Roger Access Control System

PR411DR-SET Installation Manual

Controller firmware version: 1.18.10 or newer

Product version: 2.0

Document version: Rev. B

CE

This document contains minimum information that is necessary for initial setup and installation of the kit. The detailed description of configuration parameters and functionalities of all components is specified in respective Operating manuals available at www.roger.pl.

INTRODUCTION

PR411DR-SET is designed to control single door in RACS 4 system. The door can be read-in or read-in/out type when equipped with PRT series readers (RACS CLK/DTA), Wiegand interface readers or Magstripe interface readers. The kit includes PR411DR-BRD access controller and ME-1 metal box with 18VAC/40VA transformer. The box is adapted to installation of 7Ah battery for emergency supply. All elements of controlled door including readers and door lock can be supplied from the kit.

PRELIMINARY CONFIGURATION

Preliminary configuration requires addressing of the controller on RS485 bus in range of 00-99. All controllers on this bus must have unique addresses. It is recommended to configure the address of controller by means of jumpers. Other methods are explained in controller's manual.
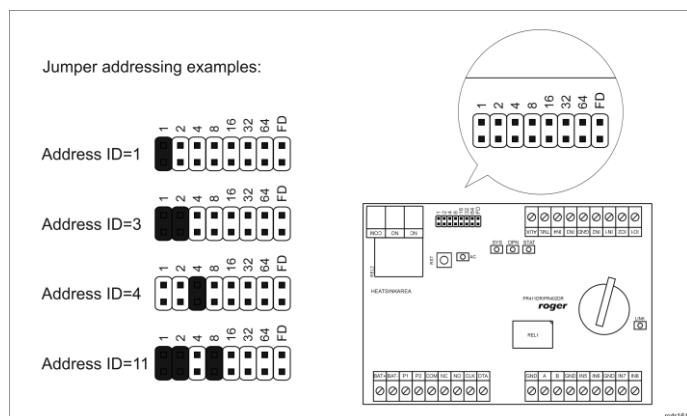

Fig. 1 Addressing with jumpers

CONFIGURATION WITH PR MASTER PROGRAM

Configuration with PR Master enables to define the logic of controller including users and access rights. More information is given in PR Master manual. The communication with controller requires connection to computer via communication interface (e.g. UT-4DR, UT-2USB, RUD-1) or via CPR32-NET-BRD network controller.

MEMORY RESET

Memory reset procedure resets all settings to default ones. RS485 address which is configured with jumpers remains unchanged.

Memory reset procedure:

1. Disconnect power supply from controller.
2. Short CLK and DTA lines.
3. Restore power supply - LED OPN (green) will start to pulsate.
4. Disconnect CLK and DTA.
5. Connect PRT series reader to CLK and DTA lines (without switching power supply off) and execute further steps by means of that reader.
6. Read any card at the reader, this will be a new MASTER card
7. After a few seconds the controller will restart automatically and switch to normal mode.

FIRMWARE UPDATE

New firmware can be uploaded to the controller with RogerISP software. The latest firmware file is available at www.roger.pl.

Firmware update procedure:

1. Connect the device to RUD-1 interface (fig. 2) and connect the RUD-1 to computer's USB port.
2. Place jumper on FD contacts (fig. 1).
3. Restart the device (switch power supply off and on or press RST button) – LED SYS (orange) indicator will be switched on.

4. Start RogerISP software, select serial port with RUD-1 interface port, select the option *USB-RS485 Converter* and indicate path to firmware file (*.hex).
5. Click *Update* to start firmware upload with progress bar displayed.
6. When the update is finished, remove jumper from FDM contacts and restart the device.
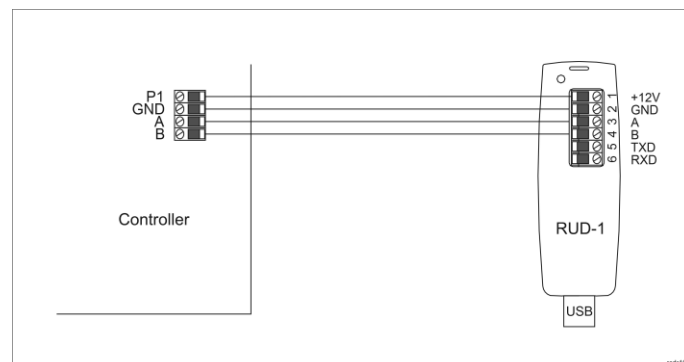

Fig. 2 Connection of the controller to RUD-1 interface for firmware update

Note:
1. If the controller is not responding after firmware update and LED SYS (orange) indicator is switched on then it is necessary to start memory reset procedure.
2. If firmware update is not successful for any reason then repeat the procedure.
3. UT-2USB interface can be used instead of RUD-1 interface for firmware update.

POWER SUPPLY

The kit is supplied from 18VAC/40VA transformer. The metal box offers space for installation of typical 7Ah backup battery which is connected to BAT+ and BAT- terminals of PR411DR-BRD controller.
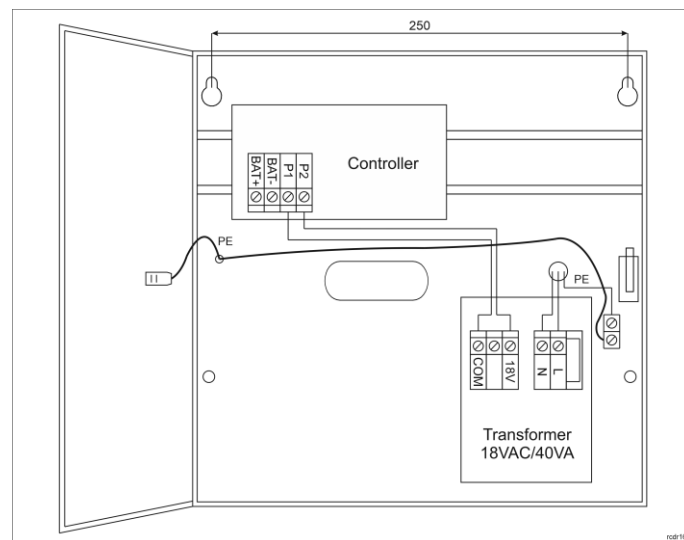

Fig. 3 PR411DR-SET

⚠	The installation can be done only by qualified person with all necessary certificates concerning connection and maintenance of 230VAC and low voltage networks.
⚠	Prior to starting the installation it is necessary to ensure that 230 VAC circuit is disconnected. All works inside the box must be carried out with 230VAC supply voltage disconnected.
⚠	It is forbidden to use the kit without properly executed and operational earthing system.

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TAMPER DETECTOR

The metal box is equipped with door contact which can be connected to one of the inputs (e.g. IN8) and GND terminal of the controller. The anti-sabotage function can be assigned to the input with PR Master software.

APPENDIX

Table 1. PR411DR-BRD screw terminals

Name	Description
BAT+, BAT-	Backup battery
P1, P2	18VAC input power supply
NO, COM, NC	30V/1.5A DC/AC (REL1) relay
CLK, DTA	RACS CLK/DTA bus
GND	Ground
A, B	RS485 bus
IN1-IN8	Input lines
IO1, IO2	15VDC/1A transistor output lines
TML	12VDC/0.2A output power supply (for readers)
AUX	12VDC/1.0 output power supply (for door lock)
NO, COM, NC	230V/5A DC/AC (REL2) relay

Table 2. PR411DR-BRD LED indicators

Name	Description
AC	AC supply
SYS	Various signalling functions
OPN	Door unlocked
STAT	Current arming mode
LINK	Data transmission on RS485 bus

Table 3. Specification

|	
Supply voltage	230VAC, 50/60Hz (-15%÷+10%)
Power supply	AWT150 TRP/40/16/18 transformer
Short circuit and overload protection	Yes
Metal box	DC01 0.7mm metal sheet, white colour RAL9016
Tamper protection	NO/NC detector, 50VDC/50mA
Distances	Between controller and communication interface (RS485): max. 1200m Between controller and PRT reader (RACS CLK/DTA): max. 150 m
IP Code	IP20
Environmental class (acc. to EN 50133-1)	Class I, indoor general conditions, temperature: +5°C to +40°C, relative humidity: 10 to 95% (no condensation)
Dimensions H x W x D	295 x 285 x 90 mm
Weight	3.5 kg
Certificates	CE
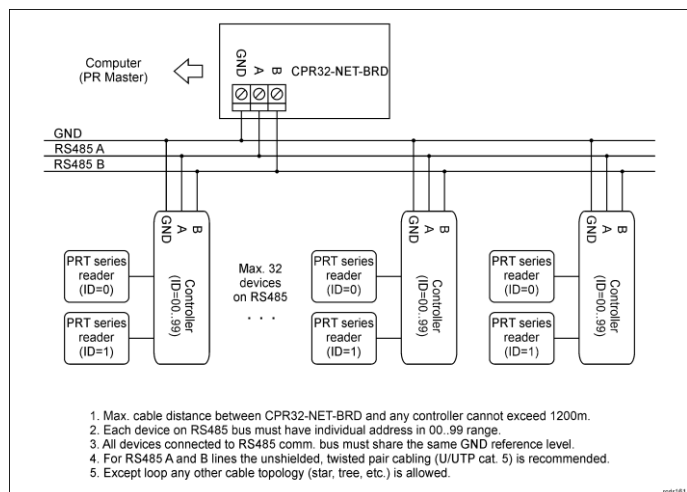
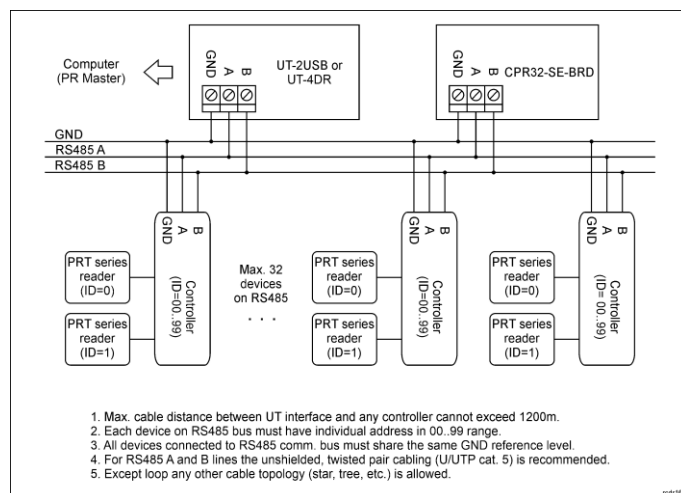Fig. 4 Typical connection of controllers (CPR32-NET-BRD)

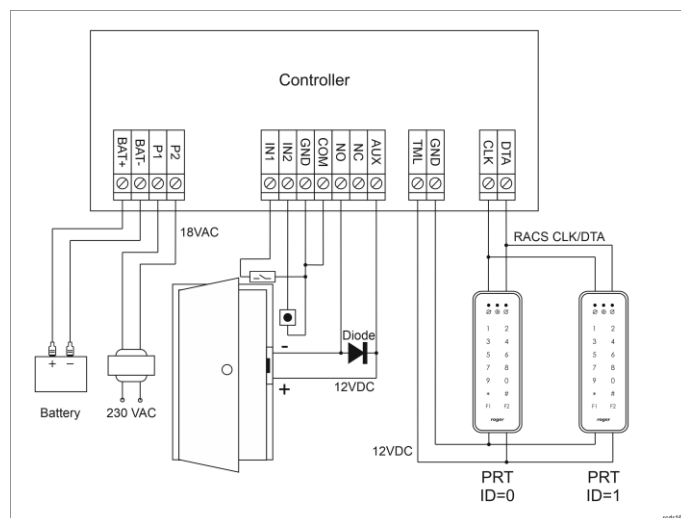

Fig. 5 Typical connection of controllers (CPR32-SE-BRD)

Fig. 6 Typical door control

Notes:

- In case of read-in door, single reader is connected to the controller and then such PRT reader can have default ID=0 address. If two PRT readers are connected to the controller for the purpose of read-in/out door then one of the readers must be addressed as ID=1 according to its manual.
- Pre-programmed EM125kHz MASTER proximity card is included with PR411DR-SET. It can be used at PRT reader to open door.
- PR controller configuration from computer with PR Master software requires UT series interface or CPR32-NET-BRD network controller.
- Diagram includes door with electric strike. In case of electromagnetic lock, the NC terminal of relay is used instead of NO terminal.
- Diagram includes exit button. In case of read-in/out doors it can be used for emergency door opening.

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