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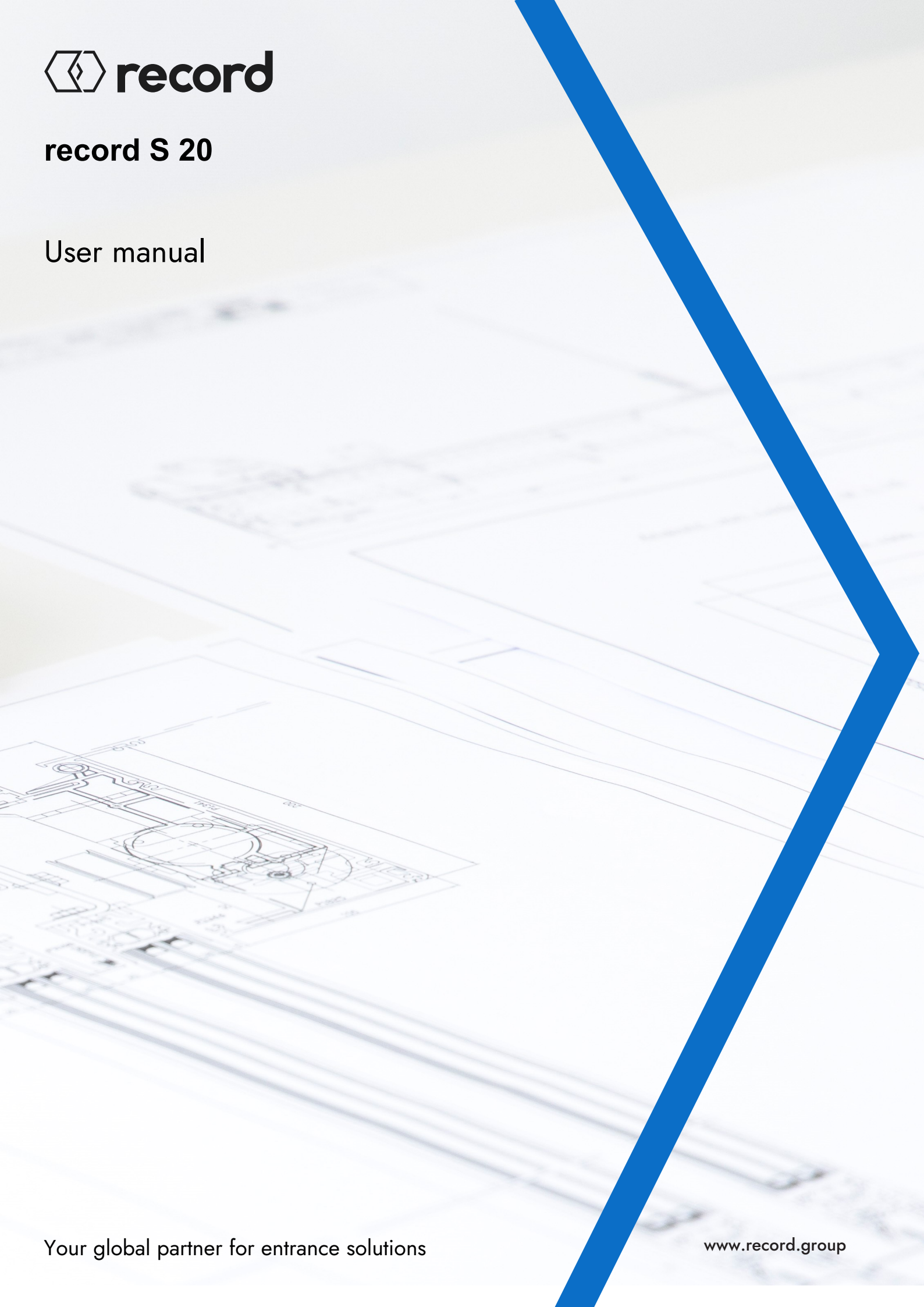
User manual



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Translation of the original manual

Subject to technical modifications

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List of changes

Change	Location
Complete revision of all Sections and content	Entire document
New Section structure	Entire document
Revision of all graphics	Entire document

1 Safety

1.1 Presentation of warning signs

Various symbols are used in this guide for easier understanding:

NOTICE

Useful advice and information to ensure correct and efficient workflow of the system.

IMPORTANT

Specific details which are essential for trouble-free operation of the system.

IMPORTANT

Important details which must be read for proper function of the system.

CAUTION

Against a potential hazardous situation that can lead to minor personal injury and property damage.

WARNING

Against a latent hazardous situation that can lead to severe injuries or death and cause substantial property damage.

DANGER

Against an imminent hazardous situation that can lead to severe injury or death.

DANGER

Against an imminent or latent hazardous situation that could lead to electric shock and cause serious injury or death.

1.2 Intended purpose of use

The system is designed exclusively for use as a pedestrian passage. The installation must only occur in dry areas. If there are deviations then proper waterproofing and water drains will be required on-site.

Any other application or use beyond this purpose is not considered to be an intended purpose. The manufacturer bears no liability for any resulting damage; the operator alone shall bear the associated risk.

The intended purpose also includes observation of the operating conditions specified by the manufacturer, in addition to regular care, maintenance and repair.

Interventions in or alterations to the installation performed by non-authorized maintenance technicians exclude the manufacturer's liability for consequential damages.

1.3 General hazards

The following section lists hazards that can be caused by the system even when used as intended.

To reduce the risk of malfunction, damage to property or injury to persons and to avoid dangerous situations, the safety instructions listed here must be observed.

The specific safety instructions in the other sections of this manual must also be observed.

IMPORTANT

The country-specific regulations must be observed and complied with!

IMPORTANT

To avoid malfunctions, moving objects such as flags or parts of plants must not be allowed to enter the detection range of the sensors.

CAUTION

Risk of malfunctions, material damage or injury due to improper settings!

a) Improper settings can lead to malfunctions, material damage or personal injury.

⇨ Do not disconnect the system from the power supply overnight.

⇨ Settings should only be made by personnel qualified to do so.

⇨ Do not disassemble, put out of operation or manipulate safety devices.

⇨ Have faults rectified by specialist personnel or by personnel qualified to do so.

⇨ Have service and maintenance carried out according to locally applicable regulations or according to a maintenance contract.

CAUTION

Risk of malfunctions, material damage or injuries due to insufficient or missing cleaning or care!

a) Insufficient or inattentive cleaning or care of the system can lead to malfunctions, damage to property or injury to persons.

⇨ Check the sensors regularly for dirt and clean them if necessary.

⇨ Regularly remove dirt accumulations in the floor rail or under the floor mat.

⇨ Keep the system free from snow and ice.

⇨ Do not use aggressive or caustic cleaning agents.

⇨ Use road salt or loose chippings only conditionally.

⇨ Lay the floor mat without folds and flush with the floor.

⇨ Equipment required for cleaning purposes such as ladders or similar must not be leaned on or attached to the system.

CAUTION

Risk of material damage or injury due to unforeseen opening, closing or turning of the door!

a) The door can open, close or turn unexpectedly. This may result in damage to property or injury to persons.

⇨ No persons may be present in the opening area of the system.

⇨ Ensure that moving objects such as flags or parts of plants do not enter the detection range of the sensors.

⇨ Do not make any settings on the control unit when the system is in use.

⇨ Have faults rectified immediately by specialist or personnel qualified to do so.

⇨ Remove objects from the opening area.

⇨ Do not disassemble, put out of operation or manipulate safety devices.

⇨ Do not rush through a closing system.

CAUTION

Risk of bruising and severing of limbs!

a) If the system moves, careless behaviour can lead to serious injuries to limbs or severance of limbs.

⇨ Do not reach in when parts of the system are moving.

⇨ Keep a distance when parts of the system move.

⇨ Do not bump into or touch the system when it is moving.

⇨ Do not open or remove protective covers during operation.

⇨ Do not permanently remove covers from the system.

⇨ Only carry out inspection, service, maintenance and cleaning when the system is stationary and switched off.

CAUTION

Danger of material damage or injury due to non-functioning safety devices!

a) If safety devices are not functioning, manipulated or put out of operation, there is a risk of damage to property or injuries that can lead to death.

⇨ Never disable or manipulate safety devices.

⇨ Have inspection, service and maintenance of the safety devices carried out according to local regulations or according to a maintenance contract.

CAUTION

Danger of malfunctions, damage to property or risk of injury if used by unauthorised persons!

a) If unauthorised persons use the system, there is a risk of malfunction, damage to property or injury to persons.

⇨ Children under 8 years of age may only use the system under supervision.

⇨ Children must not play, clean or maintain the system.

⇨ Persons with limited physical, sensory or mental abilities as well as persons with insufficient knowledge or experience may only use the system under supervision or must have received and understood instructions to do so.

DANGER

Danger to life due to electric current!

a) In case of contact with live parts, there is an immediate danger to life due to electric shock. Damage to or removal of the insulation or individual components can be life-threatening.

⇨ Before starting work on active parts of electrical systems and equipment, ensure that all poles are voltage free and that this is maintained for the duration of the work.

⇨ Keep moisture away from live parts. This can lead to a short circuit.

⇨ Never bridge fuses or put them out of operation.

⇨ Do not connect the power supply until all work has been completed.

⇨ Have work on the electrical system performed by qualified personnel only.

DANGER

Danger to life due to non-functioning safety devices of the fire protection system!

a) If safety devices of the fire protection system do not function properly, there is a risk of serious or fatal injuries.

⇨ Never disconnect the fire protection system from the power supply overnight.

⇨ Do not disassemble, put out of operation or manipulate safety devices.

⇨ Do not remove safety instructions on the system.

⇨ Never block, hold open or otherwise prevent fire doors from closing.

⇨ Have inspection, service and maintenance of the fire protection system carried out in accordance with locally applicable regulations or according to a maintenance contract.

⇨ Have the fire protection system checked and maintained according to the state of the art.

1.4 State of technology

This system was developed using state of the art technology and officially recognized technical safety regulations. The system, depending on its options and diameter, comply with the requirements of the Machine Guidelines 2006/42/EG as well as EN 16005 and DIN 18650 (D).

Nevertheless, danger may arise if not used as intended.

IMPORTANT

Installation, commissioning, inspection, maintenance and repair work may only be conducted by qualified, trained and authorized technicians.
After commissioning or repair work, fill in the check list and give it to the customer for safe keeping.
We recommend obtaining a service agreement.

1.5 Personal protective equipment

Personal protective equipment is used to protect persons from adverse effects on health. Personnel must wear personal protective equipment during the various work activities on and with the system.

Personal protective equipment is explained below:

Hearing protection is used to protect the hearing from noise. As a rule of thumb, hearing protection is compulsory from when normal conversation with other people is no longer possible.

The head protection serves to protect against falling and flying parts and materials. It also protects the head from bumping into hard objects.

Protective goggles protect the eyes from flying parts, dust, splinters or splashes.

Protective gloves are designed to protect hands from friction, abrasions, punctures or serious injury and from burning caused by contacting hot surfaces.

Safety shoes protect the feet from crushing, falling parts and slipping on surfaces. The puncture resistance of the shoes ensures, that pointy objects do not penetrate the foot.

The high-visibility vest is used to make the personnel stand out and therefore to be seen. With improved visibility and attention, the high-visibility vest protects personnel in busy work areas from collisions with vehicles.

Depending on the place of work and the working environment, the protective equipment varies and must be adapted accordingly. In addition to protective equipment for specific work, the work site may require other protective equipment (for example a harness).

In hygiene-protected areas, special or additional requirements of personal protective equipment may be required. These requirements must be considered when choosing personal protective equipment. If there is any uncertainty regarding the choice of personal protective equipment, the safety officer must be consulted at the place of work.

1.6 Spare parts and liability

Reliable and trouble free operation of the door is only guaranteed when using parts that were recommended by the manufacturer. The manufacturer declines any liability for damages resulting from unauthorized modifications to the door or the use of parts that are not permitted.

2 General information

2.1 Purpose and use of the instructions

These instructions are an integral part of the system and enable efficient and safe handling of the system. In order to ensure proper functioning, the instructions must be accessible at all times and kept in the immediate area of the system.

Although only the male form has been chosen for reasons of better legibility, the information refers to members of both sexes.

The operator must have read and understood the manual before starting any work. The basic requirement for safe working is to follow the safety instructions and the handling instructions. In addition, the local regulations and safety rules apply.

The manual can be handed over in extracts to instructed personnel who are familiar with the operation of the system.

The illustrations are for basic understanding and may differ from the actual presentation. Specific representations are contained in the drawings.

2.2 Copyright

Subject can change without prior notice.

Differences between product and manual are thereby possible.

2.3 Product identification

The nameplate located on the door provides accurate identification of the product.

2.4 Manufacturer BLASI GmbH

BLASI GmbH Automatic Door Systems

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Fax: +49 7822-893-119

2.5 Target groups

CAUTION

Risk of injury if personnel are insufficiently qualified!

If unqualified personnel work on the system or are in the danger zone of the system, dangers may arise which can cause serious injuries and considerable damage to property.

a) All work must be carried out by qualified personnel only.

b) Keep unqualified personnel away from danger areas.

This operating manual is intended for the target groups listed below:

– Operating entity of the system:
the person who is responsible for the technical maintenance of this system

– Operator of the system:
the person who operates the system every day and has been suitably instructed

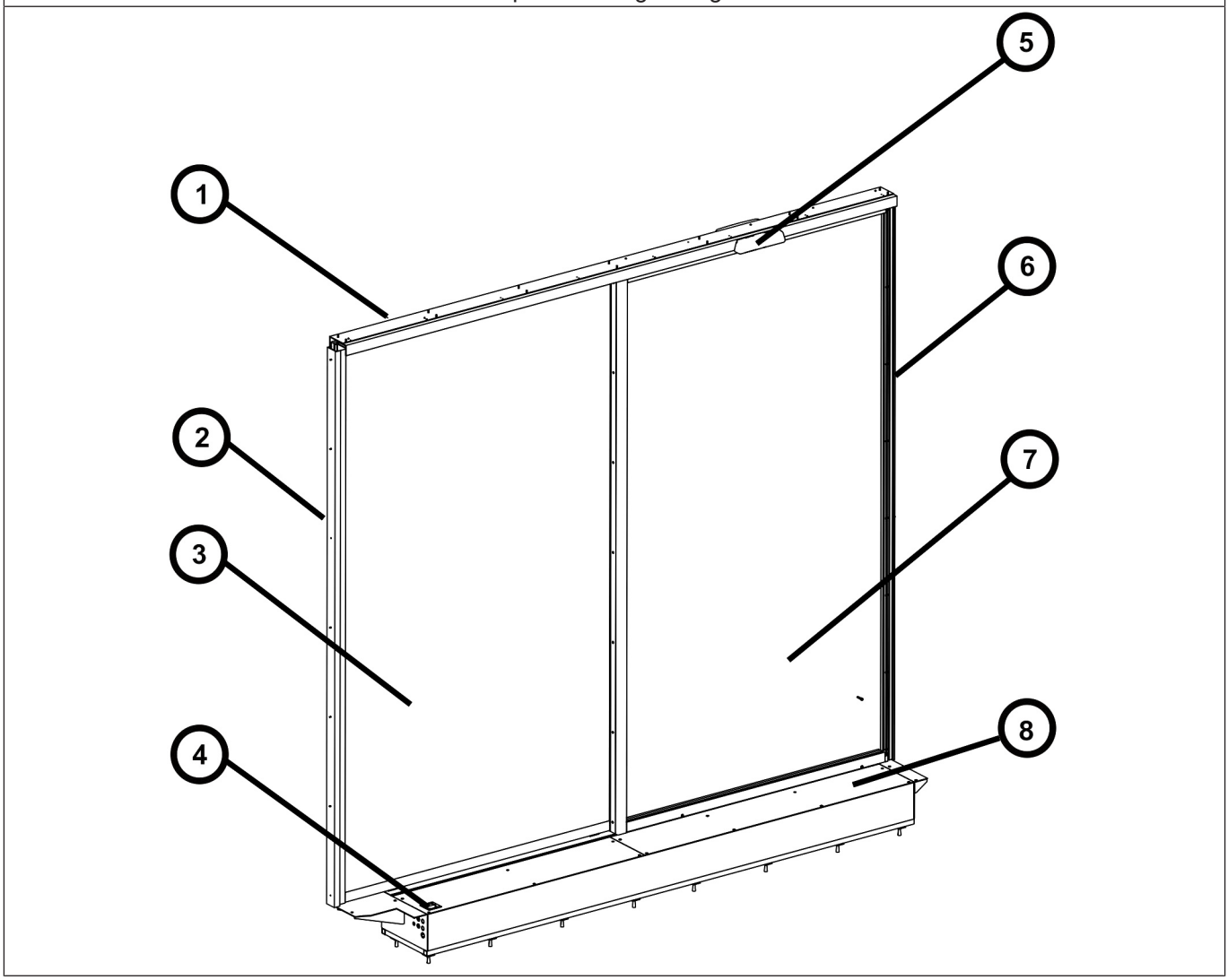
2.6 Definition of terms

Term:	Explanation:
System	The term is also used in these instructions as a synonym for the product. Door operators, revolving doors, sliding doors, etc. are referred to as a system. If information in these instructions refers to a specific type, this is shown accordingly in the text.
User	Users are all persons who use the system.
System operator	The respective owner is referred to as the system operator, regardless of whether they operate the system as the owner or pass it on to third parties.
Authorized representative	The authorized representative takes over certain parts of the manufacturer's obligations with regard to fulfilling the requirements of the Machinery Directive. In particular, the authorized representative may also place the system on the market and/or sign EC declarations of incorporation.
Qualified personnel	Qualified personnel are authorized and appropriately trained to perform the following work: – Disassembly, Assembly, Commissioning, Operation, Audit, Maintenance, Troubleshooting, Decommissioning The qualified personnel have several years of professional experience in the technical field, e.g. as mechanics or machine fitters. The qualified personnel are aware of the residual risks arising from the installation site and, due to their professional training, knowledge and experience, are able to carry out the work assigned to them and to independently identify and avoid possible danger points.
Manufacturer	The manufacturer is whoever designs and/or builds machinery or incomplete machinery under the scope of the Machinery Directive.
Life phases	All phases of the system's condition and use are referred to as life phases. This applies from the time the system leaves the factory until it is disposed of.
Personnel	All persons who carry out activities on and with the system are referred to as personnel. Personnel can be, for example, the operator, the cleaning staff, or the security staff. The personnel meet the personnel qualifications required by the manufacturer.
Service technician	Experts and specialists or representative authorized by the manufacturer to perform commissioning, maintenance and servicing.

3 Description

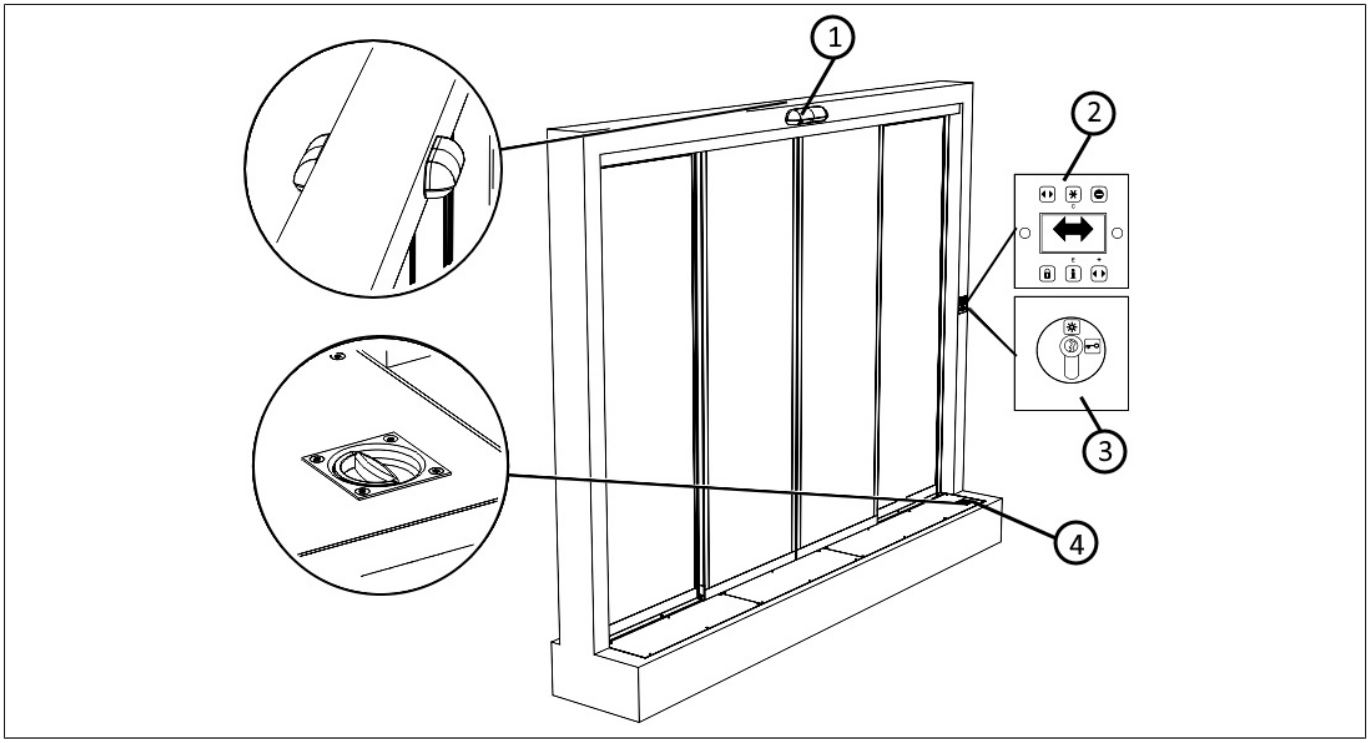
3.1 General view

Example of 1-wing sliding door



Pos	Components	Pos.	Components
1	Top guide	5	Combination sensor
2	Wall connection –side panel	6	Wall connection – wing side
3	Side panel	7	Wing
4	Emergency release (unlock)	8	Drive complete

3.2 Safety equipment and operating elements



Pos.	Components	Pos.	Components
1	Trigger and safety sensor / combination sensor (inside and outside)	3	Key switch BDE-V (option)
2	Control unit BDE-D	4	Manual release

3.2.1 Opening and security sensors (combined)

Each passage area is monitored with opening and security sensors. If an opening or security sensor is activated during the closing process while in **AUTOMATIC** or **ONEWAY TRAFFIC** operating mode, then the respective sliding door will re-open/reverse again.

3.2.2 Collision detection

If a door wing hits an obstacle during the closing process, then the door will stop immediately and re-open.

Equally, the door wing will stop immediately if the door hits an obstacle during the opening process. The opening process will start anew after 3 seconds at extra slow speed.

3.2.3 Security sensors side panel

The opening area of the door wing (inside) is monitored by security sensors. The function of the sensors is tested before each opening. If there is detection during the opening process, the door will stop immediately and closes again.

3.3 Components of the system

Pieces	Designation	Mounting location
	Switches and buttons	
1	Key switch	Indoor or outdoor
	Opening and safety sensors	
2 / 4	Combi sensors	Upper guide - inside and outside
	Drive technology	
1 / 2	Motor ATE	In drive technology
1 / 2	Control Type: System 20	In drive technology
1	Bistable locking system - Type: VRR 20 for floor hoist	In drive technology
1	Emergency release (shell handle)	In drive technology

4 Technical data

NOTICE

The power connection must be installed by a licensed electrician.
The power must be able to be shut off via a main switch or residual current circuit breaker (on-site).

NOTICE

For underfloor drives, an FI should be installed by the customer.

Description	Designation	
Underfloor sliding door system (complete door system)	S20 SU	
Door drive (incl. drive module)	STA20 SU	STA22 SU RED
	STA20 SU RED	STA22 SU DUO
	STA20 SU DUO	
Drive module	ATM20 SU	ATM22 SU RED
	ATM20 SU RED	ATM22 SU DUO
	ATM20 SU DUO	

Dimensions	
Opening width A	800 mm to 3'000 mm
Passage height G	max. 3'000 mm
Max. Door leaf inclination	± 10°
Underfloor drive Width	≤ 330 mm
Underfloor drive Depth	≤ 180 mm
Underfloor drive Length	1'800 mm to 6'500 mm

Max. Door leaf weights			
Typ	STA20 SU	STA20 SU DUO/RED	STA22 SU DUO/RED
D-STA	2 × 120 kg	2 × 150 kg	2 × 200 kg
E-STA	1 × 150 kg	1 × 200 kg	1 × 250 kg

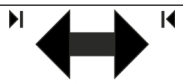
Electrical connection data	
Mains voltage:	100-240V AC (STA 20) / 115V AC (Series 5100)
Frequency:	50-60 Hz
Mains fuse:	Max. 16A circuit breaker with tripping characteristic C or K
Power consumption:	Max.: 700 VA
Control voltage:	24V DC (safety extra-low voltage)
Protection class:	1
Degree of protection:	IP 20

Environmental conditions	
Temperature range	-15°C to +50°C
Moisture range	up to 85% rel. humidity, non-condensing
Protection class drive module	IP44

5 Operation

5.1 Selection of operating modes (BDE-D)

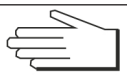
The electronic control unit BDE-D is a user-friendly input/output module to control and customise (optional) the system operation. The backlit LCD display informs about the system status by means of symbols and plain text. Error messages are displayed as text.

Button	Operating mode	Symbol displayed	Function
	Automatic	 Automatic	– Unobstructed access through the system in both directions – Maximum opening with
	Continuously open	 Cont. open	– System remains open until another operating mode is selected
	One-way	 One-Way	– System opens only in one direction (e.g. for shop closing time)
	Locked	 Locked	– System is closed and locked (if there is a locking device) – System remains locked even in case of power failure
	Reduced opening width	 Automatic	– Unobstructed access through the system in both directions – Reduced opening width

NOTICE

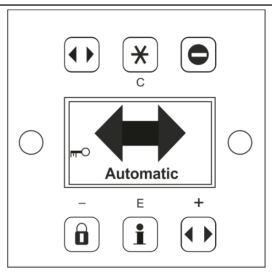
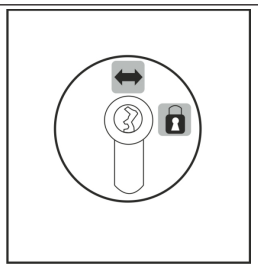
The reduced opening width is also effective with operating modes (One-way) and (Continuously open).

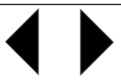
5.2 Selection of special functions

Key operation	Function	Display	Description
	Manual mode	 Manual	– Press key twice – System opens/stops on 2nd key stroke – System can be operated manually **Back to another operating mode** – Activation of the selected key (e.g. Automatic)
	Manual mode	 Manual	– Press key for 2 seconds – System can be operated manually **Back to another operating mode** – Activation of the selected key (e.g. Automatic)
	Single opening	 Locked	– System is closed and locked – 1 keystroke unlocks the system (if available) – An opening/closing cycle is performed – Once closed, system locks again

5.3 Selection of operating modes (RED)

The electronic control unit BDE-D is a user-friendly input and output unit to control and customise (optional) the door operation. The LCD display with backlight gives information about the door status with symbols and clear text. Error messages are displayed as text.

	*Control unit BDE-D* – Selection of operating modes – Exception: Operating mode Locked can only be selected by an authorised person via the BDE-V illustrated below
	*Control unit BDE-V (night locking)* – The door may only be locked by an authorised person (responsible for the key), after this one has made sure that nobody else is on the premises – Locking via external clock timer or control system is not allowed

Key	Operating mode	Symbol	Function
	Automatic		– Door opens unhindered from inside and outside – Maximum opening width (summer opening)
	Continuously open		– Door remains open until other operating mode is selected
	One-Way		– Door opens only in one direction (e.g. for shop closing time)
	Locked		– Door is closed and locked (if locking system has been installed) – Door remains locked even in case of power failure
	Reduced opening width		– Door opens unhindered from inside or outside – Reduced opening width (winter opening) – Reduced opening width is set to the minimum authorised value according to country-specific guidelines and cannot be further diminished via BDE-D

NOTICE

The reduced opening width is also effective with operating modes (One-Way) and (Continuously open).

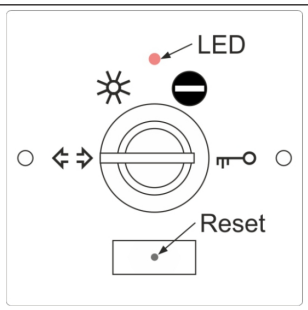
5.4 Selection of special functions (RED)

Key	Function	Display	Description
	Single opening	Locked	– Door is closed and locked – 1 keystroke unlocks the door – An opening/closing cycle is performed – Once closed, door locks again

NOTICE

Automatic doors on escape routes (RED installations) cannot be manoeuvred by hand for safety reasons

5.5 Selection of operating modes (BDE-M)



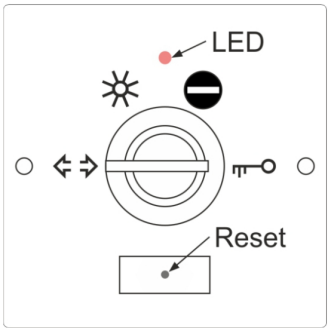
The BDE-M mechanical operating unit is equipped with a key switch. This key switch can be used to set the various operating modes. The key switch can be removed in any position.

Key	Operating mode	Function
	Automatic mode with total opening width	This operating mode corresponds to standard operation. Activation of a triggering device (e.g. RIC 290, RAD 290) opens the door. After the hold-open time has elapsed, the door closes again.
	Continuously open and manual operation	Door opens and remains in the open position. It can then be moved manually.
	One-Way	The door opens only by activating the triggering element located on the inside of the door or by an optional key swing contact (SSK).
	Locking	The door is automatically locked after it has been closed. Only with the key swing contact (SSK) can an opening be triggered with the last valid opening width. **Caution:** In the event of **interrupted power**, door opening in the locked state, without an additional battery or without manual release, is no longer guaranteed!

5.5.1 Operating mode display

The LED is lightening if mains voltage or battery voltage are available.

5.5.2 Reset-Button



– This hidden button will be actuated with a 25 mm long paper clip.
– Therefore, there is a little hole in the middle of the logo.
– If the reset-button will be pressed for about 5 seconds, a software-reset will happen. The pre-set settings remain unaffected.

5.6 Locking the control panel with the keyboard

IMPORTANT

In order to prevent accidental locking of the doors during the use of the building, the choice of the operating mode for emergency exits must be protected according to the DIN EN 16005 standard.

If the "Locked" operating mode is present, it must be protected, for example, by means of an access code or a key in such a way that only authorized personnel can set a different operating mode.

It is the responsibility of the operator of the automatic door, with escape route function, to lock the control unit in the "Automatic" position while the building is in use.

The locking of an emergency exit door is not permitted according to the standard, which would also render the function of an emergency exit door invalid.

Locking the control unit				
Key sequence			Display	Description
E			Automatic	– The control panel is locked – The locked state of the BDE-D is shown on the display – Unwanted manipulation of the control unit is made more difficult

Unlocking the control unit				
Key sequence			Display	Description
E			Automatic	– The control panel is unlocked – The unlocked state of the BDE-D is shown on the display – Free selection of operating modes and special functions is possible

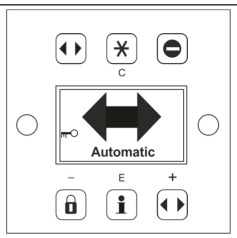
NOTICE

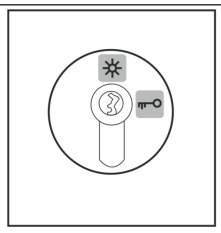
The system remains in the previously selected operating mode.

5.7 Locking the control unit with a key (option)

IMPORTANT

In order to prevent accidental locking of the doors during the use of the building, the choice of the operating mode for emergency exits must be protected according to the DIN EN 16005 standard.





If the "Locked" operating mode is present, it must be protected, for example, by means of an access code or a key in such a way that only authorized personnel can set a different operating mode.

It is the responsibility of the operator of the automatic door, with escape route function, to lock the control unit in the "Automatic" position while the building is in use.

The locking of an emergency exit door is not permitted according to the standard, which would also render the function of an emergency exit door invalid.

The BDE-D operating unit can be effectively protected against unauthorized adjustment of the operating mode via an external operating lock.

5.8 Self-test (redundancy test) of operator

5.8.1 When is a self-test carried out?

As standard, the door automatically performs a so-called redundancy test at least once every 24 hours (except in the Locked operating mode). During this self-test, the door performs a slow opening and closing cycle, which checks safety-relevant functions.

The self-test is done to ensure that all components are working and can perform their service in case of emergency opening.

The redundancy test is performed after a restart of the controller and when changing from the following operating modes:

- From continuously open - to another operating mode
- From Locked - to another operating mode
- From one-way - to another operating mode

NOTICE

After a faulty self-test, the door opens and remains in the open position. An alarm is triggered and displayed on the control unit. In this case, the service center must be notified.

5.8.2 Resetting the alarm

An alarm can be activated for the following reasons:

- An error occurring during the self-test or during normal operating
- A hindrance during the opening movement

An alarm can be reset as follows:

- By pressing the E-key on the BDE-D (press key longer than 5 seconds)
- By pressing the emergency stop switch (option)

6 Inspection and maintenance

Regular inspection and maintenance of the system by trained and authorized personal from the manufacturer, is the best guarantee for long life and trouble-free secure operation.

These control and maintenance operations are required at regular intervals, following the manufacturer's instructions and the relevant legal requirements.

6.1 General remarks

According to the legal provision in force, the operating entity of the automatic door is responsible for its maintenance and for the user's safety, as soon as the installation has been handed over.

The regular inspection of single elements by the operator requires little time investment and reinforces the prevention of accidents caused by an inappropriate use of the door.

Testing

As part of testing, visual and functional tests are conducted, ranging in particular over door leaves, guides, bearings, limiting devices, sensors as well as over safety at danger points due to crushing, shearing or drawing-in.

In addition, with door systems installed on escape routes, all the safety devices of the escape route function are controlled.

To provide the operator with documentation and information, the test result is recorded on a check list and must be kept in the logbook by the operator for at least **one year**.

Maintenance

During maintenance, bearings, sliding points and power transmission are cleaned and adjusted. Relevant fixing screws are controlled and retightened if necessary.

Then, functional testing is carried out for switching devices, drives, control units, force or energy storing devices or command controllers. The safety devices are adjusted and all the motion sequences including the final points are set.

A test run with final overall control of the door system is executed.

To provide the operator with documentation and information, the state of the door installation is recorded on a check list and must be kept in the logbook by the operator for at least **one year** until the next test / maintenance.

IMPORTANT

The test frequency is at least once a year according to the manufacturer's stipulations. The maintenance frequency is at least twice a year according to the manufacturer's recommendations.

IMPORTANT

A listing of recommended spare parts is supplied in the annex and is also available on request at your service department.

IMPORTANT

Tests and maintenance should only be carried out by a specialist or a person specifically trained for that. The authorisation of these persons exclusively lies with the manufacturer. Extent, results and time of the periodical inspection must be recorded in the logbook. These records must be kept by the operator.

6.2 Operator duties

Personal protection requires compliance with the standards and guidelines for publicly accessible facilities.

According to applicable standards and guidelines, automatic door systems must be tested and serviced by qualified persons.

The system operator is responsible for carrying out testing and servicing.

System operator tasks

Task	Personnel	When?	Entered in test log book?
Maintenance and cleaning of the sensors for safety and triggering	System operator	Weekly, or as required	No
Function and safety check	System operator	Monthly	No

Tasks of qualified person

Task	Personnel	When?	Entered in test log book?
Acceptance test	Qualified person	After assembly of the door system ready for operation	Yes
Servicing	Qualified person	1 x annually, or according to country-specific standards and guidelines	Yes
Test (inspection)	Qualified person	1 x annually, or according to country-specific standards and guidelines	Yes
Test (inspection) for door systems in escape routes	Qualified person	2 x annually, or according to country-specific standards and guidelines	Yes
Testing of fire doors	Qualified person	1 x annually, or according to country-specific standards and guidelines	Yes

6.3 Monthly check-up list

Test / Control	Procedure	Results expected
Motion detector	– Walk at normal speed towards the door (from inside or outside)	– The sensor must cover the whole passage width – The door opens in time and at an appropriate speed to allow unhindered passage through the doorway
Door wing / side panel	– Verify the state of the glazing – Verify the state of the seals / profiles	– No glass damage – No ripped out or torn seals torn (energy loss) – The door is the “visiting card” for your company. Take care that it is maintained in perfect condition
Door wing guides	– Check the door wing guides – These could be damaged from impacts (i.e. from trolleys) – Door wing guides can show exceptional signs of wear and tear due to intensive use as well as dirt	– Door wing must slide smoothly – Bottom or vertical profiles show no scratch marks – Door wing guides must not produce any unusual noise during the opening/closing phase
Floor guide	– Clean all the tracks from dirt, cigarette buts, etc.	– Door wing must slide smoothly – The movement of the door must not be hindered by dirt
Drive cladding	– Check the attachment of the drive cladding	– It must be completely closed and must correctly engage in the hinges

7 Malfunctions

7.1 Behavior in event of faults

In the event of an irregularity or malfunction, different displays are shown depending on the connected control unit.

IMPORTANT

If malfunctions that endanger the safety of individuals occur, the system must be turned off. It may not be turned back on until the problem has been resolved by a professional and the danger no long exists.

NOTICE

If the system performs a slow opening or closing movement, this may be a deliberate, automatic redundancy test (self-test).

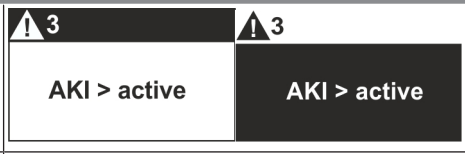
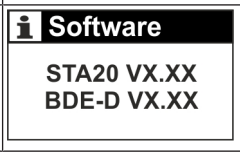
7.1.1 Display on the control unit

- Status messages are displayed with status number and text.
- The display changes alternately from white to black.
- After 10 seconds, the telephone number of the relevant service centre is alternately displayed.

7.1.2 Possible troubleshooting

- Based on the status display some errors can sometimes be eliminated
- If you are not sure, please contact the relevant service centre
- Before you call, write down the data displayed on the BDE-D. This information provides the technician with important informations for troubleshooting
- If several status messages are active at the same time, they are numbered: e.g. error 1 / 2
- Pressing the E-button permits to navigate from one error message to the next one

Example:

Which information?	Procedure	How displayed? (Example)
Status text and number	– It is automatically displayed on the BDE-D	
Software-Versions	– Press the following button on the BDE-D for 2 seconds 	

7.1.3 Resetting the control module

In some cases, the malfunction may be remedied by restarting the control unit. Please proceed as described below.

- Make sure that the drive cladding is closed and that nobody is obstructing the system or approaching it, thereby triggering an opening of the system.

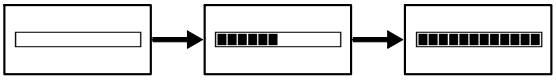
Button	Selection	Display
		**Press > 5 seconds**
	No	**No** / **Reset control?** / **Yes**
	Yes	

– Restart of the installation is performed.
– The first movement after a reset occurs at reduced speed.
– If a fault is still displayed on the control unit after resetting, please contact our service centre **stating the error message**.

7.1.4 Control unit BDE-D does not react

If the control panel does not react when the keys are pressed or if no message appears on the display, a reset of the control panel could eliminate the problem.

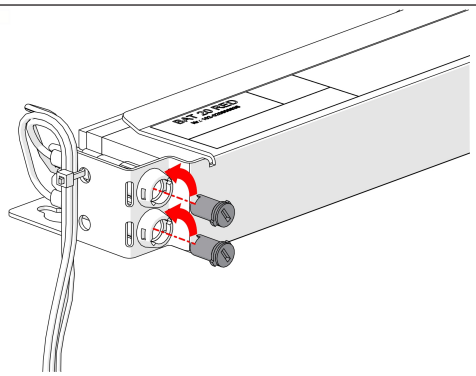
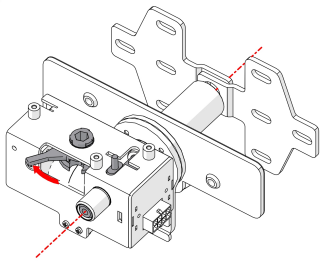
Proceed as follows:

RESET HARDWARE BDE-D	
E	**Press E key > 12 seconds**
	Display without any message
	Connecting to control unit....  Connection has been established (example) **Software** STA20 VX.XX BDE-D VX.XX

– After resetting, the control panel is again operational
– If this is not the case, please inform our service centre

7.2 Manual opening (without manual release)

Initial position: Door is blocked and locked in closed position in de-energised state

– Opening the drive fairing and cover plates (unscrewing) Note: Only open the cover plates in the middle to get to the locking mechanism.	
– To be on the safe side, unplug the power cord from the wall outlet. – The socket outlet is located under the drive fairing.	
– In addition, unscrew the battery fuse(s). – The battery is located under the drive fairing.	
– Actuate the release lever clockwise as far as it will go and then let it recoil. – The door unlocks and can be pushed open by hand. – Close the drive fairing and cover plates again.	

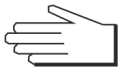
7.3 Manual closing

Initial situation: Power supply is present. Door remains blocked in open position.

NOTICE

Depending on the type of fault, the procedure for closing the door manually varies. Follow the steps described below.

7.3.1 Manual closing - step 1

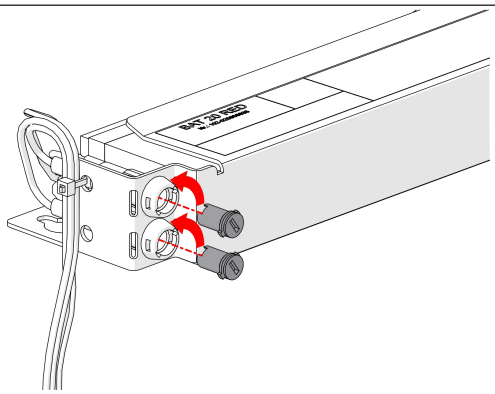
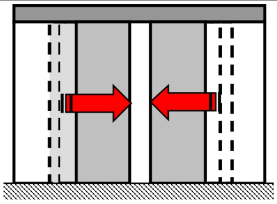
Key	Function	Display	Description BDE-D
	Manual mode	 Manual	– Press key 2 x in succession – The door can be closed or opened manually **Makeshift door operation (e.g. at low outside temperature)**
	Locked	 Locked	– **Night locking** – Press *additionally* the Locked key – Push the door manually to the closed position – Door is closed and locked (if locking device is present) **Notify service center (Phone number is shown on the display)**

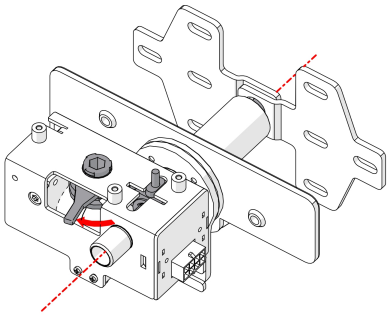
NOTICE

If the door still cannot be operated and locked manually, perform the steps described below.

7.3.2 Manual closing - Step 2

If the efforts described in "Step 1" to manually close and lock the door are unsuccessful, this is a serious fault. Proceed as follows:

– Set the door on the control unit to permanently open. – Opening the drive fairing and cover plates (unscrewing) Note: Only open the cover plates in the middle to get to the locking mechanism.	
– To be on the safe side, unplug the power cord from the wall outlet. – The socket outlet is located under the drive fairing.	
– In addition, unscrew the battery fuse(s). – The battery is located under the drive fairing.	
– Push the door manually into the closed position.	

– Actuate the release lever clockwise until the locking bolt releases and locks the door. – Check by hand whether the door is really locked. – Leaving the building only possible via a second exit **Call service station** **(phone number shown on display)**	

7.4 Operating door in emergency

In accordance with country-specific safety regulations (concept of emergency exit, etc.) the doors are fitted with an emergency opening device.

7.4.1 Emergency opening with current supply

By activating the emergency opening switch (optional), which must be placed beside the installation, the door will open as long as the operating mode Locked has not been selected. In this operating mode the door will remain locked.

To re-start the installation, the emergency opening switch must be reset by hand, either through a rotation or a pulling (different procedures depending on the version of the switch).

7.4.2 Emergency opening in case of power failure with a back-up battery (optional)

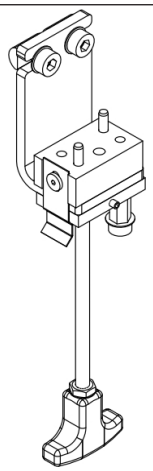
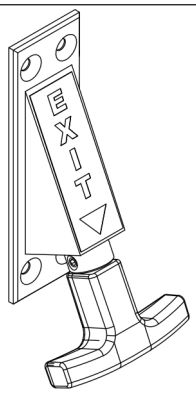
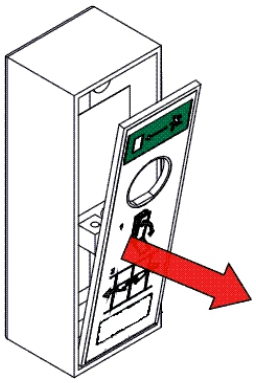
- If a back-up battery is fitted and parametrized as 'Battery operation', all functions of the automatic door will continue to be available.
- In case of a power failure, emergency opening is ensured by a back-up battery that opens the door once (except if the program is set to 'Locked').
- The number of door openings depends mainly on door weight and the battery's charging state.
- The last door operation in case of a weak battery (insufficient capacity) is selectable: 'Open' or 'Close'.
- If the door is in the 'Locked' state, it can be unlocked by means of the key switch/push button (optional).

7.5 Emergency operating using Bowden cable (Option)

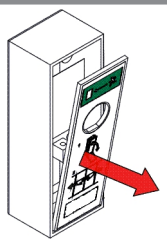
This device, available in several versions, is mounted inside and/or outside and allows the unlocking of the door, according to the procedure below.

7.5.1 Available versions

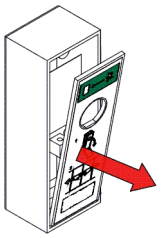
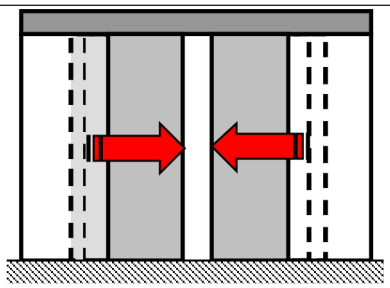
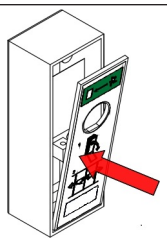
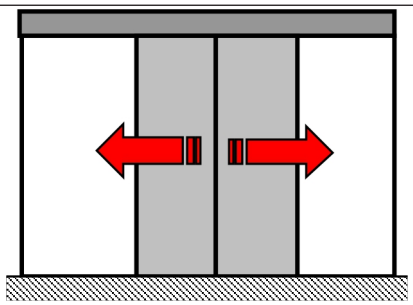
The available versions are illustrated below. They are basically identical in their function.

		
102-020808512	102-020808757	102-014102000

7.5.2 Procedure for an emergency opening

Emergency opening	
	– Open the unlocking flap – Pulling the unlocking flap downwards unlocks the door – Display on the BDE-D → Error No. 31 / Emergency stop – The door can be slid open by hand

7.5.3 Closing and locking the door

Procedure for closing and locking the door	
	– Activate the emergency opening – This causes the locking device to be unlocked
	– Slide the door manually into the closed position – Keep the door leafs in the closed position
	– Close the unlocking flap – The door is now locked
	– **Check manually if the door is really locked**

NOTICE

Same procedure for the other operating elements

8 Taking out of service and disposal

8.1 Decommissioning

When shutting down or taking out of service, the system is disconnected from the mains supply and any existing battery is unplugged.

NOTICE

After each temporary shutdown a new commissioning must be carried out.

8.2 Dismantling and disposal

IMPORTANT

All machine parts must be sorted by type of material and disposed of according to local regulations and guidelines.

NOTICE

The door systems can be completely disassembled in reverse order.

The automatic door mainly consists of the following materials:

Aluminum:

- Linking profiles
- Gearbox, Drive panel
- Door wing profiles and side profiles
- Various profiles and small parts

Steel / iron parts:

- Stainless steel casing, Floor panel, Box recess for floor installation
- Optional spacer or reinforcement profiles
- Gear components, springs
- Various small parts like fittings, covers, linking parts, etc.

Glass:

- Door wings and side panels

Various electronic and electromechanical components:

- Sensors, control and operator components
- Lead batteries and nickel-cadmium rechargeable batteries

Various plastics:

- Rollers
- Cable clips, coupling and linking parts
- Sealing profiles
- Casing of electromechanical components and sensors

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