



## How to Bow Door



### Recommended procedure of measuring a bowed door

The recommended method of measuring a bow on a composite door when checking against the accept/reject tolerance is described below.

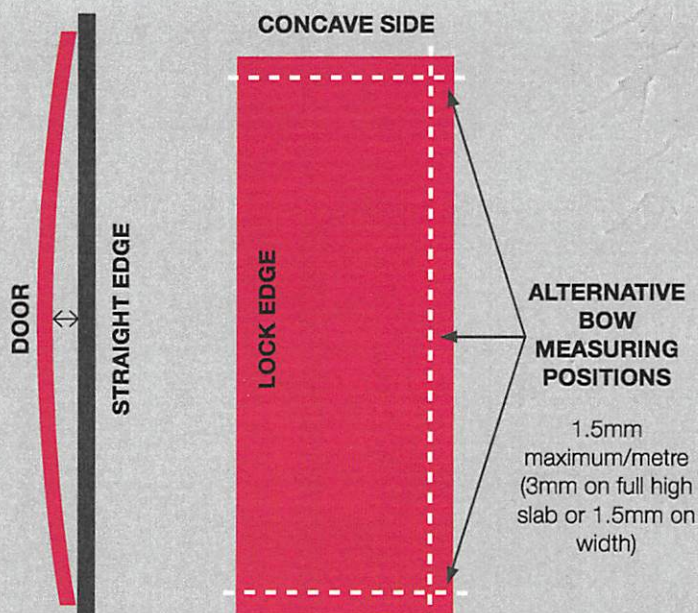
If a door slab is showing a degree of bow this will be exhibited as concave on one side and convex on the opposite side.

The bow measurement should always be taken on the concave side by placing a full length straight edge against the door and measuring the deviation at the central point on the straight edge.

Measurements are not to be taken on the convex side as this does not give a true reflection of bow as defined.

The diagram is exaggerated to illustrate the above.

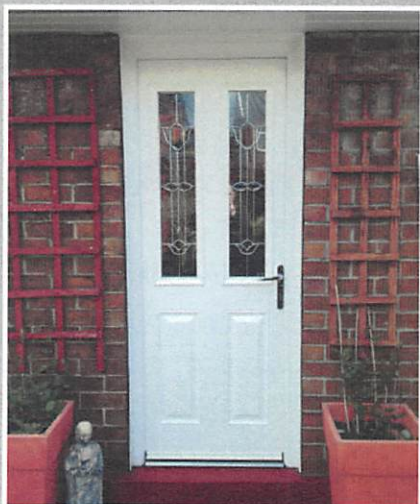
When the door is closed to help avoid bowing ensure top and bottom locking points are engaged to assist in the reduction of thermal movement.



**If the door blank is fitted, you must ensure the frame is plumb and square.**

Replacing a door blank will not resolve a poor installation, Frame checks must be completed.

Three images similar to the below must be supplied per reported door blank.



Full external face



Straight edge on concave face



Measurement between door & straight edge

**Please Note;** it is recommended that fabricators pass this information to their customers. This is to ensure that they do not invalidate the warranty by poor installations that will affect the performance of the door-set once installed.





## How to Customer Care & Maintenance



### How to look after your product

Thank you for investing in our products. Your products have been designed, manufactured and installed to the highest possible standards and are virtually maintenance free. However, to retain their smart appearance and ease of operation a small amount of care and attention is necessary. Please take a few moments to read the guidelines outlined in this Product Maintenance Guide to ensure you receive many years of trouble free service.

**To prolong the life of the door surface finish, it is recommended that the GRP composite door is cleaned regularly. This should be completed at least once per month but will depend upon the doors location and exposure to contaminants such as dirt and salt etc.**

- It is recommended that the door is cleaned with specially formulated door wipes which are available from Distinction Door Solutions. Alternatively, the door surface can be washed with warm soapy water (washing up liquid is suitable) and wipe dry with a soft cloth.
- When the door is closed always ensure top and bottom locking points are engaged to assist in the reduction of thermal movement.
- To sustain the gloss finish, apply 2 - 3 coats of Konig Maintenance Lacquer every 6 - 12 months.



### Do Not;

- Use aggressive cleaning methods, abrasive cleaners or scouring pads on the surface of the door.
- Use high pressure of steam cleaners.
- Use any type of bleach, solvent (eg white spirit, methylated spirit, cellulose thinners or acetone/nail varnish remover).
- Use adhesives of any type or tack for providing temporary protection, for the temporary fixing of seasonal or other decorations etc.
- Use excessive length key chains, please try and avoid contact with these and any other sharp objects you may be carrying.

A repair system is available to deal with accidental damage such as dents or scratches. For details please contact Distinction Door Solutions.



**Please note;** It is recommended that fabricators pass this information to their customers. This is to ensure that they do not invalidate the warranty by the use of abrasive cleaners, prohibited chemicals or temporary adhesives on the surface of the door.





## How to Thermal Movement

### Thermal Movement Definition & Tolerances

All composite slabs, as do uPVC and timber, experience thermal movement. The slab will recover to its original status, to a maximum of 1mm side to side and 3mm top to bottom, when the installation recommendations are applied.

Slackening off the lock keeps will compensate for the movement of the slab within these tolerances. The hooks of the multipoint lock must be in compression with the inner edge of the pocket keep. If this does not happen the door may move to the inside of the property (towards the cold side) and give the impression the door is bowed. It is important to ensure the centre keep for the latch only allows the door to become flush with the inner face of the outer frame and not any tighter as this could also cause the door to appear bowed.



### Vertical

Deflection of the slab inwards and outwards from top to bottom.

Maximum bow permitted is a further 3mm measured from the middle of the slab.



### Horizontal

Deflection of the slab inwards and outwards from side to side.

Maximum bow permitted is a further 1mm measured from the middle of the slab.

If the hooks on the multipoint are not thrown throughout the day and the centre keep setting is too tight, the top and bottom of the door will be in unsupported tension and will eventually stand proud of the inner face of the profile. This will make the hooks on the lock become stiff, as they cannot draw themselves into the hook keep.

Protect your door from natural thermal distortion. Make sure the top and bottom locking points are engaged pulling the handle up every time you shut the door.



Outside

Inside



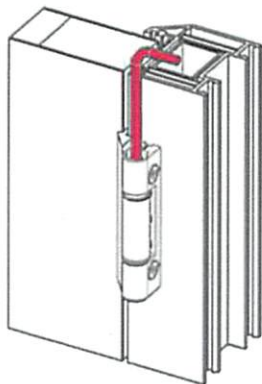
Outside

Inside

**Please note;** If these points are not observed the warranties on the functionality and operation of the door will be affected.



## Challenger 3D Butt Hinges Adjustment Instructions



### Compression Adjustment +0.5mm -0.5mm (5mm Allen key)

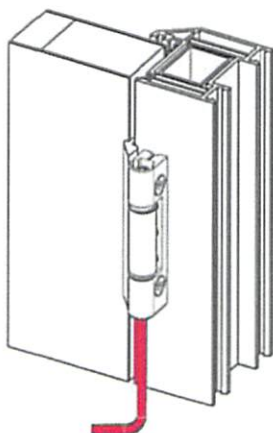
Remove the top cap.

Check pin alignment via the mark on top of the pin.

If the mark is pointing towards the door sash, the adjustment is in neutral setting.

To increase compression, turn the pin so that the alignment mark is moved towards the door frame.

To reduce compression, turn the pin so that the alignment moves away from the frame.

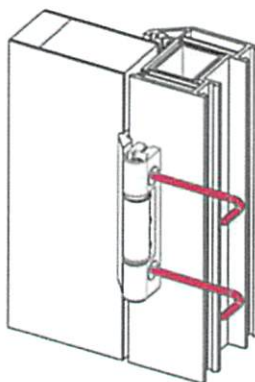


### Vertical Adjustment +3.0mm -0.0mm (5mm Allen key)

Remove the bottom cap.

To raise the door sash, rotate the vertical adjustment screw clockwise. Ensure that all other hinges are adjusted equally.

To lower the door sash, rotate the vertical adjustment screw anti-clockwise. Ensure that all other hinges are adjusted equally.



### Lateral Adjustment +2.0mm -2.0mm (4mm Allen key)

Remove the side cover caps.

Rotate the lateral adjustment drives in the direction required.

Ensure that each pair of alignment marks are at the same point.

### WARNING!

It is not recommended to fully adjust either one adjuster or one hinge only. Adjustments should be made gradually, aligning each pair of marks on each hinge until the desired adjustment is achieved.