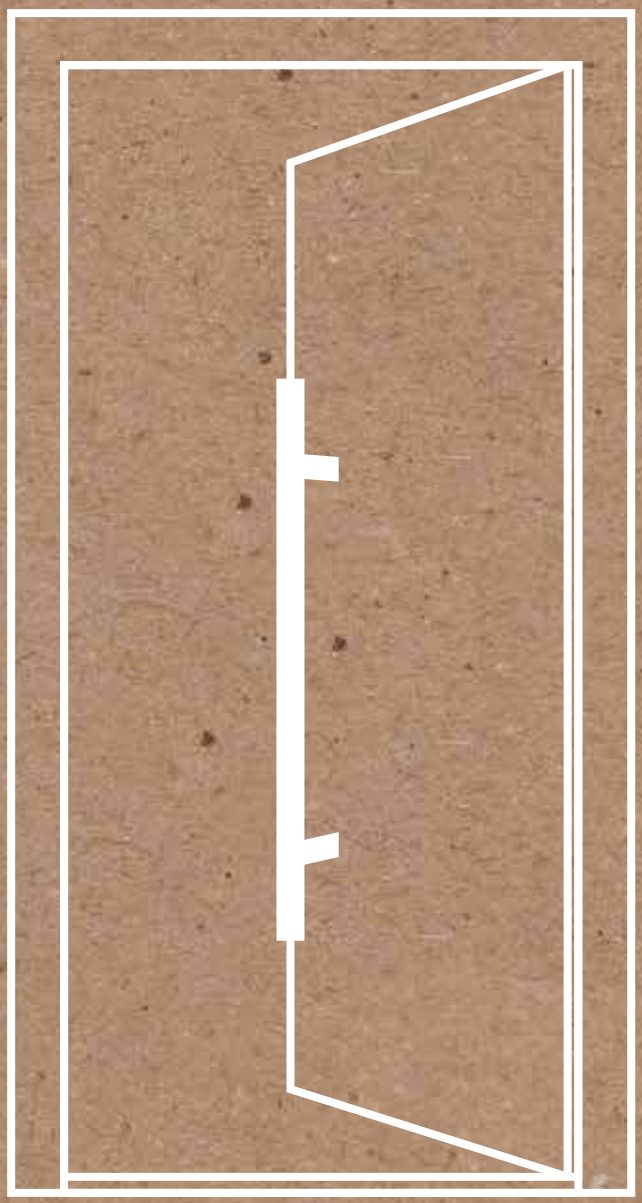
Operating and safety instructions.
Entry doors.



FINSTRAL

Dear Customer,

thank you for choosing Finstral products.

In these operating instructions, we cover the most common topics for the proper operation and cleaning of our entry doors.

We are sure that you will enjoy your Finstral products for a long time. Why? Because we have been developing and building windows, doors and conservatories to the highest quality criteria for over 50 years, leaving nothing to chance. From the careful selection of materials and manufacture in our own production facilities to professional installation by trained assembly professionals – with Finstral you always get everything from a single source. You can rely on that. There's a reason why we are the Europe's most certified window manufacturer.

If there should be any questions or problems, your contract partner is of course there for you.

Always with best regards,

Joachim, Luis and Florian Oberrauch
Finstral Board of Directors

← Luis, Joachim and Florian Oberrauch

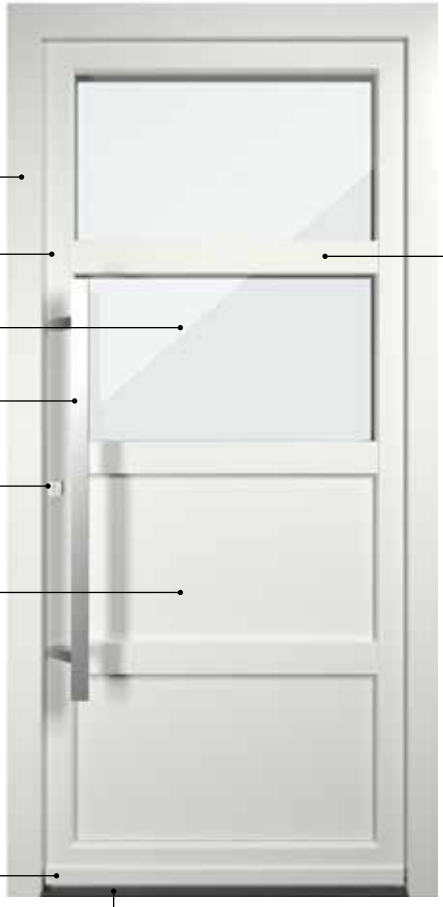
Contents

Design

Components of an entry door

A perfect door is always more than the sum of its individual parts. So that you still know what the individual parts of your entry door are called, we present them to you here.

Exterior view



Interior view

Safety instructions

- Read the instructions carefully and keep them at hand.
- Only use the entry door for its intended use.
- Always be careful near an open entry door.
- Keep children and people who cannot assess possible dangers away from the entry door.
- Their sturdy construction makes an entry door a heavy element. There is a risk of injury in the event of careless or jerky operation.
- Make sure that there are no people, children or animals in the walking area. Also, there must be no furniture, curtains or other objects in the walking area.
- When closing the entry door, do not hold your hand or other parts of your body between the frame and the sash to avoid pinching or crushing injuries.
- Open and close the entry door with increased caution in strong winds.
- For an entry door that opens outwards, a door stop is useful or necessary depending on the installation situation. It prevents the wind from opening the entry door and thereby tearing the sash out of its hinges.
- Make sure that there is no draught even in your absence. If there is a draught or strong wind, an open or unlocked entry door can open or close jerkily on its own. This can damage the entry door. Damage can also be caused to persons, animals or objects that are in the walking area.
- Avoid uncontrolled banging of the door sash on the frame, on the wall or on objects in the immediate vicinity. Close the entry door in windy or draughty conditions to avoid damaging the entry door or injuring people.
- In frosty conditions, the outside of the entry door may freeze. Do not operate the entry door by force. Do not open the entry door if it is frozen shut. After defrosting, operation is possible again.
- Do not press the door sash against the opening edge (wall reveal).
- Avoid locking the lock when the door sash is open: when closing, the frame, sash or fitting may be damaged.
- No additional loads may act on an entry door.
- Do not place any obstacles (wedges and the like) in the opening gap between the sash and the frame.
- Do not place flames near the entry door.
- Indirect heat sources must be at least 50cm away from the entry door.
- Float glass can break easily. There is a risk of injury due to the resulting sharp edges and glass splinters.
- Do not operate the handle and the key at the same time.
- The handle must not be loaded with more than 15kg**.**
- Do not close the sash when it is locked.
- Additional notes on an entry door with power connection:
  - Assembly may only be carried out by qualified personnel.
  - Connection may only be carried out by persons who have been instructed in electrical engineering or by qualified electricians.
  - Before any assembly, repair, maintenance or adjustment work, all associated circuits must be disconnected from the power supply and secured against unintentional reconnection.
  - When routing cables, avoid sharp edges, pinching or crushing cables or pulling on the cables.
  - No liability is accepted in the event of improper use or the use of non-original accessories.
  - For safety and approval reasons, unauthorised conversion and/or modification of the product is not permitted.
  - To ensure access at all times even in emergencies (e.g. power failure), a key to the cylinder should always be carried.
- An entry door that is only closed in the latch does not fulfil any requirements with regard to air tightness, driving rain tightness, sound insulation, thermal insulation and burglar resistance.
- Deliberate or uncontrolled slamming or pushing of the door can cause damage to fittings, sash and frame materials and other individual parts of the door.

Locking and unlocking
→ Overview

Which locking system do you have?

Your entry door is easy and convenient to open and close. Various locking and unlocking systems are available for this purpose – without and with motor. Here you will find all options at a glance.

Locking without power		**Locking with electric power**		
Manual locking and unlocking	**Self-locking lock**	**Self-locking lock with opening motor**	**Motor lock with cylinder**	**Motor lock without cylinder**
manually open, manually closed	manually open, independently closed	motor-driven open, independently closed	motor-driven open, motor-driven closed	motor-driven open, motor-driven closed
see page 10	see page 12	see page 14	see page 16	see page 18

Locking and unlocking
→ Manual locking and unlocking

Manually open, manually closed

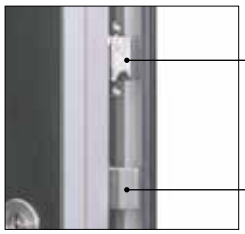
With a manual locking and unlocking, the entry door is manually unlocked and locked with the key without electricity.

Locking points

- up to 1,999mm sash height: 3-point locking (2 swing bolts, 1 bolt)
- from 2,000mm sash height: 5-point locking (2 swing bolts, 1 bolt, 2 roll pins)

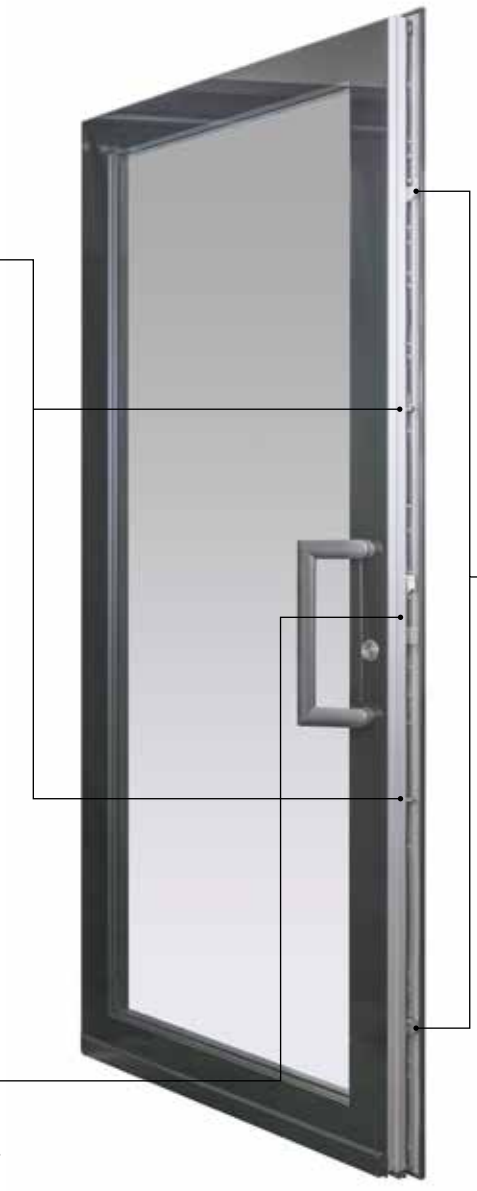
Roll pins

From 2000mm door sash height, the adjustable roll pins guarantee smooth operation and ensure tight closing due to the additional contact pressure of the sash. The rolling of the roll pin prevents friction and wear. The contact pressure is adjustable via an internal hex wrench.



Main lock with door latch and bolt

The door latch keeps the door shut.
The bolt is an additional locking point.

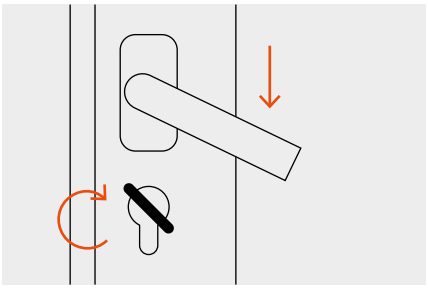


Steel swing bolt

They effectively prevent the door from being lifted in any direction. Made of high-quality steel alloy, the swing bolts with their bevelled shape engage deeply into the locking parts, where they interlock to form a unit and guarantee optimum closing. The lock ensures counter-pressure-safe locking.

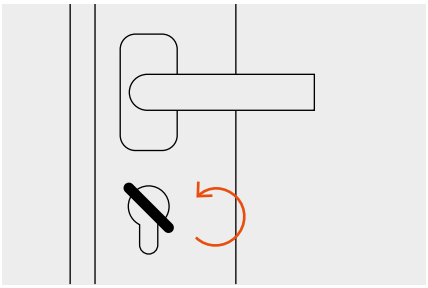
Door opening

Turning the key to the unlock position retracts the swing bolt, roll pins and main lock latch. Thus the door can be opened. If the door is not locked, it can be opened by pressing the handle.



Door locking

A two-and-a-half turn of the key in the locking position extends the bolt, the roll pins and the swing bolts. In this position, the door is locked and thus no longer accessible from the outside.



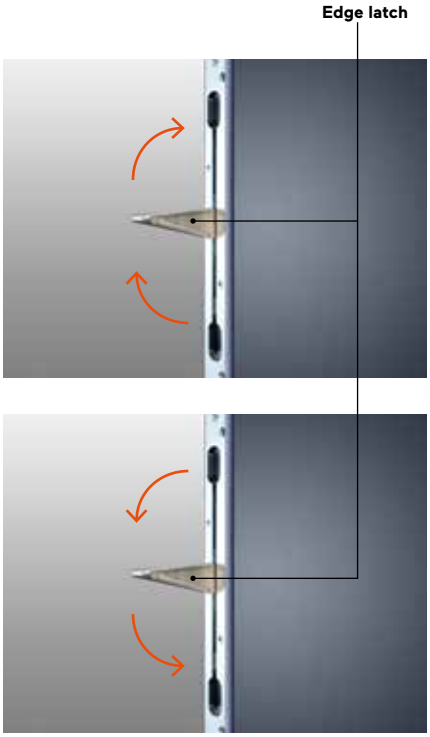
Operation secondary sash

Edge latch

With a double-sash door, you have the option of opening and closing the secondary sash via the edge latch.

Unlocking the secondary sash

If the edge latch is folded upwards by 180°, the secondary sash can be opened.



Locking the secondary sash

If the edge latch is folded down by 180°, the secondary sash is locked.

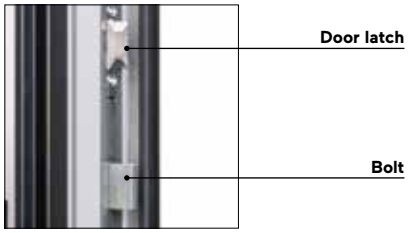
Locking and unlocking → Self-locking lock

Manually open, independently closed

With a self-locking lock, unlocking is done manually, while locking is done independently. This applies to both the standard locking and the anti-panic version. For further information on the anti-panic function, see pages 68–69.

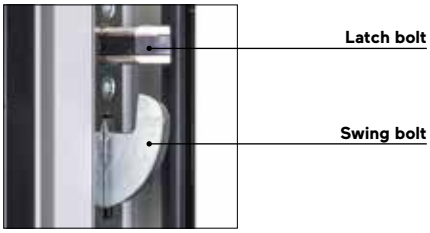
Locking points

Reinforced 5-point locking: 2 swing bolts, 2 latch bolts, 1 bolt with door latch



Main lock with door latch and bolt

The door latch keeps the door shut. The bolt is an additional locking point.

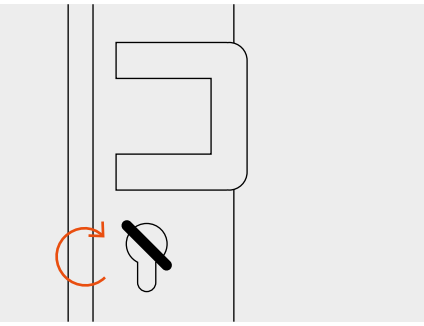


Latch bolt and swing bolt

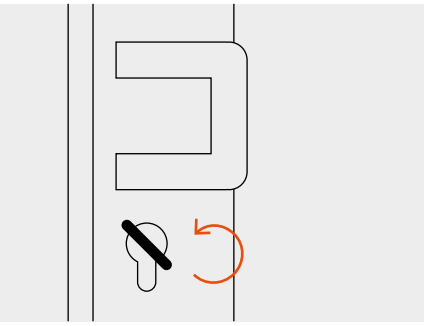
The latch bolt ensures tightness and holds the door in position. Due to the small contact surface, it allows the door to open smoothly. In addition, it triggers the independent locking function: the latch bolt and swing bolt extend independently to 20mm and are secured against being pushed back.

Entry door with outside push bar

Door opening
The door can be unlocked with the key and pushed open via the push bar.

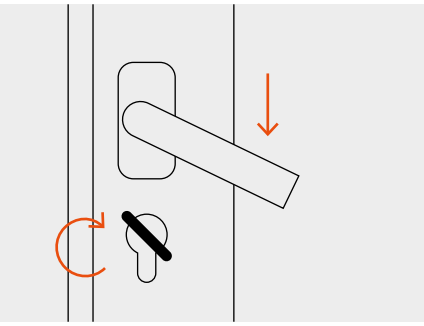


Door locking
By closing the sash, the self-locking lock independently locks the upper and lower safety interlocks – the door is locked. In addition, the entire lock function can be locked with the key via the cylinder. The handle is blocked in the process.
Attention: unsupervised children can open the door from the inside by pressing the handle if it is not locked via the cylinder with the key.

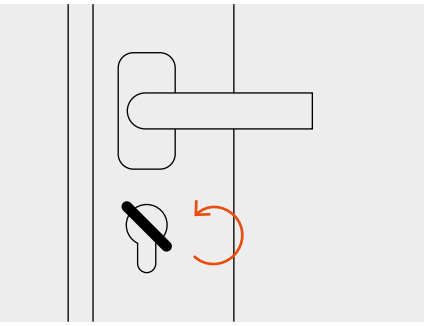


Entry door with external handle

Door opening
The door can be unlocked and opened via the cylinder with the key. If the door is not locked via the cylinder, it can also be opened with the handle.



Door locking
By closing the sash, the self-locking lock independently locks the upper and lower safety interlocks – the door is locked from the outside, but can still be opened from the inside using the handle. To lock the door from the inside, the key must be used to lock over the cylinder, i.e. the lock function must be blocked. This means that the door cannot be opened from the inside via the handle.
Attention: unsupervised children can open the door from the inside by pressing the handle if it is not locked by the cylinder with the key.



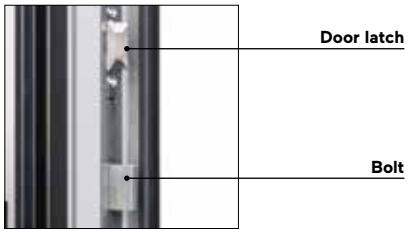
Locking and unlocking
→ Self-locking lock with opening motor

Motor-driven open, independently closed

In the case of a self-locking lock with an opening motor, the lock is unlocked manually or also by motor. The locking takes place independently. This applies to both the standard locking and the anti-panic version. For further information on the anti-panic function, see pages 68–69.

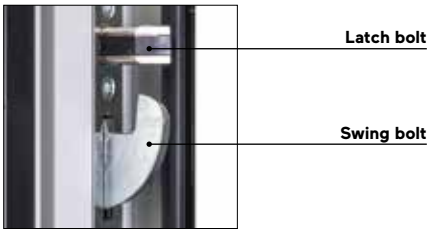
Locking points

Reinforced 5-point locking: 2 swing bolts, 2 latch bolts, 1 bolt with door latch



Main lock with door latch and bolt

The door latch keeps the door shut. The bolt is an additional locking point.



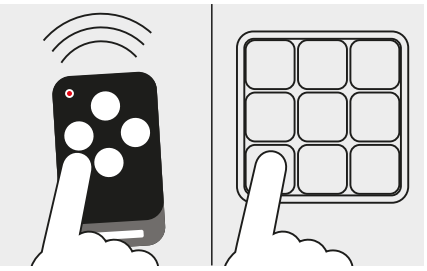
Latch bolt and swing bolt

The latch bolt ensures tightness and holds the door in position. Due to the small contact surface, it allows the door to open smoothly. In addition, it triggers the independent locking function: the latch bolt and swing bolt extend independently to 20mm and are secured against being pushed back.

Entry door with outside push bar and inside handle

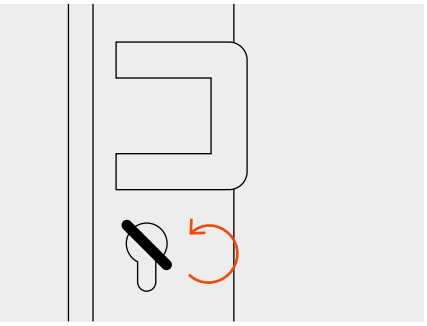
Door opening from the outside

The door can be unlocked and opened via the remote control or optionally via the finger scan (or optionally via the "ekey bionyx" app associated with the finger scan) or via the cylinder with the key. Door opening via a house intercom system as well as via access control systems of modern building management systems is also possible in case of a smart home connection.



Door locking from the outside

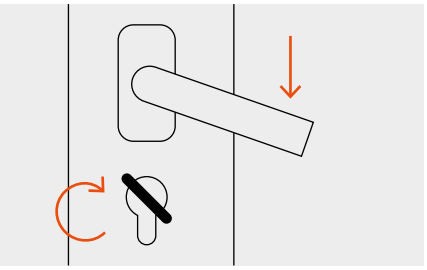
By closing the sash, the self-locking lock independently locks the upper and lower safety interlocks – the door is locked. In addition, the entire lock function can be locked by operating the cylinder. The handle is blocked in the process.
Attention: unsupervised children can open the door from the inside by pressing the handle if it is not locked via the cylinder with the key.



Door opening from inside

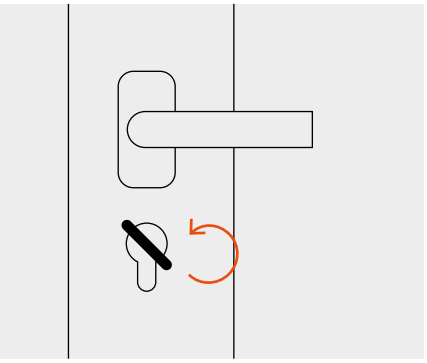
The door can be unlocked and opened via the cylinder with the key.
If the door is not locked via the cylinder, it can also be opened with the handle.

Do not operate the handle during motorised door unlocking.



Door locking from the inside

By closing the sash, the self-locking lock independently locks the upper and lower safety interlocks. The door is locked, but can still be opened from the inside with the handle. To lock the door from the inside as well, the key must be used to lock over the cylinder, i.e. the lock function must be blocked. This means that the door cannot be opened from the inside via the handle.
Attention: unsupervised children can open the door from the inside by pressing the handle if it is not locked via the cylinder with the key.



Note: if the door is locked with the key via the cylinder, it cannot be opened with the remote control or finger scan because the lock function has been blocked. Opening is only possible with the key and the profile cylinder.

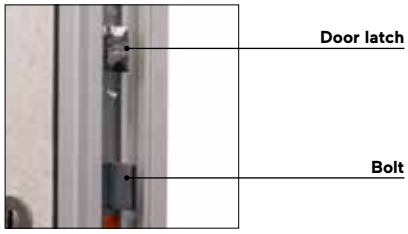
Locking and unlocking → Motor lock with cylinder

Motor-driven open, motor-driven closed, with locking cylinder

With a motor lock, both unlocking and locking are motorised.

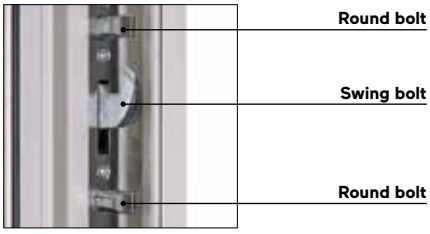
Locking points

7-point locking: 2 combinations of 1 swing bolt and 2 round bolts each, 1 bolt with door latch



Main lock with door latch and bolt

The door latch keeps the door shut. The bolt is an additional locking point.

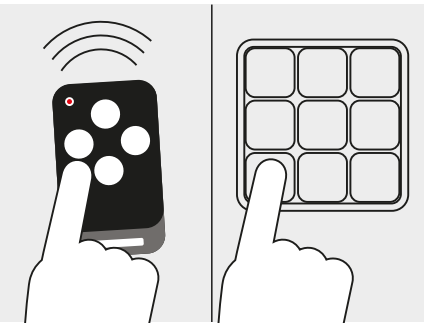


Swing bolt with 2 round bolts

This bolt combination combines the advantages of swing bolts with those of round bolts. The bevelled shape of the round bolt pushes the door sash into the locking position, which minimises the friction caused by the swing bolts and ensures easy pull-in due to optimum force distribution. This makes the door easier to close and open.

Door opening

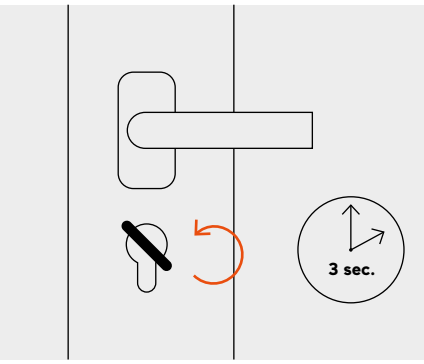
The door can be opened via the remote control or optionally via the finger scan (or optionally via the "ekey bionyx" app that goes with the finger scan).
If required, it can also be unlocked and opened via the cylinder with the key.
Door opening via a house intercom system as well as via access control systems of modern building management systems is also possible in case of a smart home connection.



Door locking

Locking of all locking elements is motor-driven – 3 seconds after the door has been closed. In emergency situations, for example in the event of a power failure, the locking can also be done mechanically via the cylinder key.
A red LED on the control module on the inside of the door signals the locked state when the control module is used. A green LED indicates the unlocked state.

Do not operate the door with the handle during motorised locking and unlocking.



Note on the anti-panic function: the motor lock has an anti-panic function integrated as a standard feature. The door can always be opened from the inside via the handle (both when locked and when unlocked). Further information, see pages 68–69.

Locking and unlocking
→ Motor lock without cylinder

Motor-driven open, motor-driven closed; without locking cylinder

With the "Instinct" motor lock, both unlocking and locking are motorised. A locking cylinder is not necessary.

Locking points

- up to 2,051mm sash height: 2-point locking
- up to 2,401mm sash height: 3-point locking
- from 2,401mm sash height: 4-point locking

Door opening

from the outside
You can open the door via the "Instinct by Maco" app or optionally via the finger scan (or via the "ekey bionyx" app that goes with the finger scan). The door is unlocked by motor. Other access systems (e.g. keypads etc.) can also be used, if available. Do not open the door until the motor has fully unlocked the door.

from the inside
The door can be opened from the inside via the app. Alternatively, the door can also be opened via a special handle or a button in the door sash, if available. Do not open the door until it has been fully unlocked via the motor.

Door closing

from the outside
Pull the door closed with the exterior handle. The door locks motor-driven. Even in the event of a power failure, the locking is motorised via an emergency power supply (approx. 12 hours running time).

from the inside
Push the door shut. The door locks motor-driven.

Complete without locking cylinder
The locking mechanism works completely electrically. No cylinder is required. Therefore, the notes on keys (see pages 20–21) do not apply to this locking system. For all further information on the operation of the motor lock without cylinder, see pages 56–60.

Horsehead mechanism
The Horsehead mechanism works in the direction of movement of the door. When closing, it makes use of the door's mass to generate contact pressure and securely lock the door. The locking locks motor-driven and engages in the locking part.

Locking cylinder

Locking cylinder variants

Below you will find important information on your selected cylinder, on reordering security cylinders and on cylinder replacement.

Standard cylinder

A classic standard cylinder can be locked on both sides. This allows you to lock and unlock the door both from the outside and inside, even if a key is inserted on the other side of the door (emergency and danger function).

Cylinder security level 1

A level 1 security cylinder is operated with a reversible key.
It enables intuitive operation, offers optimum drilling protection and is lockable on both sides. This allows you to lock and unlock the door both from the outside and inside, even if a key is inserted on the other side of the door (emergency and danger function). A security card is supplied with this security cylinder, which is used to reorder replacement keys.

Cylinder security level 2

A level 2 security cylinder is operated with a reversible key.
It enables intuitive operation, provides particularly effective protection against manipulation thanks to first-class drilling and pulling protection and can be locked on both sides. This allows you to lock and unlock the door both from the outside and inside, even if a key is inserted on the other side of the door (emergency and danger function). A security card is supplied with this security cylinder, which is used to reorder replacement keys.

Reordering the security cylinders

The standard cylinder is installed in the entry door on delivery. The security cylinders, on the other hand, are supplied loose in their original sealed packaging for confidentiality reasons. A security card is always included in the packaging. Please store it in a safe place as it will be used to re-order replacement keys.

No replacement key can be made without the security card. If you need to reorder a key and the security card can no longer be found, the cylinder must be replaced.

Cylinder replacement

1. When replacing the cylinder, ensure that it is seated straight and perpendicular to the sash. To remove the cylinder, unscrew the cylinder screw with a hand screwdriver.

2. Then insert the key into the profile cylinder and turn the key 15°–20°. The cylinder can now be gently pulled out.

3. Insert the new cylinder. For this purpose, it must move smoothly and be seated in the fitting with as little tension as possible.
Cylinder security level 2: make sure that the parts of the profile cylinder are on the intended side (outside or inside). The outside is marked.
For push bar with small round cylinder rosette: pay attention to the alignment of the black turning part in the rosette. The cylinder must slide smoothly into the correct seat. Do not force the cylinder into the correct position. Otherwise there is a risk that the rosette glued to the outside will be detached.

4. Tighten the cap screw with a manual screwdriver with medium force. When pushing the cylinder in, make sure that no pressure is exerted on the outer rosette.

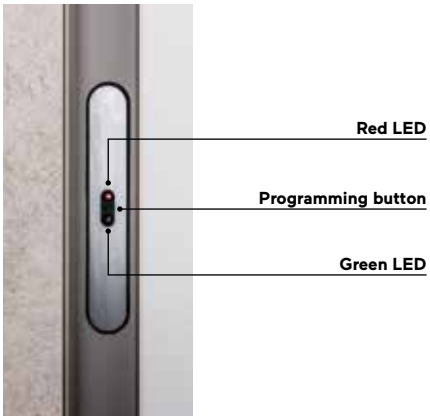
Remote control
→ Operation with Smart Home

Control Module

Electronic operation with Smart Home connection means maximum operating convenience. Below you will learn more about the control module built in for this purpose.

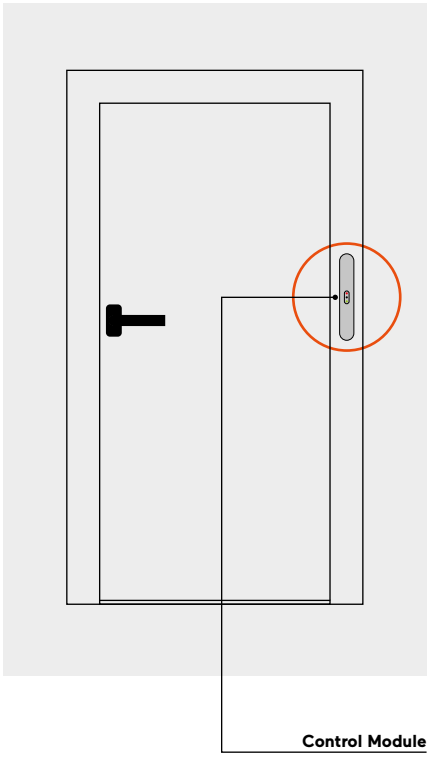
Smart Home connection with control module

A Smart Home connection is possible through the control module. Finstral entry doors with self-locking lock with opening motor (page 14–15) or with motor lock with cylinder (page 16–17) can be integrated into all common home control systems. These are not supplied by Finstral.



Opening from the outside can be done by an access control system (remote control). The control module is mounted in the door frame and has an external cable that allows you to connect other components to open the door, such as a home intercom, Smart Home components (control switch, intercom, alarm system, building management, swing door drive, access control systems, timer, etc.). In addition, further components, e.g. a lock monitoring system or a rotary motor that opens the door autonomously, can be connected here.

The control module is mounted on the inside of the entry door on the hinge side in the middle of the frame. It consists of 2 LEDs (red and green) and a programming button. The programming button is located between the two LEDs and is a small black dot that can be operated with a thin object (toothpick, paper clip).



LED signals and their meaning

Only the red LED lights up.	The door is locked.
Only the green LED lights up.	The door is unlocked.

For an explanation of other signals and their meaning, see pages 38–39.

Application example in residential construction
From the inside, opening is via an on-site intercom system with a 12V control line.

Application example in residential/property construction
Opening from the inside is done via an intercom system or a simple wall button. The opening takes place without current via a potential-free input (pulse: ≤1 second).

Application example in commercial construction/multi-family house
In daytime operation, the door should only be held shut by the latch, in nighttime operation the lock should always lock completely independently. In addition, an electric swing door drive can swing the door sash open and closed autonomously.

Control module: technical data

Frequency	868.3MHz
Antenna	Onboard
Power supply	12V DC
temperature range	-10°C to +50°C
Protection class	IP 20
Alarm output/swing door drive	max. contact load 125V AC/1A/62VA

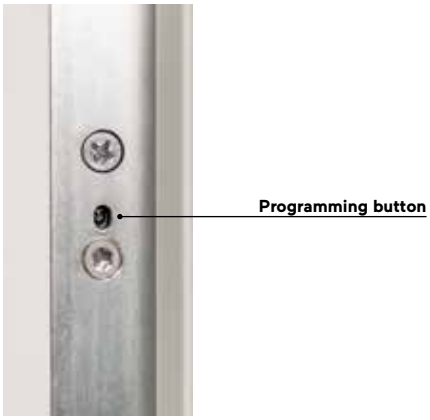
Remote control
→ Operation without Smart Home

Radio receiver module

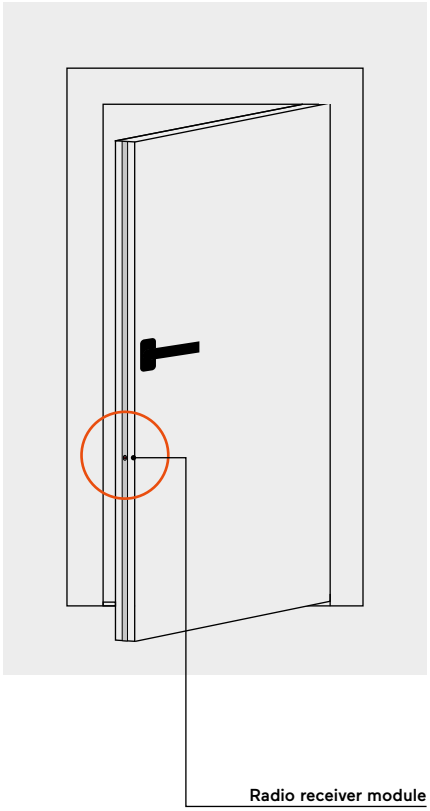
While the control module is Smart Home-enabled, the radio receiver module enables simplified operating convenience without a Smart Home connection.

No Smart Home connection with radio receiver module

The radio receiver module is used if your entry door is equipped with a remote control as an opening option and no Smart Home connection is planned. The programming button is a small dot that can be operated with a thin object (toothpick, paper clip).



The radio receiver module is mounted several centimetres below the bolt of the main lock.



LED signals and their meaning

The LED lights up permanently.	No master remote control has been taught yet. Attention: the first learned remote control is the future master remote control.
The LED lights up for 2 seconds.	A previously taught-in transmission signal has been received, the lock unlocks motor-driven.
LED lights up for 0.5 seconds.	A transmission signal that has not yet been taught-in has been received, the lock does not unlock.
LED does not light up at all.	LED does not light up in the unactuated home position because no transmission signal is being received. If, however, LED does not light up despite the transmission of an opening signal, the radio receiver or the motor lock has not yet been connected to the operating voltage of 12V DC or the cables on the motor plug have been incorrectly connected.

Radio receiver module: technical data

Frequency	868.3MHz
Safety	Rolling code with master transmitter principle
Antenna	Onboard
Power supply	12V DC
Power consumption	15mA
temperature range	-10°C to +50°C
Protection class	IP 20
Switching pulse	potential-free

Remote control
→ Master and user remote control

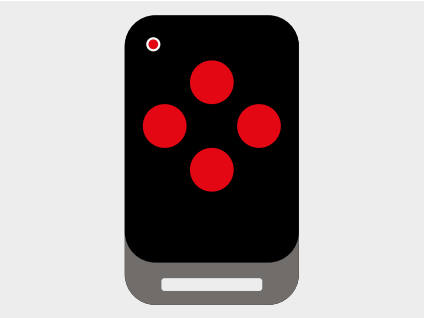
Remote control

The radio remote control allows you to open the door safely. This option is possible with the following locking systems:

- *self-locking lock with opening motor (motor-driven open, independently closed)*
- *motor lock with cylinder (motor-driven open, motor-driven closed)*

Master remote control

The scope of delivery of a control module or a radio receiver module includes a master remote control with 4 red buttons. With the help of the master remote control, you can save 25 user remote controls. The front, middle button of the master remote control has already been taught-in to the control module or to the radio receiver module at the factory.
The master remote control cannot be deleted, replaced or changed. With it, you can save additional user remote controls to the radio receiver or delete them again.

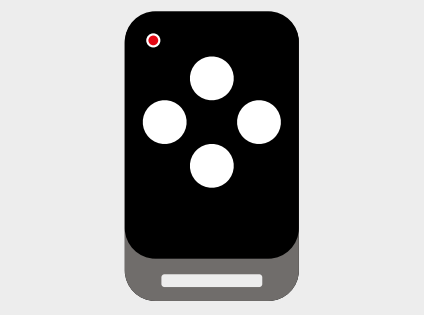


Important note

The master remote control is unique and must not be lost under any circumstances. It must be stored with particular care, as no radio transmitters can be taught or deleted if lost.

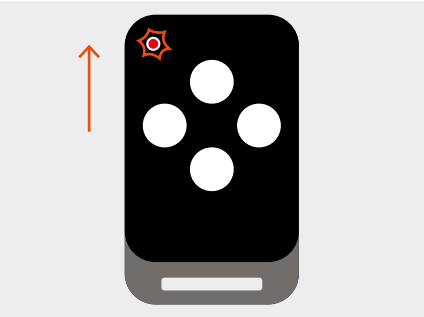
User remote control

The user remote controls have 4 white buttons. You can use the master remote control to save and delete the user remote controls and, in the case of an existing control module, to save further functions (always-on function or day-latch function). User remote controls are only used to open the door, they have no save or delete authorisation for other remote controls.



Aligning the remote control correctly

When using both a master and a user remote control, always make sure that the remote control is pointing in the right direction. It must be oriented so that the LED that flashes red when the buttons are pressed (top left on the remote control) is facing the entry door. This ensures that you do not lose your bearings when saving or deleting different functions.

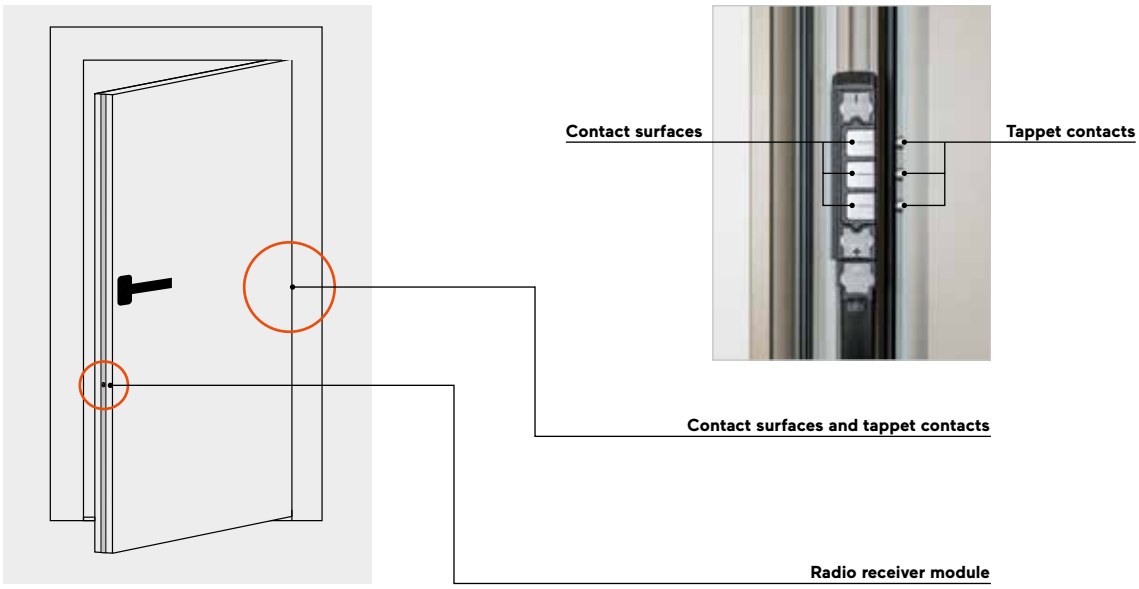


Saving and deleting

When using the unit for the first time, we recommend for safety reasons that you first delete all remote controls (see page 30). Then follow the instructions below.

Ensuring the power supply

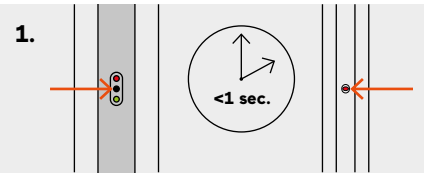
For the saving or deleting process of individual or all user remote controls, contact must be ensured between the surface for power and data transmission and the tappet contacts. If you have a door with a radio receiver module, the door must therefore only be open a crack so that the programming button of the radio receiver module can be operated and the power supply is ensured at the same time. In the case of a built-in control module, it is a good idea to close the door during the saving process.



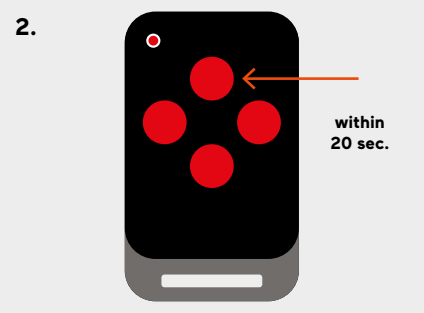
Remote control
→ Saving and deleting

Saving individual user remote controls (max. 25 pieces)

1. Briefly (max. 1 second) press the programming button of the control module or the radio receiver module with a thin object. The green LED (control module) or the red LED (radio receiver module) flashes slowly.

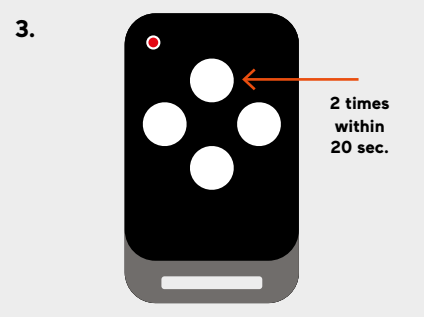


2. Now press the upper, middle button on the master remote control within 20 seconds. If the control module or the radio receiver module has accepted the master remote control, the green LED (control module) or the red LED (radio receiver module) lights up for 2 seconds and then continues to flash slowly.



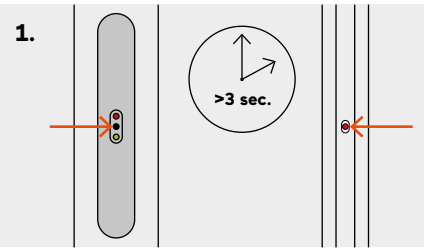
3. Now press a button on the user remote control to be taught in 2 times in succession within 20 seconds. If the time limit of 20 seconds is exceeded, the learning process is aborted. If the new remote operation has been accepted by the control module or radio reception module, the green LED (control module) lights up for 1 second or the red LED (radio reception module) for 4 seconds.

If another remote control is to be taught, start again with step 1. If the master remote control is not recognised during the saving function, the corresponding function is aborted.

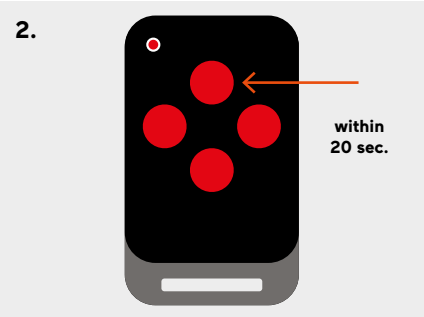


Deleting individual user remote controls

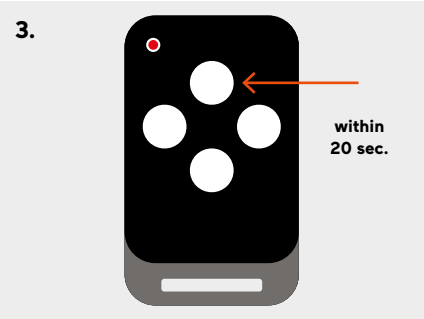
1. Press the programming button of the control module or the radio receiver module for longer than 3 seconds until the green LED (control module) or red LED (radio receiver module) flashes quickly. Then release the button.



2. Now press the upper, middle button on the master remote control within 20 seconds. If the control module or the radio receiver module has accepted the master remote control, the green LED (control module) or the red LED (radio receiver module) lights up for 2 seconds and then continues to flash rapidly.



3. Within 20 seconds, press the corresponding button of the user remote control to be deleted. If the time limit of 20 seconds is exceeded, the deletion process is aborted. If the transmitter code was successfully deleted, the green LED (control module) lights up for 1 second or the red LED (radio receiver module) for 4 seconds.



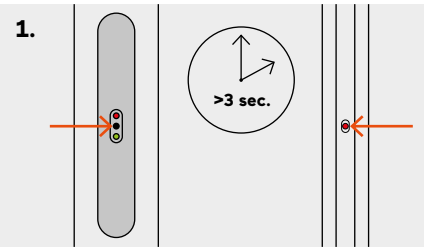
If another remote control is to be deleted, start again with step 1. If the master remote control is not recognised during the delete function, the corresponding function is cancelled.

Note: when deleting a user remote control, all functions that have been taught to the remote control are deleted.

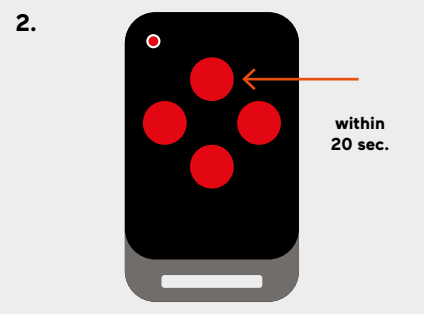
Remote control
→ Saving and deleting

Deleting all user remote controls

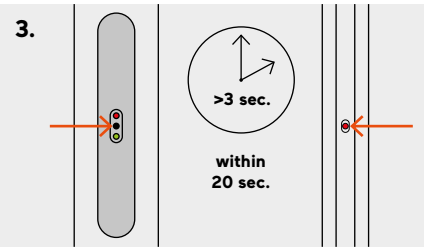
1. Press the programming button of the control module or the radio receiver module for longer than 3 seconds until the green LED (control module) or red LED (radio receiver module) flashes quickly. Then release the button.



2. Now press the upper, middle button on the master remote control within 20 seconds. If the control module or the radio receiver module has accepted the master remote control, the green LED (control module) or the red LED (radio receiver module) lights up for 2 seconds and then continues to flash rapidly.



3. Now press the programming button of the control module or the radio receiver module again for longer than 3 seconds within 20 seconds. If the time limit of 20 seconds is exceeded, the deletion process is aborted. If all transmitter codes (except the master transmitter code) have been successfully deleted, the green LED (control module) lights up for 1 second or the red LED (radio receiver module) for 4 seconds.



If the master remote control is not recognised during the delete function, the corresponding function is cancelled.

Note: when deleting a user remote control, all functions that have been taught to the remote control are deleted.

→ *Technical data and intercom*

Master/user remote control: technical data

Frequency	868.3MHz
Safety	Rolling code
Channels	4
Power supply	1×3V battery CR 2032
Actuation control	red LED
temperature range	-10°C to +50°C

The remote controls comply with the R&TTE Directive 2014/53/EU.

Built-in transmitter for connection to the intercom system

With the built-in transmitter connected to the intercom, you can turn the normal intercom into a remote control for your entry door: if a signal (voltage) is present, the flush-mounted transmitter transmits an opening signal for a maximum of 10 seconds. This way, the door can be opened on both the radio receiver module and the control module. The operation itself takes place via intercom.

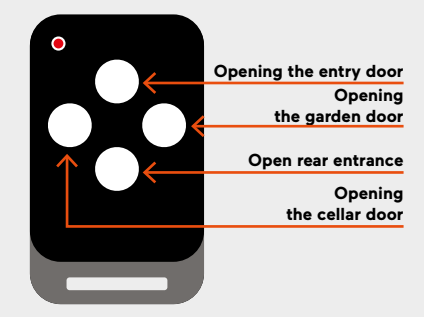
Built-in transmitter: technical data

Encoding	Rolling Code System
Power supply	6V–24V AC, 50Hz or 6V–32V DC
Range in the free field	150m
Range in the building	30m

Remote control
→ Operating options

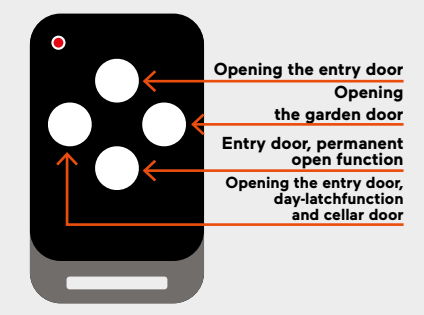
One remote control, several doors

If you have several doors with radio receiver module, it is possible to open several doors with one remote control. A total of up to 4 doors can be operated with one remote control. For example, you can assign one button to each door.



One remote control, multiple functions/doors

If you have several doors with radio receiver module or control module, it is possible to open several doors with one remote control and, in the case of the doors with control module, also to save additional functions. A total of up to 4 doors can be operated with one remote control. One button can also take on different functions at different doors. For example, one button can activate the day-latch function of the entry door, but also open the cellar door at the same time.



Note: when using the same button on a remote control for several doors, there must be enough space between the doors, otherwise several doors will be opened unintentionally.

Documentation of the user remote control

The following table serves as a suggestion on how best to document the active user remote controls.

User remote control	Name	Note

Remote control
→ Permanent open function

Permanent open function

In the permanent open function, the latch and all bolts are permanently retracted. This allows the door to be opened unhindered from both sides – without access control. The permanent open function is only possible with the following locking systems with control module:

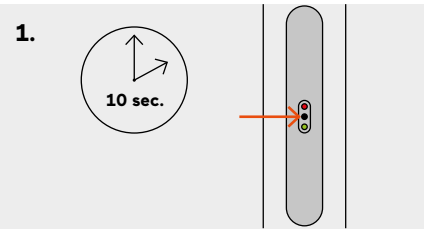
- *self-locking lock with opening motor (motor-driven open, independently closed)*
- *motor lock with cylinder (motor-driven open, motor-driven closed)*

Ensuring the power supply

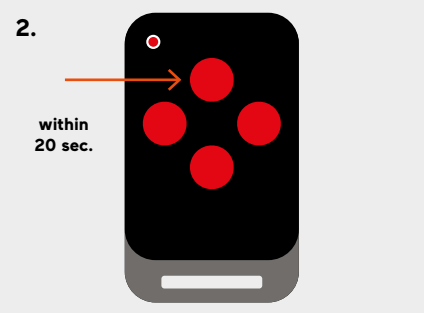
Contact must be ensured between the surface for power and data transmission and the tappet contacts. Since the permanent open function is only possible with a built-in control module, it is advisable to close the door when saving/ deleting the function and to operate the control module with the door closed but not locked.

Saving the function

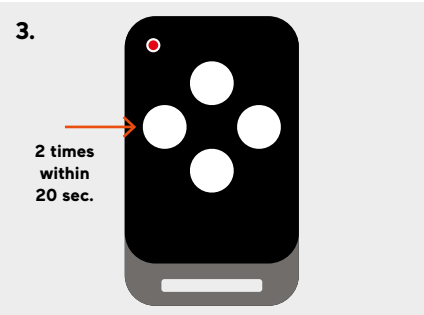
1. Carefully press and hold the programming button of the control module for approx. 10 seconds. As soon as the red and green LEDs flash, release the programming button.



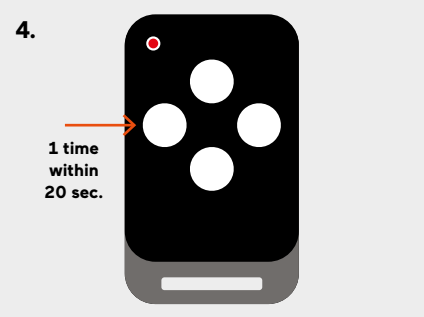
2. Now press the upper, middle button on the master remote control within 20 seconds. If the control unit has accepted the master remote control, the green LED lights up for 3 seconds and then continues to flash rapidly.



3. Now press a free transmit button of the remote control to be taught in twice in succession within 20 seconds. If the time limit of 20 seconds is exceeded, the learning process is aborted. If the control module has accepted the user remote control, the green LED lights up for 3 seconds and then continues to flash rapidly.



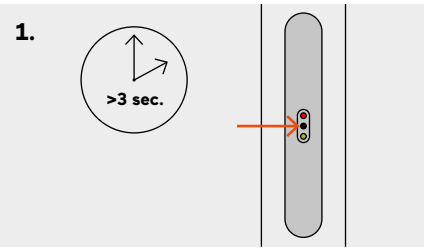
4. If you want to activate or deactivate the always-on function, press the send button on the remote control once. When the permanent open function is active, the green LED of the control module flashes slowly.



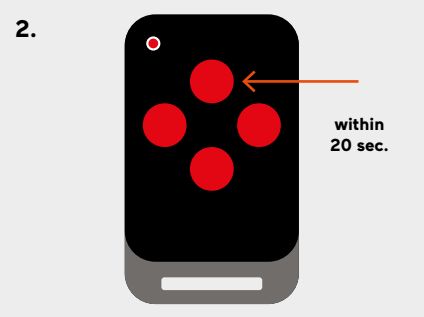
Deleting the function

For the deletion process, the always-on function must be deactivated.

1. Carefully press the programming button of the control module (longer than 3 seconds) until the green LED of the control module flashes quickly. Then release the button.

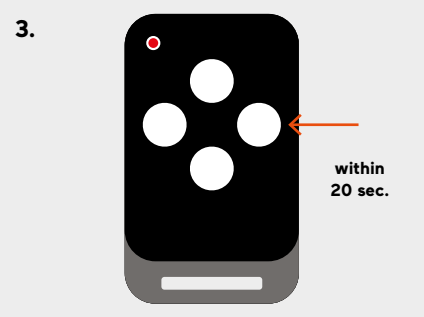


2. Now press the upper, middle button on the master remote control within 20 seconds. If the control module has accepted the master remote control, the green LED lights up for 2 seconds and then continues to flash rapidly.



3. Within 20 seconds, press the button for which the always-on function is set. If the time limit of 20 seconds is exceeded, the deletion process is aborted. If the transmitter code was successfully deleted, the green LED of the control module lights up for 1 second.

If the master remote control is not recognised during the delete function, the corresponding function is cancelled.



Remote control
→ Day-latch function

Day-latch function

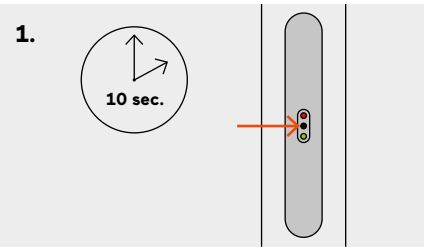
With the day-latch function, the door is only secured via the latch during the day. The function is ideal for high-traffic doors where controlled access is required. The function is only possible with a motor-driven locking system with cylinder (motor-driven open, motor-driven closed), with a control module and electric opener.

Ensuring the power supply

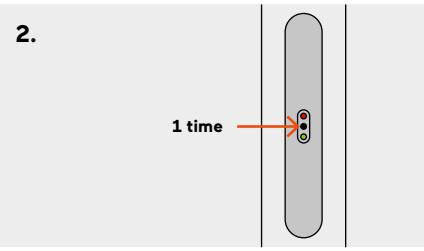
Contact must be ensured between the surface for power and data transmission and the tappet contacts. Since the day-latch function is only possible with a built-in control module, it is a good idea to close the door when saving/deleting the function and to operate the control module with the door closed (but not locked).

Saving the function

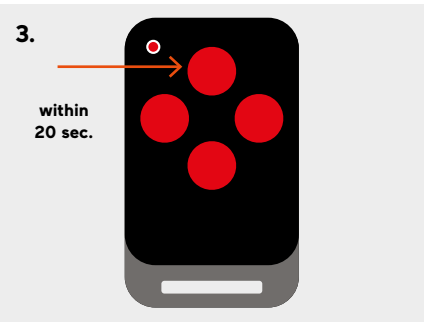
1. Carefully press and hold the programming button of the control module for approx. 10 seconds. As soon as the red and green LEDs flash, release the programming button.



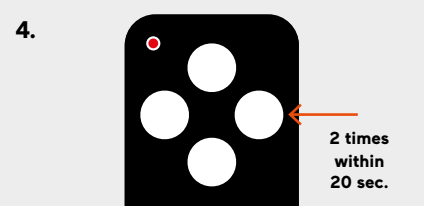
2. Briefly press the programming button of the control module again. The red and green LEDs flash alternately.



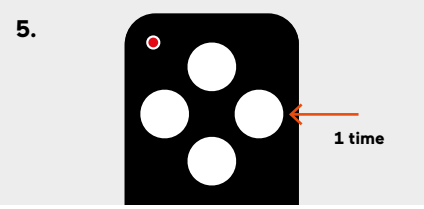
3. Now press the upper, middle button on the master remote control within 20 seconds. If the control module has accepted the master remote control, the green LED lights up for 3 seconds and then continues to flash rapidly.



4. Now press another free transmit button on the remote control to be taught-in 2 times in succession within 20 seconds. If the time limit of 20 seconds is exceeded, the learning process is aborted. If the control module has accepted the user remote control, the green LED lights up for 3 seconds.



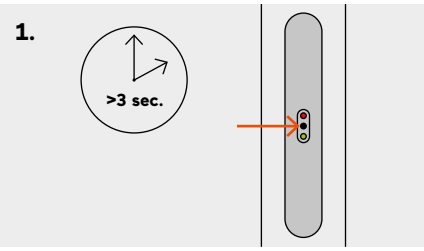
5. If you want to activate or deactivate the day-latch function, press the send button on the remote control 1 time. When the day-latch function is activated, the red and green LEDs flash slowly.



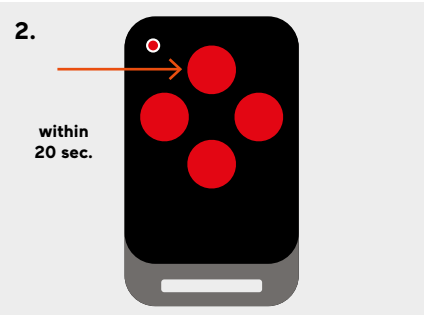
Deleting the function

The day-latch function must be deactivated for the deletion process.

1. Carefully press the programming button of the control module (longer than 3 seconds) until the green LED of the control module flashes quickly. Then release the button.

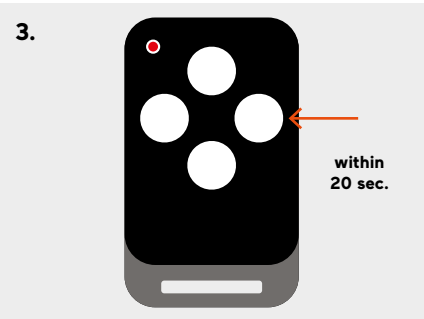


2. Now press the upper, middle button on the master remote control within 20 seconds. If the control module has accepted the master remote control, the green LED of the control module lights up for 2 seconds and then continues to flash rapidly.



3. Within 20 seconds, press the corresponding button for which the day-latch function is set. If the time limit of 20 seconds is exceeded, the deletion process is aborted. If the transmitter code was successfully deleted, the green LED of the control unit lights up for 1 second.

If the master remote control is not recognised during the delete function, the corresponding function is cancelled.



Remote control
→ Identifying and solving problems

Entry door with control module

Here you will find an overview of possible faults, their causes and remedies for entry doors with control module.

Type of error	LED signals of the control module	Possible cause of error	Troubleshooting
The locking locks incompletely.	The green and red LEDs flash alternately or the locking beeps 5 times after an attempt to lock.	The locking mechanism runs sluggishly.	Readjustment work may be necessary. Contact the technical service of the installation company.
		The door is warped.	
		The locking parts are adjusted too tightly.	
		The bolts hit an obstacle.	Check whether all locking parts are freely accessible or whether the position of the locking parts is correct.
		A profile cylinder without FZG marking was used.	Insert an FZG free-wheel profile cylinder (free-wheel cylinder for gearbox locks).
The locking does not lock or unlock.	The green and red LEDs light up.	The data connection between the electronic drive unit and the control unit is interrupted.	Check that the spring-loaded contact pins make contact.
		The tappet contact and the contact surfaces have no contact.	Grease the contact surfaces.

Type of error	LED signals of the control module	Possible cause of error	Troubleshooting
The locking does not lock.	The green LED lights up.	The magnet is out of reach.	Contact the technical service of the installation company.
	The green and red LEDs flash slowly.	This is not an error. The day-latch function is active.	Switch off the day-latch function.
	The green LED flashes slowly.	This is not an error. The always-on function is active.	Switch off the always-on function.
The door cannot be opened via the remote control or an external opening impulse.	The red LED lights up.	The remote control is not tuned in.	Learn how to operate the remote control.
		The distance to the receiver is too great.	Move the remote control closer to the door.
		The battery in the remote control is too low.	Move the remote control closer to the door. Replace the battery if necessary.
	The green and red LEDs light up when the door is open.	This is not an error. It is signalled that the door is open for more than 20 seconds.	Close the door. The locking locks independently again.
The trap remains retracted.		The external control signal at terminals 9–10 is applied for too long.	Contact the technical service of the installation company.

Remote control
→ Identifying and solving problems

Entry door with radio receiver module

Here you will find an overview of the LED signals and their meaning for entry doors with radio receiver module.

LED signals of the programming button	**Meaning**
LED lights up for 2 seconds.	A previously taught-in transmission signal has been received, the lock unlocks motor-driven.
LED lights up for 0.5 seconds.	A transmission signal that has not yet been taught-in has been received, the lock does not unlock.
LED does not light up at all.	LED does not light up in the unactuated home position because no transmission signal is being received. If, however, LED does not light up despite the transmission of an opening signal, the radio receiver or the motor lock has not yet been connected to the operating voltage of 12V DC or the cables on the motor plug have been incorrectly connected.

You can find answers here.

Sometimes you can solve problems quite simply yourself. Here you will find answers to frequently asked questions.

What do I do if I lose the master remote control?

In case of loss, no further remote controls can be taught or deleted. If you lose the master remote control, the radio receiver module/control module must be replaced. This requires a customer service mission.

Does the door have to be open or closed when saving new user remote controls?

Contact between the surface for power and data transmission and the plunger contacts must be ensured during saving or deleting operations. If you have a door with a radio receiver module, the door must therefore only be open a crack so that the programming button of the radio receiver module can be operated and the power supply is ensured at the same time. In the case of a built-in control module, it is a good idea to close the door during the saving process.

→ *Battery change*

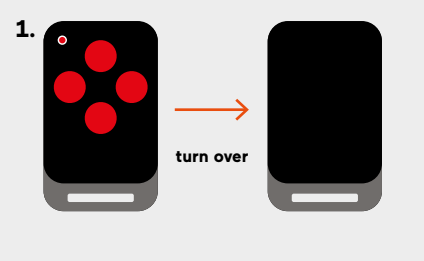
Replacing the remote control battery

Here you can find out how to replace the batteries of the remote control.

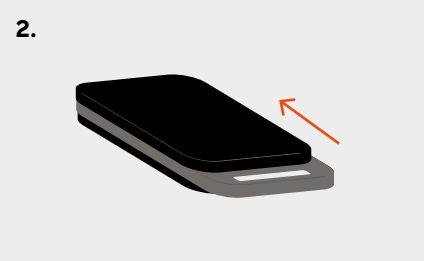
Procedure

The remote controls are particularly power-saving and have a battery indicator light. The battery lasts for approx. 50,000 operations. Check the battery indicator light regularly to avoid failure. To change the batteries of the remote control, proceed as follows:

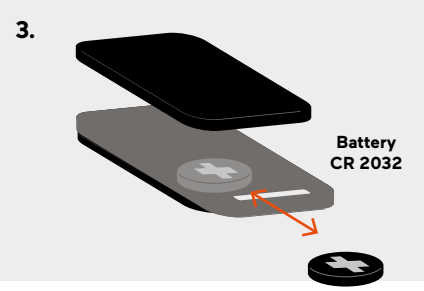
1. Turn the remote control to the back.



2. Carefully open the housing on the back with a narrow object (e.g. slotted screwdriver).



3. Slide the battery out downwards. Insert a new battery (type CR 2032). The plus symbol must point upwards. Then gently press the radio remote control back together.



Important cleaning instructions

Never use harsh cleaners, solvents, alcohol, acids (e.g. rust solvents), steel scrapers or abrasive cleaners to clean the remote controls.

Finger scan
→ Start-up

Installation

Below, we describe how to install your finger scan. After the installation, you can continue with the start-up of the finger scan.

1. Install the "ekey bionyx" app on your smartphone. The app is available in the Apple App Store (iOS) and the Google Play Store (Android).

Download on the App Store

GET IT ON Google Play

Note: the app only works on smartphones with Android and iOS.

2. When you power up your finger scan for the first time, the upper left LED segment flashes blue. The finger scan is ready for start-up. If this is not the case, disconnect the entry door from the power supply briefly to reactivate the Bluetooth connection. From this point on, the finger scan is in installation mode and the door can be opened with any finger. The installation mode automatically deactivates after approx. 10 minutes if the door has not been activated by then.

3. Open the "ekey bionyx" app on your smartphone and create an "ekey bionyx" account.

Start-up of the finger scan

Here you will find all the information on how to put the finger scan into operation. The finger scan must first be installed before it can used (see page 42).

Requirements

For start-up, it is necessary to have WLAN or a hotspot activated on the mobile phone. Please have your WLAN/Hotspot password ready for the start-up. Bluetooth must also be activated.

You need a standard WLAN router with WPA2 encryption and 2.4GHz frequency band. The devices do not work in the 5GHz frequency band.

To use the full range of functions (remote opening, notifications, etc.), your system must also be connected to the Cloud during operation.

For Android devices, it is also necessary to activate temporary location sharing.

You need the location information to search for devices that use BLE wireless connections. (After Android 6.0 was released in 2015, new permission requirements for BLE wireless connections were introduced by Google. Android 6.0 or higher requires apps to ask for permissions before an app is allowed to use system data and functions)

Method

Open the app and carry out the start-up. To do this, follow the instructions in the app. Note that you always need a lock screen type (PIN, fingerprint, pattern, etc.) to log in and then operate the app. Otherwise you will not have access to the app.

Completion start-up

After the successful start-up, go to your settings area within the app. Select the "System Backup" button. You can now activate the iCloud/Google Drive backup or view the backup QR code. If you need to reset the unit at a later date or if new units are integrated into the system, you can use the backup code to retrieve stored data. After successful start-up and logging in to the "ekey bionyx" app, you are taken directly to the dashboard.

Frequently asked questions about "ekey bionyx"

"ekey bionyx" Start-up video

Finger scan
→ Bluetooth mode/WLAN mode

● possible in this mode ● not possible in this mode

Properties	Bluetooth mode	WLAN mode
Intuitive management with the smartphone	●	●
Opening with the finger scan	●	●
Open via smartphone on site	●	●
Firmware update	●	●
Remote administration of permissions	●	●
Backup of the data/data backup of the unit configuration	●	●
Access log	●	●
Number of users	2 (recommended) to 4 (max.) fingers per user = max. 80 fingers	2 (recommended) to 4 (max.) fingers per user = max. 80 fingers
Maximum number of finger scans	1	5 (from summer 2023)
Remote opening/access	●	●
Push messages when door is opened	●	●
Connectivity to Amazon Alexa voice assistant	●	●
Different fingers, different functions	●	●
Allocation of time slots	●	●
Smart Home compatible	●	●
Availability	from summer 2023	●

→ *User administration*

User roles

There are different user roles in the "ekey bionyx" app. Depending on the role, the users have different authorisations.

System administrator

The system administrator is the owner of the "ekey" system. This role exists only once in the system. The system administrator can invite administrators and "ekey" partners to the "ekey" system via the respective e-mail addresses. He can also assign other functions to users or administrators, but remains as the sole system administrator.

Administrator

Administrators are designated by the system administrator in the account management. Due to a large number of functions, these require an "ekey bionyx" account. The administrator's rights can be set individually and adapted as required.

User

Users can be easily created in the system. For this purpose, only the user's name and finger were stored. If a user should also be able to open the door using the smartphone, this must be set separately in the respective user account.

"ekey" partner

The "ekey" partner role can be used to grant temporary admin access to specialist personnel, such as your electrician or an "ekey" support employee. This is helpful in case of service or support.

→ *Create user/administrator*

Navigate to the user administration and add a fingerprint of the desired user/administrator. To do this, follow the instructions in the app.

Finger scan
→ Store finger

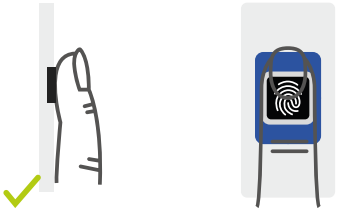
Store finger

You can store up to 20 users with the finger scan. Four fingers can be stored per user, each of which can trigger different functions. Save at least one finger from each hand. In the event of an injury to one hand, this allows you to operate your finger scan with the other hand.

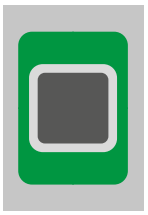
1. Navigate to the user administration to save a finger. Select the appropriate person for whom a finger is to be stored. Then follow the instructions in the app.

2. Select the desired finger and follow the instructions in the app. The finger scan lights up orange and is ready for recording.

3. Place your finger on the sensor surface. Always make sure that the surface of your finger is clean (front third of your finger).



4. As soon as the four LED segments of the finger scan light up green, lift your finger off the sensor surface.



5. Follow the instructions and repeat the procedure with slightly offset fingers each time. The sensor surface must always be completely covered.

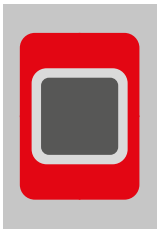
upward shifted

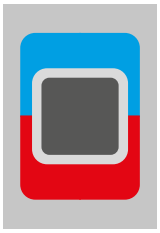
downward shifted

shifted to the **left**

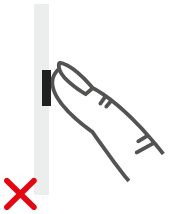
shifted to the **right**

The finger scan signals an incorrect position of the finger either by four LED segments that light up red or by two LED segments that light up blue at the top and two that light up red at the bottom. Lift your finger off the sensor surface and repeat the process.





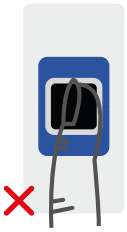
Here is an overview of what is meant by incorrect or overly displaced support of the finger.



upward shifted

downward shifted

laterally shifted



rotated

Status of completion
With each successful placement of your finger on the sensor, the status of the completion of your fingerprint is displayed directly on the smartphone. The already recognised areas and line layouts are displayed in green. If an area is still greyed out, repeat the process and place your finger according to the position of the areas that are still missing.

→ *Update*

Device update
The finger scan updates automatically. If an update is available, this is always carried out at night.

→ *Remote opening*

Door opening remotely
You can unlock the door remotely with your smartphone. To do this, follow the instructions in the app. This function is only available in WLAN mode.

Finger scan
→ Push messages

Push messages
If you wish, you can receive a message on your smartphone every time the door is unlocked. The function is practical in many everyday situations. For example, you can see immediately through the push message that your child has arrived home safely. The "ekey bionyx" app can send you automatic push notifications. This function is only available in WLAN mode. You need an internet connection to the cloud. Push notifications can be disabled if desired. Follow the instructions in the app.

→ Access log

Accesses logged
Accesses are logged in writing in the admission log. This function is only available in WLAN mode.

Notes

- When the unit is switched off and not powered, the push messages are not active. The events are also not recorded in the access log.
- The unit's LED must be lit for reading and recognition to take place.
- Any access attempts with an unsaved fingerprint are not displayed. The log only registers the stored users, either with their fingerprints or with the opening via the "ekey bionyx" app.

→ WLAN network

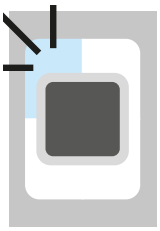
Change WLAN network
If you want to change your WLAN network (e.g. because of a new router), proceed as follows: select the menu item "Devices". Select the controller and click on "WLAN settings". Then follow the instructions in the app.

→ Time slots

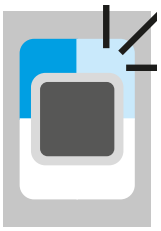
Allocation of time slots
You can set access authorisations for each person individually. This way, certain days and times can be defined on which users are granted access. You define and manage all permissions via the app and keep track of who came at what time. This function is only available in WLAN mode.

→ *Meaning of the LEDs*

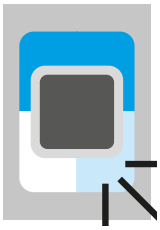
If the upper left LED segment flashes blue, the finger scan is ready for start-up.



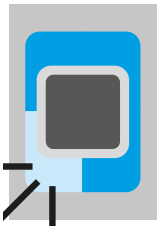
If the upper left LED segment lights up solid blue while the upper right LED segment flashes blue, the connection to the local network is established.



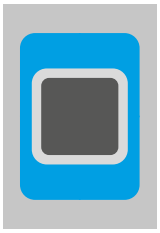
If both upper LED segments light up solid blue while the lower right LED segment flashes blue, the connection to the "ekey bionyx" app is being established.



If the two upper LED segments and the lower right segment light up solid blue while the lower left segment flashes blue, the units are configured.

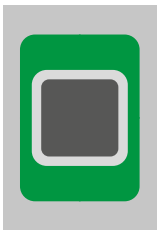


If all four LED segments light up solid blue, the finger scan is in its normal operating state.

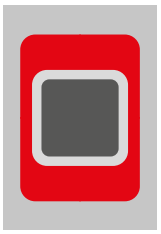


If all four LED segments light up orange, the selected finger can be stored.

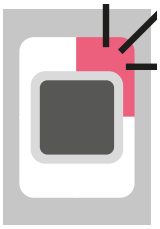
If all four LED segments light up solid green, an authorised finger has been detected and the door opens.



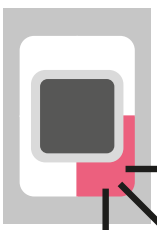
If all four LED segments light up solid red after a finger has been placed on the door, the user is not authorised to open the door or the finger has not been recognised correctly. Note that the finger must be placed correctly for it to be recognised.



If the upper right LED segment flashes red, your WLAN network is not available. Check whether the selected WLAN network is available.

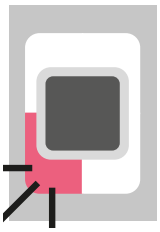


If the lower right LED segment flashes red, there is no Internet connection. Check your Internet connection: your router may be switched off.

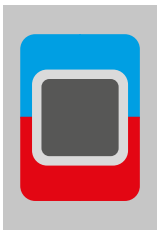


Finger scan
→ Meaning of the LEDs

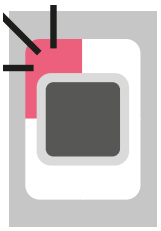
If the lower left LED segment flashes red, the services of the "ekey bionyx" app are not available. The system automatically reconnects as soon as the services are available again.



If the two upper LED segments light up blue and the two lower ones light up red, the recognition of the finger has been aborted. This may have been triggered by an incorrect finger position (fingertip) or by interference at the sensor (water, coarse dirt). Ensure correct finger position and that there are no foreign objects on the finger scan.



If the upper left LED segment flashes red, communication between the finger scan and the controller is disturbed. If the system does not return to normal, proceed as follows:



1. disconnect the power supply.
2. wait at least 10 seconds.
3. restore the power supply.

The system should now return to normal. If, contrary to expectations, no connection is established between the finger scan and controller, contact the technical service of the installation company.

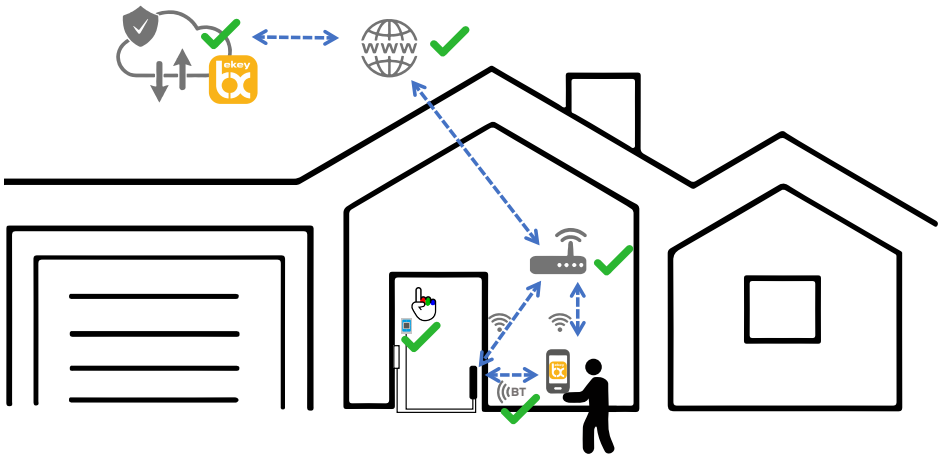
LED signals of the controller

Signal LED	Meaning
illuminated light	If the LED of the controller lights up green, the normal standby state is indicated after successful start-up. Accordingly, the LED should always light up green during operation.
permanently flashing green/red	In this state, the controller signals the factory state after reset.
alternately flashing green/red and illuminated green	In this case, the relay of the controller is switched during operation.
no signal at all	If the LED of the controller does not light up at all or flashes, the electronics of the unit have not started, which indicates either faulty or missing voltage or a hardware problem of the controller.

→ What is possible when?

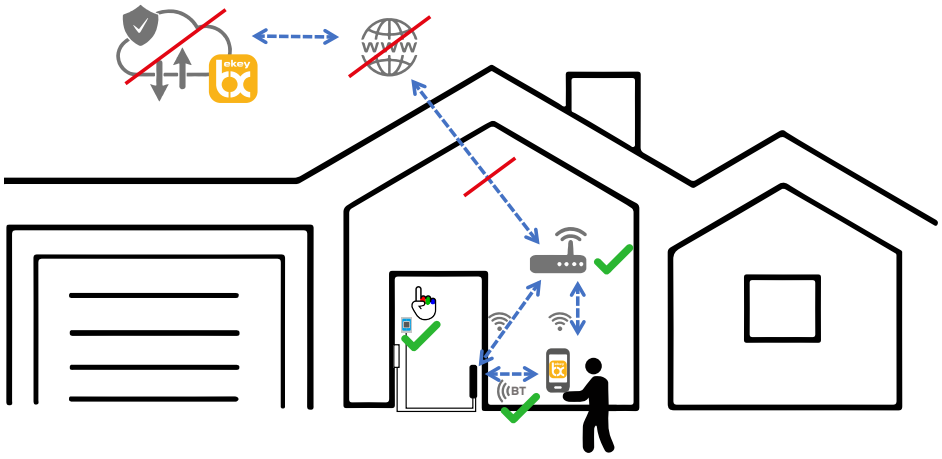
Green mode

In the vast majority of cases, the system will be in "Green Mode". The finger scan, the controller and the app are connected to the home network. The home network connects to the internet and subsequently to the cloud. In this operating mode, you can use all functions of the finger scan to the full extent.



Yellow mode

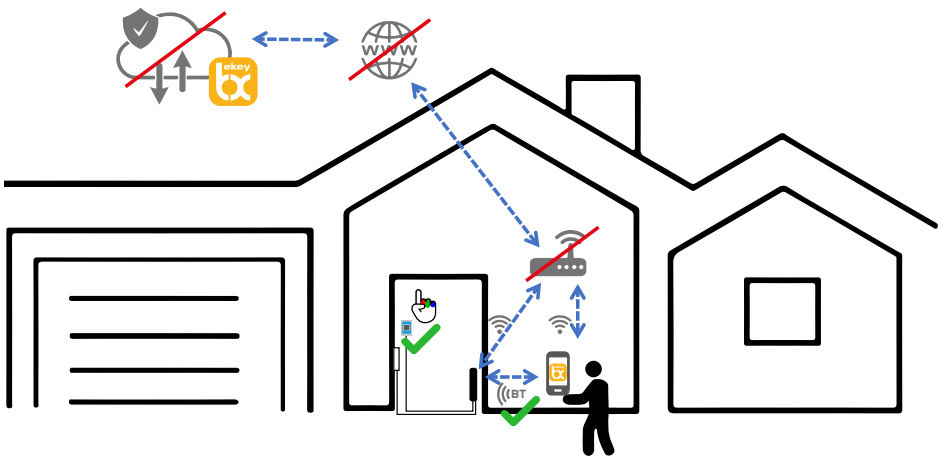
The finger scan, the controller and the app still have a connection to the home network, but there is no connection to the internet and therefore no connection to the cloud. You can still open the door using your finger or the app, but you can no longer perform administrative tasks such as adding new users.



Finger scan
→ What is possible when?

Red mode

The finger scan, the controller and the app have no connection to the home network. However, you can still open the door using your finger or the app when you are in front of the door.



→ *Frequently asked questions*

Are fingerprints stored?
No. No fingerprints are stored. A pattern is created from the biometric features of the original fingerprint, such as the unique dots, line endings and bifurcations – the so-called template. The latter is converted into a unique binary number code by a software algorithm, stored and used for comparison each time. The templates are stored encrypted in the cloud. The key for this is located exclusively on the respective end device, so the data is protected from external access. The security can be compared to that of a netbanking app.

Can an original fingerprint be reconstructed from the stored data?
No, the stored template can no longer be converted back into a fingerprint. Thus, a reconstruction of the original fingerprint is impossible.

Is it possible to make a usable fake finger from a fingerprint left behind (e.g. on a glass) to open a door?
The system relies on multiple safeguards against manipulation by fake fingers: on the one hand, directly when the finger is placed on the sensor, the conductivity of the living skin and, on the other hand, during the algorithmic evaluation of the data, it is checked whether the biometric features come from a finger of an actual human being. Moreover, it is almost impossible to produce a usable fake fingerprint. With a lot of criminal energy, even more expert knowledge as well as under the best laboratory conditions, the characteristics could be transferred to a fake finger. Its conclusion: possible in theory, unlikely in practice.

What is the probability that the door will open on an unauthorised person?
There is a special indicator for this – the false acceptance rate (FAR). It describes the probability of a person gaining access to a security system even though they have no authorisation. With "ekey" finger scans, this is 1:10 million – provided that the finger images were captured correctly. In summary: it is theoretically possible for an unauthorised person to gain access during this finger scan, but it is highly unlikely.

Can the system be manipulated by replacing the finger scan?
No, the system cannot be manipulated by changing the finger scan. This is because the finger scan and control unit are combined during start-up and communicate in encrypted form. The user data created is saved with the serial number of the unit. If the finger scan is replaced or the system is extended, this must be verified in the app by an administrator. This way, the saved fingers are retained and do not have to be saved again. Without this process, stored data cannot be transferred to another device.

Is the system consistently connected to the internet?
No. The devices communicate exclusively with the cloud via the internet. This is operated via the cloud computing world market leader MS Azure. The data is encrypted at all times and cannot be viewed by "ekey", Finstral or Microsoft. Due to the high security standard, only encrypted WLAN networks can be used.

Finger scan
→ Frequently asked questions

Why does “ekey” rely on a cloud solution?
In addition to the actual device – the hardware – an access system always includes the corresponding software – from computing and storage capacities to the actual software. Cloud-based technology is used because it offers numerous advantages on the software side (app):

1. Data protection: leading providers of cloud-based solutions spend a lot of money and human resources to protect their customers' data. Therefore, such a solution is usually more professional in this respect than an in-house solution.

2. Security: the business model of large cloud providers is based on keeping data safe. Therefore, the data centres themselves are very well protected (e.g. grounds, surveillance, fire protection, etc.). Virtual protection against cybercrime is also at a correspondingly high level.

3. Accessibility: software level agreements can guarantee software availability of around 99% (the missing 1% is mostly planned downtime for updates). With your own server, a comparably high availability is not possible.

4. Updates: software must always be kept up to date in order to provide the highest level of security. Cloud-based access systems are always up to date, updates are automatic.

How secure is the connection between smartphone, finger scan and control unit?
The “Transport Layer Security” protocol is used for the initial connection between smartphone, finger scan and controller. The data is transmitted between the devices exclusively in encrypted form. The data transfer in the app takes place according to end-to-end encryption. All data is transmitted encrypted across all transmission stations. The data sent cannot be read or generated by attackers or by “ekey” or Finstral.

Can the finger scan access solution be manipulated from the outside to make the door open?
No. The system cannot be manipulated from the outside. Not even by force, because the finger scan and the control unit are physically separated. The opening impulse comes from the control unit in the protected interior area. The data is also encrypted and secured multiple times at all times. Data transmission in the system is end-to-end encrypted. All data is transmitted encrypted across all transmission stations.

What happens to the personal data?
The aim is to make everyday life as safe, flexible and comfortable as possible and to provide practical benefits without invading privacy. Therefore, the business model is designed in such a way that the products and services are never in exchange for personal data and these are therefore neither used by "ekey" nor by Finstral itself nor sold to third parties.

What happens if I lose my smartphone?
Unlike a key, the finder of the smartphone has no access to the system: the smartphone and the app are unlocked separately – the former by the individually set access via biometrics (fingerprint or facial recognition) or code, the latter via biometrics or the user name with personal password. The app is thus protected from unauthorised access. In case of loss of the smartphone, the connection to the cloud can be restored via a new device and a backup code. Its conclusion: even if the mobile device is lost, it is possible to log in using a new device with the access data.

Are hidden access authorisations for the manufacturer stored in the system?
No. Only an authorised administrator has the possibility to make changes with his smartphone in combination with his account access data (e-mail, password).

Can a door open independently in the event of a power failure?
No. Power failures cannot trigger a pulse that opens the door with this finger scan access solution. Only an authorised user can give this opening command.

Motor lock without cylinder

→ Safety instructions

- The locking system is not intended or approved for use in escape routes, emergency exits, smoke or fire doors or explosive environments.
- The closure system is not suitable for use in rooms with high dust formation, corrosive atmospheres, high electrostatic charge or damp rooms.
- The locking system is not designed to accommodate or compensate for excessive door sash deformation or changes in seal closure due to improper door sash installation, temperature fluctuations or direct sunlight. Such deformations can impair or prevent proper unlocking of the locking system and thus possibly lead to the door not being able to be opened.
- Please note that a permanent, reliable electrical power supply is required to operate the system. Without power supply there is no possibility to unlock the locking system manually or non-destructively (e.g. by means of a locking cylinder). The system may only be operated with the tested and approved power supply units intended for this purpose. These are designed for an input voltage of 220–240V/50–60Hz. The appropriate power supply and emergency battery are supplied as standard with each door.
- To further reduce the risk of operational malfunctions, it is recommended that the door be supplied via its own circuit or be protected with its own circuit breaker.
- However, should a momentary power failure occur, an uninterruptible power supply is provided in the system as standard. This ensures trouble-free operation for a bridging period of at least 12 hours by means of an energy buffer, provided that no other external systems (e.g. finger scan, keypad, etc.) are also supplied.
- In normal operation, the locking components of the system lock automatically when the door is closed. Therefore, make sure that you have a physical access medium (smartphone) assigned to you at all times or, alternatively, that access via biometric or code-based access solutions is guaranteed at all times.
- Regular operation of the door (at least once a month) must be ensured to prevent dormant wear.
- Operating the door using tools or lever-operated aids constitutes impermissible manipulation. This manipulation can cause damage to fittings, sash and frame materials and other individual parts of the door.
- Adjusting the door hinges affects the gap between the door frame and the door sash (rebate clearance). Incorrect adjustment of the door hinges will cause the gap to become too small or too large or the door to lower. This may impair or prevent the correct functioning of the closure system. In addition, this can cause damage to fittings, sash and frame materials as well as other individual parts of the door.

→ Smart Home

The motor locking without cylinder is also Smart Home compatible.

→ Start-up with the app

Core functions

The core functions of the "Instinct by Maco" app include opening the door and, if you have the appropriate authorisation, managing access. The app communicates with the "Instinct" Bluetooth module, which is installed in the door. It can be downloaded free of charge from the Google Play Store (for Android) or Apple App Store (for iOS). The app only works on smartphones with Android and iOS.

Delivery state

When delivered, the door can also be opened without access authorisation using the "Instinct by Maco" app. When delivered, the Bluetooth module can basically be operated with the so-called construction site mode from any smartphone on which the "Instinct by Maco" app is installed. Therefore, make sure that the Bluetooth module is initialised immediately as soon as the door is used to secure a building after installation has been completed. Once the door is installed with the Admin Card, it is no longer possible to return to construction site mode, not even through a factory reset. Once deactivated by the Admin Card, the site mode cannot be restored by a factory reset.

Download on the App Store

GET IT ON Google Play

Make sure that the door is ready for operation. Activate Bluetooth on your smartphone. Install the "Instinct by Maco" app and open the app. Select "Set up new door" and follow the instructions in the app. As soon as the setup has been completed successfully, the Bluetooth encryption is active and only you are authorised to unlock the door via the Bluetooth module. You can then use the app on the door to create further authorisations.

Admin Card

For initialisation, the Bluetooth module is supplied with an Admin Card, which must be handed over to the end user when the door element is delivered.
The data required to personalise the door is located on the Admin Card under a scratch-off area. Accept only undamaged and unscratched Admin Cards. Initialisation with the Admin Card must be carried out by the building owner. The setting via the Admin Card is comparable to the installation of the final locking and the handing out of the final key.

Important note

Only with the Admin Card can the Bluetooth module be initialised or, if necessary, reset to factory settings. Therefore, be sure to keep the Admin Card in a safe place – there is no way to replace or reproduce it afterwards.
The data is extremely sensitive because the Admin Card is the only way to restore the system to its delivery state. Do not take a photo of the Admin Card or store the Admin Card data in any form on your smartphone. Anyone in possession of the information on the Admin Card can create new access authorisations on your Bluetooth module or delete existing authorisations.

Personalise the door using the Admin Card.

Motor lock without cylinder
→ User administration in the app

Roles
In the app, users can take on different roles. Depending on the role, the users have different authorisations.

Super Admin
Administrators who have been boarded via the Admin Card are called "Super Admins" here, but are not distinguished from the admins by name in the app. A super-admin can delete not only other users but also other admins and cannot be deleted himself. The choice of super-admin should be well considered. Only absolute confidants should take on this role. It is recommended to create admins via the app.

Admin
The admin (short for "administrator") has all permissions. He can control the child safety lock and the day unlock, view the history and create new users.

Standard user
A standard user can open a door but has no access to the child safety lock, day unlock, event log or user settings.

Adding users
Define access authorisations for family members, friends or cleaning staff. A total of up to 20 roles (admin or user) can be assigned.

Manage users
Once you have added a user, you can manage the settings for the user.

Set time limit
You can set a time limit for a user that limits access to the door to an adjustable period of time. You can set the authorisation period as well as daily time windows (defined time window can be activated or deactivated for each day of the week).

→ App updates

Performing updates
Please carry out the updates recommended by the app to be able to ensure the function and security of the app. The update may take a few minutes. Make sure that the update is always completed.

→ *Open and close*

Door opening

from the outside
Open the door via the app. To do this, follow the instructions in the app. The door is unlocked by motor. You can also use other technologies (e.g. finger scan or code-based access solutions) if available. Make sure to wait approx. 2 seconds until the door has been fully motor-unlocked.

from the inside
From the inside, you can open the door via the app or via the door handle. Alternatively, you can also open the door via a push-button, if available. This is attached either to the wall or to the sash. When pressing the handle or button, make sure to wait approx. 2 seconds until the door has been completely unlocked by the motor.

Door closing

from the outside
Pull the door closed by the handle with your hand. The door locks motor-driven.

from the inside
Push the door closed with your hand on the handle. The door locks motor-driven.

→ *One-time key in the app*

Send one-time key

Remotely grant one-time valid access authorisations to selected people using the app.

Role
A one-time key entitles the recipient to open the door once. After use, the code becomes invalid. There are up to 3 one-time keys stored encrypted on your smartphone. You can also share them when you are not near the door. When you are reconnected to the door, set one-time keys are replaced with new ones. One-time keys are valid for 365 days since your last connection to the door. The code of the key is thereby divided into plain text. When sharing, consider the safety of the appropriate pathway being shared. The authorised person needs the app to open the door on site.

Motor lock without cylinder

→ Day unlocking

Temporary locking

Day unlocking is a convenient operating mode for daytime operation: it temporarily no longer locks the system when the door is closed, but merely arrests, holding the door sash in place. The door can therefore be opened without access authorisation. You can also set time periods for daily unlocking in the app.

Safety instructions

- In this operating mode, the requirements for joint tightness, sound insulation, driving rain tightness, thermal insulation and burglar resistance are not met.
- Please note that in this operating mode the door can be opened at any time and without prior electronic actuation by any person and thus potentially also by unauthorised persons.
- After deactivating this operating mode, the door must be opened once and then closed again to ensure that the door is properly locked.

→ Event log

Logged events

The event log records all openings and other events at your door. The accesses are noted via app. Accesses via other systems such as finger scans etc. are also recorded as external accesses. Power outages (including start and end of the outage) and tampering attempts are also logged.

→ Child safety lock

Closed from the inside

The child safety lock prevents the door from being opened from the inside via both a switch and a handle. The door can only be opened via the app or by pressing the switch (inside) for 5 seconds. The child safety lock can only be deactivated via the app.

Safety instructions

- Unlocking via access control systems or intercoms continues to be unaffected during this mode, provided they are connected via the interfaces or connections specially provided for this purpose.
- The child safety lock can also be overridden by a third-party system such as voice control by Amazon Alexa. Note that children can override the child safety lock via such third-party systems (Alexa) and open the door if they have access to the third-party systems.

→ *Cleaning and maintenance*

Notes

To ensure that the door remains functional and safe for years, the following maintenance instructions and the prescribed intervals must be observed and adhered to.

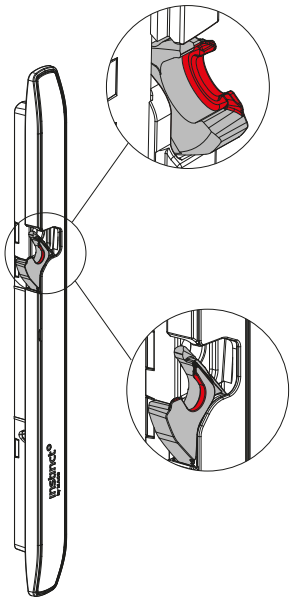
- Check the system regularly (at least once a year; in installation situations where there is potential danger to life and limb in the event of a possible malfunction, at least once a month) to ensure that it is functioning properly.
- Pay particular attention to unusual noises, signs of wear or abrasion that may indicate a possible malfunction of the system.
- Any cases in which the door can no longer be properly locked or unlocked constitute a malfunction and may only be analysed and remedied by trained specialist personnel.
- Clean the locking parts regularly with a brush or the hoover on the lowest setting.

In addition, we would like to point out the following:

Task	End-User	Specialist company
Check the free entry of the door sash and the ease of movement of the door element and have it adjusted by a specialist company if necessary	●	●
Check all hardware and locking parts for unusual noises, obvious damage, signs of wear and tear and have them repaired by a specialist company if necessary	●	●
Check all moving hardware parts for function		●
Grease the locking hooks		●
Check fastening screws, re-tighten or replace if necessary		●
Check the setting of the locking parts and readjust if necessary		●
Connection of external systems		●
Any change to the electronic system configuration		●

Motor lock without cylinder → Cleaning and maintenance

The closing hook must always be greased regularly along the firing contour with grease or technical Vaseline using a brush. Never use contact sprays, rust removers or liquid lubricants – these do not achieve the desired lubricating function, can penetrate the locking component, impair the function and thus cause damage. Greasing must be carried out after every 25,000 actuation cycles or once a year (whichever comes first).



In order to permanently maintain the surface quality of the hardware parts for the intended use and to avoid impairments, the hardware or rebate spaces must be ventilated in such a way that they are not exposed to direct moisture or condensation. This is especially true during the construction phase. Unhooking and re-hooking of the sash as well as maintenance of safety-relevant parts (door hinges) may only be carried out by a specialist company.

To clean the visible surfaces of the closure components, you can use a soft, lint-free cloth with a mild, pH-neutral cleaning agent in diluted form. Do not use any aggressive products or sprays containing acids or solvents that may attack metallic surfaces, plastics or sealing materials and thus cause damage to the fittings and impair safety-relevant properties. Also, refrain from using abrasive products such as sponges, scouring wool etc. and avoid permanent wetness on the surfaces. Never use liquid lubricants, use greases instead.

→ *Frequently asked questions*

What do I do in the event of a power failure?
Should a momentary power failure occur, an uninterruptible power supply is provided in the system. This ensures trouble-free operation for a bridging period of at least 12 hours by means of an energy buffer, provided that no other external systems (e.g. finger scan, keypad, etc.) are also supplied. The finger scan is connected to a special input. This has only an insignificant effect on the operating time. Other systems must be connected to the external inputs. A separate power supply would have to be provided for this so that the systems can run without interruption.

What do I do if the power supply of 12 hours was not enough and I do not have another third-party system?
The possible answers to this question are on pages 64–65.

What do I do if I am notified that I am being denied access?
Restart the app. An update may also be necessary. Perform the update via the app.

What do I do if I get a message that the door is not connected?
Restart the app. If the door still does not work after restarting the app, contact the technical service of the installation company.

What do I do if I lose the mobile phone?
Reset the system to factory settings using the Admin Card. This deletes all users (super admins, admins and standard users). It is recommended to use a display lock. Otherwise, the person who may have access to the lost phone can access the "Instinct by Maco" app itself, open the door and, if necessary (if an admin role is active on this phone in the app), delete users etc. or change settings.

I have a new smartphone. How can I register as an admin on my new smartphone? Will the users or data be lost in the process?
If you want to register as an admin, have an authorised admin send or issue you a new authorisation or register on the new mobile phone with the Admin Card. The data is retained, including the old admin authorisation. You should have these deleted by a super admin.

If you would like to register as a Super Admin, you can proceed as follows:

1. Reset the system to factory settings: this means that all previous data and accounts (including your old account) are lost and you are now the only super admin.

2. Registration as Super Admin via the Admin Card without resetting the system to factory settings: all data and profiles are retained, including your old admin/super admin account. You can delete this after registering as a super admin on the new smartphone.

Motor lock without cylinder → Identifying and solving problems

Solving problems

The following initial situation: the door cannot be opened from the outside via the access control system used (App "Instinct by Maco" or other access system such as finger scan, intercom, Smart Home system, etc.).

Step 1 (for doors with "Instinct by Maco" app): rule out any problems in Bluetooth communication.	Test: is it possible to open the door after restarting the smartphone/the "Instinct by Maco" app or switching the Bluetooth connection off and on again? Are there other authorised administrators or users at the door? Can these open the door? Is it possible to have a one-time key sent to your own or another smartphone and thus open the door (only with the "Instinct by Maco" app)? • If so: door is open. • If no: go to step 3 Are you standing within range of the Bluetooth connection? • If no: approach the door until the app signals the connection (on the opening button in the app). If there is still no connection, restart the app and, if necessary, check whether the Bluetooth function is activated on the mobile phone. Otherwise, contact the technical service of the installation company.
Step 2 (for doors without the "Instinct by Maco" app): rule out a defect in the access control system used (finger scan, keypad, intercom, smart home system...).	Test: is there a possibility that one's authorisation has expired, been changed or withdrawn? Are there other authorised administrators or users at the door? Can these open the door? • If so: door is open. → Correct any problems with the access control by reissuing the authorisation or resetting to factory settings. • If no: go to step 3 Note: in the event of a prolonged power failure, the finger scan, which is supplied with power via the "Instinct" system, is periodically deactivated in order to extend the bridging time of the "Instinct" system. Access systems such as finger scan or keypad are therefore only supplied with power for one minute every 15 minutes in UPS mode. If possible, try to exclude a power failure and the associated temporary shutdown of external access systems as the cause of the error or, if in doubt, wait for this time to pass. There are no restrictions via the "Instinct by Maco" app.
Step 3: check opening via other alternative access systems (finger scan, keypad, intercom, smart home system...).	Test: are there other access systems at the door? Is an opening via one of these systems possible? • If so: door is open. → Correct any problems with the access control by resetting to factory settings or replacing components. • If no: go to step 4
Step 4: rule out door warpage or lowering of the door as the cause of the fault.	Test: are all locks unlocked by motor, but the door still won't open? Could the malfunction have been caused by excessive door warping, door sash dropping or slipping of the carriage on one of the locking parts? • If so: try to remedy this malfunction from the outside by carefully acting on the door sash (pressing or pulling or lifting or lowering the sash). ◦ If possible → door is open. ◦ If not possible: go to step 5 • If no: go to step 5

Step 5: check whether there is an alternative non-destructive means of access into the building.	Test: is there an alternative means of access into the building (e.g. via a side entrance door or garage)? • If so: use the alternative access to solve the problem from the inside. → continue to step 7 • If no: go to step 6
Step 6: gain access to the building in the most minimally invasive way possible.	Test: which building element suffers the least damage (window, balcony door, glazed side panel...) in order to gain access to the building? • After the decision has been made: gain access to the inside to solve the problem from the inside. → continue to step 7
Step 7: rule out a defect in the access control.	Test: is unlocking possible via the standard unlocking option from the inside (button or similar)? • If so: door is open. → Correct any problems with the access control by resetting to factory settings or replacing components. • If no: no defect detectable in the access control → go to step 8
Step 8: rule out a defect in individual closures.	Test: do at least individual locks show a reaction when an unlocking attempt is made? • If so: defect of the closures unlikely → go to step 15 • If no: defect of the closures unlikely → go to step 9
Step 9: rule out a defect in power supply.	Contact the technical service of the installation company.
Step 10: rule out a defect in the "Instinct" power supply unit and/or the "Instinct" UPS module.	
Step 11: rule out a defect in the wiring for connecting third-party systems/between "Instinct" gateway and door.	
Step 12: rule out a defect in the "Instinct" gateway.	
Step 13: (only for doors with cable connection): rule out a defect in the "Instinct" cable connection.	
Step 14: carry out an emergency release of the non-reactive and locked closures via already prepared emergency release holes.	

Accessories
→ Electric door opener

Electric door opener

With the electric strike, the door can be opened by push-button or intercom, for example, as long as it is locked with the latch and not with the key. Possible with the following locking systems:

- *manual locking and unlocking (manually open, manually closed)*
- *motor lock with cylinder (motor-driven open, motor-driven closed)*

Type 105 00

If there is an electrical signal at the electric strike, it is unlocked. As long as the signal is present, you can open the door.

In addition, you can switch the electric opener to the day position with the black switch (A). In this case, the door is permanently open. You can reset the day position by returning the black switch to its original position.

Type 107 00

When the electric strike receives a single short signal or impulse, it remains unlocked until the door has been opened 1 time. It locks again when the door is locked again.

In addition, you can switch the electric opener to the day position with the black switch (A). In this case, the door is permanently open. You can reset the day position by returning the black switch to its original position.

→ *Day unlocking*

Day unlocking

The day release ensures that in the case of a push or bar handle located on the outside, you can open the door without a key from both the inside and the outside. Possible with:

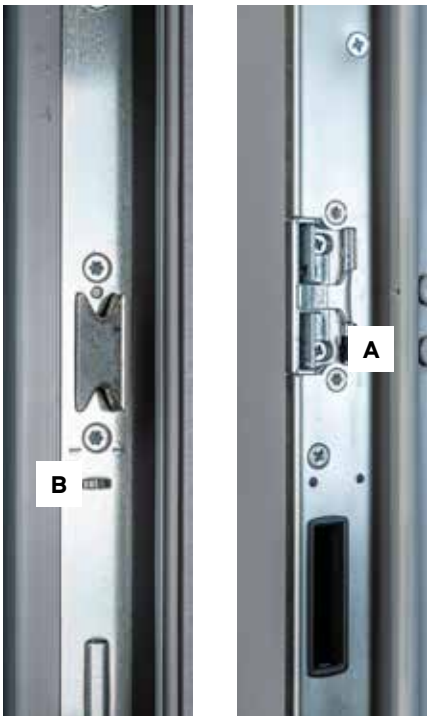
- *Manual locking and unlocking (manually open, manually closed)*
- *Self-locking lock (manually open, independently closed) with day-latch function*
- *Motor lock with cylinder (motor-driven open, motor-driven closed)*

Door with manual locking and unlocking

Flip the slide switch (A). You can reverse the day unlocking by returning the slide switch to its original position.

Door with self-locking lock

With a self-locking lock with day release, you can switch off the independently locking function. To do this, you must first press the handle down as far as it will go and hold it. Meanwhile, flip the slide switch (B). Also flip the slide switch (A). In the case of a push or bar handle, you can open the door without a key both from the inside and from the outside. You can reverse the daytime unlocking by first holding the handle down while folding the slide switch (B) to the original position.
Then return the slide switch (A) to its original position.



Door with motor lock with cylinder

For the operation of the day release on a door with motor lock with cylinder, see pages 36–37.

Door closer

The door closer closes the door sash autonomously after opening the door. The door closer is possible with all locking systems.

The force of the door closer may vary depending on the season or outside temperature. The closing process may be slower in winter and faster in summer. This is due to the temperature-dependent change in the viscosity of the gear oil. You can compensate for this change in function by using a valve.

Accessories
→ Anti-panic function

Anti-panic function

The anti-panic function is used to ensure that the door can be opened at any time in emergency or panic situations so that people can escape from the building and reach safety. The anti-panic function is included as standard in motor locks with cylinder.
The anti-panic function is available as an accessory for the following locking systems:

- *self-locking lock (manually open, independently closed)*
- *self-locking lock with opening motor (motor-driven open, independently closed)*

Function B (toggle function):
self-locking lock with escape and anti-panic function for outside handles
The handle on the outside is always decoupled from the anti-panic function. This allows the door to be operated from the outside via the handle when the outside handle is unlocked. When the handle is locked, the door can only be opened with the profile cylinder. From the inside, the door is always accessible via the handle or via the anti-panic bar.

Function E (alternating function):
self-locking lock with escape and anti-panic function for outside push bar
Outside, the door is only accessible via the cylinder. You can always open the door from the inside using the anti-panic function.

Cylinders with freewheel function are not necessary for the anti-panic function.

Controlled latching

This optional version is available with panic function E. Please note that this function is not permitted for fire and smoke protection doors.

Activate Controlled latch locking

1. All locking elements retract when the handle or the handle bar is actuated.

2. Turn the cylinder key in the locking direction as far as it will go.

3. Relieve the pressure on the handle or handle bar again and turn back the cylinder key and remove it. All locking elements now remain retracted.

Release latch locking

4. Turn the cylinder key in the opening direction as far as it will go, turn it back and remove it. All locking elements are now released again.

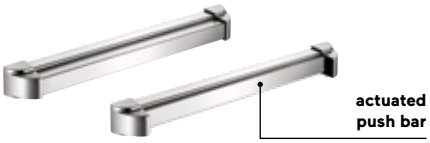
Room-side anti-panic and escape door controls

Panic bar

Pressing the bar in the opening direction (escape direction) unlocks the lock. The door opens in any case – regardless of whether the lock is locked or unlocked.

Push bar

Pressing the push bar in the opening direction (escape direction) unlocks the lock. The door opens in any case – regardless of whether the lock is locked or unlocked.



Handle

Pressing the handle opens the fitting. The door can be opened in any case – regardless of whether the lock is locked or unlocked.

Green stickers

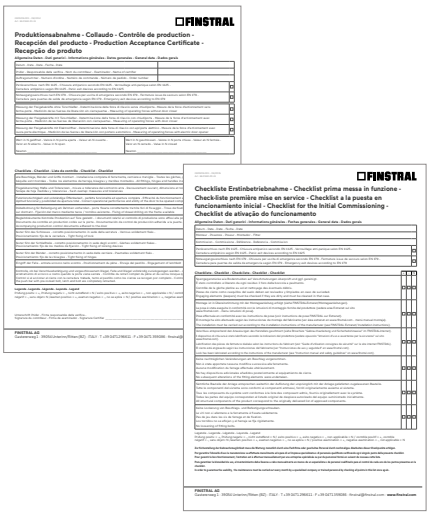
The green stickers signal the opening direction of the escape door. They are supplied by us and are to be attached to the handle side of the door.

Production acceptance of escape and anti-panic doors

We issue the production acceptance form at the factory. It is supplied with the entry door and is proof that the door was delivered with all components in working order.

The "Initial start-up" checklist is completed by the installer immediately after installation and handed over to the customer. It is used to ensure that the door has been correctly installed and properly commissioned.

Note to owner: after one year, it is the owner's responsibility to carry out a functional test. To ensure fitness for use, maintenance must be carried out monthly by a specialist company or by trained personnel by working through the "Initial start-up" checklist again.



Cleaning and maintenance → Proper care

The right cleaning

Finstral entry doors are easy to clean and it requires a little amount of time. Here you will find important tips for proper cleaning and maintenance.

What is the best way to clean?

A thorough cleaning should be done at least 2 times a year. In this way, you prevent deposits caused by dust, smoke or exhaust gases, which can damage materials and components and impair the appearance of the surface. Regular cleaning is especially important near the sea and sources of dust. If the contamination is stubborn substances (bird droppings etc.), you should remove them immediately.

What is the best tool to clean?

Light soiling can be soaked in warm water with a few squirts of a pH-neutral detergent. You can then remove the contamination with a microfibre cloth.

What must I not use for cleaning?

For cleaning, never use strong alkaline detergents, harsh cleaners, solvents, alcohol, acids (e.g. rust solvents), especially hydrofluoric acid, or cleaning agents or paper wipes containing fluoride. You could etch the surface and cause irreparable damage.
Do not use scouring agents, abrasive polishes or other cleaners containing ketones or esters, especially for matt surfaces, as this will make the surface shiny. Abrasive cleaning agents or aids such as steel wool etc. can scratch the surface and must also not be used. Scratching tools such as brushes, steel wool, steel scrapers, scouring pads, floor knives, razor blades or similar cause scratch marks on the surface and must not be used.

Avoidance of streaking

Streaks are often caused by cleaning with organic solvents in combination with cold water and repeatedly used wipes. For cleaning without shading or streaks, we recommend wiping with warm water and drying the surface with commercially available microfibre cloths.

Initial cleaning after installation

First remove the protective film. Then remove the label and keep it. Contamination of the surface by secretions of building materials, mortar and cement slurries leads to cauterisation and thus irreparable damage. Please remove the contamination immediately.

Cleaning in individual steps

1. Prepare
Put on gloves and have 2 buckets of warm water ready. Put a few squirts of a pH-neutral detergent in one of them. Have 2 clean microfibre cloths ready.

2. Clean wipe
Wipe the surface of the entry door with a water-wet, non-dripping microfibre cloth from the bucket in which the splashes of cleaning agent (pH neutral) were placed. This is how you remove sand and dust and soak stubborn dirt. Then rub them away vigorously with the cloth. For glass, use a glass scraper carefully if absolutely necessary (for example, for stickers). Wait until everything has soaked in. Make sure that the scraper is correctly attached. Only work with intact, sharp blades.

3. Cleaning all around
Now open the entry door. Wash the microfibre cloth in the bucket with the detergent (pH neutral) and then wring the cloth out so that it does not drip. Wipe the inside of the frames and sashes including all fittings with the damp cloth. Use the cleaning sponge with abrasive fleece for stubborn dirt on the frame. Always pre-water sufficiently always.

4. Wipe clean
Dip another clean microfibre cloth into the bucket of clean water. Wipe all parts of the door thoroughly. Important: there really should be no cleaning agent left on glass surfaces. This could be "burnt in" by the sun and cause discolouration and streaks.

5. Dry wiping
Work around the edges and wherever it is still damp with a dry microfibre cloth.

Cleaning and maintenance
→ Care of surfaces

Notes for the respective materials

Finstral uses only high-quality materials that are extremely rust and weather-resistant. But of course, long life also depends on proper care. Below, you will learn how to properly clean and care of the surfaces of your entry door and what you should pay special attention to.

Notes for PVC

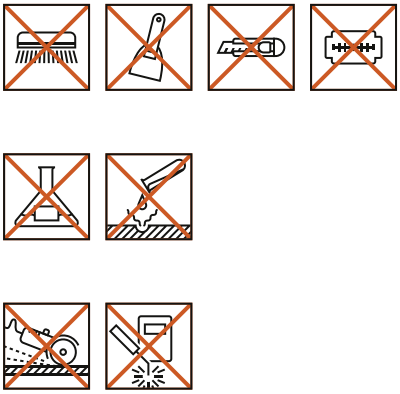
Special antistatic cleaning agents are commercially available, but they are not suitable for cleaning PVC. There is a risk of the panel surface becoming dull or brittle or fading.

Notes for aluminium

As a matter of principle, no acidic or alkaline agents may be used on our aluminium surfaces, which are always powder-coated. The pH value must not be <5 (acidic), or >8.5 (alkaline). Do not use abrasive cleaners, abrasive polishes or any other cleaner containing ketones or esters on matt surfaces, as they will make them shiny. Abrasive cleaning agents or aids such as steel wool etc. can scratch the surface and must also not be used. Agents such as Schleiffix are also unsuitable for powder-coated surfaces and leave scouring marks.

Notes for glass

To avoid scratches when using glass scrapers, observe the following: soak the dirt or adhesive to be removed well with water. Make sure the scraper has the correct attachment and only work with intact and sharp blades.
Never use strong alkaline detergents, acids, especially hydrofluoric acid, or cleaning agents containing fluoride to clean glazing. These solutions can etch the glass surface and cause irreparable damage.
After mounting, it is recommended to remove the labels and residues of the spacer plates within a few days and to dissolve any adhesive residues with a mild cleaning agent. Glass stains that cannot be removed with plenty of clean water, a sponge, a scraper, chamois leather or commercially available spray cleaners and rags can be removed with mild household cleaning agents.
Do not carry out any work with cut-off grinders or welding equipment near glazing. The sparks and welding beads damage the glass surface irreparably.
We advise against using special glass cleaners. This keeps the risk of streaking as low as possible.



Notes for ceramics

Metallic or scratchy objects (scrapers, steel wool etc.) can leave a stubborn metal abrasion and must not be used.

Notes for wood

In general, make sure that the room humidity does not exceed 60%. If the humidity is above this, please ventilate the rooms regularly and several times a day.

Cleaning and maintenance → Maintenance of fittings, gaskets

Annual maintenance

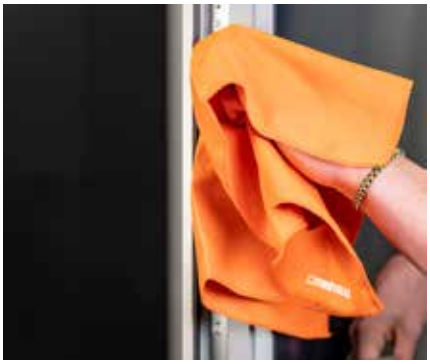
Finstral doors are high quality and durable and require little maintenance and care. But 1 time per year you should carry out these small checks to be on the safe side.

Fitting

In order to maintain the function and ease of movement of door fittings, clean the movable fitting parts once a year with a small brush and then grease them. For greasing or lubricating, we recommend the maintenance oil from the cleaning and care set. Then open and close the door several times so that the oil can spread. Do not use dissolving or acidic lubricants or oils (e.g. rust-dissolving sprays). Apply the lubricant only to the hardware parts and make sure that it does not get onto the profile surface.
Do not use any solvents, grease-dissolving agents or washing-up liquids. Adjustment work on the fittings and the replacement of fitting parts must be carried out by a specialist company.

Seals

Clean the seals once per year. They stay elastic longer if you wipe them regularly with a damp cloth.
Regularly inspect doors, fittings, hinges and their operating elements for stability and for signs of wear and damage. We recommend that you have all hardware parts checked and serviced regularly by a specialist. In case of damage, only original parts may be used.



Note: maintenance that goes beyond the checks listed above, as well as repairs and disassembly, may only be carried out by trained specialist personnel. Damage to fitting parts may only be repaired with original spare parts. Do not carry out any repairs yourself. Do not use the doors if repair is required. Inspection or maintenance of electrical elements must only be carried out by professionals.

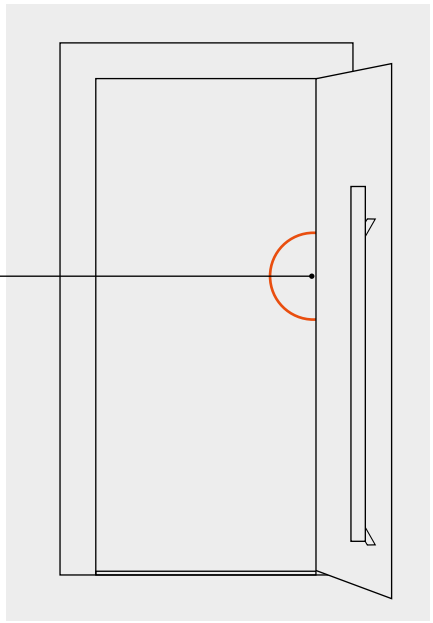
Further information

Technical service of the installation company

With Finstral, you always get everything from a single source. We work according to the most demanding quality guidelines and also carefully check every door during the production process at our in-house quality control. This always guarantees the highest quality and the certainty of receiving a perfect product. If you still need help, contact the technical service of the installation company. Describe your request as precisely as possible and state the identification number of the entry door in question.

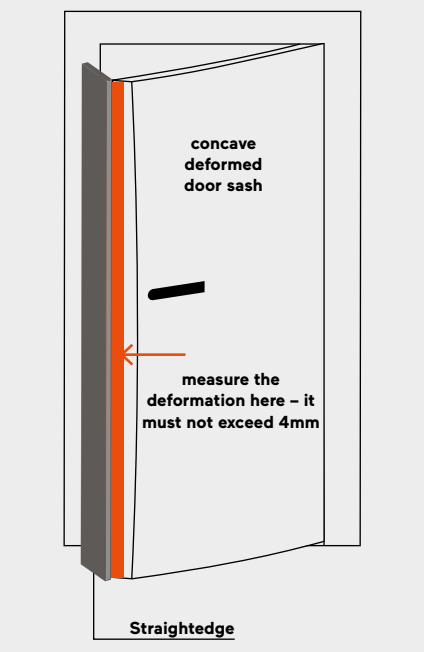
The identification number

A label with the identification number is attached to the top of each entry door in the fold on the hinge side. Please do not remove this label even after installation. It helps us to quickly find and view technical data of the faulty element. Technical service is carried out by our specialised Finstral staff. All spare parts and materials used are original Finstral products.



How much may the door sash deform?

Due to temperature differences between the inside and outside, coloured doors may deform temporarily or permanently. In simple cases it is a purely visual defect, in worse cases it can lead to an impairment of the function. Deformation is permissible as long as the agreed performance characteristics regarding air tightness and driving rain tightness are maintained. It must also be possible to operate the fittings, represented by operating forces that are ≤10Nm for tilt-turn fittings. You then have the option of adjusting the fittings and replacing the strikers if necessary. Practice shows that doors function properly when the deformation is ≤4mm. In individual cases, the deformation may also exceed 4mm without a defect being present, provided that functionality is guaranteed.



Packaging materials

A large proportion of the packaging materials used to package Finstral's products and assembly parts are recyclable. Please collect and dispose of them separately according to the applicable regulations.

Edition dated May 2023
Item number 60-0305-00-07

Always there for you.
Call us or call in.

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