ASSEMBLY INSTRUCTIONS
T / PVC

SIEGENIA®
brings spaces to life

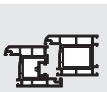
PORTAL

PSK 100 comfort

Parallel slide & tilt hardware
for PVC and timber elements
with 12 mm chamber dimension/airgap.

Window systems
Door systems
Comfort systems

Content

1 General information

1.1 Target group of this documentation

This documentation is intended for use by specialists only. All work described in this document is to be performed by experienced professionals with training and practice in the assembly, installation and maintenance of PORTAL hardware as the safe and professional assembly of the PORTAL hardware is not possible without the relevant expertise. Keep these assembly instructions in a safe place.

1.2 Intended use

- The parallel sliding tilting hardware PSK 100 comfort for use in windows or patio doors with PVC profiles.
- Sash weight max. 100 kg.
- The PSK 100 comfort is intended for use in permanent buildings.
- The PSK 100 comfort allows the horizontal opening and closing of windows and patio doors from profiles for parallel slide & tilt elements.
- The parallel slide & tilt elements must be installed vertically, in no circumstances in a sloping position.

1.3 Improper use

- The hardware components described in these assembly instructions are manufactured from steel, zinc plated and then treated with a special process.
- They must not be used:
  – in wet rooms
  – in environments where the air contains aggressive or corrosive components
  – in environments where the air contains salt
- Please contact your SIEGENIA sales consultant in such cases

1.4 Safety notes

- Maintenance must be carried out on the PSK 100 comfort at least once a year.
  See PORTAL maintenance instructions
- For the PSK 100 comfort , the specifications provided by the profile manufacturers or system owners must also be adhered to with regard to possible restrictions on sash dimensions, sash weights and locking distances.
- Where special manufacturing instructions or fabrication guidelines exist, these must be explicitly adhered to. Functional disorders cannot be excluded otherwise.
- The specifications given for torques must be adhered to.
- Your complete set of hardware should solely be composed of SIEGENIA hardware components. Otherwise functional disorders and damage could occur, for which we accept no liability.
- If special safety aspects must be observed (e.g. for installation in schools, nurseries, hotels, etc.) we recommend the installation of a lockable handle or the use of the PS 200 COMFORT.
- All hardware components must be properly assembled as per the description on pages "Assembly" PSK hardware components and "Adjustment".
- PSK 100 comfort elements may only be surface treated before the hardware components are assembled. Treating these surfaces at a later stage can reduce the functional capacity of the hardware components. In such cases we are not obliged to honour any warranty.
- When block setting, please observe technical guideline no. 3 from the German Glazing Trade [Glaserhandwerk], "Blocking glazing units" [Klotzung von Verglasungseinheiten].
- Never use acid curing sealants as they may cause the hardware components to corrode.
- Never use acidic lubricants and cleaning agents in the vicinity of the guiding rail/the slider.
- Keep the running rail and all rebates free from dirt and debris, especially from deposits of cement and plaster.
- Avoid exposing the hardware directly to water and do not let cleaning agents come into contact with

the hardware.

- We recommend cleaning the surfaces with a mild, pH neutral detergent solution in warm water. This will remove most contamination. After cleaning, always rinse the surface of the PVC profile with clear water.

1.5 Help and support

You will find further information on adjustment or processing possibilities under the following QR code.

INFO HELP

The QR code sticker can also be found on components of the PSK element. Especially on the inside of the bogie wheels cover caps.

1.6 Directives of the Trade Organisation for Locks and Fittings (Gütegemeinschaft Schlösser und Beschläge e. V.)

The directives of the Trade Organisation for Locks and Fittings (Gütegemeinschaft Schlösser und Beschläge e. V.) provide comprehensive information on the correct operation and maintenance of hardware for windows and patio doors. We deem these directives to be binding.

You can find the latest versions of the directives, in a range of languages here:

http://www.beschlagindustrie.de/ggsb/richtlinien.asp

VHBH – Hardware for windows and patio doors
Guidelines/notes on the product and on liability

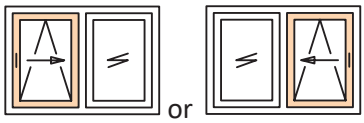
VHBE – Hardware for windows and patio doors
Guidelines and notes for end users

1.7 Dimensions

All dimensions are nominal values and include the general tolerances (formerly "dimensional variations"). All nominal values are given in mm.

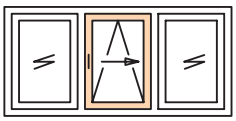
1.8 Scheme overview

Scheme A



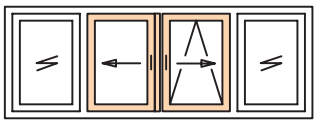
DIN left or DIN right
Scheme A with 1 sliding sash/1 fixed sash*

Scheme G



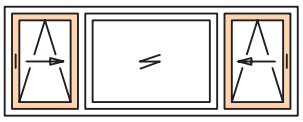
Scheme G with 1 sliding sash/2 fixed sashes*

Scheme C



Scheme C with 2 sliding sashes/2 fixed sashes*

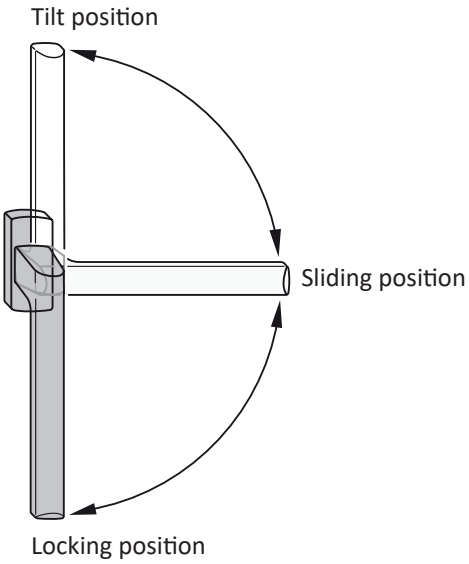
Scheme K



Scheme K with 2 sliding sashes/1 fixed sash*

* Turning sashes instead of the fixed sash are also possible. Turning sashes with rose inside only and removable handle (see handle catalogue).

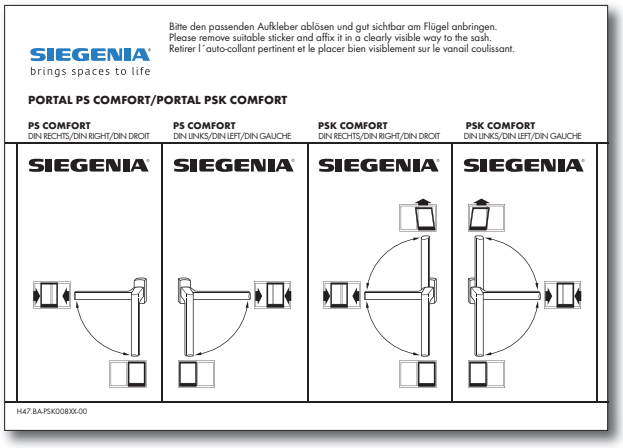
1.9 Operating sequence



1.10 Operating sticker

Attach the operating sticker (slide direction DIN left or DIN right) in a visible position on the installed parallel slide & tilt sash.

The operating sticker is enclosed in the tilt stay carton



ATTENTION:
Primary and secondary sashes must be labelled accordingly to prevent faulty operation.

The sliding sashes may be operated only in the order specified below.

Opening: primary sash first **1.**
then secondary sash **2.**

Closing: secondary sash first **2.**
then primary sash **1.**

1.11 Application diagram

It is essential to observe the application diagram for PS 100 comfort
H58.AWD_P_S010EN.

2 Processing specifications

2.1 Size ranges

Scheme version		A	C
Sash rebate width (FFB)	Sliding sash	670* - 1300	670*- 1300
Sash rebate height (FFH)	Sliding sash	840*- 2360	840* - 2360
Frame to sash clearance		125	
Sash weight		max. 100 kg	

* The specified minimum dimensions take priority over the TITAN installation instructions.
Ratio sash height (FH) / sash width (FB) < 2.5 : 1

- SIEGENIA-Construction drawings PVC profiles:
  - PSK 100 comfort
    Scheme A
    Scheme C
    Scheme G
    Scheme K
- The size ranges specified above must not be exceeded.
- In addition, with regard to the SIEGENIA hardware PSK 100 comfort , the specifications of the profile manufacturers or system owners also apply, especially with regard to possible restrictions on sash dimensions, sash weight and locking distance.
- Where special manufacturing instructions or fabrication guidelines exist, these must be explicitly adhered to.
- See the construction drawing for the respective profile system for further details.
- Screw heads must not project into the functional area of components. This can lead to material damage and loss of function.

2.2 Abbreviations

The following abbreviations are used in these assembly instructions:

F	Guiding rail
FB	Sash width
FFB	Sash rebate width
FH	Sash height
FFH	Sash rebate height
G	Handle position
H	Rear
L	roller
M	Centre
MV	Central lock
OKFF	Finished floor level
PZ	Profile cylinder
RAH	Frame height
RFB	Frame rebate width
S-ES	Steel-enhanced security
S-RS	Steel-roller increased security
SW	Wrench size
V	Front
VSLS	Locking side
VSO	Locking side, top
VSU	Locking side, bottom
ZV	Central locking gear:

3 Overview of hardware components

3.1 Hardware components presentation scheme A

3.2 Hardware list hardware components

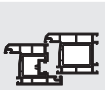
Item	Pieces Scheme A	Pieces Scheme C	Material description		Material number: Basic	Silver	RAL 9003	RAL 9005	F9	old gold
1	1	2	**Handle Si-line PSK**	**31**	**PHIJ0010**	**872086**	**858264**	**884010**	**-5H401_**	**-5H001_**
				35	**PHIJ0030**	**875902**	**875926**	**-52301_**	**-5H401_**	**-5H001_**
				45	**PHIJ0040**	**-52401_**	**-50202_**	**-52301_**	-	-
	1	2	**Carton bogie wheels PSK COMFORT**	**right**	**PMKJ1051-10001_**					
				left	**PMKJ1052-10001_**					
2	1	2	Bogie wheels PSK COMFORT V	Front						
3	1	2	Bogie wheels PSK COMFORT H	Rear						
4	1	1	Sticker PSK bogie wheels safeguard							
5	2	4	Slider PSK COMFORT							
6	1	2	PORTAL key							
7	1	2	Bogie wheels safeguards	Front						
8	1	2	Bogie wheels safeguards	Rear						

depending on sash rebate width (FFB)

					Size	FFB	Basis	Add-ons for colour	
	1	2	**Profile set PSK comfort**		**87/200** **107/240** **130/286**	670- 870 871-1070 1071-1300	**PMPJ1100** **PMPJ1110** **PMPJ1120**	**Silver: -52501_**	**F9: -5H401_**
								RAL 9001: -50101_	**old gold: -5H001_**
								RAL 9003: -50201_	**middle bronze: -53101_**
								RAL 9005: -52301_	
9	1	2	Cover rail L						
10	1	2	Connecting rod L						
11	1	2	Guiding rail						
12	1	2	Cover rail F						
13	1	2	Running rail						
14	0-2	0-4	Supporting piece L						
	1	2	**Cover cap set PSK 100 comfort**	**RH and LH**			Basis	Add-ons for colour	
15	2	4	Cover cap L				**PMAJ1030**	**Silver: -02501_**	**F9: -0H401_**
								RAL 9001: -00101_	**old gold: -0H001_**
16	2	4	Cover cap F					**RAL 9003: -00201_**	**middle bronze: -03101_**
								RAL 9005: -02301_	

						Basic	Add-ons for colour	
	1	2	**Bag of accessories running rail PSK-comfort**	consisting of:	**right**	**PMZJ2051**	**Si-Silver powder coated VE 1: -02501_**	**Si-Silver powder coated VE 10: -02502_**
							Si-Silver optic VE 1: -10001_	**Si-Silver optic VE 10: -10002_**
							Black VE 1: -09901_	**Black VE 10: -09902_**
					left	**PMZJ2052**	**Si-Silver powder coated VE 1: -02501_**	**Si-Silver powder coated VE 10: -02502_**
							Si-Silver optic VE 1: -10001_	**Si-Silver optic VE 10: -10002_**
							Black VE 1: -09901_	**Black VE 10: -09902_**
17	1	2	Stop					
18	1	2	Stop sleeve					
19	1	2	Trigger					
20	2	4	**Tilt stay PSK 100**			**PSKJ0050-100010**		
21	2	4	**Cover cap S**			**PKAJ0070**	**-02505_**	**-00205_**	**-01205_**	**-0H405_**
22	1-20		**Drill screw SK H2 3.9x32 DIN7504**	for PVC systems		**PZUJ0010-00008_**		
			Sash lifter; screw SHR AW20 4.1x30	for timber systems		**PZUJ0020-00008_**		

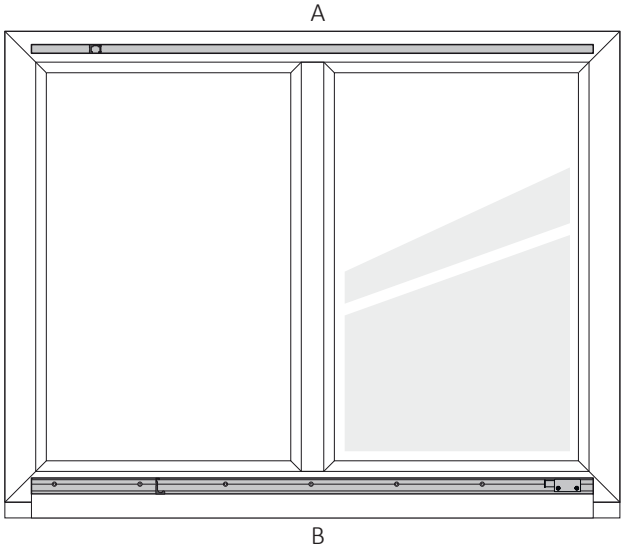
PSK 100 comfort
Overview of hardware components

Item	Pieces Scheme		Material description			Material number					
	A	C				Basic	Silver	RAL 9003	RAL 9005	F9	old gold
Accessories											
23	**2**	**2**	**Distance piece**			see profile data sheet					
24	**1**	**2**	**Handle Si-line PSK ABS**	lockable	**31**	**PHIJ0020**	**872093**	**858318**	**–**	**–**	**-5H001_**
					35	**PHIJ0090**	**–**	**875957**	**–**	**–**	**-5H001_**
25	1-2	2-4	**Supporting piece L**	Carton with 100 piece		**PZLJ1010-09906_**					
26	**1**	**2**	**Sealing brush set 13 mm**			**PZUJ0030-00001_**					
27	**1**	**2**	**Distance plate set LW** for support of the bogie wheels	Height	1 mm	**PMZJ1060-00001_**					
					2 mm	**PMZJ1070-00001_**					
					3 mm	**PMZJ1080-00001_**					
					4 mm	**PMZJ1090-00001_**					
					8 mm	**PMZJ1100-00001_**					
	2	4	Distance plate 120 x 11			Plate height depending on profile; see product catalogue or construction drawing for determination					
	4	8	Distance plate 28 x 11								

4 Assembly of the hardware components

4.1 Installing the running rail and guiding rail



⚠ DANGER

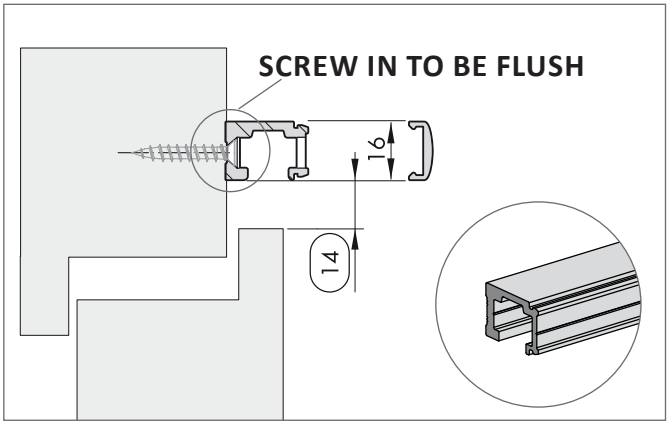
Danger to life due to sliding sash falling out

Wrong position of the guiding and running rail.

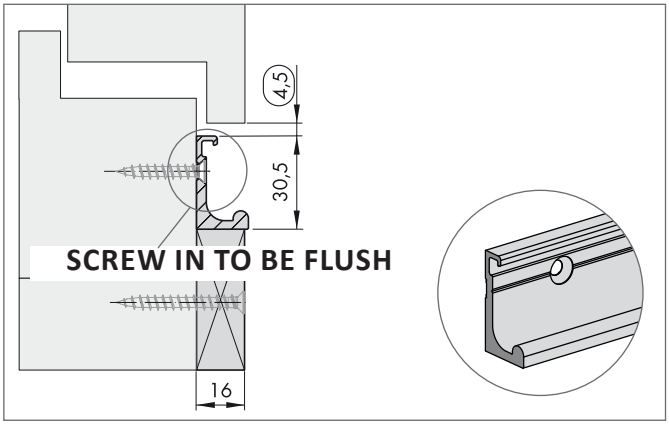
- Adhere to the positioning dimensions.

The construction drawing related to the profile must be observed for correct assembly of the guiding and running rail.

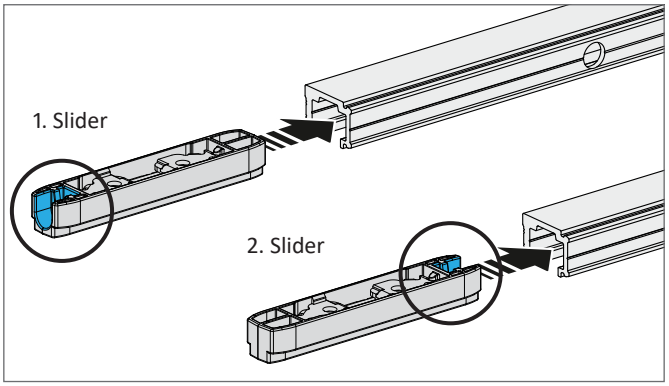
A	Guiding rail
B	Running rail



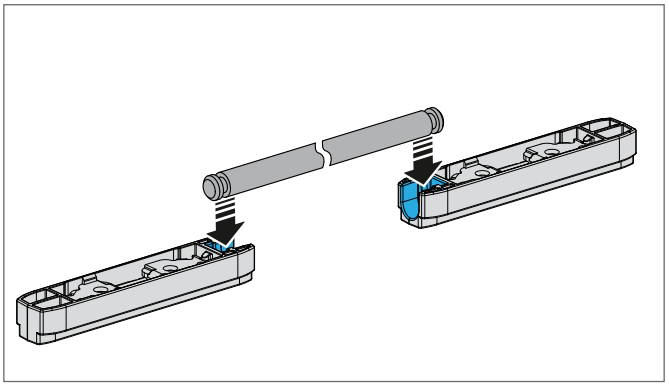
Position the guiding rail.Observe the construction drawing related to the profile.



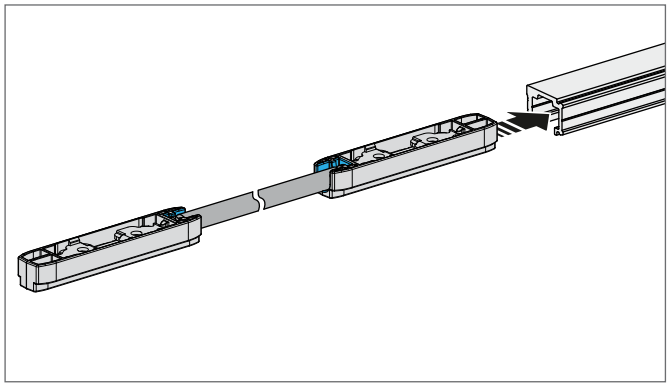
Position the running rail. Observe the construction drawing related to the profile.
Attach load-bearing, end-to-end running rail support when assembling the hardware.



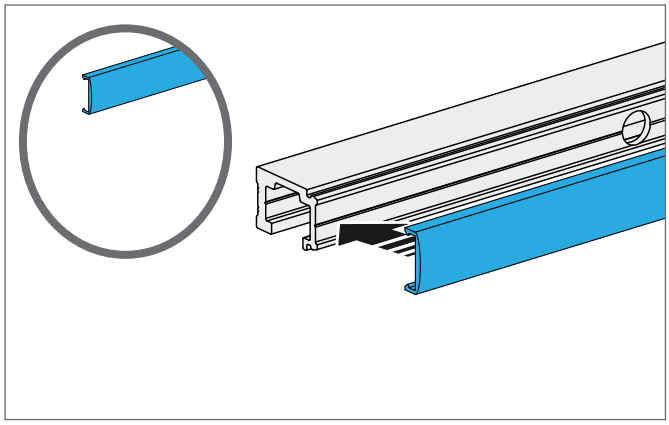
Push both sliders into the guiding rail. Pay attention to the orientation.



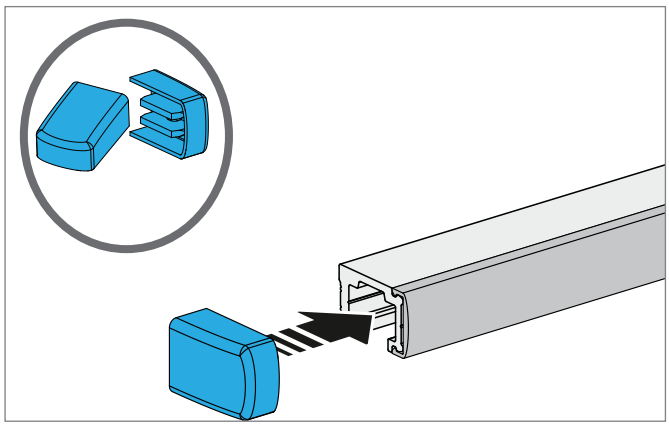
If the connecting rod is used, clip this into the slider first.



Push slider together with the connecting rod into the guiding rail.

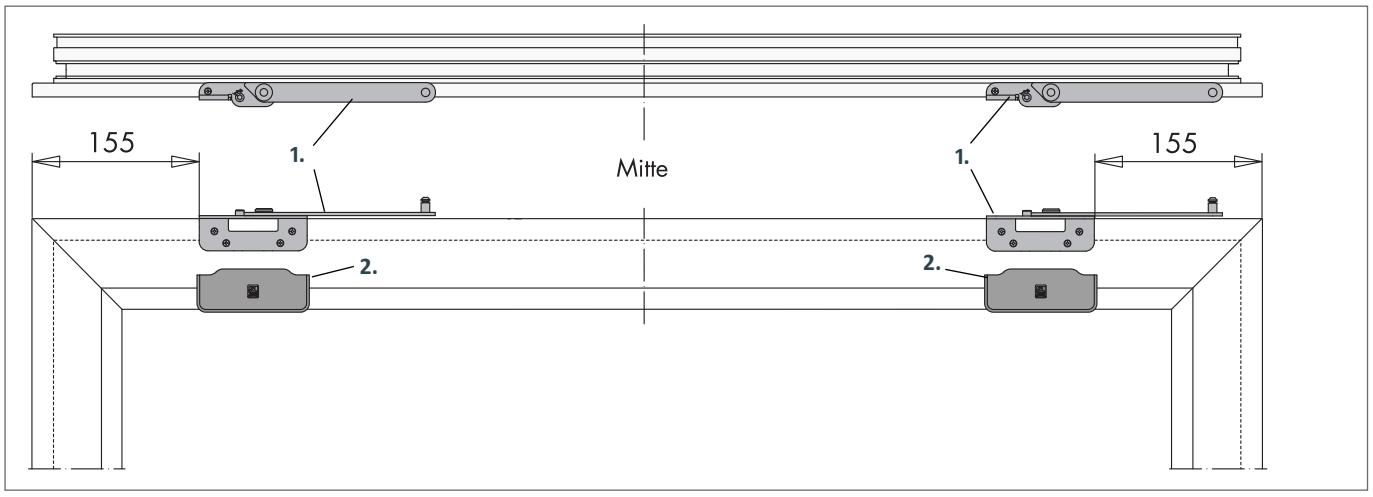


Shorten the cover rail F to the required length and clip onto the guiding rail.



Attach a cover cap F to each end of the guiding rail.

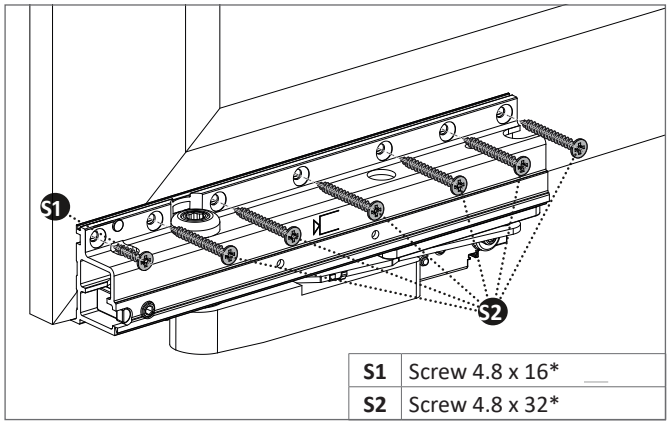
4.2 Installing the tilt stay



Screw the tilt stay RH and LH to the sash 155 mm from the sash edge (**1.**).

Clip on cover cap K RH and LH (**2.**).

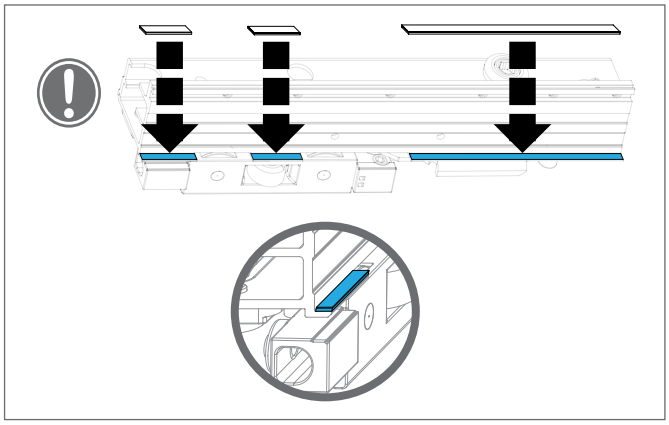
4.3 Installing the bogie wheels



S1	Screw 4.8 x 16*
S2	Screw 4.8 x 32*

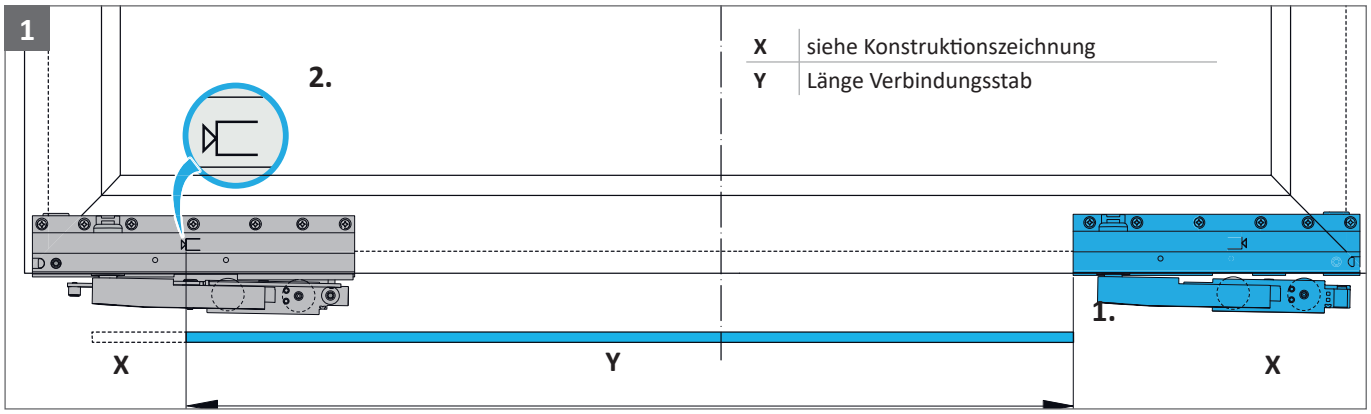
Screw both bogie wheels tightly onto sliding sash according to their position.

*Screw length dependent on profile;



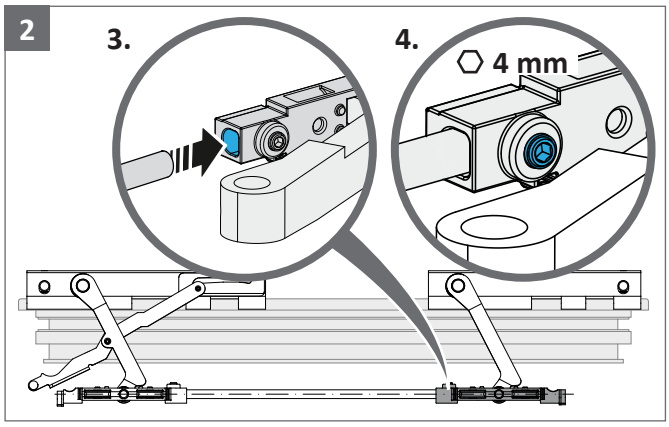
According to the profile system, the optional distance plates must be used.

4.4 Installing the connecting rod

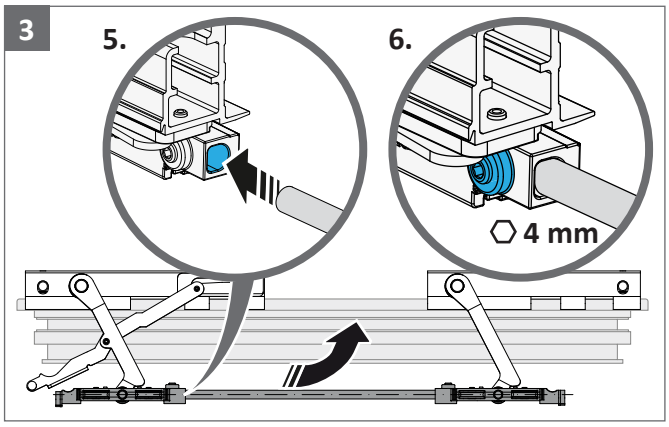


X	siehe Konstruktionszeichnung
Y	Länge Verbindungsstab

Place connecting rod on the H bogie wheels (**1.**). Transfer the crop indication on the cropping mark of bogie wheels V, to the connecting rod (**2.**) and crop the connecting rod.



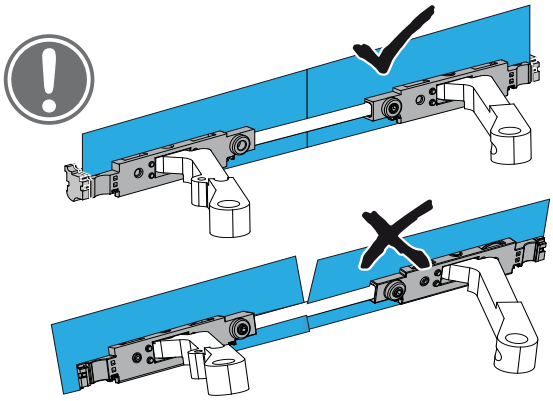
Insert connecting rod into H bogie wheels (**3.**) and fix with head cap screw (**4.**). Torque 10-11 Nm.



Push connecting rod into bogie wheels V (**5.**). Bring the bogie wheels housing with connecting rod into the closed position. Now fix the connecting rod with a head cap screw (**6.**). Torque 10-11 Nm.

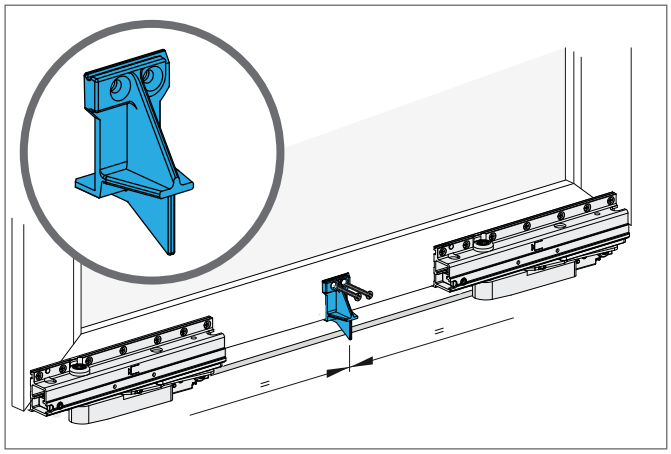
4

The bogie wheels housing must be standing parallel in the closed position.



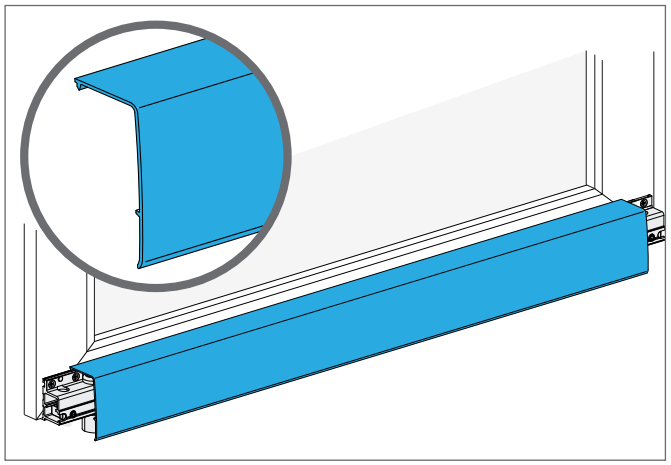
After the fixation of the connecting rod, the bogie wheels housing must align with each other.

4.5 Installing supporting piece L

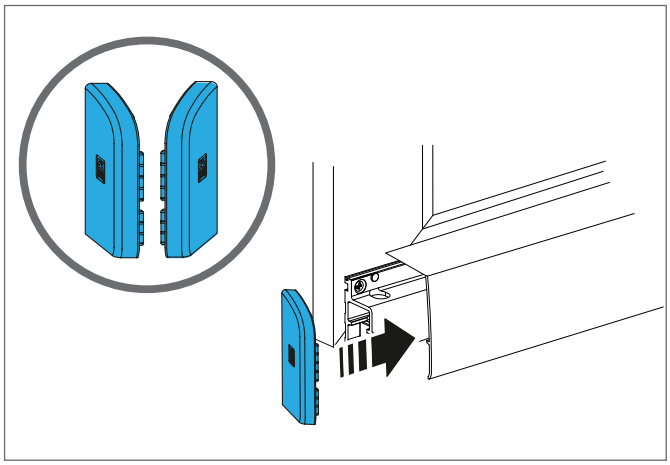


Position supporting piece L for cover rail L centrally and screw into place with 4.8 x 35 screws

4.6 Installing the cover rail for the bogie wheels



After the sash has been inserted into the frame, attach the cover rail L.



Attach the cover caps L to the respective bogie wheels.

4.7 Inserting the sliding sash and connecting with frame

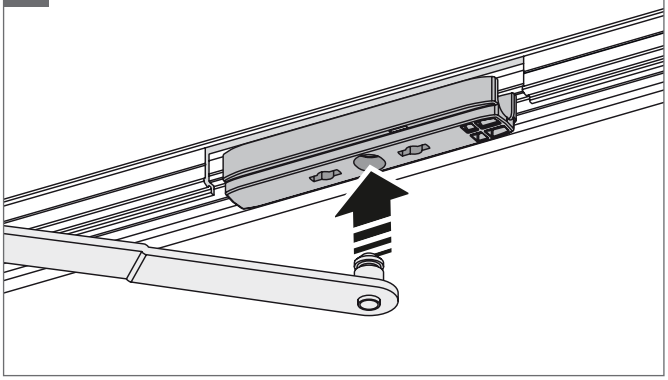
⚠ DANGER

Danger to life due to sliding sash falling out

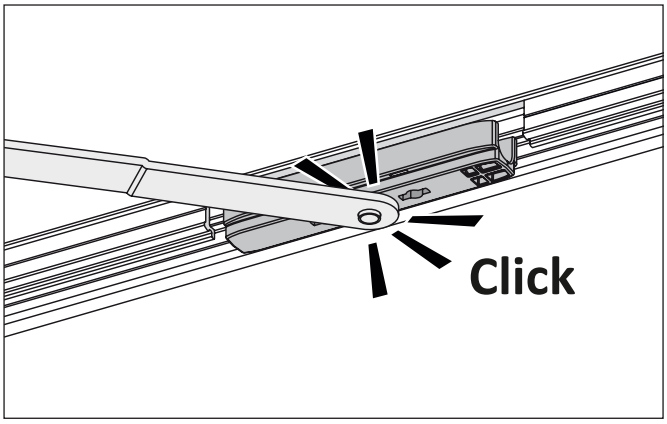
Stay arm has not engaged.

- Confirm that the coupling bolt is engaged in the slider by pulling on the stay arm.

1



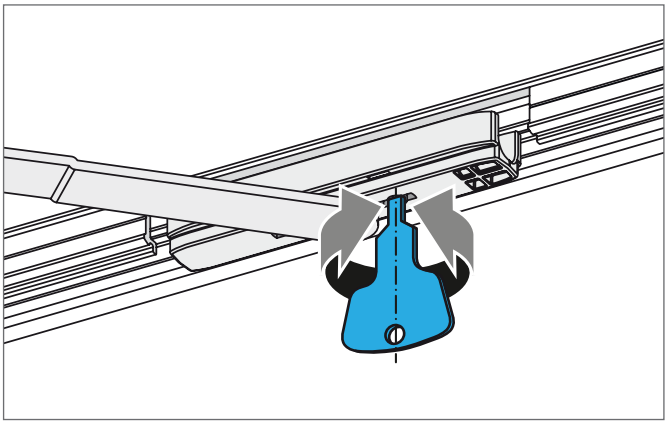
Place stay arms of tilt stay into tilt position. Position the sash on the running rail at an incline and insert the coupling bolt of the stay arms into the slider.



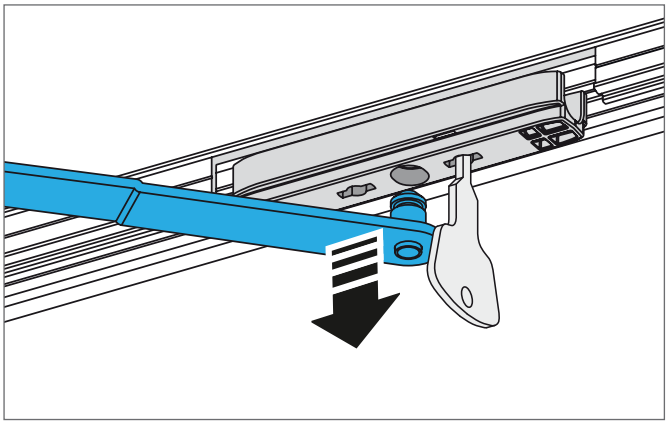
Snap in stay arms of tilt stay into slider. Check firm seating by pulling briefly.

4.8 Releasing and removing the sliding sash from the frame

Only the PORTAL key may be used to release the stay arms in the slider, if other tools are used, there is a danger of damaging the slider.



Place stay arms of tilt stay into tilt position.
Release stay arms from the slider using the PORTAL key.



Lift off the stay arms of the tilt stay.

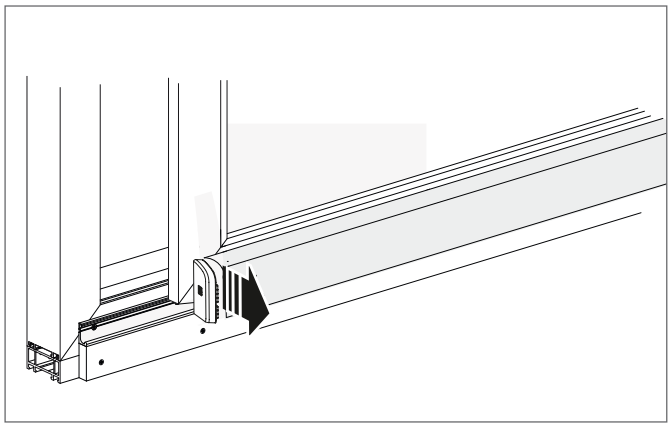
4.9 Installing the bogie wheels safeguards

⚠ DANGER

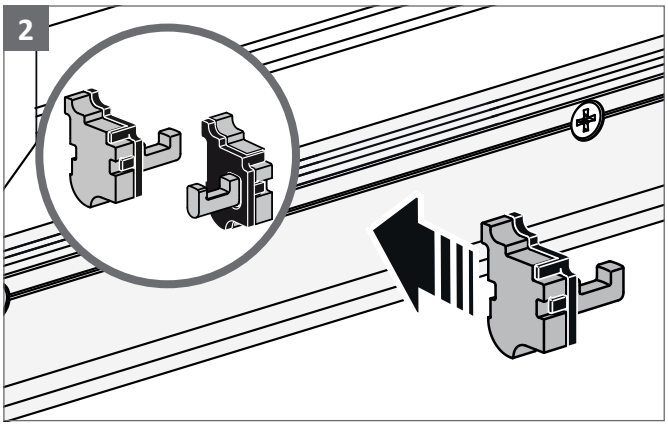
Danger to life due to sliding sash falling out

Not mounted bogie wheels safeguards.

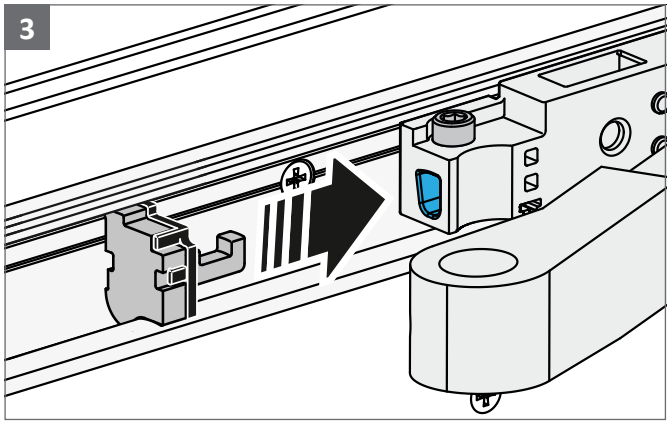
- The bogie wheels safeguards must be correctly installed in both bogie wheels of a sliding sash.



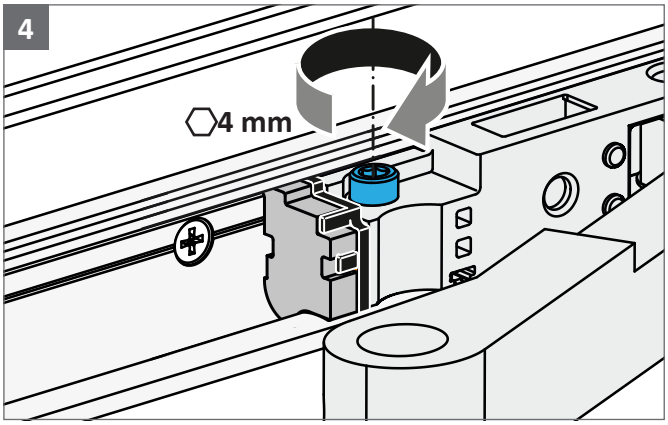
The bogie wheels safeguards can only be installed in a parallel positioned sash.



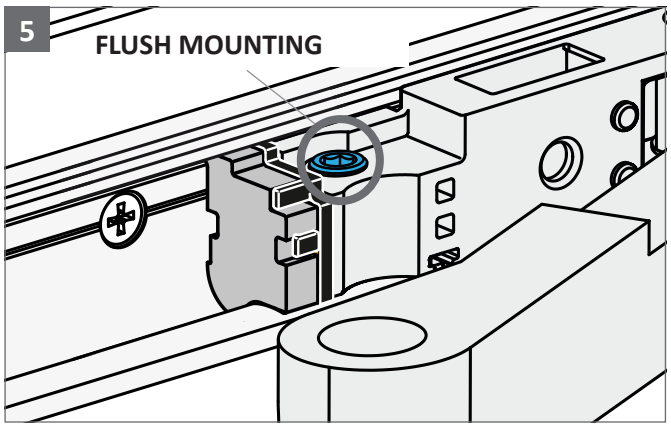
Position the relevant version (RH or LH) of the bogie wheels safeguards in the running rail.

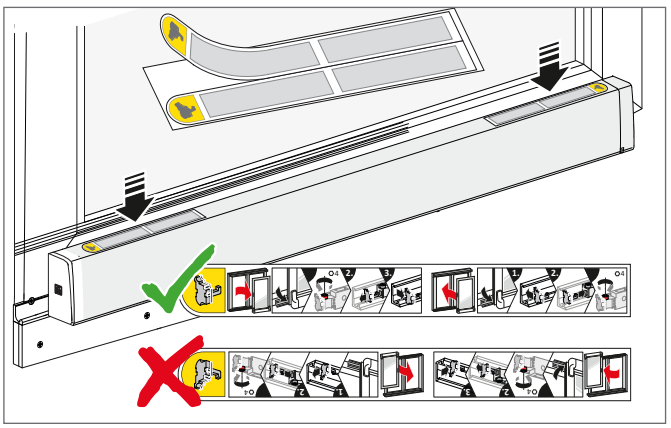


Push bogie wheels safeguards into bogie wheels V and H.



Fix the bogie wheels safeguards in the bogie wheels with a locking screw.





The locking screw must be completely countersunk. Do not overtighten the locking screw, torque max. 3 Nm.

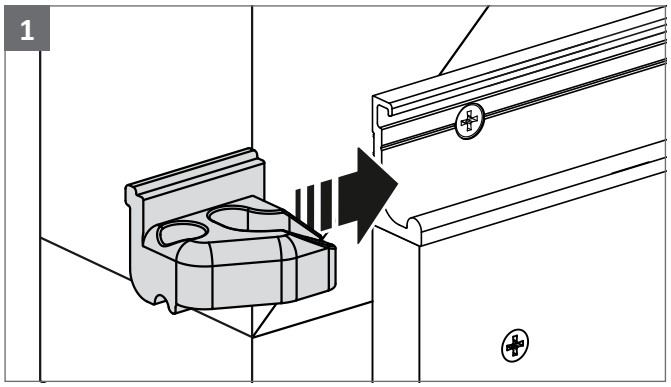
Adhere the notes sticker to the protective foil of the cover rail L. Pay attention to correct orientation of the sticker.

4.10 Removing the bogie wheels safeguards

The removal of the bogie wheels safeguards is carried out in reverse sequence to the installation.

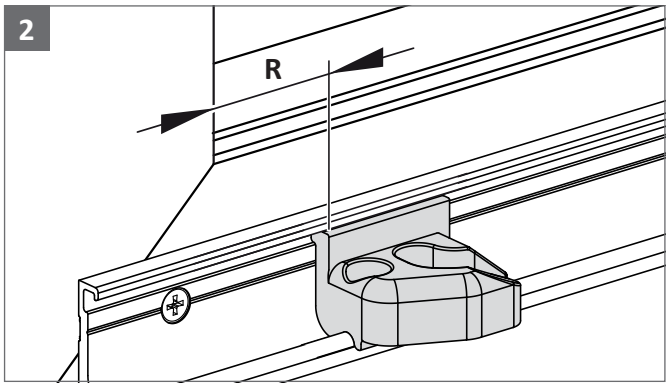
4.11 Positioning the trigger

1

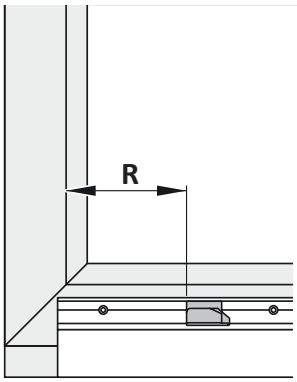


Slide the trigger sideways into the running rail.

2



Position the trigger according to the profile.

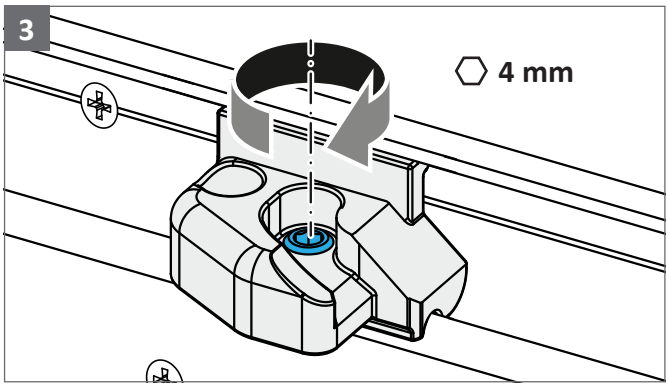


Rebate width	R
18	16
19	15
20	14
21	13
22	12

Dimension R is designed to the position of bogie wheels V.

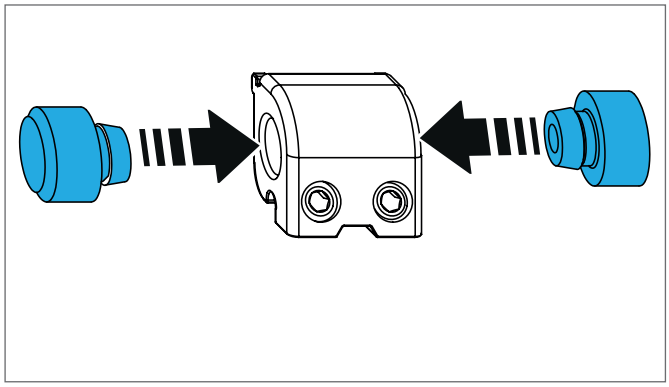
If the position of bogie wheels V is changed, the position of the trigger must be adapted accordingly.

3

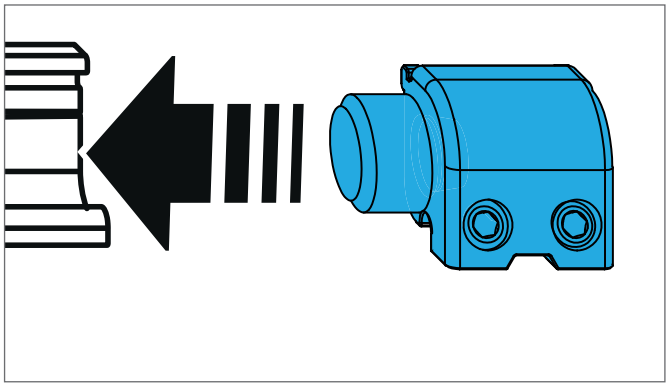


Fix trigger position with head cap screw. Torque max. 3 Nm.

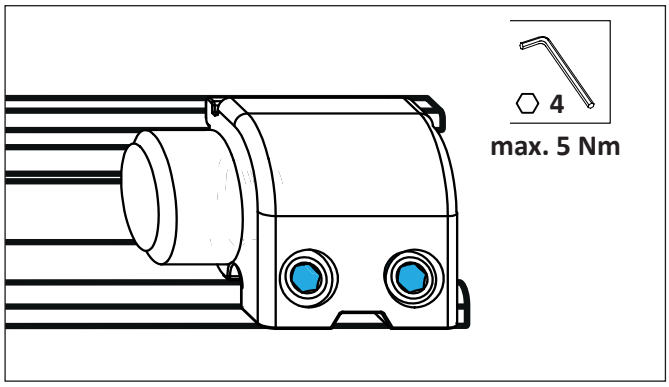
4.12 Positioning the stop



Assemble the stop according to the required DIN direction.



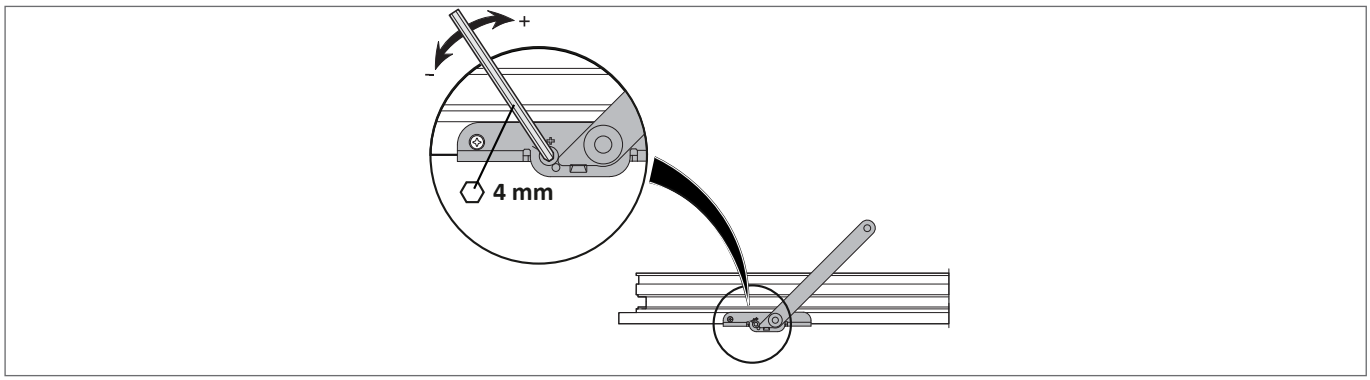
Slide the stop sideways into the running rail.



Fix stop into the running rail with Allen key SW 4. Final positioning only after the sliding sash has been installed. Torque max. 5 Nm. The screws must be fixed at alternating sides to obtain an even torque.

5 Adjustment

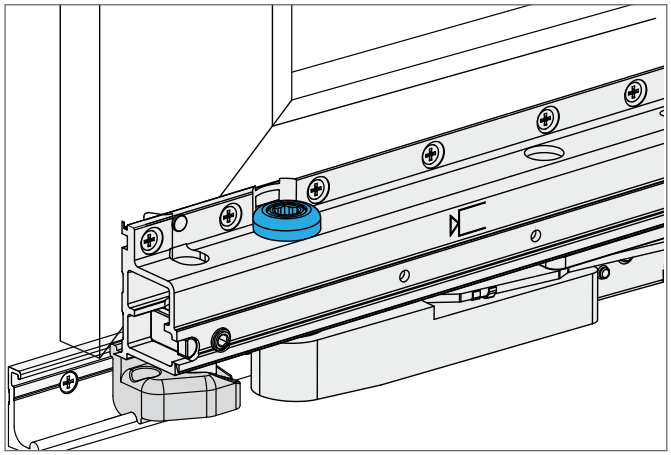
5.1 Adjusting the tilt stay



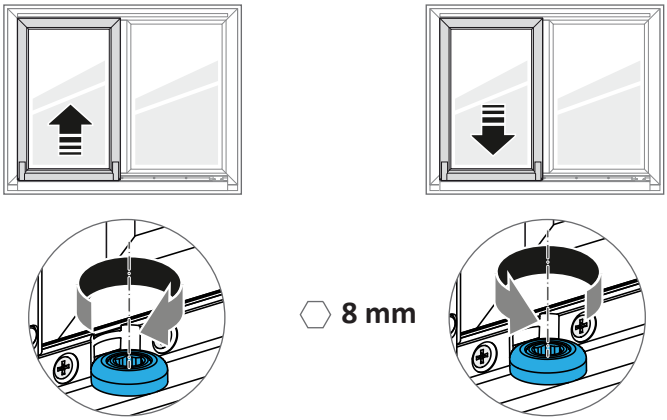
Adjust the engaging function of the tilt stay with Allen key SW 4: turn in clockwise direction stronger (+), turn in anticlockwise direction weaker (-).

5.2 Elevating adjustment of the bogie wheels

A regulation of the elevating adjustment must be undertaken following the installation of the element in the object in case of need.



Height adjustment on the bogie wheels with Allen key SW 8.
Default setting in minimum position (0 mm)



The maximum adjustment range must not be exceeded.
One rotation is equivalent to 1 mm height adjustment.
Maximum adjustment: 4 mm

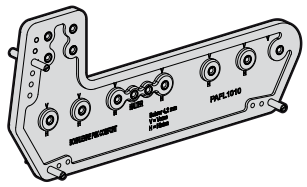
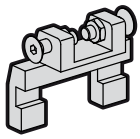
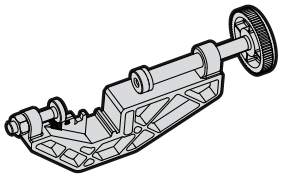
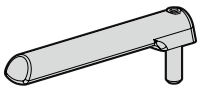
6 Profile cross-sections

6.1 SI construction drawings

The dimensions of the SI construction drawings must be observed for the correct positioning of the holes and the components on the profile.

You can obtain SL construction drawings from the field sales contact person on request.

7 Jigs

	Material description	Tooling	Material number
	**PSK Comfort jig** for bogie wheels		**PAFL1010-09601_**
	**PSK COMFORT jig locking part** for locking parts		**PAEL1010-00001_**
	**PSK Comfort clamping jig** for running and guiding rail		**PALJ0110-02101_**
	**PSK EB 640/4 jig** For drill centring for fixing bore holes on guiding and running rail	Drill Ø3	**143001**

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