

RDC vision

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1 Safety

1.1 Intended use

The roller door control unit RDC vision may only be used:

- to control motors in roller doors (max. motor power: 600 W);
- according to the instructions and safety information provided in these installation and operating instructions.

Any other use is considered improper use. The manufacturer is not liable for damage resulting from improper use.

The roller door control unit RDC vision (hereafter “control unit”) may not be used in conjunction with motors in roll-up grille doors.

1.2 Symbols used



All safety instructions are accompanied by signal words. These signal words indicate the level of danger and/or severity of injury and/or property damage that may be incurred in the event of failure to comply with the instructions and/or safety information.

- **Danger** indicates an imminent danger, causing: grave injury/death.
- **Caution** indicates potential danger, causing: minor injury or property damage.



For information and useful tips.

1.3 General safety instructions

Persons operating or working on the control unit must have first read and understood these installation and operating instructions and ensure compliance with all instructions and safety information.

Work on the control unit, such as installation, connection and initial operation, may only be carried out by a fully qualified electrician.

Always keep the installation and operating instructions within easy reach.

Always ensure compliance with local accident prevention regulations and current standards.

Always ensure compliance with the Employer's Liability Rules “Power-operated windows, doors and gates – BGR 232” (only applies to operators in Germany).

When using the automatic close function, ensure compliance with the standard EN 12453:2000; install safety device (e.g., light barrier).

Only use OEM (Original Equipment Manufacturer) spare parts, accessories and fixing materials.

1.3.1 Remote control

The remote control may only be used for equipment and/or systems where interference in the transmitter or receiver does not pose a risk to humans, animals or objects, or where the risk is covered by other safety devices.

The user must be made aware that systems that pose an accident risk should only be remote controlled, if at all, if the user can actually see the door.

The radio remote control may only be used if the door's movement can be watched and no persons or objects are within the range of movement.

Keep the transmitter somewhere where it cannot be pressed inadvertently, e.g., by children or animals.

The radio system is not protected from interference from other telecommunications systems or equipment (e.g., radio-controlled systems that are licensed to operate within the same frequency range). Excessive interference can be reported to your appropriate Telecommunications Office, which has radio interference measuring equipment (radio location).

Do not use transmitters near locations or installations that are sensitive to radio interference (e.g.: airports, hospitals).

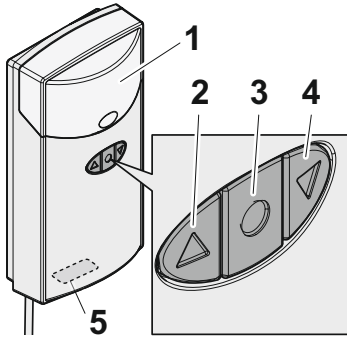
1.4 Target groups and qualifications

The operator must make sure that the control unit is operated without modifications and that a qualified technician carries out regular checks to ensure that the safety device is fully functional.

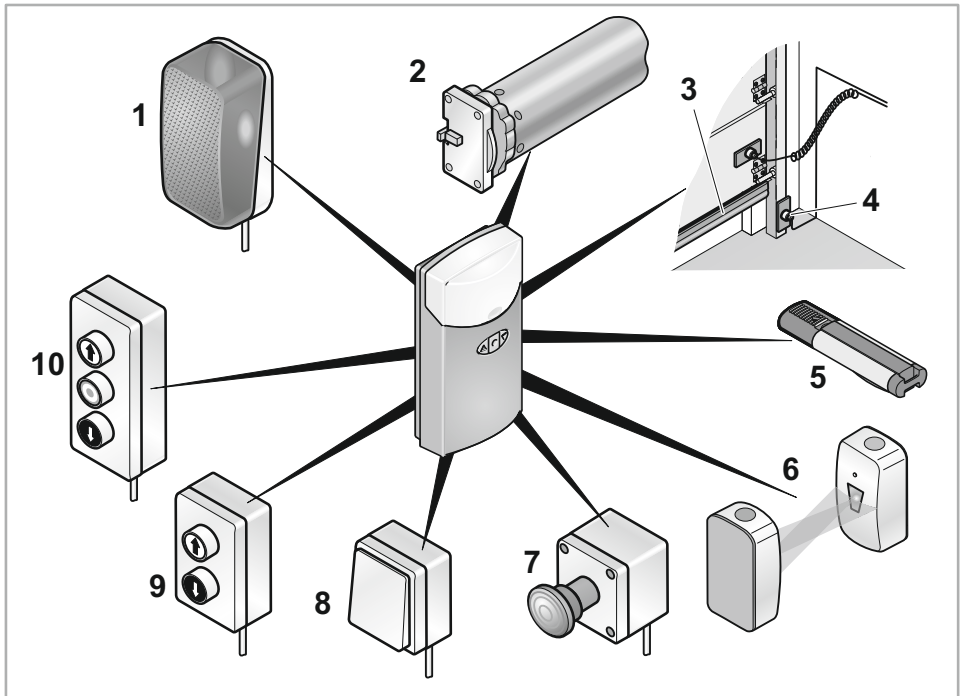
The user may operate the control unit using pushbuttons or a transmitter as instructed by the operator.

Only **qualified electricians** may work on the control unit (such as installation, connection, initial operation, testing, maintenance or disassembly).

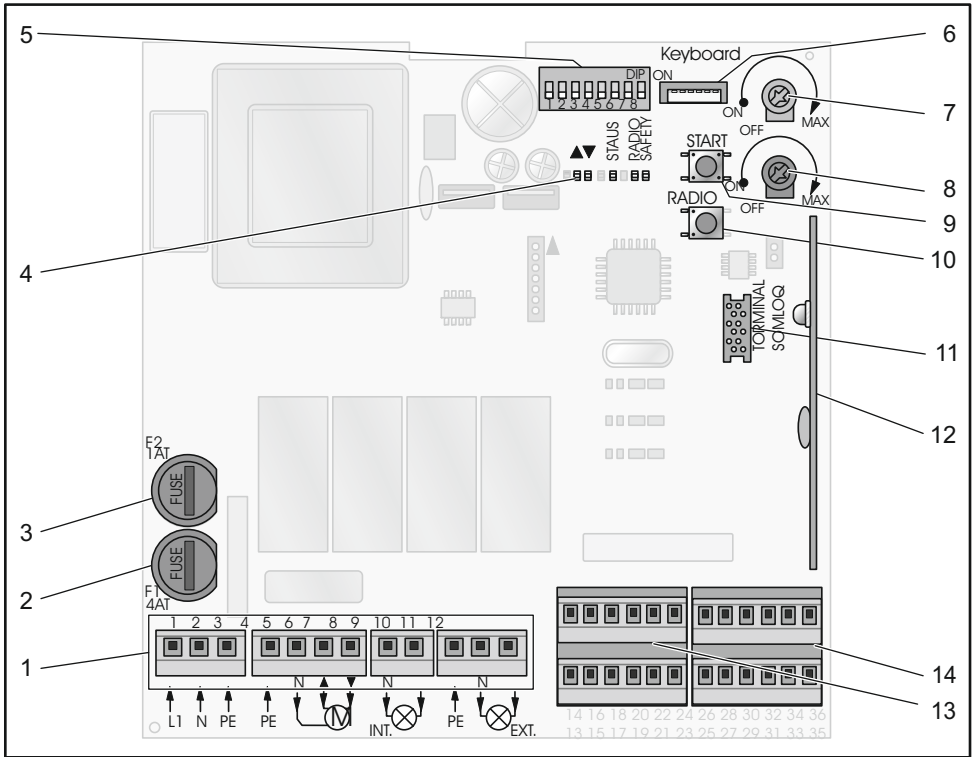
2 Device overview



- 1. Lighting
- 2. Open button
- 3. Stop button
- 4. Close button
- 5. Type plate



- 1. Warning light/lighting
- 2. Motor with arrester
- 3. Safety contact strip
- 4. Pre-limit switch
- 5. Transmitter
- 6. Light barrier
- 7. EMERGENCY OFF switch
- 8. Pulse button
- 9. 2-function pad
- 10. 3-function pad



1.	Terminal strip 1: System + 230 V outputs	8.	Potentiometer for automatic closing
2.	Fuse 1 for motor: 4 A, slow-blow	9.	Start button
3.	Fuse 2 for warning light: 1 A, slow-blow	10.	Radio button
4.	LEDs	11.	Connection for TorMinal
5.	DIP switches	12.	Radio receiver
6.	Connection of button in the housing cover	13.	Terminal strip 2: Signal inputs
7.	Potentiometer for early warning function	14.	Terminal strip 3: Safety inputs

2.1 Scope of delivery

- Control
- Installation and operating instructions
- 1 x resistor, 8.2 kOhm
- 2 x cable bushings, large
- 6 x cable bushings, small
- 2 x strain reliefs for connecting cord
- 4 x bridges for safety inputs (pre-assembled)

When unpacking, please check that all the contents are complete and show no visual signs of damage. Contact your specialist retailer/supplier if necessary.

Disposal of any packaging should comply with any applicable local regulations.

2.2 Technical data

Nominal voltage	230 V AC ± 10%
Nominal frequency	50/60 Hz
Operating temperature range	-20 – +50°C
Protection class	IP 20 *)
Standby power consumption	~ 4 W
Maximum motor output	~ 600 W
Lighting/warning light	230 V AC
Internal	max. 15 W, E14
External	max. 40 W
Weight	0.8 kg
Dimensions (H/W/D)	295 / 150 / 81 mm
Receiver memory capacity	112 commands

*) Only if installed indoors

2.3 Storage

Store the control unit:

- in closed, dry rooms at a room temperature of -20 to +50°C and humidity of approx. 35% to 60%;
- in a dry, dust-free location where it is safeguarded against impact and/or falling.

2.4 EU manufacturer's declaration

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

declares herewith that the control unit:

- RDC vision

conforms to the following directives:

- Low Voltage Directive 2006/95/EC

- EU Directive on Electromagnetic Compatibility 2004/108/EC

The following standards/draft standards in particular were applied:

- DIN EN 61000-6-3:2007-09, DIN EN 61000-6-2:2006-03

- DIN EN 60335-1:2007-02, EN 12453:2000, ISO 13849-1:2006

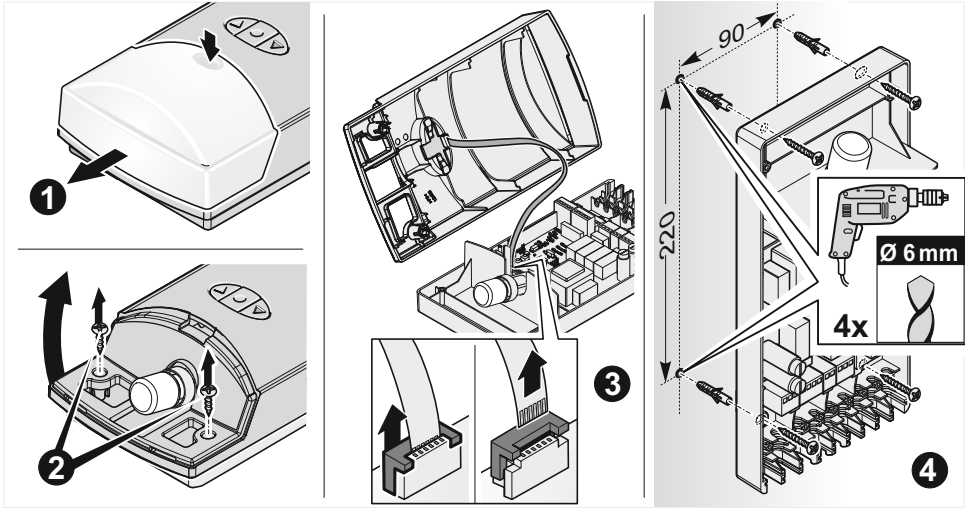
Note: Do not put the door system into operation until it has been established that the door system into which this control unit is to be integrated complies with the provisions of all relevant and applicable EC directives.

Kirchheim/Teck, 1.4.08 Frank Sommer
Managing Director



3 Installation

3.1 Installing the housing



Recommended screw diameter: 6 mm. The 4 screws and plugs required for wall mounting are not included in delivery.

Install the housing upright on an even surface, with the cable conduits facing downwards.

Ensure the housing is not distorted when mounting, so that the cover seals properly when closed.

Use the fixture points provided for screwing on the housing. Do not drill through the rear wall of the housing.

Dry any moisture that enters into the housing with a fan.

3.2 Connecting the control unit

The control unit may only be connected to the power supply by a qualified electrician (according to the definition given in BGV A3, § 2 Subsection 3; applies only in Germany).

Always connect the control unit off-circuit.

Only connect the control unit to the mains over an all-pole isolation device. Always ensure compliance with the current VDE and EN standards (EN 12453:2000) and the technical criteria for connection as required by the regional electricity supply companies.

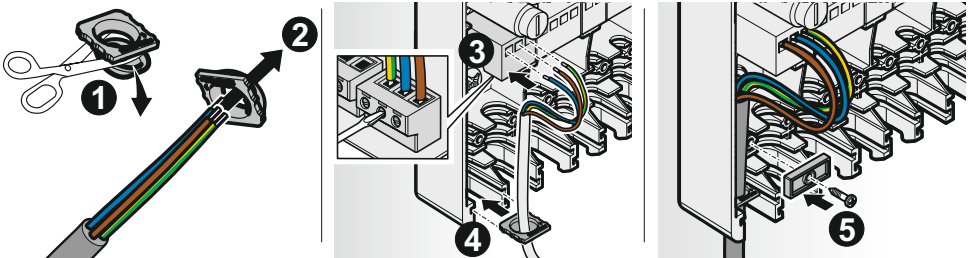
Before connection, check that the mains voltage range of the control unit is compatible with the local mains voltage.

Install the control unit and external command devices in the door area so that the door can be watched during operation. However, they must not be installed within the door's range of movement.

Static electricity can damage the electronic components on the board. Before touching the board, touch a metallic, grounded object to discharge yourself.



The control unit can be operated in automatic mode or in conjunction with safety devices (minimum requirement: "safety contact strip"). If there are no safety devices, the control unit must only be operated in dead man mode!



Only cut as much off the cap on the cable conduit so that it will still be sealed after the cable is inserted.

Always use a strain relief when connecting the cable (included in delivery).



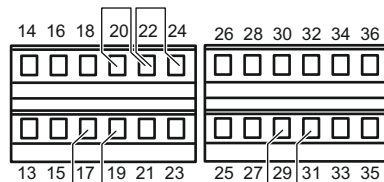
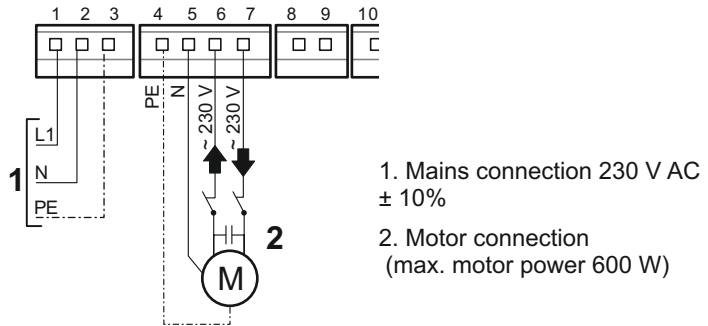
Risk of electric shock

Before working on the control unit, switch off the mains, check that it is not live and ensure that it cannot be inadvertently switched back on.



Permissible rated cross-section for connecting cord

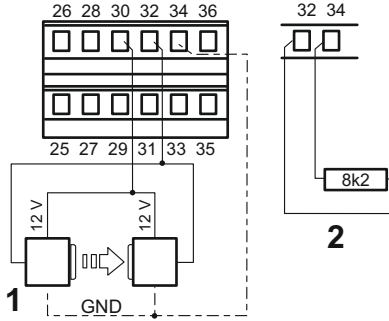
- at terminals 1 to 12: 1.5 mm² – 4.0 mm²
- at terminals 13 to 36: 0.2 mm² – 1.5 mm²



3. Install bridge (included in scope of delivery) if the following elements are not connected:

- Light barrier: between terminals 29 and 31
- Arrester: between terminals 20 and 22
- EMERGENCY OFF switch: between terminals 22 and 24
- 3-function pad: between terminals 17 and 19 (Stop button)

3.3 Connecting the safety contact strip (Safety 1)



Safety contact strips are available in two models:

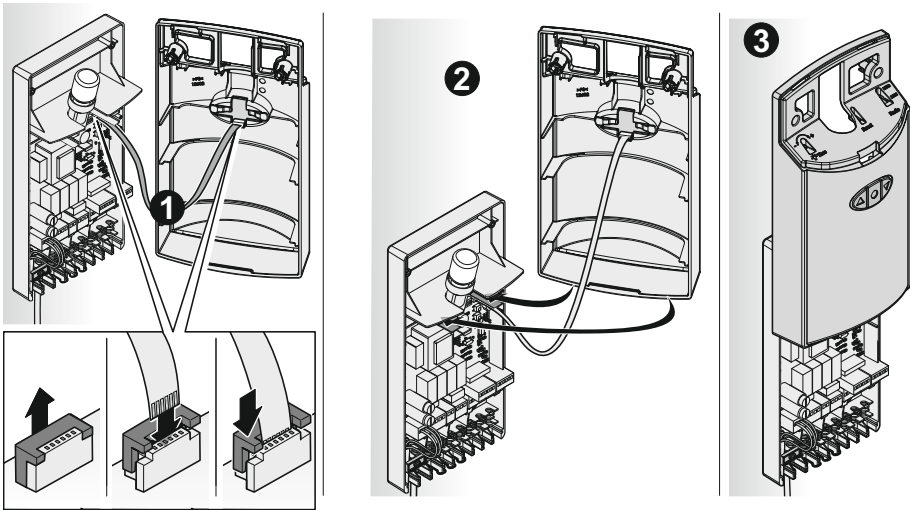
- Optical safety contact strip from FRABA (1) or
- Electrical 8 kOhm safety contact strip (2)

The safety contact strip is attached to the closing edge of the door. It protects persons against the risk of entrapment from the closing edges and prevents damage to objects. As soon as it is activated when the door is closing (by an obstacle or person), the control unit stops the operator and changes the direction of travel. The setting of DIP switches 3 and 4 determines how the control unit responds or how far the door travels in the opposite direction when an obstacle is encountered; see Chapter 6.15 “Operator response to detected obstacle”.



If the safety contact strip is activated, faulty or not connected, dead man operation is automatically activated; see Chapter 4.1 “Activating dead man operation”.

3.4 Fitting the housing cover



When connecting the cable (1) for the control button in the housing cover, always ensure correct polarity (blue cable side to brown connector side).

- Connect the cable (1) and install the housing cover in the maintenance position (3).

4 Initial operation

Only a qualified electrician (in compliance with BGV A3, § 2 Subsection 3; only applies in Germany) may work on the control unit.



Risk of electric shock

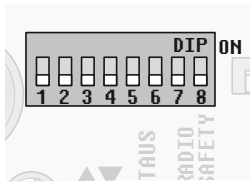
Do not touch live parts (ends of cables, contacts, etc.) while the control unit is still connected to the power supply.

Only switch the DIP switches when the control unit has been disconnected from the main power supply.



The control unit can be operated in automatic mode or in conjunction with safety devices (minimum requirement: "safety contact strip"). If there are no safety devices, the control unit must only be operated in dead man mode!

Document initial operation!



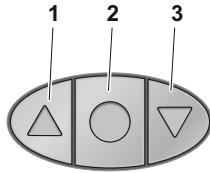
- Before starting initial operation, switch all DIP switches to "OFF" (factory default setting).

4.1 Activating dead man operation

In "dead man" mode, the operator runs for as long as the command button is pressed. The operator stops as soon as the button is released. A transmitter will not function when the system is in dead man mode.

Activate dead man operation: DIP switch 7 "ON".

4.2 Controlling the direction of the motor



1. Activating dead man operation (DIP switch 7: "ON").
2. Press the Open (1) or Close (3) button. The action of the door must correspond to the respective command.
 - If the door runs in the opposite direction:
 - disconnect the control unit from the mains;
 - switch the lines on terminals 6 and 7.

4.3 Setting the motor limit switches



For more information on limit switches and how to set them, please refer to the motor operating instructions.

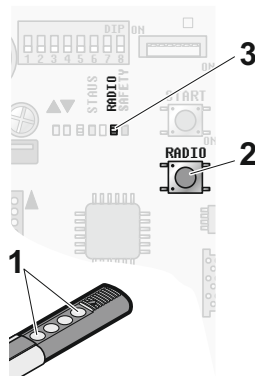
1. Press and hold the Open (1) or Close (3) button until the door reaches the end position.
2. If necessary, set the limit switch on the motor.
3. Repeat steps 1 and 2 for the other direction.
4. Deactivating dead man operation (DIP switch 7: "OFF").

4.4 Setting the run time (run time monitoring)

When DIP switch 8 is “OFF”, motor run time monitoring is deactivated. Previously programmed run times are deleted and must be reprogrammed. This is the case if a relay clicks audibly when the door is not moving.

1. Set DIP switch 8 to “ON”.
2. Open and close the door to the end positions.
 - Relay stops clicking when the motor is not running. Otherwise repeat the step.
 - The run times in both directions are now programmed.
3. Leave DIP switch 8 “ON”. This means that the run times will be monitored constantly and the control unit stops the operator if they are exceeded.

4.5 Wiping the radio receiver's memory



For security reasons, you should completely wipe the radio receiver's memory:

- before programming transmitters for the first time and
- if a transmitter is lost.

1. Press and hold the Radio button (2) for 20 seconds.
- The Radio LED (3) initially shines steadily for 5 seconds, flashes once intermittently for 10 seconds, and then shines steadily again for a further 20 seconds before going out. This indicates that the memory has been wiped.

4.6 Programming the transmitter button to pulse mode

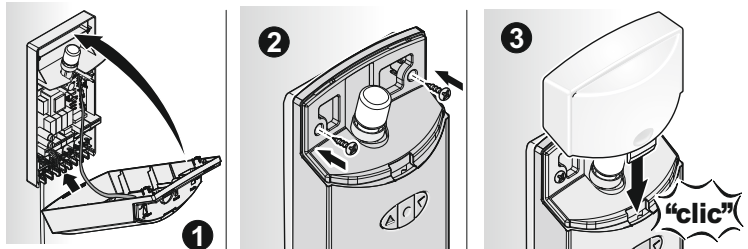
1. Press and hold the Radio button (2) for approx. 0.5 seconds.
 - The Radio LED (3) lights up, program mode starts.
2. Press any button (1) on the transmitter.
 - The Radio LED (3) goes out. That button on the transmitter is programmed as the pulse button. The command sequence is: Open – Stop – Close – Stop – etc.



If no radio signal is sent within 10 seconds of the start of program mode, program mode is terminated; the Radio LED (3) goes out.

4.7 Closing the housing cover

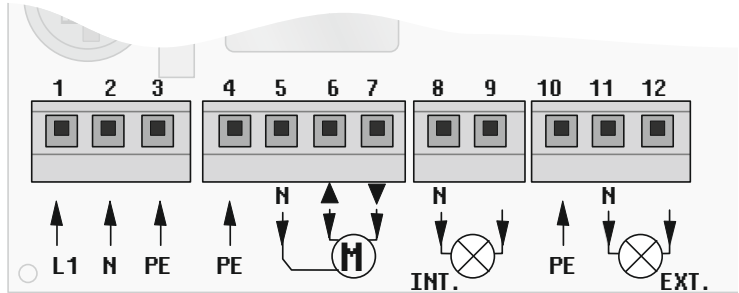
On completion of initial operation, close the housing cover and install the lamp cover.



6 Connections and functions

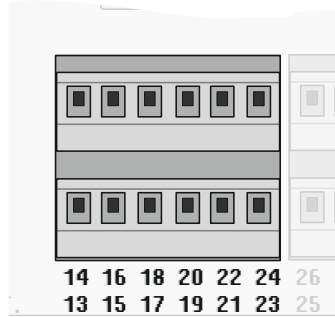
6.1 Terminal strips (overview)

6.1.1 Terminal strip 1: mains connection and 230 V outputs



Components	Function	Terminal
Power	L1 (br) 230 V AC	1
	N (bl)	2
	PE (gr/ye) for supply system	3
Motor	PE for Motor	4
	N (bl)	5
	Open relay output	6
	Close relay output	7
Internal lighting	N (bl)	8
	Relay output light AC 230 V, max. 15 W	9
Warning light	PE	10
	N	11
	Relay output light AC 230 V, max. 40 W	12

6.1.2 Terminal strip 2: signal inputs



Components	Function	Terminal
Arrester *)	Any	20
		22
EMERGENCY OFF switch *)	Any	22
		24
Pulse button **)	Any	13
		15
3-function pad (2-function pad)	COM	17
	STOP *)	19
	OPEN **)	21
	CLOSE **)	23
Relay (floating)	COM	16
	Normally open (NO) contact	14
	Normally closed (NC) contact	18

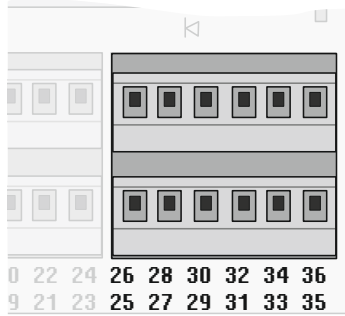
*) With floating NC contact

**) With floating NO contact



Maximum cable length for accessories on terminal strip 2: 30 m

6.1.3 Terminal strip 3: safety inputs



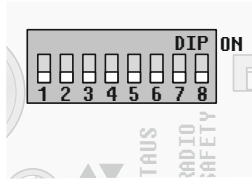
Components	Function	Terminal	
Pre-limit switch	Any	26	
		28	
FRABA optical safety contact strip	DC 12 V (br), max. 60 mA *)	30	
	Signal (gr)	32	
	GND (wh)	34	
Electrical 8k2 safety contact strip	+ (br)	32	
	GND (wh or bl)	34	
Light barrier with NC contact	Receiver	DC 24 V, max. 80 mA *)	25
		COM	29
		Signal	31
		GND	33
	Transmitter	DC 24 V, max. 80 mA *)	27
		GND	35
2-wire light barrier	Any	29	
		31	

*) Max. power consumption applies for the control unit overall:
at 12 V: 60 mA, at 24 V: 80 mA



Maximum cable length for accessories on terminal strip 3: 30 m

6.2 DIP switches



Only switch the DIP switches when the control unit has been disconnected from the main power supply.

All DIP switches are set to “OFF” by factory default.

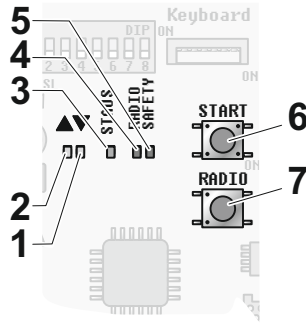
The DIP switch setting is read in by the control unit:

- after the control unit is switched on;
- during the self-test, after the door reaches the end positions;
- in every intermediate position, if the door is not running.

	Settings	Mode	Function
DIP 1	OFF		Warning light flashes while door is moving.
	ON		Warning light shows steady light while door is moving.
DIP 2	OFF		Light barrier with NC contact connected to safety input 2.
	ON		2-wire light barrier connected to safety input 2.

	Settings	Mode	Current direction of travel / position	Reaction to safety contact strip	Reaction to light barrier
DIP 3	OFF	1	OPEN	STOP	STOP
DIP 4	OFF		CLOSE	Door opens fully	Operator reverses for 2 seconds
DIP 3	OFF	2	OPEN	STOP	No reaction
DIP 4	ON		CLOSE	Door opens fully	Operator reverses for 2 seconds
DIP 3	ON	3	OPEN	STOP	No reaction
DIP 4	OFF		ZU	Operator reverses for 2 seconds	Door opens fully
			Intermediate position	No reaction	Door opens fully
DIP 3	ON	4	OPEN	STOP	No reaction
			CLOSE	Operator reverses for 2 seconds	Door opens fully
DIP 4	ON	Intermediate position	No reaction	Door opens fully	
		Upper end position for automatic closing	No reaction	Door closes 5 seconds after passing through light barrier	
DIP 5	OFF	Automatic closing after opening process is deactivated through pulse input.			
	ON	Automatic closing after opening process is activated through pulse input. Standard value = 20 seconds, can be modified using TorMinal.			
DIP 6	OFF	Partial opening function deactivated.			
	ON	Partial opening function activated.			
DIP 7	OFF	Dead man operation deactivated.			
	ON	Dead man operation activated.			
DIP 8	OFF	Monitoring of motor run time deactivated.			
	ON	Monitoring of motor run time activated.			

6.3 Buttons and LEDs



- 1. CLOSE LED
- 2. OPEN LED
- 3. Status LED
- 4. Radio LED
- 5. Safety LED
- 6. Start button
- 7. Radio button

6.3.1 Direction indicator LED

Display (yellow)	Description
CLOSE LED (1) lights up	Door closes.
OPEN LED (2) lights up	Door opens.

6.3.2 Status LED

Display (green)	Operating mode	Possible causes
Lights up	Normal mode	Power ON and self-test error-free.
No light		No power or fuse 1 faulty *).
Flashes 1x intermittently		During stay open time.
Flashes 1x intermittently	Program radio	Function (e.g., open) selected during programming, see Chapter 7.2 "Programming the transmitter to Open-Stop-Close".



***) Risk of electric shock**

The terminals 3 and 4 of terminal strip 1 may still be live.

6.3.3 Safety LED

Display (red)	Description
lights up	Arrester fuse has tripped and / or EMERGENCY OFF switch was activated (locked).
Flashes 1x intermittently	Safety contact strip (Fuse 1) activated.
Flashes 2x intermittently	Light barrier (fuse 2) interrupted.
Flashes 3x intermittently	Both safety devices (Fuse 1 and 2) have tripped.
Flashes 4x intermittently	Safety device(s) Fuse 1 and/or Fuse 2 not recognised after mains switched on. Note: Check wiring and DIP switch. Remedy fault if applicable.

6.3.4 Radio LED and Radio button

The indication on the Radio LED depends on the radio signal and the selected radio mode.

The respective radio mode is activated by pressing the Radio button for different lengths of time.

Radio button	Radio LED display (red)	Description / Mode
Not pressed	No light	Program mode or Delete mode not active. No radio signal received
	Light up	Radio signal of a programmed transmitter received
Pressed 0.5 s	Light up	Mode 1: Program mode active
Pressed 5 s	Flashes 1x intermittently	Mode 2: Ready to delete a button of the transmitter
Pressed 10 s	Light up	Mode 3: Ready to delete all buttons of the transmitter
Pressed 20 s	No light	Mode 4: Wiping total memory of radio receiver

6.3.5 Start button

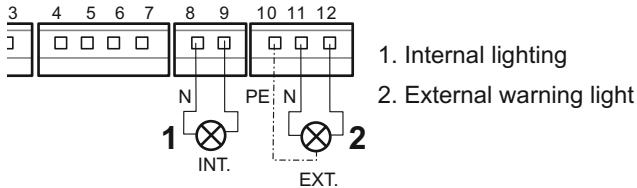
In pulse mode, the Start button is used to activate the signals for opening and closing.

Command sequence: Open – Stop – Close – Stop etc.



The first command after switching on the control unit (Power ON) is “Open”.

6.4 Connecting the warning light and the lighting



The external warning light is powered over the control unit (230V AC, max. 40 W). It has two flashing patterns:

- slow (every 2 seconds) while the door is moving and during the early warning function;
- fast (every half-second) while the door is moving in dead man mode.

The warning light during door movement can be set over DIP switch 1:

- to “OFF”: warning light flashes;
- to “ON”: warning light shines steadily.

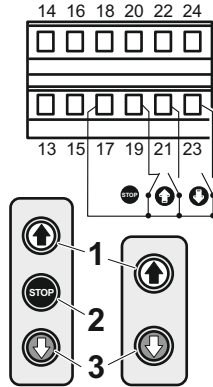
The internal lighting (230 V AC, max. 15 W) behaves in the same way as the external warning light and has the same flashing pattern.

6.5 Connecting the 2- and 3-function pad



Caution

Only use the connection for floating button contacts. External voltage can damage or destroy the control unit.



1. Open button
2. Stop button
3. Close button



Install bridges between terminals 17 and 19 if:

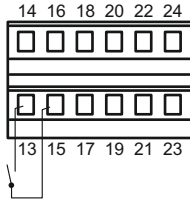
- a 2-function pad is connected or
- the Stop button on the 3-function pad is not connected.

6.6 Connecting the pulse button



Caution

Only use the connection for floating button contacts. External voltage can damage or destroy the control unit.

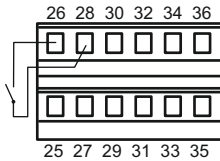


Command sequence: Open – Stop – Close – Stop – etc.



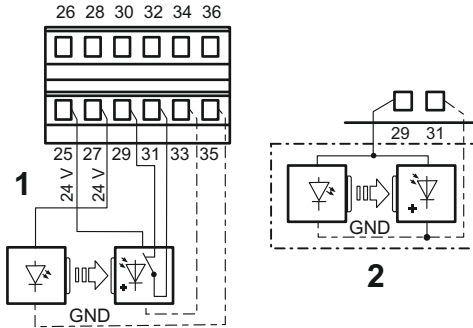
The first command after switching on the control unit (Power ON) is "Open".

6.7 Connecting the pre-limit switch



The pre-limit switch is mounted on the bottom of the door frame, max. 5 cm from the floor. After the pre-limit switch is activated (the door overruns the position when closing) the safety contact strip must be activated within 2 seconds or the operator goes into reverse; the door opens.

6.8 Connecting the light barrier (Safety 2)



Light barriers are available in two models: DIP switch 2 must be set accordingly:

- to “OFF”: light barriers with NC contact (1); or
- to “ON”: 2-wire light barriers (2)

One light barrier monitors the doorway. As soon as it is interrupted (e.g., by a car or person), the control unit stops the operator or changes the direction of travel; the setting on DIP switches 3 and 4 and the automatic close setting determine how the control unit responds; see Chapter 6.15 “Operator response to detected obstacle”.

The function of the light barrier is tested by the control unit after the door reaches its end position.



If the light barrier is interrupted, faulty or not connected, dead man operation is automatically activated; see Chapter 4.1 “Activating dead man operation”. Safety LED flashes twice intermittently.

Place bridge between terminals 29 and 31 if a light barrier is not connected. Set DIP switch 2 to “OFF”.

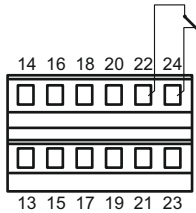
6.9 Connecting the EMERGENCY OFF switch



Caution

The EMERGENCY OFF switch must be mounted where it is easily visible and accessible.

Only use the connection for floating button contacts. External voltage can damage or destroy the control unit.

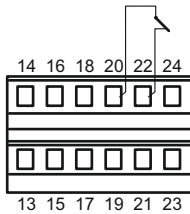


When pressed, the EMERGENCY OFF switch stops the operator immediately and terminates all control unit functions (including dead man operation).



Place a bridge between terminals 22 and 24 if an EMERGENCY OFF switch is not connected.

6.10 Connecting the arrester



The arrester is installed in the door and can be connected to the control unit. Through this connection, the control unit detects when the arrester kicks in and blocks all control unit functions.



Install a bridge between terminals 20 and 22 if no arrester is connected.

6.11 Other command devices

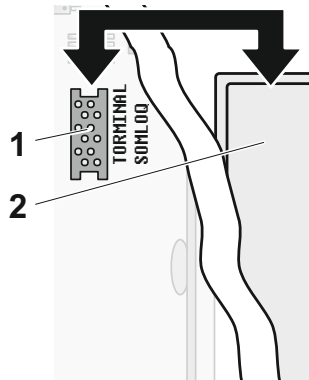


Caution

Only use the connection for floating button contacts. External voltage can damage or destroy the control unit.

Other command devices, e.g., pull-buttons or key switches can also be connected to the control unit. For installation, please refer to the instruction manual for the respective device.

6.12 TorMinal



A TorMinal (2) can be connected to connection (1). A TorMinal is a device for reading out and adjusting factory-set control unit values. The TorMinal may only be operated by a fully qualified and appropriately trained technician.

6.13 Setting the early warning function



If required, you can set the early warning function over potentiometer 1. While the early warning function is running, the internal lighting and the external warning light flash. When set all the way to the left, this function is deactivated.

If automatic closing is activated, a minimum warning of 4 seconds is given for safety reasons. Maximum time for the early warning function (turn potentiometer 1 clockwise) is approx. 30 seconds.

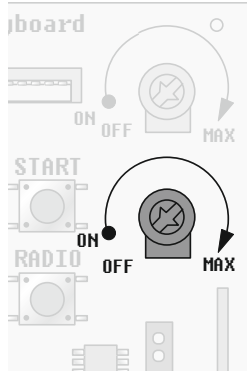
6.14 Automatic closing function

If automatic closing is activated, the fully open door (“OPEN” end position reached) automatically closes after the “stay open time” and warning time has lapsed.

Important:

- Automatic closing can only be activated if a light barrier (Safety 2) is connected.
- Automatic closing always begins after the “OPEN” end position.
- In the event of a persistent “OPEN” command (OPEN contact closed), the fully open door remains in the “OPEN” end position. Automatic closing does not start until the command is cancelled. This function is used in conjunction with an external timer to keep the door open for a certain length of time. After this time is up, automatic closing starts again and the door closes.

6.14.1 Automatic closing function (with potentiometer 2)



Automatic closing is activated when potentiometer 2 is switched on (turned clockwise). The potentiometer is switched off by factory default (set all the way to the left). Turn it clockwise to set the stay open time. The maximum stay open time is approx. 120 seconds).

During the stay open time, the Status LED flashes once intermittently.

6.14.2 Automatic closing function (with pulse button)

Automatic closing is activated when

- DIP switch 5 is set to “ON” and
- the door is opened with the pulse button.

The stay open time is a constant 20 seconds. It can be changed using TorMinal; see Chapter 6.12 “TorMinal”.

6.14.3 Reducing the interval before automatic closing

This function reduces the stay open time to 5 seconds when automatic closing is activated if something passes through the light barrier when the door is open. DIP switches 3 and 4 must be set to “ON”.

In some cases, you might like a short stay open time, e.g., when driving the car into the underground parking lot of an apartment block at night.

6.15 Operator response to detected obstacle

6.15.1 Automatic closing is activated

If the light barrier or the safety contact strip detects an obstacle, the operator reverses and opens the door to the "OPEN" end position.



If the obstacle is detected for a second time, the operator reverses for 2 seconds; the door opens for 2 seconds and stops.

6.15.2 Automatic closing is deactivated

The operator responds depending on DIP 3 and DIP 4 settings.

DIP-switch	Settings	Mode	Current direction of travel / position	Response to detected obstacle	
				over safety contact strip	over light barrier
DIP 3	OFF	1	OPEN	STOP	STOP
DIP 4	OFF		CLOSE	Door opens fully	Operator reverses for 2 seconds
DIP 3	OFF	2	OPEN	STOP	No reaction
DIP 4	ON		CLOSE	Door opens fully	Operator reverses for 2 seconds
DIP 3	ON	3	OPEN	STOP	No reaction
DIP 4	OFF		CLOSE	Operator reverses for 2 seconds	Door opens fully
			Intermediate Pos.	No reaction	Door opens fully
DIP 3	ON	4	OPEN	STOP	No reaction
			CLOSE	Operator reverses for 2 seconds	Door opens fully
DIP 4	ON		Intermediate Pos.	No reaction	Door opens fully
			Upper end position for automatic closing	No reaction	Door closes 5 seconds after passing through light barrier

7 Radio receiver

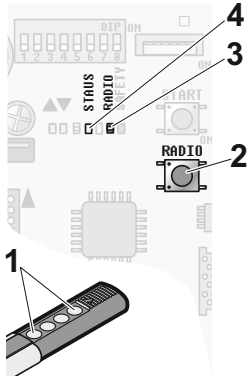
Each button on the transmitter has a permanently stored radio code (factory setting). When you program a button into the radio receiver, the button's radio code is transferred to the receiver, where it is assigned a command.



For security reasons, you should completely wipe the radio receiver's memory:

- before programming transmitters for the first time and
- if a transmitter gets lost.

The programmed commands are retained in the event of a power failure.



7.1 Wiping the radio receiver's memory

1. Press and hold the Radio button (2) for 20 seconds.
 - The Radio LED (3) initially shines steadily for 5 seconds, flashes once intermittently for 10 seconds, and then shines steadily again for a further 20 seconds before going out. This indicates that the memory is wiped.
 - The entire memory of the radio receiver is wiped.

7.2 Programming the transmitter to Open-Stop-Close

1. Press the Radio button (2) for approx. 0.5 s.
 - The Radio LED (3) and the Status LED (4) light up. Program mode begins.

2. Select the function that you want to be performed when this transmitter key is pressed in future.
3. Briefly press the required button in the housing cover.
→ The Status LED (4) flashes once intermittently.
4. Press any button (1) on the transmitter.
→ The Radio LED (3) goes out.
→ The function is assigned to the button you pressed.
5. Repeat steps 1 to 4 for the other buttons on the transmitter and other functions.



If no radio signal is sent within 10 seconds of the start of program mode, program mode is terminated; the Radio LED (3) goes out.

7.3 Programming the transmitter button to pulse mode

1. Press and hold the Radio button (2) for approx. 0.5 s.
→ The Radio LED (3) and the Status LED (4) light up. Program mode begins.
2. Press the required button on the transmitter.
→ The Radio LED (3) goes out.
→ The button on the transmitter is programmed as the pulse button.



If no radio signal is sent within 10 seconds of the start of program mode, program mode is terminated; the Radio LED (3) goes out.

7.4 Wiping individual transmitter buttons

1. Press and hold the Radio button (2) for approx. 5 seconds.
→ The Radio LED (3) flashes once intermittently.
2. Press the button you want to delete on the transmitter.
→ The Radio LED (3) goes out.
→ The button is deleted from the receiver's memory and no longer has an assigned function.

7.5 Wiping all transmitter buttons

1. Press and hold the Radio button (2) for approx. 10 seconds.
→ The Radio LED (3) goes out.
2. Press any button on the transmitter.
→ The Radio LED (3) goes out
→ All buttons are deleted from the receiver's memory and no longer have an assigned function.

7.6 Setting partial opening

In certain cases, you might want to open the closed door only part of the way, e.g. to put away a bicycle. The "Partial opening" function can be set for this purpose.

1. Close door.
2. Set DIP switch 6 to "ON".
3. Press and hold the Radio button (2) for approx. 0.5 s.
→ The Radio LED (3) goes out.
4. Select the "Open" function.
→ The Status LED (4) flashes once intermittently.
5. Select the "Open" function again.
→ The Status LED (4) lights up.
6. Press the required button on the transmitter.
→ The Radio LED (3) goes out.
7. Using the same button on the transmitter, open the door as far as you want it to go, stop it and close it.
→ The pressed button is programmed for the "Partial opening" function.

8 Operation/Use

The operator explains the operating functions to users after initial operation.



Caution

Entrapment and/or cutting hazard from the mechanism and/or closing edges of the door. Keep away from closing edges while the door is opening or closing.

Supervise children and make sure that they do not play with the control unit.

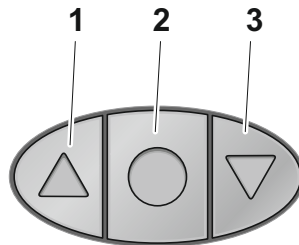
Never put your hand near the door when it is moving or near moving parts.

Keep children, disabled persons and animals away from the door.

Only pass through the door once it is fully open.

Never stop the door with your hand, unless in case of emergency.

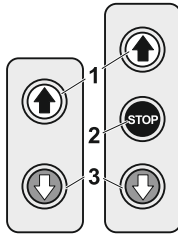
8.1 Operation using pad in the housing cover



1. Open button
2. Stop button
3. Close button

If a button is pressed while the motor is running, any movement of the door is stopped immediately (panic function).

8.2 Operation with external 3-function pad



1. Open button
2. Stop button
3. Close button

If a button is pressed while the motor is running, any movement of the door is stopped immediately (panic function).

8.3 Operation with external pulse button

- Press and release button.

The command sequence is: Open – Stop – Close – Stop – etc. The first time the button is pressed after the control unit is switched on signals the “Open” command.

8.4 Operation using transmitter



Caution

The transmitter may only be used if the door's movement can be watched and no persons or objects are within the range of movement.

Keep the transmitter somewhere where it cannot be pressed inadvertently, e.g., by children or animals.

Do not use transmitters near locations or installations that are sensitive to radio interference (e.g.: airports, hospitals).

- Use the buttons on the transmitter as programmed.

8.5 Operation using other command devices

To use other command devices you may have connected, please refer to the instruction manual for the individual device.

9 Maintenance and care

Only a qualified electrician (in compliance with BGV A3, § 2 Subsection 3; only applies in Germany) may work on the control unit.



Risk of electric shock

Do not touch live parts (ends of cables, contacts, etc.) while the control unit is still connected to the power supply.

The control unit housing must never be sprayed with a water hose or high-pressure washer.

Do not use acids or alkalis for cleaning.

Regularly check power cables for insulation defects or cracks.

Replace faulty or defective cables immediately, directly after switching off the power supply.

Check the control unit housing regularly for insect infestation and moisture; if necessary clean or dry.

Check that the lid of the control unit housing fits correctly and, if not, rectify.

9.1 Regular testing

Regular checks should be carried out to ensure that all safety equipment is fully functional. These checks should be documented and carried out at maximum 6-month intervals (see EN 12453:2000).

Check that pressure-sensitive safety devices (e.g., safety contact strip) are working properly every 4 weeks; see EN 60335-2-95.

9.2 Warranty and customer service

The warranty complies with statutory requirements. Please contact your specialist retailer/supplier if you have any queries regarding warranty. The warranty is only valid in the country in which the product was purchased.

Batteries, fuses and bulbs are excluded from the warranty.

Ownership of replaced parts passes to us.

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

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

Fax.: 0049 / (0)7021 / 8001-403

E-mail: doku@sommer.eu

9.3 Changing the bulb



Specifications of bulbs for internal lighting:

- 230 V AC, max. 15 W;
- E14 lampholder, max. length: 50 mm, max. diameter: 28 mm (oven lamp).

10 Disassembly

Only a qualified electrician (in compliance with BGV A3, § 2 Subsection 3; applies only in Germany) may disassemble the control unit.



Risk of electric shock

Before starting disassembly, switch off the mains, check that the device is not live and ensure that it cannot be inadvertently switched back on.

- The sequence is identical to that described in Chapter 3 “Installation”, but in reverse order.
- Ensure correct disposal of the control unit and cable. Electronic components and batteries must be treated as hazardous waste.



Your local authority or council will give you further information on how to dispose of them.

11 Assistance in the event of faults

Only a qualified electrician (in compliance with BGV A3, § 2 Subsection 3; only applies in Germany) may work on the control unit.



Risk of electric shock

Do not touch live parts (ends of cables, contacts, etc.) while the control unit is still connected to the power supply.

Tips on troubleshooting

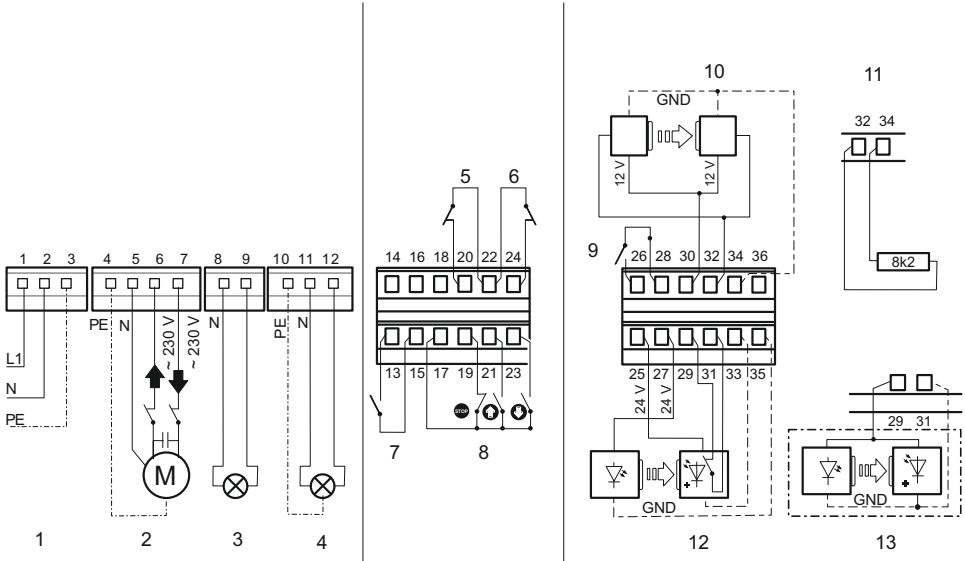
If the following table does not include the fault, proceed as follows:

- Disconnect the elements (e.g., light barrier) from the terminal and install a bridge; see Chapter 3.2 “Connecting the control unit”,
- Set all DIP switches to “OFF” (factory setting);
- Switch off both potentiometers (set to the left);
- If settings were changed using TorMinal, “Reset” the TorMinal; see separate instructions “TorMinal”.

Fault	Possible cause	Action
Operator/control unit not working.	No power. LED status does not light up.	<ul style="list-style-type: none"> • Switch on main switch. • Check fuse of power supply. • Control unit faulty -> replace.
Unable to open/close door with transmitter or button.	Safety device or bridge not connected, depending on model.	<ul style="list-style-type: none"> • Connect the necessary safety devices. • Install bridges.
	Control unit executing self-test, Status LED off.	<ul style="list-style-type: none"> • Wait for self-test to finish, approx. 4 seconds.
	Light barrier interrupted, faulty or not correctly recognised. Safety LED flashes 2x intermittently.	<ul style="list-style-type: none"> • Remove obstacle. • Check light barrier, e.g., power supply.
	Light barrier interrupted, faulty or not correctly recognised. Safety LED flashes 2x intermittently.	<ul style="list-style-type: none"> • Remove obstacle. • Check electrical safety contact strip.
	FRABA optical safety contact strip activated, faulty or not correctly recognised. Safety LED flashes 1x intermittently.	<ul style="list-style-type: none"> • Remove obstacle. • Check electrical safety contact strip.
	Permanent signal applied to pulse input. Connect button correctly or replace.	<ul style="list-style-type: none"> • Connect button correctly or replace. • Timer on pulse input.
	EMERGENCY OFF active.	<ul style="list-style-type: none"> • Unlock EMERGENCY OFF
Unable to open/close door with transmitter. Transmitter not programmed.	Transmitter not programmed.	<ul style="list-style-type: none"> • Program transmitter, see Chapter 7 "Radio receiver".
	Battery in the transmitter is empty.	<ul style="list-style-type: none"> • Replace battery, see operating instructions for transmitter.
	Button not connected correctly or faulty, thus permanent signal.	<ul style="list-style-type: none"> • Connect button correctly or replace, see Chapter "6.4" or "6.5".

Fault	Possible cause	Action
Door can only be opened or closed for as long as a button is pressed (dead man operation).	Safety device triggered, e.g., light barrier interrupted. Safety LED flashes 2x intermittently.	<ul style="list-style-type: none"> • Check light barrier, e.g., power supply. • Remove obstacle.
	Dead man operation activated, DIP switch 7 "ON".	<ul style="list-style-type: none"> • Deactivate dead man operation: Set DIP switch 7 to "OFF" • Note: Different safety regulations apply to dead man operation than to automatic operation.
	Electrical safety contact strip activated, faulty or not correctly recognised. Safety LED flashes 1x intermittently.	<ul style="list-style-type: none"> • Remove obstacle. • Check electrical safety contact strip.
	FRABA optical safety contact strip activated, faulty or not correctly recognised. Safety LED flashes 1x intermittently.	<ul style="list-style-type: none"> • Remove obstacle. • Check optical safety contact strip.
No light at connected warning light.	Defective fuse.	<ul style="list-style-type: none"> • Replace fuse.
	Bulb defective.	<ul style="list-style-type: none"> • Replace bulb.
Internal lighting not lighting up.	Defective fuse.	<ul style="list-style-type: none"> • Replace fuse.
	Bulb defective.	<ul style="list-style-type: none"> • Replace bulb.
Automatic close function is not working	Dead man operation activated.	<ul style="list-style-type: none"> • Deactivate dead man operation: Set DIP switch 7 to "OFF"
	Persistent "OPEN" command.	<ul style="list-style-type: none"> • External timer connected. This is not an error, see Chapter 6.14 "Automatic closing function".
	Light barrier interrupted, faulty or not correctly recognised. Safety LED flashes 2x intermittently.	<ul style="list-style-type: none"> • Remove obstacle.

12 Terminal diagram (overview)



1. Mains voltage: 230 V AC \pm 10%, 50/60 Hz
2. Motor connection (max. motor power 600 W)
3. Internal lighting (max. 15 W)
4. External warning light (max. 40 W)
5. Arrester
6. EMERGENCY OFF switch
7. Pulse button
8. 3-function pad
9. Pre-limit switch
10. Optical safety contact strip from FRABA
11. Electrical 8 kOhm safety contact strip (alternative to 10)
12. Light barrier with NC contact
13. 2-wire light barrier (alternative to 12)

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