



# Bi-fold Door

## Installation Guide



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ALUK IS PLEASED TO  
OFFER FREE EXPERT  
TRAINING FOR ANY OF  
OUR PARTNERS WISHING  
TO GIVE THEIR TEAMS  
THE SKILLS REQUIRED TO  
COMPLETE THE PERFECT  
FABRICATION AND  
INSTALLATION,  
EVERY TIME! GET IN  
TOUCH WITH US TO  
BOOK YOUR SESSION.

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## Installing trust

Thanks for choosing our AluK Bi-fold door system.

Like all our aluminium systems, our experts have designed it with flexibility and installation simplicity in mind, helping you save precious time on the job and to deliver a first class result at the first time of asking.

Over the following pages you'll find a comprehensive step-by-step guide to installing the Bi-fold door system. From initial aperture checking through to final sealing, we've covered everything you'll need to know in order to achieve an exceptional finish - even throwing in some top tips along the way.

# Before you get started

## › Check your order!

We understand time is money, but before getting stuck into the job carefully unpack your order and check everything tallies up with the order from your fabricator.

## › The right tools for the job

Like you we don't believe in blaming our tools, so here's all the equipment you'll need close at hand before starting the installation process. As you'll be working with heavy glass, we also recommend using the PPE listed below.

### TOOLS

- 1 Laser level
- 2 3mm Allen key
- 3 Gasket sheers
- 4 Silicone and small joint sealant\* and applicator gun
- 5 Plastic / Rubber hammer
- 6 Glazing paddle
- 7 Glazing suction cup
- 8 Cordless drill
- 9 Long spirit level
- 10 Selection of frame and glazing packers of various thicknesses

Tools required but not shown are:

- › 13mm HSS or blade type drill bit
- › 25mm self-tapping screws
- › Proprietary fixings to fit the sub seal and the frame to the substrate
- › Long series 3.5mm drill bit
- › SDS drill with appropriate size drill bits for your preferred frame fixings
- › Tape measure
- › AluK sealant wipes – part number T50003

### PPE

- 1 Safety goggles
- 2 Protective gloves
- 3 Wrist and lower arm sleeves
- 4 Safety shoes

PPE required but not shown:

- › Hi-vis jacket and hard hat

\*Black - part number T50000  
 \*White - part number T50001  
 \*Grey (RAL 7016) - part number T50002

## Tools



## PPE



## Tools



# 1. Check aperture



**› 1.1**  
Measure the frame and opening (before removal of an existing frame if it is a refurbishment) and check at least three dimensions horizontally (top middle and bottom).



**› 1.2**  
Check at least three height dimensions - both jambs and in the centre of the opening.



**› 1.3**  
Check the opening for squareness by measuring the diagonals and check the frame for any damage.



**› 1.4**  
If using a subcill ensure the ends are filled with sealant to provide a dam before fitting the end caps.



**› 1.5**  
Fit the end cap. Note! This is not just an aesthetic piece. It must span the full depth of the subcill as it acts as a physical barrier to stop water ingress.

## Assembling the outer frame on site?

### › Here's what to do

- › 1** Cut back any protective tape approximately 50mm from the mitred corners.
- › 2** Apply Aluk sealant (Part no. T50000 - T50002) around the mitre to only one of the two mating surfaces.
- › 3** Insert the cleats and chevrons (braces).
- › 4** Bring the sections together.
- › 5** Tighten the cleat blocks, ensuring the faces of the sections are flush and clean off excess sealant with an Aluk wipe (Part No. 50003).



**› 1.6**  
Place the subcill on to the substrate and level the subcill, if necessary using packers. Laser levels are ideal to assist with this process, particularly on wide installations.



**› 1.7**  
Recheck to ensure the cill is level and proceed to fix to substrate. Remember "check twice, fix once".

## Simon's expert tip

*"To stop your packers from moving around when packing the cill simply apply a small blob of sealant to help hold them in place before fixing."*

## 2. Frame fitting



➤ 2.1 Offer the frame into the opening and check for squareness by measuring the diagonals. There should be no more than 2mm difference between them.



➤ 2.2 Ensure the frame is plumb. Again, a laser level is useful to achieve this.



➤ 2.3 Don't forget, fixing centres should be 100 - 150mm in from each end and a maximum of 600mm thereafter.  
**NOTE!** At the stacking end, the head profile should have the following fixing centres: 100-150mm from the corner, then 300mm, 300mm and 600mm thereafter.



➤ 2.4 Preferably fix through the aluminium profile. Lift gasket then drill and countersink the fixing hole to ensure the gasket will fit snug when refitted.

➤ 2.5 Pack the frame at fixing points. Horseshoe packs are ideal for this. When satisfied the frame is square and vertical proceed with fixing.

➤ 2.6 Insert perimeter fixings. Be careful not to over tighten as this may deform the frame. Check again to ensure the head and cill are level (not bowed) and the frame is square and plumb.

➤ 2.7 Replace the gasket.

## 3. Hanging the door panels

(if not delivered within the outer frame)

➤ 3.1 Position the 1st door at 90° to the outer frame, then attach the hinges to mounting plates in the outer frame.

➤ 3.2 Maintain the 1st door at 90° and insert the 2nd door. Bring door two to door one and fix the hinges to plate in 1st door. Repeat the process until all the doors are connected via the hinges and running free in the frame.



➤ 3.3 Ensure that there is a 12mm gap top and bottom between the outer frame and the door panel.



➤ 3.4 Check that the traffic door magnets have been fitted and that they align when in the open position.



➤ 3.5 Check that the hardware is operating correctly.



➤ 3.6 Test the operation of the door to ensure it runs smoothly.

## Simon's expert tip

*"If the gasket is being a little tricky to get in – use a spray bottle with a weak dilution of soapy water to aid the process."*

# 4. Glazing



➤ 4.1 Check the captive glazing gasket to ensure it has been fully fitted with no gaps at the corners then seal the corners with a butyl based sealant.

➤ 4.2 **Important!** Toe and heel the door panels to ensure the glass weight is transferred to the outer frame. It is vital that the door panels are glazed correctly. Not to do so will potentially cause problems that will require remedial work and further site visits.



➤ 4.3 Position 2 packers, one inline at the corner that is to be toe and heeled with the other at 90° on the opposite side.



➤ 4.10 **Important!** Once the door is operating correctly and the 12mm gap top and bottom has been maintained, lock off by fitting 4.2 x 25mm stainless steel countersunk self tapping screw to rollers, guides and hinge. If the frame and doors arrive as an assembled unit check to see if these locking screws have been fitted in the factory.



➤ 4.11 Seal perimeter with proprietary sealant. Be sure to follow sealant manufacturers instructions regarding backer rod and primer.



➤ 4.12 Remove tape and clean down glass and metal.



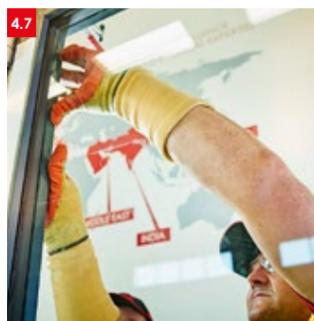
➤ 4.4 Seat the glazing unit on to the packers.



➤ 4.5 Proceed to toe and heel at the bottom corner.



➤ 4.6 And the top corner which is diagonally opposite to the glass packing at the bottom.



➤ 4.7 Carefully fit the horizontal beads first and then the vertical beads.



➤ 4.8 With weak soapy water (if required) fit the wedge gasket in one piece. Remember to force into the corners first and then loop from the centre towards the corners (if necessary snip the bottom of the gasket to facilitate ease of fitting at the corners) Ensure the wedge gasket is not stretched and is cut oversize by 10mm per meter.



➤ 4.9 Check the operation of the hardware and doors.



# Expertise you can call on

Our sales, technical and customer service teams are always on hand to provide the support, training and expertise you need, when you need it most.

For any assistance with the system or installation please contact your supplier directly.

Should you wish to get more information about further free training or about working with our products, just give us a call on **01291 639 739** or email **info.uk@aluk.com** and our team will be happy to help.

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