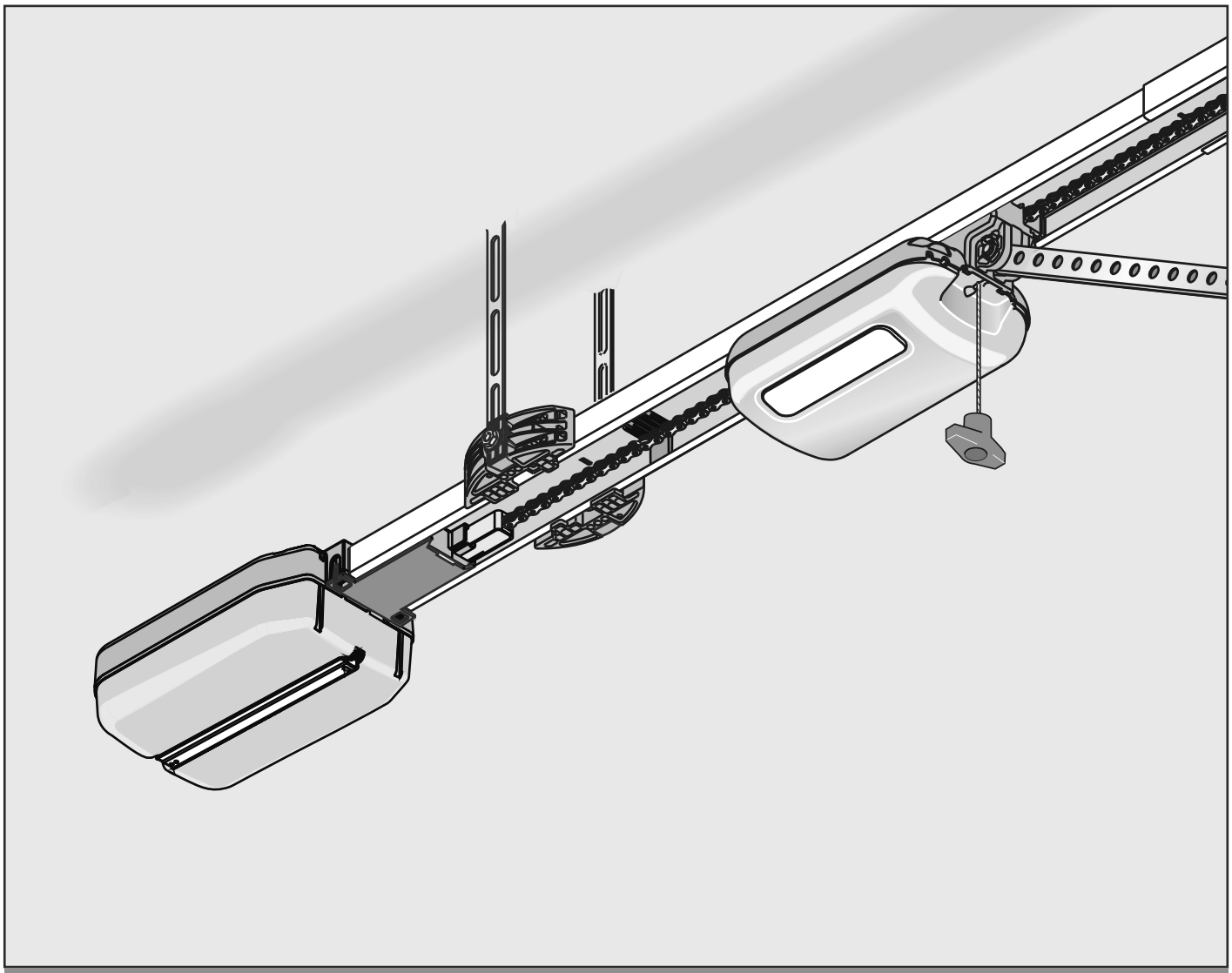
SOMMER



US-EN ORIGINAL INSTALLATION AND OPERATING MANUAL

Garage door opener

2060 evo+
2080 evo+
2110 evo+

Limited Lifetime Warranty is contained at the end of the manual.

evo-plus_46900V024_122022_0-DRE_Rev-C_US-EN

Dear customer,
Congratulations on your purchase of a product of SOMMER.
This product has been developed and manufactured under high standards of quality. Our passion for the product is just as important to us as the needs and requirements of our customers. We place particular emphasis on the safety and reliability of our products.
Read this installation operating manual carefully and follow all instructions. This will ensure that you can install and operate the product safely and optimally.
If you have any questions, please contact your specialist retailer, installer or contact.

Information on the opener: Antrieb:
Serial No.: See the title page of the installation and operating manual (if applicable warranty label).

Year of manufacture: from 03.2015

Information on the installation and operating manual
Version of the installation and operating manual:
evo-plus_46900V024_122022_0-DRE_Rev-C_US-EN

Warranty
The warranty complies with statutory requirements. The contact person for warranties is the qualified dealer. The warranty is only valid in the country in which the opener was purchased. Batteries, fuses and lights are excluded from the warranty.

Contact data
If you require after-sales service, spare parts or accessories, please contact your specialist retailer, installer or contact

Sommer USA, Inc.
2217 Distribution Centre Drive, Suite F
Charlotte, NC 28269
United States of America

Tel +1 877-766-6607

Fax +1 704-424-7699

info@sommer-usa.com
www.sommer-usa.com

Feedback on this installation and operating manual
We have tried to make the Installation and Operating Manual as easy as possible to follow. If you have any suggestions as to how we could improve them or if you think more information is needed, please send your suggestions to us:

Fax +1 704-424-7699

info@sommer-usa.com

Service
If you require service, please contact us on our service hotline (fee required) or see our web site:

Tel +1 877-766-6607 (Toll Free only USA)

http://www.sommer-usa.com

1. Table of contents

1. About this installation and operating manual

1.1 Storage and circulation of the installation and operating manual

Read this installation and operating manual carefully and completely before installation, commissioning and operation and also before removal. Follow all warnings and safety instructions.
Keep this installation and operating manual accessible at all times at the place of use. If your installation and operating manual is damaged or lost, it can be downloaded from **SOMMER USA**, Inc. at:
www.sommer.eu
During the transfer or resale of the opener to third parties, the following documents must be passed on to the new owner:

- This installation and operating manual
- Documents recording retrofitting and repairs
- Proof of regular care, maintenance and testing

1.2 Important for translations

This original installation and operating manual was written in US-English. The other available languages are translations of the US-English version. You can get the original installation and operating manual by scanning the QR code:

http://some4.me/org-evo-plus-rev-c

1.3 Description of the product type

The opener has been constructed using state-of-the-art technology and according to recognized technical regulations and is subject to the UL325 standards. The opener is fitted with a radio receiver. Optionally available accessories are also described.

1.4 Target groups of the installation and operating manual

The installation and operating manual must be read and observed by everyone assigned with one of the following tasks:

- Unloading and in-house transport
- Unpacking and installation
- Initial operation
- Setting
- Usage
- Care and maintenance
- Testing
- Troubleshooting
- Disassembly and disposal

1.5 Explanation of warning symbols and instructions in the installation and operating manual

The warnings in this installation and operating manual are structured as follows.

Hazard symbol

⚠ Signal word

Type and source of hazard
Consequences of the hazard
▸ Preventing and avoiding the hazard

The hazard symbol indicates the hazard. The signal word is linked to a hazard symbol. The hazard is classified into three classes depending on its danger:

DANGER

WARNING

CAUTION

There are three different classifications of hazards.

⚠ DANGER

Describes an immediate danger that leads to serious injury or death.
Describes the consequences of the danger to you or other persons.
▸ Follow the instructions for avoiding or preventing the danger.

⚠ WARNING

Describes a potential danger of serious injury or death.
Describes the potential consequences of the danger to you or other persons.
▸ Follow the instructions for avoiding or preventing the danger.

⚠ CAUTION

Describes a potential danger of a hazardous situation
Describes the potential consequences of the danger to you or other persons.
▸ Follow the instructions for avoiding or preventing the danger.

The following symbols are used for notes and information:

NOTE

Describes additional information and useful notes for correct use of the opener without endangering persons.
If it is not observed, property damage or faults to the opener or door may occur.

INFORMATION
Describes additional information and useful tips.
Functions for optimum usage of the opener are described.

INFORMATION
This symbol indicates that all components that have been taken out of service must not be disposed of with household waste, as they contain hazardous substances. The components must be disposed of correctly at an authorized recycling centre. The local and national regulations must be observed.

INFORMATION
This symbol indicates that all old accumulators and batteries must not be disposed of with household waste. Old accumulators and batteries contain hazardous substances. These must be disposed of properly at municipal collection points or or in the containers provided by dealers. The local and national regulations must be observed.


Continue reading the installation and operating manual for more information.


Disconnect the opener from the mains voltage.


Connect the opener to the mains voltage.


Symbol refers to factory settings.


Symbol refers to SOMlink and a WLAN-enabled terminal.

1.6 Special warnings, hazard symbols and mandatory signs

To specify the source of danger more precisely, the following symbols are used together with the above-mentioned hazard symbols and signal words. Follow the instructions to prevent a potential hazard.


⚠ DANGER

Danger due to electric current!
Contact with live parts may result in electric current flowing through the body. Electric shock, burns or death may result.
- Installation, testing and replacement of electrical components may only be carried out by an **electrician**.


⚠ DANGER

Danger of entrapment!
Persons may be trapped inside the garage. If trapped persons cannot free themselves, severe injury or death may result.
- A second entrance, a release lock for unlocking from the outside must be installed!


⚠ DANGER

Danger of falling!
Unsafe or defective ladders may tip and cause serious or fatal accidents.
- Use only a non-slip, stable ladder.


⚠ WARNING

Danger due to falling parts!
Parts of the door may become detached and fall. If persons or animals are hit, this may cause serious injury or death.
- The door must not bend, rotate or twist when opening and closing.


⚠ WARNING

Danger of entrapment!
Persons or animals in the movement area of the door may be trapped and pulled along with the door. Severe injuries or death may result!
- Keep clear of moving doors.


⚠ WARNING

Danger of crushing and shearing!
If the door moves with persons or animals in the movement area, crushing and shearing injuries may be caused by the mechanism and safety edges of the door.
- Never put your hand near the door when it is moving or near moving parts.


⚠ WARNING

Danger of tripping and falling!
Unsafely positioned parts such as packaging, opener parts or tools may cause trips or falls.
- Keep unnecessary items away from the installation area.


⚠ WARNING

Danger due to optical radiation!
Looking into an LED at short range for an extended period may cause optical glare. This will temporarily reduce vision. This may cause serious or fatal injury.
- Do not look directly into an LED.


⚠ WARNING

Danger due to hot parts!
After frequent operation, parts of the carriage or the control unit may become hot. If the cover is removed and hot parts are touched, they may cause burns.
- Allow the opener to cool before removing the cover.

1. About this installation and operating manual

The following mandatory signs inform the user that actions are required. The requirements described must be complied with.

⚠ WARNING

Risk of eye injury!
Chips flying when drilling may cause serious injuries to eyes and hands.
▸ Wear safety glasses.

⚠ WARNING

Risk of injury in the head region!
Impact with suspended objects may cause serious abrasions and cuts.
▸ Wear a safety helmet.

⚠ CAUTION

Risk of injury to hands!
Rough metal parts may cause abrasions and cuts when picked up or touched.
▸ Wear safety gloves.

1.7 Information regarding the depiction of text

Stands for directions for an action
⇒ Stands for the results of the action
Lists are shown as a list of actions:
- List 1
- List 2

1, A 1 A Number or letter in the figure refers to a number in the text.

Important text items in directions for actions are emphasized in **bold** type.
References to other chapters are in bold type and set in **“quotation marks”**.

1.8 Intended use of the opener

The opener is intended exclusively to open and close doors. Any other use does not constitute intended use. The manufacturer accepts no liability for damage resulting from use other than the intended use. The user bears the sole responsibility for any risk involved. It also voids the warranty.
Any changes to the opener must be made with original **SOMMER** accessories only and only to the extent described.
Doors automated with this opener must comply with all valid international and domestic standards, directives and regulations. Examples include UL 325. The regulations valid in the respective country must be observed.
The opener may only be used:
- as specified in this installation and operating manual
- in good technical condition
- with attention to safety and hazards by trained users

1.9 Improper use of the opener

Any other use or additional use that has not been described in Chapter 1.8 constitutes improper use. The user bears the sole responsibility for any risk involved.
The manufacturer's warranty will be voided by:
- damage caused by other use and improper use
- use with defective parts
- unauthorized modifications to the opener
- modifications and non-approved programming of the opener and its components

The door must not be part of a fire protection system, an evacuation path or an emergency exit that automatically closes the door in the event of fire. Installation of the opener will prevent automatic closing.
Observe the local building regulations.
The opener may not be used in:
- areas with explosion hazard
- very salty air
- aggressive atmosphere, including chlorine

1.10 Qualifications of personnel

People under the influence of drugs, alcohol, or medications that can influence their ability to react may **not** work on the opener.
See www.sommer-usa.com for:
- handover protocol for the opener

Qualified specialist for installation, commissioning and disassembly
This installation and operating manual must be read, understood and complied with by a qualified specialist who installs or performs maintenance on the opener.
Work on the electrical system and live parts may be performed only by a **trained electrician**.
The installation, commissioning and disassembly of the opener may only be performed by a qualified specialist.
A qualified specialist is a person commissioned by the installer.
The qualified specialist must instruct the user:
- on the operation of the opener and its dangers
- on the handling of the emergency release
- on regular maintenance which the user can execute

The user must be informed that other users must be instructed on the operation of the opener, its dangers as well as the emergency release.
The user must be informed about which work must only be performed by a qualified specialist:

- installation
- settings
- regular maintenance
- repairs

This installation and operating manual must be given to the user.

1.11 User

The user must note that the installation and operating manual for the door system must be given to him/her.
The user is responsible for:

- the intended use of the opener
- its good condition
- operation
- instructing all users how to use the door system and in the associated hazards
- care and maintenance
- inspection and maintenance by a qualified specialist
- troubleshooting in case of faults by a qualified specialist

The user must keep this installation and operating manual ready for consultation in the vicinity of the door system.
The opener must not be used by children or persons with restricted physical, sensory or mental capacity or who lack experience and knowledge. All users must be specially instructed and have read and understood the installation and operating manual.
Children must never play with or use the opener, even under supervision. Children must be kept clear of the opener. Transmitters or other control devices must never be given to children.
The user will observe the accident prevention regulations and the applicable standards in Germany. In other countries, the user must comply with the applicable national regulations.
The guideline “Technical regulations for workplaces ASR A1.7” of the German committee for workplaces (ASTA) is applicable for commercial use. The guidelines described must be observed and complied with. This applies for the use in Germany. In other countries the user must comply with the applicable national regulations´.

2. General safety instructions

2.1 Basic safety instructions for operation

Follow the basic safety instructions listed below.
The opener must not be used by children or persons with restricted physical, sensory or mental capacity or who lack experience and knowledge. All users must be specially instructed and have read and understood the installation and operating manual.
Children must never play with or use the opener, even under supervision. Children must be kept clear of the opener. Transmitters or other control devices must never be given to children.

⚠ DANGER

Danger if not observed!
If safety instructions are not observed, serious injury or death may result.
- All safety instructions must be observed to prevent serious injury or death.

⚠ DANGER

Danger due to electric current!
Contact with live parts may result in electric current flowing through the body. Electric shock, burns or death may result.
- Installation, testing and replacement of electrical components may only be carried out by an electrician.
- The opener must be disconnected from the power supply before working on the opener.
- If a battery pack is used, it must be disconnected.
- Then check that the opener is disconnected from the power supply.

⚠ DANGER

Danger due to use of the opener with incorrect setting or when it is in need of repair!
If the opener is used despite incorrect settings or if it is in need of repair, severe injury or death may result.
- The opener may only be used with the required settings and in the proper state.

⚠ DANGER

Danger of hazardous substances!
Improper storage, use or disposal of accumulators, batteries and opener components are dangerous for the health of humans and animals. Serious injury or death may result.
- Accumulators and batteries must be stored out of the reach of children and animals.
- Keep batteries and accumulators away from chemical, mechanical and thermal influences.
- Do not recharge batteries.
- Old batteries, old accumulators and opener components may not be disposed of with household waste. They must be disposed of properly.

⚠ DANGER

Danger of entrapment!
Persons may be trapped inside the garage. If trapped persons cannot free themselves, severe injury or death may result.
- The operation of the emergency release must be tested regularly from inside and if necessary also from outside.
- Faults must be repaired without delay.

⚠ WARNING

Danger due to projecting parts!
Door leaves or other parts must not protrude into roads or public pathways. This also applies while the door is moving.
Persons or animals may be seriously injured.
- Parts must not project into roads or public footpaths.

⚠ WARNING

Danger due to falling parts of doors!
Actuating the emergency release can lead to uncontrolled door movement if
- springs are weakened or broken.
- the door has not been optimally weight-balanced.

Falling parts may cause a hazard. Severe injuries or death may result.
- Check the weight balance of the door at regular intervals.
- Pay attention to the movement of the door when the emergency release is actuated.
- Keep clear of the movement area of the door.

⚠ WARNING

Danger of entrapment!
Persons or animals in the movement area of the door may be trapped and pulled along with the door. Severe injuries or death may result.
- Keep clear of the moving door.

⚠ WARNING

Danger of crushing and shearing!

If the door moves with persons or animals in the movement area, crushing and shearing injuries may be caused by the mechanism and safety edges of the door.

Only use the opener in direct view of the door.

- Always keep the moving door in sight.
- Persons or animals must not be in the range of movement of the door.
- Never put your hand near the door or moving parts when it is moving. In particular, do not reach into the moving push arm.
- Do not reach into the ceiling mounting unit when the carriage is running along the rail.
- Dot not drive through the door until it has been fully opened.
- Store the transmitter so that accidental operation, e.g., by children or animals, is impossible.

⚠ WARNING

Danger due to optical radiation!

Looking into an LED at short range for an extended period may cause optical glare. This may temporarily reduce vision. This may cause serious or fatal accidents.

- Do not look directly into an LED.

NOTE

The carriage is supplied with safety low voltage via the chain and the rail.

The use of oil or grease will greatly reduce the conductivity of the chain, rail and carriage. This may result in faults due to inadequate electrical contact.

The chain and rail are maintenance-free and must not be oiled or greased.

NOTE

Objects in the movement area of the door may be jammed and damaged.

Objects must not be in the range of movement of the door.

2.2 Additional safety information for the radio remote control

Follow the basic safety instructions listed below.

⚠ WARNING

Danger of crushing and shearing!

The door can be actuated by radio.

If the door moves with persons or animals in the movement area, crushing and shearing injuries may be caused by the mechanism and safety edges of the door.

- The radio remote control may be used only if the door's movement can be viewed directly.
- Persons or animals must not be in the range of movement of the door.
- Store the transmitter so that accidental operation, e.g., by children or animals, is impossible.

NOTE

If the door is not in view and the radio remote control is actuated, objects in the movement area of the door may be jammed and damaged.

Objects must not be in the range of movement of the door.

The user of the radio system is not protected from faults due to other telecommunications equipment or devices. This includes radio-controlled systems that are licensed to operate in the same frequency range. If significant interference occurs, please contact your appropriate telecommunications office which has radio interference measuring equipment or radiolocation equipment.

For the Declaration of Conformity for the radio, see:
www.sommer-usa.com

3. Description of function and product

3.1 The opener and its mode of operation

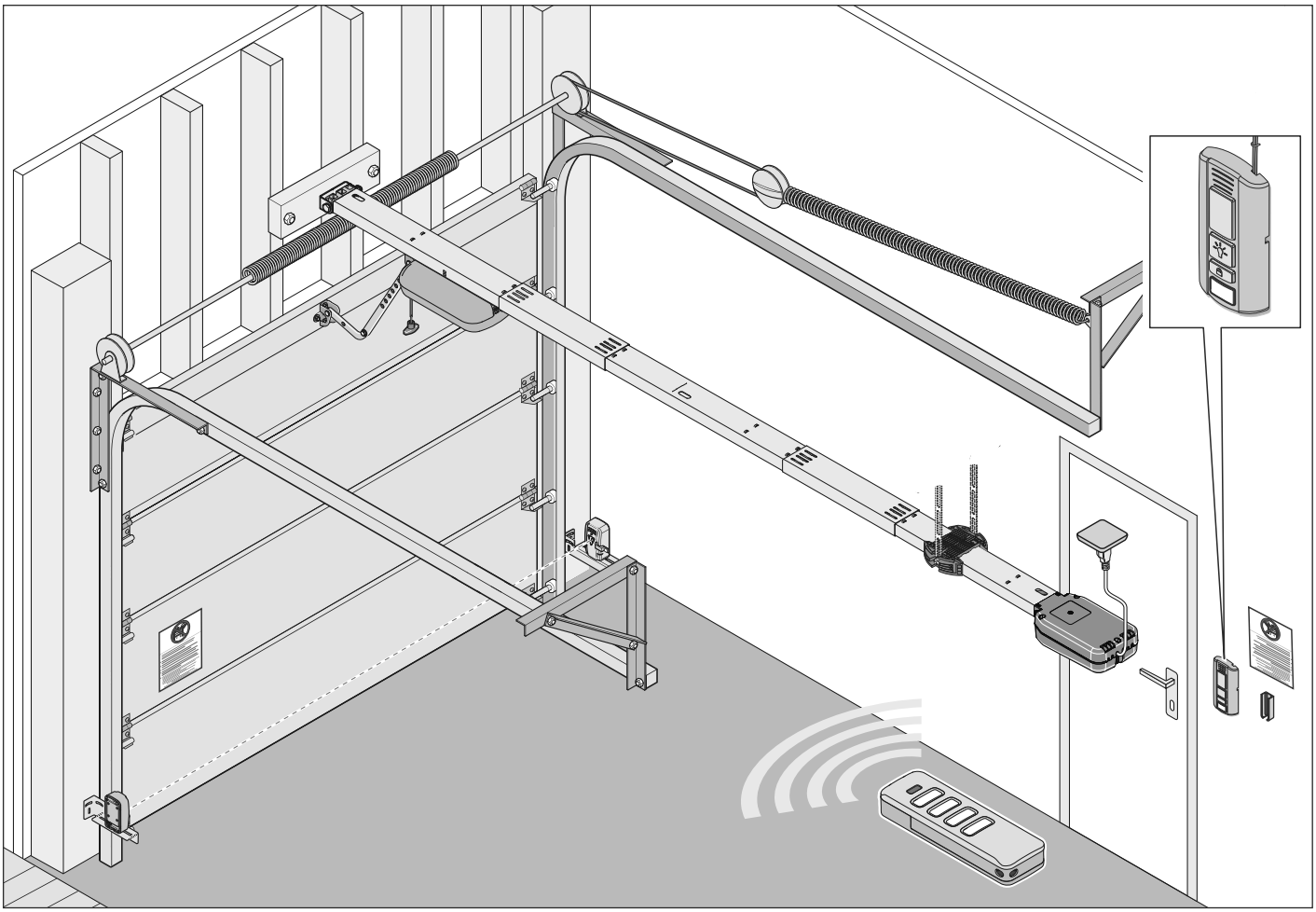


Fig. Door structure with opener

Sectional doors and other types of doors can be opened and closed with the electrically powered opener and its available accessories. The opener can be controlled with a transmitter.
The rail is mounted on the ceiling and the lintel above the garage door. The carriage is attached to the door by a push arm. The carriage moves along the rail on a spring-mounted chain and opens or closes the door. The transmitter can be stored in a holder in the garage or in the vehicle.
A plug-in light for the ceiling control unit is available as an accessory. It is automatically activated during operation.
For more information on using the opener with different types of doors or accessories, contact your qualified dealer.

3.2 Safety equipment

The opener stops and reverses slightly if it encounters an obstacle. This prevents injury and damage to property. The door will be partially or completely opened, depending on the setting.
If the power fails, the door can be opened from the inside by an emergency release or from the outside with a Bowden wire or emergency release lock. For more information, ask your qualified dealer.

3. Description of function and product

3.3 Product designation

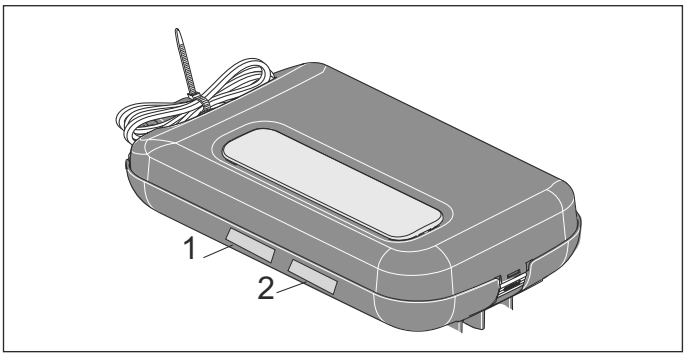


Fig. Carriage with labels (1, 2)

The following labels are attached to the carriage:
Warning label (1)
Type label (2) with the following information:

- exact type designation
- item number
- date of manufacture with month and year
- serial number

In case of questions or service, please supply the exact type designation, the date of manufacture and the serial number.

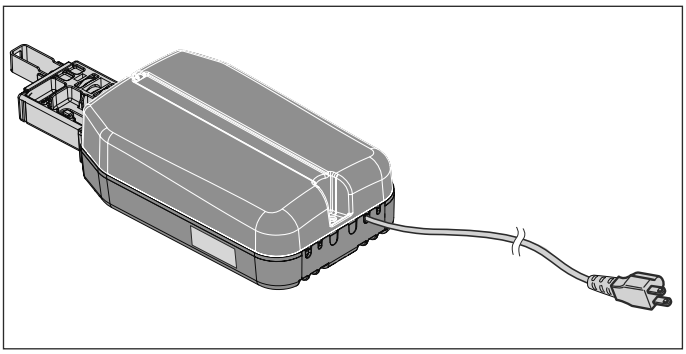


Abb. Control unit with labels

The label on the control unit provides more information about the connections.

3.4 Explanation of symbols in the installation and operating manual

Tool symbols

These symbols refer to the use of tools required for installation.

Philips screwdriver

Wood drill 1/4”

Wrench 1/2”, 3/8”

Ratchet driver 1/2”, 3/8”

Other symbols

Drilling depth

Audible locking noise or click

3. Description of function and product

3.5 Product contents

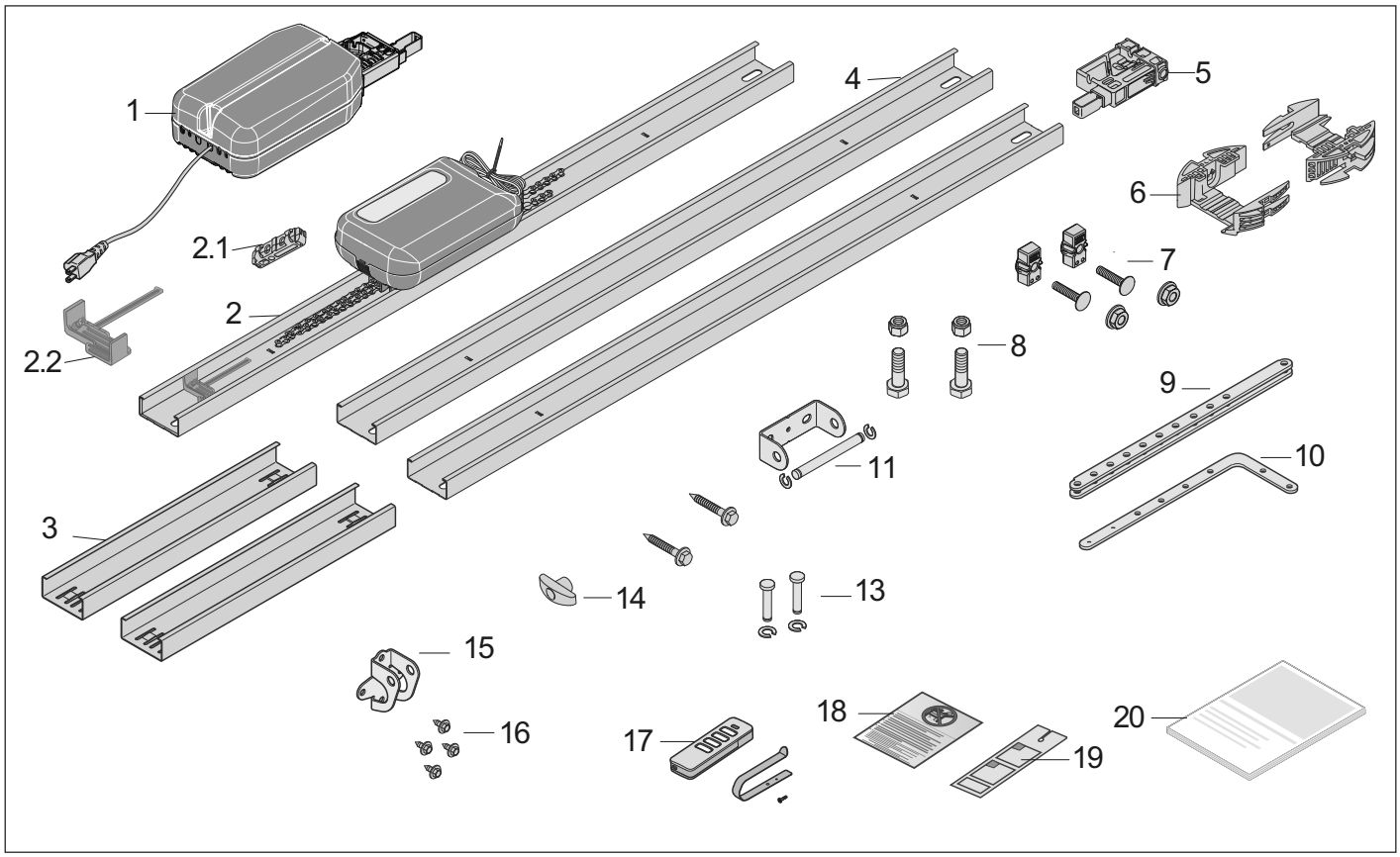


Fig. Product contents for the opener

1) Ceiling control unit
2) Rail, chain and carriage, **pre-assembled**
2.1) Isolator**, pre-assembled on the chain**
2.2) Limit stop**, pre-assembled on the rail**
3) Connecting sleeve, 2x
4) Rail, 2x
5) Chain tensioner, pre-assembled
6) Ceiling bracket, 2-parts
7) Ceiling bracket hardware
8) 2 bolts M8 x 20 (wrench size 1/2") with 2 self-locking nuts M8 (wrench size 1/2")
9) Door arm
10) Curved door arm
11) Header bracket and pin with 2 locking c-clips
12) 2 screws 8 x 60 mm (wrench size 1/2") and 2 washers 5/16" for the attachment to the header
13) 2 pins with locking c-clip for door arms
14) Emergency release handle
15) Door bracket
16) 4 self-drilling screws 1/4" (wrench size 3/8") for the door bracket
17) Transmitter, preprogrammed, with visor clip, packaged separately
18) Warning label
19) Warning label for emergency release
20) Installation and operating manual

When unpacking, make sure that all items are included in the packages. If anything is missing, contact your qualified dealer.
The actual content may vary depending on the specifications.

3. Description of function and product

3.6 Product contents for safety sensor kit

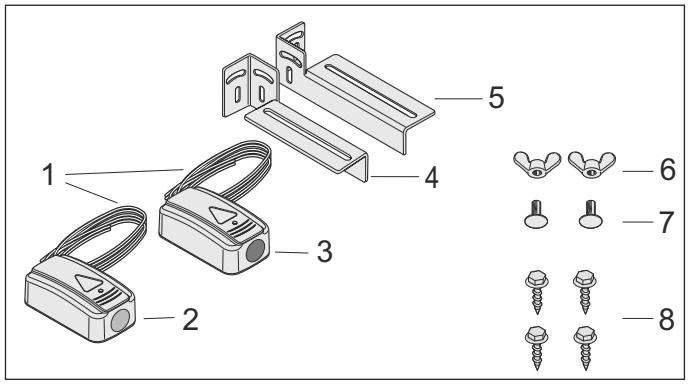


Fig. Product contents for safety sensor kit

1) 2 wires, length 32' 9" (10 m)
2) 1 transmitter safety sensor (green sticker)
3) 1 receiver safety sensor (red sticker)
4) 1 mounting bracket left
5) 1 mounting bracket right
6) 2 wing nuts M6
7) 2 carriage bolts M6
8) 4 screws 3/8”

3. Description of function and product

3.7 Dimensions

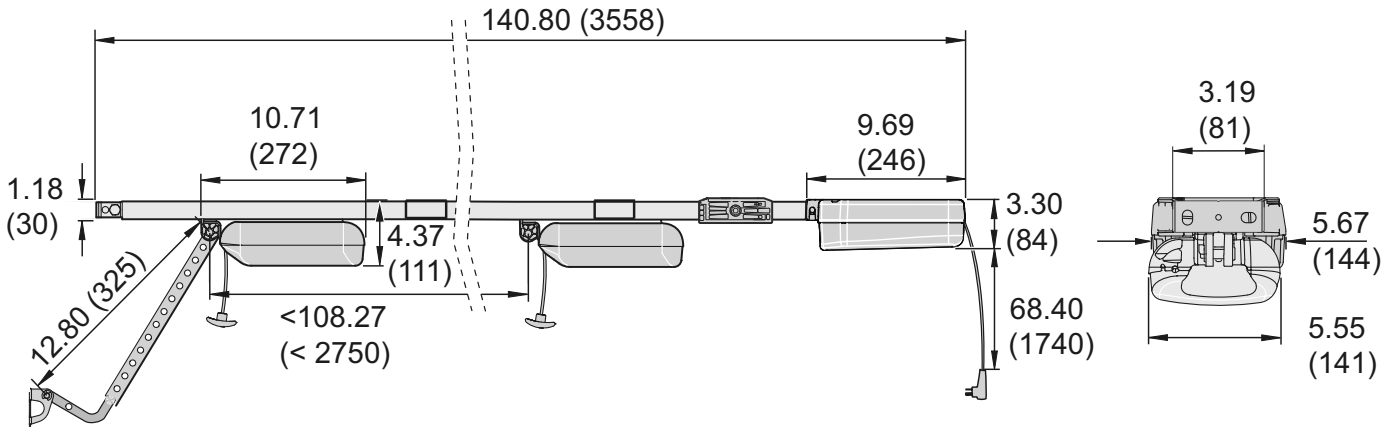


Fig. All dimensions are in inches (mm)

3.8 Technical data

	2060 evo+	2080 evo+	2110 evo+
Rated voltage	AC 120 V		
Rated frequency	60 Hz		
Number of programmable remote buttons	40		
Duty cycle	40 %		
Emission value according to operating environment	< 59 dBA – opener only		
IP code	NEMA1, IP21		
Protection class	class 2		
Standard door height	7' and 8' doors (< 2,750 mm)		
Max. door height with extensions	24 ft. (up to 2 x 3.59 ft., 3 x 3.59 ft., 4 x 3.59 ft.) (7.10 m / up to 2 x 1096 mm, 3 x 1096 mm, 4 x 1096 mm)		
Speed *	9.4 inch/sec. (240 mm/s)	8.3 inch/sec. (210 mm/s)	4.7 inch/sec. (120 mm/s)
Max. traction and pressure force	600 N (0.75 HP)	800 N (1 HP)	1100 N (1.25 HP)
Max. current consumption **	1.0 A	1.3 A	1.5 A
Standby	< 3 W		

* Depending on door and the operating conditions

** Values apply without lighting

3.9 Information about transmitter

The standard version includes 2 transmitters with batteries. The radio frequency for the transmitters is 915 MHz.

⚠ WARNING

Danger due to battery!
If swallowed, it could cause severe injury or death in just 2 hours.
- ▸ Store batteries in a safe place.
- ▸ Seek medical attention immediately.

See also the separate installation and operating manual for the transmitter.

NOTICE:
This device complies with Part 15 of the FCC Rules and contains license-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS standard(s).

(1) this device may not cause harmful interference, and
(2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications made to this equipment not expressly approved by SOMMER Antriebs- und Funktechnik GmbH may void the FCC authorization to operate this equipment.

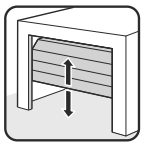
NOTE:
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

INFORMATION
Battery Notice

- Always purchase the correct size and grade of battery most suitable for the intended use.
- Clean the battery contacts and also those of the device prior to battery installation.
- Remove batteries from equipment which is not to be used for an extended period of time.
- Remove batteries if spent or if product is to be left unused for a long time.

3.10 Door types and accessories

Door type		Accessories
	One piece door	No accessories required
	Sectional door with one rail	No accessories required
	Sectional door with low headroom	

Custom fittings are not included in the product contents.

For more information on accessories such as rail extensions, additional locking mechanism, custom fittings or different transmitters, contact your qualified dealer or see: **www.sommer-usa.com**

4. Tools and protective equipment

4.1 Required tools and personal protective equipment

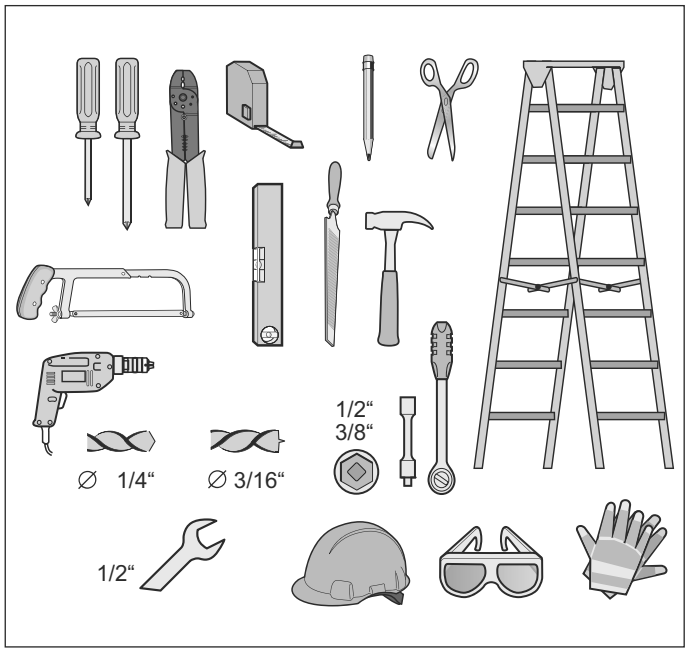


Fig. Recommended tools and personal protective equipment for installation

You will require the tools shown above to assemble and install the opener. Lay out the required tools beforehand to ensure fast and safe installation.

⚠ WARNING

Risk of eye injury!
Chips flying when drilling may cause serious injuries to eyes and hands.
- Wear safety glasses when drilling.

⚠ WARNING

Risk of injury in the head region!
Impact with suspended objects may cause serious abrasions and cuts.
- Wear a safety helmet when installing suspended parts.

⚠ CAUTION

Risk of injury to hands!
Rough metal parts may cause abrasions and cuts when picked up or touched.
- Wear safety gloves for work such as deburring.

Wear your personal protective equipment. This includes safety glasses, safety gloves and a safety helmet.

5.1 IMPORTANT INSTALLATION INSTRUCTIONS

Please observe and comply with all instructions to ensure a safe installation.
People under the influence of drugs, alcohol, or medications that can influence their ability to react may **not** work on the opener.
The opener may only be installed by a qualified specialist. This installation and operating manual must be read, understood and complied with by the qualified specialist who installs the opener.

⚠ WARNING

WARNING – To reduce the risk of severe injury or death:

1. READ AND FOLLOW ALL INSTALLATION INSTRUCTIONS.
2. Install only on a properly operating and balanced garage door. An improperly balanced door has the potential to inflict severe injury. Have a qualified service technician make repairs to cables, spring assemblies, and other hardware before installing the operator.
3. Remove all pull ropes and remove or make inoperative all locks connected to the garage door before installing operator.
4. Where possible, install the door opener 7 feet or more above the floor. For products equipped with an emergency release, mount the emergency release within reach, but at least 6 feet above the floor and avoiding contact with vehicles to avoid accidental release.
5. For products equipped with a manual release, instruct the end user on the operation of the manual release.
6. Do not connect the door operator to source of power until instructed to do so.
7. Locate the control button: (a) within sight of the door, (b) at a minimum height of 1.53 m (5 ft) above floors, landings, steps or any other adjacent walking surface so small children are not able to reach it, and (c) away from all moving parts of the door.
8. Install the Entrapment Warning Label next to the control button in a prominent location. Install the Emergency Release Marking. Attach the marking on or next to the emergency release.
9. After installing the opener, the door must reverse when it contacts a 1-1/2-inch high object (or a 2 by 4 board laid flat) on the floor.
10. “WARNING: To reduce the risk of injury to persons – only enable the unattended operation function when installed with a sectional door.”

⚠ WARNING

There is a possible risk of injury or death if a door does not fulfill the following conditions. The opener may only be installed when the following installation requirements and installation dimensions are met.

⚠ DANGER

Danger if not observed!
If safety instructions are not observed, serious injury or death may result.
- All safety instructions must be observed to prevent serious injury or death.

⚠ DANGER

Danger of falling!
Unsafe or defective ladders may tip and cause serious or fatal accidents.
- Use only a non-slip, stable ladder.
- Ensure that ladders are safely positioned.

⚠ DANGER

Danger of entrapment!
Persons may be trapped inside the garage. If trapped persons cannot free themselves, severe injury or death may result.
- The operation of the emergency release must be tested regularly from inside and if necessary also from outside.
- A second entrance, a release lock for unlocking from the outside must be installed!

⚠ WARNING

Danger due to falling parts of doors!
If a door is incorrectly balanced, springs may break suddenly. Falling door parts may cause serious injury or death.
- The door must be stable.
- The door must not bend, rotate or twist when opening and closing.
- The door must move easily in its rails.

5. Installation

⚠ WARNING

Danger due to falling ceiling and wall parts!
The opener cannot be installed correctly if ceiling and walls are unstable or if unsuitable fastening materials are used. Persons or animals may be struck by falling parts of the wall, ceiling or opener. Severe injuries or death may result.

- Walls and ceiling must be stable.
- Only use permissible fastening materials appropriate for the supporting surface.

⚠ WARNING

Danger of entrapment!
Loose clothing or long hair may be trapped by moving parts of the door. Severe injuries or death may result.

- Keep clear of the moving door.
- Wear tight-fitting clothing.
- Wear a hairnet over long hair.

⚠ WARNING

Danger of crushing and shearing!
If the door moves with persons or animals in the movement area, crushing and shearing injuries may be caused by the mechanism and safety edges of the door.

- Only use the opener in direct view of the door.
- Always keep the moving door in sight.
- Persons or animals must not be in the range of movement of the door.
- Never put your hand near the door or moving parts when it is moving. In particular, do not reach into the moving push arm.
- Do not reach into the ceiling mounting unit when the the carriage is running along the rail.
- Do not drive through the door until it has been fully opened.

⚠ WARNING

Danger of tripping and falling!
Unsafely positioned parts such as packaging, opener parts or tools may cause trips or falls.

- Keep unnecessary items away from the installation area.
- Place all parts where no persons are likely to trip or fall over them.
- General workplace guidelines must be observed.

⚠ WARNING

Risk of eye injury!
Chips flying when drilling may cause serious injuries to eyes and hands.

- Wear safety glasses when drilling.

⚠ WARNING

Risk of injury in the head region!
Impact with suspended objects may cause serious abrasions and cuts.

- You must wear a safety helmet when installing suspended parts.

⚠ CAUTION

Risk of injury to hands!
Rough metal parts may cause abrasions and cuts when picked up or touched.

- Wear safety gloves when deburring.

NOTE

If the ceiling and walls are not stable, parts of the ceiling and wall or the opener may fall. Objects may be damaged.
Ceiling and walls must be stable.

NOTE

To prevent damage to the door or opener, use only approved fastening materials such as wall plugs or screws.
The fasteners must match the material of the ceiling and walls.
This applies particularly for prefabricated garages.

INFORMATION
Ask your qualified dealer if you require additional installation accessories for different installation or attachment situations.

5.2 Installation requirements

The installation of the opener cannot compensate for a poorly installed or defective installation of the door. Only install the opener on a correctly aligned and easy-running door. Ask your qualified dealer for advice. An improperly aligned door can cause serious injury. The door must be stable, i.e. when opening and closing, it must not bow, sag or twist because high operational forces act on the door during opening and closing. Reinforce lighter doors made out of plastic or aluminum if necessary prior to the installation. Ask your qualified dealer for advice.
In all other cases, no additional weight-increasing parts may be attached to the door system or the opener. This can lead to dangerous situations such as, for example, breaking of the door mechanics or overloading the opener.
The opener may only be installed in dry indoor rooms where there is no risk of explosion. The installation location must be protected against dust and splashed water. The opener may not be installed in areas that have an aggressive climate. Walls and ceiling must be solid and stable.

5. Installation

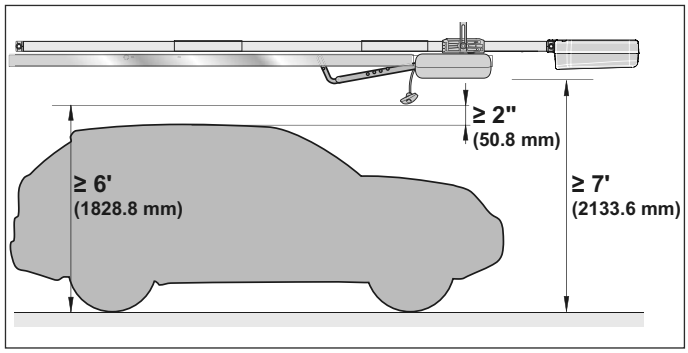


Abb. Distance to the vehicle

⚠ WARNING

Danger of being pulled in!

If the opener is not mounted at an adequate height, persons or animals within the movement range of the door may be caught up and dragged along. Serious or fatal injury may result.

- The opener must be mounted at a height of at least 7” (2.13 m).
- There must be a distance of at least 6 feet (1.83 m) between the emergency release cord and the floor and a distance of 2” (50 mm) between the emergency release cord and vehicles.

Attach the opener at a height of at least 7’ (1,83 m) above the floor and a minimum distance of 2" (50 mm) to the vehicle including all attached vehicle accessories such as a roof rack etc.

⚠ DANGER

Danger due to electric current!

Contact with live parts may result in electric current flowing through the body. Electric shock, burns or death may result.

- Installation, testing and replacement of electrical components may only be carried out by an electrician.
- Do not connect the opener to the mains voltage until installation has been completed.

The opener must not be connected to the main power supply until installation has been completed, see chapter **“9.1 Connection to a power outlet”**.

5.3 Preparation for installation

Removal of actuation parts

⚠ WARNING

Danger of entrapment!

Persons or animals may be trapped by straps or cords and pulled into the movement zone of the door. Severe injuries or death may result.

- Remove straps and cords used for mechanical actuation of the door.

Before installation, remove:

- All cords or straps necessary to operate the door by hand.

Disabling mechanical locks

NOTE

If locks or other locking systems are installed on a mechanical door, they may block the opener. This may cause faults to or damage the opener. Before the installation of the opener, all mechanical locking systems must be disabled.

The mechanical lock on a door with an opener must be removed or disabled if it is not compatible with the opener.

One-piece door

Depending on the design of the door, it may be possible to open it approx. 2" (50 mm) by hand. Spring catches can be installed to prevent this. Spring catches also lock the door to the opener.

The spring catches are connected to the opener by a lock set. When the door is opened, the spring catches are unlocked first and then the opener opens the door.

Use the upgrade set depending on the type of installation. For more information on the upgrade set, contact your qualified dealer or see:

www.sommer-usa.com

Checking mechanical and weight compensation

⚠ WARNING

Danger due to falling parts of doors!

Wire ropes, spring sets or other fittings may break suddenly.

Persons or animals may be struck by falling parts of the door. Severe injuries or death may result.

- Wire ropes, spring sets and other door fittings must be inspected by qualified persons before installation.
- Malfunctions or defects must be eliminated before installing the opener.

5. Installation

⚠ WARNING

Danger of entrapment!
If the force setting is too high, persons or animals in the movement area of the door may be trapped and pulled along with the door. Severe injuries or death may result.
- ▸ The force setting is relevant to safety and must be carefully checked and if necessary adjusted by qualified specialists.

NOTE

If the weight compensation of the door is incorrectly adjusted, the opener may be damaged.
- The door must be stable.
- It must not bend, rotate or twist when opening and closing.
- The door must move easily in its rails.

1. Check the mechanism of the door, such as wire cables, spring sets and other fittings.

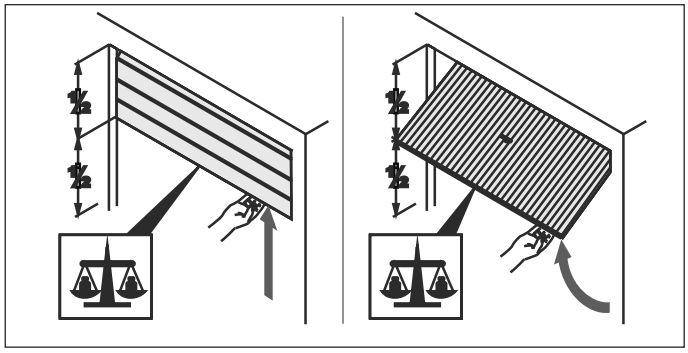


Fig. 2

2. Open door halfway.
   ⇒ The door must remain in this position.
   ⇒ The door must be moved easily by hand and must be balanced.

If the door moves upwards or downwards by itself, the weight compensation of the door must be adjusted.

Emergency release
In a garage without a separate entrance (e.g. wicket doors), the opener's emergency release must be operable from outside. The emergency release must be routed to be accessible from the outside. This can be done with an emergency release lock. Ask your qualified dealer.

5.4 Installation of the opener system

The opener may only be installed if the installation requirements and dimensions are correct.

NOTE

Specify the position for mounting the opener on the door. Manually open and close the door several times. The door must be moved easily.
The values are applicable for the entire life of the door. The door must also be maintained and inspected as specified by the door manufacturer.

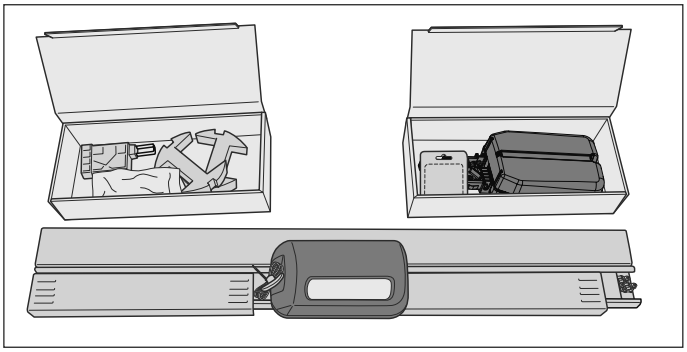


Fig. 1

⚠ CAUTION

Risk of injury to hands!
Rough metal parts may cause abrasions and cuts when picked up or touched.
- ▸ Wear safety gloves when working with unfinished metal parts.

1. Open the package.
   Place the two cartons in the package beside the rails and open them.
   Check the product contents listed in this installation and operating manual.

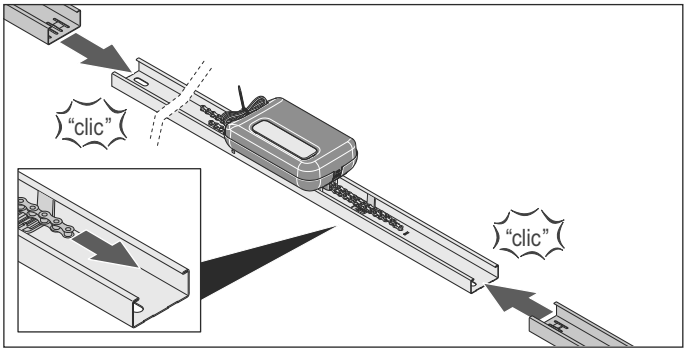


Fig. 2

2. Remove the two connecting sleeves beside the carriage and attach to the rail on the left and right.

5. Installation

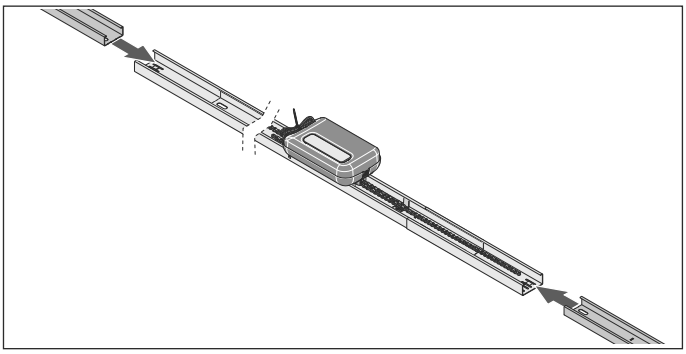


Fig. 3

3. Attach a rail to each connecting sleeve.

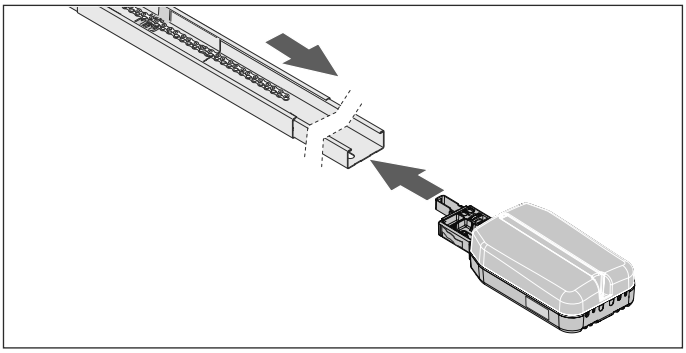


Fig. 4

4. Slide the ceiling control unit into the rail behind the limit stop.
   Lay the chain over the limit stop.

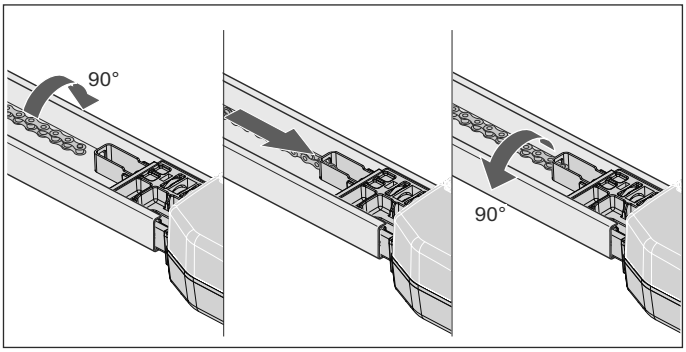


Fig. 5

5. Rotate the chain 90° and insert it into the chain holder of the ceiling control unit.
   Rotate the chain back 90°.

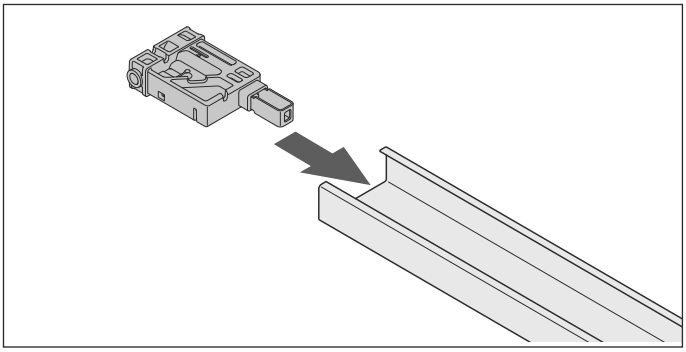


Fig. 6

6. Slide the chain tensioner into the opposite side of the rail.

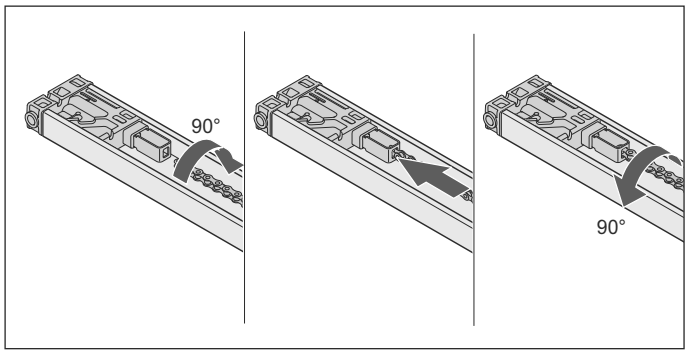


Fig. 7

NOTE

The chain must be parallel to the rail to prevent damage to the opener.

7. Rotate the chain 90° and insert it into the chain holder of the chain tensioner.
   Rotate the chain back 90°.
   ⇒ The entire chain is attached.

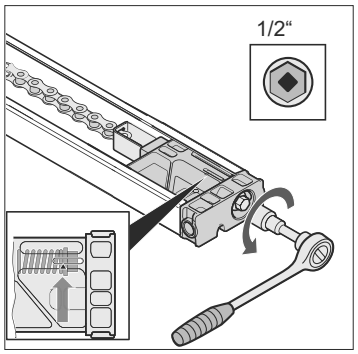


Fig. 8

8. Tension the chain to the mark on the chain tensioner (see arrow in the detailed view).

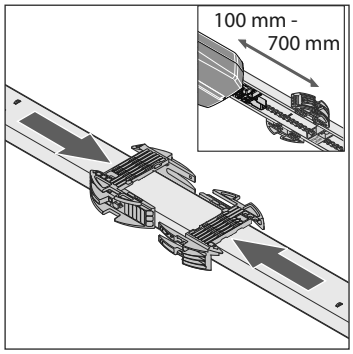


Fig. 9

9. Take the ceiling bracket apart. Set each bracket against the rail and slide the brackets. Turn the rail to install the ceiling bracket.
   The distance between the ceiling control unit and the ceiling holder should be 4” - 28" (100 - 700 mm).
   ⇒ The rail is prepared for the remainder of the installation.

5. Installation

5.5 Attachment to the door

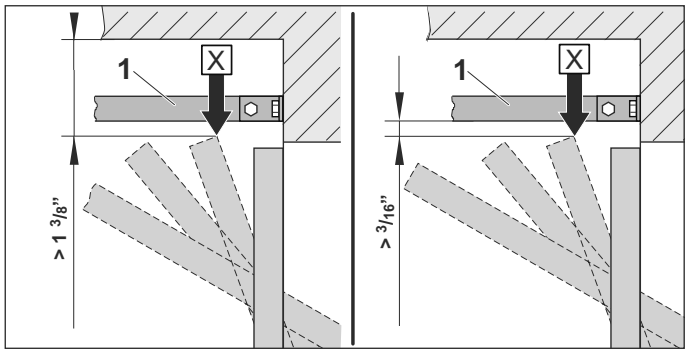


Fig. 1.1 Highest point for a one-piece door
X = Door's highest position

1. Open the door and measure the distance between the top edge of the door and the ceiling where the clearance is the smallest. This point is called the door's highest position. This distance must be at least 1-3/8" (35 mm). The distance between this point and the lower edge rail (1) must amount to at least 3/16" (5 mm).
   If the clearance is less, the opener must be moved back and a longer push rod must be attached. Please ask your qualified dealer.

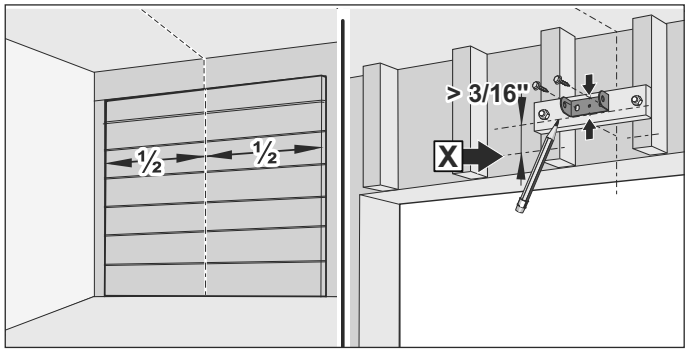


Fig. 2 Fig. 3

2. Close the door.
   Determine the door's center point and mark this on the header as a vertical guide line.
   Where needed, an auxiliary construction must be mounted.
3. Determine the horizontal guide line for the header bracket and mark it. It must be at least 1-3/8" (35 mm) from the door's highest position (X).
4. Center the header bracket on the vertical guideline and mark the horizontal set of bracket holes.
5. Drill two 1/4" pilot holes at the marked mounting points on the header (lintel). Pay attention to the material strength of the header.
6. Fasten the bracket securely to the header with the hardware provided.

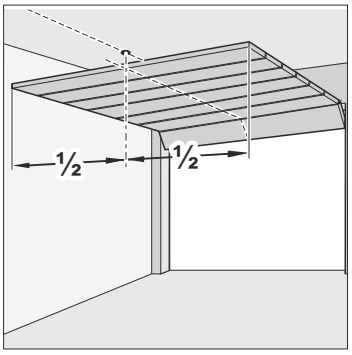


Fig. 7

7. Open the door.
   Transfer the mark from the center of the door to the ceiling.
8. Close the door.
   Position the opener on the garage floor below the header bracket. Have someone hold the opener if spring is in the way.

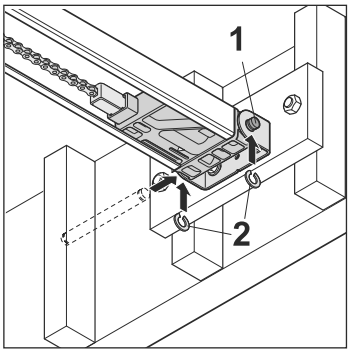


Fig. 9

9. Slide the rail into the header bracket and secure with the pin (1). Attach locking c-clips (2) to secure.

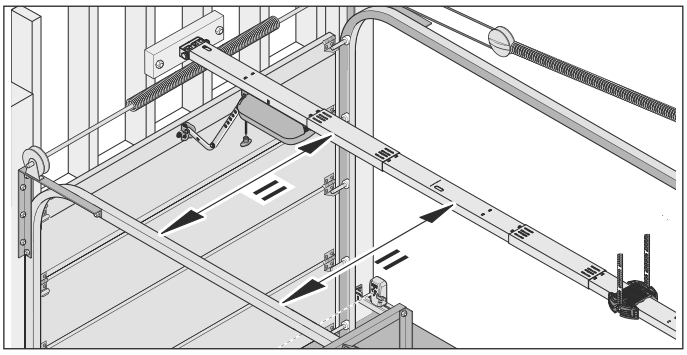


Fig. 10

NOTE

The opener must always be installed parallel to the rails or the door to prevent damage to the opener and the rails.

10. Align the opener parallel to the rails of the door. Use the carton from the ceiling control unit to prevent scratches.

5. Installation

⚠ DANGER

Danger of falling!
Unsafe or defective ladders may tip and cause serious or fatal accidents.
- Use only a non-slip, stable ladder.

11. Raise the opener onto a ladder. You will need help at this point if the ladder is not tall enough.
12. Open the door all the way and rest the opener on the top section.

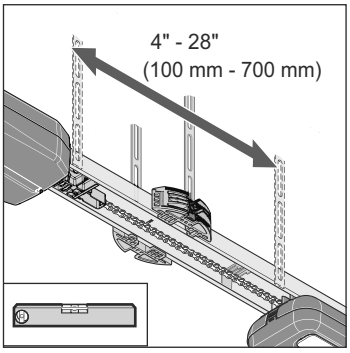


Fig. 13

13. Align the rail parallel to center of the door at the rear. Align the ceiling bracket.
    The distance between the ceiling control unit and the ceiling holder should be 4” - 28" (100 - 700 mm).
    Check the alignment of the rail with a spirit level if necessary.

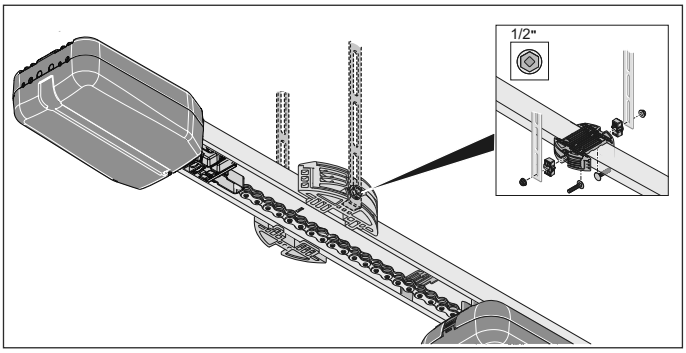


Fig. 14

14. On finished ceilings, attach a sturdy metal bracket to structural supports before installing the opener. This bracket and fastening hardware are not provided.
15. Measure the distance from the ceiling bracket to the structural support.
16. Cut two pieces of the hanging bracket to required lengths.
17. Attach one end of each hanging bracket to the support mounted to the ceiling.
18. Attach the other end of each hanging bracket to the ceiling bracket.

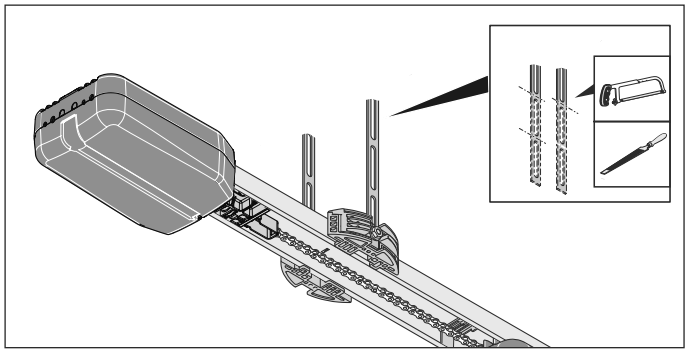


Abb. 19

19. Connect the ceiling holders to the ceiling with suitable fastening material.
    ⇒ The rail is attached to the ceiling.

⚠ CAUTION

Risk of injury to hands!
Rough, projecting metal parts may cause abrasions and cuts when picked up or touched.
- Projecting perforated strips must be sawn off and smoothed to prevent injury.
- Wear safety gloves when deburring.

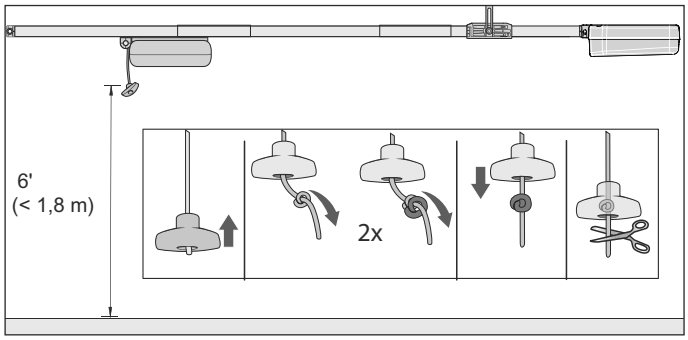


Abb. 20

⚠ WARNING

Danger of entrapment!
Persons or animals in the movement area of the door may be trapped in a loop of the emergency release handle and the door may be accidentally unlocked. Severe injuries or death may result.
- The included emergency release handle must be used.

NOTE

The emergency release handle may cause damage, e.g. scratches on the vehicle.
The distance between the garage floor and the emergency release cord must be less then 6' (1,8 m).
The emergency release handle must be at least 2" (50 mm) from moving and fixed parts throughout its complete path.

20. Attach the emergency release handle to the emergency release cord.
    Tie a knot at the end of the cord.

Tie another knot over the first one to produce one big knot. Push the emergency release handle towards the knot.
Shorten the cord if necessary.

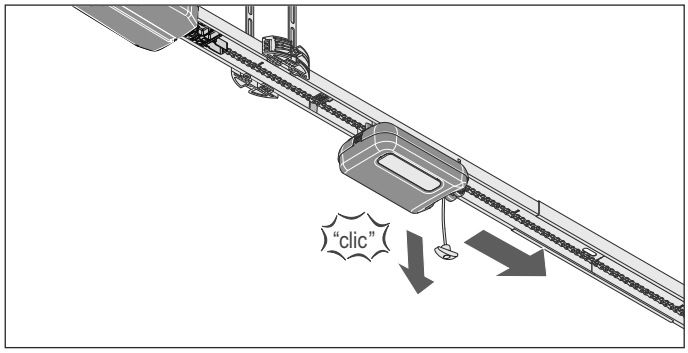


Abb. 21

21. Pull the emergency release handle once to unlock the carriage.
Slide the carriage forward to the door.
Close the door.

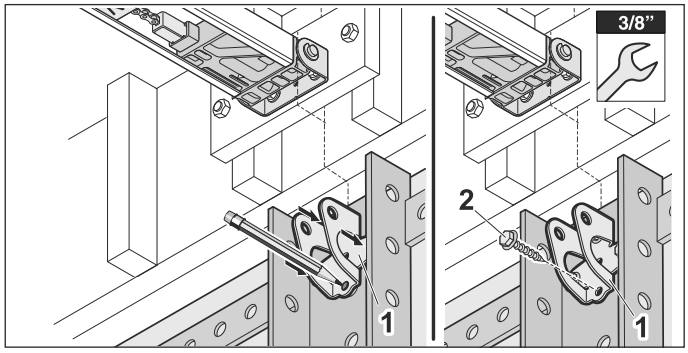


Fig. 22 Fig. 23

⚠WARNING

Risk of injury in the head region!
Impact with suspended objects may cause serious abrasions and cuts.
- Wear a safety helmet when installing suspended parts.

22. Align the door bracket (1) to the center of the door (guide line) and the top section of the door and mark four mounting points.
23. Attach the door bracket (1) with four self-drilling screws 1/4" (2) using a 3/8" wrench.

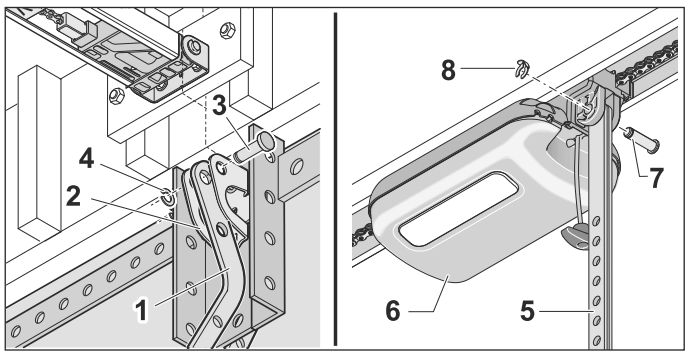


Fig. 24 Fig. 25

24. Attach the curved door arm (1) to the door bracket (2). Guide the bolt, (3) through the hole in the door bracket and in the curved door arm and secure with the locking c-clip (4).
25. Attach the door arm (5) to the carriage (6). The open side of the door arm must be facing towards the ceiling. Guide the bolt (7) through the holes in the carriage and the door arm. Secure with the locking c-clip (8).

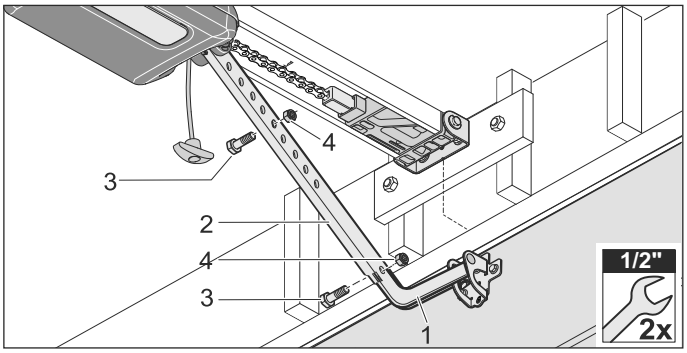


Fig. 26

26. Slide the curved door arm (1) into the door arm (2) and secure with two bolts 3/8" (3) and two self-locking nuts 3/8" (4).
Tighten the nuts using a 1/2" open-end wrench. While tightening, hold the screws in place using a second 1/2" open-end wrench. Basic position of the screw arrangement, see graphic. The length of the door arm can be adjusted if necessary.

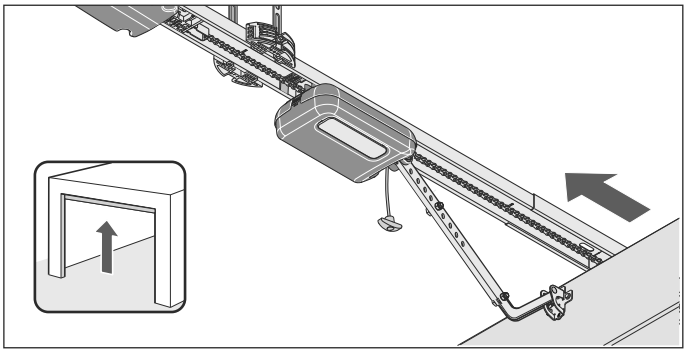


Fig. 27

NOTE

The door must not rub on the opener or rails.
This could damage the opener or rails.
The opener must be offset.

27. Open the door completely by hand.
⇒ The limit stop automatically moves with the carriage.

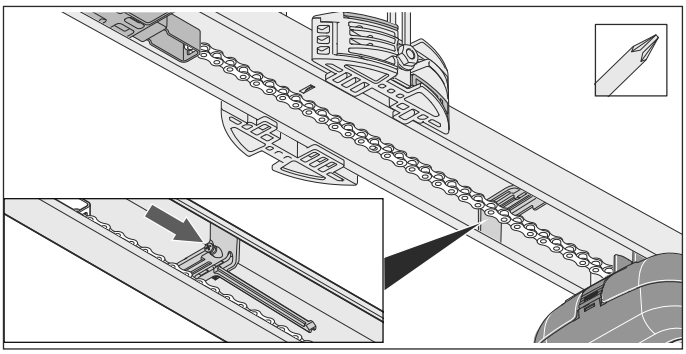


Fig. 28

NOTE

Do not push the door to the mechanical stop. This is because the opener will pull the door against the mechanical stop. This will apply tension to the door and it may be damaged.
A clearance of 1.18" (30 mm) is required.

INFORMATION
Alternatively, the limit stop can be pushed under the chain and clamped into the rail later.

28. Tighten the screw on the limit stop with a phillips screwdriver without changing its position.
    Check the door OPEN end position:
    Open the door fully for this. The carriage moves to the door OPEN position on the limit stop until a click noise is heard.
    ⇒ The door OPEN end position is set.

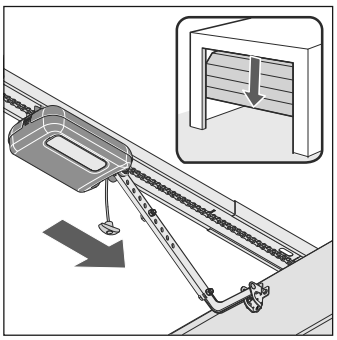


Fig. 29

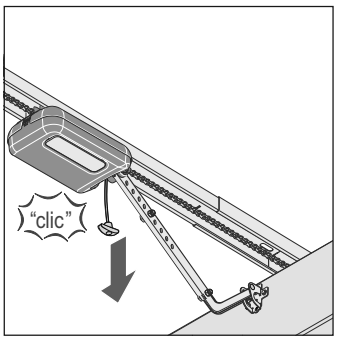


Fig. 30

NOTE

In case of an emergency release, the door may independently open or close itself due to a broken spring or incorrect setting of the weight balancing.
The opener could be damaged or destroyed.

INFORMATION
It can be locked and released in any door position.

29. Move door to center position.
    ⇒ The carriage moves with it.
30. Pull the emergency release handle.
    ⇒ **Carriage is locked.**
    ⇒ The door can only be moved by the opener.

⚠ WARNING

Danger due to projecting parts!
Door wings or other parts must not project into roads or public footpaths. This also applies while the door is moving.
This may cause serious injury or death to persons or animals.
- Parts must not project into roads or public footpaths.

⇒ **The door opener is completely assembled.**

6. Connection and special functions of the ceiling control unit

6.1 Cover of the ceiling control unit

⚠ DANGER

Danger due to electric current!
Contact with live parts may result in electric current flowing through the body. Electric shock, burns or death may result.

- All work on electrical components may only be carried out by an electrician.
- The opener must be disconnected from the power supply before working on it.
- If a battery pack is used, it must be disconnected.
- Then check that the opener is disconnected from the power supply.

⚠ WARNING

Danger due to hot surfaces!
After frequent operation, parts of the carriage or the control unit may become hot. If the cover is removed and hot parts are touched, they may cause burns.

- Allow the opener to cool before removing the cover.

Deinstalling the cover of the control unit

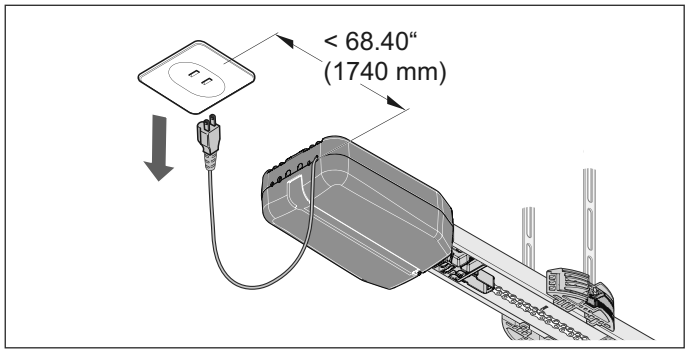


Fig. 1

1. Disconnect the opener from the main power supply. Check that the opener is disconnected from the power supply.

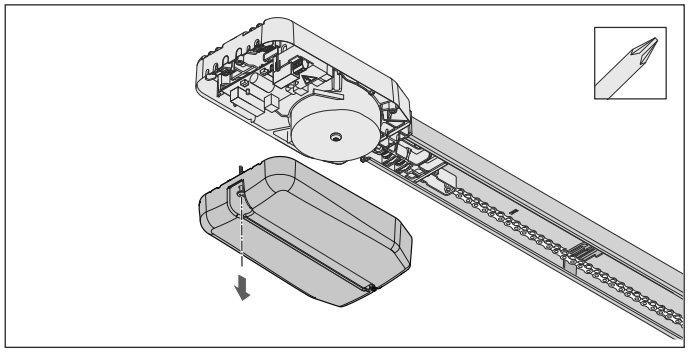


Fig. 2

NOTE

If there is a battery pack in the cover of the ceiling control unit, remove the cover carefully. Disconnect the battery pack plug from the pcb.
The battery pack is disconnected in the cover.

2. Unscrew and remove the cover from the ceiling control unit.

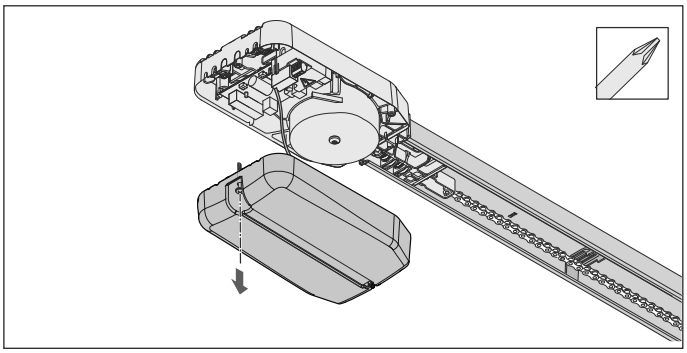


Fig. 3

3. If a battery pack is used, unscrew the cover carefully. Disconnect the battery pack plug from the pcb. Remove the cover with the disconnected battery pack.

Installing the cover of the ceiling control unit

1. After working on the ceiling control unit replace the cover in reverse order.
   Connect the opener to the main power supply.
   Check that the power supply is connected.

6. Connection and special functions of the ceiling control unit

6.2 Ceiling control unit pcb

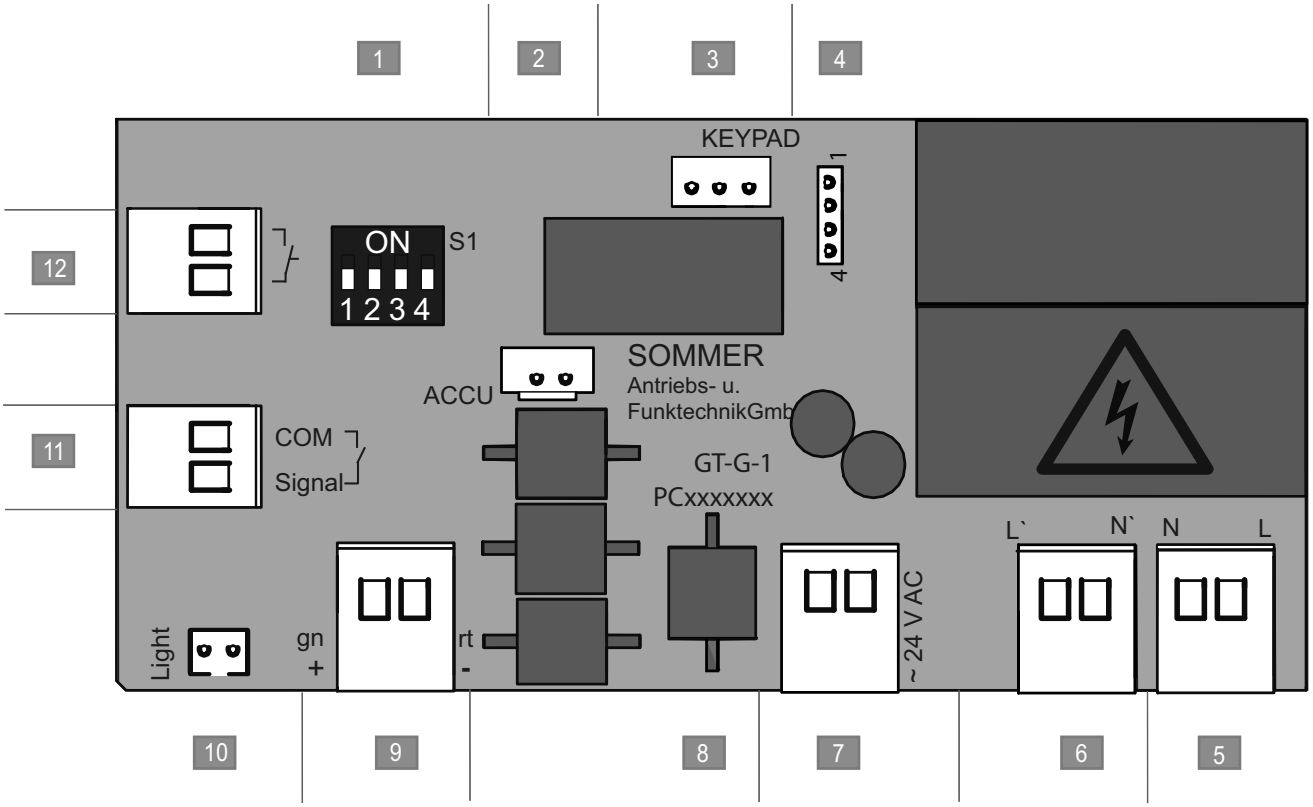


Fig. Ceiling control unit pcb

Connection options to the ceiling control unit

1	DIP switches	7	Terminal, 2-pin 24 V AC transformer secondary side
2	ACCU slot Terminal for battery pack	8	pcb label
3	Slot, keypad, black Terminal for the button connector cable of the pro+ wall control unit	9	Terminal, 2-pin chain and rail, 24 V AC
4	Slot Terminal for RELAY, OUTPUT OC	10	Light slot, white terminal for Lumi+ supplementary lighting
5	Terminal, 2-pin power supply 120 V AC 50/60 Hz	11	Terminal, 2-pin safety sensors
6	Terminal, 2-pin transformer primary side 120 V AC 50/60 Hz	12	Terminal, 2-pin wall station or wall button

The version can vary depending on the type. This means the use of accessories can vary.

6. Connection and special functions of the ceiling control unit

6.3 Connection options to the ceiling control unit

⚠ WARNING

Danger of crushing and shearing!
The door can be actuated by a button.
Persons who cannot see the door and are in the range of movement of the mechanism or the closing edges may be injured by crushing or shearing.

- Only install the switch in view of the door.
- Do not press the button unless the door is in view.
- Always keep the moving door in sight.
- Persons or animals must not be in the range of movement of the door.

⚠ WARNING

Danger due to hot surfaces!
After frequent operation, parts of the carriage or the control unit may become hot. If the cover is removed and hot parts are touched, they may cause burns.

- Allow the opener to cool before removing the cover.

NOTE

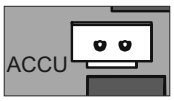
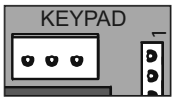
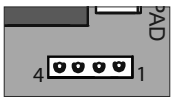
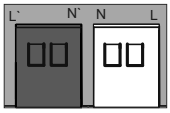
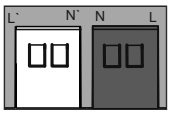
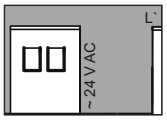
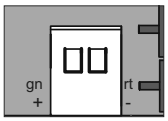
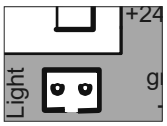
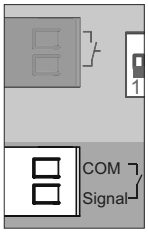
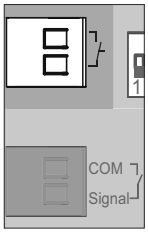
Never lay the control cable along a power line, as this could cause interference in the control unit. Note the length of the control cable and install it correctly.

INFORMATION
The control unit detects a short-circuit between chain and rail and then switches the opener off.

INFORMATION
Control or regulating units in a fixed position must be mounted within sight of the door at a height of at least 5' (1.53 m).

INFORMATION
The power cable is approx. 6.8' (1.74 m) long.

INFORMATION
The maximum cable length for connected accessories is 82' (25 m).

pcb section	Function/application example
	**BATTERY slot** Terminal for battery pack
	**Slot, black (only for typ pro+)** Terminal for the button connector cable of the wall control unit
	**Slot for RELAY, OUTPUT OC** switching capacity max: 5 A/120 V AC max: 5 A/24 V DC
	Terminal, 2-pin power supply 120 V AC 50/60 Hz
	**Terminal, 2-pin** transformer primary side 120 V AC 50/60 Hz
	**Terminal, 2-pin** 24 V AC transformer secondary side
	**Terminal, 2-pin** chain and rail, 24 V AC
	**Light slot, white** slot for Lumi+ supplementary lighting
	Terminal for **2-wire safety sensors** any polarity
	Terminal, 2-pin **wall station or button 2** **potential-free**

The version can vary depending on the type. This means the use of accessories can vary.

6. Connection and special functions of the ceiling control unit

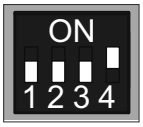
INFORMATION
If a safety eye is used, it must not be actuated when starting the programming.
If a safety eye is used as a frame safety eye, move the door to the center position.

6.4 Setting the DIP switches on the ceiling control unit

Special functions can be set up with the DIP switches on the ceiling control unit.
All DIP switches are set to OFF by default.

NOTE

Do not use a metal object to set the DIP switches, because this may damage the DIP switches or the pcb.
Use a suitable tool to set the DIP switches, such as a flat plastic object.

DIP switches on the ceiling control unit	ON	OFF
1 	• "Conex" additional circuit board • Button 1 defined door OPEN • Button 2 defined door CLOSE	• "Conex" additional circuit board • Button 1 pulse sequence • Button 2 lighting function / partial opening
2 	• Door status display relay is activated during door movement and if the door is not closed • Door status display	• Lighting function
3 	• No function	• No function
4 	• No function	• No function

6.5 Installing the safety sensors

Please observe and comply with all instructions to ensure a safe installation.

⚠ DANGER

Danger due to electric current!
Contact with live parts may result in electric current flowing through the body. Electric shock, burns or death may result.

- Installation, testing and replacement of electrical components may only be carried out by an electrician.
- The opener must be disconnected from the power supply before working on the opener.
- If a battery pack is used, it must be disconnected.
- Then check that the opener is disconnected from the power supply.
- Only connect the safety sensors to the opener terminals in the control unit.
- Some local construction ordinances do not allow an on-wall installation of wires. Please check with your local building inspector.

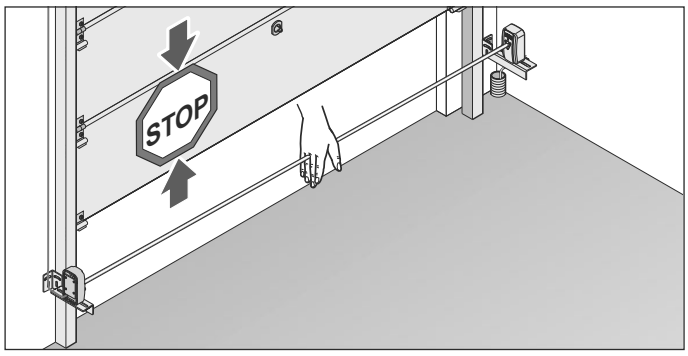


Fig. Test the safety sensors

The safety sensors kit safeguards the door. If the safety sensors are breached, the door's closing procedure is stopped. If the door stops during closing because of the safety sensors, it subsequently opens completely.
The opener only functions with the connected safety sensors kit. Product contents see **"3.6 Product contents for safety sensor kit."**

6. Connection and special functions of the ceiling control unit

6.6 Installation requirements and dimensions

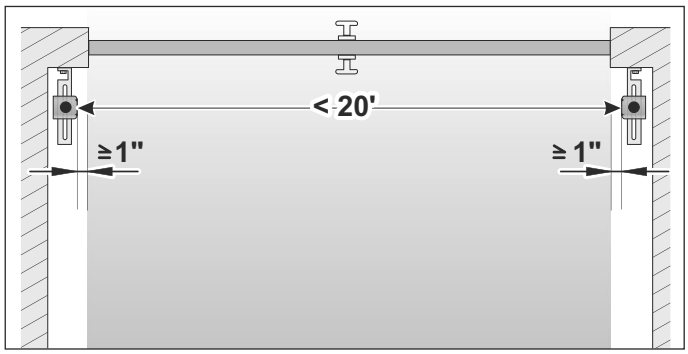


Fig. Installation of safety sensors

⚠ DANGER

Danger of crushing and shearing!
If the assembly conditions are not complied with during installation, malfunctions and error messages may result when the safety sensors is operated. This may result in serious injury or even death.
The following assembly conditions must be complied with:

- Select an installation location outside the range of the operator and door mechanism.
- Comply with all specified installation conditions and installation dimensions.

NOTE

If the following installation conditions and installation dimensions are not observed, malfunctions and error messages may result.
All specifications for installation of the safety sensors must be complied with.

NOTE

Never route the cable connection between the safety sensors and the control unit along a power supply line. This can cause the control unit to malfunction. Observe the length of the connection cable between safety sensors and control unit. Route the cable firmly.

The safety sensors must be correctly connected and aligned before the garage door opener will move in the downward direction. Do not mount the safety sensors in the area of the moving garage door. Mount at least 1" (25 mm) away from it.
The distance between the transmitter and receiver of the safety sensors set can range up to a maximum of 20' (6.10 m).
The distance from the floor must be selected so that an obstacle of 6" (152 mm) hight can be reliably detected. This corresponds to a distance of 2" (50 mm) from the bottom edge of the installation bracket to the floor.
The safety sensors kit consists of a transmitter (green sticker) and a receiver (red sticker). Mount one safety sensor to the left and one to the right of the door. As a general rule, it does not matter which safety sensor is installed on the left or on the right side.
If the safety sensors are exposed to direct sunlight, the receiver (red sticker) should be installed on the side facing away from the sun.

For garages with multiple doors (top view)

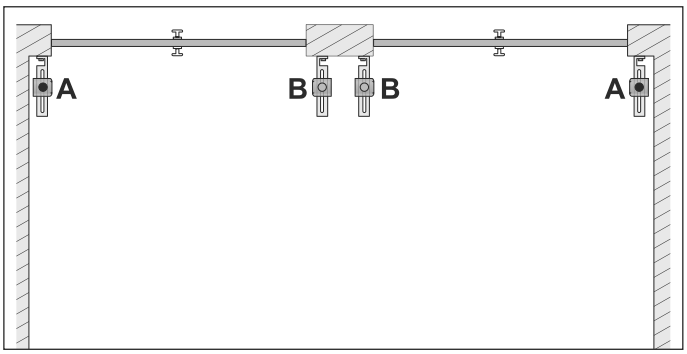


Fig. Installation on multiple doors

Install the safety sensors as shown in the diagram.
A = receiver (red sticker), B = transmitter (green sticker).
In this way, the safety sensors cannot influence each other through stray light.

6.7 Installation

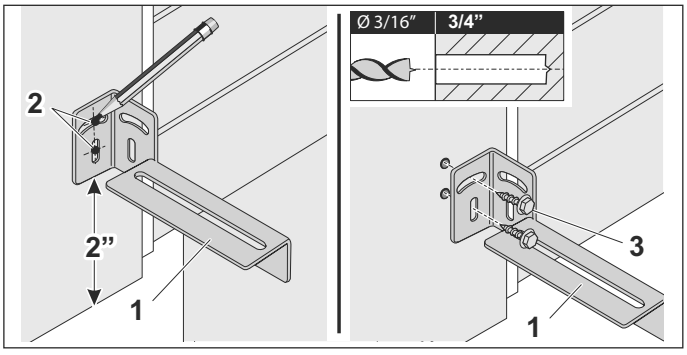


Fig. 1 Fig. 2

1. Look for a suitable installation position for the mounting bracket (1) inside the garage to the left and the right of the door.
   Hold the mounting bracket (1) to the wall and mark the mounting points. The distance from the bottom edge of the installation bracket to the floor is 2" (50 mm). The height and angle of the bracket can be adjusted through the slotted holes (2).
2. Drill holes for the screws. (3).
   Screw in two screws (3).

⚠ WARNING

Risk of eye injury!
Chips flying when drilling may cause serious injuries to eyes and hands.

- Wear safety glasses when drilling.

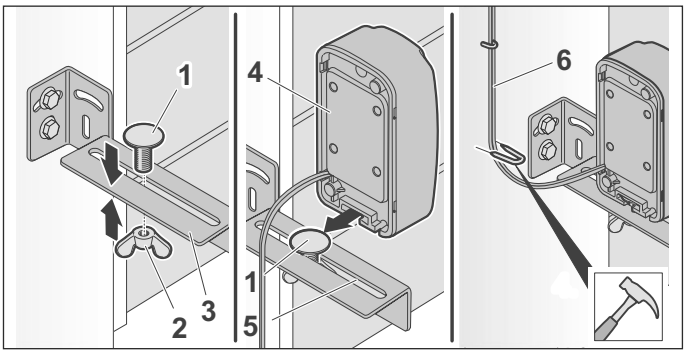


Fig. 3 Fig. 4 Fig. 5

3. Pre-attach the carriage bolt M6 (1) and the wing nut M6 (2) to the mounting bracket (3).
4. Slide the transmitter (4) over the head of the carriage bolt M6 (1) and tighten the wing nut M6 (2). The position of the safety sensors can be adjusted through the slotted holes (5).
   Mount the receiver on the opposite side in the same way.
5. Run the two sets of wires (6) from the safety sensors to the ceiling control unit.
6. Use staples to keep wires in place.
7. Connect to control unit.

6.8 Connection of the safety sensors

The 2-wire safety sensors from **SOMMER** must be connected to the ceiling control unit. Initial operation is not possible without the safety sensors. The safety sensors are automatically detected during initial operation.

INFORMATION
During initial operation, the safety sensors must not be actuated or the sensors interrupted by persons or objects.

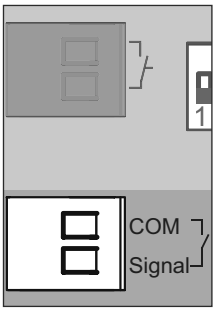


Fig: Terminal block for the 2-wire safety sensors

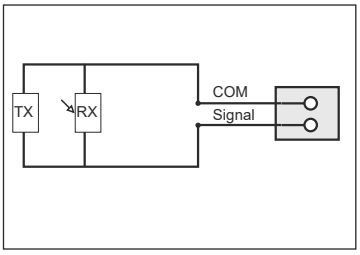


Fig: Connecting diagramm for the 2-wire safety sensors

1. Connect one wire of the transmitter to terminal (COM) and the other to terminal (Signal).
2. Connect one wire of the receiver to terminal (COM) and the other wire to terminal (Signal).
3. Check the function after connecting the 2-wire safety sensors.

6.9 Information on the wall station

⚠ WARNING

Danger of crushing and shearing!
The door can be operated via the wall station. If there are persons standing in the movement area of the door when the door moves, there is a danger of crush and shear injuries at the mechanism and the closing edges of the door.

- Only use the opener in direct view of the door.
- The wall station must be mounted at a height of at least 5 feet to ensure that children cannot operate the wall station.
- Children must not be allowed to operate the wall station/the opener.
- Always keep the moving door in sight.
- Persons or animals must not be in the range of movement of the door.
- Never put your hand near the door or moving parts when it is moving. In particular, do not reach into the moving push arm.
- Do not reach into the ceiling mounting unit when the carriage is running along the rail.
- Do not drive through the door until it has been fully opened.

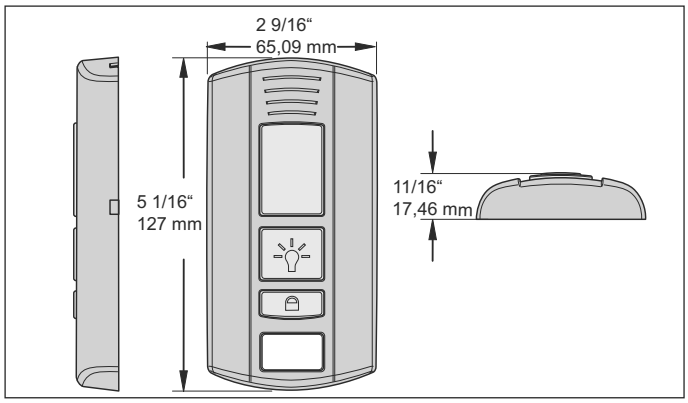


Fig: Dimensions of the wall station

Never run the wires between the wall station and the opener along an on-site power wire, as this can cause malfunctions in the opener controls.
Choose an easily accessible location in the garage for the wall station installation. The distance to the floor must be at least 5.25' (1.60 m) so that children cannot reach the wall station.
Select the mounting location:

- outside of the range of motion of the door and opener mechanics
- so the user can see the door directly
- when operating the wall station, the user can remain outside of the range of motion of the door and opener mechanics
- on a flat surface

6. Connection and special functions of the ceiling control unit

6.10 Installation and connection of the wall station

The wall station is generally mounted directly to the wall. Using the supplied mounting screws, it can be mounted to wooden or drywall subsurfaces.
See also the separate installation and operating manual for the wall station.

Connection in the wall station

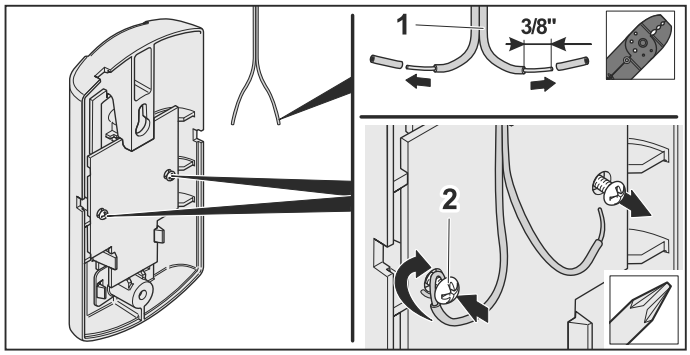


Fig. 1
Fig. 2

1. Strip off approx. 3/8" (10 mm) of insulation from the wire ends.
2. Unscrew the screws 1/8" x 3/8" (2) so that the wire ends can be wrapped around.
   Wrap both stripped wire ends around the screws (2).It does not matter which wire is wrapped around which screw (polarity-proof connection).
   Tighten both screws 1/8" x 3/8" (2) and check if the wire ends are held firmly.

Mounting to a wall

1. Select and mark the upper mounting point.

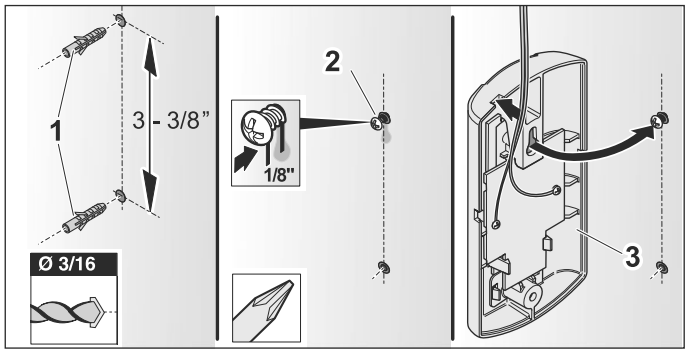


Fig. 2 Fig. 3

2. For drywall installation using drill with a 3/16" masonry bit, drill two holes and insert two anchors 3/16".
3. Insert the screw 1/8" x 1.2" (2) far enough (approx. 1/8") so the housing (3) will hang on the wall.

⚠ WARNING

Risk of eye injury!
Chips flying when drilling may cause serious injuries to eyes and hands.
▸ Wear safety glasses when drilling.

4. Run the cable through one of the holes, located on the sides or the top of the housing.

Connection of the wall station to the control unit

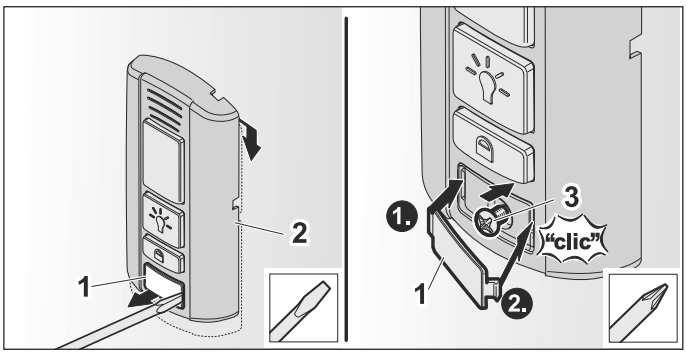


Fig. 1 Fig. 2

1. Clip out the cover (1) with a small screwdriver or by pushing it out from the rear.
2. Hang the housing (2) and attach it with the 6/32 x 1" screws (3).
3. Fit the cover in on the left side (1) and click it in on the right side (2).

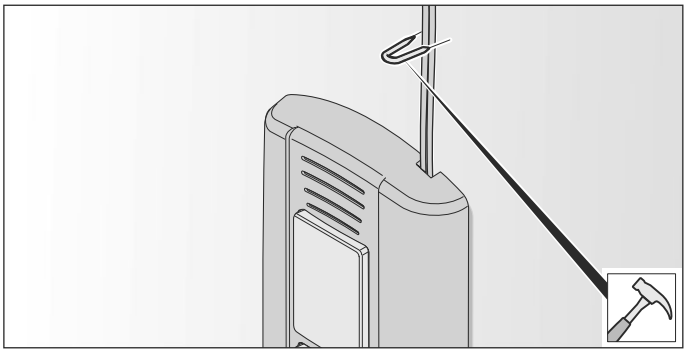


Fig. 4

4. Run the wire from the wall station to the ceiling control unit and secure with suitable material (i.e. staples).

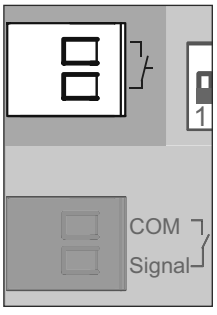


Fig. 5

5. Connect the wall station wires or the wall button to the terminal block on the circuit board. The connection is potential-free.

Functions of the buttons

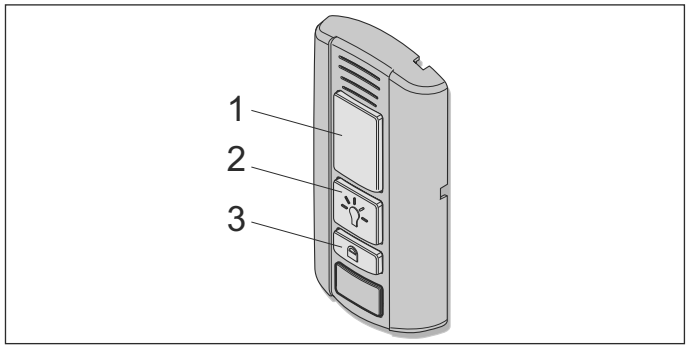


Abb. Wallstation

- (1) Opening, stopping and closing the door
- (2) Turning the lighting on and off
- (3) Locking or unlocking the operator

Opening, closing and stopping the door

1. Press the button (1) to open and close.
   ⇒ The door opens or closes depending on the starting position.
2. Press the button (1) during the opening or closing process.
   ⇒ The door stops:
3. Press the button (1) again.
   ⇒ The door moves into the respective starting position.

Turning the lighting on and off

The button (2) lights up green when the wall station is ready for operation and the operator is not locked.

1. Press the button (2).
   ⇒ Operator lighting switched on.
2. Pressing the button (2) again switches the operator lighting back off.
   ⇒ Operator lighting off.

INFORMATION
If the operator lighting is not switched off manually, it switches off automatically after 60 minutes. This value can be changed via SOMlink and a WiFi-enabled device.

The lighting cannot be switched off when the operator is moving.

Locking or unlocking the operator

Unauthorized access can be prevented by locking the operator. For example in the absence of the user or to prevent unintentional activation with a handheld transmitter. The following functions are deactivated in the factory settings when the lock button is activated:

- Radio (handheld transmitter)
- Senso ventilation function
- Control device (corded external button)

To lock:

The button (2) on the wall station lights up green when the operator is unlocked. The button (2) lights up red when the operator has been locked by the wall station.

1. Press and hold the button (3) for at least 5 seconds with the door closed.
   ⇒ Button (2) flashes green.
   ⇒ After 5 seconds, the button (2) lights up red.
   ⇒ Locking function activated.
   ⇒ All the functions of the operator are locked.

INFORMATION
If the door was still open, it can be closed using the handheld transmitter. Only then are all operator functions locked.

To unlock:

1. Press the button (3) for at least 5 seconds.
   ⇒ Button (2) flashes red.
   ⇒ Button (2) lights up green.
   ⇒ Locking function deactivated.
   ⇒ All the functions of the operator are activated again.

INFORMATION
All locking and unlocking functions can be modified and adjusted with SOMlink and a WiFi-enabled device. For more information ask your specialist dealer.

6.11 Conex

Two corded external buttons can be connected to the KEYPAD connection with the Conex accessory part. The function of the external buttons can be configured via DIP switch 1 of the ceiling control unit. The factory setting of DIP switch 1 is OFF.

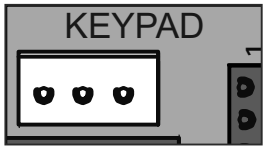
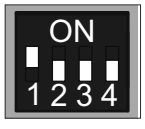


Fig. Keypad connection

The Conex accessory part is plugged into the KEYPAD slot, see separate "Conex" instructions.

DIP switches on the ceiling control unit	ON	OFF
1 	• "Conex" additional circuit board • Button 1 defined door OPEN • Button 2 defined door CLOSE	• "Conex" additional circuit board • Button 1 pulse sequence • Button 2 lighting function/partial opening

6.12 Output OC

The door status can be shown with the Output OC (open collector output) accessory part. Set DIP switch 2 on the ceiling control unit to ON. The factory setting of DIP switch 2 is OFF.

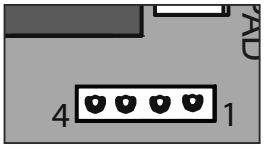


Fig. Relay slot for Output OC

The Output OC accessory part is plugged into the Relay slot, see separate **"Output OC"** instructions.

6.13 Relay

External lighting such as the garage light, courtyard light or door status display can be controlled with the relay accessory part. The function depends on the setting of the DIP switches. See also chapter **"6.4 Setting the DIP switches on the ceiling control unit".**

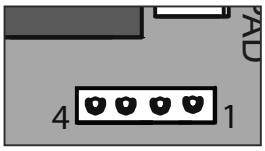


Fig. Relay slot

The Relay is plugged into the Relay slot on the ceiling control unit, see separate **"Relay"** instructions. The max. switching capacity is 250 V AC, 5 A or 24 V DC, 5 A.

DIP switches on the ceiling control unit	ON	OFF
2 	• Door status display relay is activated during door movement and if the door is not closed • Door status display	• Lighting function

6.14 Installing the cover of the ceiling control unit

1. After working on the ceiling control unit, replace the cover in reverse order, see **“6.1 Cover of the ceiling control unit.”**
2. Connect the opener to the main power supply. Check that the power supply is connected.

7. Connections and special functions of the carriage

7.1 Cover of carriage

⚠ WARNING

Danger due to optical radiation!

Looking into an LED at short range for an extended period may cause optical glare. This may temporarily reduce vision. This may cause serious or fatal accidents.

- Do not look directly into an LED.

⚠ WARNING

Danger due to hot surfaces!

After frequent operation, parts of te carriage or the control unit may become hot. If the cover is removed and hot parts are touched, they may cause burns.

- Allow the opener to cool before removing the cover.

Deinstalling cover of the carriage

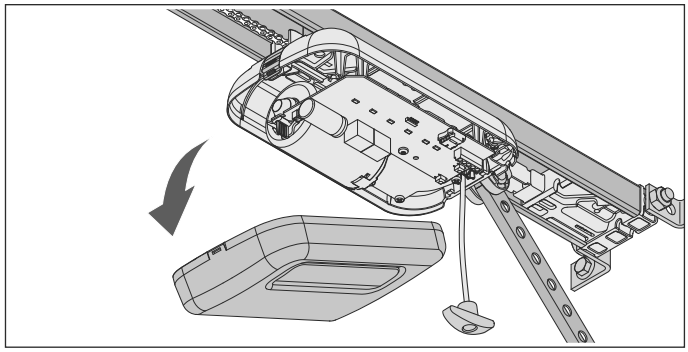


Fig. 1

1. Press on the cover lock at the back of the carriage and remove the cover.

Installing cover of the carriage

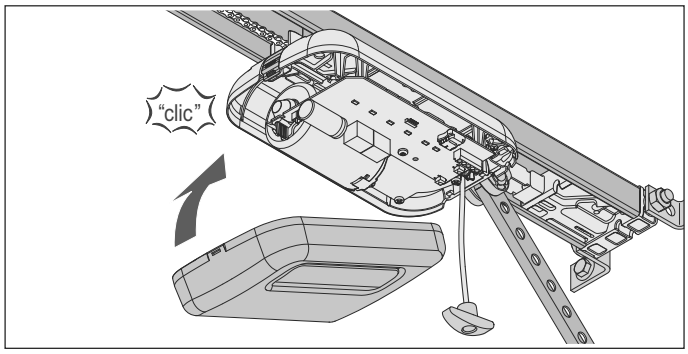


Fig. 1

1. Insert the cover from the front and lock it to the carriage at the back.

7. Connections and special functions of the carriage

7.2 Carriage pcb

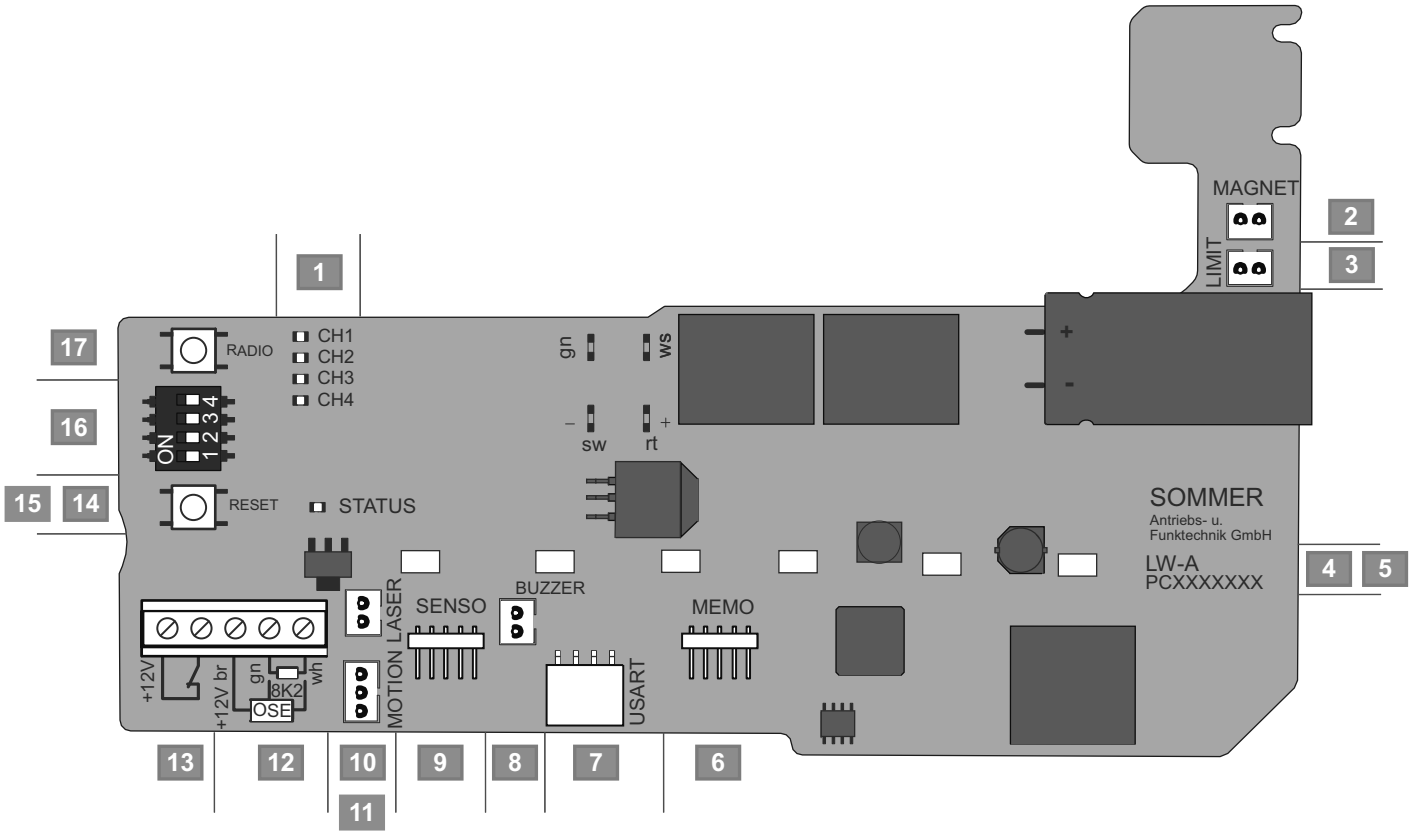


Fig. Carriage pcb

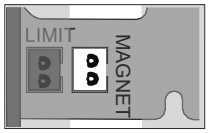
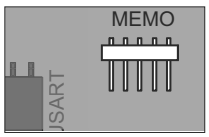
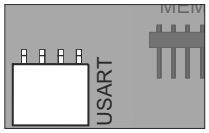
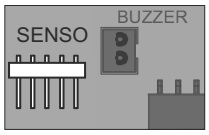
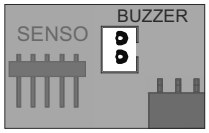
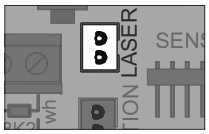
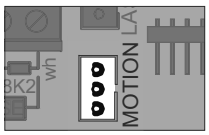
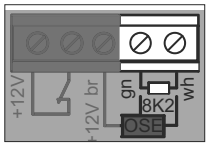
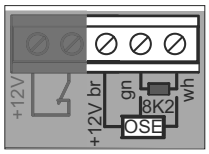
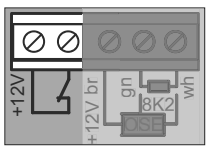
Connection options on the carriage

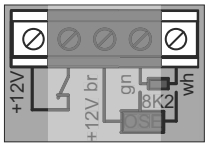
1	LED, CH 1 - CH 4, red Display for radio channel	10	LASER slot, white Parking position laser terminal
2	MAGNET slot, green Lock terminal	11	MOTION slot, white, 3-pin Terminal for movement sensor
3	Slot, blue Limit switch terminal (OPEN), limit	12	Terminal for safety contact strip 8k2/OSE
4	pcb label	13	Terminal for wicket door contact potential-free
5	LEDs, opener lighting	14	Status LED, green
6	MEMO slot Memo terminal	15	Reset button, green
7	USART slot Interface	16	DIP switches
8	BUZZER slot, black Warning or alarm buzzer terminal	17	Radio button, red (radio)
9	SENSO slot Senso terminal		

The version can vary depending on the type. This means the use of accessories can vary.

7. Connections and special functions of the carriage

7.3 Connection options on the carriage

pcb section	Function/application example
	**MAGNET slot, green** Lock terminal Locking magnet
	**MEMO slot** Memo terminal Memory expansion for 450 transmitter commands
	**USART slot** Terminal e.g. module Home Automation
	**SENSO slot** Terminal for Senso Humidity sensor
	**BUZZER slot, black** Terminal for warning or alarm buzzer
	**LASER slot, white** Terminal for parking position sensor
	**MOTION slot, white** Terminal for movement sensor 3-pin
	**Safety contact strip 8k2 terminal**
	**OSE safety contact strip terminal** + 12 V = BR OSE = GN GND = WH
	**Wicket door fuse terminal** (wicket door switch, reed contact etc.) Contact command (12 V/10 mA) normally closed contact, potential-free

pcb section	Function/application example
	**Output 12 V/DC** max. 100 mA, + 12 V, GND = WH Power supply for optional accessories, finger scanner or external lighting

The version can vary depending on the type. This means the use of accessories can vary.
For more information on the accessories, contact your qualified dealer or see:
www.sommer-usa.com
Observe in particular the following safety instructions for this chapter.

⚠ DANGER

Danger due to electric current!
Contact with live parts may result in electric current flowing through the body. Electric shock, burns or death will result.

- All work on electrical components may only be carried out by a trained electrician.
- The accessories must only be connected if the opener is disconnected from the power!
- Disconnect the mains plug before working on the opener. If a battery pack is connected, disconnect it from the ceiling control unit.
- Then check that the opener is disconnected from the power supply and secure it from switching on again.

7.4 Reducing illumination power of LEDs

⚠ WARNING

Danger due to optical radiation!
Looking into an LED at short range for an extended period may cause optical glare. This may temporarily reduce vision. This may cause serious or fatal accidents.

- Do not look directly into an LED.

1. The illumination power of the LEDs can be reduced during adjustment work by pressing the reset button or radio button once briefly.

7.5 Explanation of radio channels

LED	Radio channel	Setting/function
1	CH 1	Pulse mode
2	CH 2	Partial opening or lighting function
3	CH 3	Defined OPEN
4	CH 4	Defined CLOSED

7. Connections and special functions of the carriage

7.6 Programming the transmitter

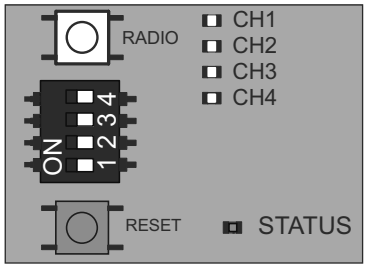


Fig. 1

INFORMATION
If a command is not sent within 30 seconds, the radio receiver switches to normal operation.

INFORMATION
The original transmitter is already programmed to the opener.

1. Press the radio button repeatedly to select the required channel.

LED	1 x	2 x	3 x	4 x
CH 1	■	□	□	□
CH 2	□	■	□	□
CH 3	□	□	■	□
CH 4	□	□	□	■

2. Press the desired button on the transmitter until the previously selected LED (CH 1, CH 2, CH 3, CH 4) is off.
   ⇒ LED goes out – programming is complete.
   ⇒ The transmitter has transferred the radio code to the radio receiver.
3. Repeat the above steps to program additional transmitters.

INFORMATION
Further transmitters cannot be programmed if all memory locations of the handheld transmitter are occupied.

If the memory capacity has been reached

A total of 40 handheld transmitter commands are available for all channels. If an attempt is made to program additional transmitters, the red LEDs of radio channels CH 1 - CH 4 flash. If more memory positions are needed, see Chapter **"7.7 Information on Memo"**.

7.7 Information on Memo

The use of the Memo depends on the version of the carriage control board.
The memory capacity can be extended to 450 transmitter commands using the optional Memo accessory part.
When plugging in the Memo, all available transmitters are transmitted from the internal memory to the Memo and stored there. The Memo must remain plugged in on the control unit.
No more transmitters are stored in the internal memory.
Stored transmitters cannot be transmitted from the Memo back to the internal memory.
All radio channels, including the memory of the Memo, can be deleted, see Chapter **"7.12 Deleting all radio channels in the receiver."**

INFORMATION
Delete the Memo on a new opener.
Otherwise, all stored transmitters of an opener are deleted and must be reprogrammed.

7.8 Cancelling programming mode

1. Press the radio button until all LEDs are out or make no input for 30 seconds.
   ⇒ Programming mode is cancelled.

7.9 Deleting a transmitter button from the radio channel

1. Press the radio button repeatedly to select the required channel.
   Press and hold the radio button for 15 seconds.

LED	1 x	2 x	3 x	4 x
CH 1	■	□	□	□
CH 2	□	■	□	□
CH 3	□	□	■	□
CH 4	□	□	□	■

   ⇒ The LED flashes after 15 seconds.
2. Release the radio button.
   ⇒ The radio receiver is in deletion mode.
3. Press the transmitter button for which the command is to be deleted in the radio receiver.
   ⇒ The LED goes out.
   ⇒ The deletion procedure is ended.

Repeat for additional buttons as required.

7.10 Deleting the transmitter completely from the receiver

1. Press and hold the radio button for 20 seconds.
   ⇒ The LED flashes after 15 seconds.
   ⇒ After another 5 seconds, the flash sequence changes to flashing.
2. Release the radio button.
   ⇒ The radio receiver is in deletion mode.
3. Press any button on the transmitter that is being deleted.
   ⇒ The LED goes out.
   ⇒ The deletion procedure is ended.
   ⇒ The transmitter is deleted from the radio receiver.

Repeat for additional transmitters as required.

7.11 Deleting radio channel in the receiver

1. Press the radio button repeatedly to select the required channel.
   Press and hold the radio button for 25 seconds.

LED	1 x	2 x	3 x	4 x
CH 1	▬	▭	▭	▭
CH 2	▭	▬	▭	▭
CH 3	▭	▭	▬	▭
CH 4	▭	▭	▭	▬

   ⇒ The LED flashes after 15 seconds.
   ⇒ After another 5 seconds, the flash sequence changes to flashing.
   ⇒ After another 5 seconds, the LED remains steady.
2. Release the radio button.
   ⇒ The deletion procedure is ended.
   ⇒ All programmed transmitters on the selected radio channel are deleted from the radio receiver.

7.12 Deleting all radio channels in the receiver

1. Press and hold the radio button for 30 seconds.
   ⇒ The LED flashes after 15 seconds.
   ⇒ After another 5 seconds, the flash sequence changes to flashing.
   ⇒ After another 5 seconds, the LED of the selected channel is on.
   ⇒ After another 5 seconds, all LEDs light up.
2. Release the radio button.
   ⇒ All LEDs are off after 5 seconds.
   ⇒ All programmed transmitters are deleted from the receiver.
   ⇒ Settings are restored.

7.13 Programming a second transmitter by radio (HFL)

Prerequisites for teach-in by radio

A transmitter must already be programmed on the radio receiver. The transmitters used must be identical. So, for example, a Pearl can only be programmed on a Pearl and a Pearl Vibe on a Pearl Vibe.
The key assignment of transmitter (A) that put the radio receiver into teach-in mode by radio is used for the new transmitter (B) that is to be programmed. The already-programmed transmitter and the new transmitter to be programmed must be situated in the range of the radio receiver.

Example:

1. Button 1 on radio channel 1 and button 2 on radio channel 2 have been programmed by transmitter (A).
   ⇒ The newly-programmed transmitter (B) adopts the key assignment of transmitter (A): Button 1 on radio channel 1, button 2 on radio channel 2.

Restriction

The following settings are **not** possible:

- The targeted teach-in of a selected transmitter button on a radio channel.

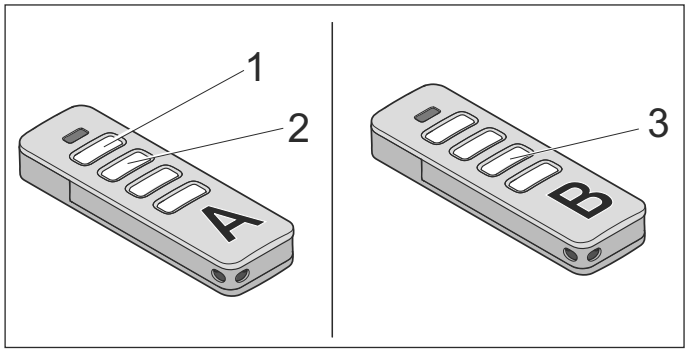


Fig. 1

1. Press buttons 1 + 2 of a programmed transmitter (A) for 3 - 5 seconds until the LED lights up on the transmitter.
   ⇒ The opener lighting flashes.
2. Release buttons 1 + 2 of the transmitter (A).
   ⇒ If a radio command is not transmitted within another 30 seconds, the radio receiver switches over to normal mode.
3. Press any key, e.g. (3) on the new transmitter (B) to be programmed.
   ⇒ The opener lighting remains steady.
   ⇒ Transmitter (B) has been programmed.