Roger Access Control System

OSR88M-IO Reader

Installation Manual

Hardware version: v1.0
Firmware version: v1.0.8.205 and newer
Document version: Rev. F

This document contains minimum information that is necessary for initial setup and installation of the device. The detailed description of configuration parameters and functionalities is specified in respective Operating Manual available at www.roger.pl. This document is subject to the Terms of Use in the current version published on the website www.roger.pl. The manufacturer reserves the right to make changes to the product without prior notice. © ROGER sp. z o. o. sp.k. All rights reserved.

INTRODUCTION

The terminal is designed for operation with controller which is equipped with OSDP interface. Therefore, the terminal can be applied in third party systems. In case of RACS 5 system the terminal can be connected to MC16 access controller via MCI-3-LCD interface. Factory new terminal is configured with default settings including OSDP ID=0 address.

CONFIGURATION WITH ROGERVDM PROGRAM

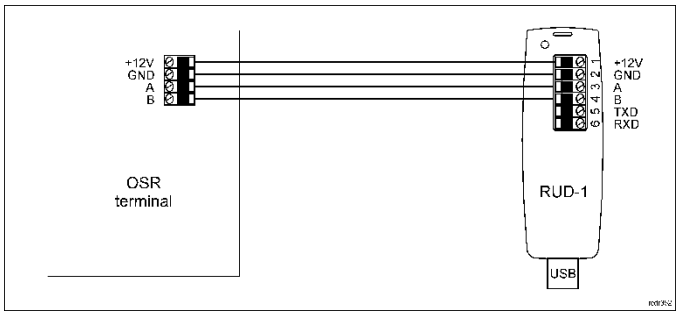

Fig. 1 Connection of OSR terminal to RUD-1 interface

Programming procedure:

1. Connect the device to RUD-1 interface (fig. 1) and connect the RUD-1 to computer's USB port.
2. Remove jumper from MEM contacts (fig. 3) if it is placed there.
3. Restart the device (switch power supply off and on) and orange LED SYSTEM will pulsate. Then within 5 seconds place jumper on MEM contacts and the terminal will display CONFIG MODE text.
4. Start RogerVDM program, select *OSR*, *v1.0* firmware version, *RS485* communication channel and serial port with RUD-1 interface.
5. Click *Connect,* the program will establish connection and will automatically display *Configuration* tab.
6. Specify unoccupied OSDP address in range of 0-126 and configure other low level configuration parameters as needed.
7. Click *Send to Device* to update the configuration of device.
8. Optionally make a backup by clicking *Send to File…* and saving settings to file on disk.
9. Disconnect from RUD-1 interface and leave jumper on MEM contacts.

Note: If the USB port does not offer enough power output, then supply the terminal from external PSU with min. 12VDC/200mA power output.
Note: Do not read any cards nor press keypad when device is configured with RogerVDM.

MANUAL ADDRESSING

Manual addressing procedure enables configuration of new OSDP address with all other settings unchanged.

Manual addressing procedure:

1. Remove all connections from A and B lines.
2. Remove jumper from MEM contacts (fig. 3) if it is placed there.
3. Restart the device (switch power supply off and on) and orange LED SYSTEM will pulsate. Then within 5 seconds place jumper on MEM contacts and the terminal will display CONFIG MODE text.
4. Enter 3 digits of OSDP address in range of 0-126 with keypad.
5. Wait till device starts to emit continuous sound.
6. Leave jumper on MEM contacts.
7. Restart the device.

MEMORY RESET

Memory reset procedure resets all settings to factory default ones including ID=0 address.

Memory reset procedure:

1. Remove all connections from A and B lines.
2. Remove jumper from MEM contacts (fig. 3) if it is placed there.
3. Restart the device (switch power supply off and on) and orange LED SYSTEM will pulsate. Then within 5 seconds place jumper on MEM contacts and the terminal will display CONFIG MODE text.
4. Press [*] or read any MIFARE card 11 times.
5. Wait till device confirms reset with continuous sound.
6. Leave jumper on MEM contacts.
7. Restart the device.

FIRMWARE UPDATE

The firmware of device can be changed to newer or older version. The update requires connection to computer with RUD-1 interface (fig. 1) and starting RogerVDM software. The latest firmware file is available at www.roger.pl.

Note: During the firmware update process, it is necessary to ensure continuous and stable power supply for the device. If interrupted the device may require repair by Roger.
Note: Backup configuration with RogerVDM software before firmware update because the update may restore factory default settings.
Note: If MCI-3-LCD type interface is connected to the terminal then it must be disconnected during firmware update.

Firmware update procedure:

1. Connect the device to RUD-1 interface (fig. 1) and connect the RUD-1 to computer's USB port.
2. Place jumper on MEM contacts (fig. 3).
3. Restart the device (switch power supply off and on).
4. Start RogerVDM program and in the top menu select *Tools* and then *Update firmware*.
5. In the opened window select device type, serial port with RUD-1 interface and path to firmware file (*.frg).
6. Click *Update* to start firmware upload with progress bar in the bottom.
7. When the update is finished, disconnect from RUD-1 interface. Additionally, it is recommended to start memory reset procedure.

INSTALLATION

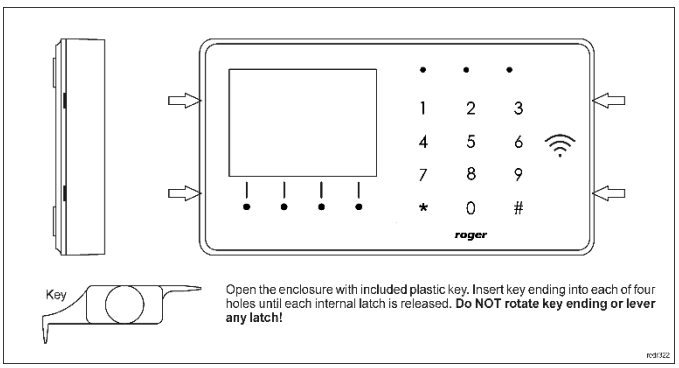

Fig. 2 Enclosure disassembly

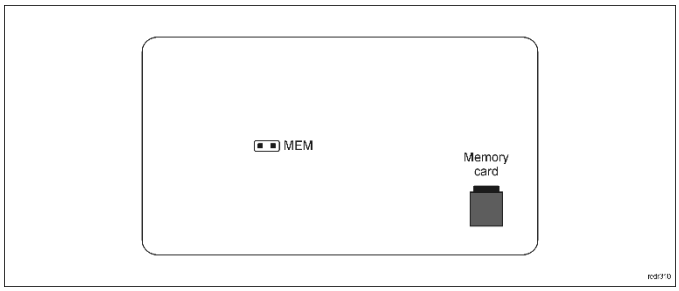

Fig. 3 Service contact and memory card

Table 1. Screw terminals	
Screw terminal	Description
+12V	12VDC power supply
GND	Ground
A	OSDP bus, line A
B	OSDP bus, line B
COM	REL relay common terminal
NC	REL relay output (NC)
NO	REL relay output (NO)
IN1	IN1 input line
IN2	IN2 input line
IN3	IN3 input line
OUT1	OUT1 output line
OUT2	OUT2 output line
1,2,3,4,5,6,7,8	Ethernet port

Installation guidelines

- The terminal should be mounted on a vertical structure (wall) away from sources of heat and moisture.
- In particular, it is not allowed to install the reader in places with high humidity such as saunas, swimming pools, car washes, etc.
- Front panel should be attached in such way as the tamper detector would firmly press the back panel.
- All electrical connections should be done with disconnected power supply.
- If the terminal and controller are not supplied from the same PSU, then GND terminals of both devices must be connected with any wire.
- Device can be cleaned by means of wet cloth and mild detergent without abrasive components. In particular do not clean with alcohols, solvents, petrol, disinfectants, acids, rust removers, etc. Damages resulting from improper maintenance and usage are not covered by manufacturer warranty.

APPENDIX

Table 2. Specification	
Nominal supply voltage	12VDC
Nominal supply current	~110 mA
Inputs	Three inputs internally connected to the power supply plus (+12V) through a 5.6kΩ resistor, approx. 3.5V triggering level when configured as NO or NC.
Relay output	Relay output with single NO/NC contacts, rated 30V/1A
Transistor outputs	Two (IO1, IO2) open collector outputs, 15VDC/150mA rated
Tamper protection	Enclosure opening reported to access controller
Identification methods	ISO/IEC14443A MIFARE Ultralight, Classic, Desfire (EV1, EV2, EV3) and Plus proximity cards
	Mobile device (Android) compatible with NFC Mobile device (Android, iOS) compatible with BLE (Bluetooth Low Energy) v4.1
Reading range	Up to 7 cm for MIFARE cards and NFC Up to 10 m for BLE – depends on ambient conditions and particular mobile device. Terminal's radio power can be increased within low level configuration. Note: In the presence of electrical interference, the reading range of proximity cards and the operating range of BLE may be significantly reduced and, in extreme cases, the operation of these functions may even be blocked.
Distance	Up to 1200 m bus length between controller and terminal (OSDP)
IP	IP30
IK	IK05
Environment	Indoor general conditions, temperature: +5°C to +40°C, relative humidity: 10 to 75% (no condensation)
Dimensions HWD	85 x 155,5 x 21,5 mm
Weight	~190g
Compliance	CE, RoHS
Manufacturer's warranty	36 months

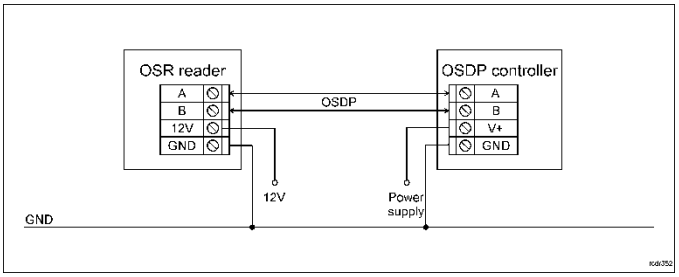

Fig. 4 Typical connection of reader to OSDP controller

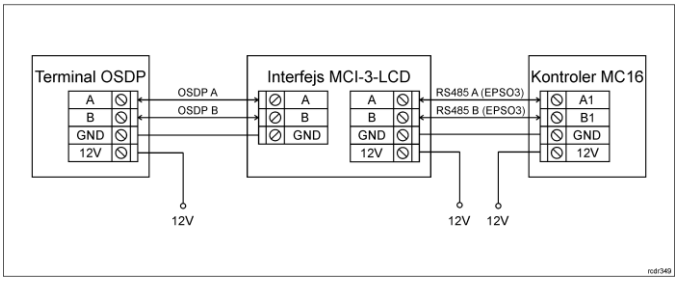

Fig. 5 Typical connection of OSDP reader to MC16 controller via MCI-3-LCD

Table 3. Ordering information	
OSR88M-IO	Access terminal; colour matrix display; 3 inputs; 2 transistor outputs; 1 relay output; sensor keypad; 4 function keys; MIFARE Ultralight/Classic/DESFire (EV1, EV2, EV3)/Plus/NFC/Bluetooth; OSDP v2.2; 12 VDC supply; QUADRUS series design
MCI-3-LCD	The interface enables the connection of the OSR88M-IO with OSDP v2 communication protocol to MC16 series controllers (RACS 5 system); 12 VDC power supply
RUD-1	Portable USB-RS485 communication interface dedicated to ROGER access control devices

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Table 4. Product history		
Version	Date	Description
OSR88M-IO v1.0	08/2022	The first commercial version of product

This symbol placed on a product or packaging indicates that the product should not be disposed of with other wastes as this may have a negative impact on the environment and health. The user is obliged to deliver equipment to the designated collection points of electric and electronic waste. For detailed information on recycling, contact your local authorities, waste disposal company or point of purchase. Separate collection and recycling of this type of waste contributes to the protection of the natural resources and is safe to health and the environment. Weight of the equipment is specified in the document.

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