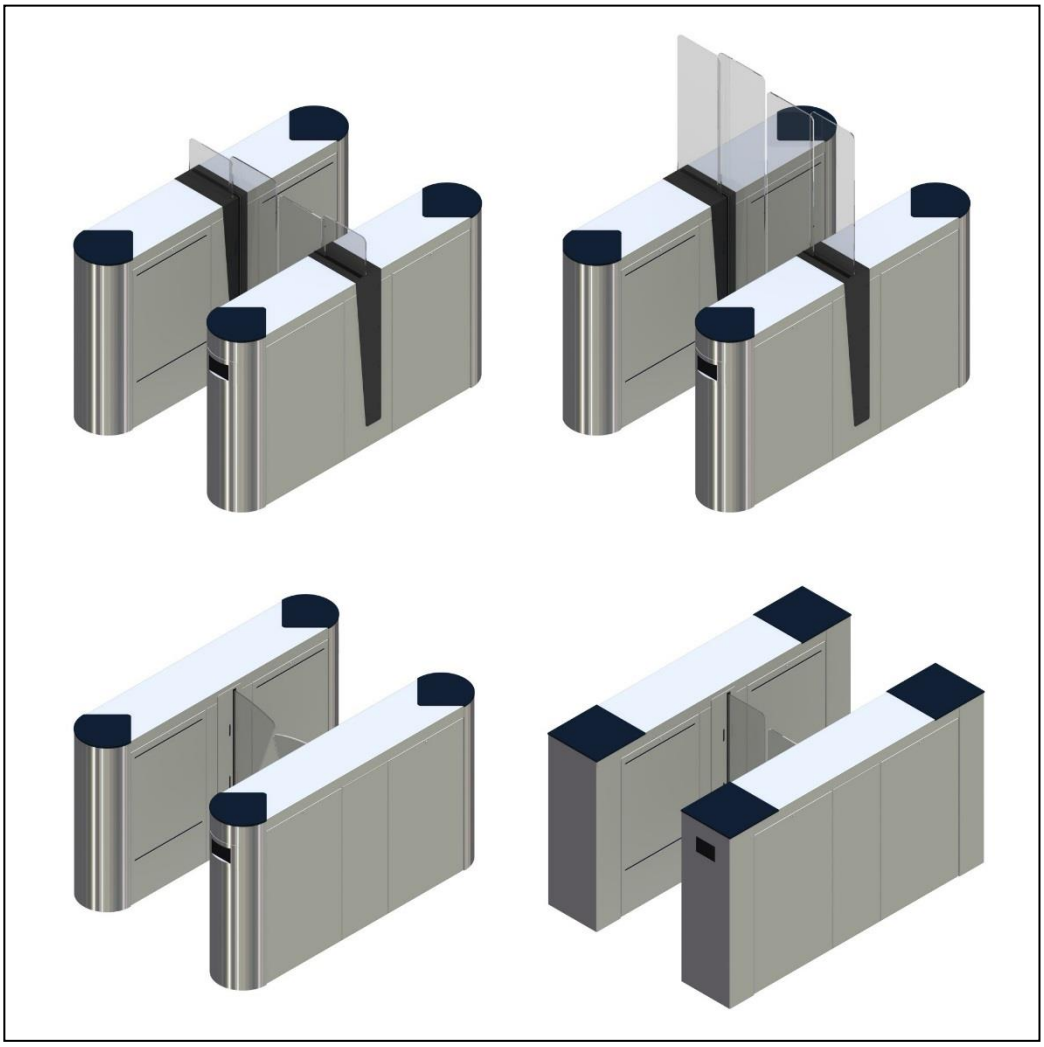


INSTRUCTIONS FOR USE OF THE TURNSTILE TYPE:

EASYGATE

(EASYGATE-LX / LH / FL / FH with electronics MLU5)

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 **EASYGATE-LX/LH/FL/FH** 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

This turnstile is intended for indoor installation.

IT IS THE OPERATOR'S OBLIGATION TO ENSURE THAT PERSONS WHO WILL BE USING THIS TURNSTILE ARE WELL ACQUAINTED AND EDUCATED ABOUT USAGE OF THIS DEVICE ACCORDING TO 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 TURNSTILE

EasyGate-LX/LH/FL/FH, hereinafter referred to as the turnstile, is a device meant for identification and separation of persons at the entrance/exit to/from a secured area using a moving wing. The movement of the wing is linear.

Passage of a person is enabled based on the identification (verification) of the person by the superior system.

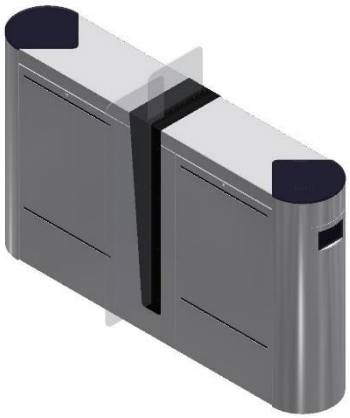
The turnstile can consist of the following components (depending on the configuration):

1. MLU Control Electronics
2. Set of optical IR sensors
3. Electromechanical drive unit
4. Optical and sound signaling elements

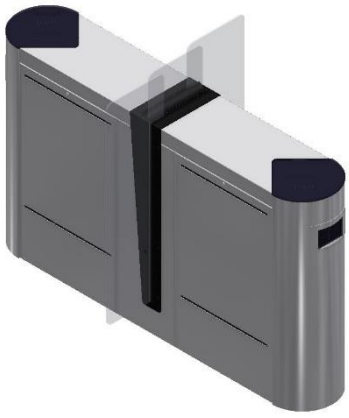
All of the above-mentioned components are located inside the turnstile cabinet, which may be fitted with additional design elements made from various materials.

Individual types of turnstiles are always supplied in two basic versions, SIDE and MIDDLE. The system of turnstile arrangement is always that the outer turnstiles are the SIDE type and in between are the MIDDLE type, this way you can arrange any number of gates. Two SIDE turnstiles are necessary to form one basic gate. Two SIDE and one MIDDLE turnstile are necessary for two passage gates.

SIDE turnstile



MIDDLE turnstile



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. TYPES OF TURNSTILES

Turnstile Example	Turnstile Description	Height of the glass bottom edge from the floor	Height of the glass top edge from the floor
	**EasyGate-LX** Turnstile with rounded front covers. Brush cover standardly made of steel sheet with black powder coating. In case of turnstiles with upper glass height of 940 mm from the floor, the brush cover is standardly made of stainless-steel.	160mm	in the range of 1050 - 1800mm or 940mm.
	**EasyGate-LH** Turnstile with square front covers. Brush cover standardly made of steel sheet with black powder coating. In case of turnstiles with upper glass height of 940 mm from the floor, the brush cover is standardly made of stainless-steel.		
	**EasyGate-FL** Turnstile with rounded front covers. Brush cover standardly made of stainless-steel. The turnstile wing is beveled.		940mm
	**EasyGate-FH** Turnstile with square front covers. Brush cover standardly made of stainless-steel. The turnstile wing is beveled.		

3.3. TYPES OF TURNSTILES ACCORDING TO PASSAGE GATE WIDTH

All types of turnstiles are supplied in two widths: 320 and 500 mm:

NARROW – for passage width of 550mm

WIDE – for passage width of 900mm

In the MIDDLE turnstile of the WIDE type, a drive unit for passage of 550 mm may be installed on one side.

4. BASIC TECHNICAL PARAMETERS

4.1. COMMON TECHNICAL PARAMETERS

- Standard range of operating temperatures: **+10°C… +50°C**
- Range of storage temperatures: **0°C… +50°C**
- Maximum relative humidity: **80%** (non-aggressive environment)
- MCBF: **3 000 000** cycles (number of cycles prior to error)
- Number of passages ranges from **15 to 30 persons per minute** for one passage depending on the mode of operation and method of identification of passing persons
- Number of optical sensors per one passage gate: **40**
- The turnstiles are intended for indoor use.
- 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
  - Top cover: 2mm stainless steel sheet
  - External covers: 0.8mm and 2mm stainless-steel sheet
  - Upper plate for identification system sensor: 10mm toughened glass
  - Glass wing: 8mm toughened glass

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:	**13VDC [2])**	**24VAC [2])**	**230VAC [3])**
Supercapacitors [1]):	✗	✓	✓
Backup accumulator [1]):	✓ [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_{Δ}N=0,03A.**

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

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

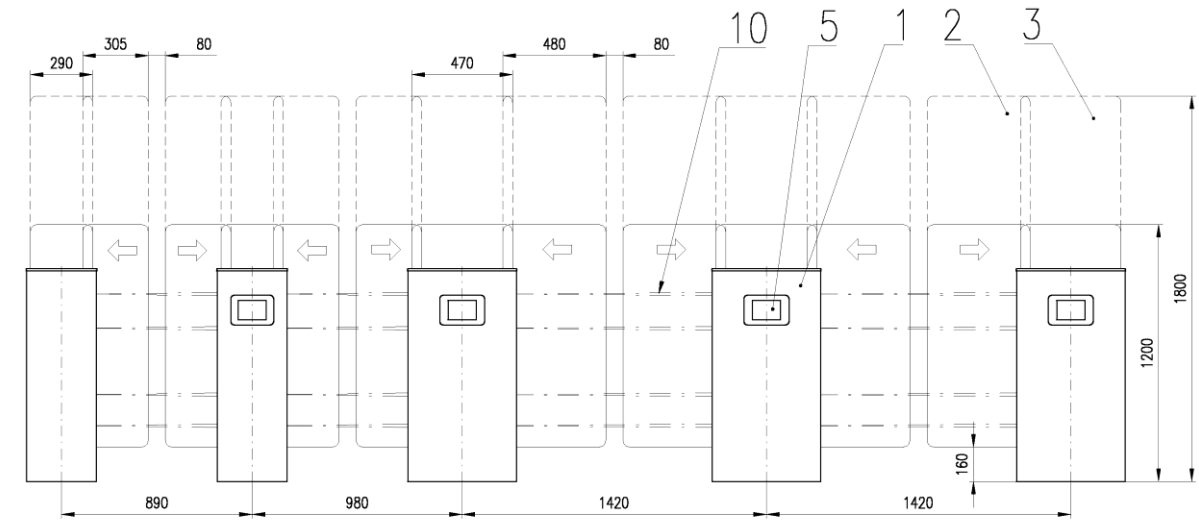
- 3W minimum input power in standby (idle) mode without optional accessories
- 320W maximum input power including all optional accessories

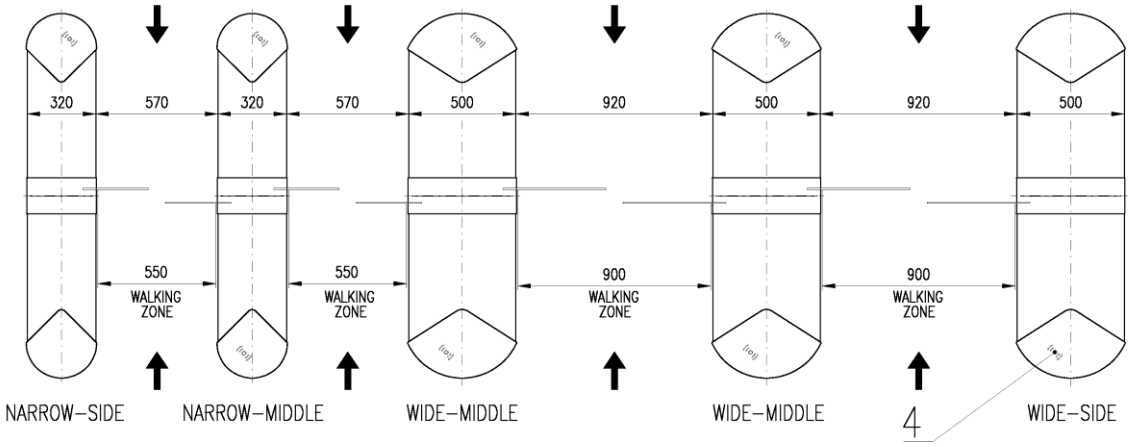
5. GENERAL DESCRIPTION AND BASIC DIMENSIONS

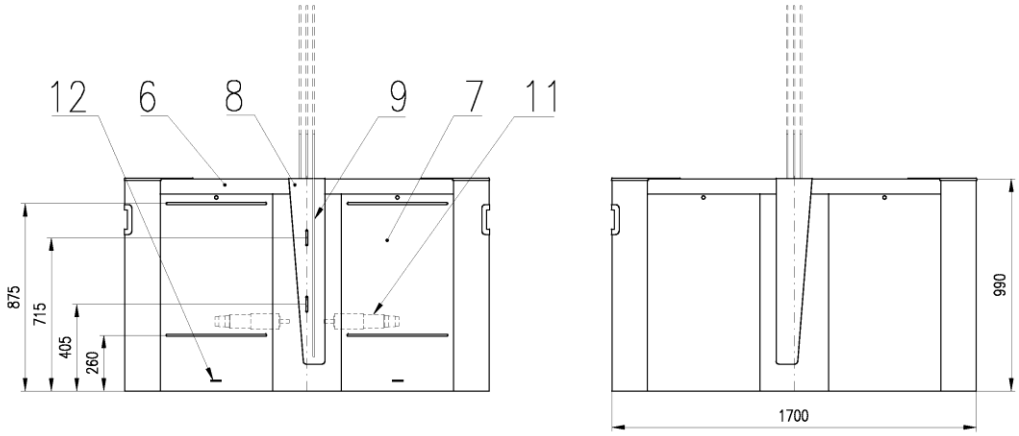
CAPTIONS FOR THE FIGURES:

1. Turnstile cabinet:
2. Movable wing
3. Fixed wing
4. Top signaling LED display (Access Light),
   (it may also contain identification system sensor)
5. Front status LED display (Lane Light)
6. Top cover
7. Side cover
8. Wing travel cover
9. Brushes
10. Optical sensors
11. Motor drive unit with control electronics
12. Product label location (inside the turnstile)

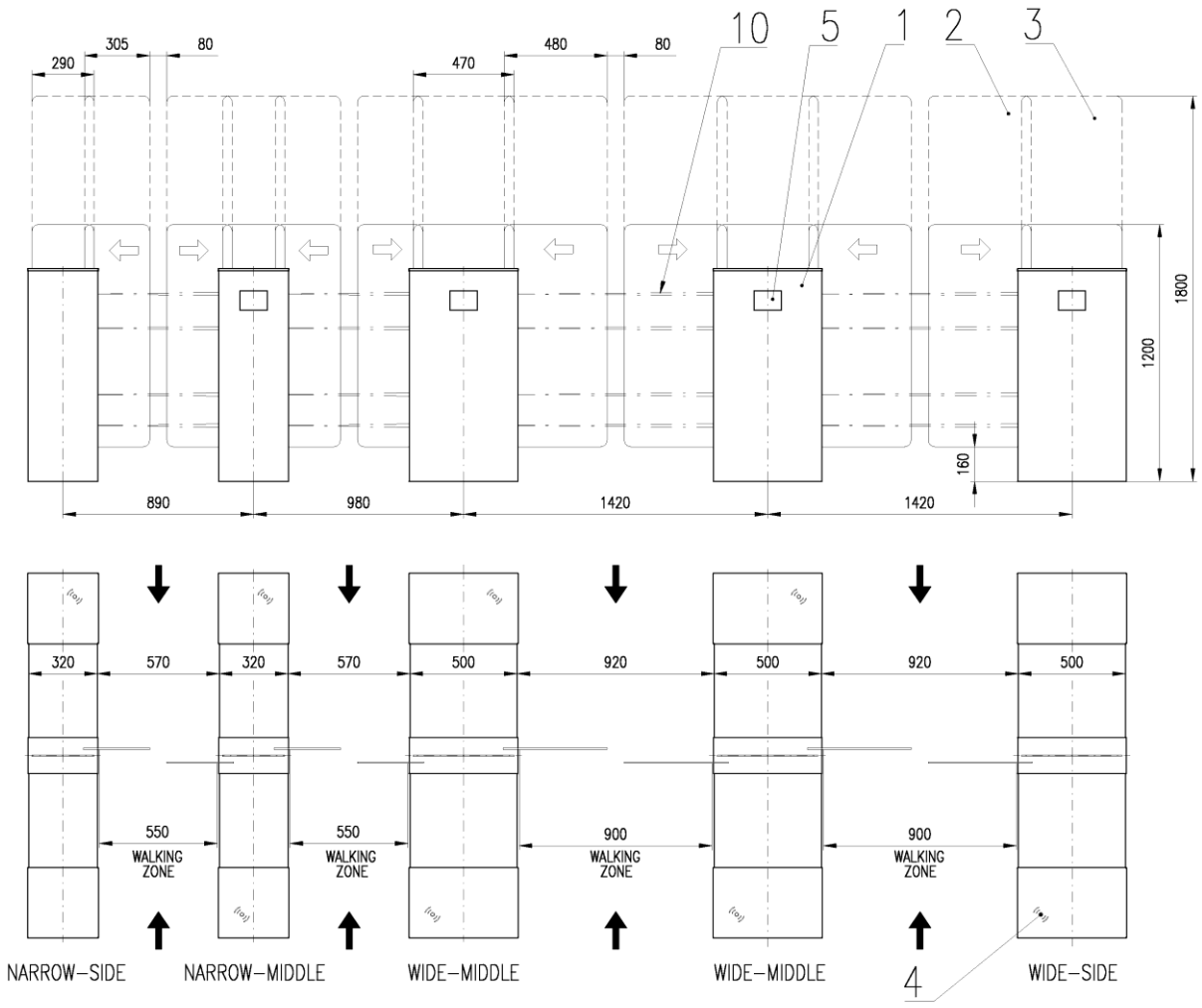
5.1. TURNSTILE: EASYGATE-LX

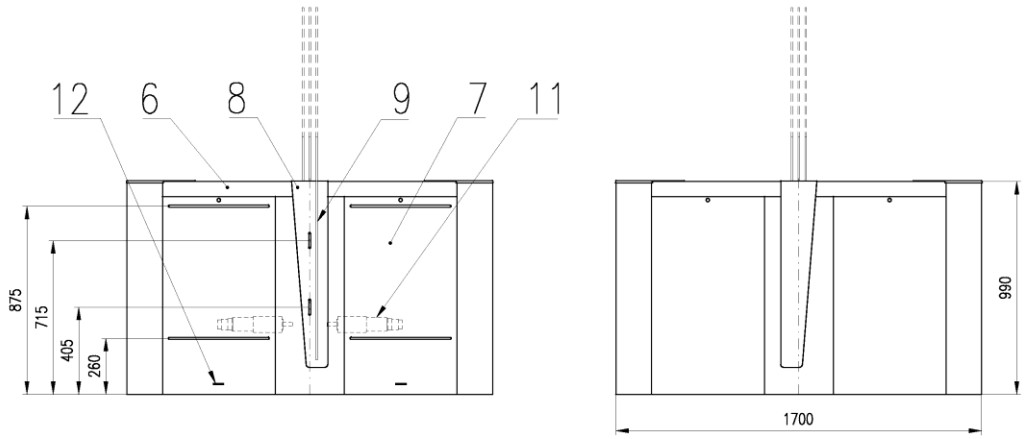




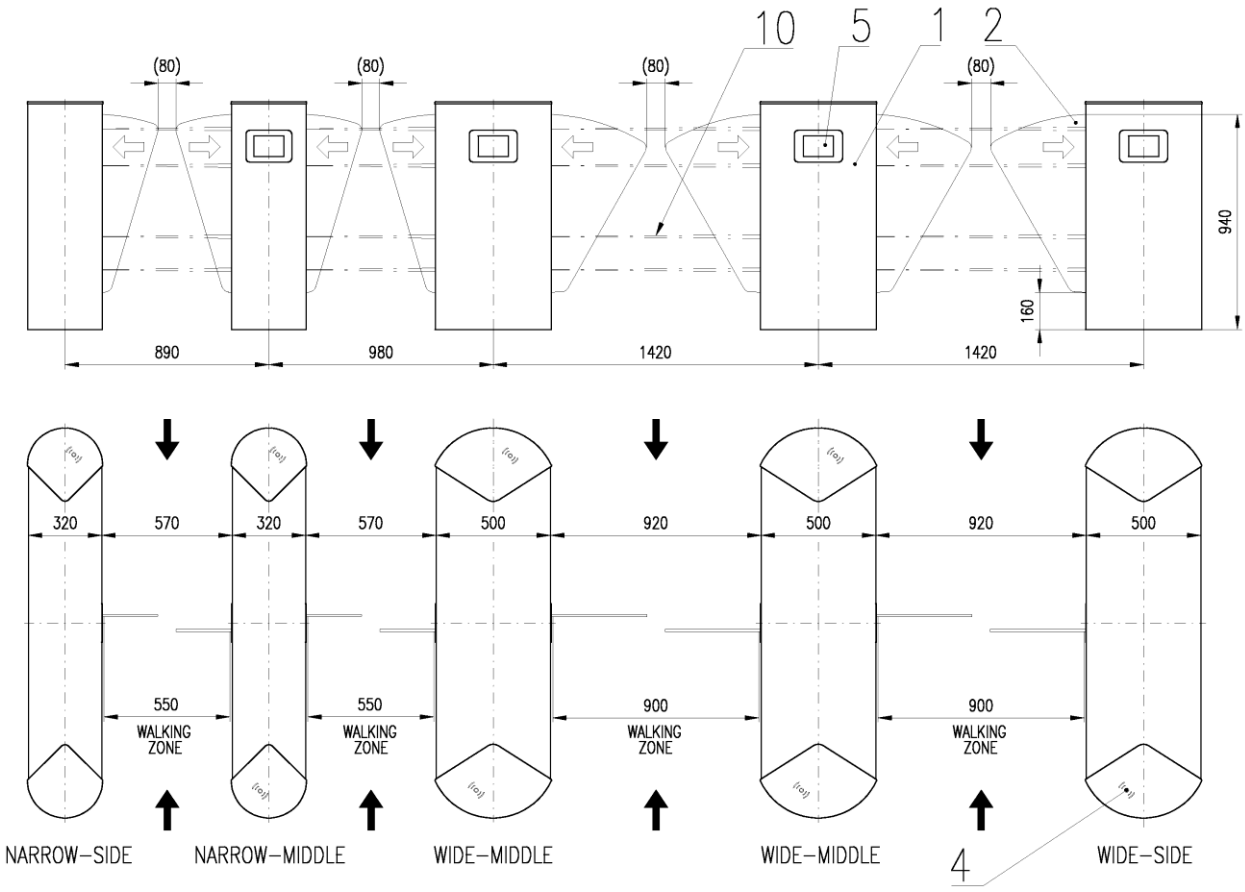


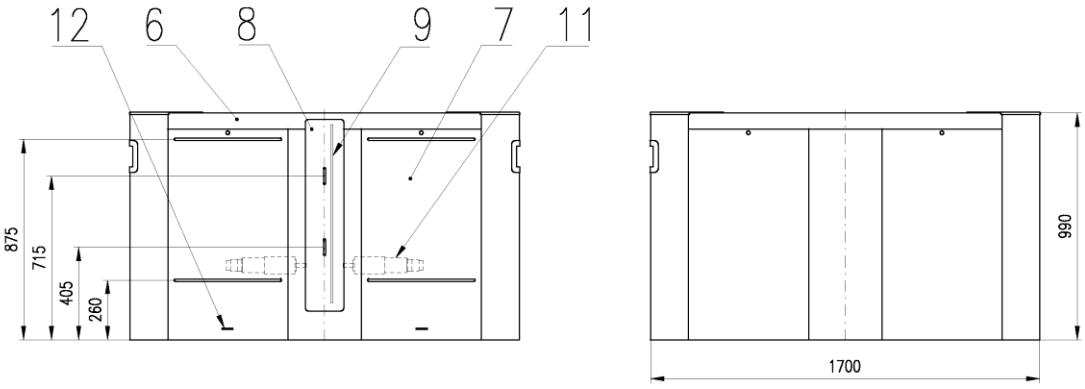
5.2. TURNSTILE: EASYGATE-LH



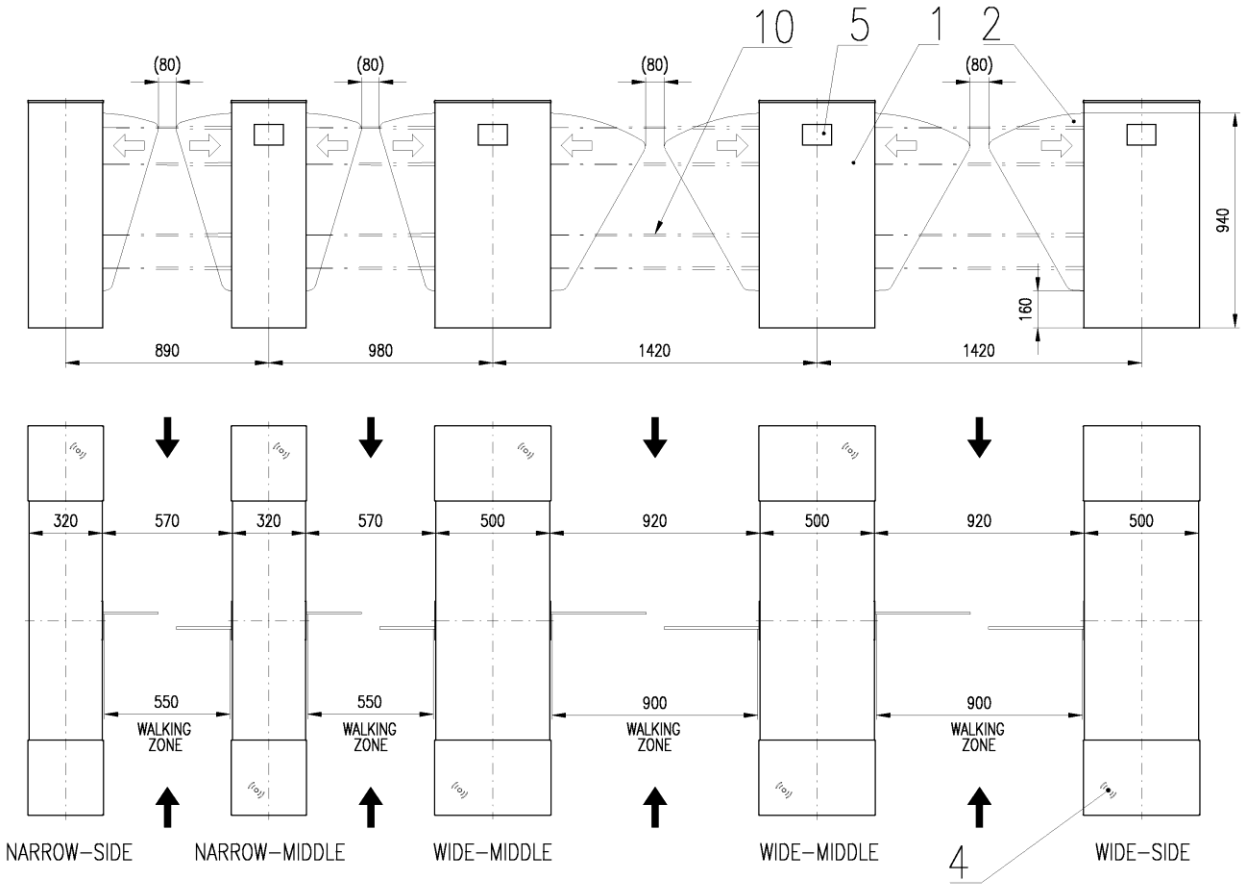


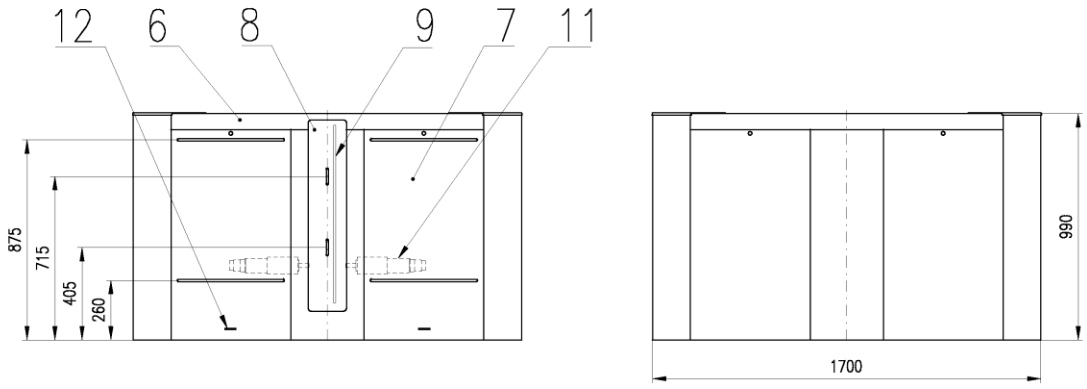
5.3. TURNSTILE: EASYGATE-FL





5.4. TURNSTILE: EASYGATE-FH





6. OPTIONAL ACCESSORIES

- **Access Light** [1]) (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

- **Lane Light** [1]) (Front status LED display):
  Information on the given turnstile state:
  On / Off / Blocked / EMERGENCY / ALARM

- **Wav Player**
  Acoustic signaling of turnstile states

- **Pressure sensor** (Sensor for climbing over)
  The sensor for climbing over the upper turnstile cover works on a basis of a pressure sensor, which measures bending of the turnstile upper cover.

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

- **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

- **Backup accumulator:**
  The accumulator will ensure operation of the turnstile for a minimum of 6 hours of continuous operation in the event of a power failure.

- **Supercapacitors:**
  Supercapacitors ensure transition of the turnstile to the EMERGENCY state in case of power failure (automatic opening of the turnstile wings in the exit direction).

- **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:**
  Possibility of integration of visitor cards collector.

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

- **TMON:**
  application for controlling and monitoring of the turnstile's activity via PC
  - see instructions: *Instructions for the TMON application*

- **WAV Player Config**
  SW application for administration of sound files on the WAV Player memory card.

7. INSTALLATION OF THE TURNSTILE

Turnstiles with glass wing or glass filling are supplied partially disassembled. Installation of the glass and the turnstile requires technical knowledge, knowledge of technological assembly procedure and skillfulness.

Turnstile can only be 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

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.

When putting the turnstile into operation, initialization of the turnstile takes place after each connection or loss of power supply. During the initialization, the turnstile wings slowly move to the stop ends in both directions and then stop in a closed position. It is forbidden to enter the turnstile corridor and manipulate the wings during initialization.

9. DESCRIPTION OF THE TURNSTILE OPERATION

The turnstile, is a device meant for identification and separation of persons at the entrance/exit to/from a secured area using a moving wing. Passage of a person is enabled based on the identification (verification) of the person by the superior system.

Turnstile behavior during passage may be adjusted using configurable parameters, which are divided into several groups:

- Safety functions
- Dynamic functions (drive unit)
- Passage functions
- Signaling functions
- Functions of input and output signals

Turnstile is controlled by the following control signals:

- INL / INR – signal used for opening of the turnstile in the required direction
- EMERGENCY – signal used for permanent emergency opening of the turnstile
- ON / OFF – signal for turnstile activation / deactivation

Explanation of terms used in the following chapters:

Authorized:
- Person who performed correct identification and the superior system allowed their entry.
- Person who passes through the turnstile in a permanently released direction.
- Person who was allowed to pass by remote control.

Unauthorized:
- Person who did not perform correct identification and the superior system did not allow the passage.

Tailgating:
- Situation when an unauthorized person follows an authorized person.

Crossover:
- Situation where unauthorized person passes from the opposite direction of the authorized person.

Using safety parameters, it is possible to set the turnstile behavior in case of unauthorized passage. Passage safety / security may be set at 5 levels from high security of the guarded space (low safety of passing persons) up to high safety of passing persons (low security of the guarded space).

1. **Maximum security** - detection of unauthorized persons when entering the turnstile, without protection of authorized or unauthorized person
2. **Low safety** - detection of unauthorized persons inside the turnstile, without protection of authorized or unauthorized person
3. **Medium safety** - detection of unauthorized persons when entering the turnstile, authorized person protection, without unauthorized person protection
4. **High safety** - detection of unauthorized persons inside the turnstile, protection of authorized and unauthorized person in the area of wings and behind the wings
5. **Maximum safety** - detection of unauthorized persons inside the turnstile, protection of all persons in the entire turnstile area

Configuration of parameters must be specified in advance when ordering the turnstile and may be performed only by the manufacturer or a trained equipment supplier. The safety parameters setting may be changed to a level, when turnstile wings can close in case of an attempt for unauthorized passage and injury of authorized and unauthorized persons may be caused! The turnstile owner must be provably notified about this. In such case, the manufacturer shall not be responsible for potential bodily harm and property damage.

9.1. DESCRIPTION OF OPERATION IN THE RECOMMENDED FACTORY SETTINGS

The following text contains description of operation of a standardly factory configured turnstile. The following tables contain descriptions of statuses of Access Light and Lane Light displays, which are optional accessories and may not be fitted.

Chapters are listed in order of probability that described situations will occur.

Turning on the power supply:

- Initialization of the turnstile takes place after each connection or loss of power supply. During the initialization, the turnstile wings slowly move to the stop ends in both directions and then stop in a closed position.
- For correct initialization it is forbidden to enter the turnstile corridor or manipulate the wings.
- Turnstile does not respond to control signals during initialization.
- The turnstile is ready to operate after correct initialization.

Deactivating the turnstile by the ON / OFF signal:

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

Optional accessories	entry side	exit side
Access Light	red	red
Lane Light	Red cross	Red cross

Activating the turnstile by the ON / OFF signal:

- If the control signal ON / OFF is activated, the turnstile wings are unlocked in the home position.
- The INL / INR opening function is enabled.
- The EMERGENCY function is enabled.

Optional accessories	entry side	exit side
Access Light	white	white
Lane Light	green arrow	green arrow

Single passage:

- After receiving the INL/INR control signal, the wings open. From this moment, the preset Timeout of **10s** for realizing the passage starts to count down.
- After the passage, the wings close.

Optional accessories	entry side	exit side
Access Light	green	red
Lane Light	green arrow	green arrow

Multiple passages – passage memory:

- The control electronics allows reception of multiple control signals from both directions and passage of additional persons without closing the turnstile wings.
- Memory of the number of control signals is unlimited.
- The electronics evaluates the control signals and, using the Access Light signaling, puts the passages from both directions in order so that all persons pass through the turnstile in the shortest possible time.
- The electronics enables passage to a person, who has permission to pass and enters the turnstile without regard to the Access Light signaling.
- If another person does not enter the turnstile within the **10s** Timeout, the memory of all passages is deleted and all wings close.

Unrealized passage:

- If a person does not enter the turnstile within the **10s** Timeout, the wings will close.

Person stops during the passage:

- If a person stops and stands in the **entry** zone, the wings are closed after the **10s** Timeout period.
- If a person stops and stands in the **exit** zone, the wings are closed only after the person leaves the turnstile.

Person standing in the turnstile corridor:

- Person standing in the turnstile corridor is able to activate the control signal for opening of the wings.
- The person standing in the turnstile corridor is blocking reception of control signal from the opposite direction.
- If there are persons on both sides of the turnstile, reception of control signal is blocked from both directions.
- The EMERGENCY function is enabled.

Person returns during the passage:

- If the person returns from the **entry** zone, they can realize the passage within **10s** Timeout.
- If a person returns from the **exit** zone, wings will close.

Activation of the control signal during an ongoing passage:

- If a signal is received from the INL or INR direction, wings remain open.

Activation of the control signal after the passage during closing of the wings:

- When the control signal is activated during closing, the wings open immediately.

Unauthorized passage of a second person behind the first person - Tailgating

- Both authorized and unauthorized persons are protected against pinching.
- In case of discreet distance between persons, wings are closed in front of the second person.
- In case of indiscreet distance between persons, a second person may pass without authorization.
- The turnstile generates an acoustic alarm during an unauthorized passage attempt.
- The wings close at slow speed within **3s** after leaving the turnstile.

Unauthorized passage from the opposite direction - Crossover.

- Both authorized and unauthorized persons are protected against pinching.
- The turnstile generates an acoustic alarm during an unauthorized passage attempt.
- The wings close at slow speed within **3s** after leaving the turnstile.

Unauthorized passage during closing of wings from the direction of passage - Tailgating

- The unauthorized person is protected against being pinched but can be hit by the wings when walking fast.
- If a person is in the entrance zone of the turnstile, the wings will close.
- If a person steps up to the wings during closing, the wings will open.
- The turnstile generates an acoustic alarm during an unauthorized passage attempt.
- The turnstile wings close at slow speed within **3s** after leaving the turnstile.

Unauthorized passage during closing of wings from the opposite direction – Crossover

- The unauthorized person is protected against pinching.
- The wings open immediately upon entering the turnstile corridor.
- The turnstile generates an acoustic alarm during an unauthorized passage attempt.
- The turnstile wings close at slow speed within **3s** after leaving the turnstile.

Attempt for forcibly opening the wings:

- If a person attempts to open the wings, the wings will lock and stay locked.
- The wings will unlock only after the control signal is loaded.

Permanent blocking in one passage direction:

- Permanently blocked direction is activated by the Touch Panel, Easy Touch or the TMON program.
- The turnstile is closed in the given direction once this function is activated - reception of the control signal is blocked.

Optional accessories	permanently blocked passage side	the other side
Access Light	red	white
Lane Light	Red cross	green arrow

Permanently released passage in the required direction:

- Permanently released direction is activated by means of a permanent control signal brought to the INL / INR input using the Touch Panel, Easy Touch or the TMON application.
- The turnstile wings are in the home position when this function is activated.
- The turnstile wings will open once a person enters the turnstile from the side with permanently released direction.
- Turnstile wings will close after 1s after leaving the turnstile.
- In all other cases, the turnstile behaves as per the previous chapters.

Optional accessories	permanently released passage side	the other side
Access Light	green	white
Lane Light	green arrow	green arrow

Activation of the EMERGENCY function (emergency state):

- When the EMERGENCY signal is activated, the wings open and lock.
- The EMERGENCY function is superior to all other turnstile modes.
- Upon turning on the power supply and simultaneous activation of the EMERGENCY function, the turnstile will initialize first and then the EMERGENCY function is executed.
- After deactivation of the EMERGENCY signal, the turnstile wings will close after the passing persons exit the turnstile.
- If a person enters the turnstile during closing, the wings will open again.

Optional accessories	entry side	exit side
Access Light	flashing: red / green	
Lane Light	green arrow (animation)	

THE TURNSTILE MUST BE EQUIPPED WITH SUPERCAPACITORS TO USE THE EMERGENCY FUNCTION IN CONNECTION WITH THE EPS SYSTEM AND THEIR FUNCTION MUST BE REGULARLY TESTED IN ACCORDANCE WITH LOCAL FIRE AND ALARM GUIDELINES.

Collision of closing wings with an undetected obstacle (e.g. bulky luggage)

- On impact, the wings stop against the obstacle.
- Two attempts for closing the wings with a small force follow.
- Then the wings release and the turnstile generates an acoustic alarm.
- The released wings can be opened, and the obstacle can be removed.
- The wings close 30s after leaving the turnstile, or when other INL/INR control signal is received.
- If the obstacle is not removed, there will be three attempts to close with a small force after every 30s.

Loss of supply power:

In case of power supply loss, the turnstile wings are released and may be freely moved.

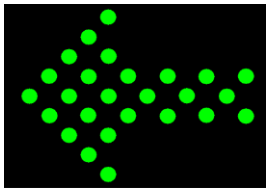
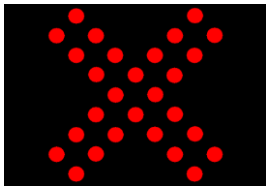
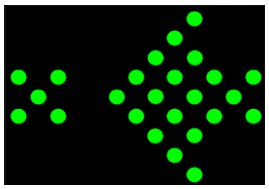
Operation of the turnstile on the backup power supply accumulator:

if using a backup power supply, the supply voltage of the turnstile is decreased in case of a power failure, due to running on the the backup power supply accumulator. In this case, the movement speed of both turnstile wings is decreased, while all of the above turnstile operations are preserved.

Displayed Access Light symbols:

White backlight	Red backlight	Green backlight	EMERGENCY flashing: red / green
			

Displayed Lane Light symbols:

Green arrow	Red cross	EMERGENCY Green arrow (animation)
		

10. DESCRIPTION OF TURNSTILE FUNCTIONS

This chapter describes the functions that affect turnstile behavior.

It is possible to adjust the behavior of the turnstile to the customer's requirements. These settings can be made only by a COMINFO service department employee or worker, who possess the certificate of installation schooling from the COMINFO Company.

10.1. SAFETY FUNCTIONS

10.1.1. Security / safety level

Parameter name in the TCONF configuration application:
Security / safety level

The following levels may be set:

Maximum security

- Detection of unauthorized persons when entering the turnstile, complete closing of glasses, without authorized person protection.
- Any body part of both authorized and unauthorized person may be clasped injury may occur.

Low safety

- Detection of unauthorized persons inside the turnstile, complete closing of glasses, without authorized person protection
- Any body part of both authorized and unauthorized person may be clasped injury may occur.

Medium safety

- Detection of unauthorized persons when entering the turnstile, medium protection of authorized person, without unauthorized person protection
- Any body part of unauthorized person may be clasped and injury may occur.

High safety

- Detection of unauthorized persons inside the turnstile, high protection of authorized and unauthorized person in the area of wings and behind the wings
- Unauthorized person cannot be clasped, but the wings can hit the person while walking fast and injury can occur.

Maximum safety

- Detection of unauthorized persons inside the turnstile, glasses do not close, protection of all persons in the turnstile

Factory setting – **Maximum safety** (recommended factory setting – Medium safety)

Unlike all other parameters that are set to recommended factory settings, the level **Maximum safety** is set during manufacturing. This level is used to protect persons during installation and putting the turnstile into operation. When the turnstile is put into operation, the level of security/safety is set according to customer's requirements.

10.2. DYNAMIC FUNCTIONS

10.2.1. Motor unit type

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

- For EasyGate-LX/LH/FL/FH turnstiles, the parameter must always be set to **Dunker GR 63x25**

10.2.2. Distance from end stoppers

Parameter name in the TCONF configuration application:
Distance from the end-stops - Open position
Distance from the end stops - Closed position

- The wings reach the end stoppers during the turnstile initialization.
- During the standard operation of opening and closing the wings stop just before reaching the stop end positions.
- The parameters are optimized during manufacturing of the turnstile and it is not recommended to change them.
- Adjustable range: **1-30**

Factory setting – open – **4-8**
Factory setting – closed – **4-8**

10.2.3. Behavior of the turnstile when the wings hit an obstacle

Parameter name in the TCONF configuration application:
Action after impact on the barrier

- **Continue** - After hitting an obstacle, the wings release while being in contact with the obstacle.
- **Reverse** - After hitting an obstacle, the wings open and release.

Factory setting – **Continue**

10.3. PASSAGE FUNCTIONS

10.3.1. Delay of acoustic signaling when entering the corridor

Parameter name in the TCONF configuration application:
Timeout of entry sensor

- Time period after which the acoustic signaling starts when entering the first sensor.
- Adjustable range: **1-10s**.

Factory setting – **1s**

10.3.2. Timeout to pass through

Parameter name in the TCONF configuration application:
Timeout of unblocking

- Time for which the turnstile is released, during which it is possible to realize a passage.
- The countdown starts when the control signal is received. The turnstile wings will close after the time expires.
- Adjustable range: **1-1000s**

Factory setting – **10s**

10.3.3. INL / INR control signals memory

Parameter name in the TCONF configuration application:
Passage memory

- **OFF:** Reception of other control signals from both directions is blocked during passage. Another control signal may be received after finishing the passage during closing of wings.
- **Single passage:** It is possible to receive one control signal from any direction into memory immediately after previous passage or during passage.
- **Unlimited memory:** It is possible to receive unlimited number of control signals from both directions immediately after previous passage or during passage.

Factory setting – **Unlimited memory**

10.3.4. Wings closing delay

Parameter name in the TCONF configuration application:
Timeout for closing – standard passage
Timeout for closing – automatic passage

- The delay time for closing the turnstile wings after authorized passage and after a passage in permanently released direction can be set independently.
- Adjustable range: **0-5s**.

Factory setting – standard passage – **0s**
Factory setting – automatic passage – **1s**

10.3.5. EMERGENCY

Parameter name in the TCONF configuration application:
Emergency

- Enabling or disabling EMERGENCY function.
- **ON** - the EMERGENCY function can be activated by all control systems including power supply failure.
- **OFF** - the EMERGENCY function cannot be activated by any control system.
- Adjustable range: **OFF, ON**

Factory setting – **ON**

10.3.6. Detection of persons

Parameter name in the TCONF configuration application:
Tailgating – person width
Tailgating - distance between persons

- Person width - This parameter defines minimum detectable width of person.
- Distance between persons - This parameter defines minimum detectable distance between persons.
- Adjustable range: **20 – 1000**.

Factory setting - person width **100** / distance between persons **200**

10.4. SIGNALING FUNCTIONS

10.4.1. BUZZER Acoustic signaling

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

- Turnstile is equipped with two buzzers with different levels of volume.
- This parameter enables separate setting of acoustic signaling during passage and during alarm.
- Setting range and tone types:

Type of signalization	Type of tone	Tone frequency
Off	deactivated	✗
1.25Hz	intermittent	1.25Hz
1.75Hz	intermittent	1.75Hz
2.5Hz	intermittent	2.5Hz
5Hz	intermittent	5Hz
Continuous tone	permanent - uninterrupted	✗

- Both buzzers are factory equipped with a stick-on foil, which reduces their volume. If it's necessary to increase the volume, you must remove the foil.

Factory setting - Type of standard acoustic signalization – **1.75Hz**
Factory setting - Type of warning acoustic signalization – **Continuous tone**

10.4.2. WAV Player Acoustic signaling

Parameter name in the TCONF configuration application:
Wav player - volume of standard acoustic signalization
Wav player - volume of warning acoustic signalization

- Wav player is a separate module that serves for playing of sound files saved in the built-in memory card.
- The volume of the acoustic signaling during passage and during an alarm can be set independently.
- Any sounds can be saved to the memory card using the WAV Player Config software application.
- Adjustable range: **OFF, 1 - 7**.

Factory setting - Volume of standard acoustic signalization – **OFF**
Factory setting - Volume of warning acoustic signalization – **OFF**

10.5. FUNCTIONS OF INPUT AND OUTPUT SIGNALS

10.5.1. Setting of control inputs

Parameter name in the TCONF configuration application:
INL input
INR 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 level.

Normally closed
Input is activated by disconnecting the GND level.

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

10.5.2. 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.

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

10.6. IMPORTANT NOTICES

10.6.1. Adapting the turnstile to local fire regulations

In most cases the turnstile serves as an emergency fire exit during a fire alarm. The turnstile allows connection of all systems, FA, FAS, EPS through the EMGI module. When installing the turnstile, the module must be connected in accordance with the local fire regulations.

10.6.2. Recommended factory setting

Recommended factory setting (medium safety) optimizes detection of authorized and unauthorized persons. Regardless of this setting, persons may not be detected correctly in some cases. These are non-standard passages, such as:

- Passage in high speed
- Passage of persons in indiscreet distance
- Passage of persons passing next to each other
- Passage of a person carrying an atypical object or luggage
- When a person stops, turns or returns

The success rate of detecting passing persons in standard passages reaches up to 99.9% (1 false detection out of 1000). During passage of persons carrying objects such as a coat, luggage, umbrella, or during non-standard passages (fast walking, running, stopping, reversing, jumping) the detection success rate may be significantly reduced.
Passage of small persons

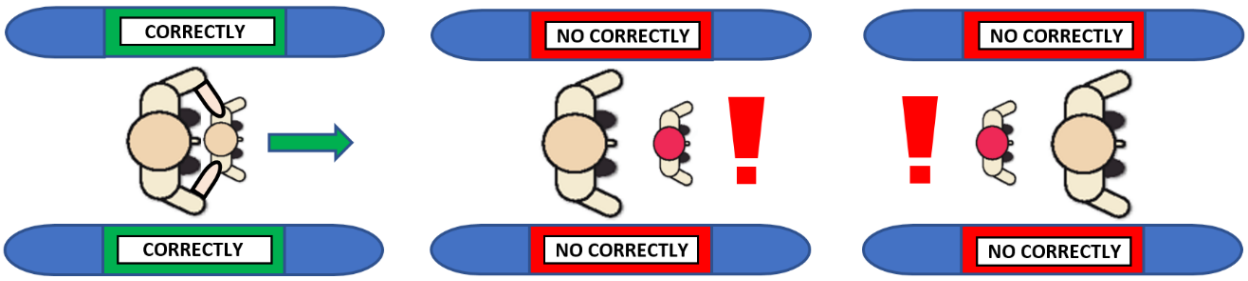
For correct detection, the minimum height of the passing person must be **1 meter**.

10.6.3. Passage of a child

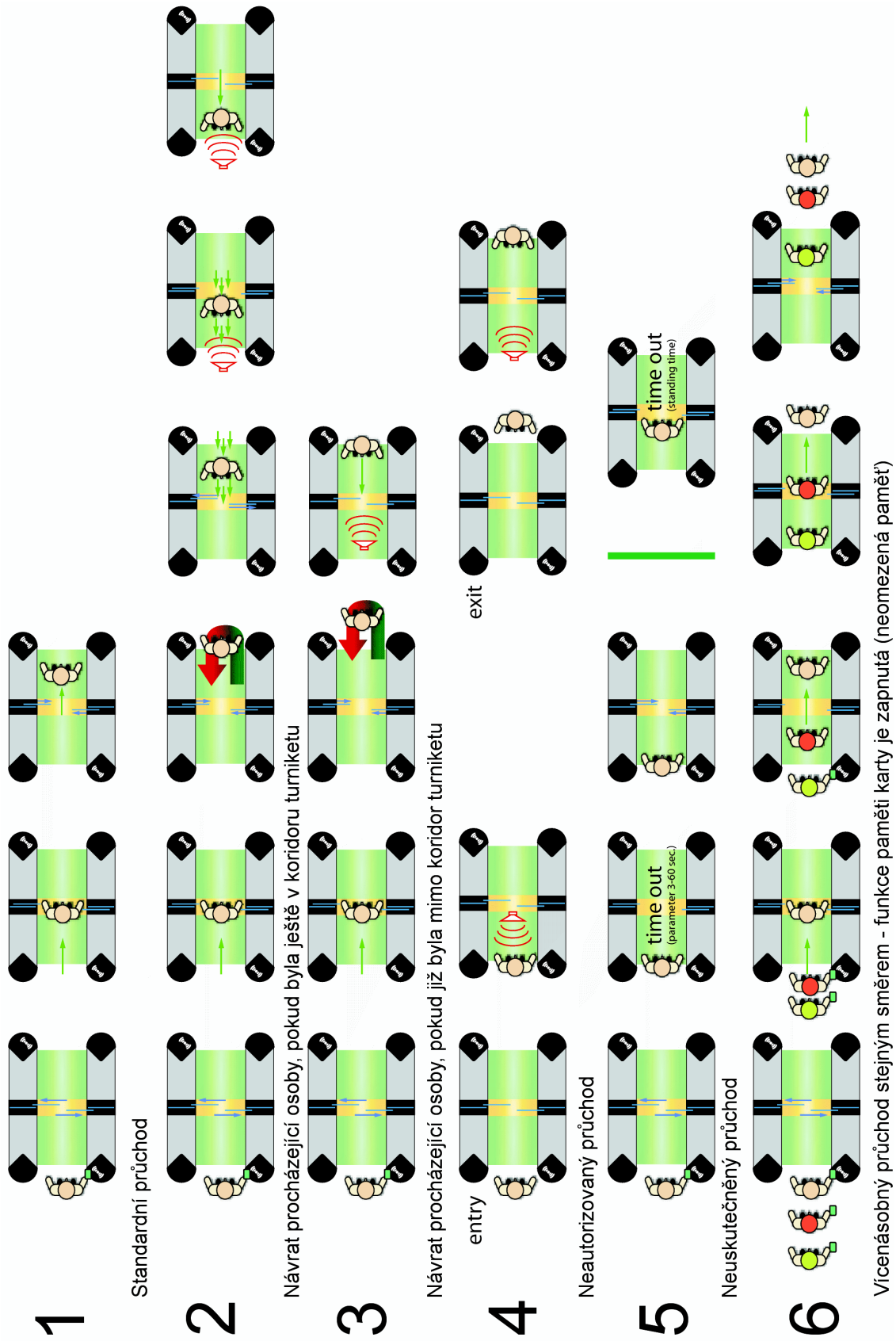
- Due to the unpredictable behavior of children, the turnstile is not suitable for their independent passage.
- If the turnstile will also serve for independent passage of children, their height must be at least **1 meter** and their passage must be supervised by an adult.

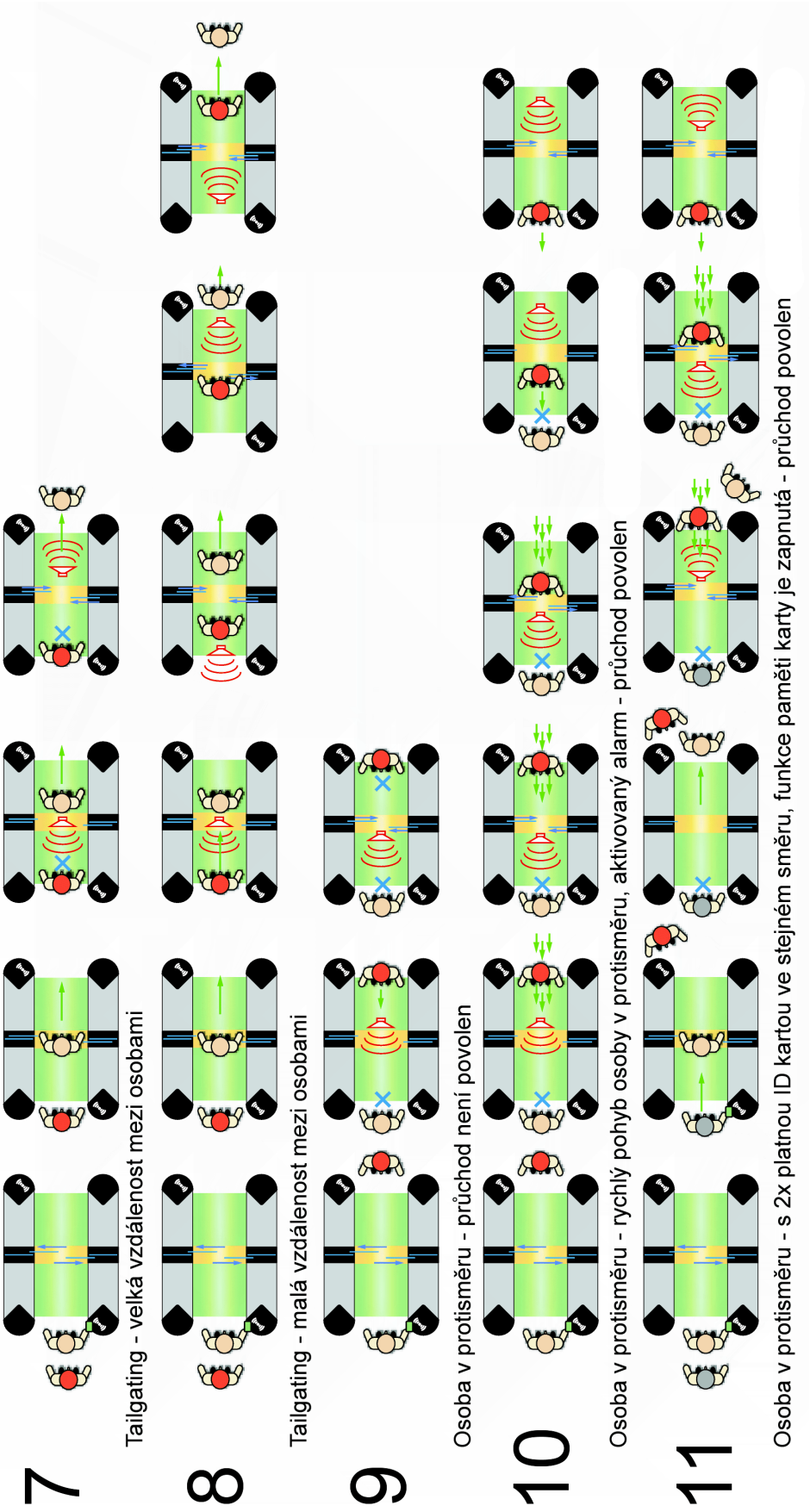
10.6.4. Passage of an adult with a small child

- Turnstile can be safely passed through with a small child without its identification.
- When passing through the turnstile, children must be in close contact with the adult.
- The correct and incorrect passages are shown on the figures below.



11. PASSAGE ANIMATIONS




7
Tailgating - velká vzdálenost mezi osobami
8
Tailgating - malá vzdálenost mezi osobami
9
Osoba v protisměru - průchod není povolen
10
Osoba v protisměru - rychlý pohyb osoby v protisměru, aktivovaný alarm - průchod povolen
11
Osoba v protisměru - s 2x platnou ID kartou ve stejném směru, funkce paměti karty je zapnutá - průchod povolen

12. MAINTENANCE

12.1. MAINTENANCE OF THE TURNSTILE

- 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

To ensure minimum friction between brushes and movable glass wings, it is necessary to periodically clean the brushes and treat the wings using a suitable agent (the manufacturer recommends ARECAL GLASREINIGER). There must be no obstructions (e.g. stickers, sanding, etc.) on the turnstile wing where the wing comes into contact with the brushes during movement.

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

In case the turnstile is installed in very wet conditions, it is necessary to clean the turnstile every day.

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

12.2. MAINTENANCE OF THE MOTION MECHANISM

In order to maintain the warranty, it is necessary to carry out periodical inspections of the turnstile. This inspection can only be done by a Cominfo service department employee or worker, who possess the certificate of schooling from the Cominfo Company. The manufacturer grants a 24-month warranty.

The number of passages must be periodically checked using the TMON application and the prescribed maintenance must be carried out according to the following table.

Required tasks:	Prescribed interval:
Cleaning and checking the adjustment of the motion mechanism	Every 500 000 passages or after 6 months.
Prophylactic check	Every 1 000 000 passages or after 12 months.

12.3. MAINTENANCE OF THE MOTOR DRIVE UNIT

The technical solution of the motor drive unit requires no special care during operation due to its method of lubrication.

Manufacturer recommends to perform initialization (see *Putting the turnstile into operation*) after running-in of the drive unit or in case the turnstile does not operate correctly.

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

12.4. 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 drive mechanisms and checking the alignment
- 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.

13. 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	CAUSE	REMEDY	SOLVER (difficulty level)
The turnstile wings are locked midway. Turnstile does not respond to control commands.	Correct initialization was not completed.	Reset the turnstile by turning the power supply off and on.	**Customer**
Wings of the turnstile may be freely moved. Turnstile does not respond to control commands.	Turnstile without supply voltage.	Check the superior circuit breaker. In case of a turnstile with power supply of 24VDC or 230VAC, check also the circuit breaker located in the turnstile. Reset the turnstile by turning the circuit breaker off and on.	**Customer**
Wings of the turnstile are closed. Turnstile does not respond to control commands.	Malfunction of the superior identification system.	Contact the supplier of the superior system.	**Customer** / Supplier of the superior system
Wings of the turnstile are closed. Turnstile does not respond to control commands.	Control electronics error.	Reset the turnstile by turning the power supply off and on.	**Customer**
Turnstile may be passed by several persons based on identification of one person.	Too long (>2s) control signal.	Shorten the signal to >=0.5s a <=1s.	**Customer** / Supplier of the superior system
Turnstile remains open after a person passes through, or it closes with delay once a person passes through	Malfunction of optical sensors which monitor the turnstile passage.	Clean the apertures, replace faulty sensors.	**Customer** / COMINFO Service Department
Wings of the turnstile are opening and closing during passage, but it is possible to freely move a wing	Malfunction of the electronics or electromagnetic brake of the drive	Inspection of the electronics, cables and connectors.	COMINFO Service Department
Only one turnstile wing opens.	Electronic or motor drive malfunction.	Inspection of the electronics, cables and connectors. Replace the motor.	COMINFO Service Department

MALFUNCTION	CAUSE	REMEDY	SOLVER (difficulty level)
The turnstile wings can only be opened and closed manually after activating the control commands.	Electronic or motor drive malfunction.	Inspection of the electronics, cables and connectors. Replace the motor.	COMINFO Service Department
Increased noise when opening and closing the turnstile wings.	Loosening the glass holder set screws or increased clearance of the linear guide.	Check tightening and countering of the glass holder bolts or adjustment of the linear guide rollers.	COMINFO Service Department
The wing hits the turnstile cabinet in the end position.	Loosened end stoppers or increased linear guide clearance.	Adjust the end stoppers or adjust the linear guidance rollers.	COMINFO Service Department

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 FORM

Product label information:

Name – type:	EASYGATE-LX
Serial number:	0 9 0 0 1 2 3 4 5 6

Information on the control electronics (MLU 5):

Serial number:	5 4 3 0 0 0 4 6 7

Your request:

Wings of the turnstile are opening and closing during passage, but it is possible to freely move them.
We checked the power supply voltage.
After turning off and on the supply voltage initialization of the turnstile takes place, but the malfunction persists.
We are guessing an electrical malfunction of the brake on both turnstile wings as per the previous table.
We are attaching a video of initialization a malfunction simulation.

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:	11. 1. 2022

CLAIM REPORT FORM

Product label information:

Name – type:

Serial number:

Information on the control electronics (MLU 5):

Serial number:

Your request:

Customer:

Address:

Contact person:

Telephone:

E-mail:

Date:

14. 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*.

NAME - TYPE	EASY GATE LX 1200 SIDE
YEAR OF PRODUCTION	2018
POWER CONSUMPTION	320 VA
SUPPLY VOLTAGE	24 V
SERIAL No.	030187741

CE cominfo®

COMINFO a.s., Nabrezi 695, 760 01 Zlin - Czech Republic
www.cominfo.eu

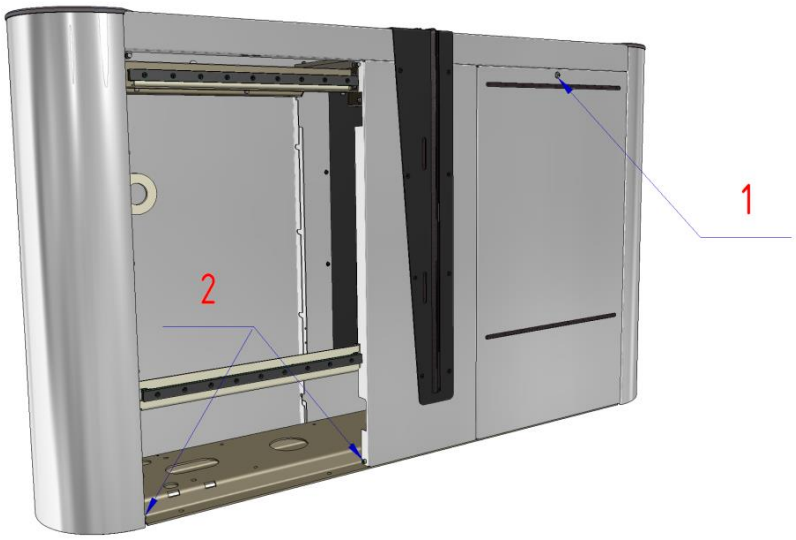
The nameplate can be accessed after removing the side cover.

BEFORE REMOVING THE FRONT COVER, IT IS NECESSARY TO DISCONNECT THE TURNSTILE FROM POWER SUPPLY

Procedure for removing the side cover:

- Insert the key in the lock (pos.1).
- after releasing the locking mechanism push the lock area of the side cover into the turnstile
- Turn the key to the left.
- By pulling the key, slightly tilt the cover from the turnstile.
- By pulling the cover up, release the cover from the lower pins (pos.2).
- Put the dismounted cover on a predetermined place.

Reassemble the covers in reverse order. To prevent damaging the lock it is necessary to push the side cover into the turnstile when locking.



15. DEVICE DIPOSAL

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 with DRYLAC paints
- 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.

16. 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 wings of the turnstile in their blocked position in an effort to enter the area with defined access rights.

3. It is prohibited to hang on the turnstile wings.

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

17. CERTIFICATIONS

The COMINFO a.s. company acquired a type certificate for the EASYGATE motor 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/

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