

REPEATER

IFS7002R

INSTALLATION MANUAL

1. Function

Repeater IFS7002R receives and transmits data for Fire condition and Fault Condition from remote fire control panels IFS7002 and provides information about their status:

- ▶ when the security guards stay at a different place from the location of the fire control panel
- ▶ when several fire control panels are monitored from one location
- ▶ when the fire control panel/s are monitored from several locations

2. Installation and preparing to work

The formation of closed wire loops should be avoided when the repeater peripheral devices are installed to the repeater IFS7002R is installed as it reduces the resistance of the Repeater to electromagnetic interferences

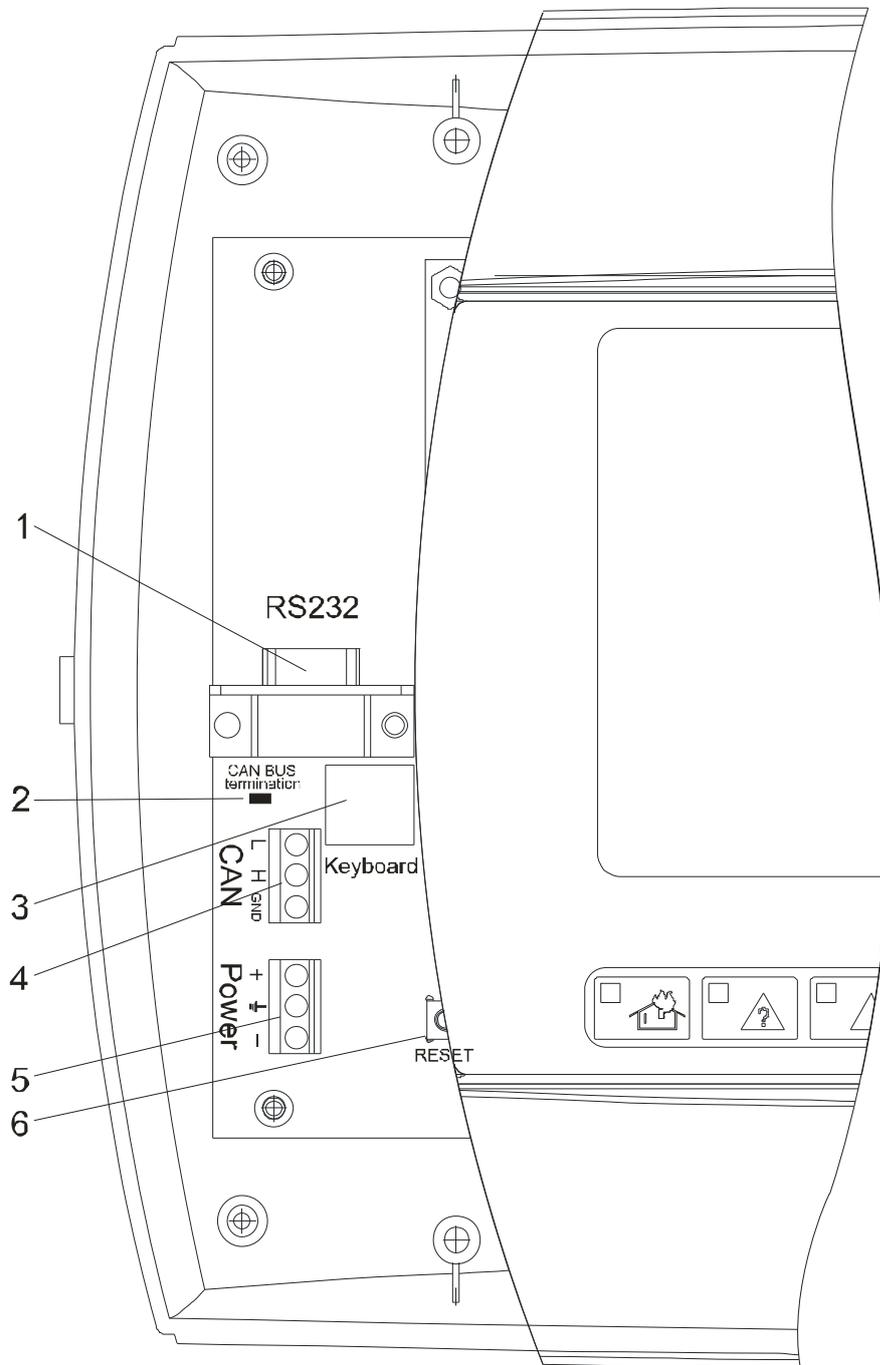
2.1. Fixing

- unpack the repeater;
- install the fixing pins at the specified place (according to the template);
- fix the box to the pins through the its four holes.

2.2. Inputs and outputs description. Installation of fire control panels and other repeaters to the repeater.

The installation of the power supply wires and the wires for CAN network is made by means of terminals. Standard couplings are used for connecting the repeater to PC and for connection of an external keyboard. The location of the terminals and couplings is given in drawing 1.

- ◆ “**RS232**” – Coupling for connecting the repeater to PC (Pos.1) for system setting up and traffic control;
- ◆ “**CAN**” – Terminals for connecting CAN2.0B interface two-wire line (Pos.4). The connection to the fire control panels and the repeaters is executed via this interface. A jumper (Pos.2) is provided, which if installed, shunts the line by 120 ohms. A jumper is provided which could shunt the line by 120 ohms. It is necessary if the fire control panel is a final point on the interface line. Resistors 120 ohms should be installed at both ends of the line for the interface.
- ◆ “**Keyboard**” – Coupling for connection of an external PS2 keyboard (Pos.3) for repeater setting up;
- ◆ “**Power**” – terminals for supply voltage to the repeater (Pos.5);
- ◆ “**RESET**” – Button to reset the repeater (Pos.6);



Drawing 1

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- 1 CANON 9 – RS232;
- 2 Jumper to load CAN line, if needed;
- 3 PS2 coupling for PC Keyboard;
- 4 Terminals for CAN interface;
- 5 Terminals for power supply to the repeater;
- 6 Reset button;

2.2.1. Description and installation of devices to CAN interface terminals

CAN interface function is to transmit data and receive commands from remote fire control panels IFS7002.

The repeater IFS7002R receives data from all fire control panels as it indicates the occurred events by means of sound and light indications and text messages. It is also possible the remote fire control panel to be reset, the parameters to be set up and the archive to be reviewed.

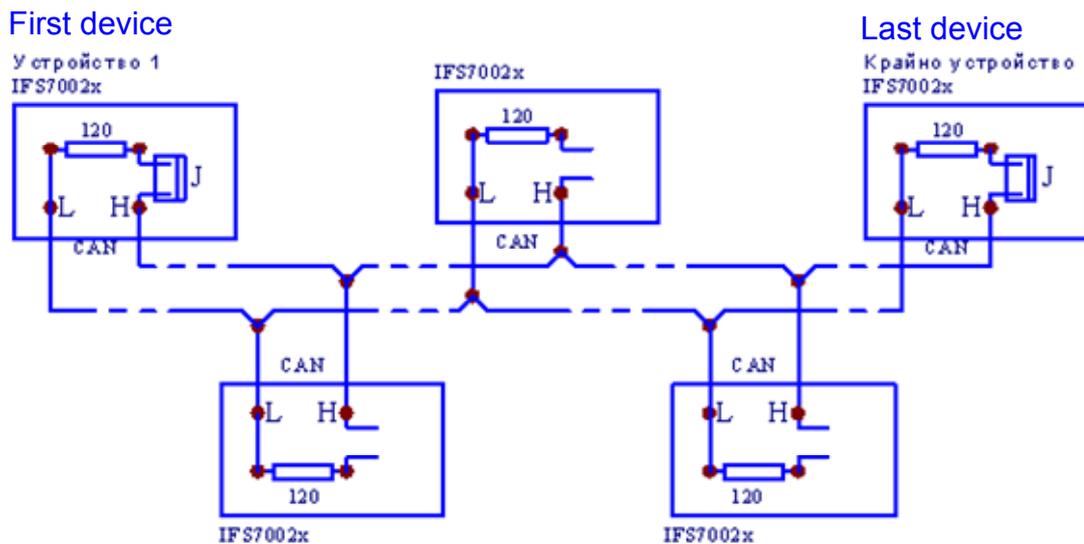
The connection between the devices along CAN interface is executed by parallel connection of two-wire line as it should be observed the requirement potential “L” and “H” not to be crossed. The maximum distance between the end devices should be 1200 m.

The recommended connecting wire cross section should not be less than:

- ◆ Up to 500 м - connecting wire 2 x 0.5 mm²
- ◆ Up to 1000 м - connecting wire 2 x 1.0 mm²

For bigger distances or operation in environment with electromagnetic radiation it is recommended the wire to be double-core or shielded. If the wire is shielded, the shield should be connected only in one end to “earth” terminal on the respective fire control panel or repeater

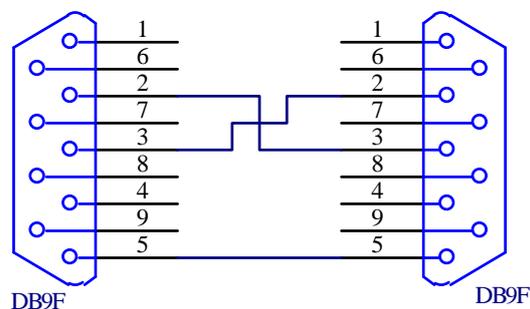
Regardless the line length a jumper should be installed to the first and the last device to terminate the line by 120 ohms. The jumper (J) should be removed from all other devices (Drawing 2).



Drawing 2

2.2.2. Connection of the repeater to PC

The connection with PC for setting up and programming is executed via RS232 interface. For this purpose a cable should be made for connection between the repeater and the PC or the adaptor RS232-USB. Drawing 3 presents the diagram of the cable with the connections. The couplings are CANON 9-socket (female).



Drawing 3

The coupling CANON 9 – socket together with the installed wires is connected to the pin CANON 9 on the repeater PC board.

If the repeater is the first device or the last one, a jumper should be put for connecting a resistor 120 Ω to the line.

2.2.3. Power supply connection

Connect the power supply cable to the terminal marked "POWER" observing the following layout:

- „+“ – power supply wire "+24V";
- „-“ – power supply wire "-24V";
- “Ω” – earthing wire.

The cable cross section should not be less than 0,75mm² for the power supply wires and earthed.

Connect the other end of the power supply cable to the mains of the interactive fire control panel IFS7002 or to the power supply device as the voltage polarity should be observed.

3. Safety instructions

The personnel installing and repairing the repeater should be aware of the construction and performance of the equipment and the general safety measures.

It is not permitted connecting to not earthed or indirectly earthed power supply mains.

Any faults should be repaired after the power supply cable is disconnected from the mains.

The repeater could be installed in a premise with normal fire danger according to the fire construction-technical norms.

4. Starting the repeater

Check the correct connection to the power supply mains.

Check the correct connection of the peripheral devices.

Attention! The repeater operates with constant voltage (10-30)V DC.

When CAN network is made it is possible 32 remote objects (fire control panels and repeaters) to be connected as there is Master and all other objects are subordinate. The master repeater addresses all other devices and depending on the situation receives or transmits data to the remote objects.

The master repeater is programmed from SET-UP Menu as "MASTER". The data for all other objects is also programmed in it: - Address;

- Text messages for the objects;
- Communication speed.

To the subordinate (SLAVE) devices it is programmed: - Address;

- Text message;
- Communication speed.

The data programmed in the master repeater and the remote devices should be accurate in order the communication to be executed.

It is recommended after all devices are switched on the status of each one of the remote objects to be checked from menu LISTS/FAULTS/LAN Objects. Status "YES" shows that there is communication with that address; and status "NO" - no communication with the respective object.

If the communication with a certain object is interrupted due to any reason, the repeater will indicate an error and will provide information about the device without a connection.

UniPOS wishes you pleasant work!

