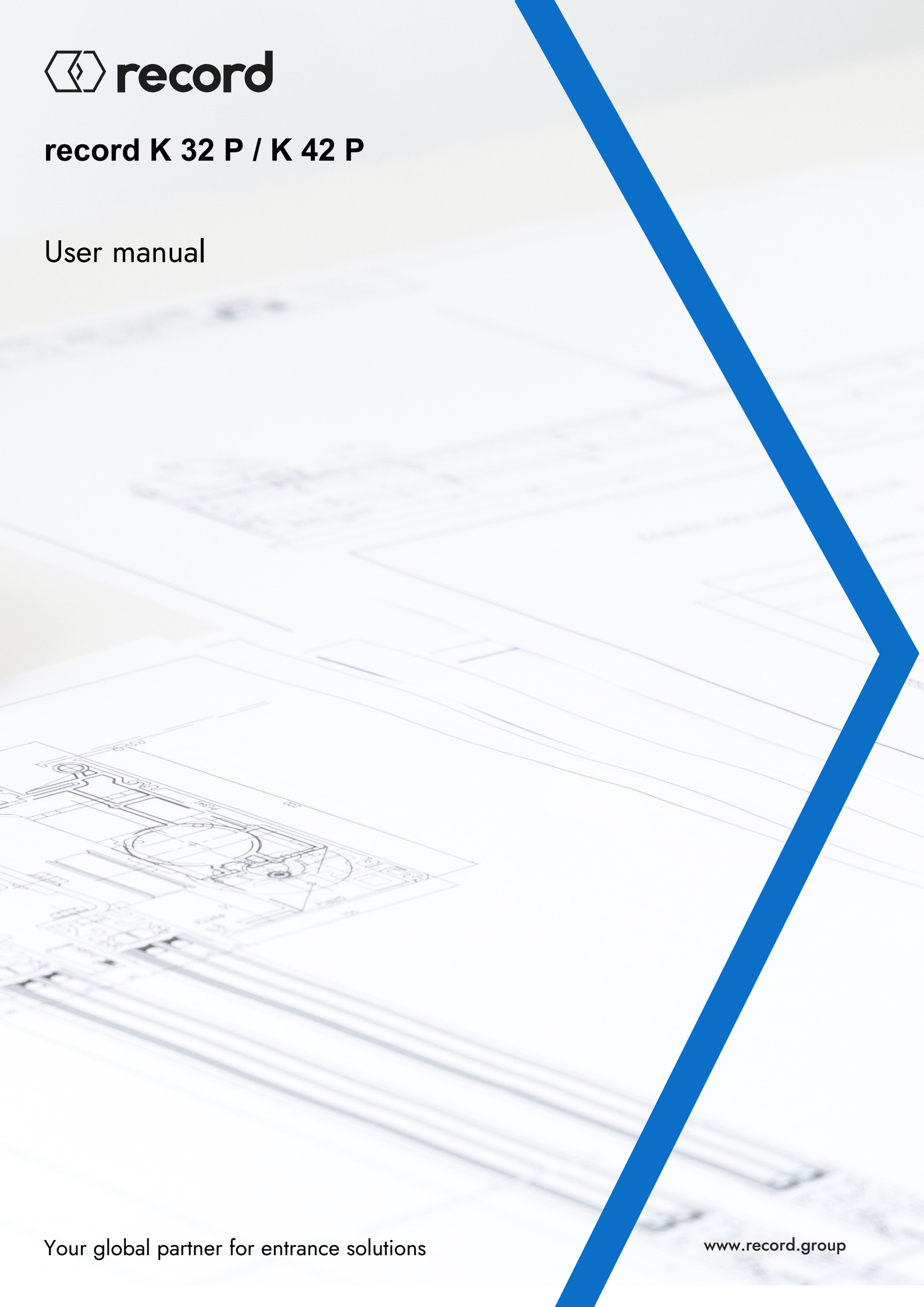
record

# record K 32 P / K 42 P

User manual



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## Document identification

Article nr.: 121-006454680
Version: 2.0
Publication date: 16/05/2024

Translation of the original manual

# Table of Contents

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# Table of revision

## P

# 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.**

**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-approved maintenance technicians exclude the manufacturer's liability for consequential damages.

**NOTICE**

**The operation of an automatic door in combination with a wicket door must only take place if the latter is in a secured position.**

## 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.

## DANGER

**Electric Shock!**

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.

a) Before starting work (cleaning, maintenance, replacement) 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.

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

c) Never bridge fuses or put them out of operation.

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

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

## DANGER

**Serious or fatal injuries!**

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

a) Never disconnect the fire protection system from the power supply overnight.

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

c) Do not remove safety instructions on the system.

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

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

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

## WARNING

**Serious injuries and major material damage.**

Incorrect mounting can lead to serious injuries and/or cause major material damage.

a) Observe and comply with all important instructions regarding safe assembly.

## CAUTION

**Risk of malfunctions, material damage or injuries!**

Improper settings can lead to malfunctions, material damage or injuries.

a) Do not disconnect the system from the power supply overnight.

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

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

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

e) 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!**

Insufficient or inattentive cleaning or care of the system can lead to malfunctions, material damage or injuries.

a) Check the sensors regularly for dirt and clean them if necessary.
b) Regularly remove dirt accumulations in the floor rail or under the floor mat.
c) Keep the system free from snow and ice.
d) Do not use aggressive or caustic cleaning agents.
e) Use road salt or loose chippings only conditionally.
f) Lay the floor mat without folds and flush with the floor.
g) 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 injuries!**

The door can open, close or turn unexpectedly. This may result in material damage or injuries.

a) No persons may be present in the opening area of the system.
b) Ensure that moving objects such as flags or parts of plants do not enter the detection range of the sensors.
c) Do not make any settings on the control unit when the system is in use.
d) Have faults rectified immediately by specialist or personnel qualified to do so.
e) Remove objects from the opening area.
f) Do not disassemble, put out of operation or manipulate safety devices.
g) Do not rush through a closing system.

## CAUTION

**Risk of bruising and severing of limbs!**

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

a) Do not reach in when parts of the system are moving.
b) Keep a distance when parts of the system move.
c) Do not bump into or touch the system when it is moving.
d) Do not open or remove protective covers during operation.
e) Do not permanently remove covers from the system.
f) Only carry out inspection, service, maintenance and cleaning when the system is stationary and switched off.

## CAUTION

**Risk of material damage or injuries!**

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

a) Never disable or manipulate safety devices.
b) Have inspection, service and maintenance of the safety devices carried out according to local regulations or according to a maintenance contract.

**CAUTION**

**Risk of malfunctions, material damage or injuries!**

If unauthorised persons use the system, there is a risk of malfunction, material damage or injuries.

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

b) Children must not play, clean or maintain the system.

c) 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.

**NOTICE**

**The country-specific regulations must be observed and complied with.**

**NOTICE**

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

**NOTICE**

**The installation must be inspected during the function and safety check for imbalance and signs of wear or damage to cables, springs and fastening parts.**

**The equipment must NOT be used if repair or adjustment work needs to be carried out.**

**NOTICE**

**Before work can be started, persons must be barred from the system and the danger area.**

## 1.4 State of technology

The system has been developed in accordance with the state of the art and recognized safety regulations and, depending on the options and dimensions, meets the requirements of the Machine Directive 2006/42/EC as well as EN 16005 and DIN 18650 (D).

Nevertheless, hazards to the user may arise if the system is not used as intended.

**NOTICE**

**Installation, commissioning, inspection, maintenance, and repair work must 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.

**NOTICE**

**A replacement of the instructions is available from the supplier or on the website.**

## 2.2 Copyright

The copyright of the instructions remain at:

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

## 2.3 Product identification

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

## 2.4 Manufacturer

**ASSA ABLOY Entrance Systems AB**

Lodjursgatan 10

SE-261 44, Landskrona

SWEDEN

## 2.5 Target groups

**CAUTION**

**Risk of injury!**

If unqualified personnel work on the system or are in the danger zone of the system, danger can occur, which can cause serious injuries and considerable material damage.

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

b) Keep unapproved 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

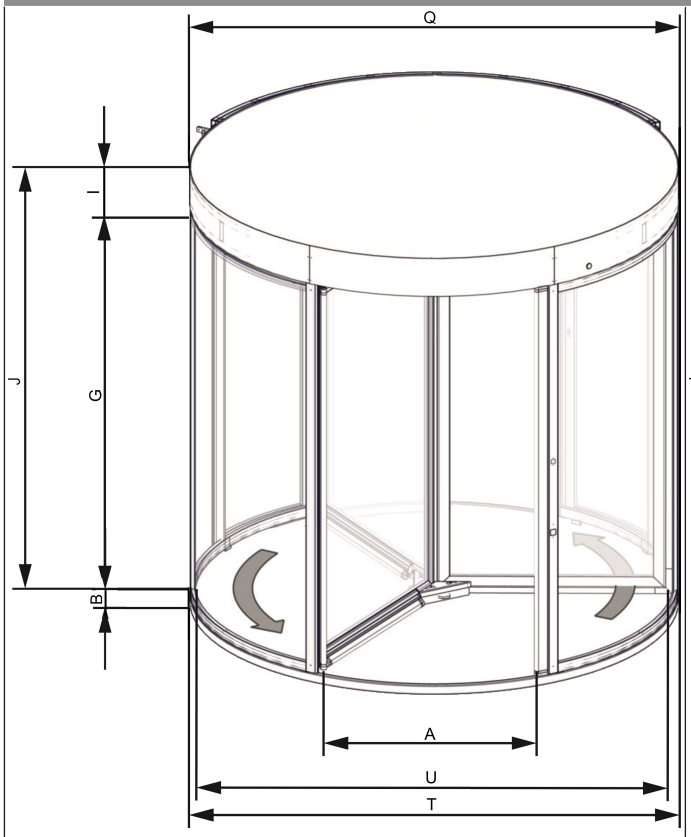
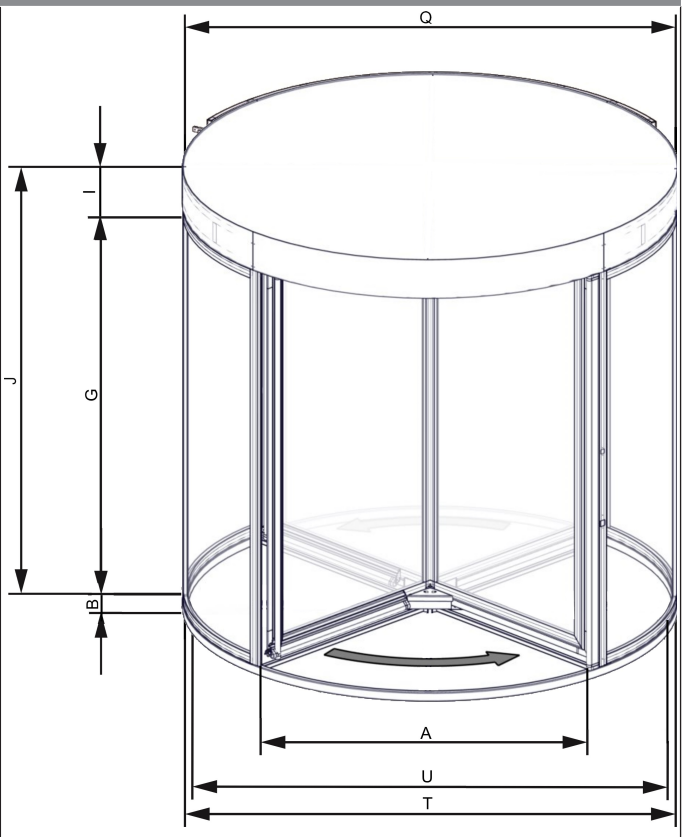
– Operator of the system:
the person who operates the system every day and has been suitably instructed

## 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.<br>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 about 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:<br>– Disassembly, Assembly, Commissioning, Operation, Audit, Maintenance, Troubleshooting, Decommissioning<br>The qualified personnel have several years of professional experience in the technical field, e.g., as mechanics or machine fitters.<br>The qualified personnel are aware of the residual risks arising from the installation site and, due to their professional training, knowledge, and experience, can 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

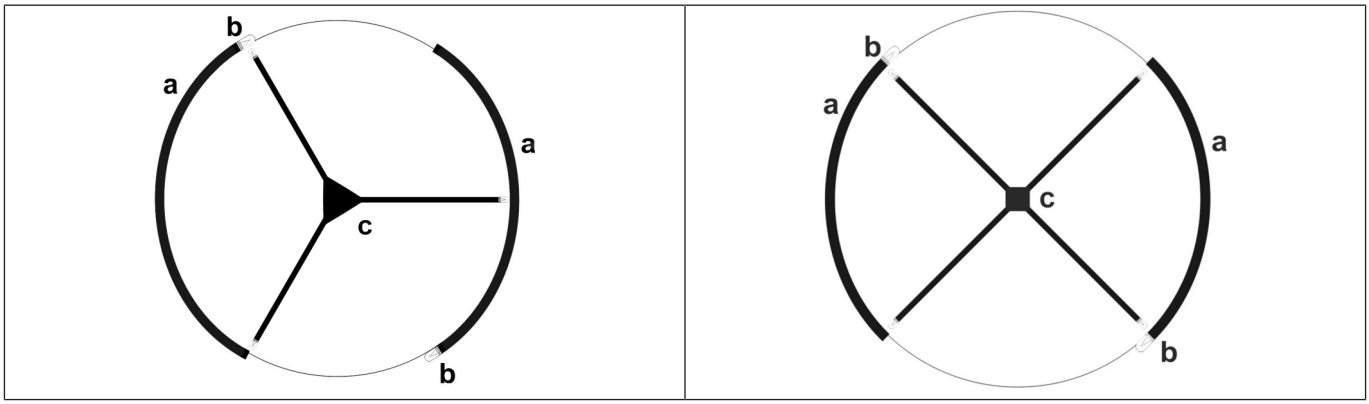
## 3.1 Graphical display

| K3x | K4x |
|---|---|
|  |  |



| Abbreviation | Description | Abbreviation | Description |
|---|---|---|---|
| A | Passage width | B | Floor ring height |
| G | Passage height | I | Cladding height |
| J | Total height | Q | Total diameter |
| T | Exterior diameter | U | Interior diameter |

### 3.1.1 Main mechanical components





| Abbreviation | Description |
|---|---|
| a | **Drum wall**<br>Curved, fixed aluminum frame for supporting curved glass or panelling. |
| b | **Drum wall edge**<br>Fixed structure made of vertical frame profiling for accommodating control units. |
| c | **Rotation unit turnstile**<br>Rotating inner part of the door. |

## 3.2 Description of the system

The system consists of three or four turnstile wings and has a microprocessor-controlled drive system.

The turnstile is started by manually pushing.

If no other persons pass the revolving door, the turnstile moves electromotively at slow speed to the start position and comes to a stop (P = automatic positioning device).

Safety strips prevent dangerous movements and stop the turnstile in time.

The operating modes are selected via the corresponding operating unit.

An integrated fault analyzer detects operating faults.

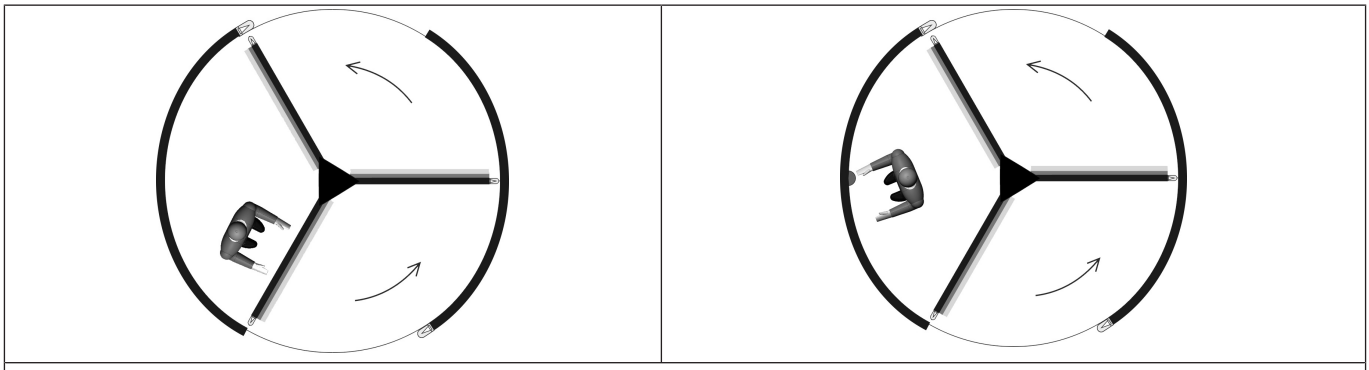
The plant has a microprocessor-controlled drive system, which can be used in several operating modes.

## 3.3 Automatic positioning conduct during power failure

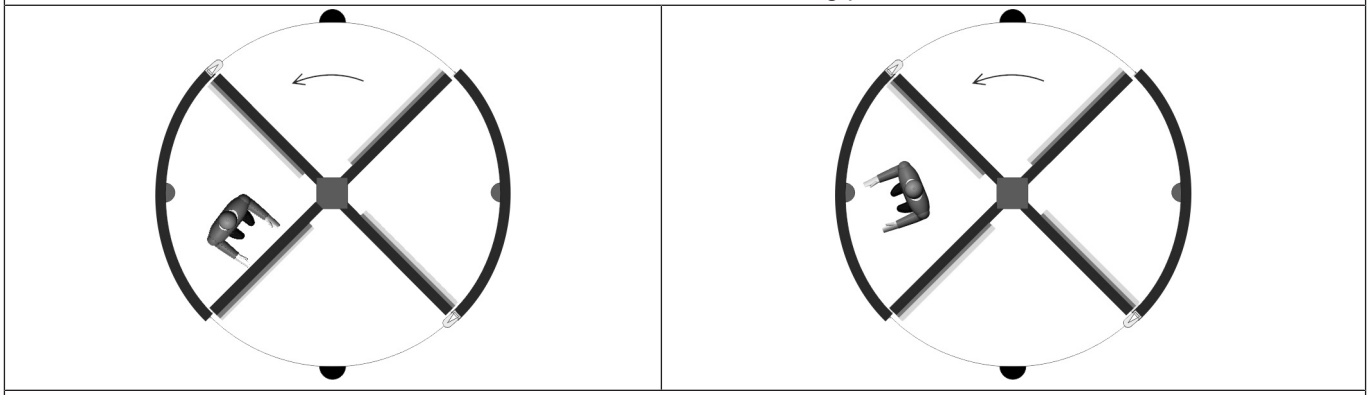
**CAUTION**

**Danger of people being trapped inside the turnstile.**

Visual inspection, check if people have been trapped.



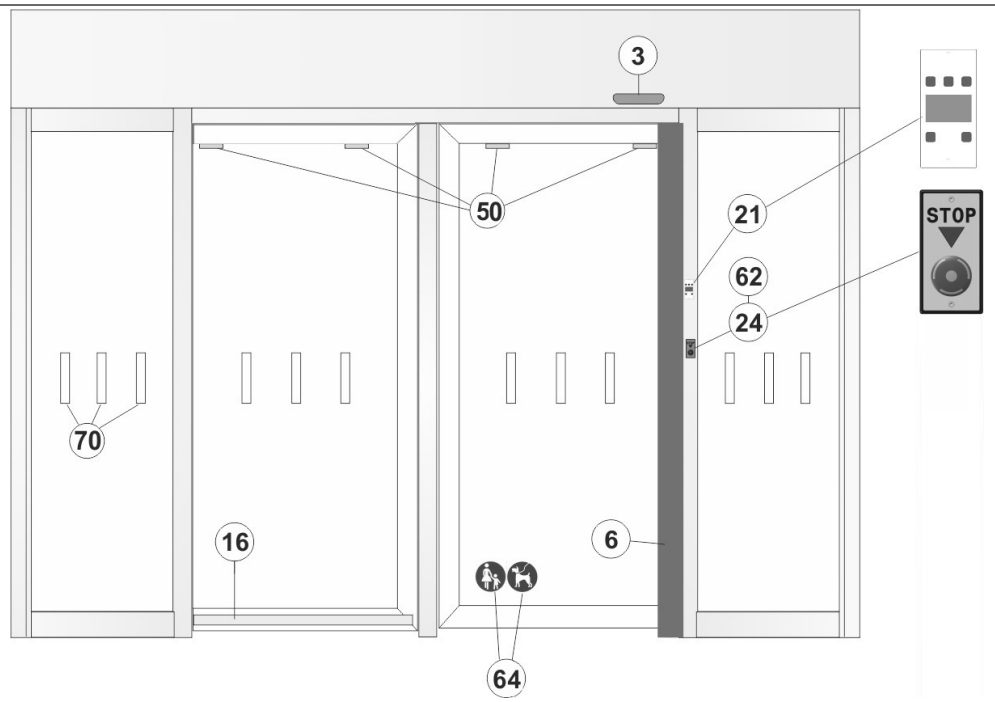
START- button does not function during power failure



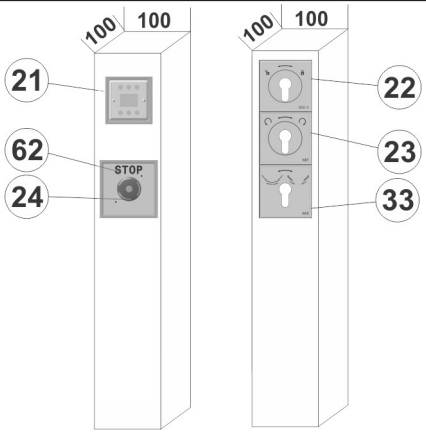
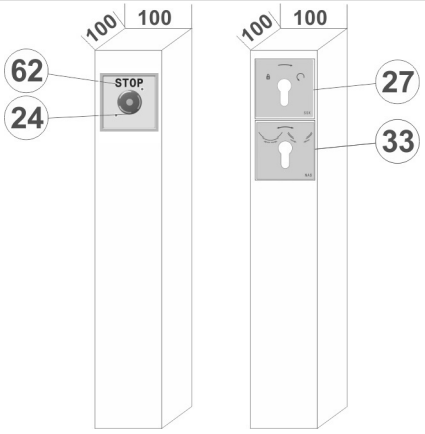
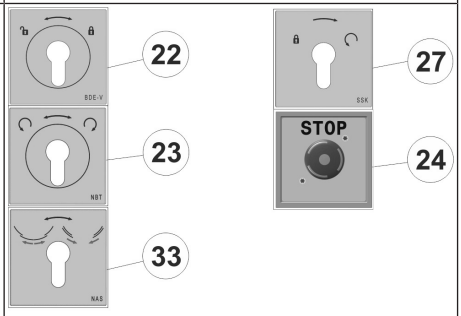
START- button does not function during power failure

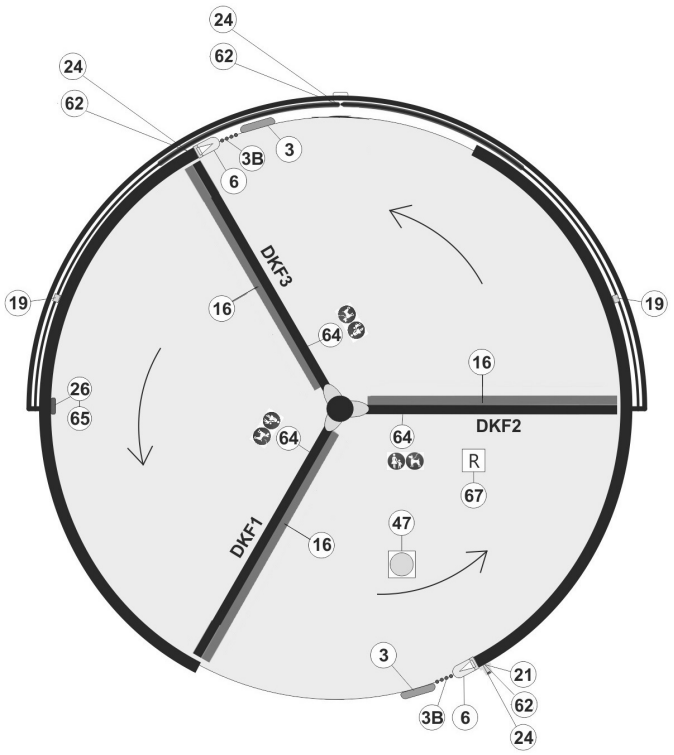
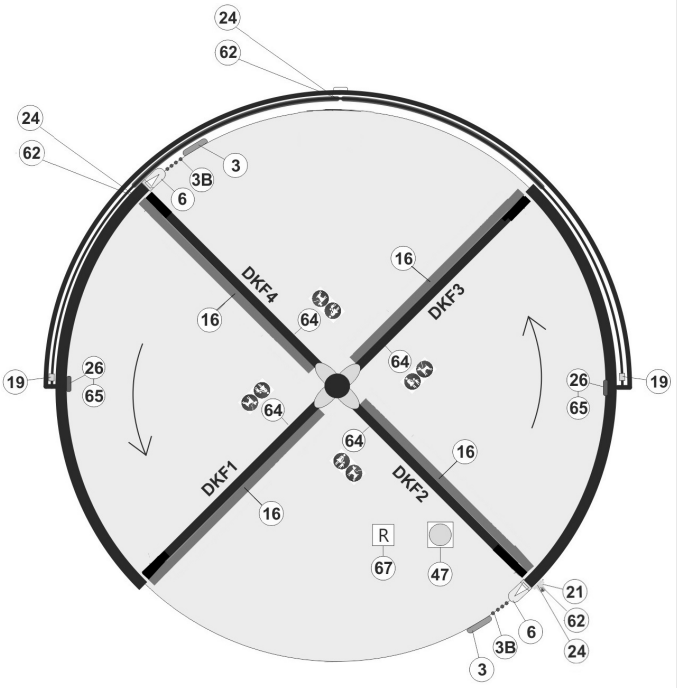
## 3.4 Safety features and control elements

**INTERIOR VIEW in closed state**




**Possible variants of the control elements**

| Column INSIDE | Column OUTSIDE | Wall installation |
|---|---|---|
|  |  |  |

| Triple winged | Four winged |
|---|---|
| EXTERIOR<br>  <br><br>INTERIOR | EXTERIOR<br>  <br><br>INTERIOR |

**Position of the turnstile wings in the locked position:**

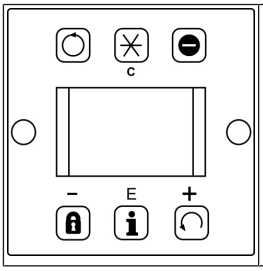
| Turnstile wing | K31 / K32 | K41 / K42 |
|---|---|---|
| DKF1 = Turnstile wing 1 | 0° | 0° |
| DKF2 = Turnstile wing 2 | 120° | 90° |
| DKF3 = Turnstile wing 3 | 240° | 180° |
| DKF4 = Turnstile wing 4 | — | 270° |

### 3.4.1 Legend for safety features and control elements

| | |
|---|---|
| **3, 3A, 3B** | Vertical sensors drum edges |
| **6** | Vertical safety strips drum edges |
| **16** | Horizontal heel protection safety strips |
| **19** | Monitoring contact night shield |
| **21** | Control unit BDE-D-KTA |
| **22** | Key-operated switch BDE-V |
| **23** | Key-operated emergency switch |
| **24** | Emergency stop switch |
| **26** | Start button |
| **27** | Key pivot contact |
| **33** | Turn key switch night shield |
| **47** | Turnstile lock |

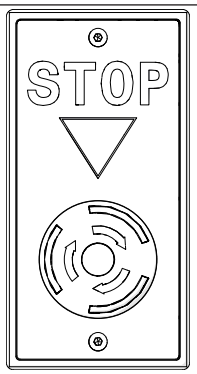
| | |
|---|---|
| **50** | Lighting |
| **62** | Sticker STOP |
| **64** | Sticker Mother + Child/ Dog |
| **65** | Sticker START |
| **70** | Glass label (example)<br>Labelling the glass surface reduces the danger of collision. Transparent wings or wing surfaces must be must be clearly visible, for example, by permanent labelling, appropriate markings or use of coloured materials.<br>Stickers, sandblasting, dyeing or etching can be used for labelling. Quantity and design are determined separately. |

### 3.4.2 BDE-D-KTA control unit




The electronic BDE-D-KTA control unit is a convenient input and output terminal for operating the door. Clearly arranged buttons enable easy operation of the door modes and navigation of the drive-specific menu structure. The LCD display with backlight supports users with logical symbols and text messages and provides information on the state of the door.

### 3.4.3 Emergency stop button




When the emergency stop button is pushed the rotating turnstile is stopped immediately, the turnstile is released and can be rotated manually.

After resetting the emergency stop button, the preset operating mode will continue.

**NOTICE**

**The turnstile cannot be turned manually on a subfloor door with a geared motor!**

### 3.4.4 Vertical safety sensors drum edge

The danger zones between the rotating turnstile wings and the fixed drum wall edges, on the access sides of the door are secured with vertical safety sensors that radiate to the ground.

These safety sensors are only enabled when the rotating turnstile wing approaches the drum wall edge within approx. 40 degrees (danger zone). When a safety sensor is activated inside the danger zone, the turnstile will either stop immediately or switch to slow speed, depending on how the parameters have been set on the door control. As long as a safety sensor is activated, the stop setting will be held. The slow speed setting remains active until the turnstile reaches the end position. Then the turnstile will accelerate again and resume until another safety sensor is activated. When the safety sensors are no longer activated, the turnstile will accelerate back to the pre-adjusted speed.

### 3.4.5 Vertical safety strip drum edge

Vertical safety strips made of soft rubber are mounted on the interior and exterior edges of the drum in the direction of rotation. Pressing a safety strip will stop the rotation of the turnstile immediately. When the safety strip is no longer pushed, the turnstile will automatically resume rotation.

### 3.4.6 Safety strips on turnstile wings

On the turnstile wings there are rubber safety strips.

The safety strips serve as protection to reduce bruising, for example of hands, feet and heels.

### 3.4.7 Collision detection of the control

If the turnstile encounters an obstacle and blocks without one of the safety devices having been triggered, the control system switches off the drive.

If there is no more obstruction to rotation and no safety device has been triggered, the system will attempt to start up (after approx. 3 to 10 seconds) at the set speed.

If the obstacle is not removed, the control unit will attempt to restart the turnstile 5 more times before an error is sent. To be able to execute the desired operating mode again, remove the obstacle and restart the control unit.

# 4 Options

## 4.1 Power Assist

The automatic positioner (Power Assist) is a manual revolving door with 3 or 4 turnstile leaves and motorised support for the revolving movement.

### Functional description

A person enters the system and pushes the turnstile manually. The push is recognised by the control electronics and supported by a motor. This allows heavy turnstiles to be moved with little force.

When the turnstile safety edges (optional) are activated, the turnstile is actively stopped.

The turnstile is actively stopped when the drum edge safety rails (optional) are actuated.

**NOTICE**

**In systems with automatic positioning, there are generally no vertical safety sensors on the edge of the drum.**

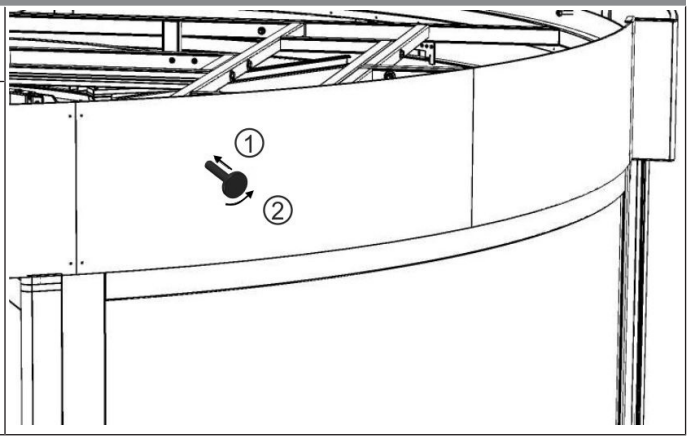
## 4.2 Turnstile lock mechanisms

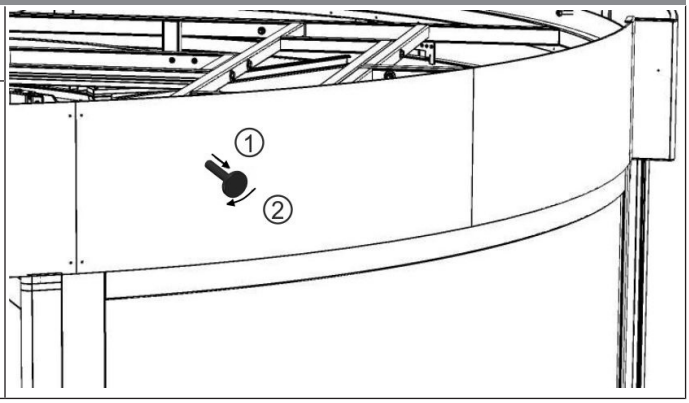
### 4.2.1 Electromagnetic turnstile lock

The door is equipped with a turnstile lock. In the LOCKED operating mode, the turnstile will lock automatically in the home position and will unlock when a different operating mode is selected.

During a power failure, the current LOCKED or UNLOCKED state is maintained. If the turnstile is locked during a power failure, it can be manually unlocked by pulling the release knob (Bowden cable).

Observe the following instructional steps:

| **Unlock the turnstile** | |
|---|---|
| ① Pull the knob<br>② Turn the knob to the right until it stops and then release it. |  |

| **Lock turnstile** | |
|---|---|
| ① Turn the knob to the left.<br>② Let the knob go and it should retract.<br>Rotate the turnstile manually to the home position from the outside of the door until you hear the locking pin engage. Ensure that the turnstile can no longer be rotated manually. |  |

### 4.2.2 Electromagnetic turnstile lock (Fail Secure)

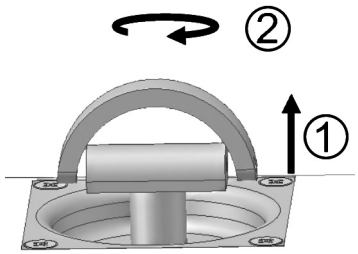
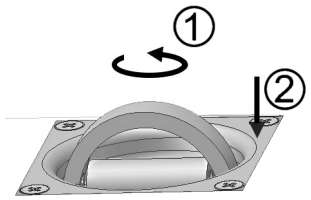
**NOTICE**

**Fail Secure = Monostable locking, locked without current.**

The system is equipped with a turnstile lock. In the operating mode LOCKED, the turnstile is automatically locked in the home position and unlocked when another operating mode is selected.

If the power supply fails, the status LOCKED or UNLOCKED is maintained. If the turnstile is locked in the event of a power failure, it can be unlocked by means of a manual unlocking device (bow handle).

Please note the following steps:

| Unlocking the turnstile lock | |
|---|---|
|  | – Pull the bow handle.<br>– Turn bow handle to the right until it reaches the stop and release. |
| **Reset turnstile lock** | |
|  | – Turn bow handle to the left.<br>– Release bow handle, the bow handle must retract downwards. |

### 4.2.3 Turnstile bar-bolt lock

The turnstile can be locked with a bar-bolt lock, integrated in the door frame profile. By rotating the profile cylinder together with the ceiling construction, and/or additionally with a fitted socket integrated in the floor.

#### 4.2.3.1 Turnstile bar-bolt lock with limit switch (option)

A limit switch which prevents the turnstile from starting is used to lock the profile cylinder bar bolt lock because the door control is turned off for safety reasons.

### 4.2.4 Turnstile corner lock

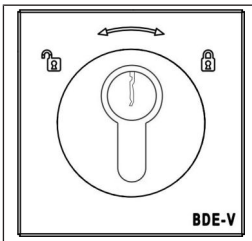
The turnstile can be locked with a corner lock, at the bottom of the door frame profile. By rotating the integrated profile cylinder with a fitted socked integrated in the floor.

### 4.2.5 Lock mechanism status indicator and door position indicator

Signal contacts (potential-free NO contacts maximum contact load 24 volt AC/DC/0.3 amps) for indicating the locked state of the turnstile and / or night shield. The position of the night shield wing can also be indicated.

In some countries (VdS) tested signal contacts (potential-free NO contacts, tested according to VdS class C, maximum contact load 24 volt AC/DC/0.3 amps) are required according to the German Property Insurers Association. These are then suitable for use in certified alarm systems.

## 4.3 BDE-V key switch

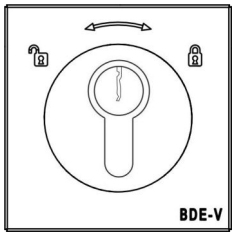
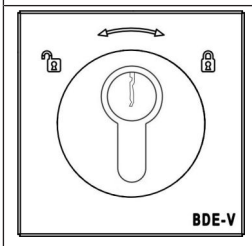
| | |
|---|---|
|  | The turnstile can be locked or unlocked with the BDE-V key switch (see Safety and operating components legend).<br>Only a specific group of people are entitled to lock or unlock and consequently operate the door. |

**CAUTION**

**Danger of people being trapped inside the turnstile.**

a) Bruises and contusions through from the turnstile wing.

⇨ Visual inspection, check whether people are trapped inside.

| Switch | Operating mode | Display symbol | Function |
|---|---|---|---|
|  | Locked |  | – The operating mode LOCKED is selected by turning the key switch to the right until it stops. |
|  | Varies, according to the preset mode | Varies, according to the preset mode | – The LOCKED operating mode will switch back to the mode preset on the control unit by turning the key switch to the left until it stops. |

## 4.4 Key pivot contact (SSK)

| | |
|---|---|
|  | When the key pivot contact is activated (see “Safety and operating components legend”), the turnstile starts and rotates a minimum of 360° in all operating modes except for MANUAL mode.<br>In the MANUAL mode or when the emergency stop switch is activated, the turnstile can only be rotated manually, with the exception of subfloor system with a geared drive.<br>In the LOCKED mode the turnstile will automatically lock again (if an electric lock is available). |
| Or – on-site code card reader (CKL) | |

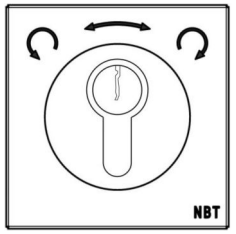
## 4.5 Key emergency operation switch

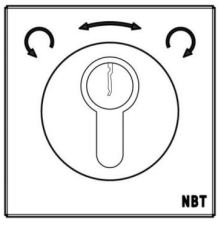
**CAUTION**

**Sensors and safety strips are disabled in the emergency operation mode!**

a) Personal or property damage

⇨ In case of emergency press the emergency stop button.

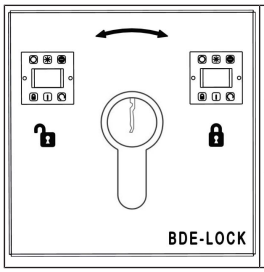
| | |
|---|---|
|  | If the operation of the door is prevented, for example by a defective sensor, the turnstile can still be rotated to a desired position in both directions of rotation by an authorized person via the key emergency operation switch (see Safety and operating components legend).<br>Function: triggers a rotation at reduced speed. Can ignore safety sensors. The emergency stop button remains the overriding function. |

| Switch | Operating mode | Function |
|---|---|---|
|  activated | Emergency operation | – As long as the key emergency operation switch is turned and held in the direction of the arrow, the turnstile will rotate at slow speed and will automatically stop in the home position (deadman function).<br>– When the key emergency operation switch is no longer being turned or held, the turnstile stops and remains in its current position. |

**NOTICE**

**It is necessary for the operator to have visual contact from the location of the key emergency switch tot he door!**

## 4.6 BDE-Lock key switch




The **BDE-Lock** key switch is used to lock or unlock the BDE-D-KTA control unit for the door.

Only a certain people have access to this key switch.

When the **BDE-Lock** key switch is turned to the right (locked), the door will continue in the operating mode that was preset on the BDE-D-KTA (for example, AUTOMATIC).

When the **BDE-Lock** key switch is turned to the right (unlocked), the operating modes can be changed again with the BDE-D-KTA.

## 4.7 Air curtain control

Direct ventilation to the interior via an air duct built into the doorway.

The air curtain is controlled by a potential-free door contact that triggers once the turnstile starts to rotate.

## 4.8 Light switch

The lighting can be or is connected to an on-site light switch or controlled by the building control system to be switched OFF or ON.

## 4.9 Lighting control

Depending on the configuration, the lights can either be switched ON or OFF from an external spot or automatically, depending on the operating mode selected, via the door control:

| Parameter setting: | Operating mode: | Lighting condition: |
|---|---|---|
| Inactive (factory setting) | OFF or AUTOMATIC or CONTIUOUS or MANUAL | Permanently OFF |
| Only when the turnstile is turning | AUTOMATIC or CONTIUOUS or ONE-WAY | ON |
| Permanent | LOCKED or AUTOMATIC or CONTINUOUS or ONEWAY or MANUAL | Permanently ON |
| Permanently ON, except when locked | LOCKED or AUTOMATIC or CONTINUOUS or ONEWAY or MANUAL | ON or OFF |

## 4.10 Night shield

**NOTICE**

**The door is equipped with a night shield located on the exterior entrance.**
**If it is manually pushed out of the open position while rotating, the turnstile will immediately stop for safety reasons.**
**For safety reasons, the automatic mode only functions if the night shield is completely open.**
**During a power failure, the status of the night shield remains LOCKED or UNLOCKED.**

### 4.10.1 Manual night shield

Night shield with mechanical bar-bolt lock or hook bolt lock

The night shield can be locked and unlocked with profile cylinder locks integrated in the door frames. If the night shield is in locked position, then it must be unlocked and completely pushed open manually.

Then the operating mode of the door can be selected.

### 4.10.2 Night shield - deadman

**CAUTION**

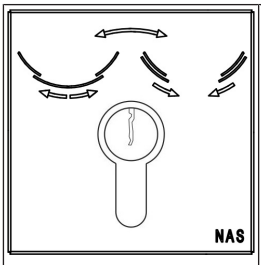
**Night shield crushing danger**

a) Fingers or hands getting crushed, sheared or pulled in

⇨ To avoid crushing, the operator must have a clear view of the night shield during the OPENING and CLOSING process.

**NOTICE**

**If the night shield is manually locked (i.e. with a bar lock), then please ensure that the night shield wings are manually unlocked before using the key reversing switch.**




Switch example

It can be operated with the key reversing switch.

**Opening process:** the night shield is opened by turning the key reversing switch to the right (see arrow direction) and holding the position. If the night shield is locked electrically, then it will simultaneously unlock. The opening process will stop when the key reversing switch is no longer being turned or held. The opening process will resume by turning the key to the right again and holding the position.

**Closing process:** the night shield is closed by turning the key reversing switch to the left and holding the position. The closing process will stop when the key reversing switch is no longer being turned or held. If the night shield is locked electrically, then it will lock automatically in the locked position.

**Collision detection:** if a night shield wing hits an obstacle during the opening or closing process, the night shield will stop and remain stopped. The next opening or closing process will start when the key reversing switch is turned and held in position again.

### 4.10.3 Fully automatic night shield

It is operated with a door open button, or a turn key switch, or an on-site code card reader.

**CAUTION**

**Night shield crushing danger**

a) Fingers or hands getting crushed, sheared or pulled in

⇨ To avoid crushing, the operator must have a clear view of the night shield during the OPENING and CLOSING process.

Fully automatic night shield drive with electric lock:

Place the door in the LOCKED operating mode.

The night shield is closed and electrically locked.

By pressing the door open button, or using the turn key switch or on-site code card reader, the night shield will unlock and open up completely.

Once the night shield is completely opened, the turnstile will start, turn one complete rotation at slow speed and come to a standstill in the home position.

Then the night shield closes again automatically and locks.

In the operating modes AUTOMATIC, CONTINUOUS and MANUAL, the night shield unlocks itself, opens automatically and remains open. If switched to the LOCKED operating mode, the night shield closes again automatically.

**Security sensors:** if the detection area of the security sensors is entered during the closing process, the night shield will open (reverse) immediately. If no security sensors are activated the night shield will close and lock automatically.

**Collision detection:** if the night shield wing strikes an obstacle during the closing process, the night shield will stop and open again. The next attempt to close will start from the obstruction area at slow speed.

The night shield will also stop, if its wing strikes and obstacle during the opening process. The next attempt to open will start at slow speed.

# 5 Specifications

## 5.1 Environmental conditions

| | |
|---|---|
| Temperature range | From -15 to +50° C |
| Humidity range | Up to 85% rel. humidity, not condensing |

## 5.2 Electric specifications of the door

| | |
|---|---|
| Mains voltage: | 230 VAC |
| Frequency: | 50-60 Hz |
| Nominal power: | max. 300 W |
| Mains fuse: | 10A circuit breaker with tripping characteristic C or K |
| Control voltage: | 24 VDC |
| Motor voltage: | 48 VDC |
| Safety class: | 1 |
| Degree of protection: | IP 20 |

## 5.3 Electrical specifications power supply

| | |
|---|---|
| Mains voltage | 100-240 VAC, 50/60 Hz |
| Nominal power | See system nameplate |
| Fuse | 16 A breaker with tripping characteristics C or K |
| Safety class | 1 |

**NOTICE**

**The power connection must be installed by a licensed electrician. One must be able to turn the power supply off completely via a main switch or residual current circuit breaker.**

## 5.4 Electrical specifications of the door control KST200

| | |
|---|---|
| Type of control | 1x KST200 Master<br>1x STM20 (if with night shield)<br>1x AST200 (Motor control) / Motor |
| Switching power supply for control voltage | 100-240 VAC – 24 VDC / 200 W<br>(short-circuit proof) |
| Switching power supply for motor voltage | 100-240 VAC – 48 VDC / 600 W (short-circuit proof) |
| Type of motor | DC motors 48 VDC |

## 5.5 Electrical lighting specifications

| | |
|---|---|
| High-Power LED-Spots | |
| Mains connection Transformer | 100-240 VAC |
| Frequency | 50-60 Hz |
| Secondary transformer power | 120 W |
| Output per luminaire/illuminant | 4.5 W |
| Protection class / Insulation class | 2 |
| Transformer Degree of protection | IP 67 |

**NOTICE**

**The power connection must be installed by a licensed electrician. Permanent wiring is to be employed as required by local codes.**

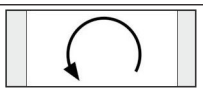
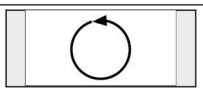
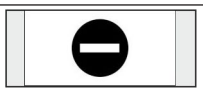
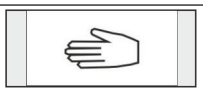
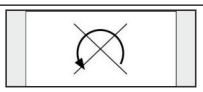
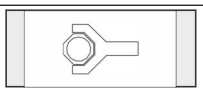
**The power must be able to be shut off via a main switch or residual current circuit breaker (on-site).**

## 5.6 Sound pressure level

| |
|---|
| The A-weighted emission sound pressure level of the drive is less than 70 dB. LpA_<70dB (A). |

# 6 Operation

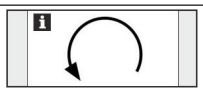
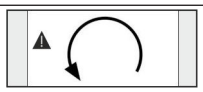
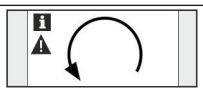
## 6.1 Operating mode symbols

| Operating modes | Control button | Standard display symbol |
|---|---|---|
| LOCKED |  |  |
| UNLOCKED or SSK opening | In case of SSK opening, press the LOCK button once again |  |
| AUTOMATIC POSITIONING CONTROL |  |  |
| CONTINUOUS |  |  |
| *Without function* |  |  |
| MANUAL | 2x briefly or 1x long (>2 Sec.) Press the CONTINUOUS key |  |
| Restart lock | After reset press the info button 1x long (>2 Sec.) |  |
| Emergency operation button | |  |

## 6.2 Instructional symbols

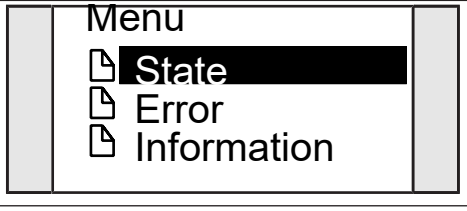
If information is required or an error message occurs, the display continues to show the current operating mode (see example 1 + 2). However, the instructional symbol will be also be displayed.

Both instructional symbols could be displayed at the same time (see example 3).

| Type | Instructional symbol |
|---|---|
| Information |  |
| Error |  |
| **Example 1:** Operating mode with information symbol |  |
| **Example 2:** Operating mode with error symbol |  |
| **Example 3:** Operating mode with both instructional symbols |  |

## 6.3 Menu display

You can switch to the menu display by briefly pressing the INFO Button  twice (double-click).

| | |
|---|---|
| The menu display is used to select the defined event groups (information and errors) or the system information to call up the corresponding submenu.<br>The display is as a list, the currently selected entry is inverted (light text on dark background). |  |

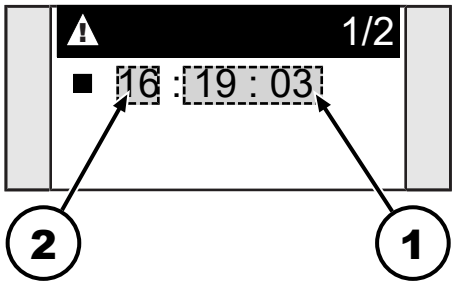
## 6.4 Status display

The status display shows information with status number and message in plain text. If there is more than one piece of information, the number and the current entry number is also displayed.
The next entry is called up by pressing the info key.

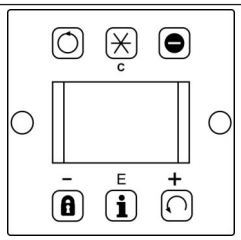

## 6.5 Error display

Current errors are displayed in the error display as a list of the error numbers without plain text display in decimal format. The error number consists of error source **(2)** and error number **(1)**.

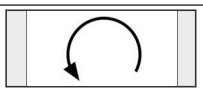
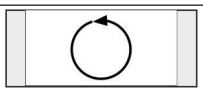
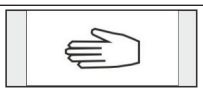
Up to three error codes can be listed per display. If there are more errors, the number of displays and the current display number are also displayed. The next page is called up by pressing the info key.




## 6.6 Operating modes selection




Select the operating mode of the door by pressing the appropriate button on the BDE-D-KTA control unit.

| button | operating mode | display icon | function |
|---|---|---|---|
|  | Locked |  | – The turnstile rotates to the home position.<br>– The turnstile locks automatically in the home position (if a turnstile lock is available). |
|  | Automatic positioning control |  | – The turnstile and the rotation at walking speed are activated by the motion detectors.<br>– If the motion detector is not activated again, the turnstile rotates to the home position and stops. |
|  press briefly | Continuous rotation |  | – The turnstile rotates continuously at slow speed. It accelerates to walking speed once a person enters the detection range of the motion detectors.<br>– If the motion detector is not activated again, the turnstile rotates to the next home position and then switches back to slow speed.<br>– The turnstile will rotate permanently until a different operating mode is selected. |
|  approx. 2 sec. long or press 2x briefly | Manual mode |  | – Press the button for approx. 2 sec. or press 2 times consecutively.<br>– The turnstile stops and can be rotated manually in the normal direction (counter clockwise).<br>– The safety features remain enabled.<br>– The maximum allowable rotation speed can not be exceeded (motor brakes). |

**NOTICE**

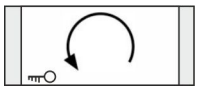
**The physical force required for manually pushing the door in the MANUAL mode is determined by the size of the turnstile and the friction that occurs. The larger and heavier the turnstile is, the more physical force is required.**

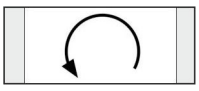
## 6.7 Special function selection

Select the special functions by pressing the respective button on the BDE-D-KTA control unit.

| button | operating mode | display icon | function |
|---|---|---|---|
|  press again | One turn |  | – By pressing the key, the turnstile unlocks (if turnstile lock is present) and starts a turning movement (360°).<br>– In the home position, the turnstile is locked again. |

## 6.8 Operating lock via the keyboard

| Locking the control unit | | | | |
|---|---|---|---|---|
| **Press key sequence** | | | **Display symbol** | **Description** |
| E  |  |  |  | – The control panel keys are locked.<br>– Unwanted manipulation of the control unit is impaired.<br>– The locked state of BDE-D-KTA control unit is displayed on the screen with a key symbol (bottom left). |

| Unlocking the control unit | | | | |
|---|---|---|---|---|
| **Press key sequence** | | | **Display symbol** | **Description** |
| E  |  |  |  | – The control panel keys are activated.<br>– Operating modes and special functions can be selected. |

# 7 Servicing and maintenance

## 7.1 General remarks

**DANGER**

**Electric Shock!**

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.

a) Before starting work (cleaning, maintenance, replacement) 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.

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

c) Never bridge fuses or put them out of operation.

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

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

**NOTICE**

**Specific inspections and maintenance may only be carried out by a specialist or a person trained for this purpose. The authorization of these persons is carried out exclusively by the manufacturer. The scope, result and time of the periodic inspections and maintenance must be recorded in an inspection book and a checklist. These documents must be kept by the operator.**

**NOTICE**

**The testing and/or servicing interval according to the manufacturer's specification is at least 1 to 2 times a year.**

**NOTICE**

**The recommended and planned spare and wear parts can be requested from your service centre.**

According to current legislation, the operator of an automatic door system is responsible for its maintenance and safety.

With the care of the installation by the operator, accidents or defects can be avoided.

### Testing

| Type of test | Action |
|---|---|
| Visual inspection | Check door leaves, guides, bearings, limiting devices, sensors, and the securing of crushing and shearing points for damage. |
| Mechanical inspection | Check fastenings for tight fit. |
| Safety check (exit and escape routes) | Check sensors, safety devices, and monitoring devices for tight fit and damage. |
| Function testing | Check functioning of switches, operators, controllers, power or energy storage devices, and sensors.<br>Also check the adjustment of the safety devices and the setting of all movement sequences including the end points. |
| Test run | Final overall review is carried out. |

### Servicing

| Type of servicing | Action |
|---|---|
| Adjustment and cleaning | Clean and adjust bearings, sliding points, and power transmission.<br>Check relevant fastening screws and retighten if necessary. |

For documentation and information purposes, the testing and servicing work as well as the condition of the system are recorded in a test log book. The test log book must be kept for at least one year or until the next testing/servicing.

## 7.2 Monthly inspection work performed by the operator

The monthly tests and inspections of individual components by the operator require little time and serve in particular to prevent accidents caused by improper handling of the system. Depending on the equipment of the plant, we recommend that the following inspection work be carried out on a monthly basis.

| Test / Inspection | Procedure | Expected results |
|---|---|---|
| Visual inspection of all **safety strips** | – Visually inspect all safety strips. | – The safety strips can not have any mechanical damage and they must be installed correctly and firmly over the entire length. |
| Visual inspection safety strips | – Select MANUAL mode.<br>– Visually inspect the safety strips. | – The safety strips can not have any mechanical damage and they must be installed correctly and firmly over the entire length. |
| Door leaves / Side screens | – Verify the state of the glazing.<br>– Verify the state of the seals / profiles. | – No glass damage.<br>– No seals torn off (energy loss).<br>– The door is the "visit card" of your company. Take care that it is maintained in a perfect condition. |

**CAUTION**

**Danger of people being trapped inside the turnstile.**

a) Bruises and contusions through from the turnstile wing.

⇨ Visual inspection, check whether people are trapped inside.

| | | |
|---|---|---|
| Visual inspection of the instructions and labeling (buttons / switches) | – Verify that all labels are present and legible. | – All labels must be present, legible and firmly applied. |
| Visual inspection of the floor covering | – Verify the floor covering for possible tripping hazards, unevenness, damages, and dirt accumulation. | – The floor covering must be free from tripping hazards, unevenness, damages and dirt accumulation. |

**CAUTION**

**Risk of burns, hot surfaces!**

a) Risk of burning hands when replacing bulbs!

⇨ Allow bulb to cool at least 5 minutes before replacing and/ or wear protective gloves.

| | | |
|---|---|---|
| Visual inspection lighting | – Verify whether the lights are installed correctly and turn them on. | – Lights must be installed correct and function. |

| | | |
|---|---|---|
| Protective screen (optional - depending on country regulations) | – Check the mechanical condition of the protective screen<br>– Check in particular the closing mechanism | – A protective screen should prevent all crushing and shearing points |
| Function test **Night shield** | – Close and lock the night shield.<br>– Push to verify whether the night shield is locked securely. | – The night shield is completely closed and locked. |
| Operator casing | – Check the attachment of the operator casing. | – It must be completely closed and must correctly engage into the hinges. |
| Function test of the **speed control brake** | – Rotate the turnstile faster than normal speed until automatic braking of the rotation occurs. | – The turnstile will be harder to push.<br>– After reducing the rotation speed, the turnstile should be easier to push. |
| Function test of the **turnstile lock**, for example **bar bolt lock or corner lock**. | – Rotate the turnstile to the lock position.<br>– Engage the lock.<br>– Push to verify whether the turnstile is securely locked. | – The turnstile is securely locked. |
| Function test lock | – Select LOCKED mode. (Do not enter the door!)<br>– Push the turnstile to test whether it is securely locked. | – The turnstile must be locked securely. |
| Visual inspection of the glass label | – Verify that the label is present. | – The glass label must be firmly attached at eye level. |
| **Emergency stop switch** | – Press emergency stop switch. | – Turnstile can be rotated manually. |
| Function test key-operated emergency button | – Select operating mode AUTOMATIC.<br>– Press the key-operated emergency button for approx. 5 sec. | – The turnstile must continue rotating at slow speed. When the emergency button is released the selected operating mode is resumed. |
| **Key operated switch for electric lock** | – Turn switch to lock.<br>– Turn switch to unlock. | – Turnstile locks.<br>– Turnstile is unlocked. |
| Function test Key pivoting contact | – Select operating mode OFF.<br>– Briefly actuate the Key pivoting contact. | – The turnstile must unlock, turn a complete turn and then lock again. |
| Function test **key switch** | – Select operating mode “OFF“.<br>– Briefly activate key switch. | – The turnstile will unlock, turn one complete rotation and lock. |

## 7.3 Cleaning and care

**DANGER**

**Warning: risk of fatal electric shock!**

a) Risk of death by electric shock

⇨ Do not touch the drive system while the main power is connected.

⇨ Do not spray water into the drive system.

**CAUTION**

**The system must be kept free of dirt, leaves, snow and ice!**

a) In case of heavy soiling contact a professional.

b) The use of road salt or gravel in front of the access areas and inside the plant must be avoided.

c) It is recommended to impregnate the safety strips and sensors with a water-repellent care product.

**NOTICE**

**If available, select the MANUAL operating mode before starting cleaning and additionally press an emergency stop switch.**

**NOTICE**

**Any other cleaning agents not mentioned above must not be used!**

| What | Interval | Cleaning agent |
|---|---|---|
| General parts | Weekly | Damp cloth / neutral to slightly alkaline, aqueous wetting agent solution / vinegar diluted with water |
| Sensors / safety strips | Weekly | Plastics cleaner |
| Floor coverings | Weekly | Vacuum cleaner / carpet cleaner |

# 8 Malfunctions

## 8.1 Conduct during malfunctions

**NOTICE**

**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.**

### 8.1.1 Troubleshooting options

**NOTICE**

**Some malfunctions can be rectified by the operator themselves (see Tips for troubleshooting). If the tips do not resolve the problem, please contact your local service centre.**
**Before calling, please note the information displayed on the BDE-D-KTA control unit. This information provides the technician with valuable information for troubleshooting.**

### 8.1.2 Tips for troubleshooting

Listed below are malfunctions and their causes with possible solutions that the operator can perform. If the solutions presented are not successful, the operator must disconnect the main power supply and contact the service centre.

| Malfunctions | Causes | Solutions |
|---|---|---|
| Turnstile is blocked, can not be electrically unlocked | – Lock does not open<br>– Lock is jammed in the lock latch<br>– Lock is defective | – Switch to MANUAL operating mode and shake turnstile briefly |
| Turnstile will not start but can be rotated manually | – MAUAL operating mode is activated<br>– Emergency stop button is pressed<br>– Power failure | – Select a different operating mode<br>– Reset emergency stop button<br>– Restore power |
| When power is restored the turnstile does not start | – Restart lock is activated | – Restart with the BDE-D-KTA control unit |
| Turnstile will not start, is difficult to turn or tries briefly to start | – Excessive friction between the brush seals on the turnstile wings with the floor and drum walls<br>– Obstacle in the rotation area<br>– Motor gearbox damage | – Even floor inequalities and remove the dirt collected under the floor mat if necessary<br>– Remove obstacle<br>– Exchange motor |
| Power failure | – Fuse is blown<br>– Fuse is defective<br>– Main switch is off | – Check fuse<br>– Check power supply<br>– Check main switch |

### 8.1.3 Status display and troubleshooting BDE-D-KTA

The following table lists the possible status messages by their status number, together with a detailed description and information on how to correct and reset the error display.

| No. | Display text i-record / BDE | Cause and effect | Possible troubleshooting |
|---|---|---|---|
| **100** | Internal emergency stop (TA-NHTI) activated<br>Emergency stop TA-NHTI | – EmergencyStop<br>– Immediate stop of the rotation<br>– Unlocking the door | – Reset button (snap in)<br>– Perform reset<br>– If not successful, contact service |
| **101** | Outside emergency stop (TA-NHTA) actuated<br>Emergency stop TA-NHTA | – EmergencyStop<br>– Immediate stop of the rotation<br>– Unlocking the door | – Reset button (snap in)<br>– Perform reset<br>– If not successful, contact service |
| **102** | Radar inside (AKI)<br>AKI active | – Door rotates permanently in the operating modes AUTOMATIC and ONE WAY | – Perform reset<br>– If not successful, contact service |
| **103** | Radar outside (AKA)<br>AKA active | – Door rotates permanently in the operating modes AUTOMATIC and ONE WAY | – Perform reset<br>– If not successful, contact service |
| **104** | Inside push-button for disabled persons (TA-BEHI)<br>BEHI active | – Door rotates continuously at reduced speed in the operating modes AUTOMATIC, ONE WAY and CONTINUOUS ROTATION | – Check push button<br>– Perform reset<br>– If not successful, contact service |
| **105** | Disabled button outside (TA-BEHA)<br>BEHA active | – Door rotates continuously at reduced speed in the operating modes AUTOMATIC, ONE WAY and CONTINUOUS ROTATION | – Check push button<br>– Perform reset<br>– If not successful, contact service |
| **106** | Key swivel contact (TA-SSK)<br>SSK active | – Door rotates permanently | – Check / reset switch<br>– Perform reset<br>– If not successful, contact service |
| **107** | Start button 1 Stator (TA-SRT1_S)<br>TA-SRT1 Stator active | – Door rotates permanently | – Check push button<br>– Perform reset<br>– If not successful, contact service |
| **108** | Start button 2 Stator (TA-SRT2_S)<br>TA-SRT2 Stator active | – Door rotates permanently | – Check push button<br>– Perform reset<br>– If not successful, contact service |
| **109** | Vertical sensor stator inside (OP-VSSI)<br>VSSI active | – OptoStop, OptoSlow, depending on the adjusted sensor function stop the rotation or reduce the rotation speed in the active range of the sensor | – Remove object from the detection range of the sensor<br>– Check sensor for contamination, clean if possible<br>– Perform reset<br>– If not successful, contact service |

| | | | |
|---|---|---|---|
| **110** | External vertical sensor stator (OP-VSSA)<br>VSSA active | – OptoStop, OptoSlow, depending on the adjusted sensor function stop the rotation or reduce the rotation speed in the active range of the sensor | – Remove object from the detection range of the sensor<br>– Check sensor for contamination, clean if possible<br>– Perform reset<br>– If not successful, contact service |
| **111** | Vertical sensor rotor blade 1 (OP-VSR1)<br>VSR1 active | – OptoStop, OptoSlow, depending on the sensor function set Stop rotation or reduce rotation speed | – Remove object from the detection range of the sensor<br>– Check sensor for contamination, clean if possible<br>– Perform reset<br>– If not successful, contact service |
| **112** | Vertical sensor rotor blade 2 (OP-VSR2)<br>VSR2 active | – OptoStop, OptoSlow, depending on the sensor function set Stop rotation or reduce rotation speed | – Remove object from the detection range of the sensor<br>– Check sensor for contamination, clean if possible<br>– Perform reset<br>– If not successful, contact service |
| **113** | Vertical sensor rotor blade 3 (OP-VSR3)<br>VSR3 active | – OptoStop, OptoSlow, depending on the sensor function set Stop rotation or reduce rotation speed | – Remove object from the detection range of the sensor<br>– Check sensor for contamination, clean if possible<br>– Perform reset<br>– If not successful, contact service |
| **114** | Vertical sensor rotor blade 4 (OP-VSR4)<br>VSR4 active | – OptoStop, OptoSlow, depending on the sensor function set Stop rotation or reduce rotation speed | – Remove object from the detection range of the sensor<br>– Check sensor for contamination, clean if possible<br>– Perform reset<br>– If not successful, contact service |
| **115** | Safety edge inside drum edge (SL-TRKI)<br>SL-TRKI active | – SafetyStop, Immediate stop of the rotation | – Remove object from safety edge, possibly dirt on the floor, under a heel guard<br>– Perform reset<br>– If not successful, contact service |
| **116** | Safety edge outside drum edge (SL-TRKA)<br>SL-TRKA active | – SafetyStop, Immediate stop of the rotation | – Remove object from safety edge, possibly dirt on the floor, under a heel guard<br>– Perform reset<br>– If not successful, contact service |
| **117** | Horizontal safety bar rotor blad 1 (SL-FES1)<br>SL-FES1 active | – SafetyStop, Immediate stop of the rotation | – Remove object from safety edge, possibly dirt on the floor, under a heel guard<br>– Perform reset<br>– If not successful, contact service |
| **118** | Vertical safety bar rotor blade 1 (SL-VSR1)<br>SL-VSR1 active | – SafetyStop, Immediate stop of the rotation | – Remove object from safety edge, possibly dirt on the floor, under a heel guard<br>– Perform reset<br>– If not successful, contact service |

| | | | |
|---|---|---|---|
| **119** | Horizontal safety bar rotor blad 2 (SL-FES2)<br>SL-FES2 active | – SafetyStop, Immediate stop of the rotation | – Remove object from safety edge, possibly dirt on the floor, under a heel guard<br>– Perform reset<br>– If not successful, contact service |
| **120** | Vertical safety bar rotor blade 2 (SL-VSR2)<br>SL-VSR2 active | – SafetyStop, Immediate stop of the rotation | – Remove object from safety edge, possibly dirt on the floor, under a heel guard<br>– Perform reset<br>– If not successful, contact service |
| **121** | Horizontal safety bar rotor blad 3 (SL-FES3)<br>SL-FES3 active | – SafetyStop, Immediate stop of the rotation | – Remove object from safety edge, possibly dirt on the floor, under a heel guard<br>– Perform reset<br>– If not successful, contact service |
| **122** | Vertical safety bar rotor blade 3 (SL-VSR3)<br>SL-VSR3 active | – SafetyStop, Immediate stop of the rotation | – Remove object from safety edge, possibly dirt on the floor, under a heel guard<br>– Perform reset<br>– If not successful, contact service |
| **123** | Horizontal safety bar rotor blad 4 (SL-FES4)<br>SL-FES4 active | – SafetyStop, Immediate stop of the rotation | – Remove object from safety edge, possibly dirt on the floor, under a heel guard<br>– Perform reset<br>– If not successful, contact service |
| **124** | Vertical safety bar rotor blade 4 (SL-VSR4)<br>SL-VSR4 active | – SafetyStop, Immediate stop of the rotation | – Remove object from safety edge, possibly dirt on the floor, under a heel guard<br>– Perform reset<br>– If not successful, contact service |
| **125** | Fire alarm contact (BMZ)<br>Fire alarm | – Immediate stop of the rotation<br>– Release of the escape route via HST200 | – Check / replace onsite switching contact<br>– Perform reset<br>– If not successful, contact service |
| **126** | Night shutter not open or drum wall breakout not closed (UW-POS1_S)<br>UW-POS1 stator active | – Immediate stop of the rotation | – Fully open the night shield<br>– Close / reset drum wall breakout completely<br>– Reset pivot wings<br>– Perform reset |
| **127** | Night shutter not open or drum wall breakout not closed (UW-POS2_S)<br>UW-POS2 stator active | – Immediate stop of the rotation | – Fully open the night shield<br>– Close / reset drum wall breakout completely<br>– Reset pivot wings<br>– Perform reset |
| **128** | Pendulum wing 1 deflected (UW-POS1_R)<br>UW-POS1 rotor active | – Immediate stop of the rotation | – Fully open the night shield<br>– Close / reset drum wall breakout completely<br>– Reset pivot wings<br>– Perform reset |

| | | | |
|---|---|---|---|
| **129** | Pendulum wing 2 deflected (UW-POS2_R)<br>UW-POS2 rotor active | – Immediate stop of the rotation | – Fully open the night shield<br>– Close / reset drum wall breakout completely<br>– Reset pivot wings<br>– Perform reset |
| **130** | Commissioning required<br>Learning cycle required | – Immediate stop of the rotation | – Perform reset<br>– If not successful, contact service |
| **131** | Self-test is executed<br>Self-test active | – Stop the rotation | – Wait until self-test is finished (approx. 5 sec.)<br>– Perform reset<br>– If not successful, contact service |
| **132** | Escape route, turnstile wing released<br>Breakout wing enabled | – Immediate stop of the rotation<br>– Release of the escape route via HST200 | – See triggering states<br>– Reset the turnstile wings<br>– Perform reset<br>– If not successful, contact service |
| **133** | Flow sensor rotor blade 1 (OP-VLS1)<br>OP-VLS1 active | – OptoStop, OptoSlow, depending on the sensor function set Stop rotation or reduce rotation speed | – Remove object from the detection range of the sensor<br>– Check sensor for contamination, clean if possible<br>– Perform reset<br>– If not successful, contact service |
| **134** | Flow sensor rotor blade 2 (OP-VLS2)<br>OP-VLS2 active | – OptoStop, OptoSlow, depending on the sensor function set Stop rotation or reduce rotation speed | – Remove object from the detection range of the sensor<br>– Check sensor for contamination, clean if possible<br>– Perform reset<br>– If not successful, contact service |
| **135** | Start button 1 Rotor (TA-SRT1_R)<br>TA-SRT1 rotor active | – Door rotates permanently | – Check push button<br>– Perform reset |
| **136** | Start button 2 Rotor (TA-SRT2_R)<br>TA-SRT2 rotor active | – Door rotates permanently | – Check push button<br>– Perform reset |
| **137** | Internal stator safety bar 2 (SL-SI2)<br>SL-SI2 active | – SafetyStop, Immediate stop of the rotation | – Perform reset<br>– If not successful, contact service |
| **138** | Safety bar stator inside 3 (SL-SI3)<br>SL-SI3 active | – SafetyStop, Immediate stop of the rotation | – Perform reset<br>– If not successful, contact service |
| **139** | Safety bar stator inside 4 (SL-SI4)<br>SL-SI4 active | – SafetyStop, Immediate stop of the rotation | – Perform reset<br>– If not successful, contact service |
| **140** | Outer stator safety bar 2 (SL-SA2)<br>SL-SO2 active | – SafetyStop, Immediate stop of the rotation | – Perform reset<br>– If not successful, contact service |

| | | | |
|---|---|---|---|
| **141** | Outer stator safety bar 3 (SL-SA3)<br>SL-SO3 active | – SafetyStop, Immediate stop of the rotation | – Perform reset<br>– If not successful, contact service |
| **142** | Outer stator safety bar 4 (SL-SA4)<br>SL-SO4 active | – SafetyStop, Immediate stop of the rotation | – Perform reset<br>– If not successful, contact service |
| **143** | Sliding door not closed<br>Sliding door open | – Immediate stop of the rotation | – Wait until sliding door is closed<br>– Move out of the detection field of the sliding door protection<br>– Perform reset<br>– If not successful, contact service |
| **144** | Test error vertical sensor stator inside (OP-VSSI)<br>OP-VSSI test error | – ErrorStop, Immediate stop of the rotation | – Perform reset<br>– If not successful, contact service |
| **145** | Test error vertical sensor external stator (OP-VSSA)<br>OP-VSSA test error | – ErrorStop, Immediate stop of the rotation | – Perform reset<br>– If not successful, contact service |
| **146** | Test error vertical sensor rotor blade 1 (OP-VSR1)<br>OP-VSR1 test error | – ErrorStop, Immediate stop of the rotation | – Perform reset<br>– If not successful, contact service |
| **147** | Test error vertical sensor rotor blade 2 (OP-VSR2)<br>OP-VSR2 test error | – ErrorStop, Immediate stop of the rotation | – Perform reset<br>– If not successful, contact service |
| **148** | Test error vertical sensor rotor blade 3 (OP-VSR3)<br>OP-VSR3 test error | – ErrorStop, Immediate stop of the rotation | – Perform reset<br>– If not successful, contact service |
| **149** | Test error vertical sensor rotor blade 4 (OP-VSR4)<br>OP-VSR4 test error | – ErrorStop, Immediate stop of the rotation | – Perform reset<br>– If not successful, contact service |
| **150** | Test error Horizontal light barrier Rotor blade 1 (OP-HSR1)<br>OP-HSR1 test error | – ErrorStop, Immediate stop of the rotation | – Perform reset<br>– If not successful, contact service |
| **151** | Test error Horizontal light barrier Rotor blade 2 (OP-HSR2)<br>OP-HSR2 test error | – ErrorStop, Immediate stop of the rotation | – Perform reset<br>– If not successful, contact service |
| **152** | Test error flow sensor rotor blade 1 (OP-VLS1)<br>OP-VLS1 test error | – ErrorStop, Immediate stop of the rotation | – Perform reset<br>– If not successful, contact service |

| | | | |
|---|---|---|---|
| **153** | Test error flow sensor rotor blade 2 (OP-VLS2)<br>OP-VLS2 test error | – ErrorStop, Immediate stop of the rotation | – Perform reset<br>– If not successful, contact service |
| **154** | Horizontal light barrier rotor blade 1 (OP-HSR1)<br>OP-HSR1 active | – OptoStop, Immediate stop of the rotation | – Remove object from the detection range of the sensor<br>– Check sensor for contamination, clean if possible<br>– Perform reset<br>– If not successful, contact service |
| **155** | Horizontal light barrier rotor blade 2 (OP-HSR2)<br>OP-HSR2 active | – OptoStop, Immediate stop of the rotation | – Remove object from the detection range of the sensor<br>– Check sensor for contamination, clean if possible<br>– Perform reset<br>– If not successful, contact service |
| **156** | Stormlock (AuxIn)<br>AUX-IN Stormlock active | – Immediate stop of the rotation<br>– Release of the Stormlock interlocks | – Check / reset switch<br>– Perform reset<br>– If not successful, contact service |
| **157** | Emergency open (AuxIn)<br>AUX-IN Emerg. Exit active | – Immediate stop of the rotation<br>– Release of the escape route via HST200 | – Check / reset switch<br>– Perform reset<br>– If not successful, contact service |
| **158** | Vertical sensor STOP rotor blade 1 (OP-VSR12)<br>VSR1_STOP active | – OptoStop, Immediate stop of the rotation | – Remove object from the detection range of the sensor<br>– Check sensor for contamination, clean if possible<br>– Perform reset<br>– If not successful, contact service |
| **159** | Vertical sensor STOP rotor blade 2 (OP-VSR22)<br>VSR2_STOP active | – OptoStop, Immediate stop of the rotation | – Remove object from the detection range of the sensor<br>– Check sensor for contamination, clean if possible<br>– Perform reset<br>– If not successful, contact service |
| **160** | Vertical sensor STOP rotor blade 3 (OP-VSR32)<br>VSR3_STOP active | – OptoStop, Immediate stop of the rotation | – Remove object from the detection range of the sensor<br>– Check sensor for contamination, clean if possible<br>– Perform reset<br>– If not successful, contact service |
| **161** | Vertical sensor STOP rotor blade 4 (OP-VSR42)<br>VSR4_STOP active | – OptoStop, Immediate stop of the rotation | – Remove object from the detection range of the sensor<br>– Check sensor for contamination, clean if possible<br>– Perform reset<br>– If not successful, contact service |

| | | | |
|---|---|---|---|
| **162** | Test error vertical sensor STOP rotor blade 1 (OP-VSR12)<br>OP-VSR1_STOP test error | – ErrorStop, Immediate stop of the rotation | – Perform reset<br>– If not successful, contact service |
| **163** | Test error vertical sensor STOP rotor blade 2 (OP-VSR22)<br>OP-VSR2_STOP test error | – ErrorStop, Immediate stop of the rotation | – Perform reset<br>– If not successful, contact service |
| **164** | Test error vertical sensor STOP rotor blade 3 (OP-VSR32)<br>OP-VSR3_STOP test error | – ErrorStop, Immediate stop of the rotation | – Perform reset<br>– If not successful, contact service |
| **165** | Test error vertical sensor STOP rotor blade 4 (OP-VSR42)<br>OP-VSR4_STOP test error | – ErrorStop, Immediate stop of the rotation | – Perform reset<br>– If not successful, contact service |
| **166** | Horizontal safety bar rotor blade backwards 1 (SL-FES1.2)<br>SL-FES12 active | – SafetyStop, Immediate stop of the rotation | – Remove object from safety edge, possibly dirt on the floor, under a heel guard<br>– Perform reset<br>– If not successful, contact service |
| **167** | Vertical safety bar rotor blade backwards 1 (SL-VSR1.2)<br>SL-VSR12 active | – SafetyStop, Immediate stop of the rotation | – Remove object from safety edge, possibly dirt on the floor, under a heel guard<br>– Perform reset<br>– If not successful, contact service |
| **168** | Horizontal safety bar rotor blade backwards 2 (SL-FES2.2)<br>SL-FES22 active | – SafetyStop, Immediate stop of the rotation | – Remove object from safety edge, possibly dirt on the floor, under a heel guard<br>– Perform reset<br>– If not successful, contact service |
| **169** | Vertical safety bar rotor blade backwards 2 (SL-VSR2.2)<br>SL-VSR22 active | – SafetyStop, Immediate stop of the rotation | – Remove object from safety edge, possibly dirt on the floor, under a heel guard<br>– Perform reset<br>– If not successful, contact service |
| **170** | Horizontal safety bar rotor blade backwards 3 (SL-FES3.2)<br>SL-FES32 active | – SafetyStop, Immediate stop of the rotation | – Remove object from safety edge, possibly dirt on the floor, under a heel guard<br>– Perform reset<br>– If not successful, contact service |
| **171** | Vertical safety bar rotor blade backwards 3 (SL-VSR3.2)<br>SL-VSR32 active | – SafetyStop, Immediate stop of the rotation | – Remove object from safety edge, possibly dirt on the floor, under a heel guard<br>– Perform reset<br>– If not successful, contact service |
| **172** | Horizontal safety bar rotor blade backwards 4 (SL-FES4.2)<br>SL-FES42 active | – SafetyStop, Immediate stop of the rotation | – Remove object from safety edge, possibly dirt on the floor, under a heel guard<br>– Perform reset<br>– If not successful, contact service |

| | | | |
|---|---|---|---|
| **173** | Vertical safety bar rotor blade backwards 4 (SL-VSR4.2)<br>SL-VSR42 active | – SafetyStop, Immediate stop of the rotation | – Remove object from safety edge, possibly dirt on the floor, under a heel guard<br>– Perform reset<br>– If not successful, contact service |

### 8.1.4 Restarting the door control

**NOTICE**

**In certain cases, the malfunction can be eliminated by performing a restart on the door control.**

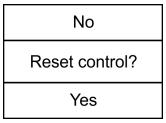
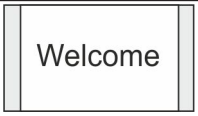
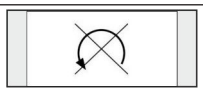
**Observe the following procedure description and press the corresponding keys.**

**CAUTION**

**Danger of knocking**

a) Injuries due to dangerous movements in the event of malfunctions or failure of safety devices are possible.

⇨ Make sure that nobody obstructs the turnstile and that no person approaches the system that could cause the turnstile to rotate!

| Procedure | Press key | BDE-D-KTA display | Function |
|---|---|---|---|
| Keep the key pressed until the display appears. | **E**  |   | Depending on the mode selected. |
| Press the key briefly, if no restart **(No)** is to be performed. |  **C** | Previously set operating mode. | No restart will be performed. The door will continue in the preset operating mode. |
| Press key briefly, if a restart **(Yes)** should be performed. | **E**  |   | Reset control is activated. Turnstile remains at a standstill. Once complete, the restart lock will be activated. |
| Restart lock is activated. | |  | Turnstile remains at a standstill. |
| Remove the restart lock:<br>Select a desired operating mode. | Press the key for the desired operating mode briefly. | The symbol for the operating mode selected will be displayed. | The turnstile will start a synchronizing run and rotate 360° at slow speed until it reaches the home position. |

**NOTICE**

**If after restarting the door control an error is still displayed on the control unit, then please contact your service centre and state the error message displayed on the control unit.**

## 8.2 Function during a power failure

**CAUTION**

**Danger of people being trapped inside the turnstile.**

a) Bruises and contusions through from the turnstile wing.

⇨ Visual inspection, check whether people are trapped inside.

In the event of a power failure, the rotation is stopped immediately and the turnstile is then freely rotatable.

The key emergency operation button or start button are without function.

**NOTICE**

**An emergency operation is only possible for a certain bridge period with an external (on-site) or integrated UPS (Uninterruptible Power Supply).**

If the system is equipped with a bistable electric turnstile lock, the turnstile remains locked in the basic position in the operating mode LOCKED.

If a monostable closed lock is installed, the system is locked from any operating mode.

## 8.3 Function when power is restored

After turning the power supply, or when the power returns, an electronic restart lock is activated. Using the key-operated switch, select the operating mode OFF and then AUTOMATIC in order to start normalization and cancel the restart lock.

# 9 Taking out of service and disposal

## 9.1 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.**

## 9.2 Dismantling and disposal

**NOTICE**

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

**NOTICE**

**The door systems can be completely disassembled in reverse order.**

The installation mainly consists of the following materials:

### Aluminum:

- Linking profiles
- Gearbox, Drive panel
- Door leaves 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 leaves and side panels

### Various electronic and electromechanical components:

- Sensors, control, and operator components
- Batteries and rechargeable batteries

### Various plastics:

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

record

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