

User manual K1-A / K3-A

automatic door systems - this is record!



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1 Safety instructions and regulations

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 General safety and accident prevention regulations

NOTICE



This system is not intended to be used by persons (including children from the age of 8) with limited physical, sensory or mental abilities or with a lack of experience and/or knowledge. Unless they are supervised by a person responsible for their safety or have received instructions from that person on how to use the system.

Supervise children and ensure that they do not play at the system.



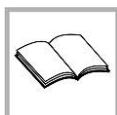
IMPORTANT

Do not allow children to play with the device or its regulating and/or control devices, including remote controls.



IMPORTANT

When using motion detectors, make sure that no moving objects such as flags, plants, etc. enter the detection areas of the motion detectors



IMPORTANT

In order to avoid malfunctions, the system must *NOT* be disconnected from the mains overnight!



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 longer exists.



IMPORTANT

Safety devices (e.g. sensors, protective wings) must not be dismantled or put out of operation.



CAUTION

Malfunctions and risk of falling from debris gathering under the floor mat!

- Door breakdown, bruises, broken bones
- The floor mat or floor covering must be even and securely installed.
- Debris that gathers under the floor mat must be removed regularly.



CAUTION

Unexpected OPENING / CLOSING / ROTATION

- Bruises and contusions from the door wings/apron
- No persons or objects are allowed in the opening area of the door.
- No safety devices (sensors) should be removed or disabled.
- Do not rush through a door that is already closing.



DANGER

Electric shock

- Electric shock, burns, death.
- Disconnect the drive from the power supply during cleaning, maintenance and replacement of parts.

1.3 Intended purpose of use

The system is designed exclusively for use as a pedestrian passage. The installation may 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.

1.4 Fire load



IMPORTANT

In case of fire load, the system leave(s) can be mechanically deformed to such an extent that they cannot be moved.

If the system is not part of a fire or smoke protection installation, it must not meet any fire protection specifications such as fire resistance or smoke control.

If it is part of a fire or smoke protection installation, all the necessary documents such as approvals and conformity declarations are enclosed.



DANGER

Blocked by a fire hazard!

- Suffocation or burns
- A fire detection system must be implemented.

1.5 Control of safety devices

Beside the maintenance carried out at regular intervals by a service technician or authorised person, it is recommended, for additional safety, that the operator regularly controls the essential elements of the door. You will find a check-list of the functions to be tested monthly at the end of this document.

1.6 Spare parts / 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 Manufacturer KOS Spezialtüren GmbH

KOS Spezialtüren GmbH

Landwehr 152-156

D-46514 Schermbeck

Germany

Phone: +49 2853-448-99-0

Fax: +49 2853-448-99-10

2.2 Copyright

The copyright of the instructions remain at:

KOS Spezialtüren GmbH

It is prohibited to reproduce, distribute or use the manuals for purpose of competition without the written authorization of KOS Spezialtüren GmbH.

Violation of the here stated copyrights will be prosecuted and fined with compensation of damage.

Subject can change without prior notice.

Differences between product and manual are thereby possible.

2.3 Target groups (User)

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

The handling of the system is explained with the help of this operating manual. It forms the basis of fault-free working and gives instructions for the procedures to follow for rectifying any faults that may occur. Extracts of this document can also be made accessible to persons entrusted with the day-to-day operation of the system.

The operating entity of the system must read this operating manual before commissioning the system, and follow the safety instructions.

It is recommended that this document should be kept handy in the vicinity of the automatic system.

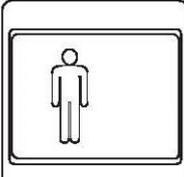
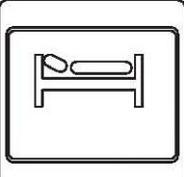
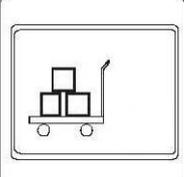
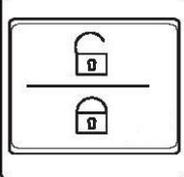
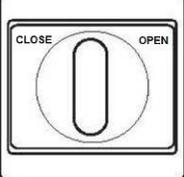
2.4 Storage of the manual

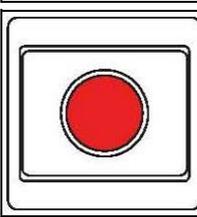
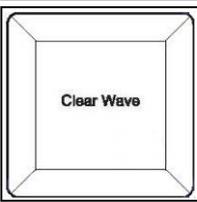
After the installation of the system, the instructions should be stored in an accessible and dry place.

2.5 Document identification

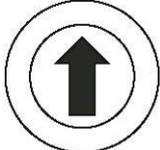
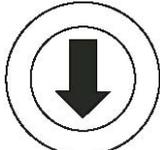
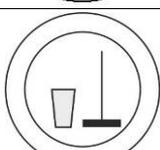
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Version:	V1.4
Item No.:	125-020401845
Publication date:	04/2019

3 Operating controls

	<p>The system will open fully if the CLEANING switch is pressed. If the switch is pressed a second time, the system will close again. This switch can only be used conditionally with the System 20 control unit.</p>
	<p>The system will open to a reduced width if the PERSON button is pressed. Once the opening time has expired, the system closes again.</p>
	<p>The system will open fully if the BED button is pressed. Once the opening time has expired, the system closes again.</p>
	<p>The system will open fully if the TROLLEY button is pressed. Once the opening time has expired, the system closes again.</p>
<p style="text-align: center;">Door CLOSE</p>	<p>The system will close and lock if the DOOR-CLOSED button is pressed. This switch can only be used with the AE2 control unit.</p>
<p style="text-align: center;">Door OPEN</p>	<p>The system will unlock and open if the DOOR-OPEN button is pressed.</p>
	<p>Pressing the LOCK button will lock or unlock the system.</p>
	<p>By turning the switch to the OPEN or CLOSED position, the blinds installed in the door leaves will open or close.</p>

	<p>The system will open if the EMERG.OPEN button is pressed.</p> <p>This switch can be used only with the AE2 control unit, or only with the control module STM20 DUO or STM22 DUO.</p>
	<p>Pressing the EMERGENCY STOP button will disconnect the system from the power supply.</p>
	<p>The system can also be opened or closed with a contact-free device with switch and press-button functions.</p>
	<p>The system will open fully if the elbow button is pressed. Once the opening time has expired, the system closes again.</p>

3.1 Switches and buttons

<p>The switches and buttons listed below are only used with K3-A doors.</p> <p>These switches and buttons can be installed in a vertical column (e.g. in the start profile).</p>		
	<p>Blinds OPEN button</p>	<p>This button is used to open the blinds installed in the door leaf.</p>
	<p>Blinds CLOSED button</p>	<p>This button is used to close the blinds installed in the door leaf.</p>
	<p>PERSON button</p>	<p>If pressed, this button will open the system to a reduced width.</p>
	<p>BED button</p>	<p>If pressed, this button will fully open the system.</p>
	<p>CLEANING switch This switch can only be used conditionally with the System20 control unit.</p>	<p>With this switch, the system will open fully and remain open until the switch is turned off or reset.</p>

4 Operating modes / Settings

4.1 Operating modes of the System 20 control unit

The automatic operating modes of each individual system can be set with the respective BDE-D control unit.

4.1.1 LOCKED operating mode



When the system is closed, the opening and safety sensors are disabled.

If the system is switched to this operating mode while the door leaf is closing, the opening and safety sensors are activated.

If someone enters the detection range of an opening or safety sensor while the door leaf is closing, the system will reverse and open again.

If the door leaf hits an obstruction during the closing process, the system will immediately open again thanks to the integrated pressure control.

Electric locking device (unlocked without power)

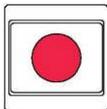
In the **LOCKED** operating mode the system is locked via an electric locking device.

In case of a power failure, the locking device is unlocked without power. This way, the system can be opened manually.

Mechanical locking device

The system can be optionally equipped with a mechanical locking device. The mechanical locking device can be factory-installed into the door leaf and can be locked and unlocked with a key for the 60 mm cylinder lock.

Please note: Before the BDE-D control unit can be switched to another operating mode (e.g. Automatic), the system must be unlocked manually.



OPTIONAL:

In locked mode, an additional optical display/signal light (e.g. for X-ray-mode) can be installed.

4.1.2 AUTOMATIC operating mode K3-A



The opening and safety sensors of the system are activated. The door leaf opens as soon as a person enters the detection range of the corresponding sensor.

Once the opening time has expired, the open door leaf closes again as long as nobody is standing in the detection range of the corresponding opening or safety sensors.

If someone enters the detection range of an opening or safety sensor while the door leaf is closing, the system will reverse and open again.

If the door leaf hits an obstruction during the closing process, the system will immediately open again thanks to the integrated pressure control.

4.1.3 AUTOMATIC operating mode K1-A



The opening and safety sensors of the system are activated. The door leaf opens as soon as a person enters the detection range of the corresponding sensor.

First the door leaf is pushed **approx. 3 mm** away from the door frame and then it opens to its full opening width.

Once the opening time has expired, the open door leaf closes again as long as nobody is standing in the detection range of the corresponding opening or safety sensors, and will be pushed against the door frame. In this way, the door leaf is hermetically sealed.

If someone enters the detection range of an opening or safety sensor while the door leaf is closing, the system will reverse and open again.

If the door leaf hits an obstruction during the closing process, the system will immediately open again thanks to the integrated pressure control.

4.1.4 REDUCED OPENING operating mode



With this button on the **BDE-D** control unit, the **system** can be set to open to a reduced width. The system will then only open to a reduced opening width.



The reduced opening can also be achieved by pressing the 'Person' button.

4.1.5 ONE-WAY TRAFFIC operating mode K3-A



EXIT and ENTRANCE DIRECTION

If someone enters the detection range of the opening sensor from inside (i.e. operating theatre), the system will open. The opening sensor on the outside (i.e. corridor) is switched off when the system is closed. If the system is open, the outside opening sensor remains active, but only until the system is fully closed again.

Once the opening time has expired, the system closes again as long as nobody is standing in the detection range of the corresponding opening or safety sensors.

If someone enters the detection range of an opening or safety sensor while the door leaf is closing, the system will reverse and open again.

If the door leaf hits an obstruction during the closing process, the system will immediately open again thanks to the integrated pressure control.

4.1.6 ONE-WAY TRAFFIC operating mode K1-A



EXIT and ENTRANCE DIRECTION

If someone enters the detection range of the opening sensor from inside (i.e. operating theatre), the system will open. The opening sensor on the outside (i.e. corridor) is switched off when the system is closed. If the system is open, the outside opening sensor remains active, but only until the system is fully closed again.

The closed door leaf can be opened manually from the outside by using the door lever.

First the door leaf is pushed **approx. 3 mm** away from the door frame and then it opens to its full opening width.

Once the opening time has expired, the open door leaf closes again as long as nobody is standing in the detection range of the corresponding opening or safety sensors, and will be pushed against the door frame. In this way, the door leaf is hermetically sealed.

If someone enters the detection range of an opening or safety sensor while the door leaf is closing, the system will reverse and open again.

If the door leaf hits an obstruction during the closing process, the system will immediately open again thanks to the integrated pressure control.

4.1.7 CONTINUOUSLY OPEN operating mode K3-A



The **system** opens immediately and remains open until a new operating mode is selected.

4.1.8 COUNTINUOUSLY OPEN operating mode K1-A



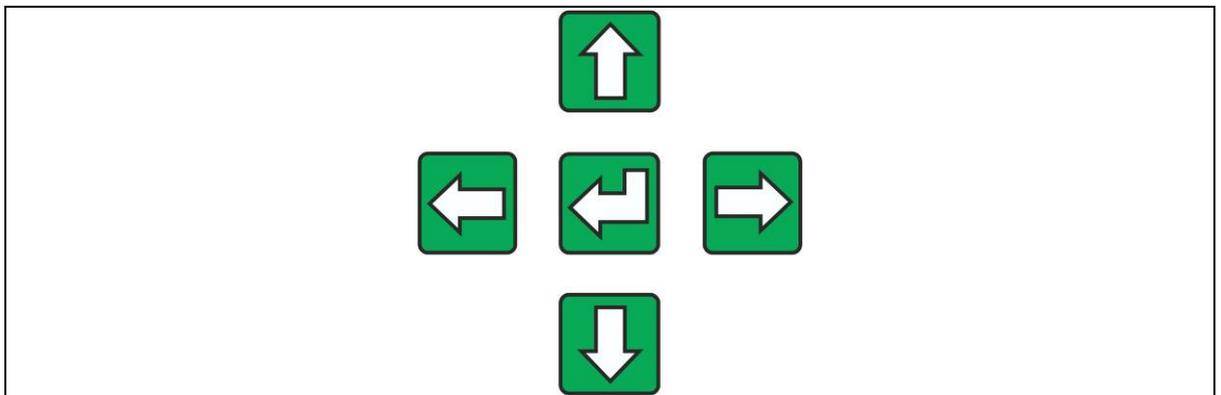
The **system** opens immediately and remains open until a new operating mode is selected.

First the door leaf is pushed **approx. 3 mm** away from the door frame and then it opens to its full opening width.

4.2 AE2 Control unit settings

The settings are done exclusively with the arrow buttons on the control unit. The settings are changed by means of the “Left” and “Right” buttons. The “Up” and “Down” buttons are used to navigate through the menu.

When the settings have been made, the values must be saved by pressing the “Enter” key in the middle.



For security reasons, there are several user levels, which are activated via number codes. The following settings can be defined by the operating entity:

Page	Menu	Def.	Min.	Max.	Step	Unit	Description
1	User Level	0	0	1000	1	Code	5 = In-house technician mode
In-house technician							
2	Partly open time	2	1	30	1	sec.	Here you can set the seconds of the hold-open time for partly open.
3	Fully open time	5	1	30	1	sec.	Here you can set the seconds of the hold-open time for fully open.
4	Partly open width	50	10	100	10	%	Here you can set the opening width for partly open in %. (100% = maximum opening width of the system)
5	Opening speed	3000	300	3200	100	r.p.m.	Defines the maximum possible opening speed, but only has a conditional effect on the real opening speed. An average system only reaches 2000...2500 r.p.m. before automatic braking is started. Therefore, if the speed is reduced from 3500 to 2500 r.p.m. there would only be a noticeable change for full opening – but not for half opening. Here it is possible to reduce the speed for very heavy or telescoping systems with excessively hard actuator impact.
6	Closing speed	1700	200	2000	100	r.p.m.	To set the maximum closing speed.
7	EasyComeIn	0	0	2	1	Code	Enable/Disable EasyComeIn. If EasyComeIn is disabled, the system will block when manually opened. 0 = disabled 1 = EasyComeIn partly open 2 = EasyComeIn fully open

All other settings are reserved for the manufacturer, and must not be changed for normal operation. Changes to the drive unit settings by unauthorized third parties represent a hazard for correct and safe operation.



IMPORTANT

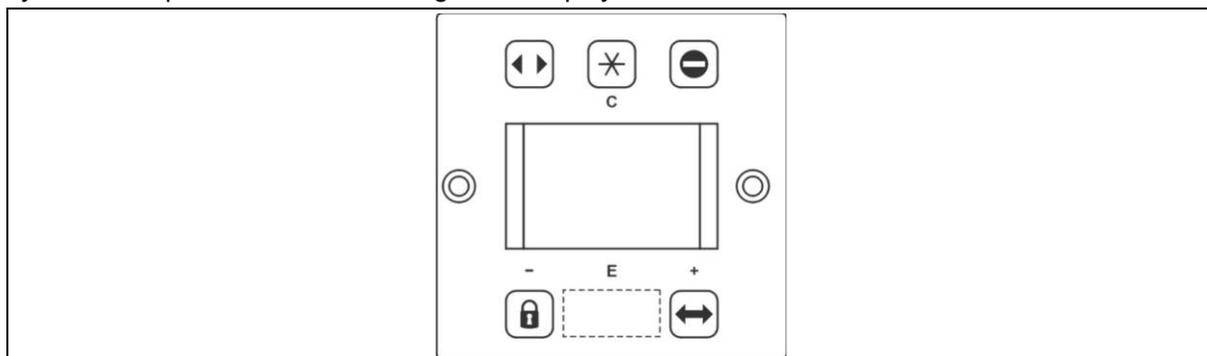
The manufacturer accepts no liability for any damage caused by unauthorized changes to the control system.

5 Operating instructions

The electronic control unit with display (BDE-D) has been designed to operate the automatic sliding door installation.

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.



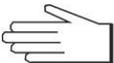
Button	Operating mode	Symbol displayed	Function
	Automatic	 Automatic	<ul style="list-style-type: none"> Unobstructed access through the system in both directions Maximum opening with
	Continuously open	 Cont. open	<ul style="list-style-type: none"> System remains open until another operating mode is selected
	One-way	 One-Way	<ul style="list-style-type: none"> System opens only in one direction (e.g. for shop closing time)
	Locked	 Locked	<ul style="list-style-type: none"> System is closed and locked (if there is a locking device) System remains locked even in case of power failure
	Reduced opening width	 Automatic	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Press key twice System opens/stops on 2nd key stroke System can be operated manually Back to another operating mode <ul style="list-style-type: none"> Activation of the selected key (e.g. Automatic)
	Manual mode	 Manual	<ul style="list-style-type: none"> Press key for 2 seconds System can be operated manually Back to another operating mode <ul style="list-style-type: none"> Activation of the selected key (e.g. Automatic)
	Single opening	 Locked	<ul style="list-style-type: none"> System is closed and locked 1 keystroke unlocks the system (if available) An opening/closing cycle is performed Once closed, system locks again

6 Connection to smoke detector of fire alarm system

Basic equipment	
1 unit	Drive unit AE2, complete
2 units	Smoke detector or connection to fire alarm system
2 units	Presence detector according to DIN 18650 / EN 16005
2 units	Actuating device (push-button) of choice
Optional equipment	
2 units	Push-button for part opening (Person), hold-open time adjustable 1...30 sec
2 units	Push-button for full opening (Bed), hold-open time adjustable 1...30 sec
1 unit	Switch for permanently open (Cleaning bucket), unlimited hold-open time
1 unit	Emergency push-button (EMERG.OPEN), compulsory in an air-lock control system, installed in the air-lock.



IMPORTANT

Never use a switch or a mechanical lock.

Function

In the basic operating mode, the drive unit opens and closes the system with the adjusted hold-open times for partial and full opening. If the **Continuously open** switch is actuated, the system remains open until the switch is turned off again. If someone enters the detection range of the presence sensors while the door is closing, the drive unit will operate the door to the last selected position. As soon as the detection area is clear again, the drive unit is enabled, and the system is closed after the hold-open time has expired.

The superordinate **Alarm input X7V (3+4) / X9H (1+2)** function serves to connect the smoke detectors or the fire alarm system. A normally closed (NC) contact is required for operating the alarm input. If this input is actuated by the installed smoke detectors or the fire alarm system, all previous door functions are cancelled. The presence detectors are switched off, and the drive unit closes the system. The only safety function still operating is the automatic reversing mode. This means that if the system meets an obstruction, the drive unit opens the system and closes it again immediately. By pressing an emergency push-button, trapped persons are able to leave the room. Hereby, the drive unit opens the system and closes it again immediately. The 'Continuously open' switch remains disabled.

Air-lock and Emergency Open functions

If a smoke control door is integrated in the air-lock control system, an emergency opening function is compulsory. If the locked entrance of the air-lock is active (door 2 open), the opening push-buttons are disabled.

7 Behaviour in the event of faults - System 20

In case of a malfunction or fault, different messages are displayed according to which control unit is connected.

7.1 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 center is alternately displayed.

7.2 Possible troubleshooting

- Based on the status display some errors can sometimes be eliminated
- If you are not sure, please contact the relevant service center
- Before you call, write down the data displayed on the BDE-D. This information provides the technician with important information 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	<ul style="list-style-type: none"> ▪ It is automatically displayed on the BDE-D 	
Software-Versions	<ul style="list-style-type: none"> ▪ Press the following button on the BDE-D for 2 seconds 	

7.3 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.

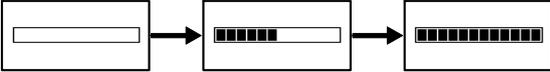
		Press > 5 seconds
	No	<u>No</u>
	Yes	<u>Reset control?</u> <u>Yes</u>

- The system will reset
- 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.**

7.4 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
	<p>Connecting to control unit....</p>  <p>Connection has been established (example)</p> <div style="background-color: black; color: white; padding: 2px;"> Software</div> <p style="margin-left: 40px;">STA20 V X.XX BDE-D V X.XX</p>

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

8 Behaviour in case of faults - AE2

During normal operation under normal operating conditions, no faults will occur. However, should a fault or malfunction occur, this can be due to one of the following reasons:

Power failure

In case of a power failure, the system's automatic drive unit is inoperative. In this case, it is possible to open the system manually. If the system is fitted with an uninterruptible power supply (UPS), an acoustic warning sounds in case of a power failure, and a few automatic opening/closing operations can still be carried out. As soon as the capacity of the UPS is depleted, the acoustic warning goes off, and the system can be operated manually.

As soon as power is restored, the system goes into the closed position, and normal operation is resumed. If a UPS is fitted, it will be recharged automatically.

System does not close

In this case, first check whether the system closes after renewed actuation of a push-button (the system has reached the maximum number of closing attempts after hitting an obstruction).

Other causes:

- The **CONT.OPEN** switch has been actuated.
- One of the push-buttons is faulty and causes a permanent signal.
- One of the sensors has detected an obstruction.
- The automatic cut-out on the mains unit has been tripped (reset it).
- The toothed belt has come off or is torn.

Carry out a RESET.

Most faults or malfunctions can be remedied quickly and easily by carrying out a system reset. This is done by pressing the green button on the side of the drive cladding, and pressing it again after waiting at least 5 seconds. If no switch has been fitted for constructional reasons, simply switch off the power supply for at least 5 seconds.

After a reset, the system goes into the closed position, and normal operation is resumed. If a reset does not solve the problem, please contact our service centre.

9 Power failure and power restoration

9.1 Conduct during power failure

In the **LOCKED** mode, the system remains in the closed position. If a locking device is fitted, the system will be unlocked (since unlocking does not require electric power). The system can be pushed open manually.

During a power failure in the operating modes "**REDUCED OPENING**"; "**AUTOMATIC**"; "**CONTINUOUSLY OPEN**" and "**ONE-WAY**" the system will remain in its current position. The drive is off and the system can be pushed open manually.

No message is displayed on the BDE-D control unit.

Note: The charge level of the integrated emergency power supply (battery) of the control unit is permanently monitored. If a discharge is detected, the message "Batt. not full" will be displayed on the control unit.



NOTICE

Emergency operation for a certain transitional period is only possible with an external (on-site) or integrated UPS (Uninterruptible Power Supply).

9.2 Conduct when power is restored

After the power is restored or the power returns, the operating mode that was selected before the power failure will become active again.

10 Maintenance and regular inspection

Prior to carrying out the first commissioning and if required as well as in accordance with the applicable regulations - however at least **twice a year** – a technical inspection by a skilled service technician or an authorized partner must take place. We recommend performing maintenance at the same time. Any due maintenance is indicated on the display of the BDE-D control unit. The interval for the edition of this message is determined by the number of opening cycles and/or the expiry of a defined operating period.

Regular maintenance and inspection of the automatic door by trained personnel authorized by the manufacturer provides the best guarantee for a long service life and an error-free operation.

We recommend the conclusion of a service contract with the respective service department in your region.



IMPORTANT

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

10.1 Maintenance and care of the system



NOTICE

If there is no “Cleaning” button, we recommend using the operating modes  (Locked) or  (Continuously open) for carrying out this work so as to avoid possible injuries from unwanted door movements.

Care

- The entire system, including the sensors and safety devices, can be cleaned with a moist cloth and standard commercial cleaners (non-scouring, do not use any solvents). First test the cleaners on a hidden (not easily visible) place.
- Clean the track using a dry cloth.



CAUTION

Never lubricate the track!

- Regularly rub talcum powder onto the rubber sealing profile.
- Clean the lower nylon cam **quarterly**, and ensure that the lower sealing rubber in the actuating compartment has no contact with the floor or walls.
- Apply graphite powder to the cylinder lock **semi-annually**.
- Clean the running wheels and track **quarterly**.

Maintenance

Carry out the following work and inspections **semi-annually**.

- Switch off the drive unit and interrupt the 230 V power supply (and switch off or disconnect the UPS if fitted)
- Check the drive belt tension
- Visually inspect the drive unit
- Check rigidity and free movement of the door leaf
- Move the door to the closed position
- Switch the 230 V power supply on again, switch on the drive unit, and switch on or connect the UPS if fitted
- Check the correct function of all control devices
- Check the correct function of all sensors
- Check the reversing function with an obstruction

According to the regulations for power-operated doors and gates, their safe status must be checked at least **1 per year** by a qualified technician. By means of a maintenance contract, you can ensure that these regulations are fulfilled.

10.2 Recommended and planned spare- and wear parts

Spare part/Wear part	Interval
* CO48 (Silicon or Rubber)	1 year
* Pulley CO48	3 years
Battery	3 years
Antistatic brush	3 years
Door leaf guide (plastic)	3 years
Guiding pad	3 years
Safety blocking ball (TOS Break-out system)	5 years
Pulley	If wear is detected
Gear belt	If wear is detected
Roller, wheel	If wear is detected
Counter wheel	If wear is detected
Track	If wear is detected
Carriage + Track + Rubber damping profile	If wear is detected
Belt clamp	If wear is detected
Hinge (plastic) for cladding height 200 mm	If wear is detected
Locking device (VRR)	If wear is detected
Motor	If wear is detected
Leaf central seal	If wear is detected
Lateral sealing profile	If wear is detected
Floor guide rail	If wear is detected
Light barrier	If wear is detected
Control	Breakdown/Failure
BDE Control unit	Breakdown/Failure
BBGV Green break glass housing	Breakdown/Failure
Others	Breakdown/Failure

* Mechanical power storage device for escape routes in France.



NOTICE

Depending on the version of the door installed, not all the listed spare and wear parts are installed.

11 Functions and safety check

11.1 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

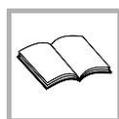
The test frequency is at least once a year according to the manufacturer's stipulations.

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 authorization 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.

11.2 Monthly check-up list

Test / Inspection	Procedure	Expected result
Motion detectors	<ul style="list-style-type: none"> ▪ Walk towards the door at normal speed (from inside and outside) 	<ul style="list-style-type: none"> ▪ The sensor must cover the entire passage width ▪ The system opens in time and at an appropriate speed to allow unhampered passage
Door leaves / Side screens	<ul style="list-style-type: none"> ▪ Check the state of the glazing ▪ Check the state of the seals and profiles 	<ul style="list-style-type: none"> ▪ No glass damage ▪ No seals torn off (energy loss) ▪ The system is the “visiting card” of your company. Make sure that it is kept in perfect condition
Door leaf guides	<ul style="list-style-type: none"> ▪ Check the door leaf guides ▪ These could have been damaged by impacts (e.g. from hospital beds) ▪ Door leaf guides can show exceptional signs of wear and tear due to intensive use as well as dirt 	<ul style="list-style-type: none"> ▪ Door leaf must slide smoothly ▪ Bottom or vertical profiles don't show any scratch marks ▪ Door leaf guides must not produce any unusual noise during opening/closing
Selective door leaf guide	<ul style="list-style-type: none"> ▪ Set the system on manual mode (see chapter “Selection of special functions”) ▪ Clean the selective door floor guide from dirt, etc. 	<ul style="list-style-type: none"> ▪ Door leaf must slide smoothly ▪ The movement of the system must not be hindered by dirt
Drive cladding	<ul style="list-style-type: none"> ▪ Check the mounting of the drive cladding 	<ul style="list-style-type: none"> ▪ It must be fully closed and correctly engaged in the hinges

12 Taking out of service and disposal

12.1 Taking out of service

When the swing door operator is discontinued or taken out of service, it has to be disconnected from the power supply and if available, the battery should be plugged out.



NOTICE

After every temporary discontinuation, a new commissioning has to be carried out.

12.2 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 record door systems can be completely disassembled in reverse order.

The automatic door mainly consists of the following materials:

Aluminum:

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

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

Contact

→ record UK limited

Head Office: Unit D, 9 Watt Place - Hamilton International Park - Blantyre - G72 0AH - UK
Central Office: Batley Business Centre - Unit 40 - Annexe 2 - Technology Drive - Batley - Wf17 6ER - UK
Southern Office: 17 Invincible Road - Farnborough - Gu14 7QU - UK
tel.: +44 1698 376411 - fax: +44 1698 376422 - info@recorduk.co.uk - www.recorduk.co.uk

→ record global export

agtatec ltd - Allmendstrasse 24 - 8320 Fehraltorf - Switzerland
tel.: +41 44 954 91 91 - e-mail: export@record.global - www.record.global

→ Headquarters

agtatec ltd - Allmendstrasse 24 - 8320 Fehraltorf - Switzerland
tel.: +41 44 954 91 91 - e-mail: info@record.group - www.record.group

