Roger Access Control System

PDK-2-STK and PDK-2-DBB Portable Demo Kit

User Manual

PDK-2-STK hardware version: v1.3

PDK-2-DBB hardware version: v1.1

Document version: Rev. F

PURPOSE

This manual contains minimum information necessary to properly use PDK-2-STK and PDK-2-DBB portable demonstration kits with RACS 5 system devices. The PDK-2-DBB is complementary product for PDK-2-STK and cannot be used independently. 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 preconfigured. MC16 controller operates with factory uploaded demo configuration.

PDK-2-STK includes:

- MC16-SVC controller
- microSD memory card installed in the controller
- MCT80M-BLE reader
- MCT84M reader
- 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 pcs.)

PDK-2-DBB includes:

- MCT82M-IO reader
- MCT12M-IO reader
- MCT84M-BK-QB reader
- CEB12 contactless exit button
- MCX8-BRD expander
- sockets and IOS-1 simulators
- RS485 port cable

Additionally the memory card of MC16 controller stores "_PDK-2" folder with:

- technical documentation
- low-level (RogerVDM) and high-level (VISO) configuration files
- 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 the 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

PDK-2-STK 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.

PDK-2-STK 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.

PDK-2-DBB cannot operate independently and it must be connected to PDK-2-STK for configuration and use through RS485A port with included cable.

Connection drawings

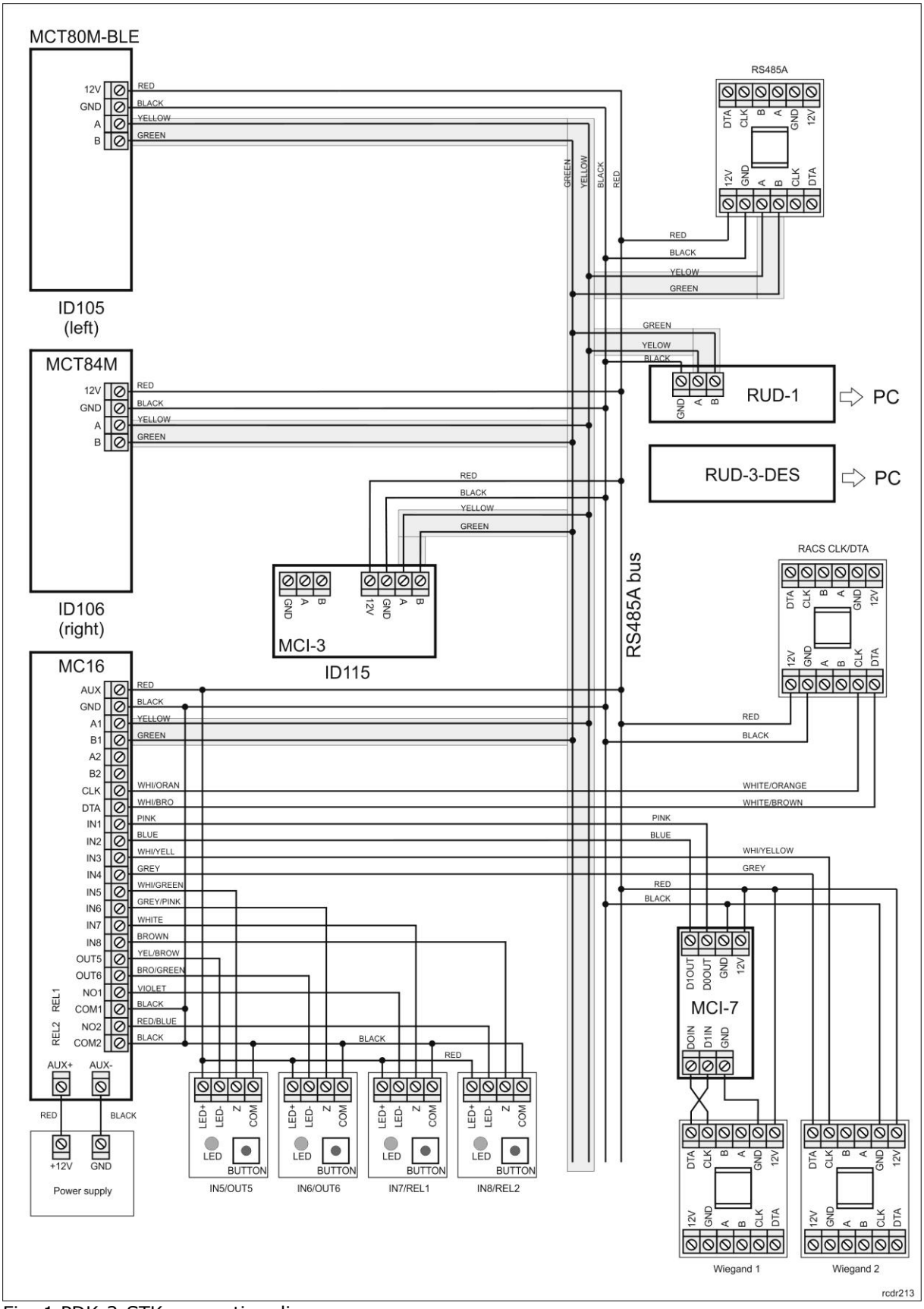


Fig. 1 PDK-2-STK connection diagram

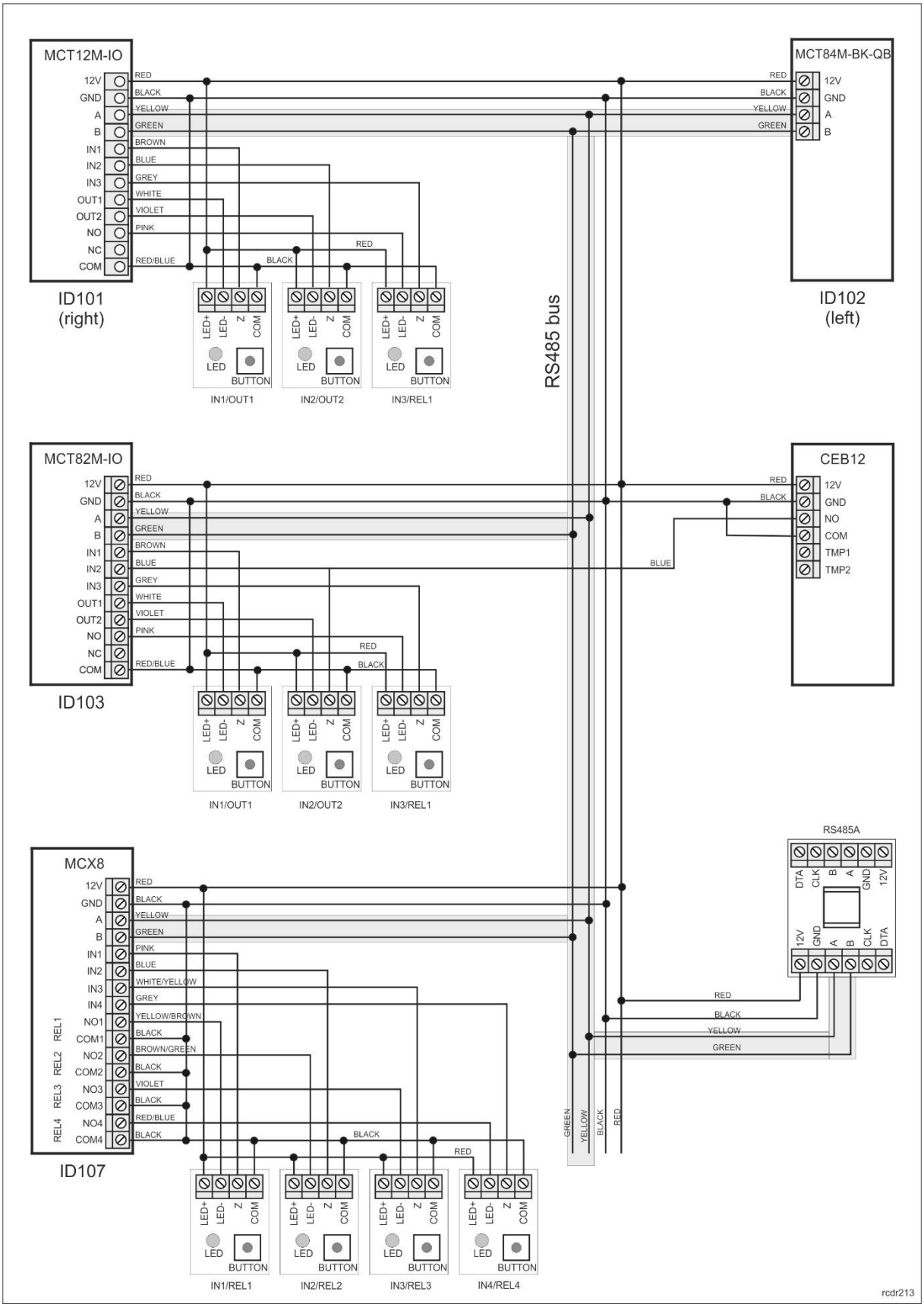


Fig. 2 PDK-2-DBB connection diagram

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-DES 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 is provided in manuals of individual devices. The latest version or RogerVDM software and manuals are available at www.roger.pl.

PDK-2-STK and PDK-2-DBB low level settings are stored on MC16 memory card in "_PDK-2" folder. They can be read and uploaded to devices.

High level configuration VISO ST

VISO ST software is dedicated for Windows OS and allows to perform RACS5 system configuration and management. It offers advanced access control functions including automation and alarm system connection support.

The standard version of the system (RACS 5 ST) managed by VISO ST offers both commonly expected access control functionalities as well as many additional advanced functions going beyond the area 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

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 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 PDK-2-STK kit includes a test VISO EX license stored on the microSD card of the MC16 controller in the folder: "_PDK-2/VISO EX license/". To activate the license:

- install license service (during RogerSVC setup)
- 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

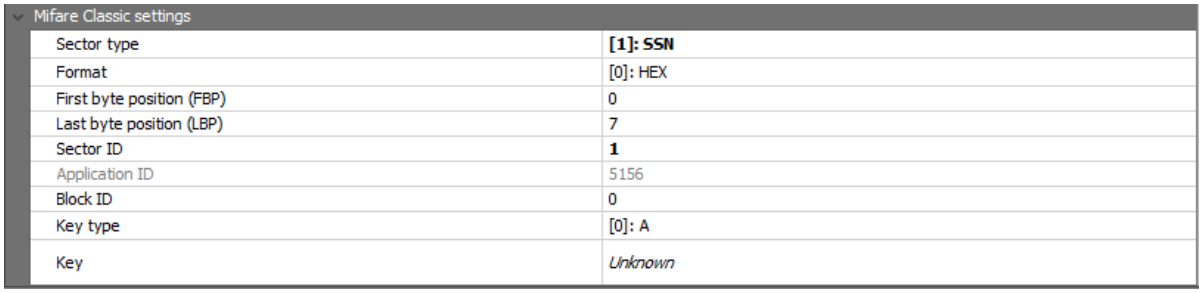
In order to use mobile devices for identification (Android, IOS) on the MCT80M-BLE and MCT84M-BK-QB readers it is necessary to install and configure the Roger Mobile Key application. To download it scan the appropriate QR code:

Android	IOS

PDK-2 USE

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):



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

After connection of power supply to PDK-2-STK its functioning can be verified with included proximity cards, readers and IOS-1 simulators.

According to demo configuration uploaded with VISO software the MC16 controls access at two doors. In case of door 1 (MCT80M-BLE reader) a door contact can be simulated with button connected to IN5 input of the controller and forced door open alarm can be presented with the output OUT5. Exit button is connected to IN7 input of the controller. In case of door 2 (MCT84M reader) a door bell can be simulated with button connected to IN6 input of the controller or F1 function key at the reader. Door bell signalling is presented at OUT6 output of the controller. Exit button is connected to IN8 input of the controller.

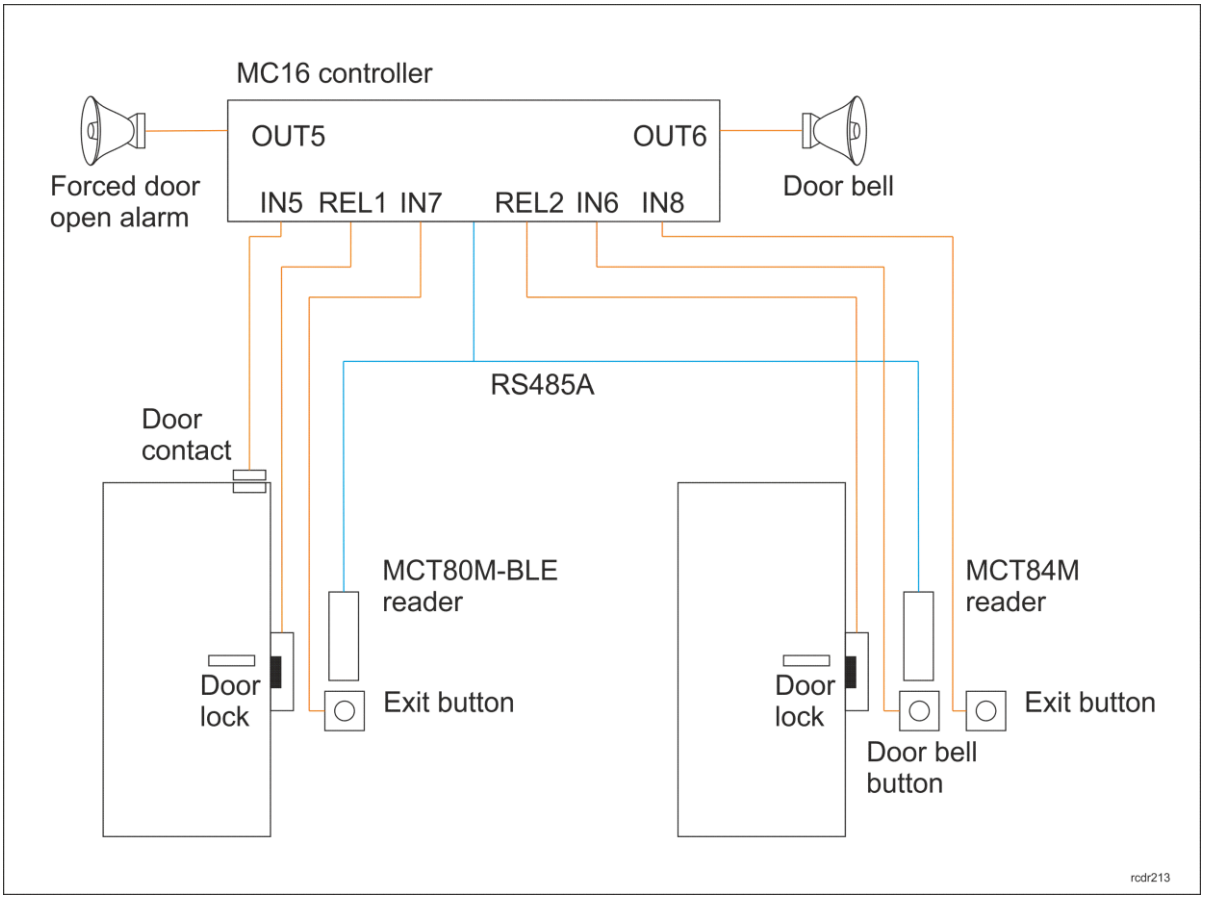


Fig. 3 Conceptual schema of demo configuration

- use any included proximity card on the MCT80M-BLE reader to activate REL1 relay output of the MC16 controller for 4 sec. (door 1 open)
- use NFC or Bluetooth identification with value 1234 (assigned to MASTER user) on the MCT80M-BLE reader to activate REL1 relay output of the MC16 controller for 4 sec. (door 1 open)
- use any included proximity card on the MCT84M reader to activate REL2 relay output of the MC16 controller for 4 sec. (door 2 open)
- enter 1234 PIN of the MASTER user on the right MCT84M reader to activate REL2 relay output of the MC16 controller for 4 sec. (door 2 open). Confirm the PIN with # button
- activate IN7 input with the button to activate REL1 relay output of the MC16 controller for 4 sec. (door 1 open)
- activate IN8 input with the button to activate REL2 relay output of the MC16 controller for 4 sec. (door 2 open)
- activate IN5 input with button when access is not granted by controller (i.e. REL1 is not activated) to raise forced door open alarm and activate OUT5 output of the controller for 15 sec.
- activate IN6 input with button to activate OUT6 output of the controller for 8 sec. (door bell)
- press F1 function key on MCT84M reader keypad to activate OUT6 output of the controller for 8 sec. (door bell)

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 into VISO software. Then it is possible to modify the settings with VISO and send them to MC16 controller.

The high-level demo settings used in the PSK-2-STK 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 following data to log in:

Login: Admin

Password: roger!23

ORDERING INFORMATION

PDK-2-STK	RACS 5 portable demonstration kit with MC16 access controller
PDK-2-DBB	Additional RACS 5 portable demonstration kit offered as extension to PDK-2-STK kit
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.

PDK-2-STK PRODUCT HISTORY

Version	Date	Description
1.0	08/2016	The first commercial version of the product.
1.1	02/2020	MCT84M reader replaced by MCT80M-BLE reader

1.2	10/2020	MC16-PAC-4 controller replaced by MC16-SVC
1.3	02/2024	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.

PDK-2-DBB PRODUCT HISTORY

Version	Date	Description
1.0	08/2016	The first commercial version of the product.
1.1	02/2024	MCT12M reader replaced with MCT84M-BK-QB. MCT82M reader replaced with the CEB12 contactless exit button.

	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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