

FIRE DOOR Installation Guide

Effective March 2016

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FOR TRACEABILITY DO NOT REMOVE DS JOB NUMBER LABELS FROM FRAME OR LEAF

Before you start

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)
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Health and Safety

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

Avoid sharp edge.

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.

Fire Door Installation

WALL TYPE	This door set must only be installed in walls with at least 30 minute fire resistance. The walls must be brick, blockwork, timber or steel stud all of minimum 85mm thickness.
COMPATIBILITY	Essential Ironmongery such as locks, latches, closers and hinges MUST not be changed.
ALTERATIONS	Cutting apertures for glazing and air transfer grilles, modifying the door or resizing the door or frame in any way is not allowed.
GAPS	The gap between the leaf and frame when closed should be no greater than 5mm and no less than 3mm .
OPERATION	Check that the closer shuts the door onto the latch from any position.

Recommended tools

- Tape measure
- Hammer
- Stanley knife
- Crowbar
- Chisel
- Electric drill with hammer action
- Silicone sealant gun
- Saw
- Rubber mallet
- Spirit levels
- T15 Torx bit
- Screwdrivers (Phillips & flat head)

Removing the Existing Door

Remove the existing door leaf.

To help reduce the damage to wall decorations and plaster, score around the perimeter of the frame with a craft knife. Saw through the jambs and remove. The best way to do this is by sawing diagonally in the center and removing them in two sections.

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.

Remove the top and bottom rails in the same way.

Preparing the Opening

Once the door has been removed, ensure the opening is free from screws, nails, fillers and mastic. Repair as required in accordance with BPF recommendations.

The opening should be complete before fitting the door.

Check there's a lintel or other load transferring structure fitted above the doorway.

To prevent fire penetration between frame and wall the maximum allowed gap is 10mm. See also section on Sealing around the perimeter.

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 outerframe set back as far as possible to reduce exposure to elements
- Bridge the wall cavity
- Cover the DPC
- Frame is square and not twisted

Top Light Glazing Instructions

Top lights will be supplied as a separate item, and you will be required to glaze once the frame has been installed. As this product is a fire door, you must follow these instructions, do not substitute any materials specified, as this will invalidate the product Certifire certification.

Top lights will be semi-glazed, in-so-far that the glass will be in the frame, held secure with glazing clips and two short lengths of glazing bead. To fit the top light, first remove the glazing bead and glazing clips before lifting out the DGU.

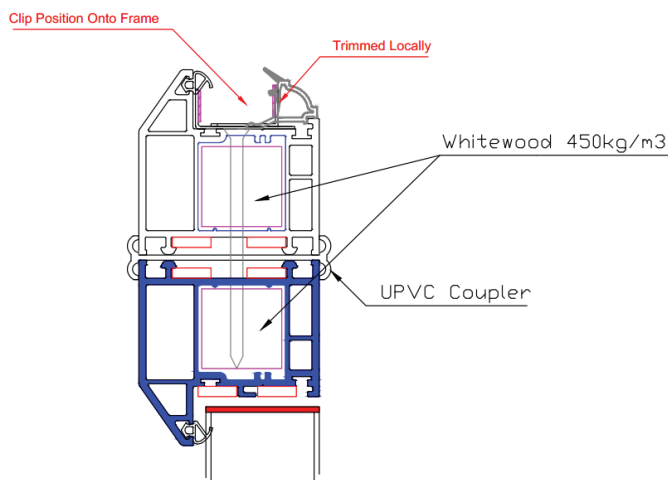


With the glass removed, you will be able to see the glazing clips that have been installed in the factory. The locking clip is a two part system.

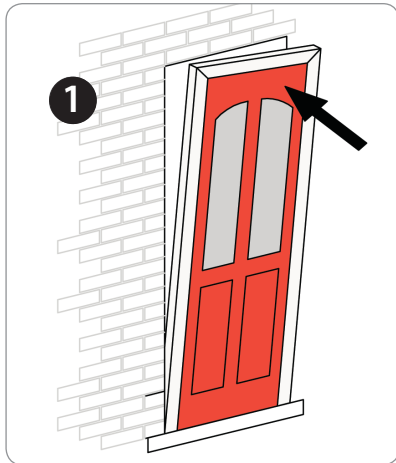
To ensure the top light is attached correctly, the plastic coupler will be fitted in the factory, and the top light frame will have pre-drilled holes to ensure the screw placement is within the scope approved by Certifire. In addition to this, the correct number/type of fixings for the top light will also be supplied as part of your ancillary pack.

Using the 40mm x 4.8mm countersunk screws provided, attach the top light frame to the door frame (see right)

Only once the frame (including top light) has been installed into the property, do you re-glaze the top light.



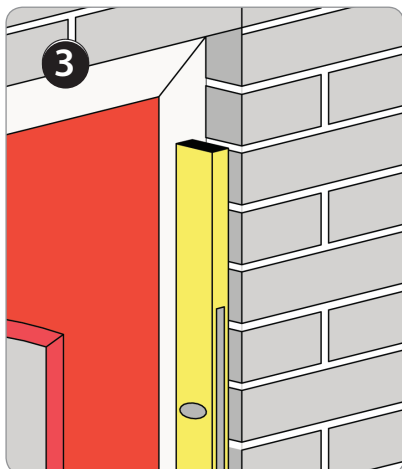
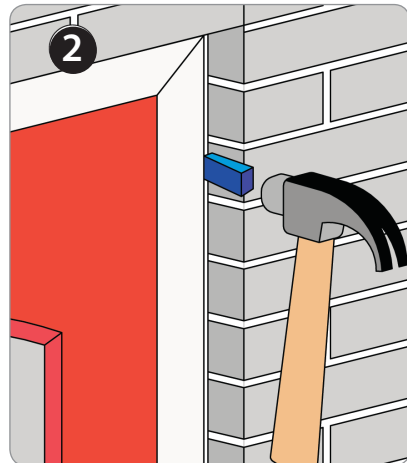
Door set installation



Offer complete door unit into brickwork opening.

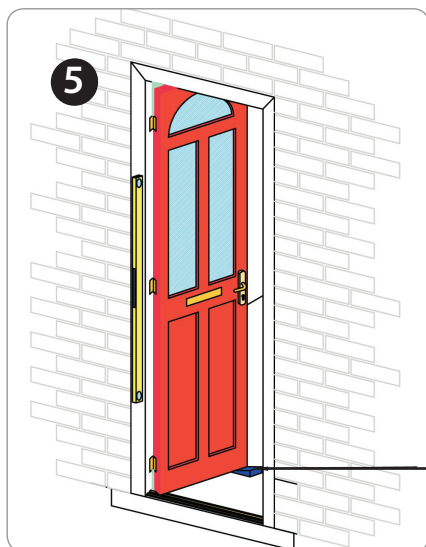
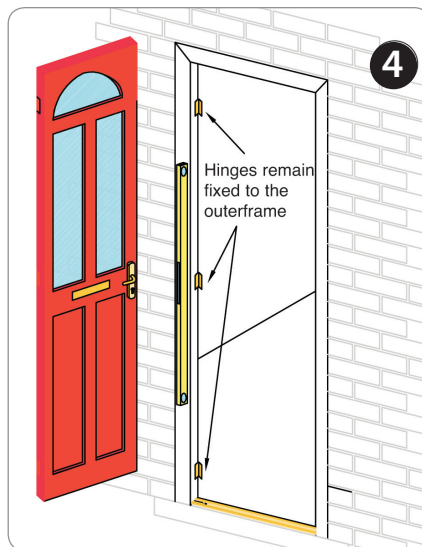
Hold frame into position using appropriate size wedge packers. Packers must be located adjacent to fixing positions to prevent distortion of the outer frame when frame fixings are tightened. Failure to adhere to this may result in door function issues.

MAXIMUM FRAME TO WALL GAP 10mm



Spirit level (1.5m Long) should be used to ensure jambs are square and plumb in all planes.

The leaf may be removed from the frame to ease installation. Final adjustments to frame position may be necessary when using fixed hinges. Once square and plumb, fix as per instructions. (See fixing positions)

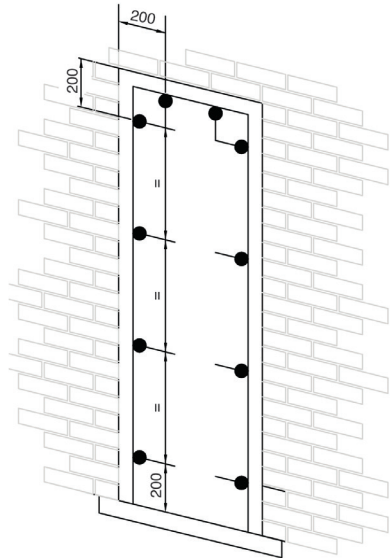


Pack the bottom of the door leaf at the leading edge to assist getting square into outerframe.

Fixing positions

Fix frame into wall with 4 metal frame screws in each leg, maximum spacing 600mm and one fixing in each leg of the over panel if fitted.

The frame screws may be plastic sheathed and must be long enough to penetrate at least 50mm into the wall



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

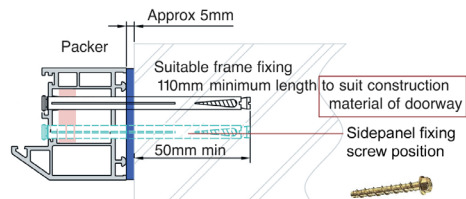
The outerframe should be secured into the brickwork using industry standard plastic sheathed frame fixings.

These should be a minimum of 100mm 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.

Recommended fixings are plastic sheathed frame fixing bolts minimum length 8 x 100 mm.



Re-Glazing the Top Light



When handling glass, care must be taken to ensure the factory fitted fire tape (Intumescent) is not damaged during the glazing process.

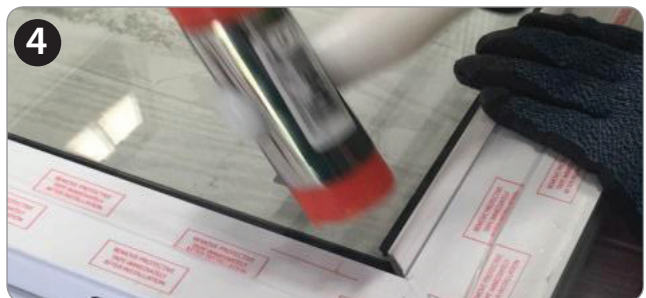


Lower the glass into the frame, making sure the intumescent tape is not damaged, and the glass sits squarely on all of the glazing clips.

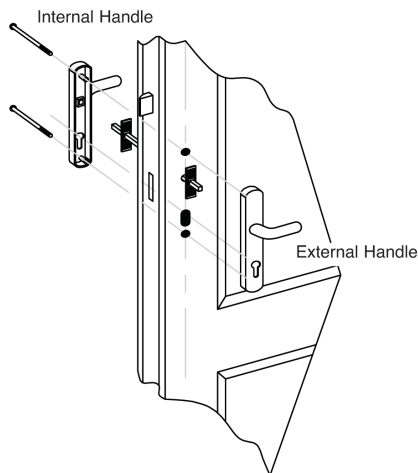
Inserting the glazing clips back over the glazing clip screws, carefully engage the clip by sliding the clip into the 'locked' position.



Using a rubber mallet, fix the glazing bead in place to secure the DGU. NB/ The glass is fragile and extra care must be taken when glazing a fire door top light.



Fixing decorative hardware



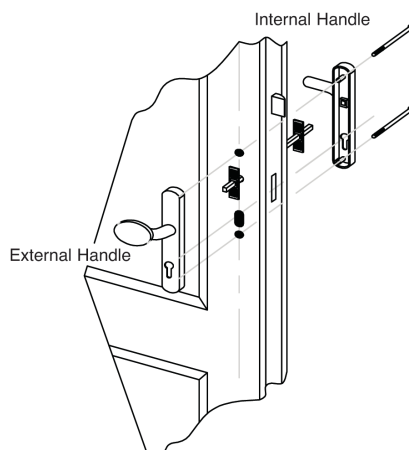
NB: When the door has been fixed into position the operation of the door opening and locking mechanism must be checked to ensure uniform contact with weather seals and correct function of handle/lock.

Fixings

To fit door handle set, locate spindle through square hole in lock mechanism. Align projecting pins on internal half of door handle set with pre-drilled holes in door slab.

Ensure handle spring washers are in position and secure using fixing screws supplied.

NB: If your furniture selection is split spindle handle, discard spring loaded plate and insert the supplied locking plate. Note the shorter spindle must be used.



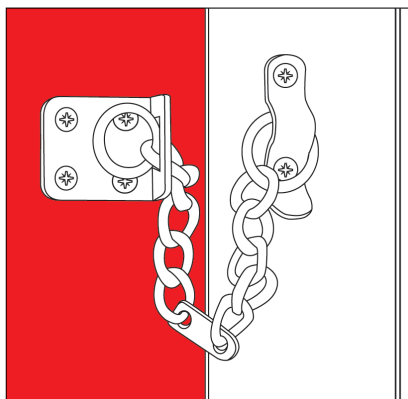
Fixing Security Chain

The security chain should be positioned into the desired location for ease of use (i.e. to suit the persons who will be required to use the device) Mark the fixing positions onto the door/frame using the pre-drilled holes in fittings as a template. Move the security chain and drill pilot holes in the marked positions, use the screws provided to secure.

NB: Care should be taken when the fittings are positioned to ensure the security chain will function correctly.

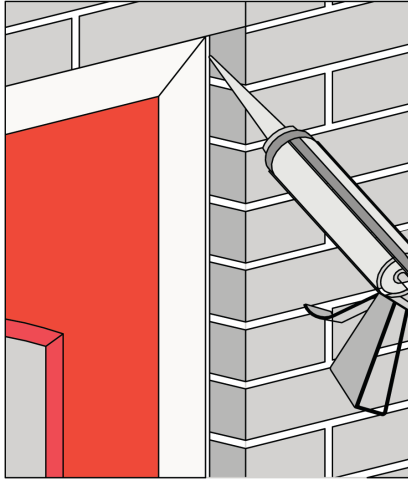
Fixing Decorative Numerals

Numerals should be located in the desired position on the composite door, when satisfied this is correct, the holes in the numerals should be used as a template to mark the required pilot holes to fix. Drill pilot holes and use the screws provided to secure to the door.

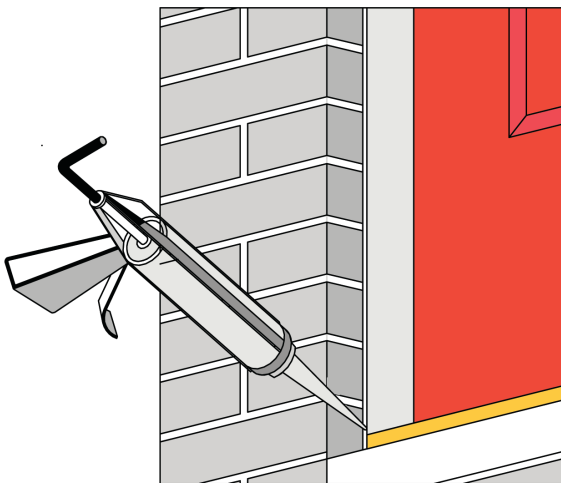


Sealing around the perimeter

Where architraves are not fitted - mineral rock fibre tightly packed to a depth of the frame making allowance for 10mm capping, to both faces, of mastic.



Silicone sealant or similar suitable product should be used to seal around the perimeter of the newly installed composite door frame. Ensure that an adequate barrier is formed to prevent water ingress/air leakage.



NB: Care must be taken to ensure that the drainage slots are not blocked when sealing around the aluminium wheelchair threshold.

Thermal movement definition and tolerances

All composite slabs, as do UPVC and timber, experience thermal movement. The slab will recover to its flat plane, to a maximum bow of 3mm side to side and 5mm top to bottom, when the installation recommendations are applied (see below).



Vertical

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

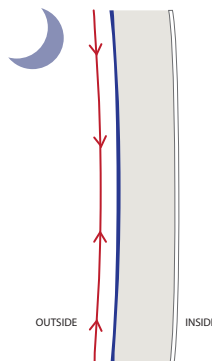
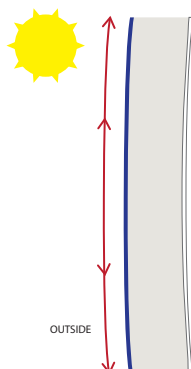
Maximum bow permitted is 5mm measured from the middle of the slab.

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.

For further information, contact recognised trade organisations.