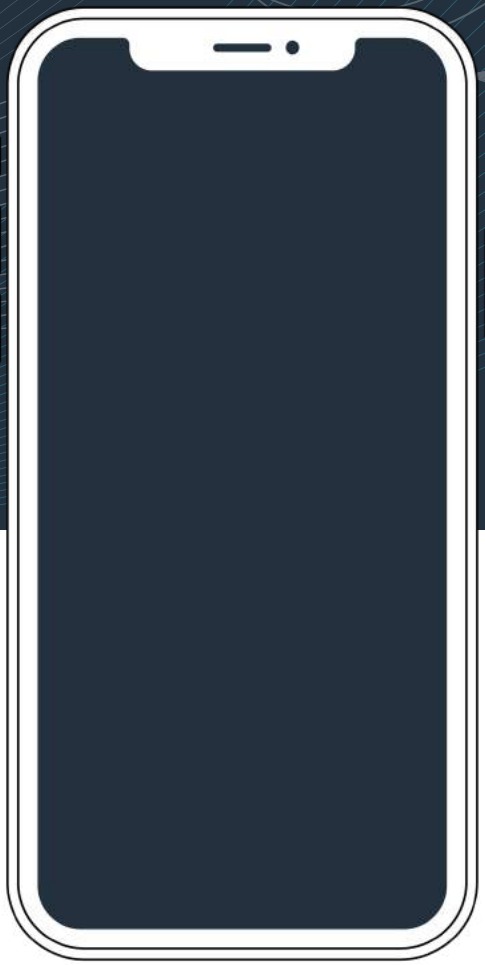
Install Guide

SABRE INLINE/RELAY



INSTALL GUIDE

safetrust.com

Last Updated November 08 , 2021

Introduction

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Product Overview

The SABRE is available as an INLINE or a RELAY device. Both products make it easy to upgrade any existing access control system with mobile access, without giving up support for physical access cards. When connected between a host reader and a physical access control panel, the SABRE enables mobile devices and wearables to be used as a replacement or in-conjunction with existing card technologies.

The SABRE INLINE and the SABRE RELAY sensors contain onboard Wi-Fi which permits two-way communication with the Credential Manager for OTA remote management and configuration.

The SABRE RELAY is an extension of the INLINE device with additional access controller management capabilities. The RELAY is ideally suited for parking garages, remote buildings and single door offices where no existing cabling or reader infrastructure exists. If you order the SABRE INLINE it will come without the relay section of the board.

In the box

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Included

a) INLINE or RELAY Sensor

a) b) c) d) e)

Not Included (Required)

b) Wiring
c) 7 1/8 in Solid and Stranded Wire Stripper
d) Insulation Displacement Connector, Moisture Resistant, 300 V Max
e) Screwdriver

Specifications

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Hardware

Bluetooth Low Energy 2.400 GHz - 2.4835 GHz

Ports

USB, Optical Relay 400mA, External 48V 5A relay

Mobile Operating Systems

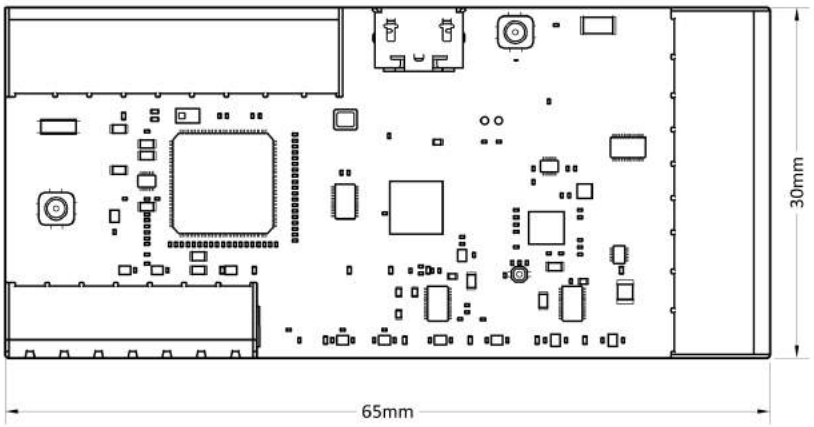
Apple iOS 9.0 or later and Android 4.4 or later on devices with the Safetrust Wallet

IoT Protocol

MQTT (ISO/IEC PRF 20922)

Dimensions

65mm x 30mm x 12mm



Output

Form C relay, Wiegand, RS-485, OSDP v1/v2, OSDP v2 Secure Channel, TTL 5V

Power Requirements

5-12 V DC

Power Consumption

Wi-Fi 2 - 50 mA, BLE 2 - 15 mA

Mobile Credential Emulations

Most popular 125kHz prox formats from HID®, Indala®, AWID®, GE Casi®, Farpointe and Honeywell®, MIFARE® Classic, MIFARE® DESFire® and Seos® Credentials

Certifications

FCC Part 15 Modular Transmitter Certification, Canada IC, EU EMC CE, India ETA-WPC, RCM, RoHS. WEEE

Installation

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Step 1: Wire your INLINE or RELAY device

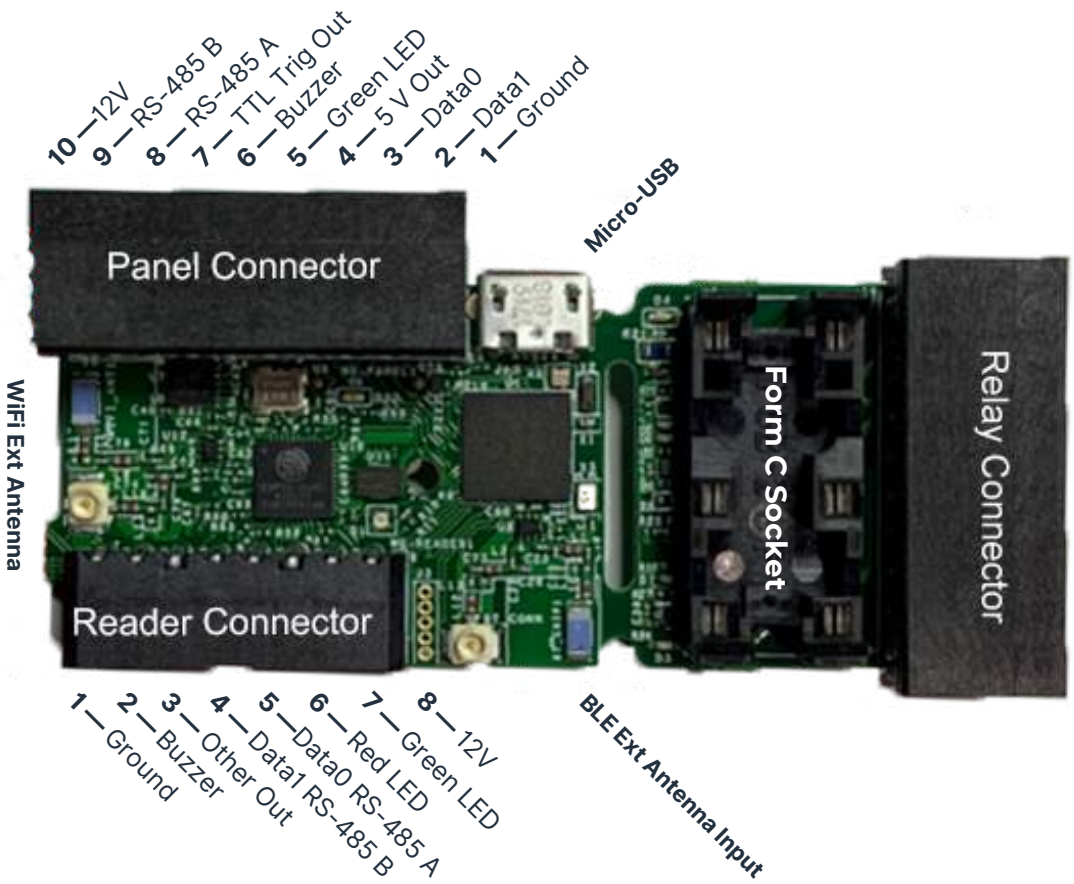
Note: This guide assumes you have already created an Identity System within the Credential Manager platform and assigned credentials to that system.

If you have not done so, please refer to the Safetrust Onboarding Guide before completing the sensor installation.

Panel Connector - Supports pass through Wiegand or translates Wiegand to RS-485 (OSDP). Includes supplemental I/O for special applications.

Reader Connector - Wires into a legacy reader providing pass through Wiegand, LEDs and buzzer. Supplemental trigger output.

Relay Connector (Relay version) - Offers a Form C relay and solid state relay I/O. Perfect for parking gates and other custom aplications.



10 — Relay 5v Out Ext
9 — Relay 5v In Ext
8 — Relay 5v In2 Ext
7 — Relay In
6 — Normally Closed
5 — Common
4 — Normally Open
3 — Ground
2 — Relay Out
1 — 12V

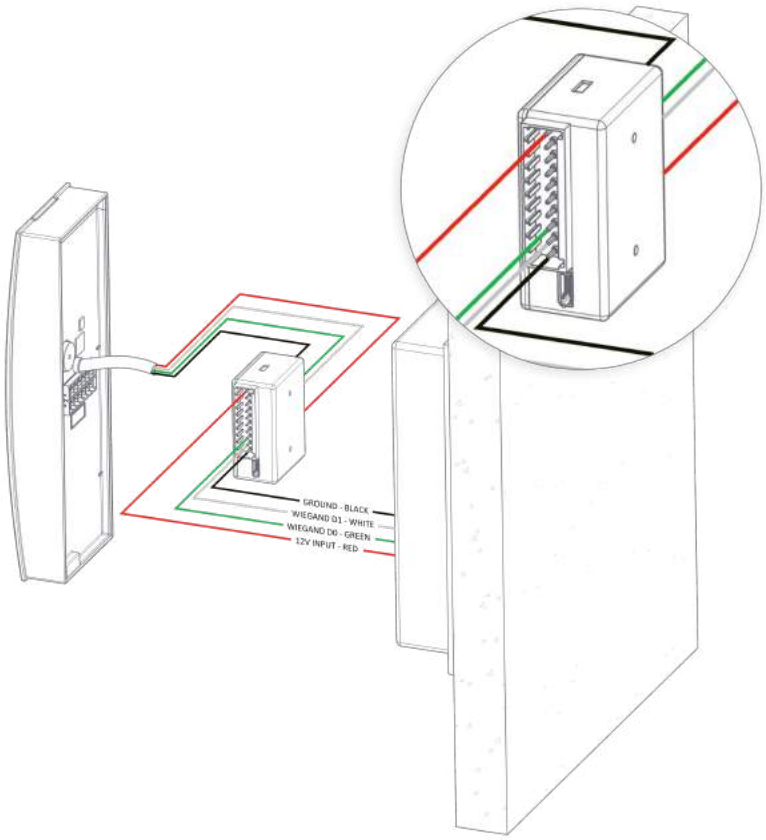
Electrical Installation and Disclaimer
Please consult your local jurisdiction to determine what licenses are required to install or modify a low voltage electrical access control and alarm system. Instructions in this document do not provide authority or endorsement to install this device if you are not authorized to do so in accordance with the laws in which the device will be installed.

RS-485 Termination
The device is self terminating, however over long cable runs and in multi-drop lines it maybe necessary to provide additional termination. Please consult the RS-485 (EIA/TIA-485-A) specification if you notice noise or instability in your installation for information on correct termination procedures.

Please note that this device operates at 3.3v and may be configured to operate at the higher end of the RS-485 specification of 5v. 5v provides greater reliability over longer distances, however most access control peripherals operate at the lower end of 3.3v and as such, please consult with your panel manufacturer for permitted line voltage levels. In most cases panels are compliant with RS-485 and accept the range 2.5 - 5v.

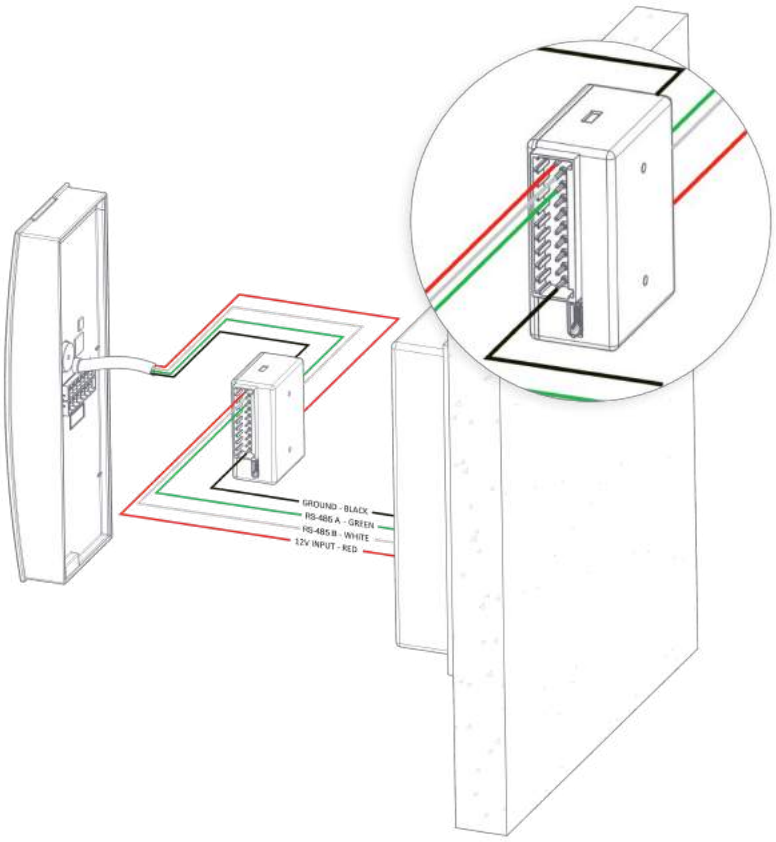
Standard Wiegand Wiring

For pass through Wiegand, connect the Wiegand wires from the reader to the 'Data 0 RS-485 A' and 'Data 1 RS-485 B' connections on the reader connector of the Inline/Relay, and connect the 'Data 0' and 'Data 1' outputs from the panel connector to the Wiegand input on the panel.



OSDP Wiring

For Wiegand translated to RS-485 (OSDP), connect the wires the same way as above between the reader and the Inline/Relay, and connect the 'RS-485 A' and 'RS-485 B' outputs from the panel connector to the RS-485/OSDP input on the panel.

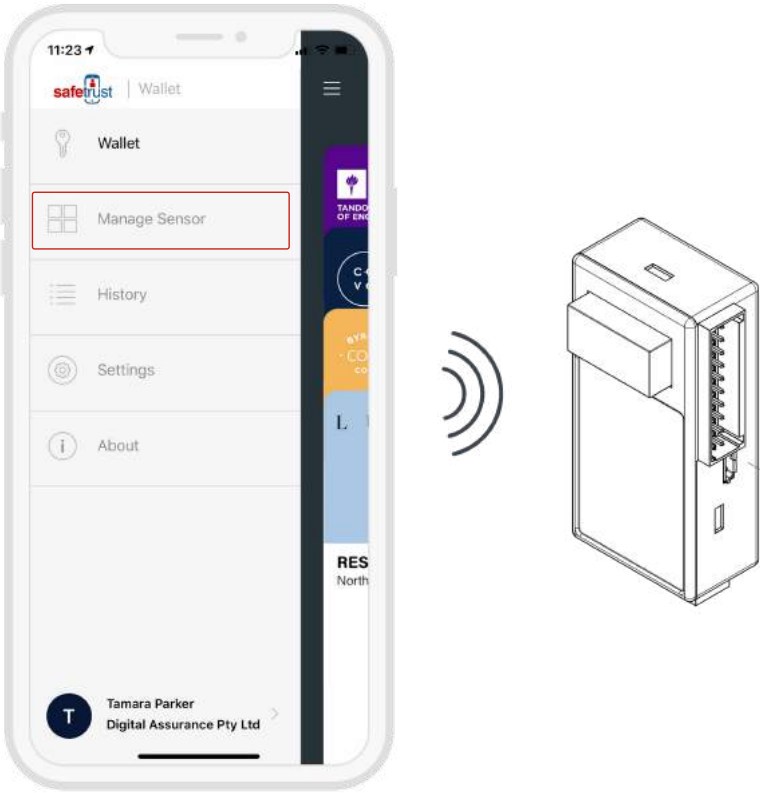


Step 2: Open the Safetrust Wallet

The Safetrust Wallet App communicates with the sensor via Bluetooth and configures the sensor for an Identity System.

Setup:
• Open your Safetrust Wallet App or download it from the App Store or Google Play if you haven't already.
• Login with Google Sign-In or with the username and password that you set your Safetrust account up with.

Select the **Manage Sensor** tab from the navigation on the left hand side.

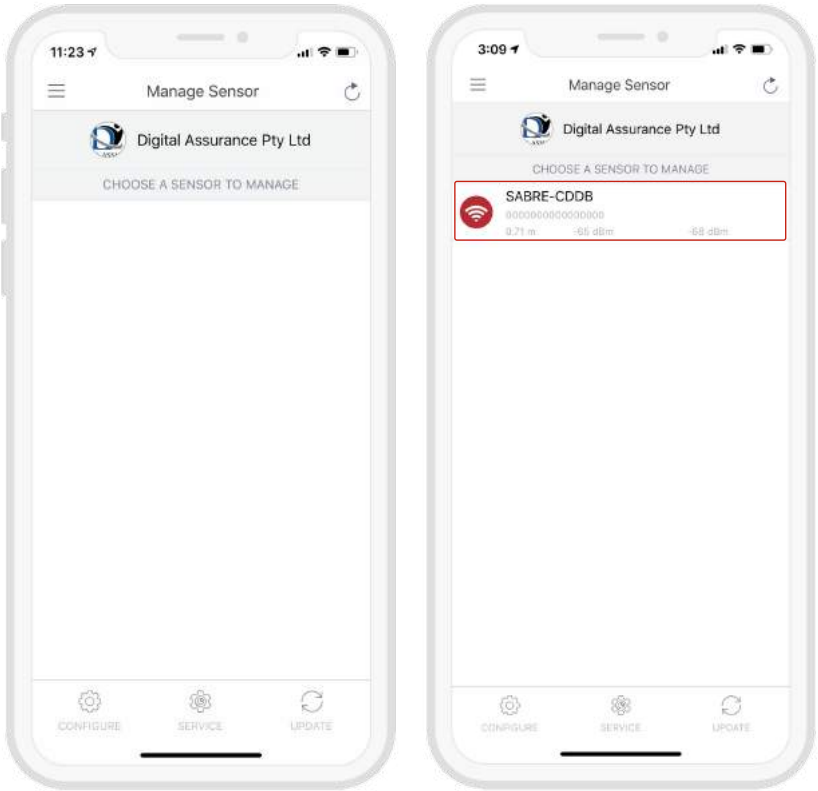


Step 3: Choose a sensor to manage

With the **Manage Sensor** tab open, bring the phone in range of the SABRE and once visible from the App, click on the sensor.

Note: You may need to click the refresh button in the top right hand corner.

Once the sensor is highlighted, click **CONFIGURE** from the bottom options.

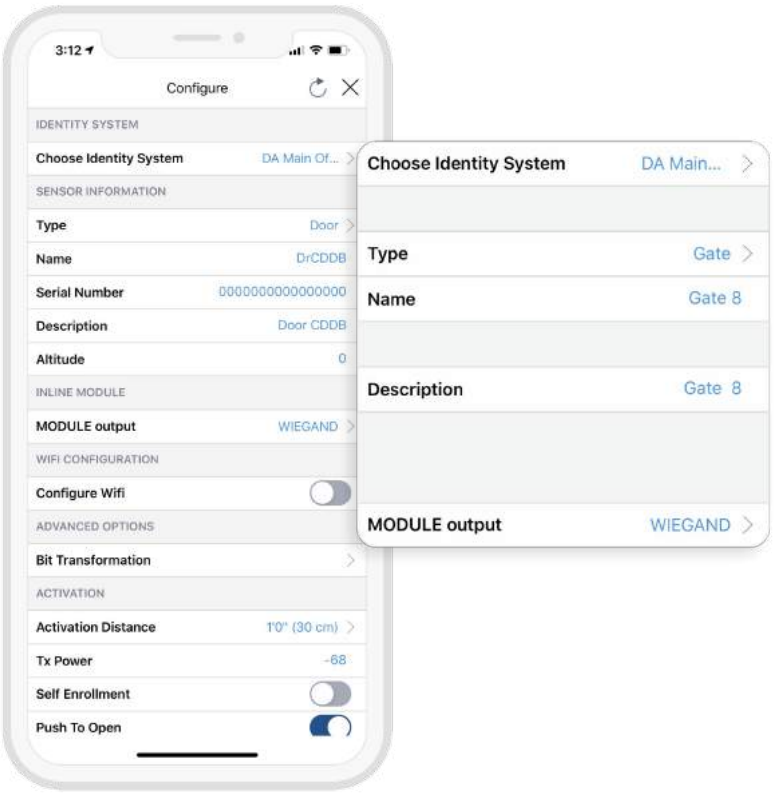


Step 4: Input sensor information

The settings show a range of configuration options for the sensor, however the following fields are the main settings that require action at this time.

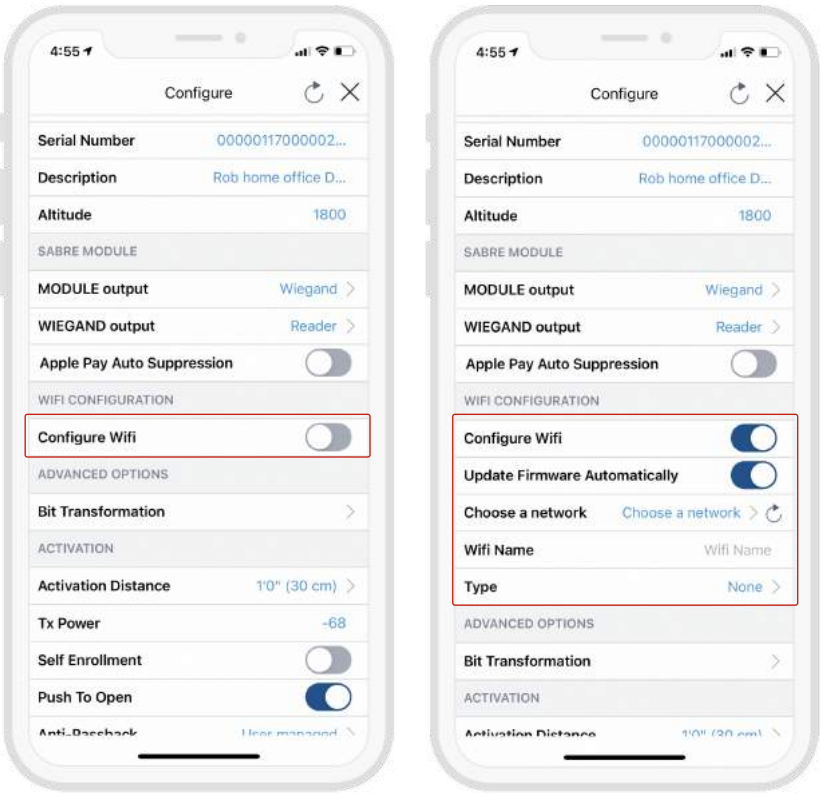
Setup:

- Choose an **Identity System**.
- Specify the **Type** of access from the dropdown (eg. Door, Gate etc.)
- Assign a short **Name** and **Description** using alphanumeric characters.
- Choose an **Output** for the sensor (the default is set to Wiegand).

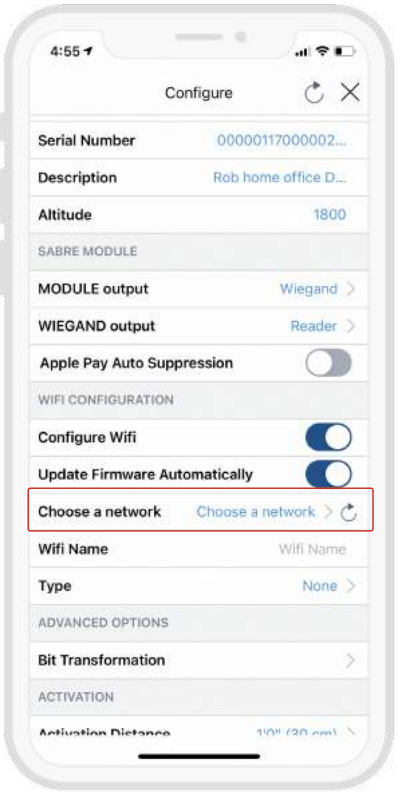


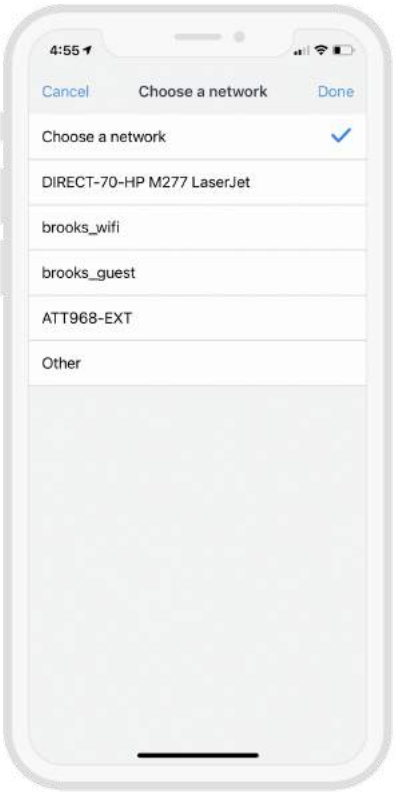
Configuring WiFi:

1. To connect the sensor to a WiFi network, click the 'Configure Wifi' toggle button. Switching the toggle will reveal additional settings below.



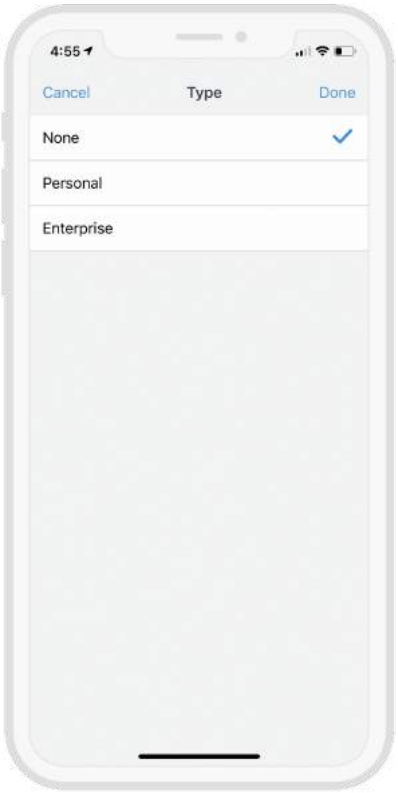
2. Click the 'Choose a network' setting or type in the Wifi Name in the 'Wifi Name' field. If your network is not listed, try clicking the refresh icon next to 'Choose a network'.

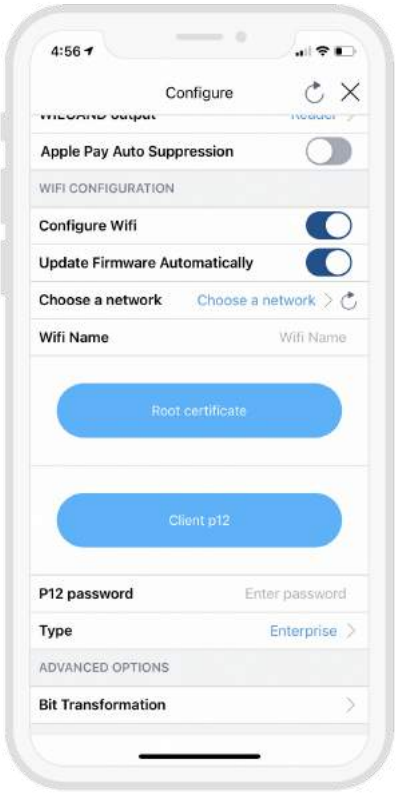




3. Choose the network type - Personal or Enterprise.

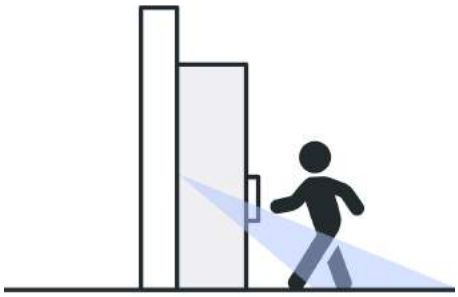
4. For Enterprise 802.1X networks, click the 'Root certificate' and 'Client p12' buttons to upload your certificates. Type the P12 password in the 'P12 password' field.





Activation Distance

Set the Activation Distance for your sensor between touch and 50 ft (15m). The distance will automatically be set to 30cm, meaning a user needs to be within 30cm in order to "Auto Authenticate" to the reader.



Anti-passback

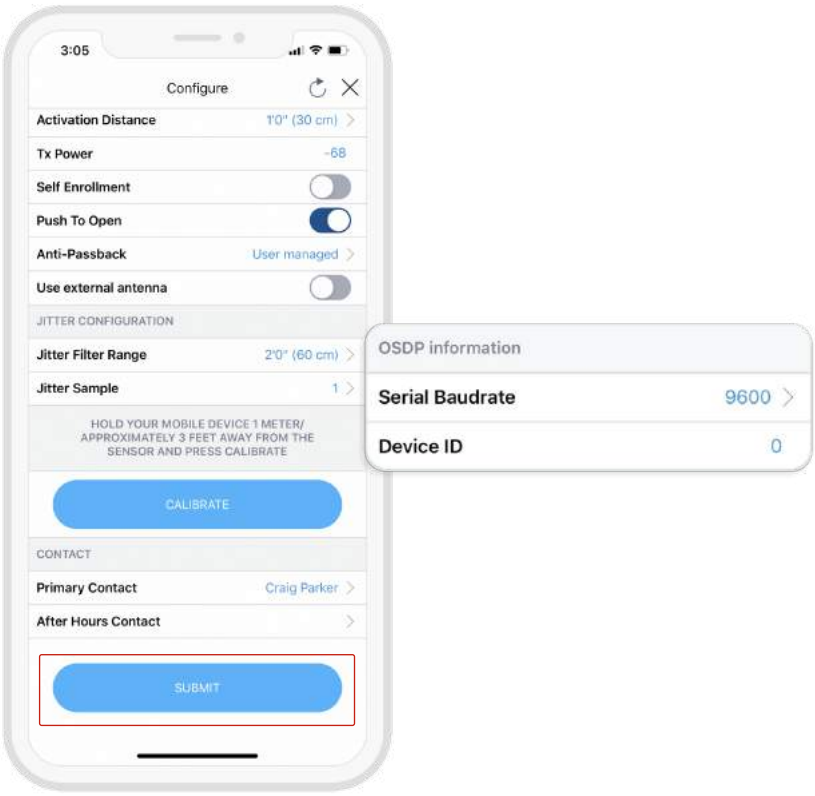
The Anti-Passback setting defines the number of seconds between each attempt to resend a mobile credential.

Anti-Passback can be used to prevent users from passing their credential back for another user to borrow and to stop users entering an area by simply following or tailgating another user.

OSDP Output:

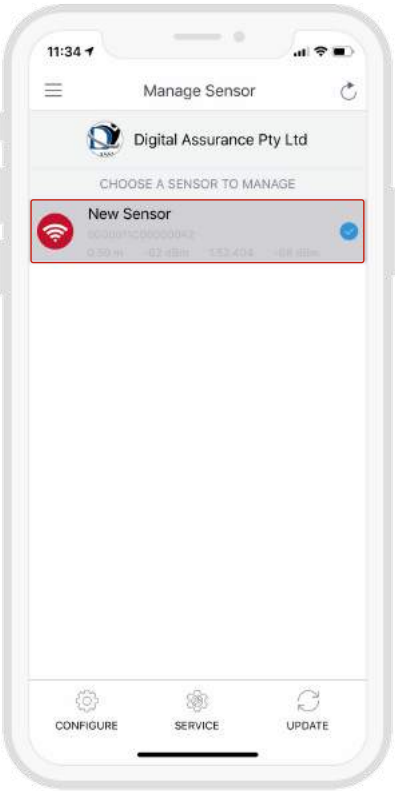
If the **Output** is set to OSDP, select the **Serial Baudrate** and set the **Device ID** to match the settings of the access control panel.

Once you have adjusted all the configuration settings, scroll to the bottom of the page and click **SUBMIT** to successfully complete the sensor configuration.



Step 5: Configuration complete!

When the SABRE information is saved successfully to Credential Manager and assigned to the Identity System, the new description will appear in the Manage Sensor tab with a unique serial number assigned.



Getting Access:

- To open the door, simply present your mobile device running the Safetrust Wallet application to the reader.
- When the phone is within the configured activation range, the LED on the assigned credential for this sensor will turn yellow.
- If "Auto Authenticate" is enabled for the mobile credential, the credential will be sent to the SABRE whenever the mobile device is within the activation zone.

Disclaimers

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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.

RF Exposure: Mobile RF exposure device, there shall be a minimum separation of 20 cm between the device and any users or installers.

Canada Radio Certification: This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Safetrust delivers a touchless access experience that makes the new workplace secure, healthier and convenient. Using virtual credentials stored in your mobile phone or wearable, Safetrust enables employees to move seamlessly through secured doors, elevators, turnstiles and more. Safetrust eliminates the need to replace your existing readers by leveraging your existing infrastructure, providing a fast, cost-effective, and convenient upgrade path to touchless virtual credentials. Safetrust is headquartered in Fremont, California.

Want to Learn More?

Contact sales@safetrust.com