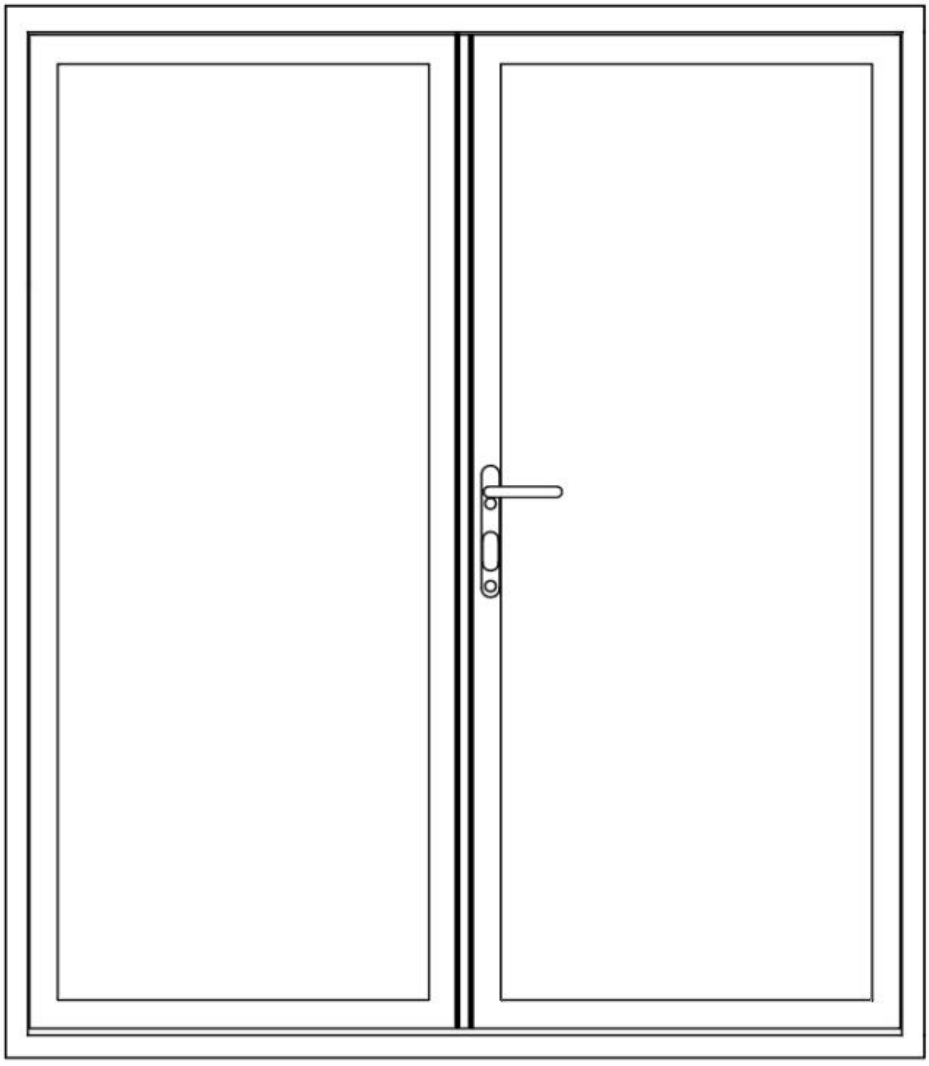
ALUMINIUM EXTERNAL
FRENCH DOOR PAIRS

Assembly Instructions
Bespoke and Standard Sizes



About your Aluminium French Patio Door Set

All products must be installed in accordance with accepted good trade practice (and in accordance with supplied instructions where applicable), and maintained in accordance with these procedures or else the warranty shall be void.

Important Information

We recommend that a competent trades person installs this product. A single person must NEVER carry out the installation, as some of the components are heavy.

All of our external French patio doors and frames, powder coating finish, glazed units and hardware components are guaranteed for a full 15 years against the occurrence of manufacturing faults, all subject to correct installation, regular maintenance and care in use as detailed below.

Powder Coating Finish and Maintenance

All our aluminium French door sets are supplied fully powder coated in a satin finish providing a high quality and durable finish, unless otherwise stated.

Our standard range of colours are Anthracite grey RAL 7016, Jet black RAL 9005 and Gloss white. If you have selected an alternative custom colour option and require the colour and RAL code please contact us.

To maintain the external aluminium powder-coated finish, wash regularly with soapy water and then dry off with a soft lint-free cloth. As a minimum, the external surfaces must be washed at least every three months, and monthly if within five miles of the sea or in an industrial area. Our general recommendation would be to wash the external aluminium every time you clean your windows, which should normally be more regularly than the minimum requirement.

The powder coating is not guaranteed unless the doors are installed at least 800 metres away from the sea.

We cannot accept any claims for damages, including scratches to the powder coating and aluminium reported 72 hours following delivery, and / or after installation has commenced.

Installation

This door set is designed to be installed by competent trades persons with good knowledge and previous experience of installing doors.

Our aluminium doors are supplied with all the essential items, most hardware factory fitted and everything pre-machined. This design allows for simple on-site assembly by experienced trades persons.

The outer frame needs to be securely fixed into the opening perfectly square and level on all planes.

Glazing Units

To reduce carbon emissions from the home and to keep heating and cooling bills down, the government has recommended that all manufacturers use a special Low E thermal glass within the sealed units to comply with Building Regulations Part L.

This glass is coated with a special substance to comply with the above and occaisionally, and in certain light conditions, may produce transient visual effects, this can sometimes look like a transparent film or haze, and make the glass appear cloudy. This is very infrequent and only affects a minority of door sets. As a company, we do have to comply with the new regulations which are for the benefit of all, and this is not a defect.

Due to demands for better thermal efficiency, it is normal for condensation to form on the outside of the glazing units, to the exterior side of the property. This demonstrates that the glass is performing as it should by reducing the transfer of heat from the internal side of the property to the external side of the property, this is not a defect. For any condensation forming to the inside of the property, this is normally due to high levels of moisture in the air and / or insufficient ventilation in the room, the moisture is then forming on the cold surface. If condensation is forming inside the glazing unit (between the panes of glass) it is likely that the glazing seal has been compromised.

Tempered glass means it has been toughened to be up to five times stronger than normal glass. It is unusual to break such strong glass, but sharp objects hitting the glass at certain points can cause breakage. Tempered glass is also known as safety glass. This means that if it breaks it will shatter into smaller fragments which are less likely to cause injury, unlike non-tempered glass which breaks into large, sharp fragments.

Laminated glass is also called safety glass and comprises of multiple layers of glass sandwiched together. Due to its high strength, this prevents the glass from breaking into large pieces. If the glass breaks, it will produce a 'spider web' effect similar to what is commonly seen in shattered car windscreens. Laminated glass will also increase the sound rating insulation.

Glass must be regularly maintained and cleaned to stop break down of the glass or seals. This can be done using a mild solution such as washing-up liquid diluted in water. Do not use abrasive cleaning solutions as this may cause scratching.

Visual distortions caused by reflections in toughened glazing units are a natural phenomenon and not a fault.

Laminated, toughened or coated glass is acceptable if bubbles or blisters, fine scratches no more than 2.5cm long and / or minute particles are neither obtrusive or bunched. The glass used in sealed units is processed glass, therefore certain blemishes are unavoidable. More blemishes may be visible in laminated glass due to its layered construction.

About your Aluminium French Patio Door Set (cont)

For carrying out glass inspections, stand at least 3 metres away from the glazing, view at a 90 degree angle and look directly through the sealed unit(s). The glass must be viewed in natural daylight but not with the sun directly on it. Any moisture must be removed from the surface of the glass before inspecting.

Hardware Components

The exterior hardware in your French door set can deteriorate from everyday use, and also because of the weather and local environment. That's why regular maintenance of your door hardware is even more important if you live in severe environments like coastal / marine areas and some industrial locations.

We require that the below minimum maintenance is carried out as often as necessary to prevent deterioration. As a guideline, we recommend that this maintenance is done every three months if you live in a marine environment, or every six months if you live in a more general location, otherwise your guarantee will not be valid.

Frames & hinges

Once your installation has been completed, and before fully operating your door set, please carefully remove any debris / swarf from the top and bottom frame sections to ensure nothing comes into contact with any moving components.

Extra lubricant such as a small amount of silicone spray can be added around the hinges. Adding lubricant in this way reduces wear, improves smoothness and gives additional protection against corrosion.

Locks and handles

The multi-point door lock is operated by lifting the handle and turning the key. The lock is secured by hook bolts and a central deadbolt engaging with the lock keeps. The lock should operate just as smooth with the access door in the open position as what it does when it is fully closed.

It is important that if you feel any resistance when lifting the handle, you do not continue to operate the doors as this may eventually cause the lock to fail and will invalidate your guarantee.

All moving parts should be lubricated using a silicone spray. The handles should be regularly cleaned with a soft damp microfibre cloth to remove any dust or grime taking care not to scratch the surface.

If you experience any problems with locking or unlocking the doors, first eliminate actual lock problems by opening the access door and pulling the handle upwards and then turning the key. If this can be done, the lock is operating normally, and the problem is likely to be due to incorrect door alignment / adjustment.

Door Operation

All our pre-glazed aluminium French door sets have been pre-assembled in our factory. They are installed into a steel framed testing rig where they are glazed and then fully operated, including checking the doors lock and unlock smoothly. The door sets are then part dismantled, packaged up ready for dispatch and onsite assembly.

If you experience any difficulty operating your doors, including opening, closing and locking, do not continue to use your doors as this may cause further issues and damages. Please contact a member of our customer service team so we can assist you further.

Introduction to Assembly

QUICK GUIDE

Your aluminium French doors are supplied with the frame unassembled and in 4 pieces, ready for assembly on site. Drip cills where ordered will be supplied loose (excludes integrated cill option). Trickle vents where ordered are supplied in a frame head add-on, which will be supplied loose.

Our standard doors are all pre-glazed and the glazing is “toe and heeled” in our factory, to balance the glazing in each door, then in the full set.

Every French door is pre-assembled in our factory to ensure they are operating perfectly before we deliver it. We then dismantle the frame and remove some hardware, before carefully packing it for transportation to your home.

When you receive your French door set, to install it, assemble the frame - which drains through the bottom rail - then install it into the brickwork opening. If the cill option has been selected, install the cill into the opening and then place the assembled outer frame on top (excludes integrated cill option.)

Attach the hardware to the doors and install the doors into the frame.

Because our French doors have already been assembled and operated in our factory, as long as the frame is installed securely into the brickwork opening, completely level and square in every plane, and the hardware is correctly attached, then the installed French doors should operate perfectly, without the need for further adjustment.

Full and detailed installation instructions are contained within this Instruction booklet

Contents

Please check the contents of the packages to ensure all parts are present before beginning assembly

Aluminium Parts

Doors
Supplied pre-glazed or with loose glass, depending on the order

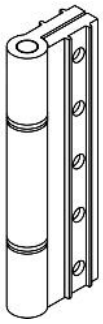
Access Door	Quantity 1
Slave Door	Quantity 1

Frame Pack
Supplied disassembled

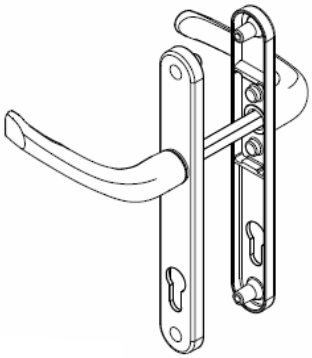
Frame Head	Quantity 1
Frame Jambs	Quantity 2 (1x left and 1x right)
Threshold	Quantity 1

Separate Drip Cill (Optional) Supplied loose
Trickle vents in add-on (Optional) Supplied loose

Hardware



Hinge
Qty 8
(pre-fitted to frame jambs)

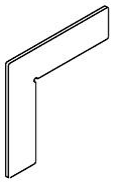


Handles
Qty 1 Pair
(supplied loose)

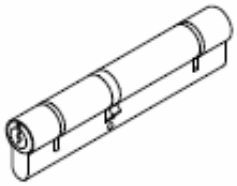
Handle Fixing bolts
Qty 2

Contents (Cont)

Hardware (cont)

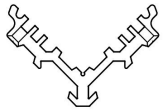


Corner Chevron
Qty 4
(supplied loose)

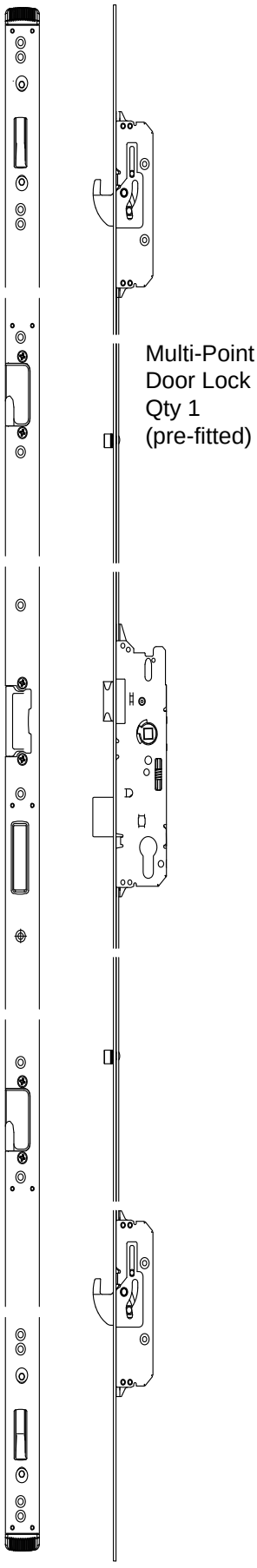


Anti Bump Cylinder
Qty 1
(pre-fitted)
Keys: Qty 3

Mechanical Corner Cleat
Qty 8
(supplied loose)
With M6 x 16 Machine Screws
Qty 16



Black Bungs 12mm
Qty 8
(supplied loose)



Multi-Point
Door Lock
Qty 1
(pre-fitted)

Lock Keep
Qty 1
(pre-fitted)

Installation Bag Contents

A. Hardened steel direct frame fixings
7.5 x 90mm - Qty 30

B. SDS Drill bit 6.5mm x 210mm - Qty 1

C. HSS Drill bit 7mm x 105mm - Qty 1

D. Power bit 1/4 x 70mm TX30 - Qty 1

E. Insert bit 1/4 x 25 pozi No2 - Qty 1

F. Allen Key 3mm - Qty 1

G. Allen Key 4mm - Qty 1

H. Assorted bag of Packers and Wedges

VERY IMPORTANT NOTE

To speed installation we have pre-installed some components in production

- The twin-point hand operated lock and multi-point lock keep are installed into the Slave Door

- The multi-point lock and security cylinder are installed into the Access Door

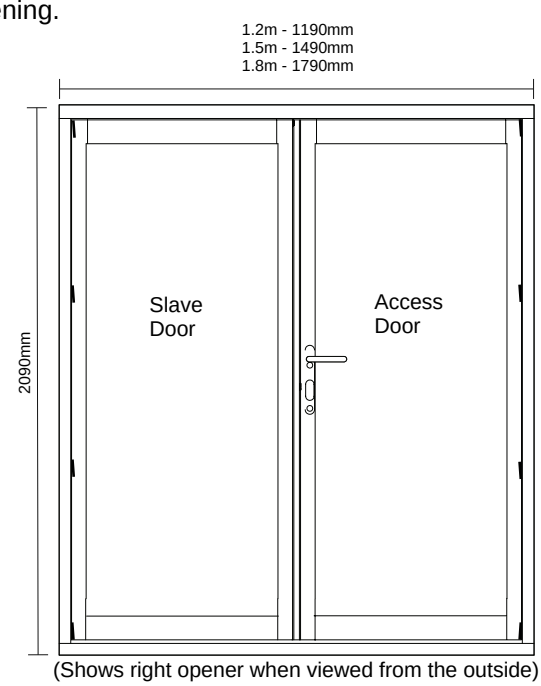
- The frame jambs / door hinges are installed onto the frame jambs

Preparing the site

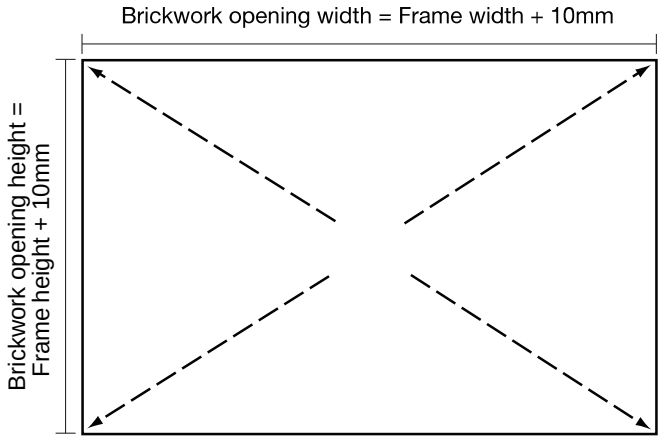
Brickwork opening

When preparing the site, please prepare the brickwork opening to be 10mm more in height and width than the outside assembled frame size.

It is essential that all 4 internal surfaces of the brickwork be levelled before installation. Please ensure that all dimensions are correct for installation before proceeding, as the set must be installed square and level into the opening.



(Shows right opener when viewed from the outside)



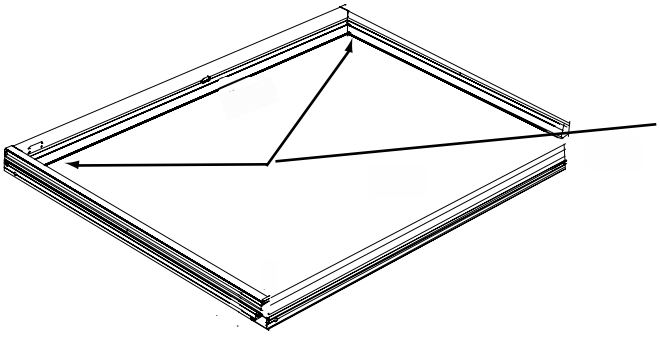
Standard sized Aluminium door sets outer frame dimensions are as follows;

1.2m - Door set = 1190mm wide x 2090mm high
1.5m - Door set = 1490mm wide x 2090mm high
1.8m - Door set = 1790mm wide x 2090mm high

The brickwork opening sizes are;

1.2m - Door set = 1200mm wide x 2100mm high
1.5m - Door set = 1500mm wide x 2100mm high
1.8m - Door set = 1800mm wide x 2100mm high

Assembling the frame



Lay the 4 pc frame on the floor on top of cardboard or a similar protective covering to prevent damage to the aluminium.

Assemble the complete frame by fixing the jambs to the head and bottom threshold, using the corner chevrons and mechanical corner cleats.

Our standard drip cill if ordered will be supplied loose, this fixes to the bottom threshold.

The trickle vents if ordered will be pre-fitted into a frame head add-on, which will be supplied loose.

If ordered, do not fit the drip cill to the bottom threshold and/or the trickle vent add-on to the frame head at this stage.

Assembling the frame (Cont)

Mechanical Corner Cleat Assembly - Frame Head, Threshold & Jambs

Insert the 2 corner chevrons into the grooves in the frame head (Fig 1).

Insert the mechanical corner cleats into the frame head (Fig 1).

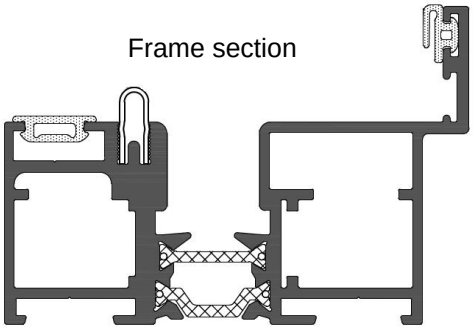
Apply low modulus silicone sealant to the aluminium profiles to be joined together.

Carefully align the mitre joints, then using the 4mm Allen Key (G), carefully tighten the machine screws at the side and bottom. Progressively tighten all 4 machine screws, bit by bit, to ensure a tight mitre joint, then clean off any excess silicone.

Fill in the remaining smaller holes with low modulus silicone or glue as shown below (Fig 2).

Repeat the process on the remaining corners of the frame (Fig 3).

Frame section



Frame jamb section
(with adjustable jamb attached)

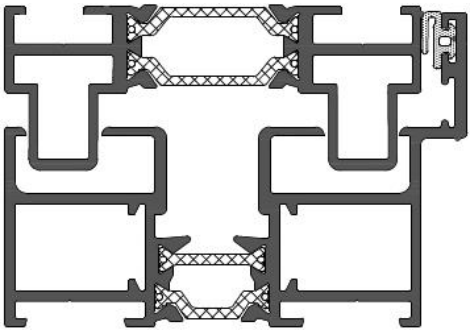


Fig 1.

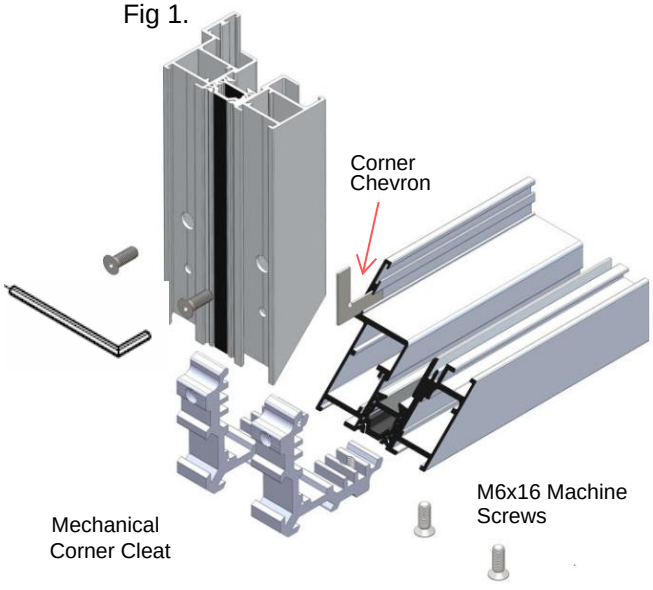


Fig 2.

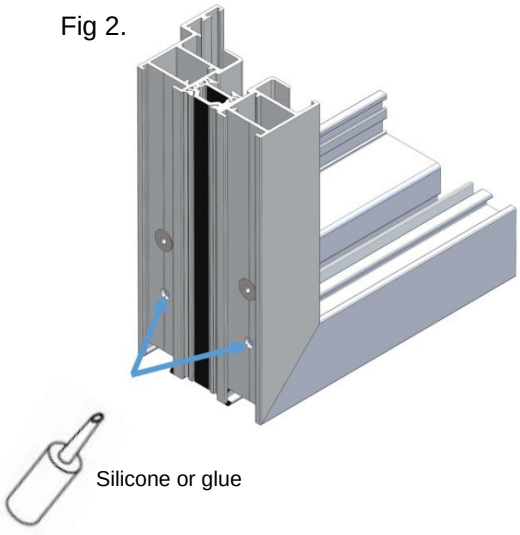


Fig 3.

Integrated threshold & cill option - frame assembly

If you have opted for our integrated cill option with combined threshold and drip cill, available for Open Out French doors only and strictly by special order, assemble the frame head and jambs using the corner cleats as shown on page 7.

To fit the integrated cill;

Insert the foam sealing block supplied into the channel of the integrated cill (Fig 4).

Before locating the frame jambs onto the integrated cill, mastic seal both ends of the jambs and the face of the thermal break.

Once the jambs are aligned onto the integrated cill, silicone dip the machine screws provided and secure (Fig 5).

Any excess silicone should be wiped off at this point.

IMPORTANT-
Ensure no water can escape from the ends of the cill past the jambs. Any fixings breaching the drainage channel must be silicone dipped (Fig 6).

Fig 4.

Foam sealing block placement

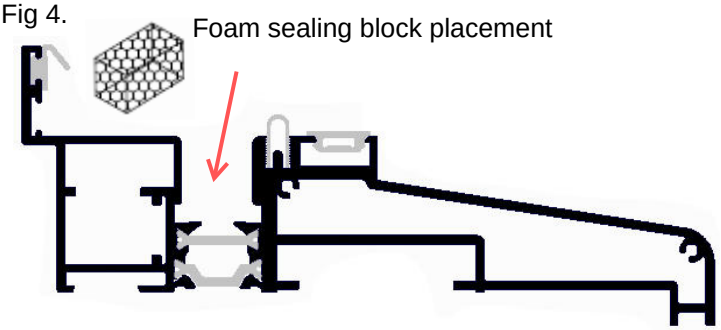
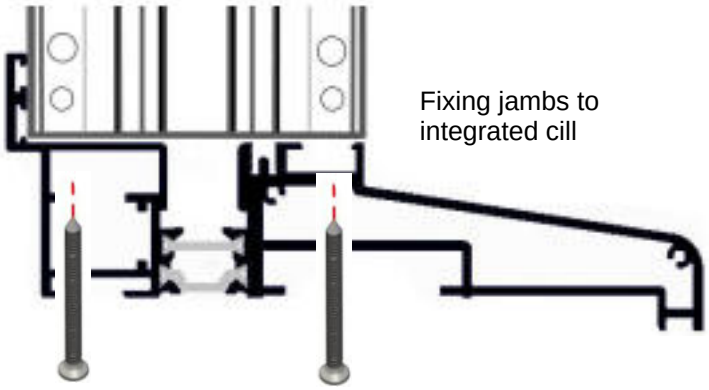


Fig 5.



Fixing jambs to integrated cill

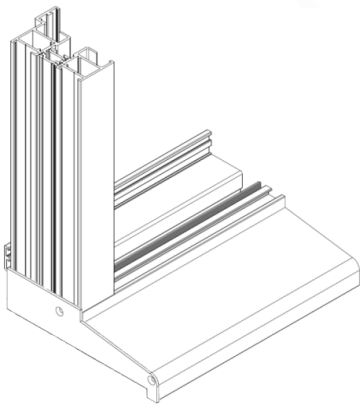
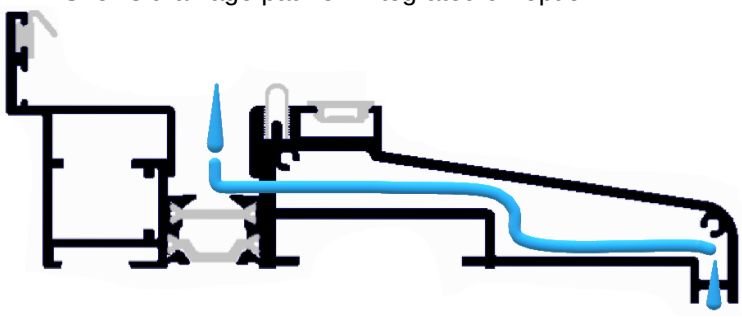
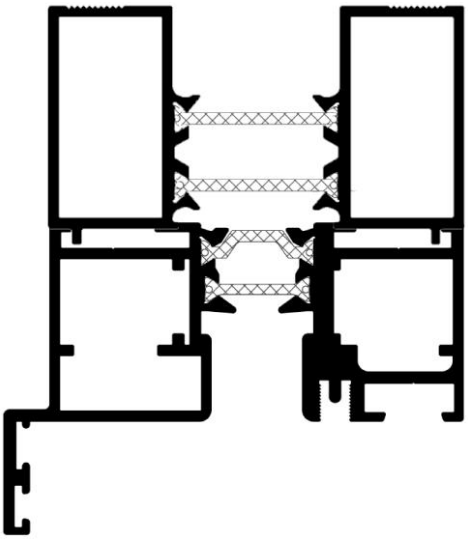


Fig 6.

Shows drainage path on Integrated cill option



Optional trickle vent add-on



If you have chosen to add trickle ventilation to your French door, these are supplied in an aluminium add-on which sits on the top of the frame head.

The add-on will be supplied loose when it arrives with you along with 2" x No.8 screws. Screw the add-on to the frame head once the outer frame is assembled through the pre-machined holes.

Ensure the canopies of the trickle vents are on the external side of the frame.

Fitting the optional separate drip cill

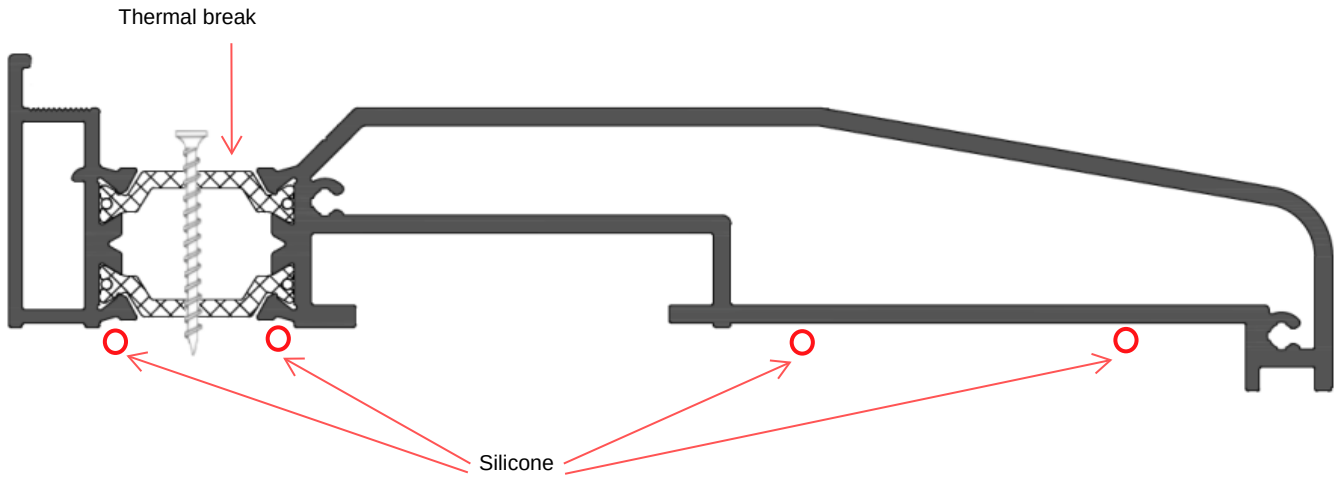
Our standard sized French doors will be supplied with a 150mm drip cill as standard, which should first be placed into the bottom of the brickwork opening and levelled. (Other drip cill options are available as bespoke orders. Check the size of the drip cill supplied before considering your finished floor height and before installation.) If your order doesn't include a separate drip cill, you can skip this section.

Place the drip cill onto the base of the brickwork opening and position it so the outer edge of the frame jambs will be up to 5-10mm back from the external face of the brickwork.

The cill should be positioned in the centre of the opening at an equal distance from both sides of the brickwork.

Using the packers supplied where necessary, level the cill until it is completely flat and level. Use the silicone sealant provided to tack the packers into place. Carefully remove the cill and add silicone sealant underneath where indicated below, then reposition it and level it again.

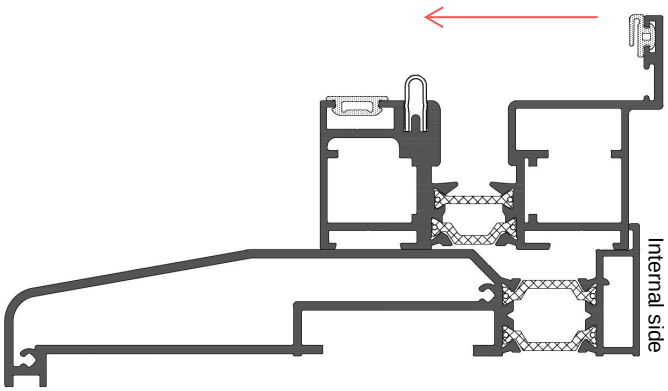
Once the cill position is level and fully supported, use the HSS drill provided to drill a hole at each end of the cill through the thermal break. Use the SDS masonry drill supplied to drill through these holes into the masonry. Finally fix the cill in place using Qty 2 of the direct frame fixings supplied, ensuring they are silicone dipped.



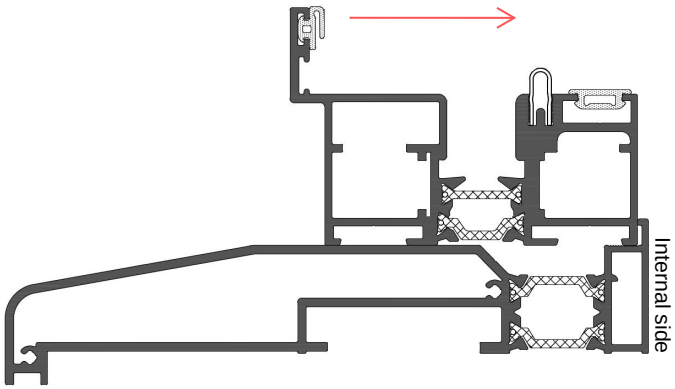
Opening direction

Our standard French doors can be ordered to open in or out. The frame should be installed as per diagrams below depending on which you have ordered, to allow the doors to open towards the correct direction.

OPEN OUT (With standard optional drip cill)



OPEN IN (With standard optional drip cill)



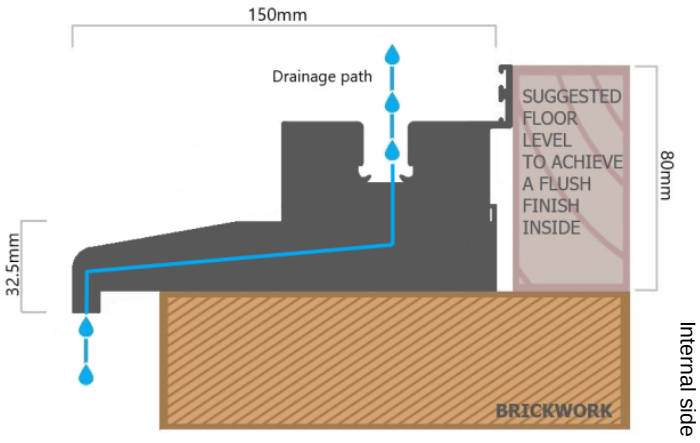
Cill and threshold details

Our French doors can be ordered with various cill and threshold options. If you do not see the cill / threshold option you've ordered below, please contact us directly for details.

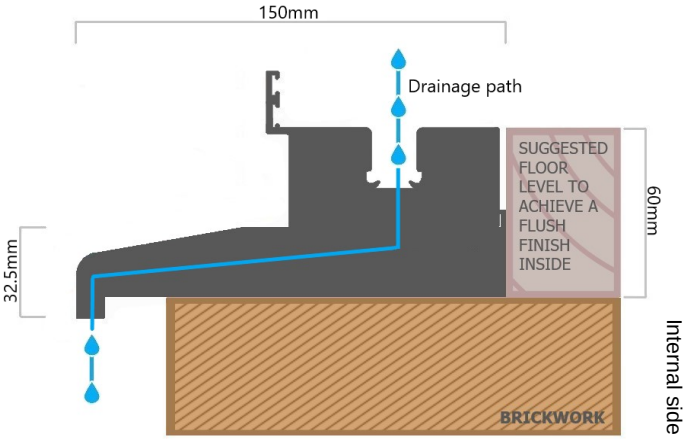
Please refer to the below diagrams detailing the dimensions of the frame and cill sections, when considering finished floor heights.

Standard threshold and 150mm drip cill

OPEN OUT



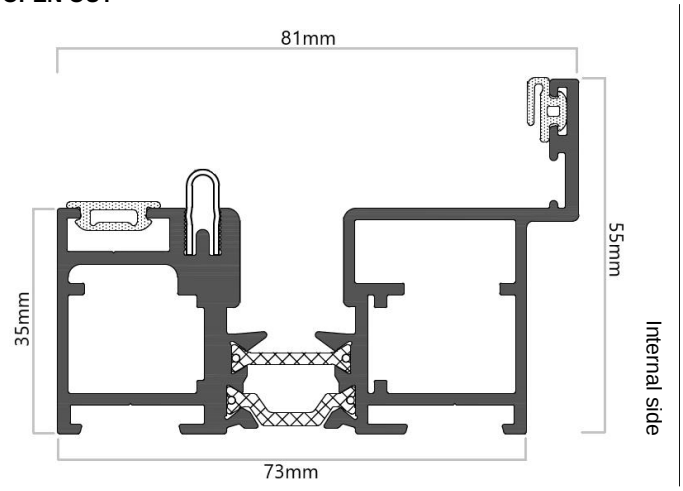
OPEN IN



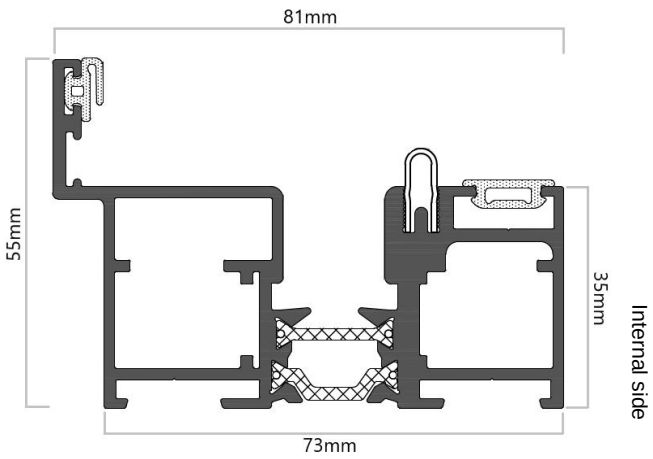
Cill and threshold details (cont)

Standard threshold without drip cill

OPEN OUT

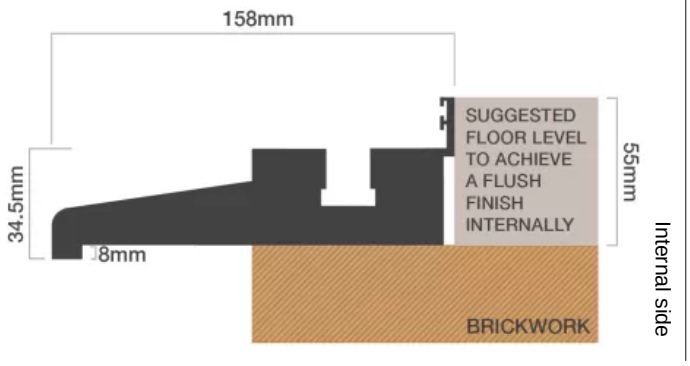


OPEN IN



Integrated threshold and drip cill

OPEN OUT



Installing the assembled frame

The frame and doors are exactly the same for BOTH open inwards and open outwards so it is important you install the frame the correct way round to get the specified opening direction.

OPENING OUTWARDS

Internal side

External side

Installing the assembled frame (cont)

OPENING INWARDS

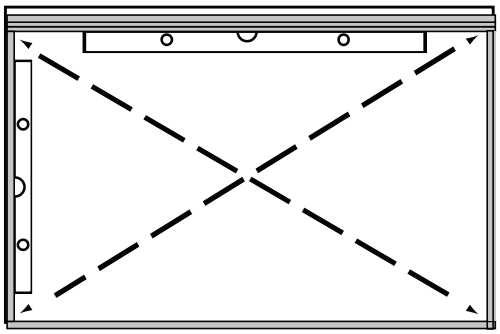
Internal side

External side

If you have already fitted a drip cill into the bottom of the brickwork opening, take care when lifting the outer frame on top not to damage the drip cill. You should have already levelled and fully supported your drip cill, meaning the threshold should automatically sit level ontop.

Where no drip cill is being used, using the packers supplied, level the frame starting at the bottom and insert the first packer DIRECTLY UNDER THE FRAME JAMB starting at whichever side of the frame looks highest. Then continue to pack all around the frame. **Important, the frame should be installed with the outer edge of the frame jambs up to a maximum of 5-10mm back from the face of the brickwork.**

Continually check the frame using a long spirit level as you go. It is very important the frame is installed into the brickwork opening completely upright, square and level in every plane. Measure diagonally across the frame and ensure the measurements are the same.



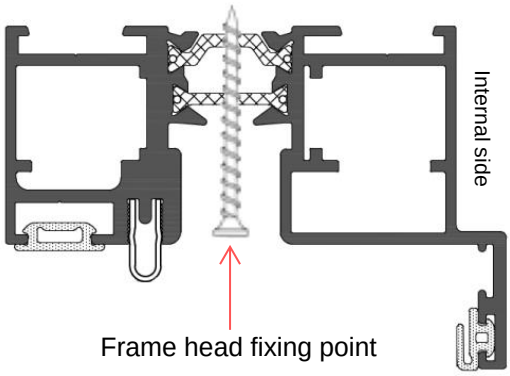
The diagonals must be the same

Do not proceed unless you are 100% happy the frame is in upright, square and level in every plane and checked using a laser level

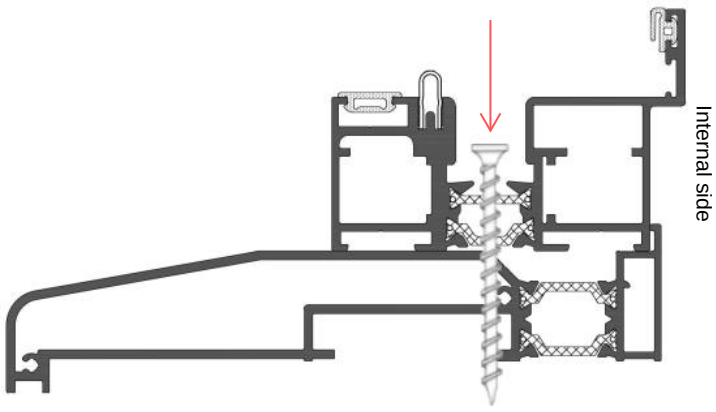
When the frame is in the opening square and level, drill fixing holes 150mm from each corner and then at 600mm centres. Use the HSS drill provided to drill the frame sections and the SDS masonry drill for the lintel / brickwork.

Finally fix in place with the direct frame fixings and T30 bit provided, through the thermal break, ensuring the fixings in the bottom section are silicone dipped.

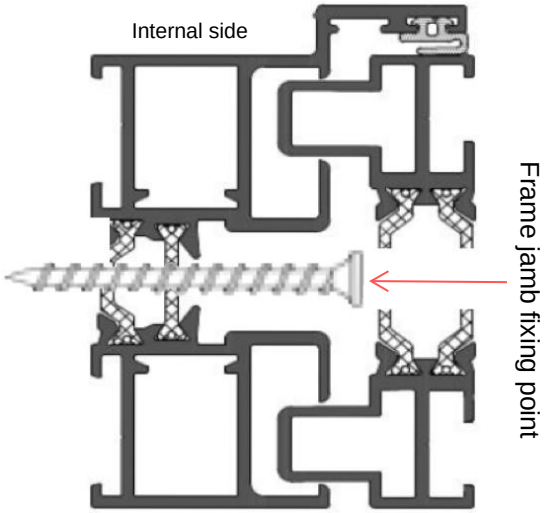
Example below shows outward opening option



Threshold fixing point



Installing the assembled frame (cont)



DO NOT OVERTIGHTEN THE FIXINGS OR DISTORT THE ALUMINIUM FRAME.

Adjustable jambs have been pre-drilled with 13mm clearance holes to allow access to direct fix through the thermal break in the outer frame jambs. These 13mm holes should be plugged with the 12mm black bungs supplied, Qty 4 in each jamb.

Finally apply silicone to seal all around the perimeter of the frame - especially along the complete length of the bottom rail.

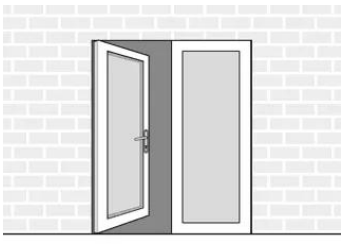
Fitting the doors

Locate the Slave Door which will have the twin point hand operated lock and lock keeps for the main multi-point lock pre-fitted. Look for the panel glass beads to determine the interior side and panel drainage holes to determine the bottom of the door.

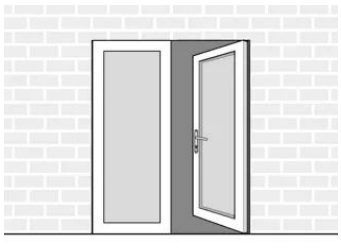
Ensure your threshold and drip cill if ordered are protected by using the discarded foam packaging or cardboard, and that you have a suitable support block to rest the door on.

IMPORTANT NOTE
The seal gasket is fitted under the door outside edge. Please take care to ensure when the door rests on the block, it rests on the ALUMINIUM PART ONLY AND NOT THE SEAL- this will prevent damage to the seal.

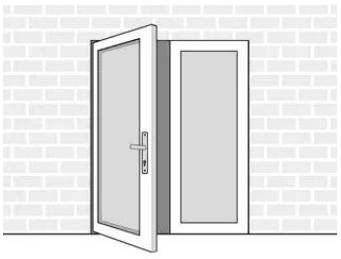
Take a moment to check what opening configuration you have ordered to ensure you position the doors correctly.



Left Opening Open In
Doors open in. Left door is daily access door.



Right Opening Open In
Doors open in. Right door is daily access door.



Left Opening Open Out
Doors open out. Left door is daily access door.

Right Opening Open Out
Doors open out. Right door is daily access door.

Fitting the doors (cont)

Position the Slave Door on the correct side of the outer frame. If you are unsure which side, please check your order details where you will have specified which door is the Access Door.

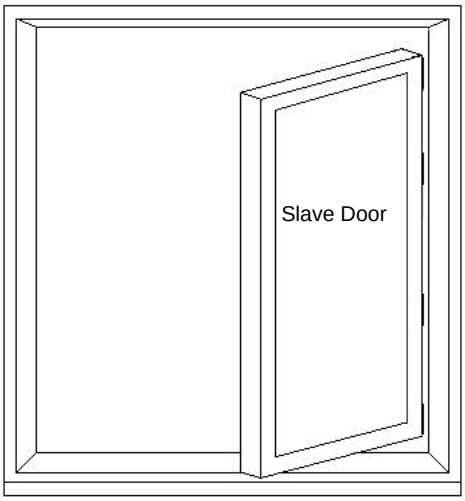


Diagram shows Left Opening, Open Out (when viewed from the outside)

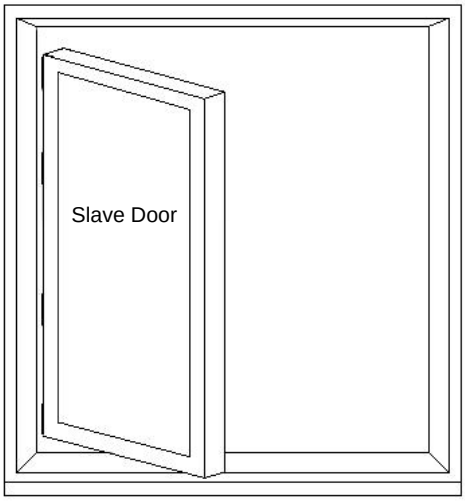


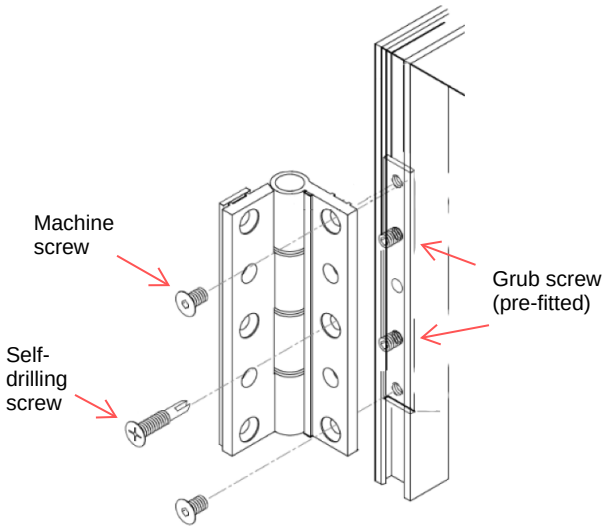
Diagram shows Right Opening, Open Out (when viewed from the outside)

The hinges are already fixed to the frame jamb which just need fixing to the Slave Door.

Offer the door up to the hinges using resting blocks or wind bags under the door, ensuring the door is not resting on the threshold / cill.

Use the 3mm Allen key and M5x10mm machine screws to fix the door in the top and bottom countersunk hinge hole positions.

Fit the 4.2 x 25mm self-drilling screws to the central hole positions.

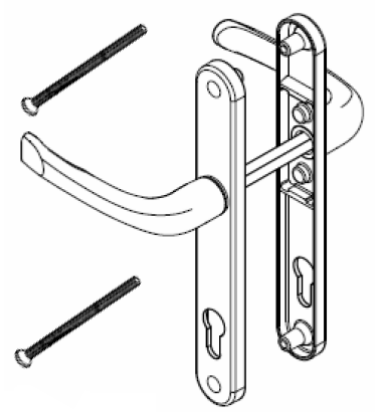


Repeat the process with the Access door.

Diagram shows Left Opening, Open Out (when viewed from the outside)

Diagram shows Right Opening, Open Out (when viewed from the outside)

Fitting the doors (cont)



Fit the handles to the Access door using the long threaded bolts provided. The handle with the screw holes should be fitted to the inside, and the handle without screw holes should be fitted to the outside.

With the Access Door fitted and in the open position, first close the Slave Door by pulling the door towards you, tight into the frame and rotate the twin point hand operated lock handle to the closed position.

Important, do not use the twin point hand operated lock handle to push / pull the door.

Next close the Access Door and lift the handle to ensure the lock engages.

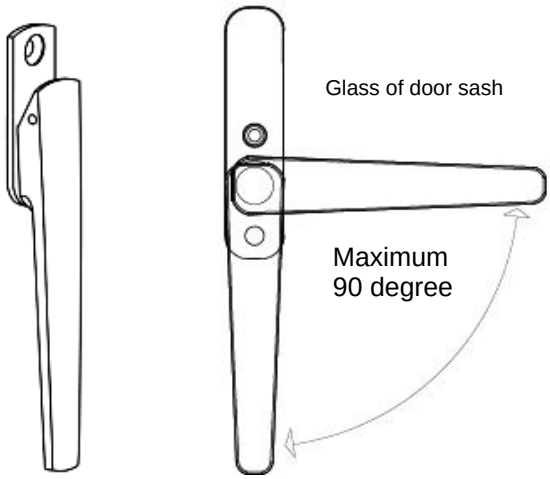
Turn the key fully to lock the Access Door.

To unlock the Access Door use the key to unlock, then depress the handle to open the door.

IF YOU ARE NOT HAPPY WITH THE OPERATION OF THE DOORS AT THIS STAGE AND THEY DO NOT OPEN AND CLOSE SMOOTHLY WITHOUT CATCHING ON THE FRAMES OR LOCK KEEPS, TURN TO PAGE 14 FOR OUR TROUBLE SHOOTING GUIDE.

Closed position

Open position

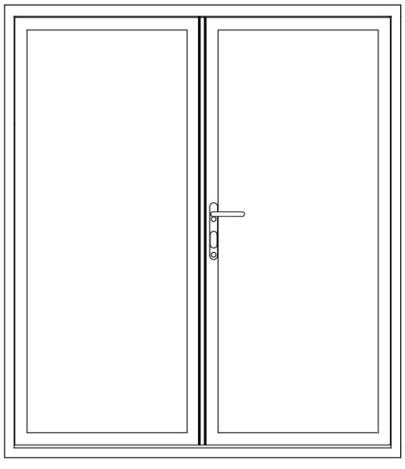


DO NOT USE THIS HANDLE TO PUSH/PULL THE DOOR

Correct operation of the French doors

When closing the French door set, first close the Slave Door by pulling the door itself towards you, compressing the seal and secure it in place with the twin point hand operated lock, by turning its handle 90 degrees.

Next, close the Access Door by pulling it towards you, compressing the seal in the frame whilst holding onto the handle. With the Access Door pulled in, lift the handle to engage the multi-point lock hooks and turn the key.



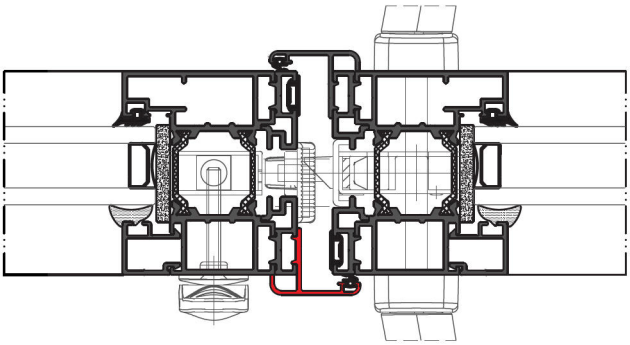
To open the French doors, first fully unlock the door using the key and fully depress the handle on the Access Door.With the Access Door in the open position, turn the inside twin point hand operated lock handle 90 degrees and push the door away from you using the door itself.

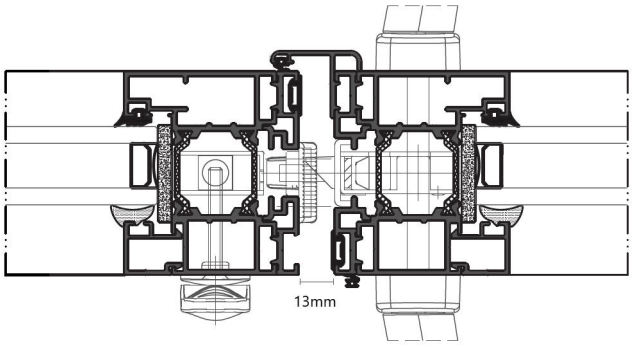
Please note, failure to operate the doors as outlined above could result in damage to the hardware and frame.The twin point handle operated lock handle must never be used to push / pull the doors.

Trouble shooting guide

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 Access Door & the Slave Door. The distance should be 13mm

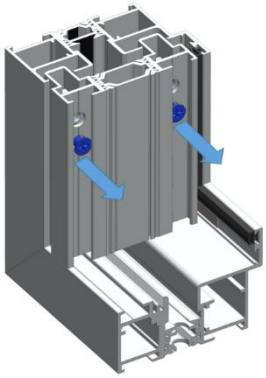


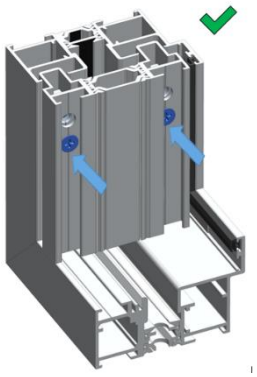


- If the lock and keep are clashing regulate the distance by adjusting adjustable jambs as shown below.
- Once the correct gap is achieved and the lock is locking perfectly fix the rebate profile back on the master door panel.
- Double check if the lock is latching properly.

Width 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.
- Check the gaps to be equal and adjustable jamb is set square and level.
- After completing adjustment fix the adjustable jamb in position by securing self-tapping screws.





- Adjustable jamb is designed to have both positive and negative adjustment as shown below.

-4 mm **0 mm** **+4 mm**