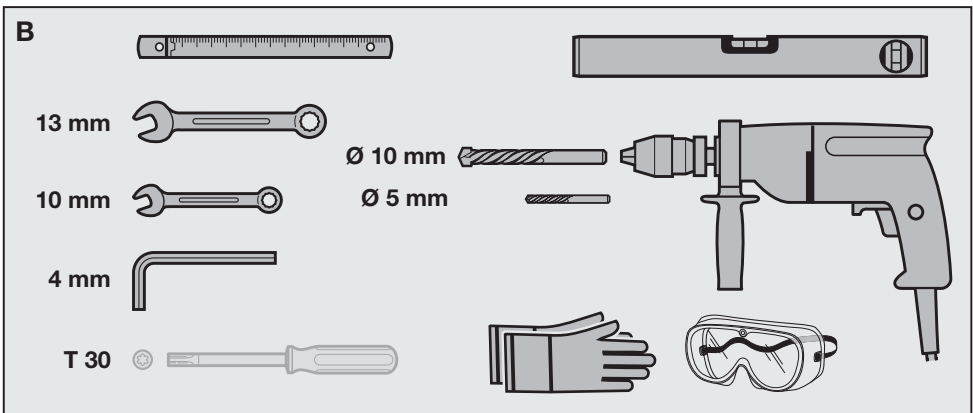
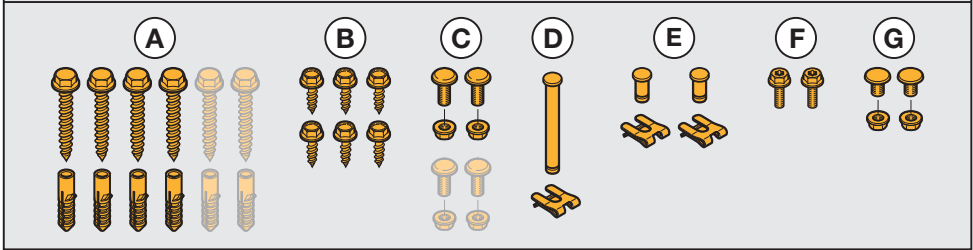
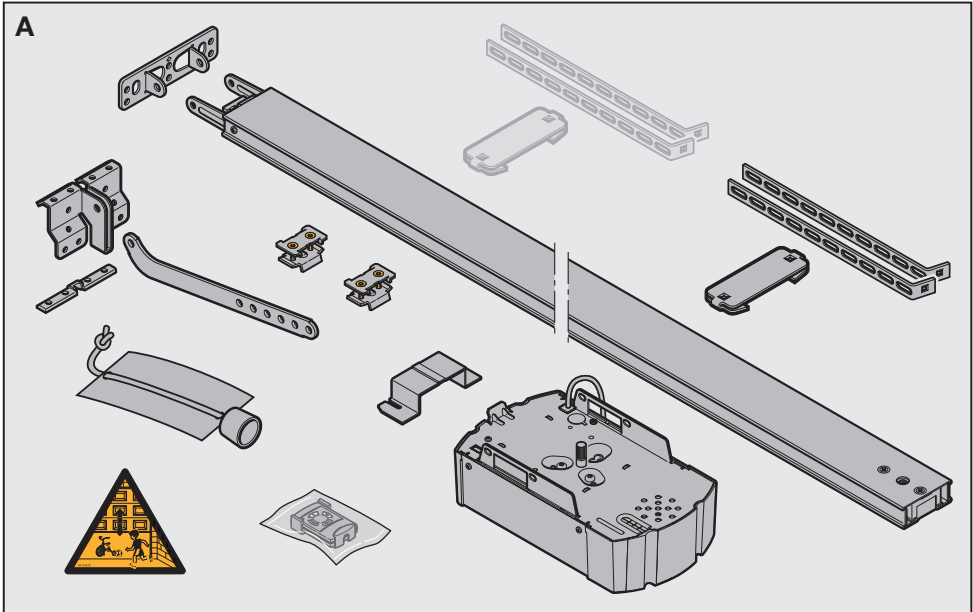




- (D) Anleitung für Montage, Betrieb und Wartung**
Garagentor-Antrieb
- (GB) Installation, Operating and Maintenance Instructions**
Garage Door Operator
- (F) Instructions de montage, de manoeuvre et d'entretien**
Motorisation de porte de garage
- (NL) Handleiding voor montage, bediening en onderhoud**
Garagedeuraandrijving
- (I) Istruzioni per il montaggio, l'uso e la manutenzione**
Motorizzazione da garage
- (E) Instrucciones para el montaje, funcionamiento y mantenimiento**
Automatismo para puerta de garaje
- (P) Instruções de montagem, funcionamento e manutenção**
Automatismo para portões de garagem


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Dear Customer,

Thank you for choosing this quality product from our company. Please keep these instructions in a safe place for later reference.

Please observe the following instructions. They provide you with important information on the safe installation, operation and correct care/maintenance of your garage door operator, thus ensuring that this product will give you satisfaction for many years to come.

Please observe all our safety notes and warnings, specifically headed **ATTENTION**, **CAUTION** or **Note**.

**ATTENTION**

Installation, maintenance, repair and dismantling of the garage door operator may only be carried out by specialists.

Note

The inspection log book and instructions for safe handling and maintenance of the door must be placed at the disposal of the end user.

1 IMPORTANT NOTES**ATTENTION**

Incorrect installation or handling of the operator could result in serious injury. Therefore, please follow these instructions fully and with due care.

1.1 Important safety instructions

The garage door operator is designed and intended **exclusively** for the impulse operation of spring-balanced up-and-over and sectional doors in the **domestic / non-commercial sector** as well as for garage doors subjected to greater wear (e.g. underground and collective garages). **Use in the commercial sector is not permitted.**

Please observe the manufacturer's specifications regarding the door and operator combination. Possible hazards as defined in EN 12604 and EN 12453 are prevented by the design itself and by carrying out installation in accordance with our guidelines. Door systems used by the general public and equipped with a single protective device only, e.g. force limit, may only be used when monitored.

1.1.1 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 installation guidelines we have provided. Moreover, we shall accept no responsibility for the inadvertent or negligent operation of the operator and accessories nor for the improper maintenance of the door and/or its counterbalance mechanism. Batteries and light bulbs are also not covered by the warranty.

Note

Should the garage operator fail, a specialist must be immediately entrusted with its inspection / repair.

1.1.2 Checking the door / door system

The design of the operator is not suitable nor intended for the opening and closing of heavy doors, i.e. doors that can no longer be opened or closed manually or only do so with extreme difficulty. **Before installing the operator, it is therefore necessary to check the door and make sure that it can also be easily moved by hand.**

To do this, raise the door approx. 1 metre and then let it go. The door should retain this position, moving **neither up nor down**. If the door, moves in any of the two directions, there is a risk that the compensating springs are defective or incorrectly adjusted. In this case, increased wear and malfunctioning of the door system is to be expected.

**CAUTION: Danger to life!**

Never attempt to change, readjust, repair or move the compensating springs for the door's counterbalance mechanism or their holders. The springs are under considerable tension and can cause serious injury.

Furthermore, check the entire door system (pivots, door bearings, cables, springs and fasteners) for wear and possible damage. Check for signs of corrosion and fractures. The door system may not be used if repair or adjustment work needs to be carried out. Always remember that a fault in the door system or a misaligned door can also cause severe injury.

Note

Before installing the operator and in the interests of personal safety, make sure that any work on the door's compensating springs, and if necessary, any maintenance and repair work, is carried out by a specialist.

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.

1.2 Important instructions for a safe installation

The specialist carrying out the work must ensure that installation is conducted in compliance with the prevailing national regulations on occupational safety and those governing the operation of electrical equipment. Possible hazards as defined in DIN EN 13241-1 are prevented by the design itself and by carrying out installation in accordance with our guidelines.

1.2.1 Before installing the garage door operator check that the door is in a flawless mechanical condition and is correctly balanced, so that it can be easily moved by hand (EN 12604). Further check whether the door opens and closes properly (see section 1.1.2). In addition, any of the door's mechanical locks and latches not needed for power operation of the garage door should be immobilized. This includes in particular any locking mechanism connected with the door lock (see sections 2.3 and 2.6). The garage door operator is designed for use in dry buildings and therefore must not be installed outdoors. The garage ceiling must be constructed in such a way as to guarantee safe, secure anchoring of the operator. In the case of ceilings that are too high or too lightweight, the operator must be attached to additional braces.

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1.2.2 Carrying out the installation work

Note

The fixing materials supplied must be inspected for suitability for the specific place of installation by the person carrying out the installation.

The clearance between the highest point of the door and the ceiling (also when the door is opening) must be at least 30 mm (see fig. **1.1a/1.1b**). If clearance is inadequate, the operator may also be installed behind the opened door, provided sufficient space is available. In such instances, an extended door link must be used (to be ordered separately). The garage door operator can be positioned off-centre by max. 50 cm, the exception being sectional doors with high-lift tracks ("H" tracks), where a special track fitting is required. The required power outlet should be installed at a distance of approx. 50 cm from the operator head.

Please check these dimensions!

1.3 Warnings



Permanently installed controls (such as push-buttons, switches etc.) have to be installed within sight of the door but well away from any moving parts at a height of at least 1.5 m. It is vital that they are installed out of the reach of children.

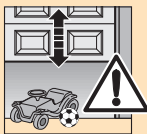
Note

A sign warning about the trap hazard must be permanently affixed at a conspicuous location or in the proximity of the permanently installed push-buttons used to operate the door.

**Make sure that**

- neither persons nor objects are located within the door's range of travel.

- children do not play around with the door system.



- the rope of the mechanical release on the carriage cannot become entangled in the ceiling's support system or in any other protruding parts of vehicles or the door.

**ATTENTION**

For garages without a second access door, an **emergency release** must be fitted to ensure that there is no danger of getting locked out. This must be ordered separately and its function checked **once a month**.

**ATTENTION**

Do not allow anyone to hang bodily from the pull rope with knob.

1.4 Maintenance advice

The garage door operator is maintenance-free. For your own safety, however, we recommend having the door system checked **by a specialist in accordance with the manufacturer's specifications**.

Inspection and maintenance work may only be carried out by a specialist. In this connection, please contact your supplier. A visual inspection may be carried out by the owner.

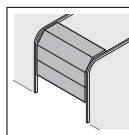
If repairs become necessary, please contact your supplier. We would like to point out that any repairs not carried out properly or with due professionalism shall render the warranty null and void.

1.5 Information on the illustrated section

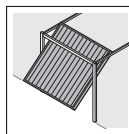
The illustrated section shows installation of the operator on a sectional door.

Where installation differs for an up-and-over door, this is shown in addition.

In this instance, letters are assigned to the figures as follows:



a to a **sectional door** and



b to an **up-and-over door**.

Some of the figures additionally include the symbol shown below, offering a text reference. This text reference provides you with important information regarding installation and operation of the garage door operator in the following illustrated section.

Example:

= see text section, point 2.2

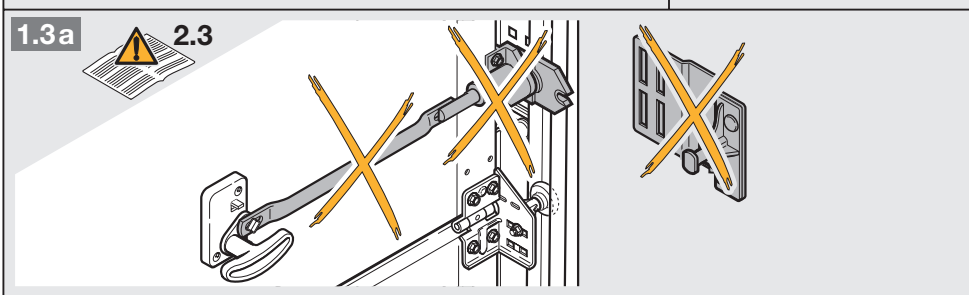
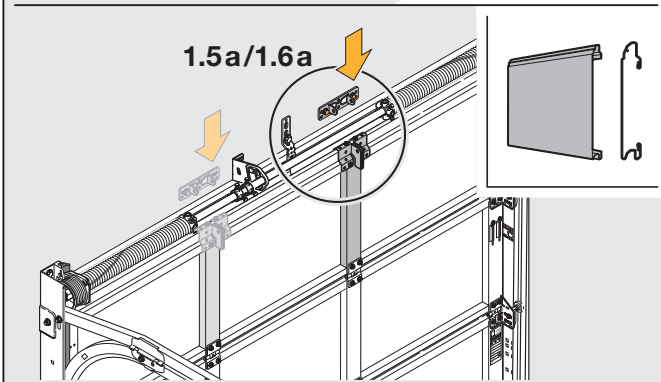
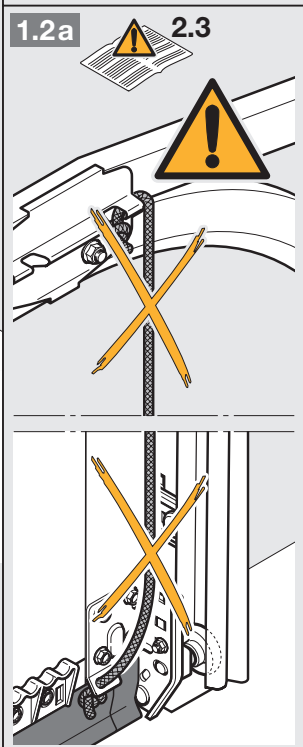
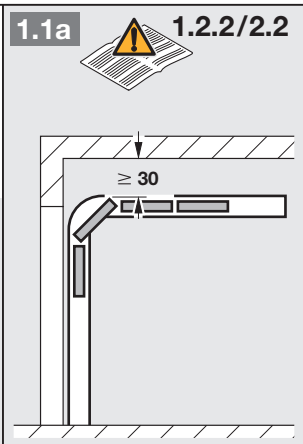
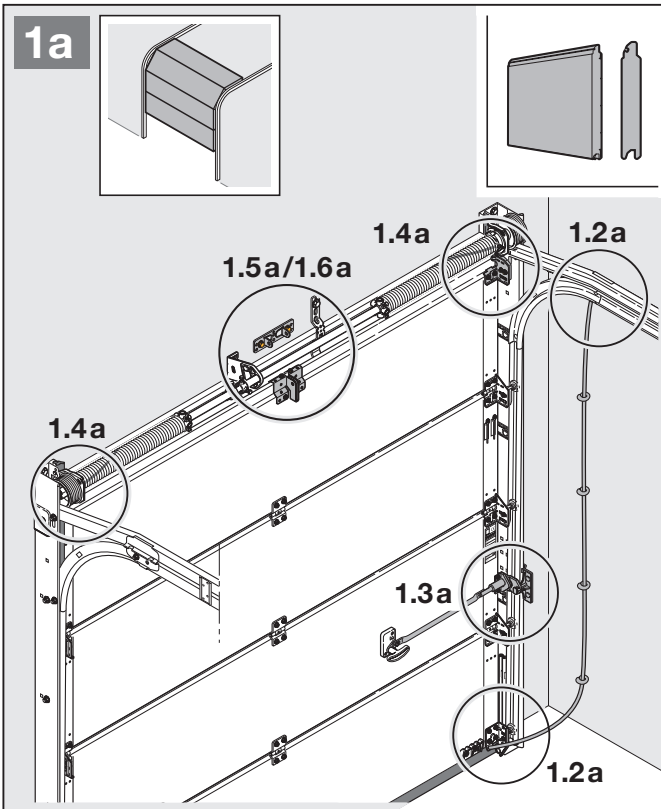
In addition, in both the text section and the illustrated section at the points where the menus of the operator are explained, the following symbol appears to indicate a factory setting or settings.

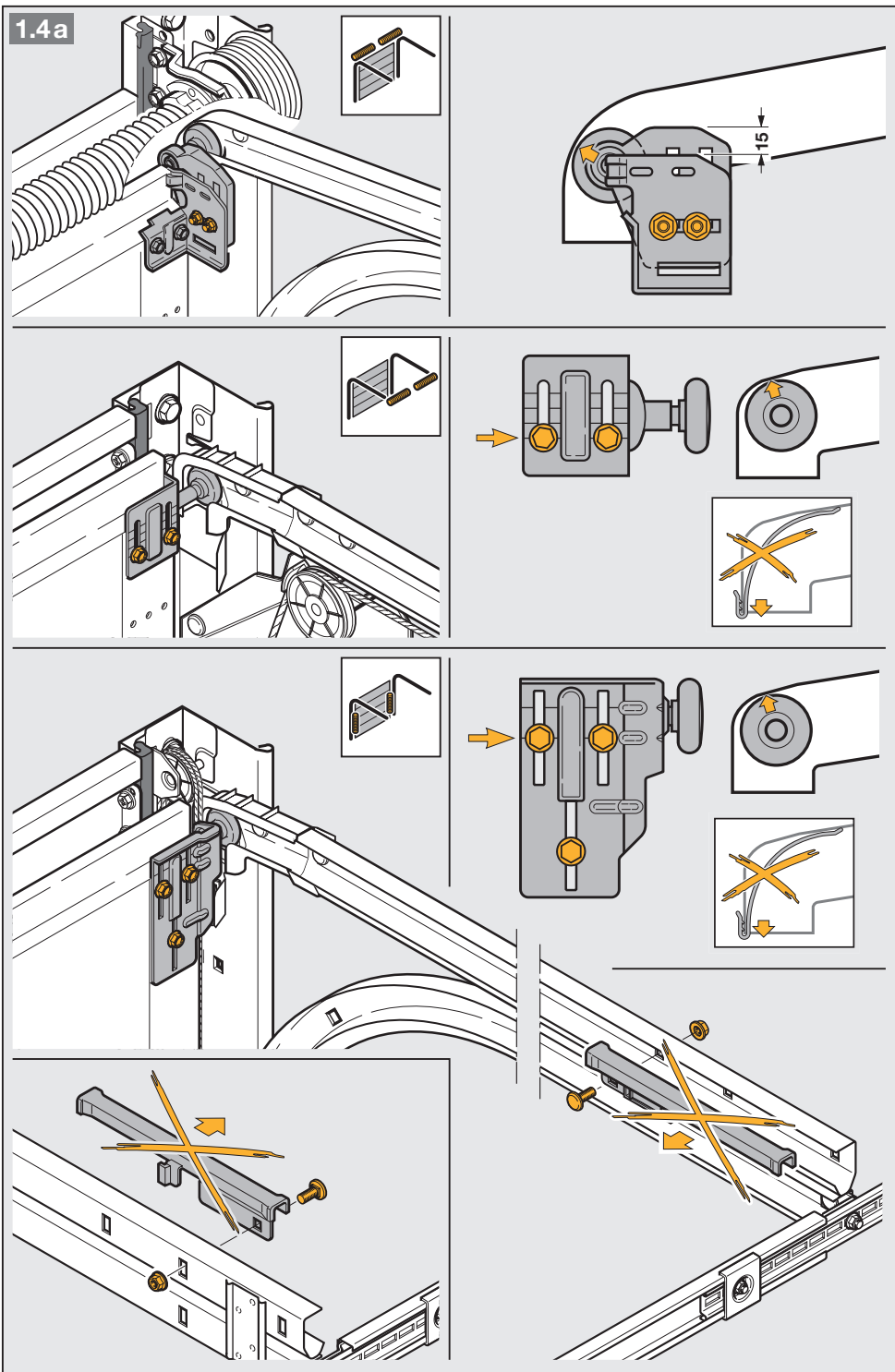


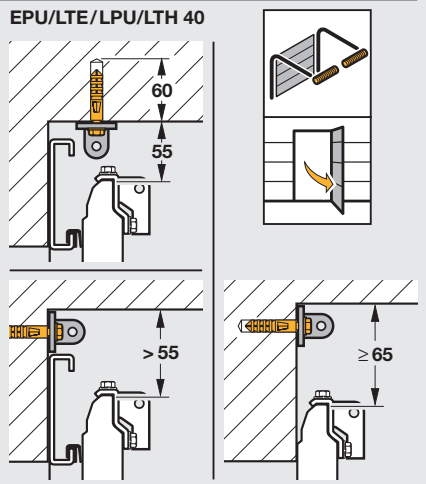
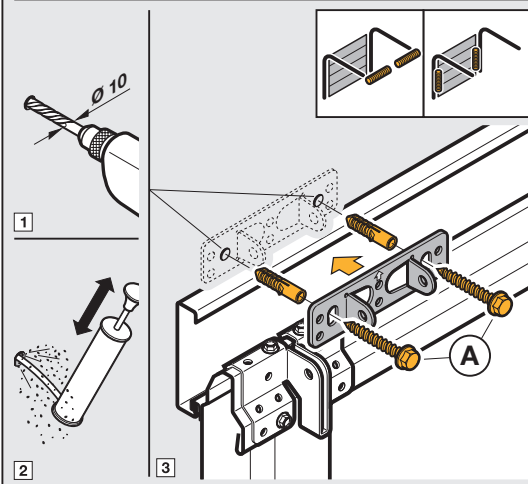
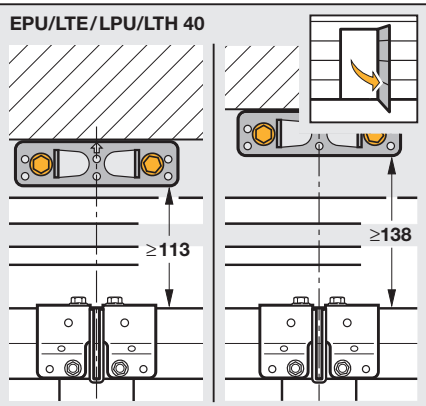
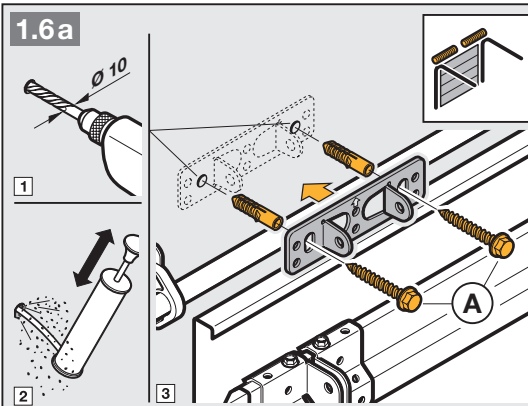
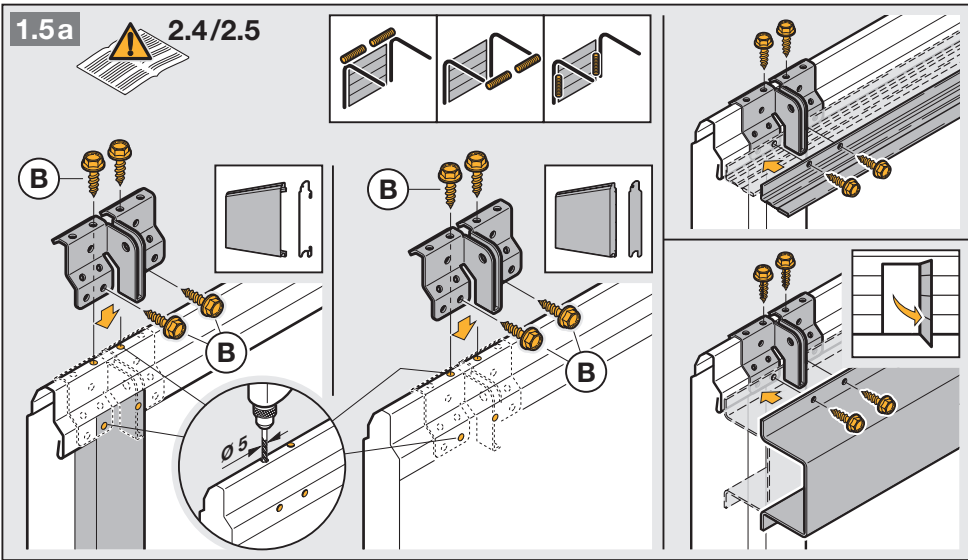
= **factory setting**

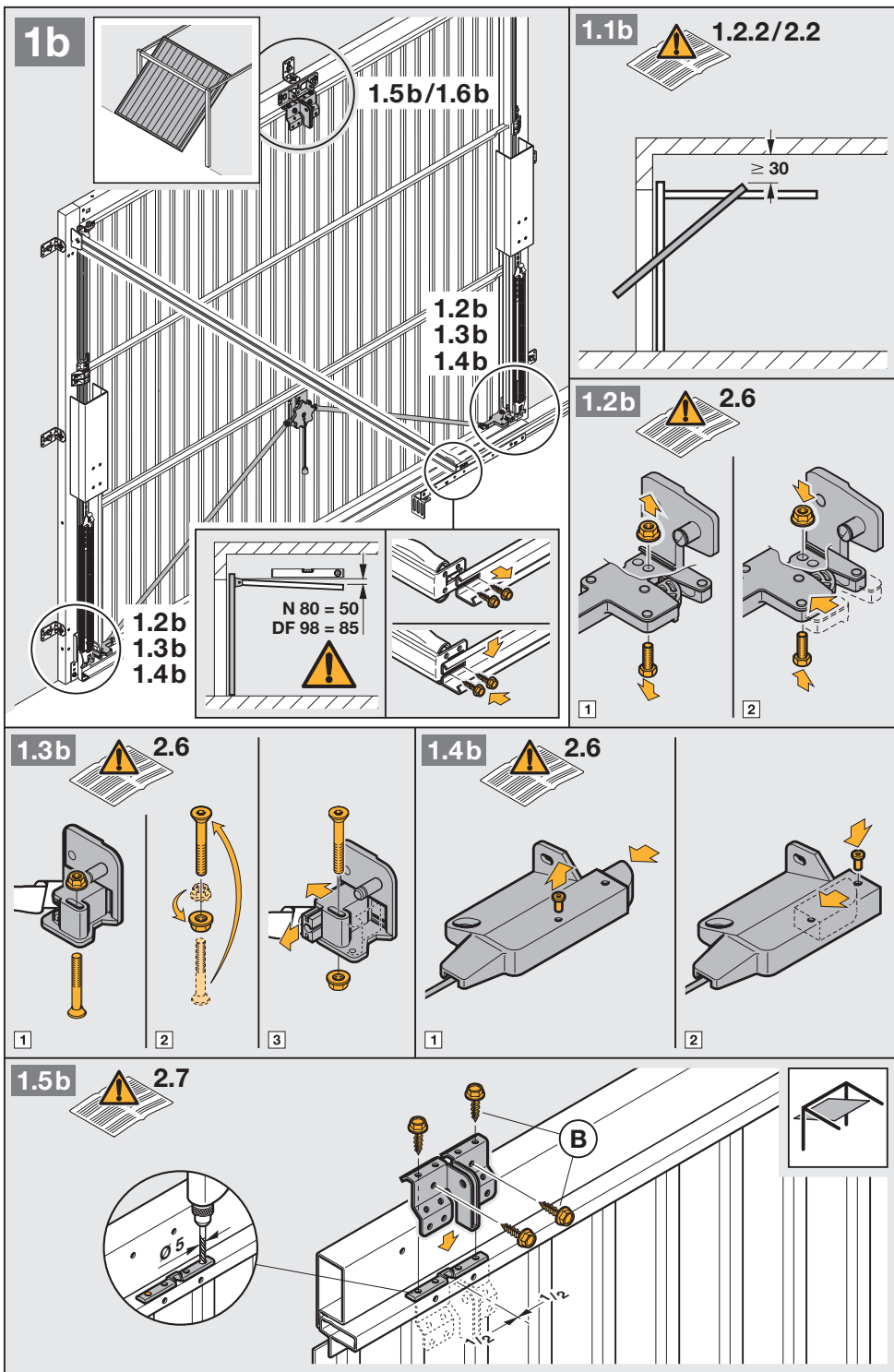
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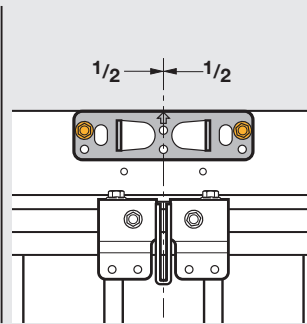
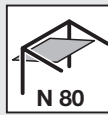
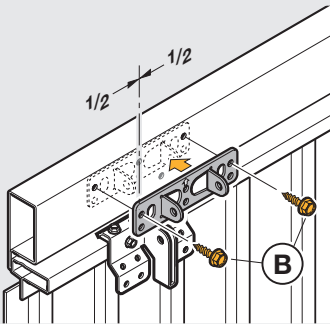




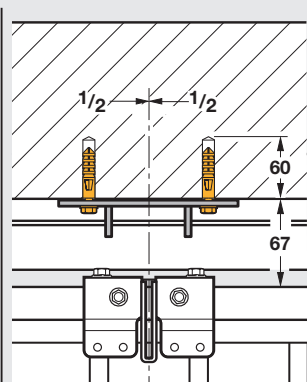
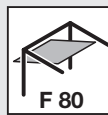
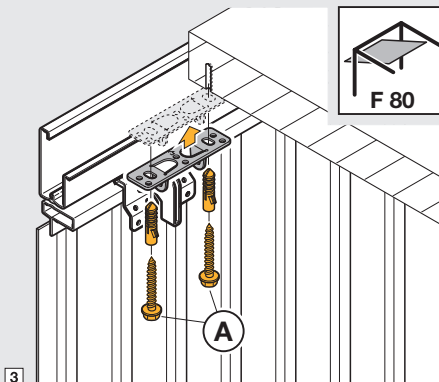
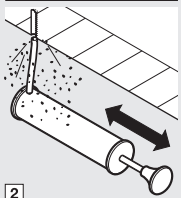
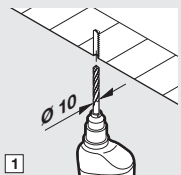
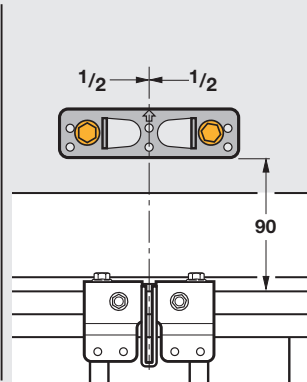
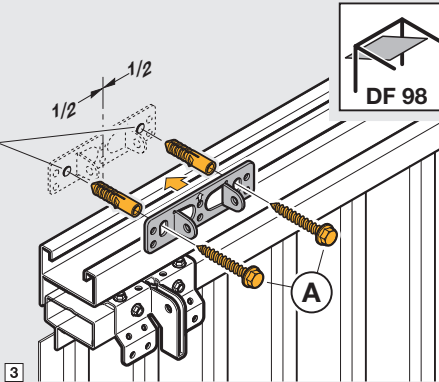
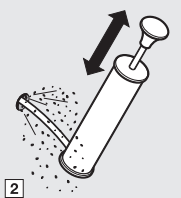
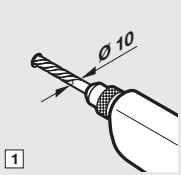
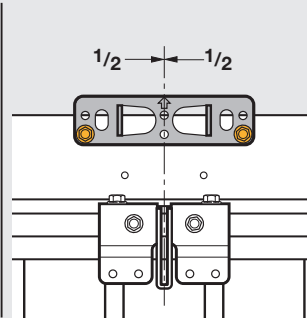
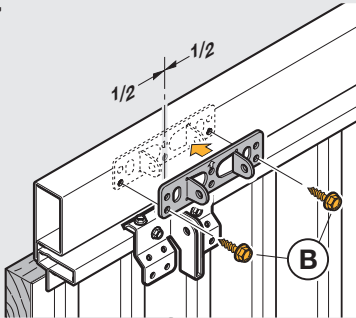


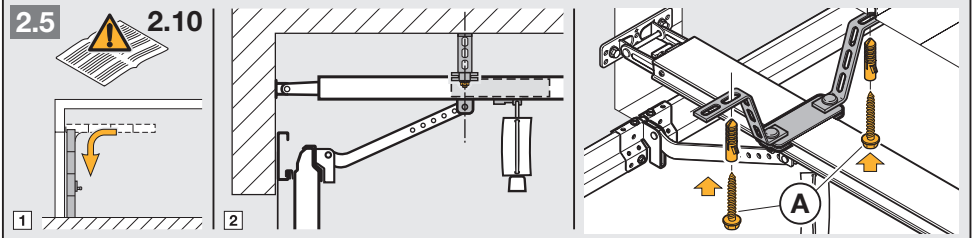
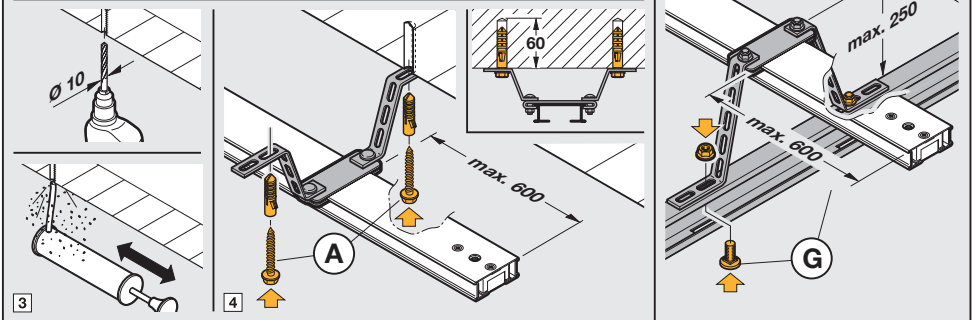
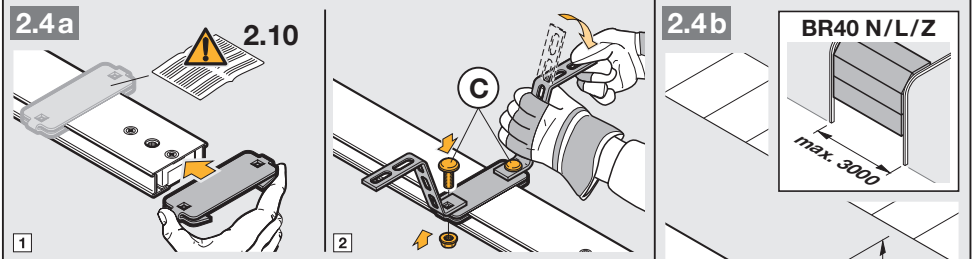
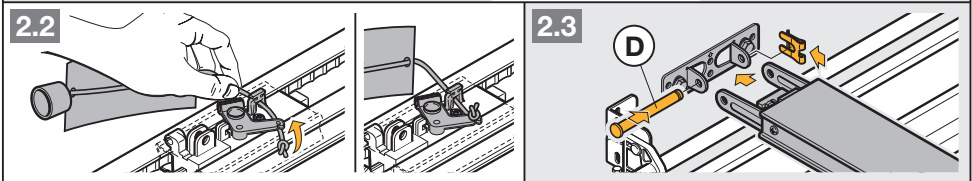
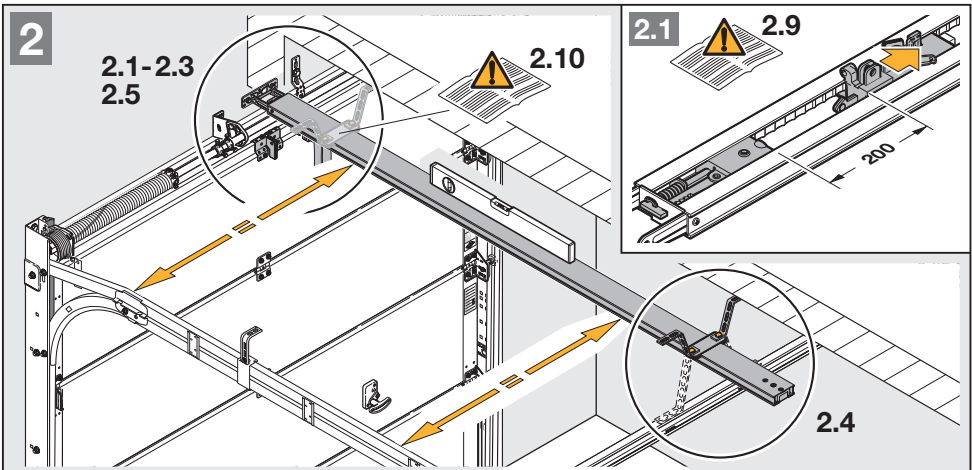


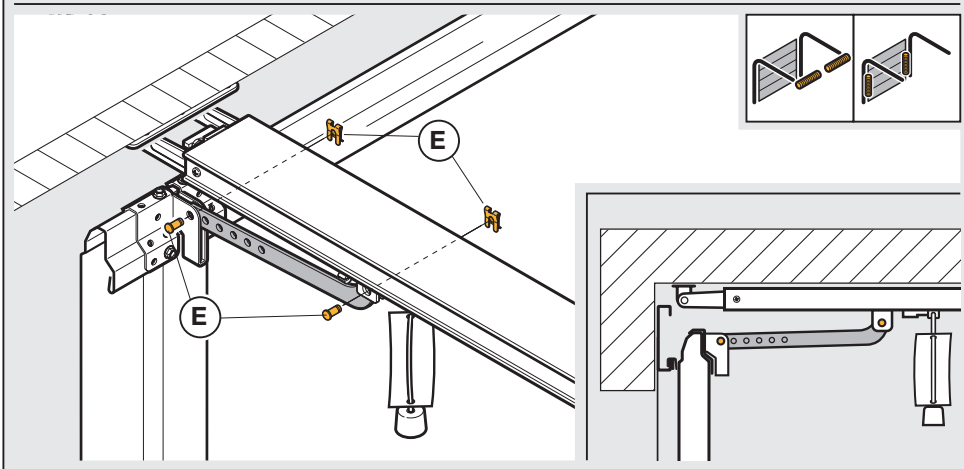
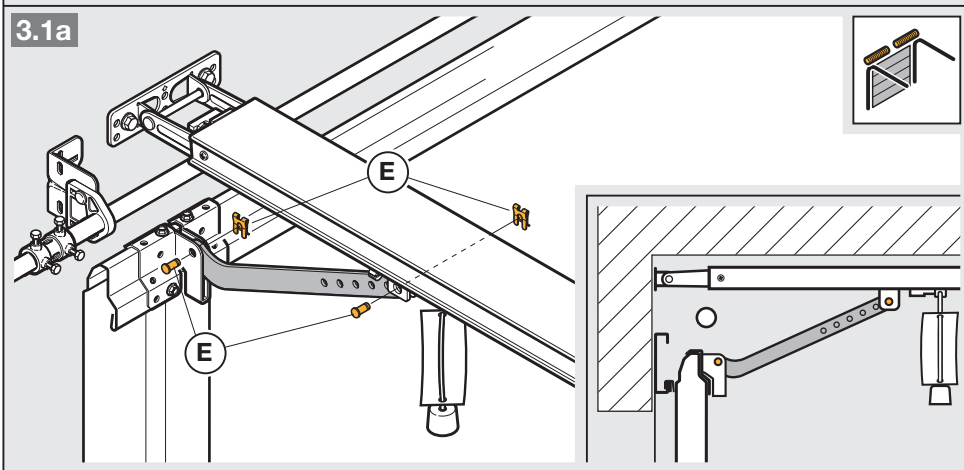
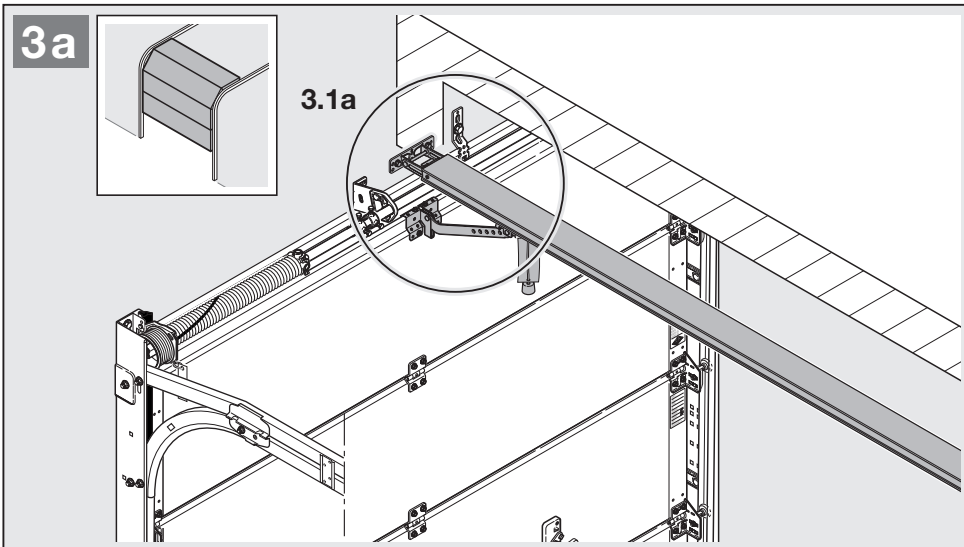
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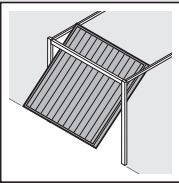
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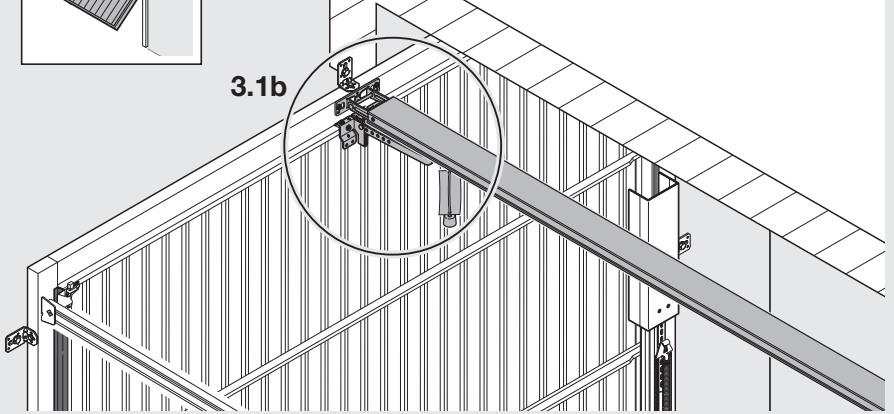




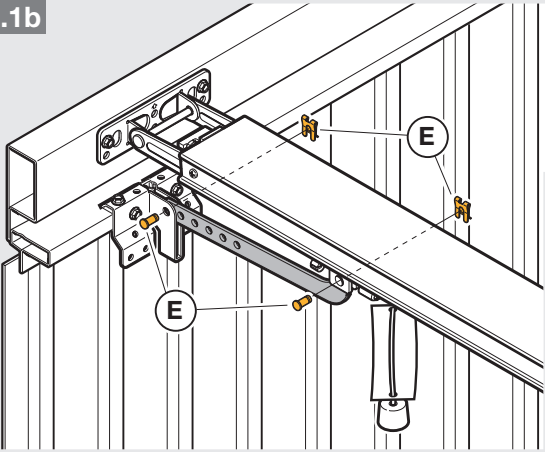
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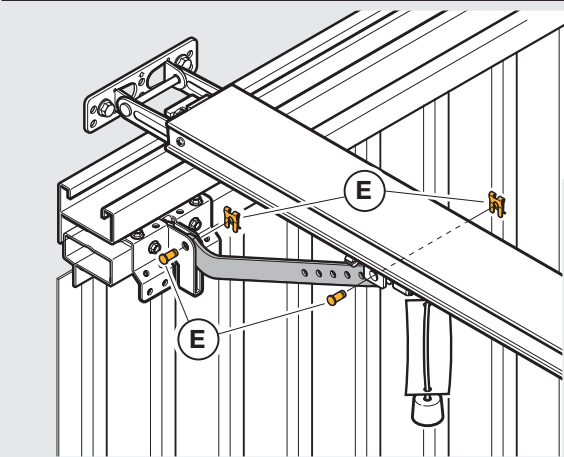
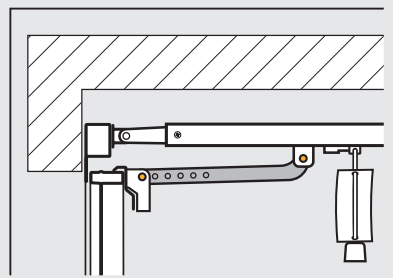
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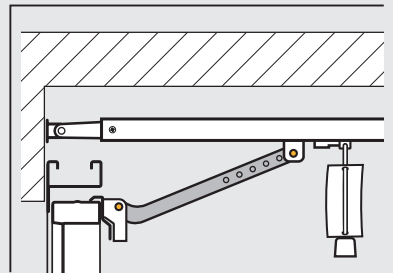
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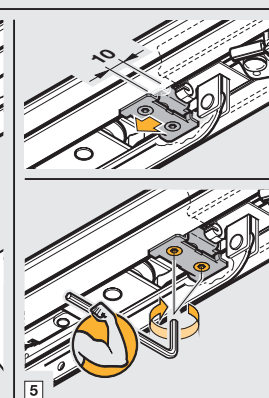
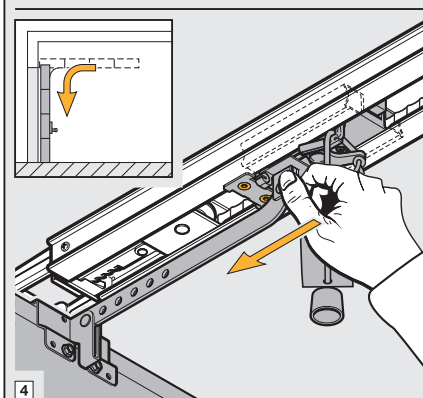
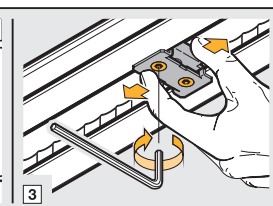
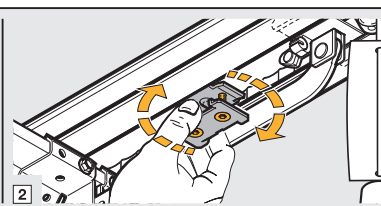
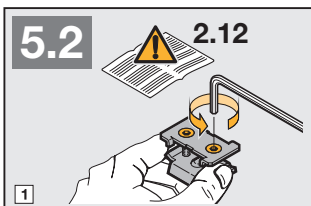
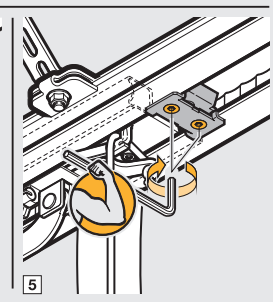
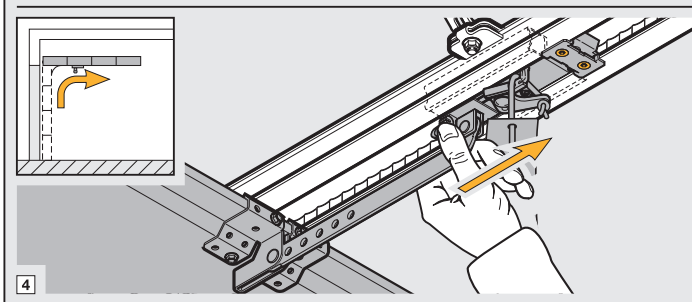
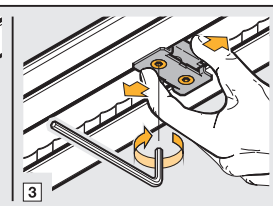
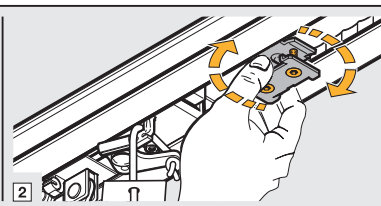
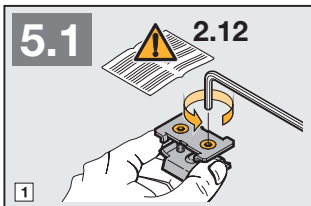
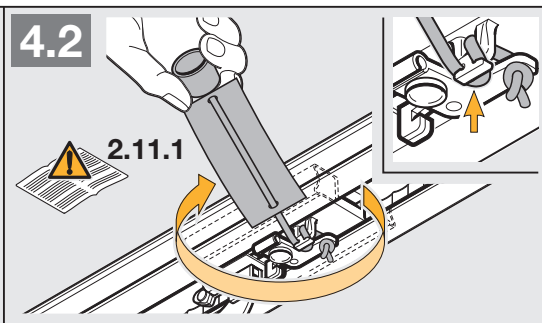
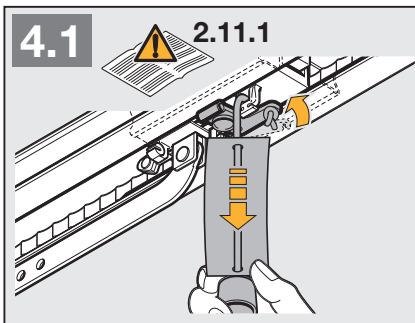


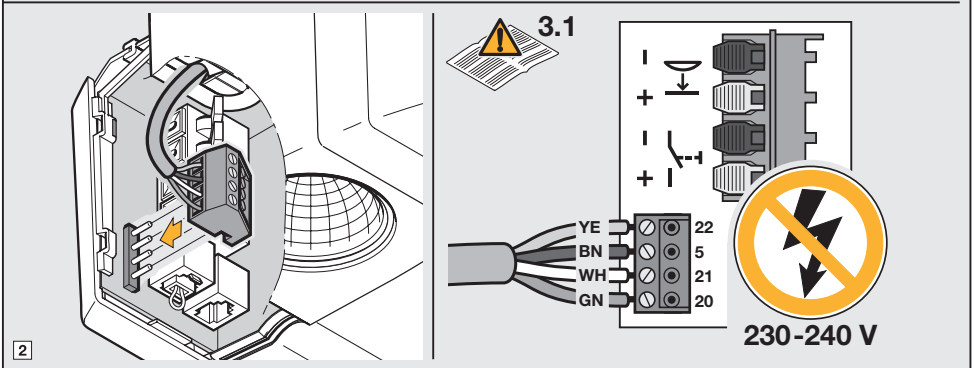
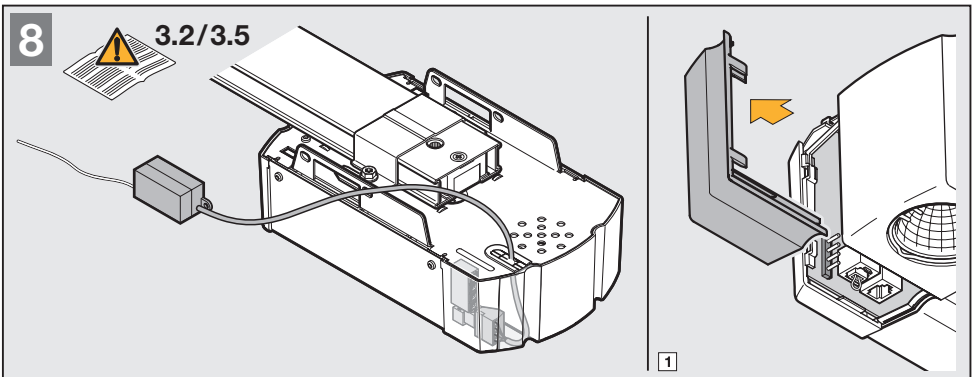
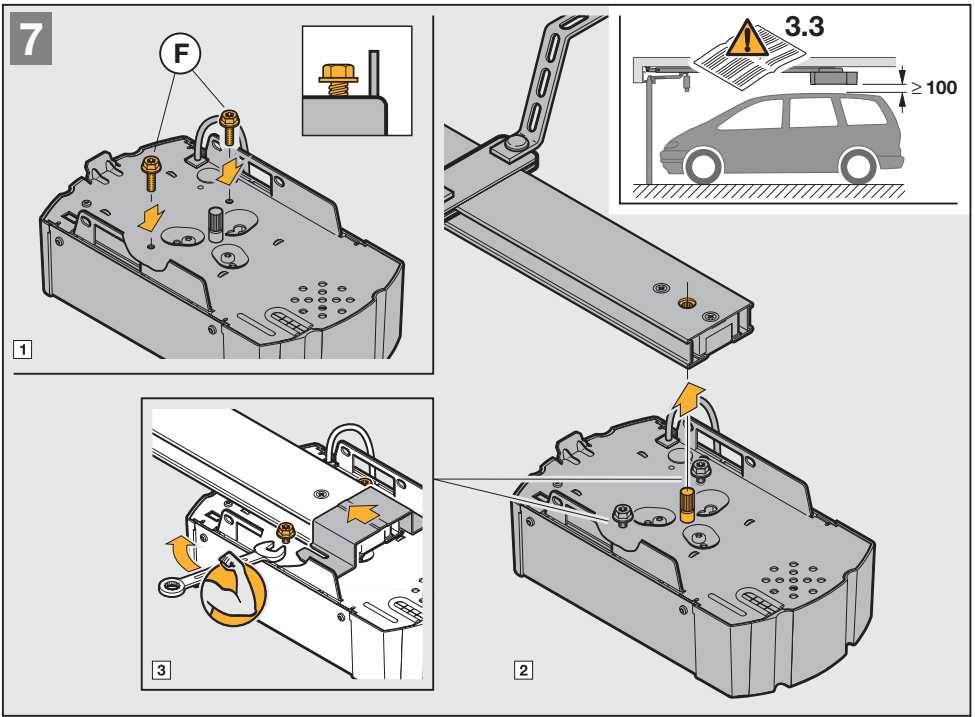
N 80

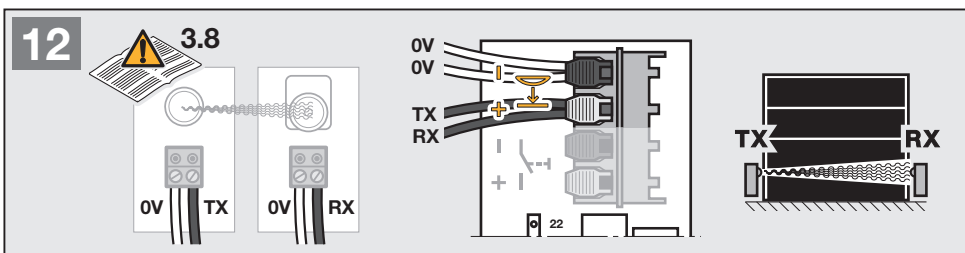
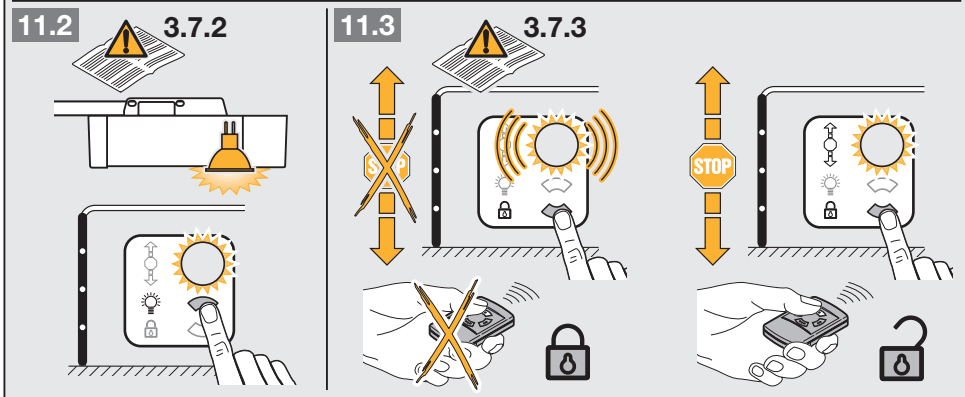
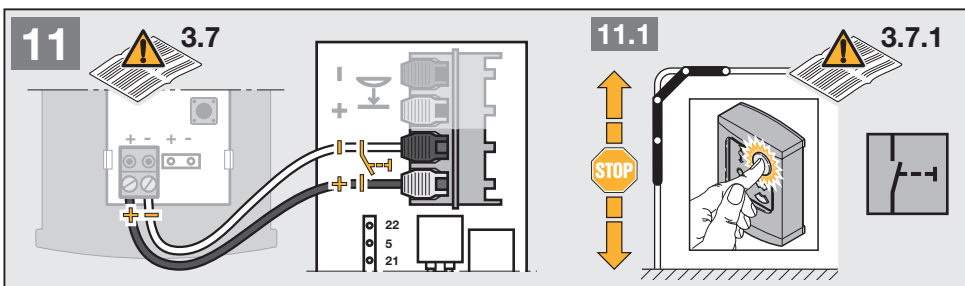
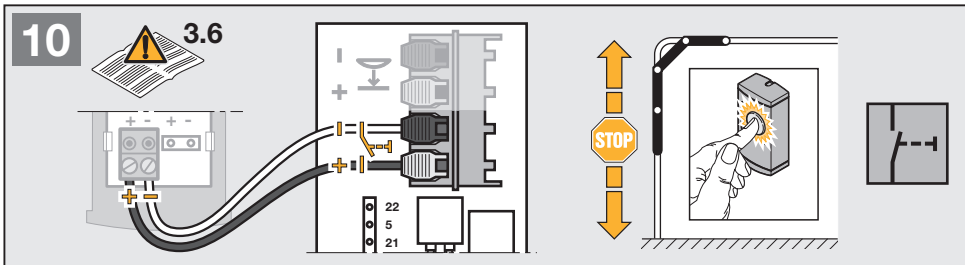
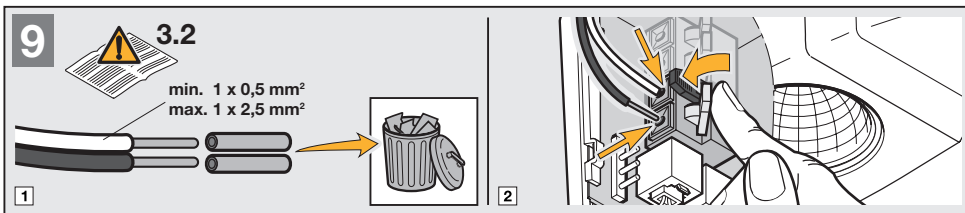


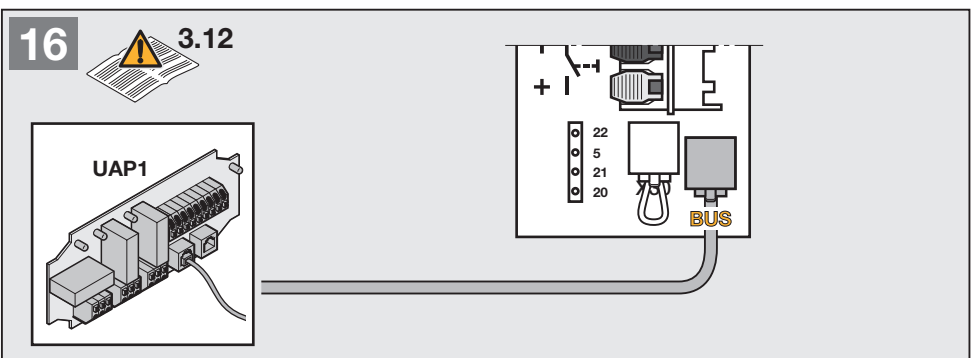
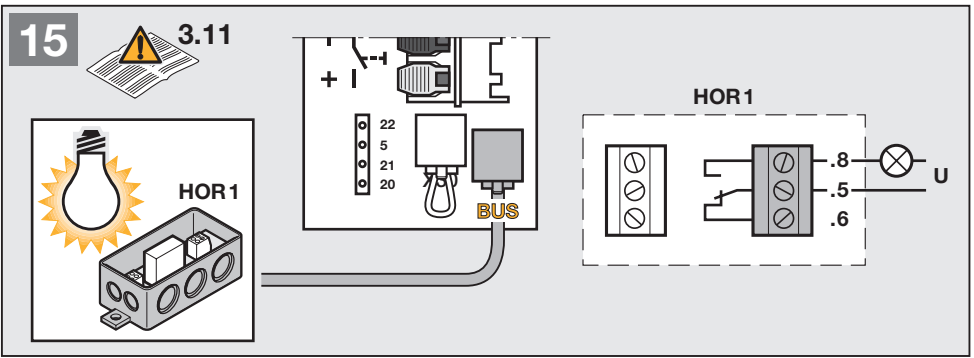
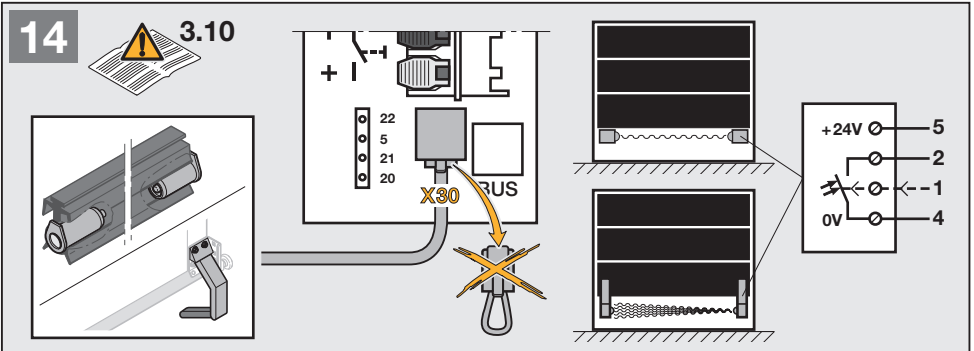
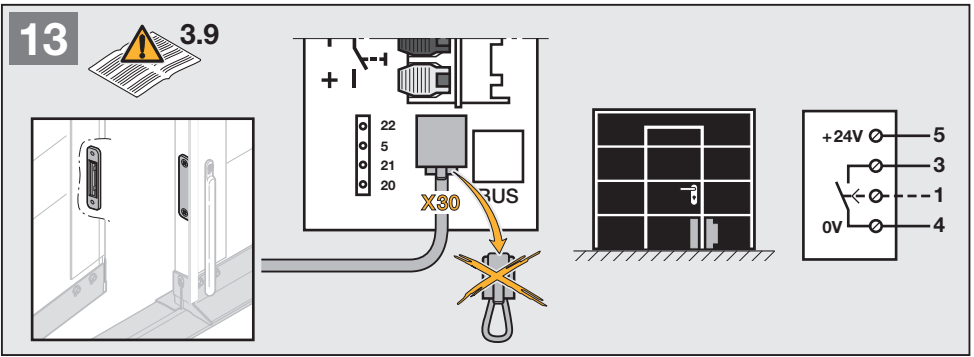
DF 98

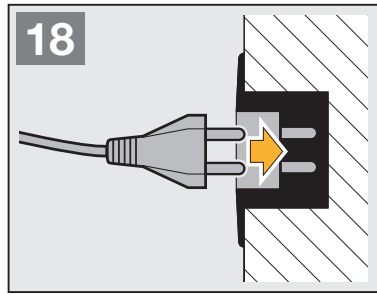
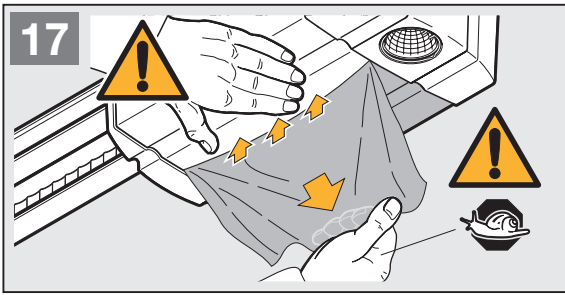












D Hinweis

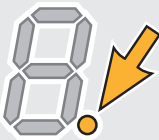
In den Menüs werden die aktuellen Einstellungen durch einen leuchtenden Punkt dargestellt.

GB Note

In the menus the current settings are represented by a glowing decimal point.

F Remarque

Dans les menus, les réglages en cours sont indiqués par un point lumineux.



NL Opmerking

In de menu's worden de actuele instellingen door een lichtend punt weergegeven.

I Avvertenza

Le impostazioni effettuate vengono rappresentate nei menu mediante un punto luminoso.

E Nota

En los menús se representan los ajustes actuales con un punto luminoso.

P Instrução

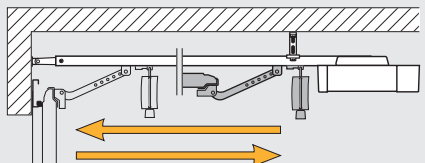
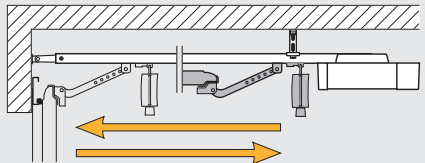
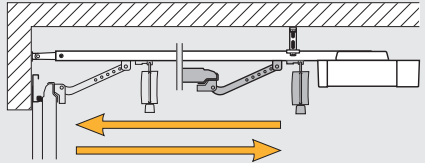
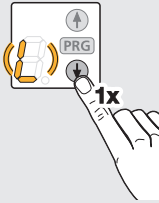
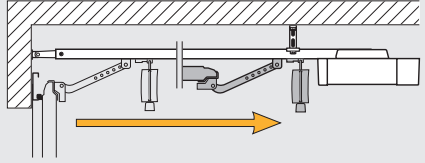
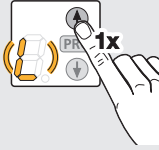
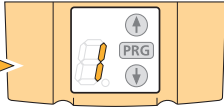
Nos menus, os ajustes actuais são apresentados através de um ponto luminoso.

19 **4.4**

The diagram illustrates the programming sequence for a remote control. It starts with a remote control showing '0.' on its display. The user presses the 'PRG' button, and the display changes to '0.'. Then, the user presses the 'UN' button, and the display changes to '0.'. This sequence is repeated for '1.', '2.', and '3.'. For each number, the 'PRG' button is pressed, the display shows the number with a glowing decimal point, the 'UN' button is pressed, and the display changes to the next number. The sequence ends with '3.' and an ellipsis. Time intervals of 5 seconds and 3 seconds are indicated for some steps.

20

4.5.1

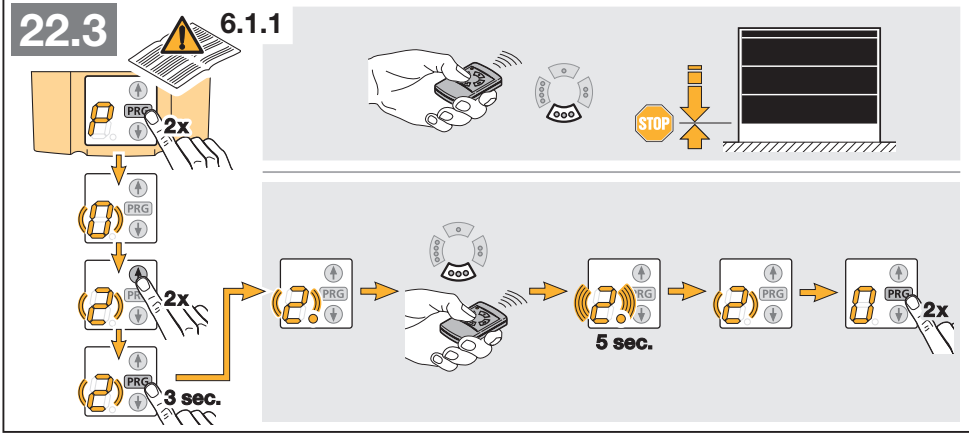
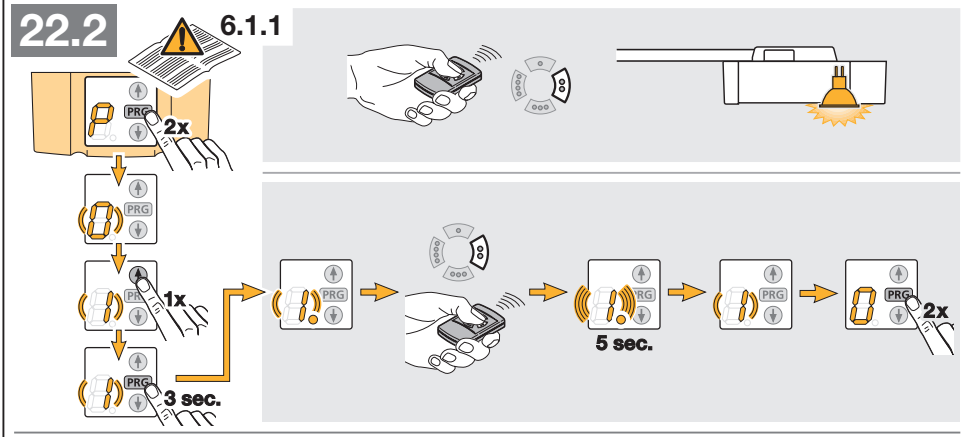
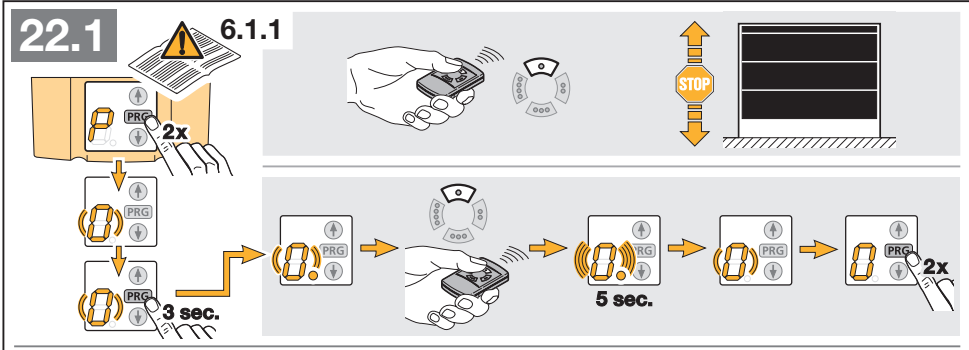
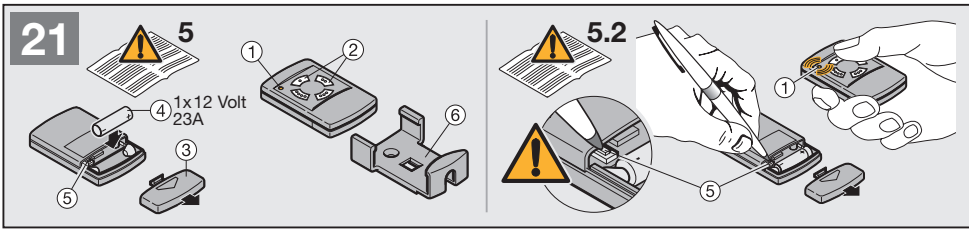


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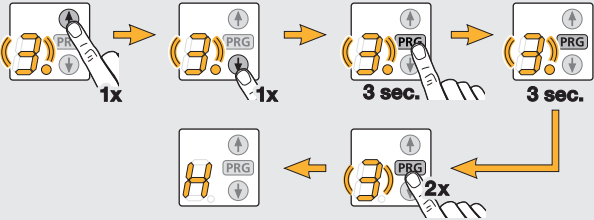
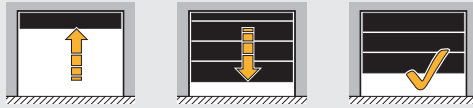
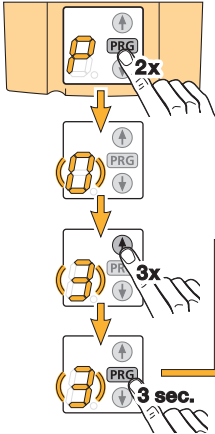
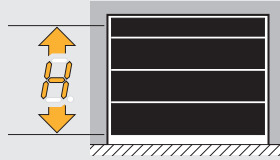
4.5.1





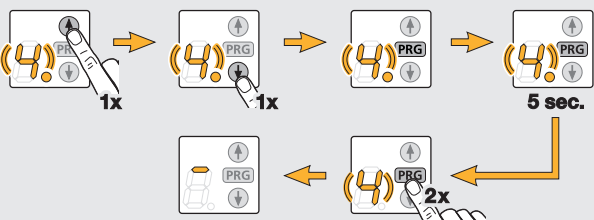
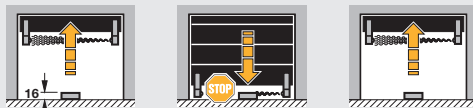
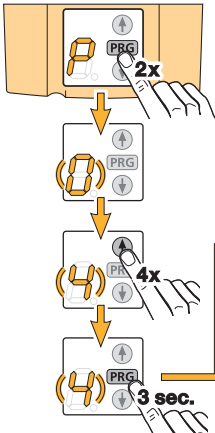
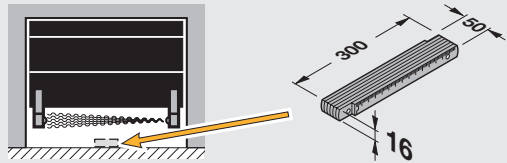
22.4

6.1.3



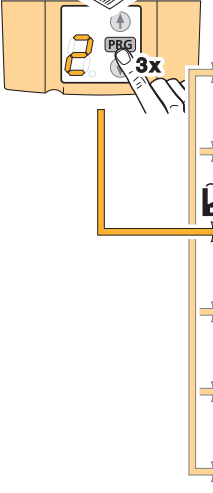
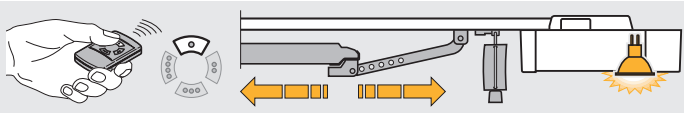
22.5

6.1.4



23.1

6.2.1



3 sec.					1x	
3 sec.					1x	
3 sec.					1x	
3 sec.					1x	
3 sec.					1x	
3 sec.					1x	

23.2

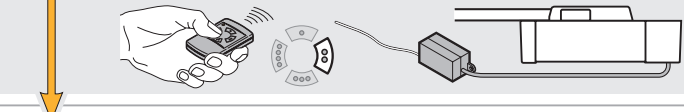
6.2.2



3 sec.					1x	
3 sec.					1x	
3 sec.					1x	
3 sec.					1x	

23.3

6.2.3

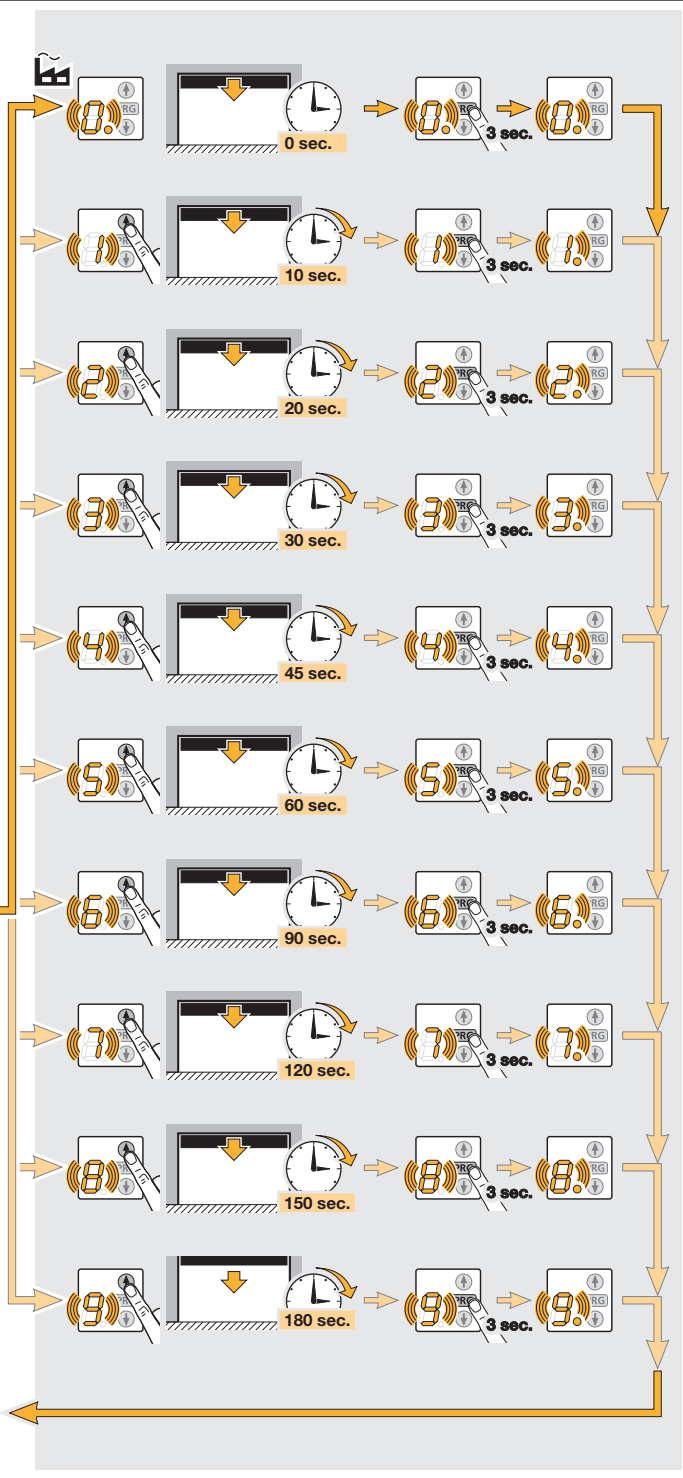
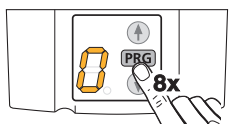
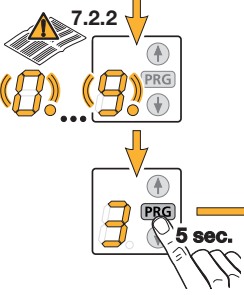
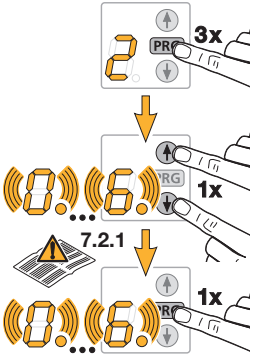


3 sec.					1x	
3 sec.					1x	

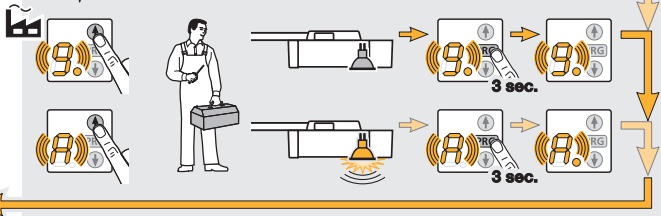
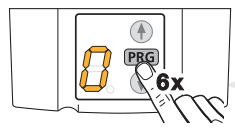
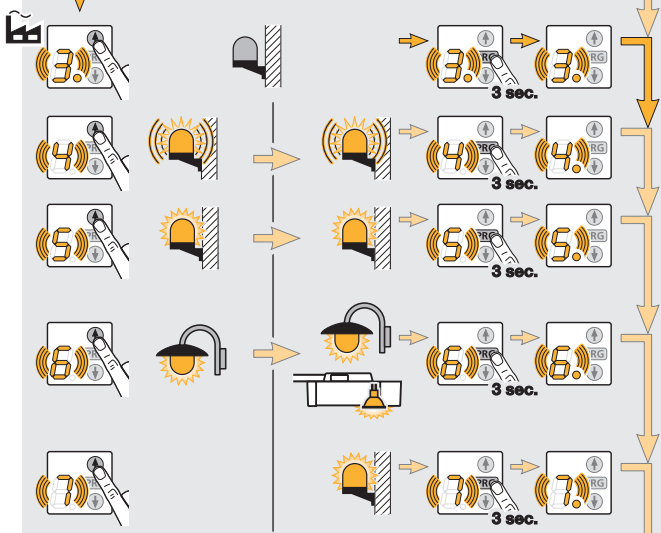
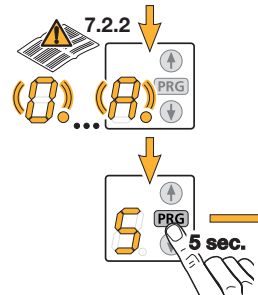
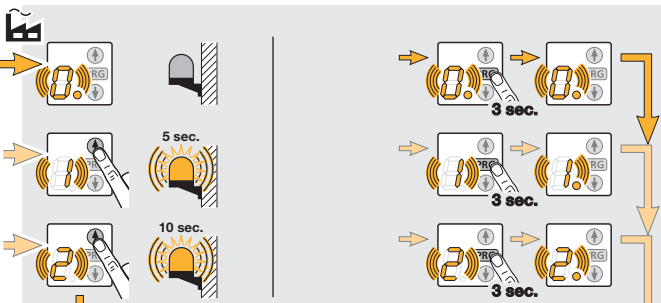
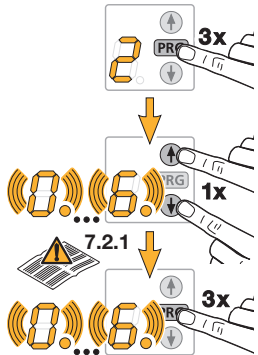
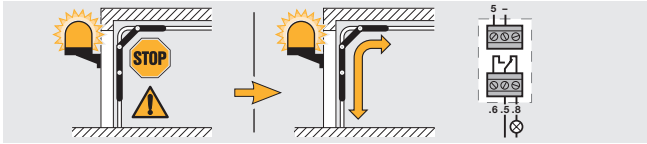
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- ⒼⒹ **SPECIAL MENUS**
- Ⓕ **MENUS DE SERVICE**
- ⒼⒻ **SPECIALE MENU'S**
- Ⓘ **MENU SPECIALI**
- Ⓔ **MENÚS ESPECIALES**
- ⒫ **MENUS ESPECIAIS**



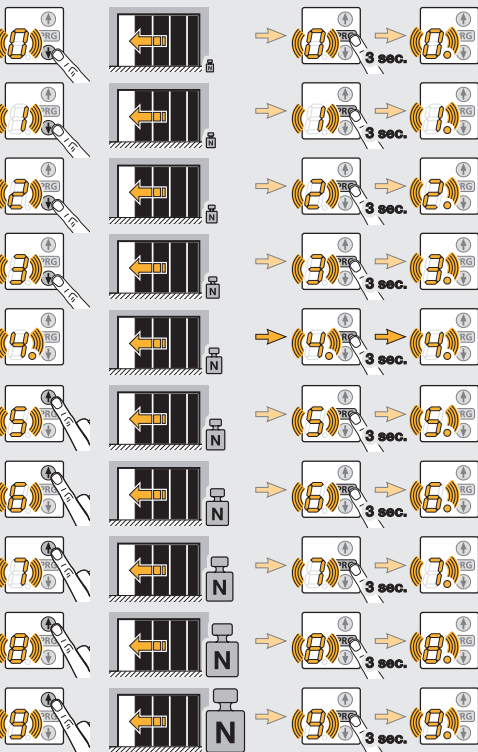
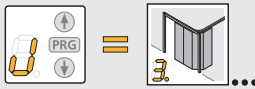
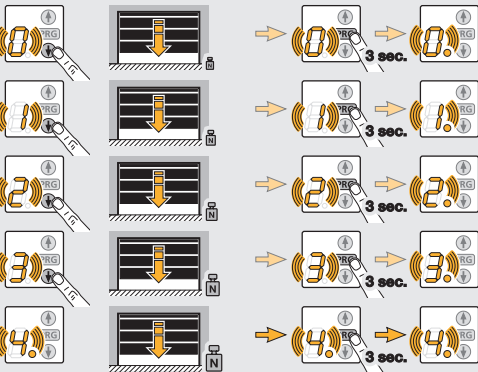
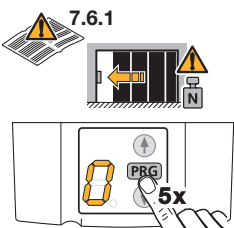
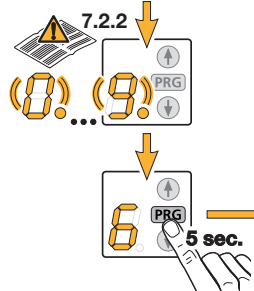
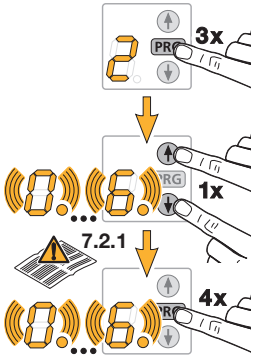
24



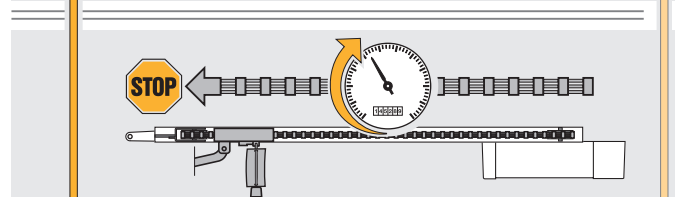
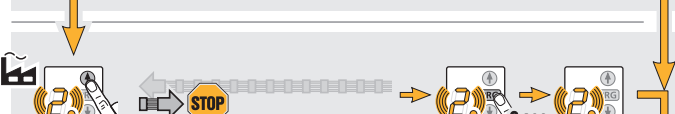
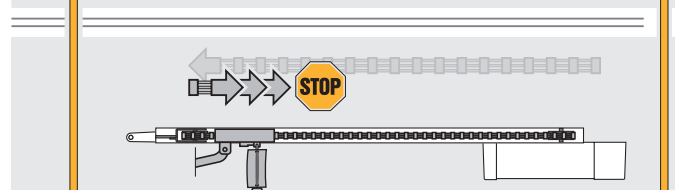
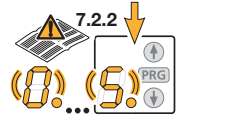
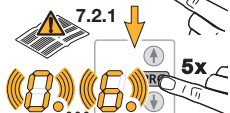
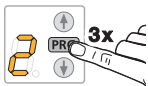
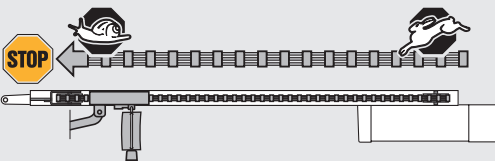
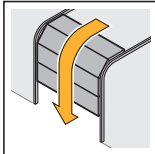
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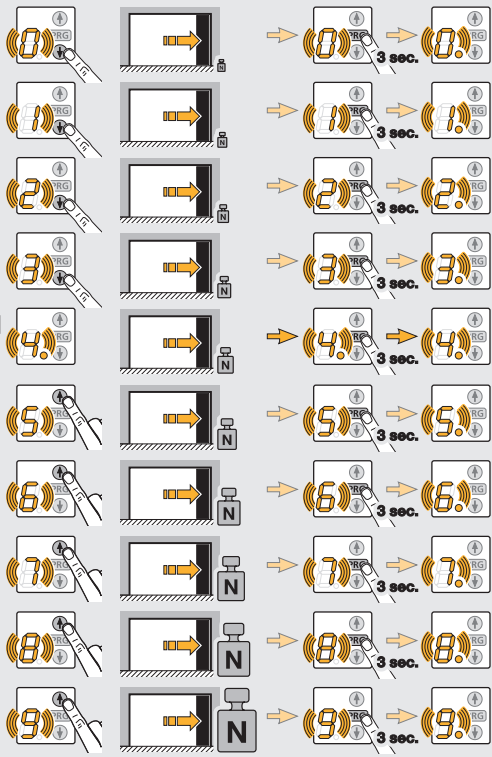
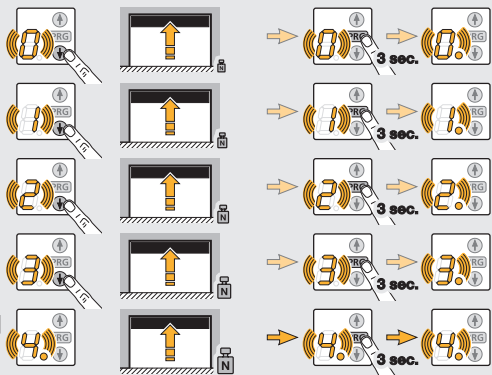
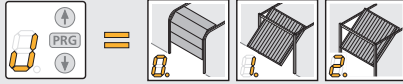
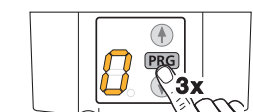
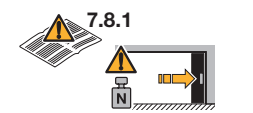
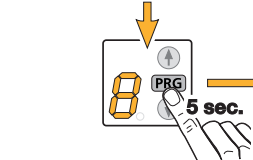
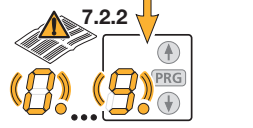
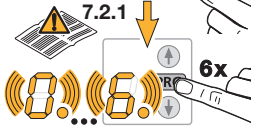
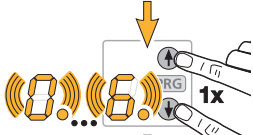
27



28



29



31 7.10

3x

7.2.1 8x

7.2.2 5 sec.

1x

3

3 sec.

3 sec.

3 sec.

1x

32 4.6

1

2

3

4

33 11.1

1

2

3

ENGLISH

2 INSTALLATION INSTRUCTIONS

Note

When drilling holes, cover the operator so as to avoid the penetration of dust and shavings, since these can lead to malfunctions.

2.1 Garage door operator**2.2 Required clearance for installing the operator**

When installing the operator the clearance between the door at its highest point of travel and the ceiling must be at least 30 mm (see fig. **1.1a/1.1b**). **Please check these dimensions!**

2.3 On a **sectional door**, the mechanical latch must be completely dismantled (see fig. **1.3a**).**ATTENTION**

When installing the operator the pull rope must be removed (see fig. **1.2a**)

2.4 Centrally positioned lock on a sectional door

For sectional doors with a centrally positioned handle, fit the lintel bracket and the door link bracket off-centre (see fig. **1.5a**).

2.5 Off-centred reinforcement profile on a sectional door

In the case of an off-centred reinforcement profile on a sectional door, fit the door link bracket to the nearest reinforcement profile on the left or right (see fig. **1.5a**).

Note

For timber doors, use - contrary to the illustrated section - 5 x 35 wood screws from the pack of screws supplied with the door (3 mm Ø drill hole).

2.6 The mechanical **latches on an up-and-over door** must be immobilized (see figs. **1.2b/1.3b/1.4b**). The latches for **door models not referred to in these instructions** must be locked in position on site.**2.7 Note**

For **up-and-over doors with an ornamental wrought iron door handle** - contrary to the illustrated section (see figs. **1.5b/1.6b**) - the lintel bracket and the door link bracket must be attached off-centre.

For N80-doors with timber infill, the lower holes in the lintel bracket have to be used for installation (see fig. **1.6b**).

2.8 Boom**ATTENTION**

Depending on the application, only the booms recommended by us may be used for the garage door operators (see product information).

2.9 Before installing the boom**Note**

Before mounting the boom to the lintel or ceiling, push the carriage in the engaged state (see section 2.11.2) approx. 20 cm from the CLOSE end-of-travel position into the OPEN end-of-travel position. It is no longer possible to do this with the carriage engaged, once the limit stops and the operator have been installed (see fig. **2.1**).

2.10 Installing the boom**Note**

For underground and collective garage operators, the boom has to be fixed to the ceiling using a second support. See figs. **2.4a** and **2.5** for mounting.

2.11 Boom operating modes

The boom allows two different operating modes:

2.11.1 Manual operation (see fig. **4.1**)

The carriage is disengaged from the belt lock; i.e. the door is not directly connected to the operator enabling the door to be moved by hand.

To disengage the carriage, the rope of the mechanical release must have been pulled.

Note

If on disengagement the carriage is at the CLOSE end-of-travel position, the rope of the mechanical release must be pulled until the carriage has been moved so far along the boom that it can no longer hook into the limit stop (carriage travels a distance of approx. 3 cm). To be able to permanently operate the door manually, the rope must be fixed on the carriage as shown in fig. **4.2**.

**ATTENTION**

If in countries in which the European Standard **EN 13241-1** must be complied with, the garage door operator is retrofitted by a specialist to a Hörmann **sectional door without spring breakage safety device (BR30)**, the installer responsible must also install a retrofit kit to the carriage. This kit comprises a screw to secure the carriage against inadvertent disengagement and a new pull rope sign, showing how to use the kit and carriage in the two boom operating modes.

2.11.2 Automatic operation (see fig. **5**)

The belt lock is engaged in the carriage, i.e. the door and the operator are connected to each other, thereby allowing power operation of the door.

To prepare the carriage for engagement, the green button must be pressed. The belt must then be moved towards the carriage until the belt lock engages into it.

**ATTENTION**

Do not insert fingers into the boom while the door is moving → **Risk of trapped fingers!**

2.12 Establishing the end-of-travel positions by installing the limit stops

- 1) Insert the limit stop for the OPEN end-of-travel position loosely into the boom between the carriage and the drive unit. Push the door by hand into the OPEN position. In doing so, the limit stop is pushed into the correct position. Secure the limit stop for the OPEN end-of-travel position (see fig. **5.1**).

Note

If in the OPEN end-of-travel position the door does not reach the full passage height, the limit stop can be removed so that the integrated limit stop (in the drive unit head) is used.

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2) Insert the limit stop for the CLOSE end-of-travel position loosely into the boom between the carriage and the drive unit. Push the door by hand into the CLOSE position. In this way the limit stop is pushed close to its correct position. When the CLOSE end-of-travel position has been reached, move the limit stop approx. 1 cm further towards the CLOSE position and then fix it in place (see fig. 5.2).

Note

If you are unable to push the door manually into the desired OPEN or CLOSE position, this indicates that the door mechanics are too sluggish to be used with the garage door operator and must therefore be checked (see section 1.1.2)!

2.13 Tensioning the toothed belt

The toothed belt of the operator boom is factory-set for optimum tension. During the starting and braking phases of larger doors it can happen that the belt hangs out of the boom temporarily. This, however, is of no technical disadvantage nor does it have any negative effect on the operator's function and service life.

3 INSTALLING THE GARAGE DOOR OPERATOR AND ACCESSORIES**3.1 Notes on electrical work****ATTENTION**

The following sections apply to any electrical work:

- Electrical connections may only be made by a qualified electrician!
- The on-site electrical installation must comply with the relevant safety regulations (230/240 V AC, 50/60 Hz)!
- Before working on the operator, always unplug from the mains!
- External voltage at any terminals of the control system will completely destroy the electronics!
- To avoid malfunctions, ensure that the control cables of the operator (24 V DC) are laid in an installation system separate to the other supply lines (230 V AC)!

3.2 Electrical connection / terminals (see fig. 3)

The terminals are accessible after removing the operator cover.

Note

All terminals can be multiple-assigned, however, min. 1 x 0.5 mm² und max. 1 x 2.5 mm² (see fig. 9).

The BUS offers the option of connecting special functions.

3.3 Operator lighting**ATTENTION**

The minimum distance to a lighted surface must be at least 0.1 m (see fig. 7).

3.4 Connecting additional components / accessories**Note**

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

3.5 Connecting an external radio receiver*

This garage door operator can also be connected to an external 2-channel radio receiver to perform the "impulse", "light" or "partial opening" functions. The receiver plug is inserted into the corresponding module slot (see fig. 3). In the case of receivers with the same radio frequency the data of the integral radio module must first be deleted (see section 6.1.2).

Note

The aerial cable of the radio receiver should not come into contact with any metal parts (nails, braces, etc.). The best alignment to achieve an optimum range must be established by trial and error. GSM mobile phones operated simultaneously may influence the range of the remote control.

The first channel of a two-channel receiver always has the function of the impulse sequence control. The second channel can be used for operating the operator lighting or partial opening (see section 6.2.3).

3.6 Connecting external impulse buttons* to start or stop door cycles

One or several buttons with potential-free N.O. contacts, e.g. internal push-buttons or key switches can be connected in parallel (see fig. 10).

3.7 Connecting the IT3b* internal push-button unit (see fig. 11)**3.7.1 Impulse button to start or stop door cycles** (see fig. 11.1)**3.7.2 Light switch to switch the operator lighting on/off** (see fig. 11.2)**3.7.3 Push-button to switch all the control elements on/off** (see fig. 11.3)**3.8 Connecting a two-wire photocell*** (dynamic) Photocells must be connected as shown in fig. 12.**Note**

To install a photocell, follow the corresponding instructions.

After the photocell has been activated, the operator stops and causes the door to travel to the OPEN end-of-travel position (safety return).

3.9 Connecting a self-monitoring wicket door contact* Wicket door contacts switching to ground (0 V) must be connected as shown in fig. 13.**3.10 Connecting a closing edge safety device***

Closing edge safety devices switching to ground (0 V) must be connected as shown in fig. 14. Once the closing edge safety device has been activated, the operator stops and the door reverses in the OPEN direction.

3.11 Connecting the HOR1 option relay* (see fig. 15)

The HOR1 option relay is required for connecting an external lamp or warning light.

3.12 Connecting the UAP1 universal adapter print* (see fig. 16)

The UAP1 universal adapter print may be used for connecting control elements from series 1 as well as for signalling the OPEN and CLOSE end-of-travel positions.

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4 PUTTING THE OPERATOR INTO SERVICE

4.1 General information

The operator control contains 13 menus, via which the user can select numerous functions. To put the operator into service, however, only two menus are required: adjustment/setting of the door type (menu **J**) and learning the distance of travel (menu **1**).

Note

Menus **J**, **1**, **P** and **2** are putting into service/function selection and customer menus; menus **3**, **4**, **5**, **6**, **7**, **8**, **9** and **A** are special menus and should be altered only if needed.

4.2 Menu selection

Menu selection is made via the PRG button. Here pressing the button results in changing to the next menu. On reaching menu **P**, the system changes back to menu **0**.

Note

The menus are released for approx. 60 s, after which the system changes back to menu **0**.

4.3 Putting into service

On first-time operation, the control system automatically switches to menu **J**. After having set the door type, press the PRG button to change to menu **1**. On completing the learning cycles, the system automatically changes back to menu **0** (normal operation).

4.4 MENU J – adjustment / setting of the door type

(see fig. 19)

Note

Menu **J** can only be accessed on first-time operation or after restoring the factory settings (see section 4.6/fig. 32).

In this menu, the operator is optimally adjusted to the corresponding door. To be able to alter a parameter, press the PRG button until the display flashes rapidly. By pressing the OPEN button (↑) or the CLOSE button (↓) you can page through the menu. To be able to alter the parameter, first select the parameter to be changed. Then press the PRG button until the decimal point flashes in addition.

Display	Operator on	Active settings	
		Menu 7	Menu 9
	Sectional door	1, 2, 5	1, 3, 5, 9
	Up-and-over door (door swinging open towards outside)	0, 2, 5	1, 3, 5, 8
	Retractable up-and-over door (door swinging open towards inside)	1, 2, 5	0, 3, 6, 9
	Side sectional door, ...	1, 2, 5	1, 3, 5, 8, A

Note

For side-hinged doors (with two leaves) parameter "3" should be set. If the door speeds need to be reduced, then the corresponding settings should be made in menus **7** and **9**.

4.5 MENU 1 – learning cycle / programming the operator

Select menu **1** by pressing the PRG button. In this menu the operator can be tuned to the door. In the process, the

distance of travel as well as the required force to open and close the door are learned and automatically stored.

4.5.1 Programming the travel limits and the attached safety devices (see fig. 20)

Note

The safety devices must be mounted and connected before the operator is programmed.

If further safety devices are connected at a later date, then the operator must be programmed to learn these. This requires that a new learning cycle is carried out or the corresponding parameter must be set **manually** in menu **4**.

Before starting the first learning cycle in the CLOSE direction, check whether one or more safety devices are connected. If so, the corresponding menu (menu **4**) is automatically selected.

Note

The carriage must be engaged (see fig. 5) and there must be no obstructions in the functional area of the safety devices!

If necessary, switch the control system to the learning mode by pressing the PRG button to change to menu **1**. Now, a flashing **L** is displayed after the **1**:

- First press the OPEN (↑) button. The door travels to the OPEN end-of-travel position.
- Then press the CLOSE (↓) button. The door travels to the CLOSE end-of-travel position. Now, the door automatically performs a complete opening cycle and a rapidly flashing **L** is displayed.
- Press the CLOSE (↓) button again. Once the door has reached the CLOSE end-of-travel position, the door automatically performs another complete opening cycle. The operator performs the next cycle (a closing and an opening cycle) automatically.
- Once the OPEN end-of-travel position has been reached, a number flashes. This indicates the maximum force established.

Note

The numbers displayed in relation to the maximum force established indicate the following:

- 0-2** optimum forces
- 3-9** poor forces; the door system needs to be checked / readjusted

**ATTENTION**

On completing the learning cycles, the person putting the system into service must check the functions of the safety devices and the settings in menu **4**. **Afterwards the system is ready for operation.**

Note

The motor of the garage door operator features thermal overload protection. If within 2 minutes 2-3 fast-opening cycles take place in succession, this safeguard reduces the speed, i.e. travel in both the OPEN and CLOSE directions proceeds at the same speed. After a rest period of a further two minutes, the next opening cycle is performed at fast speed again.

4.6 Resetting the control system / restoring the factory settings (see fig. 32)

To reset the control system, proceed as follows:

1. Pull out the mains plug

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2. Press and hold the PRG button
3. Insert the mains plug
4. Release the PRG button as soon as **C** is displayed
5. Adjust and programme the operator

Note

The programmed radio codes (impulse / light / partial opening) are retained.

5 HAND TRANSMITTER (see fig. 21)

- ① LED
- ② Buttons
- ③ Battery compartment cover
- ④ Battery
- ⑤ Reset button
- ⑥ Hand transmitter holder

5.1 Important notes on using the hand transmitter

Only genuine parts must be used for putting the remote control into service!

**ATTENTION**

If the garage does not have a separate access door, any changes or additional programming must be done from inside the garage. When programming (menu 2) and extending the remote control, it must be ensured that neither persons nor equipment are located within the door's range of travel. On completing the programming or extension of the remote control, the functions must be checked.

Note

The local conditions may affect the range of the remote control!

**ATTENTION**

Hand transmitters must be kept out of the reach of children and may only be used by persons familiarized with the function of a remote-controlled door system. Only operate the hand transmitter within sight of the door. Doorways of remote-controlled door systems may only be passed through provided the garage door is at the OPEN end-of-travel position, i.e. has opened fully.

Note

The hand transmitter must be protected against:

- direct exposure to sunlight
- (permitted ambient temperature: -20 °C up to +60 °C)
- humidity
- dust

Non-observance may affect the function of the hand transmitter!

5.2 Restoring the factory code (see fig. 21)**Note:**

The following steps are only necessary in the event of erroneous extension or learning procedures.

The code place of each button on the hand transmitter can be reset to the original factory code or programmed with a new code.

1. Open the battery compartment cover - a small button on the circuit board can be accessed.

2. Take a blunt object and gently press and hold button ⑤.

Note:

Do not use any sharp objects. Excessive pressure can destroy the button.

3. Press and hold the button that you wish to code. The transmitter LED flashes slowly.
4. If the small button is held down until the slow flashing phase ends, the control button will then be re-coded with the original factory code and the LED starts flashing rapidly.
5. Close the battery compartment cover.
6. Re-programme the receivers.

6 FUNCTION SELECTION**Note**

In the menus, comprising several parameter blocks, only one parameter per block can be activated.

6.1 MENU P

In this menu the radio codes of the impulse sequence control (parameter **0**, see fig. 22.1), the light function (parameter **1**, see fig. 22.2) and partial opening (parameter **2**, see fig. 22.3) can be programmed. In addition, in this menu the "partial opening" position (parameter **3**) as well as the "closing edge safety device / leading photocell" reversing limit (parameter **4**) can be set.

Display	Radio	Function
(0)	channel 1	impulse
(1)	channel 2	light
(2)	channel 3	partial opening
(3)	—	Setting "partial opening" position
(4)	—	Reversing limit "closing edge safety device / Leading photocell" (closing edge safety device is preset)

6.1.1 Programming a radio code using the internal radio receiver (see fig. 22.1/22.2/22.3)**Note**

Per function a maximum of 12 different codes can be programmed.

1. Select menu **P**.
2. Select parameter **0**, **1** or **2**.
3. Press the PRG-button until the decimal points starts to flash slowly.
4. If a button on the hand transmitter is pressed and the receiver recognizes this transmitted code, the display flashes rapidly.
5. The code is now stored in the memory.
6. The operator remains in the selected parameter of menu **P**. Press the PRG-button to return to normal operation (menu **0**)

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Note

If the same radio code is programmed for two different functions, the code for the function first programmed is deleted and the most recently programmed code remains valid.

6.1.2 Deleting all the radio codes of a function

1. Select menu **P**.
2. Select parameter **0, 1** or **2**.
3. Press the PRG-button until the decimal points starts to flash.
4. Press OPEN button (↑) and CLOSE button (↓) simultaneously.
5. The decimal point stops flashing; all the codes of the corresponding function have now been deleted.

6.1.3 Setting the "partial opening" position

(see fig. [22.4](#))

**Note**

The "partial opening" position can only be set once the operator has completed the learning process.

In menu **P**, the "partial opening" position can be set via parameter **3**. The display flashes slowly. Press the PRG button and keep it pressed until the decimal point flashes. Now, the parameter has been activated. Using the OPEN button (↑) and CLOSE button (↓) the door can be operated in dead man's mode.

When the desired position has been reached, press the PRG button until the display flashes rapidly. The decimal point goes out and the display flashes slowly.

Note

The setting range of the "partial opening" position ranges from the OPEN end-of-travel position up to approx. 120 mm (carriage travel) in front of the CLOSE position. The standard factory setting is approx. 260 mm (carriage travel) in front of the CLOSE end-of-travel position.

6.1.4 Setting the reversing limit "closing edge safety device / leading photocell" (see fig. [22.5](#))**Note**

The reversing limit "closing edge safety device / leading photocell" can only be set once the operator has completed the learning process and parameters **3** and **4** in menu **4** have been activated.

In menu **P**, the setting of the reversing limit "closing edge safety device / leading photocell" can be set via parameter **4**. The reversing limit "closing edge safety device / leading photocell" is preset for the closing edge safety device in front of the CLOSE end-of-travel position. Parameter **4** is selected and activated, i.e. the PRG button has to be pressed until the decimal point lights up. With the OPEN button (↑) the operator is moved to the OPEN end-of-travel position. Subsequently, a test body (max. 300 x 50 x 16.25 mm, for instance a folding rule) is placed on the floor within range of the leading photocell in such a way that the smallest dimension faces upwards. Press the CLOSE button (↓). The door travels downwards until the safety device detects the test body. The position is stored and checked for plausibility. Then the operator reverses. If the process has been successful, the display flashes rapidly. The parameter is then displayed flashing slowly without the decimal point. Press the PRG button to return to normal operation (menu **0**).

6.2 MENU 2

Select menu **2** by pressing the PRG button. Upon selection, the menu number remains displayed for a short period. Afterwards, the active menu parameter (persistence time) is displayed with the decimal point flashing rapidly.

Press the OPEN button (↑) or the CLOSE button (↓) to page through the menu. To be able to change the parameter, the parameter to be set must be selected. Then press the PRG button until the decimal point also flashes. Press the PRG button to return to normal operation (menu **0**).

6.2.1 Setting the operator lighting – persistence time (see fig. [23.1](#))

Menu **2** affects the internal light relay. As soon as the door starts moving, the light relay is switched on, if a parameter greater than **0 (1-5)** has been selected. If the door has completed its cycle, the operator lighting remains active for the preset time (persistence time).

**ATTENTION**

Do not touch the cold-light reflector lamp when under voltage or shortly after switching off the lamp → **Risk of burning!**

6.2.2 Setting the operator lighting – radio signal, external push-button (see fig. [23.2](#))

With parameters **6-9**, the time the operator lighting stays on can be set. The operator lighting can be switched on via a radio signal or an external push-button (e.g. IT 3b internal push-button unit).

The operator lighting can also be switched off prematurely via the same control elements (radio signal or external push-button).

6.2.3 External radio function of the 2nd channel (see fig. [23.3](#))

If an external 2-channel radio receiver is connected to the operator, you have the option of using the second channel for controlling the **operator lighting** (parameter **A**).







Note

While the door is moving, the light cannot be switched on and off!

If the external 2-channel radio receiver is used for partial opening, parameter **b** must be activated.

Display	Function
Operator lighting persistence time	
	not active
	1 minute
	2 minutes
	3 minutes
	4 minutes
	5 minutes

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Operator lighting by radio signal, external push-button	
	not active
	5 minutes
	10 minutes
	15 minutes
Radio function of the 2nd channel	
	Operator lighting
	Partial opening

Press the PRG button to return to normal operation (menu **0**).

6.3 MENU 0 – normal operation

In normal mode, the garage door operator operates with impulse sequence control, activated via an external push-button or a learned radio code:

- 1st impulse: door travels towards the end-of-travel position
- 2nd impulse: door stops
- 3rd impulse: door travels in the other direction
- 4th impulse: door stops
- 5th impulse: door travels towards the end-of-travel position selected with the first impulse
- etc.

6.3.1 Behaviour of the garage door operator after 2-3 fast-opening cycles in succession

Note

The motor of the garage door operator features thermal overload protection.

If within 2 minutes 2-3 fast-opening cycles take place in succession, this safeguard reduces the speed, i.e. travel in both the OPEN and CLOSE directions proceeds at the same speed. After a rest period of a further two minutes, the next opening cycle is performed at fast speed again.

7 SPECIAL MENUS

7.1 Selecting the special menus

To access the special menus (menu **3** - menu **A**), simultaneously press the OPEN button (↑) and the CLOSE button (↓) in menu **2**. The service menus can be selected via the PRG button.

7.2 General information on the special menus

(Menu **3** – menu **A**)

Upon selection, the menu number remains displayed for a short period. Subsequently, the first active menu parameter is shown flashing slowly. Press the OPEN button (↑) or the CLOSE button (↓) to page through the menu. The active parameter or parameters are indicated by a glowing decimal point.

To change a parameter, press and hold the PRG button until the display flashes rapidly. Press the OPEN button (↑) and the CLOSE button (↓) to page through the menu. The active parameter is indicated by a glowing decimal point. To activate a parameter, press the PRG button until

the decimal point lights up. If the PRG button is released prematurely, this calls up the next menu. If no button is pressed and the operator has completed the learning process, the control system automatically returns to normal operation (menu **0**).

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

Note

When changing to the special menus, depending on the current setting in menu **2**, a number between "0" and "6" flashes in the 7-segment display.

7.2.2 7-segment display after selecting a special menu





Note

After selecting a special menu, a number between 0...9 can 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 fig. 24)

Note

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

Display	Automatic timed closing
	not activated
	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

If the operator receives an impulse during automatic timed closing (menu **3**, parameter greater than **0**), then the door stops and opens again.

Press the PRG button to return to normal operation (menu **0**).

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7.4 MENU 4 – safety devices (see fig. 25)

Display	Function
Photozell	
	not present
	present (with dynamic self-monitoring unit)
Closing edge safety device / leading photocell without self-monitoring unit	
	not present
	present
Closing edge safety device / leading photocell with self-monitoring unit	
	present
Wicket door contact with self-monitoring unit	
	not present
	present

**ATTENTION**

Safety devices without a self-monitoring unit must be tested every 6 months.

Press the PRG button to return to normal operation (menu 0).

7.5 MENU 5 – setting the advance warning phase, options relay (accessories) and maintenance indication (see fig. 26)












7.5.1 Maintenance indication

If the maintenance indication is activated (parameter **A**), the operator lighting flashes at the end of a door cycle when the prescribed maintenance interval - maintenance of the door system - has been exceeded. The maintenance indication can be reset by performing a learning cycle.

7.5.2 Overview of maintenance intervals

Operator for single / double garages
Operation for 1 year **or** 2,000 door cycles

Operator for underground and collective garages
Operation for 1 year **or** 10,000 door cycles

Display	Function
Advance warning phase / external with options relay	
	not active
	5 seconds
	10 seconds
Options relay (accessories)	
	not active
	Relay clocks during advance warning phase and door travel
	Relay is switched on during door travel and advanced warning phase
	Relay picks up with the operator lighting. It is switched on during the advance warning phase when parameters 1-5 have been activated in menu 2 .
	Relay is switched on during door travel
	Relay picks up for one second when travel or advance warning phase has started e.g. a wipe impulse to switch on automatic staircase lighting with 100 % duty cycle
Maintenance indication	
	not active
	active

Press the PRG button to return to normal operation (menu 0).

7.6 MENU 6 – force limit during operation in the CLOSE direction (see fig. 27)

In this menu, the sensitivity of the automatic force limit for the closing cycle can be set (factory setting: parameter **4**).

Note

Increasing the force value (parameter greater than **4**) is only possible if parameter **3** has been selected in menu **J**.

**ATTENTION**

Do not select an excessively high setting as excessive force may cause damage to equipment or injuries to persons.

For doors moving easily, a low value can be selected if the sensitivity to obstructions is to be increased. Press the PRG button to return to normal operation (menu 0).

7.6.1 Checking the forces in the CLOSE direction

When changing the settings of menu **6**, the forces as defined in EN 12453 in the CLOSE direction must be complied with; i.e. a subsequent check is absolutely essential.

ENGLISH

7.7 MENU 7 – behaviour during operation in the CLOSE direction (see fig. 28)

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

Note

After the menu changes, a learning cycle may have to be carried out.

Display	Function
Soft stop	
	long
	short
Relief	
	automatic
	long
Speed	
	slow
	normal

Press the PRG button to return to normal operation (menu 0).

7.8 MENU 8 – force limit during operation in the OPEN direction (see fig. 29)

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

Note

Increasing the force value (parameter greater than 4) is only possible if parameter 3 has been selected in menu J.

**ATTENTION**

Do not select an excessively high setting as excessive force may cause damage to equipment or injuries to persons.

For doors moving easily, a low value can be selected when the sensitivity to obstructions is to be increased.

Press the PRG button to return to normal operation (menu 0).

7.8.1 Checking the forces in the OPEN direction

When changing the settings in menu 8, the forces as defined in EN 12453 in the OPEN direction must be complied with, i.e. a subsequent check is absolutely essential.

7.9 MENU 9 – behaviour during operation in the OPEN direction (see fig. 30)

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

Note

After the menu changes, a learning cycle may have to be carried out.

Display	Function
Soft stop	
	extra long
	long
	short
Relief	
	automatic
	short
Soft start from CLOSE end-of-travel position	
	short
	long
Speed	
	slow
	normal
	fast
Force limit response	
	stop
	short reverse

Note







- Parameters 0 and 6: these parameters are matched to the characteristics of retractable up-and-over doors.
- Parameters A and B: these parameters only need to be set when parameter 3 has been selected in menu J. Otherwise, parameter A is active in this menu.
- Parameter B: if error 5 (force limit) occurs when the door is opening, the door travels a short distance back (roughly 10 cm of carriage) in the opposite direction and then stops.

Press the PRG button to return to normal operation (menu 0).

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7.10 MENU A – maximum force (see fig. 31)

In this menu, the maximum force limit is set.

Display	Maximum force limit
	
	
	

Note

Increasing the force value (parameter greater than 0) is only possible when parameter 3 in menu J has been selected.

Press the PRG button to return to normal operation (menu 0).

8 ERROR MESSAGES AND WARNINGS

(see page 71)

9 DISMANTLING

Have the garage door dismantled and disposed of by a specialist.

10 TERMS OF WARRANTY**Warranty period**

In addition to the statutory warranty provided by the dealer, we provide the following warranty of parts from the date of purchase:

- 5 years on operator mechanics, motor and motor control system
- 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. Following the supply of 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 installation, 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.

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 as reimbursement.

Excluded is damage due to:

- improper installation and connection
- improper putting into service and operation
- external influences such as fire, water, abnormal weather conditions
- mechanical damage due to accidents, dropping, impact
- negligent or deliberate destruction
- normal wear or deficient maintenance
- repair by non-qualified persons
- use of non-original parts
- removal or defacing of the type plate

Replaced parts become our property.

11 TECHNICAL DATA

Voltage: 230/240 V, 50/60 Hz

Stand-by: Approx. 4.5 W

Protection category: For dry rooms only

Automatic cut-out: Automatically programmed separately for both operational directions.

End-of-travel cut-out/force limit: Self-learning, non-wearing, since no mechanical switches are used. Additionally integrated excess travel stop of approx. 60 s. Automatic cut-out re-adjusts during each door cycle.

Rated load: See type plate

Push and pull force: See type plate

Motor: DC motor with Hall sensor

Transformer: With thermal overload protection

Connection: Connection technique without screws for external equipment with safe extra-low voltage of 24 V DC, e.g. internal and external buttons for impulse control

Special functions:

- Stop/off switch can be connected
- Photocell or closing edge safety device can be connected
- Options relay for warning light, additional external lighting can be connected via the HCP bus adapter

Quick release: In the event of a power failure actuated from the inside via a pull rope

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Universal fitting:	For up-and-over and sectional doors
Door speed:	Depending on the door type, door size, door action and weight - closing: approx. 14 cm/s - opening: approx. 22 cm/s
Air-borne noise of garage door operator:	≤ 70 dB (A)
Boom:	Extremely flat (30 mm) with integrated door security kit and maintenance-free toothed belt.
Application:	Exclusively for garages in the domestic sector. Not suitable for industrial / commercial use.

11.1 Spare lamp

To insert / replace bulb for operator lighting

– see fig. **33**

To adjust operator lighting

– see section 6.2 (menu **2**)

Type:	only cold-light reflector lamp with protective glass and UV protection
Base:	GU 5.3
Wattage:	20 W
Voltage:	12 V
Lighting angle:	36°-60°
Diameter:	51 mm
Lamp colour:	clear

















Note

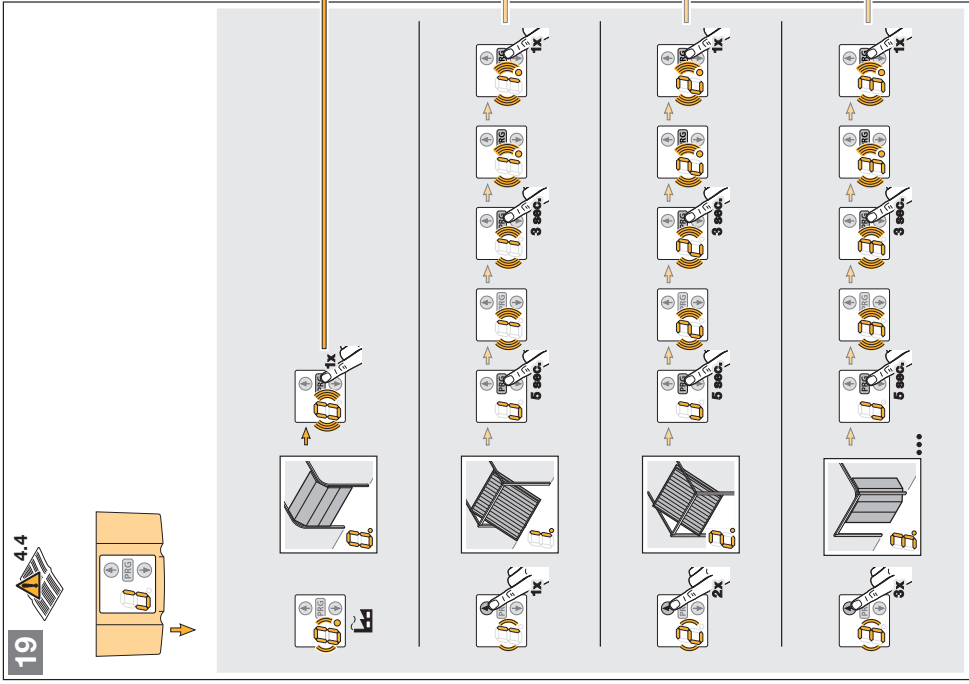
When replacing the cold-light reflector lamp, make sure that the operator has been switched off first.

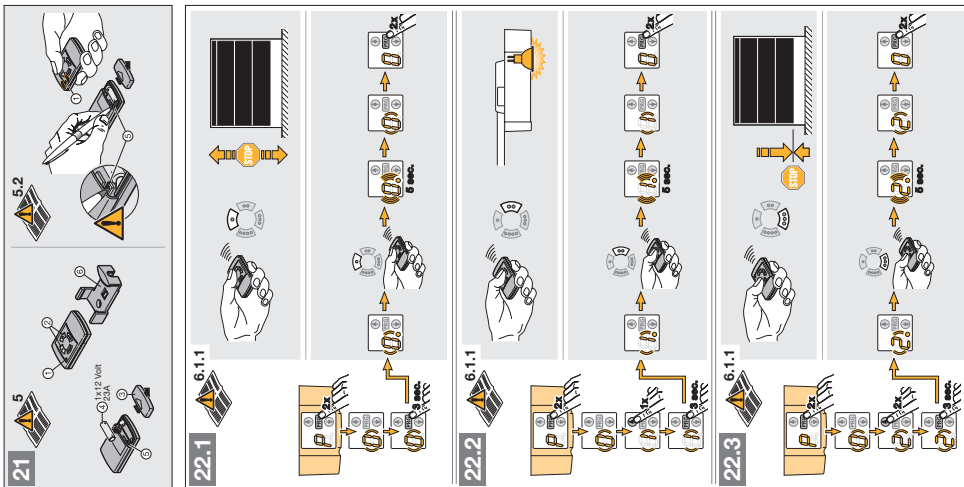
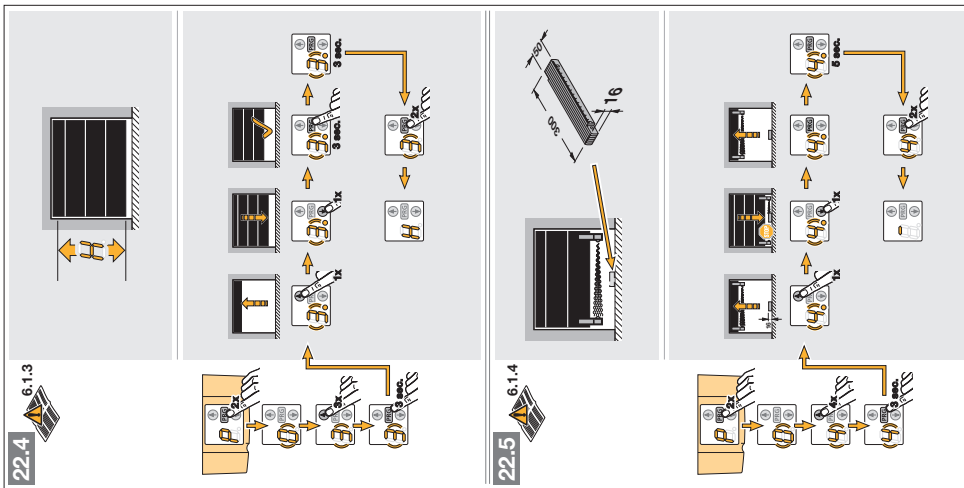
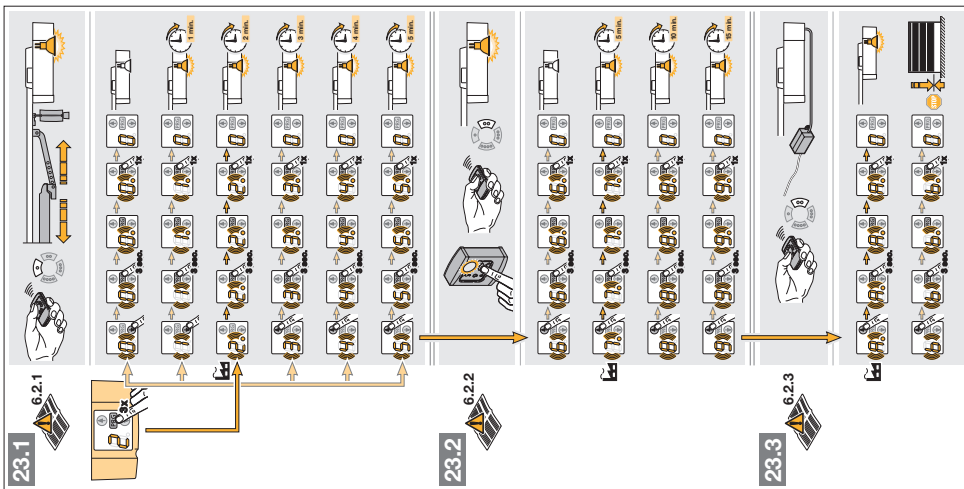
ENGLISH

8 Error messages and warnings

Note: In the event of an error or warning a number is displayed with a rapidly flashing decimal point.

Display	Fault/Error/Warning	Possible Cause	Remedy
	Reversing limits cannot be set	Obstruction when setting the reversing limit "closing edge safety device/leading photocell"	Remove obstruction
	Partial opening height cannot be set	Partial opening height too close to the CLOSE end-of-travel position (≤ 120 mm carriage travel)	Partial opening height must be larger
	Entry not possible	Parameter in menu 4 set to 0 , and activation of automatic closing tried (menu 3 , parameters 1-9)	Activate safety device/s
	Travel command not possible	Travel command given but operator blocked for control elements	Release operator for control elements
	Excess travel stop	Belt torn	Replace belt
		Operator defective	Replace operator
	System fault	Internal error	Restore factory settings (see section 4.6) and reprogramme operator; replace, if necessary
	Force limit	Door moves sluggishly or unevenly	Correct door movement
		Obstruction in door area	Remove obstruction, reprogramme operator, if necessary
	Closed circuit	Wicket door is open	Close wicket door
		Solenoid incorrectly installed (wrong way round)	Install solenoid correctly (see instructions for wicket door contact)
		Self-monitoring unit defective	Replace wicket door contact
	Photocell	Photocell not connected	Connect photocell or set parameter in menu 4 to 0
		Light path interrupted	Adjust photocell
		Photocell defective	Replace photocell
	Closing edge safety device	Light path interrupted	Check transmitter and receiver, replace, if necessary or completely replace closing edge safety device
	No reference point	Power failure	Move door to Open end-of-travel position
	Operator not programmed	Operator not programmed	Programme operator
	The operator is at the Open end-of-travel position		The operator is at the intermediate position
	The operator is at the Closed end-of-travel position		The operator is partly open
			The operator is running
			Impulse input (radio code)







04.2007 TR10A041-C RE