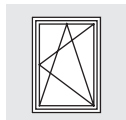
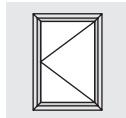


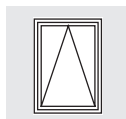
Assembly instructions



ALU axxent PLUS-DK/TBT



ALU axxent PLUS-D/DS



ALU axxent PLUS-K/K-ZV

Compliance with the specifications listed below is mandatory:

- Directives of the Trade Organisation for Locks and Fittings (Gütegemeinschaft Schlösser und Beschläge e. V.) :
 - Document no. H45.4200LS001EN
- Basic safety notes:
 - Document no. H45.5200LS001EN

Further information:

- Maintenance and care instructions:
 - Document no. H45.5200LS004EN
- Assembly instructions:
 - Document no. H48.axntLS007EN...LS021EN
- List of abbreviations:
 - Document no. H45.5200LS002EN

Note:

The assembly and adjustments for the previous "axxent" hardware system are different. See doc. no H45.axntLS004I

Explanation of symbols:



Safety-relevant area



Safety note



Direction of motion

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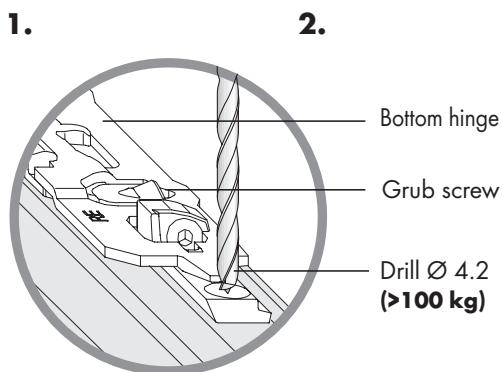
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ALU axxent PLUS-DK/TBT, -D/DS

Positioning of hardware components I



Frame - Clamping the BSU bottom hinge into frame groove



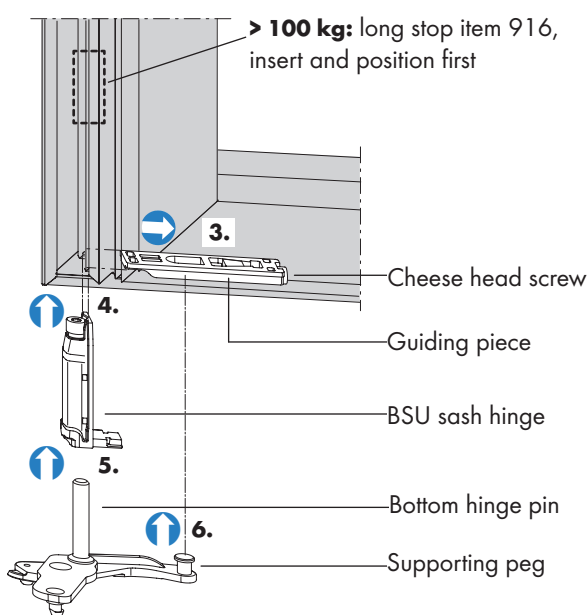
Note:

- Prior to assembly, clean the frame and sash groove of glue and fabrication residue.

1. Lay the bottom hinge flush in the frame groove and clamp it into place with the pre-installed grub screws (torque 2.5 ± 0.25 Nm and SW 2.5).

2. With sash weights >100 kg: Drill through the counter bore of the bottom hinge into the frame and additionally fix the bottom hinge with the countersunk screw M5 x 13 (not illustrated) in the frame (torque 2.7 ± 0.25 Nm and PZ2).

Sash - Installing the BSU sash hinge



3. Push the guiding piece horizontally into the sash profile as shown in the adjacent figure.

Note:

Do not tighten the cheese head screw of the guiding piece!

4. Push the BSU sash hinge vertically into the sash profile. **With sash weights > 100 kg:** First push the long stop, item 916, into the sash profile.

5. Push the bottom hinge pin vertically into the BSU sash hinge.

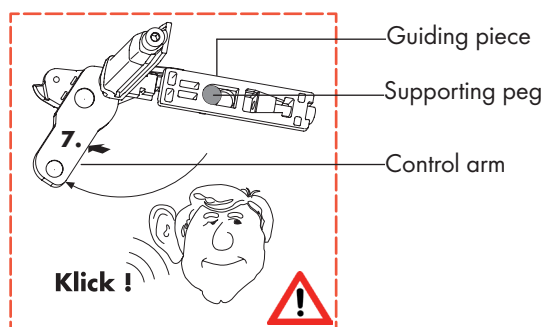
6. Push the supporting peg vertically into the guiding piece.

7. Turn the control arm in the direction of the arrow and ensure that the supporting peg audibly engages (click sound) in the guiding piece.

Note:

-Check that the supporting peg is firmly seated in the guiding piece!

-For positioning and fixing of the long stop see e.g. Doc. no. H48.axntLS007en, page 5



⚠ WARNING

There is a risk of injury if the supporting peg has not engaged as the window sash could fall out!

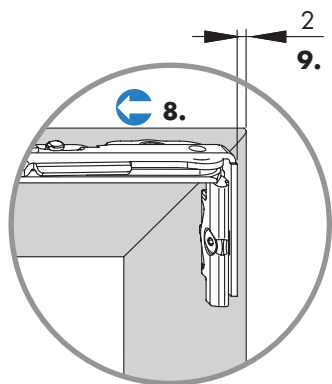
⇒ The supporting peg must engage in the guiding piece.

There is a risk of injury if the long stop (item 916) has not been properly fixed as the window sash could fall out!

⇒ The stop must be fixed according to specifications (torque 2.5 ± 0.25 Nm and SW4).



Sash - Positioning the top stay



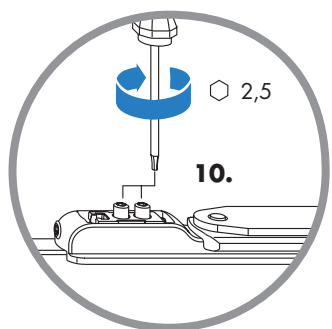
Note:

- Prior to assembly, clean the frame and sash groove of glue and fabrication residue!

8. Bring the top stay into the closed position and push the top stay into the sash profile

9. It is essential to maintain a distance of 2 mm from the top stay to the sash rebate.

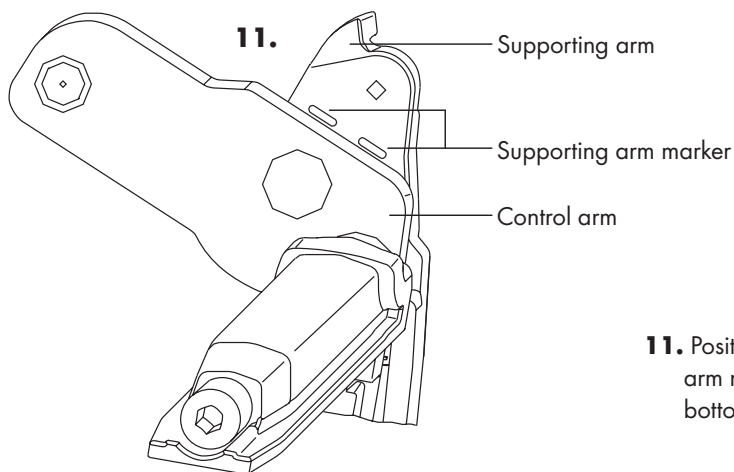
Sash - Fixing the top stay



10. Tighten the punching screws of the top stay firmly, but do not overtighten (break through the groove base of the sash groove).

figure shows top stay size 2

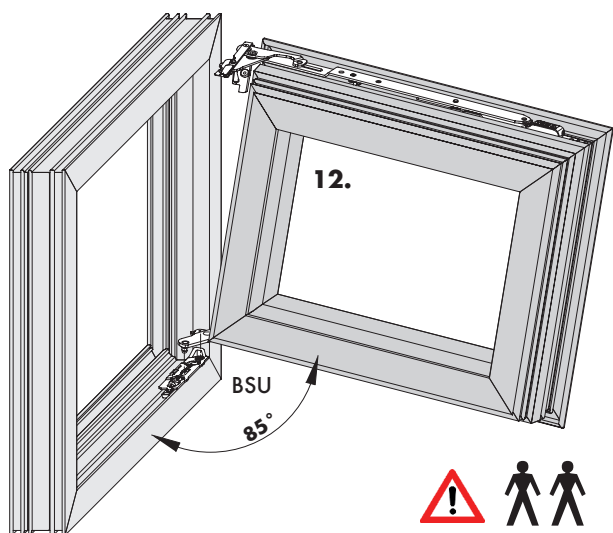
Frame - Positioning the control arm



11. Position the control arm so that it is parallel to the supporting arm marker; this makes it easier to put the window sash into the bottom hinge.



Installing the window sash at the bottom hinge side (BSU)



Note:

- At least two persons are needed to install the window sash.

- 12.** Hold the sash at an opening angle of approx. 85° and inclined slightly downwards.

Note:

- The cheese head screw in the guiding piece can be slightly tightened to facilitate the adjustment of the window sash in the bottom hinge. This will prevent the stay arm from turning unintentionally in the next work step.



- 13.** Place the window sash in the bottom hinge by pushing the cams on the supporting and control arms into the intended striker packer in the corner hinge.

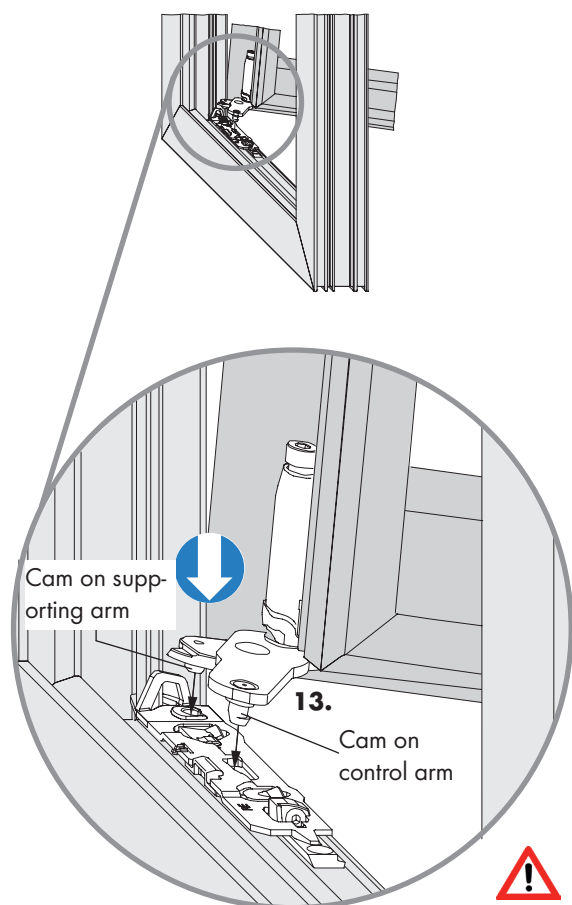
Note:

- Make sure that the cams hook in!
- It is essential that you loosen the cheese head screw in the guiding piece before you continue!

⚠ WARNING

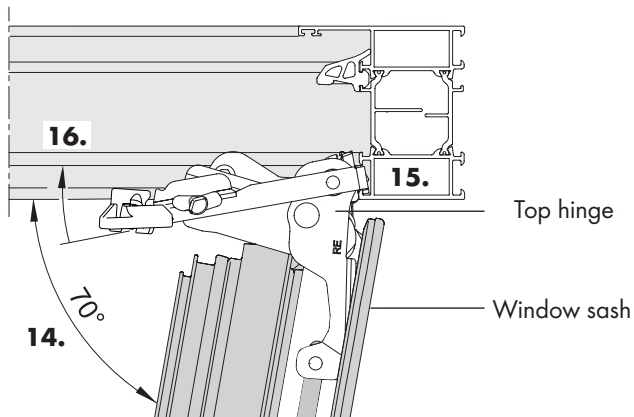
There is a risk of injury if the cams have not hooked in as the window sash could fall out!

⇒ The cams on the supporting and control arms must hook into the bottom hinge.





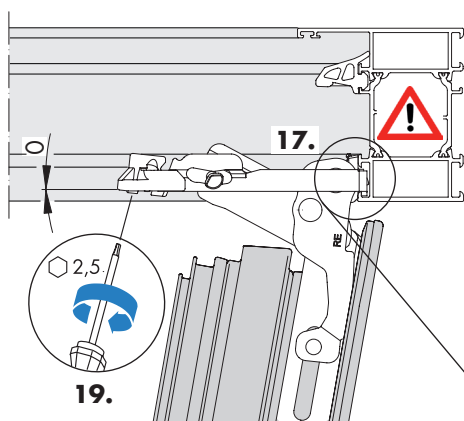
Installing the window sash at the top hinge side (BSO)



14. Turn the window sash to an opening angle of approx. 70°.

15. Mount the top hinge in the vertical frame groove.

16. Turn the top hinge inwards (direction of the window frame).

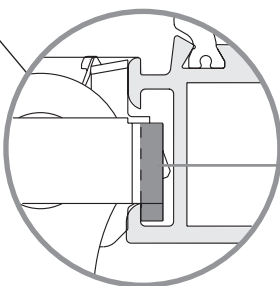
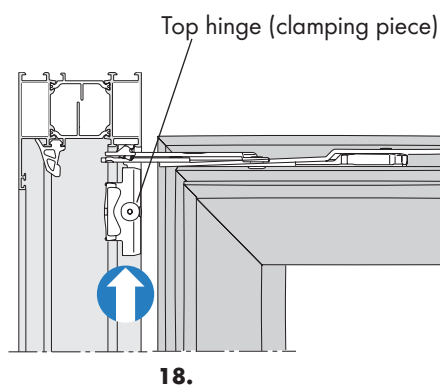


17. Ensure that the top hinge is positioned straightly in the frame groove.

⚠ WARNING

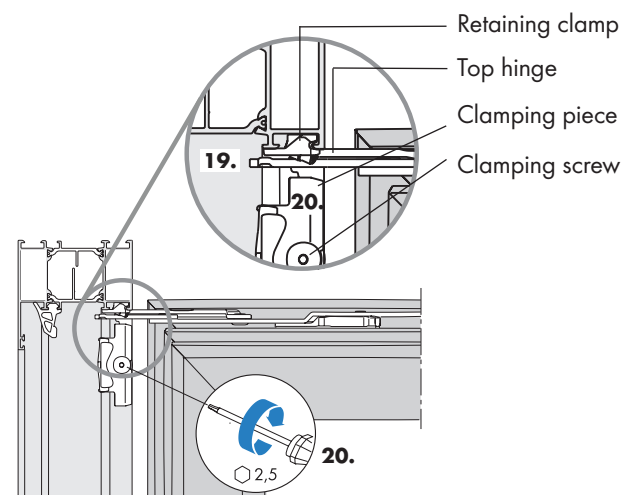
There is a risk of injury if the vertical top stay is not seated correctly in the frame groove as the window sash could fall out!

⇒ Insert the vertical top hinge straight to the frame groove.



Top hinge

18. Push the top hinge upwards with the pre-installed clamping piece until the top hinge is positioned at the top frame-groove edge.



19. Straighten the retaining clamp in the frame groove and clamp this tightly with the pre-installed grub screw (torque 2.5 ± 0.25 Nm, SW 2.5).

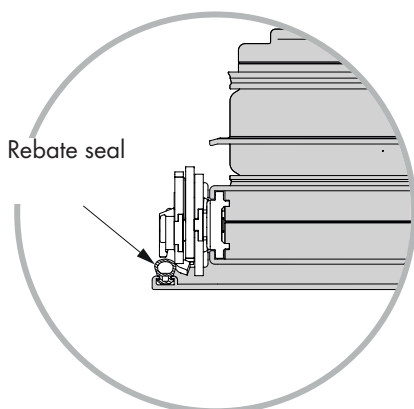
20. Check the seating of the top hinge on the top frame groove edge and then pin the clamping piece tightly with the pre-installed clamping screw (torque 2.5 ± 0.25 Nm, SW 2.5).

ALU axxent PLUS-D/DS

Positioning of hardware components - without centre lock



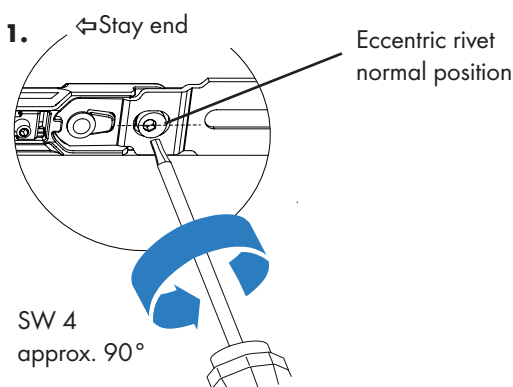
Preparation



Prior to assembly, clean the frame and sash groove of glue and fabrication residue.

If necessary: Loosen and release the rebate seal in the assembly area approx. 150 mm out of the sash rebate.

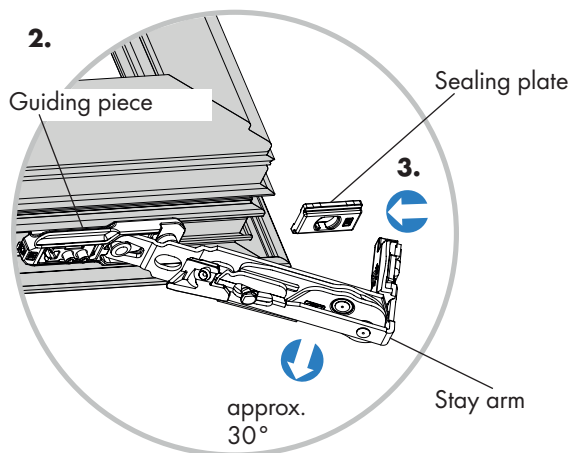
Sash - Positioning the top stay (without centre lock; example DIN right)



1. Turn the eccentric rivet approx. 90° from the normal position in an anti-clockwise direction. The stay arm can then be lifted over the sash rebate and the rebate seal in steps **2.** and **4.**

Note:

- The eccentric rivet must be adjusted several times during the subsequent steps. We recommend then returning the eccentric rivet back to its normal position (hexagon screwdriver turned in direction of stay end).

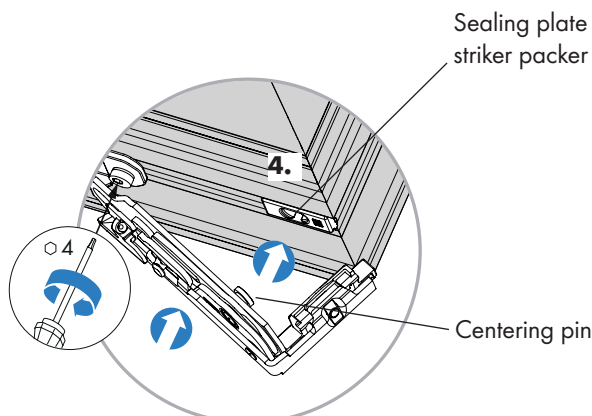


2. Fold the stay arm approx. 30° outwards and push the guiding piece approx. 100 mm into the sash profile groove.

3. Push the sealing plate (black, PVC) into the sash profile groove as far as the stop.

Note:

- The stop lugs of the sealing plate must be lying on the horizontal surface of the sash profile.



4. Position the turn-only sash stay ensuring that the centering pin is opposite the striker packer of the sealing plate.

Now turn the eccentric rivet back to its normal position and simultaneously press the centering pin into the striker packer of the sealing plate with the stay arm.

Note:

- The centering pin must be completely seated in the striker packer of the sealing plate.
- If necessary, fix the rebate seal in the sash rebate once again.

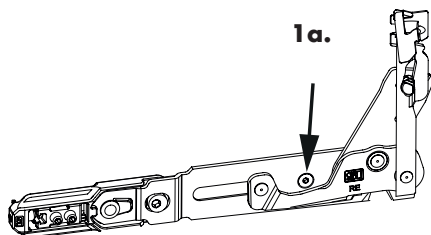
⇒ Continue with step 6, page 8.

ALU axxent PLUS-D/ZV

Positioning of hardware components - with centre lock

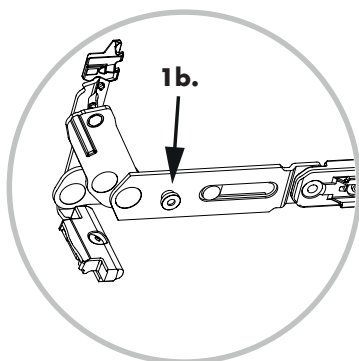


Sash - Preparing the top stay (with centre lock on hinge side)



Observe the note on page 6!

1a. Open the turn-only sash stay and loosen the countersunk head screw.



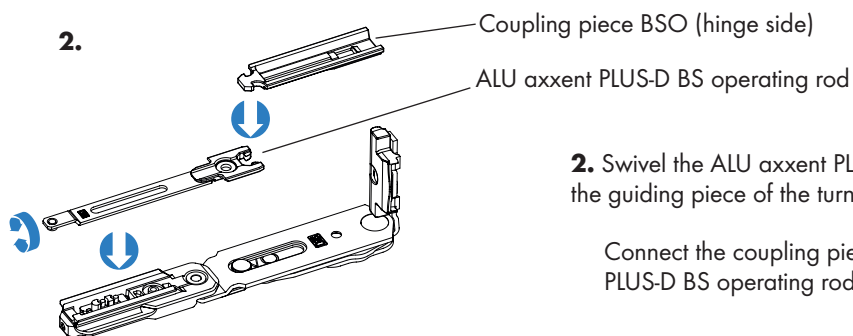
1b. Remove the countersunk head screw and the centering pin from the stay arm. Close the turn-only sash stay once again.

Note:

- Sealing plate (black, PVC), countersunk screw and centering pin are not required.

Sash - Coupling the top stay (with centre lock on hinge side)

2.

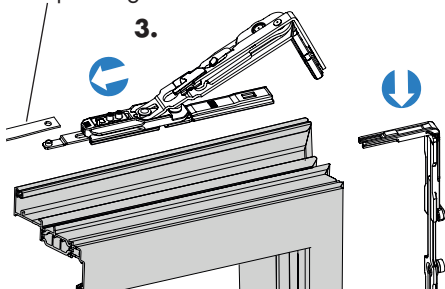


2. Swivel the ALU axxent PLUS-D BS operating rod in the groove of the guiding piece of the turn-only sash stay.

Connect the coupling piece on the hinge side to the ALU axxent PLUS-D BS operating rod.

S3 operating rod

3.



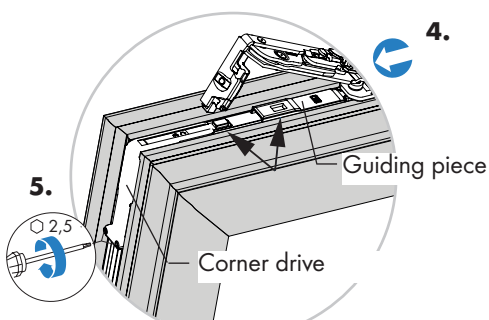
3. Push the pre-assembled unit comprising the turn-only sash stay, ALU axxent PLUS-D BS operating rod, coupling piece and S3 operating rod approx. 150 mm into the sash profile groove.

Push the corner drive into the sash profile groove as far as the stop.

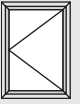
4.

4. Push the pre-assembled unit comprising the turn-only sash stay, coupling piece, ALU axxent PLUS-D BS operating rod and S3 operating rod over the corner drive until the recess in the guiding piece fits with the catch of the corner drive.

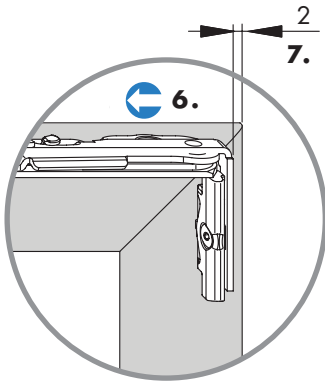
5.



5. Fix the corner drive (torque 2.5 ± 0.25 Nm, SW 2.5).

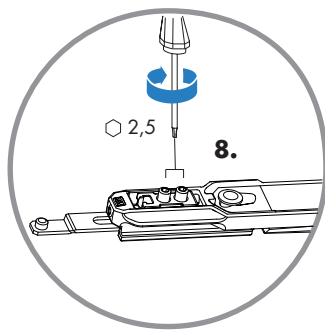


Sash - Positioning the top stay



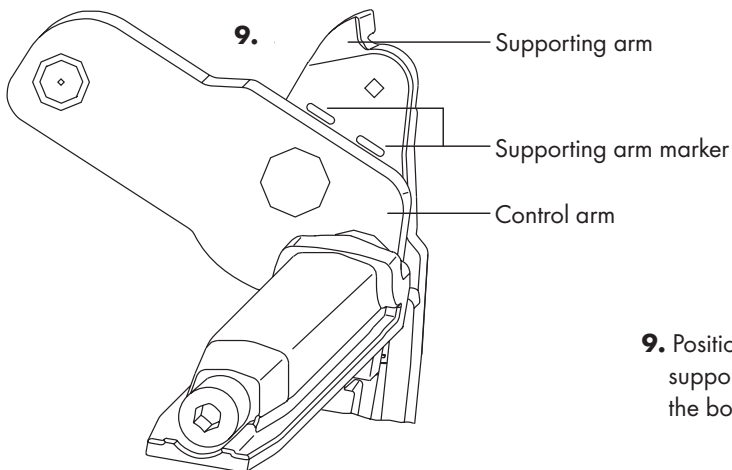
6. Position the turn-only sash stay.

7. Maintain a distance of 2 mm, measured from the top hinge to the sash rebate.



8. Tighten the punching screws of the top stay firmly, but do not overtighten (break through the groove base of the sash groove).

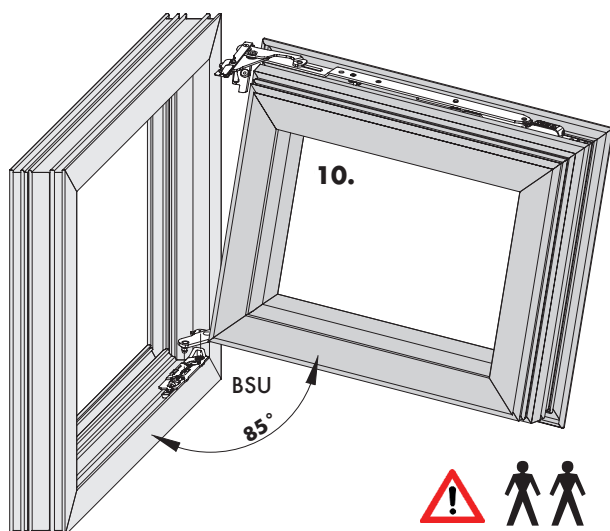
Frame - Positioning the control arm



9. Position the control arm so that is parallel to the marker on the supporting arm; this makes it easier to place the window sash in the bottom hinge.



Installing the window sash at the bottom hinge side (BSU)



Note:

- At least two persons are needed to install the window sash.

10. Hold the sash at an opening angle of approx. 85° and inclined slightly downwards.

Note:

- The cheese head screw in the guiding piece can be slightly tightened to facilitate the adjustment of the window sash in the bottom hinge. This will prevent the stay arm from turning unintentionally in the next work step.

11. Place the window sash in the bottom hinge by pushing the cams on the supporting and control arms into the intended striker packer in the corner hinge.

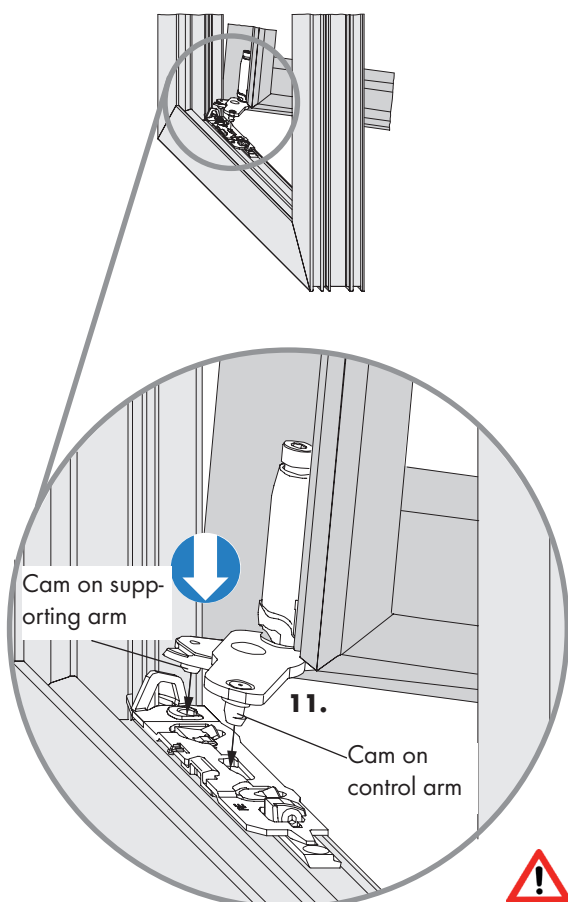
Note:

- Make sure that the cams hook in!
- It is essential that you loosen the cheese head screw in the guiding piece before you continue!

⚠ WARNING

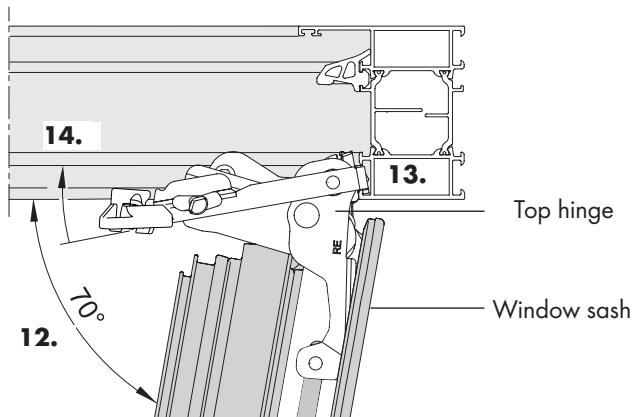
There is a risk of injury if the cams have not hooked in as the window sash could fall out!

- ⇒ The cams on the supporting and control arms must hook into the bottom hinge.





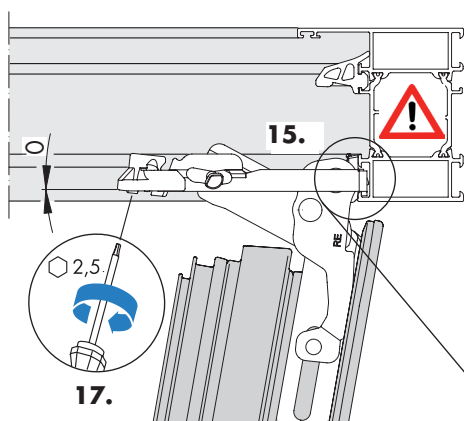
Installing the window sash at the top hinge side (BSO)



12. Turn the window sash to an opening angle of approx. 70°.

13. Mount the top hinge in the vertical frame groove.

14. Turn the top hinge inwards
(direction of the window frame).

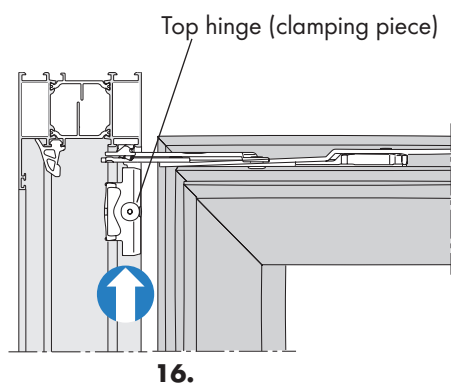
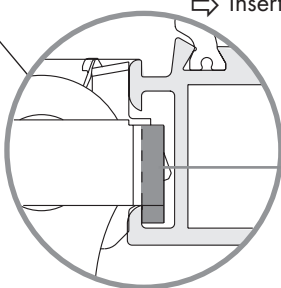


15. Ensure that the top hinge is positioned straightly in the frame groove.

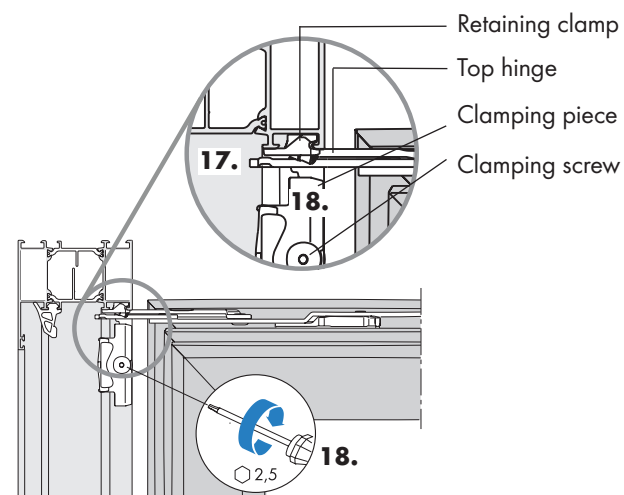
⚠ WARNING

There is a risk of injury if the vertical top hinge is not seated correctly in the frame groove as the window sash could fall out!

⇒ Insert the vertical top hinge straight to the frame groove.

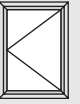


16. Push the top hinge upwards with the pre-assembled clamping piece until the top hinge is positioned at the top frame-groove edge.

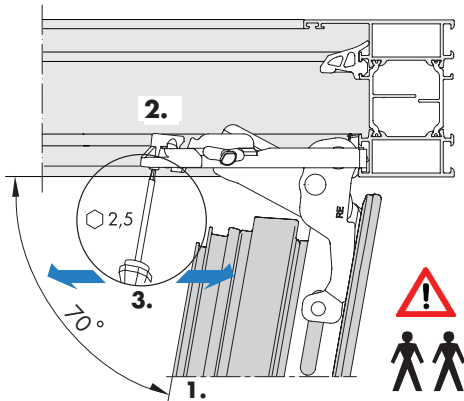


17. Straighten the retaining clamp in the frame groove and clamp this tightly with the pre-installed grub screw (torque 2.5 ± 0.25 Nm, SW 2.5).

18. Check the seating of the top hinge on the top frame groove edge and then pin the clamping piece tightly with the pre-installed clamping screw (torque 2.5 ± 0.25 Nm, SW 2.5).



Removing the window sash

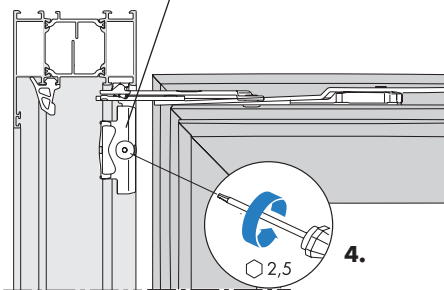


Note:

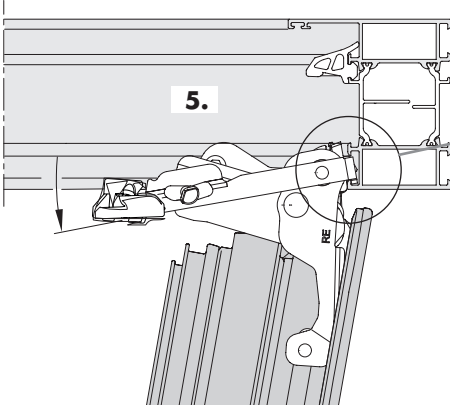
- At least two persons are needed to dismount the window sash.

1. Turn the window sash to an opening angle of approx. 70°.
2. Loosen the retaining clamp on the top hinge using the Allen key; do not remove the key.
3. Using side motions, press the grub screw in the direction of the frame groove and then downwards.

Top hinge (clamping piece)



4. Release the clamping screw of the clamping piece on the top hinge (see also items 18/20; max. 2 turns, do not unscrew completely).



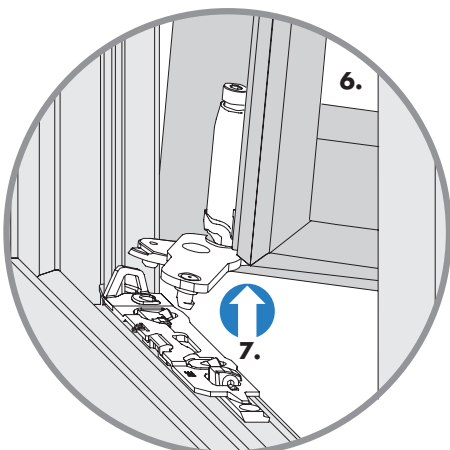
5. Turn the top hinge outwards (direction of the window sash), until the clamping piece and frame groove are separated.

6. Hold the sash, with a slight downward incline, at an opening angle of approx. 85° (see also pages 4 and 9).

7. Lift the window sash until the cams on the supporting and control arm can be disengaged from the bottom hinge (see pages 4 and 9).

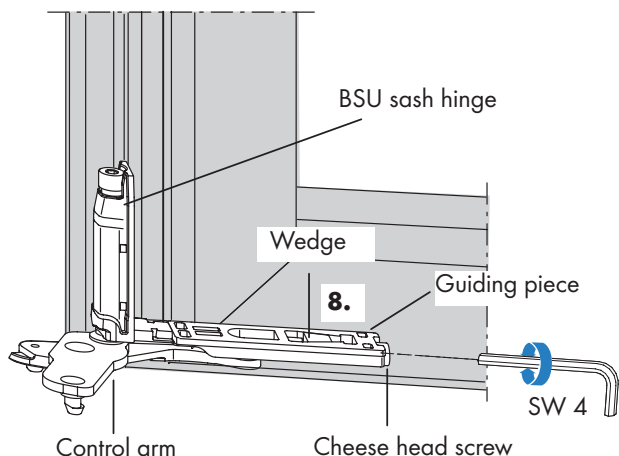
Note:

- The bottom corner and sash hinges need not be dismantled for the further work.





Removing the bottom hinge side (BSU)



Note:

- Lay the dismantled window sash on a stable surface for the following work.

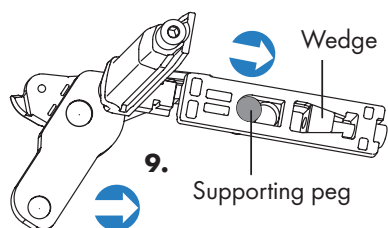
8. Swivel out the control arm completely.

Tighten the cheese head screw in the guiding piece until the guiding piece can no longer be shifted by the control arm in the sash.

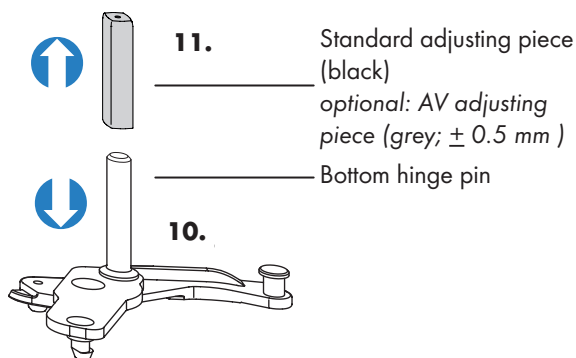
Note:

- The clamping unit in the guiding piece is purely an installation or dismantling aid. It guarantees the proper installation of the hardware components to the hinge side and must not be used for the turn resistance of the sash!

9. Press the control arm against the wedged guiding piece until the supporting peg is released from its engagement position.



Removing the adjusting piece



10. Pull the control arm completely out of the sash hinge and guiding piece.

11. The adjusting piece can now be separated from the bottom hinge pin and replaced.

If the adjusting piece is to remain in the sash hinge, remove it from its position with the aid of an appropriate tool; e.g. a wire hook.

Note:

- When installing the adjusting piece and the bottom hinge pin, ensure adequate lubrication with acid-free grease according to the information in the maintenance instructions, doc. no. H45.5200LS004.

- The cheese head screw in the the guiding piece must be completely released for reinstallation (see item 8).

⚠ WARNING

There is a risk of injury if the clamping unit in the guiding piece is used for turn resistance as the window sash could fall out!

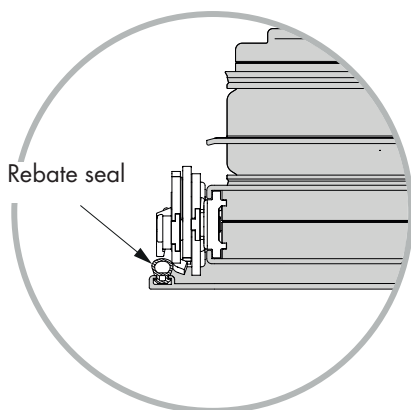
⇒ Always use the clamping unit in accordance with its intended purpose

ALU axxent PLUS-K, K/ZV

Positioning of hardware components I



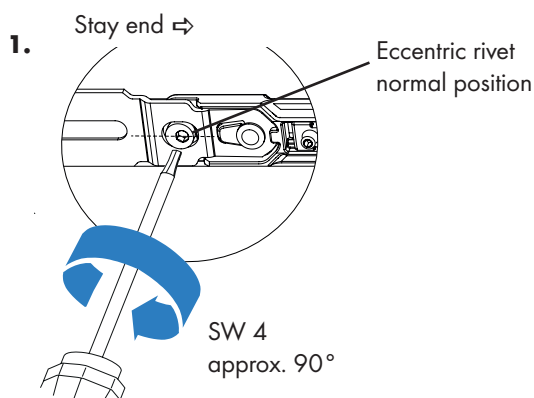
Preparation



Prior to assembly, clean the frame and sash groove of glue and fabrication residue.

If necessary: Loosen and release the rebate seal in the assembly area approx. 150 mm out of the sash rebate.

Sash - Positioning the top stay



1. Turn the eccentric rivet approx. 90° from the normal position in an anti-clockwise direction. The stay arm can then be lifted over the sash rebate and the rebate seal in steps 2. and 4.

Note:

- The eccentric rivet must be adjusted several times during the subsequent steps. We recommend then returning the eccentric rivet back to its normal position (hexagon screwdriver turned in direction of stay end).

2. Fold the stay arm approx. 30° outwards and push the guiding piece approx. 100 mm into the sash profile groove.

3. Push the ALU axxent PLUS-K (pressure-cast) sealing plate to the stop in the sash profile groove.

Note:

- The stop lugs of the sealing plate must be lying on the horizontal surface of the sash profile.

4. Position the turn-only sash stay ensuring that the centering pin is opposite the striker packer of the ALU axxent PLUS-K sealing plate.

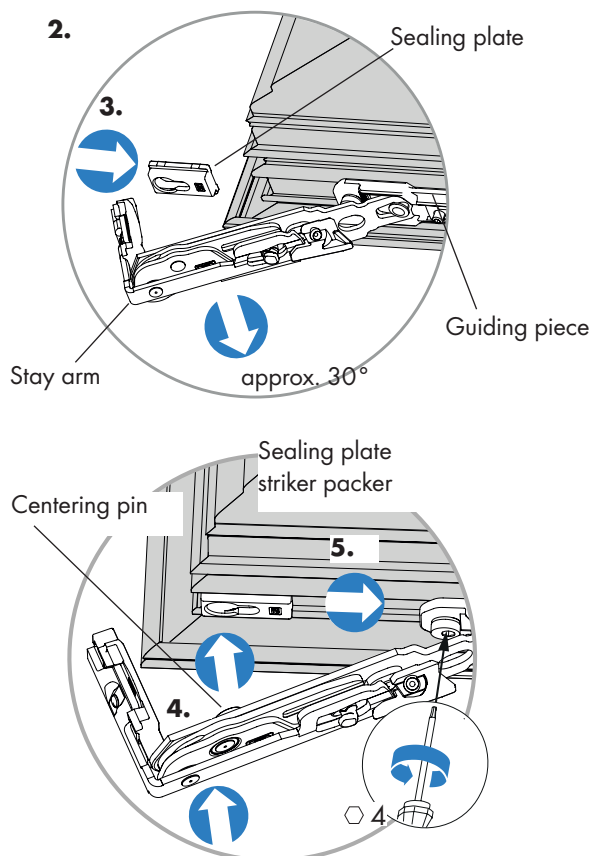
Now turn the eccentric rivet back to its normal position and simultaneously press the centering pin into the striker packer of the sealing plate with the stay arm.

5. Push the turn-only sash stay in the direction of insertion until the centering pin engages completely in the striker packer of the ALU axxent PLUS-K sealing plate.

Note:

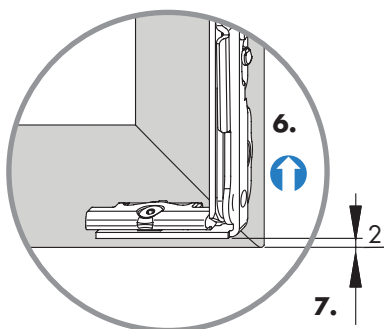
- The centering pin must engage completely in the striker packer of the sealing plate.
- If necessary, fix the rebate seal in the sash rebate once again.

⇒ Carry out steps 1 - 5 on the left and right sides

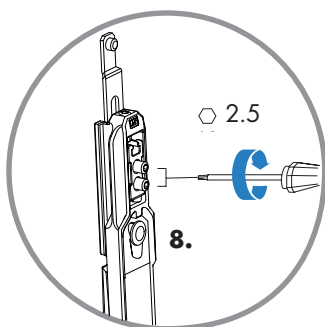




Sash - Positioning the top stay

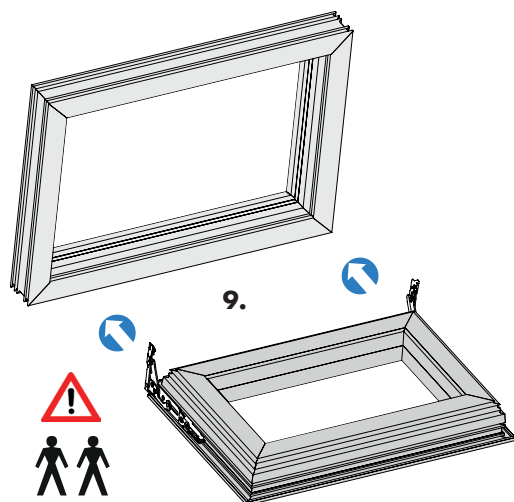


6. Bring the top stay into the closed position and push the top stay into the sash profile.
7. It is essential to maintain a distance of 2 mm from the top stay to the sash rebate.



8. Tighten the punching screws of the top stay firmly, but do not overtighten (groove base of the sash groove could burst).

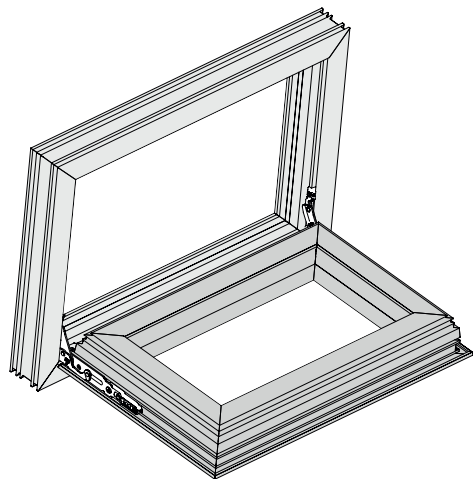
Installing the window sash horizontally at the bottom



Note:

- At least two persons are needed to install the window sash.
- For safety reasons, carry out the installation without glazing.
- If necessary, lay the window sash on a suitable surface for installation into the frame.

9. Turn the two installed turn-only sash stays upwards and position the window sash near to its final installation position in the frame.

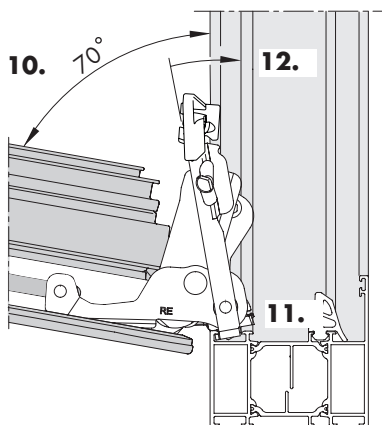


Notes on removal:

- Removal sequence according to ALU axxent PLUS-DK/TBT, see page 11, steps 1 - 5.



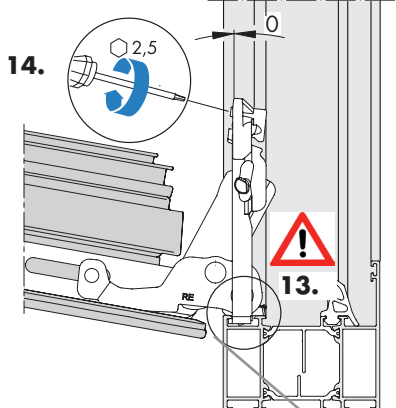
Sash - Positioning the top stay



10. Turn both turn-only sash stays to an opening angle of approx. 70°.

11. Mount the two top hinges successively in the horizontal frame groove.

12. Turn the two top hinges upwards (direction of the window frame).

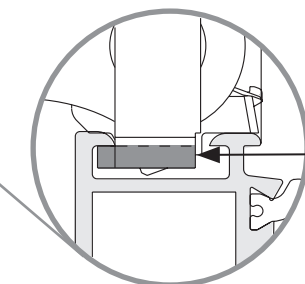
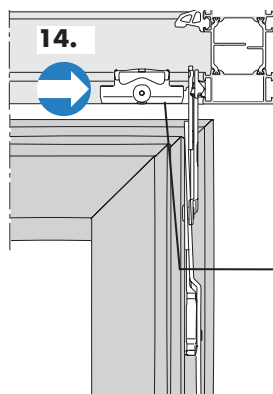


13. Ensure that the two top hinges are positioned straightly in the frame groove.

⚠ WARNING

There is a risk of injury if the horizontal top stay is not seated correctly in the frame groove as the window sash could fall out!

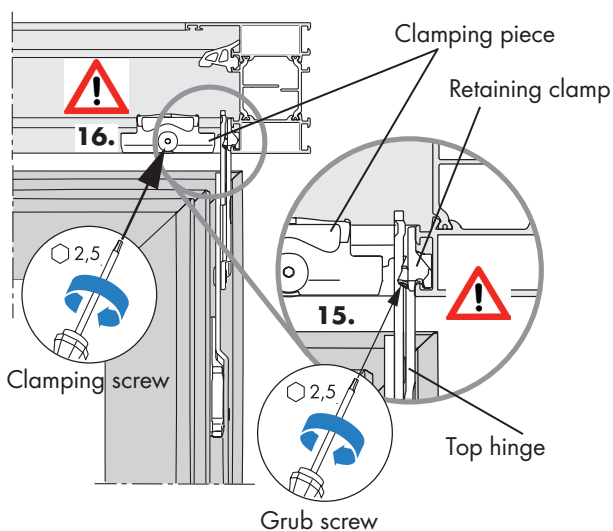
⇒ Insert the vertical top hinge straight to the frame groove.



Top hinge

Top hinge
(clamping piece)

14. Push the two top hinges outwards with the pre-installed clamping pieces until the top hinge is positioned at the top frame-groove edge.



15. Straighten the two retaining clamps in the frame groove and clamp these tightly with the pre-installed grub screw (torque 2.5 ± 0.25 Nm, SW 2.5).

16. Check the seating of the two top hinges on the top edge of the frame groove and then pin the clamping pieces tightly with the pre-installed clamping screws (torque 2.5 ± 0.25 Nm, SW 2.5).

⚠ WARNING

There is a risk of injury if the clamping pieces and the retaining clamp are not properly fixed in the frame groove as the window sash could fall out!

⇒ Ensure correct seating and fixing.

Notes

[illegible]