INSTRUCTIONS FOR USE OF THE TURNSTILE TYPE:

BAR-ONE

(BAR-ONE-ADVANCE-Unipod, BAR-ONE-ADVANCE-Tripod)
(with MLU electronics)

Table of Contents

INSTRUCTIONS FOR USE OF THE TURNSTILE TYPE: 1
(BAR-ONE-ADVANCE-Unipod, BAR-ONE-ADVANCE-Tripod) 1
1. INTRODUCTION 4
2. PURPOSE - USE 4
3. TECHNICAL DESCRIPTION OF THE TURNSTILE 5
3.1 BASIC DESCRIPTION OF THE TURNSTILE 5
3.2 Turnstile parameters 6
3.3 TYPES OF TURNSTILES BASED ON THE DESIGN 8
4. Basic technical parameters 9
4.1 TECHNICAL PARAMETERS OF THE TURNSTILE....9
4.2 TURNSTILE POWER SUPPLY OPTIONS 9
5. General description and basic dimensions 10
5.1 DESCRIPTION OF THE TURNSTILE 10
5.2 DIMENSIONS: BAR-ONE-Unipod 11
5.3 DIMENSIONS: BAR-ONE-Tripod....12
6. Optional accessories....13
7. Installation of the turnstile....14
8. Putting the turnstile into operation....14
– Connecting the superior control system 14
9. Description of the turnstile operation....15
9.1 BAR-ONE-ADVANCE-Unipod....15
All inputs on the MLU10 control electronics must be activated by the GND/IG potential. 15
9.2 BAR-ONE-ADVANCE-TRIPOD 17
All inputs on the MLU10 control electronics must be activated by the GND/IG potential. 17
10. DESCRIPTION OF THE OPERATION ACCESS-LIGHT, Lane Light and Digital Lane Light....20
11. BAR-ONE-ADVANCE (UNIPOD, TRIPOD)....23
11.1 Type of motor unit 23
11.2 TIME-OUT – time for unblocking of the BAR-ONE-Unipod / Tripod 23
11.3 Activation and selection of the acoustic signalization type for the passage 24
11.4 Activation and selection of the acoustic signalization type for the ALARM function....24
11.5 Activation of the EMERGENCY function....24
11.6 Activation of the brake in the home position 25
11.7 Activation of the brake in the open position 25
11.8 Configuration of parameters affecting the turnstile behavior in case of an attempt for unauthorized passage....25
11.9 INL / INR control signals memory 26
11.10 Motor unit sensitivity....26
11.11 Activation of the GO-CALL function 27
11.12 Functions of input and output signals 27

12. BAR-ONE-ADVANCE (UNIPOD, TRIPOD)....28
12.1 Description of operation of sensors for climbing over and crawling under 28
13. Maintenance 29
13.1 MAINTENANCE OF THE TURNSTILE SURFACE 29
13.2 PROPHYLACTIC CHECK....29
14. Troubleshooting....29
15. Product label location 33
16. Device disposal....33
17. Prohibited manipulations....34
18. Certifications....34

1. INTRODUCTION

This instruction guide is intended for the operating employees and contains all the necessary information to successfully run an installed and operational turnstile. It is very important that the operator is thoroughly acquainted with this instruction guide prior to the device usage.

The installation of the turnstile, connection to the mains supply or the connection of the electrical control circuits of the turnstile are not a subject of this guide.

A Troubleshooting chapter which serves to help you analyze malfunctions before contacting the service department at COMINFO a.s. is a part of this guide. Analyzing malfunctions with this chapter will help to quickly eliminate the problem and put the turnstile into operation.

The Instructions employ the following categories of safety instructions:

DANGER!
Mechanical danger. Omission of these instructions may cause personal injuries or device damage.

WARNING!
Important information or procedure.

NOTICE!
Information or procedure recommending how to use the device or its equipment optimally and thus prolong its lifetime, prevent potential damage and optimize work in relation to the safety standards.

2. PURPOSE - USE

The **BAR-ONE-ADVANCE** type turnstiles are devices that enable to control the passage of persons and to separate areas with free movement from areas accessible only to persons with defined access rights. In general, they are used to control the movement of persons in various facilities such as:

- Industrial businesses
- State offices
- Schools
- Transport systems
- Airports
- Sports and entertainment centres
- Administration buildings and complexes
- Chemical industries
- Power plants

IT IS THE OPERATOR'S OBLIGATION TO ENSURE THAT PERSONS WHO WILL BE USING THIS TURNSTILE ARE WELL ACQUAINTED AND EDUCATED ABOUT USAGE. THE CORRECT USE OF THESE DEVICES IS DESCRIBED IN THIS MANUAL.

This device may be used by children aged 8 years and older and persons with reduced physical, sensory or mental abilities or lack of experience and knowledge, provided they are under supervision or have been instructed in the safe use of the device and understand the potential dangers. Children must not play with the device. Cleaning and maintenance carried out by the user must not be carried out by unsupervised children. When a person under 8 years of age passes through the turnstile, it is necessary to be accompanied by a person over 18 years of age to ensure safe passage.

3. TECHNICAL DESCRIPTION OF THE TURNSTILE

3.1 BASIC DESCRIPTION OF THE TURNS

The motorized turnstile BAR-ONE consists of a rotary gate equipped with one or three bar arms and a cabinet with motor drive unit and other standard or optional turnstile accessories.

The turnstile is an electromechanical device, its essential part is a compact motor drive unit consisting of an MDD 168 motor with its own control electronics inside. The impact force of the bar arm on an obstacle is significantly lower compared to conventional drive units with gearboxes, due to the patented technology of the MDD motor.

Turnstile BAR-ONE-ADVANCE is supplied in two designs, based on the type of the rotary gate:

1. BAR-ONE-ADVANCE-Unipod
2. BAR-ONE-ADVANCE-Tripod

Based on the turnstile location:

1. Indoor
2. Outdoor

During maintenance or when replacing parts, the turnstile must be disconnected from the power supply.

All service works may be only carried out by a COMINFO service department employee or worker, who possess the certificate of installation schooling from the COMINFO Company.

Unprofessional manipulation can lead to damaging the turnstile or endangering people.

3.2 Turnstile parameters

ADVANCE			
Basic parameters	Intended environment:	Indoor	Outdoor
	EMERGENCY (emergency state):	✓	✓
	Configurable control electronics:	✓	✓
	Passage memory 1):	✓	✓
	Counting of realized passages:	✓	✓
	Permanent blocking in one direction:	✓	✓
	Free passage in the defined direction:	✓	✓
	Go-Call 2):	✓	✓
Optional accessories 3)	Adjustable holder for the identification system sensor:	✓	✓
	Touch Panel:	✓	✓
	Easy Touch:	✓	✓
	TCONF application:	✓	✓
	TMON application:	✓	✓
	Access Light:	✓	✗
	Line Light Wall:	✓	✗
	Digital Lane Light:	✓	✗
	Sensor for climbing over:	✓	✓
	Sensor for crawling under:	✓	✓

1) This function allows receiving multiple input signals for releasing the turnstile. The function is used to increase turnstile passability or to release the passage of multiple persons with a single authorized card. Signals can be received immediately after each other or during a passage.

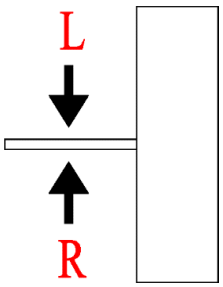
2) Angle of the rotation which indicates possibility of passing through the gate.

3) For description, please see chapter *Optional Accessories*.

The turnstile is controlled by a separate configurable control electronics which blocks or releases the rotary gate depending on the input control signals. After receiving the EMERGENCY signal, the rotary gate is turned to the free passage position (this doesn't apply to the BAR-ONE-Tripod turnstile). The electronics output signals provide information on the operating states and the passage of persons for evaluation by the superior system and allows you to monitor the functional states of the turnstile via PC. The control of the turnstile is enabled by all control systems supplied by Cominfo.

Signal	Signal description
ON/OFF	Turnstile activation / deactivation control signal
INL	Control signal for releasing the turnstile in the **L** direction
INR	Control signal for releasing the turnstile in the **R** direction
EMERGENCY	Control signal for releasing the turnstile both ways
BUSY	Output signal informing the superior system that the turnstile is in operation
ROT L	Output signal informing the superior system that passage has been realized in the **L** direction
ROT R	Output signal informing the superior system that passage has been realized in the **R** direction
ALARM	Output signal informing the superior system about an attempt for unauthorized passage

Description of marking the turnstile passage direction:



In the **ADVANCED** version all signals are configurable **NO/NC**.

The control electronics of the ADVANCED turnstile version enables different parameters to be set according to the customer requirements. This setting may be only carried out by a COMINFO service department employee or worker, who possess the certificate of installation schooling from the COMINFO Company.

Any interference with the control electronics is prohibited. Unprofessional manipulation can lead to damaging or even destroying the turnstile and endangering people.

3.3 TYPES OF TURNSTILES BASED ON THE DESIGN

The turnstile is supplied in four designs depending on the type of the rotary gate:

1) Description of the **EMERGENCY** function for individual turnstile designs - see the chapter *Description of the turnstile operation*.

Turnstile design	Turnstile image	Description of the basic function of the turnstile	Function	
			EMERGENCY 1)	Go-Call 2)
BAR-ONE-Unipod		The rotary gate has a single bar arm. For a single person passage the gate turns by 360°.	✓	✓
BAR-ONE-Tripod		The rotary gate has three bar arms. For a single person passage the gate turns by 120°.	✓	✓

4. Basic technical parameters

4.1 TECHNICAL PARAMETERS OF THE TURNSTILE

- Standard range of operating temperatures: **-25°C… +50°C**
- Range of storage temperatures: **0°C… +50°C**
- Maximum relative humidity: **80%** (non-aggressive environment)
- MCBF: **15 000 000** cycles (Mean Cycles Between Failures)
- The number of turnstile passages per minute depends on the mode of operation and the method of identification of persons passing through:
  Unipod: 30 to 60 persons per minute for one Tripod
  passage gate: 15 to 30 persons per minute for one passage gate
- The level of sound pressure generated by the device shall not exceed **70 dB** (A).
- Materials the turnstile is made from:
  (stainless-steel materials are standardly of a brush type, AISI 304)
  - Inner steel parts are galvanized or blackened
  - External covers: 0.8mm and 1.5mm stainless-steel sheet
  - Bar arms of the rotary gate: stainless-steel tube ø40mm
  - The edge part of the lid: Glass or plastic

4.2 *TURNSTILE POWER SUPPLY OPTIONS*

The required turnstile input power supply must be defined in the turnstile order, including the required optional accessories.

Turnstile input voltage:	**13.8VDC [2])**	**24VAC [2])**	**230VAC [3])**
Supercapacitors [1]):	✗	✓	✓
Backup accumulator [4]):	✓	✓	✗

[1]) For description, please see chapter *Optional Accessories*.

[2]) Powered by an external backup source that meets the SELV power supply network requirements.

[3]) **The operator shall ensure that the supply line is equipped with a safety device to disconnect all poles (circuit breaker, residual-current protective device). The choice of the circuit breaker value must comply with the circuit selectivity. Recommended residual-current protective device is for example HAGER CDA 216D, 16A/I$_{\Delta}$N=0.03A. This version is a switching power supply RPS-200-12C.**

[4]) Backup accumulator located in external power supply.

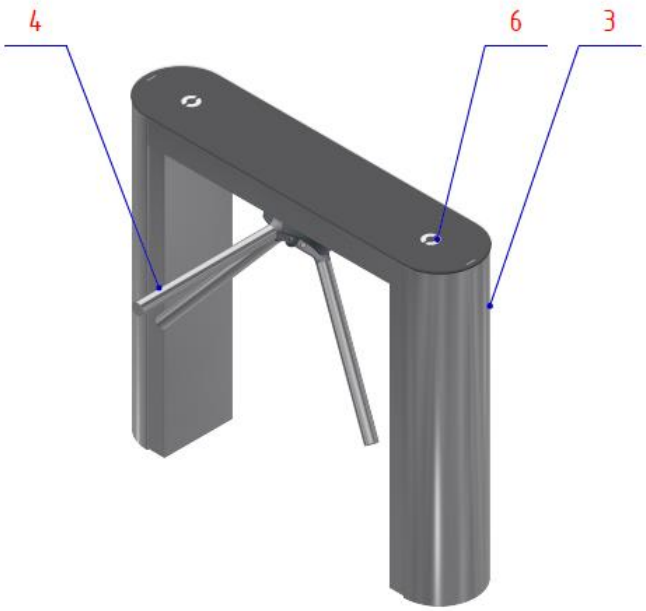
The input power of the turnstile depends on the mode of operation and optional accessories used:

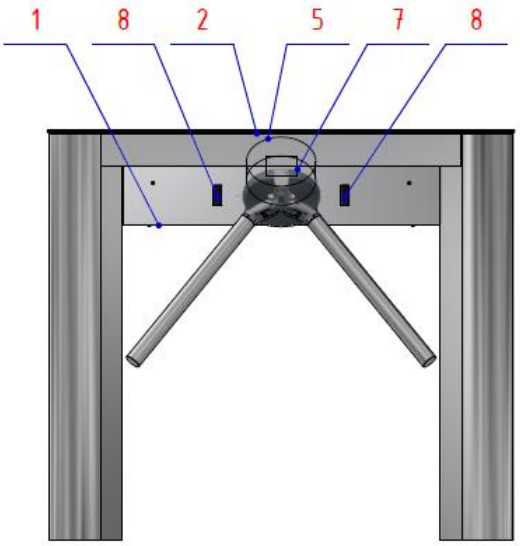
- 1.5W minimum input power in standby (idle) mode without optional accessories
- 250W maximum input power including the optional accessories

5. General description and basic dimensions

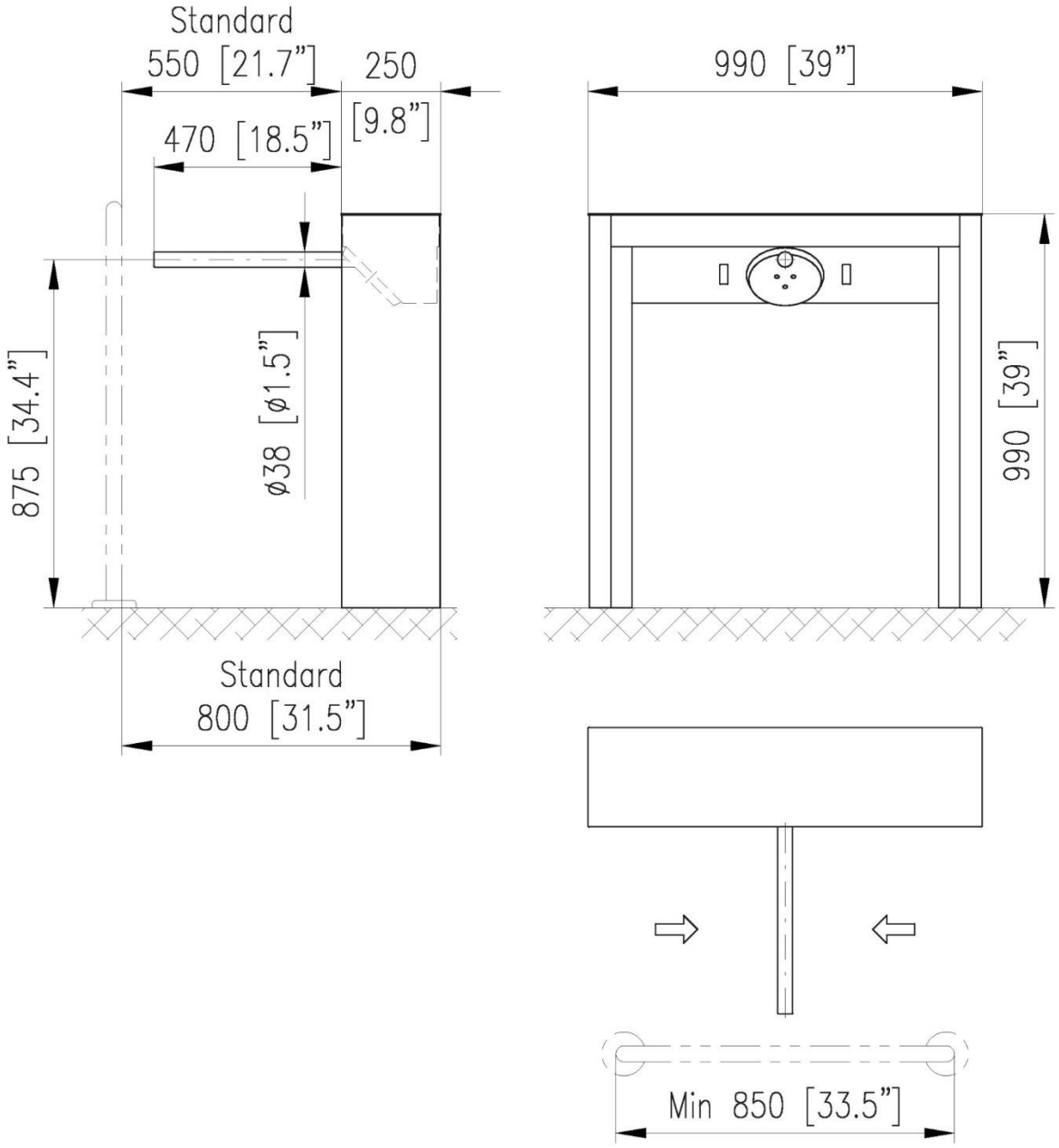
5.1 *DESCRIPTION OF THE TURNSTILE*

1. Turnstile cabinet
2. Upper lid of the turnstile
3. Front covers of the turnstile
4. Rotary gate
5. Motor MDD 168
6. Top signaling LED display (Access Light),
   (it may also contain identification system sensor)
7. Product label location (inside the turnstile)
8. Sensor for climbing over / crawling under (2x)

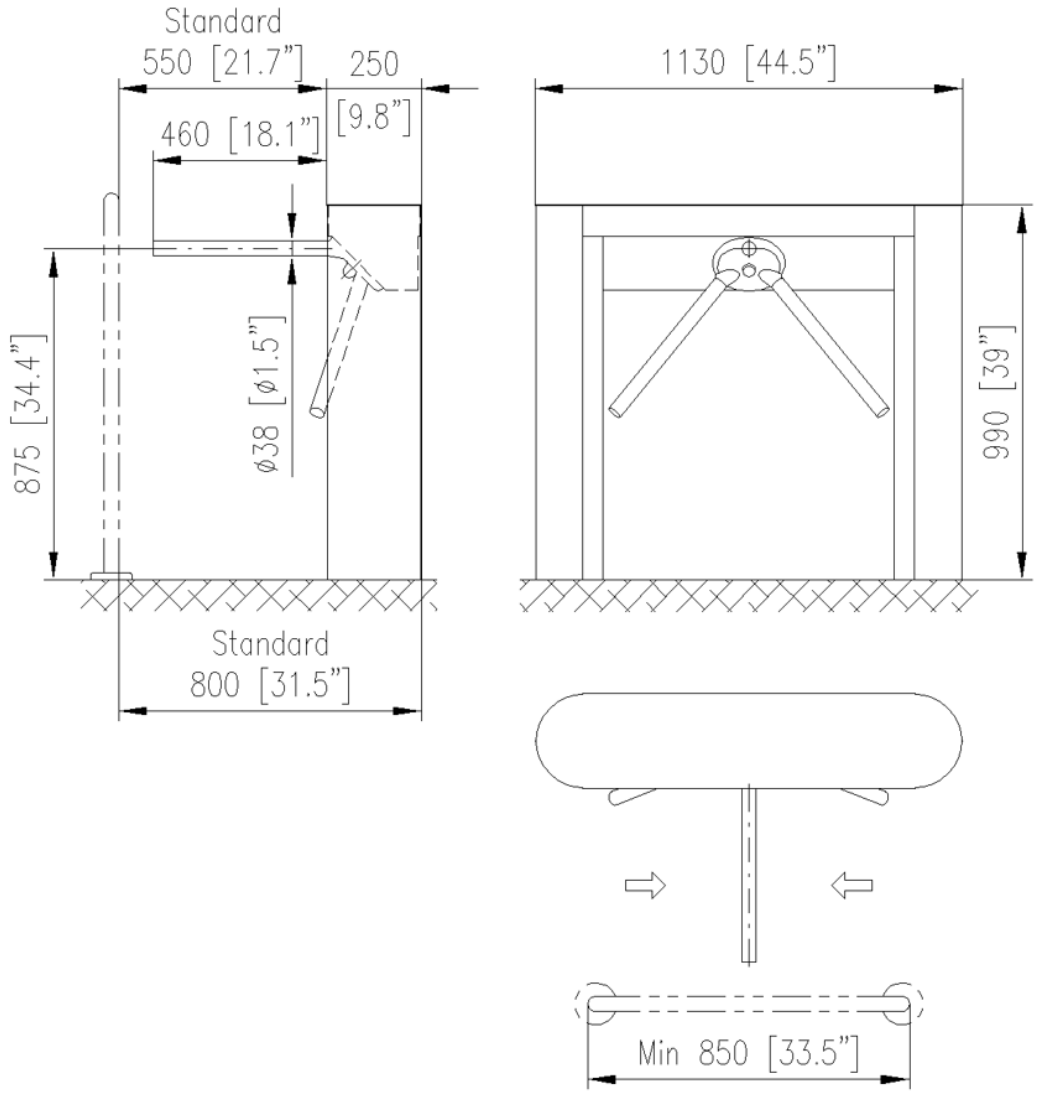




5.2 *DIMENSIONS: BAR-ONE-Unipod*



5.3 *DIMENSIONS: BAR-ONE-Tripod*



6. Optional accessories

Integration of optional accessories depends the design of turnstile. Before ordering the turnstile, please contact the manufacturer who will offer you the optimal solution.

- **Access Light** 1.2) (Top signaling LED display):
  Serves for signaling the location for use of the contactless cards
  Displays information on the turnstile passage mode in the given direction.

- **LLW**, outdoor design, from above or from the front (face) of the turnstile

- **Digital Lane Light** 1.2) (Front status LED display):
  Information on the given turnstile state:
  On / Off / Blocked / EMERGENCY

- **Adjustable holder for the identification system sensor:**
  Located directly under the top glass or plastic plate or under the Access Light.

- **Sensors for climbing over and crawling under the turnstile:**
  These sensors detect a person who crawls under or climbs over the bar arm of the turnstile.

- **Supercapacitors:**
  Supercapacitors ensure that the turnstile goes into the EMERGENCY state during a power failure.

- **Touch Panel:**
  - Remote cable control and display of statuses of three to four turnstiles from one control panel
  - Activation of the following functions:
  Passage / Permanent Passage / Blocking / On / Off / EMERGENCY

- **Easy Touch:**
  - Remote cable control and display of statuses of any number of turnstiles from one control panel
  - Activation of the following functions:
  Passage / Permanent Passage / Blocking / On / Off / EMERGENCY

- **Identification systems:**
  Any type of identification terminal with relay / OC outputs can be connected to the turnstiles for the purpose of identification of a passing person.

- **Card collector** 1):
  A separate Ø168mm post with integrated visitor card collector.

- **TCONF:**
  Configuration SW for setting the parameters and diagnostics of the turnstile – see manual: *Instructions for the TCONF application*

- **TMON:**
  SW application for controlling and monitoring of the turnstile's activity.
  - see manual: *Instructions for the TMON application*

- **Anchoring bases:**
  For anchoring into interlocking paving or sandwich floor.

- **Guidance barriers:**
  For correct function of the BAR type turnstile, it is desirable to add guidance barriers with minimal length of 850mm or position the turnstile near a suitable object (e.g. reception desk).

1) Only for **INDOOR** version

2) In course of LED diodes lifespan in lighting devices, slight changes in colour shade of individual LEDs may occur. This is a standard feature of LEDs and therefore cannot be considered a defect.

7. Installation of the turnstile

The turnstile may be only installed by a COMINFO service department employee or worker, who possess the certificate of installation schooling from the COMINFO Company.

Connection to the mains power supply may only be performed by an authorized person with the appropriate qualifications.

8. Putting the turnstile into operation – Connecting the superior control system

Turnstile can only be put into operation by a COMINFO service department employee or worker, who possess the certificate of installation schooling from the COMINFO Company in cooperation with the superior system supplier.

If the above principle is not observed, the turnstile may behave incorrectly. The manufacturer is not responsible for any damages or personal injury in the event of any incident.

9. Description of the turnstile operation

9.1 BAR-ONE-ADVANCE-Unipod

All inputs on the MLU10 control electronics must be activated by the GND/IG potential.

The procedure after turning on the power supply:

The gate of the turnstile without voltage is usually in vertical position. After turning on the power voltage, the gate moves slowly to its home position and locks.

Description of operation of the turnstile deactivated by the ON/OFF signal.

If the control signal ON/OFF is deactivated, the gate is locked in the home position. The INL/INR opening function is deactivated, the EMERGENCY function is enabled.

Description of operation of the turnstile activated by the ON/OFF signal:

If the control signal ON/OFF is activated, the gate is locked in the home position. The INL/INR opening and the EMERGENCY functions are enabled.

Description of operation during a single passage:

After receiving the INL/INR signal the gate deflects in the passage direction - GO-CALL function. From this moment, the preset timeout of **6s** for realizing the passage starts to count down. The passage starts by pushing the gate in the passage direction. A person may push the rotary gate with his/her hand or body. During the passage, the gate revolves by **360°** and locks again in the home position.

Description of operation in case of unexecuted passage:

If the passage doesn't happen within **6s** from receiving the INL/INR signal, the gate returns to its home position and locks.

Description of operation in case of very fast or very slow passage:

The rotation speed of the barrier allows comfortable very fast and very slow passage through the turnstile. If the person is passing very slowly or stops during the passage, the gate pushes them with a small force and makes them finish the passage.

Description of operation in case of a permanent release in desired direction:

The permanent release function is called up by permanent activation of the INL or INR control signal. In this case, the gate is not locked in the home position. The passage in the released direction starts by pushing the gate. From the opposite direction the turnstile behaves as if single passage mode with GO-CALL function is active.

For the BAR-ONE-Unipod turnstile, the manufacturer recommends replacing the function of permanently released direction by a button located on the turnstile from the side of the required free passage. Buttons are supplied in standard design or touch design with illumination (green / after activating the passage – white).

Description of operation in case the gate hits an obstacle:

When the gate hits an obstacle during opening of the turnstile, the gate stops and with small force, which does not exceed 30N, it cyclically tries to reach the home position.

Description of operation in case of forcible attempt for unauthorized passage:

The turnstile is locked in the home position.

Forcible attempts to pass through the turnstile may cause deformation of the gate or the turnstile cabinet. The warranty does not cover this type of damage.

Description of operation in case of an attempt for unauthorized passage after an authorized passage:

If another person pushes the gate after an authorized passage, before the gate stabilizes and locks in its home position, the gate will lock immediately after its deflection. The gate will then move to its home position after a fixed time period of **10s**. It is impossible to unblock the turnstile using the INL/INR control signal during this time period.

Description of operation in case of an attempt for unauthorized passage after receiving a signal from opposite direction:

The behavior is identical to the previous point. After the gate deflects in the not-released passage direction, it is immediately locked for **10s**.

Description of operation in case of an attempt for unauthorized passage while the permanent release function is active:

The behavior is identical to the previous point. After the gate deflects in the not-released passage direction, it is immediately locked for **10s**.

Description of operation in case of activation of the EMERGENCY function:

When the EMERGENCY signal is activated, the gate is tilted down by **180°**. The gate is not locked in this position and can be moved freely.

Description of operation in case of power supply loss:

- If the power supply is lost during the gate movement, the gate is tilted to the vertical position with its own weight.
- If the gate is in its home position, its brakes are released and after pushing, it tilts down to the vertical position.
- If the turnstile is equipped with supercapacitors, the gate is tilted down automatically.
- If the turnstile is equipped with a backup power supply, the turnstile remains functional. Operation time depends on the accumulator capacity, optional accessories and number of realized passages.

Full functionality of the turnstile in case of power supply loss may be ensured by using a backup power supply with an accumulator. However, only with the 13.8V external power supply version.

THE TURNSTILE MUST BE EQUIPPED WITH A REGULARLY REVISED POWER SOURCE WITH BACKUP ACCUMULATOR WHEN USED IN CONNECTION WITH THE EPS SYSTEM AND ITS FUNCTION MUST BE REGULARLY TESTED IN ACCORDANCE WITH LOCAL FIRE AND ALARM GUIDELINES.

The backup power supply can be replaced by supercapacitors that ensure reliable passage release in case of EPS signal.

9.2 BAR-ONE-ADVANCE-TRIPOD

All inputs on the MLU10 control electronics must be activated by the GND/IG potential.

The procedure after turning on the power supply:

The gate of the turnstile without voltage can be in any position. After turning on the power voltage, the gate moves to its home position and locks.

Description of operation of the turnstile deactivated by the ON/OFF signal.

If the control signal ON/OFF is deactivated, the gate is locked in the home position. The INL/INR opening function is deactivated, the EMERGENCY function is enabled.

Description of operation of the turnstile activated by the ON/OFF signal:

If the control signal ON/OFF is activated, the gate is locked in the home position. The INL/INR opening and the EMERGENCY functions are enabled.

Description of operation during a single passage:

After receiving the INL/INR signal the gate deflects in the passage direction - GO-CALL function. From this moment, the preset timeout of **6s** for realizing the passage starts to count down. The passage starts by pushing the gate in the passage direction. During the passage, the gate revolves by **120°** and stops again in the home position.

Description of operation in case of unexecuted passage:

If the passage doesn't happen within **6s** from receiving the INL/INR signal, the gate returns to its home position and locks.

Description of operation in case of very fast or very slow passage:

The gate rotates at a fixed speed equivalent to the regular passage speed. Due to technical solution of the drive unit, it is very easy to pass at practically unlimited speed by applying a slight pressure on the gate and increasing the speed. On the other hand, if the person is passing very slowly or stops during the passage, the gate pushes them with a small force and makes them finish the passage.

Description of operation in case of a permanent release in desired direction:

The permanent release function is called up by permanent activation of the INL or INR control signal. In this case, the gate is not locked in the home position. The passage in the released direction starts by pushing the gate. From the opposite direction the turnstile behaves as if single passage mode with GO-CALL function is active.

Description of operation in case the gate hits an obstacle:

When the gate hits an obstacle during opening of the turnstile, the gate stops and with small force, which does not exceed 30N, it cyclically tries to reach the home position.

Description of operation in case of an attempt to change direction during the passage:

Upon a forceful attempt to change direction of rotation during the passage (an attempt of passing person to return or an attempt to push through by the person from opposite direction), the gate will lock after slight reverse rotation and after several seconds it tries to reach the home position in the direction of the passage.

Description of operation in case of forcible attempt for unauthorized passage:

The turnstile is locked in the home position.

Forcible attempts to pass through the turnstile may cause deformation of the gate or the turnstile cabinet. The warranty does not cover this type of damage.

Description of operation in case of an attempt for unauthorized passage after an authorized passage:

If another person pushes the gate after an authorized passage, before the gate stabilizes and locks in its home position, the gate will lock immediately after its deflection. The gate will then move to its home position after a fixed time period of **10s**. It is impossible to unblock the turnstile using the INL or INR control signal (depending on the direction of pushing) during this time period.

Description of operation in case of an attempt for unauthorized passage after receiving a signal from opposite direction:

The behavior is identical to the previous point. After the gate deflects in the not-released passage direction, it is immediately locked for **10s**.

Description of operation in case of an attempt for unauthorized passage while the permanent release function is active:

The behavior is identical to the previous point. After the gate deflects in the not-released passage direction, it is immediately locked for **10s**.

Description of operation in case of activation of the EMERGENCY function:

When the EMERGENCY signal is activated, the turnstile is unblocked and the gate can be freely moved and passed through in both directions.

Description of operation in case of power supply loss:

- The turnstile brakes are released and the gate can be freely moved in both directions.
- If the turnstile is equipped with a backup power supply, the turnstile remains functional. Operation time depends on the accumulator capacity, optional accessories and number of realized passages.

Full functionality of the turnstile in case of power supply loss may be ensured by using a backup power supply with an accumulator. However, only with the 13.8V external power supply version.

THE TURNSTILE MUST BE EQUIPPED WITH A REGULARLY REVISED POWER SOURCE WITH BACKUP ACCUMULATOR WHEN USED IN CONNECTION WITH THE EPS SYSTEM AND ITS FUNCTION MUST BE REGULARLY TESTED IN ACCORDANCE WITH LOCAL FIRE AND ALARM GUIDELINES.

10. DESCRIPTION OF THE OPERATION ACCESS-LIGHT, Lane Light and Digital Lane Light

Description of operation of the turnstile deactivated by the ON/OFF signal

Optional accessories	entry side	exit side
Access Light	red backlight	red backlight
Lane Light Wall / Digital Lane Light	red cross	red cross

Description of operation of the turnstile activated by the ON/OFF signal

Optional accessories	entry side	exit side
Access Light	white backlight	white backlight
Lane Light Wall / Digital Lane Light	green arrow	green arrow

Description of operation during a single passage

Optional accessories	entry side	exit side
Access Light	green backlight	red backlight
Lane Light Wall / Digital Lane Light	green arrow	green arrow

Description of operation in case of a permanent release in desired direction

Default state of signalization before initiating the passage in permanently released direction:

Optional accessories	permanently released passage side	the other side
Access Light	green backlight	white backlight
Lane Light Wall / Digital Lane Light	green arrow	green arrow

The state of signalization during the passage in permanently released direction:

Optional accessories	permanently released passage side	the other side
Access Light	green backlight	red backlight
Lane Light Wall / Digital Lane Light	green arrow	green arrow

Description of operation in case of activation the permanently blocked function in one direction of the passage

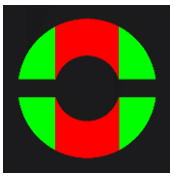
Permanently blocked direction is activated by the Touch Panel, Easy Touch panel or the TMON program. No control signals can be loaded from the blocked direction.

Optional accessories	permanently blocked passage side	the other side
Access Light	red backlight	white backlight
Lane Light Wall / Digital Lane Light	red cross	green arrow

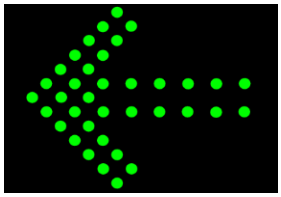
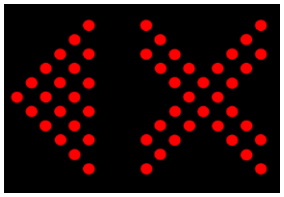
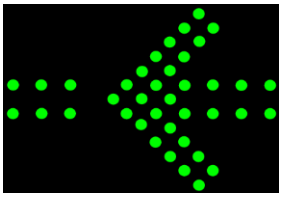
Description of operation in case of activation of the EMERGENCY function

Optional accessories	permanently blocked passage side	the other side
Access Light	flashing: red / white / green	
Lane Light Wall	green arrow (animation)	
Digital Lane Light	green arrow (animation)	

Displayed Access Light symbols

White	Red backlight	Green backlight	EMERGENCY flashing: red / green
			

Displayed Digital Lane Light symbols:

Green arrow	Red cross	EMERGENCY Green arrow (animation)
		

11. BAR-ONE-ADVANCE (UNIPOD, TRIPOD)

It is possible to adjust the behavior of the turnstile to the customer's requirements during the installation of BAR ONE in ADVANCED version, by setting the configuration using a computer. This setting may be only carried out by a COMINFO service department employee or worker, who possess the certificate of installation schooling from the COMINFO Company.

List of adjustable parameters for the ADVANCED version turnstiles:

1. Type of motor unit
2. Time-out – time for unblocking of the BAR-ONE-Unipod and BAR-ONE-Tripod turnstile
3. Activation and selection of the acoustic signalization type for the passage
4. Activation and selection of the acoustic signalization type for the ALARM function
5. Activation of the EMERGENCY function
6. Activation of the brake in the home position
7. Configuration of parameters affecting the turnstile behavior in case of an attempt for unauthorized passage
   - Allowed deflection before partial locking in case of an attempt for unauthorized passage
   - Number of attempts before locking in case of an attempt for unauthorized passage
   - Time-out before returning to the home position in case of an attempt for unauthorized passage
   - Blocking Time-out in case of an attempt for unauthorized passage
8. Passage memory
9. Motor unit sensitivity
10. GO-CALL function activation
11. Functions of input and output signals

11.1 Type of motor unit

Parameter name in the TCONF configuration application:
Type of motor unit

- For BAR-ONE turnstiles, the parameter must always be set to **MDD**.

11.2 TIME-OUT – time for unblocking of the BAR-ONE-Unipod / Tripod

Parameter name in the TCONF configuration application:
Timeout of unblocking

The Time-out parameter determines the amount of time the turnstile is unlocked for a passage. It can be set within the range of **1-60s**. The Time-out count down starts when the control signal is received. After the set Time-out has elapsed, the gate will return to its home position.

- Factory setting – **5s**

11.3 Activation and selection of the acoustic signalization type for the passage

Parameter name in the TCONF configuration application:
Type of standard acoustic signalization

The electronics is equipped with a buzzer that emits an acoustic signalization during the passage, which can be activated / deactivated ON/OFF.

11.4 Activation and selection of the acoustic signalization type for the ALARM function

Parameter name in the TCONF configuration application:
Type of warning acoustic signalization

The ADVANCED version turnstile allows to use an acoustic alarm in case of an attempt for unauthorized passage. The setting is identical to the setting of signaling during the passage. As a factory default the buzzer is equipped with a sticking foil which lowers its volume.

- Factory setting – **Continuous tone**

11.5 Activation of the EMERGENCY function

Parameter name in the TCONF configuration application:

The EMERGENCY function can be activated via Touch panel (RS485), Easy Touch (RS485 , eth) or T-MON (RS485, eth).
The EMERGENCY function can be activated by a status signal (EMG1 relay contact) or by a 24VDC voltage (EMG2+, EMG2-, relay contact)

- Factory setting – **ON**

11.6 Activation of the brake in the home position

Parameter name in the TCONF configuration application:
Brakes activation in the basic position

Setting the gate to lock in the home position. Deactivation of the brake is used in case silent operation is required. With the brake deactivated, the turnstile is completely silent, but is less resistant to attempts for unauthorized passages.

- Factory setting – **ON**

11.7 Activation of the brake in the open position

Parameter name in the TCONF configuration application:
Motor brake activation in open position

This parameter is used only for the BAR-ONE-ADVANCE turnstile.

- Factory setting – **ON**

11.8 Configuration of parameters affecting the turnstile behavior in case of an attempt for unauthorized passage

These parameters are only used for BAR-ONE-Unipod and BAR-ONE-Tripod

turnstiles. These parameters affect the turnstile behavior in following cases:

- In case of an attempt to pass from the opposite direction while the permanent passage from the required direction is active
- In case of an attempt to push through the gate which didn't rotate all the way to its home position after previous passage
- In case the person attempts to return during the passage
- In case of an attempt to push through the gate after receiving the control signal from the opposite direction

With factory settings the turnstile behaves as follows:

If the gate is pushed in an unreleased state and turns by **5°**, the gate will lock. After **1s** the gate will return to its home position. In case of permanent pushing on the gate, it will lock for **10s** after three attempts (**15°** angle). After this time has elapsed, the gate will return to its home position. This time can be reset by a control signal. Only with the following signal it is possible to unblock the turnstile and make realize the passage.

Allowed deflection before partial locking in case of an attempt for unauthorized passage

Parameter name in the TCONF configuration application:
Number of motor steps prior blocking when an unauthorized pass is detected

The parameter sets the angle in the range **1-20** by which the gate must be deflected before it locks temporarily.

- Factory setting – **10 steps** (3 steps = 1°)

Number of attempts before locking in case of an attempt for unauthorized passage

Parameter name in the TCONF configuration application:
Number of attempts prior final blocking when an unauthorized pass is detected

This parameter sets the number of steps in range of **1-10** by which the gate must be deflected in case of permanent pushing, before the gate locks for a long-time.

- Factory setting – **15 steps** (3 steps = 1°)

Time-out before returning to the home position in case of an attempt for unauthorized passage

Parameter name in the TCONF configuration application:
Time-out before returning to the home position in case of an attempt for unauthorized passage

This parameter sets the time in range of **1-5s** after which the short time locked gate returns to its home position.

- Factory setting – **1s**

Blocking Time-out in case of an attempt for unauthorized passage

Parameter name in the TCONF configuration application:
Blocking Time-out in case of an attempt for unauthorized passage

This parameter sets the time in range of **1-1000s** after which the long-time locked gate returns to its home position.

- Factory setting – **10s**

11.9 INL / INR control signals memory

Parameter name in the TCONF configuration application:
Passage memory

This parameter sets the option of loading more control signals which in connection with a superior system optimizes the turnstile passability.

- **Turned off:** It is possible to load only one control signal. Reception of another control signal is blocked during the passage.

- **Single passage:** One signal may be loaded into memory in immediate succession or during the passage from any direction. After finishing the passage, the turnstile is released for another passage without locking.

- **Unlimited memory:** It is possible to load unlimited number of control signals in immediate succession or during passage. If the control signals have been loaded from both directions, the priority is given to the direction from which the first signal has been loaded. Only after all persons from this direction finish their passages, the person from the opposite direction may pass.

  This setting requires a superior system which allows fast data evaluation. Unlimited passage memory can also be used for passage of multiple persons in succession while releasing the turnstile by a remote control.

- Factory setting – **Unlimited memory**

11.10 Motor unit sensitivity

Parameter name in the TCONF configuration application:
Motor unit sensitivity

This parameter sets the angle in range of **0-100**, by which the gate must be deflected before the gate starts to automatically rotate.

- Factory setting – **7 steps** (3 steps = 1°)

11.11 Activation of the GO-CALL function

Parameter name in the TCONF configuration application:
Go-call

This parameter sets the angle by which the gate rotates if the GO-CALL function is activated, in range of **0-50°**. The GO-CALL function is off if set to **0°**.

- Factory setting – **10°**

11.12 Functions of input and output signals

Setting of control inputs

Parameter name in the TCONF configuration application:
IN L input
IN R input
ON / OFF input
EMERGENCY input

- This parameter sets the level for activation of INL, INR, ON/OFF, EMERGENCY inputs.

Normally open
Input is activated by connecting the GND/IG level.

Normally closed
Input is activated by disconnecting the GND/IG level.

Factory setting – All input signals are in the **Normally open** state

Setting of relay outputs

Parameter name in the TCONF configuration application:
ROT L (relay 1)
ROT R (relay 2)
BUSY (relay 3)
ALARM (relay 4)

- This parameter sets the NO (normally open) or NC (normally closed) output type.

Turned off
Output is inactive

Normally open
When the output is activated, the relay contact is switched

Normally closed
When the output is activated, the relay contact is opened

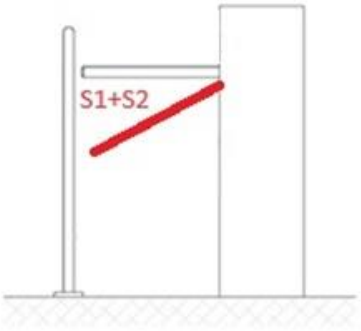
Factory setting – All output signals are in the **Normally open** state

12. BAR-ONE-ADVANCE (UNIPOD, TRIPOD)

12.1 Description of operation of sensors for climbing over and crawling under

Sensors for climbing over and crawling under can only be installed in the ADVANCED version of the turnstile.

These sensors detect a person who crawls under or climbs over the bar arm of the turnstile. There are 2 sensors installed in the turnstile (both serve the function of climb over / crawl under). During the installation the sensors can be adjusted so that they also detect persons climbing over the guidance barrier edging the turnstile corridor. The barrier must be designed so that its construction doesn't obstruct the path of the adjusted sensor ray. The sensors switching distance adjustment is done through the potentiometer located on the sensor.



S1 + S2 – Sensors for climbing over and crawling under the turnstile

Description of sensors operation after loading the control signal:

After loading the control signal (from any direction) in the climb over / crawl under mode, the sensors are deactivated until the passage is finished or the Time-out has expired. When they are in automatic start mode, they are activated after reading the control signal.

Description of operation of the sensor for climbing over and crawling under:

Person crawling under the turnstile is detected by the sensors **S1 and S2**. If the sensor is obscured, the adjustable acoustic alarm and an alarm output which can be used to signal the reception, are immediately activated. After the sensor is cleared, the alarm deactivates after a fixed time of **5s**. During this time the turnstile may be unblocked by the INL/INR control signal which will deactivate the alarm immediately.

To ensure maximal reliability of unauthorized passage detection, the manufacturer recommends mounting both sensors.

13.Maintenance

13.1 MAINTENANCE OF THE TURNSTILE SURFACE

- In terms of comfort and perfect look, it is necessary to maintain general cleanliness of the whole device with cleaning agents intended for this purpose.
- It is necessary to treat the glass parts of the turnstile with general window cleaning products.
- Stainless surfaces should be treated with cleaning agents intended for this purpose. These products are recommended by the manufacturer:
  - RAPELLE - GLASS & STAINLESS-STEEL SEAL & PROTECT
  - KIM-TEC – EDELSTAHLREINIGERSPRAY (850001)
  - WÜRTH – EDELSTAHLPFLEGESPRAY (0893121)
  - WÜRTH – EDELSTAHLREINIGUNGSTUCH (089312130)
- The apertures of the optical sensors must be regularly cleaned with detergents intended for acrylic sheets. When using different products, there is a danger of scratching. The manufacturer recommends foam cleaning sprays for motorcycle helmet visors such as:
  - SHELL ADVANCE MOTORCYCLE HELMET & VISOR CLEANER SPRAY AEROSOL

No solvents, lyes and caustics must be used to clean any dirt. The turnstile must not come into contact with detergents containing chlorine.

The turnstile cannot be cleaned with pressure cleaners (pressure water)

13.2 PROPHYLACTIC CHECK

It is necessary to perform a prophylactic check of the turnstile once a year to maintain the warranty, it consists of following procedures:

- Complete diagnostics of all electronic systems
- Inspection of the wiring and connection of all devices
- Inspection and tightening of all bolted connections
- Inspection and adjustment of the drive mechanisms
- Cleaning the interior of the turnstile
- Testing all the turnstile functions

Prophylactic check can only be done by a COMINFO service department employee or worker, who possess the certificate of installation schooling from the COMINFO Company.

14. Troubleshooting

For quick removal of your turnstile's malfunction, it is necessary to fill out the *Claim Report Form* **when contacting the Service Department of the COMINFO Company. The report should indicate serial number of the turnstile in compliance with the production label, and a description of the malfunction. Along with the completed form, send a video which clearly shows the occurring malfunction.** *The CLAIM REPORT FORM* **can be found at the end of these Instructions.**

Malfunction causes sorted by probability they can occur:

MALFUNCTION	CAUSE	REMEDY	Solver (difficulty level)
Turnstile gate is not in the home position and can be freely moved. Turnstile doesn't respond to the identification system.	Turnstile without supply voltage. Tripped circuit breaker on the input switchboard due to overload during simultaneous operation of multiple devices.	Check the superior circuit breaker. In case of a turnstile with power supply of 24 VDC or 230 VAC, check also the circuit breaker located in the turnstile. Reset the turnstile by turning the circuit breaker off and on.	**Customer**
Turnstile gate is in the home position. Turnstile doesn't respond to the superior identification system.	Malfunction of the superior identification system.	Check the circuit breaker of the superior system. Reset the system by turning the circuit breaker off and on. In case this procedure doesn't help, contact the supplier of the superior system who will check if the turnstile receives control signals.	**Customer** / Supplier of the superior system
Turnstile gate is in the home position. Turnstile doesn't respond to the control signals verified by the supplier of the superior system.	Turnstile processor program in non-standard state after short-term power loss or power voltage fluctuation.	Reset the turnstile by turning the power supply off and on.	**Customer** / Supplier of the superior system
Turnstile may be passed by several persons based on identification of one person.	Superior system error which sends too long control signals.	Supplier of the superior system must set the system so the signal doesn't exceed **1s**.	**Customer** / Supplier of the superior system
The turnstile behaves incorrectly after reading the control signal. The barrier turns immediately without the GO.CALL function or rotates against the person.	Malfunction in the setting of the superior system that sends additional control signals during the duration of the BUSY signal.	The supplier of the superior system must configure the system so that the control system does not send another signal during the duration of the BUSY signal.	**Customer** / Supplier of the superior system
The turnstile gate doesn't reach the home position during passage. Grinding noises are coming out of the drive unit.	Malfunctioning drive brake. Brake seized by chips created by frequent attempts for unauthorized passage.	Cleaning and re-adjustment, or replacement of the brake at the COMINFO company.	Repair by the manufacturer COMINFO
Turnstile gate can be freely rotated after activating the control signal.	Motor malfunction.	Replacement of the drive unit or its repair at the COMINFO company.	Repair by the manufacturer COMINFO

In case of a persisting malfunction, it is necessary to fill out the *CLAIM REPORT FORM* and send it to the address of the manufacturer. For quick removal of your malfunction, please describe it thoroughly as per the following example.

EXAMPLE - CLAIM REPORT

Product label information:

Name – type:	*BAR-ONE-Tripod*

Serial number:	*0*	*0*	*0*	*0*	*1*	*2*	*3*	*4*	*5*	*6*

Information on the control electronics (MLU 10):

Serial number:	*5*	*4*	*4*	*0*	*0*	*0*	*4*	*6*	*7*

Your request:

Turnstile can be freely rotated.
We checked the power supply voltage and reset using the circuit breaker.
After turning the power supply off and on, the gate will move but will not reach the
home position.
Control signals were checked by the supplier of the superior system.
In the attachment we send a video recorded during turning the power supply off and on.

Customer:	*Company Ltd*		
Address:	*11 Business Park, London SW12 9RT, United Kingdom*		
Contact person:	*Jack Smith*	Telephone:	*4420 7777 7777*
E-mail:	*jack@company.com*	Date:	*31. 1. 2022*

CLAIM REPORT FORM

Product label information:

Name – type:

Serial number:

Information on the control electronics (MLU 10):

Serial number:

Your request:

Customer:

Address:

Contact person:

Telephone:

E-mail:

Date:

15. Product label location

The product label is always placed in the interior side of the turnstile cabinet. Its placement is shown in the chapter.
General description and basic dimensions.

Access to the product label:

After unlocking the two locks which are located on the sides of the top lid, pull the lid upwards. Put the dismounted lid on a predetermined place.

16. Device disposal

Entrust the device disposal to an expert company in compliance with the legislation effective at the time of the device disposal. Materials that are subject to regulations on handling hazardous materials were also used in the course of construction of the device.

Brief list of used materials:

- Steel of the class 11,12,14,17
- light alloys
- safety toughened glass
- tin bronze, copper, silver, zinc, lead
- plastics PA, PE, PVC
- surface finish by galvanization in alkaline bath, blackening, powder spraying
- lubricating greases
- electric devices (motor drive unit and control electronics)

Electric devices (hereinafter referred to as "ED") also contain precious metals in low amounts. Production labels of EDs stated in this Instruction Manual contain, in accordance with the Act No. 185/2001 Coll. as amended, name of the producer and date of the ED launching. The producer (COMINFO a.s.) is registered in the list of manufacturers of electric devices kept by the Ministry of Environment via the Retela collective scheme where the user of any electric device may turn to dispose this electric device.

The turnstile is RoHS compliant. RoHS stands for Restriction of Hazardous Substances and affects the entire electronics industry as well as many electronic products.

17. Prohibited manipulations

1. It is prohibited to anyhow interfere in the control electronics and self-perform a disassembly of the motor drive unit. These activities have to be entrusted exclusively to the technicians of the provider. All service reparations are performed within the warranty and post-warranty service exclusively by service technicians of the COMINFO a.s. company or workers, who possess the certificate of installation schooling from the COMINFO Company. In case of a breach of this condition in the course of the warranty period, the device operator loses the right for warranty service.

2. It is prohibited to use violence when manipulating the gate of the turnstile in locked position in an effort to enter the area with defined access rights.

3. It is prohibited to hang on the turnstile bar arms.

4. Device cannot be cleaned or treated with acids, lyes and other dangerous chemicals.

18. Certifications

The COMINFO a.s. company acquired a type certificate for the BAR motor driven turnstiles from the TÜV SÜD Czech s.r.o. certifying authority.

COMINFO a.s. holds a management system certificate according to the ISO 9001:2000 certification.

It is possible to send CE–Declaration of Conformity on request.

The Declaration can be found also on the following link:
http://www.cominfo-trade.com/cz/produkty/certifikaty-a-pos/

Cominfo, a.s.
Nábřeží 695
760 01 Zlín – Prštné
Czech Republic

Hotline: +420 603 151 222
e-mail: cominfo@cominfo.cz