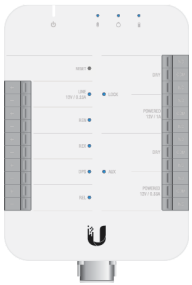
UA-Hub Quick Start Guide

Package Contents



UA-Hub

DIN Rail

Self-Tapping Screws (Qty. 2)

Screw Anchors (Qty. 2)

Note: Each UniFi Access component and all third-party accessories are sold separately.

Installation Requirements

- Phillips screwdriver
- Ethernet cables, CAT5e or better
- Copper wire, 18 AWG to 22 AWG
- Drill Kit
- DIN Rail
- Wire Ferrule Terminal (Recommended)

Sample Wiring Topology

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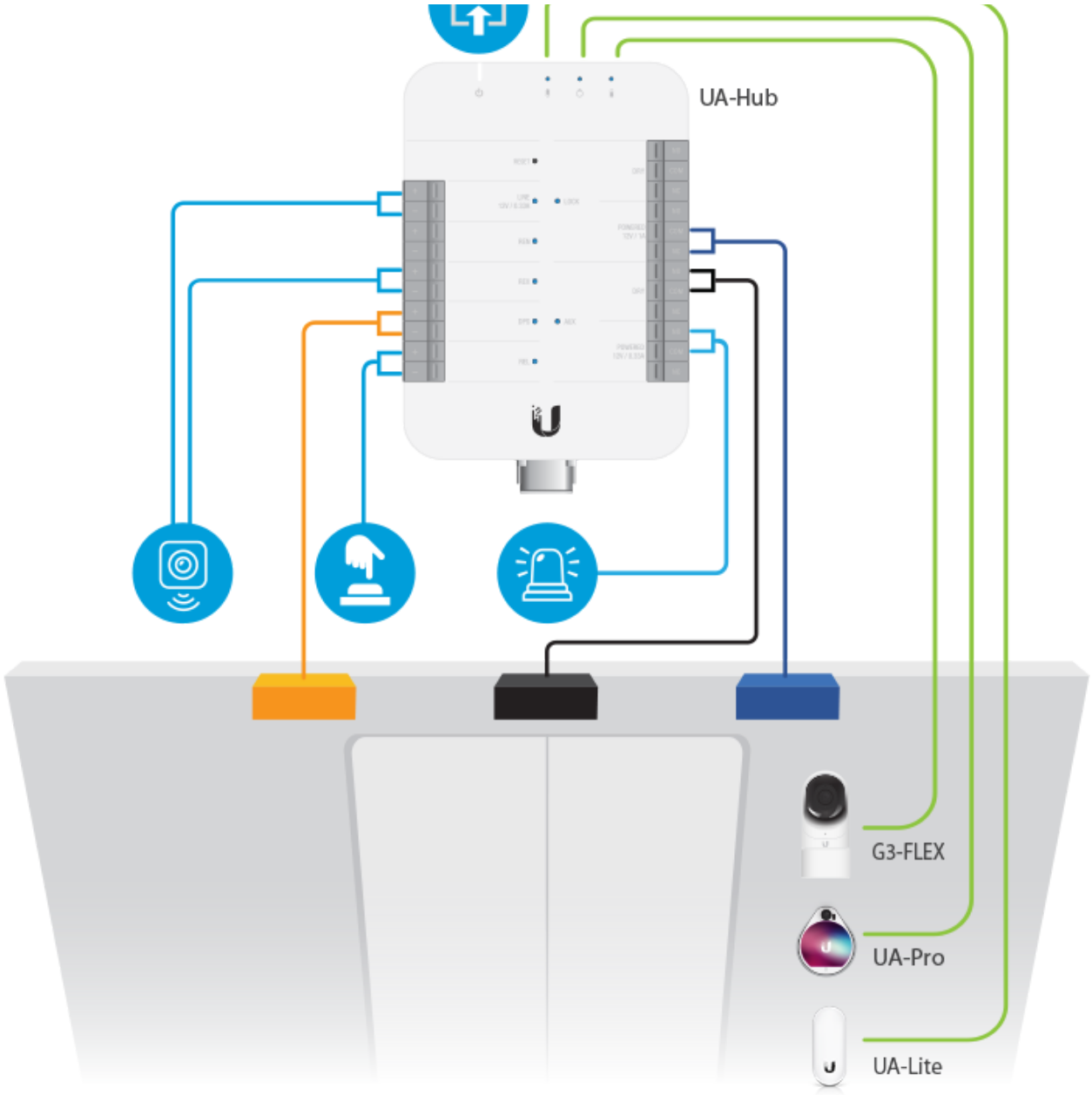

Door Position Switch

Externally Powered Door Opener

Magnetic Lock

Hardware Overview

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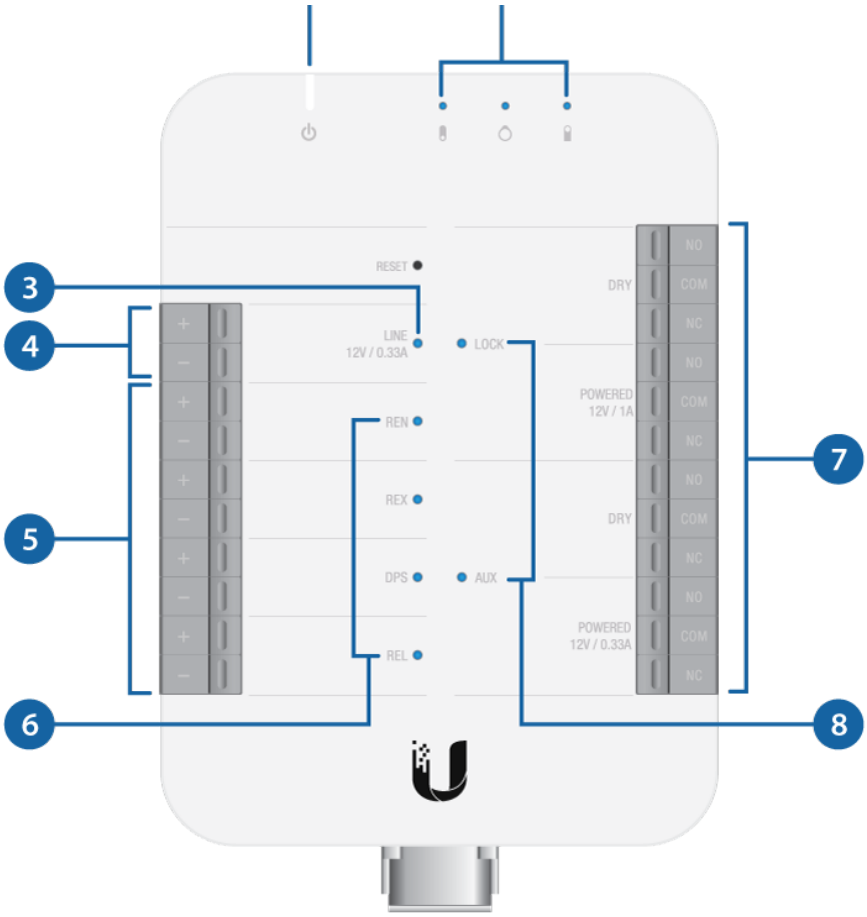

1 Power (In) LED	
Steady Blue	Adopted/device is ready
Steady White	Pending adoption
Alternating White/Blue	Upgrading firmware
2 PoE (Out) LEDs	
Off	Not connected or no data link
Steady Blue	Connected and data link on
3 12V Line Output LED	
Off	Not connected
Steady Blue	Effectively connected*
4 12V Line Output Relays	

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5 Input Relays	
REN	Request to enter
REX	Request to exit
DPS	Door position switch
REL	Remote release
6 Input Relay LEDs	
Off	Not connected
Steady Blue	Effectively connected*
7 Output Relays	
DRY	Output relay with no power
POWERED	Output relay with 12VDC
8 Output Relay LEDs	
Off	Not connected
Steady Blue	Effectively connected*

** Wires are properly connected to both relays in any of the following sets:*

- *+/-*
- *NC/COM*
- *NO/COM*

Default I/O State Matrix

LOCK			
Dry			
	NO	COM	NC
Door Locked Initial State	Opened	Shorted	Shorted
Unlocked REN, REX, or REL is shorted; or the reader has granted access	Shorted	Shorted	Opened

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Powered			
	NO	COM	NC
Door Locked Initial State	0V	GND	+12V
Unlocked REN, REX, or REL is shorted; or the reader has granted access	+12V	GND	0V

AUX			
Dry[1]			
	NO	COM	NC
Door Locked Initial State	Opened	Shorted	Shorted
Unlocked REN, REX, or REL is shorted; or the reader has granted access	Shorted	Shorted	Opened
Powered[2]			
	NO	COM	NC
Door Opened DPS is opened	+12V	GND	0V
Door Closed DPS is closed	0V	GND	+12V

[1] *Example 1: Recommended Setup - Connect AUX DRY to automatic door opener with external power*

[2] *Example 2: Recommended Setup - Connect AUX POWERED to siren (12V / 0.33A / 4W) for door position warning*

Note: Specific behaviors can be further configured in UniFi Access Controller.

UA-Hub Wiring

Connecting the UA-Hub to LAN

Ensure the switch port that is connected to the UA-Hub is on the same LAN segment or VLAN as the UniFi Access agent. It must also support PoE+ or PoE++.

Connecting the UA-Pro to the UA-Hub

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Connecting the UA-Lite to the UA-Hub

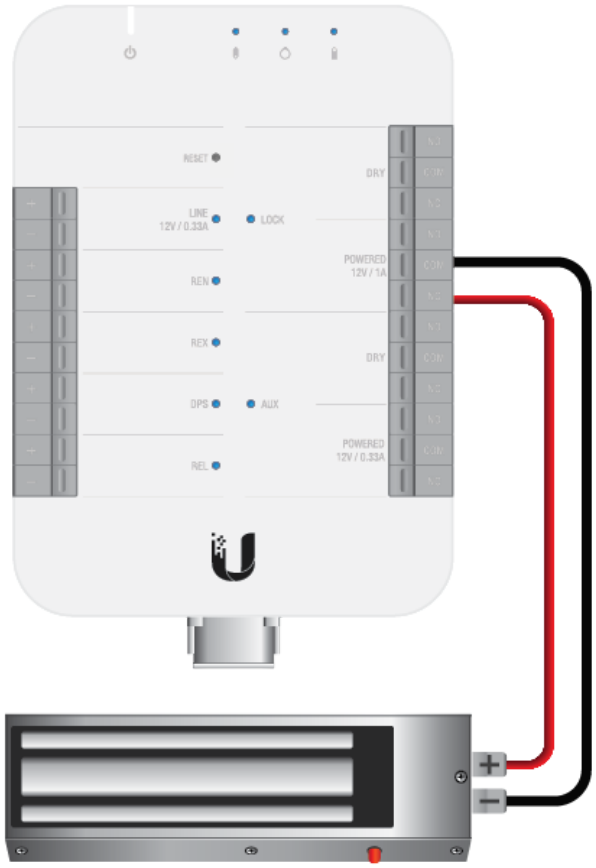
Use an Ethernet cable to connect the UA-Lite access reader to the UA-Lite PoE port on the UA-Hub.

Connecting the G3-Flex to the UA-Hub

Use an Ethernet cable to connect the G3-Flex camera to the G3-Flex PoE port on the UA-Hub.

Connecting a Fail-Safe Lock with No External Power Supply

1. Connect the Lock Powered (NC) port on the UA-Hub to the (+) on the lock.
2. Connect the Lock Powered (COM) port on the UA-Hub to the (-) on the lock.



Fail-safe lock in this diagram refers to magnetic lock or electric bolt.

Connecting a Fail-Safe Lock with an External Power Supply

1. Connect the Lock DRY (NC) port on the UA-Hub to the (+) on the lock.
2. Connect the (-) on the lock to the (-) on the external power supply.
3. Connect the Lock DRY (COM) port on the UA-Hub to the (+) on the external power supply.

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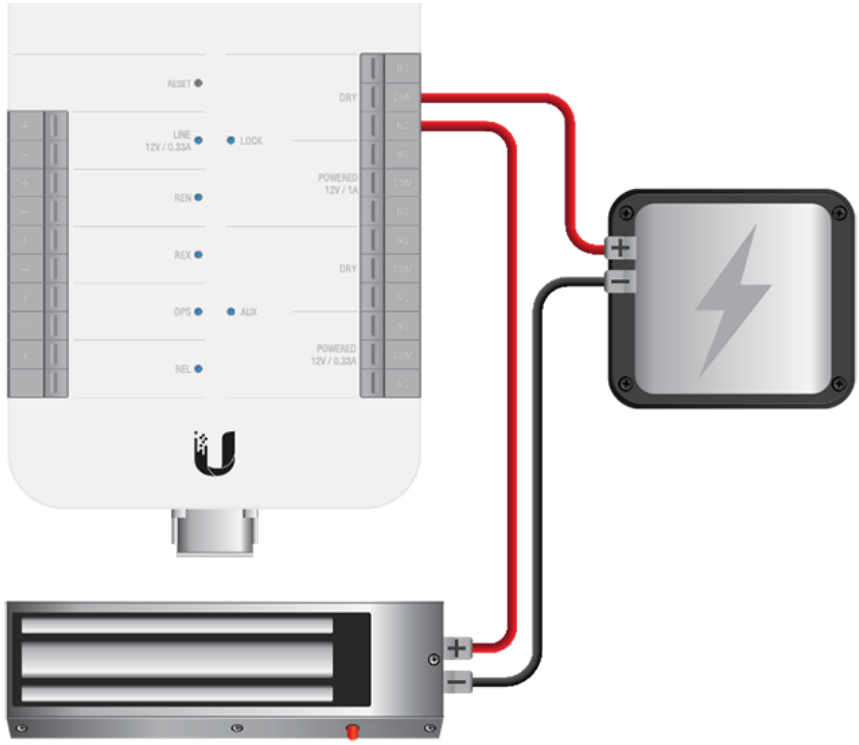
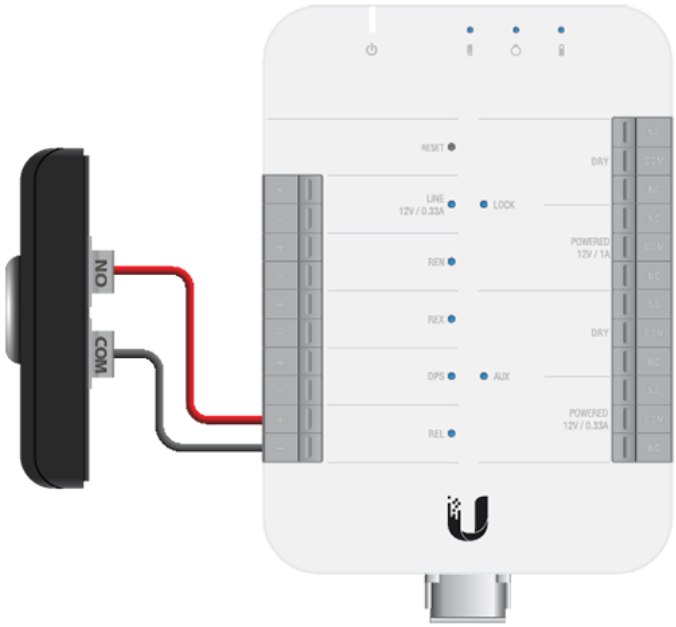


Connecting a Push Button

1. Connect NO on the push button to REL (+) on the UA-Hub.
2. Connect COM on the push button to REL (-) on the UA-Hub.

Note: REL, REX, and REN all work the same way with push buttons.



Connecting a Motion Sensor

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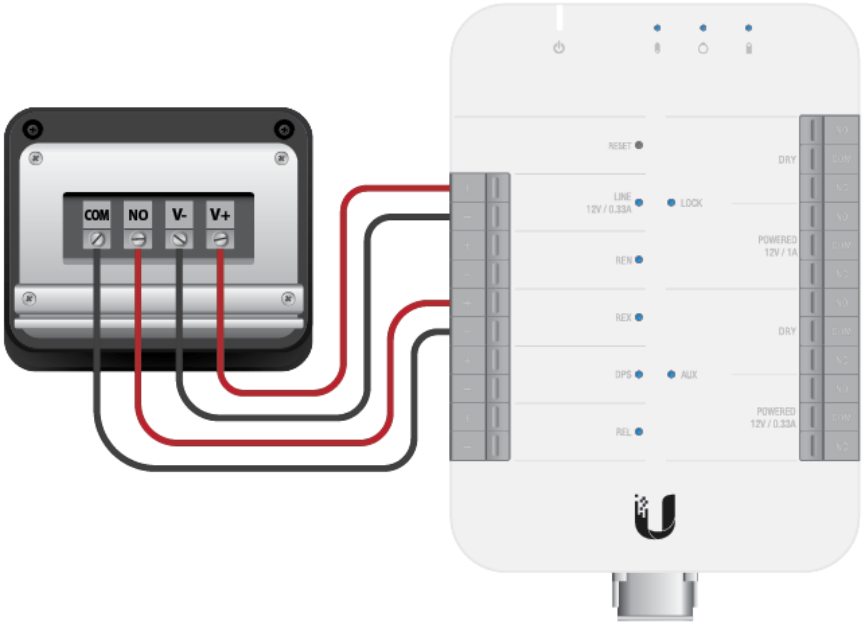
2. Connect COM on the motion sensor to REX (-) on the UA-Hub.
3. Connect V+ on the motion sensor to Line 12V (+) on the UA-Hub.
4. Connect V- on the motion sensor to Line 12V (-) on the UA-Hub.

Note: REL, REX, and REN all work the same way with motion sensors.



Connecting a Siren

1. Connect AUX Powered (NO) on the UA-Hub to the (+) on the siren.
2. Connect AUX Powered (COM) on the UA-Hub to the (-) on the siren.

Note: AUX powered output is 12VDC up to 0.33A.

The diagram below is an example; please consult the manual for your specific siren.

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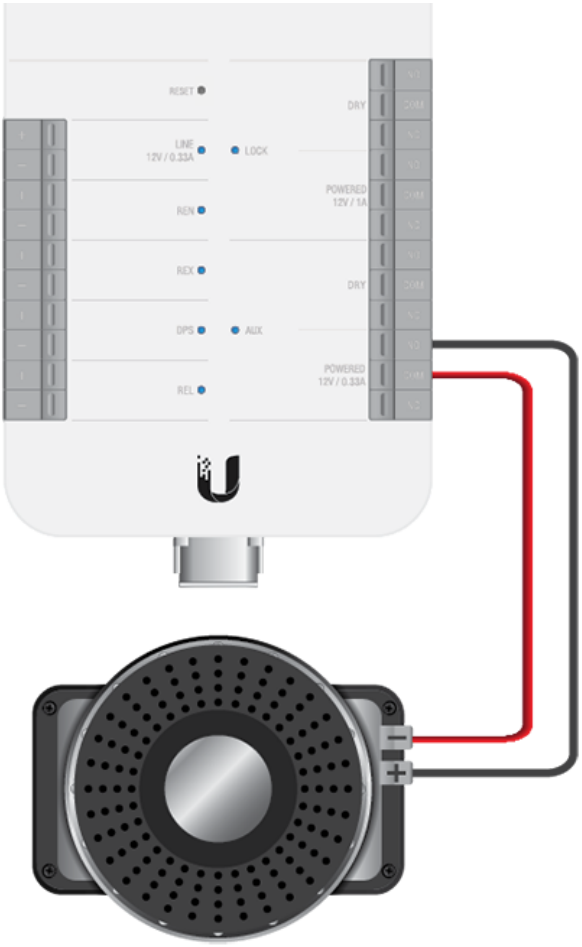
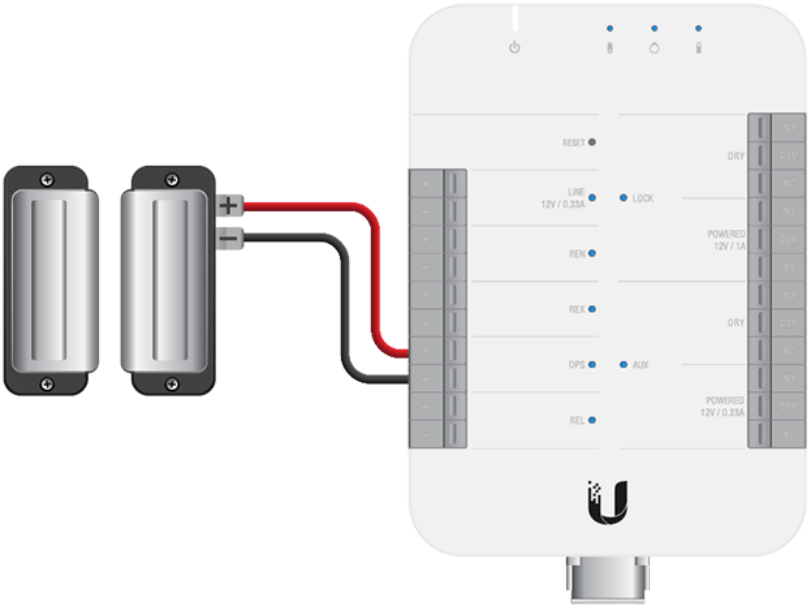


Connecting a Door Position Switch (Door Sensor)

1. Connect NC on the door position switch to the DPS (+) on the UA-Hub.
2. Connect COM on the door position switch to the DPS (-) on the UA-Hub.



Connecting an Automatic Door Opener with an External Power Supply

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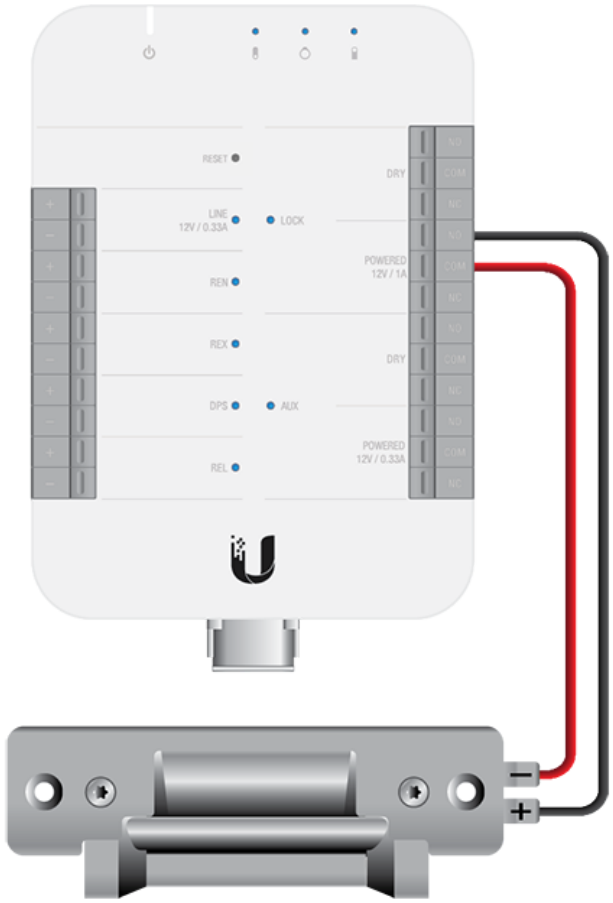
relays for the automatic door opener connection.

Connecting a Fail-Secure Lock with No External Power Supply

Connect the Lock Powered NO and COM ports on the UA-Hub to the NO and COM ports on the fail-secure lock, respectively.



Fail-secure lock in this diagram refers to electric strike.

Connecting Wire to Terminal Block

1.

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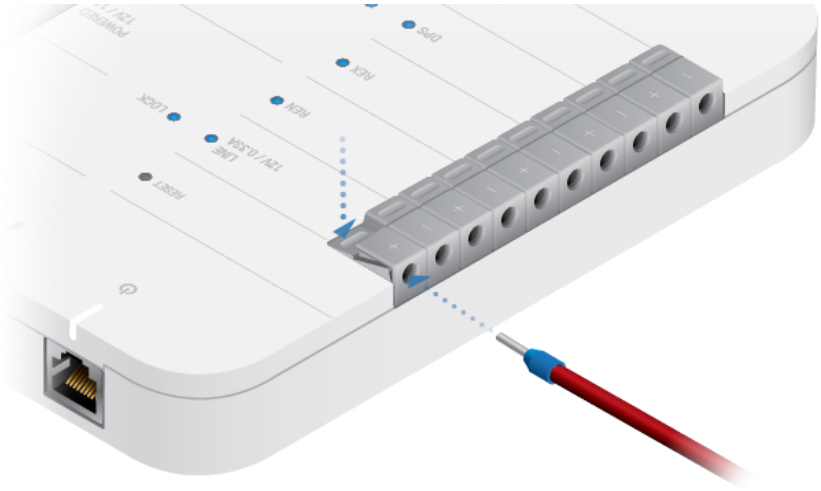

3.

Hardware Installation

DIN Rail

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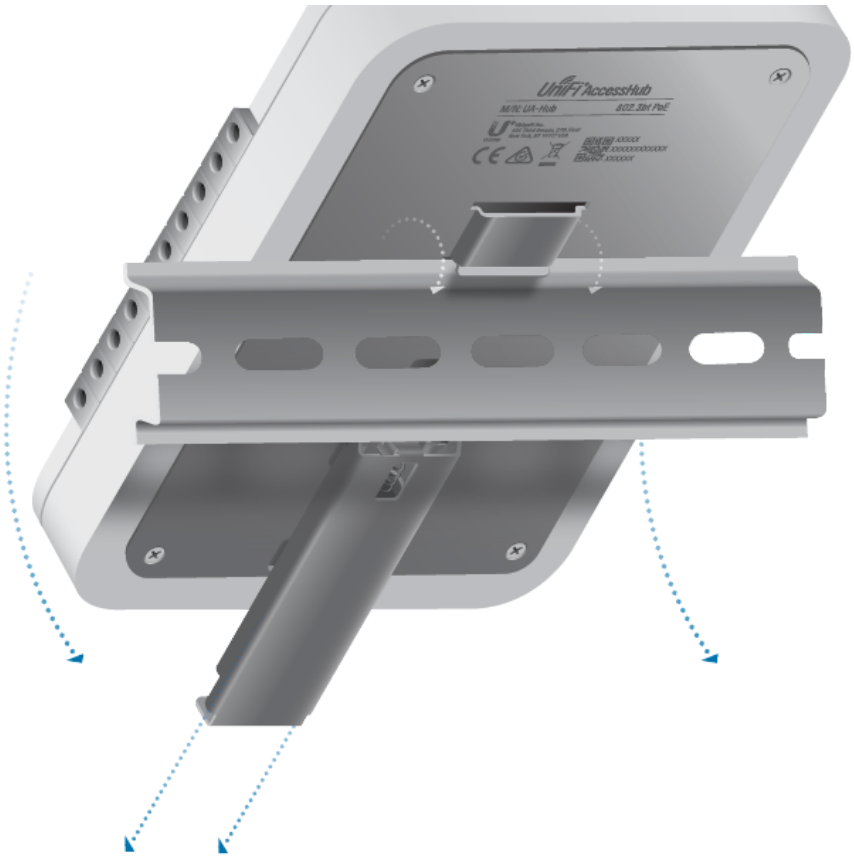
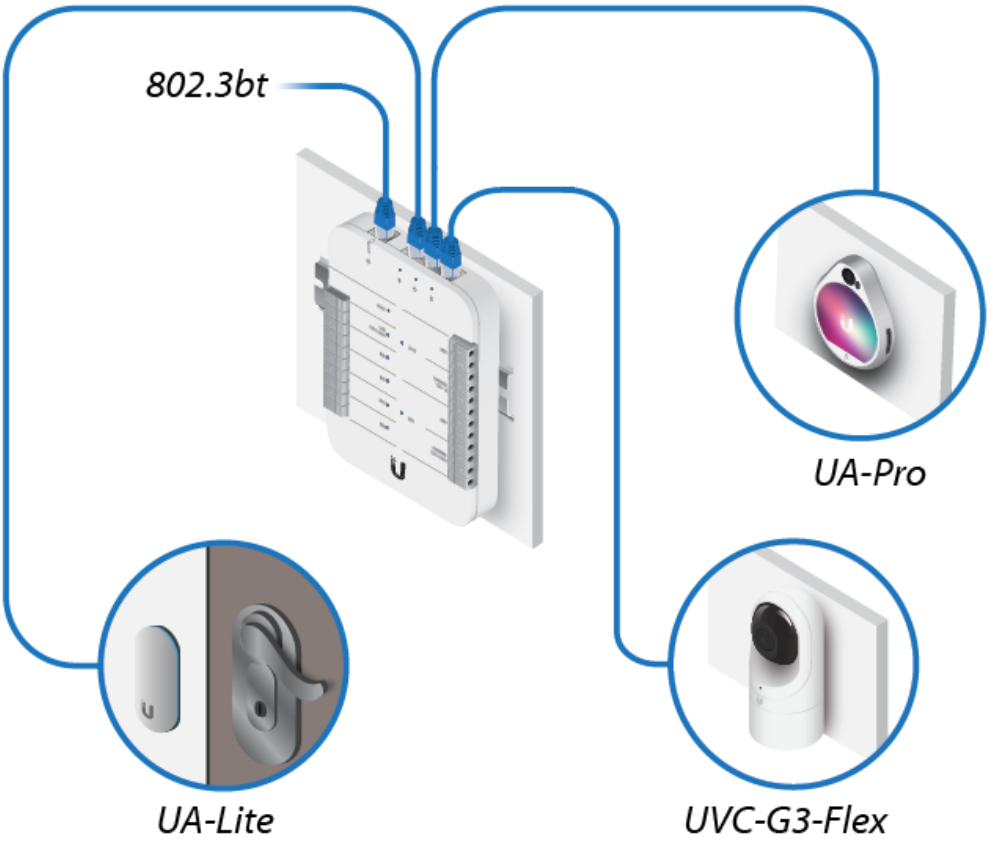


Peripherals



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Note: The UA-Hub also features an additional PoE port for the UVC-G3-FLEX camera (optional).

Third-Party Accessories

Locks

Install each lock in its respective location. Each lock can be installed and connected to the UA-Hub in one of two ways:

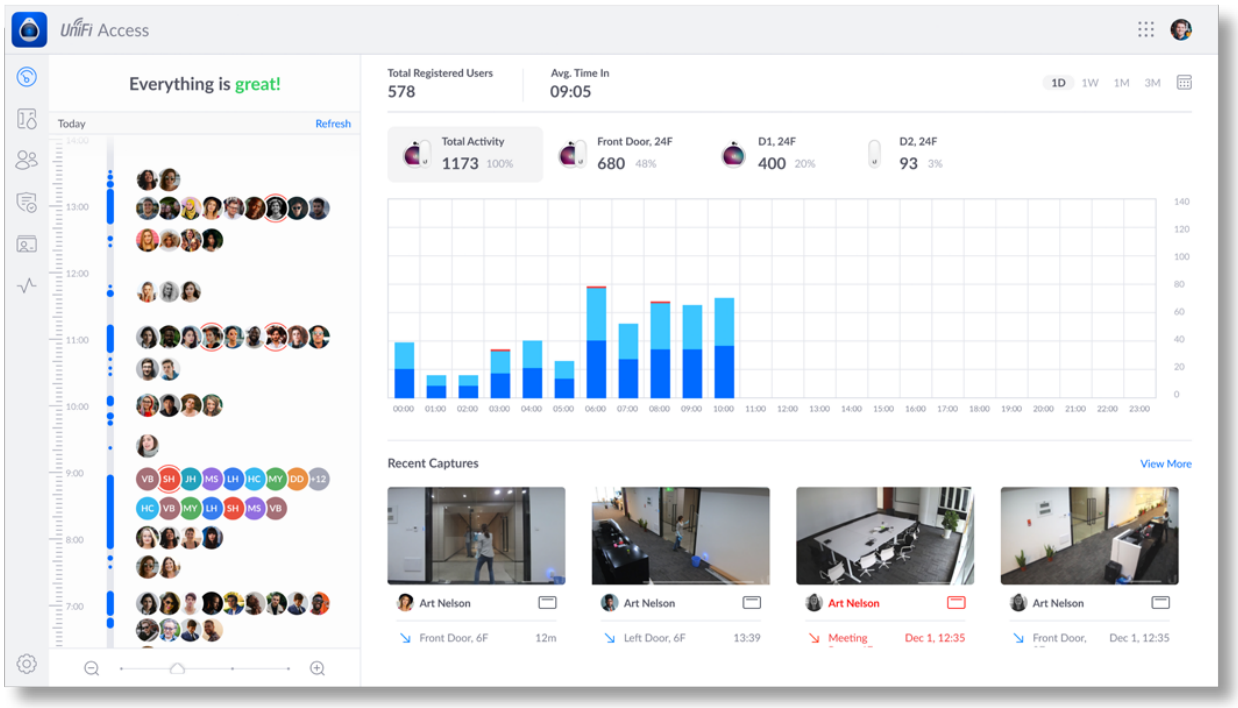
- Dry connections
- Powered connections, 12VDC

Dry locks do not require power from the UA-Hub and are generally accompanied by their own external power or power adapter.

Powered locks receive 12VDC power from the UA-Hub.

UniFi Access Controller

Setup UniFi Access on your UDM-Pro



Specifications

UA-Hub	
Dimensions	190 x 126 x 33 mm (7.48 x 4.96 x 1.29")

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Weight	457 g (16.12 oz)
Enclosure Characteristics	Plastic Enclosure with Metal Mount Plate
Mounting Options	DIN Rail
Networking Interface	(4) 1 Gbps Ethernet
Max. Power Consumption	40W
Power Method	802.3bt
Powered Relay Lock Aux Line	 Output 12VDC, up to 1A Output 12VDC, up to 0.33A Output 12VDC, up to 0.33A
LEDs	(1) System, (3) PoE Out, (4) Input (2) Output Relays, (1) 12VDC Out
Buttons	Terminal Blocks, Reset
Operating Humidity	5 to 90% Non-Condensing
Operating Temperature	0 to 40° C (32 to 104° F)
Certifications	CE, FCC, IC

Specifications for Recommended Wiring

Typical Installation (Shielded)	
DC Power Input	Belden 8750 18 AWG 2 Conductor (30.5 m / 100 ft)
Door Position Switch	Belden 8750 18 AWG 2 conductor (152.5 m / 500 ft)
Request to Exit	Belden 8750 18 AWG (up to 152.5 m / 500 ft)
Lock Relay Output	Belden 8750 18 AWG (up to 152.5 m / 500 ft)
Auxiliary Relay Output	Belden 8750 18 AWG (up to 152.5 m / 500 ft)

Wiring Gauge Requirements (AWG)*				
Total Length to Device	Output Load Current @ 12VDC			
	100mA	250mA	500mA	1A
6.1 m (20 ft)	22	22	22	18
15.2 m (50 ft)	22	22	22	18
30.5 m (100 ft)	22	22	18	18

** Use CTE cable connectors that comply with local electrical codes.*

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1. Read, follow, and keep these instructions.
2. Heed all warnings.
3. Only use attachments/accessories specified by the manufacturer.

WARNING: Do not use this product in location that can be submerged by water.

WARNING: Avoid using this product during an electrical storm. There may be a remote risk of electric shock from lightning.

Electrical Safety Information

1. Compliance is required with respect to voltage, frequency, and current requirements indicated on the manufacturer's label. Connection to a different power source than those specified may result in improper operation, damage to the equipment or pose a fire hazard if the limitations are not followed.
2. There are no operator serviceable parts inside this equipment. Service should be provided only by a qualified service technician.
3. The equipment requires the use of the ground wire as a part of the safety certification, modification or misuse can provide a shock hazard that can result in serious injury or death.

Limited Warranty

ui.com/support/warranty

The limited warranty requires the use of arbitration to resolve disputes on an individual basis, and, where applicable, specify arbitration instead of jury trials or class actions.

Compliance

FCC

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operations of this equipment in a residential area is likely

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ISED Canada

CAN ICES-3(A)/NMB-3(A)

Australia and New Zealand

Warning: This equipment is compliant with Class A of CISPR 32. In a residential environment this equipment may cause radio interference.

CE Marking

CE marking on this product represents the product is in compliance with all directives that are applicable to it.

WEEE Compliance Statement

Declaration of Conformity

Online Resources