Roger Access Control System

User manual for
Demonstration Board DB-6A

Hardware version: 1.1

Document version: Rev. D

$\mathsf{C}\,\mathsf{E}$

1. INTRODUCTION

DB-6A is a demonstration board dedicated for RACS 5 system evaluation and demonstration purposes. The factory new board is preprogrammed with test configuration. It can be re-configured and used for test and evaluation of specific system functions and features. It can be also expanded with other devices through extension ports in order to create more complex test environment.

This manual contains minimum information necessary to properly use the board. Full functional description of RACS 5 system and manuals of individual devices are available at www.roger.pl.

2. PREPARATION FOR USE

2.1 Description

All devices are installed on a demo board, connected and preconfigured. MC16 controller operates with factory uploaded demo configuration. DB-6A includes:

- MC16-SVC access controller
- Memory card installed in the controller
- MCT80M-BLE reader
- MCT84M reader
- MCT82 readers (2 pcs.)
- MCT12M readers (2 pcs.)
- RUD-3 administrator reader
- RUD-1 communication interface
- Sockets and IOS-1 simulators
- 10 pcs. of MIFARE® Classic 1k proximity cards
- Ethernet cable, 2 x RJ45, 2m length
- Memory card reader
- USB cable (2 pcs.)
- MCX-8 expander

Additionally the memory card of MC16 controller stores _DB-6A folder with
- documentation,
- low-level (RogerVDM) and high-level (VISO) configuration files
- VISO EX license with following limits: 8 doors, 3 partitions, 50 users.

All readers including RUD-3 reader are pre-programmed for SSN card number readout instead of MIFARE® CSN. The same applies to included proximity cards.

2.2 DB-6A setup

DB-6A is ready for use after connection to 230VAC power supply. The connection of Ethernet cable to MC16 controller and LAN/WAN or directly to computer with VISO software can be used for further configuration of the system/controller. Connection of USB cable to RUD-1 communication interface and computer with RogerVDM software can be used for further low level configuration of MCT readers and MCX-8 expander. The set includes Wiegand, RACS CLK/DTA and RS485 sockets for connection of additional readers and other devices. More information on connection of additional devices is provided in MC16 manual.
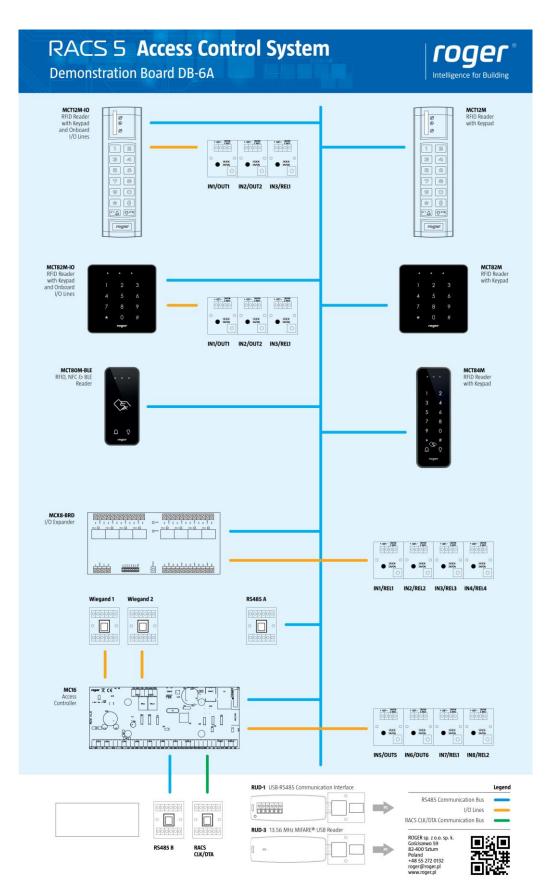
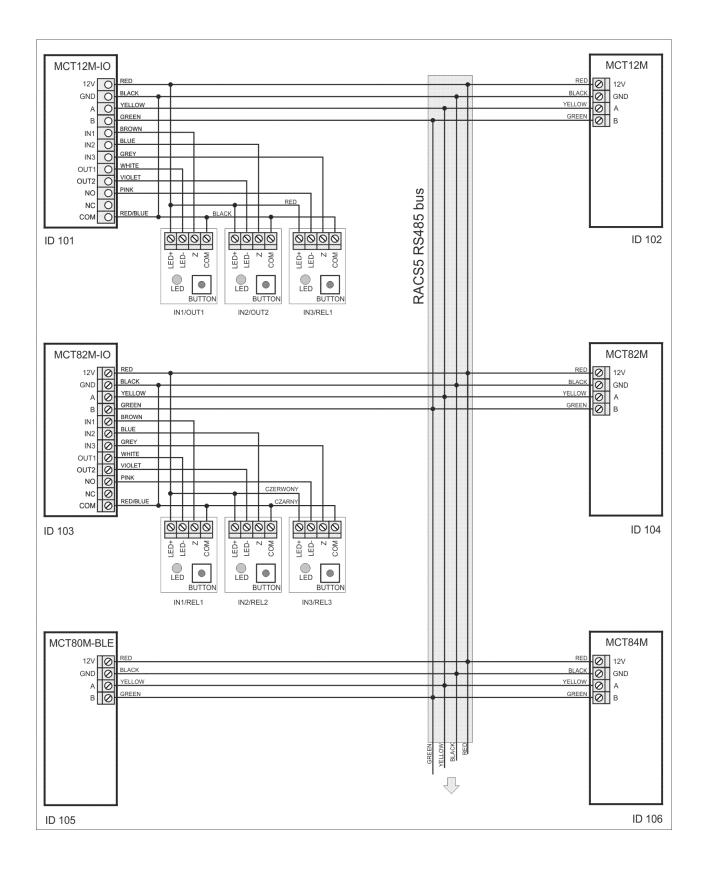roger®

Fig.1 DB-6A functional diagram
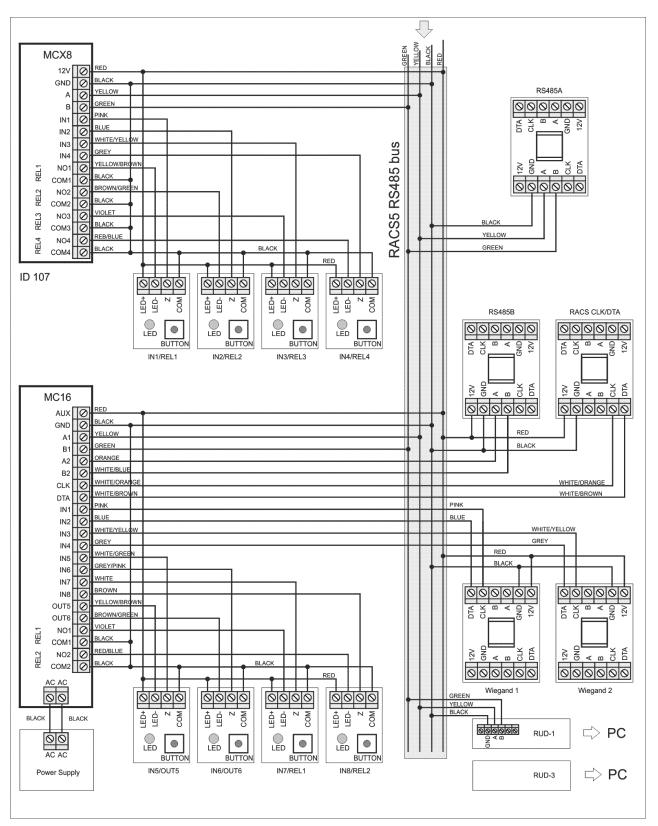
roger®

Fig. 2 DB-6A connection diagram 1/2

Fig. 3 DB-6A connection diagram 2/2

roger®

2.3 Low level configuration (RogerVDM)

RogerVDM software enables low level configuration of RACS 5 devices in order to adapt them to the requirements of particular installation. Generally low level configuration of peripheral devices (MCT readers, MCX expander) and RUD-3 reader is not necessary for starting and typical use of the board. In case of MC16 the configuration of such network parameters as IP address, mask and gate as well as configuration of communication key might be required. Default IP address of MC16 controller is 192.168.0.213 while communication key is "1234". Detailed description of low level configuration with RogerVDM software is provided in manuals of individual devices. The latest manuals and software are available at www.roger.pl.

DB-6A low level settings are stored on MC16 memory card in _DB-6A folder. They can be read and uploaded to devices.

2.4 High level configuration (VISO ST)

VISO ST software is dedicated to RACS5 system. It offers advanced access control functions and building automation and alarm system control connection support. It is offered free of charge and it does not require hardware license key. Detailed description of high level configuration with VISO software is provided in its manual. The latest manual and software are available at www.roger.pl.

DB-6A high level demo settings are stored on MC16 memory card in _DB-6A folder as *.sdf database. It can be read and uploaded to the MC16 controller.

2.5 VISO EX

The VISO EX version provides a certain group of additional features not available within VISO ST, i.e.
- system division to landlord-tenant partitions,
- integration with third party systems through Integration server.

DB-6A board includes test VISO EX license stored on MC16 controller memory card in _DB-6A/VISO EX license/ folder. In order to activate VISO EX license it is necessary to:

- install license service (during RogerSVC setup),
- copy the VISO EX license to PC/Server, where license service is installed,
- plug RUD-3 USB reader to PC/Server, where license service is installed,
- configure and start license service.

2.6 Roger Mobile Key application

In order to use mobile devices for identification (Android, IOS) on the MCT80M-BLE reader it is necessary to install and configure the free Roger Mobile Key application. To download it, scan the appropriate QR code:

Android	IOS

3. DB-6A USE

3.1 List of proximity cards

MCT and RUD-3 readers as well as included Mifare® proximity cards are programmed for SSN reading. SSN is number stored in the memory of Mifare® card according to below low level settings (RogerVDM):

Mifare Classic settings	
Sector type	[1]: SSN
Format	[0]: HEX
First byte position (FBP)	0
Last byte position (LBP)	7
Sector ID	1
Application ID	5156
Block ID	0
Key type	[0]: A
Key	Unknown

Table 1. List of cards			
ID	First name	Last name	Card number in full and in 8,16bit formats
000	MASTER	MASTER	0098785687677 021, 63613
001	Casillas	Ahriman	0047245397482 011, 36330
050	Mauro	Connors	0047245394739 011, 33587
100	Mauro	Levine	0047245400091 011, 38939
101	Paige	Aaron	0047245400686 011, 39534
102	Leslie	Stein	0047245392886 011, 31734
103	Miles	Porter	0124565833730 179, 51202
104	Derrik	Madrid	0124565828408 179, 45880
105	Stephen	Rubin	0124565843203 179, 60675
106	Irune	Devilbiss	0124565833500 179, 50972

3.1 Demo configuration

After connection of power supply to DB-6A its functioning can be verified with included proximity cards, readers and IOS-1 simulators.

More information about demo configuration setup and its functions can be found in separate document - *Demo configuration guide*.

3.2 Demo configuration upload

It is not possible to read high level settings from controllers in RACS 5 system. In order to review demo settings it is necessary to upload the configuration from backup to VISO software. Then it is possible to modify the settings with VISO and upload them again to MC16 controller. Demo backup configuration is stored on MC16 memory card in _DB-6A folder as *.sdf . Backup importing procedure is described in VISO manual.
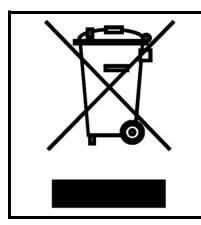
4. ORDERING INFORMATION

Table 2. Ordering information	
DB-6A	Demonstration and training board for RACS 5 access control system.
MC16-SVC	Service access controller.
MCT80M-BLE	Mifare® 13.56 MHz Classic/DESFire/Plus/NFC/Bluetooth outdoor reader with 2 function keys, black panel, dark grey enclosure.
MCT84M	Mifare® 13.56 MHz Classic/Ultralight reader with touch type keypad, two function keys, black panel, dark grey enclosure.
MCT12M-IO	Mifare® 13.56 MHz Classic/Ultralight outdoor reader with keypad, two function keys , 3 inputs, 2 transistor outputs, 1 relay output.
MCT12M	Mifare® 13.56 MHz Classic/Ultralight outdoor reader with keypad, two function keys.
MCT82M-IO	Mifare® 13.56 MHz Classic/Ultralight reader with touch type keypad, 3 inputs, 2 transistor outputs, 1 relay output, black panel, dark grey enclosure.
MCT82M	Mifare® 13.56 MHz Classic/Ultralight reader with touch type keypad, black panel, dark grey enclosure.
MCX8-BRD	I/O expander, 8 inputs, 8 relay outputs.
RUD-3	Mifare® 13.56 MHz Classic/Ultralight USB reader and card programmer
RUD-1	Universal, portable USB-RS485 communication interface dedicated to Roger access control devices.

5. CLEANING

The devices can be periodically cleaned with a slightly damp cloth and mild, non-abrasive detergents. In particular, it is not allowed to use alcohols, solvents, gasoline, disinfectants, acids, and rust removers for cleaning. Damage resulting from improper maintenance or improper use is not covered by the warranty.

6. PRODUCT HISTORY

Table 3. Product history		
Product version	Released	Description
1.0	08/2016	The first commercial version of the product
1.1	02/2020	Left MCT84M reader replaced by MCT80M-BLE reader. MC16-PAC-8 controller replaced by MC16-SVC

roger®

	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.

Contact:
Roger sp. z o.o. sp.k.
82-400 Sztum
Gościszewo 59
Tel.: +48 55 272 0132
Fax: +48 55 272 0133
Tech. support: +48 55 267 0126
E-mail: support@roger.pl
Web: www.roger.pl

roger ®