Roger Access Control System

MCT80M-BLE Installation Manual

Firmware version: 1.0.2.97 and newer

Document version: Rev. A

CE

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.

INTRODUCTION

The MCT terminal is designed to operate in RACS 5 system as peripheral device connected to RS485 bus of MC16 access controller. Factory new terminal is configured with default settings including ID=100 address. Before connecting to controller, the terminal should be assigned with unoccupied address in range of 100-115. Programming of other parameters depends on the individual requirements and is not obligatory. Addressing of the terminal can be done from computer by means of RogerVDM program or manually. Configuration of the terminal with RogerVDM requires RUD-1 interface.

CONFIGURATION WITH ROGERVDM PROGRAM

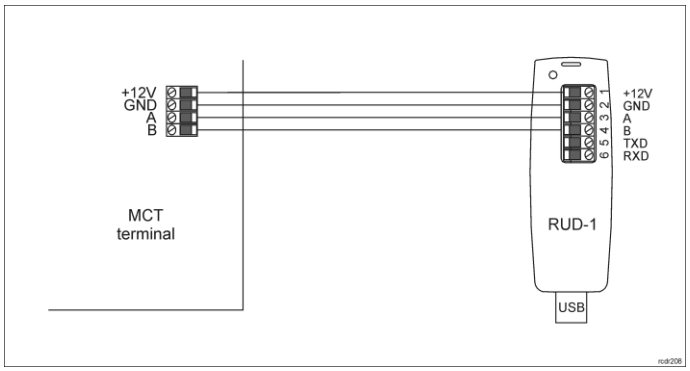

Fig. 1 Connection of MCT terminal to RUD-1 interface

Programming procedure with RogerVDM software:

1. Place jumper on MEM contacts (fig. 2).
2. Connect the device to RUD-1 interface (fig. 1) and connect the RUD-1 to computer's USB port. Orange LED SYSTEM will pulsate.
3. Start RogerVDM program, select *MCT* device, *v1.0* firmware version, *RS485* communication channel and serial port with RUD-1 interface.
4. Click *Connect,* the program will establish connection and will automatically display *Configuration* tab.
5. Enter unoccupied RS485 address in range of 100-115 and other settings according to requirements of specific installation.
6. Click *Send to Device* to update the configuration of device.
7. Optionally make a backup by clicking *Send to File…* and saving settings to file on disk.
8. Remove jumper from MEM contacts and disconnect device from RUD-1 interface.

Note: Do not read any cards when the device is configured with RogerVDM.

MANUAL ADDRESSING

Manual addressing procedure enables configuration of new RS485 address with all other settings unchanged.

Manual addressing procedure:

1. Remove all connections from A and B lines.
2. Place jumper on MEM contacts (fig. 2).
3. Restart the device (switch power supply off and on) and orange LED SYSTEM will pulsate.
4. Enter 3 digits of RS485 address in range of 100-115 with any MIFARE card.
5. Wait till device starts to emit continuous sound.
6. Remove jumper from MEM contacts and restart the device.

Terminals without keypad can be addressed with multiple card readings where the N number of readings emulates digit of the address. Three series of readings with any MIFARE proximity card are necessary to set the address. After each series wait for two beeps and proceed with the next digit. Zero digit is emulated with 10 readings.

Example:
Programming of ID=101 address with card readings:

1. Read card 1 time and wait for two beeps.
2. Read card 10 times and wait for two beeps.
3. Read card 1 time and wait for two beeps.

MEMORY RESET PROCEDURE

Memory reset procedure resets all settings to factory default ones including ID=100 address.

Memory reset procedure:

1. Remove all connections from A and B lines.
2. Place jumper on MEM contacts (fig. 2).
3. Restart the device (switch power supply off and on) and orange LED SYSTEM will pulsate.
4. Read any MIFARE card 11 times.
5. Wait till device confirms reset with continuous sound.
6. Remove jumper from MEM contacts and restart the device.

FIRMWARE UPDATE

The update requires connection of reader to computer with RUD-1 interface (fig. 1) and starting RogerVDM software. The latest firmware file is available at www.roger.pl.

Firmware update procedure:

1. Place jumper on MEM contacts (fig. 2).
2. Connect the reader to RUD-1 interface (fig. 1) and connect the RUD-1 to computer's USB port. Orange LED SYSTEM will pulsate.
3. Start RogerVDM program and in the top menu select *Tools* and then *Update firmware*.
4. In the opened window select device type, serial port with RUD-1 interface and paths to main firmware file (*.frg) and additional firmware file (*.cyacd).
5. Click *Update* to start firmware upload with progress bar in the bottom.
6. When the update is finished, remove jumper from MEM contacts and restart the reader.

APPENDIX

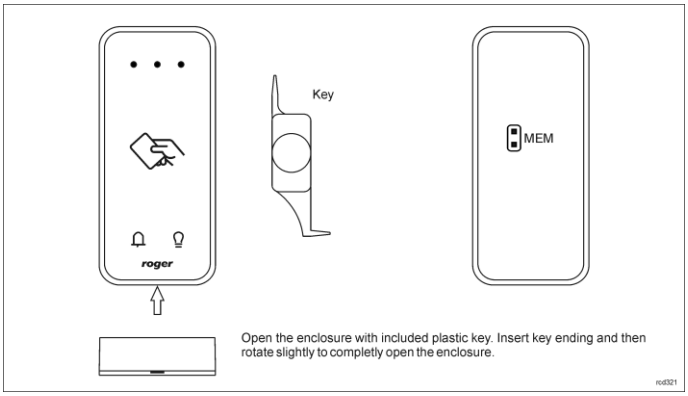

Fig. 2 Enclosure opening and location of service contacts

Table 1. Wires		
Name	Wire colour	Description
12V	Red	Supply plus
GND	Black	Ground
A	Yellow	RS485 bus, line A
B	Green	RS485 bus, line B

Table 2. Specification	
Supply voltage	Nominal 12VDC, min./max. range 10-15VDC
Current consumption (average)	~70 mA
Tamper protection	Enclosure opening reported to access controller
Identification methods	13.56MHz MIFARE Ultralight, Classic, Plus and Desfire proximity cards Mobile devices (Android, iOS) with NFC Mobile devices (Android, iOS) with 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

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	radio power can be increased within low level configuration.
Distance	1200 m maximal cable length for RS485 bus between controller and terminal
IP Code	IP65
Environmental class (according to EN 50133-1)	Class IV, outdoor general conditions, temperature: -25°C to +60°C, relative humidity: 10 to 95% (no condensation)
Dimensions H x W x D	100 x 45 x 16 mm
Weight	~100g
Certificates	CE

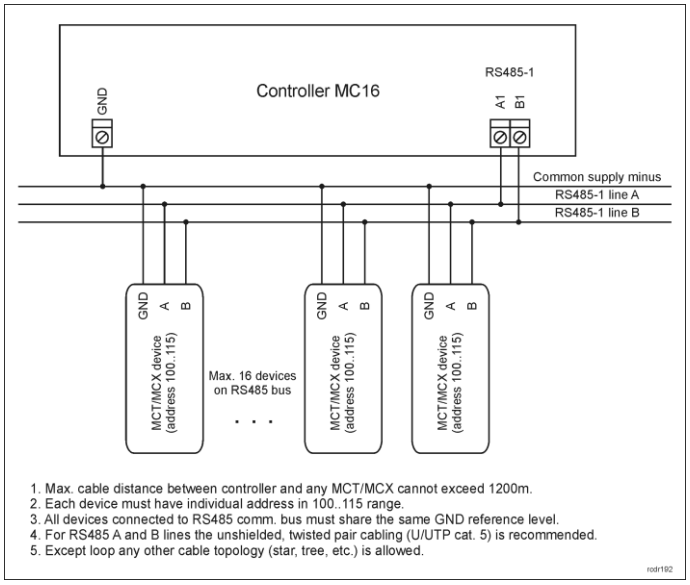
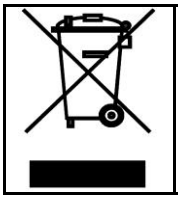


Fig. 3 Connection of terminals and expanders to MC16 access controller



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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