EN

USER MANUAL

Dear user,

Thank you for buying our fingerprint reader designed to help you enter your home or office quickly and easily. Your door can now be opened using only your fingerprint, smartphone, or a numeric code (keyboard model only).

Despite the fact that our fingerprint readers are easy to use, please take a few minutes and carefully read the instructions below. We have prepared all the information you need for successful first use and all further operation. For better understanding, please visit our website *www.inosmart.info* and watch the attached video content regarding operational process and proper use of the fingerprint reader.

Instructions apply to all modules: BT 600, BT 610, BT 620 and BT 630.

We wish you a pleasant and easy use.

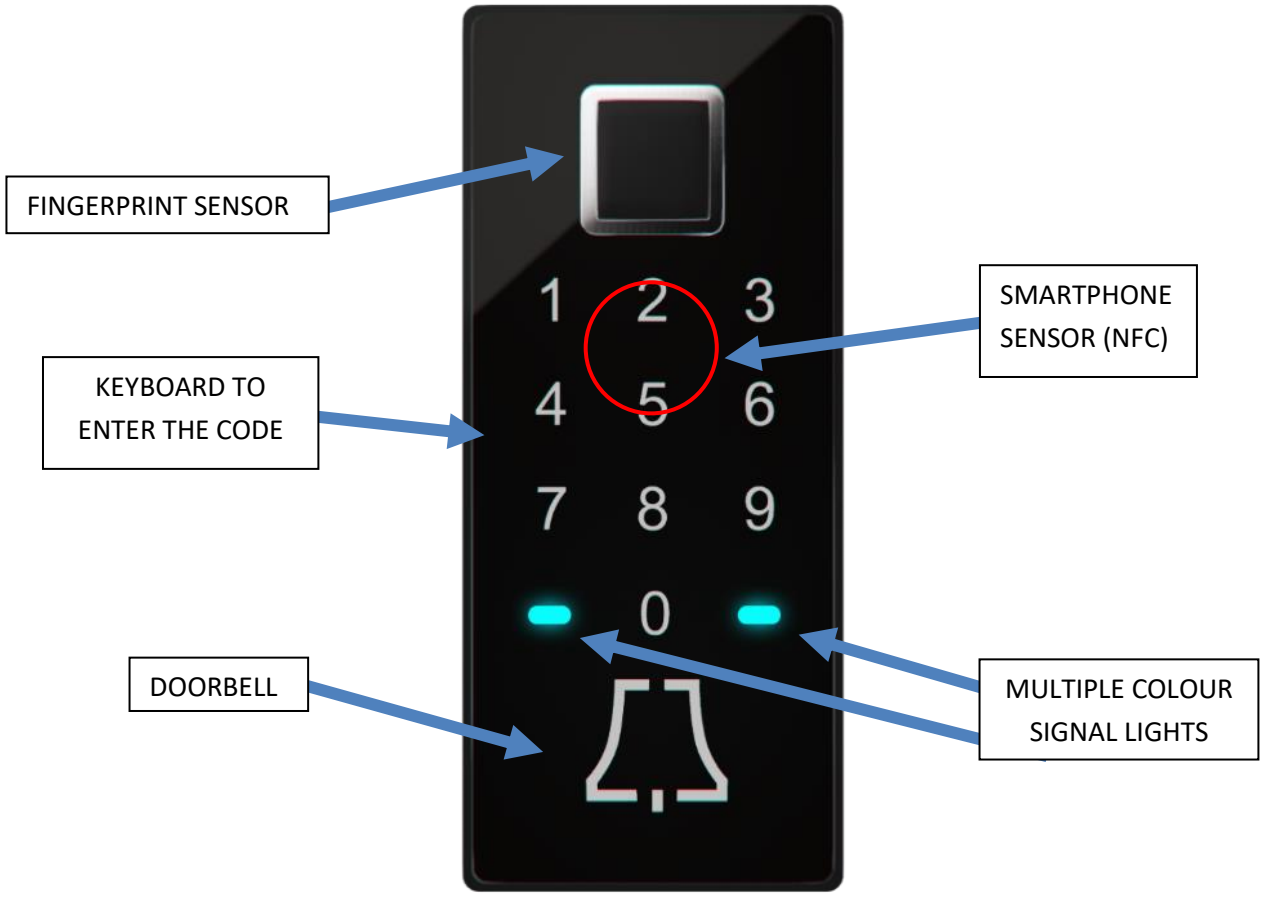
Table of Contents

Glossary

- **BT modul** - Inosmart biometric modul, reader build into built into outside of the door leaf or door handle. It allows you to open the door using a fingerprint, a smartphone or a keyboard.
- **Fingerprint sensor** – it is built into the reader and allows the identification of your fingerprint
- **Control unit**- allows el. communication between the leaf, door frame and Inosmart reader. It is built into the side of the door leaf
- **NFC reader**- it is built into the reader and allows the identification of your smartphone.
- **WiFi**- wireless communication that allows you to connect your smartphone and Inosmart reader.
- **LED**- light emitting diode-. electronic component that emits light.
- **Administrator fingerprint**- one of the three fingerprints that were enrolled during the first use of your reader.
- **Placing finger**- user presses their finger on the fingerprint sensor built into the reader.
- **Relay** - an electromagnetic switch that you turn on with the control voltage.

INOSMART BIOMETRIC MODULES (READERS) AND THEIR FEATURES

BT 600, BT 630	BT 610	BT 620
		
• Fingerprint sensor • Keyboard • NFC • Doorbell • Signal lights • Buzzer	• Fingerprint sensor • Keyboard • NFC • Signal lights • Buzzer	• Fingerprint sensor • NFC • Signal lights • Buzzer



THE CONTROL UNIT AND ITS FEATURES

It is possible to operate the reader with the keyboard on the control unit built into the door leaf.

KEY 1

Enroll new fingerprint, smartphone or numeric code.

KEY 2

Delete fingerprint, smartphone or numeric code.

KEYS 2 + 3

Enroll three administrator fingerprints. Device is not active until three new administrator fingerprints are enrolled. Press the keys 2 and 3 simultaneously to enroll new administrator fingerprints.

If administrator fingerprints have already been entered, they will be deleted when you simultaneously press the 2 + 3 key. Newly entered fingerprints will be saved as administrator fingerprints.

KEY 3

Activate Wi-Fi wireless connection.

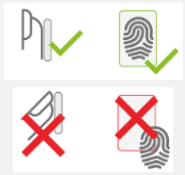
Keys 1+2+3 (10 seconds)
Factory reset. All data will be deleted!

ADMINISTRATOR controls your reader. During first use, you may select up to three people and up to three different fingerprints. It is possible to select one person with three fingerprints or three people with one fingerprint each. We recommend that you select at least two people for safety and practical reasons.

Administrator is different from other users because they can approve all the features of your reader and control unit with their fingerprint. They can enroll, add or delete new fingerprints, new phone, or a new numeric code.

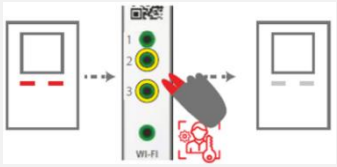
As long as reader memory is empty, administrator fingerprints can be enrolled by anyone. Because of that we strongly advise you to enroll your fingerprint as soon as the device is connected to protect it from unauthorized access.

FIRST USE

	ADMINISTRATOR FINGERPRINT Before the first use of the **Inosmart biometric module** (hereinafter referred to as the reader), it is necessary to select one or more administrator, who controls / administers your reader. All further entries will require confirmation of the administrator fingerprint.
	Use of the reader: The first step is to enroll **three administrator fingerprints**. This step is mandatory before first use. Pay attention to the correct placement of the finger (fingerprint). It is recommended to cover at least 70% of the sensor with your finger pad.

Administrator fingerprints are important because they allow you to approve all important security-related settings. It is therefore recommended that at least two people are selected as administrators.

To enroll administrator fingerprints:

	Press **KEYS 2 and 3** on the control unit simultaneously to start enrolling fingerprints.	Signal lights on the reader are flashing white.
	**Place each administrator fingerprint on the sensor three times.** • Administrator 1: fingerprint three times • Administrator 2: fingerprint three times • Administrator 3: fingerprint three times	When placing your finger on the fingerprint sensor, make sure it is covering as much space as possible. It is recommended to cover at least 70% of the sensor with your finger pad.
	Once the administrator fingerprints are successfully enrolled, both signal lights turn blue.	**YOUR READER IS NOW READY TO USE.**

Visit our website *www.inosmart.info* to find video demonstration of the entire process among our video content.

OPERATE THE READER

You can operate the reader **in two ways**, using the three keys on the control unit or with the Inosmart app on your smartphone.

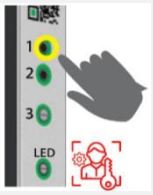
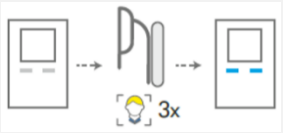
- Using the **keys** on the control unit, you can add or delete new user, add or delete new smartphone, add or delete new numeric code.
- Via **Inosmart app** you can manage all registered users, add or delete new user, smartphone, numeric code, set timers and details regarding the type of door opening.

Control unit keys cannot be used to control the built-in lighting, set timers, name users and set details regarding the type of door opening.

OPERATE WITH THE KEYS ON THE CONTROL UNIT

You can control the basic functions of the reader with the three keys on the control unit. You can add or delete a fingerprint, NFC phone or numeric code (in the case of a keyboard model).

ENROLL NEW USER FINGERPRINT

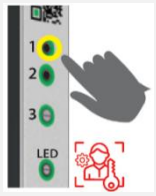
	PRESS **KEY 1** ON THE CONTROL UNIT	Reader beeps briefly, both signal lights are flashing green.
	Put administrator fingerprint on the fingerprint sensor.	Process of adding/enrolling new user fingerprint is enabled. Signal lights are flashing white.
	Place new user fingerprint **three times**. Successful action turns signal lights green, unsuccessful action turns signal lights red.	Reader beeps briefly. Both signal lights turn green. **NEW USER IS SUCCESSFULLY REGISTERED.** Lights on the reader turn blue meaning the reader is ready to use.

Our skin is constantly changing which means our fingerprint is consequently changing as well (due to different skin moisture at different times of the year, skin damage, etc.). Furthermore, the angle and the pressure of your hand or finger varies each time you place it on the sensor. The fingerprint recognition system in your device uses a very advanced recognition system that solves these issues. The fingerprint sensor supports 360-degree finger placement, therefore it does not matter at what angle you place your finger on the sensor surface.

Each time during use, the reader analyzes the registered fingerprint, trying to identify its new features, and remembering them upon successful recognition. In practice, this means that the recognition of an individual fingerprint improves over time. For each fingerprint, the reader has a "fingerprint pool", in which it can automatically store up to 20 variations of an individual fingerprint and which is automatically updated each time a fingerprint is successfully detected.

ADD NEW NUMERIC CODE (modules BT 600, BT 610 and BT 630)

Modules BT 600, BT 610 and BT 630 allow the door to be opened by a built-in keyboard. The code length is set to 4 digits by default. To add a new numeric code, follow these steps:

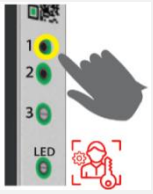
	PRESS **KEY 1** ON THE CONTROL UNIT.	The reader beeps briefly, both signal lights are flashing green.
	Place administrator fingerprint on the fingerprint sensor.	Process of adding a new numeric code is enabled. Signal lights turn white.
	Enter the **four-digit** code that you have selected.	The reader beeps briefly. Both signal lights turn green. **NEW NUMERIC CODE IS SUCCESSFULLY ADDED.** Lights on the reader turn blue, meaning that the reader is ready to use.

Inosmart app allows you to set the code length. The numeric code can be four to eight digits long.

If you have not yet entered numeric codes in your reader, the keypad on the reader will be unresponsive with signal lights and a beep. The first time you enter a numeric code, the reader keypad becomes responsive.

ADD NEW SMARTPHONE FOR DOOR OPENING

First, download the free Inosmart app to the phone you want to register. Launch the app on your phone and leave it on the home screen. The Inosmart app must be running, not just installed.

	PRESS **KEY 1** ON THE CONTROL UNIT.	The reader beeps briefly, both signal lights are flashing green.
	Place the administrator fingerprint on the fingerprint sensor.	Adding new NFC smartphone is enabled. Signal lights turn white. **Activate NFC on your smartphone**.
	Hold your smartphone close to the reader.	The reader briefly beeps. Both signal lights turn green. **NEW SMARTPHONE IS SUCCESSFULLY ADDED.** Lights on the reader turn blue meaning the reader is ready to use. Door can be opened only if Inosmart app on your smartphone is running.

The location of the NFC sensor in the reader is different for each model:

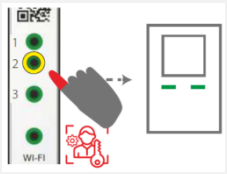
NFC technology or "Near Field Communication" allows you to open the door in a safe way by using your smartphone.

The smartphone and reader communicate using NFC technology. NFC technology requires smartphone to almost lean towards the reader because the range of the NFC reader is only 1cm. You need to find out where the NFC reader is located on your phone. On iPhones, NFC reader is located at the top of the phone, while it is usually somewhere around the camera on Android phones. You need to bring this part of your smartphone closer to the built-in reader in the door for successful registration.
Some phones do not support NFC communication system or have a built-in NFC reader of poorer quality. In this case, use will be difficult or disabled.

DELETE USER, SMARTPHONE OR NUMERIC CODE

To delete user, smartphone or numeric code, you need: the administrator, user, smartphone registered with the reader or you must know the numeric code you want to delete.

To delete user, smartphone or numeric code, follow these steps:

	PRESS **KEY 2** ON THE CONTROL UNIT.	The reader beeps briefly, both signal lights are flashing green.
	Place the administrator fingerprint on the fingerprint sensor.	Delete enabled.
 	Select one of the added options you want to delete: ➢ place user fingerprint, ➢ hold your smartphone close, ➢ enter the numeric code.	The reader beeps briefly, both signal lights turn green. **YOU HAVE SUCCESSFULLY DELETED USER/ SMARTPHONE / NUMERIC CODE.** Lights on the reader turn blue, indicating that the reader is ready to use.

FACTORY RESET

Hold all three keys on the control unit simultaneously for 10 seconds: 1 + 2 + 3. After ten seconds, the reader beeps briefly meaning you can release the keys. All fingerprints, NFC phones, numeric codes, users and timers in the database have been deleted and the reader has been reset to factory settings.

READER SECURITY LOCK

If an unregistered fingerprint is put on the fingerprint sensor seven times in a row, unregistered NFC device (smartphone) is held close or an incorrect numeric code is entered, the reader locks for 30 seconds. After thirty seconds, the reader is ready to use again and it locks again if unsuccessful attempts continue. This time the reader locks for 60 seconds. After every seven unsuccessful attempts, the reader is locked and the time increases by 30 seconds, to a maximum of 5 minutes. Each time the reader successfully recognizes the fingerprint, the anti-lock count is interrupted and reset.

Red and blue signal lights are flashing alternately while the reader is locked. During this time, the reader will not respond to fingerprints, NFC phones, or numeric codes.

CONTROL WITH SMARTPHONE

- Android

ANDROID APP ON Google play

- iOS

Download on the App Store

You can control your reader via Wi-Fi wireless connection using the free Inosmart app. Find and download the app in the Google Play Store for Android: *https://play.google.com/store/apps/details?id=com.ismart.XF_InoSmart* or in the App store for iOS: *https://apps.apple.com/us/app/inosmart/id1513984907*.
In order to connect your smartphone to the reader, you need to activate the geographical location and Wi-Fi connection on your phone (in Settings).

When the phone is connected to the reader via Wi-Fi wireless connection, you can use the app to set all the features that your reader allows:

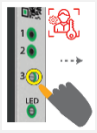
- add / delete new user, numeric code or NFC phone;
- overview of all currently active user identification methods;
- edit existing users (rename, add a new / additional fingerprint, NFC phone or numeric code),
- assign certain functions to individual users;
- timers and
- additional settings (lighting, secondary relay).

The Wi-Fi range is intentionally smaller for security reasons and because of that the user must stand as close as possible to the control unit.

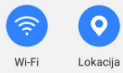
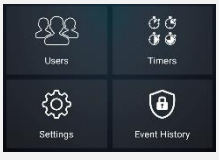
Android 5 or higher is required in order to operate the device. On iPhones, the inoSmart app runs on iOS 12 and newer. You can check your version in your phone settings. To ensure the latest version of the app, your phone must update automatically. Unlocking the door using an iPhone is possible from iOS 13 onwards.

FIRST CONNECTION of reader and smartphone

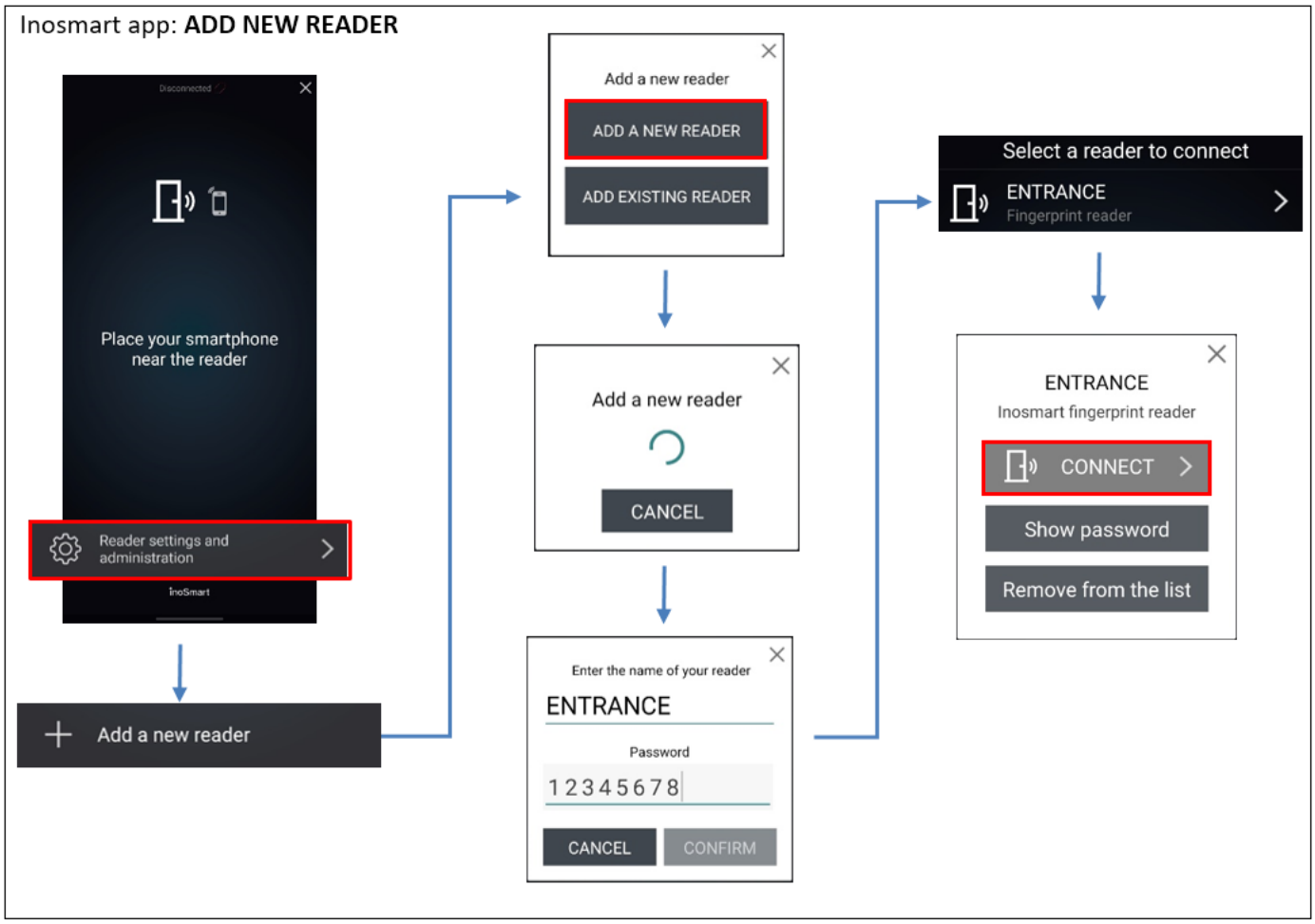
Activate Wi-Fi connection on the control unit.

	PRESS **KEY 3** ON THE CONTROL UNIT.	Wi-Fi connection on the control unit is activated. The reader beeps briefly, both signal lights are flashing green.
	Place administrator fingerprint on the fingerprint sensor.	Signal lights on the reader turn blue and light on the control unit turns blue as well. **YOUR WI-FI IS CONNECTED SUCCESSFULLY.**

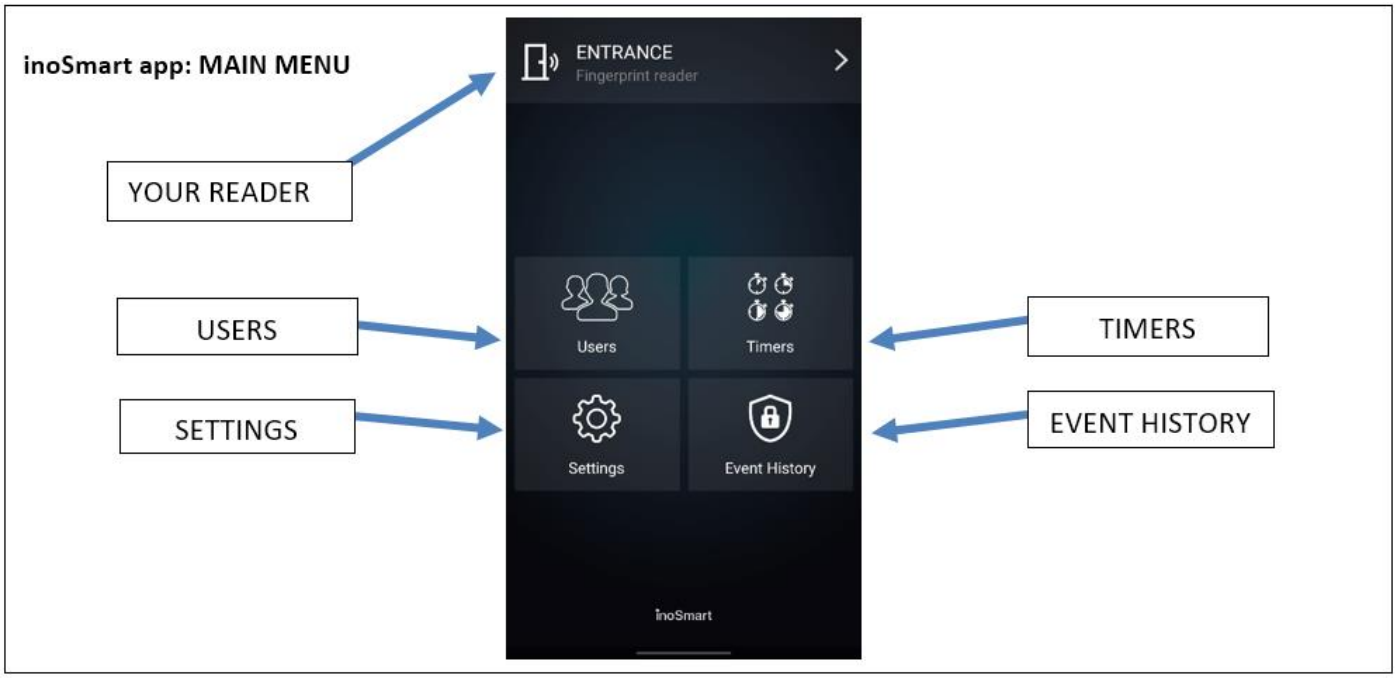
Download the free inoSmart app to your phone. In the "Google Play" store for Android users or in the "Apple store" for iOS or iPhone users.

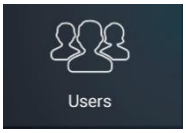
	Enable Wifi connection and geographical location on your phone.	
	Download the free INOSMART app.	When the app is downloaded you can start using it.
Wi-Fi range is intentionally smaller for security reasons and because of that hold you smartphone as close as possible to the control unit.		
	Welcome to your new app through which you have an overview of all events of your reader.	Open the app and select: "READER SETTINGS AND ADMINISTRATION".
	SELECT THE DESIRED READER. When you first log in, select: "ADD NEW READER".	The app connects to your reader. When using it for the first time, name your reader and enter the 8-digit password. The reader is now added to the list and ready to connect.
The renamed device is automatically saved to a list of readers that are available each time you open the app.		
	TRANSFER APP IN MAIN MENU.	Four basic sets are available that allow you to easily manage your reader.

The Wi-Fi connection on the control unit automatically shuts off after 10 minutes of inactivity.
Already named reader (stored in the reader list) can be renamed or its password can be changed at any time.



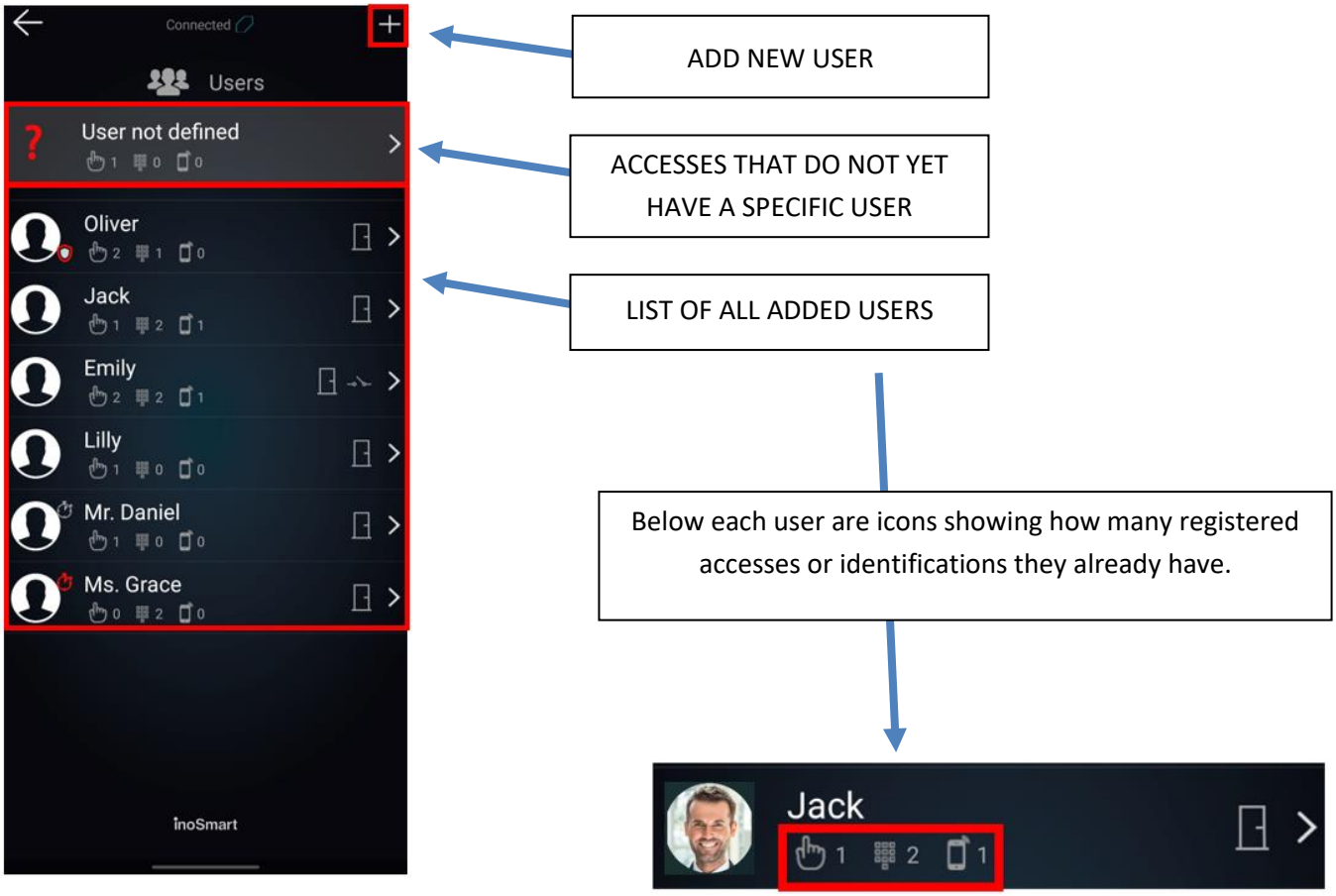
TRANSITION TO MAIN MENU





USERS

Here is everything you need to successfully edit users, their fingerprints, smartphones and numeric codes. All users with specific functions assigned are listed. If you have enabled access via the keys on the control unit, they are listed at the top of the list below "undefined user".



DELETE INDIVIDUAL USER

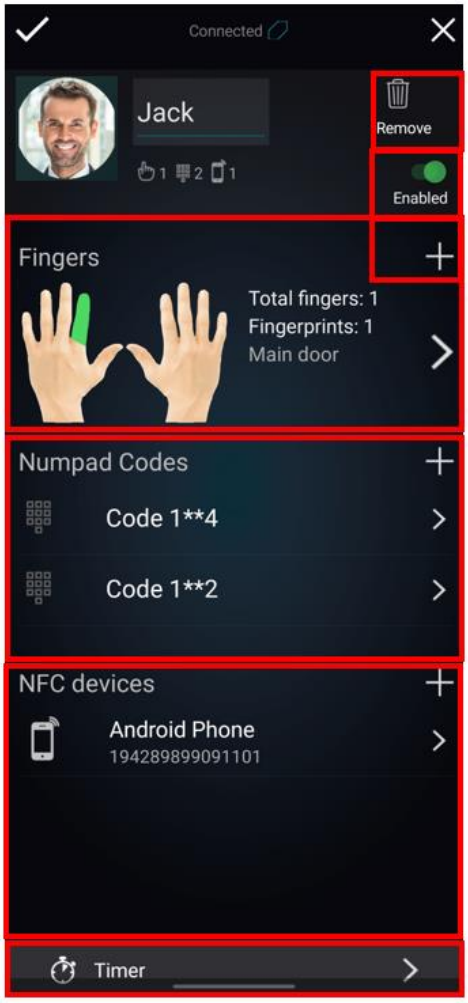
You can delete an individual user from the users list of your Inosmart reader at any time. Deleting a user also deletes all their registered identifications (fingerprints, NFC phones, numeric codes).

To delete a user, click the "bin" icon in the upper right corner of the user's profile.

TEMPORARY DISABLE / ENABLE USER

You can disable / enable the user with the button in the upper right corner of the screen on the user details.

Clicking an existing user takes you to a DETAILED USER VIEW. All currently active user identification methods are displayed in the sections: FINGERPRINTS, NFC PHONES AND NUMERIC CODES. You can add new identification methods for the selected user by clicking on the "+" sign next to each section.



DELETE USER by pressing the BIN icon.

ENABLE or DISABLE USER

ENROLL NEW FINGERPRINT by clicking on the "+" sign

Section:«FINGERS«

Section: »NUMERIC CODES«

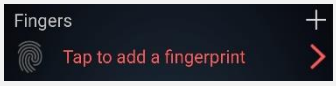
Section:«NFC phones«

USER TIMERS

ENROLL NEW FINGERPRINT

Door can be opened with your fingerprint.
In the user details, go to the "FINGERS" section and select the process of adding a new fingerprint.

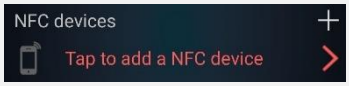
For each added fingerprint, you can set in the user's detail view what it can open and whether a particular authentication method is enabled or disabled

	Click on the section »Fingers«.	Click to start adding a new fingerprint. The reader beeps briefly.
	All 10 fingers appear on the screen.	Fingers that already have a fingerprint assigned (active) are colored green.
	Select a free finger or the finger you want to edit by tapping the screen.	Select a free finger to start adding (learning) a new fingerprint. The reader beeps briefly.
	When selecting the assigned finger "finger option" is also displayed.	
	Place the administrators fingerprint on the fingerprint sensor.	Both signal lights turn white.
	You can start new fingerprint learning.	Place your finger on the fingerprint sensor THREE TIMES making sure that as much of the sensor surface as possible is covered with the finger pad.
	The reader beeps briefly, signal lights turn green.	**NEW FINGERPRINT IS SUCCESSFULLY ADDED TO THE LIST OF USERS.** Lights on the reader turn blue, indicating that the reader is ready to use.

ADD NEW PHONE

Your reader supports NFC (Near Field Communication) technology which allows you to open the door safely using your smartphone. Every phone you want to open the door with must be registered in advance. In the user details, go to "NFC PHONES" section and select the process of adding a new phone.

For each smartphone added you can set in the user detailed view what it can open and whether a particular authentication method is enabled or disabled.

	Click on the section »NFC phones«.	Click to start adding a new phone. **On the phone,that you are adding, activate »NFC«.** The reader beeps briefly.
	Place administrator fingerprint on the fingerprint sensor.	The process of adding new smartphone is enabled. Both signal lights turn white.
	You can start new smartphone registration.	Hold your smartphone close to the reader. **Attention! The location of the NFC sensor in the reader is different for each model.**
	Reader beeps briefly, signal lights turn green.	**NEW SMARTPHONE IS SUCCESSFULLY ADDED TO THE LIST OF USERS** Lights on the reader turn blue, indicating that the reader is ready to use .

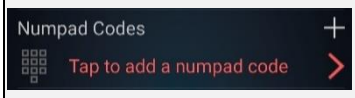
The location of the NFC sensor in the reader is different for each model:

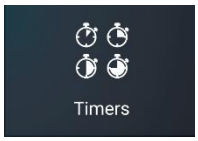
If you want to use your smartphone to open the door, you must enable the NFC reader in the phone settings.

ADD NEW NUMERIC CODE (modules BT 600, BT 610 and BT 630)

You can also open the door using the keypad and the numeric code which is set to 4 digits by default. You can change the required code length in the reader settings.
In the user details go to "NUMERIC CODES" section and select the procedure to add a new numeric code.

For each numeric code added, you can set in the users detailed view what it can open and whether a particular authentication method is enabled or disabled.

	Click on the section »Numeric codes«	Click to start adding a new numeric code. The reader beeps briefly.
	Place administrator fingerprint on the fingerprint sensor.	The process of adding new numeric code is enabled. Both signal lights turn white.
	You can start new numeric code registration	Enter the four-digit number and click confirm.
	Reader beeps briefly, signal lights turn green.	**NEW NUMERIC CODE IS SUCCESSFULLY ADDED TO LIST OF USERS.** Lights on the reader turn blue, indicating that the reader is ready to use.



TIMERS

The timers allow you specify the time of:


door lighting,


validity of access for the user or


validity of access to the secondary relay (garage door, alarm device, etc.).

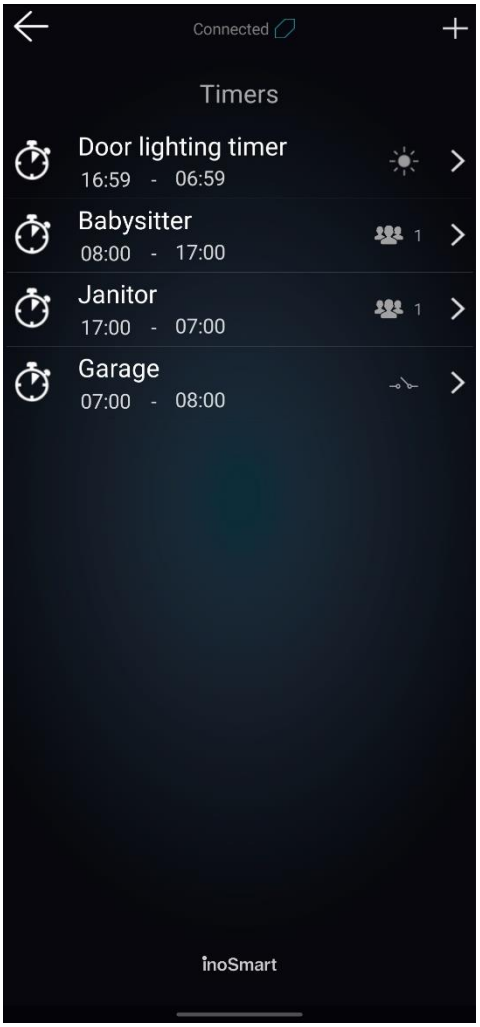
When editing timers, the app will always first offer you a timer that determines the lighting in the door. Once this timer is added, you can add other timers.

In addition to the basic lighting timer, you can add 10 more timers (e.g. cleaner, janitor, alarm activation etc.). You can specify, delete or disable/ enable an individual timer at any time.

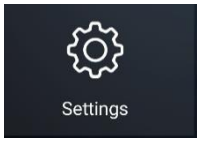
Your options:

repeating timer (in this case, assign the start and end time - interval and activity days, it will repeat every week) or

unique timer (assign it a date and time). However, for both types of timers, you can specify the validity of access for the user or to the secondary relay.



Attention! You can enable or disable the assigned fingerprints, numeric codes, or phones for each user. If the user has all assigned functions disabled, they cannot log in even with the timer permission.



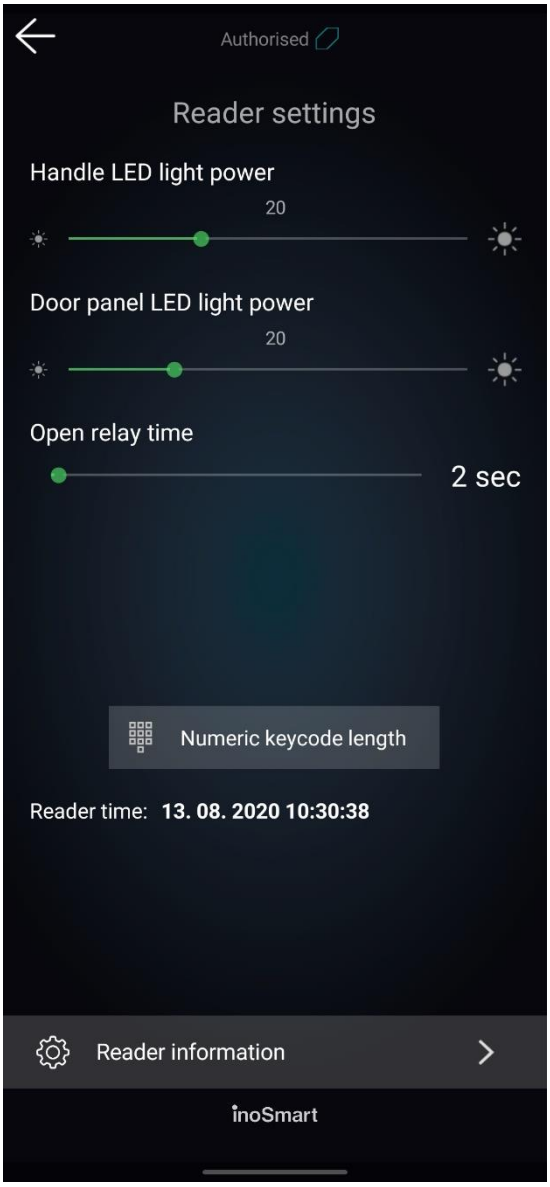
SETTINGS

You can adjust the level of the built-in illumination at the back of the reader or the additional door illumination in the settings.

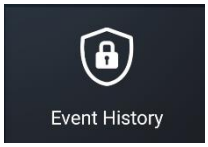
You can also set the contact length of the secondary relay. Its default value is 2 seconds.

Here you can also set the length of your numeric code.

At the bottom of the settings window you have a detailed insight into the data of your device.



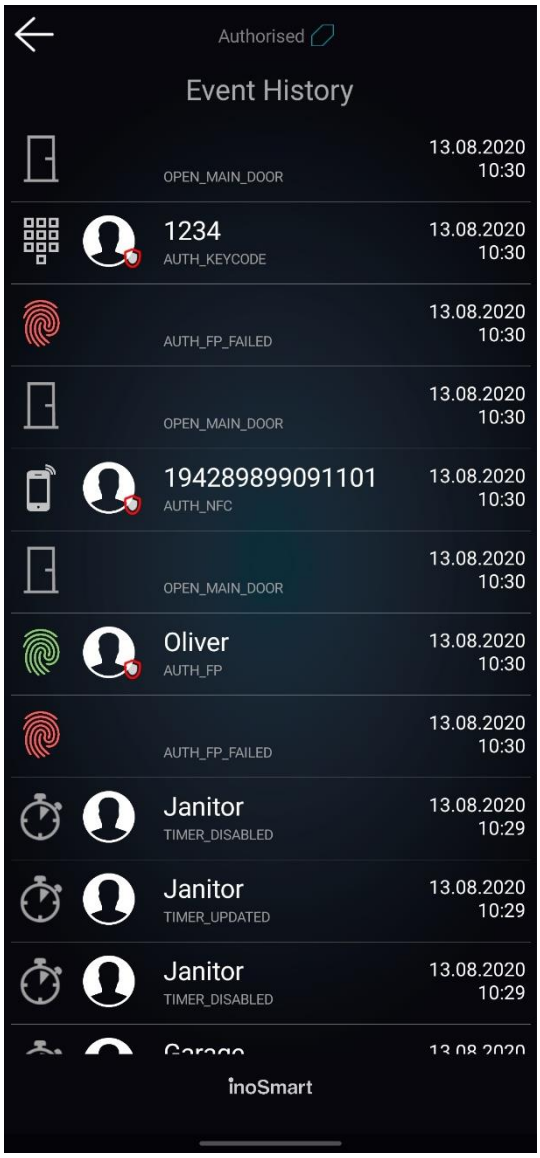
Attention! If the length of the numeric code is changed, all already entered / previously entered codes will be deleted.



EVENT HISTORY

The reader provides an insight into the history of use. The last 150 events are recorded.

You can check all entrances, both enabled and disabled or rejected, their timing and which method of authentication the person used for entering.



FACTORY RESET

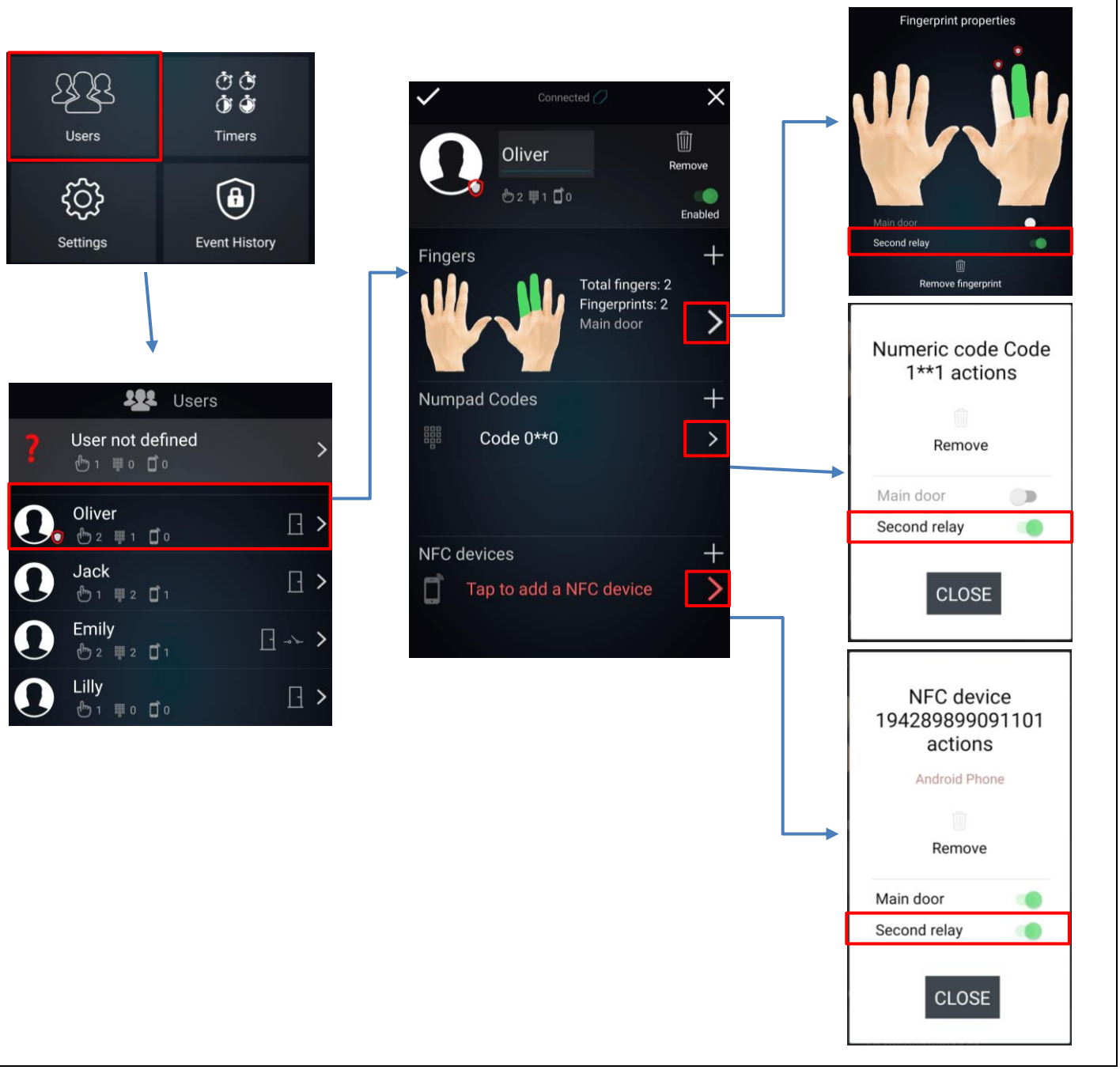
Hold all three keys on the control unit simultaneously for 10 seconds. After ten seconds, the reader beeps briefly and you can release the keys. All fingerprints, NFC phones, numeric codes, users and timers in the database are now deleted and the reader is reset to factory settings.

The reader that you factory reset is still visible on the list of readers in the Inosmart app, but it is no longer possible to connect to it. The reader must be deleted from the list and added again.

ADDITIONAL RELAY

Our readers allow you to unlock an additional (side or garage) door in addition to the door in which the device is installed, or turn on / off any device connected to the control unit. You can allow individuals to open either additional e.g. garage door or main door and additional door together.

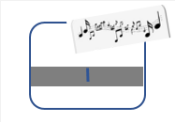
Inosmart app: **ADDITIONAL RELAY**



PAIR READER AND DOORBELL

Readers marked BT 600 and BT 630 include the option to ring the included Wi-Fi bell. The reader and the doorbell must be paired before use. You can pair any number of doorbells with a single reader.

The pairing process is described below:

	Both signal lights on the reader turn blue.	Plug the doorbell into an electrical outlet.
	Tune selection process.	➢ Select the desired tune of the bell by clicking "Select tune". ➢ Press and hold the same key for a few seconds so that the signal light on the front of the doorbell starts flashing blue.
	Press the doorbell key on the reader within five seconds.	After pressing the doorbell button, the signal light on the bell stops flashing blue and the doorbell rings with the selected tune. The paring process is completed. Repeat if necessary. **YOUR DOORBELL IS READY TO USE.**

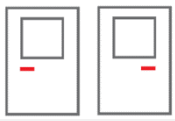
It is necessary to repeat the whole process of pairing the reader and the doorbell, if you want to change the ring tune.

MAINTENANCE

Our fingerprint readers do not require special maintenance, but make sure that the sensor is always clean. If your are using the reader with greasy or dirty fingers, dirt may start to accumulate on the sensor. In this case, the sensor should be cleaned with a soft damp cloth. Dirt on the sensor may cause poor performance.

Under no circumstances should you use aggressive cleaners, polishing pastes or acids during cleaning! Cleaning or rubbing the surface of the sensor with hard or sharp objects can damage the sensor and cause the device to malfunction, resulting in a loss of warranty.

ERROR SIGNALING

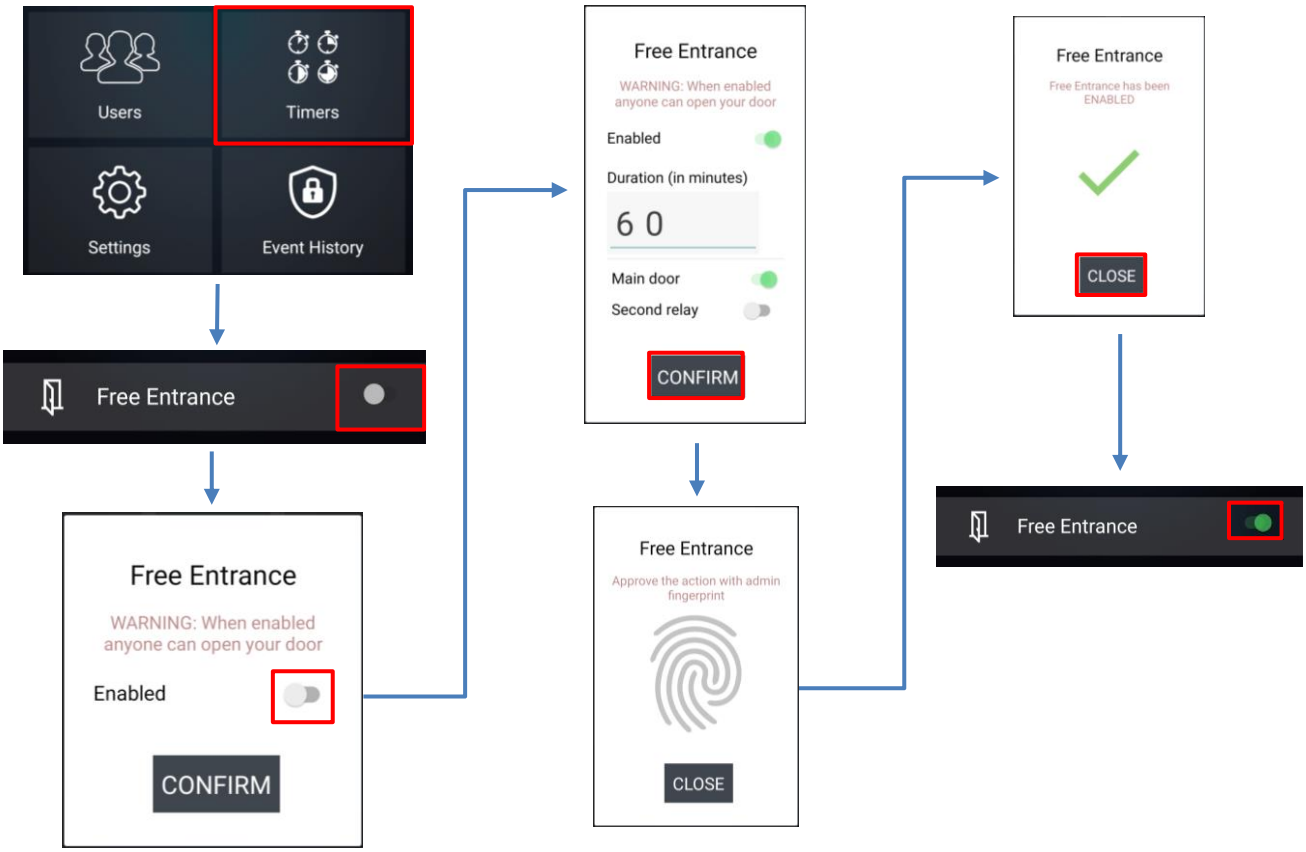
	Left signal light is flashing red, right signal light is turned off.	Error on the reader. **Unlock the cable pass. See the Cable Pass Unlock Procedure chapter.**
	If the signal lights are still flashing, remove the control unit from the mains or from the power supply.	
	Right signal light is flashing red, left is turned off.	Error on the control unit. **Unlock the cable pass. See the Cable Pass Unlock Procedure chapter.**
	Left and right signal lights alternately turn red.	The reader and the control unit are not paired.
	Left and right signal lights alternately turn red / blue.	The device is blocked due to too many false identification attempts with a fingerprint, smartphone, or numeric code.

FREE PASSAGE

Our readers also enable the "FREE PASSAGE" function.When activating this function, allow the selected door, e.g. entrance door or side door (additional relay: side door or garage door) to be opened by any fingerprint, even if it is not stored in the base.

When activating the free passage function, select the time for which you want the function to be enabled (from 1 to 480 minutes). An administrator fingerprint is required to confirm free passage. While free passage function is turn on, green signal lights on the reader are constantly lit. After this period is over, the free passage function is switched off automatically. The reader indicates this with a short beep and the signal lights turn blue again.

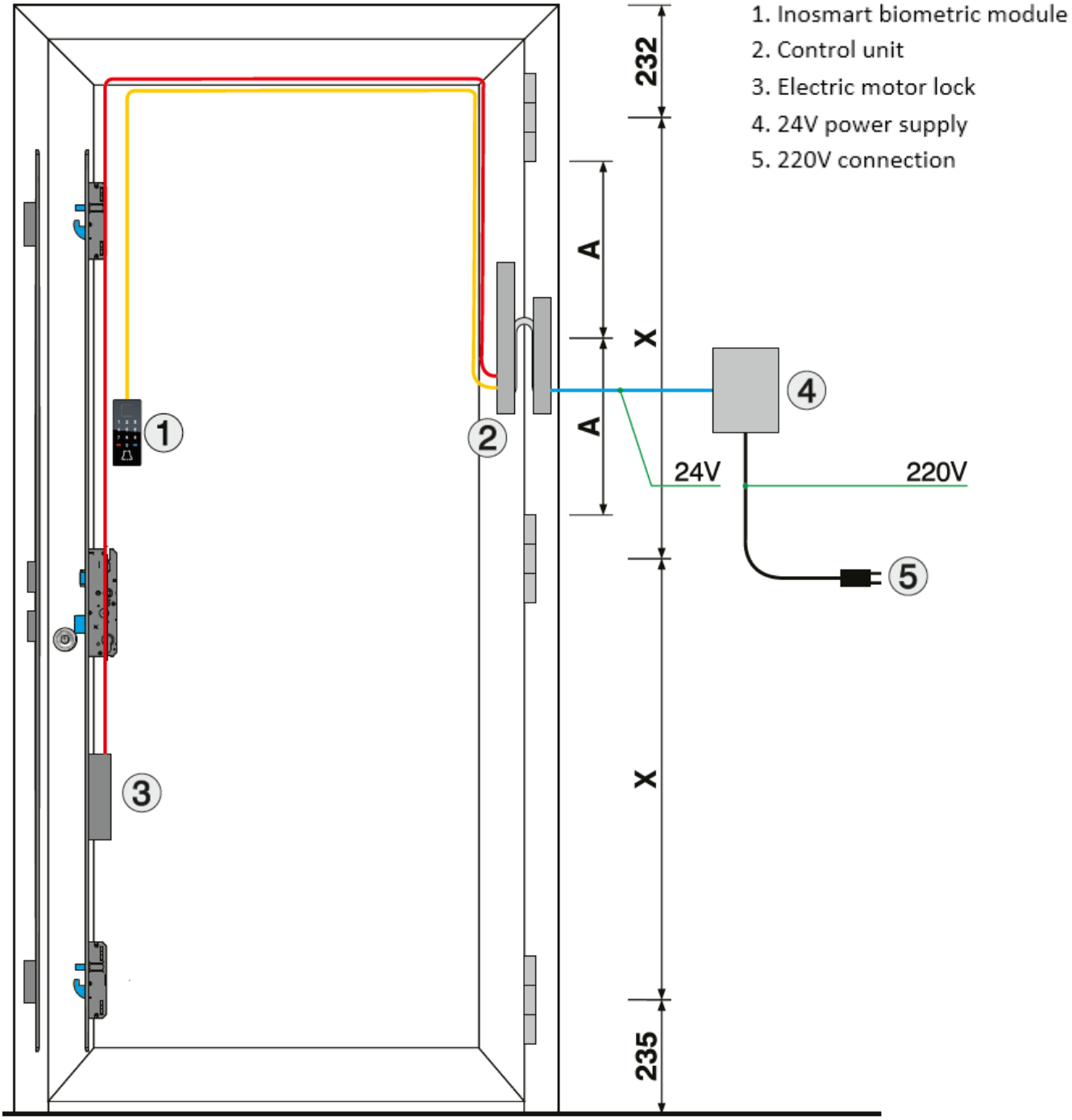
Inosmart app: **FREE PASAGE**



INOSMART READER SPECIFICATIONS

- Capacity: 100 fingerprints, 100 smartphones (NFC), 100 numeric codes, 10 timers.
- Supply voltage: 24V DC, regulated.
- 1 additional relay output.
- Maximum voltage / current on the relay: 40V / 1.25A.
- Relay start time 1 - 10s.
- Maximum power consumption: 3W.
- Fast fingerprint recognition: <1s.
- Operating temperature range: -25ºC to +70ºC.
- Fingerprints, registered phones and numeric codes remain stored in memory even in the event of a power failure.
- Capacitive sensor, resolution 508dpi, ESD range ± 3kV, reading 360º.
- User interface: two 5-color LEDs, buzzer, buttons on the control unit, smartphone app.
- Podpora za KFV motorne ključavnice. Support for KFV motor locks.

INSTALLATION SCHEME



CABLE PASS UNLOCK PROCEDURE

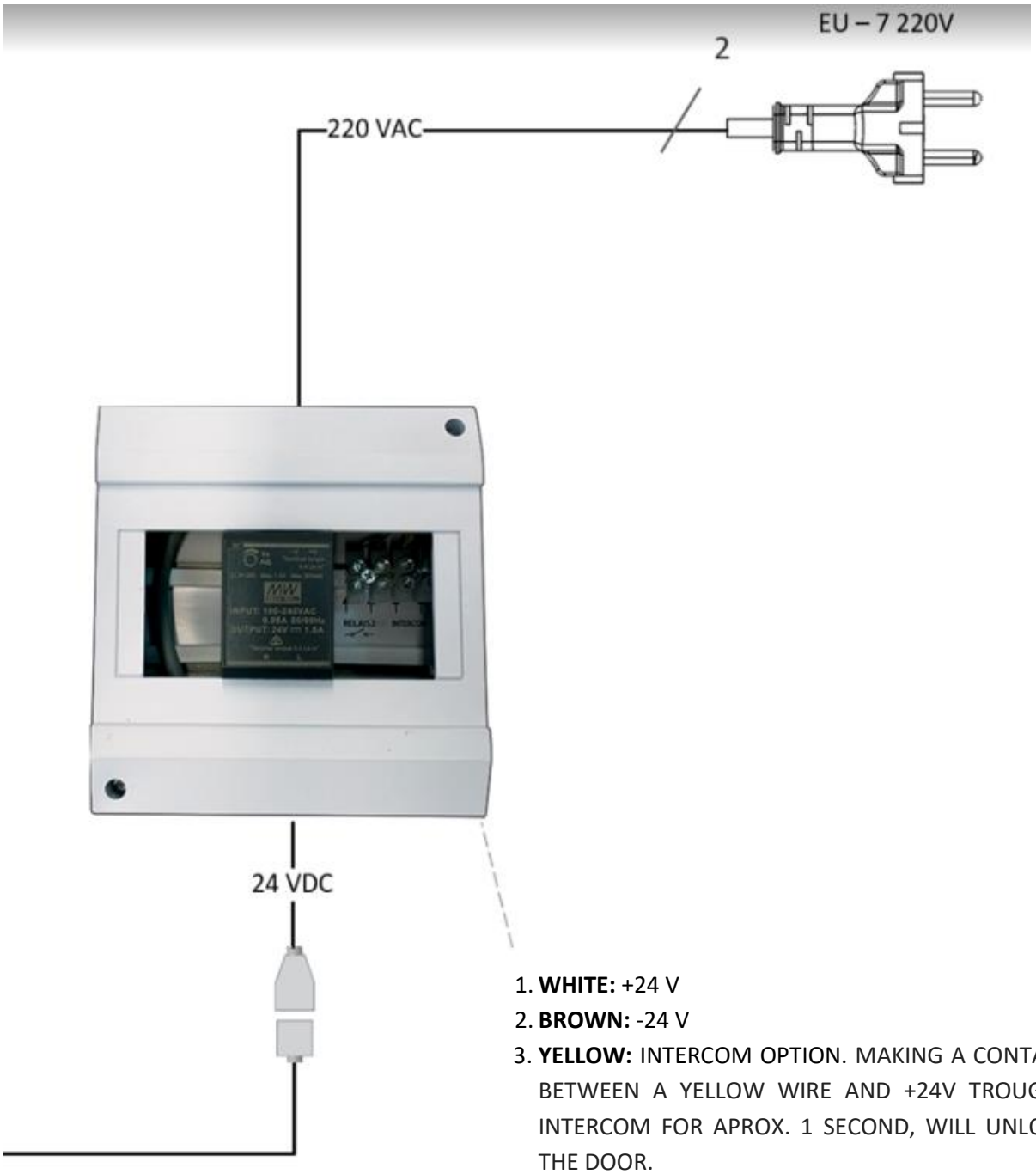
- Unscrew the screw on the connector (Fig. 1).
- Remove the connector by pushing a small screwdriver into the hole and pushing the connector upwards (Fig. 2).
- Due to the seal the connector moves out of the bearing quite hard.

The cable pass should be closed again in the reverse order.

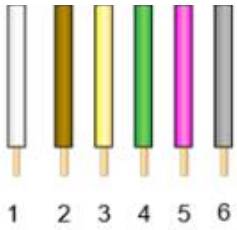
Figure 1

Figure 2

CONNECTION



1. **WHITE:** +24 V
2. **BROWN:** -24 V
3. **YELLOW:** INTERCOM OPTION. MAKING A CONTACT BETWEEN A YELLOW WIRE AND +24V TROUGHT INTERCOM FOR APROX. 1 SECOND, WILL UNLOCK THE DOOR.
4. **GREEN**: RELAY 1 (ADDITIONAL FUNCTION)
5. **PINK**: RELAY 2 (ADDITIONAL FUNCTION)
6. **GREY**: FREE WIRE



LIMITED WARRANTY

The warranty is valid for 24 months from the date of delivery of the product to the end customer. The manufacturer of the product warrants that the Inosmart reader (hereinafter: the product) will function flawlessly during the warranty period and that the materials from which it is made are free from any defects or damage. If the customer finds a defect in the product, they can request warranty service from the seller or manufacturer. The seller undertakes to eliminate the defect within 45 days of the day of filing the complaint provided the complaint is justified. If the defect cannot be repaired, the customer will receive a new product from the seller within 45 days of the day of filing the complaint.

The warranty cannot be enforced in case of:

1. Any malfunction resulting from repair, mechanical damage, modification, cleaning or other interference with the product by anyone other than authorized Inotherm d.o.o servicing personnel.
2. Any damage resulting from transport, falls, impact, etc. after the product was purchased.
3. Any damage caused by flame/fire, earthquakes, flooding, lightning, other natural disasters, environmental contamination or unsuitable power supply voltage.