LiftMaster®

LM50EVFF-02

en

# Assembly- and operating instructions for Garage Door Opener

**Note:**

The original installation and operating instructions were compiled in German.
Any other available language is a translation of the original German version.

# *WARNING!*

## *START BY READING THESE IMPORTANT SAFETY INSTRUCTIONS!*

## 1 General safety guidelines

Before you begin the installation:
Please read the operating instructions and especially the precautions. Keep the manual for future reference and pass it on to a possible subsequent owner.
The following symbols are placed in front of instructions to avoid personal injury or property damage. Read these instructions carefully.

CAUTION
Personal injury or property damage

CAUTION
Danger due to electric current or voltage

**Important safety information**
The automated door opening system has been as a matter of course tested and designed for safe operation, but safety can be assured only if the safety instructions listed below are strictly adhered to during installation and operation.

- The installer (specialist) must carefully read and understand these instructions before starting any work. Before first use and at least annually a specialist must inspect powered windows, doors and gates regarding their safe condition. Specialist is, who on the basis of their technical training and experience, has sufficient knowledge in the field of powered windows, doors and gates and moreover is familiar with relevant state occupational safety regulations and generally accepted rules of technology in such an extent that he is also able to assess the safe working condition of powered windows, doors and gates.
- The person installing must have knowledge of the following standards: EN 13241, EN 12604, EN 12453. The trained specialist/expert must instruct the operator in the following:
  - The operation of the drive and its dangers
  - The handling of the manual emergency unlocking mechanism
  - The regular maintenance, inspection and care, and his tasks
  - The operator must instruct other users on the operation of the drive.
  After successful installation of the drive, the person responsible for the installation of the drive in accordance with the Machinery Directive 2006/42/EC must issue the EC declaration of conformity for the gate system. The CE mark and a type plate must be attached to the gate system. This is also obligatory in the process of retrofitting on a manually operated gate. Further, a handover protocol and an inspection book must be filled in.
- The door should be balanced. Unmoving or stuck doors must be repaired. In an unbalanced state, garage doors, door springs, cables, discs, brackets and rails are under extreme tension, which can lead to serious injury. Do not attempt to loosen, move or realign the door, but contact service centre or a door specialist.
- During the installation or maintenance of a door opener, no jewellery, watches or loose clothing should be worn.
- To avoid serious personal injury due to entanglement, remove all cables and chains connected to the door before installing the door opener.
- During installation and electrical connection, the local building and electrical regulations must be observed. **This device complies with Protection Class 2 and does not require grounding.**
- To avoid damage to very light doors (such as fibre glass, aluminium or steel doors), an appropriate reinforcement should be added. To do so, contact the door manufacturer.
- The automatic safety reverse system should undergo a test. Upon contact with a 50 mm high barrier on the ground, the garage door MUST return. Failure to properly adjust the door opener can result in serious personal injury from a closing garage door. Repeat test once a month and make any needed changes.
- This system must not be installed in damp or wet areas.
- During operation, the gate should not under any circumstances obstruct public passageways.
- To remind all operators of the safe operation, in addition to the illuminated wall switch a warning sign to protect children should be affixed. The warning signs about the risk of trapping should be placed in clearly visible spots.
- Children should be supervised to ensure that they do not play with the device.
- This device is not intended for use by persons (including children) with restricted physical, sensory or mental abilities or lack of experience and/or knowledge, unless they are supervised by a person responsible for their safety or have received instruction in how to use the device.
- All barriers / locks are deactivated to avoid damage to the door.
- If necessary, installed control equipment MUST be mounted within sight of the door and out of reach of children. Children should not be allowed to operate the buttons or remote controls. Misuse of the door opener can result in serious injury.
- The door opener should ONLY be used if the operator can see the entire door area and is assured that it is free of obstacles and the door opener is set correctly. No one may pass through the door while it is moving. Children must not be allowed to play in the vicinity of the door.
- Use the manual release only for the separation of the carriage from the drive and – if possible – **ONLY** with the door closed. Do not use the red handle to push the door up or pull it down.
- Before performing any repairs or removing covers, the door opener should be separated from the electric power supply.
  The repairs and electrical installations may be performed only by an authorized electrician.
- This product has a transformer with a special cable. In case of damage this MUST be replaced with an original transformer by a qualified technician.
- Operation of the emergency release can lead to uncontrolled movements of the door, if springs are weak or broken or if the door is unbalanced.
- Mount the release handle of the emergency release at a height less than 1.80 m.
- The drive must not be used with a door incorporating a wicket door.

**Save these instructions.**

## 2 Intended use

The device is intended for the opening and closing of tilt-up and sectional garage doors in the private sector. The device is not meant for commercial use but solely for the use in private garage doors that are appropriate for a single household.
Any improper use of the drive could increase the risk of accidents.
The manufacturer assumes no liability for such usage.
Only the original accessories of LiftMaster may be connected to the drive. With this drive, automated gates must comply with the currently valid international and country-specific standards, guidelines and regulations (among other things, EN 13241, EN 12453 and EN 12604).

## 3 Scope of supply

Please check the supplied parts for completeness before starting the installation. Note: The numbering only applies to the corresponding section.

**Parts overview:**

| | | | | | |
|---|---|---|---|---|---|
| 1. | Drive head | 1x | 6. | C-bracket | 2x |
| 2. | Handheld transmitter | 2x | 7. | Header bracket | 1x |
| 3. | Curved door arm | 1x | 8. | Door bracket | 1x |
| 4. | Hanging bracket | 2x | 9. | Hardware bag | 1x |
| 5. | Rail bracket | 2x | | | |

**Hardwarebag:**

| | | | | | |
|---|---|---|---|---|---|
| 10. | Truss head screw 6 x 80 mm | 1x | 15. | Safety cotter pin | 1x |
| 11. | Lock nut M6 | 1x | 16. | Screw ST 6 x 50 mm | 1x |
| 12. | Hexagonal head screw | 4x | 17. | Screw ST 6,3 x 18 mm | 8x |
| 13. | Nut M6 | 4x | 18. | Plug | 4x |
| 14. | Bolt | 1x | 19. | Adapter for gear wheel | 1x |
| | | | 20. | 3-piece rail | 1x |

## 4 Product overview

This figure always offers you a complete overview of the readyassembled system during the step by step installation of the system.

| | | | |
|---|---|---|---|
| 1. | Header bracket | 8. | Power cable |
| 2. | Belt | 9. | Drive head |
| 3. | Rail | 10. | Release |
| 4. | Carriage | 11. | Straight door arm |
| 5. | Connecting piece | 12. | Curved door arm |
| 6. | Rail bracket | 13. | Door bracket |
| 7. | Hanging bracket | | |

## 5 Before you begin

IMPORTANT NOTE
If your garage does not have a side entrance, an external emergency release should be installed. This allows for manual operation of the garage door from the outside during power failure.

## 5.1 Preconditions

The garage door opener is suitable only for installation in one-piece garage doors with horizontal guide rail (tilt-up door) (Fig. A) and in sectional doors with curved guide rail (Fig. B).

NOTE:
The system cannot be used for one-piece garage doors with horizontal and vertical guide rails and two-wing doors or overhead doors.

## 5.2 Preparation

First, check whether your door is balanced and in equilibrium. Open your door about halfway and let it go.
The door can now hardly change its position independently, but must remain in this position held by the spring force alone.
Motive force: maximum 15 kg.

1. The rail of the garage door MUST be connected securely and firmly to the supporting wall or ceiling above the garage door.
2. Additional brackets and mounting rails (not included in the supply) might be required, if the your garage ceiling has a cladding, boards or similar.
3. If your garage does not have a separate side entrance, an external emergency release should be installed.

## 5.3 Tools required

**Tool list:**

| | |
|---|---|
| Ladder | Hacksaw |
| Marking pen | Different drill bits (8, 6, 5, 4.5 mm) |
| Pliers | Box wrench |
| Drilling machine | Water level |
| Hammer | Screwdriver |
| Ratchet | Measuring tape |

## 6 Assembly of the door opener

**Important instructions for a safe installation.**
**Observe all assembly instructions.**
**Incorrect installation can cause serious injury.**

## 6.1 Assembling the rail

The rail is largely preassembled and consists of 3 parts. The carriage, push rod, release handle, the guide pulley and the lintel bracket with chain tensioner are in the front part (A). The seating for the drive shaft and the sprocket are in the rear part (B). Lay the front and rear rail sections one behind the other.

1. Remove cable ties that secure the chain. Leave the transport lock (X) still in position.

2. Pull apart the two rail sections completely in order to create a gap for the middle section (C). This rail is designed in such a way so as to easily add the middle section. Slide the 2 connecting pieces (D) over the seams of the rail sections up to the markings. To secure the connecting pieces, bend the sheet metal lugs out-wards with a suitable tool. The assembly of the rail is complete.

## 6.2 Tighten the belt

Tighten the belt of the rail until the spring (1) is compressed only by about half. The spring must compress and be able to bounce during operation.

## 6.3 Fitting rail to the drive

1. Check if the belt is seated on the gear-wheel. If the belt has slipped off during assembly, relax the belt, lay it and tighten again.
2. Turn around the rail (A) and completely put on the opener (C) with the gear side (B).
3. Secure the rail on the opener with two rail brackets (5) and the short screws (16).

## 7 Centre of the garage door

Eye protection goggles should be worn for overhead work.
All available barriers / locks should be deactivated to avoid damage to the door.

To avoid serious injuries, remove all cables and chains connected to the door before installing the door opener. The door opener should be mounted at a height of at least 2.10 m above the ground.

First, mark the centre line of the door (1). Draw a line to the ceiling starting from this point.

For installation on the ceiling, draw another line to the centre of the ceiling (2) perpendicular to the door starting from this line.
Length approx. 2.80 m.

## 8 Mounting header bracket

NOTE: Mount the rail max. 50mm above the top edge of the door. Depending on the door type, the top edge of the door is lifted by a few cm during opening.
**A. Wall fastening:**
**Minimum space requirement above the door: 100 mm**
Mount header bracket (7) centrally on the vertical centre line (2); thereby its lower edge lies on the horizontal line. Mark all holes for the header bracket. Pre-drill holes with 4.5 mm diameter and fasten the header bracket with wood screws (16).

NOTE:
In case of mounting on a concrete slab / concrete header, the provided concrete plugs (18) and screws (16) should be used. Drill hole size in concrete: 8 mm.
**B. Ceiling suspension:**
**Minimum space requirement above the door: 35 mm**
Draw vertical centre line (2) further up to the ceiling and about 200 mm along the ceiling. Attach header bracket (7) centrally on the vertical marking up to 150 mm removed from the wall. Mark all holes for the header bracket. Drill holes with 4.5 mm diameter and fasten the header bracket with wood screws (16).

## 9 Attaching drive to header

It may be necessary to place the drive temporarily higher, so that the rail does not hit the springs in multi-piece doors. The drive must either be well supported (ladder) or held firmly by a second person. Put drive head on garage floor under the lintel bracket. Lift rail up till the holes of the fixing part and the holes of the lintel bracket are aligned.
Insert screw (10) through the holes and secure with nut (11).

## 10 Hang opener

Fully open the door, put down door opener on the door (Fig. A).
Lay a piece of wood / cardboard on the marked spot (X).

The opener must be securely fastened to a structural support of the garage. Three representative installations are shown (Fig. B). Yours may be different. Hanging brackets (4) should be angled to provide rigid support. On finished ceilings, attach support bracket(not delivered) to a self-supporting structio-nal element before installing the opener. For concrete ceiling mount, use concrete anchors (18) provided.
On each side of opener measure the distance from the opener to the structural support (or ceiling). Cut both pieces of the hanging bracket to required lengths. Flatten one end of each bracket and bend or twist to fit the fastening angles. Do not bend at the bracket holes. Drill 4,5mm pilot holes in the structural supports (or ceiling). Attach brackets to supports with wood screws (16).
Lift opener and fasten to hanging brackets with screw (12) and nut (13).
Check to make sure rail is centered over the door.
Remove piece of wood / cardboard. Operate door manually.
If door hits the rail, raise header bracket.
After the installation of the garage door drive, particularly using a rail extension, if the rail is observed to be bent up or down for more than 5 cm during the beginning or end of the travel as well as while encountering an obstacle, a central suspension must be provided by the customer. For this, please contact the manufacturer of the garage door drive.

Pay attention to a horizontal course of the rail along the ceiling. The distance can be adjusted by the given hole spacing. Protruding ends of the ceiling fixture can be reduced if necessary.

## 11 Mounting door bracket

**Installation in sectional or one-piece doors:**
The door bracket (8) has multiple mounting holes. Attach door bracket top centre on the inside of the door as shown. Mark holes and screw door bracket.
Mounting heights:
1. One-piece or sectional door with a guide rail:
   distance to door top edge 0-100 mm.
2. Sectional door with two guide rails:
   distance to door top edge 100-130 mm.

NOTE:
The attachment point on the door must be the frame or a stable place on the door panel. If necessary, drill through and screw (not included) together as shown in Fig. B.

## 12 Attaching door arm on the trolley

**The straight door arm is already pre-assembled.**
Recommended installation:
The trolley can be separated from the drive by pulling the red handle and manually pushing towards the door. When the door is closed, fix the curved door arm (3) on the door bracket with the bolt (14) and secure with cotter pin (15). Connect straight and curved door arms together flush with an overlap of 2 holes with screw (12) and secure with nut (13). Choose the holes in such a way that the door arm stands at an angle of about 30-40°.
NOTE:
The curved door arm can be omitted, if the door fitting has been attached at the far upper edge of the door.

Mount the release handle of the emergency release at a height less than1.80 m. Attach the yellow label regarding the release of the garage door opener (sticker) on the cord of the door handle.

## 13 Electrical connection

In order to avoid personal injury and damage to the device, the door opener should be operated only if such an instruction is explicitly stated in this manual. The power plug must always be freely accessible for the purpose of disconnecting the mains supply. Electrical installations may only be undertaken by an authorized electrician.

## 14 Installation of photocells (Optional accessories)

After installing and adjusting the door opener, photocells can be installed (terminals 2 + 3). The instructions for installation are included in the scope of delivery of the light barrier and must be followed.**The optional photocells ensure that the door is open, or remains open, if people, especially young children, are in the door area.** By means of the photocells, a closing door is opened or an open door is obstructed from closing, if a person located in the door area interrupts the sensor beam.
*Photocells are particularly recommended for families with young children.*

## 14 Connecting the illuminated push button
**(Optional accessories)**

All wall-mounted switches or buttons should be installed in sight of the door outside the door or door rail area at a height of 1.5 metres. In addition to these switches, the warning sign for the protection of children should be affixed.

On the back of the push button there are two screw terminals (1 & 2). The insulation is stripped up to about 6 mm from the bell wire (4). Pull apart wires far enough from each other so that it is possible to connect the white/red wire to a screw terminal (1) and the white wire to the other screw terminal (2).
**Illuminated wall switch:** Mount on an inner wall of the garage using the supplied sheet metal screws (3). For dry or concrete walls, pre-drill holes with 5 mm diameter and use dowels.

It is recommended to undertake the assembly next to the garage side entrance out of reach of children. Tighten both screws carefully and do not tighten too much to avoid damaging the plastic housing. Run the bell wire along the wall over the ceiling up to the door opener. Attach the wire using nailing clips. Run bell wire from the top through the cable duct to the terminal. The terminals are located in the recess next to the programming switches. Connect bell wire to the terminals 1 + 2.

## 15 Connecting the opener

Connect opener in accordance with local rules and regulations to a properly installed earthed wall socket.
NOTE:
When the opener is switched on, the operator light is also turned on briefly.

## 16 Program opener and test

The door opener should only be used if the operator can see the entire door area and is assured that it is free of obstacles and the door opener is set correctly. No one may pass through the door while it is moving. Before the first opening operation, check that all the facilities that are not needed are turned off. Remove all mounting aids and tools from the pivot area of the door.

## 17 Adjust limits and force

1. Open light cover.
2. Press „P“ and hold it until LED3 starts flashing (1).
3. Press „+“ and hold it until the door is completely open (2). If neccessary adjust using „-“.
4. Press „P“ briefly, LED2 starts to glow (3).
5. Press „-“ and hold it until the door is completely closed. The rail must not bend up (4). If neccessary adjust using „+”.
6. Press „P“ again briefly. The drive now automatically opens the door completely and then closes the door completely (5). During this process the force required by the opener is set.

NOTES:
Do not interrupt the opener during this process otherwise you have to repeat the whole procedure. In case the door pushes against the door frame and reverses, the „closed“ limit hasn’t been set properly.
Repeat limit setting and make sure the rail doesn’t bend whe setting the „closed“ limit.

Force adjustment:
When installing the opener the travel (distance between the Open and Closed position) and the optimal pulling force is learned.

NOTE:
Before any modification to the force adjustment check the door for proper functioning.
The opener is no support for a malfunctioning door. You can check proper functioning by releasing the opener and opening and closing the door manually.

## 18 Test the Safety Reverse System

***The safety reverse system test is important. Garage door must reverse on contact with a 50 mm obstacle laid flat on the floor. Failure to properly adjust opener may result in serious personal injury from a closing garage door. Repeat test once a month and adjust as needed.***

OBSTACLE TEST:
Place a 50 mm high obstacle (1) under the garage door on the floor. Move door **downwards**. The door **must** reverse when it comes into contact with the obstacle. If upon contact the door **stops**, the door does not move **down** far enough. In this case repeat limit setting (see 9.1).
If the door reverses after contact with the 50 mm high obstacle, remove obstacles and open and close the door completely once.
The door **should not** go back, if it reaches the door position „Closed“.
If it still reverses both limits must be reprogrammed (see 9.1).
OPENING TEST: Apply 20 kg to the middle of the door.
The door should not open.

## 19 Program another remote control

**The supplied remote control is already programmed.**
When purchasing additional remote controls, program the receiver to match the additional remote control codes.

**Program:**
1. Press „S“ for 1-2 seconds. LED1 begins to glow (for approx. 10 seconds).
2. Briefly press a button of the remote control 2 sec.
3. LED1 goes out. The Code is programmed.

**Delete:**
All programmed remote control codes will be deleted. Press „S“ and hold it until LED1 goes out (approx. 8 seconds). All programmed codes are now erased. Reprogram each remote control you wish to use.

NOTE: Only the original remote controls from the manufacturer should be used. Remote controls that may look very similar, but do not originate from the manufacturer are not compatible. Such third-party remotes create malfunctions such as automatic opening, and the guarantee on the function and safety expires.

## 20 Operation of the door opener

**Automatic opening / closing of the door:**
The door opener can be operated using the following devices:
- Handheld transmitter: Press the button until the door starts to move.
- Wall switch (if this accessory is installed): Press the pushbutton until the door starts to move.
- External key switch or wireless keypad (if this optional accessory is installed).

**Manual opening of the door (by hand):**

If possible, the door must be closed completely. Weak or defective springs can cause a rapid shutting down of the opendoor, **which can lead to property damage or serious personal injury.**

**RELEASE:** Briefly pull the red handle down. Then open the door by hand. Open close door without pulling the cable!

**RECONNECT:**
The lockout feature prevents the trolley from reconnecting automatically. Push the green button on the trolley. With the next door movement the system will reconnect.

Function sequence:
When operating the door opener by radio control or wall switch:
- closes the door when it is fully open,
- opens the door when it is fully closed,
- stops the door if it opening or closing,
- the door moves in the opposite direction to the last completed move, if it is partially open,
- drives back the door to the open door position, if it hits an obstruction while closing,
- stops the door, if it encounters an obstacle during opening.
- Light barrier (optional): By means of the light barrier, a closing door is lifted up or an open door is obstructed while closing, if a person located in the door area interrupts the sensor beam.

The operator light switches on in the following cases:
1. First turning on of the door opener (short)
2. Power interruption (short)
3. With each turning on of the door opener.

The light turns off automatically after 2 1/2 minutes

**Timer to close**
Description of the operation:
The garage door opener closes the garage door automatically from the fully open position after a pre-programmed period of time.
For this, the Liftmaster safety light barrier must be connected to the garage door opener according to EN60335-2-95.
Activating:
1. Press the P button and the MINUS (-) button simultaneously for about 3 seconds.
2. When you release the buttons, the LED next to the S button turns on and the operator lighting flashes twice as confirmation that the garage door opener is in programming mode.
3. Each time you press the PLUS (+) button the time period increases by 10 seconds. Maximum 180 seconds are possible (= pressing 18 times).
4. Each time you press the MINUS (-) button the time period reduces again by 10 seconds (up to a minimum of 10 seconds).
5. To save the desired time period, press the P button. To confirm the programming, the operator lighting flashes once.

Disabling:
1. Press the P button and the MINUS (-) button simultaneously for about 3 seconds.
2. The operator lighting will flash twice to confirm that the garage door opener is in the disable mode.
3. Press P button once.
4. The operator lighting flashes once to confirm that the automatic closing function has been disabled.

Information:
- Automatic closing only works from the fully open position (garage door must have reached the end position OPEN).
- If the light barrier is interrupted during closing, the garage door goes back to the fully open position and remains there until the obstacle has been removed and after the programmed time period has elapsed again.
- Once the garage door opener is in programming mode, the next button press must be carried out within 30 seconds, or else the programming mode is cancelled. In this case, the operator lighting flashes five times.
- If the time period needs to be subsequently changed, for example, from 60 to 80 seconds the PLUS (+) button must be pressed eight times in the programming mode, as every new programming starts at 0 seconds.

Troubleshooting:
The garage door opener does not operate without the light barrier.
No error! Connecting the light barrier once is absolutely necessary.

**Cycle counter**
The garage door opener can display the number of cycles (OPEN/CLOSE = 1).
1. Disconnect garage door opener from power supply
2. Press and hold the P and S buttons
3. Connect the garage door opener again while the buttons are still pressed
4. After all three LEDs have flashed once and the operator lighting is switched on, the LED near the S button starts flashing after approximately 5 seconds (once every 1000 cycles). Release the buttons.

## 21 Cleaning and maintenance

***Before any maintenance, cleaning and related maintenance work, the mains supply plug should be pulled out. Danger from electric shock!***

**Maintenance of the door opener**
A proper installation ensures the optimum performance of the door opener with minimum maintenance. An additional lubrication is not required. Gross dirt accumulation in the guide rail may impair the function and must be removed.

## 22 Cleaning

Clean the drive head, wall switch and handheld transmitter with a soft, dry cloth..
**Do not use liquids.**

## 23 Maintenance

Check the system often, especially cables, springs and fasteners, for signs of wear, damage or lack of balance. Do not use if repair or adjustment work must be performed, because an error in the system or an incorrectly balanced door may cause injury. Repairs to electrical equipment and gates may be carried out only by an authorized specialist / expert. In any case, please do not ever carry out repairs yourselves because this could result in serious injury or death.

**Once a month:**
- Check automatic safety reverse again and reset if necessary.
- Operate door manually. If the door is unbalanced or stuck, please contact the service centre.
- Check for complete opening and closing of the door. Where appropriate, readjust limit switches and / or power.

**Twice a year:**
- Check the belt tension. For this, first disconnect the carriage from the drive. If necessary, adjust belt tension.

**Once a year (at the door):**
- Lubricate door roller, bearings and joints. An additional lubrication of the door opener is not required.

*Do not grease the door rails!*

**Limit switch adjustment and force regulation:**
These settings must be checked and undertaken properly during the installation of the opener. Due to weathering, minor changes can occur during operation of the opener that need to be addressed by a new setting.
This can particularly happen in the first year of operation.
Follow the instructions for setting limit switches and traction (see 17) carefully and **re-check the automatic safety reverse after each resetting.**

## 24 Replace batteries of the remote control

**Battery of the remote control:**
The batteries in the remote have an extremely long life. If the transmission range decreases, the batteries must be replaced.
Batteries are not covered by the guarantee.

**Please observe the following instructions for battery:**
Batteries should not be treated as household waste. All consumers are required by law to dispose of batteries properly at the designated collection points.
Never recharge batteries that are not meant to be recharged.
Danger of explosion!
Keep batteries away from children, do not short-circuit them or take them apart. See a doctor immediately, if a battery is swallowed.
If necessary, clean contacts on battery and devices before loading.
Remove exhausted batteries from the device immediately!

Increased risk of leakage!
Never expose batteries to excessive heat such as sunshine, fire or the like!

There is increased risk of leakage!
Avoid contact with skin, eyes and mucous membranes. Rinse the parts affected by battery acid with plenty of cold water and consult a doctor immediately.

Always replace all batteries at the same time. Use only batteries of the same type; do not use different types or mix used and new batteries.

Remove the batteries if the device is not being used for a long time.

**Replacing battery:**
To replace battery, turn remote control around and open the case with a screwdriver. Lift cover and lift control board below. Slide battery to one side and remove. Watch polarity of battery!
Assemble again from in reverse direction.

**ATTENTION!**
Danger of explosion if battery is replaced improperly.
Replacement only by identical or equivalent type (CR2032).

## 25 Replace operator light

The LED lighting has a very long life and is maintenance free.
**Replacement and assembly:**
1. Unplug mains supply
2. To replace the LED base, remove the opener's cover panel (detach 2 screws in the panel).
3. Pull out plug of the LED base from the controller.
4. Remove both screws on the panel beside the LEDs and detach the base.
5. Reassemble in reverse order.

## 26 Waste disposal

The packaging must be disposed of in the local recyclable containers. According to the European Directive 2002/96/EC on waste electrical equipment, this device must be properly disposed of, after usage in order to ensure a recycling of the materials used.

Old accumulators and batteries may not be disposed of in the household waste, since they contain pollutants and must be properly disposed of in municipal collection points or in the containers of the dealer provided. Country-specific regulations must be observed. The components must be properly disposed of at a public company specializing in waste disposal. The relevant local and country-specific regulations must be adhered to. All decommissioned drive components may not be disposed of in the household waste.

The competent authority (city, town) or its disposal company will inform you about the possibilities of this disposal.

## 27 Frequently asked questions

**1. Door opener doesn't work with remote control:**
- Is the opener connected to the power supply? If a lamp connected to the power socket does not turn on, check fuse or circuit breaker. (Some sockets are enabled via a wall switch).
- Are all door locks disabled? See safety instructions!
- Does the control LED on the transmitter light up when the button is pressed? If not, either the battery is empty, or the transmitter is defective or too far removed from the opener.
- Try operating with a new battery.
- If you have two or more transmitters, of which only one works, check programming of the receiver.
- Is there snow / ice under the door? If yes, the door may be frozen onto the ground. Remove all obstacles.
- Perhaps the door spring is defective. This must be replaced by a specialist.

**2. Transmission range of the device is too low:**
- Is a battery inserted? Put a new battery.
- Try radio control in the car at another location.
- The transmission range diminishes for metal doors, aluminium or metal panels.

**3. Door reverses for no apparent reason:**
- Is the door hindered by anything? Pull manual release and operate door by hand. In case of unbalanced or stuck gate, please contact the service department.
- Re-programme operating power and stretch of way of the opener.
- Clear ice or snow in the closing area of the door.
- If the door reverses upon reaching the door position 'Closed', the limit switch must be set for this door position.
  **After completing every setting, the automatic safety reverse must be checked again:**
- An occasional resetting of the end positions is not unusual. In particular, the weathering can shift the doorway.

**4. The garage door opens and closes by itself:**
- Delete all transmitters and then re-programme them. See „Programming of other handheld transmitters".
- Is the remote control button jammed in position „ON"?
- Use only original remote controls! The use of third-party products leads to disturbances.
- The remote control button was pressed accidentally (pocket).
- Cable of the wall switch is damaged (remove for testing purposes).
- An accessory connected to the opener causes the drive (remove for testing purposes).

**5. Door does not close completely:**
- Re-programme stretch of way of the opener. Check for alterations in the mechanical components, e.g. door arms and fittings.
  **After each new setting of the door position 'Closed', the automatic safety reverse should be checked for function.**

**6. The door opens, but does not close:**
- If installed, the light barrier should be checked. If the LED at the light barrier blinks, the alignment should be checked.
- Check transmitter or wall switch for function.

**7. Operator light doesn't turn on:**
- Open or close door. The light remains switched on for 2.5 minutes.
- Disconnect opener from the mains and connect again. The light comes on for a few seconds.
- No power.

**8. Operator light doesn't turn off:**
- Disconnect power from the mains supply for a short time and try again.
- The 2.5 minutes are not yet over.

**9. Motor hums and runs very briefly, but does not function:**
- Garage door springs are defective. Close the door and disconnect from the opener by pulling on the handle of the carriage (manual release). Open and close door manually. If the door is properly balanced, it is held at each point of the doorway by the door springs alone. If this is not the case, contact your service centre.
- If this problem appears during the first use, the door may be locked. Deactivate door lock.
- Release opener from the door and try without door. If the door is fine, re-programme operating force and stretch of way.

**10. Opener works only in one direction:**
- Door springs may be defective or the door is stiff in one direction.
- If the door is fine, re-programme operating power and stretch of way of the opener.

**11. The belt rattles on the rail:**
- Adjust the belt tension. The cause is usually a very tight belt. The spring on the clamping device of the rail must not be compressed completely.
- The door runs unevenly and makes the drive vibrate. Improve door run.

**12. Opener will not start due to power failure:**
- Disconnect from the opener by pulling on the handle on the carriage (manual release). The door can now be manually opened and closed. If the opener is re-activated, the carriage also gets re-connected.
- If installed, the carriage is detached from the drive in case of power failure by an external emergency release from outside the garage.

**13. Door reverses after the force was programmed:**
- See if the rail bends. The opener requires a lot of power to move the door. Repair or install door correctly.
- Door is very heavy or in poor condition. Call a specialist.

**14. Rail bends on the opener:**
- Door is heavy, very heavy, stiff or in poor condition. Call a specialist.
- A swing of the rail while moving is a sign of an unevenly functioning door with constantly changing power requirements. Call specialist, possibly lubricate door. An additional suspension on the rail can be a remedy.

**15. The opener „runs" (audible turning of motor) but the carriage does not move:**
- The carriage is released from the opener.
- In a new installation: During the assembly of motor and rail, the pre-assembled adapter sleeve between the motor shaft and the rail was not installed. This sleeve is pre-assembled at factory, but can be removed. Standing behind the opener it can be observed whether the gearwheel turns in the rail or just the motor.
- In a new installation: The belt has come off from the gearwheel in the rail. Standing behind the opener, you can see the gearwheel.
- After years of use: Is the release defective or continuously disengaged?
- After years of use: The sleeve between rail and motor or the motor control gear is defective.

**16. The door releases by itself from the carriage and stops:**
- An external release that has been installed during a power failure should be checked whether it stretches and releases during the opening of the door. Watch the mechanism and reset if necessary.
- The handle of the release mechanism should not get caught in other items.

**17. The running path cannot be programmed, is de-programmed or is changing slowly:**
- The programmed running path is too short. Programme a longer path for testing purposes.
- A small plastic knob is factory-mounted on the chain that is running in the rail. During the travel of the opener this little button must press the small switch located on the drive head. If the path is too short or the button was torn down by incorrect installation, it has to be fixed again. If the small switch is not pressed, the programming of the opener is not possible.
- A mechanical fault at the door due to deected joints or the chain tension on the drive is too loose.

**18. Description of LEDs**

LED1
- Flashes briey: A radio signal is received. Once the remote control is programmed it opens and closes the opener.
- Is constantly on for approx. 10 seconds: An additional remote can be programmed or all remotes will be deleted.

LED2
- Is constantly on: as long as the opener runs.
- Flashes: opener is in programming mode, „OPEN" position has already been programmed and opener is ready for position „CLOSED".

LED3
- Flashes: opener is in programming mode and ready for „OPEN" position.

## 28 Specications

| | |
|---|---|
| Input voltage | 220-240 VAC, 50/60 Hz |
| Max. pulling force | 500 N |
| Standby Power (door closed) | 4.9 W |
| Motor type | DC gearmotor permanent lubrication |
| Noise level | 55dB |
| Drive Mechanism | Belt |
| Length of Travel | 2498 mm |
| Opening speed, up to | 100 mm/s |
| Max. door weight | 80 kg |
| Max. door dimensions, height/width | 2,3 m / 3,5 m |
| Lamp | On when door starts, off 2-1/2 minutes after stop. |
| Door Linkage | Adjustable door arm. Pull cord trolley release |
| Safety, Personal | Push button and automatic stop in down direction. Push button and automatic stop in up direction. |
| Electronic | Automatic force adjustment |
| Electrical | Transformer overload protector and low voltage push button wiring. |
| Limit Device | Mechanical RPM/Passpoint detector |
| Limit Adjustment | Electronic |
| Soft-Start / Soft-Stop | Yes |
| Length (Overall) | 3151 mm |
| Headroom Required | min. 35 mm |
| Hanging Weight | ~ 10 kg |
| Memory Registers | 16 |
| Operating Frequency: | 6-Band (433 MHz / 868 MHz) |
| Max. power of the remote control | < 5 mW |

## 29 Door dimensions and -weight

| **One piece doors** | |
|---|---|
| max. width (mm) | 3500 |
| max. height (mm) | 2300 |
| max. weight (kg) | 80 |
| | |
| **Sectional doors** | |
| max. width (mm) | 3500 |
| max. height (mm) | 2300 |
| max. weight (kg) | 80 |

## 30 Service parts / Warranty

Your statutory rights are not affected by this manufacturer's warranty. Please see www.liftmaster.eu for terms of warranty.

Always use LiftMaster accessories.
External products can cause malfunctions.

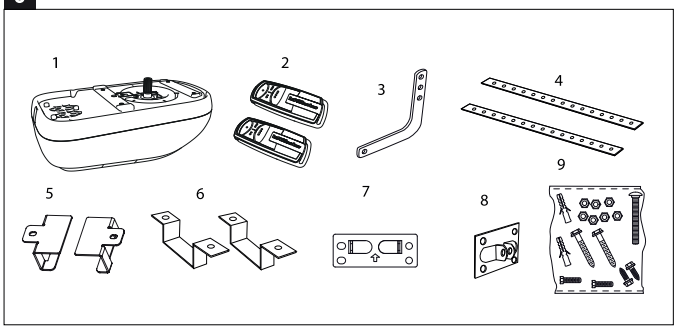
## 31 Accessories (optional)

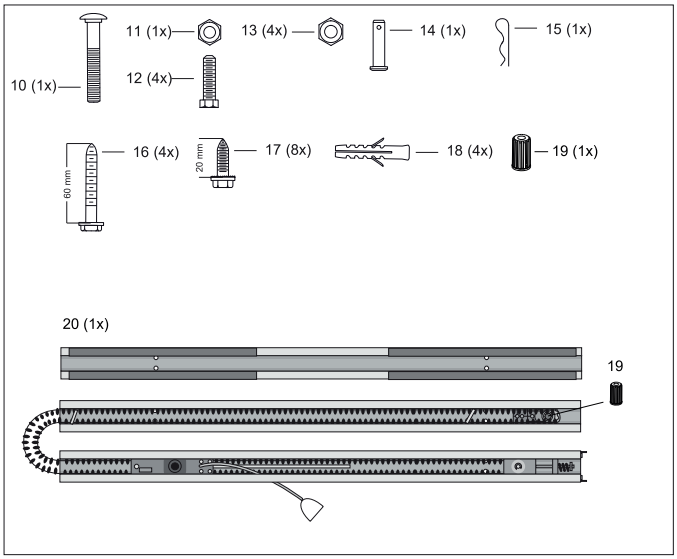
| | | |
|---|---|---|
| 1. | TX4UNIF | 4-channel universal remote control |
| 2. | TX4EVS | 4-channel remote control |
| 3. | TX4UNI/S | 4-channel universal remote control |
| 4. | 128EV | Wireless Wall Control 2-Channel |
| 5. | 747EV | Keypad |
| 6. | EQL01EV | Quick release |
| 7. | 1702EV | Quick release |
| 8. | 75EV | Wired push button |
| 9. | G770E | Photocells |
| 10. | 771EV | Photocells |
| 11. | 772EV | Photocells |
| 12. | 100034 | Key switch (flush mount) |
| 13. | 100041 | Key switch (surface mount) |

## 32 Declaration of conformity

The manual consists of these operating instructions and the declaration of conformity.

**3**

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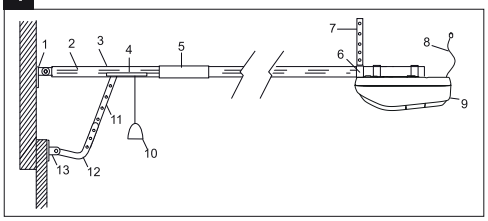


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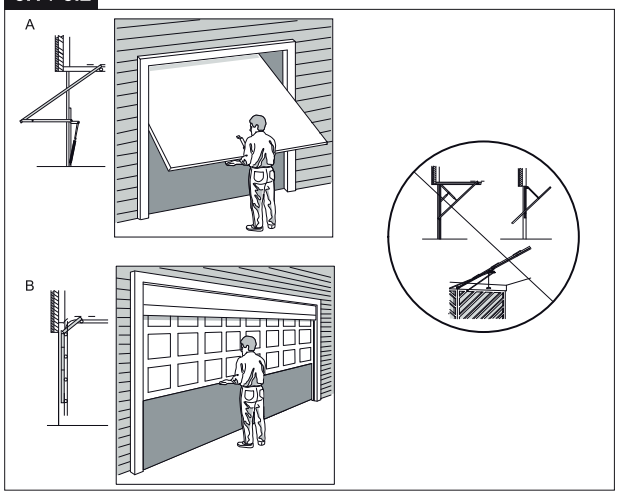


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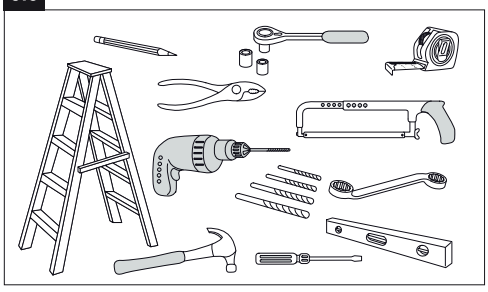

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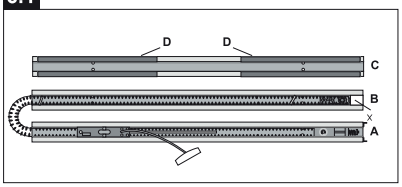


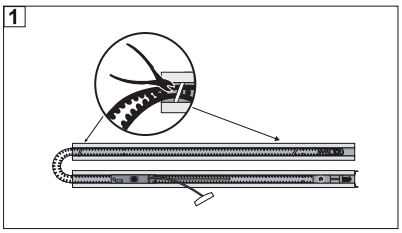


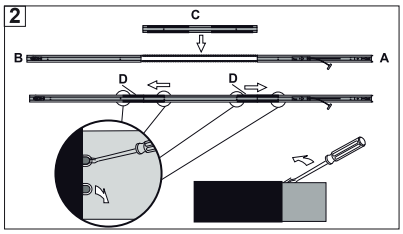


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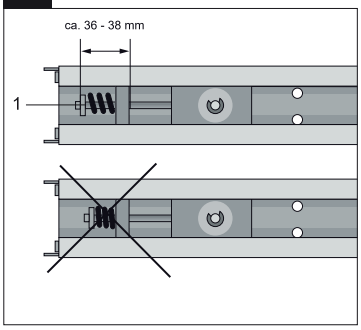


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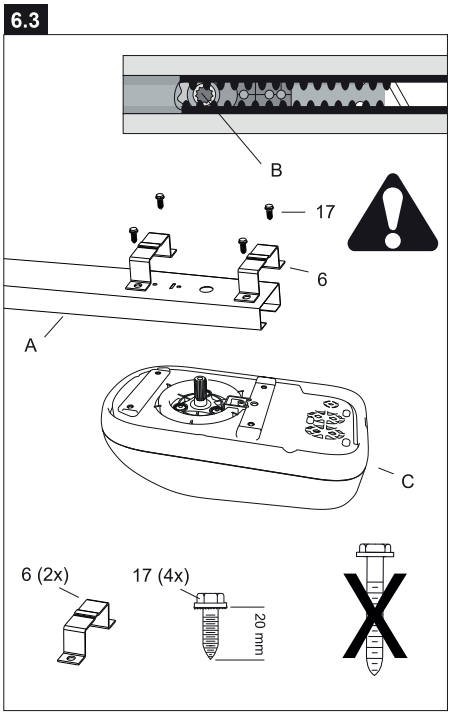

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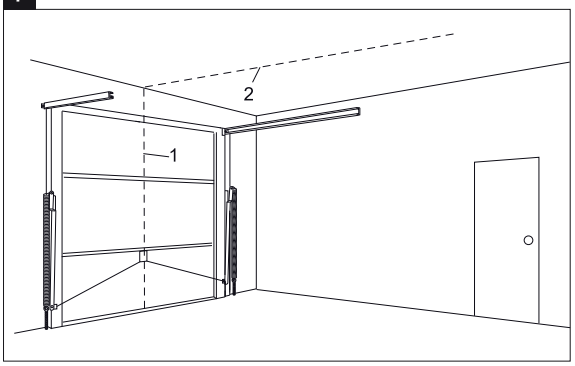


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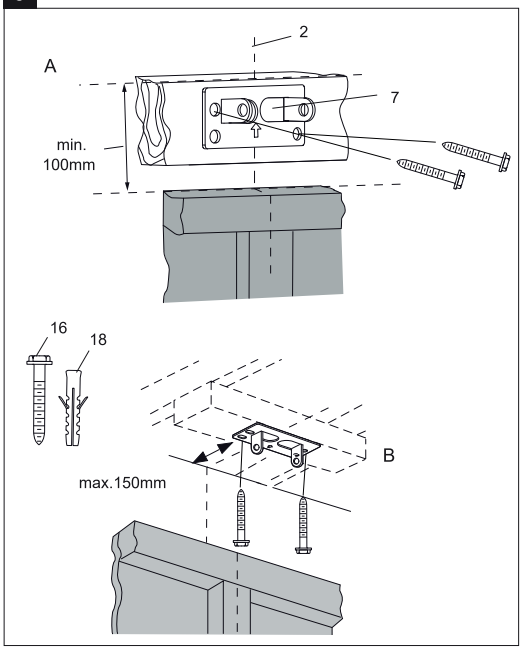


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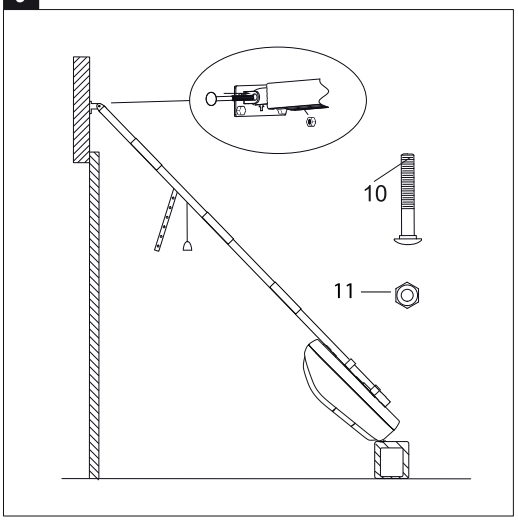


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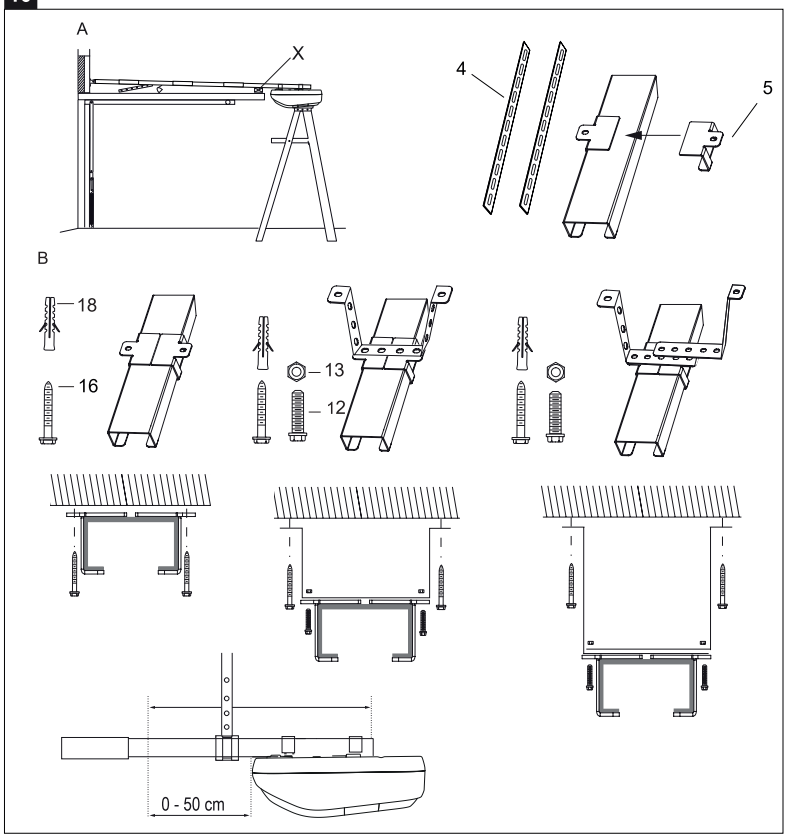


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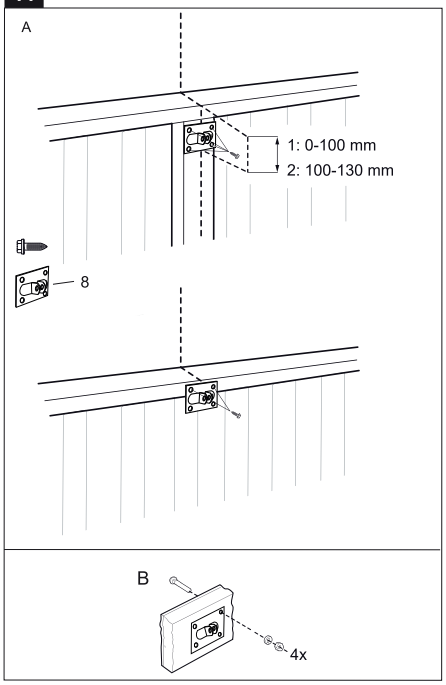


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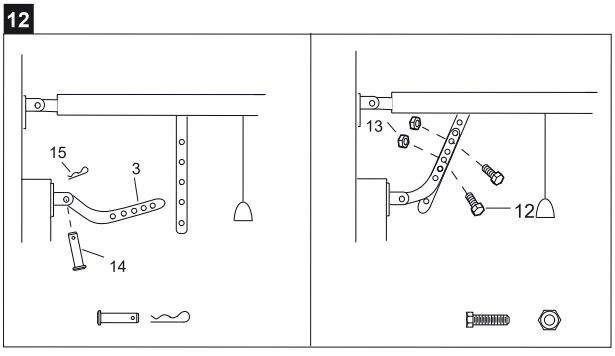


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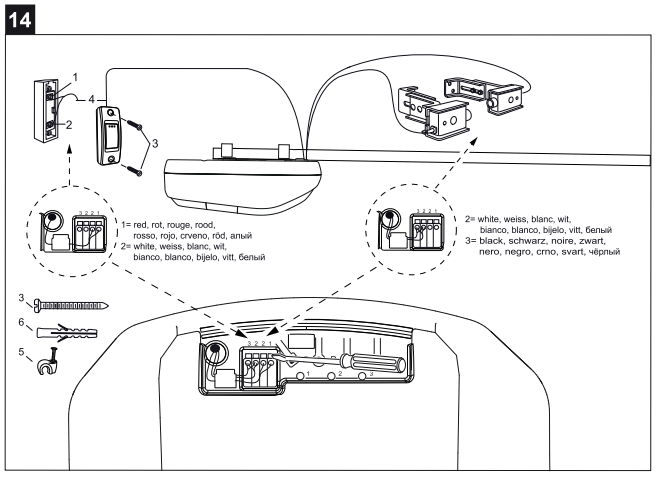

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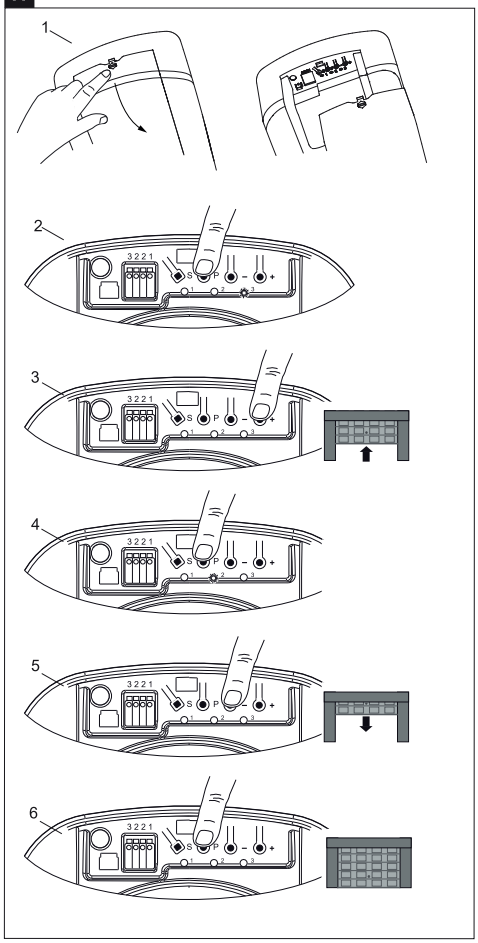


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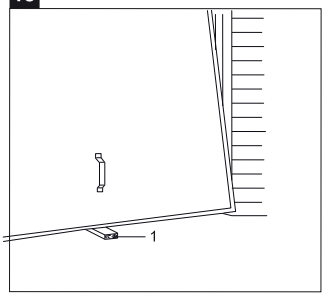


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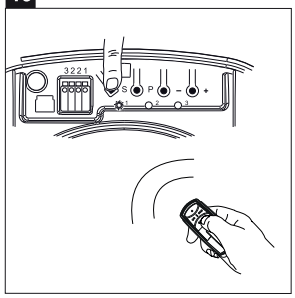


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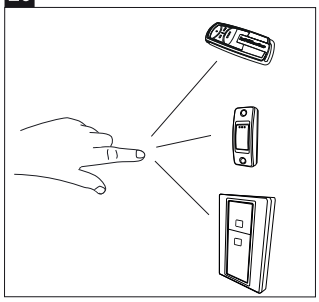

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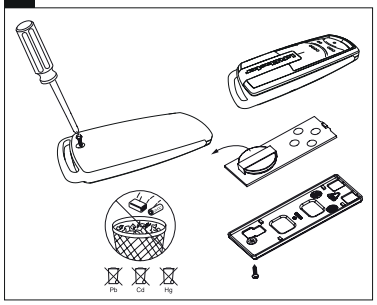


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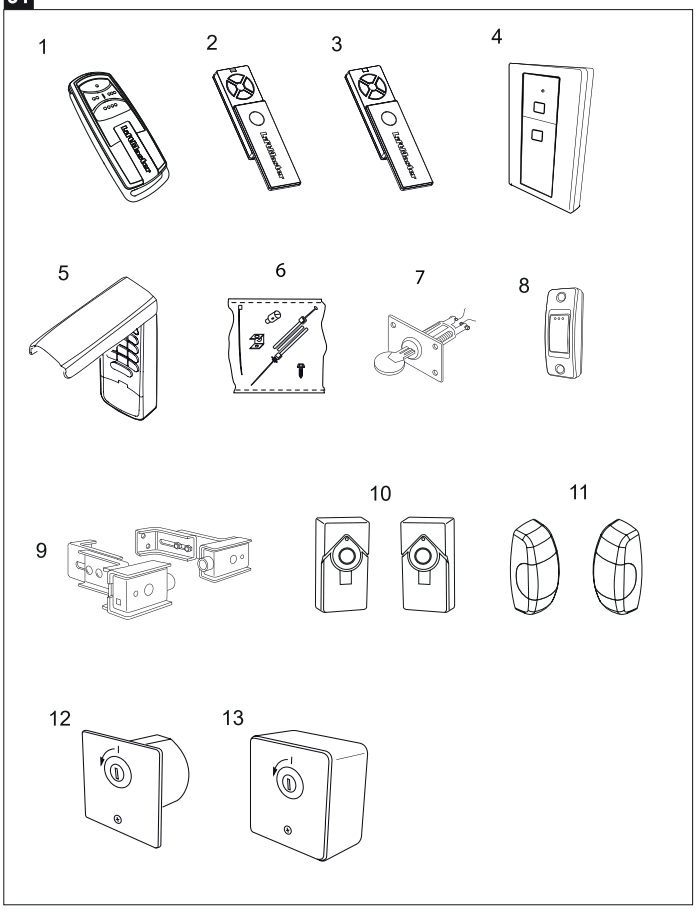

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