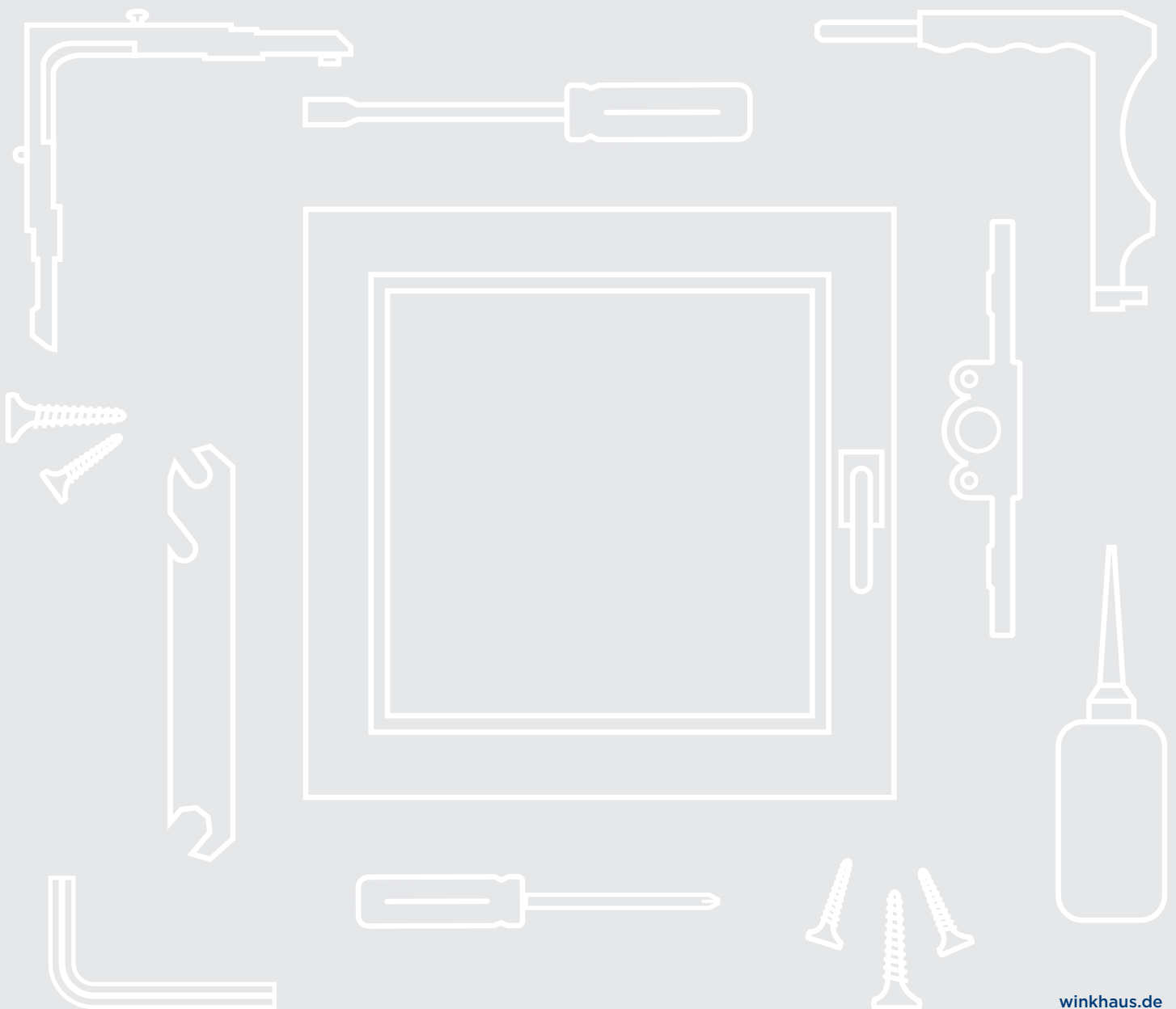


Operating and maintenance instructions

activPilot Select

Operating and maintenance manual for the window company



Operating and maintenance manual for the window company

General notes and safety advices

These instructions are intended for the specialist window company. They describe essential adjustment and maintenance work for the activPilot fittings. Please observe the following notices: Fitting parts are to be tested regularly to ensure they are seated firmly and checked for wear. Fastening screws are to be retightened and parts replaced as necessary. Their functionality is to be retested afterwards. Fittings may only be cleaned with mild, ph-neutral cleaning agents in diluted form. Use only cleaning agents which do not degrade the corrosion protection on fitting parts. Never use aggressive, acidic or caustic cleaners, scouring agents or sharp objects to clean fitting parts. Always also observe the guideline for product specifications/notices and liability (VHBH) when making adjustments or performing maintenance. This information can be obtained at the following Internet address: <http://www.beschlagindustrie.de/ggsb/richtlinien.asp>

Operation / operating sequence

Turn-tilt window

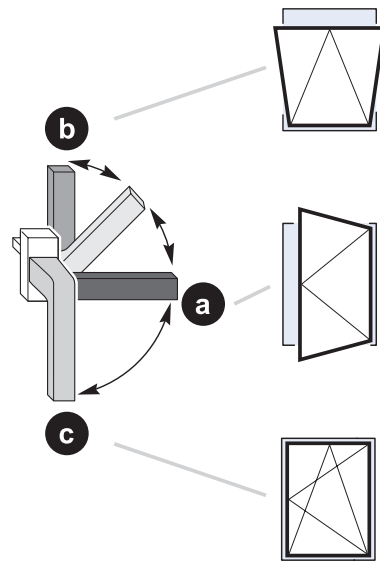
Operating the turn-tilt window

See figure: Turn-tilt window

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



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



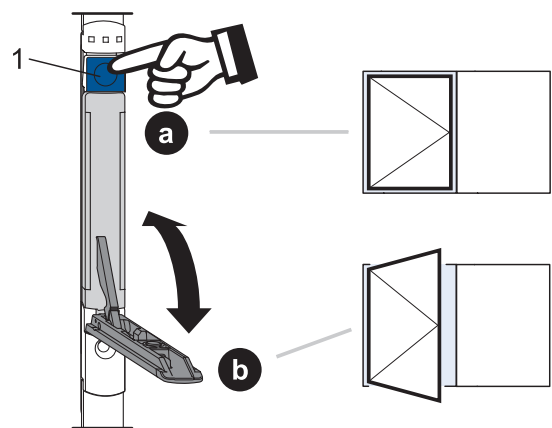
Turn-tilt window

Double-sash window

Operating the double-sash window

See figure: Double-sash window

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



Double-sash window

Fitting the sash

Turn-tilt and turn double sash type

Preparation:

- Turn the window handle to the tilt position.
- (If there is a fail-safe device, disconnect it.)
- If Sash Hinge Rail FLS.SE is used, the height adjustment screw must be removed from the corner hinge before installing the sash.



Caution: Secure the window sash against falling. Take the heavy sash weight into account! Two people should carry the sash if necessary.

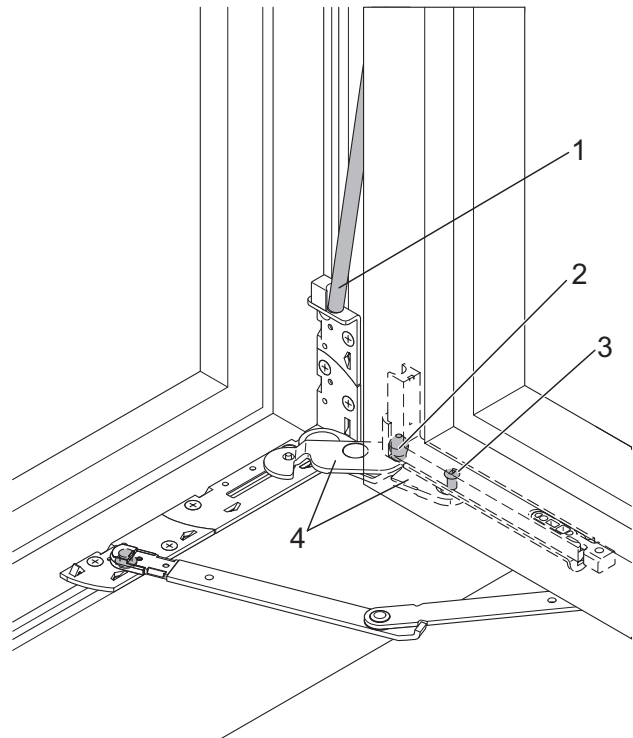
Installing sash at the bottom

See figure: Corner and Sash Hinges

- Open the corner hinge brackets (4) 90°.
- Lower sash onto the corner hinge brackets (4):
- Insert bolt (2) in the sash hinge top hinge point while inserting the bolt (3) in the sash hinge groove at the same time.
- If present, fit the sash hinge rod (1) into the slot on adapter plate.



Warning! Risk of damage to the corner hinge. The corner hinge brackets must not bear the sash weight on their own. If Sash Hinge Rail FLS.SE is used, it must bear the weight of the sash. If necessary, readjust the sash hinge rail using the height adjustment.

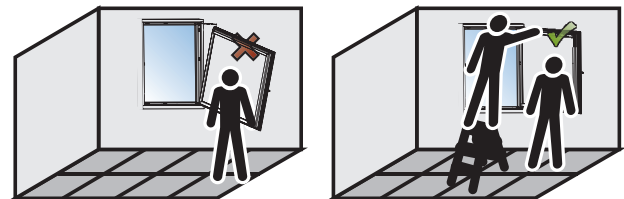


Corner and Sash Hinges

Support the sash!



Open the sash to a 90° turn position and support!



Support the sash!

Engaging the sash at the top

See figure: Engaging the sash at the top

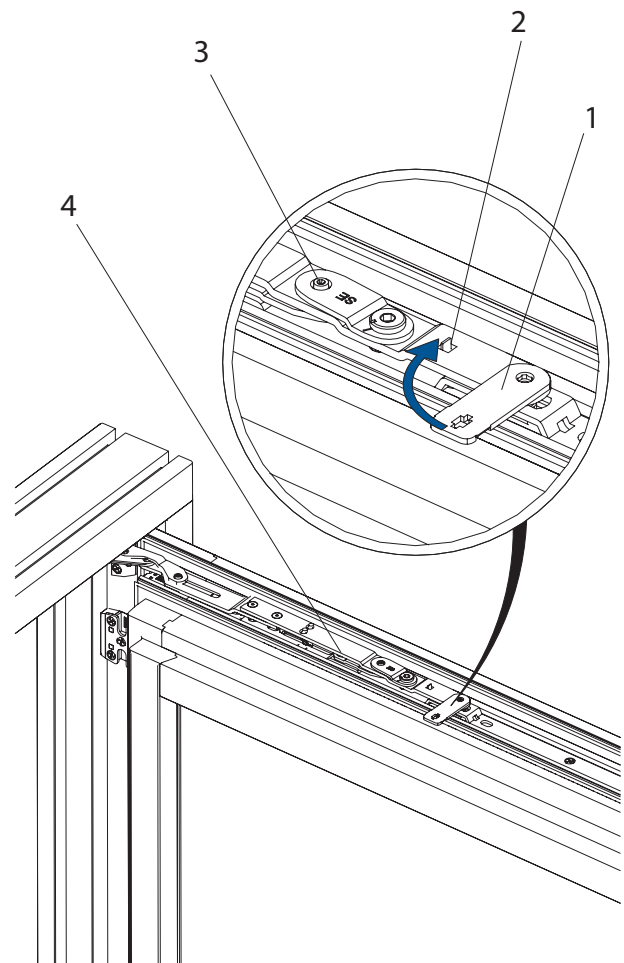
- Pivot mount securing device (1) out by 90°.
- Open shear 90° and place over the retaining bolt (4) on the top rod.
- Press in the shear bolt (3) into the opening in the counter bracket.
- Press the hammer head bolt into the elongated hole on the top rod. The shear arm should be flush with the top rod.
- Swivel the mount securing device (1) into position by hand, so that the stop spring (2) clicks into place.
- Set fitting to "Turn" position. Then check whether the shear is securely fastened to the top rod and the sash hinge to the corner hinge.



Note: For the "turn double sash" version it is possible to use a turn hinge instead of a shear in case of low sash rebate heights (FFH), depending on the profile system. These frame parts are identical in their function and installation.



Warning! Risk of Injury. The sash can fall out and cause injuries if the shear and top rod are not securely fastened. It is important to ensure the stop spring is firmly in position (clicking sound).



Engaging the sash at the top

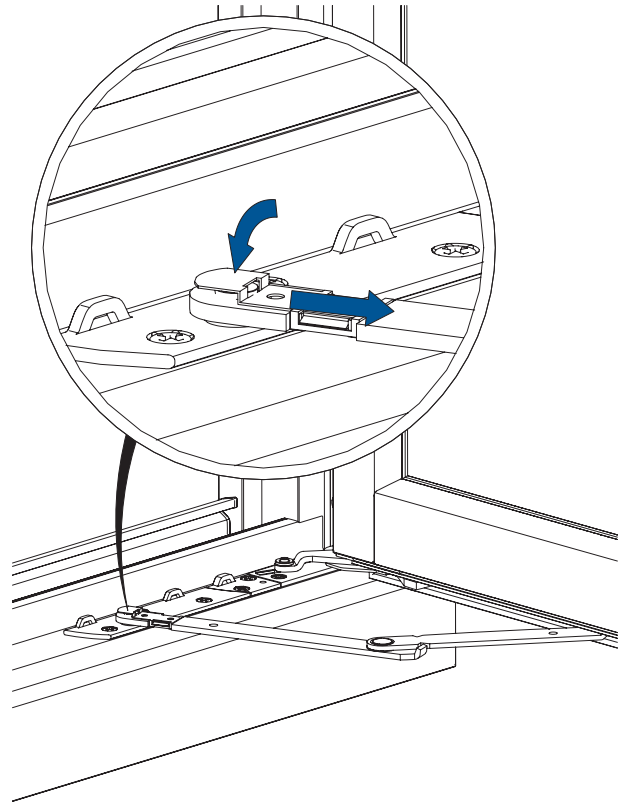


The mount securing device (1) must be pivoted by hand – without the use of tools, such as a hammer, screwdriver, etc. – such that the safety spring (2) detents.

Install turn limiter

See figure: Install turn limiter

- Place the turn limiter arm on the retainer pin, so that the stop spring clicks into place behind the retainer pin.
- It is important to ensure the stop spring is firmly in position (clicking sound).



Install turn limiter

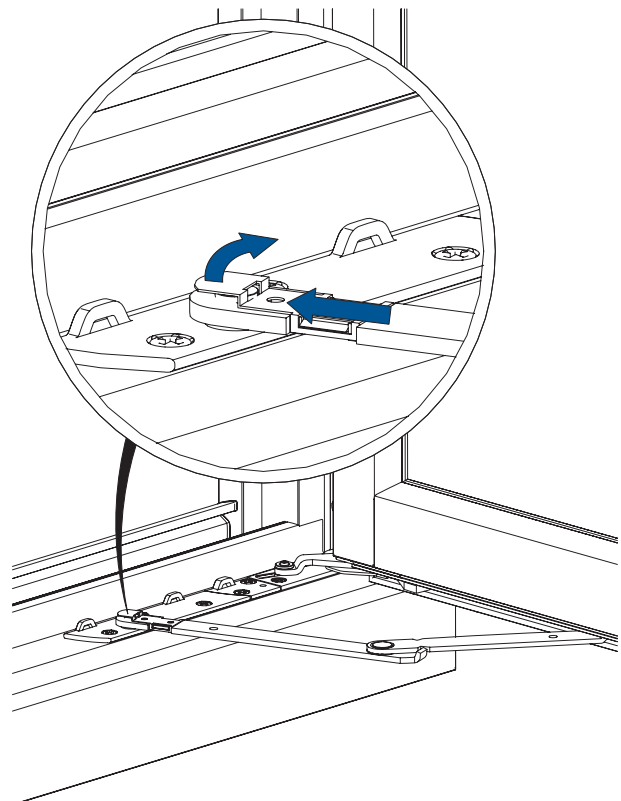
Removal of the sash

Detaching the turn limiter

See figure: Detaching the turn limiter

Preparation:

- Move the sash into the 90° turn position.
- Detaching the turn limiter

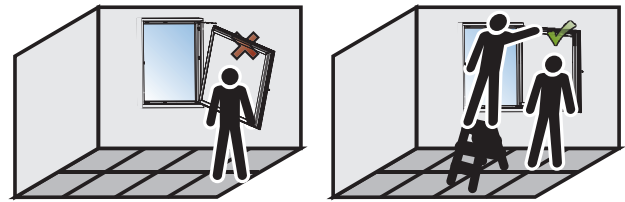


Detaching the turn limiter

Support the sash!



Open the sash to a 90° turn position and support!



Support the sash!

Unlocking the mount securing device

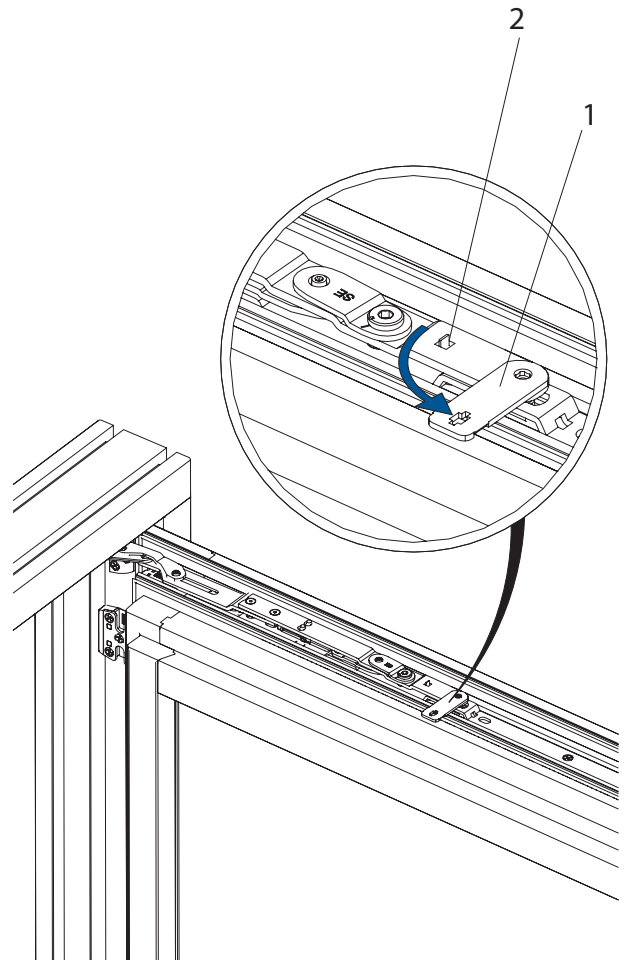
See figure: Remove the sash

Unlocking the mount securing device (1) of the shear:

- Press down the stop spring (2) with a screwdriver while swivelling the mount securing device (1) outwards 90° at the same time.



Caution: Secure the window sash against falling. Take the heavy sash weight into account! Two people should carry the sash if necessary.



Remove the sash

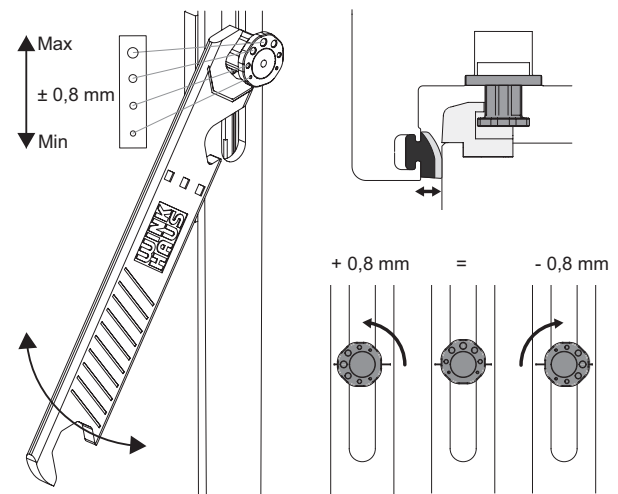
Lifting the sash out of the bottom frame hinge

- Pivot the uncoupled shear arm into the frame rebate.
- Lifting the sash out of the bottom frame hinge.

Adjustment options

Octagonal bolt

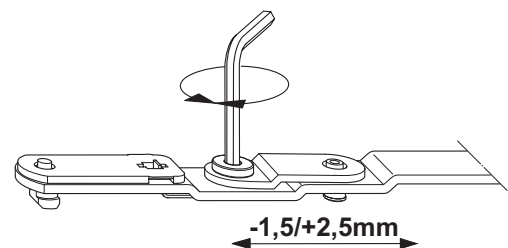
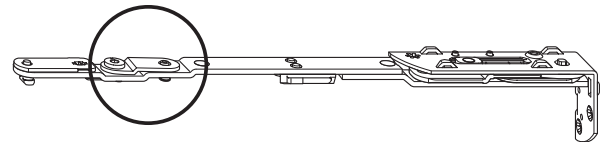
Regulate the contact pressure between the sash and the frame (± 0.8 mm) by turning the octagonal bolt. The adjustment can be carried out by means of the Winkhaus adjustment key (V.ST.SCH.HV-11) .



Octagonal bolt

Shears

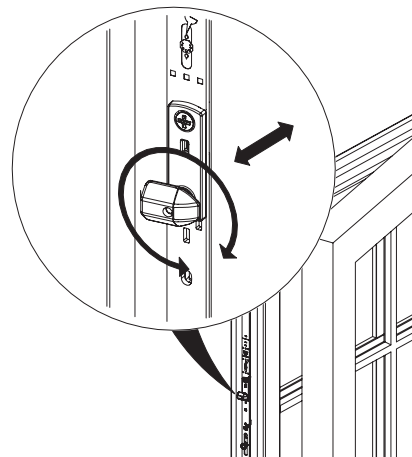
The sash is raised and lowered by adjusting the shear slide-way. The sash can be raised 2.5 mm and lowered 1.5 mm.



Shears

Fail safe device FSF

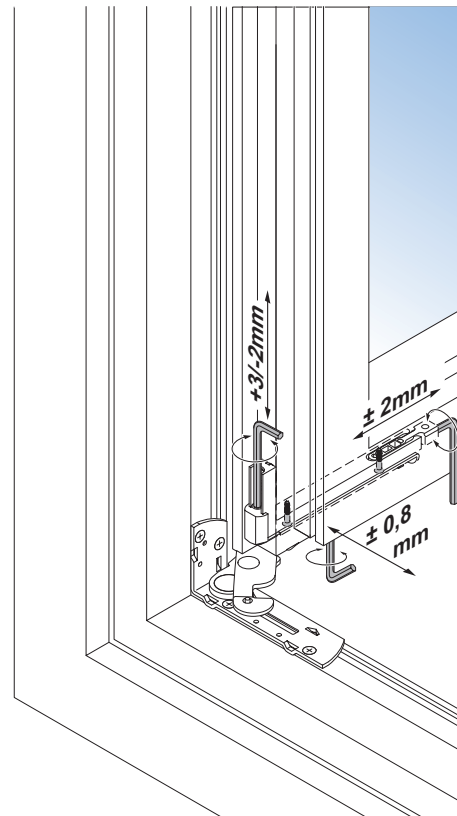
After installation the tip of the pressure piece must be directed towards the frame! For airgaps smaller or larger than 12 mm an adjustment is possible by turning the plastic part to the left or to the right!



Fail safe device FSF

Corner hinge up to a sash weight of 100 kg

Height adjustment (+ 3 mm / -2 mm) and side adjustment (± 2 mm) for the sash hinge.
Pressure adjustment ± 0.8 mm



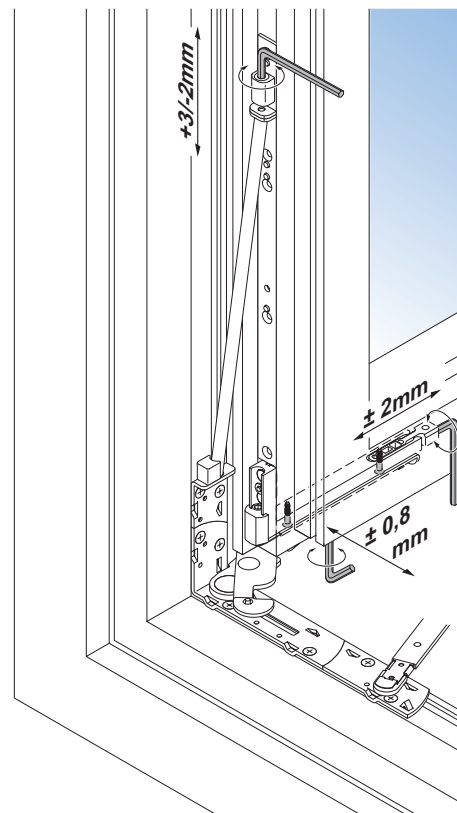
Corner hinge up to a sash weight of 100 kg

Corner hinge more than 100 kg sash weight.

Height adjustment (+ 3 mm / -2 mm) and side adjustment (± 2 mm) for the sash hinge.
Pressure adjustment ± 0.8 mm



Note: The sash hinge adjusting screw must be removed first. Loads are transferred by the Sash Hinge Rail!



Corner hinge more than 100 kg sash weight.

Maintenance

Lubrication points

See figure: Overview of lubrication points

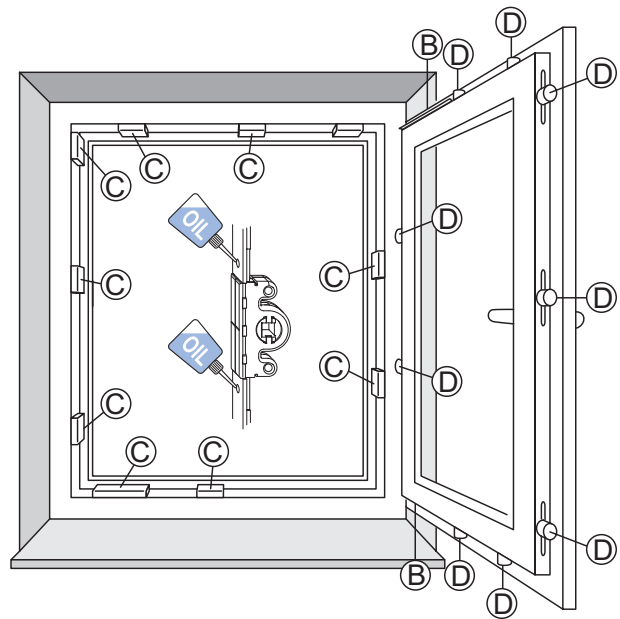
The figure shows the location of possible lubrication points which should be lubricated at least once a year.

Positions A, C, D = lubrication points relevant to function.

Position B = safety-relevant lubrication point



Please note: The fitting schematic shown adjacent does not necessarily match the existing fitting. The number of locking positions will vary depending on size and type of the window sash.



Overview of lubrication points



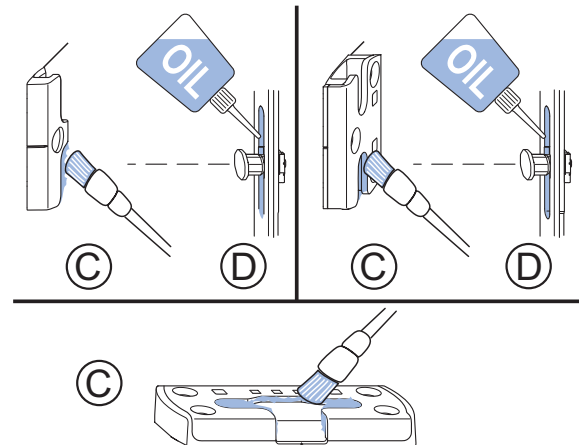
Attention! Risk of injury. The window could fall on removal and thus injure persons. Do not remove the window for maintenance.

Keeps

See figure: Lubrication points

To keep fittings running smoothly, you must lubricate the keeps at least once a year.

- Lubricate the keeps (C) at the run-in side with technical Vaseline or any other suitable grease.
- Coat the running surfaces of the locking bolts (D) with an oil that is free of resins and acids.

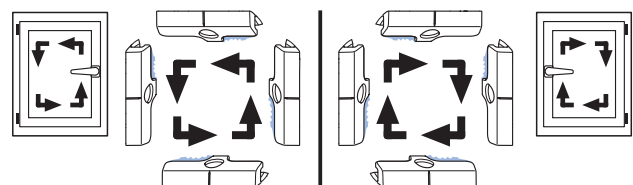


Lubrication points

Ascertaining the run-in sides

See figure: Run-in sides

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



Run-in sides

Lubrication points

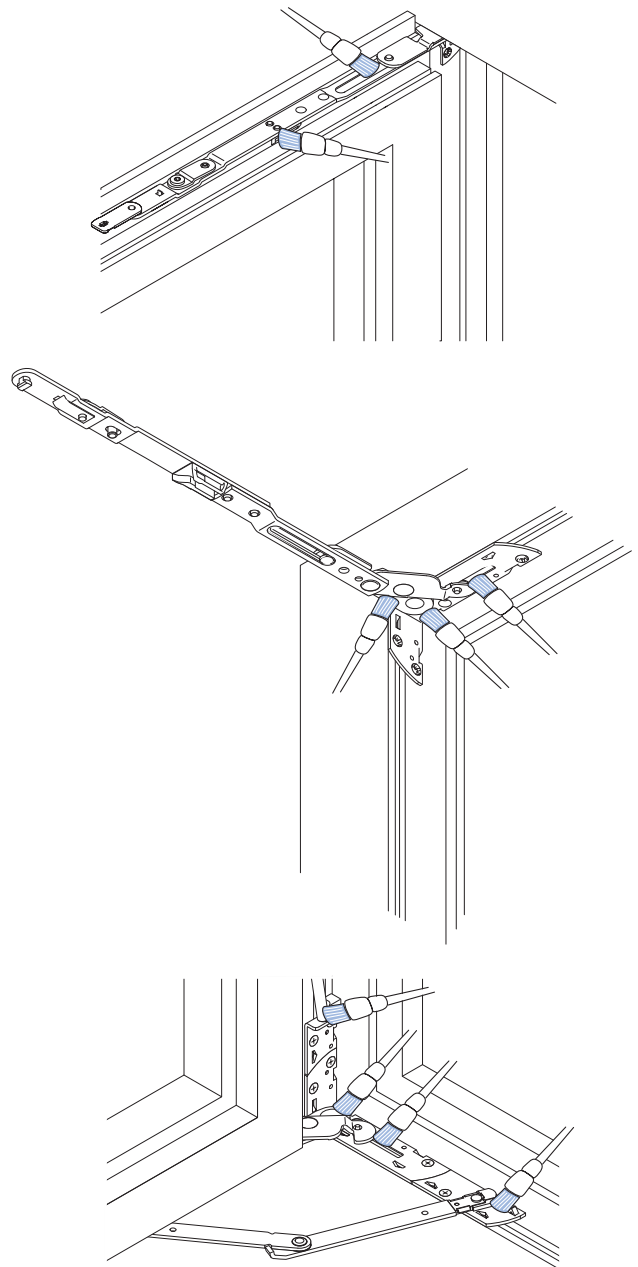
Shear and corner hinge

See figure: Shear (sash/frame), corner hinge, sash hinge rail

Fitting parts are to be tested regularly (at least once annually or semi-annually in school and hotel buildings) to ensure they are seated firmly and checked for wear. Fastening screws are to be retightened and parts replaced as necessary. Their functionality is to be retested afterwards. All moving contact points on the shear and the corner hinge should be greased with a suitable lubricant at least once a year. Coat lubricating points with non-resinous, non-corroding grease.



Attention! Risk of injury. The window could fall on removal and thus injure persons. Do not remove the window for maintenance.



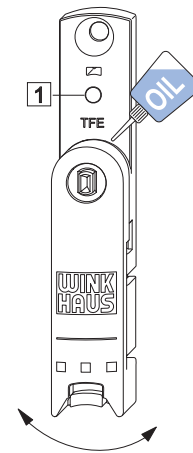
Shear (sash/frame), corner hinge, sash hinge rail

Adjustment and maintenance

Dual/triple function element

DFE/TFE activation

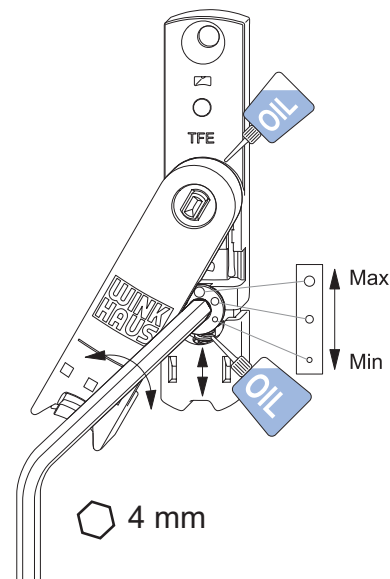
The DFE/TFE element is supplied in the neutral position. Please proceed as follows: Drive in the protruding pin to fix in place (1). Can be used left/right by swivelling out the lever once only. Dribble a few drops of oil (free of resin and acid) onto lubrication points.



DFE/TFE activation

TFE – Retaining force of balcony door catch

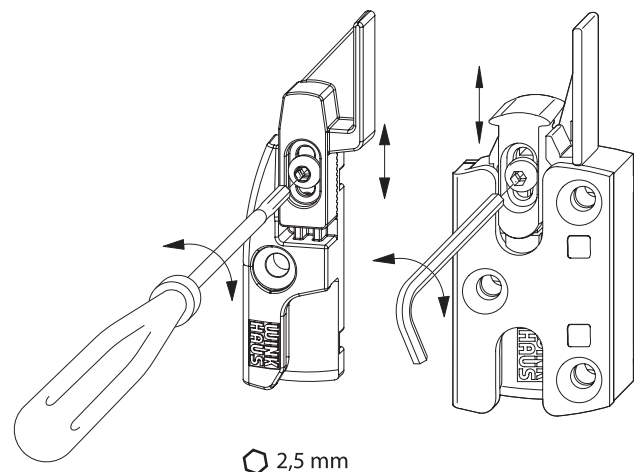
Adjusting the holding force by re-setting the eccentric cam with a 4 mm Allen key. Dribble a few drops of oil (free of resin and acid) onto lubrication points.



TFE – Retaining force of balcony door catch

Frame part DFE/TFE

Height adjustment (+/- 3 mm) for sash support plate. Each time fittings are adjusted, the DFE/TFE height setting should also be checked using a 2.5 mm Allen key.



Frame part DFE/TFE

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