Instruction manual FTA / FBO

automatic door systems – this is record!

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Table of contents

1 General information

1.1 Target group

This user's guide is meant for the end-user of the automatic folding door system FTA/FBO.
This manual explains how to operate the automatic folding door system FTA/FBO. It is the basis for optimal functioning and gives instructions for troubleshooting.
The operator should read this user's guide before commissioning the door and observe the safety instructions.
It is recommended to keep this document in a safe, convenient place beside the folding door.

1.2 Product identification

For an exact identification please read the following data on the type plate, which is located on the inside of the casing or on the motor:

Example:

2 Safety Instructions

The sliding door has been developed with state of the art technology and recognised technical safety regulations.

2.1 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.

2.2 General safety and accident prevention regulations

IMPORTANT

When motion detectors are used, it must be ensured that no moving objects like flags, plants etc. can move into the detection area of the motion detectors.

IMPORTANT

To avoid malfunctions, the system must *NOT* be disconnected from the power overnight!

IMPORTANT

If an error occurs that could endanger personal safety, the system must be shut down immediately. It can only be put back into operation when the error has been rectified in a technically correct manner and the danger has been eliminated.

IMPORTANT

No safety devices (i.e. sensors, protective wings) may be removed or put out of service.

⚠ CAUTION

Operational malfunctions and danger of falling due to the accumulation of dirt under the floor mat

- Operational shutdowns, bruising, fractures

➢ The floor mat or the flooring must be level and firmly installed.
Accumulation of dirt under the floor mat must be removed **regularly**.

⚠ CAUTION

Unexpected OPENING / CLOSING / ROTATION

- Bruises and contusions from the door wings

➢ 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.

2.3 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.

2.4 Storage of the manual

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

3 Technical Data

Function	Range	Step size	Factory setting
Opening speed	3-70 cm/s	1,75 cm/s	50 cm/s
Closing speed	3-50 cm/s	1,25 cm/s	40 cm/s
Reduced opening width	Ca. 2% - 100%	Ca. 4-10 cm Steps acc. leaf position	62,5%
Door time delay	0-20 s	0,5 s	1 s
Door time delay SSK	0-20 s	0,5 s	10 s

3.1 Electrical data

Mains voltage (230V):	100-240 VAC, 50/60 Hz
Rated power:	90 VA

3.2 Environmental conditions

Temperature range:	-15 bis +50 C
Humidity range:	Up to 85% rel. humidity, not condensing

4 Description of equipment

4.1 Functional description

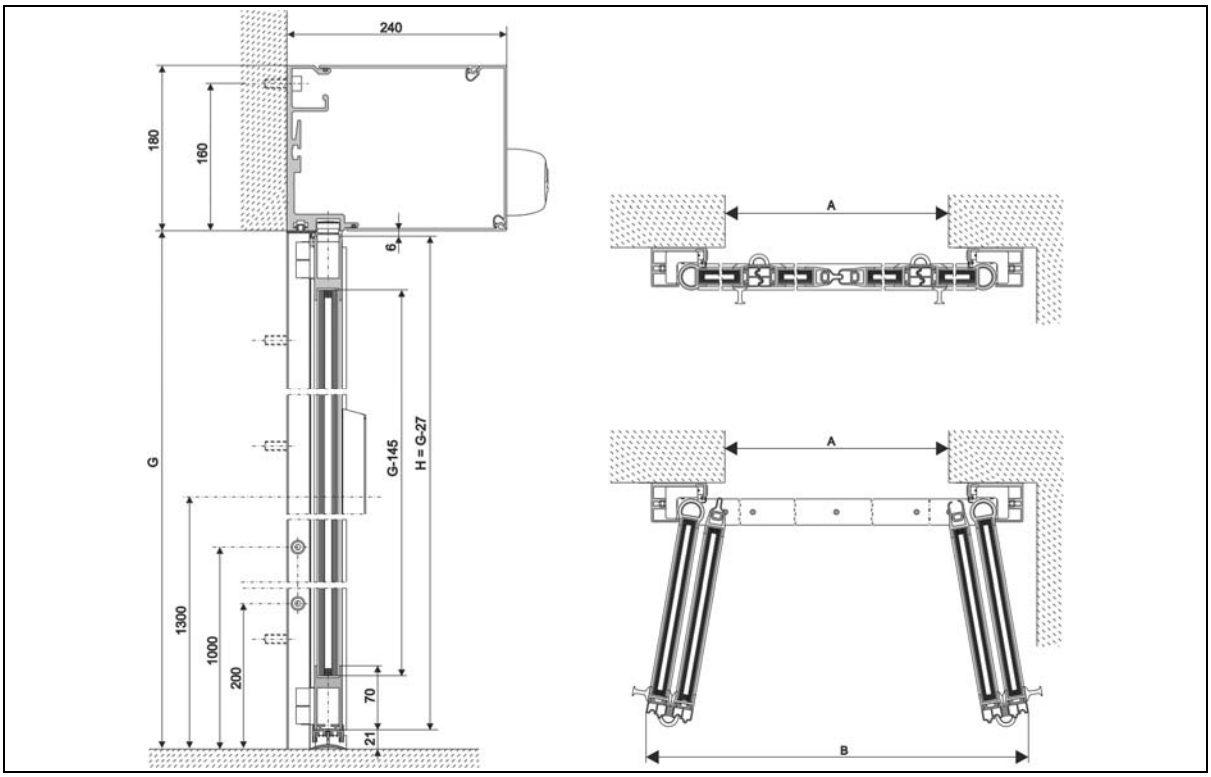
In the standard "Automatic" operating mode, the door system is opened by an actuating device (e.g. radar) that responds to approaching persons or objects. The door closes after the door hold-open time, provided no further opening pulse is received or nobody enters the presence sensor scanning field.
In the "Lock" operating mode, the door can only be opened by means of an optional key-operated contact (SSK). The door closes after the SSK door hold-open time, provided no further opening pulse is received or nobody enters the presence sensor scanning field.
An obstruction of the door leaves during **Closing** leads to an immediate re-opening (automatic reverse). The obstruction's position is recorded by the door operator, and this position is approached slowly when next closing. An obstruction of the door leaves during**Opening** results in an immediate stop.
A mechanical release device provides protection against being jammed between the wall and the open door.

4.1.1 FBO: safe door opening in case of emergency

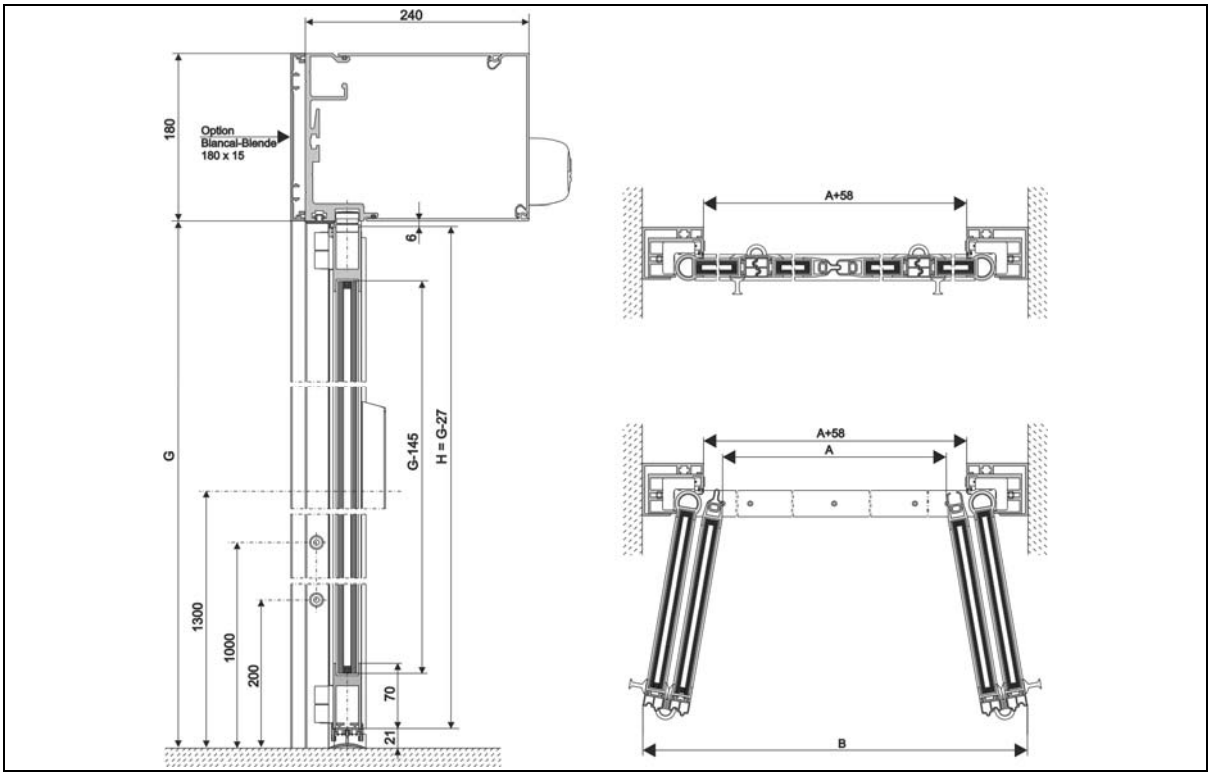
The FBO folding door was specifically designed for use in escape and rescue routes.
Normally, the door leaves open and fold inwards. In an emergency, the escape route is opened by unlatching the upper door fitting from its arrester by means of slight pressure on the door leaves, which will then swing open together with the door fitting.

4.2 FTA lintel and header mounting

4.2.1 FTA lintel mounting

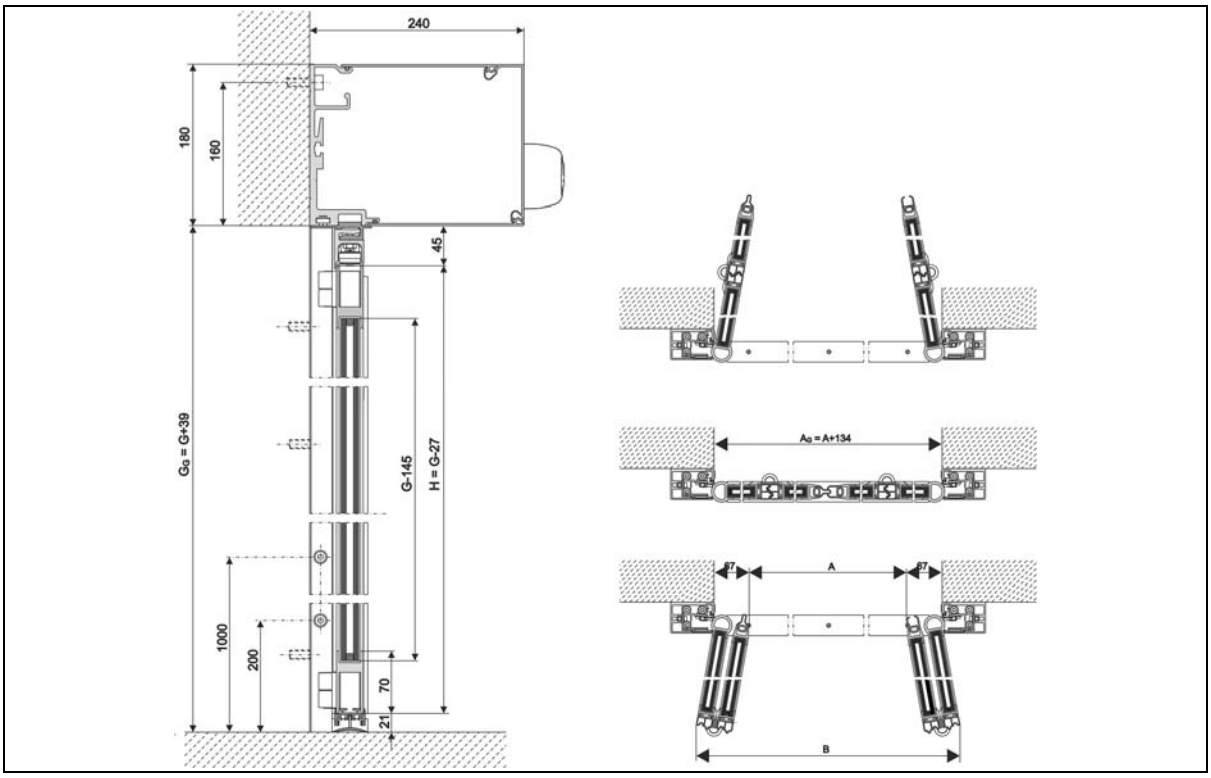


4.2.2 FTA header mounting

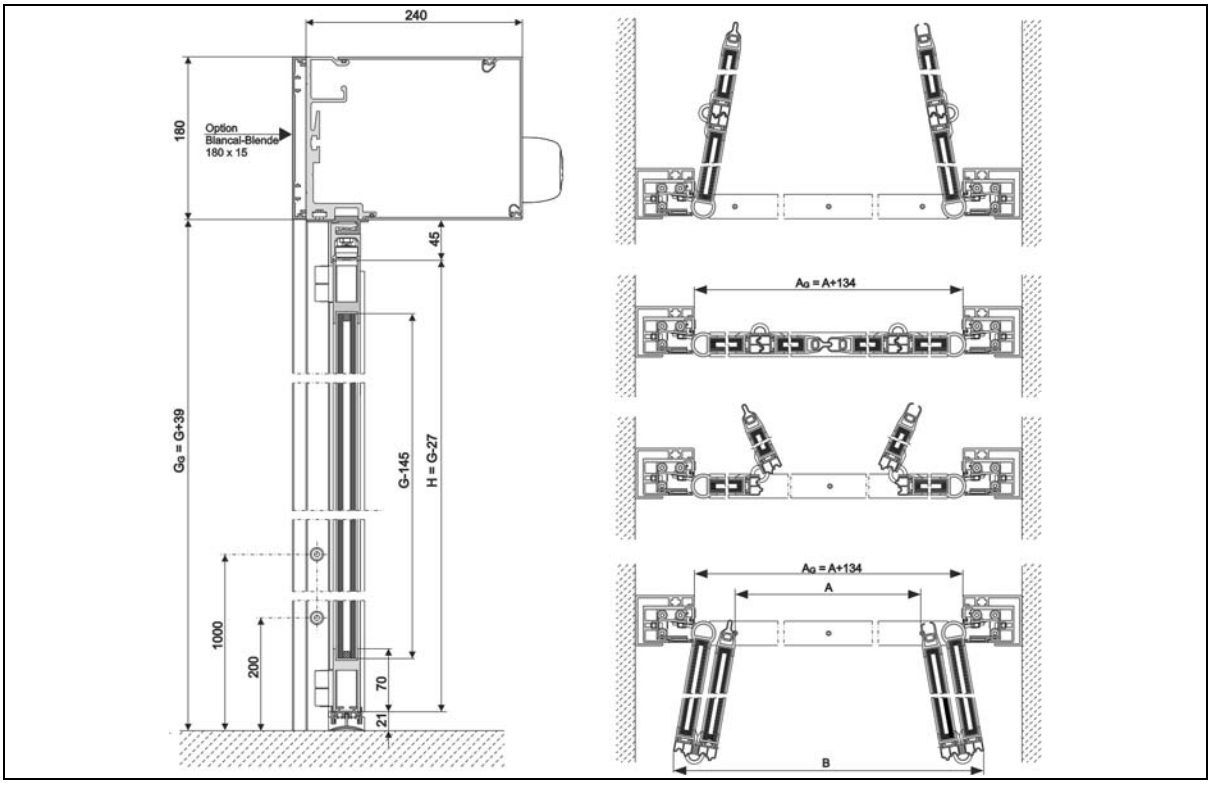


4.3 FBO lintel and header mounting

4.3.1 FBO lintel mounting



4.3.2 FBO header mounting

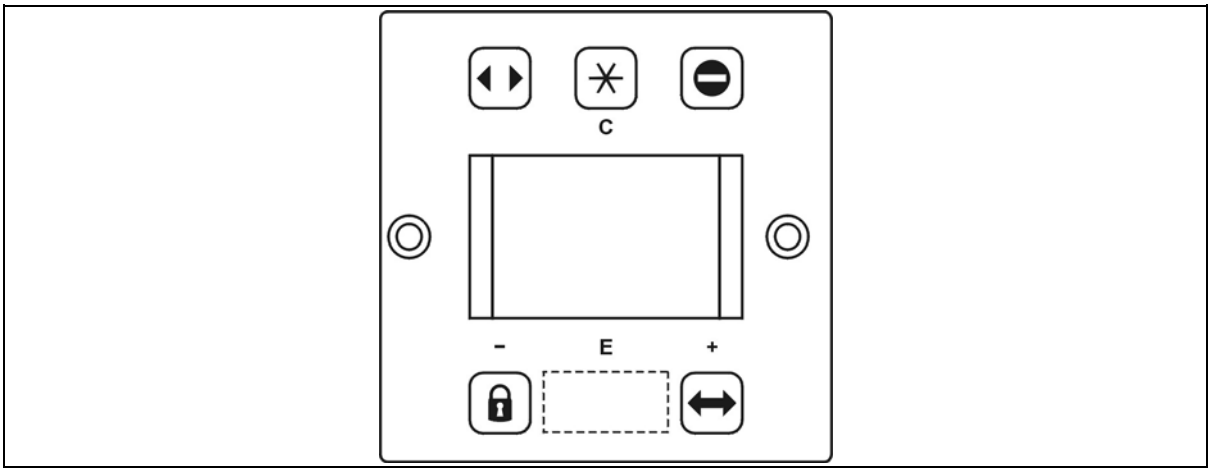


5 User instructions

Different control units can be connected to the automatic folding door FTA/FBO. The control unit, to choose different door operation is located either under the operator casing or on the outside, mostly near by the door.

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.

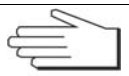


Button	Operating mode	Symbol displayed	Function
	Automatic	Automatic	▪ Unobstructed access through the system in both directions ▪ Maximum opening with
	Continuously open	Cont. open	▪ System remains open until another operating mode is selected
	One-way	One-Way	▪ System opens only in one direction (e.g. 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

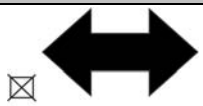
NOTICE

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 Locking the control panel with the keyboard

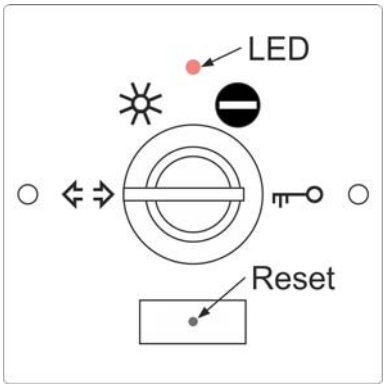
Key sequence	Display	Description
Locking the control unit		
	 Automatic	▪ Undesired manipulation of the control unit is hindered ▪ Panel is locked ▪ Locked status of the BDE-D is displayed
Unlocking the control unit		
	 Automatic	▪ Free selection of operating modes and special functions is ensured

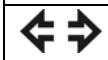
NOTICE

The installation remains in the mode of operation previously selected

5.4 Selection of operating modes (BDE-M)

The mechanical operating unit BDE-M is equipped with a key switch. Different operating modes can be set with this key switch. The operating switch can be pulled off in any position.



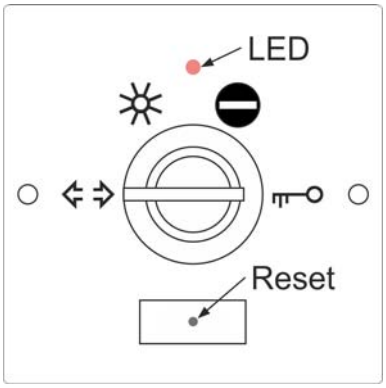
Key	Operating mode	Function
	Automatic mode with total opening width	This operating mode is the standard operating mode. Through triggering of a e.g. Radar, the door opens. After the preset door time delay, the door closes.
	Continuously open and manual mode	Door opens and stays in open position. The door can be moved manually.
	One-Way	The door opens only through a triggering of an e.g. radar which is on the inside of the door, or through a optional key operated contact (SSK).
	Locking	The door will be locked after a completed closing. The door can only be opened with the last pre-set opening width through a key operated contact (SSK). **Caution:** During a **Power loss** the opening of a locked door might be only possible with a optional battery pack or a manual locking device!

5.4.1 Operating mode display

The BDE-M has only 1 LED. The LED is lightening if mains voltage or battery voltage are available.

5.4.2 Reset-Button

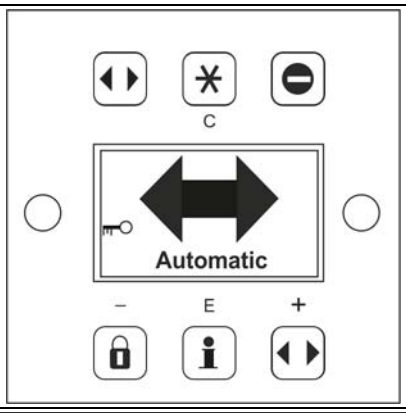
This hidden button will be actuated with a 25 mm long paper clip.
Therefore there is a little hole in the middle of the logo.

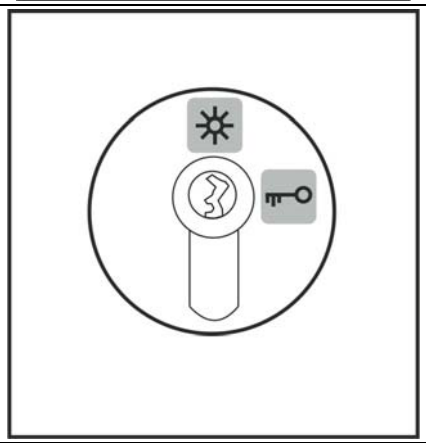


If the reset-button will be pressed for about 5 seconds, a software-reset will happen. The pre-set settings remain unaffected.

5.5 Locking the control unit with a key (option)

The control panel BDE-D can be efficiently protected against unauthorised changes of operating mode by an additional key switch. This one is usually placed near the BDE-D.





5.6 Programming level

Entry into the programming level is through a key sequence possible:

Key actuation	Function
E i + * C + E i	Entry into the programming level
Key + and -	Navigate through the functions
E i	Confirm the choose function

5.6.1 Menu functions

Function	Range	Step size	Factory settings
Closing speed	0-40	1	20
Reduced opening width Preferred setting: Key * and after that + and– to navigate upwards and downwards the menu. In the programming level use + and – to set the opening width. The door moves online to the opening width after confirmation of the entry.	0-40	1	26 RED 40
Door opening time delay	0-40	1	0
Door opening time delay SSK	0-40	1	4
Opening speed	0-40	1	36

5.6.2 Settings

After selection within the menu, the value can be changed by repeatedly pressing the keys + and–.
While pressing this key, the value will be displayed instantaneously.
Exit from this level is by pressing shortly they key * C or if no operation happened after a longer period of time.

6 Emergency actuation of the door

Since subject to country-specific safety instructions (Emergency exit concept), the doors are quipped with an emergency exit device.

6.1 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).

6.2 Emergency opening in case of power failure with auxiliary battery (option)

- All functions of the door are sustained if a battery is available and parameterized as "battery operation".
- Emergency opening in case of power failure takes place via an auxiliary battery, which triggers a single opening of the door (except if function "Locked" has been selected)
- The number of openings depends essentially on the weight of the door leaves and the state of the battery.
- In case of low battery, the last movement is selectable – either opening or closing.
- Unlocking the door is still possible with the key-operated contact/switch (optional).

6.3 Emergency operating using Bowden cable (option)

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

6.3.1 Available versions

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

102-020808512

102-020808757

102-014102000

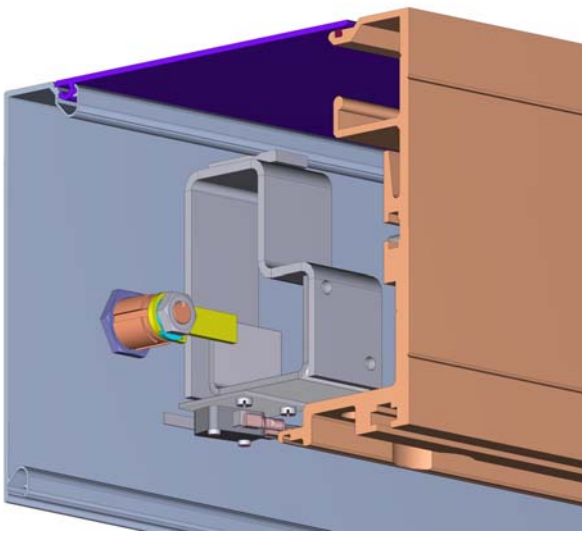
6.3.2 Procedure for an emergency opening

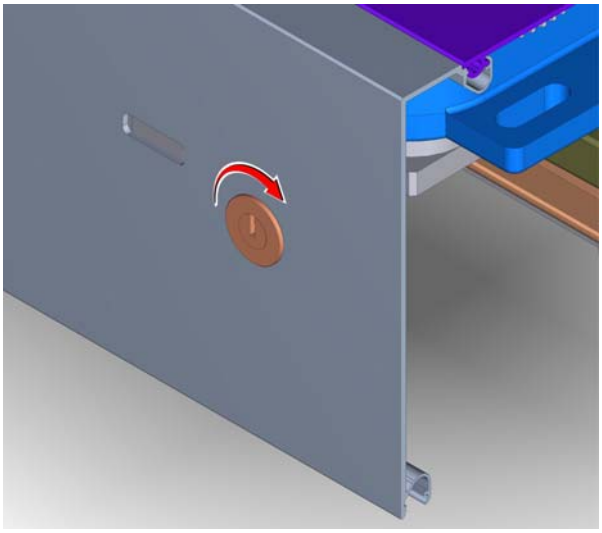
Emergency opening	
	▪ Open the unlocking flap ▪ Pulling the unlocking flap downwards unlocks the door ▪ Display on the BDE-D → Error No. 31 / Emergency stop ▪ The door can be slid open by hand

6.3.3 Example: Procedure for an FBO emergency opening

Emergency opening FBO	
 	▪ Opening the unlocking flap ▪ Pulling the unlocking flap downwards will unlock the door ▪ Display on the Operating unit BDE-D → Fault no. 31 / EMERGENCY STOP ▪ Door can be swung open manually

6.4 ABS Lockable casing





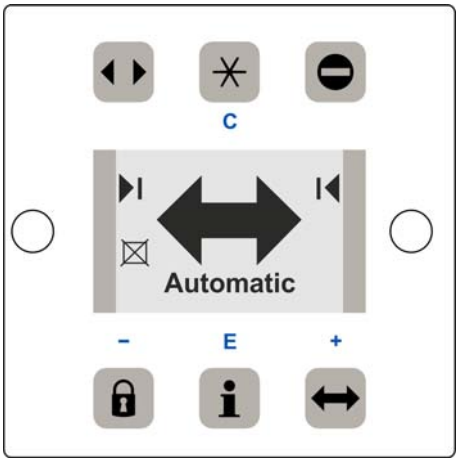
- Unlock the casing
- Turn the key clockwise

6.5 Manual closing

Initial situation: Provision of electricity is available. Door remains in open position.

NOTICE

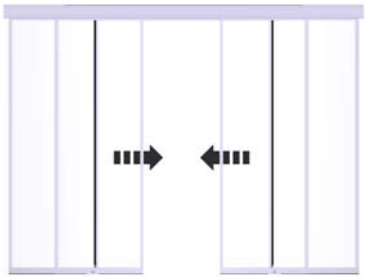
Depending of the type of error, the procedure of closing the door manually can be different.



Key actuation	Function	Display	Description
	Manual mode	Manual	▪ Press key 2x ▪ The door can be opened or closed manually
	Locked	Locked	**Locking** ▪ Actuate additionally the key "Locked" ▪ Manually move the door in the closed position ▪ Door is closed and locked (if a locking device is available) ▪ Inform our service technician (Phone number is displayed on the screen)

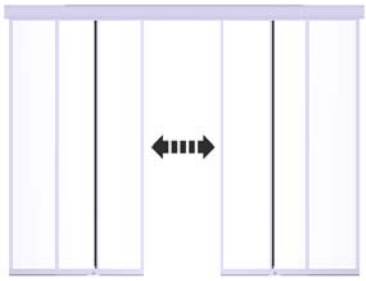
6.5.1 Closing and locking of the door

- Actuate the emergency opening
- The locking device will be „unlocked“



- Manually move the door in the closed position
- Keep the door leafs in closed position

- Push the unlocking flap into the closed position
- Thereby the door will be locked



- **Check manually if the door is really locked**

NOTICE

Same procedure for all other actuating elements

7 Behaviour in event of faults

In case of a failure or error, depending on which control panel is connected, different messages are displayed

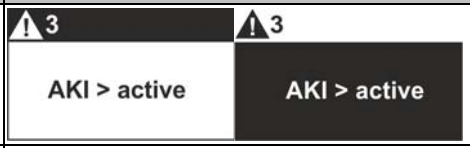
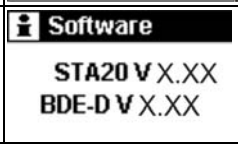
7.1 Display on the control unit

- 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 centre 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 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

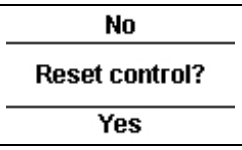
Example:

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 E	

7.3 Resetting the control module

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

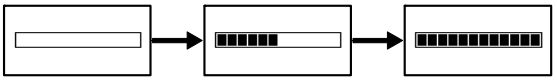
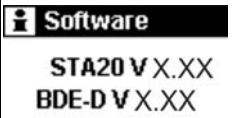
- Make sure that the drive cladding is closed and that nobody is obstructing the system or approaching it, thereby triggering an opening of the system.

E		**Press > 5 seconds**
C	No	
E	Yes	

- 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	
	**Press E key > 12 seconds**
	Display without any message
	Connecting to control unit....  Connection has been established (example) 

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

8 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 **once a year** – a technical inspection by a skilled service technician or an authorised 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 authorised 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.

8.1 Functions and safety check

8.1.1 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 once a year according to the manufacturer's recommendations.

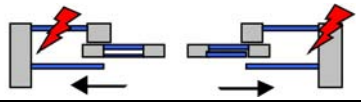
IMPORTANT

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.

8.2 Monthly check-up list

Test / Check	Procedure	Expected result
Motion detector	▪ Walk at normal speed towards the door (from both directions)	▪ The sensor must cover the whole passage width ▪ The door opens in good time and at an appropriate speed to allow unhampered passage through the doorway
Door leaves / Side screens	▪ Check the state of the glazing ▪ Check the state of the seals and profiles	▪ No glass damage ▪ No seals torn off (prevents energy loss) ▪ The door is the “showcase“ of your company. Make sure it is maintained in perfect condition
Operator casing	▪ Check the attachment of the operator casing	▪ It must be completely closed and correctly engage in the hinges
Protective screen (optional – country-specific) 	▪ Check the mechanical state of the protective screen ▪ Check the closing mechanism in particular	▪ A protective screen must protect against all kinds of crushing and shearing hazards

Biannual check list (FBO)

Test / Check	Procedure	Expected result
Manual unlocking device HEI 	▪ Pull the unlocking flap firmly downwards	▪ Door unlocks ▪ Door can be swung open manually

8.3 Door 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. Keep all guides free of dirt.

NOTICE

It is recommended that for carrying out this work, the operating mode (Locked) or (Continuously open) be used, so as to avoid possible injuries from unwanted door movements.

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