

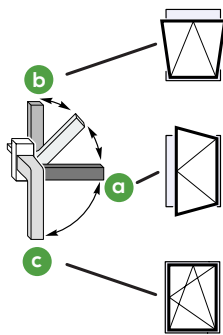
GENERAL NOTES & SAFETY ADVICE

These instructions are intended for the window company. They describe essential adjustment and maintenance work. Please observe the following notices: Installation parts are to be tested regularly to ensure they are seated firmly and checked for wear. Fastening screws are to be re-tightened and parts replaced as necessary. Their functionality is to be retested afterwards. Installations may only be cleaned with mild, neutral pH cleaning agents in diluted form. Use only cleaning agents which do not degrade the corrosion protection on installation parts. Never use aggressive, acidic or caustic cleaners, scouring agents, or sharp objects to clean installation parts.

Operating the Tilt-Turn Window

1. Push the handle down (c). The window is closed.
2. Move the handle to the central position (a). The window is unlocked; the sash can now be opened fully.
3. Close sash. Push the handle up (b). The window is unlocked; the sash can now be tilted.

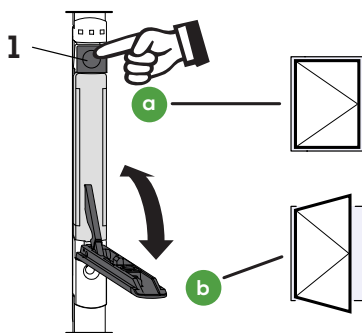
NOTE: Optionally tilt-turn windows can be equipped with a mini ventilation function. By turning the handle in between the shown positions (a) and (b), the "variable tilt device" is addressed. Different tilt angles of the sash can be achieved by arresting the fitting components.



Tilt-Turn Window

Operating the Double-Sash Window

1. Press the unlocking button (1) and pull down the lever so it's in the end position (b); opening angle approximately 135°.
2. The window is unlocked; the sash can be fully opened.
3. Close the sash and return lever to original position (a). The window is now closed.



Double-Sash Window

SASH INSTALLATION & REMOVAL (activPILOT CONCEPT)

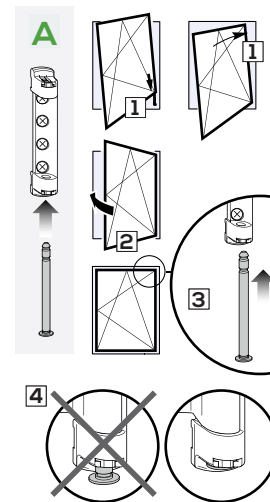
Tilt-Turn & Turn Double-Sash Type

ATTENTION: Secure the window sash to prevent falling; take the heavy sash weight into account! Two (2) people should carry the sash, if necessary.

Installing the Sash (Figure A)

1. Mount the sash.
2. Adjust for a good seal.
3. Insert the pin to secure against the hinge.
4. Push all end caps and sealing caps onto the corner hinges.

NOTE: Insert the pin from the underside (see 3).

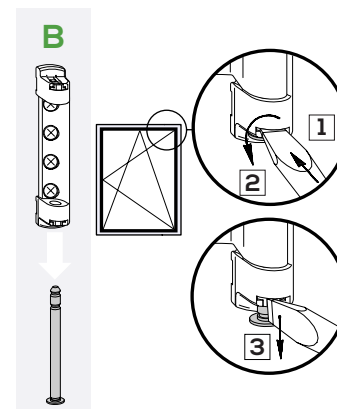


Installing the Sash

Removal of the Sash (Figure B)

1. Move the sash to the sealing plane.
2. Release the pin from the hinge.
3. Remove the sash.

ATTENTION: In case of improper use, and if you attempt to drive out the pin forcibly, the hinge will be damaged. Use only a screwdriver to release the pin as shown in Figure B.



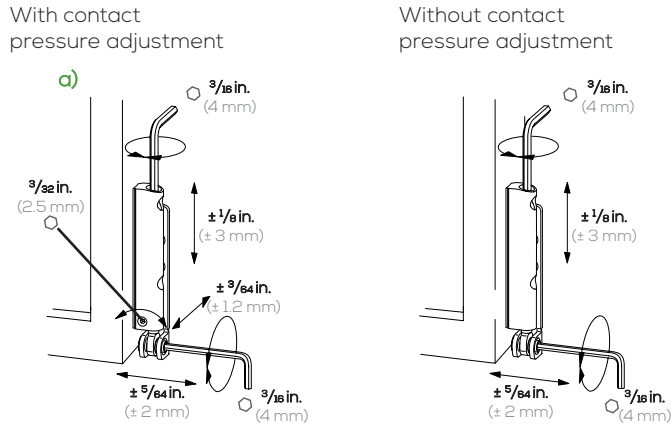
Removal of the Sash

ADJUSTMENT OPTIONS

Corner Hinge/Sash Hinge

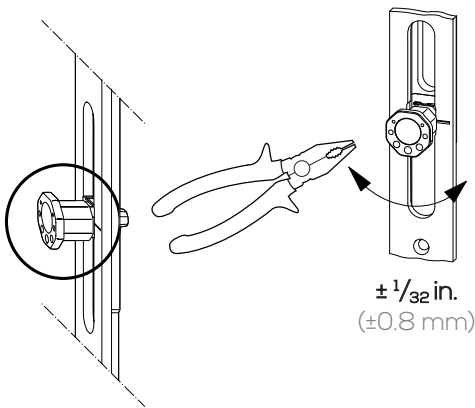
Sash hinge height adjustment (± 3 mm or $1/8$ in.) and corner hinge side adjustment (± 2 mm or $5/64$ in.).

a) To adjust sash hinge contact pressure between sash and frame, use a 2.5 mm ($3/32$ in.) Allen key:



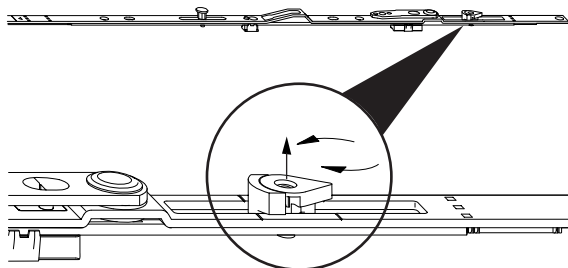
Octagonal Bolt

Regulate the contact pressure between the sash and the frame (± 0.8 mm or $1/32$ in.) by turning the octagonal bolt with pliers:



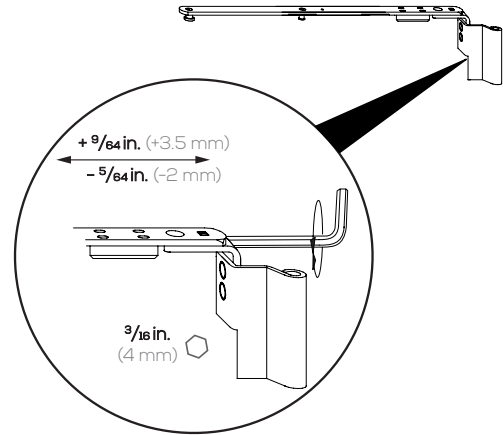
Scissor Hinge Retraction

The progressive pull-in is adjustable from 18 to 28 mm ($45/64$ to $1 1/64$ in.). Release the catch by pulling up on the adjustment latch, then pivot the adjustment latch away from the overlap. A variable tilt device, MSL.OS, can be used as an alternative to the progressive scissor hinge pull-in:



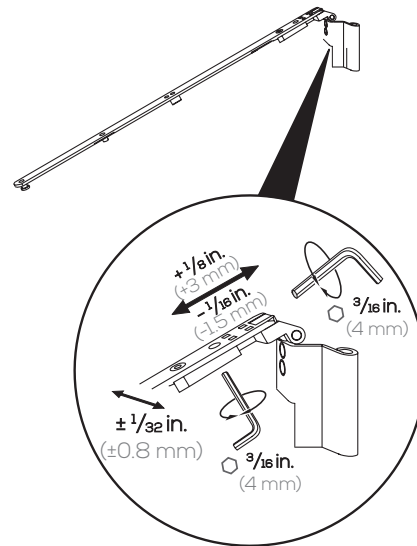
Scissor Hinge - Rectangular Window

Lift and lower the sash (from -2 to +3.5 mm; $-5/64$ to $+9/64$ in.) with a 4 mm ($3/16$ in.) Allen key:



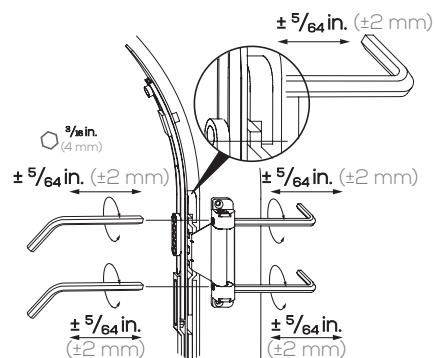
Scissor Hinge - Studio Window

Lift and lower the sash and adjustment of contact pressure with a 4 mm ($3/16$ in.) Allen key:



Scissor Hinge - Round-Arch Window

Lift and lower the sash and adjustment of contact pressure with a 4 mm ($3/16$ in.) Allen key:

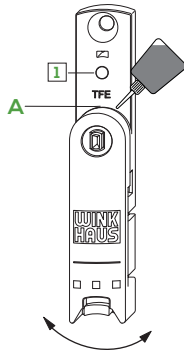


ADJUSTMENT & MAINTENANCE: DUAL/TRIPLE FUNCTION ELEMENT (DFE/TFE)

DFE/TFE Activation

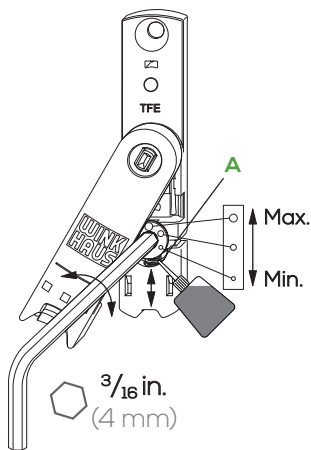
The DFE/TFE element is supplied in the neutral position. Please proceed as follows:

1. Drive in the protruding pin to fix in place (1).
2. Non-handed by swiveling out the lever once only.
3. Dribble a few drops of lubrication (free of resin and acid) onto designated points (A).



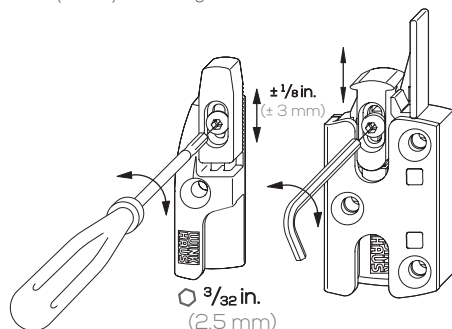
TFE: Retaining Force of Balcony Door Catch

1. Adjust the holding force by re-setting the eccentric cam with a 4 mm (3/16 in.) Allen key.
2. Dribble a few drops of lubrication (free of resin and acid) onto designated points (A).



Frame Part DFE/TFE

Height adjustment (± 3 mm or $1/8$ in.) for sash support plate. Each time installations are adjusted, the DFE/TFE height setting should also be checked using a 2.5 mm (3/32 in.) Allen key.



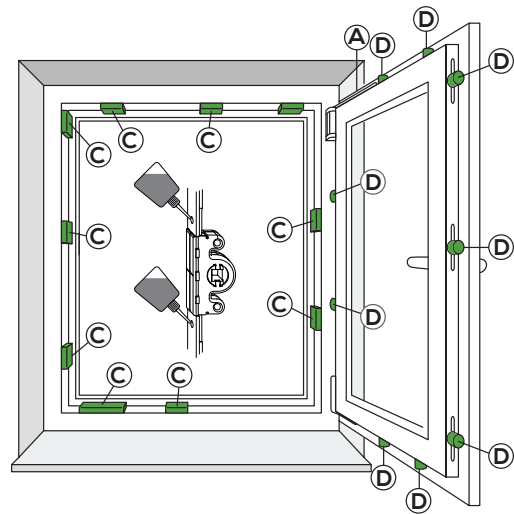
MAINTENANCE

Lubrication Points

The figure below shows the location of possible lubrication points which should be lubricated at least once a year. Positions **A**, **C**, and **D** are the lubrication points relevant to function.

NOTE: The installation schematic shown below does not necessarily match the existing installation. The number of locking positions will vary depending on size and type of the window sash.

ATTENTION: Risk of injury! The window could fall upon removal and cause injury. **DO NOT** remove the window for maintenance.

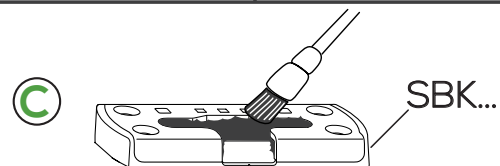
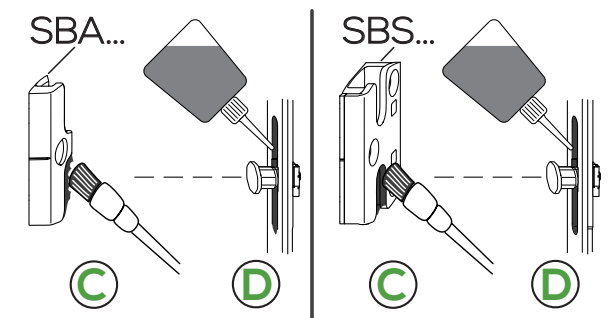


Overview of Lubrication Points

Keeps

To keep installations running smoothly, you must lubricate the keeps once a year:

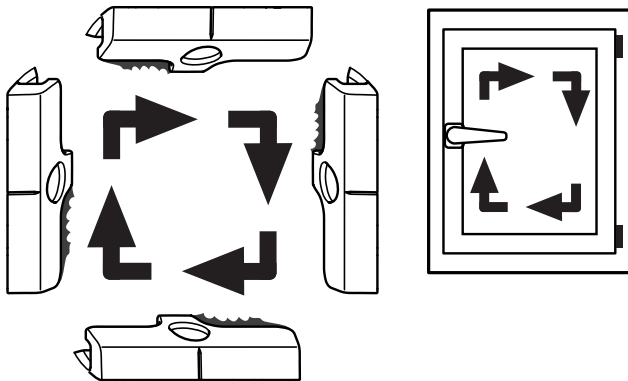
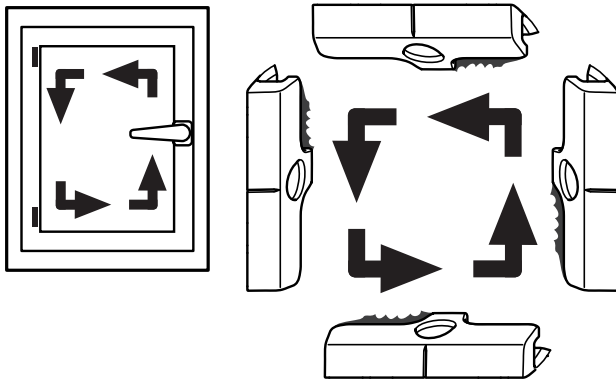
- Lubricate the keeps (C) at the run-in side
- Coat the running surfaces of the locking bolts (D) with a lubricant that is free of resins and acids.



Lubrication Points

Ascertaining the Run-in Sides

- Left-handed window; handle right
- Right-handed window; handle left



Run-in Sides

IMPORTANT INFORMATION

Always observe the guidelines for product specifications, notices, and liabilities (VHBH) when making adjustments or performing maintenance. This information can be obtained at the following address:

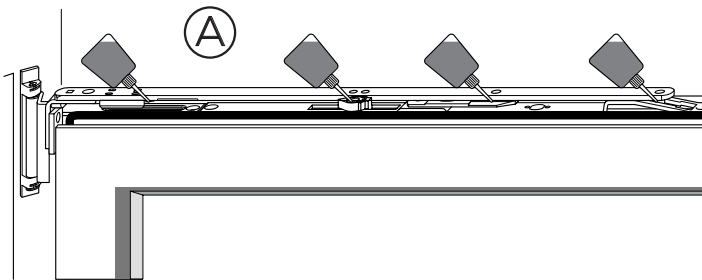
<http://www.bschlagindustrie.de/ggsb/richtlinien.asp>

For more details, please visit INTUSwindows.com.

Scissor Hinge

All of the scissor hinge's contact points with the top rod should be lubricated once annually.

NOTE: The scissor hinge should not be lubricated or greased.



Scissor Hinge

GENERAL CLEANING GUIDELINES

INTUS casement windows can be washed from the inside. Simply open the window fully and reach between the frame and sash (Fig. 1). Wash the sash from the inside, using caution to avoid accidental falls or mishaps.

To remove dust, dirt, smoke, film, soot and salt spray use mild detergent water solution and a soft cloth or brush. To remove heavy dirt or grime from glass, first wipe loose debris from the glass surface with a soft, dry cloth. Then apply a cleaning solution, such as mild soapy water or a liquid window cleaner, and wipe in a circular motion. Remove cleaning solution with a squeegee or a clean, lint-free cloth. **Do not use abrasive cleaners on the exterior of High-Performance™ Low-E4™ glass.** As a general practice, you should never clean glass in direct sunlight. To avoid damage to the glass, never use razor blades or sharp objects on glass surface.

To clean vinyl exteriors, use a mild detergent and water solution and a soft cloth or brush. Abrasive cleaners or solutions containing corrosive solvents should not be used. For persistent dirt or grime, PVC cleaners can be used.

Hinges need to be cleaned and lubricated occasionally to eliminate squeaking and binding. Hardware screws, especially hinge screws, should be periodically inspected and tightened if necessary. Wind buffeting the sash over time can loosen hardware fasteners. Remove grease or debris with a soft, dry cloth, then lubricate hinges and all other moving parts with a dry silicone spray. Lubricants or harsh abrasive cleaners are not recommended. Dry silicone spray may be purchased from your local hardware store.



Fig. 1

Cleaning Grilles and Insect Screens

To remove dust, dirt, smoke, film, soot and salt spray from grilles, use a mild detergent water solution and a soft cloth or brush. To remove grease, oil or industrial solids, you may need to use stronger solutions such as rubbing alcohol. Glass surface should not come in contact with any abrasive materials. Conventional insect screens are best cleaned with a soft cloth, sponge, or special cleaners (can be purchased locally in any hardware store).

In addition to all terms, conditions, and limitations set forth in the INTUS Windows Limited Warranty, the following limitations apply:

- Salt and other corrosive or abrasive materials must not be allowed to build up on the exterior surfaces or other exposed components of the product. Unless product specific care instructions require more frequent cleaning, exterior surfaces and exposed components must be cleaned with a mild detergent soap and water at least every three (3) months (more frequently if necessary) to prevent this build-up. Lift and slide operational hardware must be cleaned and maintained in strict accordance with the written care instructions.
- Any breaches in the exterior finish, such as scratches, chips or abrasions can result in corrosion and must be repaired immediately.