

GEORGE
BARNSDALE

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Installation Manual

TIMBER WINDOWS & DOORS

Installing Your Windows & Doors

It is essential that our timber windows and doors are installed correctly to ensure that they meet their performance potential, operate as intended and validate the guarantees.

To help with correct installation, we have produced this **Installation Manual** as a guide in good practice. Within this manual you will find an outline of the general installation process and product specific installation requirements, in addition to recommendations concerning suitable materials and tools.

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Guarantee Registration

The first step to take once you take delivery of your new windows and doors is to register your guarantees with us. To register, simply return the *Window and Doorset Guarantee Registration Form*, with all of the relevant information completed, within 28 days of delivery.

Our commitment to performance and longevity is backed-up by industry-leading guarantees. Whilst we offer standard guarantees, sometimes the location of the property and the positioning of the products will impact the length of the guarantee term. This is summarised in **Our Guarantees** brochure which is available to download from our website.

As standard, we offer the following guarantees:



Paint Finish
Manufacturer's guarantee against paint coating system failure.



Stain Finish
Manufacturer's guarantee against stain coating system failure.



Preservative
Manufacturer's guarantee against preservative failure.



Glazing Unit
All drained and vented units have a 10 year manufacturer backed guarantee.



Hardware
Manufacturer's guarantee for all window and door hardware.



Weather Seals
Manufacturer's guarantee against failure of weather seals.

Please be aware that your guarantees will only remain valid if the instructions within this **Installation Manual** have been followed. If you have any issues with your products, whether within the guarantee period or afterwards, call us on **01775 823000** or email us on **customer@georgebarnsdale.co.uk** providing detailed information and any pictures that will help to clarify the issue.

For further details on all guarantees, including exclusions, please visit the Guarantees section of our website **www.georgebarnsdale.co.uk**.

Delivery & Storage

Your windows and doors will be delivered in protective packaging to prevent damage during transit, off-loading and whilst in very short-term storage.

Delivery

All products should be checked at the time of delivery to ensure that they match the order schedule, that the delivery is complete and that no damage has occurred during transit. Upon checking, if any issues are discovered then you should notify us within three working days of delivery.

Storage

When off-loading products from the delivery vehicle or stillages, you should store them upright in the same orientation as the installation. Ideally products should not be stacked on top of each other. However, should this be necessary due to site conditions then the products should be spaced-off each other to allow for adequate ventilation below each item. Please note, if the spaces below each item are too narrow then the product coating may get damaged.

If for any reason you need to delay the installation, please let us know as soon as you can because our standard packaging will not perform as required. If our standard packaging is kept in place for more than a few days then it may cause damage to the high performance microporous coating which takes time to fully cure. If we know beforehand, we can package the products on timber packers and fix them with battens to ensure that they remain separate - please be aware that there will be an additional fee for this enhanced packaging. If the installation is delayed after the products have been delivered, you will need to remove the protective packaging and make sure that the products are carefully stored.

If externally stored the products should be raised off ground level to prevent them being in contact with any standing water. They should also be covered with a waterproof sheet to protect them from the elements. When stored internally, they should be protected from dirt and damage, and adequate ventilation around the products must be maintained.

Installation Process

In this section it is our intention to provide a guide in good practice. Within our timber window and door ranges, certain products do have additional requirements during the installation process and these are outlined in the *Product Specific Information* sections of this manual - see from page 14 onwards.

If more information or guidance is required please contact us on **01775 823000**, email **customer@georgebarnsdale.co.uk** or refer to BS 8213-4:2016 Code of practice for the survey and installation of windows and external doorsets.

IMPORTANT: We recommend that you read the following installation process before you progress to the *Product Specific Information* sections - see from page 14 onwards.

Planning & preparation

As with any project, success really lies with the planning and preparation. Before any work commences, all installation teams should ensure the following:

- ☐ They have received and understood all necessary drawings, survey details, etc. If any clarification is needed, please call us on **01775 823000** or email **customer@georgebarnsdale.co.uk**
- ☐ They have given sufficient notice of the sequence of installation and for the removal of any furniture, fittings or fixtures that may be damaged during the installation process. If it is likely further works will be carried out around the fitted items it is very important to fit adequate protection. For instance, grinding of metal and other building materials can create particles that can cause damage through abrasion and rusting.
- ☐ They have adequate availability of tools and personal protective equipment.
- ☐ They have adequate protective coverings for the immediate vicinity of the installation and all walkways to the area.
- ☐ Where the installation requires portable access equipment for working at height, all necessary safety best practice has been adhered to. The Glass and Glazing Federation offer guidance on Health and Safety and working at heights for the installation of windows and doors.
- ☐ They plan to install and seal the new windows and doors on the same day that the existing items have been removed.
- ☐ They carry with them sufficient fixings, sealants and architraves/trims for the installation.
- ☐ Should unavoidable circumstances arise, they have arrangements in place to ensure all structural openings, windows and doors can be made secure and weathertight.

IMPORTANT: Please contact us for advice if you have doubts with the installation.

Removal of old windows & doors

In the removal of old windows and doors, all installation teams should adhere to the following steps:

- Step 1** - Before any existing windows and doors are removed, they measure the existing structural opening and the new window or door to make sure they fit.
- Step 2** - In addition, before removal it's important to check that the building structure will not be damaged when removing the existing window or door.
- Step 3** - When removing existing windows and doors it's important not to apply large forces to the building structure. If necessary, timber blocks should be used as contact points.
- Step 4** - After removal, old windows and doors should be safely disposed of, with extra care taken to clean up any glass debris.

Fixing of the frame into the opening

During the process of fixing the new frame, the following points need to be considered:

1. Levelling the cill

It's crucial that the replacement window or door is fitted onto a solid and level cill. To achieve this we recommend the following steps are taken:

- Step 1** - Remove any loose debris from the cill and ensure that the remaining material is in good repair.
- Step 2** - If the cill is not level, apply packers on a bed of mastic sealant at intervals of no more than 450mm (centre to centre). The packers that are used must be capable of supporting the load, be resistant to rot and provide as much contact area as possible, with a maximum of 150mm in thickness.

IMPORTANT: It's recommended that the packers are set to provide the same spacing between the top and bottom of the window or door. Products with extended cills, particularly door cills, will need properly supporting underneath. Failure to do this will result in the joint between the frame and cill, or the frame itself, cracking when subjected to a load.

2. Removal of sashes

It's often simpler and safer to install the frame with the sashes/doors removed. If required, sashes and doors can be removed by following the instructions that are outlined in the *Product Specific Information* section of this manual - see from page 14 onwards.

3. Position in frame in opening

Insert the frame into the opening and level using wedges if required. Wedges should be used in the corner or within the corner connection to ensure that the frame remains square. It is vital that the products are fitted level and plumb within the opening.

4. Fixing locations

Once the frame is square in the opening it will need fixing in place with at least two fixings points on each jamb. These should be located 150mm down from the head and 150mm up from the cill. If the space between these fixing points is greater than 450mm, additional fixings at 450mm centres will be required as shown in Figure 01.

In the following cases head and cill fixing may be required:

- The product information in this manual specifies it;
- The window or door exceed 1800mm in width;
- Coupled frames are being fitted;
- A structural engineer has requested it.

Head and cill fixings should be located at the centre point of the frame as shown in Figure 01.

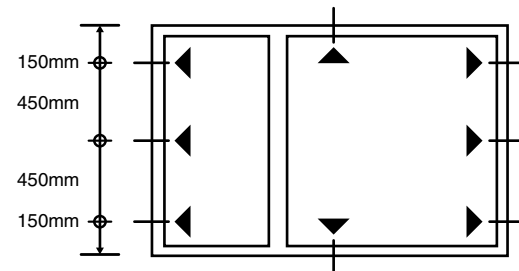


Figure 01: Fixing locations for windows wider than 1800mm

5. Recommended fixing methods

Depending upon the type of installation, to fix the frame into the opening we recommend either fixing the frame directly to the building or using straps to attach the frame to the wall.

Direct fix method

For most replacement window or door installations the direct fix method will be the most suitable because it does not cause a lot of damage to interior decorations. However, it does require the installer to drill through the frame and touch up any damage caused to the coating.

Step 1 - Fit packers at the screw points to fill any gaps between the wall and the frame.

Step 2 - Drill through the frame and packer deep enough to allow a minimum of 25mm of fixing engagement into the building structure (we recommend to allow for 50mm). Offset these drill holes (across the depth of the frame) to provide a more solid fixing and to prevent twisting.

Step 3 - Fit a suitable fixing plug into the building structure and fix the screw.

Step 4 - Check the frame is true, plumb and is not twisting.

Step 5 - Repair any damage to the coating using the process described in the recoating section of the **Owners' Manual**.

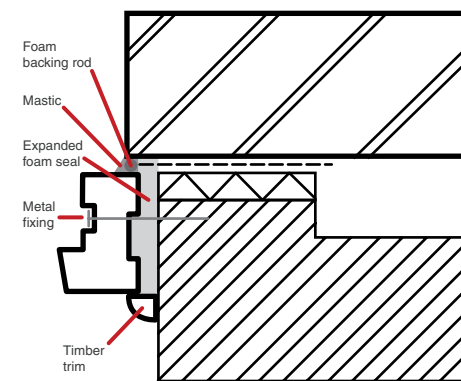


Figure 02: Direct fixing method

Couple Frames: If more than one frame is being fitted into an opening, the frames should be connected using joining strips fixed in with a mastic seal along its length. This can either be done outside of the opening or by placing one frame in the opening with a bead of mastic in the jointing groove, sealing the joining strip into the second frame and then placing the second frame into the opening allowing the joining strip to engage with the first frame. The frames should then be packed off in the opening and then joined before the overall frame is fixed to the building.

The joining grooves have been designed in such a way to allow frames to be aligned on the inside or the outside, even when different frame thicknesses are specified. If there are different frame thicknesses specified the exposed outer frame should always be finished with a covering trim.

Straps method

The straps method should be used when installing windows and doors before the plastering and decoration of a room has taken place, so is more suited to new build installations.

Step 1 - Select straps which are suitable for external installation of windows and doors and are the correct specification for the size and weight of the product.

Step 2 - Fix the straps to the frame at intervals as defined in Figure 1, predrilling the frame for each screw. Ensure that the fixing points line up with a solid section of the building structure and do not line up with mortar joints or other weak points.

Step 3 - Fit a suitable fixing plug into the building structure and install the screws.

Step 4 - Check the frame is true, plumb and has no twisting.

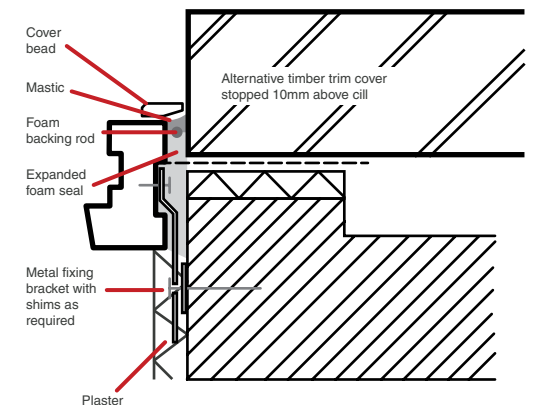


Figure 03: Straps fixing method

6. Fit of loose components

Certain components are supplied loose to allow easier handling and/or installation. These should now be fitted to the frame using appropriate fixings.

Bay window cill extensions are normally supplied separately. They are specially bonded together to avoid splitting on the joints. It is very important not to stress these joints when fitting them to the frames. We recommend that the following steps are followed in order to avoid this:

Step 1 - Prior to sealing it is important to make sure the cill is adequately packed.

Step 2 - Apply a bead of **Soudal Glaskit TS** sealant between the upper frame groove and the cill extension - a tube of this is supplied with each order for bay windows with extended cill. A sufficient amount of the sealant should be applied to provide a good seal between the groove and the extension.

Step 3 - Remove any excess material, leave overnight and touch in with a coat of touching up paint (provided this is a good colour match).

Step 4 - Fix the cill to the frame using wood screws but only lightly tighten. The connection must allow slight movement between the cill and frame. If the paintwork is damaged during the fitting of these components, it should be repaired using the process described in the recoating section of the **Owners' Manual**.

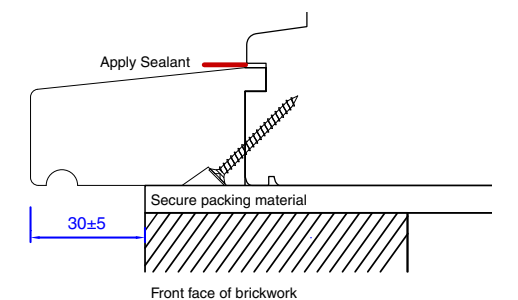


Figure 04: Fitting of loose components

If the cill extension has to be cut around the brickwork exposing bare timber, please ensure this area is repaired according to our remedial instructions in the **Owners' Manual**. For bay windows, do not to stress the joints of the cill by altering the angle of the bay windows.

IMPORTANT: Do not allow any cill to protrude more than 35mm without adequate support.

7. Refit the sash / door

The sash/door can now be refitted according to the *Product Specific Information* instructions - see from page 14 onwards.

IMPORTANT: If brass / black iron fittings have been supplied they should be removed prior to installation to protect the finish from damage. It is recommended that they are reinstalled when the hardware can be kept clean and free from damage.

8. Adjust the hinges and locks

For easy operation and long term performance it is crucial that the hinges and locks are correctly adjusted at this stage. The procedures for each product are detailed in the *Product Specific Information* section of this manual - see from page 14 onwards.

IMPORTANT: This process may need to be repeated after a few days/weeks/months to counteract any movement from the sash/door settling into the correct position.

9. Application of foam around the frame

If required, apply **low expansion foam** according to the fixing specification method you have chosen and the manufacturer's instructions. Foam continues to expand after it has been applied and care must be taken not to over apply the foam as this can result in distortion of the frame (especially on deeper frames such as those found on sash windows and patio doors).

10. Application of mastic

Apply the mastic, if required, according to the fixing specification method you have chosen and the manufacturer's instructions (do not use silicone). A closed cell backing rod should be applied first which gives the mastic a surface to adhere to and prevents it falling into the cavity. We recommend that you use a **low modulus modified polymer** to do this.

11. Fit of trims

The window or door is now ready to be finished with any required trims. If we have supplied these trims, ensure that any damage to the coating is repaired according to our remedial instructions in the **Owners' Manual**. For other trims, follow the manufacturer's instructions.

General Advice on Ventilation

We manufacture all products in a humidity controlled environment to ensure that the timber has a moisture content during production that equates closely to the level it will experience when installed. This prevents excessive movement of the timber that can lead to operation issues as well as coating damage.

During the drying phase of new buildings or renovations where large amounts of plastering or cement based flooring has occurred, a large amount of water vapour is set free. This can cause extremely high humidity levels within the building and as a result the timber will take on moisture which can lead to movement and swelling that causes opening issues, coating damage and promotes fungal growth.

To avoid these issues and to safeguard the validity of the guarantees, it's crucial to adequately ventilate the building by either opening the windows or using dehumidification equipment. The photographs below were taken during a period of building work, which involved a floor being removed in order to install underfloor heating, and clearly show the damage that can be caused if there is inadequate ventilation.

Highlighting damage caused by inadequate ventilation



IMPORTANT: Inadequate ventilation can cause serious damage to the product and will invalidate the guarantees.

Reglazing

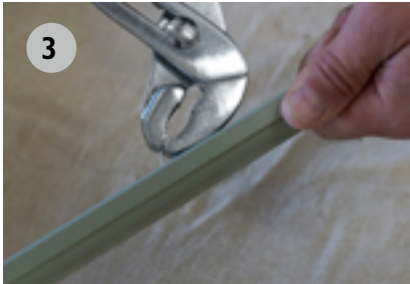
Most of our windows and doors are glazed with a drained and ventilated system with internal beads. This enables a good coating performance, allows the glazed unit to have a long life and provides excellent security. If a glazed unit is damaged and requires replacement, please follow the procedure outlined below. Where astragal bars are present, these should be treated and re-fixed in a similar manner to the frame/ beading on their respective face.



Use either a Fein tool or a craft knife to cut through the seal on the internal bead.



Use a glazing shovel to carefully ease out the glazing bead.



Once the glazing bead has been detached, remove any pins from the beading or sash frame.



Break the seal between the glass unit and frame and then flip the sash over to begin work on the external face.



Use either a Fein tool or a craft knife to cut through the external seal. A glazing shovel should be used to increase the gap, to ensure the blade does not damage the paintwork.



Once all the seals have been cut, prise the glass unit away from the sash frame using a glazing shovel.



Separate the glass unit from the sash frame and place to one side.



Remove any residual bonding tape and sealant from the sash frame.



Whilst most of the bonding tape should be removable by hand it may be necessary to use a blunt tool to carefully remove the tape, being careful not to damage the paintwork.



Once all the old glazing tape has been removed, apply **Tremco Glazing Tape** to the top rail and stiles of the sash.



On the bottom rail apply **Tremco Glazing Tape** leaving a 2-3mm gap between the tape and the edge of the sash.



If reusing a glazing unit, residual tape must be cleaned off this too.



Use the original packers to align the glass unit in place before removing the backing from the new bonding tape.



Once happy with the fit, remove the tape backing and fit the glass unit in place. Ensure the glass is fully bedded on the glazing tape.



It may be necessary to use a glazing shovel to gently move the glass unit to allow for the placement of the packers.



Before reapplying the internal beading apply a strip of silicone to the gap between the glass unit and the sash frame on the bottom rail and 100mm up the sides.



Reapply the internal beading using pins and bar tape to secure the strips in place.

Glazed Doors and Leaded Glazing Units: Glazing units fitted to doors and those with lead detailing will require more attention. Follow the above steps but when applying the Tremco Glazing Tape please leave a 2-3mm gap between the edge of the sash and the tape on all edges.

Before reapplying the internal beading apply a strip of silicone to all edges to seal the gap between the glazing unit and the sash frame.

Casement Windows

(C1/C2/C3/C4)

Casement windows can be fitted according to the standard installation instructions and have no specific requirements.

Sash removal/refit

To aid installation it is possible to remove the sashes and refit them afterwards.

To remove the sash, first open it and remove the screws that attach the hinge to the frame (using an **RI square drive**), ensuring that the sash is well supported at all times. Refitting is the reverse of the removal process.

Sliding Sash Windows

(S1/S2/S3)

Our traditional box sliding sash windows (S1) have been tested to BS 6275: Part 1 and have excellent air penetration performance. However care must be taken when fitting them to ensure there is no air leakage from the cavity as the box is not sealed on the outer side. The position of the air seal will depend on the location where **EDPM rubber sheeting** will need to be applied.

Sash removal/refit

It is not advised to remove sashes once they are fitted. If the size/weight of the sashes are an issue then we recommend that you ask for the windows to be supplied with the sashes loose. If the sashes are supplied loose, please refit as detailed on page 15.

To remove a sash on all variations of a sash window, you must first remove the box bead on the inside of the frame (it is only necessary to remove it on the sides). The box bead is pinned onto the window and can be removed by carefully levering it loose with a chisel or similar tool. Once the bead is removed the sashes can be detached according to the balance type.

Cords and weights (S1):

Step 1 - The sash can be pulled out of the frame, exposing the point at which the cord is screwed to the sash.

Step 2 - The cord (shown in grey in Figure 05) can then be unscrewed on each side allowing the sash to be removed.

IMPORTANT: Ensure the cord is not pulled through the pulley into the frame by tying a knot at the end.

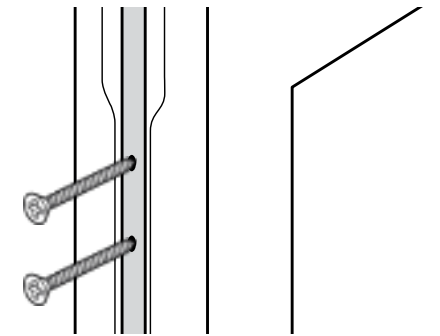


Figure 05: Screw locations on a cords and weights system

Spiral balance (S2):

Step 1 - Raise the sashes as high as possible and prop up.

Step 2 - Unscrew the balance foot attachment on the underside of the bottom rail.

Step 3 - Unfold foot attachment.

Step 4 - Unscrew the balances from the jamb and remove.

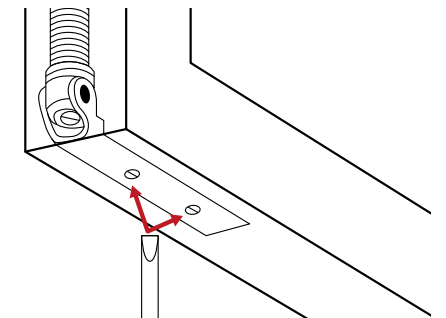


Figure 06: Screw locations on a spiral balance system

Tilting Mechanism (S3):

Step 1 - Undo the tilt catches to allow the sash to tilt forwards.

Step 2 - Detach the restrictor by pressing the spring clip and sliding the arm free (as shown in Figure 07).

Step 3 - Unscrew the quick release arm at the bottom of the base.

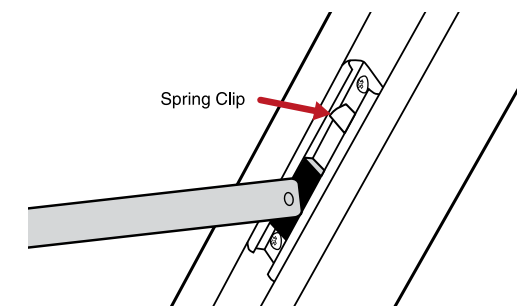


Figure 07: Location of window release clip on a tilting system

Tilt & Turn Windows

(EI/DS11)

Our tilt & turn windows are fully adjustable. In the unlikely event the sash weighs over 100kg a load transfer device will also be fitted - please contact us for instructions on how to adjust this.

Sash removal/refit

To remove the sash follow the steps below. Refitting is the reverse of the removal process.

1. Bring the handle into the tilt mode and open.
2. Press down the lifting mishandled device (if mounted).
3. Bring the handle into the turn mode and secure the sash manually or with mechanical support.
4. Whilst supporting the sash lift it upwards, slightly tilted open.



Figure 08: Tilting the sash



Figure 09: Lifting mishandled device

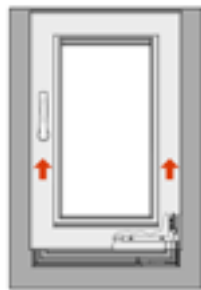


Figure 10: Locations for supporting the sash

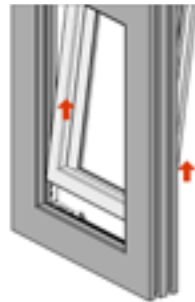


Figure 11: Lifting the sash away from the frame

Adjustments

The sash can be adjusted in multiple ways to ensure that it opens smoothly and closes tightly; adjustments can be made to the sash stays and corner hinges as shown in the diagrams below:

Sash stay adjustments

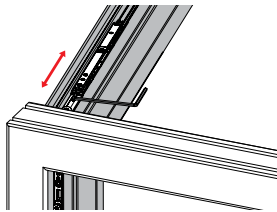


Figure 12: Horizontal adjustment $\pm 2.0\text{mm}$

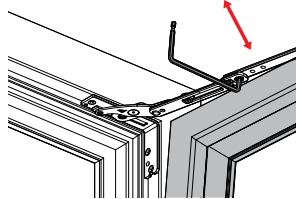


Figure 13: Compression adjustment $\pm 0.5\text{mm}$

Pivot hinge adjustments

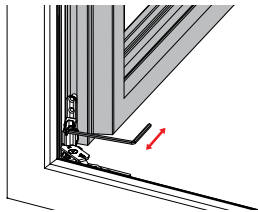


Figure 14: Horizontal adjustment $+2.0/-1.5\text{mm}$

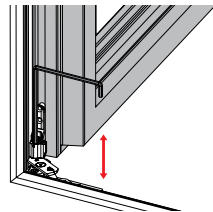


Figure 15: Height adjustment $+1.5/-1.0\text{mm}$

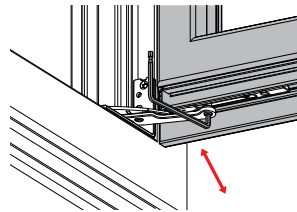


Figure 16: Compression adjustment $\pm 0.5\text{mm}$

Pivot Windows

(PI)

Sash removal/refit

The sash can be simply removed on both the surface mounted and flush type hinges. The sash should be opened until the screw is visible - see Figure 17. This screw should be removed from both hinges allowing the sash to be lifted off the hinge. Replacing the sash is the reverse of the above process.

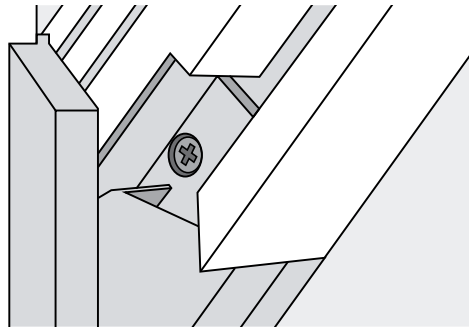


Figure 17: Hinge screw location

Entrance & French Doors

(DS2/DS3/DS5/DS6)

Frame installation

It is important to ensure that the doorset is installed with good fixing around the hinge and locking points (see *Installation Process* on pages 6-10 for more details), making sure that fixing points are positioned in these areas.

Doors should also be supported by durable packers no greater than 150mm on the head and cill, at 450mm centres.

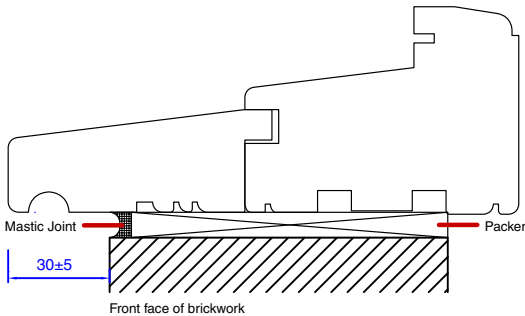


Figure 18: Packing below the door frame

It is even more essential that patio doors are installed plumb and square. Any error will be magnified due to the size. It is also very important that there are adequate fixings across the frame head.

IMPORTANT: Do not allow any cill to protrude more than 35mm without adequate support.

Sash removal/refit

The hinge pins have been left loose on both our standard and stable door hinges. This allows removal of the pins to separate the sash and frame for ease of installation. Once the door has been installed into the opening, the pins should be knocked in fully using a soft headed mallet, before doing this make sure the pin and the joints are well lubricated with light clear grease. In the event you need to remove the sash, these pins can be knocked out again from below.

Please Note: If black iron furniture is fitted a liberal coating of light clear grease will need to be applied to the connection between the back plate and the handle and between the fixing screws and the back plate.

Keep adjustment

Most keeps we supply are fully adjustable. When the hinges have been adjusted, the keeps should be adjusted to meet the instructions below:

Striker plate:

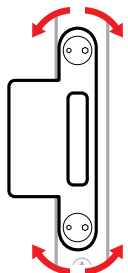


Figure 19: Striker plate adjustment

Allow the door to latch shut but not so that it is necessary to slam it shut. Use a **T15 torx** to adjust the compression on the gasket by turning the eccentric cam located at the top and bottom of the adjustable striker plate.

Hook bolt plates:

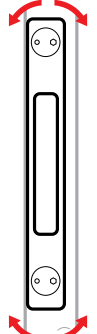


Figure 20: Hook bolt plate adjustment

When the bolts are engaged it holds the stile true and against the seals. The seals will force the stile of the door away from them and it is important to stop the door warping to keep the stile true. Use a **T15 torx** to adjust the compression on the gasket by turning the eccentric cam located at the top and bottom of the adjustable hook bolt plate.

IMPORTANT: Do not adjust with a power tool, hand tool adjustment only.

Hinge adjustment

Most hinges we supply are fully adjustable. When the fitting is complete please check that the door is true and square in the frame with an equal gap. The standard hinges can be adjusted vertically and horizontally as shown in the series of diagrams on page 19.

Flush door hinge (standard)

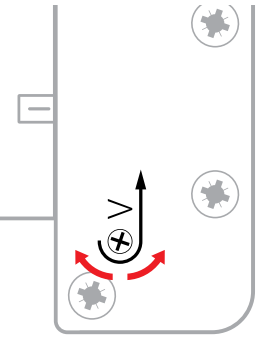


Figure 21: Vertical adjustment

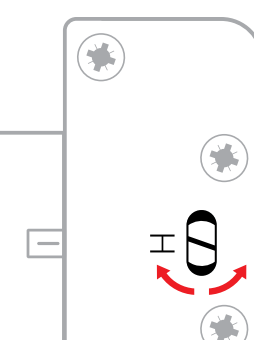


Figure 22: Horizontal adjustment

All adjustments

The horizontal and the vertical adjustments are to be carried out without unhooking the door. Open the door by approximately 90° and adjust the sash vertically ($\pm 3\text{mm}$) by turning the “V” screw in the middle hinge. Adjust the sash horizontally ($\pm 2\text{mm}$) by turning the “H” screws in the upper and the lower hinge.

After final adjustment apply a light clear grease to the friction area between the knuckle and the pin

Concealed hinge

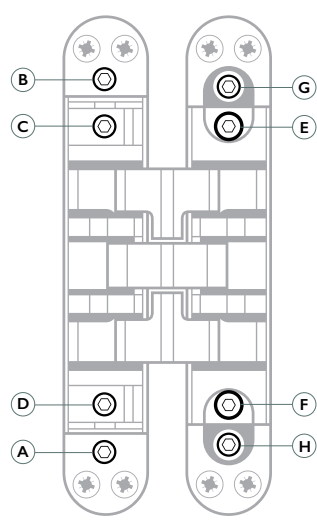


Figure 23: Concealed hinge adjustment locations

Horizontal adjustment

Tighten or loosen screws C and D to increase or decrease the air gap $\pm 3\text{mm}$.

Height adjustment

Loosen screw A by at least 3 turns, then tighten or loosen screw B to alter the height of the sash $\pm 3\text{mm}$. Lock by tightening screw A.

Compression adjustment

Loosen screws G and H. Tighten or loosen screws E and F to alter the compression $\pm 1\text{mm}$. Lock by tightening screws G and H.

Flush door hinge (stable door)

Unlock the hinge

The adjustment is to be carried out without unhooking the door. Open the door by approximately 90° and fix it by wedging. Loosen the two central clamping screws of each hinge.

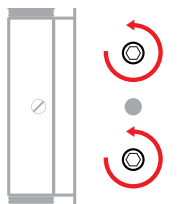


Figure 24: Unlocking the hinge

Height & compression

Adjust the height ($\pm 3\text{mm}$) and the compression ($\pm 2\text{mm}$) of the door leaf by moving the sash in the appropriate directions.

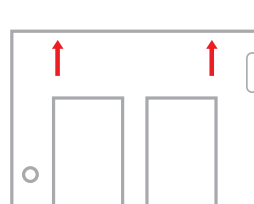


Figure 25: Height adjustment

Lock the hinge

Tighten the clamping screws and remove the wedges.

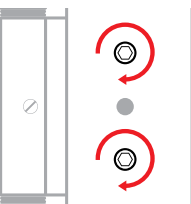


Figure 26: Locking the hinge

Horizontal adjustment

Adjust the horizontal position ($\pm 2\text{mm}$) by turning the upper and the lower screw of each hinge.

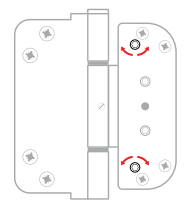


Figure 27: Horizontal adjustment

IMPORTANT: Do not adjust with a power tool, hand tool adjustment only.

Tilt & Sliding Doors

(DSI2)

Frame installation

As with all doors, it is crucial to install the tilt & sliding door plumb and square and allow for adequate fixings across the frame head.

Sash removal/refit

The following steps explain the procedure of removing the sash from the frame, to refit please reverse the process.

Step 1 - Loosen the clamping screw on the scissors-slider.

Step 2 - Slide scissor-slider out of the stay-connecting profile.

Step 3 - Place the sash at the 30° angle and lift out of the bottom roller track.

Adjustment

To see if any adjustment is necessary, test the parallel positioning in the sliding direction. If adjustment is needed, loosen the clamping-screw for the connecting rod (as shown in Figure 28) on the leading roller, align the sash parallel and tighten the clamping-screw firmly.

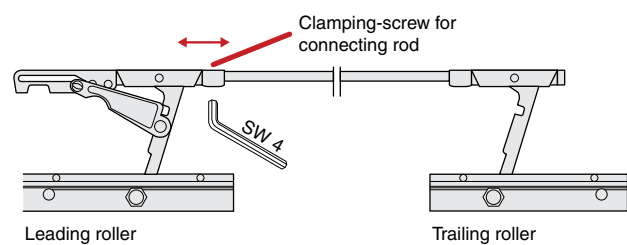


Figure 28: Adjust by loosening / tightening the clamping screw on the leading roller positioned on the bottom rail

Sliding Doors

(DSI3)

Frame installation

As with all doors, it is essential to install the sliding door plumb and square and allow for adequate fixings across the frame head.

Sash removal/refit

The following steps outline the installation process for our sliding doors, to uninstall the reverse of this process should be followed.

Step 1 - As with all installations ensure the cill is level before proceeding.

Step 2 - Remove the pre-installed rubber end stops.

Step 3 - If the door frame is fitted with an extended cill it is important to check that it is adequately supported as shown in Figure 29.

Step 4 - Remove all stop plates and front side track guide.

Step 5 - Move the handle into the 'sliding position'.

Step 6 - Offer the sash into the top track then position the sash on the bottom roller track.

Step 7 - Line up the rear side stop plate (top) and screw the plate in place as shown in Figure 30.

Step 8 - Line up the rear side stop plate (bottom) and screw the plate in place as shown in Figure 31.

Step 9 - Screw the front side track guide in place to install as shown in Figure 32.

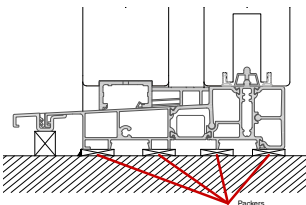


Figure 29: Packing locations to support a door cill

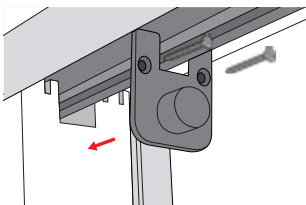


Figure 30: Top rail stop plate

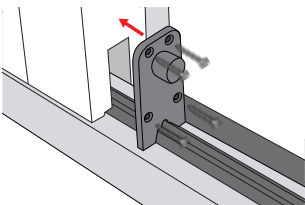


Figure 31: Bottom rail stop plate

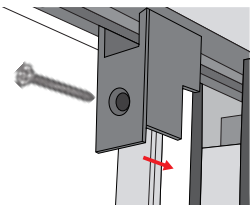


Figure 32: Installing the front side track guide

IMPORTANT: The doors will not align if the cill is not level.

Bifold Doors

(Outward Opening DSI7)

Frame installation

Due to the size of the bifold doors, it is important not to exceed a maximum tolerance of 2mm (see Figure 33). In addition, allowance is to be made for adequate fixings across the frame head. It may be necessary to check with a structural engineer that the lintel above is capable of carrying the weight. The cill also needs to be adequately supported and packed across the whole length and depth.

It is important to ensure that the frame is fixed according to the maximum track fixing centres (as shown in Figures 34 and 35) making sure that the screws fixing the track do not impede the carriers.

Similar to sliding doors, if the frame is fitted with an extended cill then it needs to be adequately supported.

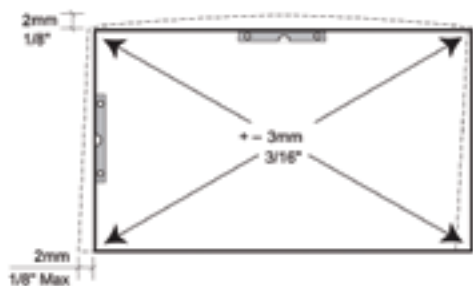


Figure 33: Installation tolerances

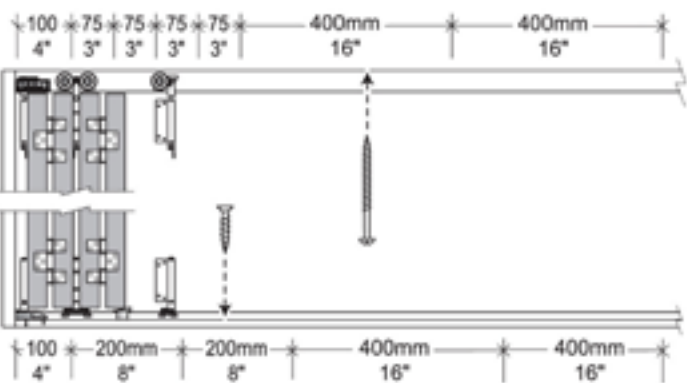


Figure 34: Maximum track fixing centres

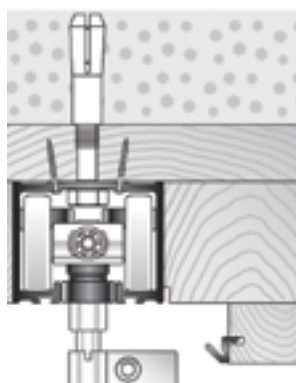


Figure 35: Track fixing and carrier clearance



Figure 36: Front alignment measurement offset

Sash removal/refit

Starting with the panel that will be located on fixed pivot hinge, remove the existing screws, bring the door up to the hinge or roller and fix in place using the existing screw holes. Reverse this process to remove the individual bifold door sections.

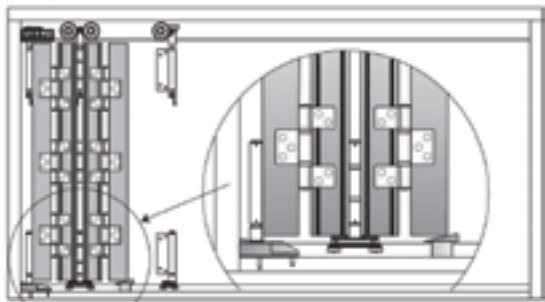


Figure 37: Hinge fixing locations

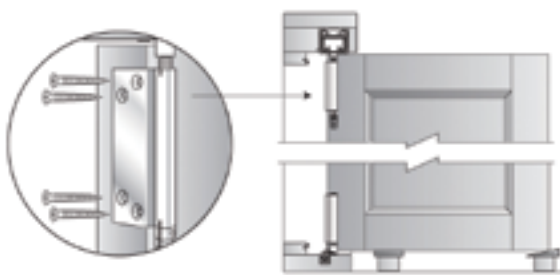


Figure 38: Fitting the pivot panel

Adjustments

Vertical and horizontal adjustment can be made on the hinges to allow for any movement after installation.

Vertical adjustment

- Step 1** - With the doors closed, insert the shipping clip (as shown in Figure 39) into the hinge.
- Step 2** - Adjust using a flat headed screwdriver.
- Step 3** - Once the adjustment has been made, remove the shipping clip.



Figure 39: Vertical adjustment with shipping clip

Horizontal adjustment

- Step 1** - With the doors open, using a flat headed screwdriver adjust the horizontal screws found in the top and bottom rollers (as shown in Figure 40).
- Step 2** - Turning the screws clockwise will increase the gap between the frame and sash, turning anti-clockwise will reduce the gap.

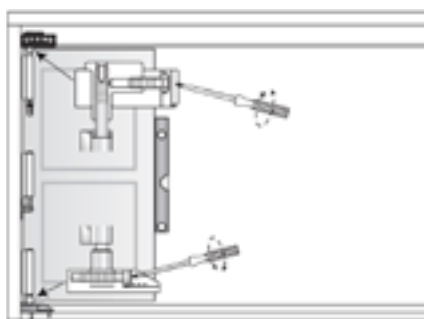


Figure 40: Horizontal adjustment roller locations

IMPORTANT: Ensure the shipping clip is kept safe for any future adjustments.

Magnetic door catch

The magnetic door catches are supplied loose and should be fitted to the doors once they have been installed and adjusted to ensure that they line up accurately.

The location of the door catch is recommended as in the opposite diagrams. Ensure there is enough clearance for door furniture.

To install the magnetic door catch, the following process should be adhered to:

Step 1 - Assemble the door catch in the order shown in Figure 42. Ensure the springs remain in place.

Step 2 - To accurately position the door catch onto the door panel, cut out the door catch template (see *Appendix*, page 27).

Step 3 - Mark the doors with the desired location of the door catch. Line up the template and mark the screw holes.

Step 4 - Pre-drill the screw holes.

Step 5 - Fix the set onto the door panel. Add the cover, ensuring that the clip is through the slots on each side.

Step 6 - If you ever need to remove the door catch, you will need to push the clips in on both sides and remove the cover from the base. Unscrew the screws to remove the door catch from the door panel.

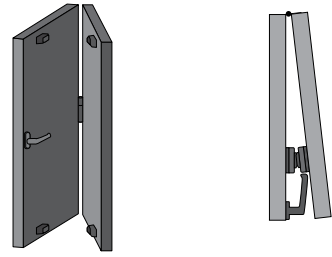


Figure 41: Locations of magnetic door catches

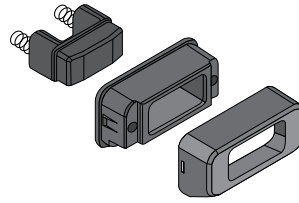


Figure 42: Parts of the door catch

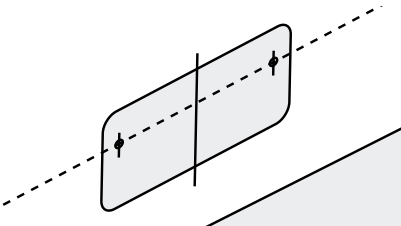


Figure 43: Aligning the template

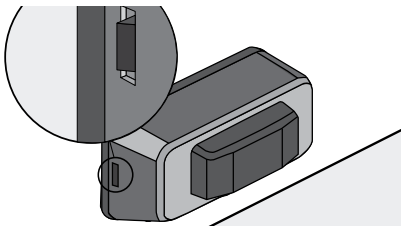


Figure 44: Locations of the cover clips

Hold back magnets

For intermediate panels we also supply an additional set of magnetic catches (1 pair as standard and 2 pairs if the door is over 2250mm high). These should be fitted to the bottom of each intermediate panel (and also to the top if a second pair is supplied) as shown in the opposite diagram.

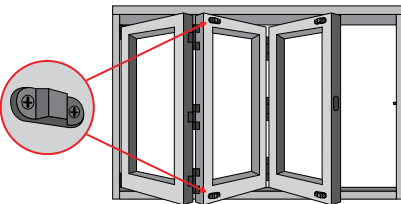


Figure 45: Hold back magnet locations

Bifold Doors (Inward Opening DSI 6)

Frame installation

As is the case for outward opening bifold doors, inward opening bifold doors should be installed plumb and square and an allowance for adequate fixings across the frame head.

Sash installation/removal

Installation to frame

Step 1 - Join the frame hinge-bearing and hinge in the opened sash position by inserting the cylindrical pin.

Step 2 - Secure the cylindrical pin with the countersunk screw.

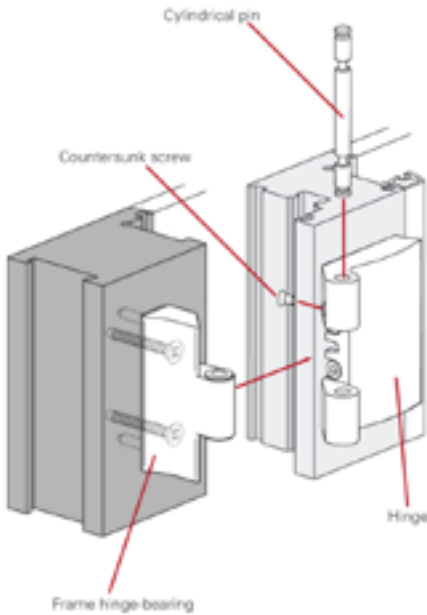


Figure 46: Fitting a sash to the frame

Installation to sash

Step 1 - Join the sash hinge-bearing and hinge in the opened sash position by inserting the cylindrical pin.

Step 2 - Secure the cylindrical pin with the countersunk screw.

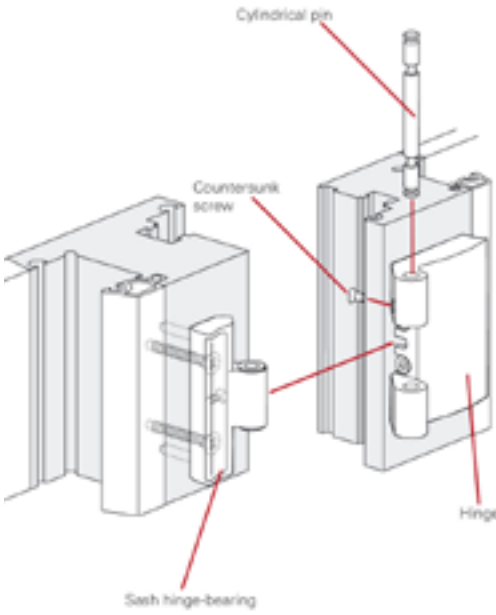


Figure 47: Fitting a sash to a sash

Support-bracket with guide roller

- Step 1** - Insert the guide roller into the track and position the support-bracket.
- Step 2** - Tighten the lock-nut with a 17mm open-ended spanner.

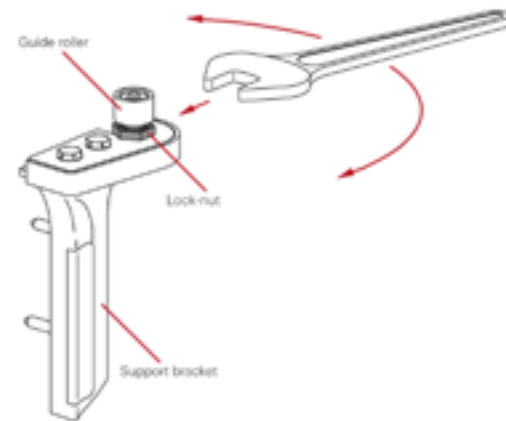


Figure 48: Fitting the guide roller

Adjustments

Adjustment of the door spacing

- Step 1** - Open the door to expose the hinge that requires adjusting.
- Step 2** - Adjust the hinge by turning the centre head bolt using a 4mm Allen key.

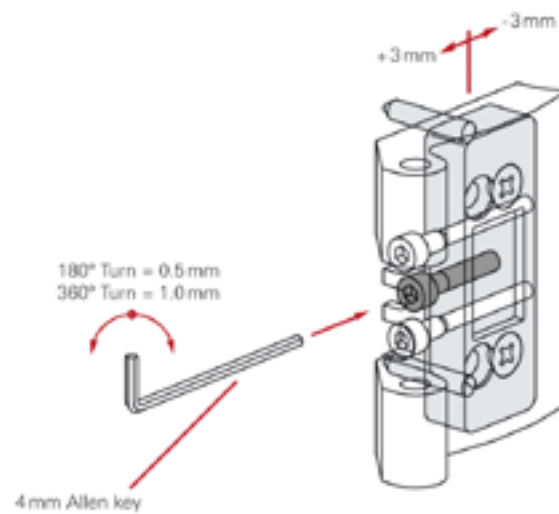


Figure 49: Hinge adjustment location

Adjustment of the sash via the roller

- Step 1** - Remove the cover cap.
- Step 2** - Loosen the lock-nut with a 17mm open-ended spanner.
- Step 3** - Carry out the height adjustment by turning the threaded bolt using a 4mm Allen key.
- Step 4** - Tighten the lock-nut again.

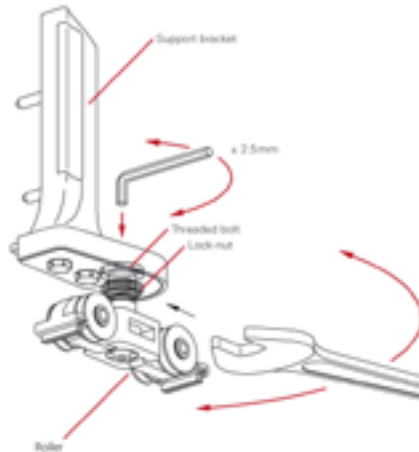


Figure 50: Roller adjustment location

Appendix

Door catch positioning template

