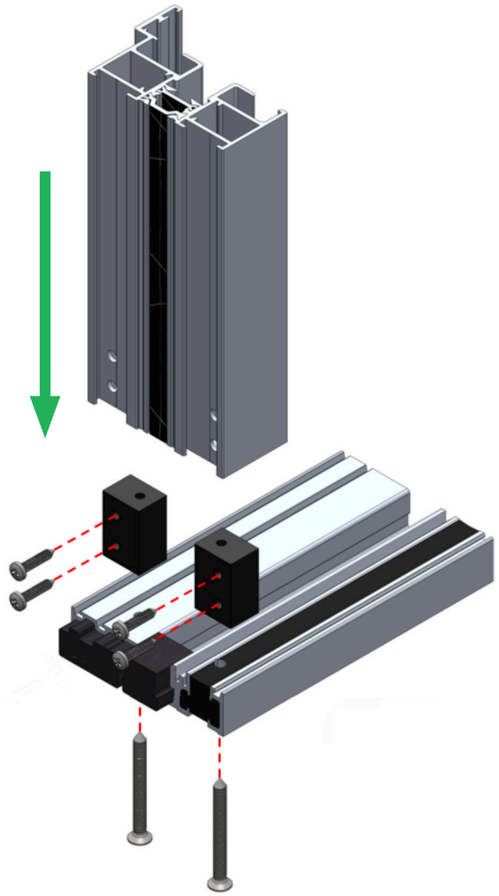




Repeat the same process to all four outer frame corners.

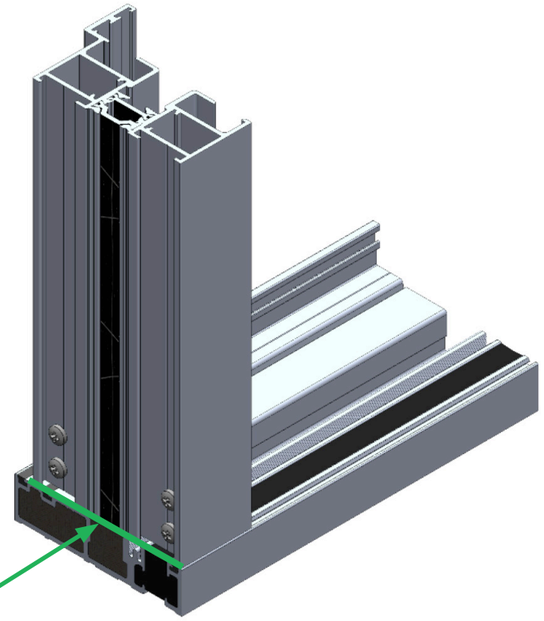
4.2 Low threshold assembly

- Apply low modulus silicone to all frame connection joints and between the frame components.
- Use low threshold fixing kit (ref. DBA1-105) to join the corner as shown below.



Align the frame by adjusting the screws, if necessary.

Any silicone excess should be wiped off at this stage.

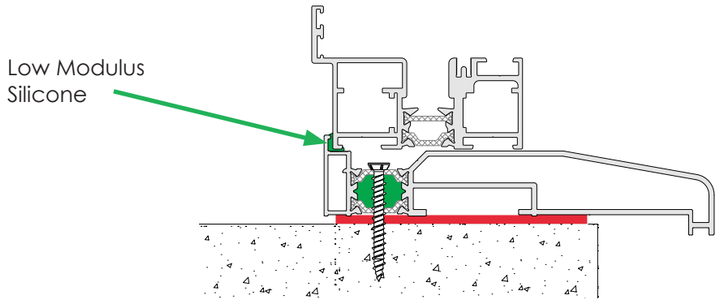


Ensure no water can escape from the low threshold past the jambs

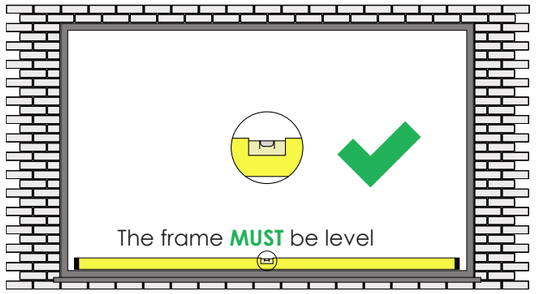
5.0 Outer Frame Installation

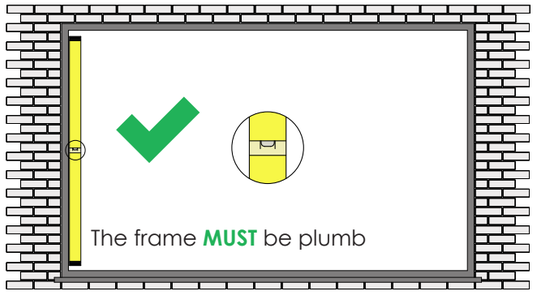
5.1 Level, pack and fix

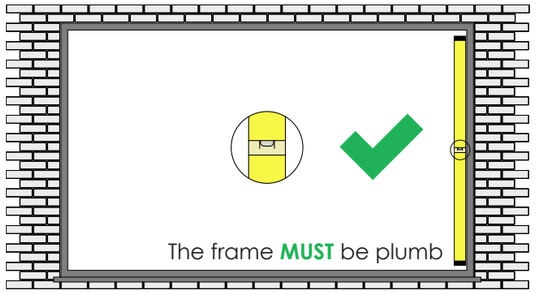
- If sub-cill installed. Run a silicone bead along the sub-cill rebate to ensure weather tight joint.

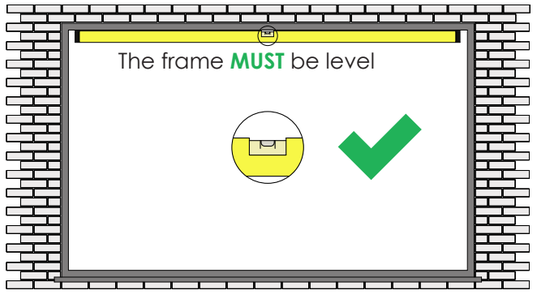


- Insert the frame into prepared structural opening and pack as necessary to ensure that the frame is held plumb and square inside the opening.

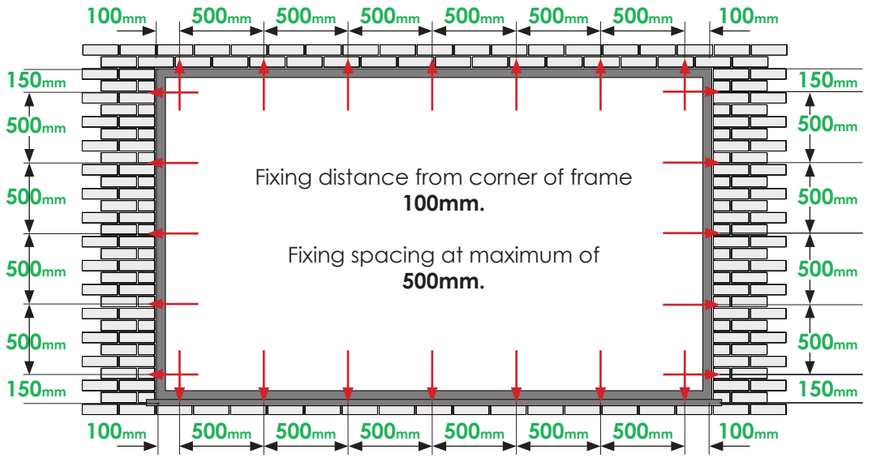






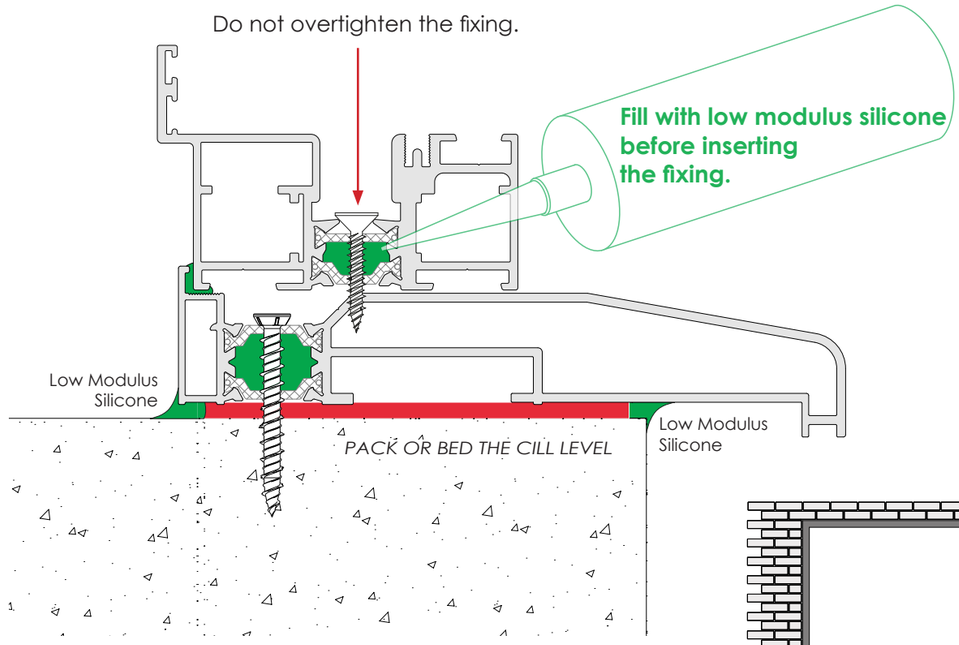


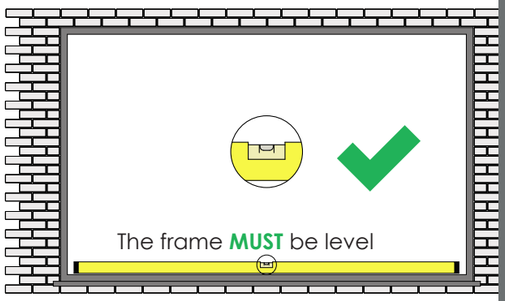
- Pack out all fixing points to ensure tight and supported fixings.



5.2 Threshold

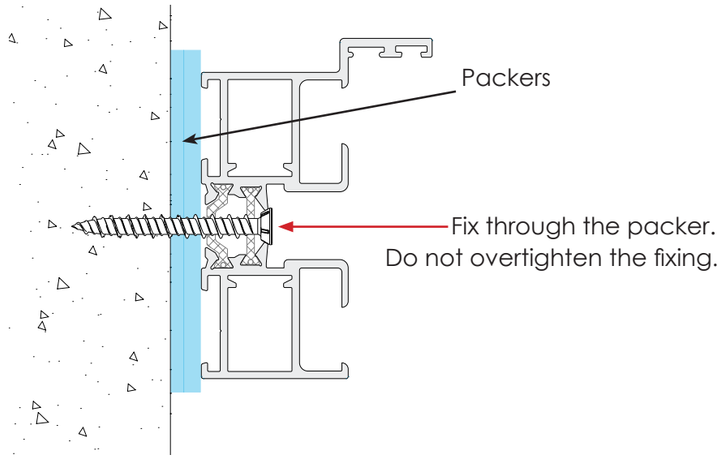
- Drill a 2.5mm pilot hole through the thermal break.
- Fill the hole with low modulas silicone
- Secure the threshold using 4.3mm x 25mm stainless steel screws every 500mm

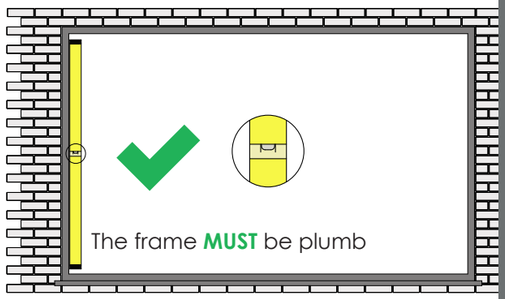


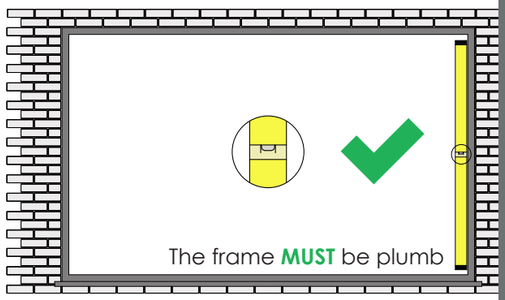


5.3 Verticals

- Drill a pilot hole through the thermal break.
- Secure the vertical frame using suitable fixings.

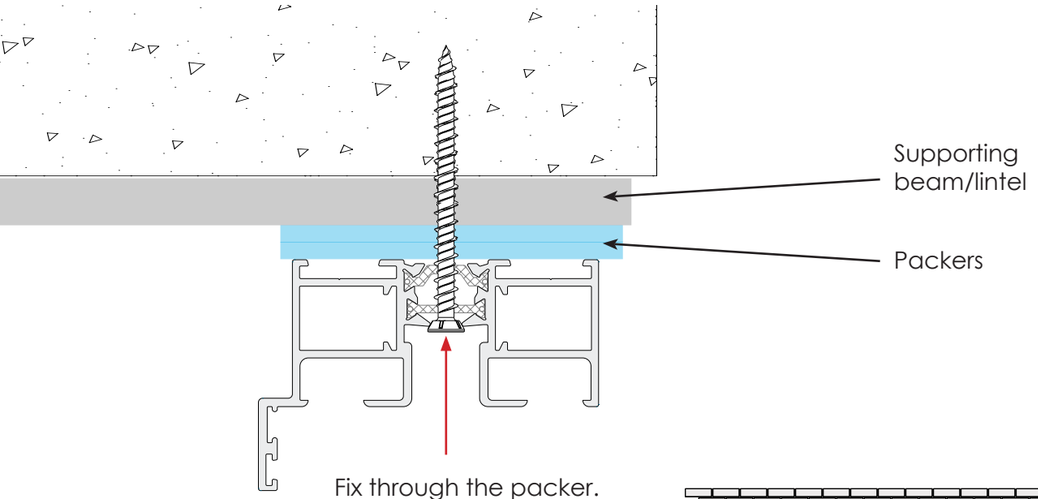


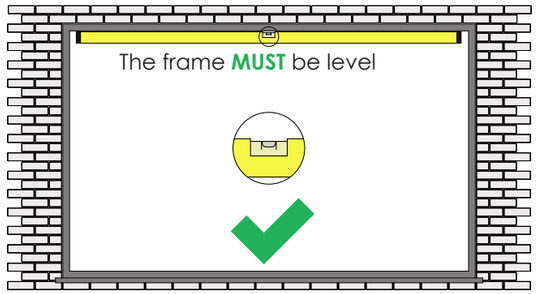




5.4 Head

- Drill a pilot hole through the thermal break.
- Secure the head of the frame using suitable fixings.





NOTE: No load should be transfered onto any part of the frame.

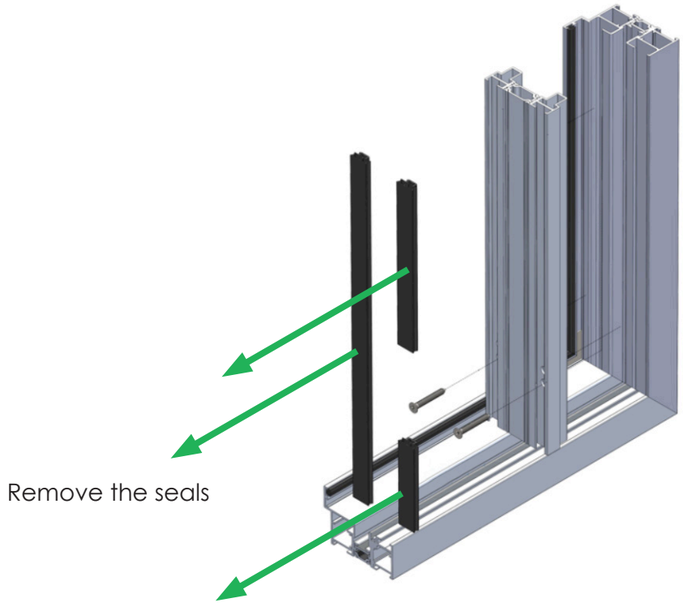
5.5 Clean and seal.

- Fill the gap between the frame and brickwork with expanding foam.
- Using low modulus silicone ensure that the perimeter is sealed against water penetration at both inside and outside of the opening.

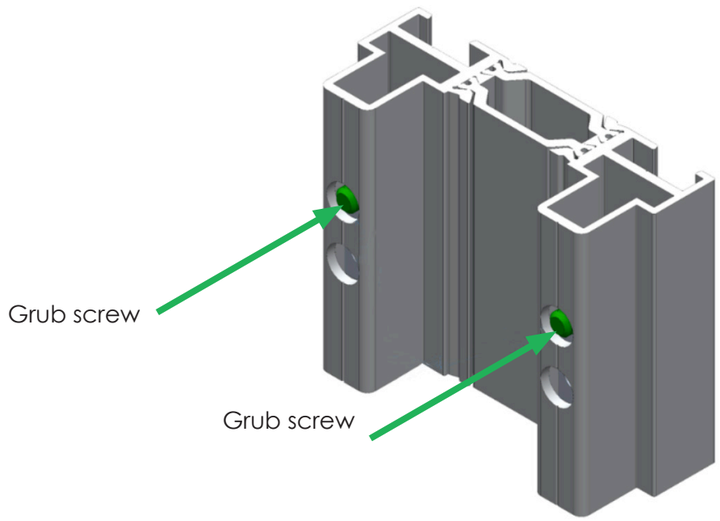
NOTE: Clean away all debris from bottom rail, especially guide channel.

6 Adjustable Jamb Installation

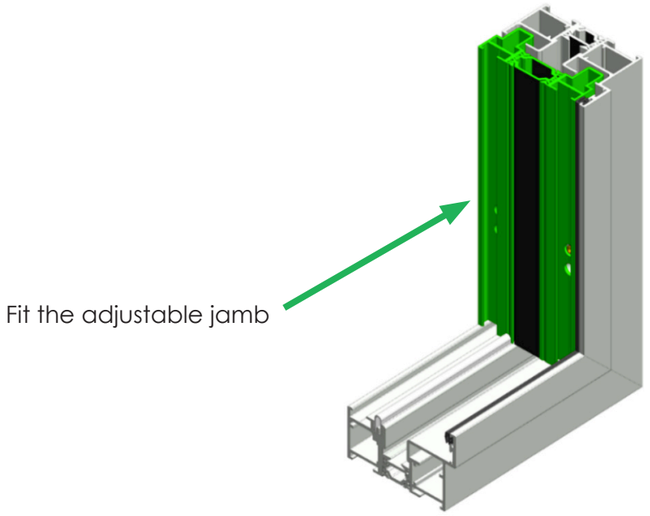
- Remove any weather seals or rebate profiles attached to adjustable jamb.



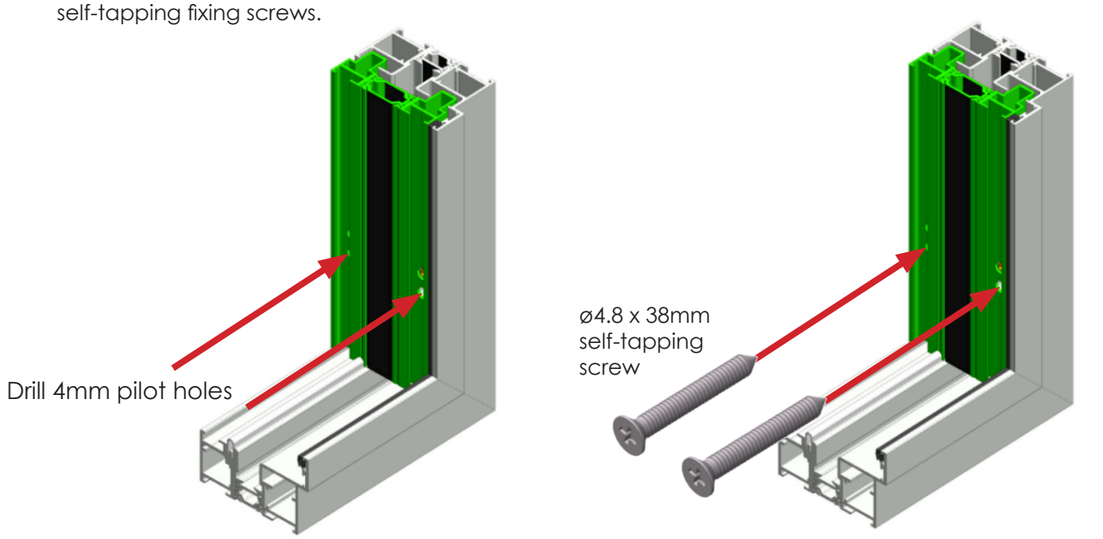
- Set all grub screws flush with back wall of the adjustable jamb.



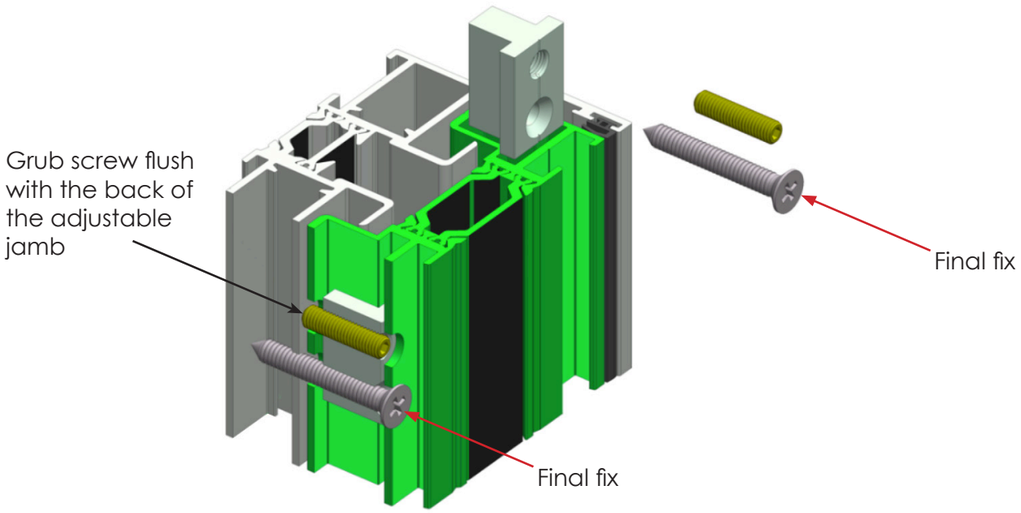
- Fit the adjustable jamb profile into outer frame up to the end.



- Use factory pre-drilled holes at adjustable jam profile and drill ø4.0mm pilot holes in the outer frame for self-tapping fixing screws.



- Fix the adjustable jamb in place using ø4.8 x 38mm self-tapping screw.



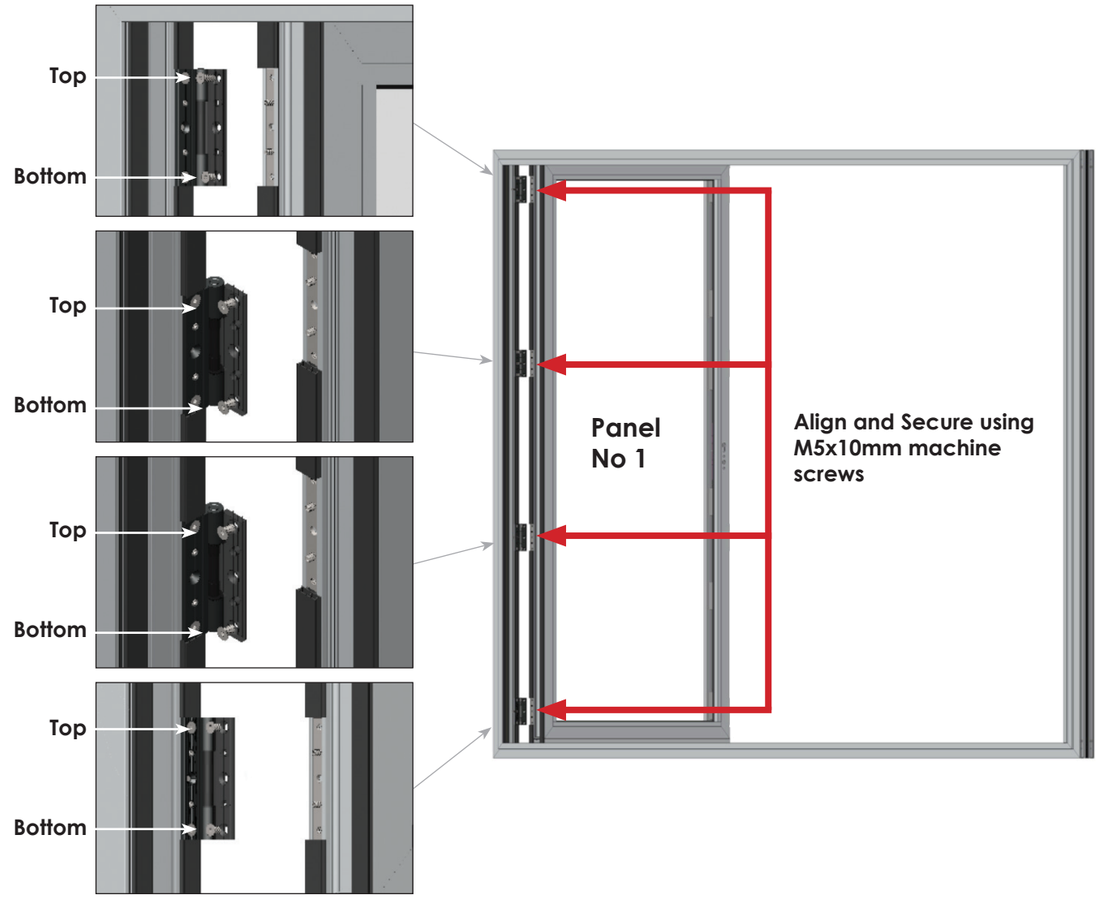
7.0 Door Leaf Installation

7.1 General installation recommendations

- Before installing any door panels check for all the components. Make sure there is no missing components.
- Look for the panel glass beads to determine the interior side.
- Look for the panel drainage holes to determine the bottom side.
- All panels are numbered and must be installed with accordance to the factory drawing.

7.2 Panel No.1 installation

- Align the side of panel No.1 that has clamping plates on with hinges attached to outer frame adjustable jamb.



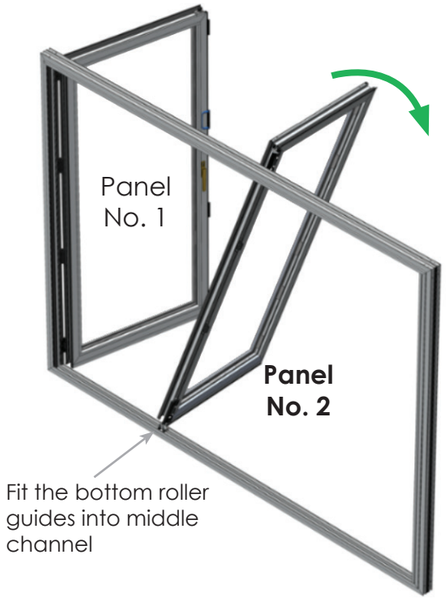
- Locate the hinge leaf over the clamping plate and secure with M5x10mm machine screws using top and bottom countersunk hinge holes.

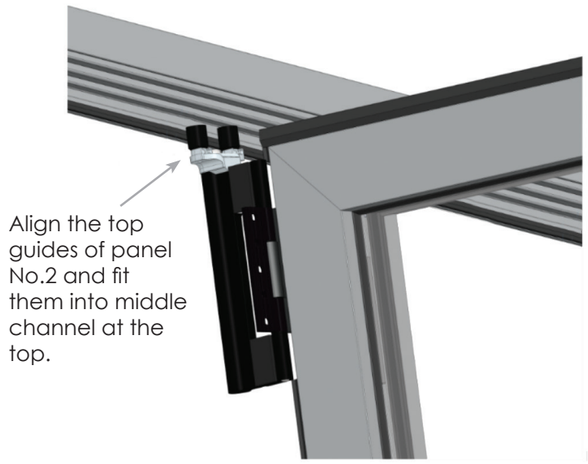
TOOL REQUIREMENT: - 3mm Allen key is required.

NOTE: - Do not use 4.2 x 25mm self drilling screws at this point.

7.3 Panel No. 2 installation

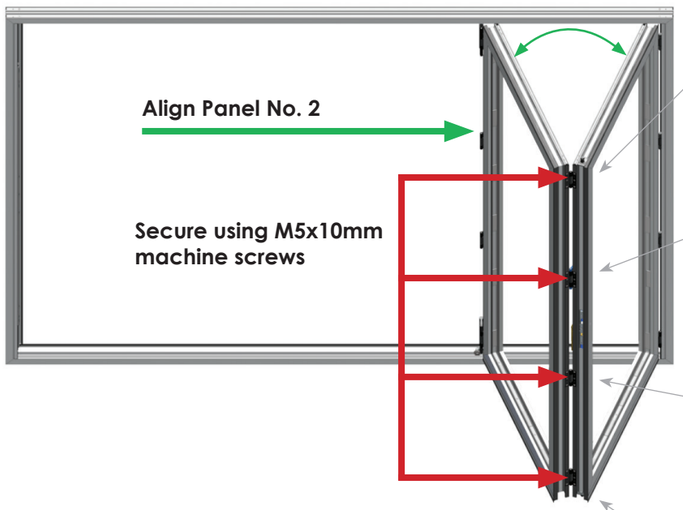
- Slightly lean panel No.2 and fit the bottom roller guides into middle channel of the bottom track.

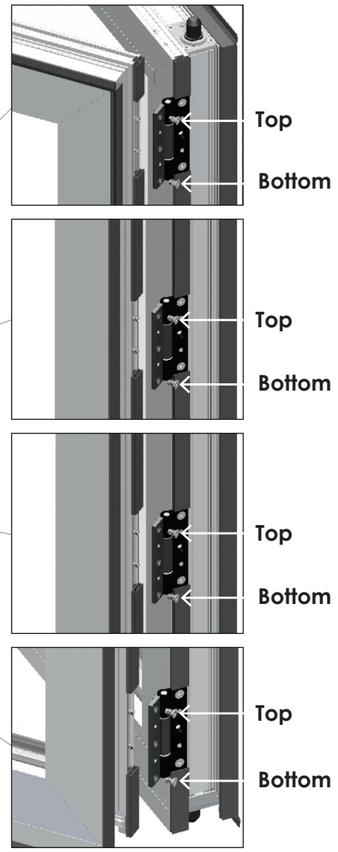




- Slide panel No.2 to align clamping plates with hinges attached to the first panel.

Keep both doors on an angle
for better access to hinges.





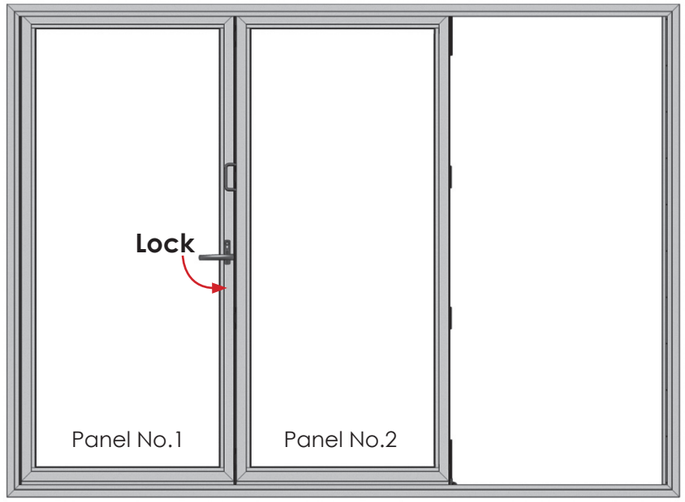
- Locate the hinge leaf over the fixing plate and secure with M5x10mm machine screws at top and bottom holes.

TOOL REQUIREMENT: - 3mm Allen key is required.

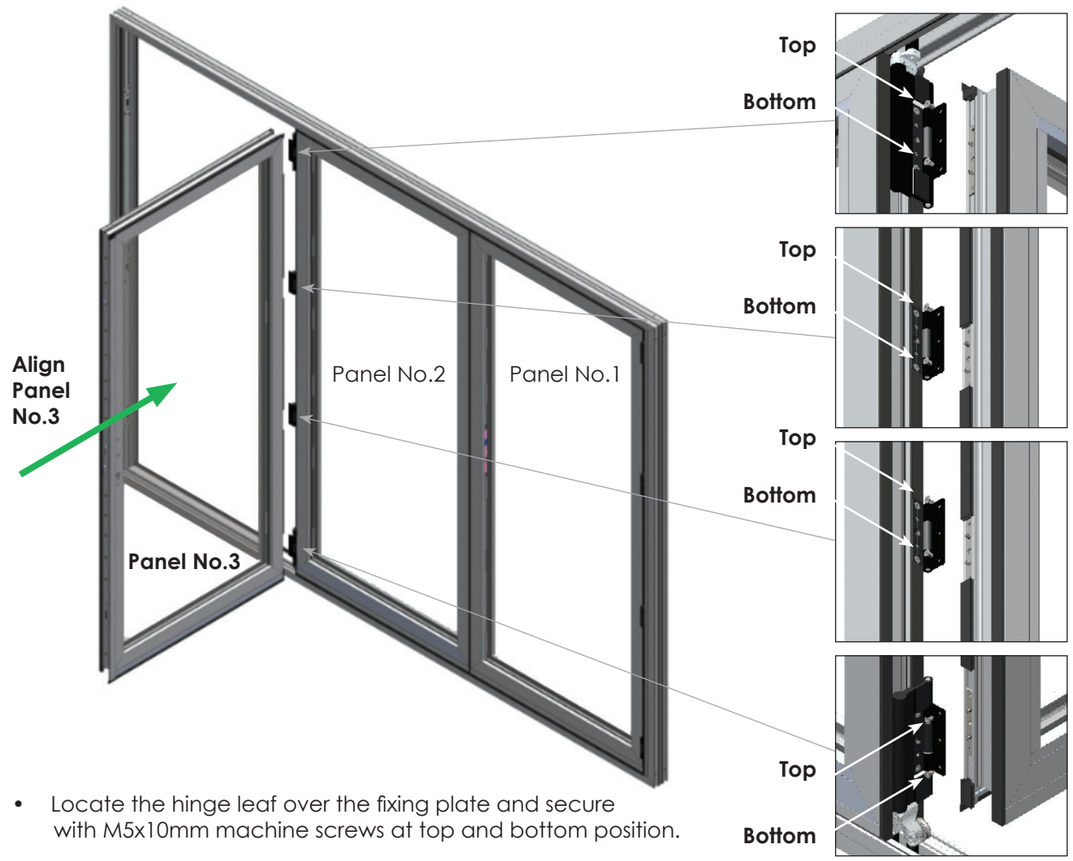
NOTE: **Do not use 4.2 x 25mm self drilling screws at this point.**

7.4 Panel No 3 installation

- Lock first two panel doors together before installing panel No.3



- Align panel No.3 clamping plates with hinges attached to second panel.



- Locate the hinge leaf over the fixing plate and secure with M5x10mm machine screws at top and bottom position.

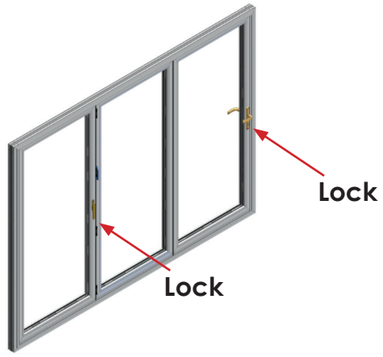
TOOL REQUIREMENT: - 3mm Allen key is required.

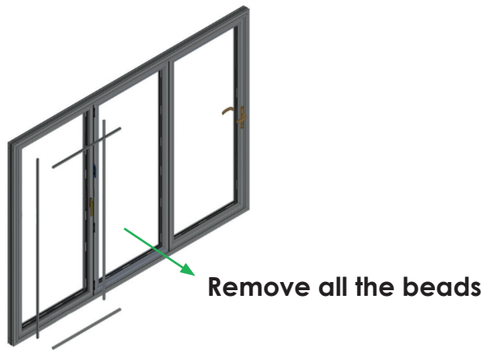
NOTE: **Do not use 4.2 x 25mm self drilling screws at this point.**

8.0 Glazing Instructions

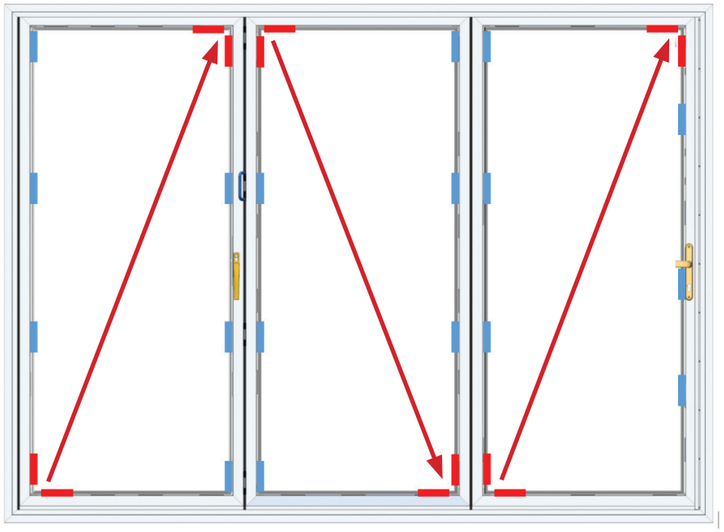
NOTE: All glazing should conform to the requirements of BS 6262. In addition any instructions given by glass manufacturers should be followed.

- Before glazing, lock all doors panels to fully engage the locks.





- Starting from the first panel hinged to the jamb remove all beads, taking care to note where the beads are removed.
- Install the glass into the frame and pack it appropriately using various thickness glass setting blocks. Ensure to support inner and outer layers of the glass.
- All panels should be 'toe and heeled' to maintain equal and parallel gaps between outer frame and panel at the top and bottom.
- Add low modulus silicone between each vertical set of packers to help keep them in place. Make sure that all packers do not obstruct any of the drainage or decompression holes.



'Toe and Heel'. Load bearing packer must be used to keep panels square and level.

Supporting packers to prevent movement and provide rigidity to panel. These should be installed between all hardware components

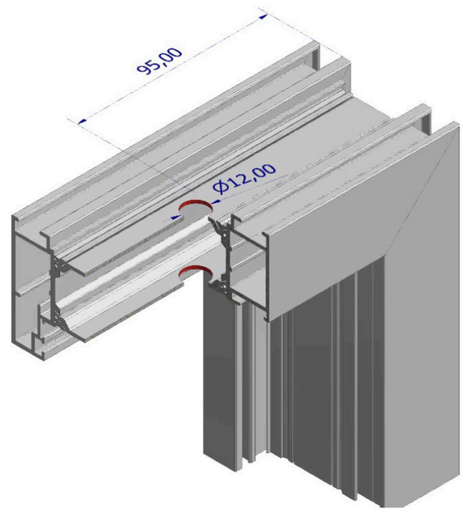
- Replace beading, starting with shortest pieces first and tapping into place with a plastic mallet.
- Replace wedge gaskets into position.
- Repeat the 'toe and heeling' process for all panels, ensuring that all door gaps are equal and parallel.

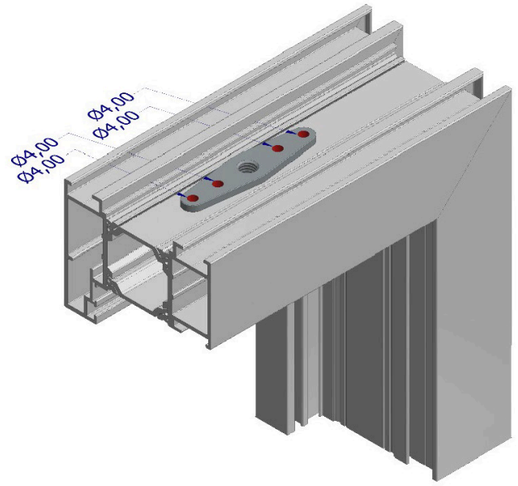
9.0 Glass adjuster Installation

NOTE: For safety reasons glass adjuster installation must be completed before glass is installed. If glass adjuster is to be installed to already existing door first remove the glass.

9.1 Drill holes

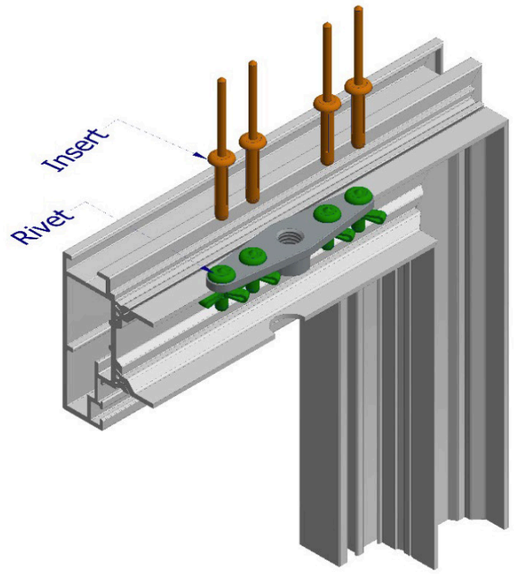
- Drill ø12.0mm hole through both polyamides. Ensure minimum 95mm distance from edge of the sash.
- Drill four ø4.0mm holes through top polyamide. Use glass adjuster top plate as a template.

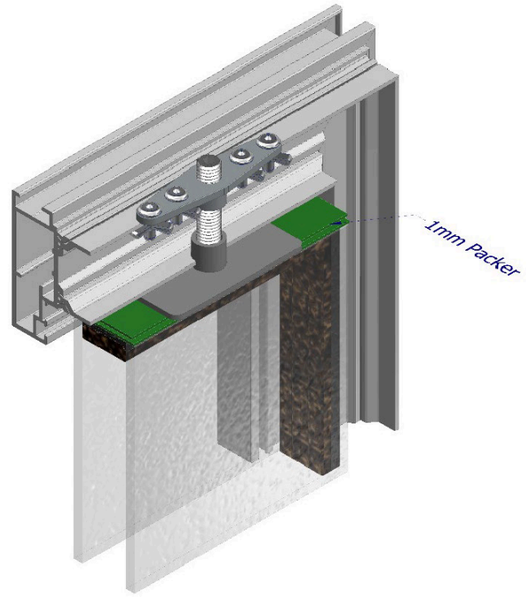




9.2 Install top plate

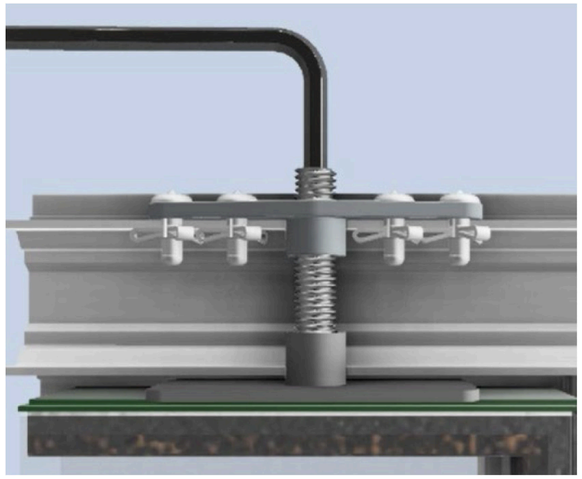
- Install top plate and secure with four rivets. Use pop rivet gun to complete installation.





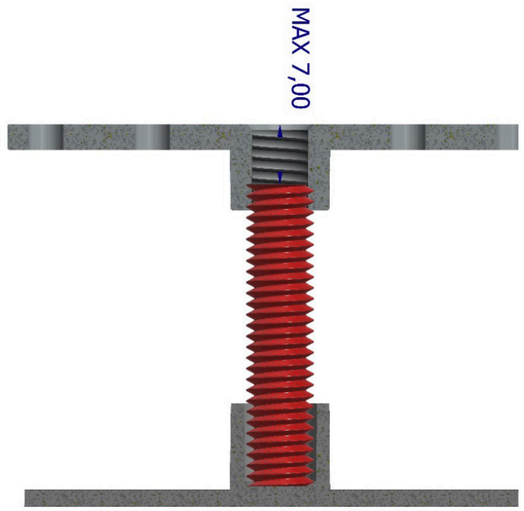
9.3 Up or down door adjustment

- To adjust the door use 4mm Allen key.
- Follow “Operation checking and adjustment” section to ensure doors operate properly.
- To lift the door, turn the screw in a clockwise direction.
- To lower the door, turn the screw in counterclockwise direction.



9.4 Single or bi-fold adjustment

- If the door has dropped on lead/master door, adjust only the singe door
- If the door has dropped on the bifold, adjust equally both doors where the adjustment needs to be made.



NOTE: Maximum grub screw adjustment is approximately 7.0mm deep inside the top plate.

10.0 Operation Checking and Adjustment

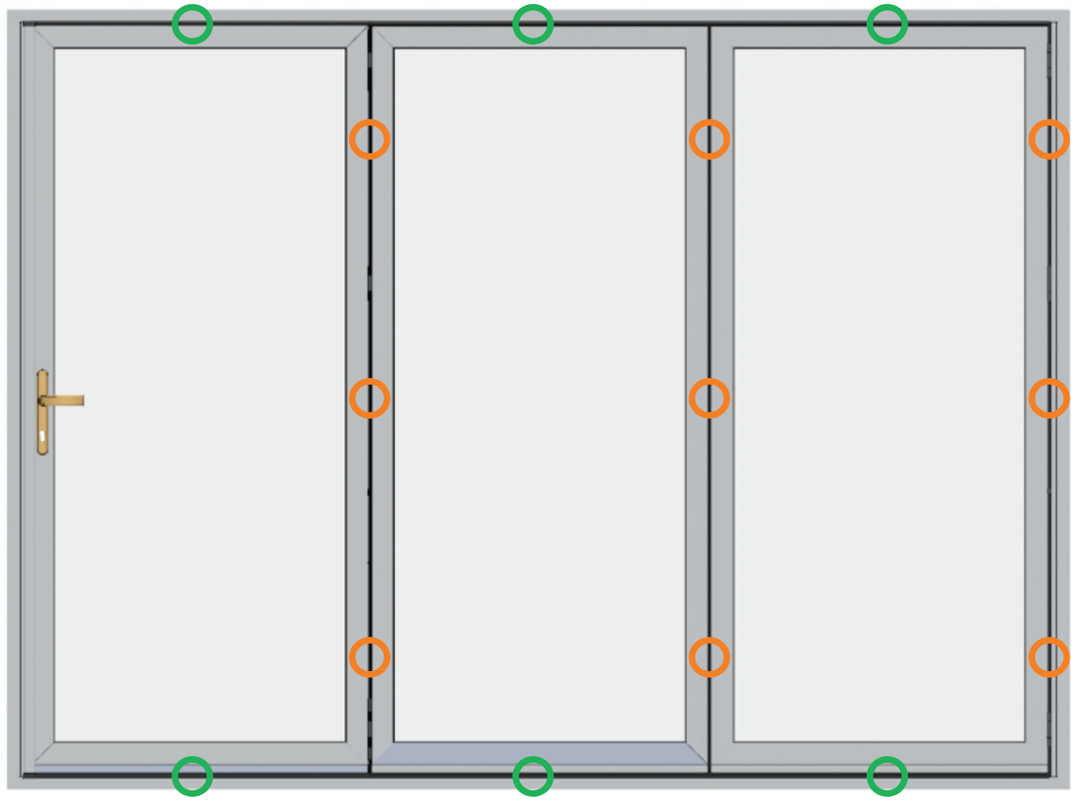
10.1 Door unit operation inspection

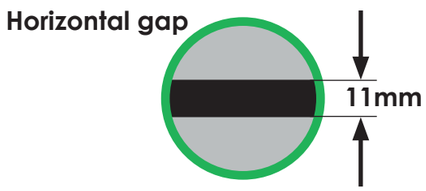
- Check the basic running operation of the doors to make sure the mechanisms are working properly.

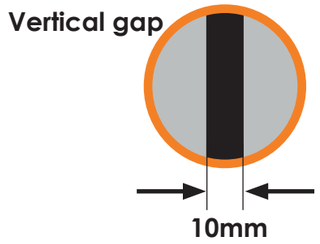
10.2 Overall gap size inspection

- Assess the horizontal gaps between the outer frame and sash at the top and bottom ensuring they are even and equal to 11mm.
- Assess the vertical gaps between the panel frames ensuring they are even and equal to 10mm.

ALL gaps must be parallel.

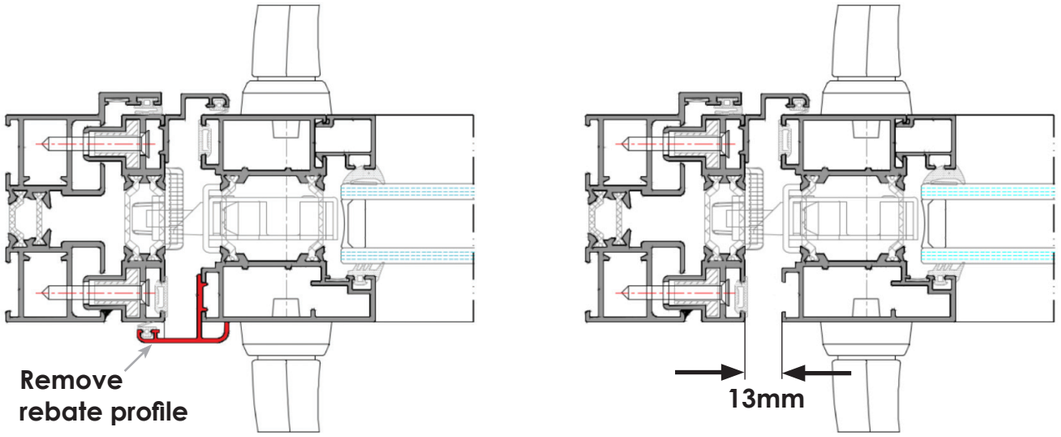






10.3 Master door adjustment

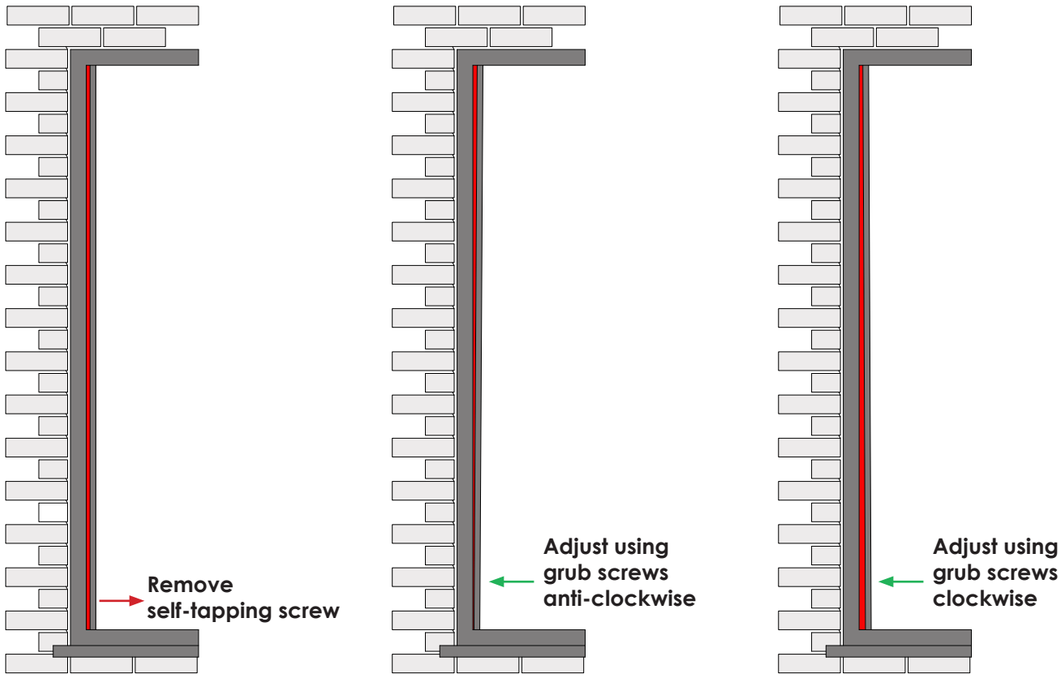
- Remove the rebate profile attached to the master door to see the gap where the lock and the keep are.
- Check the distance between the locking door and the outer frame. The distance should be 13mm.



- If the gap is not 13mm and parallel, the doors will not lock correctly and they need adjusting.

10.4 Adjustment using adjustable jambs

- To adjust the width, release all bottom self-tapping screws that secures the adjustable jamb.



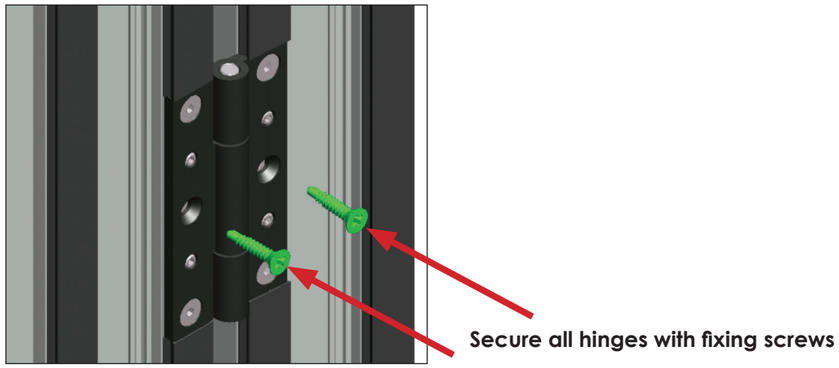
- Use grub screws to change the position of the adjustable jamb so it is parallel and 13mm to the locking master door.

The gap between the locking door and adjustable jamb must be parallel.

- After completing adjustment fix the adjustable jamb in position by securing self-tapping screws.
- Re fit the rebate profile.

10.5 Securing all hinges with final fixing screws

- After completing the installation and all the doors are glazed and operate properly, secure all hinges with final fixing screws.

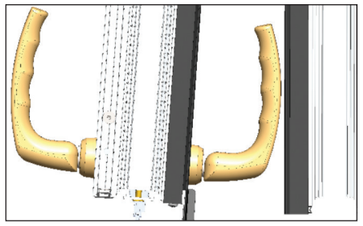


10.6 Weather seal application

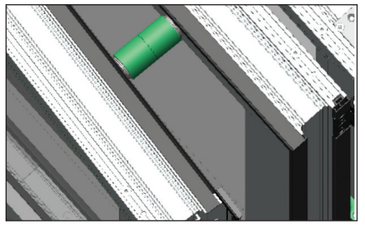
- Apply missing or any removed weather seals on all panels and jambs. Ensure that the ribbed part of the seal is always installed facing the inner part of the profile.

10.7 Panel catch installation

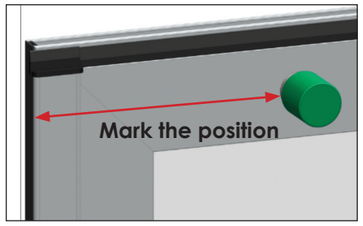
- Position the swing door at the point where it will stop.
- Ensure some clearance between the lever handle and next door.
- Use fully assembled panel catch pair to locate the position between two doors.
- Position the catch on swinging door first.



Position the door

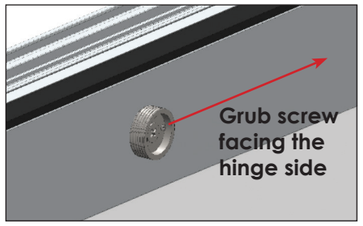


Position the assembled panel catch

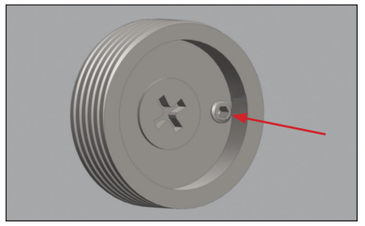


Mark the position with pencil

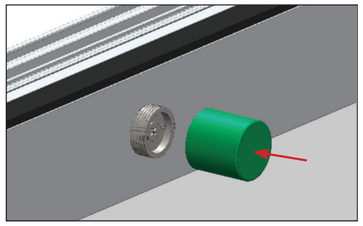
- Unscrew panel catch back plate and fix it with choice of fixings provided in the box.
- Ensure the position for anti-rotation screw is pointed towards the hinge side.
- Secure the 3mm pointed anti rotation grub screw.
- Screw the outer sleeve.



Attach with fixing



Secure with 3mm grub screw



Screw on outer sleeve

- Mark the perfect position for panel catch on the opposite panel.
- Ensure anti rotation screw is pointed to the nearest swinging door hinge.
- Fix the second panel catch by repeating the steps,

11.0 Finishing Touches

- ☑ Check that the handles and locking mechanisms operate smoothly on each door.
- ☑ Check the bi-fold action is smooth and free running.
- ☑ Check that the locks operate correctly when closed.
- ☑ Check the door magnets are fully engaged when the doors are open.
- ☑ Check the hinges and ensure that there are no screws missing.
- ☑ Check the weather seal and ensure that the doors are fully sealed.
- ☑ Check the perimeter and ensure that the door unit is weather tight.
- ☑ Clean the bottom track and ensure it is free of any debris.
- ☑ Ensure that the homeowner is instructed and knows exactly how to use and look after bi-fold doors.

12.0 Operation and Maintenance

12.1 Opening and closing operation for bi-folding door with swinging door

To open doors

- Open the swinging door and connect it to the panel catch located on the next door.
- Release the shoot bolt locks on all other panels.
- Slide the folding panels starting from the pair nearest to the swinging door.

To close doors

- Slide each pair of folding panels back to align with frame.
- Secure the panels by locking with shoot bolt lock.
- Close the swinging door last, ensure that all other panels have been locked in frame first.

12.2 Opening and closing operation for bi-folding door without swinging door

To open doors

- Release the shoot bolt locks on all other panels.
- Slide each pair of folding panels away to one side.

To close doors

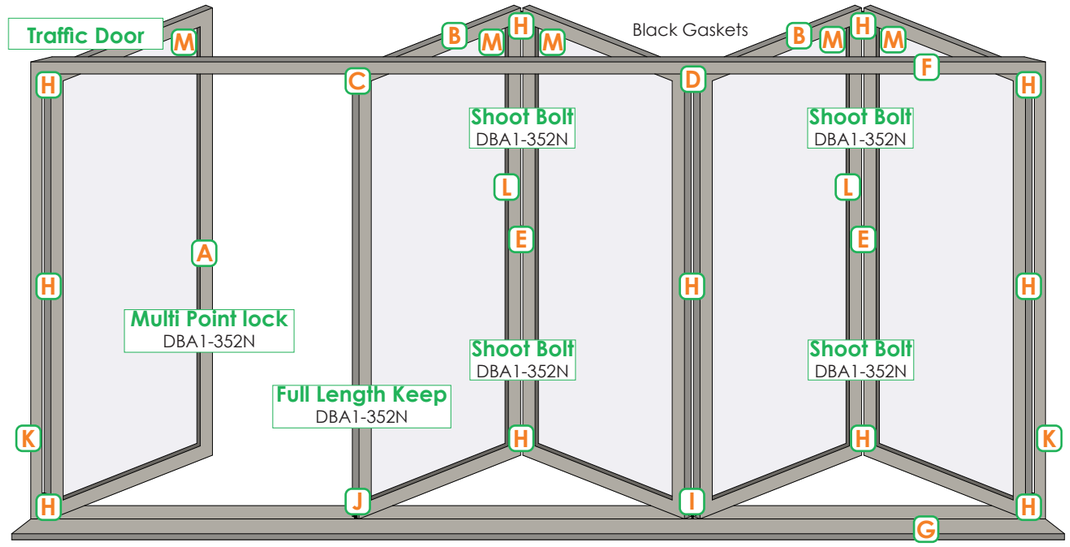
- Slide each pair of folding panels back to align with frame
- Secure the panels by locking with shoot bolt lock.

12.3 Maintenance

- Ensure top and bottom tracks are kept clean and free of any debris or foreign objects that can stop the function of the folding door.
- Ensure all door locking mechanisms are kept clean and any moving parts are regularly lubricated with light machine oil at least once a year.

Thank you for choosing HOMEVIEW

13 Glossary



Cylinder
DB 1212

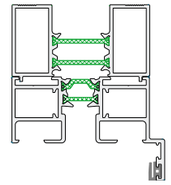
A **Traffic Handle**
DBHP-01

B **Magnetic catch**
Optional

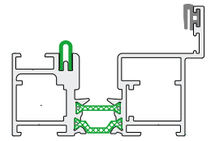
C **Top Half Guide**
DBA1-358 (L/R)

D **Standard Top Guide**
DBA1-352N

E **Pull Handle Hinge**
DBA1-355/6



F **Head with Optional Trickle Vent**
DBE-002 DBE-203

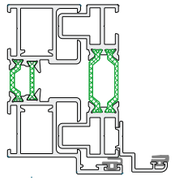


G **Thresholds / Cill**

H **Hinge**
DBA-350

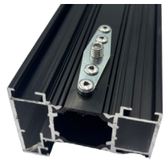
I **Standard Bottom Roller**
DBA1-351N

J **Half Bottom Roller**
DBA1-357 (L/R)



K **Outer frame with Adjustable Jamb**
DBE-002 DBE-201

L **Vivo Handle**
DBHL-06
Vivo Handle Escutcheon
Optional DBHL-05



M **Glass Adjuster**
DBGA-001

BI FOLDING DOORS **For Low Maintenance Homes.**

Partnership Way, Shadsworth Business Park, Blackburn, BB1 2QP