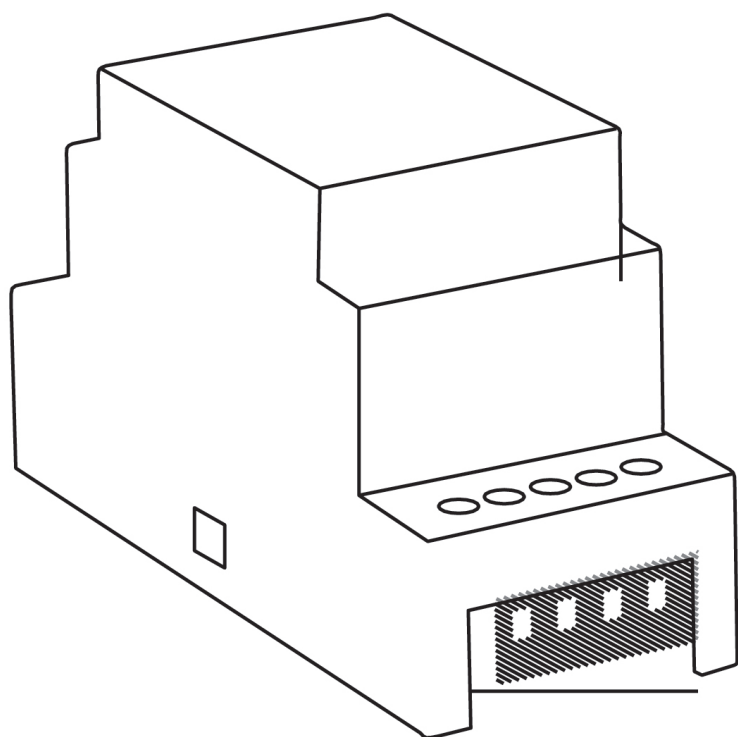




DIN CONTROL UNIT

INSTRUCTION MANUAL



**CONTROLLER
CU303**

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! NAVIGATE TO THE INSTRUCTIONS BY CLICKING ON FIELDS MARKED WITH 

PLACING YOUR FINGER ON THE SENSOR



1 YOUR FINGERPRINT MUST COVER AT LEAST 70% OF THE SENSOR SURFACE.

Users with smaller fingerprints, especially women and children, may need to press the finger harder to achieve sufficient coverage (applying pressure spreads your finger).



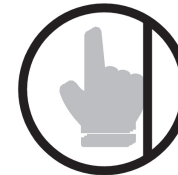
2 PLACE YOUR FINGER IN THE CENTRE OF THE SENSOR AT THE AREA WHERE THE FINGERPRINT IS MOST PRONOUNCED.

For most users, this is approximately in the middle of the finger pad, where the fingerprint curves form the centre. Have a look at your fingerprints and their features.



3 DRY SKIN IS THE MOST COMMON CAUSE OF POOR READING.

If the finger needs to be pressed harder than usual to be read, the most likely cause is dry skin on your finger. This is particularly common during winter months. Make sure your skin is not unusually dry and use hand creams or moisturizing wipes or touch a damp surface lightly for this purpose, but make sure your finger is not wet.



4 DO NOT MOVE YOUR FINGER WHILE READING IS IN PROGRESS.

Wait for the device to beep to confirm a successful entry before moving your finger.



5 TO SUCCESSFULLY ENTER YOUR FINGERPRINT, PLACE YOUR FINGER ON THE SENSOR 3 TIMES.

Only then will your fingerprint be saved. This ensures quality input and good reading.



6 ENTER EACH USER FINGERPRINT MULTIPLE TIMES! ENTER SEVERAL FINGERS OF BOTH HANDS TO AVOID POSSIBLE PROBLEMS DUE TO INJURED FINGERS.

This ensures a good reading can be taken regardless of the position of your finger on the sensor and backup is provided in case of a finger injury.

❗ BEFORE THE FIRST USE OF YOUR FINGERPRINT READER, IT IS RECOMMENDED TO RESET TO FACTORY SETTINGS (Test Function remains on for 1 minute – see p. 5 for more info).

❗ ONCE THE FINGERPRINT READER IS RESET, IT IS RECOMMENDED TO IMMEDIATELY ENTER THE ADMINISTRATOR'S FINGERPRINTS.

❗ IF THERE IS NO ACTIVITY WITHIN 8 MINUTES AFTER CONNECTING THE FINGERPRINT READER, IT DEACTIVATES AUTOMATICALLY TO PREVENT UNAUTHORIZED PERSONS FROM CONNECTING. IN THIS CASE, TURN OFF THE FINGERPRINT READER POWER SUPPLY FOR MIN. 5 SECONDS (THE EASIEST WAY TO DO THIS IS TO TURN OFF THE FUSE), THEN TURN THE FINGERPRINT READER POWER SUPPLY ON AGAIN. IT IS RECOMMENDED YOU RESET THE DEVICE.

❗ IF IT IS IMPOSSIBLE TO ENTER THE ADMINISTRATOR'S FINGERPRINTS IMMEDIATELY AFTER CONNECTING THE FINGERPRINT READER, PLEASE TURN OFF THE POWER OF YOUR FINGERPRINT READER UNTIL THE ADMINISTRATOR'S FINGERPRINTS ARE ENTERED.

TECHNICAL DATA

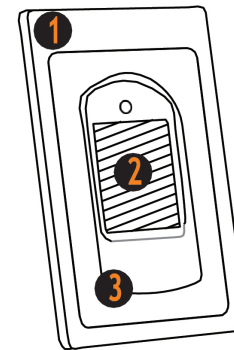
- Capacity: 498 fingerprints (166 × 3)
- Supply voltage: 8-30 V, DC
- 2 relay outputs
- Maximum current on the relay: 3 A
- Relay trigger time: 1 - 60 s
- Maximum power: 2.5 A
- Fast fingerprint recognition: <1.2s
- Operating temperature range: -20°C to +60°C
- Maximum ambient humidity up to: 100% IP65
- Fingerprints remain stored in memory even in the event of a power failure
- Capacitive sensor FPC1011F3
- User interface: 3-colour LED, beeper
- The reader creates a pattern from the biometric characteristics of the fingerprint, which is converted into a code for fingerprint recognition by a special algorithm.

MAINTENANCE

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

❗ **WHEN CLEANING UNDER NO CIRCUMSTANCES USE: AGGRESSIVE CLEANERS, POLISHING PASTES OR ACIDS! CLEANING OR SCRATCHING THE SENSOR SURFACE WITH HARD AND SHARP OBJECTS MAY CAUSE DAMAGE TO THE SENSOR AND FAILURE OF THE DEVICE, WHICH WILL RESULT IN THE WARRANTY BEING VOIDED.**

READER COMPONENTS AND FUNCTIONS



MULTICOLOUR LED

Uses various colour signals for communicating the device's status and operations running.

FINGERPRINT SENSOR

When no operation is running, placing the saved finger on the sensor opens the door.

BEEPER

While an operation is running, light signals are accompanied by sound.

FINGERPRINT READER SECURITY LOCKDOWN

In the event that a finger is placed on the sensor of the fingerprint reader seven times in a row, the reader will not recognize it and will lock for 30 seconds.

After thirty seconds, the reader will be ready to be used again. The reader will lock again if a fingerprint which cannot be recognized by the reader is placed on the sensor again seven times in a row. This time it will lock for 60 seconds.

After each unsuccessful attempt, up to seven attempts, the reader will be locked and the time will increase by 30 seconds, up to a maximum of 5 minutes. Each time the reader successfully recognizes a fingerprint, the count is interrupted and resets to the beginning.

WHILE THE READER IS LOCKED, THE PURPLE LED WILL FLASH AND THE READER WILL NOT RESPOND TO FINGERPRINTS.



TEST FUNCTION

AFTER EACH FACTORY RESET, THE DEVICE REMAINS IN TEST FUNCTION FOR 1 MINUTE.

During this time, the sensor-LED flashes green.

DURING THIS TIME, ANY FINGERPRINT CAN UNLOCK THE DOOR.

The test function is interrupted by a power outage or the addition of fingerprints. Once the test function has elapsed, the device remains at factory settings and ready for first use.



READER CONTROL MODES

When using the reader for the first time, you can choose between two different control modes: analogue or app control. Description and instructions for each control mode can be found below.



ANALOGUE CONTROL By placing your finger on the sensor



APP CONTROL On your smartphone



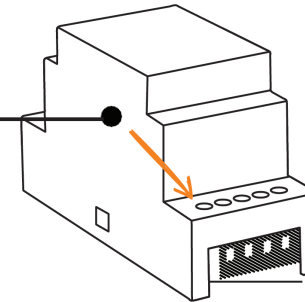
Resetting the device to factory settings deletes the fingerprint database and all other settings.

DIN CONTROL UNIT

The control unit is mounted in an electrical cabinet. The factory reset button is at position 10.

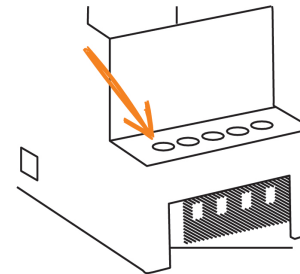
RESET "R" BUTTON

Factory reset button is at position 10.



The reader can be operated:
- by remote control
- by placing your finger on the sensor
- with the Touchkey app

FACTORY RESET



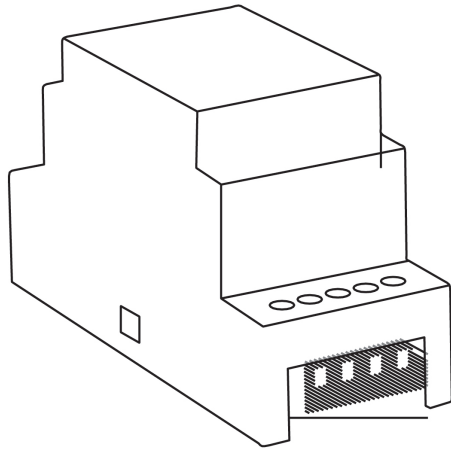
HOLD THE R BUTTON ON THE CONTROL UNIT FOR 10 SECONDS. THE PURPLE LED BLINKS 5 TIMES ACCOMPANIED BY 5 BEEPS.«

All fingerprints, including the administrator's, are erased from the memory and the device is restored to factory settings. Any paired remote controls and smartphones are deleted as well.



AFTER EACH FACTORY RESET, THE DEVICE REMAINS IN TEST FUNCTION FOR 1 MINUTE.

READER CONTROL MODES (DIN control unit)



When using the reader for the first time, you can choose between two different control modes: analogue or app control. Description and instructions for each control mode can be found below.

ANALOGUE CONTROL

Is simple and allows basic functions. Analogue control can be activated in 1 way:

BY PLACING ON THE SENSOR

APP CONTROL

Provides a wide range of functions.

USE OF TOUCH KEY APP

- Find, name and add your reader in the Touchkey app.
- App. Click on its name to establish a connection.
- Start entering administrator fingerprints in the app.

 Resetting the device to factory settings deletes the fingerprint database and all other settings.

ANALOGUE CONTROL BY PLACING YOUR FINGER ON THE SENSOR

- Perform the factory reset.
- Start by adding administrator fingerprints by placing your finger on the sensor for 5 seconds.

ADMINISTRATOR FINGERPRINTS

The first three saved fingerprints have a special role and are called **administrator fingerprints**. These fingerprints are entered by the administrator, i.e. the device owner. From the third memory spot onwards, only user fingerprints can be entered. Entering fingerprints without the presence of an administrator is no longer possible beyond the three memory spots.



1. THE ADMINISTRATOR FINGERPRINTS ARE ONLY THE FIRST THREE FINGERPRINTS STORED IN THE MEMORY

No further administrator fingerprints can be added after the first three. Administrator fingerprints can be three different fingers of the same person or fingerprints of different persons.

2. WHEN THE FIRST THREE MEMORY SPOTS ARE FILLED, ONLY USERS CAN BE ENTERED.

3. ADMINISTRATOR FINGERPRINTS SHOULD BE CAREFULLY CHOSEN, AND THE FINGERPRINTS SHOULD BE CLEAR.

You need to be especially careful when entering administrator fingerprints, as these fingerprints cannot be entered later, and can only be deleted by **RESETTING TO FACTORY SETTINGS**.

When entering the administrator fingerprint, select an uninjured finger with the clearest fingerprint. While entering the fingerprints, keep your fingers clean and sufficiently moist, and for good readings follow the instructions in the section **PLACING YOUR FINGER ON THE SENSOR PROPERLY**.

4. ADMINISTRATOR FINGERPRINTS ALSO OPEN DOORS AND MANAGE USERS

The only difference between the administrator and user fingerprint role is that administrator can perform input and deletion operations.

5. WHEN THE READER MEMORY IS EMPTY, FINGERPRINTS CAN BE ENTERED BY ANYONE, SO ADMINISTRATOR FINGERPRINTS SHOULD BE ENTERED AS SOON AS THE DEVICE IS INSTALLED TO PROTECT IT AGAINST UNAUTHORIZED ACCESS.

IN THIS CONTROL MODE, INDIVIDUAL FINGERPRINTS CANNOT BE DELETED. YOU CAN ONLY DELETE THE ENTIRE FINGERPRINT DATABASE (INCLUDING ADMINISTRATORS) BY RETURNING THE DEVICE TO FACTORY SETTINGS.

ADMINISTRATOR FINGERPRINTS ENTRY PROCEDURE

- 1 TO START ENTERING ADMINISTRATOR FINGERPRINTS, PLACE YOUR FINGER ON THE SENSOR FOR 5 SECONDS.

The blue LED starts flashing.

- 2 PLACE THE ADMINISTRATOR FINGERPRINT ON THE SENSOR 3 TIMES IN A ROW. EACH SUCCESSFUL ENTRY WILL BE CONFIRMED WITH A SHORT BEEP. AFTER THREE ENTRIES, THE FINGERPRINT IS SAVED - A LONG BEEP IS HEARD AND THE GREEN LED LIGHTS UP.

! IF THE FINGERPRINT YOU ARE TRYING TO ENTER IS TOO DAMAGED AND DOES NOT HAVE A CLEAR ENOUGH STRUCTURE, THE RED LED WILL LIGHT UP, THE DEVICE WILL BEEP 5 TIMES AND THE OPERATION WILL BE STOPPED. CHOOSE A HIGH QUALITY FINGERPRINT, MAKE SURE THE FINGER IS CLEAN AND MOIST ENOUGH AND REPEAT THE PROCESS. FOR EACH FINGERPRINT YOU WANT TO SAVE, PLACE THE FINGER 3 TIMES ON THE SENSOR TO ENSURE GOOD FINGERPRINT RECOGNITION.



- 3 PLACE THE FIRST ADMINISTRATOR FINGER ON THE SENSOR FOR 5 SECONDS, THEN ENTER THE SECOND ADMINISTRATOR FINGER 3 TIMES IN THE SAME WAY AS THE PREVIOUS ONE.

- 4 REPEAT THE SAME PROCEDURE WITH THE THIRD ADMINISTRATOR FINGER.



USER FINGERPRINTS ENTRY PROCEDURE

- 1 TO START ENTERING USER FINGERPRINTS, PLACE THE ADMINISTRATOR FINGER ON THE SENSOR FOR 5 SECONDS.

The blue and green LEDs flash alternately.

- 3 PLACE THE USER FINGERPRINT ON THE SENSOR 3 TIMES IN A ROW. EACH SUCCESSFUL ENTRY WILL BE CONFIRMED WITH A SHORT BEEP. AFTER THREE ENTRIES, THE FINGERPRINT IS SAVED - A LONG BEEP IS HEARD AND THE GREEN LED LIGHTS UP.

! IF THE FINGERPRINT YOU ARE TRYING TO ENTER IS TOO DAMAGED AND DOES NOT HAVE A CLEAR ENOUGH STRUCTURE, THE RED LED WILL LIGHT UP, THE DEVICE WILL BEEP 5 TIMES AND THE OPERATION WILL BE STOPPED. CHOOSE A HIGH QUALITY FINGERPRINT, MAKE SURE THE FINGER IS CLEAN AND MOIST ENOUGH AND REPEAT THE PROCESS. FOR EACH FINGERPRINT YOU WANT TO SAVE, PLACE THE FINGER 3 TIMES ON THE SENSOR TO ENSURE GOOD FINGERPRINT RECOGNITION.



FACTORY RESET



1. PLACE THE ADMINISTRATOR FINGER ON THE SENSOR FOR 15 SECONDS.

* If the administrator's fingerprint has not yet been entered, the reset can be done with any finger within 8 minutes after the first connection. In this case, the blue LED turns off.

The blue and red LEDs flash alternately.

- 2 CONFIRM THE FUNCTION BY PLACING THE ADMINISTRATOR FINGER ON THE SENSOR TWO TIMES. THE PURPLE LED BLINKS 5 TIMES ACCOMPANIED BY 5 BEEPS.

All fingerprints, including the administrator's, are deleted from the memory and the device is restored to factory settings.



APP CONTROL

Perform the factory reset.

- Add your reader in the Touch key app.
- Start by entering administrator fingerprints on the reader/by pressing Button A on the remote control.
- Once the administrator's fingerprints are entered, you can use the app only to unlock the door or manage the relays.

Download the Touch key app to your smartphone or tablet from the Google Play Store (Android) or the App Store (Apple).



CONNECTING THE PHONE TO THE READER

 **ANDROID**

 **APPLE**

FINGERPRINT ENTRY AND READER CONTROL

 **ON THE SENSOR**

APP FUNCTIONS

Once the fingerprints are entered, you can connect to the reader and control both relays and LED settings in the app.



1. Pressing the **Touch to open - relay 1** tab will unlock the door.
2. Pressing the **Activate - relay 2** tab will activate the device connected to relay 2 (alarm, garage door, side door, etc).
3. **Relay opening time:** The length of time during which the relay is switched on can be adjusted to between 1 and 60 seconds. This setting is useful when using an electric strike.
4. **Blue backlight:** if the blue backlight that lights up when the reader is in standby mode bothers you, you can turn it off.

APP CONTROL

Download the Touch Key app to your smartphone or tablet from the Google Play Store(Android) or the App Store (Apple).

TOUCHKEY
Touch Key

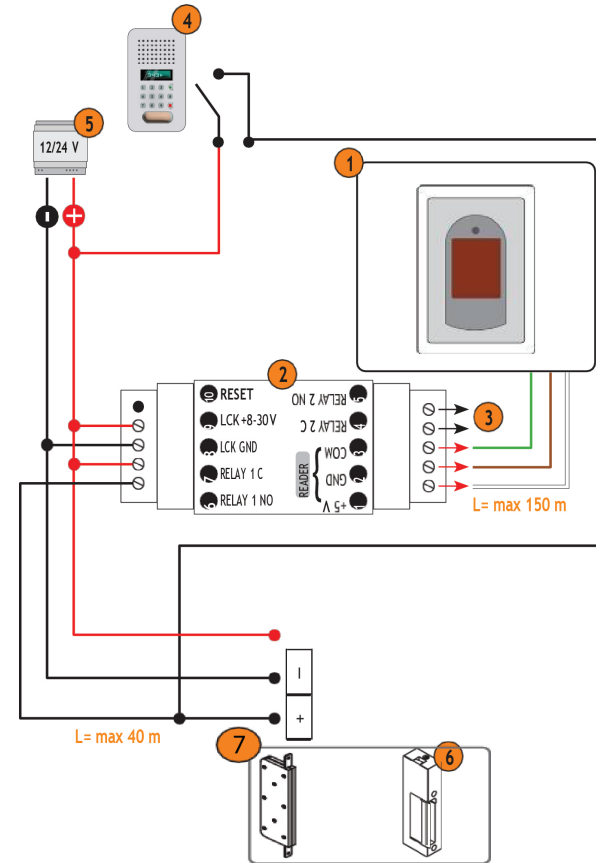


- 1 Perform the factory reset.
- 2 Find, name and add your reader in the Touchkey app.
- 3 Click on the name to establish a connection.
- 4 Start entering administrator fingerprints in the app.



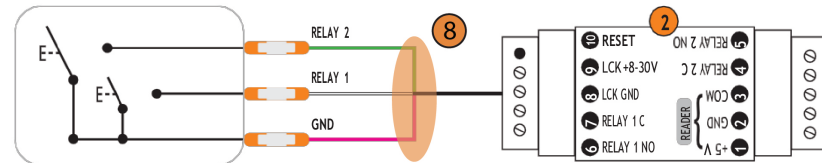
IMMEDIATELY AFTER INSTALLING AND CONNECTING THE DEVICE, IT IS RECOMMENDED TO CONNECT AT LEAST 1 PHONE WITH THE DEVICE. OTHERWISE WI-FI IS DEACTIVATED AFTER 8 MINUTES FOR SECURITY REASONS. IN THIS CASE, THE DEVICE MUST BE DISCONNECTED FROM THE POWER SUPPLY AND CONNECTED AGAIN BEFORE BEING CONNECTED TO THE PHONE FOR THE FIRST TIME.

CU-303 CONNECTION DIAGRAM



- 1 READER
- 2 CONTROL UNIT
- 3 RELAY 2
- 4 INTERCOM
- 5 POWER SUPPLY 12/24 V
- 6 ELECTRIC STRIKE
- 7 MOTOR LOCK
- 8 INPUT FOR PUSH BUTTON

Input for triggering relays (please use potential free contact for triggering the relay)



ANDROID

CONNECTING THE PHONE TO READER

Every new reader needs to be added in the Touchkey app before it can be used. If more than one reader is connected to a single Touchkey app, you must set up the connection to the readers one at a time. The rest of the readers should not be connected to a power supply at the time of the first connection.



CONNECTING AN ADDITIONAL PHONE TO THE READER

A single reader can be managed with more than one phone.



* If you have problems connecting an additional phone, turn off Wi-fi on the already connected phone.

DISCONNECTING THE READER

Press and hold the name of the reader. When prompted, confirm the disconnection.

CONNECTING THE PHONE TO READER

Every new reader needs to be added in the Touchkey app before it can be used. If more than one reader is connected to a single Touchkey app, you must set up the connection to the readers one at a time. The rest of the readers should not be connected to a power supply at the time of the first connection.

ADD A DEVICE

SCAN QR CODE

SEARCHING DEVICES

Device Info

ENTER YOUR FINGERPRINT DEVICE INFORMATION

1 Press ADD and then START.

2 Confirm the connection by pressing Join.

3 Enter the desired device name and press SETUP.

CONNECTING AN ADDITIONAL PHONE TO THE READER

A single reader can be managed with more than one phone.

Device Info

Door

4 On the phone that the reader is already connected to, press the i icon next to the reader name.

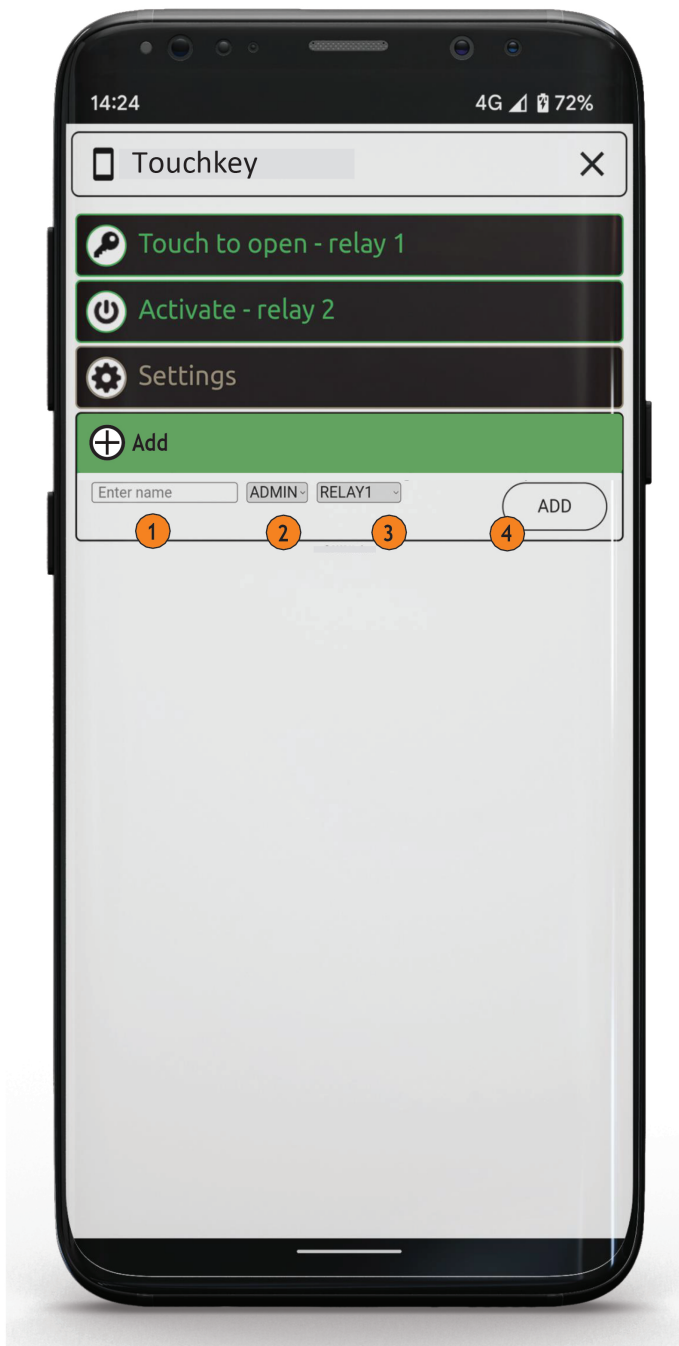
5 Two options appear on the screen:

6 QR CODE which you can scan using the new phone

7 Press Scan QR code on the new phone

8 Show password: the PASSWORD is displayed, which you can enter manually in the new phone

9 Press the i icon next to the reader name. Press DELETE. When prompted, confirm the disconnection.



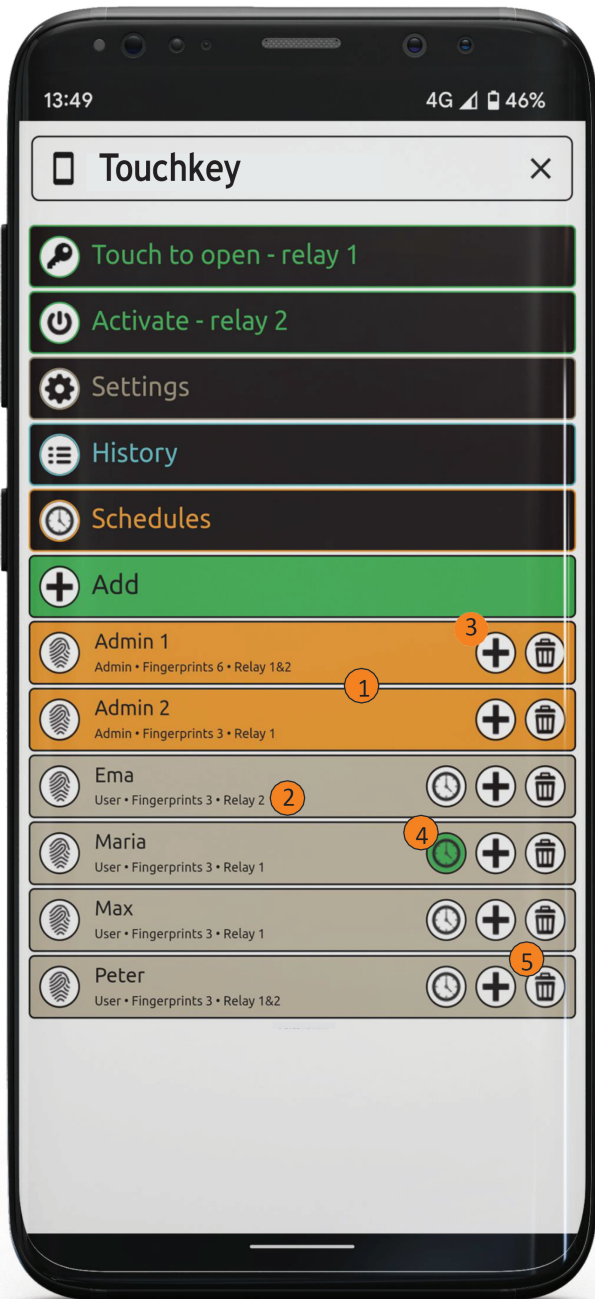
ADDING PEOPLE

PRESS THE GREEN TAB TO START ADDING PEOPLE.

- 1 Enter the person's name.
- 2 Choose either administrator or user rights. An administrator can perform all functions including deleting other users and administrators. **A user can only open the door.**
- 3 Choose the relay that the person will activate (relay 1, relay 2 or relays 1 and 2 together).
- 4 3 fingerprints for the person must be entered. **Place the person's finger on the sensor 3 times in a row.** The app will confirm every time the fingerprint is saved. After three entries, the saving is complete.
Additional fingerprints for any person can also be entered later,

The reader has a capacity of 498 different fingerprints. Any person can have any number of fingerprints entered, but always at least 3 fingerprints (= 1 entry).

We recommend that every person has several fingerprints entered.



LIST OF ENTERED PEOPLE

The settings cannot be changed after the person has been entered. You need to delete the person and add them again with different settings.

1 Administrators are indicated in orange and users in light

Certain data is displayed under the name of each person:

2 1- level of rights (User/Administrator)
2- number of entered fingerprints
3- relay(s) which this person will activate

3 You can enter additional fingerprints for any person at any time. This can be done by pressing the +

4 Users can have schedules assigned to them by pressing the icon of the clock. You need to use the schedules beforehand. When the schedule is active, the power icon turns green. Each user can have one schedule

5 The persons on the list can be deleted by pressing the Bin icon.

Every administrator can delete users and other administrators. One administrator must always remain in the database and can be deleted only by Factory Reset.



SETTING

All security functions can be performed only with the confirmation of the administrator's fingerprint.

1 Device name

Free entrance mode: enabling this mode allows the door to be opened by any fingerprint, even if it is not stored in the database. The period during which free entrance mode is switched on can be adjusted (1 to 1440minutes), after which it is automatically turned off. As long as the free entrance mode is active, the green LED remains lit.

2 Relay output time

The length of time during which the relay is switched on can be adjusted to between 1 and 60 seconds. This setting is useful when using an electric strike.

3 Blue backlight

if the blue backlight that lights up when the reader is in standby mode bothers you, you can turn it off.

Database import/export: the fingerprint database can be transferred from one reader to another.

1. Press the **Export** button on the source reader. This is confirmed by an administrator.

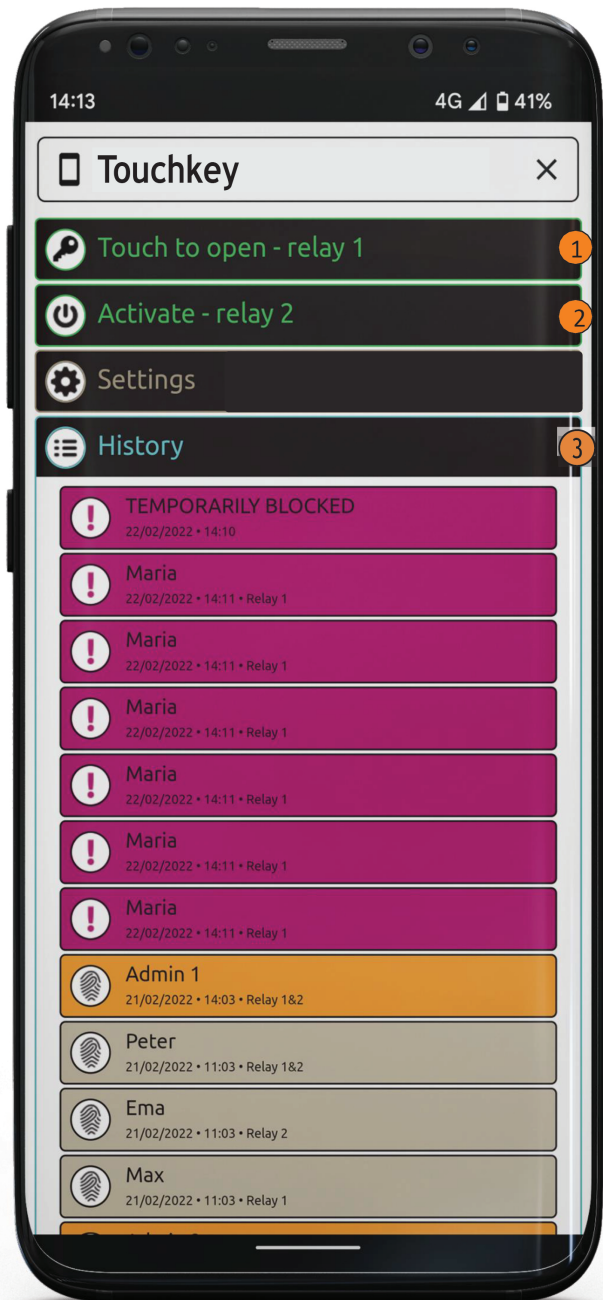
4 Database import/export

2. Connect to the new reader and press the **Import** button. If an administrator has already been entered on the new reader, their fingerprint is required to confirm the import. If the database on the new reader is empty, this step does not require confirmation.

3. Activation of the transferred database needs to be confirmed by an administrator of the source reader.

5 System

software version, list of paired devices.



UNLOCK THE DOOR AND ACTIVATE RELAY 2 WITH APP

The user or administrator can unlock the door by clicking on the “Touch to open” tab. Clicking on the “Activate relay 2” tab activates relay 2.

- 1 Pressing the “Touch to open - relay 1” tab will unlock the door.
- 2 Pressing the “Activate - relay 2” tab will activate the device connected to relay 2 (alarm, garage door, side door, etc.).

HISTORY

- 3 The following events are monitored:
 - 1- all successful entries (users and administrators)
 - 2- all attempts to enter outside the scheduled time (the schedule must be turned on and assigned to a user)
 - 3- temporary reader blockage

The entire history cannot be deleted. The new events overwrite the oldest events so that the combined number of events is always 100.

REVIEW OF THE LAST 100 EVENTS

SHORTCUT TO TURN ON FREE ENTRANCE MODE

- 1 PLACE THE ADMINISTRATOR FINGER ON THE SENSOR FOR 5 SECONDS.

The blue LED starts flashing.

- 2 CONFIRM THE FUNCTION BY PLACING THE ADMINISTRATOR FINGER ON THE SENSOR ONCE AGAIN.

Free entrance mode is on. It will turn off automatically after a period set in the app. As long as the free entrance mode is active, the green LED remains lit.





SCHEDULES

SCHEDULES CAN BE ASSIGNED TO USERS TO LIMIT THEIR ENTRANCE TIME

1 Click on the **Add** tab to start assigning a schedule.

2 Write the name of the schedule.

There are three options to limit access for individual days of the week:

- 3
- unlimited 24h access
 - no access
 - limited access (from - to)

4 Once you have entered the desired settings, press the **SAVE** button.

When the schedule is saved, it automatically becomes active. This is indicated by the **green** Power icon.

5 Each schedule can be deactivated by pressing the **Power** icon, which then turns white. If the deactivated schedule was assigned to any users, those users have unlimited access. The **Clock** icon next to the user is coloured white.

6 A schedule can be deleted by pressing the **Bin** icon. If the deleted schedule has been assigned to any users, they gain unlimited

Up to five schedules can be created.