



VOZROZHDENIE, LLC

OKPD 2 26.30.50.110

TU 26.30.50-007-33120038-2017

APPROVED

VZR.235900.000 VZR.235900.000 LU

TURNSTILE MODEL CUBE C-04

C-04-c, C-04-K, C-04-Kc, C-04-H, C-04-Hc, C-04-HK, C-04-HKc

VZR.235900.000 OM OPERATIONAL MANUAL

Sheets 48

CONTENTS

1. Description and Operation	4
1.1 Description and operation of the Product.....	4
1.3 Card collector description and operation (optionally)	11
2 Intended Use	12
2.1 Operating Limitations.....	12
2.2 Preparing the product for use	13
2.3 Product Operation	17
2.4 Procedure for actions in extreme situations	26
2.5 Product Calibration	27
3 Maintenance	28
3.1 General Guidelines.....	28
3.2 Safety Precautions	29
3.3 Product maintenance procedure.....	30
3.4 Product external examination	30
3.5 Product partial disassembly.....	31
3.6 Inspection of product assemblies.....	33
3.7 Lubrication of product mechanism moving parts.....	34
3.8 Product assembly and serviceability check.....	34
4 Current Repair.....	36
4.1 Product current repair.....	36
4.2 Current repair of product component parts	37
4.3 Faults during warranty period	37
5 Storage	38
6 Transportation.....	39
7 Disposal.....	40
APPENDIX A — Distributors and service centers	41
List of approved abbreviations	47

This Operational Manual (OM) applies to Turnstile Oxgard Cube C-04 and its modifications (hereinafter referred to as “the product”). The firmware version of the product: FW v2.2

The manufacturer reserves the right to change the product’s scope of supply, technical data and appearance without any additional notices.

Prior to operating the product, the personnel should additionally become familiar with Datasheet VZR.235900.000 DS.

This OM is the document certifying basic parameters and performance of the product, which are guaranteed by the manufacturer.

OM is designed to instruct on the product’s principle of operation, its structure and design in order to ensure its proper operation, full use of its technical capabilities and to keep it constantly ready for operation.

1. DESCRIPTION AND OPERATION

1.1 Description and operation of the Product

1.1.1 Turnstile Oxgard Cube C-04 is designed to control access and manage people's streams by dividing their stream in a "one-by-one" manner.

The product can be used at checkpoints of enterprises, organizations and banks, educational institutions, sports and entertainment centers, stores, stations and other facilities. To provide easy and fast passage of people, it is recommended to install one product for every 500 people working on a one-shift basis.

1.1.2 The product's scope of supply is detailed in Table 1.

Table 1 – Product's scope of supply

Designation	Description	Quantity	Note
Turnstile	Cube C-04	1	
RC panel	Praktika multi-purpose control panel	1	
Power supply unit*		1	
Reader for PC*		1	
Card collector*		1	
Barrier section set*	Praktika barrier	1	



Note — The product's component parts marked with (*) are supplied optionally.

1.1.3 The individual features of the product modifications.

The turnstile housing can be designed in two options:

Option No.1: side covers and central overlays are made of stainless steel, and the internal stand elements and the top cover are painted (color according to the Customer's choice).

Table 2 – Complete set of turnstile modifications.

Table 2 – Turnstile modifications (Option No.1)

Modification	Features
C-04-Kc (Card collector + Reader)	1) two readers are built in housing with LED highlighting; 2) built-in card collector, containing 200 visitor cards; 3) the turnstile is equipped with simple card withdrawal access system; 4) the housing includes the painted elements.
C-04-K (Card collector)	1) the built-in card collector, containing 200 visitor cards; 2) the turnstile is equipped with simple card withdrawal access system; 3) the housing includes painted elements.
C-04-c (Reader)	1) two readers are built in housing with LED illumination; 2) the housing includes the painted elements.
C-04	1) the housing includes the painted elements. 2) without readers.

Option No.2: all overlay turnstile elements shall be made of stainless steel.

Table 3 – Complete set of turnstile modifications.

Table 3 – Turnstile modifications (Option No.2)

Modification	Features
C-04-HKc (Card collector + Reader)	1) two readers are built in the housing with LED illumination; 2) built-in card collector, containing 200 visitor cards; 3) the turnstile is equipped with simple card withdrawal access system; 4) stainless steel housing.
C-04-HK (Card collector)	1) built-in card collector, containing 200 visitor cards; 2) the turnstile is equipped with simple card withdrawal access system; 3) stainless steel housing.
C-04-Hc (Reader)	1) two readers are built in housing with LED illumination; 2) stainless steel overlays.
C-04-H	1) stainless steel housing. 2) without readers.

Barrier arms of all the turnstile modifications are made of ground stainless steel.

In the product modifications with readers – the readers of magnetic cards PROX-13 or PROX-125 are installed (specified in the turnstile order). The readers are installed on the turnstile left and right side into the stand top parts.

1.1.4 The product Specifications are given in Table 4

Table 4 - Specifications

Parameter description	Value
Overall dimensions (HxWxL), mm: - in operating condition - with assembled arms	1000x950x735 1000x950x192
Weight, kg	50.0
Temperature range, °C: - operation - transportation and storage	+1...+40 +1...+40
Relative air humidity, %, maximum	80
Width of formed passage, mm	565-595
Through-flow rate, pax per min	30
Max number of connected RC panels, pcs.	2
Service life, years	8
Power supply voltage (direct current), V: - nominal - operating	12.0 10.8...13.2
Average current in suspended mode*, A	1.5
Average current in passage mode*, A	1.5
Maximum consumption current*, A	3.0



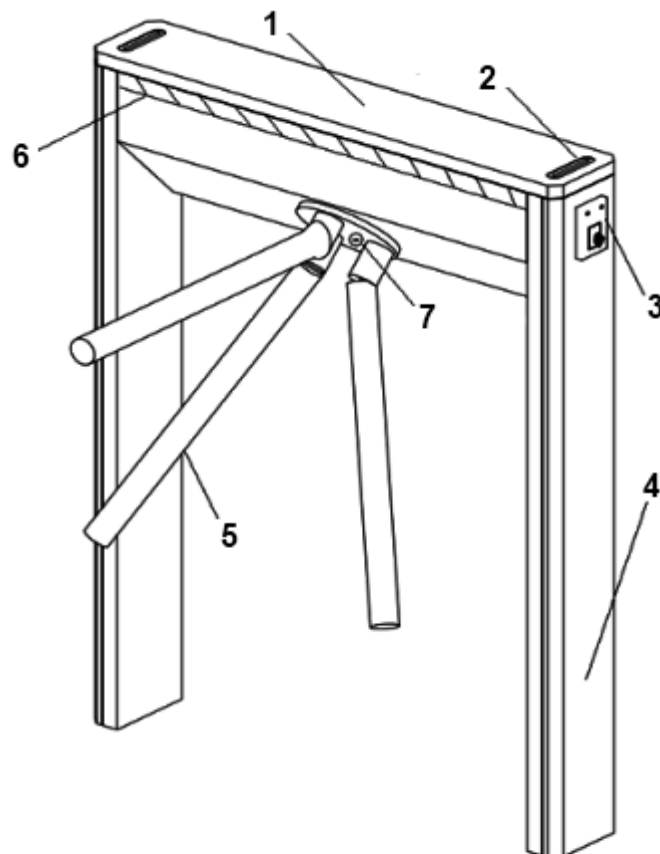
Note — * the values of current are specified under nominal power supply voltage

1.1.5 Product design.

The side covers, central overlays and products are made of stainless steel, and the internal stand elements and the top cover are painted (color according to the Customer's choice). The turnstile's barrier arms are made of ground stainless steel. Housing fitted with LED illumination.

For connection of PSU, RC panel and AMCS cables, the motherboard, located and removable cover in the product housing top part is used. A hole is provided in the bottom part of the product housing to input these cables.

Figure 1 – General view of the product



- 1 - top cover; 2 – card collector slot; 3 – reader;
- 4 – side decorative covers; 5 – barrier arms;
- 6 – front display model; 7 - arms fixation locking device

Figure 1 – Turnstile's general view

1.1.6 Display system.

The turnstile front display panel is located in the turnstile top part with the Caprolon insert.

Figure 2 - Turnstile modes of operation are displayed on the front display panel (1) and are duplicated with the side display panels (2).

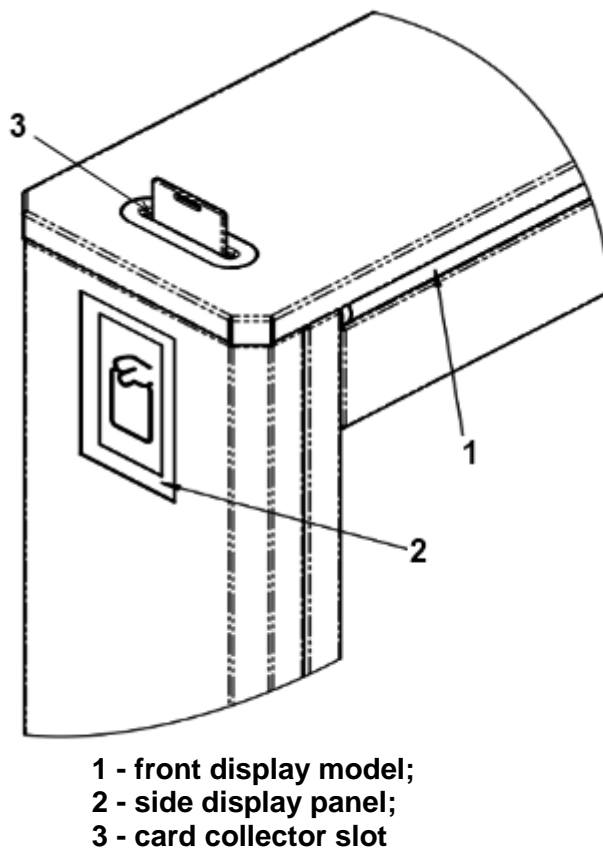


Figure 2 - Display system appearance

1.1.7 The labeling includes the manufacturer's trademark, designation, serial number.

1.1.8 Overall dimensions of the packaging containers make:

- 1) Height - 1170 mm;
- 2) Width - 500 mm;
- 3) Length - 1040 mm.

1.2 Description and Operation of Oxgard Praktika RC Panel

Multi-purpose Oxgard Praktika console is designed for control of Oxgard turnstiles.

1.2.1 The housing is made of stainless steel; the control buttons and the LED operation mode indicators are located on the front side. Specifications are given in Table 5.

Table 5 - Specifications

Parameter description	Value
Overall dimensions (HxWxL), mm:	25x107x107
Weight, kg	0.5
Temperature range, °C: - operation - transportation and storage	+1...+40 +1...+40
Relative air humidity, %, maximum	80
Service life, years	8
Power supply voltage (direct current), V: - nominal - operating	12.0 7.5...15.0

1.2.2 Design features:

- 1) An option for connection of two consoles to one turnstile;
- 2) High interference resistance;
- 3) The wire length from console turnstile can make up to several kilometers with no loss of command transmission rate;
- 4) Standard length of the cable supplied in the complete set makes 5 metres.

1.3 Card collector description and operation (optionally)

1.3.1 Card collector purpose

The card collector is designed for collection and storage of swipe cards upon leaving the facility. Flexible card collector controller operation logic and connection allows for its integration with any access monitoring and control systems.

1.3.2 Description of construction elements. Figure 2 - Card collector slot.

On the inner side of card collector stands there are two containers with locks for fast access to withdrawn cards.

The container design allows for containing at least 200 cards.



Note — The Customer selects the side of the card collector installation on the product, which is stipulated during supply agreement conclusion

2. INTENDED USE

2.1 Operating Limitations



ATTENTION: FAILURE TO COMPLY WITH SAFETY REQUIREMENTS SPECIFIED IN THIS SECTION MAY CAUSE DAMAGE TO HUMAN LIFE AND HEALTH, AND FULL OR PARTIAL LOSS OF THE OPERABILITY OF THE PRODUCT AND/OR AUXILIARY EQUIPMENT.



ATTENTION: THE TURNSTILE INSTALLATION SHALL BE CARRIED OUT BY QUALIFIED SPECIALISTS IN ACCORDANCE WITH INSTALLATION GUIDELINES.



ATTENTION: IN CASE OF FAILURE TO COMPLY WITH SAFETY REQUIREMENTS SPECIFIED IN THIS SECTION, THE MANUFACTURER SHALL NOT BE HELD LIABLE FOR DAMAGE TO HUMAN LIFE AND HEALTH, FULL OR PARTIAL LOSS OF THE OPERABILITY OF THE PRODUCT AND/OR AUXILIARY EQUIPMENT, AND TERMINATE THE PRODUCT'S WARRANTY.



IT IS NOT ALLOWED:

INSTALL THE POWER SUPPLY UNIT INSIDE THE TURNSTILE CASING, BECAUSE THIS MAY CAUSE ELECTROCUTION.

INSTALL THE TURNSTILE ANYWHERE OUTSIDE DRY AND HEATED ROOMS.

OBSTRUCT OR ACCELERATE THE MOVEMENT OF THE TURNSTILE BARS.

USE FOR CLEANING ANY PASTES OR FLUIDS THAT ARE CHEMICALLY AGGRESSIVE TO MATERIALS OF THE HOUSING.

2.2 Preparing the product for use

2.2.1 Safety precautions during the preparation of the product for use



ATTENTION: PRIOR TO TURNSTILE CONNECTION, FREE THE ARMS ROTATION ZONE FROM PEOPLE AND FOREIGN OBJECTS TO AVOID INJURIES AND TURNSTILE LOCKING.

2.2.2 Regulations and procedure for product inspection

The product visual inspection prior to its connection to power supply network is mandatory and includes:

- 1) checkup for no mechanical damage of the product housing: checkup for no cracks, through holes from lost fasteners;
- 2) careful inspection of all product connections.

2.2.3 Product switching on.

The turnstile arrives to the Customer in the assembled state (transportation mode).

Prior to starting operation, it shall be switched to working position: pull off the arm fixation locking device (Figure – 7) holding one arm with hand in the fixed position, distribute the rest of the arms in the operating position.

Connect PSU to ~220 Volt mains and then switch it on. Red indication will light on the turnstile front display panel.

The side display panels will illuminate red. The passage will then be closed, the LED button indicator (Figure 5 - 2) will illuminate red on the RC panel.

One of the arms will be in the blocking condition, which prohibits the passage.

The turnstile is ready for operation.

2.2.4 Inspection and checkout of product readiness for use:

Figure 3 - possible free travel of the arm. In “STOP” mode, it makes 6 degrees on each side.

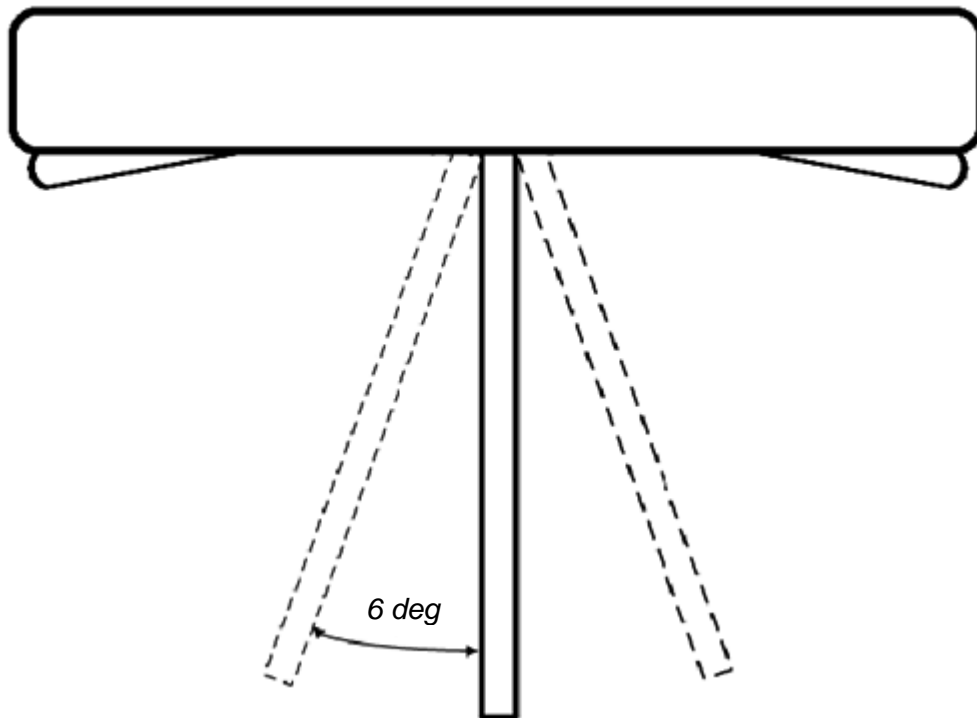


Figure 3 - Possible free travel of the arm in “STOP” mode

2.2.5 Guidelines on product orientation.



ATTENTION: PASSAGE ZONES SHALL BE PROVIDED TO ALLOW RECORDING OF PASSAGES DURING TURNSTILE OPERATION UNDER AMCS CONTROL AND TO AVOID UNAUTHORIZED PASSAGES.

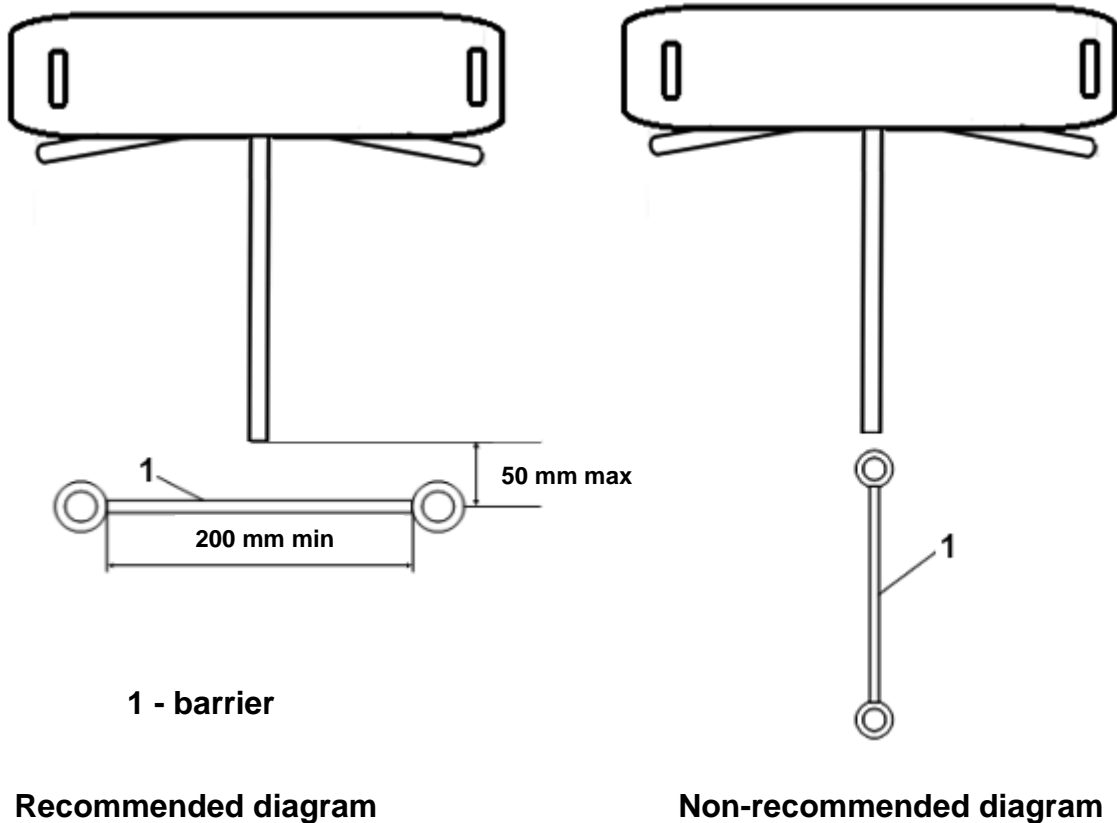


Figure 4 - Turnstile passage zone arrangement.

2.2.6 Control console settings

Figure 5 – Appearance of RC panel. In relation to the user, the product can be installed using different methods. In some cases, it is required to change positions of left/right passage buttons. This may be done by means of the following operations:

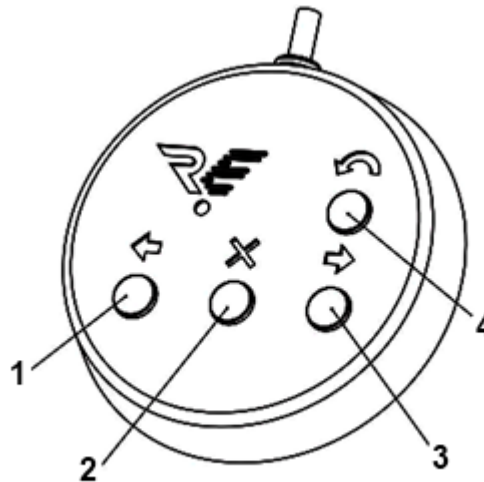
Switch off the product power supply;

- 3) Push and hold **left** (1) and **right** (3) buttons;
- 4) Switch on the product power supply;
- 5) Holding buttons 1 and 3, push **stop** button (2);
- 6) Release buttons 1 and 3;
- 7) Release button 2.

Now, upon pushing “left” button, the right passage will be authorized, and vice versa. Current dedication of buttons is stored in the memory and is not reset

upon power supply disconnection. For return to original option, it is necessary to perform the above mentioned sequence of operations again.

Figure 5 - control buttons 1 (left), 2 (stop), 3 (right), 4 (antipanic) and the product operation mode LED indicators.



1 - left; 2 - stop; 3 - right; 4 - antipanic

Figure 5 – Appearance of RC panel

2.3 Product Operation

2.3.1 Product operating modes

The product has several operating modes. Switch to the desired mode using RC panel or AMCS. Indication of operating modes is displayed on the panel in the form of passage authorization and prohibition mnemonic symbols. Operation of the product with AMCS is considered in IG.

2.3.2 Product operation by means of RC panel

Figure 5 - The LED indicator displaying the turnstile operating mode is located above each RC panel's button.

"Stop" Mode

The "Stop" mode is set during switching on the product. Switching to "Stop" mode from the other mode is performed using button 2. At that, the LED indicator above RC panel's button 2 illuminates red. At that, the front and side display panels glow red. In this mode, both ways passage is prohibited.

The middle arm may be deviated from the initial position by a small angle of 6 degrees. Upon arm deviation, the locking device will actuate automatically and will not let the arm turn for passage execution.

Single passage mode

Button 1(3) actuates the left (right) single passage mode. Upon this mode actuation, the single left (right) passage with subsequent switching to "Stop" mode will be authorized.

At that, the side display panel glows green, demonstrating free left (right) passage. On the front display panel, the group of red lights is running in the authorized passage direction.

On RC panel, the LED indicator illuminates green above the button, to which the passage is authorized, and it illuminates red above button 2. If the passage was not performed during 5 seconds, the product switches to "Stop" mode automatically.

Multi-passage mode in one direction

Push and hold button 2 for switching to this mode; push button 1(3) after that. After that, both buttons may be released.

The multi-passage mode is displayed on RC panel by green indication above button 1(3), the red LED indicator above button 2 does not glow.

The side display panel glows green demonstrating free left (right) passage; on the front display panel, the group of red lights is running in the authorized passage direction.

In this mode, the passage in the authorized direction may be performed for unlimited times.

There is also an option to authorize a single passage in the prohibited direction pushing button 1(3). After this passage performance or upon expiry of 5 seconds, the product will return to the initial mode.

Free passage mode

For switching to this mode, push and hold button 1, after which push button 3 and release both buttons. In this mode, the both way passages for unlimited times are allowed.

The side display panels glow green demonstrating free left (right) passage; on the front display panel, two divergent groups of red lights are moving.

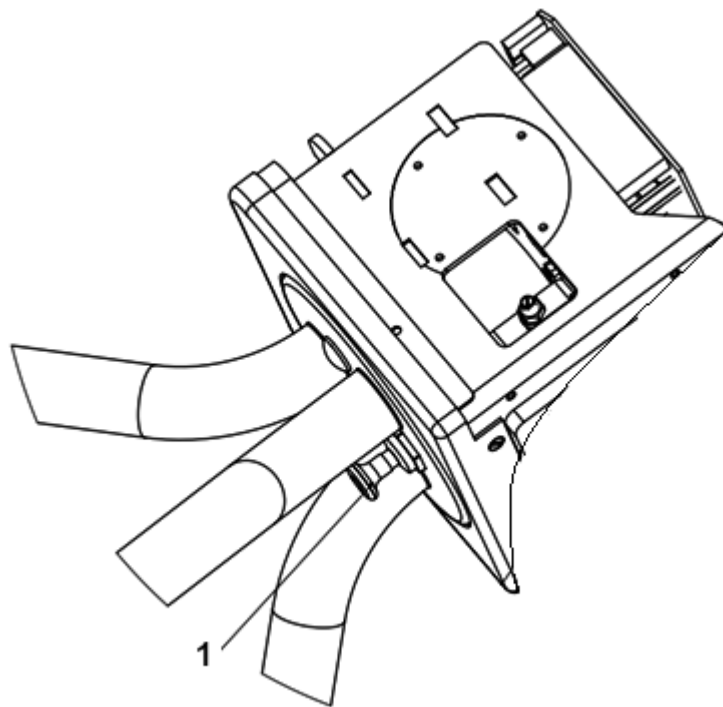
On RC panel, the LED indicators above buttons 1 and 3 illuminate green.

“Antipanic” Mode

Switching to this mode is carried out mechanically.

Put the turnstile to “Antipanic” mode; for this purpose, push button 4 on RC panel.

Pull off the arm fixation locking device (Figure – 7) holding one arm with hand in the fixed position, turn over the second arm clockwise with the other hand so that all bars match each other (Figure 7 - 1).



1 - arm fixation locking device

Figure 6 - Bar fixation locking device

Figure 7 - Then, screw down all assembled arms.

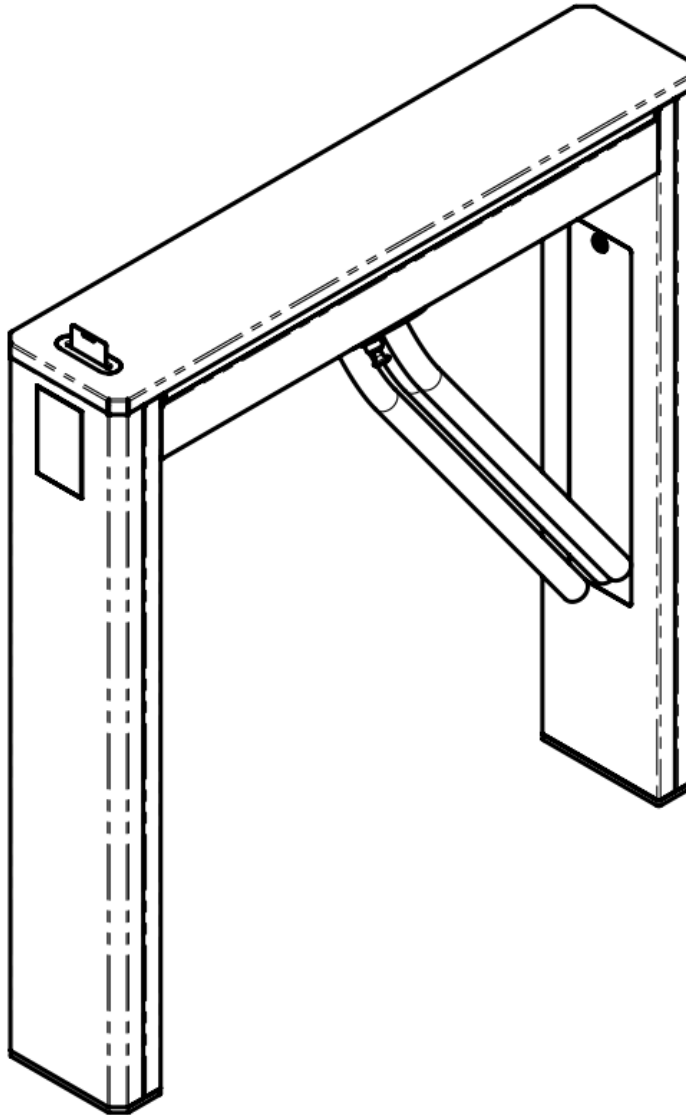


Figure 7 - Turnstile view with assembled bars

The side display panels glow green demonstrating free left (right) passage; on the front display panel, two divergent groups of red lights are moving with increased speed.

2.3.3 Product operation by means of card collector

Upon power up, the suspended mode is set. Switching to the other mode is carried out upon swipe card presentation.

Passage by Permanent Visitor Card

Upon authorized permanent visitor card presentation (it is just enough to hold the card to readout device). the card collector will unlock the turnstile for a time set up by AMCS controller (it depends on operation mode; for 5 seconds - in pulse mode). During the set time interval the other cards are not accepted.

In case of passage performance or the set time interval expiry. the card collector switches to suspended mode and may accept the next card.

At that, the side display panel glows green and demonstrates free left (right) passage. On the front display panel, the group of red lights is running in the authorized passage direction.

Passage by Visitor Card

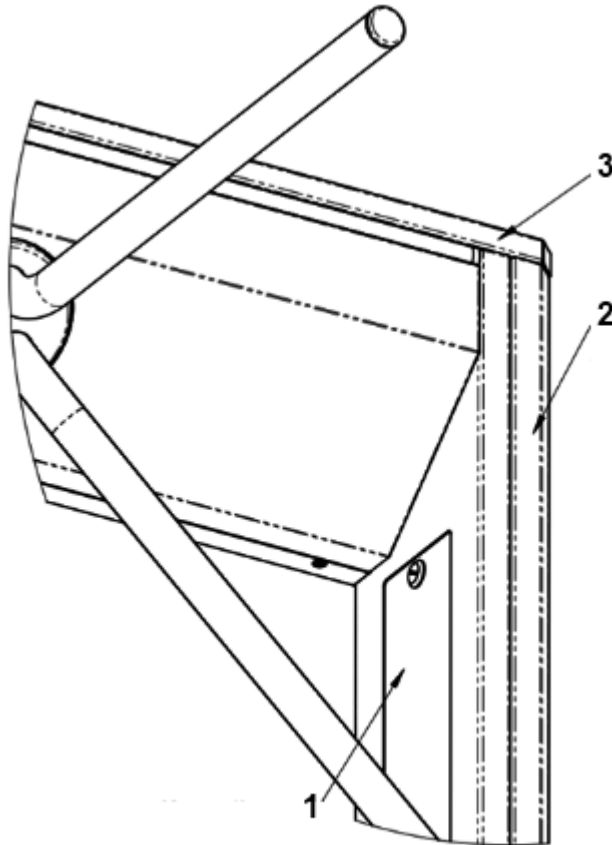
The visitor card shall be inserted into the slot until stop, otherwise, it will be ignored. in case of the authorized card presentation, the card collector withdraws it, after which the card collector unlocks the turnstile for 5 seconds.

Emergency Mode

In the course of card collector operation, different unforeseen situations may occur, during which the card or the foreign object are clamped by the card collector door. The emergency mode is designed for elimination of similar situations.

For this purpose, it is necessary to remove the turnstile and get access to the card collector board.

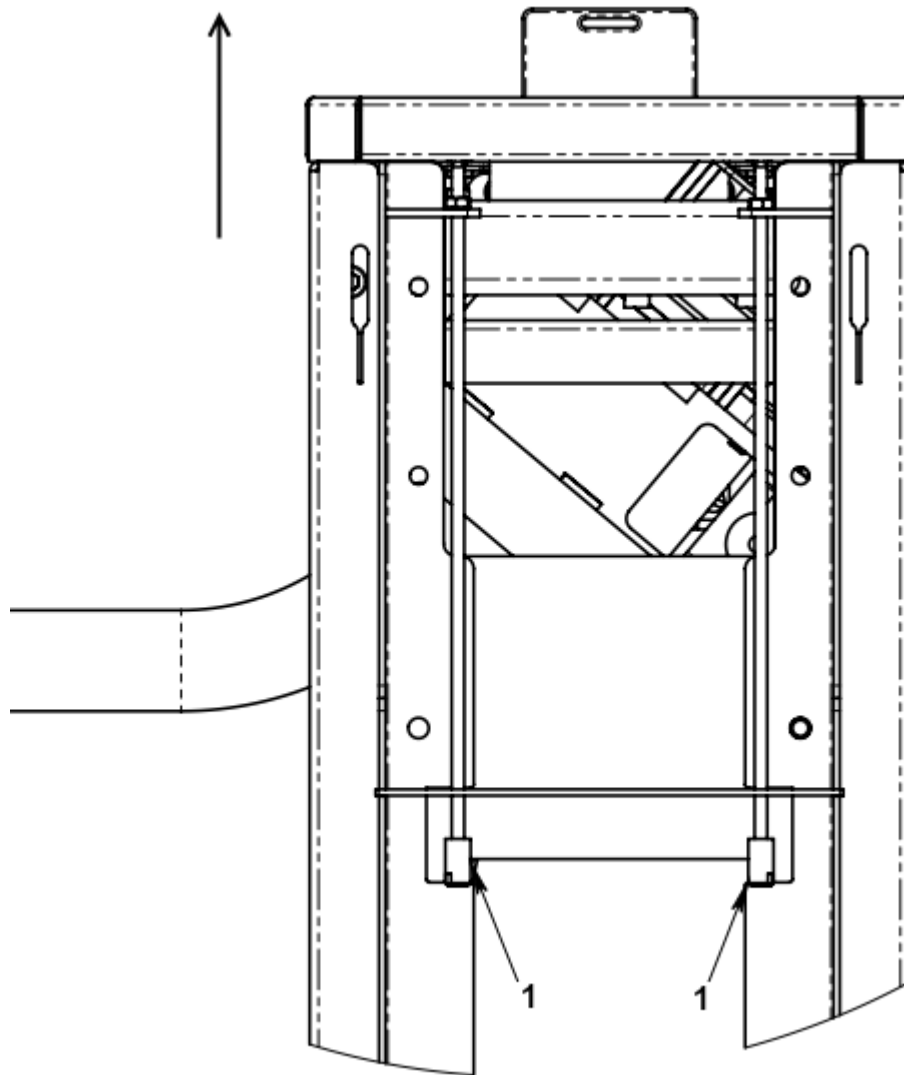
Figure 8 - Open it with the key and remove both containers located inside the turnstile stands.



**1 - card collector container;
2 - side cover; 3 - top cover**

Figure 8 - Card collector container

Figure 9 - Release 4 top cover mounting studs and remove the cover in the specified direction.



1 - cover mounting studs

Figure 9 - Top cover dismounting

Figure 10 - Push and hold button BUT1 on the card collector board. With the pushed button, the card collector door is forcibly opened and continuous sound signal sounds.

Extract the object preventing system normal operation.

Figure 10 - Release button BUT1.

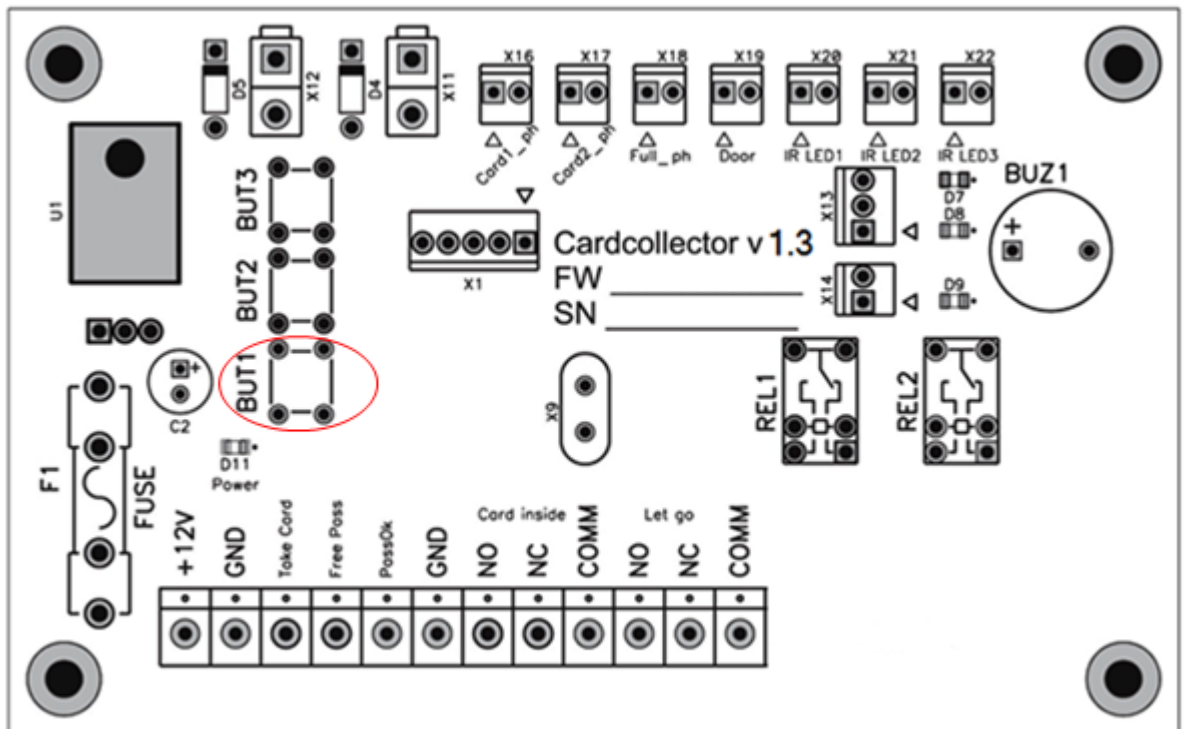


Figure 10 - Card collector Board Appearance

Install the top cover and the containers back.

2.3.4 Extraction of visitor cards out of card collector container

Figure 8 – Open the container lock using the key. Remove the container and collect the visitor cards.

Then install the container in-place.

2.4 Procedure for actions in extreme situations

For passage emergency opening, use “Antipanic” mode: in this mode assemble all bars on the product and free the passage.



ATTENTION: DURING THE OPERATION OF THE PRODUCT, PAY ATTENTION TO THE FACT THAT ELECTRIC CIRCUITS, IN CASE OF SHORT CIRCUIT, INSULATION BREAKDOWN OR SPARKLING, MAY REPRESENT A FIRE HAZARD.

In case of a fire, switch off external power supply. Use powder extinguishers to suppress fire occurring in the product, wiring or cables.

2.5 Product Calibration



ATTENTION: PRIOR TO STARTING CALIBRATION, INSTALL ONE OF THE ARMS IN THE MIDDLE OF FREE PASSAGE IN THE BLOCKING POSITION.

Perform calibration in case of turnstile abnormal operation. Calibration by means of control console:

- 1) cut power supply from the turnstile using the switch on the power supply unit;
- 2) switch on power supply, all LEDs on RC panel will start glowing first and then they will go off, except button (2);
- 3) push button (2) momentarily, button (4) will glow, push and release button (4) momentarily.

The turnstile is calibrated. After calibration turn on the turnstile and check the operation.

3 MAINTENANCE

3.1 General Guidelines

Carry out the turnstile maintenance (hereinafter referred to as MTN) in accordance with this Operational Manual.

3.1.1 In the course of operation, to maintain the product serviceability and ensure its rated service life, it is required to perform the product MTN periodically, including during the warranty period.

3.1.2 Provide scheduled MTN once every 12 months. In case of occurrence of faults, MTN should be provided immediately after fault elimination.

3.1.3 During MTN, it is recommended that operations are carried out by two persons who are at least Cat. 3 specialists duly qualified in mechanics and electrical mechanics (or electrician) and who have read this Operational Manual.

3.2 Safety Precautions

Follow safety precautions during MTN. MTN to be carried out by technicians who have passed special training.



DO NOT:

CARRY OUT OPERATIONS WITH THE ENERGIZED TURNSTILE. FAILURE TO COMPLY WITH THESE SAFETY REQUIREMENTS MAY CAUSE DAMAGE TO HUMAN LIFE AND HEALTH, AND FULL OR PARTIAL LOSS OF OPERABILITY OF THE PRODUCT AND/OR AUXILIARY EQUIPMENT.

UNFASTEN THE MAINBOARD LOCATED UNDER DISPLAY PANEL. OTHERWISE THE MANUFACTURER WILL TERMINATE THE PRODUCT'S WARRANTY.

REMOVE THE DISK INSTALLED ON THE AXIS OF ROTATION OF THE ARMS, BEARING THE "**DO NOT OPEN**" WORDING.



ATTENTION: IT IS NOT RECOMMENDED TO ADJUST SOLENOIDS' STROKE LIMITATION ASSEMBLIES, AS WELL AS TO ADJUST THE TENSION OF THE SPRINGS. THESE ASSEMBLIES HAVE BEEN ADJUSTED AT MANUFACTURER'S FACILITY. DISTURBANCE OF THESE ADJUSTMENTS MAY RESULT IN MALFUNCTIONS OF THE ENTIRE ELECTROMECHANICAL SYSTEM.

3.3 Product maintenance procedure

MTN includes the following scope of works:

- 1) visual inspection of the product's condition;
- 2) turnstile partial disassembly, load-carrying frame cleaning;
- 3) checkout of turnstile parts and assemblies for fixation;
- 4) lubrication of the actuating mechanism and locking mechanisms subjected to parts wear;
- 5) installation of dismantled parts in-place;
- 6) general inspection of turnstile operation.

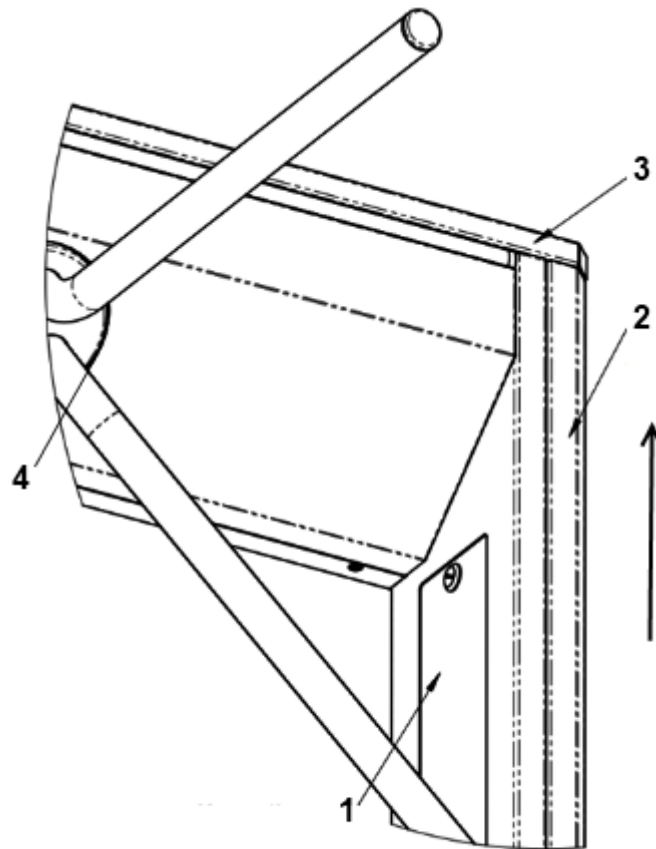
3.4 Product external examination

3.4.1 Perform the product external examination. The product shall have no visible damage.

3.5 Product partial disassembly

For getting access to all required turnstile assemblies, it is necessary to carry out its partial disassembly.

Figure 11 - This scope of works includes dismounting of the card collector containers (1), the top (3) and side covers (2), and the barrier arm assembly (4) of the turnstile.



- 1 - card collector container;
- 2 - side cover; 3 - top cover;
- 4 - barrier arm assembly

Figure 11 – Turnstile's main panels

3.5.1 Switch off the turnstile power supply and disconnect it from mains.

3.5.2 Dismounting of card collector containers.

Open both containers located inside the turnstile stands with the key.

3.5.3 Remove the turnstile top cover.

Figure 9 - For top cover dismounting, unscrew 4 studs. After that, remove the cover in the specified direction.

3.5.4 Remove the turnstile side covers.

Figure 11 - Taking some efforts, displace the side covers in the specified direction until their complete release.

3.5.5 Remove the turnstile's barrier arm assembly.

Figure 6 - Unscrew the locking device of the arms using the Allen key D22.

Figure 12 - Using the key S5, undo the screw M6 located inside the hole, where the locking device of bars is fixed.

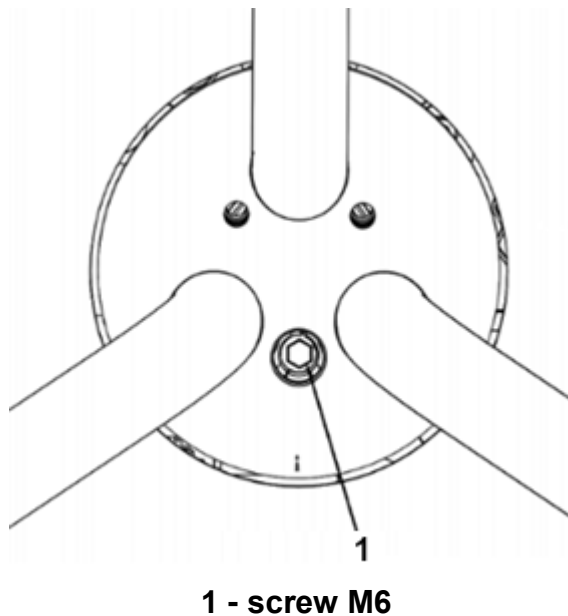


Figure 12 - Screw M6 of arm fixation locking device

Figure 13 - Undo two M6 screws (1) using hexagonal key S5 and remove the assembly.

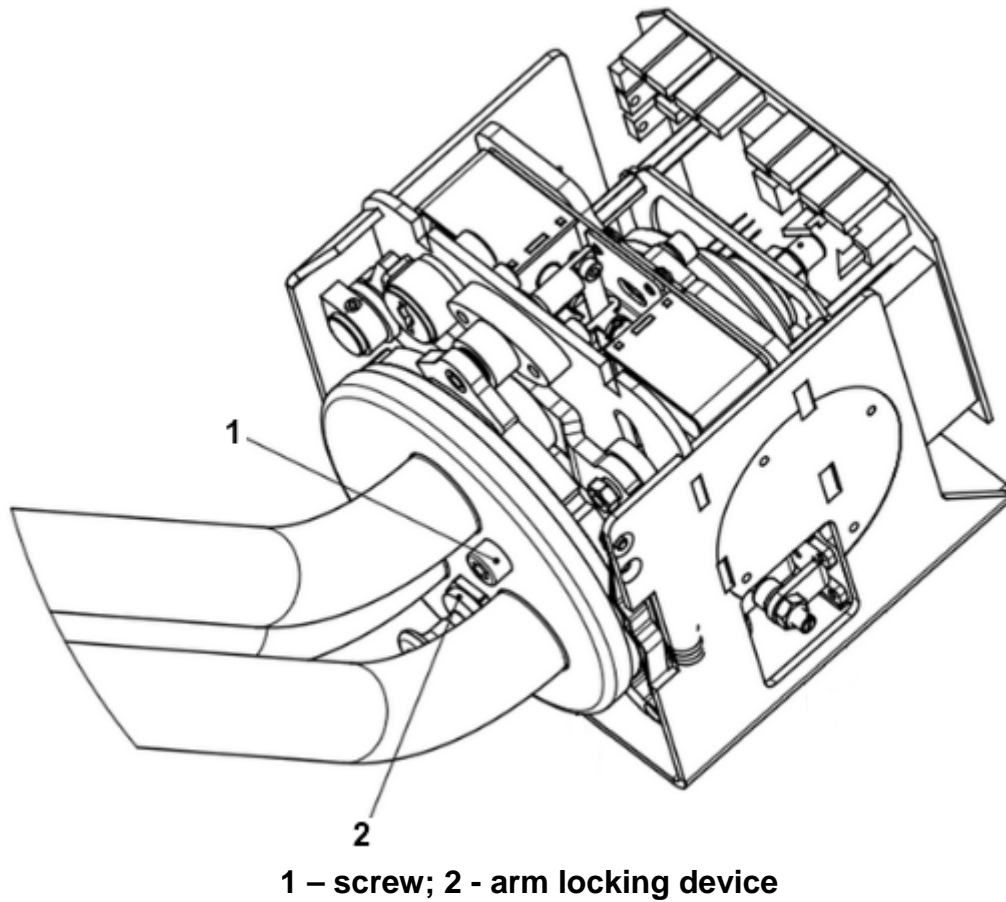


Figure 13 - Dismounting of barrier arm assembly

3.6 Inspection of product assemblies

3.6.1 Clean the load-carrying frame off contaminations.

3.6.2 Check up all cables for fastening reliability.

3.6.3 Check up and tighten the threaded connections of the turnstile assembly fasteners, if necessary.

3.7 Lubrication of product mechanism moving parts


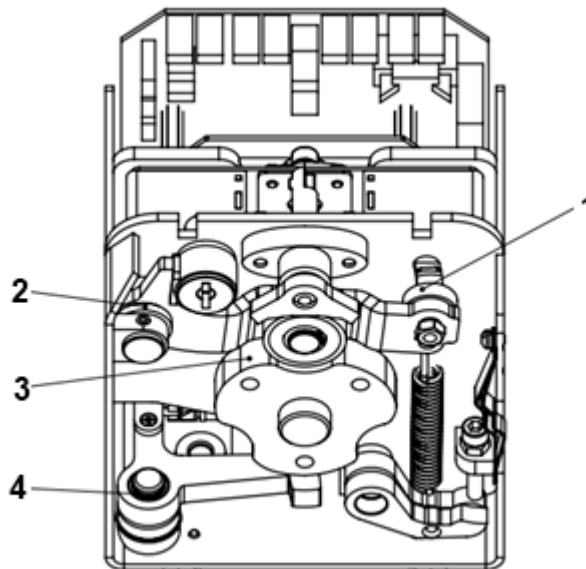
 Lubricate it using 2-3 drops of 5W-20 viscosity grade lube oil for each moving assembly.

Figure 14 - Lubricate turnstile.turnstile mechanism elements (1, 2, 3, 4)



1, 2, 3, 4 – mechanism elements

Figure 14 - Turnstile mechanism elements

3.8 Product assembly and serviceability check

Assemble the product in reverse order:

- 1) install the barrier arm assembly;
- 2) install the side covers;
- 3) install the top cover;
- 4) install the card collector containers;
- 5) switch on the turnstile power supply;
- 6) check for serviceability making some test passages.

With no foreign noise and any operating disturbances, the turnstile is ready for operation.

In case of detecting any assembly defects during the product MTN, it is recommended to address the service divisions for advice.

The List of approved distributors' and service center addresses is given in Appendix A and is available on the web-site: www.oxgard.com



In case it is necessary to repair the damaged painted surfaces, you should use the powder paint similar to the damaged one (RAL9005) following the application instructions.

4. CURRENT REPAIR

4.1 Product current repair

The product current repair is not made. In case of malfunctions listed in Table 6, take the specified actions.

Table 6 - Typical product malfunctions

Malfunction	Action
PSU is connected, but the turnstile does not function	1) Check the power wires for their correct connection; 2) Check the fuse on the motherboard.
RC panel does not function	1) Check the RC panel for its correct connection; 2) If +12V and GND are connected correctly, try to change CL and CH positions.
The turnstile does not operate correctly	Calibrate the turnstile.

Upon occurrence of other malfunctions, address the service divisions.

4.2 Current repair of product component parts

Current repair of product component parts shall be carried out by replacing the faulty parts with the known good parts.

In case it is impossible to replace them or no available known good parts for the product, the proprietary repair method shall be used.

4.3 Faults during warranty period

If the malfunction has occurred during warranty period, (Datasheet VZR.235900.000 DS), the Claim Certificate should be sent at the manufacturer's address.

For this purpose, it is necessary to:

- 1) prepare a technically reasonable Claim Certificate;
- 2) make extracts from the Datasheet Section "Repair";
- 3) make extracts from the Datasheet Section "Preservation".

5. STORAGE

The product is allowed for storing in dry heated rooms (without moisture condensation) under temperature from +1 to +40°C. There shall be no vapors of acids and alkalies, as well as gases causing corrosion in the storage rooms.

The short-term, maximum for 3 days, storage of the product in the original packages is allowed in the dry non-heated rooms and in the enclosed transport bodies.

Prior to putting into operation after storage in unheated rooms, keep the product in the room under normal climatic conditions for 12 hours.

6. TRANSPORTATION

The product in factory packaging can be transported by air, closed motor and railroad transport means when fitted with protection against direct exposure to precipitation and dust without distance limitation.

When transporting and storing the product on EURO pallets, it is allowed for palleting boxes in two rows.

When carrying out handling operations, safety requirements shall be observed.

7. DISPOSAL

The product shall be disposed of in conjunction with its component parts upon service life expiry.

The disposal example may involve the product disassembly (dismounting) and separation of its components according to homogeneous group, its transformation to training aid and for its unintended use.

APPENDIX A – DISTRIBUTORS AND SERVICE CENTERS

The lists of approved distributors and service center are specified in Tables 7 – 8 and are updated continuously. The most up-to-date information can be obtained on web-site www.oxgard.ru.

Table 7 - Distributors and service centers in Russia

No.	Company	Contact details	Status
1	Torgovyi dom Elics	3, M. Semenovskaya Str., ("Elektrozavodskaya" metro station), Moscow, 107023 7(495)725-66-80 www.elics.ru , elics@elics.ru	Distributor Service Center Warehouse
2	Luis +, LLC	28, Yamskoye Pole 1-st Str., Center, Moscow, 125040 7(495)637-63-17 , 7(495)280-77-50 www.luis.ru luis@luis.ru	Distributor Warehouse
3	Luis +, LLC	70, Obukhovskoi Oborony Av., BLD 3A, Saint- Petersburg, 192029 7 (812) 331-40-41; www.luis.ru luis-spb@luis-spb.ru	Distributor Warehouse
4	Luis +, LLC	7, Bureiskaya Str., Volgograd, 400081 7 (8442) 43-97-98 www.luis.ru info@luis-don.ru	Distributor Warehouse
5	Luis +, LLC	12, Sibirsky trakt Str., BLD 6, Yekaterinburg, 620100 7 (343) 298-20-28 www.luis.ru info@luis-ural.ru	Distributor Warehouse
6	Luis +, LLC	2, Dal'njaya Str., Krasnodar, 350051 7 (861) 273-99-03 www.luis.ru info@luis-don.ru	Distributor Warehouse
7	Luis +, LLC	128, Orenburgsky trakt, BLD 1, Kazan', Republic of Tatarstan, 420059 7 (843) 204-22-33 www.luis.ru luis@luis.ru	Distributor Warehouse
8	Luis +, LLC	14, Manufakturnaya Str., N Nizhny Novgorod, 603086 7 (831) 214 -71-17 www.luis.ru luis@luis.ru	Distributor Warehouse

No.	Company	Contact details	Status
9	Luis +, LLC	10, Fabrichnaya Str., Novosibirsk, 630007 7 (383) 285–33–77 1. www.luis.ru luis@luis.ru	Distributor Warehouse
10	Luis +, LLC	7A, Chkalova Str., Perm', 614064 7 (342) 206–07–47 www.luis.ru luis@luis.ru	Distributor Warehouse
11	Luis +, LLC	4A, Menzhynskogo Str., Rostov-on-Don, 344029 7 (863) 261–82–10 www.luis.ru info@luis-don.ru	Distributor Warehouse
12	Luis +, LLC	18 km, Moskovskoye shosse, Samara, 443028 7 (846) 203–04–24 www.luis.ru samara@luis.ru	Distributor Warehouse
13	Luis +, LLC	9, Ervie Str., Tyumen', 625048 7 (3452) 48–95–20 7 (3452)48–95–40 7 (3452)48–95–35 www.luis.ru samara@luis.ru	Distributor Warehouse
14	Luis +, LLC	35, Lenina Av., Chelyabinsk, 454090 7 (351) 220–00–72 www.luis.ru luis@luis.ru	Distributor Warehouse
15	Torgovyi dom Layta	17A, Ul'yanovskaya Str., Saratov, 410056 7 (8452) 392–057, 7 (8452) 735–575 7 (8452) 524–586 www.layta.ru info@layta.ru	Dealer
16	Torgovyi dom Layta	20A, Pirogova Str., Stavropol, 355000 7 (8652) 550–111 7(8652) 551–529 7 (8652) 552–311 7 (8652) 552–411 7 (8652) 553–211 www.layta.ru info@layta.ru	Dealer
17	Bezopasnost'	5, 12-th Parkovaya Str., Moscow 7(495)150–10–71 (multi-channel) sales@podkontrolem.ru www.podkontrolem.ru	Dealer Service Center
18	Pocketkey	Prichalny proyezd, BLD 1, Room 502, Moscow, 123290 7(495) 107-09-10 hello@pocketkey.ru www.pocketkey.ru	Dealer
19	Ravelin, Ltd.	4, Professora Popova Str., Saint Petersburg 7(812) 327-50-32 ravelin@ravelinspb.ru , www.ravelinspb.ru	Dealer Service Center

No.	Company	Contact details	Status
20	Korporativnye Biznes Sistemy	33, Isakovskogo Str., BLD 3, Moscow, 123181 7(495) 234-68-51 www.cbs-group.ru sales@cbs-group.ru	Dealer Service Center
21	Korporativnye Biznes Sistemy	8-10, 34, Solyanoi spusk Lane, Rostov-on-Don, 344002 7(495) 234-68-52 www.cbs-group.ru sales@cbs-group.ru	Dealer Service Center
22	GK Inforser (Yedinyje Sistemnyje Tekhnologii)	24, Ryazansky prospekt, BLD 2, Moscow, 109428 7(495)660 17 33 www.inforser.ru	Dealer Service Center
23	Benar	14, Neftyanaya Str., Khabarovsk 8 962 587 11 69 бенар.рф sales@khab-tech.ru	Dealer Service Center
24	ATM	31, Sh. Revolyutsii, Saint Petersburg 7 (812) 640-85-84 7 (812) 655-62-05 www.atmcompany.ru info@atmcompany.ru	Dealer
25	Centr Sistem Bezopasnosti, CJSC	24, Polyustrovsky pr., Lit. K, Off. 201, Saint Petersburg 195197 7 (812) 240-31-00 market@cesb.ru ,http://www.cesb.ru/	Dealer
26	SMNP-3, LLC	8, Gor'kogo Str., Magadan 7 (41322)307 47 fuks@smnp-3.ru	Dealer Service Center
27	IT Resheniya dlya Biznesa	42, Krasnokamennaya Str., Kaliningrad, 236009 7 (4012) 33-79-18 7 (4012) 76-79-18 it@it-sb.ru	Dealer
28	Intellektualnye Sistemy	145, Chelyuskintsev Str., Voronezh, 394006 7 (473) 250-20-01 inbox@int-sys.ru	Dealer
29	Intellektualnye Sistemy	2, Zhelyabova Str., Off. 307, Lipetsk Region, Lipetsk, 398026 7 (4742) 51-58-77 inbox@int-sys.ru	Dealer
30	Torgovyi dom Tinko	8, 3-rd proyezd Perovo Pole ("Perovo Pole" Business Center, Floor 3), MS "Perovo", Moscow, 111141 7(495) 708-42-13 www.tinko.ru tinko@tinko.ru	Subdealer
31	Satro-Paladin, LLC	9, Kondratyuka Str., BLD 1, Moscow, 129515 7 (831) 272-55-75 7 (831)412-93-11 www.satro-paladin.com dir@nn.satro-paladin.com	Dealer

No.	Company	Contact details	Status
32	Satro-Paladin, LLC	7, Meschersky Blvd, R. 3, off. 10, Nizhny Novgorod, 603070 7 (831) 272-55-75 7 (831)412-93-11 www.satro-paladin.com dir@nn.satro-paladin.com	Dealer
33	Satro-Paladin, LLC	13, Tarifnaya Str., Volgograd, 400009 7 (8442) 56-49-94 7 (8442)71-08-01 7 (8442)76-56-29 www.satro-paladin.com dir@nn.satro-paladin.com	Dealer
34	Videoglaz Centr, LLC	35, Vol'naya Str., BLD 19, Moscow, 105187 7-(495)-280-71-70 www.videoglaz.ru zakaz@videoglaz.ru	Dealer
35	Videoglaz	266C, Ligovsky prospekt, Floor 3, Saint Petersburg 7(812)245-28-24 www.videoglaz.ru zakaz@videoglaz.ru	Dealer
36	Birzha, LLC	29-33, Nizhegorodskaya Street, BLD 32, Off. 402, Moscow 7 (495) 229-45-15 www.global-id.ru info@global-id.ru	Dealer
37	STELZ, LLC	17, Artilerijjskaya Str., Blagoveshchensk, Amur Region 7 (4162) 777-888 7 (4162) 525-777 7 (4162) 519-777 www.global-id.ru ctb@stels-amur.ru sale@stels-amur.ru	Dealer Service Center Warehouse
37	GK Kompleksnye Sistemy Bezopasnosti	3, Kolka Kesayeva Str., Vladikavkaz 7 (8672) 40-35-4 7 (8672)40-58-94 www.ksb-rso.ru ksb-rso@mail.ru	Dealer Service Center
39	Profbezopasnost', LLC	115/1, ulitsa Roz, Sochi 7 (800) 700-51-90 www.profbez.pro info@profbez.pro sale@profbez.pro	Dealer Service Center
40	APL, LLC	4, 9-th Sovetskaya Str., Off. 312, Saint Petersburg 7 (812) 401 63 34, 7 921 55 111 01 www.aplspb.ru info@aplspb.ru	Dealer Service Center
41	ALPRO	Address: 70, Bolshoi Sampsonievsky pr., Lit. C, R. 3N, Saint Petersburg, 194100 Biznes Centr POLAR 7 (812) 702-17-52 www.alpro.ru sales@alpro.ru	Dealer
42	InfoTekh, LLC	103/3, Moskovsky pr., Saint Petersburg 7 (812) 327 95 10 7 (812)327 95 06 www.infotec.ru contact@infotec.ru	Dealer

No.	Company	Contact details	Status
43	ForTrade, LLC	5, Lyubotinsky pr., LIT. B, Off. 310, Saint Petersburg, 196105 8 (812) 309-58-53 www.fteq.ru 4trade@fteq.ru	Dealer
44	Korporatsija Grumant, LLC	27A, Krasnogorskaya Str., Novosibirsk, 630123 8 (383) 210-352-353 www.grumant.ru info@grumant.ru	Dealer
45	Korporatsija Grumant, LLC	25, 1-st Pugachevskaya Str., Off. 118, Moscow, 107553 7 (495)783-29-60 7 (499)161-06-91. www.grumant.ru mf@grumant.ru	Dealer
46	Korporatsija Grumant, LLC	35/4, Kolobova Str., Sevastopol, Crimea, 299038 7 (978) 744 38-86 7 (978) 744-38-59 www.grumant.ru krim1@grumant.ru krim2@grumant.ru	Dealer
47	Modus Treyd, LLC	14, Mayakovskogo Str., Omsk, 644046 7 (3812) 51-00-93 7 (3812) 51-07-29	Dealer

Table 8 - Foreign Distributors and Service Centers

No.	Company	Contact details	Status
1	VZR System OU	Tulika tn 19, Tallinn 372 5844 4957 8 921 996 2746 www.vzrsystem.ee info@vzrsystem.ee	Distributor Warehouse
2	VZR System OU	Hofer Str. 39 95183 Feilitzsch-Zedtwitz Deutschland 372 5844 4957 8 921 996 2746 49 9281 140 11 65 49 928 1 140 11 16 www.multitrans.net ksemjonow@multitrans.net ue@multitrans.net	Distributor Warehouse
3	TD INTANT, LLP	61, Muratbayeva Str., Almaty, Republic of Kazakhstan 7 (727) 225-35-35 7 (727) 220-95-31 www.security.intant.kz intant@intant.net	Dealer Warehouse
4	A+A Security MMC	AZ1110, Azerbaijan, Baku city, Akhmad Bay Aga oglu str. 24B 8 (+994 12) 496-00-56 www.aasecurity.az info@aplusa-security.com	Dealer
5	Victiana S.R.L. (Videosecurity Moldova)	66/3, Khezhdeu Str., Chisinau, Republic of Moldova 373 (22) 876-000 373 (22) 876- 001 www.videosecurity.md info@videosecurity.md	Dealer
6	Unitary Enterprise Sistemy Okhrany Bezopasnosti	1, Petra Glebki Str., Minsk 375 (17) 390-66-66 (multi-channel) Mob.: +375 (33) 340-11-11 (FET - Foreign Exchange Trunk) www.sob.by info@sob.by	Dealer Service Center
7	OÜ Almasel	Mustamäe tee 102-106 Tallinn Harjumaa 12917 Tel +372 59192909 info@almasel.com	Service Center

LIST OF APPROVED ABBREVIATIONS

The following abbreviations have been adopted for use herein:

DTS — Datasheet;

OM — Operational Manual;

IG — Installation Guidelines;

PSU — Power Supply Unit;

RC panel — Remote Control Panel;

AMCS — Access Monitoring and Control System;

MTN — Maintenance.

Vozrozhdenie, LLC
66, Sofijskaya Str.,
Saint Petersburg, 192289
Telephone/Fax +7 (812) 366 15 94
www.oxgard.com
info@oxgard.com

Import and Service:
VZR System OU
Tulika tn 19, Tallinn
+372 5844 4957; +7 921 996 2746
info@vzrsystem.ee

