

### 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

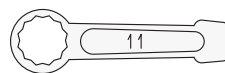
- Remove any stains or spills immediately because they could impair functioning and damage the surface protection of the hardware.
- Use only mild, pH-neutral, diluted cleaning agents.
- Never use sharp objects, abrasives or aggressive cleaning agents (such as vinegar or acidic cleaning agents) as they 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

4mm hexagon screwdriver/key



11

SW 11 mm ring spanner



2.5

2.5 mm hexagon

### Explanation of symbols:



Lubrication ponits



Adjustible eccentric locking cams



Standard adjustment point



Adjustment point dependent on FB/FH



Safety-related area

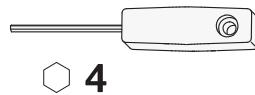


Safety-related area

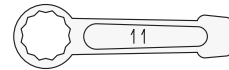
## Pressure setting for larger window sashes

±1 mm pressure setting with MV locking cam on sash:

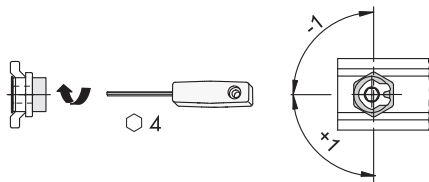
### Adjustment tools:



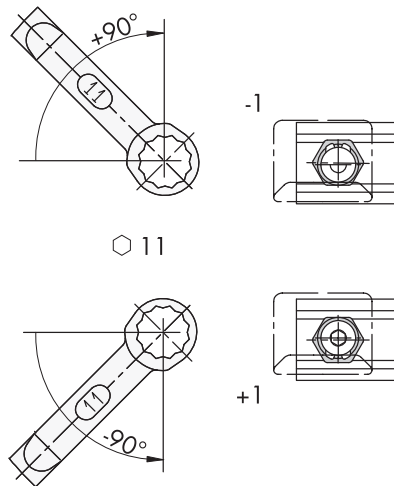
4mm hexagon screwdriver/key



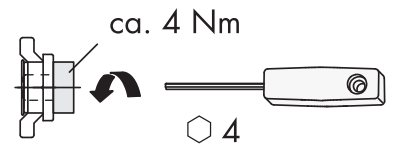
SW 11 mm ring spanner



**Step 1.** For adjustment purposes, loosen eccentric rivet using 4 mm hexagon screwdriver.

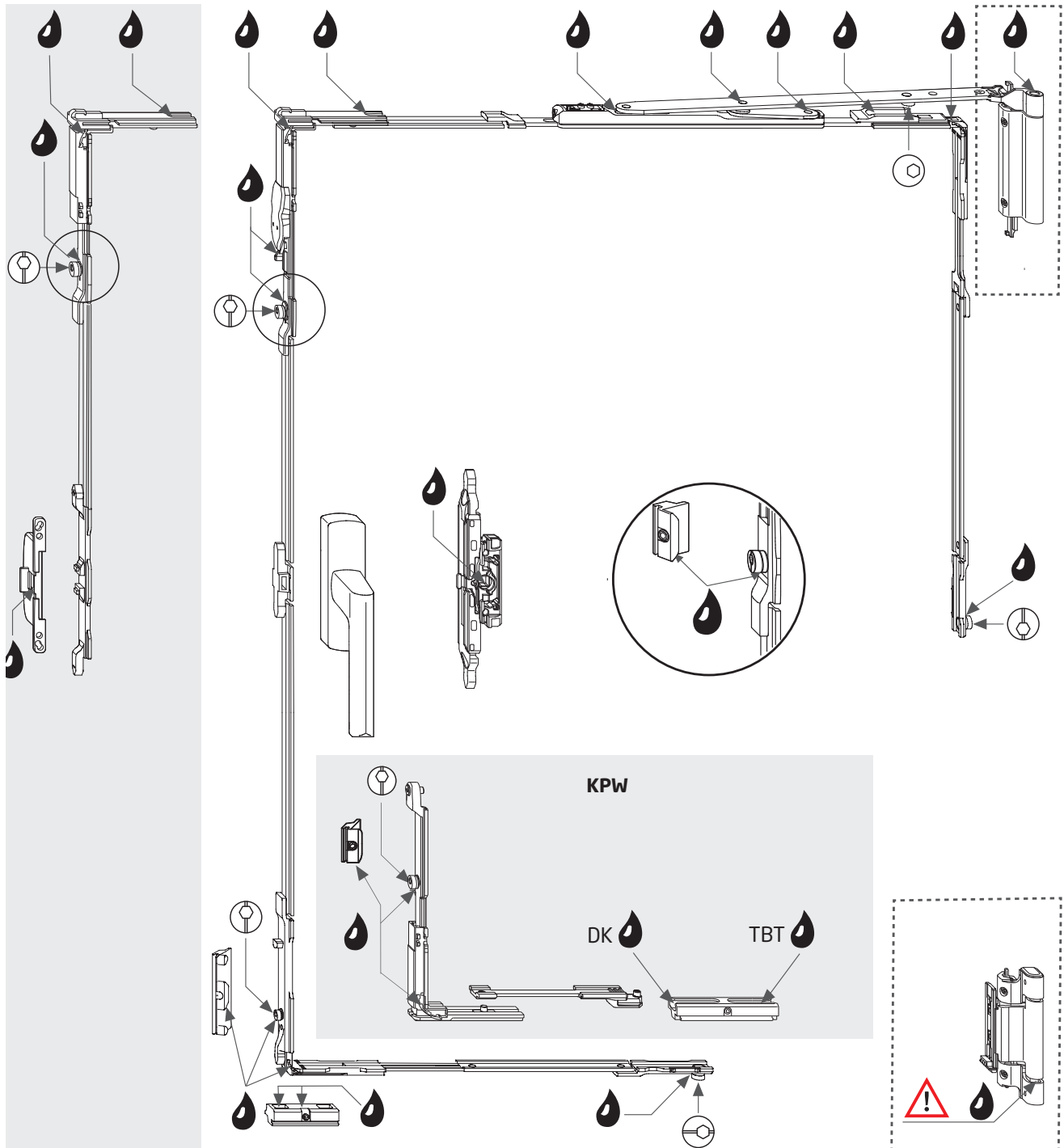


**Step 2.** Perform pressure setting for locking cam using SW 11 mm ring spanner.



**Step 3.** Once the adjustment has been made, tighten the eccentric rivet again. This secures the locking cam again.

### TBT window with visible hinges maintenance



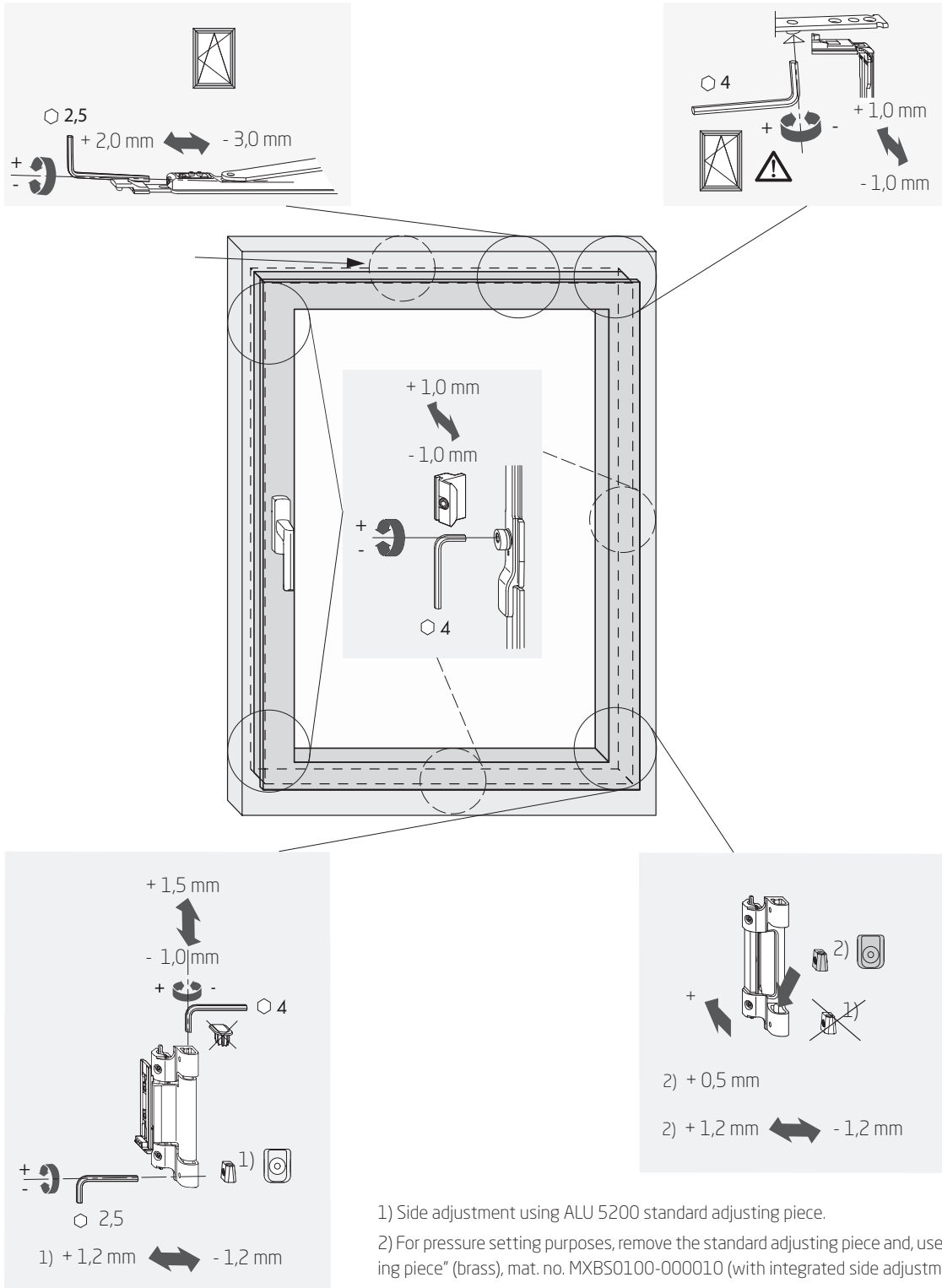
**Note:**

- Grease/oil all strikers, eccentric locking cams, mishandling devices and routed-in drive gears!
- Please observe the notes and explanations on page 1.

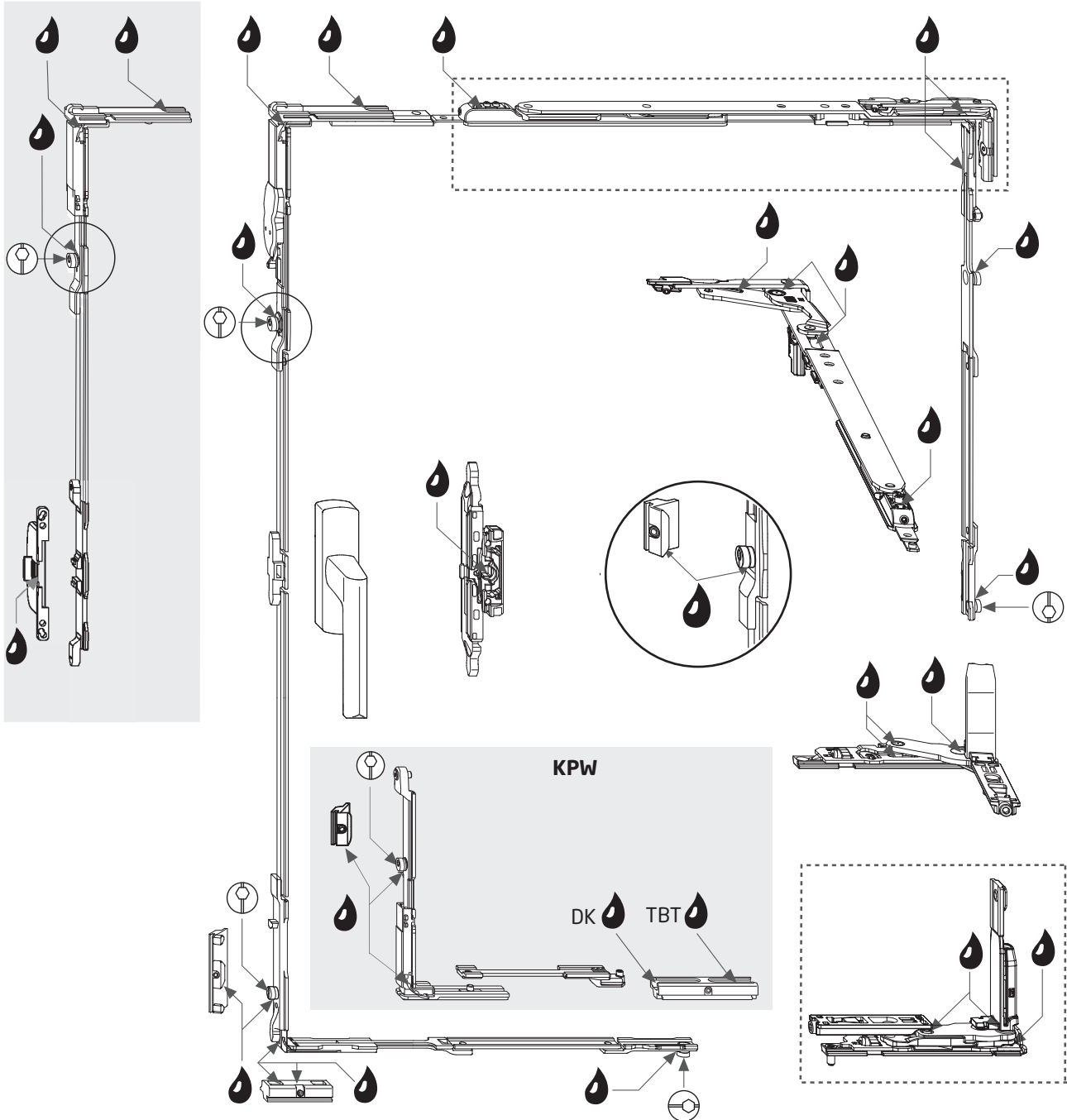


Grease the joints of the bottom hinge pins, do not oil them!

## TBT with visible hinges adjustment of ironmongery



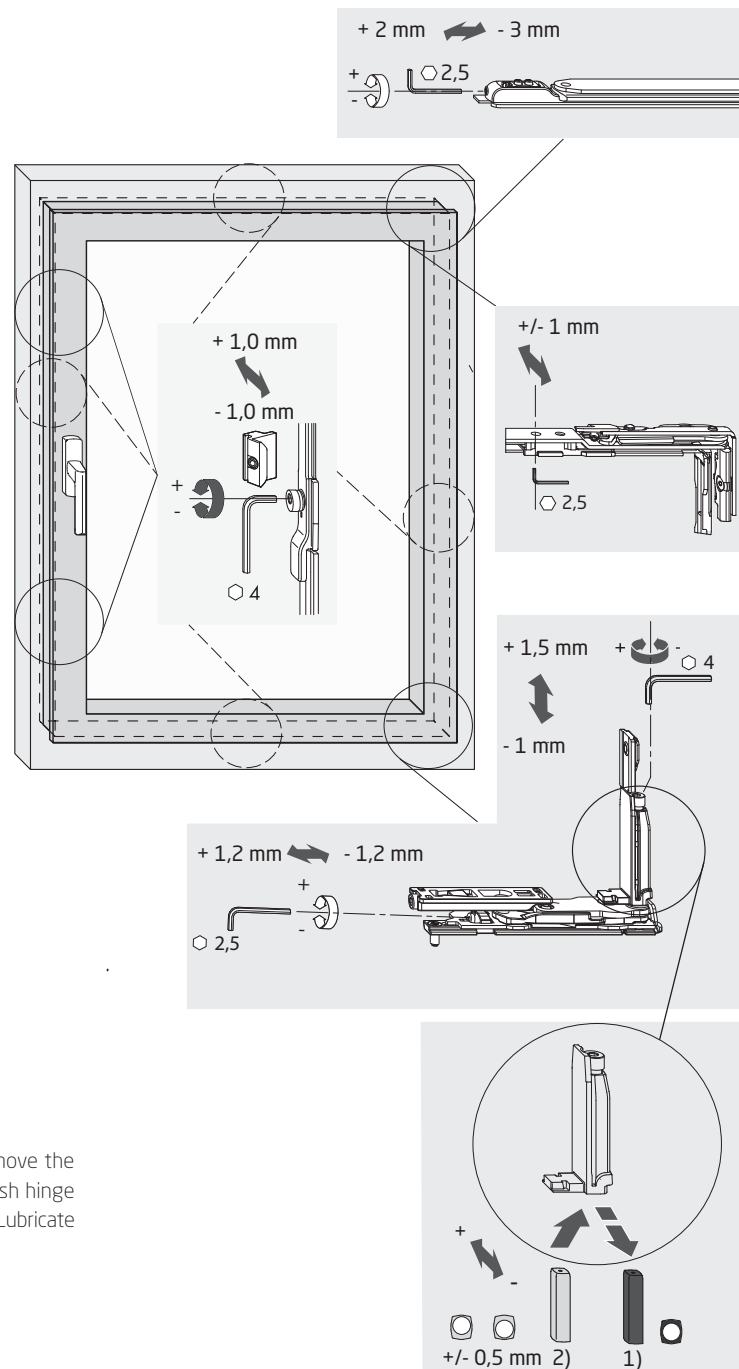
### TBT window with invisible hinges maintenance



**Note:**

- Grease/oil all strikers, eccentric locking cams, mishandling devices and routed-in drive gears!
- Please observe the notes and explanations on page 1.

## TBT window with invisible hinges adjustment of ironmongery



1) Standard adjusting piece (black)

2) For pressure setting purposes, remove the standard adjusting piece from the sash hinge and use the "AV adjusting piece" (grey). Lubricate before replacing!

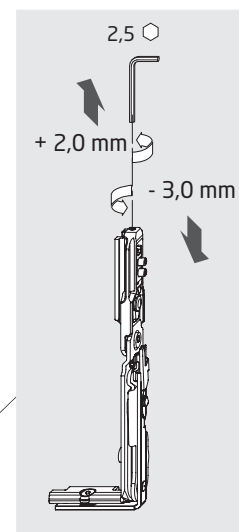
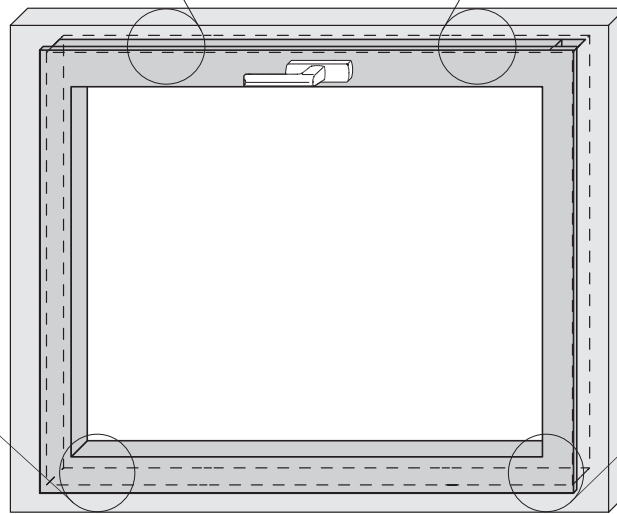
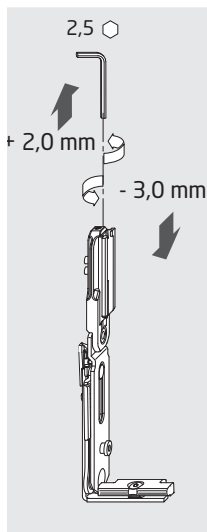
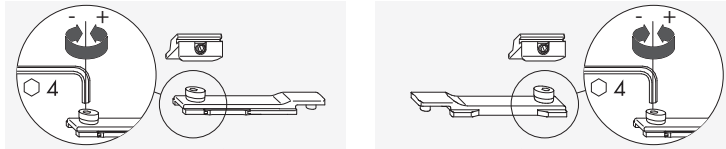


Turn the adjusting screws only in the direction specified!

### Kipp window, invisible hinges adjustment of ironmongery



Turn the adjusting screws only in the direction specified!



### Kipp window, visible hinges adjustment of ironmongery:

