CONTRACTORS DOORSET INSTALLATION GUIDE

GENERAL TIMBER / COMPOSITE

Many problems experienced today with prefabricated doorsets can be due to incorrect installation. Below are a few tips to enhance the operation and performance of the doorset thereby helping to promote years of trouble free operation.

Tips

- Check aperture size against the door set. It is recommended that there be a 5mm gap all the way around to enable correct installation.
- Place a 5mm packer beneath both sides to lift the frame. (It may be beneficial to remove the door from the frame to enable the first side to be fixed).
- Using suitable fixings, fix the hinge side of the door-set first. Ensuring it is plumb in both planes. Pack behind the fixings. Make sure with a long straight edge that there is no bow, again in both planes. Increase or decrease packing where necessary. **See fig 1.**
- Next ensure the bottom is level and pack the lock-side as required.
- At this stage re-hang the door if previously removed.
- Fix the top lock-side only at this stage.
- By bringing the door to the almost closed position it can be seen if the frame requires 'winding in or out'. **See fig 2.**
- Fix the lock side to brick work ensuring the gap is as even as possible over the length of the door, see fig 1. Once again checking for bow in the frame, with a long straight edge.
- Finally pack or point beneath the cill, and seal to brickwork around the frame.

PVCu

- As Timber / Composite but using PVCu practices namely;
- Correct type of fixings.
- Correct spacing of fixings (Fixings should be placed at least 150mm from any welded joint). 5 on each side equally spaced is recommended.
- Correct TOE & HEELING of any glazing and infill panels.
- Glazing packers behind & opposite any locking points. (A small amount of sealant will hold these in place in case of any movement). **fig 1.**

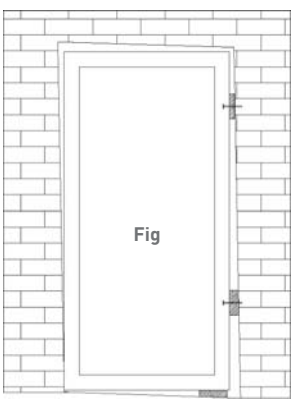
Pre- installation Preparation

Best practice is a second- fix operation with openings prepared as construction proceeds and pre-hung door assemblies installed later. The advantages are:

- Operating gaps (which may contain edge seals) can be maintained.
- Door are delivered when site conditions are suitable.

Using the 'first-fix' method, doorsets are built in during construction and door leaves are fitted later. This can be unsatisfactory because:

- Construction operations and wet trades can damage finishes and cause distortion and/or swelling. The cost of remedial work and protection can be high.
- Door leaves may have to be tailored to each opening.



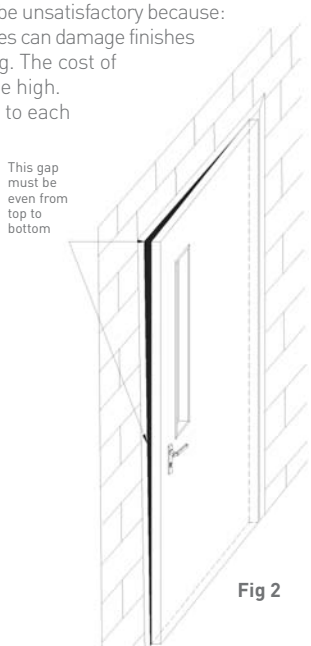


Fig 2

ADDITIONAL SPECIFIC DETAILS WITH REGARD TO FIRE RATED DOORSETS

Installer Credentials

It is strongly recommended that the installer is a member of a recognised quality assurance scheme (i.e. B M Trada Q mark) to ensure that best practice is used. In respect of fire doors, inspection authorities may require evidence that the installation process complies with the tested specification including:

- Intumescent systems.
- Compliance of the glazing with the tested detail supplied by the door leaf manufacturer.
- The size of all operating gaps.
- Intumescent protection around hardware and the quality of the preparations.
- The quality of the supporting construction and the prepared opening.
- The fixing of the fire door.
- Fire and smoke stopping methods used in fitting-in gaps and voids

Door Gaps

Leaf to frame gaps must be representative of those tested. If substantially different gaps are employed, the fire resistance performance of this doorset design may well be compromised . As a general guideline, gaps should not exceed 4mm, except between the door and threshold, where 5mm is acceptable to allow for under door internal clearance.

Fixings

The supporting construction must be capable of staying in place and intact for the full period of fire resistance required from the doorset. The frame jambs are to be fixed to the supporting construction using steel fixings at 600mm maximum centres. The fixings must be of the appropriate type for the supporting construction and must penetrate to a minimum depth of 40mm. It is not necessary to fix the frame head, although packers must be inserted.

Sealing to Structural Opening

The door frame to structural opening gap must be protected using one of the following methods:

- Fill the fitting-in gap to suit fire, smoke or acoustic requirements before fitting architraves or installing the second half of split frames with integral architraves. Architraves alone may firestop gaps of FD30 doors but will not prevent leakage of cold smoke.
- To prevent cold smoke leakage the filler must completely close the gap and have some flexibility.
- When the fitting-in gap is constant and does not exceed 10 mm the options include: - Gun-applied intumescent mastic suitable for both fire and smokestopping. - Intumescent strips (with conventional mastic for smoke).
- Large or irregular gaps and voids can be filled with cement based material, packed with mineral wool or sealed with intumescent material. The intumescent options for gaps up to 35 mm that can accommodate some movement and close voids in the case of fire are intumescent plasters, acrylic emulsions and dry foams.
- Fix architraves only when any required stopping is complete.

Smoke Control

All SBD apartment and flat entrance doorsets must provide a smoke control function to comply with Building Regulations. PDS doorsets are therefore fitted with high performance intumescent smoke seals, tested to BS 476:Part 31. It is essential that all intumescent materials are kept in place and maintained, and under no circumstances removed or tampered with.

Self closing devices

Main entrance doors in multi occupancy dwellings must be fitted with an approved self closing device, in order to comply with the Fire Safety Order, and this needs to be a CE Rated product to meet European harmonized standards. For ease of operation, space saving and aesthetic reasons, PDS often supply a factory prepped concealed closer, the body of which is fitted into the door before despatch thus requiring only a simple connection with the frame plate and possibly some minor adjustments to be undertaken on site.

WINKHAUS COBRA™ 3D HOOK-LOCK GUIDE.

1st Dimension

In order to aid fabrication and installation, all Winkhaus locks are marked with a centre-line directly below the latch to ensure correct alignment with the centre-keep. All dimensions (where required) are taken from this reference, which also denotes the spindle centre.

- Winkhaus full length keep sets are self-aligning so if correctly installed should not need moving up or down. However, a visual check of alignment is as below. The centre line of the lock face-plate should correspond with the line directly below the latch strike on the PVCu keep or in line with the strike on timber / composite keep. See Fig 3.

- Winkhaus single pocket keeps again should not need adjustment up or down once correctly fitted. However, the centre keep can be checked as above. A simple check for the hook keeps is as follows; throw the hooks with the door open and mark the tip of the thrown hook on the face of the door frame ensuring that the tip of each hook is no more than 8mm below the aperture of the hook keep. See Fig 4.

2nd Dimension

As the hooks are thrown by a circular action within the hook housing, it is imperative that there be sufficient room for this action to occur. Using the latest technologies every keep solution is specifically designed to each application, or profile.

- As a general rule there should be a 4mm gap between the lock faceplate and the face of either, the compression adjustment plate or the flat face of the hook keep where no adjuster is present. See Fig 4.

3rd Dimension

The face of the hooks have been designed to come into contact with the inner edge of the hook keep or adjuster plate so as to offer compression of the door onto the gasket or sealing surface of the frame. Once again the keeps have been designed to suit specific applications, so any adjustment made is purely to accommodate site or fitting tolerances. See Fig 5.

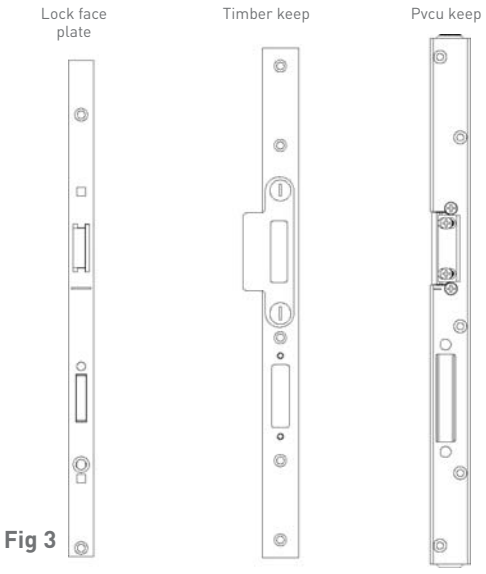


Fig 3

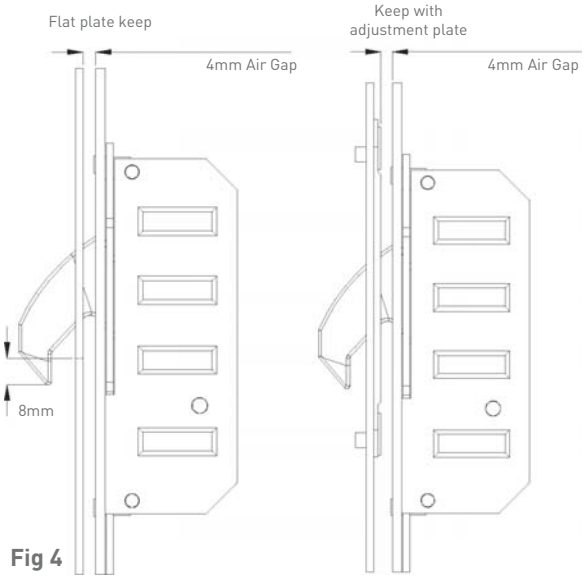


Fig 4

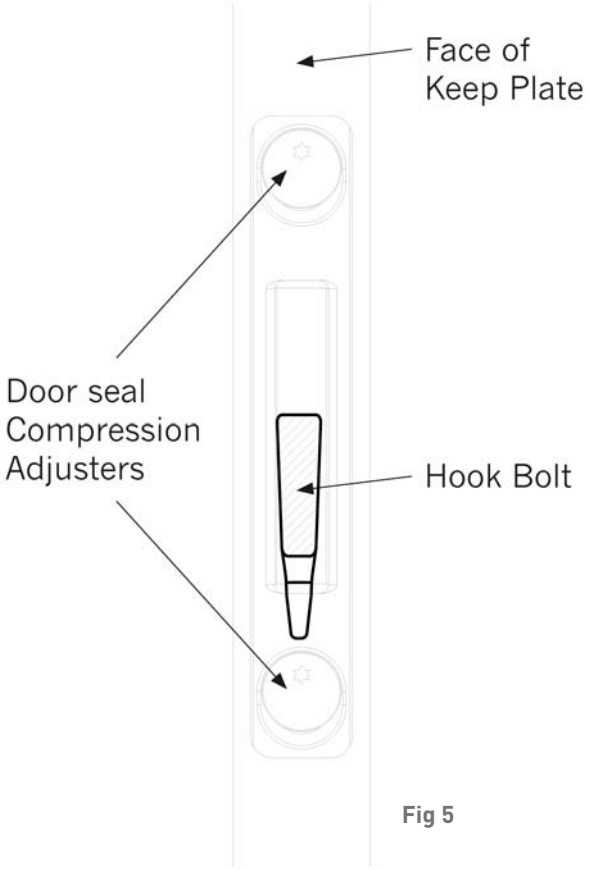


Fig 5

THE UK DOOR AND WINDOW COMPANY
concept, design, manufacture and supply

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