

### Avoid damage caused by corrosion and debris :

Corrosive materials, dirt and moisture may damage hardware components and cause hazards.

- Do not use acetic or acid-releasing sealants.
- Do not use the hardware components in environments where the air contains aggressive or corrosive components.
- Keep all rebates free of debris and dirt, especially cement and plaster residue.
- Keep the hardware dry.

### Clean hardware gently

Only clean the hardware with a soft cloth and mild, diluted pH-neutral cleaning agents.

- The hardware must not be exposed to abrasive cleaners or aggressive, acidic cleaning agents.
- Leave the hardware to dry after the cleaning process.

### Maintenance and adjustment of windows ironmongery:

- Check that all safety-relevant hardware components are secure and check for wear.
- Check that the hinge pins are pushed in all the way to the stop. If this is not the case, push them upwards all the way to the stop by hand and secure them with the corresponding safety screws (according to the hardware)!

- Check for loose fixing screws and check that the handle is secure. Tighten loose fixing screws using an appropriate tool. Attention: Do not overtighten the screws!
- Replace any worn/defective hardware components or over-tightened screws as soon as possible!
- Grease or oil all movable hardware components and all locking points. Use only acid-free and resin-free oil or grease.
- Use a grease spray on the movable parts in the window sash and spray into all openings in the hardware. Then move the hardware into position several times until the grease is distributed.
- Wipe off any excess oil or grease. Grease the striker plates in the window frame using a firm grease (consistency class 2 according to DIN 51818) in those places where the locking cam engages with the striker plate

### Maintenance, cleaning and surface protection

- Remove any stains or spills immediately because they could impair functioning and damage the surface protection of the hardware.
- Use only mild, pH-neutral, diluted cleaning agents.
- Never use sharp objects, abrasives or aggressive cleaning agents (such as vinegar or acidic cleaning agents) as they could damage the corrosion protection of the hardware.
- When cleaning, ensure that no water runs into the hardware.
- Dry the hardware thoroughly after cleaning and oil the surface with a non-acidic and non-resinous oil by wiping it with an oil-impregnated cloth.

### Adjustment tools:



4

4 mm hexagon



6

6 mm hexagon



8

8 mm hexagon



11

11 mm hexagon



Screwdriver

### Explanation of symbols:



Lubrication Points



Adjustable  
eccentric  
locking cams



Standard  
adjustment point



Adjustment point  
dependent on FB/  
FH



Safety-related area



Observe  
information

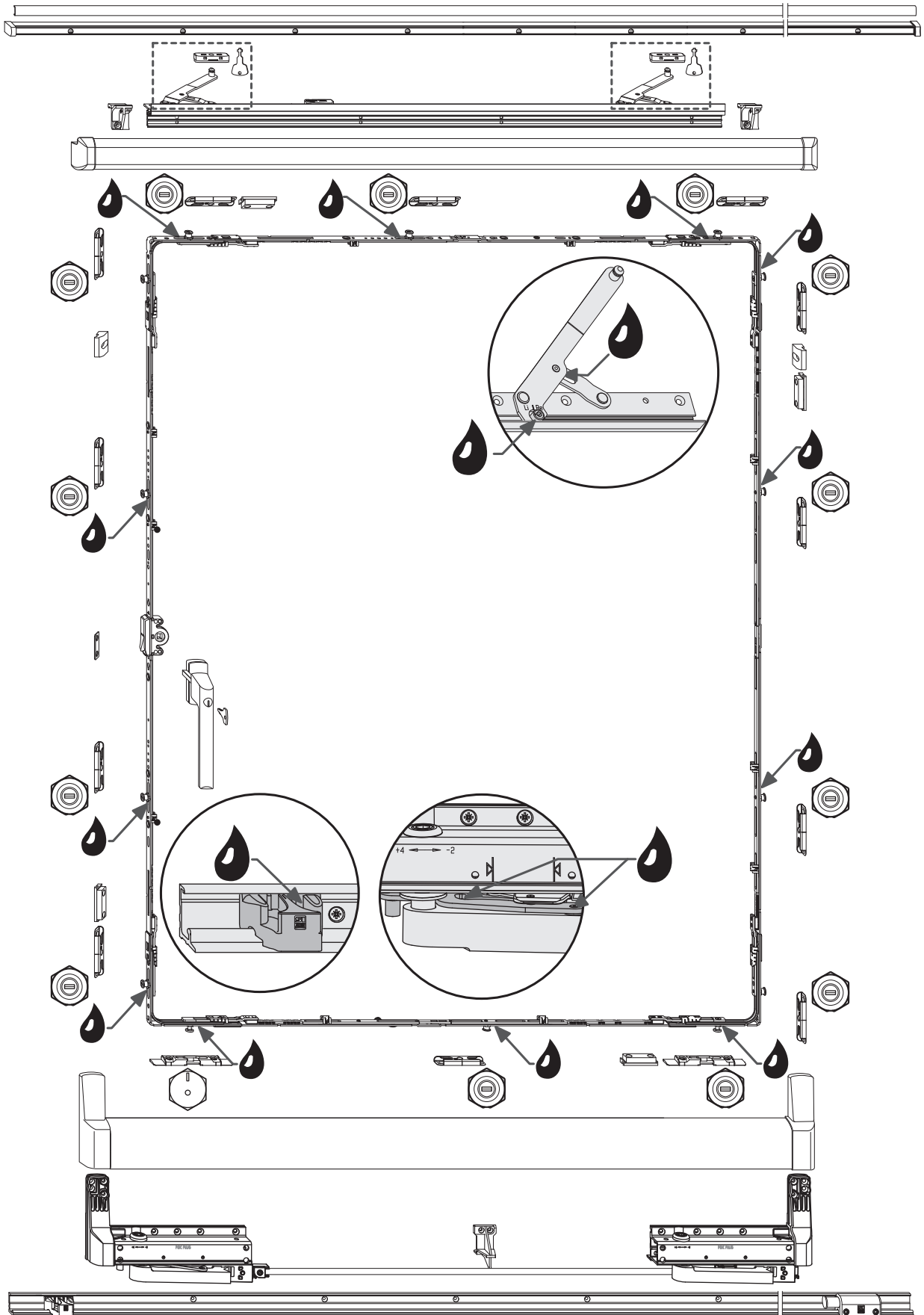
## Maintenance and adjustment of Tilt Sliding ironmongery

The following instructions must be adhered to during the regular maintenance to ensure that its flawless functioning will be retained. Check all hardware components within the safety-related areas for faultless condition and faultless functioning.

- Bearings of the rollers must be always be scrupulously clean and smooth-running. Clean and lubricate if necessary.
- If the parallel slide & tilt element has not been opened for a longer period, it may be subject to stiffness. Therefore, do not open stiff sashes or hardware elements using jerks or force! Instead, determine and rectify the cause of the stiffness. Lubricate hardware compo-

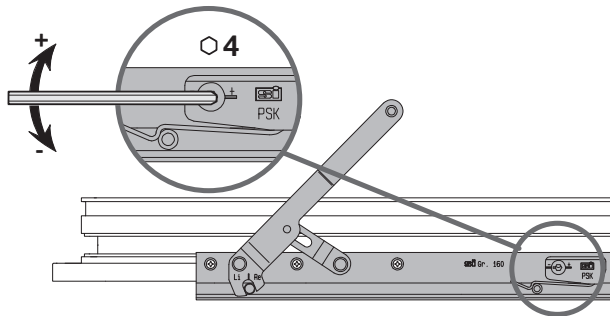
nents according to plan. E. g. use multi-purpose oil such as WD 40 or equivalent. Check the running rail, guiding rail and slider for dirt. Clean if necessary. Close the parallel slide & tilt elements and keep closed if it is windy or raining.

- Only clean the parallel slide & tilt element with mild, diluted pH-neutral cleaning agents. Never use aggressive, acidic or abrasive cleaning agents as they could damage the corrosion protection of the hardware components.

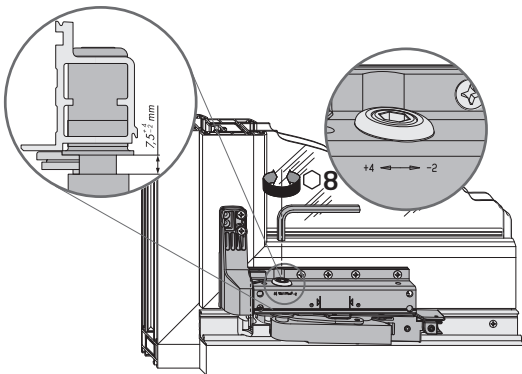
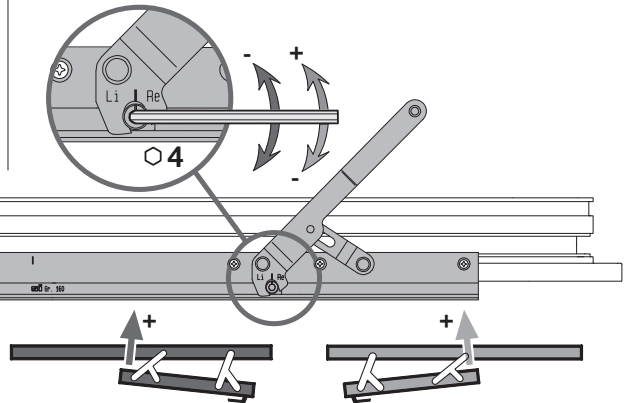


#### Adjustment of Tilt Sliding ironmongery

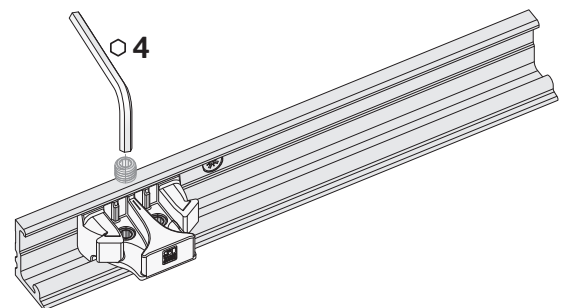
Adjustment of the locking effect of the tilt stay  
 Check the locking effect, readjust if necessary!  
 The maximum adjustment range must not be exceeded!



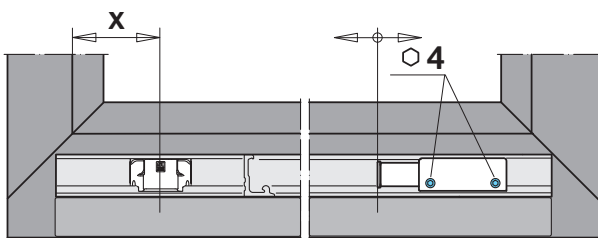
Adjustment of the compression of the tilt stay  
 Check the compression, readjust if necessary!  
 The maximum adjustment range must not be exceeded!  
 The maximum adjustment range must not be exceeded!



Adjustment of the height position of the parallel slide & tilt element  
 - The adjustment screw is self-locking



Centering the sash inlet  
 - Loosen the head cap screws  
 - Slide the locking part sideways  
 - Tighten the head cap screws again  
 (Torque 4 - 4.5 Nm)



Offsetting the stop for the parallel slide & tilt sash  
 - Loosen the head cap screws  
 - Slide the stop sideways  
 - Tighten the head cap screws again  
 (Torque 4 - 4.5 Nm)

#### Adjustment of locking cam

A = Standard locking cam

B = Comfort roller bolts

C = S-ES locking cam

D = S-RS locking cam

