

BOX SASH WINDOWS

FITTING & FIXING GUIDELINES



CAUTION

SAFETY: Large windows and glass units are heavy and may be hazardous. Great care **MUST** be taken to avoid injury during manual handling and particular precautions are required when working at height. The following instructions and recommendations must be followed. Failure to do so may affect the guarantee and the long term performance of the window and glazing.

Contents

Introduction	02	Installation	05
Finishing	03	Hinge Operation	06
Biocide Regulations	03	Maintenance	08
Building Regulations	03	Performance	08
Tools Required	04	Guarantees	09
Storage	04	Troubleshooting Guide	10
What you receive	04		

Introduction

Thank you for purchasing an Box Sash window from JELD-WEN.

Your window will be supplied fully factory finished and glazed.

JELD-WEN timber windows are designed and manufactured in Britain and are fully weather stripped to achieve BS 6375 Pt1. Glazing is supplied with toughened safety glass to BSEN12150 where appropriate.

The windows are made from engineered finger jointed timber which is preservative treated for long life (See biocide regulations information contained within this document) Before commencing installation read through these instructions very carefully ensuring the Product has reached you in a satisfactory condition.

IMPORTANT:

Installation of these Windows should be carried out by a minimum of two people.

Prior to installing the product please ensure you have carefully inspected each package. In the unlikely event you discover any damage or defect do not proceed to fit until you have notified JELD-WEN (0845 122 2893 option 2)

This window and all its components should be stored in a dry flat location prior to and during installation.



All JELD-WEN factory glazed Windows carry the CE Mark in line with the requirements of the Construction Products Regulations.

1 Finishing

JELD-WEN fully finished windows have a Hi-Build factory applied paint (or stained) finish. It is tough, durable and microporous allowing the timber to breathe, preventing build-up of excess moisture under the coating.

Modest maintenance of the finish is important to ensure the long service of these products.

Step by Step maintenance guide

1. Annual Inspection: The paint finish should be inspected annually (as a minimum) for damage, typically caused by a window cleaners ladder or objects being passed through the window.
2. If damage is found it must be dealt with promptly by sanding back to the undamaged frame and touching up with a matching microporous paint and top coat.
3. The intervals between planned maintenance cycles will vary depending on your location and exposure rating - maritime or industrial areas require more regular re-decoration than sheltered locations. Please refer to www.jeld-wen.co.uk for further information.

The first maintenance cycle should be carried out, regardless of the appearance of the windows. The original paint finish in exposed areas will have worn away to around half its original specification and will need to be restored back to its original state. Simply wash the frame down with a dilute soap solution, dry and lightly rub down the surface with fine 'wet and dry' sandpaper, grit (280 to 400) grade. Dust off and clean using a damp cloth removing any remaining surrounding dust, then apply one top coat of microporous paint* over the exposed surfaces. There should be no need to paint rebates or concealed faces as these should be in good condition and no erosion should have occurred. The next planned maintenance cycle should be in no longer than 7 years. In more severe locations it is recommended to carry this out more frequently to maintain protection.

* Microporous paint that is either water or solvent (oil) based can be used. Manufacturer's instructions must be followed paying particular attention to temperature at the time of application.

Cleaning

When cleaning the outside (or inside) of windows fitted with projecting hinges or reversible hardware from the inside, care must be taken to ensure maximum safe reaching capabilities detailed in BS 8213-1 are not exceeded. Building design and reveal depths can affect this and considerations must be taken during the risk assessment for safe cleaning for each installation. This can be assisted by using an extended implement for cleaning.

Condition of Sale

In the event of this window being proven to have a manufacturing defect, where a replacement is needed, the liability of the seller shall under no circumstances exceed the price of the defective window. We shall not be held responsible for any incidental work or for problems resulting from poor workmanship. The foregoing does not affect your statutory rights.

For further information please refer to our website www.jeld-wen.co.uk

Due to the construction of engineered timber:

- finger/laminate joints maybe visible on the finished product.
- visible grain can vary between individual engineered sections.
- timber is a natural product and will swell or shrink to varying degrees dependent on location etc.

Glass units

- Defects will only be considered under the standards of the GGF Code of Good Practice
- Due to the high thermal properties of insulating glass units, condensation may form on external faces of the glass units if environmental conditions allow.

Thermal Bridging

- in certain applications this may result in condensation forming on the products metallic surfaces.

Biocide Regulation:

JELD-WEN exterior joinery is treated with an approved wood preservative and protected against wood decaying fungi.

For Box Sash products the active ingredients are tebuconazole, propiconazole and cypermethrin,.

Preserved wood should not be cut or otherwise reworked as this will expose un-preserved wood. Any surface which is exposed by cutting or drilling must be re-treated with an HSE approved cut end preservative. Follow the instructions for safe use on the manufacturers' safety data sheet.

Building Regulations

Please consult with your building designer to ensure compliance with current building regulations such as Approved Documents B, E, F, K, L & N.

Replacing windows is notifiable work and MUST either be carried out by a FENSA or other registered installer, or with prior Building Control approval.

Registered FENSA companies can be found at www.fensa.co.uk

2 Tools Required

The following tools and items are required to carry out the installation of the doorset.

- Spirit level
- Power Drill
- Screwdriver or Power driver
- Measuring tape
- Appropriate Silicone sealant
- Mallet – Rubber headed
- Screw head bit (Cross head)
- Masonry Drill bit
- Packers
- Wedges
- Fixing Ties (for Jambs included)
- Fixing Screws/Anchors

(Determined by the size of the fixings used.)

*Note: The sash cord is supplied attached to the counter weights.

Certain site conditions may require the counter weights to be corded once the frame is fixed into the opening.

3 Storage

Any shrink wrapping or other protective packaging should be kept in place as long as possible.

Unglazed and unfinished, windows should be stored under cover, preferably inside a building. If they are stored outside they should be kept clear of the ground on level bearers and protected from dampness and sunlight with a tarpaulin. Polythene sheets should not be used as this can act as a greenhouse and encourage hot, humid conditions. There should be space for air to circulate around the windows. Factory finished and/or glazed windows need extra care to avoid damage to the painted surfaces or glass.

They should be stored vertically to prevent water accumulating on top of the glazing units.

When being removed from storage windows should be lifted, not dragged. They should be lifted by the main frame and carried in a vertical position to avoid distortion.

4 What you receive

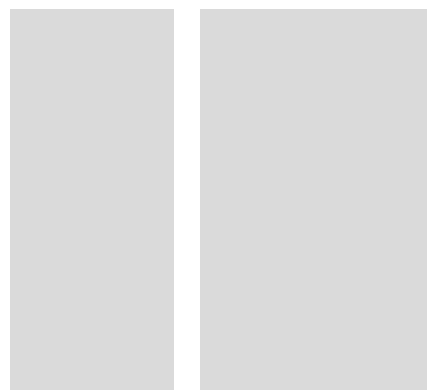
The Windows are delivered on a pallet, check quantities on your delivery ticket are the same as those on the pallet.

If there are any items missing phone JELD-WEN on: 0845 122 2893

Window handles and fixings supplied loose attached to head of the window.

Check all 6 packages are present:

- 1) Frame
- 2) Weights x 4
- 3) Upper sash
- 4) Lower sash
- 5) Fixings
- 6) Parting and staff beads.



5 Installation

Windows can be fitted either during the course of construction or fitted into preformed openings at a later stage. Building-in factory finished windows during the course of construction should be avoided if possible, if however this is not possible, the materials adjacent to the opening should not be fitted tightly in order to prevent distortion of the frame. Fully finished windows should be installed into preformed openings. Side tolerances between the frame and the structural opening should not exceed 10mm on each side.

It is recommended that the opening into which the window is to be installed is 12mm larger (6mm each side) in both height and width than the overall window sizes given in the table below:

	Actual	Actual
Module Size	Frame Width	Frame Height
1200 x 1050mm	1188mm	1038mm
1200 x 1200mm	1188mm	1188mm
1770 x 1350mm	1758mm	1338mm
915 x 1050mm	903mm	1038mm

When not building-in, openings can be formed using either proprietary templates or site constructed templates, these templates should produce openings that are between 10mm to 20mm larger than the overall actual window size depending on the the installation method.

Lintels should be positioned clear of the window head as windows must not be used for load bearing. Pre-formed openings should be larger than the frame that will be fitted into them. A tight fit could cause distortion of the frame. A clearance of at least 5mm should be provided all around the frame, however, clearances more than 15mm will be difficult to seal after the frame is installed. Building Regulations require the installation to achieve air tightness.

We recommend the Illbruck i3: system for high levels of air tightness. There should be a correctly installed damp proof course around all the openings to prevent moisture moving from the outer construction to the inner construction.

There should be adequate insulation fitted between the inner and outer construction to reduce heat loss at the window openings. The window should be positioned in the opening such that it covers at least 30mm of the insulation.

Note:

- Proprietary insulating products may have particular requirements for installation. In these cases follow the manufacturer's recommendations.
- When installing windows into timber frame constructions, care must be taken to allow for differential movement between the external construction and the timber frame and for fire stopping at the window opening.

Windows should be fitted without distortion. They should be levelled and upright and the position checked with a spirit level.

Windows should be secured in the openings by fixings at each side positioned approximately 150mm from the top and bottom of the window and then at no more than 450mm centres in between. Fixings are not required at the top and bottom for frame widths up to 1800mm, for wider frames up to 3600mm, a central fixing will be required. When securing the frame care must be taken not to distort the components as this could impair the operation of the window.

5 Installation cont...

Before you start

Fully finished windows should be installed into preformed openings. Before proceeding any work you must satisfy yourself that there is an adequate lintel in place so that when the old frame is removed the brickwork above is fully supported.

Lintels should be positioned clear of the window head as windows must not be used for load bearing. Pre-formed openings should be larger than the frame that will be fitted into them. A tight fit could cause distortion of the frame. A clearance of at least 5mm should be provided

all around the frame, however, clearances more than 15mm will be difficult to seal after the frame is installed.

Building Regulations may require the installation to achieve air tightness. Various installation sealing systems are available to achieve this. There should be a correctly installed damp proof course around all the openings to prevent moisture moving from the outer construction to the inner construction.

Building Regulations may also require the window to be positioned in the opening such that it covers at least 30mm of the cavity.

Installation types



6 Installing the frame

Apart from windows less than 1m² windows are supplied pre-glazed with sashes separate from the frame to ensure manual handling is safe and practical. See below for sash installation.

Windows must be fitted without distortion of the frame

They should be levelled and plumb and the position checked with a spirit level (minimum length 1metre)

Windows should be secured in the openings by fixings at each side positioned approximately 150mm from the top and bottom of the window and then at no more than 450mm centres in between.

Fixings are not required at the top and bottom for frame widths up to 1800mm, for wider frames up to 3600mm, a central fixing will be required.

When securing the frame care must be taken not to distort the components as this will impair the operation of the window, for example if using polyurethane fixing foam.

Fixings appropriate to the method of installation should be used, i.e. corrosion resistant screws and plugs for fixing brackets. If this method is used, fixing holes into the jamb liners must be predrilled, with care not to enter into the box space with the weights

NB. Care must be taken to ensure separate glazed sashes and their preset balance/weights are fitted to the correct frame.

7 Installing the sashes

Sashes delivered loose; for larger frames sashes are delivered loose to help with handling issues. All sashes have been pre-fitted in the factory to ensure correct operation before being dismantled for transportation.

Before installing sashes check you have the correct upper and lower sashes for that frame.. Lower sashes can be quickly identified by the deeper bottom rail profile approx 91mm high. Upper and lower sashes are also labelled.

It is advised that roping up the sash windows is carried out by at least 2 people.

Different site conditions may mean the order of installation cannot be followed. For example internal fittings may require the sashes to be installed in the frame before installing into the reveal.

Remove side box covers and fixing brackets (these are temporarily fitted for transport)

Knock pockets out from inside box

Plastic pulley covers (on inside of box space) may be temporarily removed whilst fitting the cords. Covers can be removed by gently lifting the plastic tabs on the top and bottom of cover.

Fit upper and lower sash weights into box, threading cord through the outer pulley wheel, loosely tie in place to prevent cord dropping back into box space. Ensure weight knot is secured with the knot being as close to the weight as possible, this will allow the sash to open fully where possible.

Fit side box cover linings through indicated holes. Refit fixing ties if using this method of installation – refitting through original holes.

Lift window into opening (Refer to site documents)

Check plumb/square and level.

Fix into place.

Untie loose knot from outer pulley cord upper sash, lining the factory marked line to the vent hole on the sash (see figure 1). Fix cord along length of channel ensuring line still lines up with vent hole, once in place tie knot to fit it knot hole, making sure cord is taught.

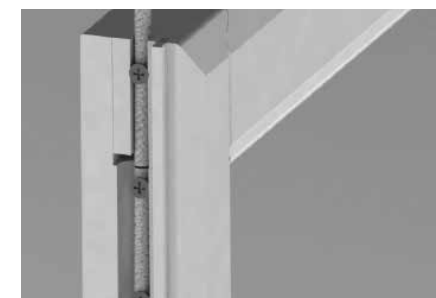
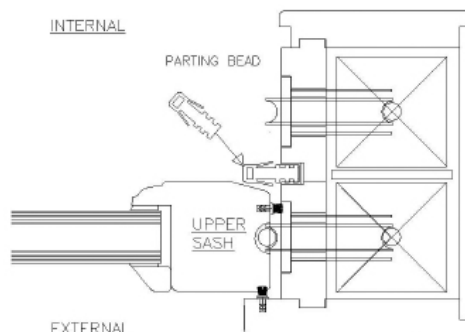


Figure 1 – Top Sash, Position of the cord. The marked line on the cord is placed level with bottom of vent hole

7 Installing the sashes cont...

Fit weight pockets, ensuring flush with inner box face.
Fit vertical parting bead (figure 2)

Figure 2: Plan View of Jamb – Parting Bead Location



8 Fitting the Parting Bead

The parting bead comes as 3 lengths (Unless window is an arched style). The length with mitres both ends is already located in the channel at the head of the outer frame.

The two additional lengths are located in the vertical channels of the frame (see figure3). You may find it easier to fit the vertical parting beads by temporarily removing the upper sash metal interlock profile that is fixed at the mid rail. Fit back into place once the parting bead is fitted using the same hole positions to locate.

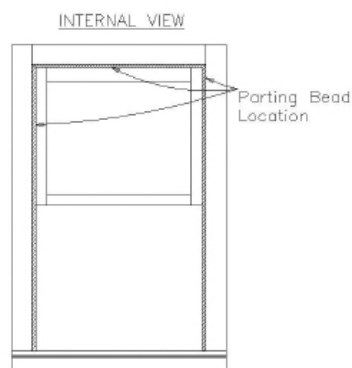


Figure 3: Parting Bead elevation view.

Repeat hanging process for lower sash, lining the cord marked line to the bottom of the vent hole (see figure 4)

Line the bead up, inserting the ends first with the centre sprung out. Once the ends are located the centre can be progressively eased into place, ensuring a tight fit in both ends.

Check the operation of the top sash. Sash will feel slightly loose until the staff bead is fitted as the staff bead provides a friction seal to the sash.



Figure 4:

Once hung check the running of lower sash.

Sashes should hold in place by the counterweights

9 Fitting the staff bead

Establish type of staff bead fitting required based on the actual frame size.

If the actual frame size is 1200mm or below wide and/or 1650mm or below high then the staff bead requires the pinning option shown below.

Frames over 1200mm wide and/or over 1650mm high require the staff bead to be screwed (For safety reasons)

Pinning Option

Locate correct length of 2 x staff beads for vertical sides. Add some clear sealant to the sill end of the parting bead to prevent any water ingress.

Locate staff bead into channel.

Check running of upper and lower sash and that the fitch catch engages properly with the fitch receiver when the two sashes are in the closed position.

Once you are happy with the operation of the sashes pin the staff beads to secure (30mm pin recommended). Pin at approximately 300mm intervals and 150mm from the ends. Sink pin head into timber and cover with wood filler, sand once dry and touch up with paint if required.

Screwing parting bead Option

(Frames over 1200mm wide and/or 1650mm high)

As the above method but predrill holes at the same centres mentioned above, ready to accept 3.5 x 35mm C/SK screws. This is required as a safety precaution.

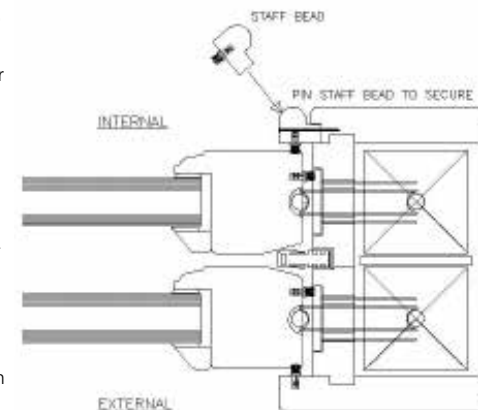
Care & Maintenance

1. After Installation

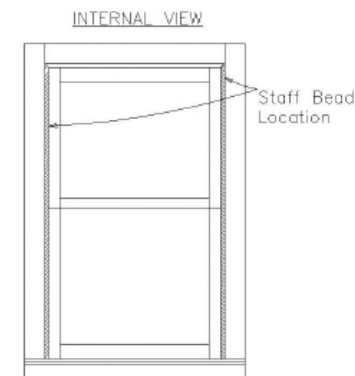
Check that there has been no damage to the paint work and if any is found it must be touched up promptly.

Check frame and sash drainage holes are clear of debris and unobstructed.

2. Sash Cord Renewal: After an extensive period of use the sash cords may need to be replaced. This is far easier before they fail and is recommended at the 10 year maintenance cycle. This is achieved by reversing the installation instruction previously described.



Plan view of jamb- Fitting the staff bead



10 Maintenance

Glass Units

Scratches to external glass faces not reported at time of delivery and shattering caused by thermal shock are not covered under the JELD-WEN product or glass guarantees.

Re-Glazing

In the event of a breakage, glass units must be replaced with compatible double or triple glazed units to maintain the thermal performance of the building. Please check with JELD-WEN for glass unit specification to ensure the correct units are provided by your glazing contractor.

Hardware

Bi-annually all hardware should be regularly cleaned using a soft cloth and mild detergent to prevent build up of pollutants such as salt etc. In maritime and industrial environments the intervals should become shorter in some instances weekly cleaning may be required. Harsh chemical cleaners and abrasive materials should be avoided at all times.

Hinges and other hardware must never be painted, and must be kept clean and lightly lubricated at all times. Use Vaseline or neutral oil. Keep rivets and moving parts lightly lubricated. Lubricate at least once a year, in coastal areas and/or places with high pollution, clean and lubricate more often.

Make regular checks to ensure that drainage holes, channels and spaces are kept clear. Use a soft flexible brush or pipe cleaner with care to remove obstructions.

Leaded lights

Like any natural lead product exposed to the environment lead profile will undergo certain

'atmospheric transformation. This is perfectly natural and it will eventually settle down to take on the traditional weathered lead appearance so admired in ancient buildings. When lead first comes into contact with moisture (rainwater, condensation etc) it may result in temporary discolouration, spotting and even the appearance of white powdery deposits (basic lead carbonate) which in wet weather can run onto the glass (the glass should be cleaned during this process as the deposit can become baked on to the glass if left). Again this is perfectly natural and the temporary blemishes will eventually disappear as the natural patination process continues. Harsh marine and industrial environments may exacerbate this effect. The powder can be safely wiped off from time to time until the natural patination process is fully developed.

The time required to complete this cycle will vary depending on the purity of the lead, the location, time of year, environment, weather conditions and airborne impurities.

Regular maintenance of the paint or stain finish of the frame is essential for the long term performance of all the components of your windows. The period between maintenance checks will vary depending on the type of paint or stain finish and also the local conditions for the site. Exterior and interior of frames should be wiped with a damp cloth 2-3 times a year. With modern factory applied paints and stains, a recoating cycle is recommended in accordance with the conditions of the guarantee.

Refer to www.jeld-wen.co.uk for more information.

11 Performance

Windows meet the requirements of BS6375: Part 1:2004 Performance of windows and doors, achieve an exposure rating of 2000pa, an air permeability of Class 4 and meet the requirements of BS6375: Part 2: 1987 Operation and strength performance.

Windows are available upon request tested to PAS24: 2012 meeting the requirements of the Secured by Design police initiative scheme.

If trickle vents are fitted, please note they are not designed to be fully air tight in the closed position.

12 Guarantees

In keeping with our quality policy JELD-WEN offers the following guarantees on its products. These guarantees are subject to JELD-WEN UK Terms and Conditions of Sale. Defects that are caused in whole or in part by failure to adhere to JELD-WEN UK recommendations relating to storage, handling, installation, decoration, glazing and maintenance, are not covered by these



10 year guarantee against manufacturing defects



10 year guarantee on insulating glass units

Where windows are supplied factory glazed, all elements of the glazing system are covered by this guarantee



40 year guarantee against rot and fungal attack on all softwood timber components



10 year guarantee on factory painted pastel colours



6 year guarantee on factory stained finished products



3 years guarantee on factory finished Hi-Build dark painted colours, depending on exposure conditions

Exceptional wear and tear of hardware through extreme use is not covered. JELD-WEN will accept no responsibility for products cut down in size after receipt, or when utility or structural strength is impaired in fitting or application of hardware.

Hinges and other hardware must never be painted, and must be kept clean and lightly lubricated at all times. Use Vaseline or neutral oil. Keep rivets and moving parts lightly lubricated. Lubricate at least once a year, in coastal areas and/or places with high pollution, clean and lubricate more often.

The fitting instructions where supplied must be followed and the assembly, fitting procedures described must be strictly adhered to. Copies of product fitting instructions are available for download from www.jeld-wen.co.uk

All joinery shall be installed correctly in accordance with normal trade practices and adequately maintained in service. In case of replacement windows, reveals must be sterilised before new joinery is fixed.

All undecorated joinery supplied in the white must be suitably primed or stained without delay after receipt, all joinery supplied primed must receive further coats (undercoat and top coat) of paint within three months of purchase, and one month if basecoat stained. If primed and in particular basecoat stain finishes have deteriorated because of prolonged exposure, the surface must be properly prepared, and re-primed before finishing and a knotting solution should be applied over any visible knots. Take care not to paint over any form of weatherstrip as this will adversely affect the performance. Any surfaces subsequently cut, particularly those exposing end grains, must be brush coated with preservative and if required for paint finish must also be primed before the joinery is fixed in position in accordance with British and European Standards.

Standard insulating glass units must not be used in areas of high humidity, e.g. swimming pools or similar. They should also not be used within 300mm from a door or within 800mm of the floor, for these areas the glass must be toughened. Contact JELD-WEN if in doubt for your particular installation.

The decorative finish applied to external joinery and cladding, must be maintained in service and moisture must not be allowed to penetrate into the timber throughout its life.

Regular maintenance of the paint or stain finish of the frame is essential for the long-term performance of all the components of your timber windows. The period between maintenance checks will vary depending on the type of paint or stain finish and also the local conditions for the site.

External joinery must be cleaned at a maximum of six monthly intervals using a mild non-abrasive cleaner and soft cloth. Both internal and exterior faces should be cleaned. Make regular checks to ensure that any drainage holes, channels and spaces are kept clear. Use a soft flexible brush or pipe cleaner with care to remove obstructions. Finished joinery is guaranteed against blistering, cracking, flaking or erosion excluding natural resin exudation and movement around knots.

13 Guarantees cont...

Annual inspection should be made and touching up carried out as necessary in areas of wear and tear (for example, exposed areas of window sills or where paint film has been breached).

Guarantees to the finished product are also on condition that:

- No Physical or chemical damage to the window or coating has occurred
- No repairs or alterations to the surrounding buildings have occurred which are detrimental to the joinery performance
- No failure of the coating has occurred caused by failure of ancillary products, or glazing
- No damage to the coatings has occurred prior to, or during installation
- No damage to the coating has occurred, caused by bad maintenance of the building or poor design of the building

14 Troubleshooting guide

Sash will not shut after installing

Check that the ropes are corded up correctly and allowing the maximum travel of the sash before the weight hits the box.

Clear away any debris that may be collected on the stiles or jambs.

Once this has been confirmed check that the frame has been installed square and is not bowed.

Sash opens/ closes too quickly

Check that the correct counterweights have been used for the correct sash.

If this is still an issue additional add on weights can be added to counter weight the sash.

Cannot remove pocket cover

The pocket cover is not mechanically fixed but may over time become difficult to remove due to timber movement. The simplest method of removing the pocket is to screw a small screw into the pocket cover (10mm max) to use as a lever to pull out.

This screw hole can then be filled and painted over.