



For standard threshold bi-fold doors

# Upvc Bi-fold Installation Guide

# ***Fitting instructions for upvc bi-fold doors with standard thresholds***

The following instructions are given in good faith and are for guidance only. No responsibility will be accepted for any mis-interpretation. When installing please observe all relevant health and safety regulations.

## **Check Order**

Before starting to remove or install your new door, please ensure that you first check the frame for size and style. Failure to do this will render any claim void. Ensure you have the correct caps as per the parts list. Any shortages must be reported within 24hrs or you may be charged for replacements.

## **Remove Old Frame**

Carefully and ensure the area is free of debris.

## **Installation of the main frame** (on open out doors the running track fits to the outside)

Your door will either be delivered fully assembled or due to its size, in component parts. If fully assembled you will need to remove the opening doors, when all folding doors have been removed, you are free to install the main frame only as below:

- If you have an external cill, please attach this first.
- Apply a bead of low modulus silicone to the back edge of the cill and fix through the cill into the bottom of the frame, not the other way round. Use either 4.5mm x 50mm self tapping screws or 4.5 x 50mm chipboard screws; screw in at 500mm intervals. If you are using chipboard screws pilot hole the frame and cill.
- Offer the frame into the hole and position with packers so that the frame is level and upright. Use packers that will not deform
- For packing the bottom use either slate or metal shims. Take care not to twist the frame diagonally. It is imperative that the head and bottom are perfectly level, with no bows or twist.
- For fixing into brickwork, use 7.5mm x 140mm concrete screws, or equivalent. You will need to pre-drill the frames with an 6.5mm hss drill bit.
- Then drill directly into the brickwork with an 6.5 mm masonry bit. Hammer the fixing in and tighten. Ensure to pack around the fixing and do not over tighten.
- Fix at 500mm intervals, with a minimum of 4 fixings. Do not fix within 200mm of the corner.
- To fix the bottom use the method as above, but silicone seal the screw head to avoid water ingress.
- Fixing of the head is dependent on track detail. In all circumstances the frame should fix into a lintel. Do not fix into brickwork that is unsupported.
- Doors that are bottom running fix the head at 450mm to 650mm intervals.
- Doors that are top running fix at 400mm intervals. Do not fix within 200mm of the corner.
- Relevant fixings for your lintel type should be used.
- before proceeding to the next step, ensure the threshold and frame are level and check the diagonals of the frame for square.

## **Hanging of hinged and folding doors**

- Dependent on the door style you have selected, you will either have all slide and folding doors or folding doors with a hinged adjacent door.
- All doors have a label stating a sash number. Sash number 1 is always the 1st door on the left viewed from the outside.
- All doors must be hung unglazed.
- For ease of installation 2 persons are required.
- Doors must be hung in the correct order.

## STEP 1

- First hang the hinged door of the folding set. This is the first of the stacked doors.
- Take 2 x 7mm pins from your box of parts.
- Offer the 1st door up to the frame and locate the female bottom hinge onto the 7mm male pin.
- Then locate the top and middle hinges of the sash into the corresponding parts on the frame.
- Using the pins provided secure the hinges together.
- Knock the middle hinge pin downwards and the top hinge pin upwards.
- At this stage do not fit the cover caps.
- Your first door is now hinged. The next step is to adjoin the second door.



## STEP 2

- Open the first door to its full extent.
- Take 3 x 8mm pins from the parts box.
- Offer the 2nd door up to the 1st door so that the hinges locate together.
- Using the pins provided secure the hinges together.
- Knock all pins downwards.
- Carefully fold the doors flat against the frame, ready for the next stage. Lock the first door.
- In the parts box will be bogie wheel(s) and rubber covered guide(s).the number is dependent on your scheme.
- The method of fitting the wheels is the same for both top and bottom running.
- The example shown is for bottom running.
- Take the bogie wheel and offer at an angle to the large track so that it will fit and slide up to the connecting part on door 2.push the wheel set fully home into the "u" section .insert a 5mm allen key into the top of wheel set. Do not!! Wind the allen key in any direction. Tighten the locknut, which is located directly below the 5mm allen key with a 17mm spanner.
- Take the rubber covered guide and offer up to the hinge part on door 2, which is adjacent to t
- Small guide track. Push the guide fully into the "u" section and tighten with a 13mm spanner.
- Door 2 has now been completed.
- At this stage do not fit the cover caps.
- If you have scheme 220 or 202, this would of been your last door and your door is now complete and proceed to step 5
- If you have a scheme 321 or 312, you have hung your only 2 folding doors and you need to proceed to step 4.



### **STEP 3**

- Take 3 x 8mm pins from the parts box.
- Offer door 3 up to door 2 so they lay flat against each other, so that the hinges locate.
- Using the pins provided secure the hinges together.
- Knock the pins for the top and bottom hinge downwards. Knock the top hinge pin upwards.
- Fold the doors back against the frame.
- If you have scheme 330 or 303, this would of been your last door. Proceed to step 5.
- For all other schemes with 4, 5, 6 and 7 doors please follow step 1 to 3 until complete and proceed to step 5.

### **STEP 4**

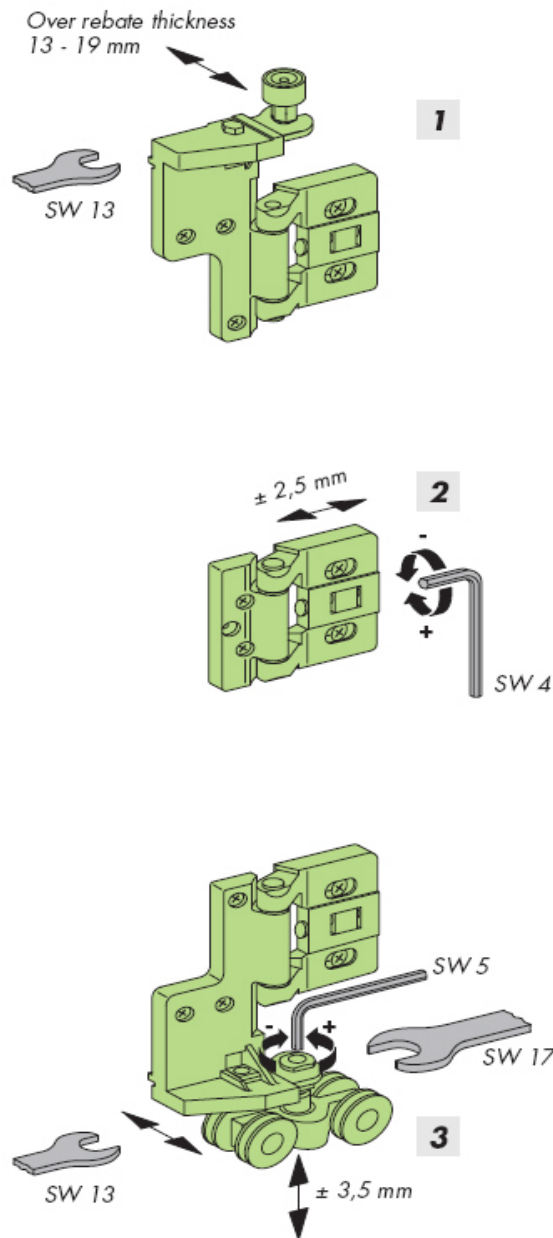
- If you have a scheme with a main hinged door. This now needs to be fitted.
- The procedure of fitting is the same as step 1.
- Go to step 5.

### **STEP 5**

- Your door is now ready to glaze.
- Remove glazing beads, numbering their position and location.
- Start with the first hinged door of the folding set.
- The sealed unit has to be glazed by a method of toe and heeling. This transfers the weight of the sealed unit on to the hinged point.
- Incorrect glazing is the most common cause of the doors not working correctly.
- Already installed are factory fitted packers. Fit the glass unit within these packers. If the sealed unit is a snug fit the only additional packing required is to pack tight until level as shown below.
- If the glass unit is slightly loose, place additional packing to all factory fitted packers. It is important that the size of the packing is exactly the same size. If you use 2mm packers on the bottom left corner, this must be replicated on all corners. Then pack the sealed unit until it is tight on the top packer only, as shown.
- The weight of the door is now balanced on the hinge point, preventing the door catching on the handle or opposite hinge side.
- If you need to lift the side opposite to the hinge by a few millimeters, then add additional packing to the top packer which you have packed tight (not the packer to the side!!!).
- To prevent slippage, all packers must be super-glued or siliconed in position. If the packers slip the doors will eventually need re- glazing.
- Fit the top and bottom glazing beads first. Use a nylon faced hammer.
- When fitting the left and right bead, bow the bead so it fits loosely against the angle of the top or bottom bead. Push the center of the bowed bead against the bead pocket. With the hammer knock the bead home in the center first and then working in equal outward movements, knock approximately 200mm of bead towards the top, then the same towards the bottom. Continue in this fashion until the bead is fully home.

## STEP 6

- All doors are now glazed and should be operating correctly.
- The doors are factory set and should need no adjustment.
- If you feel you need to adjust the door, leave them to settle for 5 days, as you may be carrying out the process twice. See the drawing below for details.



**1**

### **Sash pressure via the top hinge**

- A** Loosen the lock nut SW13
- B** Firmly press the sash against the frame.
- C** Tighten the locking nut.

**2**

### **Positioning of the Sash hinges**

*Tip:* Slacken sash hinges in order, adjust and re-tighten.

- A** Slacken both set screws.
- B** Adjust the gap with allen key SW 4 .
- C** Re-tighten setscrews.

**3**

### **Setting the height of Bogie wheels**

- A** Slacken lock nut SW 17 on the bogie wheels.
- B** Adjust the height of the sash by using allen key SW 5 whilst holding the lock nut in place with spanner SW 17.
- C** Then re-tighten the lock nut keeping allen key SW5 firmly in place.

## STEP 7.

- Your doors are now operational.
- Foam the gap between the door and your brickwork.
- Clean down the frame and glass with soapy water. Do not use abrasive cleaners.
- Finally fit all cover caps to hinges and trickle vents that have been supplied.



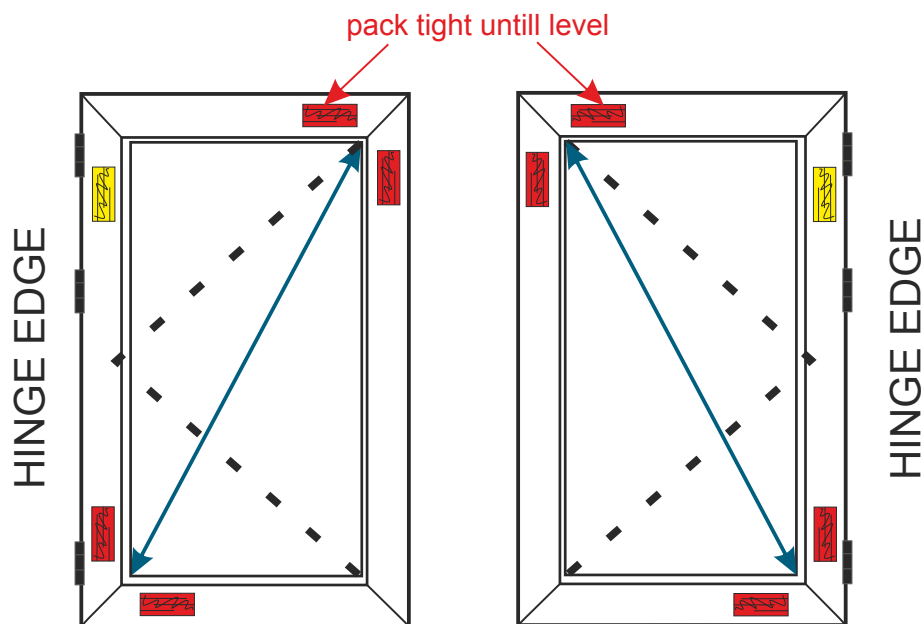
# Toe & Heeling

## Important Glazing Instructions

In order for all products to work correctly the sealed units must be correctly glazed.

Bi-folding doors must be correctly toe & heeled.

*Example Shown Below  
Viewed from the Inside*





Insert Packers tightly across diagonals, ensure head is level and secure packers in place with silicone.

Internal hinge positions    Packer    Final fix packer

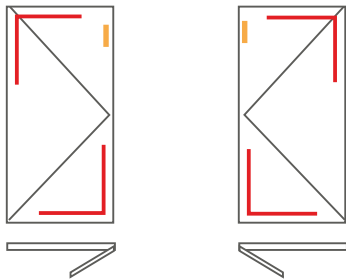
# Toe & Heeling

## FOLDING / SLIDING OPENING IN OR OUT

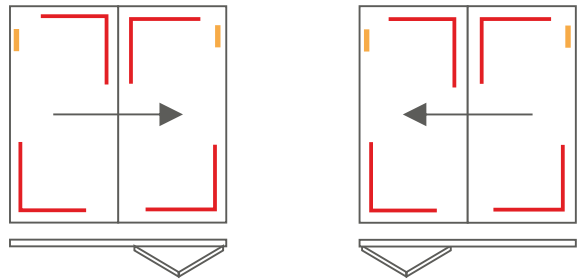
| Toe & Heel  |   |
|---|---|
|  | This symbol indicates where to pack each panel. |
|  | Final Fix Packer                                |

*All configurations are viewed from the Inside*

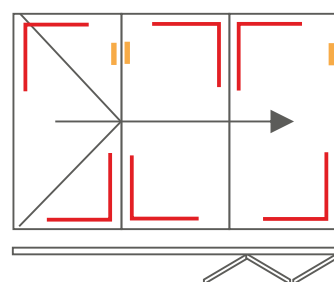
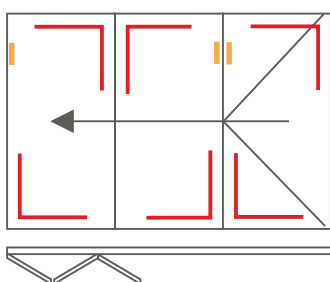
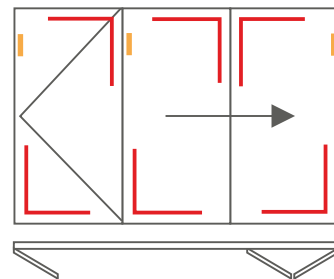
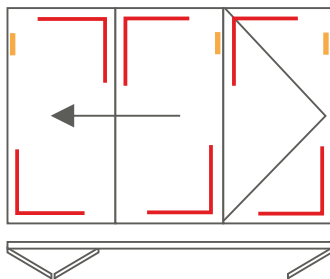
1 Panel



2 Panel





3 Panel



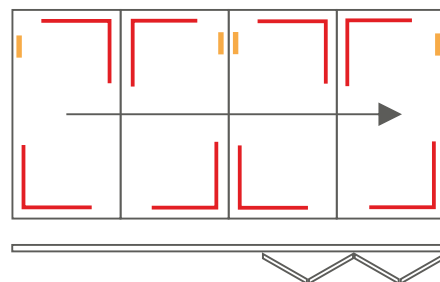
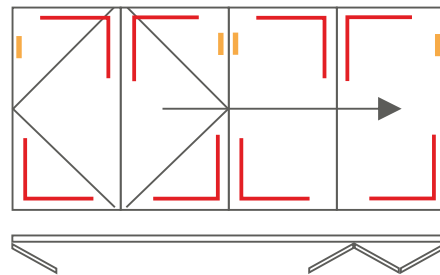
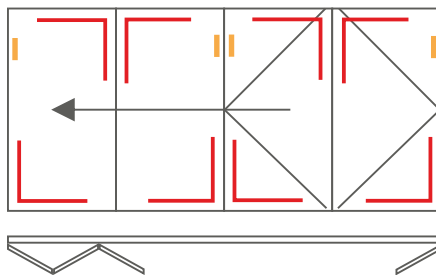
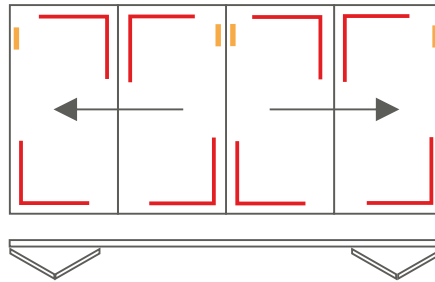
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*All configurations are viewed from the Inside*



### 4 Panel





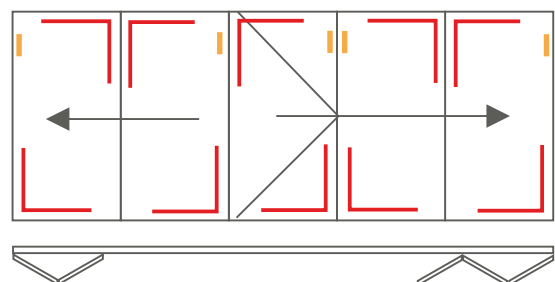
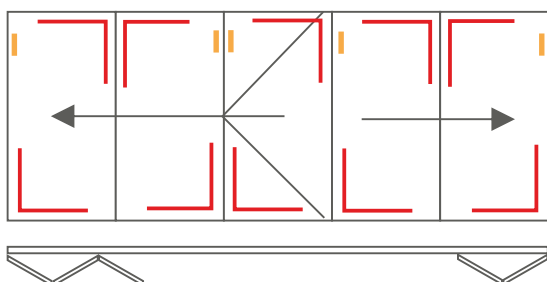
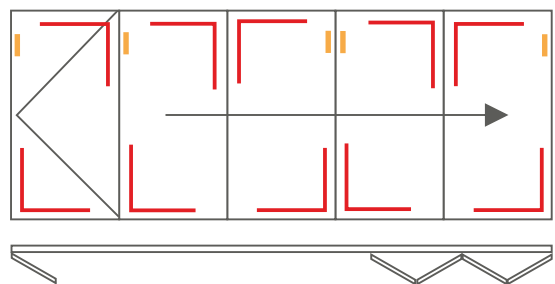
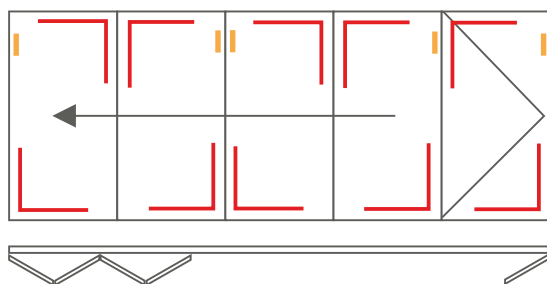
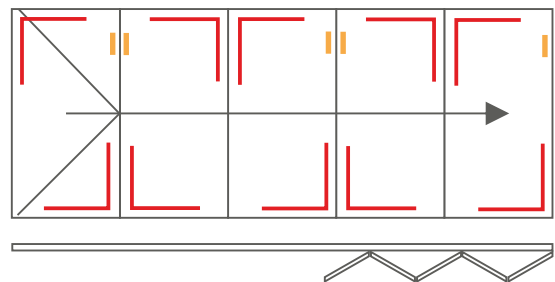
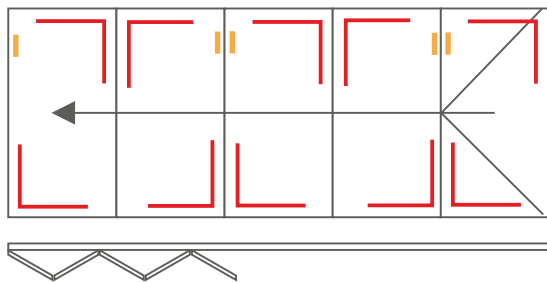
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### 5 Panel



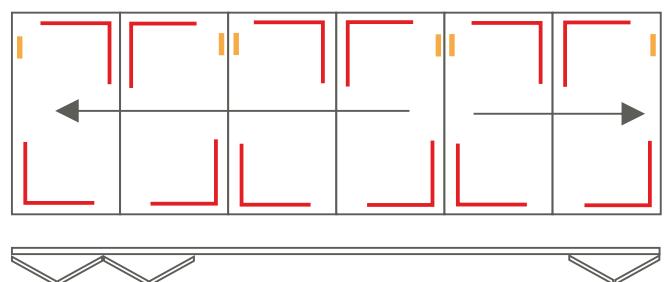
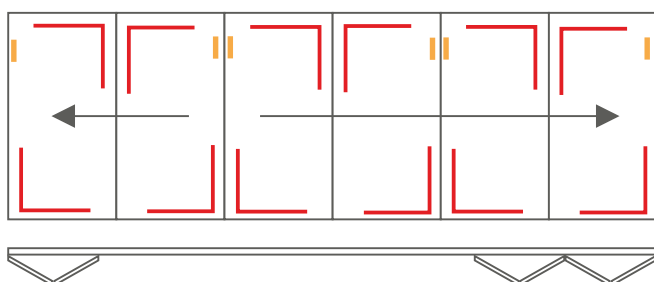
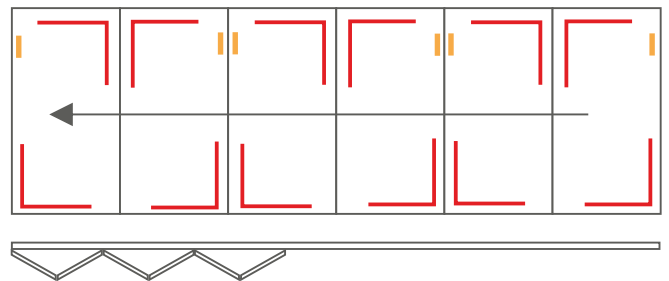
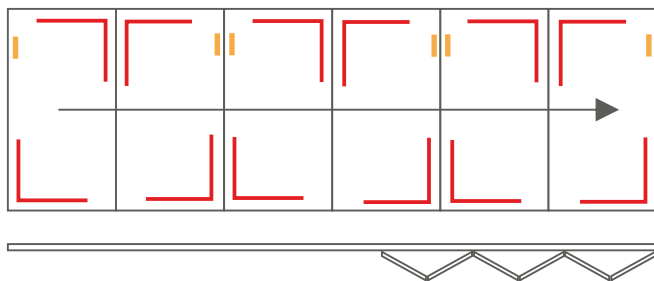
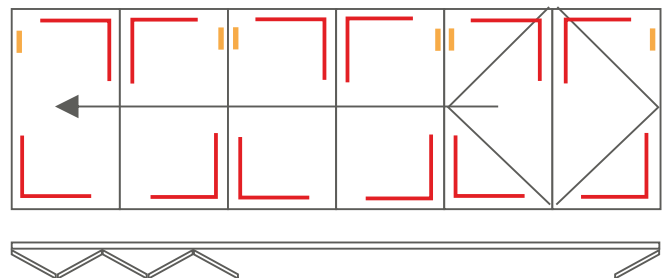
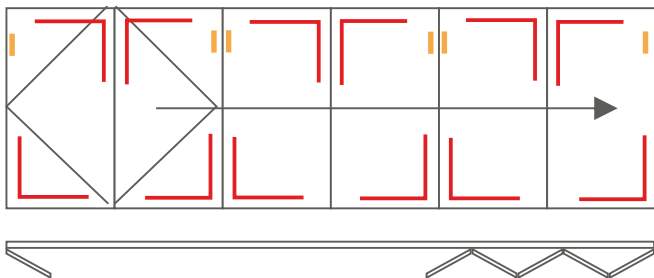
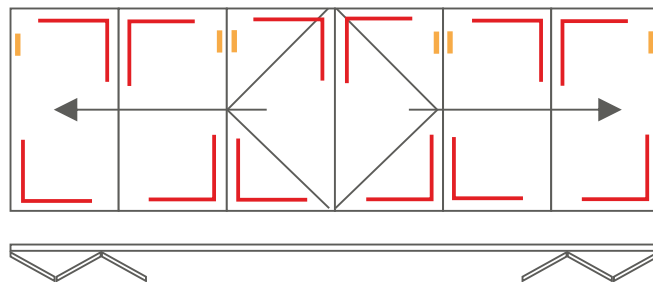
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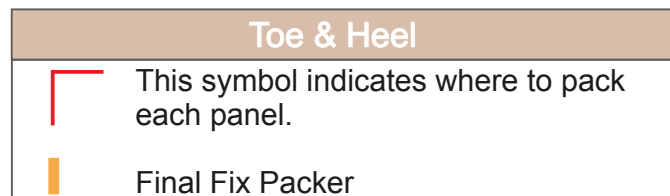
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### 6 Panel



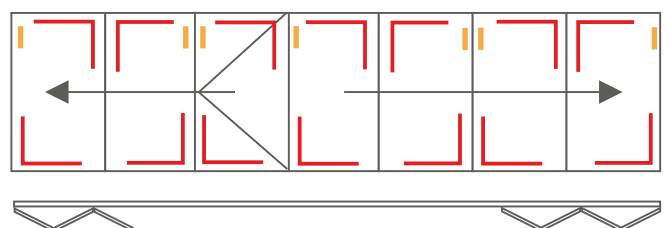
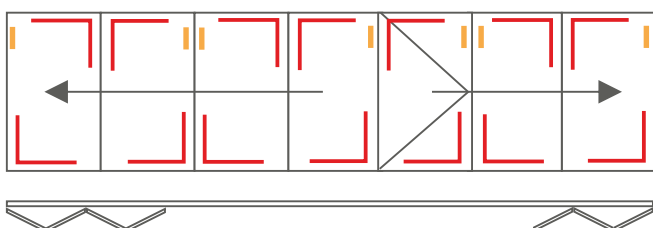
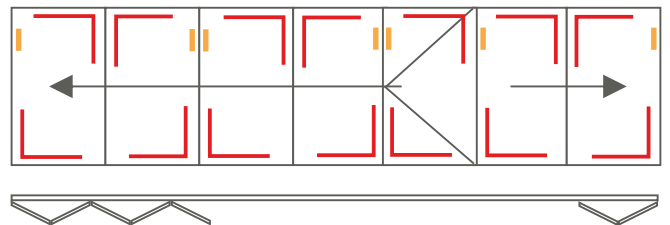
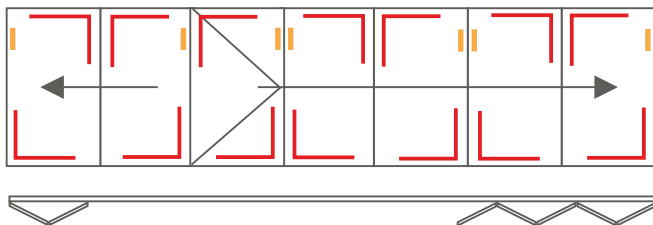
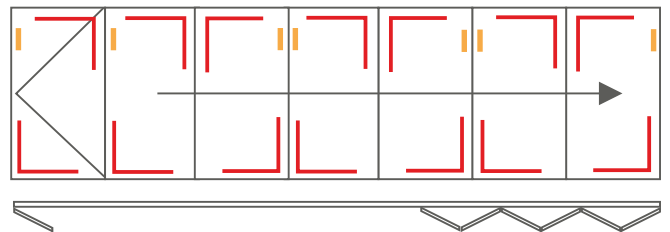
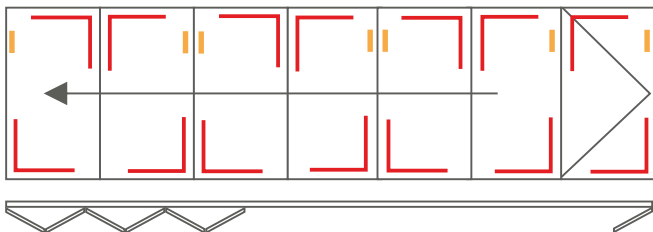
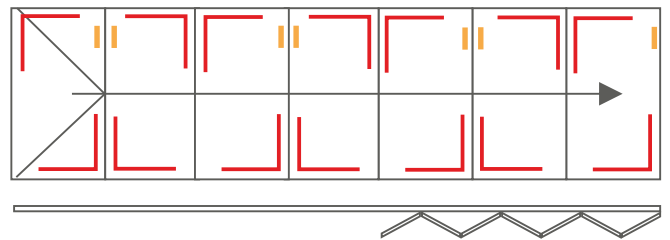
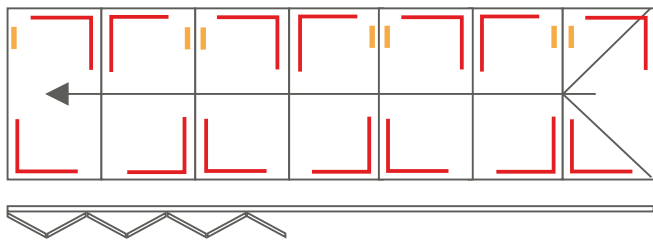
# Toe & Heeling

## FOLDING / SLIDING OPENING IN OR OUT



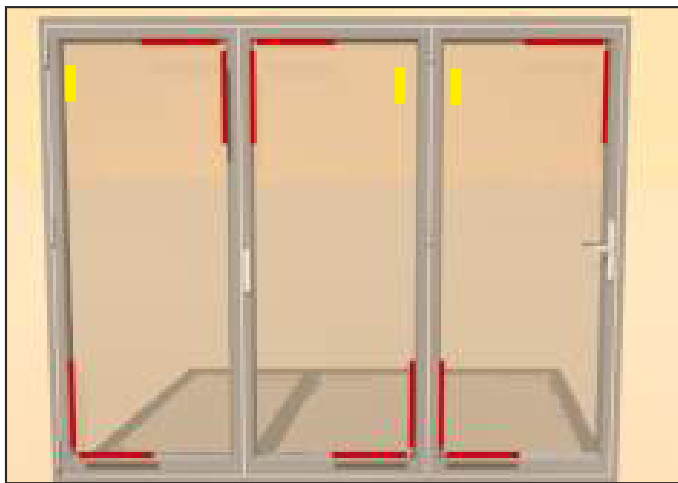
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### 7 Panel

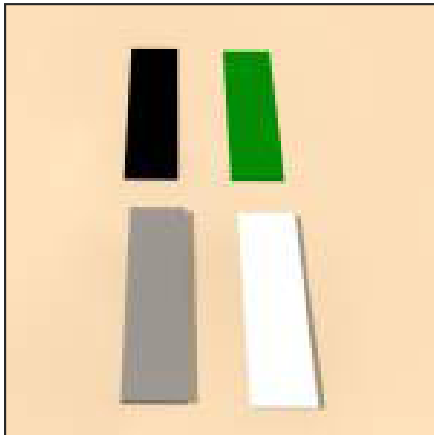


# Toe & Heeling

This guide provides a detailed explanation of how we suggest to toe and heel our doors. This is for use as a guide only as each set of doors are unique and may require different levels of packing in the toe and heeling process (amount of packers used). Please use your own judgment.



- The red sections display where to toe and heel on a 3 panel door all one way.
- The yellow sections display the final fix packer position.
- Start by toe and heeling the panel attached to the frame first and work towards the traffic door (Or slave door).
- The remainder of the presentation will show you how to toe and heel the traffic door.

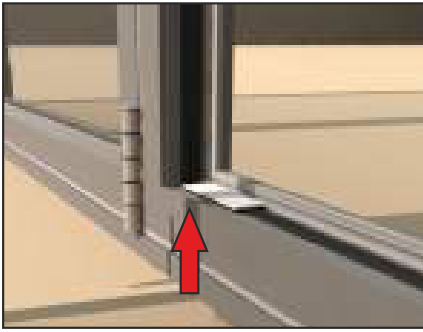


Packers are supplied in a range of sizes which are colour coded for ease of use. Packers used in this guide are an example only. Each door is unique and will require different levels of packing. Always use a range of packers to best suit the door being toe and heeled.

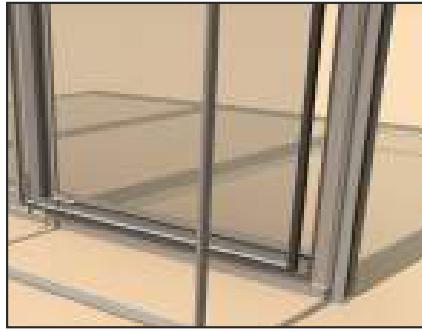


When toe and heeling use a glazing shovel where needed.

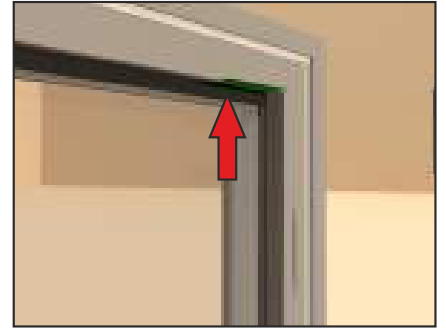
# Toe & Heeling



Place 2-3 packers at the bottom of the door on the hinge side (number of packers depends on door tolerances).



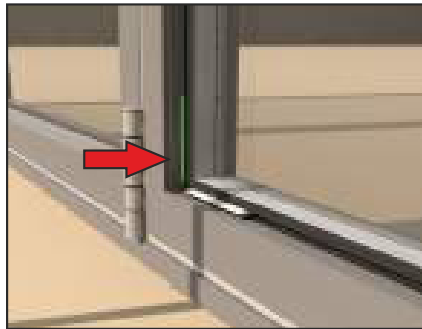
Place glazed unit into door frame.



Pack the top of the unit on the handle side of the door. Use a variety of packers until the glazed unit sits firm in place.



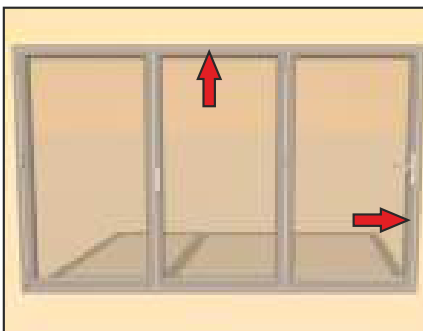
Pack the side of the unit on the handle side of the door. Use a variety of packers until the glazed unit sits firm in place and square within the frame.



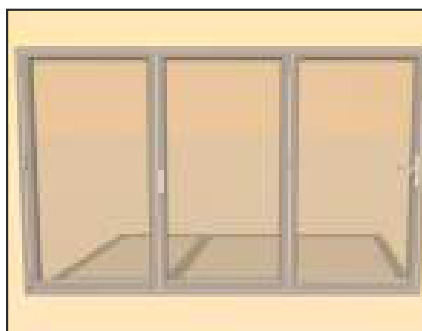
Pack the side of the unit on the hinge side of the door. Use a variety of packers until glazed unit sits firm in place and square within the frame.



Lastly pack the top side corner on the hinge side of the door. Use a variety of packers until the glazed unit sits firm in place. This will help keep the glazed unit square and in place.



Check door is completely level with the outer frame. If not add or remove packers where needed.



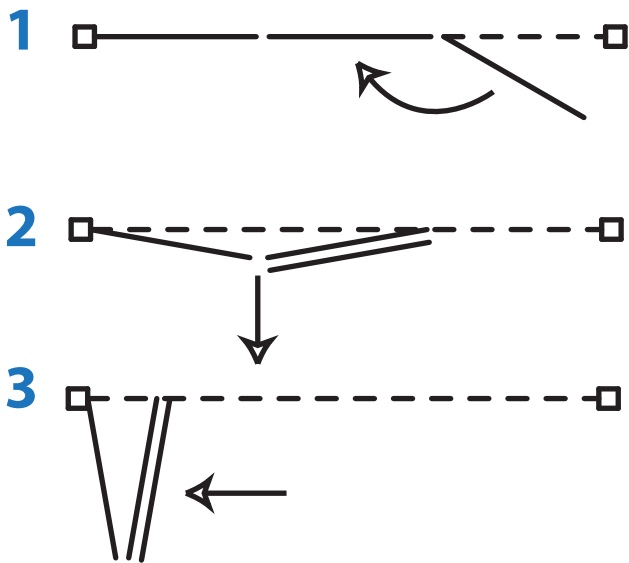
Once all panels have been toe and heeled check door is running correctly and that the locking system works correctly.

If required silicone the packers on the uprights of the door into place. (this will prevent the packers from moving).

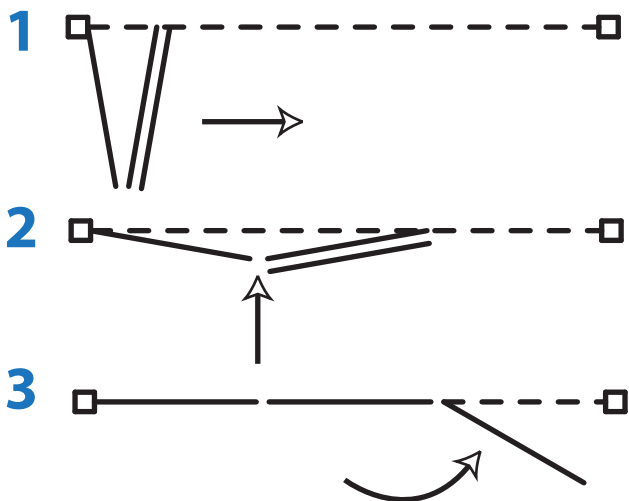
Finally clip bead into place.

# Operating and maintenance

## Opening operation



## Closing operation



## Maintenance

- Roller mechanisms carrying the door panels are fitted with sealed stainless steel bearings and require no lubrication
- Ensure top and bottom tracks are kept free from debris or obstacles which may impair the function of the product.
- Door locking mechanisms to be cleaned and any moving parts to be lubricated with a light machine oil at least once a year and more frequently where appropriate.
- For u-PVC parts clean regularly with soap and water.



## **YOUR TRUSTED SUPPLIER**

### **Just Value Doors Ltd**

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