# ALUMINIUM EXTERNAL FRENCH DOOR PAIRS

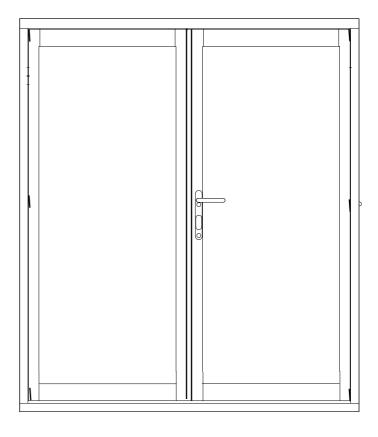
**LOW THRESHOLD** 

Assembly Instructions
Bespoke and Standard Sizes

1.2M - 1190mm W x 2090mm H

1.5M - 1490mm W x 2090mm H

1.8M - 1790mm W x 2090mm H



# **About your Aluminium French Door Pairs**

All products must be installed in accordance with accepted good trade practice (and in accordance with supplied instructions where applicable), and maintained in accordance with these procedures or else the warranty shall be void.

#### Important information

- We recommend that a competent tradesperson installs this product
- A single person must NEVER carry out the installation, as some components are heavy.

#### **Automatic closures and operators**

- The hardware systems are designed for manual operation. Poorly Adjusted automatic closures can impart significant destructive forces to tracks, bearings and stops. Such hardware used in installations is expressly excluded from warranty terms.

#### Care of doors and frames on site

- Please check doors, frames and cill at the time of delivery and within 72 hours of delivery to ensure that they are acceptable and in good condition. If you find a component missing or damaged, please inform your supplier immediately. We keep replacement components of most set parts and these can be sent out to you quickly. This will save you having to repackage and return the whole set, and allows you to continue with the project. (See contents list on page 3 for full list).
- When storing prior to installation, the doors and frames should be handled with care and stored in a dry, ventilated building. Doors and frames should be stored flat and on a level surface (not on edge or on end).
- Should you need to store the doors before installation, they must still be fully inspected and checked for damage or faults and reported within 72 hours of delivery, repacking if necessary.
- Doors should not be stored or fitted in the building until the wet trades such as plastering, painting etc. have been completed and the room is dried out.
- Remove the blue plastic protective film immediately after installation. We do not recommend to leave this on for long periods of time as moisture can get trapped underneath the film, causing permanent marks on the aluminium powder coating.
- Do not leave masking tape on the aluminium powder coating for long periods of time. It is important it is removed within 24 hours of applying.

#### **Trimming**

- The French Doors are not designed to be trimmed on site and should be fitted as supplied. Trimming the doors or frame will void the warranty.

#### **Conditions of sale**

- We shall not be held responsible for any incidental work expenses arising out of or because of any defects in our product, or bad workmanship to our product. In the event of goods having manufacturing defects and requiring replacement, our liability will be limited to the value of the door or frame component only. These notes do not affect your statutory rights with the retailer of this product.

#### Maintenance

The aluminium powder coating and French Door hardware in buildings is subject to deterioration from everyday use, and also environmental attack due to atmospheric and other conditions. Maintenance of the powder coating and hardware is even more important in severe environments such as close to marine areas, and some industrial areas. Even stainless steel products require maintenance to prevent deterioration in some environments.

We require the following minimum maintenance to be followed otherwise the warranty shall be void.

#### Hangers, pivots and brackets

A light spray application of a suitable lubricant such as WD40, followed by a light wipe with a dry cloth to remove excess, is recommended to all hinges, pivots and brackets. Exposed surfaces should first be wiped with warm soapy water and a soft rag, and then rinsed clean before applying preventative.

#### Hinges

Wipe down the visible surfaces with warm soapy water on a soft rag and then rinse off by wiping with a clean damp rag. Application of a thin film of a light machine oil or WD40 will help maintain the original lustre of the metal finish.

#### Twin point hand operated locks

Spray application of a suitable lubricant such as WD40 to the sliding pin inside the bolt and to the lock cylinder is recommended. A tube attached to the nozzle will help concentrate the spray where you want it to go. There are access holes or slots on all twin point locks, so that this can be done without removing the locks from the doors.

#### Frequency

The procedures mentioned above need to be carried out as often as is necessary to prevent deterioration in the installed environment, however we recommend the following minimum frequency of application;

General environment - 6 monthly
Close to marine environment - 3 monthly

#### Aluminium powder coating

Preferably, every time you clean your windows also clean the aluminium doors and frames, or at the minimum every 3 months (or monthly if within 5 miles of the sea, or industrial areas.) Wash the outside of the doors and frames with soapy water using a mild detergent and soft lint free cloth. Dry the surface using a clean absorbent cloth or leather, then buff with a soft cloth.

# **Introduction to Assembly**

### **QUICK GUIDE**

Your aluminium BiFold doors and French Doors are supplied with the frame unassembled and in 4 pieces, (5 pieces if the Cill option has been selected), ready for assembly on site.

The Doors are all Pre Glazed and the glazing is "Toe and Heeled" in the factory, to balance the glazing in each door, then in the full set.

Every bifold door set and French Door are pre-assembled in our factory to ensure they are operating perfectly before we deliver it. We then dismantle the frame and remove some hardware, before carefully packing it for transportation to your home.

When you receive the bifold door or French Door set, to install it, assemble the frame - which drains through the bottom rail - then install it into the brickwork opening or, if the Cill option has been selected, install onto the Cill then into the brickwork opening.

Attach the hardware to the doors and install the doors into the frame.

Because the bifold door and French Doors have already been assembled and operated in our factory, as long as the frame is installed securely into the brickwork opening, completely level and square in every plane, and the hardware is correctly attached, then the installed bifold doors and French Doors should operate perfectly, without the need for further adjustment.

Full and detailed installation instructions are contained within this Instruction booklet

# Contents (1)

Please check the contents of the packages to ensure all parts are present before beginning assembly

### **Aluminium Parts**

#### **Doors**

Door 1 (Access Door) Quantity 1 Door 2 (Slave) Quantity 1

#### **Frame Pack**

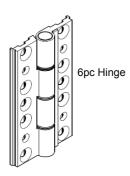
Frame Head- Quantity 1

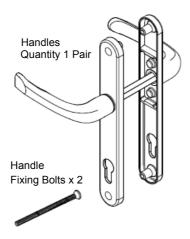
Frame Jambs - Quantity 2 (1x Left and 1x Right)

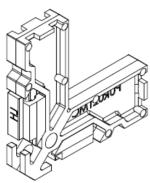
Frame Bottom Rail/Track - Quantity 1

Cill – Quantity 1 (supplied only if the Cill option has been selected).

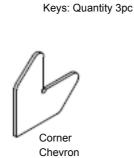
### **Hardware**







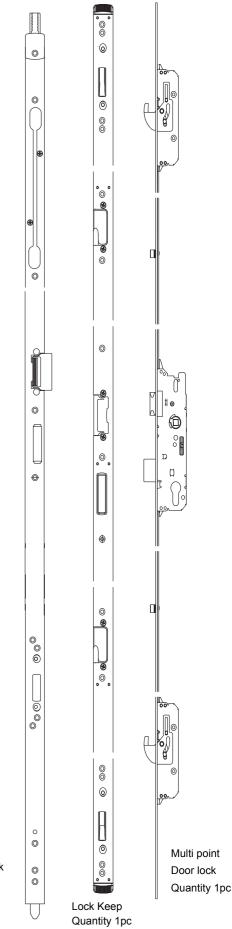
Mechanical Corner Cleat - 8pc 4LH and 4RH)



Quantity 4pc

Anti Bump Cylinder Quantity 1pc

Twin Point Lock Quantity 1pc



## Contents (2)

### **Frame Gasket Seal**



Quantity - 1pc Roll



Drain Hole Covers Grey or White Quantity to fit each set

### **Installation Kit**

Α

No 8 x 16mm Csk S/Tap Screw for hinges Quantity 9pc

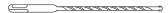
B Hardened steel frame fixings - quantity 22



C HSS long drill bit 6.5mm x 148mm - quantity 1



D SDS drill bit6.5mm x 160mm - quantity 1



E 1/4 Hex T30 insert bit -quantity 1



F



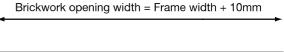
G Assorted bag of Packers and Wedges

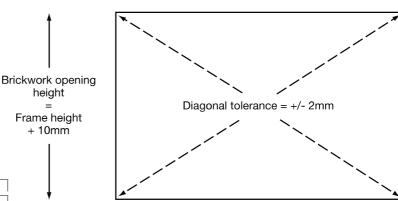
### **VERY IMPORTANT NOTE**

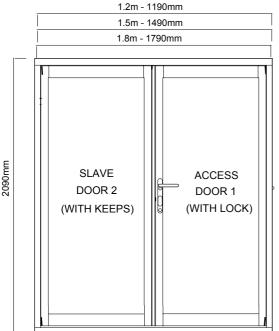
To speed installation, we have pre-installed some components in production.

- The Twin point hand operated and lock keep are installed into door 2, Slave door.
- The multi point lock and security cylinder are already installed into the access door, door 1.
- The frame jamb / door hinges are installed onto the frame jambs.

# **Preparing the site**







### **Brickwork opening:**

When preparing the site, please prepare the brickwork opening to be 10mm more in height and width than the outside assembled frame size.

It is essential that all 4 internal surfaces of the brickwork be levelled before installation. Please ensure that all dimensions are correct for installation before proceeding, as the set must be installed square and level into the opening.

The Aluminium French Door assembled outer frame sizes are as follows:

1.2m = 1190mm Wide x 2090mm High

1.5m = 1490mm Wide x 2090mm High

1.8m = 1790mm Wide x 2090mm High

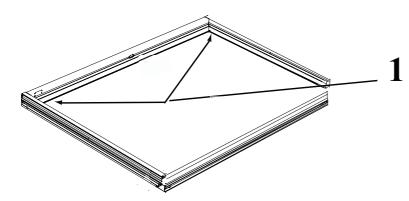
The recommended Brickwork opening sizes are as follows:

1.2m = 1200mm Wide x 2100mm High

1.5m = 1500mm Wide x 2100mm High

1.8m = 1800mm Wide x 2100mm High

# Assembling the frame



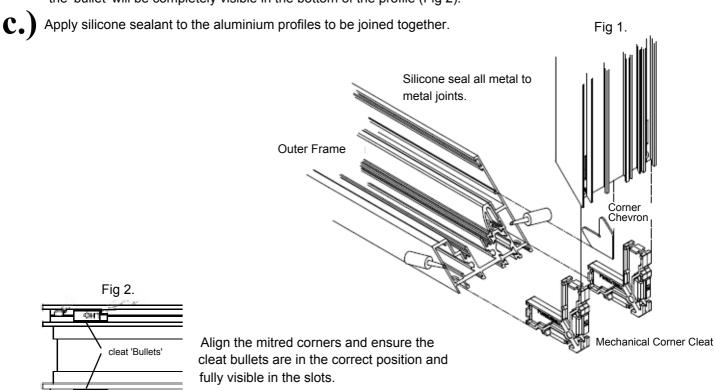
Lay the 4 pcs of frame on the floor on top of cardboard or a similar protective covering to prevent damage to the aluminium.

Assemble the complete frame by fixing the jambs to the head and bottom rail using the corner chevrons and mechanical corner cleats.

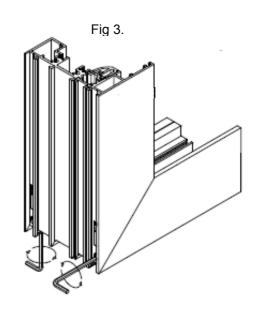
# Assembling the frame continued

### Mechanical Corner Cleat Assembly - Door Frame

- $oxed{2a_{ullet}}$  Insert the 2 corner chevrons into the grooves in the frame head (Fig 1).
  - Insert the mechanical corner cleats into the frame head (Fig 1). The corner cleats are left hand LH and right hand RH. When the correct corner cleat is inserted in the correct space, the 'bullet' will be completely visible in the bottom of the profile (Fig 2).

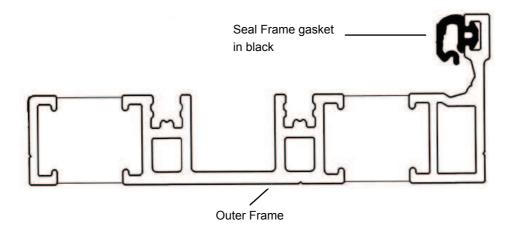


- 2 d Carefully align the mitre joints, then using the Allen Key (F), carefully tighten the machine screws at the side and bottom. Progressively tighten all 4 machine screws, bit by bit, to ensure a tight mitre joint, then clean off any excess silicone.
- **2 e** Repeat the process 2a to 2d for all 4 corners of the frame.



## **Install the Frame Gasket Seal**

Fig 4.



- With the frame fully assembled and before installing the frame, fit the Frame Gasket Seal into the frame, as shown on Fig 4.
- Start at the bottom rail in the left side bottom corner (Looking from the outside towards the inside).
  Push the seal gasket into the groove and BACK into the left corner.
- **b.)** Continue inserting the continuous seal gasket into the groove but all the time **PUSHING BACKWARDS** towards the bottom left corner where you started.
- When you reach the bottom right corner, push the seal gasket into the corner (DO NOT CUT IT) then continue inserting the gasket up the right side frame jamb then across the head and down the left frame jamb.

IT IS VITALLY IMPORTANT, WHEN INSERTING THE FRAME SEAL GASKET TO CONTINUALLY PUSH IT BACKWARDS IN THE DIRECTION YOU HAVE COME FROM, as the seal gasket shrinks in length after insertion.

# **Opening options**

#### Looking from the Outside towards the Inside:

#### OPEN OUTWARDS



The frame and doors are exactly the same for BOTH open inwards and open outwards.

For OPEN OUTWARDS options the higher 63mm part of the frame to the INSIDE and the lower 31mm part to the OUTSIDE. The drain holes will be on the outside.

For OPEN INWARDS options the higher 63mm part of the frame to the OUTSIDE and the lower 31mm part to the INSIDE. The drain holes will be on the outside.

# Installing the assembled frame

### CHOICE 'A'

### Frame with Bottom Rail only - WITHOUT CILL

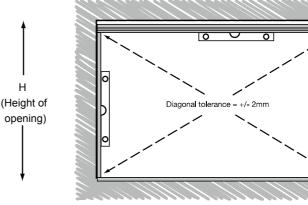


The frame should be installed with the outer edge of the frame jambs up to a maximum of 5mm - 10mm back from the face of the brickwork.

It is critical that the frame is fitted square and level.

Use the packers provided to level the frame. Start at the bottom rail and insert the first packer DIRECTLY UNDER THE FRAME JAMB starting at the side of the frame which looks to be the highest

The diagonals must be the same, +/- 2mm.

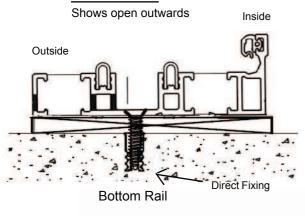


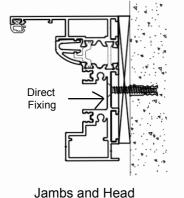
The diagonals must be the same +/- 2mm.

#### **IMPORTANT NOTE:**

The frame must be installed into the brickwork opening completely upright, square and level in every plane, before continuing with the installation. The door set uses a bottom rolling system so it is vitally important the bottom rail is level and adequately supported by using packers as necessary.

# 5 Direct Fix





Direct fix 150mm from all corners and every 600mm maximum centres, using the hardened steel frame fixings provided.

Ensure all fixing screws are silicone dipped and countersunk, to ensure the running gear is not obstructed.

If the amount of packing is more than 4mm under the cill then reduce the maximum centres to 250mm.

Fix directly through the frame Bottom Rail, Head and Both Jambs into the brickwork. Holes will need to be drilled into the Head, Bottom Rail and non lock Keep jamb for the fixings, using the HDS long 6.5mm drill provided.

For the lock keep jamb fixing, holes are pre-drilled and accessible by removing the lock keep.

The hardened steel frame fixings fix directly into the brickwork without any need for plugs.

After drilling the holes in the aluminium frame use the 6.5mm SDS masonry drill to drill holes into the brickwork. Then fix the frame using the hardened steel frame fixings with the T30 bit provided.

DO NOT OVERTIGHTEN THE FIXINGS OR DISTORT THE ALUMINIUM FRAME.

Finally apply silicone to seal all around the perimeter of the frame - especially along the complete length of the bottom rail.

# Installing the assembled frame cont'd

### CHOICE 'B'

### Frame with CILL

**6** First assemble the frame as detailed in Steps 1 to 3 inclusive. (Jambs/Head/Bottom Rail). The Cill - which is the same width as the set and has the end caps already fitted - should be installed into the bottom of the brickwork opening first.

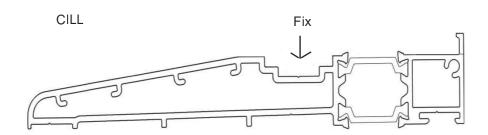
The complete frame should be installed with the outer edge of the frame jambs up to 5mm - 10mm back from the external face of the brickwork.

**6a**.) Place the Cill onto the base of the brickwork opening and position it so the frame head and jambs will be located in the correct position (6 italics above).

The Cill must be installed in the centre of the opening at an equal distance from both sides of the brickwork and secured into position.

**6b.)** Using packers if necessary, level the Cill until it is completely flat and level. Carefully remove the Cill and add Sealant underneath, then re-position it - level it again.

Holes will need to be drilled 50mm in from each end through to the cill for the fixings, using the HSS Long 6.4mm drill. Then use the 6.5mm SDS masonry drill to drill holes into the brickwork, then fix the cill using the hardened steel frame fixings with the T30 bit provided.

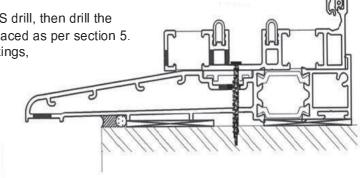


Apply silicone along the length of the Cill paying particular attention to the ends, then lift up the assembled frame and position onto the Cill and swing the frame up into the opening, using packers to hold it in position.

Then level and fix the frame jambs/head into the brickwork using DIRECT FIX as detailed in step 5.

Carefully fix the bottom rail through the cill first drilling clearance holes with the 6.5mm HSS drill, then drill the brickwork with the 6.5mm SDS masonry drill spaced as per section 5. Countersink screw heads and silicone dip all fixings, ensuring the screw heads do not interfere with the rollers.

Apply silicone to seal all around the perimeter of the frame - especially along the complete length of the underside of the Cill.



Apply two beads of Silicone between the threshold and cill.

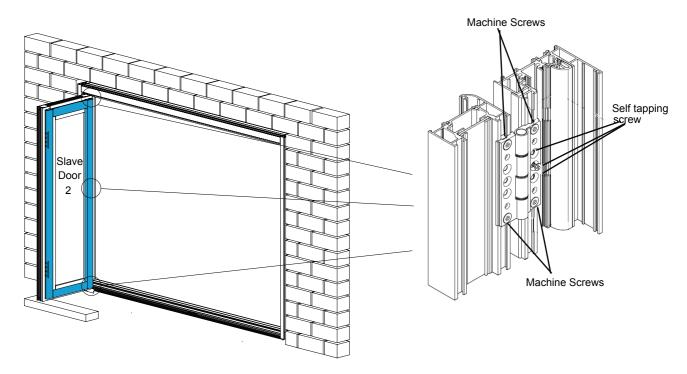
Aluminium BiFold Doors 10

# Fitting Door 2 to the frame jamb

**7a.**) Locate Door 2, which fixes to the jamb of the frame. Ensure the Bottom rail and door are protected by using the discarded foam door packing or cardboard to protect them and ensure that you have a support block to rest the door on.

Door 2 fixes to the frame jamb.

The hinges are already fixed to the frame jamb and just need fixing to Door 2, which is the fixed or Slave door.



**b** •) With the door at right angles and supported on blocks (being careful not to damage the seal on the bottom of the door). Use the 2pc Allen key Head machine screws and 3pc self tapping screw to secure each hinge leaf.

### **IMPORTANT NOTE**

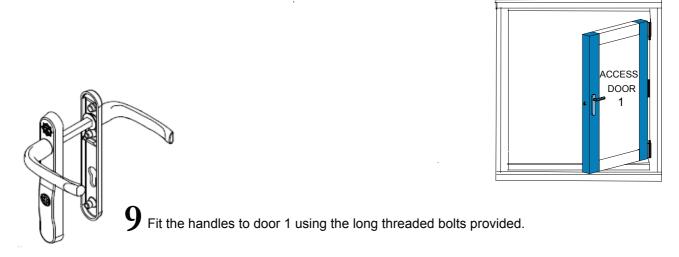
The seal gasket is fitted under the door outside edge.

Please take care to ensure when the door rests on the block, it rests on

the - ALUMINIUM PART ONLY AND NOT THE SEAL - This will prevent damage to the seal.

# **Fitting the Access Door**

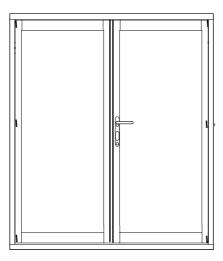
**R** Fit the Access door with lock exactly the same as the slave door, see 7a and b.



# **Operation of the Aluminium French Doors**

10 When closing the door set, first close the slave door 2, securing it with the twin point lock, by pulling the lever on the edge of the door.

Then close and lock the Access door by lifting the handle and turning the key.



To open the doors, unlock the door with handle by using the key, then depress the handle to open the door. To open the slave door, pull the handle in the edge of the door, to dis-engage the twin point lock. Both doors can then be fully opened.



### **DECLARATION OF CONFORMANCE**

DoC No: JCI/FDALIHEPD

Product Type: Aluminium French Doors Double Glazed

**Intended Use:** For use in domestic and commercial premises

Not intended for use on escape route

**Declared System of Assessment Performance:** 3

Provisions to which the Product Conforms: Annex ZA of BS EN 14351-1:2006+A1:2010

Reference to Supporting Product Certification and/or Test Exova - Weat

Reports (supportive of compliance):

Exova - Weather Tightness Report: WIL 383704

Exova - Thermal Performance Report: 12-000309-PRO1

**Declared Performance:** 

Essential Characteristics Performance

Resistance to Wind Load: Class B3 (1200Pa)
Watertightness: Class 4A (150Pa)

Dangerous Substance: No emissions of dangerous substances emitted

Load Bearing Capacity of Safety Device: Npd
Acoustic Performance Npd

Thermal Transmittance: 1.8 w/(m<sup>2</sup>K)

Radiation Properties: Npd

Air Permeability: Class 3 (600Pa)

This declaration of performance is issued under the sole responsibility of JCI Limited.

Signed for and on behalf of the Company by

Name of Representative: John Collins Job Title: Managing Director

Representative Signature: Date of Issue: 7th January 2019

**Product CE Marking Detail:** 

 $\epsilon$ 

JCI Limited

Macclesfield, SK10 2BN

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BS EN 14351-1:2006+A1:2010
Aluminium French Doors
Double Glazed
DoC N°: JCI/FDALIHEPD

Not intended for use on escape route



### **DECLARATION OF CONFORMANCE**

DoC No: JCI/FDALIHEPT

Product Type: Aluminium French Doors Triple Glazed

**Intended Use:** For use in domestic and commercial premises

Not intended for use on escape route

**Declared System of Assessment Performance:** 3

Provisions to which the Product Conforms: Annex ZA of BS EN 14351-1:2006+A1:2010

Reference to Supporting Product Certification and/or Test

**Reports** (supportive of compliance):

Exova - Weather Tightness Report: WIL 383704 Thermal Performance Report: 12-000309-PRO1

**Declared Performance:** 

Essential Characteristics Performance

Resistance to Wind Load: Class B3 (1200Pa)
Watertightness: Class 4A (150Pa)

Dangerous Substance: No emissions of dangerous substances emitted

Load Bearing Capacity of Safety Device: Npd
Acoustic Performance Npd

Thermal Transmittance: 1.4 w/(m<sup>2</sup>K)

Radiation Properties: Npd

Air Permeability: Class 3 (600Pa)

This declaration of performance is issued under the sole responsibility of JCI Limited.

Signed for and on behalf of the Company by

Name of Representative: John Collins Job Title: Managing Director

Representative Signature:

Date of Issue: 7th January 2019

**Product CE Marking Detail:** 

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**JCI Limited** 

Macclesfield, SK10 2BN

19

BS EN 14351-1:2006+A1:2010 Aluminium French Doors Triple Glazed

DoC Nº: JCI/FDALIHEPT

Not intended for use on escape route