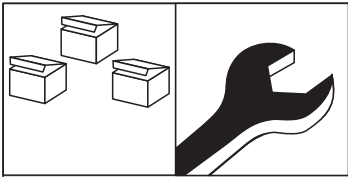


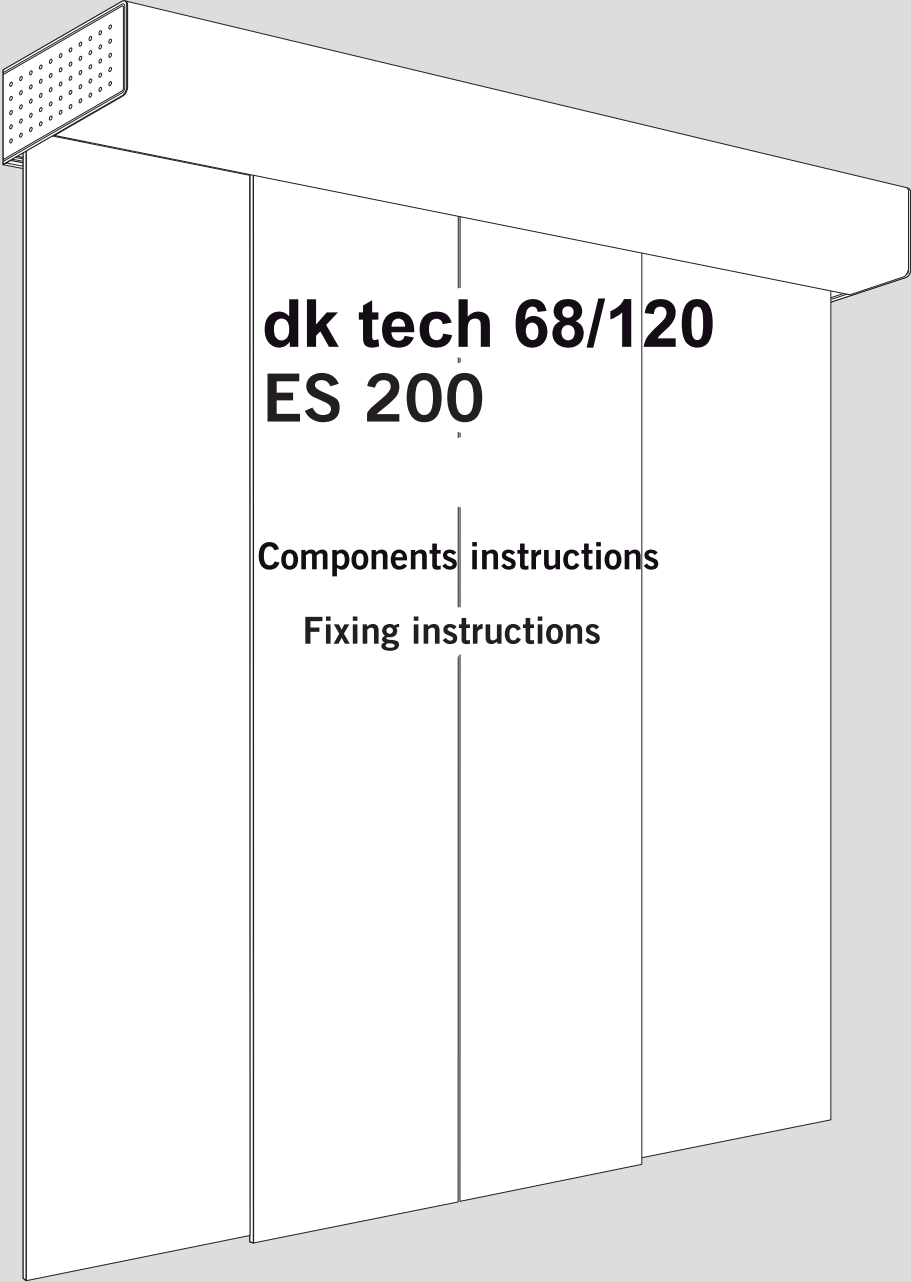
dk tech 68/120 / ES 200

Components instructions

Mounting instruction



	dk tech 68	dk tech 120	ES 200
	m = 1 x 90 kg	m = 1 x 130 kg	m = 1 x 200 kg
	m = 2 x 80 kg	m = 2 x 120 kg	m = 2 x 160 kg

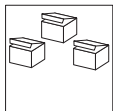


dk tech 68/120

ES 200

Components instructions

Fixing instructions



Components Instructions Fixing instructions

including drawings and descriptive texts.

Drawings and texts with the same designation i.e.

1A **1A** belong together.

Drawing and text with designation e.g. **1A**
belong to wall fixing

Drawing and text with designation e.g. **1B**
belong to corridor fixing

Drawing and text with designation e.g. **1c**
are fixing variants

Before fixing:



Important!

This documentation is applicable for the following electro-mechanical sliding door operators:
dk tech 68/120, ES 200.

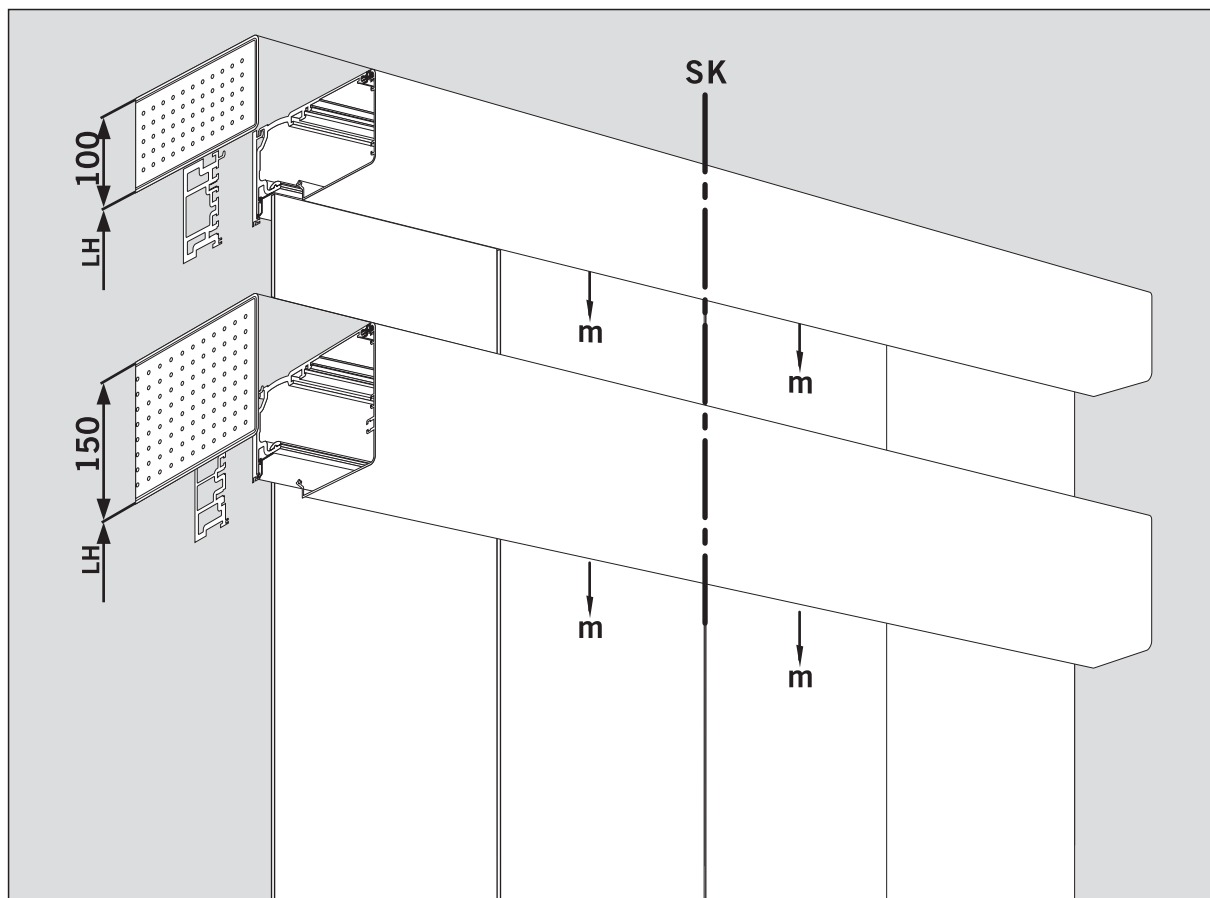
Discrepancies between the drawings and the actual drive unit are irrelevant and do not effect the fixing.

Differences in function and fixing between the drive units are mentioned and indicated by the following instructions or in a similar way:

- only for ES 200
- only for dk tech 68
- only for dk tech 120

dk tech 68/120 / ES 200

Components instructions



GB



to measure



to saw



to deburr



to bore



to lower



to screw



to cut threads



to peg



Work on electrical equipment may only be performed by properly qualified electricians.

Before on-site installation: Please check electrical connections.

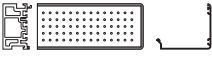
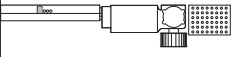
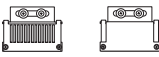
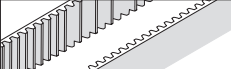
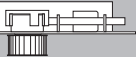
In case the system has not yet been connected to the power supply (by others):

Connect the rechargeable battery pack - only for testing purposes.

Disconnect rechargeable battery pack from control unit when taking the system out of operation.

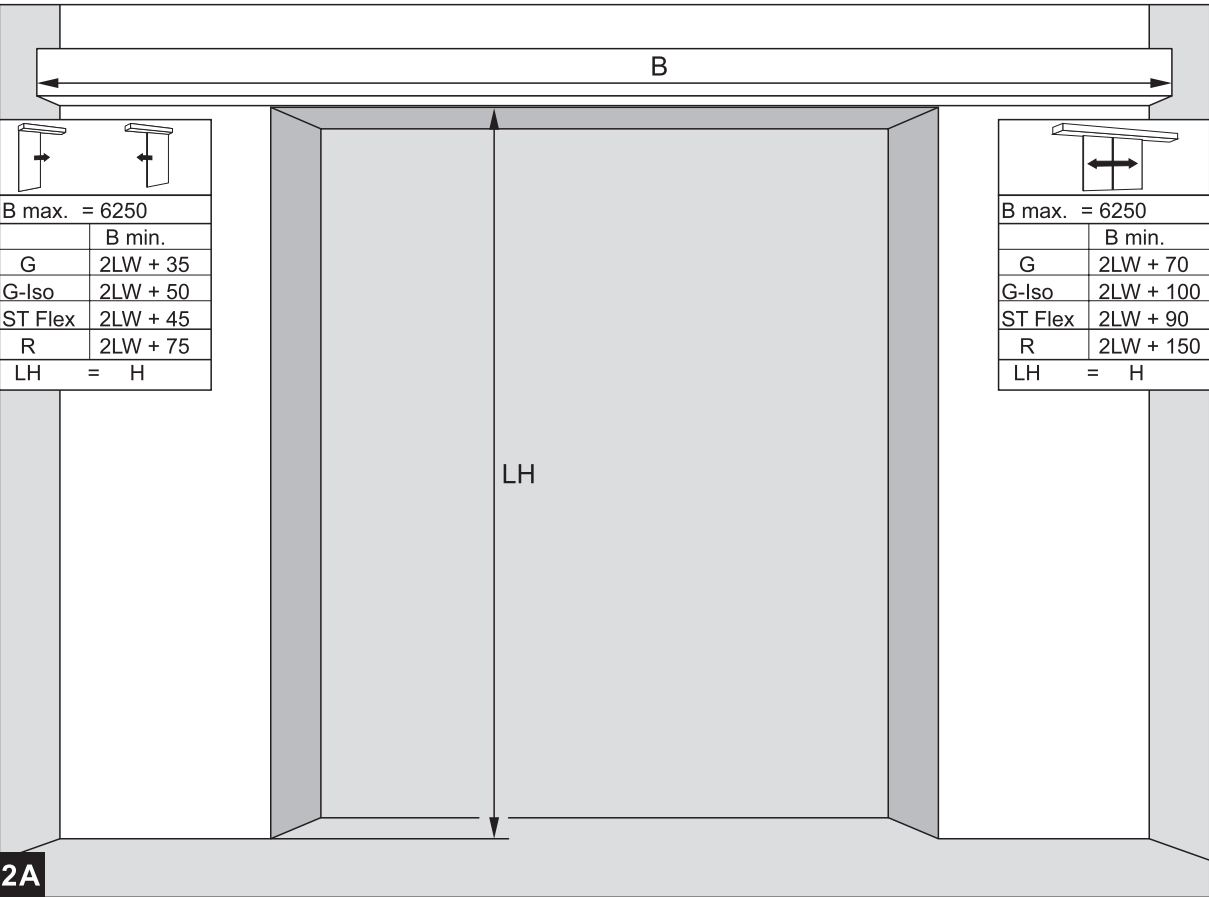
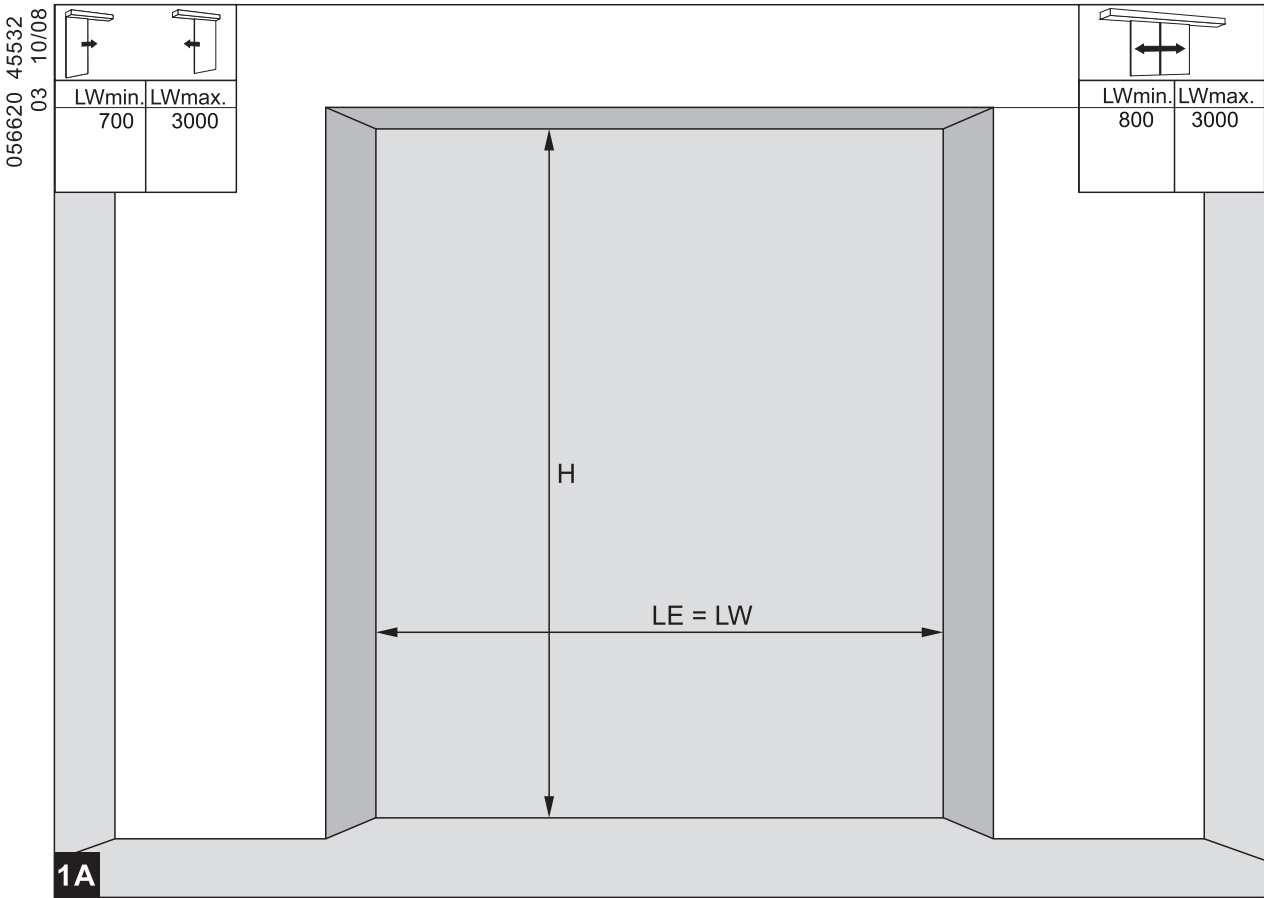
dk tech 68/120 / ES 200

Components instructions

	
	1-leaf door
	1-leaf door without sidepanel
	double leaf door
	double leaf door without sidepanel
	cover for mounting girder 100 mm
	cover for LM-girder 100 mm
	cover for LM-girder 150 mm
	cover for LM-girder 150 mm
	mounting profile with track profile and door stop
	mini drive unit
	carrige for door panel above 100 kg
	engaging unit
	drive belt 2 x LW + 700
	deflection device
	locking unit
	release mechanism
	accumulator
	program switch
	emergency stop switch
	radar motion detector

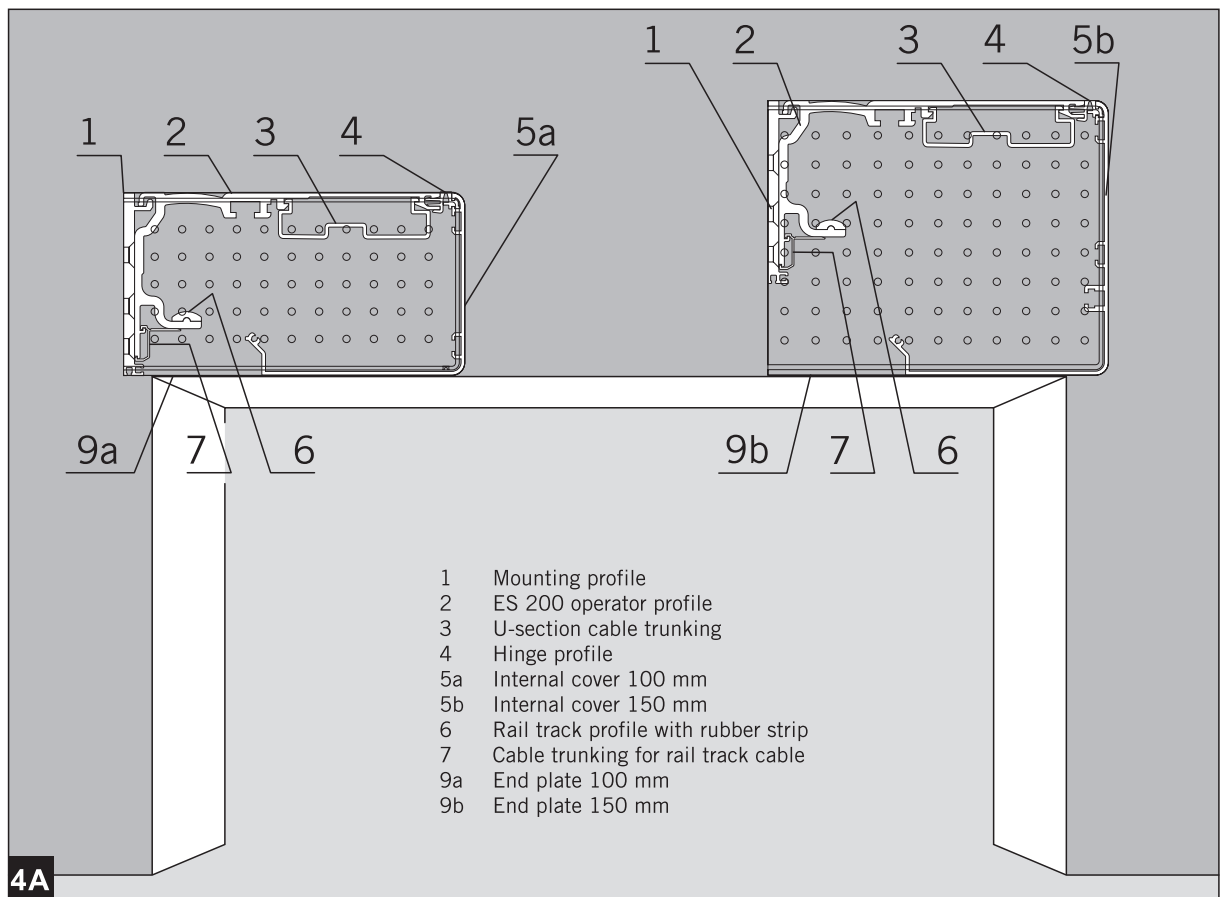
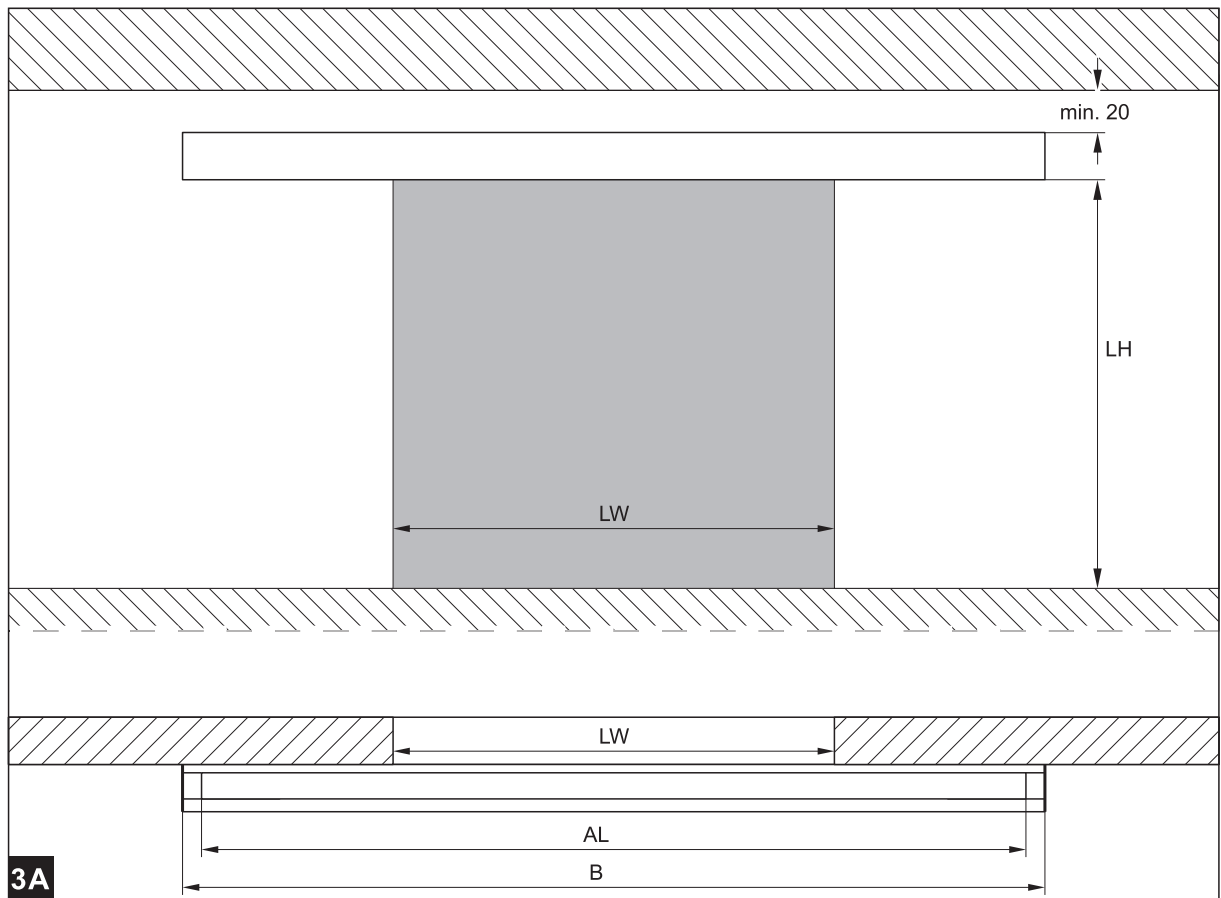
dk tech 68/120 / ES 200

Components instructions



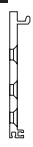
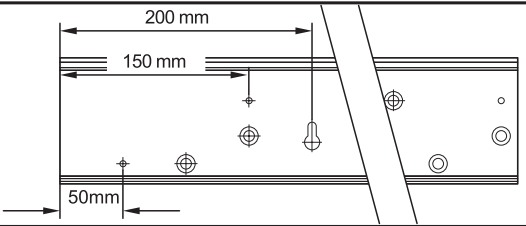
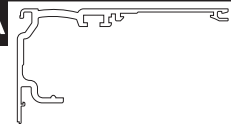
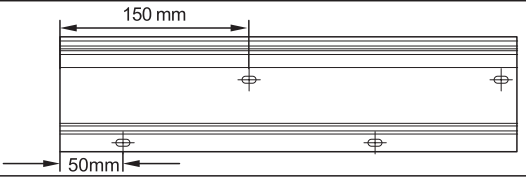
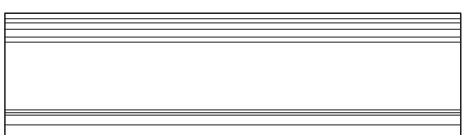
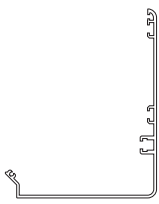
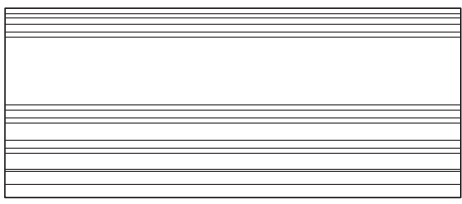
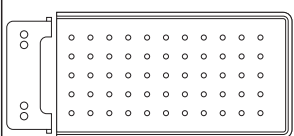
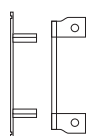
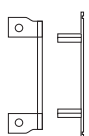
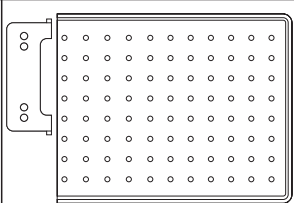
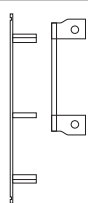
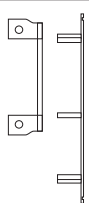
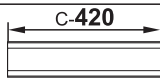
dk tech 68/120 / ES 200

Components instructions



dk tech 68/120 / ES 200

Components instructions

							
1	•	AL	-	-	-	7A 	
2	•	AL	-	-	-	7A 	
3	-	-	-	-	-		
4	-	-	-	-	-		
5a	•	AL					
5b	•	AL					
6	-	AL	-	-	-		
7	•	AL	-	-	-		
8a	-	-	-	-	-		 
8b	-	-	-	-	-		 
	•	•				9a 	 
5A							

dk tech 68/120 / ES 200

Components instructions

Technical drawing of a door frame showing dimensions and formulas for width (B) and height (LH).

Width (B) Formulas:

- $B = LE - 10$
- $B = 2LW + 100$ (for G)
- $B = 2LW + 100$ (for G-Iso)
- $B = 2LW + 90$ (for ST Flex)
- $B = 2LW + 110$ (for R)

Height (LH) Formula:

- $LH = 3000$

Door Frame Details:

- Top: $B = LE - 10$
- Left: $LW \min.$ (700), $LW \max.$ (3000)
- Right: $LW \min.$ (800), $LW \max.$ (3000)

Door Frame Options:

	LE min.
G	$2LW + 100$
G-Iso	$2LW + 100$
ST Flex	$2LW + 90$
R	$2LW + 110$

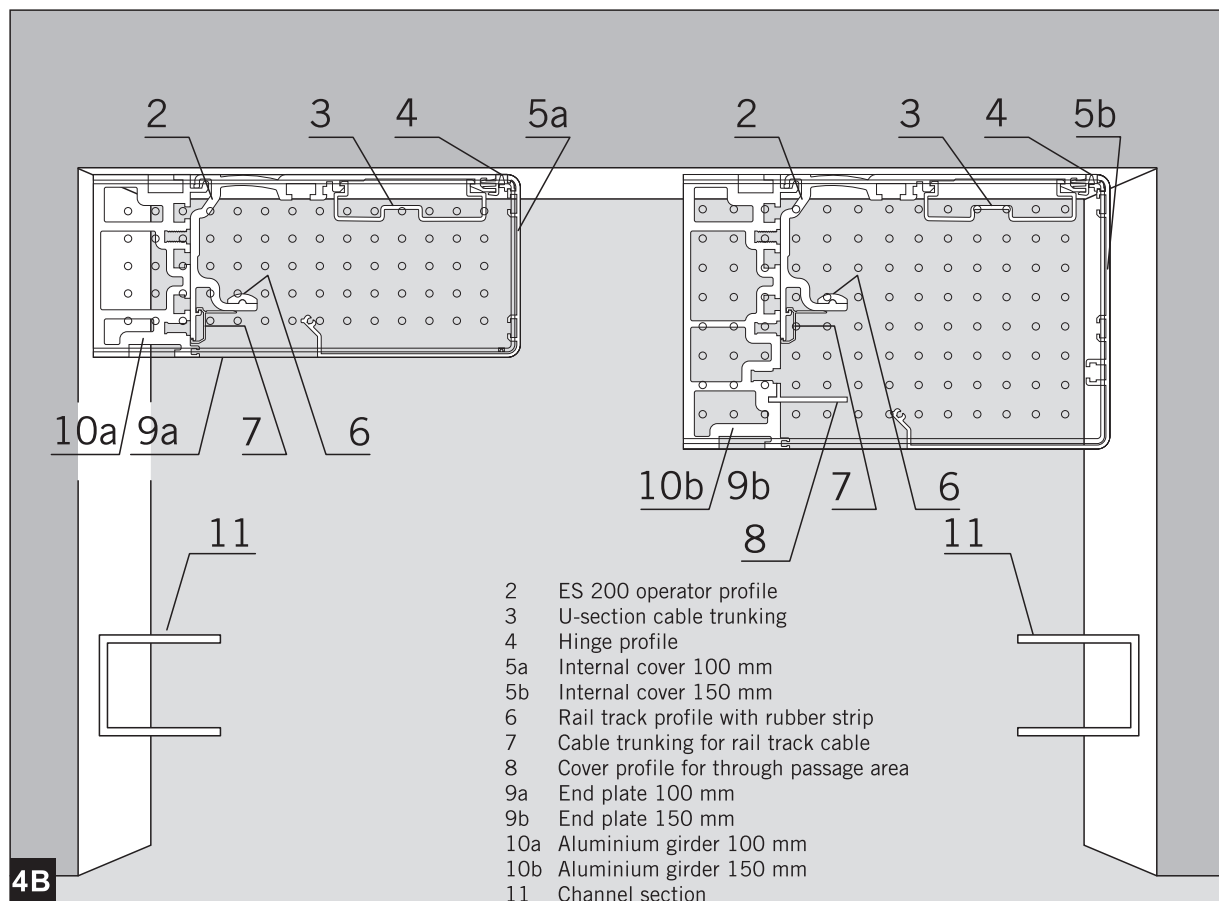
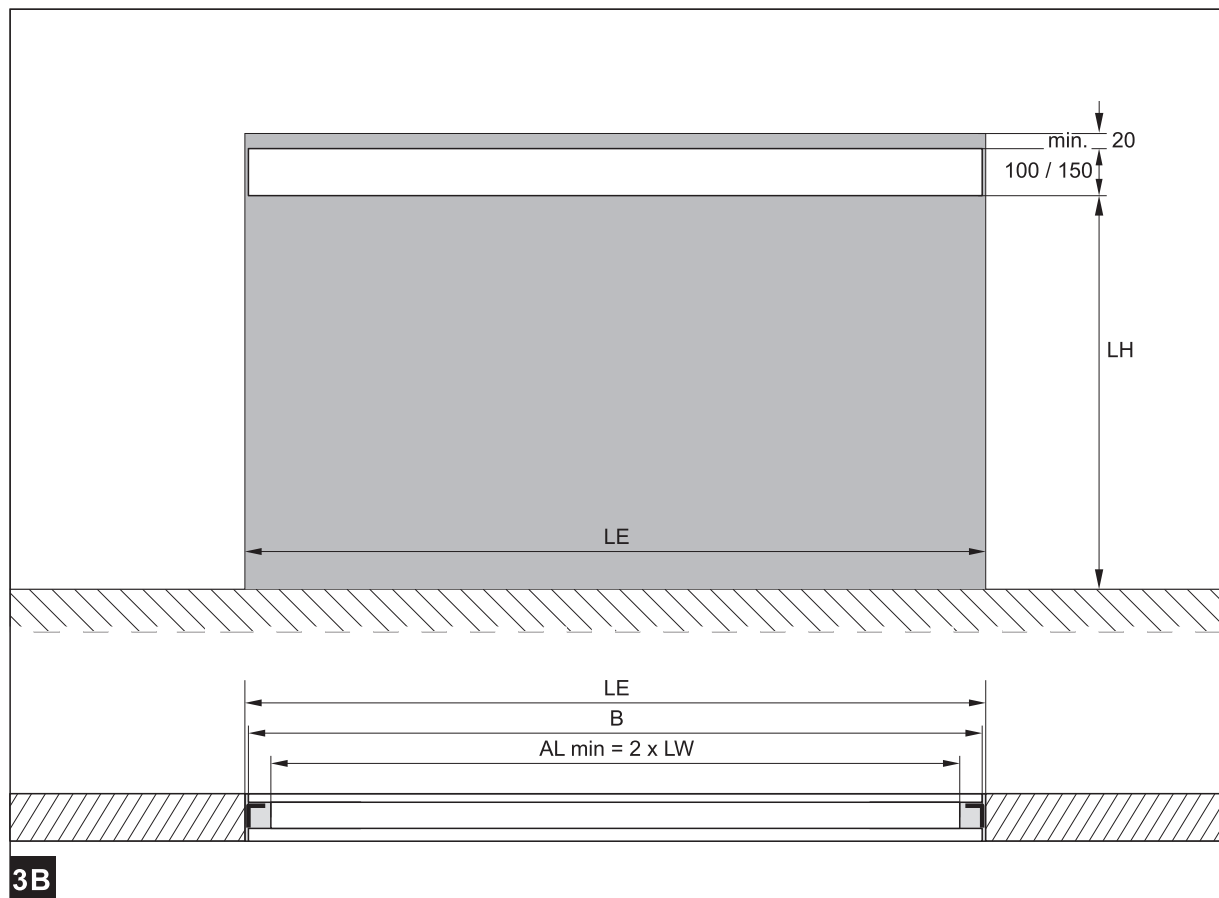
Door Frame Options (Right):

	LE min.
G	$2LW + 140$
G-Iso	$2LW + 180$
ST Flex	$2LW + 180$
R	$2LW + 230$

2B

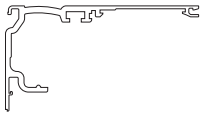
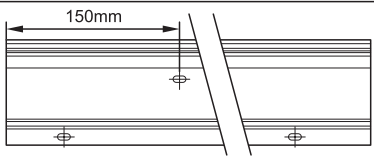
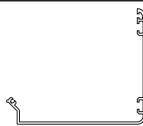
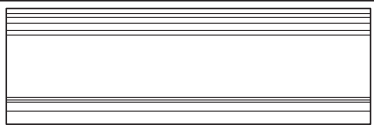
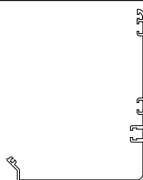
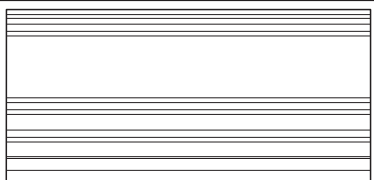
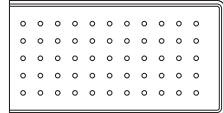
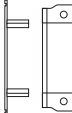
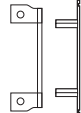
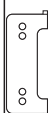
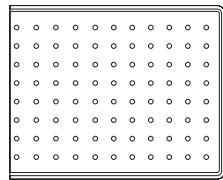
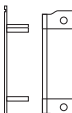
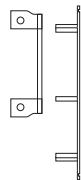
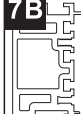
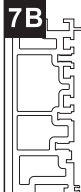
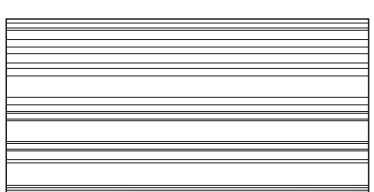
dk tech 68/120 / ES 200

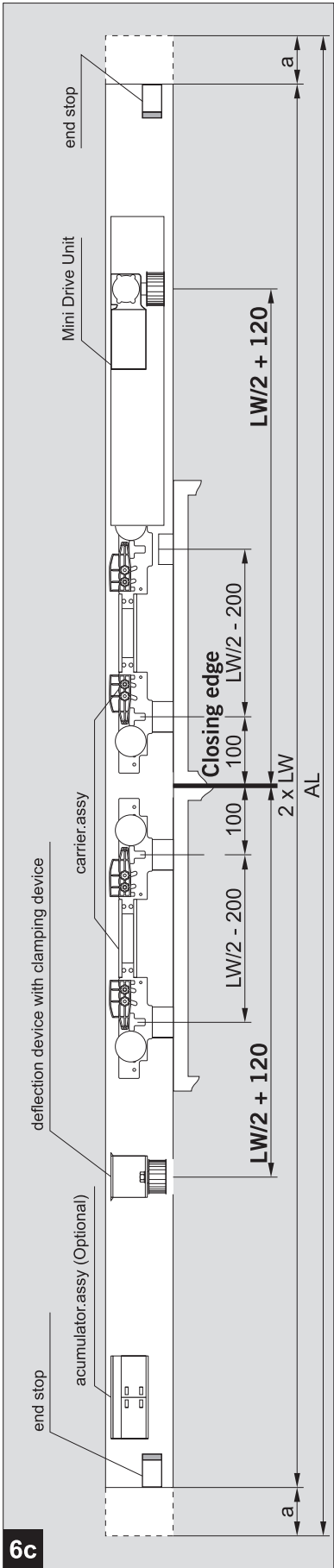
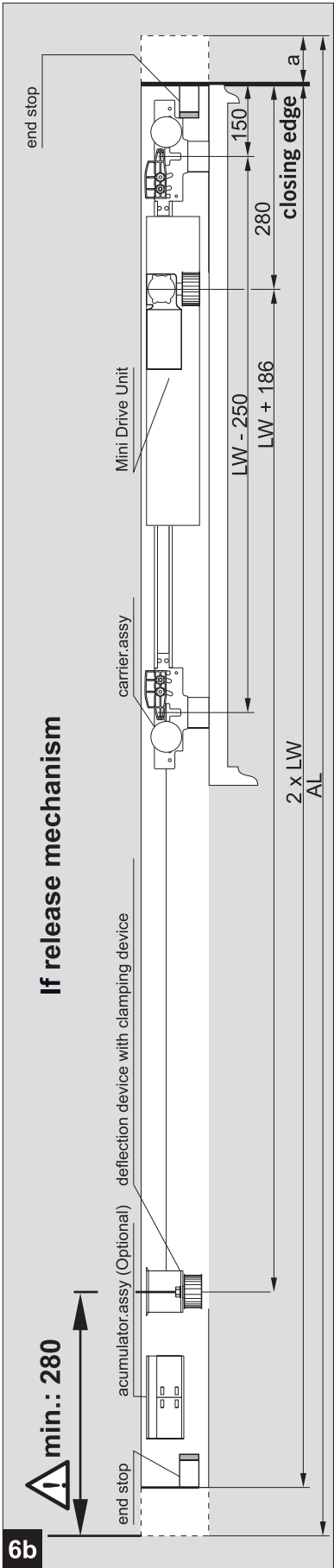
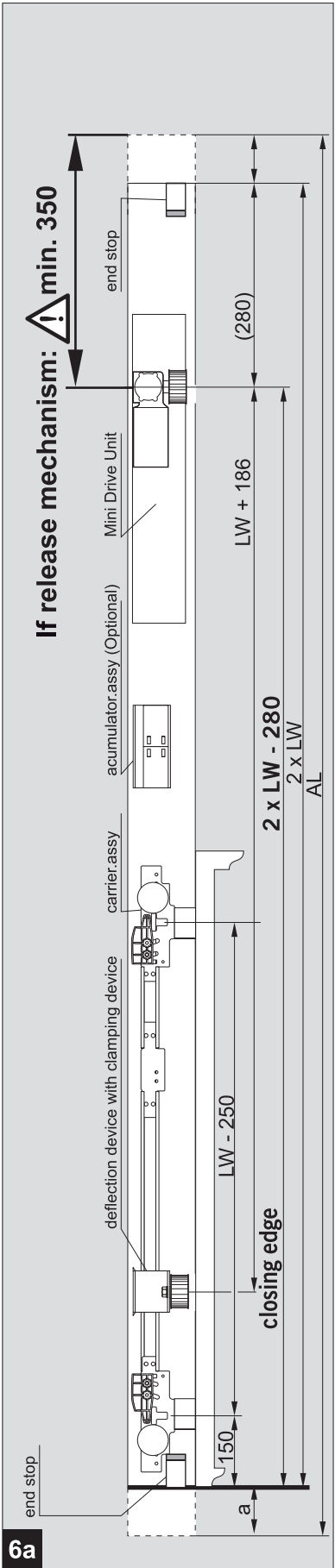
Components instructions

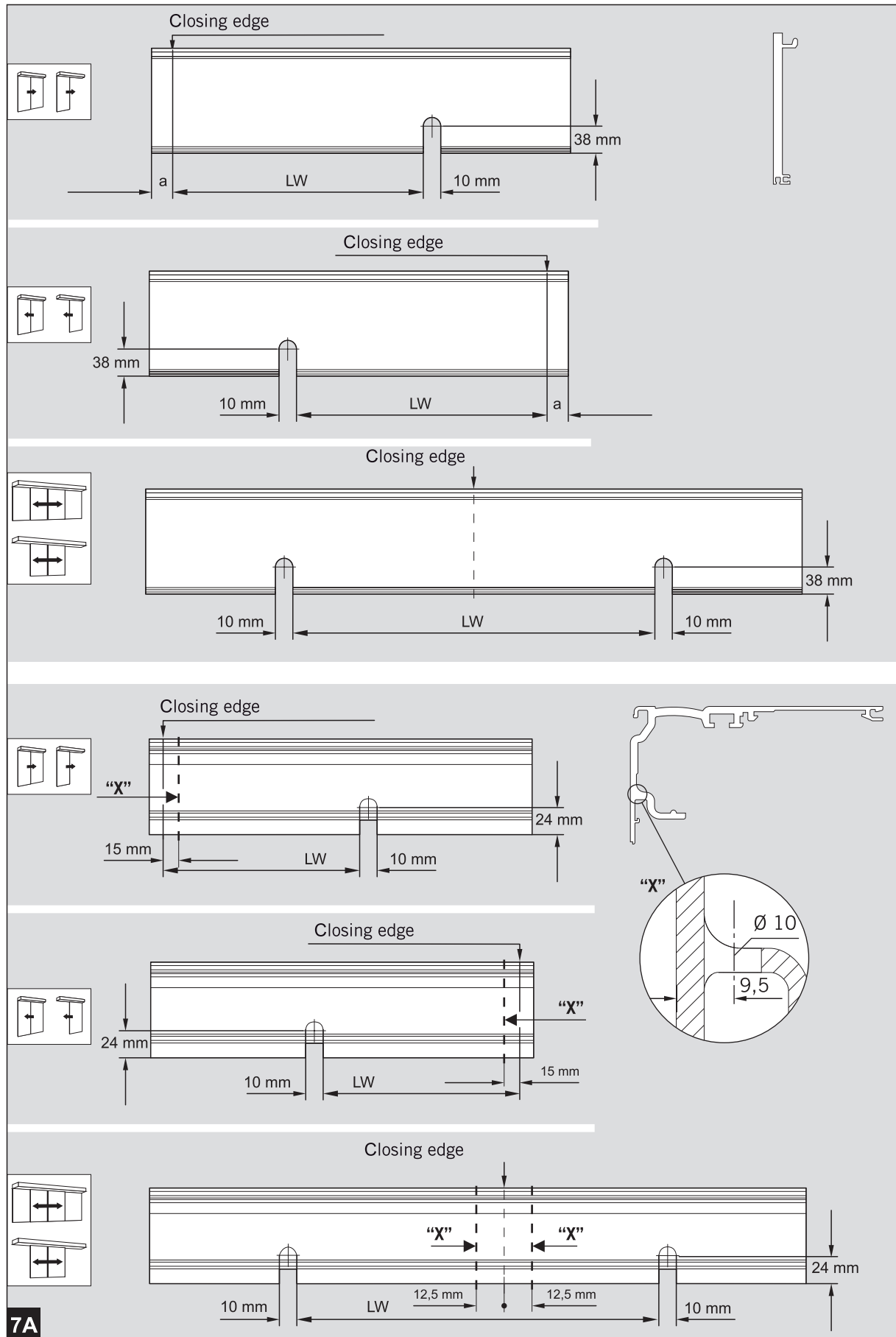


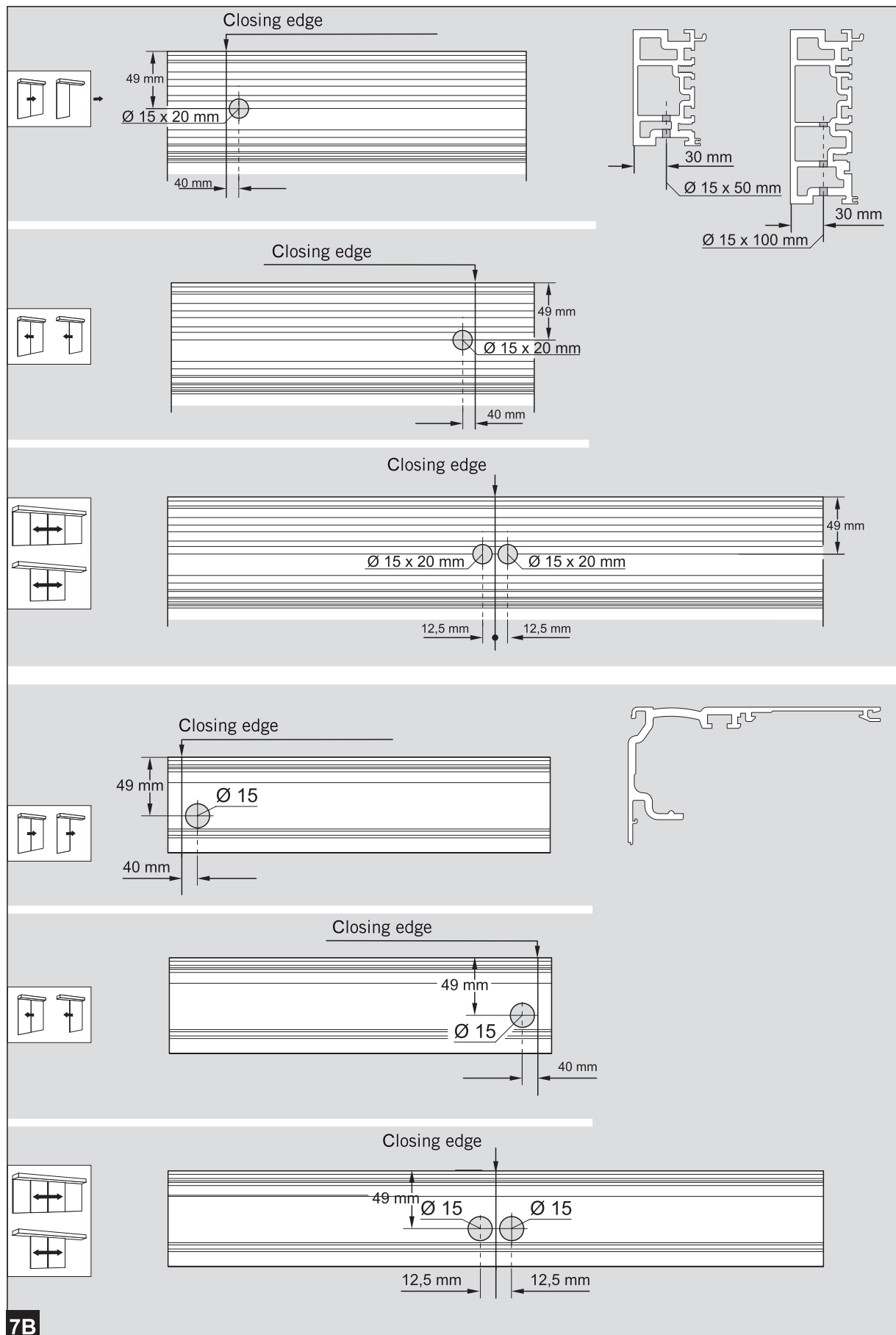
dk tech 68/120 / ES 200

Components instructions

							
1	-	-	-	-	-		
2	•	AL	-	-	-	7B 	
3	-	-	-	-	-		
4	-	-	-	-	-		
5a	•	B					
5b	•	B					
6	-	AL	-	-	-		
7	•	AL	-	-	-		
8	•	AL	-	-	-		
9a	-	-	-	-	-	 	 
9b	-	-	-	-	-	 	 
10a	•	B				7B 	
10b	•	B				7B 	
	•	•				9a 	
5B							

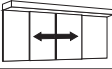
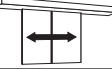


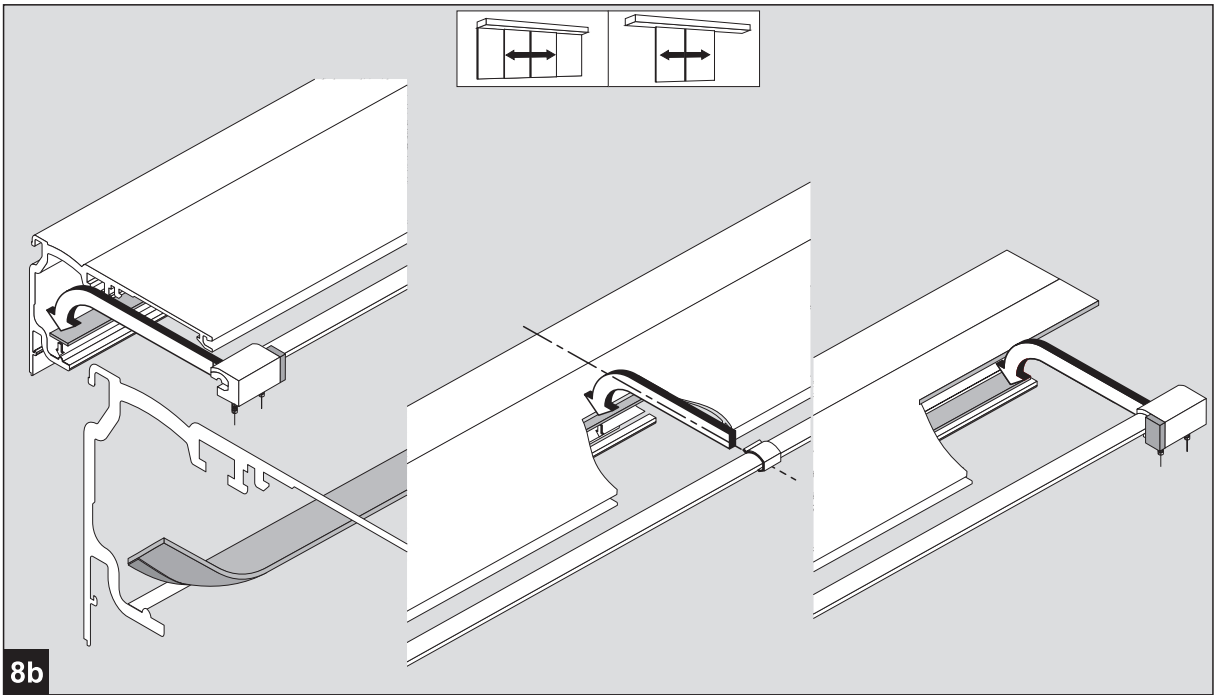
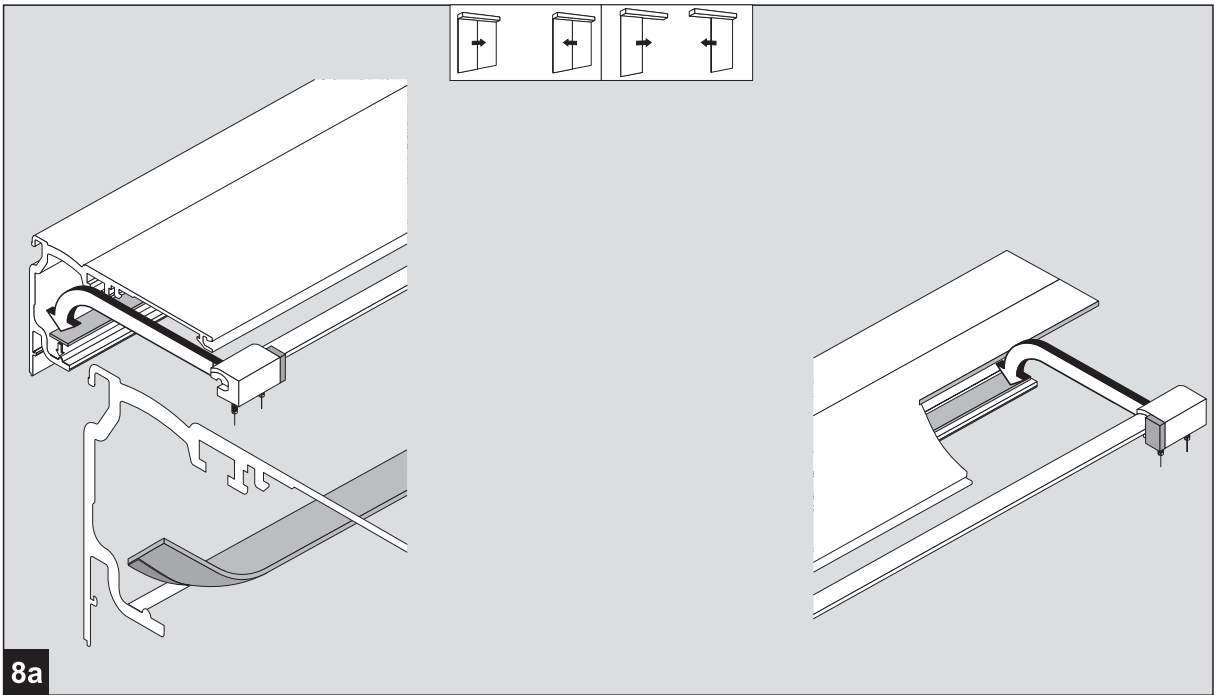




dk tech 68/120 / ES 200

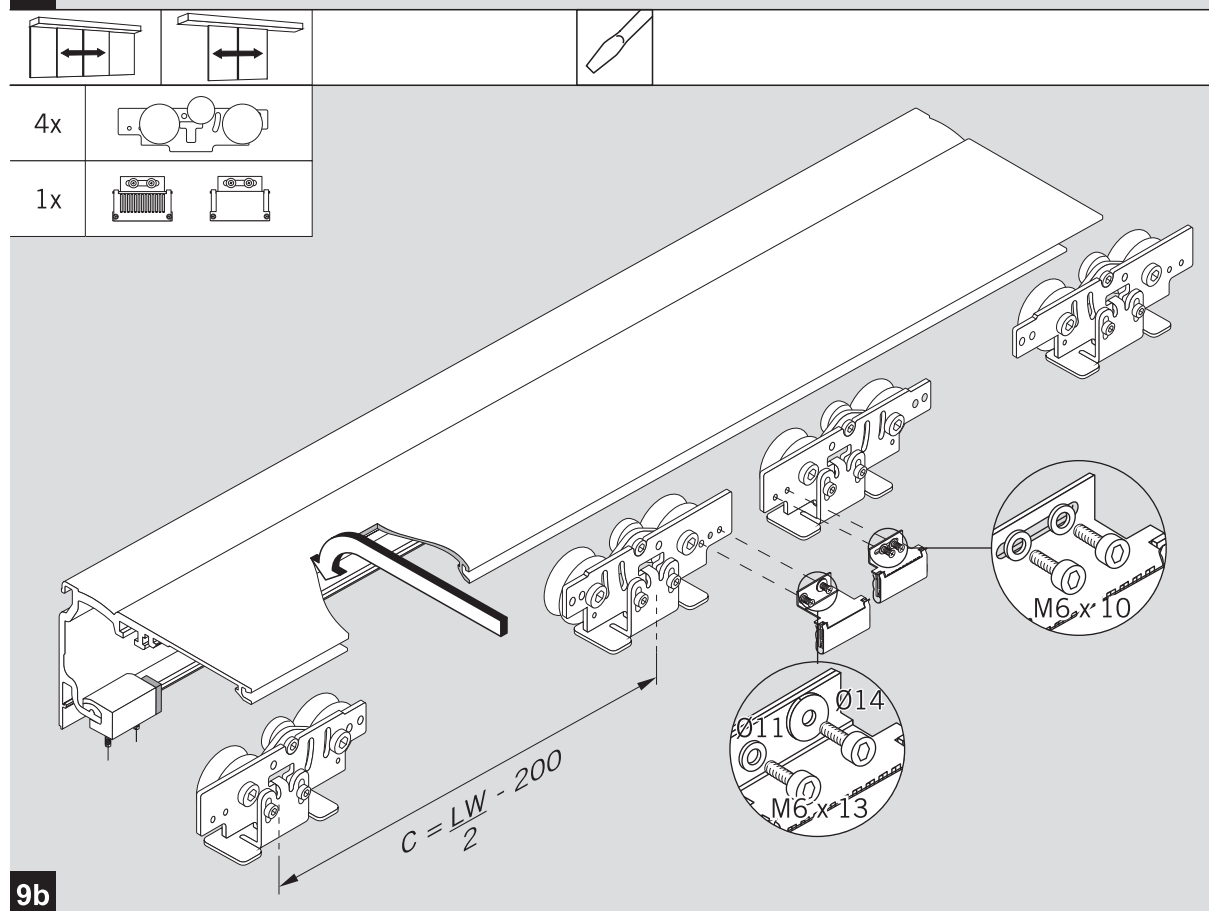
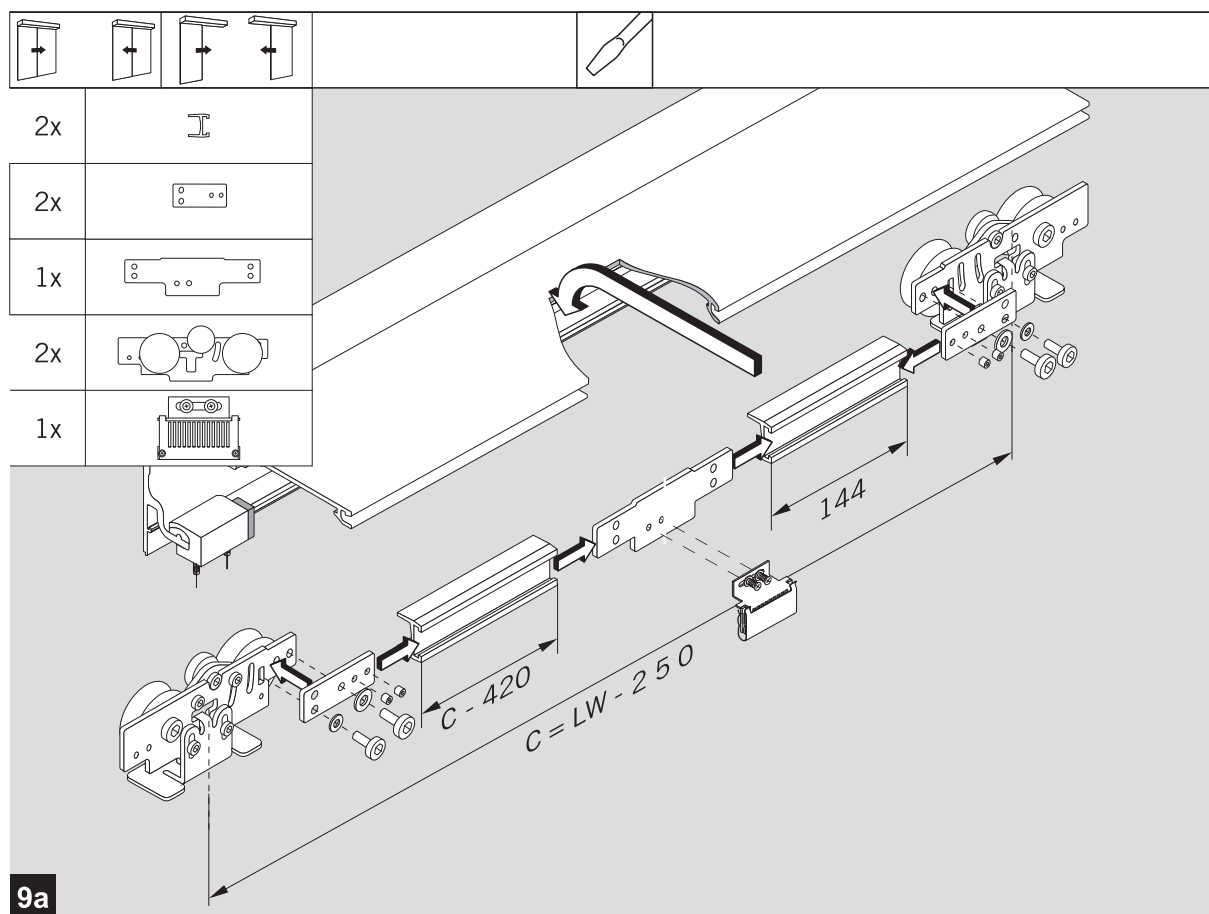
Components instructions

				1x		1x		
				1x		1x		
				1x		1x		
				1x	 	1x		
						1x		



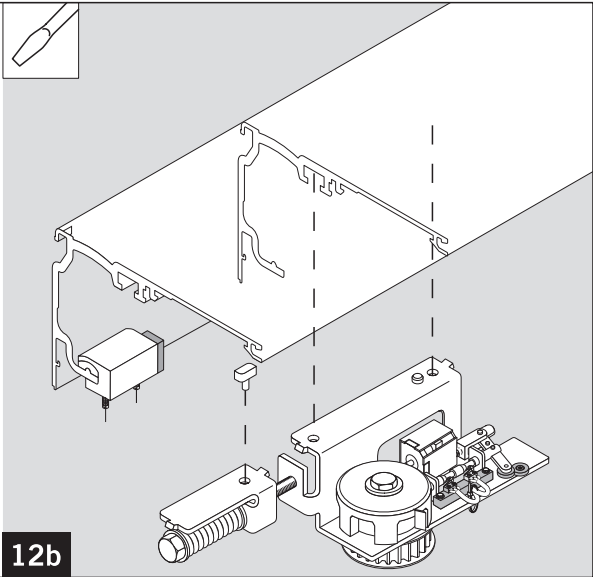
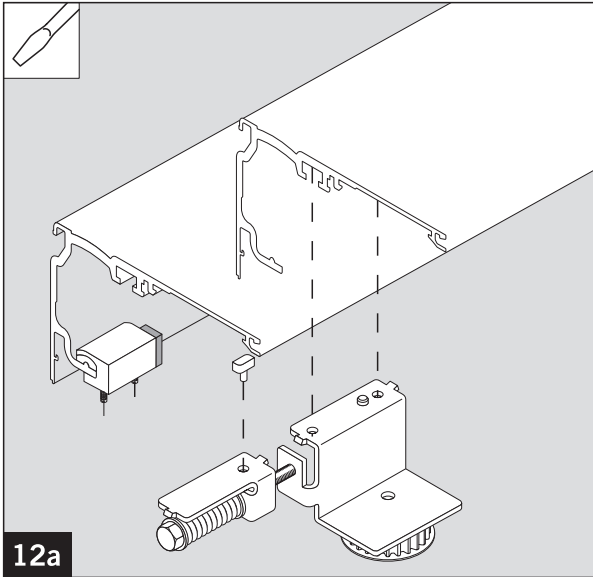
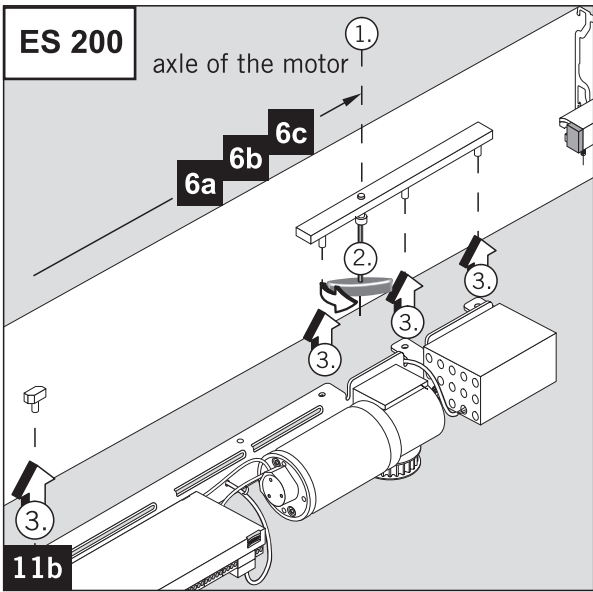
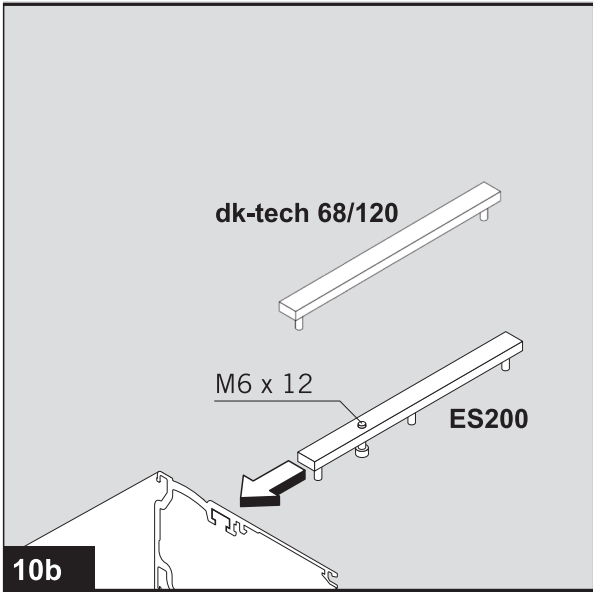
dk tech 68/120 / ES 200

Components instructions

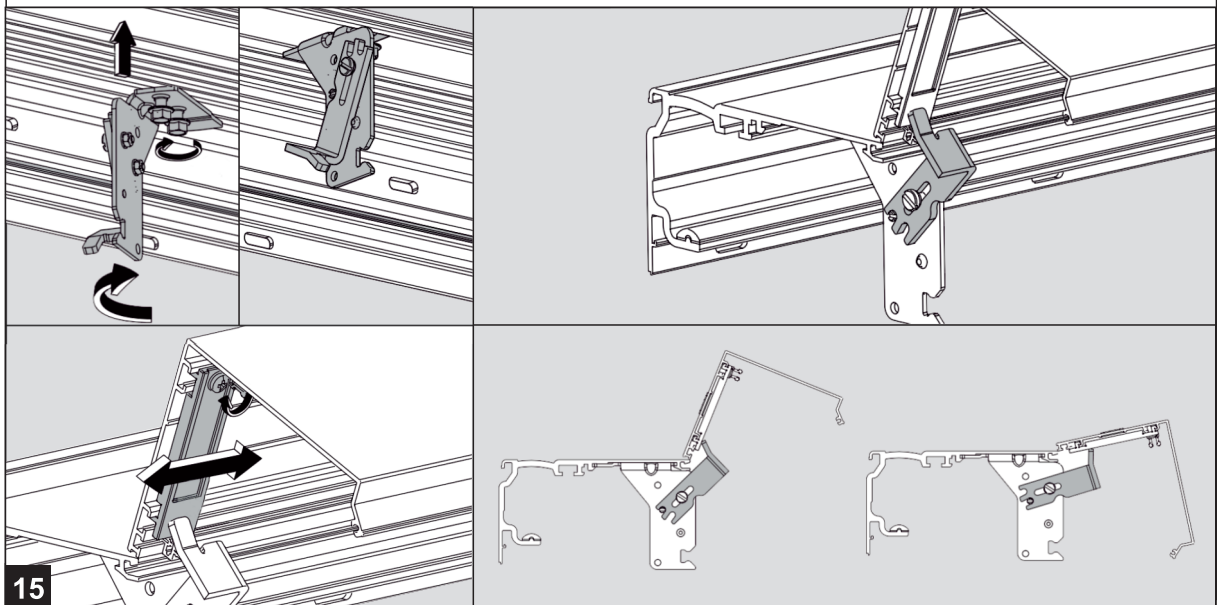


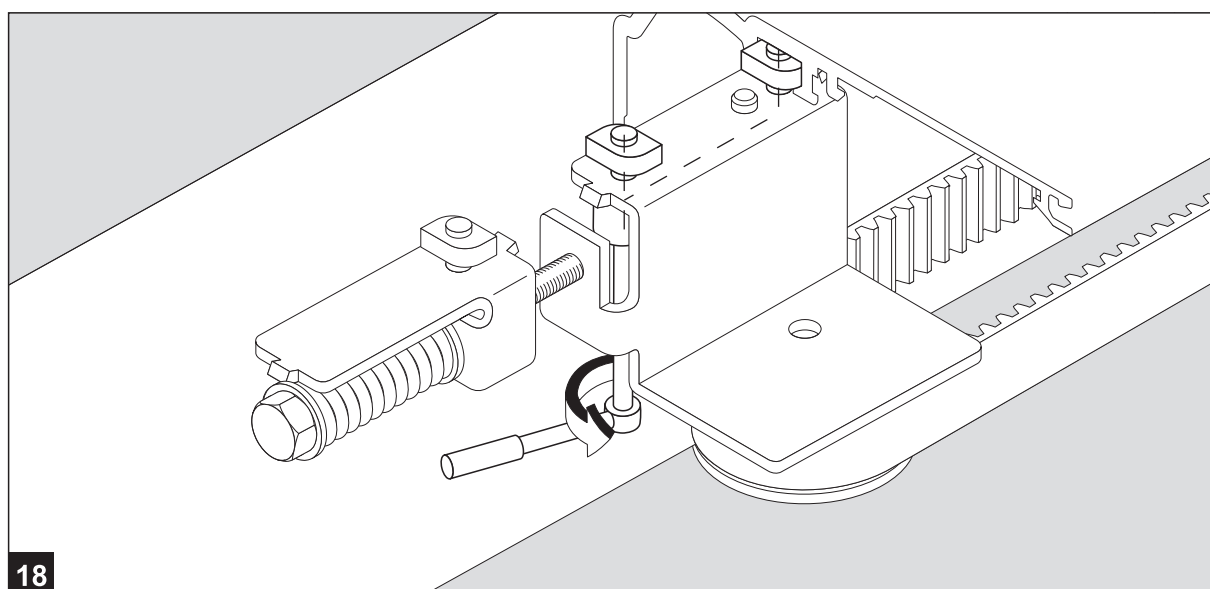
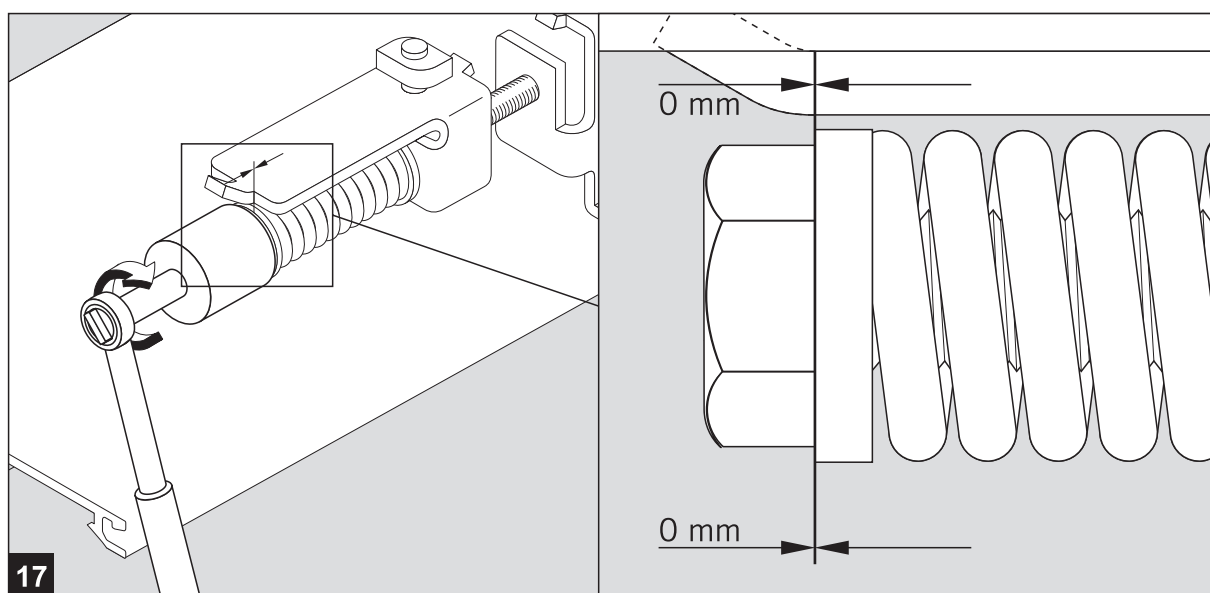
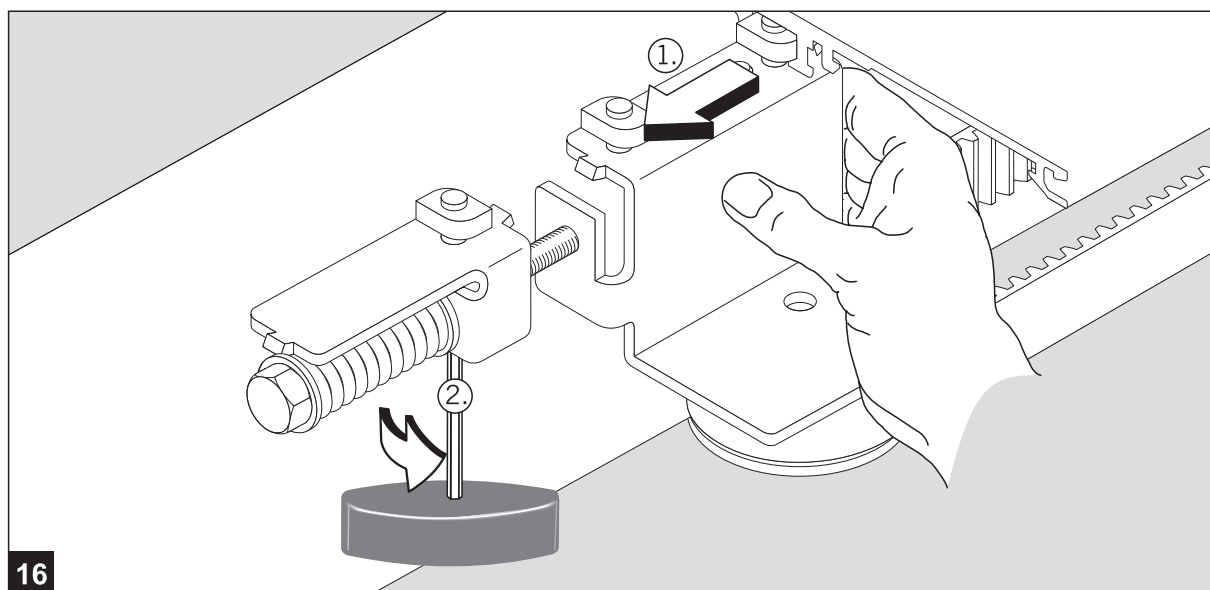
dk tech 68/120 / ES 200

Components instructions



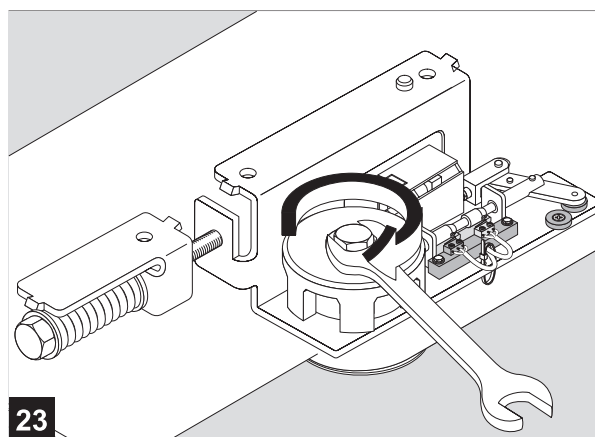
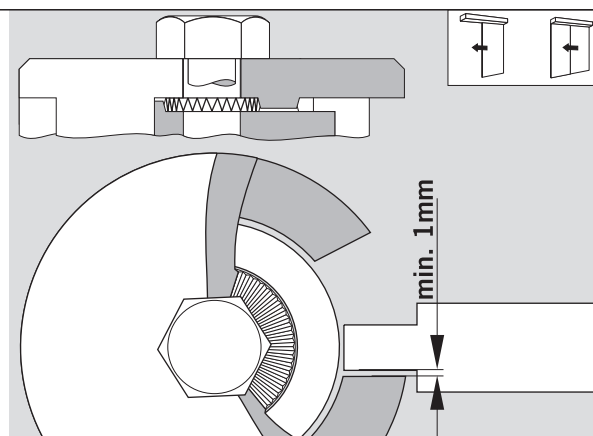
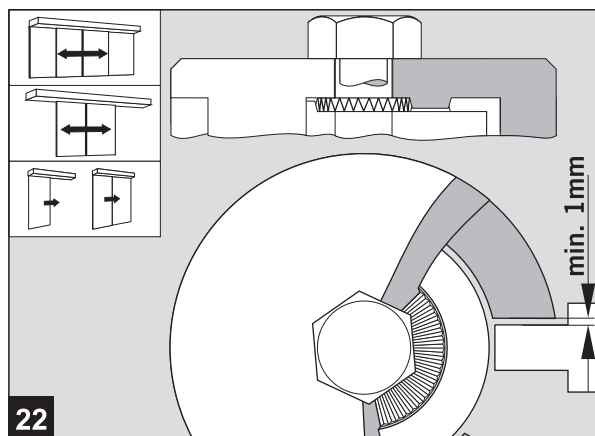
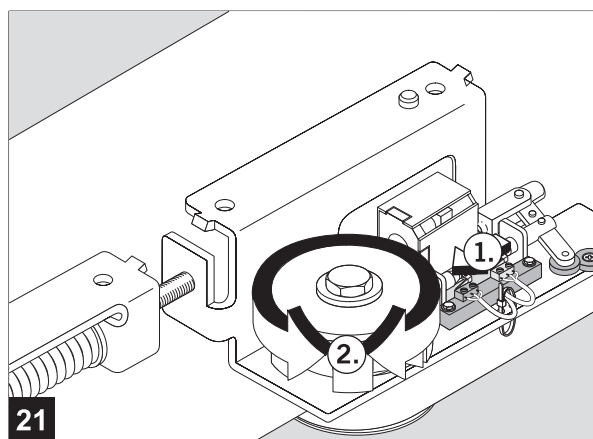
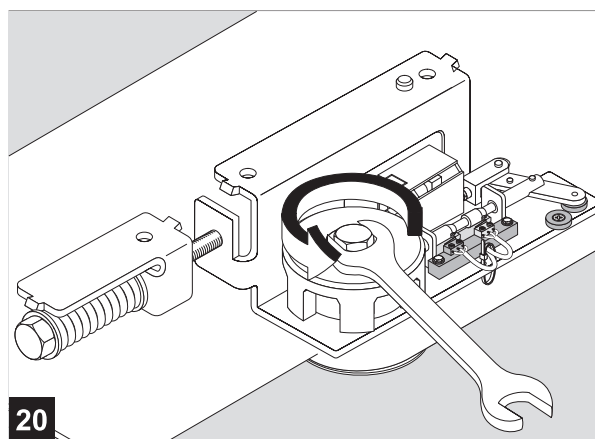
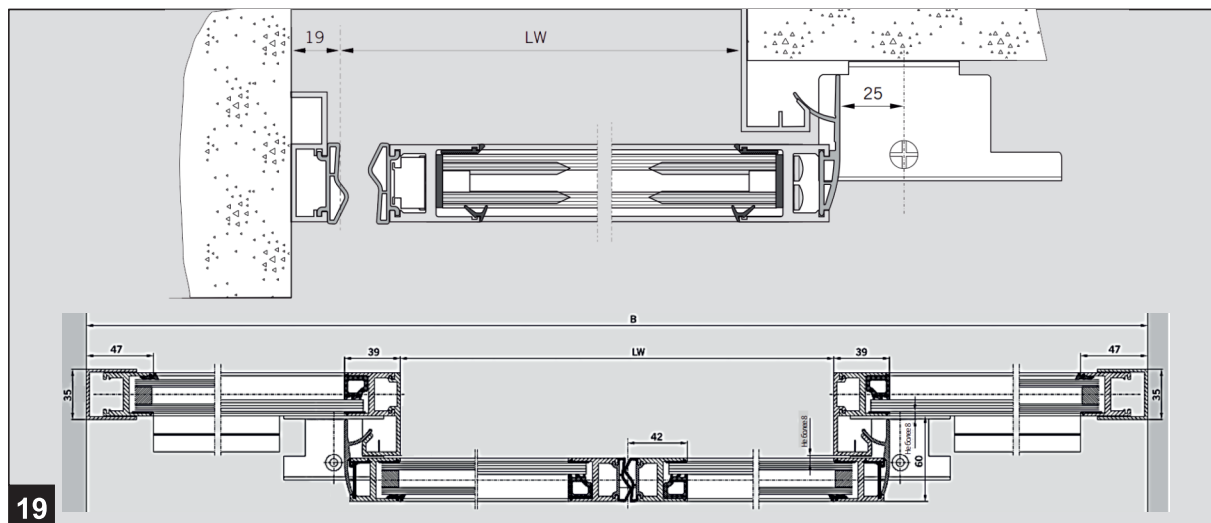
Components instructions

$$AL > 4000 \text{ mm} = 2 \times \boxed{15}$$




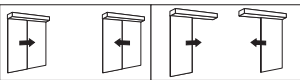
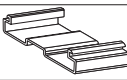
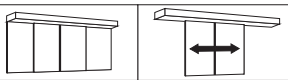
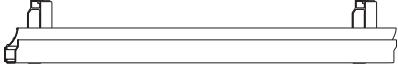
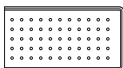
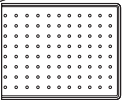
dk tech 68/120 / ES 200

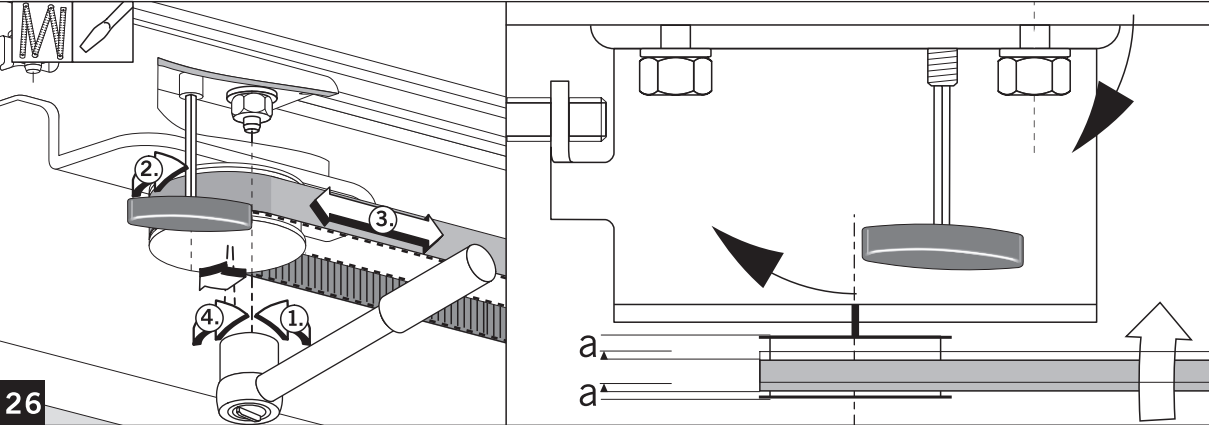
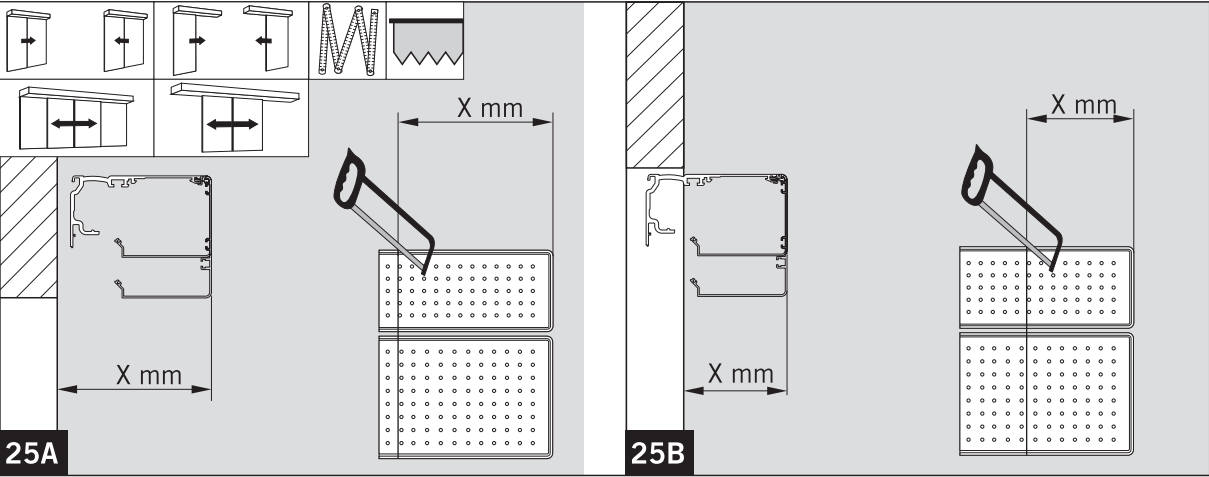
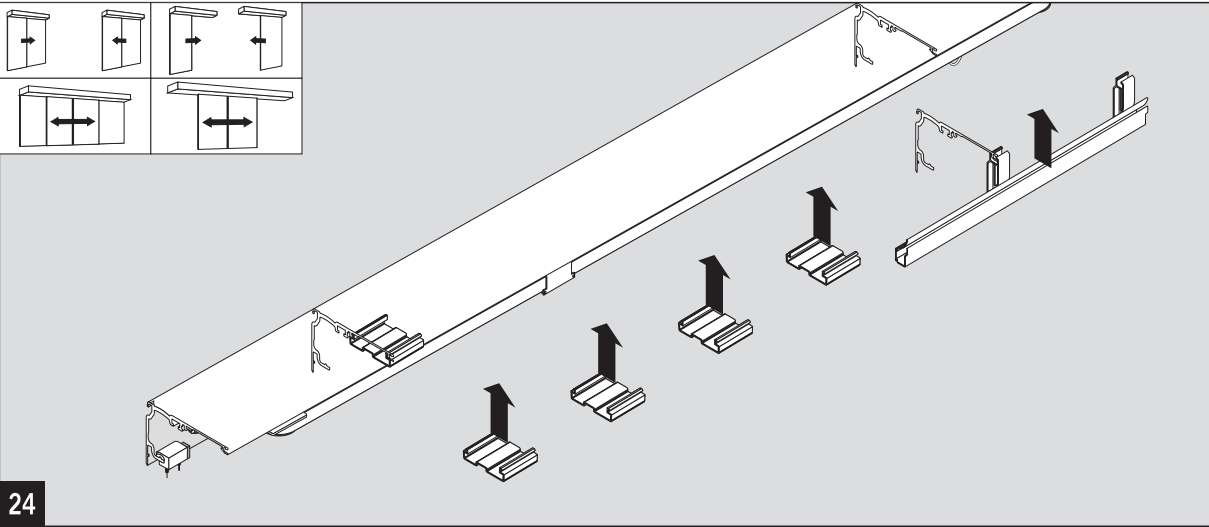
Components instructions



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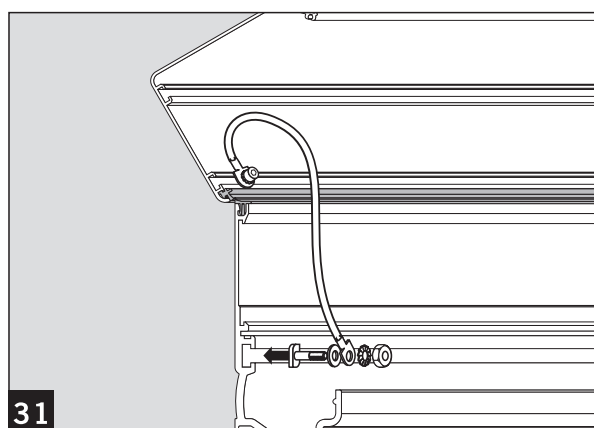
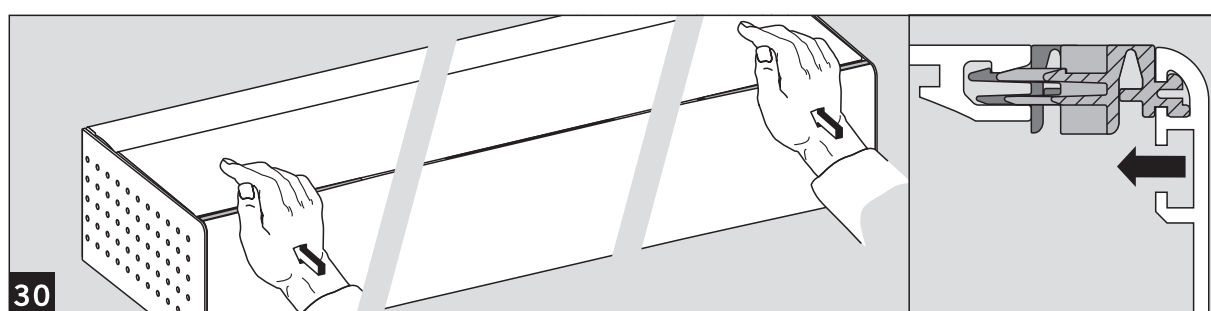
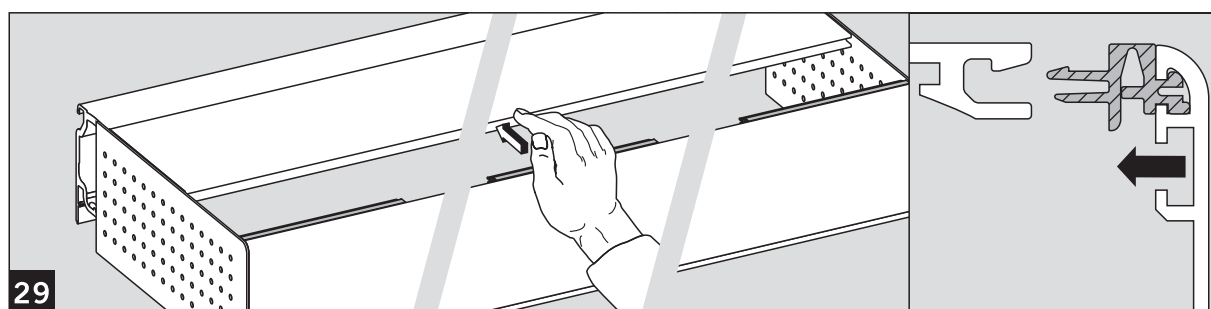
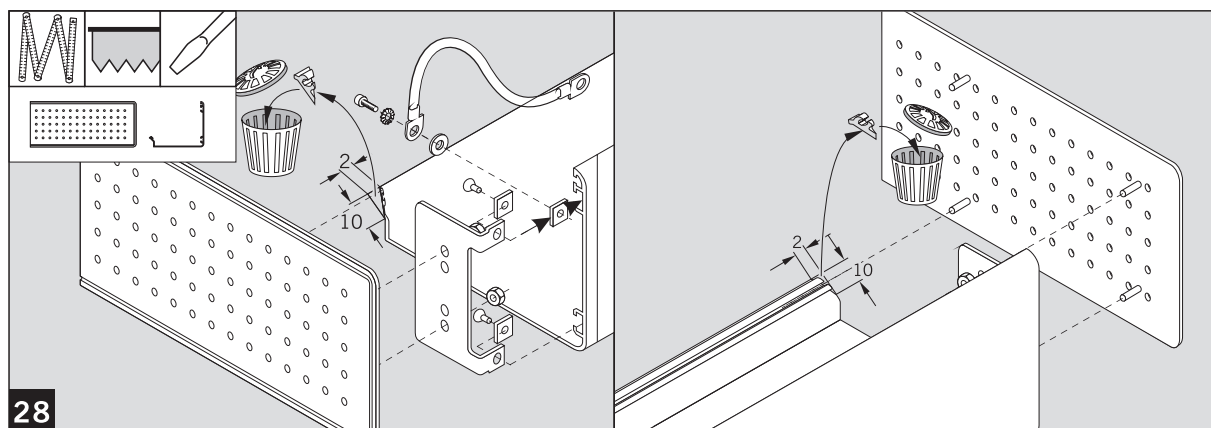
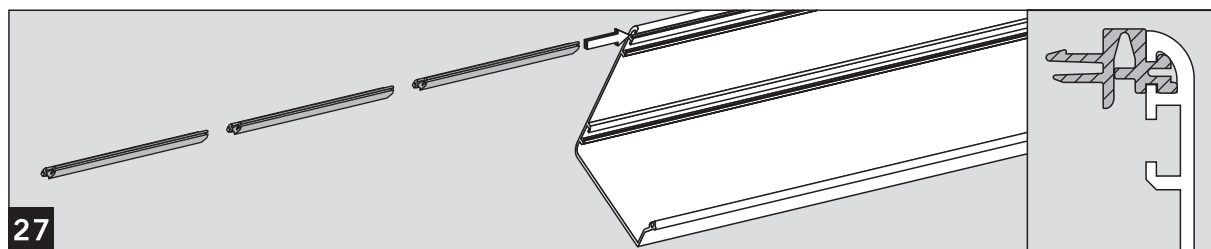
Components instructions

	5x		5x	
	1x		1x	
	1x		1x	



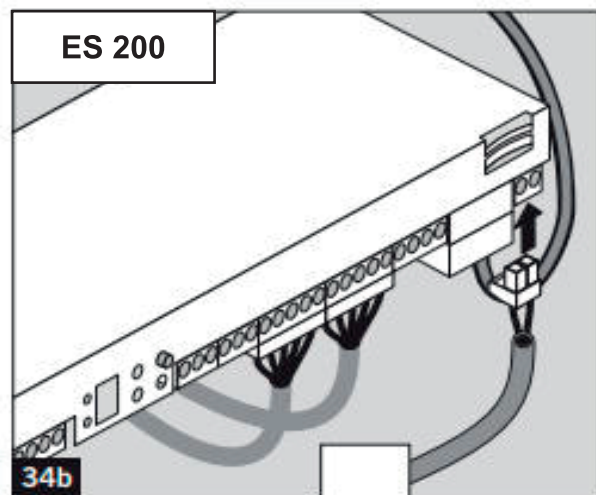
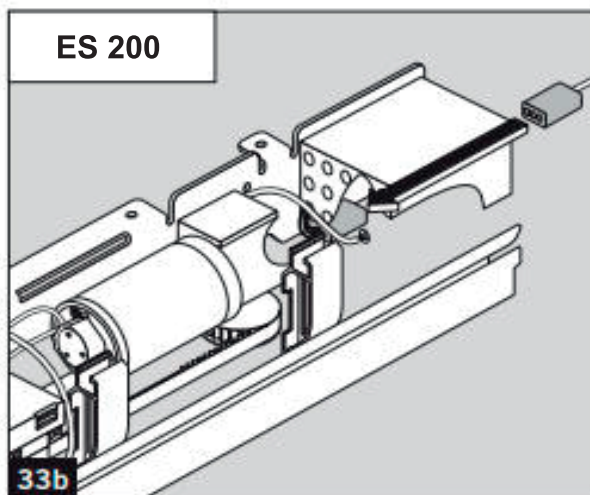
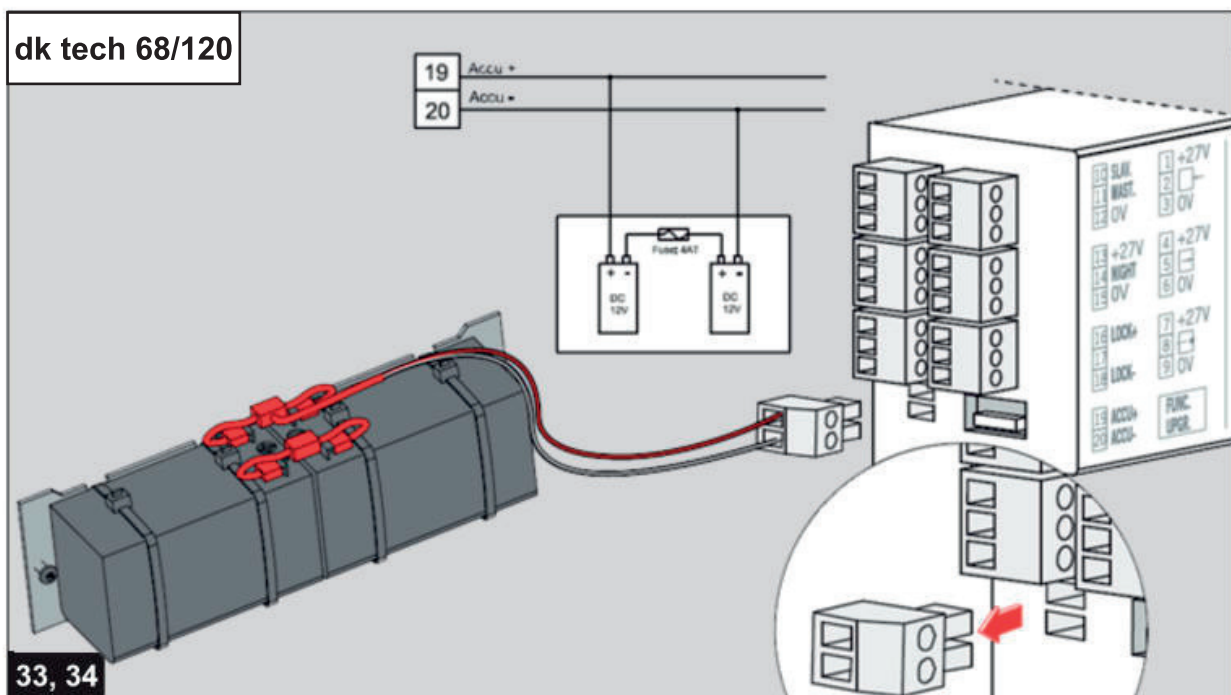
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Components instructions



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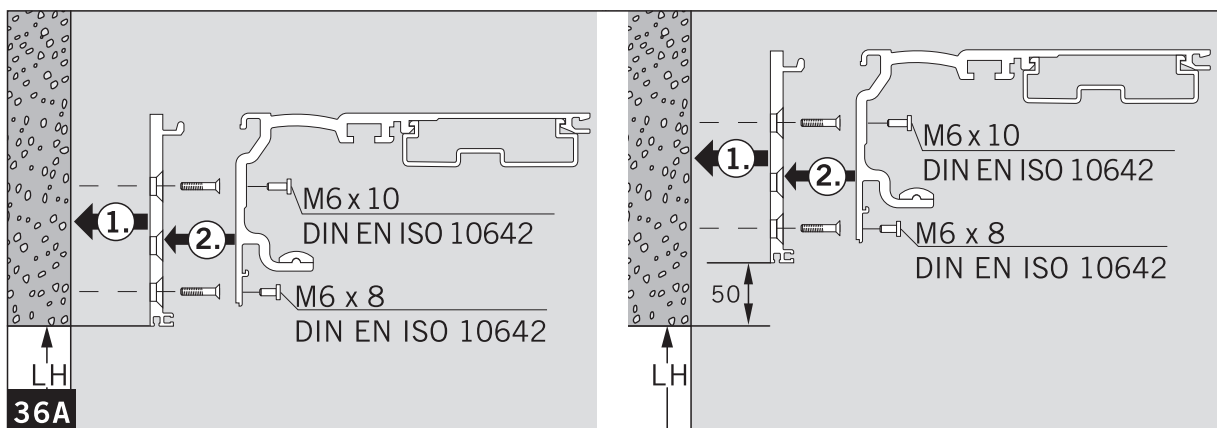
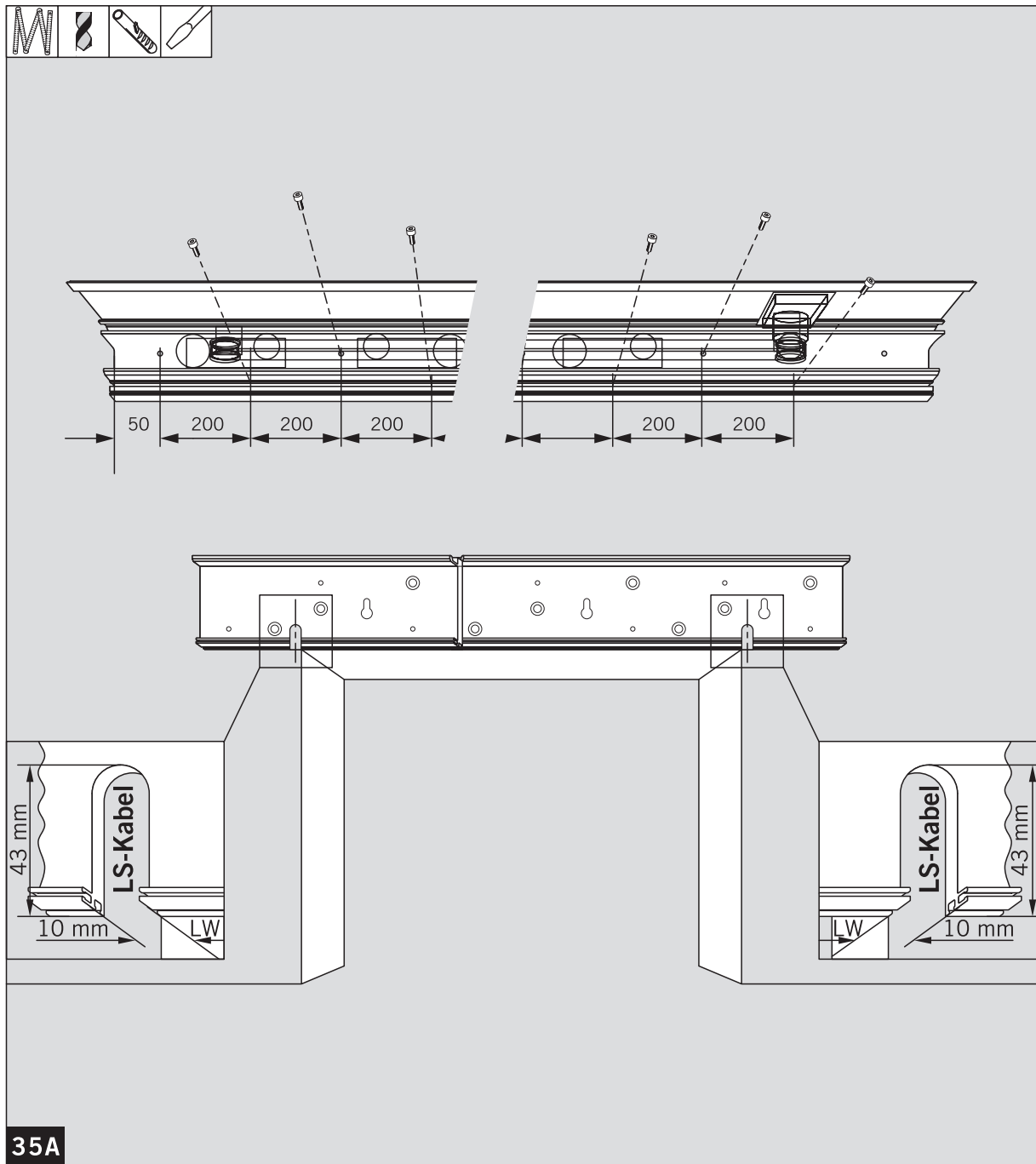
Components instructions



Connect rechargeable battery pack, if available, for testing purposes. In case the system has not yet been connected to the power supply (by others): Disconnect rechargeable battery pack following system test.

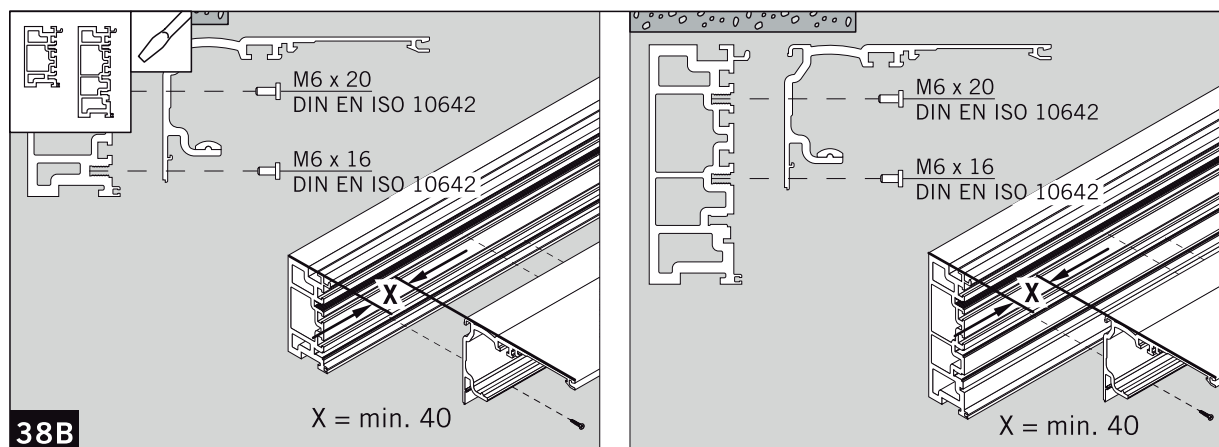
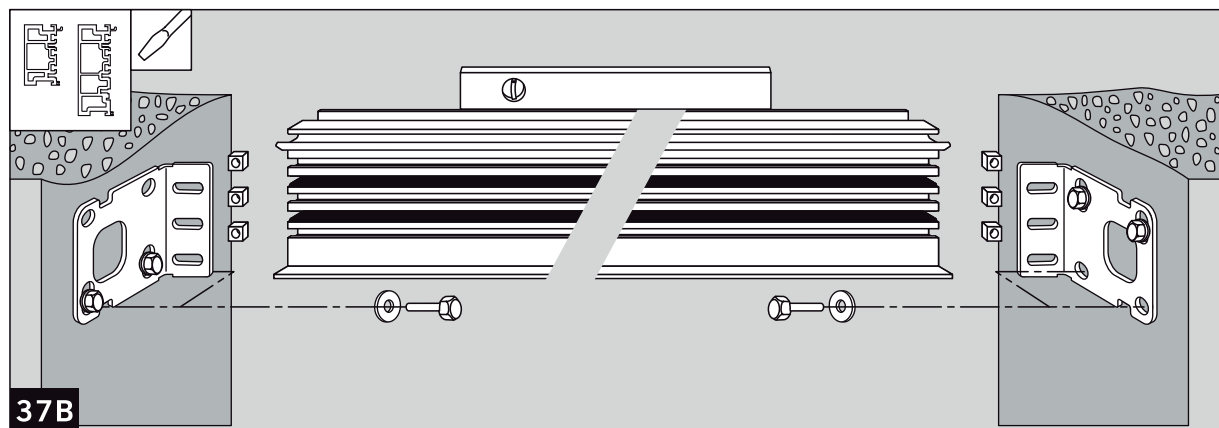
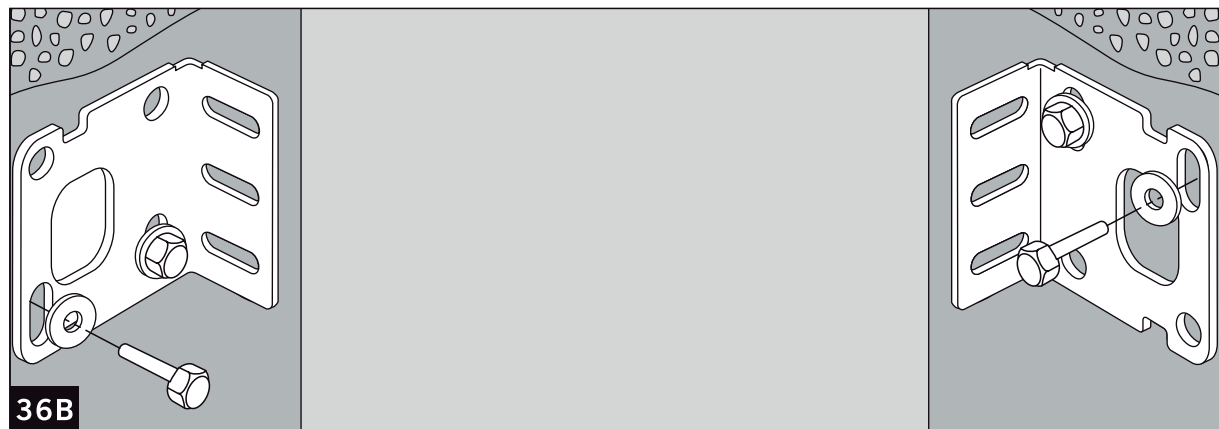
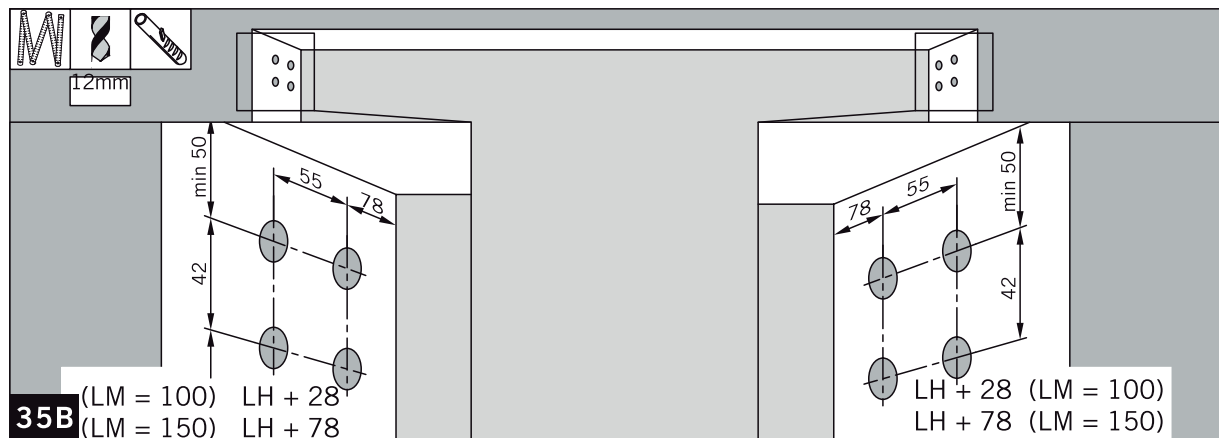
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Components instructions



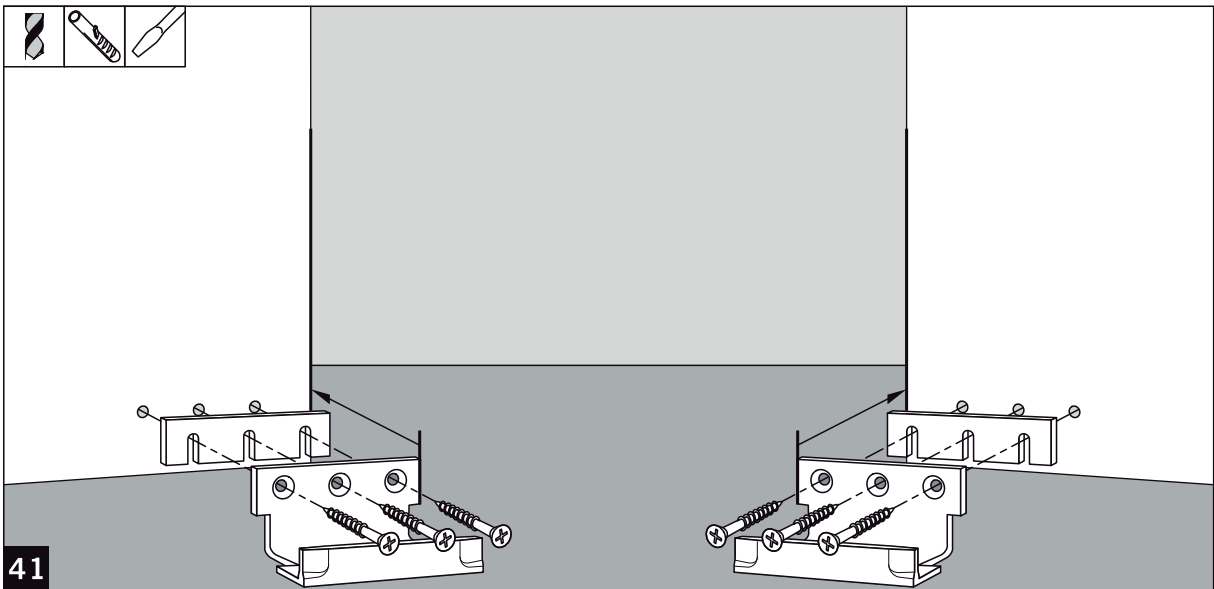
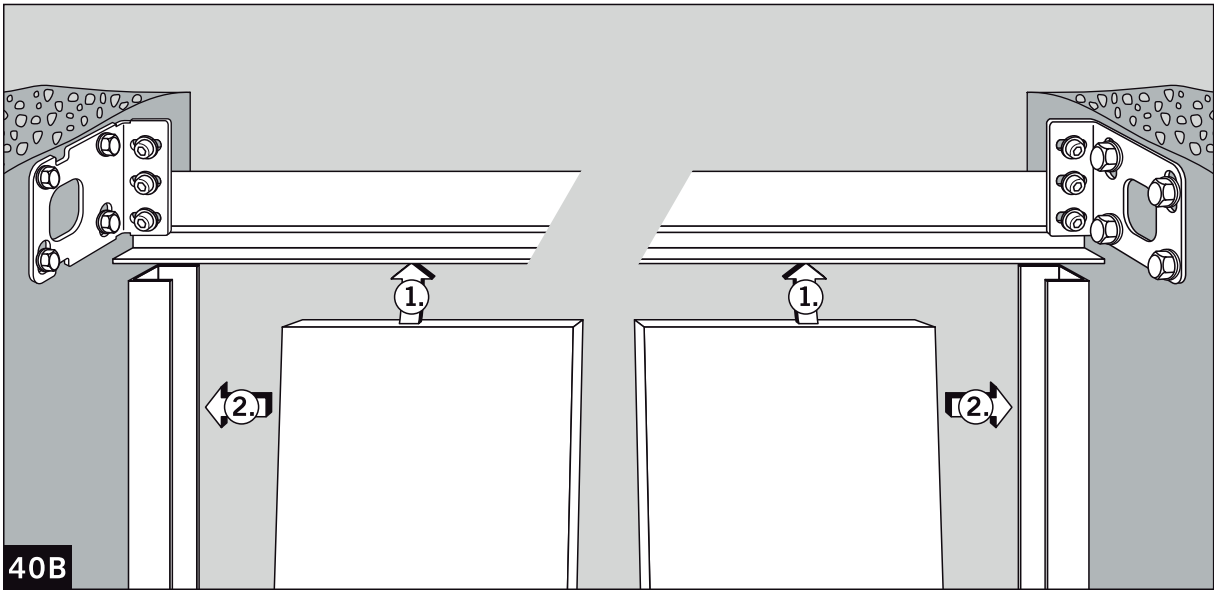
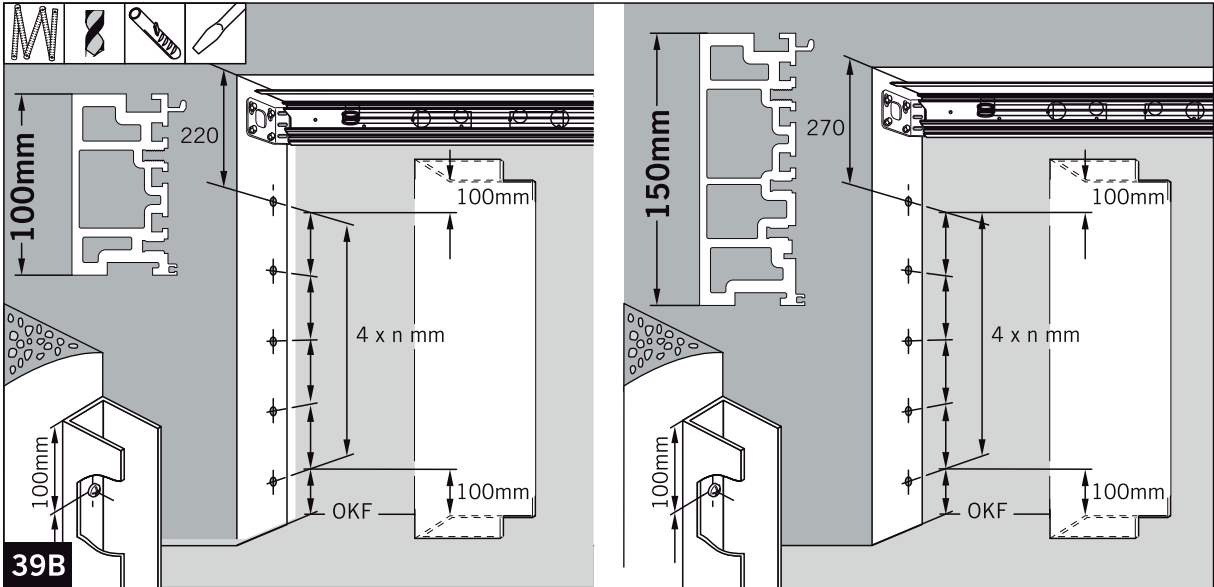
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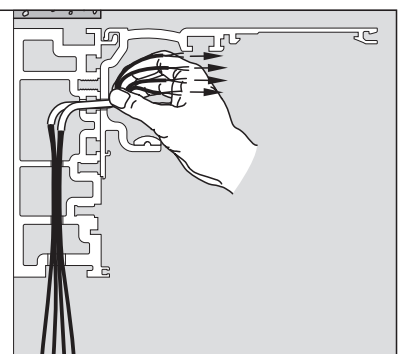
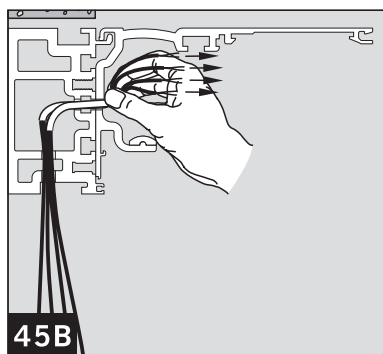
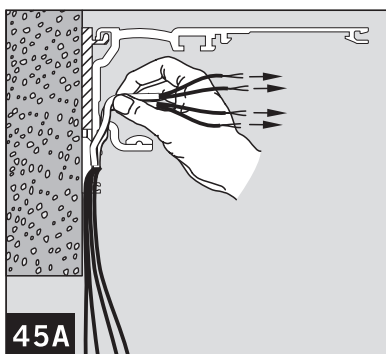
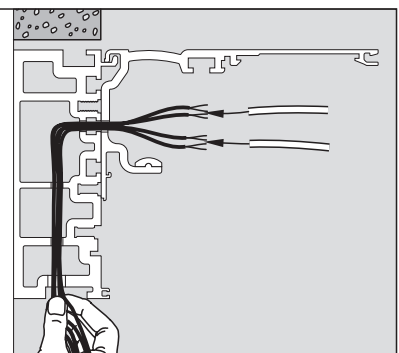
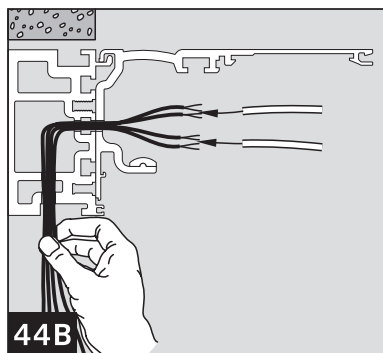
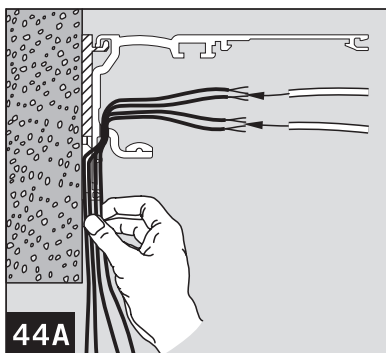
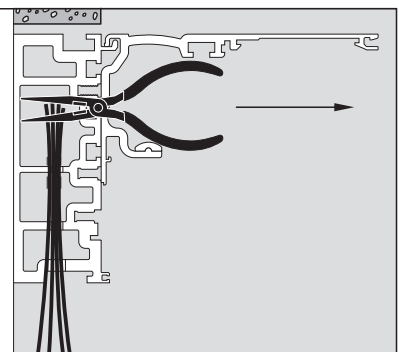
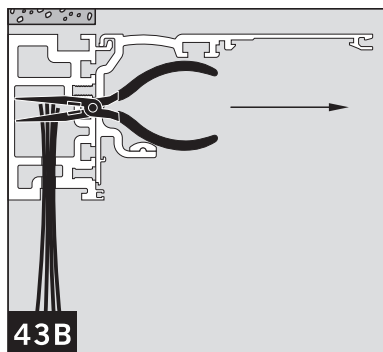
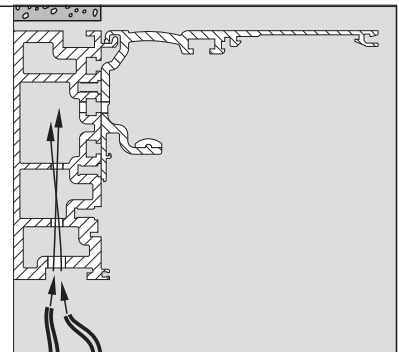
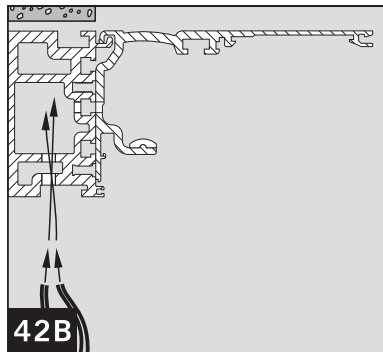
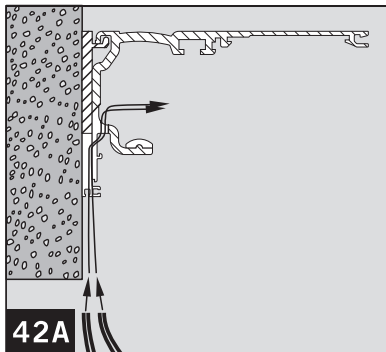
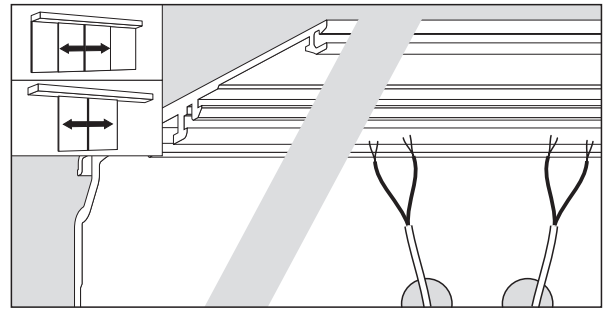
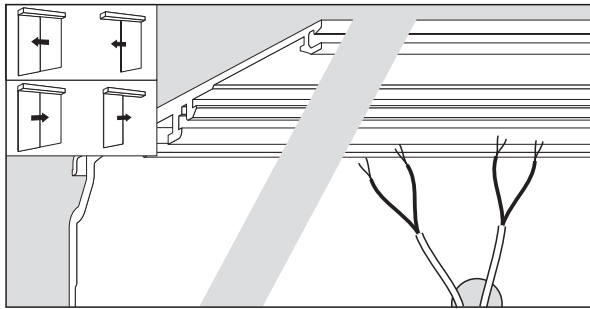
Components instructions



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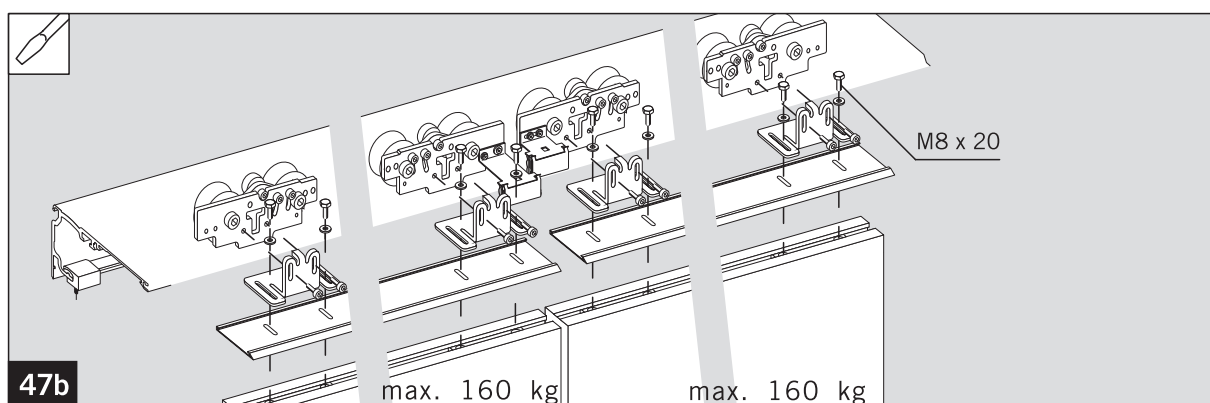
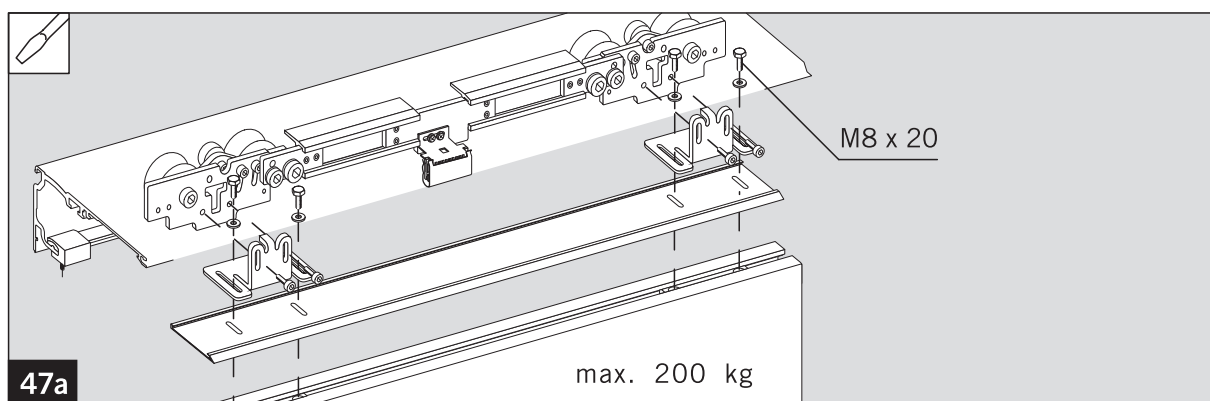
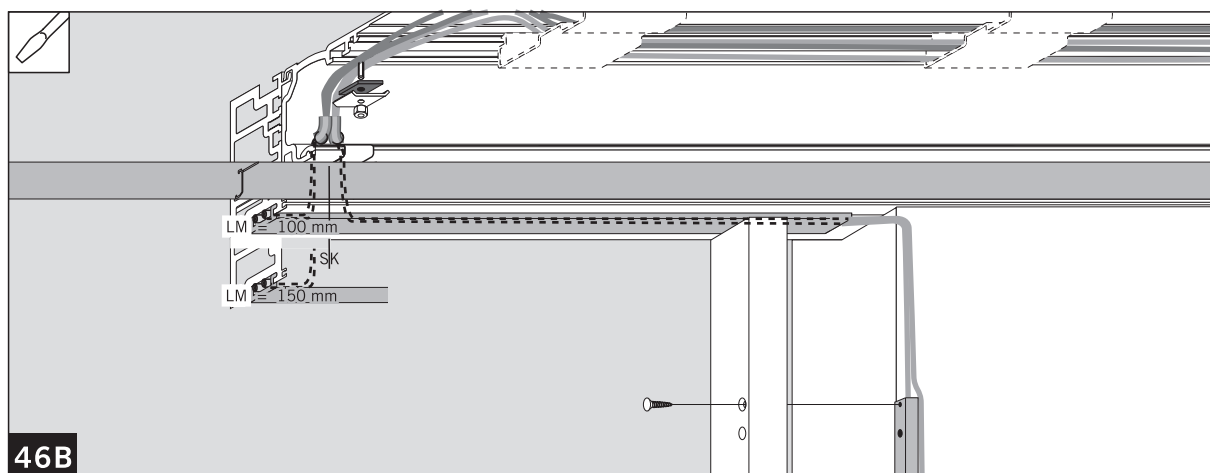
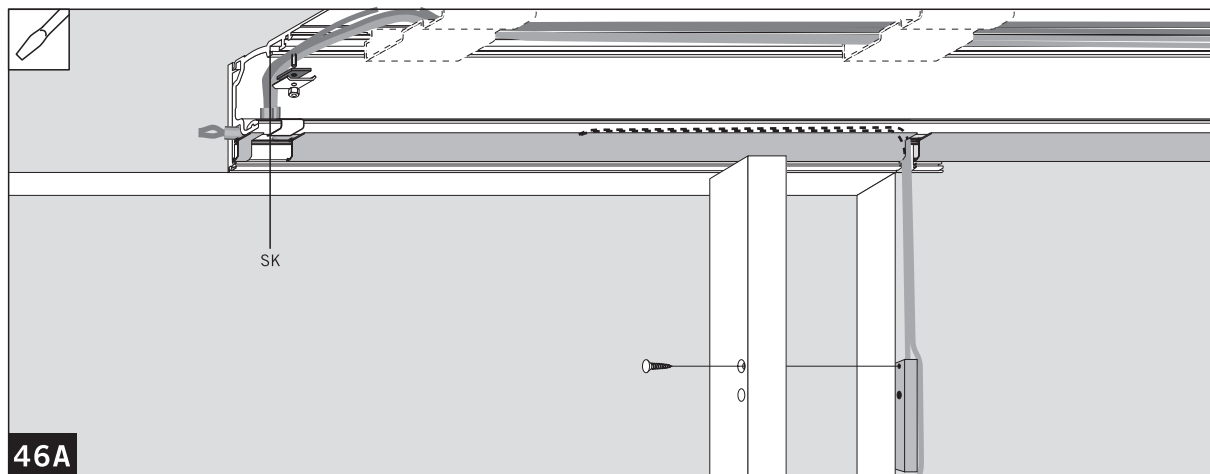
Components instructions

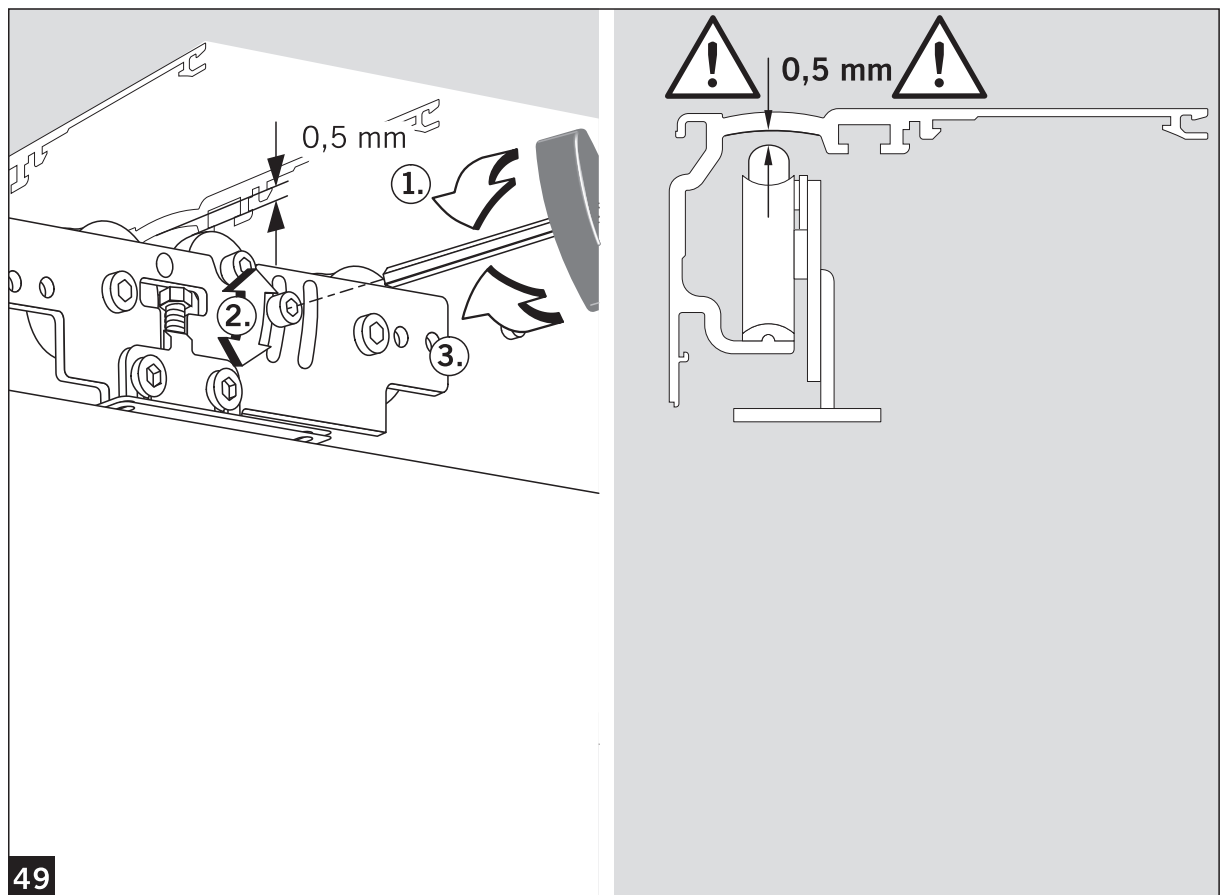
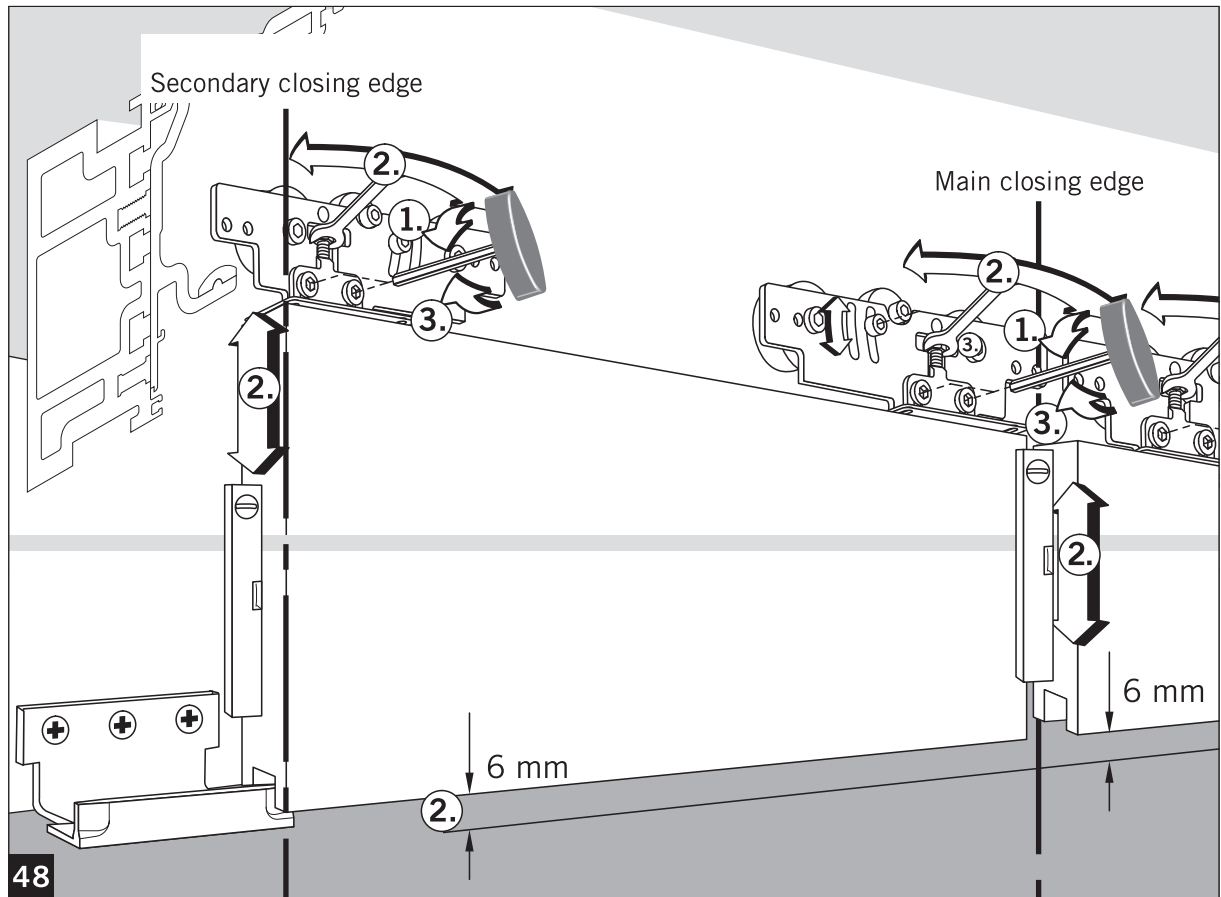




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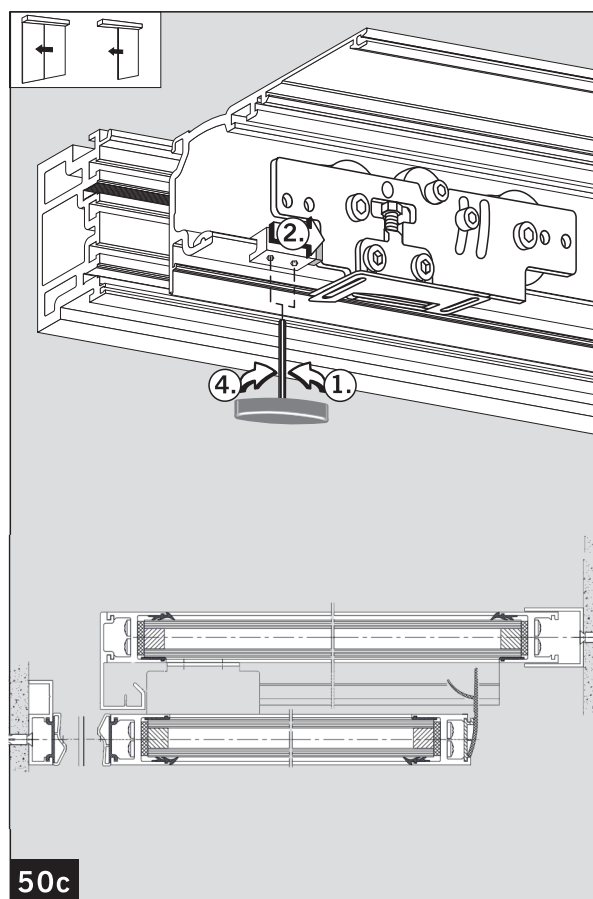
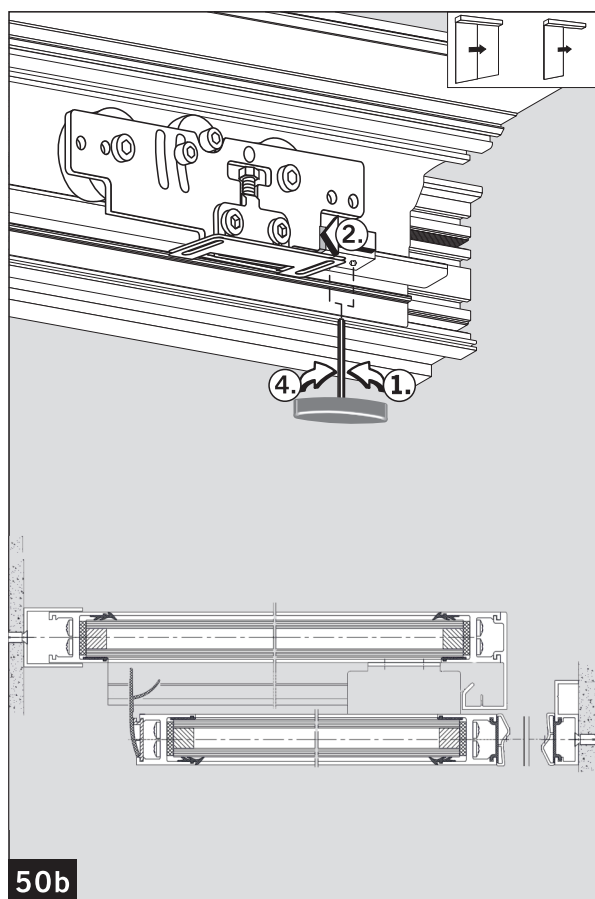
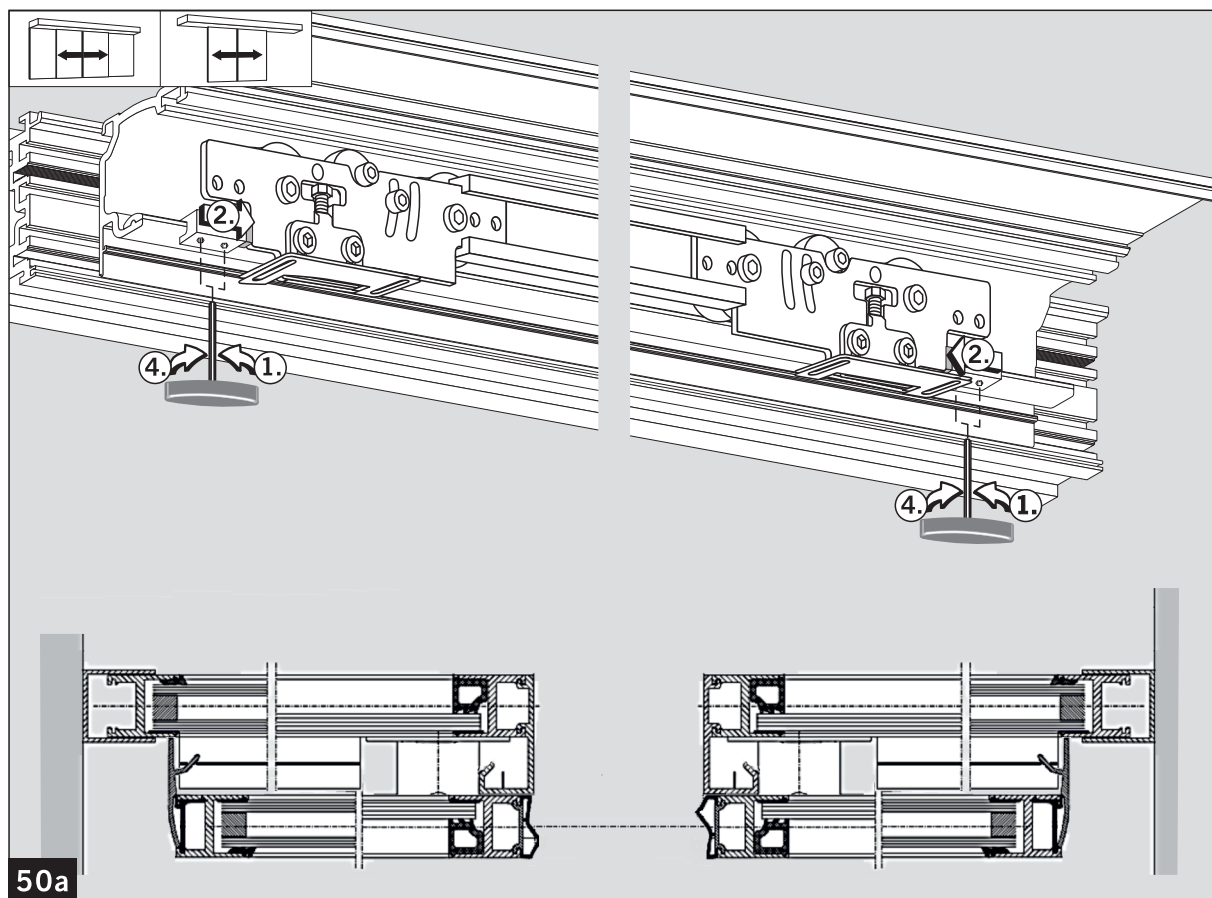
Components instructions

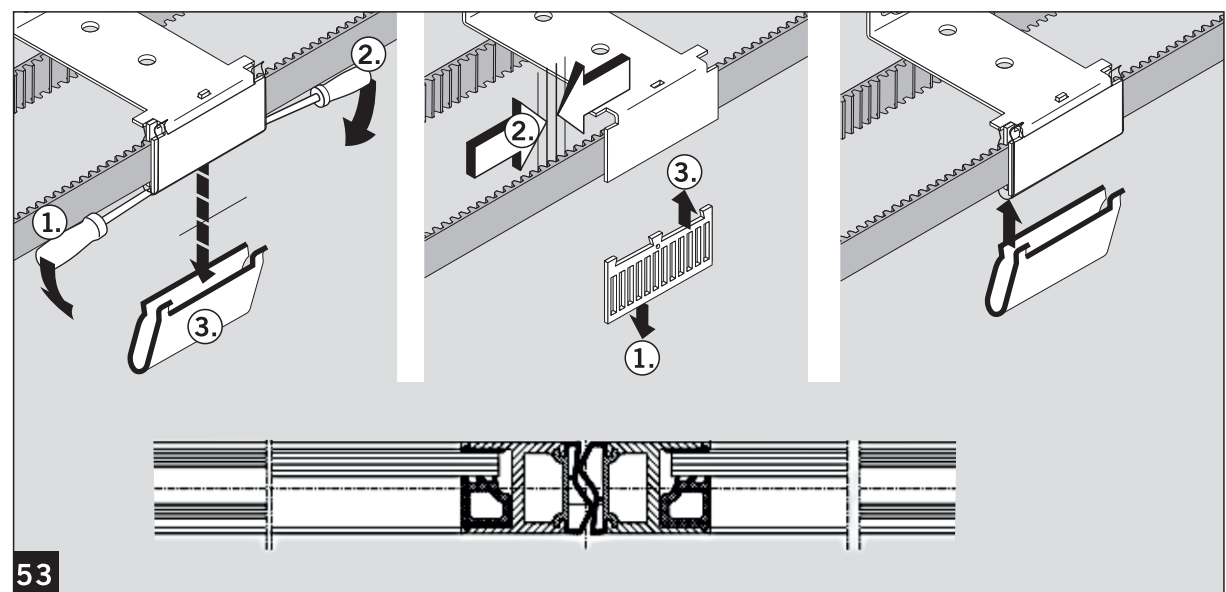




dk tech 68/120 / ES 200

Components instructions





Fixing instruction

Drawing and text with designation e.g. **1A**
belong to wall fixing

Drawing and text with designation e.g. **1B**
belong to corridor fixing

Drawing and text with designation e.g. **1c**
are fixing variants

Before Fixing



Work on electrical equipment may only be performed by properly qualified electricians.

Power supply (on site) with 16 A fuse protection.

Connecting cable must be double insulated, for example: NYM. Do not use flat webbed house wires.

1A The instructions accompanying the accessories must be observed.

2A **Wall fixing: Direct wall installation**

3A Main dimensions and formulas

4A

5A Preparing of colour-/length-dependent components

1B **Corridor installation with aluminium girder**

2B Main dimensions and formulas

3B

4B

5B Preparing of the colour and extrusion components

Sketches and main dimensions

6a Single-leaf door "right-opening"

6b Single-leaf door "left-opening"

6c Double-leaf door

7A Prepare mounting and aluminium girder for cable of light barrier.

7B

8a Fixing the track rail:

8b

9a Assemble the roller carriers and fix them.

9b

9c

9d

Installation of Mini Drive Unit and pulley (locking device)

10b ES 200

- Fix and adjust Mini Drive unit

11a dk tech 68/120

11b ES 200

12a - screw down pulley (locking device).

12b

13 Install toothed belt, cover holder and accessories.

14

15

Trimming the toothed belt

16 Trim and secure the toothed belt manually.

17 Tighten screw of clamping device until bolt head and end of cover are aligned.

18 Screw down pulley (locking device) tight.

Adjustment of locking device (optional)

19 Close sliding panels

20 Unscrew cage

21 Insert lock bolt,

22 Adjust cage and

23 Secure cage.

24 Insert cable loops into ES 200 profile.

Fixing instruction

25A Trim end plates.

25B

Adjusting the toothed belt

26 If the toothed belt rubs excessively against the bottom pulley flange causing noise, it will need readjustment.

- Loosen the right fixing screw of the pulley (locking device)
- Wind in the adjustment screw until the belt again runs centrally.
- Tighten the right fixing screw of the pulley (locking device).

27 Insert hinge profiles into internal cover

28 In order to ensure the proper fixing of the end plates, break edges of internal cover according to the stipulated dimensions.

Fixing the internal cover

29 Insert hinge profile into inner cover and install manually into mounting girder. Starting in the middle.

31 Open and fix the inner cover.

32 Use earthing cable to ground the inner cover.

33a Connect unit to power supply (supplied by others) and perform a test run.

33b

33c

34a

34b

34c

Fixing

Fixing the drive unit

Wall fixing

35A Different requirements prevail depending on whether the surface is wood, masonry or structural steel.

36A



Fix mounting girder with at least 6 screws. Screws must be positioned equally along the length of the girder.

GB

With masonry

Heavy-duty plugs have to be used. The plugs must be supplied by others.

- Mark and drill the holes
- Insert the plugs
- Shim the mounting plate as appropriate and fix in place with countersunk screws.

If the surface is made of steel mark

- Drill and tap the holes
- Shim the mounting plate as appropriate and fix it with countersunk screws.

Corridor fixing

35B When fixing the mounting plate different requirements prevail depending on whether the surface is wood, masonry or structural steel.

36B

With masonry

Heavy-duty plugs (supplied by others) have to be used.

- Mark and drill the holes
- Insert the plugs.

If the surface is made of steel

- Mark the holes
- Drill to a diameter of 5 mm and
- Tap M6 threads.
- Insert square nuts into the profile slots and

37B Mount the aluminium girder, with the ES profile bolted in place on the aluminium girder,

38B Align and screw down tight.

Door sets with side screens:

39B Fix wall brackets (U-section profiles) according to the dimensions indicated on the sketch.

40B - Mark and drill the holes

41 - Insert the plugs

- Align brackets and

- Screw down tight.

- Insert the side screens into the wall brackets,

- Align and fix.

Screw down floor guide rail to building or side screen.

Fixing the light barriers and light barrier profiles

42A**42B** Mount the cable of the light barrier into the installation and use shrinkdown plastic tubing in the area of the mounting girder and operator profile to protect the cables.

43B

44A**44B**

45A**45B**

Fixing instruction

- 46A** Insert light barriers into profile slots.
46B Screw down profiles to building / side screen.

Assemble the sliding panels.

47a

47b

Adjustment of sliding panels

- 48** Set the floor or floor guide clearance at the sliding panel to 6 mm.
- Relax brackets of main and secondary closing edge
 - Adjust height with hexagon nut
 - Screw down tight.
 - Open the door and make sure that the centre seals are parallel with the side screens.
 - Close the door and then open again a few millimetres. Check the gap between the centre seals over its entire height to ensure good parallelism.

Adjustment of derailment guard

- 49** Release the derailment guard of the roller carriers and adjust.
- Undo the bolts in the diagonal oblong holes of the carriers
 - Adjust the derailment guard to a clearance of 0.5 mm with respect to the track rail and mounting girder.
 - Check for smooth running and re-tighten bolts.

Adjustment of end stops and opening width

- 50a** - Insert end stops.
50b - Move both sliding panels manually to the full opening width and secure in this position.
50c - Move the end buffers along to meet the sliding panels and screw down tight.

Adjustment of closing edge to centre point of the door set (AM)

Viewed from the inside:

- 51** Determine the centre point of the door set (AM).
- 52a** - Relax the connection between the carrier and toothed belt on the left sliding panel.
52b - Move both sliding panels manually until the closing edge (SK) coincides with the door set centre (AM).
- Re-tighten the connection between the carrier and the toothed belt.
- 53** In order to correct major discrepancies between SK and AM,
- move the toothed belt one or more tooth pitch along as explained in the drawing.

dk tech 68/120 / ES 200

Components instructions



Check Up

- Derailment guard/ counter roller adjusted correctly (0.5 mm)?
- Door panels run smoothly, no grinding noise?
- Electromechanical locking adjusted correctly (> 1mm)?
- All shortened wires provided with end splices?
- All connectors plugged in?
- All cables fixed / no obstacles within the driving phase?
- Only for ES 200 with "Emergency opening function".
- Serial connection with "internal sensor" performed?