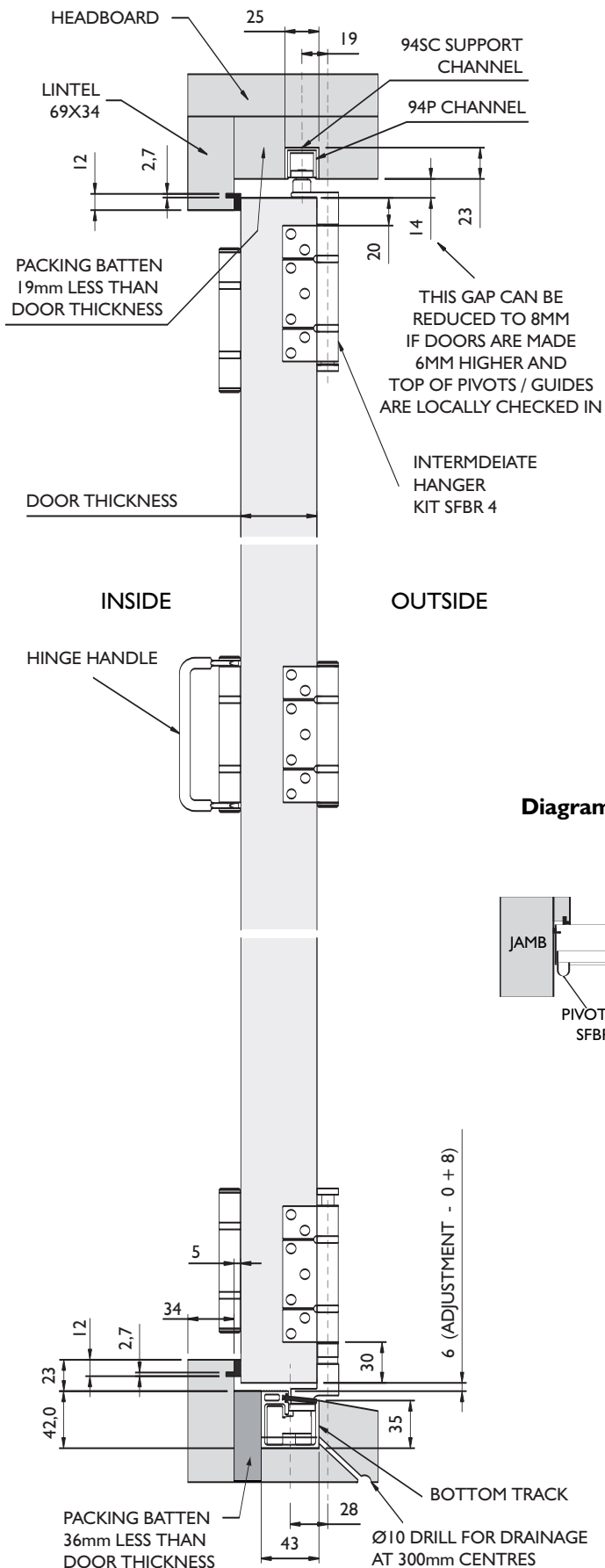


## Fitting Instructions For Bottom Rolling External Doors with Mortice hinges

**Diagram 1**



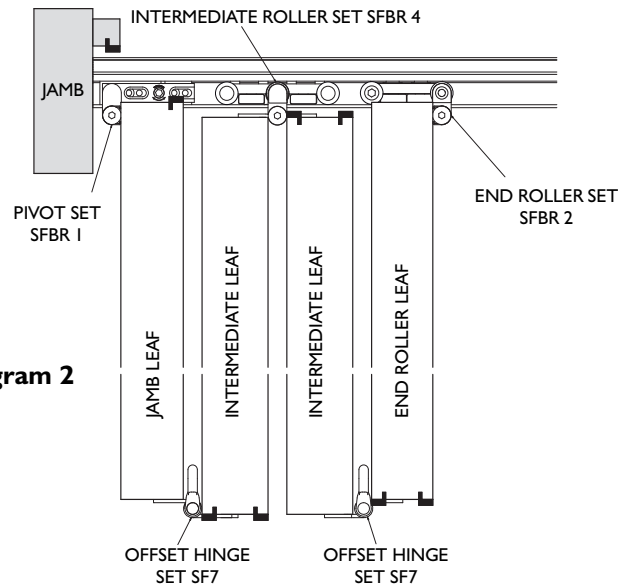
### SYSTEM CAPACITY

Maximum leaf height = 3000mm    Maximum leaf weight = 80kg each  
 Maximum leaf width = 1000mm    Maximum leaf thickness = 68mm\*\*  
 Minimum leaf thickness = 56mm\*\*

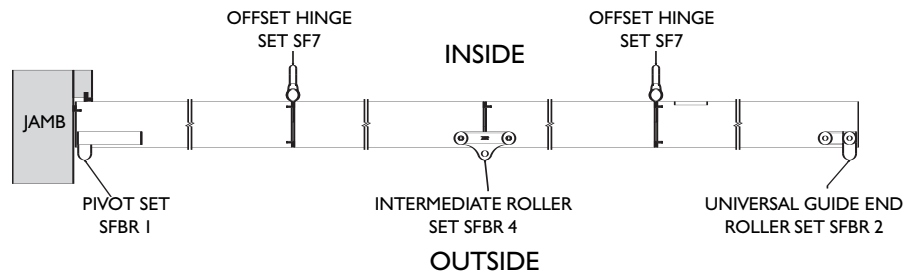
On systems using door leaves that are narrow and thick and the hypotenuse is more than the door width x 1.004 then a risk of camming exists (see diagram 12).

\*\*For thicker or thinner doors please contact PC Henderson Technical Department  
[technical@pchenderson.com](mailto:technical@pchenderson.com)

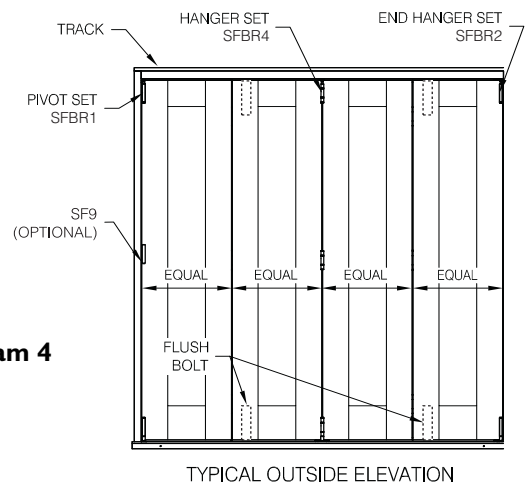
**Diagram 2**



**Diagram 3**



**Diagram 4**



# PREPARATION

- Typical 4 leaf configuration  
- Standard mortice shown

Diagram illustrating the exploded view of the roller assembly for the 1000 Series, showing the following components and their assembly sequence:

- OFFSET HINGE SET SF7** (Left side)
- UNIVERSAL GUIDE END ROLLER SET SFBR 2** (Top center)
- PIVOT SET SFBR 1** (Bottom center)
- INTERMEDIATE ROLLER SET SFBR 4** (Right side)

The diagrams illustrate various combinations of leaf and leaflet counts for a plant structure. Each diagram is labeled with 'INSIDE' and 'OUTSIDE' and a total count (e.g., '2 LEAF', '3 + 1 LEAF', '4 LEAF'). The diagrams show a central axis with various branching patterns and labels like SF 9, SF 7, SF 3, SFBR 1, SFBR 2, SFBR 4, SFBR 8, and SFBR 10.

**2 LEAF**

**INSIDE** SF 9 SF 3 SF 9 SF 9 SF 3

**OUTSIDE** SFBR 1 SFBR 2 SFBR 1 SFBR 1

**2 + 1 LEAF**

**INSIDE** SF 9 SF 9 SF 3 SF 9 SF 3

**OUTSIDE** SFBR 1 SFBR 1 SFBR 2 SFBR 1

**3 LEAF**

**INSIDE** SF 9 SF 7 SF 9 SF 9 SF 7

**OUTSIDE** SFBR 1 SFBR 4 SFBR 1 SFBR 4

**3 + 1 LEAF**

**INSIDE** SF 9 SF 9 SF 9 SF 9 SF 9

**OUTSIDE** SFBR 1 SFBR 1 SFBR 2 SFBR 1 SFBR 1

**3 + 2 LEAF**

**INSIDE** SF 9 SF 9 SF 9 SF 9 SF 9

**OUTSIDE** SFBR 1 SFBR 1 SFBR 2 SFBR 1 SFBR 1

**3 + 3 LEAF**

**INSIDE** SF 9 SF 9 SF 9 SF 9 SF 9

**OUTSIDE** SFBR 1 SFBR 1 SFBR 2 SFBR 1 SFBR 1

**4 LEAF**

**INSIDE** SF 9 SF 9 SF 9 SF 9 SF 9

**OUTSIDE** SFBR 1 SFBR 1 SFBR 2 SFBR 1 SFBR 1

**4 + 1 LEAF**

**INSIDE** SF 9 SF 9 SF 9 SF 9 SF 9

**OUTSIDE** SFBR 1 SFBR 1 SFBR 2 SFBR 1 SFBR 1

**5 LEAF**

**INSIDE** SF 9 SF 9 SF 9 SF 9 SF 9

**OUTSIDE** SFBR 1 SFBR 1 SFBR 2 SFBR 1 SFBR 1

**5 + 1 LEAF**

**INSIDE** SF 9 SF 9 SF 9 SF 9 SF 9

**OUTSIDE** SFBR 1 SFBR 1 SFBR 2 SFBR 1 SFBR 1

**6 LEAF**

**INSIDE** SF 9 SF 9 SF 9 SF 9 SF 9

**OUTSIDE** SFBR 1 SFBR 1 SFBR 2 SFBR 1 SFBR 1

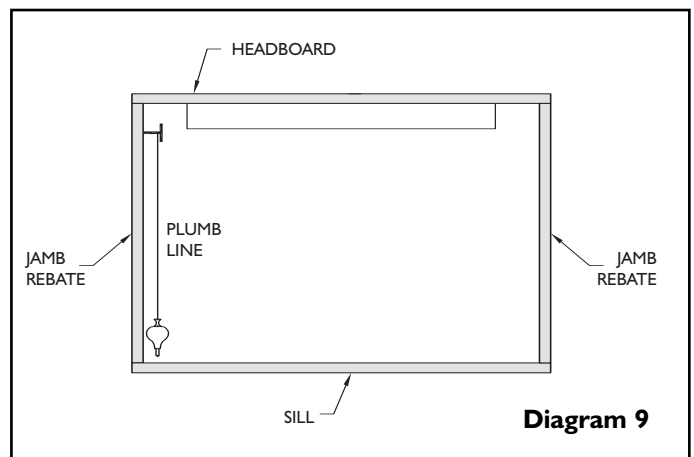
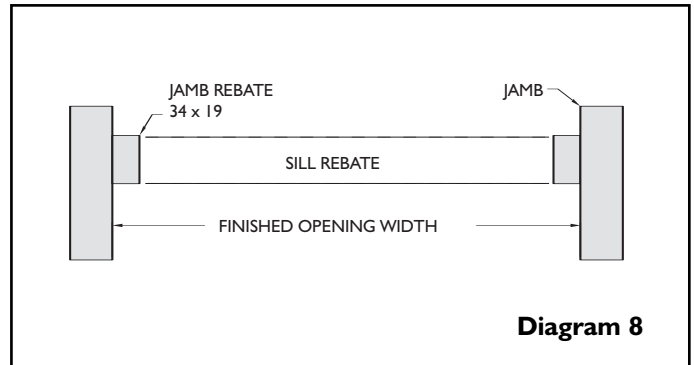
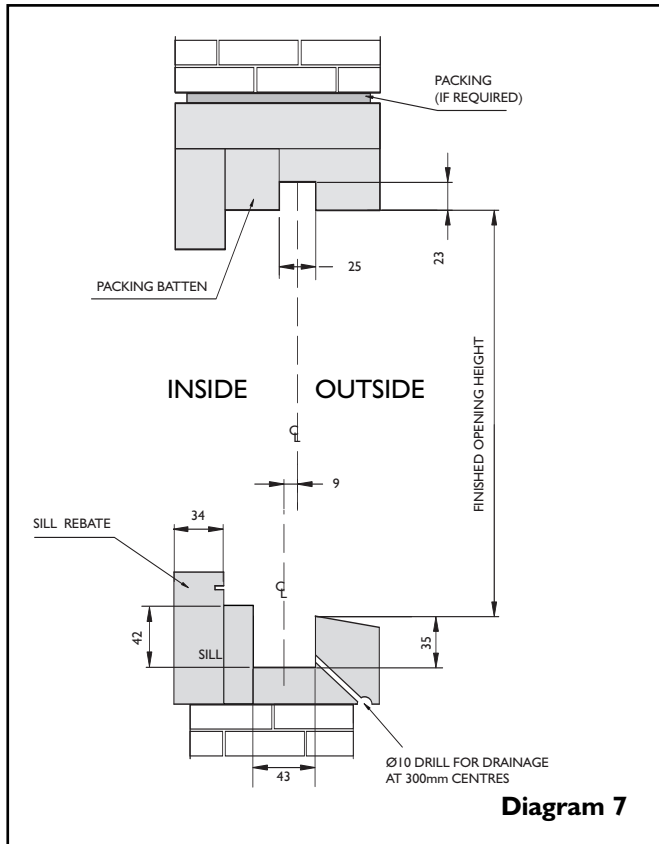
**6 + 1 LEAF**

**INSIDE** SF 9 SF 9 SF 9 SF 9 SF 9

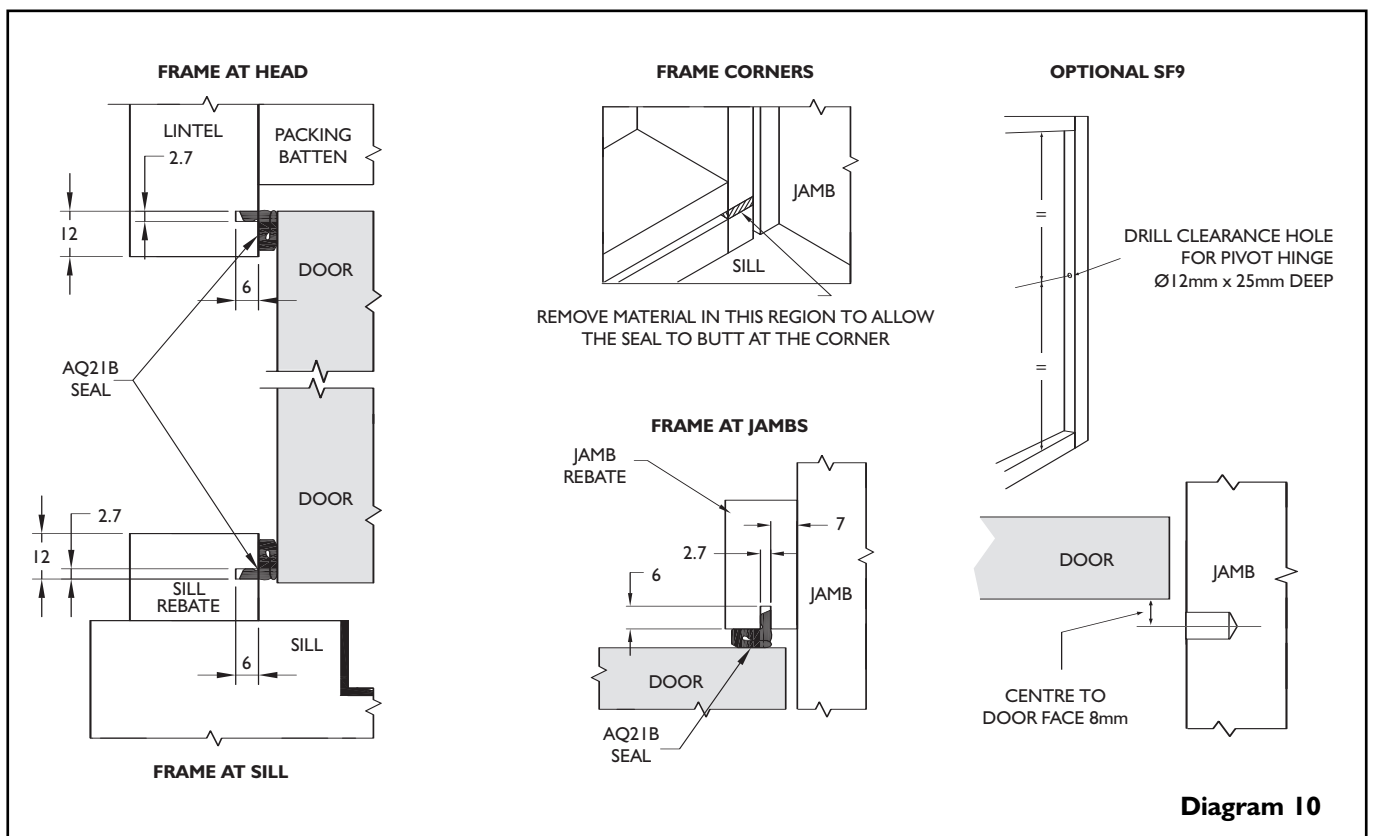
**OUTSIDE** SFBR 1 SFBR 1 SFBR 2 SFBR 1 SFBR 1

## Preparing the opening

Ensure the opening is square and all load bearing areas are suitable for the weight of the system. Take particular care to ensure there is sufficient strength in the structure above the opening to take the concentrated weight of the door, when in the open stacked position. The SFBR system provides +/- 5mm horizontal adjustment. Use a plumb line to ensure the centre line of the top channel & bottom track are offset by 9mm



## Preparing the door frame



## Preparing the door leaves

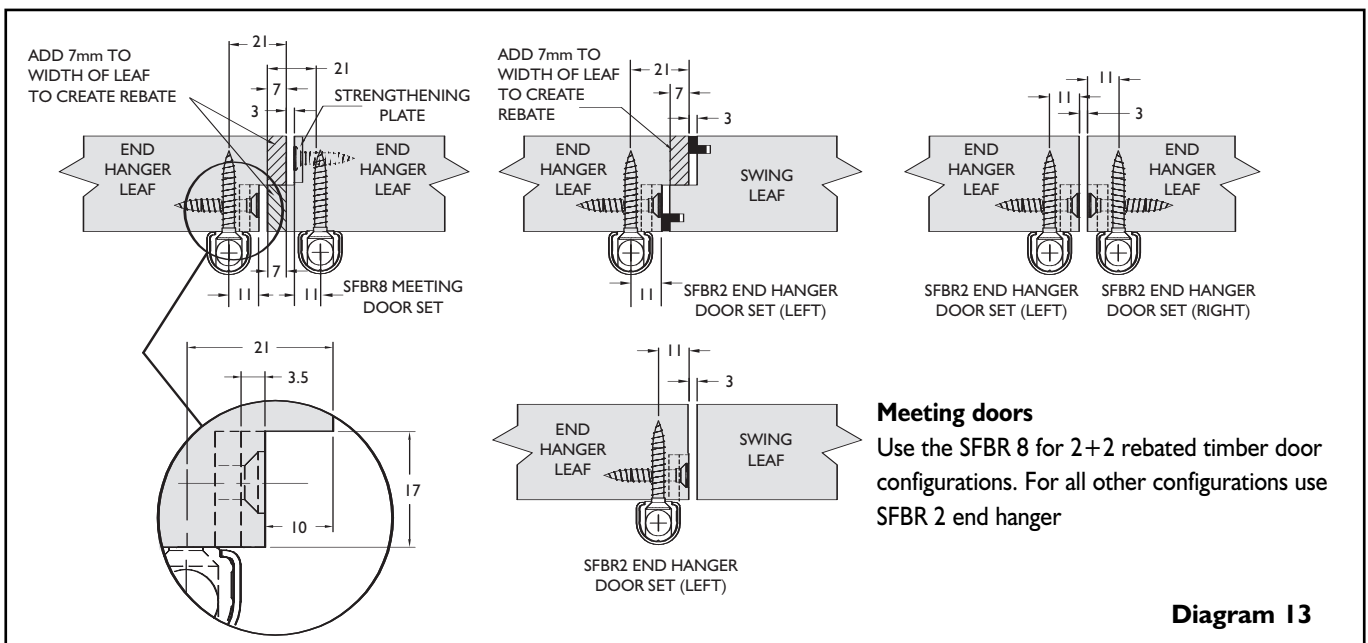
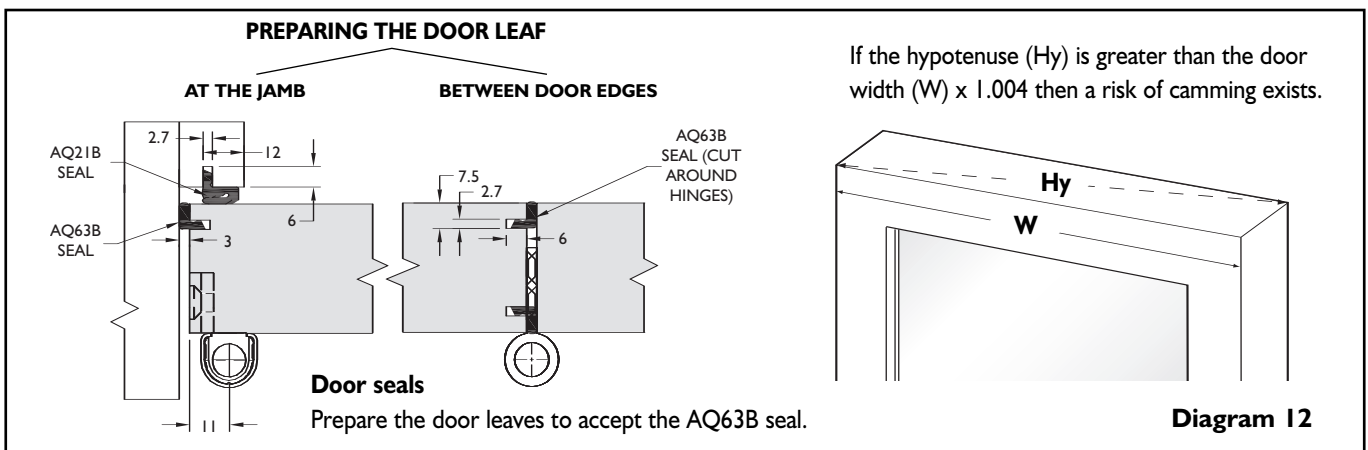
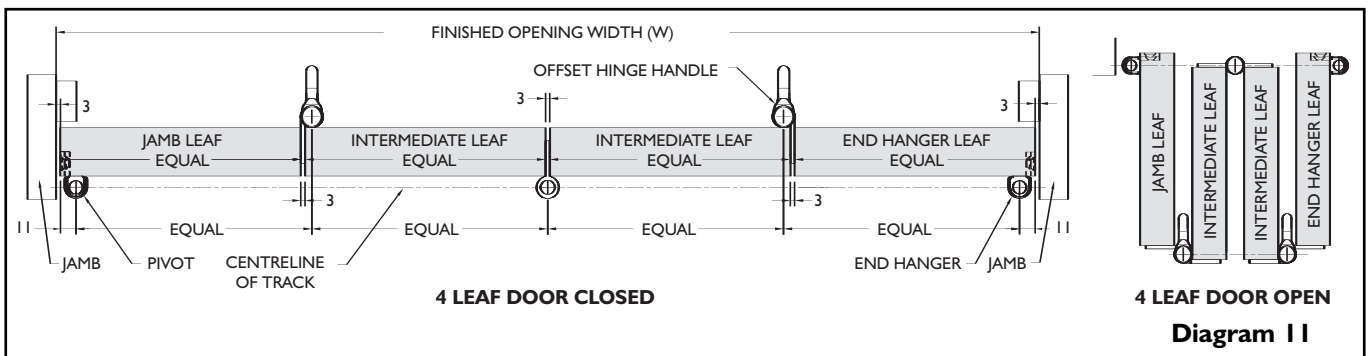
### Door leaf width calculation

1. Decide how many door leaves you want in the opening.
2. Add together all the 3mm clearances required between door leaves and the jambs (there will be one more than the number of door leaves). This is the total clearance figure.
3. Measure the finished opening width (W) and deduct from this the total clearance figure.
4. Divide this new figure (finished opening width minus total clearance) by the number of doors to produce the actual door width. (N.B. all doors with the SF Bottom Rolling system are the same width).

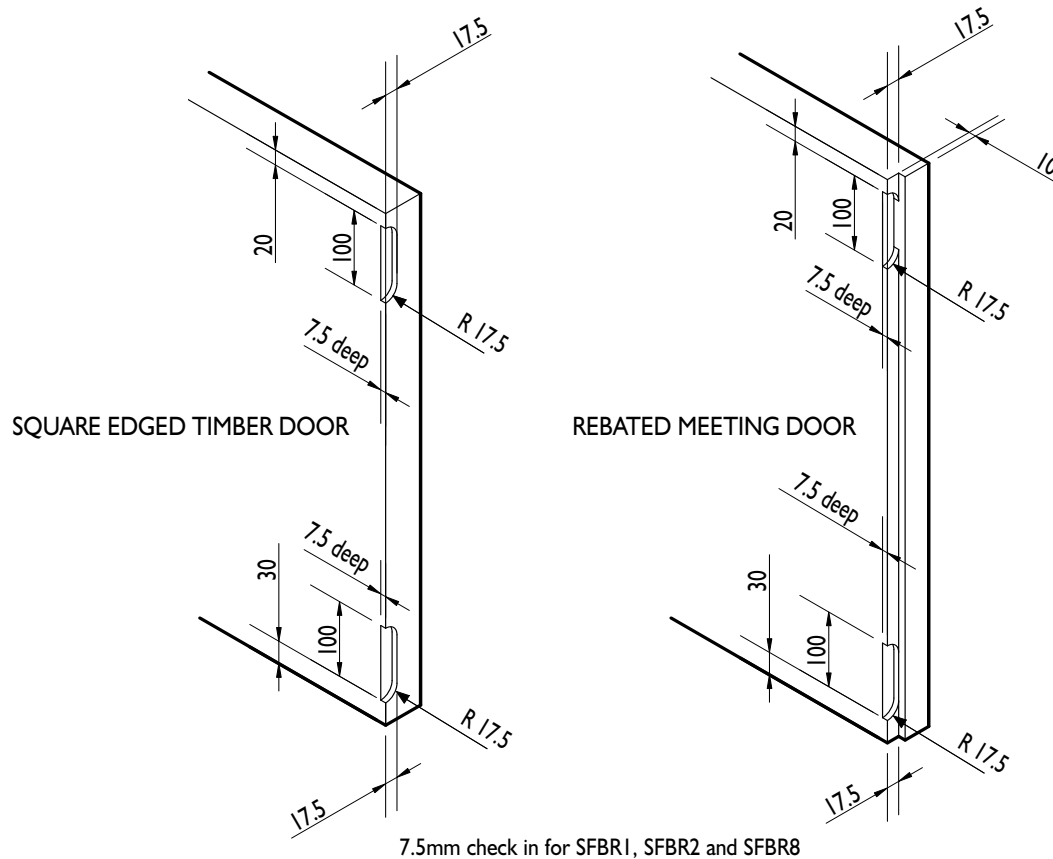
For example: For a 4 door leaf system with a finished opening width of 2345mm the door leaf width would be 2345mm minus (5x3mm) divided by 4 (number of door leaves) = 582.5mm.

### Door leaf height calculation

Leaf height = finished opening height minus 20mm.



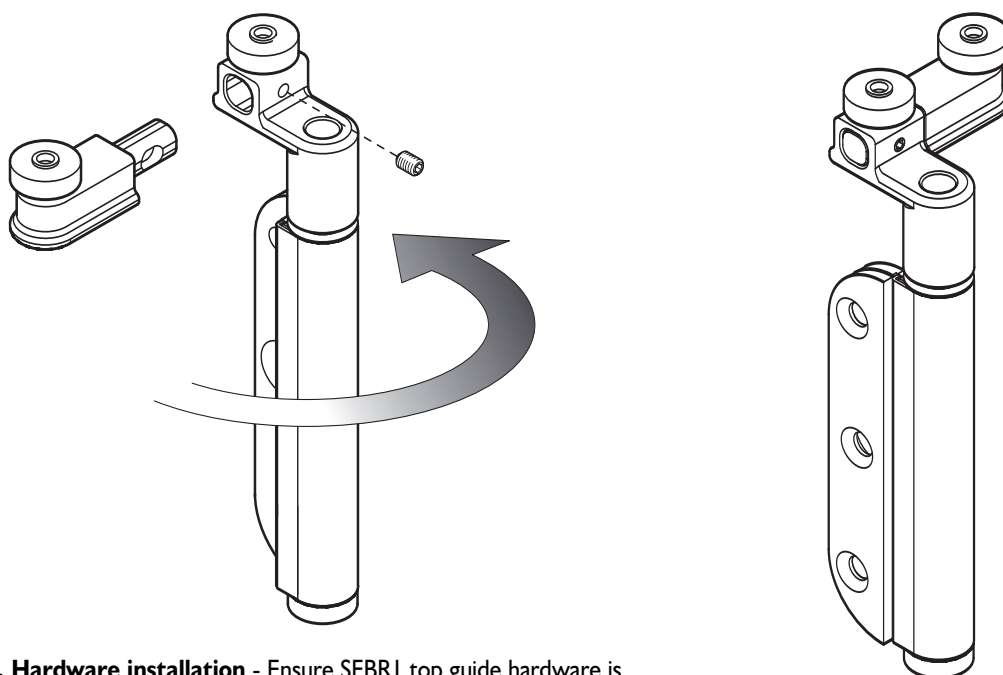
## End door leaf preparation



**5a. Hardware installation** - Ensure you have all the required parts. Unpack the components and identify the parts. Lay the parts on the ground in the same configuration as they will be when installed, See page 2 for layout details.

**Diagram 14**

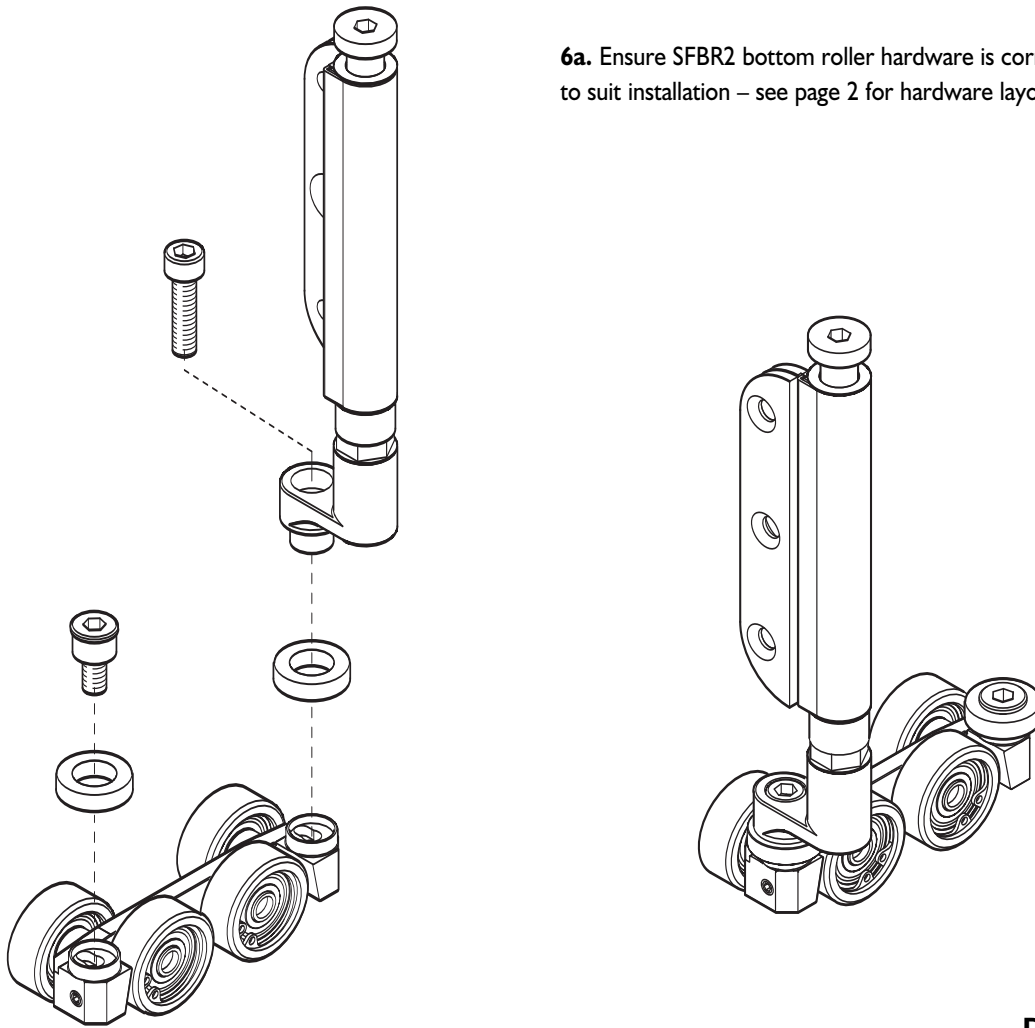
## Handing of the hardware



**5b. Hardware installation** - Ensure SFBR1 top guide hardware is correctly handed to suit installation – see page 2 for hardware layout

**Diagram 15**

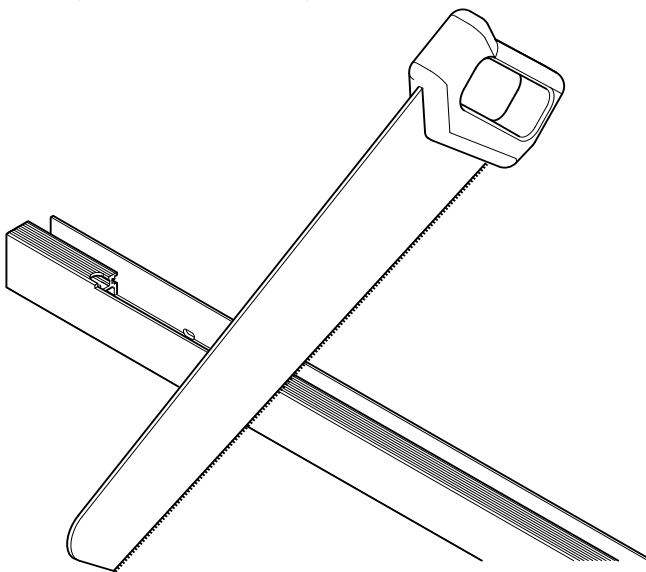
**6a.** Ensure SFBR2 bottom roller hardware is correctly handed to suit installation – see page 2 for hardware layout



**Diagram 16**

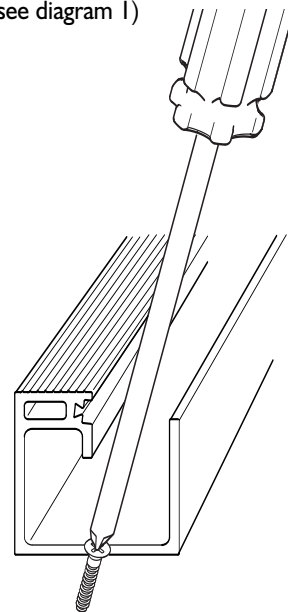
## Installation - Track and Guide Channel

**6b.** Cut bottom track to suit handing requirement – reduce length to suit opening. Cut out in track typically positioned directly under door stack in open



**Diagram 17**

**6c.** Install bottom track using screws included in kit (4 x 3/4" c'sink) or use suitable adhesive to secure to timber – Ensuring not to mark running surfaces of track. Drill drainage holes (see diagram 1)



**Diagram 18**

**6d.** Cut & install top guide channel – fix through channel and polypropylene, ensuring not to obstruct the hardware.

## Installation - Hardware into track

**7a.** Slide the bottom roller assemblies into the track in the correct order, orientation and position via the cut out located within the track.  
(see layout details on page 2)

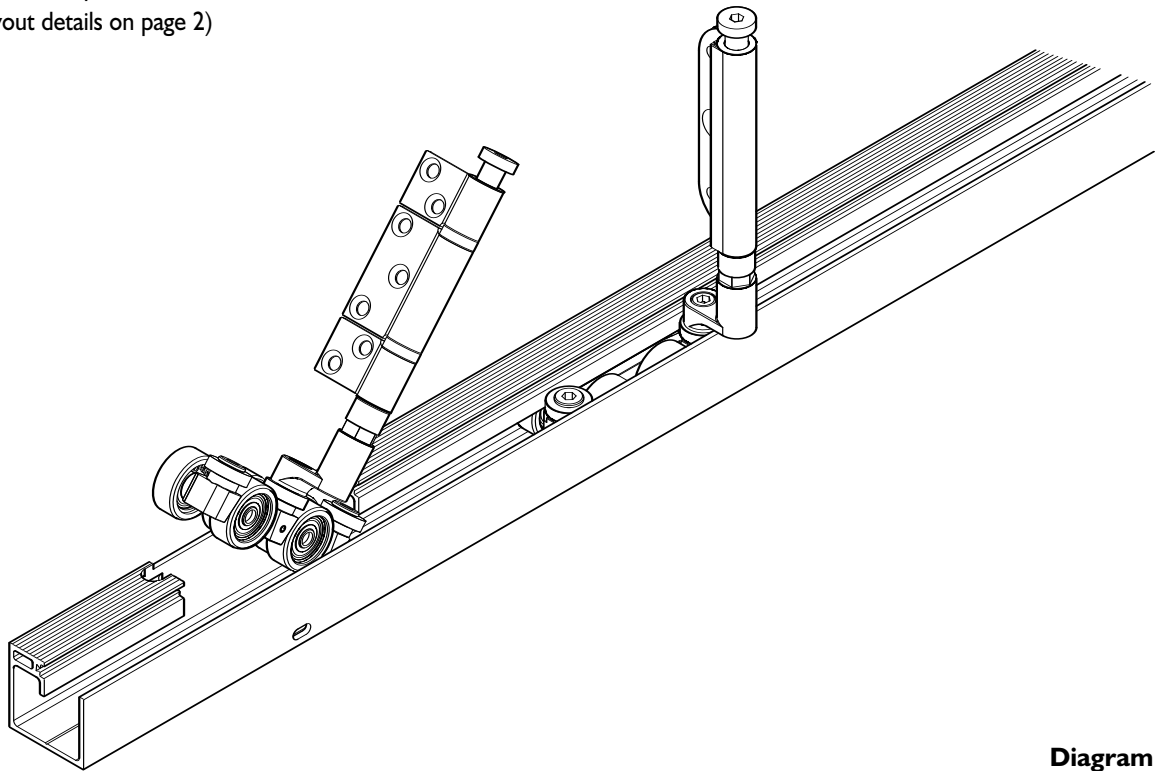


Diagram 19

## Pivot hardware into track

**7b.** Disassemble the bottom and top pivot assemblies, fix the anchor plates butted up against the jamb (zero gap), please note the screw hole furthest from the end of the anchor should be positioned closest to the jamb

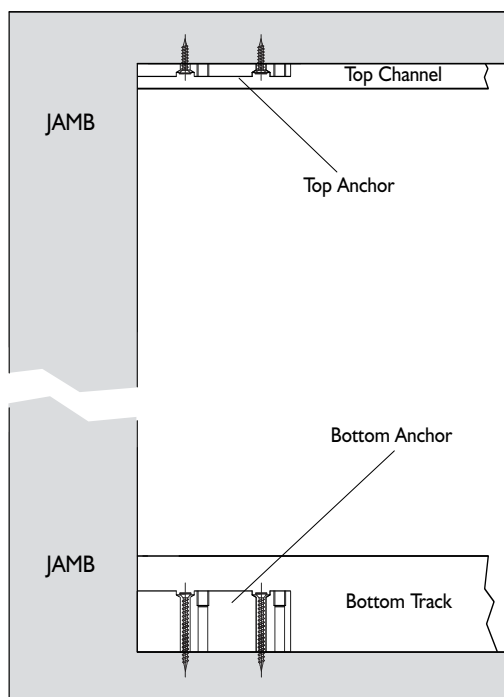


Diagram 20

**7c.** Reassemble the pivot assemblies in the correct orientation (see page 2 for layout details), leaving the clamp screw loose.

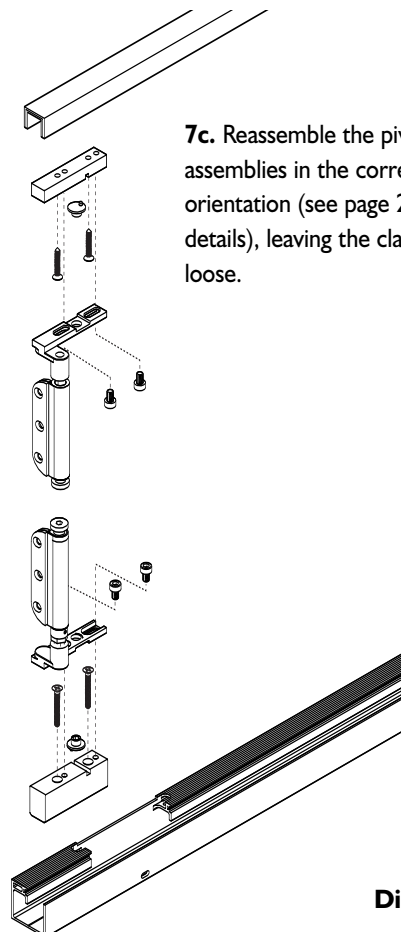
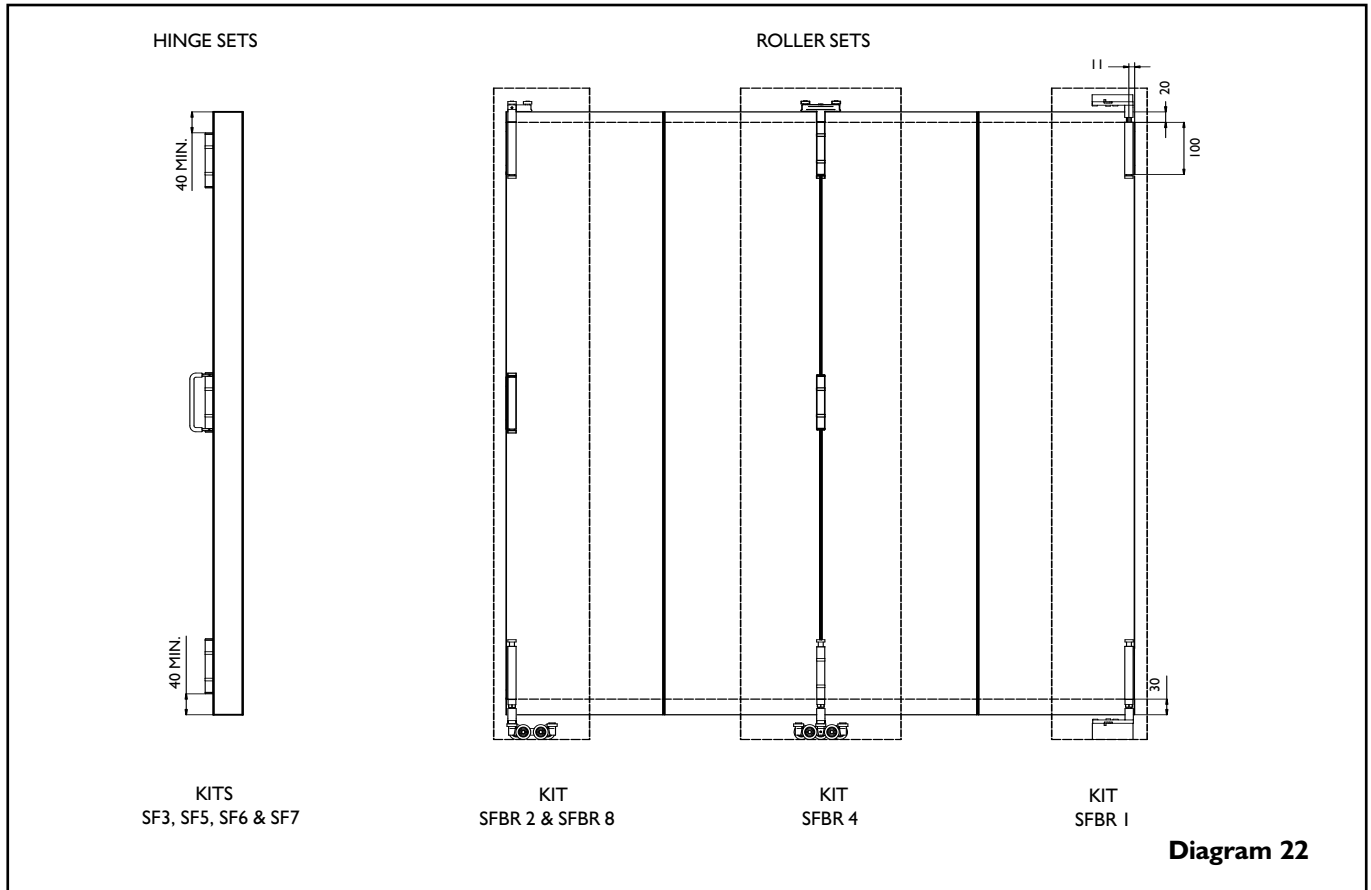


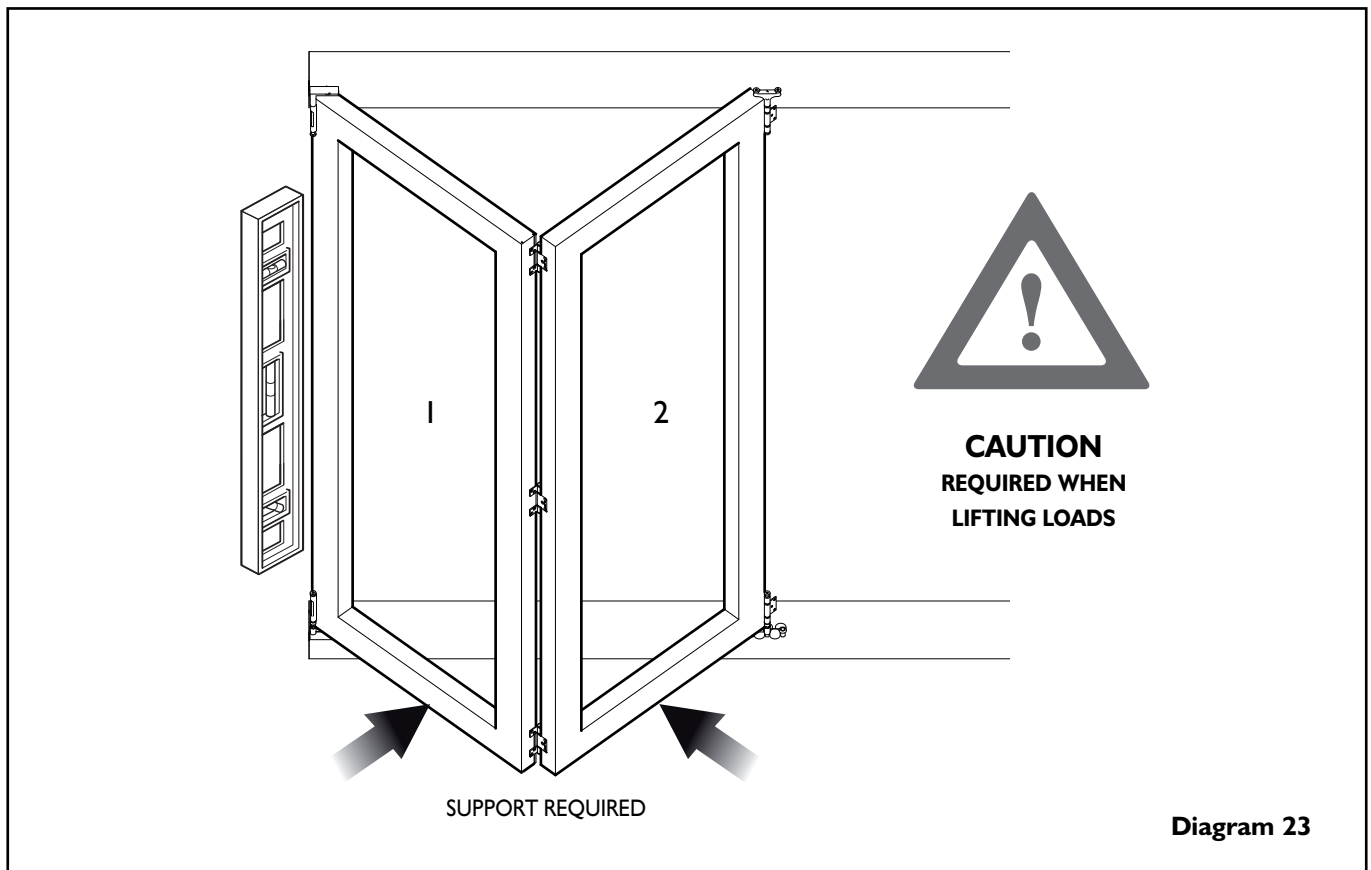
Diagram 21

**8a. Installation of panels** - assemble panels in pairs away from the frame, using appropriate hinge seams (typically SF3/ SF7) between panels. (see page 2 for hardware layout details) PCH recommend pre drilling pilot holes for all hinge hardware prior to installation into frame.



**Diagram 22**

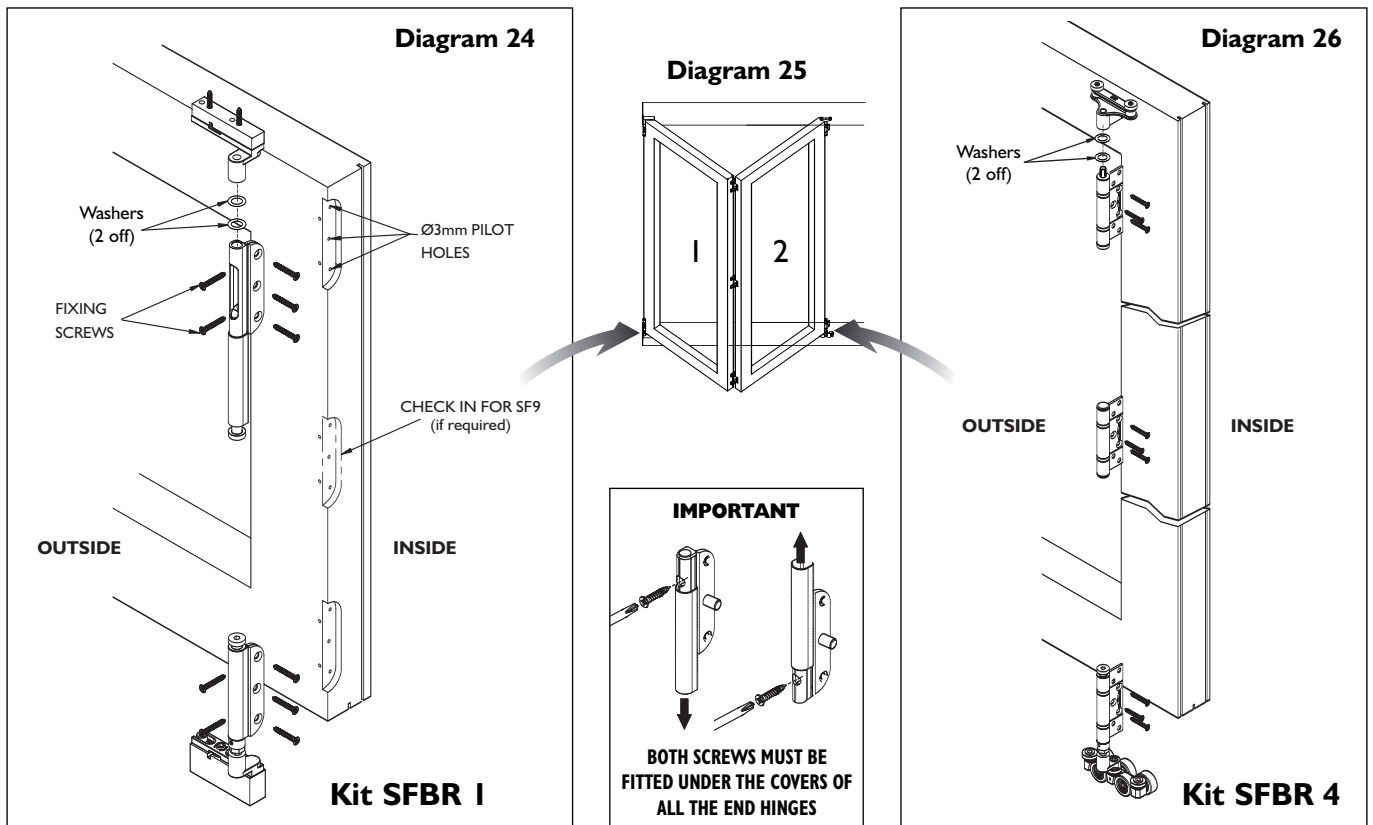
**8b.** Offer first pair of panels (1st and 2nd Panel) up to SFBR 1 (pivot) and SFBR 4 (Intermediate) hardware using a spirit level to ensure the pivot panel is plumb to the jamb, using support under panels to maintain position.



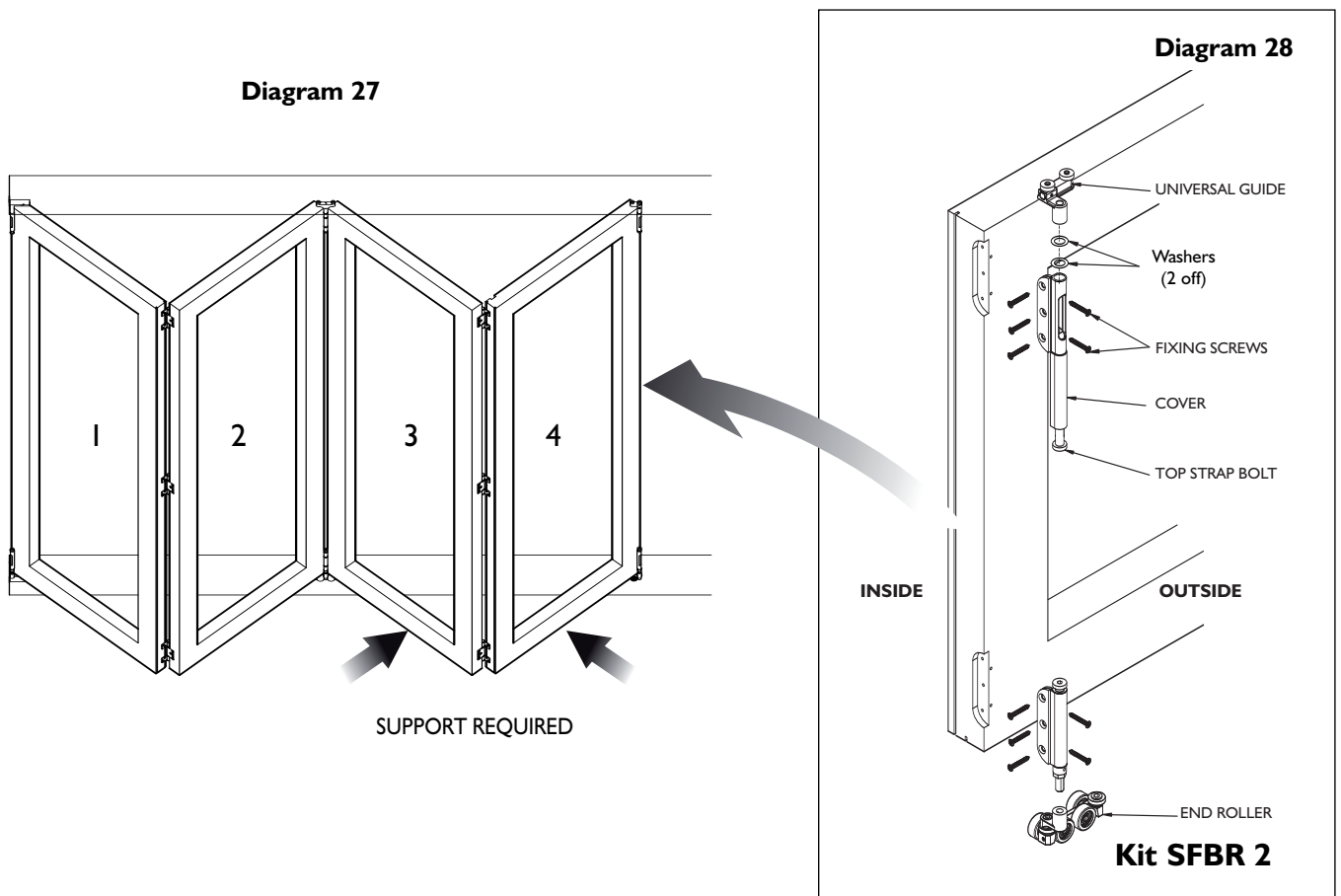
**Diagram 23**



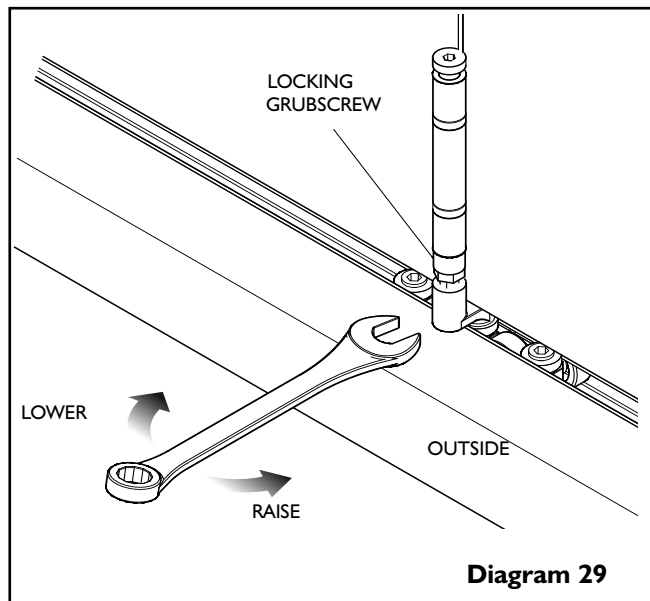
**9a. Installation of doors** – Attach the 1st panel to the SFBR 1 hardware using screws provided (diagram 24), and then attach the 2nd panel to SFBR 4 hardware using screws provided (diagram 25).



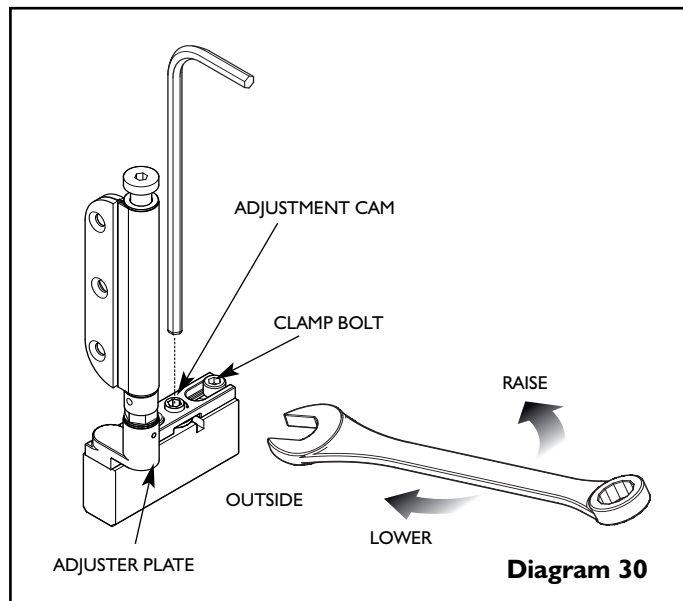
**9b.** Offer second pair of panels (3rd and 4th panel) up to the SFBR 4 (intermediate) and SFBR2 (end) hardware. Attach the 3rd panel to the SFBR 4 (intermediate) hardware using the screws provided, and then attach the 4th panel to the SFBR 2 (end) hardware using the screws provided (diagram 28).



## ADJUSTMENT

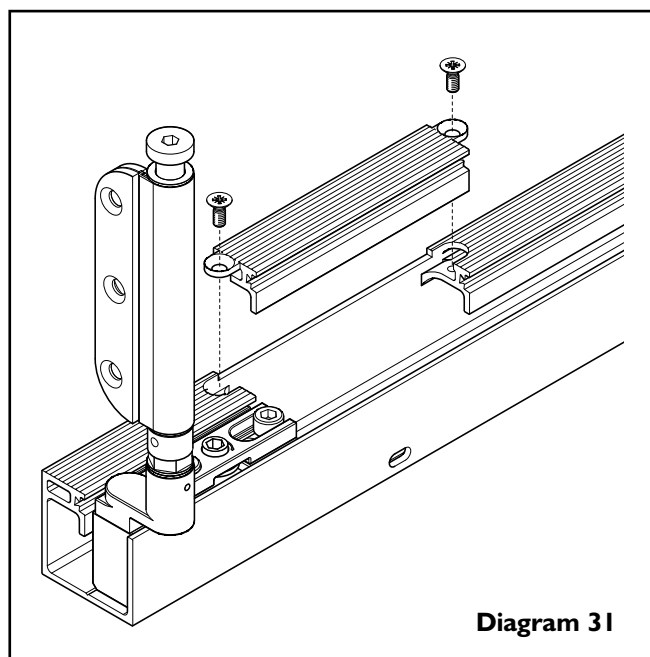


**10a.** Close panels and adjust the panel's height to achieve the clearance top & bottom stated in diagram 1 using the adjustment nut on each individual seam.



**10b.** To adjust the lateral position rotate the cam located in both top & bottom pivot assemblies. A gap of 3mm between the jamb and the pivot panel is recommended. Remember to tighten clamp screws once adjusted.

**10c.** Once final adjustments have been made ensure grub screws are secured in position using a propriety thread lock solution and tighten the screw until secure.



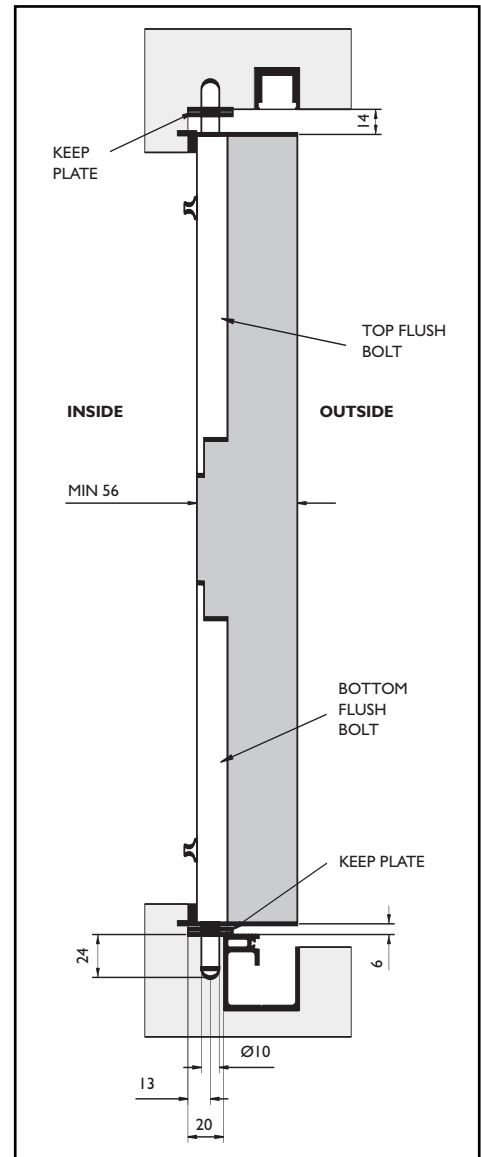
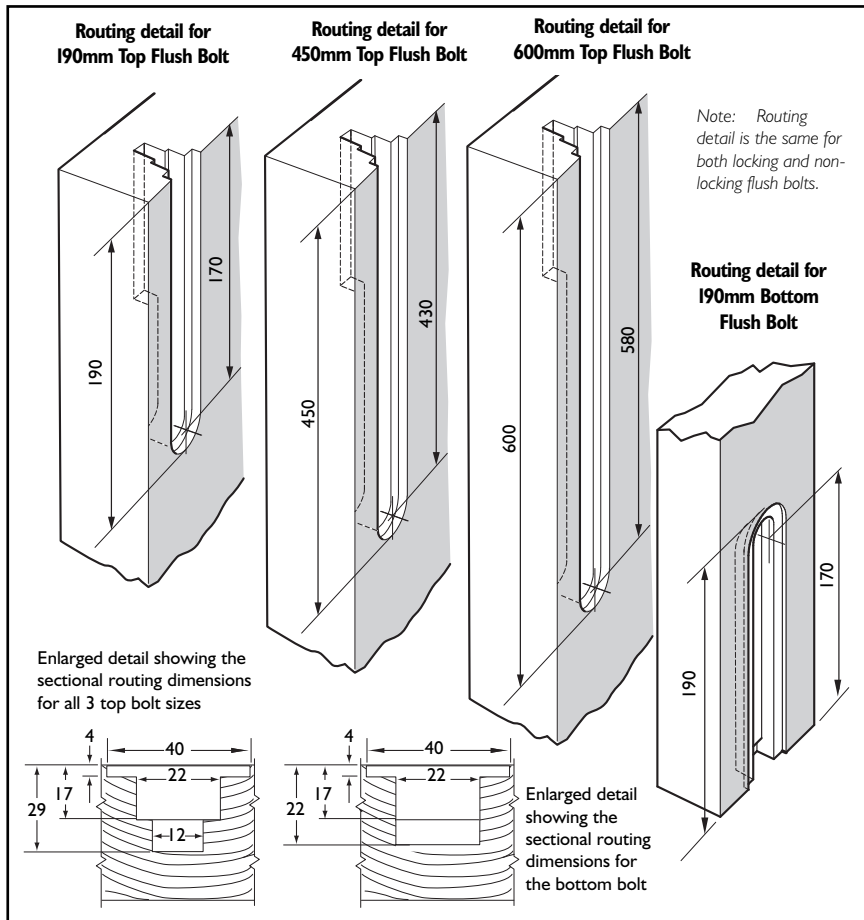
### Finishing touches

Insert the brush strip from the open end, feeding the strip along the full length, trimming to suit. Reattach the cover plate

## CARE AND MAINTENANCE

To provide years of trouble free operation, it is recommended that the track is kept free from dirt and debris. Periodically replace the general purpose grease on all bolts. To prolong the appearance of the exposed hinge parts, it is recommended they are periodically washed with soap and water. Maintenance is required on all components including stainless steel to validate manufacturers warranty. For further maintenance details please refer to our website, [www.pchenderson.com](http://www.pchenderson.com).

For bottom rolling exterior folding doors. For use in conjunction with standard outward opening fitting instructions. Follow routing instructions for the bolt keep and flush bolt length to be fitted, fit both with the screws supplied. Suitable pilot holes for screws are recommended.



Door height	Recommended Bolt length for top of door	Recommended Bolt length for bottom of door
Upto 2200mm	190mm	190mm
Upto 2450mm	450mm	190mm
Over 2450mm	600mm	190mm

