Praktika T-04(K) speedgate

Contents

List of abbreviations

PS   – power supply

FA   – fire alarm

RC   – remote control

ACS   – access control system

OD   – operating device

Speedgate firmware version FW v1.4-2.2

Card collector firmware version FWv1.52

1. Product purpose

Praktika-T-04 speedgate is designed for access control and pedestrian flow management. The speedgate can be used at checkpoints at factories and organizations, institutions, banks, schools, sports and entertainment facilities, shops, railway stations, etc.

To ensure easy and quick passage of people it is recommended to install one speedgate for every 500 people working in one shift.

2. Delivery set

Table 1. Delivery set

Item	Qty, pcs.
Praktika T-04(К) speedgate	1
Remote control panel with cable	1
Hatch lock key	8
Datasheet	1
Installation guidelines	1
Operational manual	1.
SORMAT *PFG LB*12-50* anchor	12
M12x60 DIN912(GOST 11738-84) hexagon screw *	12
Connecting cable PVA 2x1,5*	2
Units arrangement diagram *	1.

*-optional

3. Basic specifications

Table 2 Basic specifications

Description	Speedgate	RC panel
Dimension of side unit with open wings (mm) (HxWxL)	1140x1500x200	107x107x25
Dimension of side unit depending on passage lane (mm) 660 900	 1140x1500x500 1140x1500x620	107x107x25
Weight of side unit depending on passage lane, kg 660 900	 110,0 113,0	0,5
Temperature range, ^{0}C - operation - transportation and storage	 +1...+40 +1...+40	 +1...+40 +1...+40
Atmosphere relative humidity, no more than %	80	80
Throughput, people per minute	30	
Card collector capacity (pcs.) **	More than 500	
Max. number of connected RC panels, pcs	2	
Lifetime, years	8	8

Table 3 Electrical specifications

Description	Speedgate	Card collector**	RC panel
Supply voltage, V: - nominal - working	12,0 10,8...15,0	12,0 8…18,0	12,0 7,5...15,0
Average current in standby mode * A	0,4	0,2	
Average current operational mode * A	3,0		
Maximal current of 1 side unit*/***, A	5,0		
Maximal current of card collector*, A		1,5	

*- values mentioned at a nominal supply voltage

**-optional

***- to form a passage area required 2 side units, i.e. 2 power supply 12V 5A

The manufacturer reserves the right to change the packaging, specifications and appearance without notice

4. Product design

Speedgate housing

Speedgate housing is made of brushed stainless steel, wings are made of tempered glass. The design of the speedgate can be equipped with an integrated card collector. An access hatch is provided at the bottom of side units for access to PU, RC and ACS cable holes (Fig. 1).
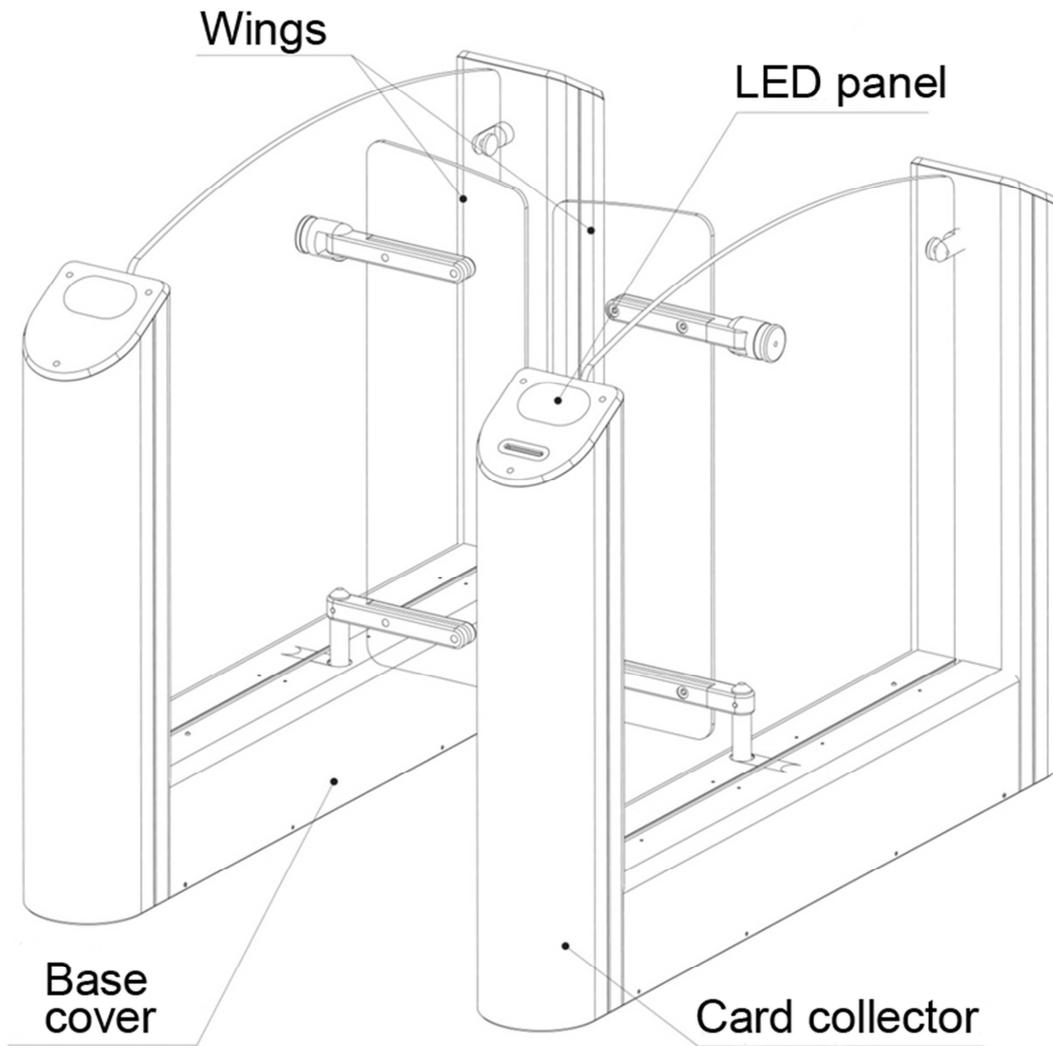
Fig. 1 General view of speedgate

LED panel

Display panel of the speedgate is made of artificial stone with an insertion made of acrylic glass. Speedgate operating modes are displayed on the panel in the form of mnemonic signs depicting authorization and non-authorization of passage (Fig. 2).
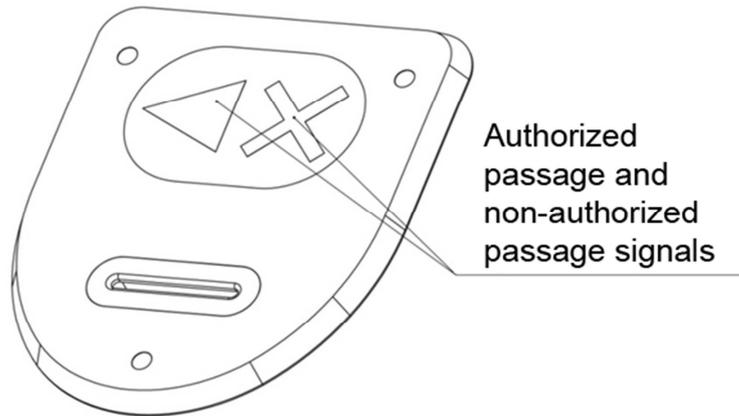

Authorized passage and non-authorized passage signals

Fig. 2 General view of LED panel

Remote Control Panel

The housing of RC panel is made of polished stainless steel. On the front side there are control buttons and LED indicators of RC operational modes (Fig. 3). The standard supplied cable is 5 m long.
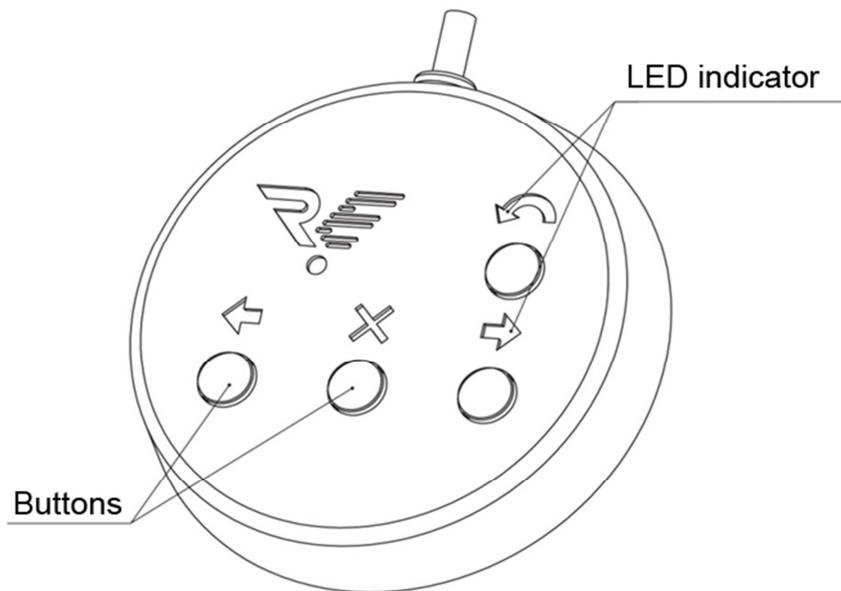
Fig. 3 General view of remote control

5. Transportation and storage

Speedgate in its original packaging shall be transported by air, by road and by railroad with protection from direct exposure to rain and dust without range limitation. It is allowed to stack boxes in 2 rows during transportation and storage if Euro-pallets used. Keep the speedgate in dry (no moisture condensation) heated places within +1 to + 40 °C temperature range. Avoid vapors of acids, alkalis, and corrosive gases at the storage place. Storage of speedgate in the original package in a dry unheated premises or closed transport containers is permitted for short periods, no more than 3 days. Before startup, the speedgate must be kept in a room with normal climate conditions for 12 hours after storage in unheated rooms.

Dimensions of container - 1280x 800x 1650 mm (HxWxL).

6. Safety requirements

CAUTION! Failure to comply with the safety requirements specified in this section may result in damage to human life and health, total or partial loss of workability of products and (or) auxiliary equipment.

CAUTION! Specific guidance on the use of the speedgate:

1. The sensors are installed in the stands of speedgate at a height of 820 mm.

Children shorter than 820 mm cannot be identified by the speedgate.

Children must be accompanied by adults in charge when passing through the speedgate!

Baggage, carts, bags etc. cannot be identified by the speedgate.

2. If there is no distance in the passage between the two visitors, they might be identified as one.

CAUTION! Installation of speedgate must be carried out by qualified personnel according to the instructions.

CAUTION! The producer disclaims any liability for damage to human life and health, total or partial loss of workability of products and (or) auxiliary equipment for non-compliance of the safety requirements specified in this section, as well as terminate the product warranty.

IT IS NOT ALLOWED TO:

- Set the power supply inside the speedgate housing as this might lead to electric shock to persons;
- Set the speedgate other than in dry and heated places;
- Impede or accelerate the speedgate wings;
- Apply chemically aggressive cleaning detergents (as pastes and liquids) to the materials of the housing.

7. Description of card collector

7.1. Card collector purpose

Card collector (Fig. 4) is designed for collection and storage of proximity access cards at the exit from the facility. Flexible logic of the controller allows the integration of the card reader with any access control systems.
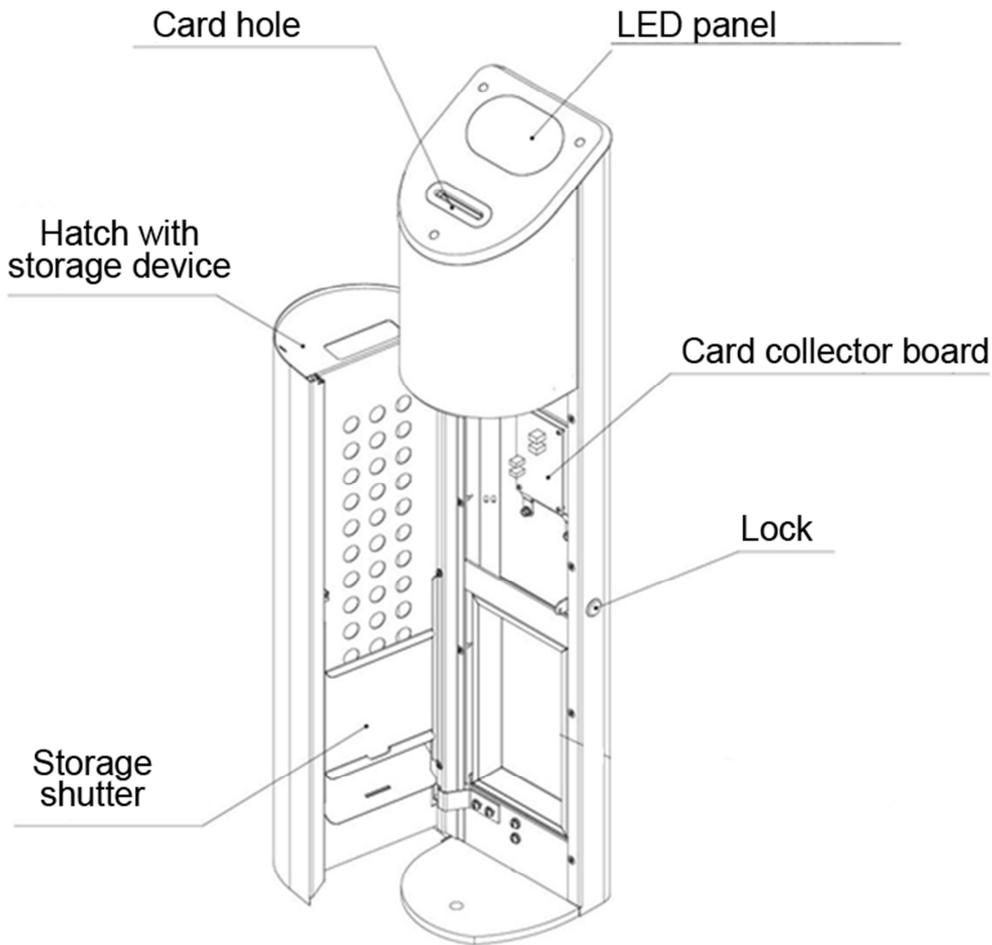
7.2. Product design

Fig 4. *General view of the card collector*

In front of the housing there is a hatch with lock for quick access to collected cards and to the board where PS, OD and ACS cables are connected. The hatch has card storage device where more than 500 cards can be stored.

ATTENTION (!) Reader is not included in the delivery set. Customer can choose reader model suitable for the existing system.

The reader is mounted on a universal adjustable bracket, located under the top cover of the card collector. This solution provides maximum flexibility for installation and connecting of the card collector.

7.3. Removing guest cards from card collector

7.3.1. Open the hatch lock of card collector with a key (Fig. 4).

7.3.2. Put a bag to collect cards (not supplied) underneath storage device.

7.3.3. Lift the storage shutter to remove cards.

7.3.4. Lower the storage shutter and close the hatch with a key.

8. Speedgate operation

8.1. Turn on

Connect power supply units to 220V power network and turn them on. Wings of speedgate will move to the starting position, the red cross will appear on LED panels of the speedgate (Fig. 2) depicting non-authorization of passage. LED indicator of button 2 on the RC panel will turn red (Fig. 3). The speedgate is ready for operation.

8.2. Operating modes

The speedgate has several modes of operation. The desired mode is set by using RC panel or proximity cards. Operational modes are displayed on the panel in the form of mnemonic signs depicting authorization and non-authorization of passage.

8.3. Control with remote contron panel

General view of the RC panel is shown in Fig. 3. Each button is equipped with the LED indicator displaying operation of the speedgate.

"Stop" mode

"Stop" mode is set when the speedgate is turned on. Wings are closed. Switch from another mode to "Stop" is performed by pressing button 2, in this case LED indicator above button 2 turns red. In this mode the passage is non-authorized in both directions.

Single passage mode

Button 1 (3) turns on single passage mode to the left (right). This mode allowes one pass to the left (right) with a subsequent changing to "Stop" mode. Green arrow indicator turns on on the display showing a free passage to the left (right). Green LED indicator on the RC panel turns on above the button corresponding to the authorized passage and a red indicator - above button 2. If the passage is not perfromed within 5 seconds, the speedgate switches to "Stop" automatically.

Free passage mode

In order to swich to this mode press and hold button 1, then press button 3 and release both buttons. In this mode an unlimited number of passages is allowed in both directions. Arrows turn on in both directions. Green LED indicators on the RC panel LED turn on above the button 1 and 3.

"Antipanic" mode

This mode is turned on by pressing button 4 while in any other mode. In this mode the speedgate will open wings towards exit direction. Green indicator on the RC panel will turn on button 4.

8.4. Adjustment of remote control panel

Speedgate can be set in various directions in relation to the user. In some cases it is needed to reverse left / right passage buttons. This can be done by the following operations:

- Power off the speedgate;
- Press and hold left (1) and right (3) buttons;
- Turn on the speedgate;
- Press button 2 while still holding buttons 1 and 3;
- Release buttons 1 and 3;
- Release button 2.

Now when you click left button passage will be allowed to the right and vice versa. The current functions of the buttons are saved and do not reset when power is turned off. In order to return to the initial modification re-do the above sequence.

8.5. Control with card collector

The card collector is set in the standby mode after power-up. It is necessary to present access card to switch the mode.

Passage with permanent cards

When an authorized permanent visitor card is presented to the reader card collector unlocks the speedgate for the time specified by ACS controller (depending on the operating mode; for 5 seconds in pulse mode). During the specified time interval other cards are not accepted. When the passage is performed or the specified time interval is expired card collector switches into standby mode and can collect the next card. Green arrow turns on on the LED panel, indicating the authorization of the passage.

Passage with guest cards

Guest card shall be inserted into the card hole up to the stop otherwise it will be ignored. In case the presented card is authorized, the card collector collects it and then unlocks OD for 5 seconds.

Storage device is full

When the storage device is overfilled, the card collector stops collecting guest cards and provides four short audio signals at intervals of 4 sec., the LED panel flashes red cross indicator at an interval of 4 seconds. Audio signal lasts for 3 minutes; then red cross on LED display continues single blinks 1 time in 2 sec.

Passages with permanent cards are performed normally. In order to switch the card collector in the standard operating mode, remove cards from the storage device (see. Article 7.3).

Emergency mode

During the operation of the card collector there might be a situation when a card or a foreign object becomes jammed by shutter of the card collector. To resolve such situations is an emergency mode.

• Open the hatch of the card collector using the key (Fig. 4);

• Press and hold BUT1 button on the board of the card collector (Fig. 5). When the button is pressed shutter is open forcedly and a continuous audio signal is performed;

• Remove the object that impedes the normal operation of the system;

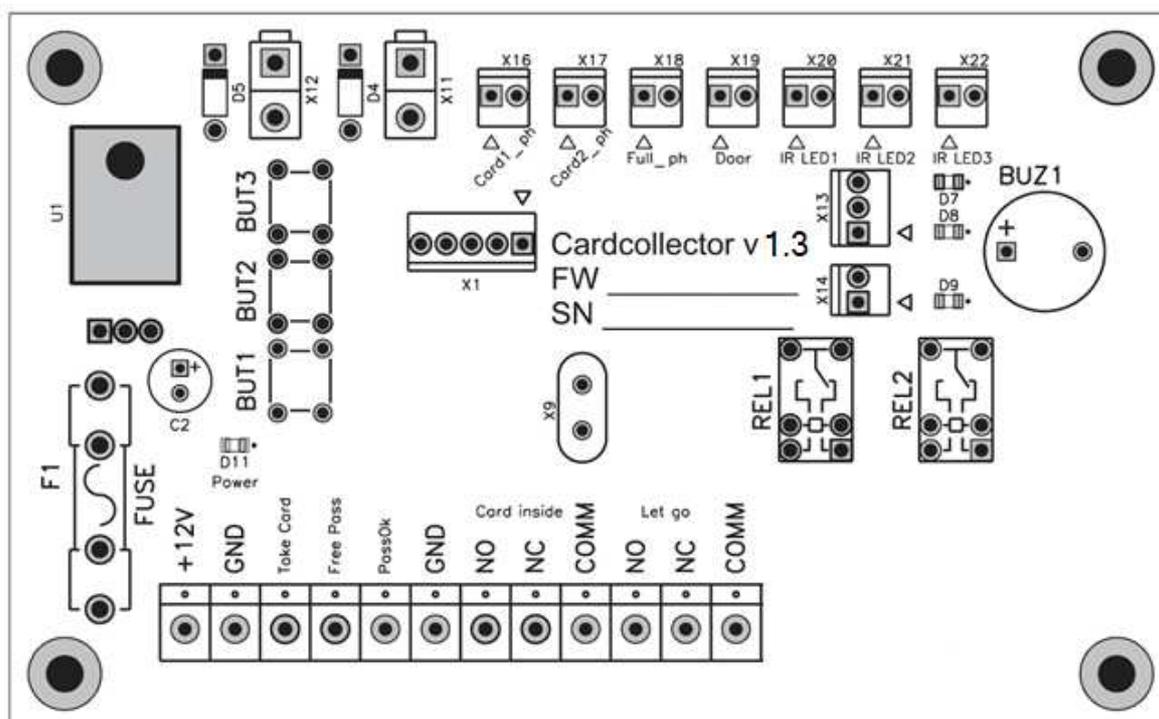• Release BUT1 button and close the hatch with a key.

Fig. 5. General view of board

Appendix 1. Troubleshooting for speedgate

Table 7. Troubleshooting for the speedgate

Fault	Remedy
PS unit is connected, but the speedgate does not work	Check the connection cable; Check the fuses on motherboard
RC panel does not work	Check the RC panel connection; If +12 and GND contacts are connected properly try to interchange positions of CL and CH;

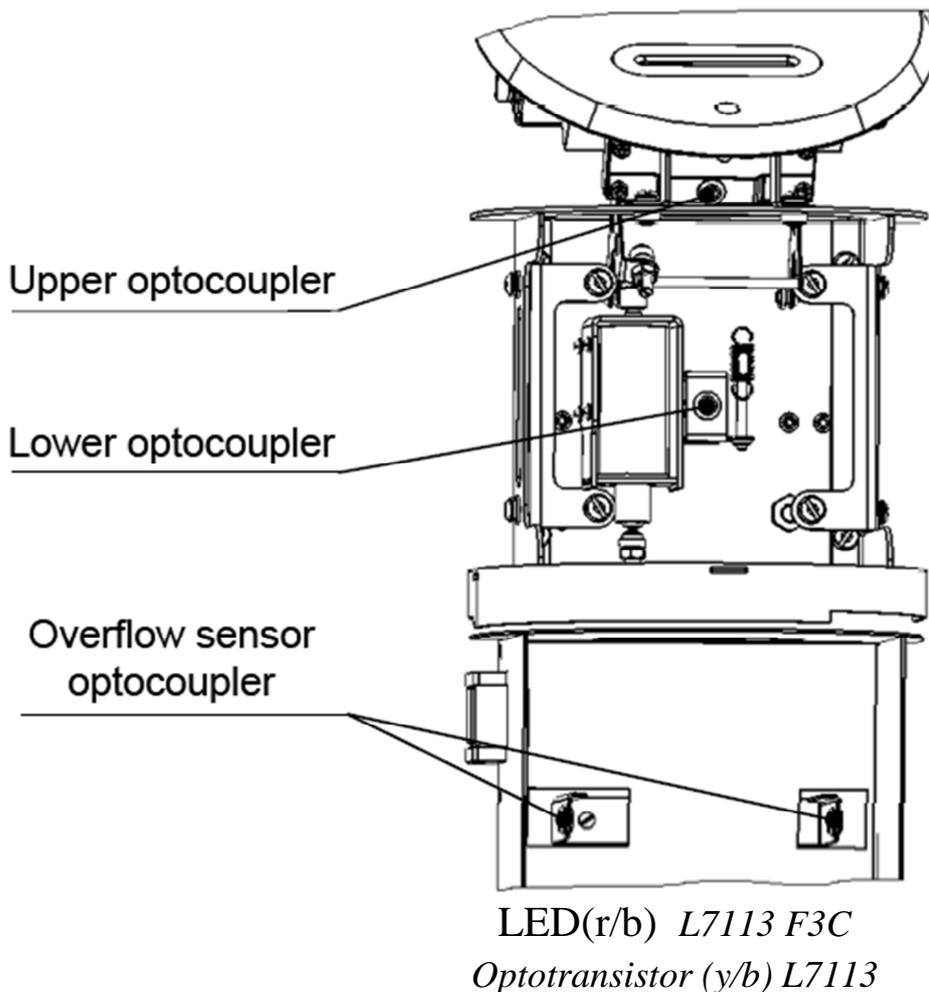# Appendix 2. Troubleshooting for card collector

LED(r/b) *L7113 F3C*

Optotransistor (y/b) L7113

Fig 6. Location of optocouplers of card collector

Table 8. Troubleshooting for the card collector

Fault	Possible causes	Remedy
PS unit is connected, but the card collector does not work		Check the connection cable; Check the fuse on board of the card collector;
Card collector provides 4 audio signals at intervals of 3 sec, red cross on the LED panel flashes every 4 seconds (audio signals last for 3 minutes; then red cross on the LED display continues single blinks 1 time in 2 sec.)	Storage device is full	Act in accordance with article 7.3;

	Overflow sensor (*optocoupler*) is broken (Fig. 6)	Check the condition of the cables and connectors;
		
		If D9 LED on the board of the card collector does not turn red – the fault is caused by the malfunction of motherboard;
		
		If D9 LED on the board of the card collector turns red:
		set the jumper on Full_ph connector - if LED D9 then goes off, the alarm stops, the Red Cross does not blink – the fault is caused by defective optocoupler;
		
		Check the voltage at the connectors (**without removing the connectors, while holding down BUT1 button**):
		    1. Full_ph (Vtyp = 0,15 B; Vmax = 2,5 V):
		     - If V ≤ 2,5 In - all right;
		     - If V> 2,5 V – disaligment or LED and phototransistor fault;
		     - If V = 5 V - the phototransistor or cable are defective;
		    2. IR LED3 (Vtyp = 1,2 B):
		     - If V = 5 V - LED or cable defective;

Card collector provides 5 audio signals, red cross on the LED panel is blinking (then red cross on the LED display continues blinking, cards are not collected, free passage mode is off).	Card or foreign object is left in card hole of card collector	Act in accordance with the article 8.5, "Emergency mode".
	Defective upper optocoupler (Fig. 6)	Check the voltage at the connectors **(without removing the connectors, while holding down the button BUT1**) 1. IR LED1 (Vtyp = 1,2 B): - If V = 5 V - LED or cable defective 2. Card1_ph (Vtyp = 0,1 B; Vmax = 2,5 V): - If V ≤ 2,5 In - all right; - If V> 2,5 V - disaligment or LED and phototransistor fault; - If V = 5 V - the phototransistor or cable are defective;
Card collector collects a guest card and provides an audio signal for 1 second	Defective lower optocoupler (Fig. 6)	Check the voltage at the connectors **(without removing the connectors, while holding down the button BUT1**) 1. IR LED2 (Vtyp = 1,2 B): - If V = 5 V - LED or cable defective 1. Card2_ph (Vtyp = 0,1 B; Vmax = 2,5 V): - If V ≤ 2,5 In - all right; - If V> 2,5 V - disaligment or LED and phototransistor fault; - If V = 5 V - phototransistor or cable are defective