Roger Access Control System

DB-6A Demonstration Board

User Manual

Hardware version: v1.2

Document version: Rev. E

PURPOSE

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. The board 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.

PREPARATION FOR USE

Description

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

- MC16-SVC controller
- microSD memory card installed in the controller
- MCT80M-BLE reader
- MCT84M reader
- MCT82M-IO reader
- MCT12M-IO reader
- MCT84M-BK-QB reader
- CEB12 contactless exit button
- RUD-3-DES administrator reader
- RUD-1 communication interface
- MCI-3 communication interface
- MCI-7 communication interface
- RUD-6-LKY hardware key
- 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 (1 pc.)
- MCX8-BRD I/O expander

The memory card of MC16 controller , apart from files necessary for the device to function, stores "_DB-6A" folder with:

- technical documentation
- low-level (RogerVDM) and high-level (VISO) configuration files
- graphical demo configuration guide
- VISO EX license file, which contains all available modules and has the following limitations: 1 communication service, 8 doors, 2 partitions, 50 users, 3 workstations, 1 key depositor, 100 objects on maps

All readers including RUD-3-DES administrator reader are pre-programmed for SSN (Secured Serial Number) card readout instead of MIFARE® CSN. The SSN number has also been programmed into the attached proximity cards.

Product startup

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 firmware change in MCT readers and MCX8-BRD expander.

The board includes Wiegand, OSDP, 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 controller manual.

Connection drawings

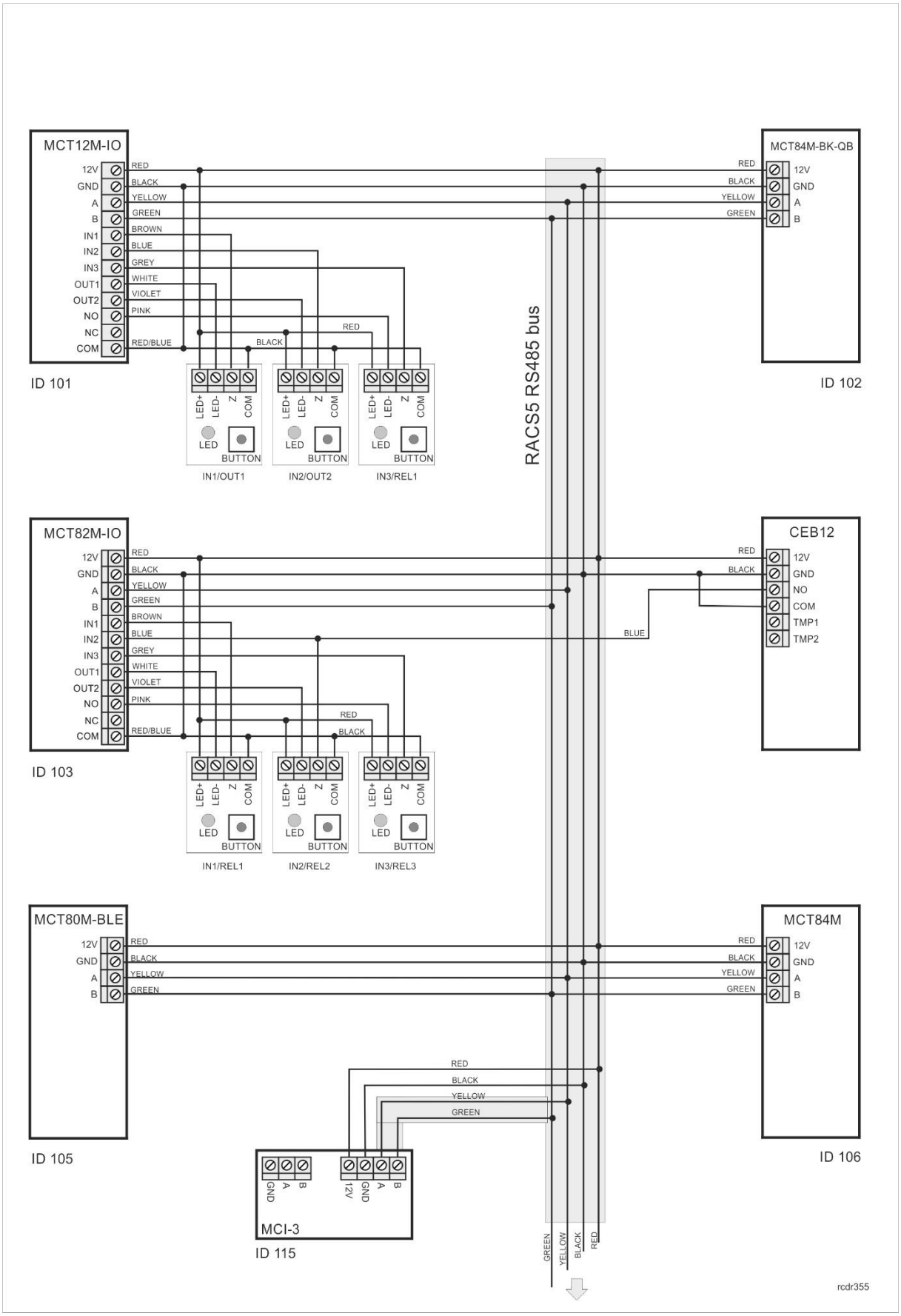


Fig. 1 DB-6A connection diagram 1/2

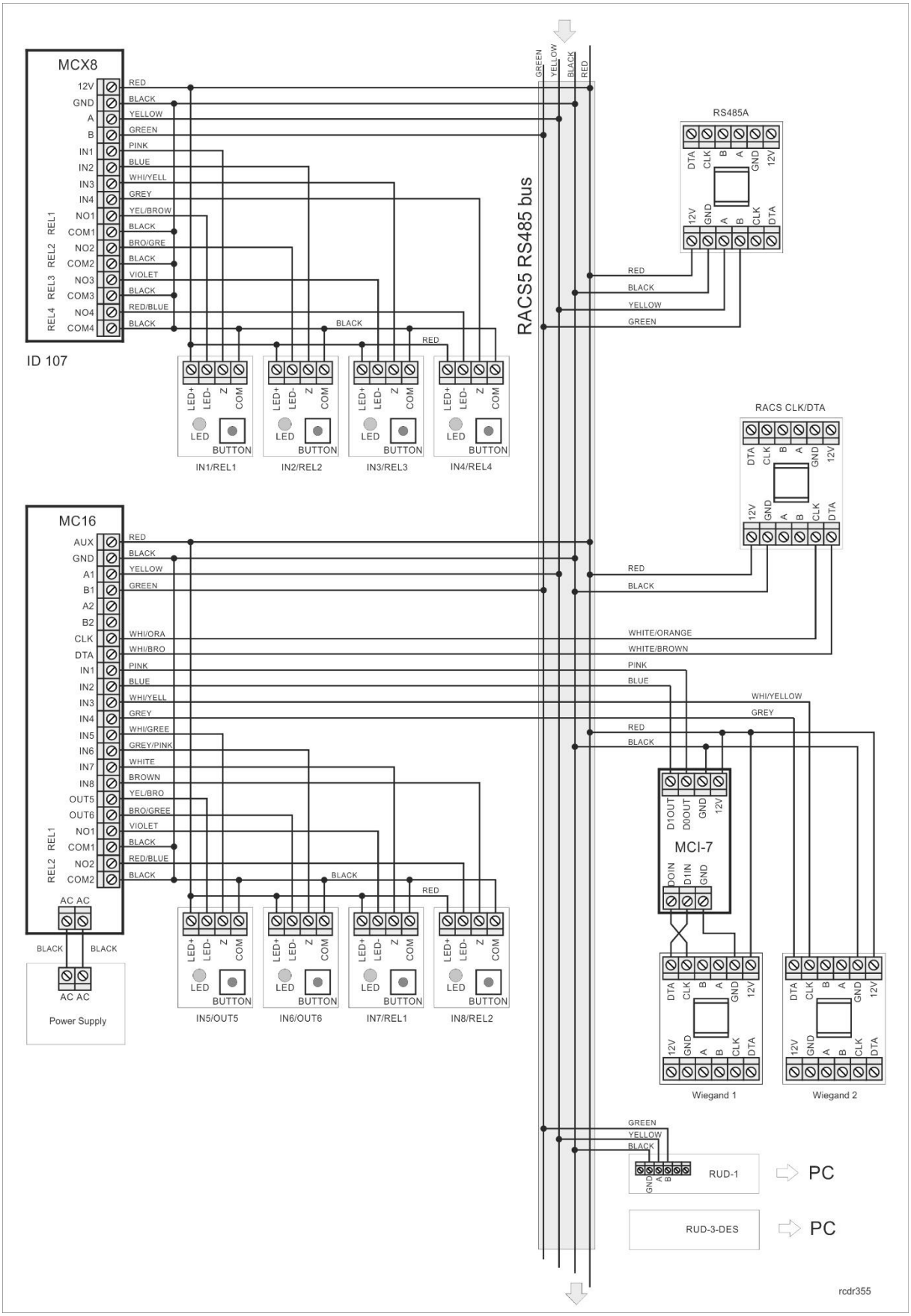


Fig. 2 DB-6A connection diagram 2/2

Low level configuration

Low-level configuration means configuring internal parameters of devices, in particular readers and a controller. Low-level configuration is performed by RogerVDM software. For starting and typical operation of the DB-6A board it is not required to make any low-level configuration of peripheral devices (MCT readers, MCX expander) or the RUD-3-DES reader. The controller may be required to change network settings such as IP address, default gateway and subnet mask, as well as communication key settings. The factory IP address of the controller is 192.168.0.213 and the communication key is "1234". A detailed description of the low-level configuration is available in the instructions for the individual devices. Instructions and the latest version of RogerVDM software are available at www.roger.pl.

The low-level settings of the devices included in the DB-6A are available on the microSD card installed in the MC16 controller in the _DB-6A folder. They can be read and uploaded to devices.

High level configuration

High-level configuration means the configuring of the system logic. High-level configuration is performer by means of VISO software. The VISO program is an application for the Windows operating system and is used for the configuration of logic and operation on the RACS 5 access control and building automation system. The standard version of the system (RACS 5 ST) managed by VISO ST offers both the commonly expected access control functionalities and many additional advanced functions that go beyond the scope of popular access control.

VISO ST is offered free of charge in START version of license and supports 16 doors and 500 users. For installations beyond the START version, additional licenses are offered as part of the ST version. Detailed information and latest version of VISO software are available at www.roger.pl .

VISO EX

VISO EX is an extended version of the VISO software dedicated to support functionally advanced access control systems, usually business class. VISO EX provides a group of advanced functionalities not available in the VISO ST version, which include:

- possibility to divide the system into so-called Logical Partitions managed by independent Operators
- integration with Active Directory
- possibility of software integration via the Integration Service and the Virtual Controller Service with other systems: VMS, PSIM, SMS, Intruder alarm, Fire alarm and elevator systems

The DB-6A board includes a test VISO EX license stored on the microSD card of the MC16 controller in the folder: "_DB-6A/VISO EX license/". To activate the license:

- install the license service (during the installation of the RogerSVC package services)
- connect the RUD-6-LKY dongle via USB to the computer on which the license service is installed
- copy the VISO EX license file to PC/Server, on which license service is installed
- configure and start license service

Roger Mobile Key app

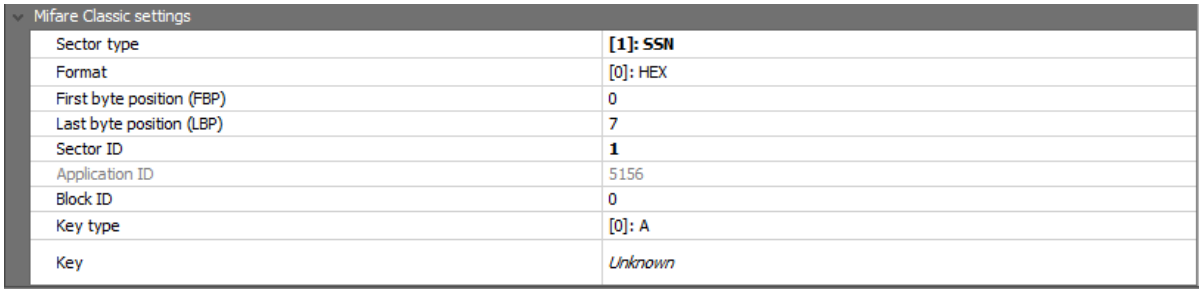
In order to use mobile devices for identification (Android, IOS) on the MCT80M-BLE and MCT84M-BK-QB readers it is necessary to install and configure the Roger Mobile Key application. To download it scan the appropriate QR code:

Android	IOS

DB-6A USE

List of proximity cards

MCT and RUD-3-DES 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):



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

Demo configuration description

After connecting the power supply to the DB-6A its functioning can be verified with included proximity cards, readers and IOS-1 I/O simulators.

More information about demo configuration setup and its functions can be found in separate document – "Demo configuration guide" included with the board.

Demo configuration upload

In RACS 5 system it is not possible to read high level settings (access control system logic) from controllers. In order to review demo settings in detail it is necessary to upload the backed up configuration into VISO software. At the VISO software level, it is then possible to modify and send the settings to the system.

The high-level demo settings used in the DB-6A are saved on the MC16 controller microSD memory card in the "_DB-6A" folder as MS SQL database: *.bak file. The procedure for importing the database and connecting to VISO is described in Application Note AN017 available at www.roger.pl.

After connecting the database with VISO, use the following data to log in:

Login: Admin

Password: roger!23

ORDERING INFORMATION

DB-6A	Evaluation 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
MCT84M-BK-QB	MIFARE® Ultralight/Classic/DESFire/Plus/NFC/Bluetooth/QR outdoor reader; black panel, dark grey enclosure
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
CEB12	Contactless Exit button; indoor, glass front panel, dark grey enclosure
MCX8-BRD	I/O expander, 8 inputs, 8 relay outputs
RUD-3-DES	MIFARE® 13.56 MHz Classic/DESFire/Plus USB card reader and programmer
MCI-3	The communication interface designed to connect readers to MC16 series controllers using the OSDP protocol
MCI-7	Communication interface, adapts various standards of Wiegand outputs to Wiegand inputs in MC16 series controllers
RUD-6-LKY	USB hardware license key
RUD-1	Universal, portable USB-RS485 communication interface dedicated to Roger access control devices
MFC-2	13.56 MHz MIFARE Classic 1K ISO size thin PVC card with printed number

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.

PRODUCT HISTORY

Version	Date	Description
1.0	08/2016	The first commercial version of the product.
1.1	02/2020	Left MCT84M reader replaced with MCT80M-BLE reader. MC16-PAC-8 controller replaced with MC16-SVC.
1.2	02.2024	MCT12M reader replaced with MCT84M-BK-QB. MCT82M reader replaced with the CEB12 contactless exit button. RUD-3 administrator reader replaced with RUD-3-DES reader. MCI-3 and MCI-7 communication interfaces and RUD-6-LKY USB hardware key added. RS485 B socket removed.

	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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