

Slimdrive SL NT

Product family

EN Installation and service instructions

192351-02



Contents

1	Introduction.....	3
1.1	Symbols and illustrations.....	3
1.2	Revisions and validity.....	3
1.3	Product liability.....	3
1.4	Reference documents.....	3
2	Fundamental safety precautions	4
2.1	Intended use.....	4
2.2	Safety instructions	4
2.3	Safety-conscious working	5
2.4	Environmentally conscious working.....	5
2.5	Safety instructions related to transportation and storage	5
2.6	Qualification	5
3	About this document.....	6
3.1	Overview.....	6
4	Overview.....	7
4.1	Diagrams.....	7
4.2	Tools and aids.....	8
4.3	Torques.....	8
4.4	Components and assembly groups.....	8
5	Installation.....	8
5.1	Preparations to be made on-site	8
5.2	Preparing the track	8
5.3	Mounting the track	9
5.4	Mounting the floor guide.....	10
5.5	Installing the moving leaf.....	11
5.6	Installing the drive components.....	17
5.7	Connecting earthing.....	22
6	Production test and commissioning.....	23
6.1	Connecting the drive	23
6.2	Mounting the cover.....	24
6.3	Mounting the safety devices.....	27
6.4	Installing operating elements/switches/push buttons.....	27
6.5	Commissioning the door system.....	27
6.6	Dismantling.....	28
7	Service and maintenance	29
7.1	Mechanical service.....	29
7.2	Maintenance.....	29
8	Troubleshooting.....	30
8.1	Mechanical faults.....	30
8.2	Replacing roller carriage.....	31
8.3	Replace brushes on the roller carriage.....	31
8.4	Electrical faults.....	32
9	Drive identification plate	33
10	Inspection of the installed door system	34
10.1	Protective measures to prevent and protect from hazardous areas.....	34
10.2	Installation checklist Slimdrive SL NT.....	34




1 Introduction

1.1 Symbols and illustrations

Warning notices



In these instructions, warning notices are used to warn against material damage and injuries.

- ▶ Always read and observe these warning notices.
- ▶ Observe all measures marked with the warning symbol and warning word.

Warning symbol	Warning word	Meaning
	DANGER	Danger to persons. Non-compliance will result in death or serious injuries.
	WARNING	Danger to persons. Non-compliance can result in death or serious injuries.
	CAUTION	Danger to persons. Non-compliance can result in minor injuries.

Further symbols and illustrations

Important information and technical notes are highlighted to explain correct operation.

Symbol	Meaning
	means "important note". Information to prevent property damage, to understand or optimise the operation sequences.
	means "additional Information"
▶	Symbol for an action: This means you have to do something. ▶ If there are several actions to be taken, keep to the given order.

1.2 Revisions and validity

Version 02: valid for Slimdrive SL NT product family from model year 2021.

1.3 Product liability

In compliance with the liability of the manufacturer for his products as defined in the German "Product Liability Act", compliance with the information contained in this brochure (product information and intended use, misuse, product performance, product maintenance, obligations to provide information and instructions) must be ensured. Failure to comply releases the manufacturer from his statutory liability.

1.4 Reference documents

Type	Name
Wiring diagram	Automatic sliding doors DCU1-NT/DCU1-2M-NT
Additional wiring diagram	Automatic sliding doors DCU1-2M-NT, door controller DCU1-2M-NT for automatic sliding doors on escape routes, FR-variants DUO, LL, RWS
User manual	Automatic sliding door systems
Faults and corrective measures	DCU1-NT/DCU1-2M-NT electronic drive for automatic sliding doors
Cable plan	Automatic sliding door systems
Safety analysis	Automatic sliding doors
pre-assembly instructions	Slimdrive SL NT product family
Installation instructions	Slimdrive SL NT girder section and fixed panel
Additional installation instructions	Slimdrive SL NT GGS

These documents are subject to change. Use only the most recent version.

2 Fundamental safety precautions



GEZE GmbH is referred to as GEZE below.

2.1 Intended use

The sliding door system is used for the automatic opening and closing of a building passage.

The sliding door system may only be used in a vertical installation position and in dry rooms within the permitted application area.

The sliding door system is designed for pedestrian traffic in buildings.

The sliding door system is not designed for the following uses:

- for industrial use
- for area of application which do not serve pedestrian traffic (such as garage doors)
- on mobile objects such as ships

The sliding door system may only be used:

- in the modes of operation provided for by GEZE
- with the components approved / released by GEZE
- with the software delivered by GEZE
- in the installation variants / types of installation documented by GEZE
- within the tested/approved area of application (climate / temperature / IP rating)

Any other use is considered non-intended and will lead to the exclusion of all liability and warranty claims to GEZE.

2.2 Safety instructions

- Intervention and modifications which influence the safety technology and functionality of the sliding door system may only be carried out by GEZE.
- Problem-free and safe operation assumes proper transportation, proper set-up and installation, qualified operation and correct maintenance have taken place.
- The relevant accident prevention regulations and other generally recognised safety-related or health & safety rules must be kept.
- Only original accessories, original spare parts and accessories approved by GEZE guarantee problem-free function of the sliding door system
- The mandatory installation, maintenance and repair work must be performed by properly trained personnel authorised by GEZE.
- The country-specific laws and regulations are to be observed during safety-related tests.
- If unauthorised changes are made to the system, GEZE cannot be held liable in any way whatsoever for any resulting damage, and the statement of approval for use in escape and rescue routes is no longer valid.
- GEZE does not accept any warranty for combinations with third-party products.
- Only original GEZE parts may be used for repair and maintenance work.
- Connection to the mains voltage must be carried out by a qualified electrician or a qualified electrician for specified tasks. Perform the power connection and protective earth connection test in accordance with VDE 0100 Part 600.
- Use an on-site 10 A overload cut-out as the line-side disconnecting device.
- Protect the display programme switch against unauthorised access.
- In compliance with Machinery Directive 2006/42/EC, a risk analysis must be performed and the door system identified in accordance with CE Marking Directive 93/68/EEC before the door system is commissioned.
- Observe the latest versions of guidelines, standards and country-specific regulations, in particular:
 - DIN 18650: "Building hardware – Powered automatic doors"
 - VDE 0100, Part 600: "Installation of low-voltage systems"
 - EN 16005: "Power operated pedestrian doorsets – Safety in use– Requirements and test methods"
 - EN 60335-1: "Household and similar electrical appliances - Safety Part 1: General requirements"
 - EN 60335-2-103: "Household and similar electrical appliances - Safety: Special requirements for drives for gates, doors and windows"
 - Relevant regulations must be used for the selection of suitable fasteners e.g. the guidelines for planning and executing the installation of windows and front doors for new buildings and refurbishment issued by RAL Gütergemeinschaft Fenster und Haustüren e.V. (RAL Quality Institute for Windows and Doors).
- Do not loosen screwed, electric earthing connections.



The product should be installed or incorporated in such a way that effortless access to the product is guaranteed during any repairs and/or maintenance, and that any removal costs do not stand out of economic proportion to the value of the product.

2.3 Safety-conscious working

- Secure workplace against unauthorised entry.
- Watch the swivelling range of long system parts.
- Never carry out work with a high safety risk (e.g. installing the drive, cover or door leaf) while alone.
- Secure the cover/drive panels against falling.
- Secure non-fixed components to prevent them falling.
- Use only the cables specified on the cable plan provided. Cables must be shielded in compliance with the wiring diagram.
- Secure loose, internal drive cables with cable ties.
- Before working on the electrical system:
 - Disconnect the drive from the 230 V mains and secure it against being switched back on again. Check isolation from power supply.
 - Disconnect the control unit from the 24 V rechargeable battery.
- When an Uninterruptible Power Supply (UPS) is used, the system will still be under voltage even when disconnected from the mains.
- Always use insulated wire-end ferrules for wire cores.
- Make sure of sufficient lighting.
- Use safety glass.
- Attach safety stickers to glass leaves.
- Danger of injury with opened drive. Hair, clothing, cables, etc. can be drawn in by rotating parts.
- Danger of injury caused by unsecured crushing, impact, drawing-in or shearing spots.
- Danger of injury due to glass breakage. Always only use safety glass.
- Danger of injury due to sharp edges on the drive and door leaf.
- Danger of injury during installation through freely moving parts.

2.4 Environmentally conscious working

- When disposing of the door system, separate the different materials and have them recycled.
- Do not dispose of batteries and rechargeable batteries with household waste.
- Comply with the statutory regulations when disposing of the door system and the batteries/rechargeable batteries.

2.5 Safety instructions related to transportation and storage

- The door system and its parts are not built for hard impact or for falling from a height.
 - ▶ Do not throw, do not drop.
- Storage temperatures under $-30\text{ }^{\circ}\text{C}$ and above $+60\text{ }^{\circ}\text{C}$ can result in damage to the device.
- Protect against humidity.
- Use special glass transport devices (e.g. A-frames) for transporting glass.
- Separate several panes on a frame or during storage using intermediate layers (e.g. cork pads, paper or plastic cords).
- Always store glass in a vertical position on level and load-bearing ground. Use suitable material as a support (e.g. wooden slats).
- In the case of insulating glass, make sure that it is placed flush across the entire element thickness on at least 2 supports.
- During storage and support, safety devices must not cause any damage to the glass or edge seal of insulating glass and must be attached flat on the pane surface.
- Dry, well ventilated, closed, weather-proof and UV-protected rooms are suitable as storage areas

2.6 Qualification

Observe country-specific regulations!

Applicable in Germany:

Companies which carry out the pre-mounting of sliding door drives for escape routes must be approved as an extended production facility by the testing institute which issued the type approval certificate.

3 About this document

3.1 Overview

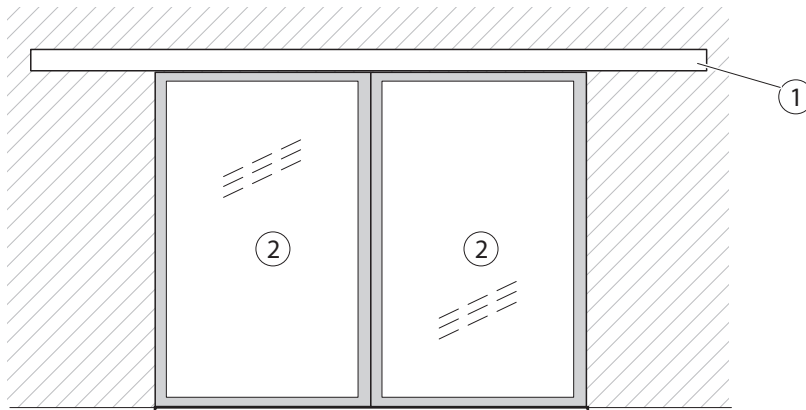
These instructions describe the installation of the automatic sliding door drives of the Slimdrive SL NT product family. The installation of the fixed panels and the girder section is described in the installation instructions "Girder section with fixed panel".



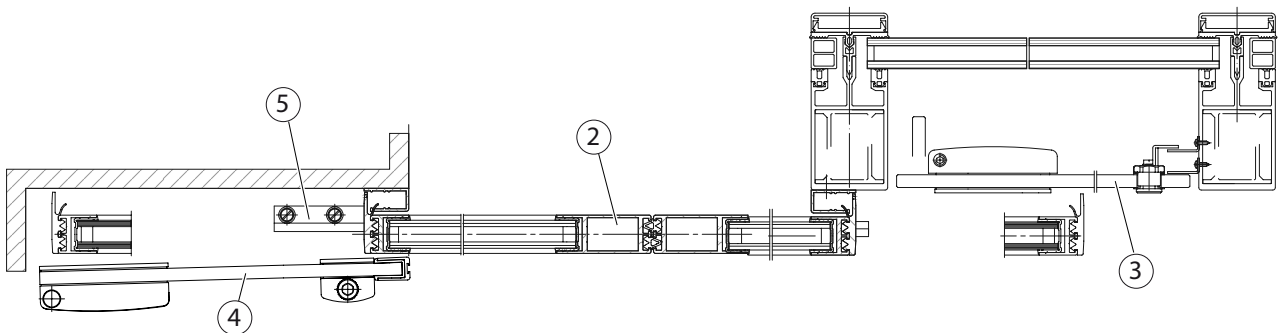
The following drawings illustrate installation with ISO profile systems.
 The following profiles are also possible in combination with the Slimdrive SL NT:

- IGG
- GGS

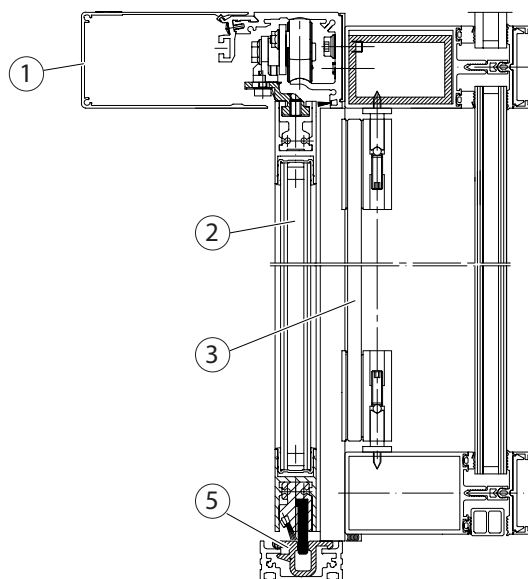
View from the front



View from above (Slimdrive SL NT with ISO profiles)



View from the side (Slimdrive SL NT with ISO profiles on post-rail construction)



- 1 Sliding door system drive
- 2 Moving leaf
- 3 Safety leaf
- 4 Protective leaf
- 5 Floor guide

4 Overview

4.1 Diagrams

Number	Type	Name
70511-0-001	Drive drawing	GEZE Slimdrive SL NT, drives
70511-ep01	Installation diagram	Slimdrive SL NT /-FR, ISO-glass fitting
70511-ep03	Installation diagram	Slimdrive SL NT /-FR, ISO-glass fitting
70511-ep05	Installation diagram	Slimdrive SL NT/-FR , IGG-door fitting
70511-ep06	Installation diagram	Slimdrive SL NT /-FR with GGS
70511-ep07	Installation diagram	Slimdrive SL NT with protective leaf
70511-ep08	Installation diagram	Slimdrive SL NT/-FR, wooden leaf
70511-ep13	Installation diagram	Slimdrive SL NT /-FR, ISO-glass fitting + hook lock
70511-ep16	Installation diagram	Slimdrive SL NT & Lock A, 2-leaf
70511-ep17	Installation diagram	Slimdrive SL NT & Lock A, 1-leaf
70511-ep18	Installation diagram	Slimdrive SL NT /-FR, Lock M, 2-leaf
70511-ep19	Installation diagram	SL NT /-FR, Lock M, 1-leaf
70511-ep21	Installation diagram	Slimdrive SL NT /-FR, ISO-glass fitting, Lock M
70504-ep03	Installation diagram	Floor lock for ISO
70484-ep04	Installation diagram	Safety leaf for sliding door systems
70511-2-0209	Component drawing	Track, bespoke, SL NT
70511-2-0231	Component drawing	Track, drilled, SL NT
70511-2-0281	Component drawing	Track, bespoke, SL NT 2-leaf, GGS with fixed panels
70511-2-0282	Component drawing	Track, bespoke, SL NT 1-leaf, left hand slide to open, GGS with fixed panel
70511-2-0283	Component drawing	Track, bespoke, SL NT 1-leaf, right hand slide to open, GGS with fixed panel
70511-2-0228	Component drawing	Connecting profile roller carriage
70511-2-0200	Component drawing	Cover, bespoke, SL NT
70511-1-0107	Component drawing	Module mount right, DCU1-NT, SL NT
70511-1-0108	Component drawing	Module mount right, SL NT -FR 2M / -FR DUO
70511-1-0109	Component drawing	Module mount right, SL NT -FR LL/ -FR RWS
70511-1-0106	Component drawing	Module mount left SL NT and locking mechanism
70511-1-0117	Component drawing	Module mount left, SL NT
70715-1-0159	Assembly group drawing	Continuous floor guide
70715-9-9854	Installation drawing	ISO leaf Slimdrive SL NT
70715-9-9864	Installation drawing	ISO leaf, rubber secondary closing edge, Lock M, Slimdrive SL NT
70715-9-9863	Installation drawing	ISO leaf, rubber secondary closing edge, Lock A, Slimdrive SL NT



The diagrams are subject to change without notice. Use only the most recent version.

4.2 Tools and aids

Tool	Size
Tape measure	
Marking pen	
Torque spanner	
Allen key	2 mm, 2.5 mm, 3 mm, 4 mm, 5 mm, 6 mm
Open-ended spanner	8 mm, 10 mm, 13 mm, 15 mm
Ring spanner	8 mm
Screwdriver set	Slotted up to 6 mm, cross-slot PH2 and PZ2
Torx key	Tx 20 (bit insert length at least 110 mm)
Side-cutting pliers	
Crimping pliers for cables	
Wire stripper	
Plastic bottle as tip safeguard	
Display programme switch/Service terminal ST220/GEZEconnects	

4.3 Torques

The torques are given at the respective installation step.

4.4 Components and assembly groups

See the ep-drawing for the required installation situation and drive drawings.

5 Installation



WARNING!

Risk of fatal injury due to electric shock!

- ▶ Do not loosen screwed electric protective earth connections.



- ▶ Secure workplace against unauthorised entry.
- ▶ Always work with a second person.
- ▶ Use a stepladder or stepstool.
- ▶ Keep inside area of track clean.

5.1 Preparations to be made on-site



- ▶ Check the preparations made on-site by the customer to ensure proper installation:
 - Type and load capacity of the façade construction or suspending frame
 - Evenness of the installation surface
 - Evenness of the finished floor level
 - Cable plan requirements

5.2 Preparing the track

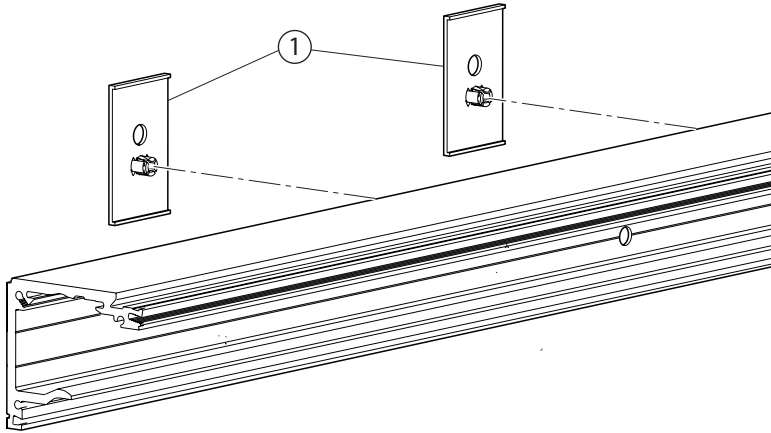


- ▶ Pre-mounted systems are delivered with attached module mount.
 - ▶ Remove the module mounts to make it easier to fix the track to the wall.

5.3 Mounting the track

- ! ▶ Protect the running surface from damage.

5.3.1 Mounting the intermediate plates



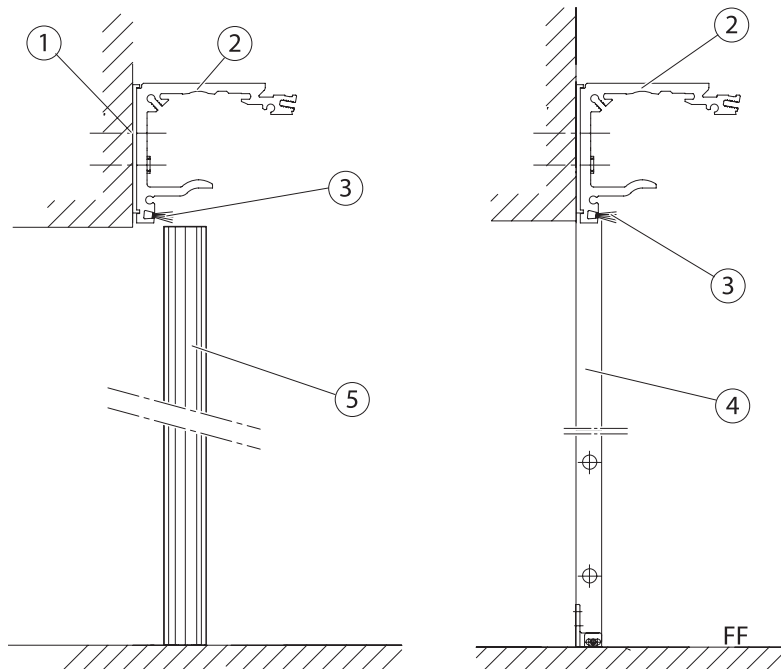
- ▶ Clip the intermediate plates (1) onto the rear of the track.
- Upper row of drill holes for wall installation
 - Lower row of drill holes for the clip of the intermediate plate

- ! Mounting can also be carried out conversely depending on the building structure (post design). Use the upper row of drill holes for fixing if possible.

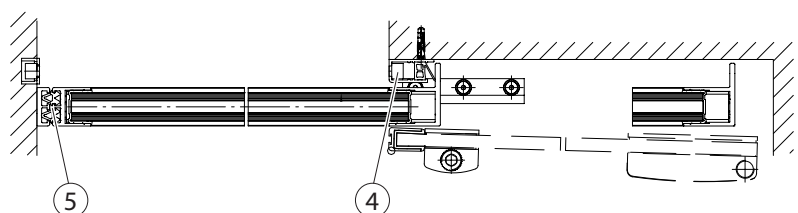
5.3.2 Install the track

View from the side

- ▶ Determine the installation height of the track (2). Take unevenness of wall and floor into account.
 - ▶ Align the track horizontally.
 - ▶ Mark the fastening drill holes (1) (upper row of drill holes on the track).
 - ▶ Remove the track.
 - ▶ Drill the holes (1) for fixing.
 - ▶ Install the brush profile with brush (3).
 - ▶ Screw the track (2) in place.
 - ▶ Install the sealing profiles (4).
 - ▶ Press rubber seal into the draught sealing profiles.
- With 1-leaf systems:
- ▶ Install the wall strips (5).



View from above



5.4 Mounting the floor guide



- The selection of floor guide depends on the on-site conditions. One of the following floor guide options must be used.
- For further information see the respective installation drawing, Chapter 4.1.

5.4.1 Fitting angled floor guide for floor mounting (option)

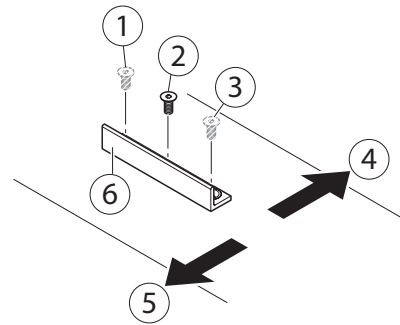
Angled floor guide with moving leaf left hand slide to open

- ▶ Screw the angled floor guide (6) in place using 2 suitable countersunk screws (1) and (2).

Angled floor guide with moving leaf right hand slide to open

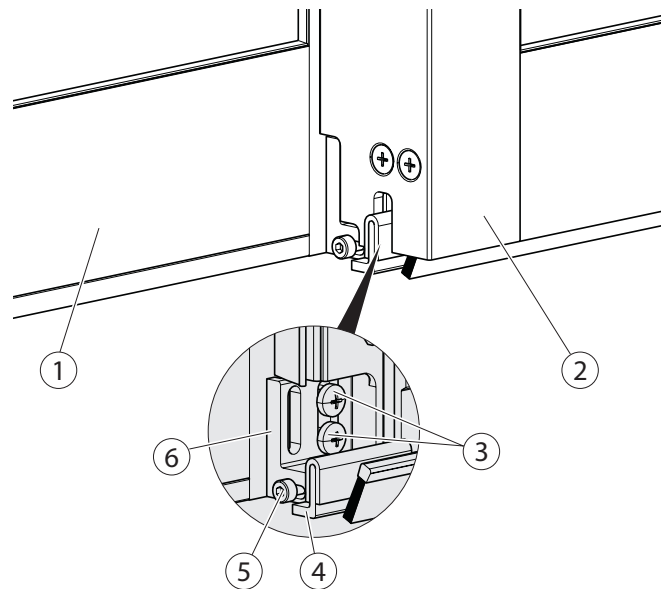
- ▶ Screw the angled floor guide (6) in place using 2 suitable countersunk screws (3) and (2).

- 1 Countersunk screw for moving leaf left hand slide to open
- 2 Countersunk screw
- 3 Countersunk screw for moving leaf right hand slide to open
- 4 Outside
- 5 Inside
- 6 Angled floor guide



5.4.2 Adjustable angled floor guide for wall mounting (option)

- ▶ Screw the fixing bracket (2) to the fixed panel (1) using two screws (5) (torque 5 Nm).
- ▶ Align the moving leaf (6) and thus the adjusting angle (4) and tighten the screw (3) (torque 3 Nm).
- ▶ If there is no fixed panel available, mount the floor guide on the wall using suitable attachment material.



5.4.3 Continuous floor guide (option)



- See the component drawing "Continuous floor guide" on how to install the continuous floor guide.
- For further information see the respective installation diagrams, Chapter 4.1.

5.5 Installing the moving leaf

5.5.1 Fit the connecting arm



WARNING!

Danger of injury due to glass breakage.

- ▶ Always install the moving leaves together with another person.



WARNING!

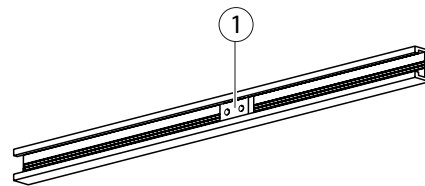
Danger of crushing!

The moving leaves are still unsecured and move easily.

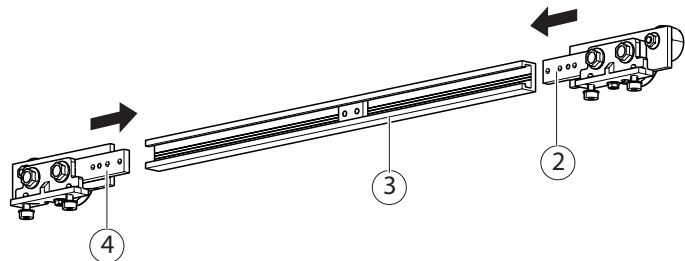
- ▶ Ensure that the moving leaves are not moved accidentally or by unauthorised persons.

1-leaf

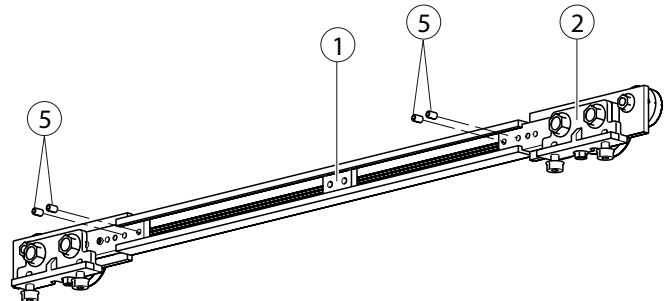
- ▶ Slide the clamping plate (1) into the connecting arm (only for 1-leaf doors).



- ▶ Slide the roller carriage (2, 4) into the connecting profile (3).



- ▶ Secure both roller carriages (2, 4) with 2 set-screws (5) each (torque 3 Nm).

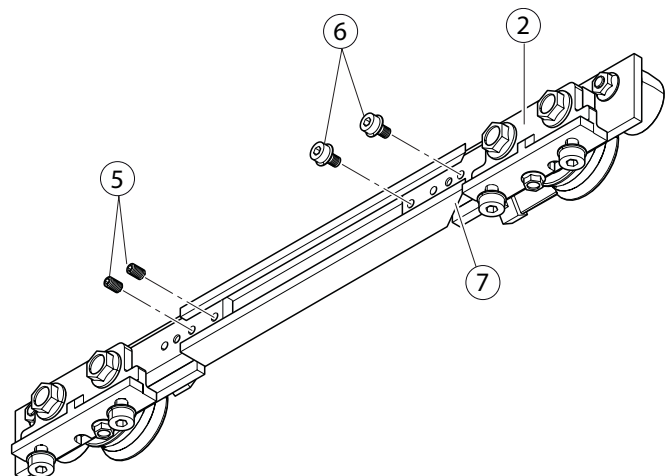


2-leaf

- ▶ Secure the roller carriage (towards the secondary closing edge) with setscrews (5) (torque 3 Nm).
- ▶ Fasten the second roller carriage (towards the main closing edge) with the two screws for the driver (torque 5 Nm).

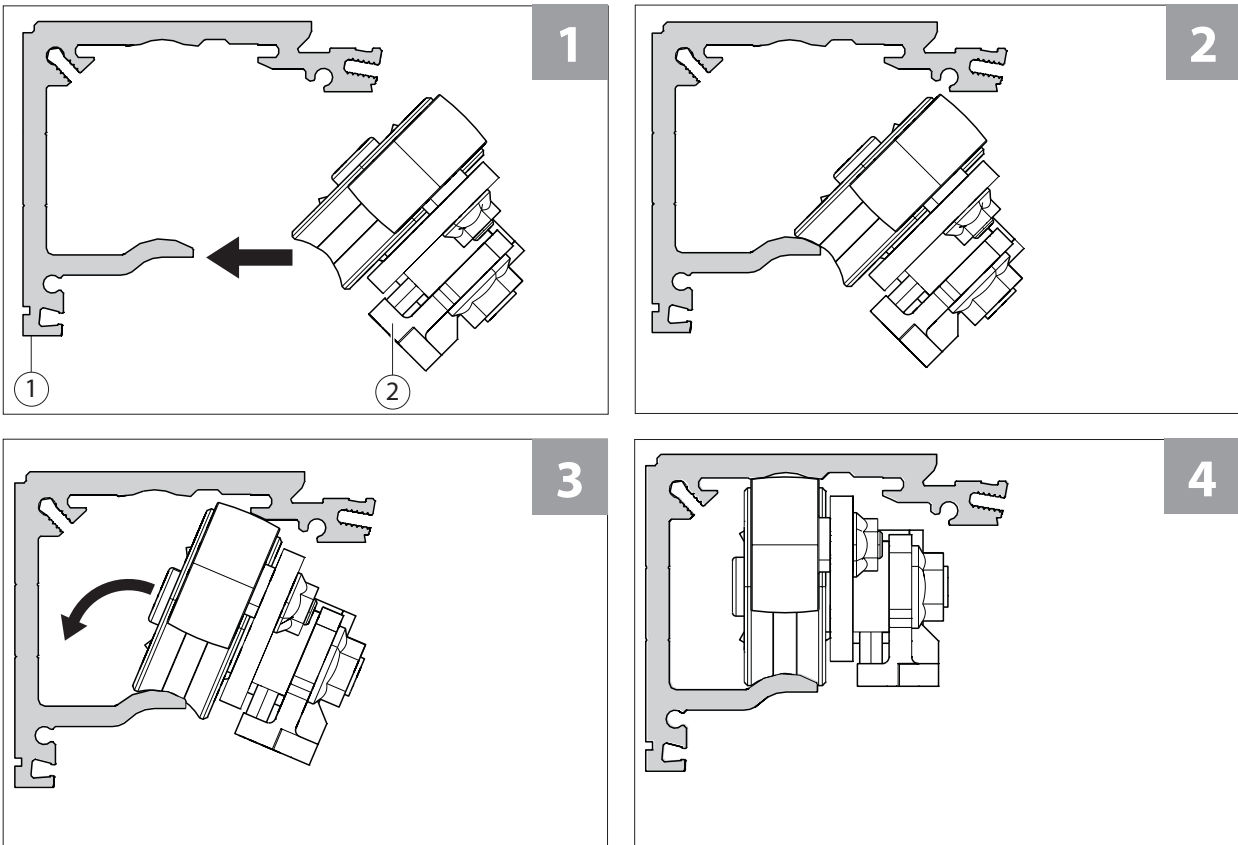


- ▶ The angled part (7) of the connecting arm must be facing the main closing edge.

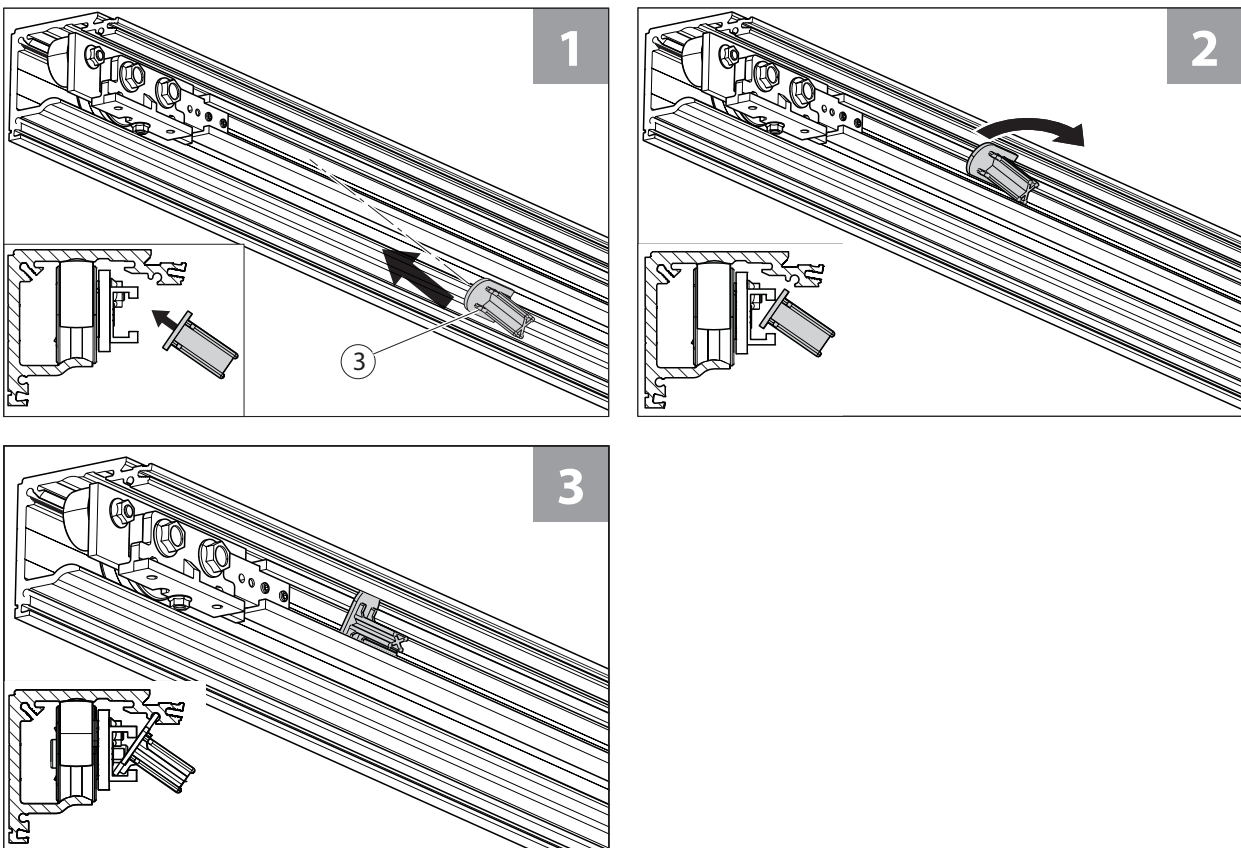


5.5.2 Inserting roller carriage into the track

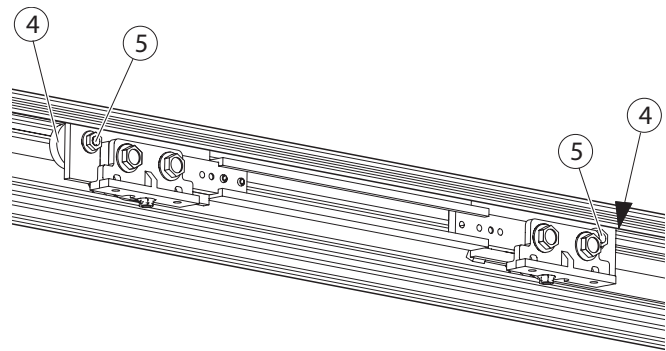
► Insert roller carriage (2) into the track (1) as shown below.



► Insert the moving leaf mounting aid (3) as shown below to secure the roller carriage in the track.



- ▶ Slide the track-supporting rollers (4) upwards and tighten slightly using screws (5).

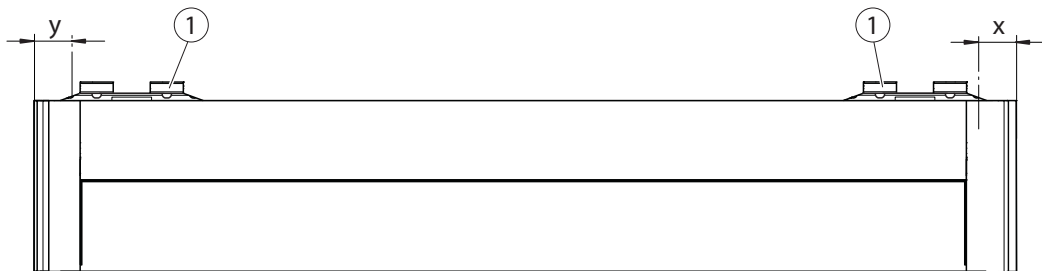


5.5.3 Install the supporting brackets on the moving leaf

- ! The supporting brackets are installed during glazing of the moving leaves. In case of subsequent installation of the supporting brackets, the frames of the moving leaves must be dismantled (see installation instructions for moving leaves).



- See installation drawing for the moving leaf for the position of the supporting brackets (1).



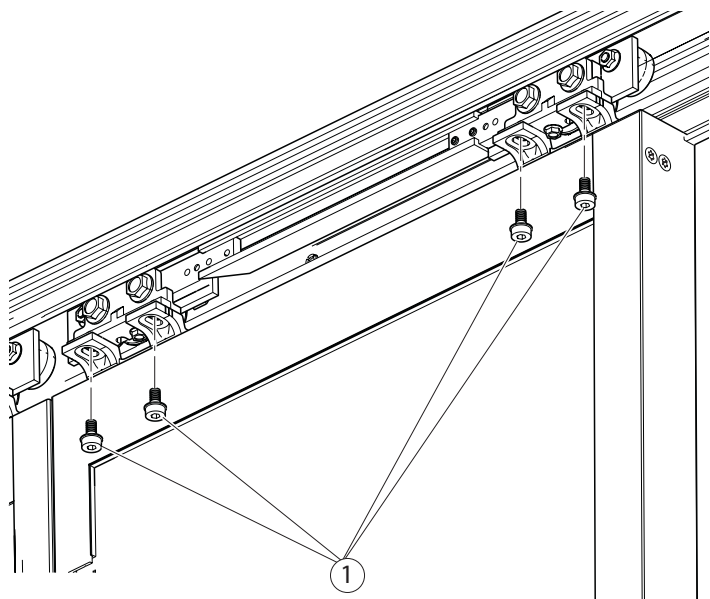
5.5.4 Fitting the moving leaves



WARNING!
 Danger of injury caused by moving leaf falling over
 The moving leaves are very heavy.

- ▶ At least 2 people should work together to set up the moving leaf.

- ▶ Use 4 suspension bolts (1) to screw the moving leaf to the roller carriage, do **not** tighten these yet.
- ▶ Remove the moving leaf mounting aid.



5.5.5 Adjusting the moving leaves

**WARNING!**

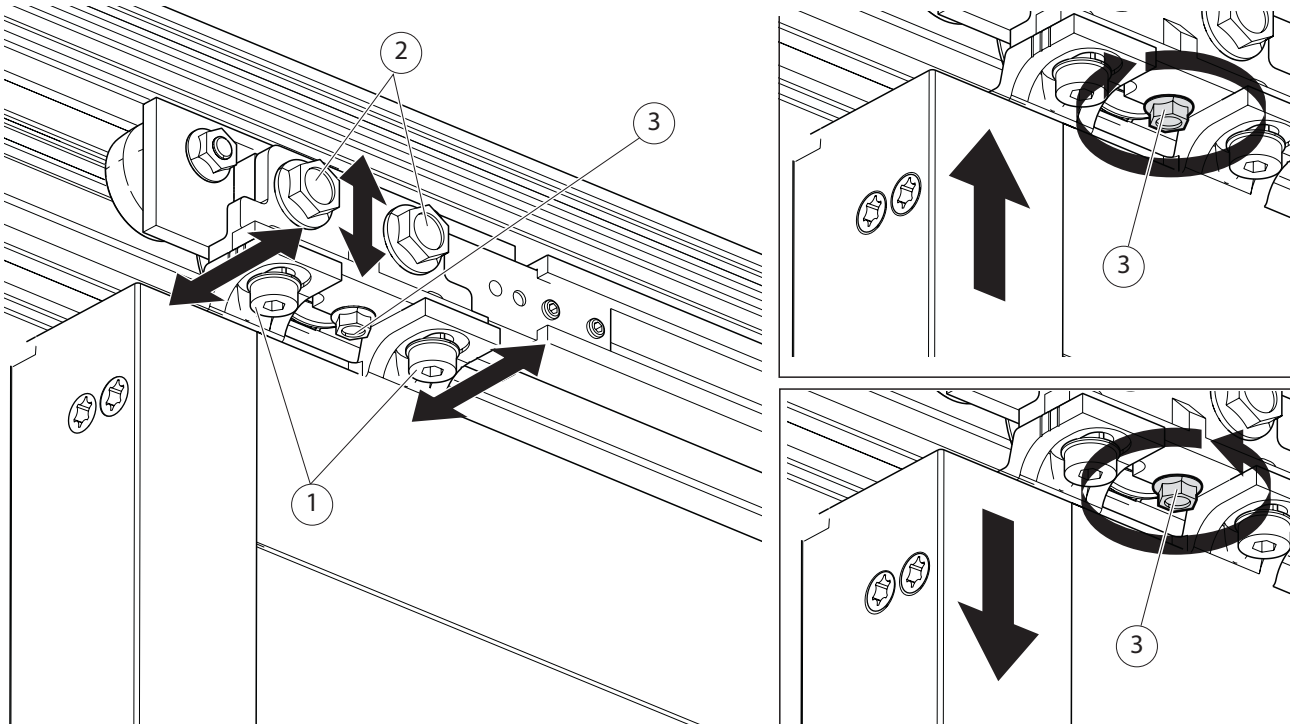
Danger of injury caused by crushing!

The moving leaves are still unsecured and move easily.

- ▶ Make sure that the moving leaves are not moved accidentally or by unauthorised persons.



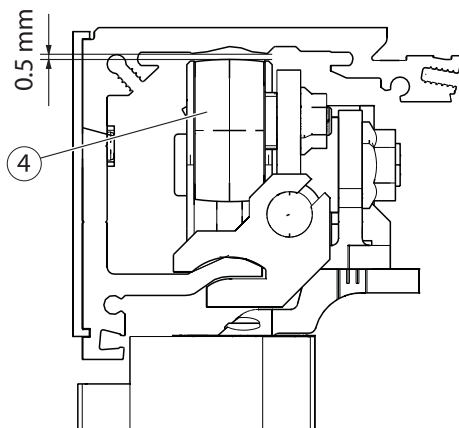
- ▶ Observe the applicable standards and guidelines on crushing, shearing and drawing-in spots.

Adjust the parallel position and height of the moving leaves

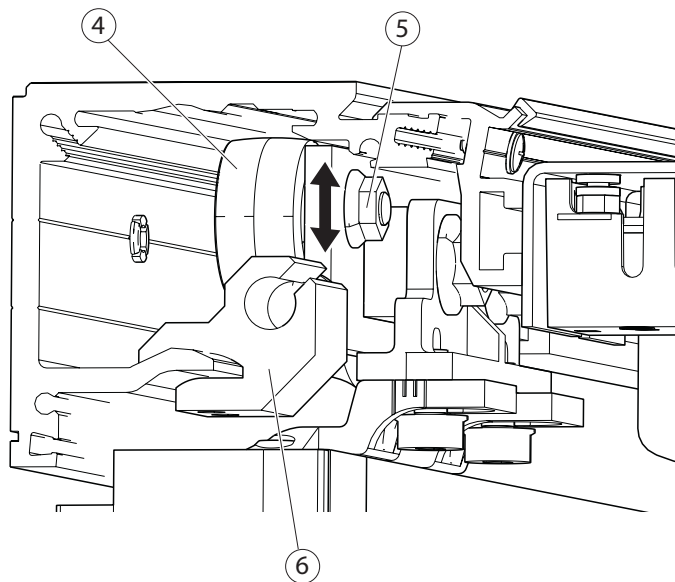
- ▶ Use the suspension bolts (1) to align the door moving leaves flush. Ensure the same level and parallel closing edges when doing so.
- ▶ Loosen the fixing screw for the height adjustment (2) and use the adjustment screw (3) to adjust the moving leaf height.
 - 2-leaf:** Adjust the height of both moving leaves.
- ▶ Tighten the screws (2) (torque 20 Nm).
- ▶ Tighten the screws (1) (torque 10 Nm).
- ▶ Tighten the screw (3) (torque 5 Nm).
- ▶ Note the shearing and pinching spots in accordance with DIN 18650 and DIN EN 16005, see safety analysis and diagrams in Chapter 4.1.
- ▶ Make the individual moving leaf move smoothly.

Adjusting the counter-roller

The counter-roller (4) must have an upper clearance of 0.5 mm to the track (corresponds approximately to the thickness of 4 sheets of copy paper).

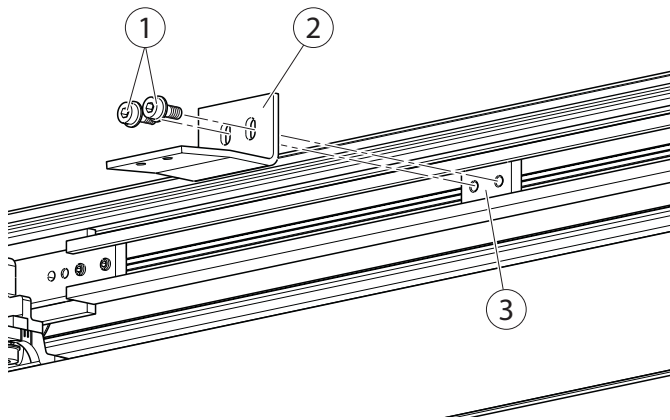


- ▶ Loosen the screw (5) on the rear of the counter-roller.
- ▶ Move the counter-roller until a clearance of approx. 0.5 mm is set.
- ▶ Tighten the screw (5) again (torque 10 Nm).

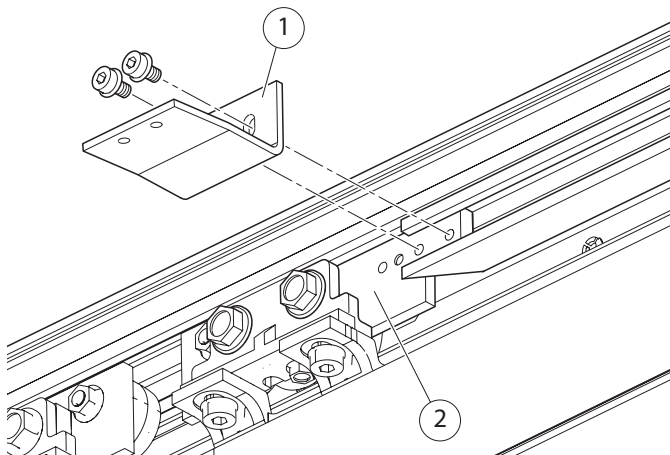


5.5.6 Mounting the short driver

- ! Drivers must not touch any obstacle over the entire travel path.
- See the drive drawing for the precise position of the driver.

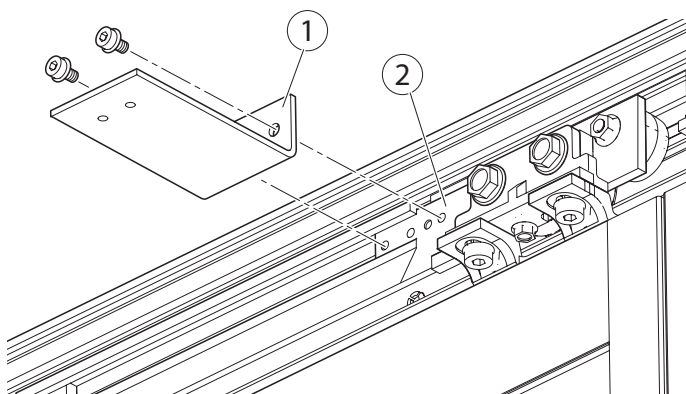
1-leaf:

- ▶ Mount the short driver (2) to the clamping plate (3) using 2 screws (1).
- ▶ Position the clamping plate (3) and short driver (2) on the connecting arm (see drive drawing for position).
- ▶ Tighten the screws (1) (torque 5 Nm).

2-leaf:

- ▶ Use 2 screws to screw the short driver (1) through the outer oblong holes to the left roller carriage (2) on the right moving leaf (torque 5 Nm).

5.5.7 Install the long driver (2-leaf)



- ▶ Use 2 pre-mounted screws to screw the long driver (1) through the outer oblong holes to the right roller carriage (2) on the left moving leaf (torque 5 Nm).
- ▶ Position the moving leaf in the closed position.

5.6 Installing the drive components

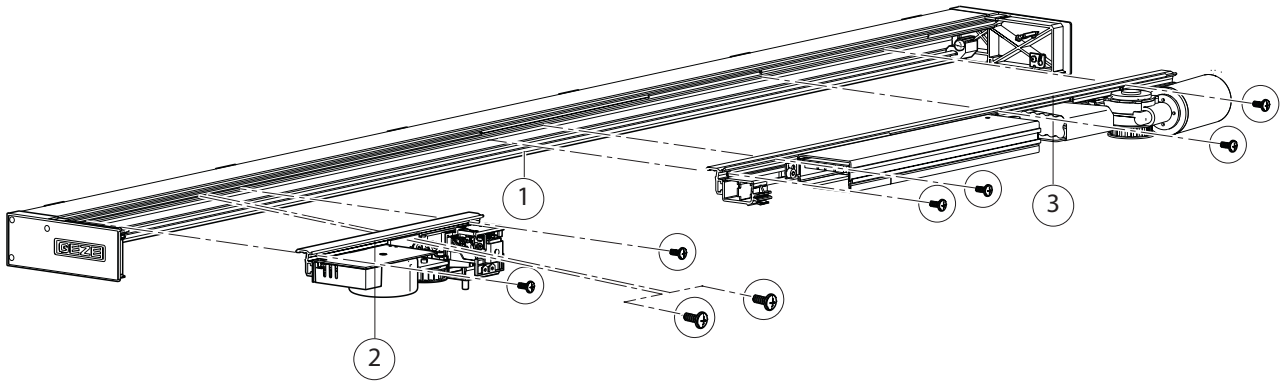
5.6.1 Mounting the module mounts on the left and right



WARNING!

Unsecured components may fall when under load.

- ▶ When mounting the module mount, ensure that its entire length is suspended in the track.

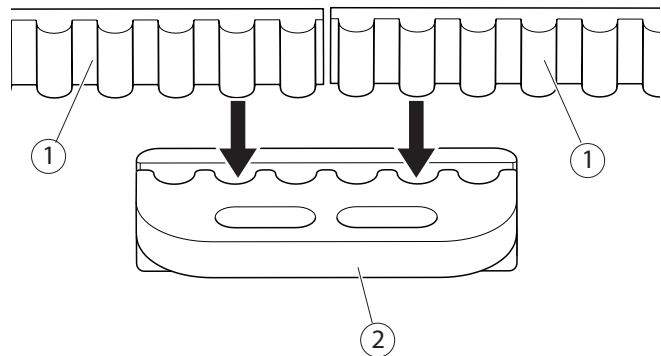


- ▶ Position the right module mount (3) in such a way that driver does not collide with the motor gear unit.
- ▶ Position the left module mount (2) in such a way that driver does not collide with the locking mechanism or the deflection pulley. See drive diagram for positions.

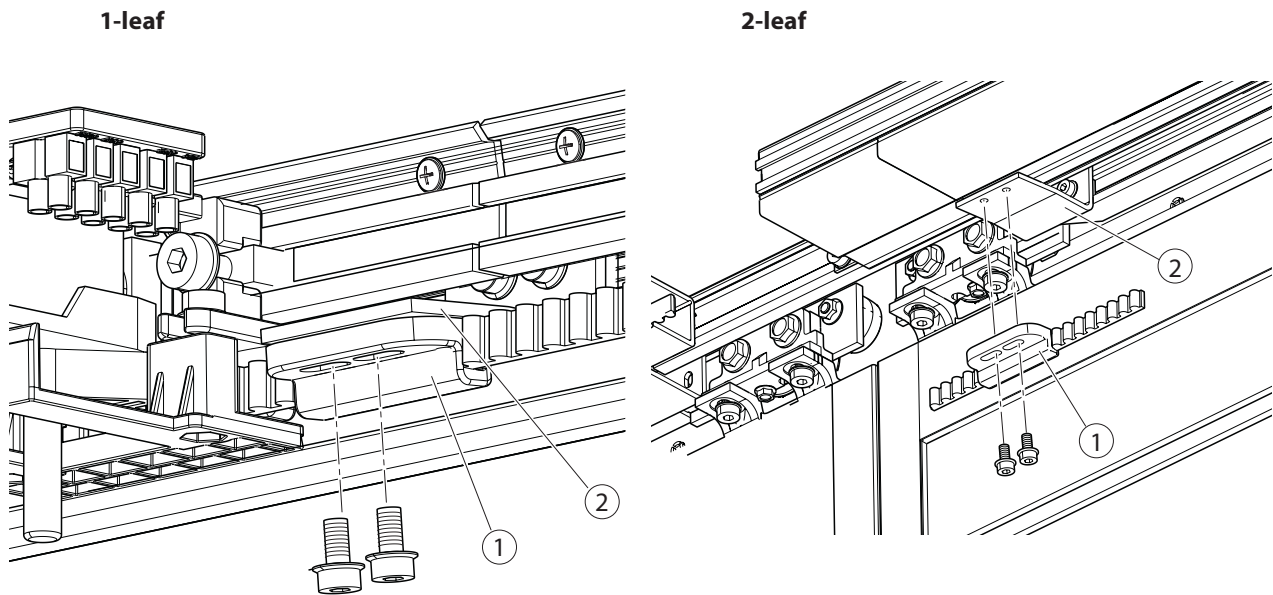
- ▶ Install the pre-mounted module mount left (1) and right (3) to the track (2) using 4 screws each (torque 3.5 Nm).

5.6.2 Fitting the tooth belt

- ▶ Thread the tooth belt on the motor pulley and deflection pulley, shorten if necessary.
- ▶ Insert tooth belt ends (1) into the toothed belt locking (2) (3 teeth per side).



5.6.3 Fitting the tooth belt to the driver

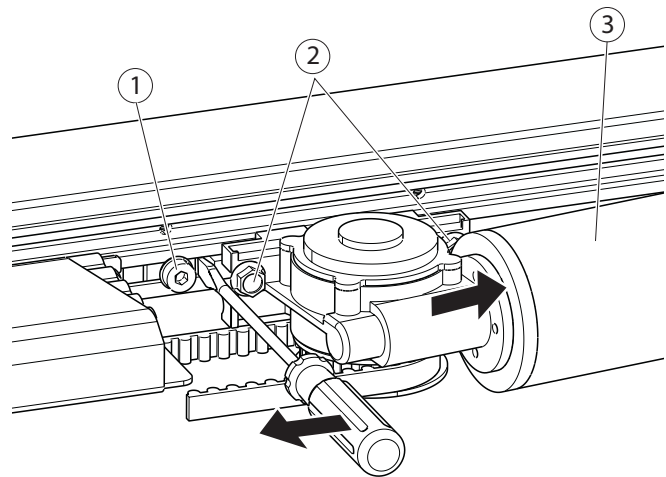


- ▶ Screw the toothed belt locking (1) to the short driver (2). Do **not** tighten the screws yet.

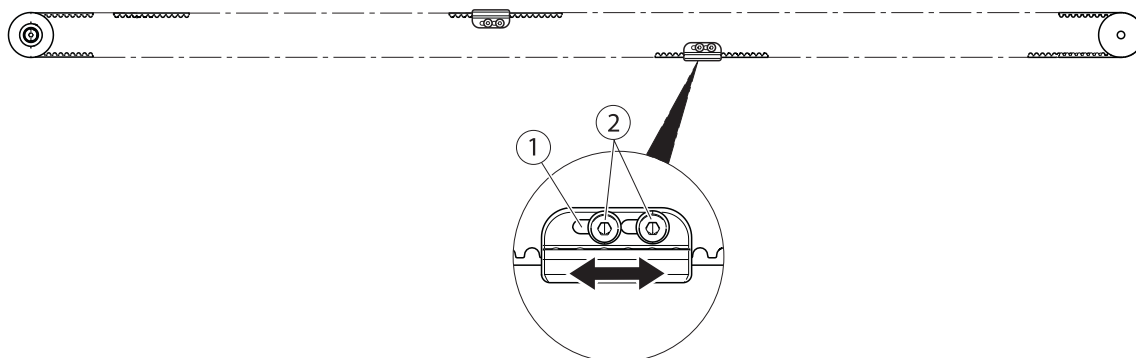
5.6.4 Tensioning the tooth belt

- ! ▶ The tooth belt must be pre-tensioned with $300\text{ N} \pm 35\text{ N}$ (see drive drawing).

- ▶ Undo 2 screws (2).
- ▶ Slide the motor gear unit (3) to the right by hand.
- ▶ Undo the screw (1) and move the sliding block in such a way that a slot-head screwdriver can be pushed between the sliding block and the motor gear unit.
- ▶ Tighten the screw (1) (torque 10 Nm).
- ▶ Push the slot-head screwdriver into the gap and lever it until the tooth belt is pre-tensioned.
- ▶ Tighten 2 screws (2) (torque 15 Nm).



5.6.5 Setting the closing position

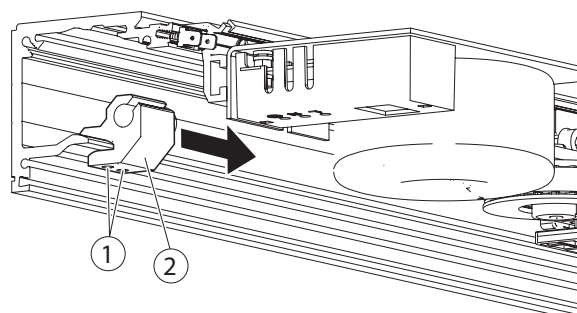
Setting the closing position

With 2-leaf systems:

- ▶ Slide the moving leaf to the closed position.
- ▶ Fit second belt lock on the long driver, do not tighten the screws (2) yet.
- ▶ Use the oblong holes (1) to finely adjust the position in the direction of displacement.
- ▶ Tighten the screws (2) on both belt locks when the exact closing position has been set (torque 6 Nm).

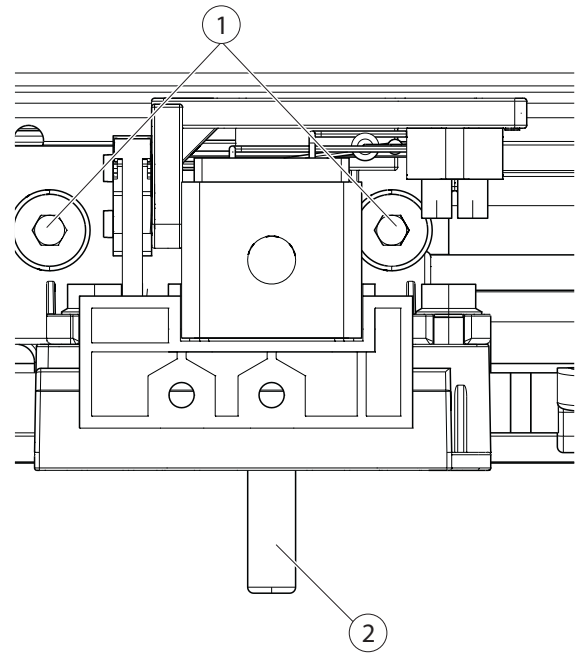
5.6.6 Setting the stop buffer

- ▶ Undo the setscrews (1) on the stop buffer (2).
- ▶ Slide the moving leaf to the open position.
- ▶ Slide the stop buffer on the roller carriages.
- ▶ Tighten the setscrews (1) using the Allen key (torque 3 Nm).



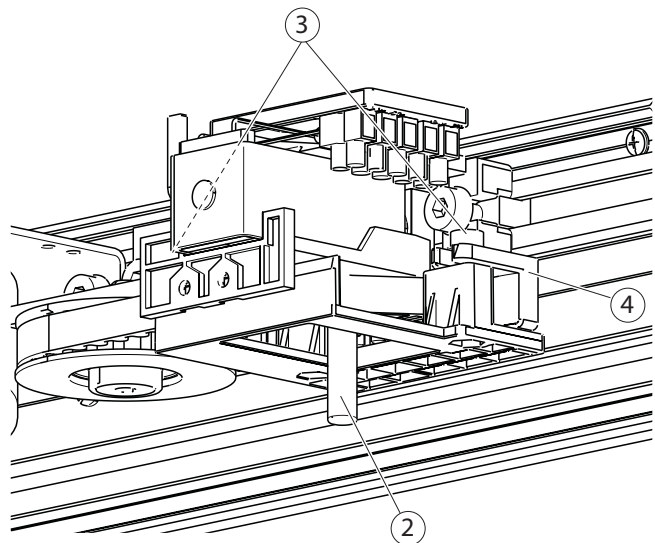
5.6.7 Position the tooth belt locking mechanism (optional)

- ▶ Close the moving leaves.
- ▶ Loosen the screws (1) at the tooth belt locking mechanism (optional).
- ▶ Align the locking device.



! Following installation, the locking pin (2) must be positioned in the hole in the cover in such a way that the locking mechanism can be locked and unlocked.

- ▶ If necessary enlarge the drill hole.
- ▶ Tighten screws (1).
- ▶ Adjust the locking guide (4) so that the tooth belt neither touches nor has too much clearance. To do this, loosen 2 screws (3), move the locking guide (4) and re-tighten the screws (3) (torque 5 Nm).



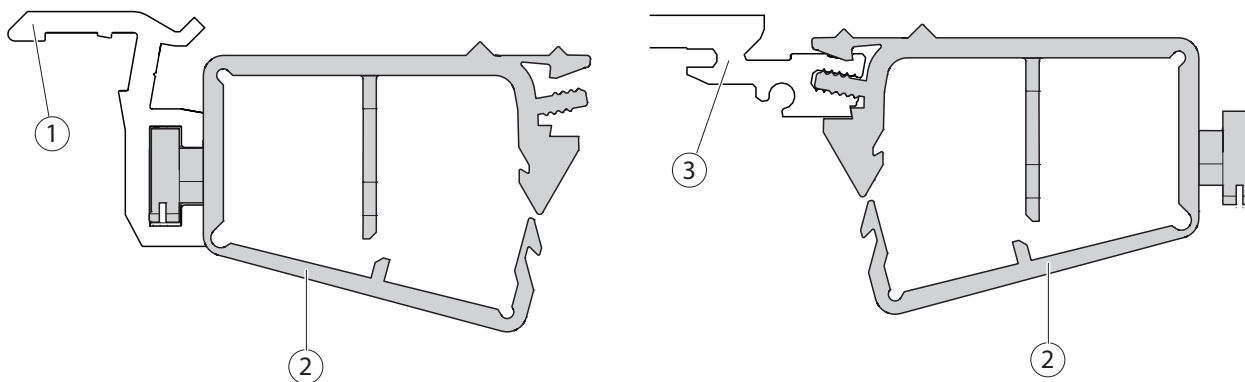
! The driver must not come into contact with the tooth belt locking mechanism (optional) during operation.

- ▶ After the tooth belt has been installed, check (click) the switching points of the indicator switches of the tooth belt locking mechanism (optional). Adjust by bending the actuator levers, if necessary.

5.6.8 Mounting cable guides

**Cables can be cut!**

- ▶ Lay cables in such a way that there are no cables near the moving parts.



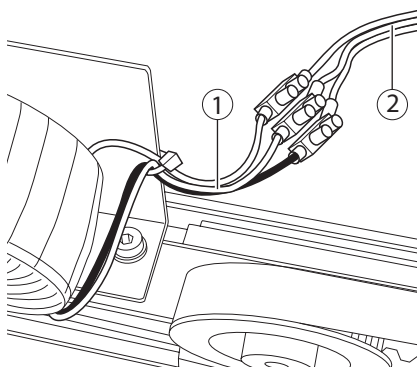
- ▶ Fix the cable guide (2) to the module mount (1) or track (3). Cable guide spacing approx. 200 mm.

5.6.9 Connecting transformer and control unit

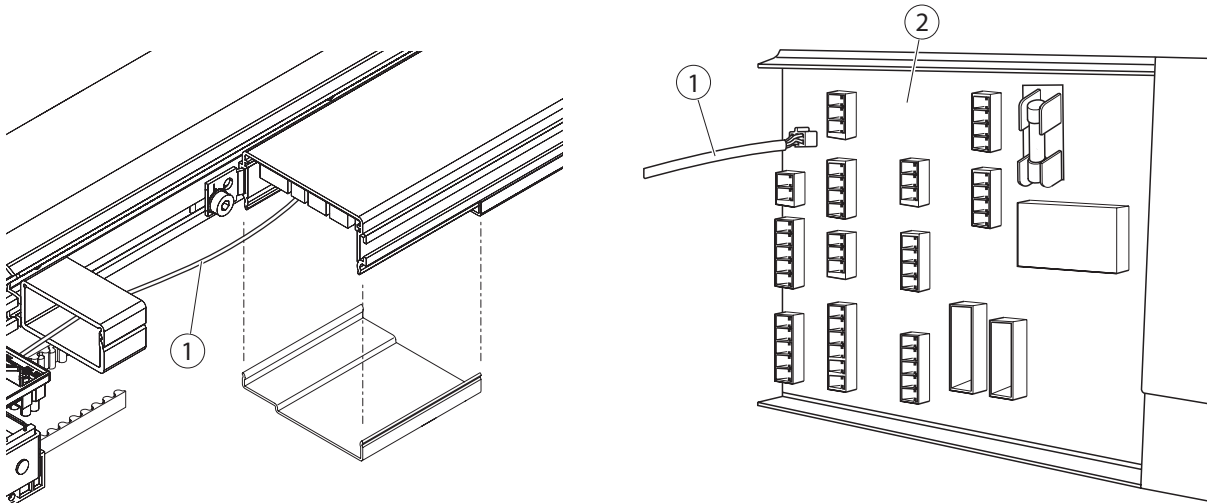
**Note earthing connection!**

Do not mix up wires!

- ▶ Connect transformer cable (2) to the cable (1) on the transformer.



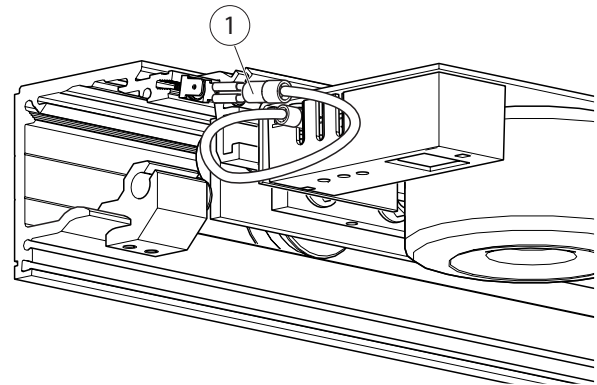
5.6.10 Connecting the tooth belt locking mechanism (optional) and control unit



- ▶ Route the cable tooth belt locking mechanism (optional) (1) to the control unit (2) and plug it in.

5.7 Connecting earthing

- ▶ Connect the earthing cable (1) from the transformer to the device flat plug.



6 Production test and commissioning

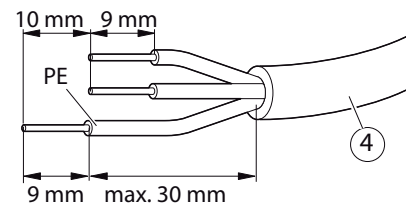
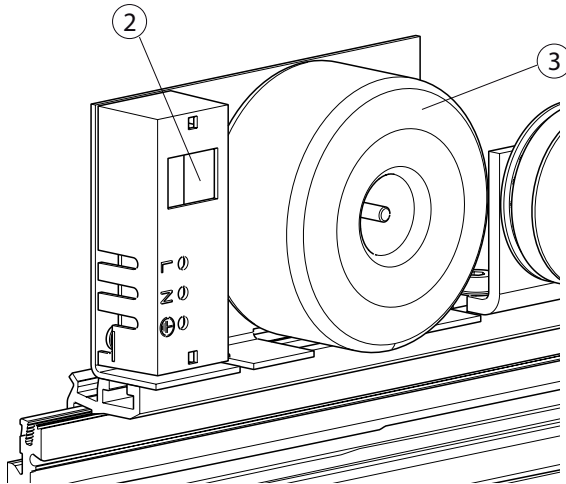
6.1 Connecting the drive



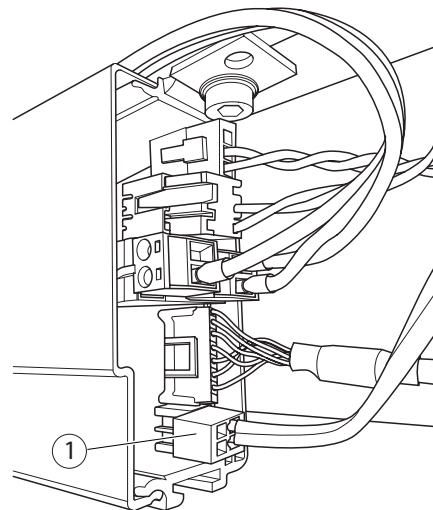
WARNING!

Risk of fatal injury due to electric shock!

- ▶ The electrical system (230 V) may only be connected and disconnected by a qualified electrician or a qualified electrician for specified tasks.
 - ▶ Carry out mains connection and earth conductor test in accordance with VDE 0100 Part 600.
-
- ▶ Strip insulation from the mains cable (4) max. 40 mm.



- ▶ Strip the mains cable (4).
 - Insulation stripping length 40 mm
 - Stripping length 9 mm
 - PE line lead 10 mm
- ▶ Connect the drive to the 230 V mains network.
- ▶ Switch the main switch (2) on at the transformer (3).
- ▶ Insert the rechargeable battery connector (1) at the control unit.



- ▶ Carry out the production test as described in the wiring diagram "Automatic sliding doors DCU1-NT/DCU1-2M-NT".

6.2 Mounting the cover



WARNING!

Danger of injury!

People can be injured when handling the cover.

- ▶ Always make sure two people handle the cover.



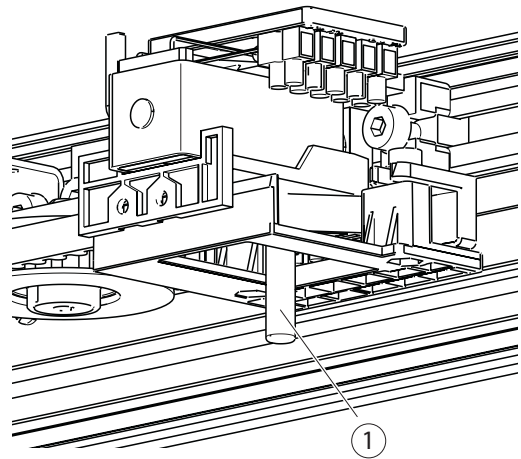
WARNING!

Danger of injury from falling cover!

▶ Make sure that the cover is attached along the entire length of the track.

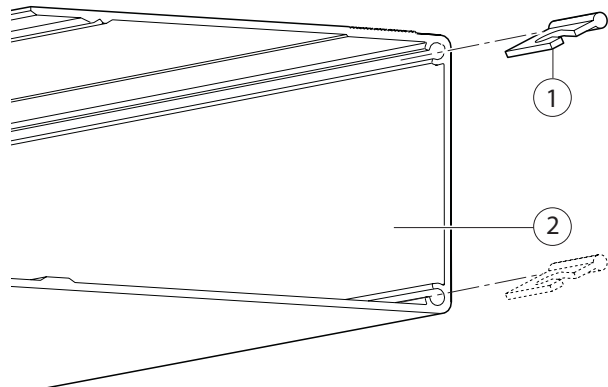
▶ Release the cover carefully and check whether it has been suspended safely.

- ▶ Unscrew the locking pin (1) from the tooth belt locking mechanism (optional).

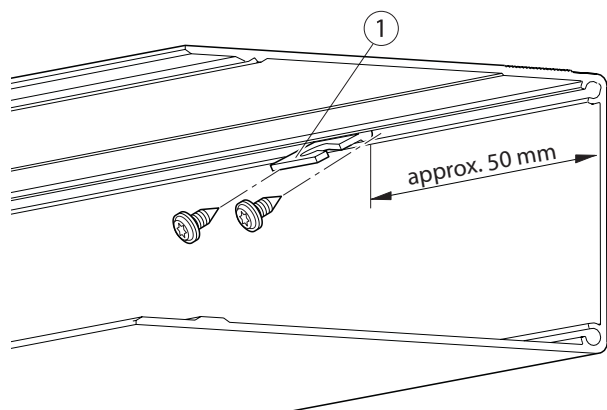


6.2.1 Mount the cover suspension piece

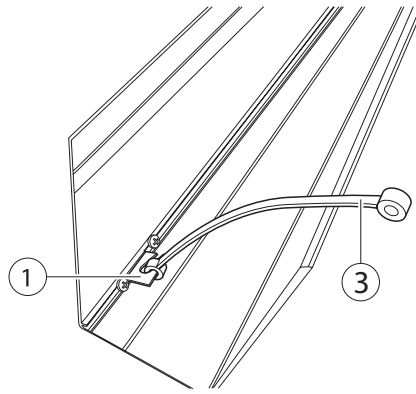
- ▶ Slide the cover suspension piece (1) into the upper or lower screw duct of the cover (2).



- ▶ Secure the cover suspension piece (1) on the right and left at a distance of approx. 50 mm from the end of the cover using 2 screws (tightening torque max. 1.5 Nm).

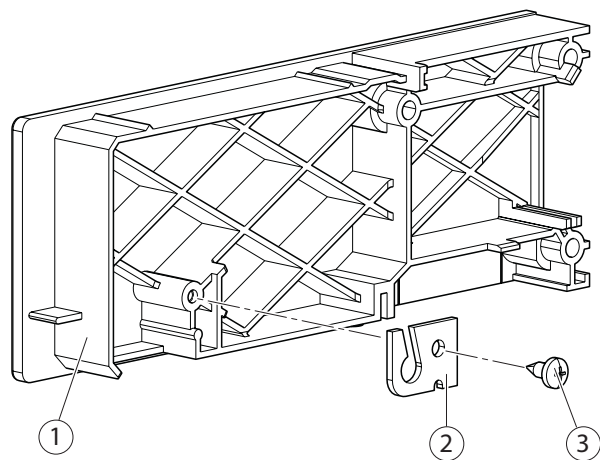


- ▶ Push the cords (rubber cables) (3) onto the mounted suspension pieces (1) of the cover.



6.2.2 Mounting the side panel suspension piece

- ▶ Screw the side panel suspension piece (2) using the oval head screw (3) into side panels (1) left and right (tightening torque 1.5 Nm).

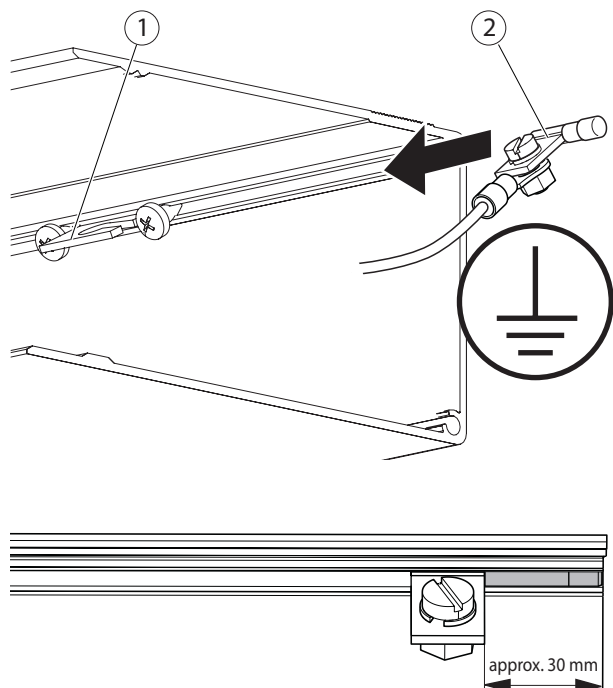


6.2.3 Fitting the cover earthing

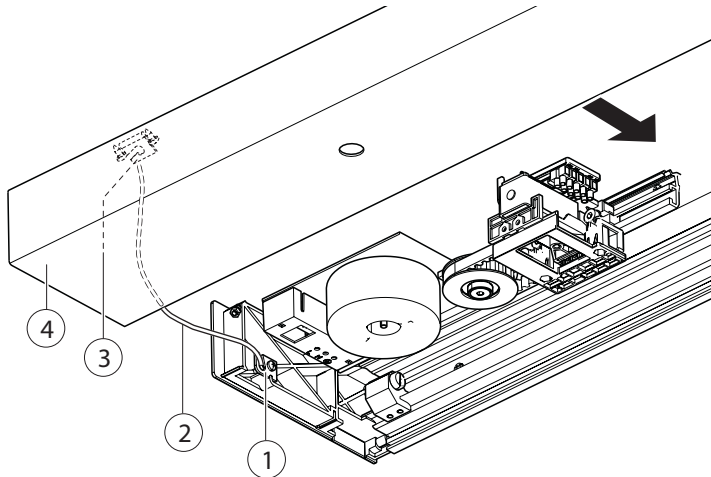


- ▶ Before installing the cover earthing, check whether the cover suspension piece (1) has been fitted.

- ▶ Knock the locating pin for the cover earthing (2) on the side of the earthing approx. 30 mm into the upper screw duct.



6.2.4 Hook the cover catch rope in place

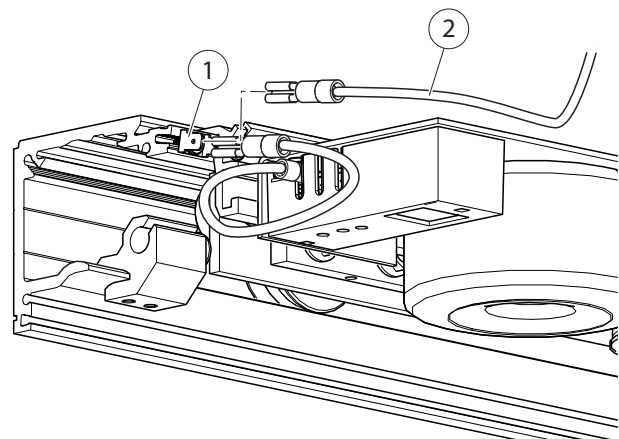


- ▶ Hook the cover catch rope (2) on the cover suspension piece (3) in the cover (4).
- ▶ Hook the cover catch rope (2) on the suspension piece (1) of the side panels.

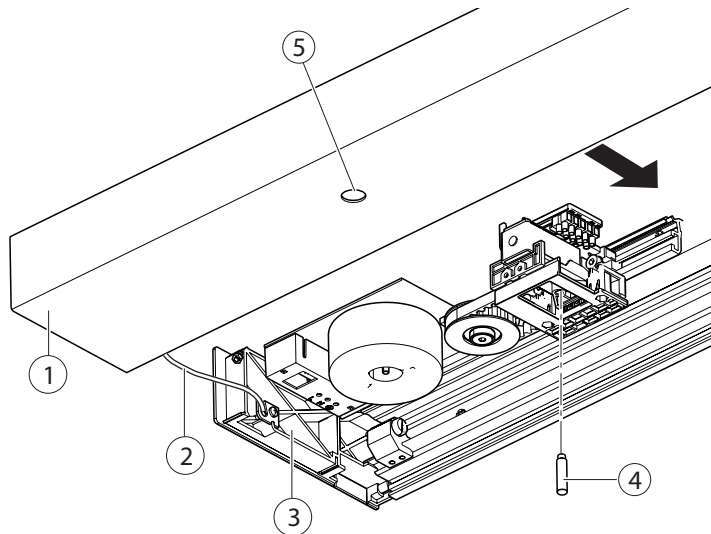
6.2.5 Connecting cover earthing

- ▶ Connect the earthing cable (2) of the cover using the plug-in connection of the device flat plug (1).

! Depending on the length of the drive, a 2nd device flat plug must be fitted for hood earthing, in order to bridge the gap between the transformer earthing and the cover earthing.



6.2.6 Sliding the cover in place



- ▶ Slide the cover (1) onto the side panels (3) until it latches in and ensure that it is also seated correctly in the area of the module mounts and cable guides.



- ▶ Check the correct position of the cover catch ropes (2) and the earthing wire. There must not be any contact with moving parts.

- ▶ Turn the locking pin (4) into the tooth belt locking mechanism (optional).



- Following installation the locking pin (4) must be positioned in the hole of the cover in such a way that the locking mechanism can be locked and unlocked.

- ▶ If necessary, enlarge the drill hole (5) in the cover.

6.3 Mounting the safety devices



For information about connection and parameter setting of the safety sensors, and the inputs and outputs and on commissioning, please refer to the wiring diagram.

- ▶ Mount safety and activation equipment.
 - ▶ Route cables properly in cable ducts.
- For electrical installation, see wiring diagram.

6.4 Installing operating elements/switches/push buttons

For electrical installation, see wiring diagram.



- ▶ Install the operating elements in such a way that users cannot stand in hazardous areas.

6.5 Commissioning the door system



For information about connection and parameter setting of the safety sensors, and the inputs and outputs and on commissioning, please refer to the wiring diagram.

6.5.1 Creating log book

- ▶ Carry out a safety analysis.
- ▶ Record installed options in the safety analysis for the operator.

6.6 Dismantling

**WARNING!****Risk of fatal injury due to electric shock!**

- ▶ The electrical system (230 V) may only be disconnected by a qualified electrician or a qualified electrician for specified tasks.
-

**WARNING!****Danger of injury!**

People can be injured when handling the cover.

- ▶ If the cover is more than 4 m long, always work in pairs when handling the cover.
-

**CAUTION!****Danger of injury due to impact and crushing!**

- ▶ Secure the moving leaves against unintentional movement.
 - ▶ Disconnect the rechargeable battery.
-

Dismantling is done in the reverse order of installation.

7 Service and maintenance

7.1 Mechanical service

7.1.1 Checking tooth belt tension

- ▶ The tooth belt must not lift up from the motor gear or skip when braking and accelerating.
- ▶ If the tooth belt lifts up or skips, adjust the tooth belt tension to $300 \text{ N} \pm 35 \text{ N}$.

7.1.2 Tensioning the tooth belt

See chapter 5.6.4.

7.2 Maintenance



CAUTION!

Danger of injury due to impact and crushing!

- ▶ Secure door leaves against accidental movement.
- ▶ Disconnect rechargeable battery.
- ▶ Disconnect mains voltage.



- Only genuine spare parts may be used.
- To ensure the functional ability, the wear parts of the sliding door system must be checked at every maintenance and replaced if necessary.



- The prescribed maintenance work on the sliding door system must be done by an expert:
 - at least once a year
 - or
 - when the service indicator on the programme switch lights up (see wiring diagram).
- Depending on the configuration, not all the wear parts listed are present.
- ▶ Provide test documents and keep them up-to-date.

Wear parts present	Replacement interval
Rechargeable battery	two years
Roller carriage/track and track-supporting rollers	when worn or damaged
Cleaning and sealing brushes	when worn or damaged
Tooth belt	when worn or damaged
Floor guide	when worn or damaged
Deflection pulleys	when worn or damaged
Motor gear unit	when worn or damaged
Cover fixing	when worn or damaged
Rubber cable	when worn or damaged
Deflector for rubber cable	when worn or damaged



After completing the maintenance work, always execute the learning function for the door.

Test spot	Action	Comments
Track	Check for cracks	▶ Replace the track
	Check for cleanliness	▶ Clean the track
Roller carriage	Check the abrasion of the track rollers	▶ Remove the abrasion
	Check brushes	▶ Remove the roller carriage (see Chapter 8.2) ▶ Replace the brushes if necessary (see Chapter 8.3)
Floor guide area	Check for jarring-free function	▶ Clean floor guide area
Floor guide area (brushes)	Check for soiling and hardness	▶ Clean or replace
Moving leaf	Check for smooth movement	▶ See Chapter 8.1.1
Tooth belt	Check for wear & tear and damage	▶ If necessary, replace the tooth belt(see Chapter 5.6.2)
	Check tension	▶ If necessary, tighten the tooth belt (see Chapter 5.6.4)
	Check tooth belt locking mechanism (optional) for damage	▶ Re-position the tooth belt locking mechanism (optional) if necessary (see Chapter 5.6.7)
Tooth belt locking mechanism (optional)	Check function	▶ Re-position the tooth belt locking mechanism (optional) (see Chapter 5.6.7)
Screws	Check for tight fit	▶ Tighten the screws if (refer to drive drawing for torques)
Assembly groups and peripherals	Check for correct function	▶ Replace assembly group
Cables	Check for damage and correct fastening	▶ Fasten or replace cables

8 Troubleshooting



WARNING!

Risk of fatal injury due to electric shock!

- ▶ The electrical system (230 V/115 V) may only be connected and disconnected by a qualified electrician or a qualified electrician for specified tasks.
- ▶ Carry out mains connection and earth conductor test in accordance with VDE 0100 Part 600.



CAUTION!

Danger of injury with opened drive!

Hair, clothing, cables, etc. can be drawn in by rotating parts.

- ▶ Watch out for rotating parts during work on the opened drive.



CAUTION!

Danger of injury due to impact and crushing!

- ▶ Secure door leaves against accidental movement.
- ▶ Disconnect rechargeable battery.

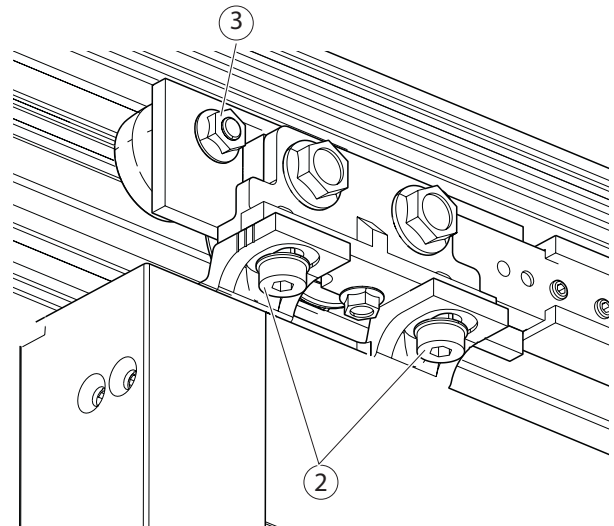
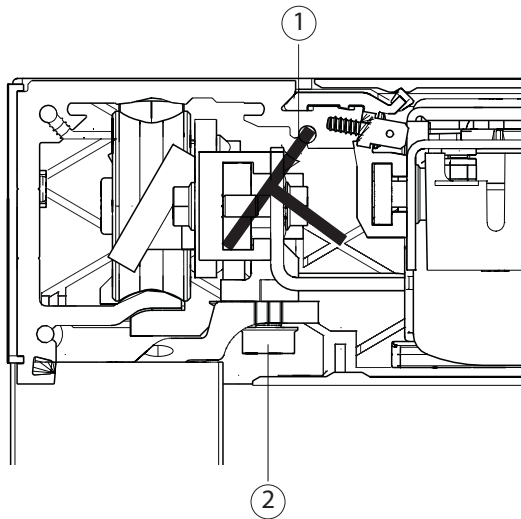
8.1 Mechanical faults

Cause	Remedy
Track bent	▶ Replace the track ▶ Check the installation surface
Moving leaf stiff	▶ Check the moving leaf (see Chapter 8.1.1)
Roller carriage jammed or defective, high abrasion on the track rollers	▶ Replace the track roller (see Chapter 8.2), clean the track
Tooth belt damaged	▶ Replace the tooth belt

8.1.1 Check moving leaf

- ▶ Disconnect the moving leaf from the toothed belt using the toothed belt locking.
 - ▶ Move the moving leaf and check for ease of movement.
- If moving leaves move easily:
- ▶ Check the motor gear unit and deflection pulley and replace if necessary.

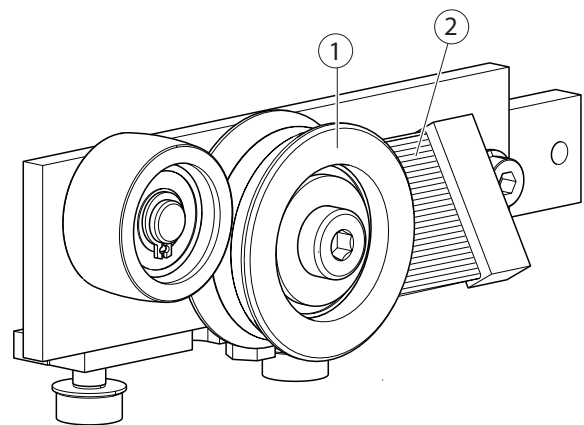
8.2 Replacing roller carriage



- ▶ Loosen the driver from the toothed belt locking.
 - ▶ Separate the driver from the roller carriage.
 - ▶ Use the moving leaf installation aid (1) to secure the roller carriage against tilting.
 - ▶ Loosen the suspension bolts (2) on the roller carriage.
 - ▶ Take the moving leaf out.
 - ▶ Undo the hexagon screw (3) on the counter-roller.
 - ▶ Remove the moving leaf installation aid (1) and replace the track roller or roller carriage.
 - ▶ Reinstall the roller carriage in the reverse order.
- Torque suspension bolts (2): 10 Nm.

8.3 Replace brushes on the roller carriage

- ▶ If necessary, remove the roller carriage (see Chapter 8.2).
- ▶ Pull brushes (2) out of roller carriage.
- ▶ Clean the rollers (1) of the roller carriage and insert new brush (2).
- ▶ Reinstall roller carriage in reverse order.



8.4 Electrical faults

- ▶ **!** For read-out instructions and a list of fault messages, see wiring diagram.

8.4.1 Replacing fuse in transformer



DANGER!

Risk of fatal injury due to electric shock!

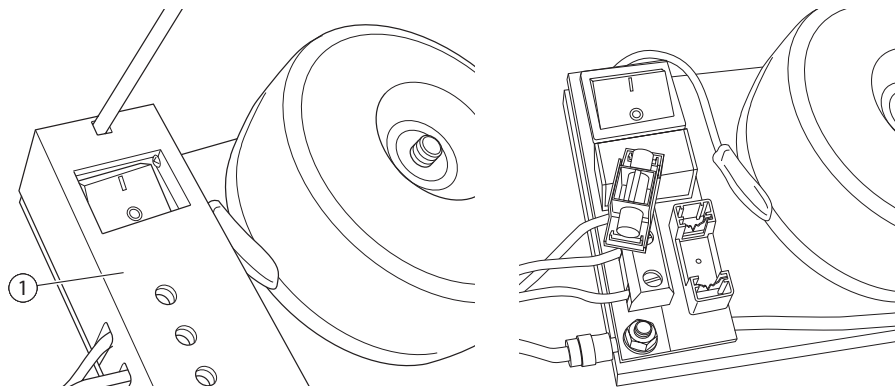
If the main switch on the transformer is activated, the fuse is still energised since it is upstream of the main switch.

The mains voltage 230/115 V must be disconnected from the mains upstream of the fuse.

- ▶ Disconnect the door system from the 230/115 V mains supply on site before removing the PCB cover (1) and secure against being switched back on again.



- ▶ You will find the fuse value on the wiring diagram.



- ▶ Insert a suitable screwdriver into the opening of the PCB cover (1) above the switch.
- ▶ Carefully press the end wall of the PCB cover upward with the tip of the screwdriver. This releases the snap catch.
- ▶ Remove the PCB cover (1).
- ▶ Pull the fuse holder forwards and off and replace the defective fuse.
- ▶ Attach the fuse holder.



- ▶ Do not trap the cable when setting the cover in place.

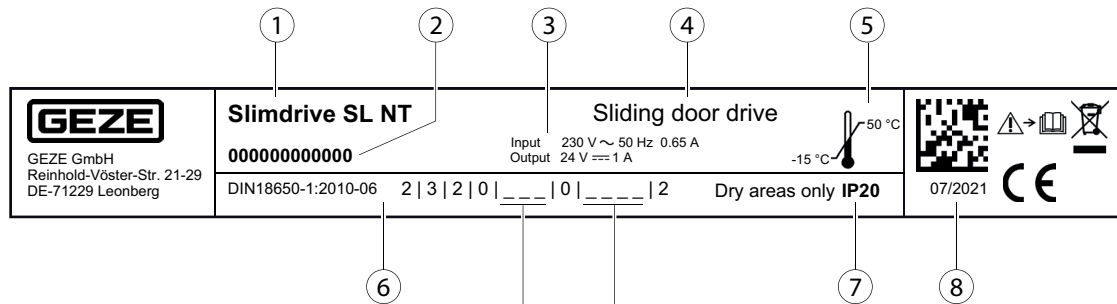
- ▶ Set the PCB cover (1) in place and clip on.

9 Drive identification plate



Only relevant in Germany and in the scope of validity of DIN 18650-1:2010-06.

► Supplement classification code on the identification plate.



Safety devices on the drive (fifth character)

A distinction is made between three classes in terms of safety requirements:

- 1: Force limitation;
- 2: Connection to external safety systems which have been approved by the drive manufacturer;
- 3: Low-energy

Note: Several classes may be marked.

Safety at automatic door system – version/ installation (seventh character)

A distinction is made between five classes of safety devices on door leaves:

- 0: No safety devices;
- 1: With sufficiently dimensioned safety distances
- 2: With protection against crushing, shearing and drawing-in of fingers;
- 3: With built-in turning fitting unit;
- 4: With sensor-controlled protective devices.

Note: Several classes may be marked.

- 1 Product name
- 2 Serial number
- 3 Electr. data
- 4 Machine category
- 5 Ambient temperature
- 6 Only relevant in Germany and in the scope of validity of DIN 18650-1:2010-06: Classification code
- 7 IP rating
- 8 Date of manufacture

10 Inspection of the installed door system

10.1 Protective measures to prevent and protect from hazardous areas

- ▶ Check protective earth connection to all metal parts that can be touched.
- ▶ Perform a safety analysis (risk analysis).
- ▶ Check the function of safety sensors and movement detectors.

10.2 Installation checklist Slimdrive SL NT

No.	Test	in	On page	Completed
1	All cables laid correctly for the installation of the Slimdrive SL NT?	–	–	
2	Track mounted?	5.3	9	
3	Angled floor guide/continuous floor guide installed?	5.4	10	
4	Moving leaf installed?	5.5	11	
5	Drive components installed?	5.6.1	17	
6	Tooth belt mounted?	5.6.2	17	
7	Closing position for 2-leaf door system set?	5.6.5	19	
8	Left and right module mounts connected to the power supply?	6.1	23	
9	Tooth belt locking mechanism (optional) and control unit connected?	5.6.10	22	
10	Safety devices mounted?	6.3	27	
11	Switches/push buttons installed and correctly connected?	6.4	27	
12	Programme switch installed?	6.4	27	
13	Transformer earthing installed?	5.7	22	
14	Earthing connections established?	6.2.5	26	
14	230/115 V connection established?	6.1	23	
15	Cover earthing connected?	6.2.5	26	
16	Cover catch mounted?	6.2	24	
17	Safety analysis carried out?	–	–	
18	Deviations of the door system checked in accordance with safety analysis?	–	–	
19	Are all components mounted in accordance with the following instructions:	–	–	
20	▫ Pre-mounting instructions Slimdrive SL NT	–	–	
21	▫ installation instructions Slimdrive SL NT – girder section and fixed panel	–	–	
22	▫ Installation instructions protective leaf for sliding door drives	–	–	
23	▫ Installation instructions safety leaf	–	–	
24	Drive identification plate supplemented?	9	33	
	Notes:			
	▫ Only relevant for Germany and in the scope of validity of DIN 18650.			
	▫ The identification plate may only be attached to the drive when installation has been checked for correct implementation using the checklist in accordance with GEZE specifications.			

Germany
GEZE GmbH
Niederlassung Süd-West
Tel. +49 (0) 7152 203 594
E-Mail: leonberg.de@geze.com

GEZE GmbH
Niederlassung Süd-Ost
Tel. +49 (0) 7152 203 6440
E-Mail: muenchen.de@geze.com

GEZE GmbH
Niederlassung Ost
Tel. +49 (0) 7152 203 6840
E-Mail: berlin.de@geze.com

GEZE GmbH
Niederlassung Mitte/Luxemburg
Tel. +49 (0) 7152 203 6888
E-Mail: frankfurt.de@geze.com

GEZE GmbH
Niederlassung West
Tel. +49 (0) 7152 203 6770
E-Mail: duesseldorf.de@geze.com

GEZE GmbH
Niederlassung Nord
Tel. +49 (0) 7152 203 6600
E-Mail: hamburg.de@geze.com

GEZE Service GmbH
Tel. +49 (0) 1802 923392
E-Mail: service-info.de@geze.com

Austria
GEZE Austria
E-Mail: austria.at@geze.com
www.geze.at

Baltic States –
Lithuania / Latvia / Estonia
E-Mail: baltic-states@geze.com

Benelux
GEZE Benelux B.V.
E-Mail: benelux.nl@geze.com
www.geze.be
www.geze.nl

Bulgaria
GEZE Bulgaria - Trade
E-Mail: office-bulgaria@geze.com
www.geze.bg

China
GEZE Industries (Tianjin) Co., Ltd.
E-Mail: chinasales@geze.com.cn
www.geze.com.cn

GEZE Industries (Tianjin) Co., Ltd.
Branch Office Shanghai
E-Mail: chinasales@geze.com.cn
www.geze.com.cn

GEZE Industries (Tianjin) Co., Ltd.
Branch Office Guangzhou
E-Mail: chinasales@geze.com.cn
www.geze.com.cn

GEZE Industries (Tianjin) Co., Ltd.
Branch Office Beijing
E-Mail: chinasales@geze.com.cn
www.geze.com.cn

France
GEZE France S.A.R.L.
E-Mail: france.fr@geze.com
www.geze.fr

Hungary
GEZE Hungary Kft.
E-Mail: office-hungary@geze.com
www.geze.hu

Iberia
GEZE Iberia S.R.L.
E-Mail: info.es@geze.com
www.geze.es

India
GEZE India Private Ltd.
E-Mail: office-india@geze.com
www.geze.in

Italy
GEZE Italia S.r.l. Unipersonale
E-Mail: italia.it@geze.com
www.geze.it

GEZE Engineering Roma S.r.l.
E-Mail: italia.it@geze.com
www.geze.it

Korea
GEZE Korea Ltd.
E-Mail: info.kr@geze.com
www.geze.com

Poland
GEZE Polska Sp.z o.o.
E-Mail: geze.pl@geze.com
www.geze.pl

Romania
GEZE Romania S.R.L.
E-Mail: office-romania@geze.com
www.geze.ro

Russia
OOO GEZE RUS
E-Mail: office-russia@geze.com
www.geze.ru

Scandinavia – Sweden
GEZE Scandinavia AB
E-Mail: sverige.se@geze.com
www.geze.se

Scandinavia – Norway
GEZE Scandinavia AB avd. Norge
E-Mail: norge.se@geze.com
www.geze.no

Scandinavia – Denmark
GEZE Danmark
E-Mail: danmark.se@geze.com
www.geze.dk

Singapore
GEZE (Asia Pacific) Pte, Ltd.
E-Mail: gezesea@geze.com.sg
www.geze.com

South Africa
GEZE South Africa (Pty) Ltd.
E-Mail: info@gezesa.co.za
www.geze.co.za

Switzerland
GEZE Schweiz AG
E-Mail: schweiz.ch@geze.com
www.geze.ch

Turkey
GEZE Kapı ve Pencere Sistemleri
E-Mail: office-turkey@geze.com
www.geze.com

Ukraine
LLC GEZE Ukraine
E-Mail: office-ukraine@geze.com
www.geze.ua

United Arab Emirates/GCC
GEZE Middle East
E-Mail: gezeme@geze.com
www.geze.ae

United Kingdom
GEZE UK Ltd.
E-Mail: info.uk@geze.com
www.geze.com

GEZE GmbH
Reinhold-Vöster-Straße 21–29
71229 Leonberg
Germany

Tel.: 0049 7152 203 0
Fax.: 0049 7152 203 310
www.geze.com

