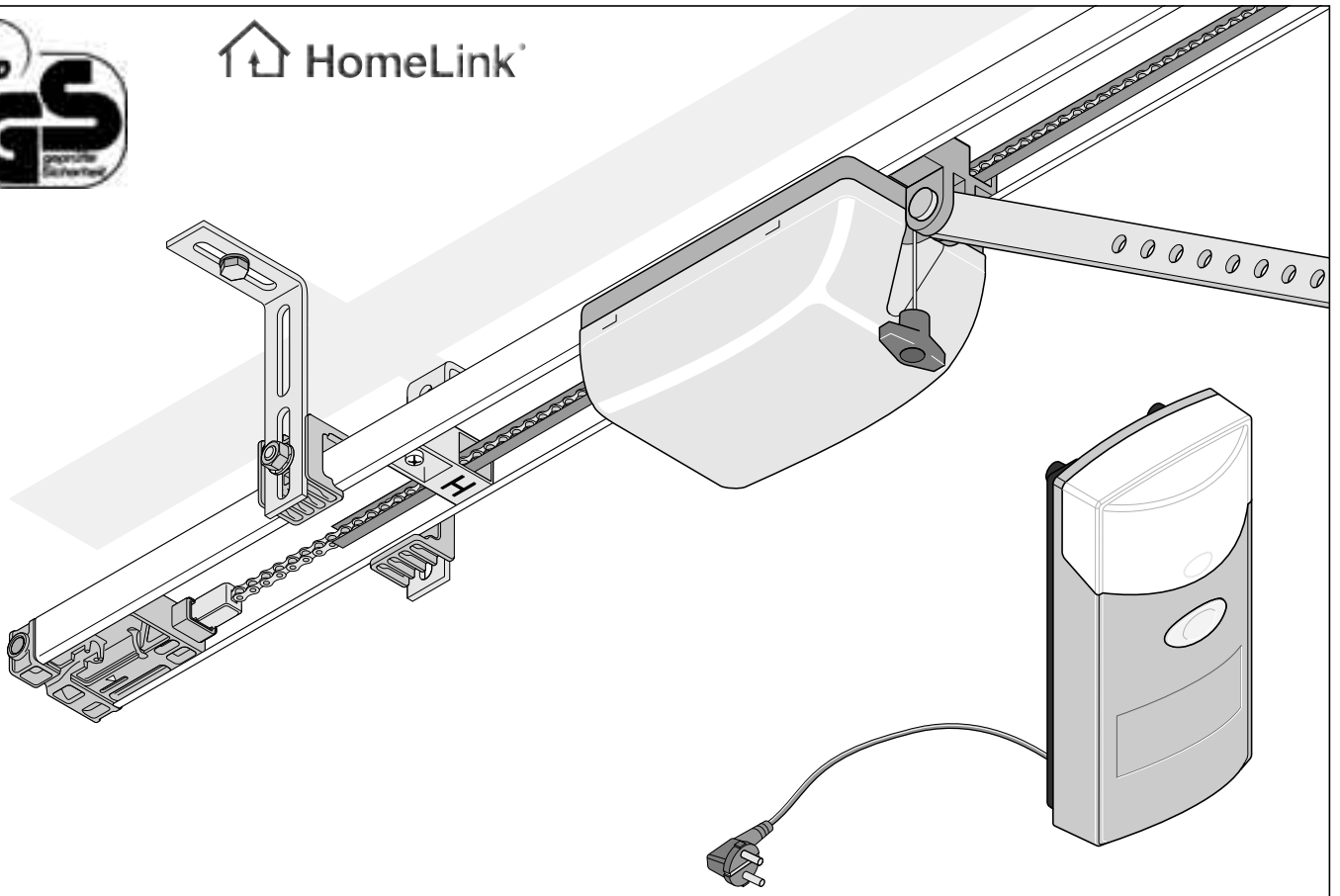




↑ HomeLink®



duo vision 500, duo vision 650, duo vision 800

Ⓞ Installation and operating instructions

1 - 22



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EU Conformity Declaration

Messrs

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

declares herewith that the product designated below complies with the relevant fundamental requirements as per Article 3 of the R&TTE Directive 1999/5/EG, insofar as the product is used correctly, and that the following standards apply:

Product: RF Remote Control for doors & gates
Type: RM04-868-2, RM03-868-4, RX01-868-2/4,
RFSDT-868-1, RFSW-868-1, RM02-868-2,
RM06-868-2, RM04-868-1, RM02-868-2-TIGA,
RM08-868-2, RM01-868,
RM02-434-2, RM03-434-4, RM04-434-2

The relevant guidelines and standards are:

- ETSI EN 300220-1:09-2000, -3:09-2000
- ETSI EN 301489-1:07-2004, -3:08-2002
- DIN EN 60950-1:03-2003

Kirchheim/Teck, 04.08.2004
Frank Sommer
Managing Director



General information

Symbols



Caution symbol:
Indicates a potential risk. Failure to follow instructions may result in serious injuries.



Note symbol:
Information, useful advice.

1

(1) Refers to the relevant illustration in the introduction or main text.

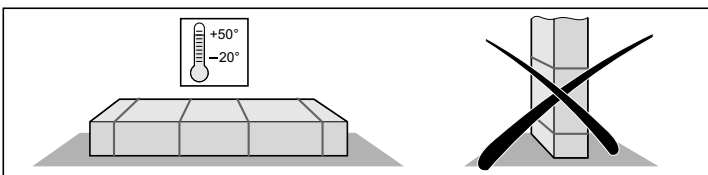
Safety instructions

General

- Installation, connection and initial operation of the drive mechanism may only be carried out by qualified specialists.
- Only install the drive mechanism to correctly aligned and weight-balanced doors. An incorrectly aligned door could cause serious injury or damage to the drive mechanism.
- The manufacturer cannot be made liable for any damage or disruptions to operation occurring due to non-compliance with the Installation and Operating Instructions.
- Ensure that these Installation and Operating Instructions are located in the garage in an easily accessible place.
- Observe and comply with the locally applicable accident prevention regulations and EC standards.
- Observe and comply with the directive on 'Power-driven Windows, Doors and Gates - BGR 232' issued by the Employers' Liability Insurance Association (valid for the given user in Germany).
- Always disconnect the drive mechanism from the power supply before carrying out any work.
- Only use the manufacturer's original spare parts, accessories and fixing material.

Storage

- The drive mechanism may only be stored indoors, in a dry, sealed environment at an ambient temperature of between -20°C and $+50^{\circ}\text{C}$.
- The drive mechanism should be stored horizontally.



Operation

- The drive mechanism may only be operated after a risk-free force tolerance has been set. Select the lowest possible force tolerance to reduce the risk of injury.
- Keep your hands clear of any moving door or any moving parts.
- Keep children, disabled persons and animals away from the door.
- Only drive into and out of the garage when the door is fully opened.
- Risk of persons trapping or cutting themselves in/on the door system's moving parts or edges where it closes.
- If the door is not equipped with a small door, or if there is no alternative access to the garage, install an emergency release system (emergency release lock or control cable) that can be activated from the outside.


Radio remote control


- The radio remote control may only be used for equipment and systems in which defective remote operation of the transmitter or radio receiver does not constitute a risk to people, animals or property, or in cases where this risk is eliminated by means of additional safety facilities.
- The user must be made aware of the fact that the remote control of equipment with accident risk potential may only occur, if at all, when the equipment concerned is clearly visible.
- Radio remote control may only be used if movement of the door can be supervised and there are no persons or objects in the area of movement.
- Store the manual remote control such that there is no risk of it being accidentally operated by, for instance, children or animals.
- The operator of this radio-controlled equipment is in no way protected from interference from other telecommunications systems and facilities (e.g. other radio-controlled equipment that is licensed to operate at the same frequency range). Should serious interference be encountered, please contact your nearest telecommunications office with interference measuring facilities (radio signal localisation)!
- Do not use the manually-operated remote control near locations or installations that are susceptible to radio interference (airports, hospitals).

Rating plate

The rating plate is located on the cover of the control unit housing.
Exact type designation and date of manufacture (month/year) of the drive are to be found on the rating plate.

Normal use

 **Caution! Risk of serious damage to drive!**
Do not open or close the door with the drive system without first adjusting the balance weight (springs tensions). Otherwise, the motor (gear system) might be seriously damaged.

 **Caution! Risk to life and limb!**
Remove all ropes and loops that are required for the manual operation of the door.

- The drive is designed for the exclusive purpose of opening and closing doors. Any other use does not constitute normal use. The manufacturer accepts no liability for damage resulting from use other than normal use. The user accepts sole responsibility for any risk thereby incurred.
- Doors operating automatically with a drive must comply with the standards and directives valid at the given time: e.g. EN 12604, EN 12605.
- The drive system may only be operated if it is in proper working order. Always follow standard safety procedures and adhere to the instructions in this installation and operating manual.
- Any defects that may impair the safe operation of the equipment should be eliminated without delay.
- The door leaves must be stable and twist-proof, i.e. they should not bend or twist during opening or closing operations.
- The drive mechanism is unable to compensate for any defects in the door or for its incorrect installation.
- Only use the drive mechanism in a dry, indoor environment where there is no risk of explosion.
- Do not use drive in rooms where a hostile environment prevails (e.g. salty air).

General information

Maximum door dimensions *

duo vision:	500	650	800	
Max. width:				
- Up-and-over door:	3500	5000	5500	mm
- Sectional door:	3500	5000	5500	mm
- Swing door **: -	-	2800	2800	mm
- Side-opening sectional door or lateral shutter door:				
Rail 2600	2350	2350	2350	mm
Rail 3000	2750	2750	2750	mm
Rail 3400	3150	3150	3150	mm
- Canopy and non-protruding door: -	-	4000	4500	mm
Height (approx.):				
- Up-and-over door:				
Rail 2600	2600	2600	2600	mm
Rail 3000	3000	3000	3000	mm
Rail 3400	3400	3400	3400	mm
- Sectional door:				
Rail 2600	2350	2350	2350	mm
Rail 3000	2750	2750	2750	mm
Rail 3400	3150	3150	3150	mm
- Swing door **: -				
Rail 2600	-	2800	3000	mm
- Side-opening sectional door or lateral shutter door:				
Rail 2600	2300	3000	3000	mm
- Canopy and non-protruding door:				
Rail 2600	-	1900	1900	mm
Rail 3000	-	2300	2300	mm
Rail 3400	-	2700	2700	mm
Duty cycle:	15	15	15	%

* door according to EN 12604, EN 12605.

** with standard swing-out door hinges prod. no. 1501.

If a higher door is required, rails of the respective length must be ordered. Alternatively, the necessary height can be achieved by installing rail extensions. Please contact your stockist for more information.

Technical data

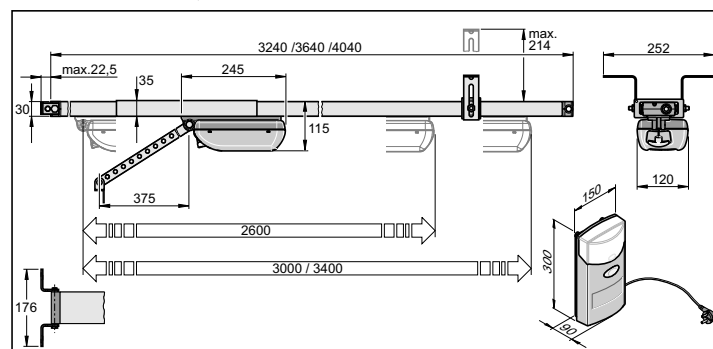
General

Rated voltage:	220 ... 240	V AC
Rated frequency:	50/60	Hz
Light:	max. 32.5 V, max. 34 W, BA 15s alternatively 24 V, 21 W, BA 15s	
Operating temp. range:	-20 - +50	°C
Protection class	IP 20	

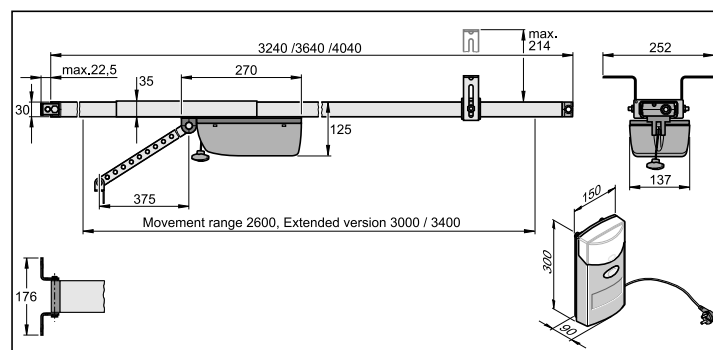
Workplace-specific emission value < 75 dBA - operator only

duo vision:	500	650	800	
Maximum traction and pressure force:	500	650	800	N
Rated traction:	150	195	240	N
Rated current consumption:	0.5	0.7	0.8	A
Rated power consumption:	110	150	160	W
Maximum speed:	150	180	130	mm/s
Power consumption, stand-by:	~ 7	~ 2	~ 2	W
Weight with rail 2600:	16.0	16.0	16.0	kg
rail 3000:	17.4	17.4	17.4	kg
rail 3400:	18.4	18.4	18.4	kg

duo vision 500, duo vision 650



duo vision 800



Packaging (L x W x H):

- Drive	790 x 160 x 160	mm
- Rail 2600	1665 x 160 x 50	mm
- Rail 3000	1860 x 160 x 50	mm
- Rail 3400	2060 x 160 x 50	mm

EU manufacturer's declaration

Messrs.

SOMMER Antriebs- und Funktechnik GmbH
Hans-Böckler-Strasse 21-27
D-73230 Kirchheim/Teck, Germany

herewith declares that its drives:

- duo vision 500, duo vision 650, duo vision 800

comply with the following directives:

- Machine Directive 98/37/EC
- Low Voltage Directive 73/23/EEC
- EU Electromagnetic Compatibility Directive 89/336/EEC

Above all, the following standards/draft standards were applied:

- EN 12453:2000, EN 60335-1:2002 (+A11:2004, +A1:2004)
- EN 13849-1:2006, DIN EN 55014-1:1999-10, DIN EN 55014-2:1997-10
- DIN EN 61000-6-2:2000-03, DIN EN 61000-3-2:1998-10
- DIN EN 61000-3-36:1998-11

Please note:

The door system may not be commissioned until such time as it has been established that the system in which the given drive is to be installed satisfies the specifications of all relevant EU directives.

Kirchheim/Teck, 01.12.2007

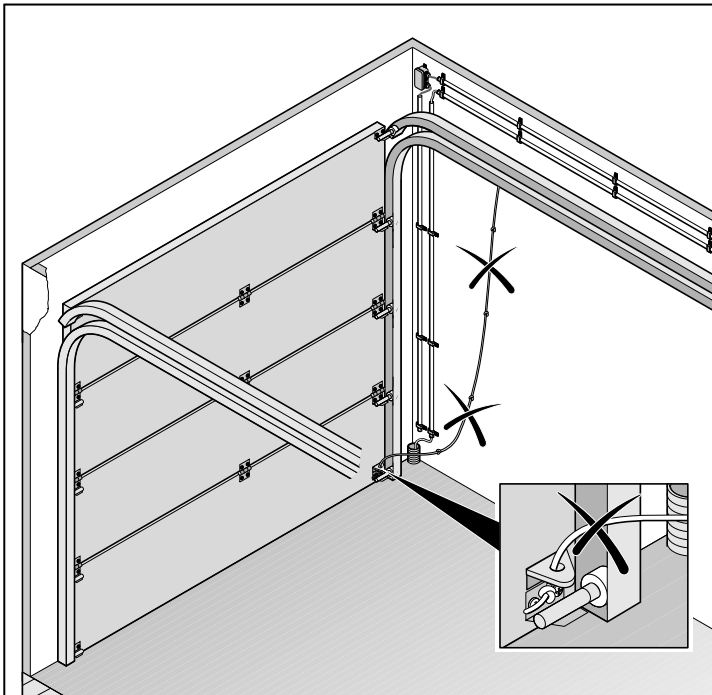
Frank Sommer
Managing Director

Preparations for installation

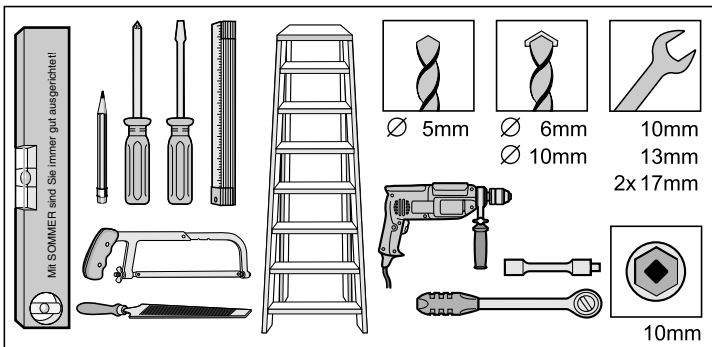
Safety instructions

- The power cable supplied as standard may be neither shortened nor lengthened.
- The voltage of the power source must correspond to that indicated on the drive's rating plate.
- All devices requiring external connection must be equipped with safe contact separation as per IEC 364-4-41 to isolate them from the mains voltage supply.
- Live parts of the drive (voltage-carrying parts e.g. C-rails) may not be connected to earth or to the live parts or protective conductors of other circuits.
- IEC 364-4-41 must be observed when laying the external device conductors.

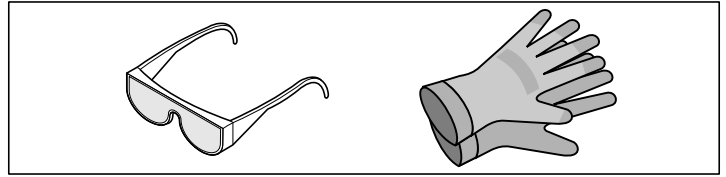
⚠ Caution! Risk to life and limb!
Remove all ropes and loops that are required for the manual operation of the door.



Tools required



Personal protective equipment



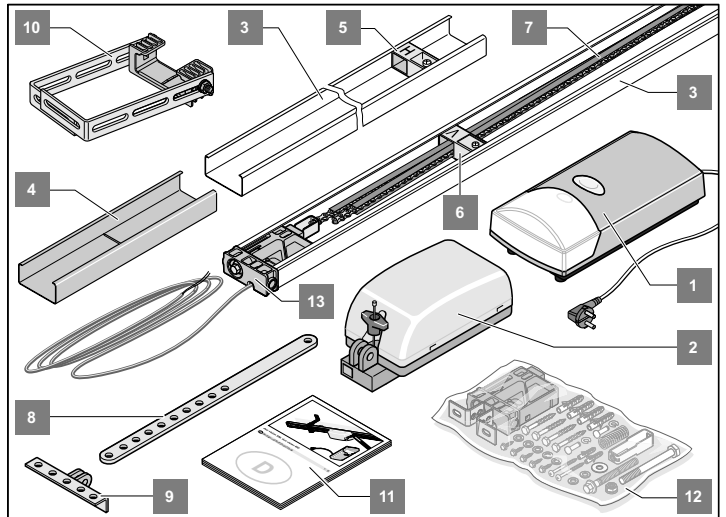
- Protective goggles (for drilling)
- Protective gloves (for handling of cut perforated steel strips, etc.)

Installing wicket-door facility or release lock

- If your garage door is fitted with a wicket door but no wicket-door safety facility, you need to have one installed (see 'Accessories' instructions).
- If your door has no wicket door and your garage has no separate entrance, install a release lock or Bowden wire to facilitate drive mechanism release from the outside (see 'Accessories' instructions).

Supplied components

- The scope of delivery may vary according to the type of drive supplied.



Item	Component	duo
1.	Control housing (push buttons, mains cable, illumination)	1
2.	Trolley (chain case)	1
3.	C-rails (uncoated)	2
4.	Slide-on module (uncoated)	2
5.	Switch trigger "H"	1
6.	Switch trigger "V"	1
7.	Chain in chain case (duo) (plastic chain case is not packaging - do not remove)	1
8.	Connecting rod	1
9.	Door hinge	1
10.	Suspension bracket	1
11.	Installation and operating manual	1
12.	Assembly kit (duo)	1
13.	Slide-in module with control line (length 5,000 mm)	1

General installation information

Safety instructions

- Installation, connection and initial operation of the drive mechanism may only be carried out by qualified specialists.
- Do not operate the door when people, animals or objects are in its area of movement.
- Keep children, disabled persons and animals away from the door.
- Safety goggles should be worn when drilling the mounting holes.
- Cover the drive mechanism up when drilling to ensure it does not get soiled.

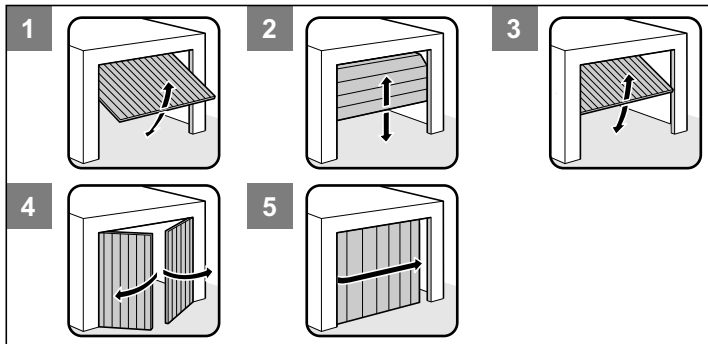
⚠ The walls and ceiling must be firm and stable. Only fit the drive mechanism to a correctly aligned door. A door that has not been aligned correctly can cause serious injuries.

- Doors must be stable because they are subjected to high traction and pressure forces. Light doors made of plastic or aluminium must be strengthened before installation if necessary. Ask your specialist retailer for advice.
- Remove door locking system or disable same.
- Only use approved fixing materials (e.g. screws, plugs) that are appropriate for the given material the ceilings and walls are made of.
- Check that the door runs easily.
- The door must be balanced.

Test : Manually open the door half-way. It must stay still in this position. If the door moves downwards or upwards, mechanically readjust it. Ask your specialist retailer for advice.
- Check the distance between the highest door position (HDP, see fig. 11 for sprint/marathon and fig. 11 for duo) and the ceiling. The distance between HDP and the lower edge of the C-rail must be between minimum 5 mm and maximum 65 mm, whereby the push rod must be at an angle of max. 30° (see fig. 21)! If the clearance is less than is permissible, the drive mechanism has to be moved back and an extended drive rail fitted. Ask your local stockist for advice.

Door types and special accessories*

* Accessories are not included in the delivery.



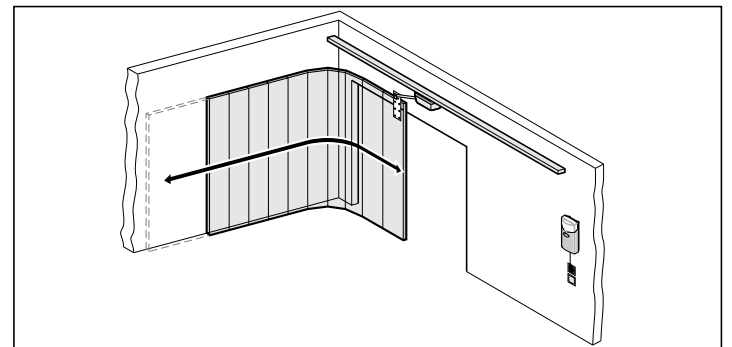
Door type	Accessories
1 Up-and-over door	No special accessories required
2 Sectional door with single runner rail	Sectional door fitting with boomerang*
2 Sectional door with double runner rail	Sectional door fitting without boomerang*
2 Shutter-type door	No accessories required
3 Canopy and non-protruding door	Tilting arm*
4 Swing door	Swing-door fitting*
5 Side-opening sectional door	Please consult specialist retailer

Installation tips

- Check that all the parts have been supplied before you start installation work in order to save time and unnecessary work if a part is missing.
- Installation work can be carried out quickly and reliably by two persons.
- The drive mechanism can be installed to one side of the door if it cannot be installed at the centre. It is important to note that the door does not bend as a result and jam in the guide rails.

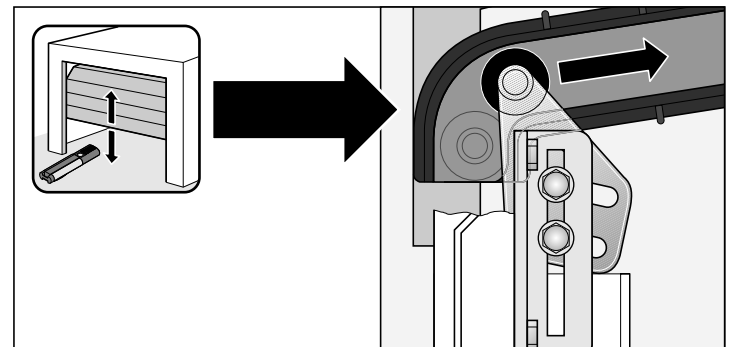
Check : Open and close the door several times by hand holding it at the point where you intend fitting the drive mechanism. If the door can be moved in this way without difficulty (in compliance with the above forces), then the drive mechanism can be fitted at this point.

- **Emergency Release**
If the garage has no separate entrance (e.g. wicket-door), the user must be able to operate the emergency release mechanism from the outside. This is why the emergency release should be run to the outside where it can be activated via a Bowden wire or a release lock. See 'Accessories' section.
- **Canopy and non-protruding doors**
As the mechanical lock of a door with a drive mechanism has to be dismantled or deactivated, it is possible to open the door manually up to approx. 50mm depending on the door construction.
In order that, when opening the doors, the spring latches are unlocked first before the drive opens the door. These spring latches are connected to the drive via a locking set in order to first unlock the spring latches before a drive opens the door when opening the door.
- **Swing door / Side-opening sectional door**
In the case of drives that push open a door of the above-mentioned type (see fig.), the connections made in the direct socket unit have to be swapped around as follows:
- wires 3 + 4 (sprint and duo).



i Other pulse generators include: Funkcodys, radio-operated interior switches and key-operated switches. In the case of the Funkcody and radio-operated interior switch, no cable need be run to the drive. Contact your local dealer for advice.

Adjustment of the top roller in a sectional door

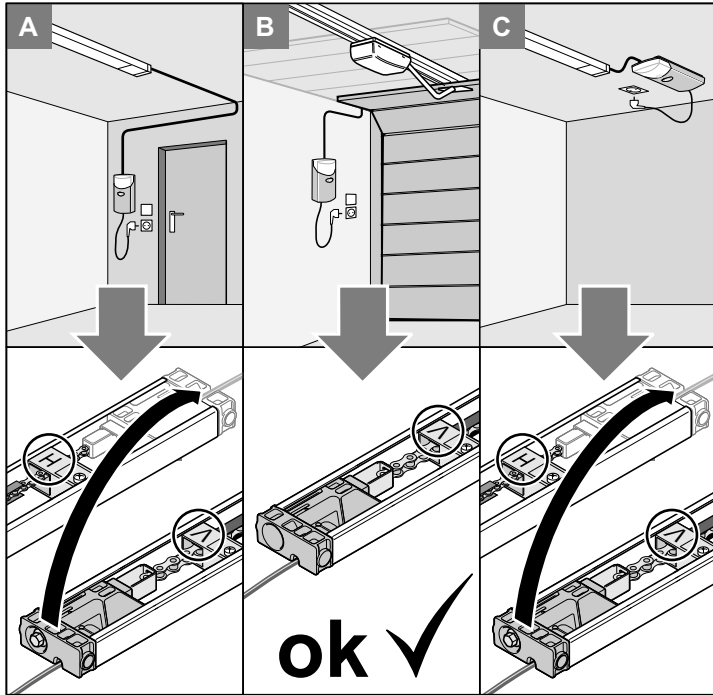


Installation

Selection of installation option

i Select the desired installation option. For options (A/C), change the position of power supply unit.

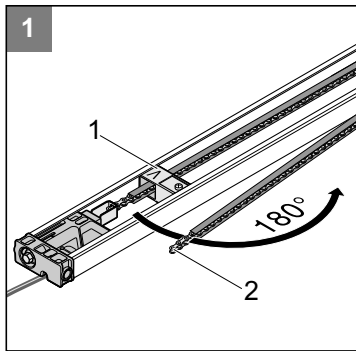
⚠ Caution!
The plastic chain case is not packaging - do not remove!



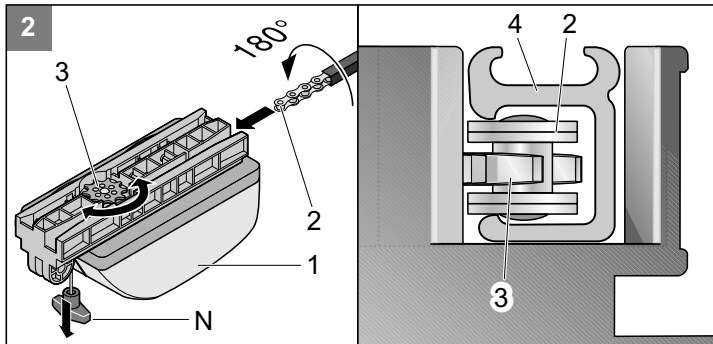
Pre-assembly for installation options A/C

i Dispose of packaging material according to the applicable statutory regulations.

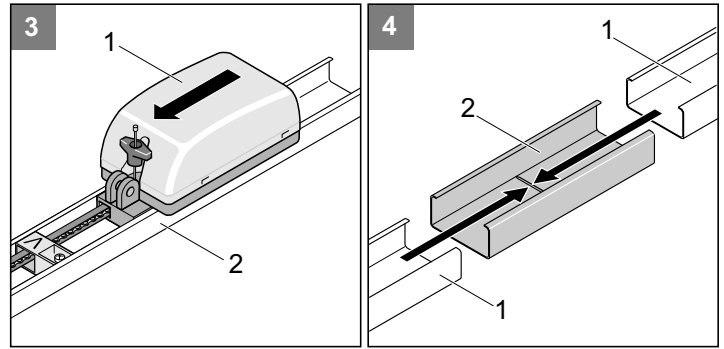
- Remove the operator from its packaging.



- 1** • Release the switch trigger (1) and move it in the direction of the arrow. Open the chain case (2).

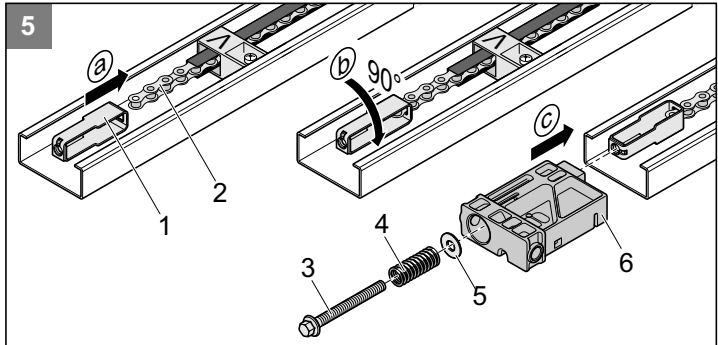
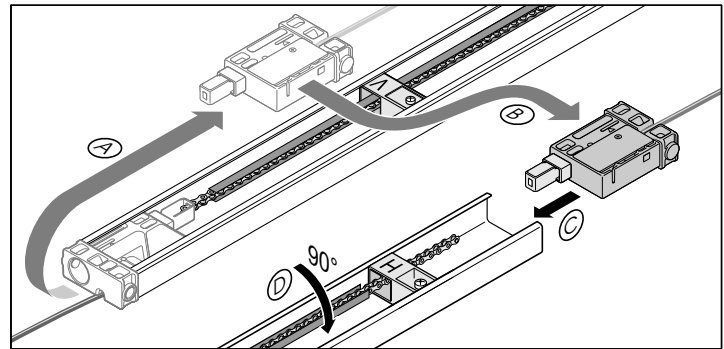


- 2** • Slide the trolley (1) onto the chain (2) with the chain case (4). The chain (2) engages in the chain wheel (3). If the chain wheel (3) does not turn, pull the emergency release (N) once. The chain wheel (3) is released.

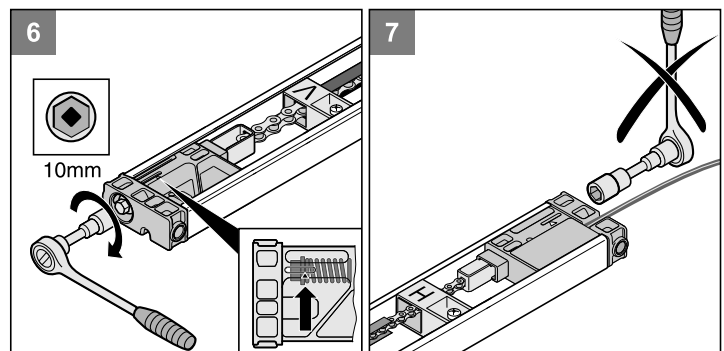


- 3** • Push bogie truck (1) onto C-rail (2).

- 4** • Slot two C-rails (1) into connecting element (2) and push together as far as they will go.



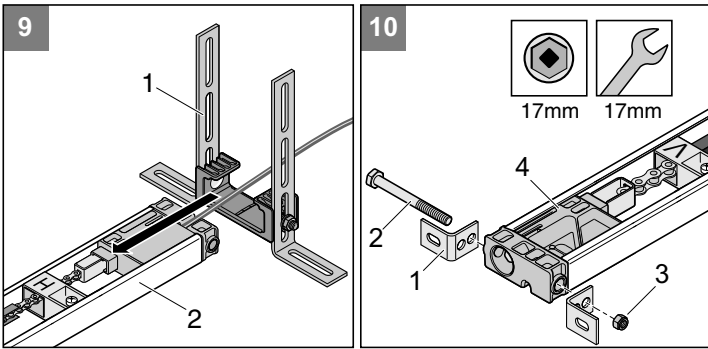
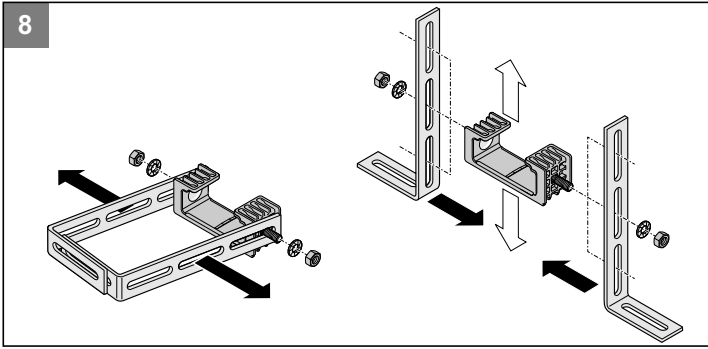
- 5** • Attach the tensioner (1) to the chain (2) and turn it by 90°. Slide in the slide-in module (6) and push the tensioner (1) through it. Place the washer (5) and the spring (4) onto the tensioning bolt (3) and screw it into the tensioner (1).



- 6** • Tighten chain until the mark (arrow) is reached.

- 7** • Do not tighten on this side, as the unit is supplied pre-tensioned.

Installation

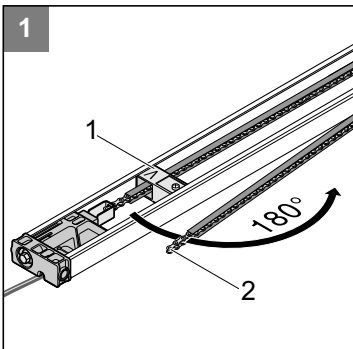


- 9** • Push ceiling suspension fitting (1) onto C-rail (2).
- 10** • Mount bracket (2) with screw (1) and nut (3) onto the connecting element (4).

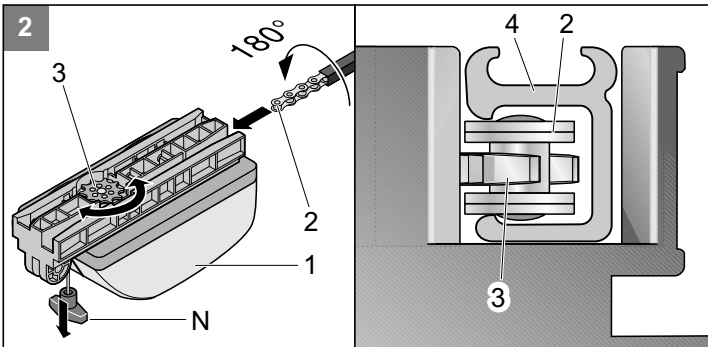
Pre-assembly for installation option B

- Remove drive system from packaging.

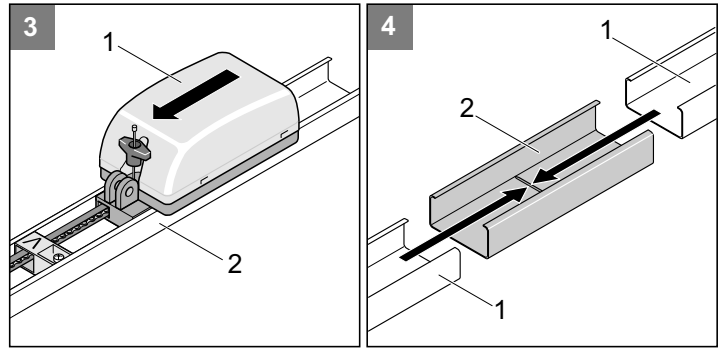
i Dispose of the packaging correctly in accordance with local requirements.



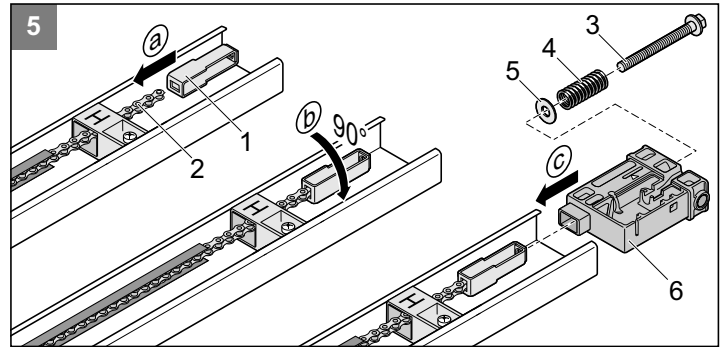
- 1** • Release the switch trigger (1) and move it in the direction of the arrow. Open the chain case (2).



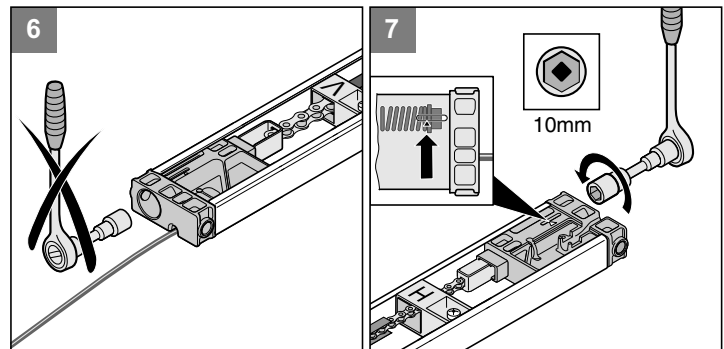
- 2** • Slide the trolley (1) onto the chain (2) with the chain case (4). The chain (2) engages in the chain wheel (3). If the chain wheel (3) does not turn, pull the emergency release (N) once. The chain wheel (3) is released.



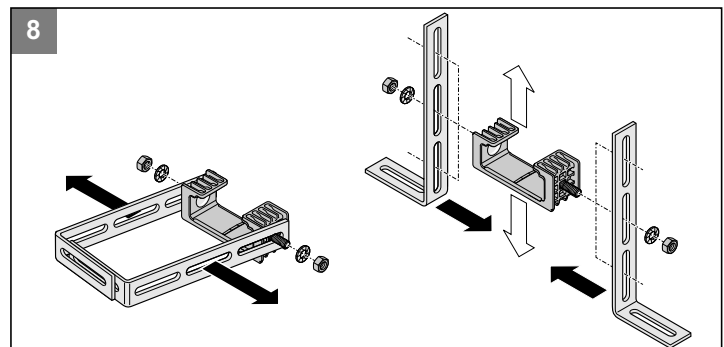
- 3** • Push trolley (1) onto C-rail (2).
- 4** • Slot two C-rails (1) into connecting element (2) and push together as far as they will go.



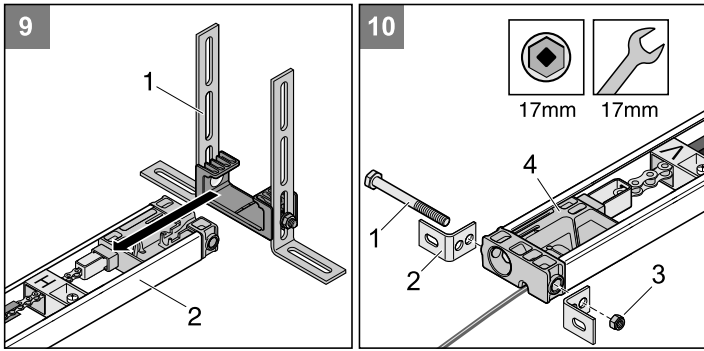
- 5** • Hook tensioner (1) in chain (2) and turn it 90°. Insert connecting element (6) and push tensioner (1) through it. Place plain washer (5) and spring (4) onto the tensioning bolt (3) and screw it into the tensioner (1).



- 6** • Do not tighten on this side, as the unit is supplied pre-tensioned.
- 7** • Tighten chain until the mark (arrow) is reached.



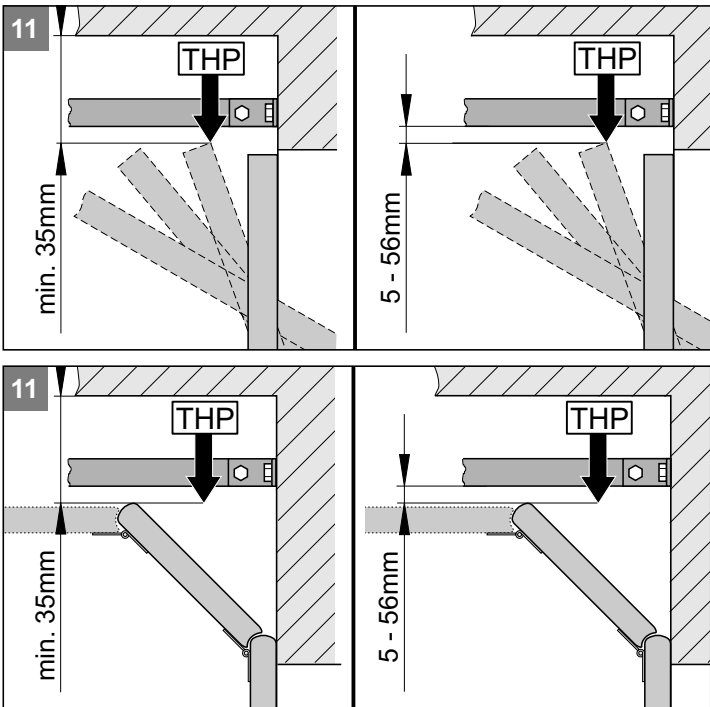
Installation



- 9** • Push ceiling suspension fitting (1) onto C-rail (2).
- 10** • Mount bracket (2) with screw (1) and nut (3) onto the connecting element (4).

Installation (example: option B)

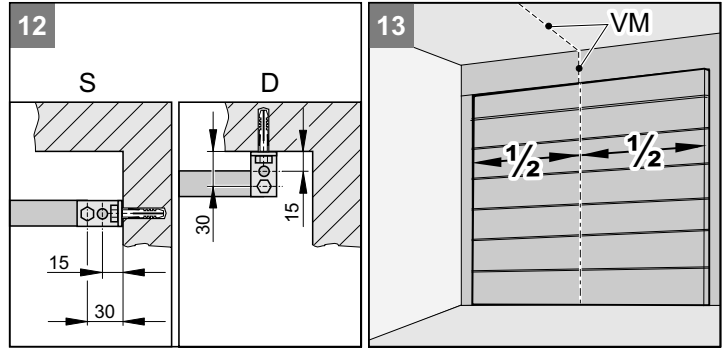
⚠ Use a non-slip, stable stepladder!



i If the distance between the ceiling and the lower edge of the C-rail is greater than 245 mm, then extend the suspension bracket (with perforated steel strip).

- 11** • Determine door's highest up-position (THP): Open door and measure smallest clearance (min. 35 mm) between top edge of door and ceiling. The distance between HDP and the lower edge of the C-rail must be between minimum 5 mm and maximum 65 mm, whereby the push rod must be at an angle of max. 30° (see fig. 21)!

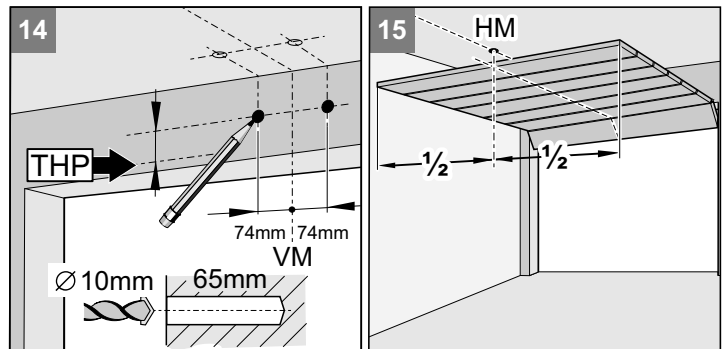
i Please note that this distance might be smaller, if the door handle is located at the centre of the door. Ensure that the door can move freely.



i For installation on the ceiling (D), drill holes at distances of 15 mm, if possible. Smaller angle of inclination of the fixing brackets.

- 12** • The drive mechanism can be mounted on lintel (S) or ceiling (D).

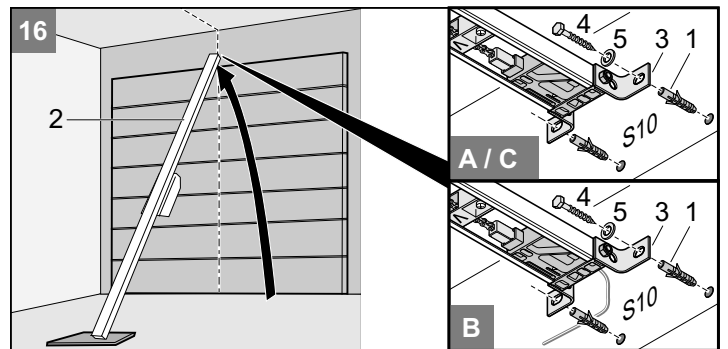
- 13** • Determine the front centre point (VM) of the door and mark it on the door and on the lintel or ceiling.



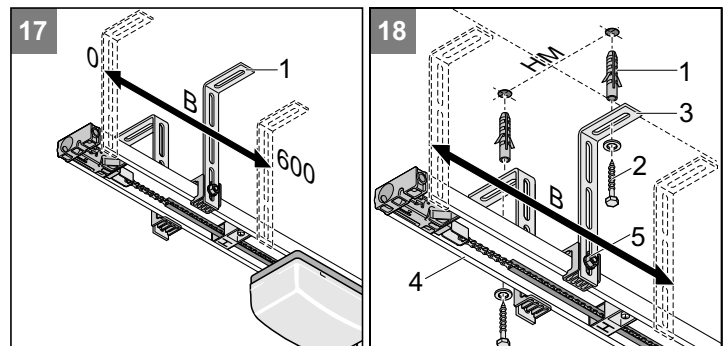
- 14** • Mark points 74 mm to right and left of the centre of door (VM), and at same height on lintel or ceiling (see Fig. 11).
• Drill two holes (Ø 10 x 65 mm).

i Wear safety goggles when drilling!
Check thickness of ceiling, particularly with prefabricated garages!

- 15** • Transfer door centre mark (HM) to ceiling. Close door.

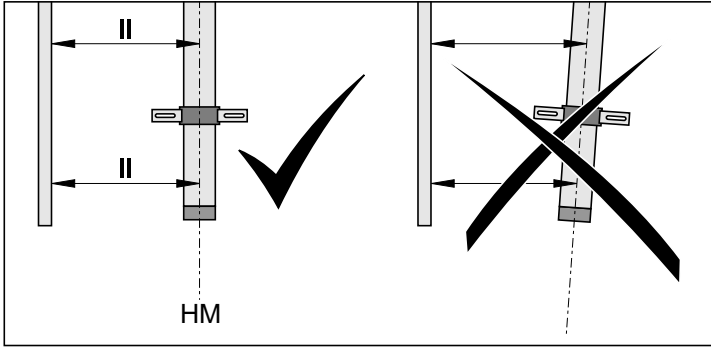


- 16** • Insert plug (1). Lift up operator (2) at front. Secure lintel fitting (3) at the front with two screws (4) and plain washers (5).
• Lift up drive (2).



Installation

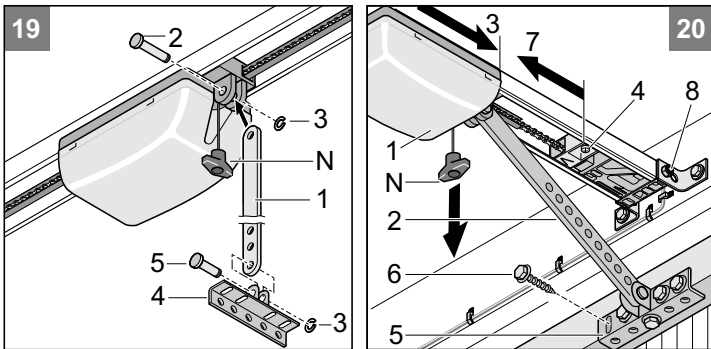
- ⚠ Caution!**
Mount the drive in parallel to the runner rails of the door.



- 17** • Align ceiling bracket (1). The position should be within the range (B = 0 ... 600 mm).
• Align drive mechanism horizontally to rear centre of door (HM). Mark position of holes. Drill two holes (Ø 10 x 65 mm deep).

- i** **Wear safety goggles when drilling!**
Check thickness of ceiling, particularly with prefabricated garages!

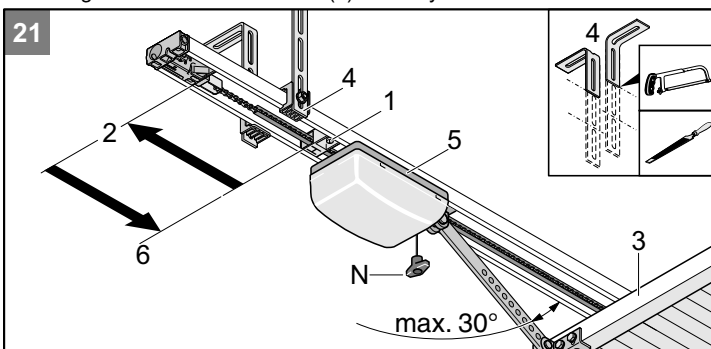
- 18** • Insert plug (1). Fit two screws (2) with plain washers (3). Tighten screws securely.
• Align C-rail (4) at correct height. If necessary, move screws (5). Tighten screws (5).



- 19** • Mount drive shaft (1):
Insert the long bolt (2) and slide on the securing clip (3).
• Attach the door hinge (4) to the connecting rod (1) using the short bolt (5). Slide on the securing clip (3).
- 20** • Pull once on emergency release wire (N), thus disengaging bogie unit (1). Tighten screw (8) on lintel fitting.
• Use drive shaft (2) to push bogie unit (1) as far forward as possible (3). If necessary, release cut-off buffer (4).
• Align angle of door fitting (5) with centre of door (VM) and mark 5 drill holes. Drill 5 holes (Ø 5 mm).

- i** **Use screws that are appropriate to the door material.**
Wear safety goggles when drilling!

- Insert 5 hexagon-head screws (6) and tighten securely.
- Release cut-off buffer (4) and push right up to bogie unit (7).
- Tighten cut-off buffer screw (4) securely.



- 21** • Release rear cut-off buffer (1) and push right back to stop (2). Open door (3) by hand.

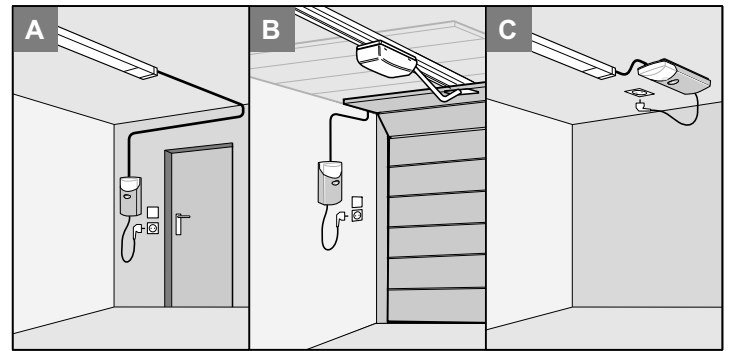
- i** Trim (e.g. saw off and debur) projecting part of ceiling bracket (4).

- Push cut-off buffer (1) right up to end stop (6) against bogie unit (5), until it clicks. Securely tighten screw on switch-trigger (1).

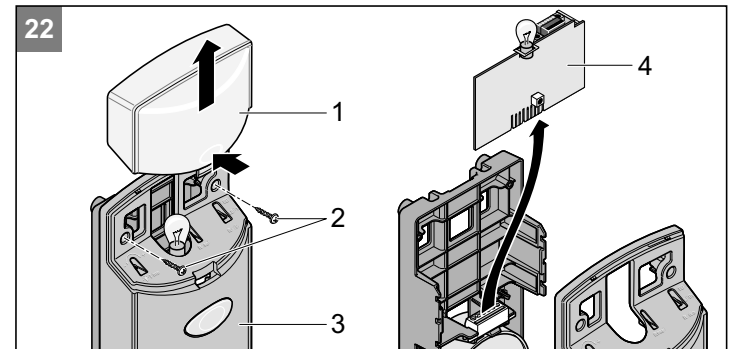
Installing and connecting the control unit

Selection of the installation option

- ⚠** Position the push button in such a way that the operator can see the door, while he/she is not inside the operating area of the door.



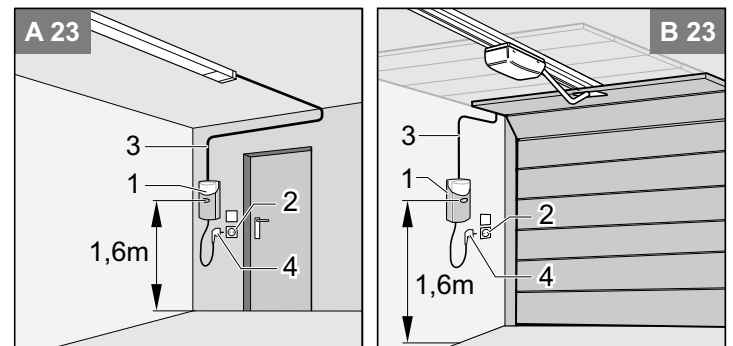
- i** The cable must be permanently installed. Install cable in such a way that it is possible to expand the power supply in option A (if the cable is at right angles to the C-rail, install it with a loop).



- ⚠** Touch the control unit (4) only at its edge!
Do not touch the electronic components!

- 22** • Remove the lamp cover (1). Loosen the screws (2) and remove the cover (3), and then remove the control unit (4).

Installation options A/B



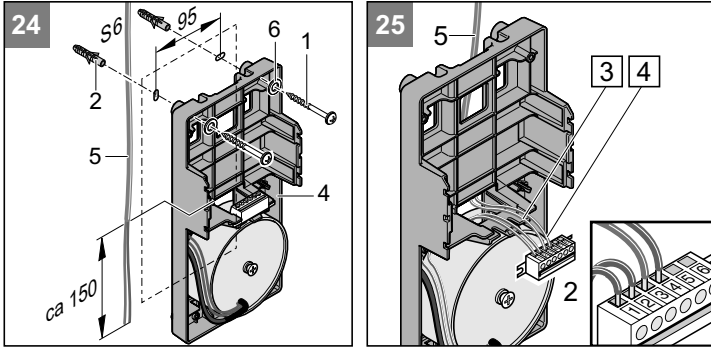
- 23** • Choose a suitable location for the installation of the control housing (1), preferably near a power socket (2). Minimum height from the floor - 1.6 m.

- ⚠** Please note when selecting location of control unit housing (1) that the maximum length of the control cable (3) is 6900 mm and no longer!

- Install the control line (24 V) (3) to the control housing (1) in the garage. Do not yet plug in the power plug (4)!

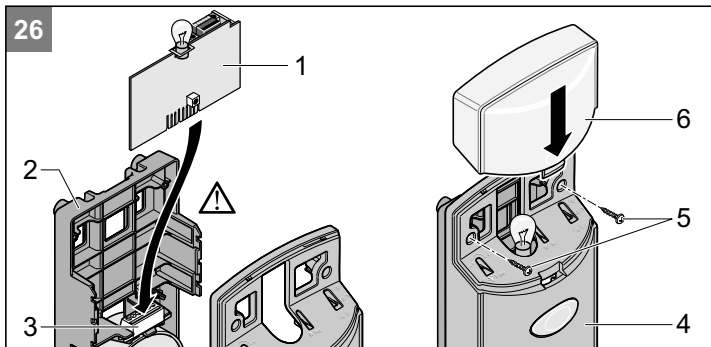
Installation

⚠ Be careful not to drill into the socket outlet feeder and do not plug the mains plug in yet!



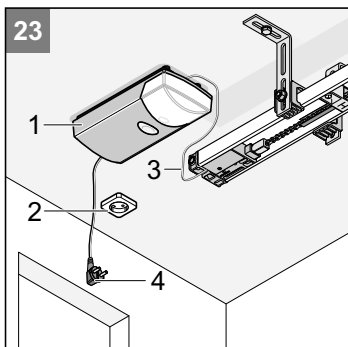
- 24**
- Drill 2 holes (Ø 6 x 40 mm deep). Place plugs (2) in the holes.
 - Position, align and then secure the control housing using 2 screws (1) and 2 washer (6).
- 25**
- Insert the end of the control cable (5) into the rear of the control unit (4).
 - Connect the control cable (5): connect the core marked 3 (green) to terminal 3 and the core marked 4 (red) to terminal 4 of direct socket unit (1). Shorten the control cable (5) if necessary.

i In the case of swing doors, connect wire marked 3 (green) to terminal 4 of the direct socket unit (2) and the one marked 4 (red) to terminal 3.



- 26**
- Plug the control board (1) into the basic rack (2) and into the terminal bar (3). Replace the cover (4) and tighten the screws (5). Mount the lamp hood (6).

Installation option C

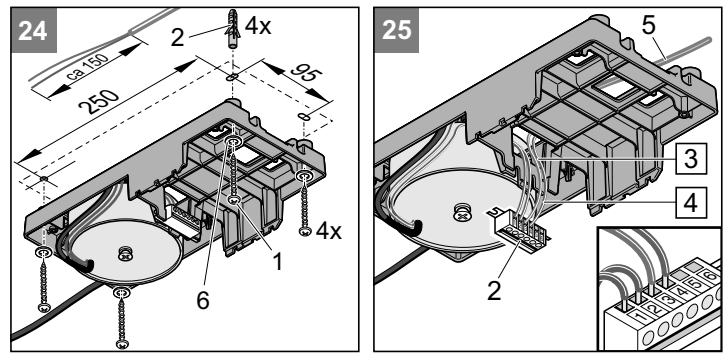


- 23**
- Choose a suitable location for the installation of the control housing (1), preferably near a power socket (2).

⚠ Please note when selecting location of control unit housing (1) that the maximum length of the control cable (3) is 6900 mm and no longer!

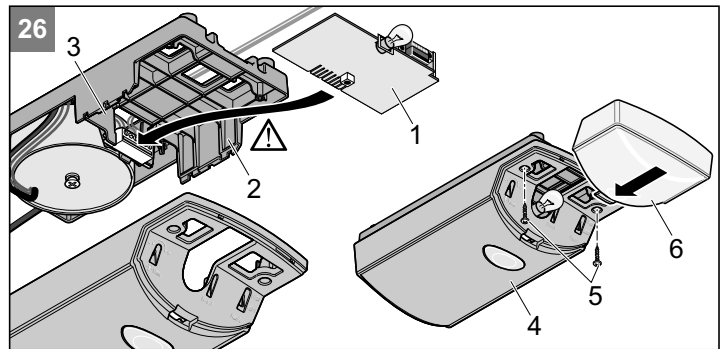
- Install the control line (24 V) (3) to the control housing (1) in the garage. **Do not yet plug in the power plug (4)!**

⚠ Be careful not to drill into the socket outlet feeder and do not plug the mains plug in yet!



- 24**
- Drill 4 holes (Ø 6 x 40 mm deep). Place plugs (2) in holes. Supplied components 2 plugs, 2 screws and 2 washer.
 - Position, align and then secure the control housing using 4 screws (1) and 4 washer (6).
- 25**
- Insert the end of the control cable (5) into the rear of the control unit (4).
 - Connect the control cable (5): connect the core marked 3 (green) to terminal 3 and the core marked 4 (red) to terminal 4 of direct socket unit (2). Shorten the control cable (5) if necessary.

i In the case of swing doors, connect wire marked 3 (green) to terminal 4 of the direct socket unit (2) and the one marked 4 (red) to terminal 3.

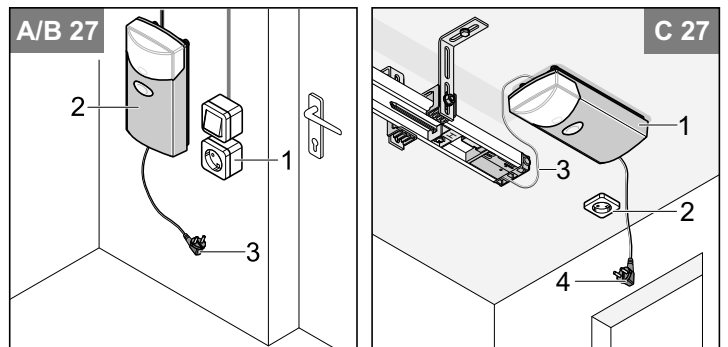


- 26**
- Plug the control board (1) into the basic rack (2) and into the terminal bar (3). Replace the cover (4) and tighten the screws (5). Mount the lamp hood (6).

Installing the socket outlet

i Socket outlet may only be installed by a qualified electrician. Protect socket with a fuse (16 A slow-blow).

⚠ Observe applicable VDE regulations!



- 27**
- Install socket (1) on ceiling at a distance of approx. 0.5 m to the control unit housing (2).

- 27**
- Install socket (1) on ceiling at a distance of approx. 0.5 m to the control unit housing (2).

- Install and connect the connection cable from the socket outlet (1) to the mains power supply. **Do not plug the connector (3) into the socket outlet yet!**

Installation

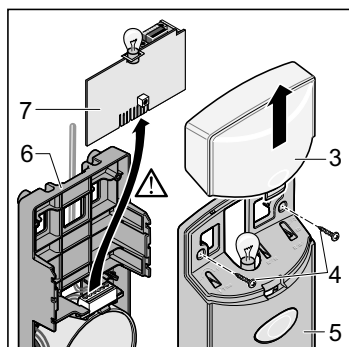
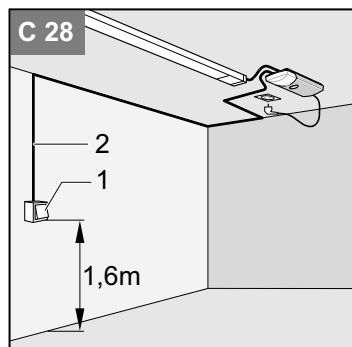
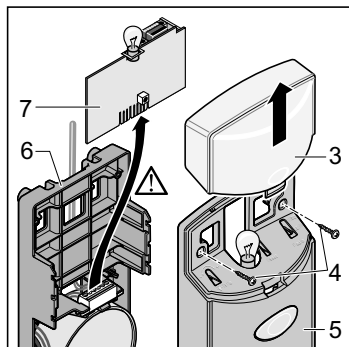
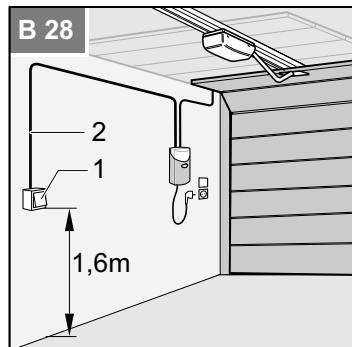
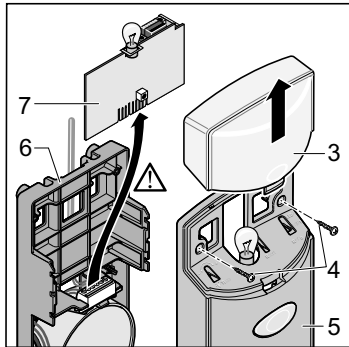
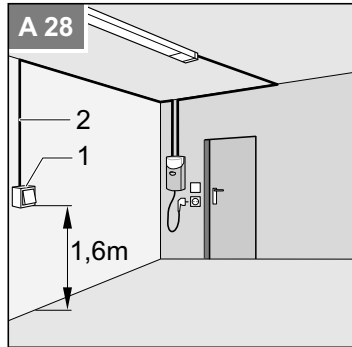
Installing and connecting an additional push-button

i Only necessary if a further push-button is required in addition to the one already installed.

! Use the contact only for potential-free normally closed contacts. External voltage may damage or even destroy the control unit.

! Position the push-button in such a way that the operator can see the door, while he/she is not inside the operating area of the door.

- Never lead the button cable along the power line, as this could lead to interference in the control system. The power line must be permanently installed.

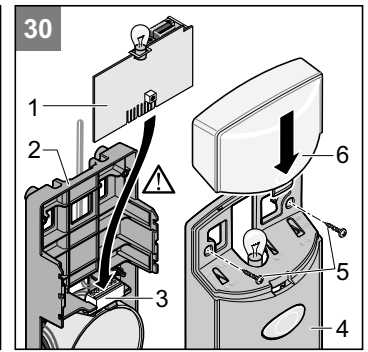
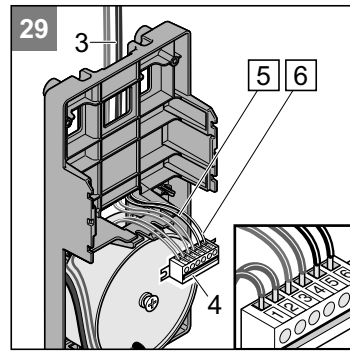


28 • Install push-button (1) in an appropriate, easily accessible location in the garage. Minimum height from the floor: 1,6 m

- Install button cable (2) in garage. Connect end of cable to push-button (1).

! Only hold outside edge of control board (7)! Do touch the electronic components.

- Remove the lamp cover (3). Loosen the screw (4) and remove the hood (5). Pull the control board (1) upwards from the basic rack (6).



i Connect the key switches (potential-free NO contact), if any, to the terminals 5 + 6.

29 • Connect the push-button cable (3) to terminals 5 + 6 of the terminal bar (4).

30 • Plug the control board (1) into the basic rack (2) and into the terminal bar (3). Replace the cover (4) and tighten the screws (5). Mount the lamp hood (6).

Commissioning

Safety instructions

i Once the drive has been installed, the person responsible for installation has to issue an EU Conformity Declaration for the door system in accordance with Machine Directive 98/37/EG as well as fitting the CE seal and the rating plate. This also applies to doors installed for private purposes and in cases where the drive has been retrofitted to a manual door. These Instructions as well as the drive's Installation and Operating Instructions should be kept by the user for reference purposes.

! The force setting is relevant to the system's safety and must therefore be carried out with due care and attention. An excessively high force setting can injure people and/or animals and damage property. Select as low a force setting as possible to ensure that obstacles are identified in a fast, safe manner.

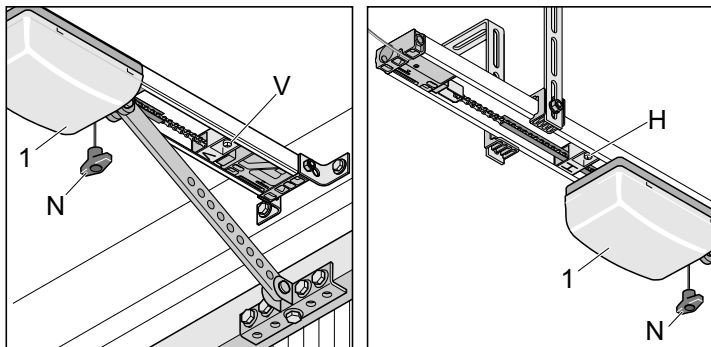
! Risk of sudden closing or opening! When the emergency release is actuated, the door might suddenly be opened or closed, due to a damaged spring or incorrect balance weight. This might damage or even destroy the drive unit.

Setting door OPEN + CLOSED final travel positions

i While adjusting the settings, open and close the gate manually. Do not operate it with the engaged drive system.

The distance over which the drive mechanism moves the door can be increased/reduced by using the cut-out buffer (V + H).

Check that the door opens and closes completely. If it does not, its travel must be adjusted.



Limit position door CLOSED

- Release the trolley, if it is not yet released. Pull the emergency release rope (N) once. It must be possible to slide the trolley back and forth by hand.
- Close the door by hand.
- Release the switch trigger (V) and slide it towards the trolley until it triggers the limit switch. Secure the switch trigger (V) with screws in this position.

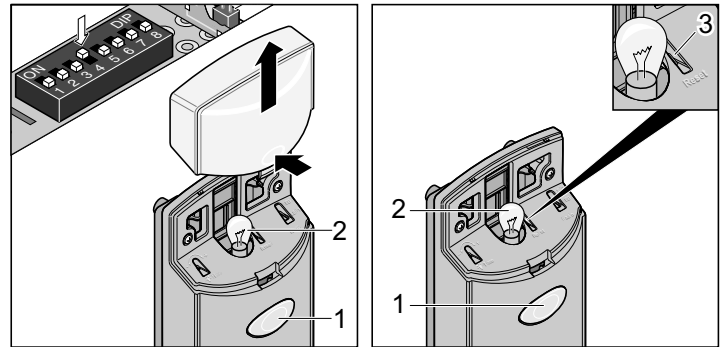
Door OPEN final travel position

- Open the door by hand.
- Release the switch trigger (H) and slide it towards the trolley until it triggers the limit switch. Secure the switch trigger (H) with screws in this position.
- Close the door by hand.
- Lock the trolley (1): Pull the emergency release rope (N) once. Move the trolley by hand a little bit forward until the chain wheel engages with a loud clicking sound.

Teaching in drive

Whenever the door "opens" or "closes", the control unit automatically reads in the force required and memorises it when the end position is reached.

- Plug in power plug.



i The first movement of the drive after the power is connection must be "door OPEN". If this is not the case, exchange the wires to terminals 3 + 4.

- Press the push button (1). The door is opened to limit position "door OPEN".
- Close gate, press button (1).

Reset the control unit

i DIP switch 4 ON, light bulb (2) is on after a control reset. DIP switch 4 OFF, light bulb (2) flashes after a control reset.

- Press button (3) until such time as lamp (2) goes out.
- When lamp goes out, force settings have been deleted and button (3) can be released.
- Light bulb (2) flashes - control reset successful.

Carry out following procedure twice:

- Press push-button (1) once
Door opens as far as cut-off buffer (H, end position for door OPEN)
- Lamp (2) starts to flash
- Press push-button (1) once
Door closes as far as cut-off buffer (V, end position for door CLOSED)
- Lamp (2) starts to flash.

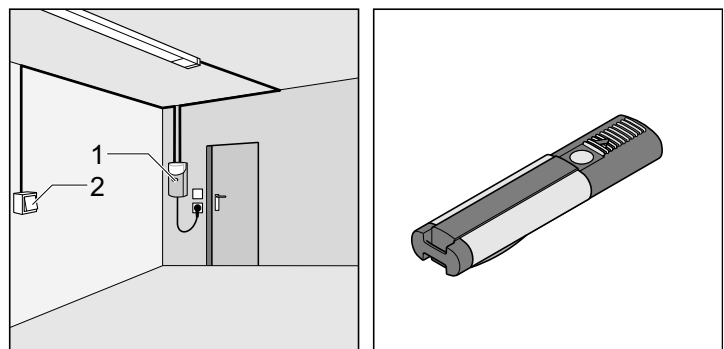
When all force values are read and saved, the lamp (2) ceases flashing.

The operator has been 'taught' successfully!

Checking the limit positions for door CLOSED + OPEN

The trolley of the drive system can be extended or shortened by means of the switch triggers.

Check whether the door is opening and closing properly. If this is not the case, adjust the trolley.



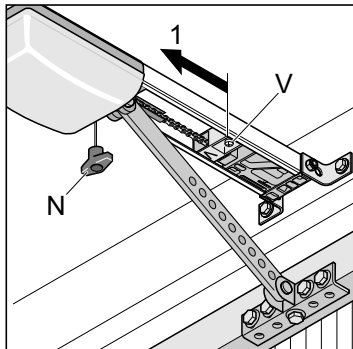
- Actuate the control device (e.g. push-button, remote control device, etc.) once.
The door is opened.

If it fails to reach the desired limit positions for door OPEN + CLOSED, readjust the limit positions. For detailed instructions, see chapter "Adjusting door OPEN + CLOSED settings".

Commissioning

Checking emergency release

i With sectional doors, or doors with ceiling guides, you have the option of activating the backjump with DIP switch 6 in order to offload the operator and door mechanisms.



- Close the door with the drive.
- Pull the emergency release (N) 1x.
If the emergency release cannot be operated, loosen the end switch (V) and move it in direction (1).
- Open the door with the drive and close it again. Test the emergency release again.

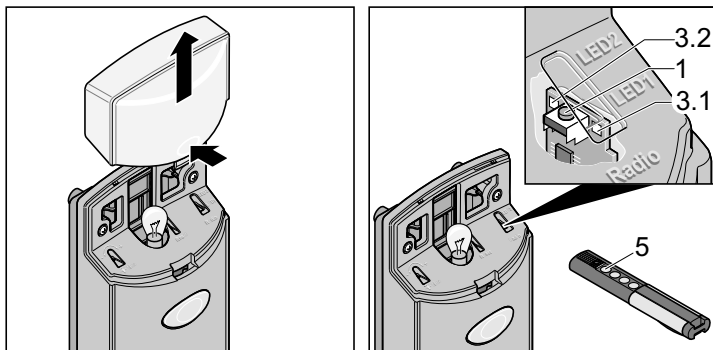
Checking force setting

Whenever the door is opened or closed, the control unit compares the memorised force setting with the force actually needed and automatically adjusts the memorised setting accordingly when the given final travel position is reached.

For checking details see 'Maintenance and Care' section.

Programming of remote control

i Prior to the initial programming of the hand-held transmitters, clear the memory of the radio receiver.



Clearing radio receiver memory

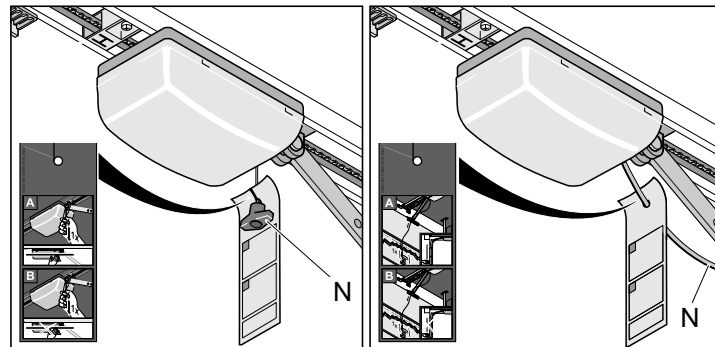
- Press and hold the programming key (1).
 - After 5 seconds, the LED (3.1 or 3.2) flashes. After another 10 seconds, the LED is constantly on (3.1 or 3.2).
 - After 25 seconds, all LEDs are on (3.1 + 3.2).
- Release the programming key (1). All channel data has been deleted.

Programming remote control device

- Press the programming button (1)
 - 1x for channel 1; LED (3.1) is on
 - 2x for channel 2, LED (3.2) is on
- If no other code signal is transmitted within 10 seconds, the radio receiver switches to standard operation.
- Aborting programming: repeatedly press the programming key (1) until all LEDs are off.
- Press and hold desired hand-held transmitter button (5) until the LED (3.1 / 3.2) is off (depending on the selected channel).
- The LED is off. - The programming process is completed.
The hand-held transmitter has transmitted the radio codes to the radio receiver.

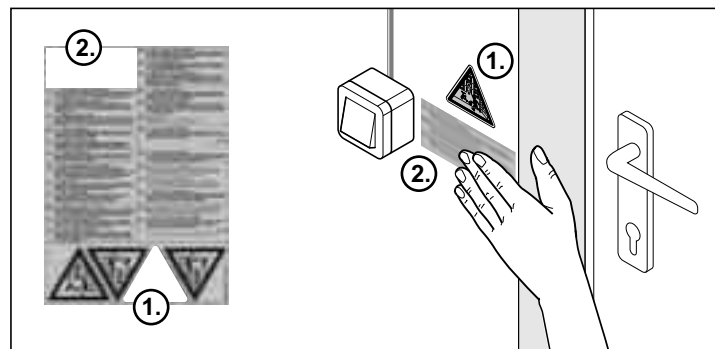
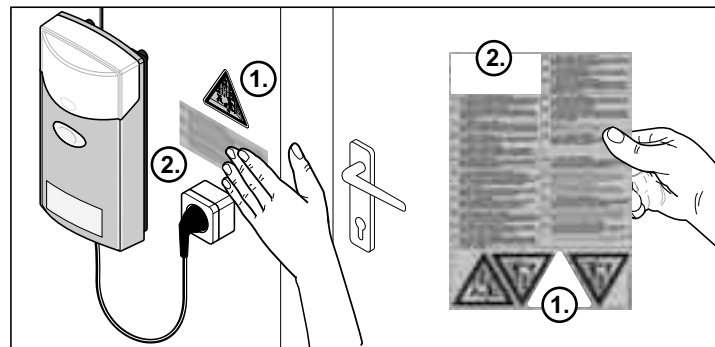
Continue with programming all other hand-held transmitters. To do this, repeat the above steps. The maximum number of memory blocks is 112 per radio receiver.

Attaching instruction label



- Attach the instruction label for the operation of the emergency release to the emergency release rope.

Attaching warning sign



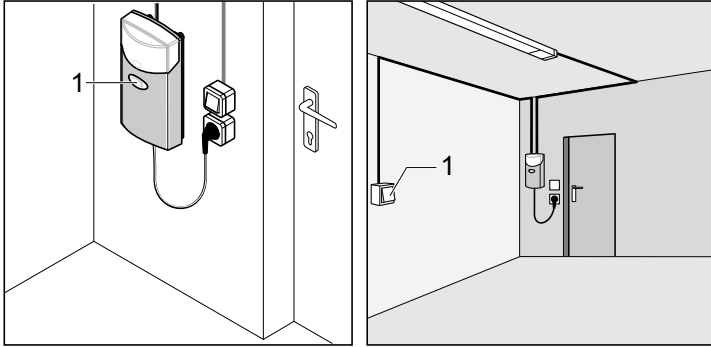
- Attach the warning signs (text + triangle sign) at a position where they are clearly visible, e.g. beside the push button (warning triangle) and on the door leaf (text + warning triangle).

Operation and handling

Safety instructions

- Keep children, disabled persons and animals away from the door.
- Keep your hands clear of a door in operation and any moving parts.
- Only drive into and out of the garage when the door is fully opened.
- Risk of persons trapping or cutting themselves in/on the door system's moving parts or edges where it closes.

Opening door

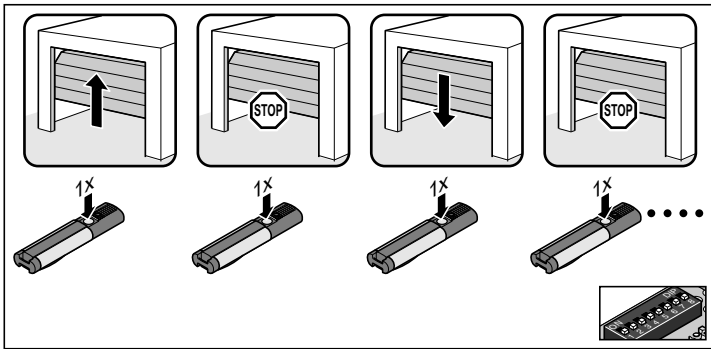


- Press button (1) or manually-operated remote control once.
- The door stops moving if this button is pressed again while the door is opening. Dependent on DIP switch 7 setting.
- If the button is pressed again the door closes.

Closing door

- Press button (1) or manually-operated remote control once.
- The door stops moving if this button is pressed again while the door is closing. Dependent on DIP switch 7 setting.
- If this button is pressed again the door opens.

Pulse sequence of door movement



Adjust the pulse sequence with DIP switch 7.

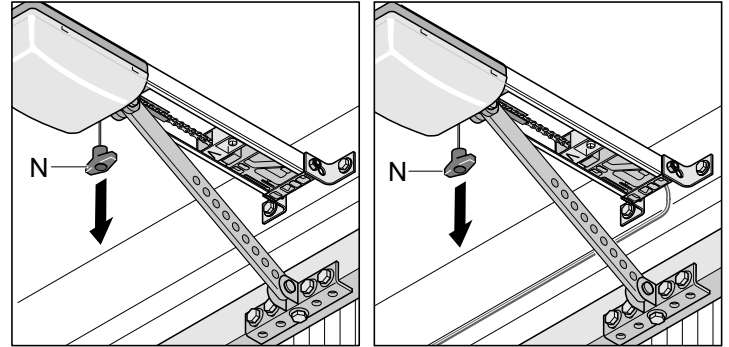
- **DIP 7 OFF, default settings for all drive:**
open - stop - close - stop - open - ...
- **DIP 7 ON:**
Button 1: open - stop - open - stop - ...
Button 2: close - stop - close - stop - ...

Emergency release

Caution!
The emergency release may only be used in the event of an emergency (power failure, failure of drive, etc.) to open or close the door. Do not use it to open and close the door in other situations, as this could damage the door or the drive mechanism.

Risk of damage!
When operating the emergency release, it is possible that the door may open or close automatically due to the spring breaking or the weight balance being set incorrectly. Drive can suffer damage or be destroyed.

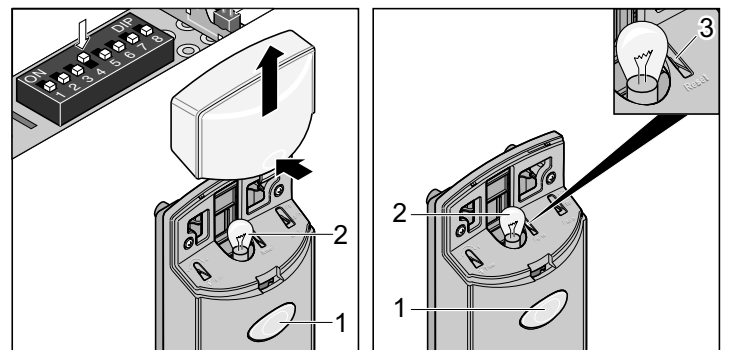
i Engaging or disengaging the drive can occur in any door position.



- Pull once on emergency release wire (N): the drive mechanism disengages and the door can be opened manually.
- Pull on emergency release cord (N) once again: drive locks into position; door can only be moved with the drive.
- Door is fitted with a wicket door but no safety mechanism for the wicket door - retro-fit wicket-door safety mechanism (see 'Accessories' instructions).
- Door has no wicket door and garage no second entrance - install release lock or Bowden wire providing outside release access (see 'Accessories' instructions).

Control reset

i DIP switch 4 ON, light bulb (2) is on after a control reset.
DIP switch 4 OFF, light bulb (2) flashes after a control reset.



i After a control reset, the drive unit must be programmed again.

- Press button (3) until such time as lamp (2) goes out.
- When lamp goes out, force settings have been deleted and button (3) can be released.
- Light bulb (2) flashes - control reset successful.

Operation and handling

Interim stop

If an interim stop occurs due to the operation of a push-button or the manual remote control, the drive unit stops immediately. The next command given sends the drive in the opposite direction. See 'Pulse Sequence of Door Movement' section.

Safety stop 1 (automatic force cut-off)

When the automatic force cut-off is activated, the drive stops or reverses. When the next command is given, the drive moves in the opposite direction. See 'Pulse Sequence of Door Movement' section.

- Safety stop when door closes - door reverses
- Safety stop when door opens - door stops.

Safety stop 2 (automatic force cut-off)

When the safety input is tripped (e.g. someone crosses light barrier), the drive stops, reverses or opens, depending on the given DIP switch settings of DIP switch 1 + 3.

See 'Obstacle Recognition' section for given drive type.

When the next command is given, the drive moves in the opposite direction. See 'Pulse Sequence of Door Movement' section.

Default settings:

- safety input tripped when door closes:
 - door reverses
- safety input tripped when door opens:
 - no response (door opens)

Overload protection

If the drive mechanism is subjected to excessive strain when opening or closing the door, this is recognised by the control unit which then stops the drive mechanism. After approx. 20 seconds or a control unit reset, the control unit deactivates the overload protection.

The drive mechanism can now recommence normal operation.

Operation following a power failure

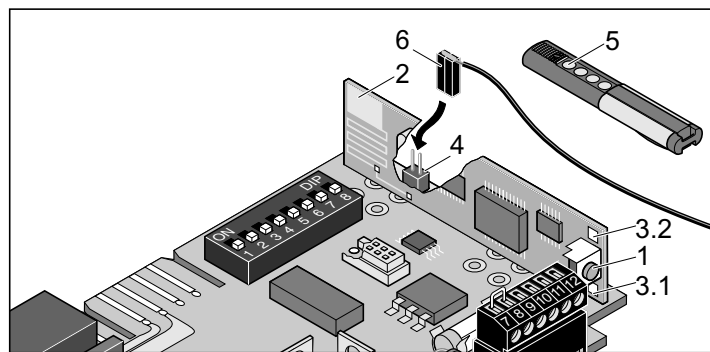
The force values remain saved even during a power failure. The first movement of the unit following a power cut is always door OPEN.

Radio remote control receiver

i Homelink compatible!
If your vehicle is equipped with a Homelink system (version 7), you can reach our drive/radio receiver at 868.6 MHz. With holder Homelink systems, you must use a different frequency (40.685 or 434.42 MHz). For more information, please visit: "<http://www.eurohomelink.com>"

- To ensure safe operation, local safety regulations relevant to the equipment concerned must be observed! Information regarding this can be obtained from electricity suppliers, the VDE and employers' liability insurance associations.
- The operator of this radio-controlled equipment is in no way protected from interference from other telecommunications systems and facilities (e.g. other radio-controlled equipment that is licensed to operate at the same frequency range).
- Try replacing the batteries should reception problems be encountered.

Description of display and push-buttons



- 1 Setting button
Puts radio receiver in a given operating mode:
self-learn, delete and normal
- 2 Internal antenna
- 3 LED
Display which channel has been selected.
3.1 LED channel 1
3.2 LED channel 2
- 4 Connection for external antenna (6)
If the radio range of the internal antenna is not sufficient, you have the option to connect an external antenna.
- 5 Manual remote control button
- 6 External antenna

Teaching in manual remote control

- Press setting button (1)
 - Press 1x for channel 1; LED (3.1) lights up
 - Press 2x for channel 2; LED (3.2) lights up
- If no radio code is transmitted within 10 seconds, the receiver switches back to normal operating mode.
- Interrupting setting mode: press setting button (1) as often as required to put out all LEDs
- Press and hold desired hand-held transmitter key until the LED (3.1 / 3.2) is off - depending on the selected channel.
- The LED is off - the programming process is completed.
The hand-held transmitter has transmitted the radio code to the radio receiver.

Teaching in further manual remote controls. Repeat above steps.
Max. 112 memory slots are available per radio receiver.

Disabling manual remote control button at the receiver

If a user of a multi-user garage facility moves house and wants to take his manual remote control with him, then all the codes of the given user's manual remote control have to be deleted from the radio receiver.

⚠ For security reasons, each manual remote control button and/or combination of buttons should be deleted!

- Press setting button (1) and keep depressed for 5 seconds until an LED starts to flash (any LED).
- Release setting button (1) - radio receiver is in delete mode.
- Press push-button on the manual remote control, the one whose code is required to be deleted on the radio receiver - LED goes out - deletion process complete.

Repeat procedure for all push-buttons and combination of buttons.

Deleting a channel from the radio receiver

- Press setting button (1) and keep pressed
 - press 1x for channel 1; LED (3. 1) lights up
 - press 2x for channel 2; LED (3.2) lights up
 - The LED that lights up depends on which channel has been selected. After 5 seconds, the LED starts to flash and then remains lit after a further 10 seconds.
- Release setting button (1) - deletion process complete.

Deleting the radio receiver's memory

If a manual remote control is lost, then for security reasons all channels on the receiver have to be deleted! After this has been done, all the manual remote controls have to be re-set into the receiver.

- Press and hold the programming key (1).
 - After 5 seconds, the LED (3.1 or 3.2) flashes. After another 10 seconds, the LED is constantly on (3.1 or 3.2).
 - After 25 seconds, all LEDs are on (3.1 + 3.2).
- Release the programming key (1) - all channel data has been deleted.

Connecting an external antenna

- An external antenna can be fitted if the possible range with the radio receiver's internal antenna is insufficient.
- The antenna cable must not exert any mechanical load on the radio receiver. Fit strain relief.
 - Connect external antenna (6) to terminal (4).

Functions and connections

General tips

- At delivery, all DIP switches are in OFF position. All additional functions are disabled.

Obstacle recognition (DIP 1, 2 + 3)

Drive behaviour upon opening the door

If the door meets an obstacle (force cut-off) or if the safety input is interrupted (person triggering the light barrier), this is detected by the drive system, depending on the position of the DIP switch 1.

DIP switch 1

OFF No response in the event of a safety input interruption. In the event of a force cut-off, the door is halted.

ON Drive stops door

Drive behaviour upon closing the door

If the door meets an obstacle (force cut-off) or if the safety input is interrupted (person triggering the light barrier), this is detected by the drive system, depending on the position of the DIP switches 2 + 3.

DIP switch 2: Safety contact strip

OFF NC contact for light barrier

ON Button connection for button 2 (partial opening, preset opening and closing)

DIP switch 3: Behaviour of drive unit during closing of door

OFF Drive stops and opens door a little (reversal)

ON Drive stops and opens door completely

Connecting button 2 (DIP 2)

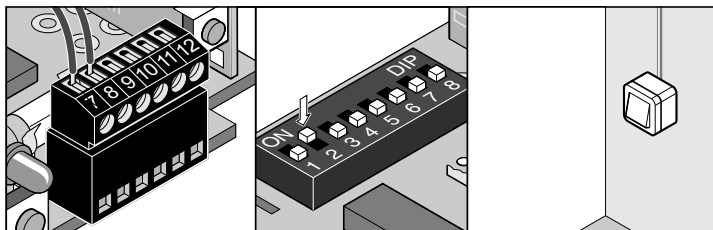
⚠ Use the contact only for potential-free normally closed contacts. External voltage may damage or even destroy the control unit.

i No further safety connections are available.

Button 2 can be used in conjunction with the following functions:

- Preset opening and closing
- Partial opening

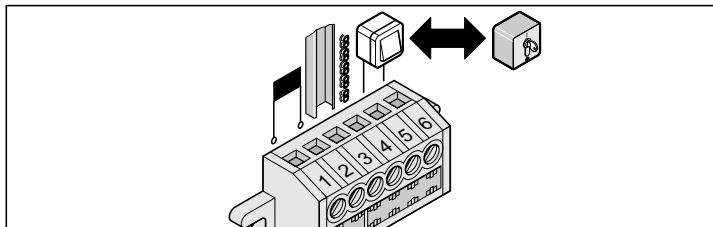
- Permitted cable cross-section: max. 0,75 mm².



Terminal 7 + 8 Push-button 2 connection, **only if DIP switch 2 is ON**

Direct socket unit

- Permissible cable cross-section: max. 1,5 mm².



Terminal 1 + 2 Transformer

Terminal 3 C-rail

Terminal 4 Chain

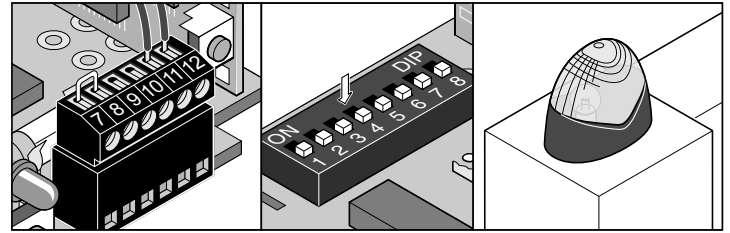
Swap connections (terminals 3 + 4) around if drive is to be used in conjunction with swing doors.

⚠ Use the contact only for potential-free normally closed contacts. External voltage may damage or even destroy the control unit.

Terminal 5 + 6 Push-button connection (push-button 1), potential-free NC contact

Connecting warning lamp (DIP 4)

- Permissible cable cross-section: max. 0,75 mm².



Terminal 11 + 12 Non-regulated DC 24 V (max. 34 V), max. 1 A

DIP switch 4

OFF Connected warning lamp flashes (control unit generates flashing)

ON Door status indicator

- is lit when door is not closed
- is out when door is closed

Warning time (DIP 5)

The warning lamp starts to flash after push-button is pressed or manual remote control operated during the three seconds before the drive starts up. If the push-button is pressed again or the manual remote control is operated during the 3 seconds, the early warning period is ended prematurely.

The early warning period functions in conjunction with both internal lighting and with a connected warning lamp.

DIP switch 5

OFF Deactivated

ON Activated; internal lighting and warning lamp flash for 3 seconds.

Backjump (DIP 6)

i In sectional doors, you have the option to set DIP switch 6 to position ON in order to release the load from the drive system and the door. It also facilitates the activation of the emergency release.

This feature serves the purpose of supporting door and drive mechanism operation. The drive mechanism moves briefly back in a door OPEN direction once it has reached the door CLOSED final travel position, thus taking some of the strain off the other equipment.

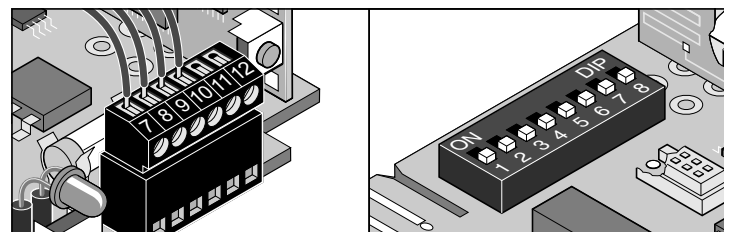
DIP switch 6

OFF Deactivated

ON Activated

Connecting light barrier

- Permissible cable cross-section: max. 0,75 mm².



Terminal 7 + 8 Safety connection, **only if DIP switch 2 is OFF**

Terminal 9 + 10 regulated DC 24 V, max. 0.1 A

Terminal 9: DC 24 V

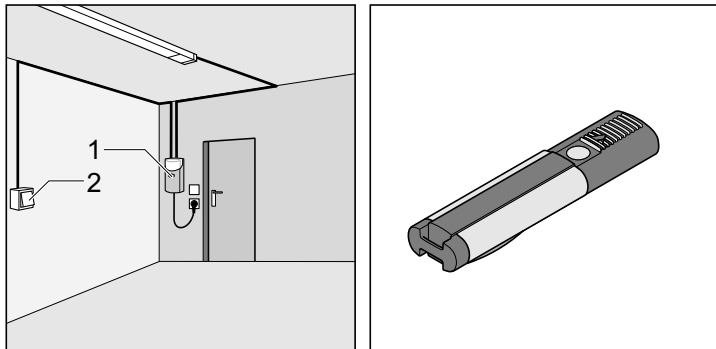
Terminal 10: Earth

Settings: see Obstacle detection (DIP 1, 2 + 3)

Functions and connections

Defined opening and closing (DIP 7)

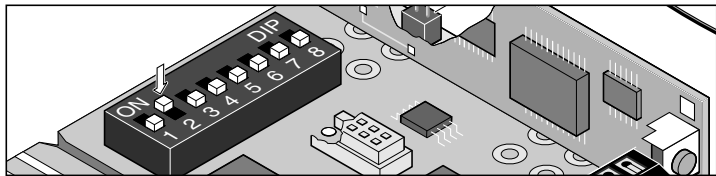
i With this function, the door can only be opened with button 1/ radio channel 1, and can only be closed with button 2/radio channel 2.



Button 1/radio channel 1: opening door; button 2/radio channel 2: closing door. The function may also be used for operation with 2 buttons or one hand-held transmitter.

Requirement:

DIP switch 8 OFF, 2 buttons connected (DIP switch 2 ON) or 2 hand-held transmitter buttons programmed.

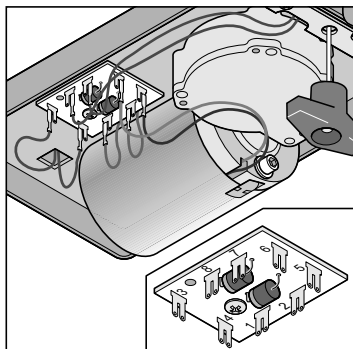


DIP switch 7

OFF Deactivated

ON Activated

Trolley board

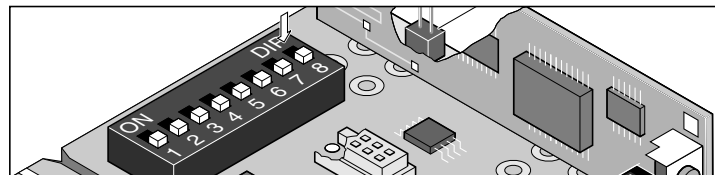


Terminal	1	Power supply to chain
	2	Power supply to rail
	3 + 4	End switch gate OPEN
	5	Motor cable
	6	Motor cable
	7 + 8	End switch gate CLOSED

Partial opening (DIP 8)

This function opens the door either completely or partially, depending on the given setting.

Ideas for use: garage ventilation, opening of side-opening door for personal access, to name but a few. Partial opening can also occur using just two push-buttons or just the manual remote control.



DIP switch 8

OFF Deactivated

ON Activated, DIP switch 7 not functioning

Partial opening using 2 push-buttons

Fit additional push-button and connect as push-button 2 to terminals 1 + 2.

Button 1 always opens the door fully.

If the door has been partially opened by pressing push-button 2, it can be fully opened by pressing push-button 1.

Push-button 2 only carries out partial opening when the door is closed.

Should the door have been fully opened using push-button 1 or partially opened with push-button 2, it can be closed by again pressing push-button 2.

Procedure:

1. Close door.
2. Set DIP switch 8 to ON, thus activating partial opening functionality
 - always leave DIP switch 8 in ON position; the OFF position automatically deletes the partial opening function that has been set.
3. Press push-button 2 (opens door from CLOSED final travel position)
 - door opens until such time as push-button 2 is pressed again or OPEN final travel position has been reached.
4. Press push-button 2 when the desired position has been reached.
5. Close door by pressing push-button 2.

Partial opening has been memorised and door is opened to set position by pressing push-button 2.

Set DIP switch 8 to OFF position to delete partial opening setting

Partial opening via manual remote control

(2-channel operation)

Teaching in 2 manual remote control push-buttons:

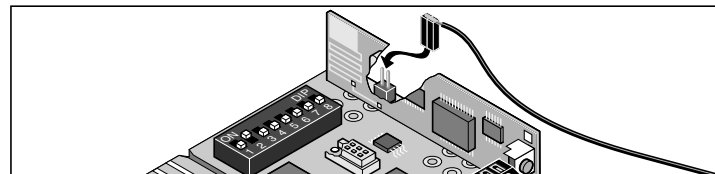
e.g. push-button 1 on to radio channel 1 and push-button 2 on to channel 2

Radio channel 1 always has the same function as push-button 1

Radio channel 2 always has the same function as push-button 2

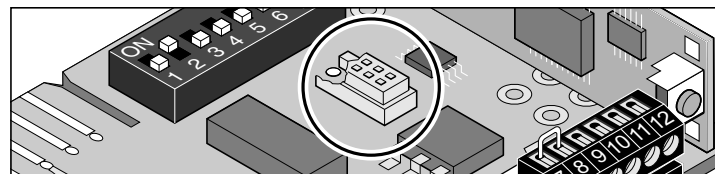
Connecting external antenna

Supplied vacant as standard



TorMinal interface

See TorMinal Operating Instructions



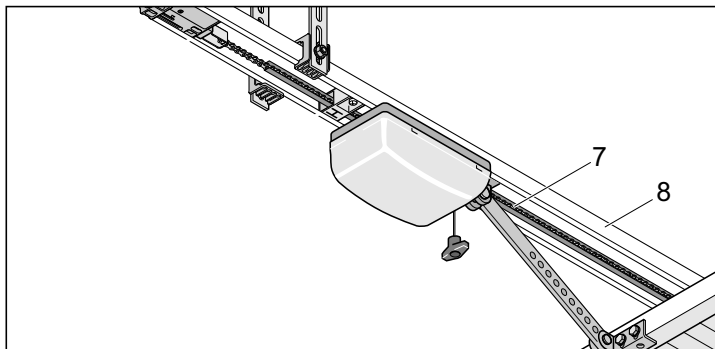
Maintenance and care

Important information

⚠ Never use a hose or a high-pressure cleaner to spray down the drive or the control unit housing.

- Always disconnect the mains plug prior to working on the drive mechanism.
- Never use lyes or acids for cleaning purposes.
- Wipe drive clean with a dry cloth as required.
- Keep your hands clear of a moving door and any moving parts.
- There is a risk of persons trapping or cutting themselves in/on the door system's moving parts or edges where it closes.
- All fixing screws on the drive should be properly checked and tightened if necessary.
- Check the door at least annually, in accordance with the manufacturer's instructions.

Cleaning chain and drive unit rail

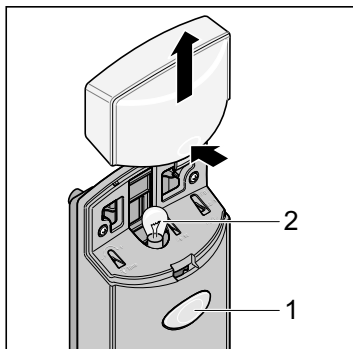


- The chain (7) or the drive rail (8) is dirty - clean it with a cloth.
- If required, lubricate the chain (7) and the drive rail (8) with conductive oil.
Do not use grease!

i Recommended oil types: Ballistol, WD40 contact spray

Changing bulb (duo)

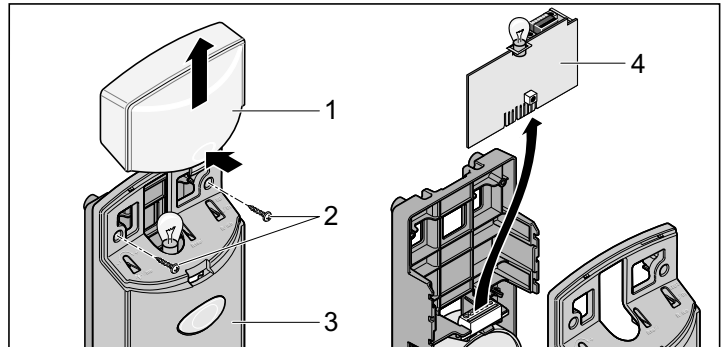
- Disconnect plug from socket.



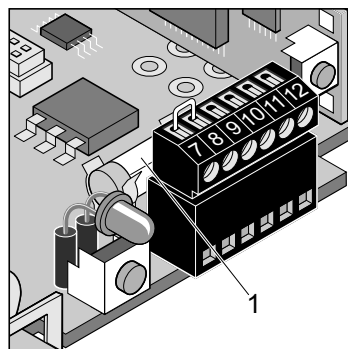
- Remove lamp hood (1).
- Turn bulb (2) anticlockwise and remove.
- Fit new bulb (32,5 Volt, 34 Watt, BA 15s or 24 Volt, 21 Watt, BA 15s) and turn clockwise until it locks into position.
- Mount the lamp hood (1).

Changing fuses (duo)

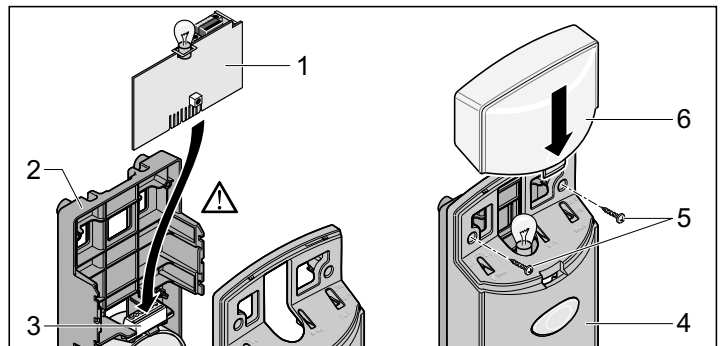
- Disconnect plug from socket.



- Remove the lamp hood (1). Loosen the screws (2) and remove the hood (3).
- Pull the control unit (2) upwards from the basic rack (4).
- Replace defective fuse.



1. Fuse for warning light connection, terminals 11 + 12
Fuse 1 A, fast acting



- Plug the control board (1) into the basic rack (2) and into the terminal bar (3).
- Replace the cover (4) and tighten the screws (5).
Mount and engage the lamp cover (6).

Maintenance and care

Regular checks

Check safety devices regularly, every year at the very least, to ensure they function correctly (e.g. BGR 232).

Safety devices that are sensitive to pressure (e.g. safety switch unit) should be checked every four weeks to ensure they function correctly; see pr EN 60335-2-95.

Test	Behaviour	yes/no	Possible cause	Remedy
Automatic force cut-off				
Use 50 mm object to stop door wing from closing	Drive reverses when contact with object is made	yes	<ul style="list-style-type: none"> Automatic cut-off of supply is working as it should 	<ul style="list-style-type: none"> Leave all settings as they are
		no	<ul style="list-style-type: none"> Door incorrectly adjusted 	<ul style="list-style-type: none"> Have door correctly adjusted by a person qualified to do so
Emergency release mechanism				
Adopt procedure described in 'Emergency Release' section	Emergency release can be activated easily (pull 1x, operator is unlocked)	yes	<ul style="list-style-type: none"> Everything in order! 	
		no	<ul style="list-style-type: none"> The mechanical door and drive components are strained Emergency release is defective Door jam 	<ul style="list-style-type: none"> Adjust end switch for door CLOSED, or activate backjump (DIP switch 6 ON) Repair emergency release or have it repaired Check door. See door maintenance instructions
Safety switch unit, if provided				
Open/Close door whilst, at same time, operating safety switch unit	Door behaves in accordance with setting of DIP switch 1,2 or 3	yes	<ul style="list-style-type: none"> Everything in order! 	
		no	<ul style="list-style-type: none"> Broken cable, loose terminal DIP switch maladjusted Switch unit defective 	<ul style="list-style-type: none"> Check wiring, tighten terminal connection Correctly adjust DIP switch Take door drive mechanism out of operation and ensure it cannot restart by accident. Contact after-sales service!
Light barrier, if applicable				
Open/Close door whilst, at same time, interrupting the light barrier	Door behaves in accordance with setting of DIP switch 1,2 or 3	yes	<ul style="list-style-type: none"> Everything in order! 	
		no	<ul style="list-style-type: none"> Broken cable, loose terminal DIP switch maladjusted Light barrier soiled Light barrier maladjusted (bent bracket) Light barrier defective 	<ul style="list-style-type: none"> Check wiring, tighten terminal connection Correctly adjust DIP switch Clean light barrier Correctly adjust light barrier Take door drive mechanism out of operation and ensure it cannot restart by accident. Contact after-sales service!

Miscellaneous

Disassembly



Observe safety instructions!

The sequence of operations is identical to that described in the Section entitled "Installation" but in reverse order. The setting procedures described are not applicable.

Correct disposal

Observe appropriate local regulations!

Warranty and after-sales service

The warranty granted complies with statutory requirements. Contact your local stockist for any warranty claims. Warranty entitlements only apply to the country in which the given drive was purchased.

Batteries, fuses and bulbs are not covered by the warranty.

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

We have made every effort to ensure that these instructions are as clear and concise as possible. However, if you have any queries or wish to comment on this document, please contact us with your suggestions:

Fax.: 0049 / 7021 / 8001 - 403

e-mail: doku@sommer.eu

Troubleshooting

Further troubleshooting tips



Many problems can be solved by a control reset (deletion of force values) and subsequent reprogramming of the operator!



Homelink compatible!

If your vehicle is equipped with the latest Homelink system (version 7), you can reach our drive/radio receiver at 868.6 MHz. With older Homelink versions, use other radio frequencies (40.685 or 434.42 MHz). For more details, visit www.eurohomelink.com or contact your local stockist.

Should you be unable to find and eliminate the fault with the help of this table, then take the following steps:

- Complete control system reset (deletion of programmed force values).
- Disconnect attached accessories (e.g. light barrier) and connect the bridge at the safety terminal.
- Set all DIP switches to default settings.
- Set all potentiometers to default settings.
- If settings have been changed using the TorMinal, carry out a control unit reset using the TorMinal.
- Check all connections at the direct plug-type adapters and the terminal bar (sprint/duo), and retighten them, if necessary.

To eliminate drive faults, follow the instructions in the table below. If you are encountering any difficulties, contact your stockist or visit the "http://www.sommer.eu" for support.

Troubleshooting

Fault	Possible cause	Remedial action
Drive mechanism inoperative, lamp not lit	No mains power	Connect mains supply plug
	No control unit installed	Install control unit
	Fuse in garage circuit has blown	Replace the fuse. Use a different appliance, e.g. electric drill, to check the supply
Lamp flashes	Operator is not programmed, no force values are saved	'Teaching' the drive. See section on "Commissioning"
Lamp is not lit when door closes and opens	Bulb defective	Replace bulb, see "Maintenance and Care" section"
	Fuse of light bulb defective	Replace fuse
Drive does not function	Control unit installed incorrectly	Slot control unit correctly into socket unit
	Light barrier interrupted	Eliminate interruption
Drive does not function when operated using manual remote control	Battery in manual remote control is flat	Change battery
	Manual remote control has not been taught in to radio receiver.	Teach in manual remote control
	Wrong radio frequency	Check frequency (40 MHz with wire aerial; 868/434 MHz without external aerial)
	Command is permanently present as push-button is jammed	Release push-button or replace manual remote control
Drive does not function when operated using push-button	Push-button not connected or defective	Connect push-button or replace
Door stops when opening, moves approx. 10 cm in reverse direction then stops	Obstacle has tripped automatic force switch-off	Remove obstacle; open door completely
	Incorrect force values "taught" or force tolerance is too low	Delete force values and repeat teach-in procedure
	Switch-trigger set incorrectly	Reset cut-off buffer; see 'Setting Limit Switches' section
	Door defective or door settings incorrect (e.g. spring shaft)	Have door adjusted correctly or repaired by a person qualified to do so

Troubleshooting

Fault	Possible cause	Remedial action
Door stops when opening, moves approx. 10 cm in reverse direction then stops	Obstacle has tripped automatic force switch-off	Remove obstacle. Use push-button to close the door completely
	Incorrect force values "taught" or force tolerance is too low	Delete force values and repeat teach-in procedure
	Switch-trigger set incorrectly	Adjust switch-trigger; see chapter "Adjusting end switches"
Door stops when opening	Connected light barrier interrupted and DIP switch 1 on ON	Eliminate interruption or set DIP switch 2 to OFF
Operator does not close door	Power supply to photoelectric cell interrupted	Check connection Replace fuse
	Drive unit was disconnected from the power supply	The first command issued after restoration of the mains supply results in the drive opening the gate fully
Drive opens gate but then no further reaction to a command given via push-button or remote controller	Safety input tripped (e.g. photocell defective)	Remove obstacle from light barrier Repair photoelectric cell Socket unit not plugged in correctly
	Door CLOSED limit switch in the trolley defective	Replace limit switch
	"Door OPEN" limit switch in the trolley defective	Replace limit switch
The drive closes the door; subsequently no response to pressing of button or radio transmitter	"Door OPEN" limit switch in the trolley defective	Replace limit switch
Connected warning light does not light up	Fuse defective	Replace fuse, see 'Maintenance and Care' section
	Bulb defective	Replace bulb
Opening or closing speed varies	Operator starts slowly and then picks up speed	"Soft run" mode - completely normal
	Chain rail dirty	Clean rail and re-lubricate, see chapter "Maintenance and care"
	Chain rail lubricated with unsuitable oil	Clean rail and re-lubricate, see chapter "Maintenance and care"
	Incorrect chain tension	Tighten chain; see "Installation duo"
Operator does not terminate "Learn" sequence	End positions set incorrectly	Adjust end positions (see general instructions in "Commissioning")
Only in units with radio receiver!		
All LEDs are flashing	All memory positions are occupied (max. 112 positions)	Delete all radio control devices no longer in use Install additional radio receiver
LED 3.1 or 3.2 is continuously on	Radio signal is being received; remote control transmitter button might be defective or an external signal is received.	Remove battery from the remote control transmitter Wait until the external signal decays
LED 3.1 or 3.2 is on	Radio receiver is in "teaching" mode and expects a code signal from a remote control device.	Press desired button on remote control transmitter

