Fitting Instructions

SVG Plus - Aluminium Sliding Doors

SUNFLEX UK

Please refer to your order or detailed sectional drawing (if requested) to assist you with the configuration of the system supplied and with identifying the profiles and their relative positions.

Please read the following fully before commencing installation.

Recommended specialist tools/items for fitting of system

4 or 6 inch level.
6ft level.
2.5mm,3mm Allen keys.
Flat 28mm wide PVC glazing packers of varying sizes.
String line.
4.5mm,5mm & 8mm long series HSS drill bits.
Glazing wedge.
Gasket cutters.
Wide roll of DPC (if fitting a flush track system)

Important Note

Unless the track is being fitted onto an aluminium sill or any other type of sill detail (e.g. cant brick, stone or timber sill etc.), Sunflex UK recommend the use of a wide damp proof membrane (DPC) laid down on top of the base and folded up at each end.
After installation of the frame the DPC can then be turned up the back inside face of the bottom track. The DPC, being wide is then left to trail down the front face of the base to form a flashing detail similar to a sill pressing or a leaded up-stand .

NOTE care must be taken to ensure the packers under the track are kept back flush with the front face of track so an adequate silicone pointing joint can be applied between the frame and the DPC. This helps to prevent the risk of water backtracking underneath the track.

The purpose of the DPC is to form a vertical damp barrier and prevent any water from being drawn back under the track and forming damp patches on the internal floor. For further reference, the recommended position of the DPC is shown on the sectional drawing (if requested) supplied at order confirmation.

Levelling the base of the aperture

Use a small 4 or 6 inch level (depending on either 99mm or 165mm frame being fitted) to check the front to back level of the base on which the door system is to be fitted.
Starting directly against the side wall and at intervals of approximately every 250mm until the edge of the opposite side wall, check the front to back level of the base.
Place a thin packer on either the front edge or back edge of the base as required to correct any discrepancy (see photo). Now, with a suitable long level, proceed to level across the width of the aperture, again ensuring packers are placed directly at the ends of the aperture and on top of previously placed front-to-back packers at 250mm intervals (see photo). The height of the packing should allow a recommended minimum tolerance of 6mm between the top of the door system and the underside of lintel to give a fitting tolerance.

Fitting a frame with an additional sill section

The sill section will be packaged separately from the rest of the outer frame. It is normally supplied 100mm longer than the width of the door system to allow for the sill to be cut around each end of the aperture to form a horn, if required.
Drill and fix down the sill section through the thermal break on to the previously levelled base. Double check after fixing it down that the sill is level across its width, with no low points and also that it is level from front to back - to prevent ‘twisting’ (see photo). Ensure fixings points are approximately 100mm from each end and at maximum centres of 500mm.
Do not try to position back of sill section over an open cavity, the back of the sill must be supported by a solid base to prevent twisting.

Levelling the base of the aperture

Front to back

Packing left to right

Levelling left to right

Levelling the sill

Components

The remaining outer frame sections, glazing beads and lock keep are flat packed in bubble wrap; take care if using a knife when unpacking these, as they are finished painted surfaces. You will also be supplied with an accessory box, the contents of which are detailed below, and a roll of wedge gasket, as the system is always supplied unglazed.

Typical contents of an accessory box

Polythene bag containing allen key blocks (for assembly of outer frame)
D-handle set with screws and square shaft for main sliding panel (special-order feature handles will be pre-fitted).
Set of keys (qty depends on no of key locks on door system, three keys per lock).
Polythene bag containing 70mm screws for securing fixed panels or plant on panels in position.
Polythene bag containing rubber anti-draught blocks (qty depends on number of panels)
Polythene bag containing screws for lock keep.
Polythene bag containing buffer stop and fixing screw. (Only when external handles have been specified).
Individual polythene bags containing black PVC interlock end caps.
Tube of structural glazing sealant (supplied on slimline system only)

Identifying and fixing the outer frame sections

Ideally, lay the unpackaged frame sections on trestles or on a protected surface area for ease of assembling the frame and to save potential damage.

The bottom track

The bottom track is easily identified as it has drainage holes in the front face. The fixing point importantly, is directly through the thermal break. **Do no fix at any other point,** if the track is drilled anywhere else it will puncture the drainage channel.
As a guide your fixing centres should be at approximately 125mm from each end and at maximum centres of 1000mm. With packing points from 250mm to 500mm depending on panel weight , If fitting directly to a base and not to a sill, you may need to offer the track up to the aperture to mark your fixing points according to where the fixings can be gained.

The top track

The fixing point through the top track on a two track system is directly through the thermal break and on a three track system it can be also be in the outer channel. If fixing to the outer channel, the fixing must be countersunk so not to obstruct the black plastic u-channel that clips in to it. The recommended packing points are directly above side jambs and at maximum of 500mm apart with fixing centres the same as the bottom track, 125mm from each end and at maximum centres of 1000mm.

The lock jamb

You may have one, two, or no lock jambs at all, depending on the configuration of the door system you have ordered. As a guide, when you have a sliding panel closing against a wall jamb you will have a lock jamb, it will be easily identified as it has cut outs for the lock system. The recommended fixing point on a two-track system is directly through the thermal break and on a three track system it can also be through the outer channel. If fixing to the outer channel the fixing must be countersunk so as not to obstruct the black plastic u-channel that clips in to it. Recommended fixing centres are 150mm from each end and at **maximum** centres of 500mm apart.

Standard side jamb

You may have one, two, or no standard side jambs at all. depending on the configuration of the door system you have ordered. As a guide when you have a fixed panel attaching to a side jamb you will have a standard jamb. When supplied, unlike the lock jamb it has no cut outs just a plain jamb section. The recommended fixing point on a two track system is directly through the thermal break and on a three track system it can be also be in the outer channel. However if fixing it to the outer channel, the fixings must be countersunk so as not to obstruct the black plastic u-channel that clips in to it. Recommended fixing centres are150mm from each end and at maximum centres of 800mm.

Frame assembly

Ideally lay unpackaged frame sections out on trestles or on a protected surface area for ease of assembling, Check, double-check and check again that you have the correct side jamb sections on each side, especially the lock jamb. Check against your drawing whether the main sliding panel is on the inner or outer track and that you have the corresponding lock jamb to this. Where you have a configuration of panels sliding and closing on each side on the same track, it is very easy to get the two lock jambs upside down and on the wrong sides. If you are unsure, measure the distances from the bottom of one of the door panels to the centre of the locking points and then check this against the cut outs in the jambs to make sure that they align.

With the frame sections laid out correctly, assemble the outer-frame one corner at a time, ensuring each mitre joint is sealed with a suitable silicone sealant during assembly. Fasten each joint together with allen key blocks (found in accessory pack); locate the pointed end of the block into the square hole in the frame, ensuring the grub screw is accessible from the adjacent outer edge. Tighten the allen key blocks using a 2.5mm/3mm allen key (not supplied). Slacken and tighten the allen key blocks on adjacent sides of the mitre to gain perfect alignment of the mitred corner.

Frame assembly - continued

Silicone to sill

If fitting it onto sill a section previously levelled and installed in step 2, now apply a generous silicone bead at either end of the sill adjacent to the side walls and along the top of the sill section just behind the line that the front edge of the frame will be. (see photo)

Fitting the frame

Offer the frame into the opening and locate it down onto the previously fitted sill or levelled base. Using a suitably long level, plumb and mark the frame position onto the sidewalls. Proceed to drill and fix the side jambs into the sidewalls of the structure, observing recommended fixing centres. Use suitable PVC glazing packers to space out the tolerance gap between the jamb and the wall. It is good practice to pack both above and below each individual fixing to prevent flexing the frame. Additionally, take care to ensure the jambs do not twist if you are packing against uneven brickwork . The ideal end result of packing and fixing side jambs is that you are left with a similar tolerance gap between frame and wall on each side of aperture. Once this has been achieved then you can proceed to fix the bottom track and then pack and fix the top track.

Note

Use packers to ensure the top track is a constant distance from the bottom track across its entire width and the track is not twisting forward or backwards on an un-level lintel base. Using a small 4 inch level on the underside of the top track is the best way to identify this.

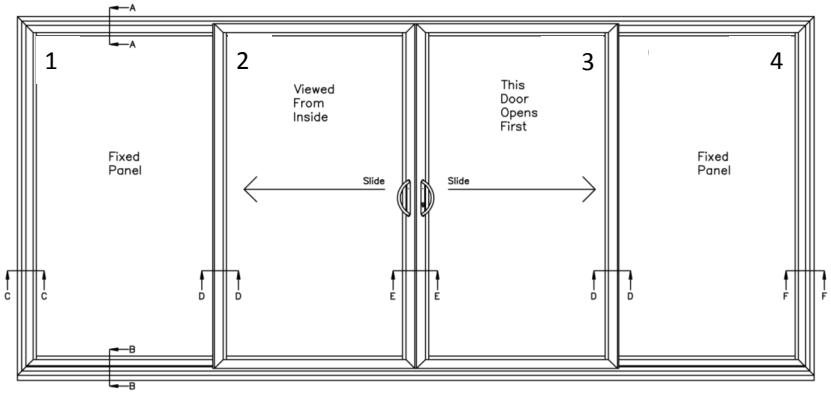
On wider systems it is recommended a string line is used when fixing top and bottom tracks to ensure each track is straight and not bowed up or down.

Fitting the U-channel insert

After frame fixing is completed, the black plastic u-channel can be clipped into frame to disguise the fixings. Before inserting the u channel, silicone in the corners of the bottom track and around each individual drainage slot to prevent water from getting between the channel and the track and running out of the corners of the frame into the fabric of the building. When clipping the plastic u-channel into place, clip in only the ends of each section into the track, leaving the middle of each section bowing out. Ensure that the drainage holes in the black plastic align with the cut outs in the bottom of the frame and any silicone which has spread into the slots is removed to leave the drainage clear. Then with a timber block sized to fit into the middle of the u-channel, and a hammer, evenly tap in place each section a little at a time until fully located in place and the corners of each section are abutted together. This can only be achieved by following the procedure described above.
Do not hit the plastic u channel directly with a hammer/ mallet as this will cause the section to shatter.

Panel labelling and insertion

At Sunflex, we label our panels with a simple numbering . Viewed from inside panels are numbered from left to right .1,2,3,etc. Plant-on panels will be included in the numbering. Panels are supplied individually bubble wrapped and the label with the panel reference number will be on the outside of the packaging.
When there are multiple sets the label will detail SET A, SET B, etc. which will be on the frame packs as well as the panels. This helps to ensure the correct panels end up in the correct frame.
Refer to your order or detailed sectional drawing (if requested) to identify the configuration and placement of panels.
Starting with the outer panel on the external track, or plant on panel (if applicable), insert the panel as instructed on the next page , using the drawing to note the configuration and placement. Glaze and gasket the first panel before inserting the next panel then repeat the process.



Plant on fixed panels

A plant-on fixed panel attaches onto the front face of the outer frame. If the plant on panel is going to project beyond the face of the brickwork it is recommended to seal main frame against the wall first, before attaching the panel.
To install, firstly run a thin bead of silicone around the front face of the outer frame in the area the plant on panel is going to attach, then sit the bottom inside lip of the plant on panel onto the external ledge of the bottom track as close to the end of the frame where it locates as possible. Next, upright the panel ensuring the top inside lip of the plant on section fits underneath the external ledge of the top track so the panel is sitting back flush against the outer frame. With assistance slide the panel fully into the corner of the outer frame and then, whilst making sure the panel is held fully into the corner and against the face of the frame so it can not spring back, drill and screw into the front face of the outer frame through the pre drilled holes in the plant-on profile to attach. Use a 4.5mm long series drill and 70mm screws from accessory box for this task. Finally, clip in the pre-cut cover profile to disguise the screw fixings.

Fixed Panels or plant on

On systems with one or more fixed panels, or plant on , either straight runs or on a corner, it is important to install all the panels dry before glazing them and fixing them in place. This gives an opportunity to adjust the fixed panel position before fixing them in place, to ensure the sliding locking panels meet and lock correctly.

Standard fixed panel

When attaching a standard fixed panel, prior to insertion, file the top edges of the punched cut-out on the interlock profile attached to the side of the panel. This is to stop it marking the frame when it is being lifted into position.
Check the order/ drawing showing your configuration to ensure exact position of the fixed panel whether it is locating on the inner or outer track. If attaching to the outer track it is best to insert the panel from the outside; if panel is sitting on the inner track then it is easier to insert from the inside. Each panel inserts into the frame by lifting it up into the required track at the head, up righting it, and then allowing the panel to sit down onto the bottom track. Once inserted, slide the panel into the corner of the frame where it has to be fixed into position. To fix the panel to the frame use a 4.5mm long - series drill bit and 70mm screws from the accessory box. Firstly drill and fix the side of the panel through the grey packers located down the side and then through the packers in the bottom. Finally slide the 85mm x 30m black PVC anti-lift block into location between head track and top of fixed panel and drill and screw through panel and block into head track to secure the head of the panel.

Sliding panel

When attaching a standard fixed panel, prior to insertion, file the top edges of the punched cut-out on the interlock profile attached to the side of the panel. This is to stop it marking the frame when it is being lifted into position.

Sliding panels — continued

Check the order/ drawing showing your configuration to ensure exact position of the fixed panel whether it is locating on the inner or outer track, if attaching to the outer track it is best to insert the panel from the outside; if panel is sitting on the inner track then it is easier to insert from the inside. Each panel inserts into the frame by lifting it up into the required track at the head, up righting it, and then allowing the panel to sit down onto the bottom track.

Sliding panels with centre meeting stile or corner post

When a sliding panel has a meeting stile or corner post attaching to it this must be removed to allow the panel to be inserted into the frame and then reattached. Care must be taken when reattaching not to have the section sitting too low so that it incurs added resistance from the stainless steel track when sliding the panel as a guide the corner post section should locate onto the panel mm down from the top of the panel and mm up from the bottom of the panel.

Glazing of standard panels

Ideally the panels should be glazed and wedged up once they have been inserted into the frame, always starting with the outermost panel first.
To glaze fixed and plant on panels, place a 5mm packer onto each of the packing points at the bottom of the panel. Now insert the glass unit onto the packers. Insert packers onto the packing points down the sides of the panel ensuring that the edges of the glass units spacer bar are running parallel with the gaskets of the panel, and there is an equal margin of gasket visible on each side. **It is important to ensure that side packers do not bow out the sides of the panels.**
On sliding panels pack down the sides of the panel in the same manner, and then adjust the packing under the glass on either the bottom left or right as required to adjust the vertical alignment of the panel to align with the edge of the outer frame or adjacent panel. Then insert the next panel and glaze repeating the same process. It is important to ensure that side packers do not bow out the sides of the panels.

Packers should now be siliconed into position with a neutral cure silicone to prevent them from slipping. **It is important to use natural cure silicone to prevent reaction to the sealed units own sealant.** On the handle sides of panels above 2.4m it is recommended to seal down the edge of the panel to the glass with a neutral cure silicone sealant to bond the edge of panel to glass to prevent the side of the panel being bowed out during operation.

After packing the panel, fit the glazing beads and insert some packers between the bead and the glass to facilitate inserting the wedge gasket.
The wedge gasket is ideally cut and inserted in individual pieces starting with the top and bottom sections. Now fit the sides, these must be shaped at the ends to neatly abut the top and bottom sections. Gasket cutters are recommended for this task. Before starting ensure the gasket is clean and grit free so not to scratch the glass. Care must be taken not to cut the gasket too short or exactly too size as shrinkage will occur. As a guide the gasket should be cut approximately 20mm longer for every 1m of length with the excess equalled out over the complete length. Start from one end and work to the other removing the spacing packers previously inserted as you work along and pushing the gasket back on itself to compress and use up the excess.

Note the wedge gasket is designed to be a tight fit to grip the panel profile onto the edge of the glass.

A soapy water spray is also recommended to assist with the insertion of the gasket and too ensure it has a neat flawless appearance.

Glazing of Slim 35mm Plus

Ideally panels should be glazed and wedged up once they have been inserted into the frame. To glaze fixed and plant on panels place a 5mm packer onto each of the packing points at the bottom of the panel, now insert the glass unit into the panel onto the bottom 5mm packers, next apply a liberal bead of the structural glazing sealant (supplied in your accessory pack) down the centre of the slimline claw section to bond the profile onto the edge of the glass, **Note** bow out the side of the slimline profile in the centre when applying sealant to ensure a suitable quantity is applied, push profile back into sealant and ensure side is perfectly straight, next insert packers onto the packing points down the opposite side of the panel ensuring that the sides of the glass units spacer bar is running Parallel with the gaskets of the panel and there is an equal margin of gasket visible on each side. On sliding panels glaze in the same manner, and then adjust the packing under the glass on either the bottom left or right as required to adjust the vertical alignment of the panel to align with the edge of the outer frame or adjacent panel. Then insert the next panel and glaze repeating the same process. It is important to ensure that any side packers inserted do not bow out the sides of the panels.

Packers should now be siliconed into position to prevent them from slipping with a Neutral cure silicone (to prevent reaction to the sealed units own sealant). On the handle sides of panels above 2.4m it is recommended to seal down the edge of the panel to the glass with either the same structural sealant or a neutral cure silicone sealant to bond the edge of panel to glass to prevent the side of the panel being bowed out during operation.

After packing panel fit glazing beads and insert packers between the bead and the glass to facilitate inserting the wedge gasket as detailed below.

There are two types of wedge gasket supplied a low line wedge is supplied for the slimline interlock and a std wedge gasket for the outer side profiles and top and bottom rails, the wedge gasket is ideally cut and inserted in individual pieces starting with the top and bottom sections and then with the sides which must be shaped at the ends to neatly abut the top and bottom sections (gasket cutters are recommended for this task). Before starting ensure the gasket is clean and grit free so not to scratch the glass. Care must be taken not to cut gasket too short or exactly to size as shrinkage will occur as a guide the gasket should be cut approximately 20mm longer for every 1m of length with the excess equaled out over the complete length. Start from one end and work to the other removing the spacing packers previously inserted as you work along and pushing the gasket back on itself to compress and use up the excess.
Note the wedge gasket is designed to be a tight fit to grip the panel profile onto the edge of the glass.
A soapy water spray is also recommended to assist with the insertion of the gasket and too ensure it has a neat flawless appearance.

Lead doors above 2.4m On the handle sides of panels above 2.4m it is recommended to seal down the edge of the panel to the glass with a neutral cure silicone sealant to bond the edge of panel to glass before inserting the glazing bead to help prevent the side of the panel being bowed out during operation**.**

Fitting of panel guides

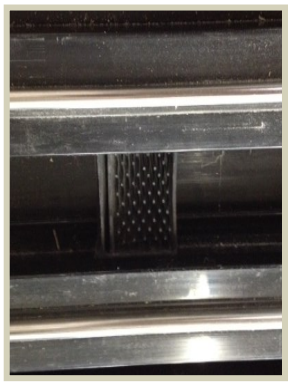
Already screwed to the side of the panels at the bottom you will see a black PVC guide, once you inserted the panel in the frame take the same black PVC guide from your accessory pack and screw to the side of the panel at the top.
When fitted correctly these guides prevent excessive front to back play of the panels in the headtrack.

Fitting of panel edge profile and interlock cover caps

After fitting of the black PVC panel guides, clip on the aluminium panel edge profile onto the sides of all the interlock rails and screw on the black Interlock cover caps to the top and bottom of the edge profile to cover the cut outs, the long screw of the interlock cover cap is designed to touch into the side of the panel and prevent the panel edge profile from being able to slide down and damage the bottom track.

Fitting of anti-draught blocks

Fit the rubber 'anti-draught' blocks (ACUG30) from accessory box. These are required to be fitted above and below the panels at each interlocking junction. Mark the required position with the door in the closed position. Then slide open the door for ease of fixing. **Please note the bottom rubber block must be sealed into the track with silicone to prevent water passing beside the block into the internal visible area of the track.**



Fitting of lock keep

Fit the one-piece aluminium lock-keep, this is sometimes supplied in two pieces for taller door sets, and may require trimming to length. Fix to the locking side of the outer-frame which has cut outs for the lock, using screws provided in the accessory box. Measure up from the top of the bottom track to the center of one of the locking cams on the panel and then check that you have the same measurement to the center of the corresponding locking point on the keep.
When fitting the keep to a meeting stile, attach it with M4x10mm machine screws from the accessory box, into small grey PVC fixing plates which will already be located in the meeting stile.

After fitting the lock-keep; check locking operation of door. If any problems are experienced, check panel is meeting parallel to the outer frame and lock-keep and also that the vertical height alignment of the lock keep to the locking cam points (mushroom heads) on the door panel is correct. Mushroom heads on the ends of the locking cams can be adjusted in and out. This should not be necessary, but if adjusted thread lock should be reapplied as without mushroom heads will simply loosen and fall off.

Fitting of panel buffer stop

A panel buffer stop is only supplied when lead sliding panels are ordered with external handles, to prevent the handle damaging the adjacent panel when fully slid back. The buffer stop should be drilled and fixed to the bottom rail, ideally on the inside face of the adjacent panel, 33mm from the bottom of the panel and a sufficient distance along to allow for the handle plus an additional 15mm clearance.

Threshold cover (tread plate)

If the configuration of the door system has fixed panels, then you will be supplied with threshold covers for the outer track, and middle track on a triple track system and for just the outer track on a twin track system. If the threshold is abutting a side jamb on one side then the end of the threshold will be pre-cut to fit around the jamb.

Note

If you have already fitted the anti-draught blocks, then the bottom leg of the threshold cover will need to be notched over it. If this is not done it will prevent the cover from fully clipping down into position.

Prior to fitting the threshold, firstly check its length and adjust, if necessary. Insert the shaped end of the threshold into the side jamb and, using a thin packer between the opposite end of the threshold and the edge of the panel to prevent damage, lower the threshold down into position. On long threshold covers it is possible to bow the threshold up in the centre to ease fitting. With the threshold in position, use a mallet and wooden block to locate it down fully into the top groove of the track.

Finishing

We recommend :
Gaps under the track or sill that are too large to silicone are cement ‘pointed’
Expanding foam is applied around heads and side of frame to fill any gaps between outer-frame and structural opening.
A silicone seal or trim is used around the outer-frame to finish the structural opening as required.

Please contact your supplier should you require any additional advice.