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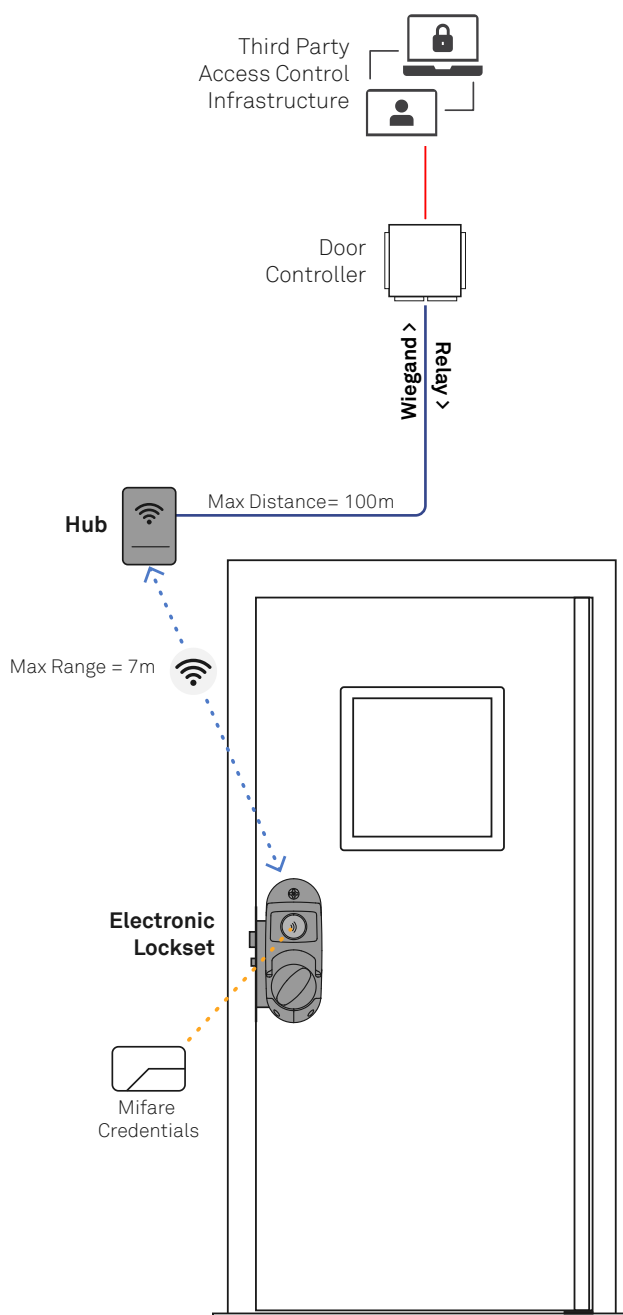
PRODUCT OVERVIEW

The Safehinge Primera Electronic Lockset is an electronic locking solution for mental health environments with an integrated mechanical override.

A typical hardwired access control solution would include a wall reader and electronic lock wired into a door controller - the Safehinge Primera Electronic Lockset combines both the reader and the lock which wirelessly communicate to a Hub. The Hub is hardwired into the Door controller using the Wiegand protocol.

Safehinge Primera does NOT provide door controllers or an access control system, and is not responsible for the integration with access control systems. This document provides a suggestion of how the product could be integrated with various access control systems but it is up to the installer to validate before installation.

System Diagram



INTEGRATION OVERVIEW

The Hub wires into a door controller using the Wiegand protocol. This allows the reader element of the Electronic Lockset to send the credential information to the door controller and access control system to be checked for access rights. The Hub also requires a connection to the relay Common and Normally Open terminals. This output indicates if the lockset can unlock and the length of time to remain open.

Access Granted and Access Denied

The Electronic lockset requires feedback from the access control system to provide an access granted or access denied response to the end user.

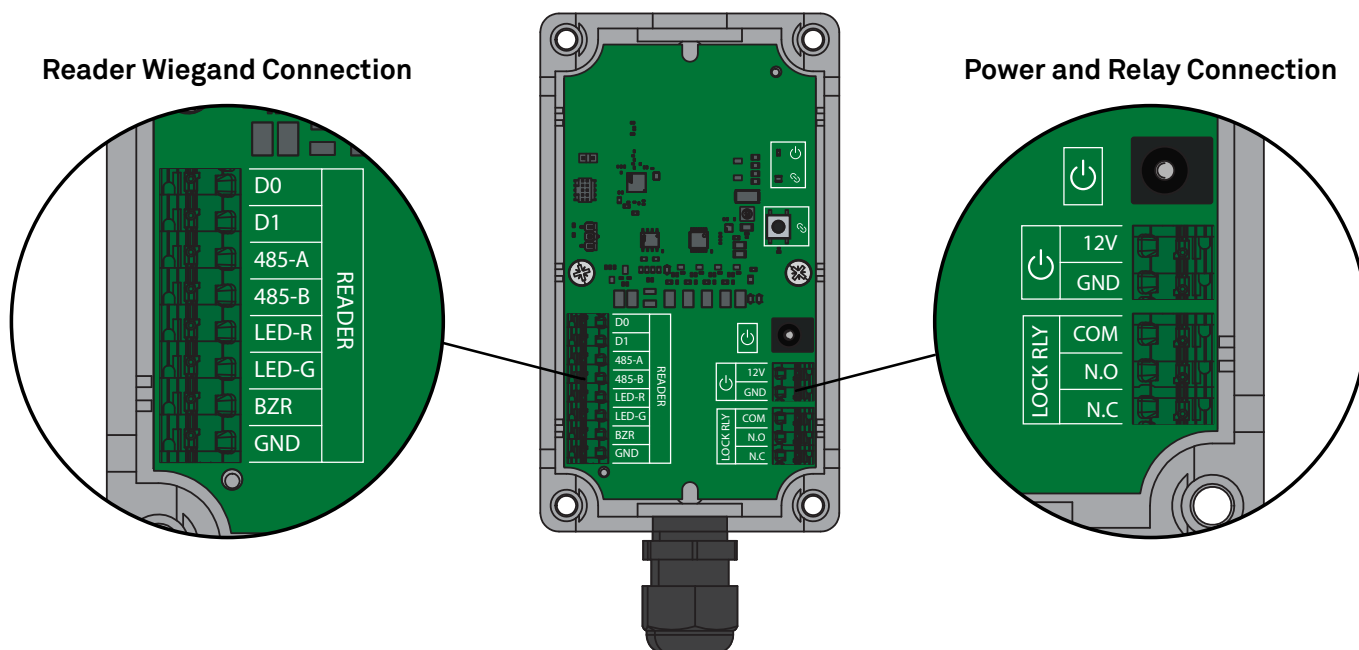
- **Access Granted** - On access granted, the Electronic Lockset will see that the relay has triggered to provide a green light for access granted and unlock the door.
- **Access Denied** - On access denied, the relay will not be triggered. For the Electronic Lockset to understand that a card has been denied, a high signal must be read at the LED-R terminal. This can be achieved through a red LED output on the controller, or if this is not an option, this could be a buzzer or an alternative connection that creates a high signal output on an access denied event.

If the Electronic Lockset does not see the relay event on access granted or a high signal at access denied, then the product will show a purple light. This indicates an integration error and is shown by the LED flashing purple for 2 seconds.



Reader Wiegand Connection

Power and Relay Connection



CREDENTIALS

The Electronic Lockset is compatible with the following Mifare Credentials:

- Ultralight
- Classic 1K
- Classic 4K
- DESFire EV1 & EV2
- Plus EV1

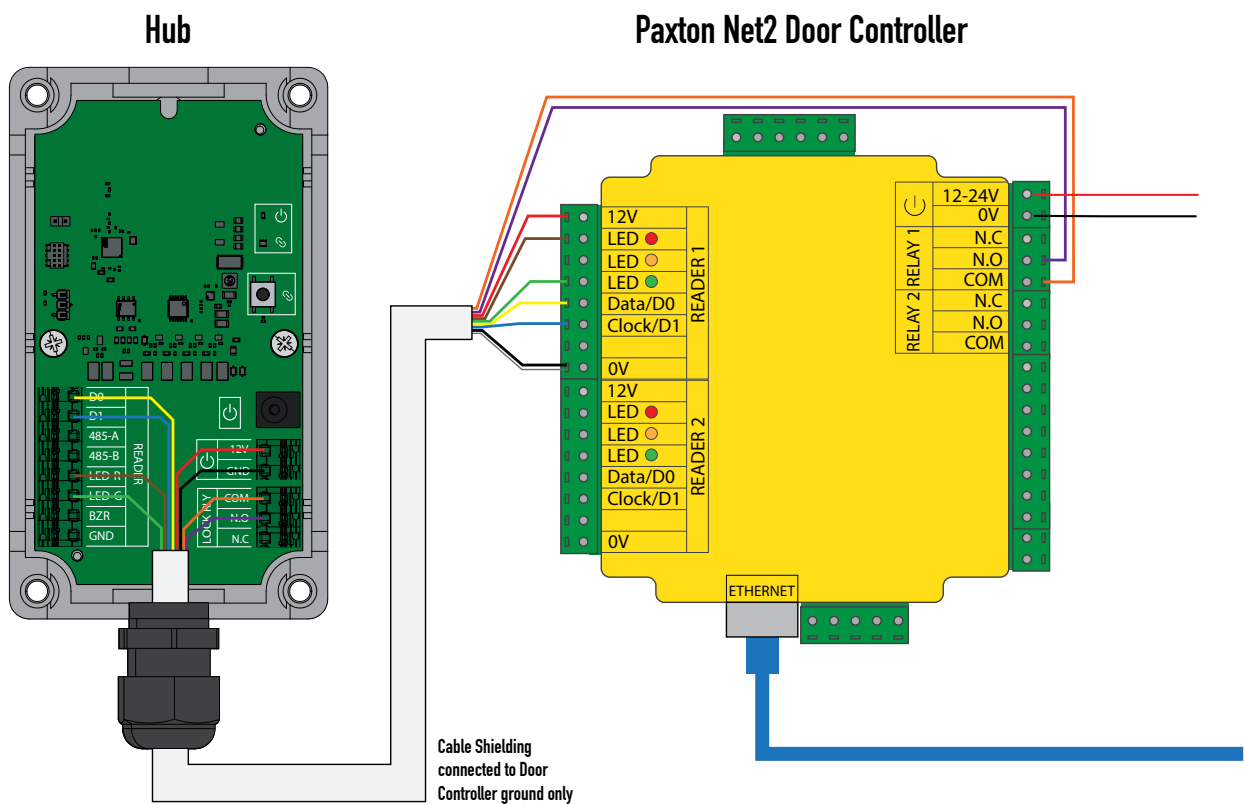
EXAMPLE INTEGRATION - PAXTON NET2

The SHP Electronic Lockset was tested using 32bit MIFARE Classic 1k cards. The below conguration is based on a site using the Electronic Lockset alongside any Paxton MIFARE readers. One Net2 Door Controller is required for each Electronic Lockset.

Due to there being a dierence in how the Paxton readers and the Electronic Lockset read token numbers, each user will need their card enrolled onto Net2 twice. This may reduce the number of available user accounts on each Net2 database. Assuming each user has a single token, the maximum amount of users available on the database will become 25,000 when using Net2 Plus controllers.

One standard Desktop Reader (514-326), and one keyboard output Desktop Reader (214-326) are required to ensure quick enrolment of tokens. The standard Desktop Reader will pick up the same number as the Electronic Lockset, while the keyboard output Desktop Reader will read the number required for the Paxton MIFARE readers.

Wiring - Hub to Door Controller



	Hub	Net2 Door Controller
Reader	D0	Data/D0
	D1	Clock/D1
	485-A	Not used
	485-B	Not used
	LED-R	LED Red
	LED-G	LED Green
	BZR	Not used
	GND	Not used
Power	12V	12V
	GND	0V
Lock Relay	COM	COM
	N.O.	N.O.
	N.C.	Not used

Software set up

In the Net2 Conguration Utility, under the “Wiegand” tab, change the “Desktop reader operating mode” to “Wiegand”.

The Net2 door setting should be congured as follows:

Reader Type - Wiegand reader

Keypad Type - None

Token data format - Wiegand 26 bit

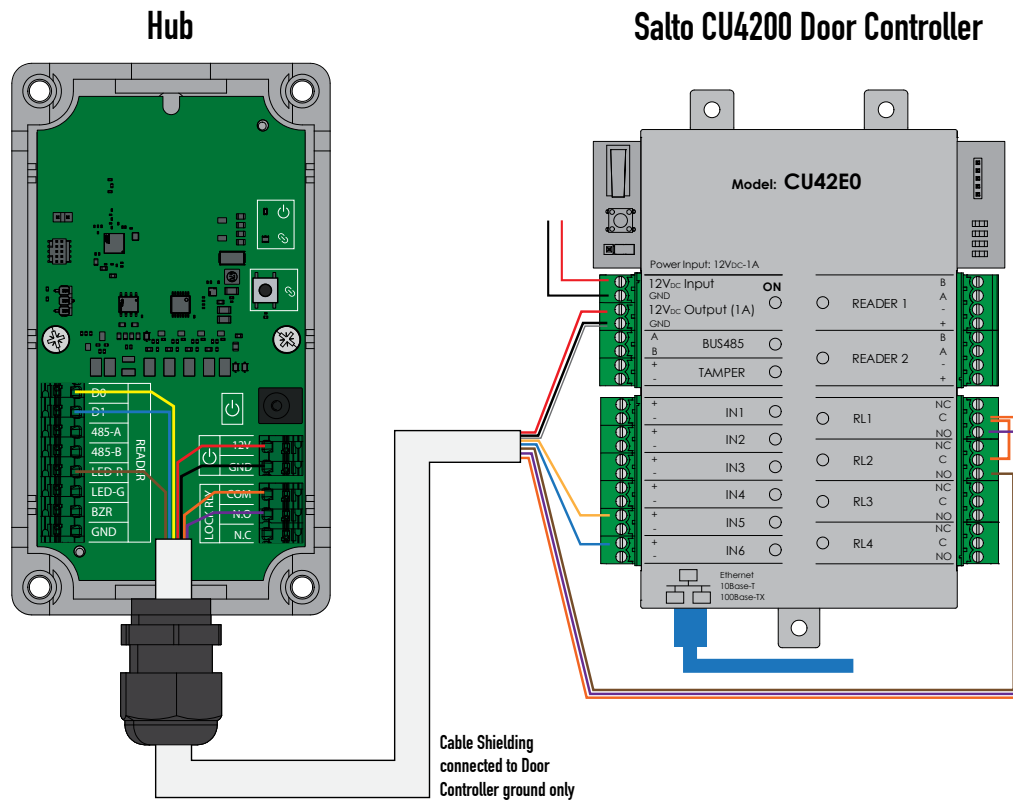
The screenshot shows the Net2 Access Control software interface. The sidebar on the left contains a tree view with the following items: Net2 Access Control, Events, Users, Access levels, Timezones, Doors (with a list of ACU serial numbers: 7809114, 7980496, 7980559, 7980600, 7980739, 7980882, 7980883, 7980886, 7984324), Reports, and Net2 operators. The main configuration area is titled 'Door 01' and contains the following fields: ACU serial number: 07980737, Door name: Door 01, Door group: (none), Door open time: 5 seconds, Unlock the door during: At no time, Only unlock the door once a user has been granted access (unchecked), Silent operation (unchecked), Unlock relay 2 during: At no time, Reader details: Name: Door 01 (In), Reader type: Wiegand reader, Keypad type: None, Token data format: Wiegand 26 bit, Operating mode: Token only, Timed operating modes (unchecked), During this timezone: All day, every day, This reader will operate as: Inactive, Reader action: Relay 1 opens for door open time. The bottom panel contains three sections: Net2 actions (Open door, Log off), Net2 details (Door 01), and Net2 documentation.

Token Enrolment Process

With both Desktop Readers connected, open the user prole you wish to assign the token to. Under the “Tokens” tab, select “New token” and present the token to the rst Desktop Reader. Click OK, and repeat the process using the second Desktop Reader. The user will now have 2 token numbers showing in their prole which will read on both the Electronic Lockset and Paxton readers.

EXAMPLE INTEGRATION - SALTO SPACE

Wiring - Hub to Door Controller



	Hub	Net2 Door Controller
Reader	D0	IN5 +
	D1	IN6 +
	485-A	Not used
	485-B	Not used
	LED-R	RL2 NO
	LED-G	Not used
	BZR	Not used
	GND	Not used
Power	12V	12V
	GND	0V
Lock Relay	COM	RL1 COM
	N.O.	RL2 NO
	N.C.	Not used

Note: connect RL1 C to RL2 C

Software set up

Set up as a Wiegand reader.

Set relay 1 as strike

Set relay 2 as card read

Software set up

Controller Configuration

 **Door Controller (SALTO)**

 STATUS MONITORING

IDENTIFICATION

Name

_Door Controller (SALTO)

Description

Address (DIP switch)

0

Calendar

Calendar0000

CONNECTED TO

CU4200 gateway
Door Controller (SALTO)

ACCESS POINTS

Access point count

1

Access point #1

Test

☐ Updating mode only (UBOX)

INPUTS

ID	TYPE	CONFIGURATION
READER 1	None	
READER 2	None	
IN1	None	
IN2	None	
IN3	None	
IN4	None	
IN5, IN6	Third party reader	Wiegand, Access point #1, Entry



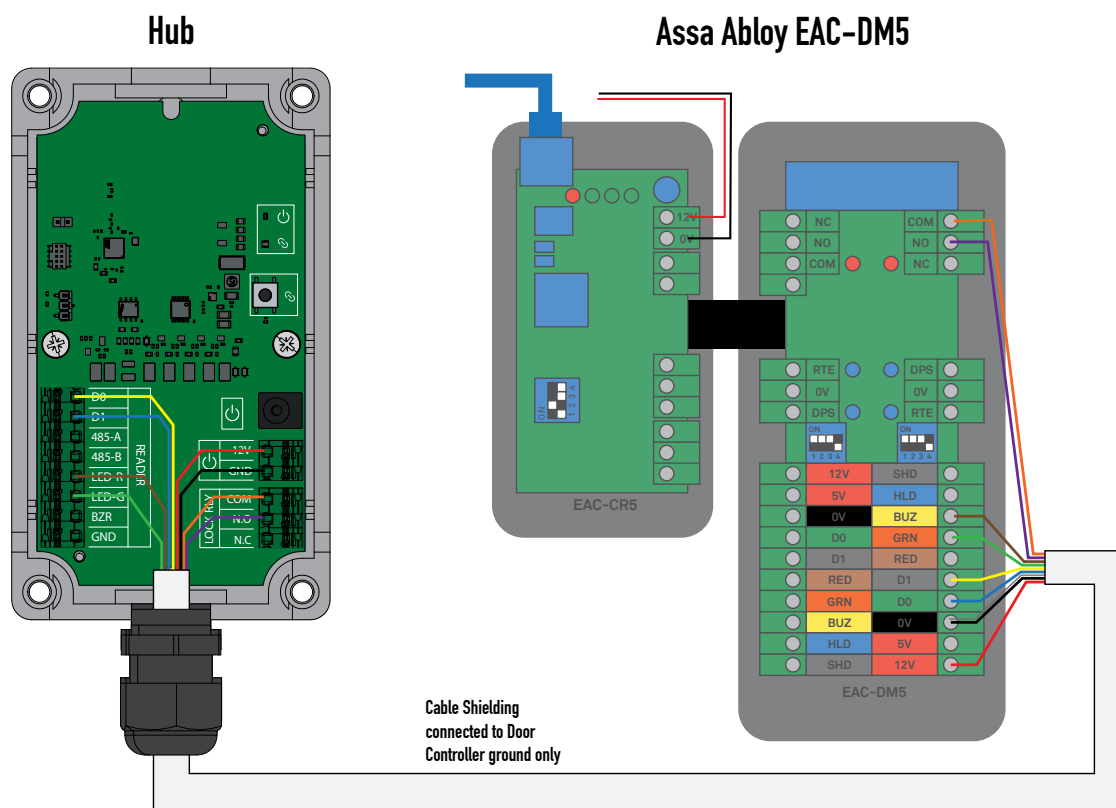
RELAYS

ID	TYPE	CONFIGURATION
RL1	Strike	Access point #1
RL2	Card rejected	Access point #1
RL3	None	
RL4	None	



EXAMPLE INTEGRATION – ASSA ABLOY INCEDO

Wiring – Hub to Door Controller



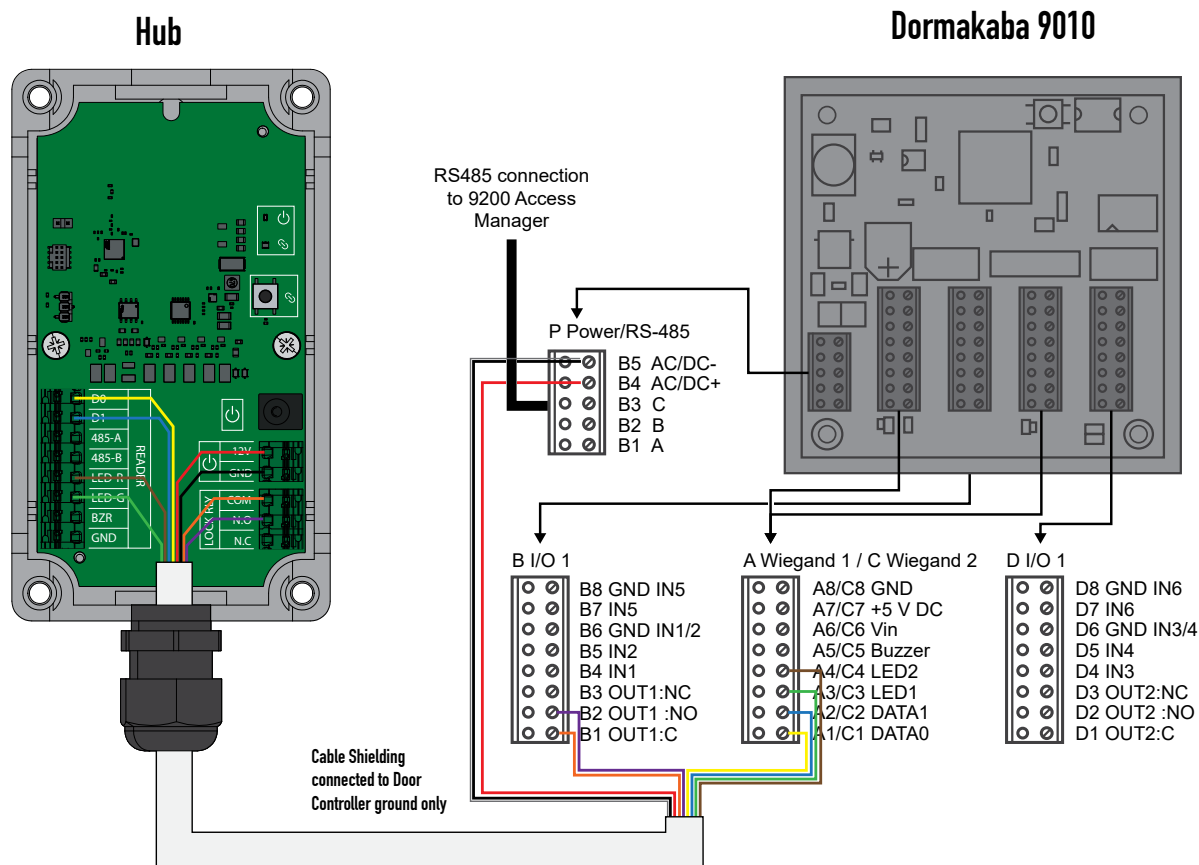
	Hub	Assa Abloy EAC-DM5
Reader	D0	D0
	D1	D1
	485-A	Not used
	485-B	Not used
	LED-R	Buzzer
	LED-G	LED Green
	BZR	Not used
	GND	Not used
Power	12V	12V
	GND	0V
Lock Relay	COM	COM
	N.O.	N.O.
	N.C.	Not used

Software set up

Set up as a Wiegand reader.

EXAMPLE INTEGRATION - DORMAKABA EXOS 9300

Wiring - Hub to Door Controller



	Hub	Net2 Door Controller
Reader	D0	A2/C2 DATA0
	D1	A1/C1 DATA1
	485-A	Not used
	485-B	Not used
	LED-R	A4/C4 LED2
	LED-G	A3/C3 LED1
	BZR	Not used
	GND	Not used
Power	12V	12V
	GND	0V
Lock Relay	COM	B1 OUT1:C
	N.O.	B2 OUT1:NO
	N.C.	Not used

Software set up

Set up as a Wiegand reader.

Direct support from Dormakaba is required to set up the reader profile.