

# Operational manual

Full-height turnstile Oxgard Praktika T-10-M (T-10-MH)





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# List of abbreviations used

PSU - power supply unit

S&FA - security and fire alarm

CB - control board

ACS - access control system



#### 1. Product purpose

Motorized full-height turnstile Oxgard Praktika T-10-M (T-10-MH) is designed as an obstructing device to control human traffic at check points in facilities with enhanced requirements to passage control and where it is necessary to fully obstruct a passage zone in height.

It shall be used to control access and human traffic by separating its flow "one by one". The turnstile can be used at gate facilities in enterprises and organizations, in offices, banks, education agencies, in sport & recreation facilities, shops, railway stations, etc.

In order to provide convenient and fast passage of people it is recommended to install one turnstile for 500 persons who work in the same shift.

#### 2. Delivery set

Table 1. Delivery set

| Description   | Number   |
|---|----------|
| Full-height turnstile Oxgard <b>Praktika T-10-M</b> | 1 piece  |
| Control board with the cable                        | 1 piece  |
| Keys for the door locks                             | 4 pieces |
| Passport for the article                            | 1 piece  |
| Installation instructions                           | 1 piece  |
| Operating Instructions                              | 1 piece  |
| Sleeve anchor FH 11-S with bolt*                    | 9 pieces |
| Connection cable ΠBC 2x1.5*                         | 1 piece  |

<sup>\*-</sup> to be optionally supplied



# 3. Basic specifications

Table 2. General specifications

| Parameter   | Turnstile      | Console    |
|---|----------------|------------|
| Overall dimensions (H x W x D), mm:                       | 2220x1500x1370 | 107x107x25 |
| Weight (net), kg  | 320            | 0.5        |
| Temperature range, °C:                                    |                |            |
| - during operation  | -40+50         | +1+40      |
| - during transportation and storage                       | -40+50         | +1+40      |
| Relative air humidity, %, at most (w/o condensation)      | 95             | 80         |
| Width of a created passage, mm                            | 600            |            |
| Force for turning the obstructing leaf in its middle, kgf | 6, at most     |            |
| Through-flow rate, persons per minute                     | 20             |            |
| Service life, year  | 8              | 8          |

Table 3. Electrical specifications

| Parameter                  | Turnstile     | Console |
|----------------------------|---------------|---------|
| Power supply voltage:      | 220 V / 50 Hz | 12 V    |
| Rated consumption power, W | 60            |         |

# \*- values mentioned at a nominal supply voltage

The original manufacturer reserves its right to change the scope of supply, technical characteristics and external appearance of the article.



#### 4. Product design

The turnstile is manufactured with electromechanical (motorized) drive of the wicket door automatic rotation.

In the actuating mechanism of Oxgard Praktika T-10-M (T-10-MH) high precision stepper electromotor is installed which is turned at any start of the rotor movement. When moving in the authorized direction, rotor is made up further by the motor, and, when moving in the prohibited direction, the rotor is partially broken.

After turning the arms of the wicket door to an angle of about 10° degrees, turnstile starts the automatic motion of the rotor in the passage direction until the initial (closed) position of the arms is reached.

In the free passage mode, turnstile starts turning the rotor when the arms are deflected by an angle of about 10°, and switches to the arm's raking mode after rotor's turning by an angle of about 110°.

The turnstile body and obstructing arms can be made of:

- power-coated steel (T-10-M)
- stainless steel (T-10-MH)

Both turnstile variations ensure prolonged service life of the turnstile in adverse environmental conditions.

The turnstile consists of:

- fixed enclosure panel (1);
- mobile enclosure elements (rotatory wicket door) (2);
- fixed enclosure elements (3);
- upper module (4);
- actuator (5) within the upper module.



The general view of the turnstile is represented in Fig. 1. The middle part of the turnstile's upper module is provided with two removable lock doors for fast access to the cross-board when connecting CB and ACS cables. The cable inputs shall be led to two racks of the fixed enclosure panel (at choice) (Fig. 1).

When the turnstile is off the mode is normally-opened passage, permitting to go through in both directions.

**CAUTION!** In the off mode, it is forbidden to move the rotor of the turnstile at an increased speed in order not to disturb the operational performance of the product.

The initial mode of the turnstile is closed (the turnstile is closed for passage in both directions).

In the initial mode of the turnstile one leaf blocks passage zone; during this state it's possible to set standard turnstile operation modes.





Fig. 1. General view of the turnstile



#### Display panel

The display panel of the turnstile is located at the upper module of the turnstile below an acrylic glass insert. The operating modes of the turnstile are displayed at the panel as mnemonic symbols for enabling/disabling the passage (Fig. 2).

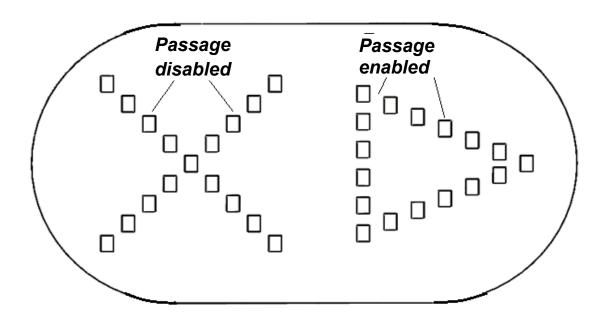


Fig. 2. External appearance of the display panel

#### Control board

The CB body is made of grinded stainless steel. The front side is fitted with control buttons 1 to 4 and LED indicators for desk operation modes (Fig. 3). The standard length of the cable included in the scope of supply is 5 meters.



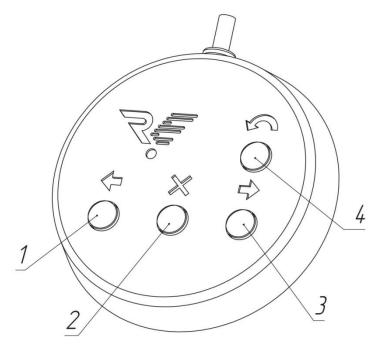


Fig. 3. External appearance of the control board

#### 5. Transportation and storage

In its original packing the turnstile can be transported by air or in covered motor vehicles or railway transport which is protected against direct impact from precipitation and dust w/o limits on a distance. The turnstile can be stored in dry (without moisture condensation) heated space at the temperature between -40 to +50°C. Such a storage space shall not contain vapors of acids, alkali or corrosive gases.

Its tare shall have overall dimensions 1 box: 420x1070x1490 mm (HxWxL), 2 box: 555x890x2130 mm (HxWxL).



#### 6. Safety requirements

When operating the turnstile it is required to follow general safety rules for operating electrical installations.

#### It is forbidden to:

- operate the turnstile in conditions not complying with the requirements to operating conditions
- operate the turnstile under power supply voltage different from that specified in Table 3 "*Electrical data*".

When maintaining the turnstile:

All the works shall be done only with switched-off and de-energized power supply sources.

When removing and installing large-sized and heavy parts of the turnstile be doubly careful and prevent the parts from dropping.

#### **Operating conditions:**

The turnstile is resistant to environmental impact under U2 version as per GOST 15150-69 (to be operated outdoors).

The turnstile can be operated at ambient temperature between -40°C to +50°C and relative air humidity up to 95% at the temperature +25°C.

The turnstile control board is resistant to environmental impact under UHL 4 option as per GOST 15150-69 (to be operated indoors under artificially adjustable climatic conditions).



The control board can be operated at ambient temperature between +1° C to +55°C and relative air humidity up to 80% at the temperature +25°C.

**CAUTION!** Non-observance of the requirements from this section can cause damage to human life & health and full or partial loss of functions of the article and/or auxiliary equipment.

<u>CAUTION!</u> The turnstile shall be installed by qualified specialists as per Installation Instructions.

<u>CAUTION!</u> In the off mode, it is forbidden to move the rotor of the turnstile at an increased speed in order not to disturb the operational performance of the product.

<u>CAUTION!</u> The original manufacturer shall not take responsibility for damage to human life & health, full or partial loss of functions of the article and/or auxiliary equipment due to non-observance of safety requirements of this section and void the warranty for this article.

#### IT IS STRICTLY FORBIDDEN:

• to use compounds and liquids for cleaning the article, which are chemically aggressive for materials of the body.



#### 7. Turnstile operation

#### 7.1. Switching on of the turnstile

- 1. Make sure that all the connections of main and additional equipment are correct.
- 2. Check if the turnstile leaves stay in their initial position which corresponds to the non-gateway or gateway of operation.
- 3.Switch on the power supply for the turnstile to cause lighting up of the passage-prohibiting red cross at the two display panels of the turnstile (Fig. 2) and red lighting up of the LED button 2 (Fig. 3) at CB. The two passage-illuminating lamps will light up.
  - 4. The turnstile is ready to be operated.
  - 5. Check operation of the turnstile in all its modes of operation.

#### 7.2. Modes for operating the turnstile

Several modes for operating the turnstile are provided for. A required mode is switched on by means of CB or ACS. The operating modes are displayed at the display panel as mnemonic symbols for enabling/disabling the passage. Operation of ACS was viewed in Installation Instructions. This section will deal with operation of CB. External appearance of CB is represented on Fig. 3.



#### Mode "Stop"

Mode "Stop" is set when the turnstile is switched on. Any mode will be switched into the mode "Stop" by means of the button 2, and when doing so the LED indicator above the button will turn red.

In this mode passage is prohibited in both directions. Arms movement of the rotor in this mode will be restricted. Arms will rotate only by 50 degrees and will not allow to go through.

#### *Mode of single-time passage*

The button 1 (3) is designed to switch on the mode of single-time passage to left (right). Switching on this mode will allow a single passage to left (right) to be subsequently switched into the mode "Stop". There is an arrow lighting up at the display panel to show free passage to left (right). The LED indicator is lighting up green at CB above that button to whose direction a passage is enabled, while at the button 2 it is lighting up red.

The turnstile after the rotation of the blocking gate at an angle of about 10°, in the permitted direction starts automatic movement of the rotor in the direction of the passage to reach the initial (closed) position of the arms.

If the passage is not made for 7 seconds, the turnstile will automatically switch into the mode "Stop".

### Mode for multi-time one-direction passage

To changeover into this mode it is required to press and hold down the button 2 to be followed by pressing the button 1 (3). After this the two buttons can be released. Multi-time passage is displayed at CB by green indication above the button 1 (3), and meanwhile the red LED indicator



above the button 2 is not lighting up. The display panel displays an arrow in a direction of allowed passage. In this mode passage to an enabled direction can be made an indefinite number of times. It is also possible to enable a single-time passage to a disabled direction by pressing the button 1 (3). After making this passage or within 7 seconds the turnstile will return into the mode "Stop".

#### Free passage mode

To changeover into this mode it is required to press and hold down the button 1 to be followed by pressing the button 3 and releasing the both buttons. In this mode passages in both directions can be made an indefinite number of times. The arrows at both sides of the display panel are lighting. The LED indicators above the buttons 1 and 3 are lighting green at CB.

In the free-passage mode turnstile starts movement of the rotor when the arm is deflected by an angle of about  $10^{\circ}$  and switches to the braking mode of the arms, after turning the rotor by an angle of about  $110^{\circ}$ .

#### Mode "Antipanic"

Any mode will be switched into this mode by pressing the button 4. The green arrows at both sides of the display panel will flash. In this mode passages in both directions can be made an indefinite number of times. At this, the LED indicator above the button 4 will light up yellow at CB.



#### 7.3. Setting the control board.

There are different ways to set the turnstile relative to a user. In some cases it is required to interchange the left/right passage buttons. This can be done by the following operations:

- Switch off power supply of the turnstile;
- Press and hold down the buttons left (1) and right (3);
- Switch on power supply of the turnstile;
- By holding the buttons 1 and 3 press the button 2;
- Release the buttons 1 and 3;
- Release the button 2.

Now pressing the button left will allow passage to right and vice versa. A current designation of the buttons is remembered and will not be reset when switching off power supply. In order to return to an initial option it is necessary to repeat the above-listed sequence of operations.





#### PRODUCT IS CERTIFIED

Voltage: 220 V/50 Hz

Current: 5A

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