

Roto Patio Life

Standard hardware
for large Lift&Slide doors up to 400 kg

Installation, Maintenance and Operation instructions
for timber profiles



Imprint

Copyright: August 2013

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General information

Product liability guidelines	4
General advice	7
The Roto sliding hardware	8
Versions	9
Application diagrams	10



Hardware overview

Diagram A	13
Diagram C	14
Diagram D	16
Parts list	18
Drilling, routing and striker positioning jigs	22



Installation

Patio Life accessories kit, 400 kg	24
Sash installation	25
Predrilling/routing out the handle and recessed grip	26
Installing corner components, end components and extension units	27
Mounting the handle and recessed grip	28
Installing the lifting track and gaskets in the sash	29
Mounting the top and bottom sealing plate (with support profile)	31
Diagram A – Threshold and frame installation	32
Installing the counter-block on the threshold.....	36
Installing the threshold in the fixed unit area	37
Predrilling the threshold and frame sections.....	38
Sealing up the passage area at the counter-block	39
Sealing up the passage area at the assembly profile	40
Installing the threshold end-caps	41
Sealing up the groove in the threshold	42
Installing the roller track, weather profile and frame section	43
Installing the fail-safe guide track and gasket-components	44
Frame mullion-gasket.....	46
Mounting the strikers	48
Mounting the striker strips	49
Centre-closers	50
Diagram C – Passive sash	54
Installing the hardware and cutting the lifting track to length	54
Installing the profile strip and striker strip	55
Installing the extruded gasket	56
Diagram C – Active sash (same as diagram A)	57
Installing the extruded gasket	57
Diagram C – Threshold / frame installation	58
Installing the anti-jemmy / fail-safe device	59
Diagram D – Sash installation	61
Installing the gasket components in the mullion	63
Diagram D – Threshold installation	64
Diagram D – Frame installation	65
Diagram A, C, D	66
Installing the fail-safe device, stop plate and end stop	66
Hinging the sash	67



Maintenance and operation instructions

.....	69
-------	-----------



Safety instructions

.....	69
-------	-----------



Product liability guidelines

Sliding hardware for windows and balcony doors

According to the defined manufacturer's liability described in paragraph 4 of the "product liability law", the following information regarding sliding hardware for windows and balcony doors shall be observed. Non-compliance exempts the manufacturer of his liability.

1. Product information and stipulated application

Sliding hardware as covered by this definition, is hardware for sliding sashes for balcony doors and windows that are mainly used as glazed exterior structures. In combination with the sliding sashes, fixed-glazing-units and/or further sashes i.e. Turn-Only sashes for cleaning purposes can be situated in a window element.

The sashes that are equipped with this sliding hardware are capable of:

- Sliding,
- Lifting and sliding,
- Tilting and sliding,
- Lifting, tilting and sliding,
- Parallel-retracting and sliding, Tilting, parallel-retracting and sliding.

Sliding hardware is used on vertically installed windows and balcony-door sashes made of timber, PVC, aluminium or steel, and their corresponding material combinations. Sliding hardware as covered by this definition is equipped with a locking mechanism that fastens the sliding sash as well as rollers located on the bottom horizontal plane of the sliding sash. In addition, scissor stay-arms for tilting and mechanisms to lift and/or parallel-retract the sashes can be specified. By means of the hardware, the sashes are locked, brought into the ventilation position and pushed to the side.

Differing applications do not correspond to its stipulated use. Burglar-resistant window and balcony doors, window and balcony doors for damp rooms and those for use in environments with aggressive, corrosive air content, require hardware adapted for the

respective application and individually agreed upon performance features. Opened windows and balcony-door sashes achieve only a shielding function and do not meet any demands on joint impermeability, water tightness, sound reduction, thermal insulation and burglary resistance.

In the case of wind and draught, the window and balcony-door sashes must be closed and locked. Wind and draught as covered by this definition is present, if a window or balcony door sash while in one of its opening positions, can open or close on its own, in an uncontrolled manner by means of either air pressure or air suction. A static opening position of windows and balcony door sashes can only be achieved by means of additional hardware.

The resistance against wind loads in a closed and locked state is dependent on the respective designs of windows & balcony doors. Should wind loading in accordance with DIN EN 12210 be carried out (in particular pressure test p3), suitable hardware compilations are to be matched in relation to the respective window design and frame material, and each case individually agreed upon.

Generally speaking, the sliding hardware can fulfil the demands for barrier-free dwellings in accordance with DIN 18025. However corresponding hardware compilations and installations for windows and balcony doors are necessary, which must be coordinated and each case individually agreed upon.

2. Misuse

Misuse (therefore not the specified product use) of sliding hardware for windows and balcony doors occurs in particular:

- if obstacles are inserted in the opening vicinity and thus prevents its proper specified use,

- if additional loads are put on windows or balcony-door sashes,
- if while sliding over and/or locking, someone reaches between the sash and frame, and/or a person or body-part is in this vicinity.

3. Liability

The respective entire hardware set may only consist of hardware components from Roto Frank AG. In the case of inappropriately assembled hardware, and/or the use of non-original accessory components, and/or non-approved factory accessory components, no liability is accepted.

4. Product performance

4.1 Maximum sash weights and sash rebate dimensions

The following listed maximum sash weights for the individual hardware versions may not be exceeded. The component with the least permissible load-carrying capacity determines the max. sash weight. Application diagrams and component classification are to be adhered. (Refer to the following pages)

4.2 Hardware combination

The manufacturers' regulations that deal with the combination of hardware are obligatory. (For example: the application of additional stay arms, the hardware design for burglar-resistant window and balcony-door sashes).

5. Product maintenance

Security relevant hardware components are to be examined at least once a year for stability and wear and tear. Depending on the requirements, the fixing screws are to be tightened and/or parts to be replaced. In addition to this, the following maintenance work is to be carried out at least once annually:

- All movable parts and all locking points of the sliding hardware are to be lubricated and tested.
- Only cleaning and maintenance agents that do not damage the corrosion protection of the hardware components are to be used.

The hardware adjustments, as well as replacing parts is to be carried out by a specialist company.

When coating – for example when painting or varnishing – the windows' and balcony doors hardware is to be excluded from this process and is also to be protected against any impurities (paint/varnish splashes).

5.1 Preservation of the surface finish

Electrolytically applied zinc coatings are not attacked in a normal room climate, if no condensation can form on the hardware or occasionally formed condensation can dry rapidly.

In order to permanently preserve the hardware's surface quality and to avoid deterioration by corrosion, it is imperative to observe the following points:

- The hardware and/or the rebate areas are to be ventilated sufficiently in particular during the building phase so that they are not exposed neither to direct wetness nor to condensation. The hardware is to be kept free from deposits and soiling from building materials (building dust, plaster, cement etc.).
- Aggressive vapours in the rebate area (for example: by means of formic acid or acetic acid, ammonia, amine or ammonia compounds, aldehydes, phenols, tannic acid etc.) in connection with small formations of condensation can lead to fast corrosion of the hardware. In the case of such aggressive vapours occurring, a general

adequate ventilation of the rebate areas of windows and balcony doors is to be ensured. This is particularly valid for windows and balcony doors made of oak or other types of timber with a high concentration of (tannic-) acid.

- Furthermore no acetic-acid or cross-linked acidic sealing compounds or those with the above mentioned contents may be used, since both the direct contact with the sealing compound and its vaporisation can attack the surface.
- The hardware may only be cleaned with mild, pH-neutral cleaning agent in diluted form. Under no circumstances may aggressive, acidiferous cleaners or abrasive cleaning agents whose contents are listed in the above paragraph be used.

6. Obligation to issue information and instructions

In order to fulfil the information and instruction obligations, as well as the maintenance operations in accordance with the 'product liability law', the following is available:

- for planning engineers "planning documents"
- for specialised dealers "catalogues"
- for fabricators "installation instructions" and "factory drawings"
- for builders and end users: "service & maintenance instructions" as well as "operating manuals".

In order to ensure proper functioning of sliding hardware on balcony-door and window sashes:

- Planning engineers are obliged to request and comply with the manufacturers or authorised dealers' product information.

- The specialised dealers are obliged to observe and request product information from the manufacturer and to pass this on to the fabricators, in particular installation instructions, factory drawings, service & maintenance instructions as well as operating manuals.

- Fabricators are obliged to observe the product information and in particular, to request service & maintenance instructions as well as operating manuals from the manufacturer or specialised dealer, and to pass these on to the builders and end users.

7. Application of related hardware

Related hardware with rollers and locking mechanisms – for example hardware for Slide&Fold doors – is to be treated accordingly with regard to product information and stipulated use, misuse, product features, product maintenance and the obligation to issue information & instructions.

Timber windows with profile:
68 x 92 mm format
28 mm sash distance

Hardware functional safety

- To ensure continual functional safety of the hardware, the following should be observed:
 1. Application ranges and/or sash rebate width & height, max. sash weight and total element width and profile manufacturers' regulations are to be observed
 2. Professional installation of the hardware components in accordance with these installation instructions
 3. Professional installation of the elements during the window installation process
 4. Observation of the maintenance and operation instructions
 5. The entire hardware may consist of only original Roto system components. The use of non-Roto components excludes any liability on our part
 6. Bottom roller-tracks and top guide-tracks are to be cleaned regularly from dust and dirt, so that the rollers' smooth operation is maintained

Product liability regulations

- The window handle is to be fixed using M5x... DIN 965 countersunk screws. When fixing the central locking hardware components, corrosion protected hardware-adapted fenestration screws are to be used. The window fabricator must ensure adequate fixing of the hardware components, consulting the screw manufacturer if necessary. The glazing spacer-block regulations for the glazing procedure are to be adhered.

Product liability – Liability exclusion

- The hardware manufacturer is not liable for malfunctions or damage to the hardware and to the windows or balcony-doors equipped with the hardware, if any such malfunctions or damage has been caused by inadequate tendering procedures or failure to adhere to the installation instructions and application drawings.

The Roto sliding hardware for large Lift&Slide profiles up to 300 / 400 kg

Product description:

Patio Life makes operating doors easier; the innovative convenient sliding hardware saves you the laborious task of having to lift the door. The gasket components are controlled via the handle and completely seal the door.

The Patio Life application range for large Lift&Slide profiles is for up to sash widths of 3235 mm, 2670 mm sash height and 300 kg or 400 kg sash weight.

Various schematic diagrams enable various opening possibilities, in particular in hotels, cafés etc.

The advantages at a glance:

Operation:

- Easy operation, as the door does not have to be lifted to unlock and/or open.
- Operating and locking forces are irrespective of the sash weight.
- Easy and logical door operation adopting the well known Tilt&Turn handle positions, (locked mode = handle down) thus avoiding mishandling..

Functionality:

- Very good smooth operation due to the high-quality bogie technology and cleaning brushes integrated in the bogies ensure optimal operation and durability.
- By means of the 180° handle position, a safeguarded night ventilation function is enabled that is not visible from outside. The door is completely closed and locked. The bottom gasket components are forced downwards, creating an approx. 5 mm ventilation gap across the overall width on the top.
- Low threshold for barrier-free living.

Security:

- The espagnolette for door sizes is already equipped with 4 locking points in the standard version.
- Jemmying the door is extremely difficult due to the design.
- The locking points in the floating-mullion are suitable for up to burglary resistance grade 2 ('WK2').
- The use of electronic locking monitoring systems is possible.

Impermeability/isothermal efficiency:

- New enhanced threshold. A special material mix of heat insulating substances produces optimal isothermal efficiency and prevents unwanted thermal bridges. The cold/heat exchange is reduced to a minimum.

Operation and functionality – well known handle positions and night ventilation

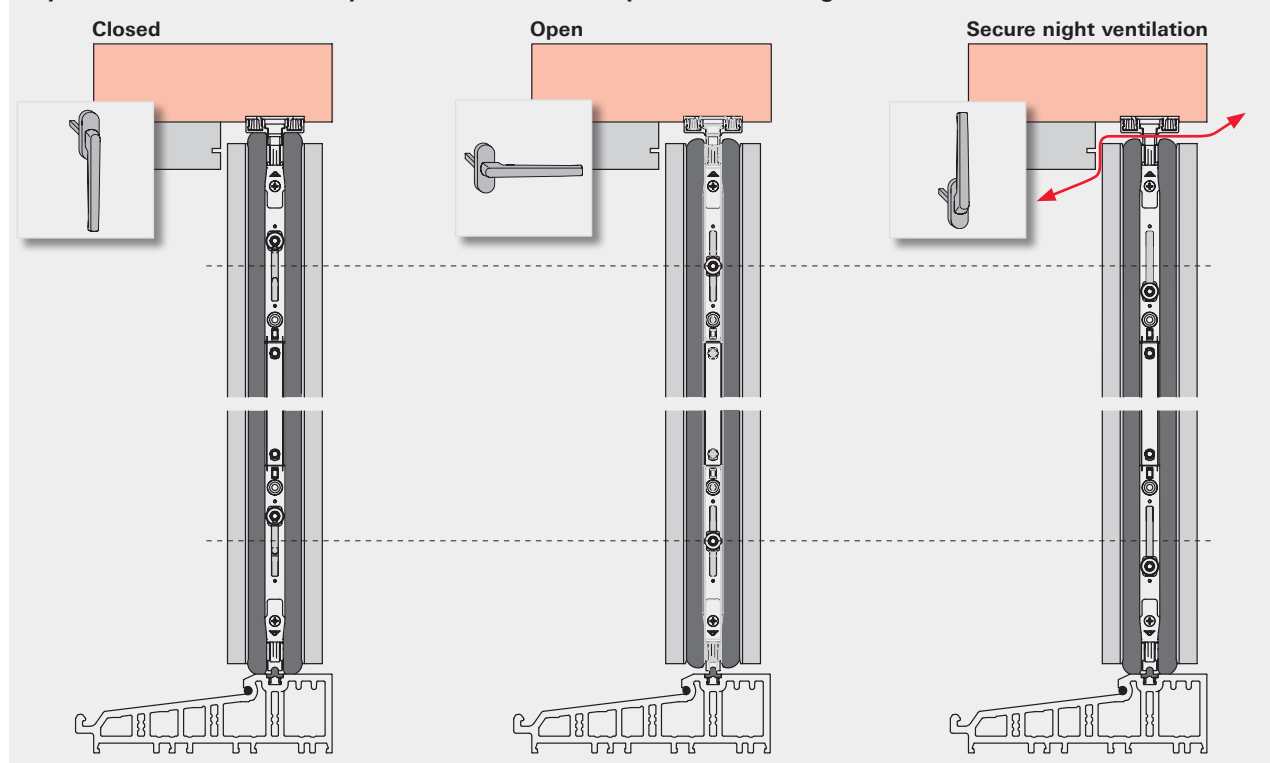


Diagram A

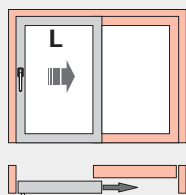


Diagram A, DIN left

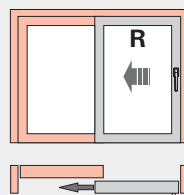


Diagram A, DIN right

Diagram C

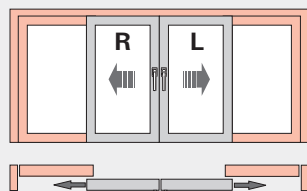


Diagram C

Diagram D

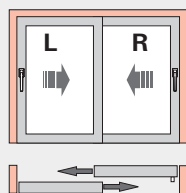


Diagram D

Diagram F

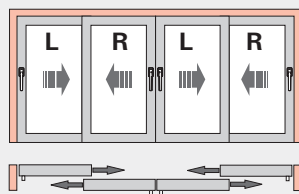


Diagram F

Diagram G

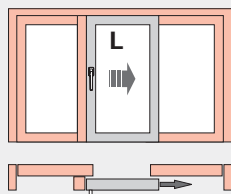


Diagram G2

Diagram K



Diagram K

Application diagrams

Application diagram

Patio Life sliding system
up to 300 kg

Application range

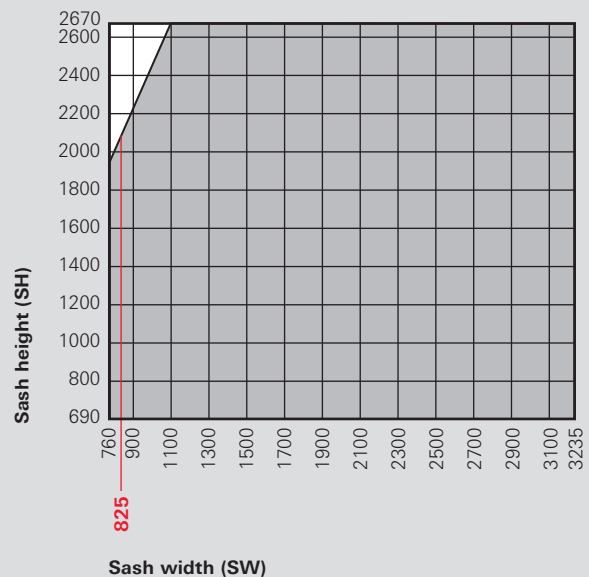
Sash width (SW) 760–3235 mm

Sash height (SH) 690–2670 mm

Frame external width (FEW) max. 6500 mm

Sash weight max. 300 kg

Width/height ratio max. 1 : 2.5

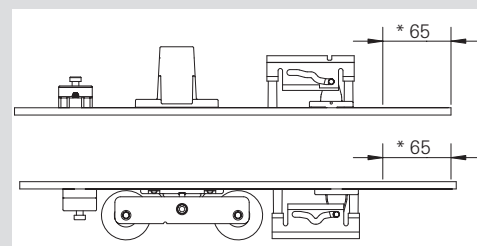


Sash width (SW)

Note:

On sash widths from 760–825 mm, the top and bottom end components must be shortened by 65 mm

Undo the centre-fixing (preset centred cam-fixing) and crop while in the final position.



Application diagram

Patio Life sliding system
up to 400 kg

Application range

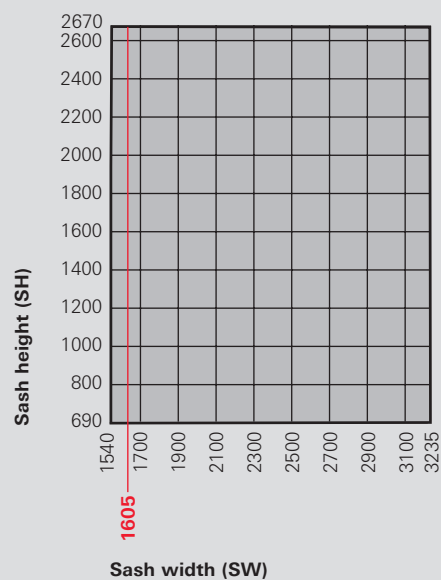
Sash width (SW) 1540–3235 mm

Sash height (SH) 690–2670 mm

Frame external width (FEW) max. 6500 mm

Sash weight max. 400 kg

Width/height ratio max. 1 : 2.5

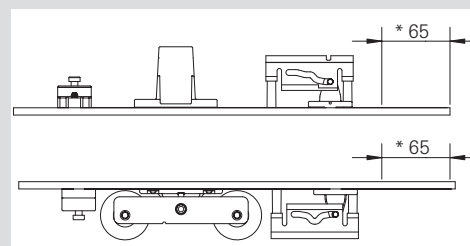


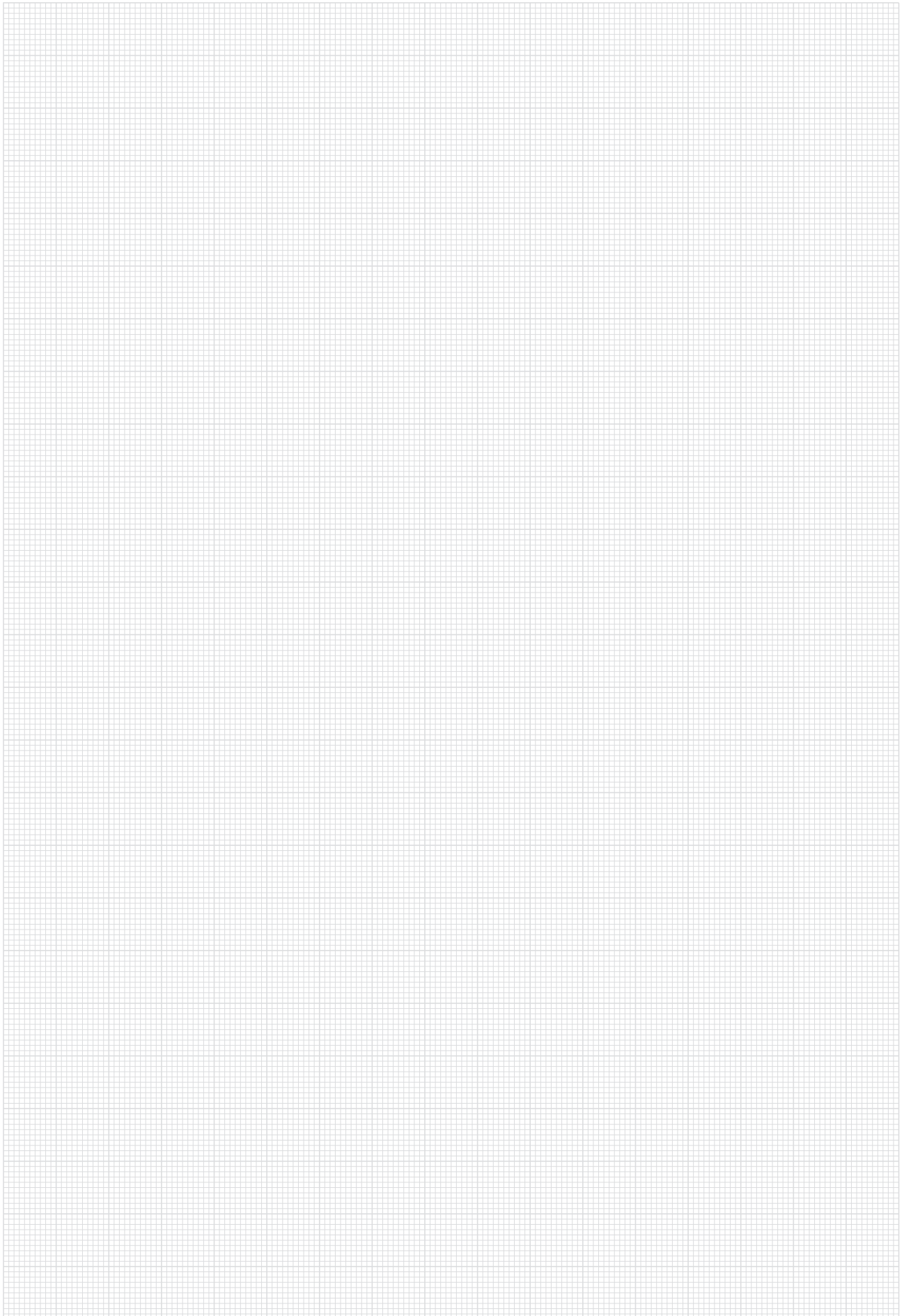
Sash width (SW)

Note:

On sash widths from 1540–1605 mm, the top and bottom end components must be shortened by 65 mm

Undo the centre-fixing (preset centred cam-fixing) and crop while in the final position.





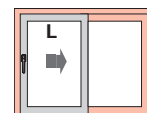


Diagram C

Hardware overview – passive sash

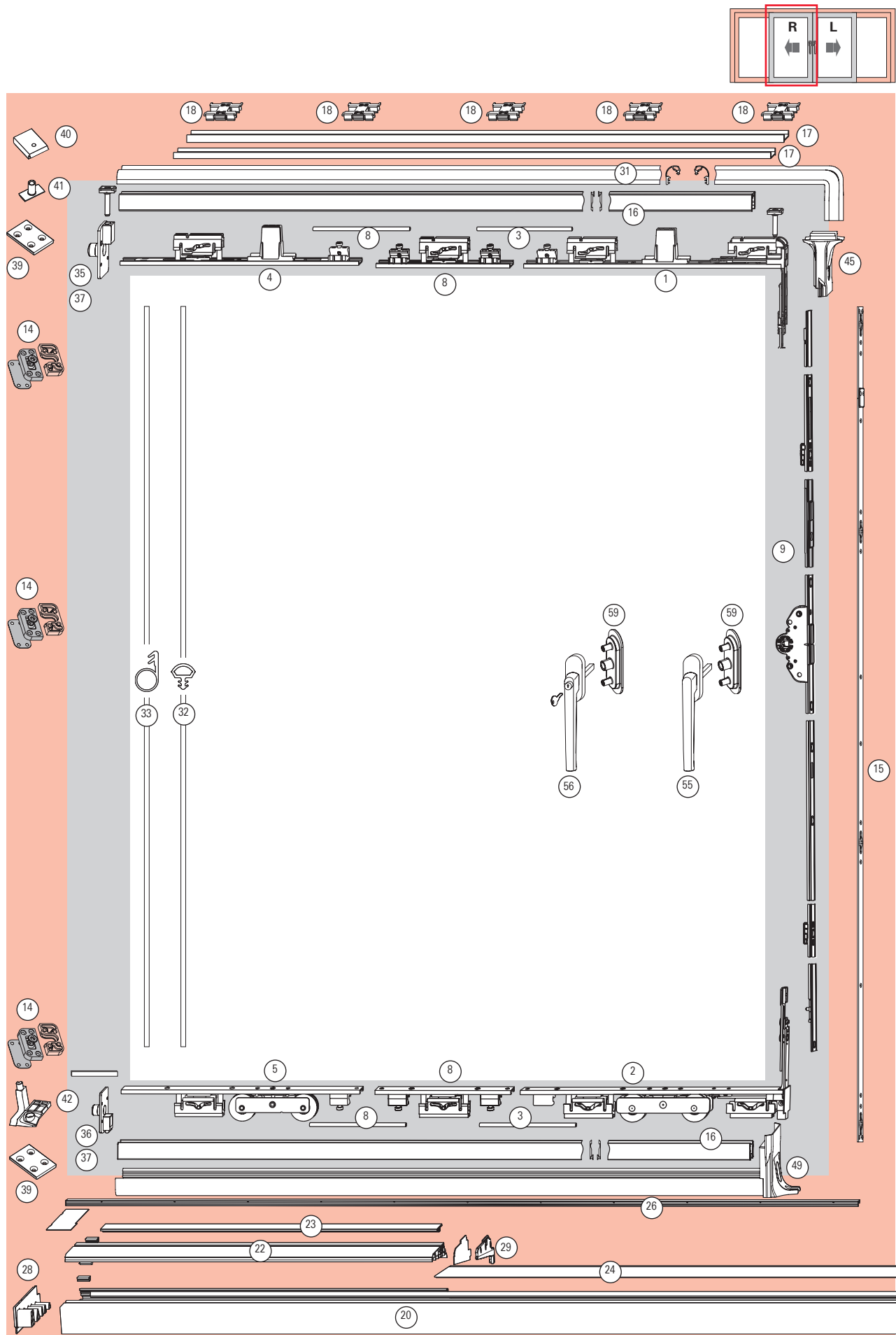
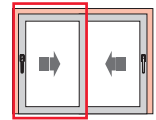
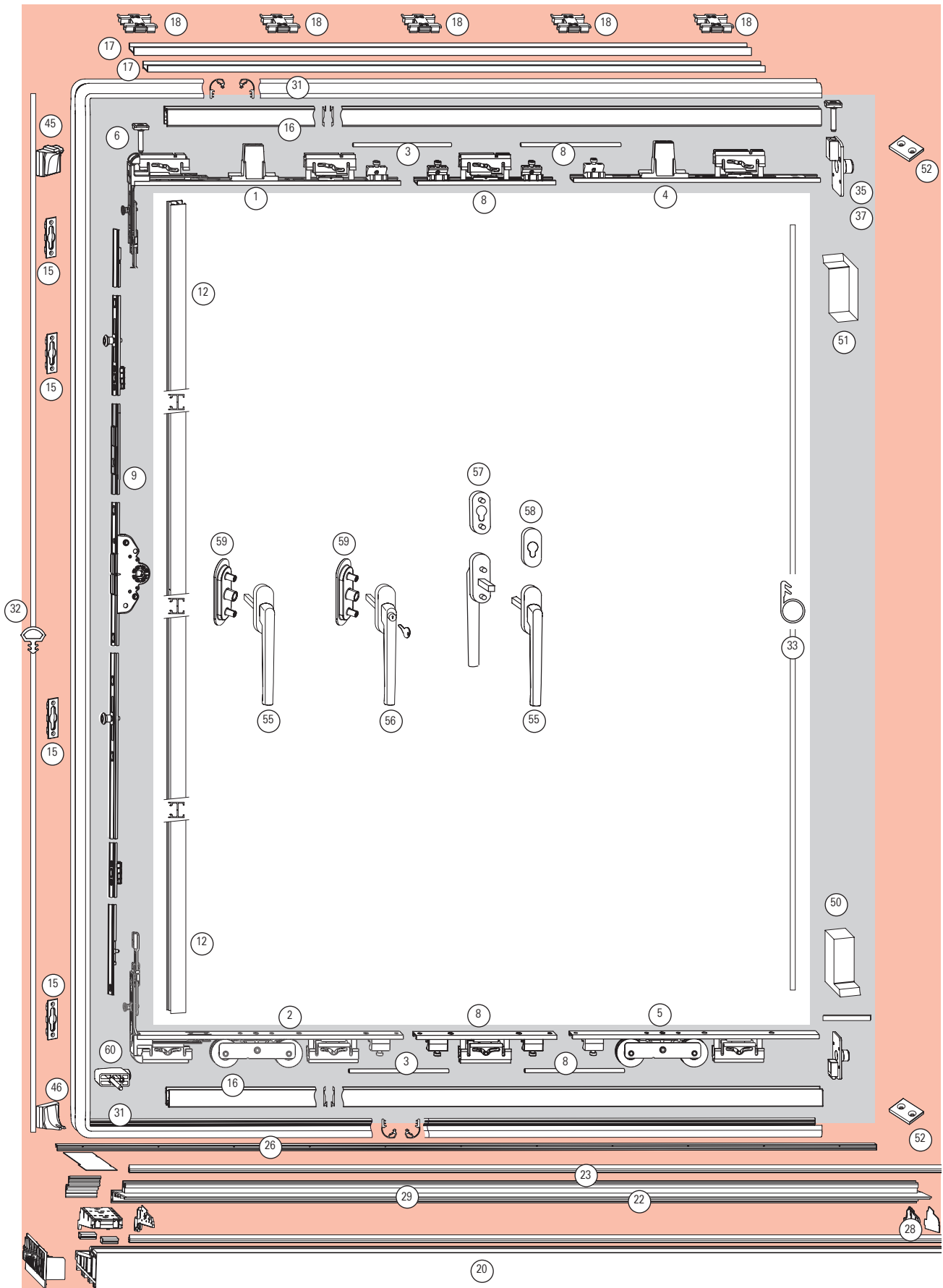
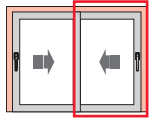




Diagram D

Hardware overview – left sash





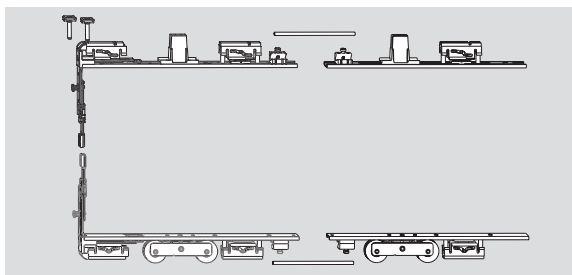
Parts list

Hardware

8 Patio Life basic carton, diagram A 494 971

Contents:

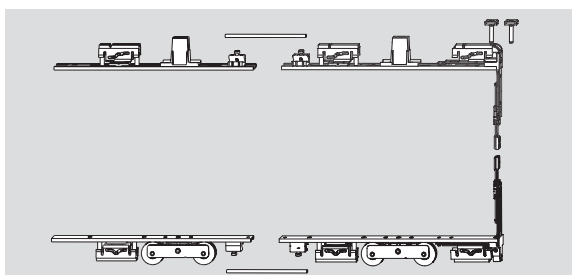
- ① 1 top corner component
- ② 1 bottom corner component
- ③ 2 connecting tubes 400 mm
- ④ 1 top end component
- ⑤ 1 bottom end component
- ⑥ 1 fail-safe slider
- ⑦ 2 NT faceplate flaps (not depicted)



8 Patio Life basic carton, diagram C 494 972

Contents:

- ① 1 top corner component
- ② 1 bottom corner component
- ③ 2 connecting tubes 400 mm
- ④ 1 top end component
- ⑤ 1 bottom end component
- ⑥ 2 fail-safe slider
- ⑦ 2 NT faceplate flaps (not depicted)

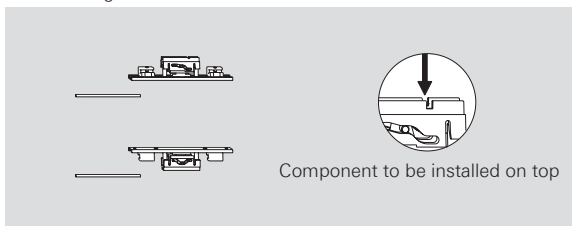


8 Patio Life extension unit 389 582

SW/mm	Quantity of extension units required
760 – 1124	0
1125 – 1640	1
1641 – 2160	2
2161 – 2680	3
2681 – 3235	4

Contents:

- 1 bottom extension unit
- 1 top extension unit
- 2 connecting tubes 400 mm



Hardware

9 Patio Life espagnolette, centred/variable handle height Diagram A, G2, D, K Backset 30 mm

SH/mm	Handle height/mm	Espagnolette length/mm	Locking cam	Material no.
690 – 870	345 – 435	580	3	349 135
871 – 1270	435 – 635	980	3	349 136
1271 – 1670	635 – 835	980	3	349 136
	CL 200 top			see below
	CL 200 bottom			see below

9 Patio Life espagnolette, fixed handle height Diagram A, G2, D, K, active sash diagram C Backset 30 mm

1671 – 1870	1000	1590	4	349 137
1871 – 2070	1000	1790	4	386 800
2071 – 2270	1000	1990	4	349 138
2271 – 2470	1000	1790	4	386 800
	1 x espag. ext. 200 and 1 x CL 200	0-1		see below
2471 – 2670	1000	1990	4	349 138
	1 x espag. ext. 200 and 1 x CL 200	0-1		see below

9 Patio Life espagnolette, fixed handle height, lockable Diagram A, G2, D, K, active sash diagram C Backset 30 mm

1671 – 1870	1000	1590	4	349 139
1871 – 2070	1000	1790	4	386 835
2071 – 2270	1000	1990	4	349 184

9 Patio Life espagnolette, fixed handle height passive sash diagram C, F Backset 30 mm

1671 – 1870	1000	1590	0	374 759
1871 – 2070	1000	1790	0	386 841
2071 – 2270	1000	1990	0	374 761
2271 – 2470	1000	1790	0	386 841
	2x CL 200			see below
2471 – 2670	1000	1990	0	374 761
	2x CL 200			see below

10 Patio Life espagnolette extension (not depicted) 1 349 188

11 Centre lock Roto NT 200 mm (not dep.) 0 308 267

12 Patio Life adapter profile for espagnolette side 494 973

2600 mm espagnolette side
with a 22 mm groove width and circumferential gasket

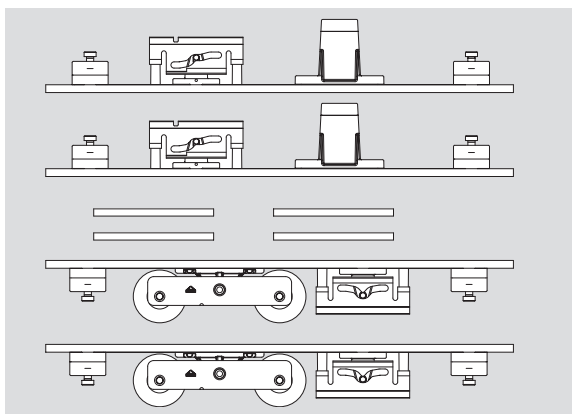
Patio Life adapter profile for espagnolette side with lock casing cut-out 565 712

2600 mm espagnolette side



Hardware

13	Patio Life accessories kit, 400 kg	564 283
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Lock

14	Patio Life centre-closer, angular gasket-compression-adjustable	513 612
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Suitable for BRG2 ('WK2')
(3 pcs. per sash)

○	Patio Life centre-closer, round gasket-compression-adjustable	349 444
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Suitable for BRG2 ('WK2')
(3 pcs. per sash)

Lock diagram A, F, G2, K

15	Patio Life timber striker	534 666
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○	Patio Life top one-piece striker strip	534 952
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alternative to strikers
up to sash height < 2270 mm

○	Patio Life top one-piece striker strip, 600 mm	534 953
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alternative to strikers
from a sash height of < 2271 mm

○	Patio Life bottom one-piece striker strip	534 954
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alternative to strikers
from a sash height of < 1671 mm

Lock diagram C, F

○	Patio Life top one-piece striker strip, diagram C	535 005
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up to sash height < 2270 mm

○	Patio Life top one-piece striker strip, diagram C, 600 mm	535 006
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from a sash height of < 2271 mm

○	Patio Life bottom one-piece striker strip, diagram C	535 007
---	---	----------------

from a sash height of < 1671 mm

Track

16	Patio Life lifting track, 3300 mm	443 704
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4 pieces x sash-width (SW) required

17	Patio Life top fail-safe guide-track	
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2 pieces x frame internal width (FIW) required

Patio Life top fail-safe guide-track 3500 mm	493 297
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Patio Life top fail-safe guide-track 4500 mm	493 298
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Patio Life top fail-safe guide-track 5500 mm	493 299
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Patio Life top fail-safe guide-track 6500 mm	493 300
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18	Patio Life striker plate for top guide-track	495 007
	(20 pcs. in a bag)	

19	Patio Life roller track for 42 mm timber routing	
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Patio Life roller track (42 mm) 3500 mm	350 377
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Patio Life roller track (42 mm) 4500 mm	349 432
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Patio Life roller track (42 mm) 5500 mm	349 433
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Patio Life roller track (42 mm) 6500 mm	349 434
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Threshold

20	Patio Life threshold	
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Patio Life threshold 3000 mm	493 303
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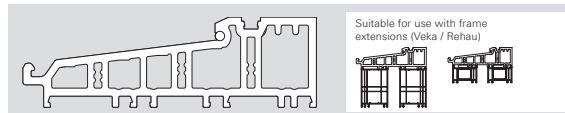
Patio Life threshold 3500 mm	493 304
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Patio Life threshold 4000 mm	493 305
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Patio Life threshold 4500 mm	493 306
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Patio Life threshold 5500 mm	493 307
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Patio Life threshold 6500 mm	493 308
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21	Patio Life roller track	
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Patio Life roller track 3000 mm	493 270
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Patio Life roller track 3500 mm	493 271
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Patio Life roller track 4000 mm	493 272
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Patio Life roller track 4500 mm	493 273
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Patio Life roller track 5500 mm	493 274
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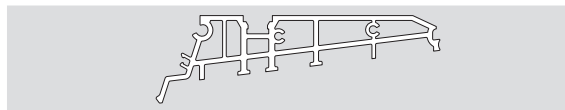
Patio Life roller track 6500 mm	493 295
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22	Patio Life assembly profile	
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Patio Life assembly profile 1750 mm	493 313
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Patio Life assembly profile 3500 mm	493 314
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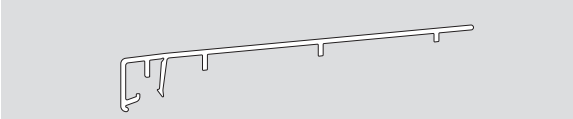
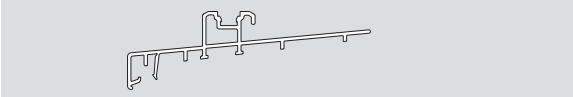
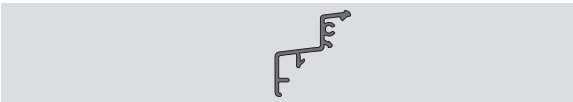
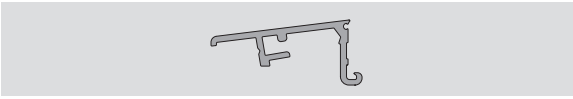
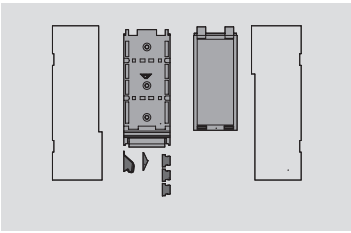
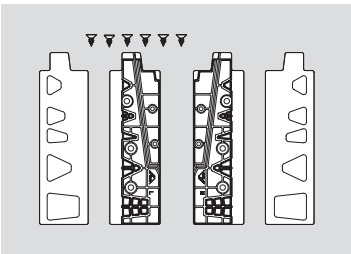
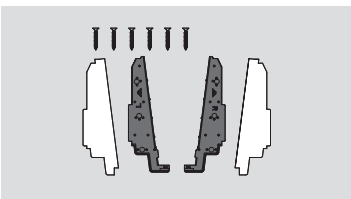
23	Patio Life adapter profile	
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Patio Life adapter profile 1750 mm	493 322
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Patio Life adapter profile 3500 mm	493 323
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Parts list

24	Patio Life aluminium cover for the passage area	
	Patio Life aluminium cover for the passage area, 1600 mm	493 319
	Patio Life aluminium cover for the passage area, 3200 mm	493 320
		
	Patio Life aluminium cover for the passage area, diagram D	
	Patio Life aluminium cover for the passage area, 1600 mm	551 997
	Patio Life aluminium cover for the passage area, 3200 mm	551 998
		
25	Patio Life aluminium cover for assembly profile	
	Patio Life aluminium cover for assembly profile 1750 mm	493 316
	Patio Life aluminium cover for assembly profile 3500 mm	493 317
		
26	Patio Life weather profile 6500 mm	513 619
	for threshold	
	Round cord for weather profile (50 m roll)	469 104
		
27	Patio Life counter-block bag	495 008
		Contents: 1 counter-block 2 butyl sealing strips 5 moulded gasket parts
28	Patio Life threshold end-caps bag	495 006
		Contents: 2 end caps for threshold with mounted butyl sealing strips 6 screws
29	Patio Life end-caps bag for the passage area	495 009
		Contents: 2 passage area end-caps 2 butyl sealing strips 6 screws
30	Patio Life threshold fixing	502 278
	(6 pcs. in a bag)	

Gasket		
31	Patio Life circumferential extruded gasket (100 m roll)	501 822
32	Patio Life flocked sweep-gasket (50 m roll)	502 280
	Patio Life flocked sweep-gasket (10 m roll)	565 622
33	Patio Life vertical bubble gasket (50 m roll)	349 734
34	Patio Life gasket set for timber Patio Life circumferential extruded gasket, 20 m Patio Life vertical bubble gasket, 6 m	502 042
	Patio Life timber accessories – Diagram A 68 mm/28 mm sash distance DIN right/left Contents: 35 1 top stop plate 36 1 bottom stop plate 37 2 rubber buffers for stop plate 38 1 brush seal stop 39 2 sealing plates 40 1 top frame gasket-component 41 1 bush for top frame gasket-component 42 1 bottom right mullion gasket-component 43 1 bottom left mullion gasket-component 44 1 support profile 45 1 top frame gasket-component (espagnolette side) 46 1 bottom frame gasket-component (espagnolette side)	565 956
	Patio Life timber/aluminium accessories – Diagram A 68 mm/28 mm sash distance DIN right/left Contents: 35 1 top stop plate 36 1 bottom stop plate 37 2 rubber buffers for stop plate 38 1 brush seal stop 39 2 sealing plates 40 1 top frame gasket-component 41 1 bush for top frame gasket-component 42 1 bottom right mullion gasket-component 43 1 bottom left mullion gasket-component 44 1 support profile 45 1 top frame gasket-component (espagnolette side) 46 1 bottom frame gasket-component (espagnolette side)	565 957
	Patio Life timber accessories – Diagram C, F 68 mm/28 mm sash distance DIN right/left Contents: 35 2 top stop plates 36 2 bottom stop plates 37 4 rubber buffers for stop plate 38 2 brush seal stops 39 4 sealing plates 40 2 top frame gasket-components 41 4 bushes for gasket-components 42 1 bottom right mullion gasket-component 43 1 bottom left mullion gasket-component 44 3 support profiles 45 1 top frame gasket-component (espagnolette side) 47 6 moulded gasket parts 48 2 butyl sealing strips 2 screws, 2 sleeves, 1 anti-jemmy device 2 bushes and 2 screws, espagnolette-side gasket-component	493 496



58 Patio Life timber/aluminium accessories – Diagram C, F 563 998
68 mm/28 mm sash distance DIN right/left

Contents:

- 35 2 top stop plates
- 36 2 bottom stop plates
- 37 4 rubber buffers for stop plate
- 38 2 brush seal stops
- 39 4 sealing plates
- 40 2 top frame gasket-components
- 41 2 bushes for top frame gasket-component
- 42 1 bottom right mullion gasket-component
- 43 1 bottom left mullion gasket-components
- 44 3 support profiles
- 45 1 top frame gasket-component (espagnolette side)
- 47 6 moulded gasket parts
- 48 2 butyl sealing strips
 - 2 screws, 2 sleeves, 1 anti-jemmy device
 - 2 bushes and 2 screws, espagnolette-side gasket-component

49 Bottom espagnolette-side gasket-component – Diagram C, F 551 851
with 2 x 3 m horizontal extruded-gaskets

59 Patio Life timber accessories – Diagram D
68 mm/28 mm sash distance DIN right/left 495 011

Contents:

- 35 2 top stop plates
- 36 2 bottom stop plates
- 37 4 rubber buffers for stop plate
- 38 2 brush-seal stop plates
- 44 4 support profiles
- 45 2 top frame gasket-components (espagnolette side)
- 46 2 bottom frame gasket-components (espagnolette side)
- 50 1 bottom mullion gasket
- 51 1 top mullion gasket
- 52 4 top/bottom sash sealing-plates
- 53 4 sash mullion gasket-components
- 54 1 bottom hardware groove gasket-component

Handle

55 Patio Life RotoLine handle			
Patio Life RotoLine handle	Silver	R01.1	494 447
Patio Life RotoLine handle	Med. bronze	R05.3	494 448
Patio Life RotoLine handle	White	R07.2	494 449

56 Patio Life RotoLine lockable handle			
Patio Life RotoLine lockable handle	Silver	R01.1	494 450
Patio Life RotoLine lockable handle	Med. bronze	R05.3	494 451
Patio Life RotoLine lockable handle	White	R07.2	494 452

57 Patio Life RotoLine lockable handle with PC rosette			
Patio Life RotoLine exterior handle w. PC	Silver	R01.1	494 453
Patio Life RotoLine exterior handle w. PC	Med. bronze	R05.3	494 454
Patio Life RotoLine exterior handle w. PC	White	R07.2	494 465

Please note: When using the Patio Life RotoLine exterior handle, the end-stop 349 600 must also be used. The opening distance is reduced by approx. 200 mm.

58 Patio Life interior PC rosette			
Patio Life interior PC rosette	Silver	R01.1	494 466
Patio Life interior PC rosette	Med. bronze	R05.3	494 467
Patio Life interior PC rosette	White	R07.2	258 952

59 Patio Life recessed grip, 43 mm			
Patio Life recessed grip, 43 mm	Silver	R01.1	494 472
Patio Life recessed grip, 43 mm	Med. bronze	R05.3	494 473
Patio Life recessed grip, 43 mm	White	R07.2	494 474

59 Patio Life recessed grip, 63 mm			
Patio Life recessed grip, 63 mm	Silver	R01.1	494 469
Patio Life recessed grip, 63 mm	Med. bronze	R05.3	494 470
Patio Life recessed grip, 63 mm	White	R07.2	494 471

Accessories

Replacement key 1G1	257 830
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60 End stop suitable for all diagrams; inside/outside	349 600
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End stop packer	477 263
to position the threshold	

Adjusting tool for centre closers	382 234
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Adhesive, for example;

Weiss Chemie + Technik GmbH & Co. KG
 or equivalent



Sealing compound, for example;

Sika Bond TA14, TF Plus
 Silicone adhesive
 SG 20 Sikasil
 or equivalent

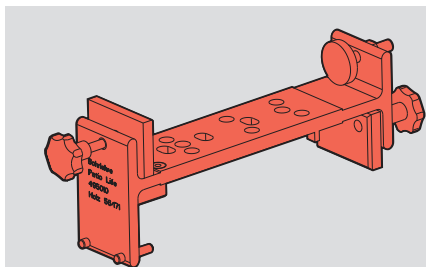


For durable bonding and sealing, the components to be glued and sealed must be treated in accordance with the adhesive and sealing compound data sheets

Drilling, routing and striker positioning jigs

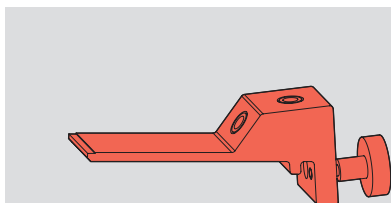
Threshold drilling jig

495 010



Drainage drilling jig

499 747



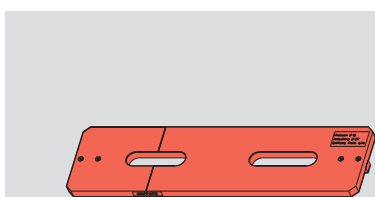
Drilling jig for espagnolettes and lockable espagnolettes

373 755



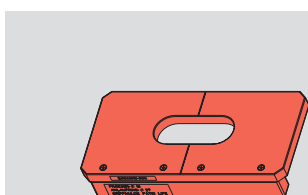
Routing jig for lock and gearbox, Patio Life espagnolette

534 673



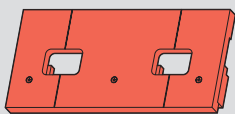
Routing jig for recessed grip

373 683



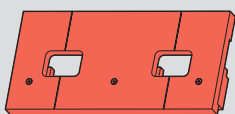
Routing jig Patio Life centre-closer, angular

533 058



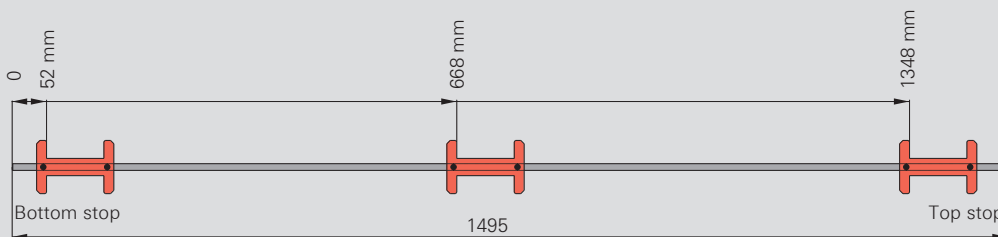
Routing jig Patio Life centre-closer, round

379 520



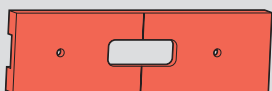
Striker positioning jig

374 789



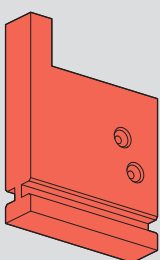
Striker routing jig

383 499



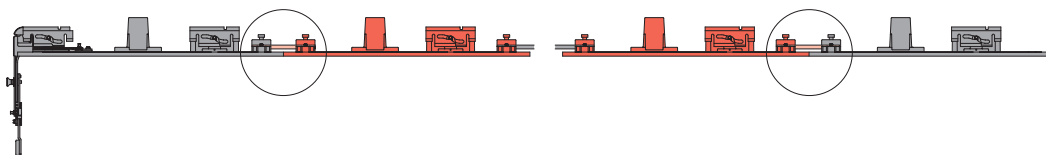
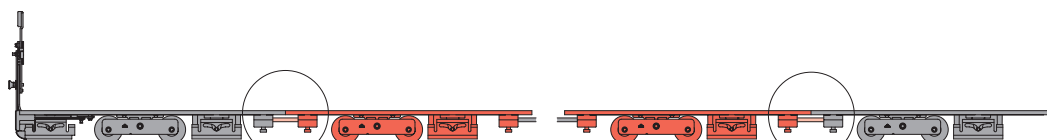
Drilling jig for bottom mullion

534 719



Patio Life accessories kit, 400 kg

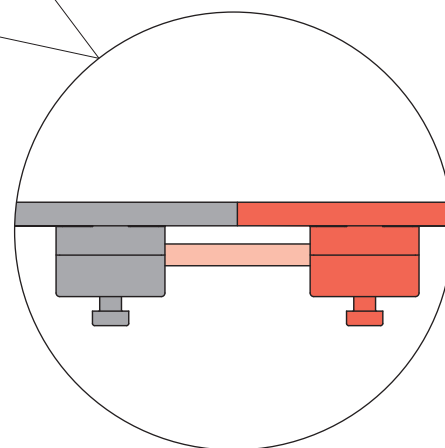
Combine the Patio Life 400kg accessories kit with the Patio Life basic carton



- Patio Life basic carton
- Patio Life accessories kit, 400 kg

Position and screw-fix the hardware components from the Patio Life 400 kg accessories kit flush with the corner components and end components from the Patio Life basic carton.

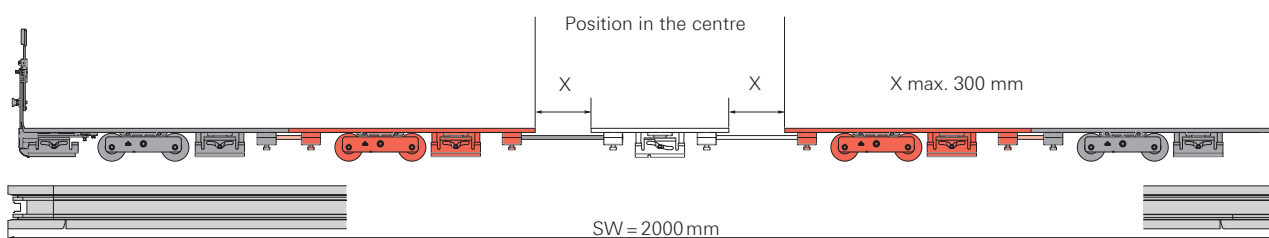
Use the 100mm connecting tubes for screw fixing from the Patio Life 400kg accessories kit.



Combine the Patio Life 400kg accessories kit with the Patio Life basic carton and Patio Life extension unit

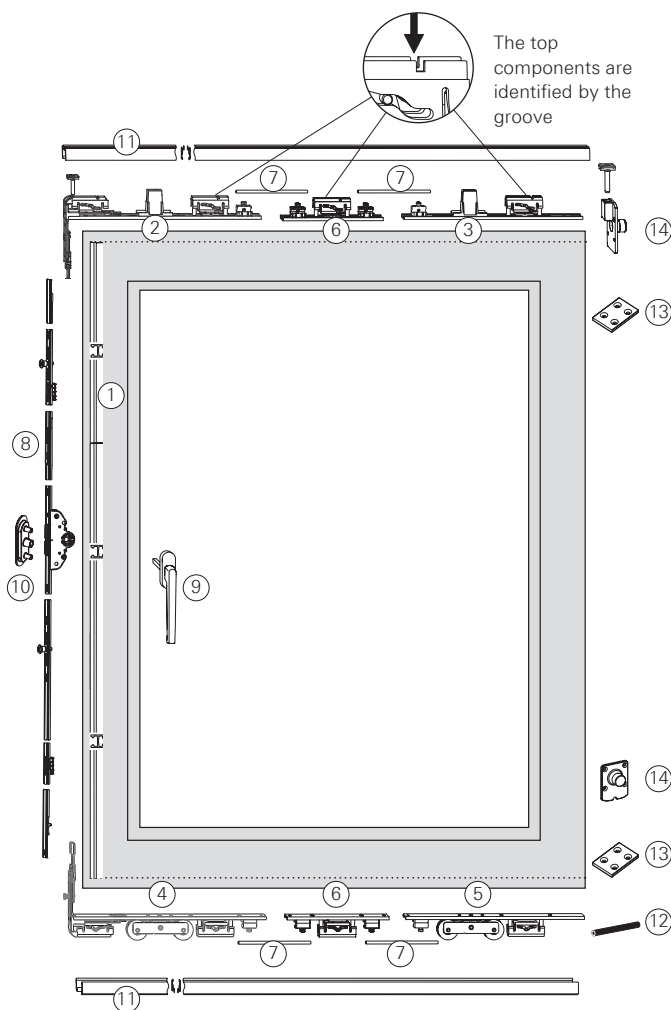
- Patio Life basic carton
- Patio Life accessories kit, 400 kg
- Patio Life extension unit

Installation example 2000 mm



Quantity of cartons / units required

SW/mm	Basic carton	400kg accessories kit	Extension units
1540 – 1904	1	1	0
1905 – 2424	1	1	1
2425 – 2944	1	1	2
2945 – 3235	1	1	3

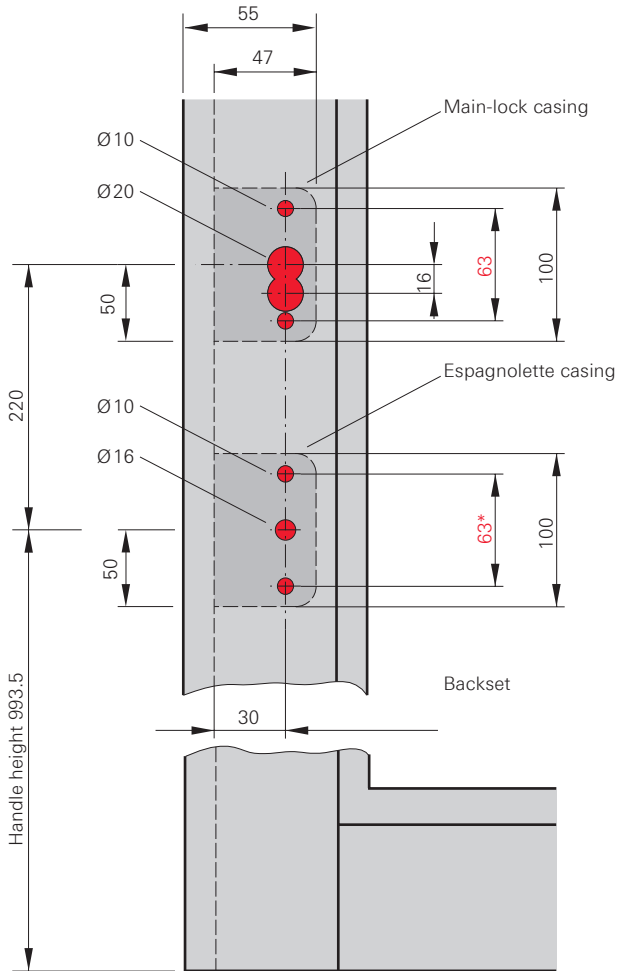


Component	Installation procedure	Aid	Page
Sash	Drill the espagnolette drill-holes	Drilling jig for espagnolettes and lockable espagnolettes (373 755)	26
	Carry out the routing for the espagnolette.	Routing jig for lock and gearbox, Patio Life espagnolette (534 673)	26
	Carry out the routing for the recessed grip.	Routing jig for recessed grip (373 683)	26
① Espagnolette-sided adapter profile	Cut to length and deburr. Note: Pay heed to the correct position of the espagnolette punching. Please note: The profile may not protrude into the horizontal hardware groove.	SH – 95 mm	
② ③ Top corner and end component	Insert and screw-fix.	3.9/4.1 x 25 mm	27
④ ⑤ Bottom corner and end component	Insert and screw-fix.	3.9/4.1 x 35 mm	27
Additional components	If applicable, insert and screw-fix the 400 kg additional components.		24
⑥ Extension units	Insert and screw-fix top and bottom extension units.	3.9/4.1 x 25 mm (top) 3.9/4.1 x 35 mm (bottom)	24/27
⑦ Connecting tubes	Cut to length and deburr. Insert the connecting tubes in the components. Please note: The connecting tubes may not protrude beyond the components coupling parts. Firmly secure the connecting tubes; tightening torque: 10 Nm	4 mm Allen screw	24/27
⑧ Espagnolette	Cut to length.		
⑨ ⑩ Handle and recessed grip	Clip in and screw-fix in the top and bottom corner components. Attach the recessed grip with sealing compound and screw to the handle.	3.9/4.1 x 35 mm Sealing compound Use the screws provided	28
⑪ Lifting track	Cut to length and clip into the hardware groove.		29
All-round extruded gasket	Roll it into the timber groove first and then into the lifting track and adapter profile respectively.		29
⑫ Support profile	Insert.		31
⑬ Sealing plate	Install.	Sealing compound	31
⑭ Stop plates	Only install these after hinging the sash in the frame.		66

Predrilling / routing out the handle and recessed grip

Carry out the drill holes and routing for the handle

1. Carry out the drill-holes with the drilling jig for the espagnolettes and lockable espagnolettes (373 755).
2. Carry out the espagnolette routing with the routing jig for the lock and gearbox, Patio Life espagnolette (534 673).
3. If required, notch the main-lock casing adapter profile or the espagnolette-sided adapter profile with lock casing cut-out (Mat. no. 565 712).

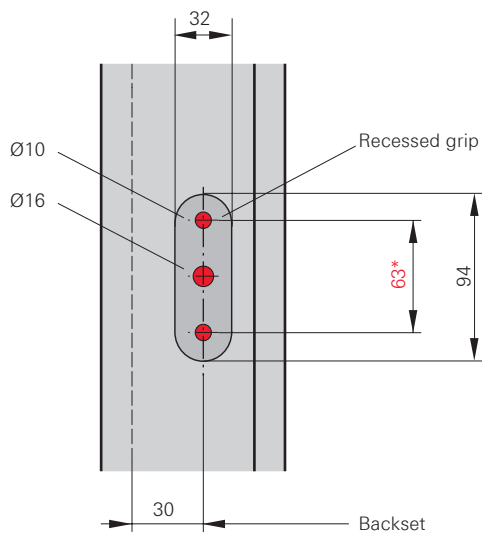


Example: Lockable espagnolette with recessed grip 63 and Patio Life handle

(* On the recessed grip 43, the drill holes are positioned 43 mm apart).

Carry out the drill holes and routing for the recessed grip

1. Route out the recessed grip on the sash exterior with the recessed grip routing jig (373 683).



Example: Recessed grip 63

Routing cutter Ø 16, guide-ring Ø 27, depth 10 mm

(* On the recessed grip 43, the drill holes are positioned 43 mm apart).



Installing corner components, end components and extension units

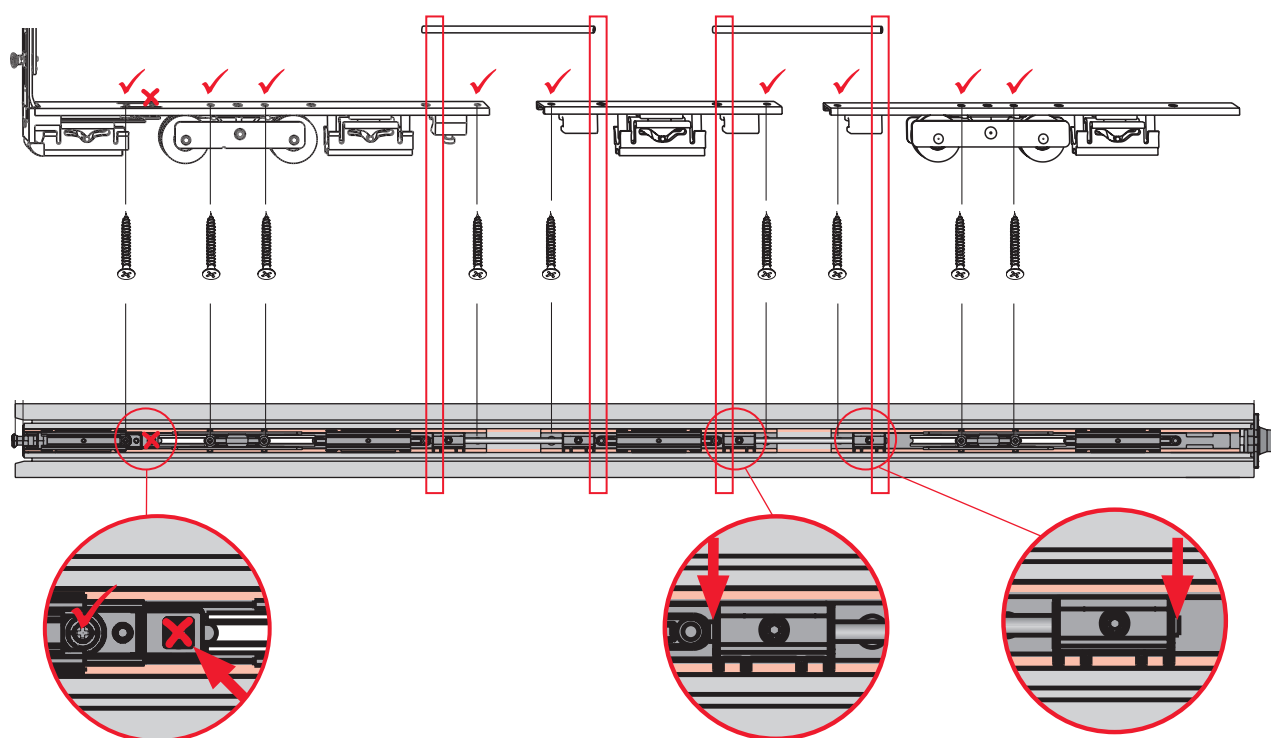
Please note: Do not use any fillister head screws, screw in the screws straight.

1. Insert and screw-fix the top corner component and top end component (3.9/4.1 x 25 mm).
2. Insert and screw-fix the bottom corner component and bottom end component (3.9/4.1 x 35 mm).
3. If applicable, insert and screw-fix the 400 kg additional components.
4. Insert and screw-fix the top extension units (3.9/4.1 x 25 mm).
5. Insert and screw-fix the bottom extension units (3.9/4.1 x 35 mm).
6. Cut the connecting tubes to length and deburr.

Please note: The ends of the connecting tubes may not protrude beyond the ends of the components coupling parts.

7. Insert the connecting tubes and firmly secure with 4 mm Allen key; Tightening torque: 10Nm

Bottom screw fixing – **Please note:** Do not use any fillister head screws! Screw in the screws straight!



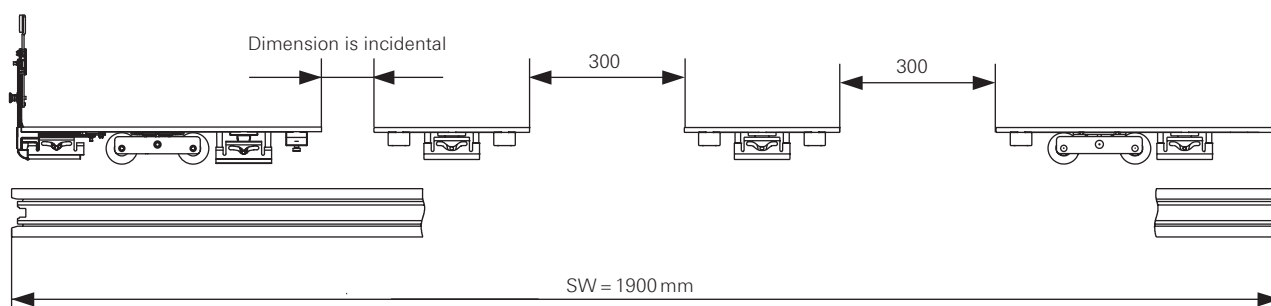
Please note: No screw **X** here!

Please note: The ends of the connecting tubes may not protrude beyond the ends of the components coupling parts.

Application example for sash width (SW) 1900 mm up to 300 kg:

Recommendation to position the components: Position the extension units at a distance of 300 mm.

(Connecting tube = 400 mm) Always cut the first connecting tube to measure.

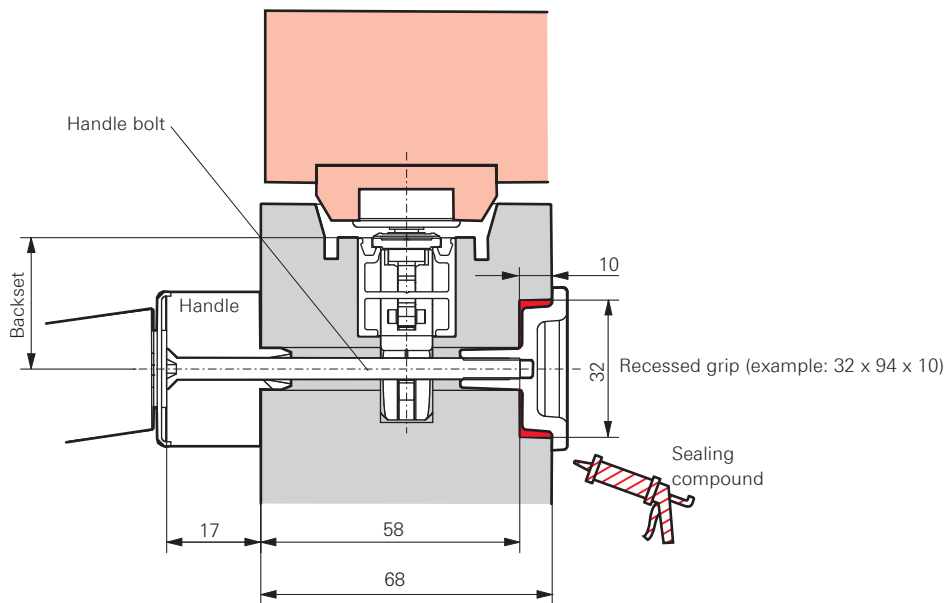


Sash installation (all diagrams)

Mounting the handle and recessed grip

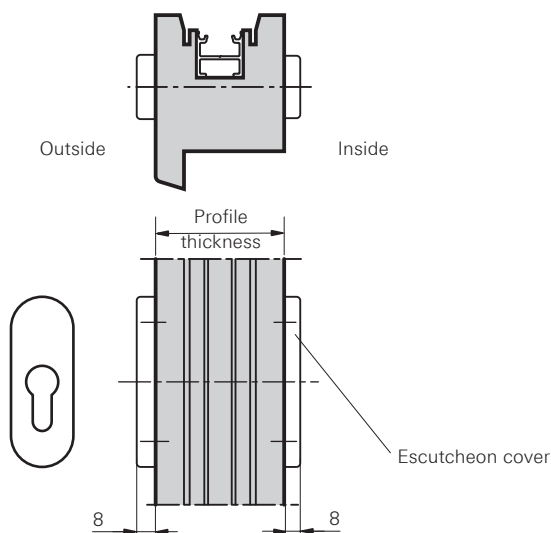
Mounting the handle/recessed grip

1. Cut the spindle to length (spindle length = profile thickness - 12 mm)
2. Cut the handle bolt to length (handle bolt length = profile thickness + 7 mm)
3. Apply sealing compound to the recessed grip and profile, insert the recessed grip into the profile.
4. Screw the handle and recessed grip together with the handle bolt.



Job dimension of escutcheon cover on lockable espagnolettes

Recommendation: In order to prevent the escutcheon cover from colliding with the stationary sash when sliding open (in conjunction with a lockable espagnolette), use the end-stop 349 600.



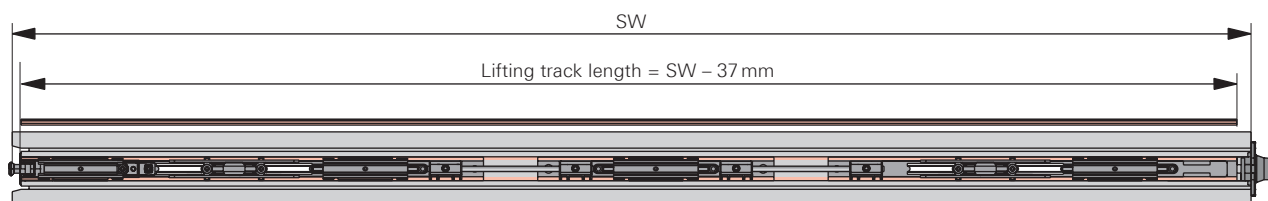
Sash installation (all diagrams)

Installing the lifting track and gaskets in the sash



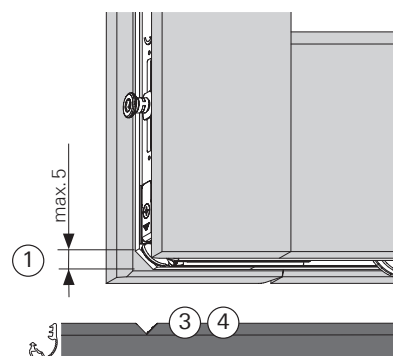
Mounting the lifting track

1. Cut the lifting track to length
2. Clip in the top and bottom lifting track into the hardware groove.

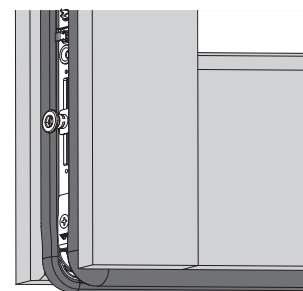


Installing the extruded gaskets in the sash

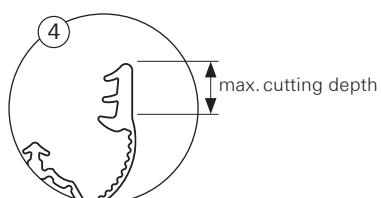
1. Chamfer the timber 5 mm on both sides, on the top and bottom (1).



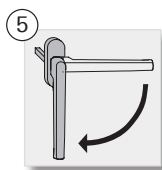
2. First roll in the bottom, espagnolette-sided and top extruded gaskets into the timber groove (2) and notch the corner areas (3) with the recommended notching scissors (502 156).



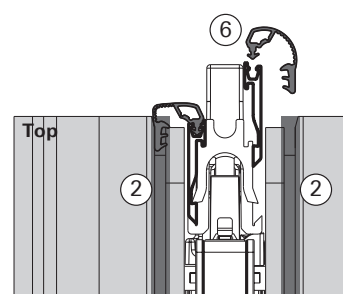
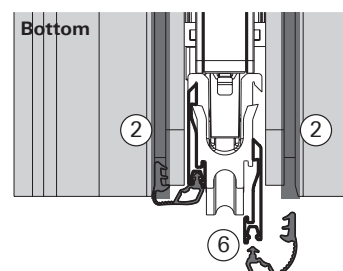
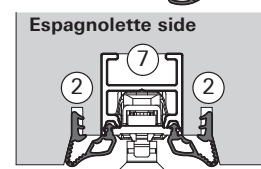
Note: Observe the extruded gasket's maximum cutting depth (4).

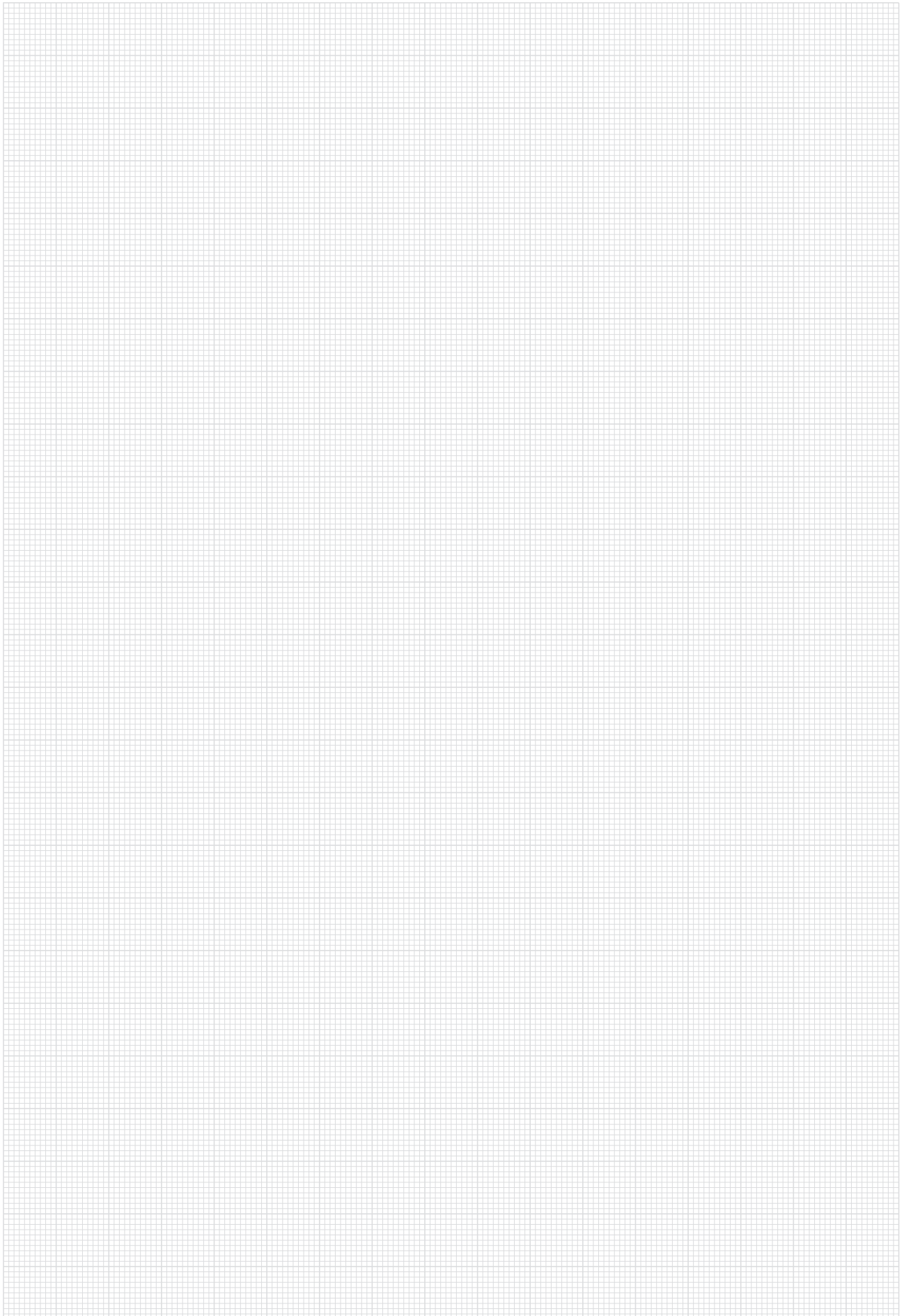


3. Bring the handle into the locking position (5) (= deploy the lifting profiles)



4. Roll in the extruded gasket into the lifting track (top and bottom) (6) and/or adapter profile (espagnolette-sided) (7); in doing so, do not pull the extruded gasket too taut around the corners.







Mount the top and bottom sealing plate (with support profile)

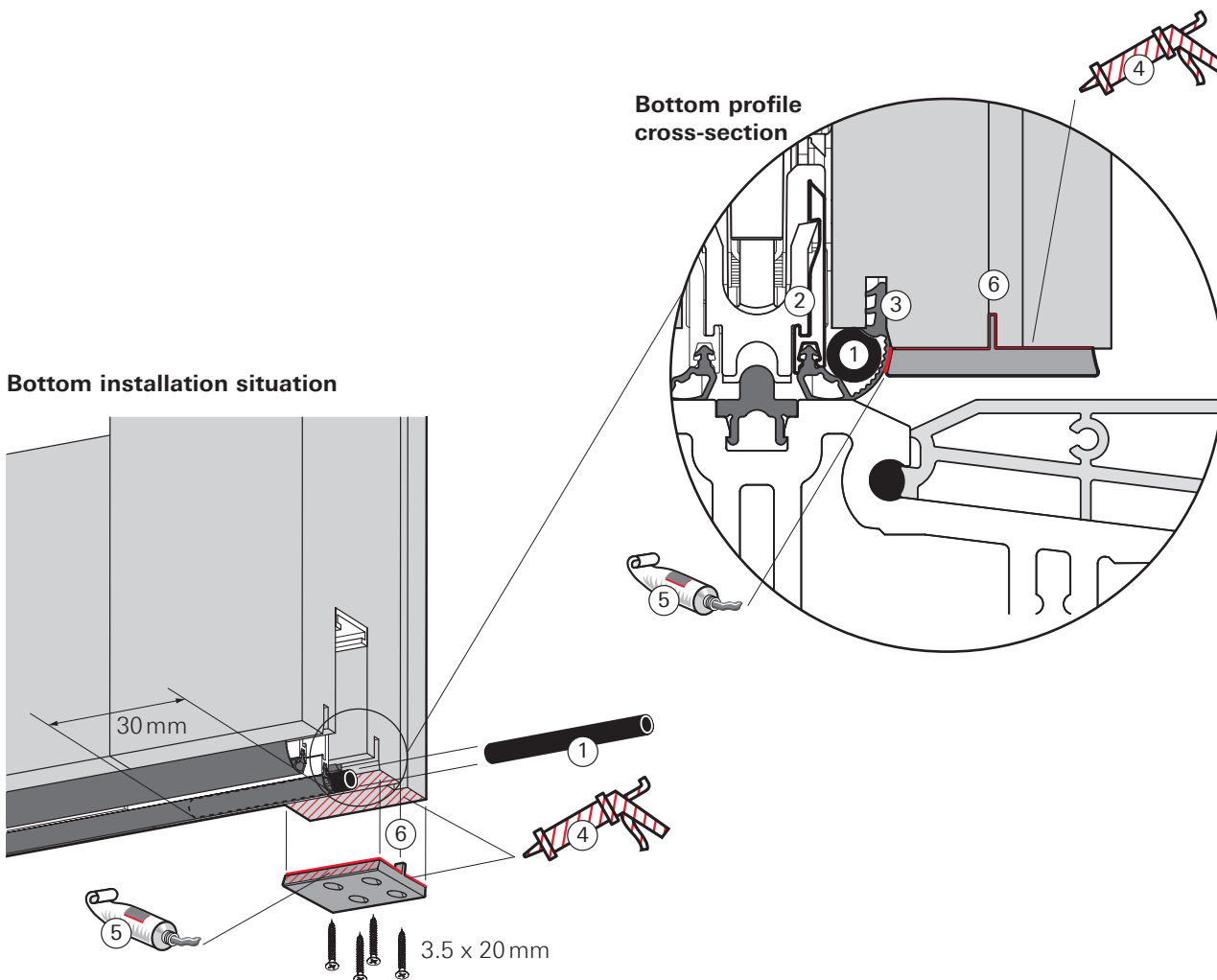
1. Slide in the support profile ① between the lifting track ② and the bottom extruded gasket ③ (towards the mullion gasket-strip).

Note: The support profile – sealing plate overlap should be 30 mm.

2. Apply sealing compound ④ to the surfaces of the mullion gasket-strip and sash up as far as the extruded gasket.
3. apply sealing compound ④ and/or adhesive ⑤ to the sealing plate (towards the extruded gasket); pay heed to the extruded gasket's surface bonding.

Note: On sealing strips with no groove, cut off the sealing plate's pin ⑥.

4. Insert and screw-fix the top and bottom sealing plate (with pin ⑥) into the groove between the sash and mullion gasket-strip (3.5 x 20 mm).







Component	Installation procedure	Aid	Page
① Frame profiles	Cut to length.		32
② Threshold	Cut to length.	FEW ⁽¹⁾	
	Drill the drainage drill-holes.	Drainage drilling jig (499 747)	35
③ Assembly profile	Cut to length.	FEW/2 + 19 mm ⁽¹⁾ (or FIW/2 + 75 mm) ⁽¹⁾	32
	Carry out the notching for drainage on the bottom.		35
④ Counter-block	Install.		36
⑤ Assembly profile	Install.		37
⑦ Aluminium cover for assembly profile	Cut to length and install.	FEW/2 + 19 mm ⁽¹⁾ (or FIW/2 + 75 mm) ⁽¹⁾	37
⑧ Aluminium cover for counter-block	Cut to length and install on the counter-blocks.	48 mm ⁽¹⁾	37
⑨ Adapter profile	Cut to length and clip in.	FEW/2 + 46 mm ⁽¹⁾ (or FIW/2 + 10) ⁽¹⁾	37
⑥ Drilling-holes	Carry out on the threshold and frame.	Threshold drilling jig (495 010)	38
⑩ Seal up	Passage area at the counter-block.	Butyl strips	39
⑪ Passage area end-caps	Install on the assembly profile and counter-block.	Sealing compound	39/40
⑫ Seal up	Passage area at the assembly profile and counter-block.	Butyl strips	37
⑬ Passage area end-caps	Install on the assembly profile and counter-block.	Sealing compound	41
⑭ Aluminium cover for the passage area	Cut to length and install.	FEW/2 - 76 mm ⁽¹⁾ (actual dimension between cover caps - 1 mm)	41
Roller track	Cut to length.	FIW - 2 mm	43
	Insert in the threshold's groove.	Sealing compound	43
⑮ Threshold end-caps	Install.		41
Threshold groove-sealing	Carry out.	Sealing compound	42
Weather profile (optional)	Cut to length and install.	FEW - 112 mm ⁽¹⁾	43
⑯ Frame sections	Connect to the threshold.		43
	Seal the fixed unit to the threshold using sealing compound along the whole length.	Sealing compound	
Fail-safe guide tracks	Install	2 x FIW	44
Gasket-component	Install on the espagnolette-side top and bottom as well as on the top and bottom mullion.	Sealing compound	45
Mullion profile section	Install on the fixed unit.	Sealing compound	47
Mullion gaskets	Insert the bubble gaskets and trailing gaskets in the mullion profile section.	Sealing compound	47
Strikers/one-pieced striker strips	Install.		48
Centre-closer	Install.		50
Hinge the sash into the frame	Please note: Position a slider left and right of the sash respectively.		66
Stop plates	Install.		66
Threshold on site	Pack up the threshold every 300 mm over the entire length!		
	Max. permissible unevenness over the whole threshold: 2 mm!		
	Continuous packer over the whole surface recommended.		

⁽¹⁾ Frame profile 171 x 56 mm, sash profile 92 x 68 mm, on symmetrical version

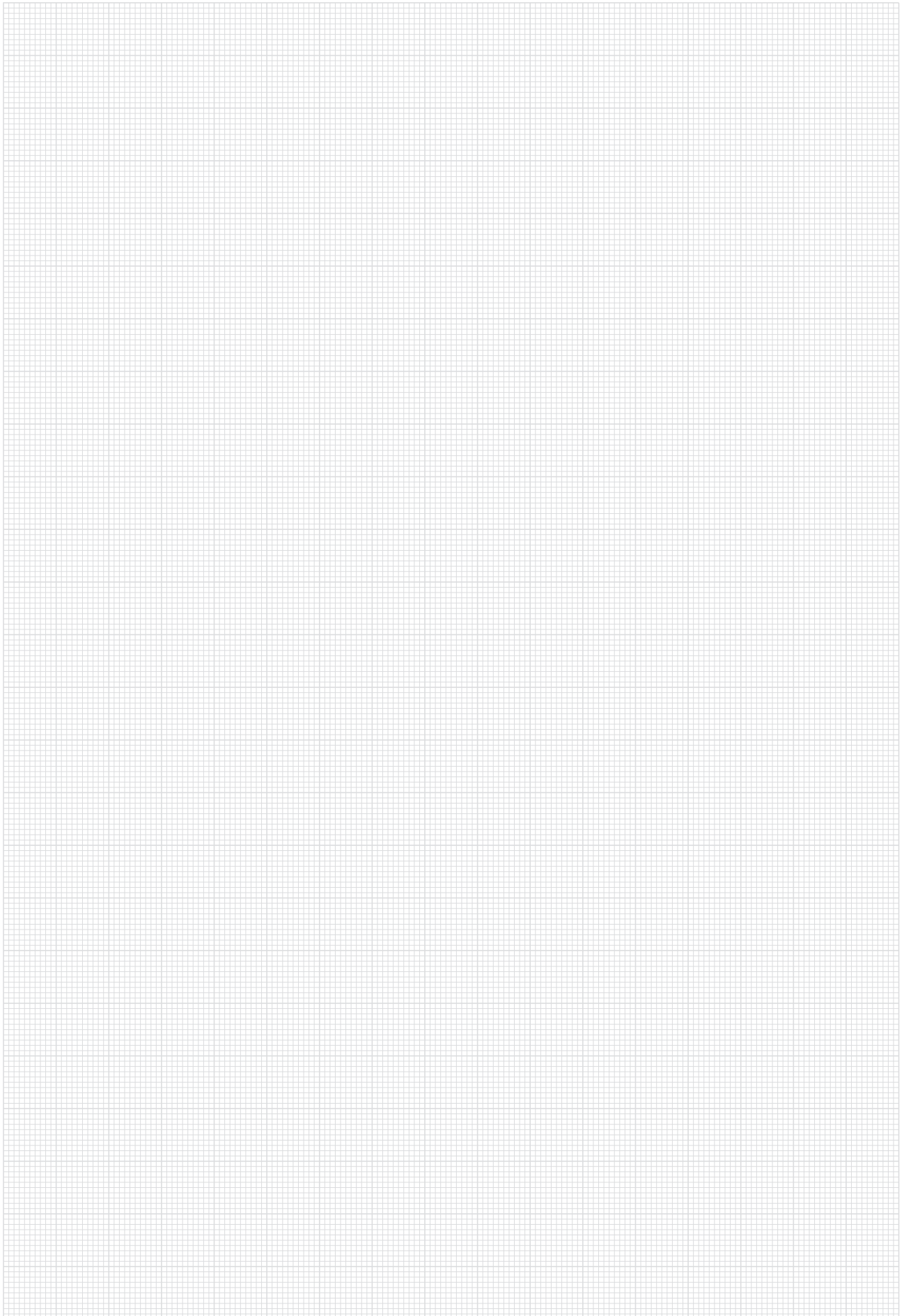


Diagram A – Threshold installation

Carrying out the drainage drill-holes / drainage notching



Drill the threshold drainage drill-holes

1. Drainage to be carried out taking the structural connection into account.
2. Installation instructions for building seals in accordance with DIN 18195-0 to be adhered.
3. Drill the drainage drill-holes in the threshold (Ø 8 mm) with drainage drill-hole drill jig (499 747) at a distance of max. 500 mm (distance from the outside: 65 mm).
Either perpendicular (1) or at an angle (2), alternatively: an elongated hole (3)

Please note: minimum 2 drill holes under the assembly profile!

4. Drainage notching in the assembly profile min. 20 mm wide, staggered by min. 80 mm (4).
5. Underlay the complete surface of the threshold approximately every 300 mm. Maximum 2-3 mm unevenness permissible for the complete length of the threshold (5).

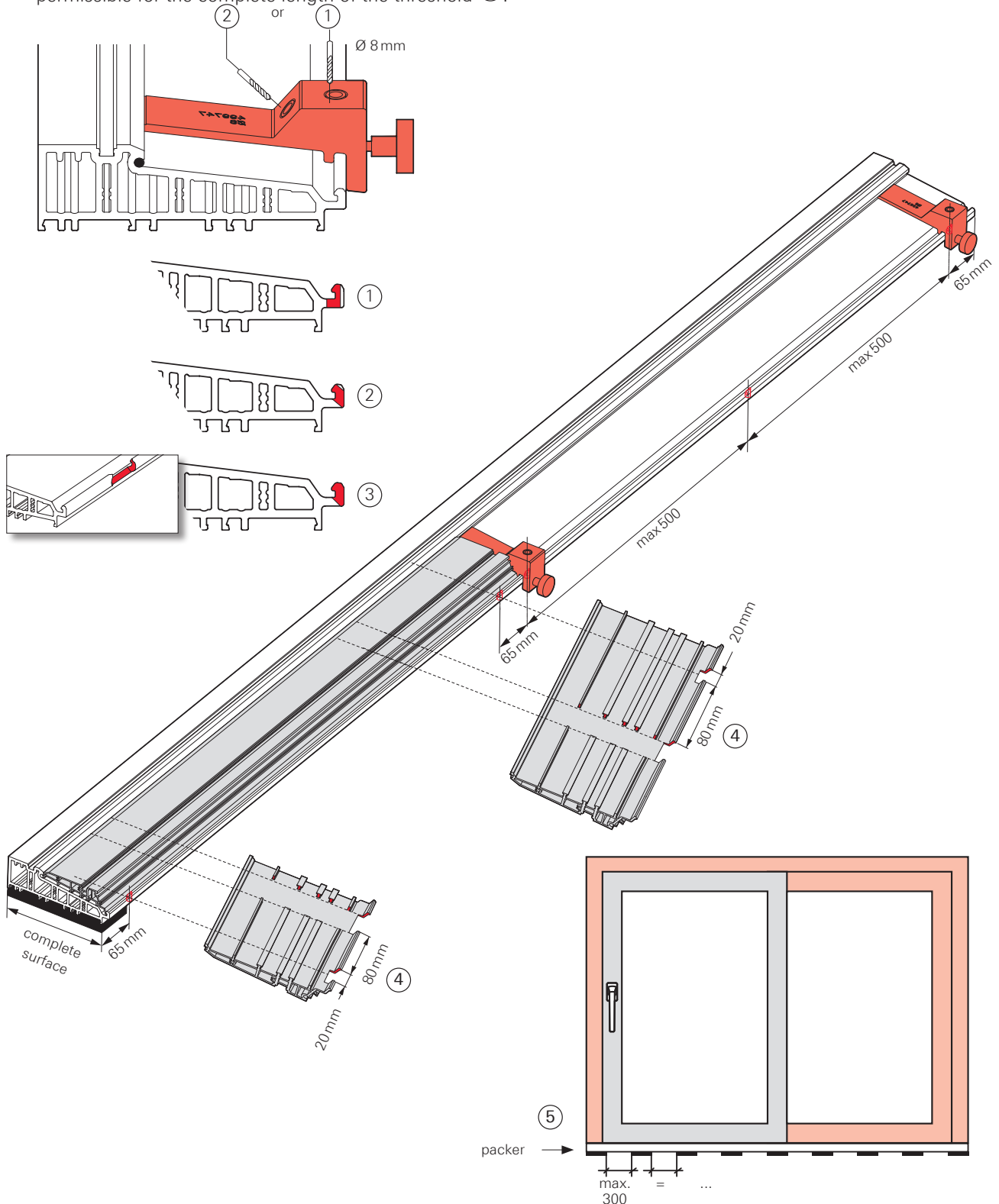


Diagram A – Threshold installation

Installing the counter-block on the threshold

Installing the counter-block on the threshold

1. Insert the moulded gasket part ① flush with the threshold's outer edge in the threshold groove.
2. Place the counter-block ② on the threshold as depicted and swivel it into the drainage groove.
Note: there is a preassembled gasket underneath the counter-block.
3. Screw-fix the counter-block ③ tightly.

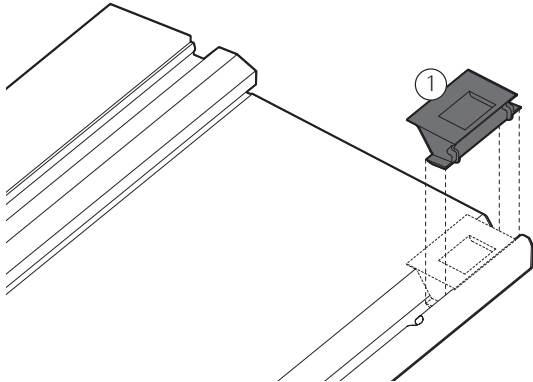
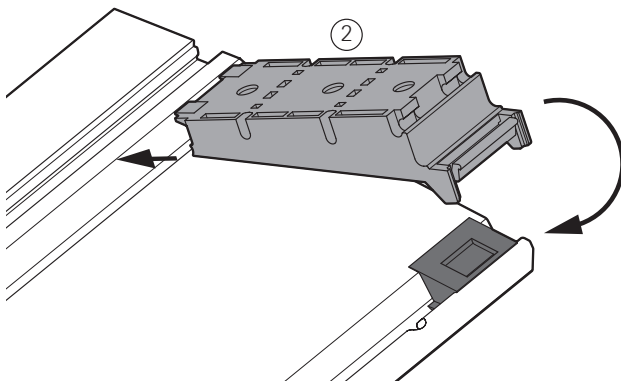
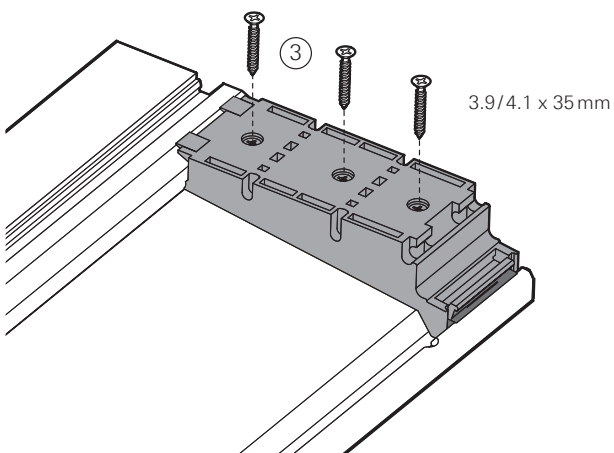


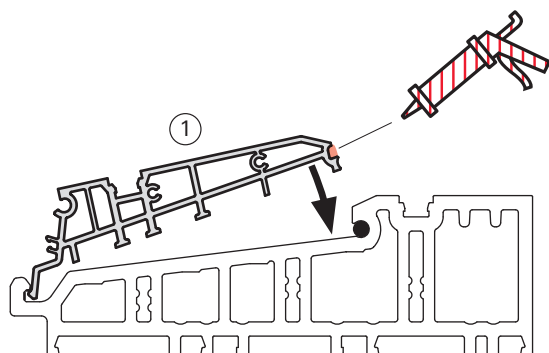
Diagram A – Threshold installation

Installing the threshold in the fixed unit area



Installing the threshold in the fixed unit area

1. Apply 50 mm sealing compound on the assembly profile ① as depicted, position it at an angle in the threshold and hinge down; remove residual sealing compound.
2. Position the aluminium cover for the assembly profile ② on the assembly profile and counter-block (not depicted) at an angle and hinge down.
3. Clip in the adapter profile ③.



Remove residual sealing compound

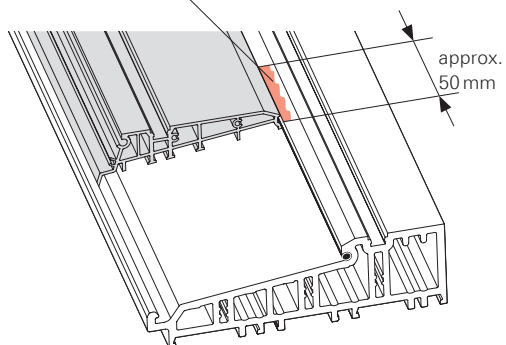
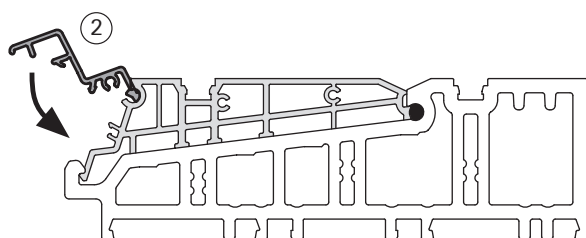
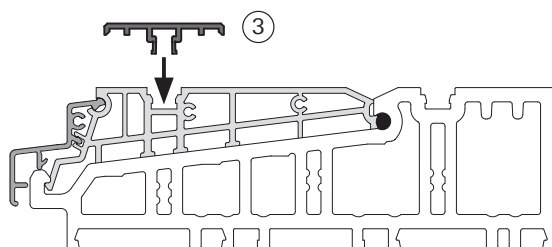


Diagram A – Threshold installation

Predrilling the threshold and frame sections

Predrilling the threshold and frame sections

1. Drill the holes for the frame sections at both ends of the threshold ① and in the frame sections ② with threshold drilling jig (495 010). Position the drilling jig flush with the threshold's outer edge (without end caps). 6x Ø 6 mm, 2x Ø 8 mm (on mortise and tenon joints)

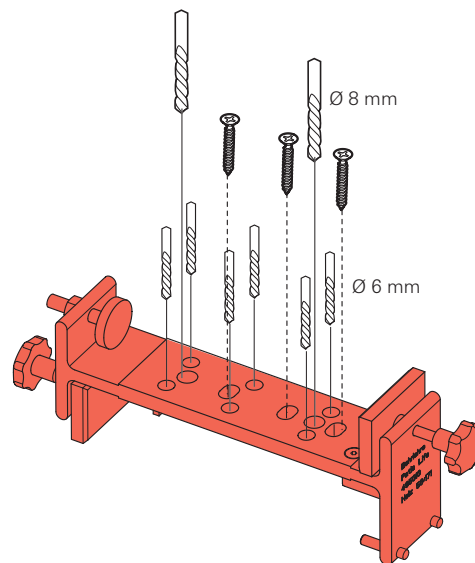
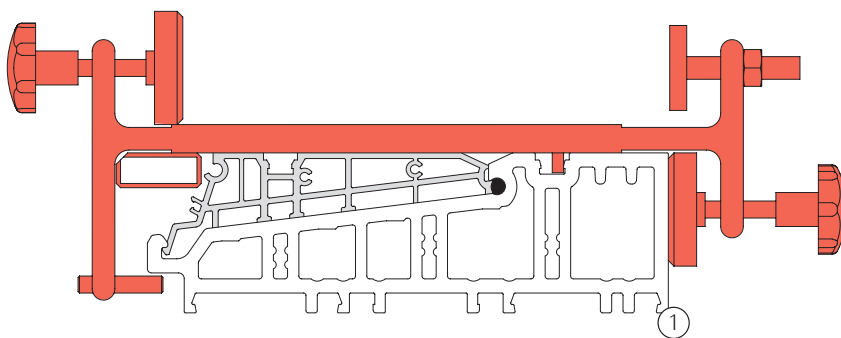
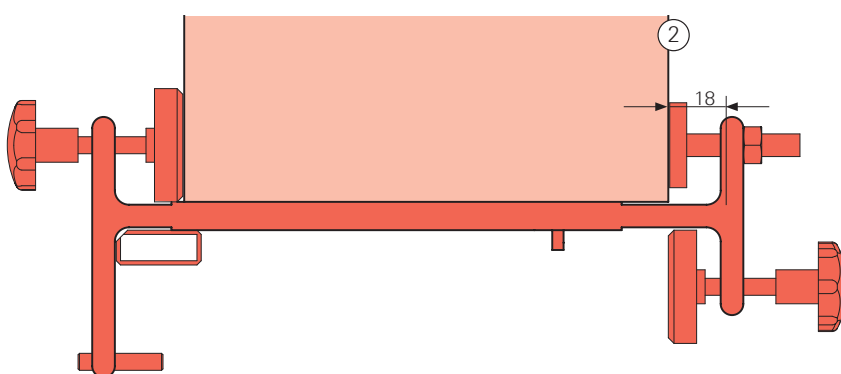


Diagram A – Threshold installation

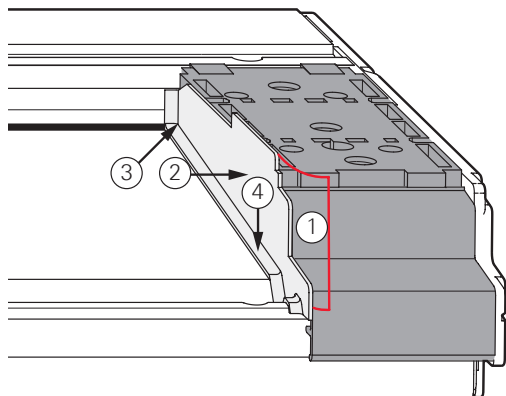
Sealing up the passage area at the counter-block



Sealing up the passage area at the counter-block with butyl sealing strips

1. Remove the first protective foil (1) from the butyl sealing strip
2. Position the top butyl sealing strip flush with the counter-block.
3. Fold the excess bottom butyl seal over the threshold.

Note: Press the butyl sealing strips well into the counter-block (2), in the corner (3) (pay special attention to the round cord gasket here) and onto the threshold (4).



Placing the passage area end cap on the butyl sealing strip on the counter-block

1. Remove the second protective foil (5) from the butyl sealing strip.
2. Attach the passage area end cap (6), press it down well and screw-fix using the enclosed screws (7).
3. Seal the passage area end cap carefully with sealing compound (8).
4. If applicable shorten the butyl sealing strip and passage area end cap (9).

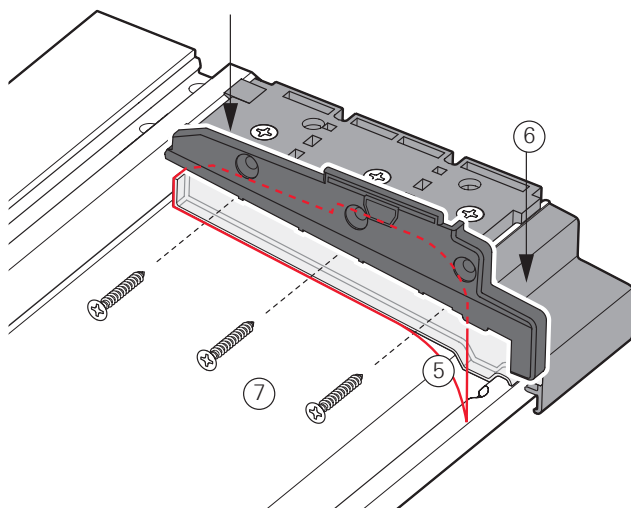
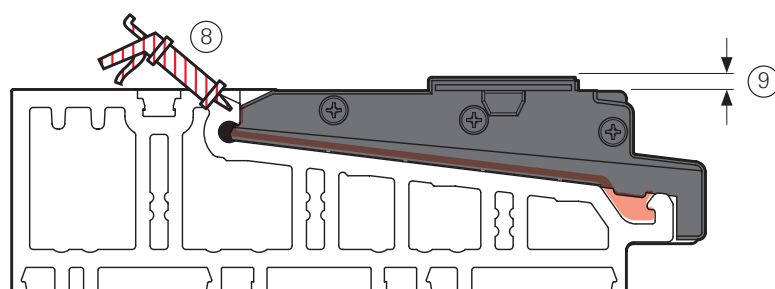


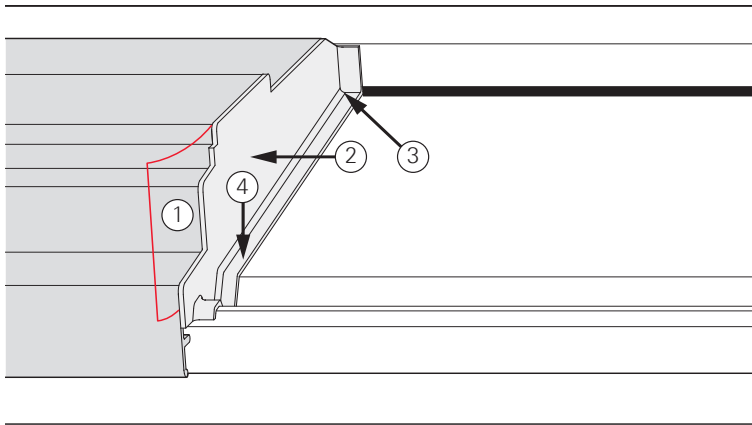
Diagram A – Threshold installation

Sealing up the passage area at the assembly profile

Sealing up the passage area at the assembly profile with butyl sealing strips

1. Remove the first protective foil (1) from the butyl sealing strip
2. Position the top butyl sealing strip flush with the assembly profile.
3. Fold the excess bottom butyl seal over the threshold.

Note: Press the butyl sealing strips well on to the assembly profile (2), in the corner (3) (pay special attention to the round cord gasket here) and on to the threshold (4).



Place the passage area end cap on the butyl sealing strip on the assembly profile

1. Remove the second protective foil (5) from the butyl sealing strip.
2. Attach the passage area end cap (6), press it down well and screw-fix using the enclosed screws (7).
3. Seal the passage area end cap carefully with sealing compound (8).

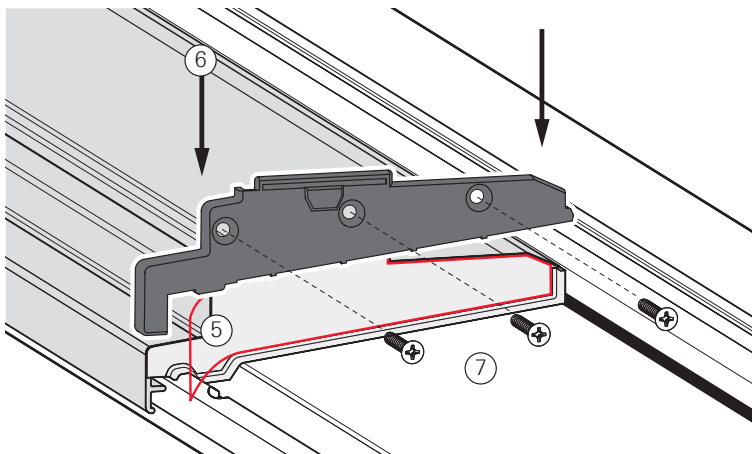
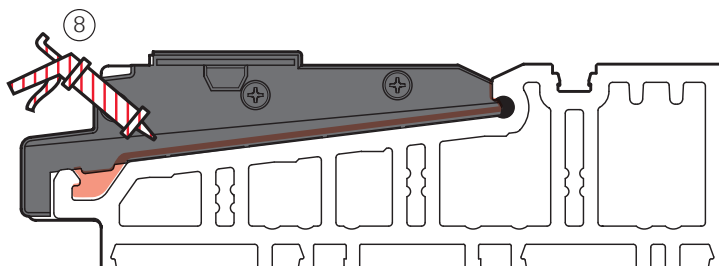


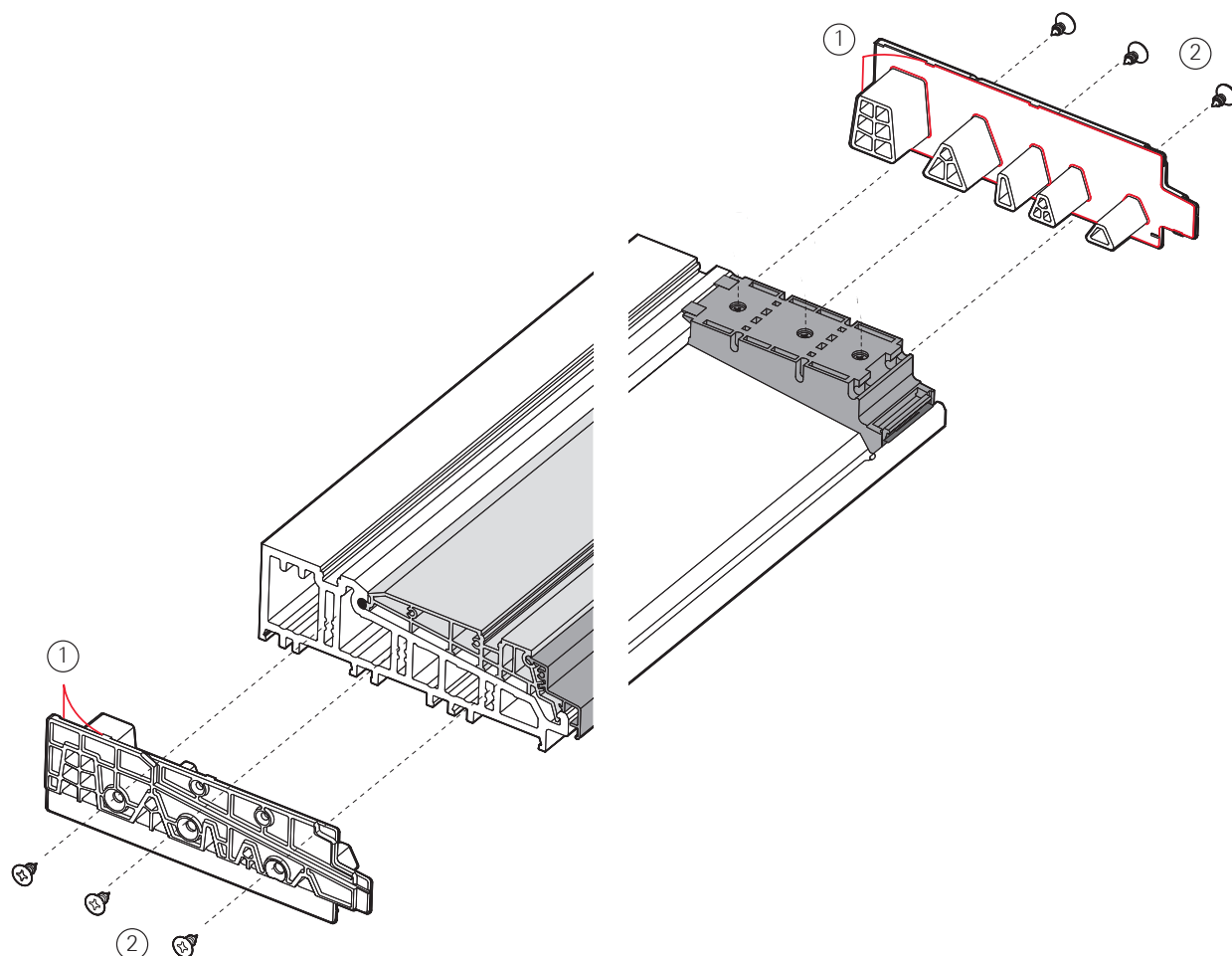
Diagram A – Threshold installation

Installing the threshold end-caps



Installing the threshold end-caps

1. Cut the roller track to length (FIW - 2 mm)
2. Insert the roller track in the threshold's groove (not depicted).
3. Remove the threshold end-cap's protective foil (1).
4. Screw-fix the end caps to the threshold with the enclosed screws (2).



Installing the cover in the passage area

1. Clip in the aluminium cover for the passage area (3).

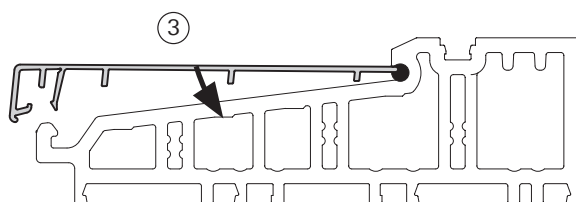


Diagram A – Threshold installation

Sealing up the groove in the threshold

Sealing up the groove in the threshold

1. Insert the profile sealing components ① firmly in the groove with sealing compound.
2. Remove the first protective foil and stick the butyl sealing strip ② in line with the mark.
3. Fold down the excess ③ and press it down well.
4. Remove the second protective foil ④.

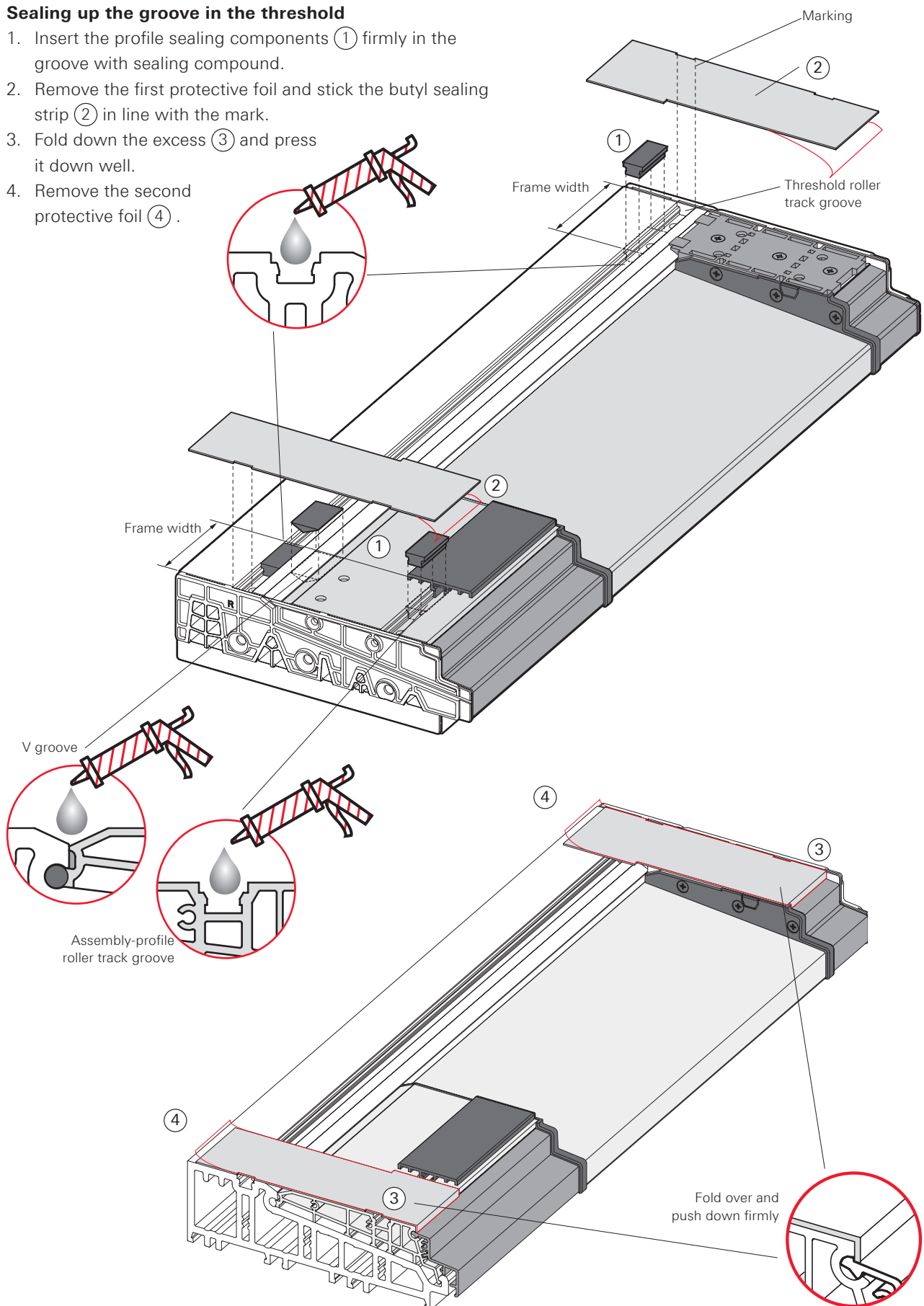


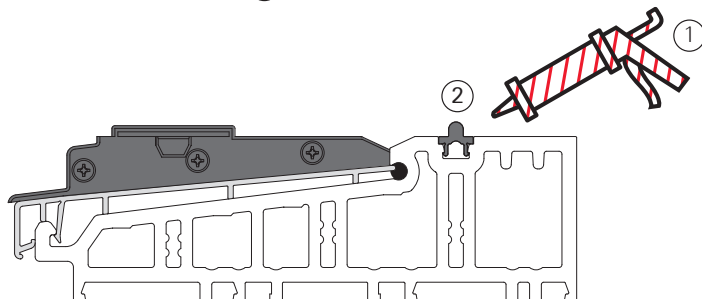
Diagram A – Threshold installation

Installing the roller track, weather profile and frame section



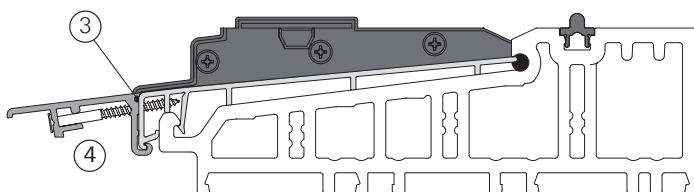
Inserting the roller track

1. Apply sealing compound (1) over the entire length on the weather side and approx. 2 cm in length in the corner areas of the threshold's groove.
Insert the roller track and carefully remove residual sealing compound.
2. Insert the roller track (FIW-2) (2).



Installing the weather profile

1. Roll in the gasket (3) and cut off the cover-cap overhang.
2. Predrill the screw holes or use self-drilling screws.
Screw-fix the weather profile (4) (3.9-4.2 x 50 mm)



Connect the frame sections to the threshold

1. Connect the threshold and frame sections with fillister head screws or flat-headed screws with collar (in accordance with DIN 967).

Note: Tighten the screws without deforming the threshold.

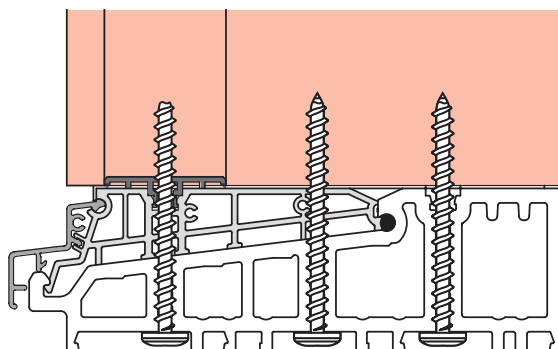
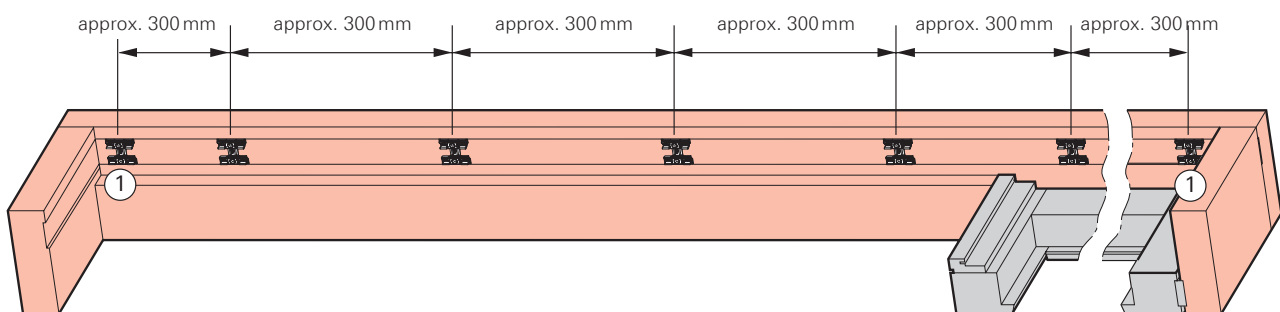
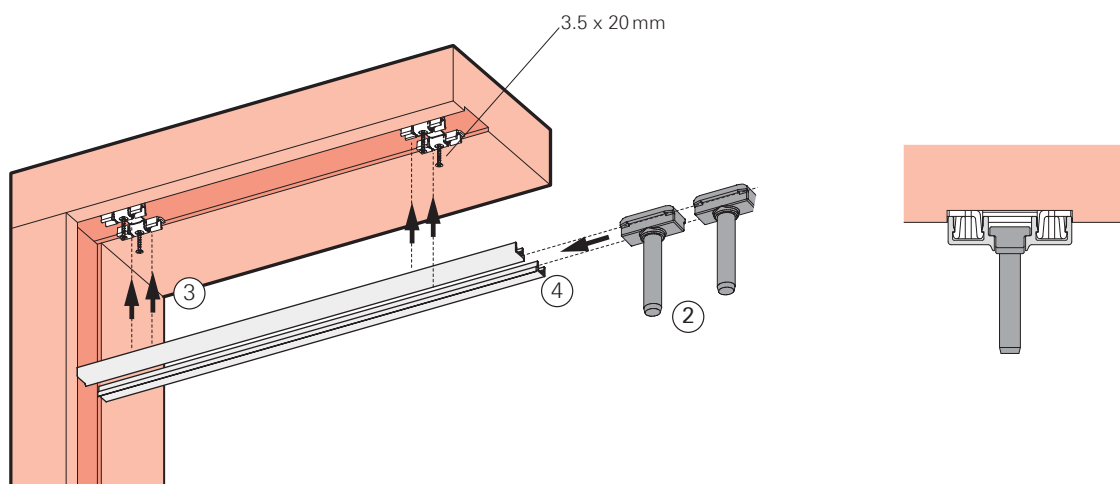


Diagram A – Frame component installation

Installing the fail-safe guide track and gasket-components

Installing the top fail-safe guide-track including the sliders

1. Mount the striker plates for the top fail-safe guide track in the frame.
Mount the outer striker plates ① near the frame.
Position the remaining guide strikers approx. every 300 mm (even out the distances) and screw-fix (3.5 x 20 mm).
2. Cut the top fail-safe guide track.
3. Slide in two sliders ② into the top fail-safe guide track.
4. Clip on the top fail-safe guide track ③.
5. Seal up the guide track ④ in the passage area on the weather side with sealing compound.





Installing the gasket-component

1. Apply sealing compound generously to the top espagnolette-side gasket-component ①, as well as the bottom espagnolette-side gasket-component ② and glue them into the frame corner ③.
2. Measure and cut the timber striker strip ④ between the espagnolette-sided gasket-components (deductible dimension = FIH - 78)
3. Insert the timber striker strip with sealing compound (also the connection to the gasket-components).

Note: Pay attention to smooth flat surfaces!

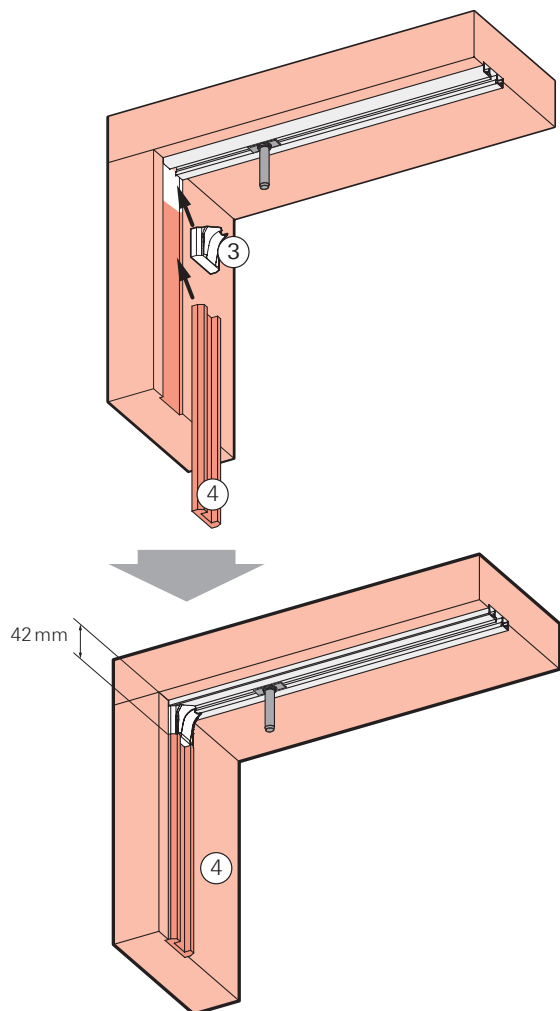
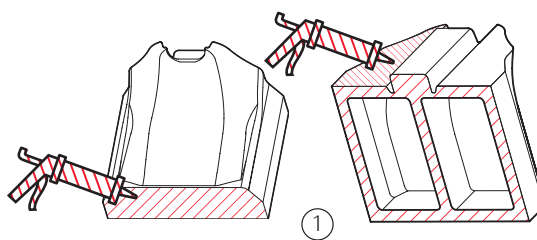
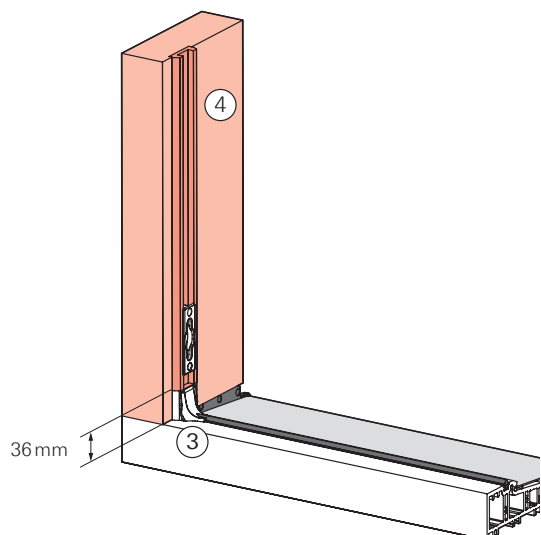
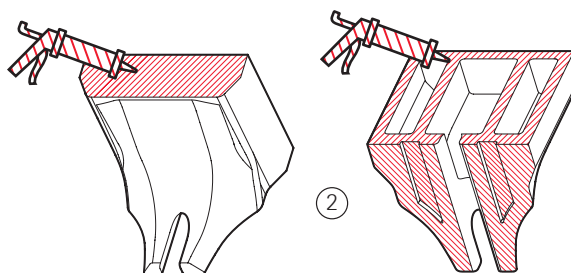
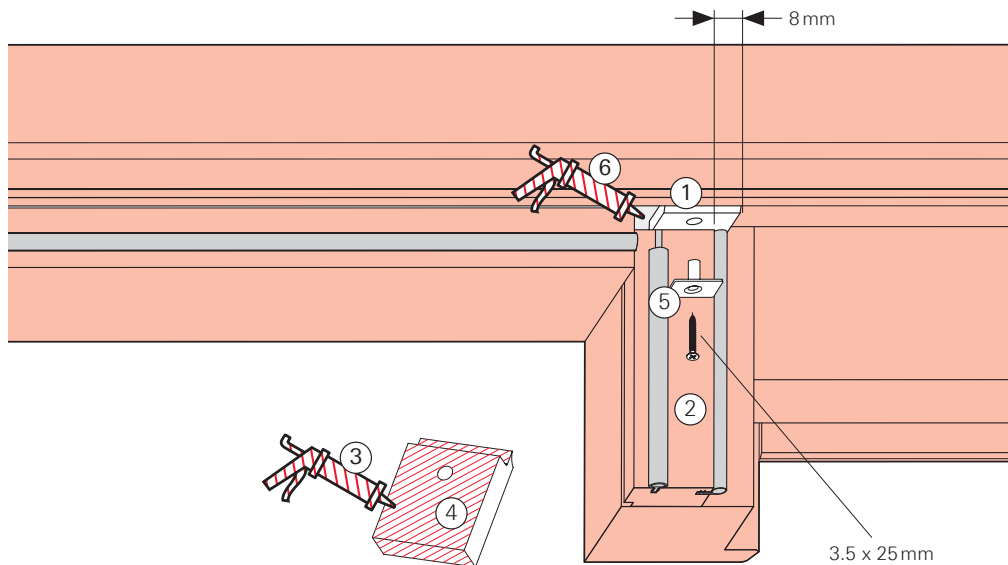


Diagram A – Frame component installation

Frame mullion-gasket

Top mullion-gasket

1. Top gasket-component position ① = Mullion profile section width ② + 8 mm
2. Apply sealing compound ③ superficially to the top gasket-component ④ as depicted.
3. Insert and screw-fix the sleeve for the top gasket-component ⑤ (3.5 x 25 mm).
4. Fill all free space between the timber profile in the passage area and the top gasket-component ⑥ with sealing compound.





Bottom mullion gasket

1. Align the bottom mullion drilling jig (534 719) ① on the roller track:
The drilling jig's mark must be lined up with the mullion profile section's gasket plane (arrow)
Tip: try a small sample piece of the mullion profile section ②

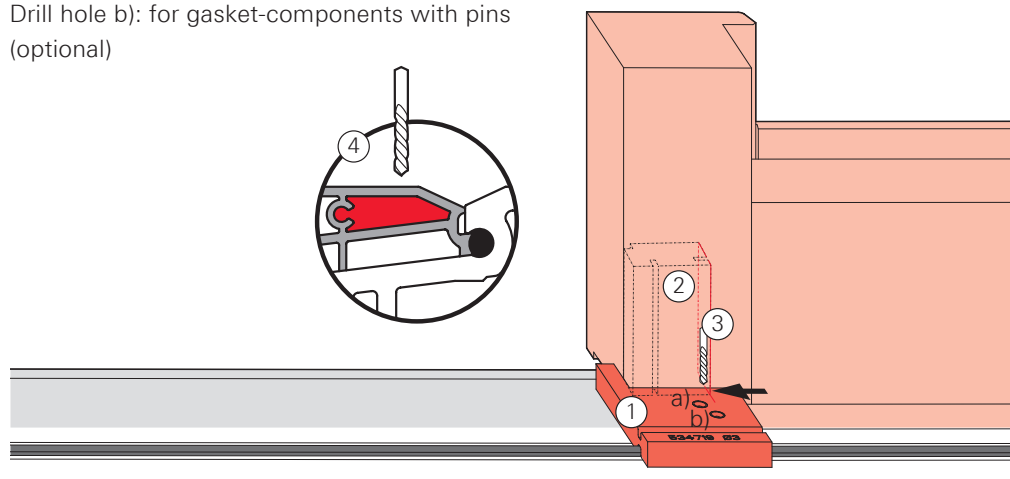
Note: The drilling jig's stop is only effective on 92 mm timber profiles;
remove the stop for other dimensions if necessary

2. Drill the drilling-holes ③.

Please note: Only drill in as far as the red coloured chamber ④.

Drill hole a): for the gasket-component's screw fixing

Drill hole b): for gasket-components with pins (optional)



3. Apply sealing compound superficially to the bottom mullion gasket-components as depicted ⑤.
4. Position the bottom mullion gasket-component up against the mullion profile section on the threshold and screw-fix to the threshold (3.5-4.2 x 13 mm) ⑥; remove residual sealing compound.
5. Measure the mullion profile section between the gasket-components (top and bottom) and cut to length.
6. Apply sealing compound to the mullion profile section (top and bottom mullion profile section cut surfaces as well as the contact surfaces to the top and bottom gasket-components) and mount ⑦.
7. Glue the elastic part of the bottom mullion gasket-component superficially to the mullion profile section ⑧.
8. Measure the bubble gasket ⑨ between the top and bottom gasket-component, cut to length and insert in the mullion profile section; seal the cross sectional areas to the gasket-components with sealing compound.
9. Cut the trailing gasket ⑩ to length (mullion profile section - 20 mm) and insert in the mullion profile section (only on the weather side).

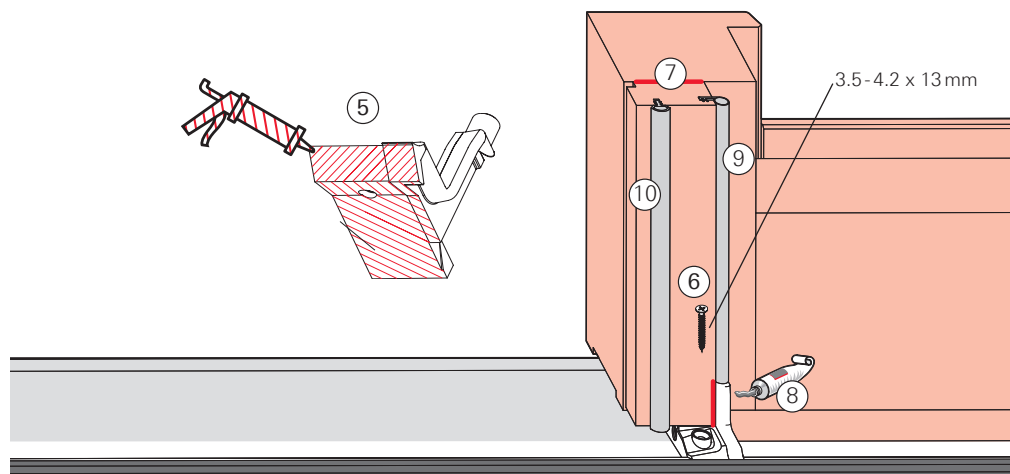


Diagram A – Frame component installation

Mounting the strikers

Installing strikers (fixed handle-height door-sizes)

1. Position the bottom 3 strikers from the bottom upwards:
Place the striker positioning jig (374 789) on the threshold ①, mark the striker positions and screw-fix the strikers in the striker strip.
2. Position the top striker from the top downwards:
Hold the striker positioning jig up against the front edge of the top frame ②, mark the striker position and screw-fix the striker in the striker strip.
Position the 4th striker from the top and from SH > 2271 mm; the 5th striker from the top.
Possibilities (A), (B), (C)

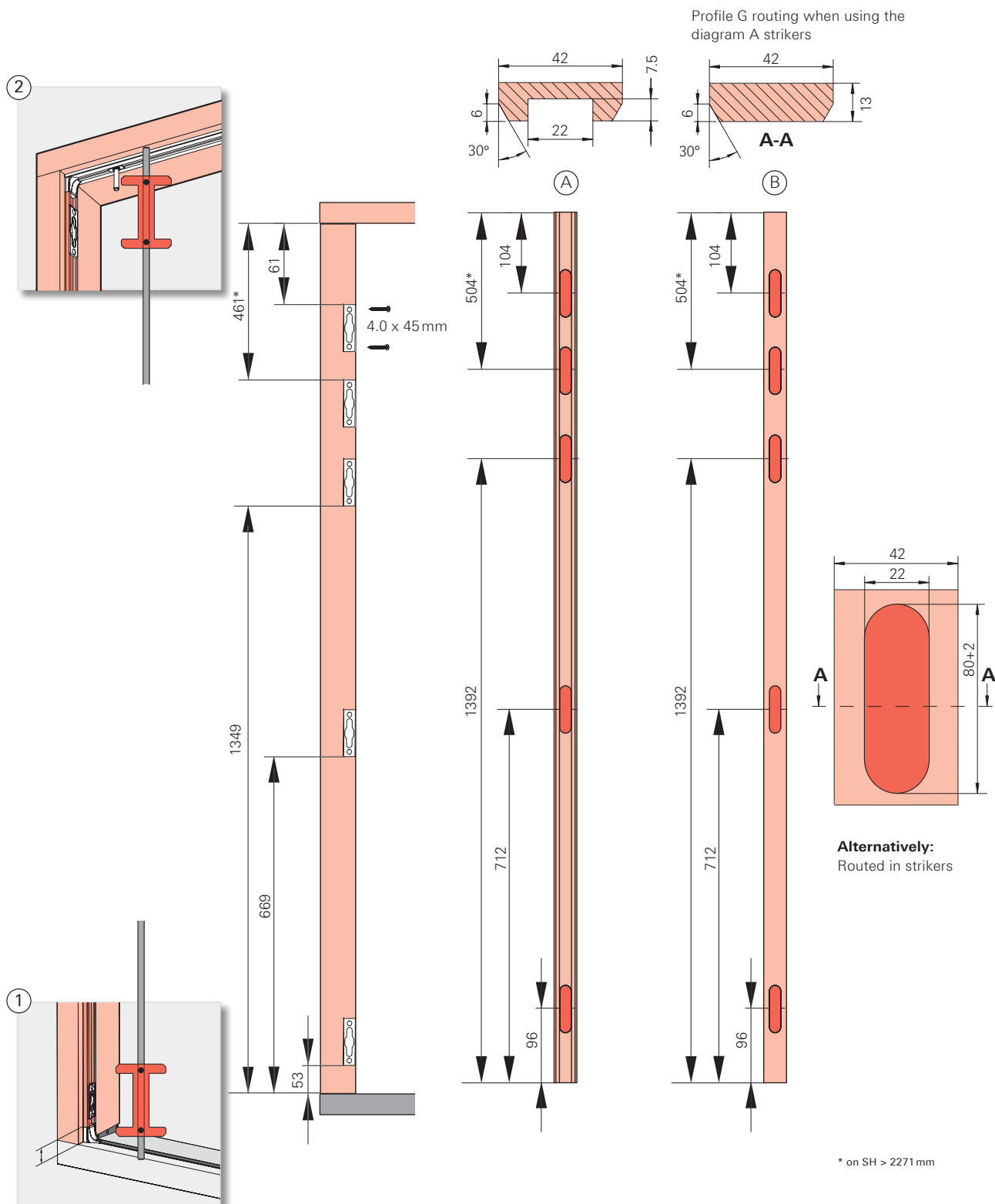


Diagram A – Frame component installation

Mounting the striker strips



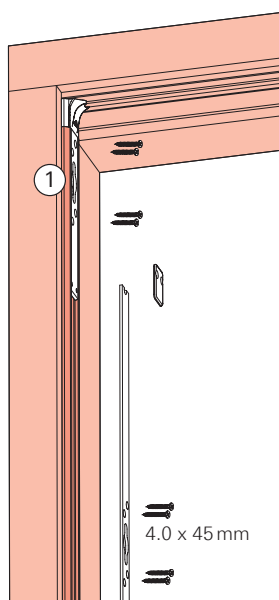
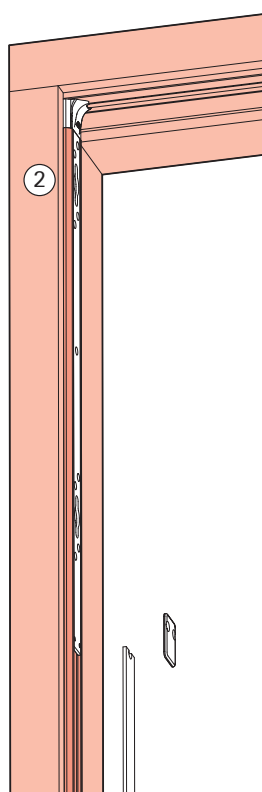
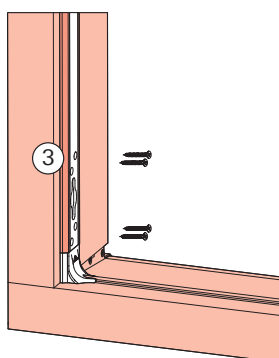
Mounting the striker strips

1. Position and screw-fix the top striker strip (SH < 2270 mm) ① and/or the top striker strip, 600 mm (SH > 2271 mm) ② flush with the top espagnolette-sided gasket-component (4.0 x 45 mm).

Note: from SH > 2271 mm use the appropriate espagnolette extensions.

2. Measure, cut, position and screw-fix the bottom striker strip (from SH > 1671 mm) ③ between the bottom espagnolette-sided gasket-component and the bottom edge of the top striker strip (4.0 x 45 mm).

③



Profile G routing when using the striker strip diagram A

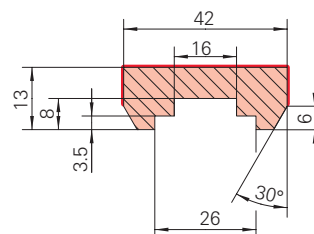
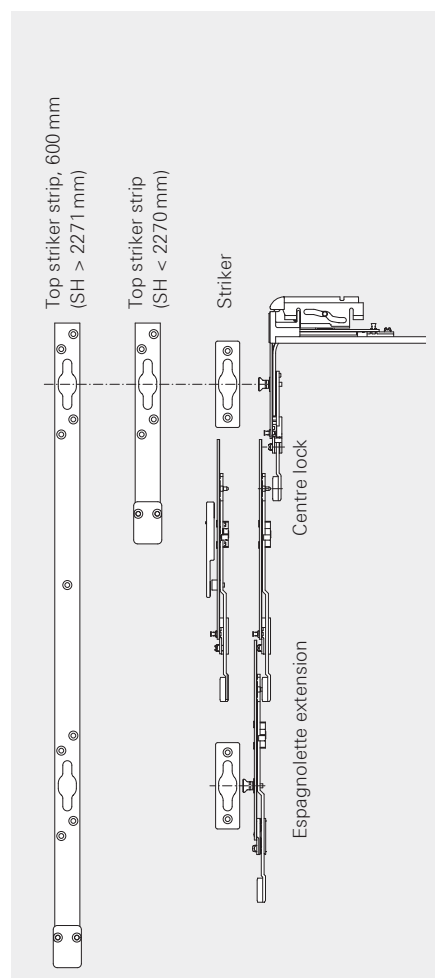
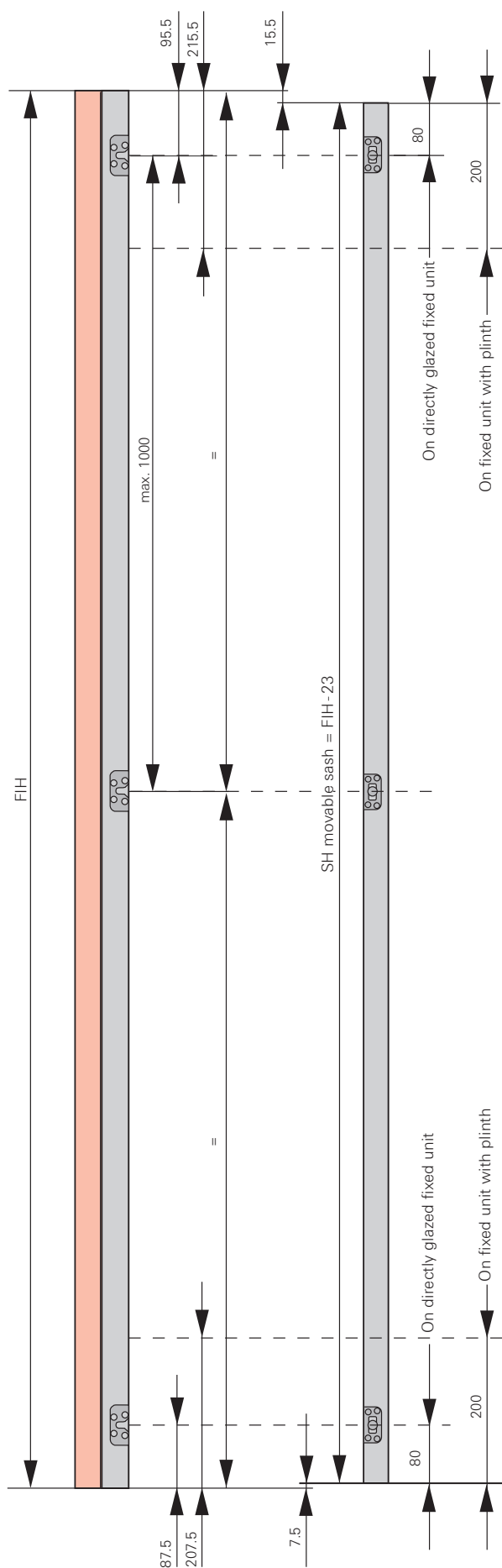


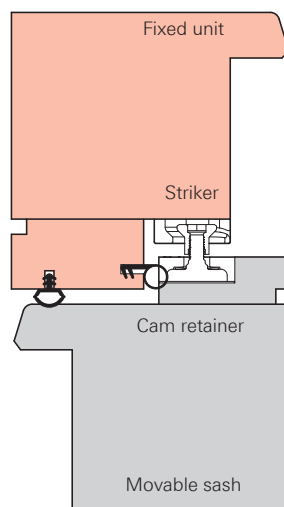
Diagram A – Frame component installation Centre-closers



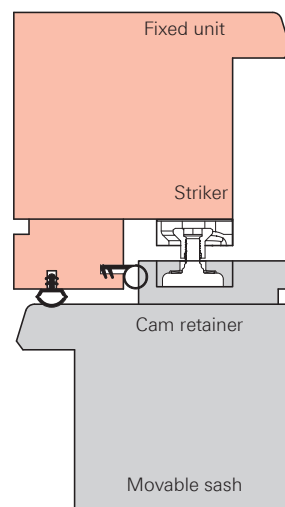
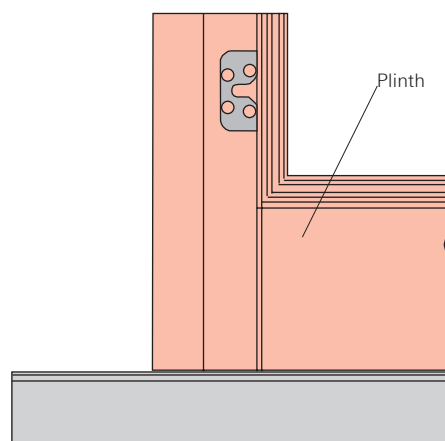
Installing Patio Life centre-closers

1. Mark the position dimensions on the sliding sash and frame in line with the adjoining drawing.
2. Housing position routed accordingly.
3. Screw-fix the assembly with slide plate on the sliding sash and security piece on the frame.

Angular version



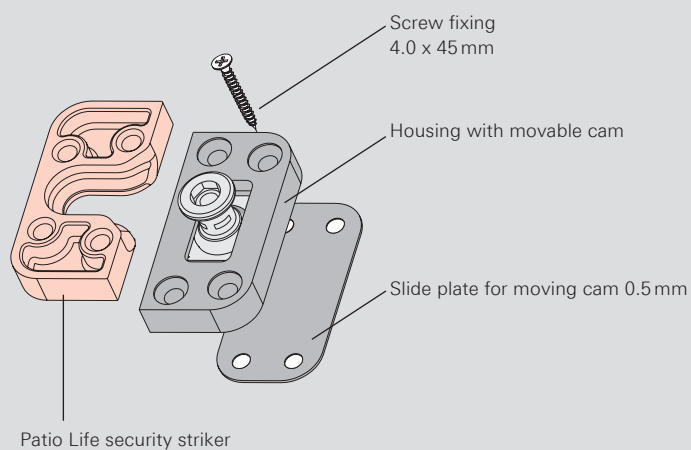
Round version



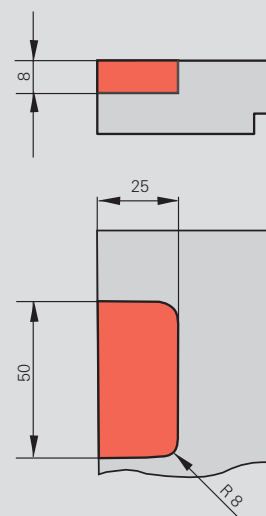


Patio Life centre-closer, angular

Gasket-compression adjustable (+ 2 mm / -1 mm), suitable for BRG2 ('WK2')

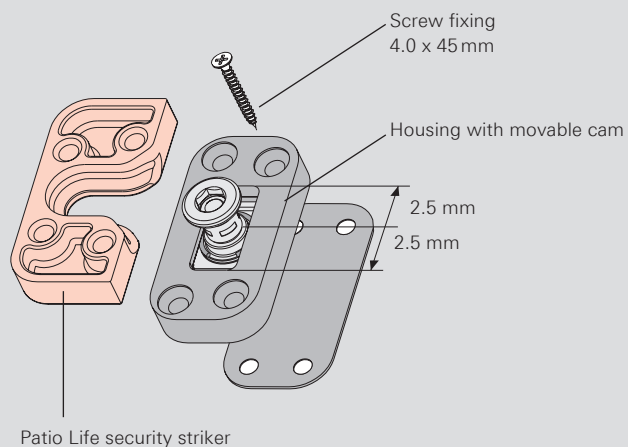


Routing dimensions

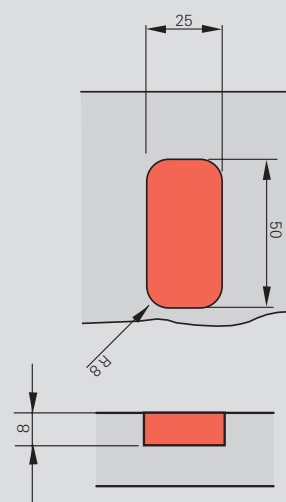


Patio Life centre-closer, round

Gasket-compression adjustable (+ 2 mm / -1 mm), suitable for BRG2 ('WK2')



Routing dimensions



Adjusting tool for centre closers

Material no. 382 234

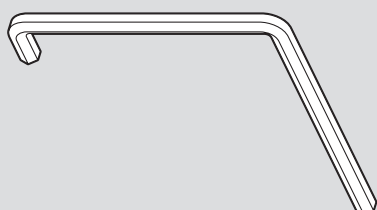
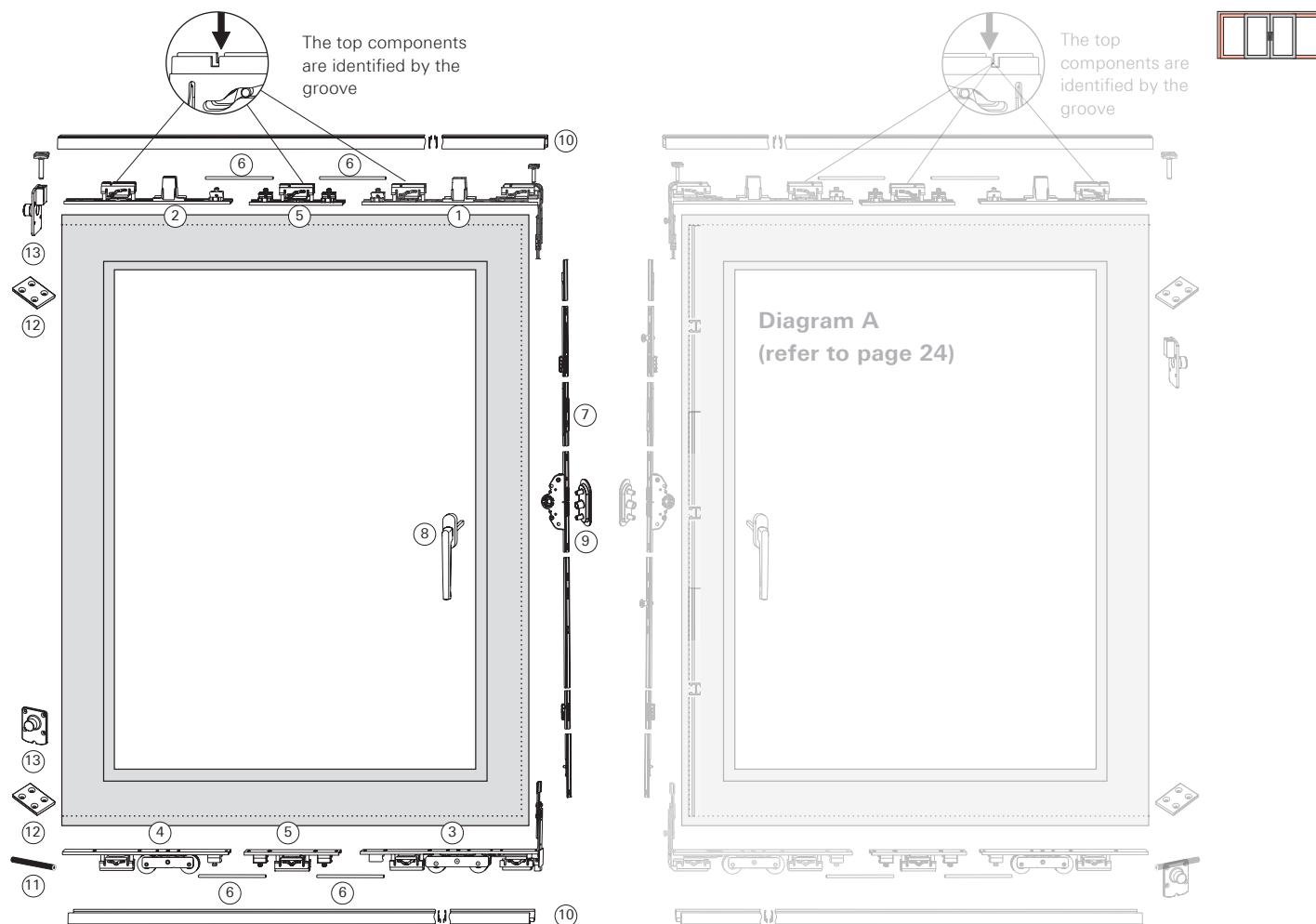


Diagram C – Sash installation; passive sash Overview



Component	Installation procedure	Aid	Page
Sash	Drill the espagnolette drill-holes	Drilling jig for espagnolettes and lockable espagnolettes (373 755)	26
	Carry out the routing for the espagnolette.	Routing jig for lock and gearbox, Patio Life espagnolette (534 673)	26
	Carry out the routing for the recessed grip.	Routing jig for recessed grip (373 683)	26
① ② Top corner and end component	Insert and screw-fix.	3.9/4.1 x 25 mm	54
③ ④ Bottom corner and end component	Insert and screw-fix.	3.9/4.1 x 35 mm	54
Additional components	If applicable, insert and screw-fix the 400 kg additional components.		24
⑤ Extension units	Insert and screw-fix the top and bottom extension unit central parts.	3.9/4.1 x 25 mm (top) 3.9/4.1 x 35 mm (bottom)	54
⑥ Connecting tubes	Cut to length and deburr.		54
	Insert the connecting tubes in the extension unit central parts.		
	Please note: The connecting tubes may not protrude beyond the components coupling parts.		
	Firmly secure the connecting tubes; tightening torque: 10 Nm	4 mm Allen screw	
⑦ Espagnolette	Cut to length.		
	Clip in and screw-fix in the top and bottom corner components.	3.9/4.1 x 35 mm	
⑧ ⑨ Handle and recessed grip	Attach the recessed grip with sealing compound and screw to the handle.	Sealing compound Use the screws provided	28
⑩ Lifting track	Cut to length and clip into the hardware groove.		54
Extruded gasket	Roll in.		56
⑪ Support profile	Insert.		31
Active sash support profile	Insert the espagnolette-sided support profile on the weather side.		57
⑫ Sealing plate	Install.		31
⑬ Stop plates	Only install these after hinging the sash in the frame.		66

Diagram C – Passive sash

Installing the hardware and cutting the lifting track to length

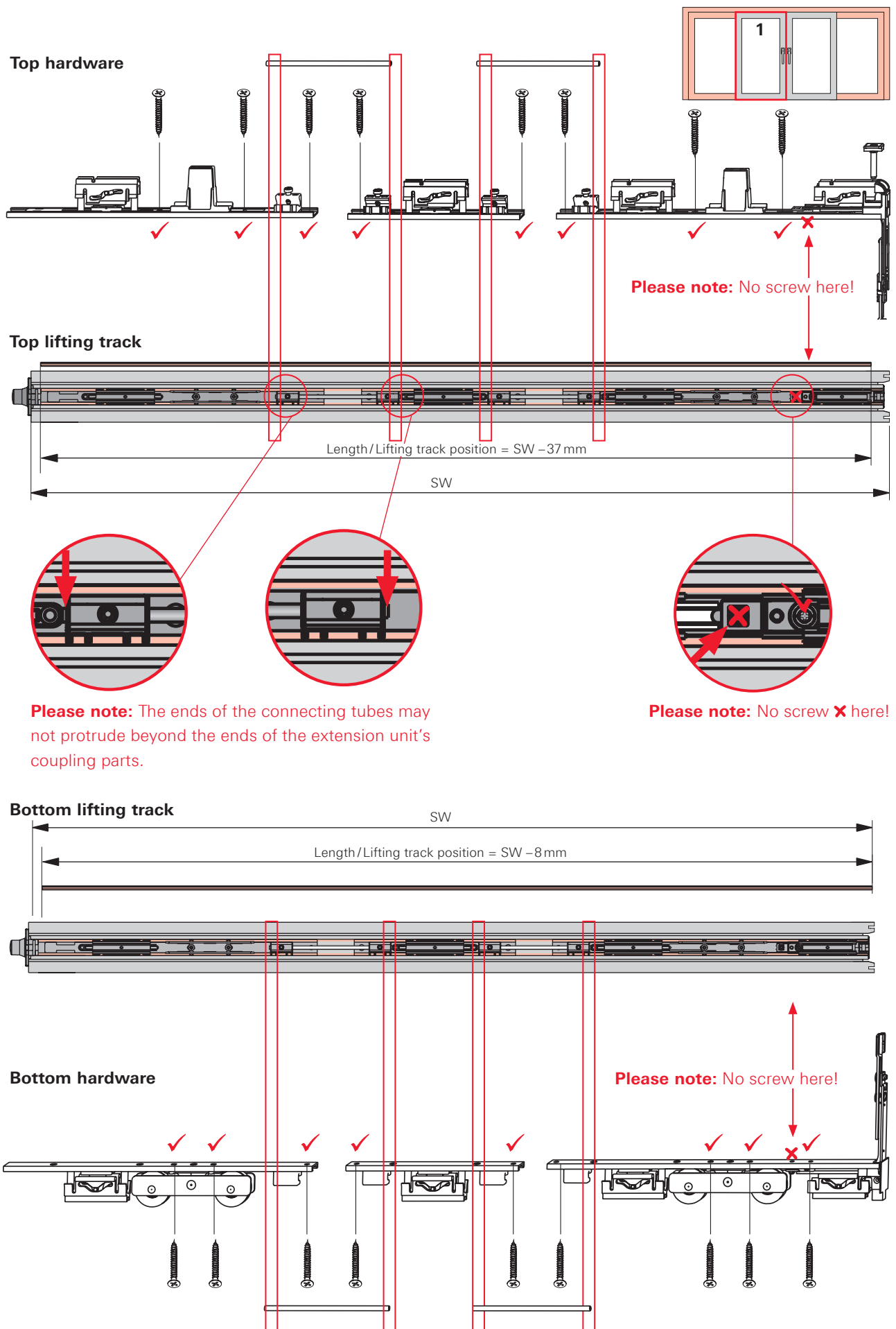


Diagram C – Passive sash

Installing the profile strip and striker strip



Installing the profile strip and striker strip in the sash

1. Cut the profile strip G2 to length (SH-96 mm) and route the recess for the gearbox ①.
2. Cut the bottom striker strip (535 007) ② to length:
SH-300 mm if SH < 2270 mm
SH-700 mm if SH > 2270 mm
3. Select top striker strip ③:
top striker strip (535 005) if SH < 2270 mm
top striker strip, 600 mm (535 006) if SH > 2271 mm
4. Position and predrill the striker strips to the profile strip and screw-fix with the profile strip through the espagnolette (4 x 60 mm) ④.
5. Install the faceplate flap ⑤.
6. Attach the optional overlap profile ⑥.

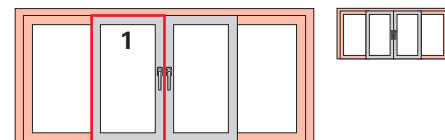
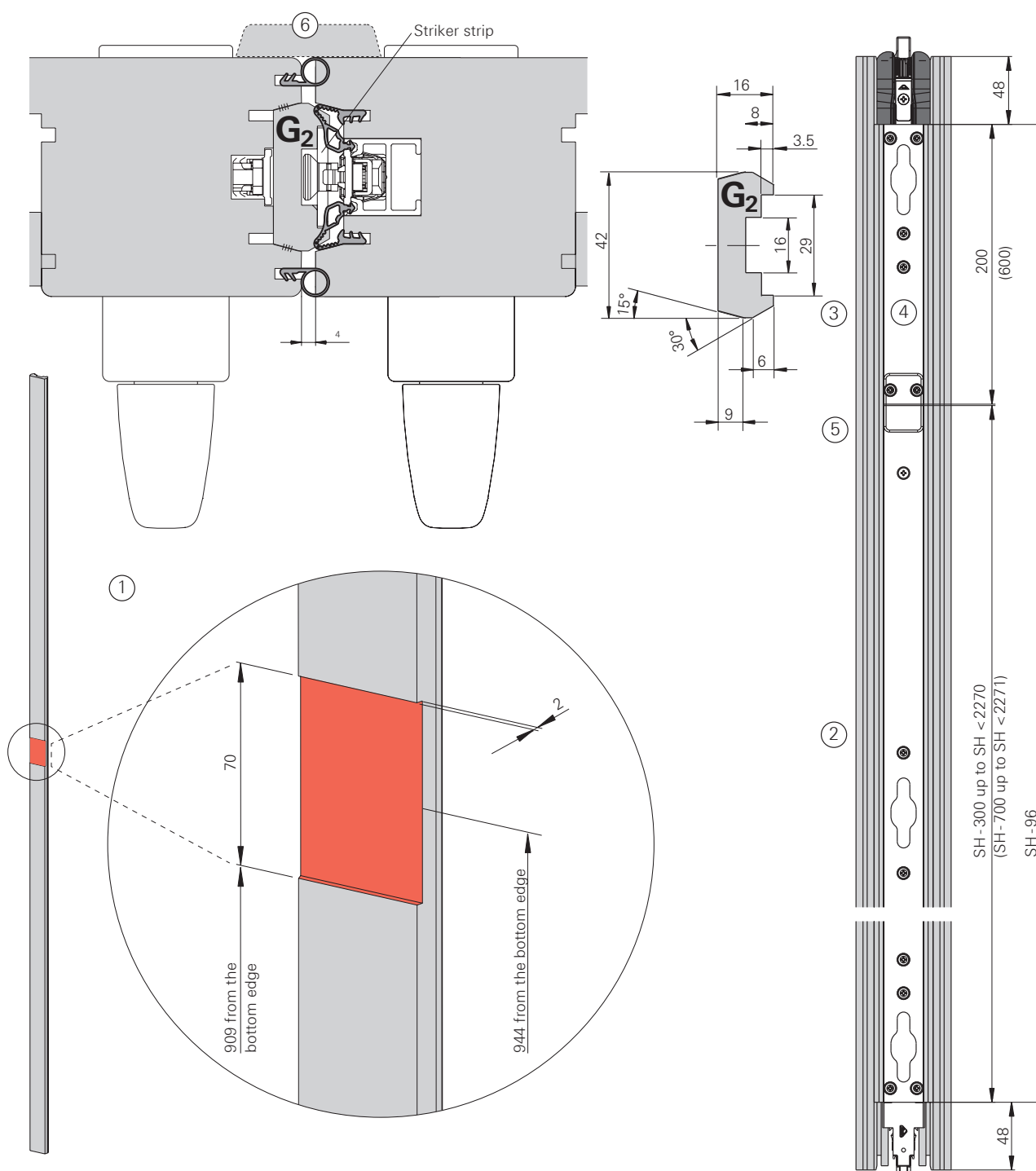


Diagram C – Passive sash

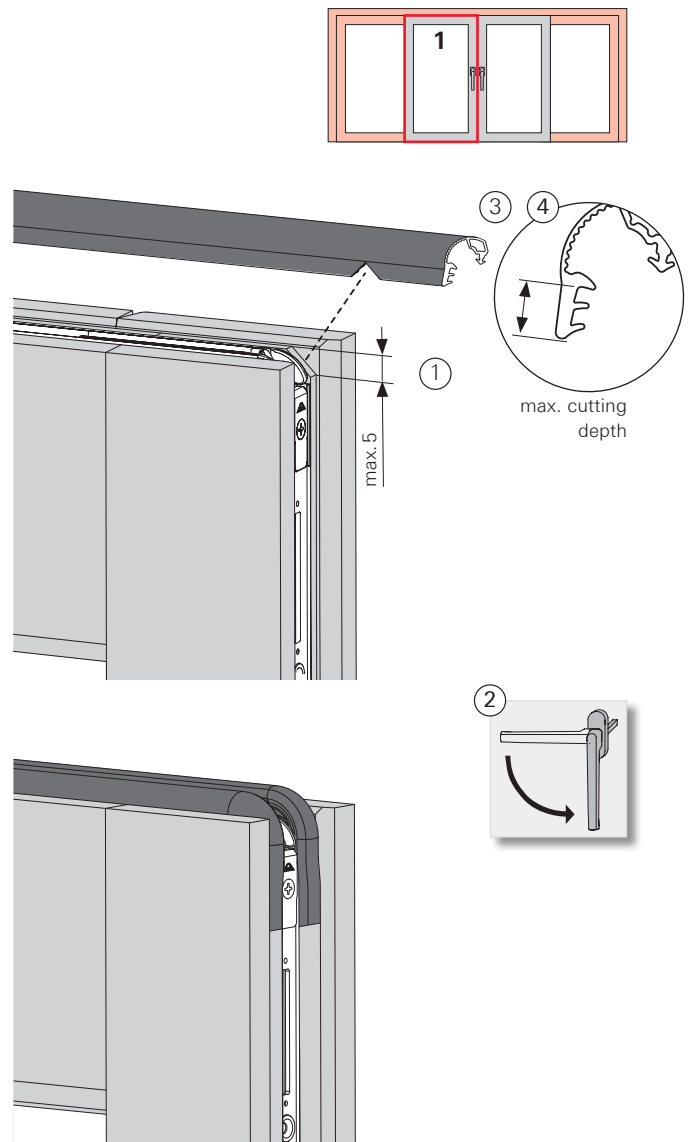
Installing the extruded gasket

Installing the extruded gaskets in the sash

1. Chamfer the timber 5 mm (1).
2. Bring the handle into the locking position (2)
(= deploy the lifting profiles)
3. First roll in the top and espagnolette-sided extruded gaskets into the timber groove and notch the corner areas (3), with the recommended notching scissors (502 156). In doing so, do not pull the extruded gasket too taut around the corners and connect to the G2 profile strip.

Note: Observe the extruded gasket's maximum cutting depth (4).

4. Roll in the extruded gasket into the lifting track (top) and/or corner component (espagnolette side).



5. Clip on the horizontal espagnolette sealing block (5) with adhesive onto the protruding lifting track (6) insert the screw and screw-fix into the corner component with the spacer sleeve (7).

Please note: Tighten the screw by hand in order to warrant motional function!

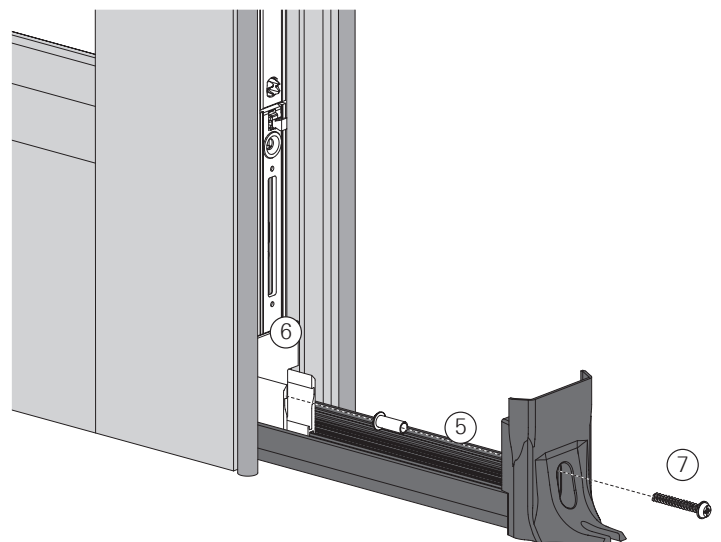
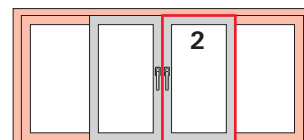
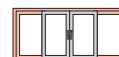
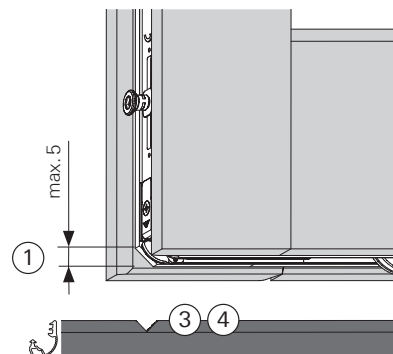


Diagram C – Active sash (same as diagram A) Installing the extruded gasket

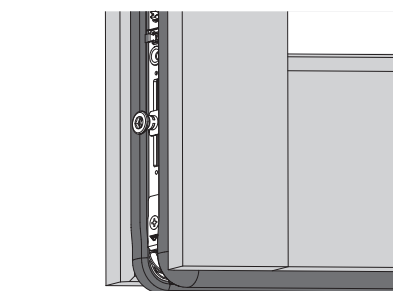


Installing the extruded gaskets in the sash

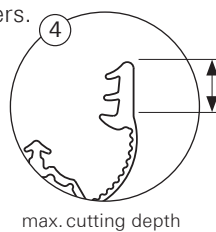
1. Chamfer the timber 5 mm on both sides, on the top and bottom (1).



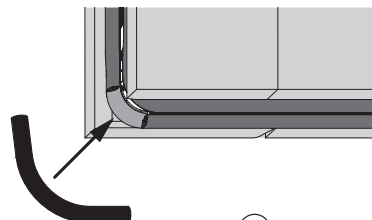
2. First roll in the bottom, espagnolette-sided and top extruded gaskets into the timber groove (2) and notch the corner areas (3), with the recommended notching scissors (502 156). In doing so, do not pull the extruded gasket too taut around the corners.



Note: Observe the extruded gasket's maximum cutting depth (4).

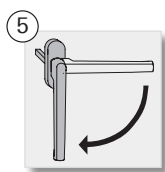
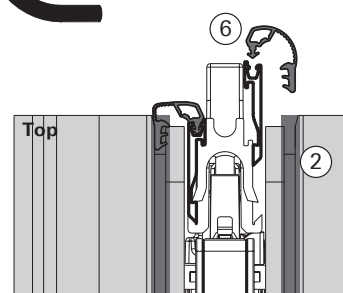
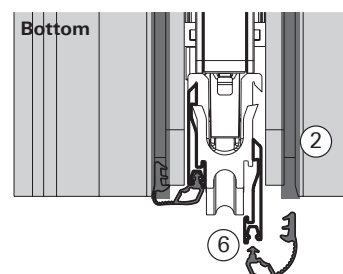
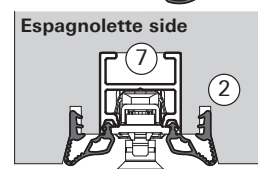


Please note: When inserting the all-round extruded gasket on the weather side, insert the support profile around the corner as depicted below.



3. Bring the handle into the locking position (5) (= deploy the lifting profiles)

Roll in the extruded gasket into the lifting track (top and bottom) (6) and/or adapter profile (espagnolette side) (7).



4. Install the bottom mullion support profile and top and bottom sash sealing-plates as described on page 31.

Diagram C – Threshold / frame installation

Overview

Component	Installation procedure	Aid	Page
Frame profiles	Cut to length.		32
Threshold	Cut to length.	FEW ⁽¹⁾	32
	Drill the drainage drill-holes.	Drainage drilling jig (499 747)	35
Assembly profile	Cut to length.	SW + 34 mm (end caps excluded)	35
	Carry out the notching for drainage on the bottom.		35
	Install.		35
Drilling-holes	Carry out on the threshold and frame..	Threshold drilling jig (495 010)	38
Aluminium covers for assembly profiles	Cut to length and install.	SW + 34 mm ⁽¹⁾	35
Adapter profile	Cut to length and clip in.	SW + 34 mm ⁽¹⁾	35
Seal up	The passage area at the assembly profiles.	Butyl strips	39
Passage area end-caps	Install.	Sealing compound	40
Aluminium cover for the passage area	Cut to length and install.	Actual dimension between the cover caps – 1 mm	41
Roller track	Insert into the threshold.		41
Threshold end-caps	Install.		
Threshold groove-sealing	Carry out.	Sealing compound	42
Weather profile (optional)	Cut to length and install.	FEW - 112 mm ⁽²⁾	
Frame sections	Connect to the threshold; use the butyl sealing strips supplied.		43
	Seal the fixed unit to the threshold using sealing compound along the whole length.	Sealing compound	
Guide tracks with gasket-components and fail-safe devices	Hook in 2 sliders each on the left and right of the gasket-components in the guide tracks. (The logo must point towards the active sash.)		44
Mullion gasket-component	Install on the top, bottom, left and right. (DIN Left-hand version depicted; DIN right-hand version is a mirror image)		46 45
Mullion profile section	Install on the fixed unit.	Sealing compound	47
Striker strips	Install.		55
Centre-closer	Install.		50
Mullion gaskets	Insert the bubble gaskets and trailing gaskets in the mullion profile section.		47
Hinge the sash into the frame	Please note: Position a slider left and right of the sash respectively.		67
Top espagnolette-sided gasket-component	Install on the passive sash.		59
Stop plates	Install.		66
Threshold on site	Pack up the threshold every 300mm over the entire length!		
	Max. permissible unevenness over the whole threshold: 2 mm!		
	Continuous packer over the whole surface recommended.		

⁽¹⁾ sym. SW

⁽²⁾ Frame profile 171 x 56mm, sash profile 92 x 68mm, on symmetrical version

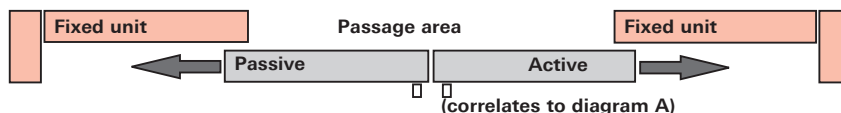


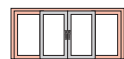
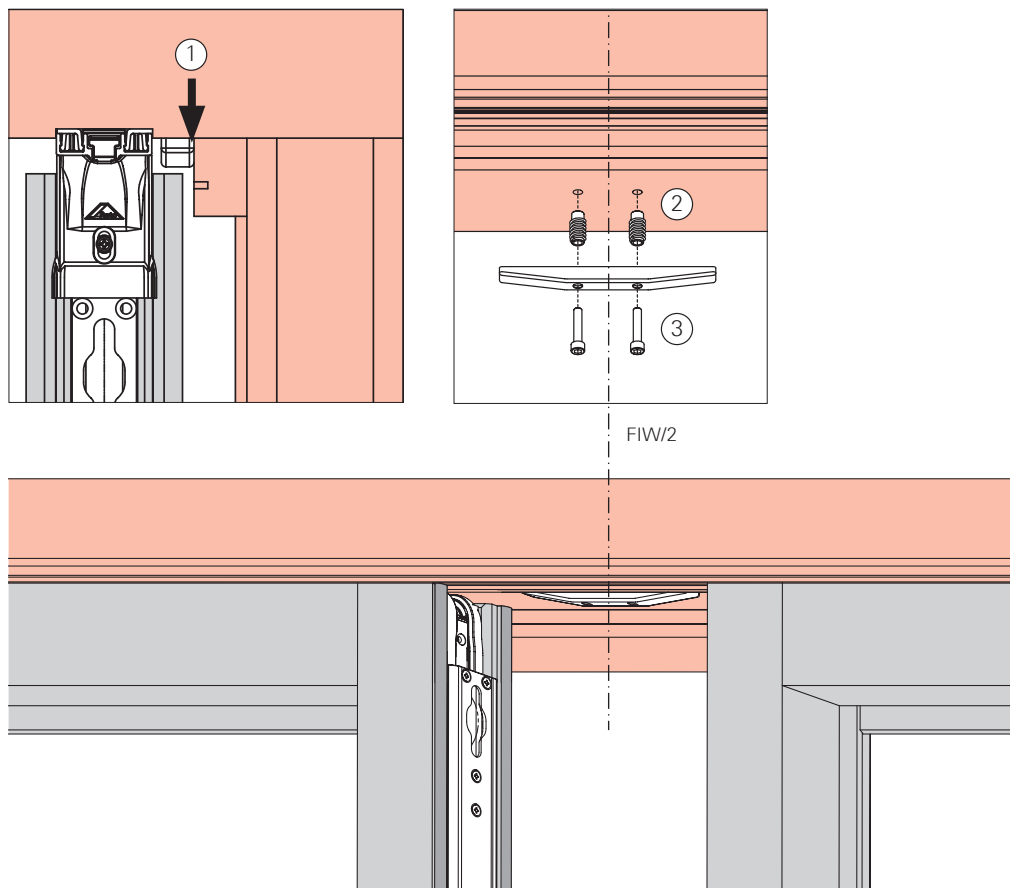
Diagram C – Frame installation

Installing the anti-jemmy / fail-safe device



Installing the anti-jemmy device

1. Hold the anti-jemmy device in the centre of the passage area and in the corner of the timber profile (not facing the guide track) ①, transfer the drilling dimensions and predrill Ø 9.5 mm for the threaded sockets.
2. Screw in the threaded sockets ②.
3. Snap in the screw heads into the fail-safe device and screw-fix the anti-jemmy device ③.



Installing the fail-safe device

1. Place the sash into the frame.
2. Slide in the fail-safe device ④.
3. Install the top gasket-component (espagnolette side) ⑤ and stop plates with fail-safe device (page 66).

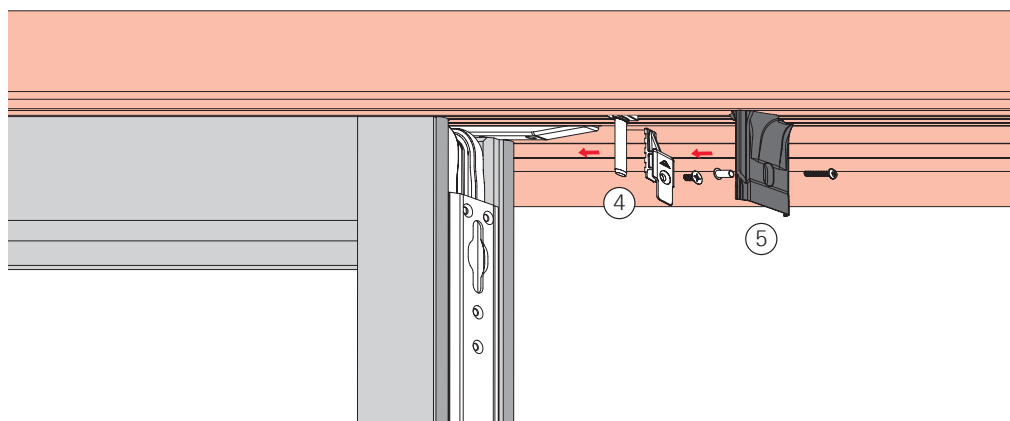
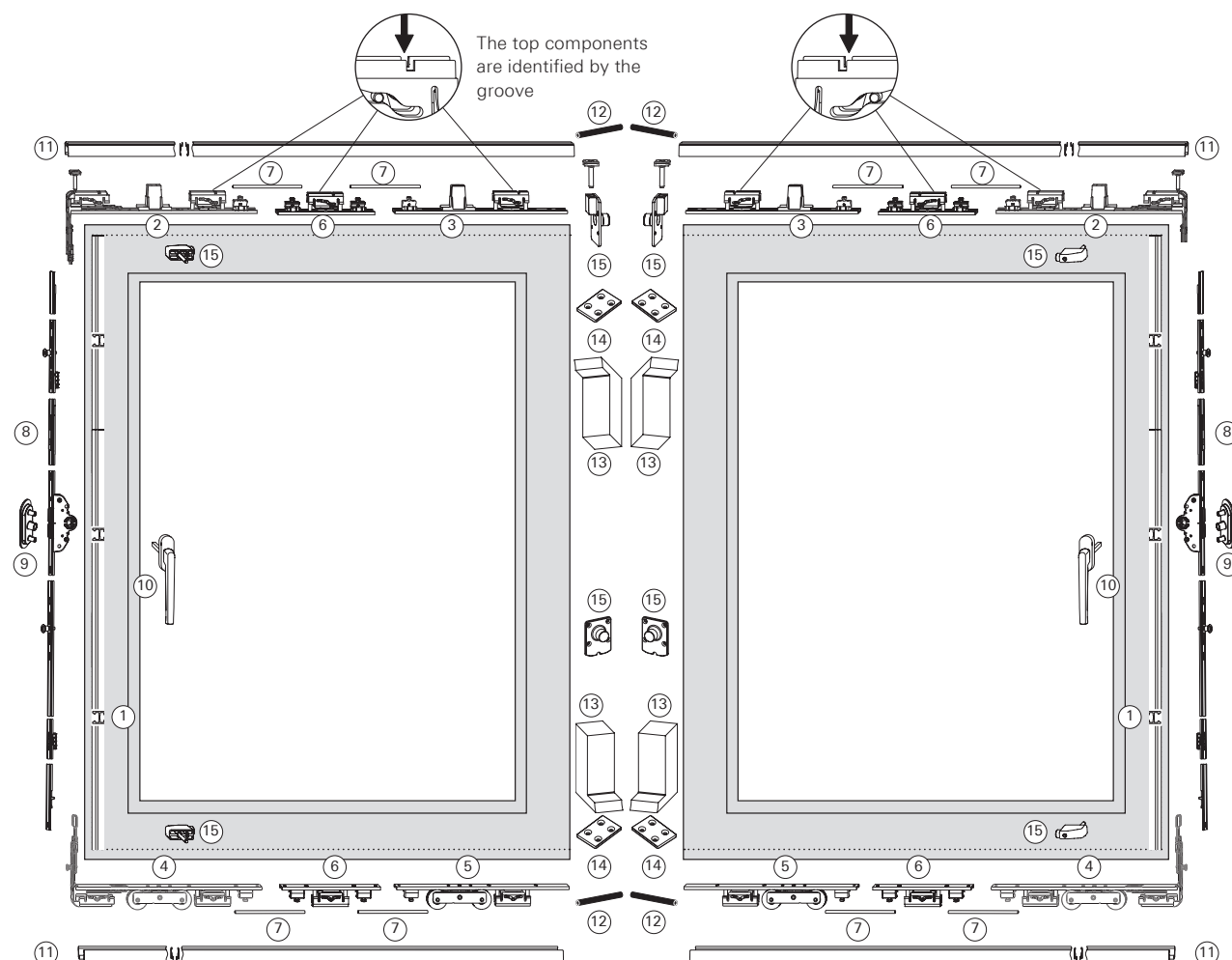


Diagram D – Sash installation Overview



Component	Installation procedure	Aid	Page
Sash	Drill the espagnolette drill-holes	Drilling jig for espagnolettes and lockable espagnolettes (373 755)	26
	Carry out the routing for the espagnolette.	Routing jig for lock and gearbox, Patio Life espagnolette (534 673)	26
	Carry out the routing for the recessed grip.	Routing jig for recessed grip (373 683)	26
① Espagnolette-sided adapter profile	Cut to length and deburr. Note: Pay heed to the correct position of the espagnolette punching. Please note: The profile may not protrude into the horizontal hardware groove.	SH – 95 mm	
② ③ Top corner and end component	Insert and screw-fix.	3.9/4.1 x 25 mm	27
④ ⑤ Bottom corner and end component	Insert and screw-fix.	3.9/4.1 x 35 mm	27
Additional components	If applicable, insert and screw-fix the 400 kg additional components.		24
⑥ Extension units	Insert and screw-fix top and bottom extension units.	3.9/4.1 x 25 mm (top) 3.9/4.1 x 35 mm (bottom)	24/27
⑦ Connecting tubes	Cut to length and deburr. Insert the connecting tubes in the components. Please note: The connecting tubes may not protrude beyond the components coupling parts. Firmly secure the connecting tubes; tightening torque: 10 Nm	4 mm Allen screw	27
⑧ Espagnolette	Cut to length. Clip in and screw-fix in the top and bottom corner components.	3.9/4.1 x 35 mm	
⑨ ⑩ Handle and recessed grip.	Attach the recessed grip with sealing compound and screw to the handle.	Sealing compound Use the screws provided	28
⑪ Lifting track	Cut to length and clip into the hardware groove.		29
All-round extruded gasket	Roll in.		29
⑫ Support profile	Insert top and bottom.		31
⑬ Mullion gasket	Install top and bottom.		63
⑭ Sealing plate	Install top and bottom.		31
⑮ End stop	Only install these after hinging the sash in the frame.		66

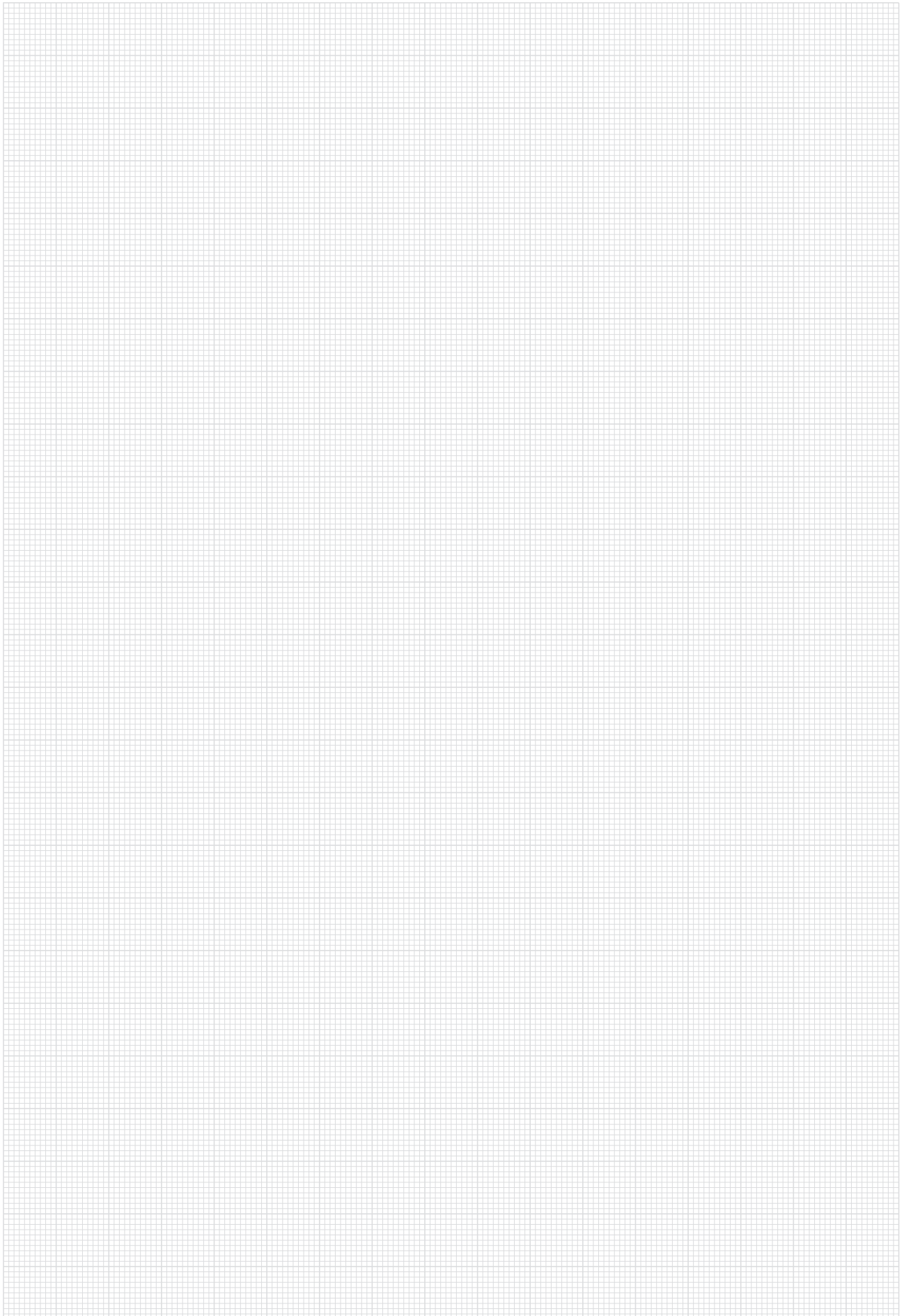


Diagram D – Sash installation

Installing the gasket components in the mullion



Installing the gasket components in the top & bottom mullion

Depiction of the sash on the weather side



1. Cut the mullion profile section at sash height and notch the extruded gasket 40 mm on the top and bottom; up as far as the gasket plane of the vertical extruded gasket ①.
2. Attach the mullion profile section with sealing compound.
3. Apply sealing compound to the gasket-components, the sash's contact surface and the extruded gasket and join together ②.
4. Mount the sealing plate and insert the top and bottom support profile.
5. Insert the moulded gasket part ③ between the lifting tracks (on the bottom weather side of the sash).
6. Insert the vertical bubble gasket between the gasket-component and trailing gasket.

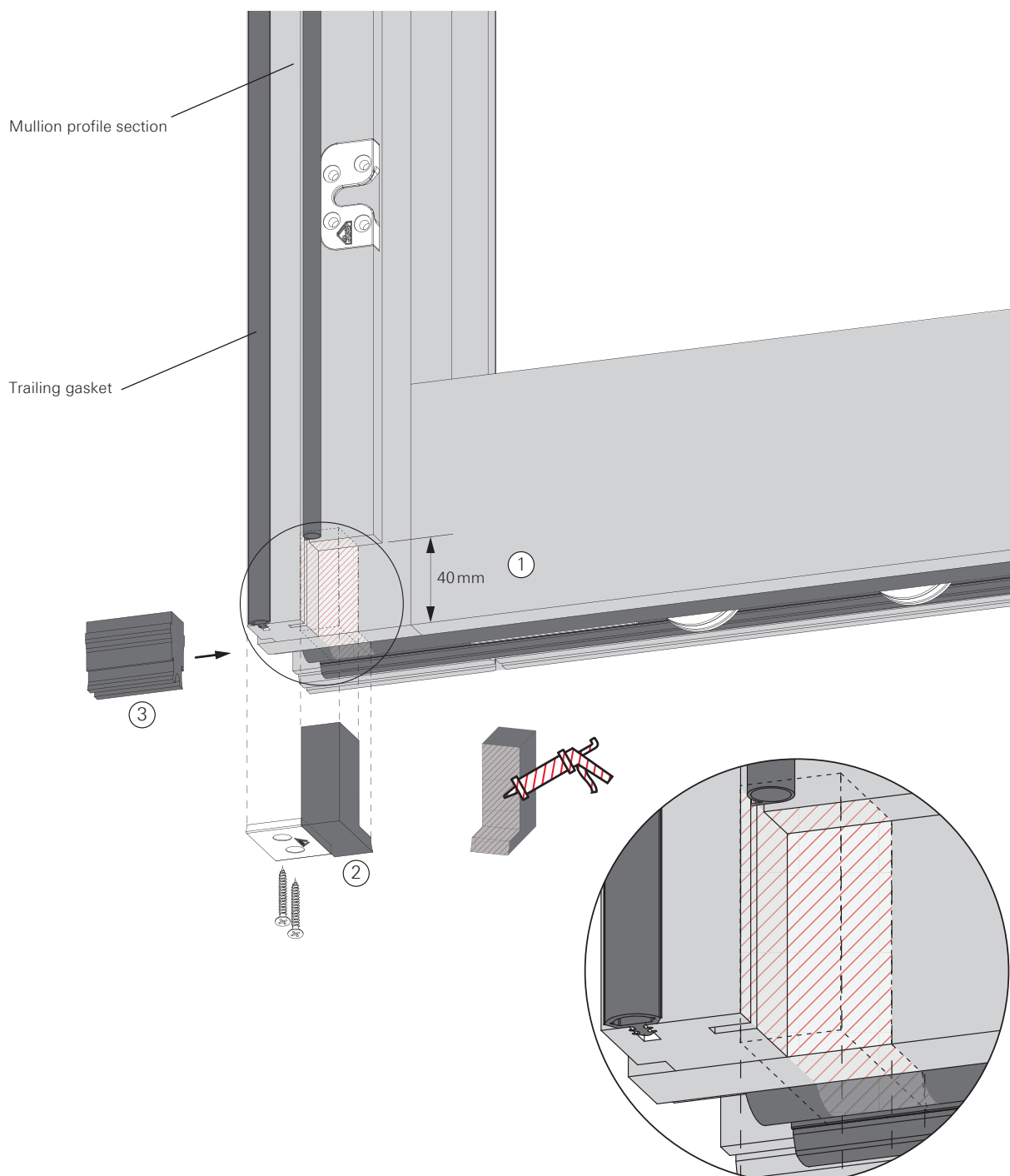


Diagram D – Threshold installation

Overview

Component	Installation procedure	Aid	Page
Frame profiles	Cut to length.		32
① Threshold	Cut to length. Drill the drainage drill-holes.	FEW ⁽¹⁾ Drainage drilling jig (499 747)	35
② Counter-blocks	Install.		36
③ Assembly profile	Cut to length. Carry out the notching for drainage on the bottom. Please note: Drill additional drainage drill-holes Ø8 mm in the roller track groove! Install	FEW/2 - 42 mm ⁽¹⁾ (end caps excluded)	35 37
Drilling-holes	Carry out on the threshold and frame.	Threshold drilling jig (495 010)	38
④ Aluminium cover for assembly profile	Cut to length for the assembly profile and install.	FEW/2 + 6 mm	37
Seal up	Cut to length for the counter-block and install. The passage area to the assembly profile and counter-block.	48 mm	39
⑤ Passage area end-caps	Install.	Sealing compound	40
⑥ Aluminium cover for the passage area	Cut to length, drill elongated holes Ø 8 x 20 mm or drainage drill-holes Ø 8 mm and install.	Actual dimension between the cover caps – 20 mm	
⑦ Roller tracks	Insert into the threshold.	2 x FIW - 2 mm	
Threshold end-caps	Install.		41
Weather profile (optional)	Cut to length and install.	FEW ⁽¹⁾ - 112 mm	
Frame sections	Connect to the threshold; use the butyl sealing strips supplied.		43
Fail-safe guide tracks	Clip in 2 sliders to each track pair in the guide tracks.	4 x FIW	44
Gasket-component	Install on the espagnolette-side top and bottom as well as on the top and bottom mullion.		45 45
Striker strips or strikers	Install.		48
Centre-closer	Install.		50
Hinge the sash into the frame	Please note: Position a slider left and right of the sash respectively.		66
Stop plates	Install.		66
End stops	Install.		66
Threshold on site	Pack up the threshold every 300 mm over the entire length! Max. permissible unevenness over the whole threshold: 2 mm! Continuous packer over the whole surface recommended.		

⁽¹⁾ Frame profile 171 x 56 mm, sash profile 92 x 68 mm, on symmetrical version

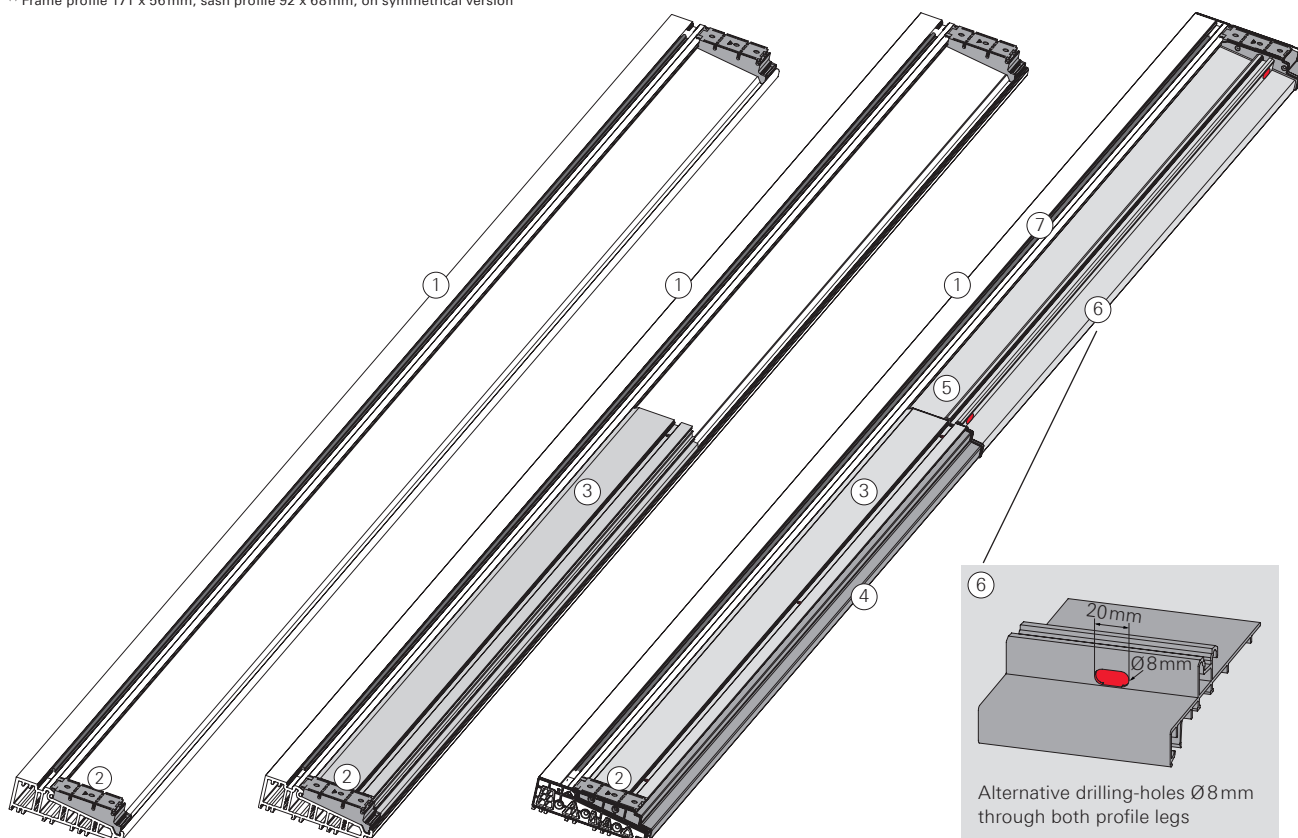
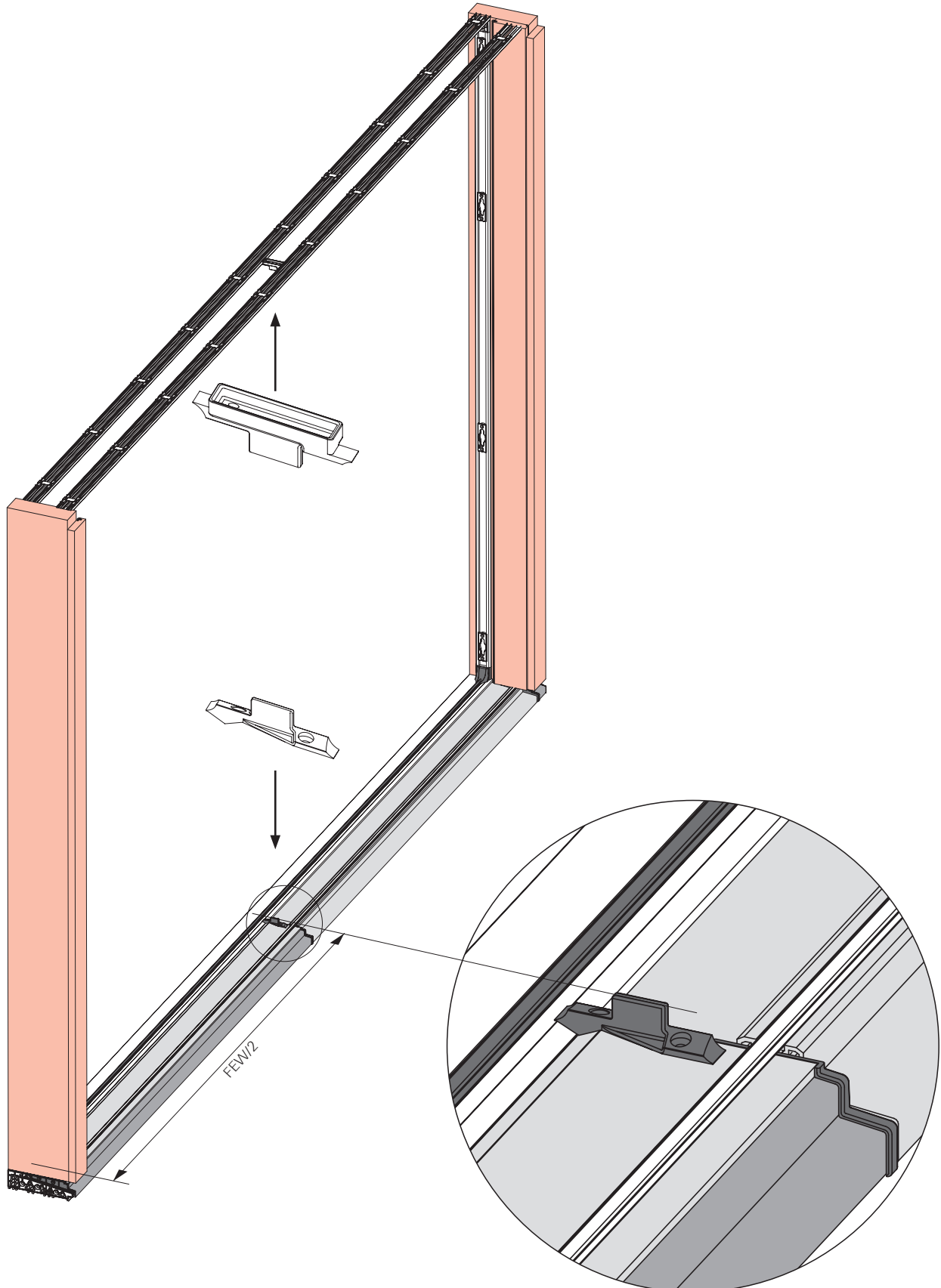


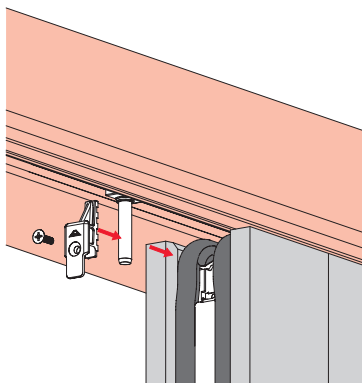
Diagram D – Frame installation Overview



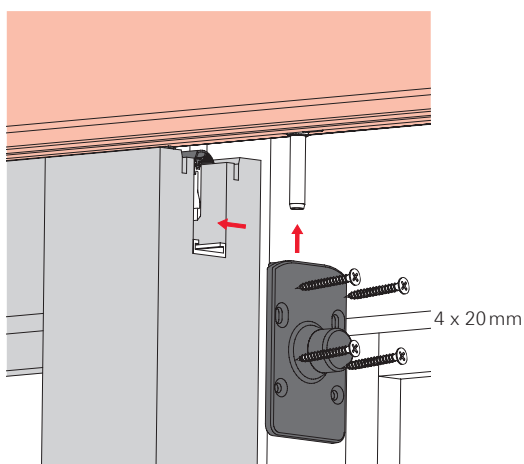
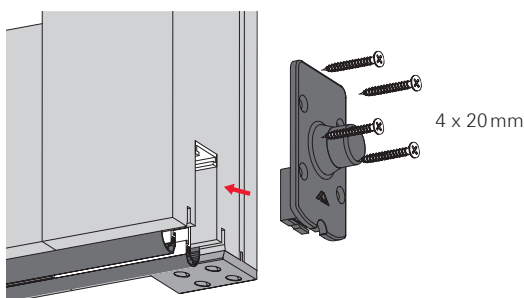
1. Position the top and bottom mullion gasket FEW/2, apply with sealing compound and screw-fix Ø3.5-4.2 x 25 mm.



Installing the espagnolette-sided fail-safe device

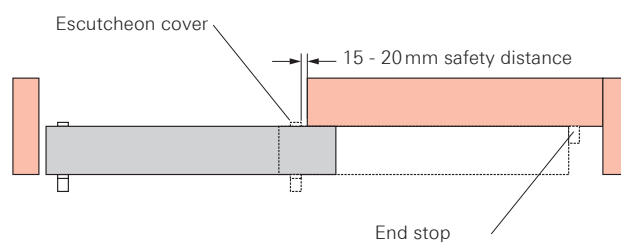


Installing the rear-side stop plates



Installing the end stop

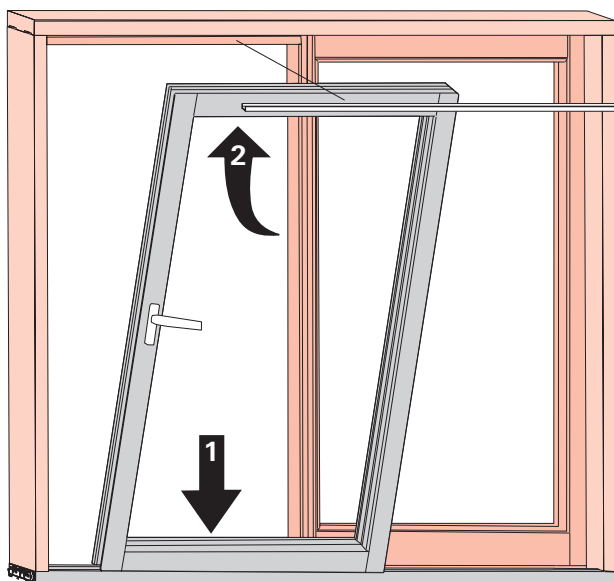
1. Slide open the door up to the safety distance.
2. Transfer the rubber buffer's dimensions onto the fixed unit + 45 mm and drill the steel cylindrical pin's Ø 8 mm drill holes approx. 30 mm deep.
3. Insert the steel cylindrical pin into the end stop, position the end stop on the fixed unit, align the rubber buffer and screw-fix with the enclosed screw.





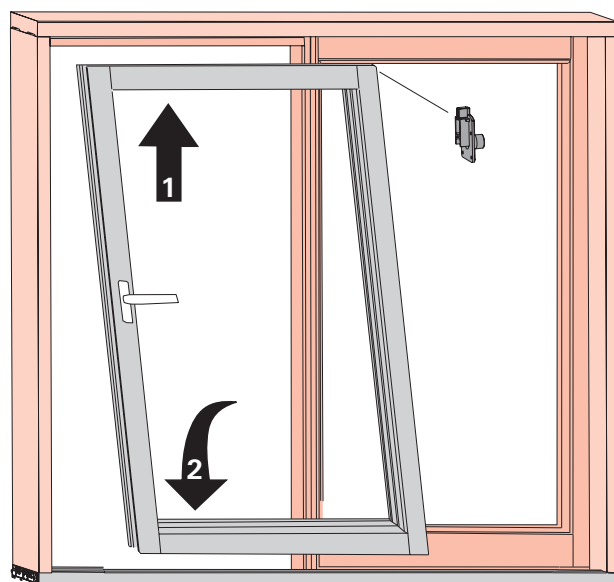
Hinging the sash

Version 1



Hinging the door on the bottom first:
Ideal for large and/or heavy doors.

- Remove the front top guide-track from the frame.
- Move the handle into the "sliding position".
- Place the sash rollers on the roller track.
- Position the sash with adapters against the top rear guide track, and then clip in the front guide track. It may be necessary to move the sash for this purpose, so that the guide track engages in the striker plates.



Version 2

Hinging the door on the top first:
Ideal for standard doors.

- The top stop-plate may not be installed yet.
- Move the handle into the "sliding position".
- Push the sash with adapters between the two top guide tracks, then position the sash on the bottom via the roller track and place the rollers on the roller track.
- The stop plate can now be screwed on.



Maintenance and operating information

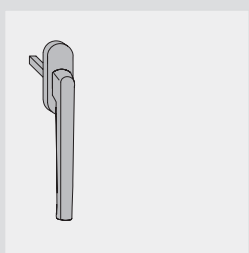
Maintenance

In order to ensure perfect permanent hardware operation, the following maintenance operations and/or inspections should be carried out:

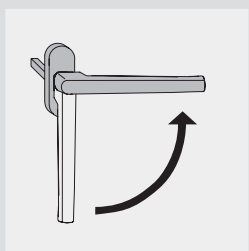
- Free all hardware components from lime, cement and mortar splashes to prevent malfunctions due to obstruction.
The (bottom) roller track must always be kept clean.
- Oil or grease all movable parts and all locking points at least once a year.
Use only acid-free oil or grease. For example; Roto material number 457 464!
- Adjusting sash (gasket) compression: By adjusting the cams, the gasket-compression can be changed.

Sliding hardware adjustments are only to be carried out by a specialist company!

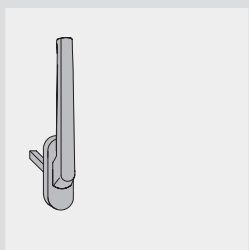
Operation



1. Locked position



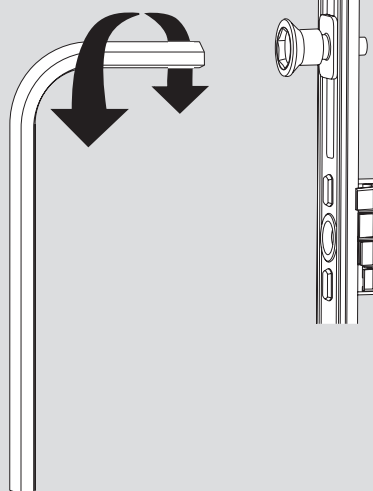
2. Sliding position



3. Night-vent position

Gasket-compression adjustment

Gasket-compression adjustment + 2 / - 1



6 mm Allen key



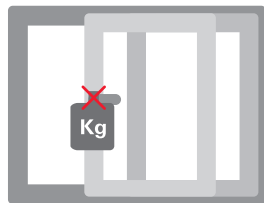
Risk of falling out!

Proceed cautiously in the vicinity of open windows and balcony doors. Please keep children and persons that cannot appreciate the danger away from the hazard area.



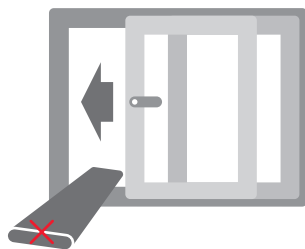
Risk of injury!

There is a risk of injury by catching one's fingers or other body-parts in the opening gap between the sash and frame. While closing, do not grasp between the sash and frame.



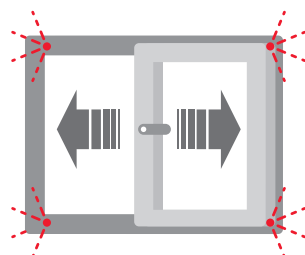
Risk of injury and property damage!

Risk of injury and the risk of damage to property due to additional sash loading. Refrain from additionally loading the sash.



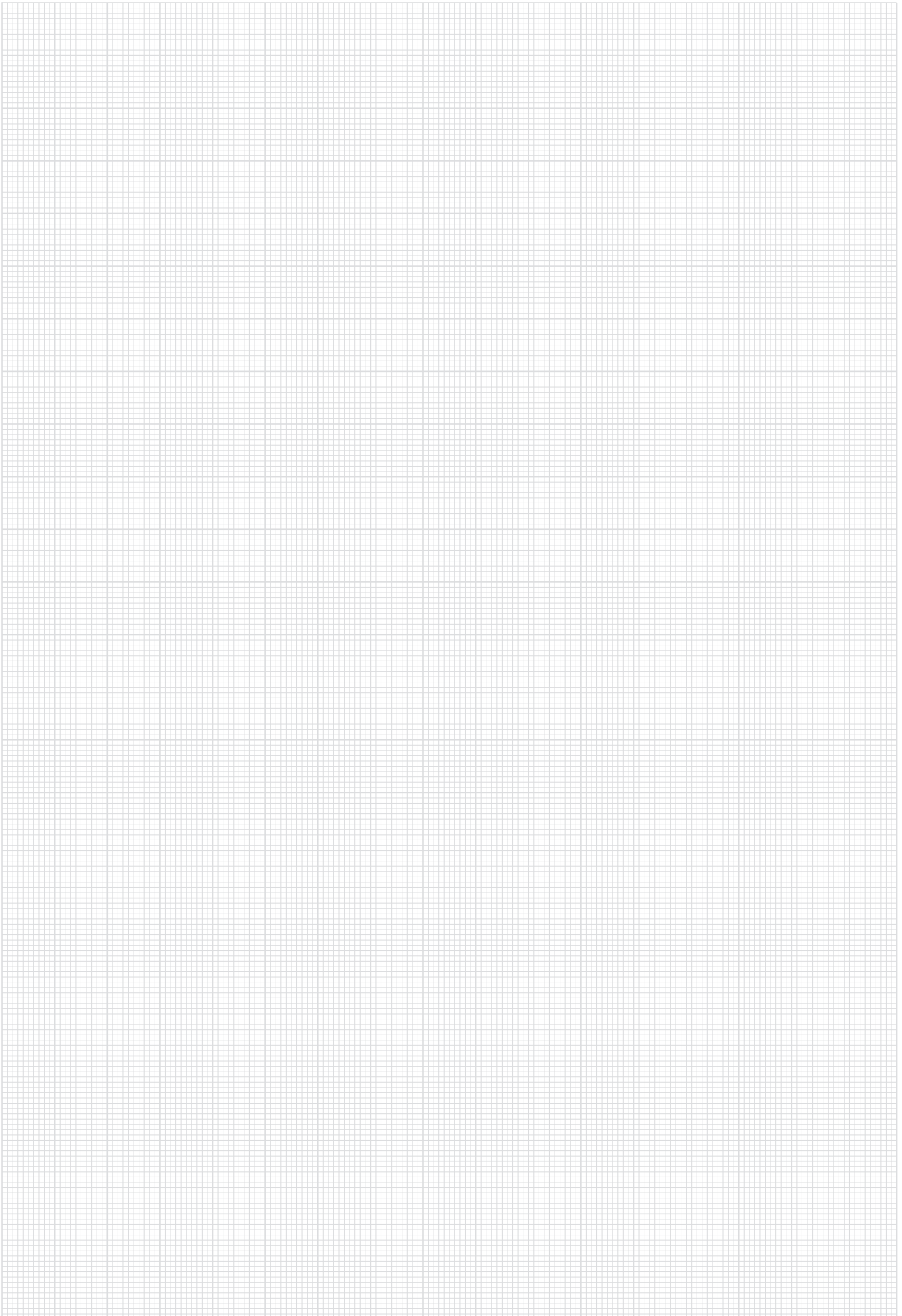
Property damage!

There is a risk of damaging property by inserting obstacles in the opening gap between the sash and the frame. Refrain from inserting obstacles in the opening gap between the sash and the frame.



Property damage!

Injury and property damage can arise from uncontrolled opening and closing of the sash. Ensure that everything is carried out slowly by hand during the whole range of movement.





Creates inner values

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MS / B&N Dated: August 2013. Subject to change. IMO_322_EN_v2
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