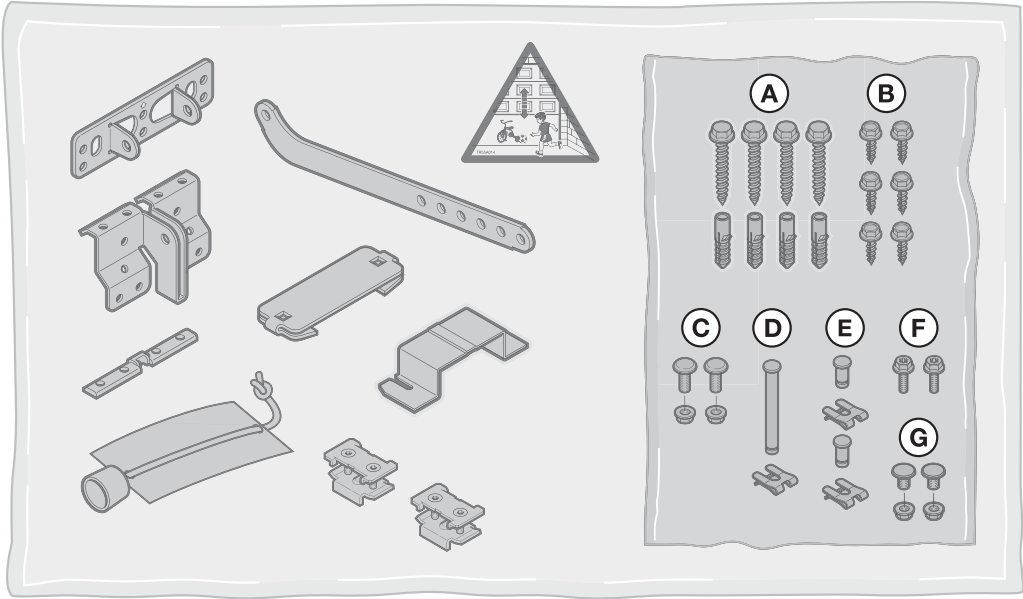
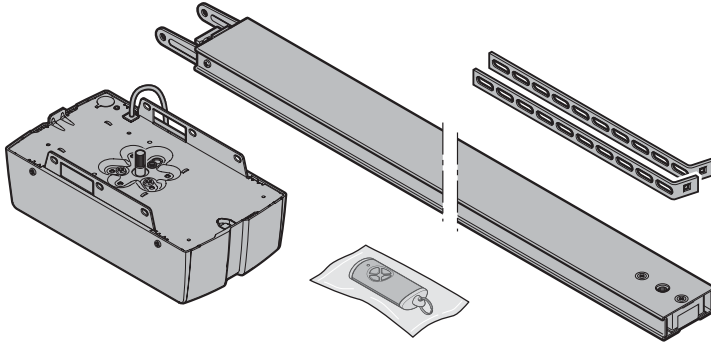
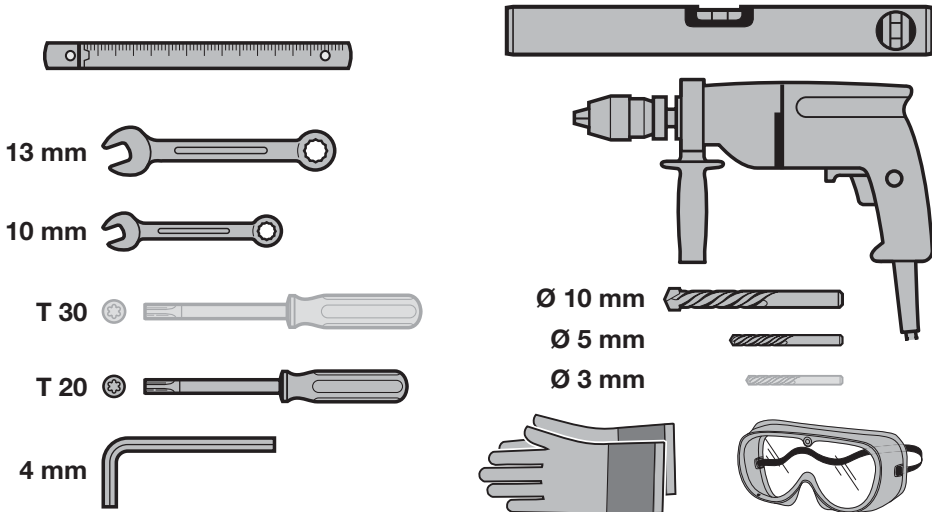



EN

Instructions for fitting, operating and maintenance
Garage door operator

A**B**

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Dear Customer,
 We would like to thank you for choosing a quality product from our company.

1 About these instructions

These instructions are **original operating instructions** as outlined in EC Directive 2006/42/EC.

These instructions contain important information on the product.





- ▶ Read through all of the instructions carefully.
- ▶ Please observe the information. Please pay particular attention to the safety instructions and warnings.
- ▶ Keep these instructions in a safe place for later reference.
- ▶ Make sure that these instructions are available to the user at all times.

1.1 Further applicable documents

The following documents for safe handling and maintenance of the door system must be placed at the disposal of the end user:

- These instructions
- The enclosed log book
- The garage door operating instructions

1.2 Warnings used

	The general warning symbol indicates a danger that can lead to injury or death . In the text, the general warning symbol will be used in connection with the caution levels described below. In the illustrated section, an additional instruction refers back to the explanation in the text section.
 DANGER	
	Indicates a danger that immediately results in death or serious injuries.
 WARNING	
	Indicates a danger that can lead to death or serious injuries.
 CAUTION	
	Indicates a danger that can lead to minor or moderate injuries.
ATTENTION	
	Indicates a danger that can lead to damage or destruction of the product .

1.3 Definitions used

Hold-open phase

Waiting time for the automatic timer before the door closes from the OPEN end-of-travel position or partial opening.

Automatic timer

After the set hold-open phase and pre-warning phase lapse, the door automatically closes from the OPEN end-of-travel position or partial opening.

DIL switches

Switches on the control circuit board for setting the control.

Impulse sequence control

The taught-in Impulse radio code or a button triggers impulse sequence control. With each actuation, the door is started against the previous direction of travel, or the door run is stopped.

Learning runs

Door runs during which the operator learns the following:

- Travel distances
- Forces that are required to move the door.

Ventilation

In conjunction with a climatic sensor, the upper section is folded down and the door is lifted slightly to allow air to circulate.

Normal operation

Normal operation is a door run with taught-in travel distances and forces.

Reference run

Door run towards the OPEN end-of-travel position at a lower speed in order to set the home position.

Safety reversal / reversing

Door run in the opposite direction when the safety device or power limit is activated.

Reversal limit

The reversal limit is shortly before the CLOSE end-of-travel position. If a safety device is activated, the door runs in the opposite direction (safety reversal). This behaviour does not exist within the reversal limit.

Slow travel

The area in which the door moves extremely slowly to softly approach the end-of-travel position.

Partial opening

Individually adjustable second opening height.

Timeout

A defined time period within which an action is expected, e.g. teaching in the radio or activating a function. If this time period has elapsed without an action, the operator automatically switches back to operation mode.

Door system

A door with the associated operator.

Doors under thermal load

Doors fitted to the south side, for example, and thus subjected to more sunlight. These doors could expand and may require more space below the ceiling.

Travel

The distance the door takes from the OPEN end-of-travel position to the CLOSE end-of-travel position.

Pre-warning time

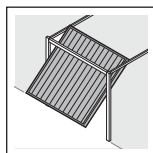
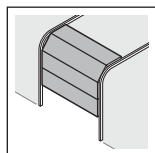
The time between the travel command (impulse) and the start of a door run.

Factory reset

Resetting of the taught-in values to the delivery condition / factory setting.

1.4 Symbols used

The illustrated section shows how to fit the operator on a sectional door. Deviations for fitting with an up-and-over door are also shown. For this purpose, the following letters are assigned to the figures:



a = Sectional door

b = Up-and-over door

All specified dimensions in the illustrated section are in [mm].

Icons



Important notice to prevent injury to persons and damage to property



Permissible arrangement or activity



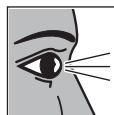
Non-permissible arrangement or activity



High exertion of force



Low exertion of force



Inspect



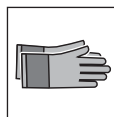
Power failure



Power restoration



Check for smooth running



Use protective gloves



Factory setting

1.5 Abbreviations used

Colour code for cables, single conductors and components

The colour abbreviations for cable and strand identification and for components conform to the international colour code in accordance with IEC 60757:

WH	White	BK	Black
BN	Brown	BU	Blue
GN	Green	OG	Orange
YE	Yellow	RD/BU	Red/blue

Article designations

HSE 4 BiSecur	4-button hand transmitter
ESE BiSecur	Bi-directional receiver
IT 1b-1	Internal push button with illuminated impulse button
IT 3b-1 / PB 3	Internal push button with illuminated impulse button, additional buttons for light on / off and lock / unlock operator
EL 101 / EL 301	One-way photocell
HOR 1-HCP	Option relay
UAP 1-HCP	Universal adapter print
SLK	LED warning light, yellow
SKS	Activating kit for closing edge safety device
STK	Wicket door contact
VL	Activating kit for leading photocell
HNA 18-4	Emergency battery

2 Safety instructions

ATTENTION:

IMPORTANT SAFETY INSTRUCTIONS.

FOR THE SAFETY OF PERSONS, IT IS IMPORTANT TO COMPLY WITH THE FOLLOWING INSTRUCTIONS. THESE INSTRUCTIONS MUST BE KEPT.

For undated references to standards, directives etc. referred to here, the latest version of the publication applies, including any amendments.

2.1 Intended use

The garage door operator is intended for the impulse operation of spring-balanced and counterbalanced garage doors. The operator may only be used in the private / non-commercial sector.

Note the manufacturer specifications regarding the door and operator combination. Potential hazards as outlined in DIN EN 13241-1 are avoided by construction and fitting according to our guidelines.

The garage door operator is designed for operation in dry areas.

2.2 Non-intended use

Continuous operation and use in the commercial sector is prohibited. The operator must not be used for doors without a safety catch.

Door systems that are located in a public area and which only have one protective device, such as a power limit, may only be operated under supervision.

2.3 Fitter qualification

Only correct fitting and maintenance in compliance with the instructions by a competent / specialist company or a competent person / specialist ensures safe and flawless operation of the system.

According to EN 12635, a specialist is a person with suitable training, specialist knowledge and practical experience sufficient to correctly and safely fit, test and maintain a door system.

2.4 Safety instructions for fitting, maintenance, repair and disassembly

DANGER

Compensating springs are under high tension

► See warning in section 3.1

WARNING

Danger of injury due to unexpected door run

► See warning in section 11

Fitting, maintenance, repairs and disassembly of the door system and garage door operator must be performed by a specialist.

► In the event of a failure of the garage door operator, a specialist must be commissioned immediately to perform an inspection or carry out repairs.

2.5 Safety instructions for fitting

The specialist carrying out the work must follow the prevailing national job safety rules and regulations and those governing the operation of electrical equipment. In the process, the relevant national guidelines must be observed. Potential hazards as outlined in EN 13241-1 are avoided by construction and fitting according to our guidelines.

After fitting is complete, the specialist must declare conformity in accordance with EN 13241-1 based on the area of application.

⚠ WARNING**Unsuitable fixing material**

- ▶ See warning in section 3.3

Danger to life from the pull rope

- ▶ See warning in section 3.3

Danger of injury due to unwanted door travel

- ▶ See warning in section 3.3

ATTENTION**Damage caused by dirt**

Drilling dust and chippings can lead to malfunctions.

- ▶ Cover the operator during drilling work.

2.6 Safety instructions for installation**⚠ DANGER****Risk of deadly electric shock from mains voltage**

Contact with the mains voltage presents the danger of a deadly electric shock.

- ▶ Electrical connections may only be made by a qualified electrician.
- ▶ Make sure that the on-site electrical installation conforms to the respective, applicable protective regulations (230 / 240 V AC, 50 / 60 Hz).
- ▶ If the mains connection cable is damaged, it must be exchanged by a qualified electrician to avoid danger.
- ▶ Before performing work on the system, disconnect the mains plug **and** the plug of the emergency battery.
- ▶ Safeguard the system against being switched on again without authorisation.

ATTENTION**Malfunctions in the connection cables**

Connection cables and supply cables laid together can result in malfunctions.

- ▶ Duct the operator's connection cables (24 V DC) in an installation system that is separate from the supply lines (230 / 240 V AC).

External voltage at the connecting terminals

External voltage on the connecting terminals of the control will destroy the electronics.

- ▶ Do not apply any mains voltage (230 / 240 V AC) to the connecting terminals of the control.

2.7 Safety instructions for initial start-up and for operation**⚠ WARNING****Danger of injury during door travel**

- ▶ See warning in section 10

Danger of injury due to a fast-closing door

- ▶ See warning in section 10.1.1

⚠ CAUTION**Danger of injury due to incorrectly selected door type**

- ▶ See warning in section 5.3

Danger of crushing in the boom

- ▶ See warning in section 10

Danger of injury from the cord knob

- ▶ See warning in section 10

Danger of injury resulting from uncontrolled door travel in the Close direction if one of the counterbalance springs breaks and the slide carriage is released.

- ▶ See warning in section 10

2.8 Safety instructions for using the hand transmitter**⚠ WARNING****Danger of injury during door travel**

- ▶ See warning in section 7

Risk of explosion due to incorrect battery type

- ▶ See warning in section 7.2

Danger to life due to internal burns

- ▶ See warning in section 7.2

⚠ CAUTION**Danger of injuries due to unintended door run**

- ▶ See warning in section 7

Danger of burns from the hand transmitter

- ▶ See warning in section 7

Danger of burns from hazardous materials

- ▶ See warning in section 7

2.9 Approved safety equipment

The following functions or components, where available, meet cat. 2, PL “c” in accordance with EN ISO 13849-1 and were constructed and tested accordingly:

- Internal power limit
- Tested safety equipment

If such properties are needed for other functions or components, this must be checked individually.

WARNING
Danger of injuries due to faulty safety equipment
▶ See warning in section 9.2

3 Fitting

ATTENTION:

IMPORTANT INSTRUCTIONS FOR SAFE FITTING.
FOLLOW ALL INSTRUCTIONS; INCORRECT FITTING CAN LEAD TO SERIOUS INJURIES.

3.1 Testing the door system

DANGER
Compensating springs are under high tension
Serious injuries may occur while adjusting or loosening the compensating springs!
▶ For your own safety, only have a specialist conduct work on the compensating springs of the door and, if required, maintenance and repair work!
▶ Never try to replace, adjust, repair or reposition the compensating springs for the counterbalance of the door or the spring mountings yourself.
▶ In addition, check the entire door system (joints, door bearings, cables, springs and fastenings) for wear and possible damage.
▶ Check for the presence of rust, corrosion, and cracks.
A malfunction in the door system or incorrectly aligned doors can cause serious injuries!
▶ Do not use the door system if repair or adjustment work must be conducted!

The operator is not designed for the operation of sluggish doors. These doors are either difficult or impossible to open or close manually.

The door must be in a flawless mechanical condition, as well as correctly balanced, so that it can be easily operated by hand (EN 12604).

- ▶ Check whether the door can be opened and closed correctly.
- ▶ Lift the door by approx. one metre and let it go. The door should stay in this position and neither move downward nor upward! If the door does move in either direction, there is a danger that the compensating springs/weights are not properly adjusted or are defective. In this case, increased wear and malfunctioning of the door system can be expected.

3.2 Clearance required

The clearance between the highest point of door travel and the ceiling (even when opening the door) must be **at least 30 mm**. For doors under thermal loads, the operator is to be fitted 40 mm higher if applicable.

If the clearance is smaller, the operator can also be mounted behind the opened door if enough space is available. In this case, an extended link bracket (ordered separately) must be used.

The garage door operator can be arranged up to max. 500 mm off-centre. Sectional doors with a high lift track application (track application H) present an exception and require a special fitting.

The electrical outlet should be fitted approx. 500 mm from the operator head.

- ▶ Check the dimensions!

3.3 Fitting the garage door operator

WARNING
Unsuitable fixing material
Use of unsuitable fixing material may mean that the operator is insecurely attached and could come loose.
▶ The fitter must check the suitability of the provided fixing material (plugs) for use in the intended fitting location; other fixing material must be used if the provided fixing material is suitable for concrete (≥ B15), but is not officially approved (see Figures 1.6a / 1.8b / 2.4).

WARNING
Danger to life from the pull rope
A running rope may lead to strangulation.
▶ Remove the rope while fitting the operator (see Figure 1.3a).

WARNING

Danger of injury due to unwanted door travel

Incorrect assembly or handling of the operator may trigger unwanted door travel that may result in persons or objects being trapped.

- ▶ Follow all the instructions provided in this manual.

Incorrectly fitted control devices (e.g. buttons) may trigger unwanted door travel. Persons or objects may be jammed as a result.



- ▶ Install control devices at a height of at least 1.5 m (out of the reach of children).
- ▶ Fit permanently installed control devices (such as buttons, etc.) within sight of the door, but away from moving parts.

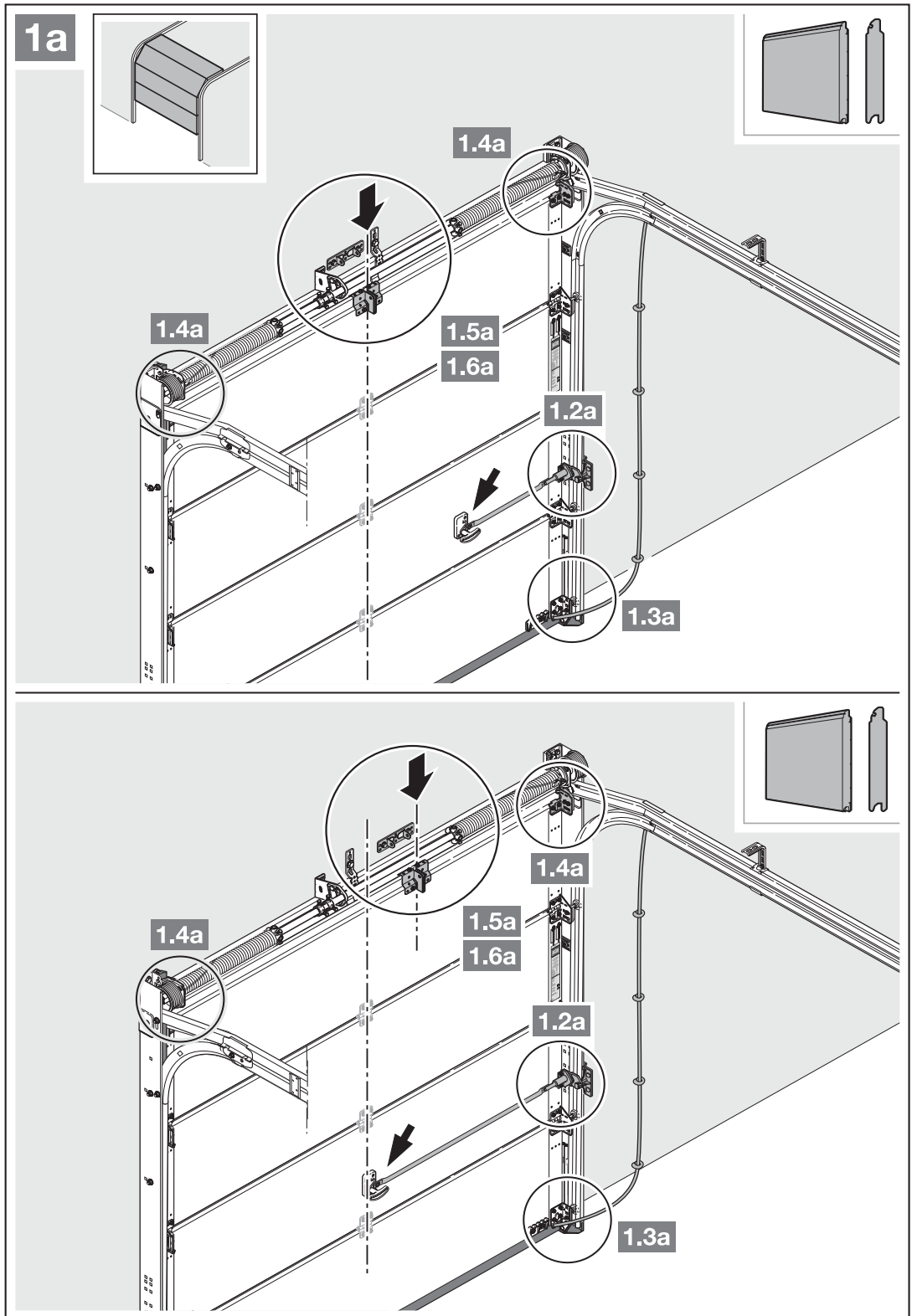
ATTENTION

Damage caused by dirt

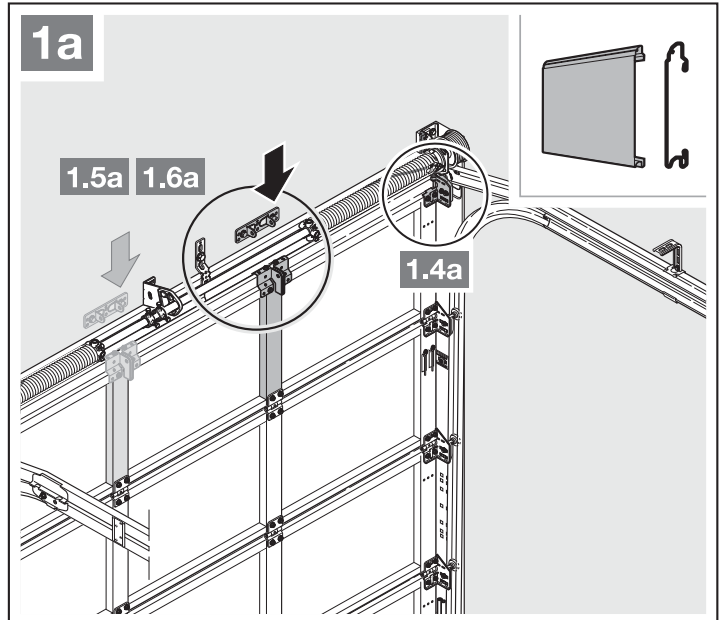
Drilling dust and chippings can lead to malfunctions.

- ▶ Cover the operator during drilling work.

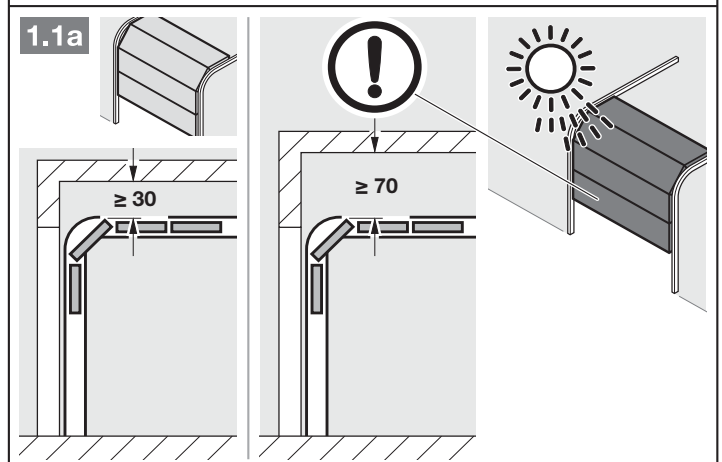
To fully comply with the **TTZ directive concerning break-in-resistance for garage doors**, the cord knob must be removed from the slide carriage.



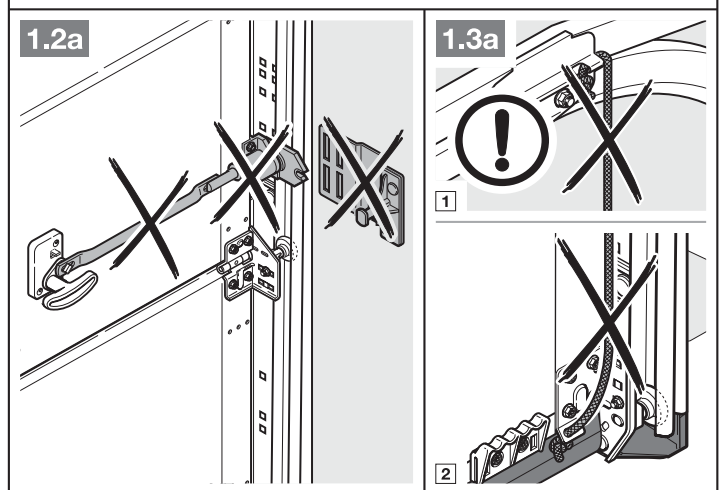
1. With an off-centre reinforcement profile, fit the link bracket on the nearest reinforcement profile to the left or right.

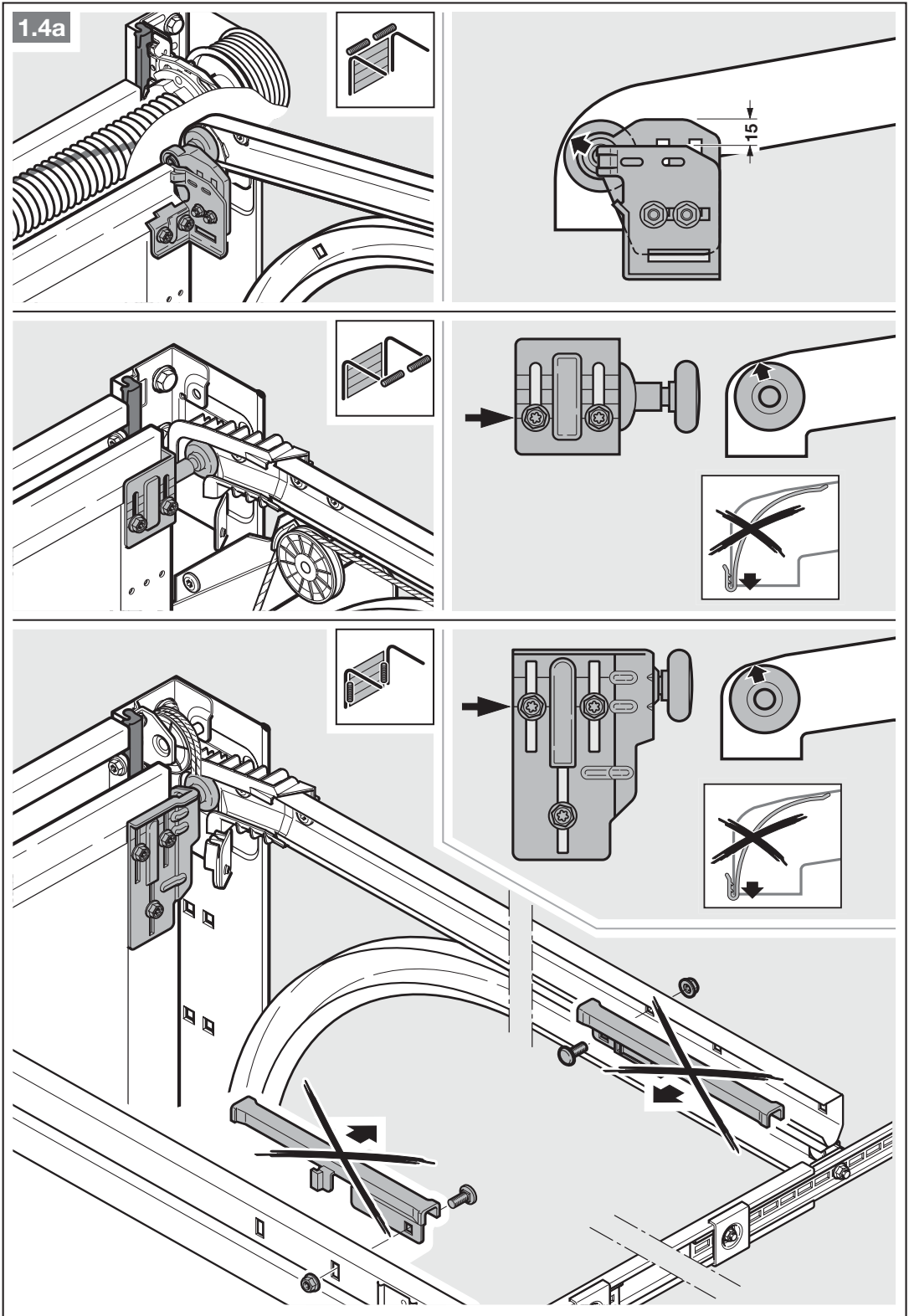


2. The clearance between the highest point of door travel and the ceiling (even when opening the door) must be **at least 30 mm**. For doors under thermal loads, the operator is to be fitted 40 mm higher if applicable.



3. Completely disassemble the mechanical door locking.

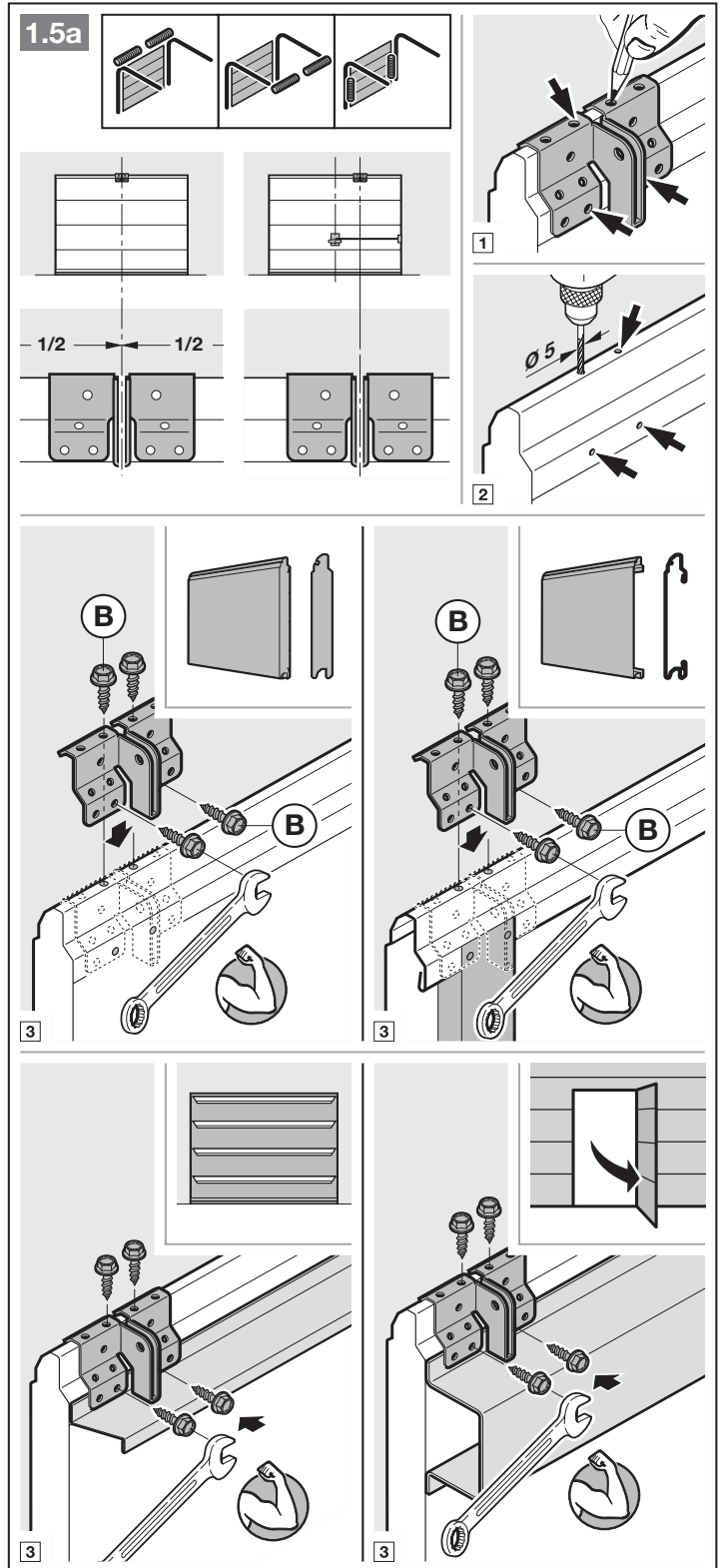


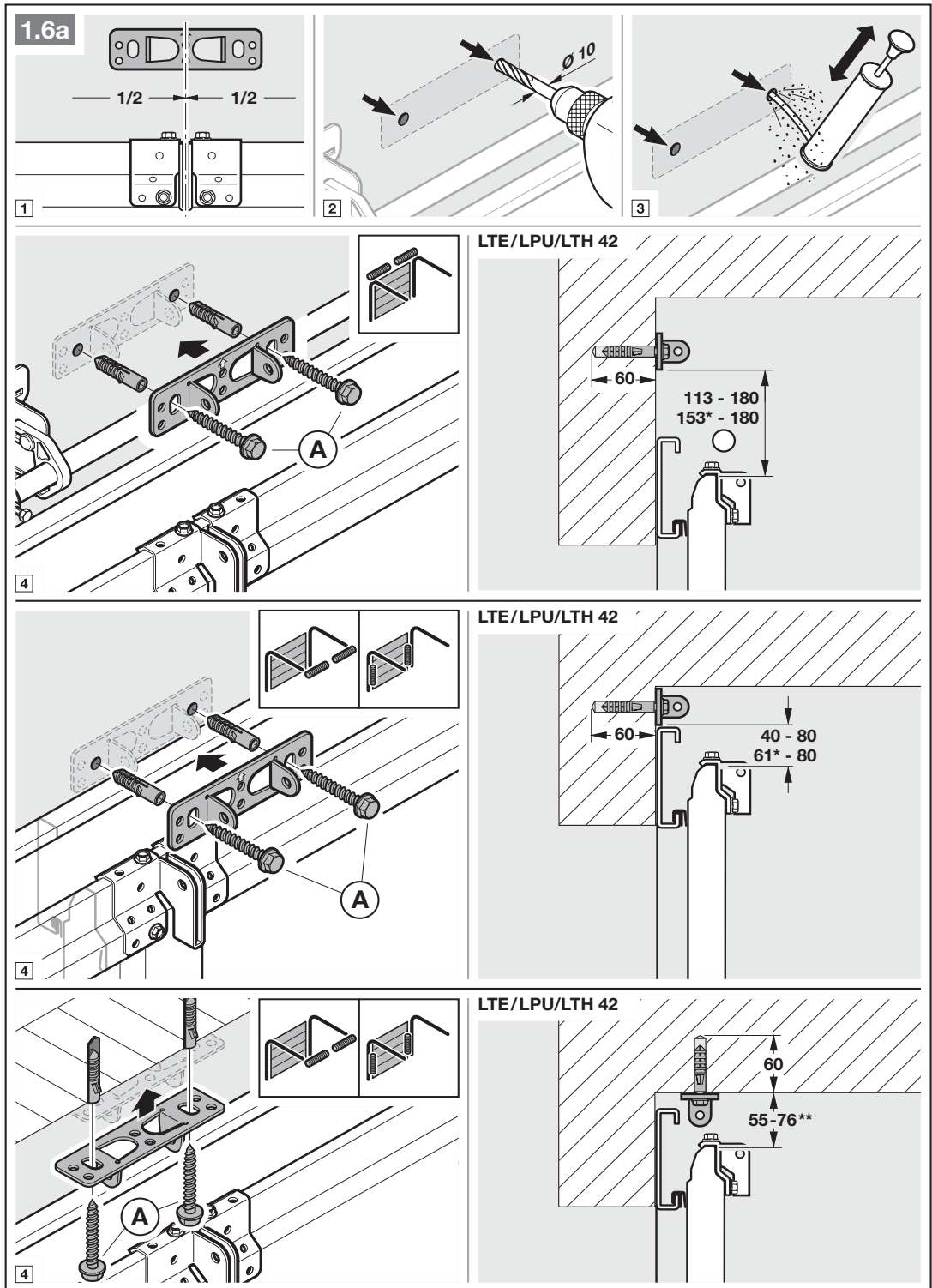


4. For sectional doors with central door locking, fit the lintel joint and link bracket off-centre (max. 500 mm).

NOTICE

In a deviation from Figure 1.5a, use the 5 × 35 woodscrews from the door accessory pack (hole Ø3 mm) for timber doors.

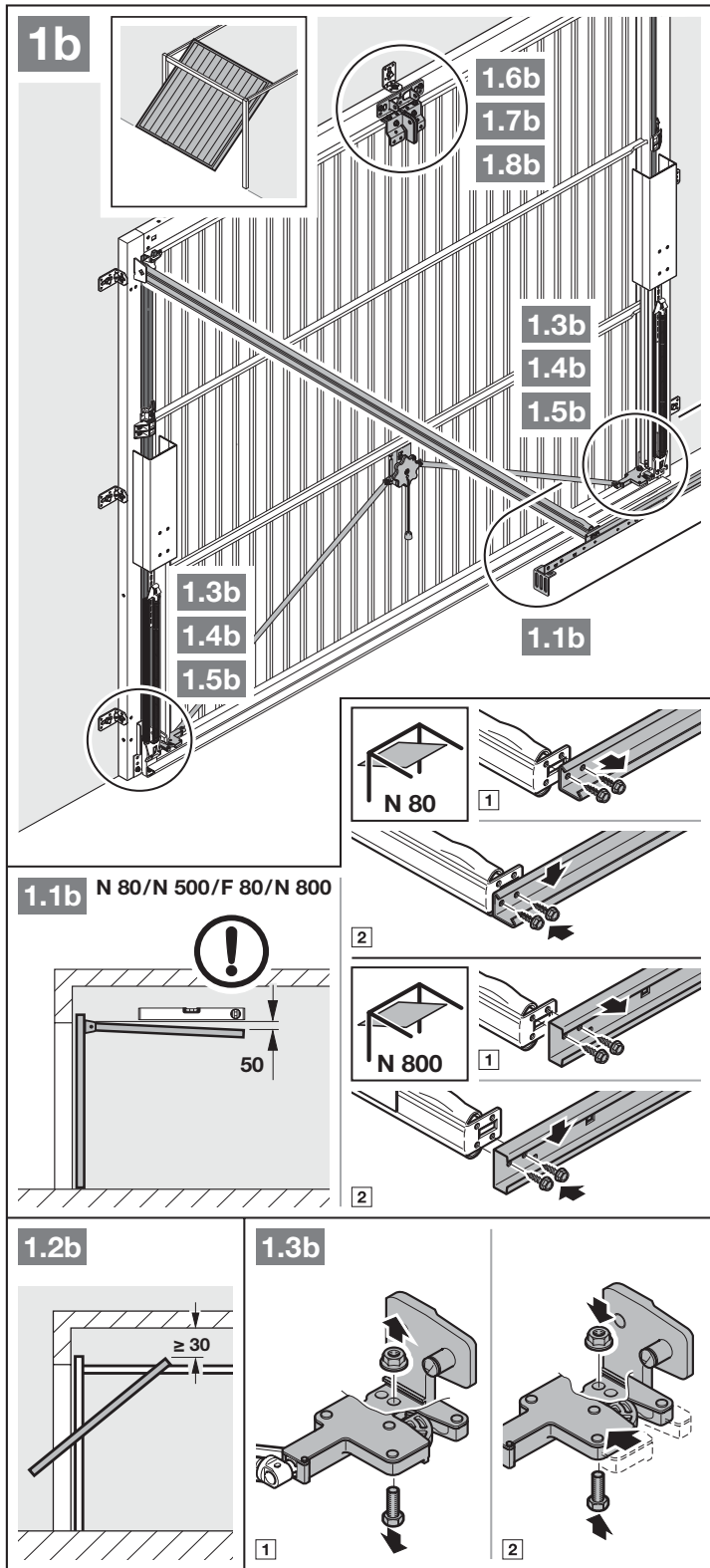




* Dimension of doors under thermal load.

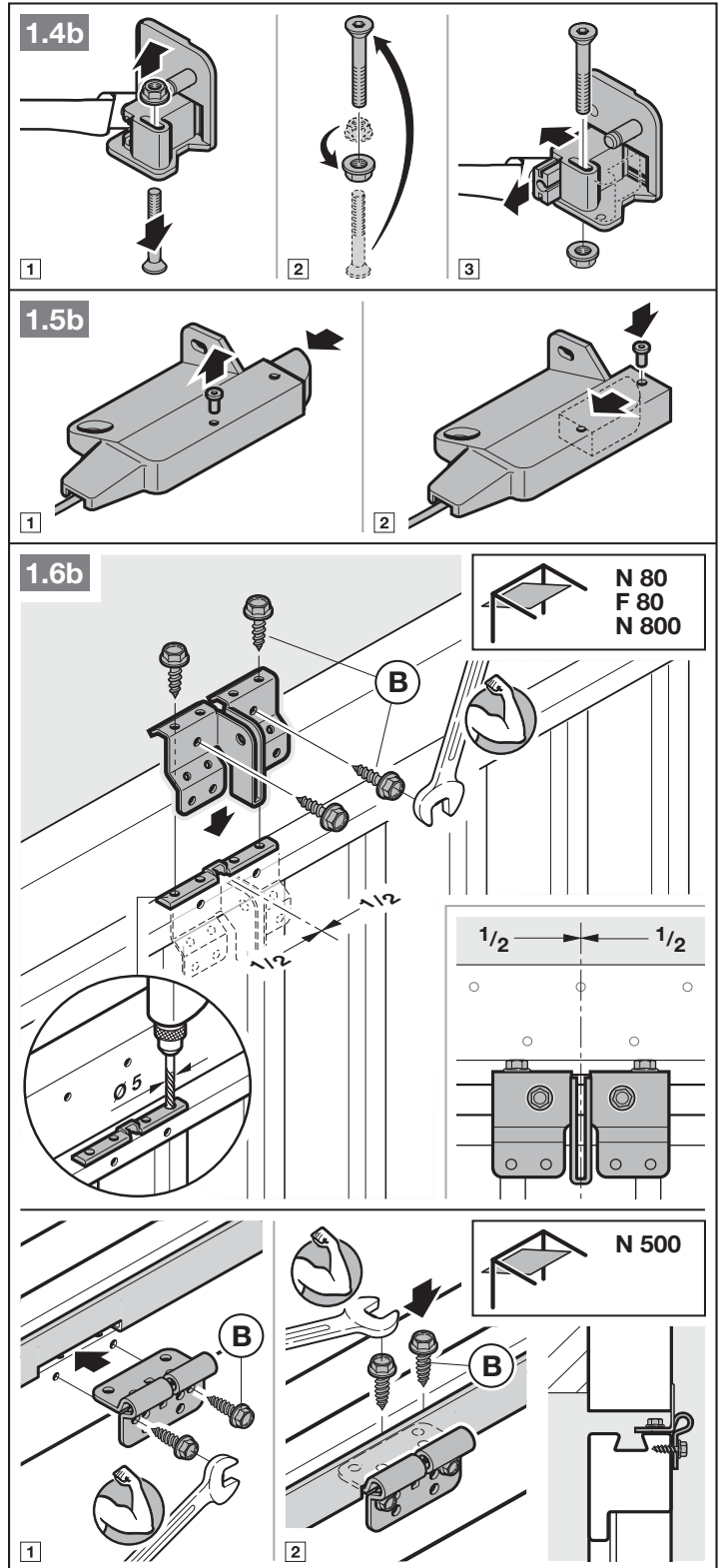
** Ceiling fitting is not possible for doors under thermal load.

ATTENTION: For Thermoframe, note the respective technical manual for the door!

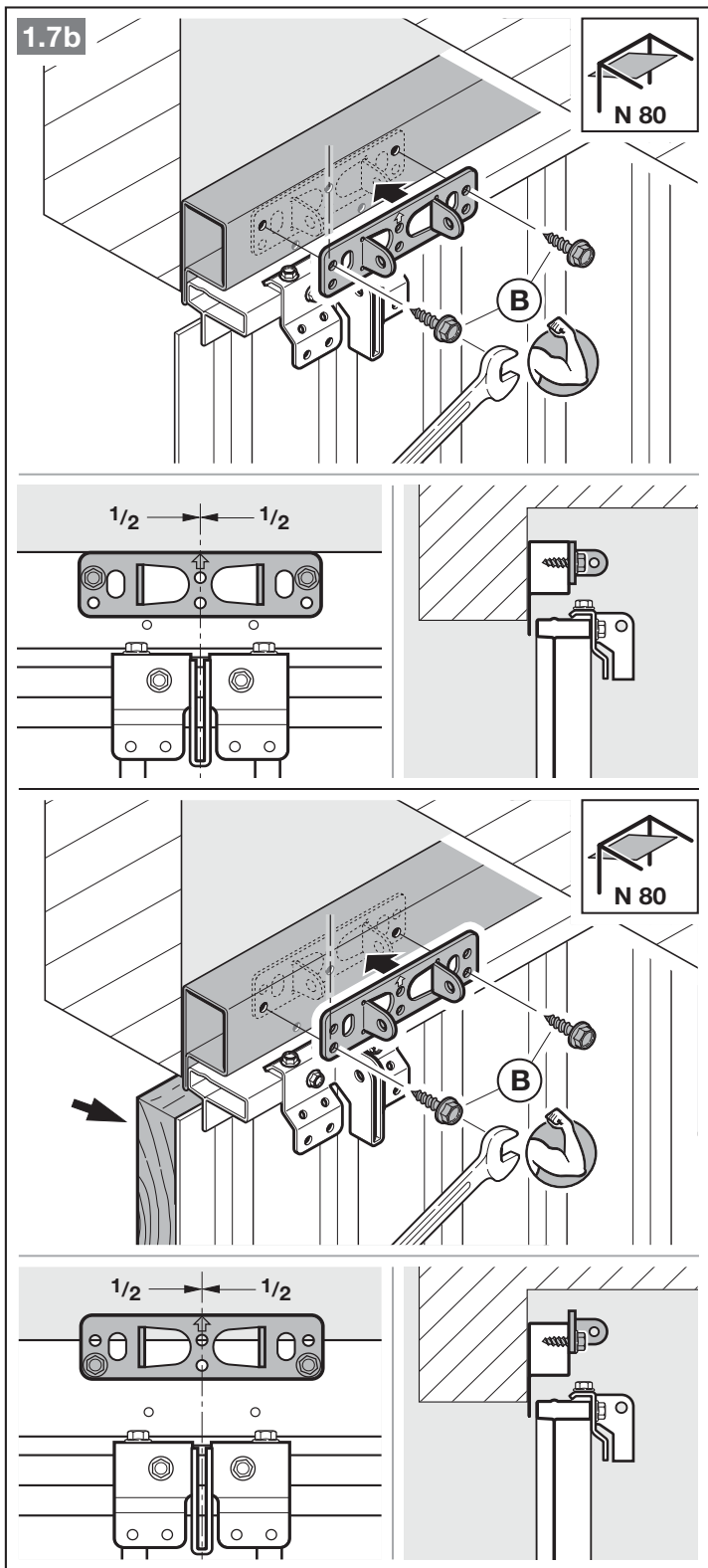


1. The clearance between the highest point of door travel and the ceiling (even when opening the door) must be **at least 30 mm**.
2. Render the mechanical door lockings inoperable (Figure 1.3b).

3. Render the mechanical door lockings inoperable (Figures 1.4b / 1.5b). For door models not covered here, block the lock latch on site.



4. In a deviation from the Figures 1.6b / 1.7b, the lintel joint and link bracket must be attached off-centre for up-and-over doors with ornamental iron door handles.



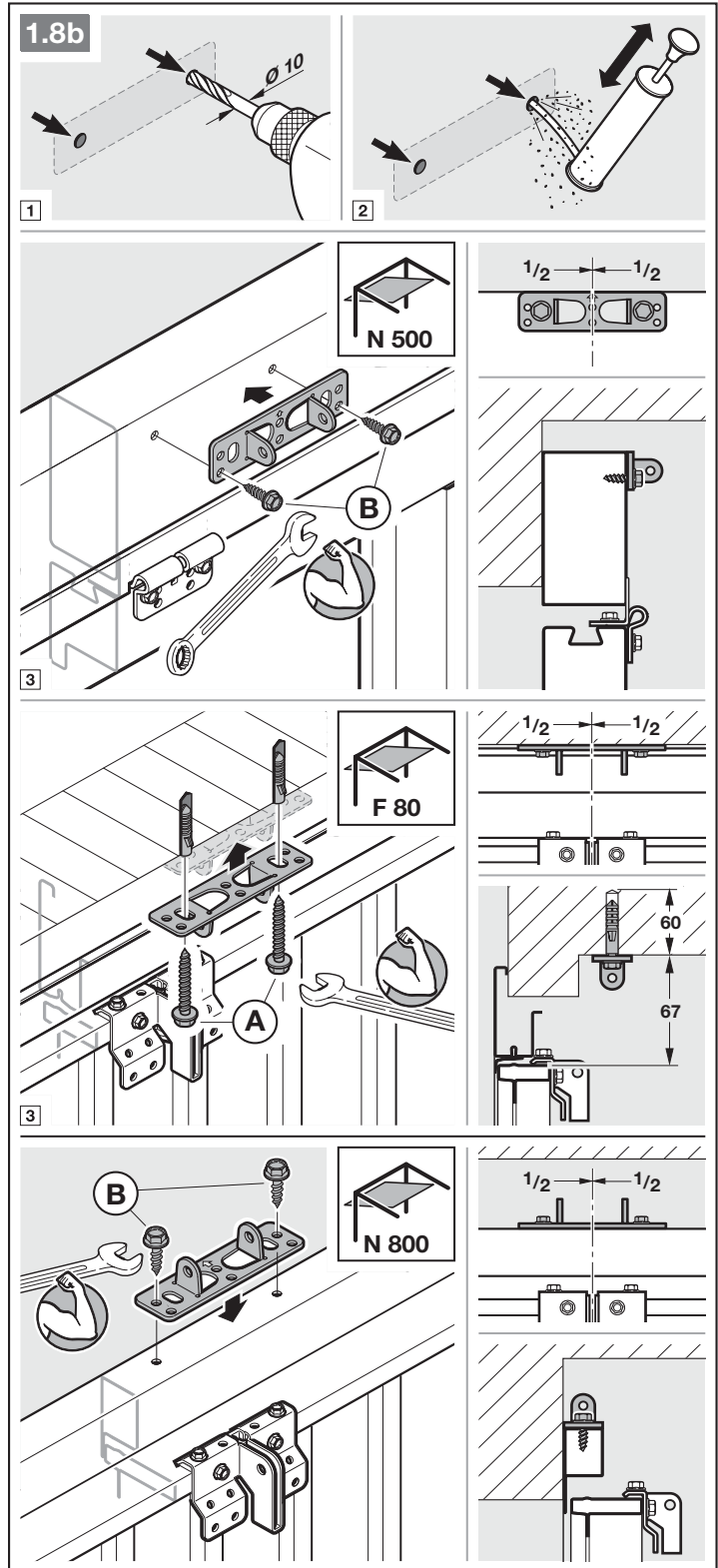
NOTICE

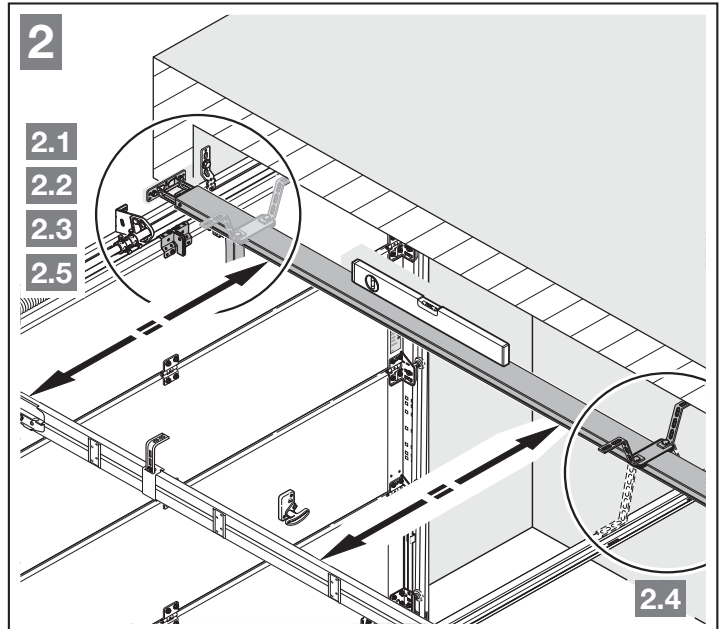
With N80 doors with timber infill, use the bottom holes on the lintel joint for fitting.

3.4 Fitting the boom

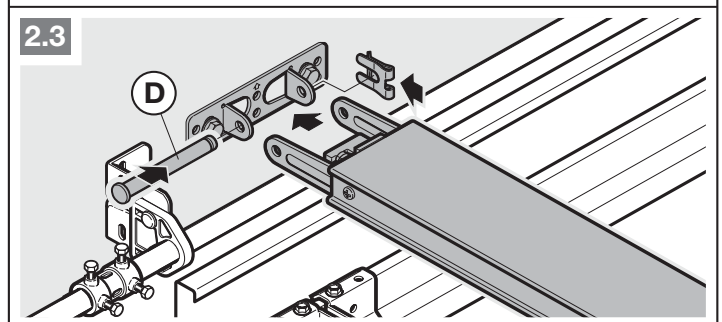
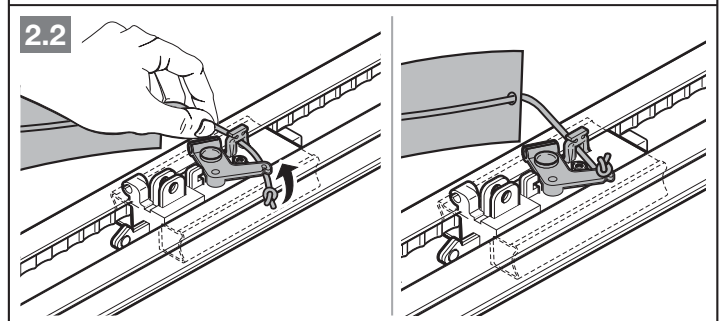
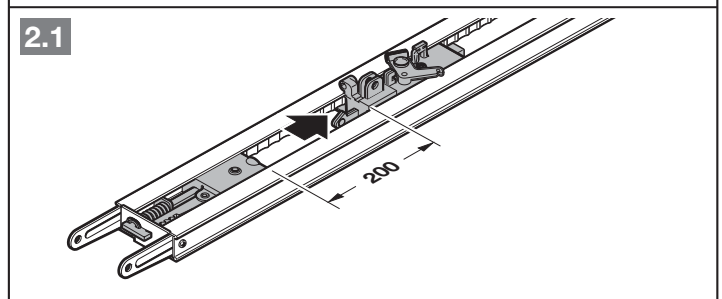
NOTICE

Only use the booms recommended by us for the garage door operators, depending on the respective application (see product information).



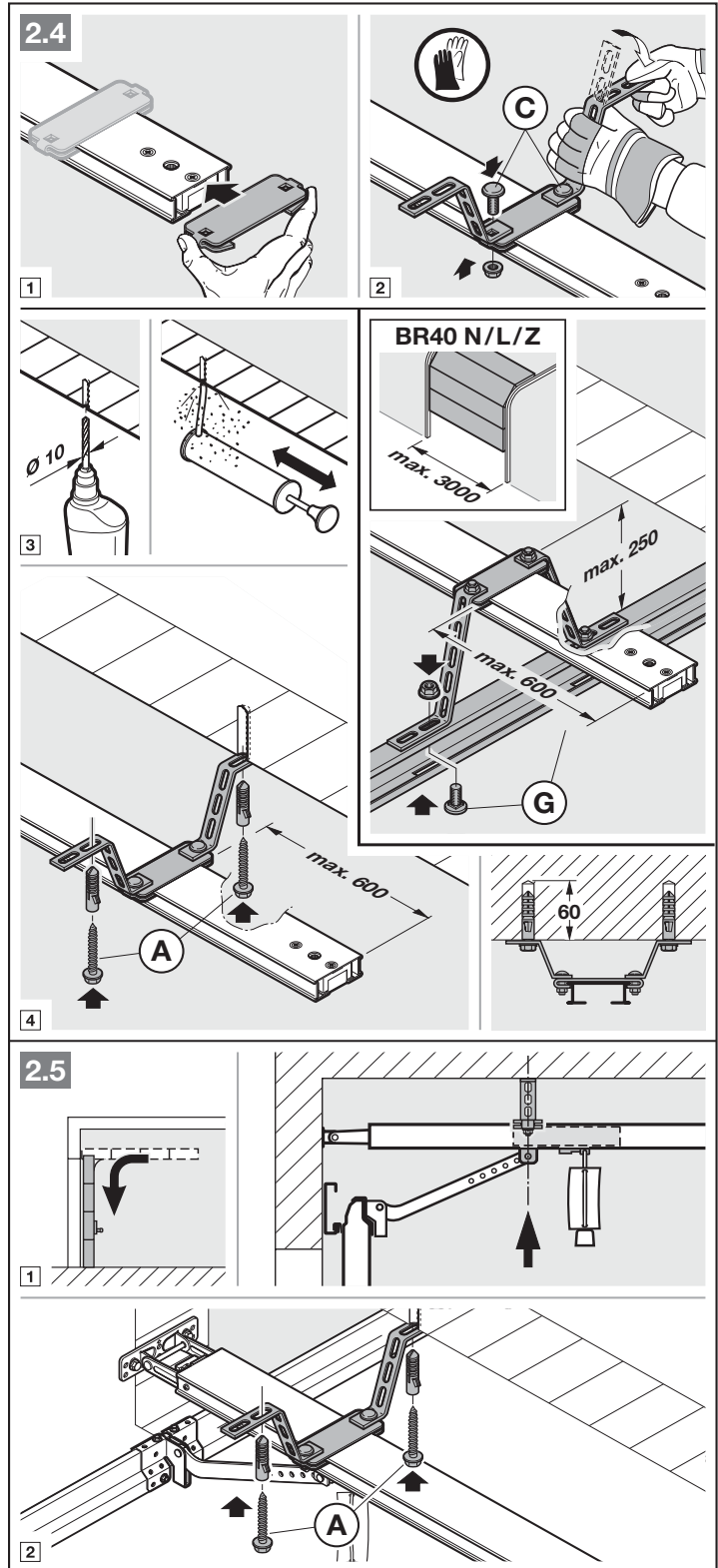


- Press the green button and move the slide carriage approx. 200 mm towards the centre of the rail. This is no longer possible once the end stops and operator have been fitted.



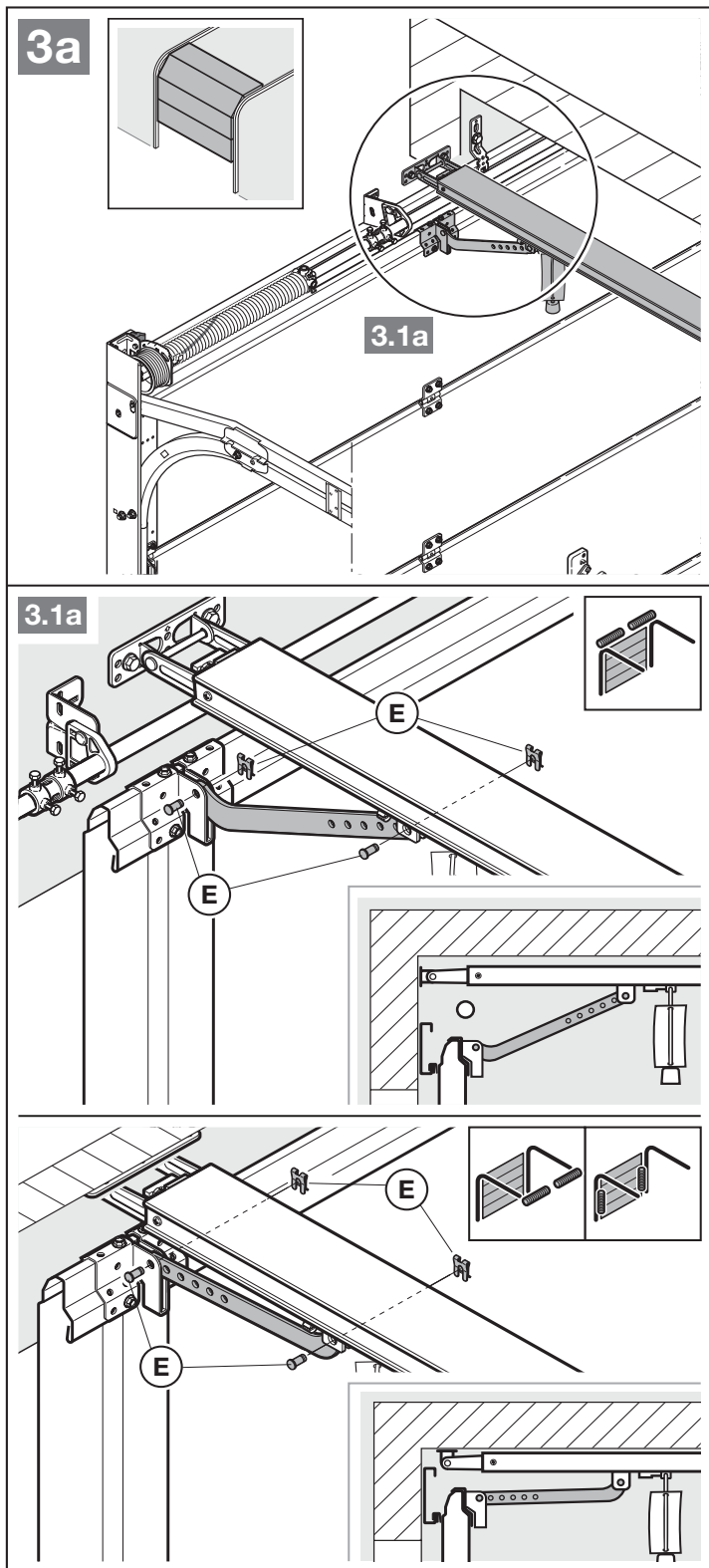
NOTICE

A second suspension is recommended with divided rails (available under accessories).



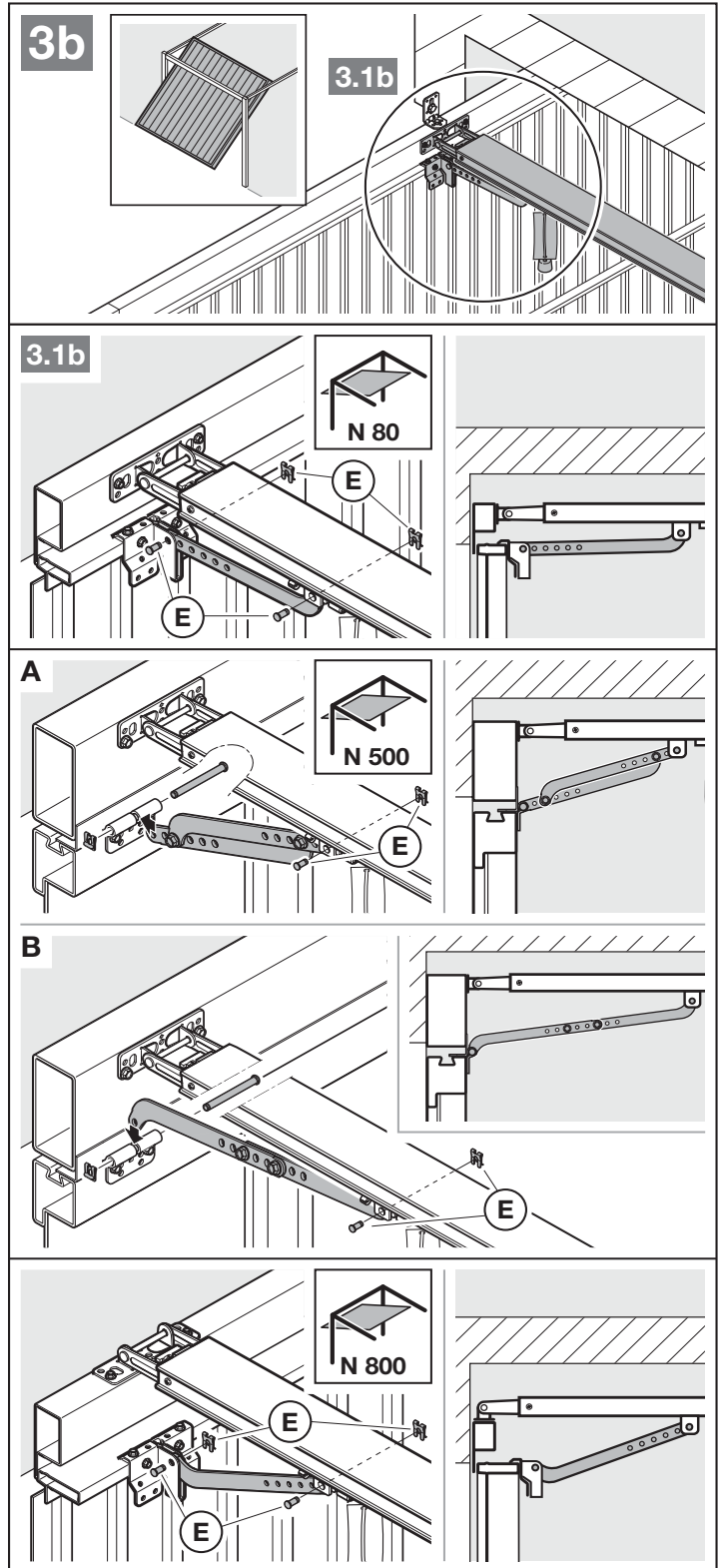
NOTICE

Depending on the **door hardware**, take the installation direction of the link bracket into account.



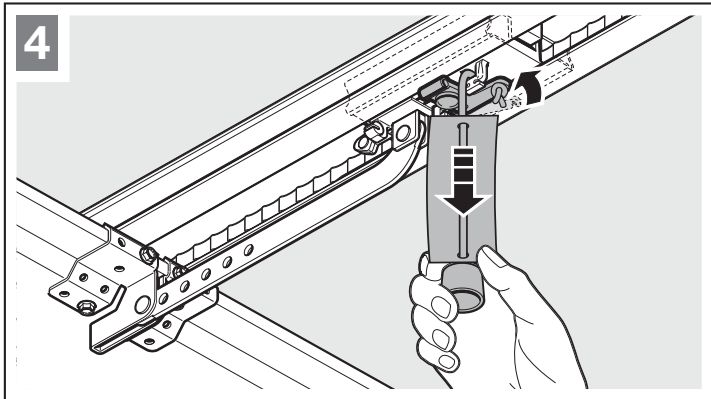
NOTICE

Depending on the **door type**, take the installation direction of the link bracket into account.



To prepare for manual operation

- ▶ Pull on the cord of the mechanical release.



3.5 Determining the end-of-travel positions

If the door cannot be easily moved into the desired OPEN or CLOSED end-of-travel position manually.

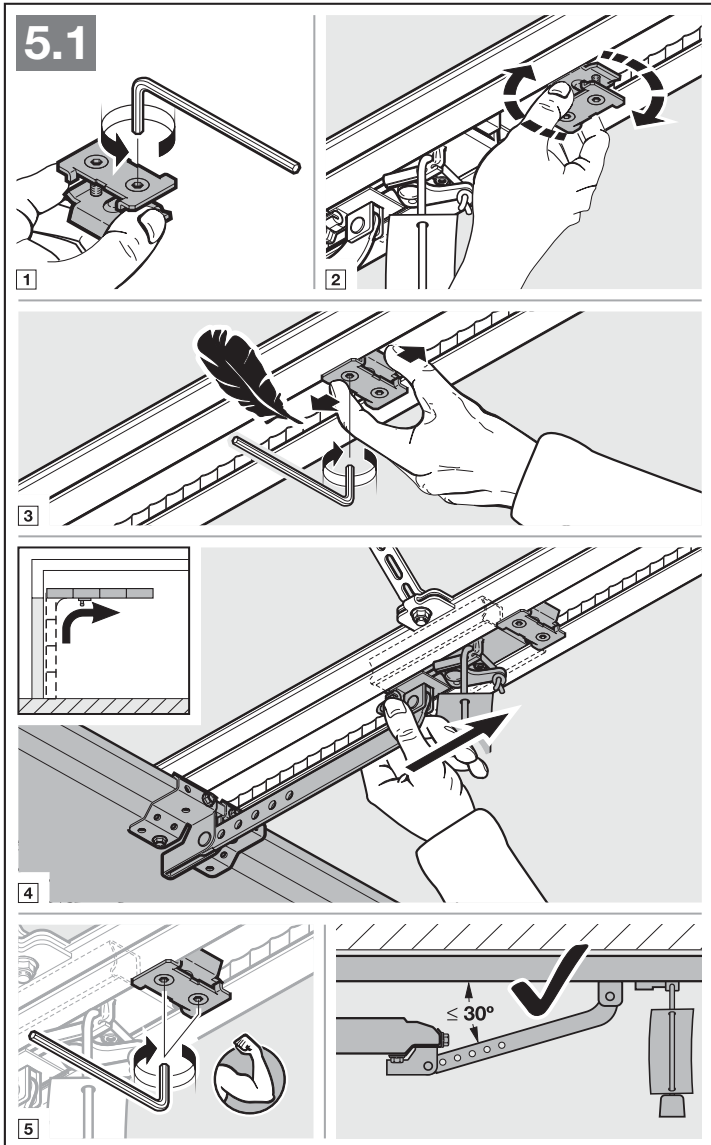
- ▶ Note section 3.1.

3.5.1 Fitting the OPEN end stop

1. Loosely insert the end stop in the boom between the slide carriage and operator.
2. Push the door into the OPEN end-of-travel position by hand.
3. Fix the end stop.

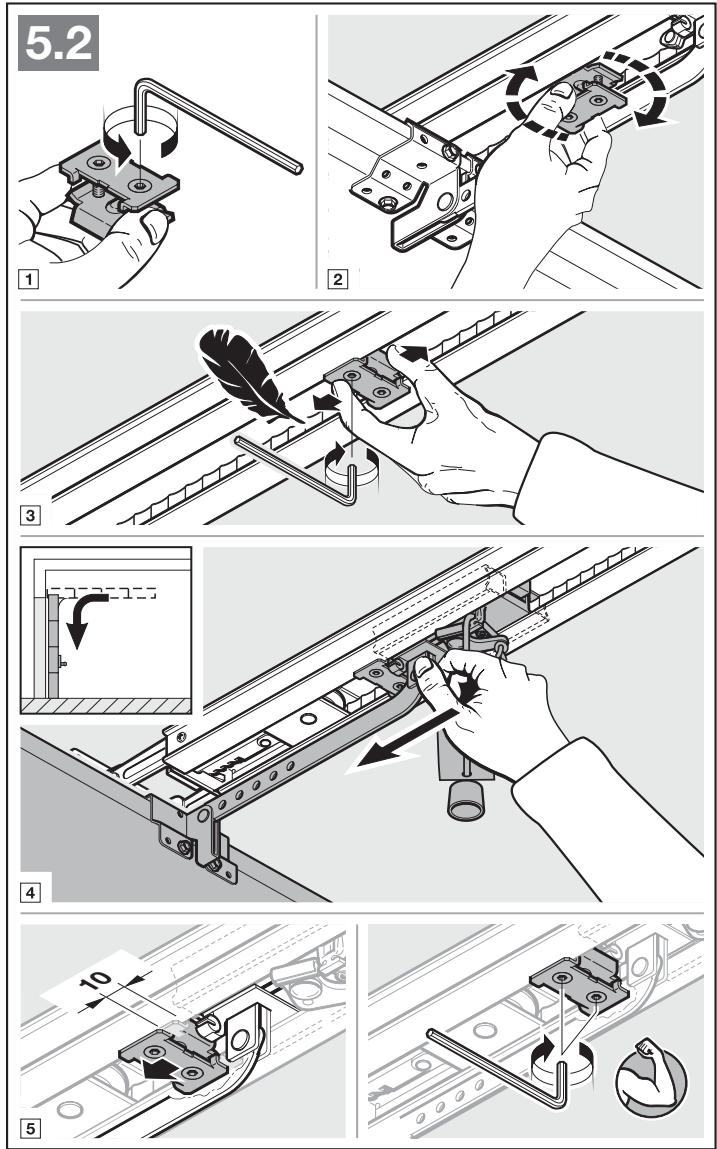
NOTICE

If the door does not reach the complete passage height in the end-of-travel position, the end stop can be removed. The integrated end stop (on the operator head) is then used.



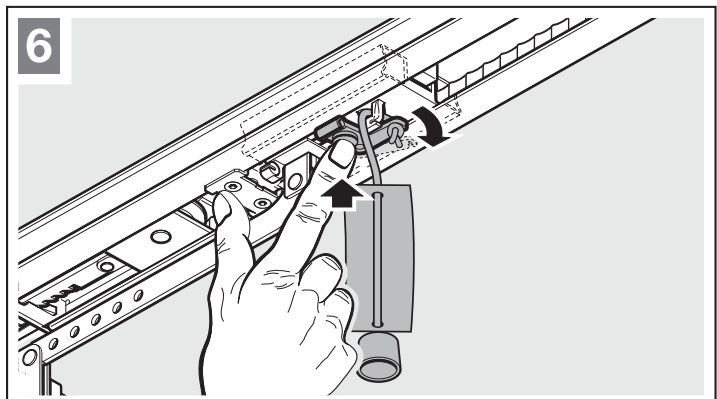
3.5.2 Fitting the CLOSE end stop

1. Loosely insert the end stop in the boom between the slide carriage and door.
2. Push the door into the CLOSE end-of-travel position by hand.
3. Move the end stop by approx. 10 mm in the CLOSE direction.
4. Fix the end stop.



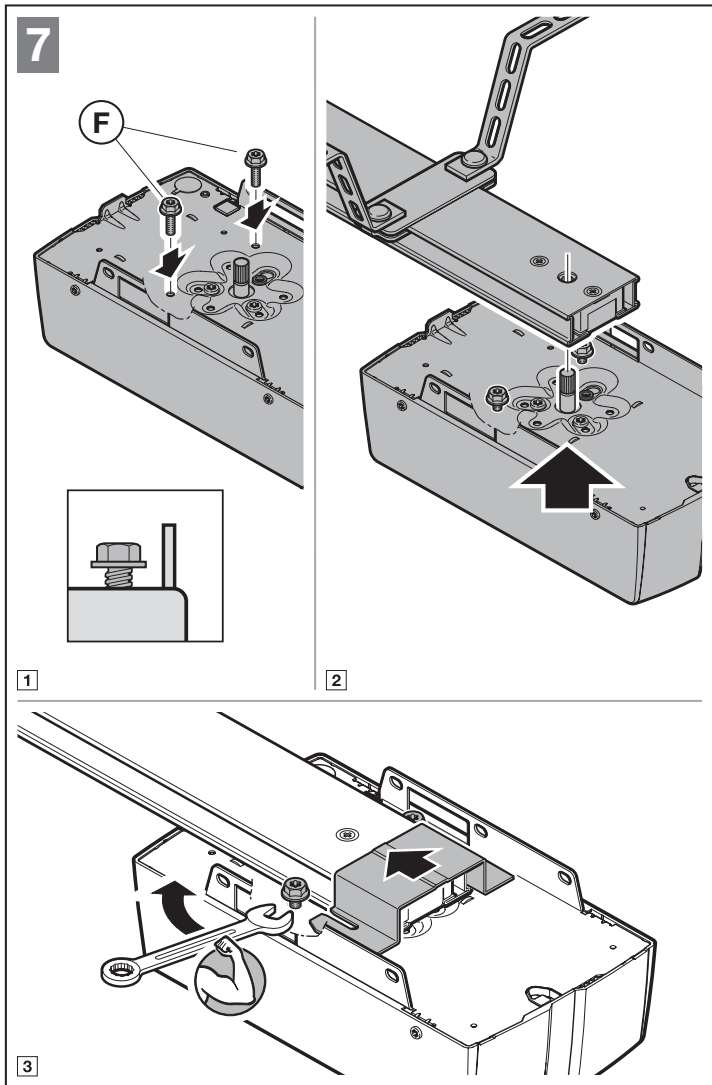
To prepare for automatic operation

- ▶ Push the green button on the slide carriage.
- ▶ Move the door by hand until the slide carriage snaps into the belt lock.
- ▶ Note the safety instructions in section 10 – *Danger of crushing in the boom*



3.5.3 Fitting the operator head

- Fix the operator head. The terminal compartment cover must face the garage.



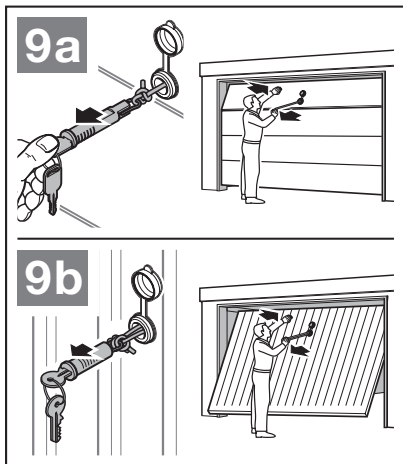
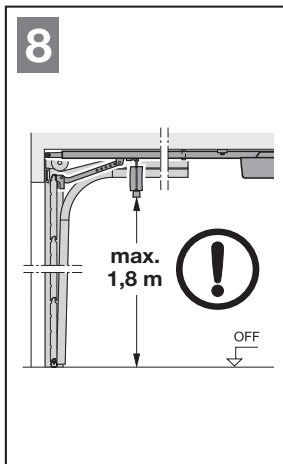
3.6 Emergency release

The cord knob for mechanical release may not be installed at a height greater than 1.8 m from the garage floor. The cord may need to be extended on-site, depending on the height of the garage door.

- When extending the cord, please make sure that the cord cannot become caught on a roof rack system or any other protrusions of the vehicle or door.

An emergency mechanical release is required in garages without a second entrance. An emergency release prevents the possibility of being locked out during a power failure. Order the emergency release separately.

- Check the emergency release monthly for proper function.



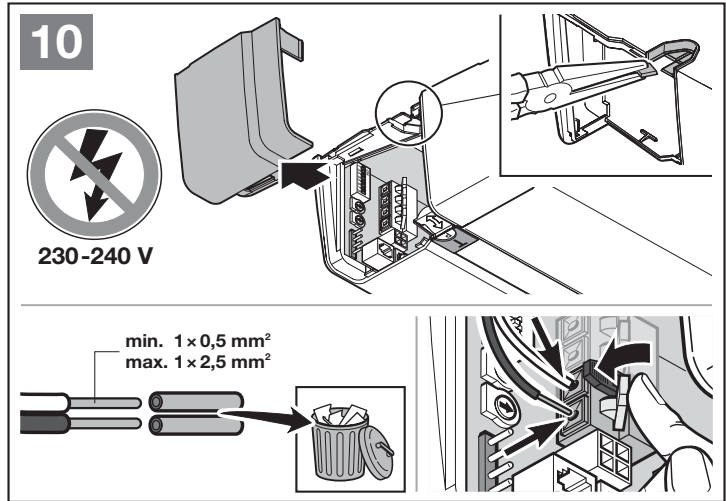
4 Installation

- ▶ Note the safety instructions in section 2.6
 - Risk of deadly electric shock from mains voltage
 - Malfunctions in the connection cables
 - External voltage at the connecting terminals
- ▶ Remove the cover.

4.1 Connecting terminals

All connecting terminals can have multiple assignments (Figure 10):

- Minimum thickness: 1 × 0.5 mm²
- Maximum thickness: 1 × 2.5 mm²



4.2 Connecting accessories

NOTICES

- Loading of the operator by all accessories: **max. 350 mA**. See the figures for component power consumption.
- Series 3 accessories must be connected via the **HCP adapter HAP 1**.

The BUS jack enables the connection of accessories with special functions.

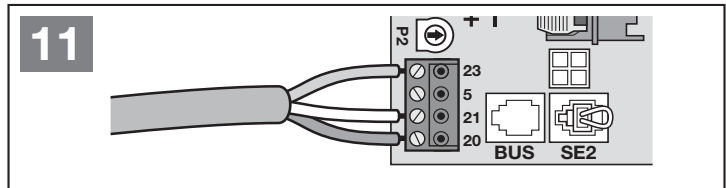
4.2.1 Button with impulse function

▶ Figure 11

One or more buttons with normally open contacts (volt-free), e.g. internal push button or key switch, can be connected in parallel.

Terminal assignment:

23	Signal channel 2	Partial opening
5	+24 V DC	
21	Signal channel 1	Impulse
20	0 V	



4.2.2 External radio receivers*

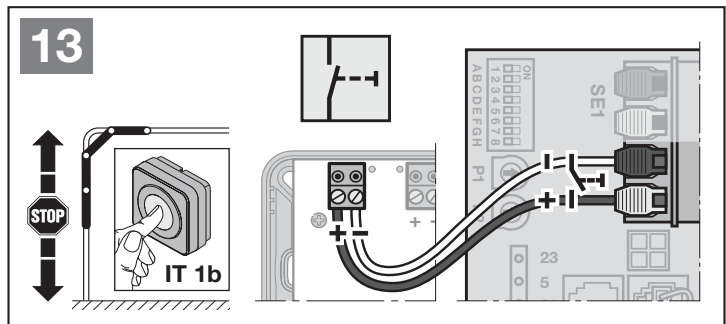
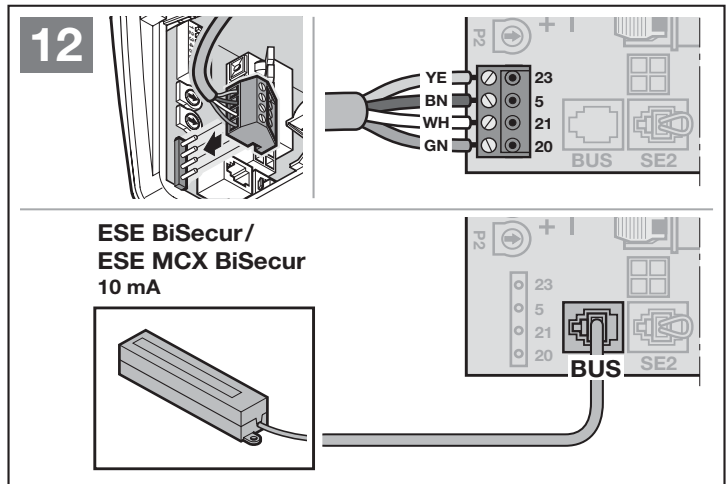
▶ Figure 12 + section 8.2

Depending on the receiver, insert the plug in the corresponding socket or the BUS jack.

4.2.3 Impulse button IT 1b*

▶ Figure 13

* – Accessory, not included as standard equipment!



4.2.4 Internal push button*

► Figure 14

Impulse button to start or stop door runs

► Figure 14.1

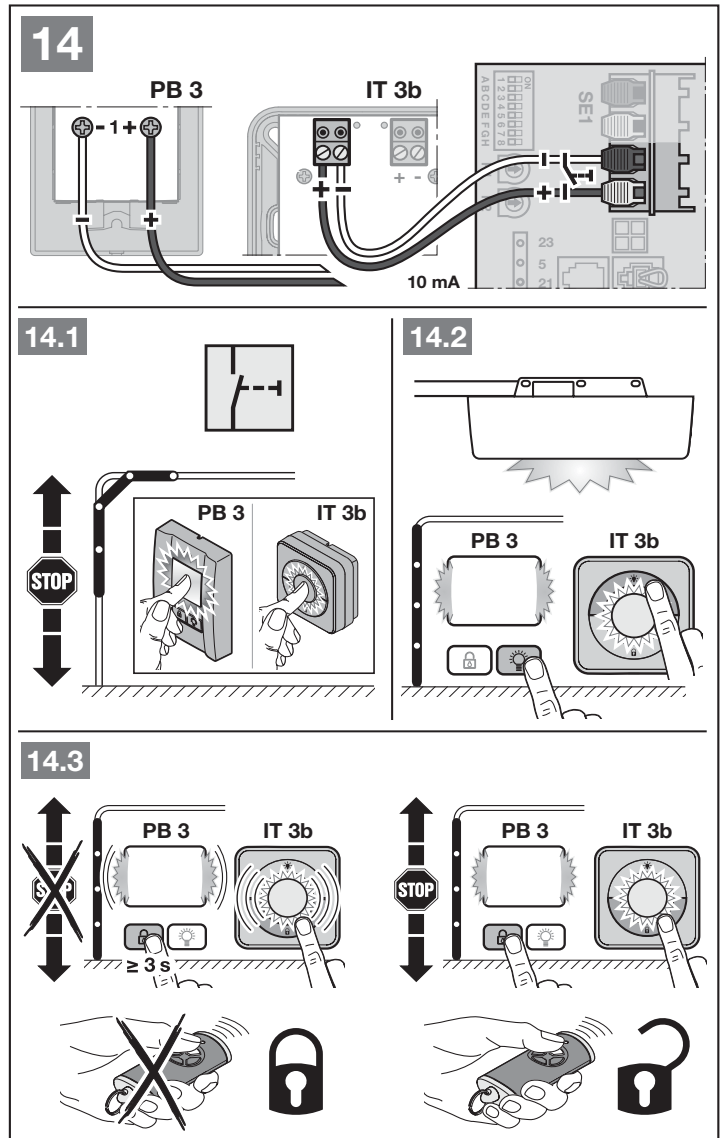
Light button to switch the operator light on and off

► Figure 14.2

Button to switch all control elements on and off

► Figure 14.3

The light can be switched on and off.



4.2.5 2-wire photocell* (dynamic)

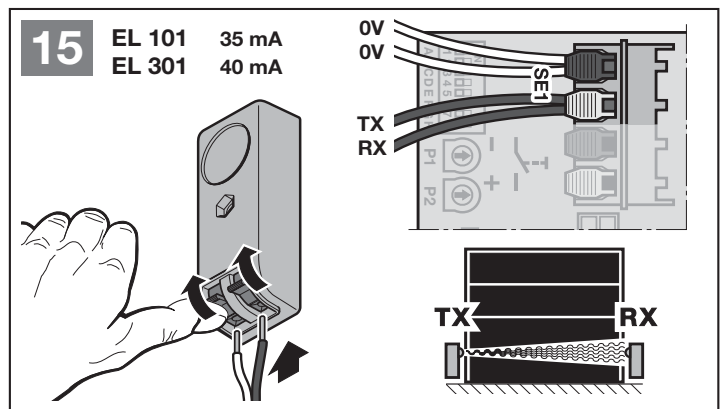
► Figure 15

NOTICE

Follow the fitting instructions when mounting photocells.

After the photocell is actuated, the operator stops and the door performs a safety run to the OPEN end-of-travel position.

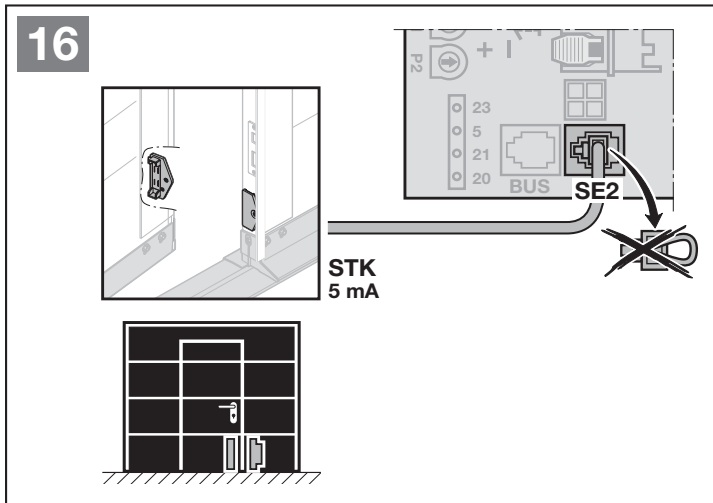
* – Accessory, not included as standard equipment!



4.2.6 Tested wicket door contact*

► Figure 16

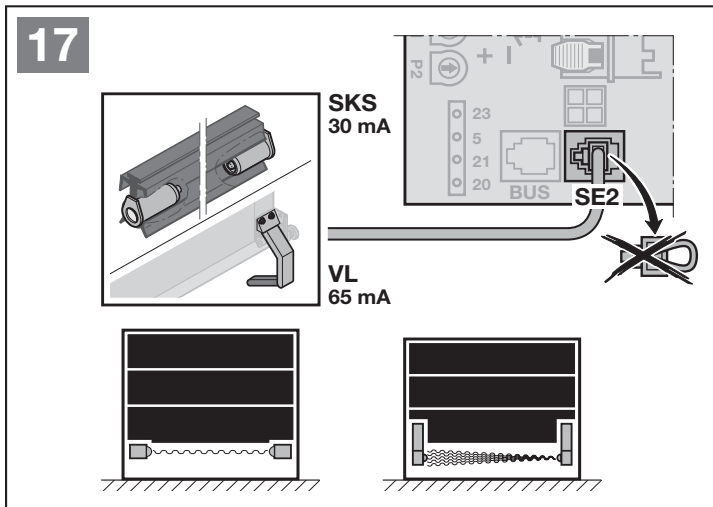
If the wicket door contact is opened during a door run, the operator stops immediately and blocks door run permanently.



4.2.7 Closing edge safety device*

► Figure 17

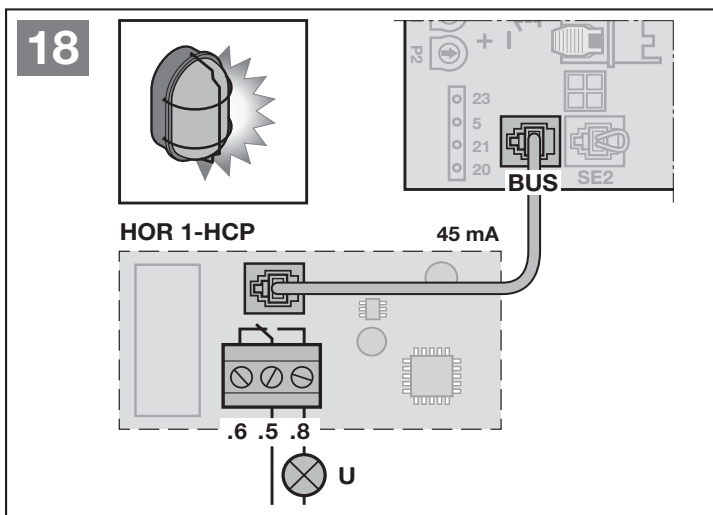
After the closing edge safety device is actuated, the operator stops and the door performs a safety run to the OPEN end-of-travel position.



4.2.8 Option relay*

► Figure 18 + section 5.5

The option relay is required to connect an external lamp or warning light.

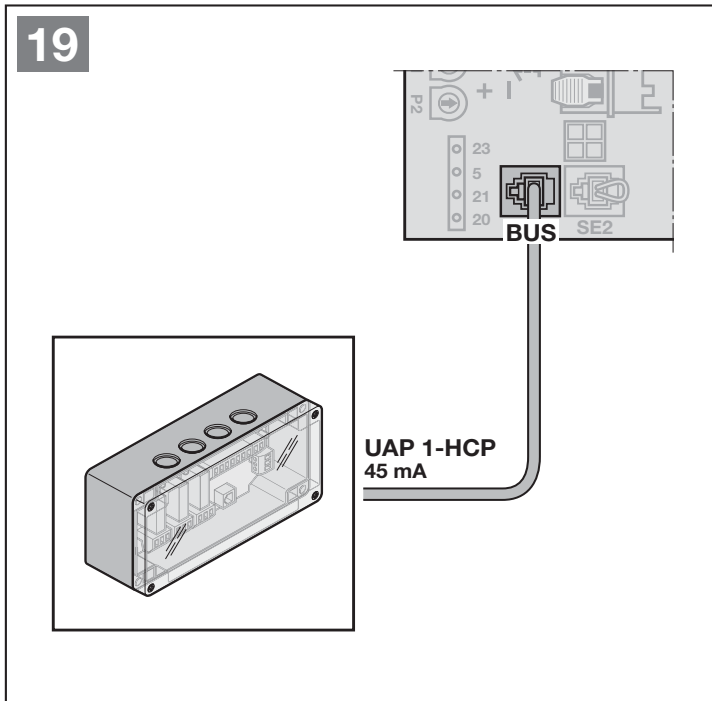


* – Accessory, not included as standard equipment!

4.2.9 Universal adapter print*

► Figure 19 + section 5.9

The universal adapter print can be used for additional functions.



4.2.10 Emergency battery*

► Figure 20

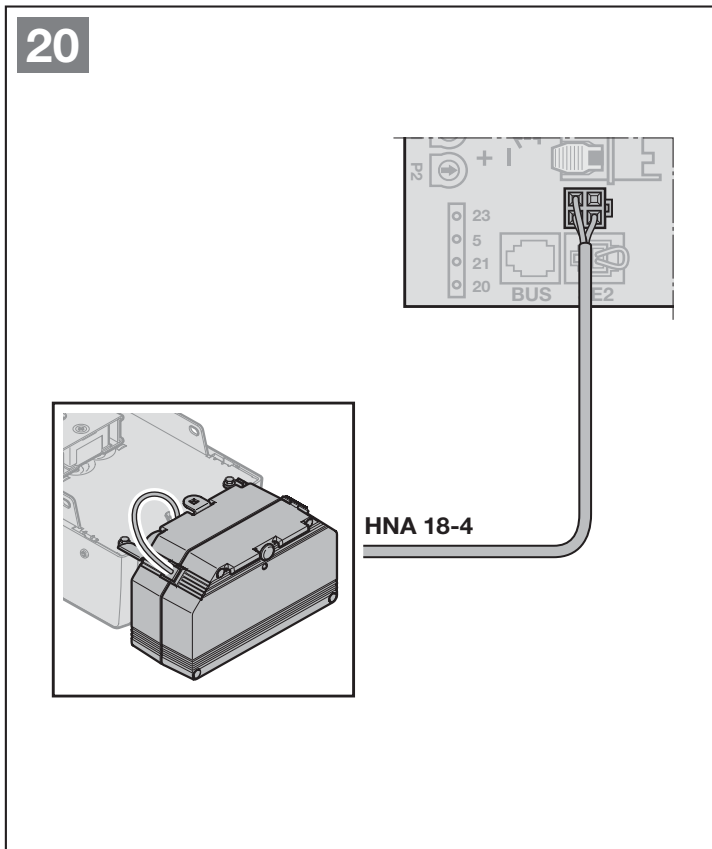
To close the door in the event of a power failure, an optional emergency battery can be connected. The system is switched to battery operation automatically. During battery operation, fewer LEDs are illuminated on the operator light.

⚠ WARNING

Danger of injury due to unexpected door run

Unexpected door run may occur when the emergency battery is still connected despite the mains plug being pulled out.

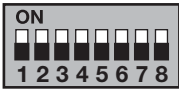
► Disconnect the mains plug **and** the plug of the emergency battery whenever performing work on the door system.



* – Accessory, not included as standard equipment!

5 Functions

5.1 overview

DIL switches		Function	Notice	Section
 <p>ON</p> <p>A B C D E F G H</p>	A	Door type		5.3
	W	Automatic timer		5.4
	C	Internal illumination function, BUS and advance warning	HOR 1-HCP or UAP 1-HCP (3rd relay)	5.5
	D	Safety equipment	SE 2	5.6
	E	Belt relief		5.8
	F	Changing the partial opening or ventilation position		5.9
	G	Maintenance message		5.10
	H	BUS scan		5.11

The operator functions can be set via DIL switches. Before initial start-up, all DIL switches are set to OFF (factory setting).

Changes to the DIL switch settings are only permissible under the following conditions:

- The operator is at rest.
- No radio code is taught in.

Set the DIL switches and the respective parameters in accordance with site requirements, national regulations and the required safety equipment.

5.2 Changing function and parameters

Some functions have parameters that enable additional settings.

- ▶ Set the desired DIL switch to ON.
The LED flashes red 1 x. The function is activated.
- ▶ Press the **T** button 1 x.
The LED flashes red 2 x. A different parameter has been selected.
- ▶ Press the **T** button 2 x.
The LED flashes red 3 x. A different parameter has been selected.
- ...

To save the selected parameter

- ▶ Press the **P** button.
As a confirmation, the LED flashes green once corresponding to the parameter.

Timeout

If you do not press the **P** button within 60 seconds, the default parameter 1 (flashing 1 x) is maintained.

If you reach the last parameter of a function, the next time you press the **T** button, you return to the original default setting for this function. The LED flashes 1 x.

5.3 DIL switch A: door type

CAUTION

Danger of injury due to incorrectly selected operator door type

If an incorrect door type is selected, unspecific values are set as default. Door system malfunctions may cause injuries.

- Only choose the menu that corresponds to the door system you have.

It is only possible to set DIL switch A if the operator is not taught in.

If you change the DIL switch on a taught-in operator, the setting is ignored until a travel command is entered. After a travel command, an error (flashing 8 x) is shown until the DIL switch is reset.

Changing / setting the door type:

► Section 5.2

OFF	Sectional door, OFF	
ON	Other door types, ON	
Flashing 1 x	Up-and-over door	
Flashing 2 x	Side sliding sectional door, long soft stop	
Flashing 3 x	Side sliding sectional door, hinged garage door, short soft stop	
Flashing 4 x	Garage horizontal door	

Side sliding sectional door, hinged garage door

If a long soft stop is set in the CLOSE direction, the operator also starts with a long soft start in the OPEN direction.

If a short soft stop is set in the CLOSE direction, the operator will start normally in the OPEN direction.

5.4 DIL switch B: Automatic timer


With the automatic timer, the door opens upon a travel command. Once the set hold-open phase and pre-warning phase have elapsed, the door closes automatically.

NOTICE

The automatic timer may / can only be activated within the scope of EN 12453 if at least one **additional** safety device (photozell / leading photocell) is connected in addition to the standard power limit, and the advance warning in CLOSE direction is **also** activated.

Setting / changing the automatic timer:

► Section 5.2

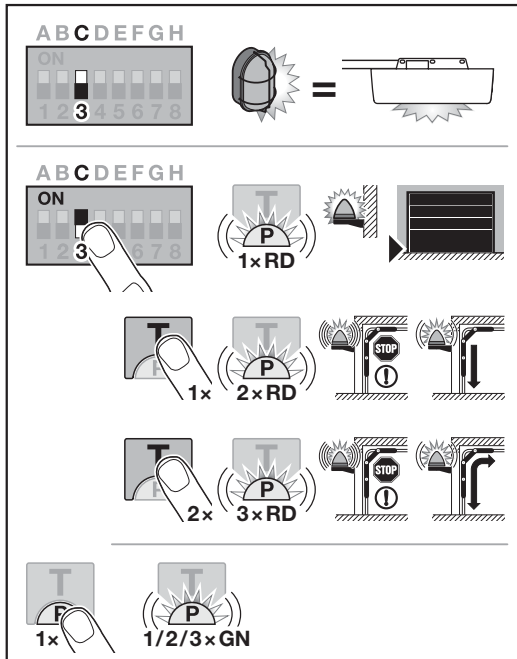
OFF	Automatic timer OFF	
ON	Automatic timer ON	
	Flashing 1 x	Hold-open phase of 30 seconds
	Flashing 2 x	Hold-open phase of 60 seconds
	Flashing 3 x	Hold-open phase of 120 seconds
	Flashing 4 x	Hold-open phase of 180 seconds

5.5 DIL switch C: Internal illumination function, BUS and advance warning

HOR 1-HCP or UAP 1-HCP (3rd relay)


The option relay HOR 1-HCP or universal adapter print UAP 1-HCP (3rd relay) are required to connect an external lamp or warning light.

Further functions, such as OPEN and CLOSE limit switch reporting, choosing direction or operator light, can be switched with the universal adapter print UAP 1-HCP (3rd relay).

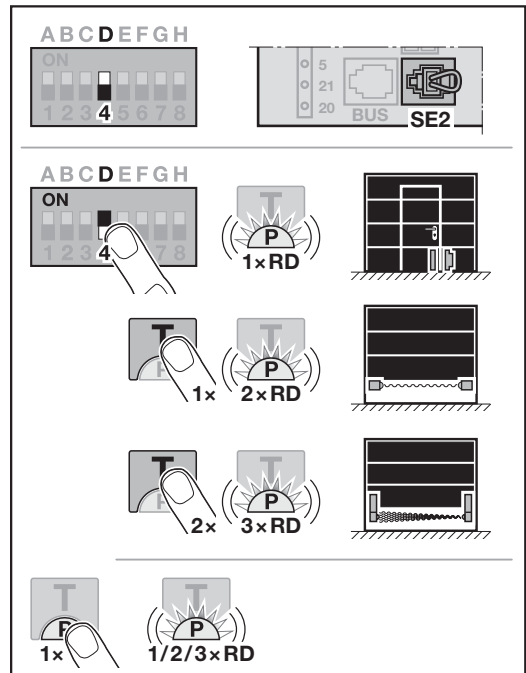


Setting / changing internal illumination function, BUS and advance warning:

► Section 5.2


OFF	Internal illumination function, BUS and advance warning External illumination (same function as operator light)	
ON	Internal illumination function, BUS and advance warning ON	
	Flashing 1 x	CLOSE limit switch reporting (Option relay picks up in the end-of-travel position)
	Flashing 2 x	Advance warning activated in the CLOSE direction (Option relay switches during advance warning and door run). The operator light lights up during the door run.
	Flashing 3 x	Advance warning activated in the OPEN and CLOSE direction (Option relay switches during advance warning and door run). The operator light lights up during the door run.

5.6 DIL switch D: Safety equipment SE2



Setting / changing the safety equipment SE 2:

► Section 5.2

OFF	Safety equipment SE 2 OFF	
ON	Safety equipment SE 2 ON	
	Flashing 1 x	Wicket door contact STK with testing Testing is checked before every door run.
	Flashing 2 x	Closing edge safety device SKS
	Flashing 3 x	Leading photocell VL

5.7 Reversal limit in the CLOSE direction

To prevent false reactions (e.g. unintentional safety reversal), the reversal limit deactivates the closing edge safety device SKS or leading photocell VL just before the CLOSE end-of-travel position is reached.

The reversal limit position depends on the door type and is pre-set to approx. 30 mm slide travel at the factory.

Sectional door:

Minimum height	Approx. 16 mm slide travel
Maximum height	Approx. 200 mm slide travel

The reversal limit can be set or changed when a closing edge safety device or leading photocell is connected to SE 2.

After the reversal limit is changed, a function check (see section 11.2) is required.

To set/change the SKS / VL reversal limit:

DIL switch D must be set to OFF.

1. Set DIL switch D to ON.
The LED flashes red 1 x. The function is activated.
2. Press the **T** button
 - 1 x for closing edge safety device SKS,
 - 2 x for leading photocell VL.
 The LED flashes
 - 2 x red for closing edge safety device SKS,
 - 3 x red for leading photocell VL.
3. Press the **P** button.
As a confirmation, the LED flashes once
 - 2 x red for closing edge safety device SKS,
 - 3 x red for leading photocell VL.
4. Press the **T** button*.
The door run in the OPEN direction begins.
The door will stop once it reaches the OPEN end-of-travel position.
5. Place a test body in the centre of the door (max. 300 x 50 x 16.25 mm, e.g. a folding rule) on the ground so that it is flat on the floor and in the range of the closing edge safety device or the leading photocell.

6. Press the **T** button.
The door run in the CLOSE direction starts.
 - The door moves until the test body is detected by the safety device.
 - The position is stored and checked for plausibility.
 - The operator reverses to the OPEN end-of-travel position.

The reversal limit is set / changed.

If the procedure was not successful:

After reaching the CLOSE end-of-travel position, the door opens again. The door will stop in the OPEN end-of-travel position. An error (flashing 1 x) is shown until it is acknowledged. The factory default reversal limit is set.
Repeat steps 1 – 6 as needed.

- To acknowledge the error, press the **T** button.

If the position of the reversal limit is > 200 mm before the CLOSE end-of-travel position:

The door opens and stops in the OPEN end-of-travel position. An error (flashing 1 x) is shown until it is acknowledged.

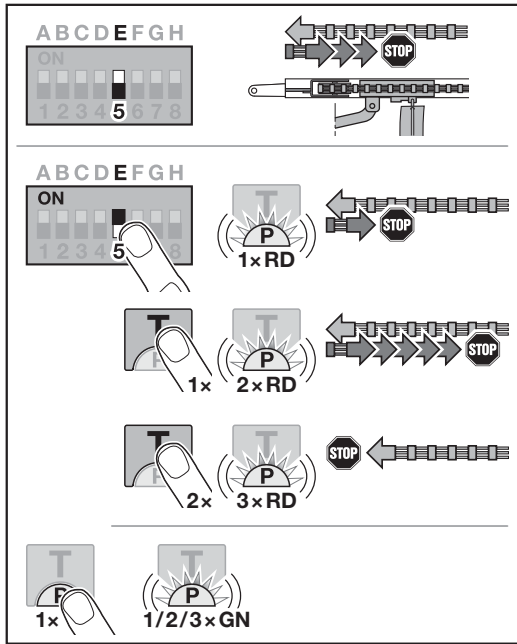
- To acknowledge the error, press the **T** button.

To abort a reversal run:

- Press the **T** button, **P** button or an external control element with impulse function.
The door stops. An error (flashing 1 x) is shown until it is acknowledged.
- To acknowledge the error, press the **T** button.

* – Pressing the **T** button again aborts the process.

5.8 DIL switch E: Belt relief

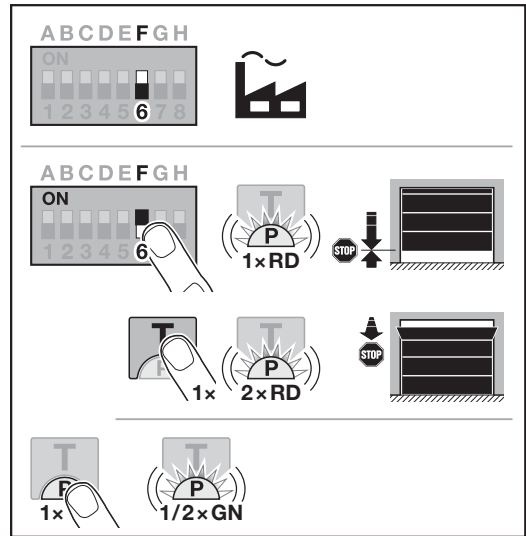


Changing / setting the belt relief:

► Section 5.2

OFF	Belt relief medium	
ON	Belt relief for additional lengths ON	
	Flashing 1 x	Short
	Flashing 2 x	Long
	Flashing 3 x	Without

5.9 DIL switch F: Change partial opening / ventilation position



The partial opening and ventilation positions depend on the door type and are pre-set at the factory.

Partial opening

	Approx. 260 mm before the CLOSED end-of-travel position
Area	Approx. 120 mm before each end-of-travel position

Ventilation

	100 mm slide travel
Area	35–300 mm before the CLOSE end-of-travel position

The **partial opening** position can be approached as follows:

- The 3rd radio channel
- An external radio receiver
- Universal adapter print UAP 1-HCP
- An impulse on the terminals 20 / 23

The **ventilation** position can be approached as follows:


- Via the HKSI-1 climatic sensor
- E.g. via universal adapter print UAP 1-HCP
- Via homee Brain

NOTICE

- The ventilation position can only be changed if at least one **additional** safety device (photocell/leading photocell) is connected in addition to the standard power limit in CLOSE direction.
- A climatic sensor and an **additional** safety device (photocell/leading photocell) must be taught in first.
- If a climatic sensor is connected, the advance warning is activated via DIL switch C.

Changing / setting the position:

1. Using the **T** button, move the door to the desired position via the taught-in impulse radio code or an external control element with impulse function.
2. Set DIL switch F to ON and select the desired position (see section 5.2).
The LED flashes red corresponding to the parameter.

OFF	Partial opening / ventilation	
ON	Change position ON	
	Flashing 1 x Partial opening	
	Flashing 2 x Ventilation	

3. Press the **P** button to save this position.
The LED flashes green corresponding to the set parameter.

The changed position is saved.

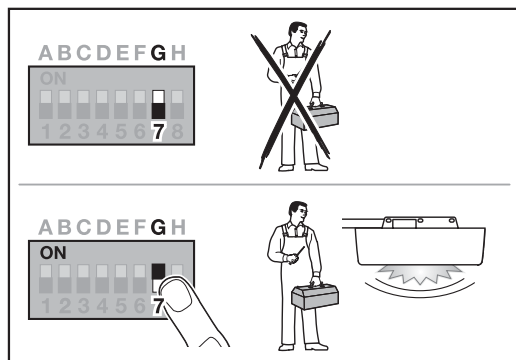
If the selected position is too close on the CLOSE end-of-travel position, an error message appears (LED flashes red continuously 1 x). The factory-set position is set automatically, or the most recent valid position is maintained.

NOTICE

A folding roller bracket from the accessories allows you to ventilate the garage without installing an additional safety device (photocell).

- ▶ Contact your specialist dealer with regard to fitting and programming.

5.10 DIL switch G: Maintenance message



If DIL switch G is set to OFF (factory setting), the maintenance display is deactivated. No message is output.


If DIL switch G is set to ON, the maintenance display is activated. At the latest, a message is output after

- 1 year of operation
- or
- 2000 door cycles

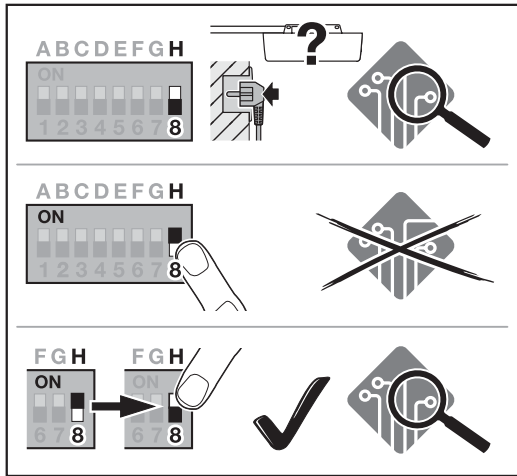
The message appears once each time the CLOSED end-of-travel position is reached.

Activating / setting the maintenance display:

- ▶ Section 5.2

OFF	Maintenance message OFF	
ON	Maintenance message ON	

5.11 DIL switch H: BUS scan



Activating / setting the BUS scan:

▶ Section 5.2

OFF	BUS activated BUS scan in the non taught-in state with power supply.	
ON	BUS activated No effect	
Move from ON to OFF	BUS activated BUS scan performed	

5.12 Special programming

In addition to the various functions and the respective parameters, there are two types of special programming that you can perform.

- Power limit
- Changing the ventilation position without safety equipment

Contact your specialized dealer for the programming.

NOTICE

Settings that change the factory setting may only be made by specialists.

6 Initial start-up

▶ Before initial start-up, read and follow the safety instructions in sections 2.7 and 2.9.

During learning runs, the operator is adjusted to the door. The travel distance, the required force for opening and closing runs and the connected safety devices are taught in automatically and saved in a power failure-proof manner. The data is only valid for this door.

NOTES

- The slide carriage must be engaged.
- No obstacles may be located in the function range of the safety devices.
- Safety devices must be fitted and connected beforehand.
- If further safety devices are connected at a later point, a factory reset is required.
- During learning runs for travel and the required forces, the connected safety devices and power limit are not active.
- While the travel is being taught in, the operator moves in slow travel.

Operator light:

If the operator has not yet been taught in, the operator light flashes 2 x as soon as the the mains plug is inserted in the socket.

After the learning run, the operator light remains illuminated and goes out after approx. 60 seconds.

The illumination period cannot be set.

6.1 Teaching in the operator

1. Plug in the mains plug.
 - The operator light will flash 2 x.
2. Press the **T** button on the operator cover.
 - The door will open and briefly stop in the OPEN end-of-travel position.
 - The door automatically completes 3 cycles (OPEN and CLOSE door runs).

The travel and required forces are taught in. The operator light flashes during the learning runs.

 - The door will stop in the OPEN end-of-travel position. The operator light is continuously illuminated.

The operator is ready for operation.

To abort a learning run:

- ▶ Press the **T** button or an external control element with impulse function.
 - The door stops.
 - The operator light is continuously illuminated.

To re-start initial start-up:

- ▶ Press the **T** button.

NOTICE

If the operator stops with the operator light flashing or before reaching the end stop, the pre-set forces are too low and must be readjusted.

6.2 Adjusting the forces

Reaching the potentiometer to set the forces:

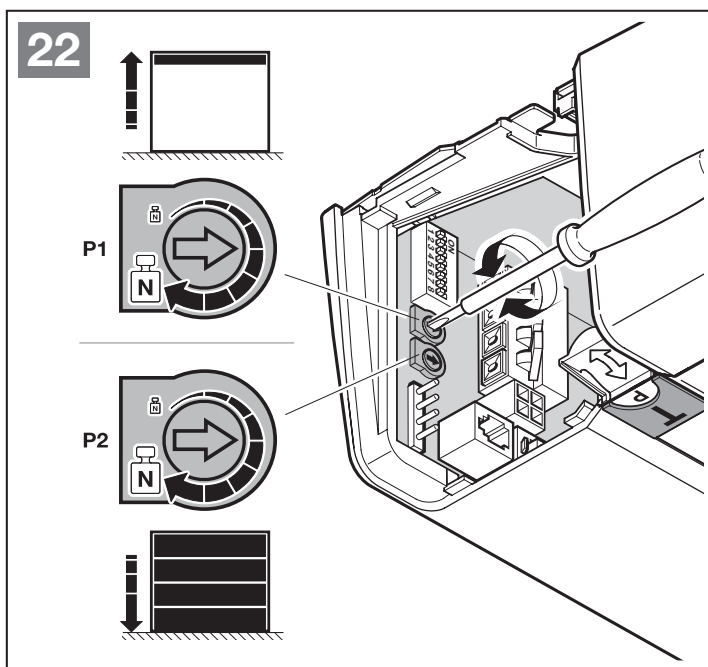
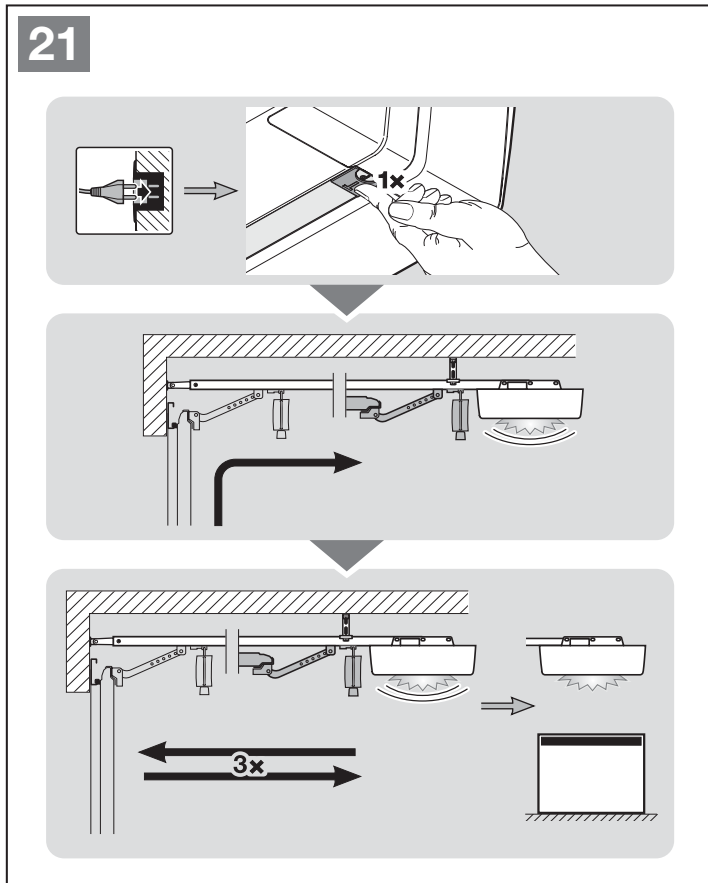
- ▶ Remove the cover.
- P1** Set the force in the OPEN direction
- P2** Set the force in the CLOSE direction

Increasing the force:

- ▶ Turn clockwise.

Reducing the force:

- ▶ Turn counterclockwise.



6.3 Forces

The forces required for the learning-in run are automatically adjusted during each door run. For safety reasons, the forces must not be readjusted indefinitely when the travel behaviour of the door becomes worse (e.g. the spring tension weakens). Risks to safety may arise with manual operation of the door (e.g. door crashing).

The maximum forces provided for OPEN and CLOSE door travel during learning runs have a limited presetting in delivery condition (centre position of the potentiometers).

Proceed as follows if the OPEN end stop is not reached:

1. Turn **P1** clockwise by one eighth of a rotation (see Figure 22).
2. Press the **T** button.
The door moves in the CLOSE direction.
3. Before the CLOSE end-of-travel position, press the **T** button again.
The door stops.
4. Press the **T** button again.
The door moves to the OPEN end-of-travel position.

If the Open end stop is not reached again, repeat steps 1–4.

Proceed as follows if the CLOSE end stop is not reached:

1. Turn **P2** clockwise by one eighth of a rotation (see Figure 22).
2. Delete the door data (see section 12).
3. Teach in the operator again (see section 6.1).

If the CLOSED end stop is not reached again, repeat steps 1–3.

7 Hand transmitter HSE 4 BiSecur



⚠ WARNING

Danger of injury during door travel

Persons may be injured by door travel if the hand transmitter is actuated.

- ▶ Make sure that hand transmitters are kept away from children and can only be used by people who have been instructed on how the remote-control door system functions!
- ▶ If the door has only one safety feature, only operate the hand transmitter if you are within sight of the door!
- ▶ Only drive or pass through remote-control door systems when the door is at a standstill!
- ▶ Never stand in the opening of the door system.
- ▶ Please note that an unwanted door run may occur if a hand transmitter button is accidentally pressed (e.g. if stored in a pocket/handbag).

⚠ CAUTION

Danger of injuries due to unintended door run

An unintended door run may occur while teaching in the radio system.

- ▶ Make sure no persons or objects are in the door's area of travel when teaching in the radio system.

⚠ CAUTION

Danger of burns from the hand transmitter

Direct sunlight or great heat can heat up the hand transmitter. As a result, burns could occur during use.

- ▶ Protect the hand transmitter from direct sunlight and great heat (e.g. by placing it in a stowage compartment in the dashboard).

⚠ CAUTION

Danger of burns from hazardous materials

If you ingest the battery, burns may result from hazardous materials in the battery.

- ▶ Do not ingest the battery and make sure that children cannot get their hands on the battery.

ATTENTION

Functional impairment caused by effects of the environment

High temperatures, water and dirt impair the function of the hand transmitter.

Protect the hand transmitter from the following conditions:

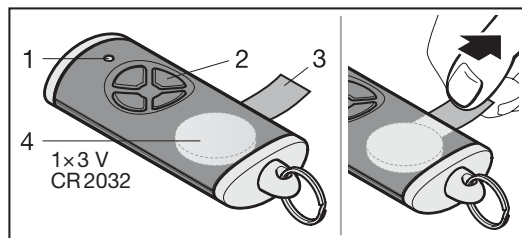
- Direct sunlight (permissible ambient temperature 0 °C to +50 °C)
- Moisture
- Dust

If you start up, enhance or change the radio system:

- Only possible if the operator is at rest.
- Perform a function check.
- Only use original parts.
- Local conditions may affect the range of the radio system.

If there is no separate garage entrance, perform all programming changes and extensions of radio systems while standing in the garage.

7.1 Description of the hand transmitter

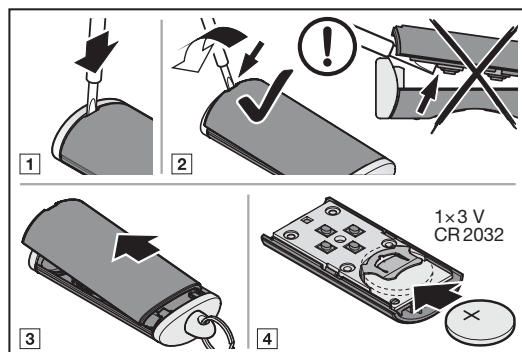


- 1 LED, bi-colour
- 2 Hand transmitter buttons
- 3 Battery insulation foil
- 4 Battery

7.2 Changing the battery

3 V battery, type: CR 2032, lithium

After inserting the battery, the hand transmitter is ready for operation.



⚠ WARNING

Risk of explosion due to incorrect battery type

There is the risk of explosion if the battery is replaced with an incorrect battery type.

- ▶ Only use the recommended battery type.

⚠ WARNING

Danger to life due to internal burns

If you swallow the battery, severe internal burns may result from hazardous materials in the battery. The burns can lead to death within 2 hours.

- ▶ Do not swallow the battery and make sure that children cannot get their hands on the battery.

ATTENTION

Destruction of the hand transmitter by leaking batteries

Batteries can leak and destroy the hand transmitter.

- ▶ Remove the battery from the hand transmitter if it is out of use for a long period of time.

7.3 Hand transmitter operation

Each hand transmitter button is assigned to a radio code.

- ▶ Press the button of the hand transmitter whose radio code you want to transmit.
 - The LED is illuminated blue for 2 seconds.
 - The radio code is transmitted.

NOTICE

If the radio code of the hand transmitter button is inherited from another hand transmitter, press and hold the hand transmitter button until the LED flashes alternately in red and blue and the desired function is performed.

Battery status display on the hand transmitter

The LED flashes red twice; the radio code continues to be transmitted.	The battery should be replaced soon.
The LED flashes red twice. Following this, the radio code is no longer transmitted.	The battery must be replaced immediately.

7.4 Inheriting / transmitting a radio code

1. Press and hold the button of the hand transmitter whose radio code you want to inherit / transmit.
 - The LED is illuminated blue for 2 seconds and then goes out.
 - After 5 seconds, the LED alternates flashing in red and blue.
 - The hand transmitter button sends the radio code.
2. If the radio code is taught in and recognised, release the hand transmitter button.
 - The LED goes out.

NOTICE

You have 15 seconds to inherit / transmit the radio code. If inheriting/transmitting the code was not successful within this period of time, repeat the process.

7.5 Hand transmitter reset

1. Open the hand transmitter housing.
2. Remove the battery for 10 seconds.
3. Press and hold a hand transmitter button.
4. Insert the battery.
 - The LED slowly flashes in blue for 4 seconds.
 - The LED flashes rapidly in blue for 2 seconds.
 - The LED is illuminated in blue for a prolonged period of time.
5. Release the hand transmitter button.
All radio codes have been newly assigned.
6. Close the hand transmitter housing.

NOTICE

If you release the hand transmitter button prematurely, no new radio code is allocated.

7.6 LED display

Blue (BU)

State	Function
Illuminated for 2 seconds	A radio code is being transmitted
Flashes slowly	Hand transmitter is in teach-in mode
Flashes quickly after slow flashing	A valid radio code was detected during the teach-in procedure
Flashes slowly for 4 seconds, Flashes quickly for 2 seconds Illuminated for a prolonged period	Reset is being performed and completed

Red (RD)

State	Function
Flashes 2 x	The battery is almost empty

Blue (BU) and Red (RD)

State	Function
Flashing alternately	Hand transmitter is in inherit / transmit mode

7.7 Cleaning the hand transmitter

ATTENTION
<p>Damaging the hand transmitter by faulty cleaning</p> <p>Cleaning the hand transmitter with unsuitable cleaning agents can damage the hand transmitter housing and the hand transmitter buttons.</p> <p>► Clean the hand transmitter with a clean, soft, damp cloth.</p>

NOTICE

White hand transmitter buttons can change their colour when used regularly over an extended period of time, if they come in contact with cosmetic products (e.g. hand cream).

7.8 Disposal



Electrical and electronic devices, as well as batteries, must not be disposed of in household rubbish, but must be returned to the appropriate recycling facilities.

7.9 Technical data

Type	Hand transmitter HSE 4 BiSecur
Frequency	868 MHz
Power supply	1 x 3 V battery, type CR 2032, lithium
Perm. ambient temperature	0 °C to +50 °C
Max. humidity	93 %, non-condensing
Protection category	IP 20

7.10 EU declaration of conformity for the hand transmitter

The manufacturer of this operator herewith declares that the provided hand transmitter complies with EU Directive Radio Equipment 2014/53/EU.

The complete declaration of conformity can be found in the enclosed log book or requested from the manufacturer.

8 Radio receiver

8.1 Integrated radio receiver

The integral radio receiver can learn up to 100 radio codes.

The radio codes can be distributed across the existing channels.

If more than 100 radio codes are taught in, the codes taught in first are deleted.

If the radio code for a hand transmitter button is taught in for two different functions, the radio code for the function first taught in is deleted.

To teach in a radio code, the following prerequisites must be met:

- The operator is at rest.
- Pre-warning phase is not active.
- Hold-open phase is not active.

8.1.1 Teaching in the radio code for the impulse function

1. Press the **P** button on the operator cover 1 x.
The LED in the transparent button flashes red 1 x.
2. Press and hold the hand transmitter button from which you want to transmit the radio code. For more information on the hand transmitter, refer to section 7.4.

If a valid radio code is recognised, the LED in the transparent button flashes quickly in red.

3. Release the hand transmitter button.

The LED in the transparent button flashes slowly in red.

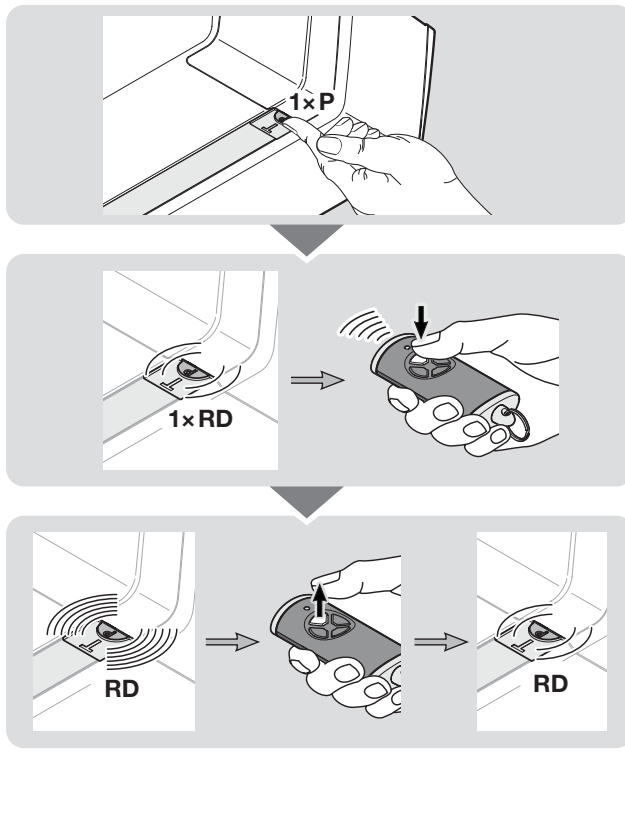
The hand transmitter button has been taught in and is now ready for operation.

To teach in additional hand transmitter buttons:

- ▶ Repeat steps 2 + 3.

If the same hand transmitter button is taught in on two different channels, it will be deleted on the first taught-in channel.

23



To cancel hand transmitter teach-in:

- ▶ Press the **P** button 6 times or wait for the timeout. The operator light is continuously illuminated.

Timeout

If the timeout (25 seconds) is exceeded while teaching in the hand transmitter, the operator automatically switches back to operating mode.

8.1.2 Teaching in radio codes for additional functions

- ▶ Proceed as described above for the impulse function.

Pressing the **P** button on the operator cover selects the desired function.

Operator light	Press 2 x
Partial opening	Press 3 x
Choosing OPEN direction	Press 4 x
Choosing CLOSE direction	Press 5 x
homee Brain	Press 6 x

The LED in the transparent button flashes red 1 x, 2 x, 3 x, 4 x, 5 x or 6 x.

8.2 External radio receiver*

8.2.1 Radio receiver ESE BiSecure

If the range is limited, the following functions can be controlled with an external radio receiver:

- Impulse
- Operator light
- Partial opening
- Choosing OPEN direction
- Choosing CLOSE direction

If an external radio receiver is retrofitted, be sure to delete the radio codes for the integrated radio receiver.

- ▶ Section 13

8.2.2 Teaching in a radio code on the external radio receiver

- ▶ Teach in the radio code for a hand transmitter button using the operating instructions for the external receiver.

8.3 EU Declaration of Conformity for Receivers

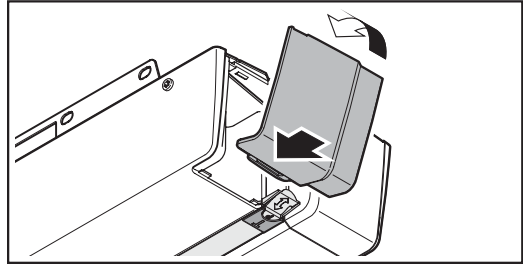
The manufacturer of this operator herewith declares that the integrated receiver complies with EU Directive Radio Equipment 2014/53/EU.

The complete declaration of conformity can be found in the enclosed log book or requested from the manufacturer.

9 Final work

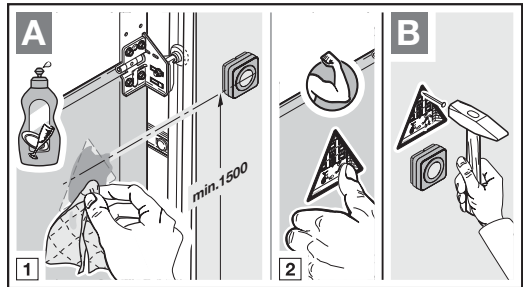
Upon completion of all required steps for initial start-up:

- ▶ Close the cover.



9.1 Fixing the warning sign

- ▶ Fix the supplied crushing warning sign in a prominent, cleaned and degreased place, for example near the permanently installed button for moving the operator.



9.2 Function test

⚠ WARNING

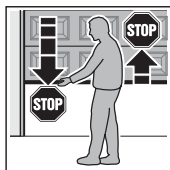
Danger of injuries due to faulty safety equipment
In the event of a malfunction, there is a danger of injuries due to faulty safety equipment.

- ▶ After the learning runs, the person commissioning the system must check the function(s) of the safety equipment.

The system is ready for operation only after this.

* – Accessory, not included as standard equipment!

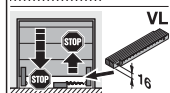
To check the safety reversal:



1. Stop the door with both hands while it is **closing**. The door system must stop and initiate the safety reversal.
2. Stop the door with both hands while it is **opening**. The door system must switch off and take the load off.



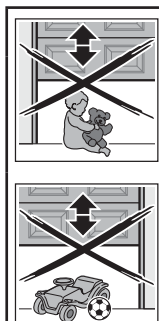
3. Position a test object with a height of approx. 50 mm (SKS) or 16 mm (VL) in the centre of the opening and close the door.



The door system must stop and initiate the safety reversal as soon as it reaches the obstacle.

- ▶ In the event of a failure of the safety reversal, a specialist must be commissioned immediately for the inspection and repair work.

10 Operation



WARNING

Danger of injury during door travel

If people or objects are in the area around the door while the door is in motion, this can lead to injuries or damage.

- ▶ Children are not allowed to play near the door system.
- ▶ Make sure that no persons or objects are in the door's area of travel.
- ▶ If the door system has only one safety feature, only operate the garage door operator if you are within sight of the door's area of travel.
- ▶ Monitor the door travel until the door has reached the end-of-travel position.
- ▶ Drive or walk through the door openings of remote-controlled door systems only when the garage door is in the OPEN end-of-travel position!
- ▶ Never stand under the open door.

CAUTION

Danger of crushing in the boom

Do not reach into the boom with your fingers during a door run, as this can cause crushing.

- ▶ Do not reach into the boom during a door run

CAUTION

Danger of injury from the cord knob

If you hang on the cord knob, you may fall and injure yourself. The operator could break away and injure persons or damage objects that are located underneath, or the operator itself could be destroyed.

- ▶ Do not hang on the cord knob with your body weight.

CAUTION

Danger of injury resulting from uncontrolled door travel in the CLOSE direction if one of the counterbalance springs breaks and the slide carriage is released.

If a retrofit set is not installed, uncontrolled door travel in the CLOSE direction may occur if the slide carriage is released while a counterbalance spring is broken, the door is improperly balanced or the door is not completely closed.

- ▶ The responsible fitter must install a retrofit set on the slide carriage if the following applies:
 - The standard DIN EN 13241-1 applies
 - The garage door operator is retrofitted to a Hörmann **sectional door without spring safety device (BR30)** by a technical expert.

This set includes a screw that secures the slide carriage against uncontrolled unlocking as well as a new cord knob sign with images showing how the set and the slide carriage should be handled for the two operation modes of the boom.

NOTICE

The use of an emergency release or an emergency release lock is **not possible** in conjunction with the retrofit set.

ATTENTION

Damage due to the cord of the mechanical release

If the cord of the mechanical release becomes caught on a roof rack system or any other protrusions of the vehicle or door, this can lead to damage.

- ▶ Make sure that the cable cannot become caught.

10.1 Instructing users

The operator may be used by

- children over 8 years of age
- persons with limited physical, sensory or mental capabilities
- persons with a lack of experience or knowledge.

The condition for use of the operator is that the above-mentioned children/persons

- are supervised
- instructed on safe use
- understand the resulting dangers.

Children must not play with the operator.

- ▶ All persons using the door system must be shown how to operate the garage door operator properly and safely.
- ▶ Demonstrate and test the mechanical release as well as the safety reversal.

10.1.1 Cord knob mechanical release

The cord knob for mechanical release may not be installed at a height greater than 1.8 m from the garage floor. The cord may need to be extended on-site, depending on the height of the garage door.

- ▶ When extending the cord, please make sure that the cord cannot become caught on a roof rack system or any other protrusions of the vehicle or door.



WARNING

Danger of injury due to a fast-closing door

If the cord knob is actuated while the door is closing, the door may close quickly due to weak, broken springs or faulty counterbalance.

- ▶ Only pull the cord knob when the door is closed.

- ▶ Pull the cord knob when the door is closed. The door is now unlocked and should be easy to open and close by hand.

10.1.2 Mechanical release by emergency release lock:

(Only for garages without a second entrance)

- ▶ When the door is closed, actuate the emergency release lock. The door is now unlocked and should be easy to open and close by hand.

10.2 Functions of various radio codes

Each hand transmitter button is assigned to a radio code. To operate the operator with the hand transmitter, the radio code for the respective hand transmitter button must be taught in to the channel of the desired function on the integral radio receiver.

- ▶ Section 8.1

NOTICE

If the radio code of the hand transmitter button is inherited from another hand transmitter, press and hold the hand transmitter button until the LED flashes alternately in red and blue and the desired function is performed.

If the operator recognises an inherited radio code that has not yet been taught into the integrated radio receiver, the operator automatically changes to learning mode for 10 seconds.

The LED in the transparent button flashes red 1 x, 2 x, 3 x, 4 x or 5 x.

10.2.1 Channel 1/impulse

In normal operation, the garage door operator works with the impulse sequence control.

Pressing the corresponding hand transmitter button, the **T** button or an external button triggers the impulse.

1st impulse: The door runs towards an end-of-travel position.

2nd impulse: The door stops.

3rd impulse: The door runs in the opposite direction.

4th impulse: The door stops.

5th impulse: The gate runs in the direction of the end-of-travel position selected in the 1st impulse.

etc.

10.2.2 Channel 2/lighting

Pressing the corresponding hand transmitter button for light switches the operator light on and off prematurely.

10.2.3 Channel 3/partial opening

If the door is **not in the partial opening position**, use the corresponding hand transmitter button for partial opening to trigger a door run to this position.

If the door is in the **partial opening position**, use the hand transmitter button to trigger the following:

- Partial opening for a door run in the CLOSE end-of-travel position.
- Impulse for a door run in the OPEN end-of-travel position.

10.2.4 Channel 4/choosing OPEN direction

The hand transmitter button with the radio code for OPEN position triggers the impulse sequence (Open – Stop – Open – Stop) for a door run to the OPEN end-of-travel position.

10.2.5 Channel 5/choosing CLOSE direction

The hand transmitter button with the radio code for CLOSE position triggers the impulse sequence (Close – Stop – Close – Stop) for a door run to the CLOSE end-of-travel position.

10.2.6 Channel 6/homee Brain

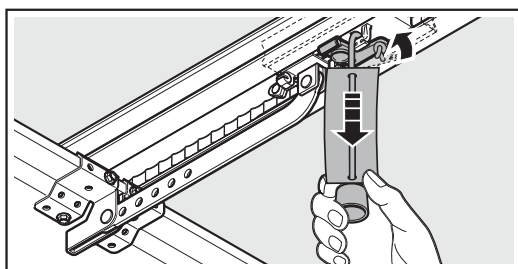
All radio codes and functions are provided and taught in and can be operated using the corresponding apps.

10.3 Garage door operator behaviour after 3 fast OPEN door runs in a row

The motor of the garage door operator is equipped with thermal overload protection. If the operator performs 3 fast runs in the OPEN direction within 2 minutes, the overload protection reduces the travel speed. Runs in the OPEN and CLOSE direction are then performed at the same speed. After an idle time of another 2 minutes, the next run in the OPEN direction is then once again fast.

10.4 Behaviour during a power failure (without an emergency battery)

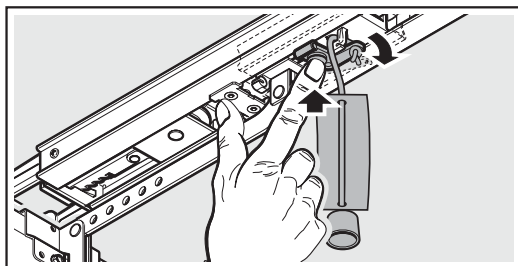
During a power failure, you have to open and close the door system by hand. For this, you have to disengage the operator.



- ▶ Pull on the cord of the mechanical release. The slide carriage is disengaged for manual operation.

10.5 Behaviour after the power returns (without emergency battery)

After the power returns, you have to re-engage the operator for automatic operation.



- ▶ Push the green button on the slide carriage. The slide carriage is re-engaged for automatic operation.

10.6 Reference run

A reference run is required:

- If the power limit is activated 3 × in a row during a run in the CLOSE direction.

A reference run is performed:

- Only in the OPEN direction. The operator light will flash slowly.
- At a reduced speed.
- With a minor increase in force of the most recently taught-in forces.

The impulse command triggers the reference run. The operator moves to the OPEN end-of-travel position.

11 Inspection and maintenance

The garage door operator is maintenance-free.

In the interest of your own safety, however, we recommend having the door system inspected and maintained **annually** by a qualified person in accordance with manufacturer specifications.

⚠ WARNING

Danger of injury due to unexpected door run

An unexpected door run may occur during inspection and maintenance work if the door system is inadvertently actuated by other persons.

- ▶ Disconnect the mains plug **and** the plug of the emergency battery whenever performing work on the door system.
- ▶ Safeguard the door system against being switched on again without authorisation.

Inspection and repairs may only be carried out by a qualified person. If necessary, contact your specialist dealer.

A visual inspection may be carried out by the operator.

- ▶ Check all safety and protective functions **monthly**.
- ▶ Check all safety devices without self-testing **every six months**.
- ▶ Any malfunctions and/or defects must be remedied **immediately**.

Do not allow children to clean or maintain this operator without supervision.

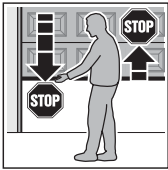
11.1 Tension of the toothed belt

The toothed belt of the boom is tensioned optimally at the factory.

During the start-up and slow-down phase, with larger doors the toothed belt may briefly hang out of the boom profile. However, this does not constitute a technical malfunction and does not negatively affect the function and service life of the operator.

11.2 Checking safety reversal / reversing

To check safety reversal / reversing:

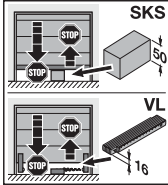


1. Stop the door with both hands while it is **closing**. The door system must stop and initiate the safety reversal.

2. Stop the door with both hands while it is **opening**. The door system must switch off and take the load off.

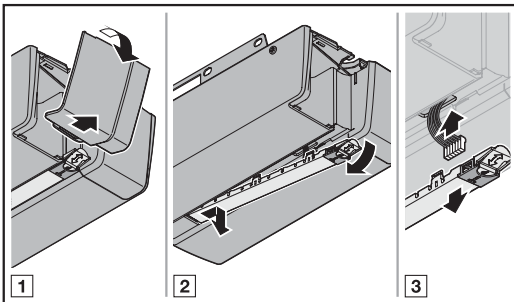
3. Position a test object with a height of approx. 50 mm (SKS) or 16 mm (VL) in the centre of the opening and close the door.

The door system must stop and initiate the safety reversal as soon as it reaches the obstacle.



► In the event of a failure of the safety reversal, a specialist must be commissioned immediately for the inspection and repair work.

11.3 Change the light module



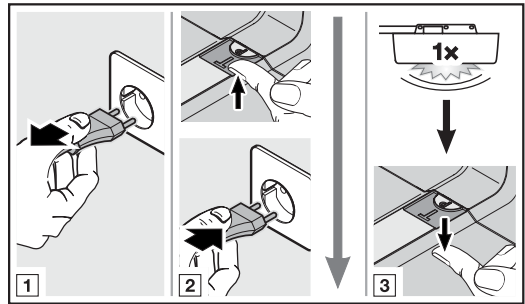
Type	Operator light module
Nominal power	1.6 W – 10 LEDs
Nominal voltage	37 V

When the operator light is on, a voltage of 37 V DC is applied.

► Only exchange the operator light when the operator is not energised.

12 Deleting door data

The existing door data must be deleted before the operator can be taught in again.



To reset to the factory settings:

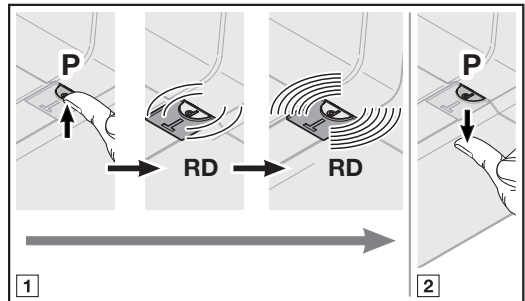
1. Disconnect the mains plug and, if applicable, the plug of the emergency battery.
2. Press and hold the **T** button on the operator cover.
3. Reconnect the mains plug.
4. Release the **T** button when the operator light flashes once.
The door data has been deleted.
5. Teach in the operator again (see section 6.1).

NOTE:

The taught-in radio codes are maintained.

13 Deleting all radio codes

There is no option to delete the radio codes for individual hand transmitter buttons on the integrated radio receiver on the operator.



To delete all taught-in radio codes:

1. Press and hold the **P** button on the operator cover.
 - The LED flashes red slowly and signals availability for deletion.
 - The LED then flashes rapidly in red. The data of all the hand transmitters' learned radio codes is deleted.
2. Release the **P** button.

NOTICE

If you release the **P** button prematurely, the radio codes are not deleted.

14 Dismantling and disposal

NOTICE

When dismantling the system, observe the applicable occupational safety rules and regulations.

Have a specialist dismantle the garage door operator in the reverse order of these instructions and dispose of it properly.

15 Warranty conditions

Warranty Period

In addition to the statutory warranty provided by the dealer in the sales contract, we grant the following warranty for parts from the date of purchase:

- 5 years on operator technology, motor and motor control
- 2 years on radio equipment, accessories and special systems

Claims made under the warranty do not extend the warranty period. For replacement parts and repairs the warranty period is six months or at least the remainder of the warranty period.

Prerequisites

The warranty claim only applies in the country where the equipment was purchased. The product must have been purchased through our authorised distribution channels. A claim under this warranty exists only for damage to the object of the contract itself.

The receipt of purchase substantiates your right to claim under the warranty.

Services

For the duration of the warranty we shall eliminate any product defects that are proven to be attributable to a material or manufacturing fault. We pledge to replace free of charge and at our discretion the defective goods with non-defective goods, to carry out repairs, or to grant a price reduction. Replaced parts become our property.

Reimbursement of expenditure for dismantling and fitting, testing of parts as well as demands for lost profits and compensation for damages are excluded from the warranty.

Damage caused by the following is also excluded:

- improper fitting and connection
- improper initial start-up and operation
- External factors such as fire, water, abnormal environmental conditions
- mechanical damage caused by accidents, falls, impacts
- negligent or intentional destruction
- normal wear or deficient maintenance
- repairs conducted by unqualified persons
- Use of non-original parts
- Removal or defacing of the data label

16 EC/EU Declaration of Conformity / Declaration of Incorporation

(as defined in EC Machinery Directive 2006/42/EC according to Annex II, Part 1 A for a complete machine or Part 1 B for incorporation of an incomplete machine).

For the end user to fit this garage door operator, only a combination with specifically approved door types is permitted. These door types can be found in the complete EC/EU Declaration of Conformity in the provided log book.

However, if this garage door operator is not combined with an approved door type, the fitter will be considered a manufacturer of the complete machine.

In this case, fitting may only be done by a fitting company, as only they have knowledge of the relevant safety regulations, valid directives and standards, as well as the required testing and measuring devices.

The appropriate Declaration of Incorporation can also be found in the provided log book.

17 Technical data

Mains voltage	230 / 240 V, 50 / 60 Hz
Standby	< 1 W
Frequency	868 MHz
Max. humidity	93 %, non-condensing
Protection category	Only for dry rooms
Automatic cut-out	Is automatically taught in for both directions separately
End-of-travel position cut-out / power limit	<ul style="list-style-type: none"> • Self-learning • Wear-free, as it has no mechanical switches • Additionally integrated travel time limit of 90 s, side sliding sectional door 180 s • Automatic safety cut-out, readjusting at every door run.
Rated load	See data label
Pull and push force	See data label
Motor	Direct current motor with hall sensor
Switching power supply	With thermal protection
Connection	<ul style="list-style-type: none"> • Screw terminal for external devices with protective low voltage, such as internal and external push buttons with impulse operation • Screwless connection technology for external 2-wire buttons and photocells
Special functions	<ul style="list-style-type: none"> • Photocell or closing edge safety device can be connected • Option relay, adapter print and additional HCP BUS participants can be connected
Quick release	Actuated from inside with pull cord in the event of a power failure
Universal fittings	For up-and-over doors and sectional doors
Door travel speed	<ul style="list-style-type: none"> • Max. 14 cm/s¹⁾ for travel in the CLOSE direction • Max. 20 cm/s¹⁾ for travel in the OPEN direction
Airborne sound emission of the garage door operator	≤ 70 dB (A)
Side guide	<ul style="list-style-type: none"> • Extremely flat with 30 mm • With integrated anti-lift kit • With maintenance-free toothed belt

1) Depending on operator type, door type, door size and door leaf weight

18 Displaying errors, warnings and operating modes

18.1 Operator light messages

Status	Function
Flashes slowly	Learning run or reference run is being performed
Flashes once	Factory reset successful
Flashes 2 × once	The operator has not been taught in (delivery condition)
Flashes 3 × once	The next run is a reference run
	During the pre-warning phase
	Maintenance interval has been reached

18.2 Error messages

LED display red (RD)

Display	Error / warning	Possible cause	Remedy
Flashes 1 x	Not possible to set the reversal limit	When setting the SKS /VL reversal limit, an obstacle is in the way	Remove the obstacle
		The position of the reversal limit is > 200 mm before the CLOSE end-of-travel position	Pressing the T button acknowledges the error. Select a position < 200 mm before the CLOSE end-of-travel position
	Setting the partial opening position not possible	The partial opening position is too close to the CLOSE end-of-travel position (≤ 120 mm slide travel)	The partial opening position must be > 120 mm
	Setting the ventilation position not possible	The ventilation position is too close to the CLOSE end-of-travel position (≤ 16 mm slide travel)	The ventilation position must be > 35 mm
Flashes 2 x	Safety equipment on SE1	No safety devices are connected	Connecting a safety device
		The safety device signal is interrupted	Set / position the safety device Check the connecting leads and, if necessary, replace them
		The safety device is defective	Replace the safety device
Flashes 3 x	Power limit in the CLOSE direction	The door is too sluggish or does not move smoothly	Correct the door travel
		Obstacle in door area	Remove the obstacle and teach in the operator again, if necessary
Flashes 4 x	Static current circuit interrupted	The wicket door is open	Close the wicket door
		The magnet has been fitted the wrong way	Fit the magnet correctly (see the instructions for the wicket door contact)
		The testing result is not OK	Exchange the wicket door contact
		Static current circuit interrupted on the accessory connected to the BUS jack.	Check accessory on the BUS jack
Flashes 5 x	Power limit in the OPEN direction	The door is too sluggish or does not move smoothly	Correct the door travel
		Obstacle in door area	Remove the obstacle and teach in the operator again, if necessary
Flashes 6 x	System error	Internal error	Perform a factory reset and teach in the operator again; if necessary, replace it
	Travel time limit	The belt is torn	Exchange the belt
		The operator is defective	Exchange the operator
Flashes 7 x	Communication error	Communication with control element or additional print is faulty	Check the connecting leads and, if necessary, replace them Check the control element or additional print and, if necessary, replace them.
			Performing a BUS scan

Display	Error / warning	Possible cause	Remedy
Flashes 8 x	Control elements / operation	Error during input	Check and change the input
		Input of invalid value	Check and change the input value
	Travel command not possible	The operator was locked for the control elements and a travel command was issued	Release the operator for the control elements Check the IT3b connection
Flashes 9 x	Specific to taught-in safety devices	Self-testing safety device is interrupted	Check the safety device and, if necessary, replace it
		Closing edge safety device / leading photocell actuated	Remove the obstacle
		Closing edge safety device / leading photocell defective or not connected	Check the resistance contact strip 8k2 or connect it via the decoder unit 8k2-1T on the operator
Flashes 10 x	Voltage error (over / undervoltage)	In battery operation: signalling In the event of power supply undervoltage: Internal error without signalling	Charge battery, check voltage source
Flashes 11 x	Spring	Spring tension decreasing	Check and adjust the spring tension
		Spring break	Exchange the springs

18.3 Operating condition display

LED display red (RD)

Status	Function
Continuously illuminated	Runs in the OPEN, CLOSE directions
	Door is in the OPEN end-of-travel position or an intermediate position
Flashes slowly	Learning run or reference run is being performed
	During the hold-open phase
	Deleting all radio codes (availability for deletion)
Flashes	System start when mains voltage is ON or power restored
	Loading of all taught-in radio codes
	Deleting all door data (availability for deletion)
	Deleting all radio codes (confirmation of deletion)
Flashes quickly	During the pre-warning phase
	All door data has been deleted (confirmation of deletion)
	Save radio code (confirmation of teach-in)
Flashes 1 x to 6 x	Teach in the radio code corresponding to the selected channel
	Setting via DIL switch
Flashes slowly 10 x	The operator has not been taught in (delivery condition)
Off	No mains voltage
	Radio during input and output commands

LED display green (GN)

Status	Function
Continuously illuminated	Door is in the CLOSE end-of-travel position
Flashes 1 x	Changed parameter is saved
Flashes 2 s	New ventilation position is saved
Flashes once quickly 1 x to 8 x	One-time confirmation according to the selected setting

LED display red / green (RD / GN)

Status	Function
Flashes alternating very quickly	BUS scan

ProMatic 4

HÖRMANN KG Verkaufsgesellschaft
Upheider Weg 94-98
33803 Steinhagen
Germany



TR10A378-A RE/10.2019