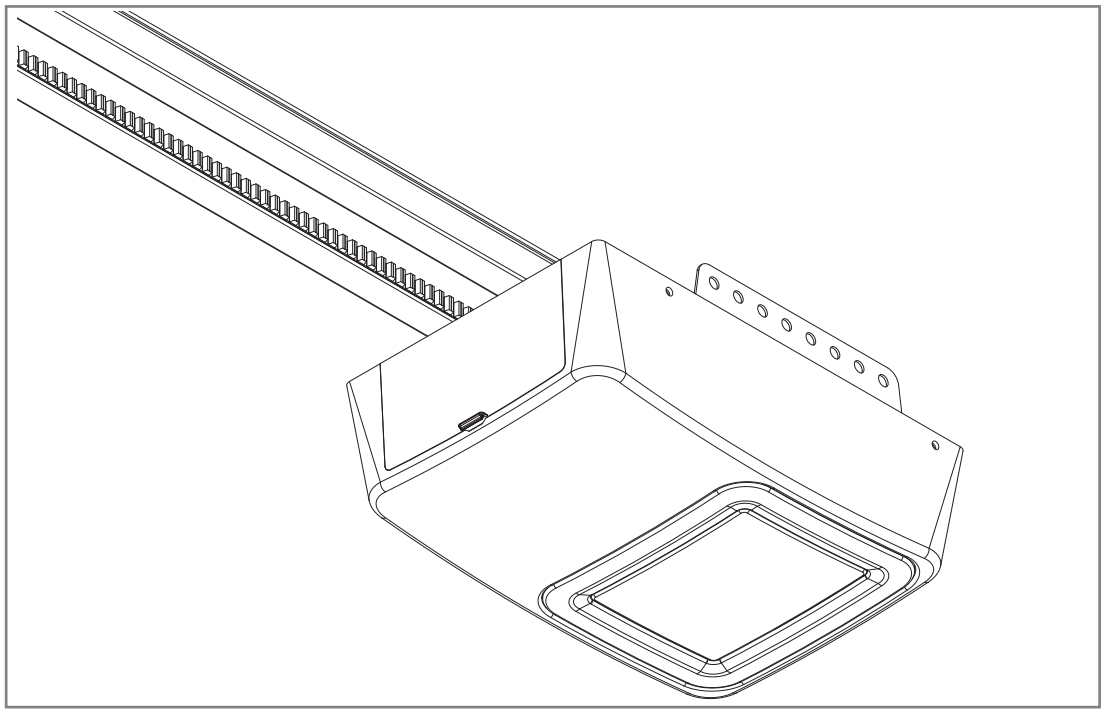
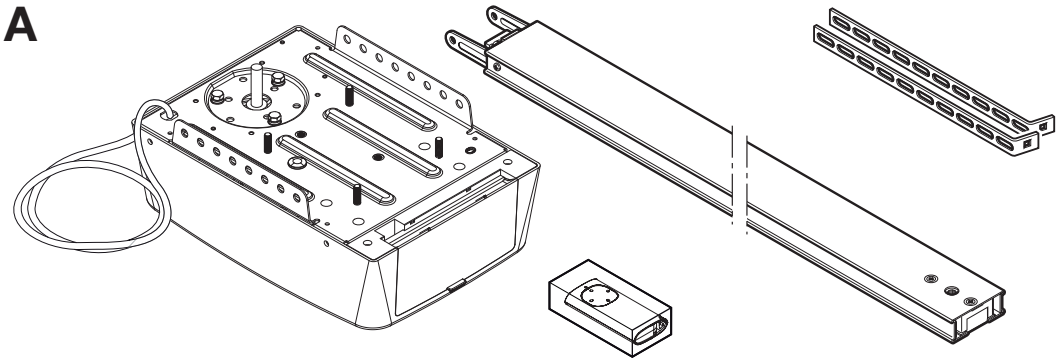
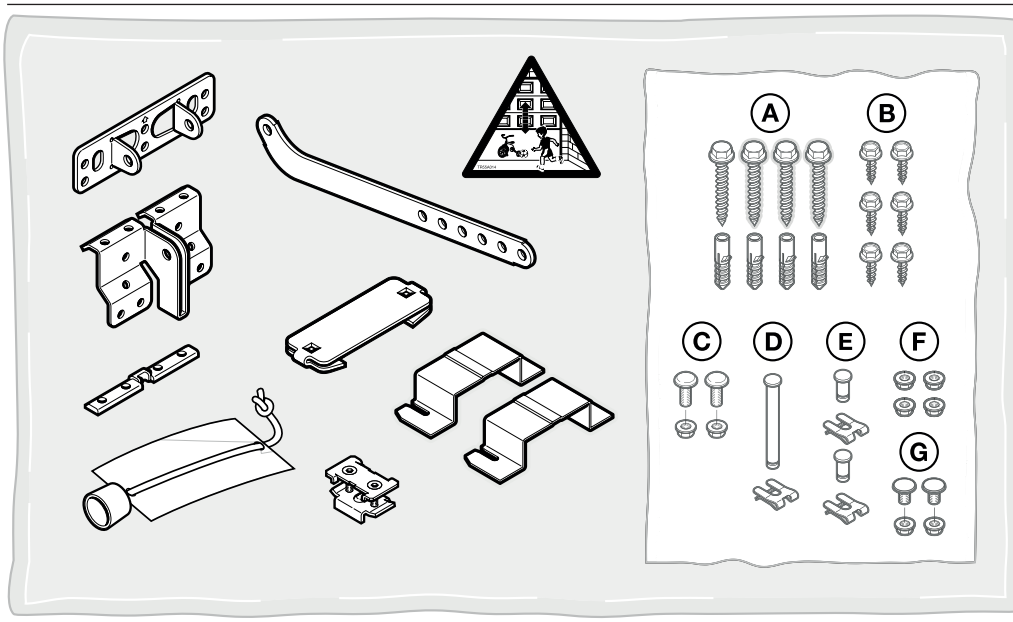


EN **Instructions for installation, operation and maintenance**
Garage door operator GA105 - GA106

290xxxx Rev. 1.0 / 09.2025 / AL

A





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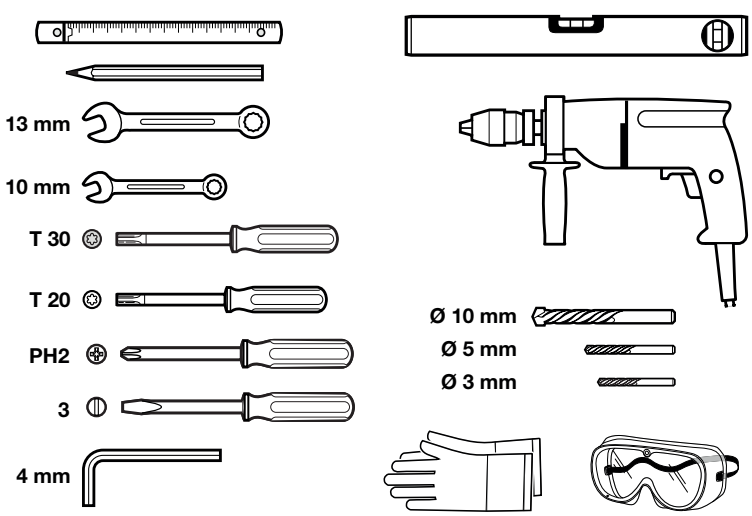

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Dear Customer,

Thank you for choosing a quality product from our company.

1 About this manual

These instructions are original operating instructions within the meaning of of EC Directive 2006/42/EC.

These instructions contain important information about the product.

- ▶ Read the manual carefully and in its entirety.
- ▶ Observe the instructions. In particular, follow the safety instructions and warnings.
- ▶ Instructions in languages other than German are summaries of this original operating manual.
- ▶ Keep the manual in a safe place.
- ▶ Ensure that the instructions are available at all times and can be viewed by the user of the product.

1.1 Applicable documents

The end user must be provided with the following documents for safe use and maintenance of the garage door operator:

- these instructions
- the garage door manual
- inspection log

1.2 Warning notices used

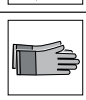
The general warning symbol indicates a hazard that may result in **injury** or **death**. In the text, the general warning symbol is used in conjunction with the following warnings. In the illustrations, an additional note refers to the explanations in the text section.
⚠ DANGER
Indicates a hazard that will immediately result in death or serious injury.
⚠ WARNING
Indicates a hazard that could result in death or serious injury.
⚠ CAUTION
Indicates a hazard that could result in minor or moderate injury.
CAUTION
Indicates a hazard that may result in damage or malfunction of the product.

1.3 Symbols used

In the illustrations, installation on a sectional door is indicated by **a**, and on an up-and-over door with **b**. In the event of installation deviations on an up-and-over doors are also shown.

	**a** = Sectional door
	**b** = Up-and-over door

Symbols

	Important note on avoiding personal injury and damage to property
	Correct arrangement or activity
	Incorrect arrangement or operation
	Minimal effort
	Significant force required
	Observe smooth operation
	Check
	Power failure
	Power restored
	Wear protective gloves
	See text section
	Factory setting

1.4 Abbreviations used

Colour code for cables, individual wires and components
The abbreviations for the colours of cables and conductor identification and components follow the internationalcolour code according to IEC 60757:

BK	Black	**BU**	Blue
BN	Brown	**GY**	Grey
YE	Yellow	**WH**	White
GN	Green	**RD**	Red
OG	Orange	**RS**	Pink
VT	Violet		

1.5 Item descriptions used

IT1b-1	Internal button
EL201 / EL301	One-way photocell (2-wire)
SKS	Closing border protection
STV-8k2	Wicket door contact with 8k2 resistor

1.6 Definitions used

Hold-open time

Waiting time during automatic closing before the door closes from the gate end position OPEN.

Automatic closing (hold-open time)

After the set hold-open time has elapsed, the door closes automatically from the gate end position OPEN.

Impulse sequence control

The programmed radio code impulse or a button triggers the pulse sequence control. Each time it is activated, the gate starts in the opposite direction to the last direction of travel or stops moving.

Learning movements

The operator learns the travel distances and forces required for the door to move the door.

Normal operation

Normal operation is a gate movement with programmed travel distances and forces.

Safety return / Reversing

Gate movement in the opposite direction when a protective device or the force limitation is activated.

Soft stop

The range in which the gate moves slowly in order to gently reach the end position.

Soft start

The range in which the door starts slowly.

Partial opening

Individually adjustable second opening height.

Timeout

A defined period of time within which an action is expected , e.g. menu selection or function activation. If this period elapses without an action, the operator automatically reverts to its previous state.

Door system

Door with operator.

Doors under thermal stress

Doors that are installed on the south side, for example, and are therefore exposed to higher levels of solar radiation. These doors may expand and may require more clearance under the ceiling.

Travel distance

Distance travelled by the door from the door end position OPEN to the CLOSED position.

Factory reset

Resetting the programmed values to the delivery state / the factory settings.

2 Safety instructions

⚠ WARNING

Risk of injury if the instructions for installation, operation and maintenance are not followed.

These instructions contain important information for the safe use of the product. Possible hazards are specifically indicated.

- ▶ Read these instructions carefully.
- ▶ Follow the safety instructions in these instructions.
- ▶ Keep the instructions accessible.

2.1 Intended use

- The garage door operator is intended exclusively for use of spring-balanced sectional and up-and-over doors, weight-balanced up-and-over doors, swing doors, sliding doors and side sectional doors in private/non-commercial use, as well as for underground and collective garages with low usage.
- Please observe the manufacturer's instructions regarding the door and operator combination. Possible hazards within the sense of EN 13241-1 are avoided by the design and installation in accordance with our specifications. Door systems located in public areas and only equipped with a protective device, e.g. force limitation, may only be operated under supervision.
- The garage door operator is designed for operation in dry rooms.

2.2 Improper use

- The garage door operator must not be used on doors without a safety catch.
- The garage door operator must not be installed outdoors, and parts of the door must not protrude into public footpaths or roads.
- The garage door operator must not be operated in potentially explosive environments.
- The operator is not designed for use with stiff doors, i.e. doors that cannot can no longer be opened or closed manually, or can only be done so with great difficulty.

2.3 Staff qualifications

Requirements are placed on the persons carrying out work on the product. The groups of persons are classified as follows:

2.3.1 Operators

The operator is responsible for the structural facility in which the product is used. The operator has the following tasks:

- Instruction of users.
- Compliance with statutory occupational safety obligations.
- Compliance with applicable safety, accident prevention and environmental protection regulations.
- Provision and observance of documentation.
- Ensuring that the product is always in a technically sound condition.
- Ensuring the separation of vehicle and pedestrian traffic by means of appropriate measures. Structural separation such as a footpath next to the carriageway, supplemented by warning notices and appropriate signage.

2.3.2 Qualification of the competent person

The competent person is responsible for the installation, commissioning, maintenance, dismantling and disposal of the product. The following points must be observed:

- Work may only be carried out by qualified personnel who are familiar with installation technology and the applicable safety regulations.
- According to EN 12635, a competent person is a person who has the appropriate training, qualified knowledge and practical experience to correctly and safely assemble a gate system, to test and maintain a door system correctly and safely. Observe possible hazards according to EN 12604 and EN 12453.
- Electrical installations may only be carried out by qualified electricians.

Modifications made by the customer may invalidate the CE conformity.

2.3.3 Users

Users may perform work during operation and maintenance of the product. Requirements for users:

- Trained by the operator on the product.
- Familiarity with these instructions.

2.4 Safety instructions for assembly, maintenance, repair and dismantling

⚠ DANGER

Compensating springs are under high tension.

Adjusting or loosening the compensation springs can cause serious injury!

- ▶ For your own safety, only allow a qualified person to carry out work on the door's counterbalance springs and, if necessary, maintenance and repair work!
- ▶ Never attempt to replace, adjust, repair or move the counterbalance springs for weight balancing the door or their brackets yourself.
- ▶ Also check the entire door system (hinges, gate bearings, cables, springs and fastenings) for wear and tear and any damage.
- ▶ Check for rust, corrosion and cracks.

Faults in the gate system or incorrectly aligned doors can lead to serious injury!

- ▶ Do not use the gate system if repairs or adjustments need to be carried out!

⚠ DANGER

Risk of death due to a person being trapped!

For garages without a second access, an emergency release from the outside is required to prevent a person who is trapped and can no longer free themselves. This must be ordered and installed separately.

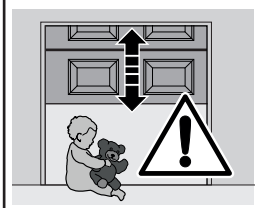
- ▶ Check the emergency release inside and outside monthly to ensure that it is in good working order!
- ▶ Any faults or defects must be rectified immediately.

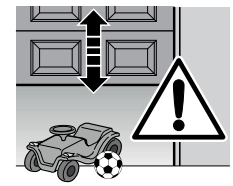
⚠ WARNING

Risk of injury due to unintended door movement!
Incorrect handling of the operator and control unit can trigger unwanted door and trap people or objects.

- ▶ Follow all instructions contained in this manual.
- ▶ Attach control units at a minimum height of 1.5 metres out of the reach of children.
- ▶ Install fixed control devices (such as e.g. push buttons) within sight of the door, but away from moving parts.

⚠ WARNING





Risk of injury from door movement!
When the gate is moving, injuries or damage may occur in the vicinity of the door.

- ▶ Ensure that no children play near the door system.
- ▶ Ensure that there are no persons or objects in the movement area of the door.
- ▶ If the door system only has one safety device, only operate the garage door drive if you can see the door's range of motion.
- ▶ Monitor the door's movement until it has reached its end position.
- ▶ Only drive or walk through gate openings of remote-controlled gate systems once the gate has come to a complete standstill!
- ▶ Never stand under the open door

Only competent persons in accordance with EN 12635 may carry out installation, maintenance, repair and dismantling of the door system and the operator.

- ▶ In the event of an operator failure, immediately instruct a qualified person to inspect/repair it.

2.5 Safety instructions for installation

- During installation work, the competent person must comply with the applicable regulations for occupational safety, for the operation of electrical equipment and the national guidelines. Hazards according to EN 13241-1 are avoided through design and installation in accordance with our specifications. After completion of the assembly, declare conformity with EN 13241-1 in accordance with the applicable with EN 13241-1.
- The garage ceiling must be able to securely mount the door/operator. For high/lightweight ceiling, use additional struts for fastening.
- When working on the door system, disconnect the mains plug and, if necessary, the emergency battery plug. Secure the door system against unauthorised restarting.

⚠ DANGER

Danger to life due to a person being trapped!

- ▶ See warning notice in *section 3.6*

⚠ WARNING

Risk of injury due to unsuitable fastening materials.
- See warning notice in *section 3.4*

Danger to life due to hand rope
- See warning notice in *section 3.3*

Risk of injury due to unwanted door movement
- See warning notice in *section 3.3*

Risk of injury from fast-closing gate
- See warning notice in *section 3.5*

2.6 Safety instructions for installation

⚠ DANGER

Contact with the mains voltage poses there is a risk of fatal electric shock.

- Before carrying out any work on the system, disconnect the mains plug and, if applicable, the emergency battery plug. Secure the gate system against unauthorised re-entry.
- Only allow electrical connections to be carried out by a qualified electrician.
- If the mains connection cable is damaged, have it replaced by a qualified electrician.
- Electrical installations on site must comply with the protection requirements (230/240 V AC, 50/60 Hz).

CAUTION

External voltage at the connection terminals

External voltage (230/240 V AC) at the control terminals will result in destruction of the electronics.

Control and supply cables laid together will cause malfunctions.
- Lay the control cables (24 V DC) of the operator and supply cables (230/240 V AC) separately.

2.7 Safety instructions for commissioning and operation

⚠ DANGER

Contact with the mains voltage poses the risk of fatal electric shock.

- See warning notice in *section 4*

⚠ WARNING

Risk of injury due to incorrectly selected door type
- See warning notice in *section 4.3*

Risk of injury due to malfunctioning safety devices
- See warning notice in *section 4.3*

Risk of injury due to door movement
- See warning notice in *section 10*

Risk of injury from rapidly closing door
- See warning notice in *section 10.5*

⚠ CAUTION

Risk of crushing in the guide rail
- See warning notice in *section 10*

Risk of injury from cable bell
- See warning notice in *section 10*

2.8 Protective devices

⚠ WARNING

Risk of injury due to malfunctioning safety devices.
- See warning notice in *section 7.2*

2.9 Safety instructions for testing and maintenance

⚠ WARNING

Risk of injury due to unexpected door movement.
- See warning notice in *section 11*

3 Assembly

3.1 Check the door/door system

⚠ DANGER

Compensating springs are under high tension.

Adjusting or loosening the compensation springs can cause serious injury!

- For your own safety, only allow a qualified person to carry out work on the door's counterbalance springs and, if necessary, maintenance and repair work!
- Never attempt to replace, adjust, repair or move the counterbalance springs for weight balancing the door or their brackets yourself.
- Also check the entire door system (hinges, gate bearings, cables, springs and fastenings) for wear and tear and any damage.
- Check for rust, corrosion and cracks.

Faults in the gate system or incorrectly aligned doors can lead to serious injury!

- Do not use the gate system if repairs or adjustments need to be carried out!

The design of the garage door operator is not intended for operation of stiff doors.

The door must be in perfect mechanical condition so that it can also be easily operated by hand(EN 12604).

- **Follow the manufacturer's instructions.**
- Lift the unlocked door approximately one metre and let go. The door should remain in this position and should not move either downwards or upwards. If the door does move in either of these directions, there is a risk that the counterweights or weights are not adjusted correctly or are defective. In this case, increased wear and tear and malfunctions of the door system are to be expected.
- Check whether the door opens and closes correctly.
- Disable any mechanical locks on the door that are not required for operation with a garage door opener. This includes, in particular, the locking mechanisms of the door lock.
- Check the supplied mounting materials to ensure they are suitable for the intended installation location.

3.2 Required clearance

- The clearance between the highest point of the door track and the ceiling must be at least 35 mm; for doors under thermal load, it must be at least 75 mm.
  See Figure 1.1a on ***page 24*** and 1.2b on ***page 28***.
- If there is less free space, the drive can also be mounted behind the open gate, provided there is sufficient space. In these cases, an extended push rod must be used, which must be ordered separately.
- The garage door operator can be positioned up to 500 mm off-centre. The necessary socket for the electrical connection should be located approx. 500 mm from the operator head.

- Check these dimensions!

3.3 Preparing the door

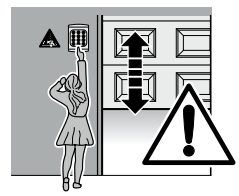
⚠ WARNING

Danger to life from hand rope

A running hand rope can cause strangulation.

- Remove the hand rope when installing the operator (see Figure 1.3a on ***page 24***).

⚠ WARNING



Risk of injury due to unintended door movement!

Incorrect handling of the operator and control unit can trigger unwanted door and trap people or objects.

- Follow all instructions contained in this manual.
- Attach control units at a minimum height of 1.5 metres out of the reach of children.
- Install fixed control devices (such as e.g. push buttons) within sight of the door, but away from moving parts.

- Remove the entire mechanical door locking mechanism on the sectional door. See Figure 1.2a/1.3a on ***page 24***.
- For an off-centre reinforcement profile
- on the sectional door, install the operator bracket on the nearest reinforcement profile on the right or left.
  See Figure 1a on ***page 24***.
- For sectional doors with a central door reinforcement, mount the lintel joint and the operator bracket max. 500 mm off-centre. See Figure 1.5a on ***page 26***.
- Set the mechanical door locks on the up-and-over door out of operation. For door models not listed, fix the latches on site. See Figures 1.3b/1.4b/1.5b on ***page 28***.
- Contrary to the illustrations, for up-and-over doors with a wrought iron door handle, install the lintel bracket ceiling bracket and the operator bracket max. 500 mm off-centre. See Figure 1.6b/1.7b on ***page 29***.

NOTE

For N80 doors with wooden infill, use the lower holes in the lintel joint for installation. See Figure 1.7b on ***page 29***.

3.4 Mounting the guide rail

⚠ WARNING

Risk of injury due to unsuitable fastening materials.
Unsuitable fastening materials may cause the operator to become detached.

- The installer must check the suitability of the supplied dowels and screws for the installation site. As the supplied fastening materials are suitable for concrete (≥ B15) but are not approved by the building authorities, you may need to use other fastening materials (see Figures 1.6a/1.8b/2.4).

CAUTION

- Before mounting the guide rail on the lintel or under the ceiling, the guide carriage must be pushed approx. 200 mm from the end position Door Closed towards the end position Door Open while engaged. This is no longer possible while engaged once the end stop and the drive are mounted. See Figure 2.1 on ***page 31***.
- For divided rails and for operators for underground and collective garages, it is necessary that the guide rail must be fixed with a second suspension system under the garage ceiling. See Figure 2.4 and Figure 2.5 on ***page 31***.
- Note the installation direction of the door operator depending on the door fitting and door type. See Figure 3a - 3.1b on ***page 32***.

CAUTION

Risk of damage from dirt.

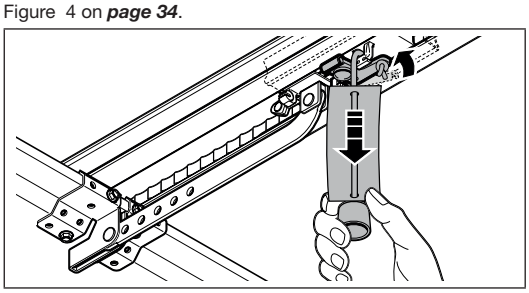
Drilling dust and chips can lead to malfunctions.

▶ Cover the operator during drilling work.

3.5 Operating modes of the guide rail

3.5.1 Manual operation

The guide carriage is uncoupled from the belt/strap lock so that the door can be moved manually. To disengage the guide carriage: Pull on the rope of the mechanical release. See Figure 4 on ***page 34***.

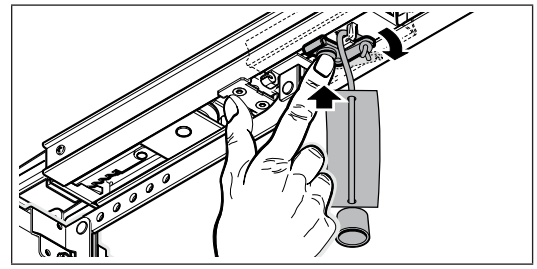


3.5.2 Automatic operation

The belt/strap lock is engaged in the guide carriage so that the gate can be moved with the operator. To prepare the guide carriage for engagement:

▶ Press the green button. See Figure 6 on ***page 34***.

▶ Move the belt/strap as far as possible in the direction of the guide carriage until the belt/strap lock engages it.



3.6 Emergency release

⚠ DANGER

Risk of death due to a person being trapped!

For garages without a second access, an emergency release from the outside is required to prevent a person who is trapped and can no longer free themselves. This must be ordered and installed separately.

▶ Check the emergency release inside and outside monthly to ensure that it is in good working order!

▶ Any faults or defects must be rectified immediately.

⚠ WARNING

Risk of injury if the door closes quickly

If the emergency release is activated when the gate is open, there is a risk that the door may close on you if the springs are weak, broken or defective or due to insufficient weight distribution.

▶ Only activate the emergency release when the door is closed!

The rope bell for mechanical release must not be installed higher than than 1.8 m above the garage floor. Depending on the height of the garage door, it may be necessary to extend the rope on site. See Figure 7 on ***page 35***.

▶ When extending the rope ensure that the rope may not get caught to a roof rack system or other protrusions on the vehicle or door.

3.6.1 Mechanische Entriegelung durch Notentriegelungsschloss

Mechanical unlocking by means of emergency release lock
For garages without a second access point, an emergency release from the outside is required in addition to the internal release, to prevent a person who is trapped from being unable to free themselves. This must be ordered and installed separately.

▶ Operate the emergency unlocking lock when the door is closed. The door is now unlocked and should be easy to open and close by hand.

▶ Check the emergency release monthly to ensure it is in good working order functionality.

3.7 Fit end stop for push-on safety device

- Optionally, an end stop can be fitted in the door closed end position to ensure that the anti-lift device functions correctly.
- Place the end stop for the door-closed end position between the guide carriage and the lintel-ceiling connection into the guide rail and slide the door manually into the door closed end position. Move the door in CLOSE position. The end stop will moved into the correct position. See Figure 5.2 on ***page 34***.
- Fix the end stop for the door closed end position.
- Press the green button. See Figure 6 on ***page 34***.
- Move the belt towards the guide carriage until the belt lock engages with it.

NOTE

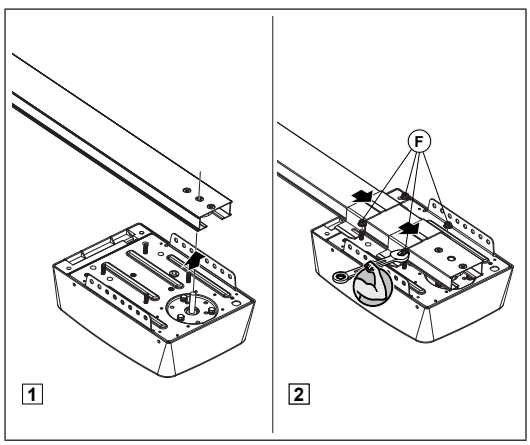
If the door is difficult to move by hand into its end-position the door mechanism is too stiff to operate with the garage door operator and must be checked.

3.8 Tension of the toothed belt/synthetic belt

The toothed belt/synthetic belt of the guide rail has a factory-set optimum pre-tension. During the start-up and braking phases, large doors may experience a brief temporary slippage of the belt from the rail profile. However, this effect does not cause any technical issues and does not adversely affect the function and service life of the operator.

3.9 Mounting the operator head

- Fit the operator head. The cover of the connection compartment must face the garage door.



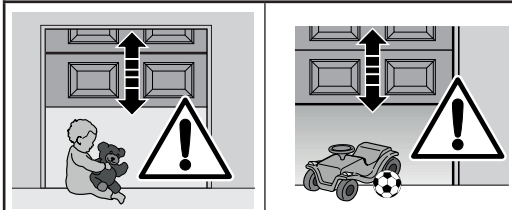
4 Commissioning/connection of additional components

⚠ DANGER

Contact with the mains voltage poses there is a risk of fatal electric shock.

- Before carrying out any work on the system, disconnect the mains plug and, if applicable, the emergency battery plug. Secure the gate system against unauthorised re-entry.
- Only allow electrical connections to be carried out by a qualified electrician.
- If the mains connection cable is damaged, have it replaced by a qualified electrician.
- Electrical installations on site must comply with the protection requirements (230/240 V AC, 50/60 Hz).

⚠ WARNING

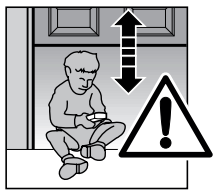


Risk of injury from door movement!

When the gate is moving, injuries or damage may occur in the vicinity of the door.

- Ensure that no children play near the door system.
- Ensure that there are no persons or objects in the movement area of the door.
- If the door system only has one safety device, only operate the garage door drive if you can see the door's range of motion.
- Monitor the door's movement until it has reached its end position.
- Only drive or walk through gate openings of remote-controlled gate systems once the gate has come to a complete standstill!
- Never stand under the open door

⚠ WARNING



Risk of injury due to unintended door movement!
Pressing a button on the hand-held transmitter can lead to unwanted gate movement and injure people.

- ▶ Ensure that hand-held transmitters are kept out of the reach of children and are only used by persons familiar with how the remote-controlled door operates!
- ▶ You must always operate the hand-held transmitter with visual contact to the gate if it is only equipped with one safety device!
- ▶ Only drive or walk through gate openings of remote-controlled gate systems once the gate has come to a complete stop!
- ▶ Never stand under the open gate!
- ▶ Please note that a button on the hand-held transmitter may be pressed accidentally (e.g. in your trouser pocket or handbag) and this may cause the door to move unintentionally.

⚠ WARNING

Risk of injury if the door closes quickly
If the emergency release is activated when the gate is open, there is a risk that the door may close on you if the springs are weak, broken or defective or due to insufficient weight distribution.

- ▶ Only activate the emergency release when the door is closed!

⚠ WARNUNG

Risk of injury due to incorrectly selected door type
Malfunction of the gate system can lead to injuries.

- ▶ Only select the menu for the existing door system!

⚠ CAUTION

Risk of crushing in the guide rail
Reaching into the guide rail while the gate is moving can result in crushing injuries.

- ▶ Do not reach into the guide rail while the door is moving

⚠ CAUTION

Risk of injury from the rope bell
If you hang on the rope bell, you could fall and injure yourself. The operator may break off and injure persons below, damage objects or be destroyed itself.

- ▶ Do not hang from the rope bell with your body weight.

CAUTION

Damage caused by the mechanical unlocking
If the mechanical release rope becomes caught on a roof rack system or other protrusions of the vehicle or the gate, this can cause damage.

- ▶ Ensure that the rope cannot get caught.

CAUTION

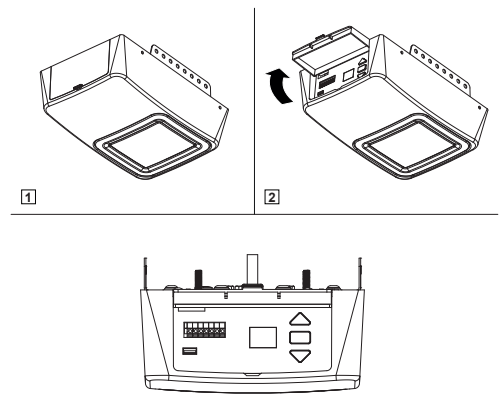
External voltage at the connection terminals
External voltage (230/240 V AC) at the control terminals will result in destruction of the electronics.

Control and supply cables laid together will cause malfunctions.

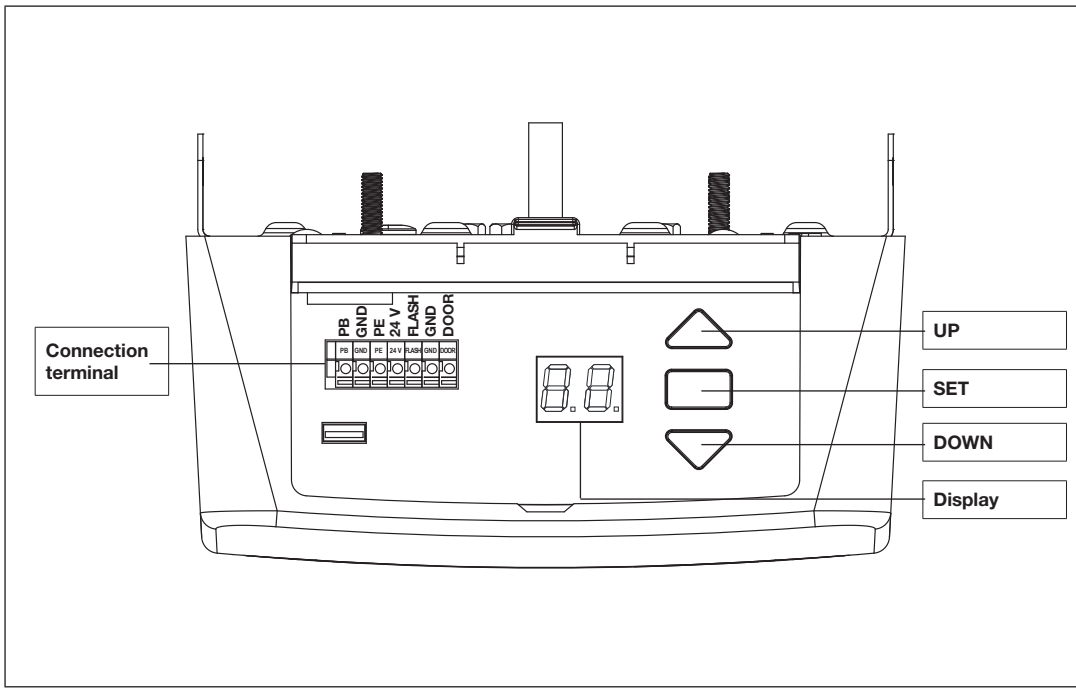
- ▶ Lay the control cables (24 V DC) of the operator and supply cables (230/240 V AC) separately.

4.1 Opening the connection compartment

To commission and connect the accessories, the cover flap of the operator housing must be opened in order to access the buttons, display and connection terminals of the control board.



4.2 Overview of connections and programming buttons



4.2.1 Pin assignment

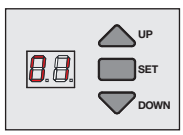
PB / **GND**	Connection for control button
PE / **GND**	Connection for 2-wire photocell (EL201 / EL301)
24 V / **GND**	Power supply for external consumers 24 V DC, max. 200 mA
FLASH / **GND**	Connection for warning light 24 V DC, max. 3 W
DOOR / **24 V**	Connection for wicket door contact 8k2

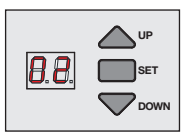
4.3 Teaching in the operator

⚠ WARNING

Risk of injury due to malfunctioning of safety devices
As the obstacle detection and safety devices are not functioning during the learning process, it is essential absolutely necessary for the installer to remain with the device and prevent people from approaching the gate.

During the learning process, door-specific data is recorded, including the travel distance and the forces required during the opening and closing movements and stored in a manner that is protected against power failure. This data is only valid for this gate.





1. Plug in the mains plug
2. Press and hold the ***SET*** button for approx. 3 seconds until 01 appears on the display.
3. Then press the ***SET*** button again, ¯ flashes continuously.
4. Press the ***UP*** button and hold it down to open the door in dead man's mode to the desired "**door open**" position.
5. To save the set "door open" position, press the the ***SET*** button, 02 appears on the display.
6. Press the ***SET*** button again, _ flashes continuously.
7. Press and hold the ***DOWN*** button and hold it down to set the door in dead man's mode to the desired "**door closed**" position.
8. To save the set "**door closed**" position, press the ***SET*** button.
9. The force learning process starts automatically. The door will open, OP lwill light up during the opening. Afterwards the door will close , CL lights up during the closing process.
10. After the learning process _ appears in the display. The LED will light up.

NOTE

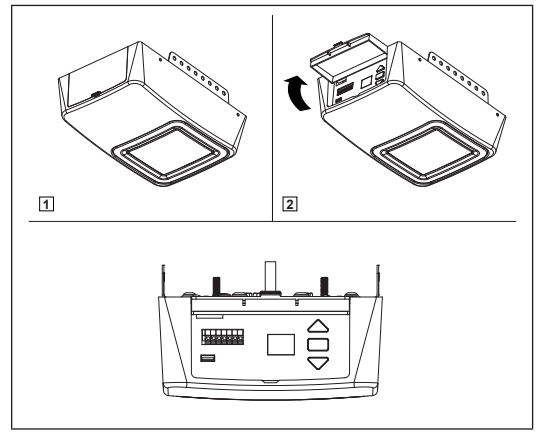
Please remain in the garage during the learning process to prevent to be locked out. The learning run ends in the "D**oor Closed**".

5 Installing accessories

Observe the warning and safety instructions ***4 Commissioning/connection of additional components on page 11***

5.1 Electrical connection / connection terminals

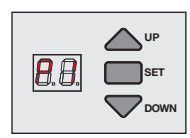
(see ***9 Connection overview on page 20***)

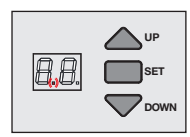


- The connection terminals can be accessed after opening the cover flap of the operator housing. The terminals to which additional components such as potential-free push buttons, and safety devices such as photocells or wicket door switches, carry only a non-hazardous low voltage of max. 24 V DC.
- Disconnect the mains plug before installation!
- All accessories may only load the operator with **max. 200 mA**.

5.2 Integrated radio receiver module

5.2.1 Programming the handheld transmitter (full opening)

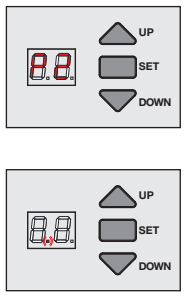




1. Press the ***UP*** button and hold it down until P1 appears on appears on the display.
2. Briefly press the ***SET*** button, the centre dot will flash on the display. The learning window is now activated for approx. 10 seconds.
3. Press the desired button on the handheld transmitter, release it, press and release the button again. The display will show the number of codes previously programmed for this function, e.g. 01, for approx. 2 seconds.
4. The handheld transmitter is now successfully programmed.

The handheld transmitter is now ready for the pulse function (open-stop-close-stop-open, etc.).

5.2.2 Programming the handheld transmitter (partial opening)



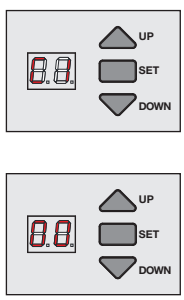
1. Press the ***UP*** button and hold it down until P 1 appears on appears on the display.
2. Press the ***UP*** button briefly, P2 will appear on the display.
3. Briefly press the ***SET*** button, the centre dot will flash on the display. The learning window is now activated for approx. 10 seconds.
4. Press the desired button on the handheld transmitter, release it, press and release the button again. The display will show the number of codes previously programmed for this function, e.g. 0 1, for approx. 2 seconds.
5. The handheld transmitter is now successfully programmed.

The handheld transmitter is now programmed for the partial opening function.

NOTE

A maximum of 40 codes can be programmed into the radio module memory. If the memory is full, additional codes will be deleted when programming the first codes programmed will be deleted/overwritten.

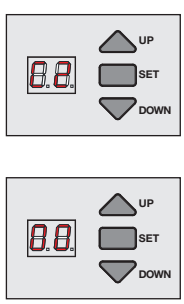
5.2.3 Deleting the radio receiver for the function of completely opening



1. Press the ***UP*** button and hold it down until P 1 appears on appears on the display.
2. Press the ***UP*** button twice briefly until C 1 appears on the display.
3. Press the ***SET*** button and hold it down until 00 appears on appears on the display.

All stored codes for the pulse function are now deleted; it is not possible to delete individual handheld transmitters!

5.2.4 Deleting the radio receiver for the function of partial opening



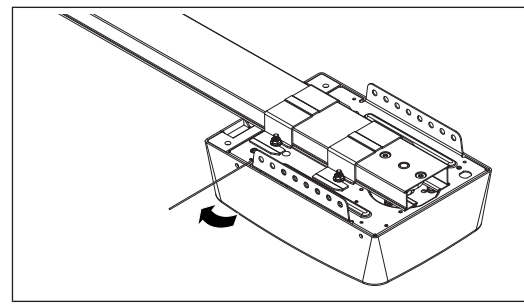
1. Press the ***UP*** button and hold it down until P 1 appears on appears on the display.
2. Press the ***UP*** button 3 times briefly until C2 appears on the display.
3. Press the ***SET*** button and hold it down until 00 appears on appears on the display.

All stored codes for the partial opening function are now deleted; it is not possible to delete individual handheld transmitters!

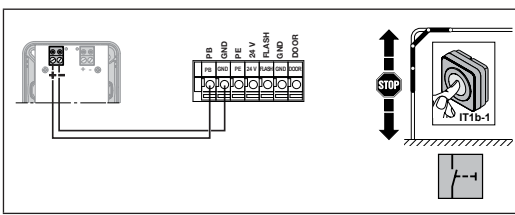
5.2.5 Aligning the antenna of the radio module

For optimum reception and to avoid malfunctions (e.g. double pulses), the wire antenna of the integrated radio module must be aligned.

- ▶ Extend the antenna at an angle of 90° to the operator head.



5.3 External "pulse" buttons for triggering/stopping door movements



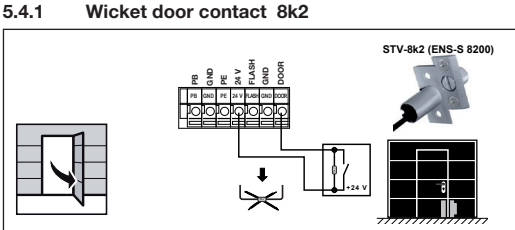
Button (potential-free closing contact, e.g. interior or key switch) as follows:

- ▶ First contact → PB terminal (pulse input).
- ▶ Second contact → terminal GND (0 V).
  Connect several buttons in parallel!

5.4 Wicket door contact / stop contact

A wicket door contact with an 8k2 resistor can be connected to the wicket door input.

5.4.1 Wicket door contact 8k2



Connect a wicket door contact with an 8k2 resistor (STV-8k2/ ENS-S 8200) to stop the operator as follows:

- ▶ Remove the 8k2 resistor from terminals DOOR and 24 V.
- ▶ Connect the wicket door contact to terminal DOOR (stop-input) and terminal 24 V (+24 V DC).

NOTE

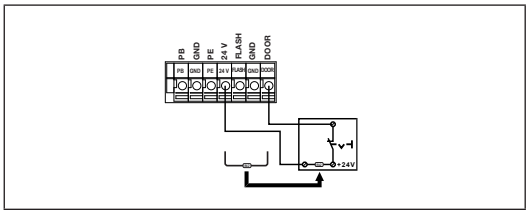
The wicket door contact (**8.2 kΩ, ± 10%**) must comply with **Cat.2 PL c** according to **EN 13849-1**.

Opening the contact will immediately stop any gate movements and prevent them permanently.

The display shows error code E4.

- ▶ If no wicket door contact is connected, an 8k2 resistor must be connected to the DOOR and 24 V terminals.

5.4.2 Stop contact



Stop contact (this must be a forced-opening contact) for stopping the operator (stop or emergency stop circuit) as follows:

- ▶ Remove the 8k2 resistor from terminals DOOR and 24 V.
- ▶ Connect the 8k2 resistor in the switch in series with the potentialal-free normally closed contact of the stop switch.
- ▶ Connect the stop switch supply line to terminal DOOR (stop input) and terminal 24 V (+24 V DC).

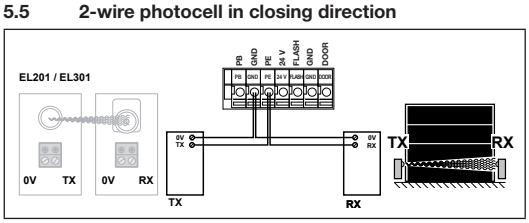
NOTE

Opening the contact will immediately stop any gate movements and prevent them permanently.

The display shows error code E4.

- ▶ If no wicket door contact is connected, an 8k2 resistor must be connected to the DOOR and 24 V terminals.

5.5 2-wire photocell in closing direction

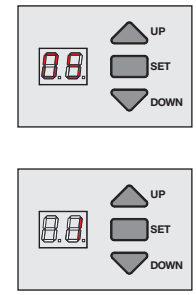


- ▶ Connect the photocell connection RX or TX to terminal PE
- ▶ (safety input).
- ▶ Connect the 0V photocell connection to terminal GND (0 V).
- ▶ Menu 05 must be set to 1.

NOTE

- If the photocell is interrupted during closing, the system reverses in the lifting direction.
- The photocell is only active in the door-closed direction.
- ▶ If no photocell is connected, menu 05 must be set to 0.

5.5.1 Activate/deactivate 2-wire photocell

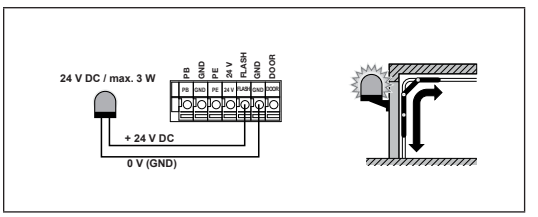


1. Press the ***UP*** and ***DOWN*** buttons simultaneously and hold them down until 04 or 05 appears on the display.
2. To activate the photocell , briefly press the ***UP*** button 1 will appear on the display. To deactivate the photocell , briefly press the ***DOWN*** button, 0 will be appears on the display.
3. Briefly press the ***SET*** button to confirm your selection.

5.6 Warning light connection

A 24 V DC warning light can be connected to the warning light output.

- ▶ The warning light is connected to the FLASH (warning light output +24 V DC, not potential-free) and GND (0 V).
- The warning light is activated every time the door moves.



CAUTION

Damage to electronics due to overload

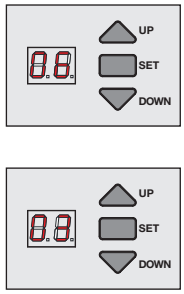
The warning light output is rated at a maximum of

- **24 V DC, max. 3 W** !
- ▶ Overloading the warning light output will result in damage to the electronics!

6 Special functions

6.1 Setting/changing the partial opening position

The ***partial opening position*** can be set in this menu.



1. Press the ***UP*** and ***DOWN*** buttons simultaneously and hold them down until 04 or 05 appears on the display.
2. Press the ***UP*** button several times until 06 appears on the display.
3. Press the ***SET*** button briefly, and the set value, e.g. 03, will be displayed.
4. Briefly press the ***UP*** or ***DOWN*** button to change the value.
5. Briefly press the ***SET*** button to confirm your selection.

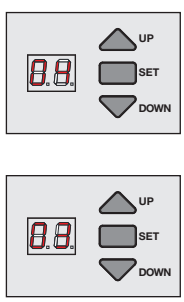
Value	Partial opening height
00	Funktion deaktiviert
01	approx. 100 mm
02	approx. 200 mm
03	approx. 300 mm
...	etc.

NOTE

The maximum adjustable partial opening height depends on the available door height.

6.2 Automatic closing

The ***automatic closing*** can be set in this menu.



1. Press the ***UP*** and ***DOWN*** buttons simultaneously and hold them down until 04 appears on the display.
2. Press the ***SET*** button briefly, and the set value, e.g. 03, will be displayed.
3. Briefly press the ***UP*** or ***DOWN*** button to change the value.
4. Briefly press the ***SET*** button to confirm your selection.

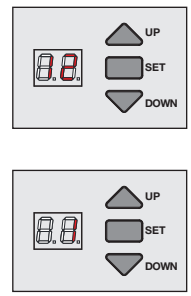
Value	Hold-open time
00	Funktion deaktiviert
01	10 sec.
02	20 sec.
03	30 sec.
...	usw.
54	540 sec. (maximum value)

NOTE

Menu 04 is only visible if a photocell is activated in menu 05. If not, menu 04 is hidden and the auto-close function cannot be activated,

6.3 Standby mode

In this menu, standby mode can be activated or deactivated.



1. Press the ***UP*** and ***DOWN*** buttons simultaneously and hold them down until 04 or 05 appears on the display.
2. Press the ***UP*** button several times until 12 appears on the display.
3. Press the ***SET*** button briefly, and the set value, e.g. 0, will be displayed.
4. Briefly press the ***UP*** or ***DOWN*** button to change the value.
5. Briefly press the ***SET*** button to confirm your selection.

0 = Standby activated

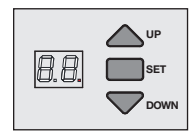
1 = Standby deactivated

NOTE

Standby mode is activated as soon as the operator does not move and the light time of 180 seconds has elapsed.

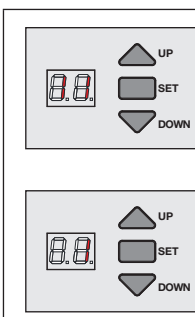
In standby mode, the power supply for external devices and the 2-wire photocell is switched off.

In standby mode, the right dot on the display lights up.



6.4 Factory reset

To reset the operator to factory settings, proceed as follows:



1. Press the ***UP*** and ***DOWN*** buttons simultaneously and hold them down until 04 or 05 appears on the display.
2. Press the ***UP*** button several times until 11 appears on the display.
3. Press the ***SET*** button briefly, 0 will appear on the display.
4. Briefly press the ***UP*** button, 1 appears on the display.
5. Briefly press the ***SET*** button to confirm your selection.
6. U flashes on the display.

NOTE

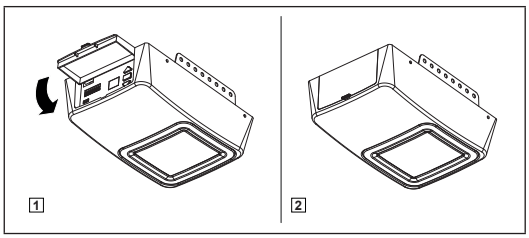
A factory reset will

- delete the door data (learned forces and travel distance)
- all menu items are reset to factory defaults
- delete all transmitter codes

In the delivery state, the door data is deleted and the operator can be programmed immediately.

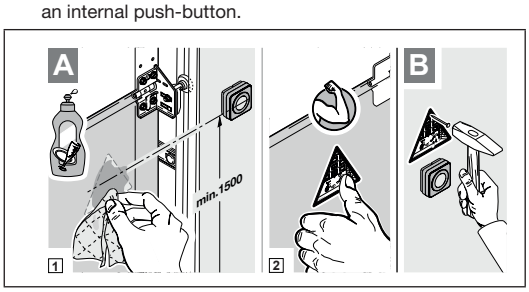
7 Final work

After completing all the necessary steps for commissioning and connecting the accessories, the cover flap of the operator housing must be closed again.



7.1 Attaching the warning sign

- Permanently attach the warning sign against trapping to a conspicuous, clean and degreased location, e.g. next to an internal push-button.



7.2 Function test

⚠ WARNING

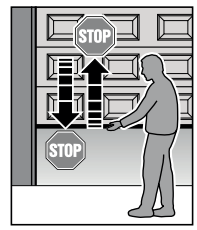
Risk of injury due to non-functioning safety devices

Non-functioning safety devices may result in injury in the event of a fault.

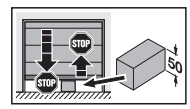
- After the learning runs, the commissioning engineer must check the function(s) of the safety device(s).

Only then is the system ready for operation.

Check the safety return:

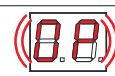
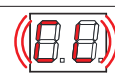


- Hold the door with both hands during approach → the operator must stop and engage the safety reverse.
- Hold the door with both hands while it is oppening → the operator must stop and engage the safety reverse.
- Place a 50 mm high test object in the centre of the door and close the door. The door system must stop and initiate the safety reverse as soon as the door reaches the test object.



- If the safety return fails, immediately commission a qualified person to inspect or repair.

7.3 Status indicator

	Door in end position Close
	Door in end position Open
	Gate in intermediate position
	Operator moves in the open direction
	Operator moves in closing direction
	Operator not programmed, perform teach in process
	Operator in standby mode

8 Malfunctions

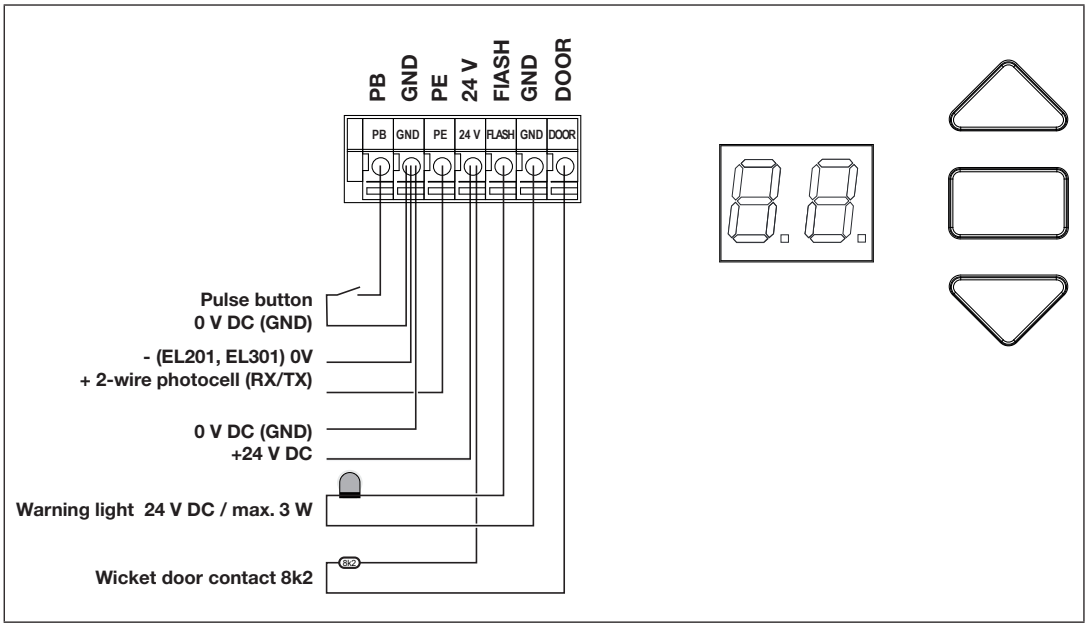
8.1 Error table

Code	Error/warning	Possible cause	Remedy
E0	Power supply too high/low	The mains voltage is too high or too low	Check the power supply (socket) of the operator.
E1	Hall circuit 1 fault	No signals from Hall circuit 1 detected	Send operator in for inspection. Replace operator.
		Door is blocked.	Check and correct the door run.
E2	Hall circuit 2 fault	No signals from Hall circuit 2 detected	Send operator in for inspection. Replace operator.
E3	Hall circuit fault	Different counter readings Hall 1 and Hall 2	Re-program the operator. Send operator in for inspection. Replace operator.
E4	Wicket door circuit has been active.	Wicked door circuit at terminals DOOR and 24 V was interrupted or opened during a door movement, see ***5.4 Wicket door contact / stop contact on page 15.***	Close the wicket door circuit.
	NOTE: If no wicket door contact is connected, check whether an 8k2 resistor is connected to the DOOR and 24 V terminals.		
E5	Internal error	Internal error	Replace the operator.
E6	Obstacle detection at during door opening.	Door runs sluggishly or unevenly.	Correct the door movement.
		There is an obstacle in the door area.	Remove the obstacle and, if necessary, reprogram the operatorernen.
E7	Internal error	Internal error	Replace the operator.
E8	Power supply too low	The mains voltage is too low,	Check the power supply (socket) of the operator.
		The door is difficult to open or close.	Check and correct the door movement.

8.2 Other malfunctions

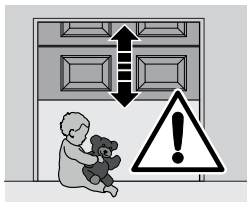
Error/warning	Possible cause	Remedy
Operator not functioning	No mains voltage available. Mains plug not connected.	Check the power supply (socket) of the operator.
Learning run does not start	Wicket door circuit interrupted	Check and close the wicket door circuit. Connection of the 8k2 resistor to terminal DOOR and 24 V.
	Photocell circuit interrupted. Photocell activated, but no available.	Check the photocell circuit. If no photocell is present, set menu 05 to 0
The operator can only be opened, closing not possible	Photocell circuit interrupted. Photocell activated, but no available	Check the photocell circuit. If no photocell is present, set menu 05 to 0
Automatic closing cannot be be activated	No photocell instsalled. Photocell is deactivated	Without a photocell, the automatic close function cannot be activated. Install the photocell and set menu 05 to 1..
When closing, the operator stops and opens approx. 300 mm. Obstacle detection when gate is closing.	Door runs sluggishly or unevenly.	Correct the gate movement.
	There is an obstacle in the door area.	Remove the obstacle and if necessary, reprogram the operator.
Handheld transmitter not working	Battery empty. Transmitter not programmed.	Replace the battery. Programme transmitter, see *5.2 on page 14*.
When the handheld transmitter is activated, the gate only opens a little.	The transmitter button is programmed for the partial opening function.	If necessary, press the transmitter button to programme the full opening function, see *5.2.1 on page 14*.

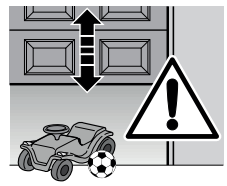
9 Connection overview



10 Operation

⚠ WARNING





Risk of injury from door movement!

When the gate is moving, injuries or damage may occur in the vicinity of the door.

- ▶ Ensure that no children play near the door system.
- ▶ Ensure that there are no persons or objects in the movement area of the door.
- ▶ If the door system only has one safety device, only operate the garage door drive if you can see the door's range of motion.
- ▶ Monitor the door's movement until it has reached its end position.
- ▶ Only drive or walk through gate openings of remote-controlled gate systems once the gate has come to a complete standstill!
- ▶ Never stand under the open door

⚠ CAUTION

Risk of crushing in the guide rail

Reaching into the guide rail while the gate is moving can result in crushing injuries.

- ▶ Do not reach into the guide rail while the door is moving

⚠ CAUTION

Risk of injury from the rope bell

If you hang on the rope bell, you could fall and injure yourself. The operator may break off and injure persons below, damage objects or be destroyed itself.

- ▶ Do not hang from the rope bell with your body weight.

CAUTION

Damage caused by the mechanical unlocking

If the mechanical release rope becomes caught on a roof rack system or other protrusions of the vehicle or the gate, this can cause damage.

- ▶ Ensure that the rope cannot get caught.

NOTE

Carry out the initial functional tests and the Commissioning or expanding the radio system inside the garage.

10.1 Instructing users

This operator can be used by

- children aged 8 and above
- persons with reduced physical, sensory or mental capabilities
- Persons with a lack of experience and knowledge.

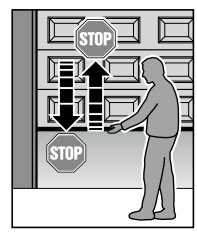
A condition for using the operator is that the children/persons mentioned above

- are supervised
- are instructed in its safe use
- understand the resulting dangers.

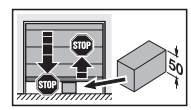
Children must not play with the operator.

- ▶ Show all users of the door system how to use the operator properly and safe operation of the operator.
- ▶ Demonstrate and test the mechanical release and the safety return.

10.2 Check the safety return



- ▶ Hold the door with both hands during approach → the operator must stop and engage the safety reverse.
- ▶ Hold the door with both hands while it is oppening → the operator must stop and engage the safety reverse.
- ▶ Place a 50 mm high test object in the centre of the door and close the door. The door system must stop and initiate the safety reverse as soon as the door reaches the test object.



- ▶ If the safety return fails, immediately commission a qualified person to inspect or repair.

10.3 Functions of the UP, SET and DOWN buttons during normal operation

In normal operation, the operator can be operated using the UP, SET and DOWN buttons as follows.

Button	Function
UP	Opening command
SET	Stop command
DOWN	Closing command

10.4 Functions of the various radio codes of the integrated receiver

10.4.1 Channel 1 / Pulse

In normal operation, the garage door operator works with pulse sequence control, which is triggered via the programmed radio code impulse (or external button):

1st pulse: → The door moves towards one end position.

2nd pulse: → The door stops.

3rd pulse: → The door moves in the opposite direction.

4th pulse: → The gate stops.

5th pulse: → as with pulse 1.

etc.

10.4.2 Channel 2 / Partial opening

The ***partial opening*** function is executed.

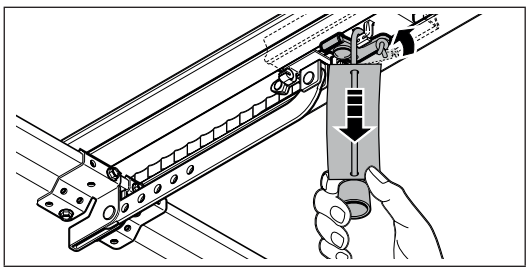
10.5 What to do in the event of a power failure

⚠ WARNING

Risk of injury if the door closes quickly
If the emergency release is activated when the gate is open, there is a risk that the door may close on you if the springs are weak, broken or defective or due to insufficient weight distribution.

- ▶ Only activate the emergency release when the door is closed!

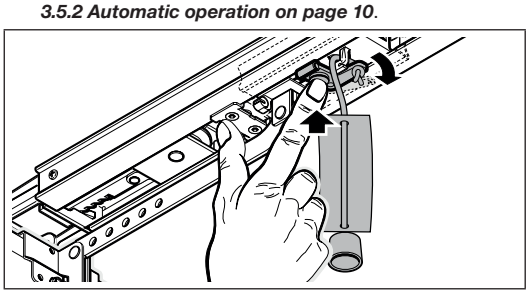
- ▶ To open or close the garage door manually during a power failure, the door must be be decoupled, see ***3.5.1 Manual operation on page 10***.



- Pull on the mechanical release rope. The guide carriage is decoupled for manual operation.

10.6 What to do when power comes back on

- ▶ After power is restored, the door must be re-engaged, see ***3.5.2 Automatic operation on page 10***.



- ▶ Press the green button on the guide carriage.
  The guide carriage is re-engaged for automatic operation.

11 Inspection and maintenance

- ▶ The garage door operator is maintenance-free.
- ▶ However, for your own safety, we recommend that you have the door system checked and serviced by a qualified technician in accordance with the manufacturer's instructions.

⚠ WARNING

Risk of injury due to unexpected door movement!
Unexpected door movement can occur if the emergency battery is still connected despite the mains plug being pulled out.

- ▶ Before carrying out any work on the door system, disconnect the mains plug and, if necessary, the emergency battery plug. Secure the door system against unauthorised re-entry!

Any inspection or necessary repair may only be carried out by a qualified person. Please contact your supplier for this purpose.

A visual inspection can be carried out by the operator.

- ▶ Check all safety and protective functions monthly and, if present, the emergency release.
- ▶ Any faults or defects must be rectified immediately.

12 Dismantling and disposal

- ▶ When dismantling, observe all applicable occupational safety regulations.
- ▶ Garage door operator must be dismantled by a qualified person in accordance with these instructions in reverse order. It needs to be disposed properly.

12.1 Disposal of old electrical appliances in Germany

Important information in accordance with the Electrical and Electronic (ElektroG)

We would like to remind owners of electrical and electronic equipment that, in accordance with applicable legal regulations, old electrical equipment must be disposed of separately from municipal waste.

Disposal
Batteries and accumulators contained in waste electrical and electronic equipment that are not permanently enclosed in the waste electrical and electronic equipment, as well as lamps that can be removed from the waste electrical and electronic equipment without destruction, must be separated from it without destruction before being handed over to a disposal site and disposed of in the appropriate manner. If our devices contain batteries/accumulators, please refer to the operating instructions for the respective device for further information on the type and chemical system of the battery and how to remove it.

The symbol of a crossed-out wheelie bin shown on electrical and electronic appliances also indicates the obligation to dispose of them separately.

Return to retailers or disposal companies
Electrical retailers and grocery stores are obliged under Section 17 ElektroG to take back old electrical and electronic equipment under certain conditions. Stationary distributors must take back one old electrical appliance of the same type free of charge when selling a new electrical and electronic appliance (1:1 return). This also applies to home deliveries. These distributors must also take back up to three small waste electrical appliances (≤ 25 cm) without this being linked to a new purchase (0:1 take-back).
In addition, waste electrical appliances can also be returned to an official collection point of the public waste disposal authority.

Returns in distance selling
Distance sellers such as online retailers are also obliged to collect and take back old electrical appliances under the conditions set out in Section 17 (2) of the ElektroG. When delivering electronic devices in categories 1, 2 and 4, Distance sellers who are obliged to take back old appliances must collect an old electrical appliance of the same type free of charge at the place of delivery of the new appliance. For other old electrical appliances, distance sellers who are obliged to take back old appliances must collect an old electrical appliance of the same type free of charge at the place of delivery of the new appliance. For other waste electrical equipment, distance sellers who are obliged to take back waste electrical equipment must also provide suitable return options within a reasonable distance from the end users. An overview of the electrical appliance categories can be found at ***https://www.gesetze-im-internet.de/elektrog_2015/anlage_1.html***.

Deletion of personal data
As the end user, you are responsible for deleting personal data on the WEEE to be disposed of before handing it in.
Information on compliance with collection and recycling requirements
The Federal Ministry for the Environment, Nature Conservation and Nuclear Safety publishes annual data on compliance with collection and recycling requirements by the bodies responsible for the collection and recycling of waste equipment. The data collected for the current and previous reporting periods can be viewed on the website of the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety at the following link:
https://www.bmu.de/themen/wasser-ressourcen-abfall/kreislaufwirtschaft/statistiken/elektro-und-elektronikaltgeraete.

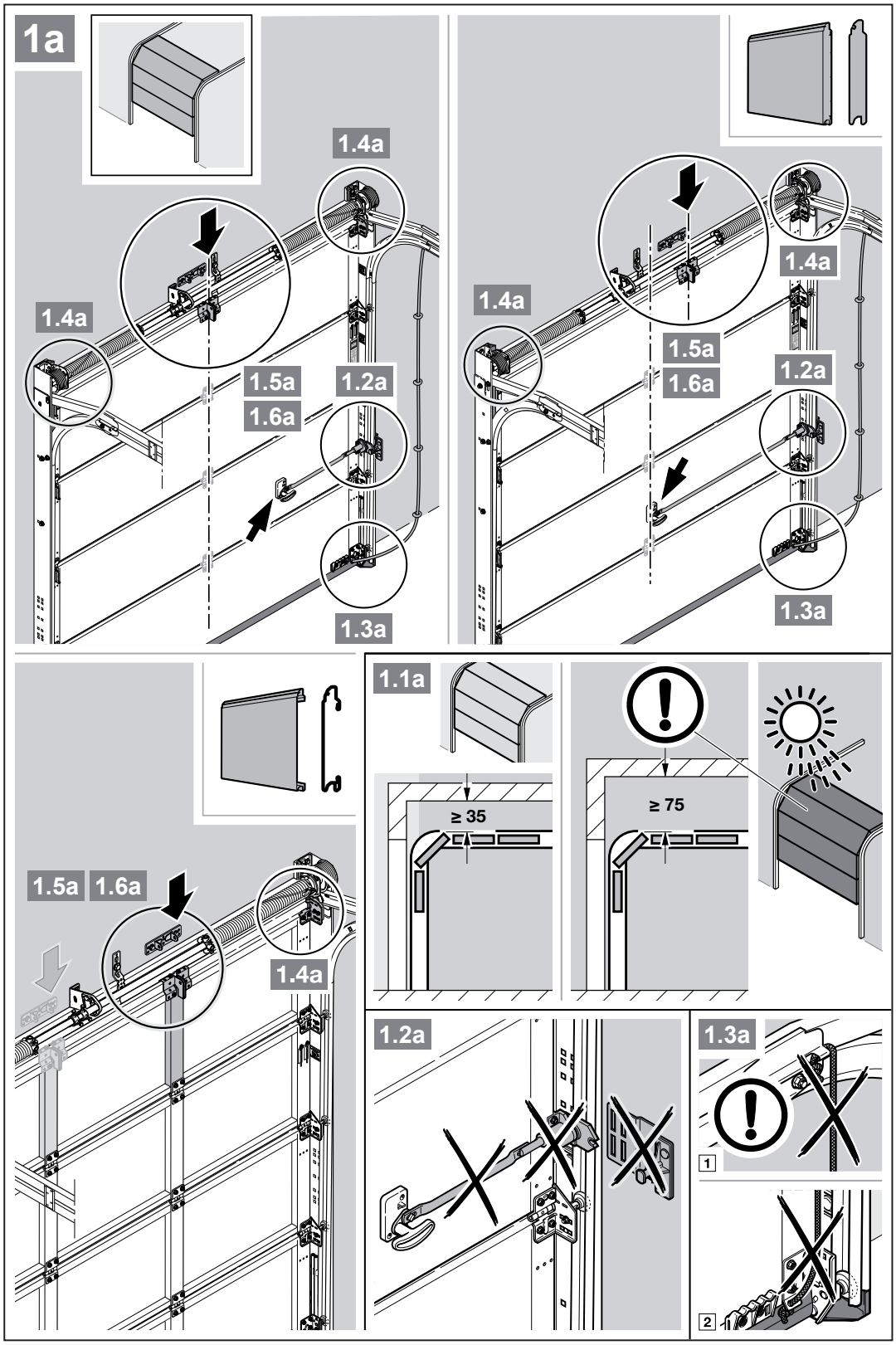
12.2 Disposal in France

Dispose of packaging separately.

Electrical and electronic equipment must be disposed of at the designated collection points. Dispose of batteries separately.

13 Technical data

Mains connection:	230/240V, 50 Hz,	
Standby	**0,6 W:** Standby mode activated. **0,9 W:** Standby mode deactivated.	
Time until standby (standby state)	1 min	
Protection class	IP20, only for dry rooms	
Insulation class	I	
Temperature	-20 °C to +55 °C	
Automatic switch-off	Automatically programmed for both directions separately.	
End position switch-off / Force limitation	Self-learning, wear-free, as no mechanical switches. Obstacle detection that readjusts with every gate movement.	
Nominal load	**GA105:** **GA106:**	250 N 250 N
Max. tensile and compressive force	**GA105:** **GA106:**	700 N 900 N
Power	**GA105:** **GA106:**	0,3 kW 0,32 kW
Duty cycle	KB 2 min.	
Max. cycles hour/day	**GA105:** **GA106:**	10 / 25 10 / 25
Max. door area / door width	**GA105:** **GA106:**	12 m^2 14 m^2
Max. door weight	**GA105:** **GA106:**	100 kg 140 kg
Motor	DC motor with Hall sensor	
Connection	Connection terminals for external devices with 24 V DC safety low voltage 24 V DC, such as internal and external push buttons.	
Connection options	• Wicked door contact 8k2 • 2-wire photocell • Warning light 24 V DC, max. 3 W	
Quick release	In the event of a power failure, can be operated from the inside with a pull cord	
Universal fitting	For up-and-over and sectional doors	
Door running speed*	• Travel in door closing max. 140 mm/s • Travel in door opening max. 200 mm/s	
* Depending on the operator type, door type, door size and door leaf weight weight		
Guide rail	Extremely flat at 30 mm, with integrated push-on protection and maintenance-free toothed belt/toothed belt.	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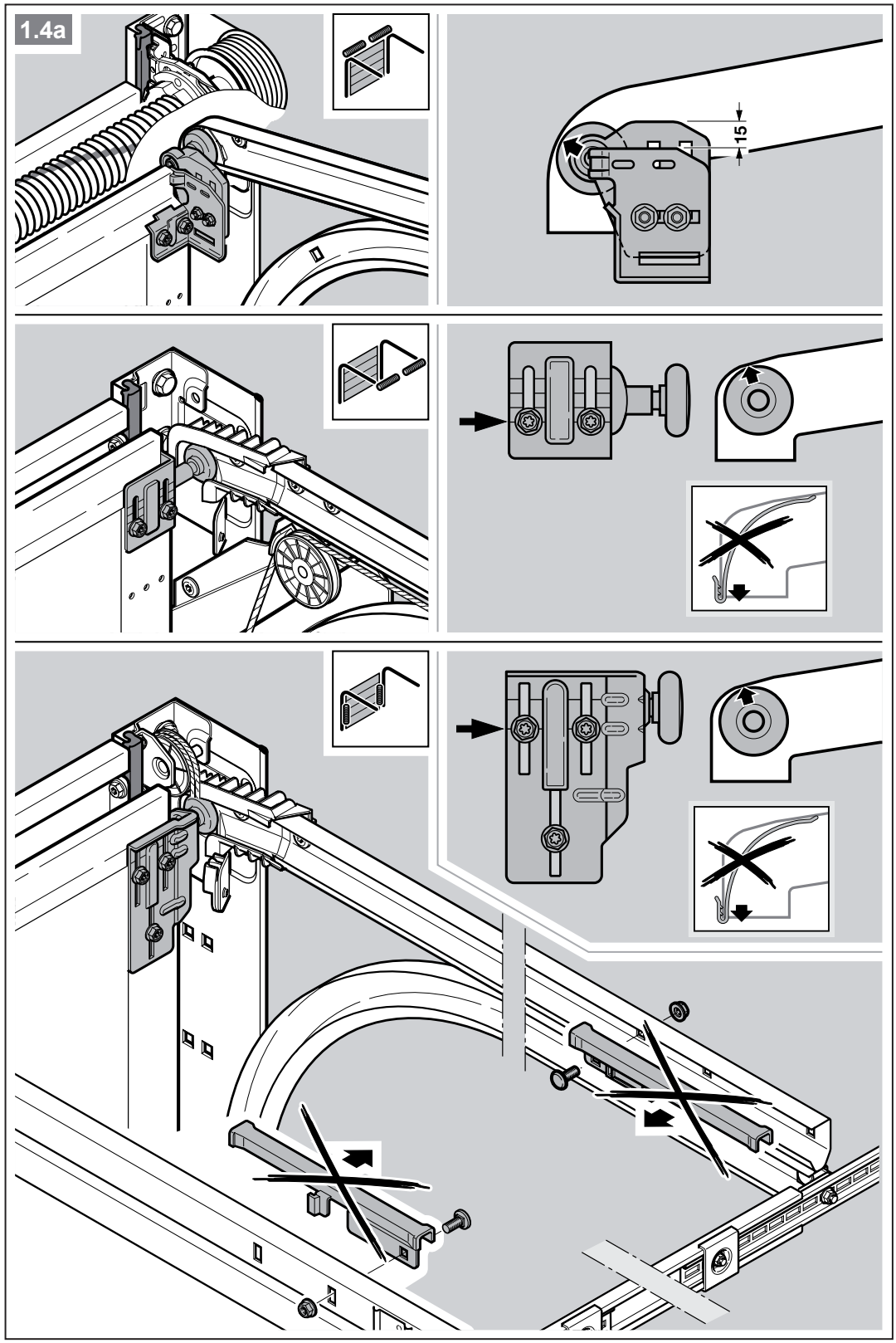
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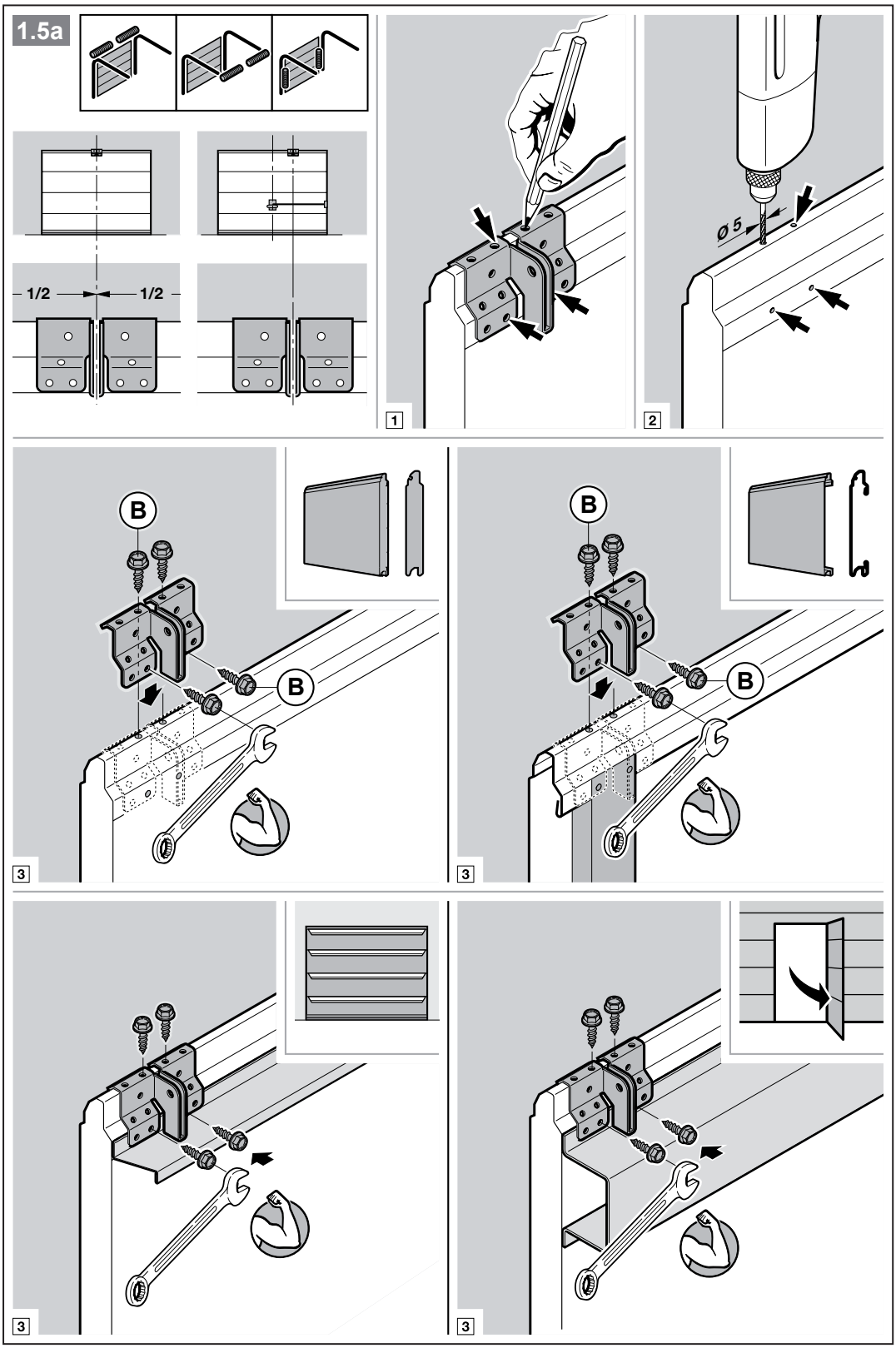
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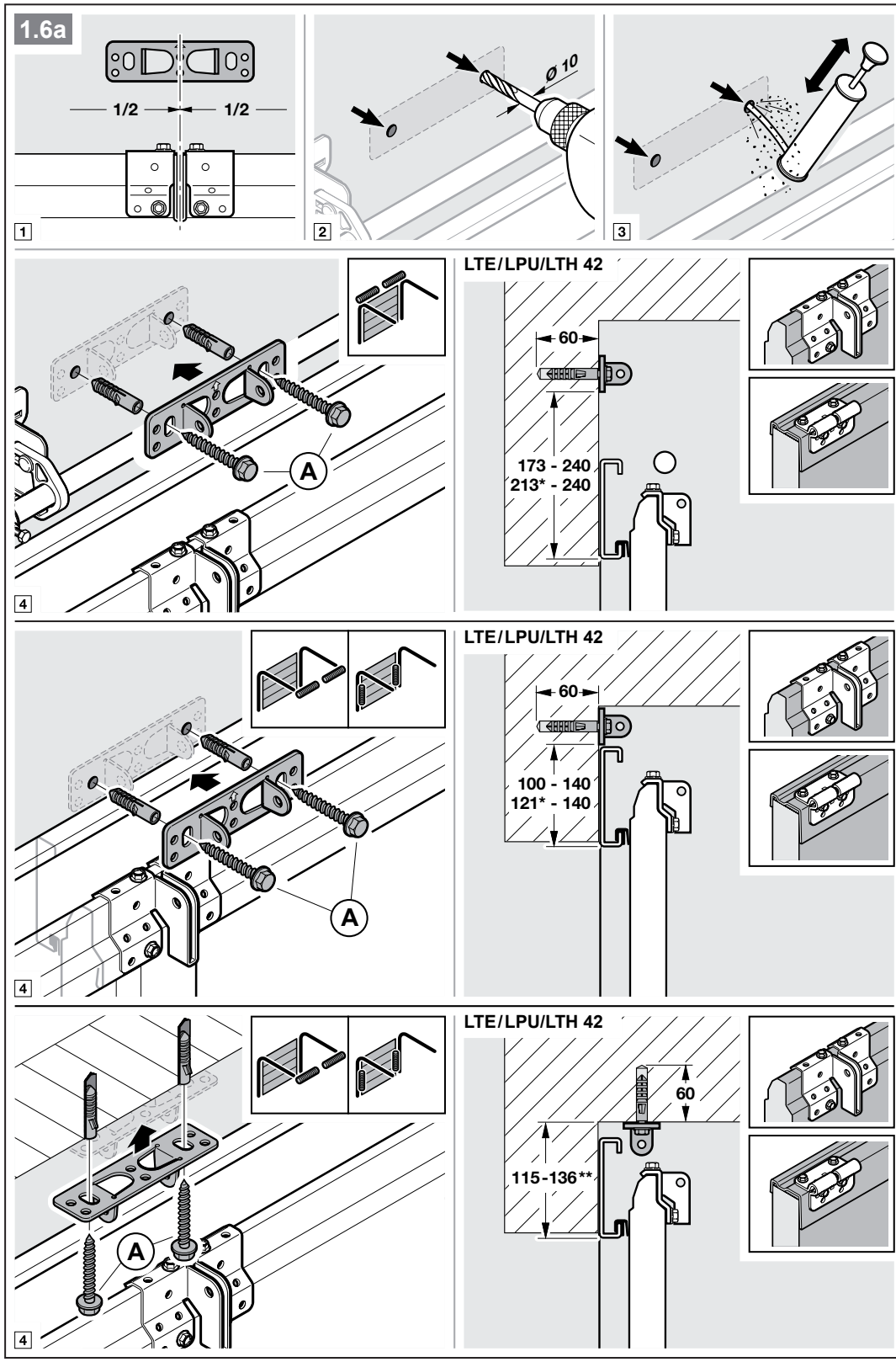
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213* - 240
LTE/LPU/LTH 42
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100 - 140
121* - 140
LTE/LPU/LTH 42
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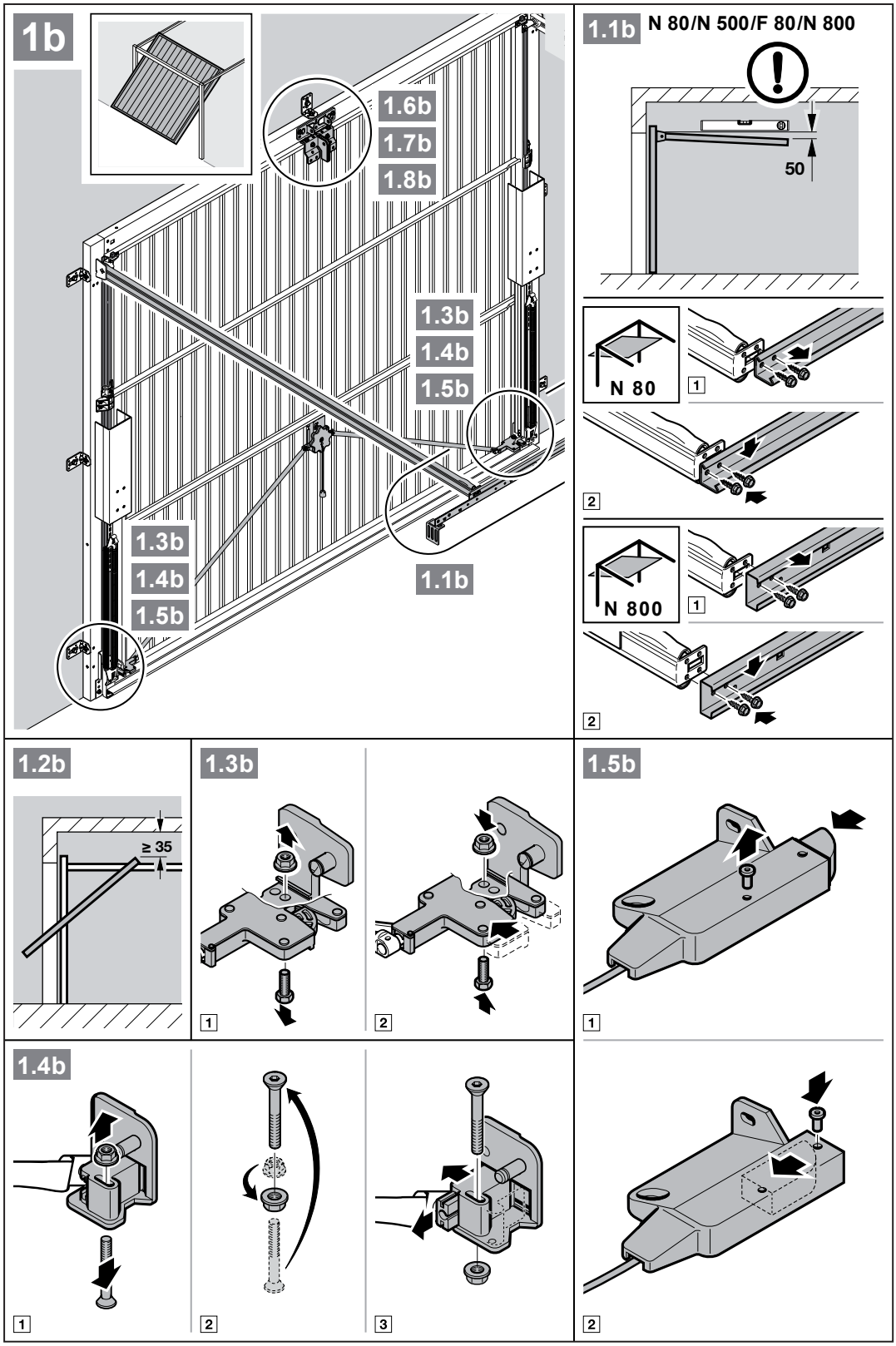
115-136**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N 80
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2
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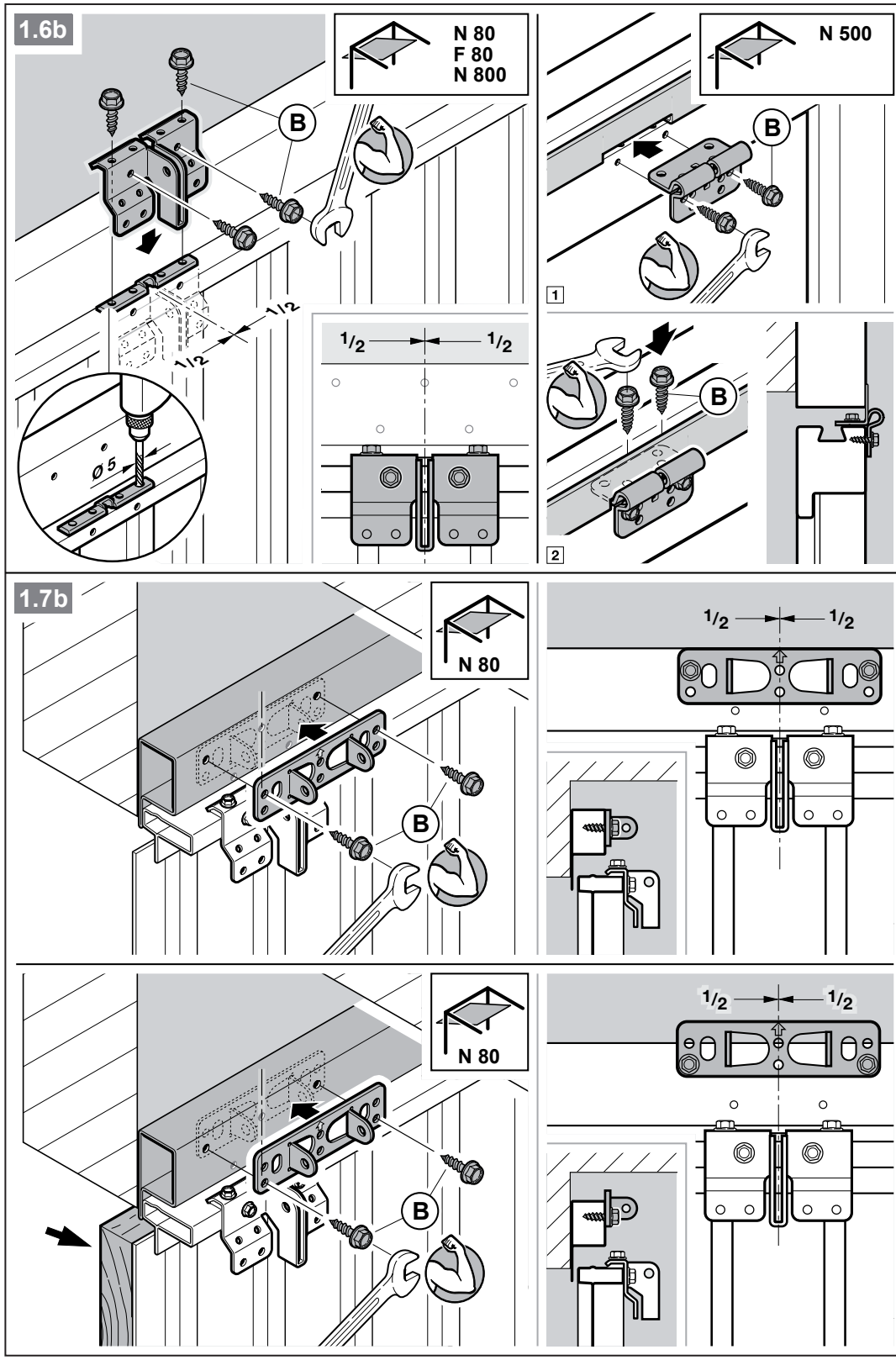
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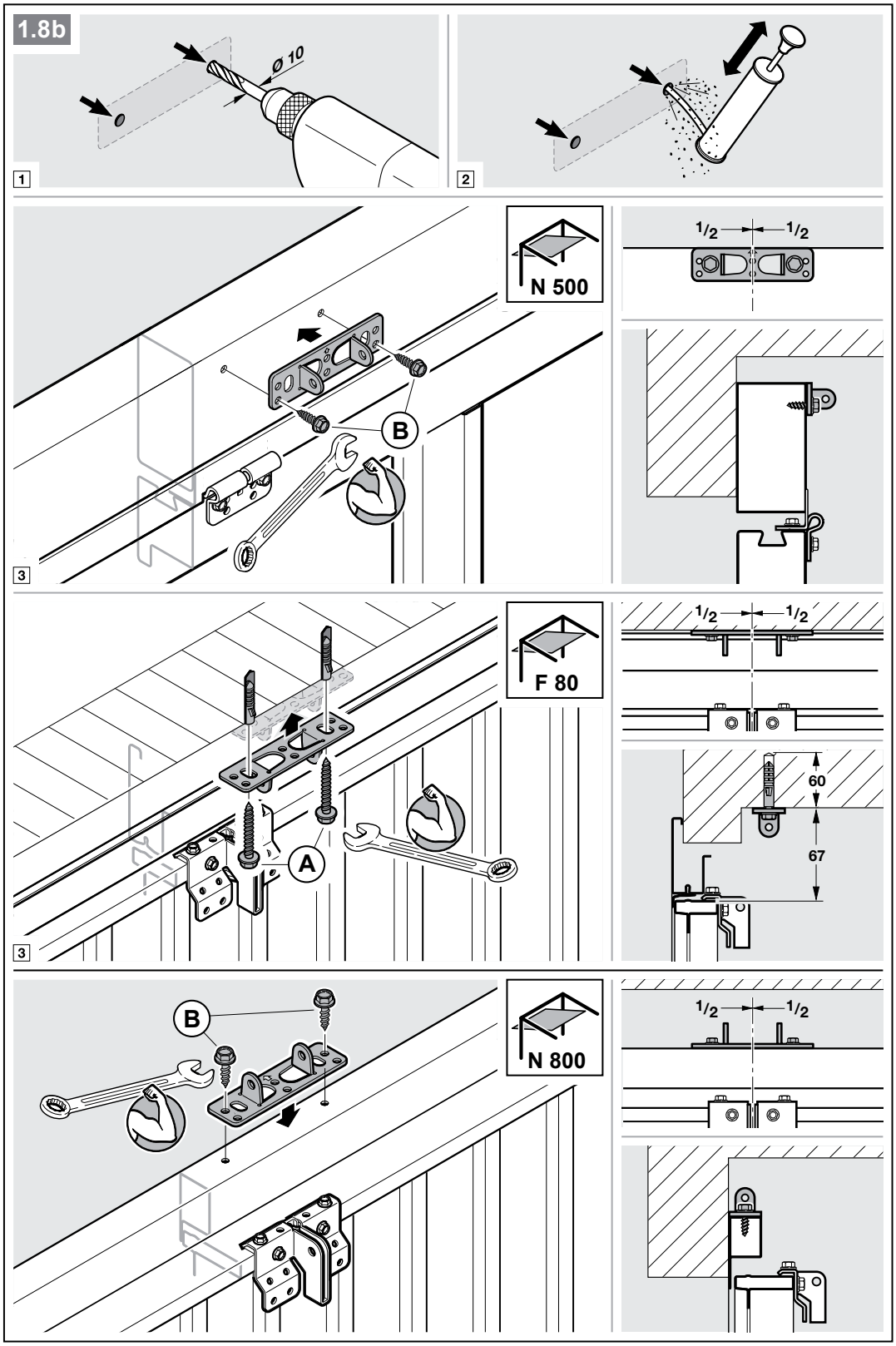
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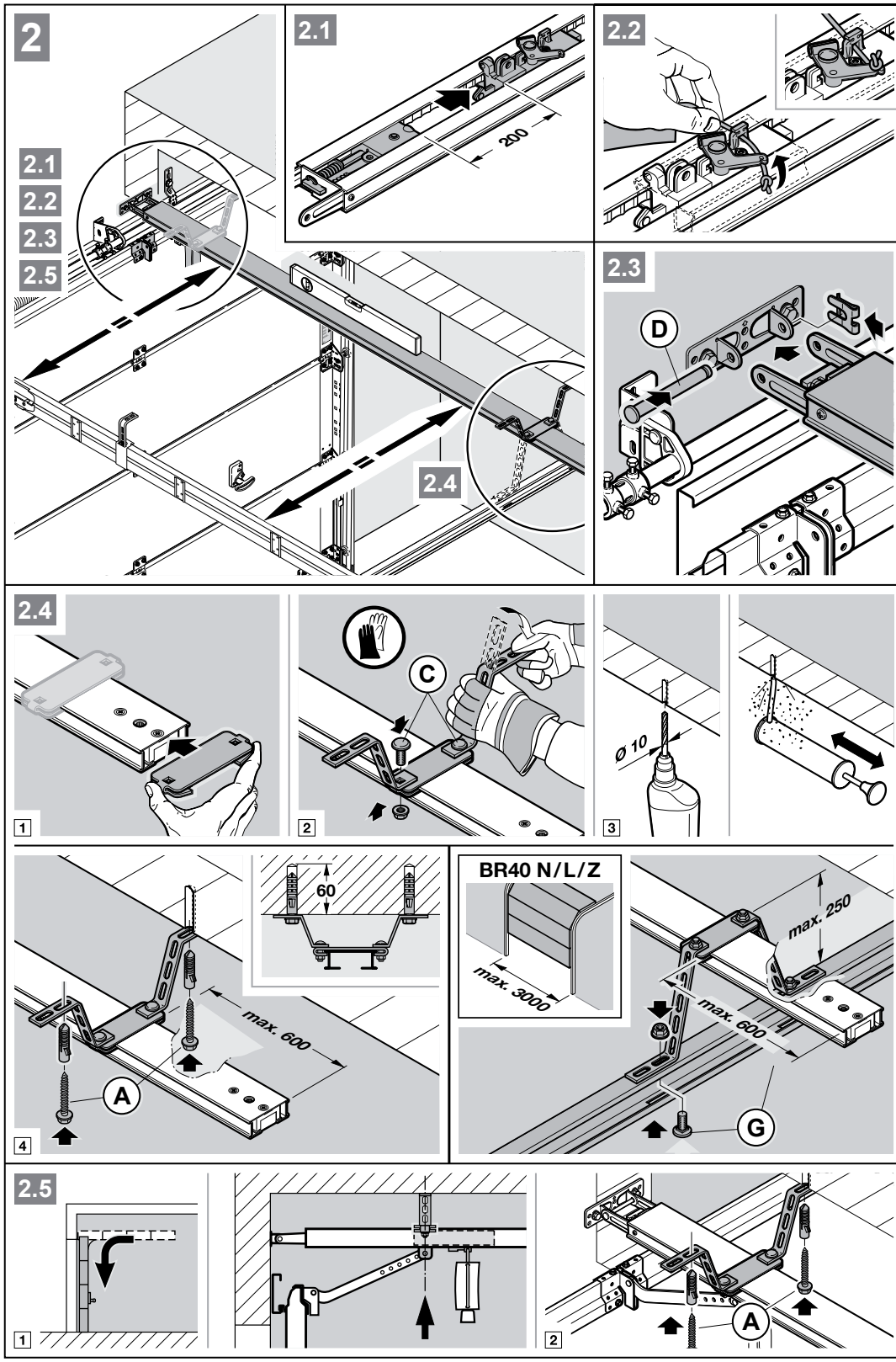
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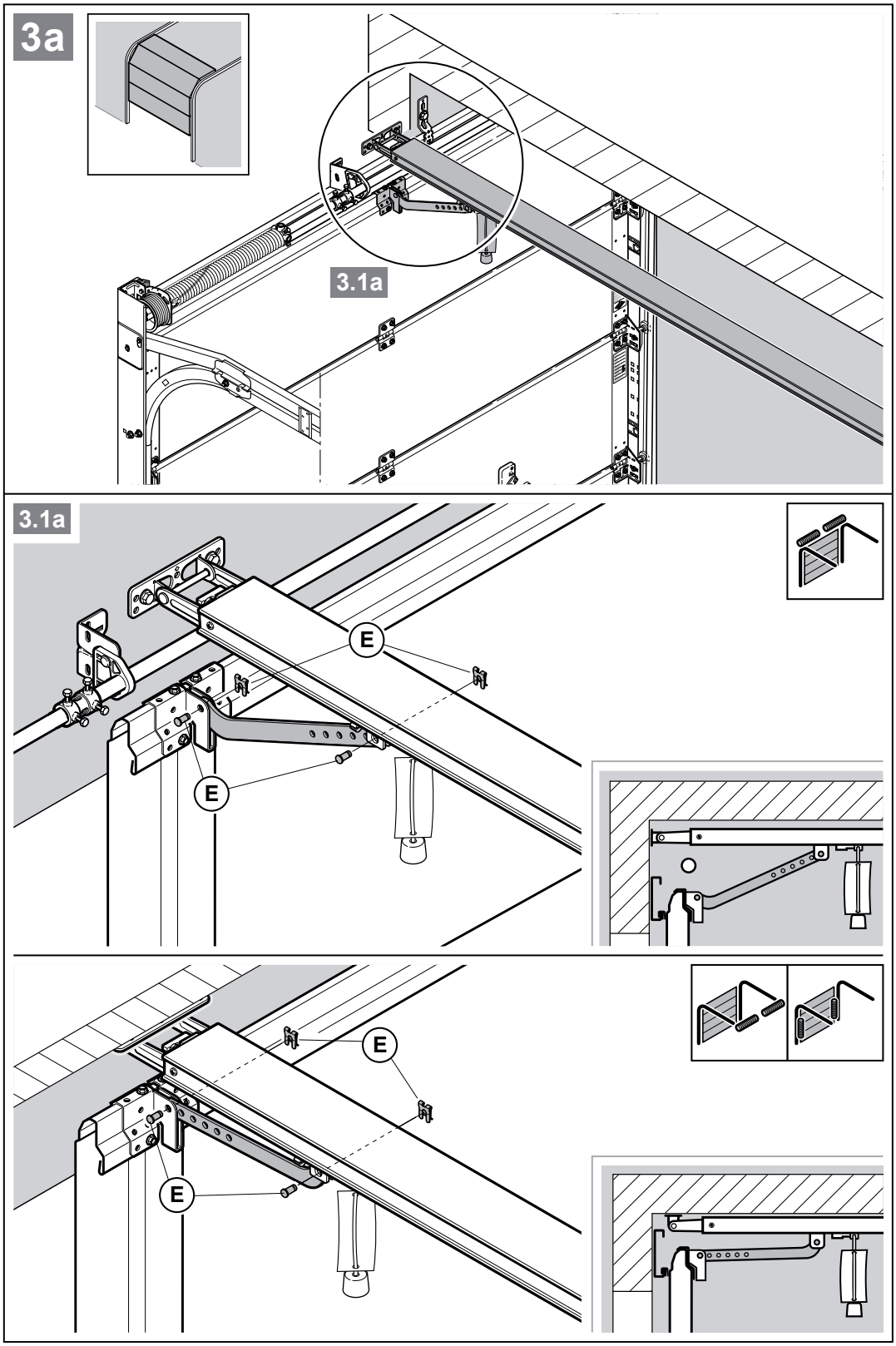
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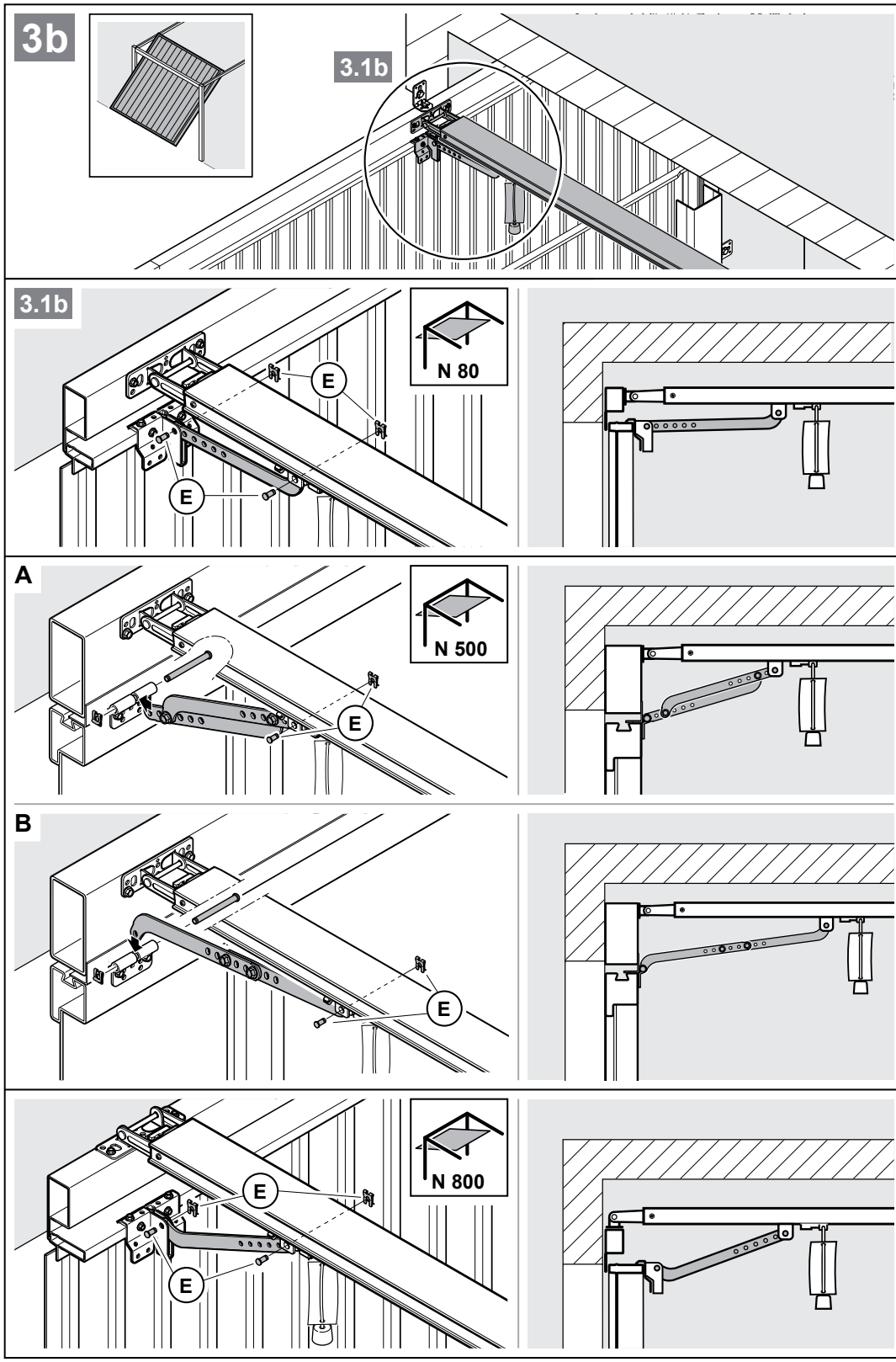
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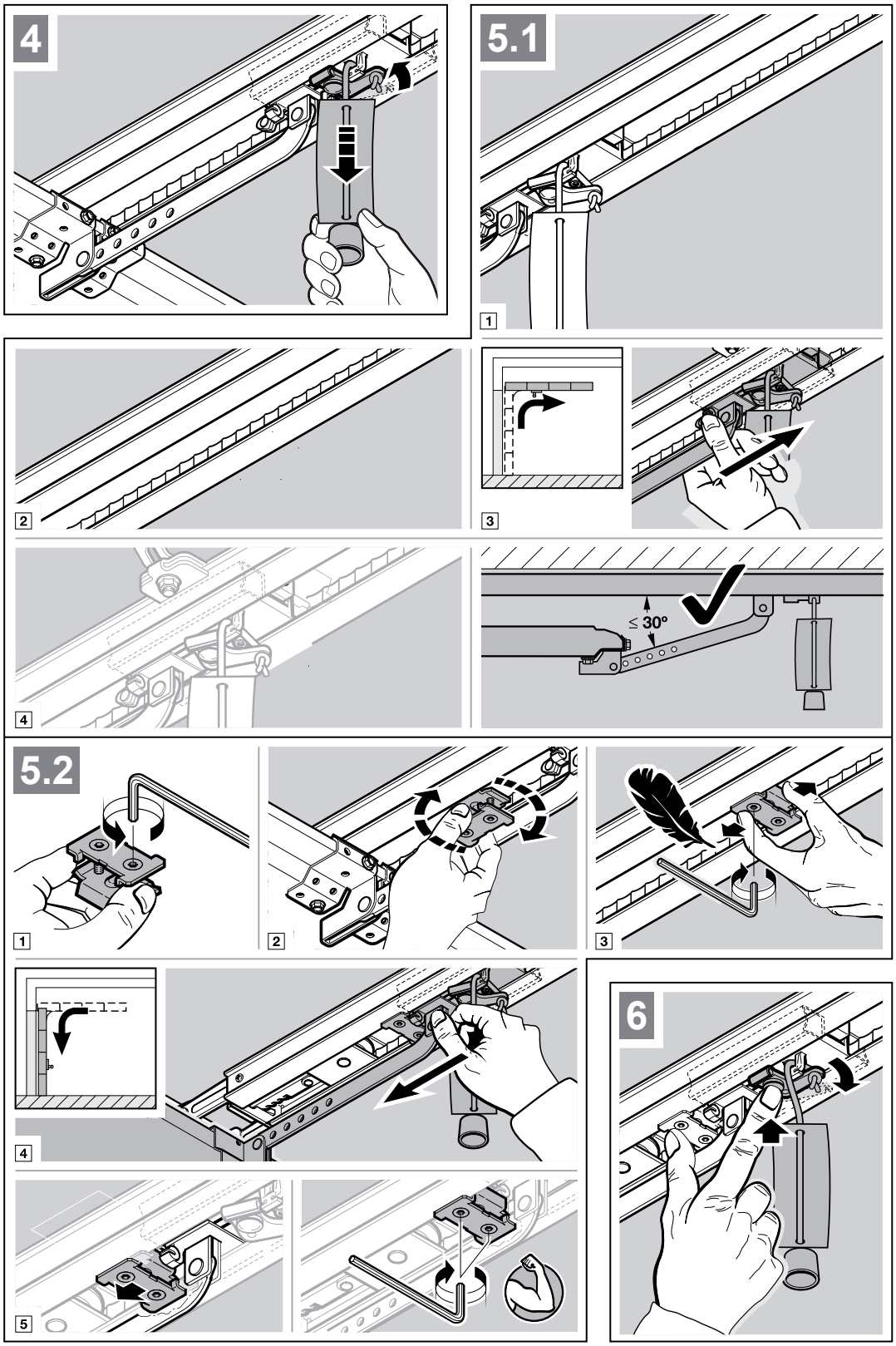
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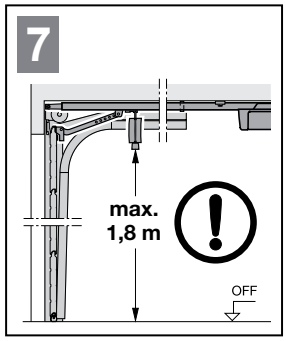
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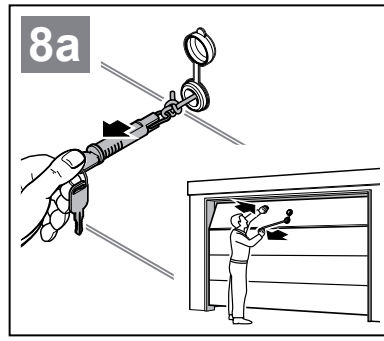
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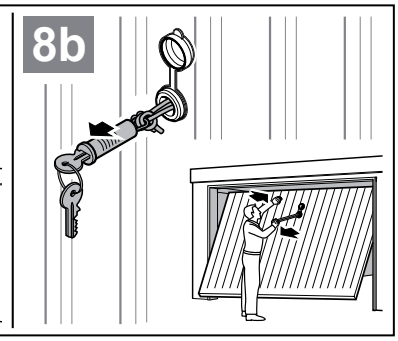
8b

GA105 - GA106

Berner Torantriebe KG
Graf-Bentzel-Straße 68
D-72108 Rottenburg
www.berner-torantriebe.de
info@berner-torantriebe.de

290xxxx