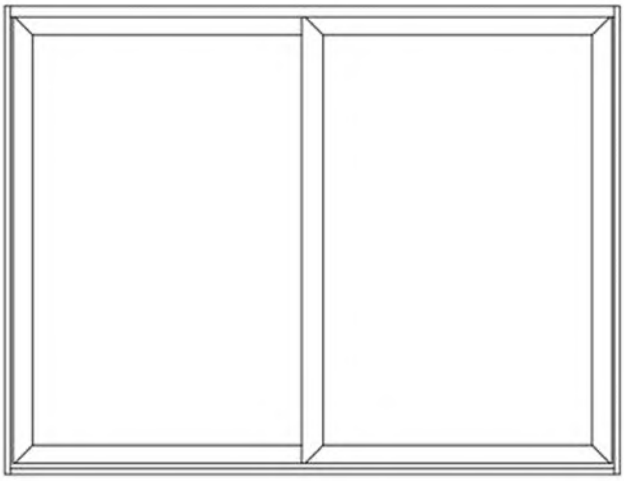
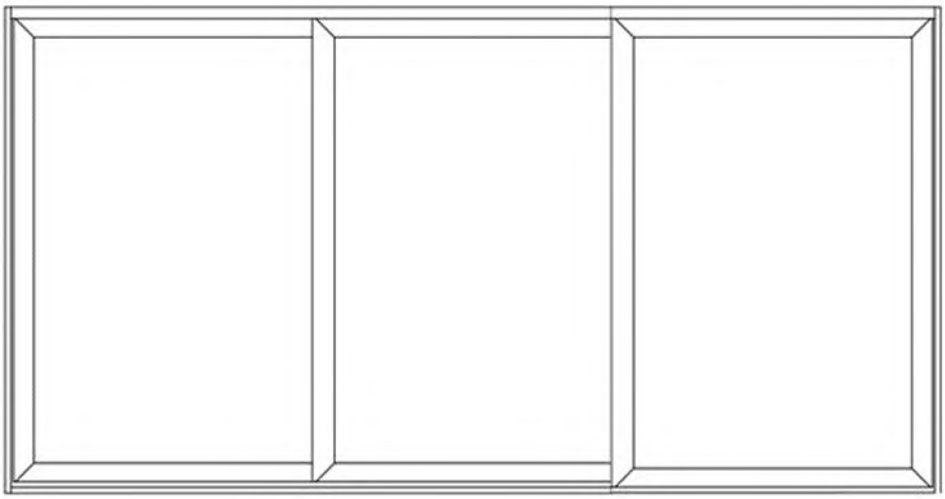
INLINE SLIDING PATIO DOORS

Assembly Instructions





About your Inline Sliding 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.

The advice given in this document assumes fitting will be carried out by a qualified professional following the Code of Practice for the Survey and Installation of Windows and External door sets, where applicable.

Important Information

All of our external aluminium sliding doors and frames, glazed units and hardware components are guaranteed for a full 10 years against the occurrence of manufacturing faults and the powder coating finish is guaranteed for 15 years, all subject to correct installation, regular maintenance and care in use as detailed below.

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.

Handling and Storage

Take care when unloading the products as they may have shifted during transportation. The products are heavy. Always wear gloves, use specialized equipment such as glass lifting suction cups and have at least two people to unload / carry them.

You are responsible for safe handling of the products, and for selecting appropriate handling equipment.

Conduct a thorough inspection of the product(s) immediately after receiving them, including temporarily removing any protective tape, and then reapplying before installation.

Important: All damages or missing parts must be reported within 72 hours of receipt and before commencing installation. When storing the doors / frames and glass before installation, and once all items have been fully checked, they should be handled with care and stored in a dry, ventilated building.

Loose glass should never be placed directly onto hard floors such as concrete, but should be placed on cardboard, sheeting or wooden batons, on edge rather than flat. The glass should be stored on its edge and at a 3–6-degree angle. Glass should not be stored horizontally or on top of each other and should not come into contact with anything harder than itself.

Important: The glass must be inspected before being fitted. We cannot accept claims for any missing items, damages or scratched glass after 72 hours following delivery or after installation has begun.

Installation

This door set is designed to be installed by competent trades persons with good knowledge and previous experience of installing sliding doors. Thoroughly read and understand these instructions before you begin installation. It is presumed that the installer possesses basic skills and an understanding of door, window, wall and roof installation, and joint sealant guides.

Before commencing the installation, carry out a final check to make sure the aperture is the correct height and width to accommodate the outer frame size. The brickwork opening should be approximately 10mm greater in both height and width than the outer frame size when measuring at the tightest points.

Our aluminium doors are designed 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. The aluminium sliding doors are bottom hung, the weight of the doors is supported via the sliding hardware and threshold.

Important: The threshold must be sufficiently packed to ensure there are no dips or rises along the full length of the bottom tracks. When fixing the frame head, ensure there is no bowing.

About your Inline Sliding Patio Door Set (cont)

Care and Maintenance

Aluminium Door and Frame Components

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

The profiles may have protective tape applied to interior and exterior surfaces to protect them during manufacturing and handling. Protective tape must be fully removed before or on installation. Protective tape and masking tape should not remain on exterior surfaces for an extended period of time. They will begin to fuse to the surface making the adhesive residue difficult to remove. Failure to remove tape may permanently damage the frame finish.

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.

The threshold should be kept clear of debris and regularly cleaned to ensure the drainage channels remain clear, which can be done whilst cleaning the rest of the door set. The threshold should be stepped over when entering and leaving and not used as a step, to avoid damage to the threshold and seals.

Important: 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.

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 occasionally, 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 detect.

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 nor 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 Inline Sliding 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 sliding 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.

Tracks and bearings

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

After cleaning the tracks, using a microfibre cloth, apply a small amount of lubricant such as a silicone spray to the inner lip of each side of the track. Extra lubricant can be added around the bearings. Adding lubricant in this way reduces wear, improves smoothness and gives additional protection against corrosion of track and bearings.

Locks and handles

Your sliding door is opened and closed by raising and lowering the handle and locked using the key. 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 excessive resistance when operating 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 problems with locking or unlocking the doors, first eliminate actual locking problems by opening the access door and pulling the handle downwards 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

Sliding door sets have become more popular due to customers wanting to maximise the size of each glazed panel, giving more light and fewer interrupted views. The bigger the glass area the heavier the individual panels will be, which in turn will cause extra resistance when operating the heavier doors.

All our aluminium sliding door sets have been pre-assembled in our factory. They are installed into a steel framed testing rig where they are 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, sliding 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

How your aluminium patio door set arrives on site can vary however in the main they will arrive as follows:

Supply Option 1 - Outer frame and doors built up, with loose glass

Supplied with the outer frame built up and the doors fully assembled within the frame, unglazed. Optional cill and frame head add-on will be supplied loose and strapped to the frame pack for transportation.

Supply Option 2 - Outer frame broken down (kit form)

Supplied with the outer frame knocked down, doors separate and unglazed. Optional cill and frame head add-on will be supplied loose and packed with the frame pack for transportation.

Glass

The glazing units will be supplied loose, for your fitter to balance on site.

These guidelines are to ensure the safety of those handling our products, as well as ensuring they arrive to you in the best possible condition.

Our team will contact you in advance of dispatch to discuss your individual delivery arrangements.

These fitting instructions will cover the installation of both standard sized and bespoke sliding patio door sets, with sections covering assembly of frames that are supplied in kit form and built up, with doors that are unglazed, supplied with glass loose.

Important: Glass lifters / suction cups must be used during the installation of these doors (not supplied).

Contents

Supply Option 1 (built up)

DOORS - supplied unglazed, pre-fitted within the outer frame

OUTER FRAME - comprises of frame head, jambs and threshold. Supplied built-up

GLASS - loose

Supply Option 2 (kit form)

DOORS – unglazed, supplied loose

OUTER FRAME - comprises of frame head, jambs and threshold. Supplied broken down

GLASS - loose

CORNER CLEATS – Qty 8 for double track / Qty 12 for triple track

Additional Hardware

Keys – Qty 3

Glazing packers – Qty 1 bag

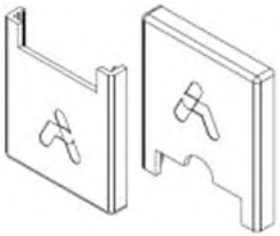
Wedge gasket – Qty 1 roll

Wedge gasket

Contents (cont)

Additional Hardware (cont)

Intersection covers – Qty 1 top and 1 bottom per non-locking door edge



Intersection Covers

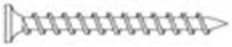
Installation Kit Contents (Optional Extra)

HSS Drill Bit 6.5 x 100mm – Qty 1

Masonry Drill Bit 6.5 x 210mm – Qty 1

¼ Hex Torx T30 Bit – Qty 1

90mm Direct Frame Fixing Screws – Qty 30



4mm Allen Key – Qty 1

50mm self-drilling screws – Qty 4 (Trickle vent orders only)

¼ Hex PH2 Driver Bit – Qty 1 (Trickle vent orders only)

Silicone – Qty 1

Assorted Packers – Qty 1

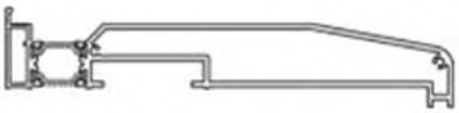
Optional Extras (Specified at time of order)

Cill – Loose

Contents (cont)

Optional Extras (Specified at time of order)

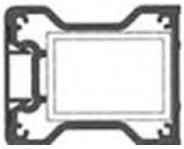
Cill – Loose



Cill End Caps – Loose

Trickle Vents – Fitted to Frame Head Add-on

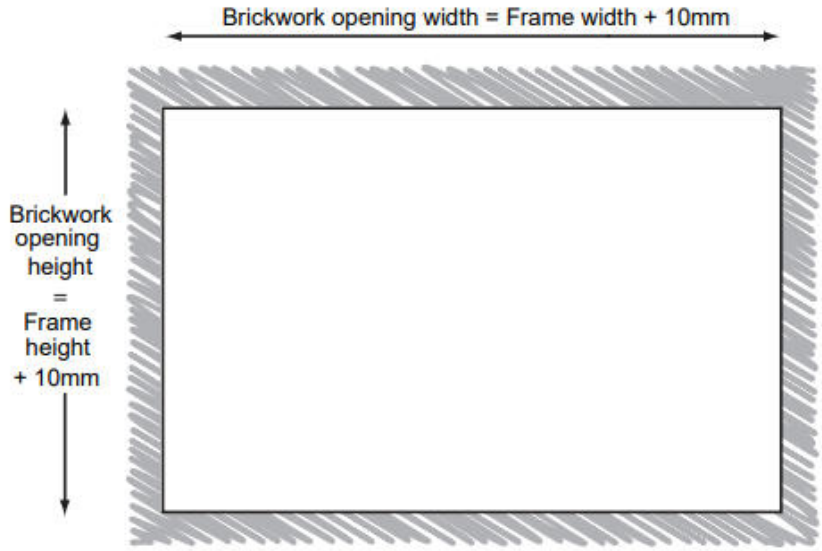
Strengthening Bar – Fitted



Important: The assembly and installation method as detailed in this manual is based on the purchase and use of the optional fitting kit. If you have not chosen to purchase a fitting kit, please ensure you use appropriate fixings suitable for external door and window installations.

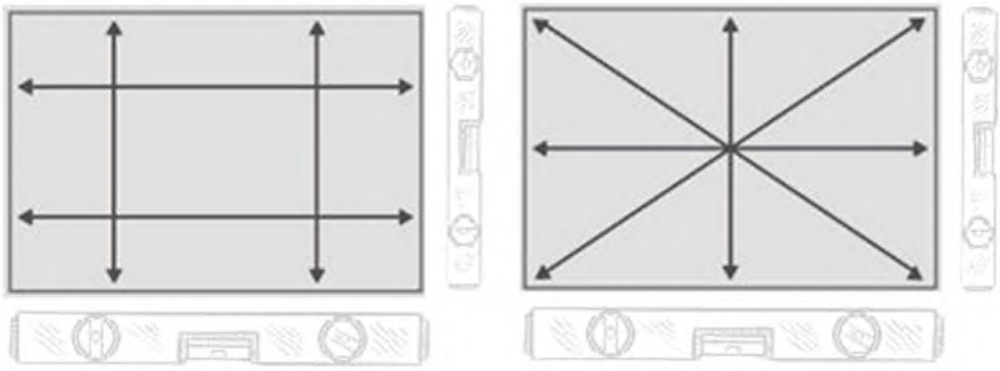
Preparing the site

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



Preparing the site (Cont)

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 outer frame must be installed square and level into the opening.



Check the aperture to make sure there is no loose plaster or brickwork, and that it is free of any debris or brick dust. Ensure that a solid, level base is present at the required dimensions and can provide packing points at 250mm centres and fixing points at 600mm centres. Ensure floor levels do not obstruct door operation or impede drainage.
Example sizes:

Outer Frame:	**Brickwork Opening:**
1790mm W x 2090mm H	1800mm W x 2100mm H
2090mm W x 2090mm H	2100mm W x 2100mm H
2390mm W x 2090mm H	2400mm W x 2100mm H
2690mm W x 2090mm H	2700mm W x 2100mm H
2990mm W x 2090mm H	3000mm W x 2100mm H
3590mm W x 2090mm H	3600mm W x 2100mm H
3990mm W x 2090mm H	4000mm W x 2100mm H
4490mm W x 2090mm H	4500mm W x 2100mm H
4990mm W x 2090mm H	5000mm W x 2100mm H
5990mm W x 2090mm H	6000mm W x 2100mm H

The brickwork opening is classed as a finished opening size, so it is important you have allowed for any additional plaster work, trims, architraves, etc.

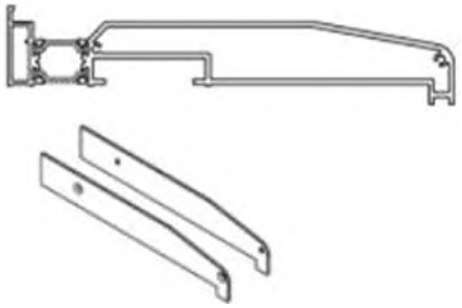
Finishing around the frame is a personal preference and should be decided between yourself and the installer. Insulated cavity closer's may be required.

Important: Before commencing installation, check the original order paperwork / confirmation to familiarise yourself with the chosen door configuration.

Fitting the Drip Cill (Optional Extra)

If you have not ordered a cill, take note of the below information and apply the same method when installing fully assembled frame / threshold into the opening.

Locate the cill and cill end caps. Glue and fix the end caps in position.

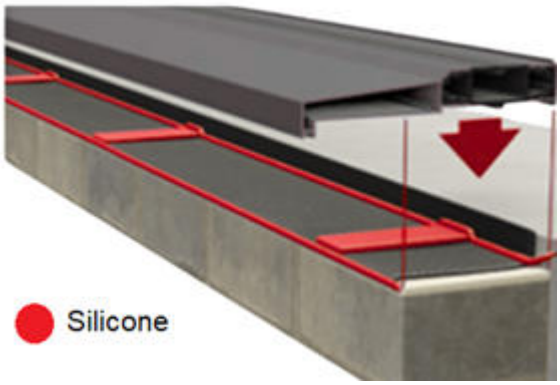


Temporarily lift the cill into the opening packing accordingly. Use a laser level and / or long spirit level, to ensure the cill is sitting perfectly level in the opening. The cill should be positioned so the frame jambs will sit a maximum of 5-20mm back from the face of the brickwork.

The bottom track must be fully supported from front to back, and levelled without dips or raises, with the cill overhanging the brickwork for drainage. Ensure the cill is level and sufficiently packed to support the sliding door set along its full width.

Remove the cill and create a bed of silicone or mortar for the cill to sit on. Silicone any packers in place. Lift the cill back into the opening ready for securing to the brick work.

If the surface is uneven then a mortar bed may be necessary. If a mortar bed is not required, then seal along the edges using silicone sealant.



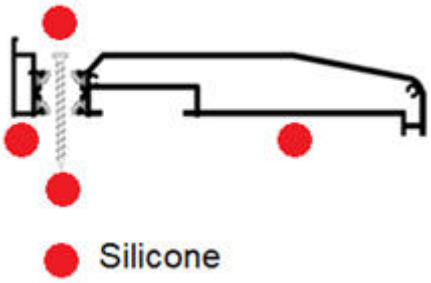
Use this same method for fitting the assembled frame / threshold with no cill.

Once the cill position is level and fully supported, use a 6.5mm HSS drill to drill a hole at each end of the cill through the thermal break. Use a 6.5mm SDS masonry drill to drill through these holes into the masonry. Finally fix the cill in place using Qty 2 direct frame fixings.

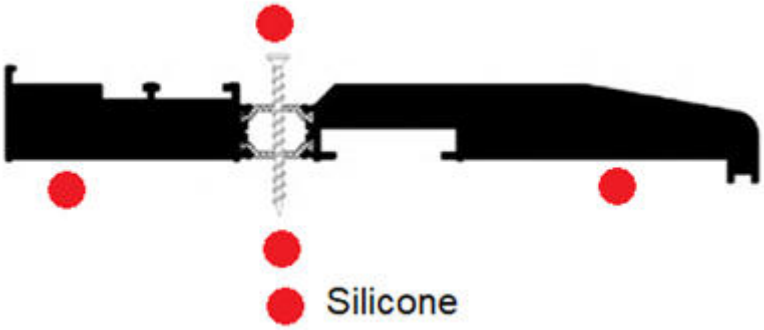
Important: All fixings and drill holes must be silicone dipped.

Fitting the Drip Cill (Cont)

Standard Double Track Cill Example



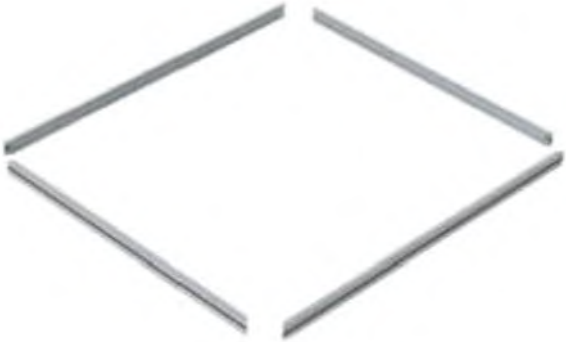
Standard Triple Track Cill Example



Assembling the Frame (Supply Option 2 Only)

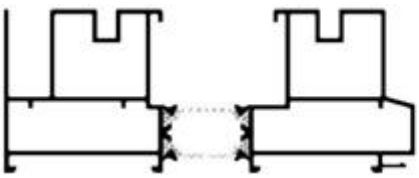
Skip this section if you have ordered Supply Option 1 (Built up doors and frame).

Lay all 4 pcs of the frame on top of cardboard or similar protective covering to prevent damage to the aluminium.

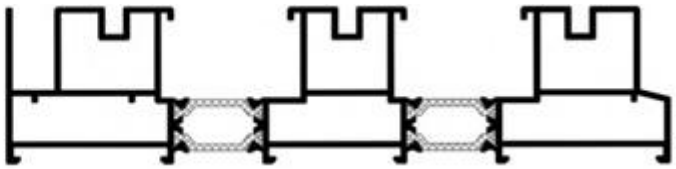


Identify the frame head, left and right-hand jambs and bottom threshold.

Double Track Slider



Triple Track Slider



Take care to ensure you've correctly assembled the frame. The sections will be labelled during production to help identify the correct joining pieces.

Assembling the Frame (Supply Option 2 Only- Cont)

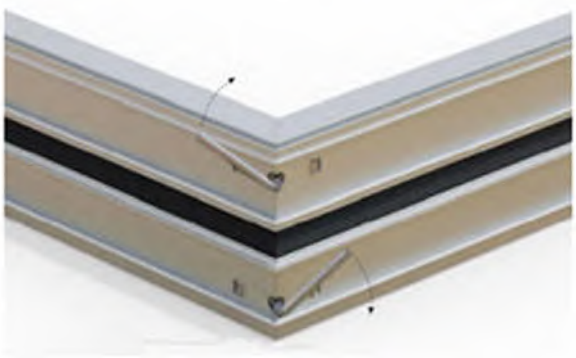
Starting with the bottom threshold, run a continuous bead of silicone sealant around the joint between the cut frame and the end cap moulding, not blocking the drainage holes.

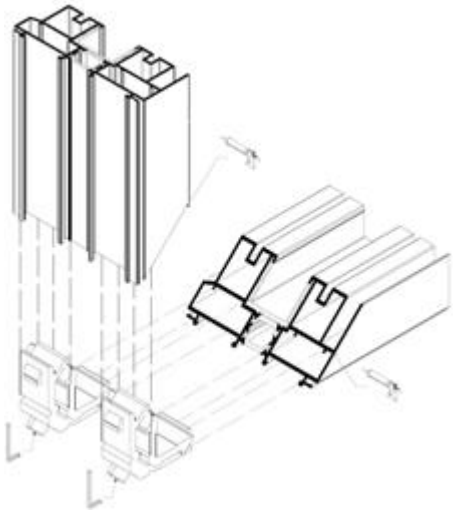
It is important to seal the bottom profile at both ends to prevent water from draining into the cleats.

Assemble the complete frame by fixing the jambs to the head and bottom rail using the corner cleats provided, ensuring the lugs locate when inserting them into the sections.

Double track sliders will require qty 2 cleat per corner and triple track sliders will requite qty 3 per corner.

Double Track Example





Assembling the Frame (Supply Option 2 Only- Cont)

Finally check the join and then repeat the process for all corners, removing any excess sealant.

Ensure you seal the access holes to prevent waster entry.

Important: Silicone should be applied to all touching faces and edges.

Finally, in stages tighten with a 4mm Allen key.

Important: Take care to ensure the drainage channels remain clear.

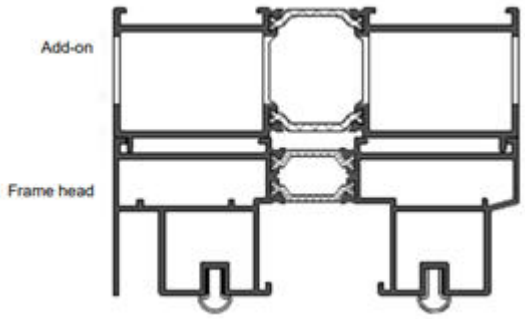
Frame Head Add-on - Trickle Vents (Optional)

Skip this step if you have not ordered Trickle Vents or it has already been fitted to the frame head.

If you have chosen to add trickle ventilation to your sliding door, these are supplied in an aluminium add-on which sits on top of the frame head. If the add-on has been supplied loose, it will require screwing to the frame head. The trickle vents will be attached to the add-on and the ventilation holes pre-machined.

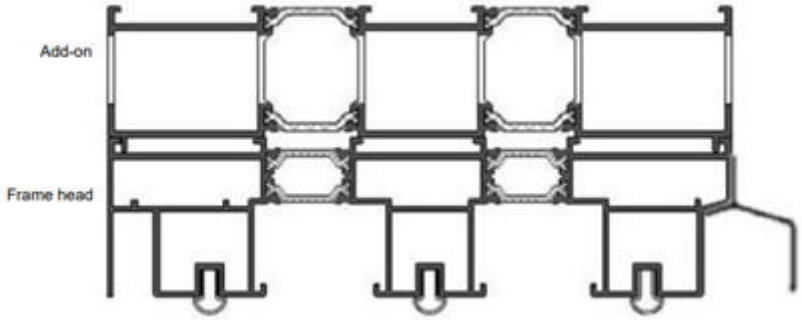
Ensure the add-on is joined to the frame head so the canopies of the trickle vents are on the external side of the frame.

Double Track Add-on and Frame Head Example



Frame Head Add-on - Trickle Vents (Cont)

Triple Track Add-on and Frame Head Example



Ensure the add-on is joined to the frame so the canopies of the trickle vents are to the outside.

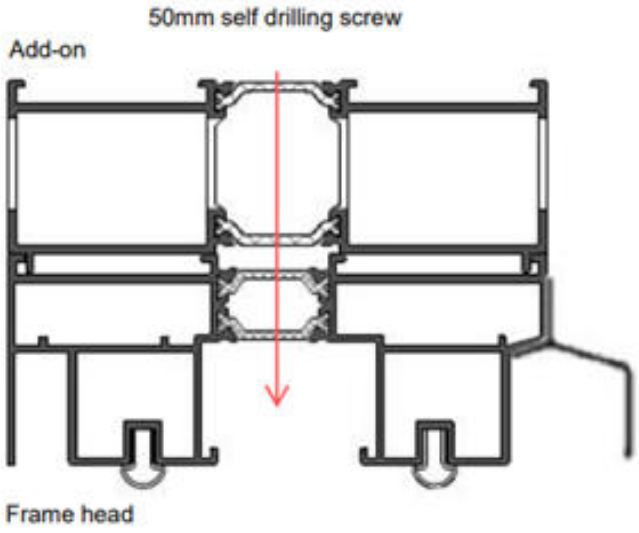
Inside vent

Outside canopy

Using qty 4 - 50mm self-drilling screws and a PH2 driver bit, attach the add-on to the frame head, spacing the screws approximately 200mm from each edge and the remaining 2 evenly spaced, by fixing through the black thermal channel. Please note that the fixings are to temporarily secure the add-on to the frame head until it is fully secured and fixed into the opening, using the direct frame fixings supplied.

For triple track sliders, stagger the fixings through the black thermal channels.

Take note of the fixing locations to ensure they do not impede with the direct frame fixings when securing the frame into the opening.

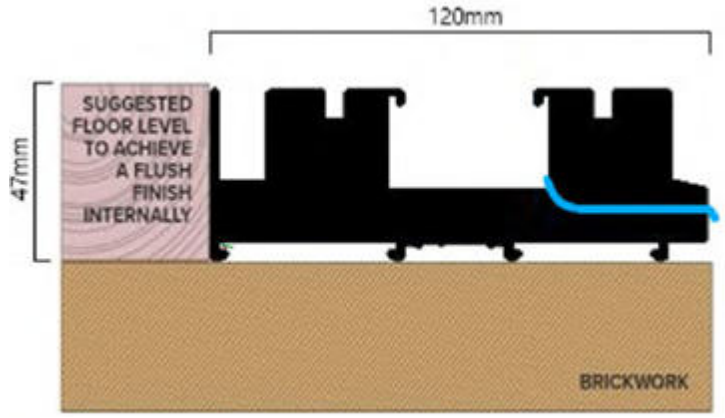


Installing the assembled frame

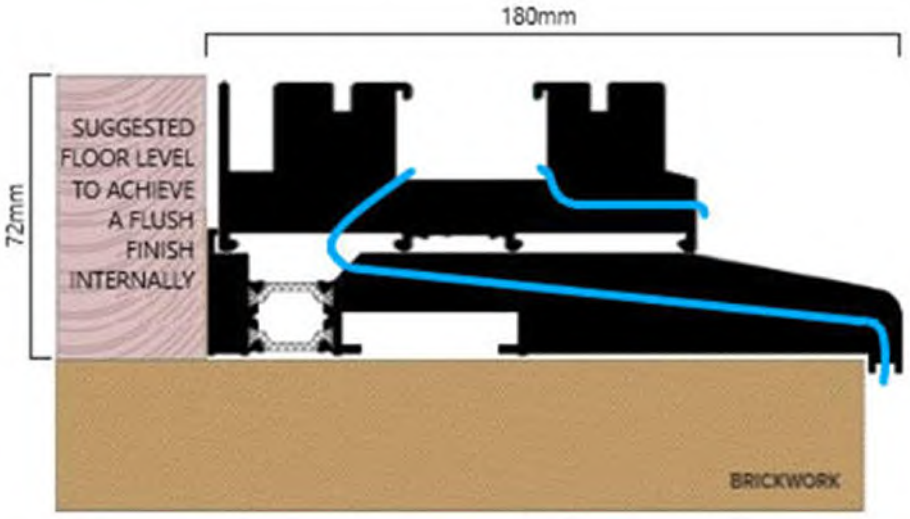
Please refer to the below for diagrams detailing the dimensions of the frame and cill sections, when considering finished floor heights.

Double Track Slider Example

Threshold Only

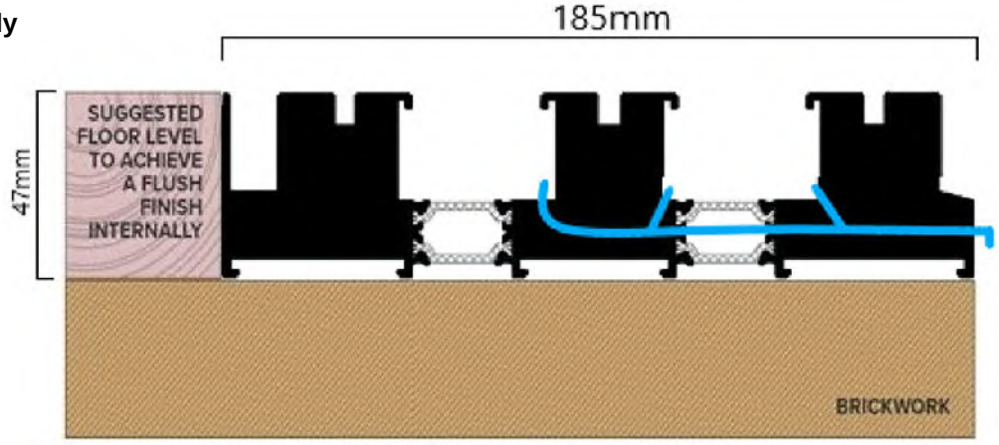


Threshold with optional Drip Cill



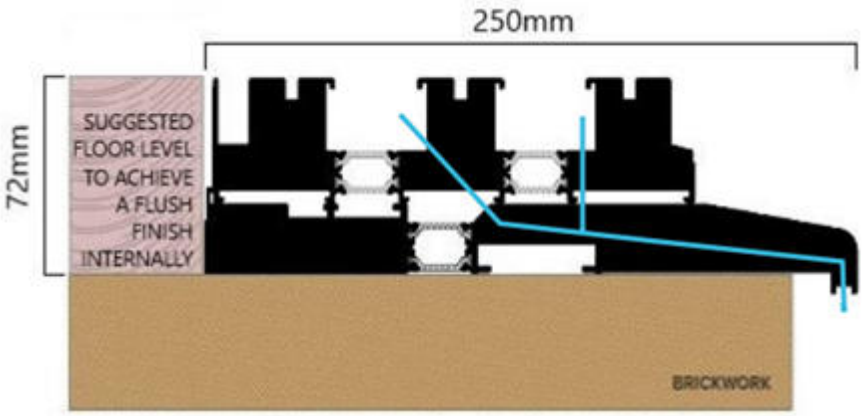
Triple Track Slider Example

Threshold Only



Installing the assembled frame (Cont)

Threshold with optional Drip Cill

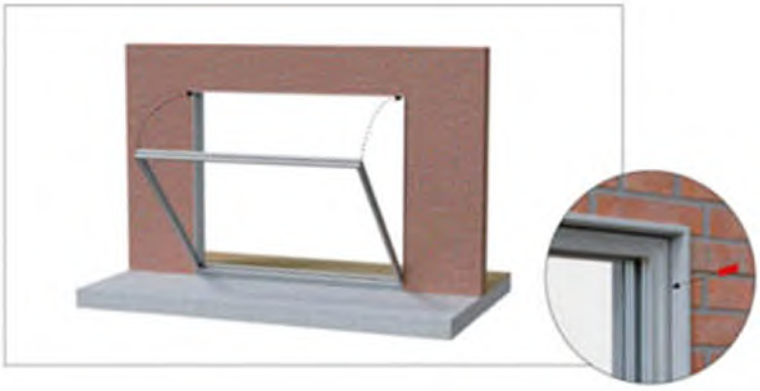


Before lifting the frame into the opening do one final check to ensure that the bottom of the brick work opening is completely level and packed accordingly as per the previous section ‘Fitting the Drip Cill’. Clear the aperture of any dirt / debris, ensuring you have a clean level surface to fix to.

Important: During the installation, repeatedly check the alignment and squareness of the outer frame. Measure the distance across diagonally to check squareness. Without these checks the installation may be unsatisfactory, causing damage to the doors and / or incorrect operation.

Ensure you have the correct structural damp proof course in place.

Temporarily lift the frame into the opening.

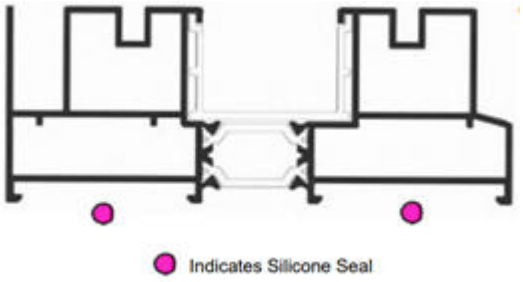


The outer frame should be positioned in the brickwork opening with the jambs to the outer edge, up to a maximum 5mm - 20mm back from the face of the brickwork. Most importantly, the frame jambs should have a secure fixing, the bottom track should be fully supported from front to back, levelled without dips or raises, with the cill (if selected) overhanging the brickwork.

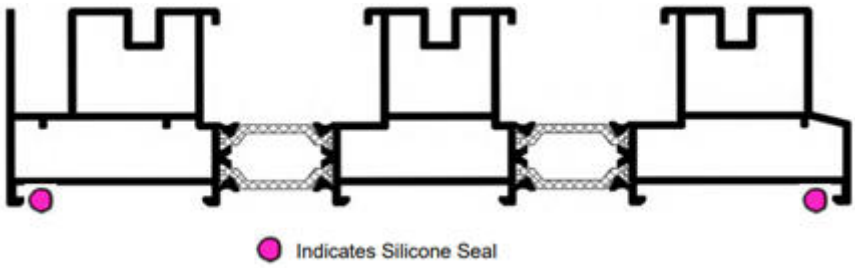
If you have already fitted a drip cill into the bottom of the brickwork opening, take care when lifting the outer frame on top not to damage the drip cill. You should have already levelled and fully supported your drip cill, meaning the threshold should automatically sit level on top. Silicone seal the cill at the front and back, and both ends of the cill before sitting the threshold on top.

Installing the assembled frame (Cont)

Double Track Slider Example



Triple Track Slider Example



Where no drip cill is being used, level the frame using packers, starting at the bottom and insert the first packer DIRECTLY UNDER THE FRAME JAMB starting at whichever side of the frame looks highest. Please refer to section 'Fitting the Drip Cill' for levelling and sealing the threshold.

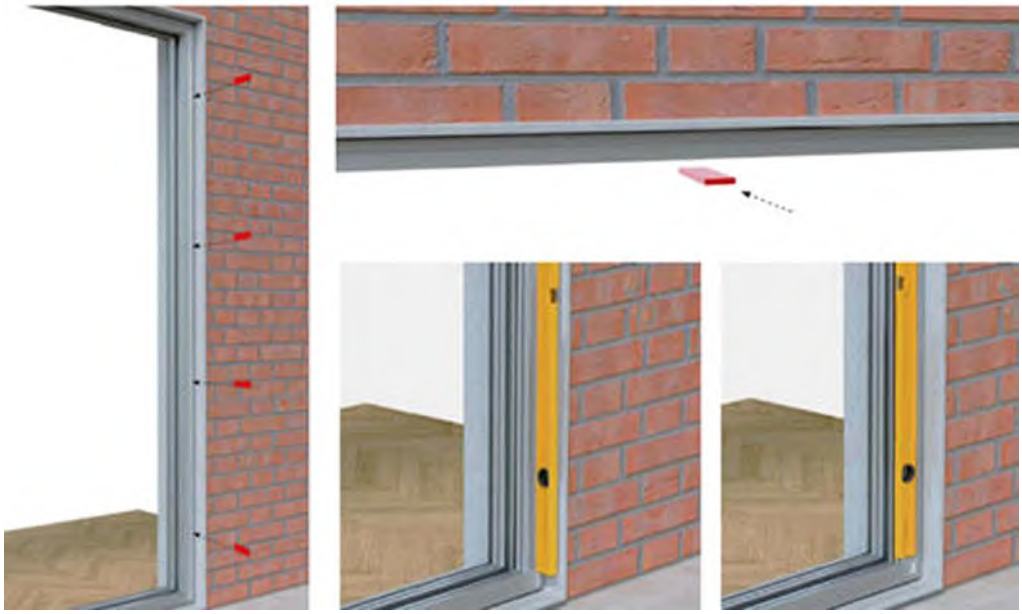
Remove the frame and create a bed of silicone or mortar for the frame to sit on the lift the frame into the opening ready for securing to the brick work. Ensure the frame is level and sufficiently packed to support the sliding door set along its full width, silicone any packers in place. If the surface is uneven then a mortar bed may be necessary.

Silicone and levelling example

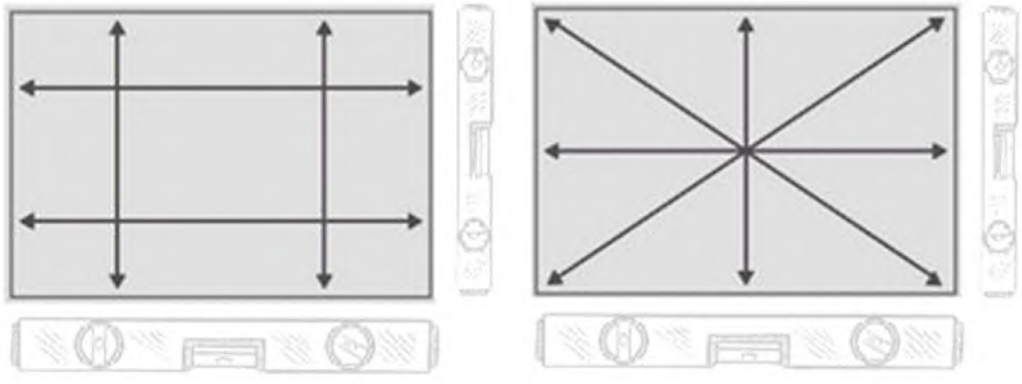
Installing the assembled frame (Cont)

Lift the frame back into the opening.

Continue to pack all around the frame. Ensure the top and bottom tracks do not bow in any direction, the internal frame dimensions are consistent, and the structural opening does not transfer any load onto the frame



Continually check the frame using a laser level and / or 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 door set uses a bottom rolling system, so it is vitally important the bottom frame section (and drip cill if selected) is level and adequately supported from front to back, without dips or raises, all the way along using packers as necessary.

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.

Installing the assembled frame (Cont)

Some configurations will be supplied with pre-fitted track covers, which will now need to be removed to allow access to the direct frame fixing locations. Take note of their locations and refit once the frame and doors have been fully installed.

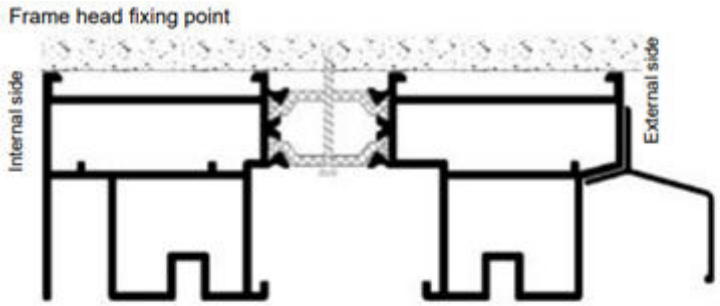
If you have selected supply option 1 (built up frames / doors), with fixed panels, the fixed panel has been temporarily fixed into the frame at the side and bottom. Remove the temporary fixing screws and slide the fixed panel away from the frame, to then allow you to secure the frame into the opening. Once the frame has been secured into the opening, refit the side and bottom screws into the original fixing points / holes, ensuing the bottom fixing screws have been silicone dipped.

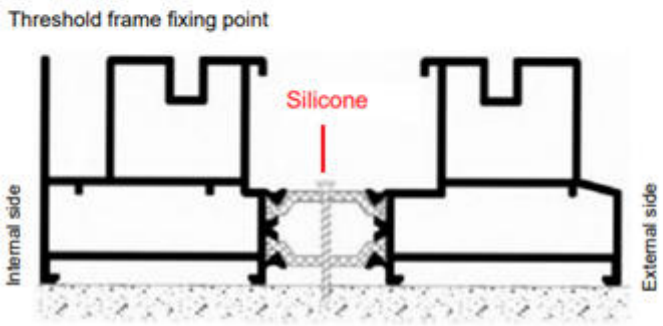
When the frame is in the opening square and level, drill fixing holes 150mm – 200mm from each corner and then at 600mm centres. Use a HSS drill to drill through the frame sections and a SDS masonry drill for the lintel / brickwork.

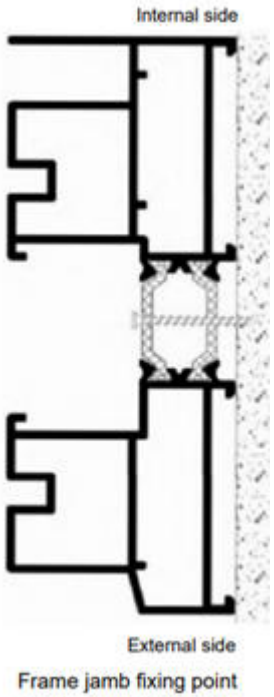
Finally fix in place with direct frame fixings and a T30 bit, through the thermal break.

Important: All fixings in the bottom threshold must be silicone dipped.

Double Track Slider Example



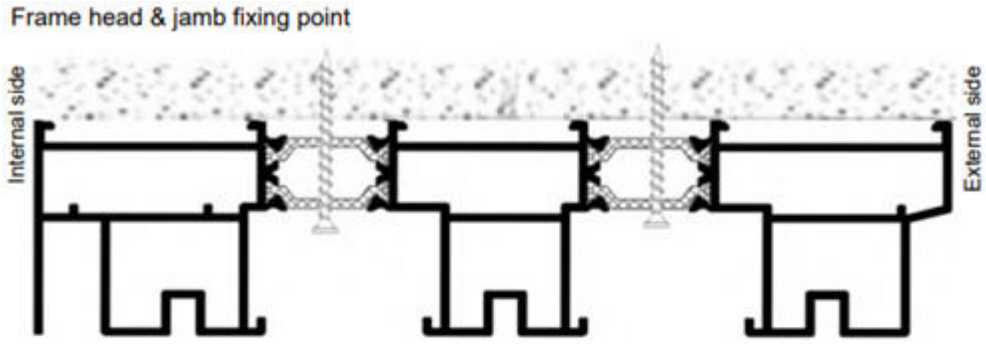


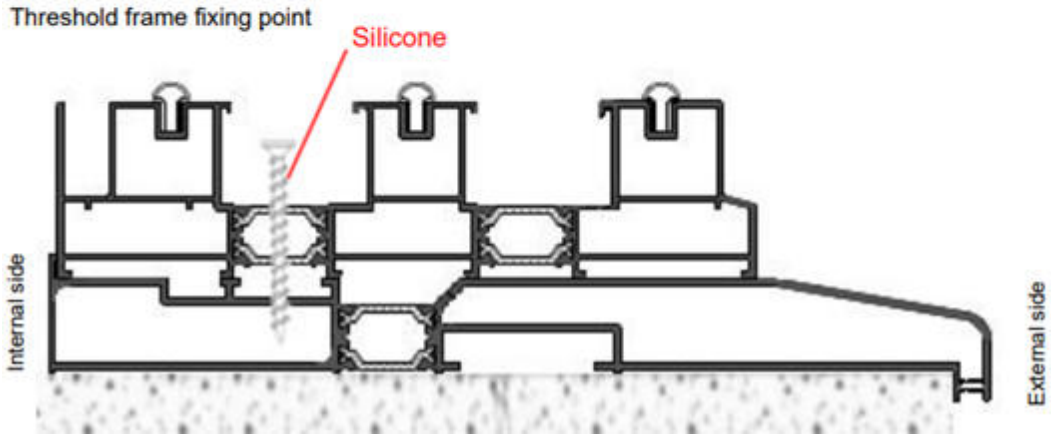


Frame jamb fixing point

Installing the assembled frame (Cont)

Triple Track Slider Example





Installing the doors (Supply option 2)

If you have selected supply option 2 (kit form) install the doors into the frame.

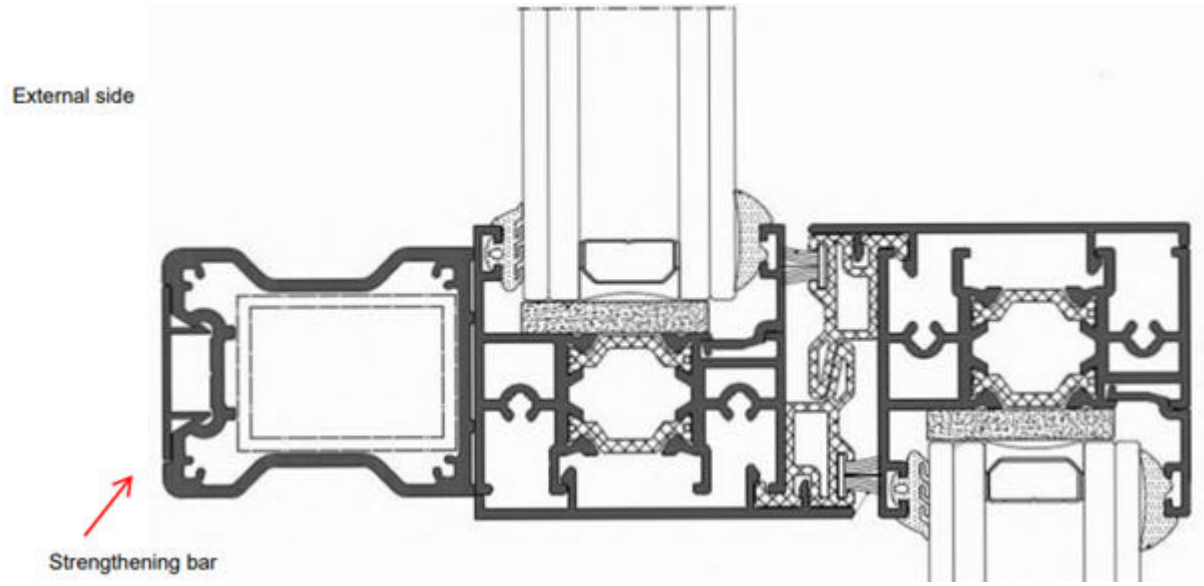
The temporary fixed glazing bead will be located to the inside of the doors. All drawings and instructions are looking from the outside towards the inside here after.

Working from outside, carefully lift the master door (configured as per your order) onto the inner most track of the frame head, and swing the bottom of the door over the bottom track, ensuring the wheels are correctly located onto the inner track. You may find it easier to install the door into the middle of the frame and then slide it to the correct side.

If you have selected a sliding door set with a fixed panel, once located into the correct position and is tight up against the frame, the fixed panel will need securing into the frame at the top, bottom and sides, ensuing the bottom fixing screws have been silicone dipped.

Fitting the optional Strengthening Bar

If the optional strengthening bar has been chosen (custom orders only) for reinforcement, it will be pre-fitted during production and by default, will be on the outer face of the door set unless specifically requested otherwise during ordering.



Glazing the doors

Our inline sliding doors are supplied with the glazing loose, for the fitter to glaze on site.

Do not proceed with glazing the doors if you are not experienced with this process.

Important: Glass lifters / suction cups must be used during the installation of these doors. The doors must be glazed / toe and healed by an experienced glazier.

The below is a general guide and recommended packer placement; however, it is the glaziers responsibility to ensure the glass has been packed and supported sufficiently with the correct type and placement of bridging and glazing packers.

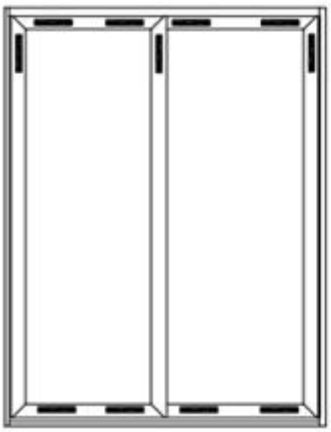
Remove the temporary fitting glazing beads and place them to one side, taking note of their location.

Place 2 bridging packers at the bottom of each door; approximately 100 - 150mm from the door edges, securing in place with some silicone. Using glass lifters / suction cups, fit the loose glass into the rebate on the door, sitting the glass on top of the bridging packers and then securing in place at the top and sides with wedge glazing packers.

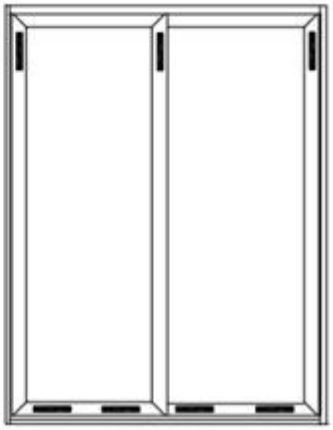
The incorrect balancing of the glass will affect the door operation.

Glazing the doors (Cont)

Doors / sliding panels



Fixed / non sliding panels



Bridge glazing packer

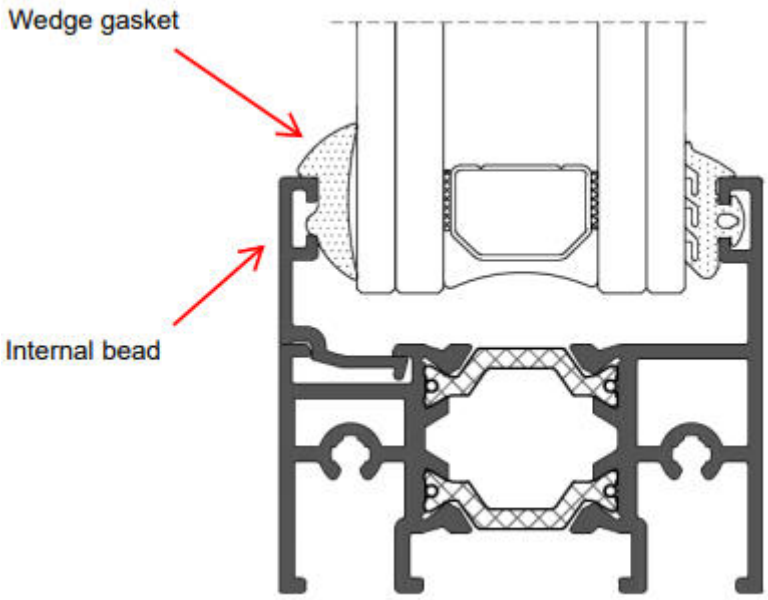
Wedge glazing packer

Locate the internal glazing bead and clip this into there original positions / locations, starting with the top and bottom first and then the sides.

We advise spraying the units with a mild soap/water mixture or glass cleaner to make beading and fitting the gasket easier. Ensure you have toe & heeled/packed the units correctly.

Be careful not to scratch the paint profile.

Finally, insert the internal wedge gasket to secure. The gasket will require compressing and pushing in to locate correctly.It is recommended that a glazing paddle is used to help with compression.

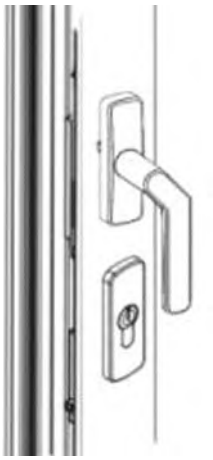


Repeat this process for the additional sliding door(s) / fixed panels.

Check you are happy the doors are operating correctly.

Operating your sliding patio door

In the closed position, the handle of your Inline sliding patio door will be facing down as shown opposite. The handle lifts to 90 degrees in the open position.



External finishing

Once you are satisfied with the correct installation of the frame and door operation, break off any protruding packers where necessary.

Remove any remaining temporary protective tape from all profiles. Clean down the aluminium and glass with warm, soapy water.

Expanding foam can be used to fill any large apertures around the frame. Be careful not to overfill. Trim or silicone around outer frame and seal below external cill if applicable.

Re- check the door for correct function, and instruct the homeowner on their correct operation.