

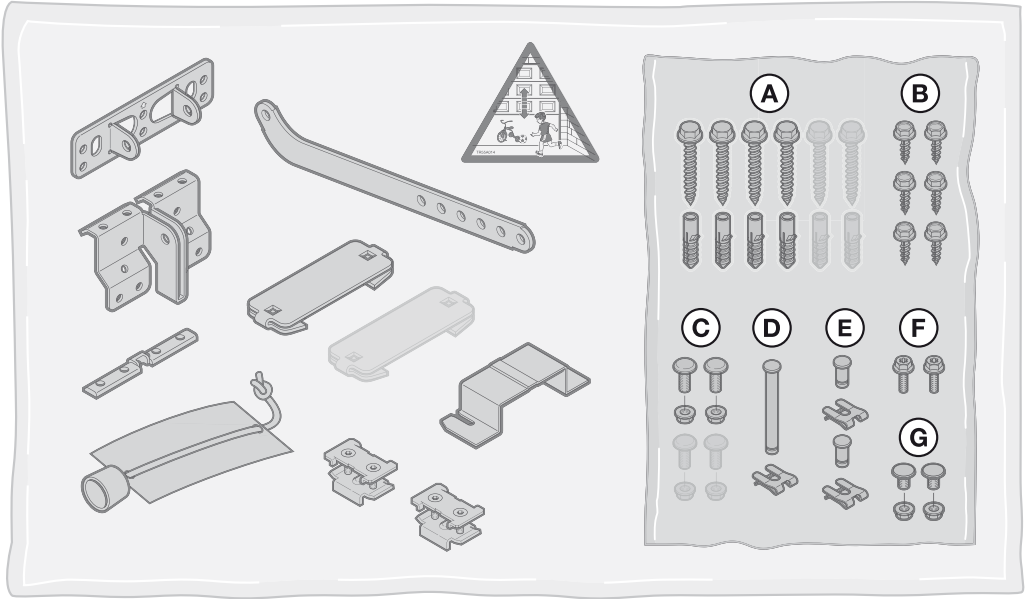
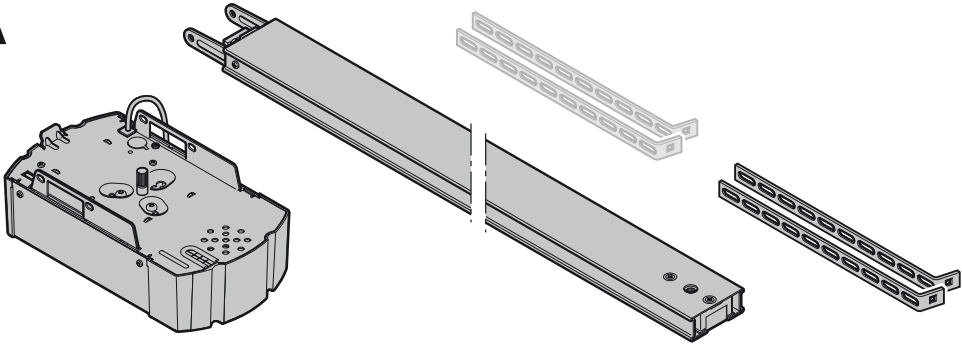
TR10A020-B RE / 07.2010

## **Instructions for Fitting, Operating and Maintenance**

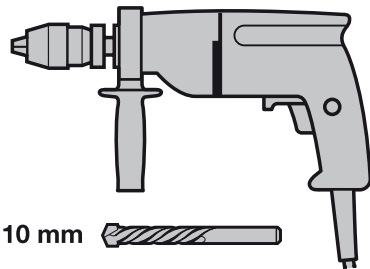
Garage Door Operator

## **Instructions de montage, d'utilisation et d'entretien**

Motorisation de porte de garage

**A****B**

13 mm



10 mm



Ø 10 mm



T 30



Ø 5 mm



4 mm



**ENGLISH** ..... 4

**FRANÇAIS** ..... 21



..... 40

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**Illustrated section..... 40**

\* Accessory, not included as standard equipment!

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Dear customer,  
We are delighted that you have chosen a high-quality product from our company.

## 1 About These Instructions

These instructions are **original instructions** as outlined in the EC Directive 2006/42/EC. Read through all of the instructions carefully, as they contain important information about the product. Pay attention to and follow the instructions provided, particularly the safety instructions and warnings.





Please keep these instructions in a safe place and make sure that they are available to all users 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 test log book
- The garage door operating instructions

### 1.2 Warnings used

	The general warning symbol indicates a danger that can lead to <b>injury</b> or <b>death</b> . 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.
 <b>DANGER</b>	Indicates a danger that leads directly to death or serious injuries.
 <b>WARNING</b>	Indicates a danger that can lead to death or serious injuries.
 <b>CAUTION</b>	Indicates a danger that can lead to minor or moderate injuries.
<b>ATTENTION</b>	Indicates a danger that can lead to <b>damage</b> or <b>destruction</b> of the product.

### 1.3 Definitions used

#### Automatic timed closing

Automatic timed closing of the door after a set time has elapsed and after reaching the *OPEN* end-of-travel position or partial opening.

#### Impulse sequence control

With each push of the button, the door is started against the previous direction of travel, or the motion of the door is stopped.

#### Learning runs

Door travels in which the travel and the forces needed for moving the door are taught in.

#### Normal operation

Door travel with the taught-in travel distances and forces.

#### Safety reversal

Door travel in the opposite direction when the safety device or force limit is activated.

#### Reversal limit

If a safety device is activated, door travel is triggered in the opposite direction (reverse cycle) up to the reversal limit shortly before the *CLOSE* end-of-travel position. If this limit is passed, no reversal occurs to ensure that the door reaches the end-of-travel position without disrupting travel.

#### Partial opening

Individually adjustable second opening height to ventilate the garage.

#### Path of travel

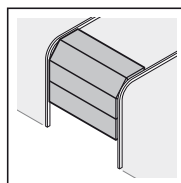
The distance the door takes to traverse from the *OPEN* end-of-travel position to the *CLOSE* end-of-travel position.

#### Pre-warning time

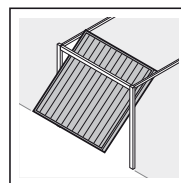
The time between the travel command (impulse) and the start of travel.

### 1.4 Symbols used

The illustrated section shows how to fit an 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 dimensions in the illustrated section are in [mm].

#### Symbols:



See text section

In the example, **2.2** means: See text section, section 2.2



Important advice to prevent injury to persons and damage to property



High exertion of force



Check for smooth running



Use protective gloves



Slow flashing in the 7-segment display



Rapid flashing in the 7-segment display

**1.5 Abbreviations used**

<b>Colour code for cables, single conductors and components</b>	
The abbreviations of the colours for identifying the cables, conductors and components comply with the international colour code according to IEC 757:	
WH	White
BN	Brown
GN	Green
YE	Yellow
<b>Article designations</b>	
HE 2	2-channel receiver
HE 3	3-channel receiver
IT 1b	Internal push button with illuminated impulse button
IT 3b	Internal push button with illuminated impulse button, additional buttons for light on/off and operator on/off
EL 101	One-way photocell
STK	Wicket door contact
SKS	Activating kit for closing edge safety device
VL	Activating kit for leading photocell
HSM 4	4-button mini hand transmitter
HOR 1	Option relay
UAP 1	Universal adapter print
HNA 18	Emergency battery
SLK	Yellow LED warning light

**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.

**2.1 Intended use**

The garage door operator is intended for impulse operation of spring compensated sectional and up-and-over doors, as well as counterbalanced retractable up-and-over doors. Depending on the type of operator, the operator can be used in private/non-commercial areas or in commercial areas (e.g. in underground and collective garages).

Note the manufacturer's 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. Door systems which are located in a public area and only have one protective device, such as a force limit, may only be operated under supervision.

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

**2.2 Non-intended use**


The operator must not be used for doors without a safety catch.

**2.3 Fitter qualification**

Only correct fitting and maintenance in compliance with the instructions by a competent/specialist company or a competent/qualified person 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, repairs and disassembly of the door system**

 <b>DANGER</b>
<b>Compensating springs are under high tension</b>
▶ See warning in Section 3.1

 <b>WARNING</b>
<b>Danger of injury due to unexpected door travel</b>
▶ See warning in Section 9



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 for the inspection or repair work.

**2.5 Safety instructions for fitting**

The specialist must ensure that the applicable regulations on occupational safety, as well as the regulations on the operation of electrical devices, are followed during assembly work. In the process, the relevant national guidelines must be observed. Potential hazards as outlined in DIN EN 13241-1 are avoided by construction and fitting according to our guidelines.

The garage ceiling must guarantee secure fastening of the operator. For ceilings which are too high or too light, the operator must be fastened on additional struts.

	 <b>DANGER</b>
<b>Mains voltage</b>	
▶ See warning in Section 3.6	

 <b>WARNING</b>
<b>Unsuitable fixing material</b>
▶ See warning in Section 3.3
<b>Danger to life from the rope</b>
▶ See warning in Section 3.3
<b>Danger of injury due to unwanted door travel</b>
▶ See warning in Section 3.3

## 2.6 Safety instructions for initial start-up and for operation

### WARNING

#### Danger of injury during door travel

- ▶ See warning in Section 4

### CAUTION

#### Danger of crushing in the boom

- ▶ See warning in Section 4

#### Danger of injury from the cord knob

- ▶ See warning in Section 4

#### Danger of injuries due to the hot lamp

- ▶ See warning in Section 4 and Section 8

#### Danger of injury due to the force value being set too high

- ▶ See warning in Section 7.6 and Section 7.8

#### Danger of injury resulting from uncontrolled door movement in the *CLOSE* direction if the torsion spring breaks and the slide carriage is released.

- ▶ See warning in Section 8

## 2.7 Safety instructions for using a radio system

### WARNING

#### Danger of injury during door travel

- ▶ See warning in Section 5

### CAUTION

#### Danger of injuries due to unwanted door travel

- ▶ See warning in Section 5

## 2.8 Approved safety devices

Safety relevant functions or components of the control from our company, such as the power limit, external photocells/switching strips, when installed, have been designed and approved in accordance with category 2, PL "c" of EN ISO 13849-1:2008.

### WARNING

#### Danger of injuries due to faulty safety equipment

- ▶ See warning in Section 4.5.1

## 3 Fitting

### ATTENTION:

IMPORTANT INSTRUCTIONS FOR SAFE INSTALLATION.

OBSERVE ALL INSTRUCTIONS, INCORRECT FITTING COULD RESULT IN SERIOUS INJURY.

### 3.1 Inspect door/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 door compensating springs and, if necessary, 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.
- ▶ Furthermore, inspect the entire door system (joints, door bearings, cables, springs and fastening parts) for wear and possible damage.
- ▶ Check for the presence of rust, corrosion, and cracks.

A fault in the door system or an incorrectly aligned door may lead to serious injuries!

- ▶ Do not use the door system if repair or adjustment work must be conducted!

The design of the operator is not suitable nor intended for the opening and closing of sluggish doors, i.e. doors that can no longer be opened or closed manually, or can only be opened/closed manually with difficulty.

The door must be in perfect mechanical condition and balanced, so that it is easy to operate by hand (EN 12604).

- ▶ Lift the door by approx. one meter 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.
- ▶ Check whether the door can be opened and closed correctly.
- ▶ The mechanical locking devices of the door that are not needed with a garage door operator must be put out of commission. This especially includes the locking mechanisms of the door lock (see Section 3.3).
- ▶ **Change to the illustrated section for the fitting and initial operation. Observe the respective text section when you are prompted to by the symbol for the text reference.**


### 3.2 Clearance required

The clearance between the highest point of the door and the ceiling (also when opening the door) must be at least 30 mm (see Figures 1.1a/1.2b).



- ▶ Check this dimension!

If the clearance is smaller, the operator can also be mounted behind the opened door if enough space is available. In such cases, an extended fitting bracket has to be used, which must be ordered separately. In addition, the garage door operator can be arranged up to max. 50 cm off-centre. Exceptions are sectional doors with a high-lift (high-lift track application H); a special fitting is required for this arrangement. The electrical outlet necessary for the electrical connection should be fitted approx. 50 cm from the operator head. Please check these dimensions!

**3.3 Fitting the garage door operator**

 <b>WARNING</b>
<b>Unsuitable fixing material</b> Use of unsuitable fixing material may mean that the operator is insecurely attached and could come loose.
<ul style="list-style-type: none"> <li>▶ The fitter must check that the fitting materials supplied are suitable for the purpose and the intended fitting location.</li> <li>▶ Only use the provided fixing materials (plugs) in concrete <math>\geq</math> B15 (see Figures 1.6a/1.8b/2.4).</li> </ul>

 <b>WARNING</b>
<b>Danger to life from the rope</b> A running rope may lead to strangulation.
▶ Remove the rope while fitting the operator (see Figure 1.2a).

 <b>WARNING</b>	
<b>Danger of injury due to unwanted door travel</b>	
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 attached control devices (e.g. buttons) may trigger unwanted door travel. Persons or objects may be trapped 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.	

<b>ATTENTION</b>
<b>Damage caused by dirt</b> Drilling dust and chippings can lead to malfunctions.
▶ Cover the operator during drilling work.

**NOTE:**

An emergency release is necessary for garages without a second entrance that prevents the possibility of being locked out; this must be ordered separately.

- ▶ Check the emergency release monthly for proper function.
- 1. Completely disassemble the mechanical door locking on the **sectional door** (see Figure 1.3a).
- 2. For sectional doors with centre door locking, arrange the lintel joint and link bracket off-centre (see Figure 1.5a).
- 3. With an off-centre reinforcement profile on the sectional door, fit the link bracket on the nearest reinforcement profile to the left or right (see Figure 1a).

**NOTE:**

In a deviation from figure 1.5a: Use the 5 x 35 woodscrews from the door accessory pack (hole  $\varnothing$  3 mm) for timber doors.

- 4. The mechanical door locking on an **up-and-over door** must be rendered inoperable (see Figures 1.3b/1.4b/1.5b).  
For door models not covered here, block the catches on site.

- 5. 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.

**NOTE:**

On N80 doors with timber infill, use the bottom holes on the lintel joint for fitting (see Figure 1.7b).

**3.4 Fitting the operator boom**

**NOTES:**

- Before the boom is fitted on the lintel or under the ceiling, the engaged slide carriage must be moved approx. 20 cm from the *CLOSE* end-of-travel position in the *OPEN* direction (see Section 3.4.1, *Boom operating modes*) (see Figure 2.1). This is no longer possible with an engaged carriage as soon as the end stops and operator have been fitted.
- For operators used in underground and collective garages, it is necessary to fix the boom under the ceiling of the garage using a second suspension (see Figure 2.4 and Figure 2.5).
- Only use the booms recommended by us for the garage door operators – depending on the respective purpose of use (see product information).

**3.4.1 Boom operating modes**

There are two different operating modes with the boom:

- Manual operation
- Automated operation


**Manual operation**

- ▶ See Figure 4

The slide carriage is disengaged from the belt lock to enable the door to be moved by hand.

**For disengaging the slide carriage:**

- ▶ Pull on the cord of the mechanical release.

 <b>CAUTION</b>
<b>Danger of injury resulting from uncontrolled door movement in the CLOSE direction if the torsion spring breaks and the slide carriage is released.</b>
The slide carriages may decouple automatically unless a retrofit set is fitted.
▶ The fitter responsible must install a retrofit set on the slide carriage if the following prerequisites are at hand: <ul style="list-style-type: none"> <li>– The standard DIN EN 13241-1 applies.</li> <li>– The garage door operator is retrofitted to a Hörmann <b>sectional door without spring safety device (BR30)</b> by a technical expert.</li> </ul>
This set comprises a screw that secures the slide carriage against uncontrolled unlocking as well as a new cord knob sign where the images show how the set and the slide carriage can be handled for the two operating modes of the operator boom.
<b>NOTE:</b> The use of an emergency release or an emergency release lock is <b>not possible</b> in conjunction with the retrofit set.

**Automated operation**

- ▶ See Figure 6

The belt lock is engaged in the slide carriage to enable the door to be moved with the operator.

**For preparing the slide carriage for engaging:**

1. Press the green knob.
2. Move the belt in the direction of the slide carriage until the belt lock engages.

 **CAUTION**
**Danger of crushing in the boom**

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

- ▶ Do not reach into the boom during door travel

### 3.4.2 Determining the door end-of-travel positions by fitting the end stops

1. Loosely position the end stop for the *OPEN* end-of-travel position in the boom between the slide carriage and operator.
2. Push the door into the *OPEN* end-of-travel position by hand. This will push the end stop into the correct position.
3. Tighten the end stop for the *OPEN* end-of-travel position (see Figure 5.1).

**NOTE:**

If the door should not reach the complete passage height in the *OPEN* end-of-travel position, the end stop can be removed so that the integrated end stop (on the operator head) is used.

4. Loosely position the end stop for the *CLOSE* end-of-travel position in the boom between the slide carriage and door.
5. Push the door into the *CLOSE* end-of-travel position by hand. This will push the end stop near to the correct position.
6. After reaching the *CLOSE* end-of-travel position move the end stop by approx. 1 cm in the *CLOSE* direction and fix the end stop (see Figure 5.2).

**NOTE:**

If the door cannot be easily pushed manually into the desired *OPEN* or *CLOSE* end-of-travel position, this means that the door mechanism is too stiff for operation with the garage door operator and must be inspected (see Section 3.1)!

### 3.4.3 Tension of the toothed belt



The toothed belt of the operator boom is tensioned optimally ex-factory. During the start-up and slow-down phase, with larger doors it is possible that the belt will briefly hang out of the boom profile. However, this does not result in any technical consequences and does not negatively affect the function and service life of the operator.

### 3.5 Fixing the warning sign

Fix the sign warning about getting trapped in a noticeable, cleaned and degreased place, for example, near to the permanently installed button for moving the operator.

- ▶ See Figure 8

### 3.6 Garage door operator electrical connection

	 <b>DANGER</b>
<b>Mains voltage</b>	
<p>Contact with the mains voltage presents the danger of a deadly electric shock.</p> <p>For that reason, observe the following warnings under all circumstances:</p> <ul style="list-style-type: none"> <li>▶ Electrical connections may only be made by a qualified electrician.</li> <li>▶ The on-site electrical installation must conform to the applicable protective regulations (230/240 V AC, 50/60 Hz)!</li> <li>▶ The mains plug must be disconnected before any work is performed on the operator.</li> </ul>	

**ATTENTION****External voltage on 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 on the control.

**To prevent malfunctions:**

- ▶ The connection cables of the operator (24 V DC) must be laid in a separate installation system from the other supply cables (230 V AC).

#### 3.6.1 Electrical connection/connecting terminals

- ▶ See Figure 9
- ▶ Remove the plug cover to access the connecting terminals.

**NOTE:**

All connecting terminals can be assigned several times. However, observe the following thicknesses (see Figure 10):

- Minimum thickness: 1 x 0.5 mm<sup>2</sup>
- Maximum thickness: 1 x 2.5 mm<sup>2</sup>

Accessories with special functions can be connected to the BUS connecting terminal.

#### 3.7 Connecting additional components/accessories

**NOTE:**

Loading of the operator by all accessories: max. **250 mA**.

#### 3.7.1 Connecting an external radio receiver \*

An external receiver can be connected to this garage door operator. Insert the plug of the receiver in the corresponding slot (see Figure 9).

**NOTE:**

The aerial wire of the radio receiver should not come into contact with metal objects (nails, bracing, etc.). The best orientation to achieve an optimum range must be established by trial and error. When used at the same time, GSM 900 mobile phones can affect the range of the radio remote control.

With a 2-channel receiver, the first channel is always for the impulse sequence control function. The second channel can be used to actuate the operator light or for partial opening (see Section 6.2.3).

#### 3.7.2 External impulse button \* to start or stop door runs

One or more buttons with normally open contacts (volt-free), such as internal push buttons or key switches, can be connected in parallel (see Figure 11).

#### 3.7.3 Internal push button IT 3b \*

- ▶ See Figure 12

#### 3.7.4 Impulse button to start or stop door runs

- ▶ See Figure 12.1

#### 3.7.5 Light button to switch the operator light on and off

- ▶ See Figure 12.2

#### 3.7.6 Button to switch all control elements on and off

- ▶ See Figure 12.3

\* Accessory, not included as standard equipment!

**3.7.7 2-wire photocell \* (dynamic)**

**NOTE:**

Follow the fitting instructions when mounting photocells.

- ▶ Connect the photocell as shown in Figure 13.

After the photocell triggers, the operator stops and a safety reversal of the door is performed to the *OPEN* end-of-travel position.

**3.7.8 Self-testing wicket door contact \***

- ▶ Connect wicket door contacts that switch to ground (0 V) as shown in Figure 14.

**3.7.9 Closing edge safety device \***

- ▶ Connect closing edge safety devices that switch to ground (0 V) as shown in Figure 15.

After the closing edge safety device triggers, the operator stops and the door reverses in the *OPEN* direction.

**3.7.10 Option relay HOR 1 \***

- ▶ See Figure 16

Option relay HOR 1 is required to connect an external lamp or warning light (programming via menu 5).

**3.7.11 Universal adapter print UAP 1 \***

- ▶ See Figure 17


The universal adapter print UAP 1 can be used:

- For choosing a direction (Open/Stop/Close) via external control elements
- For control of the operator light and second opening height via external command units
- For *OPEN* and *CLOSE* limit switch reporting
- For the option relay (programming via menu 5).


**3.7.12 Emergency battery HNA 18 \***


- ▶ See Figure 18


To enable door movement in the event of a mains failure, an optional emergency battery can be connected. In the case of a mains failure, the system automatically switches to battery operation. During battery operation, the operator light remains switched off.


 <b>WARNING</b>
<b>Danger of injury due to unexpected door travel</b> Unexpected door travel can result when the emergency battery is still connected despite the mains plug being pulled out.
▶ Pull out the mains plug <b>and</b> the plug of the emergency battery when performing all work on the door system.

**4 Putting into Service**

 <b>WARNING</b>
<b>Danger of injury during door travel</b> If people or objects are in the area around the door while the door is in motion, this can lead to injuries or damage.
<ul style="list-style-type: none"> <li>▶ Children are not allowed to play near the door system.</li> <li>▶ Make sure that no persons or objects are in the door's travel range.</li> <li>▶ 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.</li> <li>▶ Monitor the door travel until the door has reached the end-of-travel position.</li> <li>▶ Only drive or pass through remote control door systems if the door is in the <i>OPEN</i> end-of-travel position!</li> <li>▶ Never stay standing under the open door.</li> </ul>

 <b>CAUTION</b>
<b>Danger of crushing in the boom</b> Do not reach into the boom with your fingers during door travel, as this can cause crushing.
▶ Do not reach into the boom during door travel.

 <b>CAUTION</b>
<b>Danger of injury from the cord knob</b> 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.

 <b>CAUTION</b>
<b>Danger of injuries due to the hot lamp</b> Touching the cold-light reflector lamp during or immediately following operation can lead to burns.
▶ Do not touch the cold-light reflector lamp if it is switched on or was recently switched on.

**4.1 Notes on the operator control**

The operator control includes 13 menus that contain many user functions.

However, two menus are needed for initial start-up of the operator.

- To adjust/set the door type (menu J)
- To teach in door travel (menu 1)

**NOTE:**

Menus **J**, **1**, **P** and **2** are initial start-up/function selection menus and customer menus; menus **3**, **4**, **5**, **6**, **7**, **8**, **9** and **A** are special menus and should only be changed if needed.

\* Accessory, not included as standard equipment!

#### 4.2 Menu selection

- ▶ Press the **PRG** button to select a menu.

If the operator has been taught in, the **PRG** button must be held down for 5 seconds in order to be able to change the menus.

Afterwards, switch to the next menu by pressing this button again. After reaching menu **P**, the display switches to menu **0**.

#### NOTE:

The menus are activated for approx. 60 seconds, after which the system goes back to menu **0**.

#### 4.3 Control behaviour during initial start-up

During initial start-up, the control automatically switches to menu **J**.

- ▶ After you have set the door type, press the **PRG** button to go to menu **1**.

Once the learning runs have been completed, the system automatically goes to menu **0** (normal operation).

#### 4.4 MENU J – Adjust/set the door type

- ▶ See Figure 21

#### NOTE:

Menu **J** can only be accessed during initial start-up or after resetting the system to the factory settings (see Section 4.6, Figure 33).

This menu helps you optimally adjust the operator to the respective door.

#### To be able to change a parameter:






- ▶ Press the **PRG** button until the display begins flashing rapidly.

#### To scroll through the menu:

- ▶ Press the  or  button.

#### To change a parameter:

1. Select the parameter to be set.
2. Press the **PRG** button until the decimal point also flashes.

Display	Operator on	Active settings		
		Menu 4	Menu 7	Menu 9
	Sectional door	0, 2, 5	1, 2, 5	1, 3, 5, 9
	Up-and-over door <sup>1)</sup>	0, 2, 5	0, 2, 5	1, 3, 5, 8
	Retractable up-and-over door <sup>2)</sup>	0, 2, 5	1, 2, 5	0, 3, 6, 9
	Side sectional door, ...	0, 2, 5	1, 2, 5	1, 3, 5, 8, A
	Sliding door <sup>4)</sup>	0, 4, 5	1, 2, 5	1, 3, 5, 8, b

1) A door swinging outwards

2) A door tilting inwards

3) Dependent on the operator type

4) With this door type, an 8k2 resistance contact strip must be fitted to the secondary closing edge for the *OPEN* direction and connected to the operator via the 8k2-1T decoder unit.

#### NOTE:

- ▶ Set parameter **3** for hinged doors.

#### If the door behaviour has to be changed:

- ▶ Select the required settings in menus **7** and **9**.

#### 4.5 MENU 1 – Learning run/teaching in the operator

- ▶ With the **PRG** button, select menu **1**.

The operator is adjusted to the door in this menu. The travel length, required force for opening and closing, and any connected safety devices are automatically taught in and saved.

#### 4.5.1 Teaching in the end-of-travel positions and connected safety devices

- ▶ See Figure 22

#### NOTES:

- Safety devices must be fitted and connected before teaching in the operator.
- If further safety devices are connected at a later point, a new learning run is required for automatic learning on the operator or the appropriate parameter must be manually set in menu **4**.




Before the first learning run in the *CLOSE* direction, the system checks whether any safety devices are connected. If this is the case, menu **4** is set automatically.

#### NOTE:

The slide carriage must be engaged (see Figure 6) and there may not be any obstructions in the function range of the safety devices!

- ▶ If needed, put the control into learning mode by switching to menu **1** with the **PRG** button.

A flashing **L** will appear in the display after the 1.

1. Press the  button.  
The door will move to the *OPEN* end-of-travel position.
2. Press the  button.  
The door moves to the *CLOSE* end-of-travel position. The door fully opens and a rapidly flashing **L** appears in the display.
3. Press the  button again.  
The door moves to the *CLOSE* end-of-travel position. After the door reaches the *CLOSE* end-of-travel position, it automatically opens again completely. The next cycle (*CLOSE* and *OPEN*) will be automatically performed by the operator.

A number flashes after reaching the *OPEN* end-of-travel position. This indicates the maximum detected force.

#### NOTE:

The displays of the maximum detected force have the following meanings:

**0-2** Optimum force conditions

**3-9** Poor force conditions

The door system must be inspected or readjusted.

### 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 must check the function(s) of the safety equipment as well as the settings in menu **4**.

**The system is ready for operation only after this.**

#### NOTE:

The garage door operator motor is equipped with thermal overload protection. If two fast *OPEN* cycles take place within two minutes, overload protection reduces the travel speed, i.e. *OPEN* and *CLOSE* runs are at the same speed. After a waiting period of two minutes, the next *OPEN* run will be fast.





**4.6 Resetting the control/restoring factory settings**


▶ See Figure 33

**To reset the control:**

1. Disconnect the mains plug and, if necessary, the plug of the emergency battery.
2. Press and hold the **PRG** button.
3. Reconnect the mains plug.
4. Release the **PRG** button once **C** is displayed.
5. Adjust the operator and teach it in.

**5 Radio System**

	 <b>WARNING</b>
<p><b>Danger of injury during door travel</b> Persons may be injured by door travel if the hand transmitter is actuated.</p> <ul style="list-style-type: none"> <li>▶ Make sure that the hand transmitters are kept away from children and cab only be used by people who have been instructed on how the remote-control door functions!</li> <li>▶ If the door has only one safety feature, only operate the hand transmitter if you are within sight of the door!</li> <li>▶ Only drive or pass through remote control door systems if the door is in the OPEN end-of-travel position!</li> <li>▶ Never stay standing under the open door.</li> <li>▶ Please note that unintended door cycles may occur if a hand transmitter button is accidentally pressed (e.g. if stored in a pocket/handbag).</li> </ul>	

 <b>CAUTION</b>
<p><b>Danger of injuries due to unwanted door travel</b> Unwanted door travel may occur while teaching in the radio system.</p> <ul style="list-style-type: none"> <li>▶ Pay attention that no persons or objects are in the door's travel range when teaching in the radio system.</li> </ul>

<b>ATTENTION</b>
<p><b>Functional disturbances caused by environmental conditions</b> These conditions can impair function! Protect the hand transmitter from the following conditions:</p> <ul style="list-style-type: none"> <li>• Direct sunlight (perm. ambient temperature: -20°C to +60°C)</li> <li>• Moisture</li> <li>• Dust</li> </ul>

**Notes:**

- If there is no separate garage entrance, perform all programming changes and extensions while standing in the garage.
- Perform a functional check after programming or extending the remote control system.
- Only use original components for the initial start-up or for extending the remote control system.
- Local conditions may affect the range of the radio system. Moreover, when used at the same time, GSM 900 mobile phones can affect the range.

**6 Selecting Functions**

**NOTE:**

In the menus that consist of several parameter blocks, only one parameter can be activated per block.

**6.1 MENU P**

The following functions can be set in this menu:

- *Partial opening position* (parameter 3)
- *SKS/VL reversal limit* (parameter 4)

Display	Radio	Function
((3))	-	Setting the <i>partial opening position</i>
((4))	-	<i>SKS/VL reversal limit</i> (SKS is preset)

**6.1.1 Setting the partial opening position**

▶ See Figure 23.1



**NOTE:**

The *Partial opening position* can only be set if the operator has been taught in.

*Partial opening* can be set in menu **P** via parameter **3**:

The display flashes slowly.

1. Press the **PRG** button until the decimal point flashes. The parameter is activated.
2. Move the door in press-and-hold operation with the ⬆ and ⬇ buttons.
3. Once the desired position is reached, press the **PRG** button until the display begins flashing rapidly. The decimal point goes out and the display flashes slowly.

**NOTE:**

The setting range for *Partial opening* is from the *OPEN* end-of-travel position to approx. 120 mm (slide travel) before the *CLOSE* end-of-travel position. The standard factory setting is approx. 260 mm (slide travel) before the *CLOSE* end-of-travel position.

**6.1.2 Setting the SKS/VL reversal limit**

▶ See Figure 23.2

**NOTE:**

The *SKS/VL reversal limit* can only be set under the following prerequisites:

- The operator has been taught in.
- Parameter **3** or **4** is activated in menu **4**.

In menu **P**, the *SKS/VL reversal limit* can be set via parameter **4**. The *SKS/VL reversal limit* is preset before the *CLOSE* end-of-travel position for the closing edge safety device.

**To set the SKS/VL reversal limit:**

1. Press the **PRG** button until the decimal point is illuminated. Parameter **4** is thus selected and activated.
2. Move the operator into the *OPEN* end-of-travel position with the ⬆ button.
3. 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 its smallest edge is towards the top and in the range of the leading photocell.
4. Press the ⬆ button.
  - The door moves until the test body is detected by the safety device.
  - The position is stored and checked for plausibility.



- The operator reverses.
- The display flashes rapidly if the procedure was successful.
- The parameter then flashes slowly without a decimal point.

5. Change to normal operation by pressing the **PRG** button (menu **0**).

## 6.2 MENU 2

1. With the **PRG** button, select menu **2**.
  - The menu number is always briefly displayed after selection.
  - Then the active menu parameter (switch-off delay) is displayed flashing rapidly with the decimal point.
2. Press the  $\uparrow$  or  $\downarrow$  button to scroll in the menu and select the parameter to be changed.
3. Press the **PRG** button until the decimal point flashes.
4. Change to normal operation by pressing the **PRG** button (menu **0**).

### 6.2.1 Operator light – Setting the switch-off delay

- ▶ See Figure 24.1

Menu **2** acts on the internal light relay.

If a parameter  $> 0$  (**1 – 5**) is selected, the light relay is activated as soon as the door starts to move.

After the door has stopped moving, the operator light remains active for the set period (switch-off delay).

### 6.2.2 Operator light – Setting the illumination time, switched via radio/external button

- ▶ See Figure 24.2

The illumination time of the operator light can be set via parameters **6 – 9** and switched on via radio or an external button (e.g. internal push button IT3b).

The operator light can also be turned off ahead of time using the same control elements (radio or external button).

### 6.2.3 External radio

- ▶ See Figure 24.3

If an external 2-channel radio receiver is connected to the operator, you can select whether the second channel should be used to actuate the operator light (parameter **A**) or for partial opening (parameter **b**).

If an external 3-channel radio receiver is connected to the operator, no further settings need to be carried out.

#### NOTE:

The light cannot be switched on and off while the door is in motion.

Display	Function
Operator light switch-off delay	
(0)	Not active
(1)	1 minute
(2.)	2 minutes
(3)	3 minutes
(4)	4 minutes
(5)	5 minutes

Display	Function
Operator light/illumination time (radio, external button)	
(6)	Not active
(7.)	5 minutes
(8)	10 minutes
(9)	15 minutes
Radio/function of the 2nd channel	
(A.)	Operator light
(b)	Partial opening

- ▶ Change to normal operation by pressing the **PRG** button (menu **0**).

## 6.3 MENU 0 – Normal operation

During normal operation, the garage door operator works with the impulse sequence control, which is triggered via an external button or a taught-in radio code:

- 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 door runs in the direction of the end-of-travel position selected in the 1st impulse.

etc.

### 6.3.1 Garage door operator behaviour after two consecutive high-speed OPEN runs

#### NOTE:

The garage door operator motor is equipped with thermal overload protection. If two fast *OPEN* cycles take place within two minutes, overload protection reduces the travel speed, i.e. *OPEN* and *CLOSE* runs are at the same speed. After a waiting period of two minutes, the next *OPEN* run will be fast.

## 7 Special Menus

### 7.1 Selecting special menus

**To access the special menus (menu 3 – menu A):**

1. In menu **2**, press the  $\uparrow$  and  $\downarrow$  buttons simultaneously.
2. Then select the special menu via the **PRG** button.

### 7.2 Notes on the special menus

The menu number is always briefly displayed after selection. Then the first active menu parameter is displayed flashing slowly.

1. To scroll through the menu, press the  $\uparrow$  or  $\downarrow$  button. Active parameters are indicated by an illuminated decimal point.
2. To be able to change a parameter, press the **PRG** button until the display begins flashing rapidly.
3. To scroll through the menu, press the  $\uparrow$  or  $\downarrow$  button. The parameter that is active is identified by an illuminated decimal point.
4. To activate a parameter, press the **PRG** button until the decimal point is illuminated.

The system will change to the next menu if the **PRG** button is released too early.

If the operator is taught in and no button is pressed, the control automatically changes back to normal operation (menu 0).

**7.2.1 7-segment display when switching from the customer menu to the special menus**

**NOTE:**

When changing to the special menus, a number between 0 to 5 with a decimal point may flash in the 7-segment display, depending on the current setting in menu 2.

**7.2.2 7-segment display after selecting a special menu**

**NOTE:**

After selecting a special menu, a number between 0 to 9 with a decimal point may flash in the 7-segment display, depending on the menu. This number indicates the (first) active parameter.

**7.3 MENU 3 – Automatic timed closing**

► See Figure 25

**NOTE:**

Automatic timed closing can only be activated if at least one safety device is active (menu 4).

Display	Automatic timed closing
	Not active
	After 10 seconds
	After 20 seconds
	After 30 seconds
	After 45 seconds
	After 60 seconds
	After 90 seconds
	After 120 seconds
	After 150 seconds
	After 180 seconds

**NOTE:**

The door stops and opens again if the operator receives an impulse during automatic timed closing (menu 3, parameter > 0).

► Change to normal operation by pressing the **PRG** button (menu 0).

**7.4 MENU 4 – Safety devices**

► See Figure 26

Display	Function
Photocell	
	Not present
	Present (with dynamic testing)
SKS/VL without testing	
	Not present
	Already fitted
SKS/VL with testing	
	Already fitted
Wicket door contact with testing	
	Not present
	Already fitted

**NOTE:**

Safety devices without testing must be tested every six months.

► Change to normal operation by pressing the **PRG** button (menu 0).

**7.5 MENU 5 – Setting the pre-warning time, option relay, and maintenance display**

► See Figure 27

**7.5.1 Maintenance display**

If the maintenance display is activated (parameter A), the operator light will flash at the end of a door run if the specified maintenance interval for the door system has been exceeded.

The maintenance display can be reset after a learning run.

## 7.5.2 Overview of maintenance intervals

### Operator for single/double garages

1 year operating time or 2,000 door cycles

### Operator for underground and collective garages

1 year operating time or 10,000 door cycles

Display	Function
Pre-warning time/external with option relay *	
	Not active
	5 seconds
	10 seconds
Option relay *	
	Not active
	The relay clocks during the pre-warning time and door travel.
	The relay is on during door travel and the pre-warning time.
	The relay picks up with the operator light. It is on during the pre-warning time, if parameters 1 – 5 are activated in menu 2.
	The relay is on during door travel.
	The relay picks up for 1 second at the start of door travel or the pre-warning time, e.g. with a momentary impulse to switch stairwell lighting with 100% ON time.
Maintenance display	
	Not active
	Active

\* Accessory, not included as standard equipment!

## 7.6 MENU 6 – Force limit in the CLOSE direction

► See Figure 28

The sensitivity of the automatic force limit for closing can be set in this menu (factory setting: parameter 4).

### NOTE:

An increase in the force limit (parameter > 4) is only possible if parameter 3 has been selected in menu J.

CAUTION
<p><b>Danger of injury due to the force value being set too high (menu 6 and menu 8)</b></p> <p>When the force value is set too high, the force limit is less sensitive. This could lead to injury or damage.</p> <p>► Do not set a force value that is too high.</p>

A lower value can be selected for very easy-to-move doors if the sensitivity to obstructions should be increased.

► Change to normal operation by pressing the **PRG** button (menu 0).

## 7.6.1 Checking the forces in the CLOSE direction

If changing the settings in menu 6, the forces in the *CLOSE* direction must comply with standard EN 12453, i.e. an inspection is required afterwards.

## 7.7 MENU 7 – Behaviour in the CLOSE direction

► See Figure 29

The automatic belt relief, braking behaviour and speed in the *CLOSE* end-of-travel position can be influenced in this menu.

### NOTE:

A learning run may be necessary after changing this menu.

Display	Function
Soft stop	
	Long
	Short
Relief	
	Automatic
	Long
Speed	
	Slowly
	Normal

► Change to normal operation by pressing the **PRG** button (menu 0).

## 7.8 MENU 8 – Force limit in the OPEN direction

► See Figure 30

The sensitivity of the automatic force limit for opening can be set in this menu (factory setting: parameter 4).

### NOTE:

An increase in the force limit (parameter > 4) is only possible if parameter 3 has been selected in menu J.

CAUTION
<p><b>Danger of injury due to the force value being set too high (menu 6 and menu 8)</b></p> <p>When the force value is set too high, the force limit is less sensitive. This could lead to injury or damage.</p> <p>► Do not set a force value that is too high.</p>

A lower value can be selected for very easy-to-move doors if the sensitivity to obstructions should be increased.

► Change to normal operation by pressing the **PRG** button (menu 0).

## 7.8.1 Checking the forces in the OPEN direction

If changing the settings in menu 8, the forces in the *OPEN* direction must comply with standard EN 12453, i.e. an inspection is required afterwards.

**7.9 MENU 9 – Behaviour in the OPEN direction**

► See Figure 31

The automatic belt relief and braking behaviour in the *OPEN* end-of-travel position can be influenced in this menu.

**NOTE:**

A learning run may be necessary after changing this menu.

Display	Function
Soft stop	
	Extra long
	Long
	Short
Relief	
	Automatic
	Short
Soft start from the <i>CLOSE</i> end-of-travel position	
	Short
	Long
Speed	
	Slowly
	Normal
	Fast
Response with force limit	
	Stop
	Short reversal

1) This parameter is the factory setting if parameter 4 (sliding door) has been set in menu J.

Notes on the parameters:

Parameter	Note
<b>0, 6</b>	These parameters are adapted to the characteristics of retractable up-and-over doors.
<b>A, b</b>	These parameters can only be set if parameter 3 has been selected in menu J. Otherwise, parameter <b>A</b> is active in this menu.
<b>b</b>	If error 5 (force limit) occurs during travel in the <i>OPEN</i> direction, the door will briefly reverse (approx. 10 cm slide travel) in the opposite direction and then stop.

► Change to normal operation by pressing the **PRG** button (menu 0).

**7.10 MENU A – Maximum force**

► See Figure 32

The force of the force limit is set in this menu.

Display	Maximum force of the force limit

**NOTE:**

An increase in the force limit (parameter > 0) is only possible if parameter 3 has been selected in menu J.

► Change to normal operation by pressing the **PRG** button (menu 0).

**8 Operation**

<b>WARNING</b>	
	<p><b>Danger of injury during door travel</b></p> <p>If people or objects are in the area around the door while the door is in motion, this can lead to injuries or damage.</p> <ul style="list-style-type: none"> <li>► Children are not allowed to play near the door system.</li> <li>► Make sure that no persons or objects are in the door's travel range.</li> <li>► 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.</li> <li>► Monitor the door travel until the door has reached the end-of-travel position.</li> <li>► Only drive or pass through remote control door systems if the door is in the <i>OPEN</i> end-of-travel position!</li> <li>► Never stay standing under the open door.</li> </ul>

<b>CAUTION</b>	
	<p><b>Danger of crushing in the boom</b></p> <p>Do not reach into the boom with your fingers during door travel, as this can cause crushing.</p> <ul style="list-style-type: none"> <li>► Do not reach into the boom during door travel.</li> </ul>

<b>CAUTION</b>	
	<p><b>Danger of injury from the cord knob</b></p> <p>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.</p> <ul style="list-style-type: none"> <li>► Do not hang on the cord knob with your body weight.</li> </ul>

### CAUTION

**Danger of injury resulting from uncontrolled door movement in the CLOSE direction if the torsion spring breaks and the slide carriage is released.**

The slide carriages may decouple automatically unless a retrofit set is fitted.

- ▶ The fitter responsible must install a retrofit set on the slide carriage if the following prerequisites are at hand:
  - 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 comprises a screw that secures the slide carriage against uncontrolled unlocking as well as a new cord knob sign where the images show how the set and the slide carriage can be handled for the two operating modes of the operator boom.

#### NOTE:

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

### CAUTION

**Danger of injuries due to the hot lamp**

Touching the cold-light reflector lamp during or immediately following operation can lead to burns.

- ▶ Do not touch the cold-light reflector lamp if it is switched on or was recently switched on.

### ATTENTION

**Damage due to the cord of the mechanical release**

If the cord of the mechanical release becomes caught on a roof carrier system or anything projecting from the vehicle or door, this can lead to damages.

- ▶ Make sure that the cable cannot become caught.

**Heat generation of the illumination**

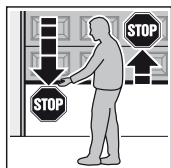
As a result of heat being generated by the operator light, there is a risk of damage if inadequate spacing is maintained.

- ▶ The smallest distance to easily inflammable materials or heat-sensitive surfaces must be at least 0.1 m (see Figure 7).

#### 8.1 Instructing users

- ▶ Instruct all persons who use the door system on the proper and safe use of the garage door operator.
- ▶ Demonstrate and test the mechanical release as well as the safety return.

#### 8.2 Function check



- ▶ To check the safety reversal, stop the door with both hands while it is closing. The door system must stop and initiate the safety reversal. The door system must also switch off and stop the door while it is opening.

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

#### 8.3 Functions of various radio codes for external 3-channel receivers

##### 8.3.1 Channel 1 / impulse

During normal operation, the garage door operator works with the *impulse* sequence control, which is triggered via an external button or a taught-in radio code:

- 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 door runs in the direction of the end-of-travel position selected in the 1st impulse.

etc.

##### 8.3.2 Channel 2 / light

The operator light can be switched on and switched off ahead of time using the taught-in *light* radio code.

##### 8.3.3 Channel 3 / partial opening

If the door is **not in partial opening** position, it is moved in the partial opening position using the *partial opening* radio code.

If the door is **in partial opening** position, it is moved in the *CLOSE* end-of-travel position using the *partial opening* radio code and in the *OPEN* end-of-travel position using the *impulse* radio code.

#### 8.4 Behaviour during a power failure

To be able to open or close the garage door by hand during a power failure, it must be disengaged from the slide carriage.

- ▶ See Section 3.4.1  
*Boom operating modes/Manual operation*

#### 8.5 Behaviour following a power failure

After the power returns, the slide carriage must be re-engaged.

- ▶ See Section 3.4.1  
*Boom operating modes/Automated operation*

## 9 Inspection and Maintenance

The garage door operator is maintenance-free.

For your own safety, however, we recommend having the door system checked and maintained by a specialist in accordance with the manufacturer's specifications.

### WARNING

**Danger of injury due to unexpected door travel**

Unexpected door travel can result during inspection and maintenance work if the door system is inadvertently actuated by other persons.


- ▶ Pull out the mains plug **and**, if applicable, the plug of the emergency battery when performing all work on the door system.
- ▶ Safeguard the door system against being switched on again without authorization.

An inspection or necessary repairs may only be carried out by a qualified person. Contact your supplier for this purpose.

A visual inspection may be carried out by the operator.

- ▶ Check all safety and protective functions monthly.
- ▶ Malfunctions and/or defects at hand must be rectified **immediately**.

9.1 Replacement bulb

 <b>CAUTION</b>
<b>Danger of injuries due to the hot lamp</b> Touching the cold-light reflector lamp during or immediately following operation can lead to burns.
▶ Do not touch the cold-light reflector lamp if it is switched on or was recently switched on.

If the light is switched on, an alternating current of 12 V AC is present at the lamp socket.

- ▶ Exchange the cold-light reflector lamp only if the operator is voltage-free.
- ▶ For using/replacing the operator light, see Figure 34.

<b>Type</b>	Only cold-light reflector lamp with safety glass and UV protection
<b>Base</b>	GU 5.3
<b>Nominal power</b>	20 W
<b>Nominal voltage</b>	12 V
<b>Angle of reflected beam</b>	36° – 60°
<b>Diameter</b>	51 mm
<b>Lamp colour</b>	Clear

10 Dismantling and Disposal

**NOTE:**

When disassembling, observe the applicable regulations regarding occupational safety.

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

11 Warranty Conditions

**Warranty**

We shall be exempt from our warranty obligations and product liability in the event that the customer carries out his own structural alterations or undertakes improper installation work or arranges for same to be carried out by others without our prior approval and contrary to the fitting guidelines we have provided. Moreover, we shall accept no responsibility for the inadvertent or negligent use of the operator and the accessories nor for improper maintenance of the door and its counterbalance. Batteries are also not covered by the warranty.

**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 for the operator mechanics, motor and motor control
- 2 years on radio equipment, accessories and special systems

There is no warranty on consumables (e.g. fuses, batteries, lamps). 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**

A claim under this warranty is only valid for the country in which the equipment was bought. 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. Reimbursement of expenditure for dismantling and fitting, testing of corresponding parts, as well as demands for lost profits and compensation for damages, are excluded from the warranty.

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

11.1 Performance

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.

Damages caused by the following are 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 plate

Replaced parts become our property.

12 Excerpt from the Declaration of Incorporation

(as defined in EC Machinery Directive 2006/42/EC for incorporation of partly completed machinery according to annex II, part 1 B).

The product described on the reverse side has been developed, constructed and produced in accordance with the following directives:

- EC Machinery Directive 2006/42 EC
- EC Construction Products Directive 89/106/EEC
- EC Directive Low-Voltage 2006/95/EC
- EC Electromagnetic Compatibility Directive 2004/108/EC

Applied and consulted standards and specifications:

- EN ISO 13849-1, PL “c”, Cat. 2  
Safety of machinery – Safety-related parts of control systems – Part 1: General principles
- EN 60335-1/2, when applicable  
Safety of electrical appliances / Operators for doors
- EN 61000-6-3  
Electromagnetic Compatibility – Electromagnetic radiation
- EN 61000-6-2  
Electromagnetic Compatibility – Interference immunity

Partly completed machinery as defined in the EC Directive 2006/42/EC is only intended to be incorporated into or assembled with other machinery or other partly completed machinery or equipment, thereby forming machinery to which this Directive applies.

This is why this product must only be put into operation after it has been determined that the entire machine/system in which it will be installed corresponds with the guidelines of the EC Directive mentioned above.

Any modification made to this product without our express permission and approval shall render this declaration null and void.

## 13 Technical Data

### 13.1 Operator











<b>Mains voltage</b>	230/240 V, 50/60 Hz
<b>Stand-by</b>	Approx. 4.5 W
<b>Protection category</b>	Only for dry rooms
<b>Automatic safety cut-out</b>	Is automatically taught in for both directions separately
<b>End-of-travel position cut-out/force limit</b>	Self-learning, wear-free, as it is designed without mechanical switches, additionally integrated run time limitation to approx. 60 s. Automatic safety cut-out, readjusting at every door run
<b>Rated load</b>	See data label
<b>Pull and push force</b>	See data label
<b>Motor</b>	Direct current motor with hall sensor
<b>Transformer</b>	With thermal protection
<b>Connection</b>	No-screw connection technology for external equipment with 24 V DC low safety voltage, such as internal and external buttons with impulse operation
<b>Special functions</b>	<ul style="list-style-type: none"> <li>• Stop/off switch can be connected</li> <li>• Photocell or closing edge safety device can be connected</li> <li>• Option relay for warning lamp, additional external illumination can be connected via HCP bus adapter</li> </ul>
<b>Quick release</b>	Actuated from inside with pull cord in the event of a power failure
<b>Universal fittings</b>	For up-and-over doors and sectional doors
<b>Door travel speed</b>	<ul style="list-style-type: none"> <li>• In <i>CLOSE</i> direction max. 14 cm/s<sup>1)</sup></li> <li>• In <i>OPEN</i> direction max. 22 cm/s<sup>1)</sup></li> </ul>
<b>Garage door operator airborne sound emission</b>	70 dB (A)
<b>Operator boom</b>	Extremely flat at 30 mm, with integral door security kit and maintenance-free toothed belt

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







## 14 Displays for Errors/Warnings and Operating Conditions

If there is an error or warning, a number will appear with a rapidly flashing decimal point.

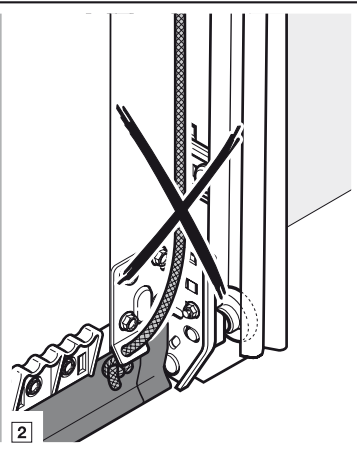
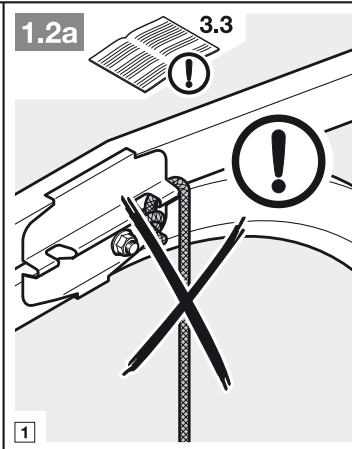
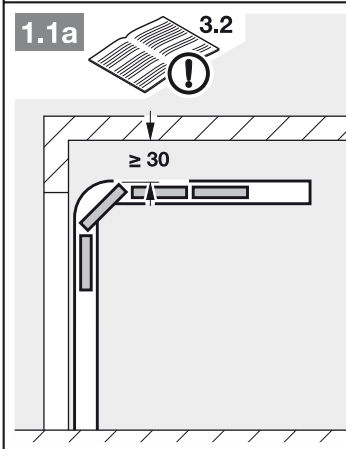
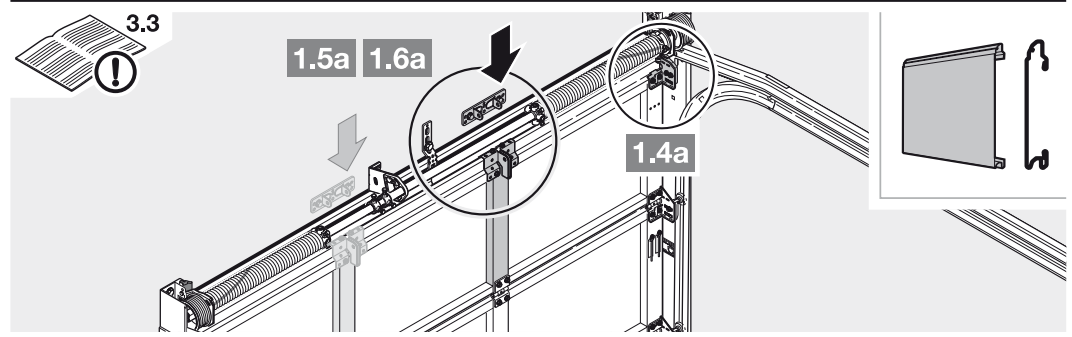
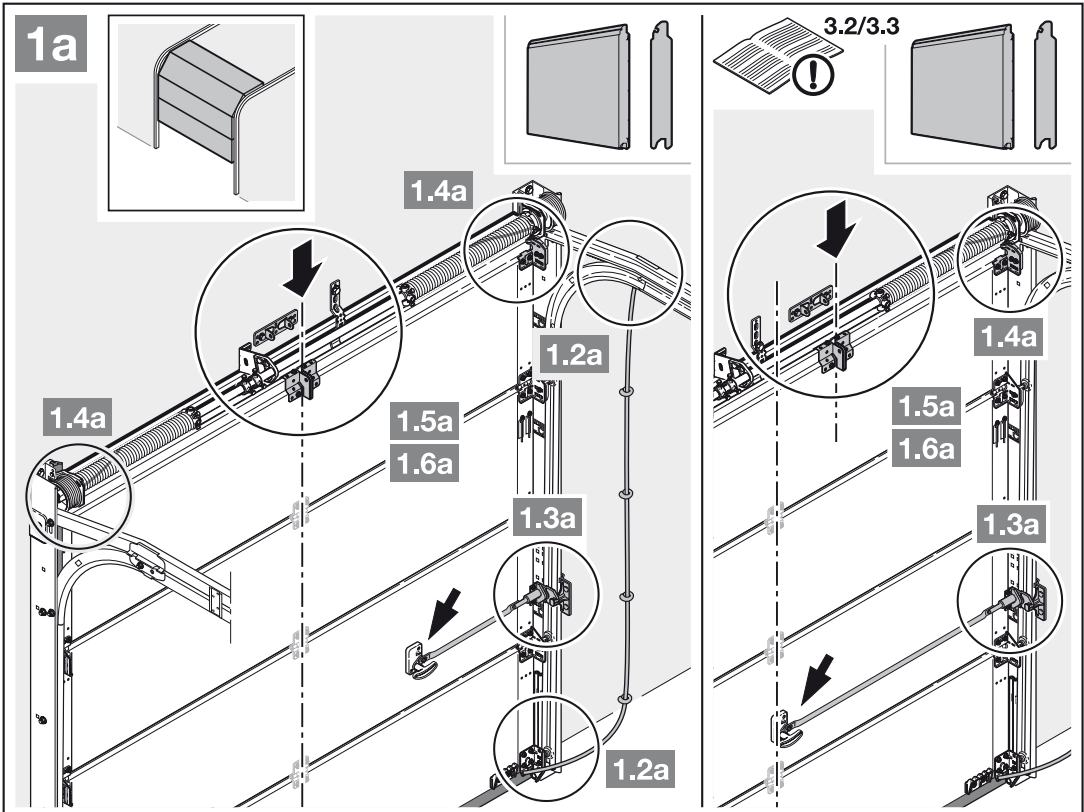
### 14.1 Display of errors and warnings

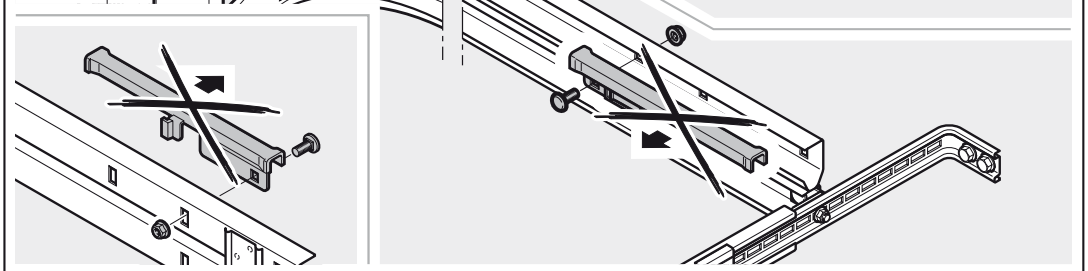
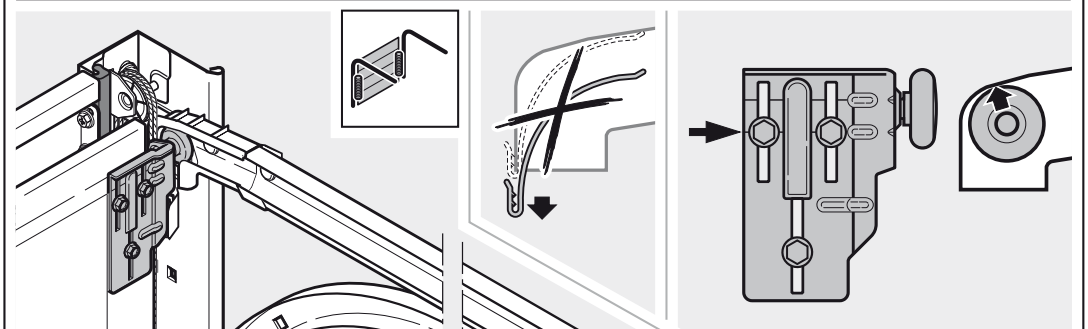
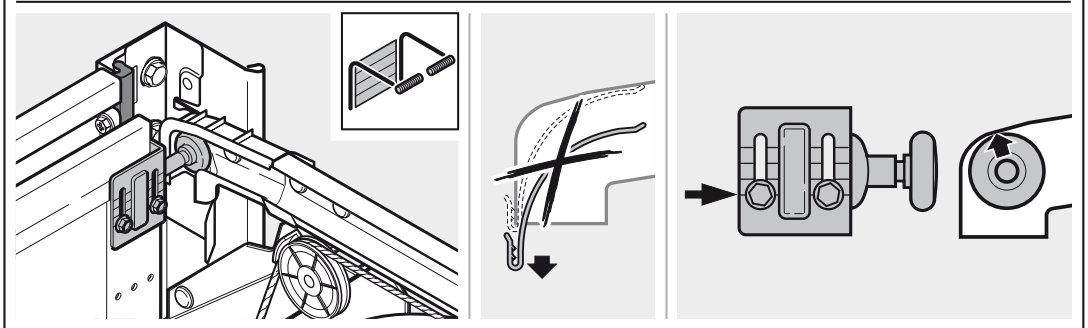
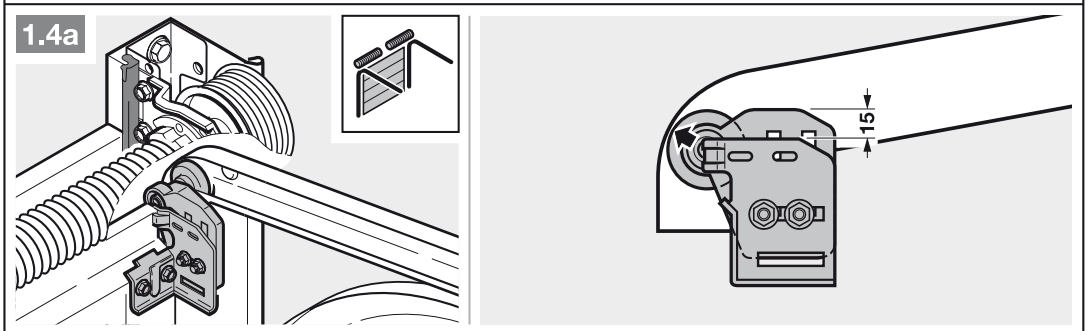
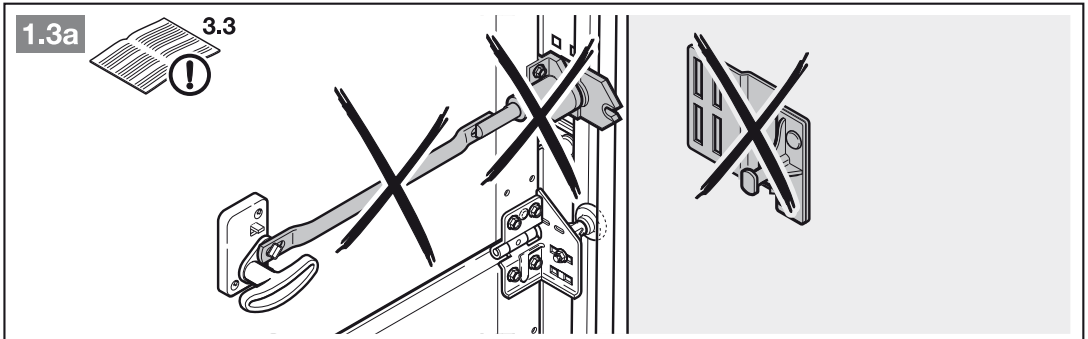
Display	Error/warning	Possible cause	Remedy
	Reversal limit cannot be set	An obstacle was in the way when the SKS/VL reversal limit was set	Remove the obstruction
	Partial opening height cannot be set	The partial opening height is too close to the CLOSE end-of-travel position ( $\leq 120$ mm slide travel)	The partial opening height must be higher
	Entry not possible	The parameter is set to 0 in menu 4 and an attempt was made to activate automatic timed closing (menu 3, parameters 1 – 9)	Activate the safety device(s)
	Not possible to give a travel command	The operator has been blocked for the control elements and a travel command was given	Release the operator for the control elements
	Run time limitation	The belt is torn	Exchange the belt
		The operator is defective	Exchange the operator
	System error	Internal error	Restore the factory setting (see Section 4.6), teach in the operator again or exchange, if necessary
	Force limit	The door is sluggish or does not move smoothly	Correct the door travel
		Obstruction in door area	Remove the obstruction and teach in the operator again, if necessary
	Static current circuit	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
	Photocell	No photocell is connected	Connect a photocell or set the parameter to 0 in menu 4
		The light beam is interrupted	Adjust the photocell
		The photocell is defective	Exchange the photocell
	Closing edge safety device	The light beam is interrupted	Check the transmitter and receiver and exchange, if necessary, or exchange the complete closing edge safety device
		8k2 resistance contact strip is defective or not connected	Check the 8k2 resistance contact strip or connect to the operator via the 8k2-1T decoder unit
	No reference point	Power failure	Move the door to the OPEN end-of-travel position
	The operator has not been taught in	The operator has not been taught in yet	Teach in the operator

### 14.2 Display of the operating conditions of the operator

	The operator is in the OPEN end-of-travel position		The operator is in an intermediate position
	The operator is currently in motion		The operator is in the CLOSE end-of-travel position
	The operator is in the partial opening position		Impulse input from a radio code

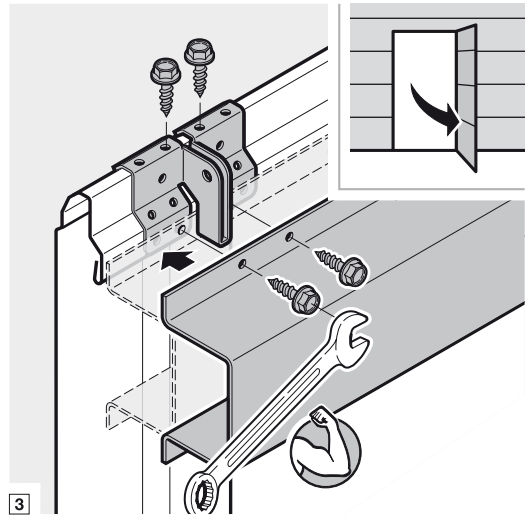
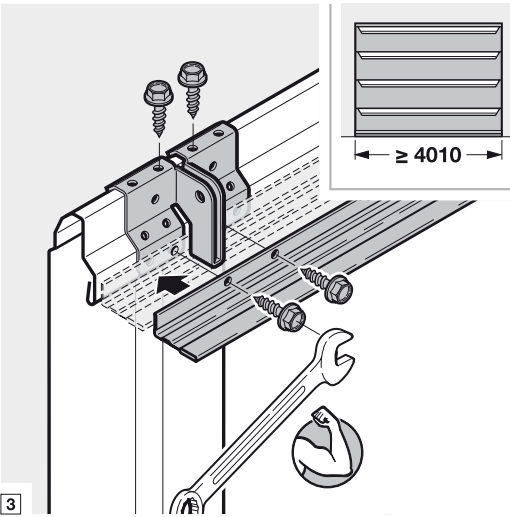
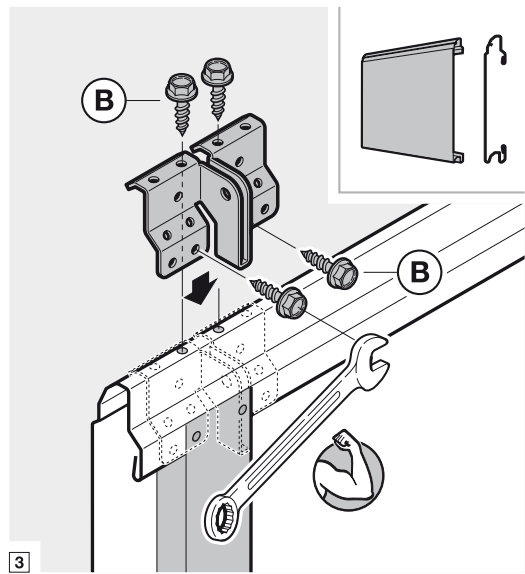
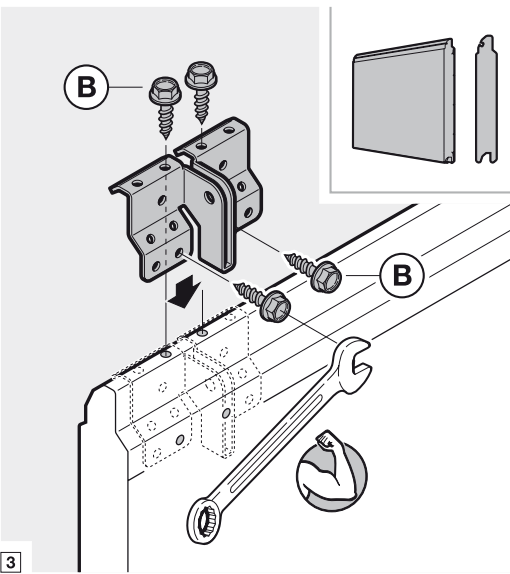
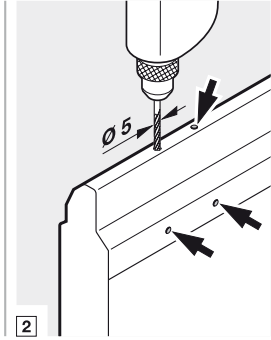
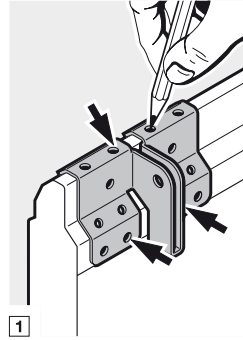
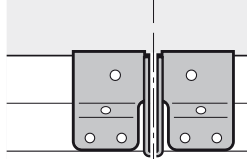
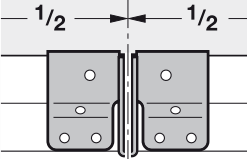
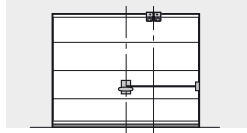
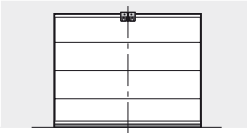
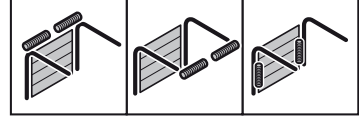


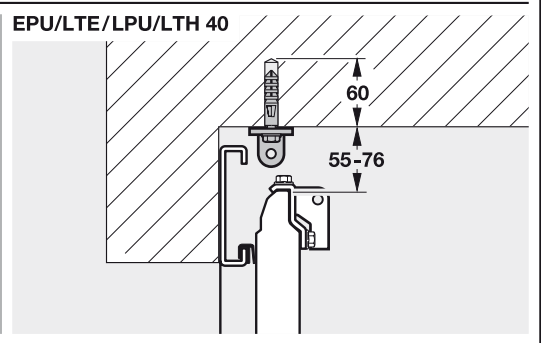
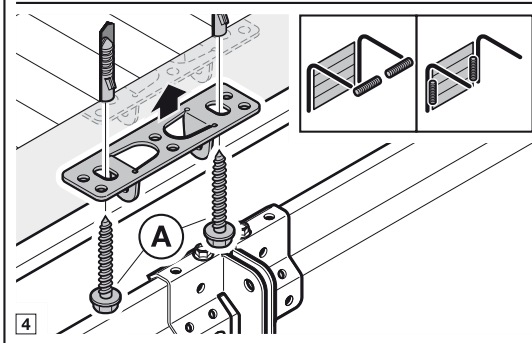
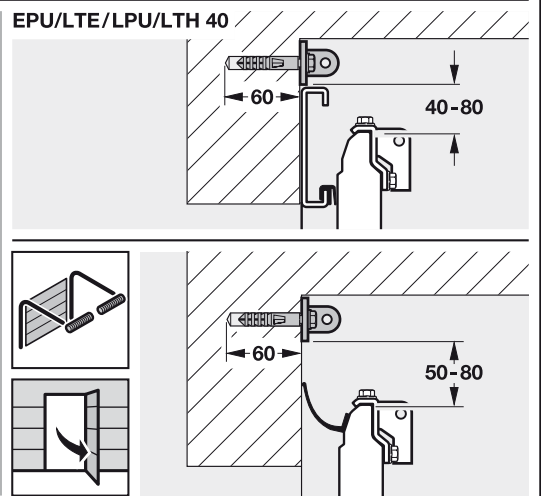
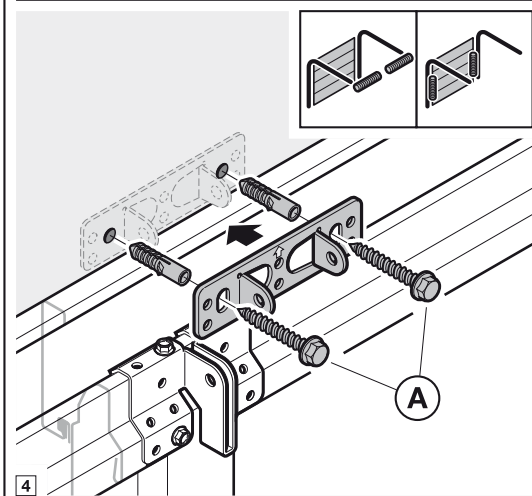
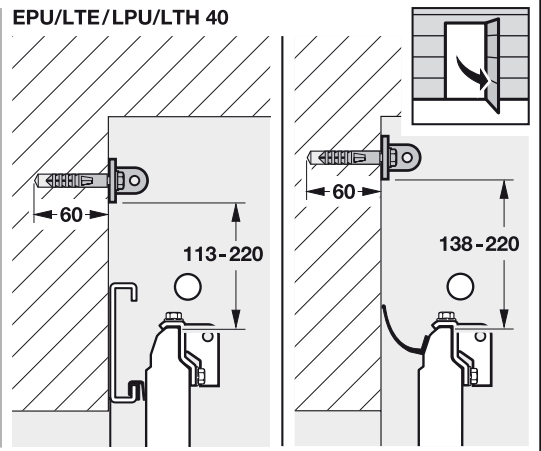
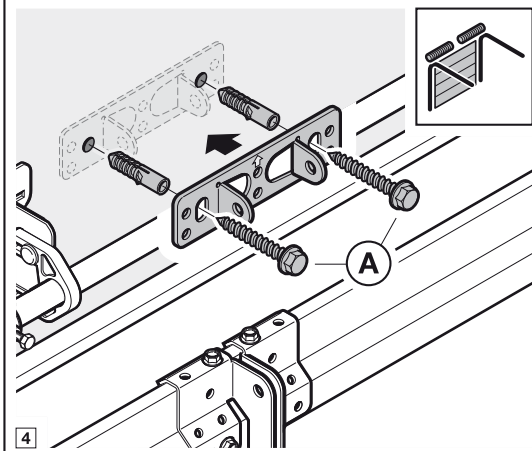
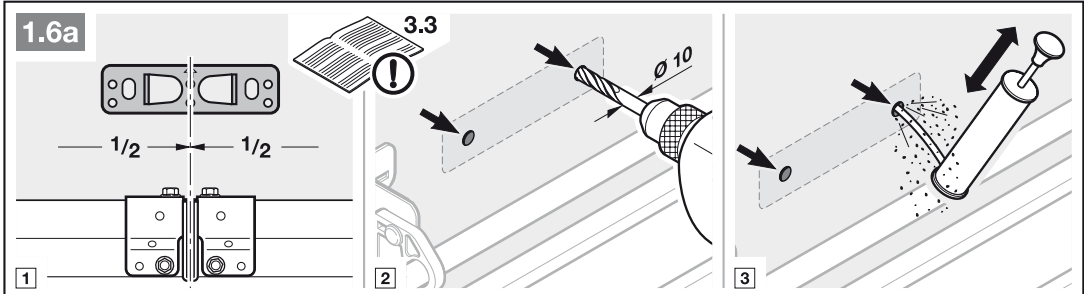




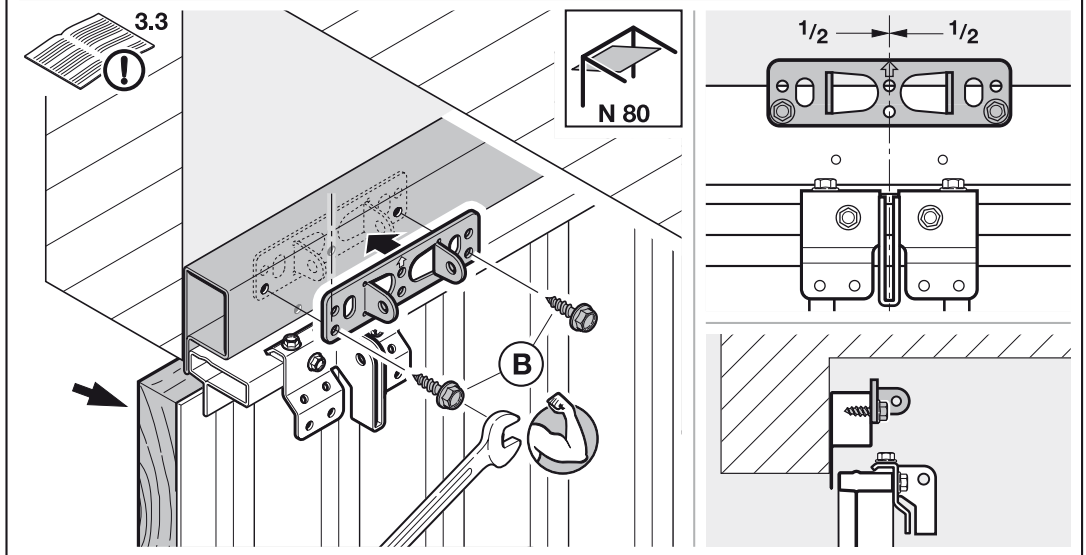
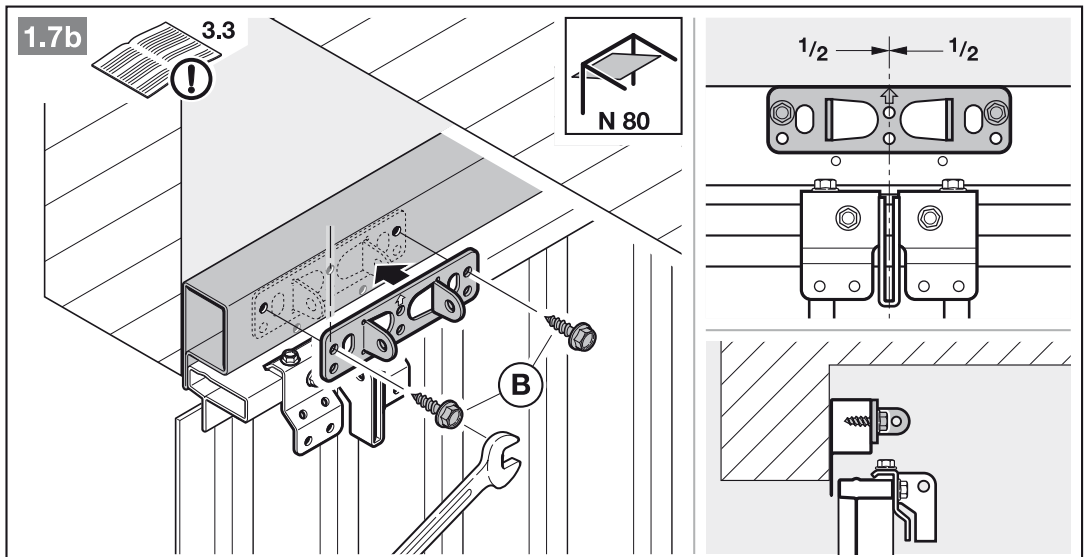
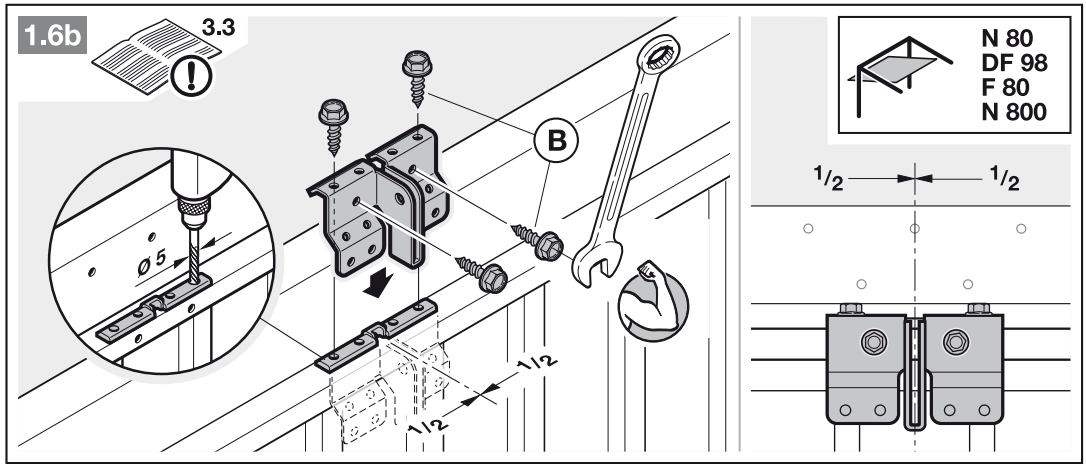
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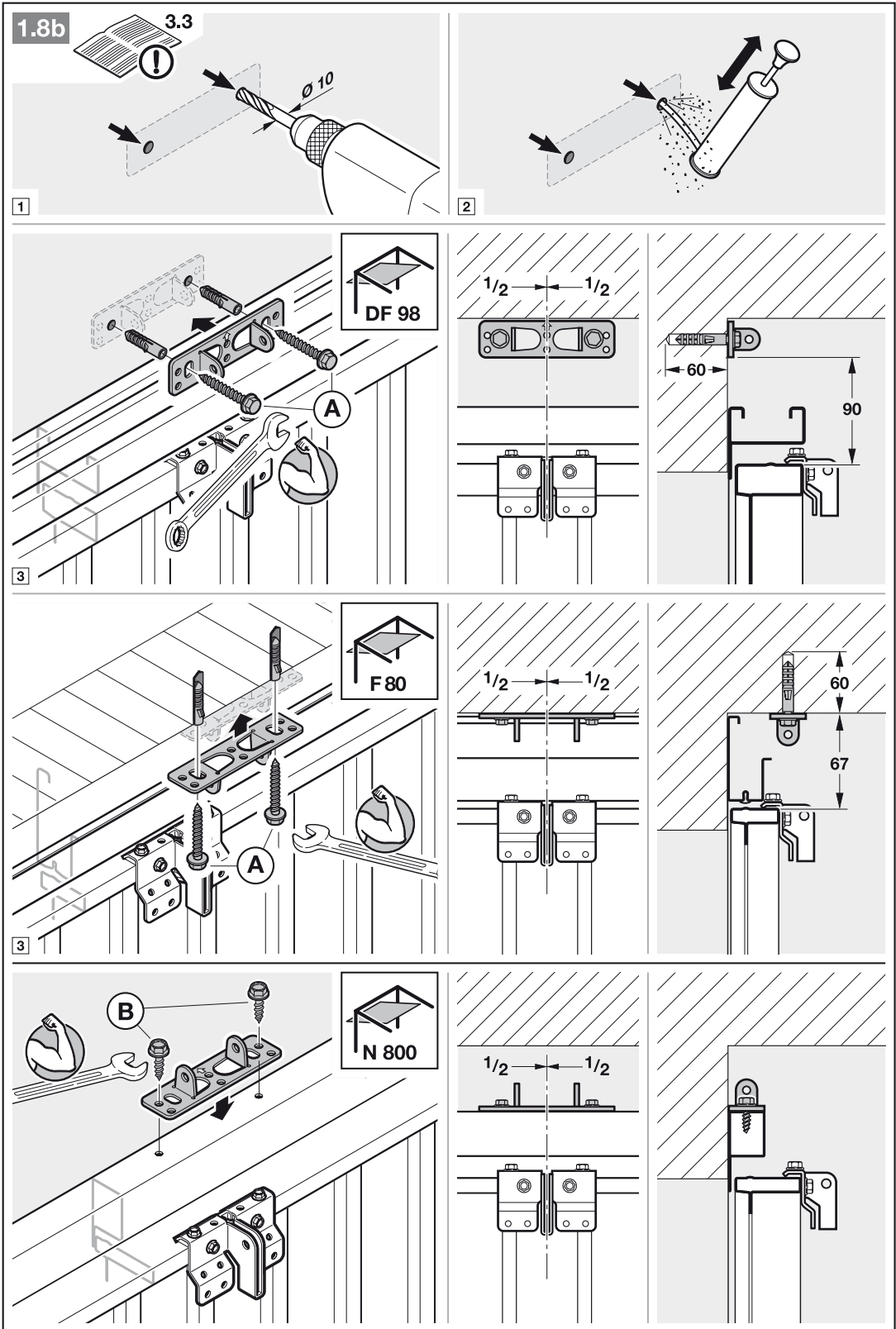
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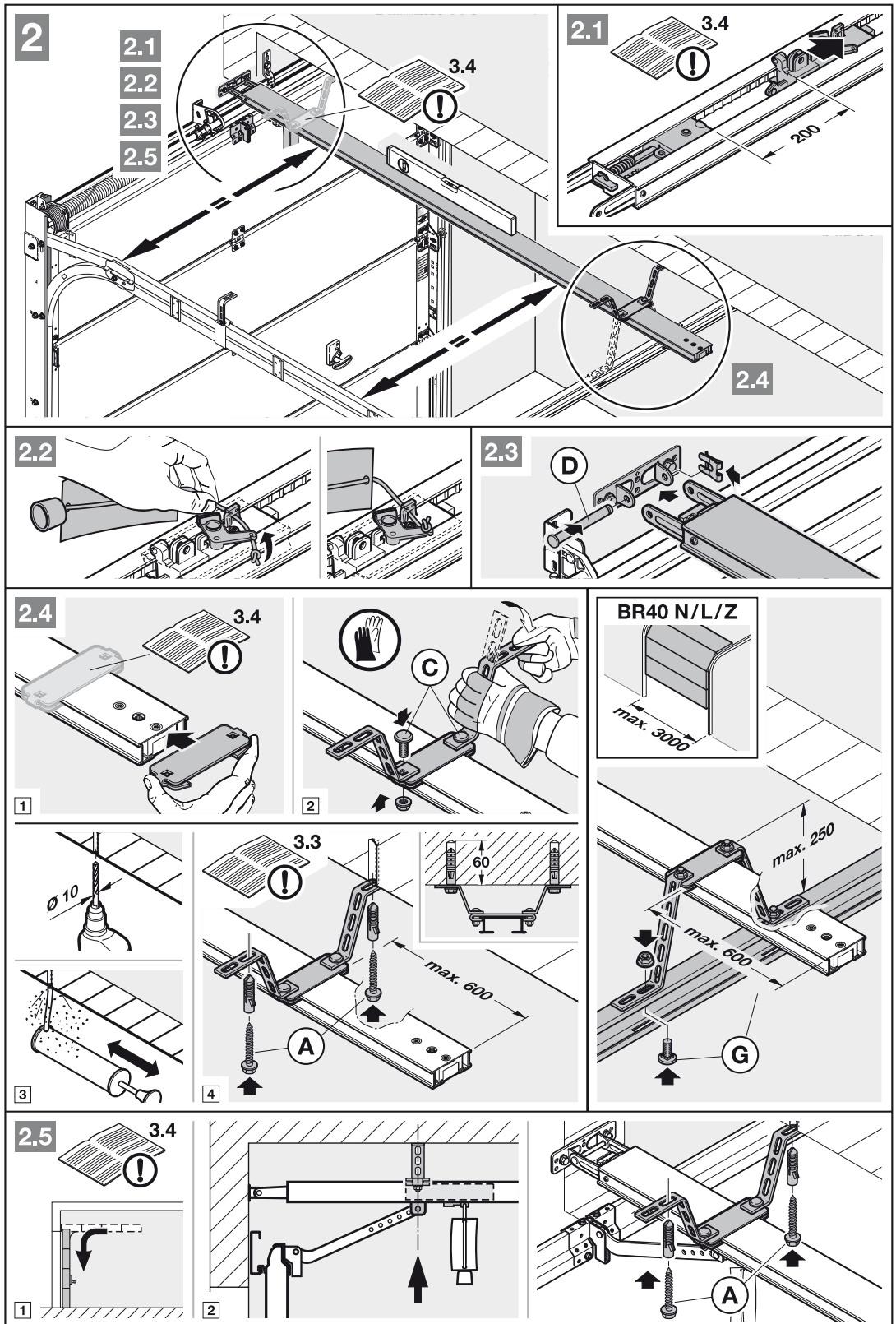




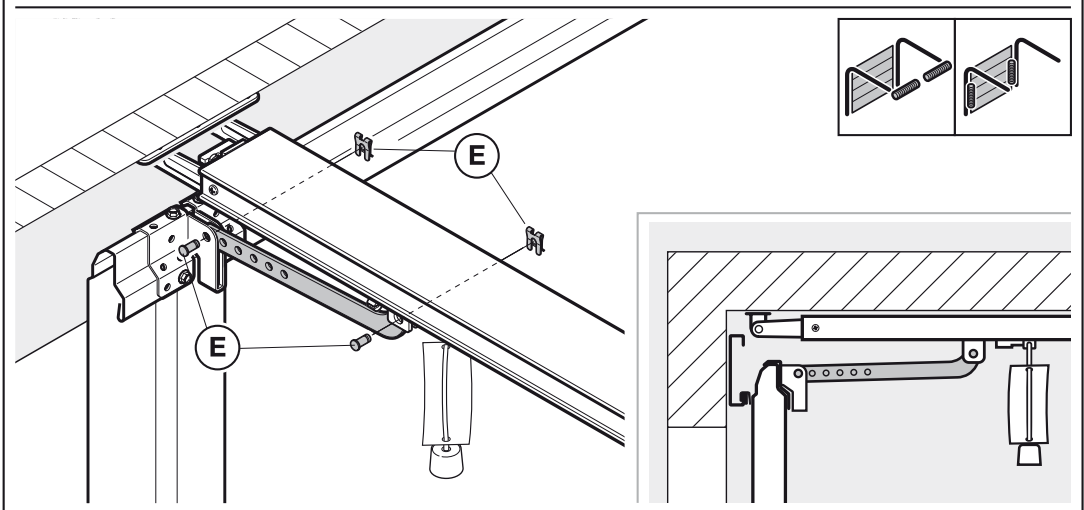
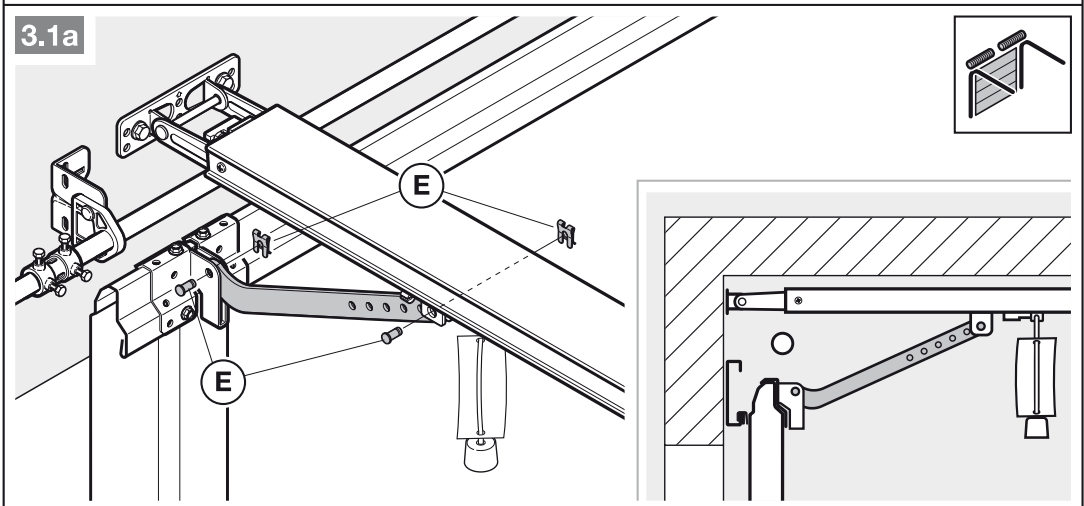
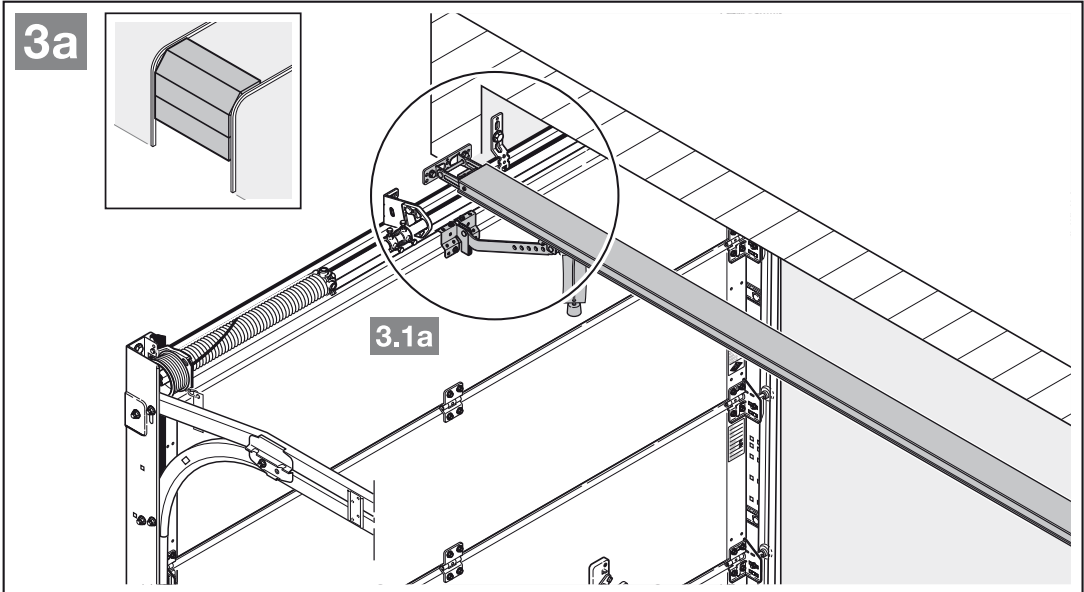




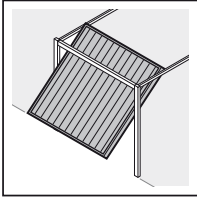




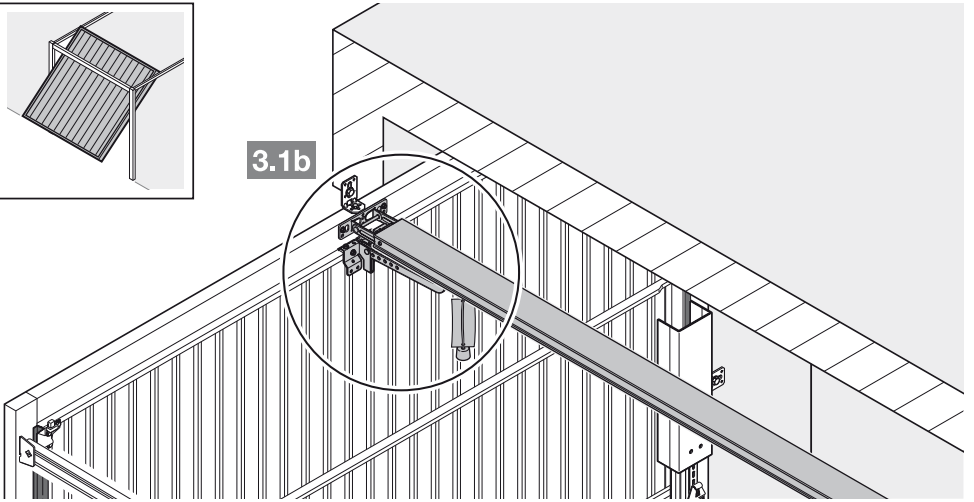




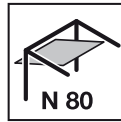
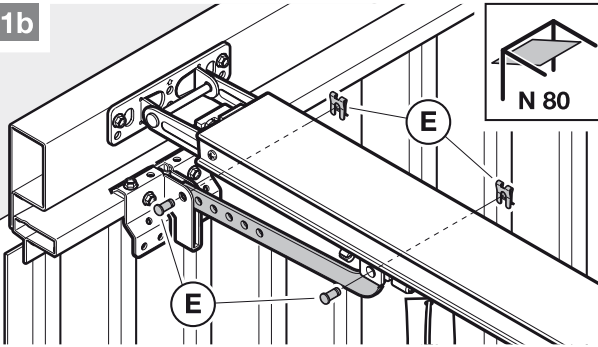
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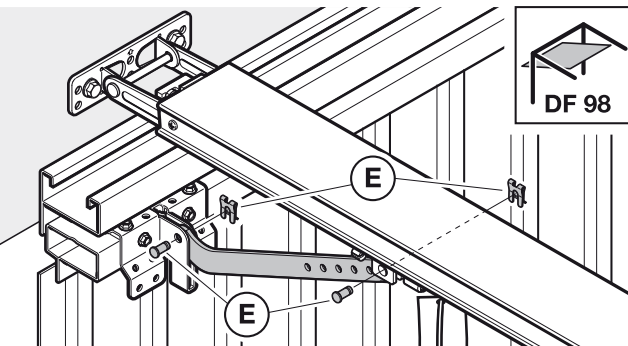
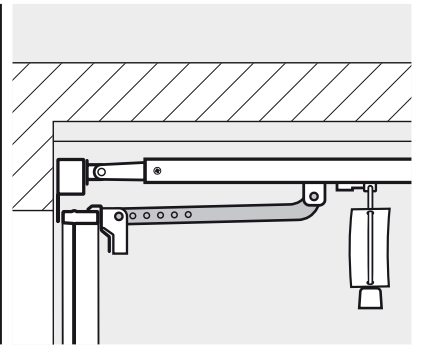
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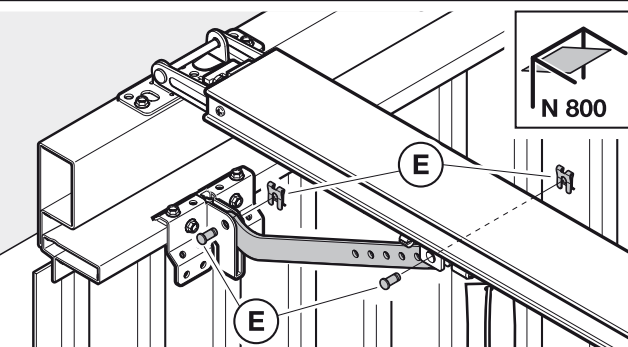
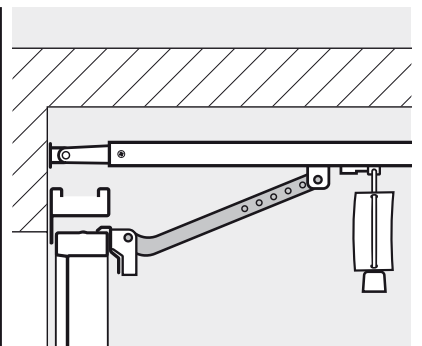
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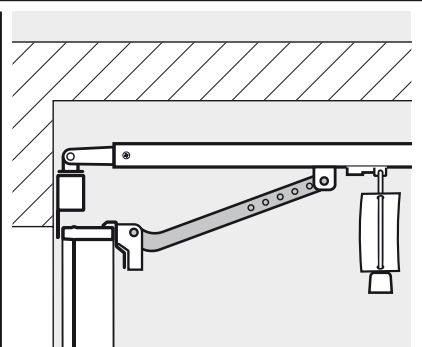
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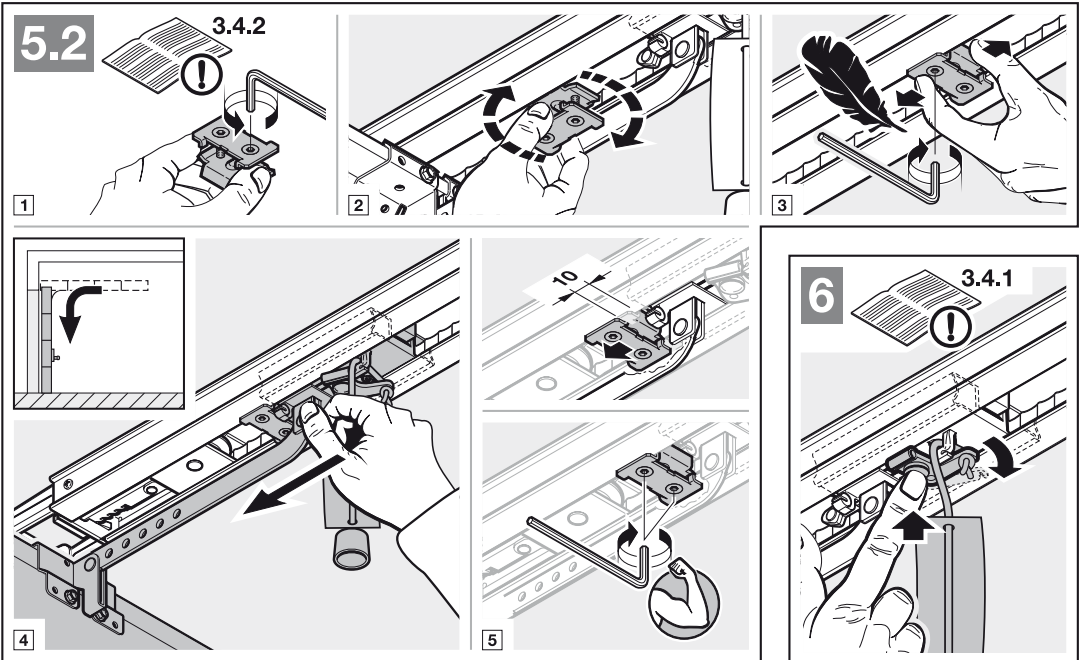
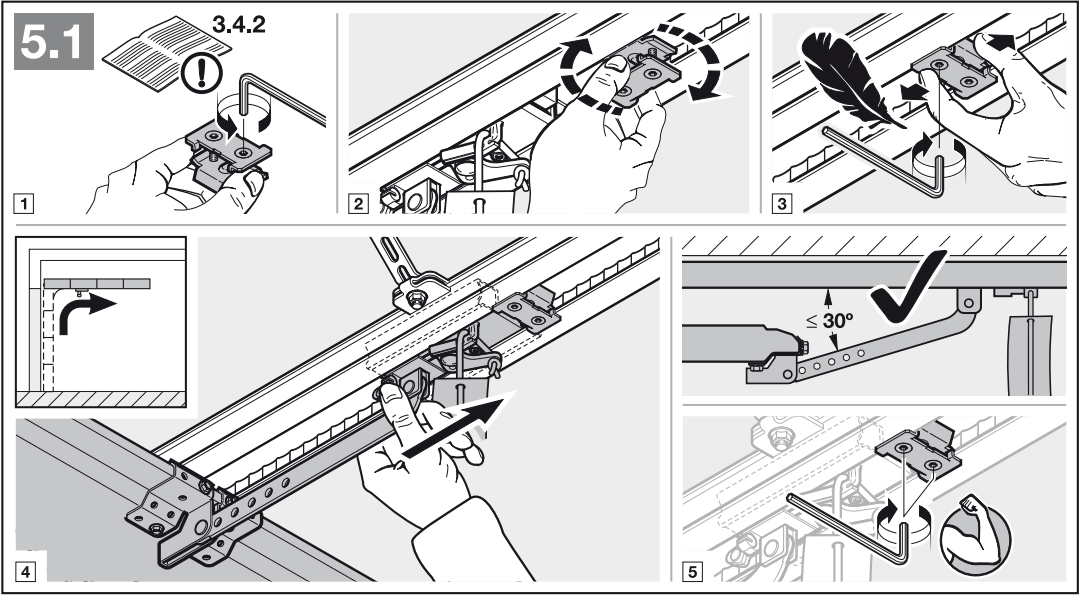
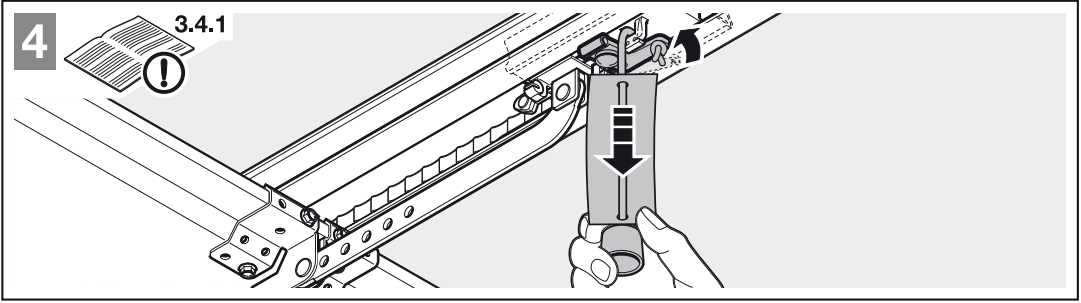


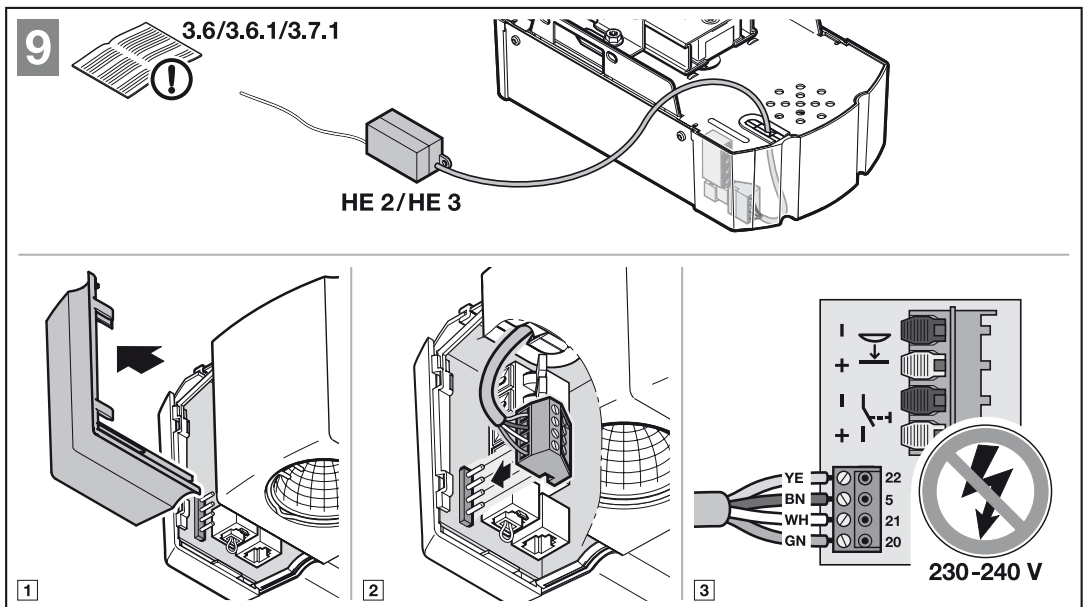
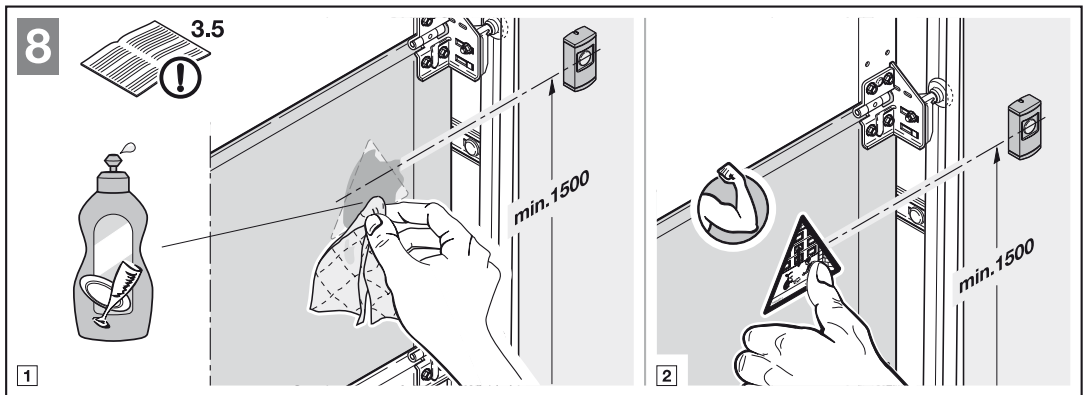
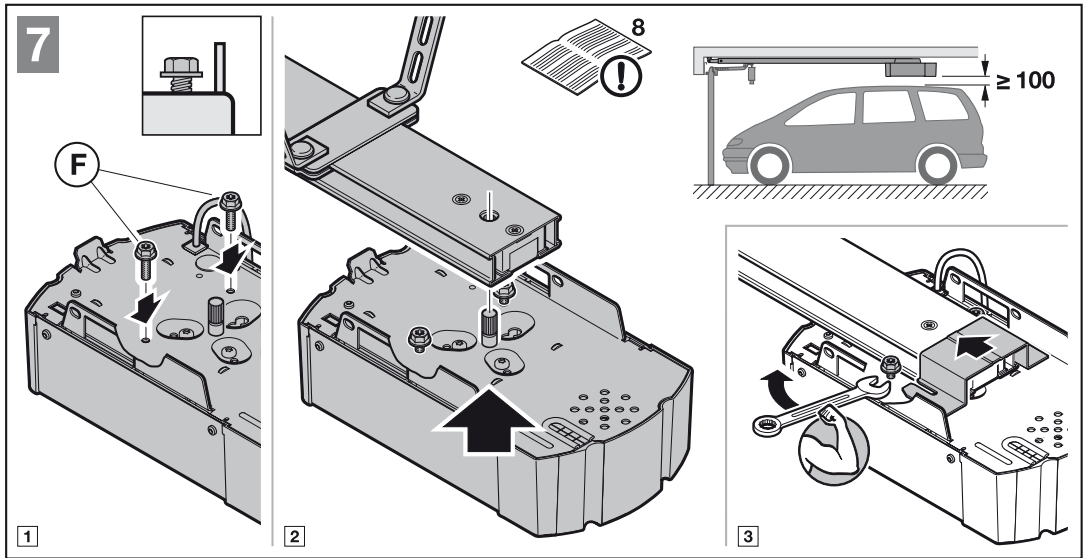
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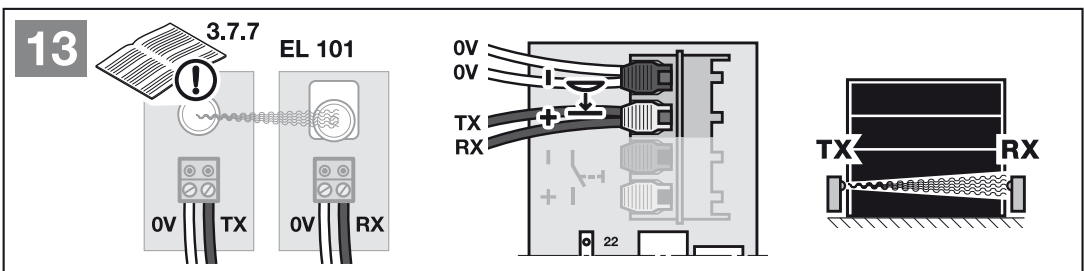
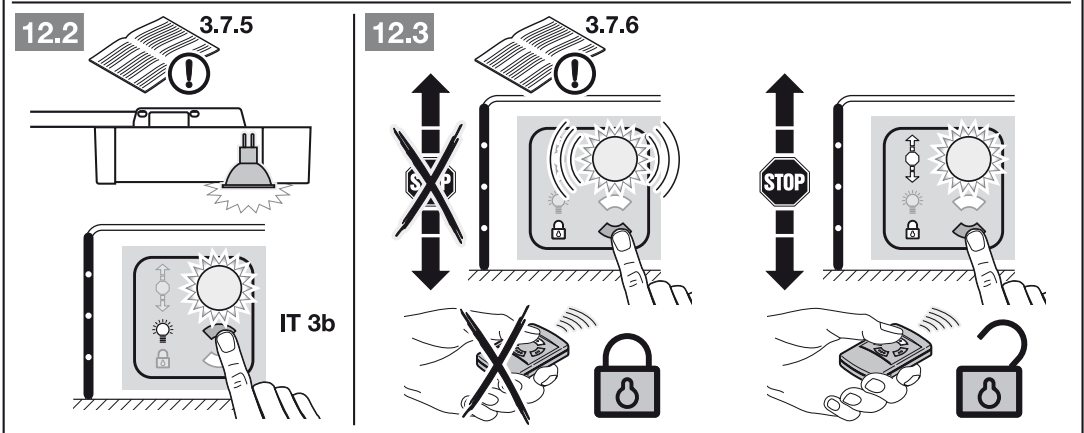
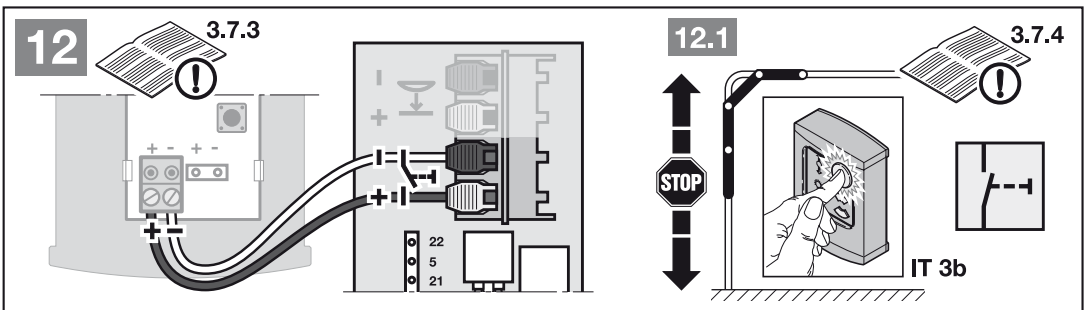
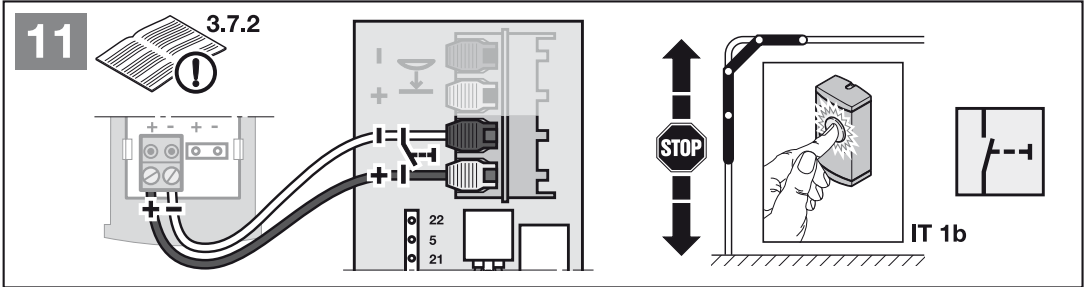
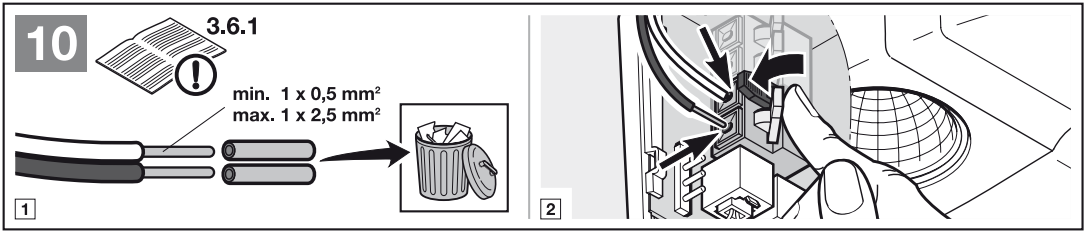


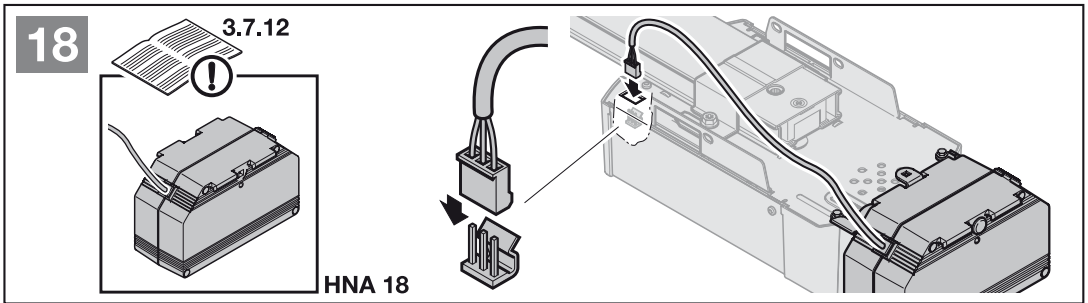
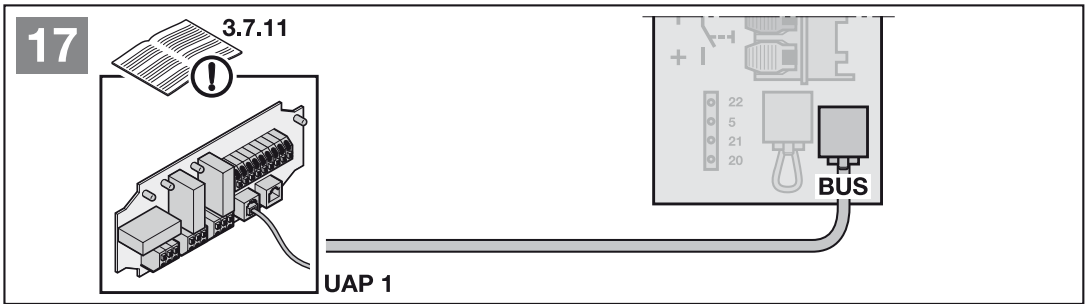
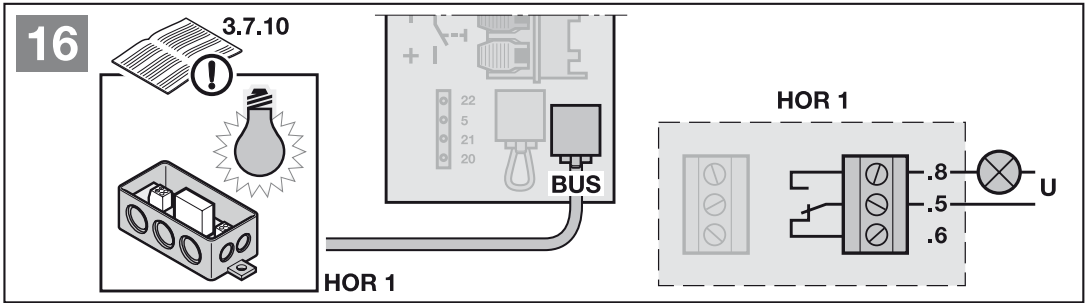
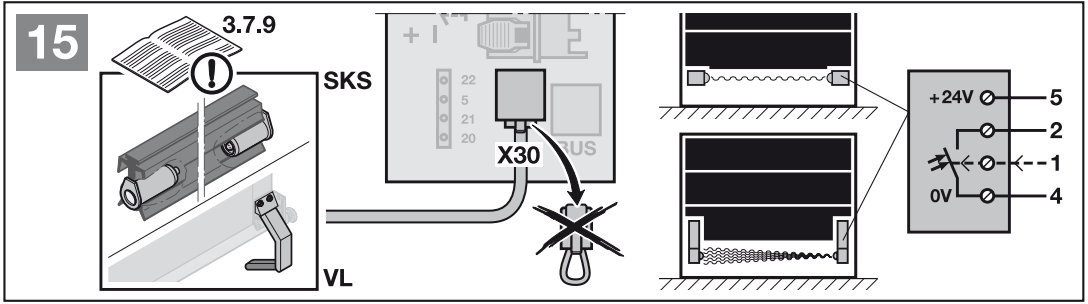
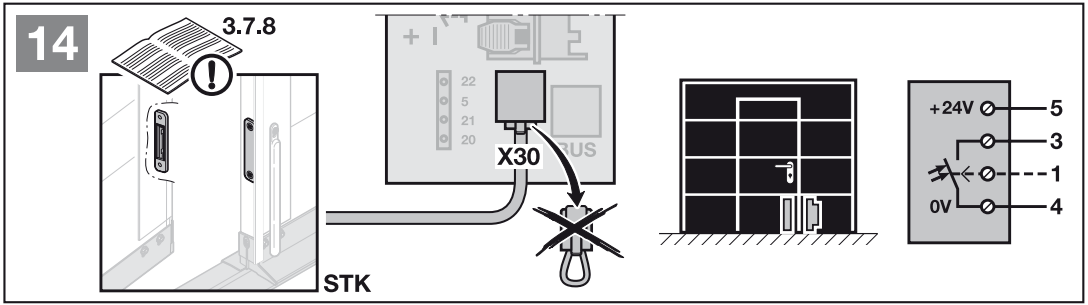
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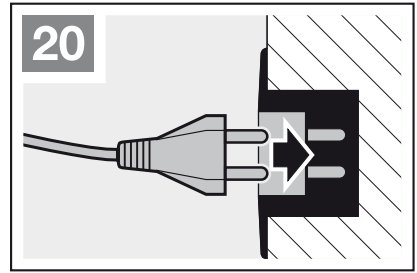
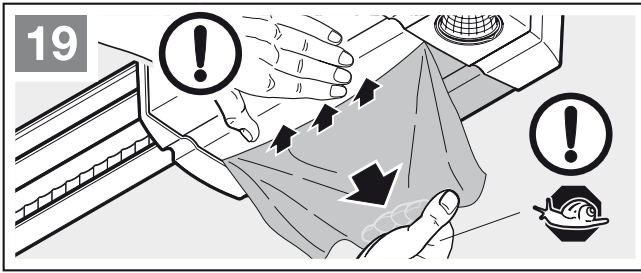












**NOTE**

The current settings are displayed in the menus by an illuminated decimal point.

**REMARQUE**

Dans les différents menus, les réglages actuels sont marqués par un point lumineux.



**21** <sup>4.4</sup>

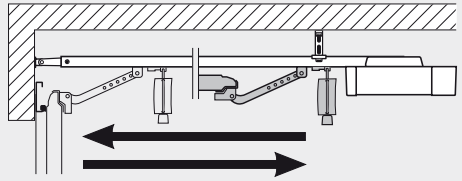
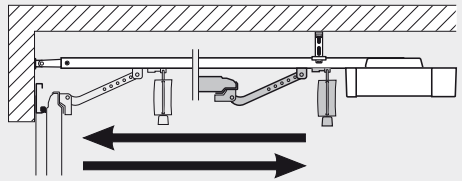
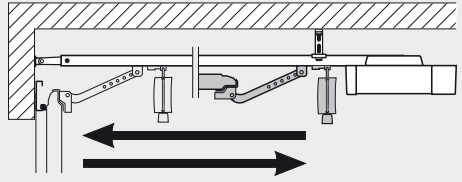
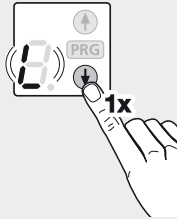
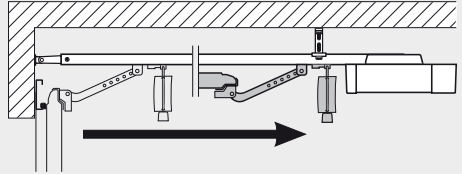
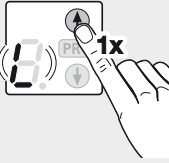
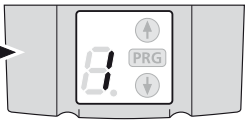
The diagram illustrates the following steps for setting the fan speed:

- Initial State:** Device shows '0.' and a fan icon.
- Level 1:** Press 'PRG' (5 sec.) → Press 'RG' (3 sec.) → Press 'PG' (1x).
- Level 2:** Press 'PRG' (5 sec.) → Press 'RG' (3 sec.) → Press 'PG' (1x).
- Level 3:** Press 'PRG' (5 sec.) → Press 'RG' (3 sec.) → Press 'PG' (1x).
- Level 4:** Press 'PRG' (5 sec.) → Press 'RG' (3 sec.) → Press 'PG' (1x).



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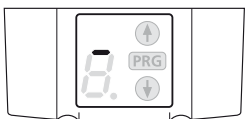
4.5.1 



...

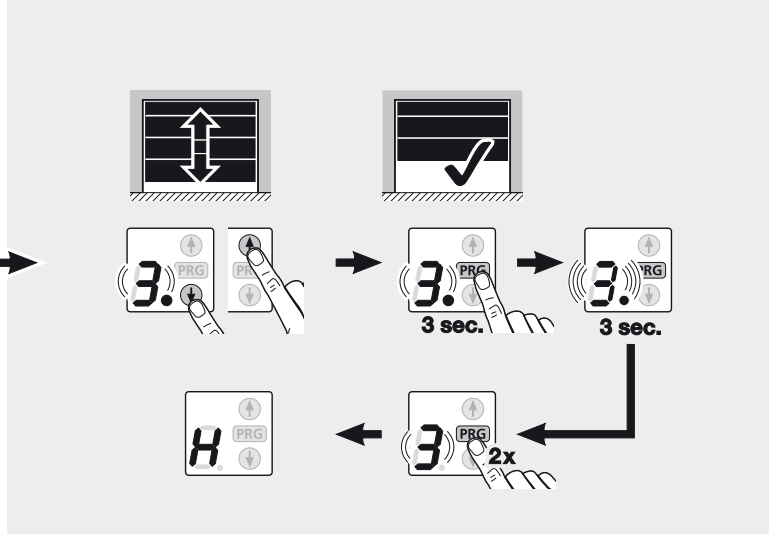
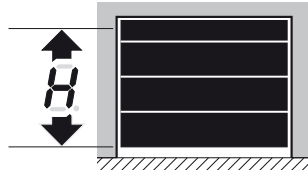
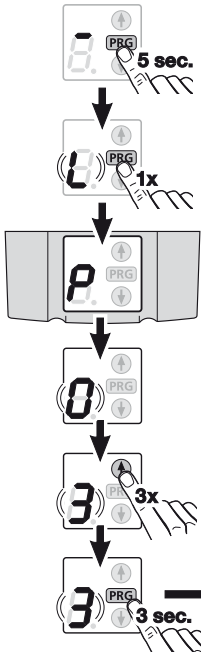


4.5.1 

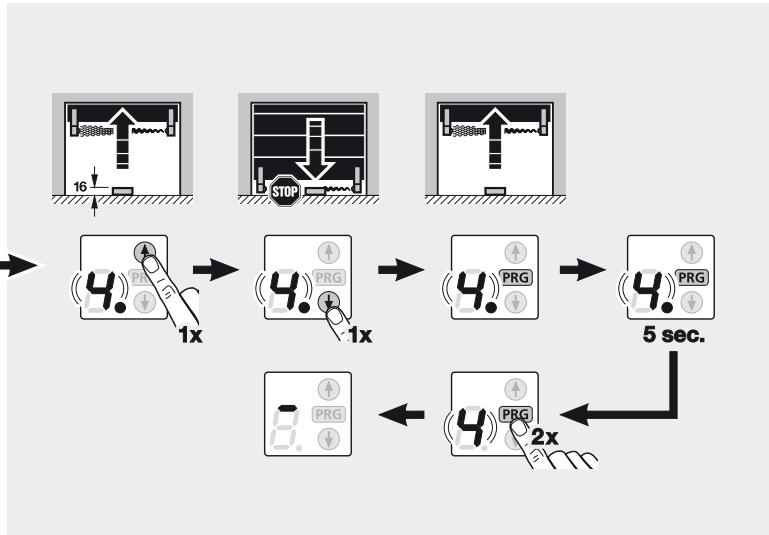
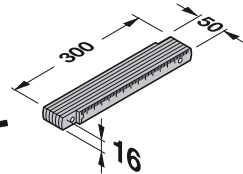
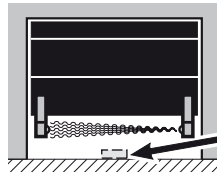
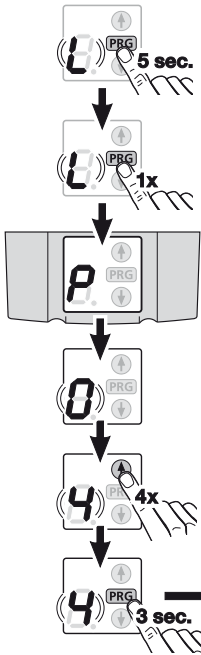




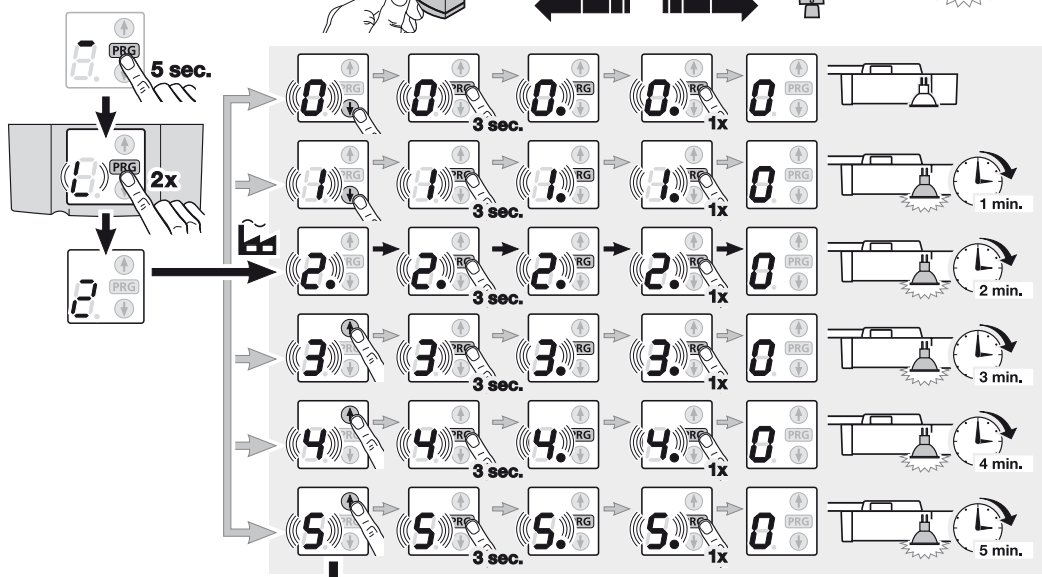
# 23.1



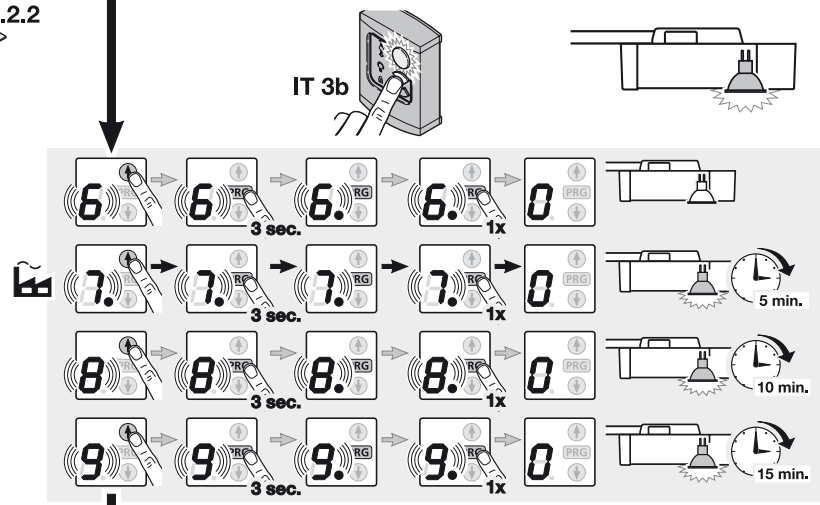
# 23.2



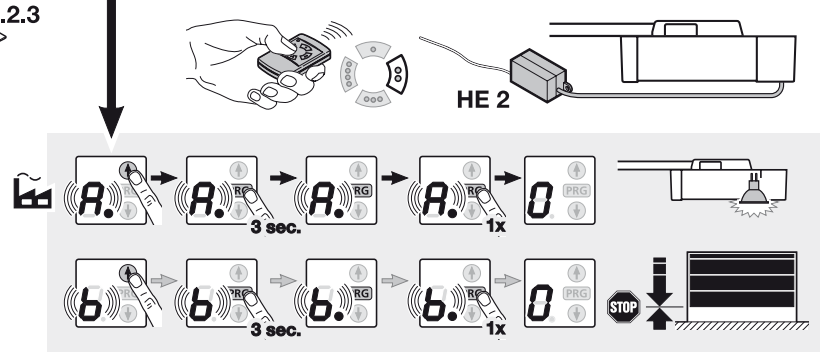
**24.1** 6.2.1



**24.2** 6.2.2

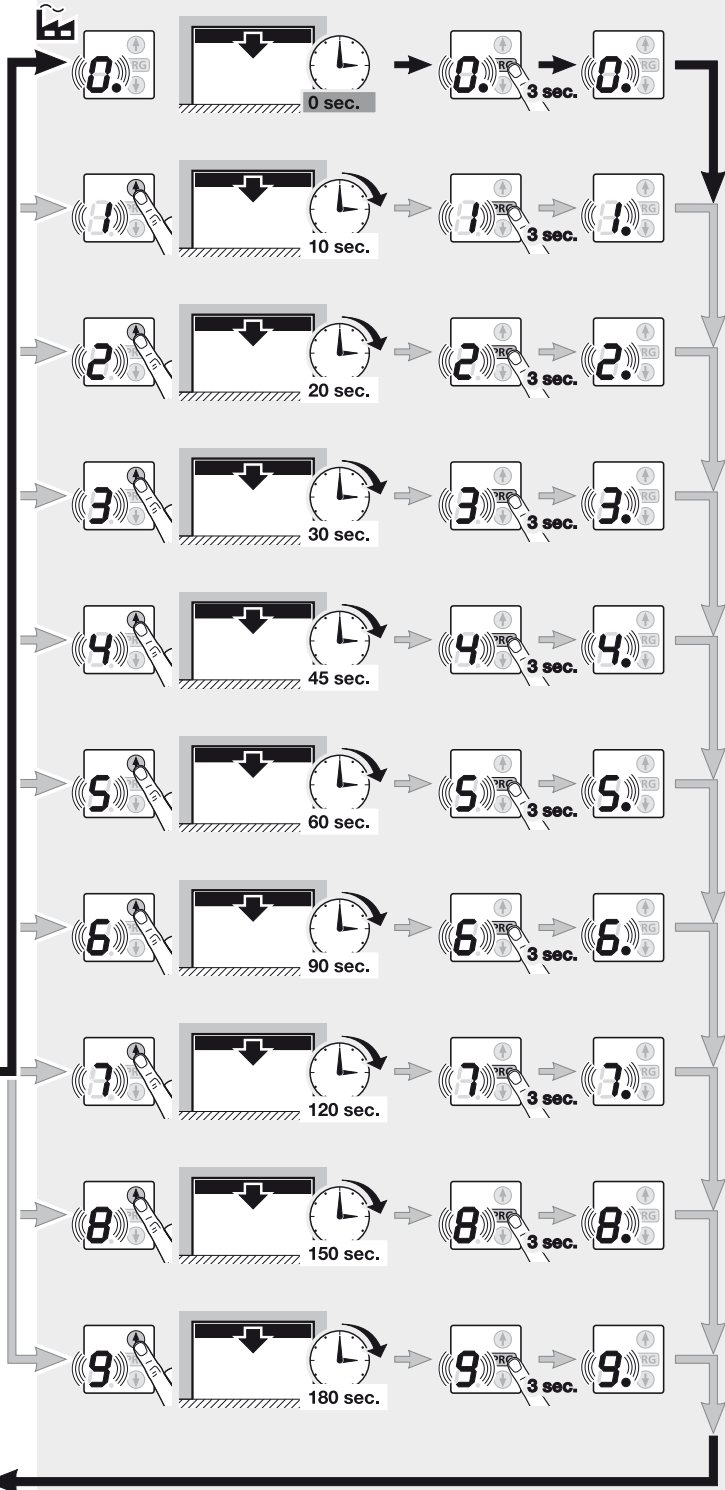
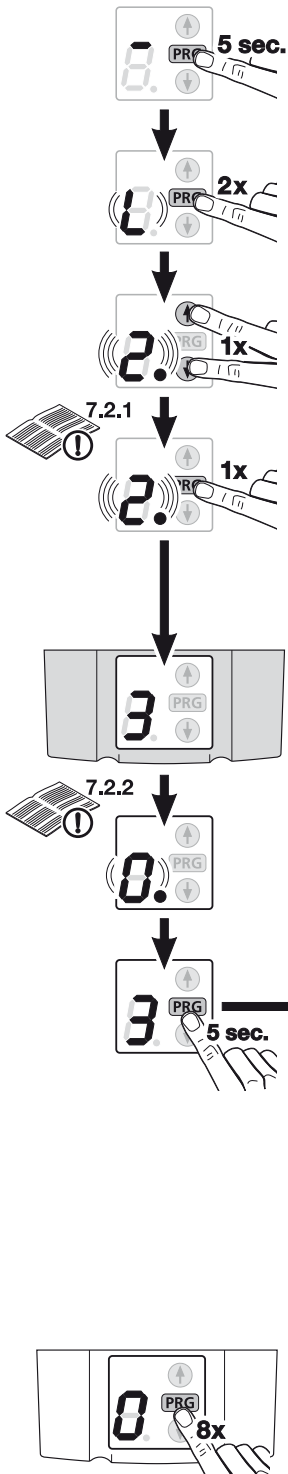


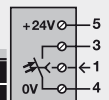
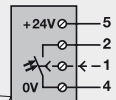
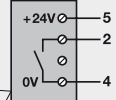
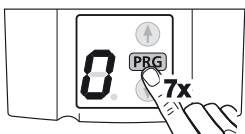
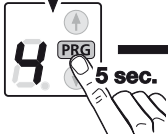
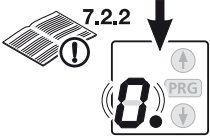
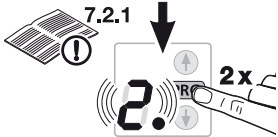
**24.3** 6.2.3



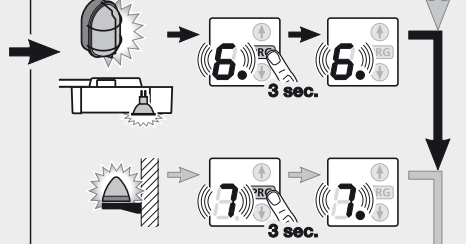
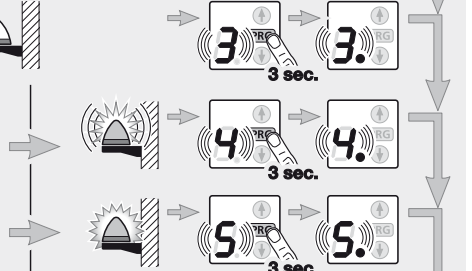
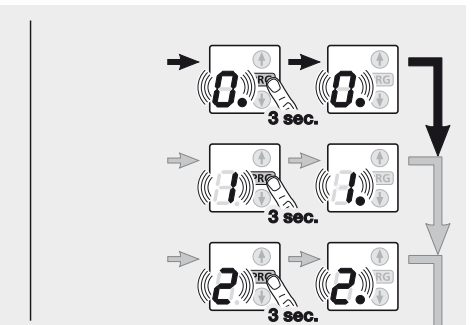
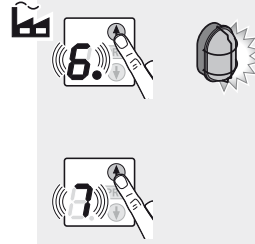
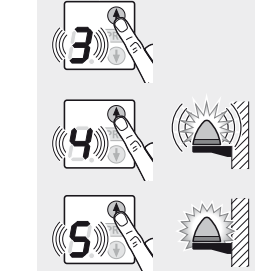
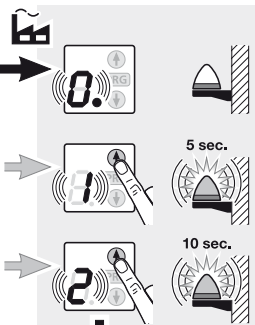
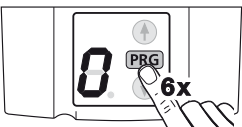
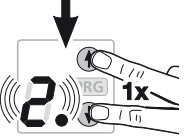
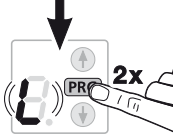
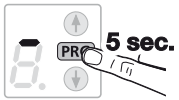
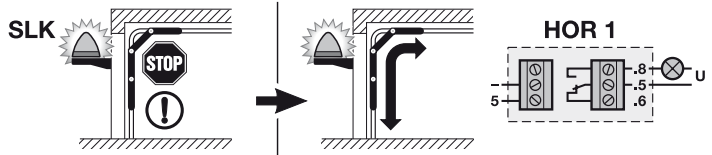
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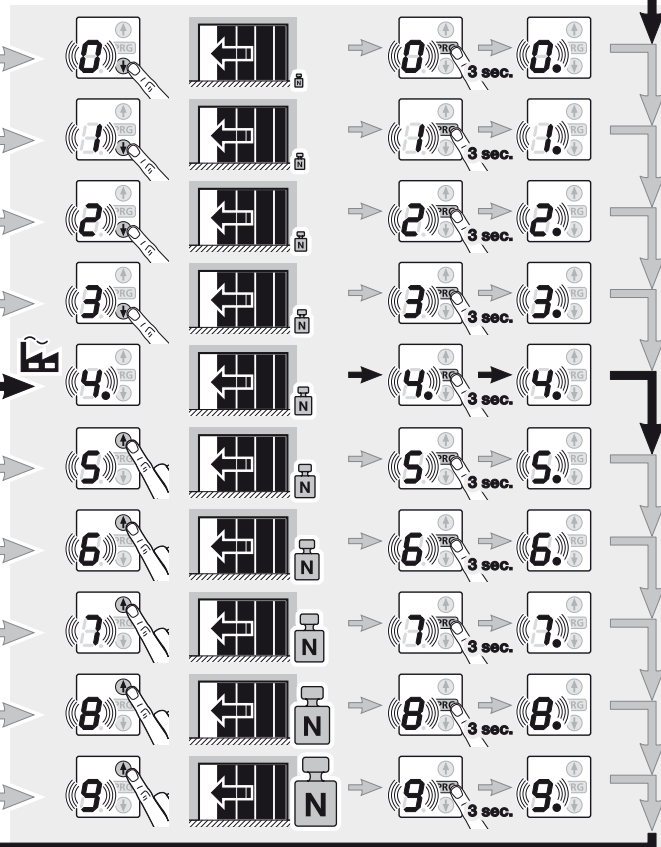
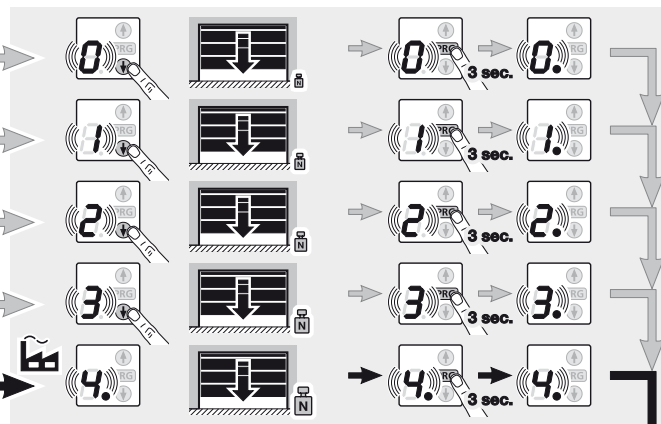
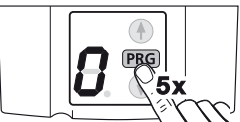
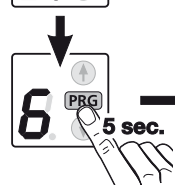
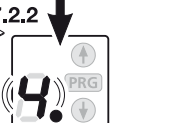
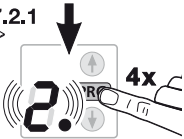
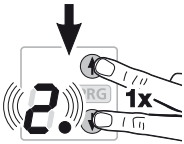
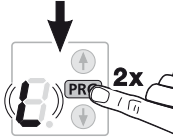
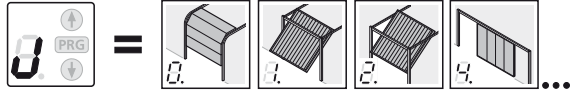






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