

Access Panel with Intercom

User Manual

Version: V1.8 (updated 05/14/2024)

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Introduction

Rently Access Panel with intercom Overview



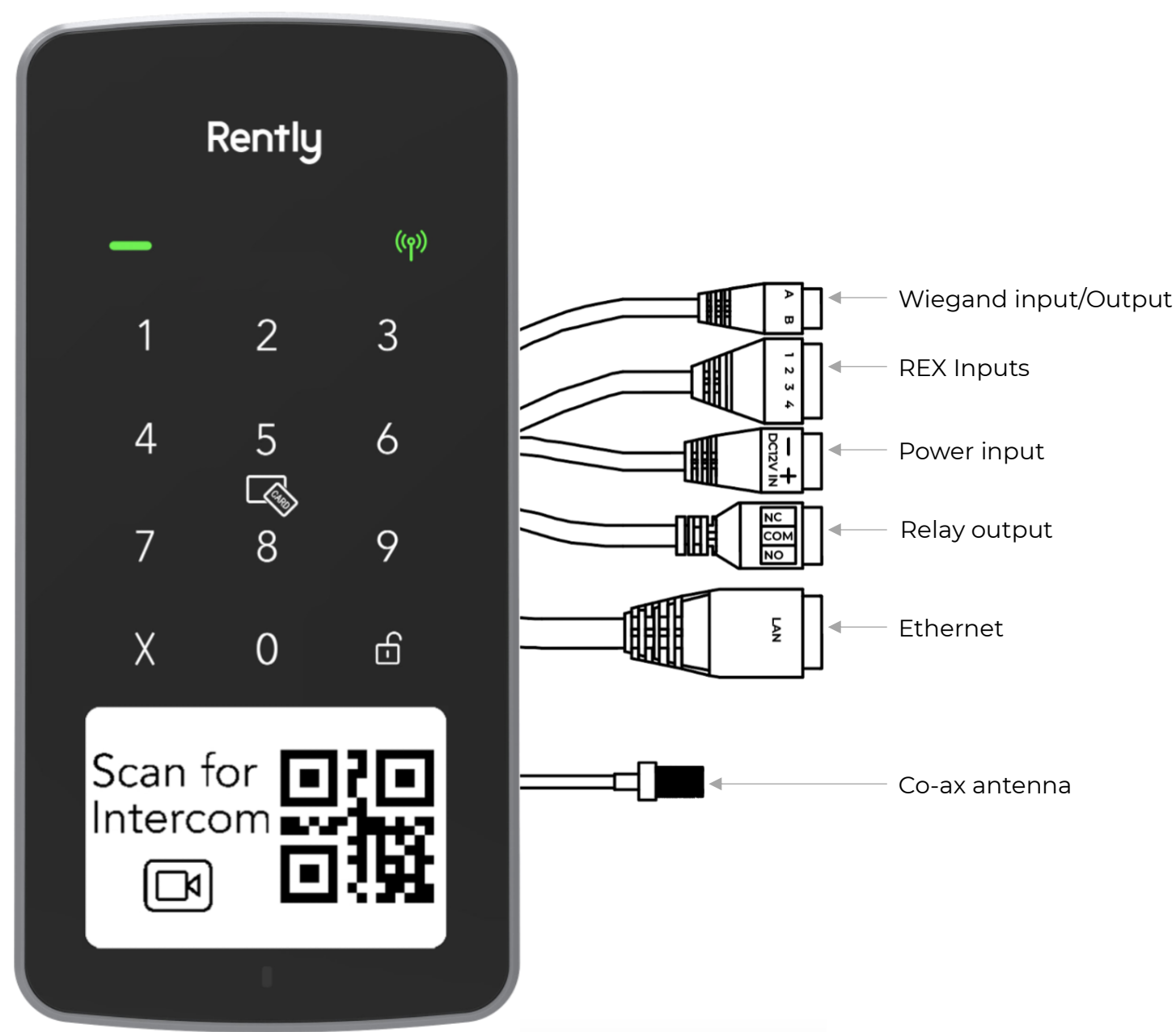
The Rently Access Panel with intercom is a cloud-based access control panel which has built-in NFC card reader and Keypad, and dry contact relay. It can be used to easily track, change, and manage FOB cards and door code credentials.

The Rently Access Panel with intercom can be used to control any access device that is operated by a normally open or normally closed signal if the voltage requirements are met. NOTE: this system only supports Mifare FOB cards and does not integrate with HID FOB cards.

The Rently Access Panel with intercom stores all valid credentials within the device. It contains Bluetooth, Wi-Fi, and LTE-M (Cat-M1) cellular module. This allows you to place secure access points all over a building without having to wire a central control system.

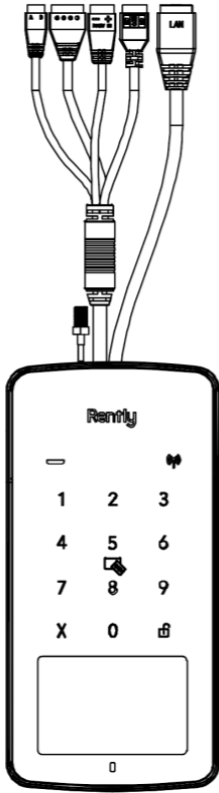
It has a 3.52in E-ink screen to display a dynamic QR code for intercom, visitor could scan the QR code to initiate a video call with the resident or leasing office.

Connectors definition

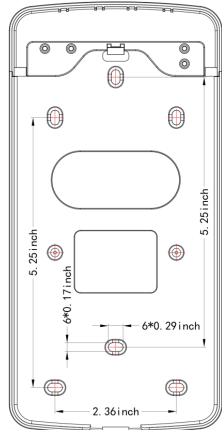


Connector	Mark	Function
DC12V IN	+	Power Input
	-	
Relay output	NC	Dry contact Relay output Gated Operator, Door Strikes, Maglocks (for control-only power to be provided by external power supply)
	COM	
	NO	
REX Inputs	1	Door contact sensor (NC) Input
	2	Ground
	3	Request-to-Exit (REX) Input
	4	Ground
Wiegand input/output	A	data1
	B	data0
LAN	LAN	Ethernet 10/100 port
Co-ax antenna		To connect the 4 in or 6 ft Wi-Fi Adhesive Mount Antenna

What's in the package



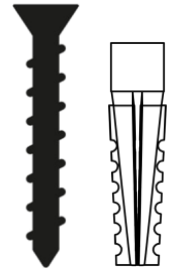
Access Panel



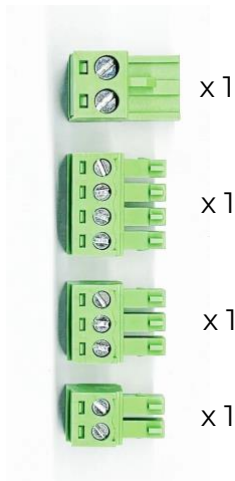
Mounting Plate



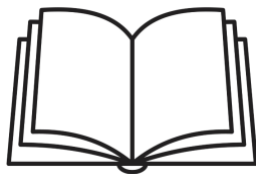
6ft Adhesive antenna



A x 8 B x 8
Anchor and Screw



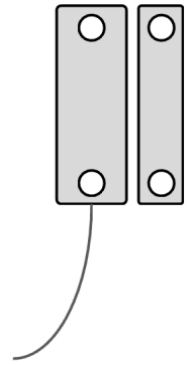
Wire connectors



Manual



4in Adhesive antenna



Door contact sensor

Tools required:

- Hammer
- Drill/Driver
- Philips and small flathead screwdrivers
- Wire cutters
- Drill Bit Set
- Low voltage wires (e.g., 18 gauge)

NOTE: additional tools may be required for your specific application

Dimensions



Specifications

Product name	Rently Access Panel with Intercom
Module number	PANEL420
Weight	845.5g (1.86lb)
Power Input	12-24VDC, 24W min. (Should be powered by UL 294 Listed Class 2, power limited power supply)
Input	One Request-to-Exit (REX) Input, e.g., push-to-exit button, motion sensor, etc.
	Built-in 12 keys touch keypad with backlight (number 0 to 9, Unlock and Cancel)
	Built-in 13.56MHz NFC Fob card reader, reading distance 0-1.0cm (0.39in)
Output	One Primary dry Relay Normally Open (NO)/Normally Closed (NC) Output. Rated up to 1.0A at 12VDC, 1.0A at 24VDC
Codes & Capacities	<ul style="list-style-type: none">5-, 7- or 8-digits entry codes2,000 Code and FOB card capacity
Communication	Internet via Ethernet 10/100M, to connect the access panel to the cloud server.
	Wi-Fi 2.4G to connect the access panel to the cloud server.
	LTE-M (Cat-M1) cellular to connect the access panel to the cloud server.
	Bluetooth 4.0 to connect to the smart phone for two purposes, first is to set up the Wi-Fi connection, second is to open the back cover of the panel for maintenance.
Standby power	1.2W (12V/0.1A) when ambient temperature > 41°F (5 °C) 14.4W (12V/1.2A) when ambient temperature ≤ 41° F (5 °C)

Buzzer	One built-in Buzzer to provide audible feedback for operations
Display	3.52in E-ink screen to display a dynamic QR code for intercom
Ambient Light sensor	One built-in ambient light sensor to turn On/Off the backlight of the E-ink screen, when the ambient brightness is low
LED indicator	• One green/red dual-color indicator for credential verification: Green-Pass, Red-Fail
	• One green indicator for network: On-connected to the network, Off-no network connection.
Operation Temperature/Humidity	-35 to 70°C (-31 to 158°F), 0 to 95% (RH) for indoor or outdoor use
Storage Temperature	-40°C To 65°C (-40°F to 149°F)

Reader/Keypad

The Rently Access Panel with Intercom has built-in Reader and 12 touch keys Keypad. The user experience is simple yet effective: whenever a user presents an NFC card to the reader, information about the credential will be read and verified by the Access Panel. it provides visual and audio feedback through an LED indicator, its colors differing depending on the result of the unlock attempt. Once Access granted the controller will fires the relay output to open the door.

Credentials

- Credentials identify a user and are either physical or mobile.
- **Rently Physical credentials**
Rently credentials is MIFARE DESFire EV1 (32-bit Smart Fob card), Frequency: 13.56MHz.
 - **Server credentials**
Tap in-app allows you to unlock doors from within the Rently Smart Home app. The tap sends the unlock request directly to the cloud server, then to the controller, which fires the relay opening the door.

Wiring Specifications

Use this chart to pull wires in preparation of your installation. Check the national and local building codes BEFORE installation.

Signal	AWG	Twisted Pair	Conductors	Max run distance
Power input Wire for the Access control panel (12V DC input)	18	No	2	50 feet
	14	No	2	100 feet
Power input Wire for the Access control panel (24V DC input)	18	No	2	300 feet
	16	No	2	450 feet
Request-to-exit	22	No	2	300 feet
Door Contact	22	No	2	300 feet
Dry contact relay output (NO/NC/COM)	22	No	2	200 feet
	18	No	2	300 feet
Wet contact relay output (NO/NC/COM) @ 500mA	18	No	2	100 feet
Local Area Network (LAN) CAT 5e or better Network cable	24	Yes	8	328 feet*

NOTE: Main power supply and control wiring MUST be run in separate conduits. Conduits must be UL approved for low and high voltage. Refer to the NEC for additional wiring requirements.

Category INTRODUCTION 5e cabling is the minimum PRE-INSTALL performance category recommended.

Wiring shall be in accordance with the National Electrical Code (ANSI/NFPA 70), local codes and authorities having jurisdiction.

Always provide power from a dedicated source. Plug provided transformer into an outlet wired to its own 10 Amp minimum circuit breaker. This will prevent two problems:

- Other equipment cannot introduce spikes, noise, surges or dips into the power circuit that will affect the system.
- The system’s operation will not be affected if any other equipment develops a short circuit across the power line.

*** CAT 5/6 NETWORK CABLE NOTES:**

- For outdoor distances exceeding 140 feet (42.7 m), a UL497 compliant primary surge protector MUST be installed.
- Distances exceeding 328 feet (100 m) may be accommodated with additional hardware (available through third-party sources).

Internet connection

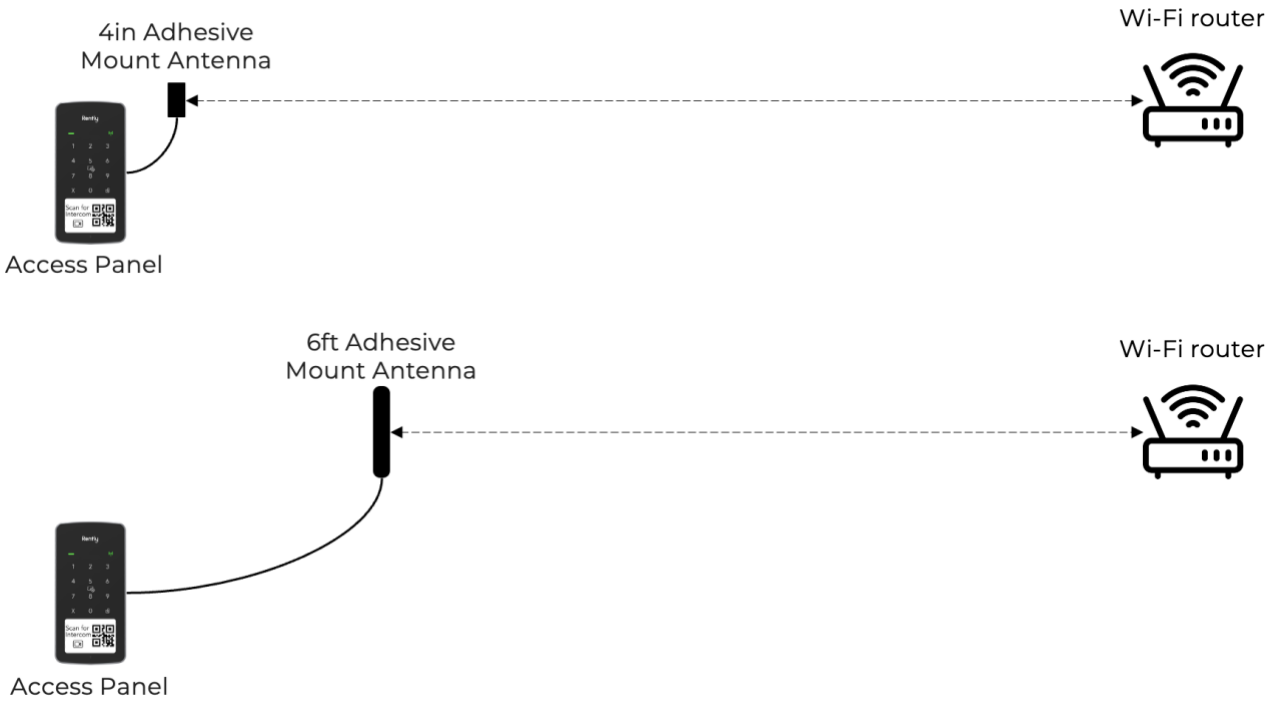
There are three ways to connect the Access Panel with Intercom to the Internet:

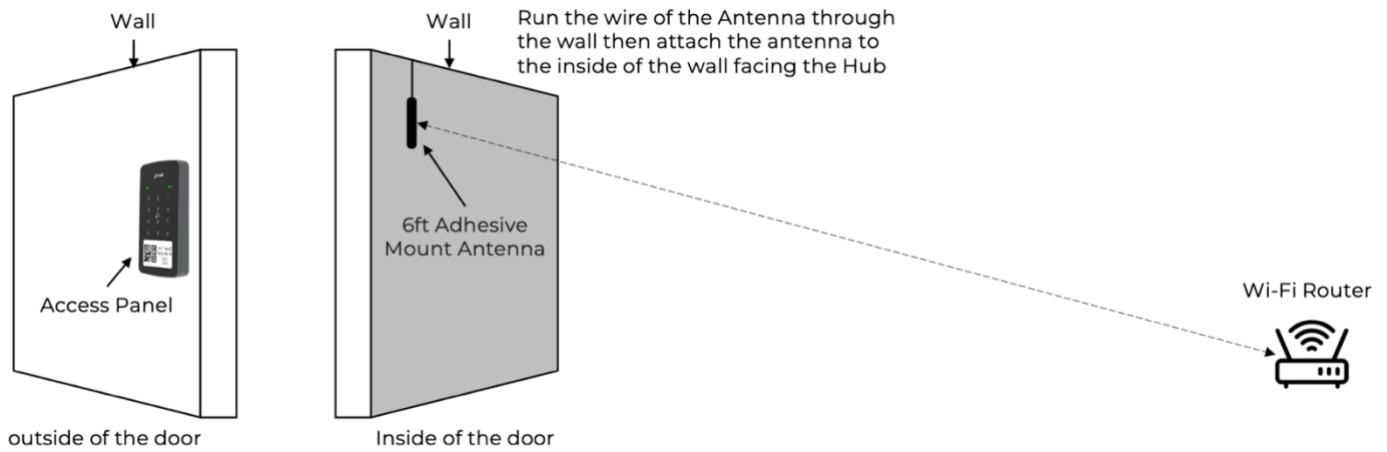
- **Connect via Cellular LTE-M(Cat-M1)**
The product is pre-installed with a SIM card and will automatically activate the cellular network connection when there is no Wi-Fi or Ethernet connection.
The priority of cellular is lower than Ethernet and Wi-Fi.
- **Connect via Ethernet cable.**
Plug the Ethernet cable into the Panel’s Ethernet port.
- **Connect via Wi-Fi**
Connect the 4in or 6ft adhesive antenna to the Co-ax antenna connector, the antenna should be mounted in a location free from large metal obstructions, including wire mesh used for stucco.

Download and register for the Rently Smart home App and follow the prompts to connect the controller to Wi-Fi.

- The wireless connection distance between the Antenna and the router is:
- 65ft direct line of sight without interference.
 - 29ft if separated by a non-load-bearing wall.
 - 20ft if separated by two layers of non-load-bearing wall.

Note: above distance is just for reference, the actual effective connection distance is related to the complexity of the environment and the signal strength of the router.





Installation instructions

Prior to Installation

- Check that all components are available.
 - Rently Access Panel with intercom
 - Screw on co-ax antenna (6 ft antennas provided)
 - Request-to-exit Button
 - Power Supply Controller
 - Wall anchors or other mounting hardware
 - Wiring connectors
 - Rain cover (Optional)
 - Cable management box (Optional)
 - Your preferred lock type including but not limited to:
 - Electromagnetic Lock and lock brackets
 - Electric Strike Lock
 - Electric Bolt Lock
 - Electric Cabinet Lock

NOTE: This is a kit, and not all components will be used. Please recycle parts that are not necessary for your application.

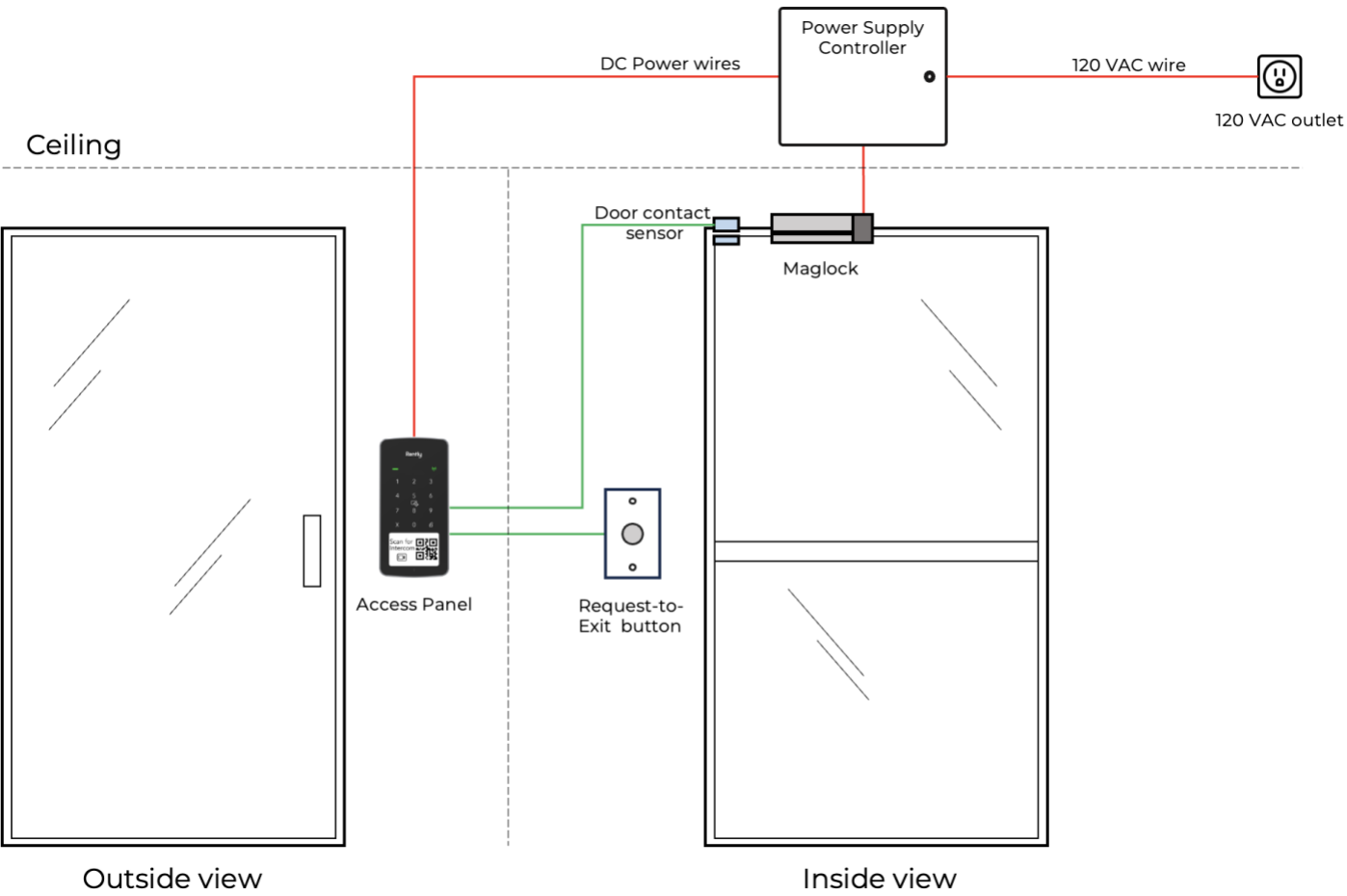
For all the devices connected to the Access Panel with Intercom should be UL 294 Listed.

- Identify the door type and verify that you have the correct mounting bracket and hardware for the install.
- Locate the power source for the power supply controller.

NOTE: You may need to have a certified electrician run power to the install location.
- ADA considerations:

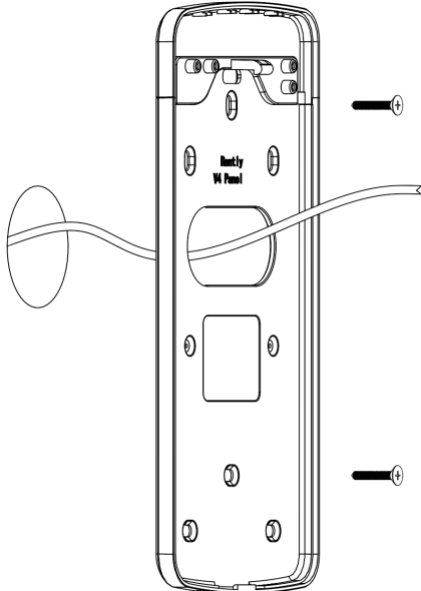
The Exit Button and the Rently Access Panel with Intercom should be installed in accordance with your local ADA requirements. Recommended height does NOT guarantee ADA compliance.

Typical Installation

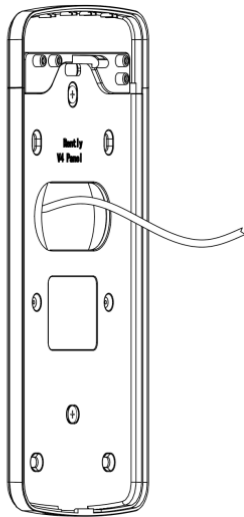


Mount Rently Access Panel with Intercom

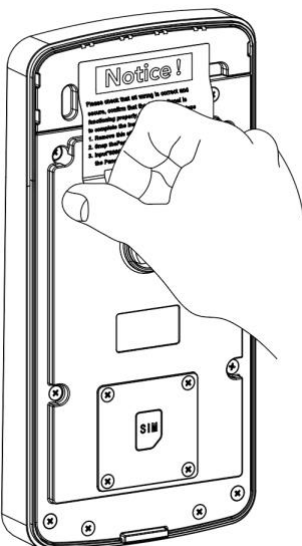
1. Run the Power and control wires to the location where the Rently Access Panel with Intercom will be mounted.
3. Run the power and control wires through the mounting plate.



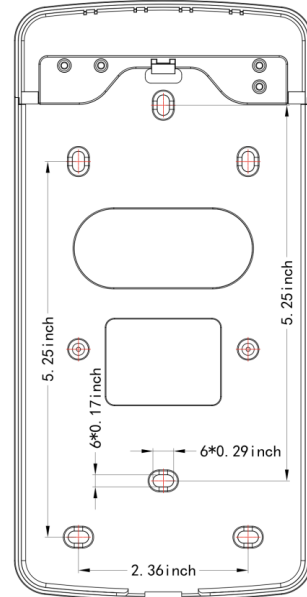
4. Press the mounting plate firmly against the mounting surface and secure with screws.




7. Check to make sure that all wiring is correct and secure, confirm that the Access Panel is functioning properly, then remove the yellow sticker on the back of the panel.

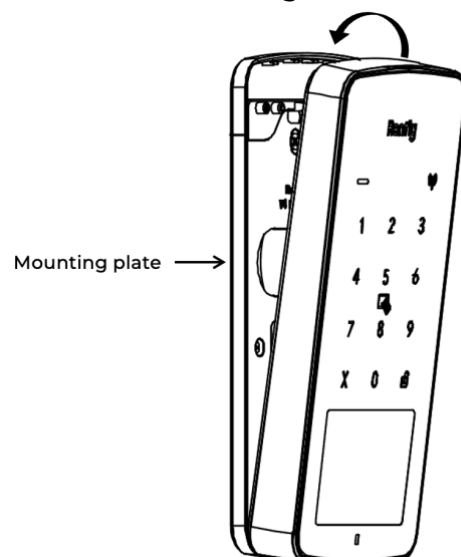


2. Drill holes for the wall anchors according to the dimensions in the diagram below, then insert the wall anchors into the holes.



5. Connect the power and control wires to the Access Panel according to the appropriate wiring diagram (see [wiring instructions](#) part).
6. Connect the 4in or 6ft adhesive antenna by screwing on the co-ax cable.

8. Hook the top edge of the Access Panel on the mounting plate and swing the panel in until fully seated.
9. Input "888000" +  on the keypad to lock the Panel on the mounting bracket.

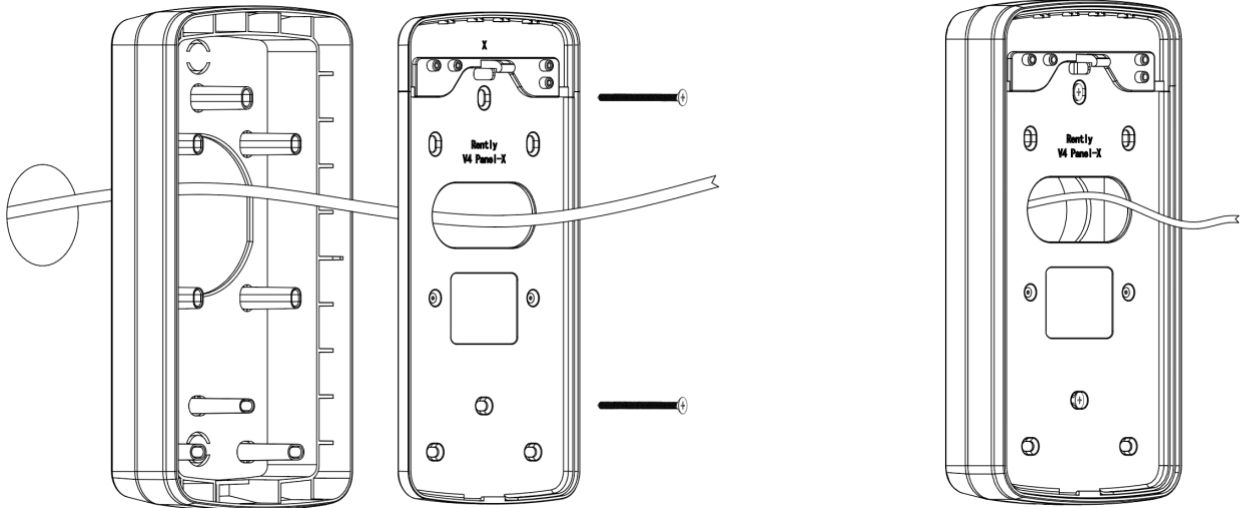


<div data-bbox="110 169 186 263"></div> <div data-bbox="297 182 396 241"><p>Tips</p></div>	<p>If there is not enough space inside the mounting surface to accommodate the wires, you can install a cable storage box to help store the wires.</p>
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1. Run the power and control wires through the cable storage box and mounting plate.

2. Press the cable storage box and mounting plate firmly against the mounting surface and secure with screws.

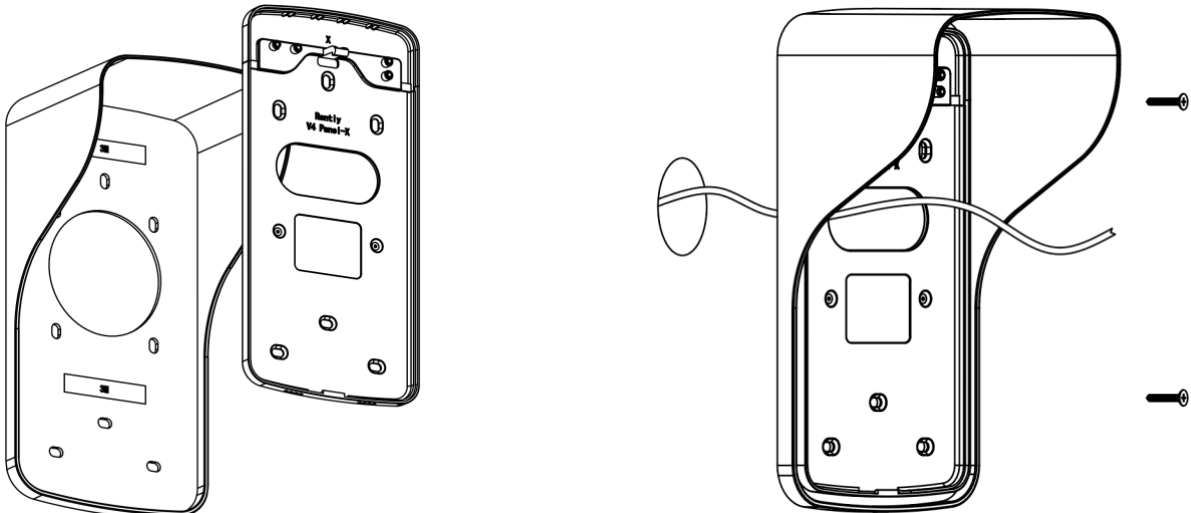
3. Stuff the cables and connectors into the storage box.



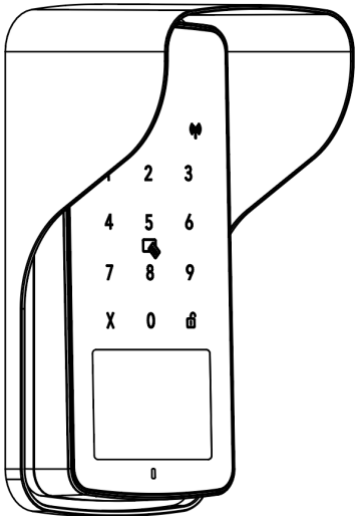
<div data-bbox="110 1029 186 1123"></div> <div data-bbox="297 1042 396 1102"><p>Tips</p></div>	<p>The rain cover is optional and provided separately, it can better protect the panel against the rain and sunshine, it is highly recommended to extend the life cycle of the access panel.</p>
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1. Put the mounting plate inside of the rain cover.

2. Run the power and control wires through the mounting plate.




3. The rest of the steps are the same as above.



Connect Power

The outlet for the Access Panel power supply controller MUST be an external dedicated 120 Vac outlet.

1. Connect 14-18 AWG wire to the stripped secondary DC output wires on the power supply controller. Black is negative and red is positive.
2. Connect the power supply wires to the Power INPUT terminal of the Access Panel.
3. Plug the power supply controller into a 120 Vac outlet after all connections have been made.

**CAUTION**

- DO NOT connect the power supply to a switched outlet or otherwise controlled AC outlet.
- DO NOT connect the power supply to the 120 Vac outlet until ALL wiring is completed.


Access Control Wiring instructions

Fail-safe means that if the power is interrupted or fails, the door automatically unlocks.
Fail-secure means that if the power is interrupted or fails, the door stays locked.

Mostly fail-safe locks are used for main entry points like office doors or lobby access doors. A popular use for this application is maglocks which - by design - require power to operate.

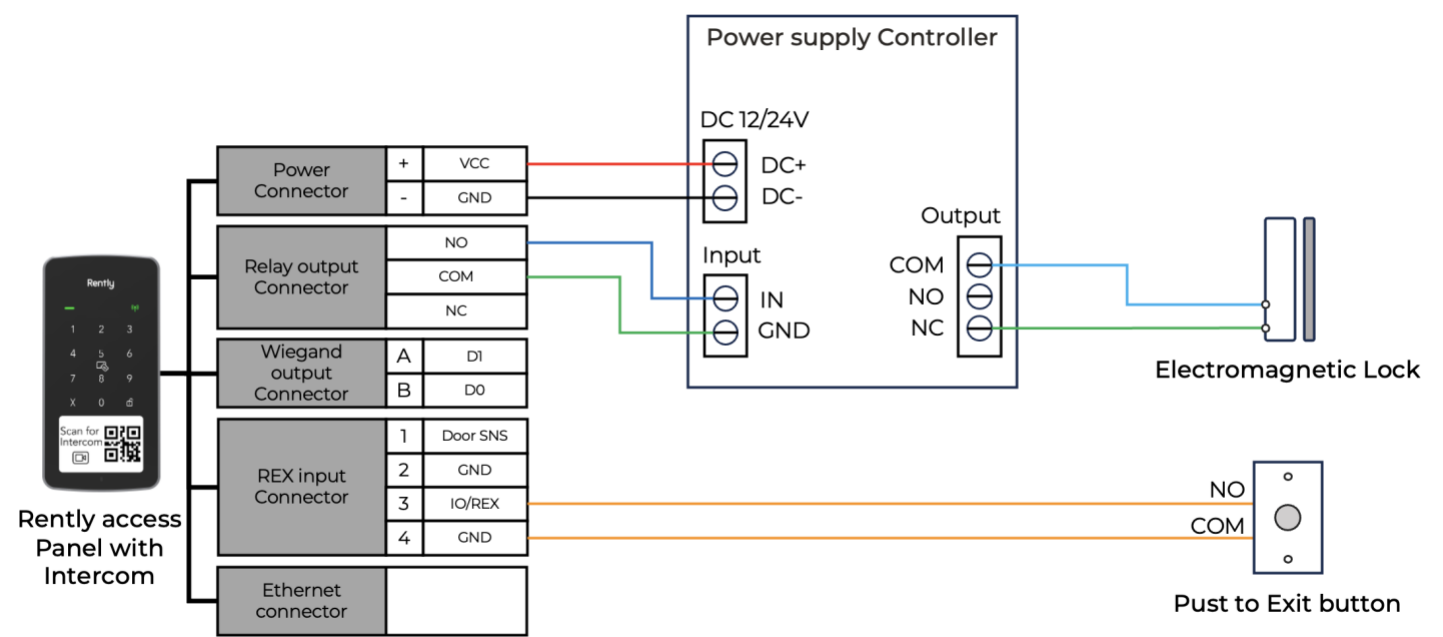
Often Fail-secure locks are used for IT rooms or other sensitive areas. However, because the door keeps being locked in emergencies, typically it will be usable with a mechanical override, such as a regular key.

Fail-secure locks are used for fire related doors or staircase (stairwell) doors. The reason is that in case of fire, those doors should remain closed to seal off a portion of the space and help reduce spreading of the fire.

**Attention**

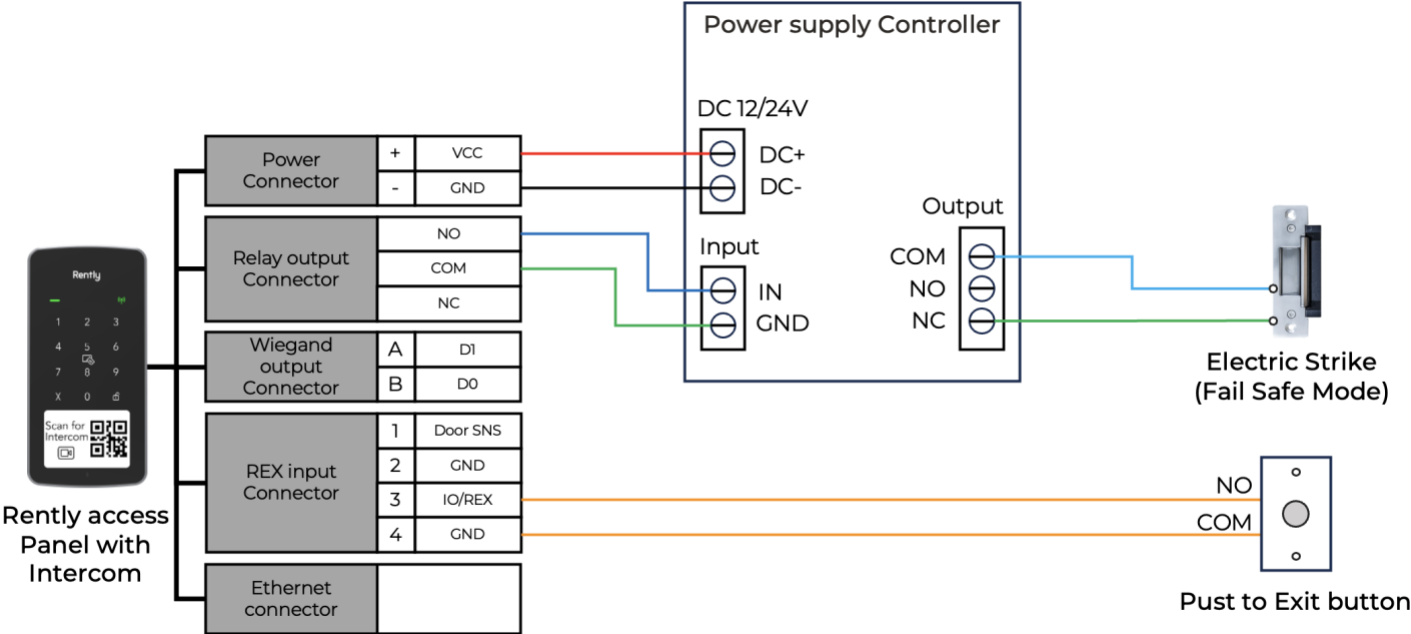
Before you install the electric locking hardware, check the manufacturer's documentations of the devices. Please refer to your local building codes and property requirements for appropriate fail-safe and fail-secure wiring.

Fail-Safe Electromagnetic Lock (Dry contact)



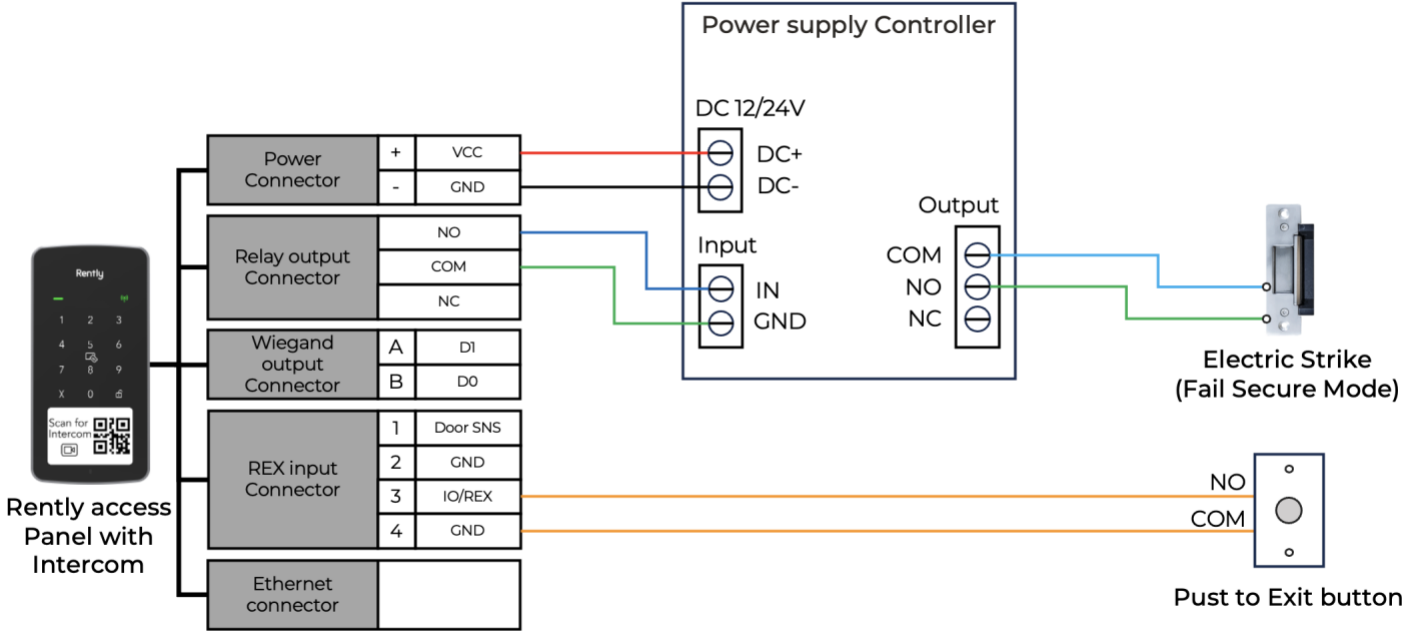
Fail-Safe Electric Strike (Dry contact)

Set the Electric strike to Fail-Safe mode according to the manufacturer's documentation before installation.



Fail-Secure Electric Strike (Dry contact)

Set the Electric strike to Fail-Secure mode according to the manufacturer’s documentation before installation.



More wiring scenarios please refer to the **Wiring Guide**.

Installation Test

With the components installed and wired, please carry out this simple test to ensure that the Rently smart access control system was installed correctly and is fully functional.

To ensure that the wiring was done correctly, please press the exit button to see if the lock releases for a few seconds.

If the test fails, please reexamine the installation and wiring of the Rently smart access control system.

For more information on how to set up manager and resident access, please scan the QR code or reach us at:



(855)-248-8144
support@rentlykeyless.com



FCC WARNING This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Note: The Grantee is not responsible for any changes or modifications not expressly approved by the party responsible for compliance. Such modifications could void the user's authority to operate the equipment. The device has been evaluated to meet general RF exposure requirement. To maintain compliance with FCC's RF exposure guidelines, the distance must be at least 20 cm between the radiator and your body, and fully supported by the operating and installation configurations of the transmitter and its antenna(s).

FCC ID: 2AH4J-PANEL420