

# WINDOW WAREHOUSE

Pioneering Service, Quality & Security

Vertical Slider

Installation Guide

Window Warehouse 2023

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## Fixing Methods

There are two options: direct fix or using fixing brackets (straps). Direct fix means driving fixings directly through the outer frame into the aperture substrate in set locations (as detailed in the Installation chapter of this guide). This is the most popular fixing method, and is usually the only option on replacement windows

Fixing brackets are screwed to the outside of the window frame, perpendicular to the window.

They then extend beyond the internal face of the window, allowing the installer to fix through them into the aperture face. They can then be plastered over. See overleaf for more information.

# Installation: Using Fixing Brackets

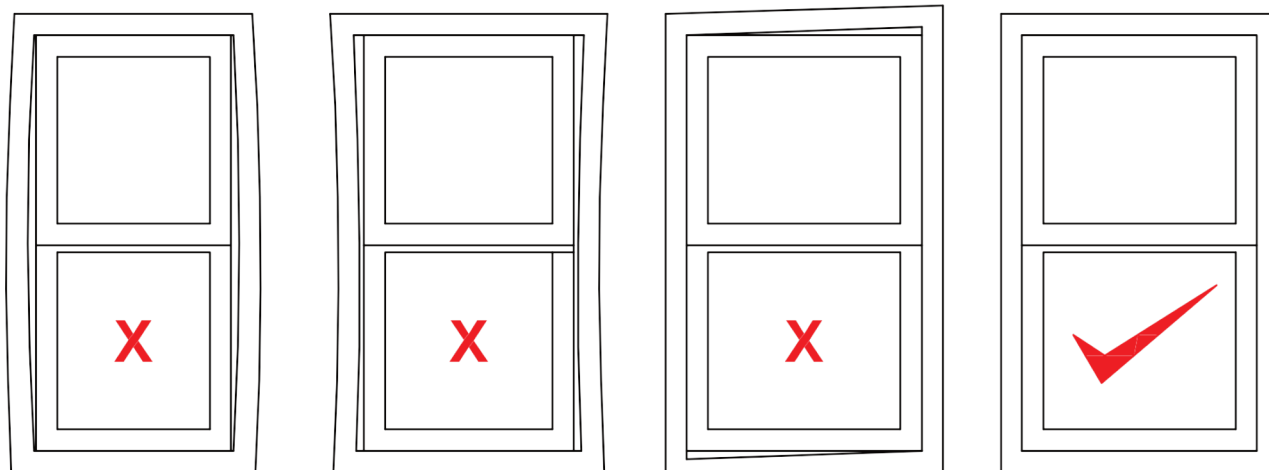
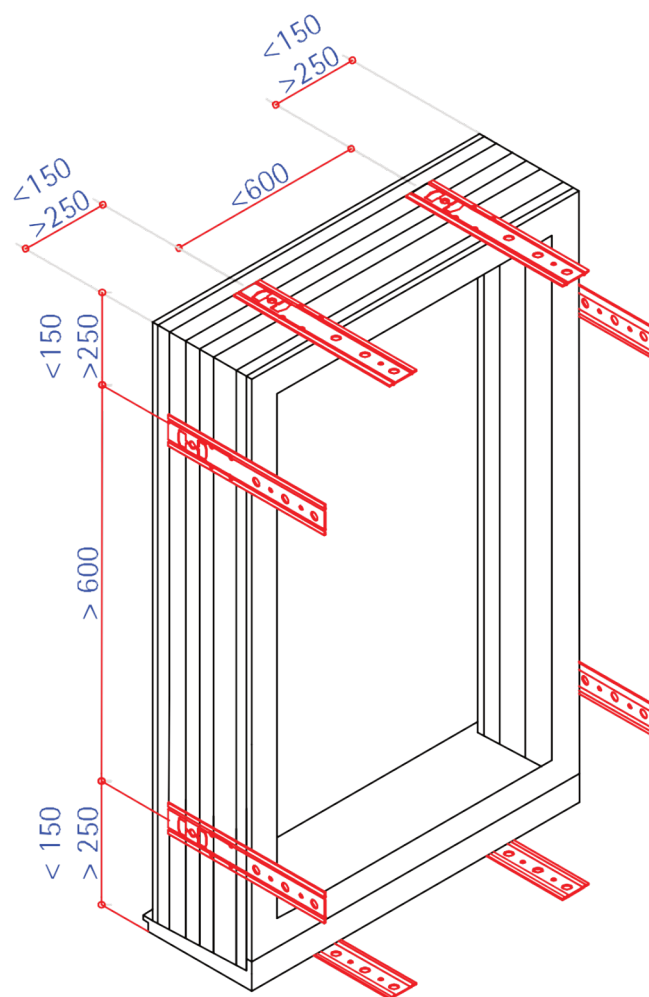
Install the fixing brackets onto the stiles, head, and cill, positioning them between 150 to 250mm from each corner. For larger windows, additional brackets may be necessary. The distance between the fixing points should not exceed 600mm centres.

Next, place the frame into the window opening and ensure it is level and plumb. Secure the vertical corner brackets first, followed by the remaining brackets.

On the upper sash, confirm that there is a consistent 3mm gap between the sash edge and frame at the sides and head. Once checked, wedge behind each bracket to prevent the window from shifting.

Drill through the pre-prepared hole beneath the balance and fix at this point. Confirm the straightness of the stile using a straight-edge, and permanently fix at each bracket.

Close the bottom sash and check the clearance at the sides, adjusting the fixings and packing as necessary. The gap between the sash and frame should ideally be 3mm, but must not exceed 4mm at either side, or a minimum of 2mm at each side. Finally, clean the window and seal the outer joint with silicone.



Another installation option involves direct fixings, where feasible in the brickwork. These fixings can be concealed by the frame infills.

If you are direct fixing, the correct fixing locations are as follows:

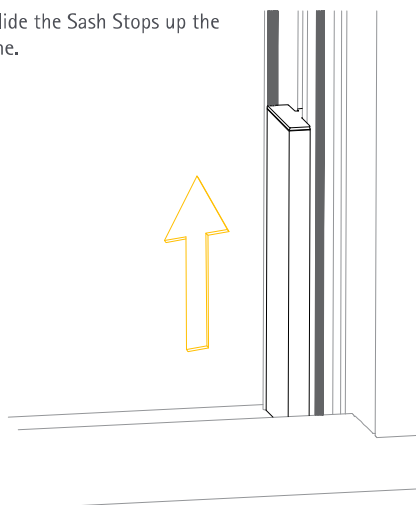
- on the sides of the window, at the bottom, through the external (top sash) sash channel under the cover stops
- through the head of the window, through the internal (bottom sash) channel under the full width cover profile (generally three fixings).

**You must not direct fix through the frame in any other positions - especially through the cill or the dividing profile between the two sash channels.**

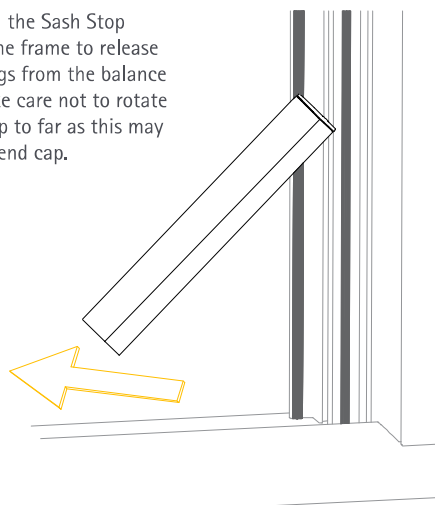
NOTE: if traditional frame fixings are used to secure the frame to the brick work it is possible to conceal these fixings behind the Frame In-Fills. These can be easily removed.

The Sash Stops are intended to prevent the spring balances from being overstretched. When the Sash Stops are removed, avoid sliding the sashes beyond their range. A small pencil mark at the end of the Sash Stop on the frame could serve as a guide.

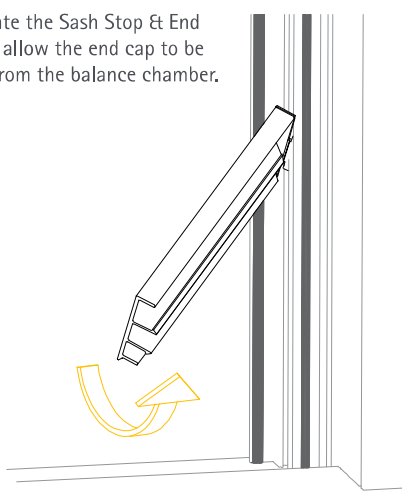
A. Slide the Sash Stops up the frame.



B. Firmly pull the Sash Stop away from the frame to release the clip in legs from the balance chamber. Take care not to rotate the Sash Stop to far as this may damage the end cap.



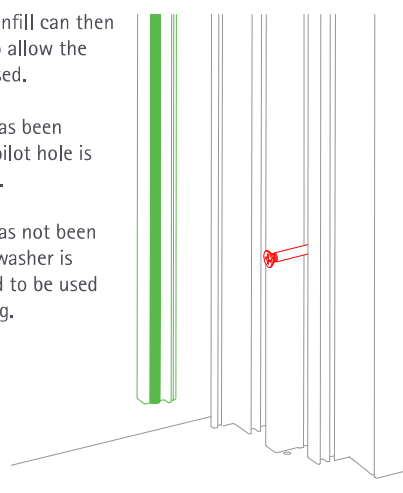
C. Rotate the Sash Stop & End Cap to allow the end cap to be freed from the balance chamber.



D. The Frame Infill can then be removed to allow the fixing to be used.

If the frame has been reinforced, a pilot hole is recommended.

If the frame has not been reinforced, a washer is recommended to be used with the fixing.



After installing the window, it is crucial to confirm the fit's accuracy before proceeding with internal and external finishing. Taking a little time to conduct these checks now can prevent larger problems down the line. Review the following checks thoroughly, and record any issues encountered at each stage before making any necessary corrections.

## Square, plumb and true

Ensure the window is square, plumb, and true by checking all directions - horizontally, vertically, and front-to-back.

## Frame bowing or bellying

While you still have easy access to the edges, check for any bowing or bellying of the frame, which can impact proper operation and weathering. Any slight curves can cause problems, so it's critical to address this issue now while it's still accessible.

Bowing frames typically result from either inadequate tightness in packing or incorrect placement of packers. If the frame is pinched inward, it could be due to overly tight packing or too much expanding foam pressing the frame inward.

## Sashes

Finally, test the sliding and tilting function of the sashes and verify that the gaps on each side are straight, even, and approximately 3mm. Any issues in this area usually indicate a problem with the squareness, trueness, and plumb of the window. Record any discrepancies found during the check before making any necessary adjustments.

**With the windows installed and checked, it is time to proceed with finishing them. This entails installing any final components on the windows, followed by sealing, trimming, and completing the final touches.**

## Install parts

Your window delivery should have come with a pack of parts, which typically includes pre-installed window furniture, with the exception of sash lifts on the bottom sash. These are not installed to prevent damage, but will be included in the pack along with other parts such as cover stop caps, lock and limit stops keys, trickle vents (if ordered), and fixings. You can now install these parts as outlined below:

Begin by installing the trickle vents and hoods over the routed holes, using the fixings provided.

Install the sash lifts using the fixings provided. There are usually two sash lifts per window, and location holes for the fixings will have already been marked for you.

Apply the cover stop caps. These are initially left off to avoid loss during the installation process, but can now be inserted into the chamber above or below the short cover stop sections by turning them 90 degrees and then turning them back to seat them in place. A dab of CA/superglue can be used to secure them to the cover stop.

Install the cill end caps, and if necessary, trim them back using a sharp knife or cutters. Use CA/superglue to fix them securely onto the ends of your cills.

## Sealing

It's important to seal the outside and inside of the windows to prevent water and draughts from entering. We recommend using a low modulus silicone sealant, which is flexible and bonds well to various substrates, including the window frame. However, if the gap around the window exceeds 5mm, you may need to use another method to partially fill the gap before applying the silicone. The same applies if the seal needs to be painted over instead of being covered by trim or architrave - in this case, use decorators caulk instead of silicone. Again, if the gap is more than 5mm, you may need to partially fill it first and then use caulk over the top. The main priority is to ensure that the seal is effective in preventing water and draughts from penetrating the window.

## Trims and architraves

After sealing the window correctly, proceed to add decorative trims and architraves to the inside for a finished look. You can use either silicone or a suitable uPVC adhesive to apply uPVC trims directly onto the face of the windows.

## Clean and finish

To complete the job, it is recommended to use appropriate cleaners to clean the frames and glass. Standard uPVC cleaners or soapy water are the recommended options for cleaning the profiles.

**Providing good customer service is crucial, and it's essential to give your customers a brief overview of how to use their new windows after installation. The following are the essential features to demonstrate:**

## **Tilt facility**

For windows that are no larger than one square metre per sash, our standard windows come with a sash tilt feature, unless it has been requested to be removed. To correctly tilt the sashes, follow these steps:

1. Raise the bottom sash slightly to clear the internal cill upstand.
2. Move to the top of the sash and push the two tilt knobs in towards the sash locks.
3. Supporting the weight of the sash, tilt it inwards towards you until it rests on its tilt restrictor arms at approximately a 45-degree angle.
4. Slide the top sash all the way down.
5. Find the tilt knobs on the top of the sash and push them in towards each other, as you did with the bottom sash tilt knobs.
6. Tilt the sash in towards you while supporting its weight.

To put the sashes back, push them back until they click into position, then close each sash. Please note that the tilt feature is intended solely for cleaning purposes and should not be used as an alternative to sliding the sashes when opening your windows. Also, sashes should not be left in the tilted position for extended periods of time.



## You say...

There are draughts coming through the sashes.

There's a small gap above the top sash or below the bottom sash.

The sash gaps narrow or widen whilst moving up or down the window.

The sash gaps are narrower at the top and bottom than in the middle.

The sash gaps are narrower in the middle than they are at the top and bottom.

There is a vertical gap between top and bottom sash is too large or too tight. Sash locks are too loose or too tight.

The sashes don't meet properly at the sash locks. The bottom sash is either too high or too low.

## We answer...

The issue often stems from improper window fitting, such as being out of square, racking, not plumb, or having a bowed outer frame. Use a straight edge and level to inspect everything, and make necessary adjustments to packing and fixing.

You are looking for an even, regular 3mm gap along the sides of the sash, with the sashes meeting correctly at the sash locks. The sashes are not supposed to be completely tight at the top and bottom of the frame. They include gaskets and brush piles that provide maximum weatherproofing when they are not fully compressed.

The frame is racked or out of square, rectify this by checking the sides of the frame with a level and measuring the diagonals to ensure they're consistent. Then re-pack and re-fit the frame accordingly.

The frame is bowed outwards. Use a straight edge to check both sides of the frame, then increase the packing in the centre until the sides are straight and re-fix the window.

The frame is pinched. Use a straight edge to check both sides of the frame, then decrease the packing in the centre until the sides are straight and re-fix the window.

The window is not plumb, meaning it is tipped forwards or backwards. Use a level to check how plumb the frame is, then remove the fixings at the top or bottom, straighten the window and re-fix.

This is usually caused by a bowed cill. If the cill is bowed upwards the bottom sash will sit too high. If it's bowed down the bottom sash will sit too low. Rectify this by checking the full width of the cill with a straight edge, and then adjusting the under-cill packing accordingly.

## You say...

The sashes won't tilt, or tilt facility is too tight.

The sash tilt latches are barely engaged in the frame.

The sashes are difficult to operate.

The bottom sash is heavy to lift.

The top sash drops as soon as it's unlocked.

When operating a sash one side is heavier/lighter to use than the other, and the sash wants to slide diagonally.

The sash drops or raises a little when the sashes are unlocked. Balances feel a little too strong or too weak.

The astragal bar detached.

Condensation inside glass.

## We answer...

The frame is pinched/bellied.

The frame is either out of square or pinched. See on previous page for solutions.

Check that the sash is properly attached to the pivot arms and, if possible, check that the pivot arms are correctly attached to the balance shoes.

This may also be caused by a balance failure.

Check that the sash is properly attached to the pivot arms and, if possible, check that the pivot arms are correctly attached to the balance shoes. This may also be caused by a balance failure.

Either one side of the sash has disconnected from the balance (see above) or a balance has failed.

This may be due to balance tension. Contact the Window Warehouse customer service team for advice on increasing or decreasing the tension.

Centre the bar over the aluminium bar carrier on the glass, so that the ridge on the carrier lines up with the slot on the back of the bar. Use firm pressure or a soft-head mallet to tap the bar back onto the carrier. Be careful not to break the glass.

The unit has "blown". Please contact Window Warehouse customer service team via email, [customerservices@window-warehouse.co.uk](mailto:customerservices@window-warehouse.co.uk).

# WINDOW --- WAREHOUSE

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## **Window Warehouse Ltd**

Units 1 to 8 | Dragon Industrial Estate  
Fitzherbert Road | Farlington  
Portsmouth | Hampshire  
PO6 1SQ

023 9232 7744 | [info@window-warehouse.co.uk](mailto:info@window-warehouse.co.uk)  
**[www.window-warehouse.co.uk](http://www.window-warehouse.co.uk)**

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