

Roger Access Control System

ADL-2 Electronic Lock

Installation Manual

Product hardware version: v2.0

Firmware version: v2.0.8.121

Document version: Rev. J

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

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DESIGN AND PURPOSE

ADL-2 consists of a pair of door escutcheons combined with handles. In the external escutcheon (mounted on the entrance to a room), the handle moves freely and is normally disengaged. Once the proximity card or PIN is used and access is granted, and the handle is engaged with the mortise lock thus allowing to enter the room. In the internal escutcheon (mounted on the exit side from the room), the handle is permanently engaged thus exit from the room is permanently possible by handle without using of the electronic circuit of the lock. ADL-2 works autonomously and access to the room requires entering a PIN code, reading the proximity card or using the mobile application. The ADL-2 lock can be mounted on doors with a door leaf thickness of 38 to 75 mm and equipped with an cylinder lock (cylinder lock inserted in the door leaf) with a handle- cylinder spacing of 72 mm. The lock is supplied with two assembly sets consisting of two screws and a handle stem. The first set is designed for a door leaf up to 55 mm thick, while the second one is for a door leaf thicker than 55 mm. The ADL-2 escutcheon has space for mounting a cylinder insert, which allows for permanent blocking of the access door as

well as its opening in the event of a failure of the locks electronic.

Note: The escutcheon should be equipped with a cylinder insert. The cylinder insert is not supplied with the escutcheon. The selection and installation of the cylinder insert is the responsibility of the installer. Installing the lock without a cylinder insert is forbidden.

LOCK INSTALLATION

1. Using the mounting template included with the lock, drill holes in the door leaf.
2. Pull the wires coming out of the inner escutcheon through the hole in the door leaf and connect them to the bundle of wires coming out of the outer escutcheon.
3. Make sure that the hole for the handle pin is positioned so that the marker (red dot) points to the upper door hinge (Fig. 1), then place the included handle pin in the mortise lock.
4. Install the batteries (4xAAA) in the battery compartment located in the internal escutcheon.
5. Mount escutcheon and verify the operation of internal handle and door cylinder, in particular, the possibility of entering the room by means of a cylinder insert and without using the reader located in the external escutcheon.

Note: In addition to the possibility of mechanically locking the door, the cylinder insert allows for emergency opening of the door in the event of a failure of the electronic part of the lock. Access to the mechanical key should be secured in the event of the need to open the door in emergency.

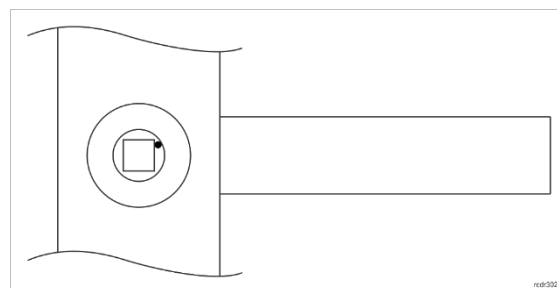


Fig. 1. Proper installation of handle mechanism

POWER SUPPLY

Lock is supplied from 4 x AAA batteries. Assuming 10 openings per day and the BLE Broadcast Period option is set to 2500ms, a

set of new alkaline batteries (*) will last for about 19 months of device operation. If the parameter is changed to 600ms, a set of new alkaline batteries will last for about 6 months of device operation. The BLE Broadcast Period parameter is set from the Roger MDM app. If the battery voltage drops below approx. 4.5VDC, the lock will activate Low Battery LED (Fig. 2) into red colour for a 3s. This indication will be repeated after each activation of the lock. Additionally, the low battery level is signalled in the Roger MDM app by the Battery Level parameter. From the moment the low battery signal is switched on, the lock should allow at least 100 more opening cycles.

(*) As indicated in specification table in this document.

Note: Do not postpone replacing the battery pack if the lock is already indicating a low battery level.

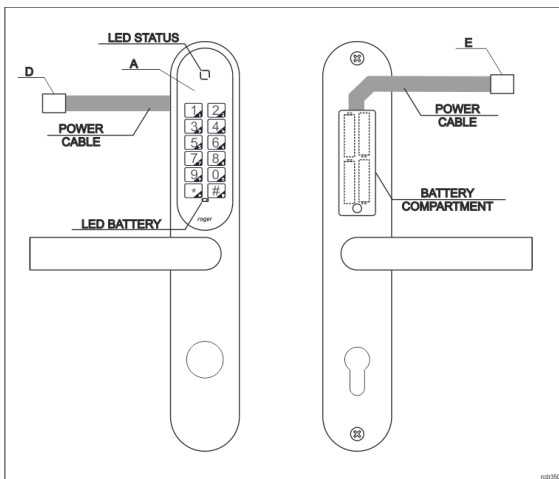
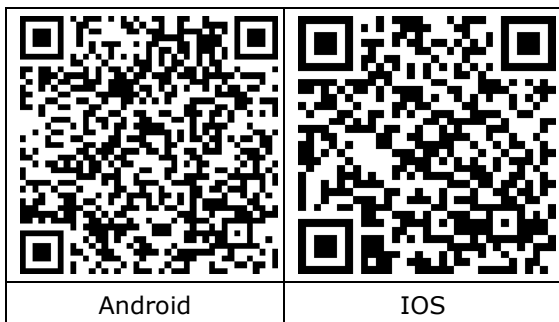


Fig. 2. External and internal escutcheons




PROGRAMMING

Connection to mobile app

1. Download and install Roger MDM app.



2. Start the app and accept permissions.

3. Press shortly the key * on ADL-2 keypad.
4. Click REGISTER in the app to start detection of locks.
5. Detected locks will be shown on the list in the app (ADL-2 name and MAC addresses). When in range then the icon  will be shown.
6. Select lock(s) from the list and then click ADD DEVICES TO SYSTEM.
7. Long click (2s) a lock icon and select Device Configuration from the menu default password is empty.
8. In the top right corner select  icon and then click Synchronize Clock. Wait for clock synchronization to complete.
9. Enter individual name of the lock in the Name field.
10. Click the door lock icon  to send the configuration to the lock. If the door lock has gone into sleep mode in the meantime (the door lock keypad is not visible) press * again.

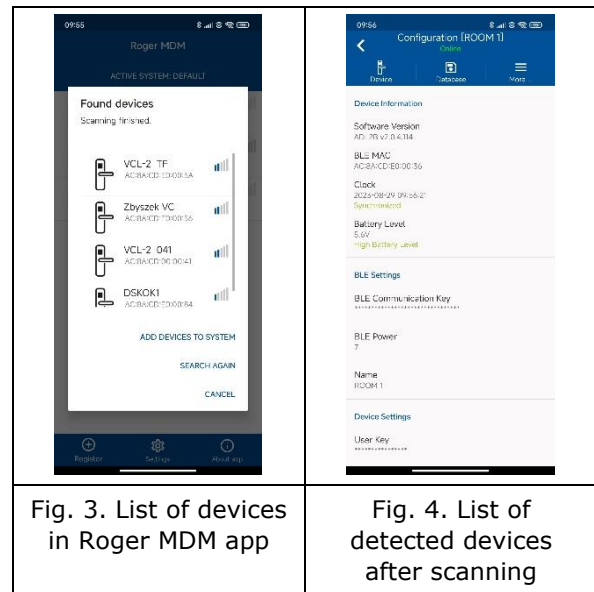


Fig. 3. List of devices in Roger MDM app




Fig. 4. List of detected devices after scanning

Remote PINs

Remote PIN codes term refers to those PIN codes that are not saved in the lock's internal memory, but which are recognised by the lock on the basis of the information encoded in the particular PIN. To generate remote PINs:




1. Download and install the Roger PIN Generator v2 application.



2. Add a lock using the  button
3. Enter the necessary parameters: BLE MAC, individual lock name and User Key.
4. To generate a new PIN codes, select the appropriate ADL-2 lock from the main view, then click the  and  icons. After completing this operation, the "Add new PIN" window will appear. Select the PIN type you require and enter the required and optional data, then click the "Add" button.

Local PINs

Local PINs are those PINs that are stored in the lock's internal memory. Unlike remote PINs, they cannot be changed without reprogramming the lock via the Roger MDM app.

1. Long click (2s) to select the lock from the list - a dialog list will appear - select the Device Configuration option.
2. In the top right corner select  icon and then Local PINs.
3. Click  and then define new PIN (4-8 digits), its name and type. When PIN(s) are defined then back to Device Configuration and in the top left corner select  icon and upload the configuration to the lock.

INSTALLATION GUIDELINES

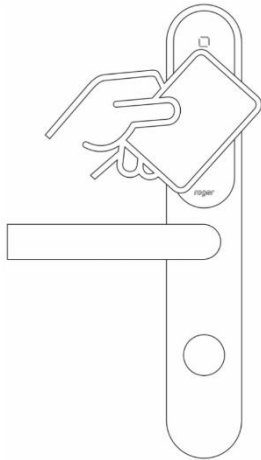
- The ADL-2 lock should be mounted on the door leaf away from sources of heat and moisture.
- In particular, it is not allowed to install the ADL-2 lock in places with high humidity such as saunas, swimming pools, car washes, etc.
- The device can be cleaned periodically with a slightly damp cloth and mild detergents that do not contain abrasive substances. In particular, do not use alcohol, solvents, petrol, disinfectants, acids, rust removers, etc. for cleaning. Damage resulting from improper maintenance or improper use is not covered by the warranty.
- The mortise lock should have a hole for 8 mm spindle.
- The set includes M5 screws with a 3 mm hexagon head.
- The escutcheons should be screwed together with the screws provided with a force of 1.5 Nm.

LED INDICATORS

LED	Description
LED Battery	If the indicator is on after the lock wakes up, it means that its battery level is low. In such case replace the battery in reasonable time.
LED Status is red	LED Status is off when lock is in sleep mode. When [*] key is pressed then lock enters normal working mode and LED Status is red.
LED Status is green	Access is granted and it is possible to open door.
LED Status generates two red pulses	Access is denied which can result from incorrect PIN or lock being blocked by means of PIN Block.
LED Status is blue	Lock is communicating via BLE.
LED Status is orange	RTC failure. Clock must be programmed using Roger MDM app.

LED Status generates orange pulses	General lock failure. Restore factory default settings and program your lock again.
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SPECIFICATION


Parameter	Value
Built-in card reader	ISO/IEC 14443A MIFARE® DESFire EV3 Card Reader
Supported proximity cards	MFC-8 (Roger)
Proximity reader reading range	<p>Up to 15 mm with the MFC-8 card optimally positioned relative to the reader's front surface.</p> <p>Note: To read a proximity card, place it against the front surface of the reader panel until contact is made and hold it in this position without moving it until the reader responds.</p> <p>Note: In the presence of electrical interference, the reading range of proximity cards may be significantly reduced and, in extreme cases, may even be blocked.</p> 
Bluetooth communication range	<p>Nominally, in order to configure the lock using the mobile application or mobile identification, the mobile device should be get closer to the lock than 0.5m. However, it should be noted that in favourable conditions (e.g. in an open space), communication between the mobile device and the lock may take place at a much greater distance (even over 10 m), which creates a risk that the user will unintentionally communicate with another lock installed near the intentional lock.</p> <p>Note: In the presence of electrical interference, the operating range of BLE may be significantly reduced and, in extreme cases, may even be blocked.</p>
Power supply	4 x AAA (LR03) alkaline batteries
Battery lifetime	<p>Typical operation time with 10 opening cycles per day – 19 months</p> <p>Typical operation time with 20 opening cycles per day – 17 months</p> <p>Typical operation time with 40 opening cycles per day – 14 months</p> <p>Typical operation time with 80 opening cycles per day – 10 months</p> <p>Typical operation time with 160 opening cycles per day – 6 months</p> <p>Note: Battery lifetime is specified for Energizer Industrial LR03 alkaline batteries with 1200mAh capacity and may vary depending on the specific type of battery and the way the lock is used.</p>
Housing material	Brushed stainless steel
Dimensions of external escutcheon without handle	46×280×27 mm
Dimensions of internal escutcheon without handle	46×280×20 mm

Installing the lock	2 screws M5×50 mm
Door thickness	38 – 75 mm
Handle spacing	72 mm
Mortise Spindle	8 mm
The angle of the handle	60°
Environment	Indoor general conditions, temperature: +5°C to +40°C, relative humidity: 10 to 75% (no condensation)
IK code	IK 07
Dimensions	47x280 mm
Weight	~1,1 kg
Compliance	CE; RoHS

ORDERING INFORMATION

Product	Description
ADL-2-L	Electronic escutcheon; access by PIN, proximity card or mobile app; PIN codes generated remotely or programmed in lock's memory; four AAA battery supply; left hand version, normal or reverse bevel
ADL-2-R	Electronic escutcheon; access by PIN, proximity card or mobile app; PIN codes generated remotely or programmed in lock's memory; four AAA battery supply; right hand version, normal or reverse bevel
MFC-8	Proximity card for ADL-2 locks

PRODUCT HISTORY

Version	Date	Description
1.0	2021/06	The first commercial version of product
2.0	2023/05	The second commercial version of product
	<p>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.</p>	

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