

Roger Access Control System

MCI-5 Installation Manual

Firmware version: 1.0.30.264 and newer
Document version: Rev. A



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INTRODUCTION

MCI-5 interface is a converter between RS485 (EPSO3) protocol and Wiegand protocol. The interface is used to connect MCT series terminal of RACS 5 system to third party controller with Wiegand interface. Factory new device does not require low level configuration and can be operated with default settings (Wiegand 26-bit format). Low level configuration of the MCI-5 interface with RogerVDM requires RUD-1 interface.

CONFIGURATION WITH ROGERVDM PROGRAM

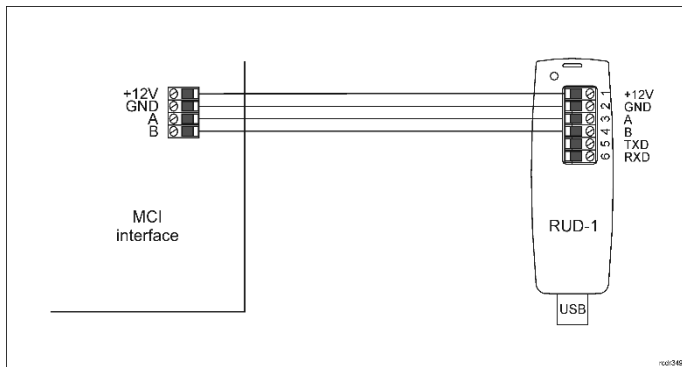


Fig. 1 Connection of the MCI-5 to RUD-1 interface for configuration

Programming procedure with RogerVDM software:

1. Connect the device to RUD-1 interface (fig. 1) and connect the RUD-1 to computer's USB port.
2. Remove jumper from MEM contacts (fig. 3) and restart the device (short RST contacts for a moment or switch power supply off and on).
3. Within 5 seconds when orange LED SYSTEM indicator pulsates twice per second, place jumper on MEM contacts and LED SYSTEM indicator will pulsate quickly.
4. Start RogerVDM program, select *MCI-5 v1.x* device, *v1.0* firmware version, *RS485* communication channel and serial port with RUD-1 interface.
5. Click *Connect*, the program will establish connection and will automatically display *Configuration* tab.
6. If necessary, define Wiegand format and other settings according to requirements of specific installation.
7. Click *Send to Device* to update the configuration.
8. Optionally make a backup by clicking *Send to File...* and saving settings to file on disk.
9. Leave jumper on MEM contacts and disconnect device from RUD-1 interface.

FIRMWARE UPDATE

The update requires connection of MCI-5 to computer with RUD-1 interface (fig. 2) and starting RogerVDM software. The latest firmware file is available at www.roger.pl.

Note: After firmware update it may be necessary to restore factory default settings. Current configuration of device can be exported to file using RogerVDM program.

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 FDM contacts (fig. 3).
3. Restart the device (short RST contacts for a moment or switch power supply off and on).
4. Start RogerVDM program and in the top menu select *Tools* and then *Update firmware*.
5. In the opened window select device type, serial port with RUD-1 interface and path to firmware file (*.hex).
6. Click *Update* to start firmware upload with progress bar in the bottom.
7. When the update is finished, remove FDM jumper and restart the device.
8. If orange LED SYSTEM indicator slowly pulsates after restart, then place jumper on MEM contacts, wait 5 seconds and restart device to restore factory default settings.

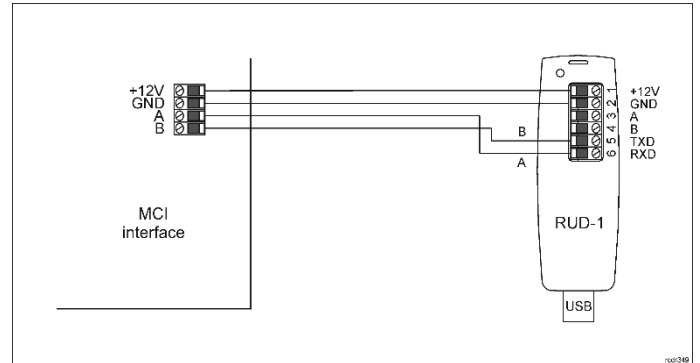


Fig. 2 Connection of the MCI-5 to RUD-1 interface for firmware update

APPENDIX

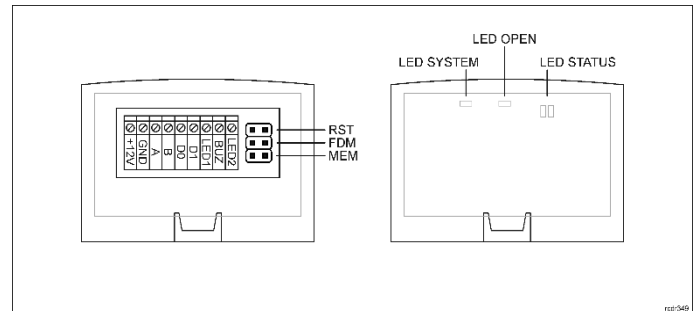


Fig. 3 MCI-5 interface

Table 1. MCI-5 screw terminals

Screw terminal	Description
+12V	12VDC power supply
GND	Ground
A	RS485 bus, line A
B	RS485 bus, line B
D0	Wiegand bus, line DATA0
D1	Wiegand bus, line DATA1
LED1	Input for control of LED STATUS indicator at MCT reader
BUZ	Input for control of buzzer at MCT reader
LED2	Input for control of LED OPEN indicator at MCT reader

Table 2. MCI-5 indicators

Name	Colour	Description
LED SYSTEM	Orange	Pulsing: Configuration error Quick pulsing: Device in configuration mode
LED OPEN	Green	-
LED STATUS	Red	Pulsing: Communication lost on RS485 (EPSO3) bus
	Green	-

Table 3. Specification

Supply voltage	Nominal 12VDC, min./max. range 10-15VDC
Current consumption (average)	25mA
Inputs	Three NO/NC inputs with 3.5V triggering level.
Distances	Up to 1200 m between interface and MCT reader (RS485) Up to 150m between interface and controller (Wiegand)
IP Code	IP20
Environmental class (according to EN 50133-1)	Class I, indoor general conditions, temperature: +5°C to +40°C, relative humidity: 10 to 95% (no condensation)
Dimensions W x S x G	36 x 55 x 47 mm
Weight	~16g
Certificates	CE

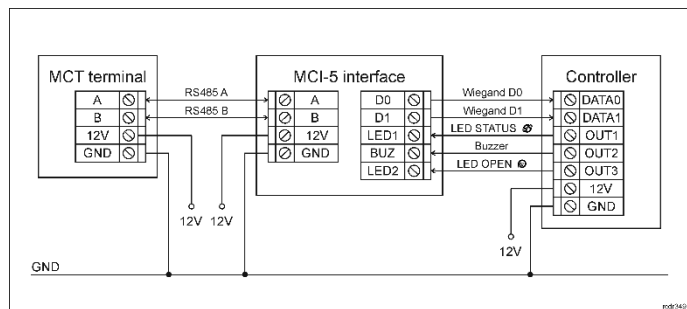
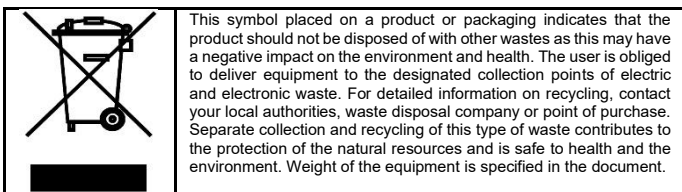


Fig. 4 Connection of MCI-5 interface to MCT reader and PR series controller

Notes:

- If devices are not supplied from the same power supply, then according to fig. 4 their GND terminals must be connected with any wire.
- MCT readers must be configured with default ID=100 address.
- If RS485 bus encryption is enabled, then both MCI and MCT must be configured in the same way.
- The device's electronic module is sensitive to electrostatic discharge (ESD). Before touching the components on the electronic module, particularly the programming contacts (so-called jumpers) and buttons, use appropriate antistatic protection measures, e.g. grounding strap. This precaution does not apply to the wire connection terminals.



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