

HOWTO Connect the Nuki Opener to an unknown intercom

25.9.2019

What is an unknown intercom?

Do I have an analogue or bus intercom?

Analogue intercoms

- 1. Select "Intercom"
- 2. Select "Generic" as Brand and "Analogue" as Model.
- 3. Follow the mounting instructions, but connect the cables by following this wiring diagram to your intercom
- 4. Complete the installation and configuration guide in the Nuki App
- 5. Error during configuration
- 6. Successful configuration

Bus intercoms

- 1. Select "Intercom"
- 2. Select "Generic" as brand and "Bus" as model
- 3. Follow the mounting instructions, but connect the cables by following this wiring diagram to your intercom
- 4. Complete the installation and configuration guide in the Nuki App
- 5. Non-standard cabling error
- 6. Error during configuration
- 7. Successful configuration

"Other Door"

- 1. Select "Other door"
- 2. Follow the mounting instructions and connect the purple and blue cable to the opening button of your intercom
- 3. Complete the installation in the Nuki App

Annex 1 - Cable Naming & Schematics

What is an unknown intercom?

Unknown intercoms are intercom systems that are not listed as verified in the compatibility check on the Nuki website: https://nuki.io/en/opener/

Warning: Whatever you do is at your own risk. The following pages only give general guidelines on how to connect intercom systems. We have not tested the Nuki Opener with your intercom system or your specific cabling and therefore do not recommend to connect it to an unknown intercom.

Do I have an analogue or bus intercom?

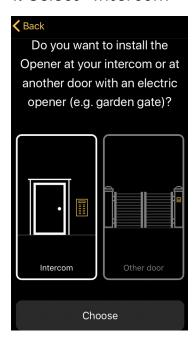
Analogue systems have several wires connected to them, while bus based systems are digital and are typically connected with only two wires.

They are treated by the Opener in fundamentally different ways:

- Analogue systems are actuated by shortening contacts
- Bus systems are actuated by replaying recorded signals. They need a recording phase
 during which the door opening and ring signals are recorded by the Opener. This is done
 during the initial setup or whenever "Configure Opener" is chosen.
- Mixed systems are partially analogue and partially bus based. Unknown systems of this
 type can only be connected as "other doors".

Analogue intercoms

1. Select "Intercom"



- 2. Select "Generic" as Brand and "Analogue" as Model.
- 3. Follow the mounting instructions, but connect the cables by following this wiring diagram to your intercom

Basic setup without doorbell suppression:

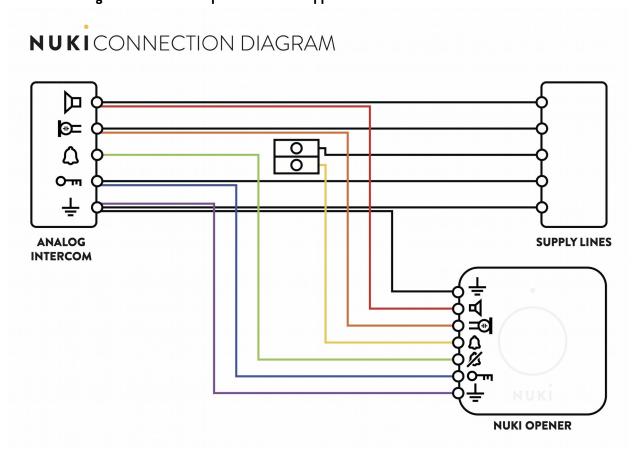
Opener	Intercom
Yellow cable	RING
Blue cable	OPEN
Purple cable	GND (Ground)
Black cable	GND (Ground) - optional
Red cable	LOUDSPEAKER - optional
Orange cable	MICROPHONE - optional

Enhanced setup with doorbell suppression:

Opener	Intercom
Green cable	RING
Blue cable	OPEN
Purple cable	GND (Ground)
Black cable	GND (Ground) - optional
Red cable	LOUDSPEAKER - optional
Orange cable	MICROPHONE - optional
Yellow cable	NUKI CLAMP (1st port)
	Disconnect RING wire from the intercom and connect to NUKI CLAMP (2nd port)

We recommend to start with the basic setup and move to the enhanced setup once the basic setup works.

Connection diagram enhanced setup with doorbell suppression:



Nuki Home Solutions GmbH

4. Complete the installation and configuration guide in the Nuki App

5. Error during configuration

If the function test fails and either your door is not opened or the ring signal is not detected, your intercom is not compatible with the Nuki Opener.

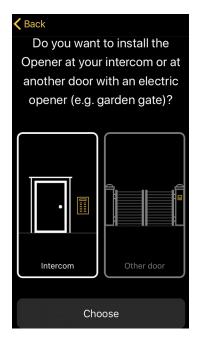
You may try to configure it as "other door" by connecting it directly to the opening button of your intercom instead of the wires from the central intercom system. In this configuration, the Nuki Opener will shortcut the button and open the door.

6. Successful configuration

If everything works and your intercom is compatible with the Nuki Opener, please send us an E-Mail to contact@nuki.io with the name of your intercom and a picture of your wiring.

Bus intercoms

1. Select "Intercom"



2. Select "Generic" as brand and "Bus" as model

If your intercom uses one of the listed bus systems, you may directly choose one of them as model:

Model	Bus system
Bus (Generic)	Generic digital bus. The Nuki Opener will try to automatically identify the ideal parameters.
Bus (Twinbus)	Ritto Twinbus
Bus (Qwikbus)	STR Qwikbus
Bus (Bticino)	Bticino 2-Wire Bussystem, Legrand
Bus (Siedle)	Siedle In-Home-Bus
Bus (TCS)	TCS-Bus, Koch

3. Follow the mounting instructions, but connect the cables by following this wiring diagram to your intercom

Basic setup without doorbell suppression:

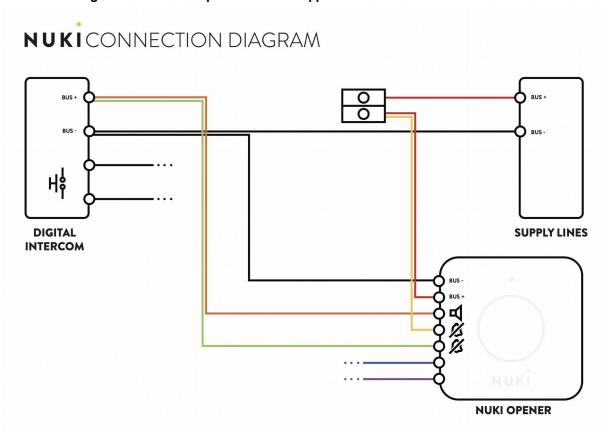
Opener	Intercom
Black cable	BUS-
Red cable	BUS+
Orange cable	BUS+ - optional

Enhanced setup with doorbell suppression:

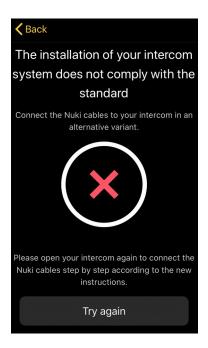
Opener	Intercom
Black cable	BUS-
Red cable	NUKI CLAMP (1st port)
Green cable	BUS+
Orange cable	BUS+ - optional
Yellow cable	NUKI CLAMP (1st port)
	Disconnect BUS+ wire from intercom and connect to NUKI CLAMP (2nd port)

We recommend to start with the basic setup and move to the enhanced setup once the basic setup works.

Connection diagram enhanced setup with doorbell suppression:



- 4. Complete the installation and configuration guide in the Nuki App
- 5. Non-standard cabling error



If the Nuki App displays such an error page the polarity of the bus signal is wrong. Most intercoms ignore the polarity, but the opener does not. In such a case disconnect all Nuki cables from the intercom and connect them again following the above wiring diagram but this time connect everything you connected to BUS+ to BUS- and everything that went to BUS- to BUS+.

Continue with the installation and configuration.

6. Error during configuration

If the function test fails and either your door is not opened or the ring signal is not detected, your intercom is not compatible with the Nuki Opener.

You may try to configure it as "other door" by connecting it directly to the opening button of your intercom instead of the bus wires. In this configuration, the Nuki Opener will shortcut the button and open the door.

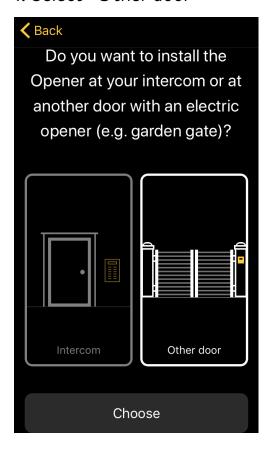
7. Successful configuration

If everything works and your intercom is compatible with the Nuki Opener, please send us an E-Mail to contact@nuki.io with the name of your intercom and a picture of your wiring.

"Other Door"

In this operating mode, the Nuki Opener does shortcut a contact and can therefore practically open any door. Ring detection and doorbell suppression do not work in this mode therefore features like Ring To Open or Continuous Mode are not available. Default settings (e.g. Auto Unlock actions) are different than when the Nuki Opener is connected to a supported intercom.

1. Select "Other door"



- 2. Follow the mounting instructions and connect the purple and blue cable to the opening button of your intercom
- 3. Complete the installation in the Nuki App

Annex 1 - Cable Naming & Schematics

Cable Color	Function
Black cable	GND_AUDIO / GND_BUS
Red cable	AUDIO_IN (Loudspeaker) / BUS
Orange cable	AUDIO_OUT (Microphone)
Yellow cable	RING_DETECT_INPUT
Green cable	RING_DETECT_OUTPUT
	Normally closed relay between RING_DETECT_INPUT and RING_DETECT_OUTPUT (max. 500mA, 50V) used for doorbell suppression with Nuki clamp.
Blue cable	OPEN
Purple cable	GND_2 Normally open relay between OPEN and GND_2 (max. 2A, 50V). GND_2 needs to be same GND than
	GND_AUDIO. Opener does not support different ground levels.