



**ENDURANCE**  
**ACADEMY**



INSTALLATION GUIDE



# ENDURANCE ACADEMY

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This installation guide is intended as a **guide only** and to be in addition to our on-site training and the in-house Endurance Academy installer training programme.



# 1. HEALTH AND SAFETY



Care should be taken when handling the door.  
Help should be sought due to it's weight.

**THE ENDURANCE DOOR IS BETWEEN 60 – 70KG**



Avoid sharp edges!



Keep electrical leads and cables away from sharp and abrasive surfaces and protect against tension and moisture. An RCD breaker should be used as per manufacturer's instructions to protect from electric shocks.



Keep children and pets away from building operations



All waste products should be disposed of correctly and safely



Ensure all correct PPE is worn, for example:

**SAFETY BOOTS**  
**SAFETY GLASSES**  
**CUT PROOF GLOVES**



## 2. ARRIVING ON SITE

- It is always good practice to ask the homeowner before pulling onto their drive
- Use this as an opportunity to introduce yourself and show any relevant I.D.
- Once you have parked your vehicle, you can then discuss with the customer what to expect from the installation and advise to keep all residents including children and pets away from the work area







### 3. PRE-INSTALLATION CHECKS

These instructions must be read and completely understood before any work commences.

#### DO NOT REMOVE EXISTING DOOR UNTIL YOU HAVE CHECKED:

- The sizes are correct, and you have everything as ordered
- The paperwork to ensure it is the correct specification
- Any damage to the door (do not install a damaged door)
- You have shown your customer the door you are about to install
- Check the structural opening to ensure all is ok and lintel is free of cracks or if a lintel is present

#### PRE-INSTALLATION CHECKS VIDEO



### 4. PREPARING THE SITE



#### ONE

Ask homeowner for permission to remove any items that may be in the way of the work area.

#### TWO

Lay out dust sheets to the internal area to protect the flooring from debris and muddy boots.

#### THREE

Ensure working area is free of hazards.



### 5. RECOMMENDED TOOLS

- ✓ Allen Keys
- ✓ Chisel
- ✓ Crowbar
- ✓ Hammer
- ✓ Masking Tape
- ✓ Rubber Mallet
- ✓ Saw
- ✓ Screwdriver (Philips & Flat Head)
- ✓ SDS
- ✓ Silicone Sealant Gun
- ✓ Spirit Level
- ✓ Stanley Knife
- ✓ Tape Measure
- ✓ T15 Torx Bit



## 6. REMOVING THE EXISTING DOOR



### TIMBER DOOR

- 1) Remove the existing door leaf.
- 2) To help reduce the damage to wall decorations and plaster, score around the perimeter of the frame with a Stanley knife.
- 3) Saw through the jambs and remove.
- 4) The best way to do this is by sawing diagonally in the centre and removing them in two sections.
- 5) **DO NOT** saw them all the way through as this can cause damage to the internal reveals or structure. If there is a chance this will happen, use a bearing block to protect the plaster and render, then lever the jambs away from the walls and complete the cuts.
- 6) Remove the top and bottom rails in the same way.

### PVC DOOR

- 1) Use a Stanley knife to cut the silicone around the edge of the door between the brickwork and the door frame, remove any old PVC trims.
- 2) Remove the original fixings taking care not to damage the area around the aperture.
- 3) Once complete remove the existing door and relocate to a safe place away from the work area.
- 4) Clean the brickwork using an old chisel, once all the old silicone has been removed from the brickwork give the aperture a brush down and sweep the working area clean of any debris.

## 7. PREPARING THE APERTURE

- 1) Once the door has been removed, ensure the opening is free from screws, nails, fillers, and mastic.
- 2) Repair as required in accordance with BPF recommendations.
- 3) The opening should be complete before fitting the door.
- 4) Check base and use appropriate packers to ensure the base is level.
- 5) Once the base is level, place a 2mm packer on the hinge side to aid weight distribution.



## 8. ENDURANCE DOOR INSTALLATION



### STEP ONE

- a) Level the cill (if there is one).
- b) We recommend added a 2mm packer to the hinge side to support weight distribution once the door is in situ.
- c) Once level, silicone the back of the cill and the cill end where it meets the brick work then offer up the door.

### STEP TWO

- a) Hold the frame into position using appropriate size packers. Use a 1.8m long spirit level to ensure the frame is square, also check the diagonals using a tape measure.
- b) The packers must be located adjacent to fixing positions to prevent distortion of the outer frame when frame fixings are tightened.
- c) Failure to adhere to this may result in door function issues.

### STEP THREE

Using a 1.8m Spirit level, make sure the hinge side jamb is perfectly plumb and re-check the frame is square. It may be necessary to place a packer between the plaster line and the frame to ensure it is plumb.

### STEP FOUR

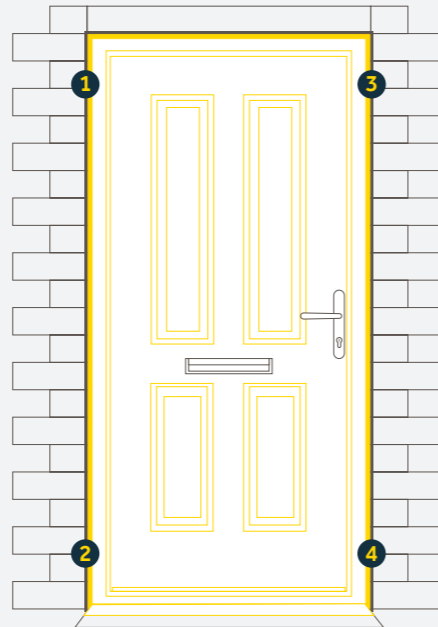
- a) Firstly, fix the top, hinge side, this will take the weight of the door, allowing you to move more freely around the installation.
- b) Next, fix the bottom hinge side. Then on to the top lock side and bottom lock side.
- c) You now have the flexibility to manipulate the frame against the slab. The Endurance door leaf is solid, you must fit the frame aligned to the leaf to ensure you don't cause the door leaf to bow.
- d) Final adjustments to the frame position may be necessary to ensure the locking jamb of the frame runs parallel with the slab.

**YOU ARE NOW READY TO FINISH FIXING THE REST OF THE FRAME!**

## 9. FIXING AND ALIGNMENT

### THE ENDURANCE DOOR IS 60-70KG, THEREFORE WEIGHT DISTRIBUTION IS IMPORTANT.

- Ensure fixings are into secure substrate
- Recommended fixing positions are as follows:
  - Corner fixings 150mm
  - 400mm maximum distance between fixings
  - Transoms fixing should not be closer than 150mm from transom centre line and no greater than 250mm
  - Alternative fixing may be required due to lintel location

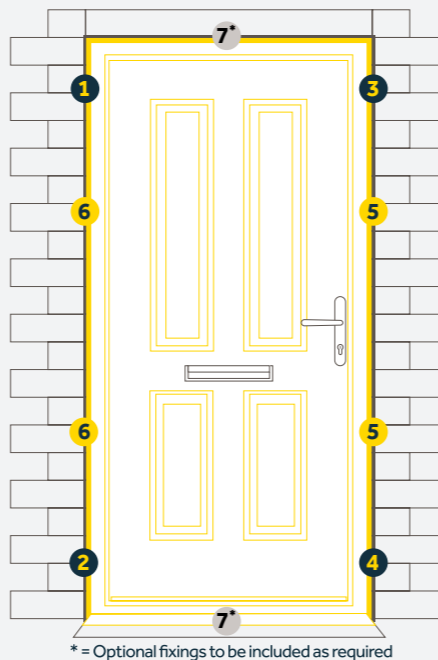


### DRILLING

- Drill holes through the frame as indicated (ensuring the holes are as recommended by the frame fixing manufacturer).
- Secure the frame to the brickwork (NOT MORTAR) with suitable frame fixings.
- Ensure the fixing is secure and correctly positioned in the brickwork.

### FIXINGS

- The outer frame should be secured into the brickwork, we recommend using SFS 7.5mm x 122mm dome head fixings.
- Fixings should be a minimum of 112mm long and fixed into the masonry by a minimum of 50mm.
- Tighten and secure all the fixings to ensure the frame is square.
- Care should be taken not to over-tighten the frame fixings to avoid distortion of the frame.



## DOOR ALIGNMENT

The positioning of the door within the brickwork is vital to the correct functioning of the door.

- Frame is square and plumb in both planes
- Door outer frame set back as far as possible to reduce exposure to elements
- Frame is square and not twisted
- Close the door to check its operation

INSTRUCTIONS ON HOW TO ADJUST THE RANGE OF HINGES WE OFFER CAN BE FOUND HERE



CHALLENGER HINGE ADJUSTMENT



FLAG HINGE ADJUSTMENT



SFS 2DC ADJUSTMENT

**YOUR ENDURANCE DOOR SET IS NOW FULLY FIXED AND READY FOR ANY ADDITIONAL HARDWARE TO BE FITTED.**

### TOP TIP

#### ONE

Once level on cill or threshold place a black 2mm packer under the hinge side. This will support the weight of the door and keep the frame true.

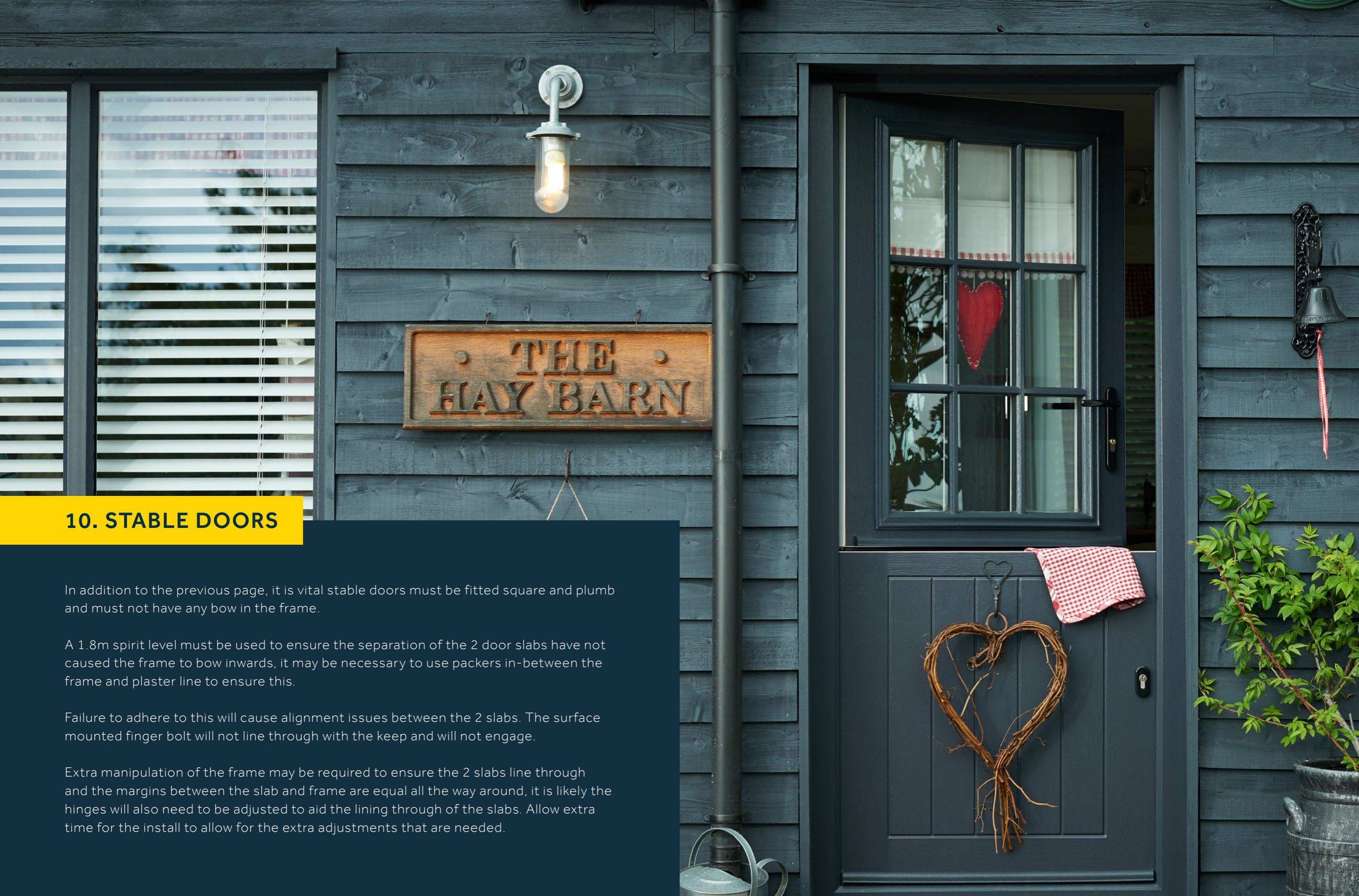
#### TWO

Fix top and bottom of the door and lock side leaving the middle until last, allowing you to fix the frame to where the door needs to be. Spend time making sure the frame is square and not twisted. The Endurance door is solid so won't twist with the frame!

#### THREE

Before fixing the middle place a packer behind the plaster line (if possible) and depending on how much you think you need, then close the door. Does the door now sit flush all the way up? If so, fix the middle and remove the packer.





## 10. STABLE DOORS

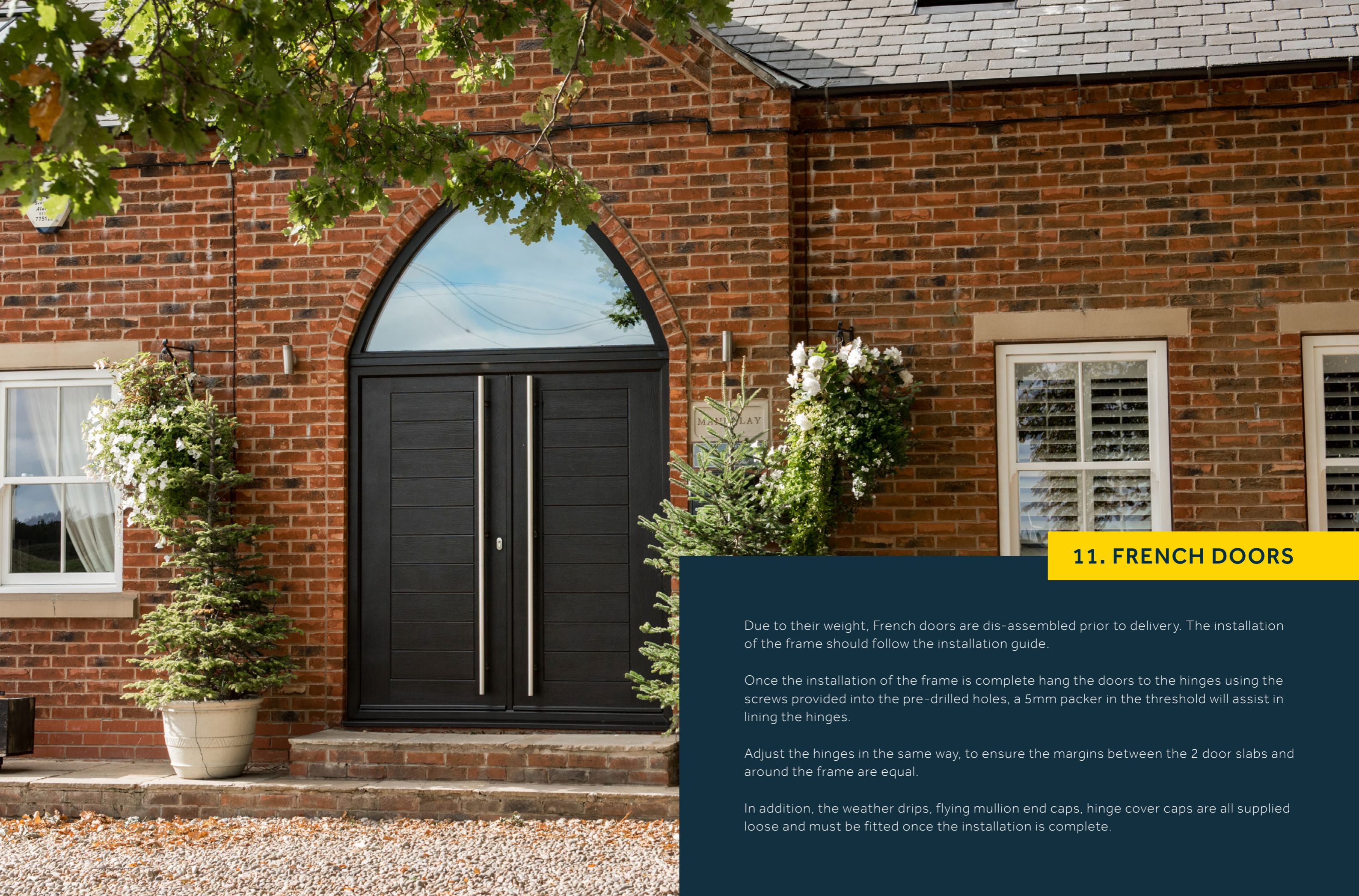
In addition to the previous page, it is vital stable doors must be fitted square and plumb and must not have any bow in the frame.

A 1.8m spirit level must be used to ensure the separation of the 2 door slabs have not caused the frame to bow inwards, it may be necessary to use packers in-between the frame and plaster line to ensure this.

Failure to adhere to this will cause alignment issues between the 2 slabs. The surface mounted finger bolt will not line through with the keep and will not engage.

Extra manipulation of the frame may be required to ensure the 2 slabs line through and the margins between the slab and frame are equal all the way around, it is likely the hinges will also need to be adjusted to aid the lining through of the slabs. Allow extra time for the install to allow for the extra adjustments that are needed.





## 11. FRENCH DOORS

Due to their weight, French doors are dis-assembled prior to delivery. The installation of the frame should follow the installation guide.

Once the installation of the frame is complete hang the doors to the hinges using the screws provided into the pre-drilled holes, a 5mm packer in the threshold will assist in lining the hinges.

Adjust the hinges in the same way, to ensure the margins between the 2 door slabs and around the frame are equal.

In addition, the weather drips, flying mullion end caps, hinge cover caps are all supplied loose and must be fitted once the installation is complete.





## 12. FIXING SIDE PANEL TO MAIN DOOR FRAME

### STEP ONE

Apply silicone to the entire length between the PVC-U profile and the Endurance aluminium coupler on both faces.

### STEP TWO

Clamp the 2 frames together using ratchet clamps.

### STEP THREE

Pre-drill fixing positions required for coupling door frame and sidelight, we recommend a minimum of 5 fixings on a full height sidelight, 150mm from any welds and Max 400mm apart. Fix through from both the door frame and sidelight side using 5mm x 70mm screws, ensure the fixing positions are staggered.

### STEP FOUR

Fit internal and external coupling cover caps to the aluminium coupling system, using the soft head of a nylon hammer.

## 13. FIXING HARDWARE

Depending on the specification of your Endurance door the furniture may need to be fitted prior to or after installation.



PULL BAR  
INSTALLATION



PULL KNOB  
INSTALLATION



FITTING INSTRUCTIONS  
FOR ALL HARDWARE

## 14. GLAZING INSTRUCTIONS

If your composite door is unglazed, a copy of the Endurance Doors' glazing SOP is available upon request.

Doors **MUST** be glazed in accordance with the Endurance Doors' glazing SOP, otherwise your **warranty may be void**.



CASSETTE  
INSTALLATION





## 15. HANDING OVER TO THE HOMEOWNER

It is always good practice to explain the operation of the door to the homeowner, ensuring they understand how to lock and unlock their new Endurance door.

Also run through the essential care and maintenance guide and handover the essential **CARE AND MAINTENANCE HANGER**, which also explains **HOW TO REGISTER FOR THE £2000 SECURITY GUARANTEE**.

### DO

- Try to keep the temperature as low and consistent as possible around the door for the first 8 weeks.
- It is essential to fully engage the lock hooks whenever you close the door.
- Wipe the door down monthly with a clean, lint free cloth using only mild warm soapy water.
- To keep your furniture sparkling, polish with furniture polish applied to a clean, lint free cloth.
- Bi-annually lubricate all moving parts with silicone spray.

### DON'T

- Do not use any chemicals or solvents to clean your door, this could damage the skin of your door and cause discoloration.



HANDING OVER TO THE HOMEOWNER



ENDURANCE DOOR MAINTENANCE



## 16. THERMAL MOVEMENT DEFINITION AND TOLERANCES

All Composite doors experience thermal movement, as do UPVC and Timber doors

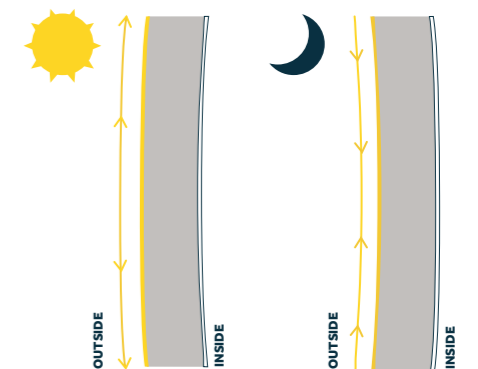
The door slab may be subject to a slight bow during the 1st 6 months of installation, whilst your Endurance door settles into its environment and experiences different seasonal temperature variations.

When the installation recommendations are followed and the homeowner follows care and maintenance guide, the slab will recover to its flat plane, within the Endurance door bowing guarantee, of a maximum 3mm measured from the middle of the slab.

Our dedicated team of Service Engineers will be happy to attend any reports of bowed slabs that have been installed a minimum of 6 months.

### VERTICAL

Deflection of the slab inwards and outwards from top to bottom. Maximum bow permitted is 3mm measured from the middle of the slab.



### HORIZONTAL

Deflection of the slab inwards and outwards from side to side. Maximum bow permitted is 3mm measured from the middle of the slab.

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.

If the hooks on the multipoint lock 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 by pulling the handle up every time you shut the door.

If these points are not observed the warranties on the functionality and operation of the door could be affected. Condensation issues are typically building ventilation related, not product related.





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