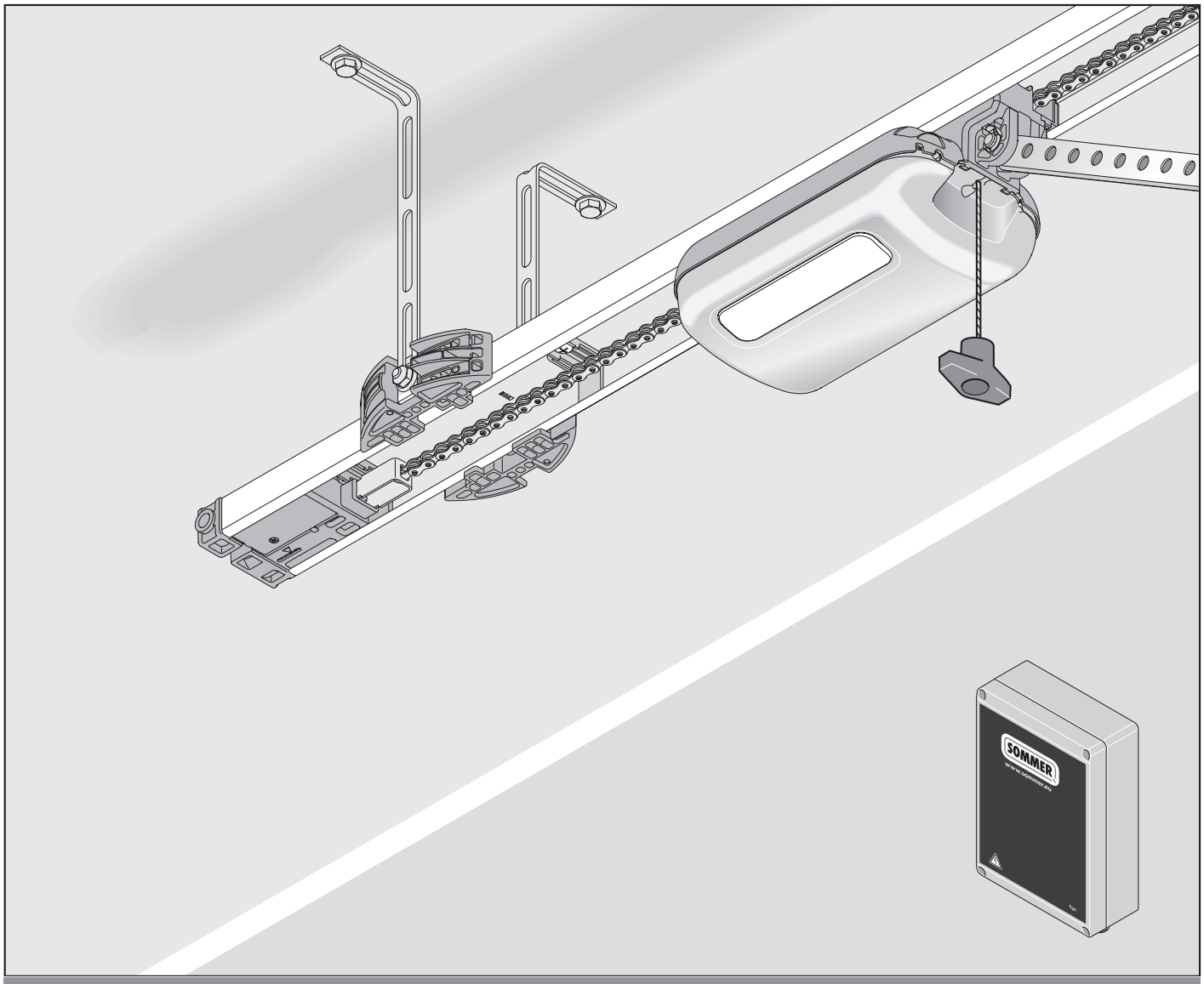
SOMMER



EN TRANSLATION OF THE ORIGINAL INSTALLATION AND OPERATING MANUAL

Garage door operator

S 9060 tiga
S 9080 tiga
S 9110 tiga

TÜV NORD GS geprüfte Sicherheit

F ©ift Rosenheim

SOMloq2

tiga_S10564-00001_062017_0-DRE_Rev-A_EN

Dear customer,

Congratulations on your purchase of a product of **SOMMER Antriebs- und Funktechnik GmbH**.

This product has been developed and manufactured under high standards of quality and with reference to ISO 9001. 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 and operating manual carefully and follow all instructions. This will ensure that you can install the product safely and optimally and operate it properly.

If you have any questions, please contact your specialist retailer, installer or contact.

Information on the operator:
Serial No.: Specified on the title page of the installation and operating manual, on the control unit and on the carriage (warranty label).

Year of manufacture: From 1/2017

Information on the installation and operating manual
Version of the installation and operating manual:
tiga_S10564-00001_062017_0-DRE_Rev-A_EN

Warranty
The contact person for warranties is the qualified dealer.
The warranty is only valid in the country in which the operator was purchased. There is no warranty for consumables such as batteries, accumulators and safety products as well as bulbs. This also applies for wear parts.

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

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 it or if you think more information is needed, please send your suggestions to us:


+49 (0) 7021 8001-403


doku@sommer.eu

Service
If you require service, contact your installer, your specialist retailer or our service hotline (fee required):


+49 (0) 900-1800150

(0.14 euros/minute from fixed-line telephones in Germany, mobile prices may vary)

Copyrights and proprietary rights

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.

A replacement for the installation and operating manual can be downloaded from **SOMMER Antriebs- und Funktechnik GmbH** at:
www.sommer.eu

In the event of transfer or resale of the door operator to third parties, the following documents must be passed on to the new owner:

- This installation and operating manual
- Inspection book for the door
- Documents recording retrofitting and repairs
- Proof of maintenance, regular care and testing
- EC Declaration of Conformity
- Handover protocol

1.2 Important for translations

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

http://som4.me/orig-tiga-reva

1.3 Description of the product type

The operator has been constructed according to state-of-the-art technology and recognized technical regulations and is subject to the EC Machinery Directive (2006/42/EC). The operator is fitted with a radio receiver. Optionally available accessories are also described.
The actual scope of delivery deviates from this.

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
- Commissioning
- Setting
- Usage
- Maintenance and care
- Testing
- Troubleshooting
- Disassembly and disposal

1.5 Explanation of warning symbols and notes

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/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

1. About this installation and operating manual

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 operator without endangering persons.
If it is not observed, property damage or faults to the operator or door may occur.

INFORMATION

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

INFORMATION

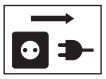
This symbols indicates that all components that have been taken out of service must not be disposed of with household waste, as they contain hazardous substances. The components must be disposed of correctly at an authorised recycling centre. The local and national regulations must be observed.

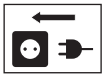
INFORMATION

This symbols 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 in the provided containers of the dealers. The local and national regulations must be observed.

The following symbols are used in the figures and text.


Continue reading the installation and operating manual for more information.


Disconnect the operator from the power supply.


Connect the operator to the power supply.


Symbol refers to factory settings.


Symbol refers to a WLAN-enabled device, such as a smartphone.

Symbol refers to a period of time, e.g. 30 seconds.

1.6 Special warnings, hazard signs 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.

1. About this installation and operating manual

⚠ 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 a **trained electrician**.

⚠ WARNING

Danger of falling!

Unsafe or defective ladders may tip and cause serious or fatal accidents.

► Use only a non-slip, stable ladder.

⚠ WARNING

Danger for trapped persons!

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 or a Bowden cable for unlocking from the outside must be installed.
This can be used to free persons who cannot free themselves.

⚠ 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 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.

► Never put your hand near the door or moving parts when it is moving.

⚠ WARNING

Danger of tripping and falling!

Unsafely positioned parts such as packaging, operator 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 a LED.

⚠ WARNING

Danger due to hot parts!

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

► Allow the operator 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

1. 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, for example in directions for actions, are emphasised in **bold**.

References to other chapters or sections are in **bold** and set in **"quotation marks"**.

1.8 Intended use of the operator

The operator 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 intended use. The user bears the sole responsibility for any risk involved. It also voids the warranty.

Any changes to the operator must be made with original **SOMMER** accessories only and only to the extent described.

Doors automated with this operator must comply with all valid international and national standards, directives and regulations. Examples include EN 12604, EN 12605 and EN 13241-1.

The operator may only be used:

- in combination with door types in the reference list which can be found at:

http://som4.me/cgdo

- as specified in this installation and operating manual
- in good technical condition
- with attention to safety and hazards by trained users
- when an EC Declaration of Conformity, CE mark and a type plate exist for the door system

1. About this installation and operating manual

1.9 Improper use of the operator

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
- unauthorised modifications to the operator
- modifications and non-approved programming of the operator and its components

The door must not be part of a fire and smoke protection system, an evacuation path or an emergency exit that automatically closes the door in the event of fire. Installation of the operator will prevent automatic closing.

Observe the local building regulations.

The operator 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 operator.

After installation of the operator, the person responsible for the installation of the operator must complete an EC Declaration of Conformity for the door system in accordance with Machinery Directive 2006/42/EC and apply the CE mark and a type plate to the door system. This also applies if the operator is retrofitted to a manually operated door. All documents as well as the inspection book for the door, the installation and operating manual and the handover protocol must be retained by the user.

The following is available for this purpose:

- handover protocol for the operator
- EC Declaration of Conformity

At:

http://som4.me/konform

Trained 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 operator.

Work on the electrical system and live parts may be performed only by a **trained electrician** in accordance with EN 50110-1.

The installation, commissioning and disassembly of the operator may only be performed by a qualified specialist.

The qualified specialist must be familiar with the following standards:

- EN 13241-1
  Doors and gates - Product standard
- EN 12604
  Doors and gates - Mechanical aspects - Requirements
- EN 12605
  Doors and gates - Mechanical aspects - Test methods
- EN 12445 and EN 12453 -
  Safety in use of power operated doors

A qualified specialist is a person ordered by the installer. The qualified specialist must instruct the user:

- on the operation of the operator and its dangers
- on the handling of the emergency release
- on regular maintenance and care which the user can execute

The user must be informed that other users must be instructed on the operation of the operator, 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

1. About this installation and operating manual

1.11 For the user

The user must make sure that the EC Declaration of Conformity, the inspection book, the installation and operating manual and the handover protocol for the door system are given to him/her. The CE mark and the type plate must be attached to the door system.

The user is responsible for:

- the intended use of the operator
- its good condition
- operation
- instructing all user how to use the door system and in the associated hazards
- maintenance and care
- tests 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 operator must not be used by 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 operator, even under supervision. Children must be kept clear of the operator. Handheld transmitters or other control devices must never be given to children. Transmitters must be safely stored and protected from unauthorised use.

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 operator must not be used by 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 instructions.

Children must never play with or use the operator, even under supervision. Children must be kept clear of the operator. Handheld transmitters or other control devices must never be given to children. Transmitters must be safely stored and protected from unauthorised use.

⚠ DANGER

Danger if not observed!

If safety instructions are not observed, serious injury or death may result.

- ► All safety information must be complied with.

⚠ 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.

- ► Installation, testing and replacement of electrical components may only be carried out by a **trained electrician**.
- ► The operator must be disconnected from the mains voltage before working on it.
- ► If a battery pack is connected, disconnect it from the wall control unit.
- ► Then check that the operator is disconnected from the power supply and secure it from switching on again.

⚠ DANGER

Danger due to use of the operator with incorrect setting or when it is in need of repair!

If the operator is used despite incorrect settings or if it is in need of repair, severe injury or death may result.

- ► The operator may only be used with the required settings and in the proper state.
- ► Faults must be repaired without delay.

⚠ DANGER

Danger of hazardous substances!

Improper storage, use or disposal of accumulators or batteries 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 old accumulators and batteries.
- ► Components of the operator as well as old accumulators and batteries must not be disposed of with household waste. They must be disposed of properly.

⚠ WARNING

Danger for trapped persons!

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.

2. General safety instructions

⚠ 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 operator in direct view of the door.

► All danger zones must be visible during the entire door operation.

► 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 runs along the track.

► Only pass through the door only once it is completely open and the traffic light has given access authorisation.

► Store the handheld 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 a LED.

NOTE

Dispose of all components in accordance with local or national regulations to avoid environmental damage.

2. General safety instructions

NOTE

The carriage is supplied with safety low voltage via the chain and the track.
The use of oil or grease will greatly reduce the conductivity of the chain, track and carriage. This may result in faults due to inadequate electrical contact.
The chain and track 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!
If the door is not visible and the radio control is operated, crushing and shearing injuries to persons or animals may be caused by the mechanism and safety edges of the door.

- ► When control elements like the radio control in particular are operated, all danger zones must be visible during the entire door operation.
- ► 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.
- ► Only pass through the door only once it is completely open and the traffic light has given access authorisation.
- ► Store the handheld 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.
The radio remote control can only be used only if you have a clear view 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 radio location equipment.

You can find the EC Declaration of Conformity for the radio here:
www.sommer.eu

http://som4.me/konform-funk

3. Description of function and product

3.1 The operator and its mode of operation

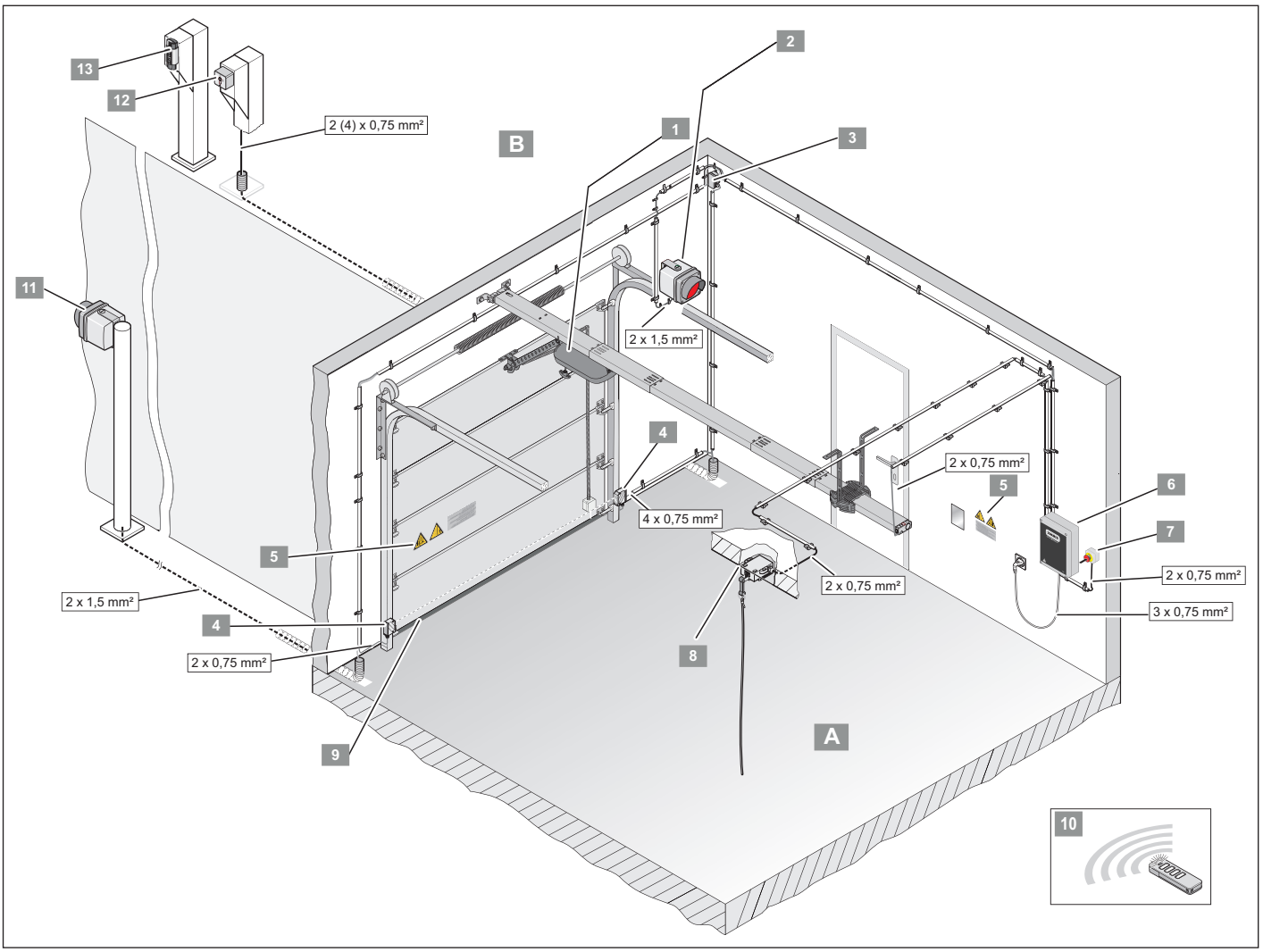


Fig. Door structure with operator

A Interior side

1) Carriage
2) Red traffic light, interior
3) Junction box
4) Photo eye
5) Warning sticker
6) Control unit
7) Emergency stop
8) Pull button
9) Safety contact strip
10) Transmitter

B Exterior side

11) Red traffic light, exterior
12) Key switch
13) Telecody

Sectional doors and other types of doors can be opened and closed with the electrically powered operator and its available accessories. The operator can be controlled with a handheld transmitter.
The track 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 track on a spring-mounted chain and opens or closes the door. Access authorisation for the interior and exterior is displayed by the traffic lights. The transmitter can be stored in a holder in the vehicle.

3. Description of function and product

Additional information on using the operator with different types of doors or accessories can be obtained from your specialist dealer.

3.2 Safety equipment

The operator stops and reverses slightly if it encounters an obstacle. This prevent injury and damage to property. The door will be partially of 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, contact your specialist dealer.

3. Description of function and product

3.3 Definitions

Programming

The operator programs the path and force required to open and close the door.
The operator saves these values. The values are saved even if the power supply fails.

Door OPEN

The door opens or is open.

Door CLOSE

The door closes or is closed.

Interior (IN)

This side is inside the garage.

Exterior (OUT)

This side is outside of the garage.

Light signal of the traffic light

Access authorisation for the interior and exterior is displayed by the traffic lights.

Request side, interior or exterior

A command is given from this side.

Opposite side

This side is opposite the request side.

Command from the interior

Button or radio signal give a command to open the door from the interior. After the lead time and, if applicable, the clearing time, the red traffic light for the interior switches off. This gives the authorisation for drive-through from the interior. The opposite side gets the red phase.

Command from the exterior

Button or radio signal give a command to open the door from the exterior. If the door is closed or is in the door OPEN end position, the red traffic light for the exterior switches off. This gives the authorisation for drive-through from the exterior. The opposite side gets the red phase.

Pre-warning time

This phase affects the time before opening or closing. The traffic light flashes red on both sides. The warning light and the operator lighting of the carriage also flash. The operator movement is thereby announced. The door area must be cleared.

Open holding time

The door remains open in this phase. The traffic light of the request side is off. The traffic light lights up red on the opposite side. The door can only be opened but not closed by a command from a button or hand-held remote control. While the door is being opened, it cannot be stopped by a command.
Example: If a command is sent while the operator is closing automatically, it opens completely and the open holding time is reset.

Clearing time

This phase affects the time after the open holding time has run out. The traffic light lights up red on both sides. The operator lighting of the carriage also flashes. This announces movement of the operator or traffic light switch-over for changing the drive-through direction. The door area must be cleared.

SOMlink

SOMlink makes it possible for qualified specialists to change the functions and settings on the door operator. These include force and speed values as well as operating parameters and other convenient functions. If you would like to make changes, contact your specialist dealer.

Multi-function relay (MUFU)

The multi-function relay is a potential-neutral changeover contact. The multi-function relay can be configured for other settings using the SOMlink, a WLAN-enabled device or a Memo tiga attached to the wall control unit at the factory.

3. Description of function and product

3.4 Operator response with factory settings

Response after power connection

The door is closed and the operator is programmed. All traffic lights are off. The first direction is always door OPEN. If the door is already open, the operator detects this. After a command to the operator, the command side is granted access authorisation.
The operator closes the door after the open holding time and clearing time run out.

Expiration after a command from the interior or exterior, door CLOSE

The traffic lights give the respective light signals for access authorisation.

1. Command from interior or exterior.
   - ⇒ Door opens.
     Both sides: Red phase - no authorisation for drive-through.
   - ⇒ Door is open.
   - ⇒ Open holding time starts.
     Request side: Traffic light off - authorisation for drive-through.
     Opposite side: Red phase - no authorisation for drive-through.
   - ⇒ Open holding time set at factory runs out.
   - ⇒ Clearing time for door CLOSE starts.
     Operator lighting LED of the carriage flashes.
     Both sides: Red phase – no authorisation for drive-through.
   - ⇒ Door closes.
     Both sides: Red phase - no authorisation for drive-through.
   - ⇒ Door is closed.
     Both sides: Traffic lights off.

Response after a request from the interior and an additional request from the exterior

1. Command from the interior and subsequent command from the exterior.
   - ⇒ Door opens.
     Both sides: Red phase - no authorisation for drive-through.
   - ⇒ Door is open.
   - ⇒ Open holding time starts.
     Request side, interior: Traffic light off - authorisation for drive-through.
     Opposite side, exterior: Red phase – no authorisation for drive-through.
   - ⇒ Open holding time set at the factory for the command from the interior runs out.
   - ⇒ Clearing time starts.
     Operator lighting LED of the carriage flashes.
     Both sides: Red phase, no authorisation for drive-through.
2. Command from the exterior is initiated.
   The request and opposite sides are exchanged here.
   - ⇒ Open holding time starts.
     Request side, exterior: Traffic light off – authorisation for drive-through.
     Opposite side, interior: Red phase – no authorisation for drive-through.
   - ⇒ Open holding time set at factory runs out.
   - ⇒ Clearing time for door CLOSE starts.
     Operator lighting LED flashes.
     Both sides: Red phase – no authorisation for drive-through.
   - ⇒ Door closes.
     Both sides: Red phase - no authorisation for drive-through.
   - ⇒ Door is closed.
     Both sides: Traffic lights off.

3. Description of function and product

3.5 Product designation

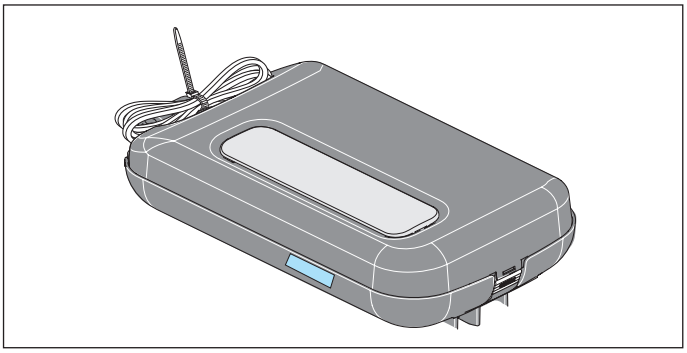


Fig. Carriage with type plate and device specifications

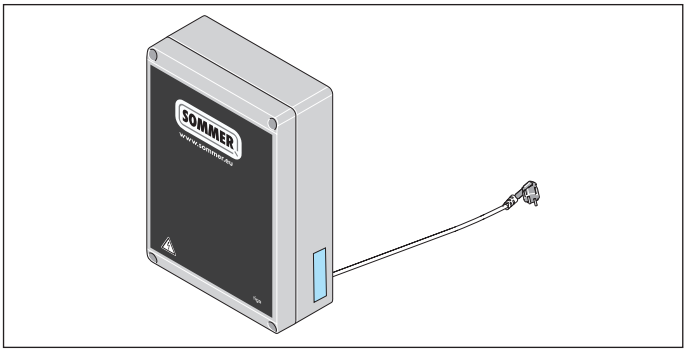


Fig. Control unit with type plate and device specifications

The type plate includes:

- Type designation
- Item number
- Date of manufacture with month and year
- Serial number

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

3.6 Explanation of tool symbols

Tool symbols

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


Phillips screwdriver

Metal drill 5 mm

Masonry drill 6 mm/10 mm

Fork spanner 10/13/17 mm

Ratchet driver 10/13/17 mm

Other symbols

Drilling depth

Audible engaging or clicking noise

3. Description of function and product

3.7 Scope of delivery

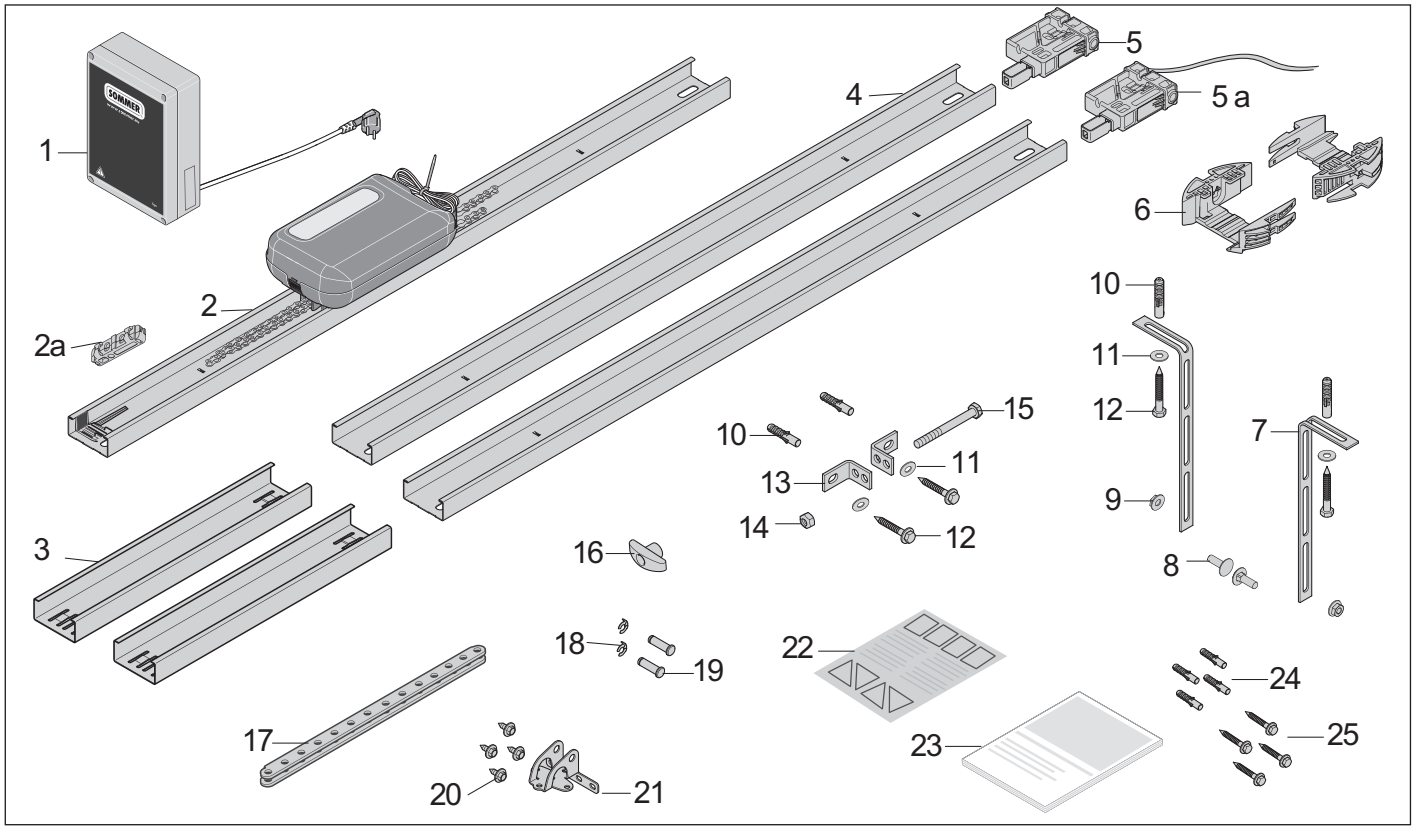


Fig. Scope of delivery

1) Wall control unit with Memo tiga, attached at the factory, and network cable
2) Track, pre-assembled with **1 x guide idler**, chain and carriage
2a) Isolator, **pre-assembled on the chain**
3) Connecting sleeves, 2 x
4) Track, 2 x
5) Plug-in unit, **pre-assembled**
5a) Plug-in unit, **pre-assembled**, with control cable, 2-wire, approx. 5 m
6) Ceiling holder, 2-part
7) Perforated strip, angled, 2 x
8) Screw M8 x 20 mm, 2 x
9) Hexagonal nut self-locking M8, 2 x
10) S10 plugs, 4 x
11) Washer, 4 x
12) Screw 8 x 60 mm, 4 x
13) Lintel bracket, 2 x
14) Hexagonal nut, self-locking M10
15) Hexagonal head screw M10 x 100 mm
16) Emergency release handle
17) Push arm, straight
18) Safety bolt 10 mm, 2 x
19) Bolt 10 x 34.5 mm, 2 x
20) Door bracket
21) Combination self-tapping screw, 4 x
22) Information sticker for garage interior
23) Installation and operating manual

Fixing point for wall control unit:

24) S6 plugs, 4 x
25) Screw ∅ 4 x 50 mm, 4 x

When unpacking make sure that all articles are included in the packages. If anything is missing, contact your specialist dealer. The actual scope of delivery may vary depending on the type or customer specifications.

3. Description of function and product

3.8 Dimensions

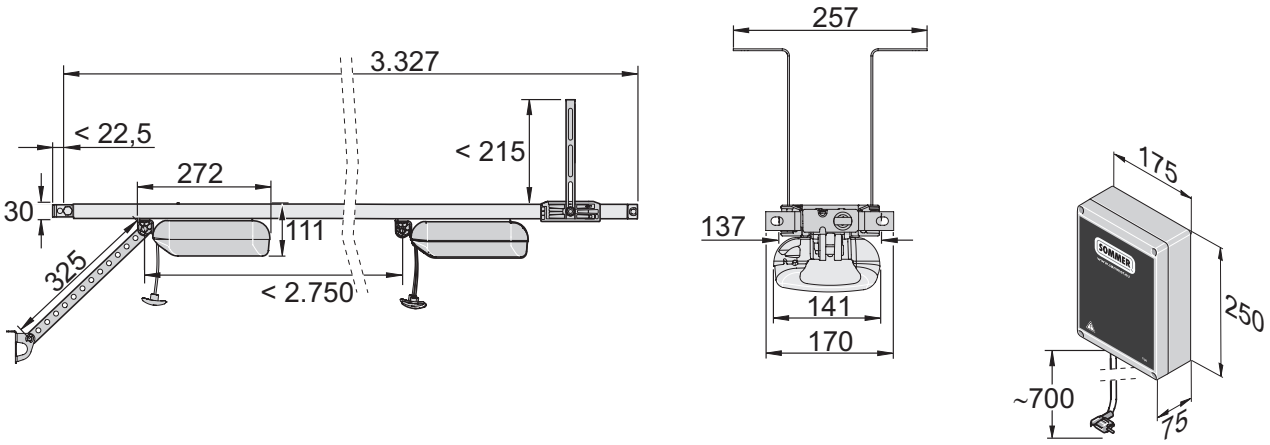


Fig. Dimensions (all dimensions are in mm)

3.9 Technical data

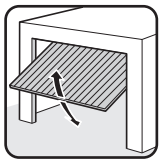
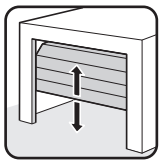
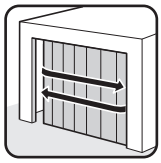
		S 9060 tiga	S 9080 tiga	S 9110 tiga
Nominal voltage		220 V – 240 V AC		
Rated frequency		50/60 Hz		
Storage locations in radio receiver		40		
Operating time		S3 = 40 %		
Operating temperature		–25 ºC to +65 ºC		
Emission value according to operating environment		< 59 dBA – operator only		
IP protection class		IP21		
IP-code		I		
Travel length max.		2,750 mm		
Travel length including extension max.		4,942 mm (2 x 1,096 mm)	6,038 mm (3 x 1,096 mm)	7,134 mm (4 x 1,096 mm)
Speed max.**		240 mm/s	210 mm/s	180 mm/s
Max. traction and pressure force		600 N	800 N	1100 N
Rated traction force		180 N	240 N	330 N
Max. rated current consumption		1.6 A	1.6 A	2.0 A
Rated current consumption*		0.5 A	0.65 A	0.8 A
Max. rated power consumption		350 W	360 W	450 W
Rated power consumption*		95 W	130 W	150 W
Power consumption on power-saving mode		< 1 W		
Max. door weight**		120 kg	160 kg	200 kg
Door dimensions without extension	**Sectional doors**	4,500 mm / 2,500 mm	6,000 mm / 2,500 mm	8,000 mm / 2,500 mm
	Swinging doors	4,500 mm / 2,750 mm	6,000 mm / 2,750 mm	8,000 mm / 2,750 mm
	Up-and-over doors	4,500 mm / 2,050 mm	6,000 mm / 2,050 mm	8,000 mm / 2,050 mm
	Side-sectional doors/ Side-opening doors	2,500 mm / (4,500 mm) / 2,500 mm	2,500 mm (5,750 mm) / 2,750 mm	2,500 mm (6,850 mm) / 3,000 mm

* Values apply without lighting

** Depending on door and the operating conditions

3. Description of function and product

3.10 Door types and accessories

Door type		Accessories
	Swinging door	No accessories required
	Sectional door, single track	Sectional door fitting with curved push arm*
	Sectional door with double track	Sectional door fitting without curved push arm**
	Sectional overhead door	No accessories required
	Roller door, side-sectional door	Side-opening/ side-opening sectional door fitting **

* Accessories not included in the scope of delivery
** The standard fitting can also be used depending on the installation type. Custom fittings are not included in the scope of delivery.

The operator may only be used:

- in combination with door types in the reference list which can be found under certifications.

http://som4.me/cgdo

A number of accessories are available for the operator.

Here are a few examples:

Accessories	Function
Memo	Attachable memory expansion Memory for expanding the capacity of transmitter commands from 40 internal to 450 external
Lock	Pluggable locking magnet For mechanical locking of the motor and therefore improvement of break-in protection
Alarm/ warning buzzer	Pluggable acoustic signal generator Option of alarm tone when a break-in attempt occurs or a warning tone in the event of a slip door contact, for example
Relay	Pluggable relay For example for activating the external lighting or the door status display

For more information on accessories such as track extensions, additional locking mechanism, custom fittings or different transmitters contact your specialist dealer or see:
www.sommer.eu

4. Tools and protective equipment

4.1 Required tools and personal protective equipment

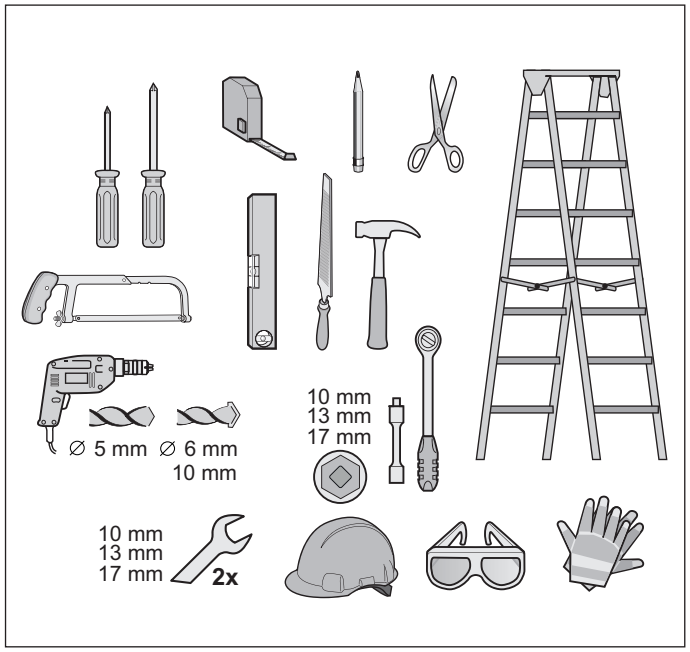


Fig. Recommended tools and personal protective equipment for installation

You will require the tools shown above to assemble and install the operator. 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.

► 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 or performing similar work.

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

5. Declaration of installation

Declaration of installation

for installation of an incomplete machine in accordance with the Machinery Directive 2006/42/EC, Annex II, Part 1 B

SOMMER Antriebs- und Funktechnik GmbH
Hans-Böckler-Straße 21–27
73230 Kirchheim/Teck
Germany

hereby declares that the control units

S 9060 tiga, S 9080 tiga, S9110 tiga, S 9060 tiga+, S 9080 tiga+, S 9110 tiga+

have been developed, designed and manufactured in conformity with the

- Machinery Directive 2006/42/EC
- Low Voltage Directive 2014/35/EU
- Electromagnetic Compatibility Directive 2014/30/EU
- RoHS Directive 2011/65/EU

The following standards were applied:

• EN ISO 13849-1, PL "C" Cat. 2	Safety of machines - safety-related parts of controls - Part 1: General design guidelines
• EN 60335-1, where applicable	Safety of electrical appliances/operators for doors
• EN 61000-6-3	Electromagnetic compatibility (EMC) - interference
• EN 61000-6-2	Electromagnetic compatibility (EMC) - interference resistance
• EN 60335-2-95	General safety requirements for household and similar electrical appliances - Part 2: Particular requirements for operators for vertically moving garage doors for residential use
• EN 60335-2-103	General safety requirements for household and similar electrical appliances - Part 2: Special requirements for operators for gates, doors and windows

The following requirements of Annex 1 of the Machinery Directive 2006/42/EC are met:
1.1.2, 1.1.3, 1.1.5, 1.2.1, 1.2.2, 1.2.3, 1.2.4, 1.2.5, 1.2.6, 1.3.1, 1.3.2, 1.3.4, 1.3.7, 1.5.1, 1.5.4, 1.5.6, 1.5.14, 1.6.1, 1.6.2, 1.6.3, 1.7.1, 1.7.3, 1.7.4
The special technical documents have been prepared in accordance with Annex VII Part B and are submitted electronically to the regulators on request.

The operator may only be used:

- in combination with door types in the reference list which can be found at: **www.sommer.eu**

The incomplete machine is intended for installation in a door system only to form a complete machine as defined by the Machinery Directive 2006/42/EC. The door system may only be put into operation after it has been established that the complete system complies with the regulations of the above EC Directive.

The undersigned is responsible for compilation of the technical documents.

Kirchheim, 20-04-2016

CE

i.V.

Jochen Lude
Responsible for documents

6. Installation

6.1 Important information on installation

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 operator.

The installation of the operator may only be performed by a qualified specialist.

This installation and operating manual must be read, understood and complied with by a qualified specialist who installs the operator.

⚠ DANGER

Danger if not observed!

If safety instructions are not observed, serious injury or death may result.

► All safety information must be complied with.

⚠ WARNING

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.

⚠ WARNING

Danger for trapped persons!

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 or a Bowden cable 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 tracks.

⚠ WARNING

Danger due to falling ceiling and wall parts!

The operator 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 operator. Severe injuries or death may result.

► Ceiling and walls 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.

6. Installation

⚠ 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 operator in direct view of the door.
- ► All danger zones must be visible during the entire door operation.
- ► 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 runs along the track.
- ► Only pass through the door only once it is completely open and the traffic light has given access authorisation.

⚠ WARNING

Danger of tripping and falling!

Unsafely positioned parts such as packaging, operator 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.

⚠ CAUTION

Risk of injury to hands!

Rough metal parts may cause abrasions and cuts when picked up or touched.

- ► Wear safety gloves when deburring or performing similar work.

NOTE

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

NOTE

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

INFORMATION

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

6.2 Preparation for installation

Before installation, you must check whether the operator is suitable for the door, see also Chapter **"3.9 Technical data"**.

The operator may only be used:

- in combination with door types in the reference list which can be found at:

http://som4.me/cgdo

6. 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 operator. This may cause faults to or damage the operator.
Before the installation of the operator, all mechanical locking systems must be disabled.

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

Checking mechanical and weight compensation

⚠ WARNING

Danger due to falling parts of doors or complete door panels!

Wire ropes, spring sets or other fittings may break suddenly. The complete door panel can fall.
Persons or animals may be struck by falling parts of the door or the complete door panel. Severe injuries or death may result.

Before installation, qualified personnel must check the following and adapt if necessary:

► wires, spring sets and other fittings of the door.

► the weight compensation of the door.

⚠ 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 door is incorrectly adjusted, the operator 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 tracks.

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

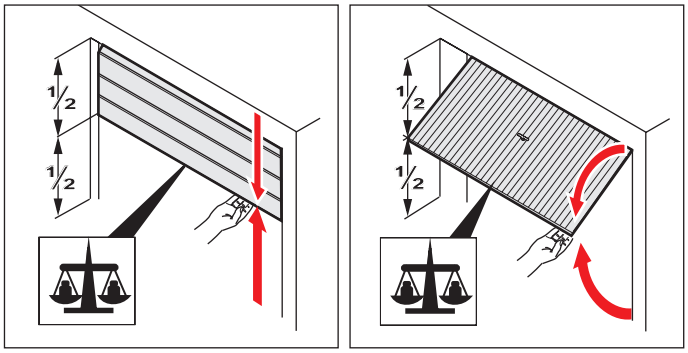


Fig. 2

2. Open the 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.

6. Installation

Emergency release
In a garage without a separate entrance (e.g. slip doors), the operator's emergency release must be operable from outside. The emergency release must also be routed to be accessible from the outside. This can be done with a Bowden cable or an emergency release lock. Ask your specialist dealer.

Adjusting the top roll of a sectional door

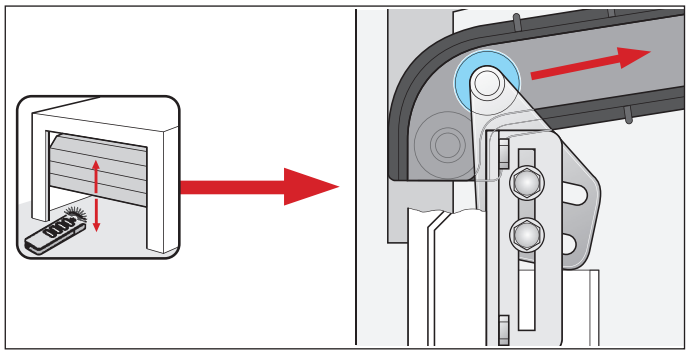


Fig. Top roll on sectional door

If a manually operated sectional door is retrofitted with an operator, the position of the top roll must be checked and adjusted if necessary.
The top roll must be routed up over the curve.

6. Installation

6.3 Installation of the operator system

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

NOTE

Specify the position for mounting the operator on the door. Manually open and close the door several times. The door must be moved easily.
A manual movement force of 150 N is applicable for private garage doors and 260 N for commercial doors.
The value is applicable for the entire life of the door. The door must also be maintained and inspected as specified by the door manufacturer.

Selection of the installation version

The scope of delivery offers the option of implementing the following installation versions.
Check your situation and conditions and select the optimal installation version for you.

Installation situation A, B and C

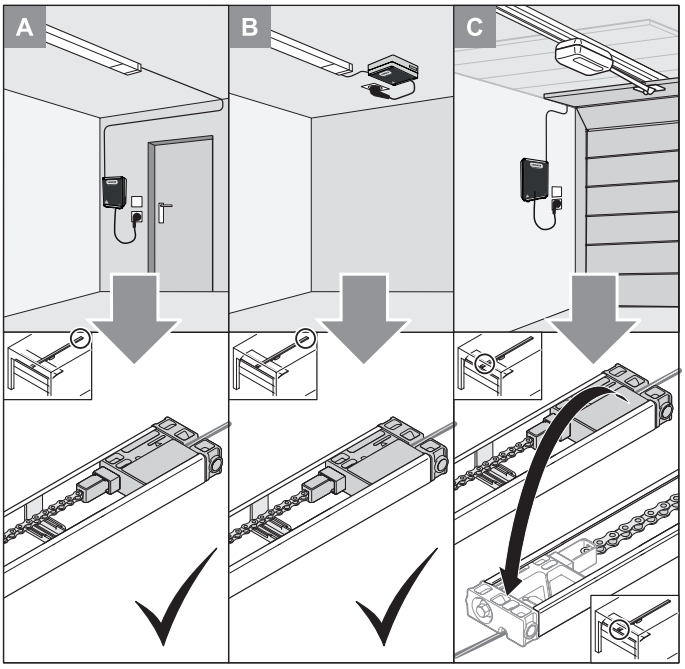


Fig. Installation versions A, B and C

Variant A

This version is selected if there is a separate entrance to the garage. The wall control unit is assembled near a power socket. The control cable is led at the rear end of the track, see Chapter **"6.4 Installation of the operator system for installation versions A and B"**.

Version B

This version is selected when an existing device is being replaced by a new one and there is already a power socket or other control lines to buttons or photo eyes in this area. The wall control unit on the ceiling is assembled in the rear area of the track. The control cable of the plug-in unit is also led out at the rear end of the track, see Chapter **"6.4 Installation of the operator system for installation versions A and B"**.

Version C

This version is selected when a power socket is located near the door opening and can be used for the wall control unit.
The control cable is led out at the front end of the track, see Chapter **"6.5 Installation of the operator system for installation version C"**.

6. Installation

6.4 Installation of the operator system for installation versions A and B

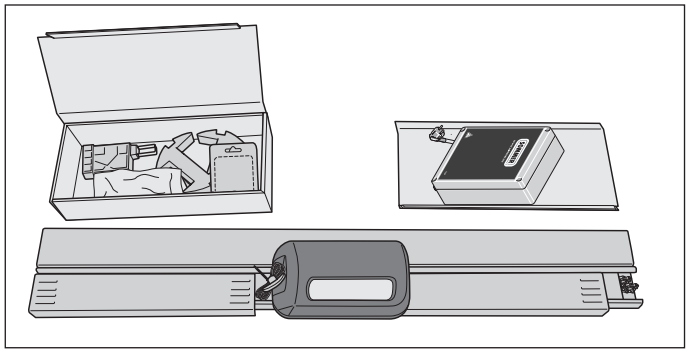


Fig. 1

⚠ CAUTION

Risk of injury to hands!

Rough metal parts may cause abrasions and cuts when picked up or touched.

► You must wear safety gloves when working with rough metal parts.

1. Open the packages.
   Check the contents against the scope of delivery listed in this installation and operating manual, see Chapter **"3.7 Scope of delivery"**.

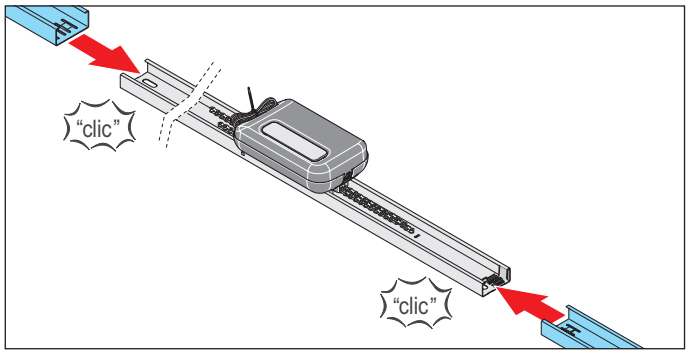


Fig. 2

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

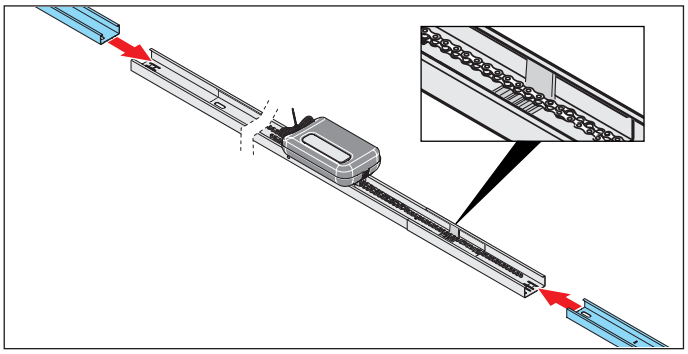


Fig. 3

3. Attach a track to each of the connecting sleeves.

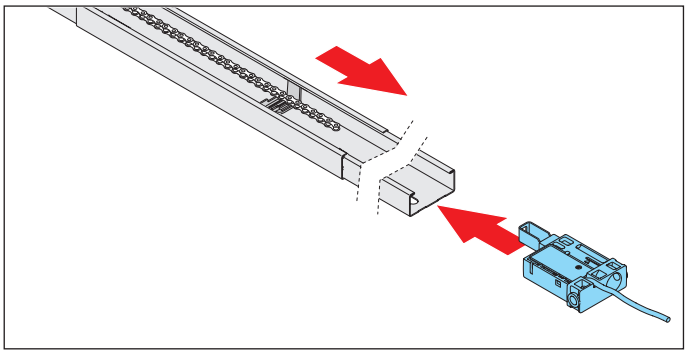


Fig. 4

4. Plug in the **plug-in unit with control cable** to the track behind the guide idler.
   Lay the chain over the guide idler.

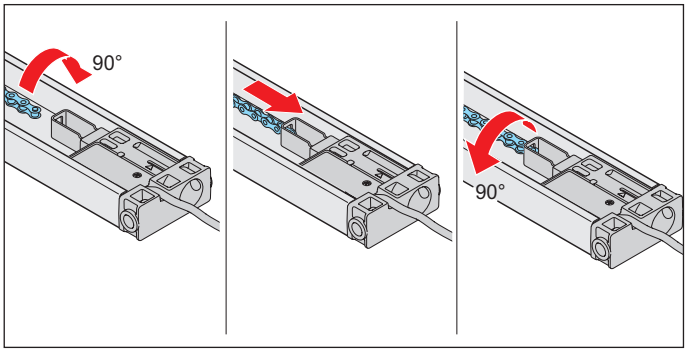


Fig. 5

5. Rotate the chain 90° and insert it into the chain holder of the **plug-in unit with control cable**.
   Rotate the chain back 90°.

6. Installation

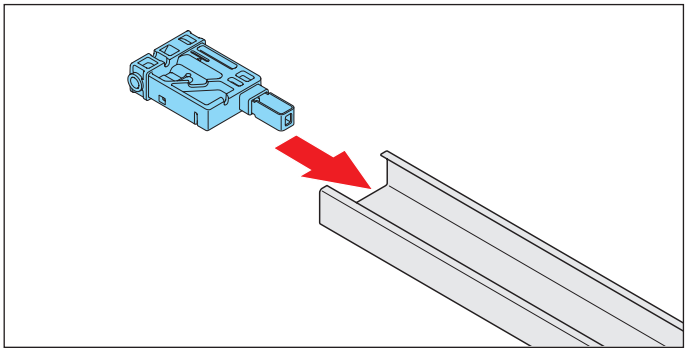


Fig. 6

6. Plug in the **plug-in unit without control cable** on the opposite side of the track.

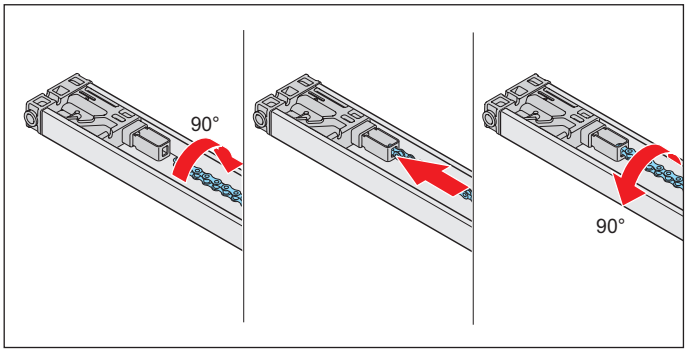


Fig. 7

NOTE

The chain must be parallel to the track to prevent damage to the operator.

7. Rotate the chain 90° and insert it into the chain holder of the **plug-in unit without control cable**. Rotate the chain back 90°.

   ⇒ The entire chain is attached.

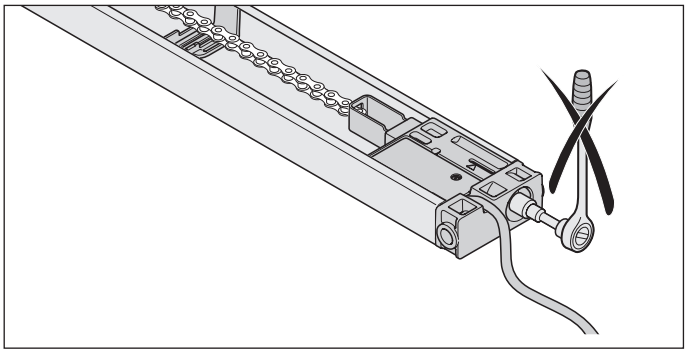


Fig. Plug-in unit with control cable

NOTE

The plug-in unit with control cable must not be tensioned.

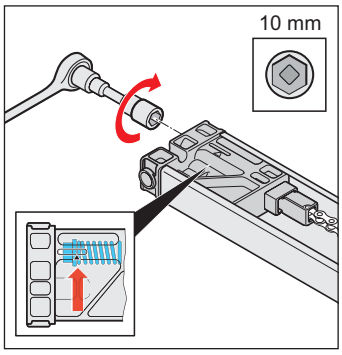


Fig. 8

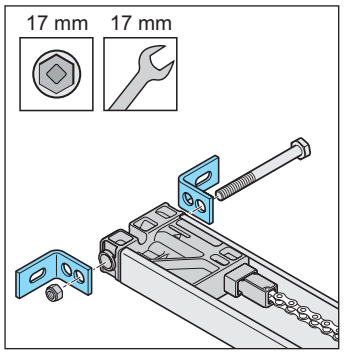


Fig. 9

8. Tension the chain to the mark on the **plug-in unit without control cable**, see **arrow** in the detailed view.

9. Fasten the two header brackets to the **plug-in unit without control cable** with screw and nut.

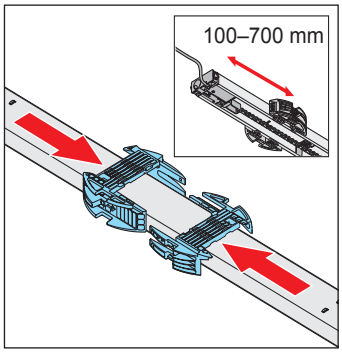


Fig. 10

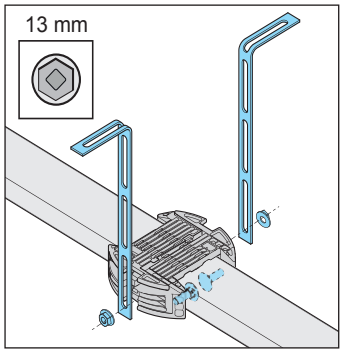


Fig. 11

10. Turn the track to install the ceiling bracket.
    The distance between the rear **plug-in unit with control cable** and the ceiling holder should be 100 - 700 mm.
    Place the ceiling holder on the track slide into one another.

11. Fasten the perforated strips to the ceiling holder on the right and left. Also observe the distances for installation to the ceiling or lintel.

    ⇒ The track is prepared for the remainder of the installation.

For further assembly, see Chapter **"6.6 Installation on the door"**.

6. Installation

6.5 Installation of the operator system for installation version C

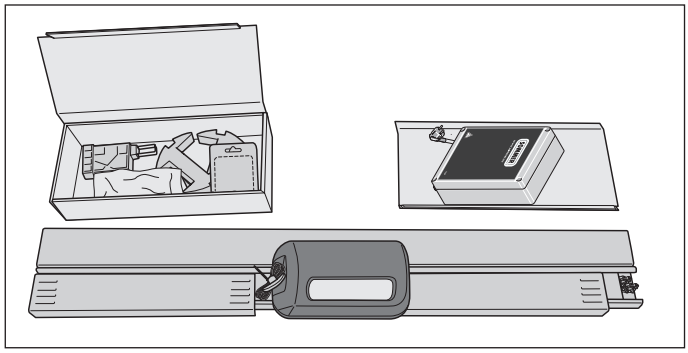


Fig. 1

⚠ CAUTION

Risk of injury to hands!

Rough metal parts may cause abrasions and cuts when picked up or touched.

► You must wear safety gloves when working with rough metal parts.

1. Open the packages.
   Check the contents against the scope of delivery listed in this installation and operating manual, see Chapter **"3.7 Scope of delivery"**.

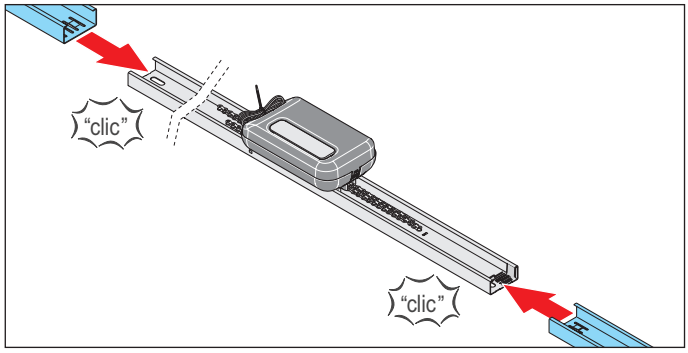


Fig. 2

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

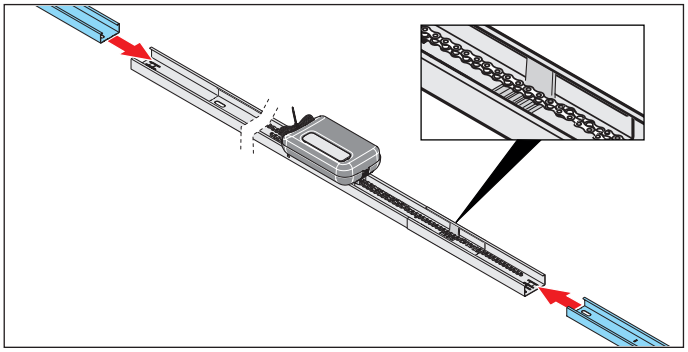


Fig. 3

3. Attach a track to each of the connecting sleeves.

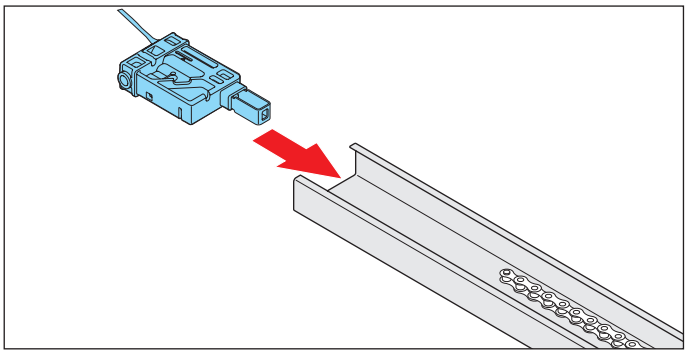


Fig. 4

4. Plug in the **plug-in unit with control cable** on the side of the track without a guide idler.

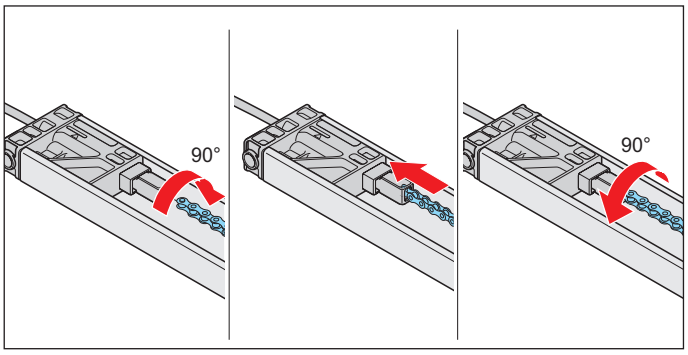


Fig. 5

5. Rotate the chain 90° and insert it into the chain holder of the **plug-in unit with control cable**. Rotate the chain back 90°.

   ⇒ The entire chain is attached.

6. Installation

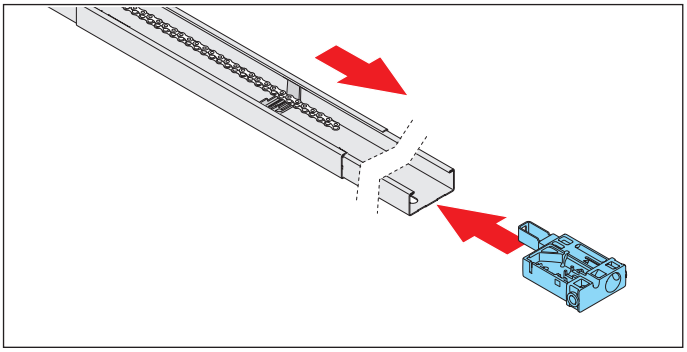


Fig. 6

6. Plug in the **plug-in unit without control cable** to the track behind the guide idler.
Lay the end of the chain over the guide idler.

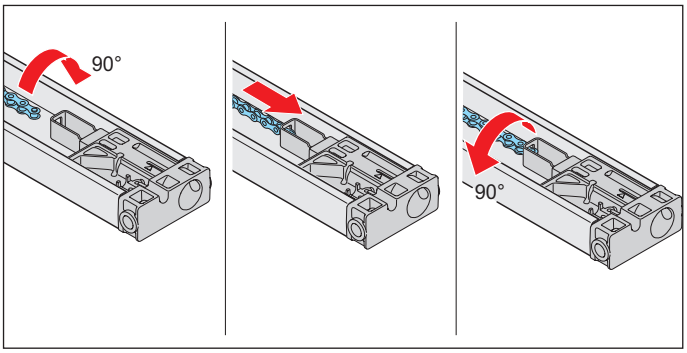


Fig. 7

7. Rotate the chain 90° and insert it into the chain holder of the **plug-in unit without control cable**.
Rotate the chain back 90°.

NOTE

The chain must be parallel to the track to prevent damage to the operator.

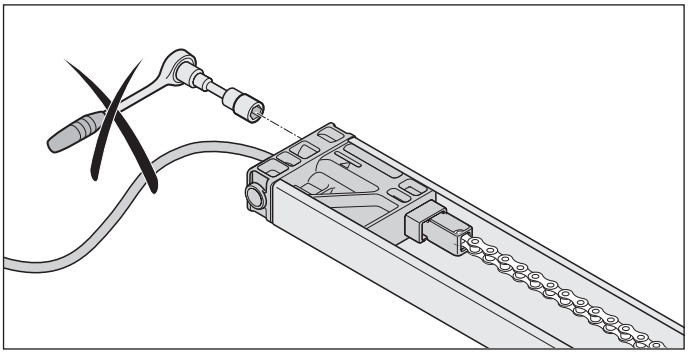


Fig. Plug-in unit with control cable

NOTE

The plug-in unit with control cable must not be tensioned.

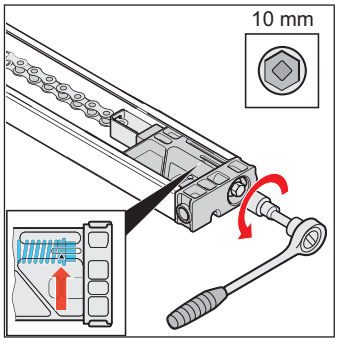


Fig. 8

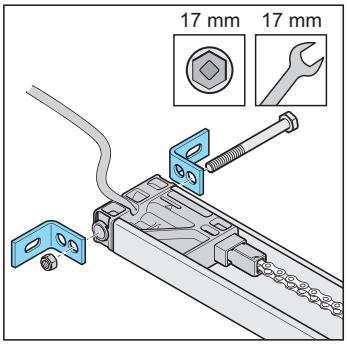


Fig. 9

8. Tension the chain to the mark on the **plug-in unit without control cable**, see **arrow** in the detailed view.

9. Fasten the two header brackets to the **plug-in unit with control cable** with screw and nut.

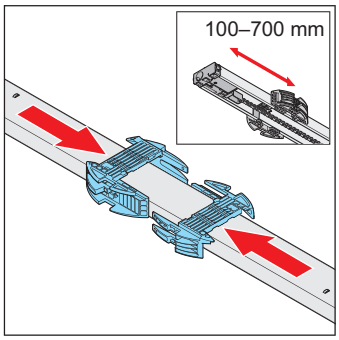


Fig. 10

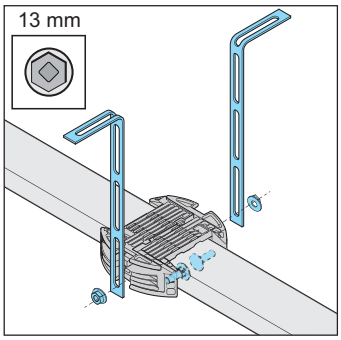


Fig. 11

10. Turn the track to install the ceiling bracket.
The distance between the rear **plug-in unit without control cable** and the ceiling holder should be 100 - 700 mm.
Place the ceiling holder on the track slide into one another.

11. Fasten the perforated strips to the ceiling holder on the right and left. Also observe the distances for installation to the ceiling or lintel.

⇒ The track is prepared for the remainder of the installation.

For further assembly, see Chapter **"6.6 Installation on the door"**.

6. Installation

6.6 Installation on the door

Since installation on the door is similar for all versions, installation on the door is only described for versions A and B.

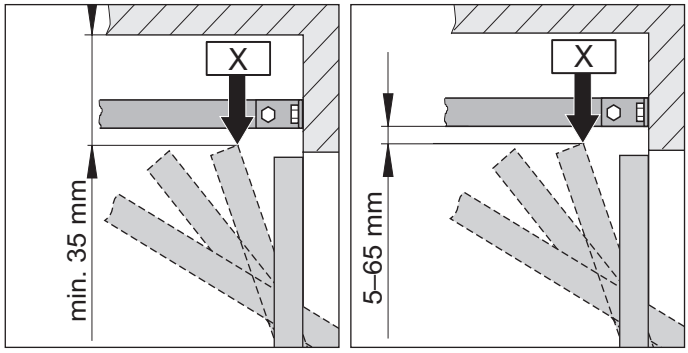


Fig. 1.1 Highest point for swing and up-and-over doors

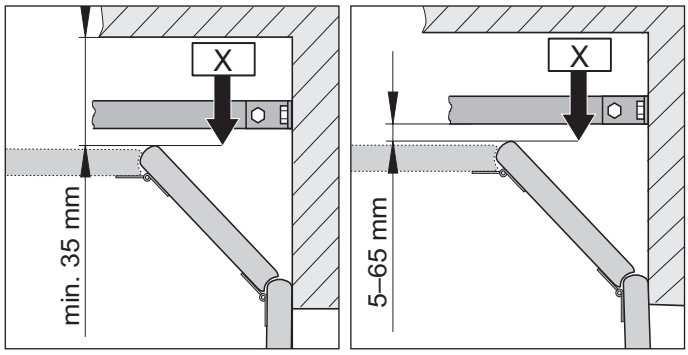


Fig. 1.2 Highest point for a sectional door

INFORMATION
If the distance between the ceiling and the bottom edge of the track is greater than 245 mm, extend the ceiling holder with additional perforated strips.

1. Measure the highest point of the door X depending on the type of door:
   Open the door and measure the closest distance (min. 35 mm) between the top edge of the door and the ceiling.
   The distance between X and the bottom edge of the track must be at least 5 mm and no more than 65 mm.

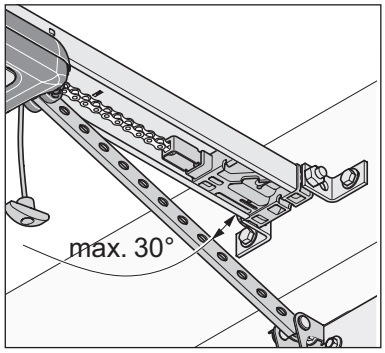


Fig. 2

INFORMATION
The distance may be reduced if a door handle is attached to the middle of the door. The door must be able to run freely.

2. The arm must be at a max. angle of 30° with the door closed.

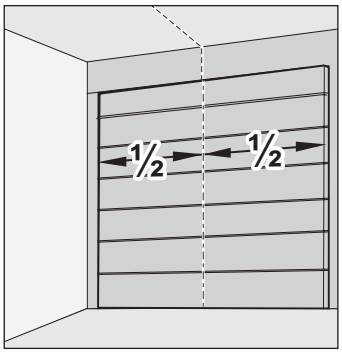


Fig. 3

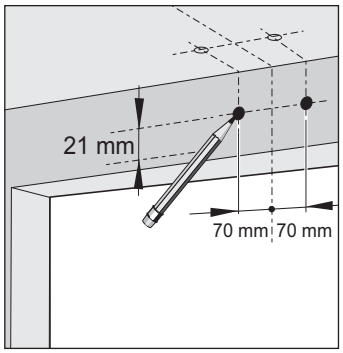


Fig. 4

3. Close the door.
   Select the lintel or ceiling for installation. The space required for ceiling installation is more than 35 mm. Measure the front of the centre of the door and mark the door and the lintel or ceiling.

4. Mark points 70 mm to the right and left of the centre of the door at the same height on the lintel or ceiling.

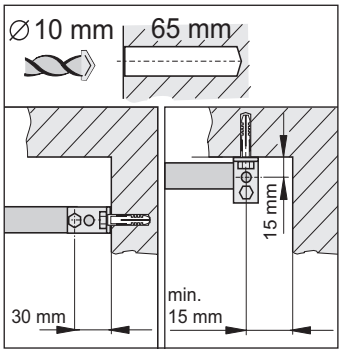


Fig. 5

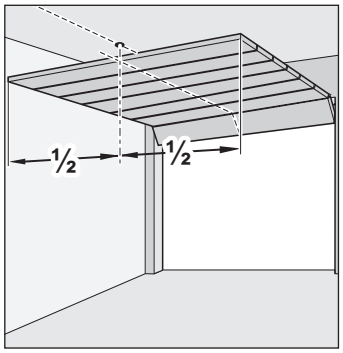


Fig. 6

NOTE
Cover the operator during drilling to prevent dirt from entering the operator unit and damaging it.

INFORMATION
If installing on the ceiling, space the drill holes 15 mm apart if possible. This reduces the tilting angle of the mounting bracket.

6. Installation

INFORMATION
The drilling depth must be considered concerning the ceiling and wall thickness, particularly with prefabricated garages.
It may be necessary to reduce the hole depth.
Only use permissible fastening materials appropriate for the supporting surface.

5. Drill two holes (Ø 10 x 65 mm deep) in the ceiling or lintel.
6. Open the door.
   Transfer the mark from the centre of the door to the ceiling.

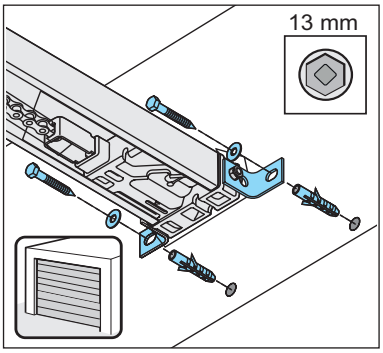


Fig. 7

7. Close the door.
   The operator can be mounted on the lintel or the ceiling.
   Lift the track at the front.
   Screw the lintel fitting at the front to the lintel or ceiling with two screws and the washers. Tighten the screws.

   ⇒ The track is attached to the lintel or ceiling.

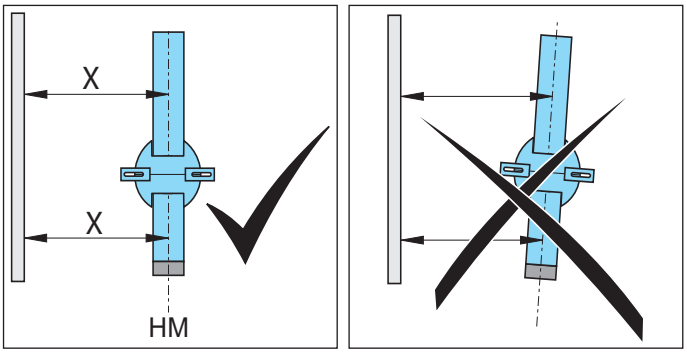


Fig. 8

NOTE
The operator must always be installed parallel to the tracks or the door to prevent damage to the operator and the rails.

8. Align the operator parallel to the running tracks of the door.

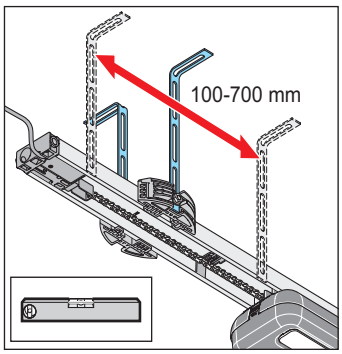


Fig. 9

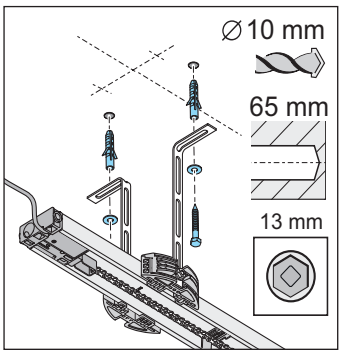


Fig. 10

9. Align the track parallel to centre of the door at the rear.
   Align the ceiling bracket.
   The distance between the rear plug-in unit and the ceiling holder should be 100 - 700 mm. The ceiling bracket should be installed in this area.
   Check the alignment of the track with a spirit level.
10. Mark the holes on the ceiling for the ceiling holder.
    Drill two holes (Ø 10 x 65 mm deep).
    Insert the anchor fittings.
    Insert two screws with washers and screw the perforated strips to the ceiling. Tighten the screws.

    ⇒ The track is attached to the ceiling.

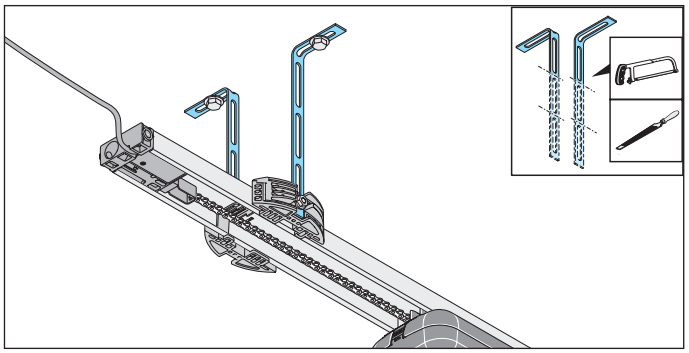


Fig. 11

6. Installation

⚠ 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.

11. The projecting perforated strips must be shortened.

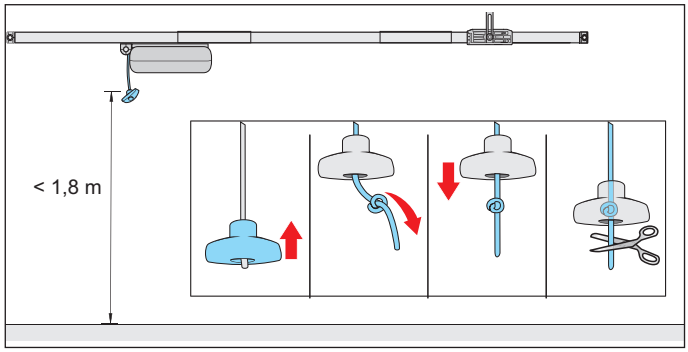


Fig. 12

⚠ WARNING

Danger of entrapment!

Persons or animals in the movement area of the door may be trapped in a loop of the emergency release rope 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 rope must be less than 1.8 m.
The emergency release handle must be at least 50 mm from moving and fixed parts throughout its complete path.

12. Attach the emergency release handle to the emergency release cable and shorten the cable or lengthen it with suitable materials if necessary.

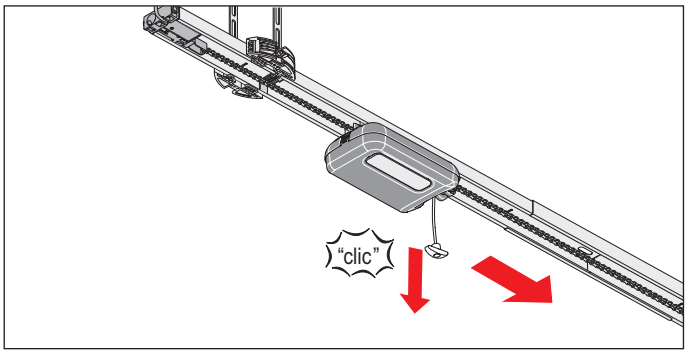


Fig. 13

13. Pull the emergency release rope once to unlock the carriage.
Slide the carriage forward to the door.

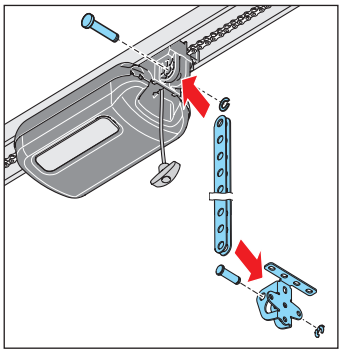


Fig. 14

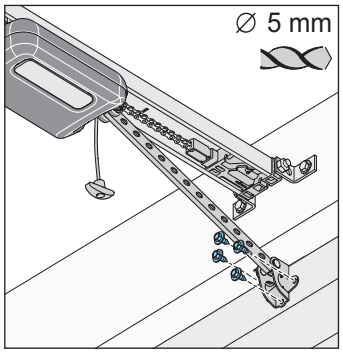


Fig. 15

⚠ 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.

14. Plug the push arm into the door bracket. Insert the bolt and slide on the safety bolt.
Plug the push arm into the carriage at the front. Insert the bolt and slide on the safety bolt.

15. Align the door bracket to the centre of the door. Mark the holes and drill them (Ø 5 mm).
Fix the door bracket to the door with the hexagon bolts.

⇒ The push arm is attached to the carriage and the door.

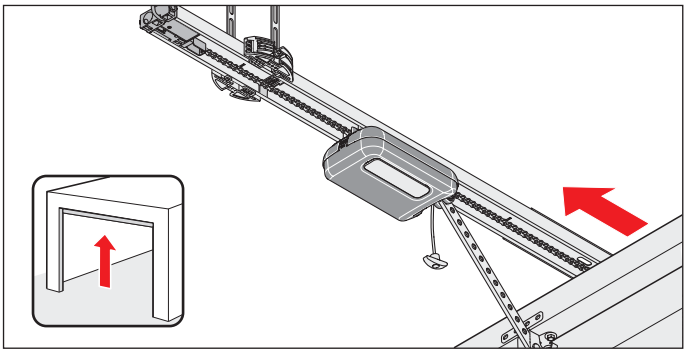


Fig. 16

NOTE

The door must not rub on the operator or tracks. This could damage the operator or tracks.
The operator must then be offset.

16. Open the door completely by hand.
If the door rubs on the operator or the tracks, the operator must be offset.

⇒ The guide idler automatically moves with the carriage.

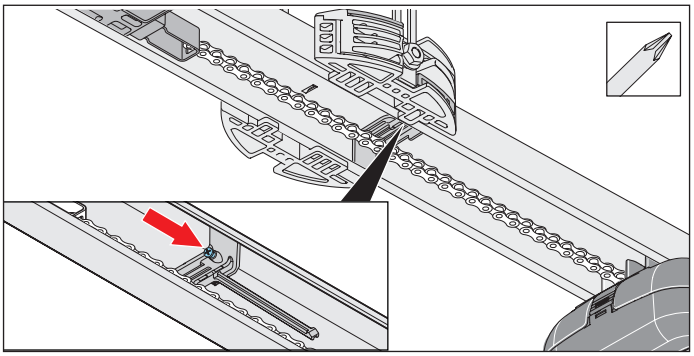


Fig. 17

NOTE

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

INFORMATION

The guide idler can be subsequently pushed under the chain and screwed into the track.
Then screw the guide idler tightly to the track at the respective spot.

17. Tighten the screw on the guide idler 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 guide idler until a click noise is heard.

⇒ The door OPEN end position is set.

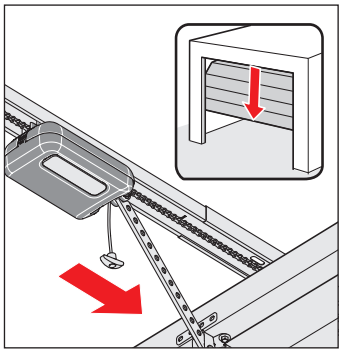


Fig. 18

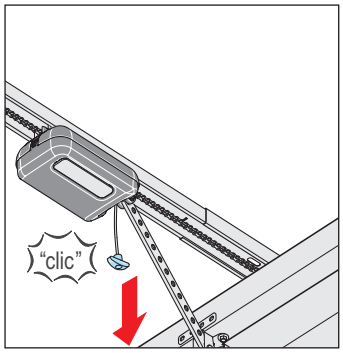


Fig. 19

NOTE

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

INFORMATION

It can be locked and released in any door position.

18. Move door to centre position.

⇒ The carriage moves with it.

19. Pull the emergency release rope.

⇒ **The carriage is locked.**

⇒ The door can only be moved by the operator.

6. Installation

6.7 Installing wall control unit

Follow in particular the basic safety instructions listed below.

The direct connection of the wall control unit to an all-pole line disconnecter, e.g. a main switch or a power socket, must be secured, see Chapter **"8.1 Connection to mains voltage"**.

⚠ 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**.
- ► Before commissioning, ensure that the mains voltage of the power source corresponds with the voltage listed on the operator type plate.
- ► Do not connect the power supply until mounting is complete.
- ► If a battery pack is connected, disconnect it from the wall control unit.
- ► Then check that the operator is disconnected from the power supply and secure it from switching on again.

⚠ WARNING

Danger of crushing and shearing!

The door can be actuated by a key or pull button.
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 wall control unit must be installed within sight of the door.
- ► The wall control unit must not be installed near moving parts.
- ► The wall control unit must be installed at a height of at least 1.6 m.

NOTE

Do not connect the wall control unit to the power supply until the installation is complete to prevent damage to the operator.

INFORMATION

All devices to be connected externally must have a safe isolation of the contacts from the mains voltage supply according to EC 60364-4-41.
Wiring for external devices must be installed in accordance with IEC 60364-4-41.
All electrical wiring, even the control cable, must be firmly secured to prevent displacement.

INFORMATION

In order to connect a power socket to a all-pole line disconnecter, e.g. a main switch, the wall control unit must be installed as follows:

- the supplied network cable is about 0.7 m long and must not be shortened or extended.
- easily visible and accessible

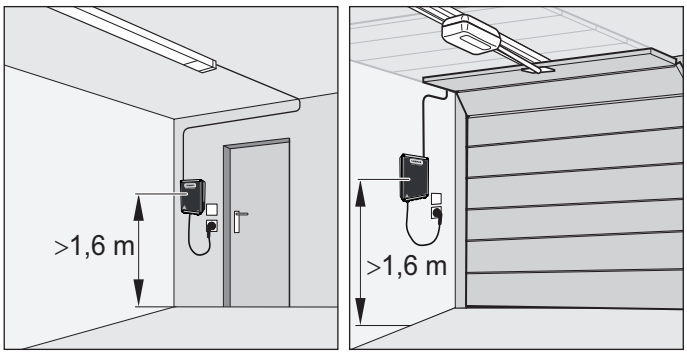


Fig. 1

INFORMATION

The drilling depth must be considered concerning the ceiling and wall thickness, particularly with prefabricated garages.
It may be necessary to reduce the hole depth.
Only use permissible fastening materials appropriate for the supporting surface.

1. Choose a suitable location for the wall control unit close to an existing power socket.
   The maximum length of the control cable is 5 m and it must not be extended.

6. Installation

Observe the maximum distance between the wall control unit and power socket of 0.6 m.
The wall control unit must be installed at a height of at least 1.6 m.

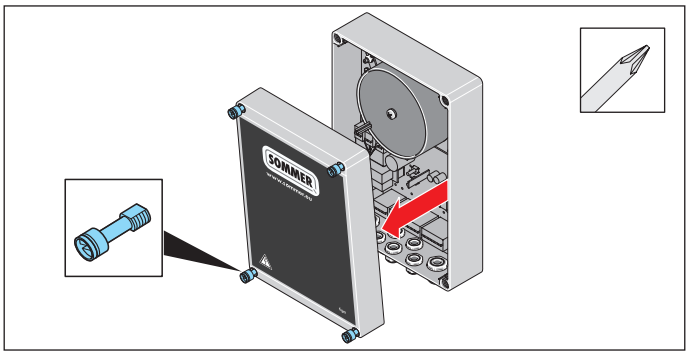


Fig. 2

2. Loosen the four screws of the control unit housing and remove the cover.

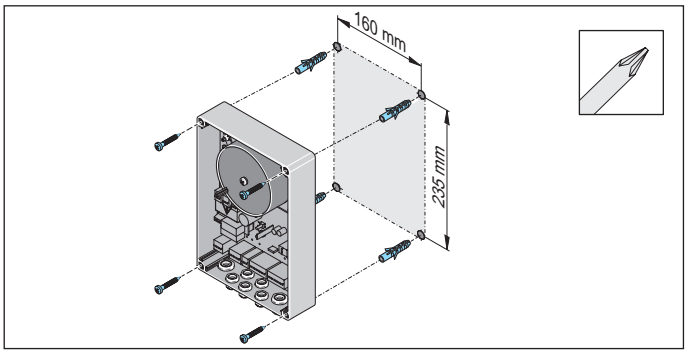


Fig. 3: Installation example

⚠ WARNING

Risk of eye injury!

Chips flying when drilling may cause serious injuries to eyes and hands.

► Wear safety glasses when drilling.

3. Transfer the fixing points to the substructure.
Drill four holes, Ø 6 x 50 mm deep.
Insert the four anchor fittings.
Affix the wall control unit with four screws, align the unit and firmly tighten the screws.

4. Securely lay the control cable of the plug-in unit up to the wall control unit and secure to prevent displacement.

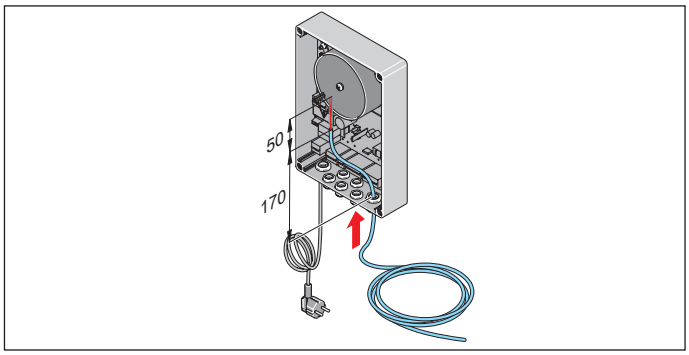


Fig. 5

5. Lead the control cable into the wall control unit through the cable inlet.
Shorten the control cable to no more than 220 mm in length. Uncover the last 50 mm and strip the wires.

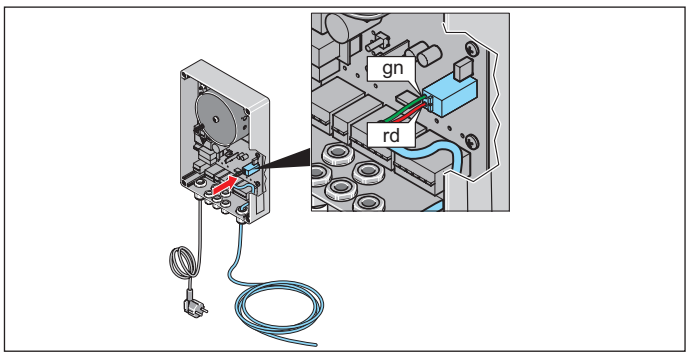


Fig. 6

6. Lay the control cable up to the **gn/rd** terminal.
Connect the **green** wire of the control cable to the **gn** terminal.
Connect the **red** wire of the control cable to the **rd** terminal.

7. Close the housing in reverse order.

⇒ Mounting of the operator is complete.

You can find other connection options such as buttons or warning light in Chapter **"11. Connections and special functions of the wall control unit"**.

7. Removing and fastening covers

7.1 Cover of carriage

Observe in particular the following safety instructions for this chapter.

⚠ 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 a LED.

⚠ 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 operator to cool before removing the cover.

Removing cover

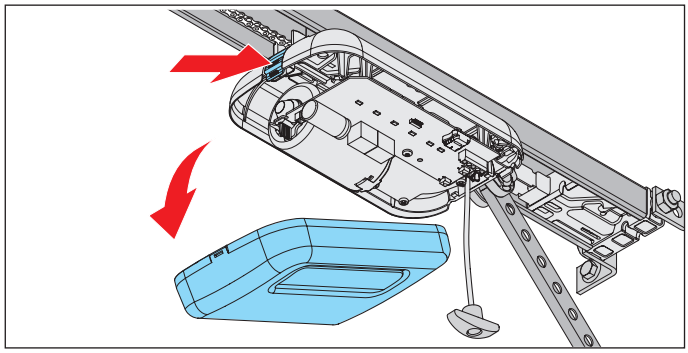


Fig. 1

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

Installing cover

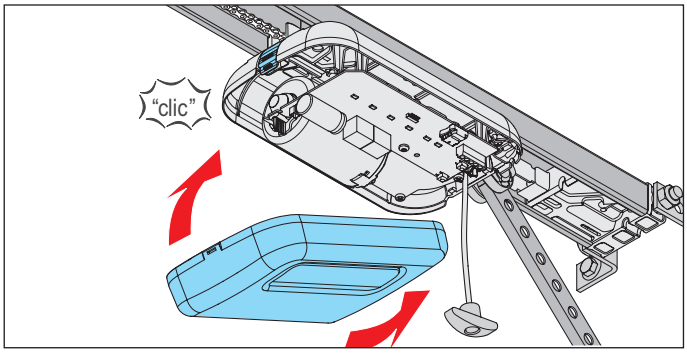


Fig. 1

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

7. Removing and fastening covers

7.2 Cover hood of wall control unit

Removing the cover hood

⚠ 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 operator must be disconnected from the mains voltage before working on it.
- ► If a battery pack is connected, disconnect it from the wall control unit.
- ► Then check that the operator is disconnected from the power supply and secure it from switching on again.

⚠ 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 operator to cool before removing the cover.

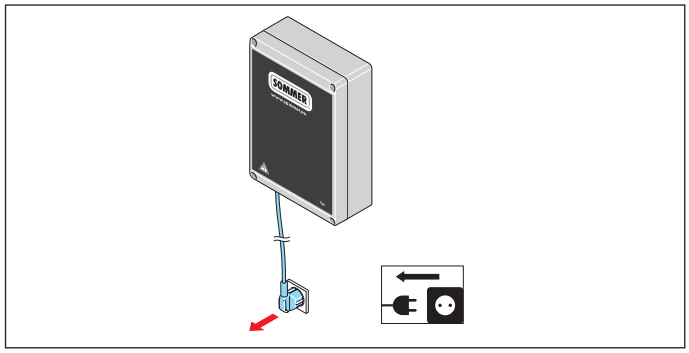


Fig. 1

1. Disconnect the operator from the mains voltage. Check that the operator is disconnected from the power supply.

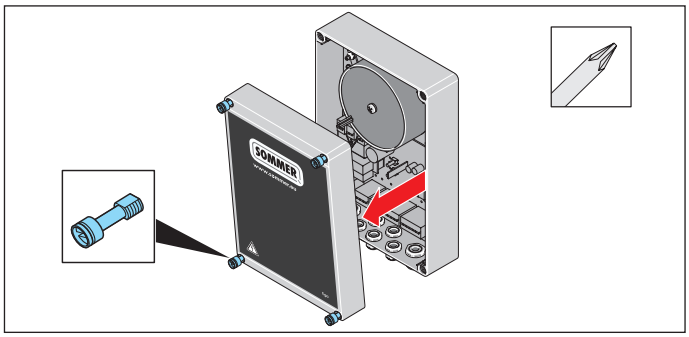


Fig. 2

2. Loosen the four screws of the control unit housing and fold the cover to the side.
3. If a battery pack is used, it must also be disconnected, see Chapter **"11.10 Installing and removing battery pack"**.

Installing the cover

1. After working on the wall control unit, replace the cover in reverse order.
2. Connect the operator to the mains voltage. Check that the power supply is connected.

   ⇒ The operator is supplied with voltage.

8. Electrical connection and special functions

8.1 Connection to mains voltage

The direct connection of the wall control unit to a all-pole line disconnecter, e.g. a main switch or a power socket, must be secured. Local and national regulations (e.g. VDE) must be observed.

The installation of the operator to the mains voltage must be carried by **trained electricians** only.

People under the influence of drugs, alcohol, or medications that can influence their ability to react may **not** work on the operator.

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**.
- ► Before commissioning, ensure that the mains voltage of the power source corresponds with the voltage listed on the operator type plate.
- ► Do not connect the mains voltage until mounting is complete.
- ► If a battery pack must be connected, establish the connection to the battery pack as the final step.
- ► Then check that the operator is disconnected from the power supply.

NOTE

Do not connect the wall control unit to the mains voltage until installation is complete to prevent damage to the operator.

INFORMATION

All devices to be connected externally must have a safe isolation of the contacts from the mains voltage supply according to EC 60364-4-41.
Wiring for external devices must be installed in accordance with IEC 60364-4-41.
All electrical wiring, even the control cable, must be firmly secured to prevent displacement.

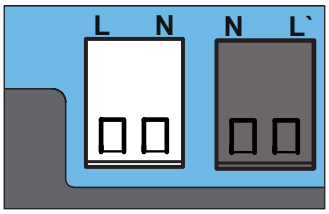


Fig. Mains connection

Connection to the mains voltage must not be established until mounting is complete. The connection to the battery pack is the last.

INFORMATION

In order to connect a power socket to a all-pole line disconnecter, e.g. a main switch, the wall control unit must be installed as follows:

- the supplied network cable is about 0.7 m long and must not be shortened or extended.
- easily visible and accessible

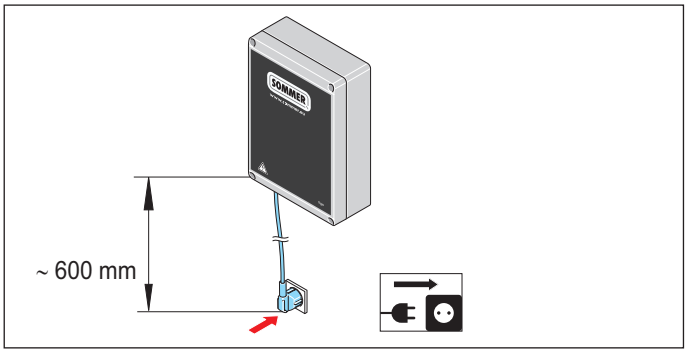


Fig. Distance of wall control unit to power socket

Note that the distance between the wall control unit and the power socket must not exceed 0.6 m.

9. Commissioning

9.1 Safety information for commissioning

Observe in particular the following safety instructions for this chapter.

⚠ 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.
- ► 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 operator in direct view of the door.
- ► All danger zones must be visible during the entire door operation.
- ► 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 runs along the track.
- ► Only pass through the door only once it is completely open and the traffic light has given access authorisation.

⚠ 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 a LED.

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.

INFORMATION

The control unit detects a short-circuit between chain and track and then switches the operator off.

INFORMATION

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

9. Commissioning

9.2 Initial operation

Before initial operation, read this chapter with special care to ensure that you can make the adjustments to the operator safely and optimally.

⚠ 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.
- ► The operator may only be operated if a non-hazardous force value has been set.
- ► The force setting must be low enough to ensure that the closing force poses no risk of injury.

NOTE

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

INFORMATION

The force setting must be checked after installation of the operator, see also Chapter "12.1 Testing obstacle detection".

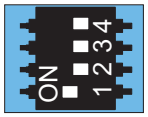
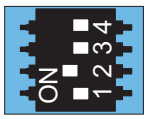
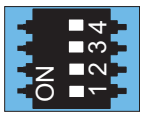
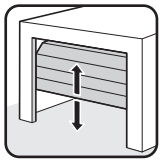
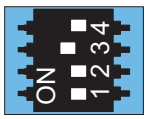
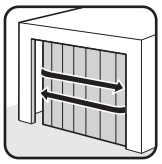
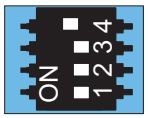
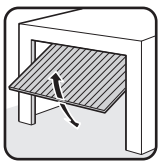
The operator may only be used:

- in combination with door types in the reference list which can be found at:

http://som4.me/cgdo

For compliance with EN 13241-0 before initial operation, the door type must be selected and set on the carriage with the DIP switch.

The factory setting of the DIP switches is OFF, which is applicable for sectional doors.

DIP switch on carriage	ON	OFF
1 	Automatic closing function activated	Automatic closing function deactivated
2 	Partial opening activated	Partial opening deactivated
3+4 		
3 		
4 		

The carriage has an automatic force setting. The carriage automatically memorizes the required force during the door OPEN and CLOSE door movements and stores it when the end positions have been reached.

INFORMATION

If a photo eye is connected for door CLOSE and detected by the control unit, the close function is automatically activated. The position of DIP switch 1 on the carriage is independent of this.

9. Commissioning

INFORMATION
During initial operation:

- Stay in the garage, particularly when programming.
- Power deactivation is not yet coordinated to the door and the operator is in the programming phase.
- The traffic lights light up red in the interior and the exterior.

INFORMATION
The operating forces can be modified and adjusted with SOMlink and a WLAN-enabled device.

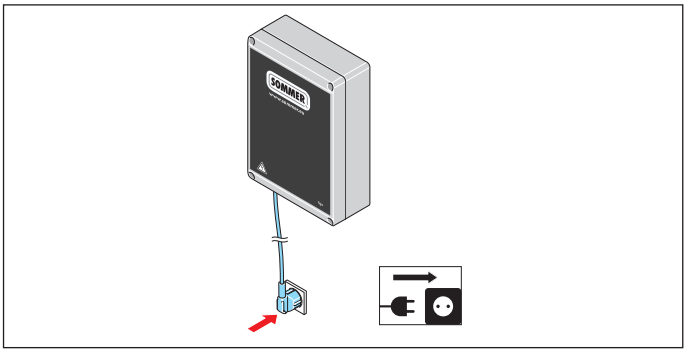


Fig. 1

1. Match the existing mains voltage with the type plate.
   Connect the operator with the mains voltage.
   Check that the power supply is connected.
   ⇒ The status LED of the carriage flashes green.
   ⇒ Operator ready for commissioning.

INFORMATION
Depending on which accessories are connected, additional LEDs light up for the respective state on the circuit board of the control unit.

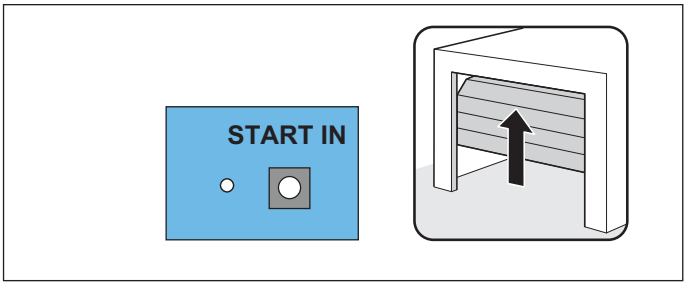


Fig. 2

2. After the operator has been connected to the main voltage, its first movement after a pulse is always door OPEN.
   Press the START IN button on the tiga control unit.
   ⇒ The carriage moves slowly to the door OPEN end position and **automatically** switches off at the guide idler.
   ⇒ The operator lighting flashes.

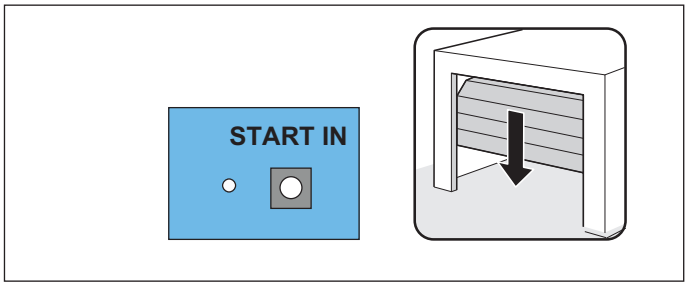


Fig. 3

3. Press the START IN button on the tiga control unit again.
   ⇒ The carriage moves slowly in the door CLOSE direction.
   ⇒ The operator lighting flashes.
   The carriage switches off **automatically** when it reaches the factory-set closing force at the door CLOSE end position.
   ⇒ The operator lighting flashes in a different sequence.

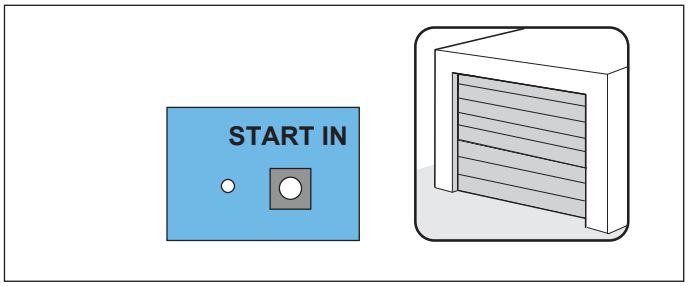


Fig. 4

4. Press the START 1 button on the tiga+ control unit **briefly** (< 1 second) to save the end position.
   ⇒ The operator lighting flashes briefly in a fast sequence.
   The operator automatically starts its programming process:
   ⇒ The carriage moves **automatically** to the door OPEN end position and programs the required operating force.
   ⇒ The carriage **automatically** moves to the door CLOSE end position.
   If necessary, the carriage moves over the path several times for programming with a greater door weight.

⇒ The carriage **automatically** moves briefly in the door OPEN direction to program the soft running.

⇒ The door **automatically** returns to the door CLOSE end position.

⇒ The carriage **automatically** moves to the door OPEN end position.

⇒ The LEDs of the operator lighting remain **steady**.

⇒ **Operator is programmed and ready for use.**

⇒ If a photo eye is connected, PHOTO 1 for door CLOSE, the door automatically closes after the open holding and clearing time run out.

INFORMATION
The carriage stops if the door is difficult to move. The door mechanism must be checked, see Chapter "9.3 Detecting obstacles during force programming run".

It may be necessary to adjust the end positions.
See Chapter **"9.4 Mechanical adjustment of the end positions"**.

9.3 Detecting obstacles during force programming run

If the door detects an obstacle during the door OPEN and door CLOSE door movements and the force programming run cannot be completed, the door stops.

NOTE
Check the movement path, mechanism, spring tension and the weight compensation to prevent damage to the door system.

1. **Press** the START IN button on the control unit and **keep it pressed**.
   ⇒ The carriage **jerks briefly** and moves in the door CLOSE direction until the **desired end position** has been reached.
2. Release the Start IN button.
3. **Fine adjustment:**
   Press the START IN button on the control unit and keep it pressed until the carriage **jerks briefly**. Release the Start IN button.

3.1 The process can be repeated until the desired end position is reached.
Press the START IN button on the control unit **briefly** (< 1 second) to save the door CLOSE end position.

⇒ The carriage starts the **automatic** force programming run to the door OPEN end position.

⇒ The carriage starts the **automatic** door CLOSE force programming run.

If an obstacle is detected again, the carriage stops and reverses a short distance.

1. **Press** the START IN button on the control unit and **keep it pressed**.
   ⇒ The carriage starts without jerking, because the end position of door is already saved.
   ⇒ The carriage moves to the end position.
2. Release the START IN button on the control unit.
3. **Briefly** press the START IN button on the control unit.
   ⇒ **Restart automatic force programming runs.**
   ⇒ On completion of the force programming runs the carriage **automatically** moves to the door OPEN end position.
   ⇒ The LEDs of the operator lighting remain **steady**.
   ⇒ **Operator is programmed and ready for use.**

9. Commissioning

9.4 Mechanical adjustment of the end positions

Increasing the closing pressure of the end position for door CLOSE

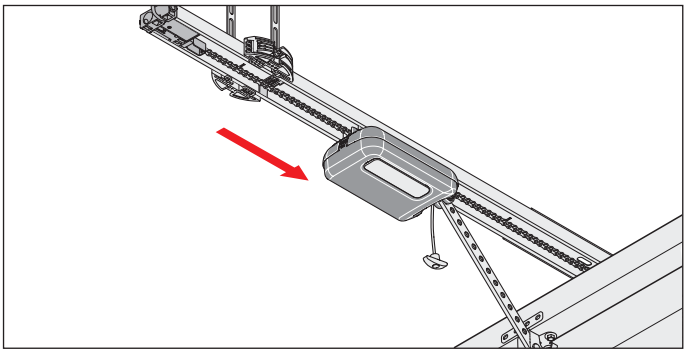


Fig. 1

1. Loosen the screw on the guide idler and move the guide idler a few millimetres towards door CLOSE. Re-tighten the screw.
2. The function of the emergency release must be checked in the door CLOSE end position. Unlocking must be possible.

Reducing the closing pressure of the end position for door CLOSE

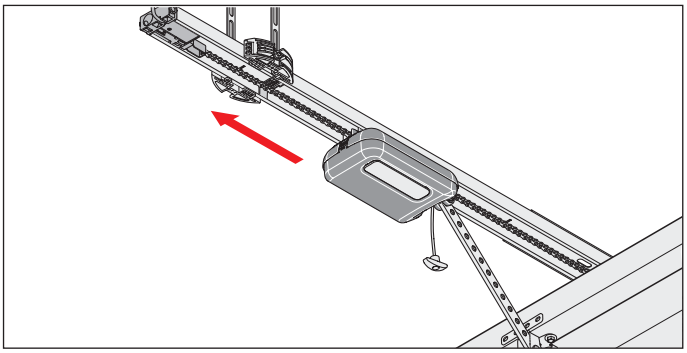


Fig. 1

1. Loosen the screw on the guide idler and move the guide idler a few millimetres towards door OPEN. Re-tighten the screw.

NOTE

Do not push the door to the mechanical stop. Otherwise the operator pulls the door against the mechanical stop. This will apply tension to the door and it may be damaged.
A clearance of about 30 mm is required.

9.5 Attaching information sign and warning signs

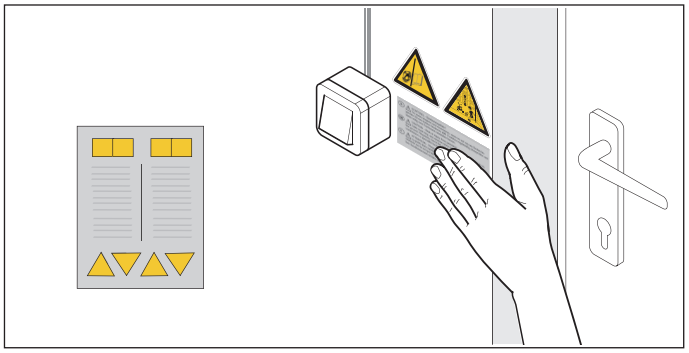


Fig. 1.1 Attach sticker near the stationary control or control unit

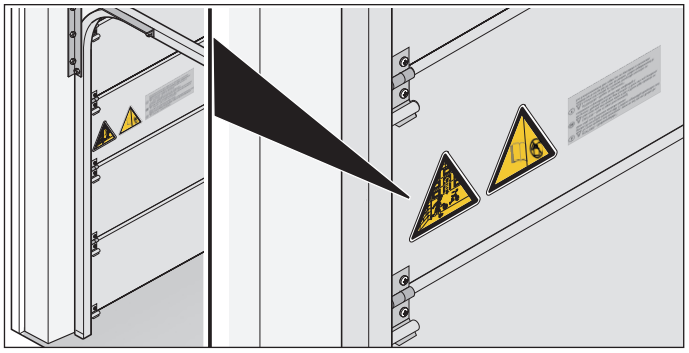


Fig. 1.2 Attach ticker on door panel

1. Attach the warning signs and information sign.
   - near the stationary control or control unit
   - at eye level at a highly visible section of the door wing
   - far from moving parts
2. Run obstacle detection, see Chapter **"12.1 Testing obstacle detection"**.

   ⇒ **Initial operation is complete.**

10. Connections and special functions of the carriage

10.1 Carriage circuit board

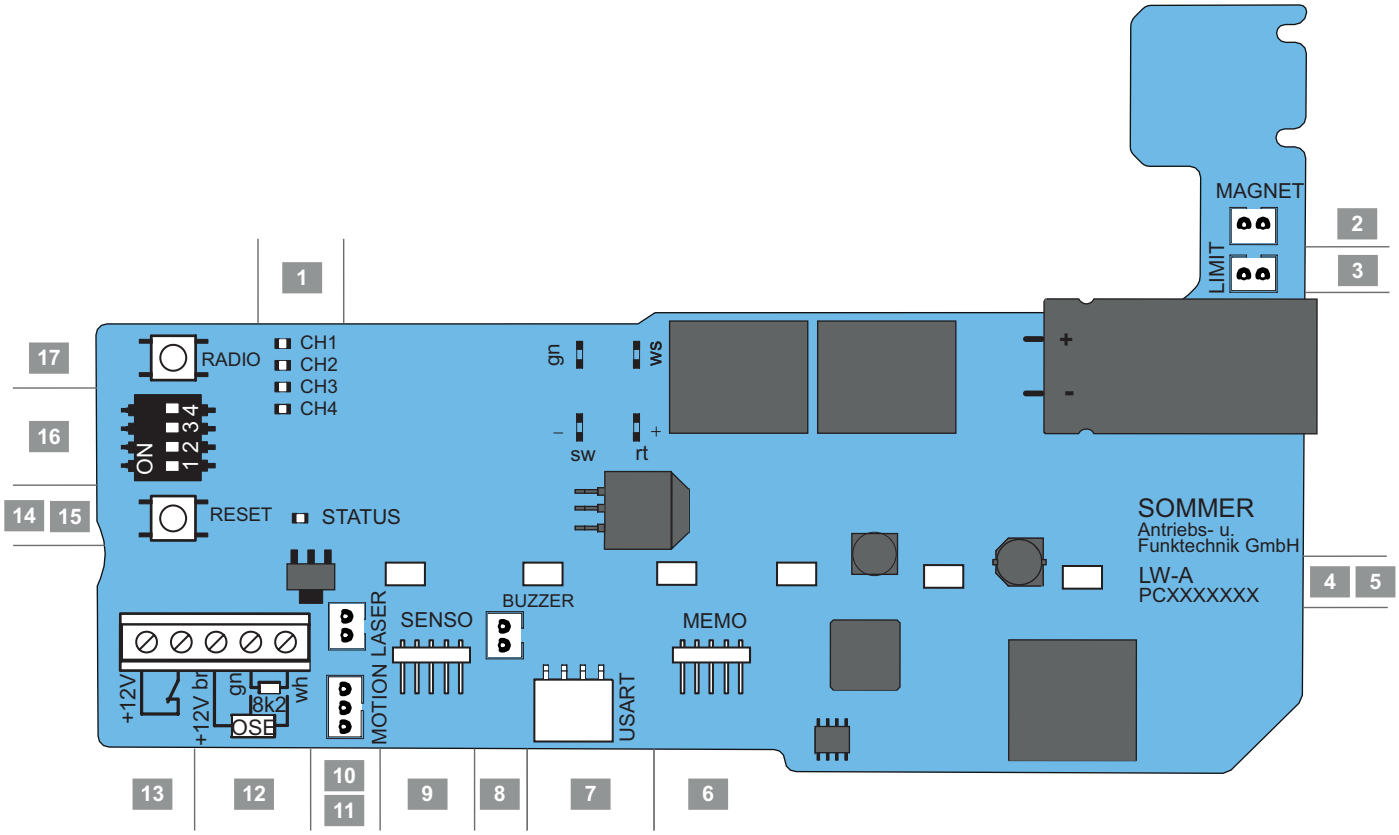


Fig. Carriage circuit board

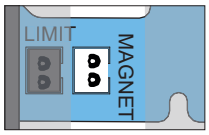
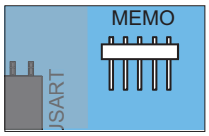
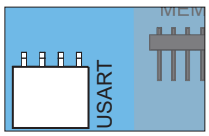
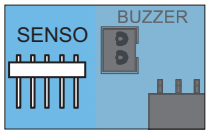
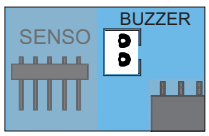
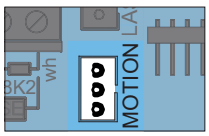
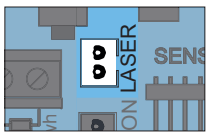
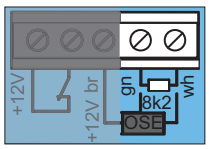
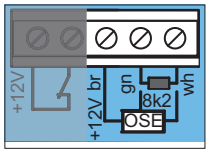
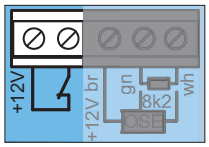
Overview of connection options

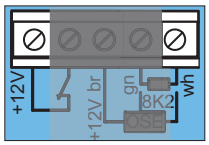
1.	LED, CH 1–CH 4, red Display for radio channel	10.	LASER slot, white Parking position laser terminal
2.	MAGNET slot, green Lock terminal	11.	MOTION slot, white, 3-pin Terminal for movement sensor
3.	LIMIT slot, blue End switch terminal (OPEN)	12.	Terminal for safety contact strip 8k2, OSE
4.	Circuit board label	13.	Terminal for safety contact for the slip door, potential-neutral
5.	LEDs, operator lighting	12./13.	Terminal +12 V DC, max. 100 mA
6.	MEMO slot Memo terminal (red housing)	14.	Status LED, green
7.	USART slot Interface	15.	Reset button, green
8.	BUZZER slot, black Warning or alarm buzzer terminal	16.	DIP switches
9.	SENSO slot Senso terminal	17.	Radio button, red

A connection diagram can be found in Chapter **"18. Connection diagrams and functions of the DIP switch for tiga"**.

10. Connections and special functions of the carriage

10.2 Connection options on the carriage

Circuit board section	Function/application example
	MAGNET slot, green Lock terminal locking magnet
	**MEMO slot** Memo terminal (red housing) memory expansion for 450 transmitter commands
	**USART slot** Terminal, e.g. home automation module
	**SENSO slot** Terminal for Senso humidity sensor
	**BUZZER slot**, black Terminal for warning or alarm buzzer
	**MOTION slot**, white Terminal for movement sensor
	**LASER slot**, white Terminal for parking position sensor
	**Safety contact strip 8k2 terminal**
	**OSE safety contact strip terminal** +12 V = br Signal = gn GND = wh
	**Slip door safety device terminal** (Slip door switch, Reed contact etc.) potential-neutral contact command (12 V DC, 10 mA) NC contact

Circuit board section	Function/application example
	**Output 12 V** DC, max. 100 mA + 12 V, GND = wh Power supply for optional accessories, e.g. finger scanner

For more information on the accessories contact your specialist dealer or see:
www.sommer.eu

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 operator is disconnected from the power!
- ► The operator must be disconnected from the mains voltage before working on it.
- ► If a battery pack is connected, disconnect it from the wall control unit.
- ► Then check that the operator is disconnected from the power supply and secure it from switching on again.

10. Connections and special functions of the carriage

10.3 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 a LED.

The illumination power of the LEDs of the operator lighting can be reduced during adjustment work on the carriage.

1. Press the radio or reset button briefly one time.
   ⇒ Illumination power of LEDs reduced.

10.4 Explanation of radio channels

LED	radio channel	Setting/function
1	CH 1	Multi-function relay/lighting
2	CH 2	Partial opening
3	CH 3	**Exterior** request side
4	CH 4	**Interior** request side

INFORMATION
If you want the lighting function via the two multi-function relay, this function must be configured via SOMlink, a WLAN-enabled device and the Memo tiga.

10.5 Programming the transmitter

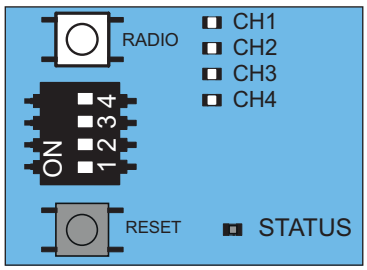


Fig. 1

INFORMATION
If no transmission command is received within 10 seconds of pressing the radio button, the radio receiver switches to normal operation.

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

LED				
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 command to the radio receiver.
3. Repeat the above steps to program additional transmitters.

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

If the memory capacity has been reached

All 40 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 space is needed, see Chapter **"10.6 Information on Memo"**.

10.6 Information on Memo

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.

10. Connections and special functions of the carriage

All radio channels, including the memory of the Memo, can be deleted, see Chapter **"10.11 Deleting all radio channels in the receiver"**.

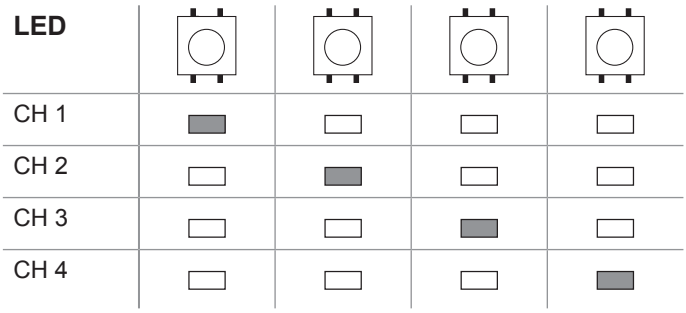
INFORMATION
Delete the Memo on a new operator. Otherwise, all stored transmitters of an operator are deleted and must be reprogrammed.

10.7 Cancelling programming mode

1. Press the radio button until all LEDs are out or make no input for 10 seconds.
   ⇒ Programming mode is cancelled.

10.8 Deleting a transmitter button from the radio channel

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



   ⇒ 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 radio command is to be deleted in the radio receiver.
   ⇒ LED goes out.
   ⇒ The deletion procedure is ended.

Repeat the process for additional buttons as required.

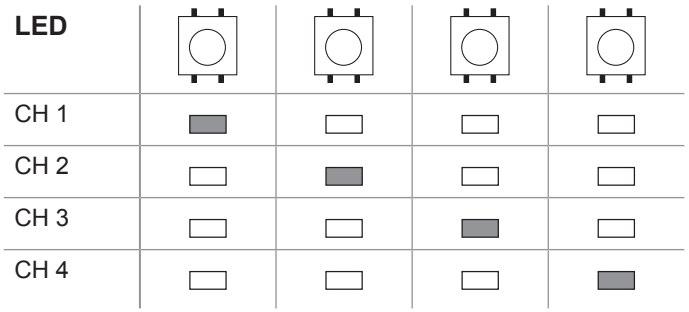
10.9 Deleting transmitter completely from the receiver

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

Repeat the process for additional transmitters as required.

10.10 Deleting radio channel in the receiver

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

10. Connections and special functions of the carriage

10.11 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 radio channel remains steady.
   ⇒ After another 5 seconds all LEDs light.
2. Release the radio button.
   ⇒ All LEDs are off after 5 seconds.
   ⇒ All programmed transmitters are deleted from the receiver.
   ⇒ Receiver is completely deleted, this also applies if the Memo is plugged in.

10.12 Programming a second transmitter by radio (HFL)

Prerequisites for teach-in by radio

A handheld transmitter must already be programmed on the radio receiver. The handheld 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 handheld transmitter and the new handheld 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 handheld transmitter (A).
   ⇒ The newly-programmed transmitter (B) adopts the key assignment of transmitter (A): Button 1 on radio channel 1 and button 2 on channel 2.

Restrictions

The targeted teach-in of a selected transmitter button on a radio channel is not possible.

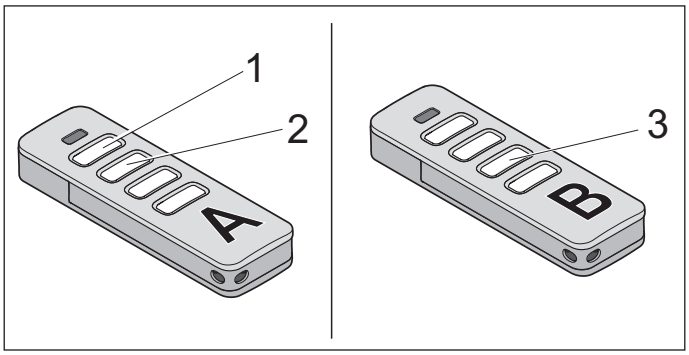


Fig. 1

1. Press buttons 1 + 2 of a programmed transmitter (A) for 3 - 5 seconds until the LED lights up on the transmitter.
   ⇒ The operator 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 handheld transmitter (B) to be programmed.
   ⇒ The LEDs of the operator lighting remain steady.
   ⇒ Handheld transmitter (B) has been programmed.

10.13 Resetting the control unit

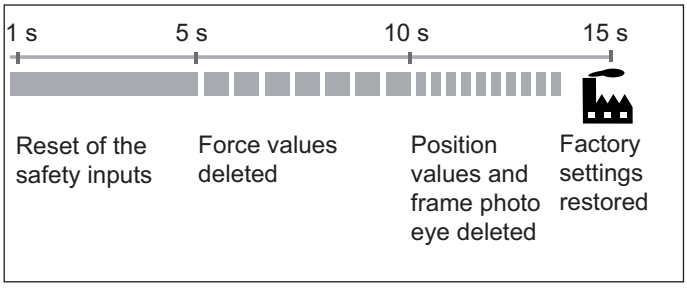


Fig. Overview of the time sequence of the carriage status LED when pressing the green reset button

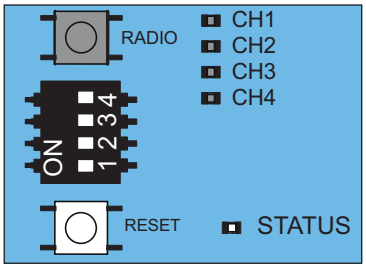


Fig. 1

10. Connections and special functions of the carriage

INFORMATION
All operator parameters are reset to the factory settings by a factory reset.
All settings by SOMlink and WLAN-enabled device are also reset.
The DIP switches can only be manually reset.

Reset of the safety device

1. Press the green reset button for 1 second.
   ⇒ Reset of the safety inputs.
   ⇒ Subsequently attached safety inputs are detected.

Deleting the force values

1. Press the green reset button on the carriage for 5 seconds until the green status LED flashes slowly.
   ⇒ Force values are deleted.

Deleting force and position values

1. Press the green reset button on the carriage for 10 seconds until the green status LED flashes quickly.
   ⇒ Force and position deleted.
   ⇒ Frame photo eye deleted.

Factory reset

1. Press the green reset button on the carriage for 15 seconds until the green LED goes out.
   ⇒ Factory settings are restored.

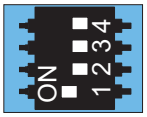
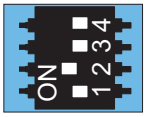
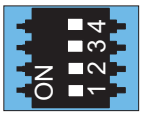
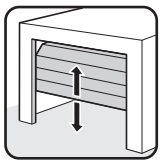
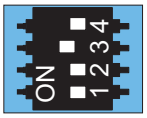
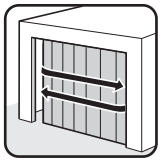
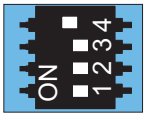
10.14 Setting the DIP switches on the carriage

Special functions can be set up with the DIP switches on the carriage.

For compliance with EN 13241-0 before initial operation, the door type must be selected and set on the carriage with the DIP switch.

The factory setting of the DIP switches is OFF, which is applicable for sectional doors.

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

DIP switch on carriage	ON	OFF
1 	Automatic closing function activated	Automatic closing function deactivated
2 	Partial opening activated	Partial opening deactivated
3+4 		
3 		
4 		

10.15 Setting the automatic closing function

When automatic closing is activated, the door is opened by a pulse.
The door moves to the door OPEN end position.
The door closes automatically after the open holding time. With the factory settings, the door also closes automatically from the partial opening position when the automatic closing function is activated.

If a photo eye is connected, the "Automatic closing" operating status is activated as a requirement.

10. Connections and special functions of the carriage

⚠ WARNING

Risk of injury during automatic closing!

Automatically closing doors can injure people or animals in the movement area of the door when the door is closing. Serious injury or death may result.

- ► 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 ceiling holder or the push arm.
- ► Do not drive through the door until it has been fully opened.

NOTE

If the door is not in view and the operator 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.

INFORMATION

The door opens completely if it hits an obstacle.

INFORMATION

Operation with automatic closing must comply with EN 12453. This is a legal requirement.
National regulations must be observed in non-European countries.
A photo eye must be connected.
Bridging the safety inputs with wire bridges is not permitted.

10.16 Open holding time

The open holding time is the time during which the door remains open after reaching the door OPEN end position until it automatically closes.
During the open holding time, the request side, which gave the open command, receives no light signal.
The open holding time is restarted after every additional command.
Example: If a command is sent while the operator is closing automatically, it opens completely and the open holding time is reset.

INFORMATION

The open holding time set at the factory is 30 seconds from the end position and 60 seconds from partial opening.
These values can be changed and set via SOMlink and a WLAN-enabled device.
Values in the range of 10-240 seconds can be selected for the open holding time.
The values are 1-255 seconds for partial opening.

1. The open holding time of the door is 30 seconds. Every new command within 30 seconds restarts the open holding time. The door OPEN end position is reached by pressing button 1 on the transmitter. The door movement cannot be stopped with the transmitter.
2. The door closes automatically after 30 seconds. The closing movement can be stopped by a command with the transmitter.

   ⇒ Door opens completely - after reversal of direction.
3. The door starts the closing process again after 30 seconds.

   ⇒ Door in door CLOSE end position.

INFORMATION

The factory setting is fully automatic closing with a set open holding time of 30 seconds. The open holding time begins after the door OPEN end position and the partial opening end position are reached.
When driving through the photo eye, the open holding time is shortened to 5 seconds.
This setting and the selection of semi-automatic closing can be adjusted via SOMlink and a WLAN-enabled device.

10. Connections and special functions of the carriage

10.17 Pre-warning time

In the pre-warning time, the red traffic light lights up red on both sides before opening or closing the door. The warning light and the operator lighting of the carriage also flash. No pre-warning time is activated in the factory settings.

INFORMATION
The pre-warning time can be separately activated and adjusted for door OPEN and door CLOSE with SOMlink and a WLAN-enabled device.
The setting range is 0-65 seconds.
The progress of the pre-warning time is displayed by the flashing operator lighting and the warning light.

10.18 Priority switching

Priority switching is used when entry from the exterior request side has a higher priority than that of the interior request side - for the exit. For example, when there is a very short entry and the car protrudes into the street.

If the interior request side has drive authorisation and a command comes from the exterior request side, the interior drive authorisation is terminated.
After the clearing time (factory setting: 10 seconds), the exterior request side receives drive authorisation. The traffic light in the interior lights up red.

INFORMATION
Priority switching can be activated and adjusted with SOMlink and a WLAN-enabled device.

10.19 Shortened open holding time for driving through the photo eye

Shortening of the open holding time after driving through the photo eye is activated in the factory settings and is 5 seconds.

⇒ Door is in the door OPEN end position.

⇒ The photo eye is crossed.

⇒ Shortening of the open holding time is now activated.
Door closes for 5 seconds after passing through photo eye.

INFORMATION
Shortening the open holding time can be deactivated and changed with SOMlink and a WLAN-enabled device.
The setting range is 5- 65 seconds. When shortening of the open holding time is deactivated, the set open holding time of the automatic closing function is restarted when driving through the photo eye.

10.20 Clearing time

The clearing time starts after the open holding time runs out. During clearing time, the traffic lights light up red and the drive lighting on the carriage also flashes.

Persons or vehicles which had access authorisation on the request side (interior/exterior) must clear the entrance during this time.

INFORMATION
The clearing time is 10 seconds (factory setting) and can be changed by SOMlink and a WLAN-enabled device.
The setting range is 1- 60 seconds.

10.21 12 V output

This output can be used for the power supply of external accessories. 12V DC max. 100 mA are available for them.

10. Connections and special functions of the carriage

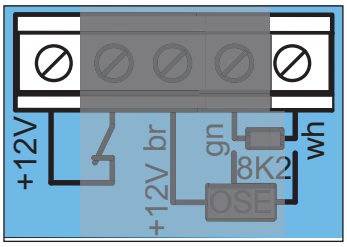


Fig. Output 12 V

Terminal block	Function
br = +12 V DC	Output 12 V DC, max. 100 mA
wh = GND	

External consumers can be connected in this operating mode, for example a finger scanner on the door panel. In this operating mode, power-saving mode is not available and must be deactivated, see Chapter **"13.5 Power-saving mode"**.

INFORMATION
Power-saving mode must be deactivated for this operating mode. Set DIP switch 3 on the wall control unit to ON.

10.22 Setting partial opening

A desired door opening can be selected with this function, e.g. for access for persons. The door does not open completely, but only to the set door OPEN end position.

INFORMATION
The specified partial opening can be from any position of the door.

INFORMATION
The automatic closing function can also be activated in order to program the partial opening function.

INFORMATION
When the door has reached the partial opening position, the traffic lights light up red on both sides of the door.

1. Close the door completely up to the door CLOSE end position.
2. Press the radio button repeatedly to select radio channel CH 2 and to program the partial opening function to the desired transmitter button.
3. Set DIP switch 2 on the carriage to ON.
4. Press the desired button on the transmitter for the partial opening function.
   ⇒ The door moves in door OPEN direction.
5. When the desired partial opening position has been reached, press the button on the transmitter.
   ⇒ The door stops at the desired position.
6. Press the button on the transmitter again.
7. The door moves to the door CLOSE end position.
   ⇒ The partial opening function is programmed.

10.23 Deleting partial opening

1. Set DIP switch 2 on the carriage to OFF.
2. Open the door completely up to the door OPEN end position.
   ⇒ Partial opening is deleted.

To program a new position see Chapter **"10.22 Setting partial opening"**.

10.24 Slip door safety device

The slip door safety device prevents operation of the door with open slip doors.

1. The slip door safety device must be installed so that the switch reliably detects the open door. Do not install the slip door safety device on the hinge side. Also see the separate **"Slip door"** installation instructions.
2. Connect the slip door safety device on the terminal block on the carriage. The contact command is at 12 V DC, 10 mA. The normally closed contact is potential-neutral.
3. Check the slip door safety device function.

10. Connections and special functions of the carriage

INFORMATION
If the slip doors are opened, the operator lighting on the carriage switches on. If the door closes, the operator lighting lights up for the set burning time and then switches off. The burning time can be changed with SOMlink and a WLAN-enabled device.

INFORMATION
If the slip doors remain open longer than 60 minutes, the operator lighting switches off automatically after 60 minutes. This value can be changed with SOMlink and a WLAN-enabled device.

INFORMATION
If the control receives a new command with the slip doors open, the LEDs of the operator lighting change from permanent to blinking light.

10.25 SOMlink

SOMlink makes it possible for qualified specialists to change many functions and settings on the door operator. These include force and speed values as well as operating parameters and other convenient functions.

If you would like to make changes, contact your specialist dealer.

INFORMATION
SOMlink is a combination of an additional device and a web-based application for changing door operator functions.
Since safety-relevant values can also be changed, SOMlink is only sold to qualified specialists.
All changes to settings by the SOMlink are logged.

INFORMATION
All operator parameters are reset to the factory settings by a factory reset. All settings by SOMlink and WLAN-enabled device are also reset.
The DIP switches can only be manually reset.

11. Connections and special functions of the wall control unit

11.1 Wall control unit circuit board

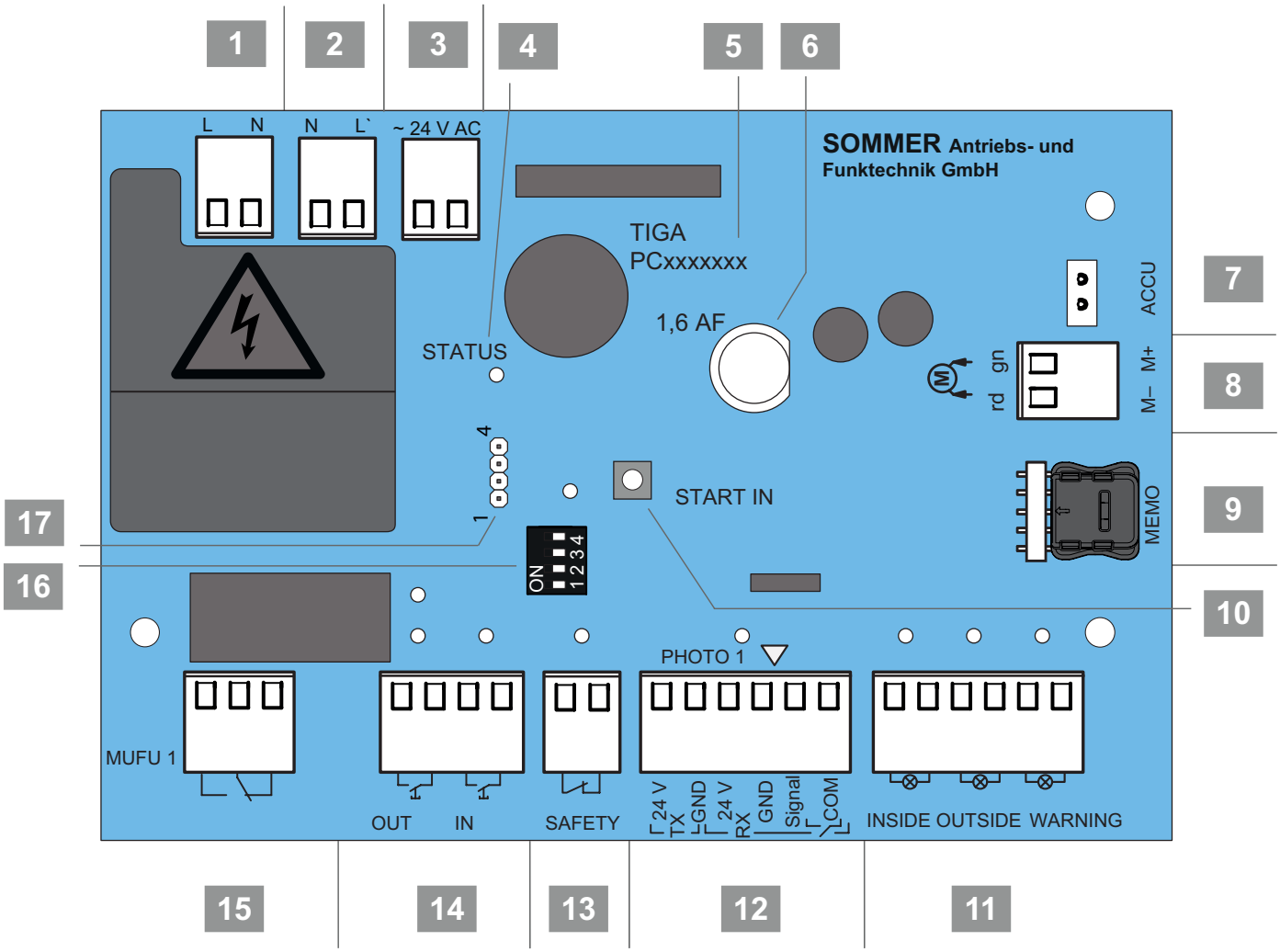


Fig. Wall control unit circuit board

11. Connections and special functions of the wall control unit

Connection options to the wall control unit

1	2-pin terminal block Supply voltage 220 - 240 V AC 50/60 Hz	10	Start IN Start button for interior
2	2-pin terminal block Transformer primary side 220 - 240 V AC 50/60 Hz	11	6-pin terminal block • Traffic light for red, interior, with status LED, red 24 V DC, max. 7 W • Traffic light for red, exterior, with status LED, red 24 V DC, max. 7 W • Warning light, with status LED, orange 24V DC, max. 3 W
3	2-pin terminal block Transformer secondary side 24 V AC	12	6-pin PHOTO 1 terminal block 2- or 4-wire photo eye (door CLOSE direction) 24 V DC, max. 100 mA, with status LED, orange
4	Status LED With status LED, green	13	2-pin SAFETY terminal block Potential-neutral, e.g.: for emergency stop with status LED, green
5	Circuit board label	14	4-pin IN/OUT button terminal block Potential-neutral • Interior request side • Exterior request side With status LED, orange
6	Glass fuse 1.6 AF	15	MUFU 1 terminal block Multi-function relay 1 potential-neutral changeover contact, max. 250 V AC, 5 A or 24 V DC, 5 A with status LED, green
7	ACCU slot Terminal for battery pack	16	DIP switches
8	2-pin terminal block **Chain and track** 24 V DC	17	Relay slot Switching capacity max. 250 V AC, 5 A or max. 24 V DC, 5 A with status LED, green
9	MEMO slot Memo tiga (black housing) mounted at the factory		

A connection diagram can be found in Chapter **"18. Connection diagrams and functions of the DIP switch for tiga"**.

11. Connections and special functions of the wall control unit

11.2 Connection options to the wall control unit

Observe in particular the following safety instructions for this chapter.

⚠ 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.
- ► All danger zones must be visible during the entire door operation.
- ► 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 operator to cool before removing the cover.

NOTE

Never lay the control cable along a power line. This can lead to malfunctions 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 track and then switches the operator off. If the short circuit is no longer present, the operator runs normally again.

INFORMATION

Control or regulating units in a fixed position must be mounted within sight of the door at a height of at least 1.6 m.

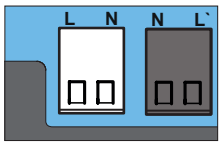
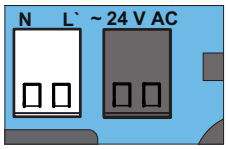
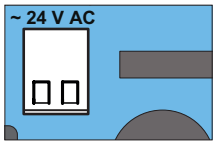
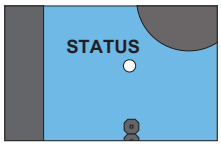
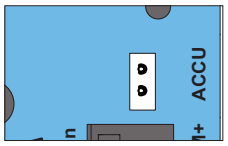
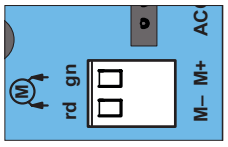
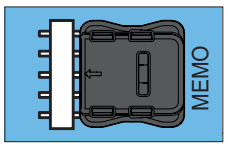
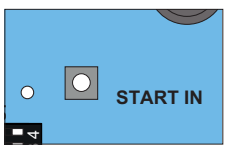
INFORMATION

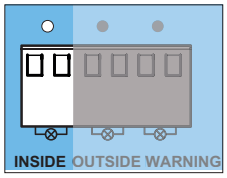
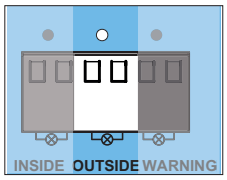
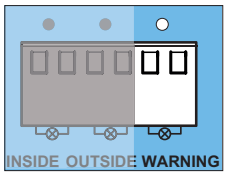
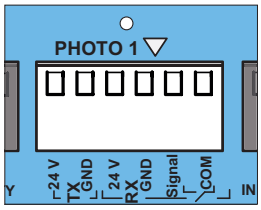
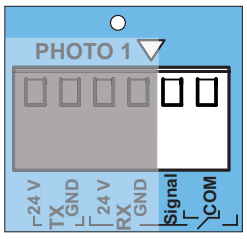
The power cable is approx. 0.7 m long.

INFORMATION

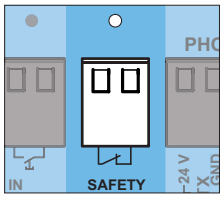
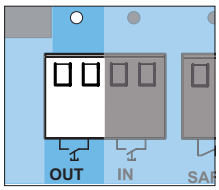
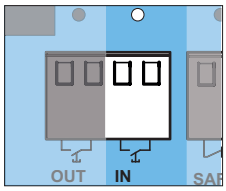
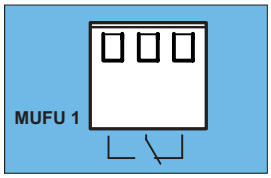
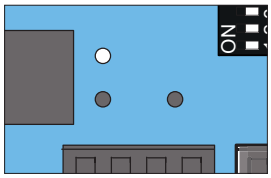
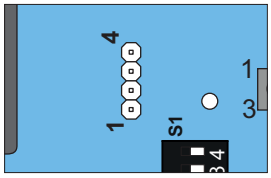
The maximum cable length for connected accessories is 25 m.

11. Connections and special functions of the wall control unit

Circuit board section	Function/application example
	2-pin terminal block Supply voltage 220–240 V AC 50/60 Hz
	2-pin terminal block **Transformer primary side** 220 - 240 V AC 50/60 Hz
	2-pin terminal block **Transformer secondary side** 24 V AC
	Status LED, green
	**ACCU slot** Terminal for battery pack
	2-pin terminal block **Chain and track** 24 V DC gn + = track rd – = chain
	**MEMO slot** Memo tiga (black housing) installed at the factory EEPROM for configuration data from multi-function relay 1 (MUFU1 and optional relay)
	Start IN Start button for interior with status LED, green

Circuit board section	Function/application example
Terminal block for traffic light and warning light, 6-pin	
	Traffic light for red, interior 24 V DC, max. 7 W with status LED, red
	Traffic light for red, exterior 24 V DC, max. 7 W with status LED, red
	Warning light 24 V DC, max. 3 W with status LED, orange
6-pin terminal block for PHOTO 1	
	**4-wire photo eye for door CLOSE** TX (transceiver) +24 V DC GND RX (receiver) +24 V DC GND Signal COM potential-neutral 24 V DC, max. 100 mA with status LED, orange
	**2-wire photo eye (SOMMER) for door CLOSE** Signal COM any polarity With status LED, orange

11. Connections and special functions of the wall control unit

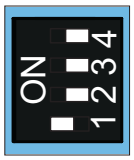
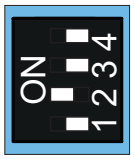
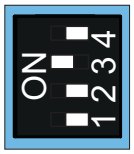
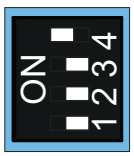
Circuit board section	Function/application example
2-pin SAFETY terminal block	
	2-pin SAFETY terminal block Potential-neutral, e.g.: for emergency stop with status LED, green
4-pin terminal for interior and exterior button	
	Button OUT for exterior Potential neutral, with status LED, orange
	Button IN for interior Potential neutral, with status LED, orange
MUFU 1 terminal block	
	**Multi-function relay 1** potential-neutral changeover contact, max. 250 V DC, 5 A or max. 24 V AC, 5 A
	With status LED, green
	**Relay slot** Switching capacity of the relay max. permissible 250 V AC, 5 A or max. permissible 24 V DC, 5 A

11.3 Setting the DIP switches on the wall control unit

Special functions can be set with the DIP switches on the wall control unit. All DIP switches are set to OFF in the factory settings.

NOTE

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

DIP switches on the wall control unit	ON	OFF
1 	Both red traffic lights are on when the door is closed	Both red traffic lights are off when the door is closed
2 	Door opens **immediately** with timer command, only with tiga+	Door does not open until after a pulse with a timer command, only with tiga+
3 	Continuous power to the complete system activated	Power-saving mode activated
4 	Door opens automatically if battery is low	Door does **not** open automatically if battery is low

11. Connections and special functions of the wall control unit

11.4 Information on Memo tiga

At the factory, the Memo tiga (black housing) is attached to the wall control unit in the Memo slot. It creates the configuration memory for the multi-function relay settings. Separate settings can be made in this way.

1. Disconnect the operator from the mains voltage. Check it is disconnected from the power supply.
2. Open the wall control unit, see Chapter **"7.2 Cover hood of wall control unit"**.

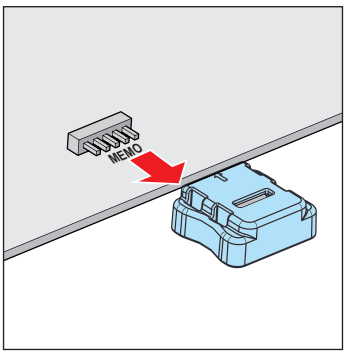


Fig. 3

3. Remove the Memo tiga from the wall control unit circuit board, see Chapter **"11.1 Wall control unit circuit board"**.

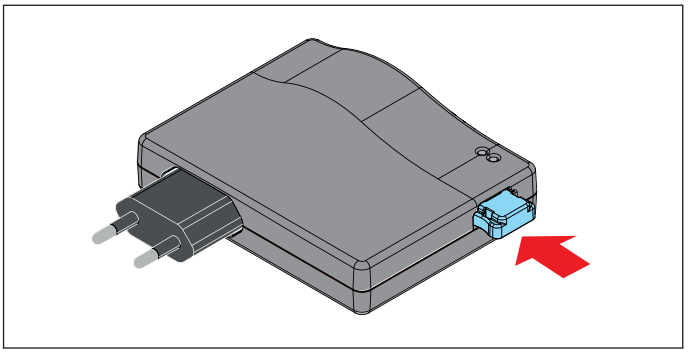


Fig. 4

4. Plug the Memo tiga into the provided slot on the SOMlink.
5. Connect the SOMlink to the mains voltage.
6. Establish a connection to SOMlink with a WLAN-enabled device, see separate SOMlink installation instructions.
7. Select and confirm the Memo tiga icon via the WLAN-enabled device.
8. Select the respective multi-function relay. Select and confirm the desired functions.
9. Disconnect the SOMlink from the mains voltage.

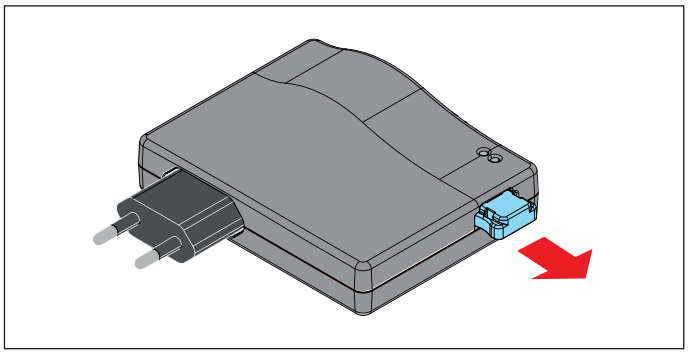


Fig. 10

10. Detach the SOMlink from the Memo tiga.

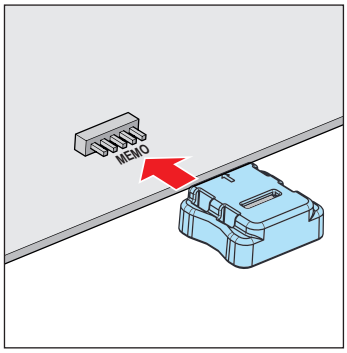


Fig. 11

11. Attach the Memo tiga onto the wall control unit circuit board.
12. Close the wall control unit, see Chapter **"7.2 Cover hood of wall control unit"**.
13. Connect the operator to the mains voltage. Check that the power supply is connected.
14. Check the settings made and adjust them if necessary.

11. Connections and special functions of the wall control unit

11.5 Multi-function relay - MUFU 1

The MUFU 1 multi-function relay can be used for various functions, such as additional exterior lighting or a door status display. In delivery condition from the factory, the multi-function relays outputs a pulse of 1 second every time the motor starts.

INFORMATION
The functions of the multi-function relay can be changed by SOMlink, a WLAN-enabled device and a Memo tiga.
10 additional configurations are available for the multi-function relay.
Time can also be set for timer operation.

Multi-function relay 1 - MUFU 1

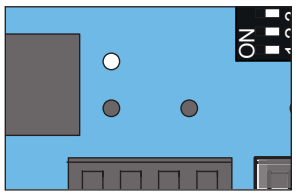


Fig. LED for MUFU 1

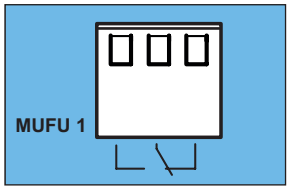


Fig. MUFU 1

The status LED for MUFU 1 lights up green when the relay is energised.

NOTE
Multi-function relay 1 contact is a potential-neutral changeover contact and may only be loaded with max. 250 V AC, 5 A or max. 24 V DC, 5 A.

The "Pulse for 1 second when starting motor" function is set at the factory:

⇒ Multi-function relay 1 outputs a pulse of 1 second every time the motor starts.

11.6 Relay

An additional multi-function relay can be attached at the Relay slot. Additional functions can be activated, e.g. exterior lighting or the door status display. The relay is an optional accessory.

INFORMATION
The functions of the multi-function relay can be changed by SOMlink, a WLAN-enabled device and a Memo tiga.
10 additional configurations are available for the multi-function relay.
Time can also be set for timer operation.

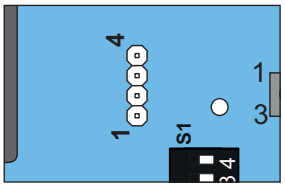


Fig. Relay slot

NOTE
The relay contact is a potential-neutral changeover contact and may only be loaded with max. 250 V AC, 5 A or max. 24 V DC, 5 A.

The following function is activated at the factory.

⇒ The relay activates for 1 second when the operator starts.

11.7 Photo eye and frame photo eye

Alternatively a 2-wire photo eye from **SOMMER Antriebs- und Funktechnik GmbH** or a 4-wire photo eye can be connected to the control unit. During commissioning, the control system automatically detects which version it is and sets itself to that version.

INFORMATION
If a photo eye is connected for door CLOSE and detected by the control unit, the close function is automatically activated. The position of DIP switch 1 on the carriage is independent of this.

INFORMATION
If a photo eye is retrofitted on a programmed system, the control system must be reset, see Chapter "10.13 Resetting the control unit".

INFORMATION
During commissioning of the photo eye or the frame photo eye, it must not be triggered by persons or objects.

11. Connections and special functions of the wall control unit

INFORMATION
If a photo eye is used as a frame photo eye on the door, move the door to the centre position.

2-wire photo eye for door CLOSE (PHOTO 1)

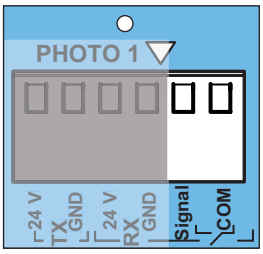


Fig. Terminal for 2-wire photo eye

Connect the 1- or 2-wire photo eye to the PHOTO 1 terminal block. The polarity is optional. The status LED (PHOTO 1) for door CLOSE lights up orange when the safety device has been detected by the control unit.

Terminal block	Function
Signal	2-wire photo eye, any polarity
COM	

The 2-wire photo eye (PHOTO 1) is interrupted in the door CLOSE direction:

⇒ Status LED flashes orange during the interruption.

⇒ The operator stops gently and opens the door completely.

⇒ The door closes automatically after the open holding and clearing time.

4-wire photo eye for door CLOSE (PHOTO 1)

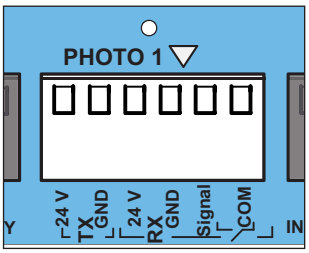


Fig. Terminal for 4-wire photo eye

Connect the 4-wire photo eye to the terminal block for door CLOSE (PHOTO 1). The supply for RX (Receiver) should be on the side facing away from the sun.

The status LED (PHOTO 1) for door CLOSE lights up orange when the safety device has been detected by the control unit.

	Terminal block	Function
TX (Trans-ceiver)	+24 V DC	Power supply
	GND	
RX (receiver)	+24 V DC	
	GND	
	SIGNAL	Potential-free relay contact
	COM	

The photo eye (PHOTO 1) is interrupted in the door CLOSE direction:

⇒ Status LED flashes orange during the interruption.

⇒ The operator stops gently and opens the door completely.

⇒ The door closes automatically after the open holding and clearing time.

Use as frame photo eye

1. Install the frame photo eye in the frame, see separate **"Frame photo eye"** installation instructions.
2. Align the frame photo eye and connect to the wall control unit.
3. Commissioning is performed as described in Chapter **"9. Commissioning"**.
   ⇒ If the door passes the frame photo eye, the illumination power of the operator lighting is reduced.
   If the illumination power is not reduced, the frame photo eye must be realigned and the control unit must be reset.
   ⇒ During commissioning, the operator learns the exact position of the frame photo eye in order to blank it out in normal mode shortly before reaching the door.
4. Check the frame photo eye function.Repeat the process if necessary.

11. Connections and special functions of the wall control unit

11.8 Connection options for control device

IN button and OUT button

External control devices can be connected to the control unit, for example buttons, pull buttons or key switches. A separate input is available for the interior and exterior request sides. The connection is potential-neutral.

IN button

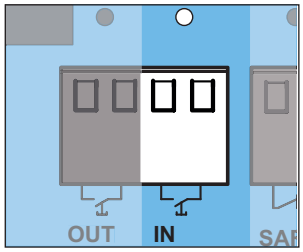


Fig. IN button

If the IN contact is activated, the command of the interior request side is executed:

⇒ Status LED lights up orange during the activation.

⇒ Operator opens the door to the door OPEN end position. Interior: Traffic light off.
Exterior: Red phase.

⇒ The door closes automatically after the open holding and clearing time.

OUT button

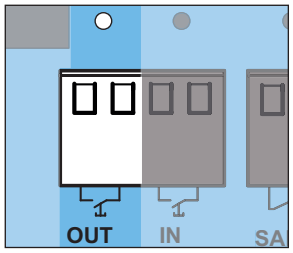


Fig. OUT button

If the OUT contact is activated, the command of the exterior request side is executed:

⇒ Status LED lights up orange during the activation.

⇒ Operator opens the door to the door OPEN end position.
Interior: Traffic light off.
Exterior: Red phase.

⇒ The door closes after the open holding and clearing time have run out.

11.9 Safety terminal

A potential-neutral NC contact can be connected to this terminal, for example an emergency stop.

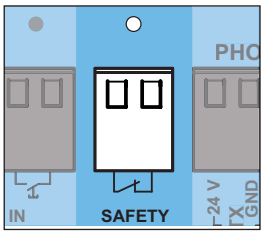


Fig. SAFETY access

The status LED for the SAFETY lights up green when the contact is closed.

If the SAFETY safety input is open, the operator stops during the door movement or no commands are executed.

⇒ Status LED on the control unit flashes.

Resetting the SAFETY safety input

1. Reset safety input
(close contact).
2. Execute a command using the button.

⇒ Door opens up to door OPEN end position.

⇒ The door closes automatically after the open holding and clearing time.

11. Connections and special functions of the wall control unit

11.10 Installing and removing battery pack

The battery pack can bridge approximately 5 cycles within 12 hours in the event of a power failure. If the factory settings are active, the door does not open if the battery is low. If DIP switch 4 on the wall control unit is set to ON, to door opens even if the battery is low.

Only a **qualified electrician** is permitted to install, test and replace the battery pack.

Follow the instructions in the separate **"Battery pack"** installation and operating manual.

NOTE

Only a genuine battery pack from SOMMER Antriebs- und Funktechnik GmbH may be used.

INFORMATION

Commissioning is not supported if the battery pack is the sole power supply. Mains voltage is required for commissioning the operator.

Installing and connecting battery pack

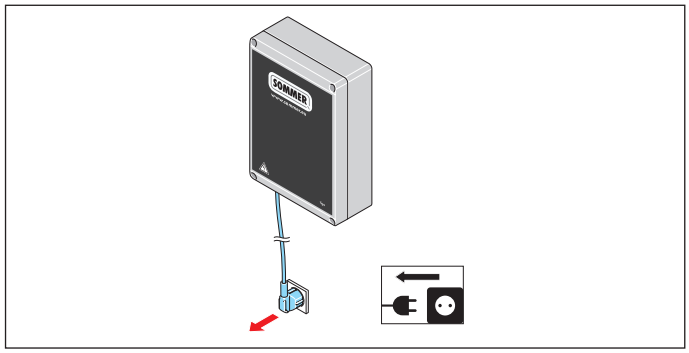


Fig. 1

1. Disconnect the operator from the mains voltage. Check that the operator is disconnected from the power supply.

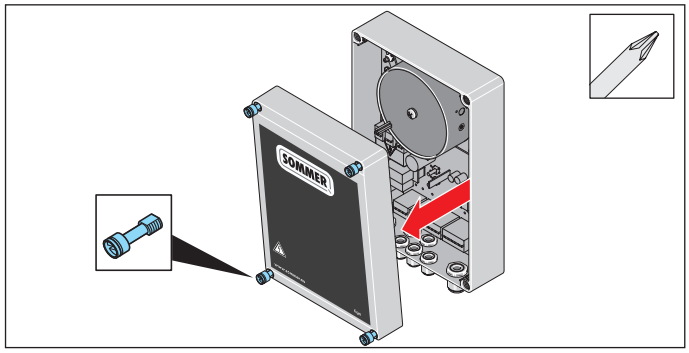


Fig. 2

2. Unscrew the screws on the control unit housing and remove the cover.

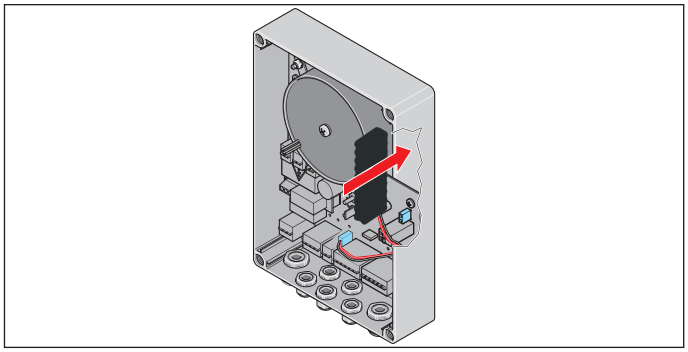


Fig. 3

3. Insert the battery pack into the provided position in the side of the control unit. If necessary, fasten the battery pack with adhesive strips, see the separate "Battery pack" manual.

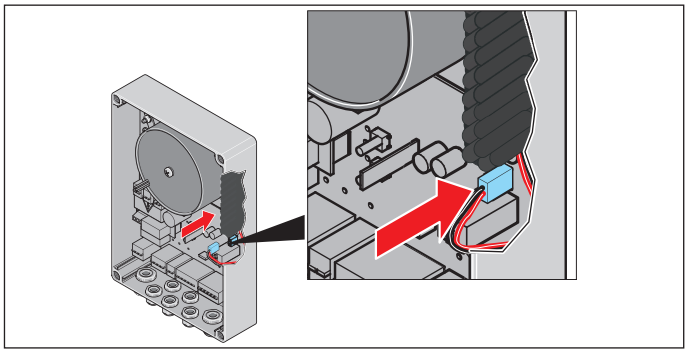


Fig. 4

4. Plug the connection cable into the battery pack and into the battery pack slot in control unit circuit board.
5. Press the transmitter button to check the operator function.
   ⇒ The operator is powered by the battery pack.
   ⇒ Operator opens or closes the door at reduced speed.
6. Supply the operator with the mains voltage. Check that the power supply is connected.

Unplugging and removing battery

The battery pack is removed in the reverse order, see Chapter **"11.10 Installing and removing battery pack"**, section **"Installing battery pack"**.

11. Connections and special functions of the wall control unit

⚠ DANGER

Danger of hazardous substances!

Improper storage, use or disposal of accumulators or batteries 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 old accumulators and batteries.
- ► Components of the operator as well as old accumulators and batteries must not be disposed of with household waste. They must be disposed of properly.

NOTE

Dispose of all parts in accordance with local or national regulations to avoid environmental damage.

INFORMATION

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 authorised recycling centre. The local and national regulations must be observed.

INFORMATION

Old batteries and battery packs must not be disposed of with household waste as they contain hazardous substances. These must be disposed of properly at municipal collection points or in the provided containers of the dealers. National guidelines must be observed.

12. Function test/Final test

12.1 Testing obstacle detection

Observe in particular the following safety instructions for this chapter.
After commissioning the operator, the force measurement of the operator must be checked with a force measurement device and an obstacle recognition test must be performed.

⚠ 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.

⚠ 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.

- ► The power cut-off does not operate below 50 mm.
- ► The photo eye function must be tested once a month.
- ► Only use the operator in direct view of the door.
- ► All danger zones must be visible during the entire door operation.
- ► 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 runs along the track.
- ► Only pass through the door only once it is completely open and the traffic light has given access authorisation.

NOTE

Observe the national standards, guidelines and regulations for cut-off of the operating forces.

NOTE

The obstacle detection must be tested once a month to prevent damage to the operator.

INFORMATION
After installation of the operator, the person responsible for the installation of the operator must complete an EC Declaration of Conformity for the door system in accordance with Machinery Directive 2006/42/EC and apply the CE mark and a type plate to the door system. This also applies if the operator is retrofitted to a manually operated door. All documents as well as the inspection book for the door, the installation and operating manual and the handover protocol must be retained by the user.

INFORMATION
Reversing: The operator stops on contact with an obstacle and then moves a bit in the opposite direction to release the obstacle.
In the automatic closing function the door opens completely if an obstacle is detected.

INFORMATION
The operating forces can be modified and adjusted with SOMlink and a WLAN-enabled device. For more information ask your specialist dealer.

After successful testing of the force settings, the obstacle recognition and the functions, the qualified specialist must attach the CE mark and type place on the door system.

The operator must reverse in the door OPEN direction when it is loaded with a weight of 20 kg. The weight is fastened in the centre of the bottom edge of the door for this purpose.

The door must immediately stop and reverse during the door CLOSE movement if it hits a 50-mm-high obstacle.

1. Open the door with the operator.
2. Place a 50-mm-high object in the centre of the door.

12. Function test/Final test

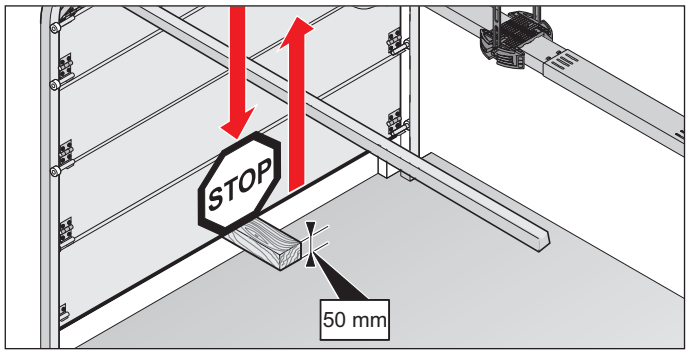


Fig. Example: Obstacle recognition on sectional door

3. Close the door with the operator.
   ⇒ If the door hits an obstacle, the operator must stop immediately and reverse.
   ⇒ The door opens completely at a pulse from the transmitter.
   ⇒ If the operator does not reverse, a position reset is required, see Chapter **"10.13 Resetting the control unit"**.
   The positions and the forces must be reprogrammed and tested by a trained specialist.

12.2 Handover of door system

The qualified specialist must instruct the user:

- on the operation of the operator and its dangers
- on the handling of the emergency release
- on regular maintenance which the user can execute
- on troubleshooting, see Chapter **"15. Troubleshooting"**

The user must be informed about which work must only be performed by a qualified specialist:

- installation of accessories
- settings
- regular maintenance, except that described in Chapter **"14. Maintenance and care"** and which can be performed by the user
- repairs
- troubleshooting, except that described in Chapter **"15. Troubleshooting"** and which must be performed by a qualified specialist

The inspection book for the door, this installation and operating manual, the handover protocol for the operator and the declaration of conformity created for the door system must be given to the user.

The following is available

- handover protocol for the operator
- EC Declaration of Conformity

At:

http://som4.me/konform

13. Operation

13.1 Safety information on operation

In particular, observe the following safety instructions and the safety instructions in Chapters **"14. Maintenance and care"** and **"15. Troubleshooting"**.

The operator must not be used by 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 instructions.

Children must never play with or use the operator, even under supervision. Children must be kept clear of the operator. Handheld transmitters or other control devices must never be given to children. Transmitters must be safely stored and protected from unauthorised use.

⚠ DANGER

Danger if not observed!

If safety instructions are not observed, serious injury or death may result.

► All safety information must be complied with.

⚠ DANGER

Danger due to use of the operator with incorrect setting or when it is in need of repair!

If the operator is used despite incorrect settings or if it is in need of repair, severe injury or death may result.

► The operator may only be used with the required settings and in the proper state.

► Faults must be repaired without delay.

⚠ 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.

► Keep clear of the movement area of the door.

► Pay attention to the movement of the door when the emergency release is actuated.

⚠ 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.

13. Operation

⚠ 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 operator in direct view of the door.
- ► All danger zones must be visible during the entire door operation.
- ► 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 runs along the track.
- ► Only pass through the door only once it is completely open and the traffic light has given access authorisation.

⚠ 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 a LED.

NOTE

If the weight compensation of door is incorrectly adjusted, the operator 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 tracks.

Defects must be repaired without delay by a qualified specialist.

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.

INFORMATION

Keep this installation and operating manual accessible at all times at the place of use.

13.2 Handover to the user

The user checks whether the CE mark and the type plate for the door system have been attached to the door by the qualified specialist.

The qualified specialist must instruct the user:

- on the operation of the operator and its dangers
- on the handling of the emergency release
- on regular maintenance which the user can execute

The user must be informed about which work must only be performed by a qualified specialist:

- Installation of accessories
- Settings
- Regular maintenance, except that described in Chapter **"14. Maintenance and care"** and which can be performed by the user
- Repairs
- Troubleshooting

13. Operation

The EC Declaration of Conformity created for the door system, the inspection book for the door, the installation and operating manual and the handover protocol for the door system must be given to the user.

The user is responsible for:

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

The user must always keep this installation and operating manual ready for consultation in the vicinity of the door system.

13.3 Operating modes of door movement

⚠ WARNING

Danger of crushing and shearing!
The door can be actuated by a button or another control device.
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.

- ► Keypads and other control devices must be installed and actuated within view of the door only.
- ► Keypads or other control devices may be used only if the movement of the door can be viewed directly.
- ► Persons or animals must not be in the range of movement of the door.

Opening the door system from the interior and exterior:

The sequence for a command from the exterior is described. Access authorisation for the interior and exterior is displayed by the traffic lights.

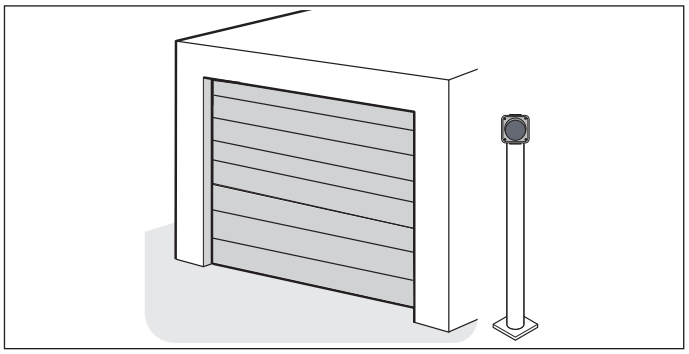


Fig. 1

1. The door stays at the door CLOSE end position.
Both sides: Traffic lights off.

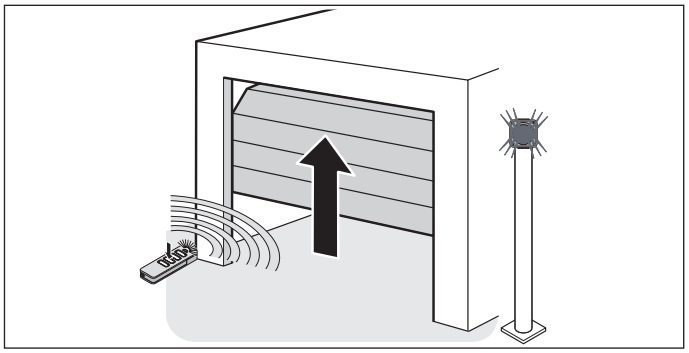


Fig. 2

2. A command from the interior or exterior (button, pull button or handheld transmitter) is given.

⇒ **Both sides:** Red phase.
Door may **not** be driven or passed through.

⇒ Operator moves to door OPEN end position.

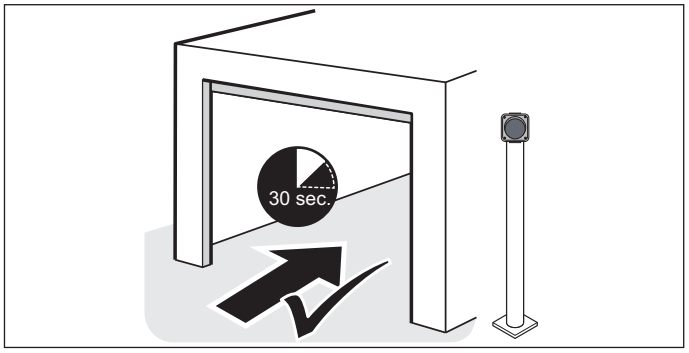


Fig. 3

3. Door is open. The set **open holding time** (factory settings: 30 seconds) starts.

⇒ **Request side:** Traffic light off.
Door may be driven or passed through.

13. Operation

⇒ **Opposite side:** Red phase.
Door may **not** be driven or passed through.

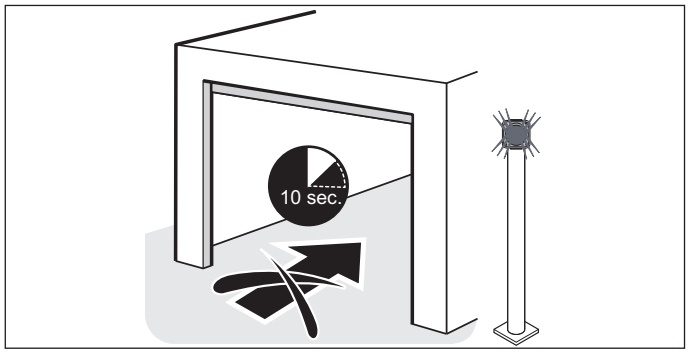


Fig. 4

4. The **clearing time** (factory settings: 10 seconds) is automatically initiated after the set open holding time runs out.

⇒ **Both sides:** Red phase.
Door may **not** be driven or passed through.

⇒ The door range must be cleared of persons and vehicles.

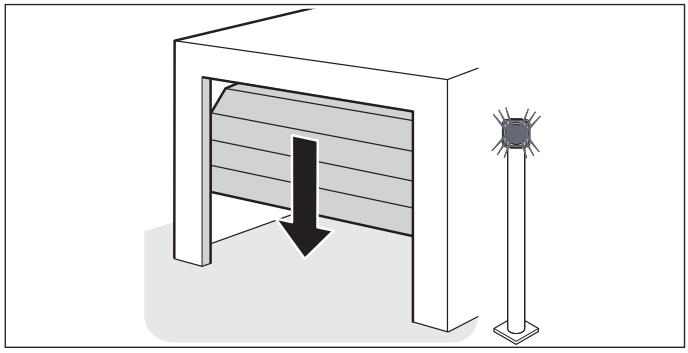


Fig. 5

5. The door closes automatically after the set clearing time.

⇒ **Both sides:** Red phase.
Door may **not** be driven or passed through.

⇒ The door range must be cleared of persons and vehicles.

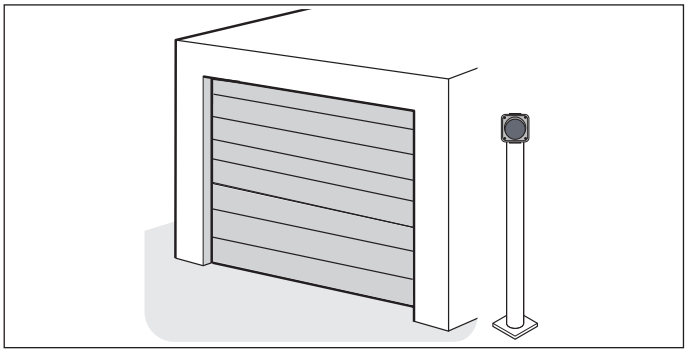


Fig. 6

6. After the door CLOSE end position has been reached, the traffic lights on both sides are switched off.

⇒ **Both sides:** Traffic lights off.

INFORMATION
If a command is given during the closing process, the operator stops.
The direction changes automatically and the operator opens the door completely.
The door closes automatically after the open holding and clearing time.

Opening the door from the interior and subsequent command from the exterior

Access authorisation for the interior and exterior is displayed by the traffic lights.

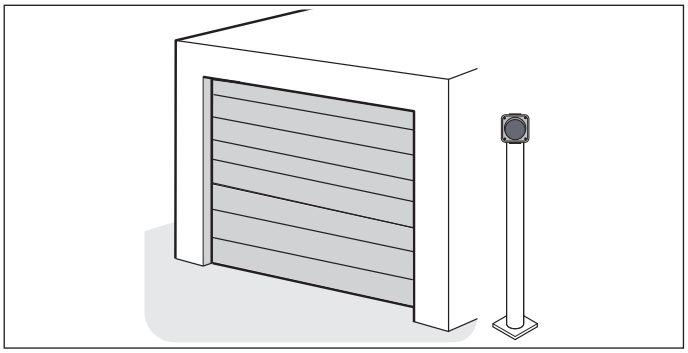


Fig. 1

1. The door stays at the door CLOSE end position.

⇒ **Both sides:** Traffic lights off.

13. Operation

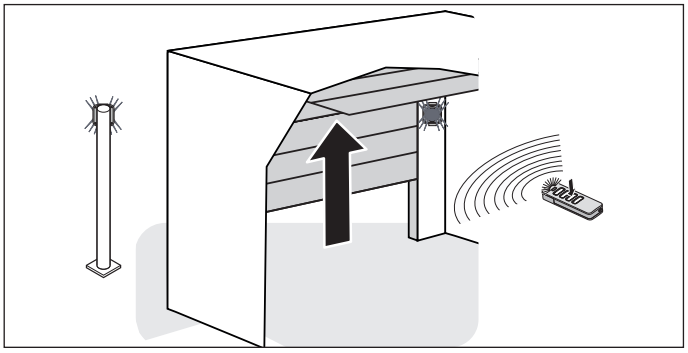


Fig. 2

2. A command (button, pull button or handheld transmitter) is given **from the interior**. While the door opens, an additional command is given from the **exterior**.

⇒ **Both sides:** Red phase.
Door may **not** be driven or passed through.

⇒ Operator moves to door OPEN end position.

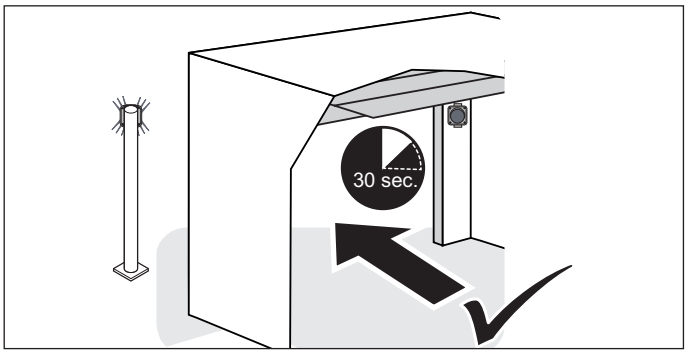


Fig. 3

3. Door is open. The set **open holding time** (factory settings: 30 seconds) starts.

⇒ **Request side, interior:** Traffic light off.
Door may be driven or passed through.

⇒ **Opposite side, exterior:** Red phase.
Door may **not** be driven or passed through.

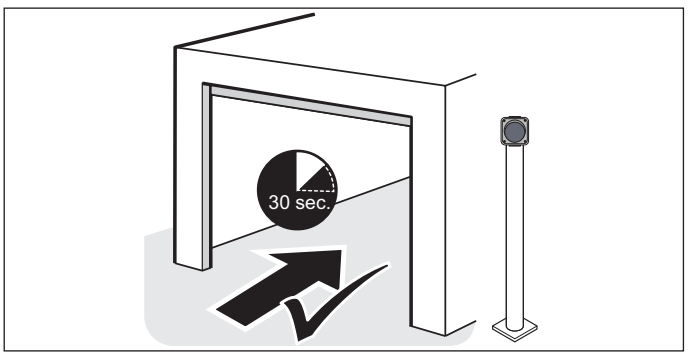


Fig. 4

4. The traffic lights are **automatically** switched after the open holding time (factory setting: 30 seconds) and the clearing time (factory setting: 10 seconds) run out. The request side and the opposite side are then exchanged.

⇒ **Opposite side, interior**: Red phase.
Door may **not** be driven or passed through.

⇒ **Request side, exterior:** Traffic light off.
Door can be driven or passed through from the **exterior** request side.

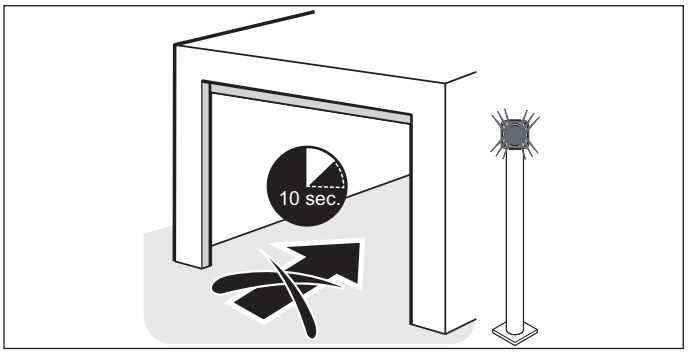


Fig. 5

5. The **clearing time** (factory settings: 10 seconds) is automatically initiated after the set open holding time runs out.

⇒ **Both sides:** Red phase.
The entrance range must be cleared of persons and vehicles.

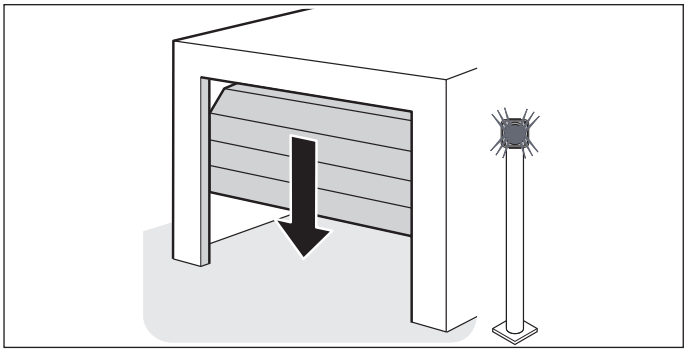


Fig. 6

6. The door closes automatically after the set clearing time.

⇒ **Both sides:** Red phase.
Door may not be driven or passed through.

⇒ The entrance range must be cleared of persons and vehicles.

13. Operation

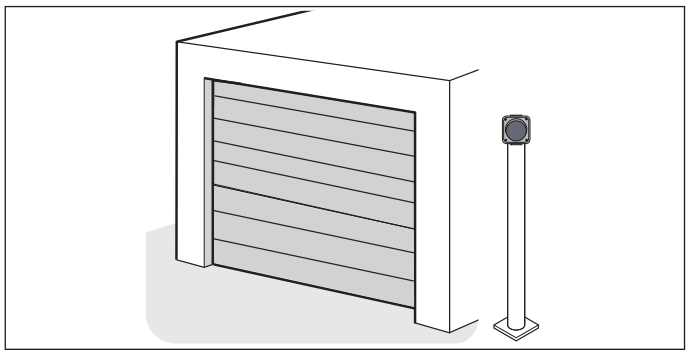


Fig. 7

7. After the door CLOSE end position has been reached, the traffic lights on both sides are switched off.
   ⇒ **Both sides:** Traffic lights off.

13.4 Obstacle detection

The operator stops and reverses slightly if it encounters an obstacle. This prevent injury and damage to property. The door will be partially of completely opened depending on the setting. The partial reversal is pre-set at the factory. A full reversal can be set with SOMlink and a WLAN-enabled device.

INFORMATION
In the automatic closing function the door opens completely.

INFORMATION
If the photo eye is interrupted, the door runs on for a long distance.

The following safety devices are installed to detect obstacles:

- Photo eye (object protection)
- Safety contact strips (personal protection)
- Force cut-off of operator (personal protection)

For more, also note Chapter **"14. Maintenance and care"**.

Force cut-off in door OPEN direction

⇒ If the door meets an obstacle, the door stops, reverses a bit in the door CLOSE direction and stops.

⇒ Operator expects a new command and does not start automatically.

⇒ After receiving a command, the operator moves in the door OPEN direction.

Force cut-off in door CLOSE direction with automatic closing function

⇒ If the door meets an obstacle, the door stops and reverses a bit until it reaches the door CLOSE end position.

⇒ The door closes automatically after the open holding time.

INFORMATION
If the door encounters an obstacle again in the door CLOSE direction, the operator stops and reverses completely to the door OPEN end position. The door stays there. The automatic closing function is interrupted. The open holding time and clearing time do not start again until a command for door CLOSE.
The door is then automatically closed.

Safety

If the SAFETY safety input is open, the operator stops the door movement. No more commands are executed. The potential-neutral NC contact, for example, is suitable for connecting an emergency stop.

⇒ Status LED on the control unit flashes.

Resetting the SAFETY safety input:

1. Reset safety input
   (close contact).
2. Execute a command using the button.
   ⇒ Door opens up to door OPEN end position.
   ⇒ Open holding and clearing time run out.
   ⇒ Door closes automatically.

13.5 Power-saving mode

To save energy, the operator control unit switches to power-saving mode after the factory-specified period. Connected accessories are deactivated and then reactivated at the next command from a button or radio. Connected accessories may include: photo eye, safety contact strip and external radio receiver.

Because external radio receivers are deactivated in power-saving mode, they cannot receive commands from the remote control and send them to the operator.

13. Operation

Set DIP switch 3 to ON to power the entire system continuously. Power-saving mode is then deactivated.

ON	OFF
Continuous power to the complete system activated	Power-saving mode activated

INFORMATION
The factory-set period before the control unit switches to power-saving mode after expiration of the set burning time is 20 seconds. This value cannot be changed.

If the operator is in power-saving mode, the green status LED flashes briefly in 3-second cycles.

13.6 In case of power failure

The programmed force values and end positions of the operator remain saved in the event of a power failure. After the mains voltage has been restored, the first movement of the operator after a pulse is always door OPEN.

Also follow the instructions for emergency release in Chapter **"11.10 Installing and removing battery pack"** and **"13.7 Function of the emergency release"**.

13.7 Function of the emergency release

Observe in particular the following safety instructions for this chapter.
In the event of a power failure, the door can be opened manually from the inside using a mechanical emergency release.

⚠ WARNING

Danger for trapped persons!
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 falling parts of doors!
If the emergency release is actuated, weak or broken springs may cause the door to close suddenly and unexpectedly.
This may cause serious or fatal injury.

- ► The emergency release should only be used with the door closed.
- ► Use the emergency release with great caution if the door is open.
- ► Persons or animals must not be within the door's range of movement.

NOTE

The emergency release is only suitable for opening or closing the door in an emergency.
The emergency release is not suitable for regular opening or closing. This could cause damage to the operator and door.
The emergency release must only be used in emergencies such as a power failure.

NOTE

In an emergency release, the door could independently open or close surprisingly quickly due to a broken spring or incorrect setting of the weight balancing.
Damage to the door system could occur.

13. Operation

NOTE

After the operator is locked back in, move the door into the door OPEN end position. Otherwise the guide idler is hit with too much force.

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.

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

1. Disconnect the operator from the mains voltage.
   Check it is disconnected from the power supply.

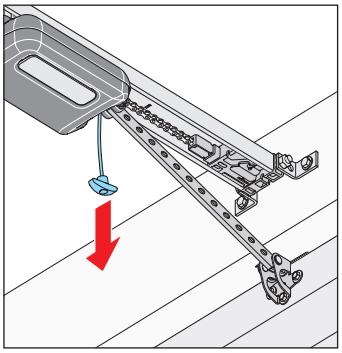


Fig. for 2

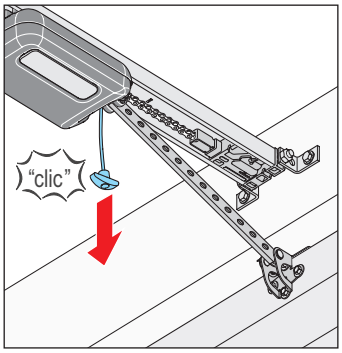


Fig. for 3

2. Pull once on the emergency release cord.
   ⇒ **The carriage is released.**
   ⇒ Door can be moved by hand.
3. Pull the emergency release rope once more.
   ⇒ **The carriage is locked.**
   ⇒ The door can only be moved by the operator.
4. Connect the operator to the mains voltage.
   Check that the power supply is connected.
5. Give the operator a command.
   ⇒ After a power failure, the first pulse of the operator is always in the door OPEN direction.
   ⇒ The operator must drive completely to the door OPEN end position.

14. Maintenance and care

14.1 Safety instructions for maintenance and care

Follow the basic safety instructions listed below.
Service the operator regularly as directed below.
This ensures safe operation and a long service life of your operator.

⚠ DANGER

Danger if not observed!

If safety instructions are not observed, serious injury or death may result.

► All safety information must be complied with.

⚠ 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 operator must be disconnected from the mains voltage before working on it.

► If a battery pack is connected, disconnect it from the wall control unit.

► Then check that the operator is disconnected from the power supply and secure it from switching on again.

⚠ WARNING

Danger of falling!

Unsafe or defective ladders may tip and cause fatal or serious accidents.

► Use only a non-slip, stable ladder.

► Ensure that ladders are safely positioned.

⚠ WARNING

Danger for trapped persons!

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 falling parts of doors!

Parts of the door may become detached and fall. Persons or animals may be hit by these parts. Severe injuries or death may result.

► Always keep the moving door in sight.

► Keep all persons and animals away from the door until it is completely opened or closed.

14. Maintenance and care

⚠ 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 operator in direct view of the door.
- ► All danger zones must be visible during the entire door operation.
- ► 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 runs along the track.
- ► Only pass through the door only once it is completely open and the traffic light has given access authorisation.

⚠ 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 operator to cool before removing the cover.

NOTE

The carriage is supplied with safety low voltage via the chain and the track.
The use of oil or grease will greatly reduce the conductivity of the chain, track and carriage.
This may result in faults due to inadequate electrical contact.
The chain and track are maintenance-free and must not be oiled or greased.

NOTE

The use of unsuitable cleaning agents may damage the surface of the operator.
Clean the operator with a dry lint-free cloth only.

14. Maintenance and care

14.2 Maintenance schedule

How often?	What?	How?
Once a month	Test the emergency release	See Chapter **"13.7 Function of the emergency release"**
	Test the photo eye	Interrupt the active photo eye while the door is closing. The door must stop and open slightly. If automatic closing is activated, the door opens completely. If necessary clean the photo eye, see Chapter **"14.3 Care"**
Once a year	Check screws on door, ceiling or lintel	Check that screws are tight and tighten if necessary
As needed	Chain and track	Maintenance-free
	Track	See Chapter **"14.3 Care"**
	Cleaning wall control unit housing	See Chapter **"14.3 Care"**

14.3 Care

Clean track, carriage and wall control unit

1. Pull the power plug out of the power socket.

   If a battery pack has been installed, remove the wall control unit cover and disconnect the battery pack from the wall control unit. See also Chapter **"11.10 Installing and removing battery pack"**.

   Then check that the power is disconnected.
2. Remove loose dirt with a moist, lint-free cloth:
   - from the carriage and the wall control unit
   - from the track and the inside of the track
3. If applicable, install the battery pack in reverse order of removal.
   Connect the operator to the mains voltage.
   Check that the power supply is connected.

Cleaning the photo eye

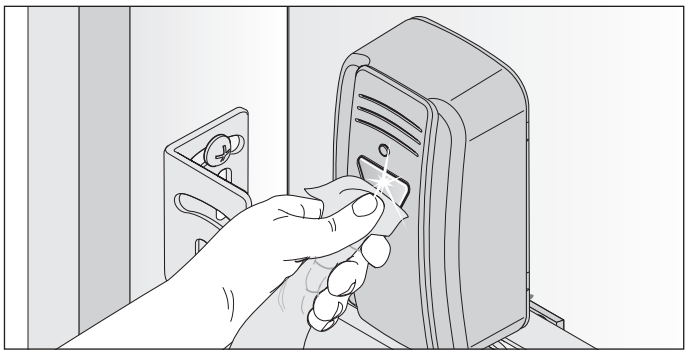


Fig. 1

NOTE

Do not change the position of the photo eye when cleaning it.

1. Clean the housing reflectors with a damp, lint-free cloth.

15. Troubleshooting

15.1 Safety instructions for troubleshooting

Follow the basic safety instructions listed below.

⚠ DANGER

Danger if not observed!

If safety instructions are not observed, serious injury or death may result.

► All safety information must be complied with.

⚠ DANGER

Danger due to electric current!

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

► All work on electrical components may only be carried out by a **trained electrician**.

► The operator must be disconnected from the mains voltage before working on it.

► If a battery pack is connected, disconnect it from the wall control unit.

► Then check that the operator is disconnected from the power supply and secure it from switching on again.

⚠ WARNING

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.

⚠ WARNING

Danger for trapped persons!

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 falling parts!

Parts of the door may become detached and fall. Persons may be hit. Severe injuries or death may result.

► Always keep the moving door in sight.

► Keep all persons and animals away from the door until it is completely opened or closed.

► Do not drive through the door until it has been fully opened.

⚠ WARNING

Danger of entrapment!

Loose clothing or long hair may be trapped by moving parts of the door.

► Keep clear of the moving door.

► Wear tight-fitting clothing.

► Wear a hairnet over long hair.

15. Troubleshooting

⚠ 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 operator in direct view of the door.
- ► All danger zones must be visible during the entire door operation.
- ► 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 runs along the track.
- ► Only pass through the door only once it is completely open and the traffic light has given access authorisation.

⚠ 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 a LED.

⚠ 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 operator to cool before removing the cover.

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.

INFORMATION

The control unit detects a short-circuit between chain and track and then switches the operator off.

15.2 Troubleshooting

The following guide to troubleshooting lists potential problems and their causes and information on correcting them. In some cases, other chapters and sections with a more detailed description are referenced.
You will be prompted to call a qualified specialist if this is required.

Work on the electrical system and live parts may be performed only by a **trained electrician**.

1. Disconnect the operator from the mains voltage.

   If a battery pack has been installed, remove the ceiling control unit cover and disconnect the battery pack from the control unit, see Chapter **"7.2 Cover hood of wall control unit"** and Chapter **"11.10 Installing and removing battery pack"**.

   Then check that the power is disconnected.

2. After working on the operator, if applicable replace the battery pack in reverse order.
   Connect the operator to the mains voltage.

15. Troubleshooting

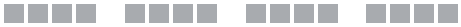
15.3 Time sequences of operator lighting in normal mode and in case of faults

The flash sequences show information on malfunctions for technicians, end customers and telephone support.

In normal mode

Flash sequences	Possible causes	Corrective action
Normal mode  Operating lighting blinks as warning light	• Learning mode activated • Pre-warning time activated • Reversing movement, soft reversing and stopped after a soft and reversing movement	• For information

In the event of errors

Flash sequences	Possible causes	Corrective action
Requirement  Operator expects a command	• Waiting for a conformation during the position programming movement of door CLOSE position	• Confirmation of position programming movement
Alarm  A process has triggered a fault	• Photo eye or safety device not OK before movement	• Check photo eye, realign if necessary • If necessary, have components replaced by a qualified specialist
	• Interruption of a safety device during the movement	• Remove obstacle
	• Dead man movement, safety device not OK	• Have it checked by a qualified specialist
	• Motor return from outside (e.g. due to attempted break-in)	• For information
Service  A process has triggered a fault	• Service (service days, service cycles have been reached)	• Have the service performed by a qualified specialist
	• Motor temperature is too high (overheating)	• Allow motor to cool
	• Program difficult positions in case of reversing with no visible cause. The complete distance is traversed from end position to end position (dead man by radio, under direct view only)	• For information
Fault  Operator or parts of the operator faulty	• Self-test of electronics • Blockage detection (gear breakage, Hall sensor fault)	• Have it checked and, if necessary, components replaced by a qualified specialist
	• End switch does not operate (e.g. wire break, end switch fault)	• Have cable connected checked and, if necessary, components replaced by a qualified specialist
	• Counting pulses sent in the wrong direction (motor cable was incorrectly connected)	• Check wiring, correct if necessary
	• Run time exceeded	• Path too long, path restricted to max. 7,500 mm
	• Error during plausibility test of memo	• Have it checked and, if necessary, components replaced by a qualified specialist

15. Troubleshooting

15.4 Troubleshooting table

Problem	Possible causes	Test/check	Remedy
The operator opens the door when the transmitter or control device is actuated but does not close it.	• Photo eye and safety device have been destroyed	• Check photo eye and safety devices	• Remove obstacle • The photo eye must be aligned • If necessary, have it checked and replaced by a qualified specialist
	• Automatic closing function activated	• Wait to see whether the operator starts automatically after 30 seconds	• Automatic closing function deactivated • Have the cause corrected by a trained electrician
Operator cannot be operated with the control device.	• No power	• Check power supply	• Check the power socket with a different device, for example with a lamp
	• End switch in carriage defective	• Unlock operator and push carriage to the centre of the track • Lock operator • Actuate transmitter • If the operator still does not close and open, the end switch is defective	• Have the end switch replaced by a qualified specialist.
	• The operator was unlocked by the emergency release mechanism	• Check that the door can be moved manually	• Pull the emergency release to activate the operator, see Chapter **"13.7 Function of the emergency release"**
	• Control device incorrectly connected to the operator	• Check function of operator with a transmitter	• Check wiring, correct if necessary
	• Transmitter defective	• Operator cannot be started with the transmitter	• Check transmitter power supply • If necessary, replace the battery of the transmitter • If necessary, replace the transmitter with a new one
	• Operator defective	• Operator cannot be started with the transmitter or the connected control device	• Have operator repaired or replaced by a qualified specialist
	• Electrical supply voltage outside the approved range	• Have the mains voltage checked by a trained electrician	• Have the cause corrected by a trained electrician
	• SAFETY safety input, e.g. emergency stop, triggered	• Status LED is off, the status LED flashes	• Reset SAFTEY safety input, see Chapter **"11.9 Safety terminal"**
When a button on the transmitter is pressed, the door does not open or close.	• Transmitter not programmed	• Radio LED does not light when the transmitter is operated	• Program transmitter
	• Battery in the transmitter is flat		• Replace the battery of the transmitter
	• Transmitter defective	• LED on transmitter does not light	• Replace transmitter
Radio command cannot be programmed	• Memory full	• All four LEDs blink cyclically for about 3 seconds	• Memory full, see Chapter **"10.5 Programming the transmitter"**
MEMO Identifier error	• Incorrect MEMO	• All four LEDs blink cyclically for a short time and then go out for a long time. The operator lighting of the carriage blinks 4 times short and 4 times long.	• Disconnect operator from the power supply, unplug Memo, re-supply operator with power

15. Troubleshooting

Problem	Possible causes	Test/check	Remedy
MEMO device type error	• System error	• All four LEDs blink cyclically for a long time and then go out for a short time. If voltage is present, the operator lighting of the carriage blinks an additional four times.	• MEMO can be deleted via the Radio button, see Chapter **"10.11 Deleting all radio channels in the receiver"**.
Operator stops the door during closing and opens it partially or completely	• Door detected an obstacle	• Check whether there are any obstacles in the movement range of the door	• Remove obstacle • If necessary, have door mechanism checked and set by a qualified specialist
	• Photo eye was interrupted	• Check LEDs on photo eye	• Remove obstacle
	• Photo eye defective or misaligned		• Align photo eye • Check wiring • If necessary, have the photo eye replaced by a qualified specialist
Operator stops the door during the opening process and moves a bit briefly in the door CLOSE direction	• Door has detected an obstacle, photo eye and safety device have been disturbed	• Check whether there are any obstacles in the movement range of the door • Check the weight balance of the door - it must run smoothly • Check photo eye and safety devices	• Remove obstacle • If necessary, have door mechanism checked and repaired by a qualified specialist • The photo eye must be aligned; if necessary, have it checked and replaced by a qualified specialist
Operator lighting does not work	• Operator lighting defective		• Have carriage replaced by a new one by a qualified specialist
Speed varies while opening and closing the door	• Track dirty		• Clean with a moist lint-free cloth, see Chapter **"14.3 Care"**
	• Chain tightened incorrectly		• Tighten the chain, see Chapter **"6.4 Installation of the operator system for installation versions A and B"** or **"6.5 Installation of the operator system for installation version C"**
	• Weight balance of the door has changed	• Move the operator into the door CLOSE position and check the weight balance of the door	• If necessary, have it checked, adjusted or have components replaced by a qualified specialist

15. Troubleshooting

15.5 Replacing the carriage

The instructions for replacing the carriage can be downloaded from **SOMMER Antriebs- und Funktechnik GmbH** at:
www.sommer.eu

If applicable, save the existing settings on the available carriage via SOMlink and a WLAN-enabled device.
The settings can be transmitted to the new carriage later.
The new carriage is in delivery condition from the factory.
Before replacing the carriage, make sure that used accessories have been transferred to the new carriage.
Commissioning must be repeated and the special functions of the carriage must be reset, see Chapter **"9. Commissioning"** and **"10. Connections and special functions of the carriage"**.

Used transmitters must also be reprogrammed, see Chapter **"10.5 Programming the transmitter"**.
On the other hand, the transmitter does not have to be programmed if the Memo tiga accessory part has already been used.
After successful commissioning, run a function test and a final test, see Chapter **"12. Function test/Final test"**.

INFORMATION
Save the existing settings of the carriage with the help of SOMlink and a WLAN-enabled device. After the new carriage has been inserted, reinstall the data.

16. Placing out of operation, storage and disposal

16.1 Placing the operator out of operation and disassembly

Follow the basic safety instructions listed below.

People under the influence of drugs, alcohol, or medications that can influence their ability to react may **not** work on the operator.

The disassembly of the operator may only be performed by a qualified specialist.

This installation and operating manual must be read, understood and complied with by the qualified specialist who disassembles the operator.

⚠ DANGER

Danger if not observed!

If safety instructions are not observed, serious injury or death may result.

► All safety information must be complied with.

⚠ 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 disassembly work on electrical components may only be carried out by a **trained electrician**.

► The operator must be disconnected from the mains voltage before disassembly.

► If a battery pack is connected, disconnect it from the wall control unit.

► Then check that the operator is disconnected from the power supply and secure it from switching on again.

⚠ WARNING

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.

⚠ WARNING

Danger of tripping and falling!

Unsafely positioned parts such as packaging, operator parts or tools may cause trips or falls.

► Keep unnecessary items away from the disassembly area.

► Place all parts where no persons are likely to trip or fall over them.

► General workplace guidelines must be observed.

⚠ 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 a LED.

⚠ 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 operator to cool before removing the cover.

16. Placing out of operation, storage and disposal

⚠ WARNING

Risk of eye injury!

Eyes and hands may be seriously injured by chips when removing screws.

► 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 when disassembling suspended parts.

⚠ CAUTION

Risk of injury to hands!

Rough, projecting metal parts may cause abrasions and cuts when touched.

► Wear safety gloves.

NOTE

If there is a battery pack in the control unit, it must be removed by a qualified electrician. See Chapter "11.10 Installing and removing battery pack".

The operator and its accessories must be disconnected from electrical power when putting them out of operation or during disassembly.

1. Disconnect the operator from the mains voltage.

   If a battery pack has been installed, remove the control unit cover and disconnect the battery pack from the control unit, see also Chapter **"11.10 Installing and removing battery pack"**.

   Then check that the operator is disconnected from the power supply and secure it from switching on again.

2. Disassembly is in reverse order of installation.

16.2 Storage

Store the packaging units as follows:

- In enclosed, dry rooms so that they are protected from moisture
- At a storage temperature from –25 °C to +65 °C
- Secure to prevent falling
- Leave room for unhindered passage

NOTE

Improper storage may damage the operator.
The operator must be stored in closed and dry rooms.

16.3 Disposal of waste

Observe the instructions for disposal of packaging, components, batteries and, if applicable, the battery pack.

⚠ DANGER

Danger of hazardous substances!

Improper storage, use or disposal of accumulators or batteries 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 old accumulators and batteries.

► Components of the operator as well as old accumulators and batteries must not be disposed of with household waste. They must be disposed of properly.

16. Placing out of operation, storage and disposal

NOTE

Dispose of all parts in accordance with local or national regulations to avoid environmental damage.

INFORMATION

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 authorised recycling centre. The local and national regulations must be observed.

INFORMATION

Old batteries and battery packs must not be disposed of with household waste as they contain hazardous substances. These must be disposed of properly at municipal collection points or in the provided containers of the dealers. National guidelines must be observed.

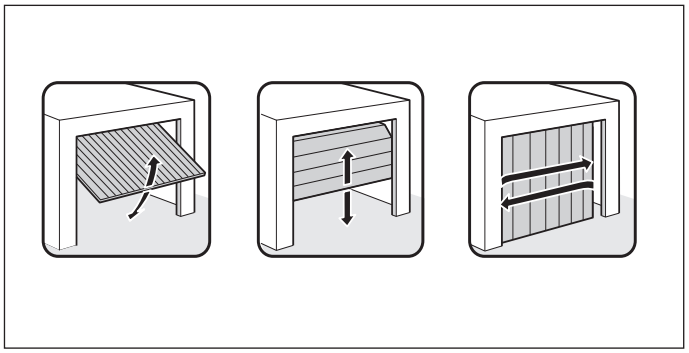
17. Short instructions for installation

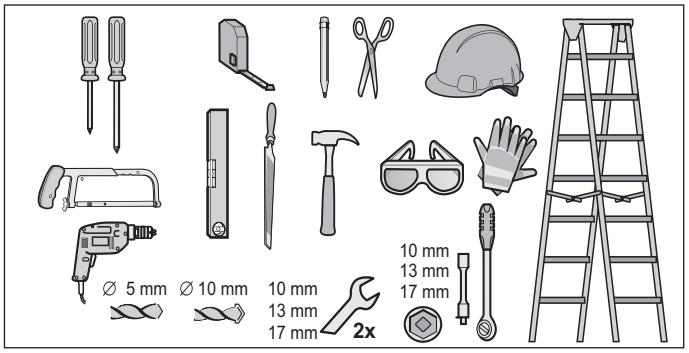
The short instructions describe the installation of **versions A and B**.

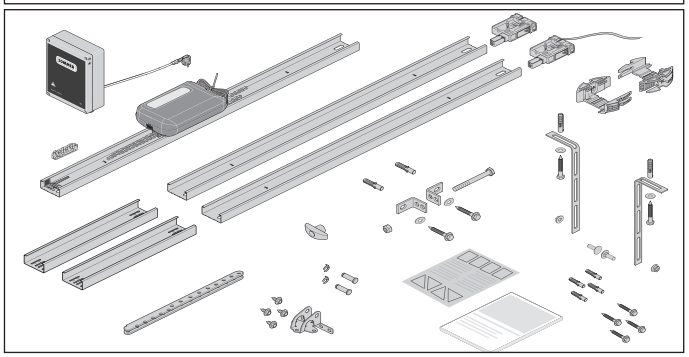
The short instructions does not replace the installation and operating manual.

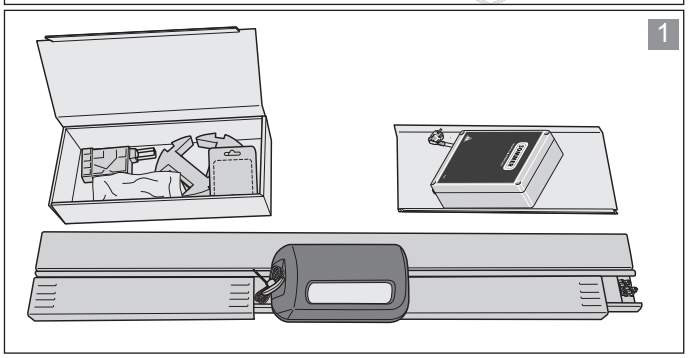
Read this installation and operating manual carefully and, most importantly, follow all warnings and safety instructions.

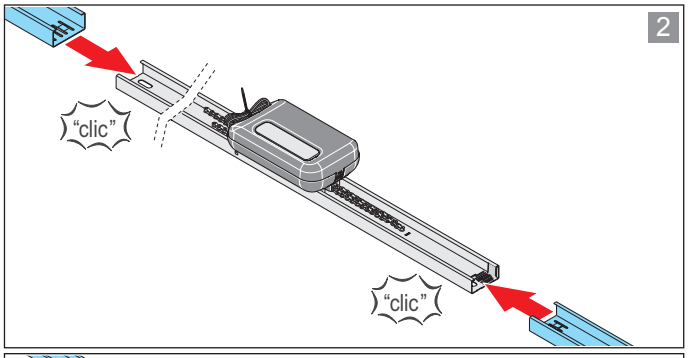
This will ensure that you can install the product safely and optimally.

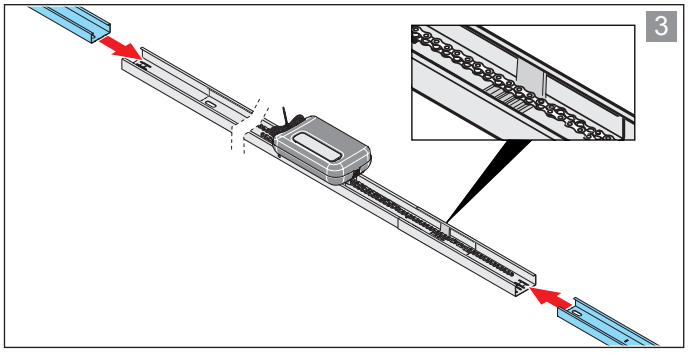


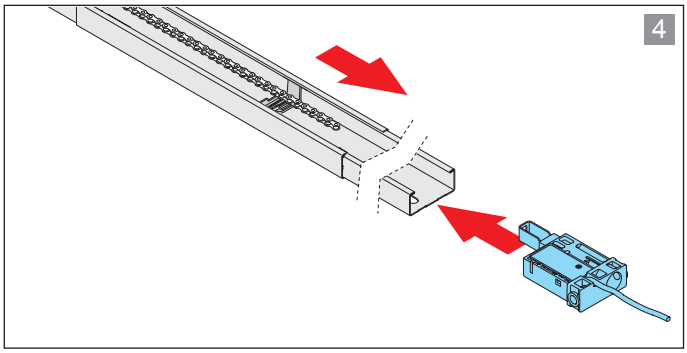


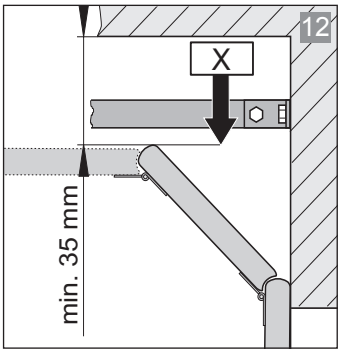


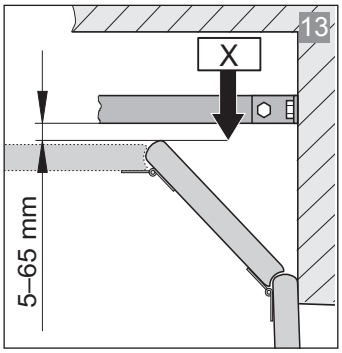


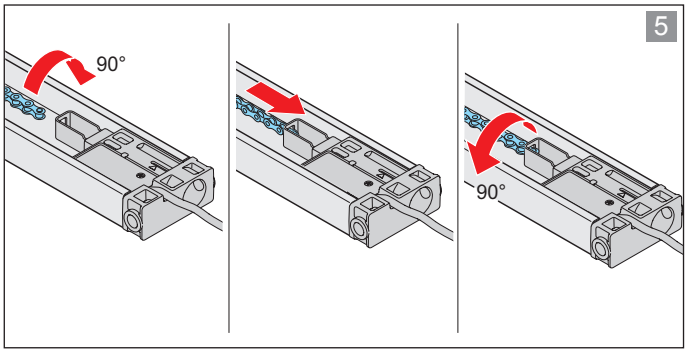


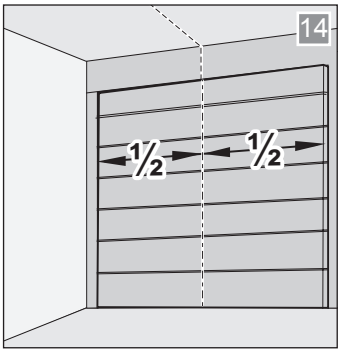


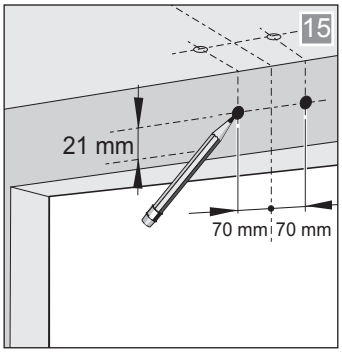

4

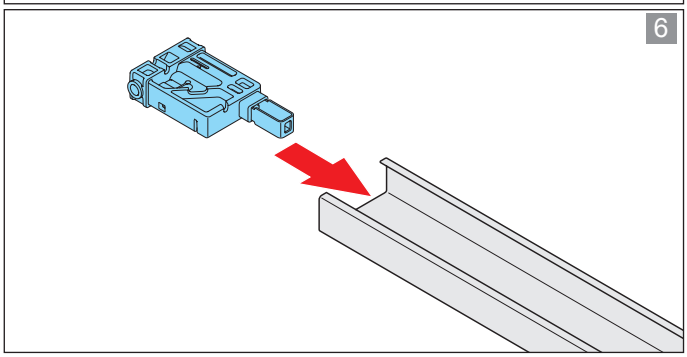

12
X
min. 35 mm

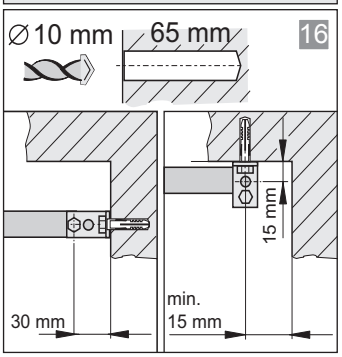

13
X
5–65 mm

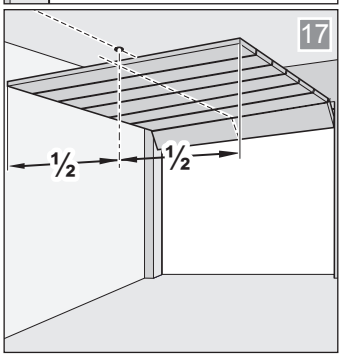

5
90°
90°

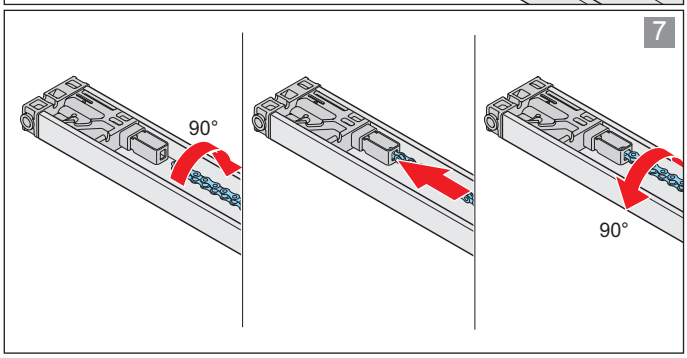

14
1/2
1/2

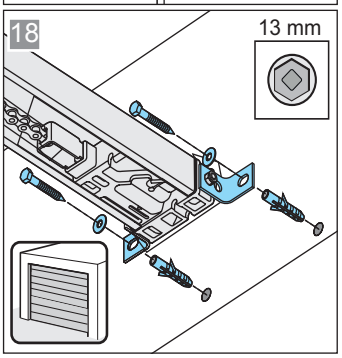

15
21 mm
70 mm
70 mm

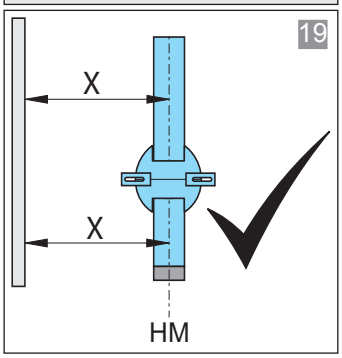

6

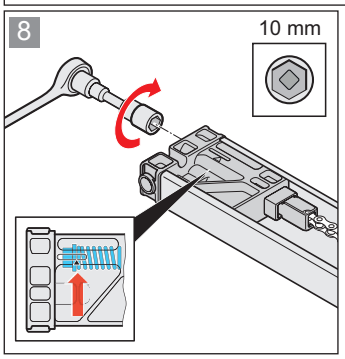

⌀10 mm
65 mm
16
15 mm
30 mm
min.
15 mm

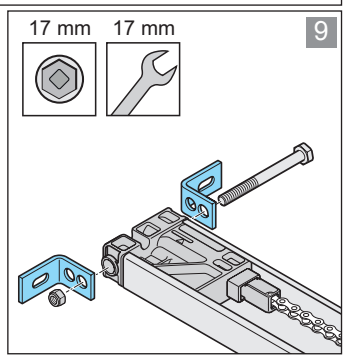

17
1/2
1/2

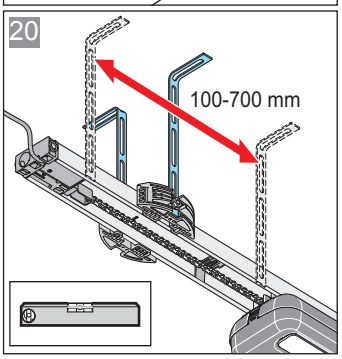

7
90°
90°

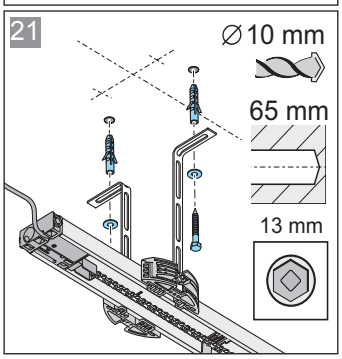

18
13 mm

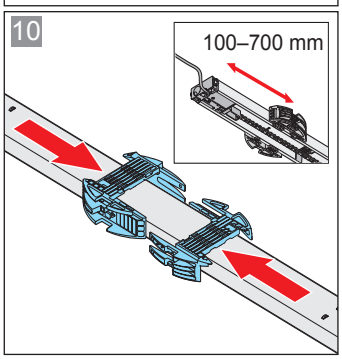

19
X
X
HM

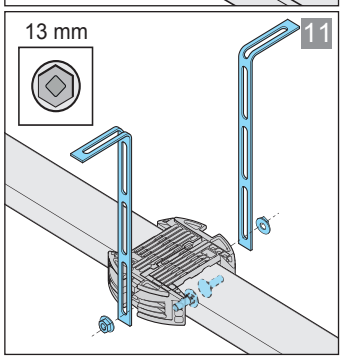

8
10 mm

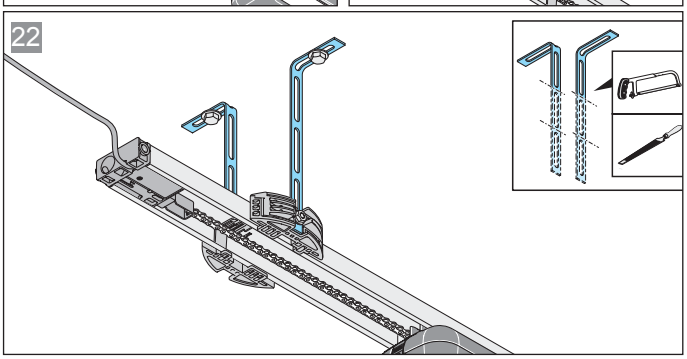

9
17 mm
17 mm

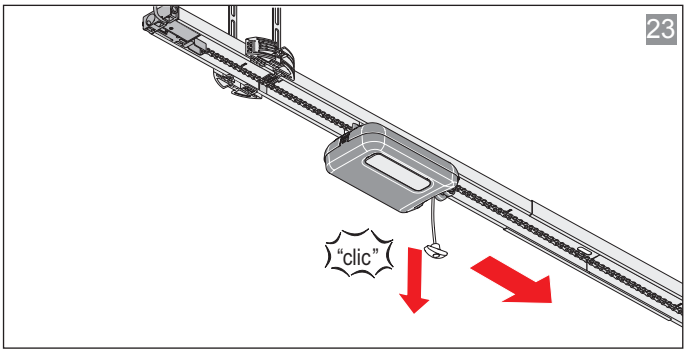

20
100-700 mm

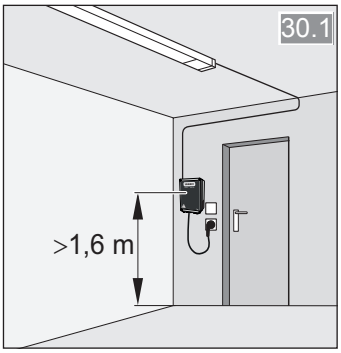

21
⌀10 mm
65 mm
13 mm

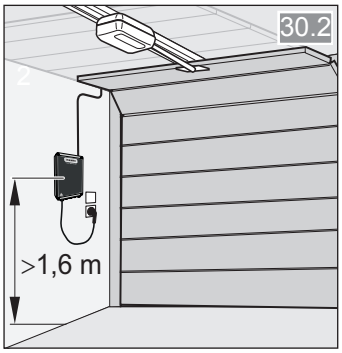

10
100–700 mm

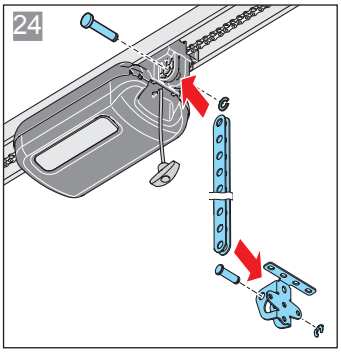

11
13 mm

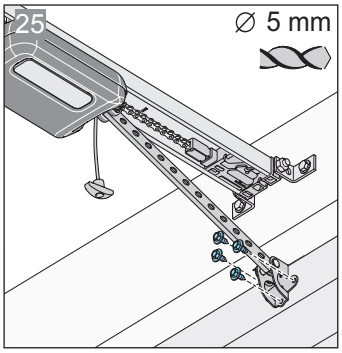

22

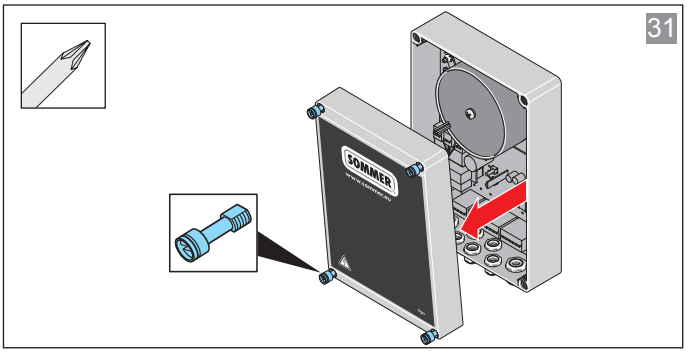

23
"clic"

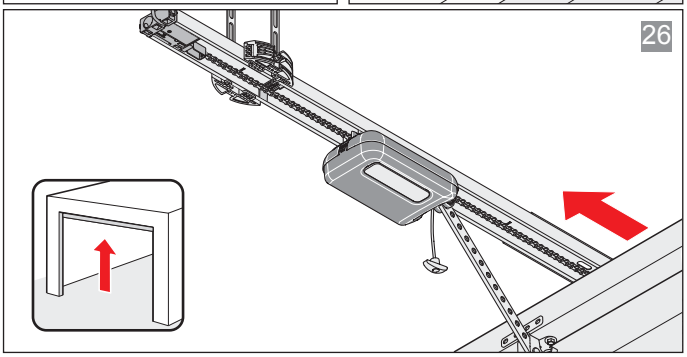

30.1
>1,6 m

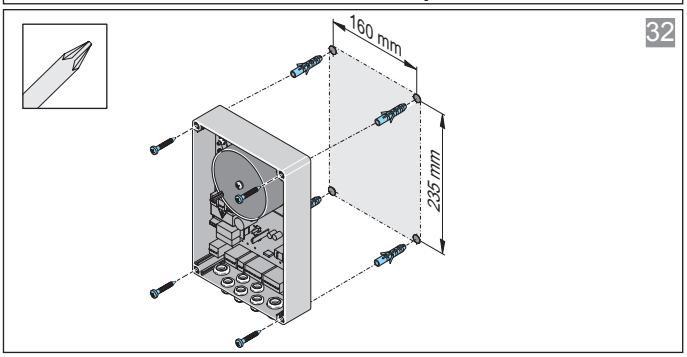

30.2
>1,6 m

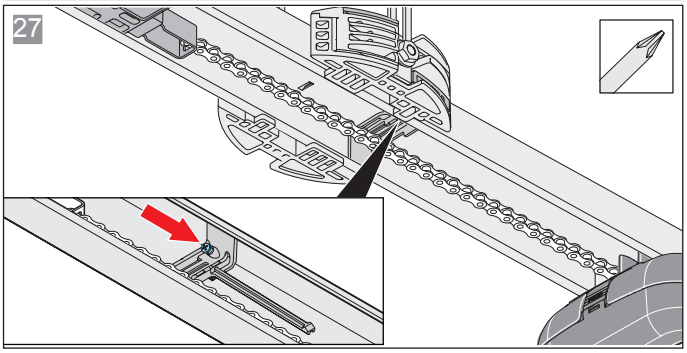

24

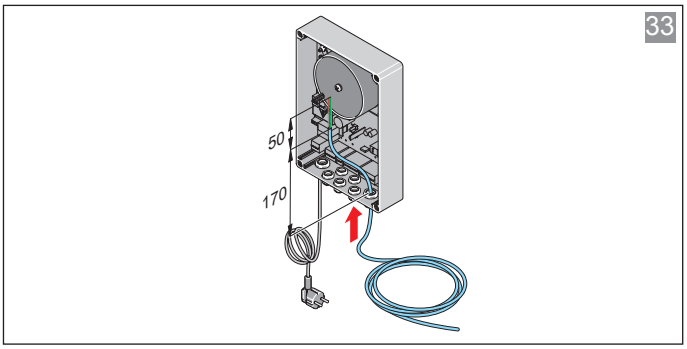

25
∅ 5 mm

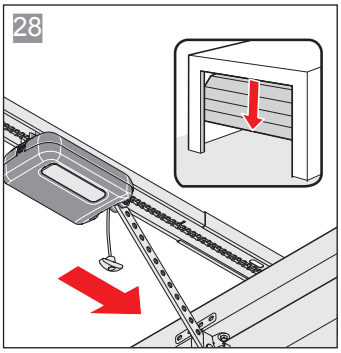

31
SOMMER

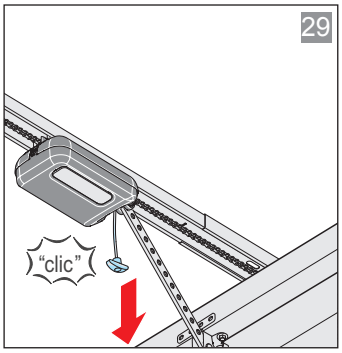

26

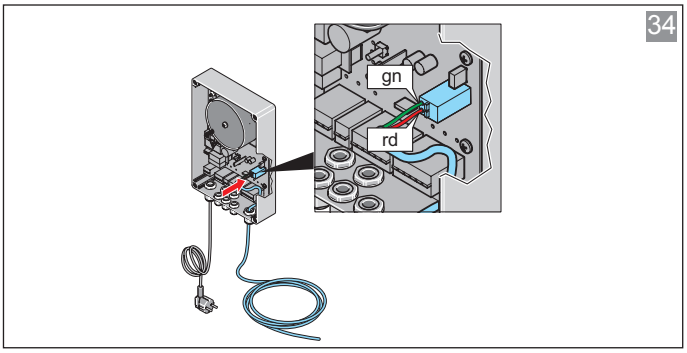

32
160 mm
235 mm

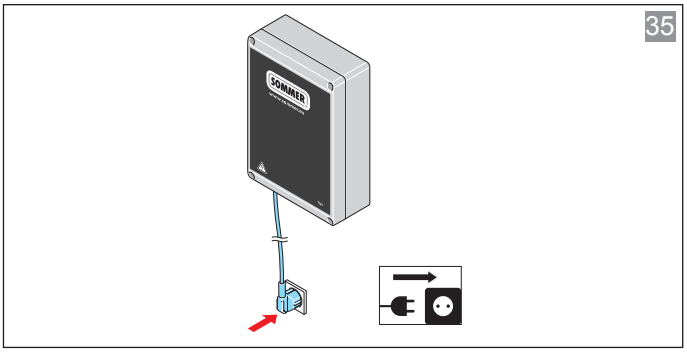

27


33
50
170


28


29
"clic"


34
gn
rd


35
SOMMER

18. Connection diagrams and functions of the DIP switch for tiga

Fig. Connection diagram **of carriage**

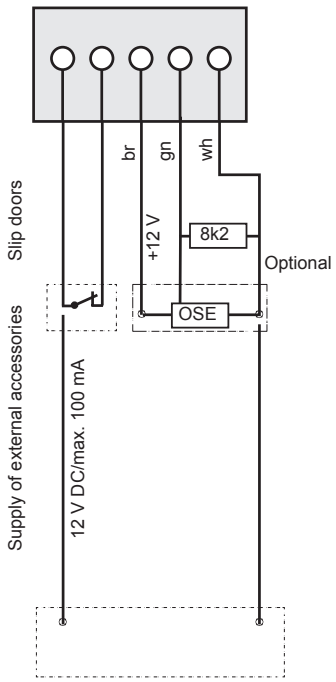
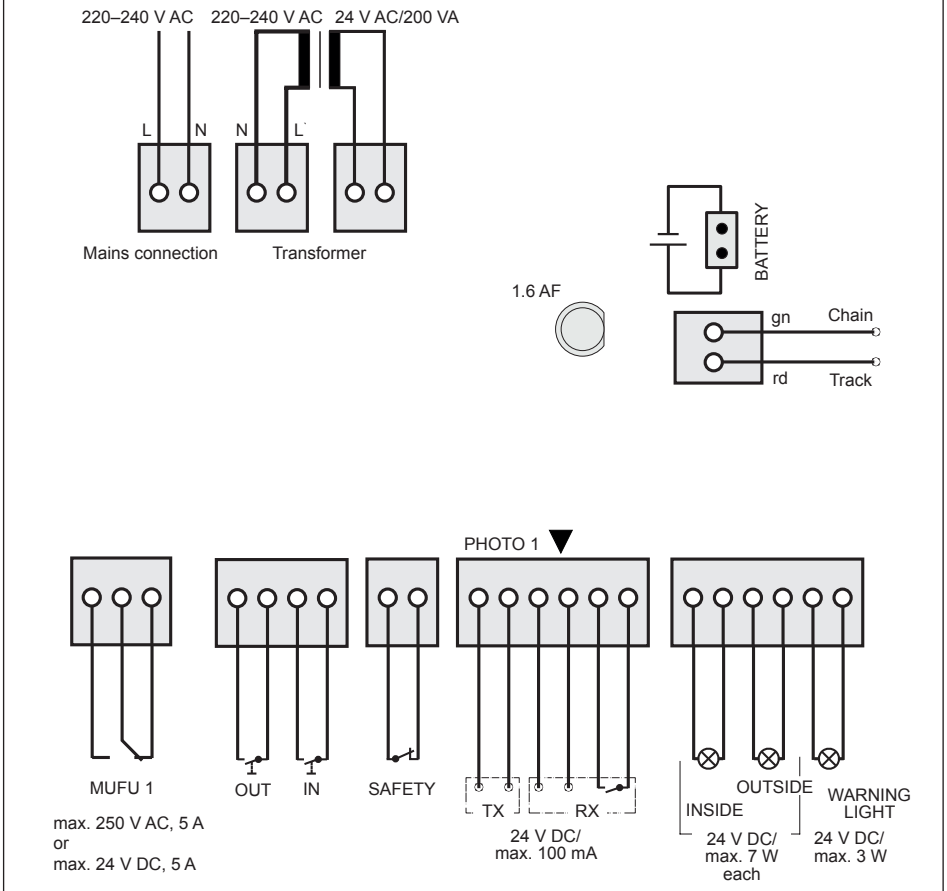
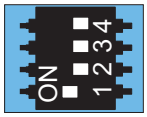
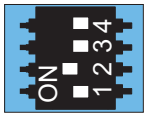
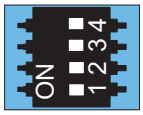
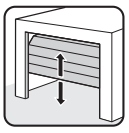
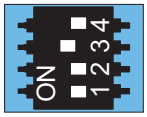
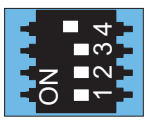
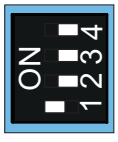
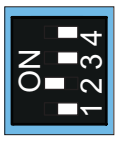
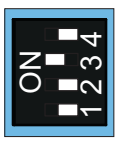
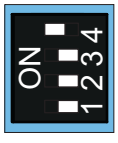


Fig. Connection diagram **of wall control**



DIP switches of the **carriage**	ON	OFF
	Automatic closing function activated	Automatic closing function deactivated
	Partial opening activated	Partial opening deactivated
		
		
		

DIP switches on the **wall control unit**	ON	OFF
	The red traffic light is **on** when the door is closed	The red traffic light is **off** when the door is closed
	Door opens **immediately** with timer command, only with tiga+	Door does not open until after a pulse with a timer command, only with tiga+
	Continuous power to the complete system activated	Power-saving mode activated
	Door opens automatically if battery is low	Door does **not** open automatically if battery is low

SOMMER Antriebs- und Funktechnik GmbH

Hans-Böckler-Straße 21 – 27
73230 Kirchheim/Teck
Germany

Phone: +49 (0) 7021/8001-0
Fax: +49 (0) 7021/8001-100

info@sommer.eu
www.sommer.eu