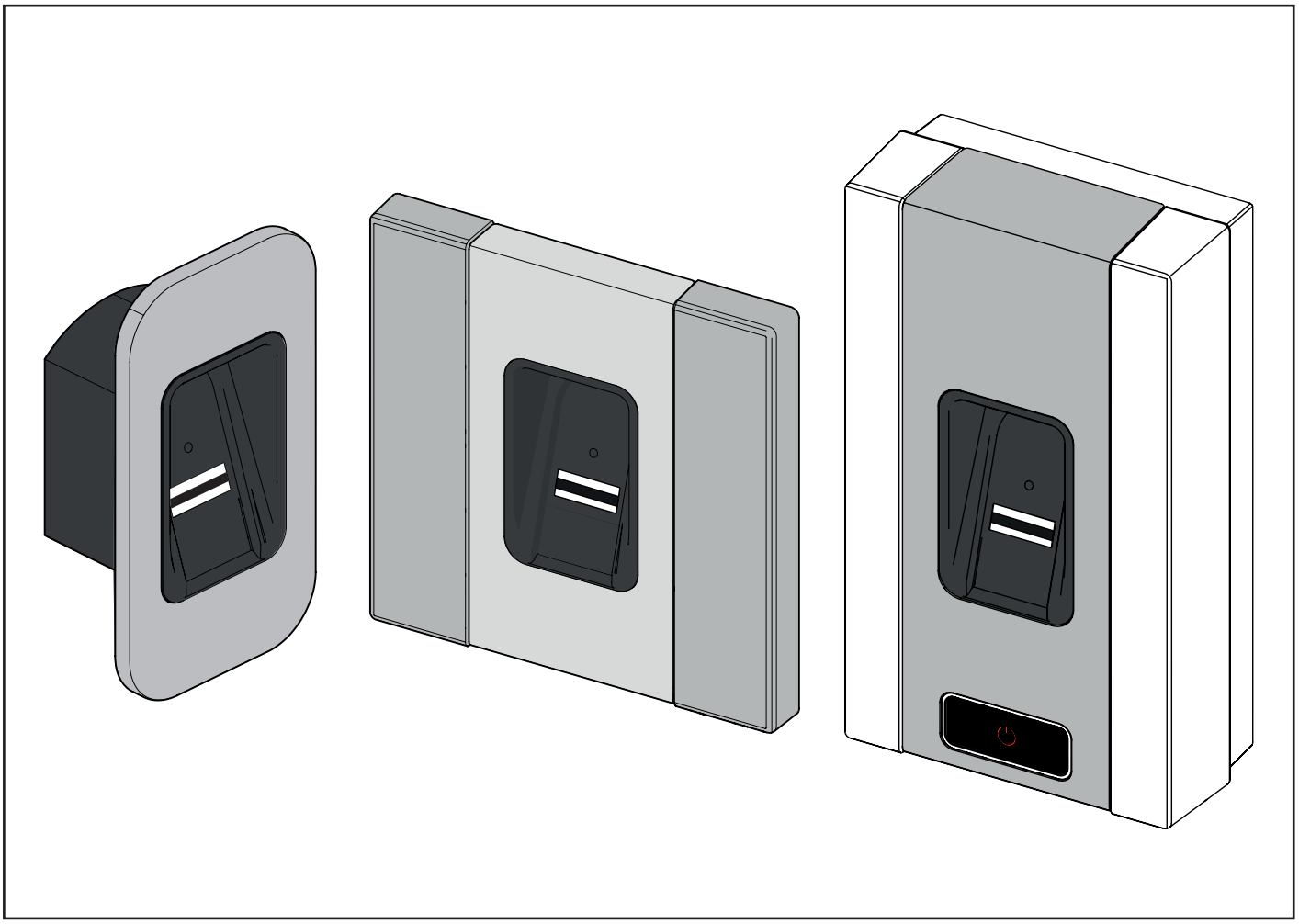

EN TRANSLATION OF THE ORIGINAL INSTALLATION AND OPERATING MANUAL

ENTRAsys+ FD

ENTRAsys+ UP

ENTRAsys+ AP

IMPORTANT INFORMATION:
The first fingerprint swiped over the scanning area is saved as the administrator. Initial operation only by the person who is to be assigned administrator rights!

Download the current manual:

Space for Reset Code

SOMloq2

Information on the product:
Serial No.: See the title page of the installation and operating manual (if applicable warranty label).

Year of manufacture: from 32 / 2022

Information on the Installation and Operating Manual
Version of the installation and operating manual:
ENTRAsys-plus-FD-UP-AP_S11215-00001_342022-0-DRE_Rev-D_EN

Warranty
The warranty complies with statutory requirements. The contact person for warranties is the qualified dealer. The warranty is only valid in the country in which the device was purchased. There is no warranty for consumables such as batteries, accumulators and safety products or light bulbs. This also applies for wear parts.

Contact data
If you require after-sales service, spare parts or accessories, please contact your specialist retailer, installer or contact:

SOMMER Antriebs- und Funktechnik GmbH
Hans-Böckler-Str. 27
73230 Kirchheim unter Teck

Germany

www.sommer.eu
info@sommer.eu

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All brands mentioned in this manual are the property of their respective manufacturer and hereby recognised as such.

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1. About this Installation and Operating Manual

1.1 Storage and circulation of the Installation and Operating Manual

Read this Installation and Operating Manual carefully and completely before installation, commissioning and operation and also before removal. Follow all warnings and safety instructions.

Keep this Installation and Operating Manual accessible at all times at the place of use.

A replacement for the installation and operating manual can be downloaded from **SOMMER Antriebs- und Funktechnik GmbH** at:
www.sommer.eu

During the transfer or resale of the product to third parties, the following documents must be passed on to the new operator:

- this Installation and Operating Manual
- documents recording retrofitting and repairs
- proof of regular care, maintenance and testing
- Declaration of Conformity and Handover Report

1.2 Important for translations

This original Installation and Operating Manual was written in German. The other available languages are translations of the German version. You can get the original Installation and Operating Manual by scanning the QR code:

http://som4.me/orig-entrasys-plus-revd

For other language versions, see:

www.sommer.eu

1.3 Description of the product type

This product is a radio transmitter unit for the activation of radio receivers with verification of identity and authorisation. It has been constructed according to state-of-the-art technology and recognised technical regulations.

The following models are available:

Housing:

- Flush-Mounted
- Surface-Mounted
- Core module (for doors, posts, panels)

1.4 Target groups of the Installation and Operating Manual

The installation and operating manual must be read and observed by everyone assigned with one of the following tasks or using the device:

- Installation
- Initial operation
- settings
- usage
- care and maintenance
- testing
- troubleshooting
- disassembly and disposal

1.5 Explanation of warning symbols and notes

The warnings in this installation and operating manual are structured as follows.

Hazard symbol

SIGNAL WORD

Type and source of hazard
Consequences of the hazard
► Preventing/avoiding the hazard

The hazard symbol indicates the hazard. The signal word is linked to a hazard symbol. The hazard is classified into three classes depending on its danger level:

1. About this Installation and Operating Manual

DANGER

WARNING

CAUTION

There are three different classifications of hazards.

DANGER

Describes an immediate danger that leads to serious injury or death.

Describes the potential consequences of the danger to the user or other persons.

► Instructions on avoiding or preventing the danger.

WARNING

Describes a potential danger of serious injury or death

Describes the potential consequences of the danger to the user or other persons.

► Instructions on avoiding or preventing the danger.

CAUTION

Warns of a potentially dangerous situation.

Describes the potential consequences of the danger to the user or other persons.

► Instructions on avoiding or preventing the danger.

The following symbols are used for notes and information:

1.6 General safety instructions

Instructions which do not warn of an immediate risk but are important for general safe operation of the product are described in Chapter “Basic safety instructions for operation” on page 8.

NOTE

Describes additional information and useful notes for correct use of the product without endangering persons.
Failure to observe this information may lead to property damage or faults in the product or components connected to the product.

INFORMATION

Describes additional information and useful notes for optimum use of the product.

INFORMATION

This symbol indicates that components of the product which have been taken out of service must not be disposed of with household waste, as they contain hazardous substances. The components must be disposed of correctly at an authorised recycling centre. The local and national regulations must be observed.

The following symbols are used in the figures and text.

Continue reading the installation and operating manual for more information.

Symbol refers to factory settings.

1. About this Installation and Operating Manual

1.7 Special warnings, hazard symbols and mandatory signs

To specify the source of danger more precisely, the following symbols are used together with the above-mentioned hazard symbols and signal words. Follow the instructions to prevent a potential hazard.

DANGER

Danger due to electric current!

Contact with live parts may result in electric current flowing through the body. Electric shock, burns, or death may result.

► Installation, testing and replacement of electrical components must be carried out by a **trained electrician**.

The following mandatory signs inform the user that actions are required. The requirements described must be complied with.

WARNING

Risk of eye injury!

Chips flying when drilling may cause serious injuries to the eyes.

► Wear safety glasses.

1.8 Information regarding the depiction of text

1. Stands for directions for an action

⇒ Stands for the results of the action

Lists are shown as a list of actions:

- List 1
- List 2

Important text items, for example in directions for actions, are emphasised in **bold** type.

References to other chapters or sections are in **bold** type and set in **"quotation marks."**

1.9 Intended use

- The transmitter unit may only be used together with radio receivers from SOMMER Antriebs- und Funktechnik GmbH.
- The transmitter unit is suitable for SOMloq Rolling-code and SOMloq2 radio systems.
- The transmitter unit may only be used for devices and systems in which radio interference in the transmitter or radio receiver will not endanger people, animals or objects, or the risk is reduced by other safety devices.
- Remote control of devices and systems with increased accident risk (e.g. hoists) is prohibited!

The user of the radio system is not protected against interference due to other telecommunications equipment or devices. This includes radio-controlled systems that are licensed to operate in the same frequency range. If significant interference occurs, please contact your appropriate telecommunications office which has radio interference measuring equipment or radio location equipment.

1.10 Improper use

Any use other than that described in Chapter “Intended use” on page 6constitutes improper use. The user bears the sole responsibility for any risk involved.

The manufacturer's warranty will be voided by:

- damage caused by other use and improper use
- use with defective parts
- unauthorised modifications to the product
- modifications and non-approved programming of the device and its components

The product must not be used in:

- areas with explosion hazard
- very salty air
- aggressive atmosphere, including chlorine

1.11 Simplified Declaration of Conformity

SOMMER Antriebs- und Funktechnik GmbH hereby declares that the radio system (ENTRAsys+) complies with Directive 2014/53/EU. The full text of the EU Declaration of Conformity for the radio system can be found at:

som4.me/mrl

2. Declarations of Conformity

2.1 Simplified Declaration of Conformity

SOMMER Antriebs- und Funktechnik GmbH hereby declares that the radio system (ENTRAsys+) complies with Directive 2014/53/EU. The full text of the EU Declaration of Conformity for the radio system can be found at:

CE

som4.me/mrl

2.2 UKCA Declaration of Conformity

SOMMER Antriebs- und Funktechnik GmbH
Hans-Böckler-Straße 27
7330 Kirchheim unter Teck
Germany

hereby declares that the products designated below, when used as intended, comply with the essential requirements of the Radio Equipment Regulations 2017 and that, in addition, the standards listed below have been applied.

DIN VDE 0620-1	2016-01
EN 62368-1:2016-05 + AC:2015	2016-05
EN 62479:2011	2011-09
ETSI EN 300 220-2 V3.2.1	2018-06
ETSI EN 300 328 V2.2.2	2019-07
ETSI EN 301 489-1 V2.2.3	2019-11
ETSI EN 301 489-3 V2.1.1	2019-03

Product	Article No.
ENTRAsys+	S10998 S11186 S11014

The product was imported into the United Kingdom by
SOMMER Doco
Unit B3 Elvington Industrial Estate
Elvington
York
YO41 4AR

UKCA

Kirchheim unter Teck
05.09.2022

i.V.

Jochen Lude
Responsible for documents

3. General safety instructions

3.1 Basic safety instructions for operation

DANGER

Danger due to electric current!

Contact with live parts may result in electric current flowing through the body. Electric shock, burns, or death may result.

- ► Installation, testing and replacement of electrical components must be carried out by a **trained electrician**.
- ► Disconnect the mains plug before working on electrical components.
- ► Then check that the equipment is disconnected from the power supply and secure it against being switched on again.

DANGER

Incorrect handling

Serious or even fatal injury may result if the product is used incorrectly.

- ► Systems that pose an accident risk should not be operated by remote control unless the complete range of movement of the system is visible to the user.
- ► The local safety regulations valid for the system must be observed. Information is available from electrical utility companies, VDE (Association for Electrical, Electronic & Information Technologies) and professional associations.
- ► Do not operate the ENTRAsys in areas with sensitive radio communications or systems (e.g. airplanes, hospitals).
- ► All persons set up as users in the ENTRAsys by an administrator must be informed of any hazards involved in the operation of the system and how to avoid them.
- ► An alternative means of access must be provided in addition to the transmitter unit.
- ► The ENTRAsys must be connected in such a way that it is protected against unauthorised manipulation.

WARNING

Danger of hazardous substances!

Improper storage, use or disposal of accumulators and batteries are dangerous for the health of humans and animals.

- ► Accumulators and batteries must be stored out of the reach of children and animals.
- ► Keep batteries and accumulators away from chemical, mechanical and thermal influences.
- ► Do not recharge batteries.
- ► Old batteries, old accumulators and individual components of the device must be disposed of correctly and not with household waste.

NOTE

- ► Dispose of all components in accordance with local or national regulations to avoid environmental damage.
- ► The display is difficult to read in strong sunlight.
- ► The reset code is affixed to the core module. It must be removed and kept in a safe place. For further information on the reset code, see **“8.16 Entering the reset code” on page 30**

3.2 Notes on the finger scanner

NOTE

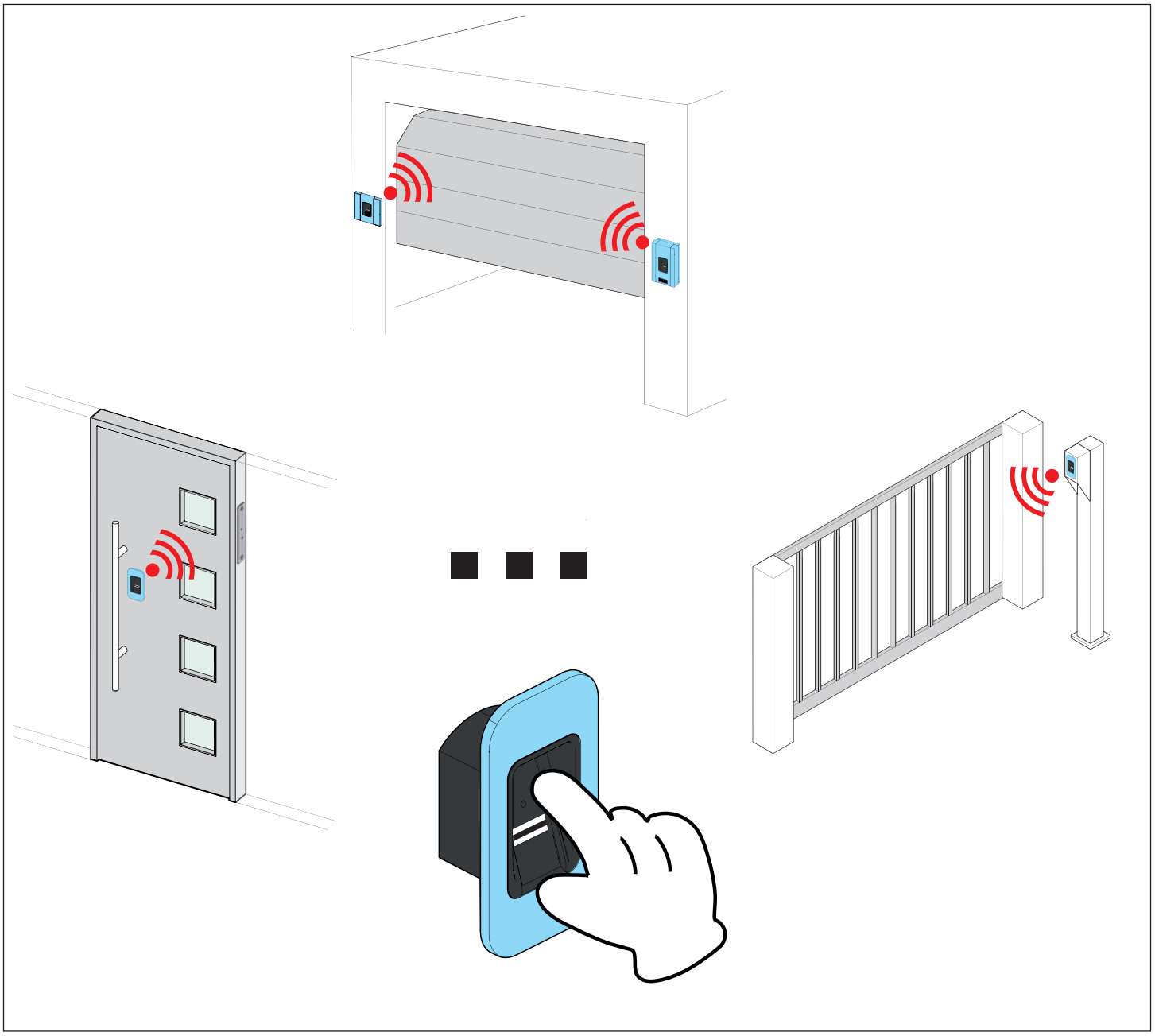
- ► Dispose of all components in accordance with local or national regulations to avoid environmental damage.
- ► Finger prints may sometimes not be usable for biological reasons or as a result of environmental influences (frequent exposure to aggressive cleaning agents or abrasive materials). This is not a malfunction of the device. This is not a malfunction of the device!
- ► Fingers must always be dry when scanning them. See **“12. Tips & tricks” on page 38.**

NOTE

- ► Clean using a suitable, clean, moist cleaning cloth (e.g. lens/glasses wipe).

4. Description of function and product

4.1 Application examples



With the transmitter unit, you can send radio commands to a radio receiver. Depending on the actuator connected, these commands trigger a specific event (e.g open a garage door, a house door etc.). A previously programmed fingerprint serves as authentication for transmission of the radio command. This means that only authorised persons can trigger the desired action.

4. Description of function and product

4.2 Product designation

NOTE

The type plate is on the side of the core module. In as-delivered state, it is concealed under the sticker with the reset code.

The type plate includes:

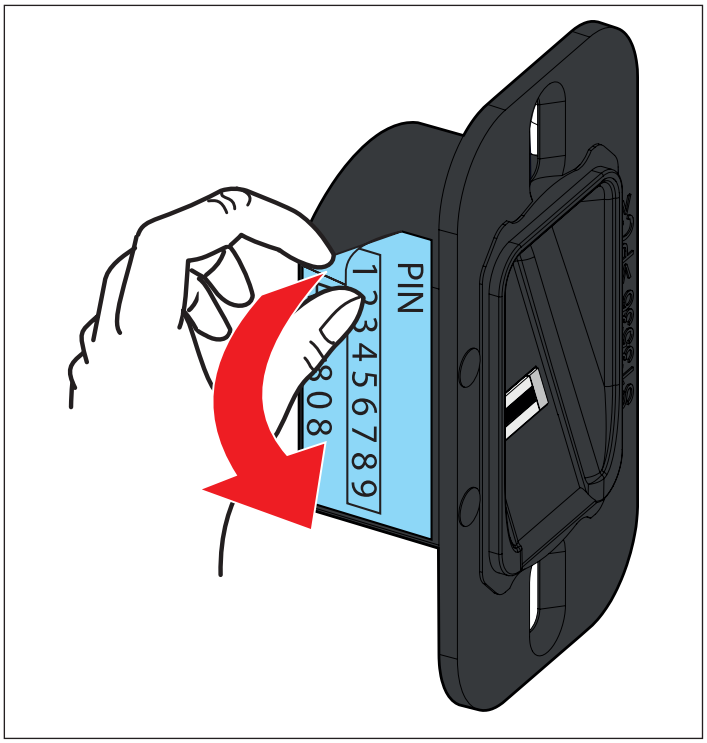
- type designation
- Item Number
- date of manufacture with calendar week and year
- serial number

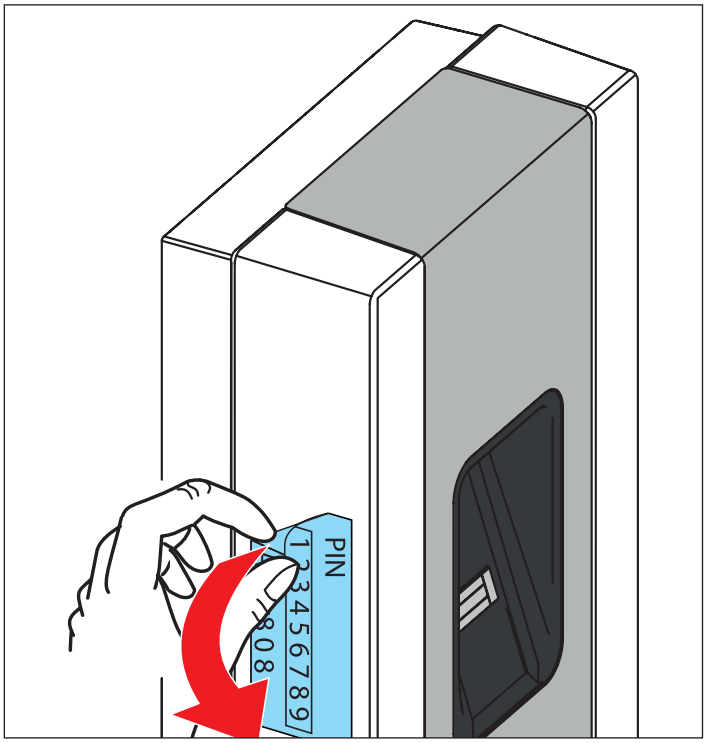
In case of questions or service, please supply the type designation, the date of manufacture and the serial number.

4.3 Reset code

NOTE

The reset code is affixed to the core module or, depending on the model, on the outside of the housing. It must be removed and kept in a safe place. For further information on the reset code, see “8.16 Entering the reset code” on page 30

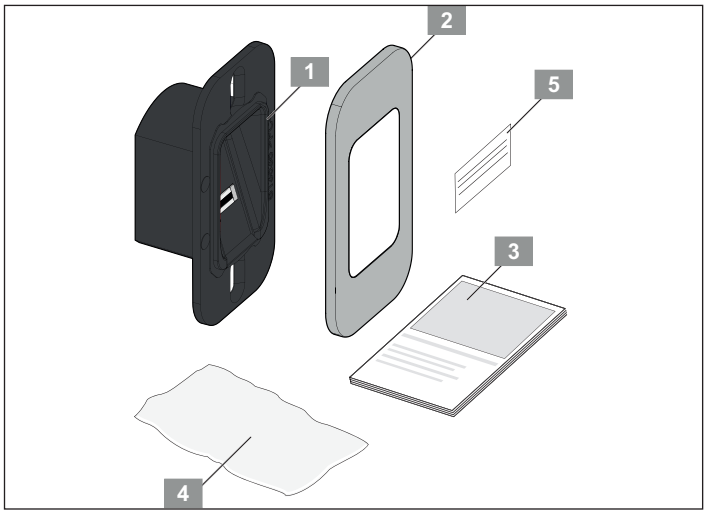




4. Description of function and product

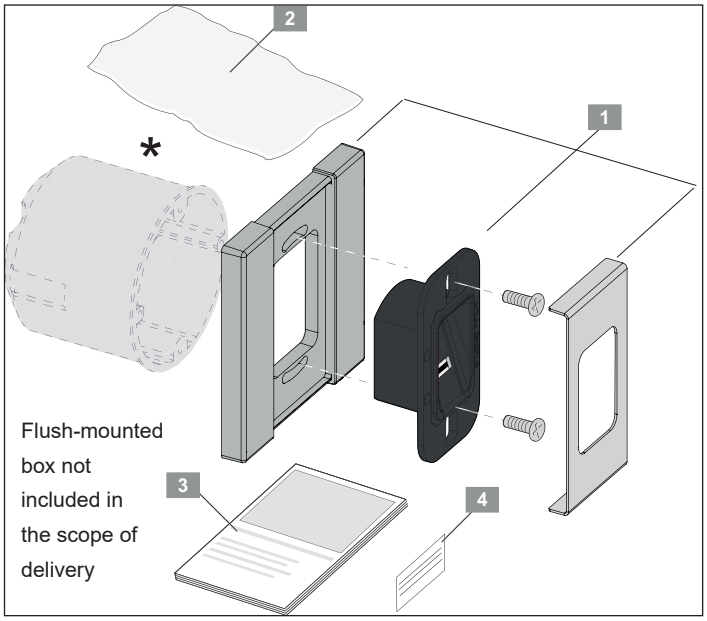
4.4 Scope of delivery

ENTRAsys+ FD



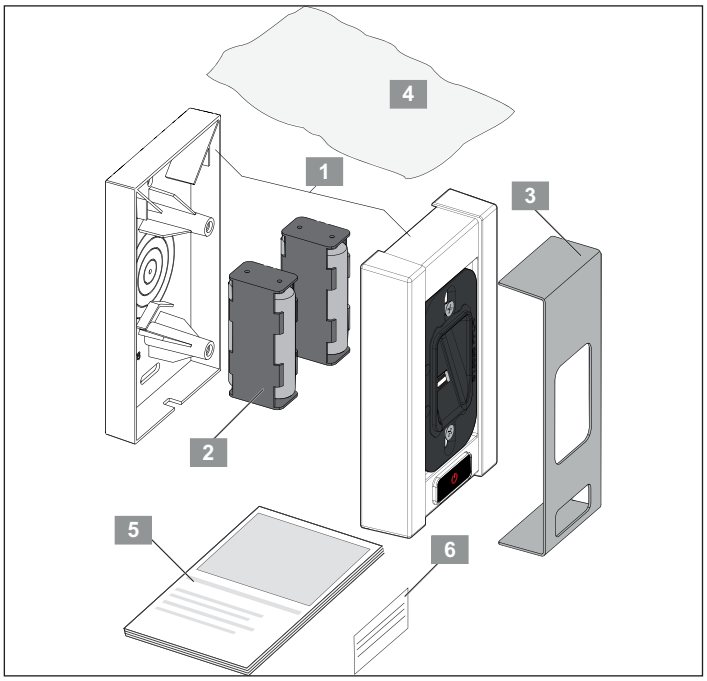
1	ENTRAsys+ core module
2	Faceplate with stainless-steel trim
3	Installation and Operating Manual
4	Installation bag for small parts
5	Sticker with reset code

ENTRAsys+ UP



1	ENTRAsys+
2	Installation bag for small parts
3	Installation and Operating Manual
4	Sticker with reset code

ENTRAsys+ AP

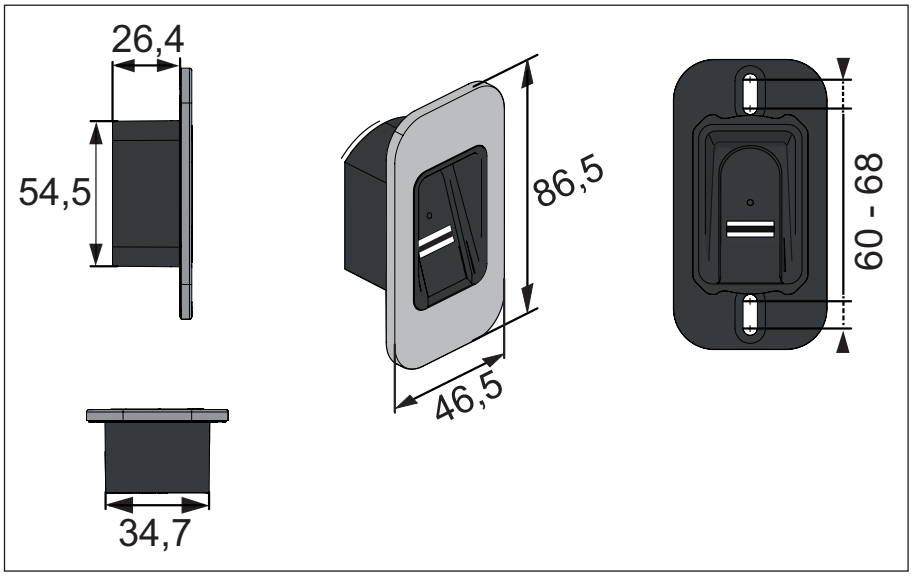


1	ENTRAsys+ upper housing section with core module and bottom housing section
2	AA batteries (4 pcs)
3	Faceplate with stainless-steel trim
4	Installation bag for small parts
5	Installation and Operating Manual
6	Sticker with reset code

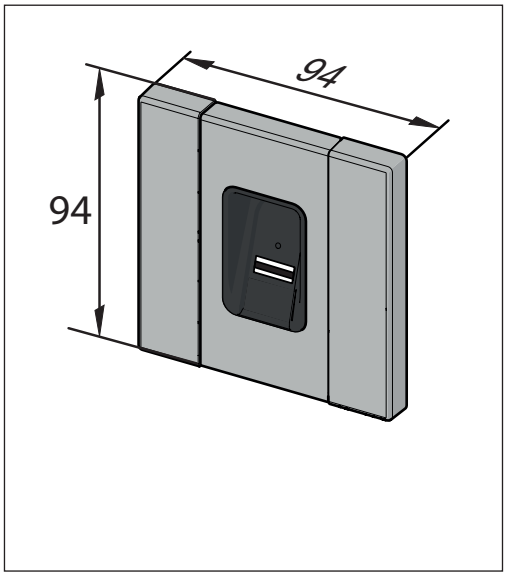
4. Description of function and product

4.5 Dimensions

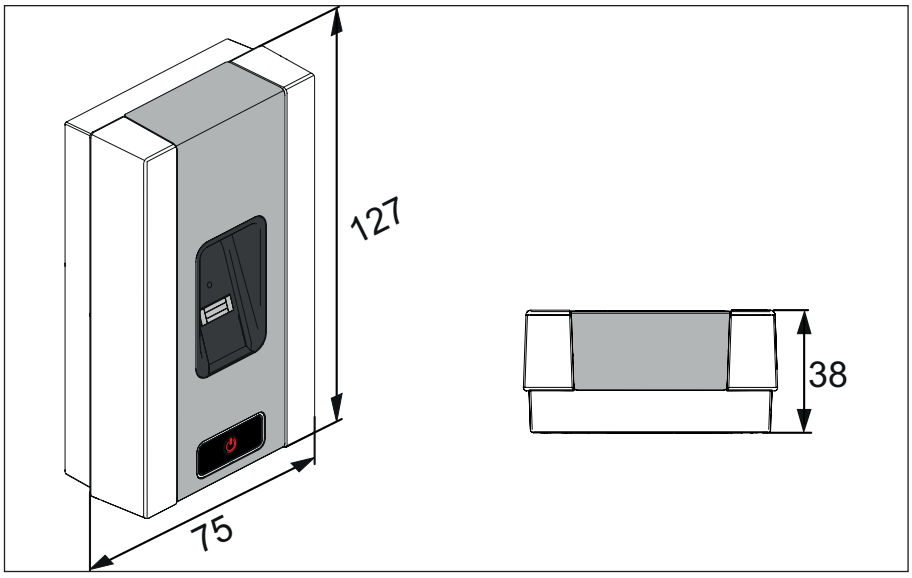
ENTRAsys+ FD



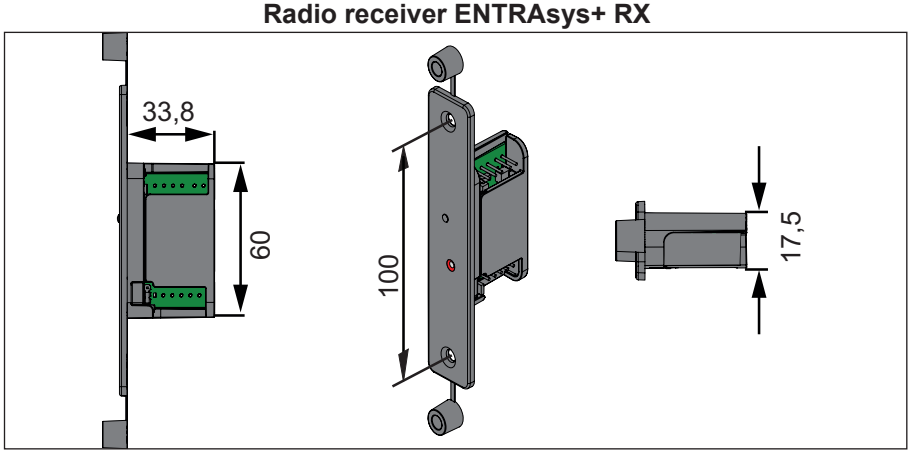
ENTRAsys+ UP



ENTRAsys+ AP



Radio receiver ENTRAsys+ RX



4. Description of function and product

4.6 Technical data

Core module ENTRAsys+	FD	UP	AP
Supply voltage	12 V AC / 8 - 24 V DC		4 x AA batteries 1.5 V
Max. current consumption (at 12 V DC)	33 mA		
Operating temperature range	- 20 °C ... 65 °C		- 20 °C ... 55 °C
IP protection class	IP65		IP54
Memory capacity	50 to a max. of 80 fingerprints* including a max. of 9 administrators*		
Radio commands	Max. 4		

*The number of characteristics varies from fingerprint to fingerprint. Fingerprints with a large number of characteristics take up more memory space.

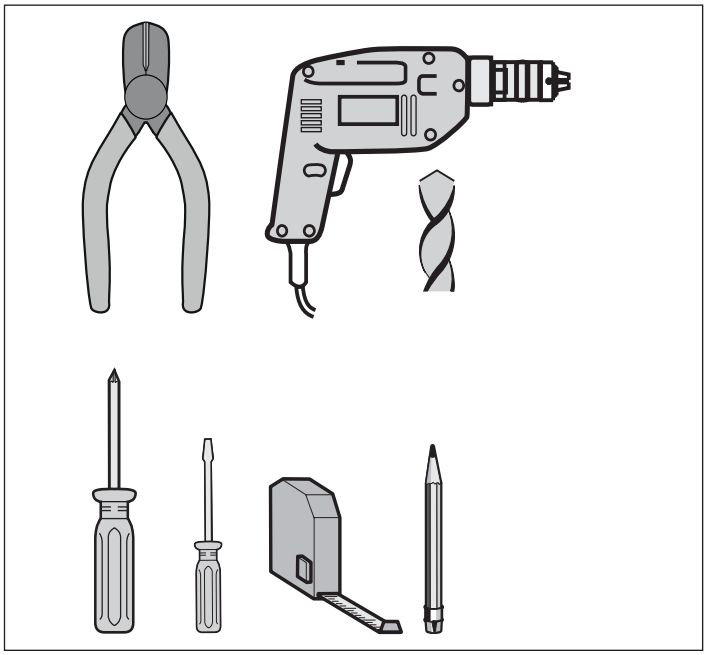
Radio receiver ENTRAsys+ RX	
Supply voltage	12 V AC / 8 - 24 V DC
Max. current consumption	14 mA
Max. switching capacity	2.5 A AC / DC
Memory locations	112
Radio frequency	868.95 MHz (SOMloq2)/ 868.8 MHz (Somloq Rollingcode)
Pulse duration	3 s (factory setting - can be changed via SOMlink) Toggle optional Timer optional (can be set via SOMlink)
Door opener contact (potential-free)	connectible
Door opening pulse (non-floating)	6 ... 24 V AC / DC connectible
Radio (core module and receiver)	
Encryption	128 bit AES
Number of possible commands	Finger scanner 4 commands Receiver, 1-channel
Radio range	approx. 50 m

5. Tools and protective equipment

5.1 Required tools

NOTE

- ► The tools shown below are only the recommended minimum equipment for the installation of an ENTRAsys+.
- ► The actual tools needed may vary depending on the device model and the mounting surface.



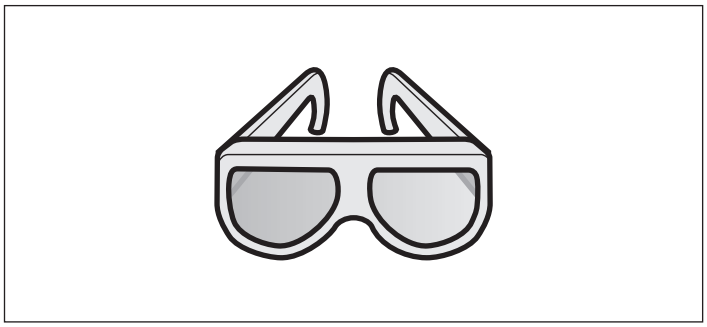
5.2 Personal protective equipment

WARNING

Risk of eye injury!

Chips flying when drilling may cause serious injuries to eyes and hands.

- ► Wear safety glasses when drilling.



WARNING

Risk of eye injury!

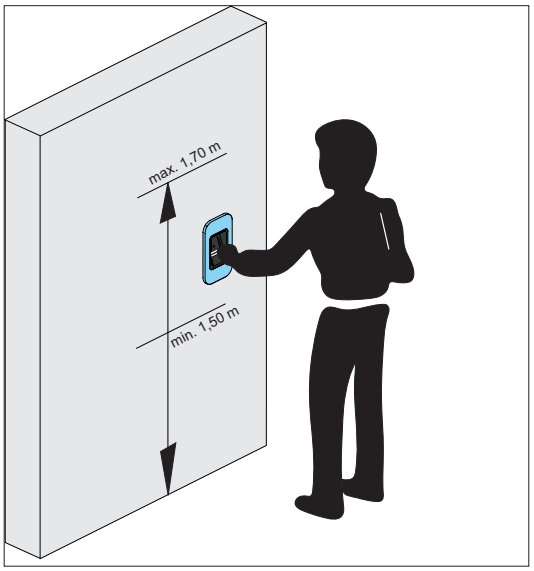
Chips flying when drilling may cause serious injuries to eyes and hands.

- ► Wear safety glasses when drilling.

NOTE

Observe the correct installation height for convenient operation of the ENTRAsys+.

- ► Before starting installation, open the package and check the entire contents against the scope of delivery, see Chapter **"4.4 Scope of delivery" on page 11**".

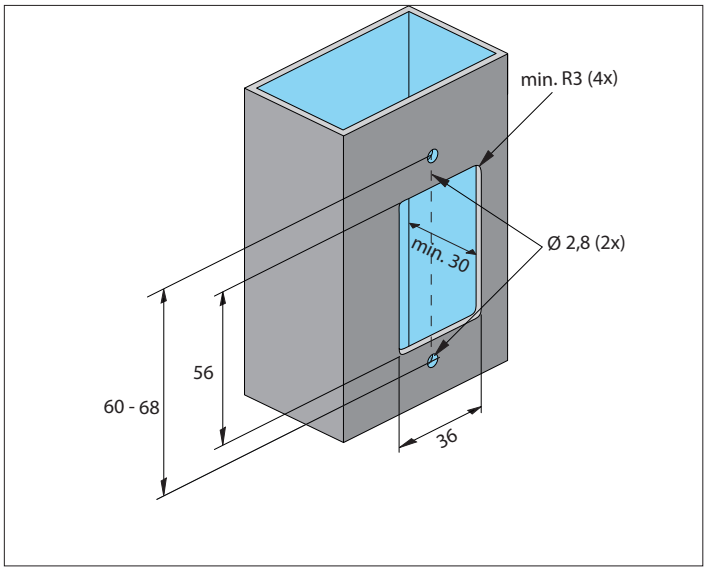


6. Installation

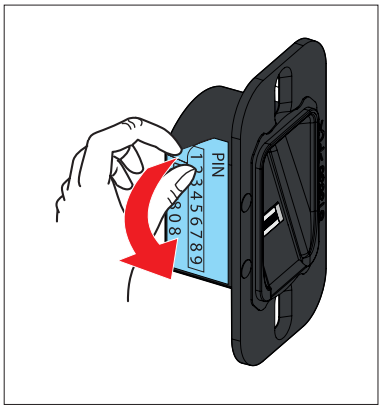
6.1 ENTRAsys+ FD

NOTE

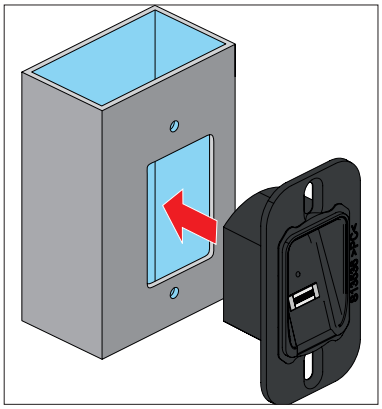
The fastening screws provided are self-tapping screws.



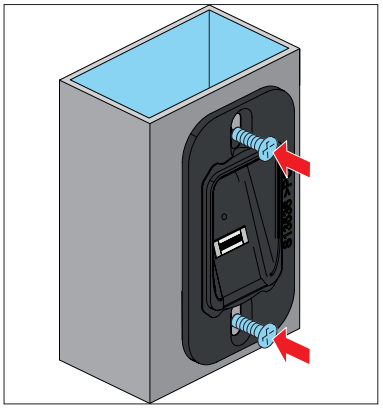
1. Prepare the recess for the core module.
2. Drill the holes for mounting.



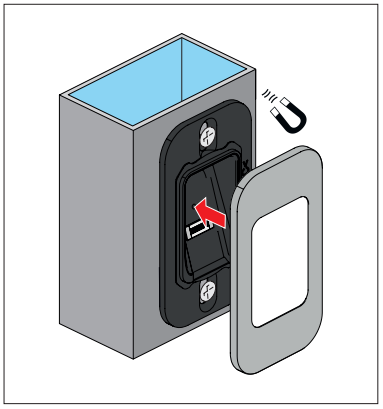
3. Remove the sticker with the reset code and place it in a safe, protected location indoors.



4. Insert the core module.



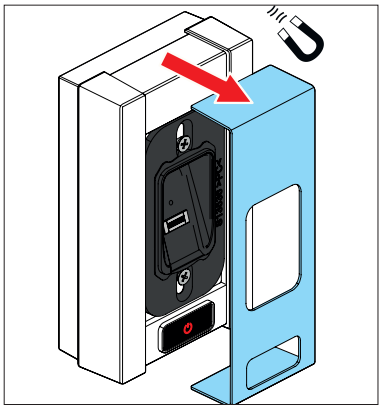
5. Align the core module.
6. Attach the core module.



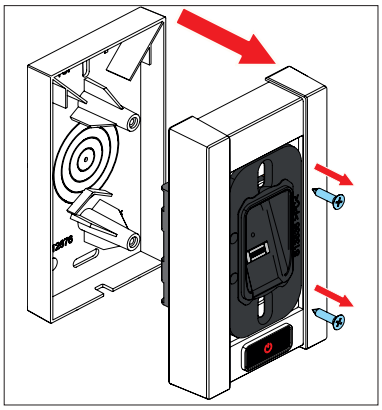
7. Fit the magnetic faceplate.

6. Installation

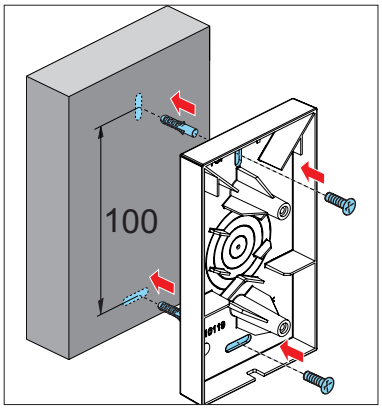
6.2 ENTRAsys+ AP



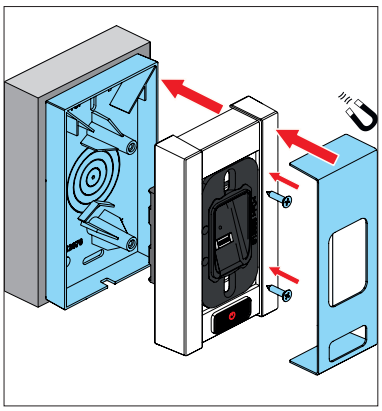
1. Remove the magnetic faceplate



2. Unscrew the two middle screws.
3. Lift off the upper housing section including the core module. Pay attention to the cables (do not disconnect the core module from the batteries).



4. Drill the holes and attach the bottom housing section with suitable mounting material.



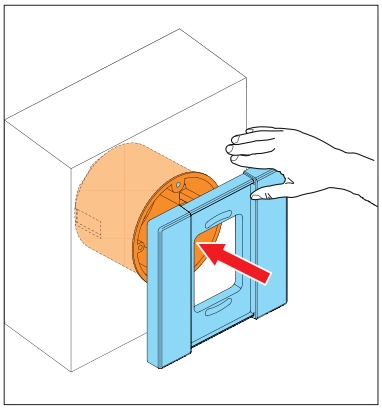
5. Assemble in reverse order.

6. Installation

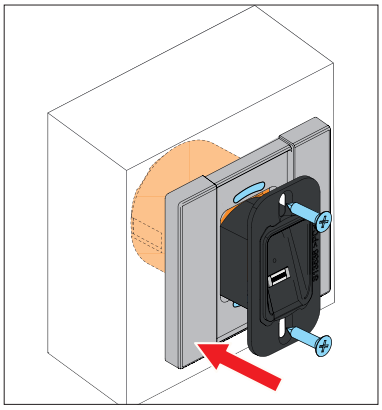
6.3 ENTRAsys+ UP

NOTE

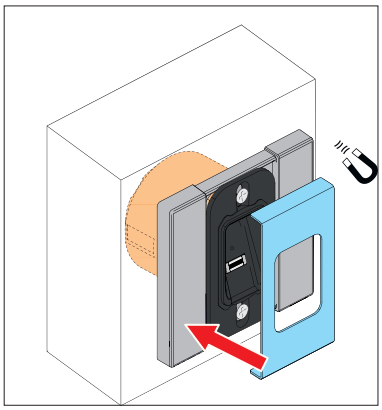
The following description assumes that a flush-mounted box is already installed.



1. Position the housing frame flush on the flush-mounted box and hold it in position or fasten it provisionally.



2. Insert the core module and attach it with the screws provided.



3. Fit the magnetic faceplate.

6.4 Installing the ENTRAsys+ RX

NOTE

A separate installation and operating manual and a wiring diagram showing the example of connection to a house door are enclosed with the radio receiver ENTRAsys+ RX.

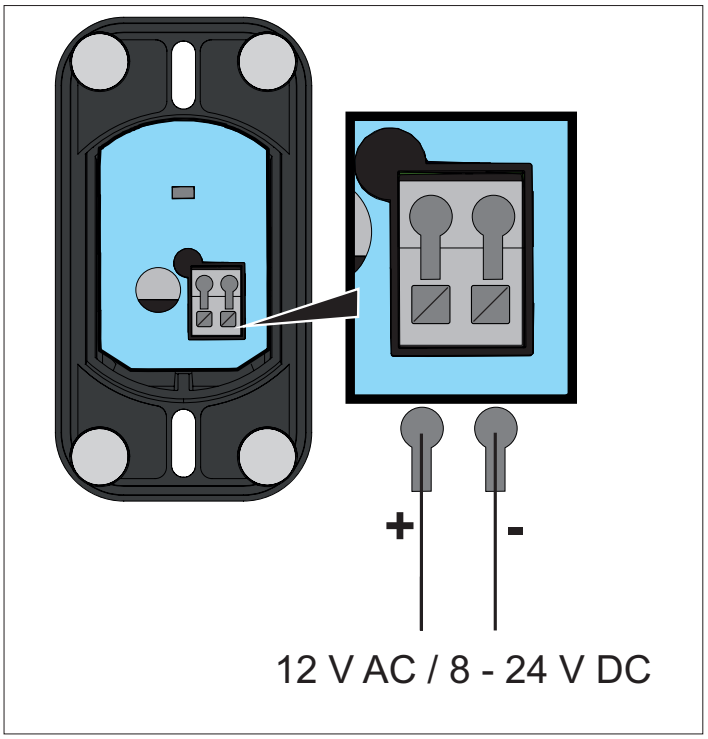
Installation instructions and wiring diagrams are available in the download area:

som4.me/man

6.5 Electrical connection

NOTE

This description of the electrical connection applies exclusively to the variants **ENTRAsys+ FD** and **ENTRAsys+ UP**.



7. Operation

⚠ WARNING

Danger of injury if range of movement is not visible

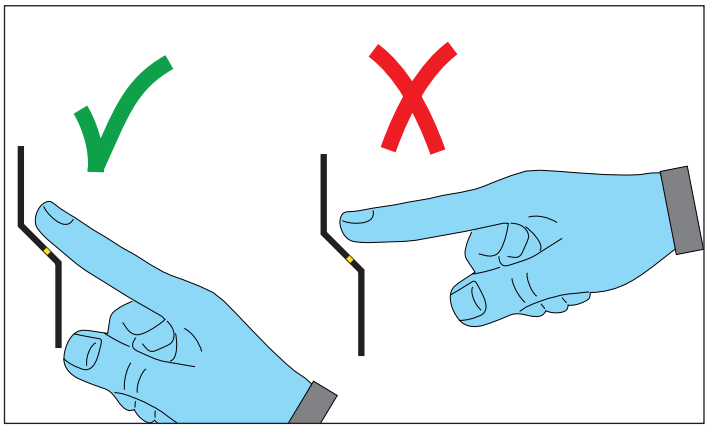
Using the ENTRAsys+ without a clear view of the operated door or gate can lead to serious or even fatal injury.

► Do not use the ENTRAsys+ unless you have a clear view of the range of movement of the door or gate.

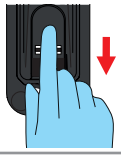
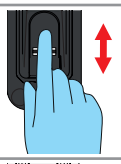
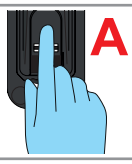
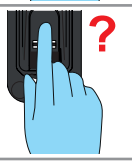
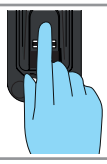
7.1 Correct finger position

NOTE

For further information, see **“12. Tips & tricks” on page 38.**

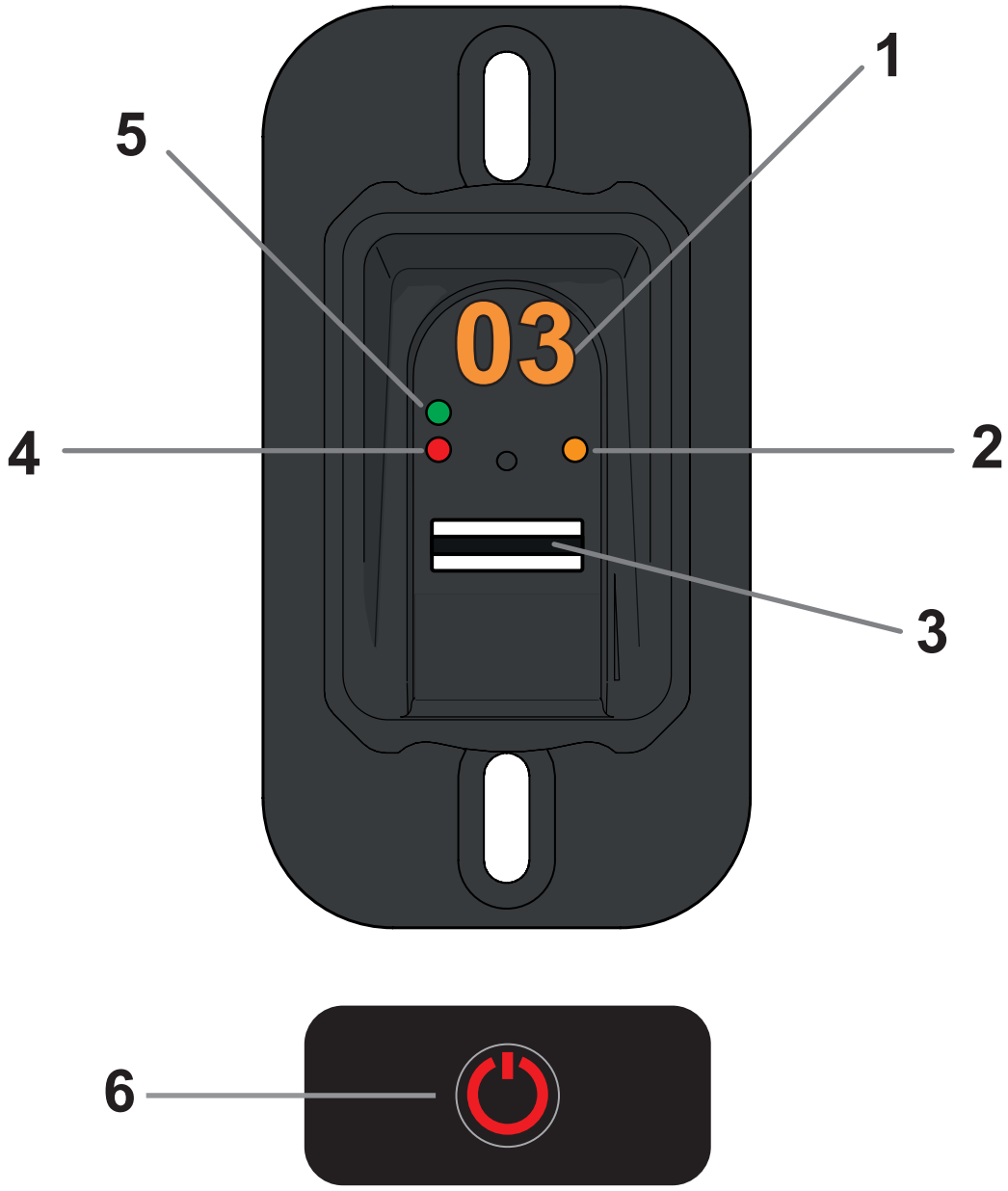


7.2 Meaning of the illustrations in this manual

Illustration	Description
	Draw finger across the scanning area (e.g. to programme the fingerprint)
	Move finger up or down to navigate within the menu
	Press scanning area with finger to select a menu item or carry out an action
	Fingerprint already programmed as an administrator
	Fingerprint already programmed as a user
	Unknown fingerprint, not yet programmed
	Random fingerprint (administrator, user or unknown)

7. Operation

7.3 The control element

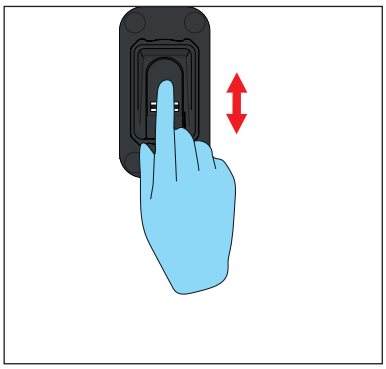


No.	Description
1	**Display**
2	Yellow LED
3	Scanning area
4	Red LED
5	Green LED
6	Power button (only on variant ENTRAsys+ AP)

7. Operation

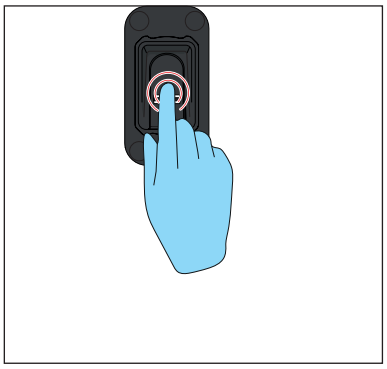
7.4 Finger movements for operation

The ENTRAsys+ is operated by moving your finger in one of two ways:



1. Swipe vertically to select menu items or values.

⇒ **Vertical swiping movement with your fingertip**



2. Press lightly on the scanning area with your fingertip to confirm your selection.

⇒ **The display will start to blink.**

⇒ **Selection was successful when the display goes dark. Keep your finger on the scanning area until this happens.**

7. Operation

7.5 Menu overview

Function	Menu level 1	2	3
Technical Initial Operation*	t i		
Learn User	LU	U	
Learn Extended	LE	L01	C01
Learn Admin	LA	A	
Delete	d	d01	
Delete all	da		

Function	Menu level 1	2	3
Send delayed	Sd	01	
Light**	LI	ON/OFF	
Heating**	HE	ON/OFF	
AC	AC	ON/OFF	
Exit	E		

* Only available if no administrator has been programmed yet.

** This function is not available on the battery-operated models.

7. Operation

7.6 Overview of the menu

Display Level 1	Meaning	Function	Special features
TI	Technical initial operation	Factory start-up (only for installers)	• Function is only available until an administrator has been programmed
A	Admin	Prompt to programme a first administrator during initial operation.	• This administrator cannot be deleted using "Delete", but only by entering the reset code.
LU	Learn User	Programme a new user to the next free memory location on radio channel 1	
LE	Learn Extended	Assign a specific radio channel / memory location to a new user	
LA	Learn Admin	Programme a further administrator (A2 - A9)	
d	Delete	Delete specific individual users / administrators	
dA	Delete all	Delete entire memory (reset to factory settings)	
Sd	Send delayed	Delay transmission of a command until expiry of a period of time selected here	• Setting range: 1 - 15 s • Factory setting: Disabled (0 s) • Progress is displayed via LED countdown
Li	Light	Helps you to see the scanning area in the dark	• Not available on battery-operated models
HE	Heating	Ensures operation even at low temperatures	• Not available on battery-operated models
AC	Access Control	Sends a command to a separate receiver in the event of an unauthorised attempt to gain access	• Can be used, for example, to activate an alarm system
E	Exit	Closes the menu	
P	Reset code	Enables the menu without the fingerprint of an administrator	• Cannot be changed
23	Software version	Info on software version	

8. Initial Operation

8.1 Important information for first start-up

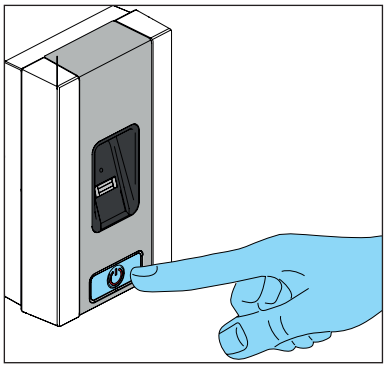
NOTE

- The menu item "TI" (Technical initial operation) is available to personnel carrying out installation / mounting until an administrator has been programmed. For a description of technical initial operation, see **“8.3 Technical initial operation”**.
- After technical initial operation "TI” or when the time window for technical initial operation has elapsed without an action being performed, the device switches to programming mode for administrator "A" for approx. 4 minutes, i.e. the first fingerprint that is saved is automatically saved as administrator "A1".
- If the 4 minutes expire before the administrator has been programmed, programming mode can be restored by briefly interrupting the voltage supply.
- If anything other than "TI" (7 seconds) followed by "A” (approx. 4 minutes) is shown on the display when the power supply is switched on for the first time, fingerprints are probably already programmed in the device. In this case, the reset code must be entered and the complete memory deleted (see **“8.16 Entering the reset code” on page 30**
- Always position finger flat on the scanning area. The fingertip alone is not sufficient. See **“7.1 Correct finger position” on page 18**.
- Only one function can be assigned to each fingerprint. This means that a fingerprint already programmed as an administrator cannot be programmed as a user.
- Some fingerprints are not suitable for biometric systems. If problems occur repeatedly with a specific fingerprint, another fingerprint should be programmed.
- For further information, see **“12. Tips & tricks” on page 38.**

8.2 Switching on the ENTRAsys+ AP

NOTE

- The battery-operated variant ENTRAsys+ AP must be switched on before each use.
- The device switches off again automatically after approx. 4 minutes.



8.3 Technical initial operation

NOTE

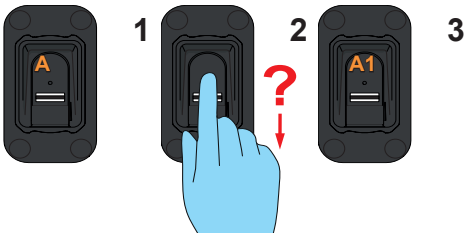
- This menu item is only intended for personnel carrying out installation / mounting.
- It is available for approx. 7 seconds after connecting the operating voltage for the first time or switching on the ENTRAsys+ for the first time.
- If a random finger is placed on the sensor area within this time window, the ENTRAsys+ sends a radio command 1 (C1). If a radio receiver in programming mode is located within range during this time, the radio command is programmed on the receiver without the necessity of programming a fingerprint.
- If no action is performed within this time window, the display switches to "A” and the programming of an administrator can begin. **“8.4 Programming an administrator at the start of initial operation”**
- When the radio command is sent, the time window for technical initial operation is extended by a further 7 seconds, so that a function test of the radio command 1 (C1) can be carried out by again placing any finger on the sensor area.
- The menu item "TI" is only available until an administrator has been programmed.

8. Initial Operation

8.4 Programming an administrator at the start of initial operation

NOTE

- ► We strongly recommend that you create at least two administrators. This allows you to make changes to the device if one of the administrators is not available.
- ► If an administrator has already been programmed and you wish to add a further administrator, follow the instructions under "Programming an administrator".
- ► Programming the same fingerprint in several memory locations on the same channel significantly increases the probability of the print being recognised.
- ► For further information, see **“12. Tips & tricks” on page 38.**

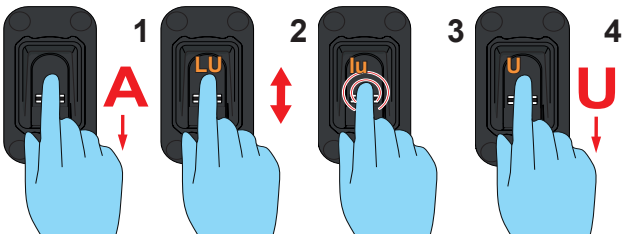


1. Swipe the complete area of the fingerprint that is to be programmed with administrator rights over the scanning area.
   - ⇒ The yellow LED goes out
   - ⇒ The yellow LED lights up again
2. Repeat the process several times.
   - ⇒ "A1" appears on the display
   - ⇒ The green LED lights up
   - ⇒ The administrator has been successfully programmed

8.5 Programming a user (Learn User)

NOTE

- ► A user can carry out the programmed radio command with his fingerprint. A user cannot make changes at the device, e.g. add new users or administrators etc.
- ► This function automatically programs the user at channel 1. To program the fingerprint of a user at another channel, please follow the instructions for "Learn Extended."
- ► Programming the same fingerprint in several memory locations on the same channel significantly increases the probability of the print being recognised.
- ► For further information, see **“12. Tips & tricks” on page 38.**



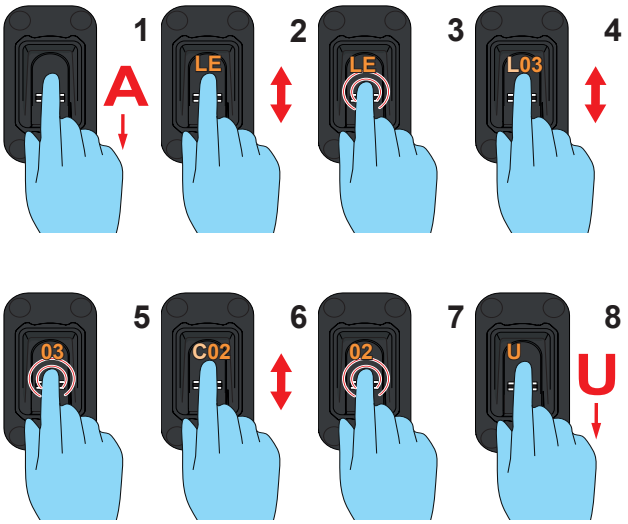
1. Open the menu via an administrator.
2. Navigate to the menu item "LU."
3. Select this menu item.
   (Press lightly on the scanning area with your fingertip).
   - ⇒ The display "LU" blinks several times
   - ⇒ The display "U" appears
4. Swipe the complete area of the fingerprint that is to be programmed with user rights over the scanning area.
   - ⇒ The yellow LED goes out
   - ⇒ The yellow LED lights up again
5. Repeat the process several times (approx. 3 to 10 times).
   - ⇒ The display shows "U" and the memory location assigned to the user, e.g. "U3"
   - ⇒ The green LED lights up
   - ⇒ The user has been successfully programmed

8. Initial Operation

8.6 Extended programming of a user (Learn Extended)

NOTE

► With this function, a memory location and a channel can be assigned to the user to be programmed.



1. Open the menu via an administrator.
2. Navigate to the menu item "LE."
3. Select this menu item.
   ⇒ The display "LE" blinks several times
   ⇒ The display changes and shows "L" and the next free memory location alternately
4. Navigate to the desired memory location.
5. Select this memory location.
   ⇒ The display "C1" blinks several times. This shows that channel 1 is selected
6. Navigate to the desired channel.
7. Select this channel.
   ⇒ The display "U" lights up
8. Swipe the complete area of the fingerprint that is to be programmed with user rights over the scanning area.
   ⇒ The yellow LED goes out
   ⇒ The yellow LED lights up again
9. Repeat the process several times.
   ⇒ The display shows the memory location that has been selected for this user

8.7 Programming an administrator (Learn Admin)

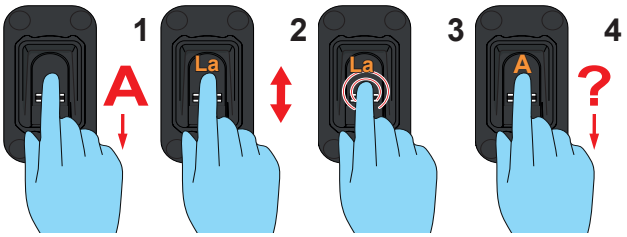
NOTE

► An administrator can access all menu items and is authorised to make changes to them.

► A fingerprint that has been saved as administrator cannot be used to transmit a radio command. To do this, a separate fingerprint must be programmed as a user.

► Programming the same fingerprint in several memory locations on the same channel significantly increases the probability of the print being recognised (recommendation: program each fingerprint 3 times).

► For further information, see **“12. Tips & tricks” on page 38.**



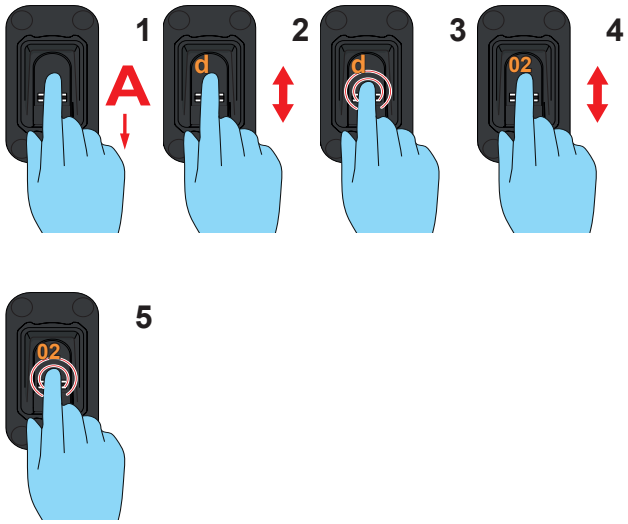
1. Open the menu via an administrator.
2. Navigate to the menu item "LA".
3. Select this menu item.
   ⇒ The display "LA" blinks several times
   ⇒ The display "A" appears
4. Swipe the complete area of the fingerprint that is to be programmed with administrator rights over the scanning area.
   ⇒ The yellow LED goes out
   ⇒ The yellow LED lights up again
5. Repeat the process several times.
   ⇒ The display shows "A" and the memory location assigned to the administrator, e.g. "A2"
   ⇒ The green LED lights up
   ⇒ The administrator has been successfully programmed

8. Initial Operation

8.8 Deleting a user or administrator (Delete)

NOTE

► The administrator who has opened the menu cannot be deleted.



1. Open the menu via an administrator.
2. Navigate to the menu item "d."
3. Select this menu item.
   ⇒ The display "d" blinks several times
   ⇒ The display alternates between "d" and the first deletable memory location (e.g. 01 for user 1 or A2 for administrator 2)
4. Navigate to the memory location you wish to delete.
5. Select this memory location.
   ⇒ The number of the memory location blinks several times and then goes out
   ⇒ The memory location has been deleted

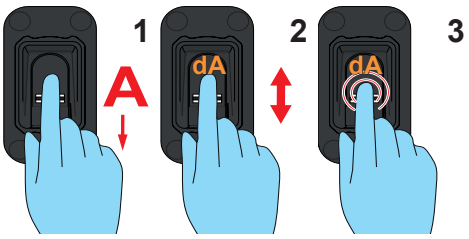
8.9 Deleting the entire device memory (Delete All)

NOTE

► The device is reset to the factory settings.

► Radio receivers must be deleted separately.

► The next time the device is switched on, an administrator must be programmed again, see Chapter “8.4 Programming an administrator at the start of initial operation”



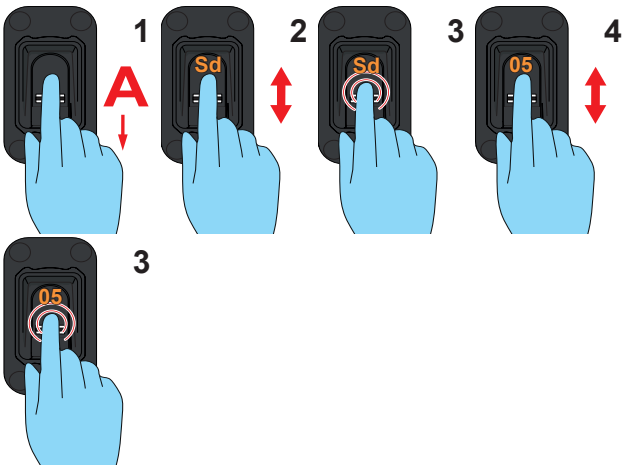
1. Open the menu via an administrator.
2. Navigate to the menu item "dA."
3. Select this menu item.
   (Your finger must remain on the scanning area during the entire deletion process).
   ⇒ The display "dA" blinks slowly for several seconds
   ⇒ The display "dA" blinks quickly for several seconds
   ⇒ The entire display goes blank

8. Initial Operation

8.10 Delayed transmission (Send delayed)

NOTE

- ► Transmission of the command is delayed until a set period of time has expired.
- ► Setting range 0 - 15 s.
- ► The green LED flashes, indicating the countdown of the time between activation of the scanner and transmission of the command.
- ► Disabled

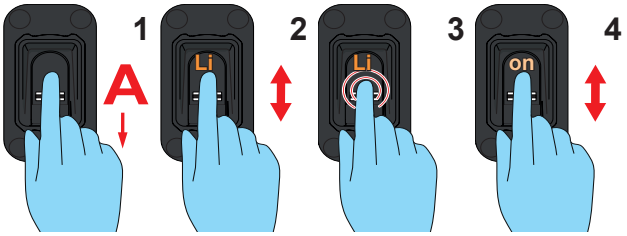


1. Open the menu via an administrator.
2. Navigate to the menu item "Sd."
3. Select this menu item.
   ⇒ The display "Sd" blinks several times
4. Select the desired time between activation of the scanner and transmission of the command.
5. Confirm the selected time.
   ⇒ The time display blinks several times and then goes out
   ⇒ The function is now activated

8.11 Lighting (Light)

NOTE

- ► Illuminates the scanning area.
- ► This function is not available on battery-operated models.
- ► Disabled



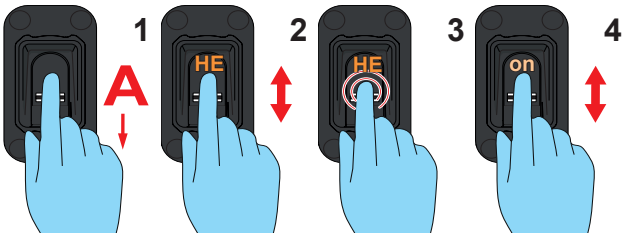
1. Open the menu via an administrator.
2. Navigate to the menu item "Li."
3. Select this menu item.
   ⇒ The display "Li" blinks several times
4. Navigate to the menu item "on."
5. Select the menu item "on."
   ⇒ The display blinks several times and then goes out
   ⇒ The function is now activated

8. Initial Operation

8.12 Heater (Heating)

NOTE

- ► The heater heats the scanning area in cold weather to prevent problems with fingerprint recognition caused by low temperatures and condensation.
- ► This function is not available on the battery-operated models.
- ► In the factory setting, this function is disabled.

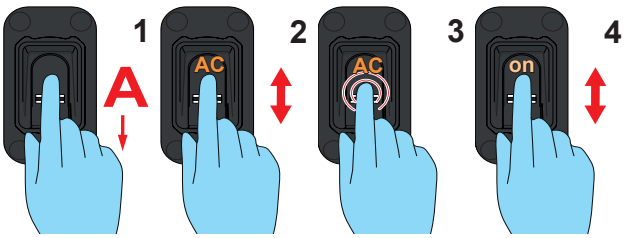


1. Open the menu via an administrator.
2. Navigate to the menu item "HE."
3. Select this menu item.
   ⇒ The display "HE" blinks several times
4. Navigate to the menu item "on."
5. Select the menu entry "on."
   ⇒ The display blinks several times and then goes out
   ⇒ The function is now activated

8.13 Access Control (Access Control)

NOTE

- ► Access Control is a safety function which can send a separate radio command to a receiver, which activates, for example, a camera or an alarm system, if an unknown fingerprint is scanned.
- ► Disabled
- ► During programming of the Access Control radio command, no radio receiver which, for example, opens a gate or a door may be in programming mode, as the Access Control command will then be programmed to that receiver. This would mean that the gate / the door could be opened with unknown fingerprints.
- ► Make sure that only the separate radio receiver intended for the Access Control function is in programming mode when the Access Control command is transmitted.



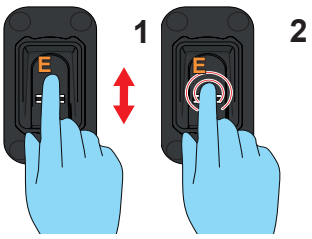
1. Open the menu via an administrator.
2. Navigate to the menu item "AC."
3. Select this menu item.
   ⇒ The display "AC" blinks several times
4. Navigate to the menu item "on."
5. Select the menu item "on."
   ⇒ The display blinks several times and then goes out
   ⇒ The function is now activated
6. Programme the radio command for an unknown fingerprint.
   ⇒ Use a random fingerprint which has not been programmed
   ⇒ Do not use the radio receiver responsible for opening the door or gate
   ⇒ See **“8.15 Programming the device on a radio receiver” on page 29**

8. Initial Operation

8.14 Exiting the menu (Exit)

NOTE

- ► This menu item is used to exit the menu.
- ► The menu also closes if no input is made for 20 seconds.



1. Navigate to the menu item "E."
2. Select this menu item.
   - ⇒ The display "E" blinks for several seconds
   - ⇒ The entire display goes blank

8.15 Programming the device on a radio receiver

NOTE

- ► Before the ENTRAsys+ can be programmed on a radio receiver, the desired fingerprint must be programmed as a user.
- ► If the ENTRAsys+ is used for several applications (commands) (e.g. open front door and open garage door), each application must be programmed on a separate radio channel (e.g. open front door on C1, open garage door on C2.), see **“8.6 Extended programming of a user (Learn Extended)” on page 25**.
- ► See the instructions for the radio receiver or the operator for the correct procedure for selecting the desired channel on the radio receiver, setting it to programming mode and the correct response of the LED on the radio receiver during the various phases of the programming process.
- ► During programming, the receiver must be located within the range of the transmitter.
- ► The green LED blinks when the signal has been received.
- ► The radio receiver shown here serves as an example. The key is located in a different position on each other radio receiver. See the instructions for the receiver for information on the exact position of the button and on channel selection on multi-channel receivers.

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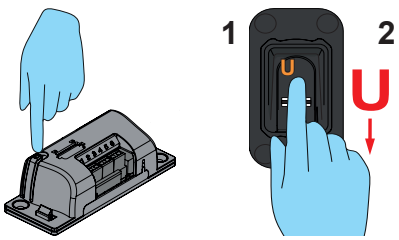


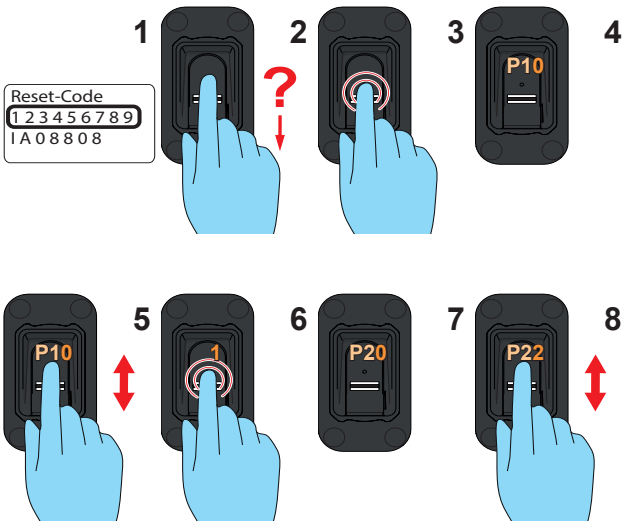
1. Set receiver to programming mode.
2. Swipe the complete area of the fingerprint of the already programmed user over the scanning area.
   - ⇒ The radio command is programmed on the receiver.

8. Initial Operation

8.16 Entering the reset code

NOTE

- If an administrator is not available in an emergency, the menu can be enabled by entering the reset code.
- Entering the reset code is the equivalent of opening the menu via an administrator.
- On delivery, the reset code is affixed to the device on a sticker over the scanning area. The user must remove this sticker and store it in a safe, protected location indoors.
- If one of the digits entered was incorrect, the ENTRAsys blinks red several times after input of the ninth digit and then switches off. The process must then be repeated from the beginning.



1. Have the reset code to hand.
   (The illustration only serves as an example.)
2. Swipe an unprogrammed finger over the scanning area.
   ⇒ The red LED blinks, indicating that this fingerprint is unknown
3. Press your fingertip against the scanning area while the red LED is illuminated until the following sequence has been completed:
   ⇒ The display "P1" blinks for several seconds
   ⇒ The display "P1" lights up continuously
4. Remove finger from the scanning area.
   ⇒ The display alternates between "P1" and "0"

NOTE

"P1" means that the first digit of the reset code must be entered here.
"0" means that the currently selected digit is "0."

5. Navigate to the first digit of the reset code.
6. Select this digit (finger must remain on the scanning area until Step 7)
   ⇒ The selected digit blinks
   ⇒ The display "P2" lights up continuously
7. Remove finger from the scanning area.
   ⇒ The display alternates between "P2" and "0"
8. Navigate to the next digit of the reset code.
9. Repeat Steps 6 and 7 until all 9 digits of the reset code have been entered.
   ⇒ Red and green LED light up
   ⇒ The menu item "Learn User" (LU) is active

9. Troubleshooting

9.1 Safety instructions for troubleshooting

DANGER

Danger if not observed!

If safety instructions are not observed, serious injury or death may result.

► All safety instructions in this manual must be complied with.

9.2 Troubleshooting

Fault	Cause	Repair
No reaction after activation	Wrong polarity	Check polarity if connecting to a transformer with DC
Unreliable finger recognition	Characteristics of finger not sufficient	Programme a different finger
	Finger positioned at an incorrect angle	• **"7.1 Correct finger position" on page 18** Observe. • **"12. Tips & tricks" on page 38** Observe.
Green LED lights up but receiver does not react to command	• Channel not programmed • Receiver switched off • Receiver outside range	See **"8.15 Programming the device on a radio receiver" on page 29**
Fingers are not recognised or not reliably recognised	• Fingerprint has not been programmed clearly	Program fingerprint again
	• Fingerprint has too few individual characteristics for reliable detection	Program the same fingerprint several times (recommendation: program each fingerprint 3 times).
	• Poor circulation in the finger	Increase blood flow, for example by rubbing the finger on clothing
	• Finger is cold	Warm the finger, for example by rubbing it on clothing
	• Child's fingerprint has changed as a result of growth	While children are still growing, program their fingerprints approx. once a year

9.3 Replacing the battery (ENTRAsys+ AP)

WARNING

Danger of hazardous substances!

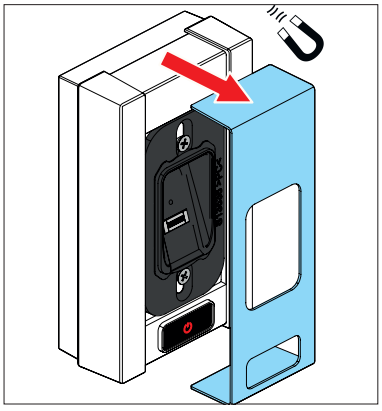
Improper storage, use or disposal of accumulators and batteries are dangerous for the health of humans and animals.

► Accumulators and batteries must be stored out of the reach of children and animals.

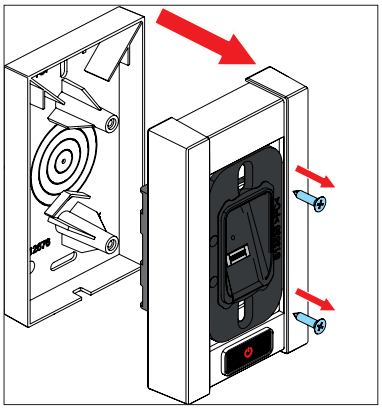
► Keep batteries and accumulators away from chemical, mechanical and thermal influences.

► Do not recharge batteries.

► Old batteries, old accumulators and individual components of the device must be disposed of correctly and not with household waste.

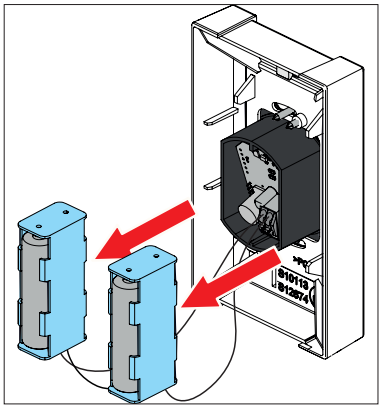


1. Remove the magnetic faceplate

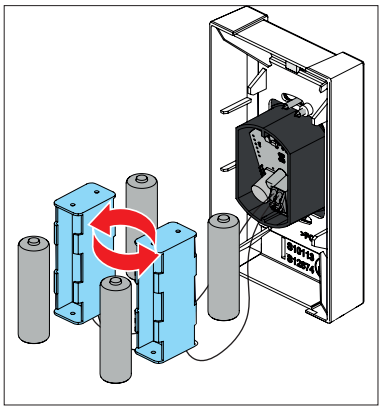


2. Unscrew the two screws.
3. Lift off the upper housing section including the core module. Pay attention to the cables (do not disconnect the core module from the batteries).

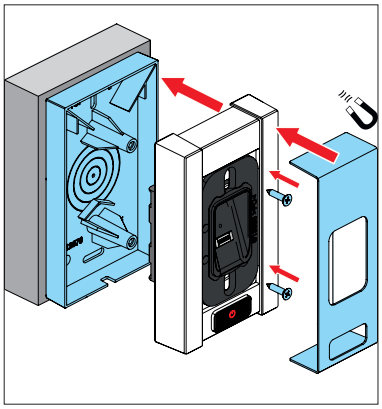
9. Troubleshooting



4. Pull the battery holders out of the mount on the upper housing section (do not disconnect the core module from the batteries).



5. Replace the spent batteries with new ones.



6. Assemble in reverse order.

10. Taking out of Operation, Storage and Disposal

10.1 Taking out of operation

Follow the basic safety instructions listed below.

Persons under the influence of drugs, alcohol, or medications that can influence their ability to react may **not** work on the device.

The device may only be disassembled by a qualified specialist.

DANGER

Danger due to electric current!

Contact with live parts may result in electric current flowing through the body. Electric shock, burns, or death may result.

- ► Electrical components may only be removed by a **trained electrician**.
- ► Disconnect the mains plug before working on electrical components.
- ► Then check that the equipment is disconnected from the power supply and secure it against being switched on again.

10.2 Storage

Store the packaging units as follows:

- in enclosed, dry rooms so that they are protected from moisture
- at a storage temperature from +5 °C to +45 °C

NOTE

Improper storage may damage the device. The device must be stored in closed and dry rooms.

10. Taking out of operation, storage and disposal

10.3 Disposal

Observe the instructions for disposal of the packaging, components and batteries.

⚠ WARNING

Danger caused by hazardous substances!

Improper storage, use or disposal of accumulators, batteries and operator components pose a risk to the health of humans and animals. Serious injury or death may result.

- ► Accumulators and batteries must be stored out of the reach of children and animals.
- ► Keep accumulators and batteries away from chemical, mechanical and thermal influences.
- ► Batteries may contain hazardous chemical substance which damage the environment and pose a risk to the health of humans and animals. Caution must be exercised, in particular when handling batteries containing lithium, as these can easily ignite and cause fires if not handled correctly.
- ► Batteries and accumulators in electrical appliances and which can be removed non-destructively must be disposed of separate from the appliance.

NOTE

- ► Dispose of all components in accordance with local and national regulations to avoid environmental damage.
- ► Wherever possible, avoid the production of waste. Please check before disposing of components whether it is possible to recycle them.

INFORMATION

This device is labelled in accordance with European Directive 2012/19/EU on used electrical and electronic devices (WEEE – waste electrical and electronic equipment).

This Directive provides the framework for the EU-wide return and recycling of used equipment

Operator components that have been taken out of service as well as old accumulators and batteries must not be disposed of with household waste. Components which are no longer in use, old accumulators and batteries must be disposed of properly.
You must observe the local and national regulations here. Contact your specialist retailer to find out more about current disposal channels.

11. Brief instructions

DANGER

Danger caused by failure to observe the Installation and Operating Manual!

Failure to read or observe the warnings and safety instructions in the detailed Installation and Operating Manual may lead to serious or even fatal injury.

- ► Read the detailed Installation and Operating Manual carefully and, most importantly, observe all safety instructions and warnings.
- ► Work on the electrical system and live parts must be performed by a **trained electrician** in accordance with EN 50110-1.
- ► The installation, initial operation and disassembly of the control unit may only be performed by a qualified specialist.
- ► Comply with all valid directives and standards.

NOTE

If you only have these brief instructions, you can get the detailed Installation and Operating Manual here:

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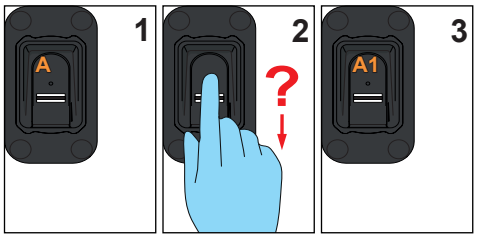
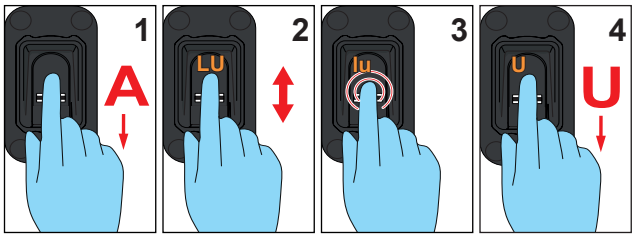
11. Brief instructions

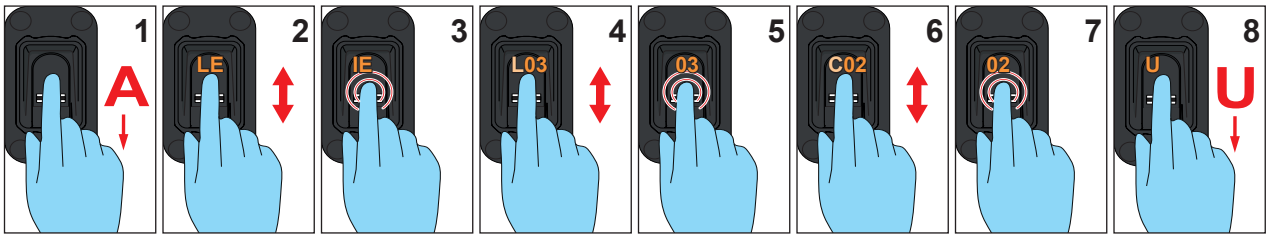
Initial operation



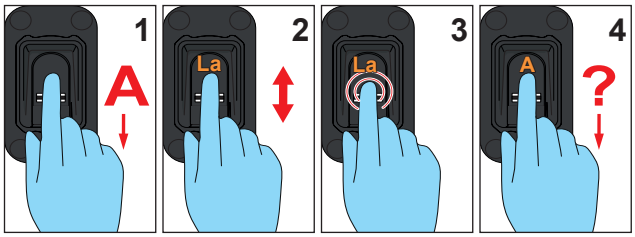
Learn User



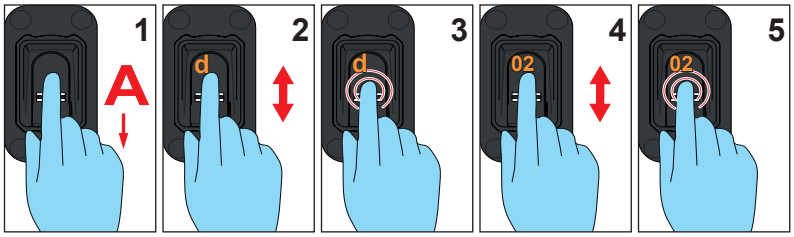
Learn Extended



Learn Admin

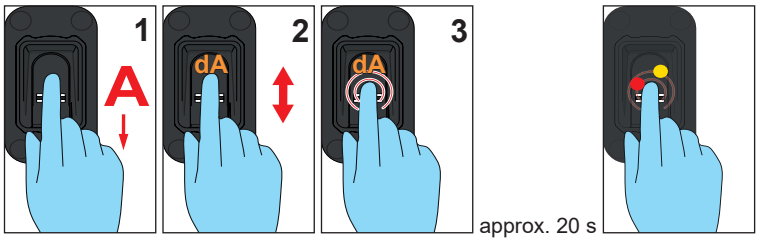


Delete

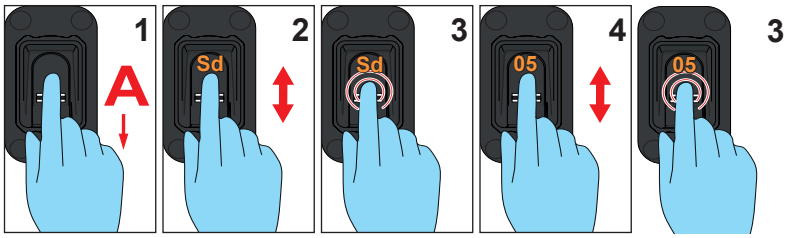


11. Brief instructions

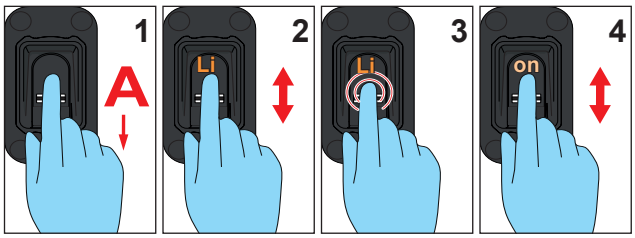
Delete All



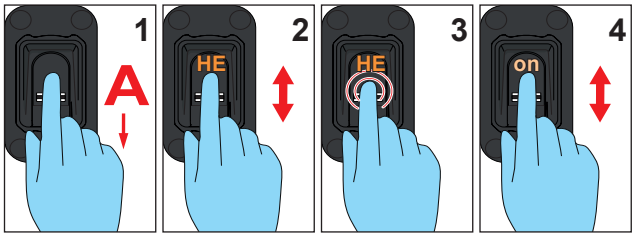
Send delayed



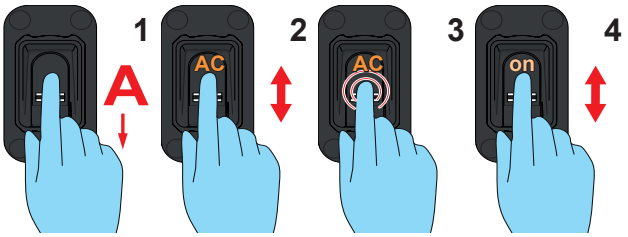
Light



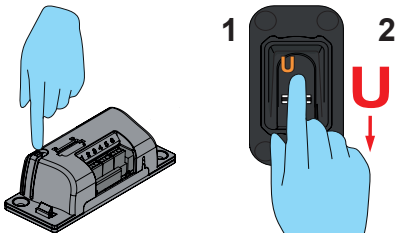
Heating



Access Control

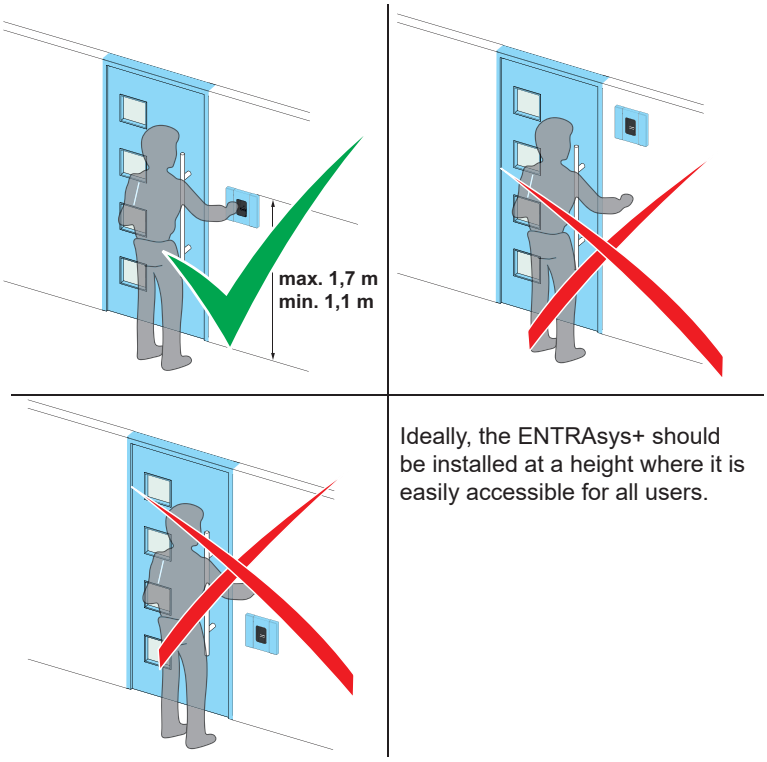


Learn radio receiver



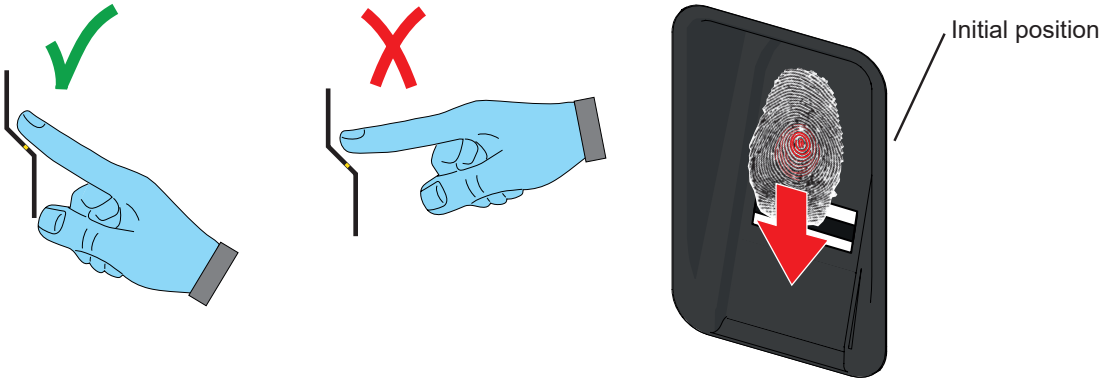
12. Tips & tricks

Installation position



Ideally, the ENTRAsys+ should be installed at a height where it is easily accessible for all users.

Positioning the finger



It is important to position the finger correctly to ensure that the fingerprint is detected.

- To achieve the optimum position for scanning, place the small raised area in the centre of your fingerprint on the nub that can be felt above the sensor area.
- Then swipe the entire area of the fingerprint **from top to bottom** over the sensor area.
- Do not apply too much pressure (a contact pressure of approx. 100 g is ideal).
- Always swipe the entire area of the fingerprint over the sensor.
- If the fingerprint is not detected, try again, this time moving your finger more slowly, more quickly or more evenly, until the print is recognised. With a little practice, you will quickly learn how to scan your finger successfully.
- For practical reasons, it makes sense to programme the print of your index finger or middle finger as a user, because fingerprints with user rights are scanned more frequently than fingerprints with administrator rights.

12. Tips & tricks

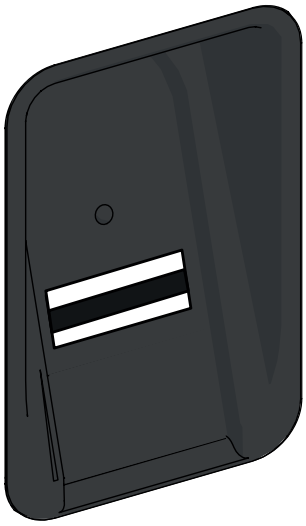
Fingerprint

Some fingerprints are not usable for biometric systems for biological reasons or as a result of external influences.

- Make sure that the characteristics of all fingerprints that are programmed are as clear as possible.
- Scars or abrasions on the fingerprint can make detection difficult.
- Experience has shown that the thumb and little finger are less suitable for use with biometric systems than the index, middle and ring finger.
- The ENTRAsys+ is equipped with so-called live finger detection. This function makes it impossible to trigger a radio command using an artificially created fingerprint mounted on a carrier. Fingers with poor circulation or cold fingers may not be detected as live fingers. Here, rubbing the finger, e.g. on clothing, before use can help to increase the blood flow and warm the finger.

- Fingers must never be wet when you use the ENTRAsys+.
- The system may also have difficulty detecting fingers with extremely dry skin. Here, rubbing the finger on your forehead before using the ENTRAsys+ can help to increase the detection rate.
- If a fingerprint is not recognised or only recognised with difficulty, programme another fingerprint which is more reliably detected.
- The centre of a fingerprint contains most information. For this reason, it is important to scan the **whole fingerprint** and not just the tip or side of the finger. You can find more information in the section "Positioning the finger".
- Programming the same fingerprint in several memory locations on the same channel significantly increases the probability of the print being recognised (recommendation: programme each fingerprint 3 times).
- While children are still growing, their fingerprints should be reprogrammed approx. once a year.
- Create several administrators to ensure that you can still make changes at the ENTRAsys+ even if one administrator is not available.

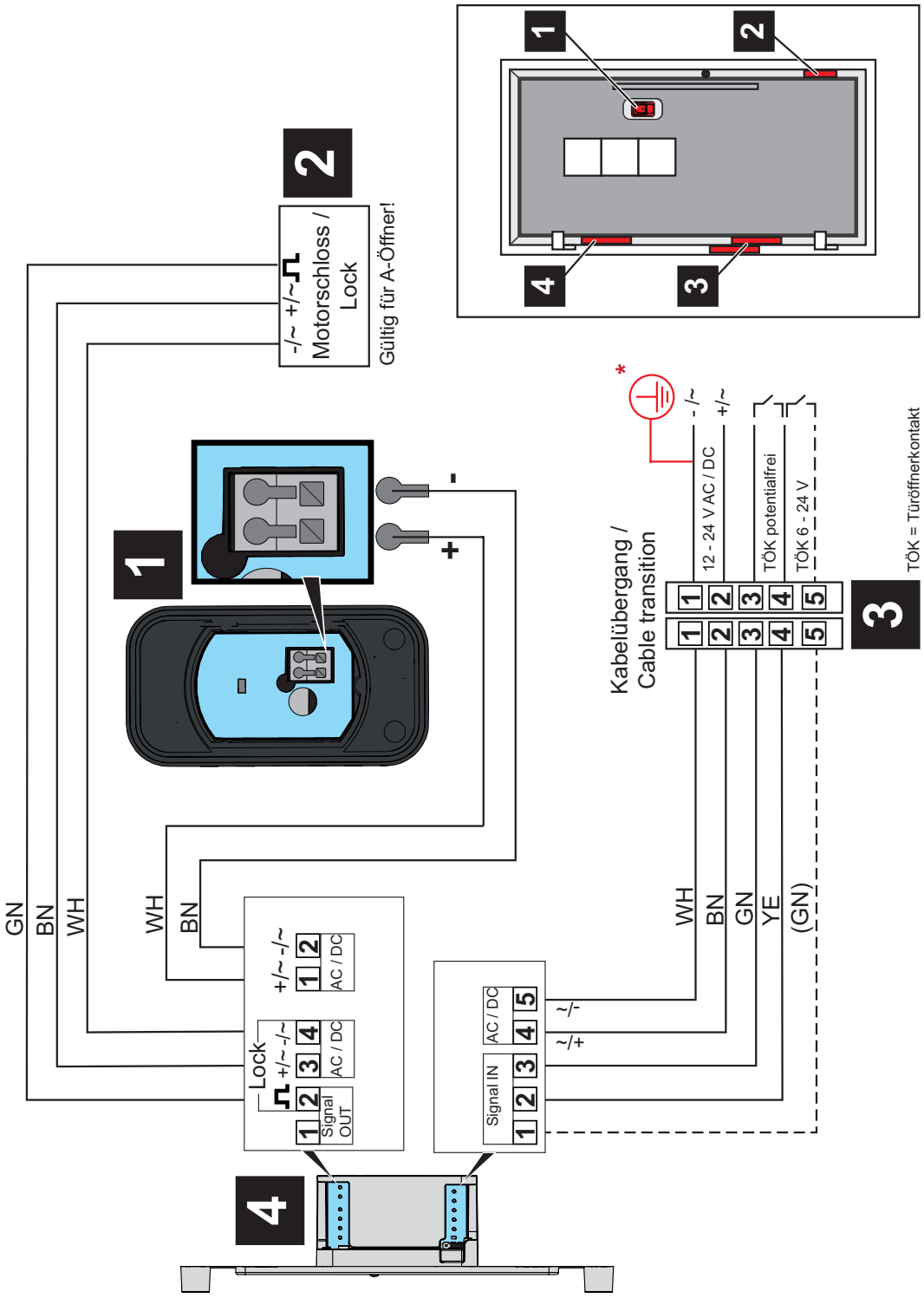
Sensor area



Fingerprints are detected within the so-called sensor area, a metallic surface with a horizontal black bar in the centre.

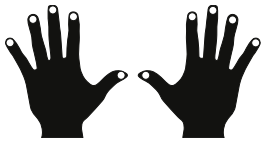
- Before scanning your fingerprint, always make sure that the sensor area is clean and dry.
- Never use aggressive cleaning agents to clean the sensor area.
- Use only a clean and dry cloth, for example microfibre or other suitable fabric.

13. Connection overview



*** Tip:**
Leakage currents may occur when using switch-mode power supplies. Although these currents can be felt, they are not dangerous. They can be eliminated with additional earthing of the "-" wire at the cable junction.

14. Admin / user overview

Name	Authorisation	channel	Memory locations	Finger
_____ _____	Admin ☐ Benutzer / user ☐	1 ☐ 2 ☐ 3 ☐ 4 ☐	_____	
_____ _____	Admin ☐ Benutzer / user ☐	1 ☐ 2 ☐ 3 ☐ 4 ☐	_____	
_____ _____	Admin ☐ Benutzer / user ☐	1 ☐ 2 ☐ 3 ☐ 4 ☐	_____	
_____ _____	Admin ☐ Benutzer / user ☐	1 ☐ 2 ☐ 3 ☐ 4 ☐	_____	
_____ _____	Admin ☐ Benutzer / user ☐	1 ☐ 2 ☐ 3 ☐ 4 ☐	_____	
_____ _____	Admin ☐ Benutzer / user ☐	1 ☐ 2 ☐ 3 ☐ 4 ☐	_____	
_____ _____	Admin ☐ Benutzer / user ☐	1 ☐ 2 ☐ 3 ☐ 4 ☐	_____	
_____ _____	Admin ☐	1 ☐ 2 ☐ 3 ☐ 4 ☐	_____	
_____ _____	Admin ☐ Benutzer / user ☐	1 ☐ 2 ☐ 3 ☐ 4 ☐	_____	
_____ _____	Admin ☐ Benutzer / user ☐	1 ☐ 2 ☐ 3 ☐ 4 ☐	_____	

If this list is not sufficient, further copied can be downloaded from *www.sommer.eu/downloads/entrasys_user.pdf*

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