

# CANBERRA FOLDING SLIDING PATIO DOORSET FITTING & FIXING GUIDELINES



**CAUTION SAFETY:** This product needs to be installed by a Competent Tradesperson with assistance. Two people are required to carry out the installation, as some components are heavy.

The Outer-Frame requires a fixing to the building Lintel over the opening. The Lintel **MUST** be capable of carrying the load of the door in all conditions. If in doubt check with a structural engineer.



**SUPERIOR**

## Building Regulations

Please consult with your building designer to ensure compliance with current Building Regulations such as Approved Documents L&F.

Replacing patio doorsets is included under Building control and MUST either be carried out by a FENSA or other registered installer, or with prior Building Control Approval.

Registered FENSA companies can be found at [www.fensa.co.uk](http://www.fensa.co.uk)

## Tools required

The following tools and items are required to carry out the installation of the doorset.

- Appropriately long spirit level
- Masonry drill
- Cordless screw driver
- 10 Metre measuring tape
- Appropriate timber silicone sealant (appx. 3 tubes)
- Mallet
- Additional packers for accurate frame installation (frame to structure) if required
- Drill bit 3.5mm dia – 1 x masonry, 1 x steel cutter. Both 125mm minimum length

## Pack contents

Your sliding folding doorset comes in a ready to assemble state. All the components are packed into four (4) Packs.

These are:

- 1. Doors Pack** (All doors are individually packed and labelled)
- 2. Frame Pack** (Consist of four sub-assemblies i.e., head, sill, left & right jambs)
- 3. Door Hardware Pack** (Detailed on the “Door and Hardware Arrangement Sheet”)
- 4. Frame Fixing Pack** (See list opposite)

### Frame Fixing Pack

24 x 100 2.5 to 1mm Wedge Packer	34
24 x 100 1.0mm Flat Packer	68
24 x 100 3.0mm Flat Packer	68
QThor Tie Bzp	8
8 x 100 Fisher Fixings (Jamb Position)	8
Brown Plug	8
Wood Screws 8g x 1½	16
Hex Self Cutting Screw 55mm long	18
Bonded Washer G16	18

# 1 Planning the layout

Before you start the installation, carefully plan the following aspects and understand the assembly of a doorset by thoroughly reading these instructions.

## 1) Brickwork Opening

The brickwork opening plays a vital role in the installation of this patio door. Make sure that all the internal surfaces of brickwork opening are 'levelled' before you start the installation.

Figure 1 shows the correct brickwork dimensions for your doorset.

You MUST make sure that the

- Horizontal
- Vertical, and
- Diagonal dimensions are all correct BEFORE you start assembling the doorset.

## 2) Door Arrangements

You are supplied with a separate sheet, particular to your order, labelled '**Door & Hardware Arrangement Sheet**' that gives you complete installed view of all the door panels and hardware for the particular configuration ordered. This sheet can be found in the frame pack.

If you have not received this sheet, you should contact 0845 122 2892 and state the exact door arrangement for your doorset (for example 3000 wide door with 1L3R door arrangement). All the door panels on this sheet are shown in their correct position with the codes that corresponds to door panels codes supplied to you. You MUST make sure that you understand the correct position of all the door panels BEFORE you start the assembly.

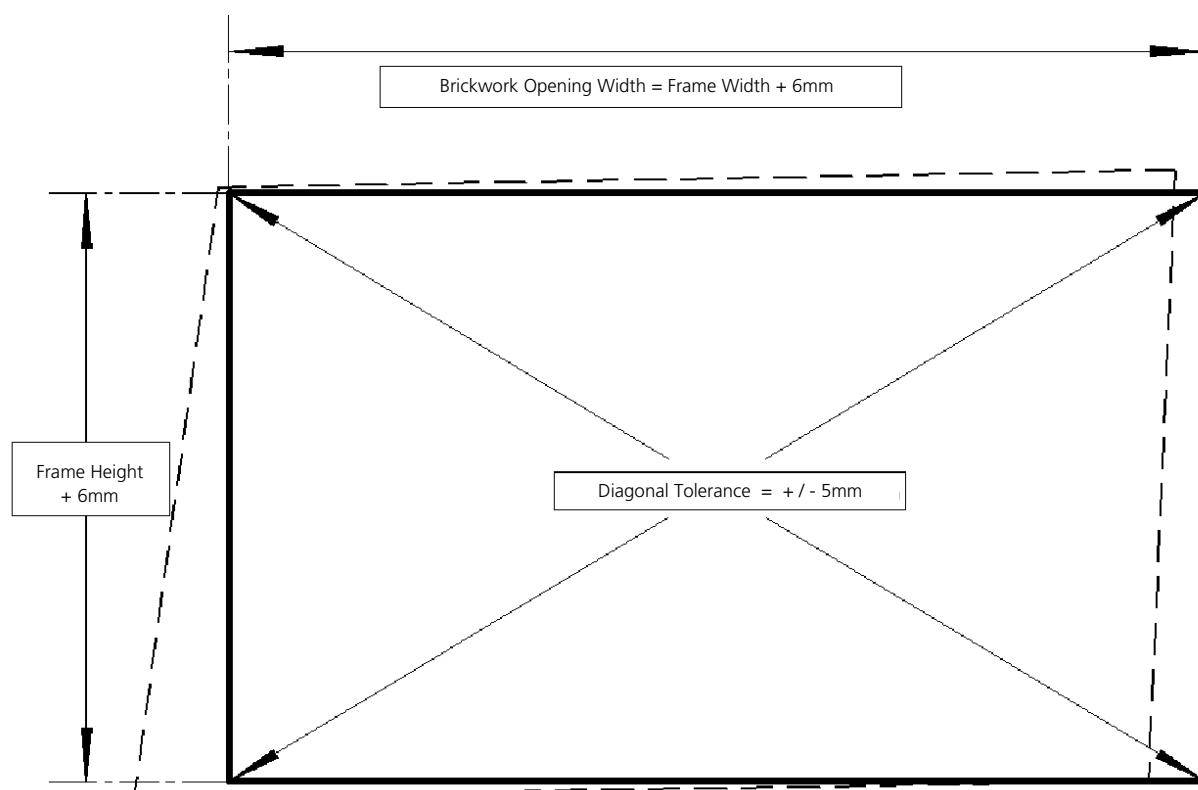
## 3) Hardware Arrangements

On the '**Door & Hardware Arrangement Sheet**', all the hardware is represented accurately positioned for your particular doorset. You MUST always follow these illustrations to put the hardware on your door leaves. You should build the doorset by installing the door panels one-by-one. All the door panels are pre-drilled for exact position of the hinges/hardware. This also acts as a guide for you to choose the right hardware/door-panel at each stage.

Please note that the hardware must NOT be put on all the doors at the same time.

**Fig. 1: Brickwork opening**

The required dimensions for the door frame:



## 2 Frame installation

The assembly of your doorset is explained two parts:

2: FRAME INSTALLATION; explains the assembly of the outer frame and its installation in the brickwork opening.

3: DOOR INSTALLATION; explains installing the door panels in to the outer frame. You **MUST** follow these instructions for correct assembly of your doorset. Failure to do so may result in incorrect assembly and may damage your doorset.

### Outer frame assembly

#### Frame assembly

The outer frame is supplied in four sub-assemblies. You must fix these together as explained below.

##### 1: Head sub-assembly being fixed to the jamb sub-assemblies

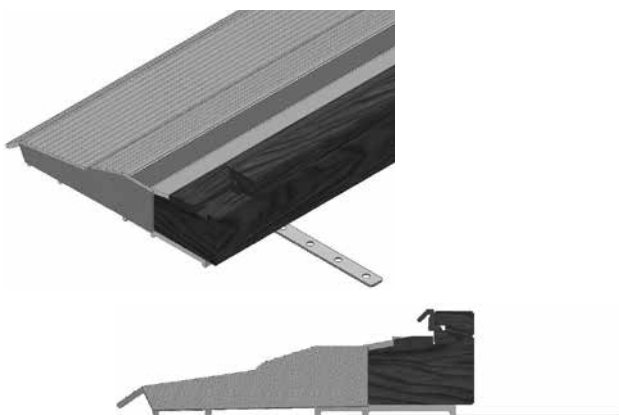
Fix both jambs to the Head section first.

Screwfix the jamb assemblies to the head assembly by passing the 5 x 90 wood screws through the pre-drilled holes in the head assembly and securing these into the corresponding pilot holes at the top of the jambs. Ensure that the sealing gasket fills the joints between the components.



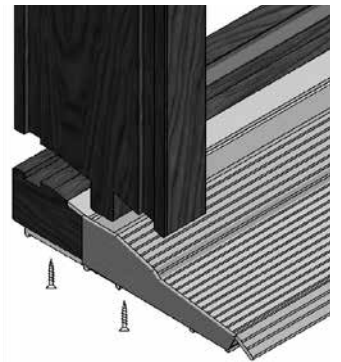
##### 2: Installation ties secured to underside of sill

Fasten installation ties to the underside of the sill at the positions shown so that they will face the inside of the building.

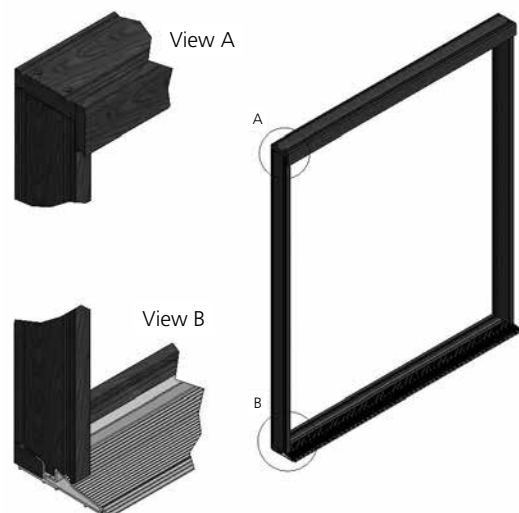


##### 3: Sill sub-assembly being fixed to the jambs, on both sides

Screwfix the jamb assemblies to the sill assembly by fixing the 5 x 90 wood screws through the pre-drilled holes in the sill assembly and securing these into the corresponding pilot holes either side of the tenon at the bottom of the jambs. Ensure that the tenon on the bottom end of the jamb is correctly located into the channel in the sill and that the sealing gasket correctly fills the joint.



##### 4: Fully assembled outer-frame



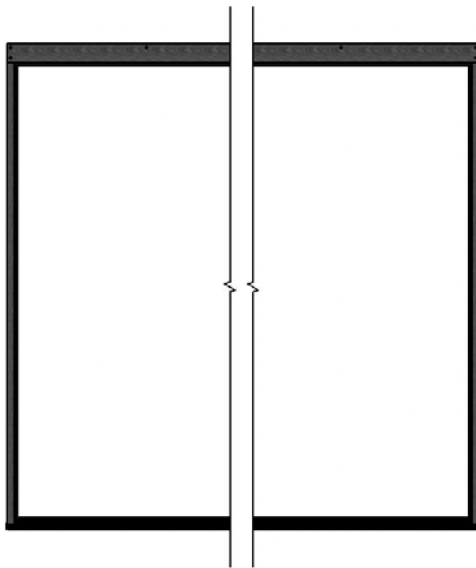
At this stage you **MUST** make sure that all the sub-assemblies are fixed together tightly and the Outer frame is a perfect 'Square'. The diagonals of the Outer Frame **MUST** also be equal (Tolerance +/- 5mm).

If the diagonals are not equal (within tolerances), you **MUST NOT** proceed to the next step.

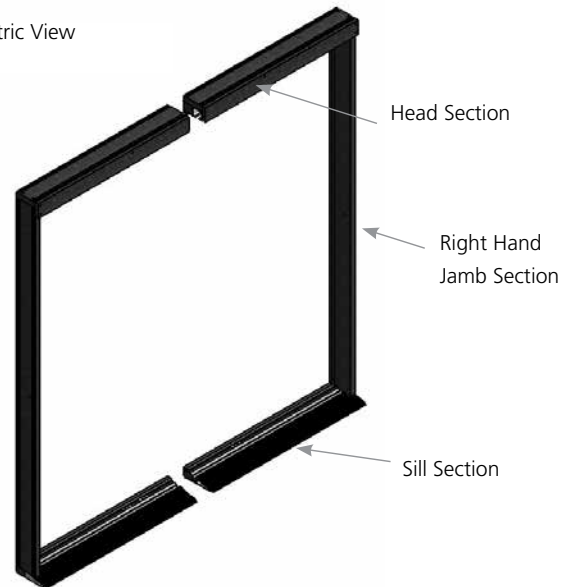


## 2 Frame installation (continued)

4(a) Front Elevation



4(b) Isometric View



Place the assembled frame into the brickwork opening.

Adjust the position of the frame so that there is approximately 10mm of brickwork exposed in front of the jambs. The head track should be approximately in-line with the middle of the external flange of the lintel.

Place a 5mm packer at each end only of the head, between the head and the lintel, above each jamb\*. For each end, lift the jamb so that the 5mm packer is tight between the head and the lintel and fit packers underneath the sill to hold this position.

Using a spirit level to check the level of the sill fit packers underneath the sill at the each fixing tie. If the lintel is not level it may be necessary to adjust the packers between the head and the lintel to ensure that the sill is installed level.

Ensure the jambs are vertical and not leaning forward or back and fit packers between the jamb and the brickwork at the top and bottom of each jamb.

\* This is to allow the head track to be correctly fixed when all fastenings are tightened as illustrated in point 7: 'Bow in the head section of the outer frame'.

### 5: Fix the outer frame to the brickwork

Fix the outer frame to the brickwork on all four sides according to the dimensions given above. On the jamb sides, add further three fixing at equal distance of around 500mm: Left hand end is shown above. Fix right hand end at same positions.

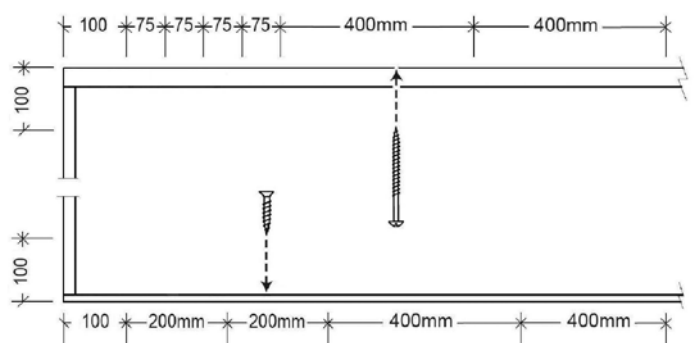
Check that the diagonals of the frame are within 5mm. If they are not adjust the packing between the jambs and the brickwork until the frame is correctly square.

With the frame temporarily held in place by the packers, and ensuring that the frame is not knocked out of position, drill 8mm diameter holes 50mm into the brickwork.

Insert the frame fixing bolts through the jambs and into the holes in the brickwork and tighten them ensuring the jambs are not distorted and remain vertical.

For each of the sill ties locate a suitable fixing point on internal masonry and drill for a plug. Plug and screwfix each of the sill ties ensuring the sill is not distorted and remains level.

Before fixing the head to the lintel check again that the sill is level and the jambs are vertical, that there is no distortion in the jambs or the sill and that the diagonals of the frame are within 5mm of each other.



## 2 Frame installation (continued)

### 6: Method of fixing the head section to the lintel

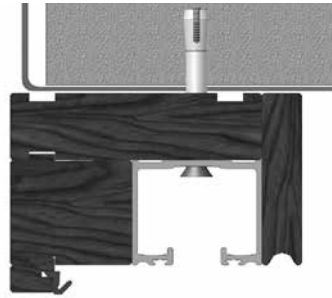
The outer-frame should now be overhanging the cavity by approximately 45mm. This will allow the track fixings to be central to the external flange of a steel lintel (where used).

Once the position of the frame is correct, ie. in the centre of the external flange of the lintel, pre-drill a 4mm diameter hole through the prepared holes in the head track. Using a drill bit at least 100mm in length will ensure the fixing screws penetrate the steel lintel.

Apply a bead of silicone to each fixing before insertion. This will resist water tracking down the fixing screws onto the head of the doorset.

Starting with the two outer holes nearest the jambs, assemble a nylon washer onto the screw and pass the screw up through the head and screw into the lintel. Tighten the screw until it is just pulling tight. DO NOT FULLY TIGHTEN AT THIS STAGE.

At one of the middle fixing points, assemble and fit a screw and lightly tighten, pulling the head close to the lintel.



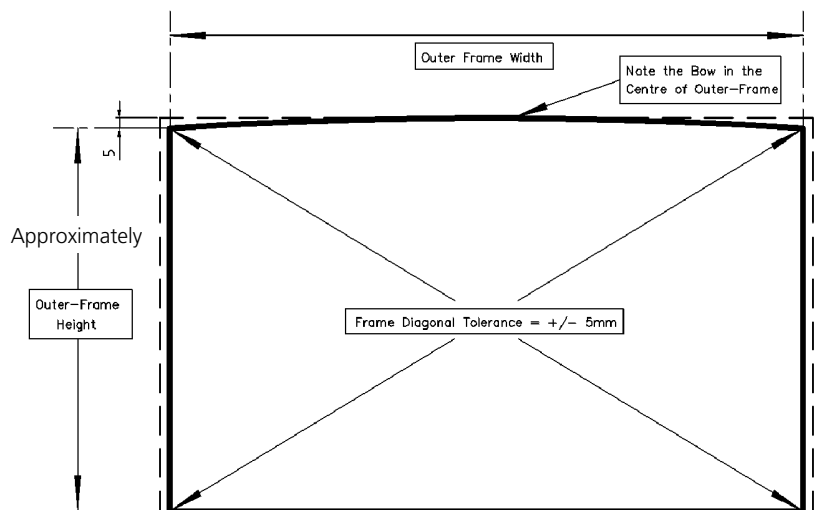
Picture for illustration purposes only.

Working from the jambs towards the middle of the head fit and lightly tighten, the remaining screws while placing varying thicknesses of packers between the head and the lintel to create a slight upwards curve to the head ranging from approximately 5mm at each jamb (depending on the level of the lintel) to zero at the middle.

Once the correct curve on the head has been achieved tighten the fixing screws. DO NOT OVER TIGHTEN.

### 7: Bow in the head section of the outer-frame

The 'Dotted' line represents the Brickwork and the 'Thick' line represents the outer-frame with a bow of approximately 5mm in the head section when correctly installed. This must be achieved by setting packers at the top of both jambs and then centre of head is screwed to the lintel. Refer to diagram on page 3.



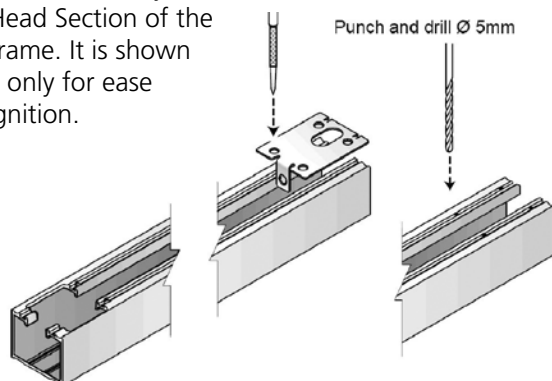
## 3 Door installation

### Installing the door panels

All the door panels are supplied to you individually packed. They are coded and come with a sheet labelled 'Door & Hardware Arrangement Sheet'. This sheet explains the correct position of the hardware and correct position of each door panel in the final assembly. While installing the door panels, you MUST refer to this sheet for their correct position.

#### 8: Prep the top channel in the head section of the outer-frame

This channel is already fixed to the Head Section of the Outer Frame. It is shown isolated only for ease of recognition.

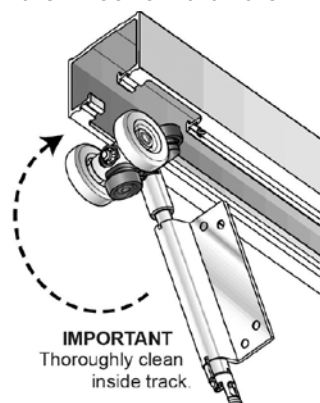


### Fitting pivot hinges and carrier hinges

#### 9: Fitting top carriers and pivot hinges into head track

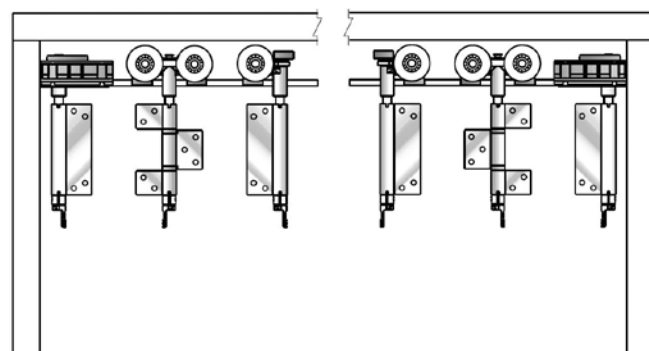
Install all the Hardware in the Top Channel of the Outer-Frame according to the arrangement of panels for your doorset. This is represented in the "Door & Hardware Arrangement Sheet" that accompanies this Instruction Manual.

**When inserting the Top Pivot Block, it is important to ensure the Cover Plate is held clear and is loose.**



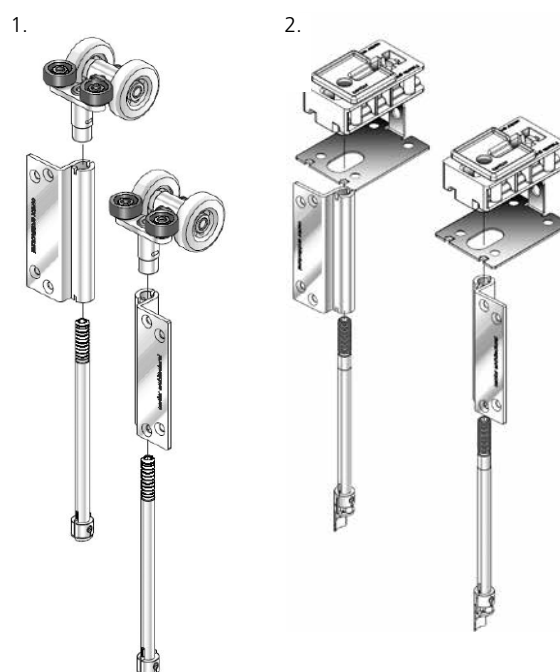
#### 10: Top carriers and pivot hinge fitted to head track

Depending upon the arrangement of the door panels in your door-set, you must insert all the hardware into the Top Channel in the correct order, before you start installing the Panels: You MUST refer to the 'Door & Hardware Arrangement Sheet' for correct arrangement of Door Hardware.



#### 11: Assembly of end carrier hinge

The End Carriers (as shown (1) and 'Top Pivot Blocks' (2) are 'reversible' assemblies and can be adjusted for 'Left' or 'Right' hand door panel.



## 3 Door installation (continued)

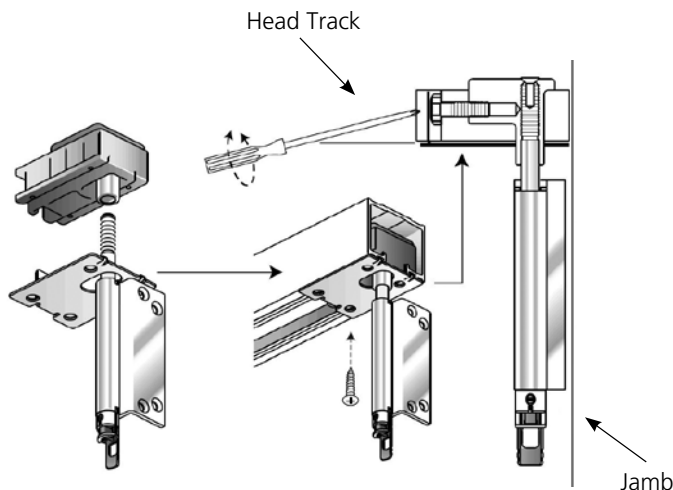
### 12: Fixing the wall pivot

Fix the wall pivot receiver in to the pre-bored hole in the centre of the frame jamb.



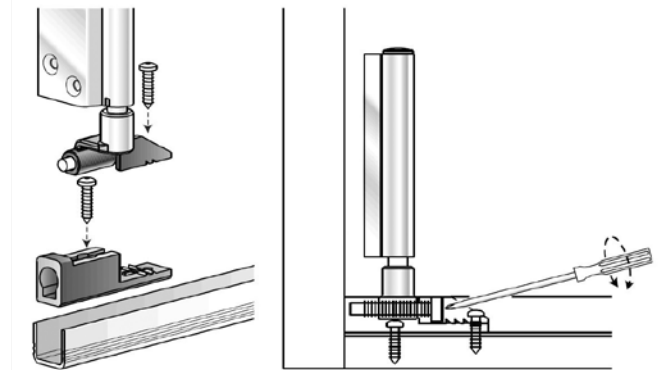
### 13: Fixing and adjusting the top pivot block

The top pivot block fit tightly against the jamb at the end of the head section.



### 14: Fixing and adjusting the bottom pivot blocks

The bottom pivot blocks sit inside the sill channel and fit tightly against the jambs at each end of the sill.



## 4 Hanging the door panels

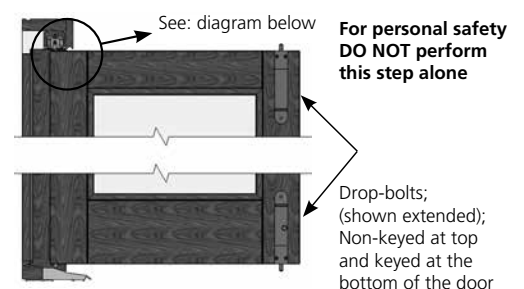
### 15: Fixing the wall pivot hinge

Fix the wall pivot hinge to the first door into the centre of the pre-drilled door edge (depending up on door configuration these are needed for each door hinged from the jamb).



### 16: Installing the first door panel to the outer frame assembly

Leave the drop-bolts retracted.





## 4 Hanging the door panels (continued)

### 17: Fixing hinge plate on the top pivot hinge

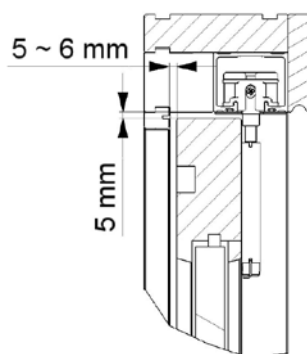
Fixing the first door panel to the top pivot block using prepared pilot holes on the door.

**You MUST adjust the length and position of the weather-strip (cut between hinges), when hanging the doors.**



### 18: Cross-sectional view from 'side':

The clearance between the head track and the top rail of the door panel is 5mm. The clearance between the head stop and the door panel is between 5mm and 6mm.

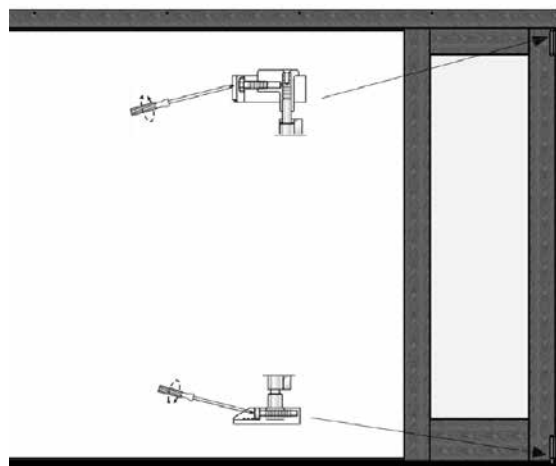


### 19: Adjustment of top and bottom pivot hinges

View from outside: Adjust top and bottom pivot blocks BEFORE you continue adding further door panels to the assembly.

Top & Bottom Pivot Block Adjustment is necessary to set the door:

- a) perfectly vertical &
- b) for approx., 6mm clearance between the Door and the Jamb.



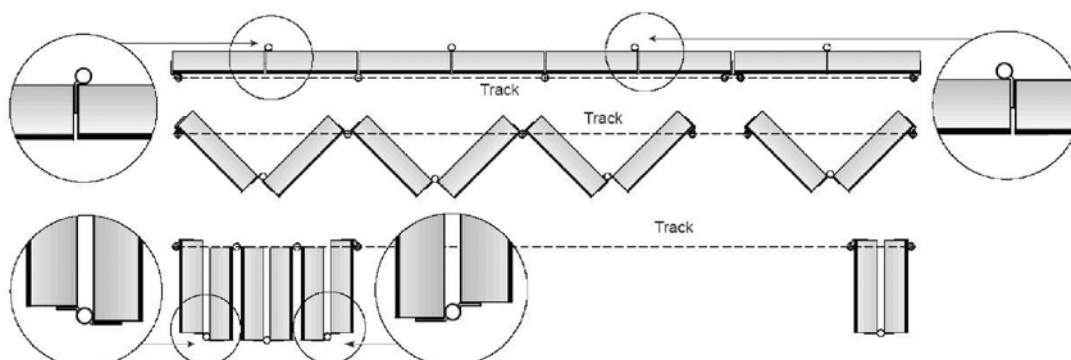
### 20: Fixing the wall pivot

Insert the centre pin into the wall pivot hinge and then into the wall pivot receiver in the frame jamb.

### 21: Arrangement of door panels

Now start adding further panels to the assembly. All the Door panels are pre-drilled for the correct position of the hinges. You MUST NOT drill any holes for the Hinges on the Door panels.

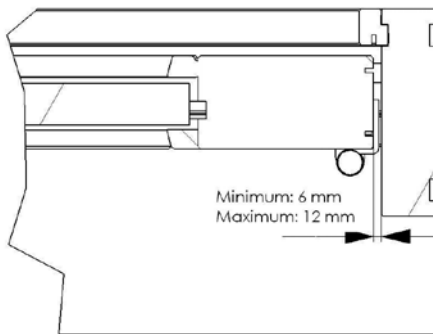
**You MUST follow the illustrations on the "Door & Hardware Arrangement Sheet" for correct hardware to be used at the correct position on your door-set. Failing to do so will result in incorrect door assembly and may damage the door panels.**



## 4 Hanging the door panels (continued)

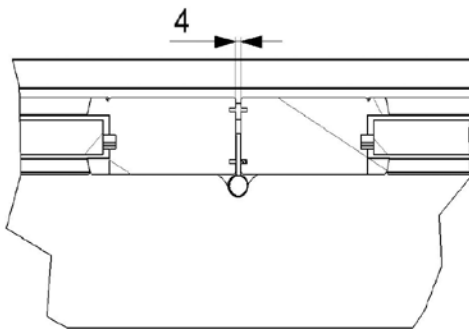
### 22: Cross-sectional view from 'top':

The dimension between the first door panel and the Jamb, when correctly installed, should be 6mm prior to adjustment to give correct working clearance.



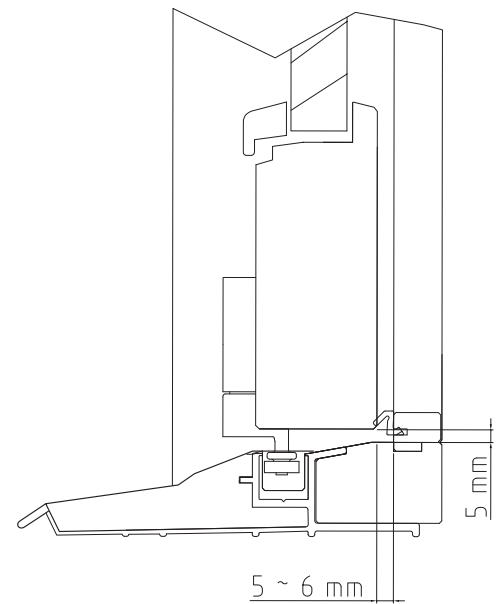
### 23: Cross-sectional view from 'top':

The dimension between any two door panels when installed should be 4mm.



### 24: Cross-sectional view from 'side':

The clearance measured at the back (inside) of the sill rebate between the sill and the underside of the door panel is 5mm.



## 5 Adjustment

Adjustments can be made to the top and bottom pivot hinges (next to the jambs) and to each carrier hinge located in the head track.

It is a principal of the Sliding Folding patio doorset that the greatest part of the door panel weight is taken by the carrier hinges and this is ensured by adjusting the end pivot hinges and the carrier hinges together.

The top and bottom pivot hinges can move a 'run' of hinged door panels a few millimetres left or right. This can be used to adjust the gap between a pair of 'meeting' door panels or to centralise all the door panels in the frame. Adjusting either the top or bottom pivot hinge separately can alter the angle of the first door

panel and all panels hinged to it. This can take the load away from the top carrier hinges and these must then be adjusted to support the load once more.

The top carrier hinges can be adjusted up and down to raise or lower the door panels fixed to them or to ensure that the carriers continue to support the weight of the door panels if the end pivot hinges have been adjusted separately.

If the frame is correctly installed then the clearances between pairs of door panels, door panels and the frame should be those given in the installation section.

## 6 Finishing & maintenance

### Finishing:

After completing the installation of your doorset, check that all the fixings are secure and all the fixings are secure and all the specified dimensions achieved. It is vital for good operation and long life of your patio doorset.

Factory finished requires no further decoration other than touching up damage that may have occurred during installation.

Microporous paints are recommended for all exterior products. The manufacturers instructions should be followed 'low build' stains, varnishes and Danish Oil should **not** be used. Depending on the exposure and location, the paint finish will require recoating periodically. The product should be inspected annually and external faces repainted typically 3.5 years after the installation.

### Maintenance:

These products must be installed in accordance with accepted good trade practise (and in accordance with supplied instructions where applicable) and maintained in accordance with these procedures or else the warranty shall become invalid.

### Automatic closers and operators

All door hardware systems supplied are designed for manual operation only.

### Hardware

If the building is subject to heavy use or from environmental attack from atmospheric weather conditions, maintenance of hardware is even more important especially in severe environments such as coastal marine areas and some industrial areas. Even stainless steel products require maintenance to prevent deterioration in some environments.

### Track and bearings

Using a spatula or something similar, apply a small amount (typically 1/2 teaspoon) of lubricant to each side of the track. Making sure the wheels pass through the lubricant so that it spreads evenly through the tracks putting extra lubricant around the bearings. Adding lubricant in this way reduces wear, improves smoothness and gives additional protection against corrosion of track and bearings.

In addition, remove all surface contamination by wiping all visible track surfaces with a soft, damp cloth and mild detergent, then wipe with a clean cloth. In severe environments, apply a thin film of corrosive preventative and wipe with a clean cloth.

Stainless steel bearings are made from hardening grade stainless steel, although this material performs much better than plated steel, it can corrode unless it's maintained.

### Hangers, pivots and brackets

A light spray application of a corrosion preventative followed by a light wipe with a dry cloth to remove excess is recommended to all hangers, pivots and brackets. Exposed surfaces should first be wiped down with warm soapy water and a soft rag, and then rinsed clean before applying preventative.

### Dropbolts

Spray application of a suitable lubricant to the sliding pin inside the bolt and to the lock cylinder is recommended. A tube attached to the nozzle will help to concentrate the spray where you want it to go. There are access holes or slots on all dropbolt products so that this can be done without removing the locks from the doors.

## 7 Guarantees

In keeping with our quality policy, JELD-WEN offers the following guarantees on its products. These guarantees are subject to JELD-WEN UK Terms and Conditions of Sale. Defects that are caused in whole or in part by failure to adhere to JELD-WEN UK recommendations relating to storage, handling, installation, decoration, glazing and maintenance, are not covered by the guarantees below:



Exceptional wear and tear of hardware through extreme use is not covered. JELD-WEN will accept no responsibility for products cut down in size after receipt, or when utility or structural strength is impaired in fitting or application of hardware.

Hinges, aluminium rails and other hardware fitted must never be painted, and must be kept clean and lightly lubricated at all times. Use Vaseline or neutral oil. Keep rivets and moving parts lightly lubricated. Lubricate at least once a year, in coastal areas and/or places with high pollution, clean and lubricate more often.

All joinery shall be installed correctly in accordance with normal trade practices and adequately maintained in service.

The decorative finish applied to external joinery must be maintained in service and moisture must not be allowed to penetrate into the timber throughout its life.

Regular maintenance of the paint or stain finish of the product is essential for the long-term performance of all the components of your patio doorset. The period between maintenance checks will vary depending on the type of paint or stain finish and also the local conditions for the site. External joinery products must be cleaned at a maximum of six monthly intervals using a mild non-abrasive cleaner and soft cloth. Both internal and exterior faces should be cleaned.

Make regular checks to ensure that any drainage holes, channels and spaces are kept clear. Use a soft flexible brush or pipe cleaner with care to remove obstructions.

Annual inspection should be made and touching up carried out as necessary in areas of wear and tear (for example, exposed areas of sills or where the paint film has been breached).

Guarantees to the finished product are also on condition that:

- No physical or chemical damage to the doorset or coating has occurred
- No repairs or alterations to the surrounding buildings have occurred which are detrimental to the joinery performance.
- No failure of the coating has occurred caused by failure of ancillary products, or glazing.
- No damage to the coatings has occurred prior to, or during, installation.
- No damage to the coating has occurred, caused by bad maintenance of the building or poor design of the building.