

LiftMaster®

LM60, LM80, LM100

de	Montage- und Bedienungsanleitung für Garagentorantriebe	LM60, LM80, LM100
en	Assembly- and operating instructions for Garage Door Opener	LM60, LM80, LM100
fr	Notice de montage et de commande pour entraînements de portes de garage	LM60, LM80, LM100
nl	Montage- en bedieningshandleiding voor garagepoortaandrijvingen	LM60, LM80, LM100
da	Monterings- og betjeningsvejledning for garageportautomatik	LM60, LM80, LM100
no	Monterings- og bruksanvisning for garasjeportmotorer	LM60, LM80, LM100
sv	Monterings- och driftinstruktioner för garageportsöppnare	LM60, LM80, LM100
pl	Instrukcja montażu i obsługi napędów bram garażowych	LM60, LM80, LM100
cs	Návod na montáž a obsluhu pro pohony garážových vrat	LM60, LM80, LM100
sl	Navodila za montažo in upravljanje pogona garažnih vrat	LM60, LM80, LM100
it	Istruzioni d'uso e di montaggio per gli automatismi delle porte garage modello	LM60, LM80, LM100
pt	Manual de montagem e de instruções para acionamentos de portões	LM60, LM80, LM100
es	Instrucciones de montaje y manejo para accionamientos de puertas de garaje	LM60, LM80, LM100
hu	Szerelési és használati útmutató	LM60, LM80, LM100 garázsajtó-hajtószerkezetekhez
fi	Asennus- ja käyttöohje autotallinoven käyttölaitteille	LM60, LM80, LM100
sk	Návod na montáž a obsluhu pre pohony garážovej brány	LM60, LM80, LM100
rus	Руководство по монтажу и эксплуатации на приводы гаражных ворот	LM60, LM80, LM100
hr	Upute za montažu i uporabu pogona za garažna vrata	LM60, LM80, LM100
ro	Instrucțiuni de montaj și utilizare pentru sistem de acționare pentru porți de garaj	LM60, LM80, LM100
is	Uppsetningar- og notkunarleiðbeiningar fyrir LM60, LM80 og LM100 bílskúrshurðaupnara	



1	General safety guidelines	.1
2	Intended use	.2
3	Scope of supply	.2
4	Product overview	.2
5	Before you begin	.2
6	Door types	.2
6.1	Preparation	.2
7	Tools required	.2
8	Assembly of the door opener	.3
9	Assembling the rail	.3
10	Tighten the belt	.3
11	Fitting rail to the drive	.3
12	Installation of the opener	.3
12.1	Centre of the garage door	.3
13	Mounting header bracket	.3
14	Attaching drive to header	.4
15	Hang opener	.4
16	Mounting door bracket	.4
17	Attaching door arm on the trolley	.4
18	Electrical connection	.5
19	Connect illuminated push button	.5
20	Installation of photocells	.5
21	Connecting the opener	.5
22	Program opener and test	.5
23	Setting the limits	.5
24	Test the Safety Reverse System	.6
25	Program your remote / the Wireless push button (optional)	.6
26	Special features	.6-7
27	Operation of the door opener	.8

28	Attach safety labels	.8
29	Cleaning and maintenance	.8
30	Cleaning	.8
30.1	Maintenance	.8
30.2	Replace batteries of the remote control	.9
31	Operator light	.9
32	Disposal	.9
33	Frequently asked questions	.9-10
	Diagnostic chart	.11-12
34	Optional Accessories	.12
35	Specifications	.13
36	Service parts / Warranty	.13
37	Declaration of conformity	.13

WARNING!

Start by Reading These Important Safety Instructions

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 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 professional.
- 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.
- This product has a transformer with a special power cord. 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 of at least 1.80 m.

Save these instructions.

2 Intended use

The device is intended for the opening and closing of garage doors (please refer to section 6 "Door Types").

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.

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 (Drivehead):

1. Drive head	1x	8. Curved door arm	1x
2. Remote control	2x	9. Support bracket	2x
3. Support bracket	2x	10. Hanging bracket	2x
4. Hardwarebag	1x	11. Rail	1x

Parts overview (Rail):

5. Header bracket	1x	Note: Illustration shows basic content.	
6. Door bracket	1x	Depending on the exact model or combination purchased contents are different.	
7. Adapter for gear wheel	1x		

Hardwarebag:

1. Truss head screw		6. Safety cotter pin	1x
6 x 80 mm	1x	7. Screw ST6 x 50 mm	4x
2. Lock nut M6	1x	8. Screw ST6,3 x 18 mm	2x (4x)
3. Hexagonal head screw	4x	9. Plug	4x
4. Nut M6	4x		
5. Bolt	1x		

4 Product overview

This figure always offers you a complete overview of the ready-assembled 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. Mounting bracket	13. Door bracket
7. Support 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.

6 Door Types

- A. One-Piece Door with Horizontal Track Only.
- B. One-Piece Door with Horizontal and Vertical Track – Special door arm (E, The Chamberlain Arm™) and the Protector System™ required. See your dealer.
- C. Sectional Door with Curved Track – See 20B – connect door arm.
- D. Canopy door – Special door arm (E, The Chamberlain Arm™) and the Protector System™ required. See your dealer.
- E. The Chamberlain Arm™ for use on door types B and D.

6.1 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.

- 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 (refer to section 34 "Optional Accessories") must be installed.

7 Tools required

Tool list:	Hacksaw
Ladder	Different drill bits for concrete and(or wood (8, 6, 5, 4.5 mm)
Marking pen	Box wrench
Pliers	Water level
Drilling machine	Screwdriver
Hammer	Measuring tape
Ratchet 10 mm / 13 mm	

8 Assembly of the door opener



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

9 Assembling the rail

The rail is largely preassembled and consists of 1,2 or 3 parts (see ill). The carriage, push rod, release handle, the guide pulley and the lintel bracket with belt 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.

Assembly of a 3-piece rail:

1. Remove cable ties that secure the belt.
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 outwards with a suitable tool.

The assembly of the rail is complete.

10 Tighten the chain 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.

11 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 (1) and completely put on the opener (3) with the gear side (2).
3. Secure the rail on the opener with two mounting brackets (4) and the screws (5).

Optional:

To reduce the total overall length by 140 mm the drive can be rotated by 90° as shown in fig.11. This allows access and programming sideways.

Unscrew the switch and mount it to the designated second position.

Remove the rubber plug in order to seal the cable exit.

Proceed with step 3.

This completes the assembly of the door opener.

12 Installation of the opener

12.1 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.

13 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:

Mount header bracket (1) 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 (3).

Note:

In case of mounting on a concrete slab / concrete header, the provided concrete plugs (4) and screws (3) should be used. Drill hole size in concrete: 8 mm.

B. Ceiling suspension:

Draw vertical centre line (2) further up to the ceiling and about 200 mm along the ceiling. Attach header bracket (1) 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 (3).

14 Attaching drive to header



It may be necessary to place the drive temporarily higher, so that the rail does not hit the springs in sectional 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 (1) through the holes and secure with nut (2).

15 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 (1) should be angled to provide rigid support. On finished ceilings, attach support bracket(not delivered) to a self-supporting structural element before installing the opener. For concrete ceiling mount, use concrete anchors (3) 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 (4).

Lift opener and fasten to hanging brackets with screw and nut (5).

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.



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.

16 Mounting door bracket

Installation in sectional or one-piece doors:

The door bracket (1) 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.

17 Attaching door arm on the trolley

The straight door arm is already pre-assembled.

Pulling the red handle the trolley will be released and can be moved manually.

DISCONNECT THE TROLLEY

1. The door should be fully closed if possible.
2. Pull down on the emergency release handle.

RECONNECT THE TROLLEY

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.



Mount the release handle of the emergency release at at height of at least 1.80 m. Attach the yellow label regarding the release of the garage door opener (sticker) on the cord of the door handle.

18 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 accessible for the purpose of disconnecting the mains supply.

19 Install illuminated push button or Multi-function door control (optional accessory)

Locate door control where the garage door is visible, away from door and door hardware and out of the reach of children. Mount at least 1,5 m (5 feet) above the floor. Permanently fasten the caution label permanently to the wall near the door control as a reminder of safe operating procedures. There are 2 terminals on the back of the door control. Strip about 6mm of insulation from bell wire. Separate wires enough to connect the white/red wire to RED terminal screw and the white wire to WHT terminal screw. Fasten the door control to an inside garage wall with sheet metal screws (3) provided. Drill 4mm holes and use anchors (6) if installing into drywall. A convenient place is beside the service door and out of reach of children. Run the bell wire up the wall and across the ceiling to the garage door opener. Use insulated staples (5) to secure wire.

Operation of the Door Control:

Press to open or close the door. Press again to stop the door while moving.

Multi-function Door Control: Press the white square to open or close the door. Press again to stop the door while it is moving.

Light Feature: Press the Light button to turn the opener light on or off. If you turn it on and then activate the opener, the light will remain on for 2-1/2 minutes. Press again to turn it off sooner. The Light button will not control the opener lights when the door is in motion.

20 Installation of photocells (Optional accessory)

After installing and adjusting the door opener, photocells can be installed. The installation instructions are included with the photocells.

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.

21 Connecting the opener

Connect opener in accordance with local rules and regulations to a properly installed wall socket.

NOTE:

When the opener is switched on, the operator light is also turned on for 2.5 minutes.

22 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.

23 Setting the Limits

Travel limits regulate the points at which the door will stop when moving up or down. Follow the steps below to set the limits.

This operator is equipped with a two speed system that is automatically set by the software. Canopy or 1-piece garage doors will automatically run in slow speed to insure a safe operation according regulatory. Doors traveling shorter than 190 cm will run automatically slow.

INTRODUCTION

Your garage door opener is designed with electronic controls to make setup and adjustments easy. The adjustments allow you to program where the door will stop in the open (UP) and close (DOWN) position. The electronic controls sense the amount of force required to open and close the door. The force is adjusted automatically when you program the travel.

NOTE: If anything interferes with the door's upward travel it will stop. If anything interferes with the door's downward travel, it will reverse.

To watch a short instructional video on programming your new garage door opener use your smartphone to read the Code on this manual's back side or visit www.liftmaster.eu.

PROGRAMMING BUTTONS

The programming buttons are located under a removable cover on the back side of the garage door opener (see fig24).

1. Press and hold the square Adjustment Button until the UP Button begins to flash.
2. Press and hold the UP Button until the door is in the desired UP position. NOTE: The UP and DOWN Buttons can be used to move the door up and down as needed.
3. Once the door is in the desired UP position press and release the Adjustment Button. The garage door opener lights will flash and the DOWN Button will begin to flash.
4. Press and hold the DOWN Button until the door is in the desired DOWN position. Make sure the rail does not bend. NOTE: The UP and DOWN Buttons can be used to move the door up and down as needed.
5. Once the door is in the desired DOWN position press and release the Adjustment Button. The garage door opener lights will flash and the UP Button will begin to flash.
6. Press and release the UP Button. When the door travels to the programmed UP position, the DOWN Button will begin to flash. Note: IF the door does not travel to the UP position the travel limit programming failed. Begin again with step1. If door travel is too short please refer to section 33 "Frequently Asked Questions".
7. Press and release the DOWN Button. The door will travel to the programmed DOWN position. Programming is complete.

24 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 .

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.

OPENING TEST: Apply 20 kg to the middle of the door.
The door should not open completely.

25 Program your opener and remote / the Wireless push button (optional)

Activate the opener only when door is in full view, free of obstruction and properly adjusted. No one should enter or leave garage while door is in motion. Do not allow children to operate push button(s) or remote(s). Do not allow children to play near the door.

Your garage door opener receiver and one of the buttons remote control are pre-programmed. If you purchase additional remote controls, the garage door opener must be programmed to accept the new remote code.

Program the Receiver to Match Additional Remote Controls:

Using the yellow round button

1. Press and release the yellow round button on the opener. The learn indicator light will glow steadily for 30 seconds (1).
2. Within 30 seconds, press and hold the button on the hand-held remote that you wish to operate your garage door (2).
3. Release the button when the opener light blinks once. It has learned the code. If the light bulb is not installed.

Now the opener will operate when the remote control push button is pressed. If you release the remote control push button before the opener light flashes, the opener has not learned the code.

To Erase all Remote Control Codes

To deactivate any unwanted remote, first erase all codes: Press and hold the yellow round button on opener until the learn indicator light goes out (approximately 10 seconds). All previous codes are now erased. Reprogram each remote or keyless entry you wish to use.

26 Special Features

A. Door within a door connection

Description of feature:

Locate auxiliary quick connect terminals. Remove wire bridge.
Insert bell wire into quick connect terminals 4 and 5.

B. Flashing light connection

Description of feature:

The Chamberlain flashing light can be installed anywhere.
Connect light leads to quick connect terminals 6 and 7.

C. Partial opening feature

Description of feature: The pedestrian , ventilation or pet opening position is an adjustable second stop position between the fully opened and fully closed position of the garage door.

Activate:

NOTE: Any time programming requires pushing two buttons simultaneously, make sure this is executed accurately. If other buttons than described will flash, briefly cut operator from current and start programming from the beginning.

1. Move the door into to the desired partial opening position using the remote control or wallcontrol.
2. Choose a non programmed button on your remote control.
3. Push square button and UP button simultaneously for 3 seconds and wait for the operator light to flash. Then push the remote control button. To program an additional remote control start again with step1.

Deactivate:

1. Move the door to the fully closed position.
2. Push square button and UP button simultaneously for 3 seconds and wait for the operator light to flash.

D. Instructions for Auto-Close Feature

Description of feature: The Chamberlain Safety IR Sensors must be installed (required by EN60335-1-95).

Activate:

Push square and DOWN button simultaneously until th eoperator light blinks. 1 push UP button = 10 seconds. up to 180 sec. possible (18x)
During countdown the down button flashes.
To complete programming push square button.

Deactivate:

Push square and DOWN button simultaneously until th eoperator light blinks.
To complete programming push square button.

Notes:

- The auto-close timer resets if the IR sensors are interrupted.
- In the partial open position automatic close is not possible.
- The garage door operator must have reached the programmed UP limit to activate the auto-close timer.

Troubleshooting:

Question: Operator will not work anymore without IR sensor.

Solution: Correct. IR sensors are mandatory once connected.

A full logic board reset is required.

E. Change from fast speed to slow speed

Description of feature:

The garage door opener chooses the necessary speed automatically.

Change speed:

1. Move the door to the fully closed position.
2. Push UP and DOWN buttons simultaneously until operator light blinks.

Attention: One piece doors, Canopy garage doors and any other type of swing-out doors must be operated with slow speed.

For safety reasons, below 1.9m of travel length the speed is slow.

F. OPEN, STOP or CLOSE programming of the remote control.

Description of feature:

Each remote control button can be programmed to either OPEN, STOP or CLOSE the door.

OPEN:

Push yellow round button and UP button simultaneously until the led goes on. Now push a selected button on the remote control for OPEN only and wait for the operator light to flash.

STOP:

Push yellow round button and square button simultaneously until the led goes on. Now push another selected button on the remote control for STOP only and wait for the operator light to flash.

CLOSE:

Push yellow round button and DOWN button simultaneously until the led goes on. Now push a third button on the remote control for CLOSE only and wait for the operator light to flash.

G. Holiday Mode (requires 78EV wall control):

Portable remote controls do not function if this feature is activated.

H. Program remote control via wall control (requires 78EV wall control).

I. Operator light control (requires 78EV wall control):

The operator light can be switched on and off at any time.

Automatic lighting (only with light barrier and wall bracket)

When the light barrier is interrupted, the lighting automatically switches on during the opening of the door.

Activation: Press and hold the "LIGHT" button on the wall bracket for 10 seconds. Deactivation: see activation

J. Keyless entry (requires 747EV wireless keypad):

Enter a 4 digit code of your choice to operate the door.

K. Temporary access (requires 747EV wireless keypad):

A temporary code can be programmed to allow limited access to the garage (by time or number of openings).

L. One button close feature (requires 747EV wireless keypad):

Without having the access code the door can be closed from any position (not opened).

M. Battery backup CM475EV and CM475SOL (terminal 24 V):

The battery backup provides power in case of power failure up to 24 hours. Solar battery backup kit charged by sunlight provides power in case of power failure up to 24 hours (expected 2014).

N. myQ (requires 828EV gateway):

Allows operating your garage door opener via internet or a compatible mobile phone.

O. Garage Door Monitoring (requires 829EV Garage Door Monitor):

Features optical (by LEDs) and audible control of the status of your garage door. Allows closing your garage door from the place this device is installed.

P. Laser Park Garage Sensor

(photocells and laser park sensor required)

Quick connection terminals 2 and 3

(available from around July 2013)

Q. Power supply for external devices (terminal 24V)

24VDC/max. 50mA

Note: For external (universal) receivers, the under 1 watt standby mode must be turned on.

R. Turning on/off the under 1 watt standby mode

The under 1W standby mode is always switched on at the factory. (After the lights go off and with the garage door closed.)

Switch off under 1 watt standby:

1. Disconnect device from the mains.
 2. Press the UP and DOWN buttons on the back on the adjusting panel simultaneously and hold.
 3. Connect the device again while the buttons are still pressed.
 4. After about 5 seconds the opener's light flashes 10 times as confirmation. Note: Every time the opener is disconnected from the mains, the opener's light flashes 10 times during reconnection to indicate that the under 1 watt standby mode is off.
- Switch on under 1 watt standby:
See activation


27 Operation of the door opener

Automatic opening / closing of the door:

The door opener can be operated using the following devices:

- Remote control: 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.

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 open door, **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 is 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.
- Photocells (optional): By means of the photocells, a closing door is lifted up or an open door is obstructed while closing, if a person located in the door area interrupts the beam.
- THE MULTI-FUNCTION DOOR CONTROL (optional)
Press the push bar (1) to open or close the door. Press again to stop the door.

Light feature

Press the Light button (2) to turn the opener light on or off. It will not control the opener light when the door is in motion. If you turn it on and then activate the opener, the light will remain on for 2-1/2 minutes. Press again to turn it off sooner.

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.

28 Attach warning labels (see fig. 28)

29 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.

30 Cleaning

Clean the drive head, wall switch and remote control with a soft, dry cloth. Do not use liquids.

30.1 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.

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 chain belt tension. For this, first disconnect the carriage from the drive. If necessary, adjust belt tension.
- Lightly lubricate the guide rail with standard grease (lubrication).

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 travel limits and force (refer to section 23 and 33) carefully and **re-check the automatic safety reverse after each resetting.**

30.2 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.

Use only batteries of the same type.

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 (10A20-WH).

31 Operator light

The LED lighting has a very long life and is maintenance free.
The lens cover cannot be removed.

32 Disposal

The packaging is made from environmentally friendly materials. It can be disposed of in the local recycling bin. According to the European Directive 2002/96/EC on waste electrical and electronic equipment, this device must be properly disposed of after use to ensure the reuse of materials. The information on the possibilities of this waste disposal is provided by the local government or municipality.

33 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!
- Check if remote control battery is lit.
- Try operating with a new battery.
- If you have two or more remote controls, 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 in 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 blocked by anything? Pull manual release and operate door by hand. In case of unbalanced or stuck gate, please contact the service department.
- Re-program operating force.
- 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 remote controls and then re-programme them.
See section 25.
- 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 photocells should be checked. If the LED at the photocells blink, the alignment should be checked.
- Check remote control 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 the 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, reprogramme 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 chain/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. Setting the Force

The force setting button is located behind the cover at the operators backside. The force setting regulates the amount of power required to open and close the door.

1. Open cover on the backside of the opener. Locate the yellow round button (2).
2. Push the yellow round button (2) twice to enter unit into Force Adjustment Mode. The LED (3) (indicator light) and the UP button will flash. Push UP button. The operator will travel to the UP position learning the required amount of force. Once the UP limit is reached the LED and the DOWN button a start to flash. Push DOWN button. The operator will travel to the DOWN position learning the required amount of force.

Diagnostic Chart

Your garage door opener is programmed with self-diagnostic capabilities. The UP and DOWN arrows on the garage opener flash the diagnostic codes.

DIAGNOSTIC CODE		SYMPTOM	SOLUTION
Up Arrow Flash(es)	Down Arrow Flash(es)		
1	1	The garage door opener will not close and the light bulbs flash	Safety sensors are not installed, connected or wires may be cut. Inspect sensor wires for a disconnected or cut wire.
1	2	The garage door opener will not close and the light bulbs flash.	There is a short or reversed wire for the safety sensors. Inspect safety sensor wire at all staple points and connection points and replace wire or correct as needed.
1	3	The door control will not function.	The wires for the door control are shorted or the door control is faulty. Inspect safety sensor wire at all staple points and connection points and replace wire or correct as needed.
1	4	The garage door opener will not close and the light	Safety sensors are misaligned or were momentarily obstructed. Realign both sensors to ensure both LEDs are steady and not flickering. Make sure nothing is hanging or mounted on the door that would interrupt the sensors path while closing.
1	5	Door moves 6-8" stops or reverses.	Manually open and close the door. Check for binding or obstructions, such as a broken spring or door lock, correct as needed. Check wiring connections at travel module and at the logic board. Replace travel module if necessary.
		No movement, only a single click.	Manually open and close the door. Check for binding or obstructions, such as a broken spring or door lock, correct as needed. Replace logic board if necessary.
		Opener hums for 1-2 seconds no movement.	Manually open and close the door. Check for binding or obstructions, such as a broken spring or door lock, correct as needed. Replace motor if necessary.
1	6	Door coast after it has come to a complete stop.	Program travel to coasting position or have door balanced by a trained technician.
2	1-5	No movement or sound.	Replace logic board.
3	2	Unable to set the travel or retain position.	Please refer to section 33 "Frequently Asked Questions", chapter 15
4	1-4	Door is moving stops and or reverses.	Manually open and close the door. Check for binding or obstructions, such as a broken spring or door lock, correct as needed. If the door is binding or sticking contact a trained door systems technician. If door is not binding or sticking attempt to reprogram travel (refer to page 24).
4	5	Opener runs approximately 6-8", stops and reverses.	Please refer to section 33 "Frequently Asked Questions", chapter 15
4	6	The garage door opener will not close and the light bulbs flash.	Safety sensors are misaligned or were momentarily obstructed. Realign both sensors to ensure both LEDs are steady and not flickering. Make sure nothing is hanging or mounted on the door that would interrupt the sensor's path while closing.

DIAGNOSTIC CODE		SYMPTOM	SOLUTION
Up Arrow Flash(es)	Down Arrow Flash(es)		
5	1	Terminal 1+2 for wall control is shortened longer than 4 seconds	Check wiring for push button if button is stuck and activated permanently. Remove wiring from terminal 1+2 on operator as test. Do not run push button wires next to high voltage wiring or in same conduit.
5	5	Low voltage	The operator has been shut off due to lower voltage supplied than allowed. If an external backup battery pack is installed, check if empty. If mains supply is used, check wiring and supply.
6	1	Maximum radio memory has been reached.	Maximum capacity for storage of remote controls has been reached. The first remote control or more previously programmed remote controls' codes have been replaced by a new one. To reset diagnostic remove power from the operator.

34 Optional Accessories

1. TX2EV - 2-channel remote control
2. TX4EV - 4-channel remote control
3. TX4UNI - Universal remote control
4. 128EV - Wireless Wall Control 2-Channel
5. 747EV - Keypad
6. 828EV - Gateway LiftMaster
7. 829EV - Garage Door Monitor
8. EQL01EV - Quick release
9. 1702EV - Quick release
10. 75EV - Wired push button
11. 78EV - Wired multi-functional wall control
12. FLA-1LED - Flashing light
13. 770EV - Photocells
14. 100034 - Key switch (flush mount)
15. 100041 - Key switch (surface mount)
16. 16200LM - Door in Door contact
17. CM475EV - Battery pack

35 Specifications

Input Voltage.....	230-240 VAC, 50 Hz
Max. Pull Force	600 N (LM60), 800 N (LM80), 1000 N (LM100)
Standby Power (door fully closed).....	0.8 W
Motor	
Type.....	DC gearmotor permanent lubrication
Noise level.....	54dB
Drive Mechanism.....	Belt
Length of Travel.....	Adjustable
Opening speed, up to	160 mm/s (LM60), 200 mm/s (LM80, LM100)
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.....	all
Dimensions	
Length (Overall).....	3200 mm
Headroom Required	30 mm
Hanging Weight	~12 kg
Receiver	
Memory Registers	180
Operating Frequency.....	6-Band (433 MHz / 868 MHz)

SPECIAL NOTE: Chamberlain strongly recommends installing photocells on all garage door openers.

36 Service parts / Warranty

Please refer to www.liftmaster.eu or contact your local dealer.

Also refer to the available Warranty Book.

37 Declaration of conformity

Declaration of conformity

The listed automatic garage door opener corresponds to the applicable sections of the standards EN 55014-1 (2006), EN 55014-2 (2008), EN 61000-4-2 (2009), EN 61000-4-3 (2008), EN 61000-4-4 (2004), EN 61000-4-5 (2007), EN 61000-4-6 (2009), EN 61000-4-11 (2004), EN 62233 (2008), EN 300220-1 (V2.3.1), EN 300220-2 (V2.1.2), EN 60335-1 (2010), EN 60335-2-95 (2004) in accordance with the provisions and all amendments to the European Directives 2004/108/EC, 2006/95/EC, 2006/42/EC and 1999/5/EG.

Model:LM60, LM80, LM100

S./N.:xxxxx000001 - xxxxx99999

ManufacturerChamberlain GmbH
.....Alfred-Nobel-Str. 4
.....D-66793 Saarwellingen

All technical archive data for the opener and the associated accessories are kept safe by Chamberlain GmbH and will be provided to the authorities on request if required.

B. P. Kelkhoff
Manager, Regulatory Affairs
Chamberlain GmbH
Alfred-Nobel-Str. 4
D-66793 Saarwellingen
October 2012

Barbara P. Kelkhoff



