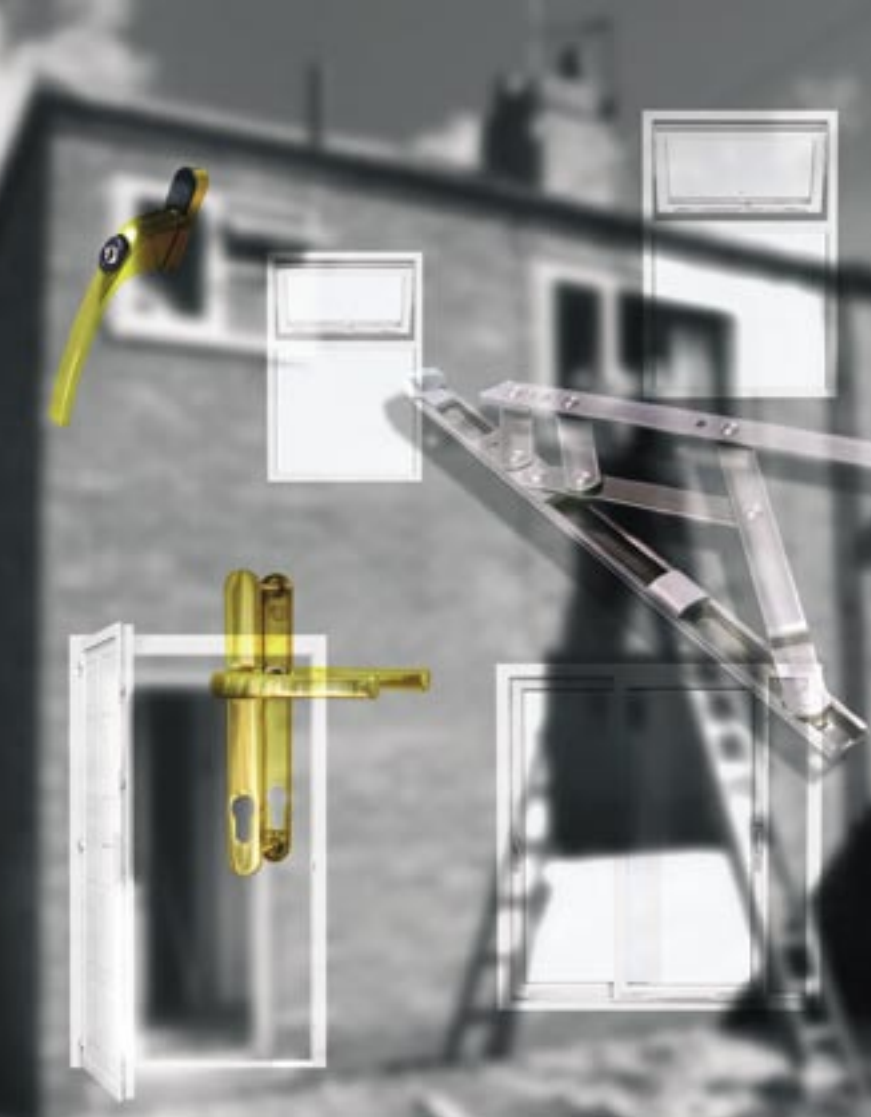


WE OPEN SPACE



Roto Frank Ltd

PVC-U window and door systems

Maintenance and operation recommendations

The information contained in this publication is intended for guidance purposes only. Whilst every effort has been made to ensure the accuracy of the information presented, it is the reader's responsibility to establish the veracity of the information and to ensure that the information is appropriate to a specific installation's requirements. Roto Frank cannot be held responsible for any omissions or errors and reserves the right to change the information, without notice, at any time. If you are in any doubt, you should consult the supplier of your doors and/or windows.

ROTO FRANK

Roto Frank is the world's leading designer and manufacturer of hardware for all types of windows, doors and environmental management control systems.

Founded in 1935, Roto has been responsible for some of the most innovative fittings to be used in the building industry. We have established an international reputation for product quality, performance and originality.

Renowned for our range of tilt and turn hardware – over half of the world's tilt and turn installations use Roto systems – we offer an extensive range of fittings to suit all popular types of windows and doors in virtually every situation.

In addition to a great range of exceptional products, when you choose Roto you are assured of the very best in service, customer care and technical support before, during and after installation.

Our dedication to customer satisfaction gives you total confidence every step of the way.

INTRODUCTION

PVC-U doors and windows are designed to give many years of trouble-free, low maintenance service. However, the emphasis is on **low** maintenance and **not** maintenance free.

As with all items that have moving parts, to ensure a prolonged and reliable life, PVC-U doors and windows need regular maintenance. A little care and attention on a regular basis will save a great deal of time and expense at a later date. Furthermore, many manufacturers' guarantees will require proper maintenance to be carried out and failure to do so may invalidate the guarantee.

This publication is designed to provide the end user with an informative guide to the operation, care and maintenance of PVC-U doors and windows, highlighting the components that require attention and suggesting appropriate methods.

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1. CLEANING

Glass

- Heavy external grime should be removed with a solution of soap and water.
- Any proprietary household glass cleaner may be used with a clean soft cloth.
- Laminated glass, or glass containing Georgian bars, is cleaned in the same manner.

Note: The glass used in most double glazed units is easily scratched. It is, therefore, recommended that hand jewellery is removed prior to cleaning and that cloths are free from grit, dirt and dust.

Leaded glass

- Special care should be taken when cleaning leaded lights, as excessive pressure can dislodge the lead from the glass surface.
- Warm soapy water, moderately applied with a cloth, will prove an adequate cleaning method.

Note: Externally exposed lead will oxidise. This is a natural phenomenon and cannot be avoided.

PVC-U window and door frames

- Frames should be washed with a soap and water solution at least:-
 - a) Every three months in areas of heavy industry
 - b) Every six months in rural locations
- If required, clean with a non-abrasive proprietary cleaner that is suitable for plastics, using a soft cloth that is free from grit, dust and dirt.
- In the event of unusually heavy staining, advice should be sought from the installer.

- Note:**
1. Avoid thinners and all solvent based or abrasive cleaners.
 2. Take care not to disturb silicone pointing sealants.

Conservatory and porch roofs

Polycarbonate roofing panels fitted to these structures can be cleaned with a soap and water solution at least every four months to remove grime and atmospheric deposits.

- Clear gutters of leaves and debris to avoid overflow of rainwater and ensure all drainage channels are free from obstructions.
- Wash roof panels with a soap and water solution at least every four months to remove grime and atmospheric deposits.

- Note:**
1. Do not walk on conservatory roofs.
 2. Avoid thinners and all solvent based or abrasive cleaners.
 3. Take care not to disturb silicone pointing sealants.

2. GENERAL MAINTENANCE

Glass scratches

- Most scratches on glass can be removed with jewellers' rouge, available from your local glass supplier, or an equivalent rubbing compound. Alternatively, seek professional advice.
- Replacement of sealed units should be carried out by professionals in accordance with BS 6262; the units themselves should comply with BS EN 1279.

PVC-U frames

- PVC-U requires no maintenance other than cleaning.
- In the event of damage seek advice from the installer.
- Periodically, where accessible, clear drainage holes that can normally be seen when you open the windows and doors.

Gaskets

- If gaskets are broken or damaged and draughts are felt around the unit, ensure prompt replacement by contacting your installer.

Hardware fittings

- Oil or light grease should be applied to mechanisms and keeps once a year.
- A thin film of oil applied to friction stays will enhance their corrosion resistance.
- Residential door hinges require no lubrication.
- Vertical slider spring balances are pre-lubricated and should require no maintenance.

Note: Under no circumstances use WD40, as this will wash out any residual grease injected during the installation.

Handles

- Generally, there is no maintenance required for window and door handles.

Brass Furniture

- Brass furniture is fully protected with lacquer and, through normal wear and tear, this lacquer may peel or become scratched causing the brass to tarnish.

Note: Your installer cannot accept responsibility for this natural occurrence.

To refurbish the brass furniture, carry out the following procedure:

- You are advised to protect the PVC-U surfaces from chemicals etc, by masking off the area around each piece of brass work or removing the item to be refurbished.
- Remove old lacquer with nail polish remover or paint stripper.
- Clean and polish with a proprietary brass polish.
- Carefully re-lacquer with a good quality product.

Silicone Seals

Note: Some discolouration of the silicone pointing sealant is a natural occurrence and cannot be avoided. You should not attempt any cleaning as this could disturb the seal and seriously affect the performance of your doors and windows.



3. SECURITY

General

Prevention is better than cure and your double glazed windows and doors have been designed with security features to protect your home and family against intrusion. A number of sensible precautions are to be recommended to take full advantage of the security features available with your double glazed windows:-

- Never leave a door or window open when your home is unattended.
- Windows left in the night vent position are considered insecure and would be recorded as such. This may render any insurance claim the householder may make as invalid.

- For added protection, lock all windows in the closed position and remove the keys.
- Windows designated for means of escape should not have key locking handles.
- To provide additional means of escape in the event of an emergency, it is recommend that any keys are located adjacent to windows, but out of external view. Consideration should be given to the access of keys by vulnerable residents.
- When leaving the house unattended, or at night, ensure door handles are fully lifted and that the keys are turned to throw and lock all dead bolts to ensure security.

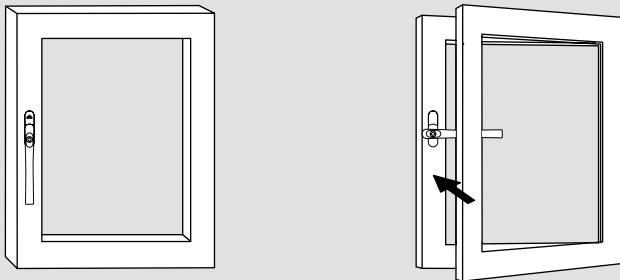
4. OPEN-OUT WINDOW

This window may be opened outwards, with its friction hinges holding it in the desired position.

Espagnolette and shootbolt locking mechanisms provide a “night vent” position.

Operating instructions

1. Turn the key or depress the button to unlock handle.
2. Rotate the handle through 90° to disengage the locking mechanism and open by pushing outwards.
3. The keeps have two slots, the first of which, when engaged, provides the locked, secure position and the second, the “night vent” position.

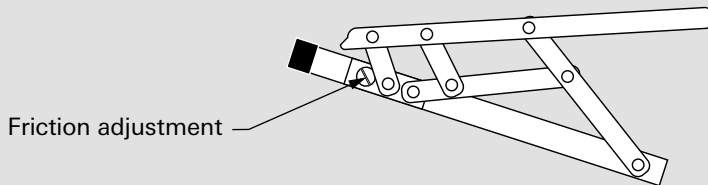


5. FRICTION HINGES

Standard Friction Hinge

Adjustment instruction (all hinges)

1. The friction shoe should be adjusted to give the required degree of resistance.
2. Tightening the screw increases resistance.
3. Slackening the screw decreases resistance.
4. Care should be taken not to over or under tighten.



Egress Hinge (easy-clean)

What are they?

The term 'egress' means exit (a way out), in case of fire. The term 'easy-clean' refers to the fact that you can, by operating the easy clean mechanism, clean the outside pane of glass from inside the building. Without this function, in the normal sash opened position you would not be able to do so.

The term easy clean applies to most friction hinges. Their geometry normally allows one's arm to pass between the frame jamb and sash to clean the external glass surface, size and risk assessment permitting (BS 8213 PART 1:2004). For 90° hinges without the easy clean facility, cleaning can be accomplished from an adjacent light, risk assessment permitting (BS 8213 PART 1:2004). The only other option being external cleaning.

6. TILT BEFORE TURN WINDOW

'Tilt before turn' refers to the sequence of operation of the window.

These inward opening windows are capable of two modes of operation:-

1. Tilt mode for ventilation.
2. Turn mode for cleaning and emergency exits.

Operating Instructions

To operate the window, the handle must be placed in one of three positions; 'Closed', 'Tilt' or 'Turn'. The operation sequence commences with the window in the 'Closed' position (handle vertically downwards):-

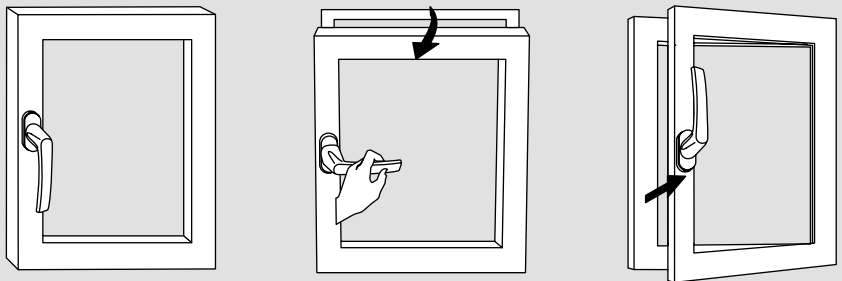
1. If fitted, turn the key to unlock.
2. To select 'Tilt', rotate the handle through 90°, from vertically downwards to horizontal and pull the window handle towards you. Thus, the window tilts inwards to allow ventilation.
3. To select 'Turn' from the 'Tilt' mode, close the window and rotate the handle from its horizontal position to vertically upwards and, again, pull the window handle towards you. The window then opens inwards.
4. To select 'Turn' from the 'Closed' position, rotate the handle through 180° from vertically downwards to vertically upwards and pull the window inwards.

It is possible that you may have a handle that can be key-locked to prevent opening to the turn position, but allows opening to the tilt position for ventilation.

NOTE: The window sash must always be fully closed before changing the handle position.

The switch barrier projecting from the locking mechanism, adjacent to the handle is a safety device which ensures that only one mode, 'Tilt' or 'Turn', can be selected at any one time. Avoid pressing the switch barrier as this action could result in the window disengaging from its gear.

Do not try to open the window when the handle is between these positions.



7. RESIDENTIAL DOORS

Doors are fitted with a lever handle on the inside and either a lever handle or a turn pad on the outside and the locking system will normally consist of cams or rollers (for sash compression), hooks or dead bolts and a latch and centre deadbolt.

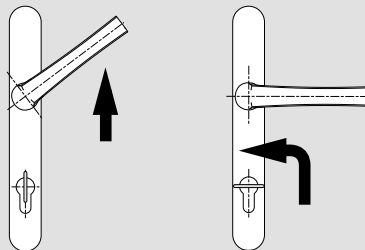
Both doors operate in a similar manner except that on the turn pad lock (also called a "slam lock") the spring loaded latch cannot be retracted from outside by operating the turn pad but must be retracted using the key.

Operating Instructions

The lock mechanism is engaged by lifting the handle.

To lock:

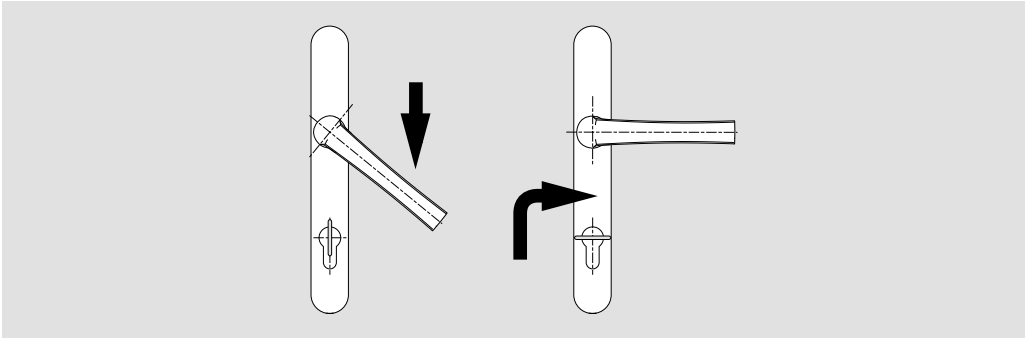
1. Close the door and the latch engages.
2. Lift the handle until resistance is encountered and firmly continue lifting until no further movement is possible. Release the handle.
3. Turn the key and a click normally indicates the mechanism is fully locked.
4. If the key will not turn, lift handle again to its maximum position and then turn the key



NOTE: If your lever is the reverse of the illustrations shown the direction in which you turn the key will also be reversed.

To unlock:

1. Turn the key and a click normally indicates the mechanism is unlocked.
2. Press handle down to disengage the lock mechanism and open the door.



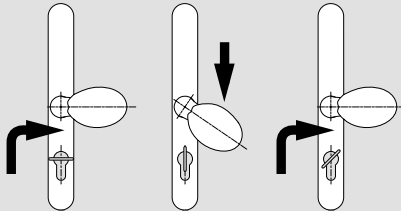
NOTE: If your lever is the reverse of the illustrations shown the direction in which you turn the key will also be reversed.

7. RESIDENTIAL DOORS *continued*

To lock and unlock using a lever/turn pad

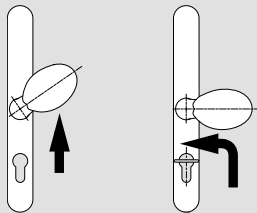
To unlock from the outside

1. Insert the key and turn until it stops.
2. Depress the pad which releases the mechanism, (use the palm of your hand as fingers can be pinched against the key).
3. Turn the key a further quarter turn which releases the latch allowing entry.



To lock from the outside

1. Close the door and the latch engages.
2. Lift the pad until resistance is encountered and firmly continue lifting until no further movement is possible. (this engages the lock mechanism)
3. Insert the key and turn until it stops. A click normally indicates the mechanism is fully locked.

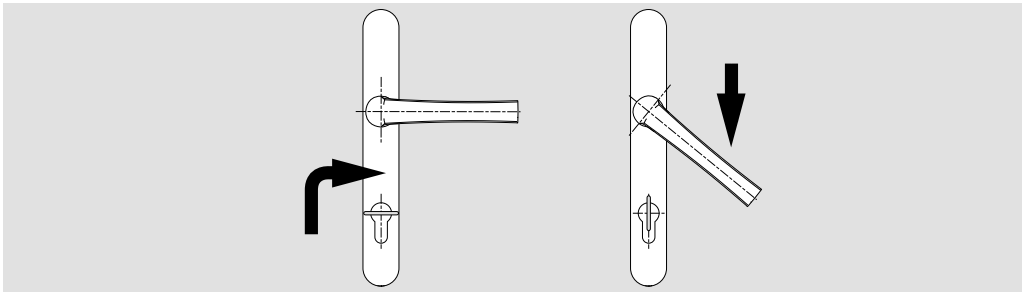


NOTE: If your pad handle is the reverse of the illustrations shown the direction in which you turn the key will also be reversed.

To lock and unlock using a lever/turn pad

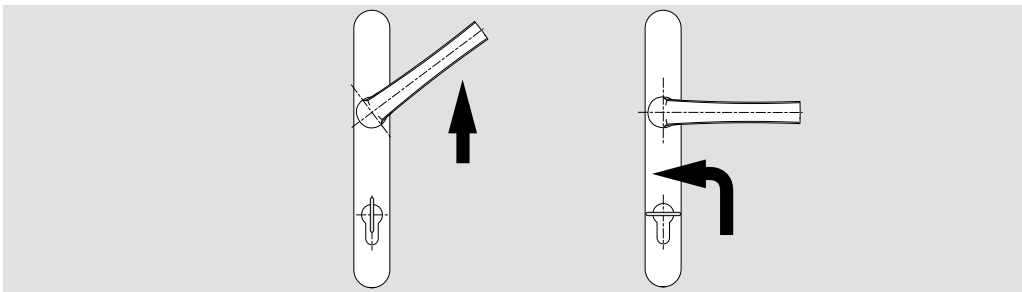
To unlock from the inside

1. Insert the key and turn until it stops.
2. Depress the lever and this releases the mechanism.



To lock from the inside

1. Lift the lever (this engages the mechanism)
2. Insert the key and turn until it stops.
3. If key will not turn, lift handle again to its maximum position and then turn key.



NOTE: If your lever or pad are the reverse of the illustrations shown then the direction you turn the key will also be reversed.

8. TILT/SLIDE PATIO DOORS

This versatile inward opening door can be 'Closed', placed in the 'Tilt' mode for ventilation, or in the 'Slide' mode to clear the doorway for access.

Operating instructions

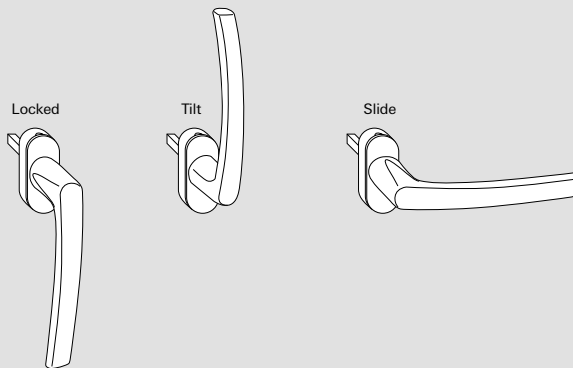
To operate, the handle is placed in one of three positions: 'Closed', 'Tilt' or 'Slide'.

To tilt

1. Move handle 180° to vertically up. (top of door will tilt inwards).
2. The 'Tilt' mode may be selected and held in a ventilation position.

To slide

1. Move handle 90° to horizontal. (pull on handle to eject door from doorway).
2. Slide door on track to clear access.
3. Closing the door is the reverse operation, except that the bottom of the door automatically re-engages itself at the bottom.



NOTE: The patio door must always be fully shut before changing the handle position.

Only one mode can be selected at any one time.

Do not try to open the door when the handle is between these positions.

9. IN-LINE PATIO DOORS

Once unlocked the opening leaf simply moves from side to side

Operating instructions

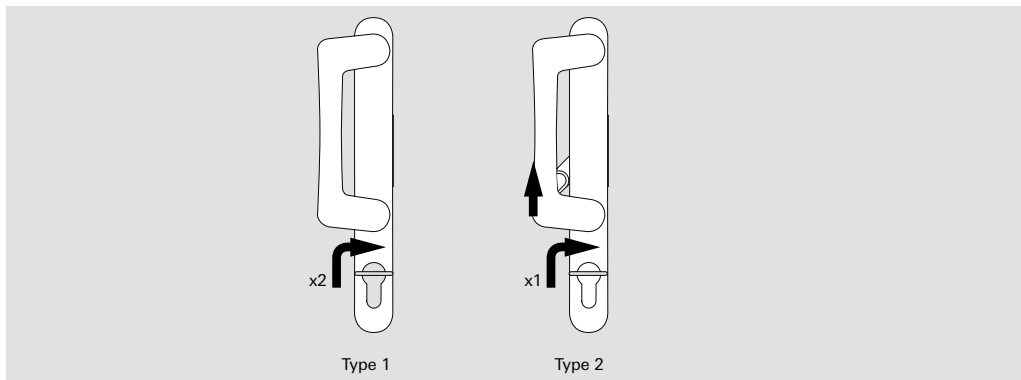
There are two specific lock mechanisms used, dependent on the type of door fitted:-

Type 1 – Key wind-up lock

1. Turn the key two full turns to lock (the direction the key is turned depends on the sash handing).
2. To unlock reverse procedure.

Type 2 – lever operated

1. Lift the lever on the handle and turn the key set one turn.
2. To unlock reverse procedure.



NOTE: The sliding leaf can be the inner pane or the outer pane depending on the manufacturer.

10. VERTICALLY SLIDING WINDOWS

Operating instructions

To open

Release the catches fitted on top of the lower sash allowing operation of both top and bottom sashes.

Tilt to clean

1. Unlock the window and raise the lower sash (approx 50mm or 2").
2. Release the spring-loaded catches located at either end of bottom sash top rail and tilt the window gently inwards until it is supported by the side stays.
3. Lower the top sash to a convenient position, release the catches and tilt it gently inwards, until it is supported by the side stays, or if none are fitted rest it on the bottom sash.
4. When cleaning has been completed, reverse the procedure, making sure that the spring-loaded catches have properly re-engaged

NOTE: The tilt to clean facility may not be available on certain types and sizes of sash for safety reasons.

11. TOP/SIDE SWING WINDOW

This window type is opened outwards.

Espagnolette and shootbolt locking mechanisms provide a “night vent” position.

Operating instructions

1. Turn the key or depress the button to unlock handle.
2. Rotate the handle through 90° to disengage the locking mechanism and open by pushing outwards.
3. The keeps have two slots, the first of which, when engaged, provides the locked, secure position and the second, the “night vent” position.

12. TOP/SIDE SWING HINGE

With this type of hinge there is no friction to prevent the sash from moving, instead there are two fixed opening positions for ventilation. Spring loaded buttons click into the hinge track providing secured opening positions. Cleaning is achieved by depressing the spring loaded buttons from their second opening position which allows the sash to travel through 180° reversing on the hinges outside the building, presenting the outer glass surface for cleaning. The sash, when fully reversed, will lock into position again via the spring loaded buttons. To reverse from the cleaning position, depress the spring loaded buttons and swing the sash through its 180° to the closed position.

NOTE: The fact that the sash reverses outside the building means that during the sash reversal process there is a point at which a large aperture is evident. A risk assessment (BS 8213 PART 1:2004), may be advisable and consideration should be given to vulnerable residents.

13. PIVOT WINDOW

As its name implies this type of window pivots horizontally or vertically about a central point.

Espagnolette type locking mechanisms provide a “night vent” position. This allows the window to be held whilst only slightly open, to provide ventilation.

Operating instructions

1. Turn the key or depress the button to unlock handle.
2. Rotate the handle through 90° to disengage the locking mechanism and open by pushing outwards.
3. The keeps have two slots, the first of which, when engaged, provides the locked, secure position and the second, the “night vent” position.

14. PIVOT HINGE

With this type of hinge there may be some friction on its operation to prevent the sash from moving too quickly. There is a restricted opening position on the hinges, or a proprietary product which fulfils the same function for safety and ventilation. Cleaning is achieved by releasing the restrictor, which allows the sash to travel through 180° about its pivot point, reversing and presenting the outer glass surface for cleaning. The sash, when fully reversed, will lock into position again via the hinge or a proprietary catch. To reverse from the cleaning position, release the hinge restrictor or proprietary catch and swing the sash through its 180° to the closed position.

NOTE: The fact that the sash reverses means that during the sash reversal process there is a point at which a large aperture is evident. A risk assessment (BS 8213 PART 1:2004), may be advisable and consideration should be given to vulnerable residents.



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