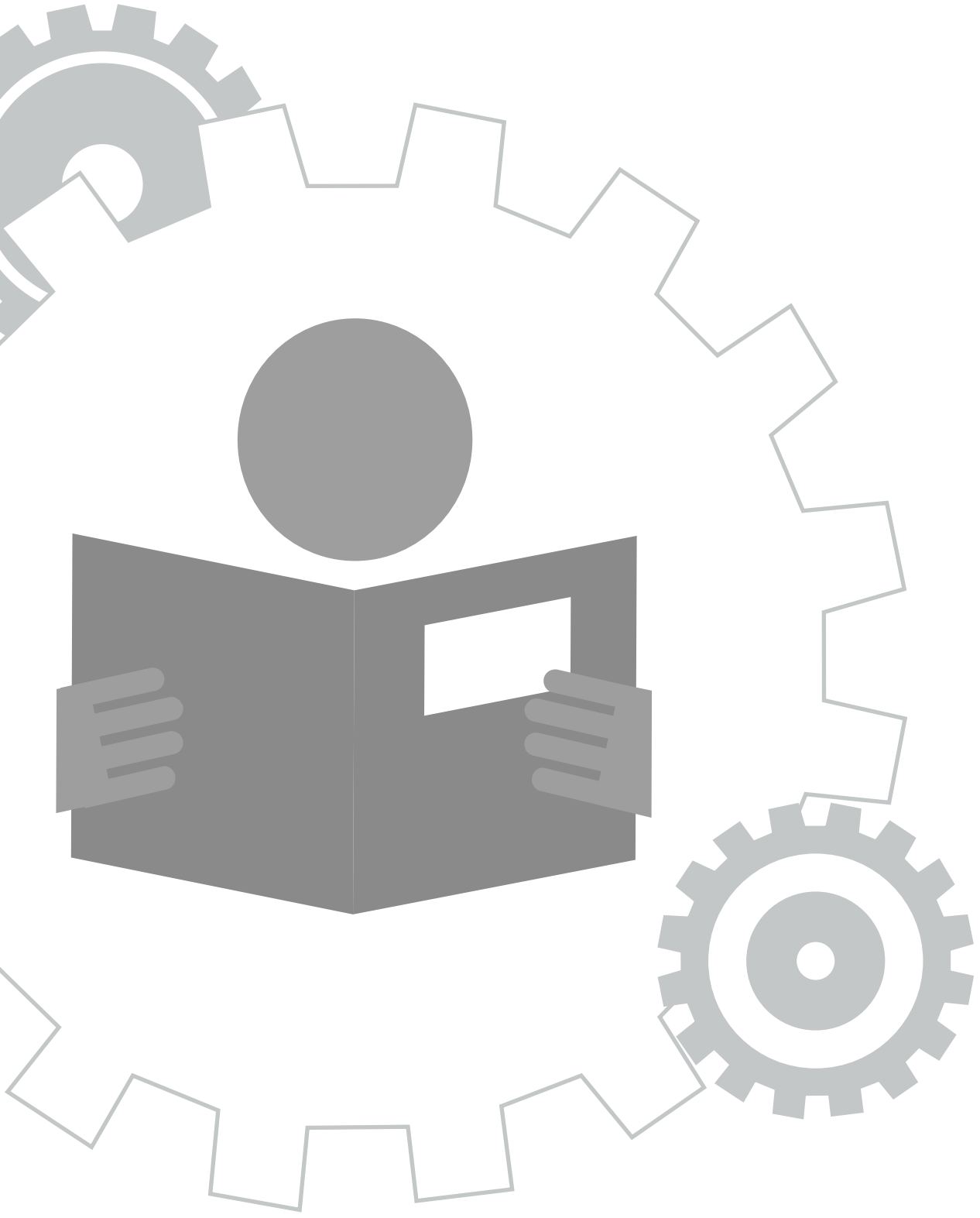
record PROTECT full turn



User manual

Translation of the original manual

Table of content

1 Safety

1.1 Presentation of warning signs

Various symbols are used in this guide for easier understanding:

NOTICE

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

IMPORTANT

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

IMPORTANT

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

CAUTION

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

WARNING

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

DANGER

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

DANGER

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

1.2 Intended purpose of use

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

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

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

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

1.3 General hazards

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

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

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

IMPORTANT

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

IMPORTANT

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

CAUTION

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

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

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

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

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

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

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

CAUTION

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

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

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

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

⇨ Keep the system free of snow and ice.

⇨ Do not use aggressive or caustic cleaning agents.

⇨ Use road salt or loose chippings only conditionally.

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

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

CAUTION

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

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

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

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

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

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

⇨ Remove objects from the opening area.

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

⇨ Do not rush through a closing system.

CAUTION

Risk of bruising and severing of limbs!

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

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

⇨ Keep a distance when parts of the system move.

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

⇨ Do not open or remove protective covers during operation.

⇨ Do not permanently remove covers from the system.

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

CAUTION

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

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

⇨ Never disable or manipulate safety devices.

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

CAUTION

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

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

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

⇨ Children must not play with or on the system or clean and maintain it.

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

DANGER

Danger to life due to electric current!

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

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

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

⇨ Never bridge fuses or put them out of operation.

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

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

DANGER

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

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

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

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

⇨ Do not remove safety instructions on the system.

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

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

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

1.4 State of technology

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

Nevertheless, danger may arise if not used as intended.

IMPORTANT

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

1.5 Personal protective equipment

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

Personal protective equipment is explained below:

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

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

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

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

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

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

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

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

1.6 Spare parts and liability

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

2 General information

2.1 Purpose and use of the instructions

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

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

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

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

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

2.2 Document identification

Name:	BAL_PROTECT_full_turn_EN_1V0_REC_102-905401101
Version:	V1.0
Article nr:	102-905401101
Publication date:	03/2021

2.3 Copyright

2.4 Product identification

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

2.5 Manufacturer agtatec ag

agtatec ag

Allmendstrasse 24

CH – 8320 Fehraltorf

Switzerland

Phone:	+41 44 954 91 91
Fax:	+41 44 954 92 00

2.6 Target groups

CAUTION

Risk of injury if personnel are insufficiently qualified!

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

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

b) Keep unqualified personnel away from danger areas.

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

– Operating entity of the system:
the person who is responsible for the technical maintenance of this system
– Operator of the system:
the person who operates the system every day and has been suitably instructed

3 Description

3.1 Product Description

The record full turn BA/EV features a modern modular design concept that makes it perfect for all external applications such as defence and industrial sites.

An all welded steel rotor with straight arms runs in a phosphor bronze bearing at the top and is supported by a maintenance free polymer bearing at the base.

The full turn can be provided in a choice of RAL colours, 304 grade and 316 grade stainless steel.

On double units the rotors are interlocked for increased security.

Entry and Exit can be made by card reader, or any other type of control device specified by the client at the time of order.

The full turn is controlled by the Titan mechanical head and LL2001 logic platform, which are secured in a weather proof containment box.

3.2 Model Build Variations

The following variations can be supplied by ; however this technical manual provides sufficient information to cover all models.

BA Units

Full turn BA: Simple painted steel tubular structure(with stainless steel rotor column) or stainless steel structure. The full height ot the full turn is delivered in kit form allowing reduced transport costs or in monoblock form allowing reduced installation time and cost.

The full turn is available with a 90º and 120º rotor.

It is also available as a Single rotor for one lane or a Double Interlocking layout for two lanes see (EV DI model).

BA 90 Single- Basic model.

BA 120 Single- Basic model

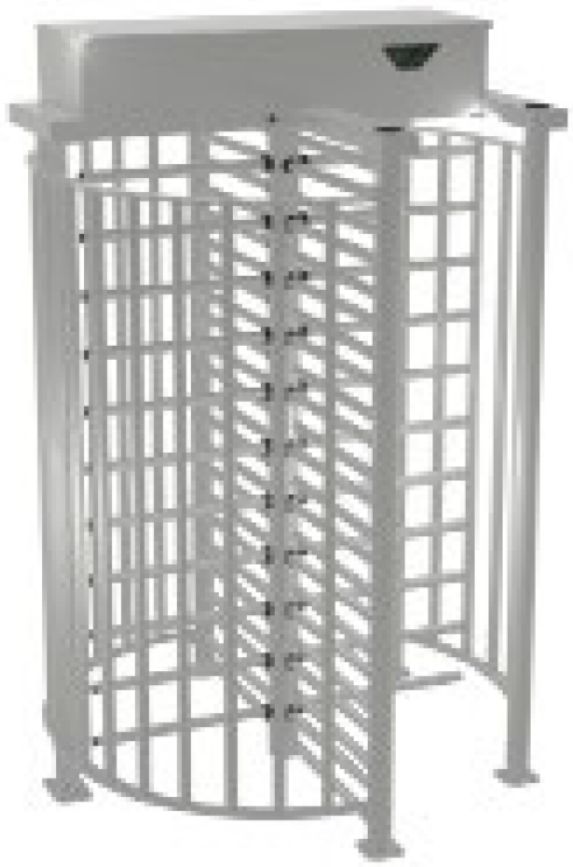
EV Units

With enhanced side protection,painted steel tubular structure(with stainless steel rotor column) or stainless steel structure.

The full height is delivered in kit form allowing reduced transport costs or in mono-block form allowing reduced installation time and cost.

The full turn is available with a 90º and 120º rotor.

It is also available as Single rotor for one lane. The EV Double Interlocking layout for two lanes, also fully matches with the BA aesthetics.

	
EV 90 Single- Evolution Model	EV 120 Single- Evolution Model

	
EV 90 Interlocking Double- Evolution Model	EV 120 Interlocking Double-Evolution Model

3.3 Technical Specification

An all welded steel rotor with straight arms runs in a phosphor bronze bearing at the top and is supported by a maintenance free polymer bearing at the base.

Entry and exit can be made by card reader, push button or any other type of control device specified by the client at the time of order. All controls are housed within the unit, therefore NO separate switches or control boxes are required. Control of the rotor is achieved by an electromechanical head mounted within the top section and accessible by removing the access panel, featuring,

- A positive action lock which prevents two passages at one time.
- A self-centring mechanism to ensure complete rotation of the head to the reset/home position.
- An anti-backup device prevents reverse rotation when the head has moved more than 32° from the reset/home position.

3.4 Standard Technical Specification

Orientation:	Pass left or pass right (Pass left available with locks on secure side)
Rotor Wings:	4NO for the full turn 90 3NO for the full turn 120
Drive:	Manually operated
Materials / Casework:	Box and round hollow section electrophoresis treated under a final smooth gloss polyester powder top coat, for painted version, or stainless steel AISI 304 grade (upgradable to 316 grade as option), for the stainless steel version.
Rotor Column:	The central rotating column of the rotor assembly is stainless steel grade 304 (upgradable to 316 as option), same as for the horizontal bars, further with black plastic end caps and joint rings.

Canopy (Option):	Aluminium frame with 4mm thick polycarbonate transparent infill or grey solid infill, with connecting brackets to the unit frame in stainless steel AISI 304 grade (upgradable to 316 grade as option)
Function:	Passage in both directions, electronically controlled.
Mechanism:	Control operation is achieved by an electromechanical head mechanism. Head damping available as an optional extra.
Security:	Passage through the “dead area” is prevented by stator bars.
Power Supply:	115/230 Vac 50/60Hz
Power Rating:	Standby or Passage 50Va (Alarm Condition 50Va) * Heater Kit Option add 400W
Logic Voltage:	24Vdc
Power Failure:	In the event of an emergency or isolation of the power supply the full turn can be configured to Fail- Safe i.e. Rotates freely or Fail-Lock i.e. locks in the HOME position. Either option is available in one or both directions. (As standard the full turn is configured bi-directional fail-safe unless requested during the ordering process) This is configurable on site if required.
Fire Alarm:	Input facility available for 0V contact supplied by others to effect fail state.
Interface:	The mechanism is controlled by means of the LL2001 microprocessor control logic with the following features:

The basic features of the board are as follows:

- One input for unlocking the Titan-Lite FHT for transit in direction ‘A’;
- One input for unlocking the Titan-Lite FHT for transit in direction ‘B’;
- Two pairs of protected outputs for driving the traffic lights (Red and Green) in directions ‘A’ and ‘B’;

NOTICE

Two pairs of protected outputs can be used for driving the Red and Green lights in direction A (PL) and B (PR). In this mode the remaining two outputs can be used for indicating availability of use or for counting passage in either direction.

Two outputs that can be directed to relays with voltage free contacts to provide an interface with external components;

- One relay output with voltage free contact for alarm signalling;
- Six TTL inputs for optional devices connection;
- Fast acting fuses 5 x 20mm, 2A / 250V;
- RS485 asynchronous serial line; (Protocol available on request)
- Two NPN outputs that can be used to provide an interface with external components.
- Programmable by means of Trimmers;
- Microprocessor reset button;
- One output that can be directed to a relay with voltage free contacts to provide a TECHNICAL Alarm
- TABELLE

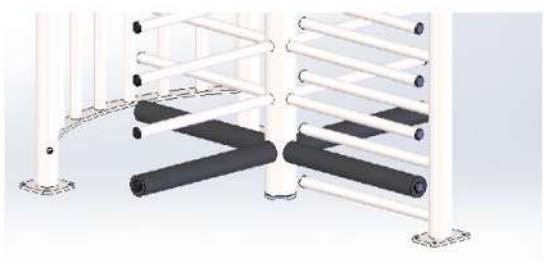
Operating Temperature: 5°C to +50°C 10°C to +50°C (With optional heater Kit)

- Transportation and Storage: -25°C to +55°C
- Note - This Technical Manual is applicable to all variants.

3.5 Alternative options and Accessories

- Alternative finishes and materials.
- ITC (Improper transit control) Detects users entering the unit in the wrong direction (with Audible alarm) Confirms an authorized passage has been completed

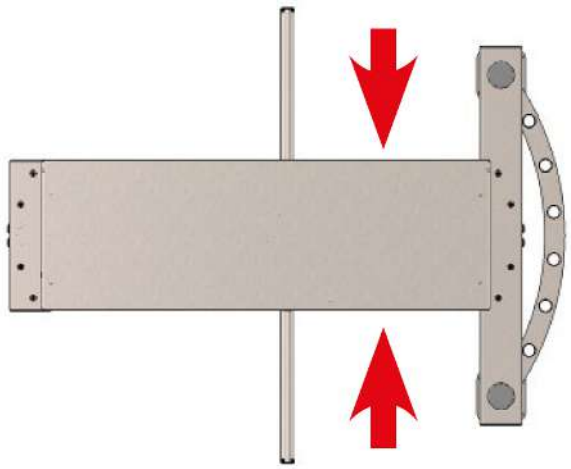
- Card reader integration.
- Canopy
- Baseplate
- Fully assembled option
- Traffic lights (LED)*
- Down lights (LED)
- All units come with the blanking panel for traffic lights, but if required the LEDs must be ordered separately as they are an optional extra.
- Heel protection (optional) in black in Foamed nitrile rubber with polymeric covering for increased safety in use is available



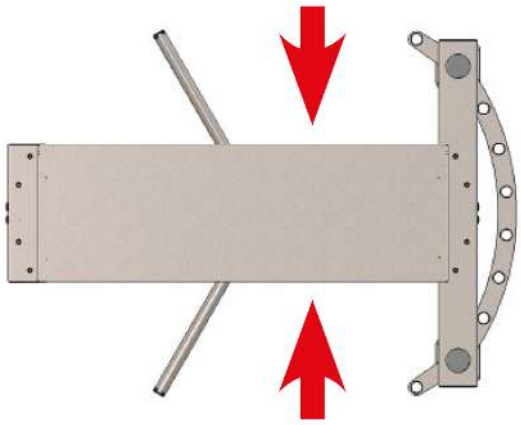
4 Operation

4.1 Instructions for Use

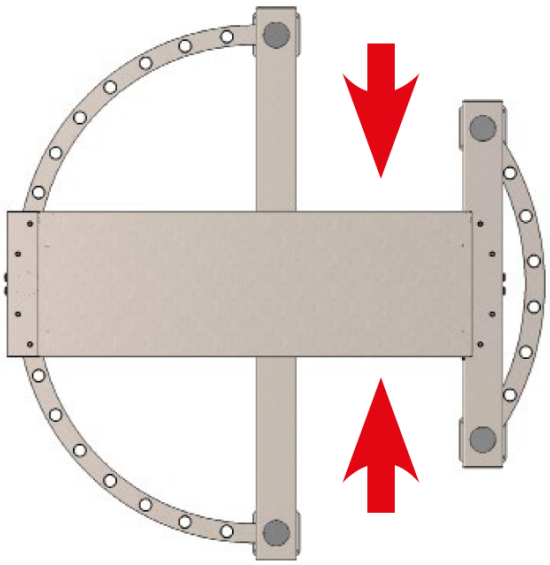
The information contained in this section should be used as a basis for the instruction of personnel in the correct use of the doors.



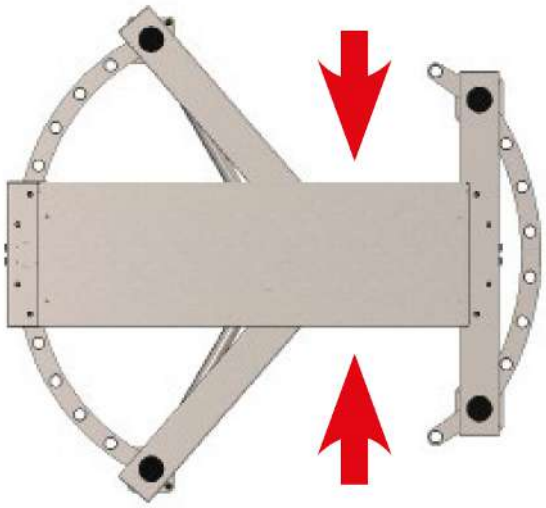
BA 90° Single



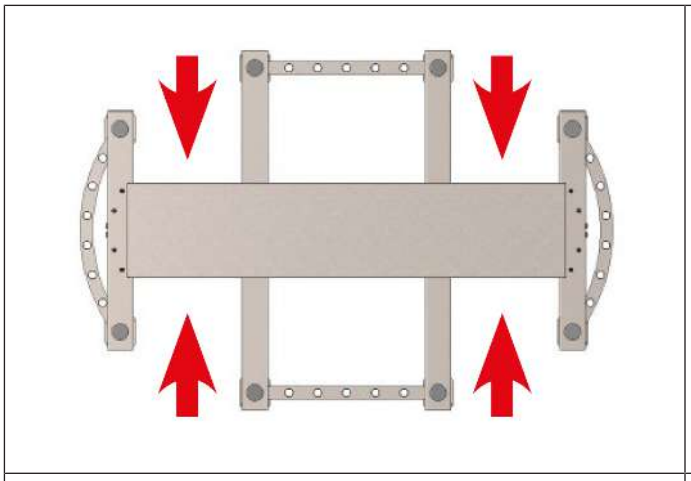
BA 120° Single



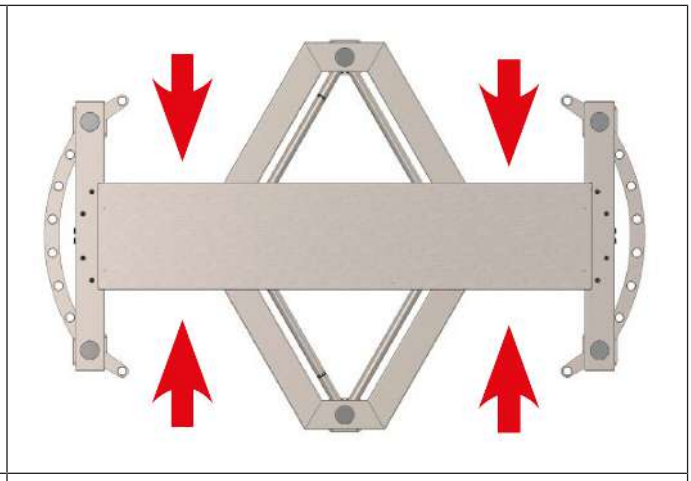
EV 90° Single



EV 120° Single



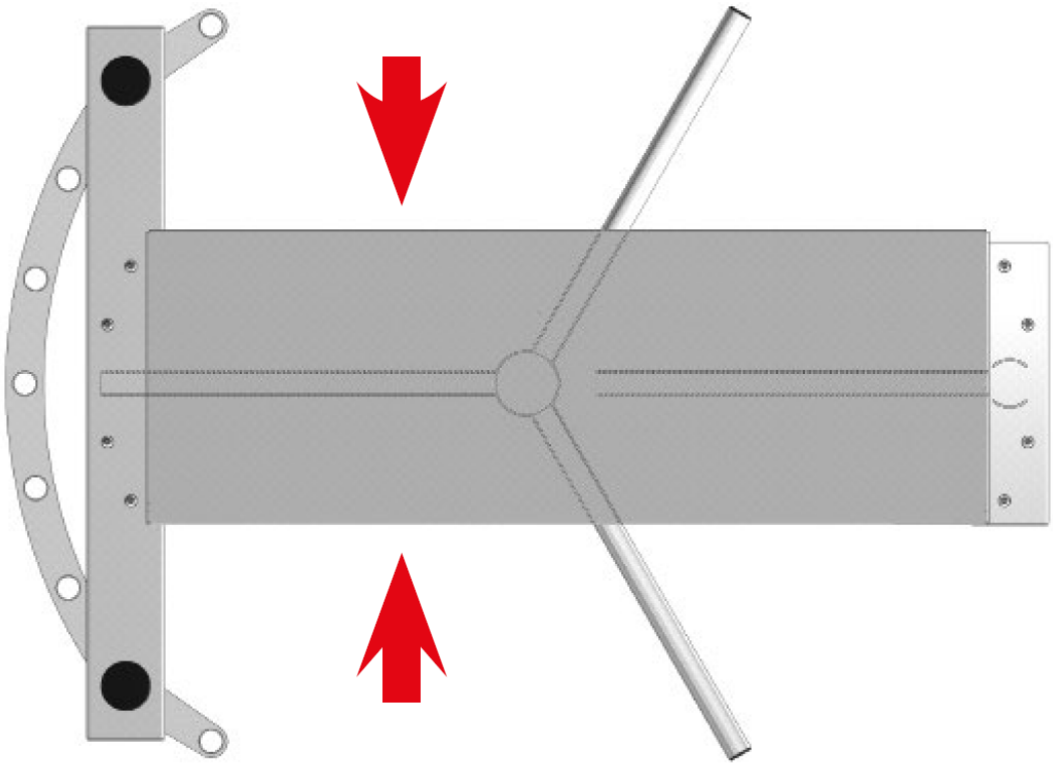
EV 90° Double Interlocking



EV 120° Double Interlocking

4.2 Customer Instructions for use

The operating procedure is shown below and given the sequence of passage through the full turn in either direction.



1. The Rotor will normally be locked, unless a free entry/exit option has been specified.
2. Operate the Access Control Device if fitted.
3. On the acceptance of a signal from the Access Control Device the rotor will unlock and be free to rotate in one direction
4. Pass through the full turn, using your arms to manually push the rotor.
5. The rotor will automatically lock in its new position once the passage has been completed

Important Notices –

- Only one person at a time should pass through the full turn.
- Large packages should be carried in front of you.

– Should any article become caught in the rotor, STOP, and DO NOT keep forcing through in the same direction.

4.3 Fail State

The full turn can be set to fail lock (FSL) or fail safe (FSO) in either direction via alteration of the solenoids and programmable parameters.

The fail state is the same as when a fire alarm signal is received.

4.4 Access Control Devices

can supply the mounting for an Access Control Device, which is specified at the initial order to meet customer requirements.

4.5 Programmable Parameters

The system operation is conditioned by the values of the 8 trimmers stored in the LL2001 PCB Control Logic. The system operation is conditioned by the values of the 8 trimmers stored in the LL2001 PCB Control Logic.

5 Servicing and maintenance

5.1 Maintenance

The Hercules mechanism should be inspected and cleaned at regular intervals in order to maintain the components in good working order and to check for signs of wear.

The following information refers to a typical installation where the average number of transits per year is equal to ONE Million To avoid the risk of electric shock, always ensure that the electrical power is disconnected before inspecting the mechanism.

The Hecules-Lite Tripod should be cleaned and greased at regular intervals, using the following approved materials.

Routine cleaning, all finishes

Cleaning agent:	Soap or mild detergent water.
Action:	Sponge rinse with clean water, wipe dry as necessary

Stubborn stains and discolouration, all finishes

Cleaning agent:	Mild cleaning solutions or domestic service cleaners.
Action:	RInse well with clean water and wipe dry.

Oil, Grease marks, all finishes

Cleaning agent:	Organic solvents (acetone, alcohol, genclene, trichlorethane).
Action:	Clean after with soap and water, rinse well with clean water and wipe dry..

Rust and other Corrosion products, Stainless finishes

Cleaning agent:	Oxalic acid. The cleaning solution should be applied with a swab and allowed to stand for 15 to 20 minutes before being washed away with water. Continue using a domestic surface cleaner to give a final clean.
Action:	Rinse well with clean water (precautions for acid cleaners should be observed).

Minor scratches on painted surfaces

Cleaning agent:	Lightly rub with cutting paste. Rinse area with water and dry. Apply touch-up paint in fine layers.
Action:	Allow 2 weeks to harden. Blend into surrounding paint work, using fine cutting paste.

Deep scratches on painted finishes causing rust

Cleaning agent:	Remove rust with a small sharp knife. Apply rust inhibiting paint. Fill scratch with fine body filtert o just under finished surface. Follow procedure for minor scratches.

Greasing

Cleaning agent:	None
Action:	Carried out by the service technician as part of service maintenance.

6 Taking out of service and disposal

6.1 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.

6.2 Dismantling and disposal

IMPORTANT

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

NOTICE

The door systems can be completely disassembled in reverse order.

The automatic door mainly consists of the following materials:

Aluminum:

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

Steel / iron parts:

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

Glass:

- Door wings and side panels

Various electronic and electromechanical components:

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

Various plastics:

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

Australia
www.recorddoors.com.au

Canada
www.recorddoors.com

China
www.record.net.cn

Deutschland
www.record.de

Denmark
www.record-danmark.dk

España
www.record.es

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Great Britain
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